THE DOCUMENT COMPANY
XEROX

# DocuColor 1632/2240 Service Manual

Prelaunch CSE Training/Review

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**CAUTION**

*Certain components in the DocuColor 1632/2240 are susceptible to damage from electrostatic discharge. Observe all ESD procedures to avoid component damage.*

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## NOTICE

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## NOTICE

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## WARNING

**This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions documentation, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to correct the interference.**

**DANGER: Cet Èquipement gÈnËre, utilise et peut Émettre des frÈquences radio, et, s'il n'est pas installÈ et utilisÈ selon les recommandations du manuel d'instructions, peut causer des interfÈrences aux communications radio. Il a ÈtÈ testÈ et jugÈ conforme aux limites des systËmes de catÈgorie A, conformÈment ‡ la partie 15 de l'alinÈa J des rËglements FCC, Ètablis pour protÈger contre de telles interfÈrences pendant le fonctionnement en milieu commercial. Dans une zone rÈsidentielle, il peut causer des interfÈrences; dans ce cas, l'utilisateur devra corriger le problËme ‡ ses propres frais.**

## WARNING

**This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. the laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface into the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.**

**DANGER: L'Èquipement contient un faisceau laser invisible et aucune indication visible signale la prÈsence du faisceau laser. De ce fait le produit est classÈ 3B pour tout ce qui concerne la maintenance. L'exposition directe des yeux au faisceau laser peut entraÓner des lÈsions visuelles. Les procÈdures de maintenance doivent Í tre rÈalisÈes sans aucun changement comme indiquÈ dans la documentation. Le reprÈsentant Xerox lors d'interventions sur l'Èquipement doit respecter les consignes de sÈcuritÈ locales concernant les faisceaux laser. Ne pas placer d'objet rÈflÈchissant dans la zone du ROS quand il est ouvert. Ne pas regarder dans la zone du ROS lorsque la machine est sous tension et que le laser est en fonctionnement.**

# Introduction

# About this Manual

This Service Manual is part of the multinational documentation system for DocuColor 1632/2240 copier/printers. The Service Documentation is used in order to diagnose machine malfunctions, adjust components and has information which is used to maintain the product in superior operating condition. It is the controlling publication for a service call. Information on its use is found in the Introduction of the Service Documentation.

This manual contains information that applies to **NASG and ESG** copiers.

## Service Manual Revision

The Service Manual will be updated as the machine changes or as problem areas are identified.

# Organization

This Service Manual is divided into seven sections. The titles of the sections and a description of the information contained in each section are contained in the following paragraphs:

## Section 1 Service Call Procedures

This section contains procedures that determine what actions are to be taken during a service call on the machine and in what sequence they are to be completed. This is the entry level for all service calls.

## Section 2 Status Indicator RAPs

This section contains the diagnostic aids for troubleshooting the Fault Code and non-Fault Code related faults (with the exception of copy quality problems).

## Section 3 Image Quality

This section contains the diagnostic aids for troubleshooting any copy quality problems, as well as copy quality specifications and copy defect samples.

## Section 4 Repairs/Adjustments

This section contains all the Adjustments and Repair procedures.

### Repairs

Repairs include procedures for removal and replacement of parts which have the following special conditions:

- **When there is a personnel or machine safety issue.**
- **When removal or replacement cannot be determined from the exploded view of the Parts List.**
- **When there is a cleaning or a lubricating activity associated with the procedure.**
- **When the part requires an adjustment after replacement.**
- **When a special tool is required for removal or replacement.**

Use the repair procedures for the correct order of removal and replacement, for warnings, cautions, and notes.

### Adjustments

Adjustments include procedures for adjusting the parts that must be within specification for the correct operation of the system.

Use the adjustment procedures for the correct sequence of operation for specifications, warnings, cautions and notes.

## Section 5: Parts Lists

This section contains the Printer/Copier Parts List.

## Section 6: General Procedures/Information

This section contains General Procedures, Diagnostic Programs, and Copier Information.

## Section 7: Wiring Data

This section contains drawings, lists of plug/jack locations, and diagrams of the power distribution wire networks in the machine. Individual wire networks are shown in the Circuit Diagrams contained in Section 2. This section also contains the Block Schematic Diagrams.

# How to Use this Documentation

The Service Call Procedures in Section 1 describe the sequence of activities used during the service call. The call **must** be entered using these procedures.

## Use of the Circuit Diagrams

Circuit Diagrams (CDs) are included in Sections 2 (Status Indicator RAPs) and 3 (Image Quality RAPs) of the Service Manual. All wirenets, with the exception of power distribution wirenets, are shown on the CDs. Power distribution wirenets are shown in Section 7 (Wiring Data) of the Service Manual. The power distribution wirenets on the CDs will end at the terminal board for the power being distributed. Find the wirenet for that power and locate the terminal board on the wirenet. Use the wirenet to troubleshoot any power distribution wiring not shown on the CD.

## Use of the Block Schematic Diagrams

Block Schematic Diagrams (BSDs) are included in Section 7 (Wiring Data) of the Service Manual. The BSDs show the functional relationship of the electrical circuitry to any mechanical, or non-mechanical, inputs or outputs throughout the machine. Inputs and outputs such as motor drive, mechanical linkages, operator actions, and air flow are shown. The BSDs will provide an overall view of how the entire subsystem works.

It should be noted that the BSDs no longer contain an Input Power Block referring to Chain 1. It will be necessary to refer to the Wirenets in order to trace a wire back to its source.

# Symbology and Nomenclature

The following reference symbols are used throughout the documentation.

## Warnings, Cautions, and Notes

Warnings, Cautions, and Notes will be found throughout the Service Documentation. The words **WARNING** or **CAUTION** may be listed on an illustration when the specific component associated with the potential hazard is pointed out; however, the message of the **WARNING** or **CAUTION** is always located in the text. Their definitions are as follows:

**WARNING**

**A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.**

**CAUTION**

*A Caution is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in damage to the equipment.*

***NOTE:*** *A Note is used whenever it is necessary to highlight an operating or maintenance procedure, practice, condition, or statement.*

## Machine Safety Icons

The following safety icons are displayed on the machine:

**WARNING**

**This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. the laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.**

**The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the service documentation and in the training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.**

**WARNING**

**Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eye.**

**Figure 1 Laser Hazard Symbol**

Laser Hazard Statement

DANGER INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

**CAUTION**

*The use of controls or adjustments other than those specified in the Laser Safety Training Program may result in an exposure to dangerous laser radiation.*

For additional information, review the Laser Safety Training program.

An arrow points to the location to install, to gain access to, or to release an object.

**Figure 2 Customer Access Label**

This symbol indicates that a surface can be hot. Use caution when reaching in the machine to avoid touching the hot surfaces.

**Figure 3 Heated Surface Label**

Danger label indicates where electrical currents exist when the machine is closed and operating. Use caution when reaching in the machine.

**Figure 4 Shock Hazard Label**

These symbols indicate components that may be damaged by Electrostatic Discharge (ESD).


**Figure 5 ESD warning Label**

## Electrostatic Discharge (ESD) Field Service Kit

The purpose of the ESD Protection Program is to preserve the inherent reliability and quality of electronic components that are handled by the Field Service Personnel. This program is being implemented now as a direct result of advances in microcircuitry technology, as well as a new acknowledgment of the magnitude of the ESD problem in the electronics industry today.

This program will reduce Field Service costs that are charged to PWB failures. Ninety percent of all PWB failures that are ESD related do not occur immediately. Using the ESD Field Service Kit will eliminate these delayed failures and intermittent problems caused by ESD. This will improve product reliability and reduce callbacks.

The ESD Field Service Kit should be used whenever Printed Wiring Boards or ESD sensitive components are being handled. This includes activities like replacing or reseating of circuit boards or connectors. The kit should also be used in order to prevent additional damage when circuit boards are returned for repair.

The instructions for using the ESD Field Service Kit can be found in ESD Field Service Kit Usage in the General Procedures section of the Service Documentation.

## Illustration Symbols

Figure 6 shows symbols and conventions that are commonly used in illustrations.

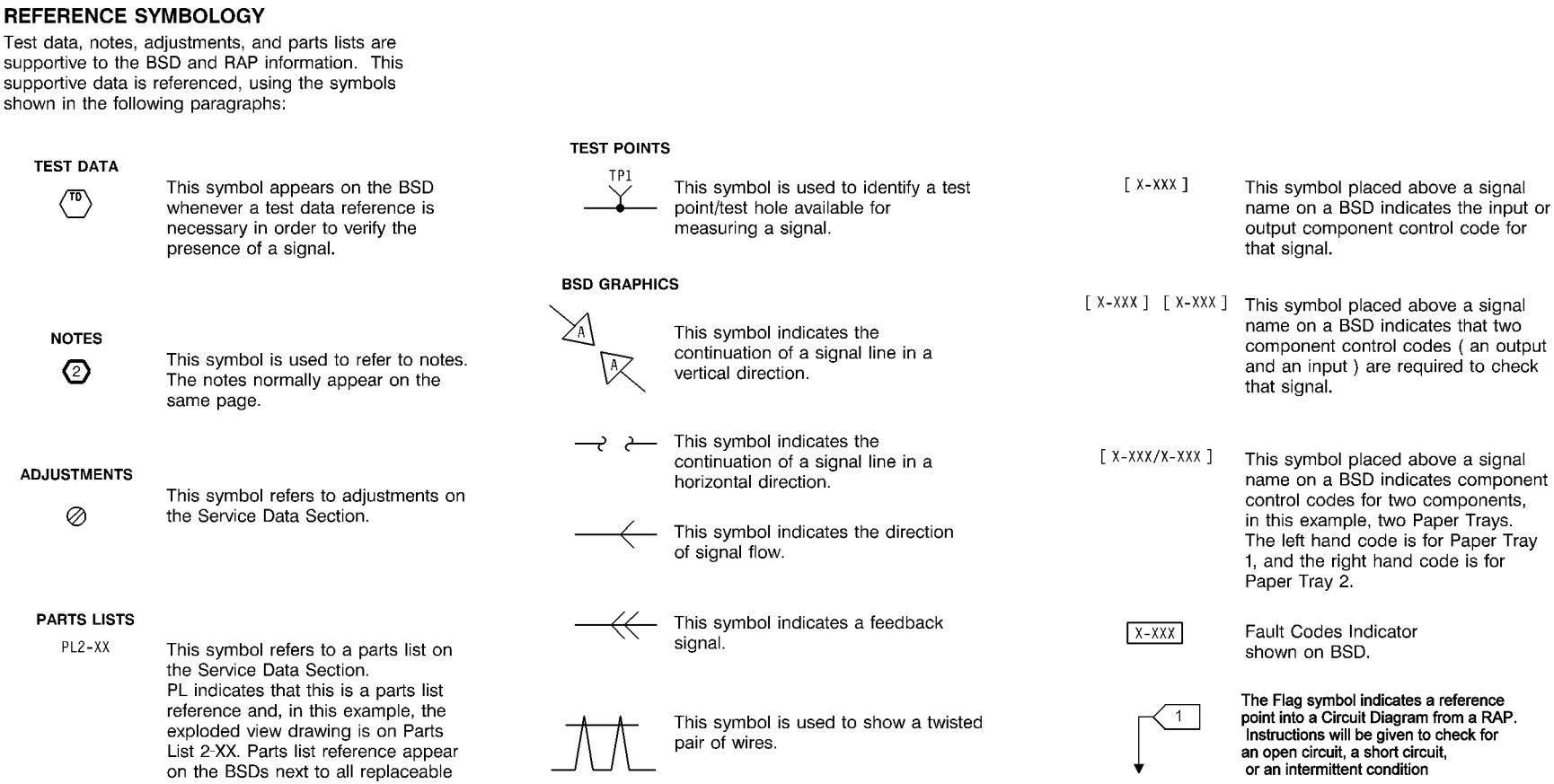


**Figure 6 Illustration Symbols**

## Signal Nomenclature

Refer to Figure 7 for an example of Signal Nomenclature used in Circuit Diagrams and BSDs.

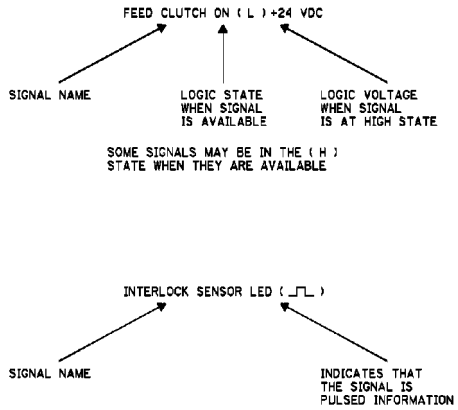


**Figure 7 Signal Nomenclature**

## Voltage Measurement and Specifications

Measurements of DC voltage must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure. All measurements of AC voltage should be made with respect to the adjacent return or ACN wire.

**Table 1 Voltage Measurement and Specifications**

| VOLTAGE | SPECIFICATION |
|---|---|
| INPUT POWER 220 V | 198 VAC TO 242 VAC |
| INPUT POWER 100 V | 90 VAC TO 135 VAC |
| INPUT POWER 120 V | 90 VAC TO 135 VAC |
| +5 VDC | +4.75 VDC TO +5.25 VDC |
| +24 VDC | +23.37 VDC TO +27.06 VDC |

## Logic Voltage Levels

Measurements of logic levels must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure.

**Table 2 Logic Levels**

| VOLTAGE | H/L SPECIFICATIONS |
|---|---|
| +5 VDC | H= +3.00 TO +5.25 VDC<br>L= 0.0 TO 0.8 VDC |
| +24 VDC | H= +23.37 TO +27.06 VDC<br>L= 0.0 TO 0.8 VDC |

## DC Voltage Measurements in RAPs

The RAPs have been designed so that when it is required to use the DMM to measure a DC voltage, the first test point listed is the location for the red (+) meter lead and the second test point is the location for the black meter lead. For example, the following statement may be found in a RAP:

**There is +5 VDC from TP7 to TP68.**

In this example, the red meter lead would be placed on TP7 and the black meter lead on TP68.

Another example of a statement found in a RAP might be:

**There is -15 VDC from TP21 to TP33.**

In this example, the red meter lead would be placed on TP21 and the black meter lead would be placed on TP33.

If a second test point is not given, it is assumed that the black meter lead may be attached to the copier frame.

## Translated Warnings

## Introduction

**Symbology and Nomenclature**

**WARNING**

**A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.**

**DANGER: Une note DANGER est utilisÈe ‡ chaque fois qu'une procÈdure de maintenance ou qu'une manipulation prÈsente un risque de blessure si elle n'a pas ÈtÈ strictement observÈe.**

**WARNING**

**This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. the laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.**

**DANGER: L'Èquipement contient un faisceau laser invisible et aucune indication visible signale la prÈsence du faisceau laser. De ce fait le produit est classÈ 3B pour tout ce qui concerne la maintenance. L'exposition directe des yeux au faisceau laser peut entraÓner des lÈsions visuelles. Les procÈdures de maintenance doivent Ítre rÈalisÈes sans aucun changement comme indiquÈ dans la documentation. Le reprÈsentant Xerox lors d'interventions sur l'Èquipement doit respecter les consignes de sÈcuritÈ locales concernant les faisceaux laser. Ne pas placer d'objet rÈflÈchissant dans la zone du ROS quand il est ouvert. Ne pas regarder dans la zone du ROS lorsque la machine est sous tension et que le laser est en fonctionnement.**

**The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the service documentation and in the training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.**

**DANGER: Les symboles et instructions suivants sont indiquÈs sur des Ètiquettes dans la machine et sont identifiÈs dans la documentation technique et dans le manuel de formation. Quand ces symboles s'affichent le reprÈsentant Xerox est prÈvenu des risques encourus concernant une exposition au rayon laser.**

**WARNING**

**Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eye.**

**DANGER: Ne pas essayer de shunter les contacts laser pour quelques raisons que ce soit. Si le faisceau laser est dirigÈ accidentellement vers les yeux il peut en rÈsulter des lÈsions oculaires permanentes.**

## 3 Image Quality

**IQ6 IOT Background RAP**

**WARNING**

**HIGH VOLTAGE!**

**DANGER: HAUTE TENSION!**

**Exercise care when making the voltage check in the following steps.**

**DANGER: Soyez extrÍ mement vigilant lorsque vous effectuez les tests de tension au cours des Ètapes qui suivent.**

**IQ21 Developer Bias RAP**

**WARNING**

**HIGH VOLTAGE!**

**DANGER: HAUTE TENSION!**

**Exercise caution when performing the voltage checks in this procedure.**

**DANGER: Soyez extrÍ mement vigilant lorsque vous effectuez les tests de tension au cours de cette procÈdure.**

## 4 Repairs and Adjustments

**Electrical**

REP 1.1 3.3/5 V LVPS Bracket

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.2 MCU PWB

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.3 ESS Chassis

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.4 3.3 V LVPS or 5 V LVPS

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.5 24 V LVPS

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.6 T5 T7 HVPS Chassis

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.7 T5 or T7 High Voltage Power Supplies

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.8 I/F (Interface) PWB

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.9 24 V LVPS Bracket

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.10 HVPS T6

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.11 AC Drive PWB

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.12 ESS PWB

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 1.13 ESS NVM PWB

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Main Drives**

REP 4.1 Main Drive Motor Assembly

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 4.2 IBT Motor

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 4.3 Developer Drive Motor

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 4.4 Drum Motor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Document Handler**

REP 5.1 DADF

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.2 Registration Gate Solenoid

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.3 Left/Right Counterbalance

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.4 DADF Control PWB

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.5 Feed Motor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.6 Nudger Roll

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.7 Feed Roll Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.8 Lower Chute Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.9 Retard Roll

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.10 Set Gate Solenoid Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.11 Registration Sensor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon**

**d'alimentation branchÈ.**

REP 5.12 Size Sensors 1/2 (Rear/Front)

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.13 DADF Belt Motor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.14 Duplex Sensor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.15 Registration Pinch Roll

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.16 Exit Motor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.17 Document Transport

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.18 Rear Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 5.19 Platen Belt

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**WARNING**

**Switch off the power and disconnect power cord.**

**DANGER: Mettre la machine sur Arrí t et dÈbrancher le cordon d'alimentation.**

**Imaging**

REP 6.1 ROS

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 6.2 Platen Glass

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 6.3 IIT Top Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 6.11 Carriage Cables

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 6.12 Carriage Motor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 6.13 Exposure Lamp

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 6.14 Lamp Wire Harness

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Paper Trays**

REP 7.1 Tray 5

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.2 Tray 5 Feed Roll

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.3 Tray 1 Feeder

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.4 Tray 1 Feed/Lift Motor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.5 Tray 1 Paper Size Sensor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.6 Tray 3

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.7 Tray 4

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.8 Tray 1

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.9 Tray 2

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.10 Tray 2 Feeder

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.11 Tray 3 Feeder

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 7.12 Tray 4 Feeder

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Paper Feed and Registration**

REP 8.1 Left Cover Assembly

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 8.2 Duplex Chute

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 8.3 Duplex Transport Assembly

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 8.5 Inverter Transport

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 8.6 Registration Transport Assembly

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 8.7 Exit Transport Assembly

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Xerographic**

REP 9.1 Drum Cartridge

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.2 ROS Shutter Motor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.3 Waste Toner Cartridge Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.4 Waste Toner Cartridge

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.5 Full Toner Sensor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.6 Inner Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.7 Toner Dispenser

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.8 Plate Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.9 Developer Housing

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.10 Developer

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.11 Toner Dispenser Base Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.12 IBT Steering Drive Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.13 Agitator Motor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.14 MOB Sensor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.15 IBT Belt Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.16 IBT Cleaner Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.17 Auger Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.18 Lever

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.19 Left Hinge/Right Hinge

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.20 Right Lift Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.21 Left Lift Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.22 Transfer Belt

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.23 1st BTR Roll

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.24 2nd BTR Roll

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 9.26 ATC Sensor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Fuser**

REP 10.1 Fuser

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**WARNING**

**Personal injury may result from grasping hot areas of Fuser Module. If a hot Fuser Module must be removed, grasp Fuser Module by black plastic frame component, shown in figure (Figure 1).**

**DANGER: Des blessures peuvent rÈsulter si les zones chaudes du module de four sont touchÈes. Si un module de four chaud doit Í tre enlevÈ, le saisir par l'ÈlÈment en plastique noir du b, ti, montrÈ sur la figure (Figure 1).**

**WARNING**

**If machine was making copies within 30 minutes, Fuser Module is hot. Grasp Fuser Module using Grip Rings.**

**DANGER: Si moins de 30 minutes se sont ÈcoulÈes depuis le dernier tirage de copies, le module de four est chaud. Saisir ce module par les demi-cercles en plastique noir.**

REP 10.2 Fuser Fan

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**WARNING**

**Personal injury may result from grasping hot areas of Fuser Module. If a hot Fuser Module must be removed, grasp Fuser Module by black plastic frame component, shown in figure (Figure 1).**

**DANGER: Des blessures peuvent rÈsulter si les zones chaudes du module de four sont touchÈes. Si un module de four chaud doit Í tre enlevÈ, le saisir par l'ÈlÈment en plastique noir du b, ti, montrÈ sur la figure (Figure 1).**

REP 10.3 Main/Sub Heater Rod

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Finisher**

REP 12.1 H Transport Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.2 H Transport Belt

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.3 Entrance Sensor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.5 Stack Height Sensor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.6 Eject Roll Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.7 Decurler Roll Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.8 Finisher Drive Motor

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.9 Belt

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.10 Rail

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.11 Stapler Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.12 Compiler Tray Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.13 Stacker Motor Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.14 Front Elevator Bracket

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.15 Paddle Gear Shaft

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.16 Finisher PWB

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 12.18 Cam Bracket Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Covers**

REP 14.1 Top Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.2 Rear Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.3 Right Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.4 Rear Left Middle Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.5 Rear Left Upper Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.6 Left Lower Cover Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.7 Cover Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.8 Fuser Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.9 Rear Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.10 Inner Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.11 Left Cover Assembly

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

REP 14.12 Lower Cover

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**DADF**

ADJ 5.2 DADF Counterbalance

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

ADJ 5.3 DADF Parallelism

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

ADJ 5.4 Document Transport Height

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Scanner**

ADJ 6.1 Full/Half Rate Carriage

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

**Xerographic/Registration**

ADJ 9.6 Color Registration (dC685)

## WARNING

**To avoid exposure to laser light, reinstall the Waste Cartridge before attempting to recheck the adjustment.**

**DANGER: Pour Èviter toute exposition au rayon laser, rÈinstaller la cartouche de toner usagÈ avant de re-vÈrifier le rÈglage.**

**Finisher**

ADJ 12.1 Finisher Alignment

## WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**DANGER: Afin d'Èviter des blessures ou des chocs Èlectriques, ne pas effectuer des activitÈs de maintenance ou de rÈglage avec l'Èquipement sur Marche ou avec le cordon d'alimentation branchÈ.**

# 1 Service Call Procedures

# Service Call Procedures

## Service Strategy

The service strategy for the DocuColor 1632/2240 Copier/Printer is to perform any High Frequency Service Item (HFSI) actions before attempting to repair any problems. Some problems will be corrected by this strategy without the need to diagnose them. The Repair Analysis Procedures (RAPs) will be used for any remaining problems.

Problems that occur in the Basic Printer mode will be repaired before problems that occur when using the accessories.

Image Quality problems should be repaired after all other problems are repaired.

## Service Call Procedures

The **Service Call Procedures** are a guide for performing any service on this machine. The procedures are designed to be used with the Service Manual. Perform each step in order.

### Initial Actions

The Initial Actions gather information about the condition of the machine and the problem that caused the service call.

### Call Flow

Call Flow summarizes the sequence of the Service Call Procedures.

### Detailed Maintenance Activities

This section provides the information needed to perform the DC135 High Frequency Service Item (HFSI) actions.

### Cleaning Procedures

The cleaning procedures list what needs to be cleaned at each service call.

### Final Actions

The Final Actions will test the copier/printer and return it to the customer. Administrative activities are also performed in the Final Actions.

# Initial Actions

## Purpose

The purpose of the Initial Action section of the Service Call Procedures is to determine the reason for the service call and to identify and organize the actions which must be performed.

## Procedure

1. Gather the information about the service call and the condition of the copier/printer.
   a. Question the operator(s). Ask about the location of most recent paper jams. Ask about the image quality and the copier/printer performance in general, including any unusual sounds or other indications.
   b. After informing the customer, disconnect the machine from the customerís network.
   c. Check that the power cords are in good condition, correctly plugged in the power source, and free from any defects that would be a safety hazard. Repair or replace the power cords as required. Check that the circuit breakers are not tripped.
   d. Inspect any rejected copies. Inquire as to, or otherwise determine, the paper quality and weight. The specified paper for optimum image quality with this machine is TBD. Look for any damage to the copies, oil marks, image quality defects, or other indications of a problem.
   e. Record the billing meter readings.
   f. Enter the Diagnostics Mode. Go to the TBD RAP if the Diagnostic Mode can not be entered. Return here after repairing the Diagnostics entry problem.

      ***NOTE:*** *If a fault code is displayed while performing a diagnostics procedure, go to that fault code RAP and repair the fault. Return to Diagnostics and continue with the dC procedure that you were performing.*

   g. Go to dC135 and determine what HSFI action is required based on the customer output volume. Refer to the Detailed Maintenance Activities section for the detailed HSFI information. Record any items that require action.
   h. Select the History File. Display and record the information in the Fail History, Jam History, Fail Counter, and Jam Counter. Classify this information into categories:

      Information that is related to the problem that caused the service call.

      Information that is related to secondary problems.

      Information that does not require action, such as a single occurrence of a problem.

   i. Check the Service Log for any recent activities that are related to the problem that caused the service call or any secondary problem.
2. Perform any required HSFI activities identified above. Refer to the Detailed Maintenance Activities section.
3. Exit diagnostics. Try to duplicate the problem by running the same jobs that the customer was running.
4. Go to  Call Flow.

# Call Flow

This procedure should be performed at every service call.

## Initial Actions

Ask the operator about the problem. If the problem appears to be related to operator error, or an attempt to perform a job outside of the machine specifications, assist the customer in learning the correct procedure.

## Procedure

**Does the UI display correctly?**

**Y N**

**The machine is completely dead (no cooling fans running, no indicator lamps on)**

**Y N**

Go to the OF 2-1 RAP to repair the UI display error.

Go to the OF 1-2 RAP.

**The reported problem occurs in Print Mode ONLY.**

**Y N**

Place the Color Test Pattern on the Document Glass. Make a copy from each paper tray. **The Copier/Printer can copy from all trays.**

**Y N**

***NOTE:*** *Not all fault codes can be displayed on the UI. Connect the PWS and launch the diagnostic tool to ensure that any fault code is displayed. Some codes will appear only the Last 40 Faults list.*

**A fault code is displayed.**

**Y N**

Go to the GP 4 Intermittent Problem RAP.

Go to the RAP for the displayed fault.

Place two originals into the DADF and program a duplex job. **The Copier/Printer can copy from the DADF**

**Y N**

**A fault code is displayed.**

**Y N**

Check the DADF Document Sensors for debris or damage. Check the document mechanical drives and Feed Rolls for contamination, wear, damage, or binding.

Go to the RAP for the displayed fault code.

Check the image quality in the BASIC COPIER MODE:

- Select a tray that is loaded with 11 X 17 or A3 paper.
- Select the following parameters:
  - Output Color to **Auto**
  - Original Type to **Photo and Text Halftone**
  - Reduce/Enlarge **Auto**
  - Lighter/Darker to **Auto Contrast**
  - Sharpness to **Normal**
  - Preset Color Balance **Normal**
  - Color Shift to **Normal**
  - Color Saturation to **Normal**
  - Copy Position to **No Shift**
  - Variable Color Balance **Normal**
- Run four copies of the Color Test Pattern.

**The Image Quality of the copies produced is acceptable.**

**Y N**

Go to the IQ1 RAP.

Go to Final Actions.

**The problem occurs in all print jobs.**

**Y N**

If the problem is specific to a single application or group of applications, ensure that current drivers are loaded. If the problem persists, escalate the call to the Customer Support Center.

Go to GP 1 (Network Printing Simulation) and send a print job. **An acceptable print is produced.**

**Y N**

- verify machine settings
- reload system software?
- replace the ESS PWB (PL 13.1).

The problem is in the customer network or the setup. Ask the customerís system administrator to verify the configuration.
Check network settings.
When resolved, go to Final Actions.

# Detailed Maintenance Activities (HFSI)

## Procedure

1. Clean the ADC Sensor on every call.
2. Enter Diagnostics and select dC135.
3. Perform the Service Actions in Table 1 for any High Frequency Service Item (HFSI) counters that are over threshold or approaching the threshold. Using the customer's output volume numbers (high, medium, or low volume), evaluate which HFSI actions should be accomplished now to avoid an additional service call in the near future.
4. Refer to Cleaning Procedures for detailed cleaning instructions.

**Table 1**

| Counter | Name | Threshold | Service Action to be performed |
|---|---|---|---|
| 006-802 | IIT Scan<br>No. of Scan (Including pre-scan) after HFSI Counter Cleared | 0 | No action required - counter only |
| 005-805 | Document Feed<br>No. of DADF Feed after HFSI Counter Cleared. | 0 | No action required - counter only |
| 954-801 | IBT Belt Unit | 480K<br>increments by 1 for letter size or smaller; by 2 for longer than letter size | Replace of the IBT Belt Unit<br>Warning at 478.5K |
| 954-802 | 2nd BTR Unit | 150K | Replacement of the 2nd BTR Unit<br>Warning at 98.5K |
| 954-803 | IBT Belt CLN Assy | 100K | Replacement of the IBT Belt Cleaner<br>Warning at 98.5K |
| 954-804 | Fuser | 10000000<br>Area conversion with A4L=100 | Usage of Fuser CRU equivalent to A4L conversion<br>Warning at 9000000 |
| 954-806 | Tray 1 Feed counter | 300000 | Replace the Roll Kit (PL 2.5). |
| 954-807 | Tray 5 Feed counter | 300000 | Replace the Feed Roll Assembly and Retard Pad (PL 2.14). |
| 954-808 | Tray 2 Feed counter | 300000 | Replace the Roll Kit (PL 16.8). |
| 954-809 | Tray 3 Feed counter | 300000 | Replace the Roll Kit (PL 16.10). |
| 954-810 | Tray 4 Feed counter | 300000 | Replace the Roll Kit (PL 16.12). |

# Cleaning Procedures

## Purpose

The purpose is to provide cleaning procedures to be performed at every call.

## Procedure

**CAUTION**

*Do not use any solvents unless directed to do so by the Service Manual.*

**General Cleaning**

Use a dry lint free cloth or a lint free cloth moistened with water for all cleaning unless directed otherwise by the Service Manual. Wipe with a dry lint free cloth if a moistened cloth is used.

1. **Feed Components (Rolls and Pads)**
   Follow the General Cleaning procedure above.
2. **ROS Windows**
   Use the cleaning wand to clean the ROS windows (follow the procedure in the User Guide).
3. **Toner Dispense Units**
   Vacuum the Toner Dispense units.
4. **Jam Sensors**
   Clean the sensors with a dry cotton swab.
5. **IBT Cleaning**
   Check the Transfer Belt surface and wipe with a dry lint free cloth. If the surface is excessively dirty, replace the Transfer Belt (PL 5.3).
6. **Fuser Components** (best cleaned when hot).
   Wipe with a lint free cloth.
7. **Scanner**
   a. Switch off the power and allow the Exposure Lamp to cool off.
   b. Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
   c. Clean the Exposure Lamp with a clean cloth and Film Remover.
   d. Clean the Lens with Lens and Mirror Cleaner and lint free cloth.
8. **ADF**
   Check the paper path for debris or damage. Clean the rolls with a clean cloth and Film Remover as required.
9. **Finisher**
   Check the paper path for debris or damage. Clean the Finisher with a dry lint free cloth.

# Final Actions

## Purpose

The intent of this procedure is to be used as a guide to follow at the end of every service call.

Procedure

1. Ensure that the exterior of the copier/printer and the adjacent area are clean. Use a dry cloth or a cloth moistened with water to clean the copier/printer. Do not use solvents.
2. Check the supply of consumables. Ensure that an adequate supply of consumables is available according to local operating procedures.
3. Conduct any operator training that is needed. Ensure that the operator understands that the Automatic Gradation Adjustment procedure in the Operator Manual should be used to adjust the colors.
4. Complete the Service Log.
5. Perform the following steps to make a copy of the Demonstration Original for the Customer:
   a. Load Tray 1 with 8.5 x 11 inch (A4) or 11 x 17 inch paper.
   b. Place the Color Test Pattern on the glass with the short edge of the test pattern registered to the left edge of the glass. Select Tray 1 and make a single copy.
   c. Print out the Machine Settings page.
   d. Present the copies to the customer.
6. Reconnect the machine to the customer network. Verify function.
7. Issue copy credits as needed.
8. Discuss the service call with the customer to ensure that the customer understands what has been done and is satisfied with the results of the service call.

# 2 Status Indicator RAPs

**Chain 5**



**Chain 6**



**Chain 7**



**Chain 8**



**Chain 9**

**Chain 10**



**Chain 12**

**Chain 15**



**Chain 16**

**Chain 102**

**Chain 103**



**Chain 116**

**Other Faults**

# 1-300 RAP

Left Cover is open.

## Procedure

Enter dC330 [001-301] and press Start. Open and close Left Cover. **Display changes state.**

**Y N**

Measure the voltage between +24 LVPS j502-1 and GND(-). **+24 VDC measured.**

**Y N**

Replace LVPS (PL 9.1).

Disconnect p/j 172 from Left Cover Interlock Switch. Check resistance between A1 and B1 when switch is actuated. **Resistance is less than 3 ohms.**

**Y N**

Replace Left Cover Interlock Switch (PL 2.10).

Reinstall switch. Close the Left Cover. Measure the voltage at j535-A1 on the I/F PWB. **+24 VDC measured.**

**Y N**

Repair the open circuit between the +24 VDC LVPS and the I/F PWB.

Replace the I/F PWB (PL 9.1).
If the problem continues, replace the MCU PWB (PL 13.1).

Check installation of Cover/Actuator.

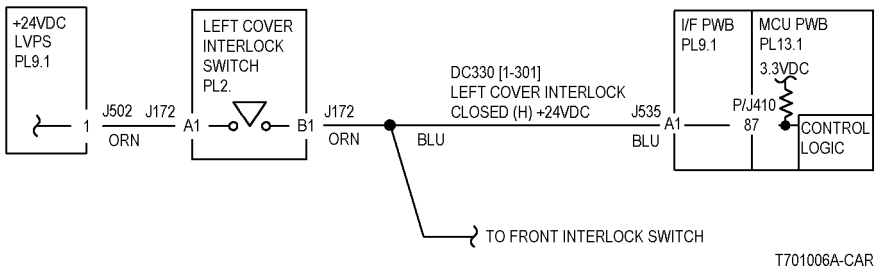


**Figure 1 Left Cover Interlock Switch CD**

# 1-301 RAP

Left Lower Cover is open

## Procedure

Enter dC330 [001-302] and press Start. Open Left Lower Cover. Actuate Left Lower Cover Interlock Switch with screwdriver. **Display changes state.**

**Y** **N**

Go to General Transmissive Sensor RAP and repair LH Lower Cover Interlock Switch (PL 2.3).

Check Actuator and Left Lower Cover installation.

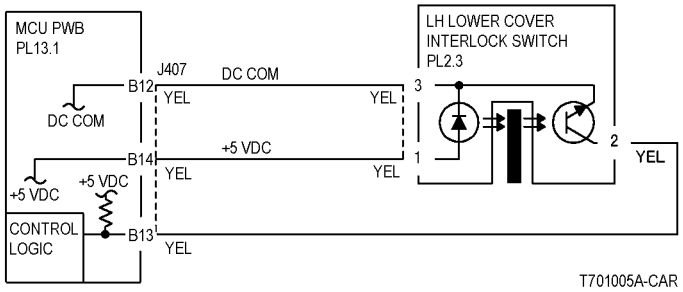


**Figure 1 LH Lower Cover Interlock Switch CD**

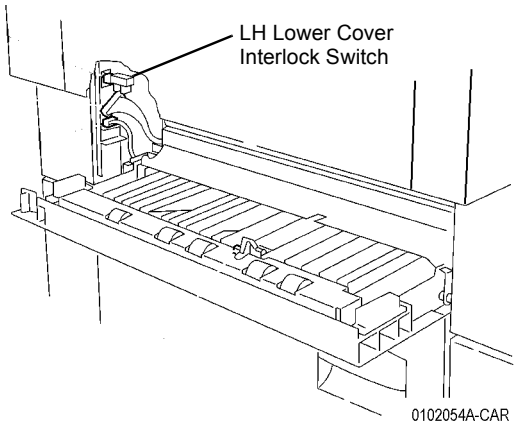


**Figure 2 Component Location**

# 1-302 RAP

Front Cover or is open

## Initial Actions

Check the operation of the Actuator and the switch.

## Procedure

Open the Front Cover. Cheat the Front Cover Interlock Switch. **001-302 is cleared.**

**Y N**

**+24VDC is measured between the I/F PWB j531-1 (+) and GND (-).**

**Y N**

**+24VDC is measured between the Front Cover Interlock Switch j171-B1 (+) and GND (-).**

**Y N**

**24VDC is measured between the Front Cover Interlock Switch j171-A1 (+) and GND (-).**

**Y N**

Repair the open circuit between the Left Cover Interlock Switch j172-B1 and the Front Interlock Switch j171-A1.

Replace the Front Cover Interlock Switch.

**+24VDC is measured between the RH Cover Interlock Switch j173-B1 (+) and GND (-).**

**Y N**

**+24VDC is measured between the RH Cover Interlock Switch j173-A1 (+) and GND (-).**

**Y N**

Repair the open circuit between the Front Cover Interlock Switch j171-B1 and the RH Cover Interlock Switch j173-A1.

Replace the RH Cover Interlock Switch.

Check the wire for an open circuit between the RH Cover Interlock Switch j173-B1 and the Interlock Relay PWB j569-2.
Check the wire for an open circuit between the Interlock Relay PWB j569-1 and the I/F PWB j531-1.

Replace the I/F PWB (PL 9.1).
If the problem continues, replace the MCU PWB (PL 13.1).

Check installation of Cover/Actuator.

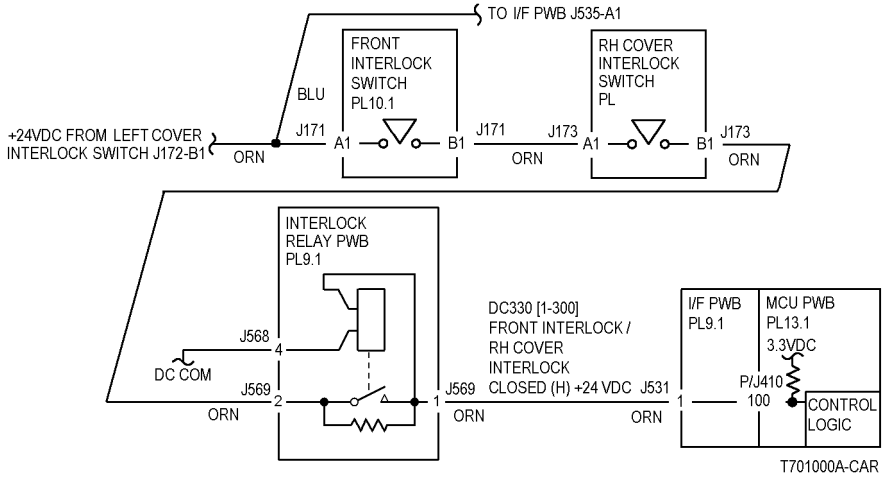


**Figure 1 Front Cover / Right Cover Interlock CD**

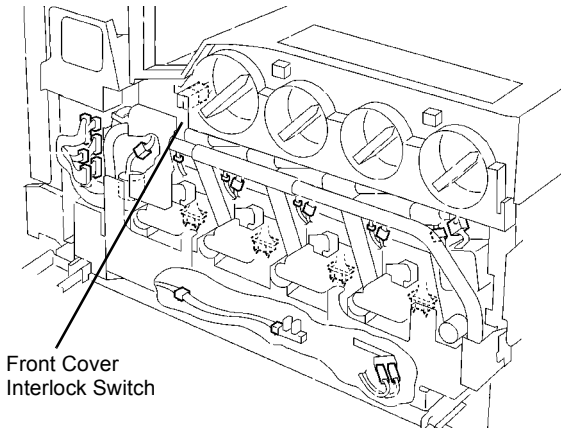


**Figure 2 Front Cover Interlock Switch Location**

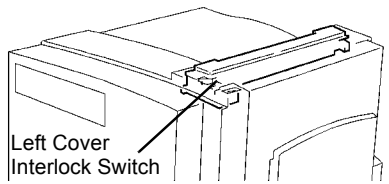


**Figure 3 Left Cover Interlock Switch Location**

# 1-303 RAP

HCF Left Door is open.

## Procedure

Enter dC330 [001-304] and press Start. Actuate Tray Module LH Cover Interlock Switch with a screwdriver. **Display changes state.**

**Y N**

Check voltage between Tray Module PWB j554-3(+) and GND(-). **+24 VDC is measured.**

**Y N**

Check the wires from the Tray Module PWB j554-3 to Tray Module L/H Cover Interlock Switch FS813 for damage. If the wires are good, replace Tray Module L/H Cover Interlock Switch (PL 15.10).

Replace Tray Module PWB (PL15.9).

Check Cover Actuator and Cover installation.

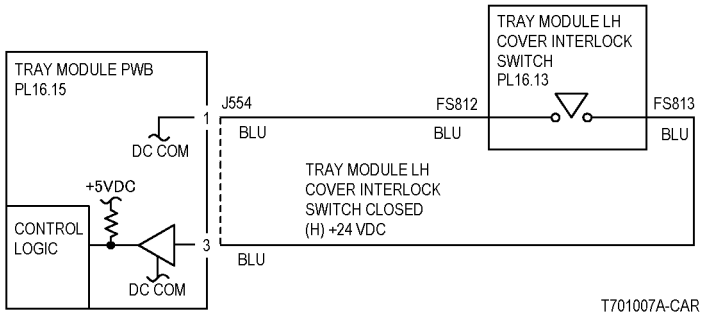


**Figure 1 Tray Module LH Cover Interlock Switch Cd**

# 1-306 RAP

Duplex Door is open.

## Procedure

Enter dC330 [008-300] and press Start. Open Duplex Transport. Actuate Duplex Cover Interlock Switch with a screwdriver. **Display changes state.**

**Y N**

Deactuate Duplex Cover Interlock Switch. Check voltage on the Drawer Connector between j626-A6 (+) and GND(-). **+5 VDC is measured.**

**Y N**

Check voltage between MCU PWB j406-A9 and GND(-). **+5 VDC is measured.**

**Y N**

Replace MCU PWB (PL13.1).

Repair the open circuit between the MCU PWB j406-A9 and Drawer Connector between j626-A6

Check the wires between Drawer Connector between j626-A6 and Duplex PWB j540-1. If the wires are good, replace the Duplex Cover Interlock Switch.

Check Cover Actuator and Cover installation. If there is no problem, replace MCU PWB (PL13.1)

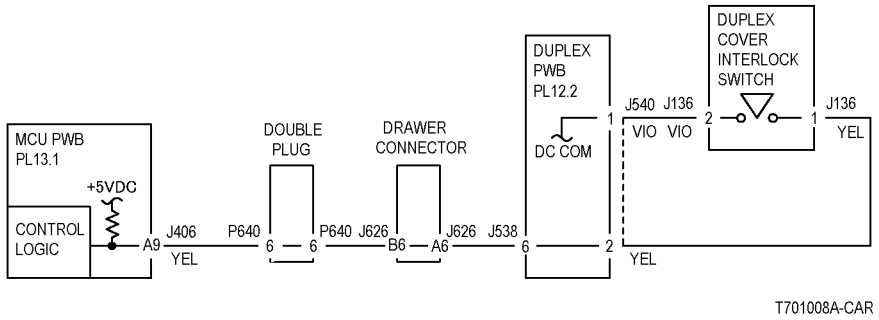


**Figure 1 Duplex Cover Interlock Switch**

## 3-317 IIT Software Failure

Configuration mismatch

### Procedure

Change the position of the document sensor. **The problem is corrected.**

**Y** **N**

Rewrite the NVM values.

Return to Service Call Procedures.

## 3-318 IIT Software Failure

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the ESS PWB connectors. If the check is OK, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 3-319 IIT Video Driver Failure

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the ESS PWB connectors. If the check is OK, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 3-320 IIT-ESS Communication Failure 1

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-321 IIT-ESS Communication Failure 2

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-322 IIT-ESS Communication Failure 3

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-323 IIT-ESS Communication Failure 4

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-324 IIT-ESS Communication Failure 5

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-325 IIT-ESS Communication Failure 6

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-326 IIT-ESS Communication Failure 7

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-327 IIT-ESS Communication Failure 8

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-328 IIT-ESS Communication Failure 9

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-329 IIT-ESS Communication Failure 10

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-330 IIT-ESS Communication Failure 11

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-331 IIT-ESS Communication Failure 12

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-332 IIT-ESS Communication Failure 13

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-333 IIT-ESS Communication Failure 14

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-334 IIT-ESS Communication Failure 15

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-335 IIT-ESS Communication Failure 16

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-336 IIT-ESS Communication Failure 17

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the IIT/IPS PWB connectors. If the check is OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 3-340 IOT-ESS Communication Failure 1

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-341 IOT-ESS Communication Fail 2

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-342 IOT-ESS Communication Failure 3

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-343 IOT-ESS Communication Failure 4

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-345 IOT-ESS Communication Failure 5

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-346 IOT-ESS Communication Failure 6

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-347 IOT-ESS Communication Failure 7

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-348 IOT-ESS Communication Failure 8

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-349 IOT-ESS Communication Failure 9

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-350 IOT-ESS Communication Failure 10

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-351 IOT-ESS Communication Failure 11

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-352 IOT-ESS Communication Failure 12

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-353 IOT-ESS Communication Failure 13

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-354 IOT-ESS Communication Failure 14

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-355 IOT-ESS Communication Failure 15

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-356 IOT-ESS Communication Failure 16

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-357 IOT-ESS Communication Failure 17

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-358 IOT-ESS Communication Failure 1

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-359 IOT-ESS Communication Failure 19

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-360 IOT-ESS Initialization Failure

Controller received check code error.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Reinstall the software. If the problem continues, check the MCU PWB connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 3-364 DMA Transfer Failure

Compression/extraction did not complete.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Replace the RAM (PL13.1) then the HDD. If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 3-370 Marker Code Detect Failure

The end code cannot be found in the compressed data.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Replace the RAM (PL13.1) then the HDD. If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 3-747 Print Instruction Failure

The print parameter is incorrect.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Change the print parameter and print again.

Return to Service Call Procedures.

## 3-750 Insufficient Number of Document Pages

Insufficient number of pages programed when making a book.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Set the number of document pages to the maximum count.

Return to Service Call Procedures.

## 3-761 Tray Select Error

The paper sizes are different than the tray that will be selected by the APS.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Select an appropriate tray.

Return to Service Call Procedures.

## 3-941 Insufficient Page Memory

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Perform the operation again.

Return to Service Call Procedures.

## 3-942 Document Size Error

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y N**

Perform the operation again.

Return to Service Call Procedures.

## 3-946 Tray 1 Not In Position

Tray 1 not in ready position.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Paper Size Sensor for obstructions or damage.

### Procedure

Ensure Tray 1 is closed. **The voltage measured at P/J536-B9 on the I/F PWB corresponds to the paper size in the table.**

**Y N**

**There is +3.3VDC measured at P/J536-B10.**

**Y N**

Check the connection between the I/F PWB and the MCU PWB. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1)

Check the wires and connectors. If the check is OK, replace the Tray 1 Paper Size Sensor (PL 2.1).

Check the connection between I/F PWB and MCU PWB. If the check is OK, replace the MCU PWB (PL 13.1).

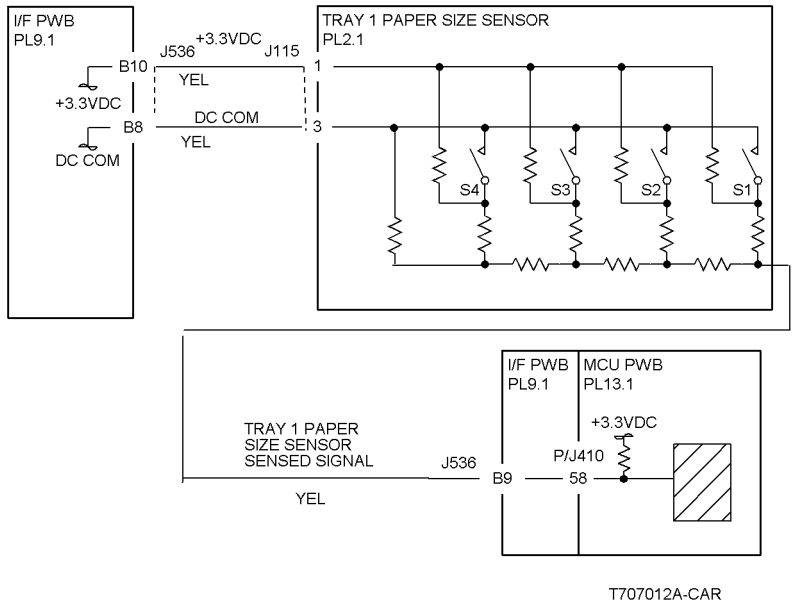


**Figure 1 Tray 1 Paper Size Sensor**

## 3-947 Tray 2 Not In Position

Tray 2 not in ready position.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Paper Size Sensor for obstructions or damage.

### Procedure

Ensure Tray 2 is closed. **The voltage measured at P/J546-8 on the Tray Module PWB (PL 16.15) corresponds to the paper size in the table.**

**Y N**

**There is +5VDC measured at P/J546-9 on the Tray Module PWB (PL 16.15)**

**Y N**

Check the wires and connectors. If the check is OK, replace the **Tray Module PWB (PL 16.15)**

Check the wires and connectors. If the check is OK, replace the Tray 2 Paper Size Sensor (PL 16.1).

Check the wires and connectors, If the check is OK, replace the Tray Module PWB (PL 16.15). If the problem continues, replace the Tray 2 Paper Size Sensor (PL 16.1).

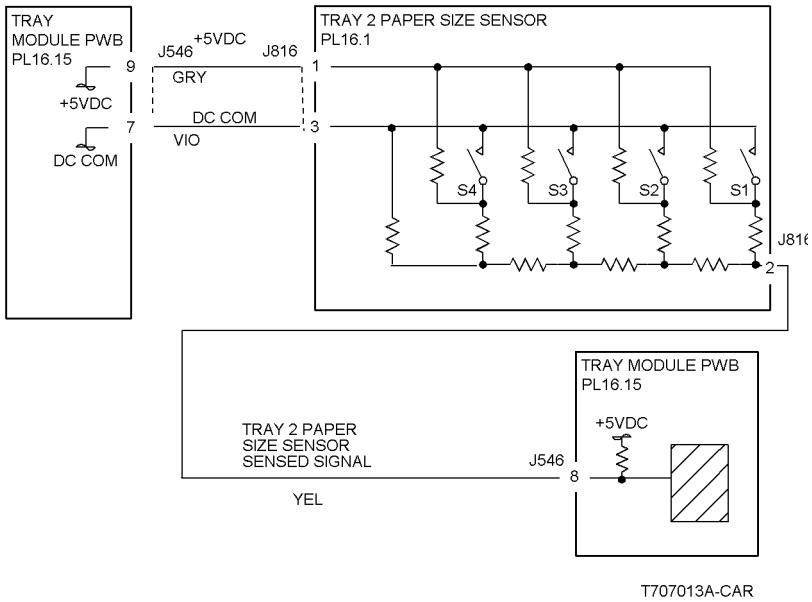


**Figure 1 Tray 2 Paper Size Sensor**

## 3-948 Tray 3 Not In Position

Tray 3 not in ready position.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Paper Size Sensor for obstructions or damage.

### Procedure

Ensure Tray 3 is closed. **The voltage measured at P/J548-11 on the Tray Module PWB (PL 16.15) corresponds to the paper size in the table.**

**Y N**

**There is +5VDC measured at P/J548-12 on the Tray Module PWB (PL 16.15)**

**Y N**

Check the wires and connectors. If the check is OK, replace the **Tray Module PWB (PL 16.15)**

Check the wires and connectors. If the check is OK, replace the Tray 3 Paper Size Sensor (PL 16.1).

Check the wires and connectors, If the check is OK, replace the Tray Module PWB (PL 16.15). If the problem continues, replace the Tray 3 Paper Size Sensor (PL 16.1).

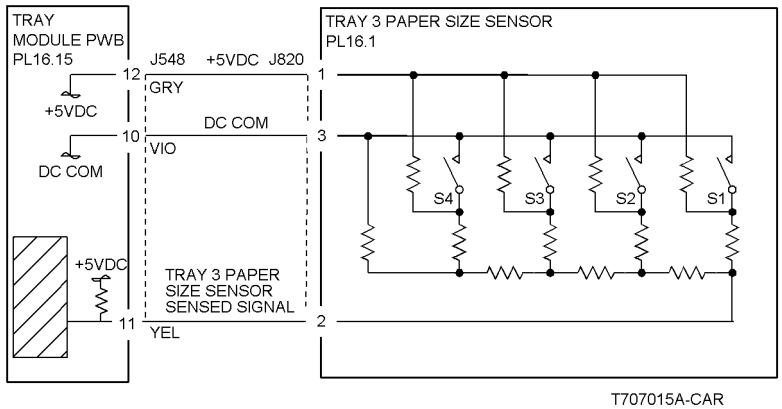


**Figure 1 Tray 3 Paper Size Sensor**

## 3-949 Tray 4 Not In Position

Tray 4 not in ready position.

### Initial Actions

- Check that the paper size setting is correct.
- Check the Paper Size Sensor for obstructions or damage.

### Procedure

Ensure Tray 4 is closed. **The voltage measured at P/J548-5 on the Tray Module PWB (PL 16.15) corresponds to the paper size in the table.**

**Y N**

**There is +5VDC measured at P/J548-6 on the Tray Module PWB (PL 16.15)**

**Y N**

Check the wires and connectors. If the check is OK, replace the **Tray Module PWB (PL 16.15)**

Check the wires and connectors. If the check is OK, replace the Tray 2 Paper Size Sensor (PL 16.1).

Check the wires and connectors, If the check is OK, replace the Tray Module PWB (PL 16.15). If the problem continues, replace the Tray 4 Paper Size Sensor (PL 16.1).

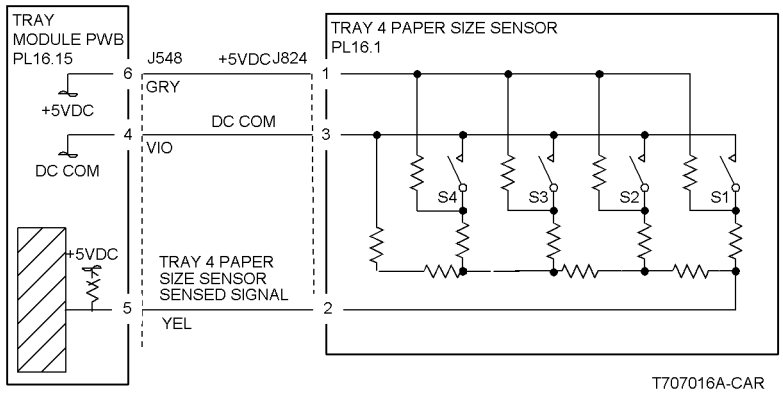


**Figure 1 Tray 4 Paper Size Sensor**

## 3-950 Tray 1 No Paper

No paper in Tray 1

### Procedure

Enter dC330 [007-120] and press Start. Actuate Tray 1 No Paper Sensor. **The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP, repair Tray 1 No Paper Sensor (PL 2.4).

Replace MCU PWB (PL 13.1).

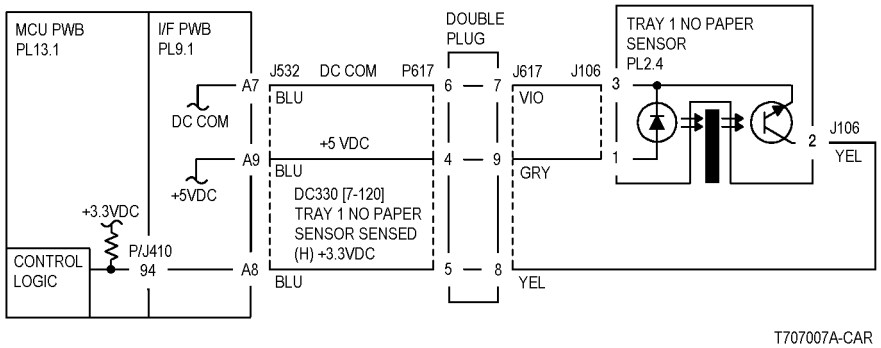


**Figure 1 Tray 1 No Paper Sensor CD**

## 3-951 Tray 2 No Paper

No paper in Tray 2

### Procedure

Enter dC330 [007-121] and press Start. Actuate Tray 2 No Paper Sensor. **Display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP, repair Tray 2 No Paper Sensor (PL 15.3, PL 16.7).

Replace MCU PWB (PL 13.1).

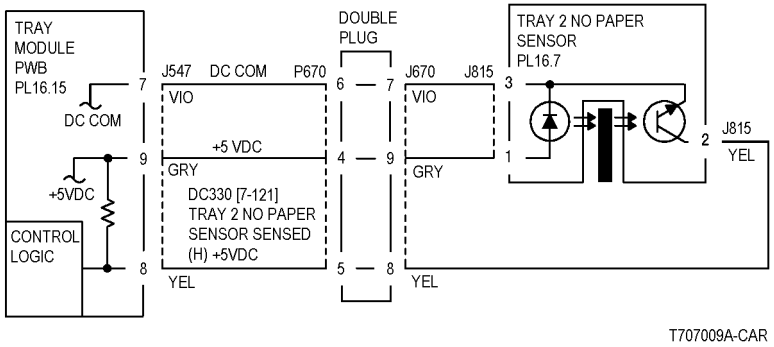


**Figure 1 Tray 2 No Paper Sensor CD**

## 3-952 Tray 3 No Paper

No paper in Tray 3

### Procedure

Enter dC330 [007-122] and press Start. Actuate Tray 3 No Paper Sensor. **Display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP, repair Tray 3 No Paper Sensor (PL 15.5, PL 16.9).

Replace MCU PWB (PL 13.1).

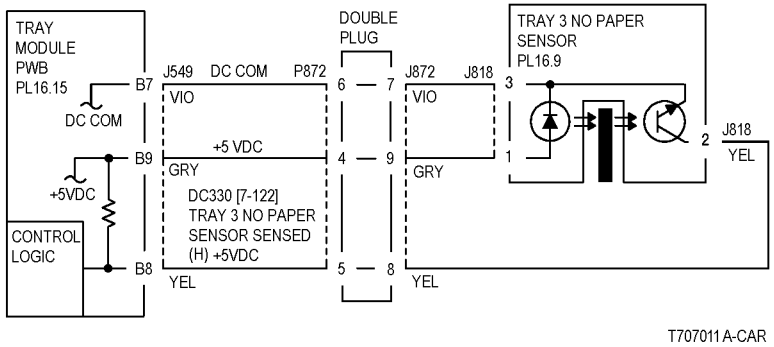


**Figure 1 Tray 3 No Paper Sensor**

## 3-953 Tray 4 No Paper

No paper in Tray 4.

### Procedure

Enter dC330 [007-123] and press Start. Actuate Tray 4 No Paper Sensor. **Display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP, repair Tray 4 No Paper Sensor (PL 15.7, PL 16.1).

Replace MCU PWB (PL 13.1).

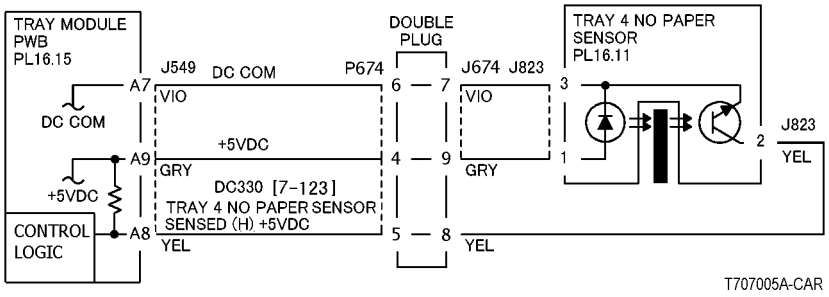


**Figure 1 Tray 4 No Paper Sensor CD**

## 3-954 Tray 5 Empty

Tray 5 is empty.

### Procedure

Enter dC330 [007-125] and press Start. Actuate the Tray 5 No Paper Sensor. **Display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP, repair the Tray 5 No Paper Sensor (PL 2.13).

Replace I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

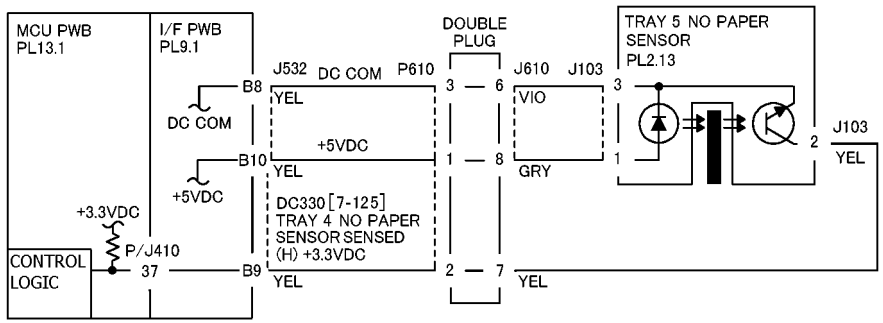


**Figure 1 Tray 5 No Paper Sensor CD**

## 3-958 Tray 5 Paper Size Mismatch

The paper in the Tray 5 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 5.

**Y** **N**

Load the correct size paper and return to Service Call Procedures.

Go to RAP 7-954.

## 3-959 Tray 1 Paper Size Mismatch

The paper in Tray 1 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 1.

**Y** **N**

Load the correct size paper and return to Service Call Procedures.

Go to RAP 7-955.

## 3-960 Tray 2 Paper Size Mismatch

The paper in Tray 2 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 2.

**Y** **N**

Load the correct size paper and return to Service Call Procedures.

Go to RAP 7-271.

## 3-961 Tray 3 Paper Size Mismatch

The paper in Tray 3 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 3.

**Y** **N**

Load the correct size paper and return to Service Call Procedures.

Go to RAP 7-276.

## 3-962 Tray 4 Paper Size Mismatch

The paper in Tray 4 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 4.

**Y** **N**

Load the correct size paper and return to Service Call Procedures.

Go to RAP 7-277.

## 3-965 No Paper

The paper does not match the paper size selected.

### Procedure

The correct size paper is loaded.

**Y** **N**

Load the correct size paper and return to Service Call Procedures.

Go to the appropriate paper size sensor RAP.

## 3-971 Magnification

Incompatible Magnification

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Change parameters and rerun job.

## 3-972 Over Number of Document Pages Stored

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Set the number of document pages to the maximum count.

Return to Service Call Procedures.

## 3-980 Stapler Position Error

The Stapler is not available at the specified position.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Re-set the parameters.

Return to Service Call Procedures.

## 3-985 Tray 5 Pause Check

The SMH tray jamed.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Go to RAP 7-794.

Return to Service Call Procedures.

## 3-986 Print Completion Error

The number of spooled pages does not match the output.

### Procedure

Switch the power off then on. **The problem is corrected.**

**Y** **N**

Count the number of prints to ensure job integrity.

Return to Service Call Procedures.

# 4-340 IOT RAM

MCU PWB RAM test failed.

## Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

If the problem continues, replace the MCU NVM PWB (PL 13.1).

## 4-341 IOT Logic

Operation failure of an  MCU PWB operation.

### Initial Actions

Re-installation the software.

### Procedure

CH3.1A, CH3.6A

Connect black meter lead to ground or machine frame.  **There is +5VDC measured at J401-B20**

**Y  N**

**There is +5VDC measured at j568-5**

**Y  N**

**There is +5VDC measured at j568-1**

**Y  N**

Repair the wire between FS534 and j568-2.

Replace ROS Assembly (PL 3.1).

Check for an open circuit between j568-5 the p400-9.
If the circuit is OK, replace the MCU PWB (PL 13.1).

Replace MCU PWB (PL 13.1).
If the problem continues, replace ROS Assembly (PL 3.1).

## 4-342  Flash ROM Motion

Motion failure of Flash ROM

### Procedure

Switch the power off then on.  **The problem continues.**

**Y  N**

Return to Service Call Procedures.

Replace ROM PWB (PL13.1)

## 4-343 IOT Flash ROM Read Write

There is a FLASH ROM operation failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

## 4-344 IOT Micro Pitch

The MICRO PIT did not occur within the specified time.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

## 4-345 MCU HVPS Communication

Communication error between MCU PWB and HVPS Control PWB

### Procedure

BSD: CH3.1B CH3.6A

Between MCU PWB j406-B1(+) and GND(-). **+5 VDC is measured.**

**Y N**

Between MCU PWB j406-B1(+) and GND(-). **+3.3 VDC is measured.**

**Y N**

Check frame short between MCU PWB j406-B1 and HVPS Control PWB j574-9. If the check is good, replace MCU PWB (PL 13.1).

Check for wire breakage and bad connection between MCU PWB j406-B1and HVPS Control PWB j574-9.

Turn the power OFF. Measure resistance of following.

Between HVPS CONTROL PWB j574-7 and MCU PWB j406-B3

Between HVPS CONTROL PWB j574-6 and MCU PWB j406-B4. **10 ohms or less is measured.**

**Y N**

Repair wire breakage and bad connection.

**10 ohms or less is measured between HVPS Control PWB j574-8 and MCU PWB j406-B2.**

**Y N**

Repair wire breakage and bad connection.

Replace MCU PWB (PL 13.1). If this does not solve the problem, replace HVPS Control PWB (PL 9.1).

## 4-346 IBT Home Sensor

IBT Home Sensor does not detect Belt Home signal.

### Procedure

BSD: CH9.19 CH9.31A

If the IBT was just serviced, verify the installation is correct (REP 9.15).

If any Developer Housings were just serviced, verify installation is correct (REP 9.9).

If a Finisher status code occurred just before the 4-346 in fault history, go to the RAP for the Finisher status code.

Check the Belt Home Marker. **A Belt Home Marker is present.**

**Y N**

Replace IBT Belt (PL 5.3).

Block Belt Home Sensor with paper. Enter dC330 [004-100] and press Start. **Display indicates Hi.**

**Y N**

Between I/F PWB j533-A13(+) and GND(-). **+5 VDC is measured.**

**Y N**

Between I/F PWB j533-A9(+) j533-A12(-). **+5 VDC is measured.**

**Y N**

Replace MCU PWB (PL 13.1).

Check for wire breakage and bad connection between IBT Home Sensor j121 and I/F PWB j533. If the check is good, replace IBT Home Sensor (PL 5.4).

Replace MCU PWB (PL 13.1).

If the problem continues, replace I/F PWB (PL 9.1).

Reinstall IBT Assembly (REP 9.15). Enter dC330 [004-002] and press Start. **IBT Motor energizes.**

**Y N**

Between I/F PWB j551-3(+) and GND(-). **+24 VDC is measured.**

**Y N**

By following Ch7 Wire Network, check +24VDC circuit up to I/F PWB j551-3

Between IBT MOTOR j208-3(+) and GND(-). **+24 VDC is measured.**

**Y N**

Check wire breakage and bad connection between IBT MOTOR j208-3 and I/FPWB j551-3.

Check wire breakage and bad connection between IBT MOTOR j208 and I/FPWB j551. **There are broken wires or bad connections.**

**Y N**

Replace IBT MOTOR (PL 1.1).

Repair broken wire and bad connection.

Replace MCU PWB (PL 13.1).

If the problem continues, replace I/FPWB (PL 9.1).

# 4-347 IBT Belt Edge

IBT belt edge not in position.

## Procedure

BSD: CH9.19 CH9.31A

Check if actuator for IBT Edge Sensor touches belt edge. **IBT Edge Sensor touches belt edge.**

**Y N**

Check actuator installation.

Turn the power ON. Between I/F PWB j533-A11(+) and GND(-). **Between +3 VDC and +1 VDC is measured.**

**Y N**

Between I/F PWB j533-A9(+) j533-A10(-). **+5 VDC is measured.**

**Y N**

Close FRONT door. If voltage between j533-A9(+) j533-A10(-) is less than +5VDC, replace MCU PWB (PL 13.1).

Between I/F PWB j533-A11(+) and GND(-). **+5 VDC is measured.**

**Y N**

Between I/F PWB j533-A11(+) and GND(-). **0 VDC is measured.**

**Y N**

Check wire breakage and bad connection between I/F PWB j533 and IBT-EDGE SENSOR j119.
If the check is good, replace IBT Edge Sensor (PL 5.4).
If the problem continues, replace MCU PWB (PL 13.1).

Check wire breakage and bad connection between I/F PWB j533-A11 and IBTEDGE SENSOR j119-2.

Replace IBT EDGE SENSOR (PL5.4)

between I/F PWB j550-5(+) and GND(-). **+24 VDC is measured.**

**Y N**

By following Wire Network, check +24VDC circuit up to I/F PWB j550-5.

Remove IBT Assembly. Enter dC330 [004-001] and energize the Steering Motor. **Steering Motor energized.**

**Y N**

Check wire breakage and bad connection between I/F PWB j550 and IBT STEERING MOTOR j207. **There are broken wires or bad connections.**

**Y N**

Replace MCU PWB (PL 13.1). If the problem continues, replace I/F PWB (PL 9.1), and IBT Steering Motor (PL 1.3).

Repair broken wire and bad connection.

Check IBT Belt installation (REP 9.22). If the check is good, replace MCU PWB (PL 13.1).

# 4-348 IBT Belt Edge

IBT Belt Edge not detected.

## Procedure

BSD: CH9.19 CH9.31A

Check if actuator for IBT Edge Sensor touches belt edge. **IBT Edge Sensor touches belt edge.**

**Y N**

Check actuator installation.

Turn the power ON. Between I/F PWB j533-A11(+) and GND(-). **Between +3 VDC and 1 VDC is measured.**

**Y N**

Between I/F PWB j533-A9(+) j533-A10(-). **+5 VDC is measured.**

**Y N**

Close FRONT door. If voltage between j533-A9(+) j533-A10(-) is less than +5VDC, replace MCU PWB (PL 13.1).

Between I/F PWB j533-A11(+) and GND(-). **+5 VDC is measured.**

**Y N**

Between I/F PWB j533-A11(+) and GND(-). **0 VDC is measured.**

**Y N**

Check wire breakage and bad connection between I/F PWB j533and IBT Edge Sensor j119.
If the check is good, replace IBT Edge Sensor (PL 5.4).
If the problem continues, replace MCU PWB (PL 13.1).

Check wire breakage and bad connection between I/F PWB j533-A11 and IBT Edge Sensor j119-2.

Replace IBT Edge Sensor (PL 5.4).

Between I/F PWB j550-5(+) and GND(-). **+24 VDC is measured.**

**Y N**

Following Wire Network, check +24VDC circuit up to I/F PWB j550-5.

Remove IBT Assembly. Enter dC330 [004-001] and energize the Steering Motor. **Steering Motor energized.**

**Y N**

Check wire breakage and bad connection between I/F PWB j550 and IBT Steering Motor j207. **There are broken wires or bad connections.**

**Y N**

Replace MCU PWB (PL 13.1). If the problem continues, replace I/F PWB (PL 9.1), and IBT Steering Motor (PL 1.3).

Repair broken wire and bad connection.

Check IBT Belt installation (REP 9.22). If the check is good, replace MCU PWB (PL 13.1).

## 4-349 Marking Software Logic

Control Logic detected a fatal failure in the Marking software.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Again, switch the power off then on. Run the job again.

## 4-358 ESS IOT Communication

Communication failure between the ESS and IOT.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the MCU PWB and ESS PWB connectors.
If the problem continues, re-install the software.
If the problem continues, replace the MCU PWB (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1).

# 4-361 Drum Motor

Drum Motor failure.

## Procedure

BSD: CH9.1 CH9.31A

Remove Y/M/C/K Drum Assembly. Enter dC330 [004-003] and press Start. **Drum Motor energizes and drives rotate**

**Y N**

Between Drum Motor j210-4(+) and GND(-). **+5 VDC is measured.**

**Y N**

By following Wire Network, check +5VDC circuit to Drum Motor j210-4.

Between Drum Motor j210-6(+) and GND(-). **+24 VDC is measured.**

**Y N**

By following Wire Network, check +24VDC circuit to Drum Motor j210-6.

Between Drum Motor j210-1(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **0 VDC is measured.**

**Y N**

Between I/F PWB j535-B5(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **0 VDC is measured.**

**Y N**

Check for wire breakage and bad connection between Drum Motor j210-1 to I/F PWB j535-B5. If the check is good, replace MCU PWB? (PL 13.1).

Check for wire breakage and bad connection between Drum Motor j210-1 to I/FPWB j535-B5.

Between Drum Motor j210-2(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **0 VDC is measured.**

**Y N**

Between I/F PWB j535-B3(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **0 VDC is measured.**

**Y N**

Check for wire breakage and bad connection between Drum Motor j210-2 and I/F PWB j535-B3. If the check is good, replace I/F PWB (PL 9.1).

Check for wire breakage and bad connection between Drum Motor j210-2 and I/F PWB j535-B3.

Between Drum Motor j210-3(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **Frequency is between 1KHz and 1.3 KHz.**

**Y N**

Between I/F PWB j535-B2(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **Frequency is between 1KHz and 1.3 KHz.**

**Y N**

Check frame short between Drum Motor j210-3 and I/FPWB j535-B2. If the check is good, replace I/F PWB? (PL 9.1).

Check for wire breakage and bad connection between Drum Motor j210-3? and I/F PWB j535-B2.

**A B**

**A B**

Replace Drum Motor (REP 4.4) (PL 1.1).

Between I/F PWB j535-B1(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **+5 VDC is measured.**

**Y N**

Replace I/F PWB (PL 9.1).

Between Drum Motor j210-8(+) and GND(-). Ensure dC330 [004-003] is entered and press Start. **+5 VDC is measured.**

**Y N**

Check for wire breakage and bad connection between I/F PWB j535-B1 and Drum Motor j210-8.

Replace Drum Motor (PL 1.1).

## 4-362 IOT NVM Read Write

Read Write at the MCU PWB NVM R/W.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connection between the MCU PWB and the MCU NVM PWB.
If the problem continues, replace the MCU PWB (PL 13.1).
If the problem continues, replace the MCU NVM PWB (PL 13.1).

## 4-371 IOT Controller Timing Failure

There is a communication failure between the ESS and IOT.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the MCU PWB and ESS PWB connectors.
If the problem continues, re-install software.
If the problem continues, replace the MCU PWB (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1)

# 4-363 K Drum Motor

Drum Motor K failure

## Procedure

BSD: CH9.2CH9.31A

Remove K DRUM. Enter dC330 [004-006] and press Start. **Drum Motor K energizes.**

**Y** **N**

Between Drum Motor K j235-4(+) and GND(-). **+5 VDC is measured.**

**Y** **N**

Following Wire Network, check +5VDC circuit to Drum Motor K j235-4.

Between Drum Motor K j235-2(+) and GND(-). **+24 VDC is measured.**

**Y** **N**

Following Ch7 Wire Network, check +24VDC circuit to Drum Motor K j235-2.

Between Drum Motor K j235-5(+) and GND(-). Ensure dC330 [004-006] is entered and press Start. **0 VDC is measured.**

**Y** **N**

Between I/F PWB j534-A11(+) and GND(-). Ensure dC330 [004-006] is entered and press Start. **0 VDC is measured.**

**Y** **N**

Check connection between MCU PWB and I/F PWB P410/j410.
If the check is good, replace MCU PWB (PL 13.1).
If the problem continues, replace I/F PWB (PL 9.1).

Check wire breakage and bad connection between I/F PWB j534-A11 and Drum Motor K j235-5

Between Drum Motor K j235-8(+) and GND(-). Ensure dC330 [004-006] is entered and press Start. **Frequency is between 1KHz and 1.3 KHz.**

**Y** **N**

Between I/F PWB j534-A8 and GND (-). **Frequency is between 1KHz and 1.3 KHz.**

**Y** **N**

Check connection between MCU PWB and I/F PWB p410/j410.
If the check is good, replace MCU PWB (PL 13.1).
If the problem continues, replace the I/F PWB (PL 9.1).

Check wire breakage and bad connection between I/F PWB j534-A8 and Drum Motor K j235-8.

Between I/F PWB j534-A10 and Drum Motor K j235-6
between I/F PWB j534-A9 and Drum Motor K j235-7
If the check is good, replace Drum Motor K (PL 1.1).

Between I/F PWB j534-A7(+) and GND(-). Enter dC330 [004-006] and press Start.

**Y** **N**

Check connector between MCU PWB and I/F PWB p410/j410. If the check is good, replace MCU PWB (PL 13.1).
If the problem continues, replace the I/F PWB (PL 9.1).

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A

Between Drum Motor K j235-9(+) and GND(-). Ensure dC330 [004-006] is entered and press Start. **+5 VDC is measured**

**Y** **N**

Check wire breakage and bad connection between Drum Motor K j235-9 and I/FPWB j534-A7.

Check if there is load on K DRUM. If the check is good, replace Drum Motor K (PL 1.1).

## 4-414 IBT Belt Cleaner

IBT Belt Cleaner near end of life.

### Procedure

Replace the Cleaner Assembly. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).
If the problem continues, replace the MCU NVM PWB (PL 13.1)

## 4-415 2nd BTR Unit

It is time to replace the 2nd BTR UNIT.

### Procedure

Replace the 2nd BTR Unit. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).
If the problem continues, replace the MCU NVM PWB (PL 13.1)

## 4-417 1st BTR Unit

IBT Belt Unit near end of life.

### Procedure

Replace the IBT Belt Unit. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1)
If the problem continues, replace the MCU NVM PWB (PL 13.1)

## 4-420 1st BTR Unit

IBT Belt Unit end of life.

### Procedure

Replace the 1st IBT Belt Unit **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).
If the problem continues, replace the MCU NVM PWB (PL 13.1).

## 4-421 IBT Belt Cleaner Life End

IBT Belt Cleaner Assembly end of life.

### Procedure

Replace the IBT Belt Cleaner Assembly. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

If the problem continues, replace the MCU PWB (PL 13.1).
If the problem continues, replace the MCU NVM PWB (PL 13.1).

## 4-605 IOT NVM Corrupt

The system detected that the NVM of the IOT is empty.

### Procedure

Turn the power OFF/ON. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).
If the problem continues, replace the MCU NVM PWB (PL 13.1)

## 4-640 Belt Tracking

IBT tracking failure

### Procedure

BSD: CH9.19 CH9.31A

Check if actuator for IBT Edge Sensor touches belt edge. **IBT Edge Sensor touches belt edge.**

**Y N**

Check actuator installation.

Turn the power ON. Between I/F PWB j533-A11(+) and GND(-). **Between +3 VDC and 1 VDC is measured.**

**Y N**

Between I/F PWB j533-A9(+) j533-A10(-). **+5 VDC is measured.**

**Y N**

Check +5VDC circuit to I/F PWB j533-A9.

**Between I/F PWB j533-A11(+) and GND(-). +5 VDC is measured.**

**Y N**

**Between I/F PWB j533-A11(+) and GND(-). 0 VDC is measured.**

**Y N**

Check wire breakage and bad connection between I/F PWB j533and IBT Edge Sensor j119.
If the check is good, replace IBT Edge Sensor (PL 5.4).
If the problem continues, replace MCU PWB (PL 13.1).

Check wire breakage and bad connection between I/F PWB j533-A11 and IBT Edge Sensor j119-2.

Replace IBT Edge Sensor (PL 5.4).

Between I/F PWB j530-A9(+) and GND(-). **+24 VDC is measured.**

**Y N**

Following Wire Network, check +24VDC circuit up to I/F PWB j530-A9.

Remove IBT Assembly (REP 9.15). Enter dC330 [004-001] and press Start. **IBT Steering Motor energizes.**

**Y N**

Check wire breakage and bad connection between I/F PWB j550 and IBT Steering Motor j207. **There are broken wires or bad connections.**

**Y N**

Replace MCU PWB (PL 13.1).
If the problem continues, replace I/F PWB (PL 9.1).
If the problem continues, replace IBT Steering Motor (PL 1.3).

Repair broken wire and bad connection.

Check IBT Belt installation (REP 9.22). If the check is good, replace MCU PWB (PL 13.1).

## 4-641 Belt Edge

IBT belt edge not detected.

### Procedure

BSD: CH9.19 CH9.31A

Check if actuator for IBT Edge Sensor touches belt edge. **IBT Edge Sensor touches belt edge.**

**Y N**

Check actuator installation.

Turn the power ON. Between I/F PWB j533-A11(+) and GND(-). **Between +3 VDC and 1 VDC is measured.**

**Y N**

Between I/F PWB j533-A9(+) j533-A10(-). **+5 VDC is measured.**

**Y N**

Close FRONT door. If voltage between j533-A9(+) j533-A10(-) is less than +5VDC, replace MCU PWB (PL 13.1).

Between I/F PWB j533-A11(+) and GND(-). **+5 VDC is measured.**

**Y N**

Between I/F PWB j533-A11(+) and GND(-). **0 VDC is measured.**

**Y N**

Check wire breakage and bad connection between I/F PWB j533and IBT Edge Sensor j119.
If the check is good, replace IBT Edge Sensor (PL 5.4).
If the problem continues, replace MCU PWB (PL 13.1).

Check wire breakage and bad connection between I/F PWB j533-A11 and IBT Edge Sensor j119-2.

Replace IBT Edge Sensor (PL 5.4).

Between I/F PWB j530-A9(+) and GND(-). **+24 VDC is measured.**

**Y N**

Following Wire Network, check +24VDC circuit up to I/F PWB j530-A9

Remove IBT Assembly (REP 9.15). Enter dC330 [004-001] and press Start. **IBT Steering Motor energizes.**

**Y N**

Check wire breakage and bad connection between I/F PWB j550 and IBT Steering Motor j207. **There are broken wires or bad connections.**

**Y N**

Replace MCU PWB (PL 13.1).
If the problem continues, replace I/F PWB (PL 9.1).
If the problem continues, replace IBT Steering Motor (PL 1.3).

Repair broken wire and bad connection.

Check IBT Belt installation (REP 9.22). If the check is good, replace MCU PWB (PL 13.1).

## 4-642 Belt Edge

IBT belt edge not in position.

### Procedure

BSD: CH9.19 CH9.31A

Check if actuator for IBT Edge Sensor touches belt edge. **IBT Edge Sensor touches belt edge.**

**Y N**

Check actuator installation.

Turn the power ON. Between I/F PWB j533-A11(+) and GND(-). **Between +3 VDC and 1 VDC is measured.**

**Y N**

Between I/F PWB j533-A9(+) j533-A10(-). **+5 VDC is measured.**

**Y N**

Close FRONT door. If voltage between j533-A9(+) j533-A10(-) is less than +5VDC, replace MCU PWB (PL 13.1).

Between I/F PWB j533-A11(+) and GND(-). **+5 VDC is measured.**

**Y N**

Between I/F PWB j533-A11(+) and GND(-). **0 VDC is measured.**

**Y N**

Check wire breakage and bad connection between I/F PWB j533and IBT Edge Sensor j119.
If the check is good, replace IBT Edge Sensor (PL 5.4).
If the problem continues, replace MCU PWB (PL 13.1).

Check wire breakage and bad connection between I/F PWB j533-A11 and IBT Edge Sensor j119-2.

Replace IBT Edge Sensor (PL 5.4).

Between I/F PWB j530-A9(+) and GND(-). **+24 VDC is measured.**

**Y N**

Following Wire Network, check +24VDC circuit up to I/F PWB j530-A9

Remove IBT Assembly (REP 9.15). Enter dC330 [004-001] and press Start. **IBT Steering Motor energizes.**

**Y N**

Check wire breakage and bad connection between I/F PWB j550 and IBT Steering Motor j207. **There are broken wires or bad connections.**

**Y N**

Replace MCU PWB (PL 13.1).
If the problem continues, replace I/F PWB (PL 9.1).
If the problem continues, replace IBT Steering Motor (PL 1.3).

Repair broken wire and bad connection.

Check IBT Belt installation (REP 9.22). If the check is good, replace MCU PWB (PL 13.1).

## 4-650 IOT Cycle Down Time Out

Incorrect print processing continued for 2 minutes.

### Procedure

Check the wire between the ESS PWB and the MCU PWB for a poor contact. **The problem continues.**

**Y N**

Return to Service Call Procedures.

Replace the ESS PWB (PL 13.1)

# 4-908 2nd BTR Unit Life End

2nd BTR Unit end of life.

## Procedure

Replace the 2nd BTR UNIT. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

If the problem continues, replace the MCU NVM PWB (PL 13.1).

# 5-110 Registration Sensor On

Registration Sensor did not detect a document after the Feed Motor energized.

## Initial Actions

- Ensure document path is clear.
- Ensure Feed and Nudger Rolls are free of contamination and wear (PL 20.4).

## Procedure

Feed a document and observe the Feed Rolls and prefeed action. **The Feed Rolls move down.**

**Y N**

Remove following:

- Front Cover (PL 20.1).
- Entrance Tray (PL 20.1).
- Document Feed Lower Chute (REP 5.8).

Check Set Gate Solenoid linkage. If the linkage is good, check the circuit of the Set Gate Solenoid (Figure 1).

Clear the jam and feed a document. **The Document prefeeds into the DADF.**

**Y N**

Remove Rear Cover (REP 5.18). Check Fuse F3 on DADF Control PWB (Figure 4). **Fuse is good.**

**Y N**

Check the +24 VDC wires on the Feed Motor (Figure 2) for a short circuit to frame. If the wires are good, replace the Feed Motor (PL 20.4). Also replace the DADF Control PWB (PL 20.3) if a fuse is not available.

Access the Feed Rolls (REP 5.7). Check the Feed Roll Drives. Repair as required (PL 20.4). If the drives are good, check the circuit of the Feed Motor (Figure 2).

Check the circuit of the Registration Sensor (Figure 3).

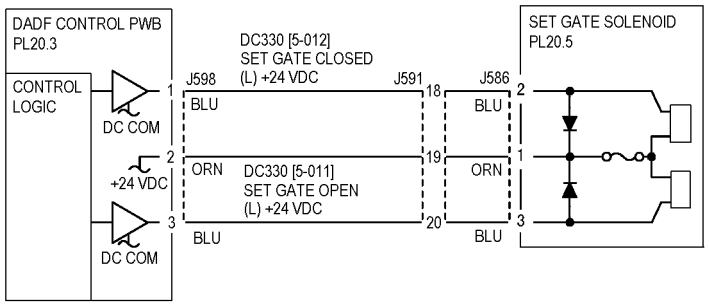


**Figure 1 Set Gate Solenoid CD**

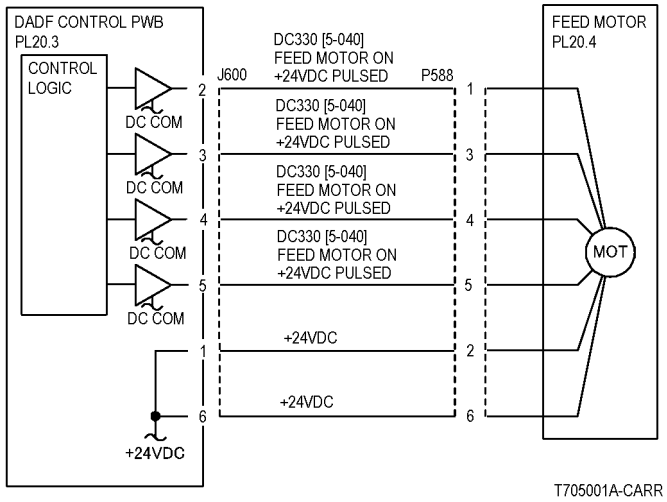


**Figure 2 Feed Motor CD**

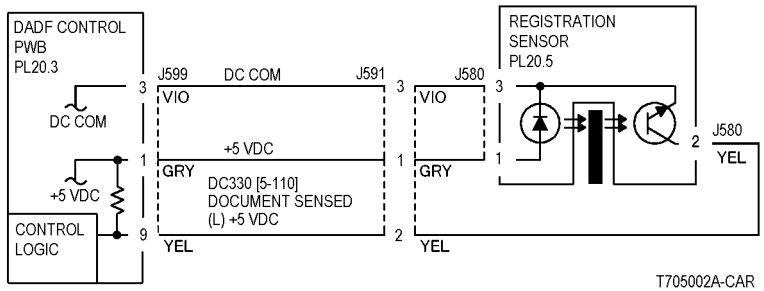


**Figure 3 Registration Sensor CD**

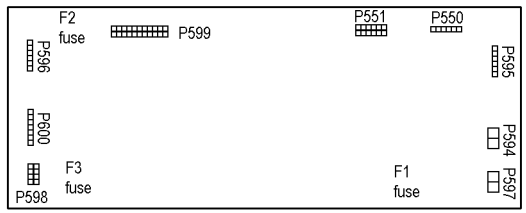


**Figure 4 DADF Control PWB**

# 5-111 Registration Sensor Off

The document did not deactuate the Registration Sensor after the DADF Belt Motor energized.

## Initial Actions

Ensure document path is clear.

## Procedure

Feed a document and observe the Platen Belt. **The Platen Belt rotates.**

**Y** **N**

Remove Rear Cover (REP 5.18).
Check drive components for DADF Belt Motor (PL 20.6).
Check the Fuse F1 on the DADF Control PWB (Figure 3).
If no problems are found, check the circuit of the DADF Belt Motor (Figure 1) (PL 20.6).

Remove the following:

- Front Cover (PL 20.1).
- Document Transport (REP 5.17).

Check the Registration Rolls and Registration Pinch Rolls for drive or contamination problems (PL 20.8).

Reinstall the Document Transport. Feed a document and observe the ends of the Registration Rolls and Registration Pinch Rolls. **The ends of the rolls rotate.**

**Y** **N**

There is a drives problem. Repair as required (PL 20.6) (PL 20.8). Ensure the Registration Pinch Roll Springs are in position (REP 5.15).

There is a blockage problem. Remove the Registration Rolls (REP 5.15). Ensure the document path is free of obstruction.

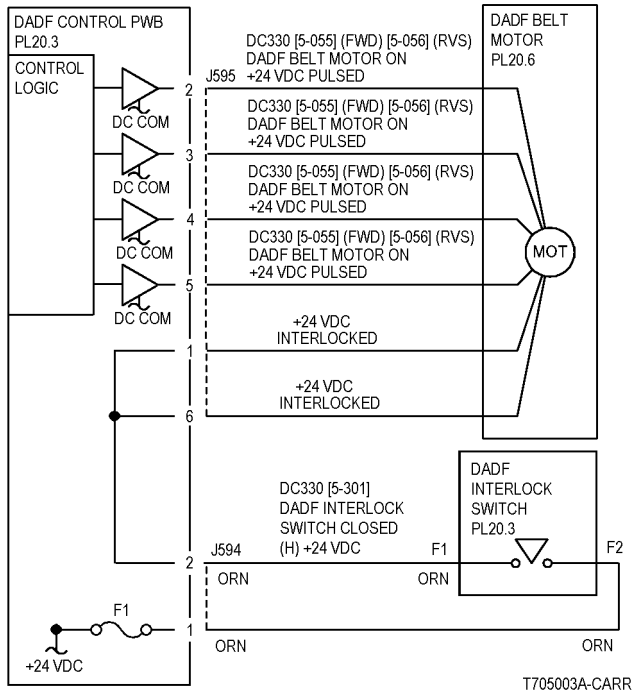


**Figure 1 DADF Belt Motor CD**

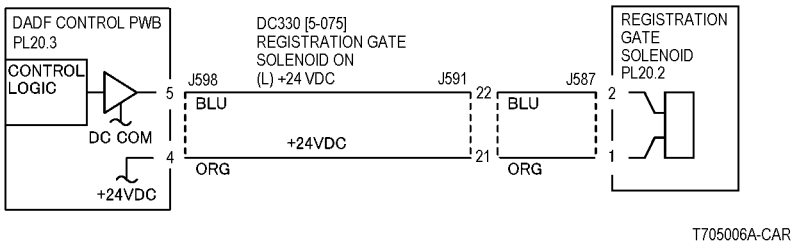


**Figure 2 Registration Gate Solenoid CD**

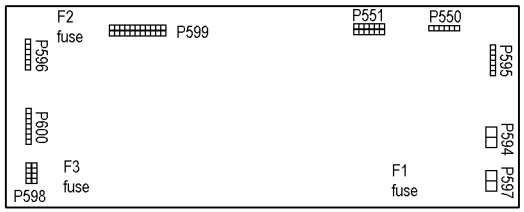


**Figure 3 DADF Control PWB**

# 5-112 Registration Sensor Inversion

The document does not actuate the DADF Registration Sensor after the Belt Motor energized for document inversion.

## Procedure

Select 1 to 1 and make a copy. **The document exist the DADF.**

**Y** **N**

Go to the RAP for the displayed status code.

Enter dC330 [005-119] and press Start. Actuate the Duplex Sensor. **The display changes.**

**Y** **N**

Check the circuit of the Duplex Sensor (Figure 1).

Enter dC330 [005-075] and press Start. **The Registration Gate Solenoid energizes.**

**Y** **N**

Check the circuit of the Registration Gate Solenoid (Figure 2).

Check Following:

- The Platen Belt for contamination, wear and a rotation failure
- The Platen Belt for an improper tension
- The DADF Registration Gate Solenoid for a return failure

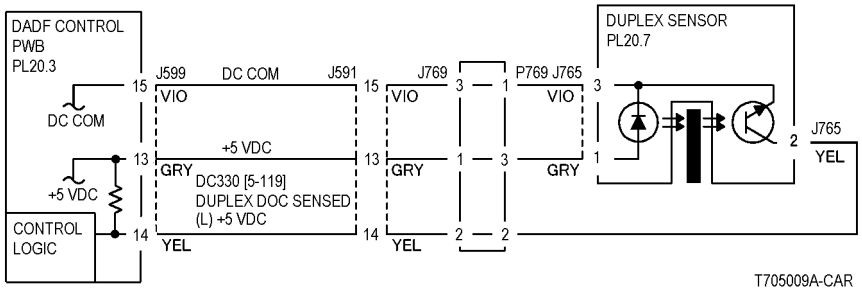


**Figure 1 Duplex Sensor CD**

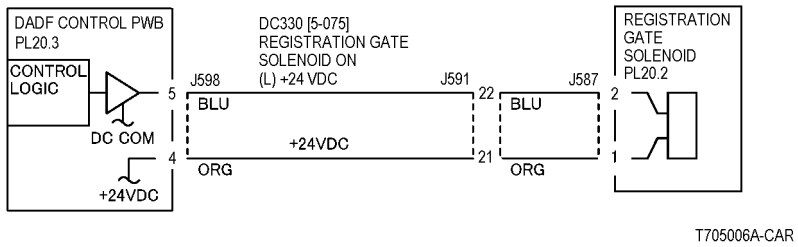


**Figure 2 Registration Gate Solenoid CD**

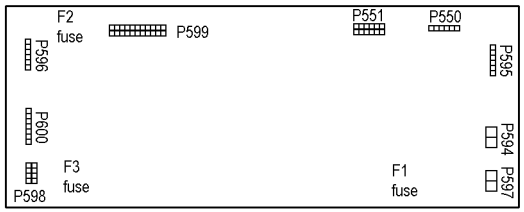


**Figure 3 DADF Control PWB**

# 5-113 Registration Sensor Inversion

The document does not deactuate the DADF Registration Sensor after the Belt Motor energized for document inversion.

## Procedure

Check the following in dC330.

- [5-110] Registration Sensor
- [5-056] DADF Belt Motor
- [5-075] Registration Gate Solenoid

**The components are good.**

**Y N**

Go to the appropriate circuit and check the component.

Check the following:

- The NO. 1/NO. 2 Duplex ROLL for contamination, wear and a rotation failure
- The Duplex Roll Drive for a mechanical load
- The Duplex Chute for deformation
- The Registration Roll for a transportation failure due to contamination, paper chip, wear etc.
- Document Transport Height (ADJ 5.4).
- The wire between the DADF Registration Sensor and the DADF Control PWB for an open circuit or poor contact
- The DADF Control PWB for failure (PL 20.3)

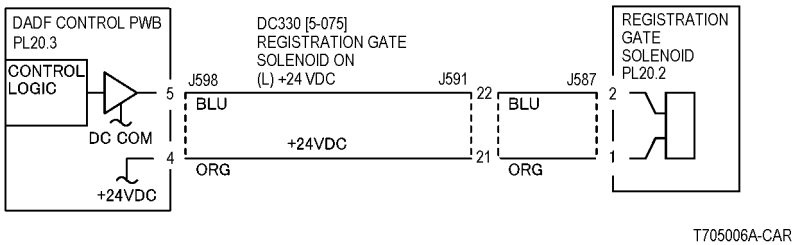


**Figure 1 Registration Gate Solenoid CD**

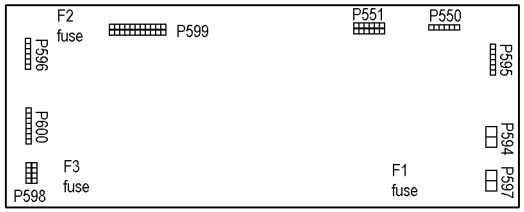


**Figure 2 DADF Control PWB**

# 5-115 Exit Sensor On

The DADF Exit Sensor does not detect a document after the DADF Exit Motor energized at document replacement/output.

## Procedure

Check the following in dC330:

- [5-115] DADF Exit Sensor
- [5-081] DADF Exit Motor

**The components are good.**

**Y N**

Go to the appropriate circuit and check the component.

Check the following:

- The Platen Belt for contamination, wear, tear and a rotation failure
- The NO. 1~4 Belt Pinch RolLs for a rotation failure.
- The Platen Belt for an improper tension.
- The Platen Glass for contamination, a foreign substance and a high friction coefficient
- Document Transport Height (ADJ 5.4).
- The DADF Exit Sensor for an improper installation.
- The DADF Control PWB for a failure (PL 20.3).
- The Exit Lower Chute for correct installation.

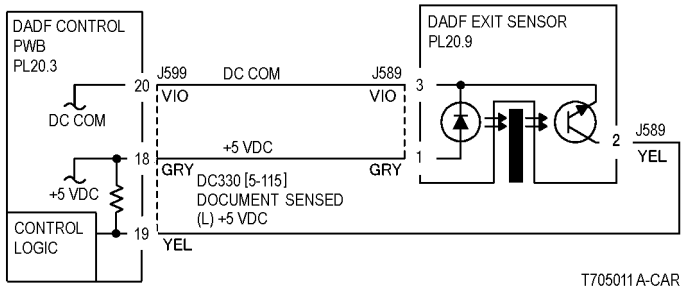


**Figure 1 DADF Exit Sensor CD**

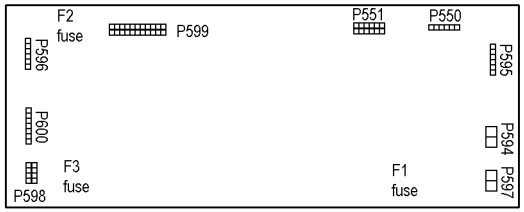


**Figure 2 DADF Control PWB**

# 5-116 Exit Sensor Off

The document does not deactuate the DADF Exit Sensor after the DADF Exit Sensor actuated.

## Procedure

Check the following in dC330:

- [5-115] DADF Exit Sensor
- [5-081] DADF Exit Motor (Check Fuse F2 on DADF PWB)

**The components are good.**

**Y** **N**

Go to the appropriate circuit and check the component

Check the following:

- The Exit Roll for contamination, wear and a rotation failure
- The Exit Upper/lower Chute for deformation
- The Eliminator for deformation
- The Exit Roll Drive Belt for disengagement and damage
- The DADF Control PWB for failure (PL 20.3).

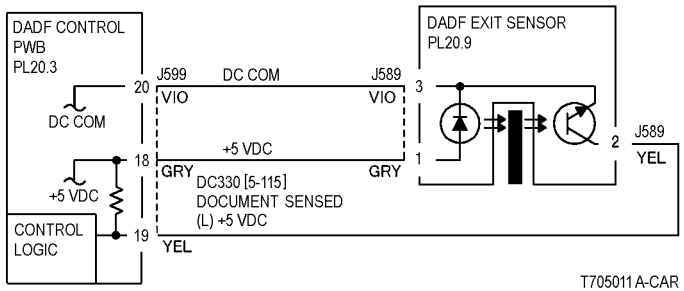


**Figure 1 DADF Exit Sensor CD**

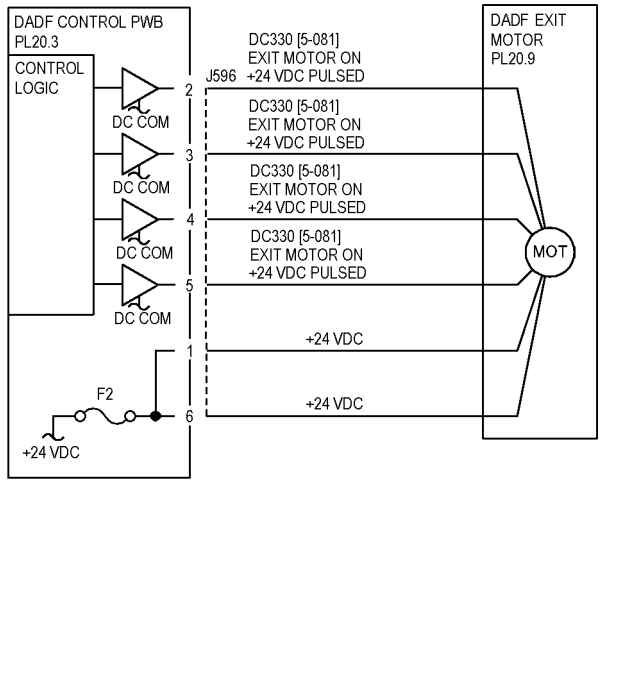


**Figure 2 Exit Motor CD**

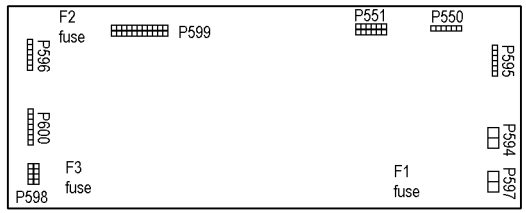


**Figure 3 DADF Control PWB**

# 5-195 Document Size Mismatch

Different sized documents are detected in the NO MIX mode.

## Procedure

Check the following in dC330:

- [5-150] DADF Size Sensor 1 (Front)
- [5-151] DADF Size Sensor 2 (Rear)

**The components are good.**

**Y N**

Go to the appropriate circuit and check the component.

Check the following:

- The SIZE SENSOR for correct installation
- Multiple feed due to an improper retard pressure
- DADF document skew
- Document for damage, out of specification and an improper loading
- The DADF Control PWB for failure (PL 20.3).
- Different document size (such as Mixed documents)

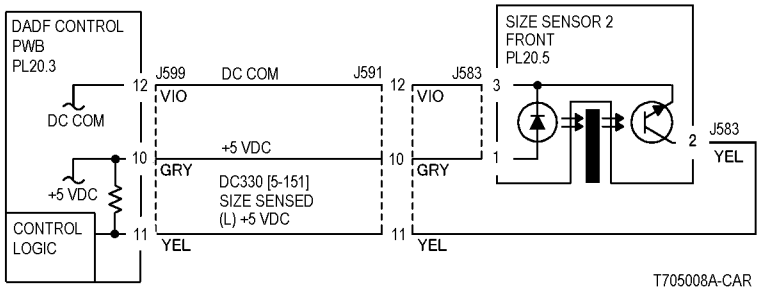


**Figure 1 Size Sensor 2 Front CD**

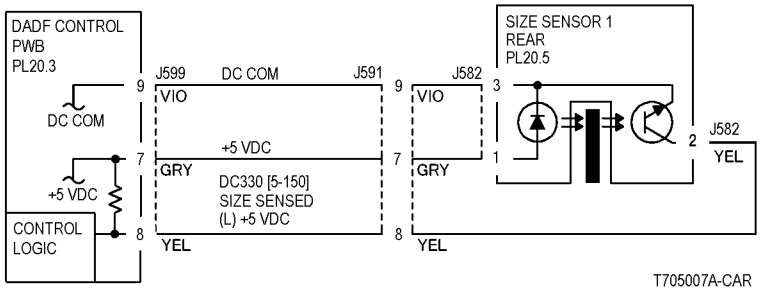


**Figure 2 Size Sensor 1 Rear CD**

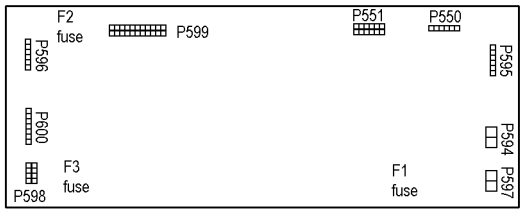


**Figure 3 DADF Control PWB**

# 5-274 Original Size Sensor

At power on, the DADF Registration Sensor turns OFF, and the DADF Size Sensor 1 or the DADF Size Sensor 2 turns ON when the document is loaded. (Size Sensor detection failure)

## Procedure

Enter [5-150] and press Start. press Start. actuate sensor. **The display changes?**

**Y** **N**

Remove DADF Entrance Tray (PL 20.1). Remove the DADF Size Sensor 1 j582 (REP 5.12). **The display changes**

**Y** **N**

Disconnect j599 on the DADF Control PWB. Measure the resistance between the pin j599-8 and the frame. **Resistance 3 Ohm or less.**

**Y** **N**

Replace DADF Control PWB (PL 20.3).

Check wire between DADF Size Sensor 1 j582-2 and DADF Control PWB j599-8 for a short circuit to frame.

Replace DADF Size Sensor 1 (PL 20.5).

Enter dC330 [005-151] and press Start. **H is displayed.**

**Y** **N**

Remove the DADF Entrance Tray (PL 20.1). Remove the DADF Size Sensor 2 j583. **The display changes.**

**Y** **N**

Disconnect j599 on the DADF Control PWB. Measure the resistance between j599-11 and frame. **The resistance 3 Ohm or less.**

**Y** **N**

Replace DADF Control PWB (PL 20.3).

Check the wire between the DADF Size Sensor 1 j583-2 and the DADF Control PWB j599-11 for a short circuit to the frame.

Replace DADF Size Sensor 2 (PL 20.5).

Replace DADF Control PWB (PL 20.3).

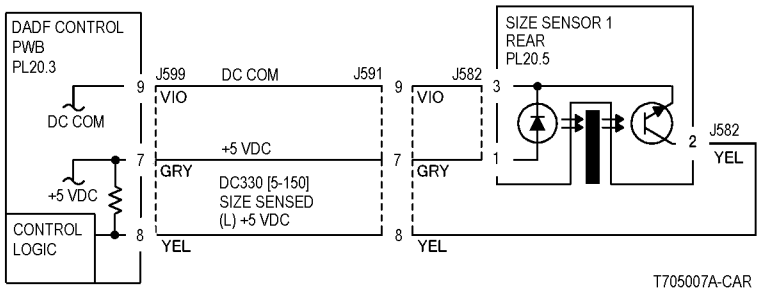


**Figure 1 Size Sensor 1 Rear CD**

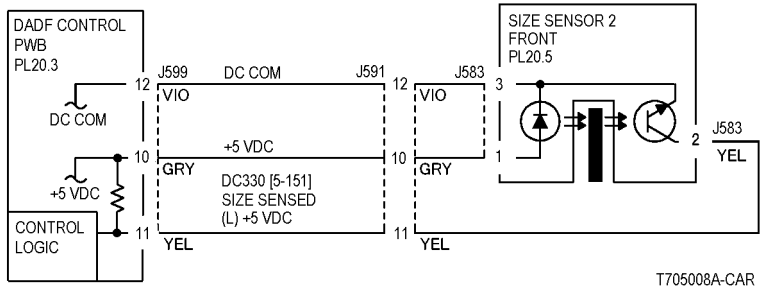


**Figure 2 Size Sensor 2 Front CD**

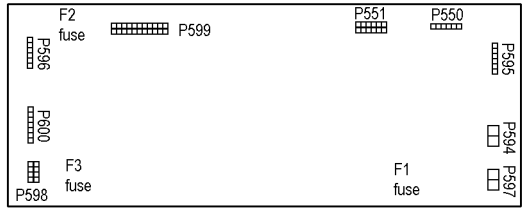


**Figure 3 DADF Control PWB**

# 5-275 DADF Ram Failure

RAM failure of the DADF PWB.

## Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the DADF Control PWB (PL 20.3).

# 5-301 Top Cover Interlock Open

The Top Cover is open.

## Procedure

Manually actuate DADF Top Cover Interlock Switch (front/rear) at the same time. **5-301 is cleared.**

**Y N**

Remove DADF Rear Cover (REP 5.18). Close the DADF Top Cover. **+5VDC is measured between the DADF Control PWB j599-17 (+) and GND (-).**

**Y N**

**+5VDC is measured between the DADF Control PWB j599-22 (+) and GND (-).**

**Y N**

Replace the DADF Control PWB (PL 20.3).

Cheat Pin j590-1 and Pin 2 of the DADF Top Cover Rear Interlock Switch. **5-301 is cleared.**

**Y N**

Check the wire between the Top Cover Rear Interlock Switch j590-1 and the DADF Control PWB j599-22, and the wire between the Top Cover Rear Interlock Switch j690-2 and the DADF Control PWB j599-21 for an open circuit or poor contact.

Replace the DADF Top Cover Rear Interlock Switch. (PL 20.2).

Cheat Pin j585-1 and Pin 2 of the DADF Top Cover Front Interlock Switch. **0VDC is measured between the DADF Control PWB j599-17 (+) and GND (-).**

**Y N**

Check the wire between the Top Cover Front Interlock Switch j585-1 and the DADF Control PWB j599-17, and the wire between the Top Cover Front Interlock Switch j585-2 and the DADF Control PWB j599-16 for an open circuit or poor contact.

Replace the DADF Top Cover Front Interlock Switch. (PL20.2)

Mismatching of the DADF Top Cover.
Check the actuator for breakage and bending, and the TOP COVER for correct installation.

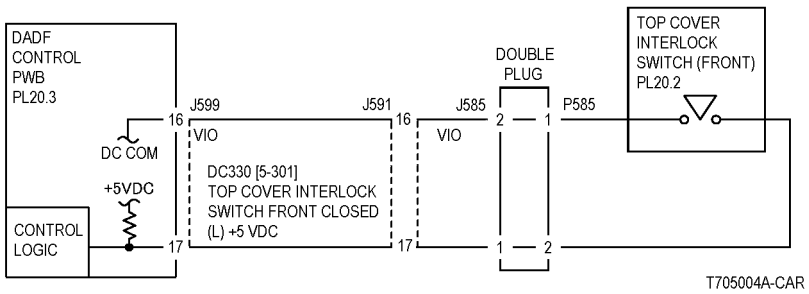


**Figure 1 Top Cover Interlock Switch (front)**

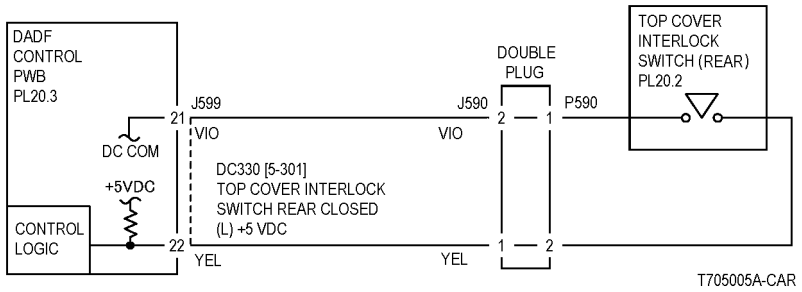


**Figure 2 Top Cover Interlock Switch (rear)**

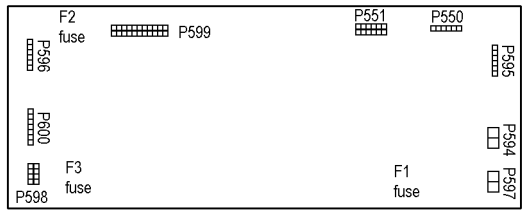


**Figure 3 DADF Control PWB**

# 5-900 Document Sensor Timing

A timing error occurred between document sensing and the opening of a DADF Interlock.

## Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the DADF Control PWB (PL 20.3).

# 5-901 Power On Document Present

The Document Sensor detects a document at Power On.

## Procedure

Check the following in dC330.

ï [5-102] DADF Document Sensor

**The component is good.**

**Y N**

Go to the appropriate circuit and check the component.

Check that the voltage at the customer outlet is in specification and does not drop during machine start.

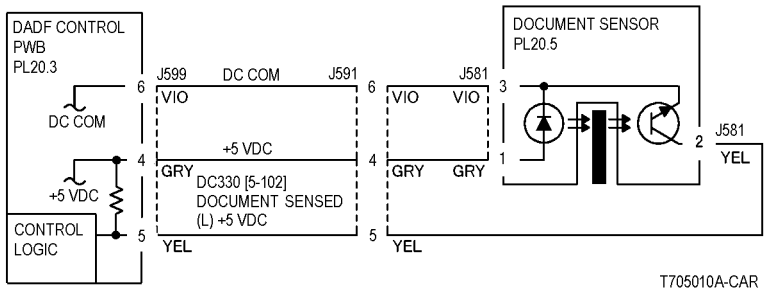


**Figure 1 Document Sensor CD**

# 5-902 Power On Registration Sensor

At Power On, the Registration Sensor detected a document when the Top Cover/platen Interlock was closed.

## Procedure

Check the following in dC330.

ï [5-110] Registration Sensor

**The component is good.**

**Y N**

Go to the appropriate circuit and check the component.

Check that the voltage at the customer outlet is in specification and does not drop during machine start.

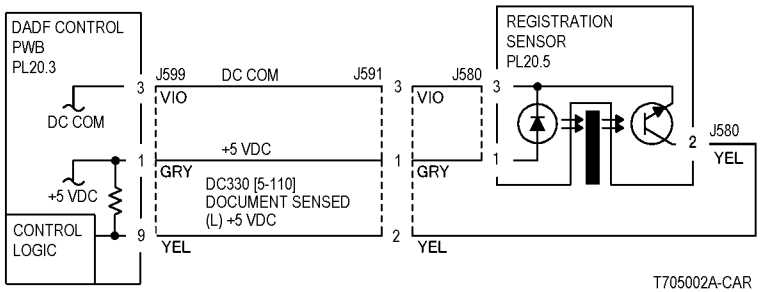


**Figure 1 Registration Sensor CD**

# 5-903 Power On Exit Sensor

At Power On, the DADF Exit Sensor detected a document when the Top Cover/platen Interlock was closed.

## Procedure

Check the following in dC330.

ï [5-115] DADF Exit Sensor

**The component is good.**

**Y N**

Go to the appropriate circuit and check the component.

Check that the voltage at the customer outlet is in specification and does not drop during machine start.

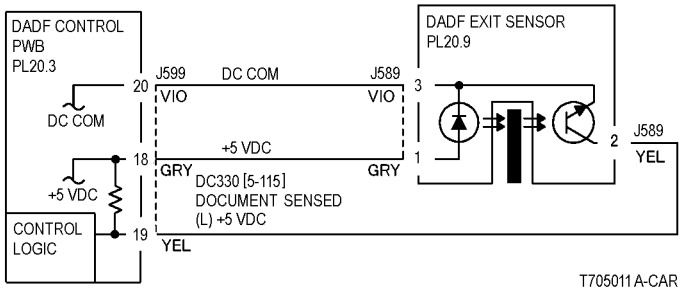


**Figure 1 Exit Sensor CD**

# 5-904 Power On Duplex Sensor

At Power On, the DADF Duplex Sensor detected a document when the Top Cover/platen Interlock was closed.

## Procedure

Check the following in dC330.

ï [5-119] DADF Duplex Sensor

**The component is good.**

**Y N**

Go to the appropriate circuit and check the component.

Check that the voltage at the customer outlet is in specification and does not drop during machine start.

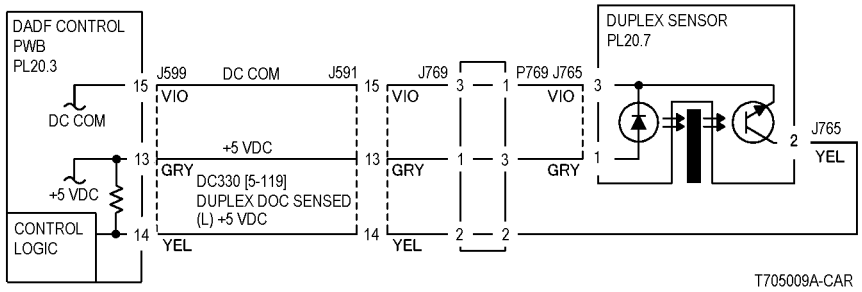


**Figure 1 Duplex Sensor CD**

# 5-940 Document Removed During Start

Control Logic detected that the document was removed immediately after the DADF started.

## Procedure

Rerun job. **5-940 is declared again.**

**Y** **N**

Return to Service Call Procedures.

Replace the DADF Control PWB (PL 20.3).

# 5-941 Document Miscount

Document miscount.

## Procedure

Rerun job. **5-941 is declared again.**

**Y** **N**

Return to Service Call Procedures.

Replace the DADF Control PWB (PL 20.3).

# 6-277 IISS DADF Communication

Communication cannot be established between the IIT/IPS and the DADF Control PWB.

## Procedure

Turn on the power. **The CR4 on the DADF Control PWB illuminates.**

**Y N**

**+5VDC is measured between the DADF Control PWB J550-6 (+) and GND (-).**

**Y N**

Check the +5VDC circuit to the DADF Control PWB j550-6 by referring to Chapter 7 Wiring Data (DADF+5VDC)

Replace the DADF Control PWB (PL 20.3).

Turn off the power. Check conductivity of the following:

Between IIT/IPS PWB j725-20 and DADF Control PWB j755-a1

Between IIT/IPS PWB j725-19 and DADF Control PWB j551-a2

Between IIT/IPS PWB j725-18 and DADF Control PWB j551-a3

Between IIT/IPS PWB j725-17 and DADF Control PWB j551-a4

**The resistance is 1 Ohm or less for all wires.**

**Y N**

Check wires with more than 1 Ohm for an open circuit or poor contact.

Replace the following parts:

DADF Control PWB (PL 20.3)

IIT/IPS PWB (PL 18.3)

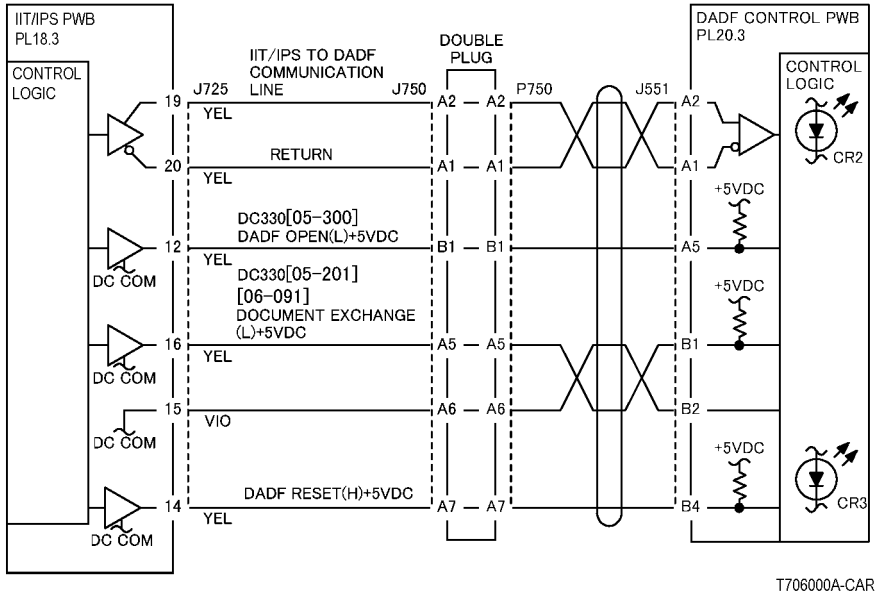


**Figure 1 IIT DADF Communication CD**

## 6-312 IIT Memory Hot Line

The system detected an open circuit in the IIT Memory Hot Line.

### Procedure

Check connections at IIT/IPS PWB. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the IIT/IPS PWB (PL 18.3).

## 6-340 IISS RAM TEST ERROR

At power on, the system detected a IIT/IPS PWB RAM test error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the IIT/IPS PWB (PL 18.3).

## 6-345 IISS EEPROM

- The NVM value cannot be written at the IIT/IPS PWB Write.
- A communication failure with the EEPROM was detected.

### Procedure

Check connections at IIT/IPS PWB. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the IIT/IPS PWB (PL 18.3).

# 6-355 IPS Fan

IPS Fan failure.

## Procedure

Enter dC330 [006-014] and press Start. **The IPS FAN energizes.**

**Y N**

**+24VDC is measured between the IIT/IPS PWB j725-2 (+) and GND (-)**

**Y N**

Visually check the F6 Fuse on the IIT/IPS PWB. **The Fuse is open.**

**Y N**

Turn OFF the power. Disconnect the IIT LVPS j702 and turn the power ON. **+24VDC is measured between the IIT LVPS j702-1 (+) and GND (-)**

**Y N**

Check the power (ACH) to the IIT LVPS. If no problems are found, replace the IIT LVPS (PL 18.4)

Check for a short circuit by referring to Chapter 7 Wiring Data ( IIT+24VDC)

Replace the IIT/IPS PWB (PL 18.3)

Enter dC330 [006-014] and press Start. **+24VDC is measured between the IIT/IPS PWB j722-b8 (+) and GND (-).**

**Y N**

Replace the IIT/IPS PWB (PL 18.3)

Turn the power OFF. Check the conductivity of the following. If no problems are found, replace the IPS FAN (PL 18.4)

Between the IIT/IPS PWB j722-b8 and the IPS FAN j738-1

Between the IIT/IPS PWB j722-b9 and the IPS FAN j738-2

Between the IIT/IPS PWB j722-b10 and the IPS FAN j738-3

Between the IIT/IPS PWB j722-b11 and the IPS FAN j738-4

**+5VDC is measured at the IIT/IPS j722-b10**

**Y N**

Replace the IIT/IPS PWB (PL 18.3)

Replace the IPS FAN (PL 18.4)

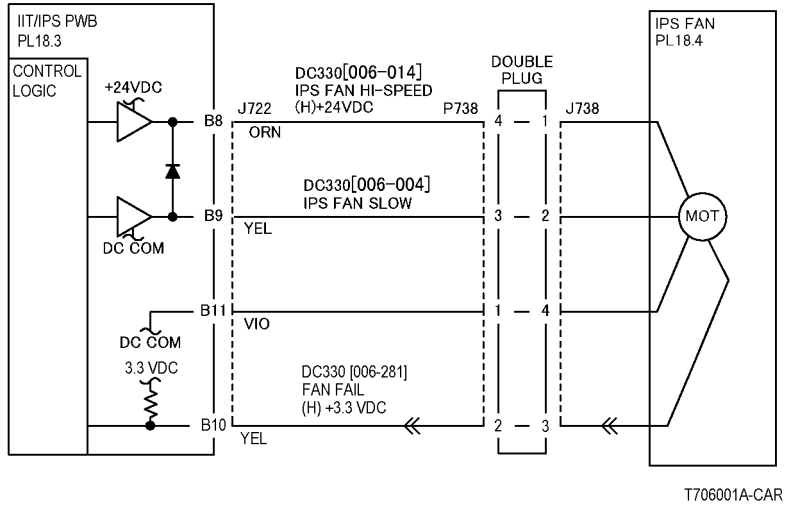


**Figure 1 IPS Fan CD**

# 6-360 Carriage Position

The CRG Position error was detected.

## Procedure

BSD 6.3 BSD 6.12A
Turn off the power. Remove the Platen Glass.
Manually move the Full Rate Carriage. **The Carriage moves easily.**
**Y N**
Clear the Carriage Cable distortion, stranding, damage and foreign substance on the CARRIAGE RAIL etc., causing the load.

Turn on the power. Enter dC330 [006-212] and press Start.
Manually move the Full Rate Carriage and turn the IIT Registration Sensor ON/OFF. **The display changes.**
**Y N**
Repair the IIT Registration Sensor using Generic Transmissive Sensor RAP.

Enter dC330 [006-005] (Scan) or [06-006] (Return) and press Start. **The Carriage Motor energizes**
**Y N**
**+24VDC is measured between the IIT/IPS PWB j725-2 (+) and GND (-)**
**Y N**
Visually check the F6 Fuse on the IIT/IPS PWB. **The Fuse is open.**
**Y N**
Turn OFF the power. Disconnect the IIT LVPS j702 and turn the power ON. **+24VDC is measured between the IIT LVPS j702-1 (+) and GND (-) .**
**Y N**
Check the power (ACH) to the IIT LVPS. If no problems are found, replace the IIT LVPS (PL 18.4)

Check for a short circuit by referring to Chapter 7 Wiring Data ( IIT+24VDC)

Replace the IIT/IPS PWB (PL 18.3)

**When dC330 [006-005] (Scan) or [006-006] (Return) is ON, +24VDC is measured between the Carriage Motor p739-1 (+) and GND (-)**
**Y N**
**In the same Diagnostic, +24VDC is measured between the IIT/IPS PWB j725-1 (+) and GND (-).**
**Y N**
Replace the IIT/IPS PWB (PL 18.3)

Check the wire between the IIT/IPS PWB j725-1~6 and the Carriage Motor p739-1-6 for an open circuit or poor contact.

Check the wire between the IIT/IPS PWB j725 and the Carriage Motor p739-5 for an open circuit or poor contact.
If no problems are found, replace the Carriage Motor (PL 18.5.
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Check the following:

- The Carriage Motor BELT for damage, loosening and disengagement
- The Carriage Capstan Shaft/pulley for wear, distortion and chips
- Full Rate/Half Rate Carriage Position Adjustment (ADJ )

If no problems are found, replace the IIT/IPS PWB (PL 18.3).

# 6-361 Scan Registration Sensor

Registration Sensor failure at CRG INIT

## Procedure

BSD 6.4 BSD 6.12A

Turn off the power. Remove the Platen Glass. Manually move the Full Rate Carriage. **The Carriage moves easily.**

**Y N**

Clear the Carriage Cable distortion, stranding, damage and foreign substance on the Carriage Rail etc., causing the load.

Turn on the power. Enter dC330 [006-212] and press Start. Manually move the Full Rate Carriage and turn the IIT Registration Sensor ON/OFF. **The display changes**

**Y N**

Repair the IIT Registration Sensor using Generic Transmissive Sensor RAP.

Enter dC330 [006-005] (Scan) or [06-006] (Return) and press Start. **The Carriage Motor energizes.**

**Y N**

**+24VDC is measured between the IIT/IPS PWB j725-2 (+) and GND (-).**

**Y N**

Visually check the F6 Fuse on the IIT/IPS PWB. **The Fuse is open.**

**Y N**

Turn OFF the power. Disconnect the IIT LVPS j702 and turn the power ON. **+24VDC is measured between the IIT LVPS j702-1 (+) and GND (-).**

**Y N**

Check the power (ACH) to the IIT LVPS. If no problems are found, replace the IIT LVPS (PL 18.4)

Check for a short circuit by referring to Chapter 7 Wiring Data ( IIT+24VDC)

Replace the IIT/IPS PWB (PL 18.3)

**When dC330 [006-005] (Scan) or [006-006] (Return) is ON, +24VDC is measured between the Carriage Motor p739-1 (+) and GND (-).**

**Y N**

**In the same Diagnostic, +24VDC is measured between the IIT/IPS PWB j725-1 (+) and GND (-).**

**Y N**

Replace the IIT/IPS PWB (PL 18.3).

Check the wire between the IIT/IPS PWB j725-1-6 and the Carriage Motor p739-1-6 for an open circuit or poor contact.

Check the wire between the IIT/IPS PWB j725 and the Carriage Motor p739-5 for an open circuit or poor contact.

If no problems are found, replace the Carriage Motor (PL 18.5).

If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Check the following:

- The Carriage Motor BELT for damage, loosening and disengagement
- The CARRIAGE CAPSTAN SHAFT/PULLEY for wear, distortion and chips
- Full Rate/Half Rate Carriage Position Adjustment (ADJ )

If no problems are found, replace the IIT/IPS PWB (PL 18.3).

# 6-371 Exposure Lamp

Open circuit of the Lamp was detected.

## Procedure

BSD 6.2 BSD 6.12A

Enter dC330 [006-002]. Press **Start.** **The Exposure Lamp illuminates.**

**Y** **N**

Switch off the power. Remove the following Platen Glass and the IPS Cover. Switch on the power.

**There is +24VDC between J720-2 (+) on the IIT/IPS PWB and GND (-).**

**Y** **N**

Remove the DADF and the IIT Top Cover. **There is +24VDC between J 702-1 on the IIT LVPS (+) and GND (-).**

**Y** **N**

Switch off the power. Disconnect J 702 from the IIT LVPS. Switch on the power. **There is +24VDC between the IIT LVPS P 502-1 (+) and GND (-).**

**Y** **N**

Check for IIT LVPS On signal from ESS

Check the input power (ACH) to the IIT LVPS.

If no problems are found, replace the IIT LVPS (PL 18.4)

Check for a short circuit. Refer to the IIT+24VDC wirenet

Check the wires from J 702 on the IIT LVPS to J 720 on the IIT/IPS PWB for an open or short circuit.

**There is +24VDC from J 724-3 on the IIT/IPS PWB to GND.**

**Y** **N**

**There is +24VDC from J 724-1 to J 724-4 on the IIT/IPS PWB.**

**Y** **N**

Replace the IIT/IPS PWB (PL 18.3)

Replace the following parts:

Lamp Wire Harness (PL 18.6)

Lamp Ballast PWB (PL 18.6)

IIT/IPS PWB (PL 18.3)

Enter dC 330 [006-002]. Press **Start**. **The voltage at J 724-3 drops to approximately 7.5 VDC.**

**Y** **N**

Replace the IIT/IPS PWB (PL 18.3)

Replace the following parts:

Exposure Lamp (PL 18.6)

Lamp Wire Harness (PL 18.6)

Lamp Ballast PWB (PL 18.6)

Check the following:

- The White Reference Board on the reverse side of the Platen Glass for excessive contamination
- The optical light path for contamination

If no problems are found, replace the Lens Kit (PL 18.4) (REP 6.4) (ADJ 9.6).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).
If the Exposure Lamp is not brightly lit, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).

# 6-372 ROS Polygon Motor

ROS Motor failure.

## Procedure

BSD 6.9 BSD 6.1

Enter dC330 [006-031]. **+3.3VDC is measured between the MCU PWB j402-3 (+) and GND (-)**

**Y N**

Check the wire between the ROS ASSY Relay Connector j518-4 and the MCU PWB j402-3 for an open circuit.

**+24VDC is measured between the MCU PWB j402-6 (+) and GND (-).**

**Y N**

**+24VDC is measured between the MCU PWB j402-6 (+) and GND (-)**

**Y N**

Check the +24VDC circuit to the MCU MF PWB j402-6 by referring to Chapter 7 Wiring Data ( +24V)

Check the wire between the MCU PWB j402-6 and the ROS ASSY Relay Connector j518-1 for an open circuit.

Enter dC330 [006-031]. **0VDC is measured between the MCU PWB j402-4 (+) and GND (-)**

**Y N**

Check the wire between the MCU PWB j402-4 and the ROS ASSY Relay Connector j518-3 for an open circuit. If no problems are found, replace the PWB (PL 13.1)

Check the wire between the MCU PWB j402-4 and the ROS ASSY Relay Connector j518-3 for an open circuit.

Enter dC330 [006-031]. **The frequency between the MCU PWB j402-4 (+) and GND (-) 2 KHz to 2.5 KHz.**

**Y N**

Check the wire between the MCU PWB j402-2 and the ROS ASSY Relay Connector j518-5 for an open circuit. If no problems are found, replace the PWB (PL 13.1)

Check the wire between the MCU PWB j402-2 and the ROS ASSY Relay Connector j518-5 for an open circuit.

Check the wiring status of the Harness in the ROS ASSY. If no problems are found, replace the ROS ASSY (PL 3.1)

# 6-380 ROS SOS Y Length

The interval of the ROS SOS (Y) signals exceeds the specified value.

## Procedure

BSD 6.5 BSD 6.1

+5VDC is measured between the MCU PWB j401-b20 (+) and GND (-)

**Y** **N**

Replace the MCU PWB (PL 13.1)

Check the wire between the SOS PWB (Y) j516-1 and the MCU PWB j401 for an open circuit.

Check the wire between the LD Drive (Y) j529 and the MCU PWB j401 for an open circuit.

If no problems are found, replace the ROS Assembly (PL 3.1).

If the problem continues, replace the MCU PWB (PL 13.1).

## 6-381 ROS SOS Length Fail M

The interval of the ROS SOS (M) signals exceeds the specified value.

### Procedure

BSD 6.6 BSD 6.1

Check the voltage between j401-b20 (+) and GND (-) on MCU PWB. **+5VDC is measured between the MCU PWB j401-b20 (+) and GND (-).**

**Y N**

Replace the MCU PWB (PL 13.1)

Check the wire between the SOS PWB (M) j517-1 and the MCU PWB j401 for an open circuit.
Check the wire between the LD Drive M j528 and the MCU PWB j401 for an open circuit.
If no problems are found, replace the ROS Assembly (PL 3.1).
If the problem continues, replace the MCU PWB (PL 13.1).

## 6-382 ROS SOS C Length

The interval of the ROS SOS (C) signals exceeds the specified value.

### Procedure

BSD 6.7 BSD 6.1

**+5VDC is measured between the MCU PWB j401-b20 (+) and GND (-).**

**Y N**

Replace the MCU PWB (PL 13.1)

Check the wire between the SOS PWB (C) j514-1 and the MCU PWB j401 for an open circuit.
Check the wire between the LD Drive C j527 and the MCU PWB j401 for an open circuit.
If no problems are found, replace the ROS Assembly (PL 3.1).
If the problem continues, replace the MCU PWB (PL 13.1).

## 6-383 ROS SOS K Length

The interval of the ROS SOS (K) signals exceeds the specified value.

### Procedure

BSD 6.8 BSD 6.1
Check the voltage between the MCU PWB j401-b20 (+) and GND (-). **+5VDC is measured.**

**Y** **N**
Replace the MCU PWB (PL 13.1)

Check the wire between the SOS PWB (K) j515-1 and the MCU PWB j401 for an open circuit.
Check the wire between the LD Drive K j526 and the MCU PWB j401 for an open circuit.
If no problems are found, replace the ROS Assembly (PL 3.1).
If the problem continues, replace the MCU PWB (PL 13.1).

## 6-385 ROS ASIC

Operation failure of the ROS ASIC in the MCU PWB.

### Procedure

BSD 6.5 BSD 6.1
Switch power off then on. **The problem continues.**

**Y** **N**
Return to Service Call Procedures.

Replace the MCU PWB (PL 13.1).

# 6-389 Carriage Over Run Right

The carriage has overrun at the Scan End.

## Procedure

BSD 6.4 BSD 6.12A

Turn off the power. Remove the Platen Glass. Manually move the Full Rate Carriage. **The Carriage moves easily.**

**Y N**

Clear the Carriage Cable distortion, stranding, damage and foreign substance on the CARRIAGE RAIL etc., causing the load.

Turn on the power. Enter dC330 [006-212] and press Start. Manually move the Full Rate Carriage and turn the IIT Registration Sensor ON/OFF. **The display changes.**

**Y N**

Repair the IIT Registration Sensor using Generic Transmissive Sensor RAP.

Enter dC330 [006-005] (Scan) or [06-006] (Return) and press Start. **The Carriage Motor energizes.**

**Y N**

**+24VDC is measured between the IIT/IPS PWB j725-2 (+) and GND (-).**

**Y N**

Visually check the F6 Fuse on the IIT/IPS PWB. **The fuse is open.**

**Y N**

Turn OFF the power. Disconnect the IIT LVPS j702 and turn the power ON. **+24VDC is measured between the IIT LVPS j702-1 (+) and GND (-).**

**Y N**

Check the power (ACH) to the IIT LVPS. If no problems are found, replace the IIT LVPS (PL 18.4)

Check for a short circuit by referring to Chapter 7 Wiring Data ( IIT+24VDC)

Replace the IIT/IPS PWB (PL 18.3)

**When dC330 [006-005] (Scan) or [006-006] (Return) is ON, +24VDC is measured between the Carriage Motor p739-1 (+) and GND (-).**

**Y N**

**In the same Diagnostic, +24VDC is measured between the IIT/IPS PWB j725-1 (+) and GND (-).**

**Y N**

Replace the IIT/IPS PWB (PL 18.3)

Check the wire between the IIT/IPS PWB j725-1~6 and the Carriage Motor p739-1-6 for an open circuit or poor contact.

Check the wire between the IIT/IPS PWB j725 and the Carriage Motor p739-5 for an open circuit or poor contact.

If no problems are found, replace the Carriage Motor (PL 18.5).

If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Check the following:

- The Carriage Motor BELT for damage, slackening and disengagement.
- The CARRIAGE CAPSTAN SHAFT/PULLEY for wear, distortion and chips
- Full Rate/Half Rate Carriage Position Adjustment (ADJ)

If no problems are found, replace the IIT/IPS PWB (PL 18.3).

# 6-390 Carriage Over Run Left

The CRG has overrun at the Home End.

## Procedure

BSD 6.4 BSD 6.12A

Turn off the power. Remove the Platen Glass.

Manually move the Full Rate Carriage. **The Carriage moves easily.**

**Y N**

Clear the Carriage Cable distortion, stranding, damage and foreign substance on the CARRIAGE RAIL etc., causing the load.

Turn on the power. Enter dC330 [006-212] and press Start.

Manually move the Full Rate Carriage and turn the IIT Registration Sensor ON/OFF. **The display changes.**

**Y N**

Repair the IIT Registration Sensor using Generic Transmissive Sensor RAP.

Enter dC330 [006-005] (Scan) or [06-006] (Return) and press Start. **The Carriage Motor energizes.**

**Y N**

**+24VDC is measured between the IIT/IPS PWB j725-2 (+) and GND (-).**

**Y N**

Visually check the F6 Fuse on the IIT/IPS PWB. **The Fuse is open.**

**Y N**

Turn OFF the power. Disconnect the IIT LVPS j702 and turn the power ON. **+24VDC is measured between the IIT LVPS j702-1 (+) and GND (-).**

**Y N**

Check the power (ACH) to the IIT LVPS. If no problems are found, replace the IIT LVPS (PL 18.4)

Check for a short circuit by referring to Chapter 7 Wiring Data ( IIT+24VDC)

Replace the IIT/IPS PWB (PL 18.3)

**When dC330 [006-005] (Scan) or [006-006] (Return) is ON, +24VDC measured between the Carriage Motor p739-1 (+) and GND (-)**

**Y N**

**In the same diagnostic, +24VDC is measured between the IIT/IPS PWB j725-1 (+) and GND (-).**

**Y N**

Replace the IIT/IPS PWB (PL 18.3)

Check the wire between the IIT/IPS PWB j725-1-6 and the Carriage Motor p739-1-6 for an open circuit or poor contact.

Check the wire between the IIT/IPS PWB j725 and the Carriage Motor p739-5 for an open circuit or poor contact.

If no problems are found, replace the Carriage Motor (PL 18.5).

If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Check the following:

- The Carriage Motor BELT for damage, loosening and disengagement
- The CARRIAGE CAPSTAN SHAFT/PULLEY for wear, distortion and chips
- Full Rate/Half Rate Carriage Position Adjustment (ADJ)

If no problems are found, replace the IIT/IPS PWB (PL 18.3).

# 6-391 Scan Initialize Motor Driver

The Carriage Motor error was detected after the initialization was started.

## Procedure

BSD 6.4 BSD 6.1

Turn off the power. Remove the following covers:

- TOP COVER
- IIT REAR COVER

Measure conductivity of the following:

Between the Carriage Motor p739-6 and the IIT/IPS PWB j725-6

Between the Carriage Motor p739-6 and the IIT/IPS PWB j725-5

Between the Carriage Motor p739-4 and the IIT/IPS PWB j725-4

Between the Carriage Motor p739-3 and the IIT/IPS PWB j725-3

Between the Carriage Motor p739-2 and the IIT/IPS PWB j725-2

Between the Carriage Motor p739-1 and the IIT/IPS PWB j725-1

**The resistance is 1 Ohm or less for all wires.**

**Y N**

Check wires with more than 1 Ohm for an open circuit or poor contact.

Replace the Carriage Motor (PL 18.5).

If the problem continues, replace the IIT/IPS PWB (PL 18.3)

# 7-104 Tray 1 Feed Out Sensor

The Tray 1 Feed Out Sensor does not detect paper after feeding from Tray 1.

## Initial Actions

- Check condition and specification of paper in Tray 1.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 1 Feeder Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-100] and press Start. Block and unblock Tray 1 Feed Out Sensor (PL2.3). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-106] and press Start. Block and unblock the Take Away Sensor (PL 16.6). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-029] then dC330 [008-036] and press Start. **The Take Away Motor 1 energizes (PL 15.9).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Replace the Tray Module PWB (PL 16.15).

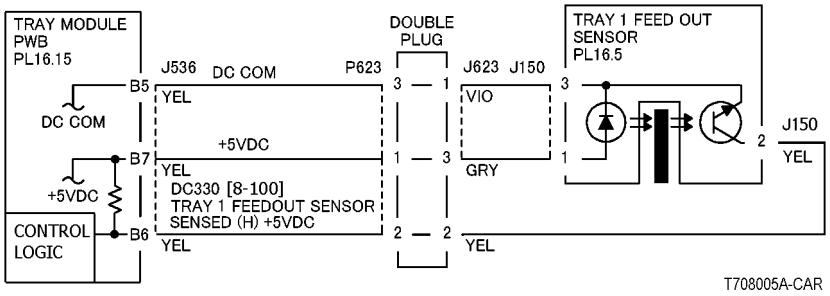


**Figure 1 Tray 1 Feed Out Sensor CD**

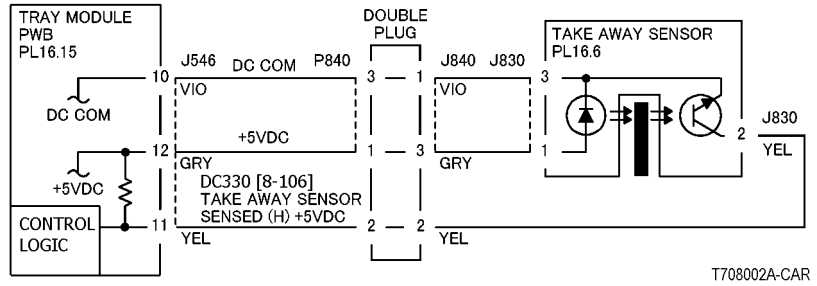


**Figure 2 Takeaway Sensor CD**

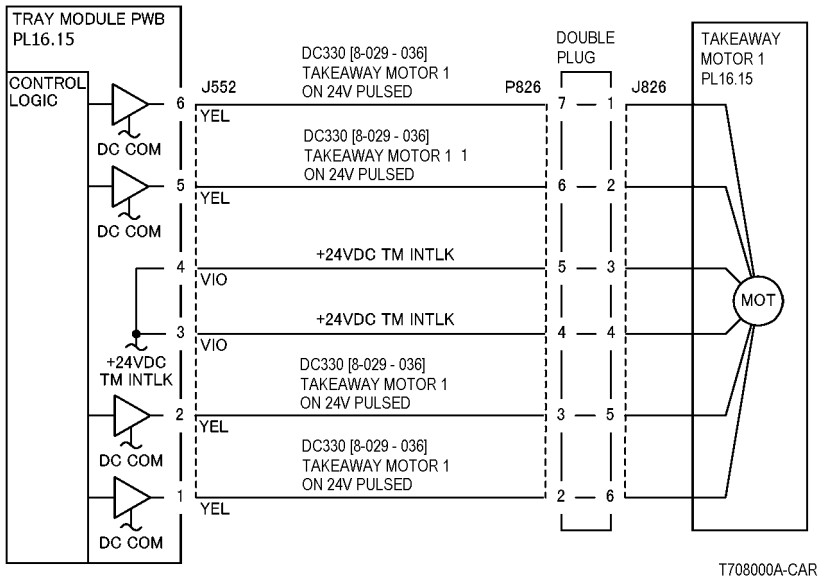


**Figure 3 Takeaway Motor 1 CD**

# 7-105 Tray 1 Misfeed

The Tray 1 Feed Out Sensor does not detect paper after feeding from Tray 1.

## Initial Actions

- Check condition and specification of paper in Tray 1.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 1 Feed Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-100] and press Start. Block and unblock the Tray 1 Feed Out Sensor (PL 2.3). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-001] and press Start. **The Tray 1 Feed/Lift motor energizes (PL 2.4).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [008-029] then dC330 [008-036] and press Start. **The Take Away Motor 1 energizes PL 15.9).**

**Y N**

Go to the OF 99-6 Motor Open RAP.

Replace the I/F PWB PL 9.1.

If the problem continues, replace the MCU PWB (PL 13.1).

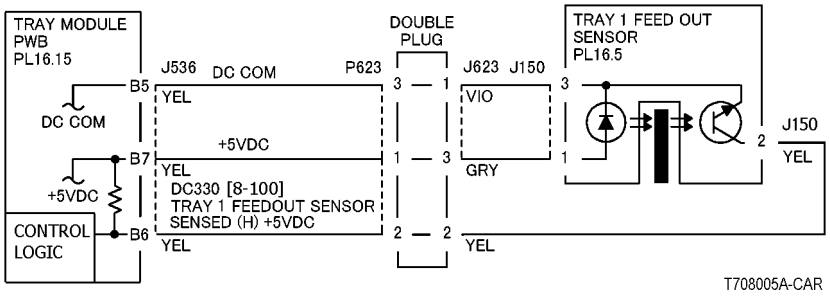


**Figure 1 Tray 1 Feed out Sensor CD**

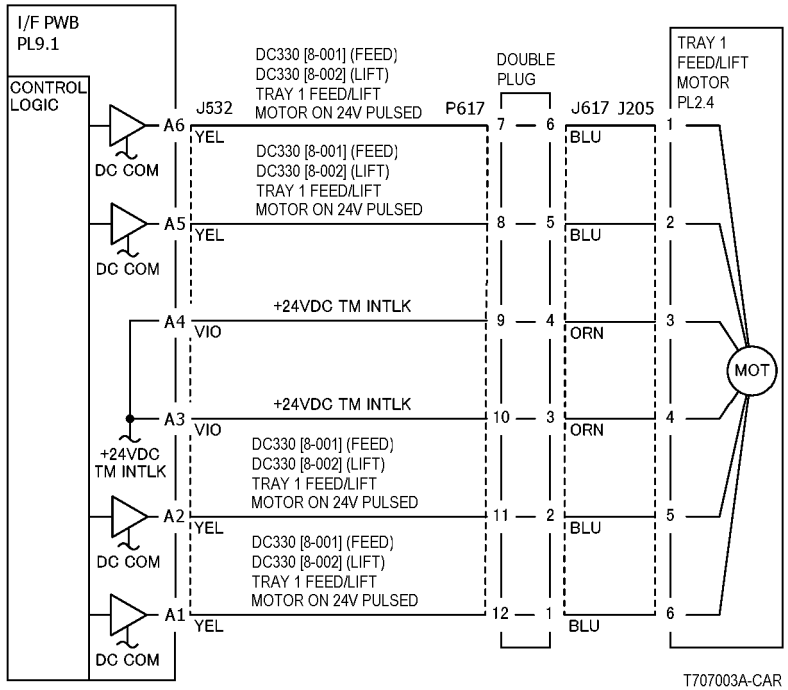


**Figure 2 Tray 1 Feed/Lift Motor CD**

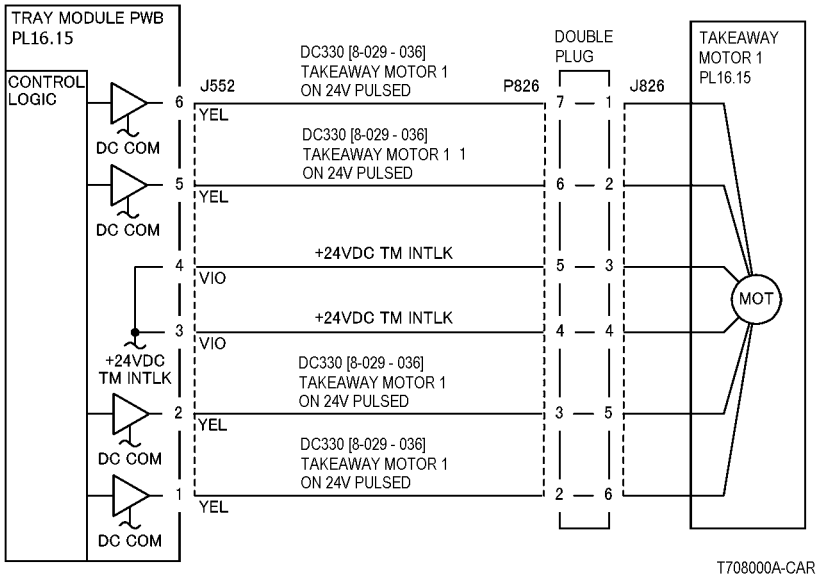


**Figure 3 Takeaway Motor 1 CD**

# 7-110 Tray 2 Misfeed

The Take Away Sensor does not detect paper after feeding from Tray 2.

## Initial Actions

- Check condition and specification of paper in Tray 2.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 2 Feeder Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-106] and press Start. Block and unblock the Take Away Sensor (PL 16.6). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-003] and press Start. **The Tray 2 Feed/Lift motor energizes (PL 15.3).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [008-029] then dC330 [008-036] and press Start. **The Take Away Motor 1 energizes (PL 15.9).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

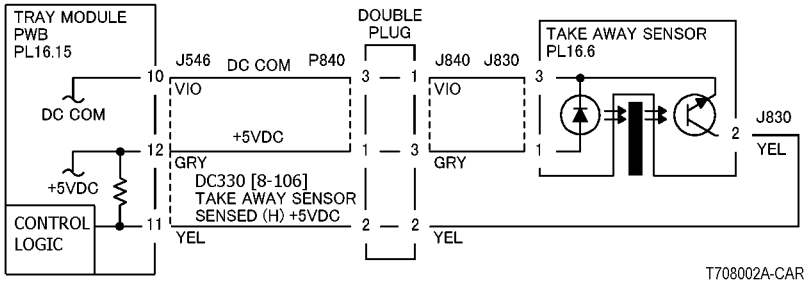


**Figure 1 Takeaway Sensor CD**

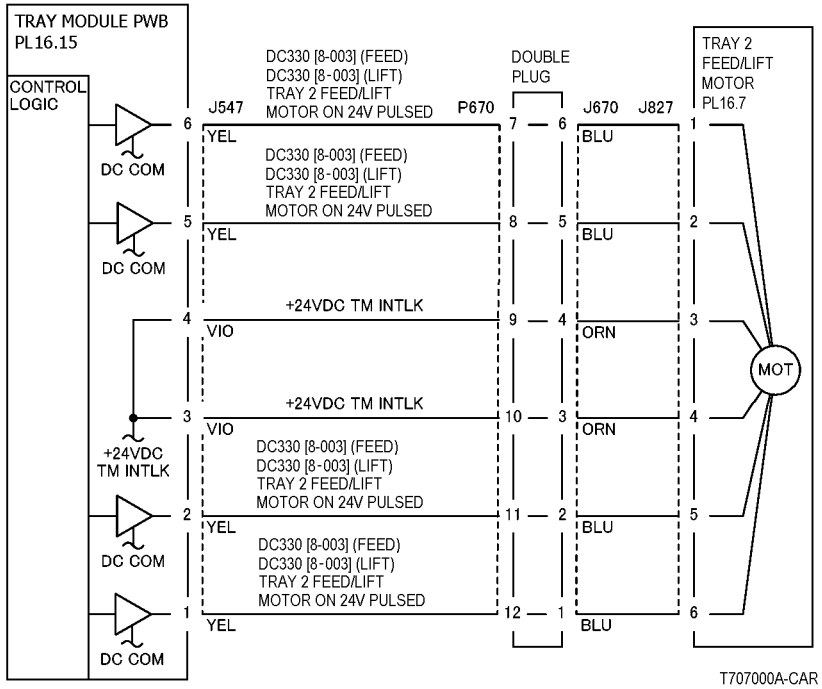


**Figure 2 Tray 2 Feed/Lift Motor CD**

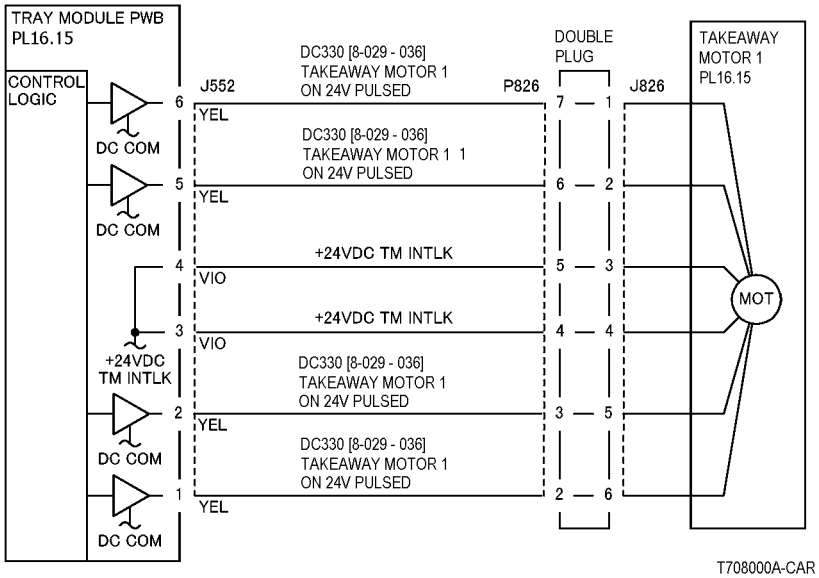


**Figure 3 Takeaway Motor 1 CD**

# 7-115 Tray 3 Misfeed

The Take Away Sensor does not detect paper after feeding from Tray 3.

## Initial Actions

- Check condition and specification of paper in Tray 3.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 3 Feeder Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-102] and press Start. Block and unblock the Tray 3 Feed Out Sensor (PL 15.10). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-005] and press Start. **The Tray 3 Feed/Lift motor energizes (PL 15.6).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [008-029] and press Start. **The Take Away Motor 1 energizes (PL 15.9).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

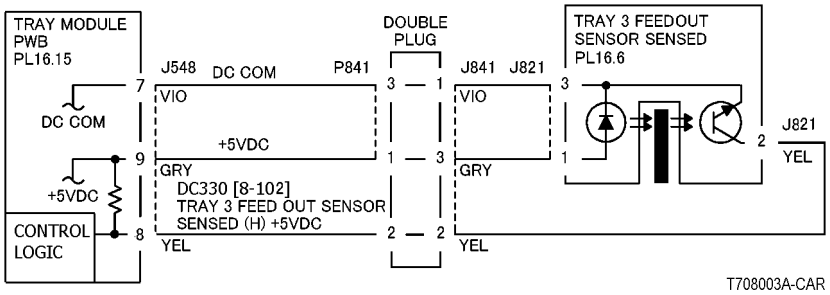


**Figure 1 Tray 3 Feedout Sensor CD**

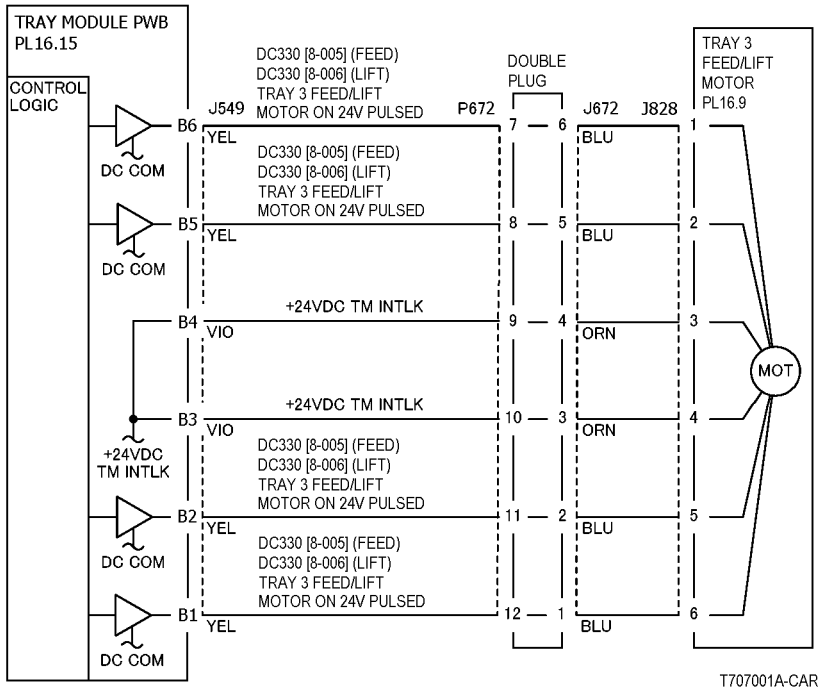


**Figure 2 Tray 3 Feed/Lift Motor CD**

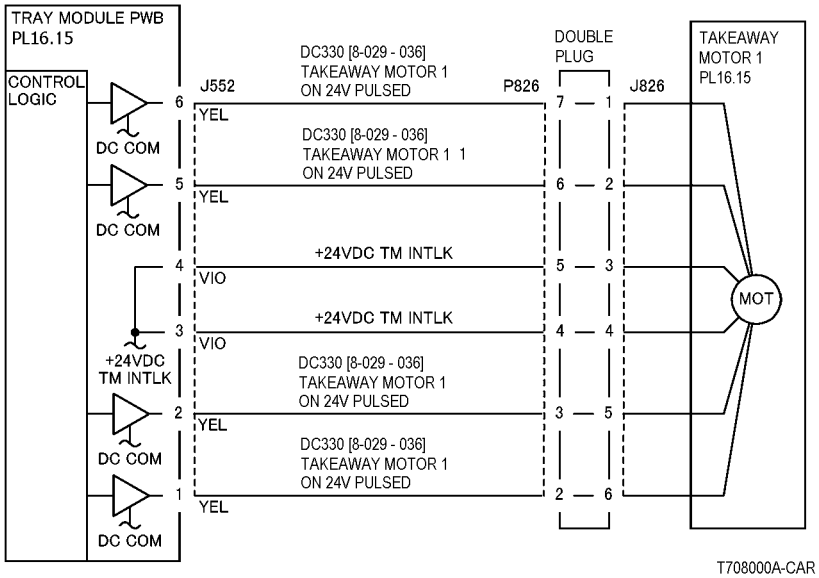


**Figure 3 Takeaway Motor 1 CD**

# 7-119 Tray 4 Misfeed

The Feed Out Sensor does not detect paper after feeding from Tray 4.

## Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path for obstructions.
- Check for wear and clean the Tray 4 Feeder Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-103] and press Start. Block and unblock the Tray 4 Feed out Sensor (PL 16.5). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-007] and press Start. **The Tray 4 Feed/Lift motor energizes (PL 15.7).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [008-029] and press Start. **The Take Away Motor 2 energizes (PL 16.15).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

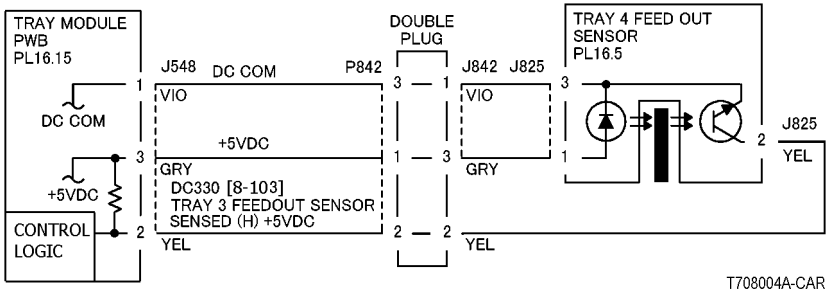


**Figure 1 Tray 4 Feedout Sensor CD**

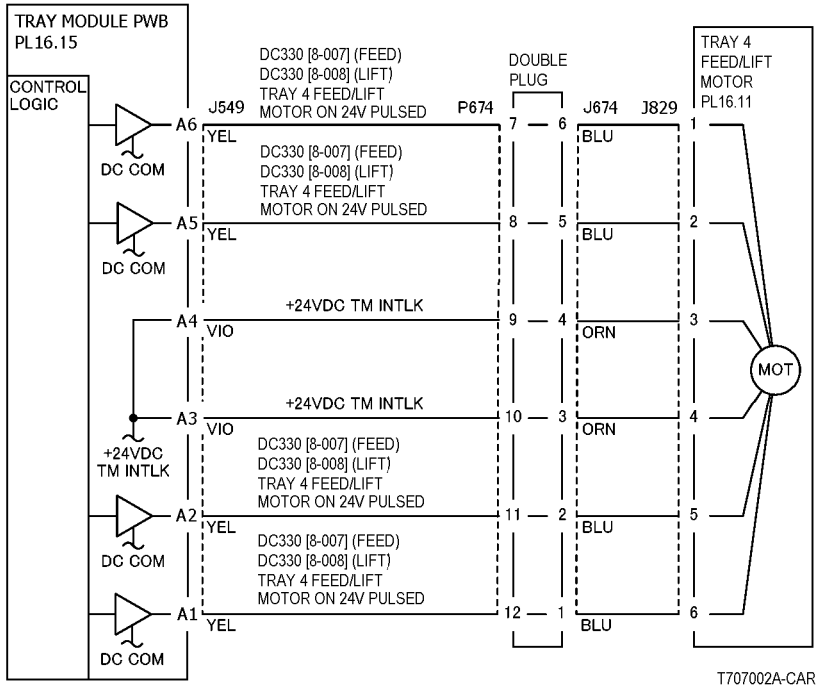


**Figure 2 Tray 4 Feed/Lift Motor CD**

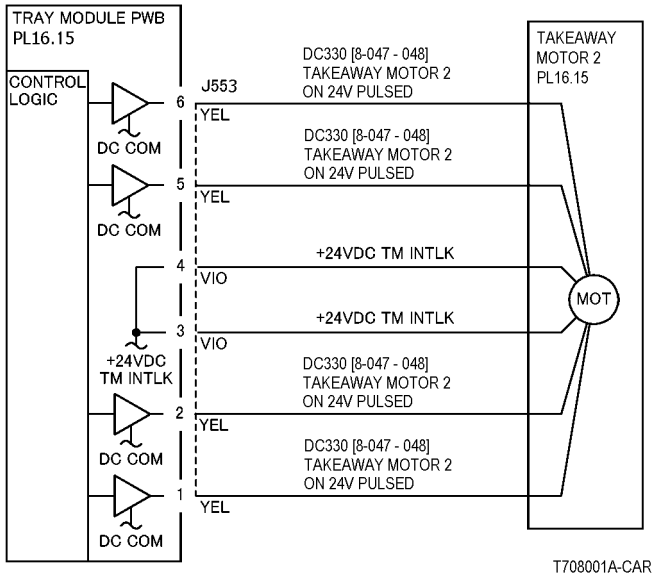


**Figure 3 Takeaway Motor 2 CD**

# 7-122 Tray 4 Opened

The Tray 4 Feed Out Sensor detected paper when Tray 4 is pulled out and pushed in during a print.

## Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path for obstructions and clean the Tray 4 Feed out Sensor.
- Check the Tray 4 mechanical operation.

## Procedure

Enter dC330 [008-103] and press Start. Block and unblock the Tray 4 Feed out Sensor (PL 16.5). **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Check the machine Shutdown History Report. If there is a history of this failure, replace the Tray 4 Feed Out Sensor (PL 16.5).
If the problem continues, replace the Tray Module PWB (PL 16.15).

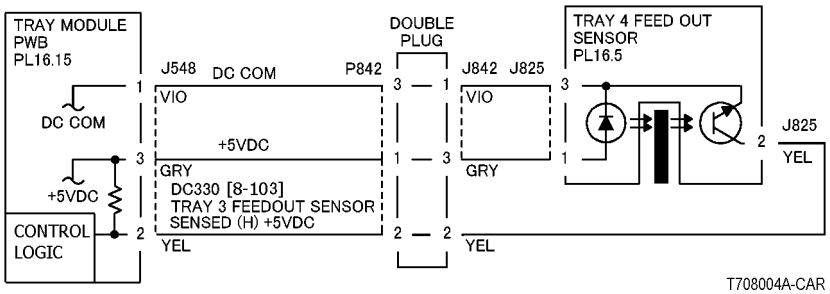


**Figure 1 Tray 4 Feedout Sensor CD**

# 7-250 Tray Communication

Communication fault between Tray Module PWB and MCU PWB.

## Procedure

**There is +5 VDC measured at P/J541-9 on the Tray Module PWB (PL 15.9).**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).
If the problem continues, replace the I/F PWB (PL 13.1)

A

A

**CAUTION**

*ESS PWB and MCU PWB cannot be replaced at the same time.*

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 15.9).
If the problem continues, replace the MCU PWB (PL 13.1).
If the problem continues, replace the ESS PWB (PL13.1).

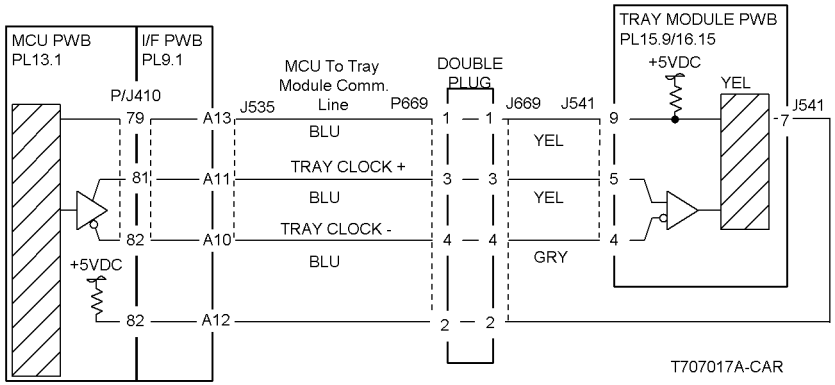


**Figure 1 Tray Communication**

## 7-252 Out Module Logic

Incorrect software data was detected.

### Procedure

Switch the power off then on. **The problem continues.**

**Y N**

Return to Service Call Procedures.

Reinstall the software.

If the problem continues, replace the MCU PWB (PL 13.1).

## 7-270 Tray 1 Paper Size Sensor

An abnormal AD value was detected by the Tray 1 Paper Size Sensor.

### Initial Actions

Ensure that the Paper Guide Tab makes contact with the sensor.

### Procedure

Ensure that Tray 1 is fully seated. **The voltages measured at P/J536-B9 on the I/F PWB corresponds with the table on BSD 7.1**

**Y N**

**There is 3.3VDC measured between P/J115-1 and 3 on the Paper Size Sensor.**

**Y N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Replace the Tray 1 Paper Size Sensor (PL 2.1).

Replace the I/F PWB (PL 9.1).

If the problem continues replace the MCU PWB (PL 13.1).

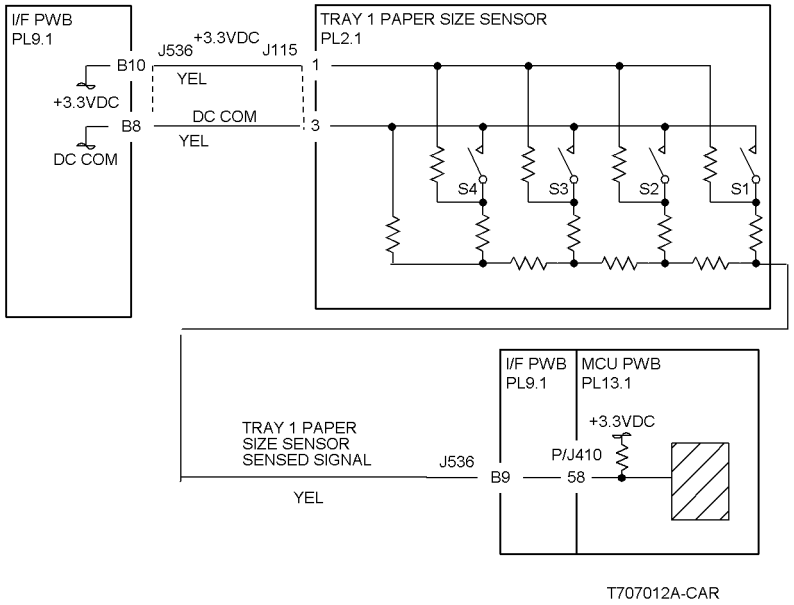


**Figure 1 Tray 1 Paper Size Sensor**

# 7-271 Tray 2 Paper Size Sensor

An abnormal AD value was detected by the Tray 2 Paper Size Sensor.

## Initial Actions

Ensure that the Paper Guide Tab makes contact with the sensor.

## Procedure

Ensure that Tray 2 is fully seated. **The voltages measured at P/J546-8 on the Tray Module PWB corresponds with the table on BSD 7.2**

**Y N**

**There is +5VDC measured between P/J816-1 and 3 on the Tray 2 Paper Size Sensor.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

Replace the Tray 2 Paper Size Sensor (PL 16.1).

Replace the Tray Module PWB (PL 16.15).

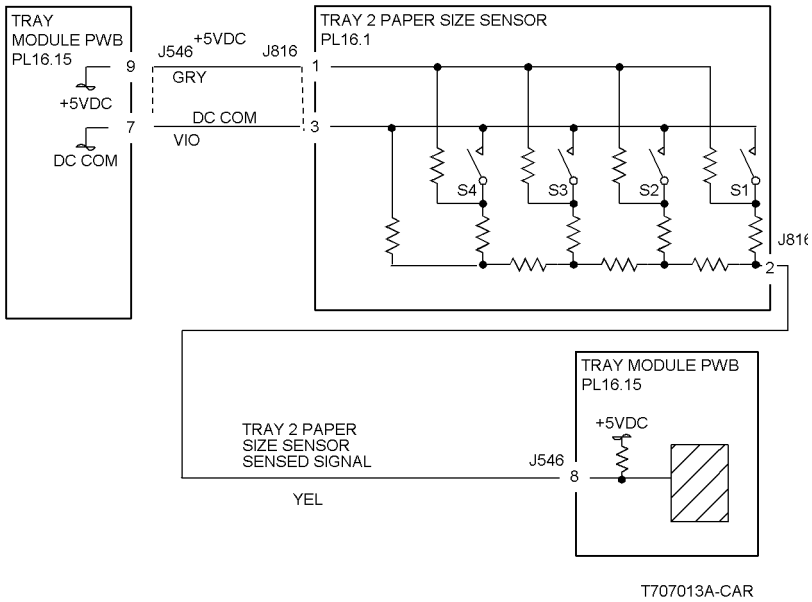


**Figure 1 Tray 2 Paper Size Sensor**

# 7-274 Tray 5 Paper Size Sensor

An abnormal AD value was detected by the MSI Paper Size Sensor.

## Initial Actions

Check the connectors between the Tray 5 Paper Size Sensor and the I/F PWB

## Procedure

Enter dC140 [007-100] and press Start. Move the Tray 5 Paper Size Sensor (PL 2.15). **The AD value changed.**

**Y N**

**There is 3.3VDC measured at P/J265-3 on the Tray 5 Paper Size Sensor.**

**Y N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1)

Enter dC140 [007-100] and press Start. Move the Tray 5 Paper Size Sensor (PL 2.15). **The voltage at P/J265-2 changes.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Tray 5 Paper Size Sensor (PL 2.15).

Replace the MCU PWB (PL 13.1).
If the problem continues, replace the I/F PWB (PL 9.1).

Replace the MCU PWB (PL 13.1).
If the problem continues, replace the I/F PWB (PL 9.1).

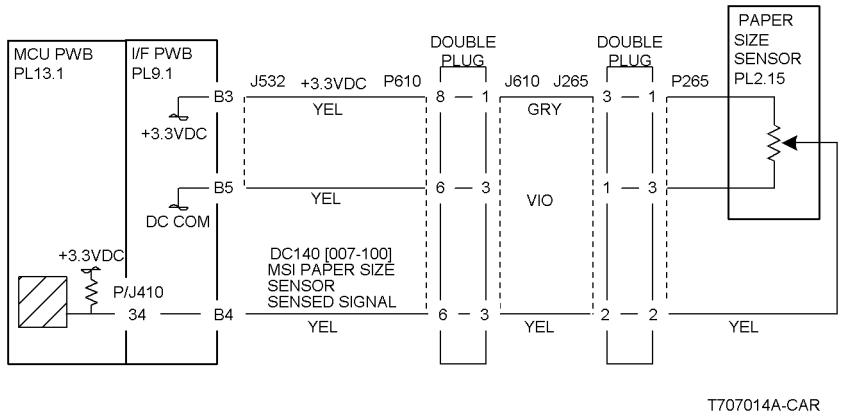


**Figure 1 Tray 2 Paper Size Sensor**

## 7-276 Tray 3 Paper Size Sensor

An abnormal AD value was detected by the Tray 3 Paper Size Sensor.

### Initial Actions

Ensure that the Paper Guide Tab makes contact with the sensor.

### Procedure

Ensure that Tray 3 is fully seated. **The voltages measured at P/J548-11 on the Tray Module PWB corresponds with the table on BSD 7.4**

**Y N**

**There is +5VDC measured between P/J820-1 and 3 on the Tray 3 Paper Size Sensor (PL 16.1).**

**Y N**

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

Replace the Tray 3 Paper Size Sensor (PL 16.1).

Replace the Tray Module PWB (PL 16.15).

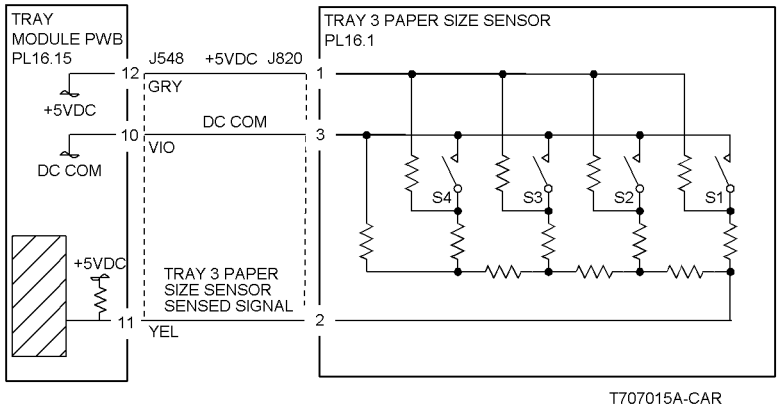


**Figure 1 Tray 3 Paper Size Sensor**

## 7-277 Tray 4 Paper Size Sensor

An abnormal AD value was detected by the Tray 4 Paper Size Sensor.

### Initial Actions

Ensure that the Paper Guide Tab makes contact with the sensor.

### Procedure

Ensure that Tray 4 is fully seated. **The voltages measured at P/J548-5 on the Tray Module PWB corresponds with the table on BSD 7.6**

**Y N**

**There is +5VDC measured between P/J824-1 and 3 on the Tray 4 Paper Size Sensor (PL 16.1).**

**Y N**

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

Replace the Tray 4 Paper Size Sensor (PL 16.1).

Replace the Tray Module PWB (PL 16.15).

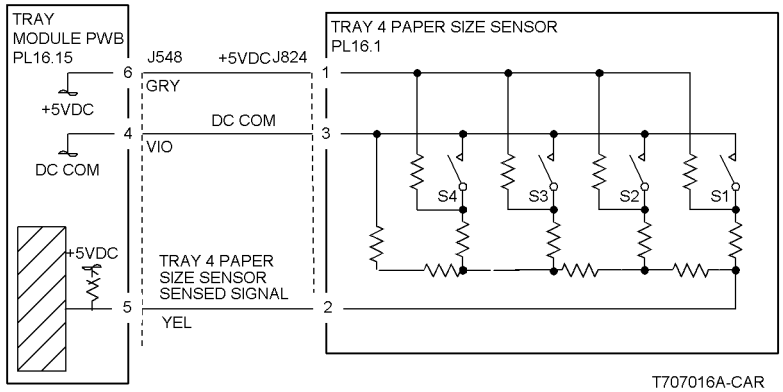


**Figure 1 Tray 3 Paper Size Sensor**

# 7-281 Tray 1 Lift

The Tray 1 Level Sensor does not detect tray lift.

## Initial Actions

Check drive of the following:

- Manually turn the gear at rear of the TRAY 1 to check that the Bottom Plate moves up and down smoothly.
- Gently push Tray 1 in to check the drive transmission is firmly engaged.

## Procedure

Enter dC330 [008-002] and press Start. **The Tray 1 Feed/Lift motor energizes (PL2.4).**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [007-116] and press Start. Open and close Tray 1. **The display changes.**

**Y** **N**

Check the wires and connectors.
If the check is OK, replace the Tray 1 Level Sensor (PL 2.4).
If the problem continues, replace the Tray Module PWB (PL 16.15).

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

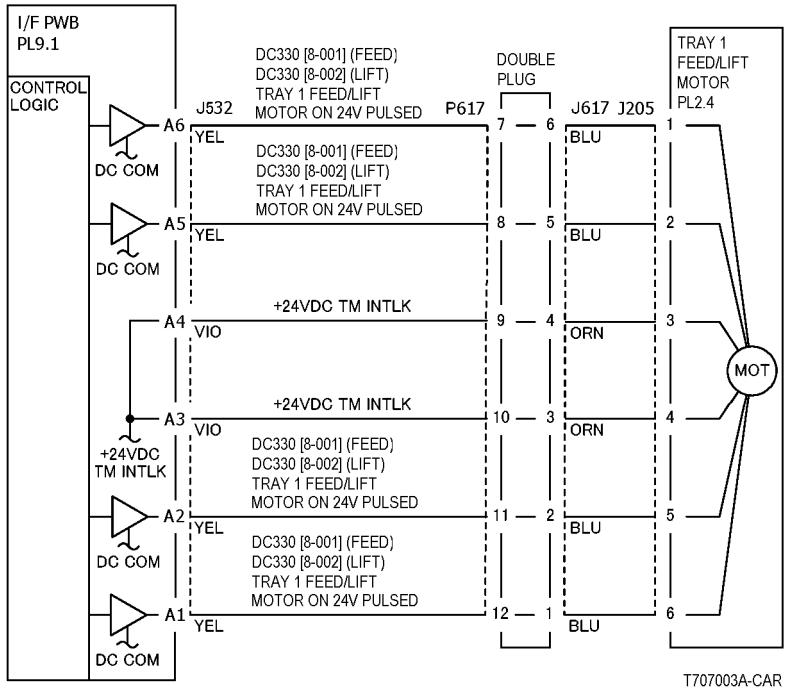


**Figure 1 Tray 1 Lift/Feed Motor CD**

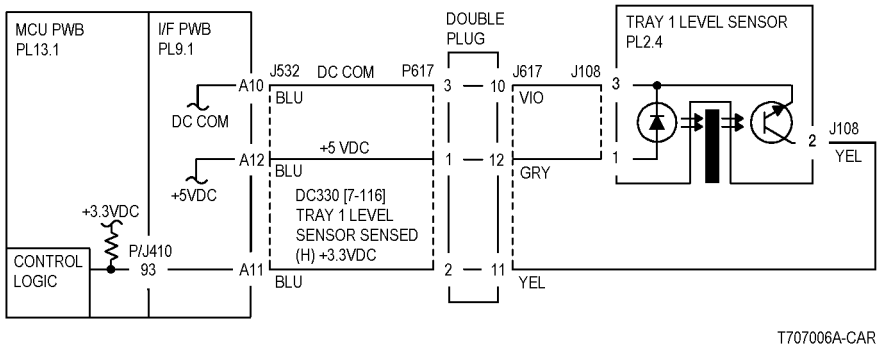


**Figure 2 Tray 1 Level Sensor CD**

# 7-282 Tray 2 Lift

The Tray 2 Level Sensor does detect tray lift.

## Initial Actions

Check drive of the following:

- ï Manually turn the gear at rear of the Tray 2 to check that the Bottom Plate moves up and down smoothly.
- ï Gently push Tray 2 in to check the drive transmission is firmly engaged.

## Procedure

Enter dC330 [008-004] and press Start. **The Tray 2 Feed/Lift motor energizes (PL16.7).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [007-117] and press Start. Open and close Tray 2. **The display changes.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Tray 2 Level Sensor PL 16.7.

If the problem continues, replace the Tray Module PWB (PL 16.15).

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

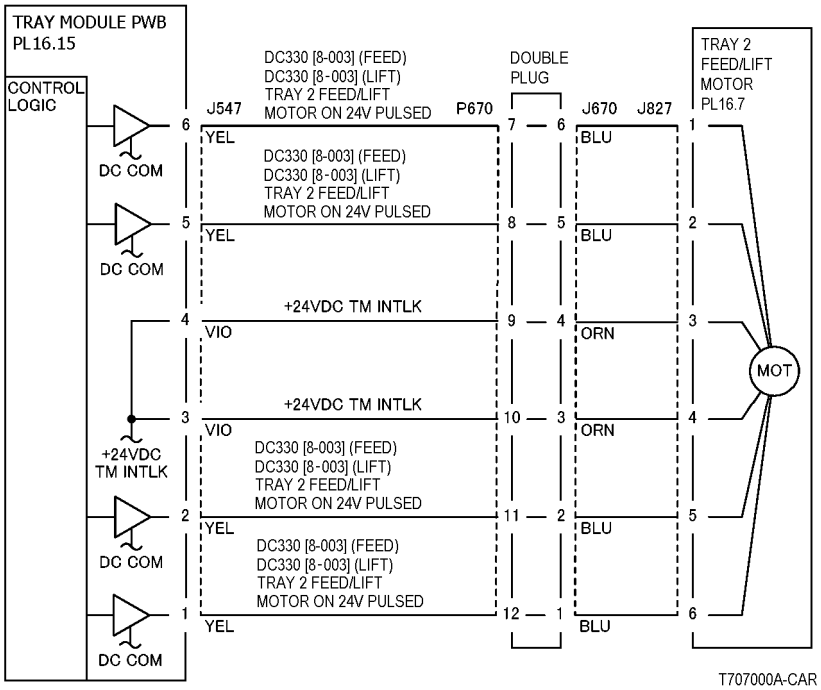


**Figure 1 Tray 2 Lift/Feed Motor CD**

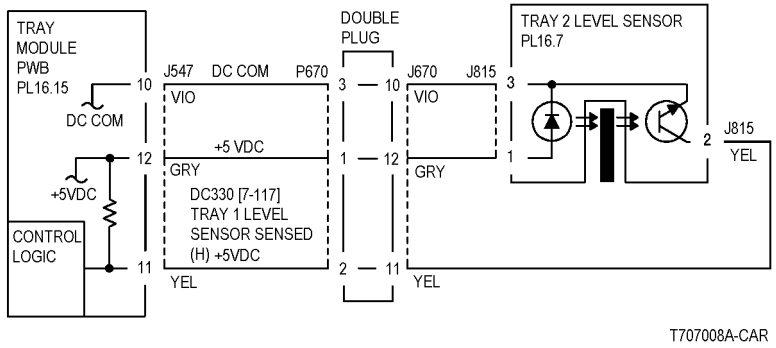


**Figure 2 Tray 2 Level Sensor CD**

# 7-291 Tray 3 Lift

The Tray 3 Level Sensor does detect tray lift.

## Initial Actions

- Manually turn the gear at rear of the TRAY 3 to check that the Bottom Plate moves up and down smoothly.
- Gently push Tray 3 in to check the drive transmission is firmly engaged.

## Procedure

Enter dC330 [008-006] and press Start. **The Tray 3 Feed/Lift motor energizes (PL 16.9).**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [007-118] and press Start. Open and close Tray 3. **The display changes.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Tray 3 Level Sensor PL 16.7.

If the problem continues, replace the Tray Module PWB (PL 16.15).

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

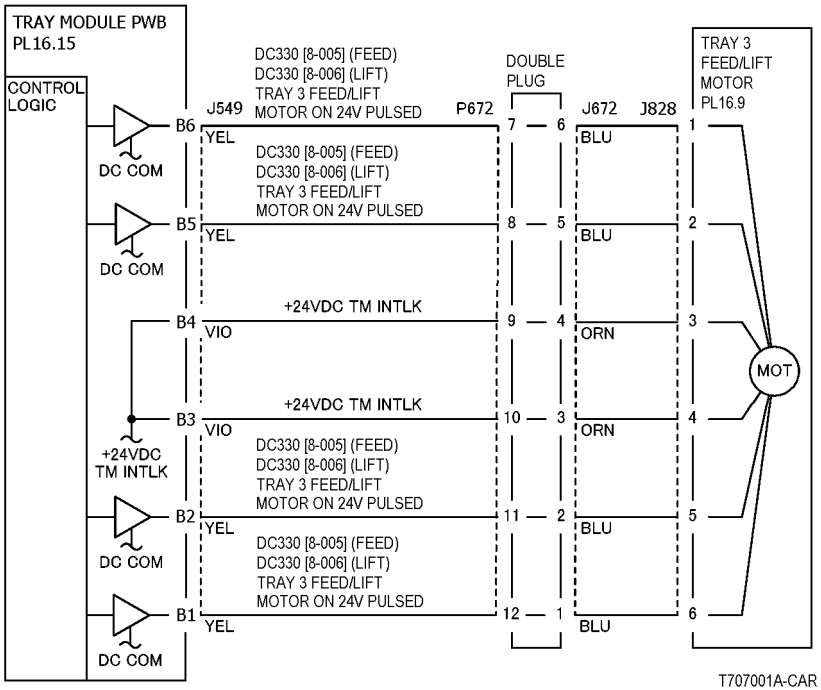


**Figure 1 Tray 3 Lift/Feed Motor CD**

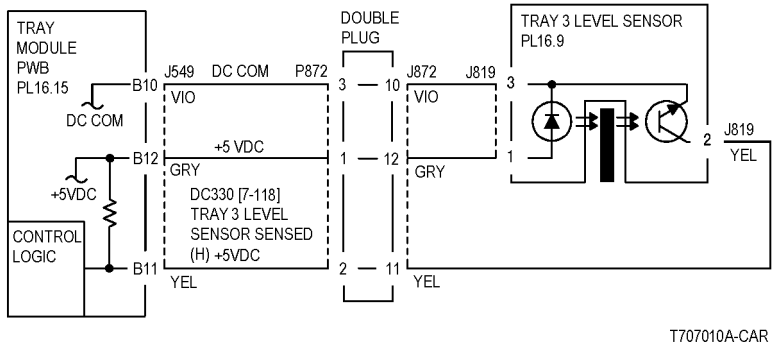


**Figure 2 Tray 3 Level Sensor CD**

# 7-293 Tray 4 Lift

The Tray 4 Level Sensor does detect tray lift.

## Initial Actions

Check drive of the following:

- Manually turn the gear at rear of the TRAY 4 to check that the Bottom Plate moves up and down smoothly.
- Gently push Tray 4 in to check the drive transmission is firmly engaged.

## Procedure

Enter dC330 [008-008] and press Start. **The Tray 4 Feed/Lift motor energizes (PL 16.11).**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [007-119] and press Start. Open and close Tray 4. **The display changes.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Tray 4 Level Sensor (PL 16.7).

If the problem continues, replace the Tray Module PWB (PL 16.15).

Check the wires and connectors. If the check is OK, replace the Tray Module PWB (PL 16.15).

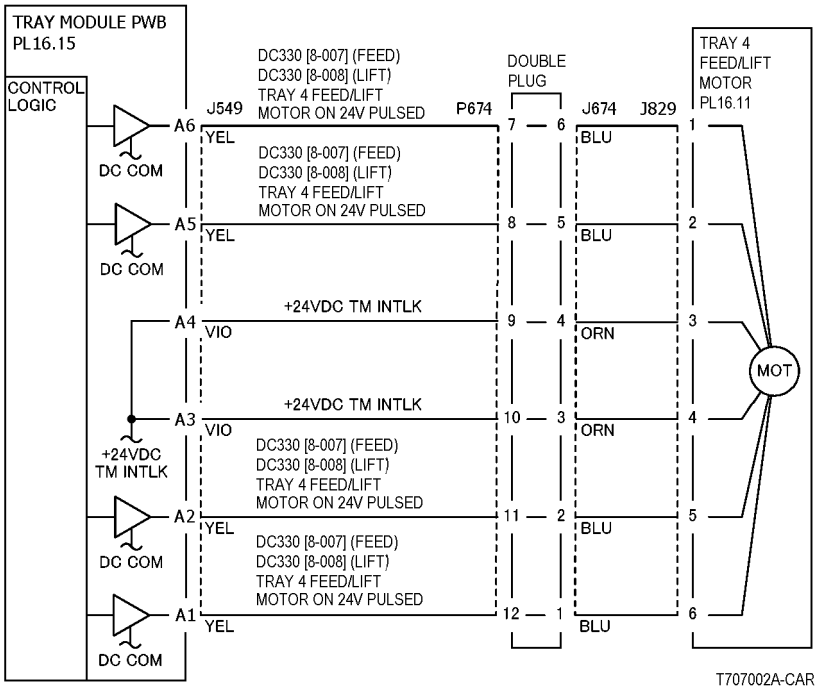


**Figure 1 Tray 4 Lift/Feed Motor CD**

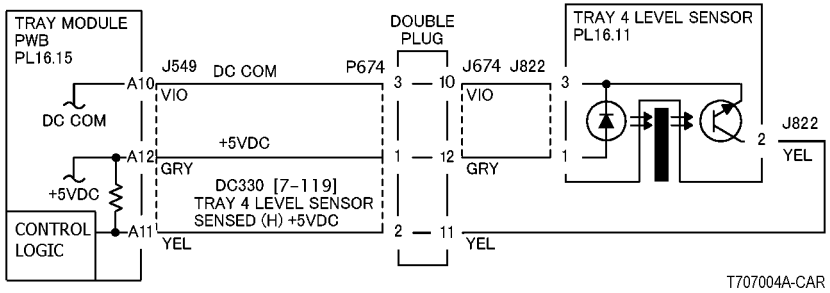


**Figure 2 Tray 4 Level Sensor CD**

# 7-397 All Trays Lift Sensors

All the Tray Level Sensors did not energize.

## Procedure

Check the dC122 Shutdown History. **007-281, 007-282, 007-283, 007-284, 007-291, or 007-293 fault has occurred.**

**Y** **N**

Replace the following in sequence:

- Tray Module PWB (PL 15.9) (PL 16.15)
- MCU PWB (PL 13.1) (TRAY 1 only)

Go to the appropriate RAP.

# 7-930 Tray 1 Paper Size Mismatch

The paper in Tray 1 does not match the paper size selected.

## Procedure

The correct size paper is loaded in Tray 1.

**Y** **N**

Load the correct size paper.

Go to (RAP7-270).

## 7-931 Tray 2 Paper Size Mismatch

The paper in Tray 2 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 2.

**Y** **N**

Ensure Paper Guides are correctly adjusted.
Load the correct size paper.

Go to (RAP7-271).

## 7-932 Tray 3 Paper Size Mismatch

The paper in Tray 3 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 3.

**Y** **N**

Ensure Paper Guides are correctly adjusted.
Load the correct size paper.

Go to (RAP7-276).

## 7-933 Tray 4 Paper Size Mismatch

The paper in Tray 4 does not match the paper size selected.

### Procedure

The correct size paper is loaded in Tray 4.

**Y** **N**

Ensure Paper Guides are correctly adjusted.
Load the correct size paper.

Go to (RAP7-277).

## 7-935 Job Continue Not Available

Automatic Tray switching cannot be continued because a tray was not programed.

### Procedure

Program the appropriate tray. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Refer to the User Guide information for Auto Tray Switching.

## 7-954 SMH Size Mismatch (Slow Scan Direction)

The paper in the slow scan direction is shorter than the specified paper size.

### Procedure

**The correct size paper is loaded in the SMH.**

**Y N**

Load the correct size paper.

Replace the Registration Sensor. (PL 2.6).

## 7-959 Tray 5 Paper Mismatch 1

Other than dedicated stock is detected by the OHP sensor.

### Initial Actions

- ï Ensure that dedicated stock is used.
- ï Check that the transparencies are oriented correctly.
- ï Check for obstructions and clean the OHP Sensor.

### Procedure

Enter dC330 [008-110] and press Start. Block the OHP Sensor R using plain paper (PL 2.6).

**The display changes.**

**Y N**

Go to OF 99-1 Reflective Sensor RAP.

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

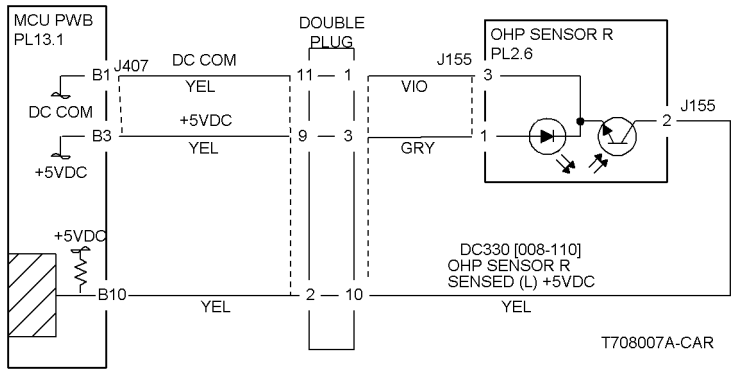


**Figure 1 The OHP Sensor R**

# 7-960 Tray 5 Paper Mismatch 2

A different paper type or transparency was detected when plain/heavyweight paper was specified.

## Initial Actions

- Check that the loaded paper type matches the UI selection.
- Check the OHP sensor area for foreign substances

## Procedure

Enter dC330 8-110. Block the OHP Sensor R using plain paper. **The display changes.**

**Y N**

Go to RAP OF 99-1 Reflective Sensor RAP.

Replace the MCU PWB (PL 13.1).

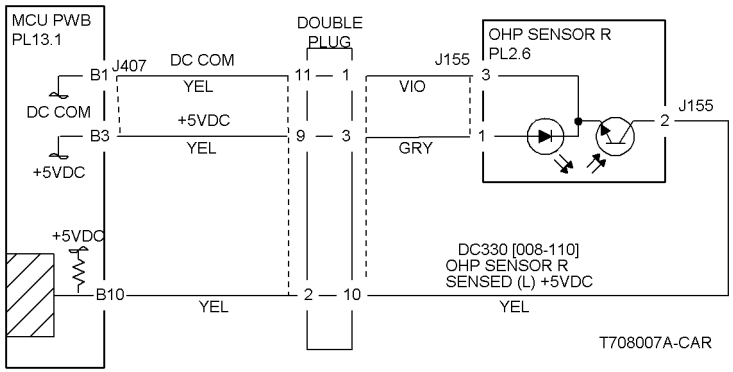


**Figure 1 The OHP Sensor R**

# 7-969 Full Paper Stack

The Full Paper Stack Sensor detects that Face Down Tray is full.

## Initial Actions

Check the Full Paper Stack Sensor for obstructions and actuator operation.

## Procedure

Enter dC330 [010-102] and press Start. Move the Full Paper Stack Sensor (PL 10.2) actuator up and down. **The display changes.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Check the connectors and wires. If the check is OK, replace the MCU PWB (13.1).
If the problem continues, replace the I/F PWB (PL 9.1).

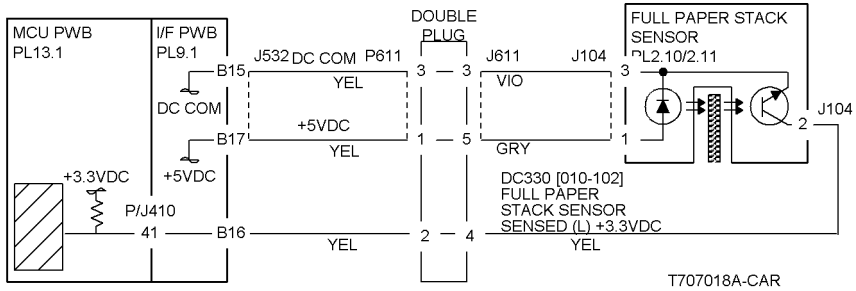


**Figure 1 The Full Paper Stack Sensor**

# 8-151 Tray 3 Take Away Sensor On

The Take Away Sensor does not detect paper fed from Tray 3.

## Initial Actions

- Check condition and specification of paper in Tray 3.
- Check the paper path and sensor area for obstructions.
- Check for wear and clean the Tray2 and Tray3 Feeder Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-102] and press Start. Block and unblock the Take Away Sensor (PL 16.6).

**The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-029. **The Take Away Motor 1 energizes.**

**Y N**

Go to OF 99-6 Motor Open RAP.

Replace the Tray Module PWB (PL 16.15).

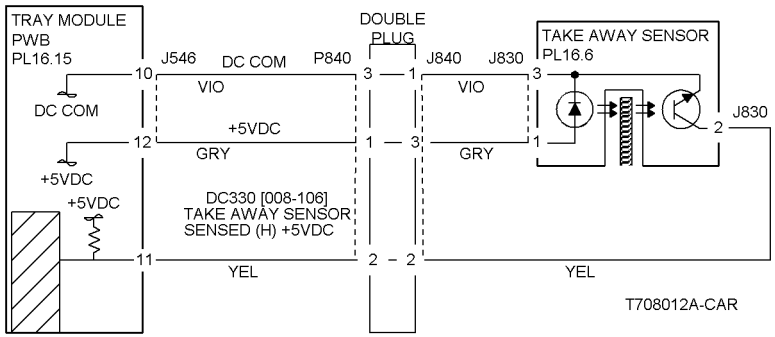


**Figure 1 The Take Away Sensor**

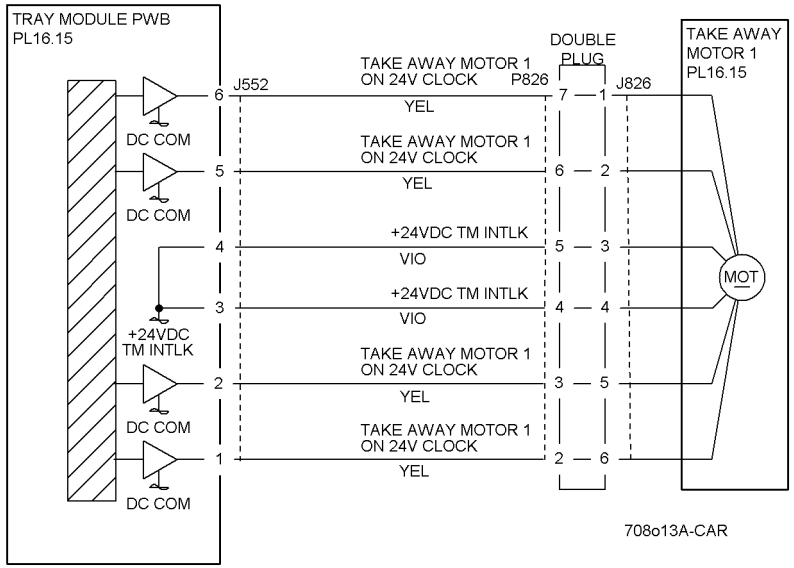


**Figure 2 The Take Away Motor 1**

# 8-152 Tray 4 Take Away Sensor On

The Take Away Sensor does not detect paper fed from Tray 4.

## Initial Actions

- Check condition and specification of paper in Tray 4.
- Check the paper path and sensor area for obstructions.
- Check for wear and clean the Tray 4 Feeder Roll, Take Away Roll and the Nudger Roll.

## Procedure

Enter dC330 [008-102] and press Start. Block and unblock the Block and unblock the Take Away Sensor (PL 16.6). **The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-029] and press Start. **The Take Away Motor 1 PL 16.15 energizes.**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [008-047] and press Start. **The Take Away Motor 2 (PL 16.15) energizes.**

**Y N**

Go to OF 99-6 Motor Open RAP.

Replace the Tray Module PWB (PL 16.15).

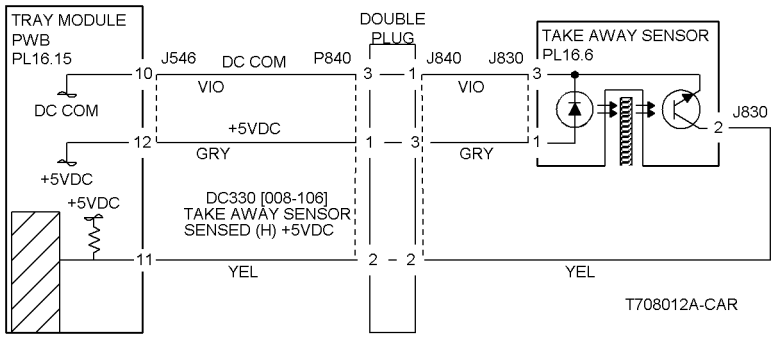


**Figure 1 The Take Away Sensor**

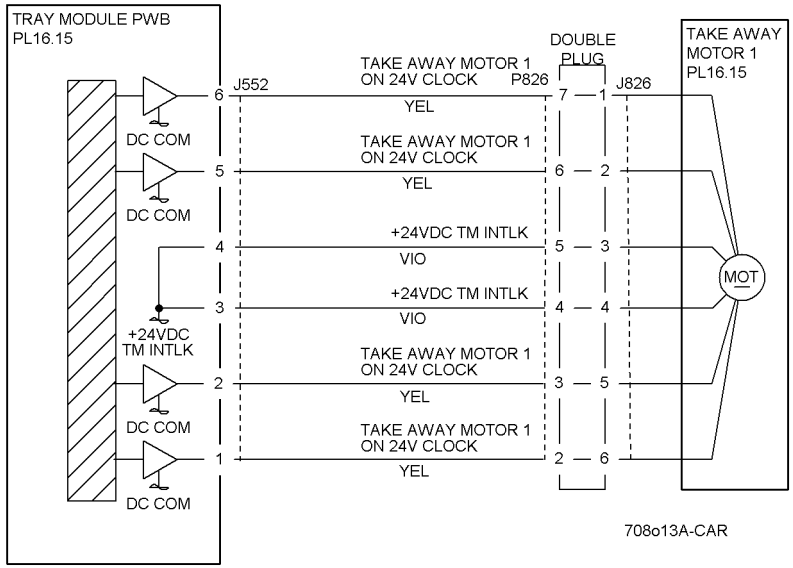


**Figure 2 The Take Away Motor 1**

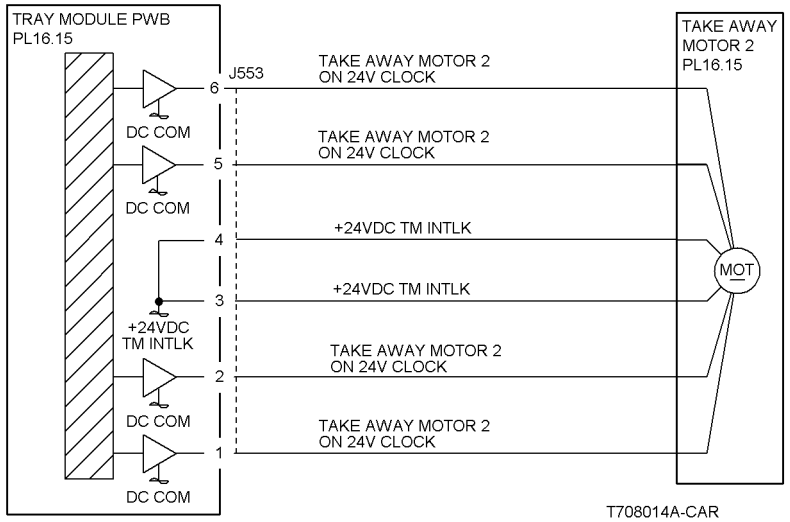


**Figure 3 The Take Away Motor 2**

# 8-164 POB Sensor

The POB Sensor did not detect paper after the Registration Clutch Energized.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for paper on the IBT.
- Check for obstructions in the paper feed path
- Clean the POB Sensor.
- Check the 2nd BTR transmission gears for breakage
- Clean the Registration Roll and check for damage or ware.

## Procedure

***NOTE:*** *Cheat the Left Cover Interlock.*

Enter dC330 [009-201] and press Start. Block and unblock the POB Sensor (PL 2.9). **The display changes state.**

**Y N**

Go to OF 99-1 Reflective Sensor RAP.

Enter dC330 [008-037] and press Start. **The Registration Clutch energizes (PL 2.6).**

**Y N**

Go to OF 99-4 Solenoid/Clutch Open RAP.

In sequence enter the following: dC330 [009-051] then dC330 [009-052] and press Start. **The 2BTR contacts and retracts.**

**Y N**

Go to RAP 9-342 for a contact failure or go to 9-343 for a retract failure.

Check the wires and connectors. If the check is OK, replace the ESS PWB (PL 13.1)

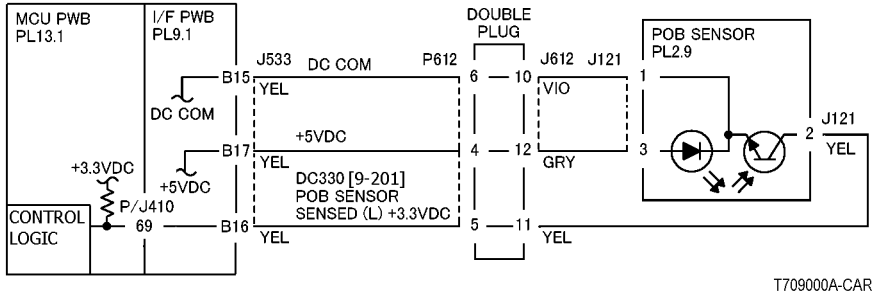


**Figure 1 POB Sensor CD**

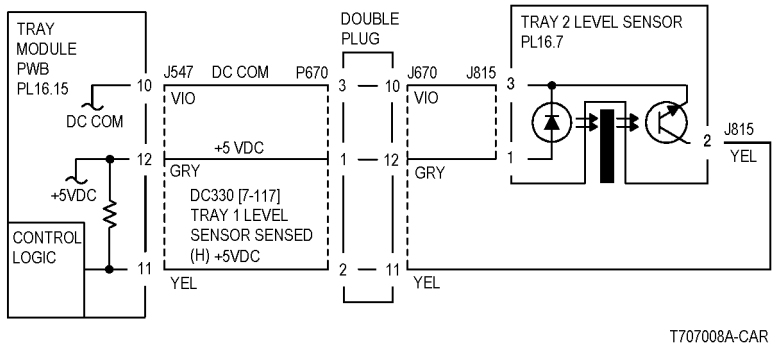


**Figure 2 Registration Clutch CD**

# 8-175 Registration Sensor On Jam Tray 5

The Registration Sensor does not detect paper fed from the MSI.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path
- Clean the MSI Feed Roll and check for ware.
- Clean the Take Away Roll and check for ware.
- Check the drive transmissions for damage or ware.

## Procedure

Enter dC330 [009-104] and press Start. Block and unblock the Registration Sensor (PL 2.6).

**The display changes state.**

**Y N**

Go to OF 99-1 Reflective Sensor RAP.

Enter dC330 [007-003] and press Start. **The Tray 5 Feed Solenoid energizes (PL 2.14).**

**Y N**

Go to OF 99-4 Solenoid/Clutch Open RAP.

Check the wires and connectors. If the check is OK, replace the ESS PWB (PL 13.1).

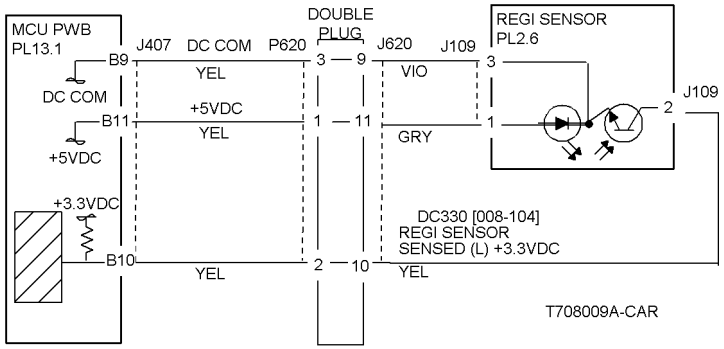


**Figure 1 The Registration Sensor**

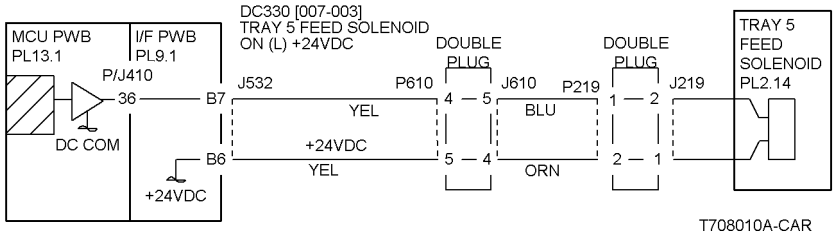


**Figure 2 The Tray 5 Feed Solenoid**

# 8-176 Registration Sensor On Jam Tray 1-4

The Registration Sensor does not detect paper fed from each Tray.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path
- Clean the Take Away Roll and check for ware.
- Check the drive transmissions for damage or ware.

## Procedure

Enter dC330 [008-104] and press Start. Block and unblock the Registration Sensor. **The display changes state.**

**Y N**

Go to OF 99-1 Reflective Sensor RAP.

Enter dC330 [008-038] and press Start. **The Take Away Clutch energizes (PL 1.2).**

**Y N**

Go to OF 99-4 Solenoid/Clutch Open RAP.

Check the wires and connectors. If the check is OK, replace the ESS PWB (PL 13.1).

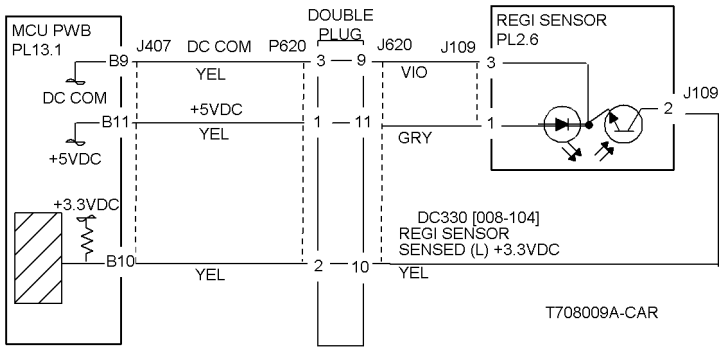


**Figure 1 The Registration Sensor**

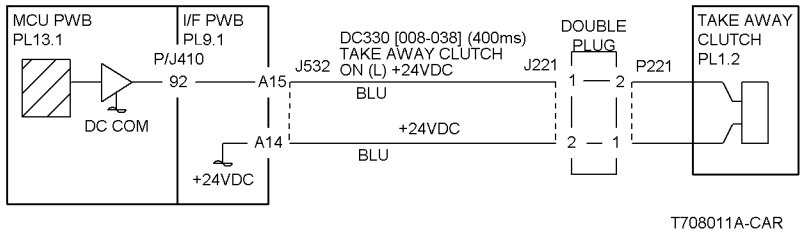


**Figure 2 The Take Away Clutch**

# 8-180 Registration Sensor On Duplex

The Registration Sensor does not detect paper after a duplex feed.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Exit Roll, Transport Roll, Wait Roll and check for ware.
- Check the drive transmissions for damage or ware.

## Procedure

Enter dC330 [008-104] and press Start. Block and unblock the Registration Sensor (PL 2.6). **The display changes state.**

**Y N**

Go to OF 99-1 Reflective Sensor RAP.

Enter dC330 [008-112] and press Start. **The Duplex Motor energizes (PL 12.2).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [008-043] and press Start. **The Inverter Reverse Clutch energizes (PL 11.2).**

**Y N**

Go to OF 99-4 Solenoid/Clutch Open RAP.

A

Enter dC330 [008-046] and press Start. **The Duplex Gate Solenoid energizes (PL 11.2).**

**Y N**

Go to OF 99-4 Solenoid/Clutch Open RAP.

Check the wires and connectors. If the check is OK, replace the Duplex PWB (PL 12.2).

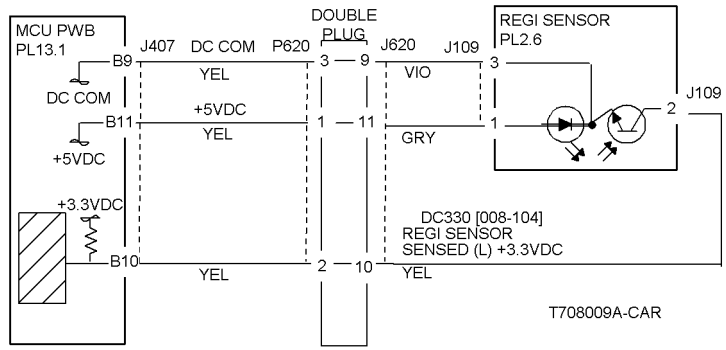


**Figure 1 The Registration Sensor**

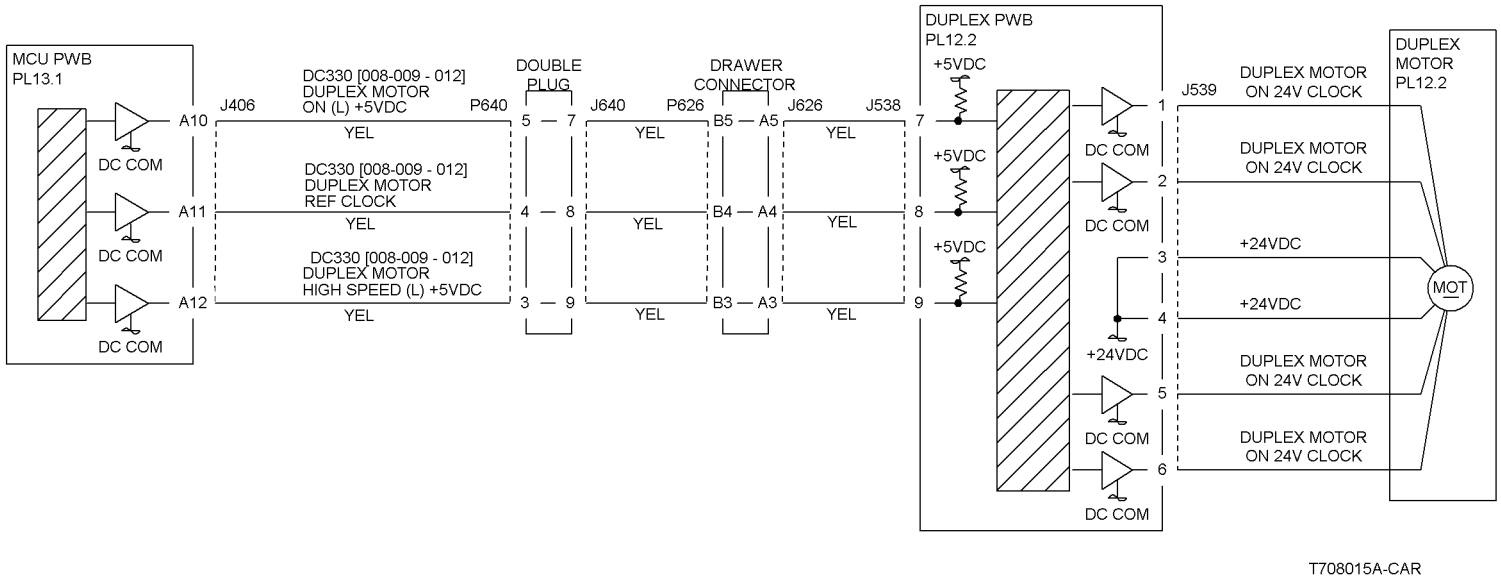


**Figure 2 The Duplex Motor**

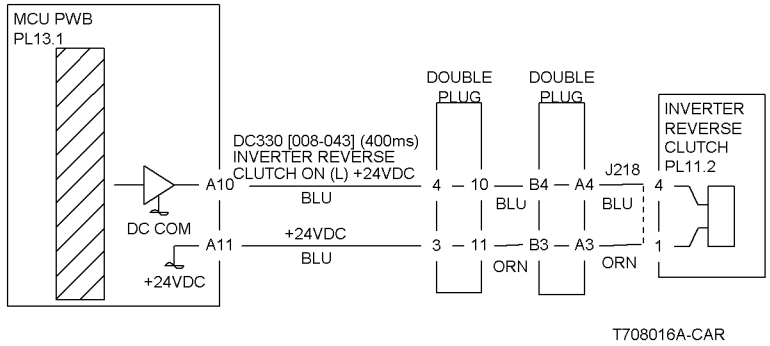


**Figure 3 The Inverter Reverse Clutch**

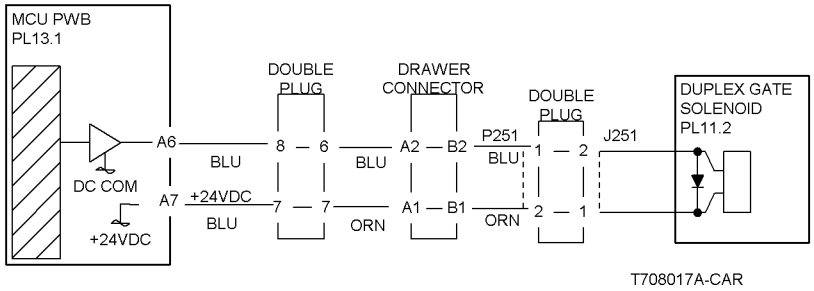


**Figure 4 The Duplex Gate Solenoid**

# 8-181 Registration Sensor On Wait Sensor

The Registration Sensor does not detect paper after the Duplex Wait Sensor was energized.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Take Away Roll and check for ware.
- Check the drive transmissions for damage or ware.

## Procedure

Enter dC330 [008-104] and press Start. Block and unblock the Registration Sensor (PL 2.6).
**The display changes state.**

**Y** **N**

Go to OF 99-1 Reflective Sensor RAP.

Enter dC330 [009-105] and press Start. Block and unblock the Duplex Wait Sensor (PL 12.2).
**The display changes state.**

**Y** **N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [008-112] and press Start. **The Duplex Motor energizes (PL 12.2).**

**Y** **N**

Go to the Motor Does Not Energize Failure RAP.

Check the wires and connectors. If the check is OK, replace the Duplex PWB(PL 12.2).

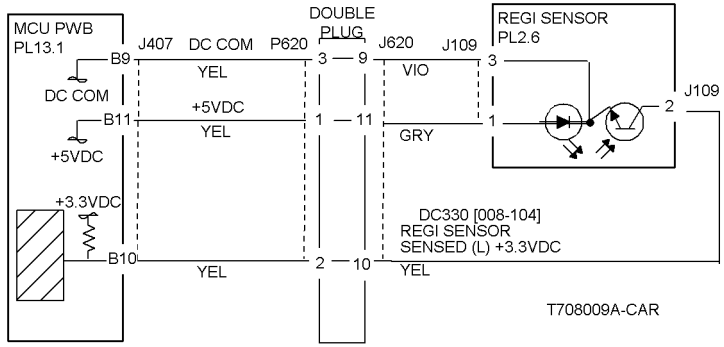


**Figure 1 The Registration Sensor**

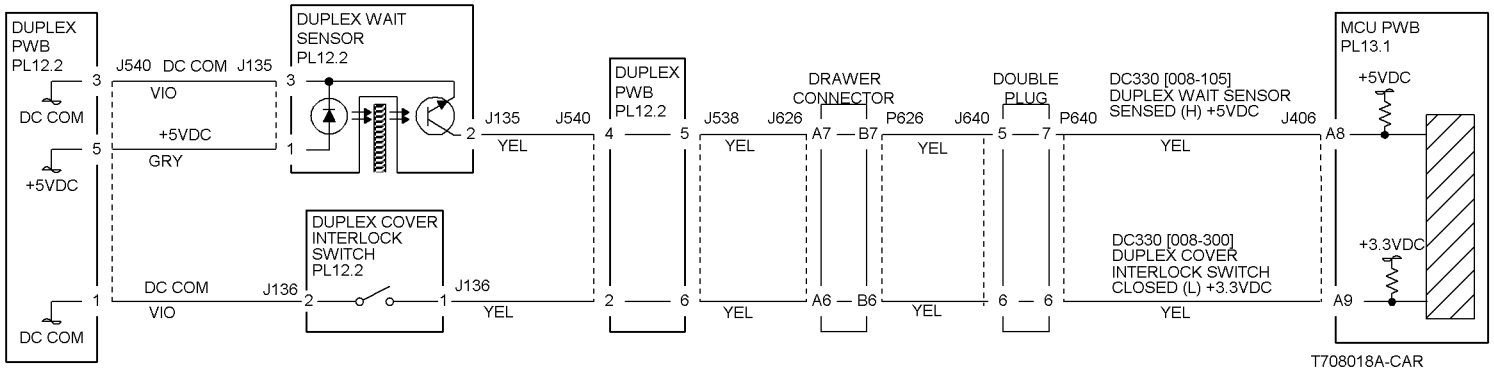


**Figure 2 The Duplex Wait Sensor**

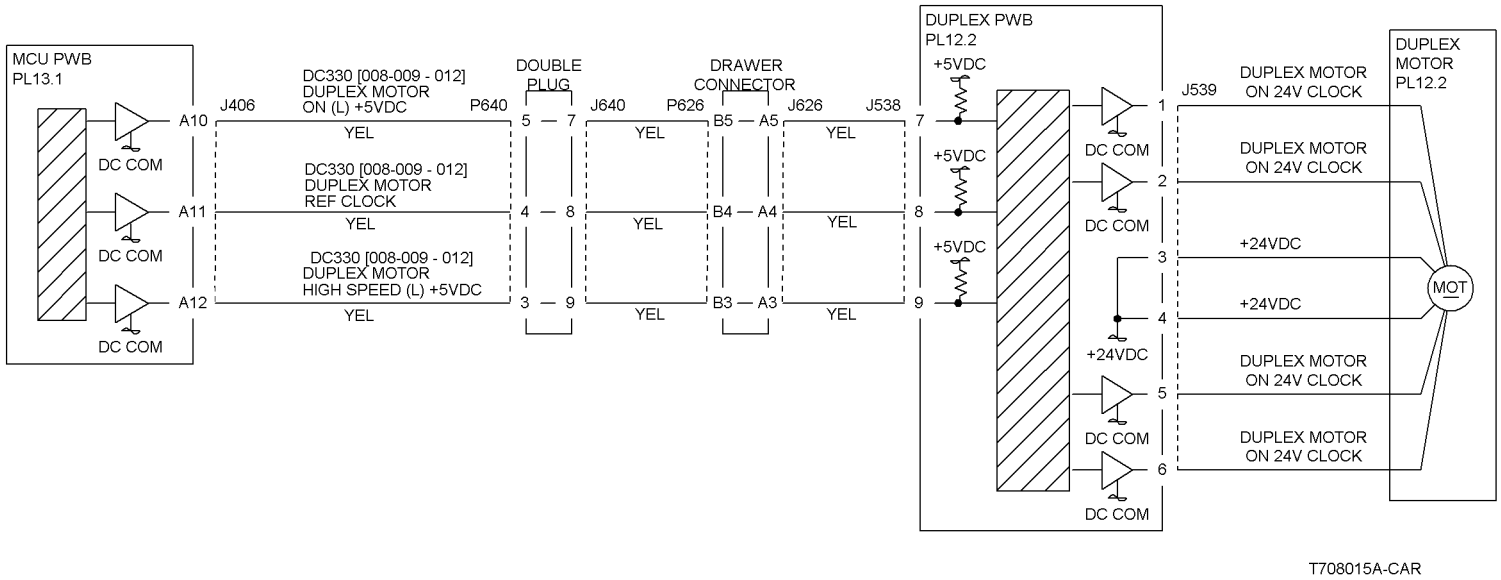


**Figure 3 The Duplex Motor**

# 8-184 Registration Sensor Off

The Fuser Exit Switch did not detect paper after the Registration Clutch was energized.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Check the Fuser Belt and the Heat Roll for damage or ware.
- Clean the Registration Roll and check for ware or damage.
- Check the drive transmissions for damage or ware.

## Procedure

Enter dC330 [010-101] and press Start. Actuate and de-actuate the Fuser Exit Switch PL 2.8.

**The display changes state.**

**Y N**

Go to the of 99-3 Switch RAP.

Enter dC330 [008-037] and press Start. **The Registration Clutch energizes (PL 2.6).**

**Y N**

Go to OF 99-4 Solenoid/Clutch Open RAP.

In sequence enter the following: dC330 [009-051] then dC330 [009-052] and press Start. **The 2nd BTR Retract Motor energizes (PL 2.9).**

**Y N**

Go to RAP 9-342 for a contact failure or go to 9-343 for a retract failure.

Check the wires and connectors. If the check is OK, replace the Duplex PWB (PL 12.2).

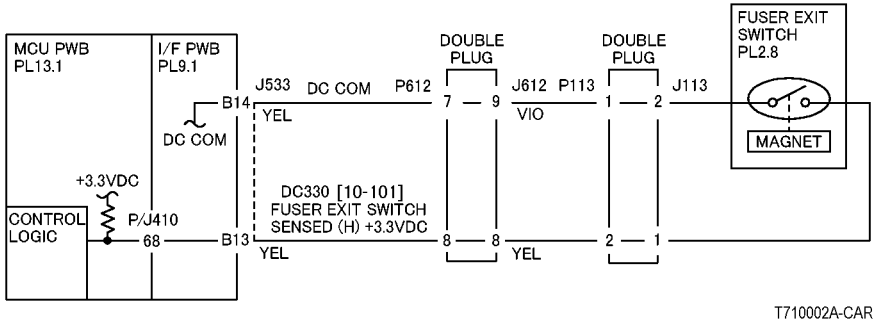


**Figure 1 Fuser Exit Switch CD**

# 8-620 Regicon Temp Sensor

Environment Sensor not in range.

## Procedure

***NOTE:*** *Machine operation continues. Status Code not displayed on UI. Status Code logged in History.*

Turn the power off. Disconnect the Environment Sensor (PL 1.3).
Measure the resistance between the following:

- I/F PWB P/J536-B4 and P/J255-1
- I/F PWB P/J536-B2 and P/J255-3
- I/F PWB P/J536-B1 and P/J255-4

**The Resistance is 1 ohm or less.**

**Y N**

Check the wires and connectors. If the check is OK, replace the replace MCU PWB (PL 13.1).

Measure resistance between P/J255-3 and P/J255-4 on Environment Sensor. **6k ohms to 20k ohms is measured.**

**Y N**

Replace Environment Sensor (PL 1.3).

Replace MCU PWB (PL 13.1). If problem continues, replace ESS PWB (PL 13.1).

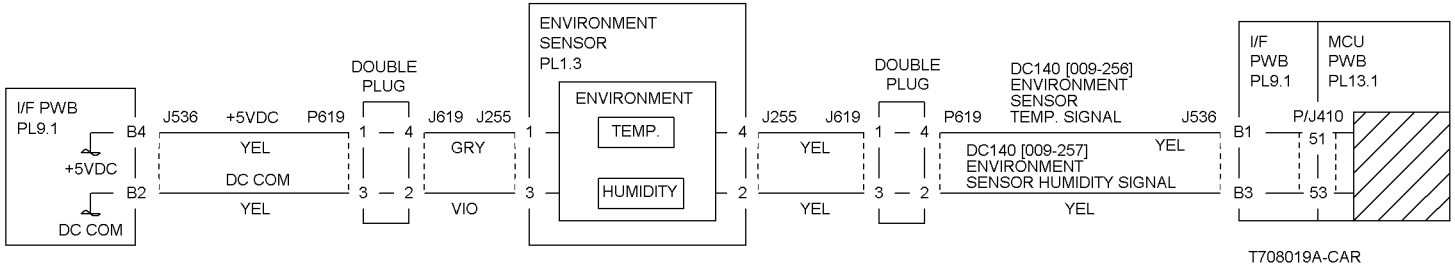


**Figure 1 The Environmental Sensor**

## 8-622 Regicon Data Overflow (A1 Patch X)

At A1 patch detection, the XSO correction setting value for either Y, M, C, or K exceeds the setting range (NVM value 0 to 472).

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-623 Regicon Data Overflow (A2 Patch Y)

At A2 patch detection, the YSO correction setting value of either Y, M, C, or K exceeds the setting range (NVM value 0 to 474).

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-624 Regicon Data Overflow (Patch Magnification)

MAG Adjusted Set Point of operation results for each of Y,M,C exceeded the set range (NVM value: 0~1432).

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Go to ADJ 9.6 Color Registration dC685.

## 8-625 Regicon Sample Block (A1 Patch-rear)

At A1 (IN) patch detection, the number of the sample blocks does not reach the specified number.

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-626 Regicon Sample Block (A1 Patch-front)

At A1 (OUT) patch detection, the number of the sample blocks does not reach the specified number.

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-627 Regicon Sample Lateral (A1 Patch-rear)

At A1 (IN) patch detection, the Fast Scan scan position of CYAN color that is the standard for the rest is incorrect. (Against the MOB SENSOR, the center position of the CYAN pattern is shifted by ±500μm or more.)

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-628 Regicon Sample Lateral (A1 Patch-front)

At A1 (OUT) patch detection, the scan position of CYAN color that is the standard for the rest is incorrect. (Against the MOB SENSOR, the center position of the CYAN pattern is shifted by ±500µm or more.?

***NOTE:*** *Status Code not displayed on UI. Machine operation continues.*

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-629 Regicon Skew (Patch Y)

During A1 Patch detection, skew deviation for Y exceeded tolerance.

***NOTE:*** *Machine operation continues. Status Code not displayed on UI. Status Code logged in History.*

### Initial Actions

Clean MOB Sensor.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-630 Regicon Skew (Patch M)

During A1 Patch detection, skew deviation for M exceeded tolerance.

***NOTE:*** *Machine operation continues. Status Code not displayed on UI. Status Code logged in History.*

### Initial Actions

Clean MOB Sensor.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

## 8-631 Regicon Skew (Patch K)

During A1 Patch detection, skew deviation for K exceeded tolerance.

***NOTE:*** *Machine operation continues. Status Code not displayed on UI. Status Code logged in History.*

### Initial Actions

Clean MOB Sensor.

### Procedure

Check the IBT Belt and Drum for a scratch or contamination. **The check is OK.**

**Y** **N**

Replace as required.

Perform DC685 Color Registration (ADJ 9.6).

# 8-900 Static Jam

When the machine power is turned off then on before a paper path fault is cleared, an 8-900 fault will be displayed. A voltage drop or interruption can also cause this fault.

## Initial Actions

- Check the entire paper path for paper or obstructions.
- Clean all the paper path sensors.
- Check the Fault History for the last paper path fault. Go to that paper path fault RAP.

## Procedure

In sequence, enter the following dC330 codes:
Block and unblock each sensor

- 8-100 Tray 1 Mis-feed, (7-105).
- 8-106 Tray 2 Mis-feed, (7-110).
- 8-102 Tray 3 Mis-feed, (7-115).
- 8-103 Tray 4 Mis-feed, (7-119).
- 8-104 Registration Sensor, (8-175).
- 9-201 POB On Jam, (8-164)

**The display for each code changes.**

**Y N**

Go to the appropriate paper path fault RAP.

Check the machine input voltage, if the problem continues, replace the ESS PWB (PL 13.1).

# 9-342 2nd BTR Contact

The 2nd BTR did not reach the contact position.

## Initial Actions

- Clean the 2nd BTR Retract Sensor and check for damage.
- Check the 2nd BTR transmission gears for breakage.

## Procedure

In sequence, enter the following: dC330 [009-051] then dC330 [009-052]. **The 2nd BTR contacts and retracts.**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Go to OF 99-2 Transmissive Sensor RAP.

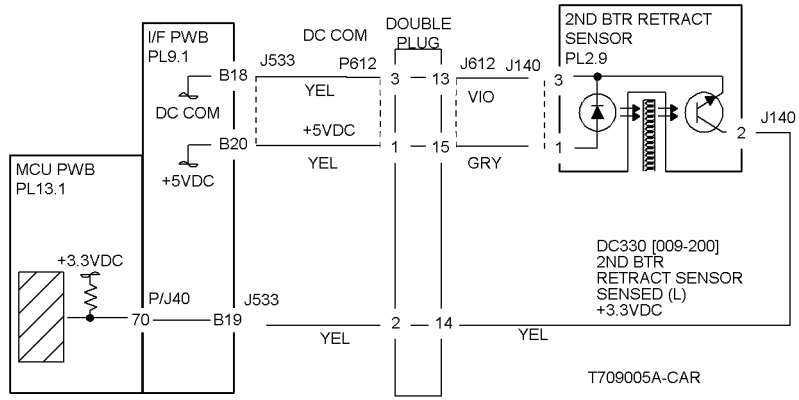


**Figure 1 2ND BTR Retract Sensor**

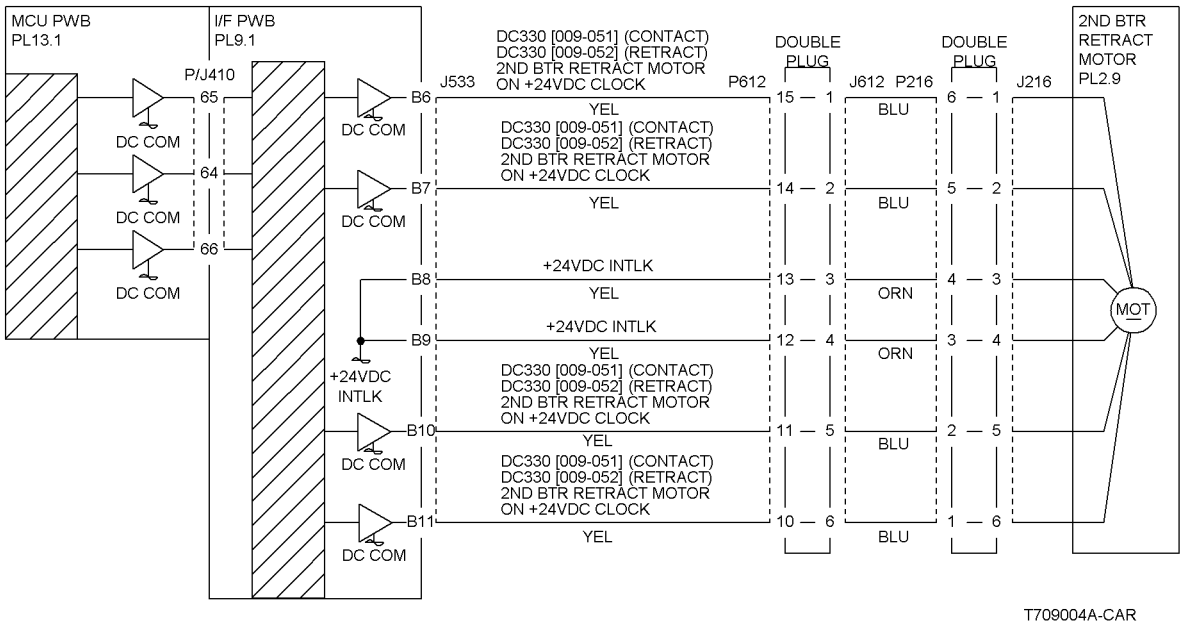


**Figure 2 2ND BTR Retract Motor**

# 9-343 2nd BTR Retract

The 2nd BTR did not reach the retract position.

## Initial Actions

- Clean the 2nd BTR Retract Sensor and check for damage.
- Check the 2nd BTR transmission gears for breakage.

## Procedure

In sequence, enter the following: dC330 [009-051] then dC330 [009-052]. **The 2BTR contacts and retracts.**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Go to OF 99-2 Transmissive Sensor RAP.

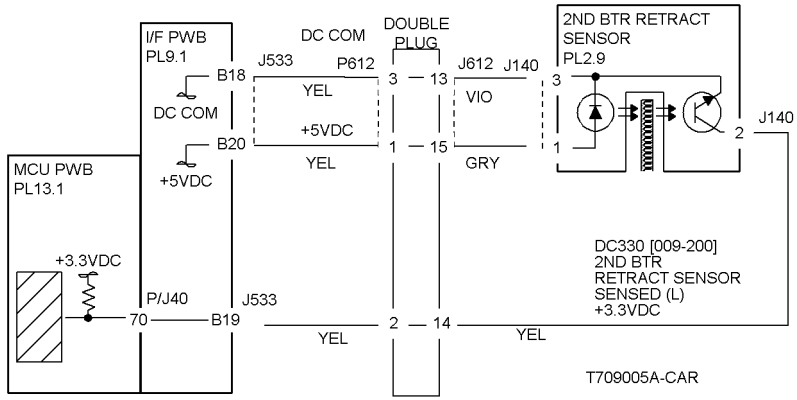


**Figure 1 2ND BTR Retract Sensor**

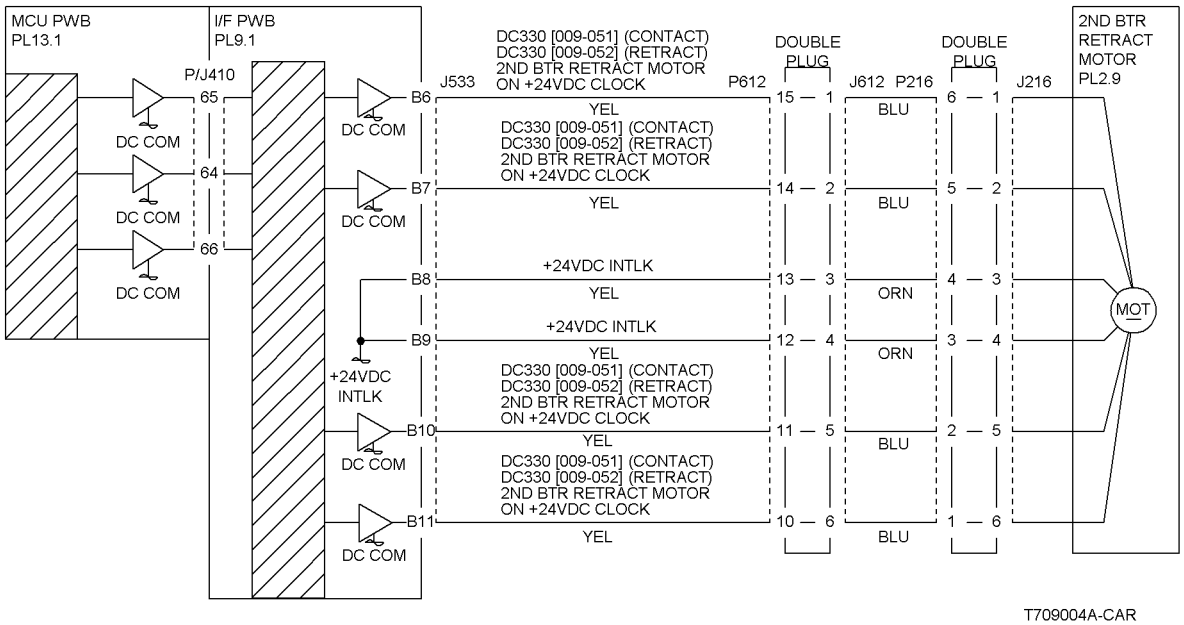


**Figure 2 2ND BTR Retract Motor**

# 9-348 1st BTR Contact

The 1st BTR did not reach the contact position.

## Initial Actions

- Clean the 1st BTR Retract Sensor and check for damage
- Check the 1st BTR transmission gears for breakage

## Procedure

In sequence, enter the following: dC330 [009-054] then dC330 [009-055]. **The 1st BTR contacts and retracts.**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Go to OF 99-2 Transmissive Sensor RAP.

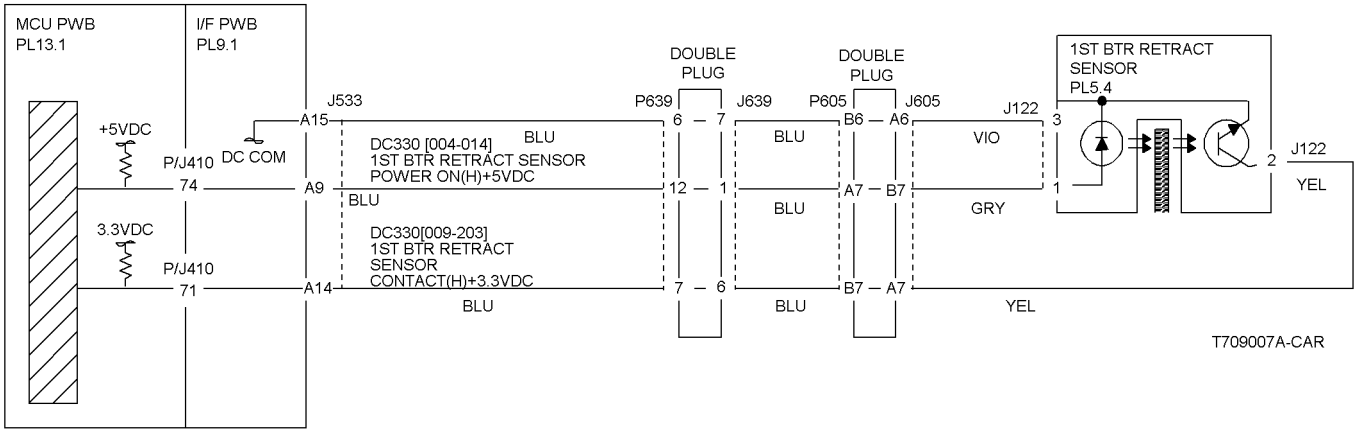


**Figure 1 1ST BTR Retract Sensor**

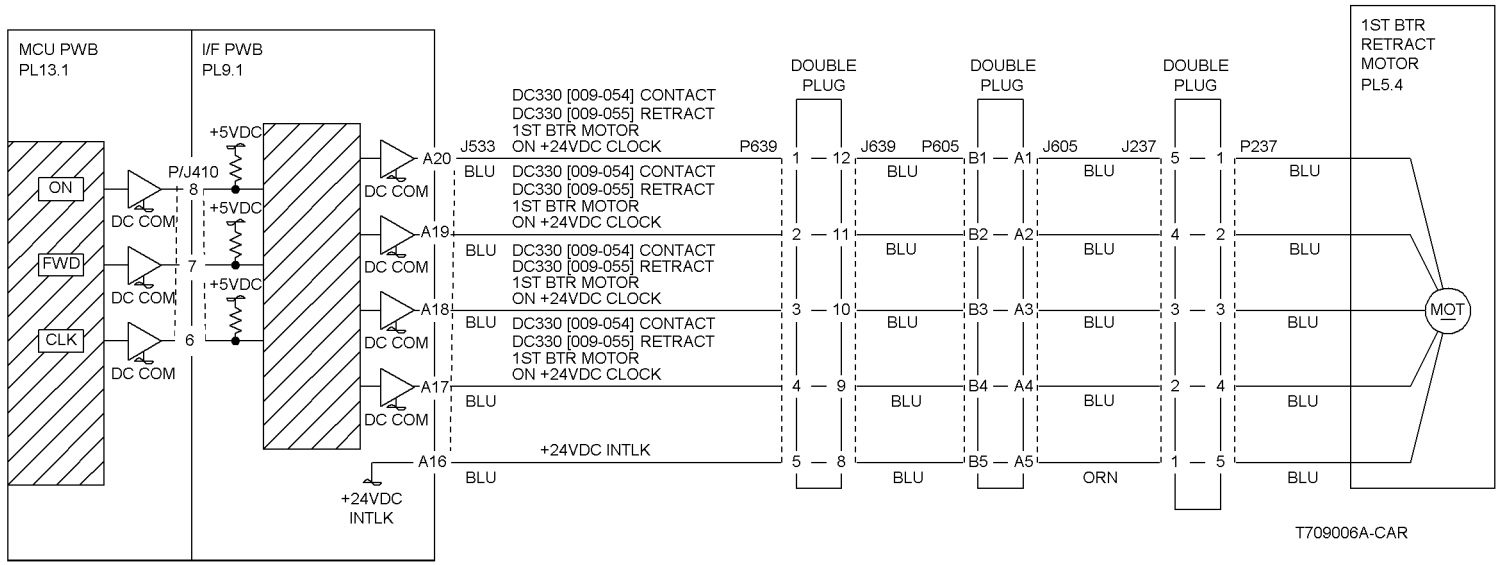


**Figure 2 1ST BTR Retract Motor**

# 9-349 1st BTR Retract

The 1st BTR did not reach the retract position.

## Initial Actions

- Clean the 1st BTR Retract Sensor and check for damage
- Check the 1st BTR transmission gears for breakage

## Procedure

In sequence, enter the following: dC330 [009-054] then dC330 [009-055]. **The 1st BTR contacts and retracts.**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Go to OF 99-2 Transmissive Sensor RAP.

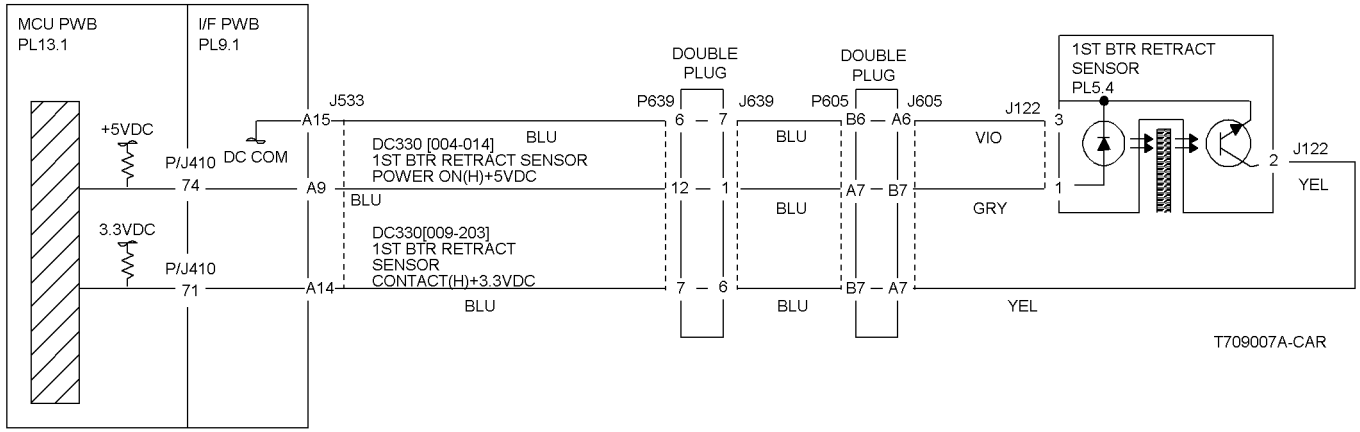


**Figure 1 1ST BTR Retract Sensor**

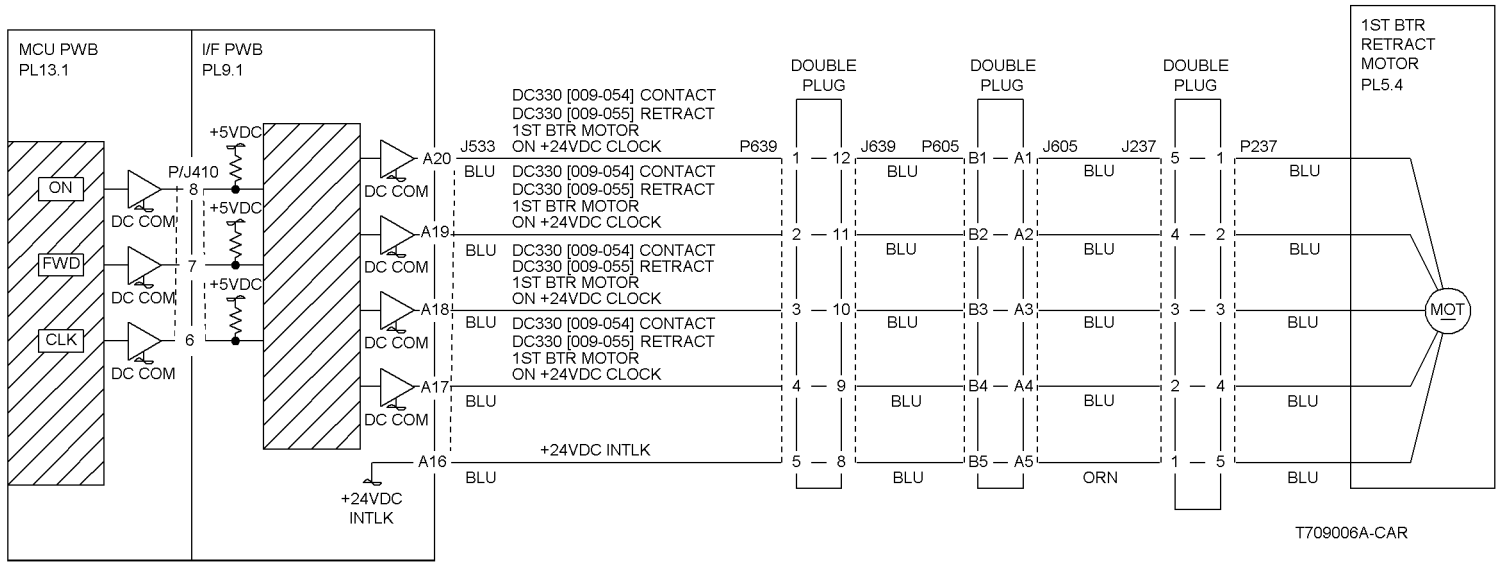


**Figure 2 1ST BTR Retract Motor**

# 9-350 IBT Home Sensor

The IBT Home Sensor detected the IBT position strip before the IBT Belt made a complete revolution.

## Initial Actions

- Clean the IBT Home Sensor and check for damage
- Check the IBT drives for damage.

## Procedure

Enter dC330 [004-002]. **The IBT Motor energizes.**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

**A**

Enter dC330 [004-414] then enter dC330 [004-002]. **The display changes state.**

**Y** **N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dc330 [004-100] then enter dC330 [004-002]. **The display changes state.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the IBT Home Sensor (PL 5.4).

Replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

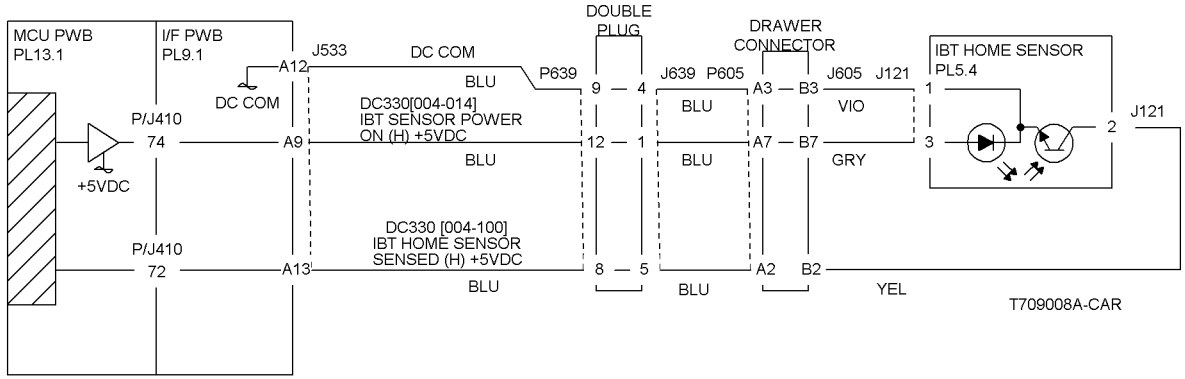


**Figure 1 IBT Home Sensor**

# 9-351 Drive Logic

The IBT Edge Sensor detected that the IBT Belt is not tracking correctly.

## Initial Actions

- Check the IBT Edge Sensor for damage. Ensure that the actuator is touching the edge of the belt.
- Check the IBT steering drives for damage.

## Procedure

Switch on the power. **There is +1VDC to +3VDC from P/J 533-A11 to GND.**

**Y N**

**There is +5VDC measured between P/J533-A10 and P/J533-A9 on the I/F PWB.**

**Y N**

Replace the MCU PWB (PL 13.1).

**There is +5VDC from P/J 533-A11 on the I/F PWB to GND.**

**Y N**

Check the connectors and wires. If the check is OK, replace the IBT Edge Sensor (PL 5.4). If the problem continues, replace the MCU PWB (PL 13.1).

Replace the IBT Sensor (PL 5.4).

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

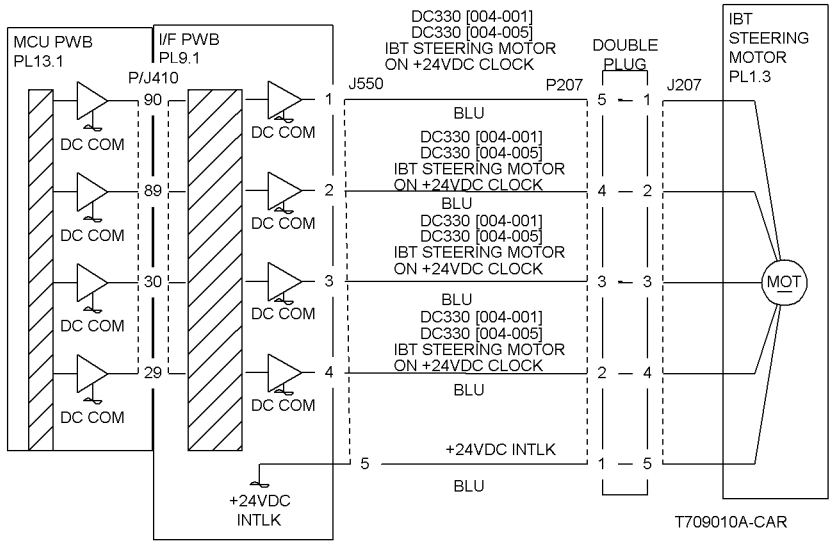


**Figure 1 IBT Steering Motor**

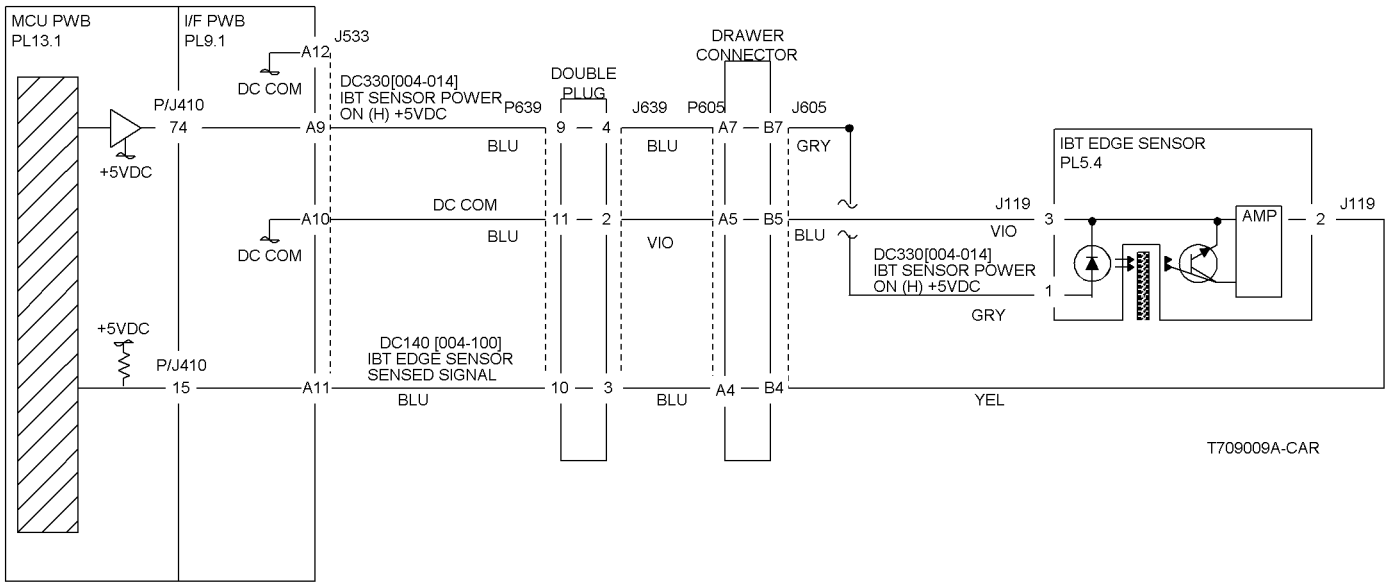


**Figure 2 IBT Edge Sensor**

# 9-358 Full Toner Sensor

The Full Toner Sensor detects a full toner condition.

## Initial Actions

- Ensure that the Waste Toner Cartridge is not full.
- Check the sensor for toner contamination and foreign substances.

## Procedure

Remove the Full Toner Sensor from the bottle. Enter dC330 [009-150]. Block and unblock the Full Toner Sensor (PL 4.1). **The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Replace the MCU PWB. (PL 13.1)

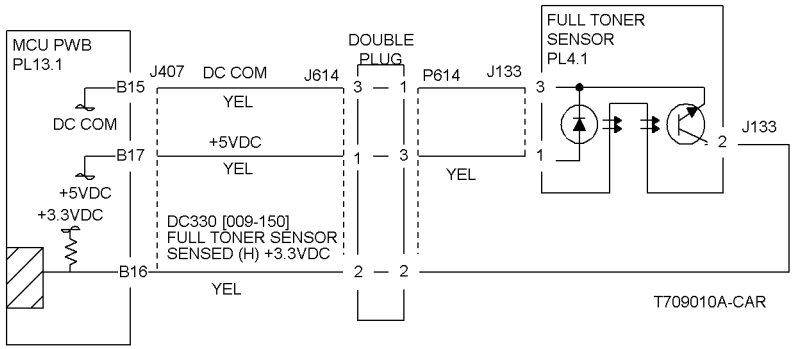


**Figure 1 The Full Toner Sensor**

# 9-360 Yellow Drum Cartridge Communication

A communication failure with the Yellow Drum Cartridge was detected.

## Initial Actions

Check that the Yellow Drum Cartridge is seated correctly.

## Procedure

Enter dC330 [009-151 Drum (Y) Data]. **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB (PL 13.1).

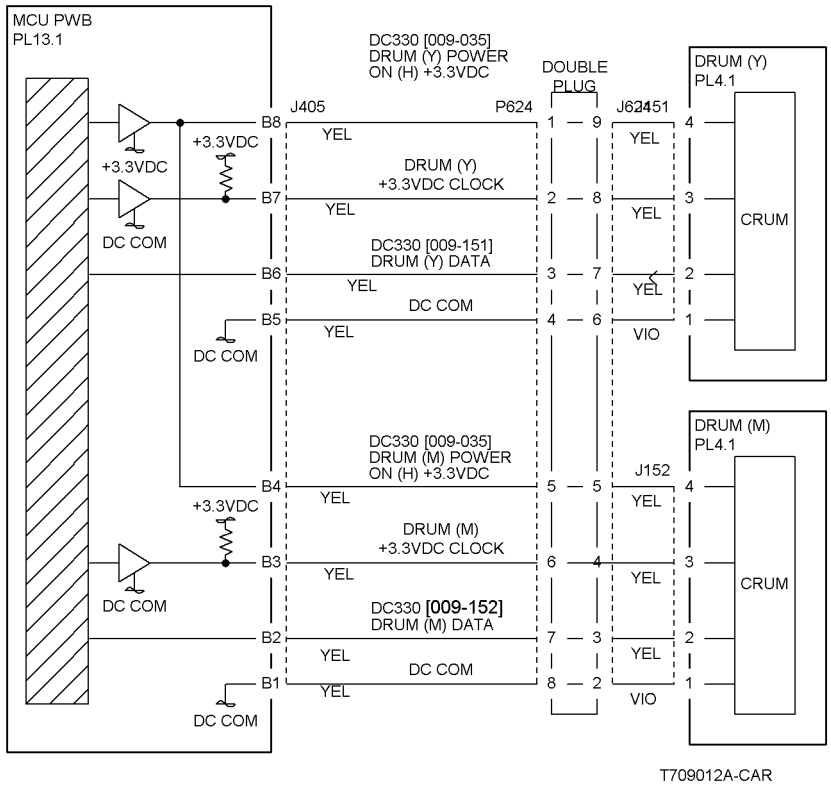


**Figure 1 Drum Y Communication**

# 9-361 Magenta Drum Cartridge Communication

A communication failure with Magenta Drum Cartridge was detected.

## Initial Actions

Check that the Magenta Drum Cartridge is seated correctly.

## Procedure

Enter dC330 [009-152, Drum (M) Data]. **The display is H.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Magenta Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB. (PL 13.1).

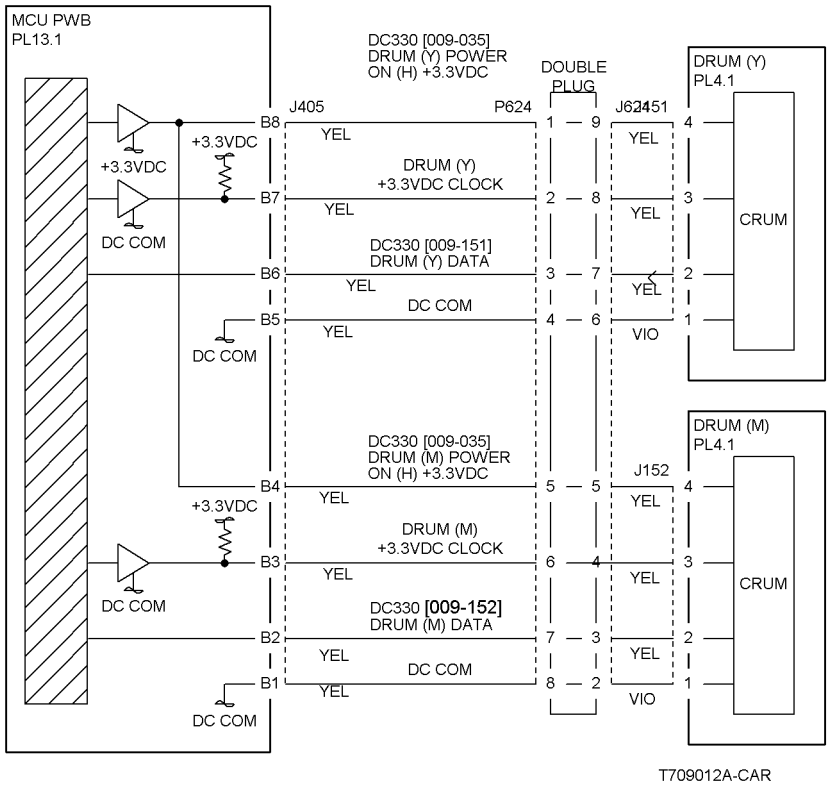


**Figure 1 Drum M Communication**

# 9-362 Cyan Drum Cartridge Communication

A communication failure with the Cyan Drum Cartridge was detected.

## Initial Actions

Check that the Cyan Drum Cartridge is seated correctly.

## Procedure

Enter dC330 [009-154, Drum (C) Data]. **The display is H.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Cyan Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB (PL 13.1).

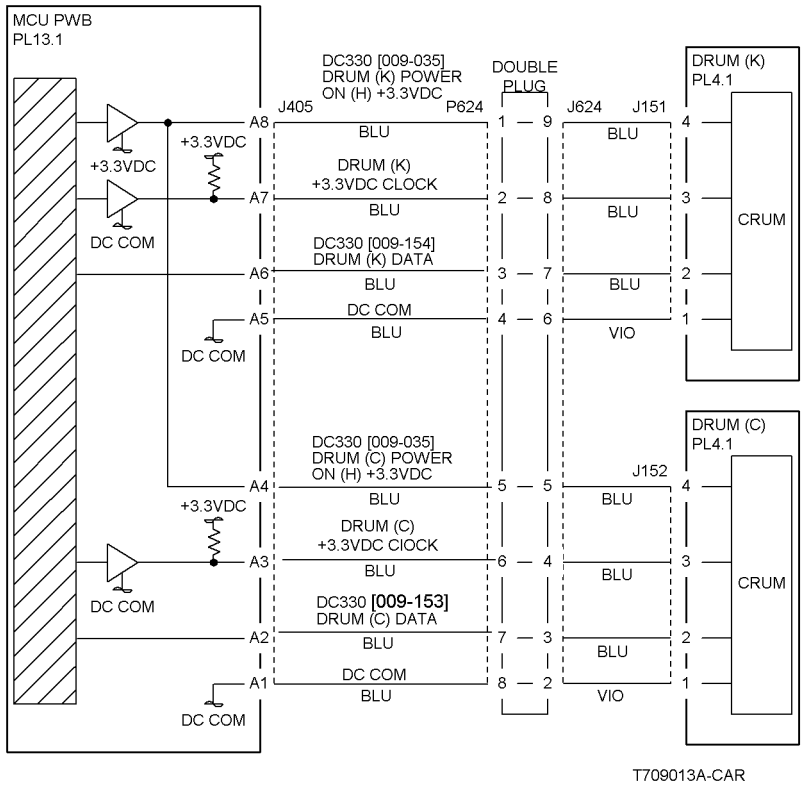


**Figure 1 Drum C Communication**

## 9-363 Black Drum Cartridge Communication

A communication failure with the Black Drum Cartridge was detected.

### Initial Actions

Check that the Black Drum Cartridge is seated correctly.

### Procedure

Enter dC330 [009-154, Drum (K) Data]. **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the Black Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB (PL 13.1).

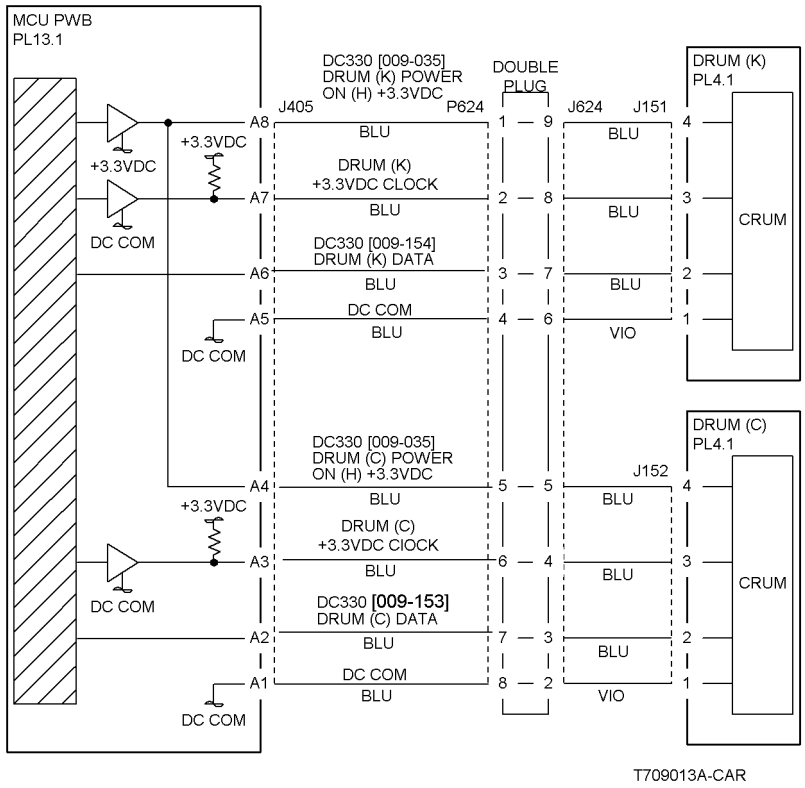


**Figure 1 Drum K Communication**

## 9-380 ATC Sensor (Y)

The ATC Sensor (Y) detects a low TC (toner concentration).

### Initial Actions

- ï Check that Toner/Developer is present.
- ï Check the ATC Sensor (Y) for contamination. Ensure that the sensor is seated correctly.

### Procedure

***NOTE:*** *To clear this fault, enter dC131 and set the value of NVM location 752-110 to 0.*

Record the value in NVM location 752-324, then set the value to 1. Perform ADJ 9.3. After the measurement has completed, restore the value. **The ATC Sensor (Y) fail judgement is OK.**

**Y N**

Check the connector P/J 129. If the check is OK, replace the ATC Sensor (Y) (PL 6.2). If the problem continues, replace the MCU PWB (PL 13.1).

After checking that no failures are detected during normal operation, go to call close out.

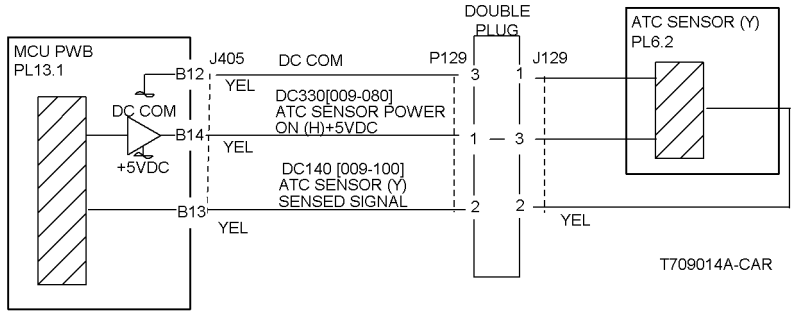


**Figure 1 ATC Sensor CD**

# 9-381 ATC Sensor (M)

The ATC Sensor (M) detects a low TC (toner concentration)

## Initial Actions

- Check that Toner/Developer is present.
- Check the ATC Sensor (M) for contamination. Ensure that the sensor is seated correctly.

## Procedure

***NOTE:*** *To clear this fault, enter dC131 and set the value of NVM location 752-110 to 0.*

Record the value in NVM location 752-324, then set the value to 1. Perform ADJ 9.3. After the measurement has completed, restore the value. **The ATC Sensor (M) fail judgement is OK.**

**Y** **N**

Check the connector P/J130. If the check is OK, replace the ATC Sensor (M) (PL 6.2). If the problem continues, replace the MCU PWB (PL 13.1).

After checking that no failures are detected during normal operation, go to call close out.

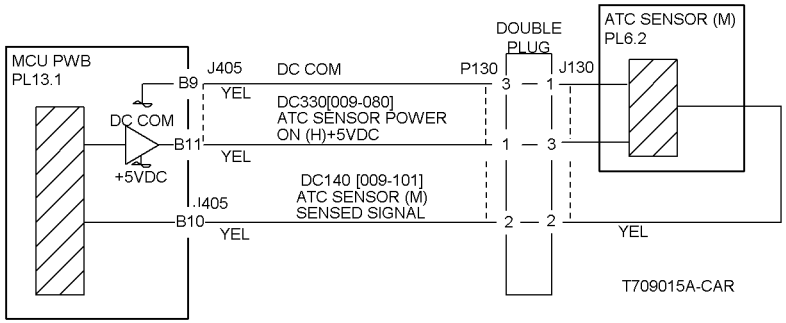


**Figure 1 ATC Sensor M**

# 9-382 ATC Sensor (C)

The ATC Sensor (C) detects a low TC (toner concentration)

## Initial Actions

- Check that Toner/Developer is present.
- Check the ATC Sensor (C) for contamination. Ensure that the sensor is seated correctly.

## Procedure

***NOTE:*** *To clear this fault, enter dC131 and set the value of NVM location 752-110 to 0.*

Record the value in NVM location 752-324, then set the value to 1. Perform ADJ 9.3. After the measurement has completed, restore the value. **The ATC Sensor (C) fail judgement is OK.**

**Y** **N**

Check the connector P/J131. If the check is OK, replace the ATC Sensor (C) (PL 6.2). If the problem continues, replace the MCU PWB (PL 13.1).

After checking that no failures are detected during normal operation, go to call close out.

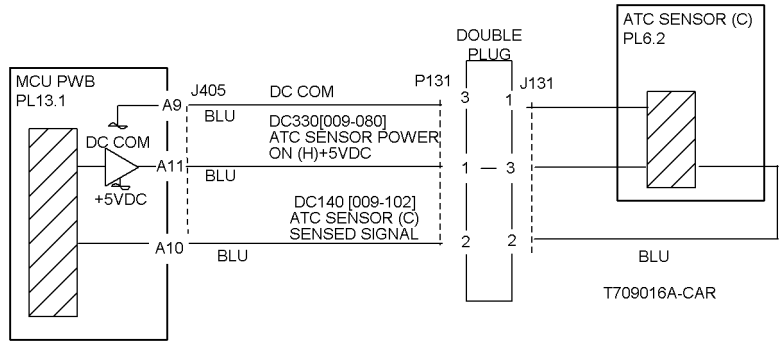


**Figure 1 ATC Sensor C**

# 9-383 ATC Sensor (K)

The ATC Sensor (K) detects an insufficient amount of developer material

## Initial Actions

- Check that Toner/Developer is present.
- Check the ATC Sensor (K) for contamination. Ensure that the sensor is seated correctly.

## Procedure

***NOTE:*** *To clear this fault, enter dC131 and set the value of NVM location 752-110 to 0.*

Record the value in NVM location 752-324, then set the value to 1. Perform ADJ 9.3. After the measurement has completed, restore the value. **The ATC Sensor (K) Fail judgement is OK.**

**Y N**

Check the connector P/J132 If the check is OK, replace the ATC Sensor (K) (PL 6.2). If the problem continues, replace the MCU PWB (PL 13.1).

After checking that no failures are detected during normal operation, go to call close out.

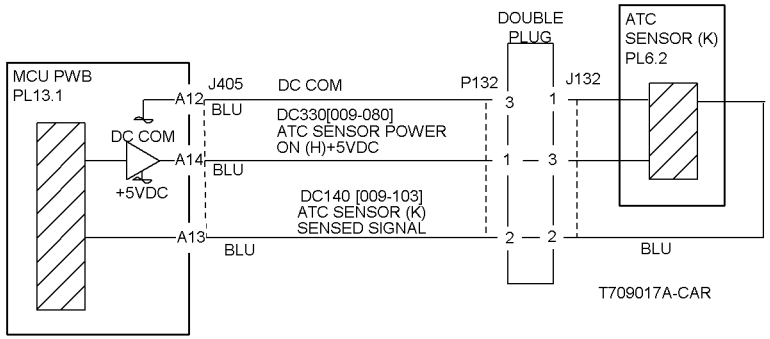


**Figure 1 ATC Sensor K**

# 9-390 New Toner Cartridge (K)

The New Cartridge Detect Switch (K) was not engaged to reset the Accumulative Dispense time NVM value to 0 when a new cartridge was installed.

## Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge is engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set NVM location 752-686 (Accumulative Dispense Time Value K) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-004, Dispense Motor (K)].

## Procedure

Disconnect P/J405 from the MCU PWB. **The fault has cleared.**

**Y N**

Replace the MCU PWB. (PL 13.1)

Remove the Toner Cartridge K and check the Dispense Motor Assembly for ware or damage.
Disconnect FS186/187 at both edges of the New Cartridge Detect Switch (K).
Check continuity at both edges of the New Cartridge Detect Switch (K). **There is continuity when the Switch is not engaged.**

**Y N**

Check the wire between the connector j405-A18 and the New Cartridge Detect Switch (K) FS187 for a short circuit to the frame.

Replace the New Cartridge Detect Switch (K). (PL 16.1)

# 9-391 New Toner Cartridge (C)

The New Cartridge Detect Switch (C) was not engaged to reset the Accumulative Dispense time NVM value to 0 when a new cartridge was installed.

## Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge is engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set the value of NVM location 752-685 (Accumulative Dispense Time Value C) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-003, Dispense Motor (C)].

## Procedure

Disconnect P/J504 from the MCU PWB. **The fault has cleared.**

**Y N**

Replace the MCU PWB. (PL 13.1)

Remove the Toner Cartridge C and check the Dispense Motor Assembly for ware or damage.
Disconnect FS185/185 at both edges of the New Cartridge Detect Switch (C).
Check continuity at both edges of the New Cartridge Detect Switch (C). **There is continuity when the Switch is not engaged.**

**Y N**

Check the wire between the connector J405-A17 and the New Cartridge Detect Switch (C) FS185 for a short circuit to the frame.

Replace the New Cartridge Detect Switch (C) (PL 6.1).

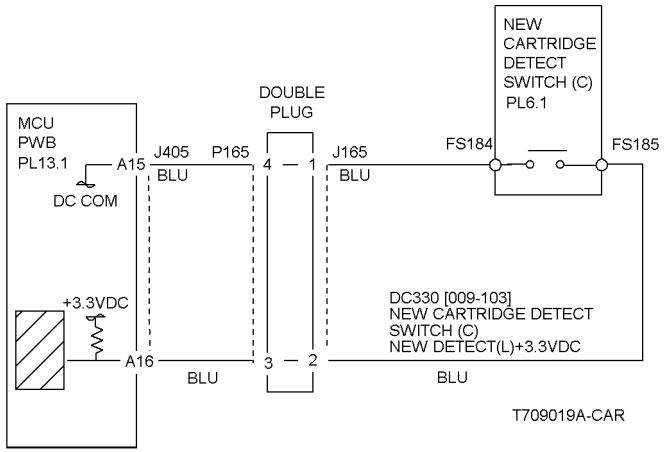


**Figure 1 New Cartridge Detect Switch (C)**

# 9-392 New Toner Cartridge (M)

When a new Toner Cartridge was installed, the level of the New Cartridge Detect Switch (M) remained L when it should be changed to H by the Dispenser Motor drive.

## Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge is engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set the value of NVM location 752-684 (Accumulative Dispense Time Value M) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-002, Dispense Motor (M)].

## Procedure

Disconnect P/J405 from the MCU PWB. **The fault has cleared.**

**Y N**

Replace the MCU PWB. (PL 13.1)

Remove the Toner Cartridge M and check the Dispense Motor Assembly for ware or damage.
Disconnect FS182/183 at both edges of the New Cartridge Detect Switch (M).
Check continuity at both edges of the New Cartridge Detect Switch (M). **There is continuity when the Switch is not engaged.**

**Y N**

Check the wire between the connector J405-B16 and the New Cartridge Detect Switch (M) FS183 for a short circuit to the frame.

Replace the New Cartridge Detect Switch (M) (PL 6.1).

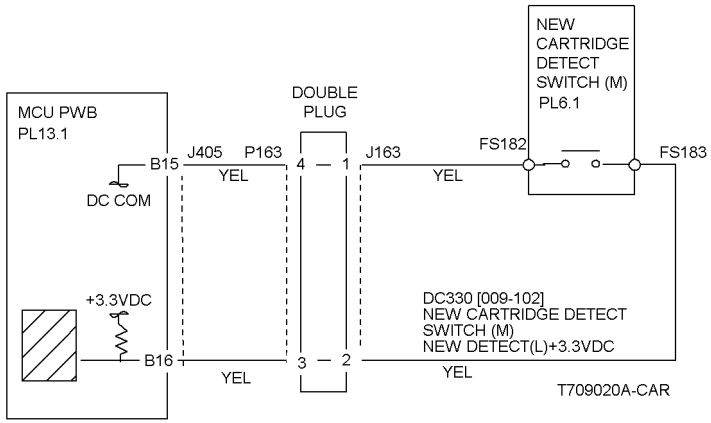


**Figure 1 New Cartridge Detect Switch (M)**

# 9-393 New Toner Cartridge (Y)

When a new Toner Cartridge was installed, the level of the New Cartridge Detect Switch (Y) remained L when it should be changed to H by the Dispense Motor drive.

## Initial Actions

- Re-install the Toner Cartridge ensuring that the Dispense Motor and the Toner Cartridge is engaged.
- Check that the New/Old Detection Switch (metal part) at the rear of the Toner Cartridge is raised. If the New/Old Detection Switch is not raised, lift it up, then set the value of NVM location 752-683 (Accumulative Dispense Time Value Y) to 0.
- Check that the Dispense Motor is operating; check dC330 [009-001, Dispense Motor (C)].

## Procedure

Disconnect P/J405 from the MCU PWB. **The fault has cleared.**

**Y N**

Replace the MCU PWB. (PL 13.1)

Remove the Toner Cartridge Y and check the Dispense Motor Assembly for ware or damage.
Disconnect FS180/181 at both edges of the New Cartridge Detect Switch (Y).
Check continuity at both edges of the New Cartridge Detect Switch (Y). **There is continuity when the Switch is not engaged.**

**Y N**

Check the wire between the connector J405-B18 and the New Cartridge Detect Switch (Y) FS181 for a short circuit to the frame.

Replace the New Cartridge Detect Switch (Y) (PL 6.1).

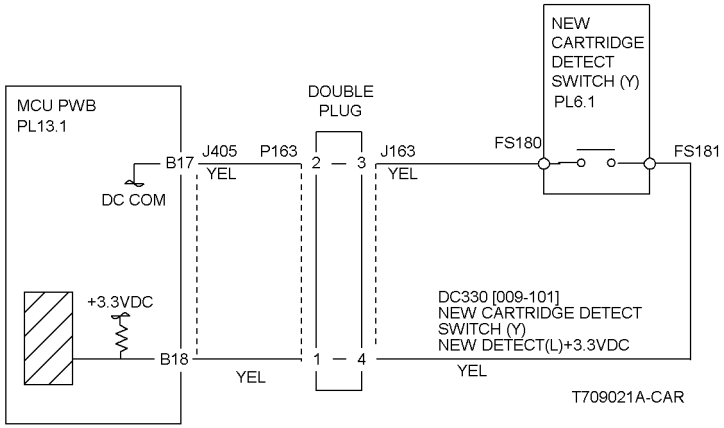


**Figure 1 New Cartridge Detect Switch (Y)**

# 9-408 Waste Toner Cartridge Near Full

The Waste Toner Cartridge is nearly full.

## Initial Actions

Replace the Waste Toner Cartridge. Check the Full Toner Sensor for contaminants.

## Procedure

Enter dC330 [009-150. Actuate and de-actuate the Full Toner Sensor (PL 4.1). **The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Replace the MCU PWB. (PL 13.1)

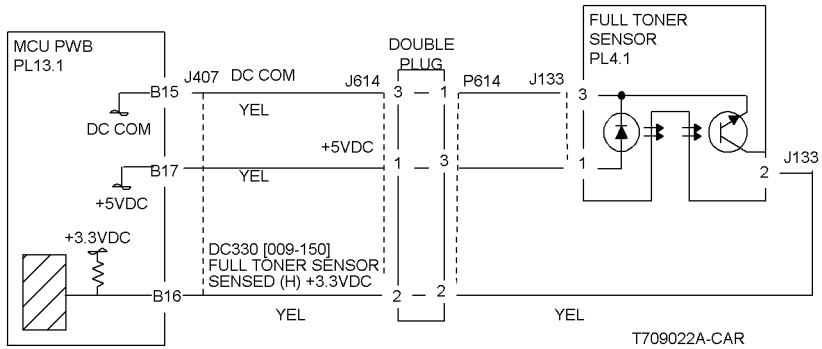


**Figure 1 Full Toner Sensor**

# 9-410 Toner Cartridge (Y) Near Empty

The Yellow Toner Cartridge is nearly empty/empty.

***NOTE:*** *Continuous running of high density prints can temporarily deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (Y).
- ï Check the ATC Sensor (Y) for blockage or contaminants.
- ï Check the drive system from the Developer Drive Motor to the Developer Housing (Y) for damage.

## Procedure

Enter dC330 [009-001]. **The Toner Dispense Motor (Y) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [009-014]. **The Developer Motor energizes (PL 1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check ADJ 9.3. **The ATC Sensor (Y) fail judgement is OK.**

**Y N**

Go to the 9-380, ATC Sensor Failure RAP.

After checking that no failures are detected during normal operation, go to call closeout.

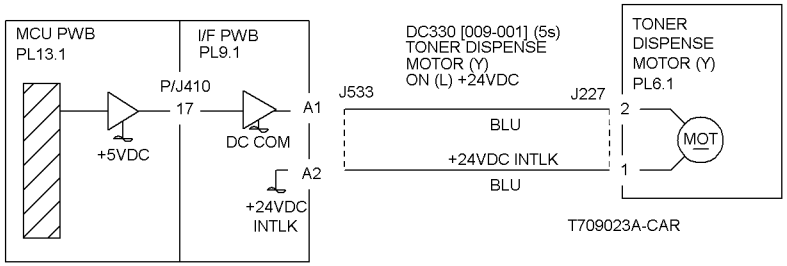


**Figure 1 Toner Dispenser Motor Y**

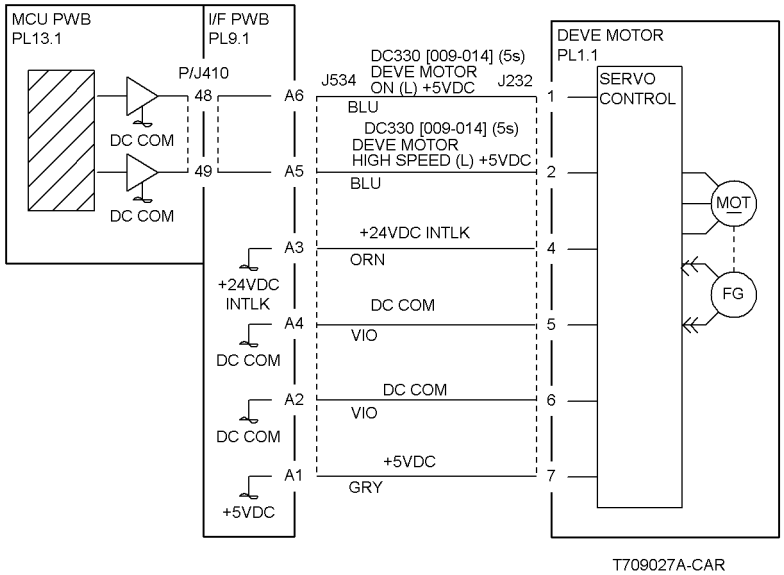


**Figure 2 The Developer Motor**

# 9-411 Toner Cartridge (M) Near Empty

The Yellow Toner Cartridge is nearly empty.

***NOTE:*** *Continuous running of high density prints can temporarily deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (M).
- ï Check the ATC Sensor (M) for blockage or contaminants.
- ï Check the drive system from the Developer Drive Motor to the Developer Housing (M) for damage.

## Procedure

Enter dC330 [009-002]. **The Toner Dispense Motor (M) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [009-014]. **The Developer Motor energizes (PL 1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Perform ADJ 9.3. **The ATC Sensor (M) fail judgement is OK.**

**Y N**

Go the 9-382 ATC Sensor Failure (M) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

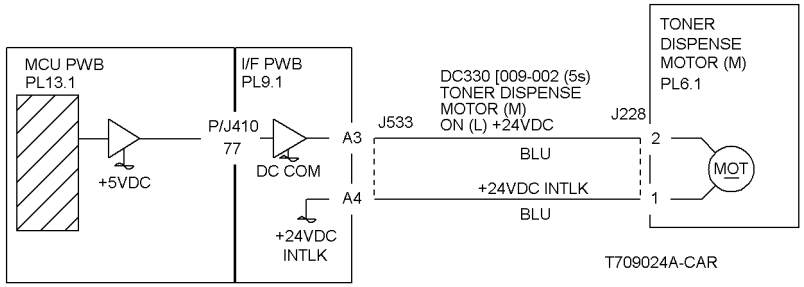


**Figure 1 Toner Dispense Motor M**

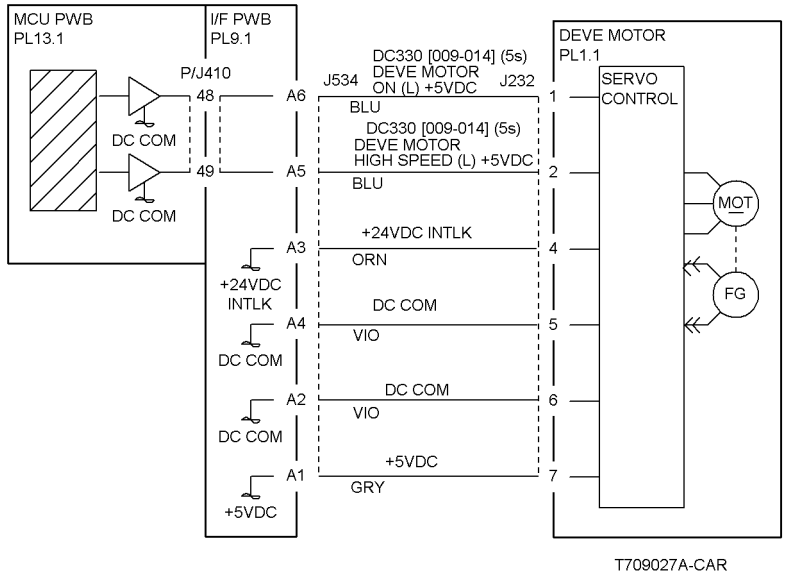


**Figure 2 The Developer Motor**

# 9-412 Toner Cartridge (C) Near Empty

The Cyan Toner Cartridge is nearly empty/empty.

***NOTE:*** *Continuous running of high density prints can temporarily deplete the toner supply.*

## Initial Actions

- Ensure that there is toner and the toner is evenly distributed in the cartridge (C).
- Check the ATC Sensor (C) for blockage or contaminants.
- Check the drive system from the Developer Drive Motor to the Developer Housing (C) for damage.

## Procedure

Enter dC330 [009-003]. **The Toner Dispense Motor (C) energizes (PL 6.1).**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [009-014]. **The Developer Motor energizes (PL 1.1).**

**Y** **N**

Go to OF 99-6 Motor Open RAP.

Perform ADJ 9.3. **The ATC Sensor (C) fail judgement is OK.**

**Y** **N**

Go the 9-383, ATC Sensor Failure (C) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

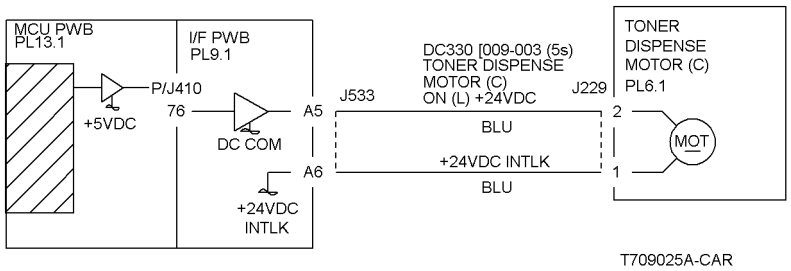


**Figure 1 Toner Dispense Motor C**

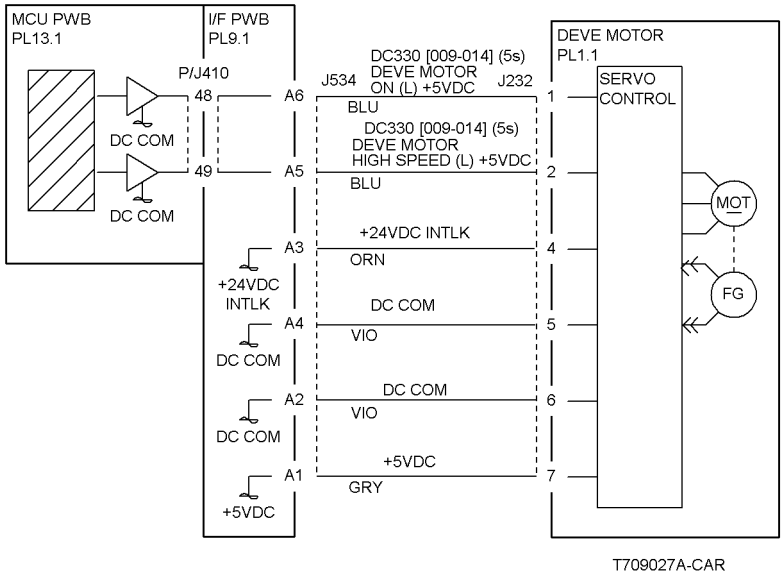


**Figure 2 The Developer Motor**

# 9-413 Toner Cartridge (K) Near Empty

The Black Toner Cartridge is nearly empty.

***NOTE:*** *Continuous running of high density prints can temporally deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (K).
- ï Check the ATC Sensor (K) for blockage or contaminants.
- ï Check the drive system from the Main Drive Motor to the Developer Housing (K) for damage.

## Procedure

Enter dC330 [009-004]. **The Toner Dispense Motor (K) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330. Stack the codes [004-004, Main Motor] and [009-013, Dev. Clutch (K)]. **The Black Developer Assy. energizes (PL 1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP (refer to BSD 4.1 and BSD 9.13 for circuit).

Check ADJ 9.3. **The ATC Sensor (K) fail judgement is OK.**

**Y N**

Go the 9-383, ATC Sensor Failure (K) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

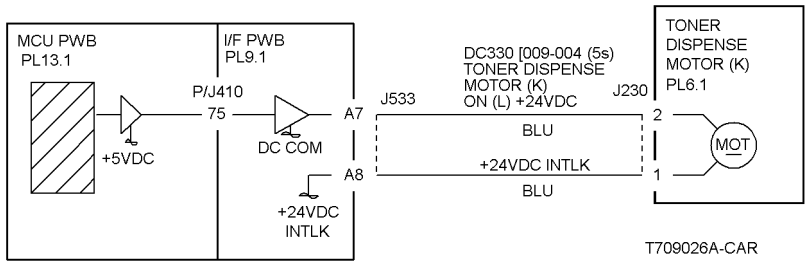


**Figure 1 Toner Dispense Motor K**

# 9-428 Change Drum Cartridge (K) Soon

The Drum Cartridge (K) needs to be replaced soon/reached end of life.

## Procedure

Replace the Black Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y N**

Replace the MCU PWB (PL 13.1).

Return to Service Call Procedures.

## 9-429 Change Drum Cartridge (Y) Soon

The Drum Cartridge (Y) needs to be replaced soon.

### Procedure

Replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y** **N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-430 Change Drum Cartridge (M) Soon

The Drum Cartridge (M) needs to be replaced soon.

### Procedure

Replace the Magenta Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y** **N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-431 Change Drum Cartridge (C) Soon

The Drum Cartridge (C) needs to be replaced soon.

### Procedure

Replace the Cyan Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-654 ADC Sensor

The machine logic detected an ADC Sensor operation failure.

### Procedure

Check ADJ 9.4. **The fail judgement of the ADC Sensor is OK.**

**Y N**

There is +5VDC from P/J 536-A13 on the I/F PWB to GND.

**Y N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Enter dC330 [009-078. **The ADC Shutter Solenoid energized (PL 1.3).**

**Y N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Enter dC330 [009-078. There is 0VDC from P/J 536-A8 on the I/F PWB to GND.

**Y N**

Check the wires and connectors. If the check is OK, replace the I/F PWB PL 9.1. If the problem continues replace the MCU PWB (PL 13.1).

Enter dC330 [009-079. The voltage from P/J 536-A6 to GND changed to 0VDC momentarily.

**Y N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues replace the MCU PWB (PL 13.1).

Check the wires and connectors. If the check is OK, replace the, replace the ADC Sensor Assembly (PL 1.3).

After checking that no failures are detected during normal operation, go to call closeout.

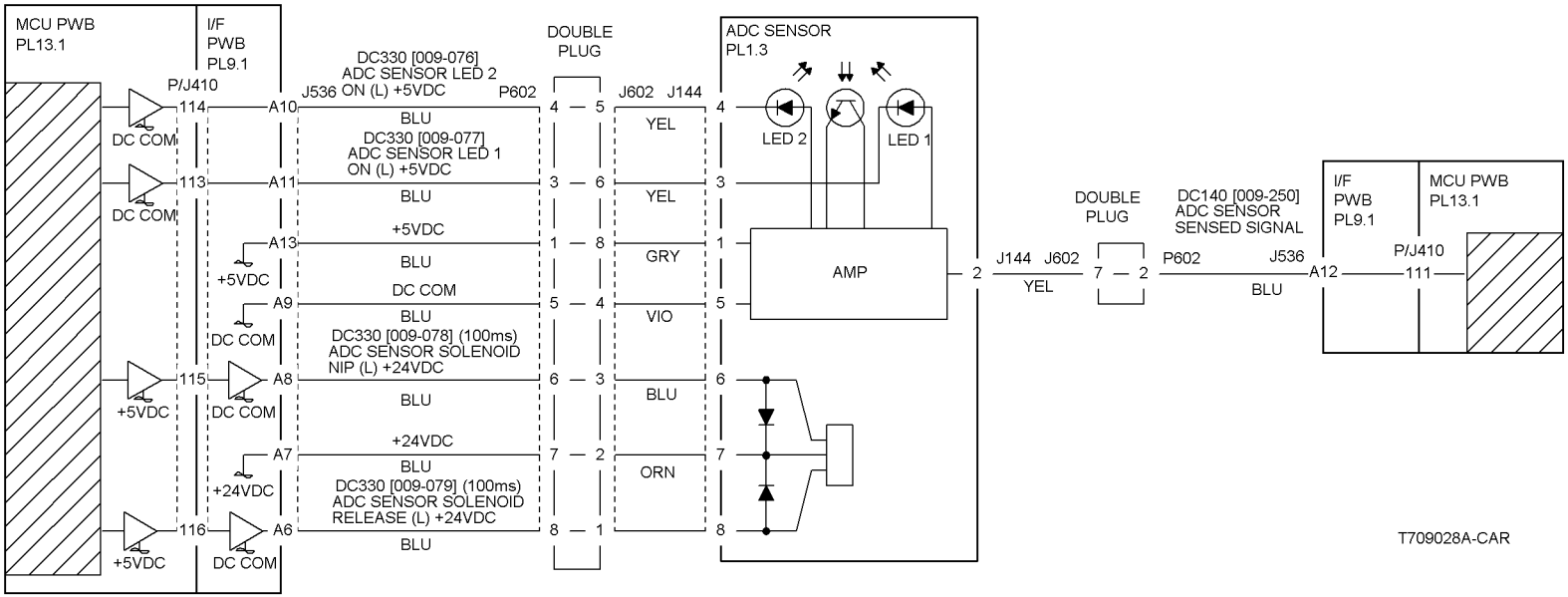


**Figure 1 The ADC Sensor**

# 9-660 Environment Sensor Temperature

An incorrect value was detected by the Environment Sensor (Temperature).

## Procedure

**There is 1 Ohm or less measured between the Environment Sensor P255-3 and P255-4**

**Y** **N**

Replace the Environment Sensor (PL 1.3).

Replace the I/F PWB (PL 9.1) and MCU PWB (PL 13.1) in sequence.

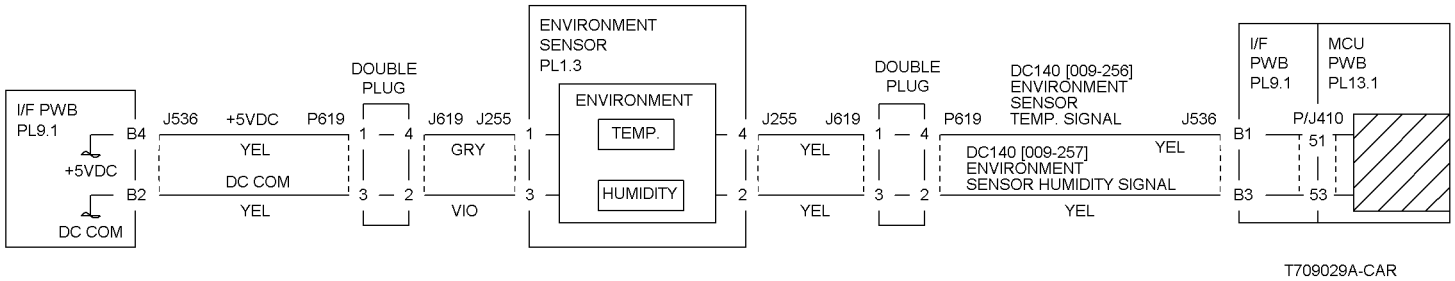


**Figure 1 The Environment Sensor**

# 9-661 Environment Sensor Humidity

An incorrect value was detected by the Environment Sensor (Humidity).

## Procedure

**There is +0.4VDC to +17VDC from P/J 536-B3 on the I/F PWB to GND.**

**Y N**

**There is +5VDC from P/J 536-B4 on the I/F PWB to GND.**

A

A

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Check for an open circuit and poor contact if the check is OK replace the Environment Sensor (PL1.3).

Replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1).

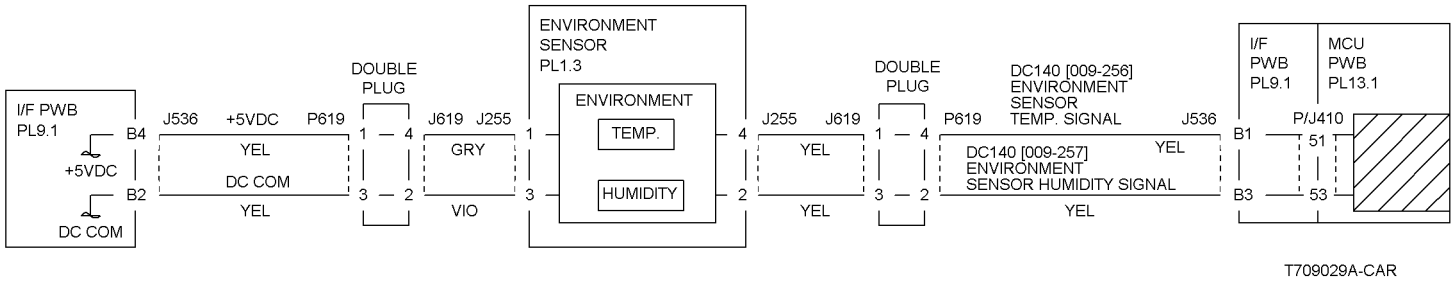


**Figure 1 The Environment Sensor**

## 9-670 New Toner Cartridge (K) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y** **N**

Go to the 9-390 RAP.

Return to Service Call Procedures.

## 9-671 New Toner Cartridge (C) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y** **N**

Go to the 9-391 RAP.

Return to Service Call Procedures.

## 9-672 New Toner Cartridge (M) Detected

The machine logic detected that the Toner Cartridge has been replaced. This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y** **N**

Go to the 9-392 RAP.

Return to Service Call Procedures.

## 9-673 New Toner Cartridge (Y) Detected

The machine logic detected that the Toner Cartridge has been replaced.This is a message fault only.

### Procedure

Switch the power off, then on. **The message fault clears.**

**Y** **N**

Go to the 9-393 RAP.

Return to Service Call Procedures.

# 9-684 ADC Shutter

The machine logic detected an ADC Shutter operation failure.

## Procedure

BSD 9.16, 9.31D

Enter dC330 [009-078]. **The ADC Shutter Solenoid energized.**

**Y** **N**

**There is +24VDC from P/J 536-A7 on the I/F PWB to GND.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the ADC Sensor (PL 1.3).

Enter dC330 [009-078]. There is 0VDC from P/J536-A8 on the I/F PWB to GND.

A

**Y** **N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the ADC Sensor (PL 1.3).

Enter dC330 [009-079]. The voltage from P/J 536-A6 on the I/F PWB to GND changed to 0VDC momentarily.

**Y** **N**

Check the wires and connectors. If the check is OK, replace the I/F PWB (PL 9.1). If the problem continues, replace the MCU PWB (PL 13.1). If the problem continues, replace the ADC Sensor (PL 1.3).

Check the wires and connectors. If the check is OK, replace the ADC Sensor (PL 1.3).

After checking that no failures are detected during normal operation, go to call closeout.

A

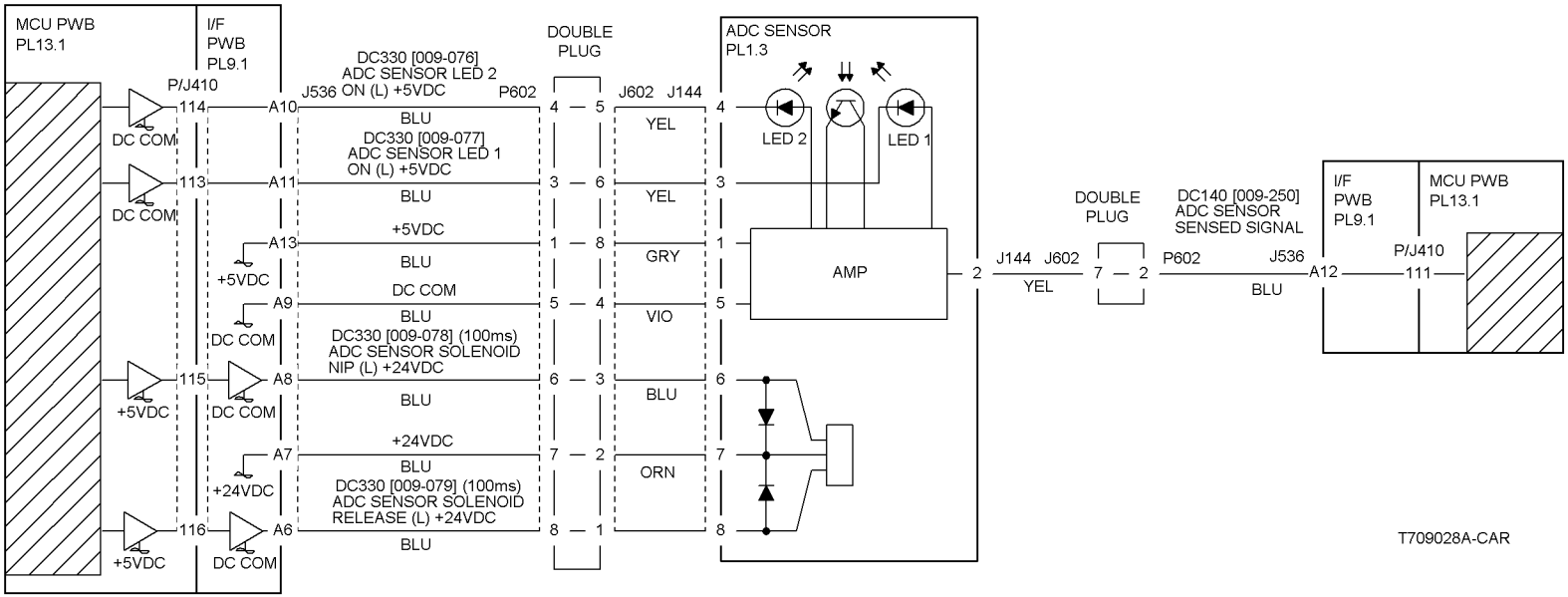


**Figure 1 The ADC Sensor**

# 9-910 Drum (Y) Type Mismatch

Drum Type Mismatch

## Initial Actions

Ensure that the correct drum type is installed.

## Procedure

Enter dC330 [009-151, Drum (Y) Data]. **The display is H.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB. (PL 13.1).

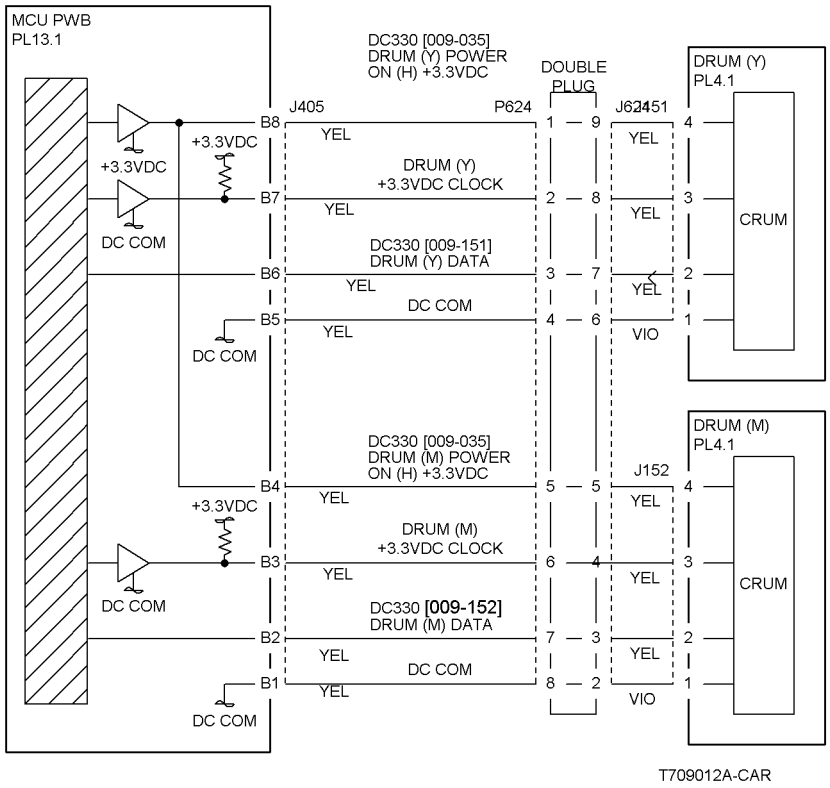


**Figure 1 Drum Y Communication**

# 9-911 Drum (M) Type Mismatch

Drum Type Mismatch

## Initial Actions

Ensure that the correct drum type is installed.

## Procedure

Enter dC330 [009-152 (Drum (M) Data]. **The display is H.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Magenta Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB. (PL 13.1).

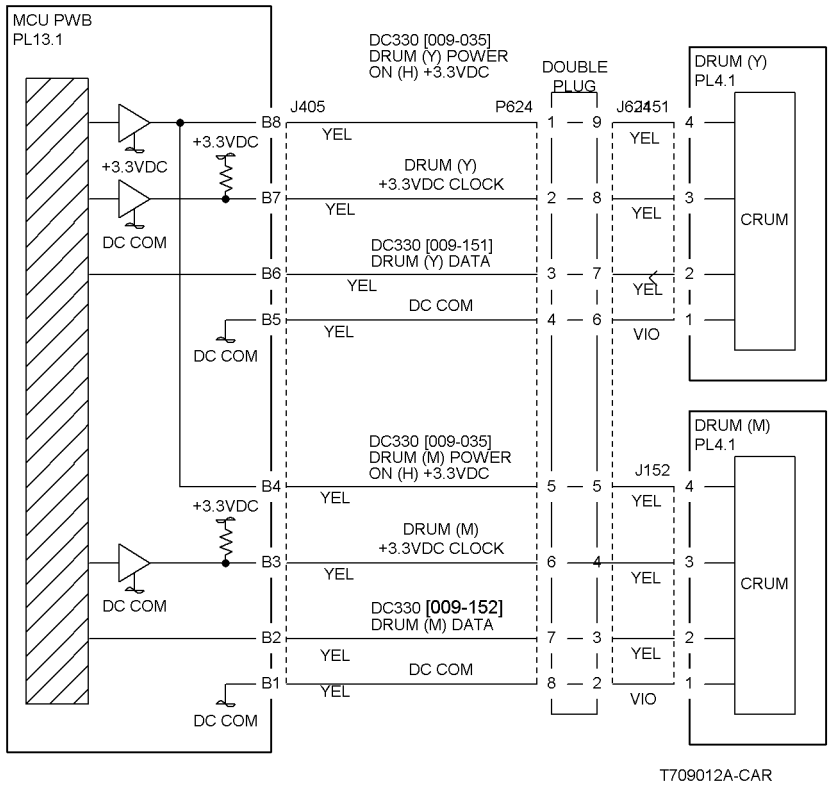


**Figure 1 Drum M Communication**

# 9-912 Drum (C) Type Mismatch

Drum Type Mismatch

## Initial Actions

Ensure that the correct drum type is installed.

## Procedure

Enter dC330 [009-153 (Drum (C) Data]. **The display is H.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Cyan Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB. (PL 13.1)

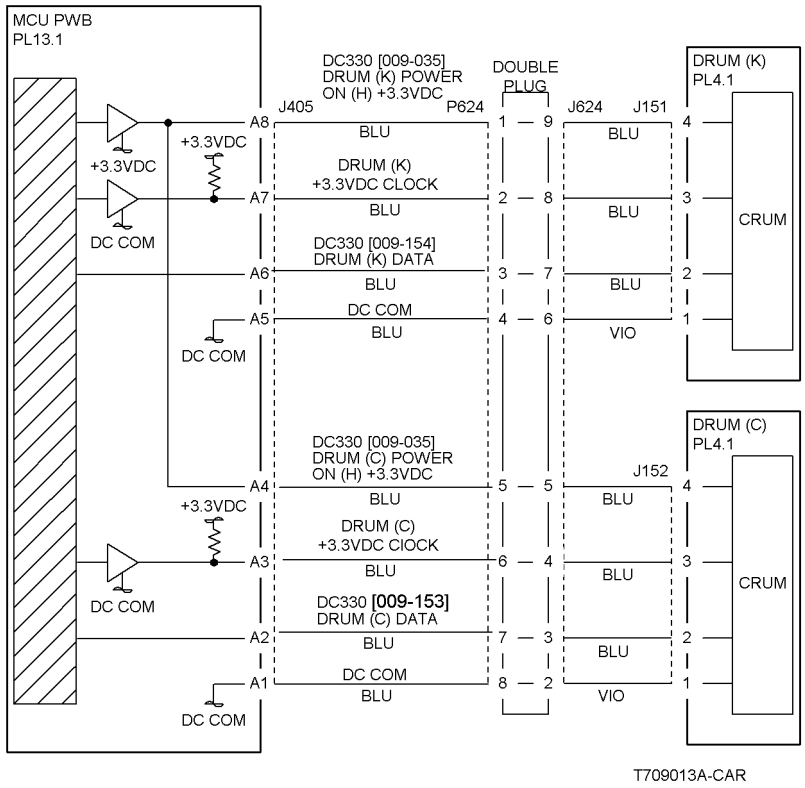


**Figure 1 Drum C Communication**

# 9-913 Drum (K) Type Mismatch

Drum Type Mismatch

## Initial Actions

Ensure that the correct drum type is installed.

## Procedure

Enter dC330 [009-154 (Drum (K) Data. **The display is H.**

**Y** **N**

Check the wires and connectors. If the check is OK, replace the Black Drum Cartridge (refer to Section 6, Machine Consumables).

Replace the MCU PWB. (PL 13.1)

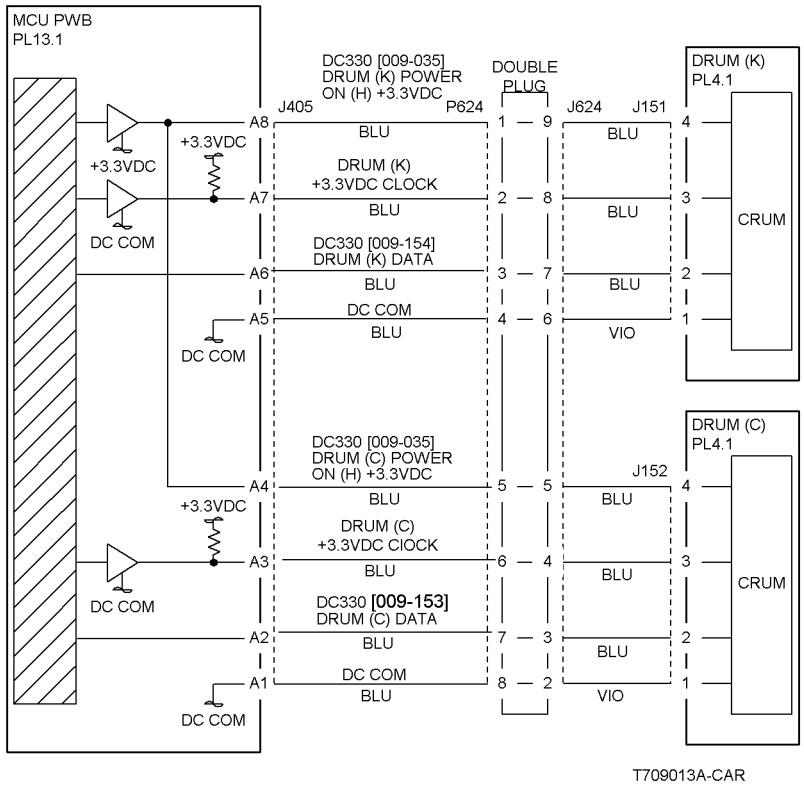


**Figure 1 Drum C Communication**

# 9-920 Toner Cartridge (Y) Empty

The Yellow Toner Cartridge is empty.

***NOTE:*** *Continuous running of high density prints can temporarily deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (Y).
- ï Check the ATC Sensor (Y) for blockage or contaminants.
- ï Check the drive system from the Developer Drive Motor to the Developer Housing (Y) for damage.

## Procedure

Enter dC330 [009-001]. **The Toner Dispense Motor (Y) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [009-014]. **The Developer Motor energizes (PL 1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check ADJ 9.3. **The ATC Sensor (Y) fail judgement is OK (PL 6.2).**

**Y N**

Go the 9-380 ATC Sensor Failure (Y) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

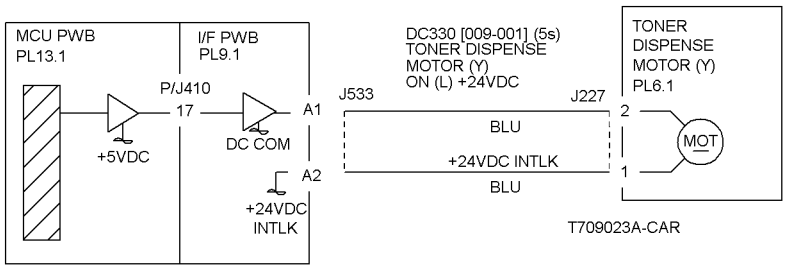


**Figure 1 Toner Dispense Motor Y**

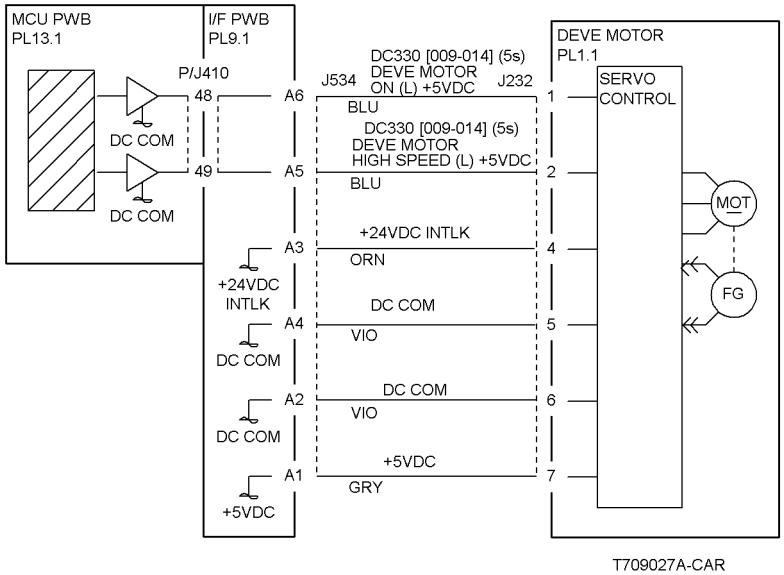


**Figure 2 The Developer Motor**

# 9-921 Toner Cartridge (M) Empty

The Yellow Toner Cartridge is empty.

***NOTE:*** *Continuous running of high density prints can temporarily deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (M).
- ï Check the ATC Sensor (M) for blockage or contaminants.
- ï Check the drive system from the Developer Drive Motor to the Developer Housing (M) for damage.

## Procedure

Enter dC330 [009-002]. **The Toner Dispense Motor (M) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [009-014]. **The Developer Motor energizes (PL.1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check ADJ 9.3. **The ATC Sensor (M) fail judgement is OK.**

**Y N**

Go the 9-382 ATC Sensor Failure (M) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

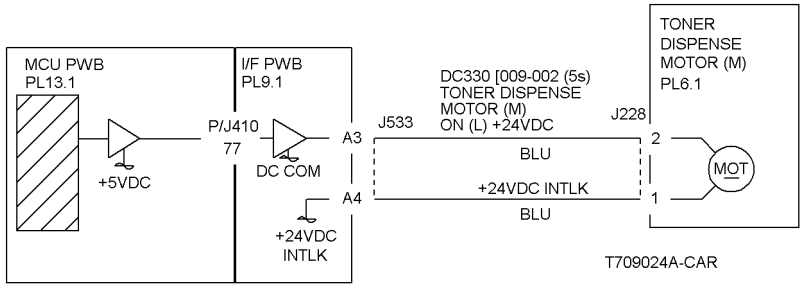


**Figure 1 Toner Dispense Motor M**

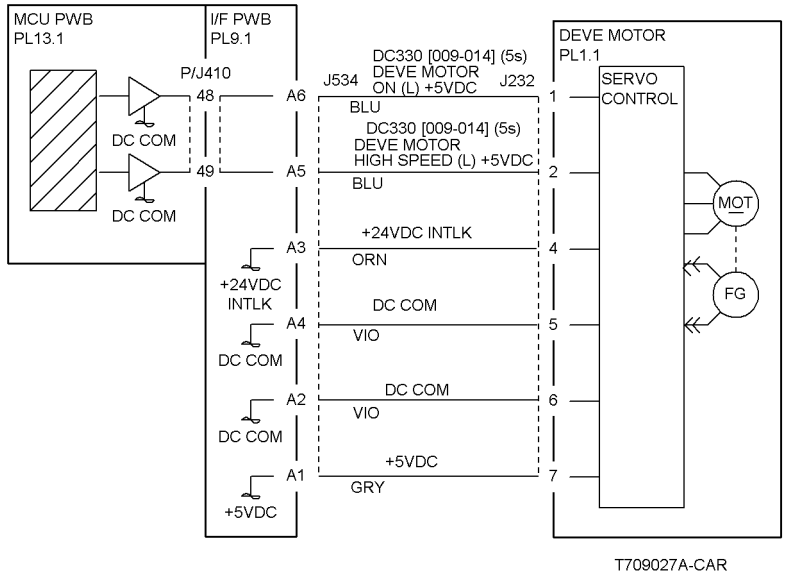


**Figure 2 The Developer Motor**

# 9-922 Toner Cartridge (C) Empty

The Cyan Toner Cartridge is empty.

***NOTE:*** *Continuous running of high density prints can temporally deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (C).
- ï Check the ATC Sensor (C) for blockage or contaminants.
- ï Check the drive system from the Developer Drive Motor to the Developer Housing (C) for damage.

## Procedure

Enter dC330 [009-003]. **The Toner Dispense Motor (C) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330 [009-014]. **The Developer Motor energizes (PL.1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Check ADJ 9.3. **The ATC Sensor (C) fail judgement is OK.**

**Y N**

Go the 9-383, ATC Sensor Failure (C) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

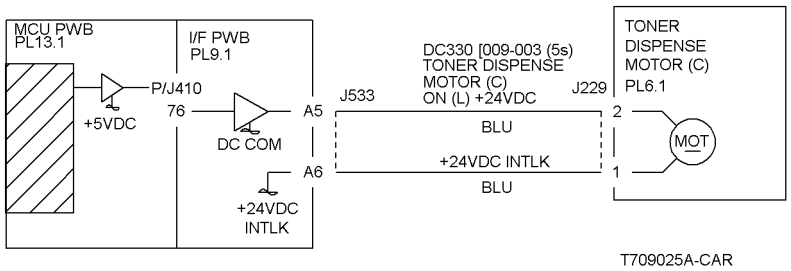


**Figure 1 Toner Dispense Motor C**

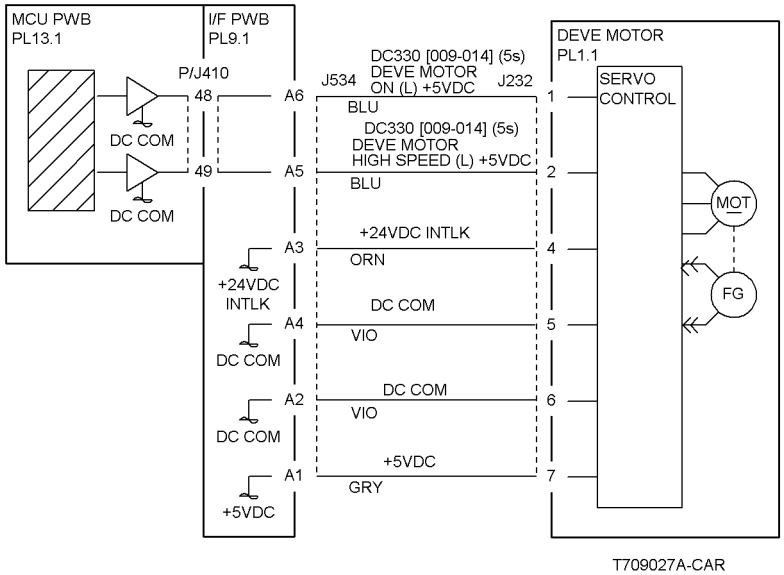


**Figure 2 The Developer Motor**

# 9-923 Toner Cartridge (K) Empty

The Black Toner Cartridge is empty.

***NOTE:*** *Continuous running of high density prints can temporally deplete the toner supply.*

## Initial Actions

- ï Ensure that there is toner and the toner is evenly distributed in the cartridge (K).
- ï Check the ATC Sensor (K) for blockage or contaminants.
- ï Check the drive system from the Main Drive Motor to the Developer Housing (K) for damage.

## Procedure

Enter dC330 [009-004]. **The Toner Dispense Motor (K) energizes (PL 6.1).**

**Y N**

Go to OF 99-6 Motor Open RAP.

Enter dC330. Stack the codes [004-004, Main Motor] and [009-013, Dev, Clutch (K)]. **The Black Developer Assy. energizes (PL 1.1).**

**Y N**

Go to OF 99-6 Motor Open RAP (refer to BSD 4.1 and BSD 9.13 for circuit).

Check ADJ 9.3. **The ATC Sensor (K) fail judgement is OK (PL 6.2).**

**Y N**

Go the 9-383 ATC Sensor Failure (K) RAP.

After checking that no failures are detected during normal operation, go to call closeout.

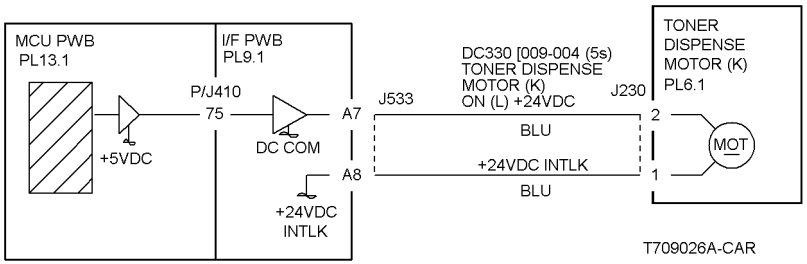


**Figure 1 Toner Dispense Motor K**

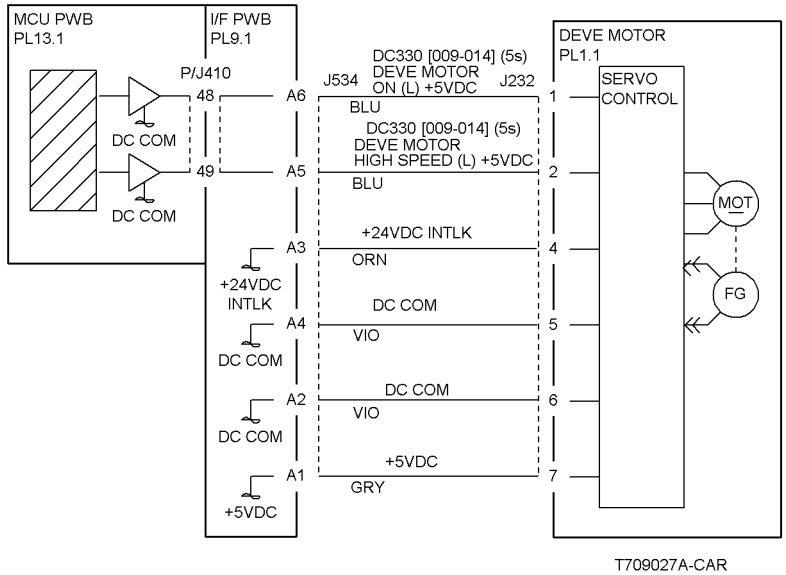


**Figure 2 The Developer Motor**

## 9-924 Waste Toner Cartridge Full

The Waste Toner Cartridge is full.

### Initial Actions

Replace the Waste Toner Cartridge. Check the Full Toner Sensor for contaminants.

### Procedure

Enter dC330 [009-150]. Actuate and de-actuate the Full Toner Sensor (PL 4.1) **The display changes state.**

**Y N**

Go to the OF 99-2 Transmissive Sensor RAP.

Replace the MCU PWB. (PL 13.1)

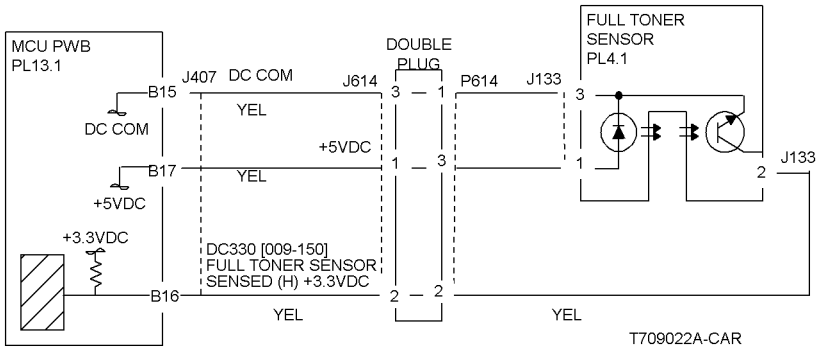


**Figure 1 Full Toner Sensor**

## 9-925 Waste Toner Cartridge Not Set

The Waste Toner Cartridge was not installed correctly

### Initial Actions

Ensure that the Waste Toner Cartridge is installed correctly.

### Procedure

There is +5VDC from P/J 535-A3 on the I/F PWB to GND.

**Y N**

**There is +5VDC measured at FS135 on the Waste Toner Cartridge Interlock Switch.**

**Y N**

Check the +5VDC circuit to the Waste Toner Cartridge Interlock Switch FS135.

**There is +5VDC measured at FS143 on the Waste Toner Cartridge Interlock Switch.**

**Y N**

Replace the Waste Toner Cartridge Interlock Switch (PL 4.1)

Check the wire between the Waste Toner Cartridge Interlock Switch FS134 and the I/F PWB P/J535-A3 for an open circuit or poor contact.

Check the connector P/J410 between the I/F PWB and the MCU PWB. If no problems are found, replace the MCU PWB. (PL 13.1)

If the problem persists, replace the I/F PWB. (PL 9.1)

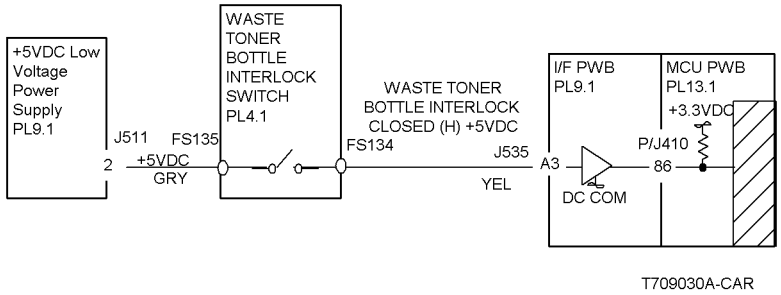


**Figure 1** The Waste Toner Bottle Interlock Switch

## 9-926 Drum Cartridge (K) End Of Life

The Drum Cartridge (K) needs to be replaced.

### Procedure

Replace the Black Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-927 Change Drum Cartridge (C) End Of Life

The Drum Cartridge (C) needs to be replaced.

### Procedure

Replace the Cyan Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-928 Drum Cartridge (M) End Of Life

The Drum Cartridge (M) needs to be replaced.

### Procedure

Replace the Magenta Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-929 Drum Cartridge (Y) End Of Life

The Drum Cartridge (Y) needs to be replaced.

### Procedure

Replace the Yellow Drum Cartridge (refer to Section 6, Machine Consumables). **The problem is corrected.**

**Y N**

Replace the MCU PWB. (PL 13.1).

Return to Service Call Procedures.

## 9-930 Black Drum Cartridge Not Detected

The machine logic detected that Black Drum Cartridge is not installed.

### Initial Actions

- Ensure Black Drum Cartridge is installed correctly.
- Switch the power off, then on.

### Procedure

Swap Black Drum Cartridge with Drum (Y), (C) or (M). **The problem is corrected.**

**Y N**

Check that P/J-405 on the MCU PWB and P/J-622 are connected and the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, Machine Consumables).

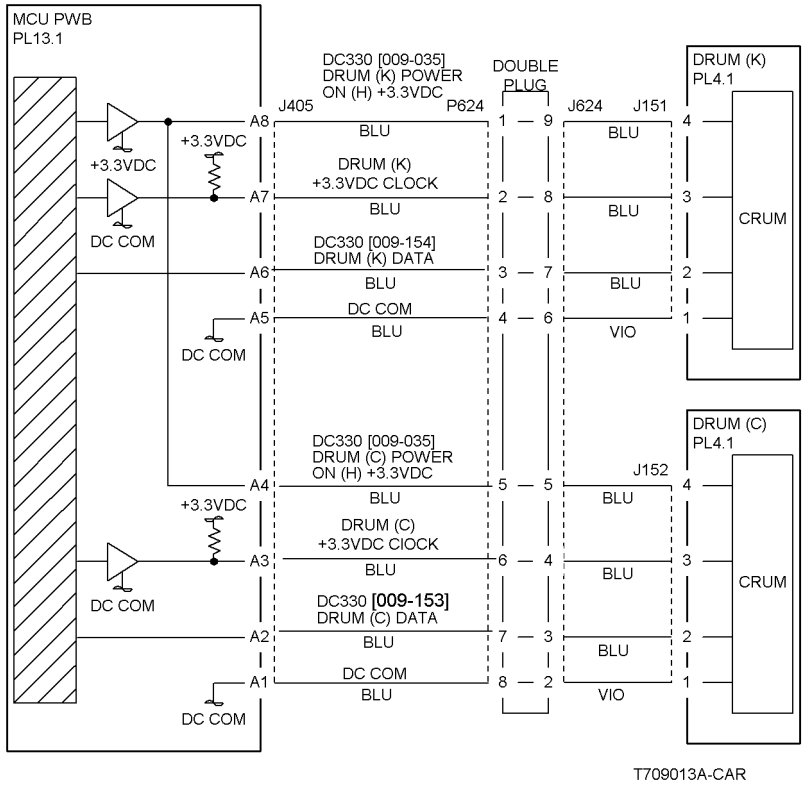


**Figure 1 Drum C Communication**

## 9-931 Cyan Drum Cartridge Not Detected

The machine logic detected that Cyan Drum Cartridge is not installed.

### Initial Actions

- Ensure Cyan Drum Cartridge is installed correctly.
- Switch the power off, then on.

### Procedure

Swap Cyan Drum Cartridge with Drum (Y), (K) or (M). **The problem is corrected.**

**Y N**

Check that P/J-405 on the MCU PWB and P/J-622 are connected and the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, Machine Consumables).

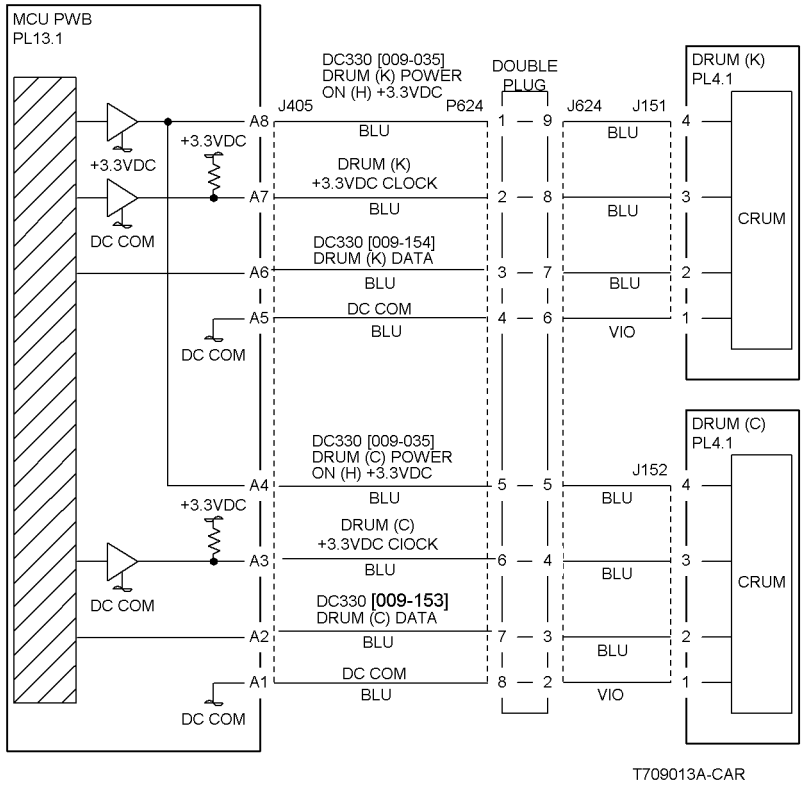


**Figure 1 Drum C Communication**

## 9-932 Magenta Drum Cartridge Not Detected

The machine logic detected that Magenta Drum Cartridge is not installed.

### Initial Actions

- Ensure Magenta Drum Cartridge is installed correctly.
- Switch the power off, then on.

### Procedure

Swap Magenta Drum Cartridge with Drum (Y), (C) or (K). **The problem is corrected.**

**Y N**

Check that P/J-405 on the MCU PWB and P/J-624 are connected and the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, Machine Consumables).

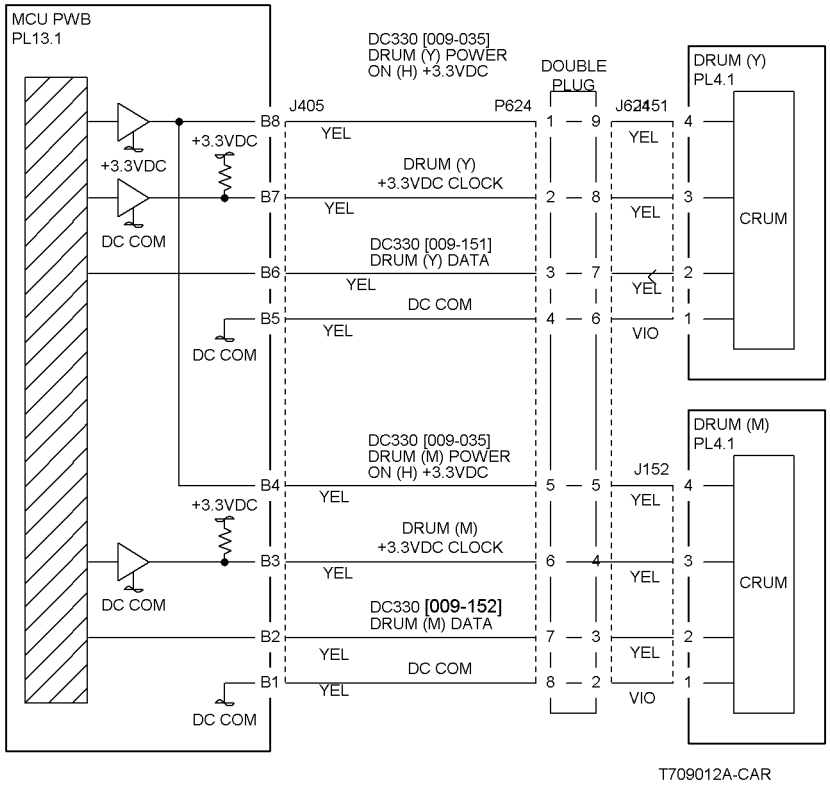


**Figure 1 Drum M Communication**

## 9-933 Yellow Drum Cartridge Not Detected

The machine logic detected that the Yellow Drum Cartridge is not installed.

### Initial Actions

- Ensure Yellow Drum Cartridge is installed correctly.
- Switch the power off, then on.

### Procedure

Swap Yellow Drum Cartridge with Drum (K), (C) or (M). **The problem is corrected.**

**Y N**

Check that P/J-405 on the MCU PWB and P/J-624 are connected and the wires for an open or short. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues, replace the ESS PWB (PL 13.1).

Replace the defective Drum Cartridge (refer to Section 6, Machine Consumables).

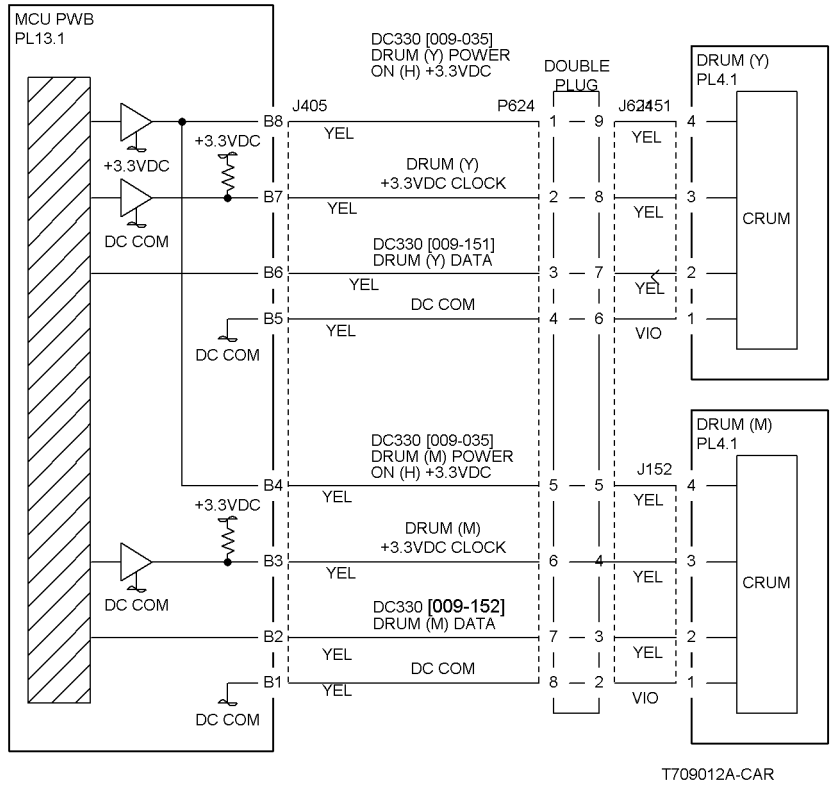


**Figure 1 Drum Y Communication**

# 10-105 Face Up Exit Sensor On

The Face Up Exit Sensor did not energize.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Exit Roll and check for wear.
- Check the drive transmissions for damage or wear.

## Procedure

Enter dC330 [010-103] and press Start. Block and unblock the Face Up Exit Sensor (PL 11.2). **The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Enter dC330 [010-101] and press Start. Actuate and de-actuate the Fuser Exit Switch (PL 2.8). **The display changes state.**

**Y N**

Go to OF 99-3 Switch RAP.

Enter dC330 [008-046] and press Start. **The Duplex Gate Solenoid energizes (PL 11.2).**

**Y N**

Go to the OF 99-4 Solenoid/Clutch RAP.

Enter dC330 [008-045] and press Start. **The Exit Gate Solenoid energizes (PL 11.2).**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP.

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

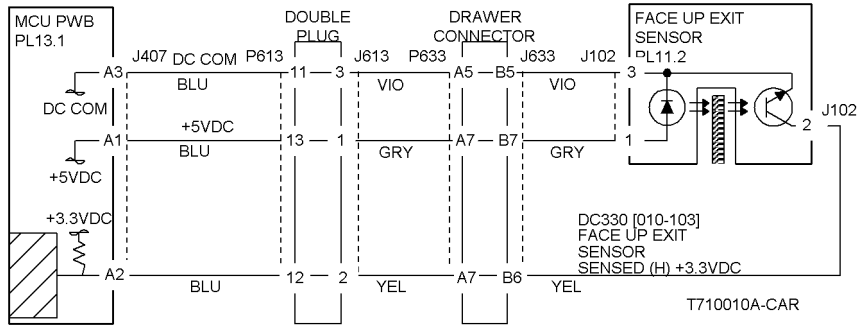


**Figure 1 The Face Up Exit Sensor CD**

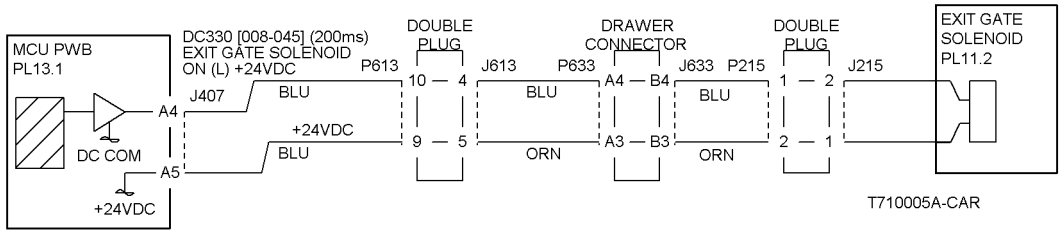


**Figure 2 The Exit Gate Solenoid CD**

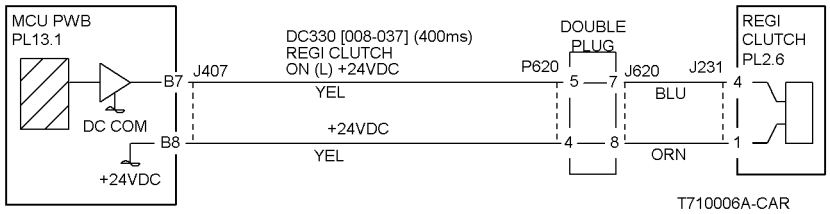


**Figure 3 The Registration Clutch CD**

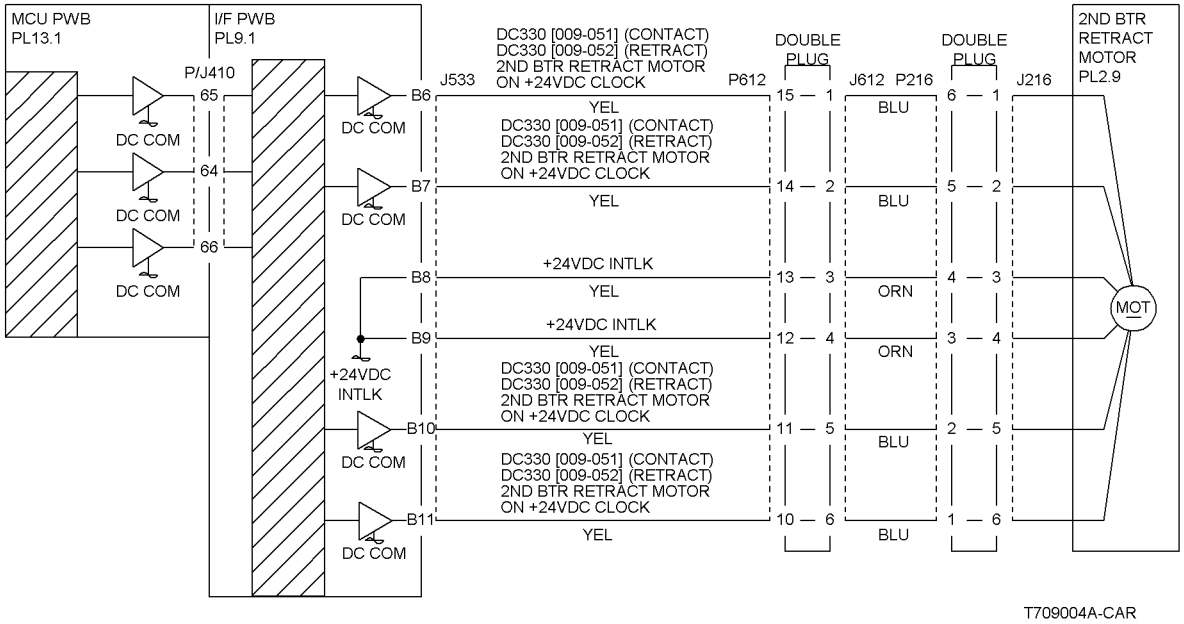


**Figure 4 The 2ND BTR Retract Motor CD**

## 10-106 Face Up Exit Sensor Off

The Face Up Exit Sensor did not de-energize.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Fuser Exit Roll and check for wear.
- Check the drive transmissions for damage or wear.

### Procedure

Enter dC330 [010-103] and press Start. Block and unblock the Face Up Exit Sensor (PL 11.2). **The display changes state.**

**Y N**

Go to OF 99-2 Transmissive Sensor RAP.

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

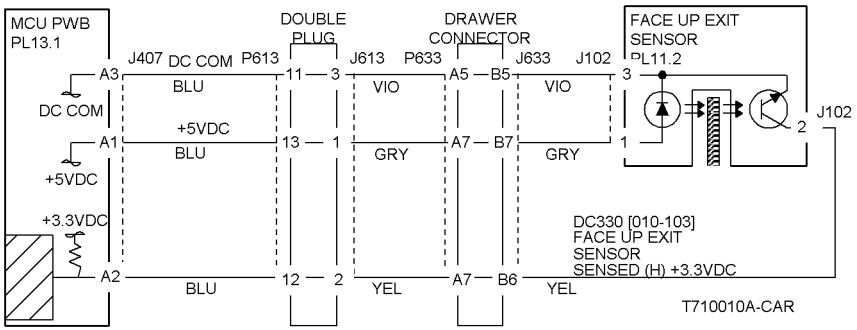


**Figure 1 The Face Up Exit Sensor CD**

## 10-110 Fuser Exit Switch On (Face Down/duplex)

The Fuser Exit Switch did not energize.

### Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Fuser Exit Roll and check for wear.
- Check the drive transmissions for damage or wear.

### Procedure

**Check the Fuser Stripper Fingers and Fuser Roll for dirt build up, wear or damage. The check is OK.**

**Y N**

Clean or replace the Fuser Assembly (PL 7.1).

Enter dC330 [010-101] and press Start. **Actuate and de-actuate the Fuser Exit Switch (PL 2.8). The display changes state.**

**Y N**

Go to OF 99-3 Switch RAP.

Enter dC330 [008-045] and press Start. **The Exit Gate Solenoid energizes (PL 11.2).**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP] and press Start.

Enter dC330 [008-037] and press Start. **The Registration Clutch energizes (PL 2.6).**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP.

In sequence enter the following: dC330 [9-051] then dC330 [9-052] and press Start. **The 2nd BTR Retract Motor contacts and retracts (PL 2.9).**

**Y N**

Go to RAP 9-342 for a contact failure or go to 9-343 for a retract failure.

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

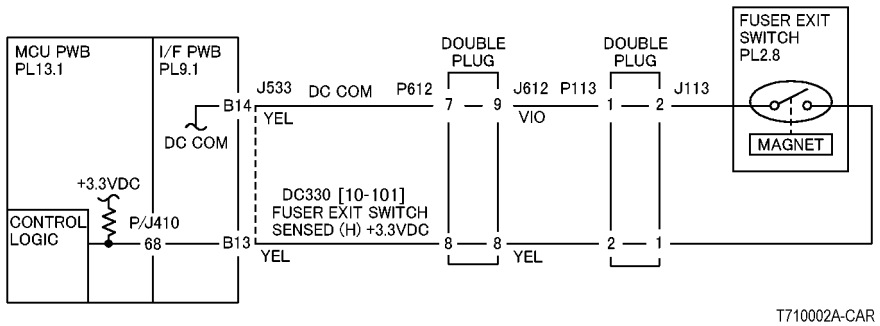


**Figure 1 Fuser Exit Switch CD**

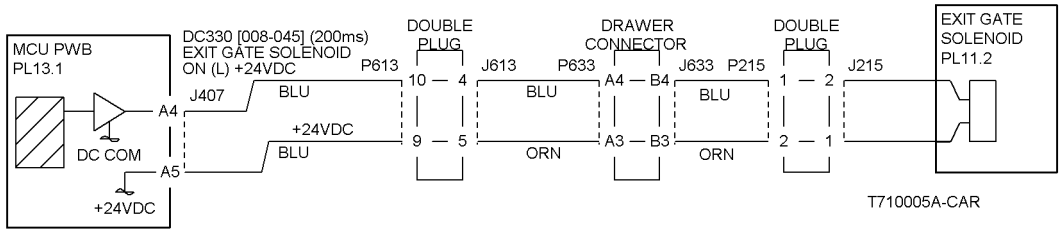


**Figure 2 Exit Gate Solenoid CD**

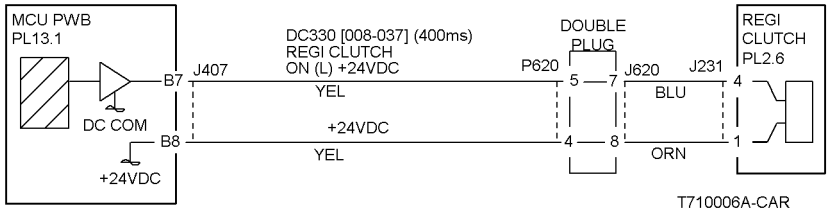


**Figure 3 Registration Clutch CD**

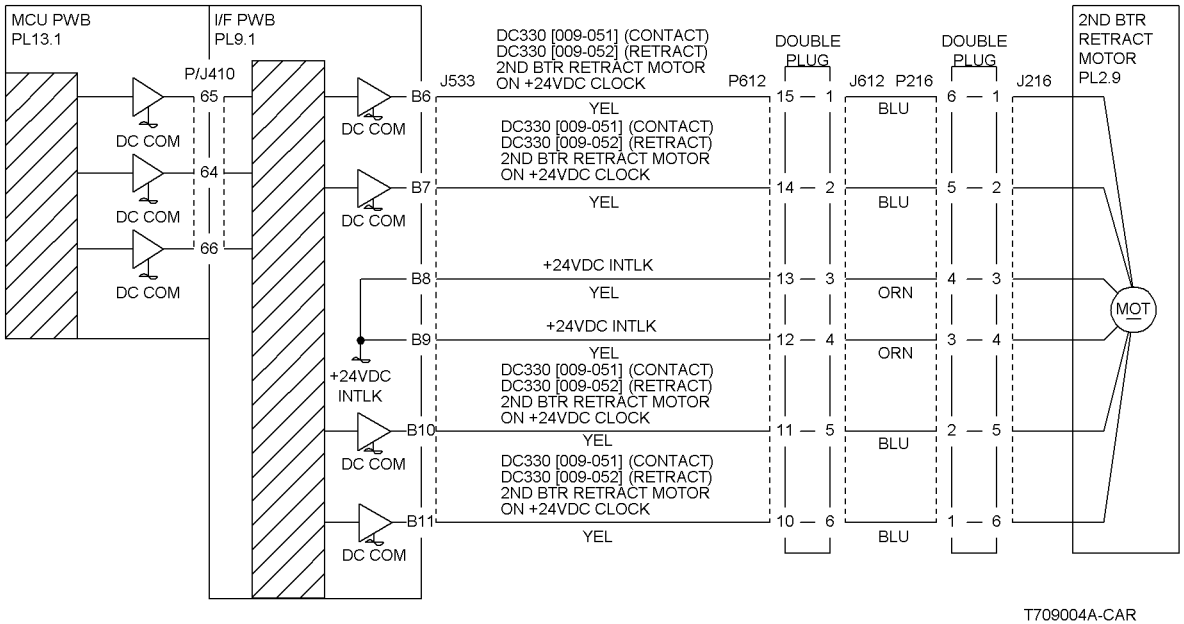


**Figure 4 2ND BTR Retract Motor**

# 10-111 Fuser Exit Switch Off (Face Down)

The Fuser Exit Switch did not de-energize.

## Initial Actions

- Check condition and specification of the paper supply.
- Check for obstructions in the paper feed path.
- Clean the Fuser Exit Roll and check for wear.
- Check the drive transmissions for damage or wear.

## Procedure

**Check the Fuser Stripper Fingers and Fuser Roll for dirt build up, wear or damage. The check is OK.**

**Y N**

Clean or replace the Fuser Assembly (PL 7.1).

Enter dC330 [010-101] and press Start. Actuate and de-actuate the Fuser Exit Switch (PL 2.8). **The display changes state.**

**Y N**

Go to OF 99-3 Switch RAP.

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Enter dC330 [008-045] and press Start. **The Exit Gate Solenoid energizes (PL 11.2).**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP.

The switch and solenoid are operating correctly. If the problem continues, check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

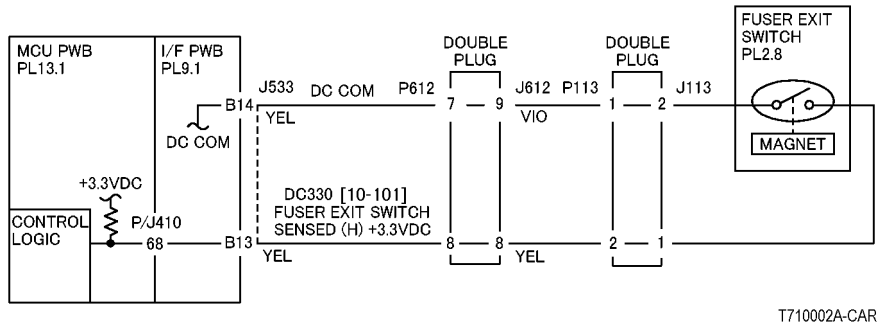


**Figure 1 Fuser Exit Switch CD**

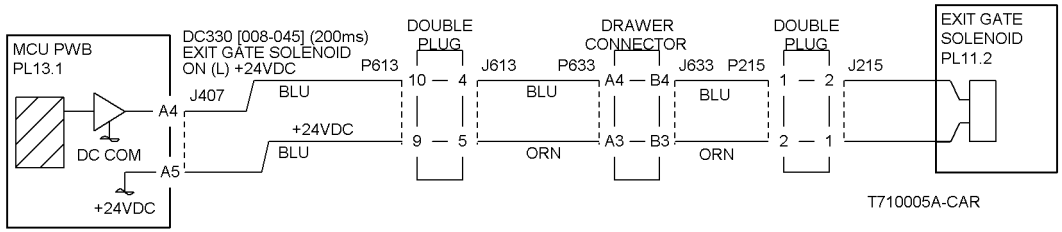


**Figure 2 Exit Gate Solenoid CD**

# 10-125 Duplex Wait Sensor On

The Duplex Wait Sensor did not energize

## Initial Actions

- Check condition and specification of paper in Tray 2.
- Check the paper path for obstructions.
- Check for wear and clean the Duplex Drive Rolls.
- Check the exit transmission gears for breakage and wear.

## Procedure

Enter dC330 [008-105] and press Start. Block and unblock the Duplex Wait Sensor (PL 12.2). **The display changes state.**

**Y N**

Go to OF 99-1Reflective Sensor RAP.

Enter dC330 [008-003] and press Start. **The Duplex Motor energizes (PL 12.2).**

**Y N**

Go to OF 99-6 Motor RAP.

Enter dC330 [008-046] and press Start. **The Duplex Gate Solenoid energizes.**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP.

Enter dC330 [008-042] and press Start. **The Inverter Forward Clutch Energizes.**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP.

Enter dC330 [008-043] and press Start. **The Inverter Reverse Clutch Energizes.**

**Y N**

Go to OF 99-4 Solenoid/Clutch RAP.

The circuits are operating correctly, re-check the Drawer connector and the duplex mechanical drives. If the problem continues, check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

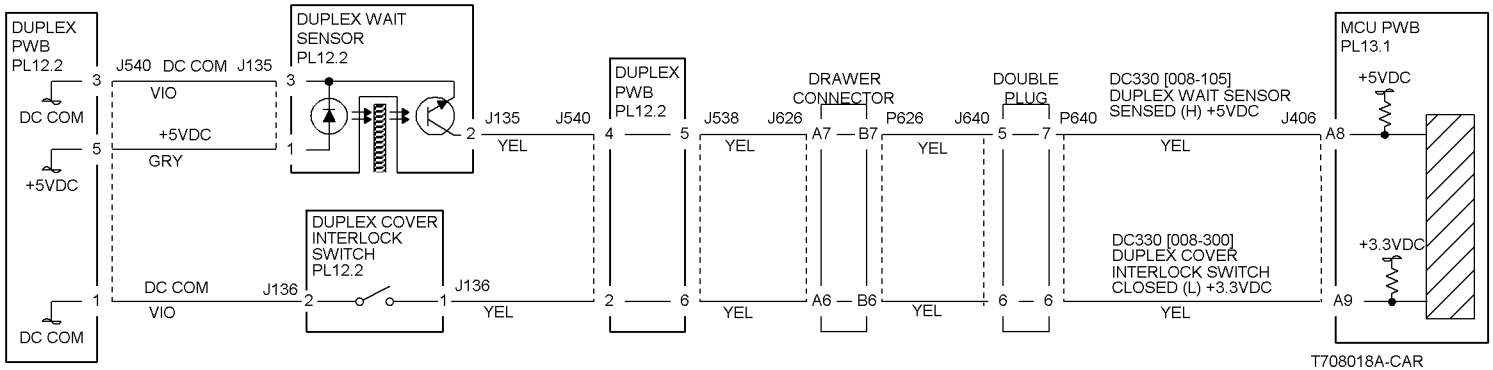


**Figure 1 Duplex Wait Sensor CD**

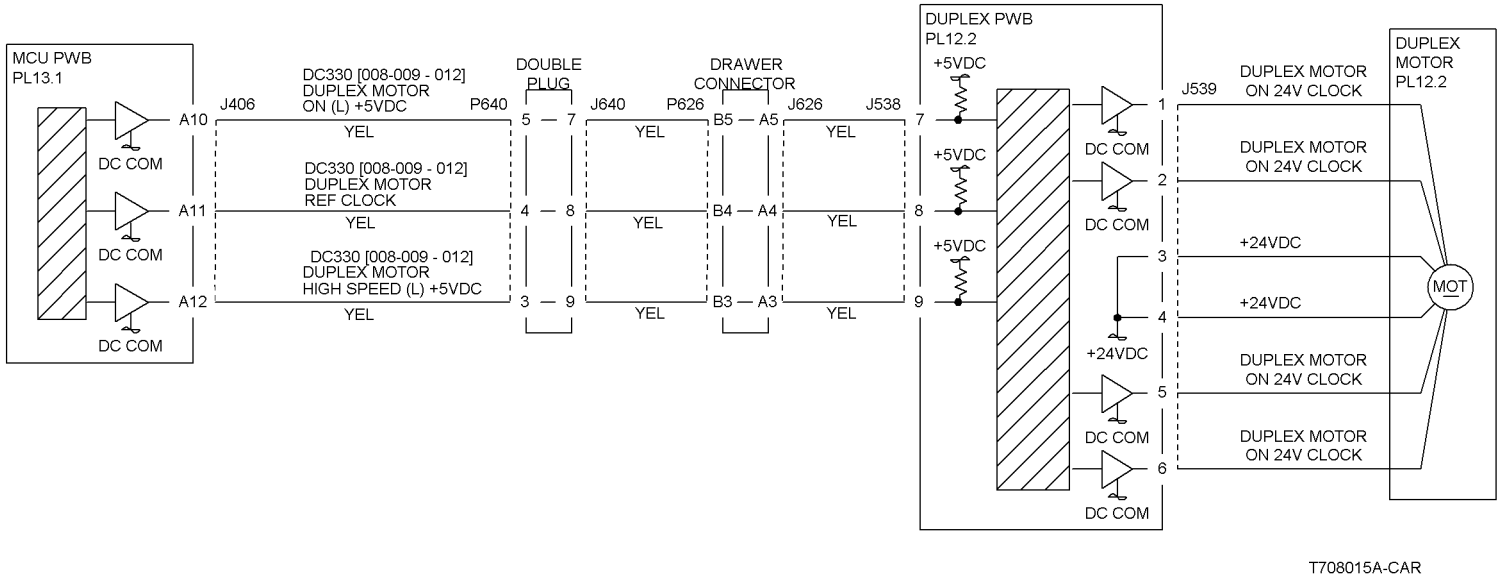


**Figure 2 Duplex Motor CD**

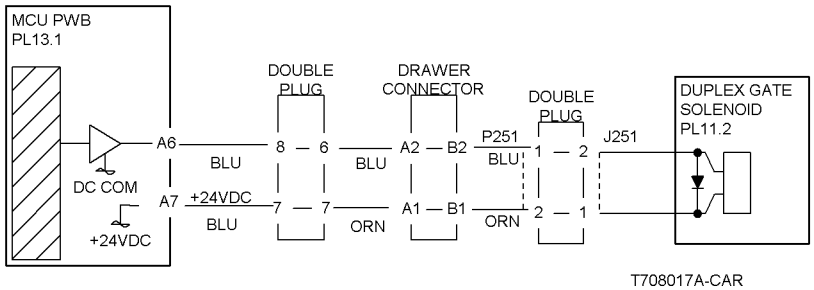


**Figure 3 Duplex Exit Gate Solenoid**

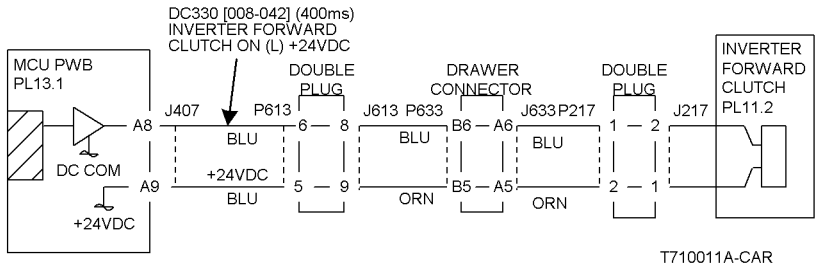


**Figure 4 Inverter Forward Clutch CD**

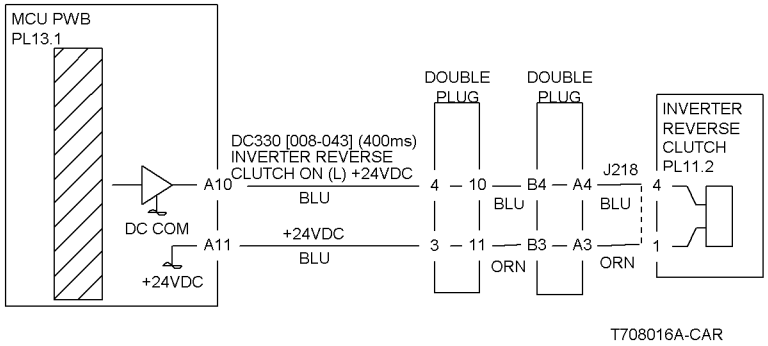


**Figure 5 Inverter Reverse Clutch CD**

# 10-348 Main Heater Over Heat

The Front Thermistor detected an overheat condition.

## Procedure

***NOTE:*** *To clear this fault, re-set the value of dC131 [744-003] to "0".*

Turn off the power, remove the Fuser Assembly. and allow it to cool down.
Measure the resistance between P/J600-4 and P/J600-6 on the Fuser Assembly.

**The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Front Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-100] and press Start. **The display value is between 678 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-12 and P/J404-11on the MCU PWB PL 13.1. If the check is OK, replace the MCU PWB (PL 13.1).

**There is +3.4VDC measured at P/J404-5 on the MCU PWB.**

**Y N**

Replace the MCU PWB (PL 13.1).

Check the wires and connectors. If the check is OK, replace the AC Drive PWB (PL 9.2).

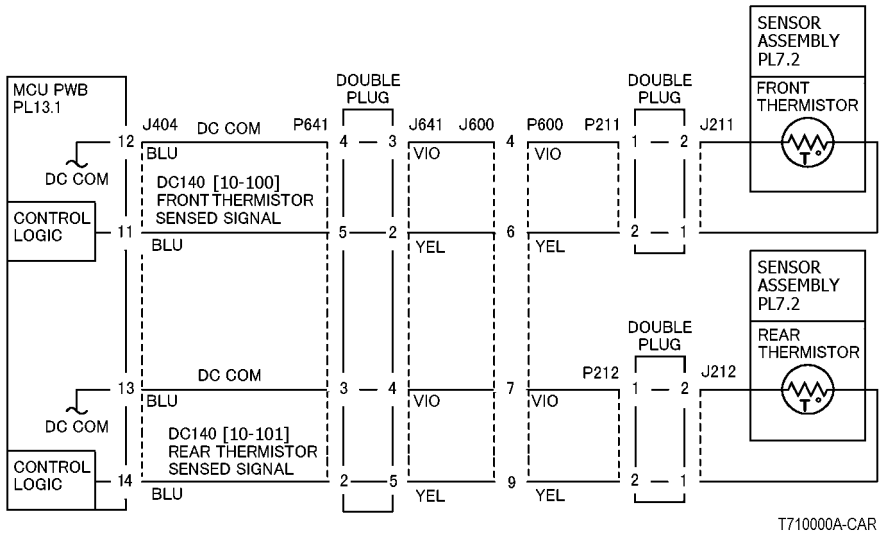


**Figure 1 Fuser Front and Rear Thermistor CD**

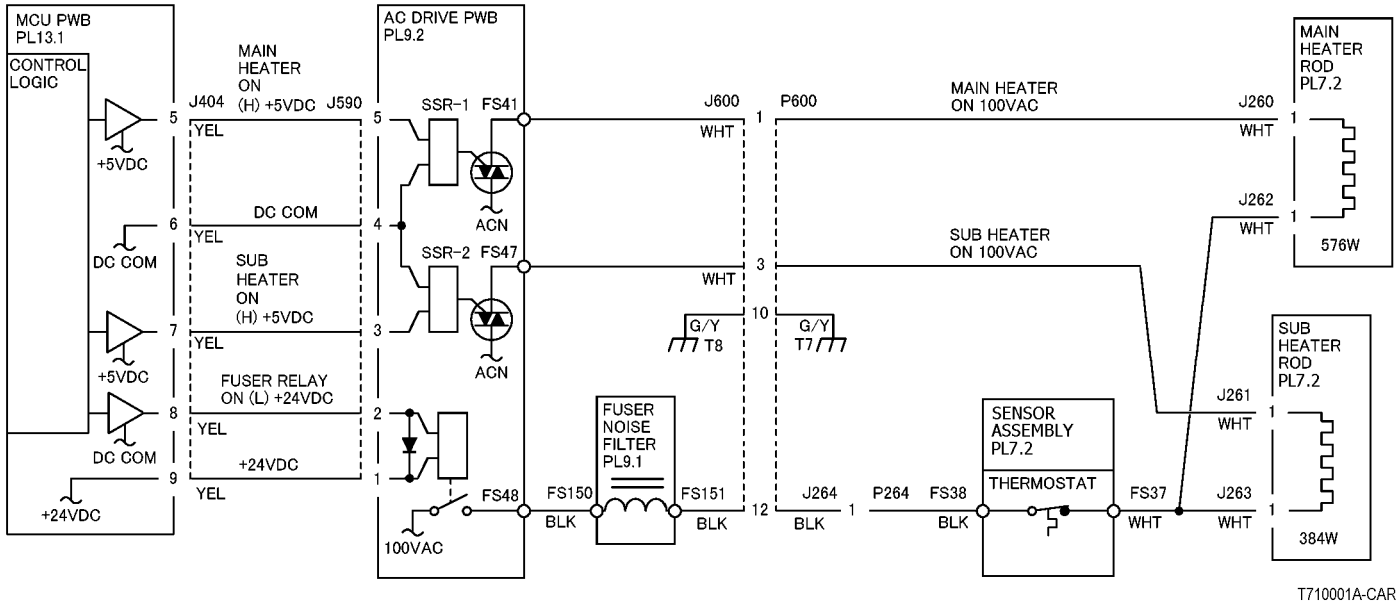


**Figure 2 Fuser Main Heater and Sub Heater CD**

# 10-349 Front Thermistor Open

The machine logic detected an open circuit in the Front Thermistor.

## Procedure

Turn off the power, remove the Fuser Assembly, and allow it to cool down.
Measure the resistance between P/J600-4 and P/J600-6 on the Fuser Assembly. **The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Front Thermistor for an open circuit and poor contact. If no problems are found, replace the Sensor Assembly (PL 7.1).

Reinstall the Fuser Assembly, turn the power on, enter dC140 [010-101] and press Start. **The display value is between 900 and 1000.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-12 on the MCU PWB and P/J600-4 on the Fuser Assembly. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the MCU PWB (PL 13.1).

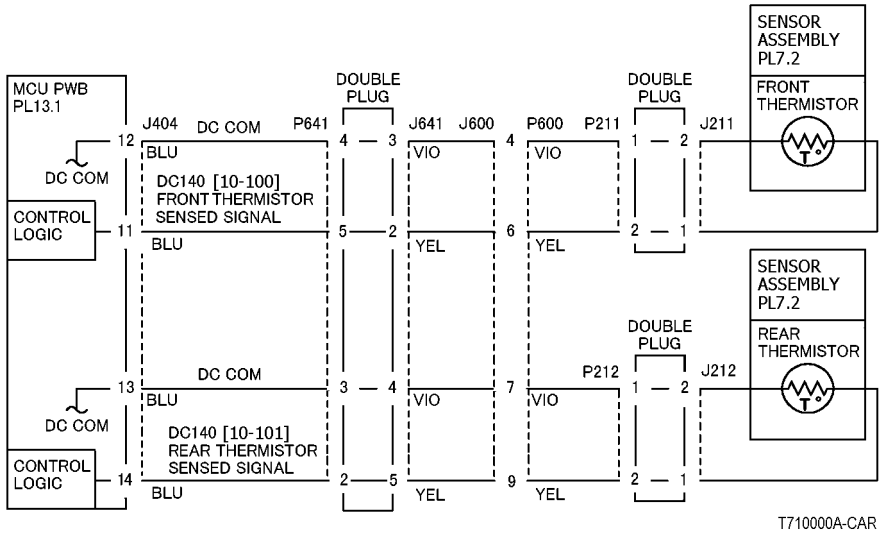


**Figure 1 Fuser Front and Rear Thermistor CD**

# 10-350 Sub Heater Over Heat

The Rear Thermistor detected an over heat condition.

## Procedure

***NOTE:*** *To clear this fault, re-set the value of dC131 [744-003] to "0".*

Turn off the power, remove the Fuser Assembly and allow it to cool down.
Measure the resistance between P/J600-7 and P/J600-9 on the Fuser Assembly.

**The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Rear Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-101] and press Start. **The display value is between 676 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-14 and P/J404-13 on the MCU PWB (PL 13.1). If the check is OK, replace the MCU PWB (PL 13.1).

**There is +3.4VDC measured at P/J404-7 on the MCU PWB (PL 13.1).**

**Y N**

Replace the MCU PWB (PL 13.1).

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Check the wires and connectors. If the check is OK, replace the AC Drive PWB (PL 9.2).

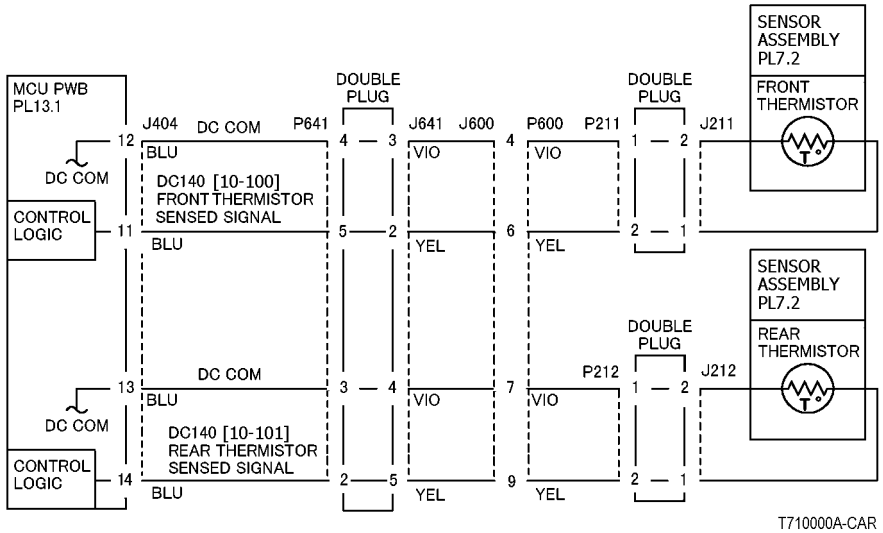


**Figure 1 Fuser Front and Rear Thermistor CD**

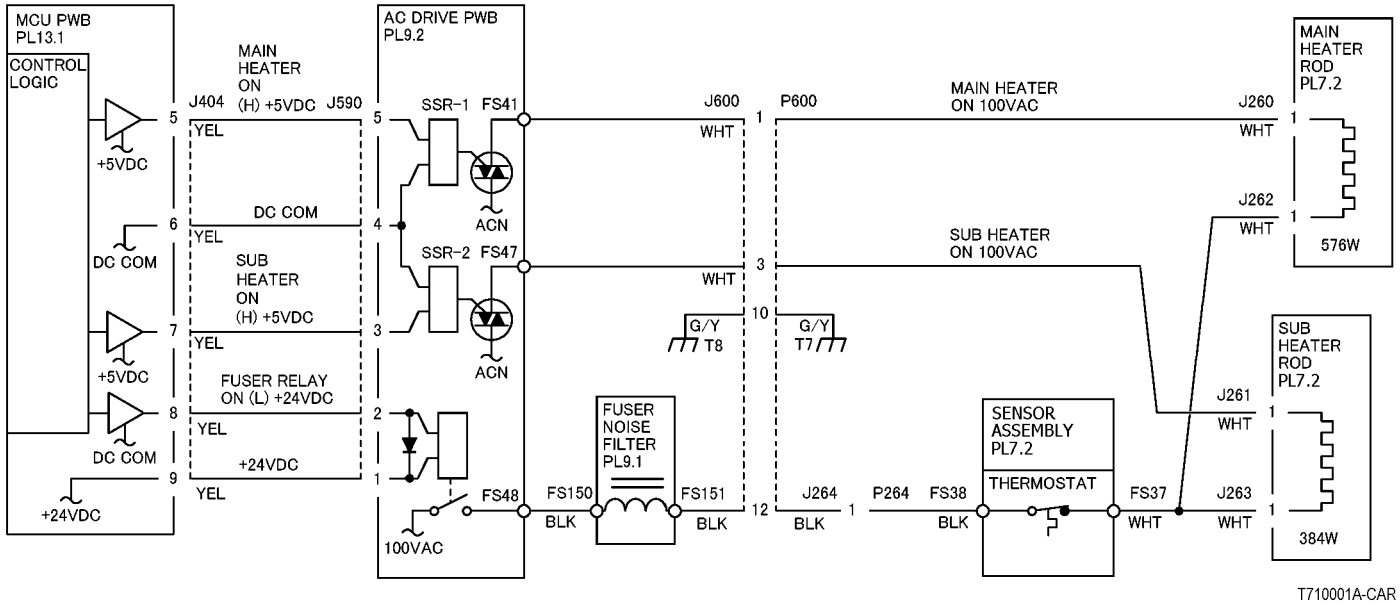


**Figure 2 Fuser Main Heater and Sub Heater CD**

# 10-351 Rear Thermistor Open

The machine logic detected an open circuit in the Rear Thermistor.

## Procedure

Turn off the power, remove the Fuser Assembly and allow it to cool down.
Measure the resistance between P/J600-7 and P/J600-9 on the Fuser Assembly. **The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Rear Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power on, enter dC140 [010-101] and press Start. **The display is between 678 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-13 on the MCU PWB and P/J600-7on the Fuser Assembly. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the MCU PWB (PL 13.1).

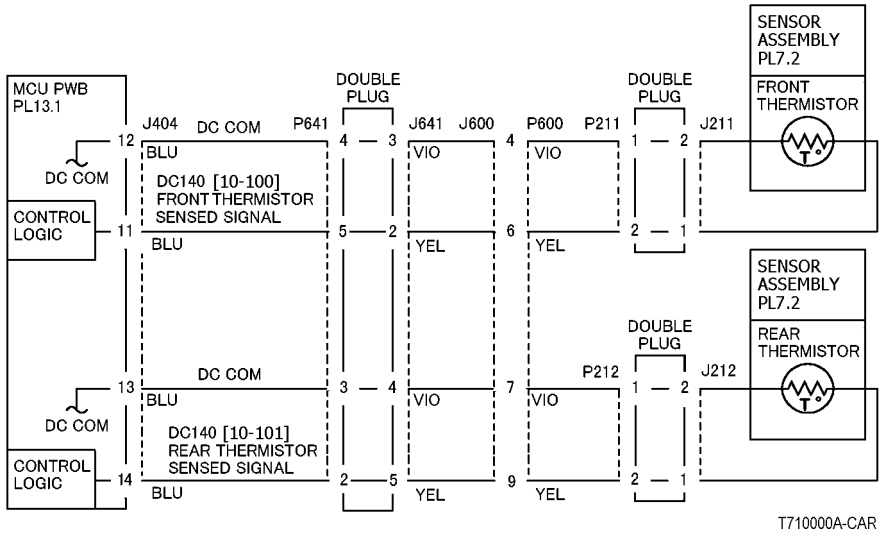


**Figure 1 Fuser Front and Rear Thermistor CD**

# 10-352 Main Heater Warm Up

The temperature did not reach the READY temperature within the specified time.

## Procedure

Turn off the power, remove the Fuser Assembly. and allow it to cool down.
Measure the resistance between P/J600-4 and P/J600-6 on the Fuser Assembly.
**The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Front Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Measure the resistance between P/J600-3 and P/J600-12 on the Fuser Assembly. **The resistance is 20 Ohmís or less.**

**Y N**

Replace the Fuser Assembly (PL 7.1).

Reinstall the Fuser Assembly, turn the power on, enter dC140 [010-100] and press Start. **The display is between 678 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-12 on the MCU PWB and P/J600-6 on the Fuser Assembly. If the check is OK, replace the MCU PWB (PL 13.1).

**There is Line Voltage measured at FS41 on the AC Drive PWB (PL 9.2).**

**Y N**

**There is +5VDC measured at P/J590-5 on the AC Drive PWB (PL 9.2).**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

**There is +24VDC measured at P/J590-1 on the AC Drive PWB (PL 9.2).**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the AC Drive PWB (PL 9.2).

Check the wires and connectors. If the check is OK, replace the Fuser Assembly (PL 7.1).

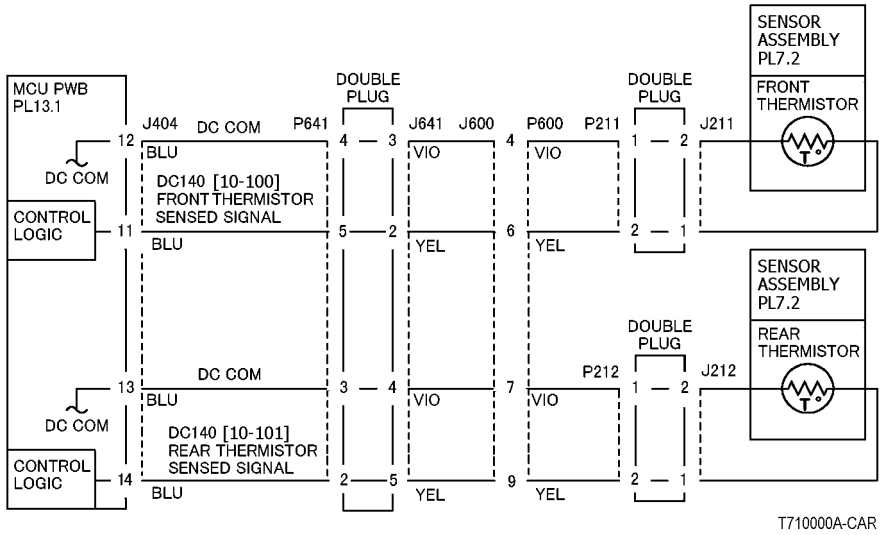


**Figure 1 Fuser Front and Rear Thermistor CD**

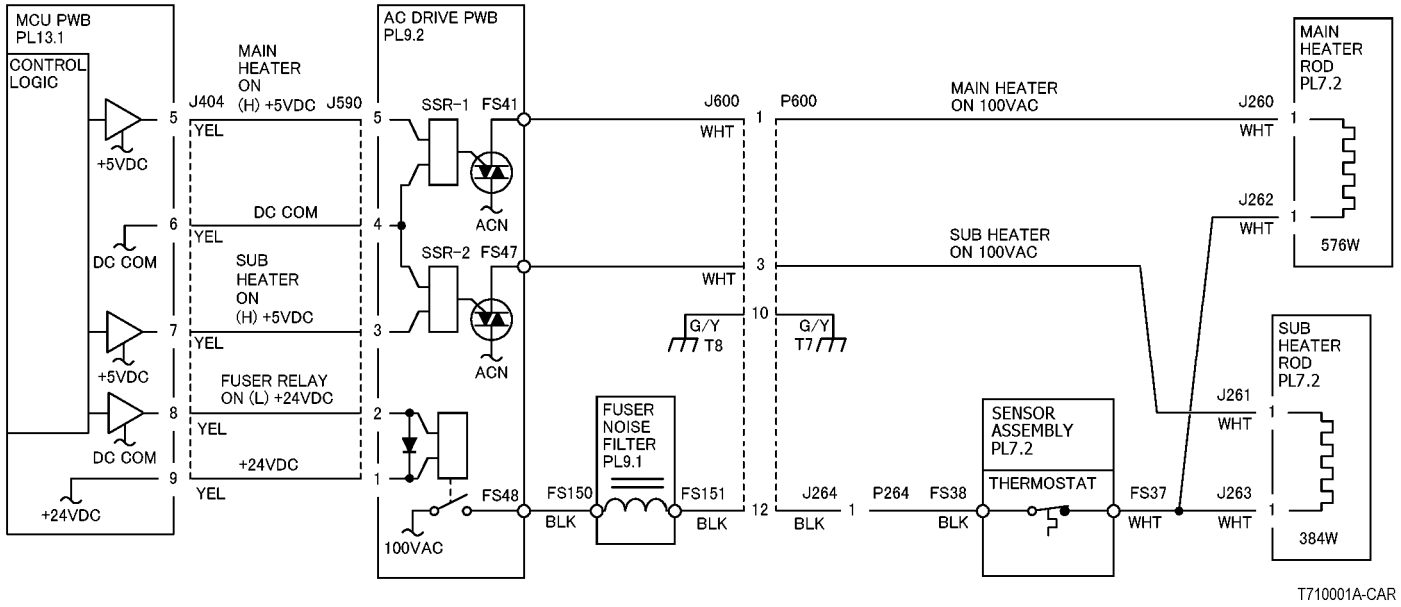


**Figure 2 Fuser Main Heater and Sub Heater CD**

# 10-353 Main Heater On Time

The Main Heater remained on for more than the specified time.

## Procedure

Turn off the power, remove the Fuser Assembly. and allow it to cool down.
Measure the resistance between P/J600-4 and P/J600-6 on the Fuser Assembly.
**The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Front Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Measure the resistance between P/J600-3 and P/J60012 on the Fuser Assembly. **The resistance is 20 Ohmís or less.**

**Y N**

Replace the Fuser Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power on, enter dC140 [010-100]. **The display is between 676 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-12 on the MCU PWB and P/J600-6 on the Fuser Assembly. If the check is OK, replace the MCU PWB (PL 13.1).

**There is Line Voltage measured at FS41 on the AC Drive PWB (PL 9.2).**

**Y N**

**There is +5VDC measured at P/J590-5 on the AC Drive PWB (PL 9.2).**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

**There is +24VDC measured at P/J590-1 on the AC Drive PWB PL 9.2.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the AC Drive PWB (PL 9.2).

Check the wires and connectors. If the check is OK, replace the Fuser Assembly (PL 7.1).

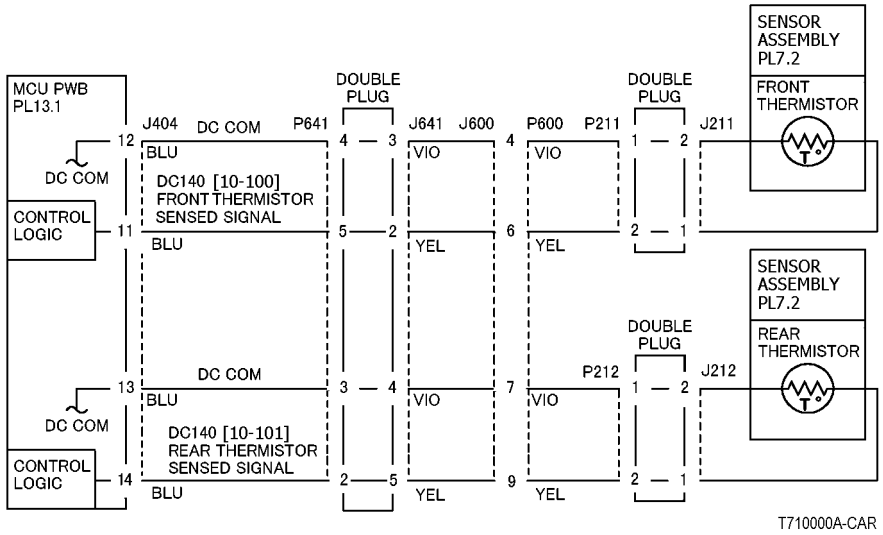


**Figure 1 Fuser Front and Rear Thermistor CD**

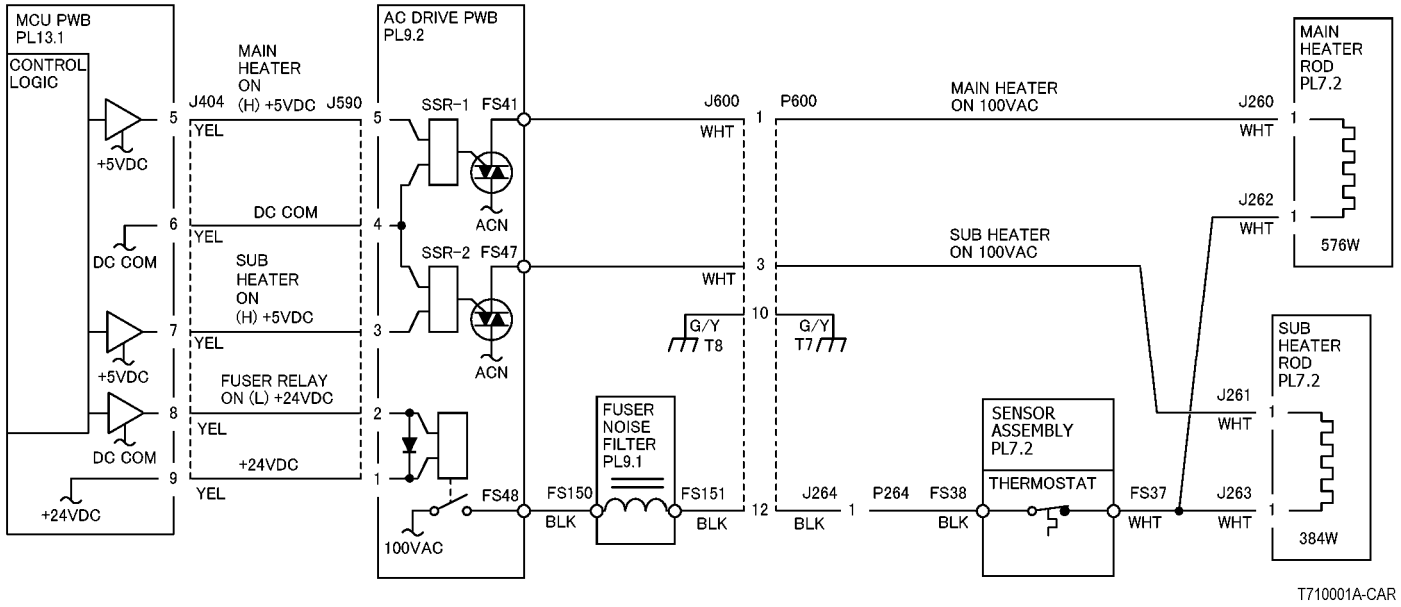


**Figure 2 Fuser Main Heater and Sub Heater CD**

# 10-354 Sub Heater Warm Up

The temperature did not reach the READY temperature.

## Procedure

***NOTE:*** *To clear this fault, re-set the value of dC131-744-003 to "0".*

Turn off the power, remove the Fuser Assembly. and allow it to cool down. Measure the resistance between P/J600-4 and P/J600-6 on the Fuser Assembly. **The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Front Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Reinstall the Fuser Assembly, turn the power ON. Enter dC140 [010-100]. **The display value is between 678 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-12 and P/J404-11on the MCU PWB PL 13.1. If the check is OK, replace the MCU PWB (PL 13.1).

**There is +3.4VDC measured at P/J404-5 on the MCU PWB.**

**Y N**

Replace the MCU PWB (PL 13.1).

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Check the wires and connectors. If the check is OK, replace the AC Drive PWB (PL 9.2).

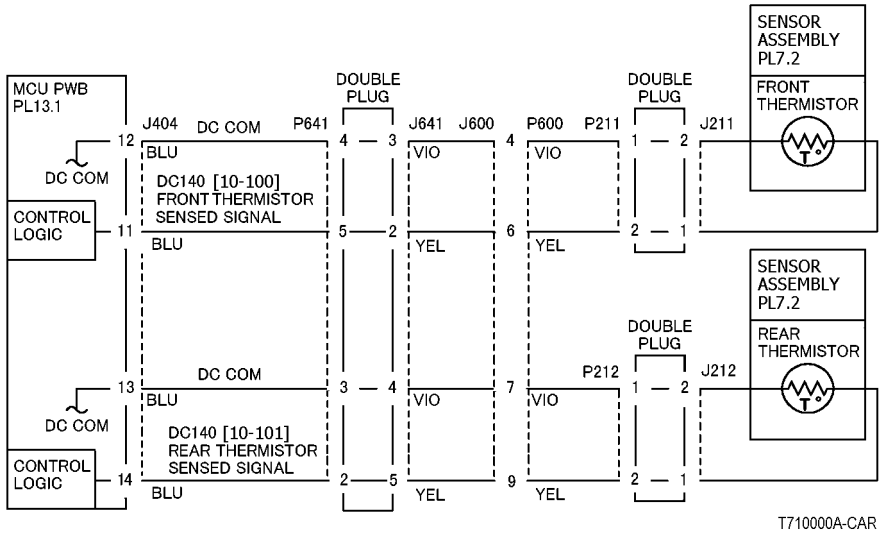



**Figure 1 Fuser Front and Rear Thermistor CD**

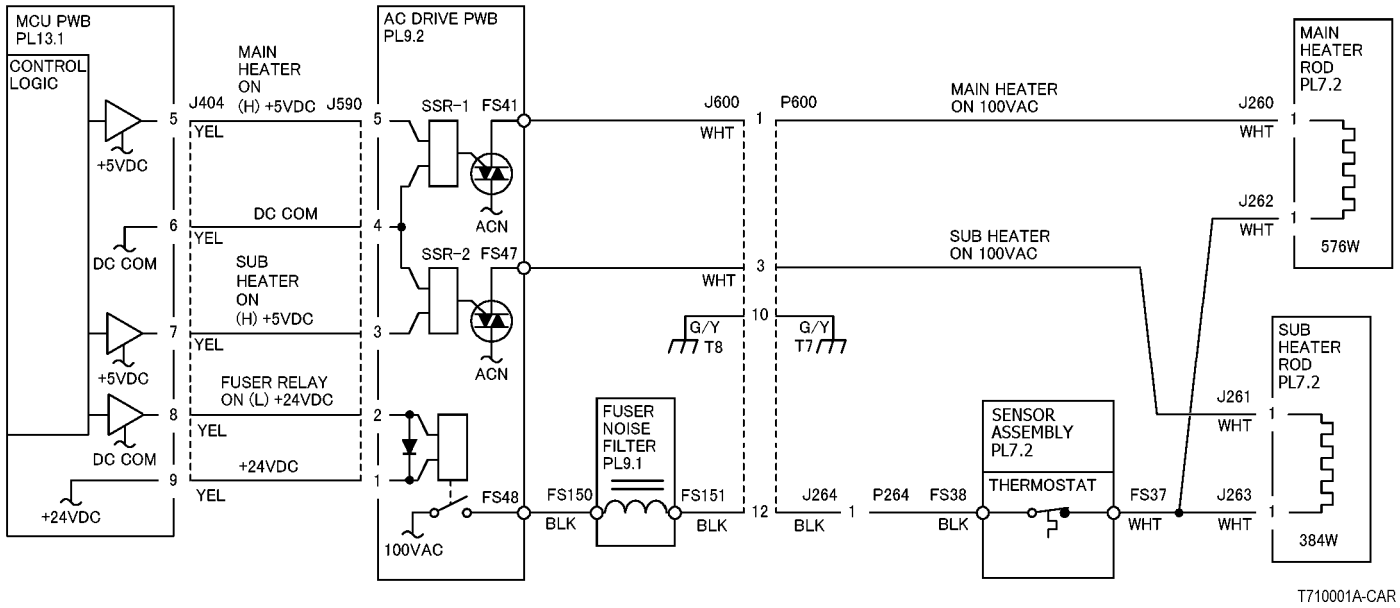



**Figure 2 Fuser Main Heater and Sub Heater CD**

# 10-356 Sub Heater On Time

The Sub Heater remained on for more than the specified time.

## Procedure

Turn off the power, remove the Fuser Assembly. and allow it to cool down.
Measure the resistance between P/J600-7 and P/J600-9 on the Fuser Assembly. **The resistance is between 30 and 190 K Ohmís.**

**Y N**

Check the Rear Thermistor for an open circuit and poor contact. If the check is OK, replace the Sensor Assembly (PL 7.2).

Measure the resistance between P/J600-3 and P/J600-12 on the Fuser Assembly. **The resistance is 20 Ohmís or less.**

**Y N**

Replace the Fuser Assembly (PL 7.1).

Reinstall the Fuser Assembly, turn the power on, enter dC140 [010-101]. **The display is between 678 and 699.**

**Y N**

Turn the power off. Check for an open or poor connection between P/J404-13 on the MCU PWB and P/J600-7 on the Fuser Assembly. If the check is OK, replace the MCU PWB (PL 13.1).

**There is Line Voltage measured at FS47 on the AC Drive PWB (PL 9.2).**

**Y N**

**There is +5VDC measured at P/J590-3 on the AC Drive PWB (PL 9.2).**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

**There is +24VDC measured at P/J590-1 on the AC Drive PWB (PL 9.2)**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the AC Drive PWB (PL 9.2).

Check the wires and connectors. If the check is OK, replace the Fuser Assembly (PL 7.1).

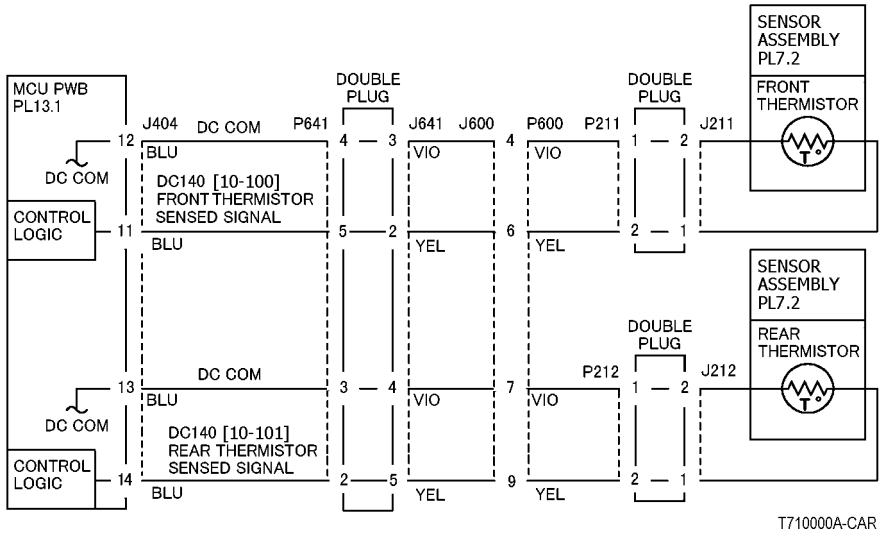



**Figure 1 Fuser Front and Rear Thermistor CD**

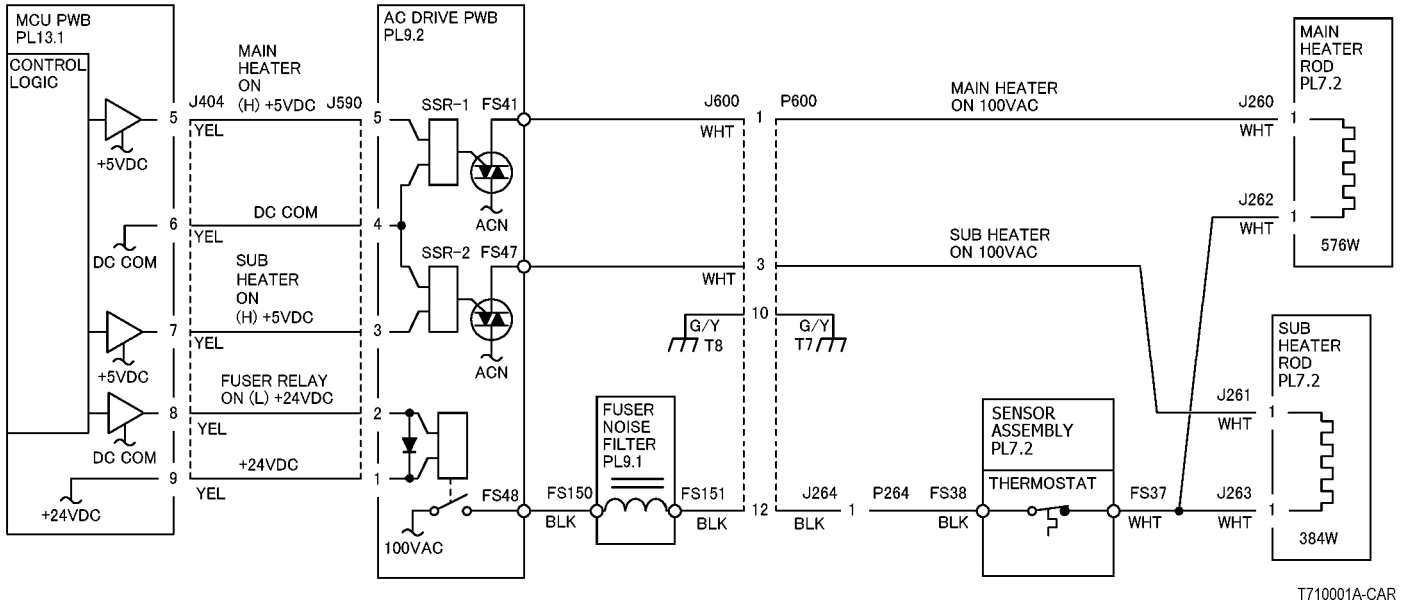



**Figure 2 Fuser Main Heater and Sub Heater CD**

# 10-398 Fan Lock

The machine logic detected a failure of the Fuser Fan, LVPS Fan or the Rear Fan.

## Procedure

Enter dC330 [004-050]. **The Fuser Fan revolves at high speed.**

**Y N**

**There is +24VDC measured at J222-4.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

With dC330 [004-050] entered, stack dC330 [004-200] and press Start. **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the Fuser Fan (PL 8.1).

**The Rear Fan revolves at high speed (PL 8.1).**

**Y N**

**There is +24VDC measured at J552-1.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1). If the problem continues replace the I/F PWB (PL 9.1).

With dC330 [004-050] entered, stack dC330 [004-200] and press Start. **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the Rear Fan (PL 8.1).

**The LVPS Fan revolves at high speed (PL 9.1).**

**Y N**

**There is +24VDC measured at J214-4.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

With dC330 [004-050] entered, stack dC330 [004-200] and press Start. **The display is H.**

**Y N**

Check the wires and connectors. If the check is OK, replace the MCU PWB (PL 13.1).

Replace the LVPS Fan (PL 9.1).

The Fans are operating correctly. If the problem continues replace the MCU PWB (PL 13.1).

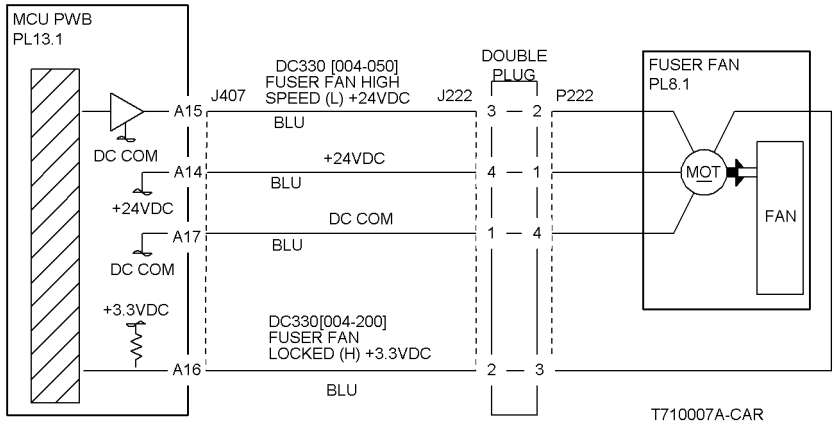



**Figure 1 The Fuser Fan CD**

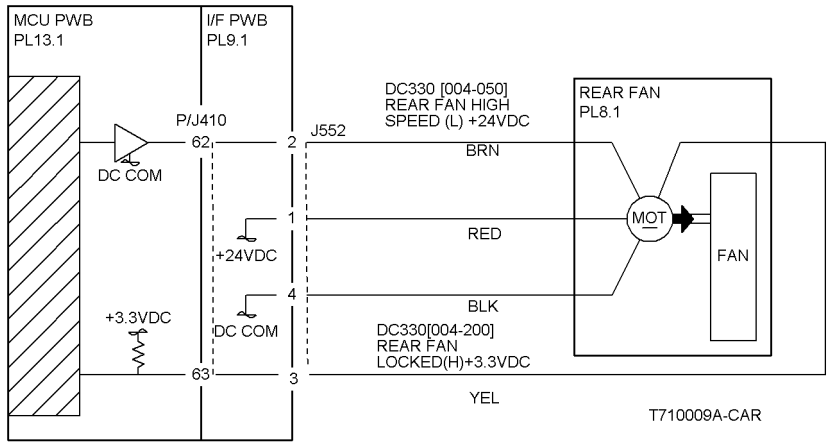



**Figure 2 The Rear Fan CD**

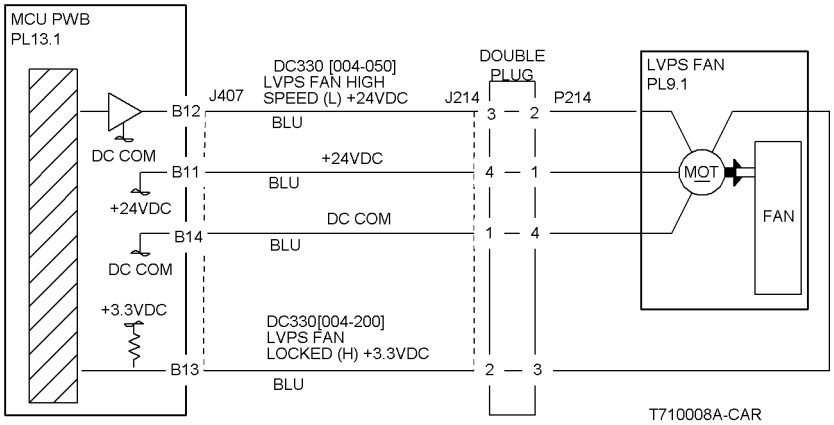



**Figure 3 The LPVS Fan CD**

## 10-420 Fuser Near End Of Life

Replace the Fuser Assembly in X copies.

### Procedure

**The Fuser Assembly was replaced.**

**Y N**

Replace the Fuser Assembly (PL 7.2)

Run the dC135 [954-804]. **The initial value is 0.**

**Y N**

Replace the MCU PWB (PL 13.1).

Ensure that the LIFE setting value is 100K, turn power OFF/ON.
If the problem continues, replace the MCU PWB (PL 13.1).

## 10-421 Fuser End Of Life

Fuser at end of life.

### Procedure

**The Fuser Assembly was replaced.**

**Y N**

Replace the Fuser Assembly (PL 7.2).

Run the dC135 [954-804]. **The initial value is 0.**

**Y N**

Replace the MCU PWB (PL 13.1).

Ensure that the LIFE setting value is 100K, turn power OFF/ON.
If the problem continues, replace the MCU PWB (PL 13.1).

# 12-100 H Transport Entrance Sensor On

The H Transport Entrance Sensor does not detect paper within the specific time after the Registration Clutch (in IOT) actuated.

## Procedure

Enter dC330 [012-001] and press Start. **The Finisher Drive Motor energizes.**

**Y N**

Press Stop. Repair the drives as required (PL 17.7) for mechanical problems. If the drives are mechanically good, check the circuit of the Finisher Drive Motor (Figure 4). **+5 VDC is measured between J846-3 on the Finisher PWB and Finisher PWB Chassis (-).**

**Y N**

Check the wire between J846-3 on the Finisher PWB and J879-1 on the Finisher Drive Motor PWB.
If the wire is good, replace the Finisher Drive Motor (PL 17.7).

Press Start and check the voltage between J846-3 on the Finisher PWB and Finisher PWB Chassis (-). **Less than +1 VDC is measured.**

**Y N**

Replace the Finisher PWB (PL 17.3).

Check the voltage between J846-7 and -5 on the Finisher PWB and Finisher PWB Chassis (-). **+24 VDC is measured.**

**Y N**

Replace the Finisher PWB (PL 17.3).

Check the resistance between j846-11 and -9 on the Finisher PWB and Finisher PWB Chassis (-). **Less than 10 ohms is measured.**

**Y N**

Replace the Finisher PWB (PL 17.3).

Replace the Finisher Drive Motor (PL 17.3).

Enter dC330 [012-103] and press Start. Actuate and deactuate the H Transport Entrance Sensor. **The display changes.**

**Y N**

Repair the sensor as required (PL 17.4) for mechanical problems. If the sensor is mechanically good, check the circuit of the H Transport Entrance Sensor (Figure 2).

Enter dC330 [012-060 or 061] and press Start. **The gate changes position.**

**Y N**

Repair the gate as required (PL 17.4) for mechanical problems. If the gate linkage is mechanically good, check the circuit of the Gate In Solenoid (Figure 3).

Check the following:

- Paper path failure for burr and foreign substance.
- H-Transport Belt for contamination, wear and a drive failure
- Sensor Actuator for breakage

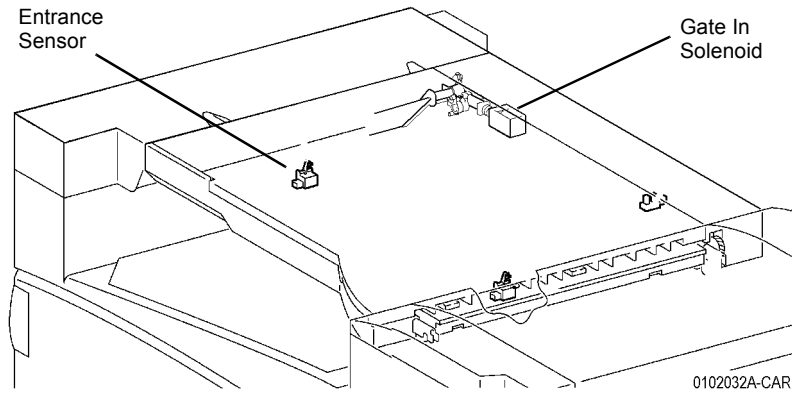



**Figure 1 Component Location**

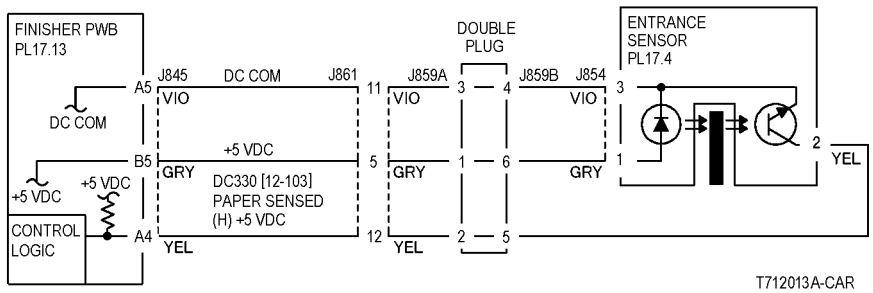



**Figure 2 H Transport Entrance Sensor CD**

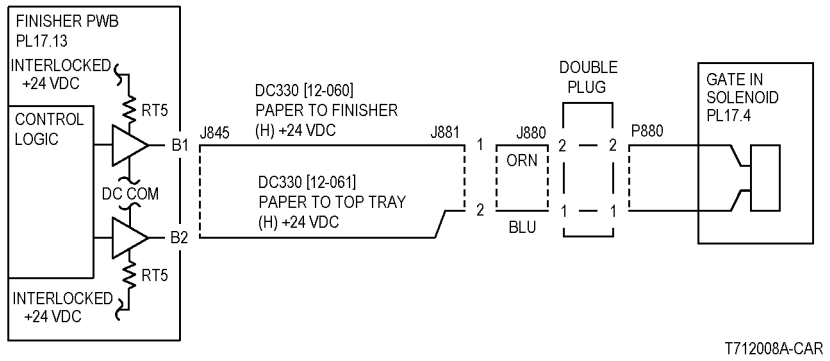



**Figure 3 Gate In Solenoid CD**

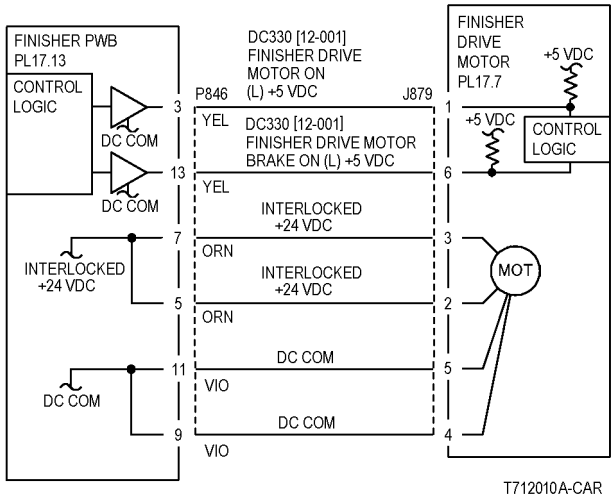



**Figure 4 Finisher Drive Motor CD**

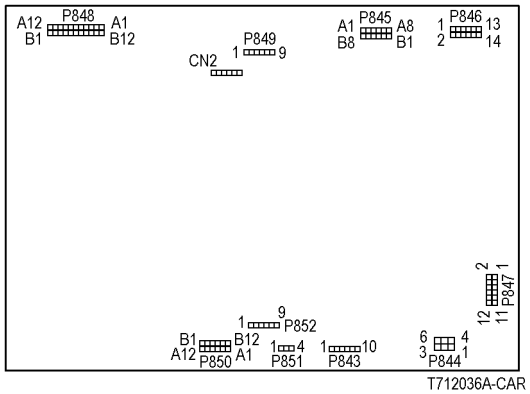



**Figure 5 Finisher PWB**

# 12-102 H Transport Entrance Sensor Off

Paper did not deactuate the H Transport Entrance Sensor.

## Procedure

Open the H Transport. Check H Transport Belts, H Transport Belt Drive Rolls, and Guides on H Transport Cover for installation or damage problems. **The components are good.**

**Y** **N**

Repair as required (PL 17.3, PL 17.4).

Rerun the job. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the H Transport Entrance Sensor for intermittent operation (PL 17.4).

***NOTE:*** *If the sensor fails H, 12-901 is declared after power is switched on.*

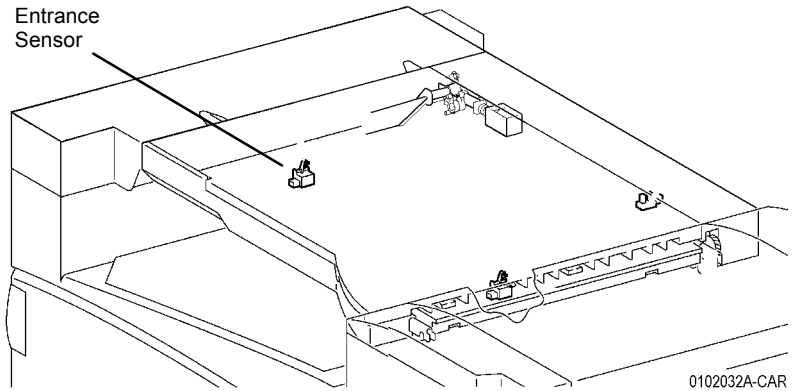



**Figure 1 Component Location**

# 12-104 H Transport Exit Sensor On

The H Transport Exit Sensor did not detect paper within the specific time after the H Transport Entrance Sensor has detected the paper. (The specified time differs depending on the paper size.)

## Procedure

Enter dC330 [012-104] and press Start. Actuate and deactuate the H Transport Exit Sensor.
**The display changes.**

**Y N**

Repair the sensor as required (PL 17.4) for mechanical problems. If the sensor is mechanically good, check the circuit of the H Transport Exit Sensor (Figure 2).

Check H Transport Belts, H Transport Belt Drive Rolls, and Guides on H Transport Cover for installation or damage problems. Repair as required (PL 17.3, PL 17.4).

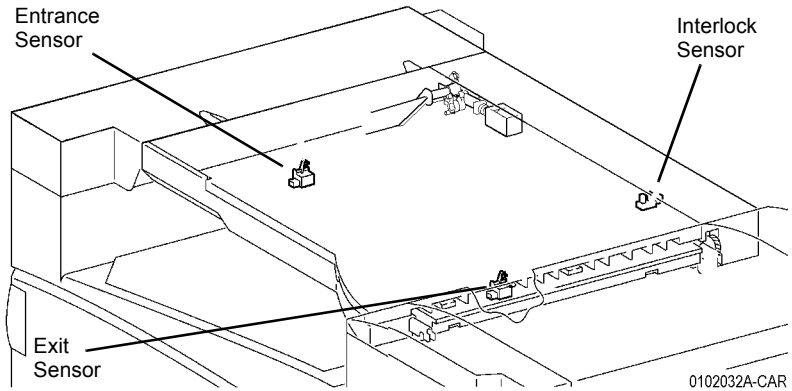



**Figure 1 Component Location**

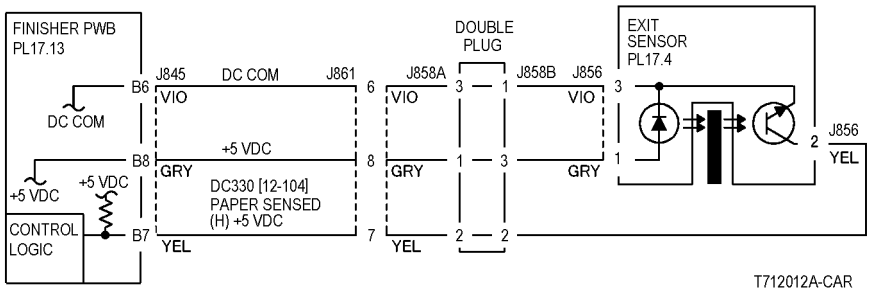



**Figure 2 H Transport Exit Sensor CD**

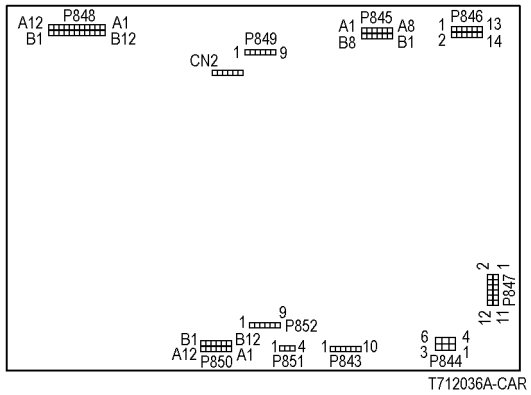



**Figure 3 Finisher PWB**

# 12-106 H Transport Exit Sensor Off

Paper did not deactuate the H Transport Exit Sensor.

## Procedure

Enter dC330 [012-217] and press Start. Actuate and deactuate the Decurler Cam Home Sensor. **The display changes.**

**Y** **N**

Check the circuit of the Decurler Cam Home Sensor (Figure 2).

Enter dC330 [012-070] and press Start. **The Decurler Cam Clutch energizes.**

**Y** **N**

Check the circuit of the Decurler Cam Clutch (Figure 3).

Check the following:

- Paper path failure for burr and foreign substance.
- H Transport Belt Drive Roll for contamination, wear and a drive failure
- Drive Transmission Gear from the Finisher Drive Motor for wear and breakage
- H Transport and Finisher for a docking failure
- Decurler Roll/pinch Roll for a drive failure
- Compiler Entrance Roll for a drive failure

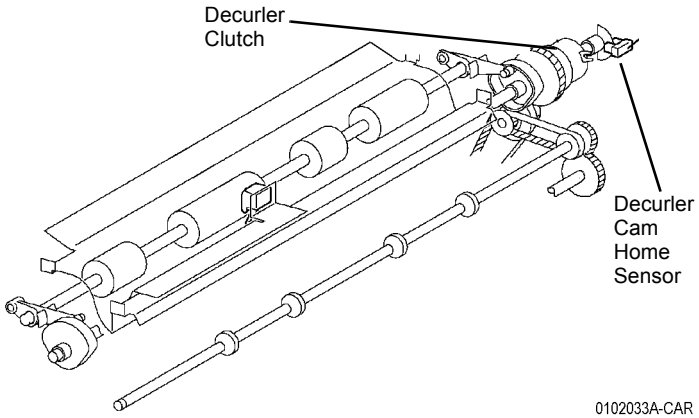



**Figure 1 Component Location**

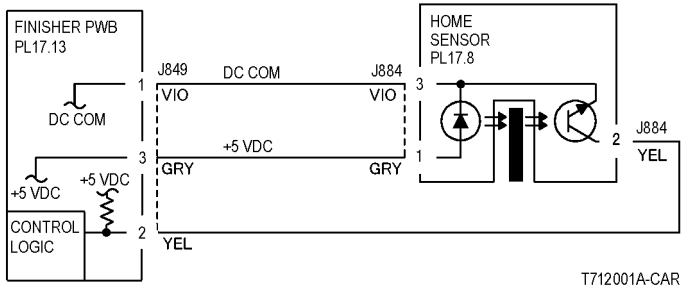



**Figure 2 Decurler Cam Home Sensor CD**

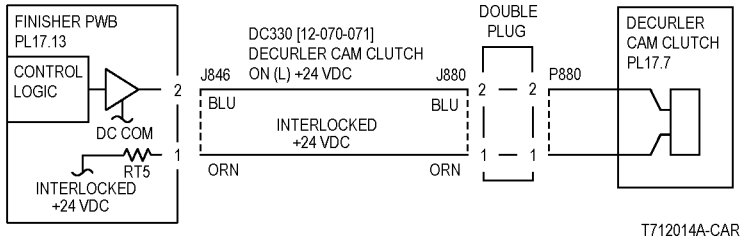



**Figure 3 Decurler Cam Clutch CD**

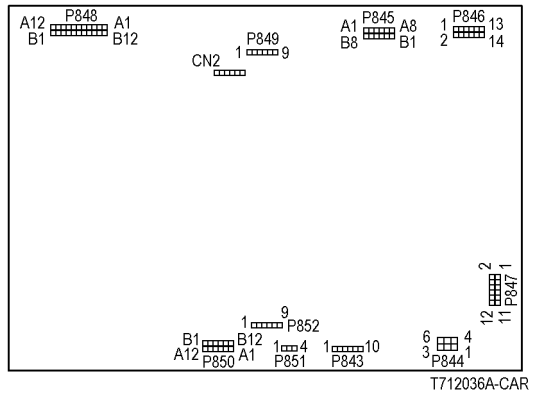



**Figure 4 Finisher PWB**

# 12-120 Compiler Entrance Sensor On

The Compiler Entrance Sensor did not detect paper.

## Procedure

Enter dC330 [012-101] and press Start. Actuate and deactuate the Complier Entrance Sensor. **The display changes.**

**Y** **N**

Check the circuit of the Complier Entrance Sensor (Figure 2).

Check the following:

- Complier Entrance Sensor Actuator for breakage and bending
- Paper path failure for burr and foreign substance.
- Decurler Roll/pinch Roll for a drive failure
- Drive Transmission Gear from the Finisher Drive Motor for wear and breakage

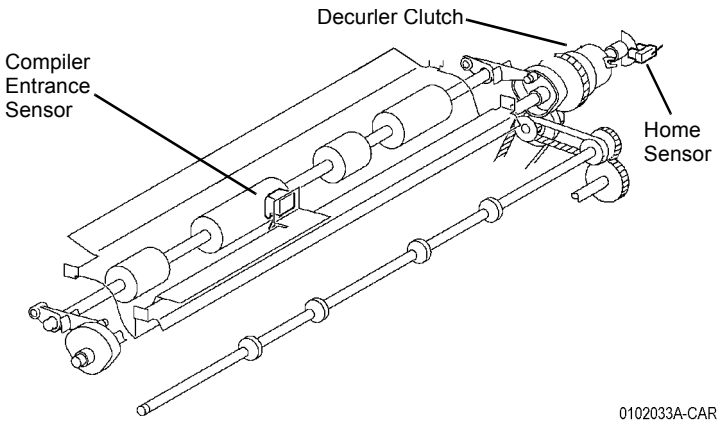



**Figure 1 Component Location**

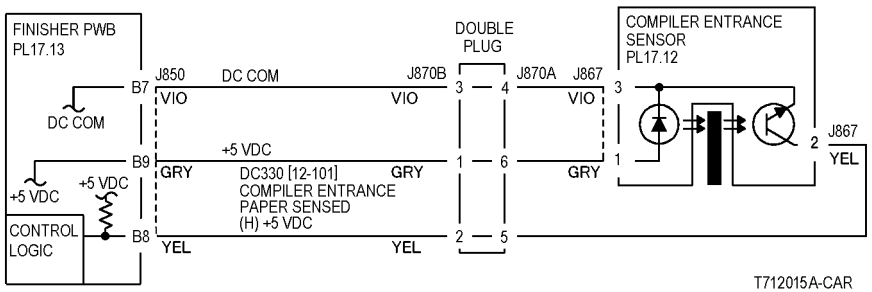



**Figure 2 Compiler Entrance Sensor CD**

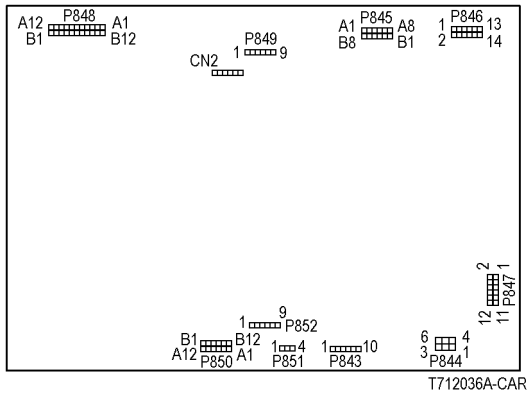



**Figure 3 Finisher PWB**

# 12-122 Compiler Entrance Sensor Off

Paper does not deactuate the Compiler Entrance Sensor.

## Procedure

Make a copy and observe paper in the Compiler Tray. **The copy enters the Compiler Tray.**

**Y N**

There is a drives problem. Check the following:

- The paper path failure for burr and foreign substance.
- The Drive Transmission Gear from the Finisher Drive Motor for wear and breakage
- The Decurler Roll/pinch Roll for a drive failure
- The Compiler Entrance Roll for a drive failure

Repair the sensor as required (PL 17.4) for mechanical problems. If the sensor is mechanically good, replace the Compiler Entrance Sensor.

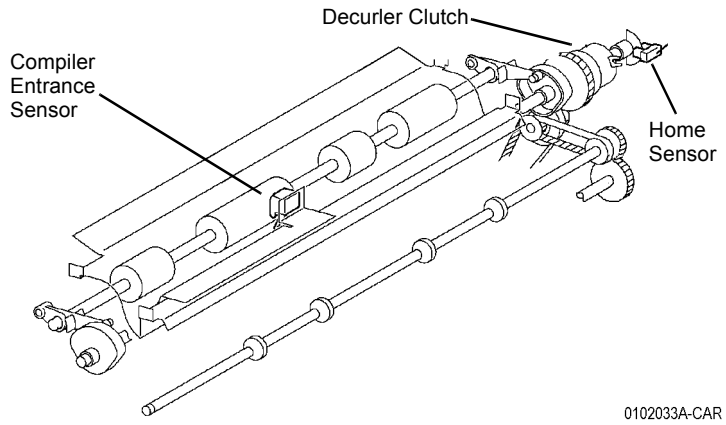



**Figure 1 Component Location**

# 12-170 Set Eject

The Compiler Paper Sensor did not deactuate after the Eject Motor energized.

## Procedure

Enter dC330 [012-102] and press Start. Actuate and deactuate the Compiler Paper Sensor.
**The display changes.**

**Y** **N**

Repair the sensor as required (PL 17.10) for mechanical problems. If the sensor is mechanically good, check the circuit of the Compiler Paper Sensor (Figure 2).

Check the following:

- Eject Roll for contamination, wear and a drive failure
- Drive Transmission Gear from the Eject Motor for wear and breakage
- Eject Clamp for an up and down movement failure
- Stacker Tray for foreign substance

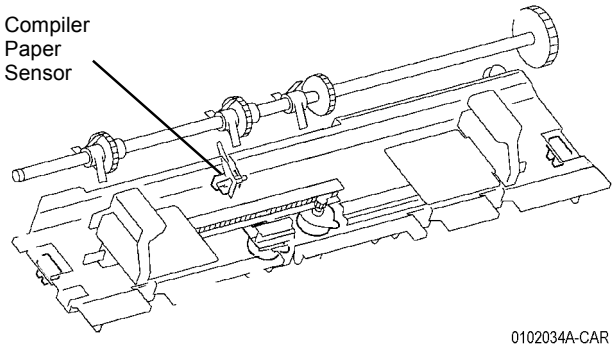



**Figure 1 Component Location**

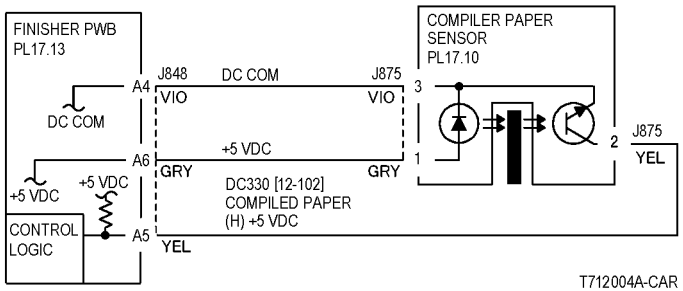



**Figure 2 Compiler Paper Sensor CD**

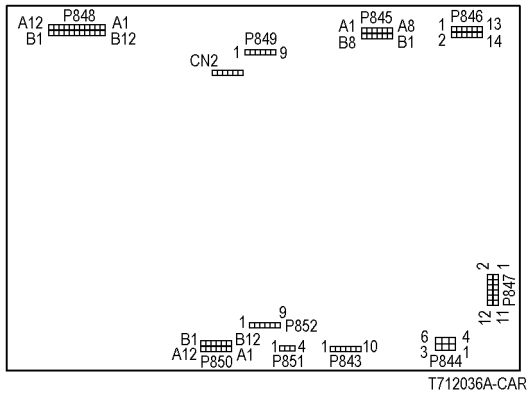



**Figure 3 Finisher PWB**

# 12-241 Staple Move Sensor On

- The Staple Move Sensor did not turn on within 2sec after the system has started to move to the Staple Position and the Staple Move Sensor has turned off.
- The Staple Move Sensor did not turn on after the move to the Staple Position has completed.

## Procedure

**The Staple Head move smoothly without any load.**

**Y N**

Remove the cause of Staple Head not moving, such as rail breakage, drag, and gnawed gear.

Cheat the Front Cover Interlock Switch. Enter dC330 [012-224] and press Start. Actuate the Staple Move Sensor with paper. **The display changes.**

**Y N**

Repair the Staple Move Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-081] (front direction) or [12-083] (rear direction) and press Start. **The Staple Move Motor energized.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Stapler Move Motor p/j for an open circuit or poor contact.

If no problems are found, replace the Stapler Assembly (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

Replace the Finisher PWB (PL 17.13).

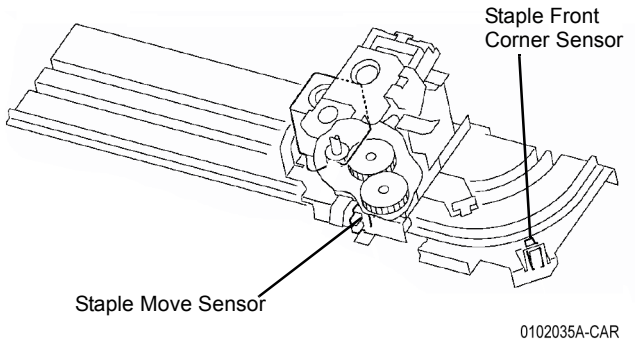



**Figure 1 Component Location**

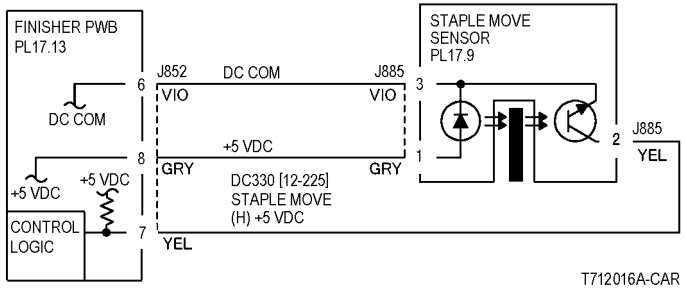



**Figure 2 Stapler Move Sensor CD**

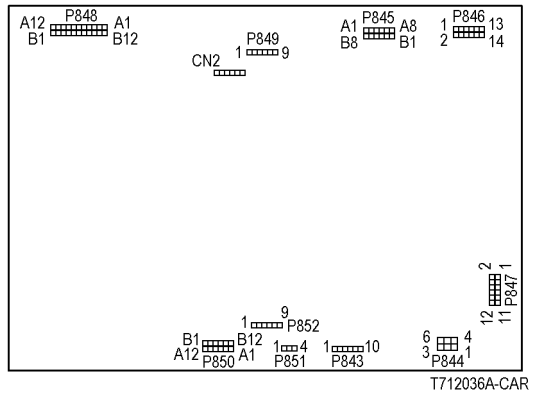



**Figure 3 Finisher PWB**

# 12-242 Staple Move Sensor Off

- The Staple Move Sensor did not turn off within 500ms after the move to the Staple Position has started.
- The Staple Move Sensor turned off after Staple Position has been fixed.
- The Staple Move Sensor did not turn off within 500ms after it has turned on when paper passed through the 1st position of the DUAL STAPLE at moving to the Rear Staple Position.

## Procedure

Open the Finisher Front Cover. **Turn the Stapler Assembly manually.**

**Y N**

Remove the cause of Staple Head not moving, such as rail breakage, drag, and gnawed gear.

Cheat the Front Cover Interlock Switch.

Enter dC330 [12-224] and press Start. Actuate the Staple Move Sensor with paper. **The display changes.**

**Y N**

Repair the Staple Move Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-081] (front direction) or [12-083] (rear direction )and press Start. **The Staple Move Motor energized.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13)

Check the wire between the Finisher PWB p/j and the Stapler Move Motor p/j for an open circuit or poor contact.

If no problems are found, replace the Stapler Move Motor (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13)

Replace the Finisher PWB (PL 17.13)

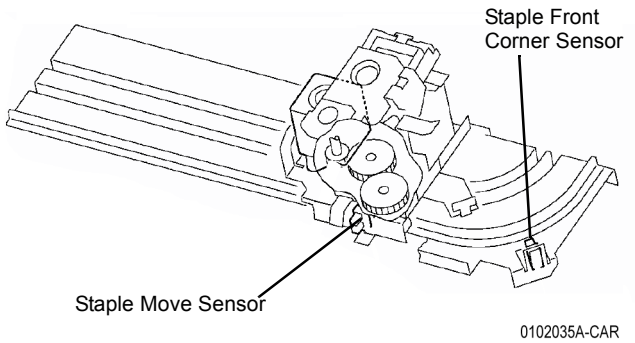



**Figure 1 Component Location**

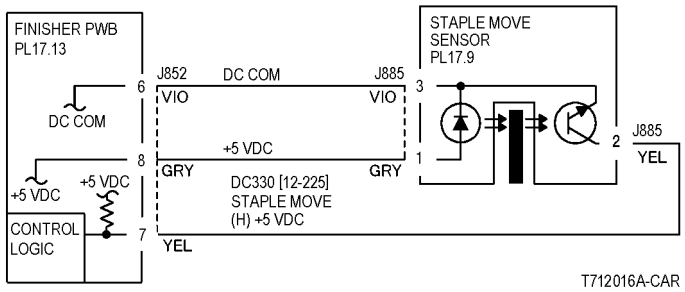



**Figure 2 Stapler Move Sensor CD**

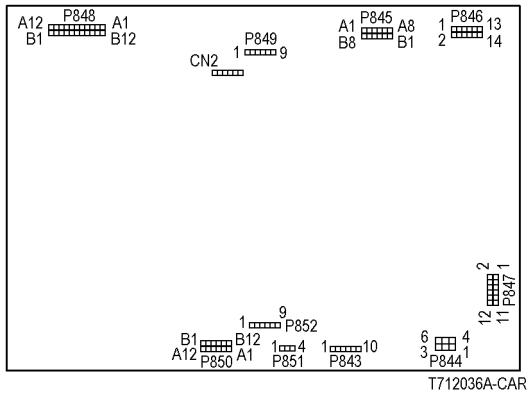



**Figure 3 Finisher PWB**

# 12-244 Staple Home Sensor

The Staple Head Home Sensor never turn on within 200ms after the STAPLER MOTOR started to revolve backward (open).

## Procedure

Enter dC330 [012-207] and press Start. Turn the Staple Head Home Sensor on/off using paper. **The display changes.**

**Y N**

**+5 VDC is measured between the Stapler Assembly p/j (+) and Finisher PWB Chassis (-).**

**Y N**

**+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Stapler Assembly p/j for an open circuit or poor contact.

Turn the Staple Motor Gear manually in order not to interrupt the SENSOR. **+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Switch off the power.
Pull out the on the Finisher PWB.
Turn on the power. **+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the circuit between the p/j and the Stapler Assembly p/j for short circuit.

Block the sensor. **0 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

**0 VDC is measured between the Stapler Assembly p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Stapler Assembly (PL 17.9).

Check the wire between the Stapler Assembly p/j and the Finisher PWB p/j for an open circuit or poor contact.

Replace the Finisher PWB (PL 17.13).

Enter dC330 [012-020] (CLOSE). **The STAPLE MOTOR energizes.**

**Y N**

With [12-020] running **+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**A B**

Check conductivity of the following:

- Between the Finisher PWB p/j ~ Stapler Assembly p/j
- Between the Finisher PWB p/j ~ Stapler Assembly p/j
- Between the Finisher PWB p/j ~ Stapler Assembly p/j
- Between the Finisher PWB p/j ~ Stapler Assembly p/j

If no problems are found, replace the Stapler Assembly (PL 17.9).
If the problem continues, replace the Finisher PWB (PL 17.13).

Replace the Finisher PWB (PL 17.13).

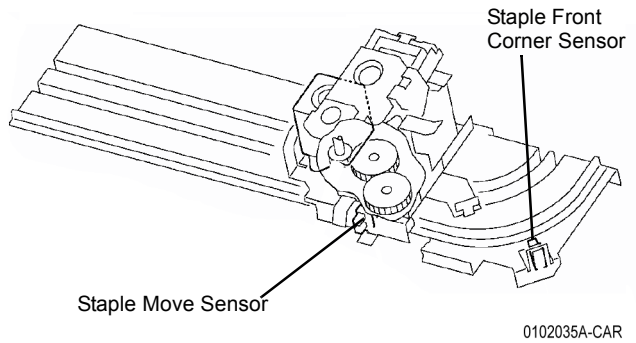



**Figure 1 Component Location**

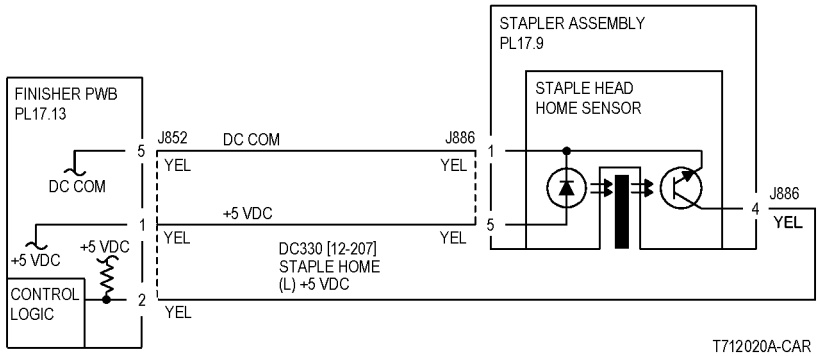



**Figure 2 Staple Head Home Sensor**

**A B**

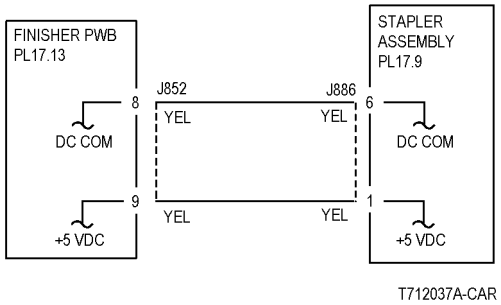



**Figure 3 Stapler Assembly Logic Power CD**

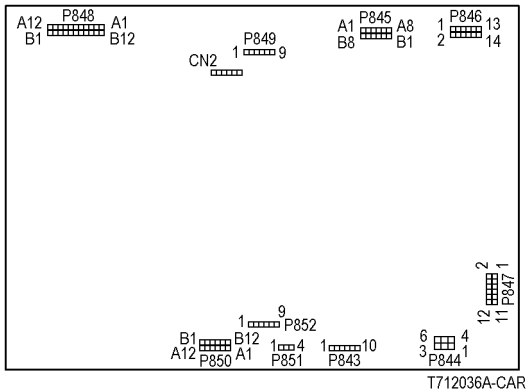



**Figure 4 Finisher PWB**

# 12-252 Front Tamper

- With the Front Tamper Home Sensor off the Front Tamper Home Sensor did not turn on within 800ms after move to the Front Tamper Home position has begun.
- With the Front Tamper Home Sensor on The Front Tamper Sensor did not turn off when the Front Tamper Home Sensor is deactuating.

## Procedure

Enter dC330 [012-091] (front) or [12-094] (rear) and press Start. **The Front Tamper Guide moves.**

**Y N**

**The Front Tamper Motor energized.**

**Y N**

**+24 VDC is measured between J848-B7 or B9 or B10 or B12 on the Finisher PWB and Finisher PWB Chassis (-).**

**Y N**

**+24 VDC is measured between J848-B8 or B11 on the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Front Tamper Motor p/j for a short circuit, open circuit, or poor contact.

If the wires and connections are good, replace the Front Tamper Motor (PL 17.10).

Replace the Finisher PWB (PL 17.13).

Check the tamper mechanism for load or drive transmission failure (gear wear or breakage.).

Enter dC330 [012-216] and press Start.

Move the Front Tamper manually and turn the Front Tamper Home Sensor on/off. **The display changes.**

**Y N**

Check the Front Tamper Home Sensor using the Generic Transmissive Sensor RAP.

Replace the Finisher PWB (PL 17.13).

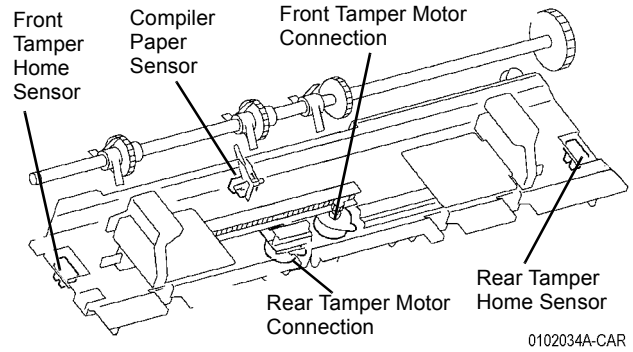



**Figure 1 Component Location**

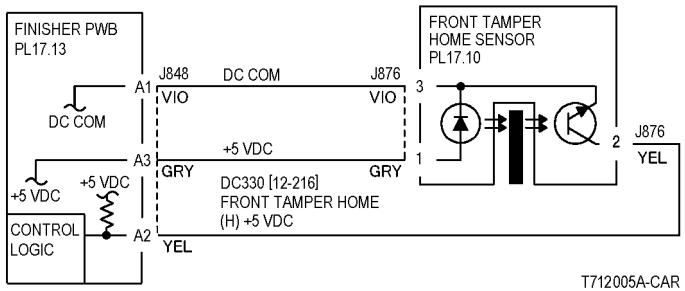



**Figure 2 Front Tamper Home Sensor CD**

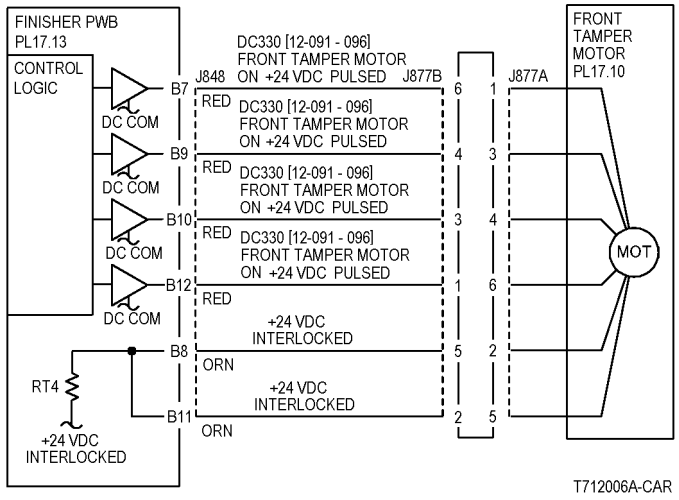



**Figure 3 Front Tamper Motor CD**

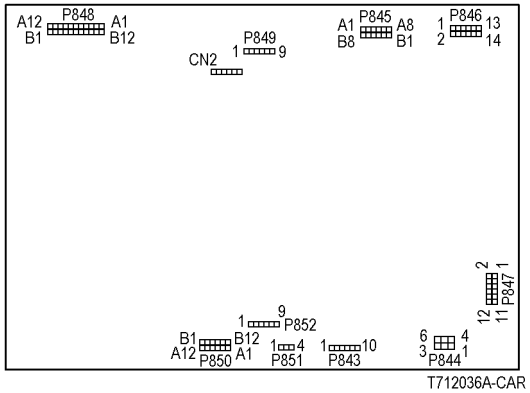



**Figure 4 Finisher PWB**

# 12-253 Rear Tamper

- With the Rear Tamper Home Sensor off The Rear Tamper Home Sensor did not turn on within 800ms after move to the Rear Tamper Home position has begun.
- With the Rear Tamper Home Sensor on: The Rear Tamper Home Sensor did not turn off when the Rear Tamper Home Sensor is deactuating.

## Procedure

Enter dC330 [012-010] (front) or [12-013] (rear) and press Start. **The Rear Tamper Guide energizes.**

**Y N**

**The Rear Tamper Motor energizes.**

**Y N**

**+24 VDC is measured between J848-B1 or B3 or B4 or B6 on the Finisher PWB and Finisher PWB Chassis (-).**

**Y N**

**+24 VDC is measured between J848-B2 or B5 on the Finisher PWB and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Rear Tamper Motor p/j for a short circuit, open circuit, or poor contact.

If the wires and connections are good, replace the Front Tamper Motor (PL 17.10).

Replace the Finisher PWB (PL 17.13).

Check the tamper mechanism for load or drive transmission failure (gear wear or breakage).

Enter dC330 [012-212] and press Start. Move the Rear Tamper manually and turn the Rear Tamper Home Sensor on/off. **The display changes.**

**Y N**

Check the Rear Tamper Home Sensor using the Generic Transmissive Sensor RAP.

Replace the Finisher PWB (PL 17.13).

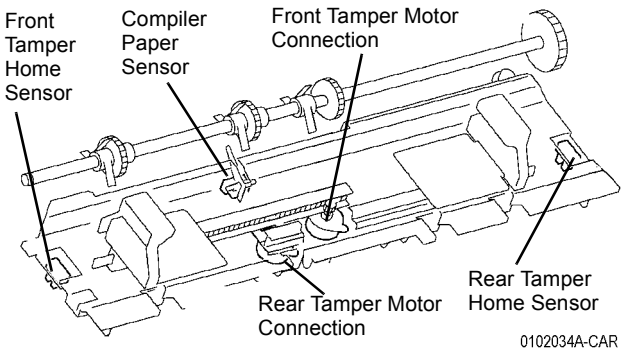



**Figure 1 Component Location**

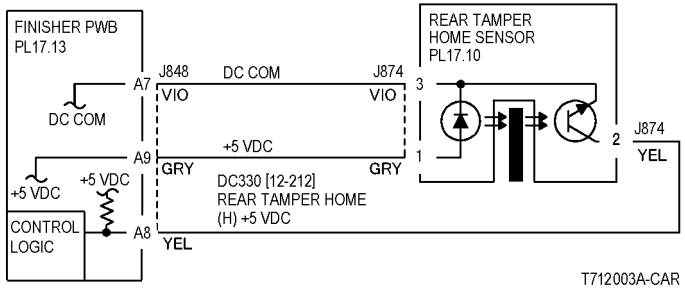



**Figure 2 Rear Tamper Home Sensor CD**

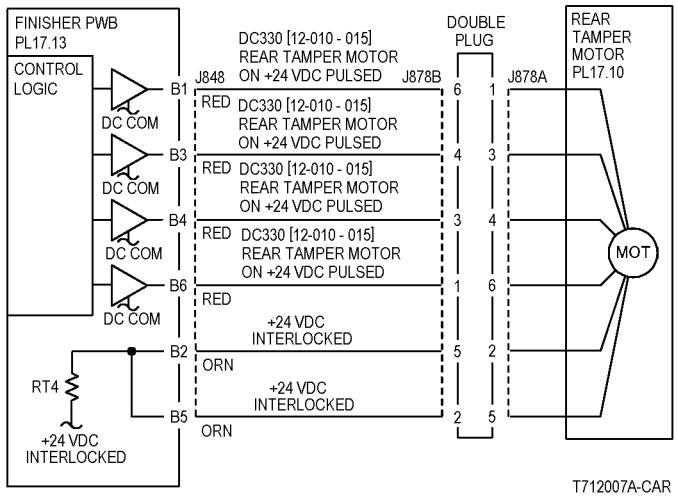



**Figure 3 Rear Tamper Motor CD**

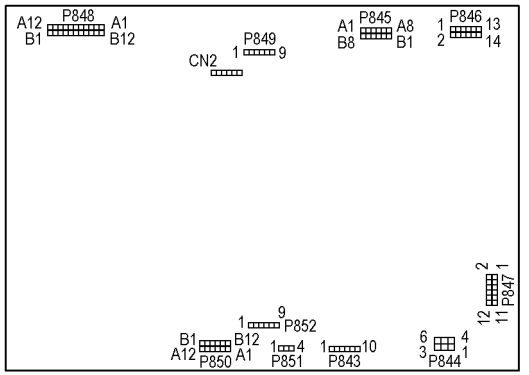



**Figure 4 Finisher PWB**

# 12-254 Stacker Tray

- The Stack Height Sensor did not detect that the tray went down within 500ms after the Stacker Tray lowered at initialization.
- The Stack Height Sensor did not detect that the tray went up within 5sec after the Stacker Tray lifted up.

## Procedure

Check the Stack Height Sensor Actuator for disengagement, bending, and breakage.
Enter dC330 [012-201] and press Start. Manually turn the Stack Height Sensor Actuator to turn the Stack Height Sensor on/off. **The display changes.**

**Y N**

Check the Stack Height Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-050] (up) or [12-051] (down) and press Start. **The Stacker Tray moves.**

**Y N**

**Stacker Motor energized.**

**Y N**

With [12-050] (up) running. **+24VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

With [12-050] (up) running. **+24 VDC is measured between the Stacker Motor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Finisher PWB p/j and the Stacker Motor p/j for an open circuit or poor contact.

With [12-050] (up) running **+24 VDC is measured between the Stacker Motor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Stacker Motor (PL 17.11).

Check the wire between the Finisher PWB p/j and the Stacker Motor p/j for an open circuit or poor contact.
If no problems are found, replace the Stacker Motor (PL 17.11).
If the problem continues, replace the Finisher PWB (PL 17.13).

Check the following:

- The Stacker Motor Gear for wear and damage
- The Stacker Tray for dragging and improper installation
- The Stacker Elevator Belt/rack/gear for wear and damage

Remove the other mechanical causes of the Stacker Tray not operating.

Replace the Finisher PWB (PL 17.13).

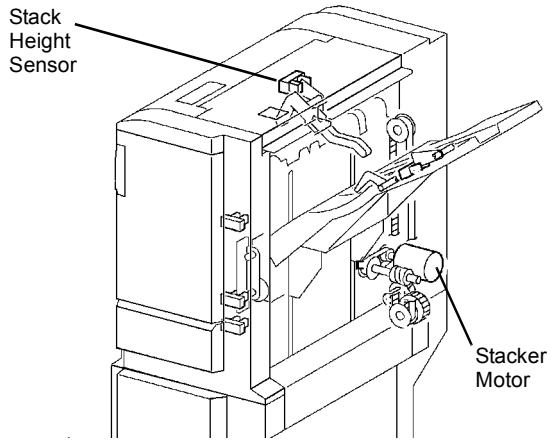



**Figure 1 Component Location**

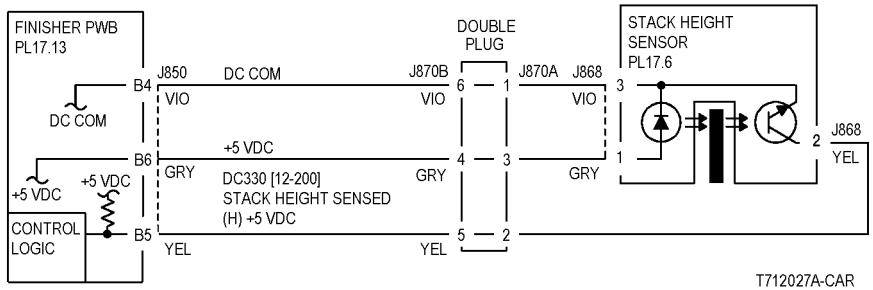



**Figure 2 Stack Height Sensor**

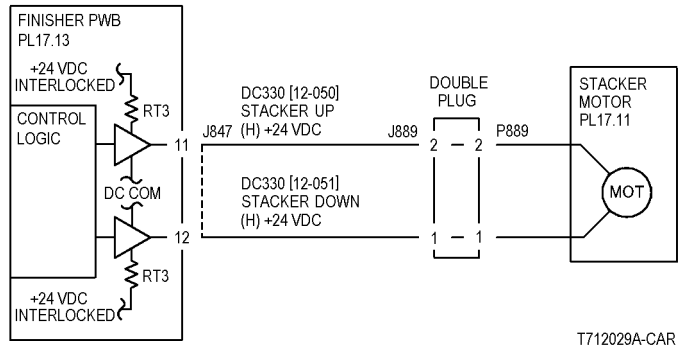



**Figure 3 Stacker Motor CD**

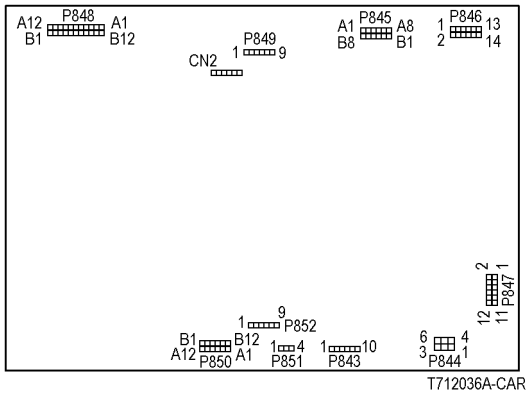



**Figure 4 Finisher PWB**

# 12-255 Stacker Tray Upper Limit

- The system detected that the Stacker Tray Upper Limit Sensor was turned on after the Stacker Tray had begun lifting up.
- The system detected that the Stacker Tray Upper Limit Sensor remained on when lowering down of the Stacker Tray has completed.

## Procedure

Enter dC330 [012-202] and press Start. Actuate the Upper Limit Sensor. **The display changes.**

**Y N**

Check the Upper Limit Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-201] and press Start. Actuate the Stack Height Sensor. **The display changes.**

**Y N**

Check the Stack Height Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-051] (down) on and press Start. **The Stacker Tray moves.**

**Y N**

**Stacker Motor energized.**

**Y N**

With [12-050] (down) running **+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check conductivity of the following:

- Between the Finisher PWB p/j and the Stacker Motor p/j
- Between the Finisher PWB p/j and the Stacker Motor p/j

If no problems are found, replace the Stacker Motor (PL 17.11).
If the problem continues, replace the Finisher PWB (PL 17.13).

Check the following:

- The Stacker Motor Gear for wear and damage
- The Stacker Tray for dragging and improper installation
- The Stacker Elevator Belt/rack/gear for wear and damage

Remove the other mechanical causes of the Stacker Tray not operating.

Enter dC330 [012-050] (up) and press Start. **The Stacker Tray ascends.**

**Y N**

**Stacker Motor energized.**

**Y N**

With [12-050] (up) running **+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check conductivity of the following:

- Between the Finisher PWB p/j and the Stacker Motor p/j
- Between the Finisher PWB p/j and the Stacker Motor p/j

A B

If no problems are found, replace the Stacker Motor (PL 17.11).
If the problem continues, replace the Finisher PWB (PL 17.13).

Check the following:

- The Stacker Motor Gear for wear and damage
- The Stacker Tray for dragging and improper installation
- The Stacker Elevator Belt/rack/gear for wear and damage

Remove the other mechanical causes of the Stacker Tray not operating.

Replace the Finisher PWB (PL 17.13).

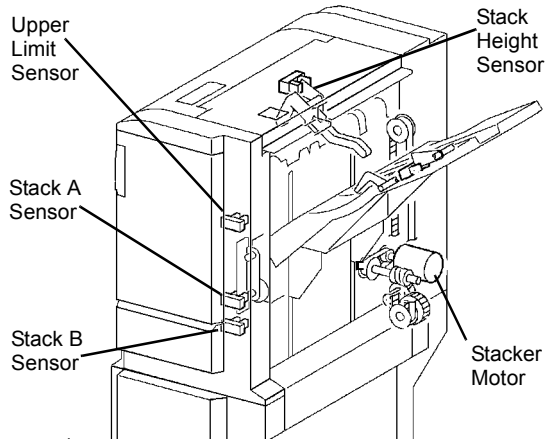



**Figure 1 Component Location**

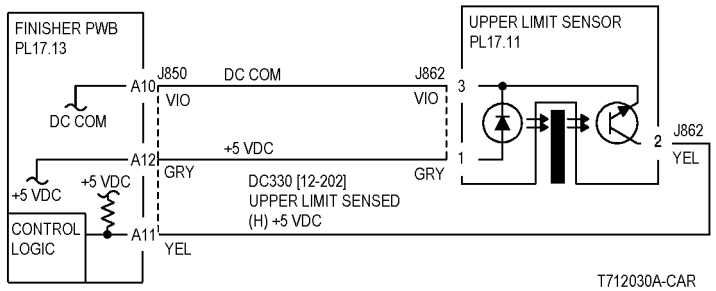



**Figure 2 Upper Limit Sensor CD**

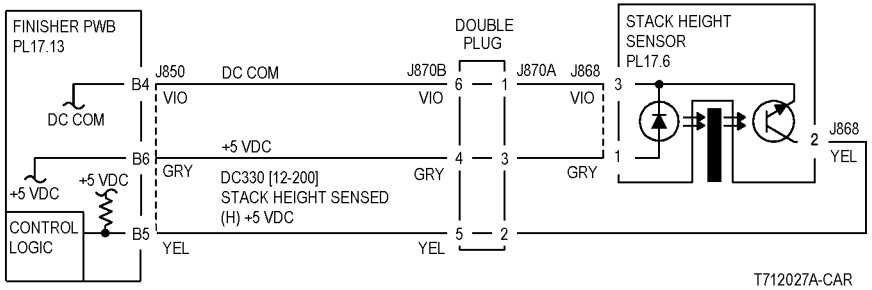



**Figure 3 Stack Height Sensor**

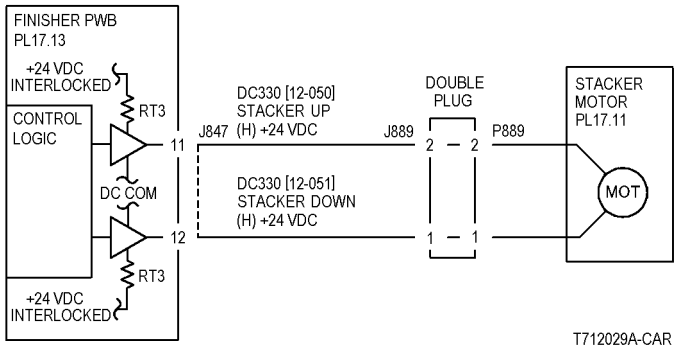



**Figure 4 Stacker Motor CD**

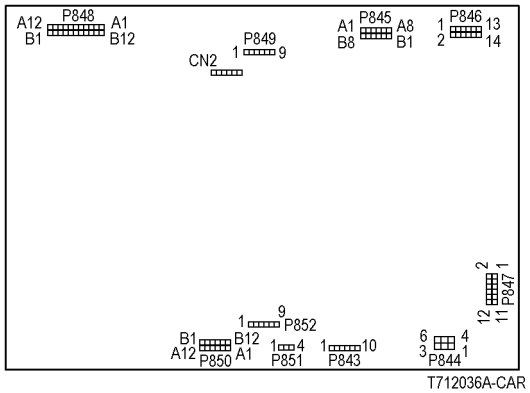



**Figure 5 Finisher PWB**

# 12-256 Staple Front Corner Sensor On

- The Stapler Front Corner Sensor does not turn on within 2sec after starting to move to Front Corner.
- The Stapler Front Corner Sensor remained on when starting to move to Front Corner.

## Procedure

Open the Finisher Front Cover. Turn the Stapler Assembly manually. **The Staple Head moves smoothly without any load.**

**Y N**

Repair the cause of Staple Head not moving, such as rail breakage, drag, or damaged gear.

Enter dC330 [012-225] and press Start. Actuate the Staple Front Corner Sensor on/off. **The display changes.**

**Y N**

Check the Staple Front Corner Sensor using the Generic Transmissive Sensor RAP.

Cheat the Front Cover Interlock Switch.

Enter dC330 [012-081] (front direction) or [12-083] (rear direction) and press Start. **STAPLE MOVE MOTOR energized.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Stapler Move Motor p/j for an open circuit or poor contact.

If no problems are found, replace the Stapler Move Motor (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

Replace the Finisher PWB (PL 17.13).

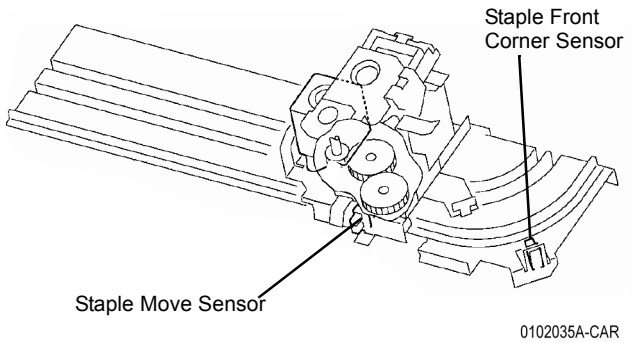



**Figure 1 Component Location**

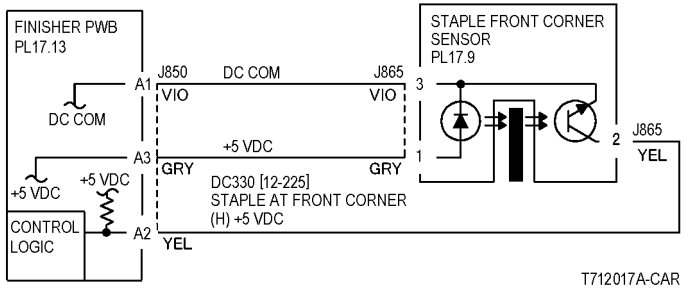



**Figure 2 Stapler Front Corner Sensor CD**

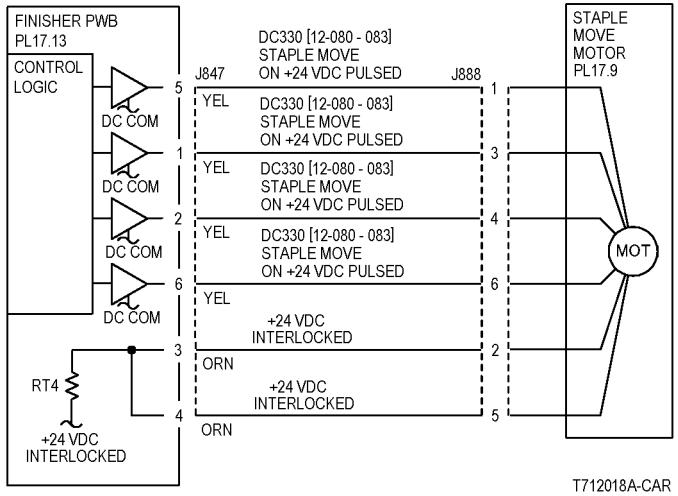



**Figure 3 Stapler Move Motor CD**

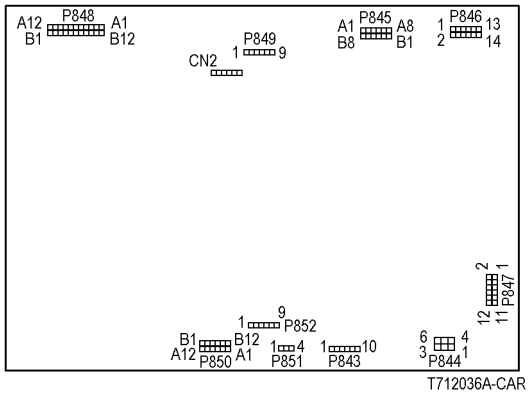



**Figure 4 Finisher PWB**

# 12-257 Staple Front Corner Sensor Off

- The Staple Front Corner Sensor does not turn off after the move from Front Corner has completed.
- The Staple Front Corner Sensor does not turn off within 200ms after starting to move from Front Corner.

## Procedure

Open the Finisher Front Cover. Turn the Stapler Assembly manually. **The Staple Head moves smoothly without any load.**

**Y N**

Remove the cause of Staple Head not moving, such as rail breakage, drag, and gear damage.

Enter dC330 [012-225] and press Start. Actuate the Staple Front Corner Sensor. **The display changes.**

**Y N**

Check the Staple Front Corner Sensor using the Generic Transmissive Sensor RAP.

Cheat the Front Cover Interlock Switch.

Enter dC330 [012-081] (front) or [12-083] (rear) and press Start. **The Staple Move Motor energized**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Stapler Move Motor p/j for an open circuit or poor contact.

If no problems are found, replace the Stapler Move Motor (PL 17.9).

If the problem continues, replace the Finisher PWB (PL 17.13).

Replace the Finisher PWB (PL 17.13).

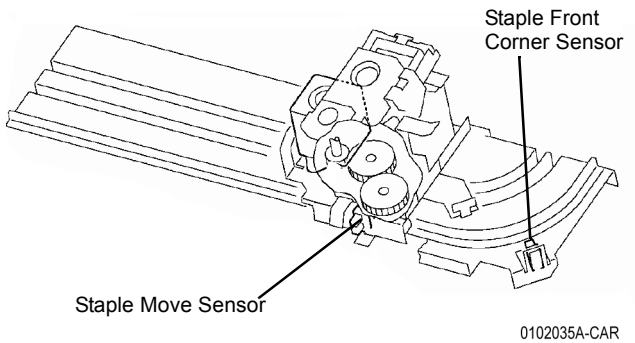



**Figure 1 Component Location**

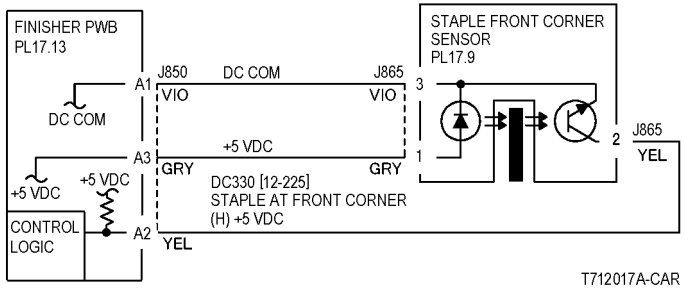



**Figure 2 Stapler Front Corner Sensor CD**

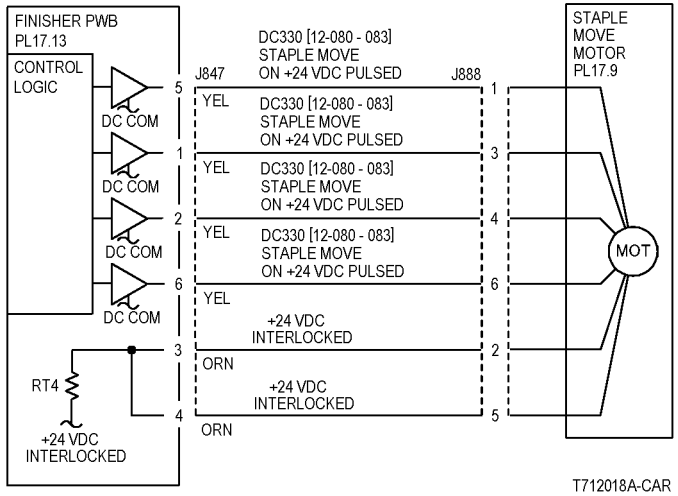



**Figure 3 Stapler Move Motor CD**

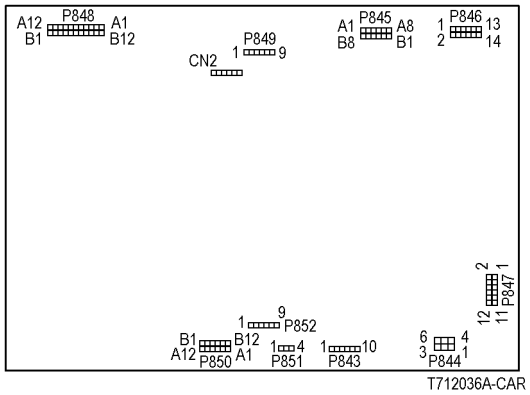



**Figure 4 Finisher PWB**

# 12-260 Eject Clamp Home Sensor On

The Eject Clamp Home Sensor does not turn on after the Eject Clamp up started.

## Procedure

Remove the Eject Clamp Home Sensor bracket. (Leave the Connector plugged in)
Enter dC330 [012-210] and press Start. Actuate the Eject Clamp Home Sensor with a sheet of paper. **The display changes.**

**Y N**

Check the Eject Clamp Home Sensor using the Generic Transmissive Sensor RAP.

Restore the Sensor to the original state.
Enter dC330 [012-034] and press Start. **Eject Clamp moves up.**

**Y N**

**Eject Motor energized.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Eject Motor p/j for an open circuit or poor contact.
If no problems are found, replace the Eject Motor (PL 17.8).
If the problem continues, replace the Finisher PWB (PL 17.13).

Remove the other mechanical causes of the Eject Clamp not operating, such as wear or damage of the Gear, Belt, and Eject Cam.

Replace the Finisher PWB (PL 17.13).

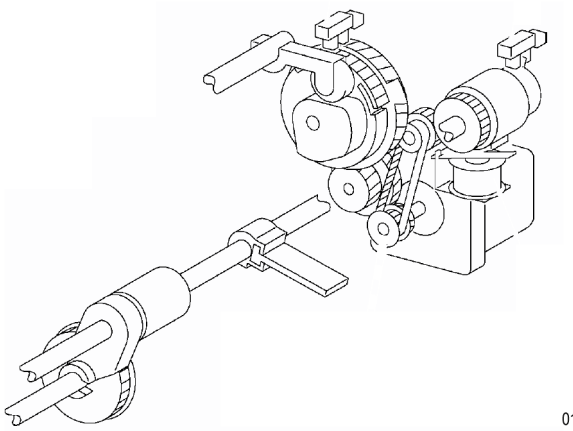



**Figure 1 Component Location**

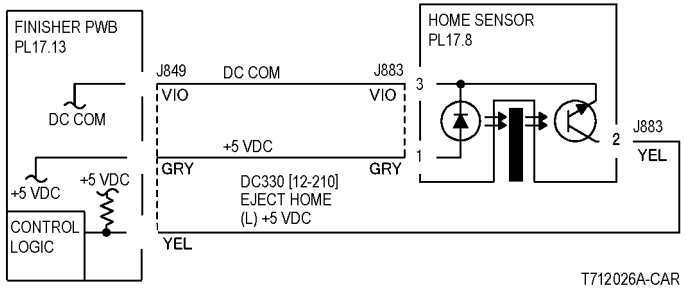



**Figure 2 Eject Clamp Home Sensor**

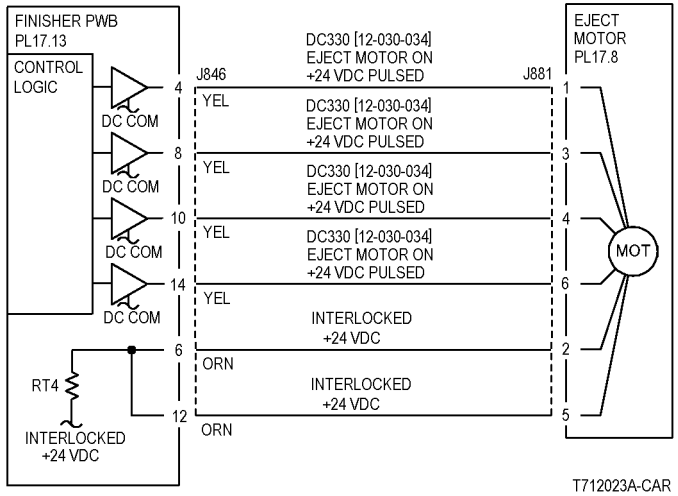



**Figure 3 Eject Motor CD**

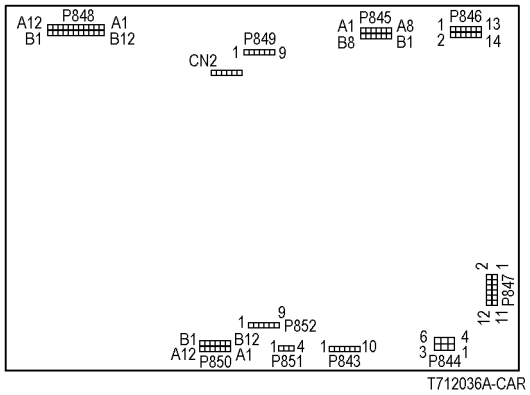



**Figure 4 Finisher PWB**

# 12-262 Eject Clamp Home Sensor Off

The Eject Clamp Home Sensor does not turn off within 200ms after the Eject Clamp DOWN has started.

## Procedure

Remove the Eject Clamp Home Sensor bracket. (Leave the Connector plugged in)
Enter dC330 [012-210] and press Start. Actuate the Eject Clamp Home Sensor with a sheet of paper. **The display changes.**

**Y N**

Check the Eject Clamp Home Sensor using the Generic Transmissive Sensor RAP.

Restore the Sensor to the original state.
Enter dC330 [012-032] and press Start. **Elect Clamp moves down.**

**Y N**

**The Eject Motor energized.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Eject Motor p/j for an open circuit or poor contact.
If no problems are found, replace the Eject Motor (PL 17.8).
If the problem continues, replace the Finisher PWB (PL 17.13).

Remove the other mechanical causes of the Eject Clamp not operating, such as wear or damage of the Gear, Belt, and Eject Cam.

Replace the Finisher PWB (PL 17.13).

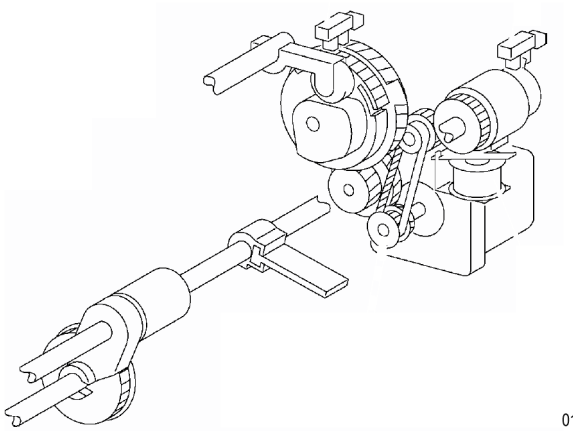



**Figure 1 Component Location**

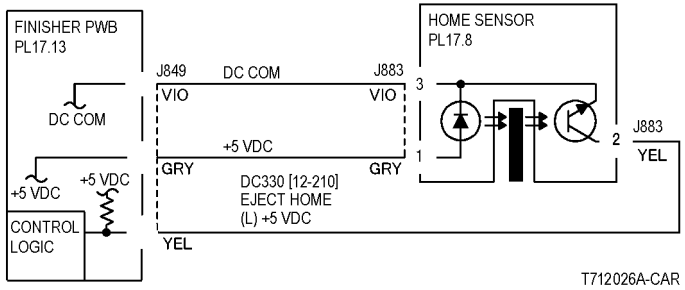



**Figure 2 Eject Clamp Home Sensor**

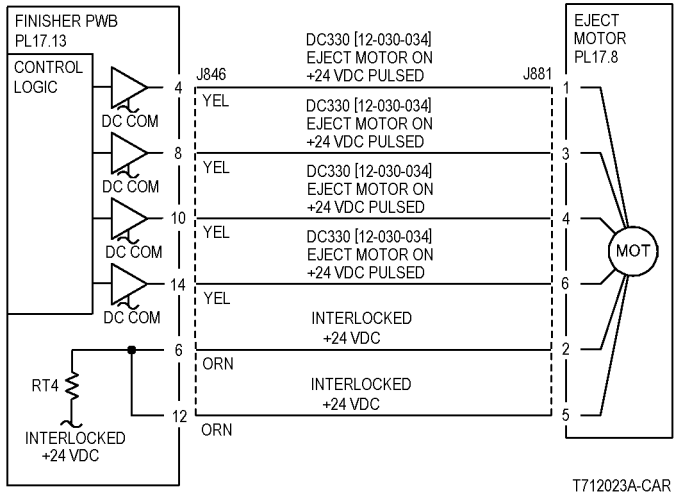



**Figure 3 Eject Motor CD**

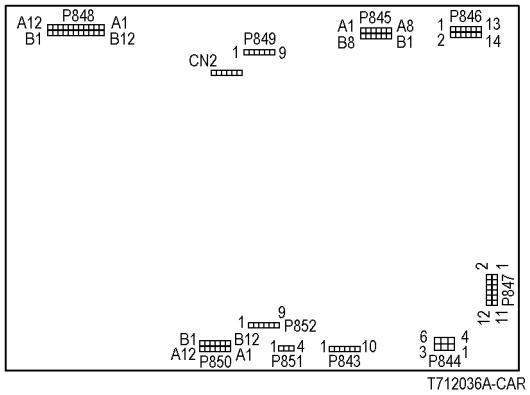



**Figure 4 Finisher PWB**

# 12-267 Decurler

The Decurler Cam Home Sensor did not actuate after the Decurler Cam Clutch energized.

## Procedure

Open H Transport Cover and cheat the H Transport Cover Interlock Sensor (Figure 1). **The H Transport Belts rotate.**

**Y N**

Go to the 12-100 RAP.

Enter dC330 [012-217] and press Start. Rotate the Actuator and turn the Decurler Cam Home Sensor on/off. **The display changes.**

**Y N**

Check the Decurler Cam Home Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-070] and press Start. **The Decurler Cam Clutch energized.**

**Y N**

Check the Decurler Cam Clutch using the Solenoid/Clutch Open RAP.

Enter dC330 [012-071] and press Start. **The Decurler Cam rotates.**

**Y N**

Check the following:

- The Decurler Cam Clutch for slippage
- The Driver Gear for wear, a drive failure, and breakage
- The belt for disengagement, breakage, and improper tension

Remove the other mechanical causes of the Decurler Cam not operating.

Replace the Finisher PWB (PL 17.13).

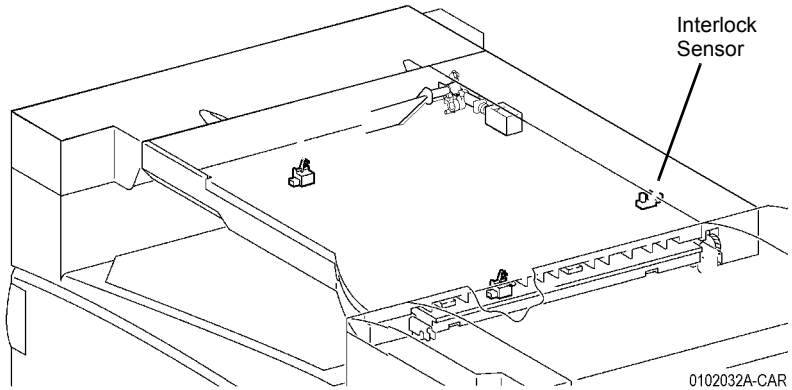



**Figure 1 Component Location**

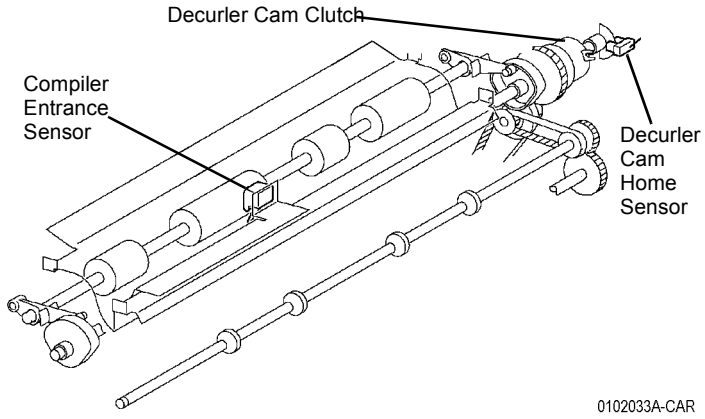



**Figure 2 Component Location**

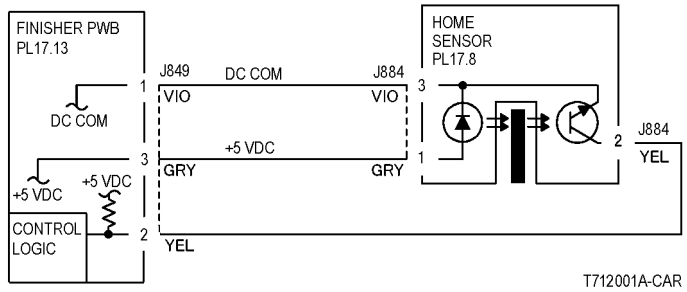



**Figure 3 Decurler Cam Home Sensor CD**

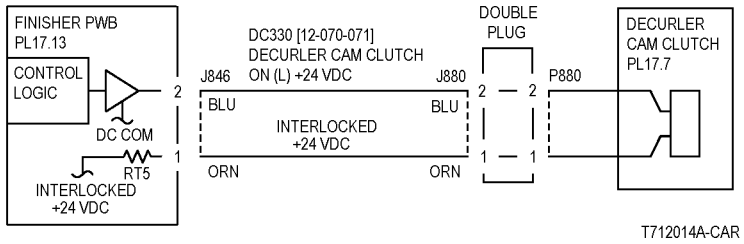



**Figure 4 Decurler Cam Clutch CD**

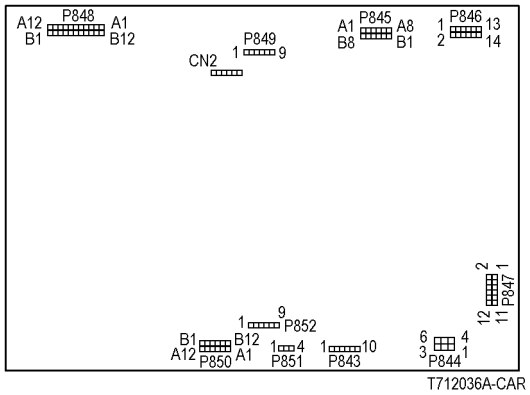



**Figure 5 Finisher PWB**

# 12-281 Set Clamp

The Set Clamp Home Sensor does not turn on within 200ms after the Set Clamp has started operation.

## Procedure

Enter dC330 [012-211] and press Start. Rotate the Actuator and turn the Set Clamp Home Sensor on/off. **The display changes.**

**Y N**

Check the Set Clamp Home Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-040] and press Start. **The Set Clamp Solenoid energized.**

**Y N**

Check the Set Clamp Solenoid using the Generic Solenoid/Clutch Open RAP.

Enter [12-034] and press Start to energize Eject Clamp up or [12-032] to lower the Eject Clamp.

Enter dC330 [012-041] and press Start. **Has the Set Clamp rotated.**

**Y N**

Enter dC330 [012-030] and press Start. **The Eject Motor energized.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Eject Motor p/j for an open circuit or poor contact.

If no problems are found, replace the Eject Motor (PL 17.8).

If the problem continues, replace the Finisher PWB (PL 17.13).

Check the following:

- Eject Roll for wear and a drive failure (PL 17.8).
- Eject Shaft for wear and a drive failure (PL 17.8).
- Each Driver Gear for wear, a drive failure, and breakage (PL 17.8).
- Belt for disengagement, breakage, and improper tension (PL 17.8).

Replace the Finisher PWB (PL 17.13).

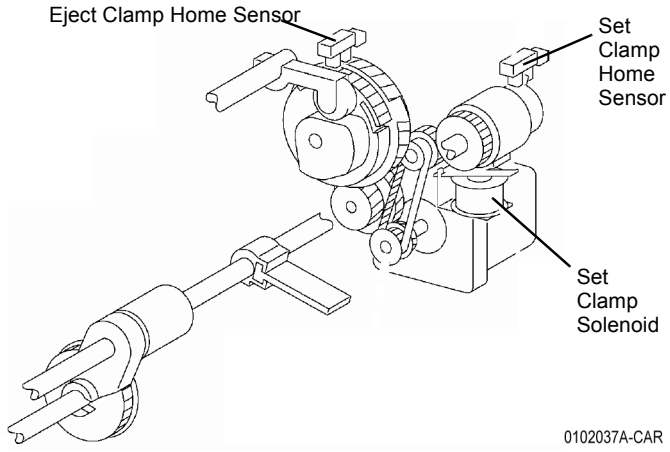



**Figure 1 Component Location**

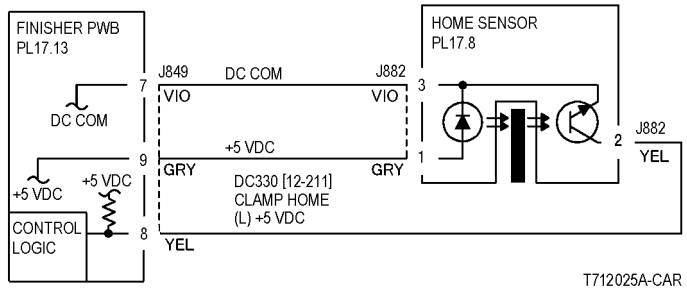



**Figure 2 Set Clamp Home Sensor**

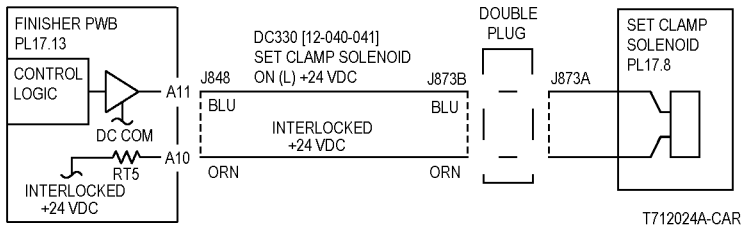



**Figure 3 Set Clamp Solenoid**

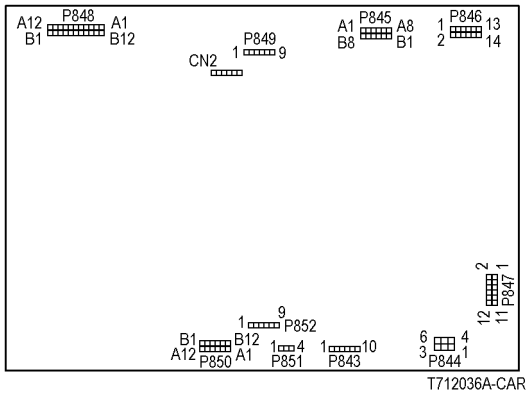



**Figure 4 Finisher PWB**

# 12-301 Top Cover Interlock

The Top Cover Interlock is open.

## Procedure

Cheat the Top Cover Interlock Switch. **12-301 is cleared.**

**Y N**

**+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+5 VDC is measured between the Top Cover Interlock Switch p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Top Cover Interlock Switch p/j and the Finisher PWB p/j for an open circuit or poor contact.

**+5 VDC is measured between the Top Cover Interlock Switch p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Top Cover Interlock Switch (PL 17.13).

Check the wire between the Finisher PWB p/j and the Top Cover Interlock Switch p/j for an open circuit or poor contact.

There is misalignment between the Top Cover and the Top Cover Interlock Switch.
Check the Top Cover for correct installation and the actuator for breakage or bending (PL 17.6).

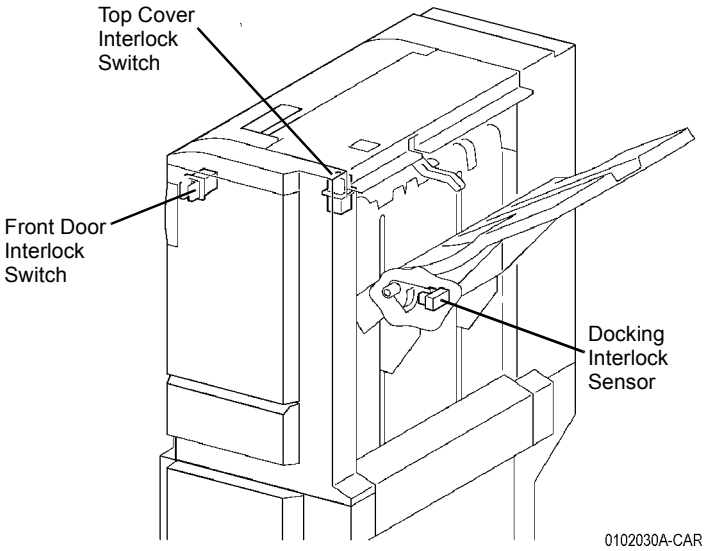



**Figure 1 Component Location**

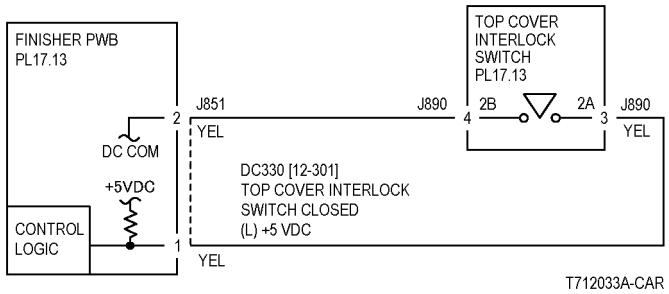



**Figure 2 Top Cover Interlock Switch CD**

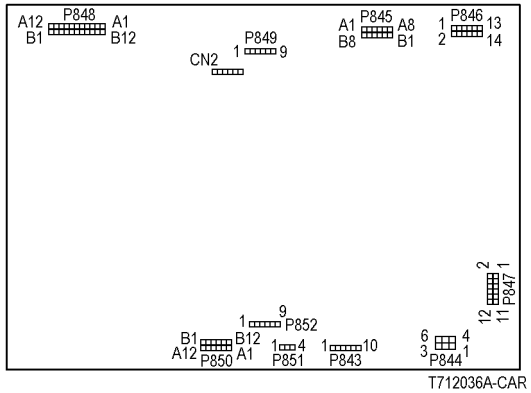



**Figure 3 Finisher PWB**

# 12-302 Front Door Interlock Open

The Front Door Interlock is open.

## Procedure

Cheat the Front Door Interlock Switch. **Has the display of 012-302 been cleared.**

**Y N**

**+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+5 VDC is measured between the Front Door Interlock Switch p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Front Door Interlock Switch p/j and the Finisher PWB p/j for an open circuit or poor contact.

**+5 VDC is measured between the Front Door Interlock Switch p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Front Door Interlock Switch (PL 17.13).

Check the wire between the Finisher PWB p/j and the Front Door Interlock Switch p/j for an open circuit or poor contact.

Mismatching between the Front Door and the Front Door Interlock Switch.
Check the Front Door and Front Cover for improper installation, the Actuator for breakage and bending, and the Magnet for improper mounting.

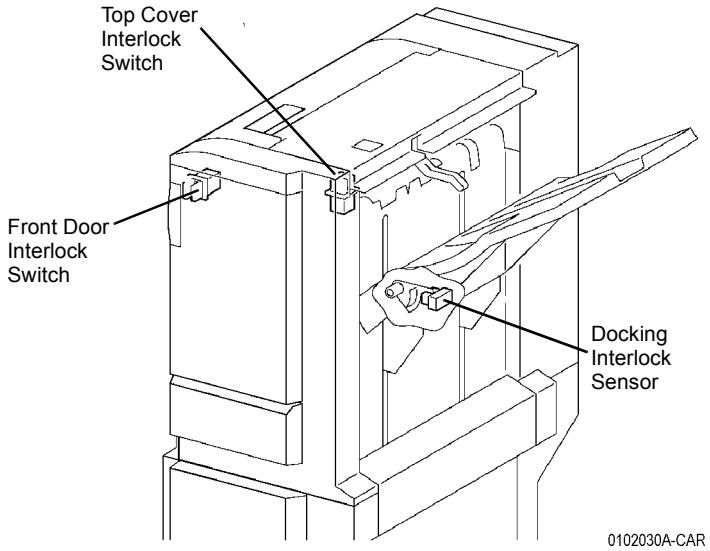



**Figure 1 Component Location**

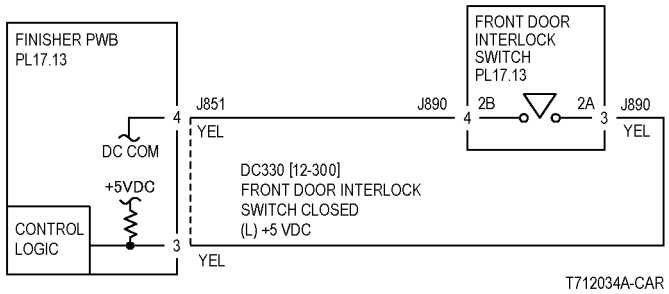



**Figure 2 Front Door Interlock Switch CD**

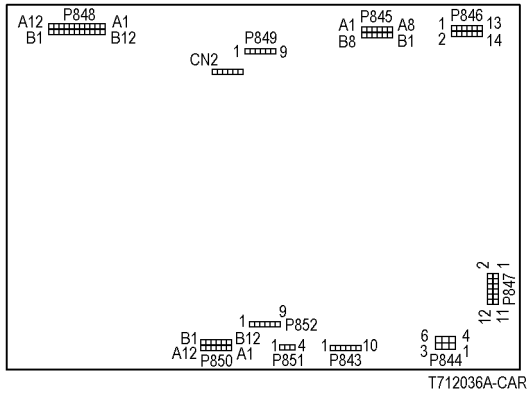



**Figure 3 Finisher PWB**

# 12-303 H Transport Interlock Open

The H Transport Interlock Sensor detected open.

## Procedure

Block the H Transport Interlock Sensor with a sheet of paper. **Has the display of 012-303 been cleared.**

**Y N**

**+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+5 VDC is measured between the H Transport Interlock Sensor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the H Transport Interlock Sensor p/j and the Finisher PWB p/j for an open circuit or poor contact.

**+5 VDC is measured between the H Transport Interlock Sensor p/j (+) and 3 (-).**

**Y N**

Check the wire between the Finisher PWB p/j and the H Transport Interlock Sensor p/j and between the Finisher PWB p/j and H Transport Interlock Sensor p/j for an open circuit or poor contact.
If no problems are found, replace the Finisher PWB (PL 17.13).

Replace the H Transport Interlock Sensor (PL 17.4).

Mismatching between the H Transport Cover and the H Transport Interlock Sensor.
Check the H Transport Cover for improper installation, the Actuator for breakage and bending, and the Magnet for improper mounting.

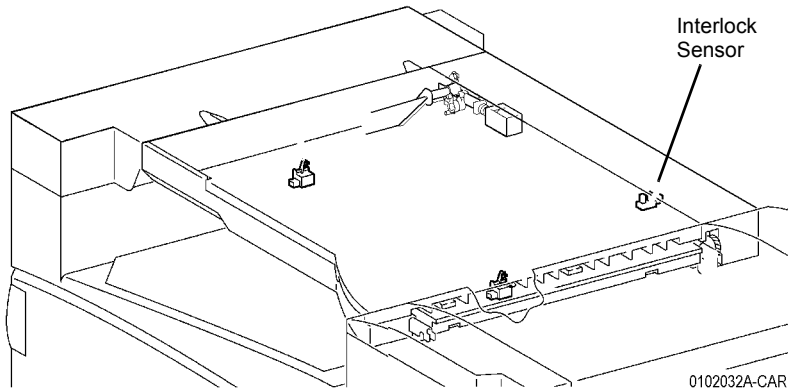



**Figure 1 Component Location**

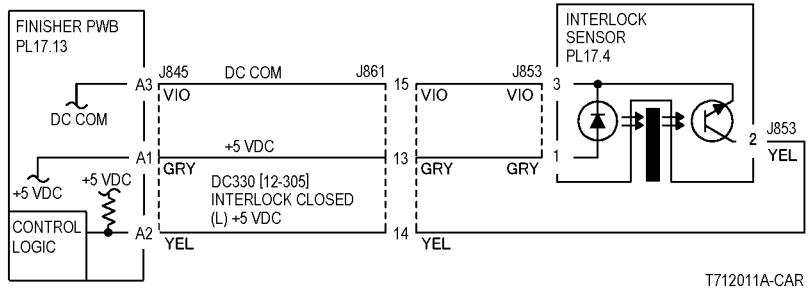



**Figure 2 H Transport Interlock Sensor CD**

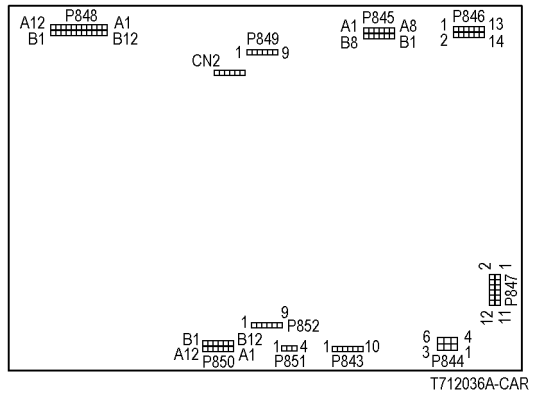



**Figure 3 Finisher PWB**

# 12-305 Docking Interlock Open

The Docking Interlock is open.

## Procedure

Block the Docking Interlock Sensor with a sheet of paper. **Has the display of 012-305 been cleared.**

**Y N**

**+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+5 VDC is measured between the Docking Interlock Sensor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Docking Interlock Sensor p/j and the Finisher PWB p/j for an open circuit or poor contact.

**+5 VDC is measured between the Docking Interlock Sensor p/j (+) and 3 (-).**

**Y N**

Check the wire between the Finisher PWB p/j and the Docking Interlock Sensor p/j and between the Finisher PWB p/j and Docking Interlock Sensor p/j for an open circuit or poor contact. If no problems are found, replace the Finisher PWB (PL 17.13).

Replace the Docking Interlock Sensor (PL 17.13).

Mismatching between the Actuator and the Docking Interlock Sensor. Check the Sensor for improper installation, the Actuator for breakage and bending, and the Finisher and the Main Processor for the docking failure.

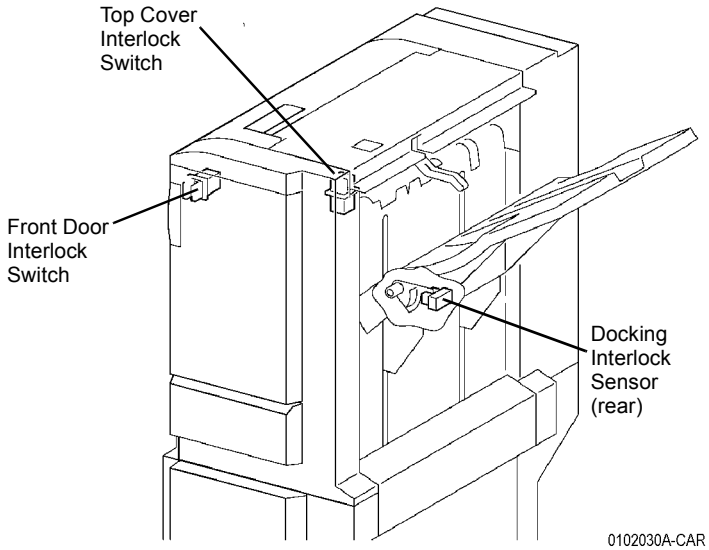



**Figure 1 Component Location**

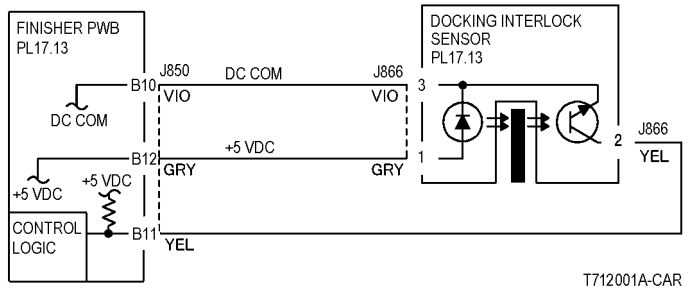



**Figure 2 Docking Interlock Sensor CD**

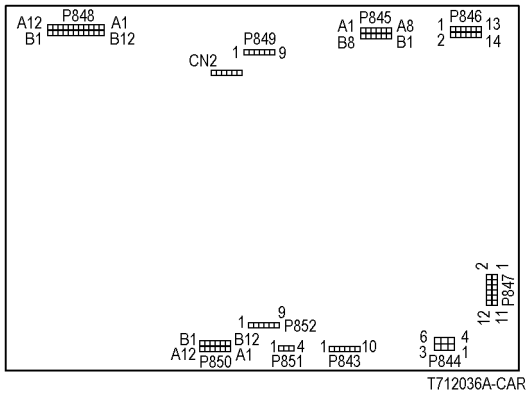



**Figure 3 Finisher PWB**

# 12-350 Finisher Communication

Communication cannot be established between the MCU PWB and the Finisher PWB.

## Procedure

Switch the power off then on. **CR7 on the Finisher PWB is lit.**

**Y N**

**+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the +24VDC circuit to the Finisher PWB p/j by referring to Chapter 7 Wiring Data ( Finisher +24VDC-1)

Replace the Finisher PWB (PL 17.13).

Switch off the power.

Check conductivity of the following:

(Including the I/F)

- Between the MCU PWB p/j and the Finisher PWB p/j
- Between the MCU PWB p/j and the Finisher PWB p/j
- Between the MCU PWB p/j and the Finisher PWB p/j
- Between the MCU PWB p/j and the Finisher PWB p/j

**Is the resistance 1 Ohm or less for all wires.**

**Y N**

Check wires with more than 1 Ohm for an open circuit or poor contact.

Replace the following parts:

- Finisher PWB (PL 17.13).
- MCU PWB (PL 13.1).

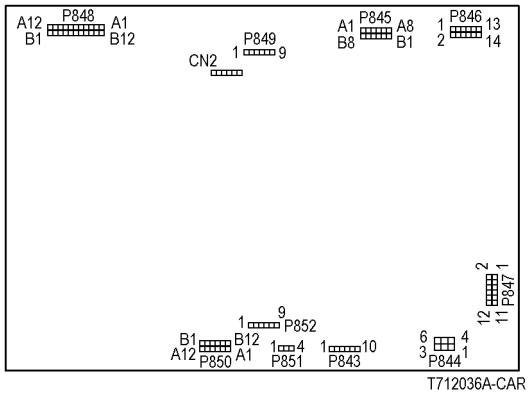



**Figure 1 Finisher PWB**

## 12-399 Staple Mode Logic

A paper size and staple mode that cannot be specified were specified.

### Procedure

Reprogram job.

# 12-901 Power On H Transport Entrance Sensor

The H Transport Entrance Sensor detected a paper at power on, when all the interlock were closed, or at initialization.

## Procedure

Check the following:

- The Actuator for return failure
- Enter dC330 [012-103] and press Start. Check only the signal wire of the sensor.
- Check that the power voltage at the customer site does not drop.

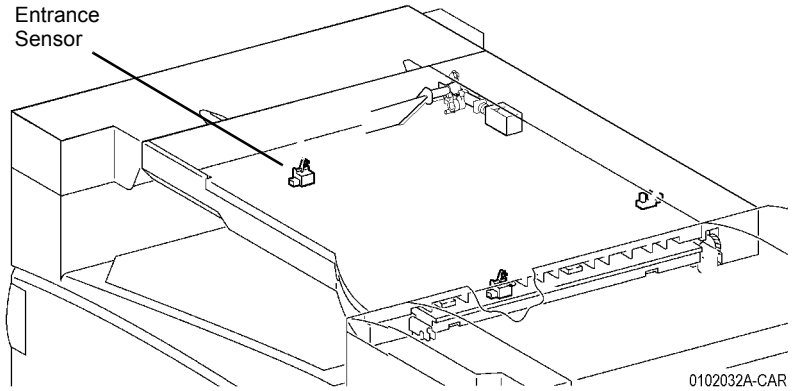



**Figure 1 Component Location**

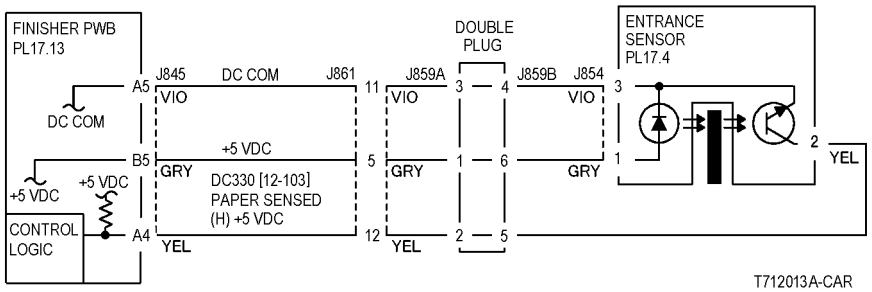



**Figure 2 H Transport Entrance Sensor CD**

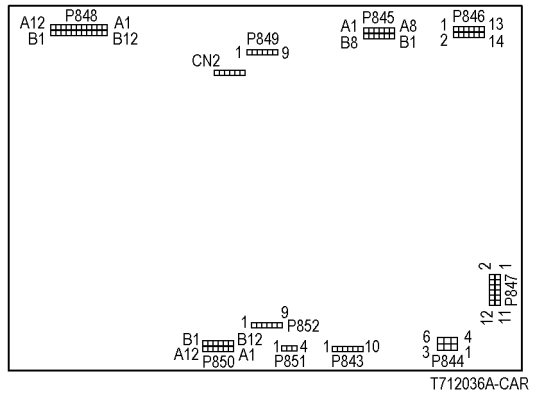



**Figure 3 Finisher PWB**

# 12-902 Power On H Transport Exit Sensor

The H Transport Exit Sensor detected a paper at power on, when all the INTERLOCK were closed, or at initialization.

## Procedure

Check the following:

- The Actuator for return failure
- Enter dC330 [012-104] and press Start. Check only the signal wire of the sensor.
- Check that the power voltage at the customer site does not drop.

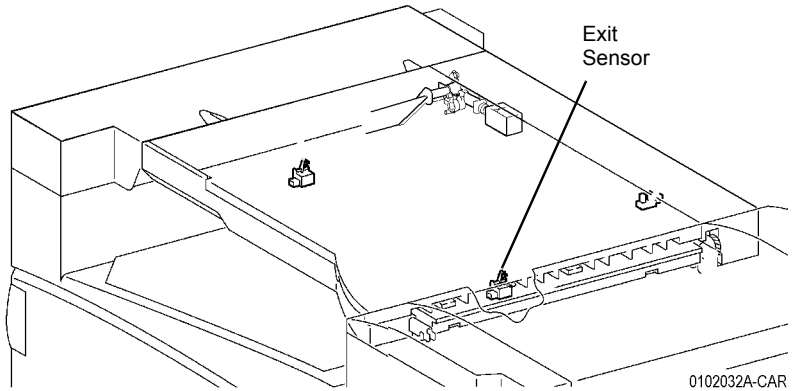



**Figure 1 Component Location**

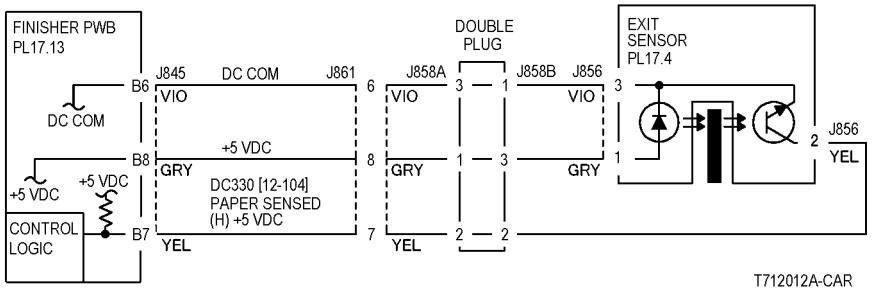



**Figure 2 H Transport Sensor CD**

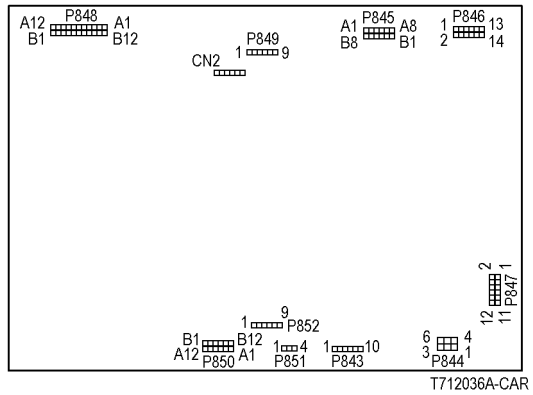



**Figure 3 Finisher PWB**

# 12-903 Power On Compiler Entrance Sensor

The Compiler Entrance Sensor detected a paper at power on, when all the INTERLOCK were closed, or at initialization.

## Procedure

Check the following:

- The Actuator for return failure
- Enter dC330 [012-101] and press Start. Check only the signal wire of the sensor.
- Check that the power voltage at the customer site does not drop.

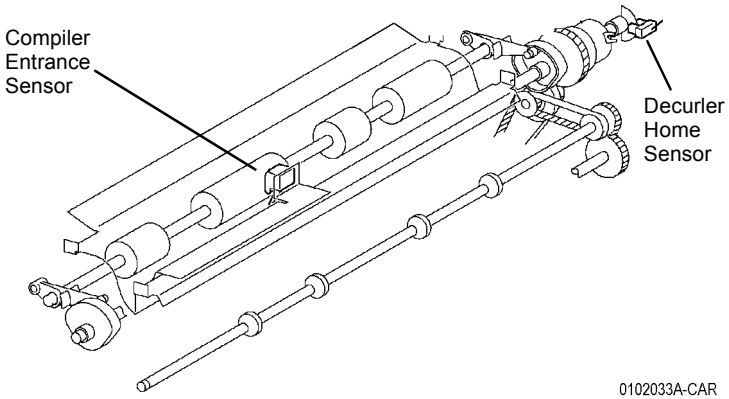



**Figure 1 Component Location**

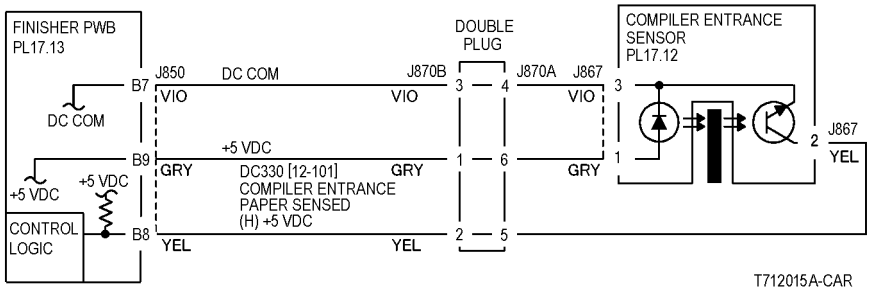



**Figure 2 Compiler Entrance Sensor CD**

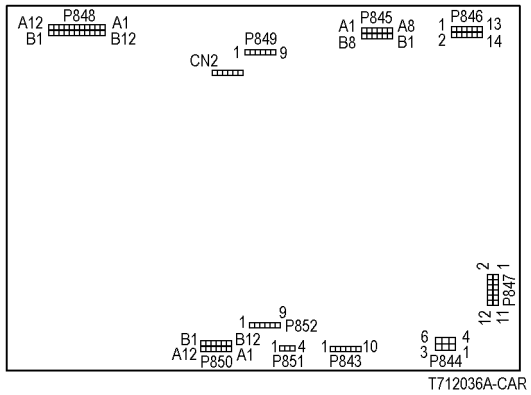



**Figure 3 Finisher PWB**

# 12-904 Power On Compiler Paper Sensor

- The Compiler Paper Sensor continues to detect paper when the paper was output automatically due to the power on initialization.
- The Compiler Paper Sensor detected paper with no history of paper output to the Compiler Tray when all the interlocks were closed.

## Procedure

Check the following:

- The Actuator for return failure
- Enter dC330 [012-102] and press Start. Check only the signal wire of the sensor.
- Check that the power voltage at the customer site does not drop.
- Replace Finisher PWB (PL 17.13).

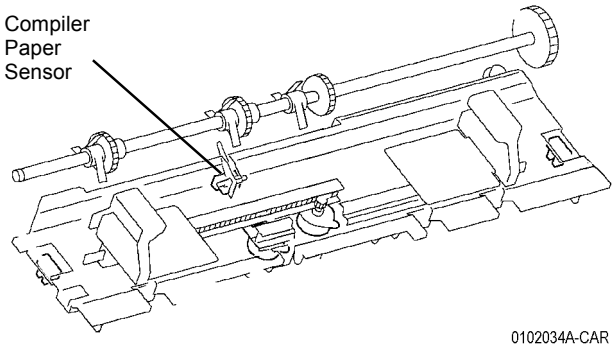



**Figure 1 Component Location**

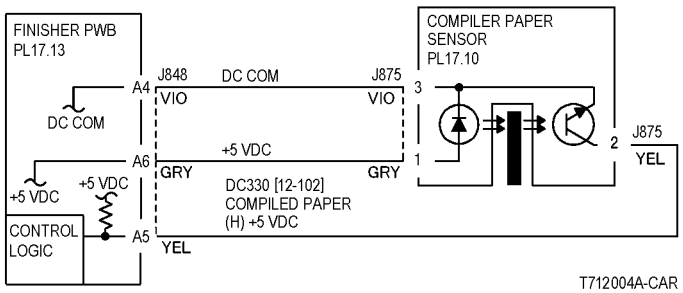



**Figure 2 Compiler Paper Sensor CD**

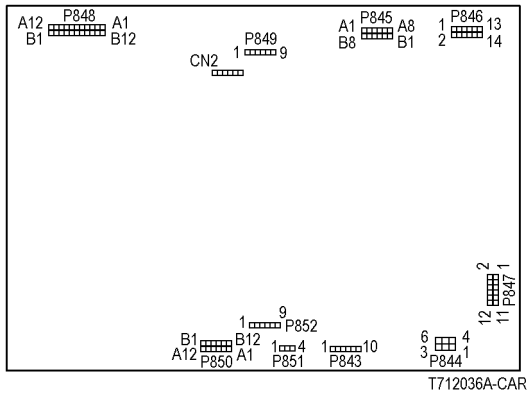



**Figure 3 Finisher PWB**

# 12-910 Staple Feed Ready

- At the staple preparation operation at initialization, the Staple Ready Sensor does not go to ready (L) status after 13 times of stapling operation.
- The Stapler Ready Sensor is turned off (H) just before the Staple.

## Procedure

Remove the Stapler Assembly with a connector connected. Enter dC330 [012-209] and press Start. Actuate the Staple Ready Sensor. **The display changes.**

**Y N**

**+5 VDC is measured between the Stapler Assembly p/j (+) and Finisher PWB Chassis (-).**

**Y N**

**+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the wire between the Finisher PWB p/j and the Stapler Assembly p/j for an open circuit or poor contact.

Pull out the cartridge. **+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Switch off the power.
Pull out the on the Finisher PWB.
Turn on the power. **+5 VDC is measured between the Finisher PWB P852-3 (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

Check the circuit between the p/j and the Stapler Assembly p/j for short circuit.

Load the cartridge. **0 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

**0 VDC is measured between the Stapler Assembly p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Stapler Assembly (PL 17.9).

Check the wire between the Stapler Assembly p/j and the Finisher PWB p/j for an open circuit or poor contact.

Replace the Finisher PWB (PL 17.13).

Restore the Staple Head to the original status and cheat the Front Interlock Switch.
Enter dC330 [012-020] and press Start. **The STAPLE MOTOR energizes.**

**Y N**

With [12-020] running **+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

A

A

**Y N**

Replace the Finisher PWB (PL 17.13).

Check conductivity of the following:

- Between the Finisher PWB p/j ~ Stapler Assembly p/j
- Between the Finisher PWB p/j ~ Stapler Assembly p/j
- Between the Finisher PWB p/j ~ Stapler Assembly p/j
- Between the Finisher PWB p/j ~ Stapler Assembly p/j

If no problems are found, replace the Stapler Assembly (PL 17.9).
If the problem continues, replace the Finisher PWB (PL 17.13).

Switch off the power.
Remove the Stapler Assembly from the Finisher.
Turn the Staple Motor Gear manually. **The staple needles fed.**

**Y N**

Replace the Stapler Assembly (PL 17.9).

Replace the Finisher PWB (PL 17.13).

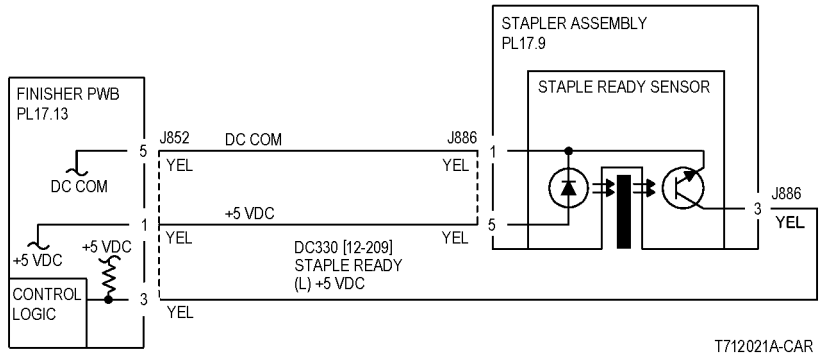



**Figure 1 Staple Ready Sensor CD**

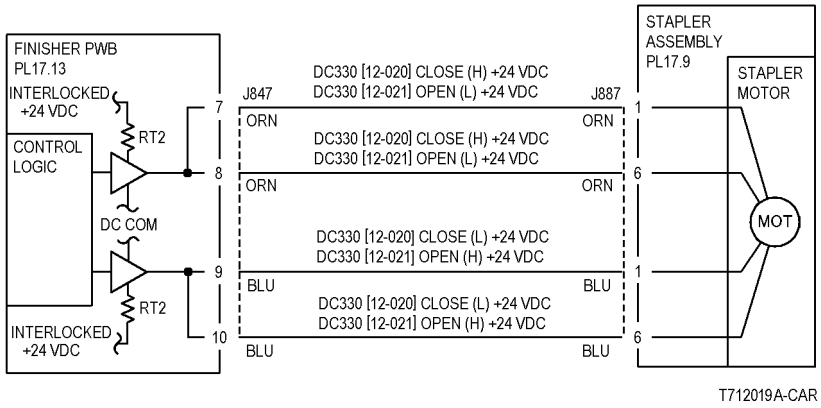



**Figure 2 Staple Motor CD**

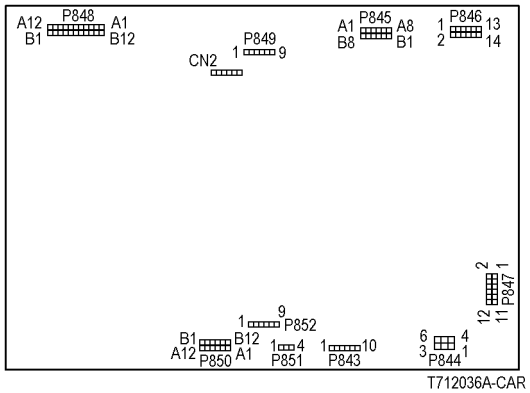



**Figure 3 Finisher PWB**

# 12-911 Stacker Lower Safety Warning

The Height Alignment was not successful within 250ms during Tray lowering while stacking.

## Procedure

Check the following:

This Fault Code is an operation message. No need for servicing If the display of 012-911 has not been cleared after removing paper in the Stacker Tray, check the following:

- ï The Actuators of the Stack Height Sensor for dragging and return failure.
- ï Enter dC330 [012-201] and press Start. Check the circuit of the Sensor.

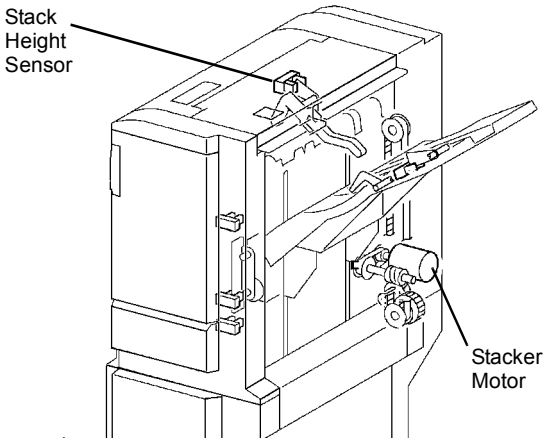



**Figure 1 Component Location**

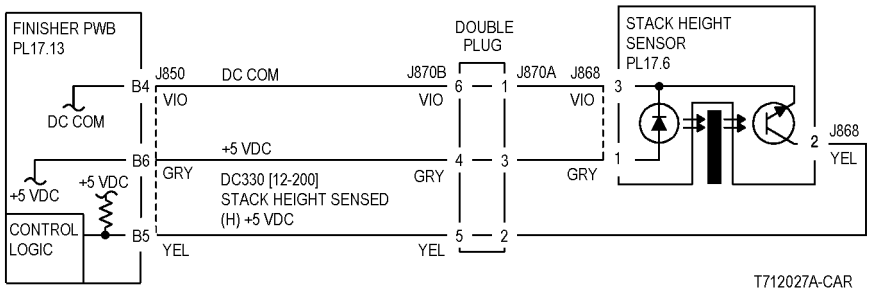



**Figure 2 Stack Height Sensor**

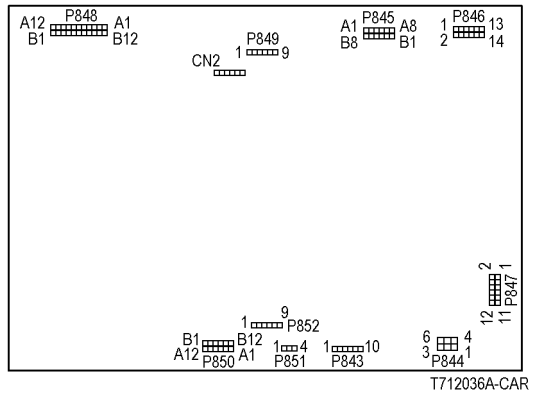



**Figure 3 Finisher PWB**

# 12-914 Stacker Tray Staple Set

The STAPLE SET count of the Stacker Tray exceeded 50 sets at the Staple Set Eject operation.

## Procedure

Check the following:

This Fault Code is an operation message. No need for servicing If the display of 012-914 has not been cleared after removing the Staple Set, check the following:

- ï The Actuators of the Stack Paper Sensor for dragging and return failure.
- ï Enter dC330 [012-200] and press Start. Check the circuit of the Sensor.

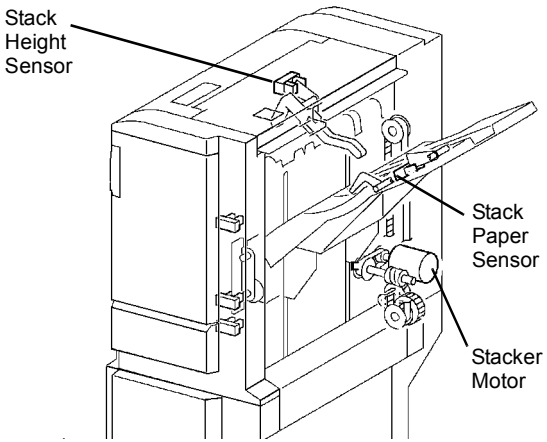



**Figure 1 Component Location**

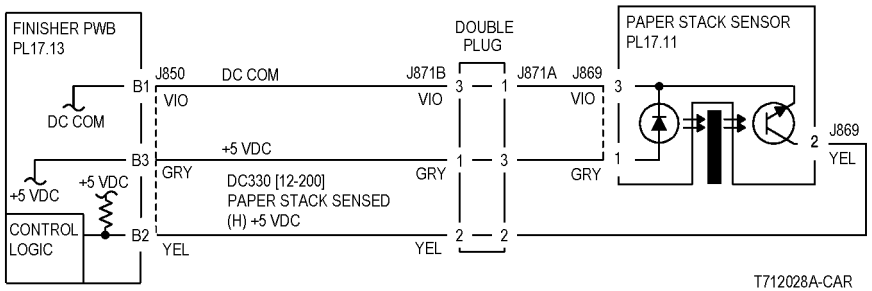



**Figure 2 Stack Paper Sensor CD**

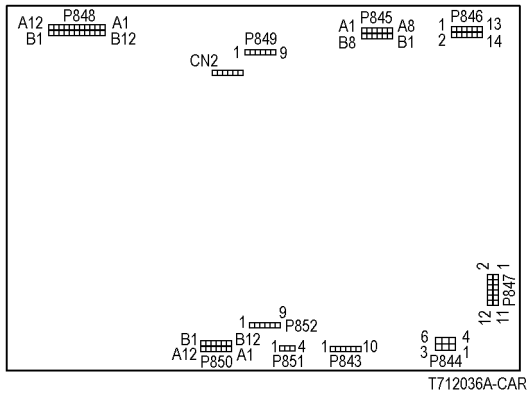



**Figure 3 Finisher PWB**

# 12-916 Stapling

The Staple Head Home Sensor turned on by the open operation while the Sensor failed to turn on (stapling was not available due to an error) after the Staple Head began to close.

## Procedure

Enter dC330 [012-020] and press Start. **The STAPLE MOTOR energizes.**

**Y N**

Check conductivity of the following:

- Between the Finisher PWB p/j and the Staple Head p/j
- Between the Finisher PWB p/j and the Staple Head p/j
- Between the Finisher PWB p/j and the Staple Head p/j
- Between the Finisher PWB p/j and the Staple Head p/j

**Is the resistance 1 Ohm or less for all wires.**

**Y N**

Check wires with more than 1 Ohm for an open circuit or poor contact.

Replace the Stapler Assembly (PL 17.9).
If the problem continues, replace the Finisher PWB (PL 17.13).

Replace the Staple Head. Leave the Connector plugged in.
Turn the gear of the Staple Motor manually to make the Actuator interrupt the Staple Head Home Sensor. **+5 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+5 VDC is measured between the Staple Head p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Staple Head p/j and the Finisher PWB p/j for an open circuit or poor contact.

Check conductivity of the following:

- Between the Finisher PWB p/j and the Staple Head p/j
- Between the Finisher PWB p/j and the Staple Head p/j

**Is the resistance 1 Ohm or less for both wires.**

**Y N**

Check wires with more than 1 Ohm for an open circuit or poor contact.

Replace the Stapler Assembly (PL 17.9).
If the problem continues, replace the Finisher PWB (PL 17.13).

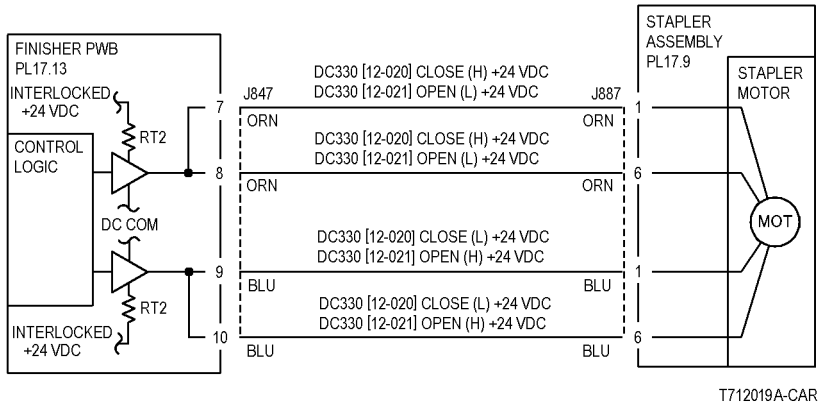



**Figure 1 Stapler Motor CD**

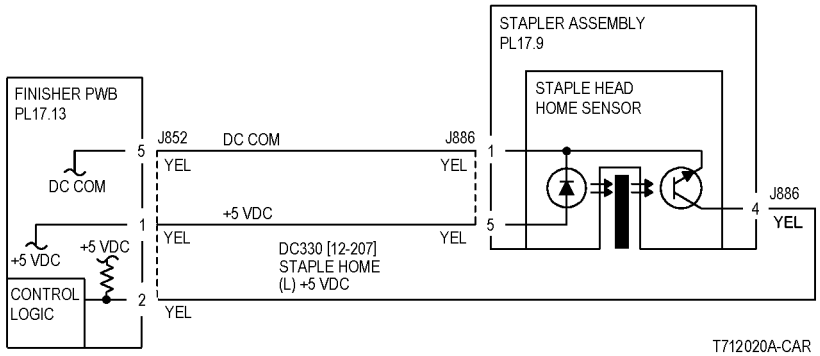



**Figure 2 Staple Head Home Sensor**

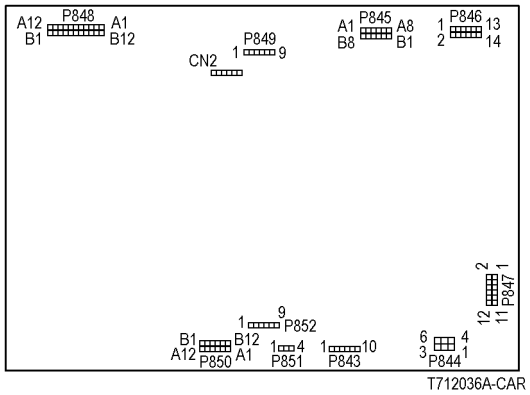



**Figure 3 Finisher PWB**

# 12-960 Stacker Tray Full Stack

- The system detected Small Size Paper full during the Stacker Tray Height Adjustment operation during lowering.
- The system detected Small Size Paper full during the Stacker Tray Height Adjustment operation (during lowering down) when the Big Size Paper is ejected.
- The Big Size Paper was ejected while the system already detected Big Size Paper FULL (HALF).

## Procedure

Remove the Finisher Front Cover.

Enter dC330 [012-204] and press Start. Actuate the Stack A Sensor with a sheet of paper. **The display changes.**

**Y N**

Check the Stack A Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-205] and press Start. Actuate the Stack B Sensor with a sheet of paper. **The display changes.**

**Y N**

Check the Stack B Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-200] and press Start. Actuate the Actuator of the Stack Paper Sensor. **The display changes.**

**Y N**

Check the PAPER SENSOR using the Generic Transmissive Sensor RAP.

Enter dC330 [012-050] (up) or [12-051] (down) and press Start. **The Stacker Tray moves.**

**Y N**

**The Stacker Motor energizes.**

**Y N**

With [12-050] (up) running **+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

With [12-050] (up) running **+24 VDC is measured between the Stacker Motor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Finisher PWB p/j and the Stacker Motor p/j for an open circuit or poor contact.

With [12-050] (up) running **+24 VDC is measured between the Stacker Motor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Stacker Motor (PL 17.9).

Check the wire between the Finisher PWB p/j and the Stacker Motor p/j for an open circuit or poor contact.
If no problems are found, replace the Finisher PWB (PL 17.13).
If the problem continues, replace the Stacker Motor (PL 17.11).

Check the following:

A

- The Stacker Motor Gear for wear and damage
- The Stacker Tray for dragging and improper installation
- The Stacker Elevator Belt/rack/gear for wear and damage

Remove the other mechanical causes of the Stacker Tray not operating.

Replace the Finisher PWB (PL 17.13).

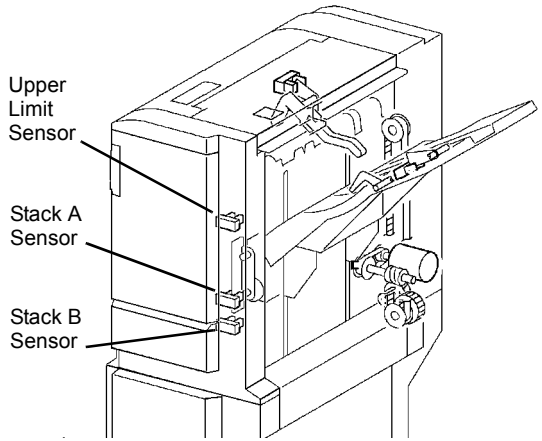



**Figure 1 Component Location**

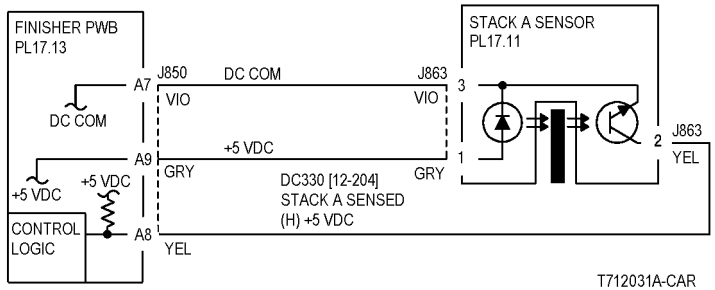



**Figure 2 Stack A Sensor CD**

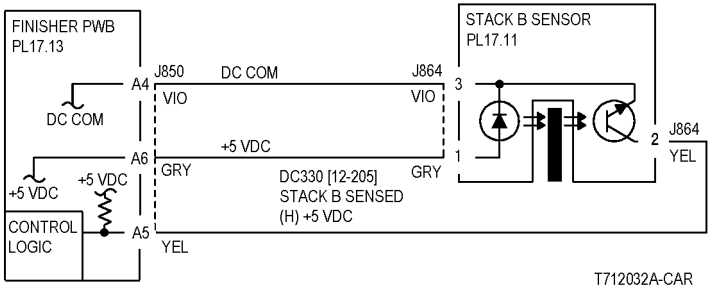



**Figure 3 Stack B Sensor CD**

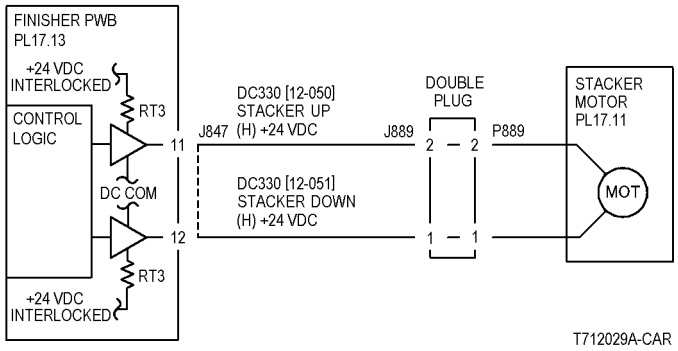



**Figure 4 Stacker Motor CD**

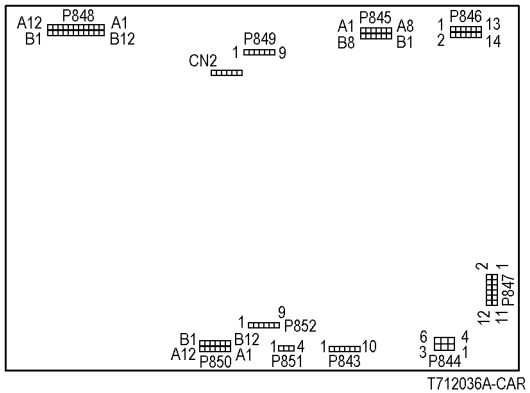



**Figure 5 Finisher PWB**

# 12-961 Mix Full Stack

- Compared to the maximum paper size that was loaded at the previous job, the paper size (either feed direction or width direction) of the next job is bigger.
- Staple mode has been changed while the width of the maximum paper size that was loaded at the previous job is less than 279.4mm.
- The maximum paper size that was loaded at the previous job is "unknown".

## Procedure

Remove the Finisher Front Cover.

Enter dC330 [012-204] and press Start. Actuate the Stack A Sensor with a sheet of paper. **The display changes.**

**Y N**

Check the Stack A Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-205] and press Start. Actuate the Stack B Sensor with a sheet of paper. **The display changes.**

**Y N**

Check the Stack B Sensor using the Generic Transmissive Sensor RAP.

Enter dC330 [012-200] and press Start. Actuate the Actuator of the Stack Paper Sensor. **The display changes.**

**Y N**

Check the Paper SensoR using the Generic Transmissive Sensor RAP.

Enter dC330 [012-050] (up) or [12-051] (down) and press Start. **The Stacker Tray moves.**

**Y N**

**The Stacker Motor energizes.**

**Y N**

With [12-050] (up) running **+24 VDC is measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

With [12-050] (up) running **+24 VDC is measured between the Stacker Motor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Finisher PWB p/j and the Stacker Motor p/j for an open circuit or poor contact.

With [12-050] (up) running **+24 VDC is measured between the Stacker Motor p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Stacker Motor (PL 17.11).

Check the wire between the Finisher PWB p/j and the Stacker Motor p/j for an open circuit or poor contact.
If no problems are found, replace the Finisher PWB (PL 17.13).
If the problem continues, replace the Stacker Motor (PL 17.11).

Check the following:
Remove the other mechanical causes of the Stacker Tray not operating.

A

- The Stacker Motor Gear for wear and damage
- The Stacker Tray for dragging and improper installation
- The Stacker Elevator Belt/rack/gear for wear and damage

Replace the Finisher PWB (PL 17.13).

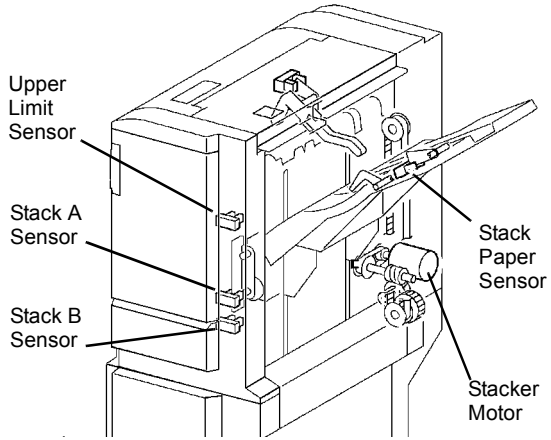



**Figure 1 Component Location**

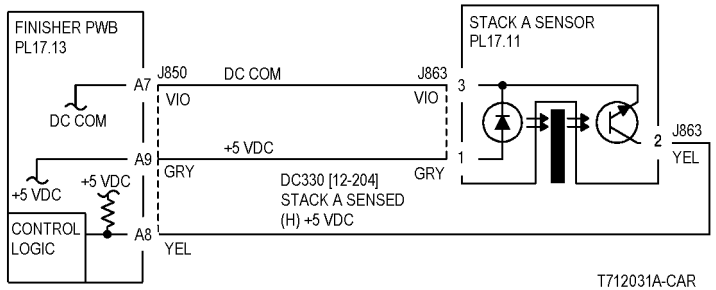



**Figure 2 Stack A Sensor CD**

A

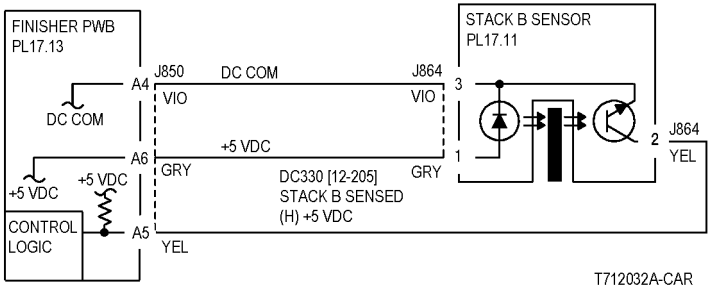



**Figure 3 Stack B Sensor CD**

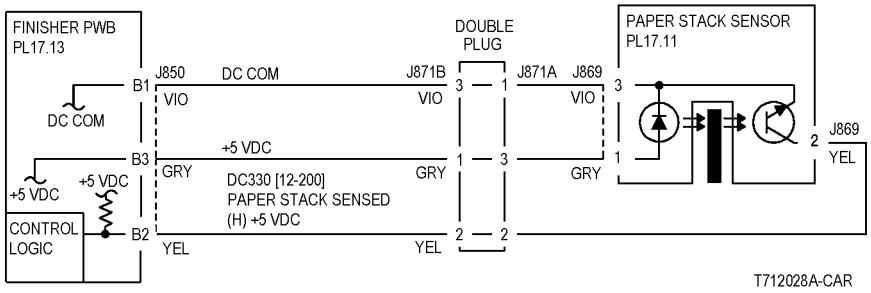



**Figure 4 Stack Paper Sensor CD**

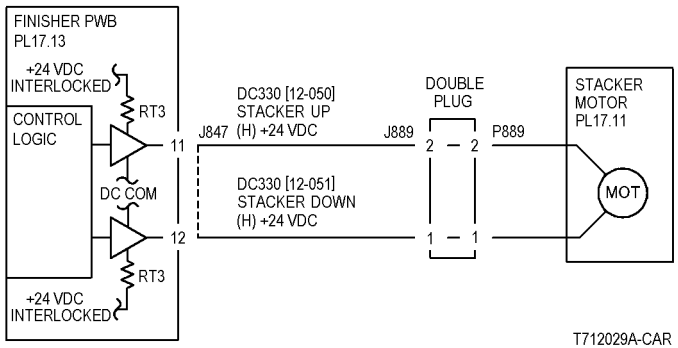



**Figure 5 Stacker Motor CD**

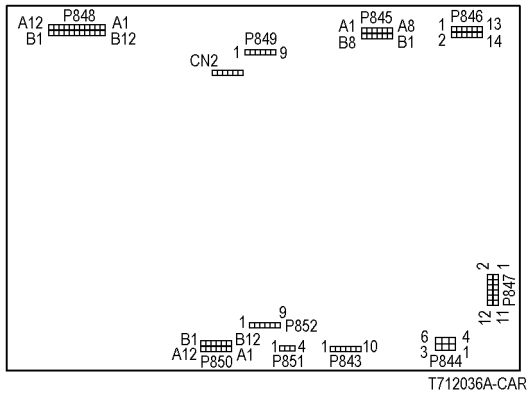



**Figure 6 Finisher PWB**

# 12-965 Staple Near Empty

- The Low Staple Switch detected Low Staple at Power On and Interlock Close.
- The Low Staple Switch detected Low Staple at Staple Head Close.

## Procedure

Install a new Staple Cartridge loaded with staples. **+5VDC measured between the Finisher PWB p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Replace the Finisher PWB (PL 17.13).

**+5VDC measured between the Stapler Assembly p/j (+) and Finisher PWB Chassis (-).**

**Y N**

Check the wire between the Stapler Assembly p/j and the Finisher PWB p/j for an open circuit or poor contact.

Check the wire between the Stapler Assembly p/j and the Finisher PWB p/j and between the Stapler Assembly p/j and Finisher PWB p/j for an open circuit or poor contact.
If no problems are found, replace the Stapler Assembly (PL 17.9).
If the problem continues, replace the Finisher PWB (PL 17.13).

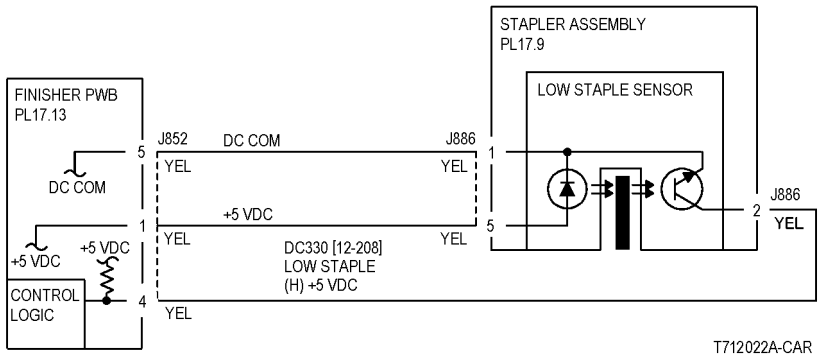



**Figure 1 Low Staple Sensor CD**

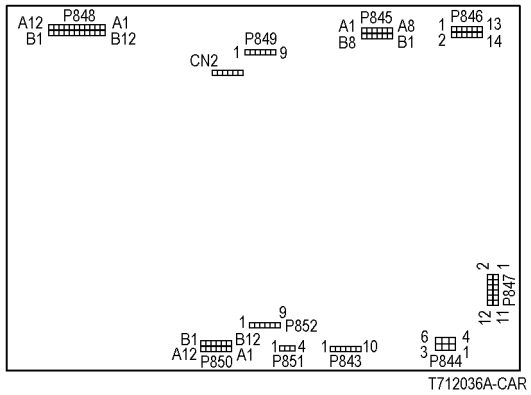



**Figure 2 Finisher PWB**

# 12-966 Scratch Sheet Compile

An abnormal paper (SCRATCH SHEET) is output to the COMPILER.

## Procedure

This Fault Code is an operator message.  No service required

# 12-969 IOT Top Tray Full

The Top Tray Full Sensor has detected FULL status for 10 sec continuously.

## Procedure

Enter dC330 [012-215] and press Start. Move paper near the Top Tray Full Sensor, then away from it. **The display changes.**

**Y N**

Check the Top Tray Full Sensor using the Generic Reflective Sensor RAP.

Check the sensor for improper installation. If no problems are found, replace the Finisher PWB (PL 17.13).

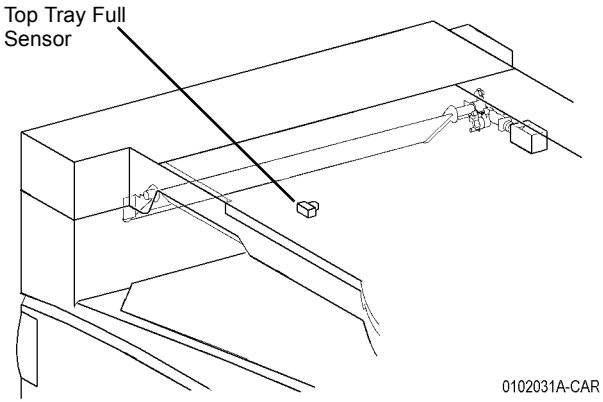



**Figure 1 Component Location**

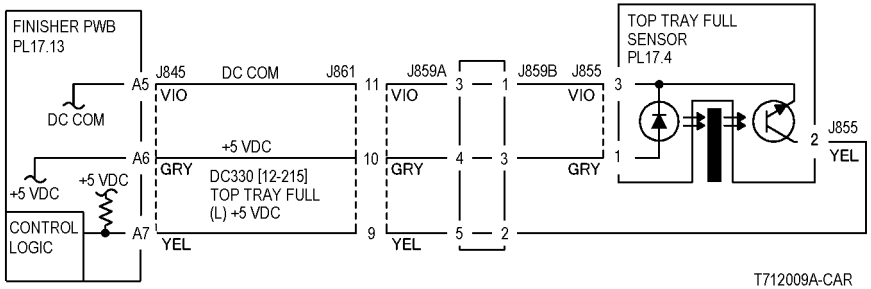



**Figure 2 Top Tray Full Sensor CD**

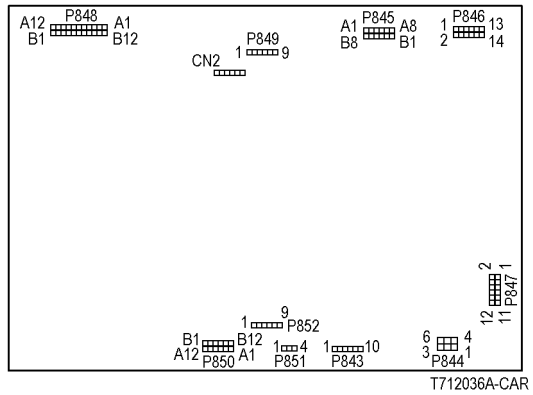



**Figure 3 Finisher PWB**

## 15-362 X Hard Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3). If the check ia OK, replace the IIT/IPS PWB (PL 18.3).

## 15-367 X PIO Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3). If the check ia OK, replace the IIT/IPS PWB (PL 18.3).

## 15-370 X PIO Initialization Failure 1

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check ia OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-371 X PIO Initialization Failure 2

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check ia OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-372 X PIO Initialization Failure 3

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check ia OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-375 X PIO Before Scan Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check ia OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-376 X PIO Non-match Failure 1

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check ia OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-377 X PIO Non-match Failure 2

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Check the connectors on the IIT/IPS PWB (PL 18.3) and the ESS PWB (PL 13.1). If the check ia OK, replace the ESS PWB (PL 13.1). If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-380 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 1 red failed.

### Initial Actions

- Verify that Platen Glass is installed correctly.
- Verify that NVM 715-400 = 1

### Procedure

***NOTE:*** *Refer the BSD 6.1, 6.2 and 6.7 as required.*

Enter dC330 [6-002] and press Start. **The Exposure Lamp illuminates.**

**Y N**

Go to the 6-371 Exposure Lamp RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to p/j722 and p/j724 on BSD 6.1 and check the wires for an open or short circuit.
Verify that j742 on the Lamp Ballast PWB and p/j724 on the IIT/IPS PWB are seated.
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on the bottom of the Platen Glass is clean and undamaged.**

**Y N**

Clean the white reference strip or replace the Platen Glass (PL 18.3).

Go to p/j721 on BSD 6.2 and check the flat cable on the IIT/IPS PWB and j741 on the CCD PWB for damage. Reseat the flat cable.
If the problem continues, replace the Lens Kit (PL 18.4).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-381 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 2 red failed.

### Initial Actions

- Verify that Platen Glass is installed correctly.
- Verify that NVM 715-400 = 1

### Procedure

***NOTE:*** *Refer the BSD 6.1, 6.2 and 6.7 as required.*

Enter dC330 [6-002] and press Start. **The Exposure Lamp illuminates.**

**Y N**

Go to the 6-371 Exposure Lamp RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to p/j722 and p/j724 on BSD 6.1 and check the wires for an open or short circuit.
Verify that j742 on the Lamp Ballast PWB and p/j724 on the IIT/IPS PWB are seated.
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on the bottom of the Platen Glass is clean and undamaged.**

**Y N**

Clean the white reference strip or replace the Platen Glass (PL 18.3).

Go to p/j721 on BSD 6.2 and check the flat cable on the IIT/IPS PWB and j741 on the CCD PWB for damage. Reseat the flat cable.
If the problem continues, replace the Lens Kit (PL 18.4).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-382 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 3 green failed.

### Initial Actions

- ï Verify that Platen Glass is installed correctly.
- ï Verify that NVM 715-400 = 1

### Procedure

***NOTE:*** *Refer the BSD 6.1, 6.2 and 6.7 as required.*

Enter dC330 [6-002] and press Start. **The Exposure Lamp illuminates.**

**Y N**

Go to the 6-371 Exposure Lamp RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to p/j722 and p/j724 on BSD 6.1 and check the wires for an open or short circuit.
Verify that j742 on the Lamp Ballast PWB and p/j724 on the IIT/IPS PWB are seated.
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).
If the problem continues, replace the IIT Driver PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on the bottom of the Platen Glass is clean and undamaged.**

**Y N**

Clean the white reference strip or replace the Platen Glass (PL 18.3).

Go to p/j721 on BSD 6.2 and check the flat cable on the IIT/IPS PWB and j741 on the CCD PWB for damage. Reseat the flat cable.
If the problem continues, replace the Lens Kit (PL 18.4).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-383 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 4 green failed.

### Initial Actions

- ï Verify that Platen Glass is installed correctly.
- ï Verify that NVM 715-400 = 1

### Procedure

***NOTE:*** *Refer the BSD 6.1, 6.2 and 6.7 as required.*

Enter dC330 [6-002] and press Start. **The Exposure Lamp illuminates.**

**Y N**

Go to the 6-371 Exposure Lamp RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to p/j722 and p/j724 on BSD 6.1 and check the wires for an open or short circuit.
Verify that j742 on the Lamp Ballast PWB and p/j724 on the IIT/IPS PWB are seated.
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).
If the problem continues, replace the IIT Driver PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on the bottom of the Platen Glass is clean and undamaged.**

**Y N**

Clean the white reference strip or replace the Platen Glass (PL 18.3).

Go to p/j721 on BSD 6.2 and check the flat cable on the IIT/IPS PWB and j741 on the CCD PWB for damage. Reseat the flat cable.
If the problem continues, replace the Lens Kit (PL 18.4).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-384 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 5 blue failed.

### Initial Actions

- Verify that Platen Glass is installed correctly.
- Verify that NVM 715-400 = 1

### Procedure

***NOTE:*** *Refer the BSD 6.1, 6.2 and 6.7 as required.*

Enter dC330 [6-002] and press Start. **The Exposure Lamp illuminates.**

**Y N**

Go to the 6-371 Exposure Lamp RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to p/j722 and p/j724 on BSD 6.1 and check the wires for an open or short circuit.
Verify that j742 on the Lamp Ballast PWB and p/j724 on the IIT/IPS PWB are seated.
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).
If the problem continues, replace the IIT Driver PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on the bottom of the Platen Glass is clean and undamaged.**

**Y N**

Clean the white reference strip or replace the Platen Glass (PL 18.3).

Go to p/j721 on BSD 6.2 and check the flat cable on the IIT/IPS PWB and j741 on the CCD PWB for damage. Reseat the flat cable.
If the problem continues, replace the Lens Kit (PL 18.4).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-385 CCD AGC

Automatic Gain Control (AGC) for CCD Channel 6 blue failed.

### Initial Actions

- Verify that Platen Glass is installed correctly.
- Verify that NVM 715-400 = 1

### Procedure

***NOTE:*** *Refer the BSD 6.1, 6.2 and 6.7 as required.*

Enter dC330 [6-002] and press Start. **The Exposure Lamp illuminates.**

**Y N**

Go to the 6-371 Exposure Lamp RAP.

**The Exposure Lamp illumination is bright and steady.**

**Y N**

Go to p/j722 and p/j724 on BSD 6.1 and check the wires for an open or short circuit.
Verify that j742 on the Lamp Ballast PWB and p/j724 on the IIT/IPS PWB are seated.
If the wires and connectors are good, replace the Exposure Lamp (PL 18.6).
If the problem continues, replace the Lamp Ballast PWB (PL 18.6).
If the problem continues, replace the IIT Driver PWB (PL 18.3).

Remove the Platen Glass (REP 6.2). **The white reference strip on the bottom of the Platen Glass is clean and undamaged.**

**Y N**

Clean the white reference strip or replace the Platen Glass (PL 18.3).

Go to p/j721 on BSD 6.2 and check the flat cable on the IIT/IPS PWB and j741 on the CCD PWB for damage. Reseat the flat cable.
If the problem continues, replace the Lens Kit (PL 18.4).
If the problem continues, replace the IIT/IPS PWB (PL 18.3).

## 15-790 X Detail Failure

Communication Failure.

### Procedure

Switch the power off then on. **The problem continues.**

**Y** **N**

Check the connectors on the IIT/IPS PWB (PL 18.3). If the check ia OK, replace the IIT/IPS PWB (PL 18.3).

Return to Service Call Procedures.

## 16-311 Scanner

Scanner not detected during power up.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check connections between Scanner and IOT. Service as required (PL 18.3) (PL 18.4).

## 16-315 IIT Interface

IIT interface error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pivot down T5 T6 HVPS (REP 1.6) to access I/F PWB.
Check that connections on I/F PWB are secure.
If problem continues, replace I/F PWB (PL 9.1).

## 16-316 Page Memory

Page memory not detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check installation of Page Memory of the Scanner.

## 16-317 Page Memory

Page Memory error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the Page Memory of the Scanner.

## 16-318 Optional Page Memory

Optional page memory error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace optional Page Memory of the Scanner.

## 16-450 SMB Host Name

PC of the same host name is duplicated on a network.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Change the host name.

## 16-452 IP Address Duplicated

PC of the same IP address exists on a network.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Change the IP address.

## 16-453 IP Address Acquisition

The IP address failed to be granted from the DHCP server.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set the IP address.

## 16-454 Dynamic DNS Update

Dynamic DNS update failed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on

## 16-460 Full Status Detected

Full Status Detected at HD Access.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on

## 16-590 Read Error (Partition A)

A verify error occurred in the HD partition A at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD partition A and perform the verify test again.

## 16-591 Read Error (Partition B)

A verify error occurred in the HD partition B at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD partition B and perform the verify test again.

## 16-592 Read Error (Partition C)

A verify error occurred in the HD partition C at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD partition C and perform the verify test again.

## 16-593 Read Error (Partition D)

A verify error occurred in the HD partition D at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD partition D and perform the verify test again.

## 16-594 Read Error (Partition E)

A verify error occurred in the HD partition E at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD partition E and perform the verify test again.

## 16-595 Read Error (Partition H)

A verify error occurred in the HD partition H at PC-Diag operation from PWS.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD partition H and perform the verify test again.

## 16-701 PLW Memory

An insufficient memory is detected while using the ART EX.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Decrease the resolution.

***NOTE:*** *Decreasing the resolution may have affect of reducing the PLW memory.*

## 16-702 PLW Memory

System detected insufficient buffer for the print page that cannot be compressed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Decrease the resolution.

***NOTE:*** *Decreasing the resolution may have affect of reducing the PLW memory.*

## 16-703 Email To Invalid Box

System detected an unopened or invalid Mailbox and aborted a job when receiving an Email.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Open the appropriate Mailbox.

Send an Email to a valid Mailbox.

## 16-704 Security Box

The system detected that a Mailbox was full (it exceeded the maximum number of documents per Box) and aborted a job. Full status was detected at HD access and a job was aborted.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Delete unwanted documents and retry the job.

## 16-705 Security Storage without HD

Registry for Secure Print has failed because Security Storage cannot be done due to no HD available.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check whether the HD is installed.
If the problem has occurred at installation, check whether the operations for Secure Print are correct.

## 16-706 Maximum User Number

The system detected that a job exceeded the maximum number of users for Secure and Proof Prints and aborted the job. Full status was detected at HD access and a job was aborted.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Delete unwanted documents/users and retry printing.

## 16-709 PLW Command

An ART EX Command error has occurred during PLW processing.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Cancel the job and execute the command again.

## 16-716 Spool TIFF Data

Unable to spool TIFF files because disk capacity is exceeded.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Install the HD or increase the capacity of the HD.

## 16-721 Other Errors

An error occurred during printing that is not defined.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Run the same job again to check the error status and ask Support G for help.

## 16-726 Decomposer Auto Judgement

Cannot switch decomposer; a print Language auto judgement error occurred.

Auto Judgement Error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Fix and select the Decomposer from the Operation Panel or with a command.

## 16-728 TIFF Data

The data contains a Tag that is not set in the Image File Expansion Library.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Delete the unsupported Tag from the data and retry printing, etc.

## 16-729 TIFF Data

The specified settings exceed the upper limit of the valid number of colors and pixels.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Correct the valid range, etc.

## 16-730 ART Command

ART IV Command Invalid.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Delete the unsupported command from the data and retry printing.

## 16-731 TIFF Data

Invalid TIFF Data. The TIFF data is broken or cut halfway.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Resend the data, etc.

## 16-735 Job Template

The system tried to output the Job Template List while the Job Template was being updated.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Run the job again after the Job Template update has completed.

## 16-737 Server Read

Read error from the Job Template Pool Server

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check that "Authorization to read" is established for the storage destination server directory set as resource.

## 16-739 Job Template Path

The specified path of the Job Template Pool Server cannot be found.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Set the resource of the storage destination path from a client PC on the CentreWare.

## 16-740 Job Template Login

Job Template Server Login Error. Cannot log in to the Job Template Pool Server.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Set the log-in name and password in the Job Template file storage destination.
From some other PC connected to the network, check that you can log in with the above account.
Set the log-in name and password as a resource from the CentreWare client PC.

## 16-741 Job Template Connection

Cannot connect to the Job Template Pool Server.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Connect the cable from the M/C to a network correctly.
From the destination server, check that you can identify the M/C with "ping".
Perform the "ping" test on the destination server from .

From a client PC to check that the FTP connection to the destination server is possible.

## 16-742 HD File

File system was full when the Job Template was stored into the local HD.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Because the scanned images may exceed HD capacity, rerun the job.
If the problem continues, Initialize the HD.
If the problem continues, replace the HD (PL 13.1).

## 16-743 Job Template Installation

Job template pool server installation error or job template pool server setting failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set the Spool Server related parameters again.

## 16-744 Job Template Address

The Job Template Pool Server address cannot be solved (Response to the DNS library error)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the connection to the DNS. Check that the Job Template Pool Server domain name is the one that has been registered in the DNS.

## 16-745 Job Template Definition

The Job Template Pool Server address cannot be solved (The DNS address is not set)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set the DNS address. Or set the Job Template Pool Server address by the IP address.

## 16-748 HD Full

Full status was detected at HD access and a job was aborted.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Retry printing after making more space of the HD capacity.

## 16-749 XJCL Syntax

Syntax error of the JCL command was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Correct the command.

## 16-757 Auditron User

Invalid Auditron User

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set a correct account and retry.

## 16-758 Auditron Function

An auditron function is disabled.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Consult the account administrator to add a right.
Set the new function that is allowed for that account and retry.

## 16-759 Auditron Limit

Auditron reached limit.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Consult the account administrator to set the number of copies, etc.

## 16-760 Decomposer

Error during decompose processing.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Resend the job. The execution environment/data check are required if the problem persists.

## 16-761 FIFO

Image Enlargement Error, FIFO EMPTY Error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Print in fast print mode.
If problem continues, use print guarantee mode.

## 16-762 Decomposer

The print language is not installed or an unsupported function (print language, print utility, etc.) was required. The Decomposer specified with PJL or Auto SW is not installed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Fix and select the Decomposer from the Operation Panel or with a command.

## 16-763 Patch

Original patch does not exist.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Place the Auto Gradation Correction Chart correctly.

## 16-764 Server Transmission

SMTP Server Connection Error, result code: 421/451

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Retrieve emails in the Server HD. Restart the SMTP service.

## 16-765 Server Storage

SMTP Server HD Full, Result code: 452

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Retrieve emails in the Server HD. Rearrange the server capacity.

## 16-766 Server Storage

SMTP Server File System has a problem, result code: 552.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Contact the SMTP Server administrator. Rearrange the server capacity limit.

## 16-767 Mailbox

Mailbox not found, or no access. Email destination address Incorrect, result code: 550/551.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the destination of the email.

## 16-768 Mail From Command

Mail From Command, Sending Address Incorrect, Login Error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the settings of the self-email address. Check whether it is a valid email address in the domain.

## 16-769 DSN Unsupported

SMTP Server Not Applicable to DSN

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Enable the ESMTP function of nearest SMTP Server. Or disable the Sending/Receiving Confirmation function when sending an email.

## 16-770 Template Processing

The system aborted a job due to insufficient HD capacity at Job Template processing.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Create free space for the HD capacity.

## 16-771 Scan Data Repository

The Scanned Data Repository Address cannot be solved. DNS Address is not set.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set the DNS address. Or set the Scan Data Repository address by the IP address.

## 16-772 Scan Data Repository

The Scan Data Repository address cannot be solved (Response to the DNS library error)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the connection to the DNS. Or check that the Scanned Data Repository domain name is the one that has been registered in the DNS.

## 16-773 IP Address

Self-machine IP address invalid, DHCP Lease Expired.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the DHCP environment. Set the fixed IP address for the self-machine.

## 16-774 HD Compression

HD Full at Compression type conversion

HD Full has occurred when the S-Formatter did the compression type conversion of the JBIG compressed images into the MH system (partition #1).

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Create free space for the HD capacity and retry.

## 16-775 HD Capacity

Image Conversion Error. Insufficient HD capacity is detected during image conversion process by S-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Create free space for the HD capacity and retry.

## 16-776 Image Conversion

An error has occurred due to other causes than HD Access during image conversion process by S-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform the operation again.

## 16-777 HD Access

The HD Access Error has occurred during image conversion process by S-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the HD (PL 13.1) and perform the operation again.

## 16-778 HD Capacity

The insufficient HD capacity was detected during scanned image conversion process by I-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Create free space of the HD capacity and retry scanning.

## 16-779 Scan Image Conversion

An error has occurred due to other causes than HD Access during scanned image conversion process by I-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on and perform the operation again.

## 16-780 HD Access

The HD Access Error has occurred during scanned image conversion process by I-Formatter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the HD (PL 13.1) and retry scanning.

## 16-781 Scan Server

Net Connection Error during Scanning. Connection to the Server cannot be established during Scan to Server file transfer operation.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set "Sub-net Mask" and "Gateway" of the main processor correctly.
From the destination server, check that you can identify the M/C with "ping".
From a Windows95 or UNIX machine to check that the FTP connection to the destination server is possible.

## 16-782 Scan Server Login

Server Login Error during Scanning. Cannot log in to the Server during Scan to Server file transfer operation.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set the log-in name and password in the destination server.
Make correct settings for the attributes of the Job Template file.
From a client PC, set the same account as the above as a resource in CW.

## 16-783 Server Path

Server Path Error at Scanning. The specified path cannot be found at Scan to Server file transfer operation.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Make correct settings for the attributes of the Job Template file.

## 16-784 Server Write

Write Error at Scanning. The Server cannot be written to at the Scan to Server file transfer.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check that there is "Write Authorization:" in the server directory.
Create free space on the server disk.

## 16-785 Server HD Full

Server File Full at Scanning. The Server File System became full during the Scan to Server file transfer.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check that there is "Write Authorization" in the server directory.
Create free space on the server disk.

## 16-786 HD Scan Write

Internal HD Write Error at Scanning. A temporary file cannot be written to the internal HD at the Scan to Server file transfer.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

HD may be filled with print jobs. Allow time and retry.
If the problem continues, format the HD.
If the problem continues, replace the HD (PL 13.1).

## 16-787 Job Template Syntax

This is a syntax error in the Job Template during Scan to Server operation and limited to the following cases (because of Redirector detection): Server IP Address Incorrect (IP Syntax Error)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the contents of the attributes (string RepositoryName) in the Job Template file.

## 16-788 Mailbox to PC

Retrieval Failed at Scan to PC (via Web Browser.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Improve the connection status to a network.
Check for problem such as duplicated IP addresses.

## 16-793 MF I/O HD Full

MFIO HD Full

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Insufficient Area of Hard Disk (MF I/O).

## 16-950 Tray 1 Empty

Tray 1 Empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add paper.

## 16-951 Tray 2 Empty

Tray 2 Empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add paper.

## 16-952 Tray 3 Empty

Tray 3 Empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add paper.

## 16-953 Tray 4 Empty

Tray 4 Empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add paper.

## 16-954 Tray 5 Empty

Tray 5 Empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add paper.

## 16-958 Tray 5 Size

Tray 5 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Load proper paper in the tray.

## 16-959 Tray 1 Size

Tray 1 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Load proper paper in the tray.

## 16-960 Tray 2 Size

Size Mismatch Tray 2 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Load proper paper in the tray.

## 16-961 Tray 3 Size

Tray 3 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Load proper paper in the tray.

## 16-962 Tray 4 Size

Tray 4 Size Mismatch

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Load proper paper in the tray.

## 16-965 ATS/APS No Paper

APS/ATS NG No Paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add paper.

## 16-966 ATS/APS No Destination

ATS/APS No Destination, other than No Paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Change the settings and replace the Trays.

## 16-981 Full HD

Full status was detected at HD access. Full status was not cleared even during waiting for timing. One or more pages are already stored.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Service actions depend on the operation specifications.
Again, switch power off then on.
If the problem continues, reload software.
If the problem continues, replace the HD (PL 13.1).

## 16-982 Full HD

Full status was detected at HD access. Full status was not cleared even during waiting for timing. No pages can be stored.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on.

## 102-200 Receive Buffer Overflow

The data received from the Controller exceeded the buffer amount of the destination in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the ESS PWB (PL 13.1)

## 102-201 Send Buffer Overflow

The data to be sent from the Panel exceeded the buffer amount of the destination in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the ESS PWB (PL 13.1)

## 102-202 Request Queue Full

The event that requires more than the processing capability for the request arising in the Panel has occurred.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the ESS PWB (PL 13.1)

## 102-203 Send Request Queue Full Debug

Data cannot be sent from the Panel to the Controller.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the ESS PWB (PL 13.1)

## 102-204 SIO Parameter

Serial communication failure. Incorrect message size at SIO receiving request, or incorrect Mailbox ID when a message is sent.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-205 SIO Command

Serial communication failure. A command error has occurred at SIO receiving request.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-206 SIO Status

Serial communication failure. A header status error of the RX packet or a message status error of the RX packet has occurred.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-207 Communication Manager Target

Serial communication failure. Incorrect Mailbox value on the cm_send_msg statement, or the target is not SYS when receiving from SIO.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-208 Communication Manager Command

Serial communication failure. A command error has occurred when receiving from SIO.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-209 EVM Returns Wrong Value

Return value error from EVM. Panel-SW failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-310 Send Queue Full

Over the upper limit of the processing capability to send data from the Panel to the Controller.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-311 Receive Queue Full

The data received from the Controller exceeded the upper limit of the processing capability in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-312 EVM Uses Wrong API

Illegal use of API by EVM.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-313 AS Uses Wrong API

Illegal use of API by AS

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-314 Wait Event Time Out

Time-Out of the event waiting timer. The response message from the Controller was not notified for a specified time.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-315 CTS Internal

CTS Internal Error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-316 Send Request Queue Full SIO

Over the upper limit of the processing capability to send data from the Panel to the Controller.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-317 Receive Message Queue Full

The data received from the Controller exceeded the upper limit of the processing capability in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-318 Receive Finish Queue Full

The data received from the Controller exceeded the upper limit of the processing capability in the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-319 Send with No ACK

Serial communication failure. Sending failure, ACK was not returned.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-320 Polling

Serial communication failure. Communication failure (polling error)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-321 Send Message

Serial communication failure. Sending message error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-322 Target

Serial communication failure. Target error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-323 Address

Serial communication failure. Address error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-324 Size

Serial communication failure. Size error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-325 Object Creation

Object creation error. The specified object failed to be created due to a setting or specifying error on gm_create.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-326 Memory Overflow

Memory overflow. The memory in the GUAM exceeded the upper limit.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Expand the memory in the GUAM.
If the problem continues, perform re-installation of the software.

## 102-327 Button Overflow

Button overflow. The memory for the (synchronous display) button in the GUAM exceeded the upper limit.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Expand the memory for the button in the GUAM.
If the problem continues, perform re-installation of the software.

## 102-328 UI Internal with Out of Area

I/F failure in the UI. The coordination value out of the area of the displayed screen was detected (W x H = 640 x 240)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.
If the problem continues, perform re-installation of the software.

## 102-329 UI Internal with Invalid Coordinates

I/F failure in the UI. The coordination value that cannot be displayed was detected (X = 4 times number position)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.
If the problem continues, perform re-installation of the software.

## 102-330 Interface with Invalid Parameter LCD

Interface failure. Incorrect parameter was detected at the Drv. I/F between the DM and LCD.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.
If the problem continues, perform re-installation of the software.

## 102-331 UI Internal with Invalid LED Request

I/F failure in the UI. The request for lighting up an incorrect LED was received.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.
If the problem continues, perform re-installation of the software.

## 102-332 Interface with Invalid Parameter CP

Interface failure. Incorrect parameter was detected at the Drv. I/F between the DM and CP.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.

If the problem continues, perform re-installation of the software.

## 102-333 Interface with Impossible Communication

Interface failure. Impossible communication with the Control Panel was detected. H/W connection failure in the Panel, or the internal connection was unable to be detected correctly.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-334 Interface with Receiving Error Key Code

Interface failure. Invalid Key Code was received from the Control Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Repair/adjust the Control Panel (PL 18.2)

## 102-335 Interface with Receiving Invalid Coordinates

Interface failure. Invalid coordination value was received from the Control Panel with a parameter.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Repair/adjust the Control Panel (PL 18.2)

## 102-336 Interface DM - ACD Drv. I/F

Interface failure. Incorrect parameter was detected at the Drv. I/F between the DM and ACD.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.
If the problem continues, perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-337 Frame Data Error with Invalid Data Type

Invalid frame data was detected. The incorrect value of the Data Type detected by Frame ID was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM.
If the problem continues, perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-338 Frame Data Error Offset Address Out of Scope

Invalid frame data was detected. The Offset Address out of range was extracted from the Frame ID.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM. Replace the Control Panel (PL 18.2)
If the problem continues, perform re-installation of the software.

## 102-339 Display Request Code Invalid

Text Code failure. The system detected that the Code requested to be displayed was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM. Replace the Control Panel (PL 18.2)
If the problem continues, perform re-installation of the software.

## 102-340 Interface GUAM - DM I/F

Interface failure. Incorrect parameter was detected at the I/F between the GUAM and DM.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Check the D-RAM and ROM. Replace the Control Panel (PL 18.2)
If the problem continues, perform re-installation of the software.

## 102-341 Event Queue Full

Event queue full

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-342 Event Queue Empty

Event queue empty

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-343 Invalid Class

Invalid class

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-344 Invalid Type

Invalid type

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-345 Timer Queue Full

Timer queue full

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-346 Invalid Timer Number

Invalid timer number

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-347 Undefined Trap

Undefined trap

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-348 Command Access Exception

Exceptional command access

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-349 Invalid Command

Illegal command

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-350 Privilege Command

Privilege command

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-351 No FPU Exception

Exceptional FPU non-existence

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-352 Address Misalign

Address mis-alignment

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-353 Data Access Exception

Exceptional data access

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-354 Tag Overflow

Tag overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-355 No Co Processor Exception

Exceptional Co Processor non-existence

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-356 Short of Area

Insufficient area

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-357 Cancel Wait Status

Forced cancellation of the wait status

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-358 Time Out

Time-Out

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-359 Queue Overflow

Queue overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Switch power off then on.

## 102-360 Context

Context error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-361 Object

Object error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

## 102-362 No Object

Object non-existence

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-363 Invalid ID

Incorrect ID

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-364 Parameter

Parameter error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-365 Reserve Attribute

Reserve attribute

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-366 Reserve Function Code

Code number for reserve function

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-367 Unsupported Function

Unsupported function

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-368 Short of UI Memory

Insufficient memory, or connection failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 102-369 Invalid Interface Value

Invalid interface value. Panel-SW failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-370 Interface Length

Interface length failure. The parameter notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-371 Interface Parameter

Interface parameter failure. The parameter notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-372 Interface Sequence

Interface sequence failure. The initial command from the Controller was not notified for a specified time.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-373 Channel

Channel failure. The channel notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-374 Invalid User Job ID

Incorrect User Job ID. The Job ID parameter notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-375 Internal Resource

Internal resource failure. Panel-SW failure.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-376 Internal Memory

Internal memory failure. Panel-SW failure.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-377 UI Timer

Timer failure. Panel-SW failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-378 Interface Format

Interface format failure. The data format notified from the Controller was incorrect.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-379 Dispatch

Dispatch failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-380 Copy Interface

Copy interface failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-382 Scanner Interface

Scanner interface failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-383 Report Interface

Report interface failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-384 Server Access

Server access failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-385 Service Object Overflow

Service object overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-386 Invalid Service Object

Invalid service object

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-387 Invalid Service Object Attribute

Invalid service object attribute

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-388 Attribute

Attribute Error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-389 Argument

Argument Error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-390 Job Parameter

Job parameter argument error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-391 Job Actual Parameter

Job execution argument error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on.

## 102-392 Auditron

Invalid Auditron

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-393 EP

Software failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-394 File Access

Invalid file access

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-395 NVM

NVM failure

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-396 FF

FF error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-397 MGR

MGR error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

## 102-398 Delay Release Queue Full

Delay release queue full.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.
If the problem continues, replace the Control Panel (PL 18.2)

# 102-399 Internal

Internal error.

## Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the software.

If the problem continues, replace the Control Panel (PL 18.2)

## 103-203 Machine Code Failure

Product Number Failure (Not initialized).

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y N**

**CAUTION**

*ESS PWB and MCU PWB cannot be replaced at the same time.*

Replace the ESS PWB (PL 13.1).
If the problem continues, replace the MCU PWB (PL 13.1)

Return to Service Call Procedures.

## 103-204 Serial Number Failure

Serial Number Failure (Not initialized).

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y N**

**CAUTION**

*ESS PWB and MCU PWB cannot be replaced at the same time.*

Replace the ESS PWB (PL 13.1).
If the problem continues, replace the MCU PWB (PL 13.1)

Return to Service Call Procedures.

## 103-207 All Machine Codes Mismatch

At least one of the three Product codes are mismatched.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y N**

**CAUTION**

*ESS PWB and MCU PWB cannot be replaced at the same time.*

Replace the ESS PWB (PL 13.1).
If the problem continues, replace the MCU PWB (PL 13.1)

Return to Service Call Procedures.

## 103-208 All Serial Numbers Mismatch

At least one of the three Serial Numbers are mismatched.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y N**

Go to (GP 10).

Return to Service Call Procedures.

## 103-320 EEPROM Failure

A write error has occurred in the SEEPROM on the ESS PWB.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-321 Backup SRAM Failure

A write error has occurred in the NVM on the ESS PWB.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-330 ESS ROM DIMM #3 Check Failure

An ESS ROM DIMM #3 check failure was detected.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Remove and replace the ESS ROM DIMM #3.
If the problem continues, replace the ESS ROM DIMM #3

Return to Service Call Procedures.

## 103-331 ESS ROM DIMM #1 Not Found

The system detected that the ESS ROM DIMM #1 was not installed.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Remove and replace the ESS ROM DIMM #1.
If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-332 ESS Standard ROM Error

An error was detected in the ESS built-in standard ROM.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Remove and replace the ESS built-in standard ROM.
If the problem continues, replace the ESS built-in standard ROM.

Return to Service Call Procedures.

## 103-333 ASIC Failure (Panther-t)

An error was detected in the Panther.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-334 Standard Post Script Font ROM Error

An error was detected in the standard built-in Post Script Font ROM.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Replace the Post Script Font ROM (PL 13.1).

Return to Service Call Procedures.

## 103-335 Post Script Font ROM Not Found

Post Script Font ROM installation was detected.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Replace the Post Script Font ROM (PL 13.1).

Return to Service Call Procedures.

## 103-336 ESS RAM DIMM #3 W/r Check Failure

A failure was detected during Read/Write Check of the ESS RAM DIMM #3.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Remove and replace the ESS RAM DIMM #3.
If the problem continues, replace the ESS ROM DIMM #3

Return to Service Call Procedures.

## 103-337 ESS Standard RAM Error

An error was detected in the ESS built-in standard RAM.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-338 Same Post Script Font ROMíS Found

The system detected that the same Post Script Font ROM was installed.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Install the appropriate Post Script Font ROM.
If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-339 ROM DIMM Of Another Product Found

The system detected that the ROM DIMM for another machine was installed.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Install the appropriate ROM DIMM.
If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-372 IOT Sc Soft Failure

IOT Controller software failure was detected.

### Procedure

Turn the power OFF/ON. **The fault is cleared.**

**Y** **N**

Reinstall the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

Return to Service Call Procedures.

## 103-701 Changed Output Bin: Side To Center

The output tray was changed (Side Tray to Center Output Tray).

### Procedure

No action required.

# 103-702 Changed Output Bin: Finisher To Center

The output tray was changed (Finisher Tray to Center Output Tray).

## Procedure

No action required.

## 116-200 Main PWBA IC

An error was detected in the IC in the ESS PWB.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-201 HD

The HD was not booted due to a HD error detected on booting

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Run the HD Diag (DC355).
If the problem continues, replace the HD (PL 13.1)
If the problem continues, replace the ESS PWB (PL 13.1)

## 116-206 Timer

A timer error was detected.

### Procedure

Replace the ESS PWB (PL 13.1).

## 116-207 Ethernet Board

A timer error was detected in the Ethernet board.

### Procedure

This code is not supposed to occur.

## 116-209 ESS PS-1 ROM Check

A failure was detected when the ESS PS-1 ROM was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the PS-1 ROM (PL 13.1).
If the problem continues, replace PS-1 ROM (PL 13.1).

## 116-310 ESS PS-2 ROM Check

A failure was detected when the ESS PS-2 ROM was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the PS-2 ROM (PL 13.1).
If the problem continues, replace PS-2 ROM (PL 13.1).

## 116-311 ESS Font ROM DIMM #3 Check

A failure was detected when the ESS FONT ROM DIMM #3 was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the ESS FONT ROM DIMM #3.
If the problem continues, replace the ESS FONT ROM DIMM #3.

## 116-314 Ethernet Address

A Ethernet error was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Switch power off then on.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-315 ESS RAM DIMM #1 W/R Check

A failure was detected during W/R of the ESS RAM DIMM #1.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the ESS RAM DIMM #1.
If the problem continues, replace the ESS RAM DIMM #1.

## 116-316 ESS RAM DIMM #2 W/R Check

A failure was detected during W/R of the ESS RAM DIMM #2.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the ESS RAM DIMM #2.
If the problem continues, replace the ESS RAM DIMM #2.

## 116-317 Standard ROM DIMM Check

An error was detected when the standard ROM DIMM was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the standard ROM DIMM.
If the problem continues, replace the standard ROM DIMM.

## 116-318 Option ROM DIMM Check

An error was detected when the optional ROM DIMM was checked.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the optional ROM DIMM.
If the problem continues, replace the optional ROM DIMM.

## 116-319 Serial

There is no serial board at the serial board initialization failure.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Reinstall the serial board.

## 116-320 STREAMZ Soft

Fatal error of the STREAMZ. Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-321 System Soft

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-323 ESS NVRAM W/R Check

An error was detected at the W/R check of the NVM in the ESS PWB.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-324 Exception Error

CPU exceptional error.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to Service Call Procedures.

Replace the ESS PWB (PL 13.1).

## 116-325 Communication Error

+24 VDC enabled Communications failure.

### Procedure

+24 VDC power is failed. **Status Code 102-319 is displayed after 116-325 is displayed.**

**Y** **N**

Preliminary information not available.

+24V LVPS is failed. Perform following:

- Remove Rear Cover (REP 14.2).
- Remove cover from +24V LVPS (PL 9.1).
- Disconnect P502 on +24V LVPS (Figure 1).

Check that power is switched off. Measure resistance of fuse on +24V LVPS. **Resistance is 1 ohm or less.**

**Y** **N**

Replace +24V LVPS (PL 9.1).

Switch on the power. Measure the AC voltage between the white and black wires in P2 on the +24 VDC. **110 or 220 VAC is measured.**

**Y** **N**

Go to the AC Power RAP.

Connect the black meter lead to DC COM or frame. Measure DC voltage at P505 on the +24 V LVPS (Figure 1). **Voltages are measured as shown.**

**Y** **N**

There is a problem with the +24 VDC enable circuit. Go to the +24 VDC Enable RAP.

Measure the DC voltage at P502 on the +24V LVPS (Figure 1). **Voltages are measured as shown.**

**Y** **N**

Replace the 24V LVPS (PL 9.1).

There is a short circuit in +24 VDC distribution. Go to the +24 VDC Short Circuit RAP.

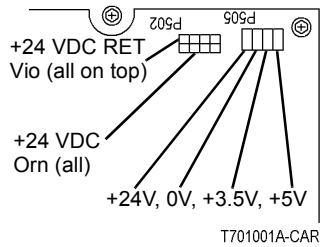



**Figure 1 P502, P505 on +24V LVPS**

## 116-326 ESS ROM DIMM #1 Flash

A failure was detected in the ESS ROM DIMM #1 Flash.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the ESS ROM DIMM #1.
If the problem continues, replace the ESS ROM DIMM #1.

## 116-327 ESS ROM DIMM #2 Flash

A failure was detected in the ESS ROM DIMM #2 Flash.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Pull out and insert the ESS ROM DIMM #2.
If the problem continues, replace the ESS ROM DIMM #2.

## 116-328 L2 Cache

A L2 Cache failure was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-329 Serial I/F Soft

The system call error related to the serial I/F was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch the power off then on.

## 116-330 HD File System

The system detected that the an error has occurred or the HD was not formatted during HD check at power on.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Run the HD Diag (DC355).
If the problem continues, replace the HD (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-332 Invalid Log Info

A failure related to log was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

After removing the HD and switching power off then on. Install the HD again and turn the power on.
If the problem continues, run the HD Diag (DC355).
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-333 LocalTalk Soft

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-335 MFIO HD

HD failure to be detected by MFIO

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD.
If the problem continues, replace the HD (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-336 Redirector HD

HD failure to be detected by Redirector

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD.
If the problem continues, replace the HD (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-337 Template HD Write Error

<Write error in obtaining JT>

An error has occurred when the Job Template was stored in the local HD.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Set up the HD.
If the problem continues, replace the HD (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-340 Short of Memory

When the system detected that the memory was insufficient.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Add memory

Pull out PostScript option.

## 116-341 ROM DIMMs Mismatch

several invalid ROM DIMM versions that are installed The combination of the installed ROM DIMMs is invalid for use at the same time. When installing multiple ROM DIMMs, it is necessary to match the major version with the minor version.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace PS-1 and PS-2 ROM.

## 116-342 JT Monitor

Fatal errors to be detected by the JT monitor

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-344 MF IO

Fatal errors to be detected by MFIO

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-345 Token Ring Board

Token Ring Control IC Access error

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on. Return to service call procedures.

## 116-346 Formatter

Fatal errors to be detected by the Formatter were detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-348 Redirecter

Fatal errors to be detected by Redirecter

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-349 SIF on Calling Pflite Function

An error has occurred when calling the Pflite function with SIF.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-350 AppleTalk Soft

Overall fatal errors of the AppleTalk

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-351 EtherTalk Soft

Fatal error related to the EtherTalk

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-352 NetWare Soft

Fatal error related to the NetWare

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-353 lpd Soft

Fatal error related to the lpd

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-355 SNMP Agent Soft

Fatal error related to the SNMP Agent

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-356 EWS Soft

Fatal error related to the EWS

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-357 PS Soft

PS Fatal System Error

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-358 Salutation Soft

Fatal error related to the Salutation

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-359 PLW Soft

Fatal error in PLW

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-360 SMB Soft

Fatal error related to the SMB

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-361 Spool Fatal HD

Fatal error of the SPL HD

The spoolCont detected an error at HD access.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Run the HD Diag (DC355).
Replace the HD (PL 13.1).
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-365 Spool Fatal

Fatal error of the SPL

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.

If the problem continues, replace the ESS PWB (PL 13.1).

## 116-366 Report Generator Soft

An operation failure of the Report Generator

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-367 Parallel I/F Soft

Overall fatal errors of the Parallel

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-368 Dump Print

Fatal error of DumpPrint

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-370 XJCL

Fatal error of XJCL

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-372 P-Formatter

Fatal error of P-Formatter

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-373 Dynamic DNS Soft

Fatal error related to DDNS

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on.

## 116-374 Auto Switch

Fatal error of Auto SW

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-375 I-Formatter

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-376 Port 9100 Software

[Detection Conditions] Port 9100 Software Fail

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on.

## 116-377 Video DMA

[Detection Conditions] Video DMA failure was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Replace the ESS PWB (PL 13.1).

## 116-378 MCR Soft

Fatal error of MCR (Mail Contents Requester)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on.

## 116-379 MCC Soft

Fatal error of MCC (Mail Contents Creator)

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Switch power off then on.

## 116-380 MF UI Cont Soft

Fatal error of MF UI cont

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-381 Data Link Layer Error between Cont and UI Panel

Controller - MF UI panel: Communication error on the Data Link layer

At the communication between the ESS and Panel, the ESS detected an initialization error of SCOPE, a message sending error, or retrieve error of the received data.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS or Panel software.
If the problem continues, replace the ESS PWB (PL 13.1).
If the problem continues, replace the Control Panel (PL 18.2).

## 116-382 Panel Application Layer Command Error on UI

Controller - MF UI panel: Command error at the application level

A necessary parameter was not sent from the Panel, an length error was detected in a variable parameter, or the confirmation message was not returned for a specified time after the request message had been sent to the Panel.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-388 No HD that Should Be

The necessary HD was not installed.

Though the system has the configuration requiring the installation of the HD (with Fax), it detected that the HD was not installed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Install the HD.

## 116-389 No Add-On RAM that Should Be

The necessary expansion RAM was not installed.

Though the system has the configuration requiring the installation of the expansion RAM (with the HD), it detected that the expansion RAM was not installed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Install the expansion RAM.

## 116-390 Standard ROM and NVM Version Mismatch

A mismatch of the versions between the standard ROM and NVM was detected.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Initialize the NVM by following the instructions on the LCD display.
(When the NVM is not to be initialized, use the standard ROM whose version is applicable.)

## 116-395 USB Soft

Fatal error related to USB

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-396 Mail IO Soft

Fatal error related to Mail IO

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-398 IPP Soft

Fatal error related to IPP

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-399 JME Soft

Fatal error related to JME

Due to an error during the software processing, the subsequent processes cannot be performed.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Perform re-installation of the ESS software.
If the problem continues, replace the ESS PWB (PL 13.1).

## 116-701 Execute forced separation of two sides

Due to insufficient memory, 2-Sided print is impossible.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Expand the memory or install the HD if the HD is not installed.

## 116-702 Perform printing by using a substitution font

[Detection Conditions] Printed with a substitution font.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on.

## 116-703 PS Interpret error

An error has occurred in language analysis

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Correct the job data.

## 116-710 HP-GL spool file overflows

[Detection Conditions] HP-GL/2 memory overflow

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Increase the HP-GL spool size. Or install the HD.

## 116-711 PLW form synthesis error

Synthesis is impossible because the size/orientation of the PLW form's drawing is different from that of the paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Select the paper with the size and orientation of the registered form.

## 116-712 Insufficient PLW form capacity

The PLW form/logo data cannot be registered because of the insufficient RAM or Hard Disk space.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Use the Operation Panel to check the registered forms/logos, and delete unnecessary ones. Or increase the allocated capacity of the RAM disk.

## 116-714 A HP-GL command error was detected

[Detection Conditions] HP-GL/2 command error

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Correct or remove the data in the print data that causes the error.

## 116-715 PLW form registry error

The PLW form data cannot be registered because of the restriction of the number of forms.

### Procedure

Switch power off then on. **The problem continues.**

**Y N**

Return to service call procedures.

Use the Operation Panel to check the registered forms, and delete unnecessary ones. Or delete unnecessary forms.

## 116-718 PLW form synthesis error

The specified form is not registered.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Use a registered form, or register a necessary form.

## 116-737 Insufficient ART user defined area

The user defined data (external characters, patterns, etc.) cannot be registered because of insufficient RAM capacity.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Delete registered user defined data. Or increase the allocated capacity of the RAM.

## 116-738 Form synthesis error

Synthesis is impossible because the size/orientation of the form's drawing is different from that of the paper.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Select the paper with the size and orientation of the registered form.

## 116-739 Insufficient form/logo capacity

The form/logo data cannot be registered because of the insufficient RAM or Hard Disk space.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Use the Operation Panel to check the registered forms, and delete unnecessary ones. Or increase the allocated capacity of the RAM disk.

## 116-740 Value Calculation Error

The number calculated in the interpreter exceeded the limit value.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Remove the data that exceeds the limit value of the printer from the print data.

## 116-741 Form registry error

The form data cannot be registered because of the restriction of the number of forms.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Use the Operation Panel to check the registered forms, and delete unnecessary ones. Or delete unnecessary forms.

## 116-742 Logo registry error

The logo data cannot be registered because of the restriction of the number of logos.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Use the Operation Panel utility to check the registered logos, and delete unnecessary ones. Or delete unnecessary logos with the Print command.

## 116-743 Form/logo size overflow

The received data (forms/logos) indicating that forms/logos cannot be registered (due to insufficient area) exceeded the registered buffer size.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Increase the form registry area size from the Operation Panel. Or install the HD.

## 116-745 Art Command Error

The decomposer checks the syntax error and excess of each limit value at decomposing.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Correct the command.

Change the ART command where an error has occurred.

## 116-746 Form synthesis error

The specified form is not registered.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Use a registered form, or register a necessary form.

## 116-747 White page detected

After subtracting the paper margin from the valid coordinate area, the result of the calculation will be negative.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on. No actions required.

## 116-748 White page detected

[Detection Conditions] There is no drawing data in the page data.

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Again, switch power off then on. No actions required

## 116-780 Attached document failure of email to XXX

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Attached document failure of email to XXX

No actions required.

## 116-790 Printed without the stapler

### Procedure

Switch power off then on. **The problem continues.**

**Y** **N**

Return to service call procedures.

Printed without the stapler

No actions required.

# OF 1-1 +3.5 VDC

+3.5 VDC failure.

## Procedure

Perform following:

- Remove Rear Cover (REP 14.2).
- Tilt out HVPS Chassis (REP 1.6).

Check that power is switched off. Measure resistance of fuse on +3.5V LVPS (Figure 1). **Resistance is 1 ohm or less.**

**Y** **N**

Replace +3.5V LVPS (PL 9.1).

Switch on the power. Measure the AC voltage between the white and black wires in p15 on the +3.5V LVPS (Figure 1). **110 or 220 VAC is measured.**

**Y** **N**

Go to the AC Power RAP.

Connect the black meter lead to DC COM or frame. Measure DC voltage at p510 on the +3.5 V LVPS (Figure 1). **Voltages are measured as shown.**

**Y** **N**

Replace the 3.5V LVPS (PL 9.1).

There is a short circuit in +3.5 VDC distribution. Go to the +3.5 VDC Short Circuit RAP.

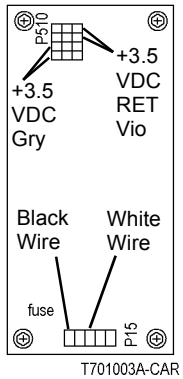



**Figure 1 P15, P510 on +3.5V LVPS**

# OF 1-2 +5 VDC

+5 VDC failure.

## Procedure

Perform following:

- Remove Rear Cover (REP 14.2).
- Tilt out HVPS Chassis (REP 1.6).

Check that power is switched off. Measure resistance of fuse on +5V LVPS (Figure 1). **Resistance is 1 ohm or less.**

**Y** **N**

Replace +5V LVPS (PL 9.1).

Switch on the power. Measure the AC voltage between the black and white wires in P16 on the +5V LVPS (Figure 1). **110 or 220 VAC is measured.**

**Y** **N**

Go to the AC Power RAP.

Measure the DC voltage at P511 on the +5V LVPS (Figure 1). **Voltages are measured as shown.**

**Y** **N**

Replace the +5V LVPS (PL 9.1).

There is a short circuit in +5 VDC distribution. Go to the +5 VDC Short Circuit RAP.

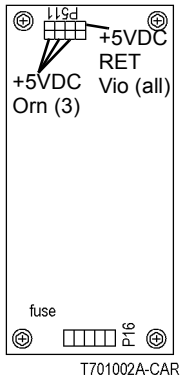



**Figure 1 P16, P511 on +5V LVPS**

# OF 1-4 AC Power

AC Power Failure

## Initial Actions

Check Circuit Breaker.

## Procedure

**110/220/240 VAC is measured between the Noise Filter PWB FS75 (+) and FS74 (-).**

**Y N**

**110/220/240 VAC is measured between the Circuit Breaker j72-1 (+) and j72-1 (-).**

**Y N**

Disconnect power cord from power outlet. **The voltage of the power outlet is 110/220/240 VAC.**

**Y N**

Inform customer power is not available.

Check the Power Cord for an open circuit. If no problems are found, replace the Circuit Breaker (PL 9.2).

Check wire between Circuit Breaker j72 and Noise Filter PWB for an open circuit and poor contact.

**110/220/240 VAC is measured between the Noise Filter PWB fs77 (+) and fs76 (-).**

**Y N**

If the Circuit Protector on the Noise Filter PWB is tripped, reset it. If it is not tripped, replace the Noise Filter PWB (PL 9.2).

**110/220/240 VAC is measured between the Main Power Switch FS57 (+) and Noise Filter PWB fs76 (-).**

**Y N**

Check the wire between the MAIN POWER Switch and the NOISE FILTER PWB for an open circuit and poor contact.

**110/220/240 VAC is measured between the Main Power Switch FS69 (+) and Noise Filter PWB fs76 (-).**

**Y N**

Replace the Main Power Switch (PL 9.2).

**100 (FX), 110 (TFX) or 220-240 (AP) VAC is measured between the AC Drive PWB fs40 (+) and the fs39 (-)?**

**Y N**

Check the wire between the AC DRIVE PWB and the Main Power Switch for an open circuit and poor contact.

**100 (FX), 110 (TFX) or 220-240 (AP) VAC is measured between the AC drive PWB j43-9 (+) and the j43-1 (-).**

**Y N**

Replace the AC Drive PWB (PL 9.2).

Check the AC circuit distribution by referring to Chapter 7 Wiring Data.

# OF 2-1 Dark / Blank Display

UI Display is dark or no text or graphics are visible.

## Procedure

***NOTE:*** *If a Status Code is displayed, go to status code RAP .*

Switch off the power. Listen to the cooling fans at the rear of the machine and switch on the power. **Cooling fans are audible either momentarily or continuously.**

**Y** **N**

There is a +5 VDC failure. Go to the +5 VDC RAP.

There is a +3.5 VDC failure. Go to the +3.5 VDC RAP

# OF 99-1 Reflective Sensor

## Procedure

**Enter DC330[XXXX-XXX]. Block the Sensor with a blank sheet of paper. The display changed.**

**Y N**

**There is +5VDC measured between the sensor Pin 2 (+) and GND (-).**

**Y N**

Check the wire between the sensor Pin 2 and the PWB Pin 8 for an open circuit or a poor contact. If the check is OK, replace the PWB

**There is +5VDC measured between the sensor Pin 1 (+) and Pin 3.**

**Y N**

**There is +5VDC measured between the PWB Pin 4 (+) and Pin 5.**

**Y N**

Replace the PWB.

Check the wire between the PWB Pin 4 and the sensor Pin 1 and between the PWB Pin 5 and the sensor Pin 3 for an open circuit or a poor contact.

Replace the sensor.

**Remove the blank sheet of paper from the sensor. The display changed.**

**Y N**

Remove the sensor connector. **The display changed.**

**Y N**

Check for a short circuit between the sensor Pin 2 and the PWB Pin 8. If the check is OK, replace the PWB.

Replace the sensor.

Replace the sensor.

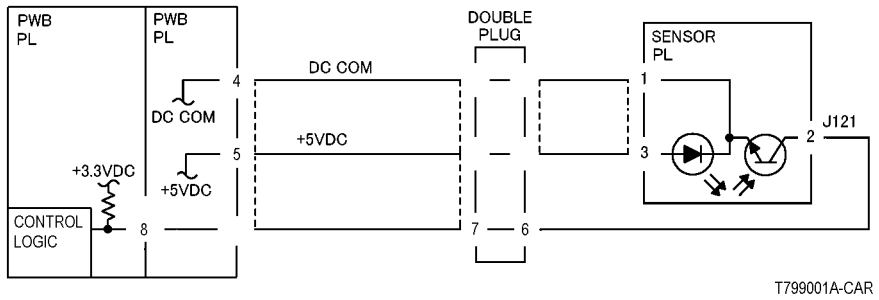



**Figure 1 Reflective Sensor CD**

# OF 99-2 Transmissive Sensor

## Procedure

Enter DC330 [XXX-XXX]. Block the Sensor. **The display changed.**

**Y N**

Remove the sensor connector. **The display changed.**

**Y N**

Check a short circuit between the sensor Pin 2 and the PWB Pin 8. If the check is OK, replace the PWB.

Replace the sensor.

Unblock the sensor. **The display changed.**

**Y N**

**There is +5VDC measured between the sensor Pin 2 (+) and GND (-).**

**Y N**

Check the wire between the sensor Pin 2 and the PWB Pin 8 for an open circuit or a poor contact. If the check is OK replace the PWB

**There is +5VDC measured between the sensor Pin 1 (+) and Pin 3 (-).**

**Y N**

Check the wire between the PWB Pin 4 and the sensor Pin 1 and between the PWB Pin 5 and the sensor Pin 3 for an open circuit and poor contact. If the check is OK, replace the PWB.

Replace the sensor.

Replace the sensor.

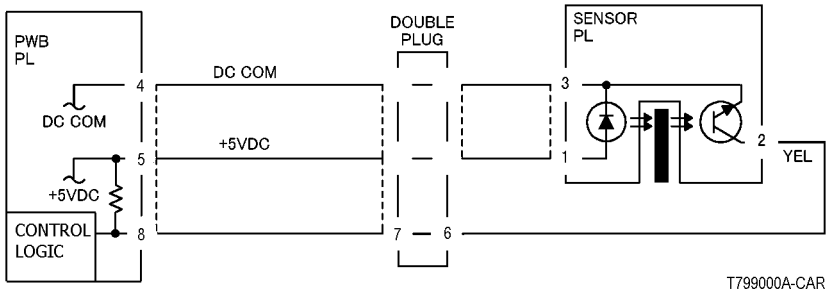



**Figure 1 Transmissive Sensor CD**

# OF 99-3 Switch

## Procedure

Enter DC330 [XXX-XXX]. Actuate the switch. **The display changed.**

**Y** **N**

There is +5VDC measured between Pin 2(+) of the Switch and GND(-).

**Y** **N**

Check the wire between the switch Pin 2 and the PWB Pin 3 for an open circuit and poor contact. If the check is OK, replace the PWB.

There is +5VDC measured between Pin 1(+) of the Switch and GND(-).

**Y** **N**

Replace the switch.

Check the wire between the PWB Pin 4 and the switch Pin 1 for an open circuit and poor contact. If the check is OK, replace the PWB.

**De-actuate the switch. The display changed.**

**Y** **N**

**Remove the connector on the switch. The display changed.**

**Y** **N**

Check for a short between the switch Pin 2 and the PWB Pin 3. If the check is OK, replace the PWB.

Replace the switch.

Replace the switch.

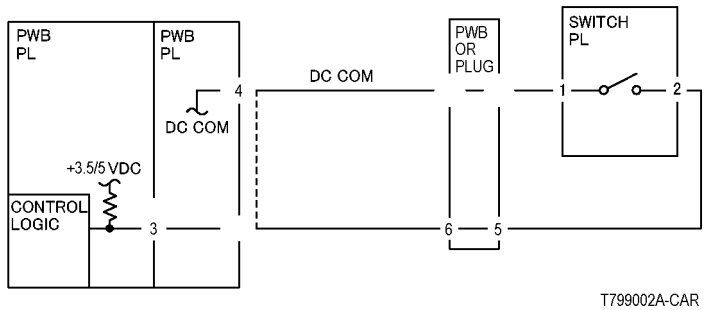



**Figure 1 2003**

# OF 99-4 Solenoid / Clutch Open

## Procedure

***NOTE:*** *Before performing this RAP, ensure that there is no mechanical problem for the solenoid and clutch.*

Enter DC330 [XXX-XXX]. **There is +24VDC measured between the PWB Pin 3 (+) and GND (-).**

**Y** **N**

There is +24VDC measured between Pin 2(+) of the Solenoid/Clutch and GND(-).

**Y** **N**

There is +24VDC measured between Pin 1(+) of the Solenoid/Clutch and GND(-).

**Y** **N**

Check the wire between the PWB Pin 4 and the solenoid/clutch Pin 1 for an open circuit and poor contact. If the check is OK, replace the PWB

Replace the solenoid/clutch.

Check the wire for a short between the PWB Pin 3 and the solenoid/clutch Pin 2 for an open circuit or poor contact.

Replace the PWB.

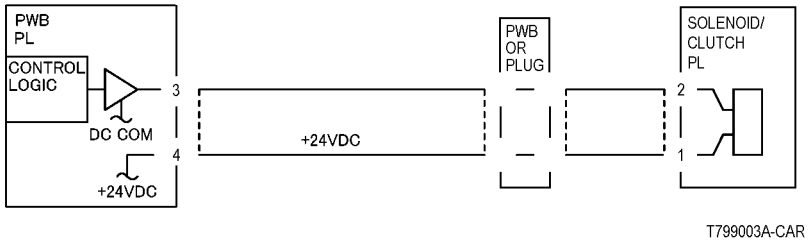



**Figure 1 Solenoid/Clutch CD**

# OF 99-5 Solenoid / Clutch Shorted

## Procedure

Turn off the power.

Remove the PWB connector. **There is 10 Ohmís or less measured between the connector Pin 3 and the frame.**

**Y N**

Replace the PWB.

Check for a short circuit to frame of the circuit between PWB Pin 3 and the solenoid/clutch Pin 2.

If the check is OK, replace the solenoid/clutch.

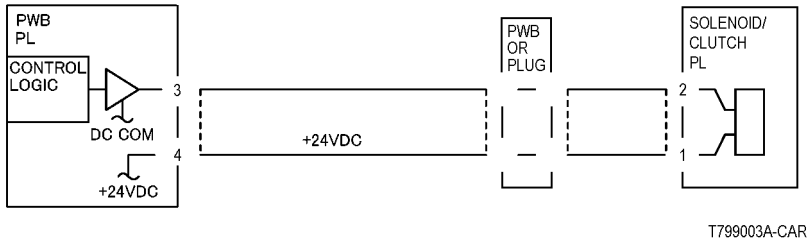



**Figure 1 Solenoid/Clutch CD**

# OF 99-6 Motor Open

## Procedure

***NOTE:*** *Before performing this RAP, ensure that the motor is not locked or loaded*

Enter the DC330 [XXX-XXX].
There is +24VDC measured between Pin 3(+) of the PWB and GND(-).
**Y** **N**

- There is +24VDC measured between the Motor Pin 2(+) of the Motor and GND(-).
  **Y** **N**
  - There is +24VDC measured between the Motor Pin 1(+) of the Motor and GND(-).
    **Y** **N**
    - There is +24VDC measured between the PWB Pin 4(+) of the PWB and GND(-).
      **Y** **N**
      - Replace the PWB.

      Check the wire between the PWB Pin 4 and the Motor Pin 1 for an open circuit or poor contact.

    Replace the motor.
  - Check the wire between the PWB Pin 3 and the MTOTR Pin 2 for an open circuit or poor contact.

Replace the PWB.

# OF 99-7 Motor On

## Procedure

**Turn off the power. Remove the PWB connector. There is 10 Ohmís or less measured between the connector Pin 3 and the frame.**

**Y** **N**

Replace the PWB.

Check the wire between the connector Pin 3 and the motor Pin 2 for a short circuit.

If the check is OK, replace the motor.

# OF 99-8 Nip / Release Solenoid Open

## Procedure

***NOTE:*** *Before performing this RAP, ensure that there is no (mechanical) operation failure for the solenoid.*

**There is +24VDC measured between the Nip/Release Solenoid Pin 1 (+) and GND (-).**

**Y N**

**There is +24VDC measured between the PWB Pin 5 (+) and GND(-).**

**Y N**

Check +24VDC inputs on the PWB. If the check is OK, replace the PWB.

Check the wire between the PWB Pin 5 and the **Nip/Release Solenoid** Pin 1 for an open circuit or poor contact.

Enter DC330 [XXX-XXX]. **There is +24VDC measured between the PWB Pin 4 (+) and GND(-).**

**Y N**

**There is +24VDC measured between the Nip/Release Solenoid Pin 3 (+) and GND (-).**

**Y N**

Replace the **Nip/Release Solenoid**.

Check the wire between the PWB Pin 4 and the **Nip/Release Solenoid** Pin 3 for an open circuit and poor contact.

Follow the following when the RELEASE caused a problem.

Go to the DC330 [XXX-XXX]. **There is +24VDC measured between the PWB Pin 6 (+) and GND(-).**

**Y N**

**There is +24VDC measured between the Nip/Release Solenoid Pin 2 (+) and GND (-)**

**Y N**

Replace the **Nip/Release Solenoid**.

Check the wire between the PWB Pin 6 and the **Nip/Release Solenoid** Pin 2 for an open circuit or poor contact.

Replace the PWB.

# 3 Image Quality

# IQ1 IOT Image Quality Entry RAP

The purpose of this RAP is to serve as the entrance vehicle into the Image Quality RAPs section. All Image Quality RAPs must be accessed through this RAP.

The RAP will have you evaluate the copies made during the Call Flow procedure for image quality defects. It will refer you to the Image Quality Analysis RAPs, the Image Quality Defect section in order to diagnose and repair any image quality problems.

## Initial Actions

Check for the presence of the defect in Copy mode and in Print mode. If the problem occurs in Copy mode only, go to the IQ2 RAP.

## Procedure

Go to Table 1. Compare the prints for any of the listed defects. Perform the corrective action that is listed.

**Table 1 Image Quality Defects**

| Defect | Description | Corrective Action |
|---|---|---|
| Background<br>See Defect Sample ____. | Undesirable toner deposits on the copy or print. The toner deposits can be localized or may cover the entire copy or print. Depending on the density of the background, it is referred to as low, medium, high, or very high background. It may occur in all colors, single colors, or any combination of single colors. | Go to the IQ6 RAP |
| Color Misregistration<br>See Defect Sample ____. | Multi-colored images that should be superimposed are offset. This offset may be in the process direction or perpendicular to process direction. | Go to the IQ8 RAP |
| Deletions<br>Debris-Centered<br>See Defect Sample ____.<br>Nonuniform Streak<br>See Defect Sample ____. | The undesirable absence of toner from the copy or print. This defect can show as white, light, or untrue colored areas on the copy or print. The most common example is a deletion caused by the ìtentingî of paper from mishandling or moisture, or by dents or defects in the Transfer Belt.<br>ï Debris-Centered: Deletions in the areas surrounding toner agglomerates.<br>ï Nonuniform Streak: A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy. | Go to the IQ7 RAP |
| High Frequency Bands<br>See Defect Sample ____. | Repeating interval bands that are most noticeable in low density (20-30%) halftone areas of the copy. These bands run perpendicular to process direction. | Go to the IQ14 RAP |
| Irregular Streak in Process Direction<br>See Defect Sample ____. | Streaks: Usually medium-width streaks of (or shifts in) color most noticeable in low density 20-30%) halftone areas of the copy.<br>A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy. | Go to the IQ12 RAP |
| Low Image Density | A condition that results when too little toner of a single color or combination of colors is developed on the copy or print. This results in lighter copies or prints for the single-color toner or the color that results from the combination of color toners. | Go to the IQ3 RAP |
| Misregistration/Skew | The position and/or alignment of the image relative to the top edge and side edge of the paper is not within specification. | Go to the IQ9 RAP |
| Missing Colors | One or more of the primary colors are missing from the image. | |
| Mottle<br>See Defect Sample ____. | Areas of solid, or high density coverage that are reproduced with a surface that resembles marble. | Go to the IQ15 RAP |
| Regular (repeating) Bands, Streaks, or Smears | A defect that repeats at an interval from14 to 264 mm, is most noticeable in low density (20-30%) halftone areas of the copy, and runs perpendicular to process direction.<br>Lines and bands are generally uniform in shape from one end to the other.<br>Streaks are generally shorter than lines and are of nonuniform width along their length. They may have a more ragged or fuzzy appearance than lines. | Go to the IQ14 RAP |
| Residual Image | A toner image that remains on the photoreceptor or Transfer Belt after cleaning. The next image is placed on top of the residual image and both images are transferred to the next copy. | Go to the IQ5 RAP |
| Spots | Generally circular in shape, these defects can be caused by an absence of toner in a desired area, or a deposit of toner in an undesired area | Go to the IQ16 RAP |
| Unfused prints | Image can be rubbed off with little or no pressure | Go to the IQ13 RAP |
| Wrinkled Image<br>See Defect Sample ____. | | Go to the IQ4 RAP |

# IQ2 IIT Image Quality Entry RAP

This RAP is for troubleshooting IIT (Scanner/ADF) problems only. Before proceeding, verify that the defect is present in Copy mode only. If the defect is present in Print mode, go to the IQ1 RAP.

## Initial Actions

Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth.

## Procedure

Compare the defective copies with the descriptions listed in Table 1. Perform the corrective action listed for that defect.

**Table 1**

| Defect | Corrective Action |
|---|---|
| Background | Clean the Platen Belt.<br>Calibrate the IIT (ADJ 9.7). |
| Blurred or Streaked Copy | Ensure that the Platen Glass is installed correctly.<br>Check/adjust the carriage alignment (ADJ 6.1). |
| R/E error | Check/adjust IIT magnification (ADJ 9.12). |
| Deletions | Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth.<br>If the problem persists, replace the Lens Kit (PL 18.4). |
| Misregistration/Skew | Go to the IQ9 RAP. |
| Moire<br>Patterns in the image areas of the print that have the appearance of a screen or grid overlaying the image. The pattern may be uniform or nonuniform in area or shape. | ï Switch between photo modes to determine which mode minimizes the defect.<br>ï Decrease the **Sharpness** level.<br>ï Reduce or enlarge the copy slightly.<br>ï Rotate the original on the platen by 90 degrees. |
| Newton Rings<br>Repetitive, irregular-shaped marks that occur when making copies of glossy photographs. These marks are most noticeable in large low-density or highlight areas. | Clean the Document Glass<br>Place a transparency between the document and the glass |

# IQ3 Low Image Density RAP

This RAP troubleshoots the causes of output images showing image density lower than specification

## Initial Actions

- Clean the ROS windows
- Replace the paper in use with fresh, dry paper of the correct specification
- Determine if the Drum Cartridge or any of the Toner Cartridges are approaching end-of-life. Replace if necessary.
- Perform the Automatic Gradation procedure (refer to the User Guide). If this does not resolve the problem, continue with this RAP.

## Procedure

Go to dC612. Print Test pattern??????. **The defect involves a single color.**

**Y N**

Go to dC612. Print Test pattern??????. Open the Front Door in the middle of the print job (approximately 7 seconds after selecting Start.). **There is a good toner image on the Transfer Belt.**

**Y N**

Go to the IQ21 RAP to check the Developer Bias. If this does not resolve the problem, go to the IQ20 RAP to check the 1st BTR bias.
If the problem continues, check the ROS for contamination of the windows or misalignment.

Check the 2nd BTR for damage or incorrect installation. Go to the IQ22 RAP to check the Backup Roll bias. If the problem continues, replace 2nd BTR Assembly (PL 7.1). If this does not resolve the problem, replace the Transfer Belt (PL 5.3).

Swap the affected Drum Cartridge with an adjacent unit. Print Test Pattern???. **The defect moved to the new color.**

**Y N**

Go to the IQ21 RAP to check the Developer Bias. If this does not resolve the problem, go to the IQ20 RAP to check the 1st BTR bias. If the problem continues, replace the Developer for the affected color (PL 6.2). If this does not resolve the problem, replace the ATC Sensor for the affected color (PL 6.2).

Replace the Drum Cartridge (see Machine Consumables in Section 6).

# IQ4 Wrinkled Image RAP

## Initial Actions

## Procedure

TBD

# IQ5 Residual Image (Ghosting) RAP

## Initial Actions

ï Check the end-of-life counter for the Drum Cartridge. If the unit is at or near end-of-life, replace the Drum Cartridge (see Machine Consumables in Section 6).

***NOTE:*** *Some ghosting on transparencies is unavoidable.*

ï If the problem occurs only with certain types of media, ensure that the media in use is within specification, and that the customer is aware of correct operation of print driver.

ï If the distance between the intended image and the residual image has a fixed rate of repetition, go to the IQ14 RAP. Return to this procedure if the problem persists.

## Procedure

**The problem is with a single primary color**

**Y N**

Remove the Fuser. Examine the Heat Roll and Pressure Roll for evidence of toner offsetting. **There is Toner adhering to the Heat Roll.**

**Y N**

Check for a residual image on the Transfer Belt. Repair or replace the IBT Cleaner (PL 5.3) as required.
Check the 2nd BTR for contamination. Clean/replace as required

Clean the Heat Roll. If the problem persists, replace the Fuser (PL 7.1).

Check the Erase Lamp for the affected color:

ï Enter dC330 [009-045] (C, Y, or M), or [009-042] (K), as appropriate.

ï Remove the Drum cartridge for the affected color.

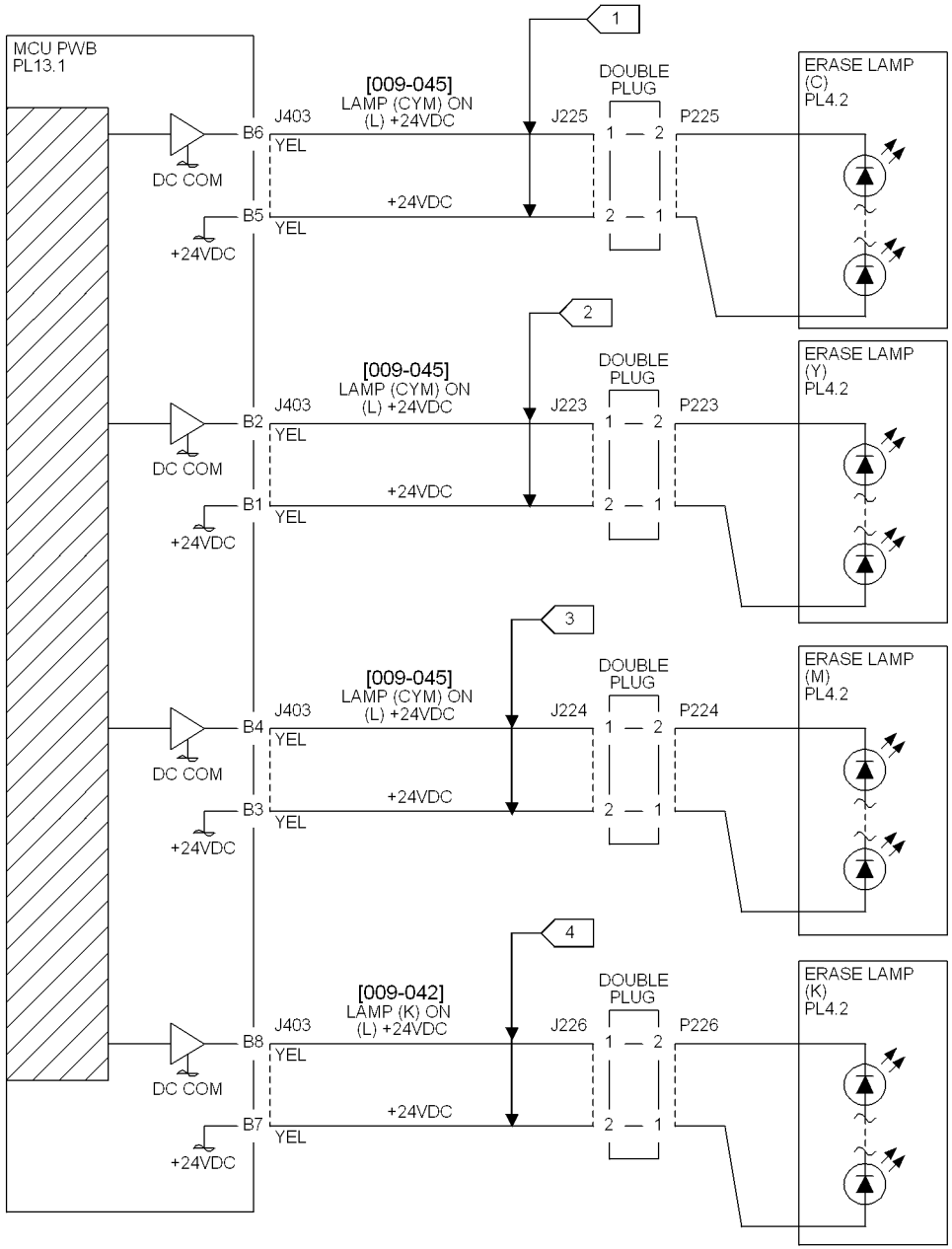
ï check for light along the mounting rail left side

**The Erase lamp is lit.**

**Y N**

Go to Flag 1 (C), Flag 2 (Y), Flag 3 (M), or Flag 4 (K). Check for an open circuit. If the wires are OK, replace the Erase Lamp (PL 4.2) for the affected color. If the problem persists, Replace the MCU PWB (PL 13.1).

Go to the IQ21 RAP. Check for a short circuit in the Developer bias circuit of the affected color.



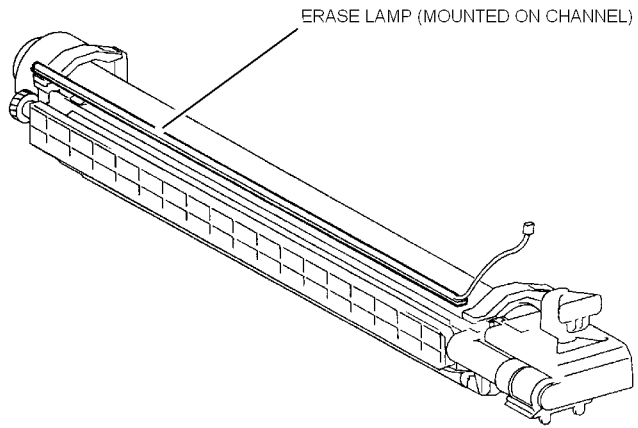




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**Figure 1 IQ5 RAP Circuit Diagram**

# IQ6 IOT Background RAP

## Initial Actions

***NOTE:*** *Some background is unavoidable on certain media, such as heavyweight paper and transparencies. Ensure that the customer selects the correct settings on the UI and print driver.*

Perform Max Setup (ADJ 9.1). If this does not resolve the problem, continue with this RAP.

## Procedure

**The problem is Single Color Background.**

**Y N**

Examine the face of the ADC Sensor. **The ADC Sensor is clean.**

**Y N**

Go to the 9-684 RAP to troubleshoot the ADC Sensor Solenoid.

Examine the Transfer Belt for excessive dirt, damage, or uncleaned toner. **The Belt is clean.**

**Y N**

Check the Belt Cleaner for damage or wear. Clean or replace as required.

**WARNING**

**HIGH VOLTAGE!**

**Exercise care when making the voltage check in the following steps.**

Enter dC140 [09-026]. Measure the voltage from P/J 580, pins 1, 3, 5, and 7. **The voltage is approximately -540 VDC on all pins.**

**Y N**

Go to the IQ21 RAP to troubleshoot the Developer bias circuit.

Replace the Transfer Belt (PL 5.3). If this does not resolve the problem, replace the 2nd BTR (PL 2.8). If the problem persists, replace the MCU PWB (PL 13.1).

**The background is very high and even density, and covers the entire sheet (no edge erase.**

**Y N**

Check the following:

- Check the end-of-life counter for the Toner Cartridge and Drum Cartridge for the affected color. Replace if at or near end-of-life (see Machine Consumables in Section 6).
- If the problem continues, examine the Developer Housing for the affected color. Check for toner bridging, uneven brush, or loose High Voltage terminals. Clean, repair, or replace as required (PL 6.2).

Go to the IQ23 RAP.

# IQ7 Deletions RAP

## Initial Actions

Reload the machine with fresh, dry paper of the correct specifications. If the problem occurs when using heavyweight paper, ensure that the correct selections are being made on the print driver. If the problem is not resolved, continue with this RAP.

***NOTE:*** *Small white deletions with a sharp edge are usually caused by Fuser offsetting. Go to the IQ16 Spots RAP.*

## Procedure

**The problem is debris-centered deletions (small-area deletions surrounding a dark speck).**

**Y N**

Enter dC612. Print a copy of the 20% coverage pattern for each color. **The defect is present for all colors.**

**Y N**

Make several prints of the Test Page (?????). **The defect is present in approximately the same location on all letter-size prints.**

**Y N**

Remove the Drum cartridge for the affected color. Check for light from the Erase Lamp along the mounting rail left side **The Erase lamp is lit.**

**Y N**

Examine the surface of the Drum Cartridge. Check for dents, scratches, or contamination such as fingerprints, etc. **The drum is free from damage.**

**Y N**

Clean or replace the Drum Cartridge as required (see Machine Consumables in Section 6).

Switch the affected Drum Cartridge with an adjacent unit. **The problem moves with the cartridge.**

**Y N**

Go to the IQ20 RAP and check Flags 1 through 3 for a loose, corroded, or damaged connection.
Replace the Developer (PL 6.2) for the affected color.

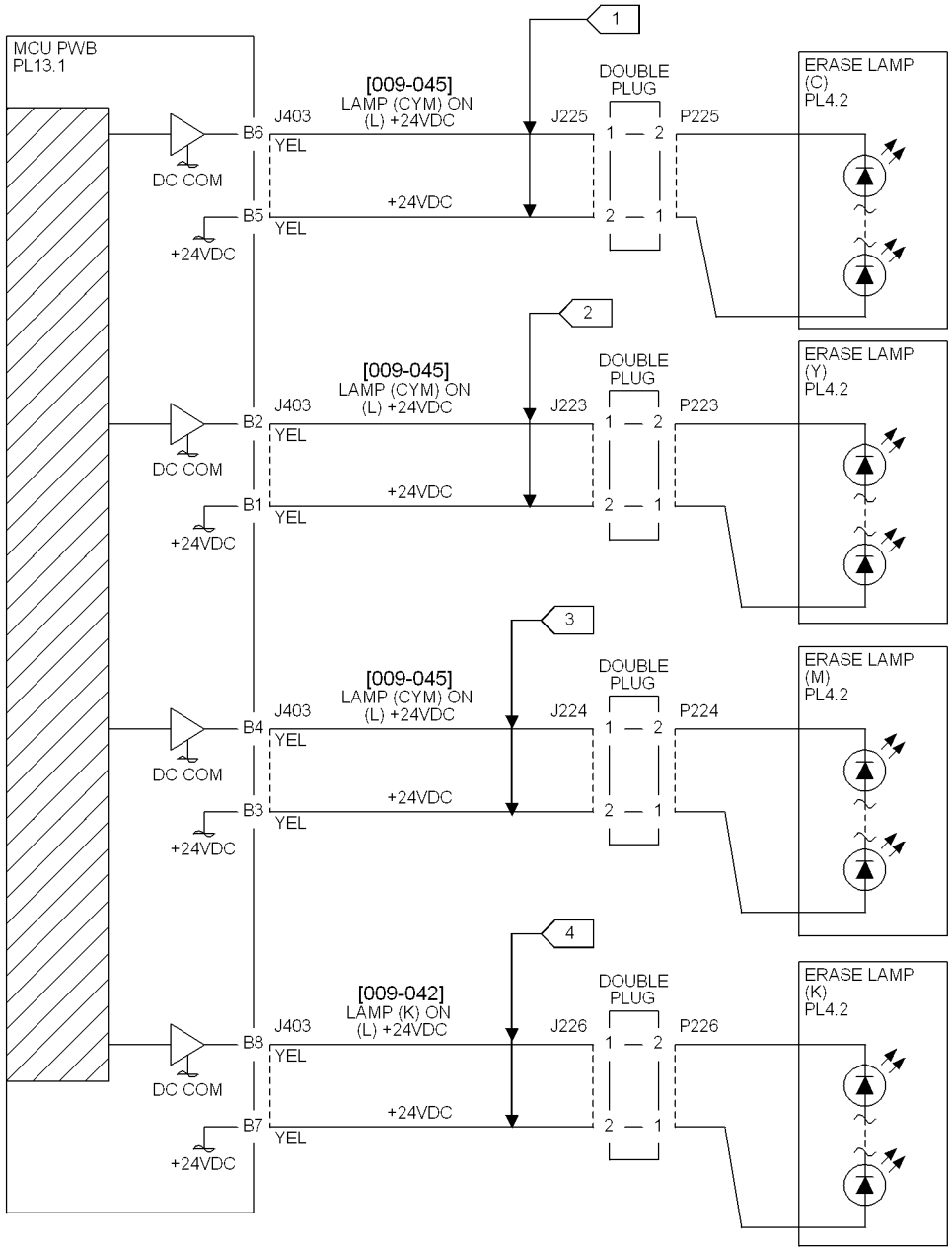
Replace the Drum Cartridge (see Machine Consumables in Section 6).

Go to Flag 1 (C), Flag 2 (Y), Flag 3 (M), or Flag 4 (K). Check for a short circuit. If the wires are OK, replace the Erase Lamp for the affected color. If the problem persists, Replace the MCU PWB (PL 13.1).

Remove the ROS. Examine the ROS windows for dirt or damage. Clean or replace as required PL 3.1).

Check the Transfer Belt (PL 5.3) for dirt, damage, or contamination. Clean/replace as required.
Check the 2nd BTR (PL 2.8) for damage or wear. Clean or replace if required.

Examine the spot in the center of the DCD. Replace the Developer (PL 6.2) and Toner Cartridge for the affected color. If the problem persists, replace the Developer Housing for the affected color (PL 6.2).



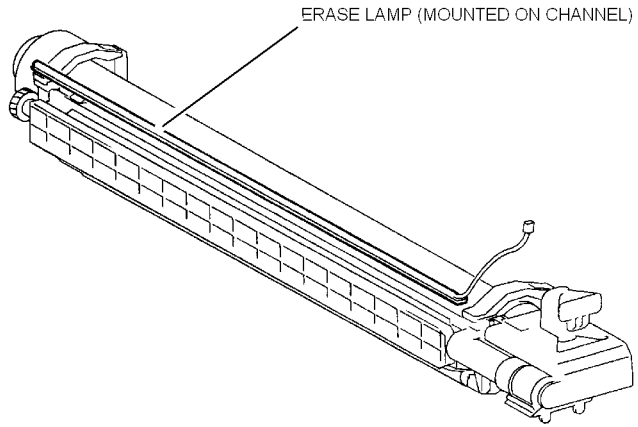




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**Figure 1 IQ7 RAP Circuit Diagram**

# IQ8 Color-to-Color Misregistration RAP

## Initial Actions

Adjust the color registration (ADJ 9.6). If the problem remains, continue with this procedure

## Procedure

**The problem involves a single color.**

**Y N**

Check that the ROS is securely mounted and that the ROS window is not dirty or damaged. If the problem persists, replace the ROS (PL 3.1).

Check the mounting of the Developer Housing for the affected color. Ensure that it is installed correctly and that it is free from damage. Repair or replace as required (PL 6.2).

# IQ9 Skew/Misregistration RAP

This RAP is used when Skew, System Registration, or Magnification are out of specification. For Color-to-Color-Misregistration, go to the IQ8 RAP.

## Initial Actions

Load some new, dry 24 lb. 11X17/A3 Xerox COLOR Xpressions (NASG), or 90 GSM Colortech + (ESG) into each paper tray (use 8.5X11/A4 in Tray 1). Make 3 full color copies from each paper tray. Mark the appropriate paper tray on these copies.

## Procedure

**The problem is still present when using the proper paper.**

**Y N**

Explain to the customer that new, dry, 24 lb. Xerox COLOR Xpressions (NASG), or 90 GSM Colortech + (ESG) paper is the specified paper for use in the DocuColor 1632/2240.

**The problem occurs only in the Printer Mode**

**Y N**

**The defect occurs when the document is manually registered on the platen glass.**

**Y N**

Ensure that the Document Transport Belt is clean. Check the Document Handler Adjustments (ADJ 5.1 through ADJ 5.7). If the problem continues, check the DADF drive rolls and pinch rolls for wear or glossing.

**The problem is Skew**

**Y N**

**The problem is Misregistration**

**Y N**

Adjust the IIT Vertical/Horizontal Magnification (ADJ 9.12) and the IOT Lead Edge/Side Edge Registration (ADJ 9.9).

Enter dC612. Select Pattern????. **Misregistration is present on the copy**

**Y N**

Adjust the IOT Lead Edge/Side Edge Registration (ADJ 9.9), then the IIT Lead Edge and Side Edge Registration (ADJ 9.10 and ADJ 9.11).

**The defect occurred on copies from all five paper trays.**

**Y N**

Check the IOT Lead Edge/Side Edge Registration (ADJ 9.9) for that tray.
Check the feeder for the affected tray for wear, slipping, damage, or contamination.

- Tray 1 Feeder (PL 2.4)
- Tray 2 Feeder (PL 16.7)
- Tray 3 Feeder (PL 16.9)
- Tray 4 Feeder (PL 16.11)
- Tray 5 Feed Assembly (PL 2.14)

**Registration varies from copy to copy.**

**Y N**

Go to ADJ 9.9, Lead/Side Edge Adjustment.

A B C

A B C

Check the components in the Registration Transport Assembly (PL 2.6) for wear, slipping, damage, or contamination. Clean/replace as required

**The defect occurred on copies from all five paper trays.**

**Y N**

Check the components in the Registration Transport Assembly (PL 2.6) for wear, slipping, damage, or contamination. Clean/replace as required

Check the IOT Lead Edge/Side Edge Registration (ADJ 9.9) for that tray.

Check the feeder for the affected tray for wear, slipping, damage, or contamination.

- Tray 1 Feeder (PL 2.4)
- Tray 2 Feeder (PL 16.7)
- Tray 3 Feeder (PL 16.9)
- Tray 4 Feeder (PL 16.11)
- Tray 5 Feed Assembly (PL 2.14)

TBD.

# IQ12 Process Direction Bands, Streaks, and Smears RAP

## Procedure

***NOTE:*** *The repetition rate for Transfer Belt defects varies considerably, depending on paper size and mode of operation. The defect may appear as frequently as every 3rd sheet, or may only occur every 14 sheets.*

**The defect occurs in approximately the same position on multiple prints.**

**Y N**

If the defect occurs intermittently, examine the Developer Housings for evidence of toner clumping. If clumping is found, replace the Developer (PL 6.2). if this does not resolve the problem

**The defect is a full-width (LE - TE) process direction deletion.**

**Y N**

Remove the Fuser Assembly. Examine the Heat Roll for damage or contamination. Clean or replace as required (PL 7.1).

If the Fuser is OK, check the Developer Housing (PL 6.2). Repair or replace as required.

If the problem remains, replace the ROS (PL 3.1).

If the problem is related to a single color, replace the Drum Cartridge (see Machine Consumables in Section 6).

Enter dC612. Select Test Pattern 20% coverage pattern for all colors. **The defect is present for all colors.**

**Y N**

- Check the ROS window for damage or contamination. Clean or replace as required.
- Check Drum Cartridge for affected color. Check for damage or contamination to the BCR.
- Go to the IQ20 RAP to check the 1st BTR bias circuit for the affected color
- Replace the Developer (PL 6.2) for the affected color. Check the housing for damage or toner clumping.

Remove the IBT Cleaner (PL 5.3). Inspect the cleaning blade and Mylar seal for damage. Clean or replace as required.

If the IBT Cleaner is OK, check the Transfer Belt (PL 5.3) for damage or contamination. Ensure that there is no debris or loose wiring, etc. in contact with the belt. Clean or replace as required.

# IQ13 Unfused Copy RAP

## Initial Actions

Replace the paper in use with fresh, dry paper of the correct specification.

Ensure that the media being used matches the settings on the UI screen or print driver. Using the next heavier setting may resolve the problem.

If the Key Operator/Administrator has configured certain trays for a specific type of media, ensure that the specified media is actually loaded in those trays.

## Procedure

Check the following:

- Check the Sensor Assembly (PL 7.2) for contamination or incorrect mounting. Clean, repair, or replace as required.
- Check the Fuser (PL 7.1) for damage, toner offsetting, paper wrap, or incorrect installation. Clean or replace as required.

# IQ14 Repeating Bands, Streaks, Spots, and Smears RAP

## Procedure

Measure the distance between the repeating defects. Locate the distance on the table below. Perform the indicated repair actions

**Table 1 Repeating Defects**

| Repetition spacing | Component(s) | Repair Actions |
|---|---|---|
| <4 mm. | High Frequency Banding | Replace the ROS |
| 28.3 mm. | Developer Mag Roll | Check Developer roll bias for floating or shorting out. Replace Developer Housing (PL 6.2) if required. |
| 44 mm. | Drum Cartridge | Replace the Drum Cartridge (see Machine Consumables in Section 6). |
| 84 mm. | Fuser Heat Roll | Remove the Fuser Assembly. Check the Heat Roll for damage (nicks, wear, or cuts) or contamination. Clean or replace as required (PL 7.1). |
| 88 mm. | BTR 2 Backup Roll<br>BTR 2 Roll | Check the 2nd BTR Assembly for damage or contamination. Clean, repair or replace as required (PL 2.8). Replace the Transfer Belt (PL 5.3). |
| 94 mm. | Drum Cartridge<br>Fuser | Single Color - Replace the Drum Cartridge (see Machine Consumables in Section 6).<br>All Colors - Remove the Fuser Assembly. Check the Heat Roll for damage (nicks, wear, or cuts) or contamination. Clean or replace as required (PL 7.1). |

# IQ15 Mottle RAP

This RAP troubleshoots the causes of output images showing image density that varies from inboard to outboard edges, or randomly throughout the print.

## Initial Actions

- Replace the paper in use with fresh, dry paper of the correct specification. Ensure that the loaded media matches the UI or print driver settings.
- Determine if the Drum Cartridge or any of the Toner Cartridges are approaching end-of-life. Replace if necessary.
- Perform Max Setup (ADJ 9.1). If this does not resolve the problem, continue with this RAP.

## Procedure

Make a print of the Test Page (??????). **The defect involves a single color.**

**Y N**

Make a print of the Test Page. Open the Front Door when the lead edge of the print begins to protrude from the Fuser Exit nip. Open the Fuser and examine the partially-fused sheet. **The defect is present in both the fused and unfused portion of the sheet.**

**Y N**

Clean or replace the Fuser (PL 7.1).

Enter dC612. Make a print of Test Pattern???. As the print is being processed, open the Front Door. Examine the image on the Transfer Belt. **The image on the belt has acceptable density.**

**Y N**

Replace the Transfer Belt (PL 5.3).

Go to the IQ22 RAP to check 2nd BTR Backup Roll bias/contacts.
Clean/replace the 2nd BTR Assembly (PL 7.1).
If the problem continues, replace the Transfer Belt (PL 5.3).

Switch Drum Cartridges. **The problem moves with the cartridge.**

**Y N**

Check the following:

- Clean the HV contact for the developer in question.
- Replace the Toner Cartridge if not done previously.
- Replace the Developer (PL 6.2). Examine the housing for damage, wear, or contamination. If the problem persists, replace the ATC Sensor (PL 6.2).

Replace the Drum Cartridge (see Machine Consumables in Section 6).

# IQ16 Spots RAP

## Initial Actions

Ensure that the paper in use is fresh, dry, and within specification for weight and quality.

Check print driver and copier control panel settings to ensure the media is being un in the proper mode.

Compare the spots against the samples in the Image Quality Defects supplement. If the defect matches the Debris Centered Deletions sample, go to the IQ9 RAP.

## Procedure

**The defect occurs in Copy mode only.**

**Y N**

**The spots occur at a fixed interval on each print.**

**Y N**

**The spots occur in the same location on every letter size print.**

**Y N**

***NOTE:*** *The repetition rate for Transfer Belt defects varies considerably, depending on paper size and mode of operation. The defect may appear as frequently as every 3rd sheet, or may only occur every 14 sheets.*

**The defect occurs in approximately the same position on multiple prints.**

**Y N**

**The problem is Fuser offset.**

**Y N**

**CAUTION**

*Do not use a vacuum cleaner or any solvents in the following step. Damage to the Belt Cleaner will result.*

Remove the Belt Cleaner (REP 9.16). Carefully clean the cleaning blade and the Mylar shield with a soft brush or a lint free cloth. Brush away any accumulation of toner on the foam seal and the outside surfaces. Wipe the surface of the Transfer Belt with a lint free cloth. If the problem continues, replace the Belt Cleaner (PL 7.1).

Check the Fuser for dirt, damage, or toner buildup. Clean or replace as required (PL 7.1).

Check the Transfer Belt (PL 5.3) for dirt or damage. Clean or replace as required.

Check the Drum Cartridge for dirt or damage. Clean or replace as required ((see Machine Consumables in Section 6).

Go to the IQ14 RAP.

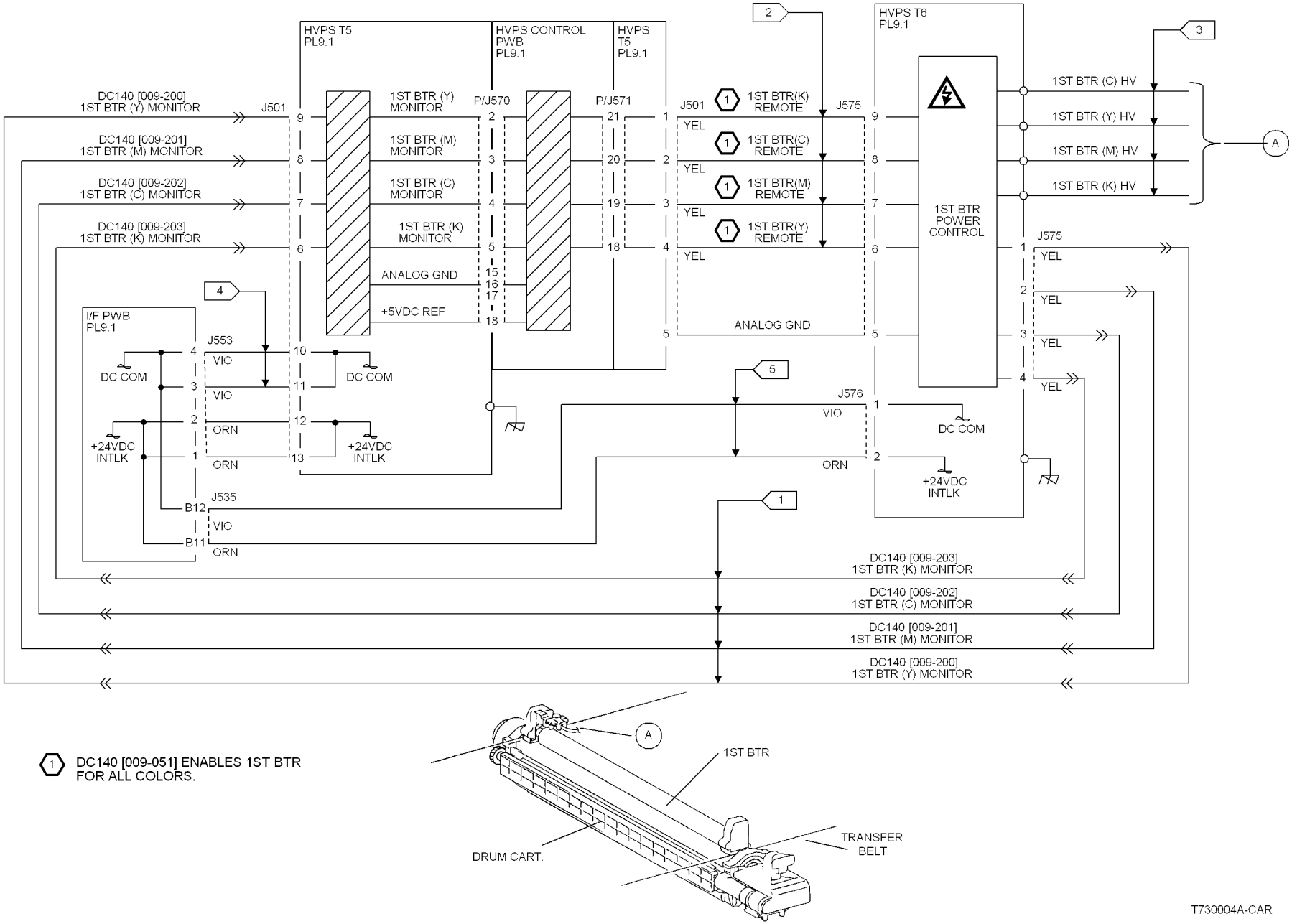
Ensure that the original is free from the defect.
Clean the Platen Glass and Lens.

# IQ20 1st BTR Checkout RAP

## Procedure

**Y** **N**

TBD - refer to Figure 1.




1 DC140 [009-051] ENABLES 1ST BTR FOR ALL COLORS.




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**Figure 1 IQ20 RAP Circuit diagram**

# IQ21 Developer Bias RAP

## Procedure

**WARNING**

**HIGH VOLTAGE!**

**Exercise caution when performing the voltage checks in this procedure.**

Enter dC140 [09-026]. Check the voltage at P/J 580 for the affected color(s). There should be approximately 370 VAC and -540 VDC (+/- 10%) present. **The voltages are within range.**

**Y N**

**There is +24 VDC from J 501 pin 13 to J 501 pin 10 on the HVPS T5 PWB.**

**Y N**

**There is +24 VDC from J 553 pin 2 to J 553 pin 4 on the I/F PWB**

**Y N**

Go the +24 VDC Wirenets to troubleshoot this problem.

Go to Flag 2. Check for an open circuit

Check that the HVPS Control PWB is seated correctly. If the problem continues, replace the HVPS T5 PWB (PL 9.1).

Go to Flag 1. Check for an open circuit or a short circuit to ground. Check P/J 580 and the HV terminals on the Developer Housing(s). for damage or loose connections. If the checks are good, return the RAP from which you came.

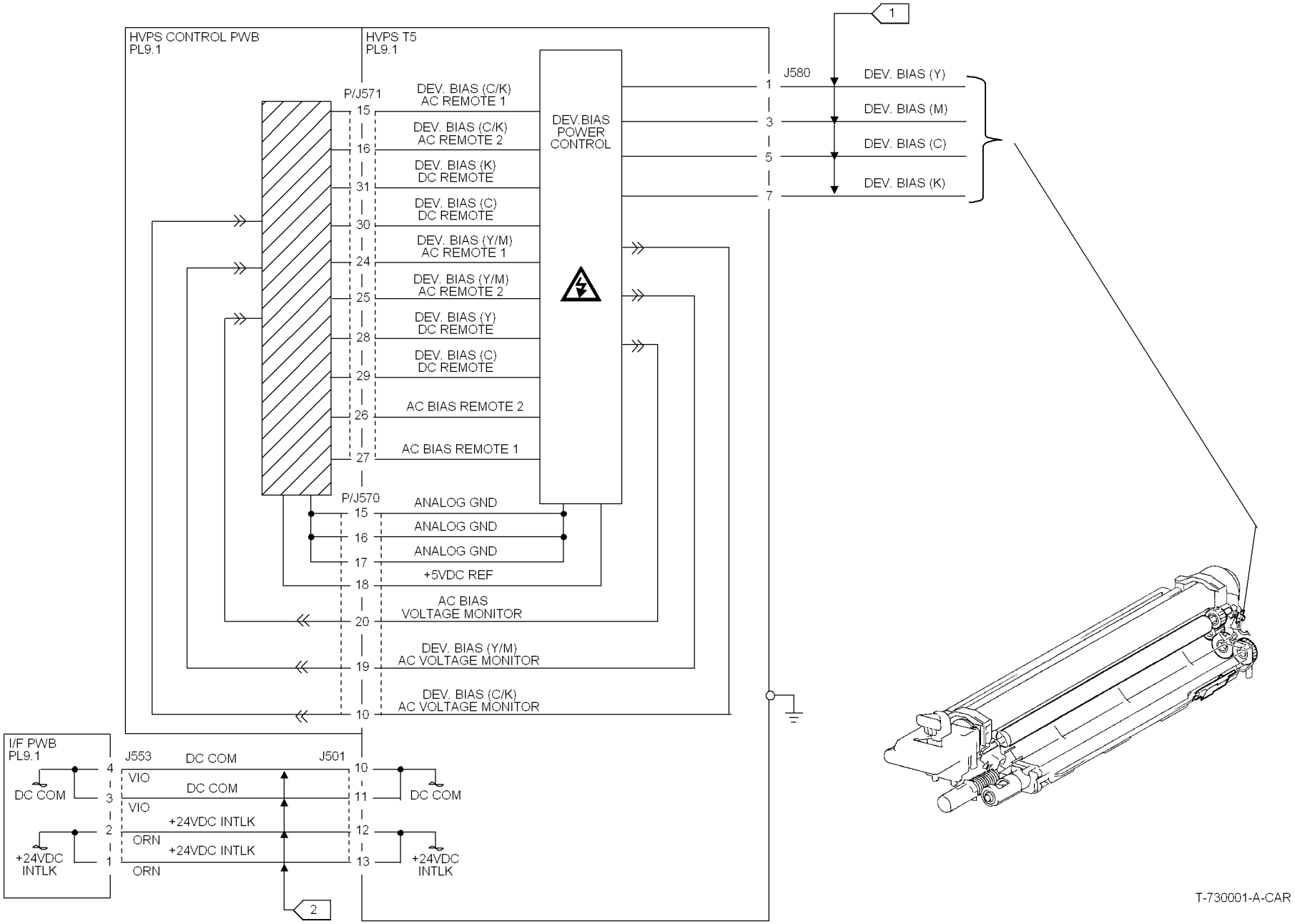


**Figure 1 IQ21 RAP Circuit Diagram**

# IQ22 2nd BTR Checkout RAP

## Procedure

**Y** **N**

TBD - refer to Figure 1.

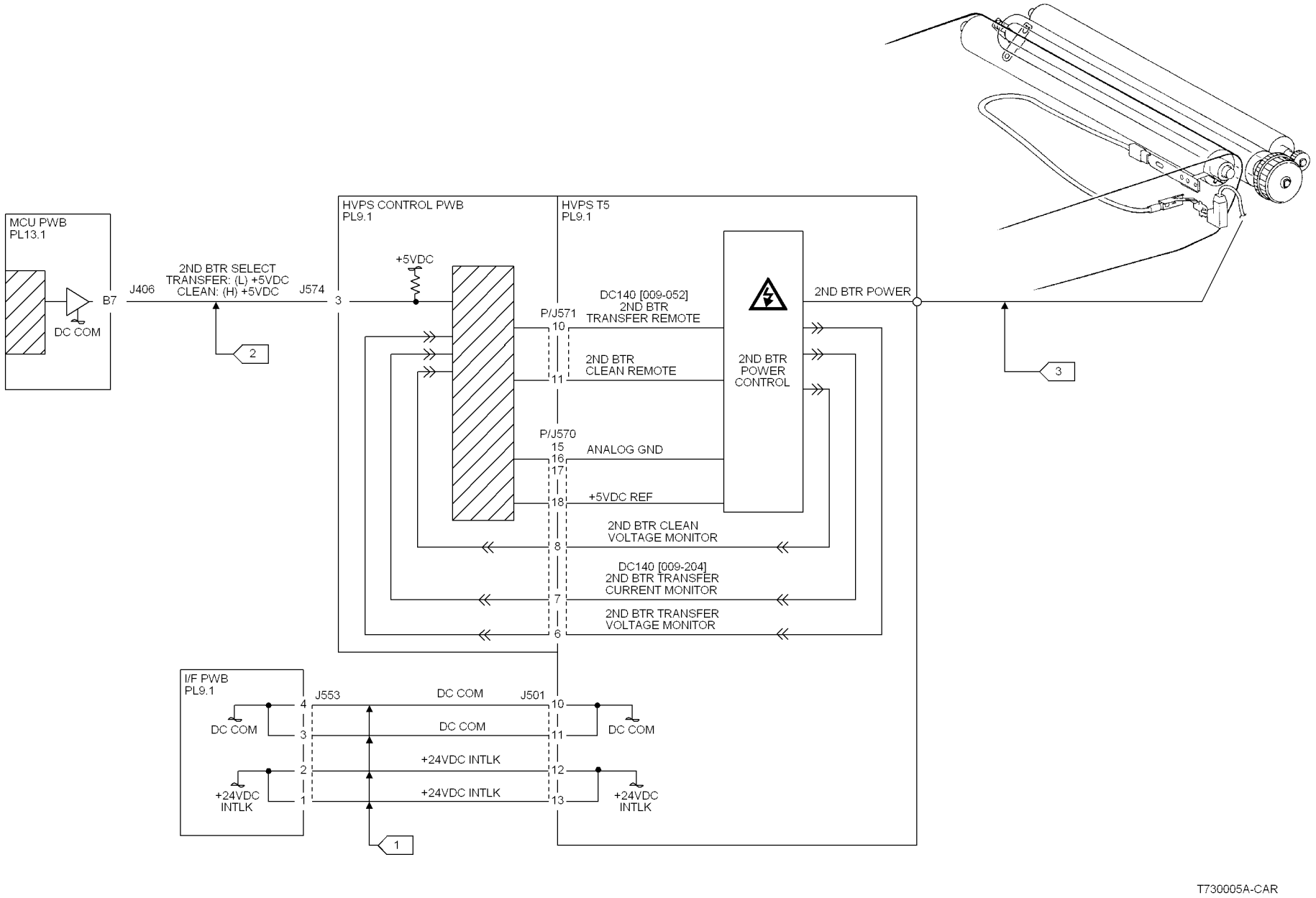


**Figure 1 IQ22 RAP Circuit Diagram**

# IQ23 BCR Checkout RAP

## Procedure

**The problem is very high single-color background**

**Y** **N**

TBD

A

A

Go to Flag 3. Check the wires associated with the problem color for an open circuit. If the wires are OK., check the HV outputs at P 581 for open circuits or loose contacts. If the problem persists, replace the Drum Cartridge for the affected color (see Machine Consumables in Section 6).

If this does not resolve the problem, replace the HVPS T7 PWB (PL 9.1).

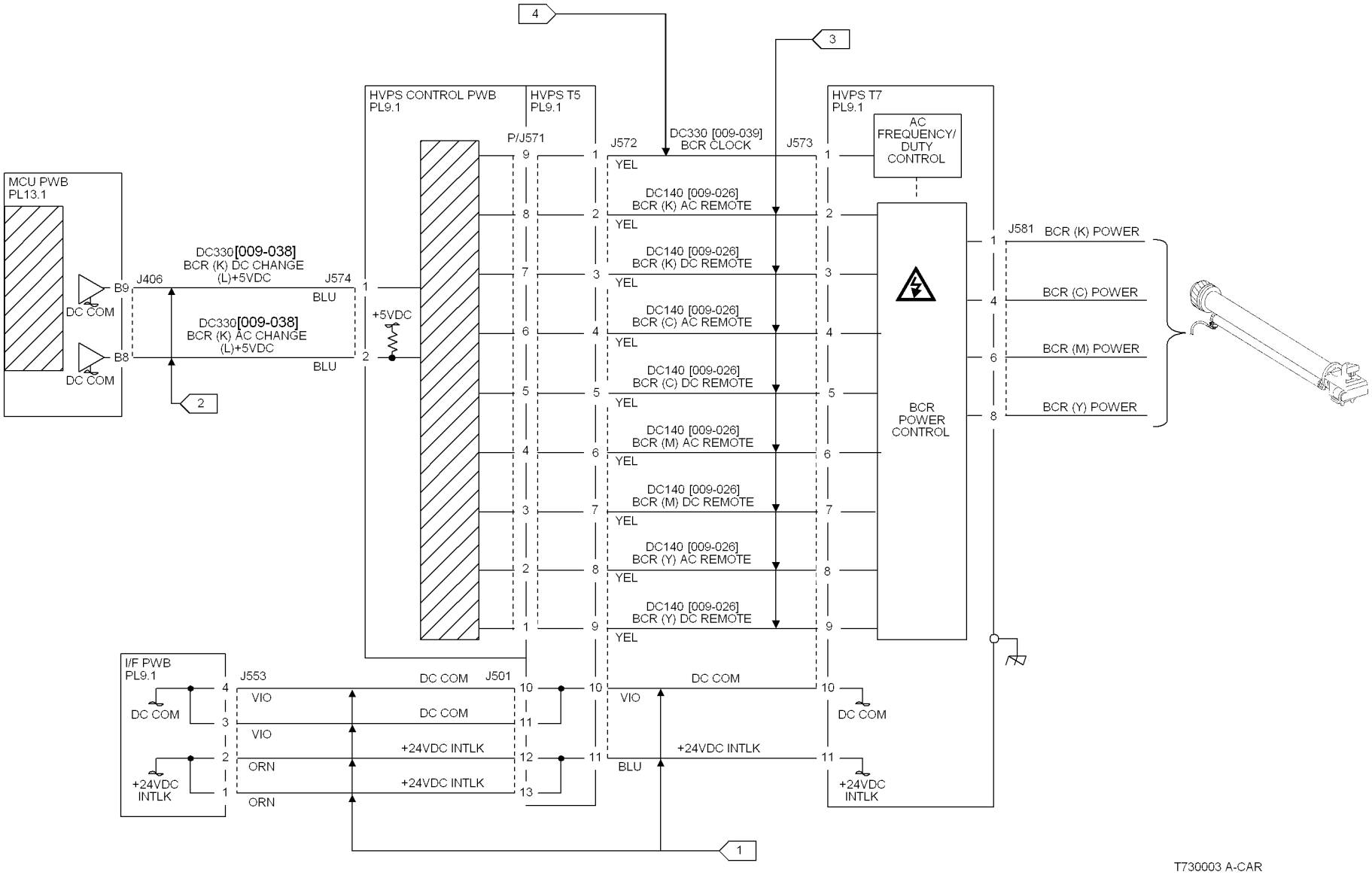


**Figure 1 IQ23 RAP Circuit Diagram**

# Image Quality Specifications

The following steps are used to set up the machine for the purpose of making test pattern copies to judge output image color density, balance, and registration.

1. Set the following Customer Mode Settings to the positions listed:
   a. Output Color - Full Color
   b. Original Type - Photo & Text / Halftone
   c. Lighter/Darker - Auto Contrast
   d. Variable Color Balance - Normal
   e. Color Saturation - Normal
   f. Sharpness - Normal
2. Place the Color Test Pattern on the platen. Load 11î X 17 or A3 paper into Tray 1. Make a copy of the test pattern.
3. Compare the copy to the test pattern. Refer to Figure 2 and Table 1 for this evaluation.

**Table 1 Color Specifications Check Locations**

| AREA (Fig. 1) | Check for the Following Results |
|---|---|
| A | Text Reproduction. Each of the seven sentences in this area are fully reproduced with no missing letters or portions of letters. The sentences are reproduced in Black, Cyan, Magenta, Yellow, Red, Green and Blue. |
| B | Color Registration. The patterns in location B should be properly registered to provide Black, Red, Green and Blue lines. |
| C | Front to Rear Density. The density of both the low density and high density bands should be uniform from front to rear. This can be tested by folding the copy in the center and comparing the front side of the copy to the rear side of the copy at location C. Both the high density and low density locations should exhibit even front to rear density. |
| D | Color Gradation. This area should exhibit a decreasing density of each of the colors from 100% density to 5% density. In a properly adjusted machine, the 10% patches should be visible and the 5% patches should be barely visible or not visible on the test pattern copy (except for the bottom row). |
| E | Routine Color. Location E represents three general tests for the machine to reproduce colors common to customer originals.<br>Location A is a general skin tone test.<br>Location B represents the color of grass or other common foliage.<br>Location C represents the color of the sky. |
| F | Photo Gradation. Location F is not used for any copy quality evaluation on this product. |
| G | IIT Calibration Patches. These patches are scanned for IIT Calibration during the DC945 IIT Calibration portion of Max Setup. |
| H | 100 Lines/Inch Image. A Moire defect will show on this image. Moire on a 100 Line/Inch image is within specification. |
| I | 175 Lines/Inch Image. This image is used to test for Moire. Depending on the degree of the defect, moire seen on this image should be considered out of specification. |

Registration and border deletions are checked using the Step Scales on the Geometric Test Pattern, an example of which is shown in Figure 1. All of the scales are 20mm in height, and are made up of four 5mm steps. Step 1 will be described as at the top of the Step Scale, and Step 4 will be described as at the bottom.

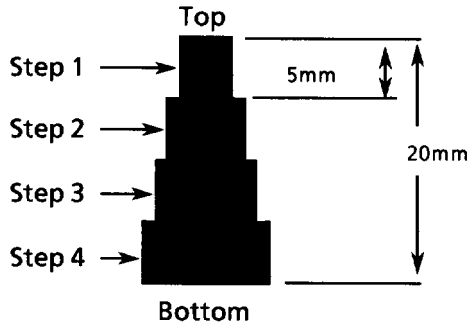


**Figure 1 Step Scales**

Each Step Scale is positioned for a particular paper size and orientation. Table 2 indicates the appropriate Step Scales to use for the various paper sizes, orientations and measurement locations.

**Table 2 Geometric Checkout - Step Scale Data.**

| Paper Size | Orientation | To check: | Step Scales to use (refer to Figure 2) |
|---|---|---|---|
| 11x17 | SEF | Lead Edge<br>Side Edge<br>Trail Edge | LE1 through LE3<br>SE1 through SE4 (top); SE5 and SE8 (bottom)<br>TE3 |
| A3 | SEF | Lead Edge<br>Side Edge<br>Trail Edge | LE 1 through LE3<br>SE1 through SE4 (top); SE6 and SE7 (bottom)<br>TE4 |
| 8.5x11 | SEF | Lead Edge<br>Side Edge<br>Trail Edge | LE 1 and LE2<br>SE1 through SE3 (top); SE9 (bottom)<br>TE5 |
| A4 | LSEF | Lead Edge<br>Side Edge<br>Trail Edge | LE 1 and LE2<br>SE1 through SE3 (top); SE10 (bottom)<br>TE6 |
| 8.5x11 | LEF | Lead Edge<br>Side Edge<br>Trail Edge | LE1 through SE3<br>SE1 and 2 (bottom) SE6 and SE7 (top)<br>TE 2 |
| A4 | LEF | Lead Edge<br>Side Edge<br>Trail Edge | LE1 through SE3<br>SE5 (top); SE1 and SE2 (bottom)<br>TE1 |

1. Set the following Customer Mode Settings to the positions listed:
   ï Output Color - Full Color

- ï Original Type - Photo & Text / Halftone
- ï Lighter/Darker - Auto Contrast
- ï Color Saturation - Normal
- ï Variable Color Balance - Normal
- ï Sharpness - Normal

2. Place Test Pattern 82E8220 on the platen and 24# Xerox Color Xpressions 11 X 17 (USCO), or 90 GSM Colotech A3 (XL) paper in Tray 1. Make a copy of the test pattern.
3. Follow the directions in Table 3 to determine if the machine registration is within specification.

**Table 3 Test Pattern Image Data Locations for Geometric Specifications**

| GEOMETRIC AREA | CHECK PERFORMED |
|---|---|
| Magnification | Locate the 300mm line running from near LE1 to the trail edge of the 1.8 lp ladder. Locate the 200mm line running from near LE1 to near LE3. Make a copy. The measurements should be:.<br>ï Left to Right.: 300mm ±1.8mm<br>ï Front to Rear: 200mm ±1.2mm |
| Resolution | Observing the targets on the test pattern copy at locations R1 through R8, the line pairs specified below are clearly visible for the magnification value indicated:<br>ï 70%: 3.0 lp/mm<br>ï 100% through 400%: 4.3 lp/mm |
| Lead Edge Registration | Measure from the lead edge of the paper to the top of Step 3 on the LE2 Step Scale. The measurement should be:<br>ï Trays 1 through 4: 10mm ±1.5mm (±1.9mm for 2nd side of duplex job)<br>ï Tray 5: 10mm ±2.2mm |
| Side Edge Registration | Measure from the side edge of the paper to the top of Step 3 on the SE2 and SE3 Step Scales. The distance should be within the following tolerance:<br>ï Trays 1 through 4: 10mm ±2.0mm (±2.4mm for 2nd side of duplex job)<br>ï Tray 5: 10mm ±2.4mm |
| Lead Edge Skew | For skew from front to rear, the distance from the lead edge of the paper to the targets at LE1 and LE3 are measured. The measurements must match each other to within the tolerance below.<br>ï Trays 1 through 4: within ±1.5mm (±2.0mm for 2nd side of duplex job)<br>ï Tray 5: within ±2.0mm |
| Side Edge Skew | For skew from left to right, the distance from the side edge of the paper to the targets at SE1 and SE4 are measured. They must match each other to within the tolerance below:<br>ï Trays 1 through 4: within ±3.0mm (±4.0mm for 2nd side of duplex job)<br>ï Tray 5: within ±4.0mm |
| Line Density | This parameter is measured on the two 0.7G Text Blocks on the test pattern copy. The machine should reproduce all of the characters shown in the block on the output copy. |
| Solid Reproduction | This specifies the desired standard for reproduction of solid gray images at 1.0 K. The 1.0 K blocks on the output copy should reproduce with minimal mottle or graininess. |

**Table 3 Test Pattern Image Data Locations for Geometric Specifications**

| GEOMETRIC AREA | CHECK PERFORMED |
|---|---|
| Low Contrast Reproduction | This specifies the desired standard for reproduction of low density images. The machine should reproduce all of the text in the 0.2 G Text Blocks on the output copy. |
| ROS Borders (Image Loss) | Measure from the lead edge of the paper at LE2, the side edge of the paper at SE2 and SE7, and the trail edge at TE4, to the top edge of the step scales in those locations. The measurements should conform to the following specifications:<br>ï Lead Edge 4mm ± 1 mm<br>ï Side Edges 2 mm ± 1 mm<br>ï Trail Edge 2 mm ± 1 mm |

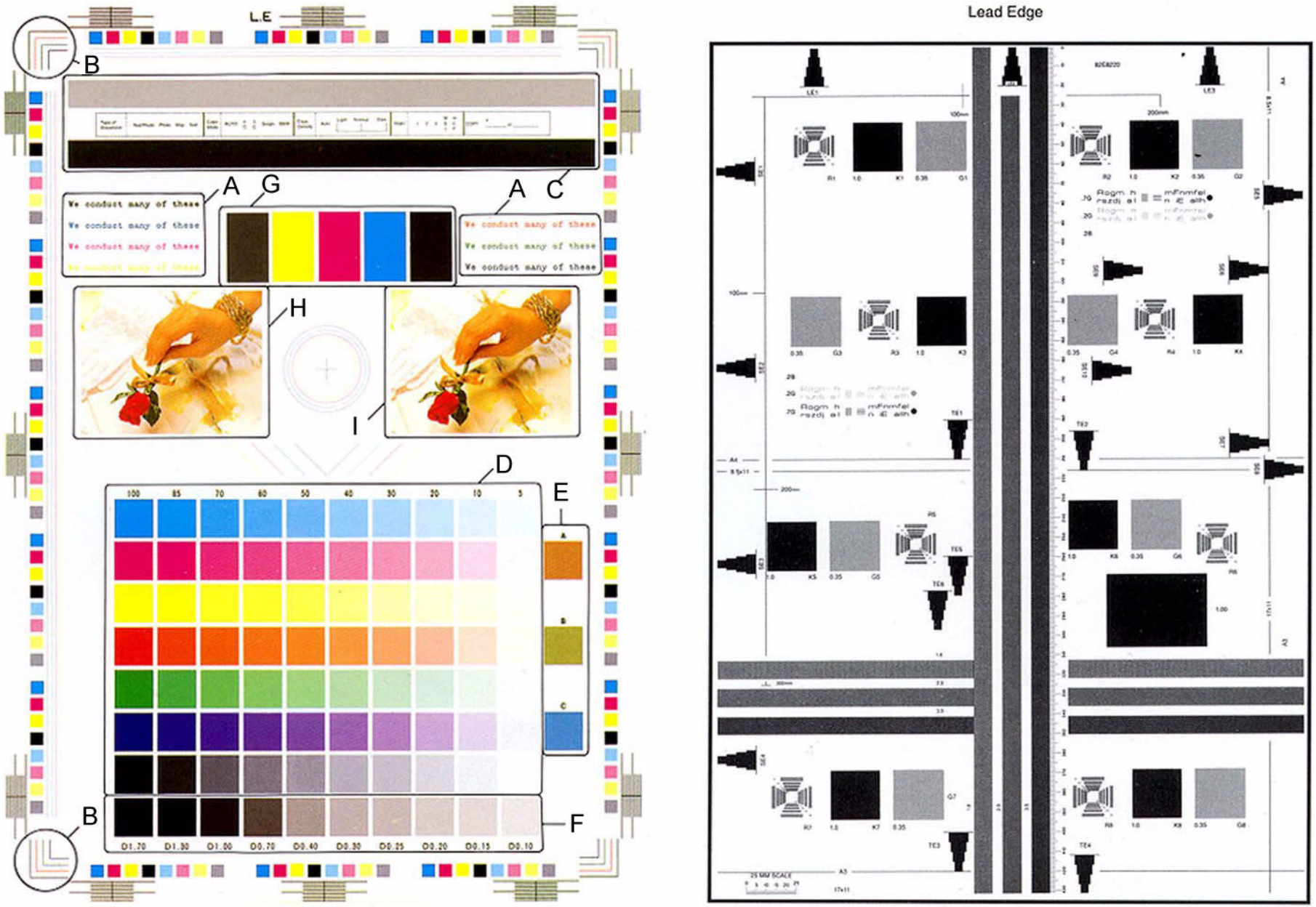


**Figure 2 Color and Geometric Test Patterns**

# 4 Repairs & Adjustments

## REPAIRS

### Electrical



### Main Drives



### Document Handler



### Imaging



### Paper Trays



### Paper Feed and Registration



### Xerographic

## REP 1.1 3.3/5 V LVPS Bracket

### Parts List on PL 9.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

1. Remove Rear Cover (REP 14.2).
2. Remove High Voltage Power Supply Chassis (REP 1.6).
3. Release 6 harness clips.
4. Remove 3.3/5 VDC Power Supply Chassis (Figure 1).
   a. Disconnect Harness P/Jís (4).
   b. Loosen Lower Screws (2).
   c. Remove upper Screws (2) and remove 3.3/5 VDC Power Supply Chassis.

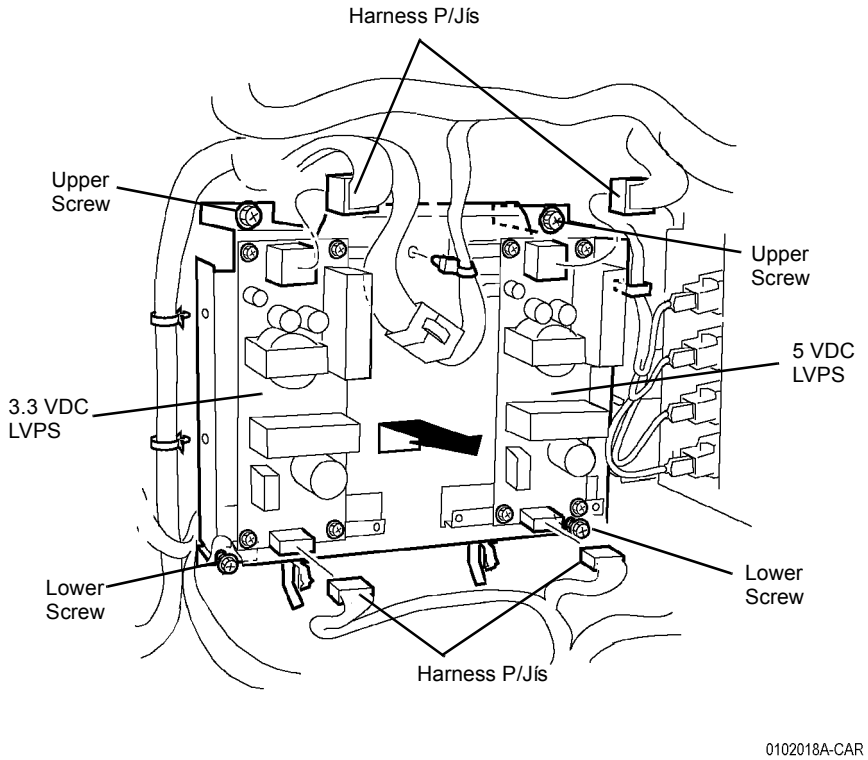


**Figure 1 Removing 3.3/5 VDC Power Supply Chassis**

## REP 1.2 MCU PWB

### Parts List on PL 13.1

### Removal

1. If a new PWB will be installed, record NVM values for new PWB

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

5. Remove ESS Chassis (REP 1.3).
6. Remove Screws and remove MCU PWB from ESS Chassis.

# REP 1.3 ESS Chassis

## Parts List on PL 13.1

## Removal

1. If a new PWB will be installed, record NVM values for new PWB.

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

5. Remove ESS PWB (REP 1.12).
6. Remove ESS Chassis (Figure 1).
   a. Push Harness Clips (2) down out of Chassis holes
   b. Disconnect Harness P/Jís (6).
   c. Disconnect Harness P/Jís (2).
   d. Disconnect Switch from Chassis.
   e. Loosen Screws (2) at front and remove Screws (2) at rear of machine.
   f. Lift outer end of Chassis to disconnect Hidden Connector and then remove Chassis.

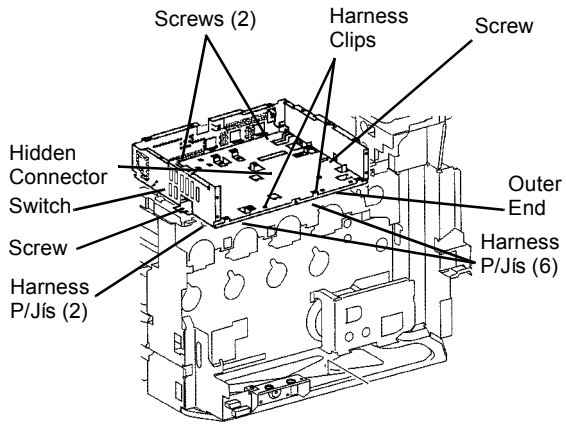


**Figure 1 Removing ESS Chassis**

## Replacement

***NOTE:*** *If the ESS PWB will be replaced with a new ESS PWB, discard the MAC ROM from the new ESS PWB and install the MAC ROM removed from the old ESS PWB.*

# REP 1.4 3.3 V LVPS or 5 V LVPS

## Parts List on PL 9.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

1. Remove Rear Cover (REP 14.2).
2. Remove High Voltage Power Supply Chassis (REP 1.6).
3. Remove appropriate LVPS (Figure 1).
   a. Disconnect appropriate Harness P/Jís (2).
   b. Remove appropriate Screws (4) and remove LVPS.

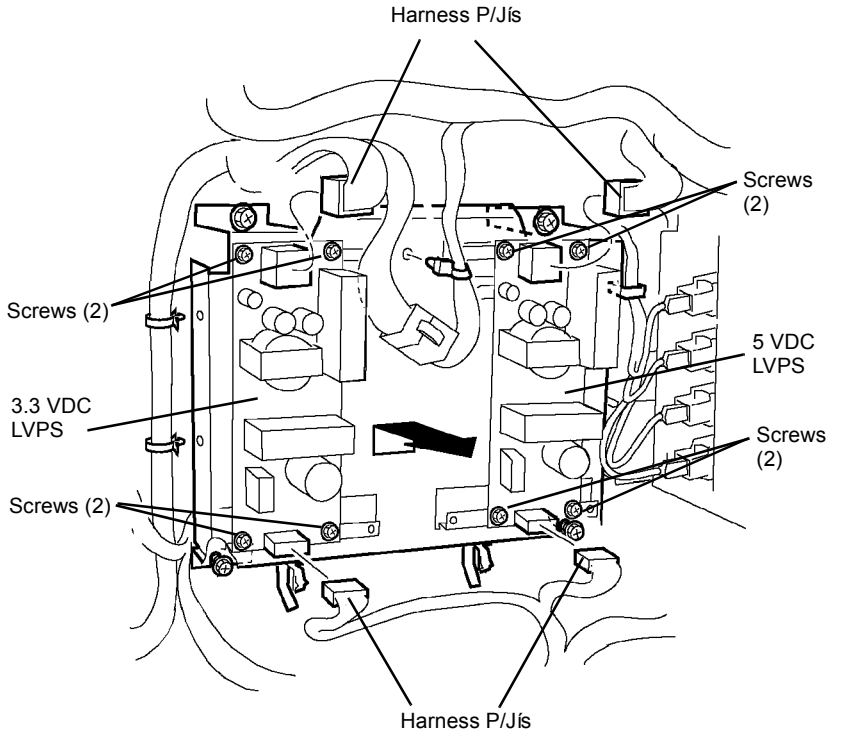


**Figure 1 Removing LVPS**

## REP 1.5 24 V LVPS

**Parts List on PL 9.1**

**Removal**

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

2. Remove 24 V LVPS (Figure 1).
   a. Disconnect Harness P/Jís (3).

**CAUTION**

*5 screws with red marks secure LVPS to heat sink. Do not remove them.*

   b. Loosen Screws (2) and remove LVPS.

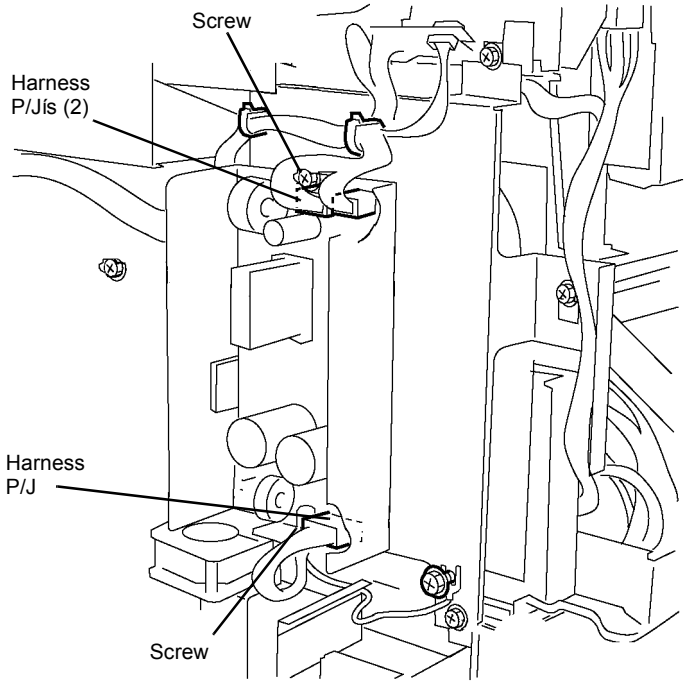


**Figure 1 Removing 24 VDC Power Supply**

## REP 1.6 T5 T7 HVPS Chassis

**Parts List on PL 9.1**

**Removal**

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*HVPS can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

1. Remove Rear Cover (REP 14.2).
2. Remove High Voltage Power Supply Chassis (Figure 1).
   a. Loosen screw and disconnect Ground Wire.
   b. Disconnect Harness P/Jís (2). Do not disconnect Soldered Connection
   c. Disconnect High Voltage P/J (1).
   d. Disconnect High Voltage P/Jís (2).
   e. Remove Screws (3).
   f. Pivot HVPS down and engage stop strap with frame tab (not shown in figure).
   g. Disconnect High Voltage P/J (1) at bottom (not shown in figure).

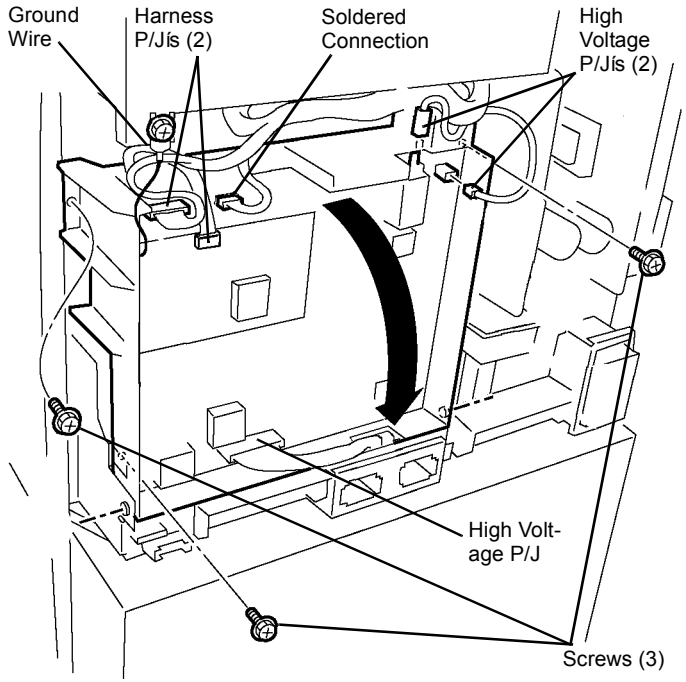


**Figure 1 Removing High Voltage Power Supply**

## REP 1.7 T5 or T7 High Voltage Power Supplies

### Parts List on PL 9.1

### Removal

1. Perform NVRAM Save.

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove Rear Cover (REP 14.2).

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

3. Remove High Voltage Power Supply Chassis (REP 1.6).
4. Remove High Voltage Power Supplies from Chassis.
   - T5 HVPS (Detack/2nd BTR) is power supply toward machine rear.
   - T7 HVPS (Developer Bias and Charge) is power supply toward machine front.

## REP 1.8 I/F (Interface) PWB

### Parts List on PL 9.1

### Removal

1. Perform NVRAM Save.

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).
5. Pivot down T5 T7 HVPS Chassis (REP 1.6).

**CAUTION**

*PWBís can be damaged by an electrostatic discharge. Observe all ESD procedures to avoid component damage.*

6. Remove ESS Chassis (REP 1.3).
7. Remove Main PWB Interface PWB (Figure 1).
   a. Loosen Screws (2).
   b. Lift Main PWB Interface PWB until Harness P/Jís (11) can be disconnected.
   c. Remove Main PWB Interface PWB from chassis

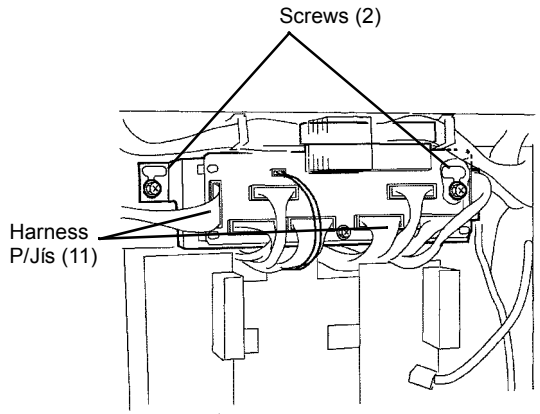


**Figure 1 Removing Interface PWB**

## Replacement

Ensure Screws (2) are positioned in slots as shown before tightening Screws (2) (Figure 2).

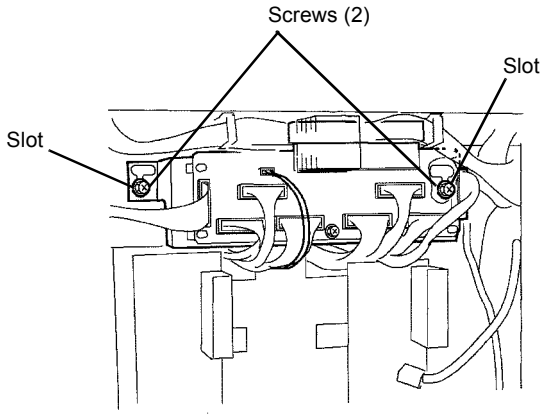


**Figure 2 Installing Interface PWB**

# REP 1.9 24 V LVPS Bracket

## Parts List on PL 9.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Upper Rear Left Cover (REP 14.4).
3. Remove 24 V LVPS (REP 1.5).
4. Remove 24 VDC LVPS Chassis (Figure 1).
   a. Remove Top Screw.
   b. Remove upper harnesses from Harness Clips (2).
   c. Disconnect Fan P/J and remove harness from Harness Clip.
   d. Loosen Screws (4).
   e. Remove 24 VDC LVPS Chassis.

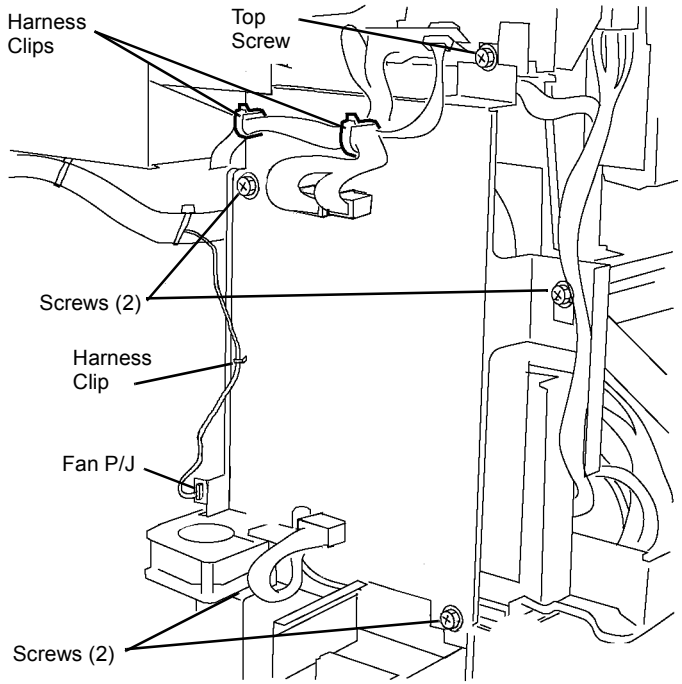


**Figure 1 Removing 24 VDC LVPS Bracket Assembly**

## REP 1.10 HVPS T6

### Parts List on PL 9.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove 24 V LVPS (REP 1.5).
3. Remove 24 VDC LVPS Chassis (REP 1.9).
4. Remove HVPS T6 (Figure 1).
   a. Disconnect P/Jís (4).
   b. Disconnect Harness P/Jís (2).
   c. Remove Screws (2) and remove High Voltage Power Supply with chassis.
   d. Remove High Voltage Power Supply from chassis.

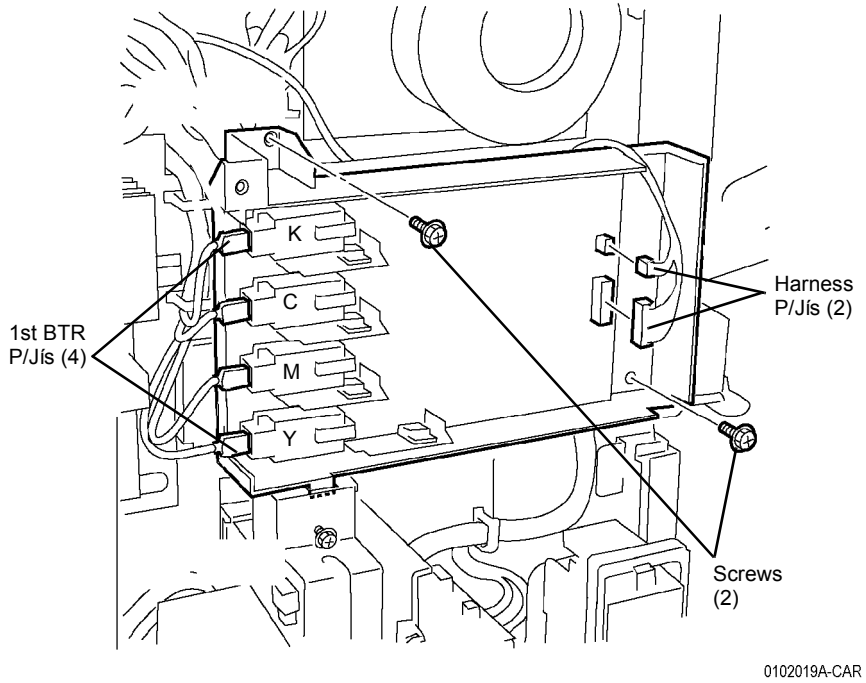


**Figure 1 Removing HVPS T6**

## REP 1.11 AC Drive PWB

### Parts List on PL 9.2

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove 24 V LVPS (REP 1.5).
3. Remove 24 VDC LVPS Chassis (REP 1.9).
4. Remove HVPS T6 (REP 1.10).
5. Remove AC Drive PWB (Figure 1).
   a. Remove Screws (2) and Bracket.
   b. Carefully observe position of wiring harnesses and AC Wires for later reinstallation
   c. Disconnect AC Harness P/Jís (3) and AC Wires (6).
   d. Disconnect DC Harness P/Jís (2).
   e. Release harness from Harness Clip.
   f. Remove Mounting Screws (3)
   g. Disengage rear clip (not shown) and remove AC Drive PWB.

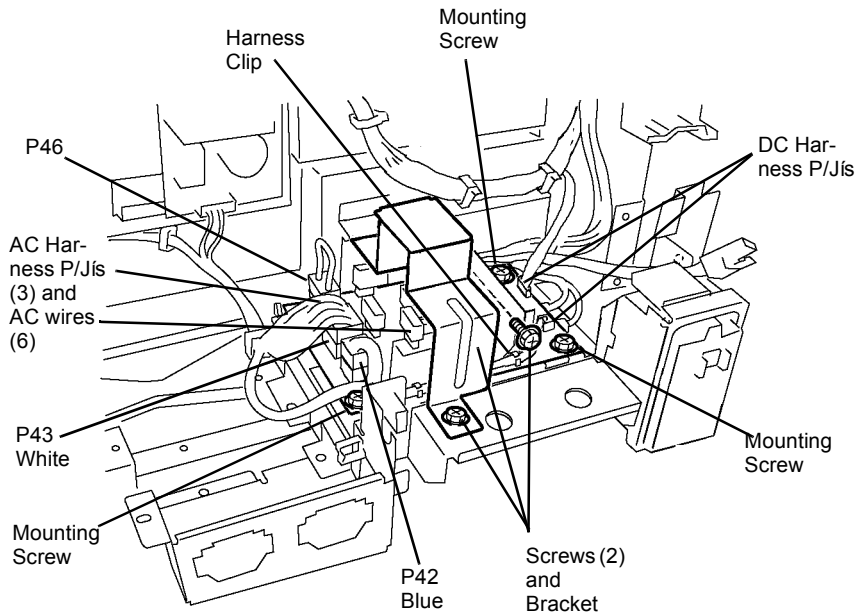


**Figure 1 Removing AC Drive PWB**

### Replacement

**CAUTION**

*Ensure White connector P43 and Blue connector is P42. Other connectors are different sizes to ensure correct connection.*

## REP 1.12 ESS PWB

### Parts List on PL 13.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*The ESS PWB has a lithium battery. Dispose of the used battery following the manufacturers' instructions after replacing. Do not throw it away at customer's site.*

1. Remove Right Cover (REP 14.3).
2. Remove Top Cover (REP 14.1).
3. Remove Rear Cover (REP 14.2).
4. Remove ESS Top Cover (PL 13.1).

**CAUTION**

*Protect Hard Drive Harness. Hard Drive is mounted to ESS Top Cover. Hard Drive harness remains connected to ESS PWB while removing ESS Top Cover.*

a. Remove screws (11) from ESS Top Cover.
b. Lift ESS Top Cover and place it upside down on Toner Cartridges.
c. Disconnect Hard Drive harness from ESS PWB.

*NOTE: 5 mm tool may be required.*

5. Remove ESS PWB (Figure 1).

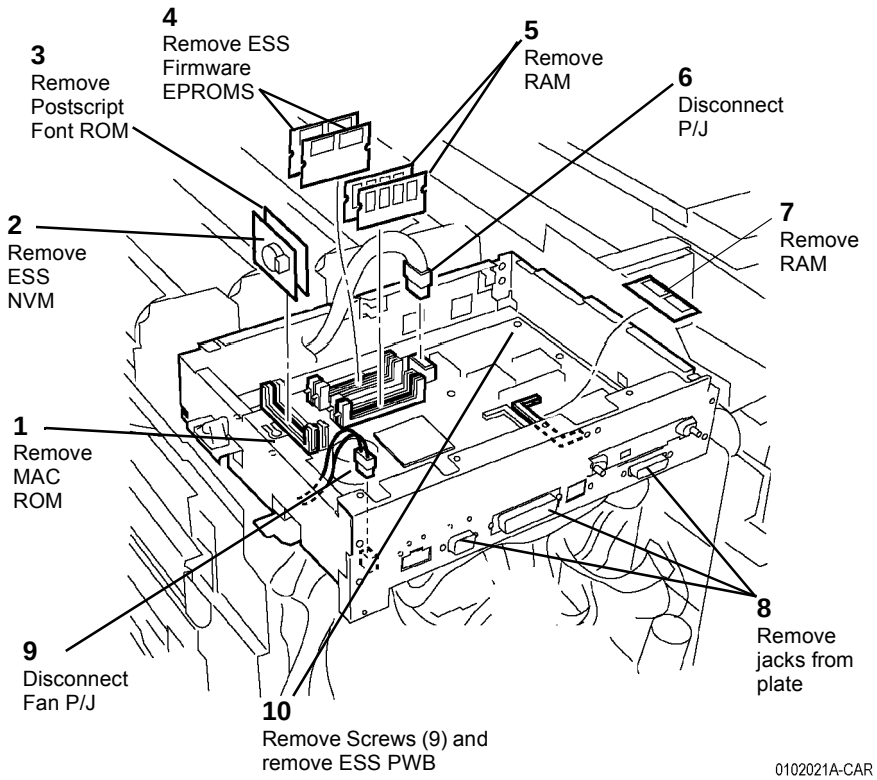


**Figure 1 Removing ESS PWB**

# REP 1.13 ESS NVM PWB

## Parts List on PL 13.1

## Removal

1. Download ESS NVM values to machine floppy. If download is not possible, most recent NVM values will be downloaded during replacement step 3.

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).
5. Remove ESS Top Cover (PL 13.1).

**CAUTION**

*Protect Hard Drive Harness. Hard Drive is mounted to ESS Top Cover. Hard Drive harness remains connected to ESS PWB while removing ESS Top Cover.*

a. Remove screws (11) from ESS Top Cover.

b. Lift ESS Top Cover and place it upside down on Toner Cartridges.

**CAUTION**

*The ESS PWB has a lithium battery. Dispose of the used battery following the manufacturers' instructions after replacing. Do not throw it away at customer's site.*

6. Remove the ESS NVM PWB (Figure 1).

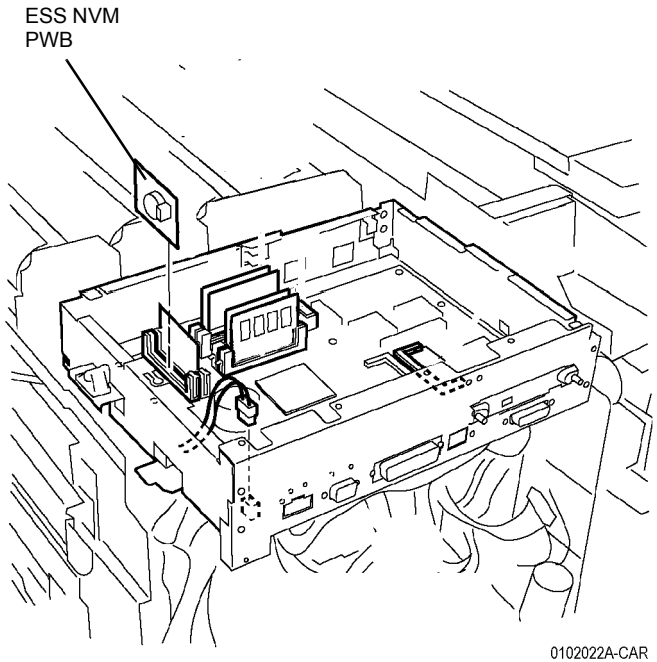


**Figure 1 Removing the ESS NVM PWB**

## Replacement

1. Connect the PSW and enter DC132.
2. Match the Billing, following the steps of DC132.
3. Enter all the NVM values described in the NVM List that comes with the machine or download NVM values from machine floppy.

# REP 4.1 Main Drive Motor Assembly

## Parts List on PL 1.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Fuser Module (REP 10.1).
2. Remove Tray 5 (REP 7.1).
3. Remove Rear Cover (REP 14.2).
4. Remove 24 V LVPS (REP 1.5).
5. Remove 24 VDC LVPS Chassis (REP 1.9).
6. Remove Developer High Voltage Power Supply (REP 1.10).
7. Remove AC Drive PWB (REP 1.11).
8. Remove Main Drive Motor Assembly (Figure 1).
   a. Carefully observe position of wiring harnesses for later reinstallation
   b. Disconnect Harness P/Jís (5).
   c. Disconnect Harness P/Jís (3).
   d. Remove harness from Harness Clips (3).
   e. Disconnect HV Wire.

***NOTE:*** *In next step, do not remove small round head screws that appear to secure Main Drive Motor Assembly to machine.*

   f. Remove Screws (5) and remove Main Drive Motor Assembly.

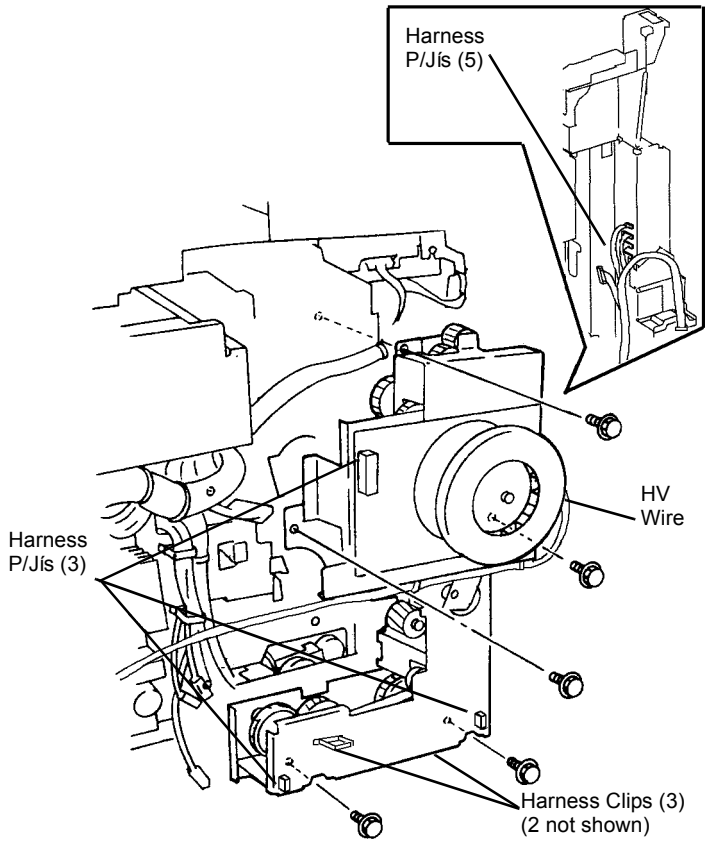


**Figure 1 Removing Main Drive Motor**

## REP 4.2 IBT Motor

### Parts List on PL 1.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Pivot down High Voltage Power Supply Chassis (REP 1.6).
3. Remove Photoreceptor Module Drive Motor.
   a. Disconnect Cooling Fan P/J.
   b. Remove screws (2) and remove Cooling Fan.
   c. Disconnect Photoreceptor Module Drive Motor P/J.
   d. Remove Photoreceptor Module Drive Motor screws (3) and remove Photoreceptor Module Drive Motor.

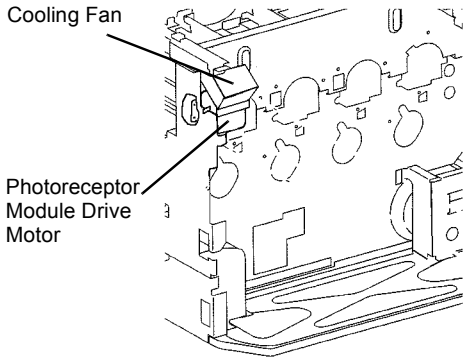


**Figure 1 Removing Photoreceptor Module Drive Motor**

## REP 4.3 Developer Drive Motor

### Parts List on PL 1.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove High Voltage Power Supply Chassis (REP 1.6).

***NOTE:*** *Step 3 can be omitted if Low Voltage Power Supply P/Jís are disconnected before performing step 4.*

3. Remove 3.3 VDC and 5 VDC Low Voltage Power Supply (REP 1.4).
4. Remove Chassis for 3.3 VDC and 5 VDC Low Voltage Power Supply.
   a. Release harnesses from harness clips (3).
   b. Remove screws (4) and remove Chassis.
5. Remove Developer Drive Module (Figure 1).
   a. Disconnect P/J.
   b. Remove harness from Harness Clip.
   c. Remove Screws (2) and remove Developer Drive Module.

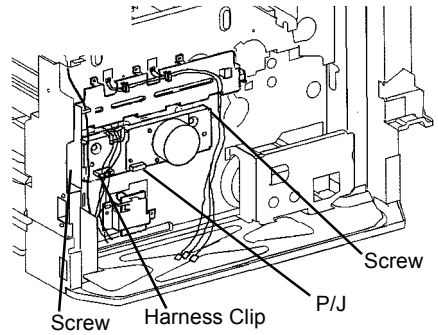


**Figure 1 Removing Developer Drive Module**

# REP 4.4 Drum Motor Assembly

## Parts List on PL 1.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Right Cover (REP 14.3).
2. Remove Top Cover (REP 14.1).
3. Remove Rear Cover (REP 14.2).

**CAUTION**

*Machine problems will result from careless harness routing during reassembly. Carefully observe position of wiring harnesses for later reinstallation.*

***NOTE:*** *Step 6 can be omitted if Low Voltage Power Supply P/Jís are disconnected before performing step 7.*

4. Remove 24 V LVPS (REP 1.5).
5. Remove 24 VDC LVPS Chassis (REP 1.9).
6. Remove Control Chassis (REP 1.3).
7. Remove High Voltage Power Supply Chassis (REP 1.6).

***NOTE:*** *In next step, do not disconnect P/Jís.*

8. Loosen Interface PWB chassis mounting screws (2) and move chassis up (REP 1.8).
9. Remove Photoreceptor Module Drive Motor (REP 4.2).
10. Remove Developer High Voltage Power Supply (REP 1.10).
11. Remove 3.3/5 VDC Power Supply Chassis (REP 1.1).
12. Remove Print Cartridge Drive Module (Figure 1).
    a. Release harness from Harness Clips (3)
    b. Remove screws (2) to release Connector from frame.
    c. Disconnect P/J.
    d. Remove Screws (8) and remove Print Cartridge Drive Module.

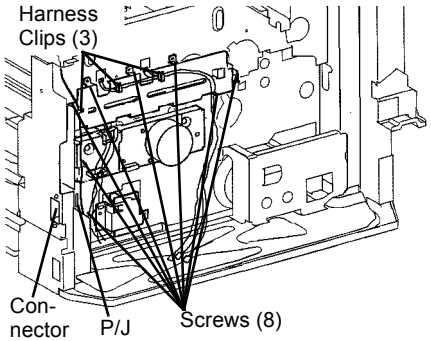


**Figure 1 Removing Print Cartridge Drive Module**

# REP 5.1 DADF

## Parts List on PL 20.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Disconnect connector (Figure 1).

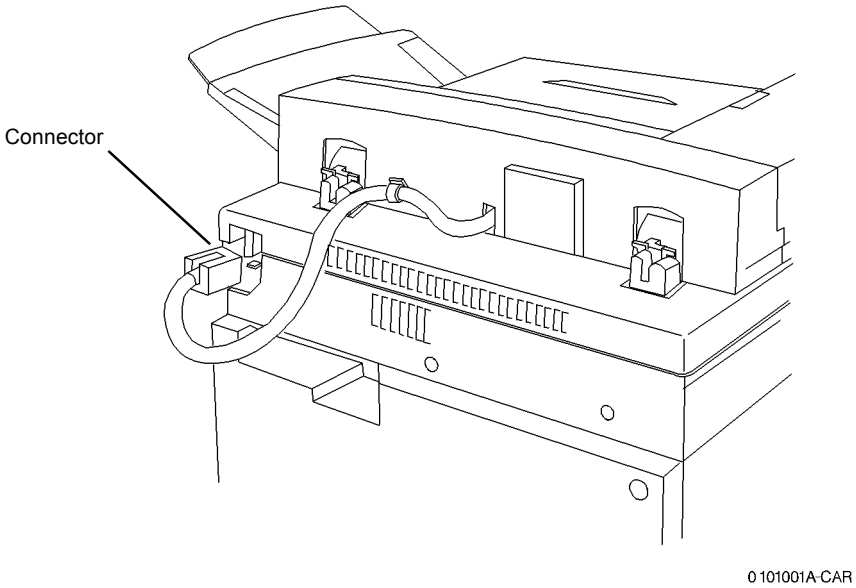


**Figure 1 Disconnecting Connector**

2. Remove Screws (2) and remove DADF (Figure 2).

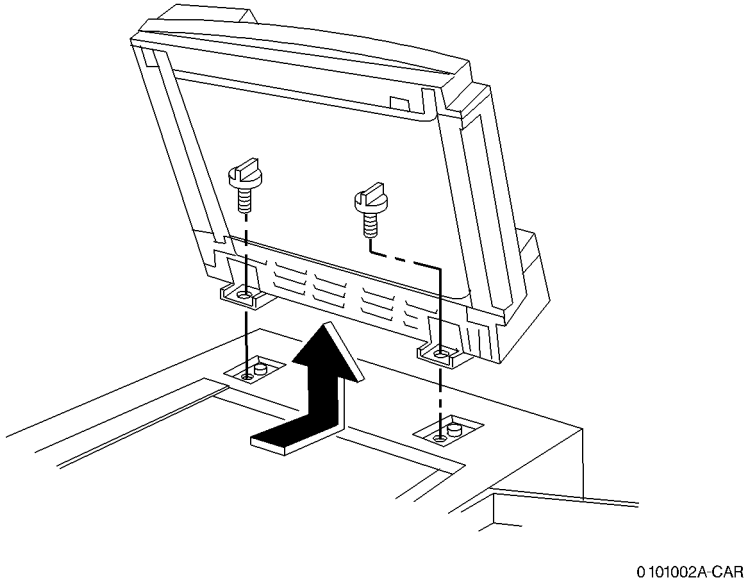


**Figure 2 Removing DADF**

## Replacement

1. Check DADF Side Registration (ADJ 5.1).
   Check DADF Top Registration (ADJ 5.5).

# REP 5.2 Registration Gate Solenoid

## Parts List on PL 20.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (PL 20.1).
2. Remove Registration Gate Solenoid (Figure 1).
   a. Disconnect connector.
   b. Release clamps (2) and remove wire.
   c. Loosen screws (2).
   d. Remove Registration Gate Solenoid.

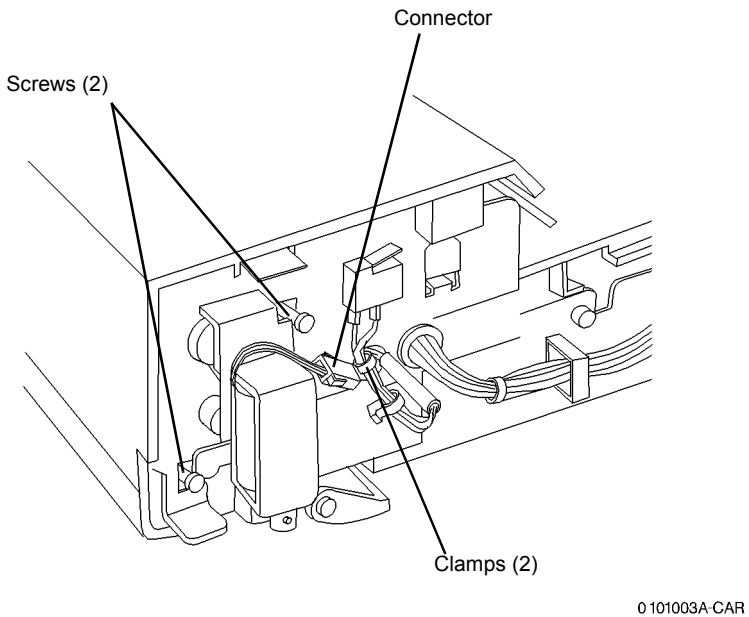


**Figure 1 Removing Registration Gate Solenoid**

# REP 5.3 Left/Right Counterbalance

## Parts List on PL 20.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove DADF (REP 5.1).
2. Remove Rear Cover (REP 5.18).
3. To remove Left Counterbalance, go to step 4.
   To remove Right Counterbalance, go to step 5.
4. Remove Left Counter Balance (Figure 1).
   a. Remove Screws (4).
   b. Remove Left Counterbalance.
   c. Mark counterbalance as Left.

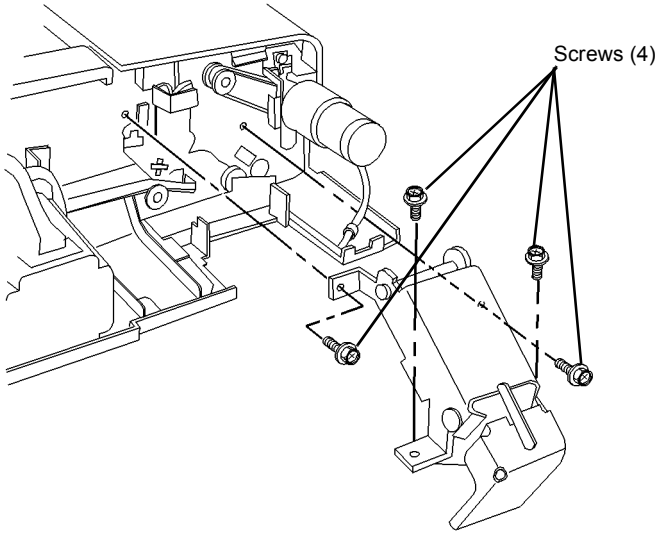


**Figure 1 Removing Left Counterbalance**

5. Remove Right Counterbalance (Figure 2).
   a. Remove Terminals (2).
   b. Remove Screws (4).
   c. Remove Right Counterbalance.
   d. Mark counterbalance as Right.

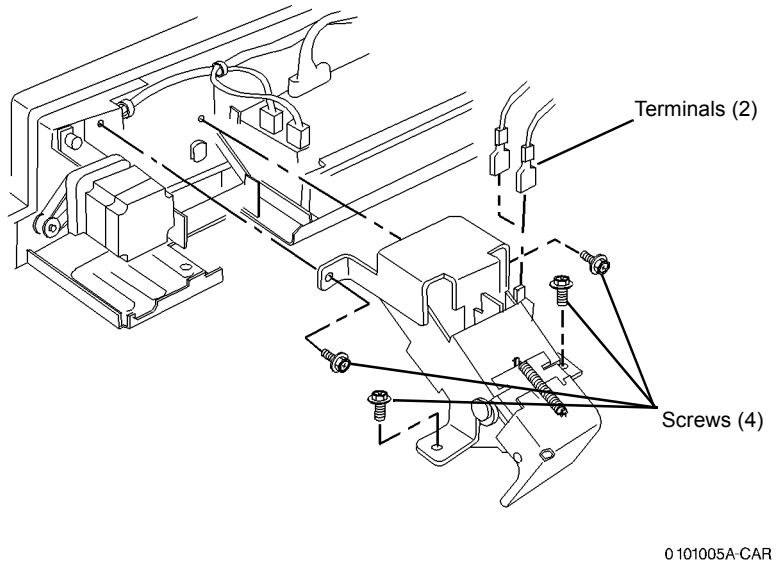


**Figure 2 Removing Right Counterbalance**

## Replacement

1. If new counterbalances are installed, position as shown (Figure 3).
   If counterbalances are reinstalled, install according to marks made in steps 4c or 5d.

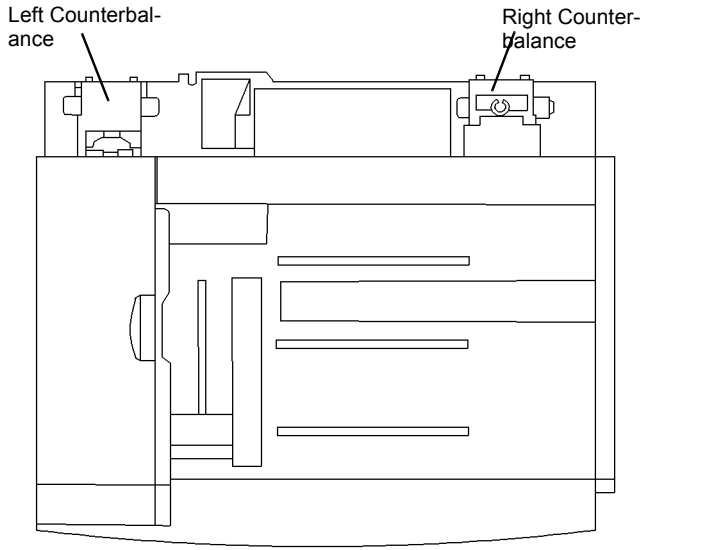


**Figure 3 Install Left/Right Counterbalance**

# REP 5.4 DADF Control PWB

## Parts List on PL PL 20.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 5.18).
2. Remove DADF Control PWB (Figure1).
   a. Disconnect connectors (7).
   b. Remove DADF Control PWB from PWB supports (3).

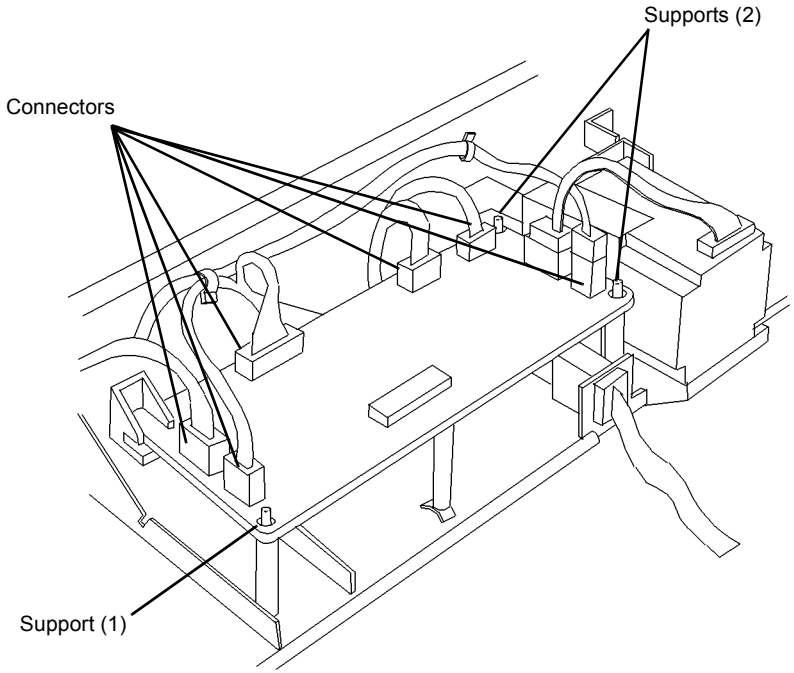


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**Figure 1 Removing DADF Control PWB**

# REP 5.5 Feed Motor Assembly

## Parts List on PL 20.4

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 5.18).
2. Remove Feed Motor Assembly (Figure 1).
   a. Disconnect connector.
   b. Release clamps (3) and remove harness.
   c. Loosen Screws (2).
   d. Remove Feed Motor Assembly.

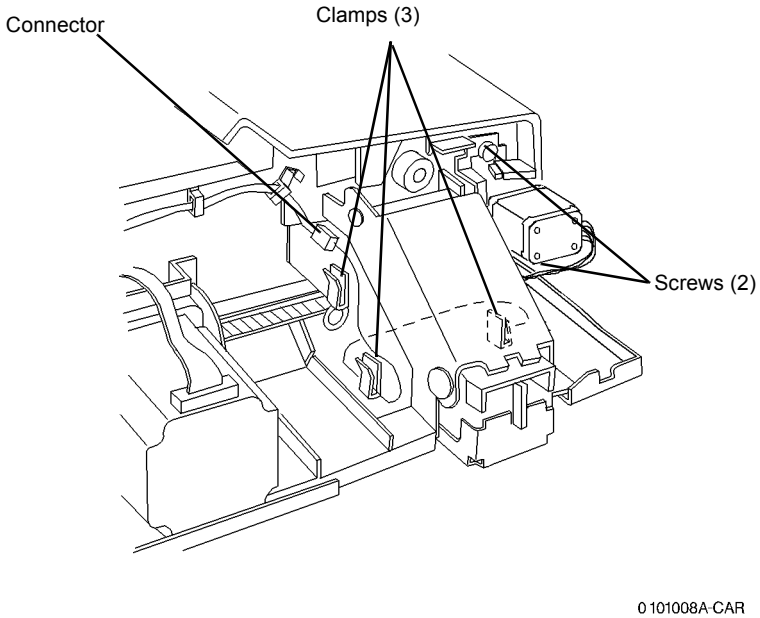


**Figure 1 Removing Feed Motor Assembly**

# REP 5.6 Nudger Roll

## Parts List on PL 20.4

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. To install new Nudger Rolls, go to Feed Roll Assembly (REP 5.7) at this time and replace the Nudger Rolls and Feed Rolls as an assembly. Otherwise, continue below.
2. Open DADF Top Cover and remove Inner Cover (Figure 1).
   a. Open Top Cover.
   b. Loosen screws (2).
   c. Remove Inner Cover.

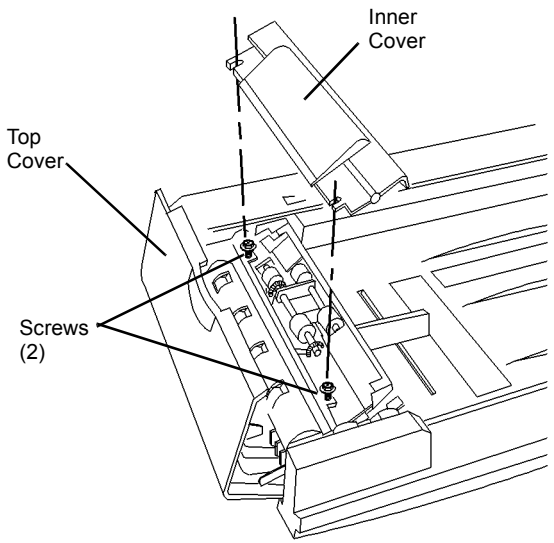


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**Figure 1 Removing Inner Cover**

3. Remove Nudger Rolls (Figure 2).
   a. Remove Clips (2).
   b. Remove Nudger Rolls (2).

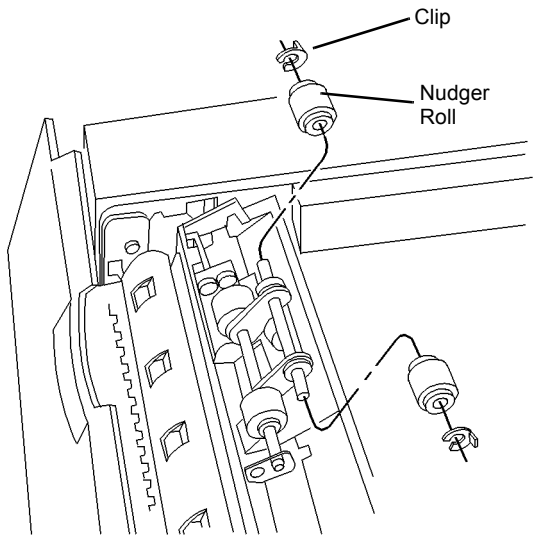


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**Figure 2 Remove Nudger Rolls**

## Replacement

***NOTE:*** *Nudger Rolls rotate freely in direction of document movement.*

***NOTE:*** *After replacing Nudger Roll, reset HFSI counter. Enter dC135 HFSI Counters Diag. Screen (NVM 005-80).*

***NOTE:*** *Replace Feed Roll Assembly (REP 5.7).*

# REP 5.7 Feed Roll Assembly

## Parts List on PL 20.4

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Top Cover and remove Inner Cover (Figure 1).
   a. Open Top Cover.
   b. Loosen screws (2).
   c. Remove Inner Cover.

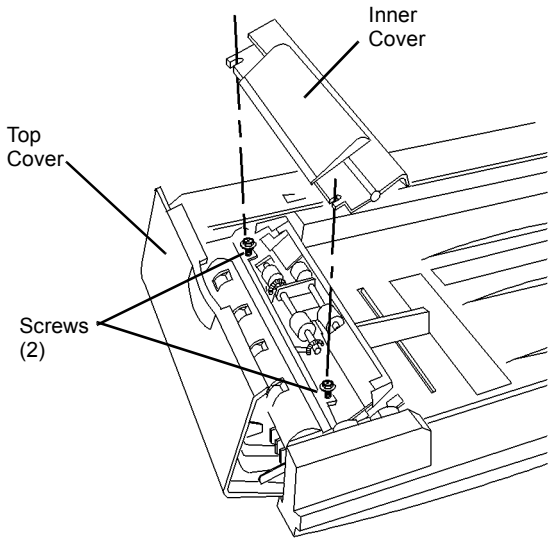


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**Figure 1 Removing Inner Cover**

2. Remove Feed Roll Assembly (Figure 2).
   a. Remove clip.
   b. Slide bearing.
   c. Remove Feed Roll Assembly.

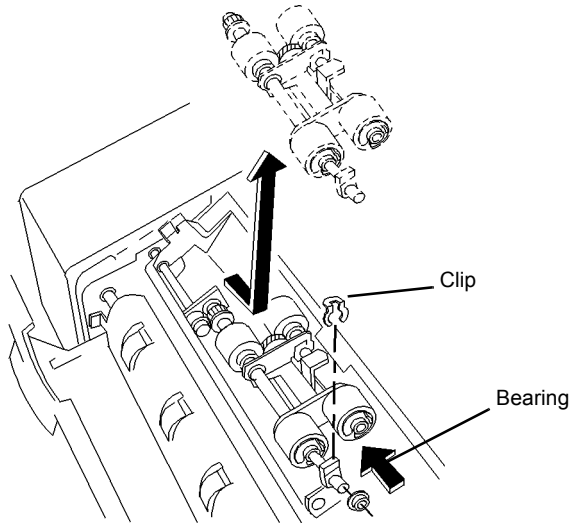


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**Figure 2 Removing Feed Roll Assembly**

## Replacement

***NOTE:*** *Feed Rolls rotate freely in direction of document movement.*

***NOTE:*** *After replacing Feed Roll, reset HFSI counter. Enter dC135 HFSI Counters Diag. Screen (NVM 005-805).*

***NOTE:*** *Feed Rolls and Nudger Rolls are replaced at same time.*

# REP 5.8 Lower Chute Assembly

## Parts List on PL 20.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Top Cover.
2. Remove following:
   a. Front Cover (PL 20.1).
   b. Entrance Tray (PL 20.1).
3. Remove Lower Chute Assembly (Figure 1).
   a. Open Document Feed Upper Chute.
   b. Loosen screws (2).
   c. Remove Lower Chute Assembly.

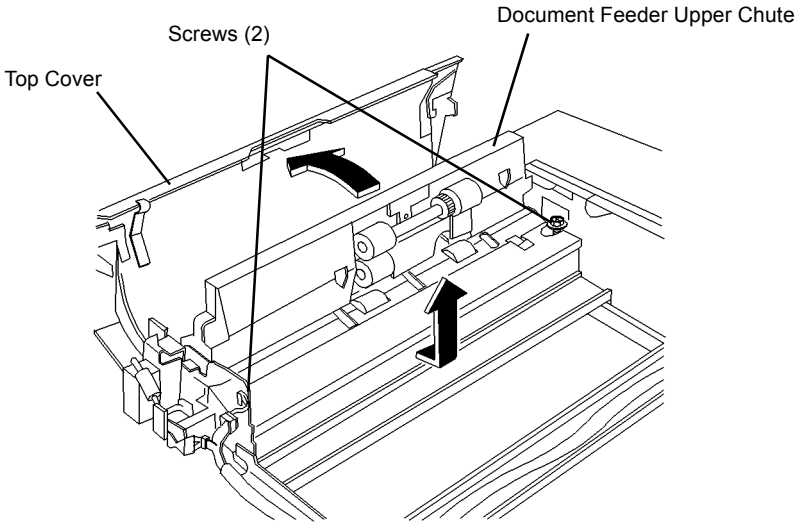


**Figure 1 Removing Lower Chute Assembly**

# REP 5.9 Retard Roll

## Parts List on PL 20.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Top Cover.
2. Remove following:
   a. Front Cover (PL 20.1).
   b. Entrance Tray (PL 20.1).
3. Remove Lower Chute Assembly (REP 5.8).
4. Remove Retard Roll (Figure 1).

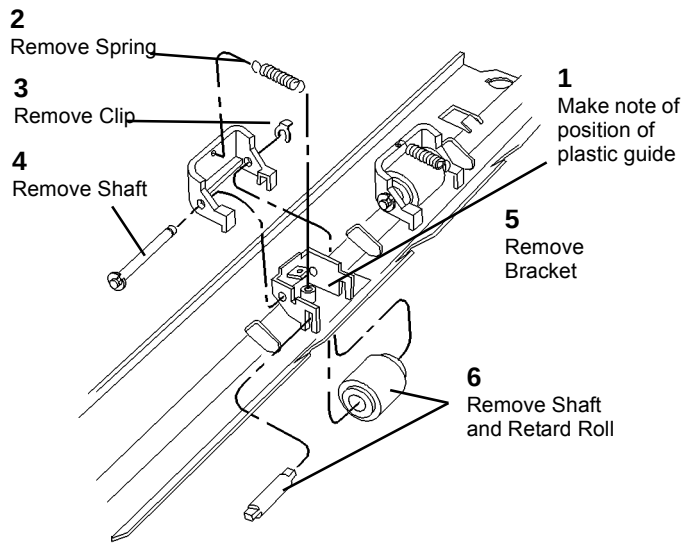


**Figure 1 Removing Retard Roll**

## Replacement

**CAUTION**

*While replacing Retard Roll, make sure that Retard Roll Plastic Guide is in correct position.*

# REP 5.10 Set Gate Solenoid Assembly

## Parts List on PL 20.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Top Cover.
2. Remove following:
   a. Front Cover (PL 20.1).
   b. Entrance Tray (PL 20.1).
3. Remove Lower Chute Assembly (REP 5.8).
4. Remove Set Gate Solenoid Assembly (Figure 1).

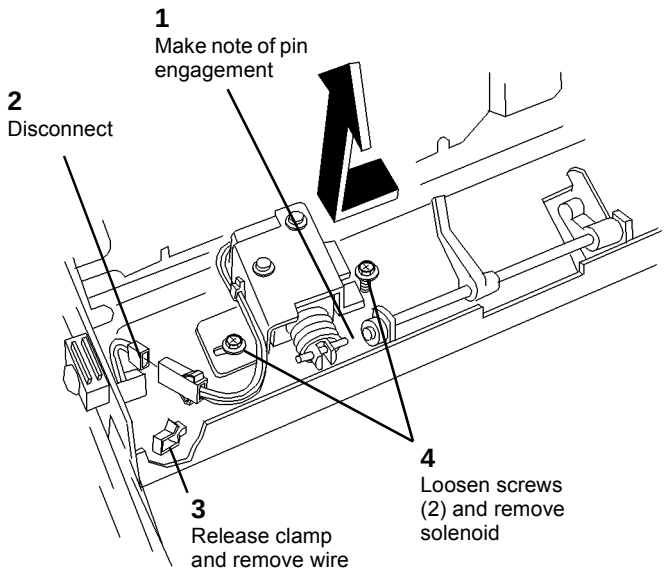


**Figure 1 Removing Set Gate Solenoid Assembly**

## Replacement

1. Engage pin with slot (Figure 2).

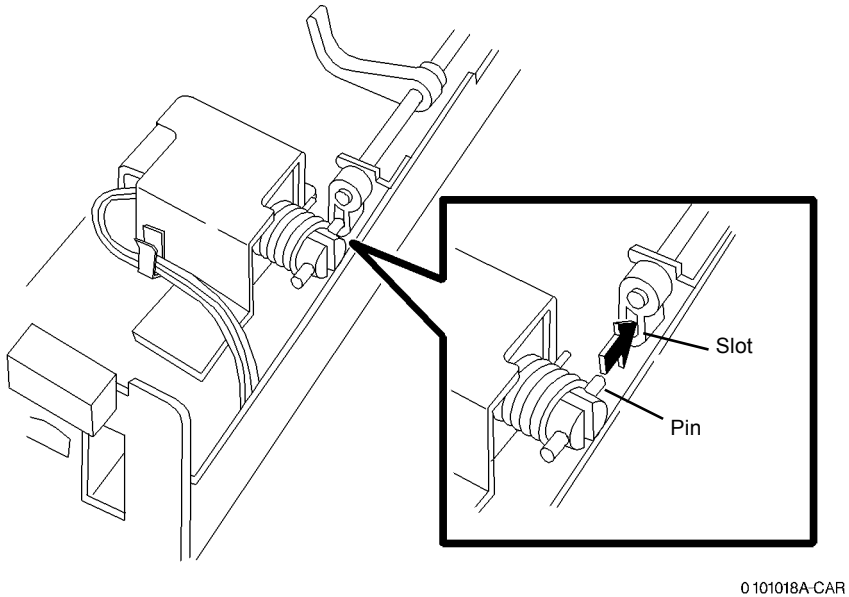


**Figure 2 Engaging Pin with Slot**

2. Install Set Gate Solenoid Assembly (Figure 3)

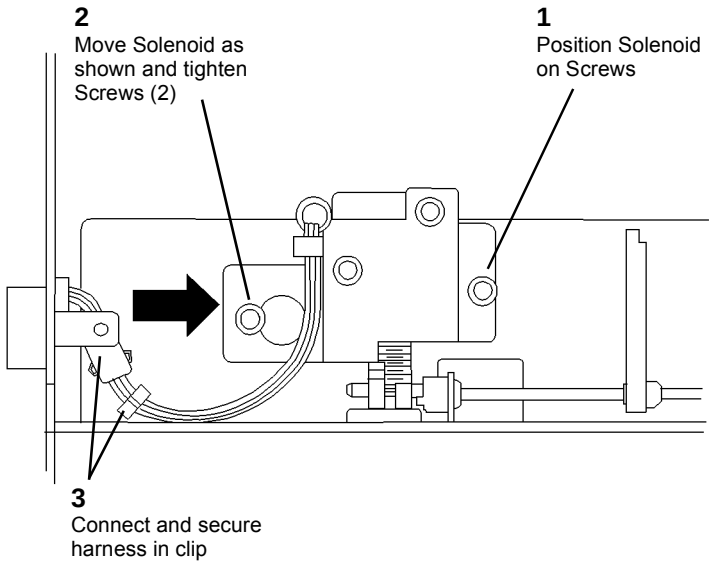


**Figure 3 Installing Set Gate Solenoid Assembly**

# REP 5.11 Registration Sensor

## Parts List on PL 20.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Top Cover.
2. Remove following:
   a. Front Cover (PL 20.1).
   b. Entrance Tray (PL 20.1).
3. Remove Lower Chute Assembly (REP 5.8).
4. Disconnect P/J580 and remove Registration Sensor (Figure 1).

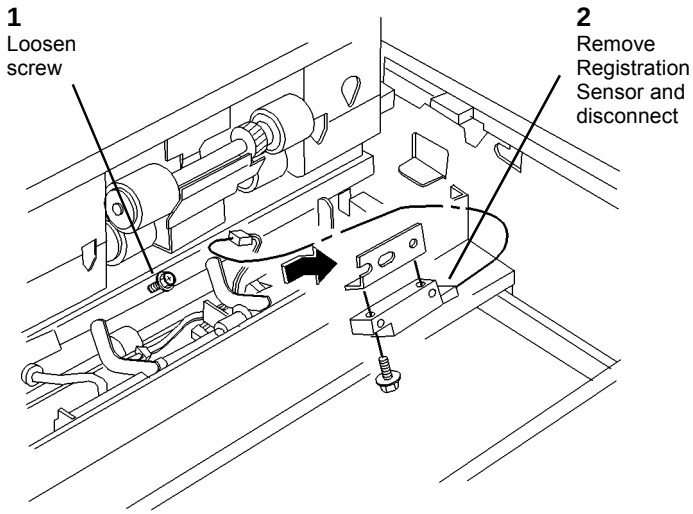


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**Figure 1 Removing Registration Sensor**

## Replacement

1. When installing Registration Sensor align holes with bumps and tighten screw (Figure 2).

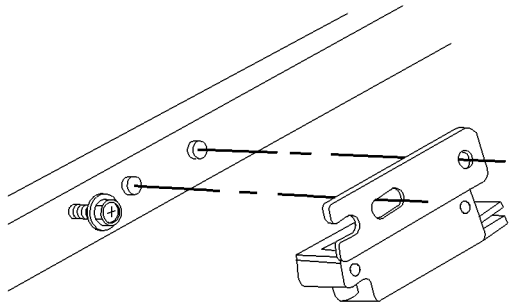

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**Figure 2 Installing Registration Sensor**

# REP 5.12 Size Sensors 1/2 (Rear/Front)

## Parts List on PL 20.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Top Cover.
2. Remove following:
   a. Front Cover (PL 20.1).
   b. Entrance Tray (PL 20.1).
3. Remove Lower Chute Assembly (REP 5.8).
4. Remove Set Gate Solenoid Assembly (REP 5.10).
5. Remove Size Sensors 1/2 (front/rear) (Figure 1).

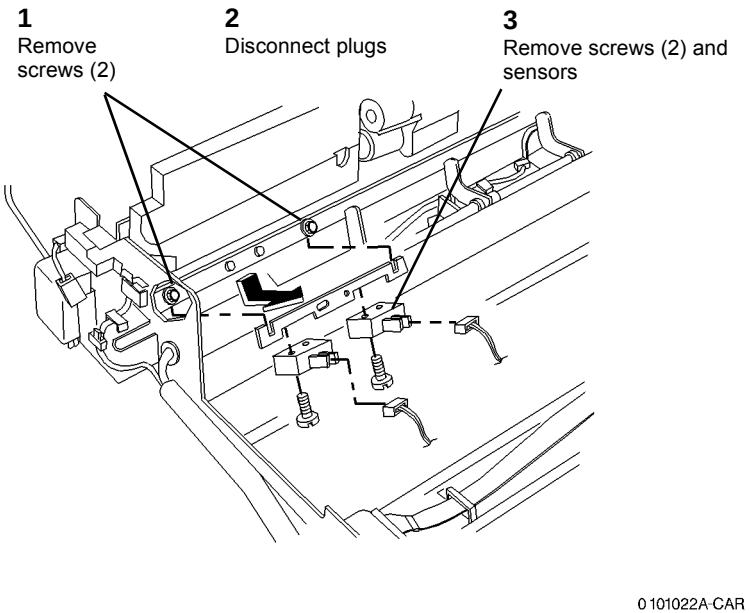


**Figure 1 Removing Size Sensors 1/2**

# REP 5.13 DADF Belt Motor Assembly

## Parts List on PL 20.6

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 5.18).
2. Remove DADF Belt Motor Assembly (Figure 2).

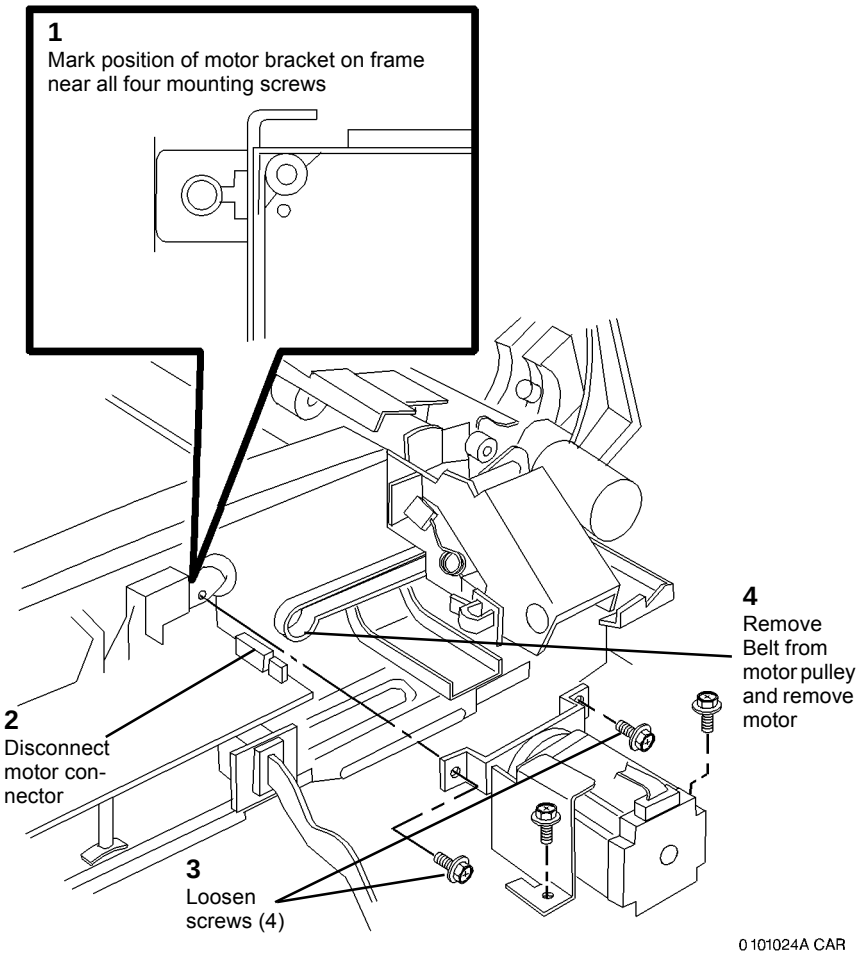


**Figure 1 Removing DADF Belt Motor Assembly**

## Replacement

***NOTE:*** *Align motor bracket with marks on frame before tightening screws.*

# REP 5.14 Duplex Sensor

## Parts List on PL 20.7

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove following:
   a. Front Cover (PL 20.1)
   b. Rear Cover (REP 5.18)
   c. Top Cover (PL 20.2)
2. Loosen screws (2) and remove Feed Motor from mounting (REP 5.5).
3. Remove Duplex Sensor (Figure 1).
   a. Remove screws (2).
   b. Lift Duplex Chute to disengage lower mounts.
   c. Lift rear end of Duplex Chute so that Duplex Sensor is visible. Harness remains connected.
   d. Remove screw and remove Duplex Sensor.

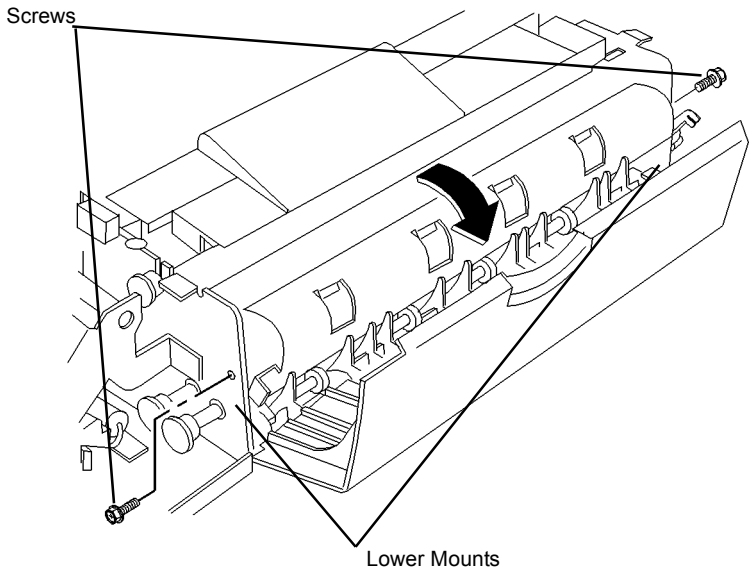


**Figure 1 Removing Duplex Sensor**

# REP 5.15 Registration Pinch Roll

## Parts List on PL 20.8

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

***NOTE:*** *Do not damage or scratch surface of Registration Pinch Roll. (Scratches may cause skewing.)*

1. Remove following:
   a. Front Cover (PL 20.1)
   b. Rear Cover (REP 5.18).
   c. Registration Gate Solenoid (REP 5.2).
2. Remove Gate (Figure 1).

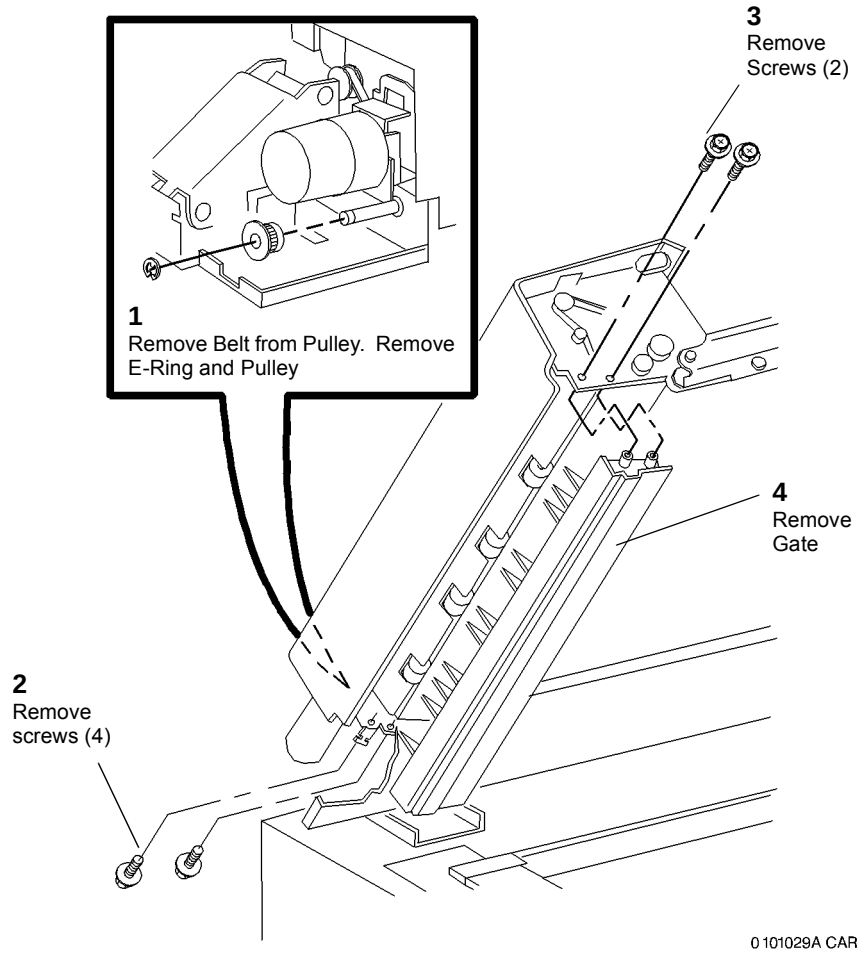


**Figure 1 Removing Gate**

3. Remove Gate (Figure 2).

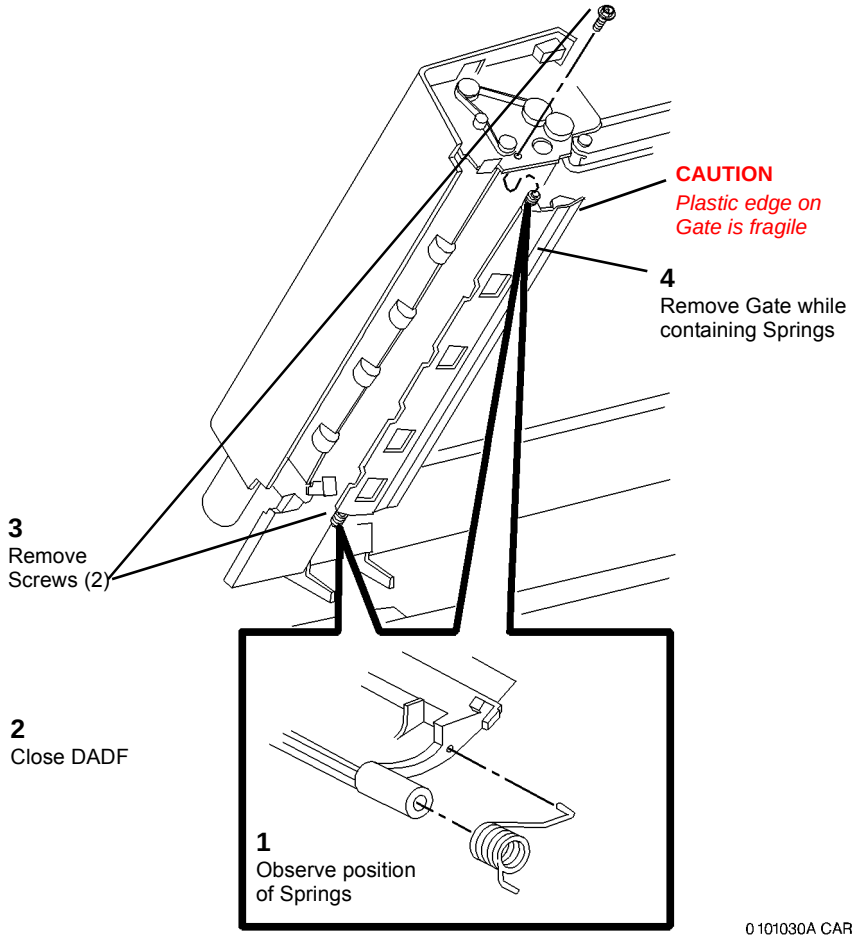


**Figure 2 Removing Gate**

4. Remove Registration Pinch Roll (Figure 3).

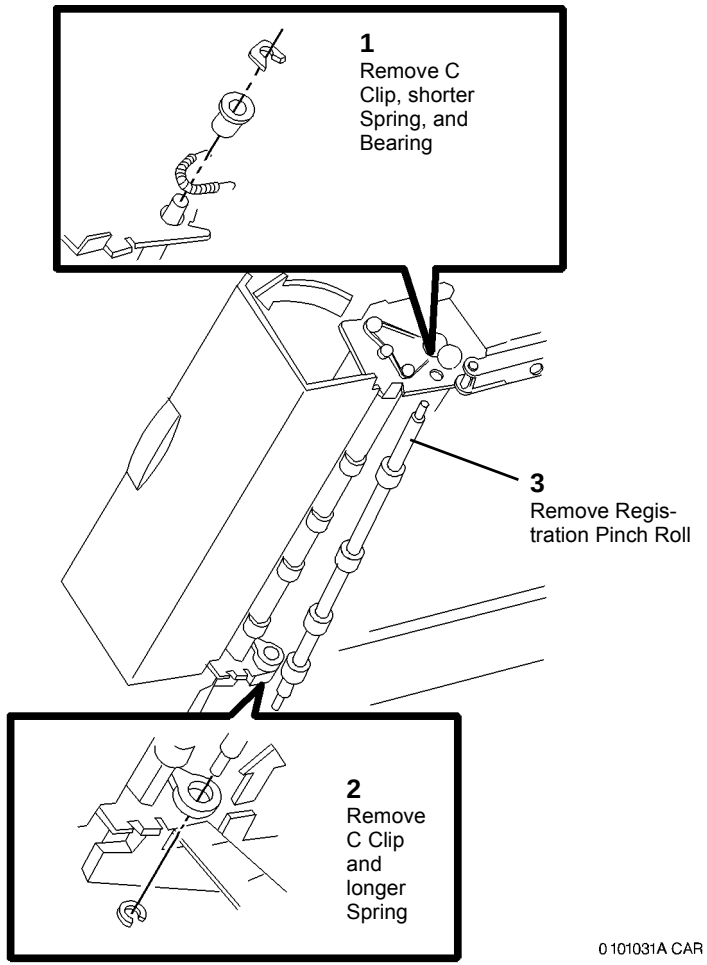


**Figure 3 Removing Registration Pinch Roll**

# REP 5.16 Exit Motor Assembly

## Parts List on PL 20.9

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 5.18).
2. Remove Exit Motor Assembly (Figure 1).
   a. Disconnect connector.
   b. Release clamps (2) and remove wire.
   c. Loosen screws (2).
   d. Remove belt.
   e. Remove Exit Motor Assembly.

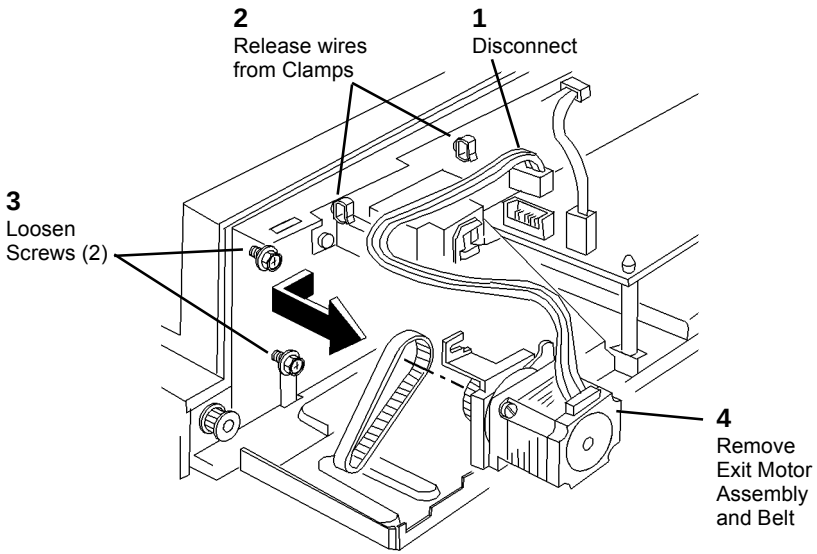


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**Figure 1 Removing Exit Motor Assembly**

## Replacement

***NOTE:*** *Belt should be tight but not stretched before tightening motor mounting screws* (Figure 2).

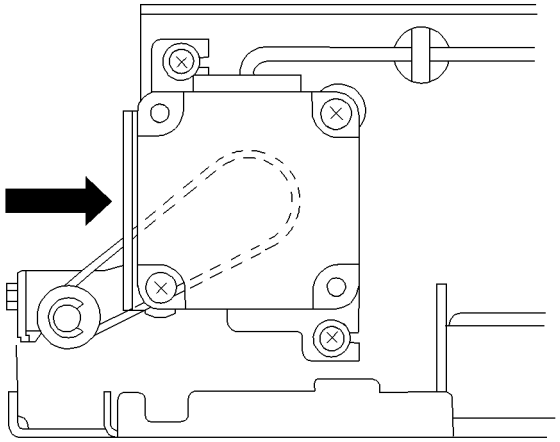

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**Figure 2 Tightening Exit Motor Assembly Mounting Screws**

# REP 5.17 Document Transport

## Parts List on PL 20.10

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (PL 20.1).
2. Remove Document Transport (Figure 1).
   a. Loosen screws (3).

**CAUTION**

*Document Handler rises quickly after lowering when Document Transport is removed.*

   b. Support bottom of Document Transport and remove it by pulling up and off mounting screws.

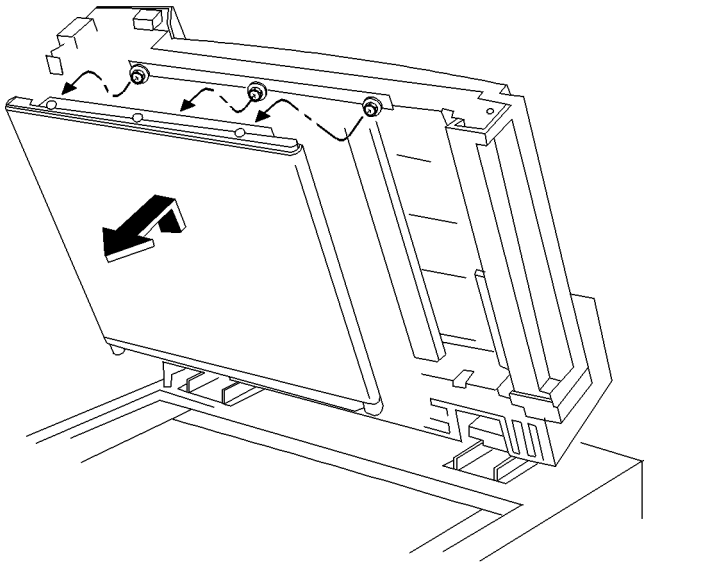



**Figure 1 Removing Document Transport**

# REP 5.18 Rear Cover

## Parts List on PL 20.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*LED harness breakage occurs if Rear Cover is removed without disconnecting LED plug*

1. Loosen Screws (3) and remove Rear Cover enough to disconnect LED harness from DADF Control PWB.

# REP 5.19 Platen Belt

## Parts List on PL 20.10

## Removal

**WARNING**

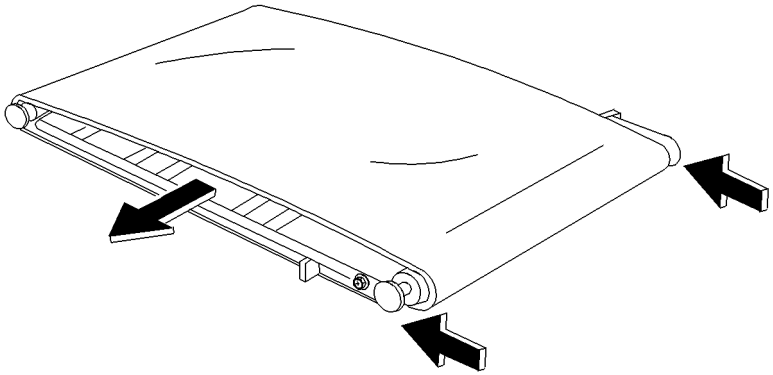
**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

***NOTE:*** *After replacing Platen Belt, reset HFSI counter. Enter DC135 HFSI Counters Diag. Screen (NVM 005-805).*

**WARNING**

**Switch off the power and disconnect power cord.**

1. Remove Front Cover (PL 20.1).
2. Remove Document Transport (REP 5.17).
3. Remove Platen Belt (Figure 2).
   a. Loosen screws (2).
   b. Move shaft support in direction of arrow.
   c. Remove Platen Belt.

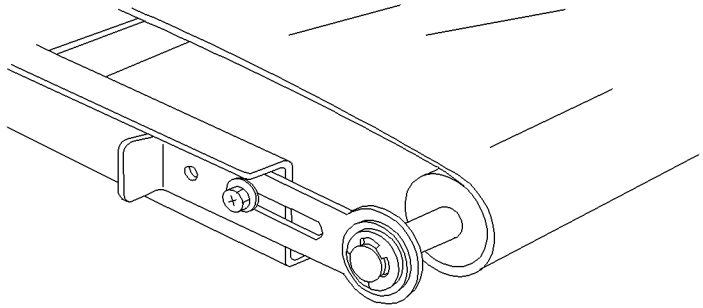


0 101035A-CAR

**Figure 1 Removing Platen Belt**

## Replacement

***NOTE:*** *Lock shaft support by matching hole with frame's detent (Figure 3).*



0 101036A-CAR

**Figure 2 Lock shaft support**

***NOTE:*** *Make sure that both sides of Platen Belt are correctly set in pulley (Figure 4).*

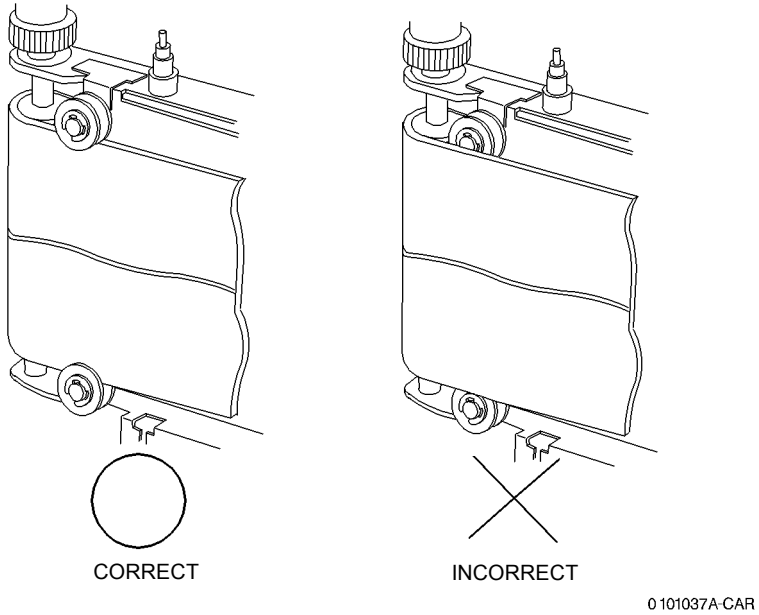



**Figure 3 Install Platen Belt**

1. Connect power cord and switch on power.
2. Enter DC330 [5-055]. Press START button and press the Stop button in 15 seconds. Check the belt position. If the belt has moved to either side,
3. Rotate Platen Belt for 15 seconds. Press STOP button. Check the Belt position. If the belt moved to either side, check the installation of the Shaft Supports.

# REP 6.1 ROS

## Parts List on PL 3.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Right Cover (REP 14.3).
2. Remove Rear Cover (REP 14.2).

**CAUTION**

*Image quality defects result if covers on ROS cleaning openings are removed.*

3. Remove ROS (Figure 1).
   a. Carefully observe position of wiring harness for later reinstallation.
   b. Remove Harness from Harness Clips.
   c. Disconnect Harness P/Jís (2).
   d. Remove Screws (2).
   e. Pull out ROS to remove it.

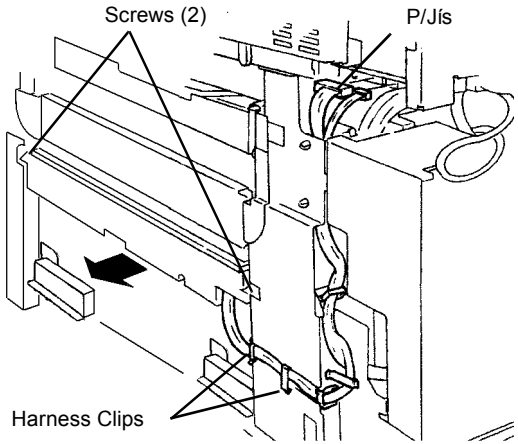



**Figure 1 Removing ROS**

## Replacement

After machine reassembly perform following:

1. DC956 Belt Edge.
2. DC685 Color Registration Control (ADJ 9.6).

# REP 6.2 Platen Glass

## Parts List on PL 18.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open DADF.
2. Remove Platen Glass (Figure 1).

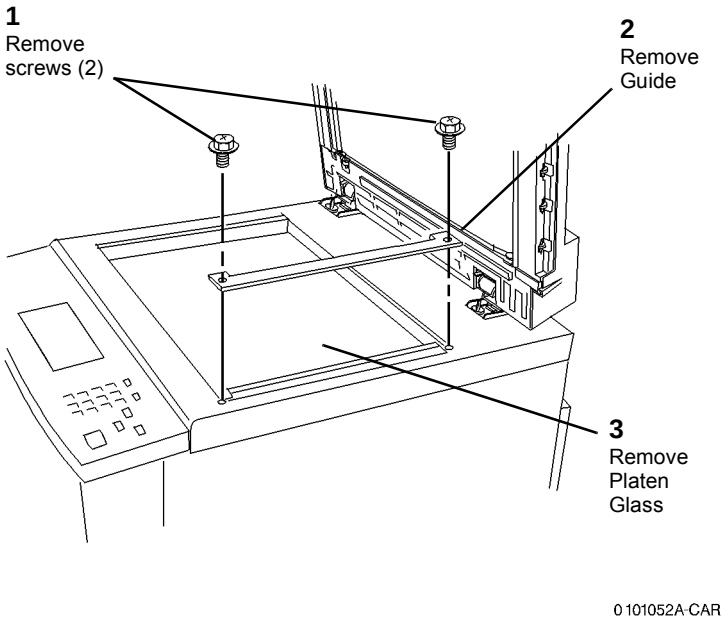



**Figure 1 Removing Platen Glass**

## Replacement

***NOTE:*** *Press Platen Glass in direction of arrow A; Press Right Side Plate in direction of arrow B (Figure 2).*

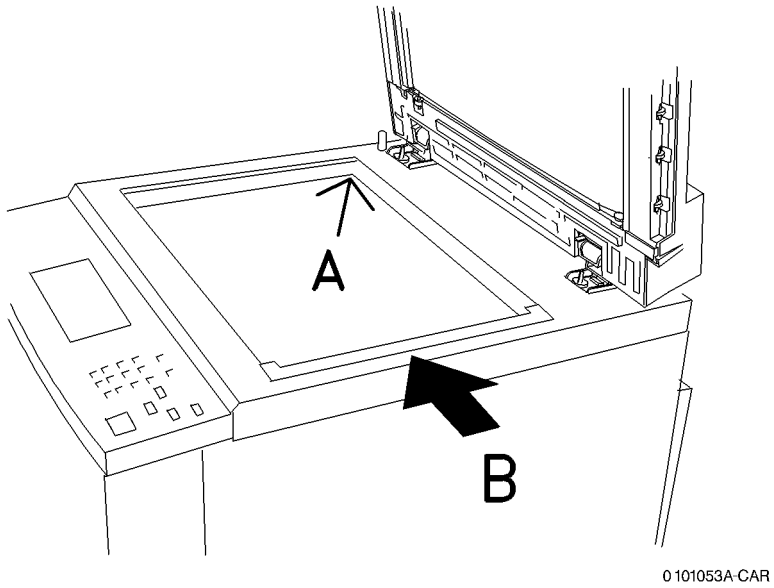



**Figure 2 Positioning Platen Glass**

# REP 6.3 IIT Top Cover

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove DADF (REP 5.1).
2. Remove Screws (2) from top front of IIT Top Cover.
3. Loosen Screws (2) under Control Panel, each end.
4. Remove Screw from rear of IIT Top Cover, left side.
5. Remove Document Output Tray.
6. Remove Document Output Tray support bracket Screws (4) and Brackets (2).
7. Lift IIT Top Cover to access harness connectors (2). Disconnect P/Jís and remove IIT Top Cover.

# REP 6.4 Lens Kit

## Parts List on PL 18.4

## Removal

1. Remove Platen Glass (REP 6.2).

**CAUTION**

*In the following, do not remove any red screws.*

2. Remove the Lens/CCD Chassis (Figure 1).
   a. Mark the position of the APS Sensor bracket.
   b. Remove the Screw (1) and the APS Sensor with bracket.
   c. Remove Lens Cover Screws (6) and Lens Cover.
   d. Disconnect CCD Connector (not shown).
   e. Remove Lens/CCD Chassis Screws (4) and remove Lens/CCD Chassis.

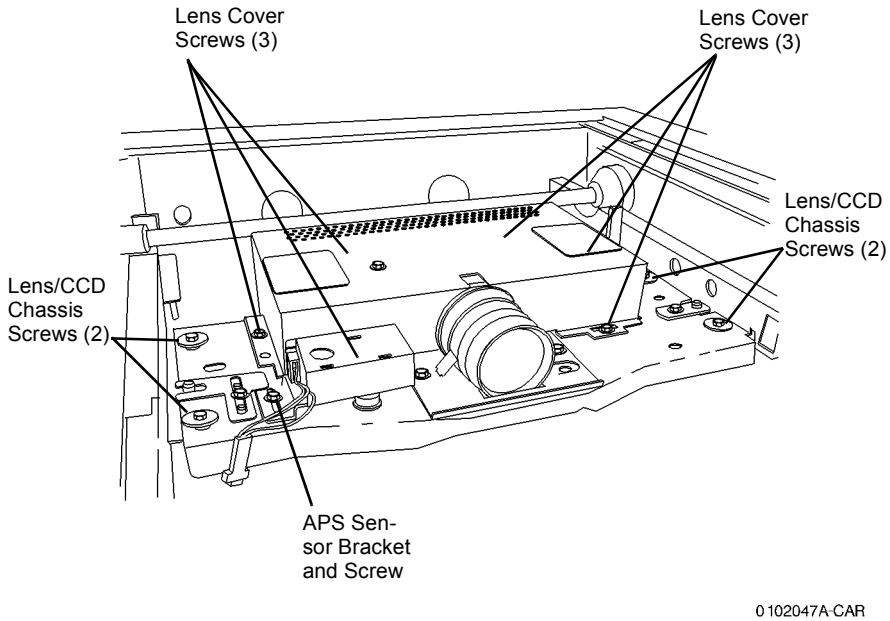



**Figure 1 Removing Lens Cover**

## Replacement

***NOTE:*** *Align APS Sensor with marks made in step 2a before tightning screw.*

***NOTE:*** *Perform DC945 IIT Calibration (ADJ 9.7).*

# REP 6.11 Carriage Cables

## Parts List on PL 18.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

***NOTE:*** *This page describes how to remove Rear Carriage Cable.*

***NOTE:*** *Do not replace both cables at same time. Remove front and rear cables separately.*

1. Remove DADF (REP 5.1).
2. Remove Platen Glass (REP 6.1).
3. Remove IIT Top Cover (REP 6.3).
4. DADF machines: Remove registration gate and plate (Figure 1).
   a. 1. Remove screws (2).
   b. 2. Remove Registration Gate.
   c. 3. Remove screws (2).
   d. 4. Remove plate.

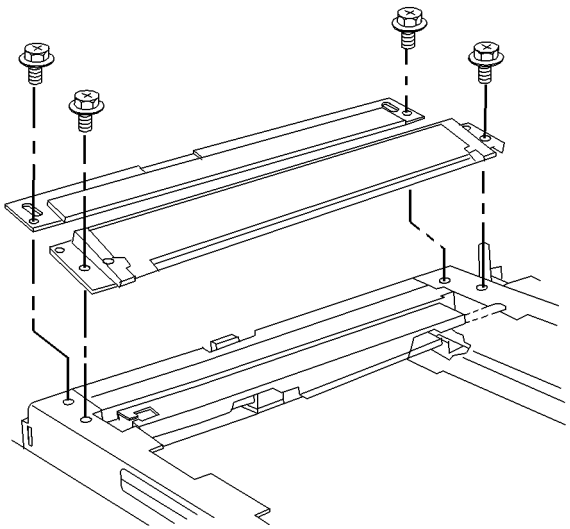


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**Figure 1 Removing Registration Gate and Plate**

5. Remove Full Rate Carriage from IIT Frame (REP 6.14). Keep lamp wire harness connector connected.
6. Move Half Rate Carriage so that position of Carriage Cable Ball on Capstan is one of following: (Figure 2).
   - ï Two Carriage Cable Rolls in front and rear.
   - ï Carriage Cable Ball is directly above.

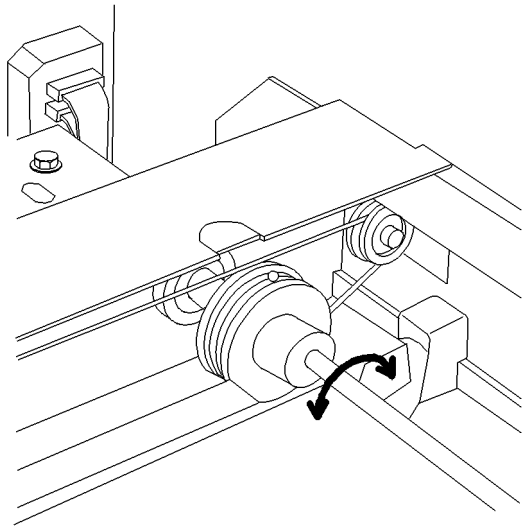

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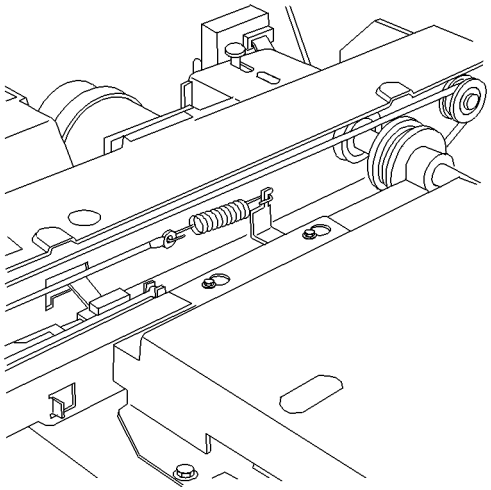
**Figure 2 Positioning Half Rate Carriage**

7. Remove Carriage Cable (Figure 3).
   a. Remove spring.
   b. Separate spring and cable.
   c. Pull out ball from hole.
   d. Remove cable.



0 101064A-CAR

**Figure 3 Removing Carriage Cable**

## Replacement

1. Wind Carriage Cable into pulley (Figure 4).
   a. Insert Carriage Cable Ball into groove of pulley.

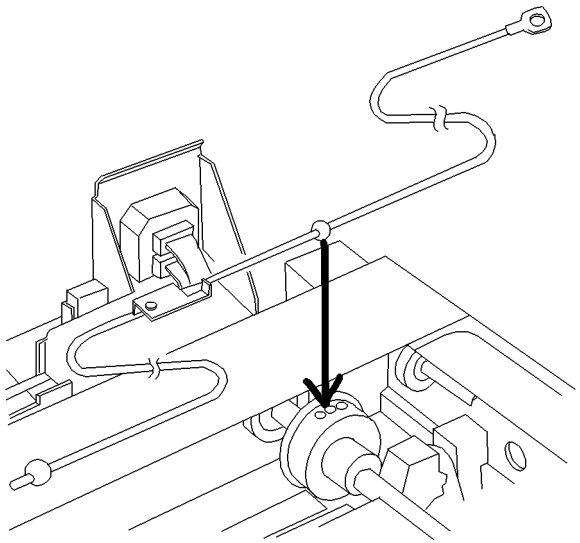


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**Figure 4 Winding Carriage Cable**

b. Wind cable (spring hook side) onto pulley for 2.5 turns. Tape and lock cable (on spring hook) on frame (Figure 5).

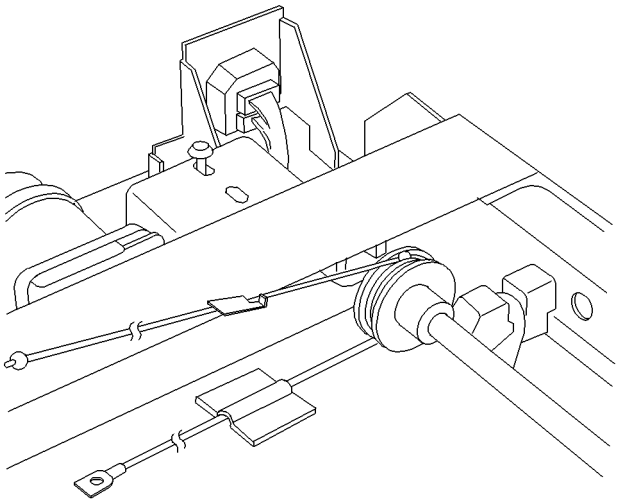

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**Figure 5 Locking Cable**

c. Wind cable (ball side) onto pulley for 2.4 turns. Tape and lock cable wound on pulley (Figure 6).

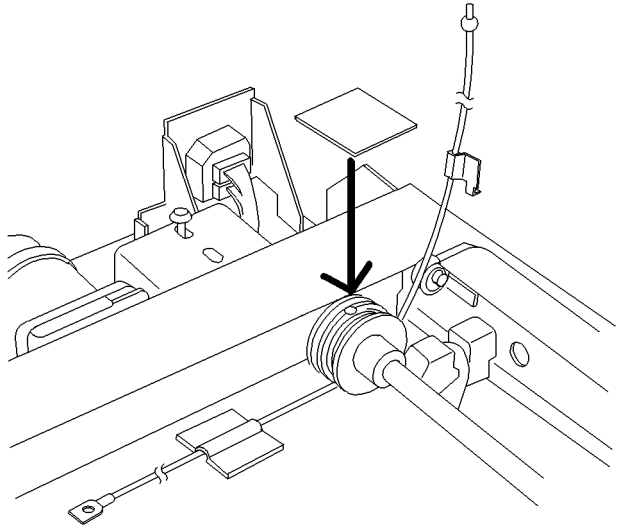

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**Figure 6 Locking Cable**

d. Check orientation of ends and number of carriage cable windings (front/rear) (Figure 7). Reconfigure as required.

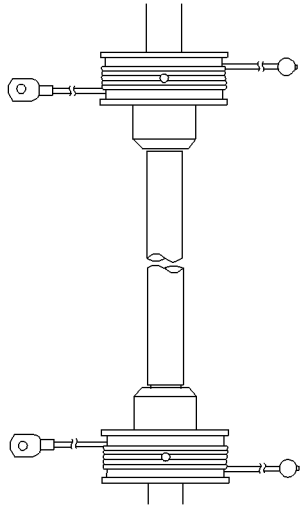

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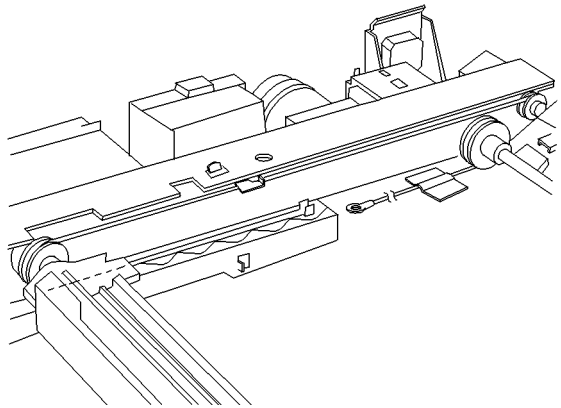
**Figure 7 Carriage Cable Windings**

2. Install Carriage Cable (ball side) (Figure 8).
   a. Hook cable to pulley (from bottom to top).
   b. Hook cable to large pulley in Half Rate Carriage (from top to bottom).
   c. Insert ball into frame hole.



0101069A-CAR

**Figure 8 Installing Carriage Cable (ball side)**

3. Install Carriage Cable (spring hook side) (Figure 9).
   a. Hook cable to pulley (from bottom to top).
   b. Hook cable to small pulley in Half Rate Carriage (from bottom to top).
   c. Hook cable to stud (from bottom to top).
   d. Install spring on cable (spring hook side).
   e. Hook spring onto frame.
4. Remove tape from cable.
5. Install Full Rate Carriage in IIT Frame.
6. Adjust positions of Full Rate/Half Rate Carriages (ADJ 6.1).
7. Manually move Full Rate Carriage to make sure it moves smoothly.
8. Install remaining parts.

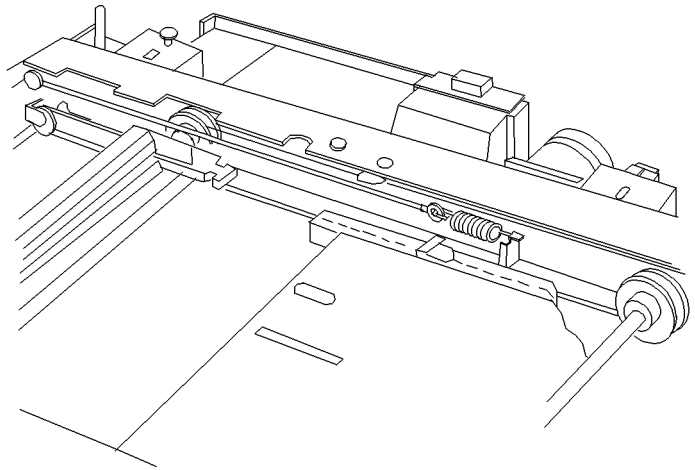


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**Figure 9 Installing Carriage Cable (spring hook side)**

# REP 6.12 Carriage Motor

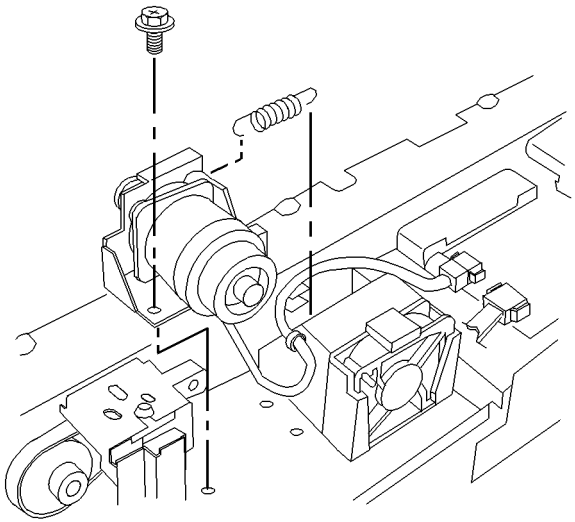
## Parts List on PL 18.5

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove DADF (REP 5.1).
2. Remove Platen Glass (REP 6.2).
3. Remove IIT Top Cover (REP 6.3).
4. Remove Carriage Motor (Figure 1).
   a. Release clamps (2).
   b. Disconnect connector.
   c. Remove screws (3).
   d. Remove spring.
   e. Remove Carriage Motor.



0101071A-CAR

**Figure 1 Removing Carriage Motor**

# REP 6.13 Exposure Lamp

## Parts List on PL 18.6

## Removal

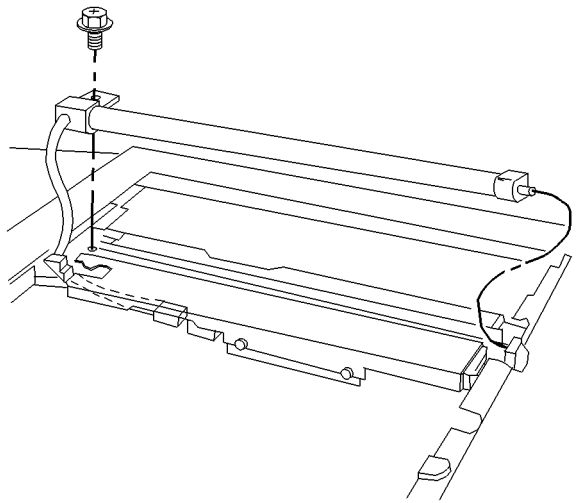
**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*Avoid touching exposure lamp with your bare hands during removal or installation. Oil from your hands will contaminate surface of lamp.*

1. Open DADF (REP 5.1).
2. Remove Platen Glass (REP 6.2).
3. Move Full Rate Carriage to frame notch.
4. Remove Exposure Lamp (Figure 1).
   a. Disconnect connector.
   b. Remove screw.
   c. Remove Exposure Lamp.



0101072A-CAR

**Figure 1 Removing Exposure Lamp**

# REP 6.14 Lamp Wire Harness

## Parts List on PL 18.6

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove DADF (REP 5.1).
2. Remove Platen Glass (REP 6.2).
3. Remove IIT Top Cover (REP 6.3).
4. Disconnect Lamp Wire Harness connector and release Clamp Hook (Figure 1).
   a. Disconnect connector.
   b. Release clamp.
   c. Remove clamp.
   d. Release hook.

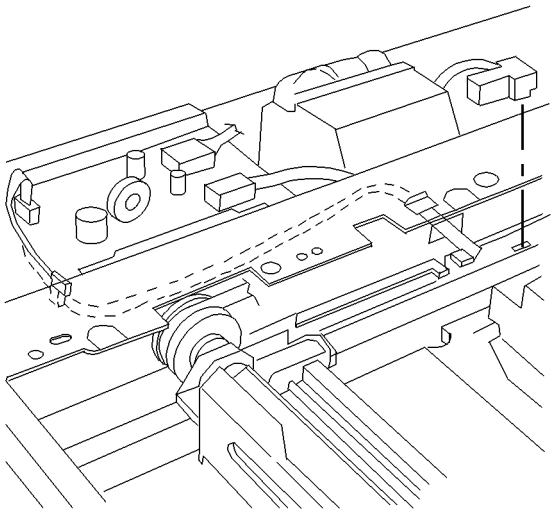


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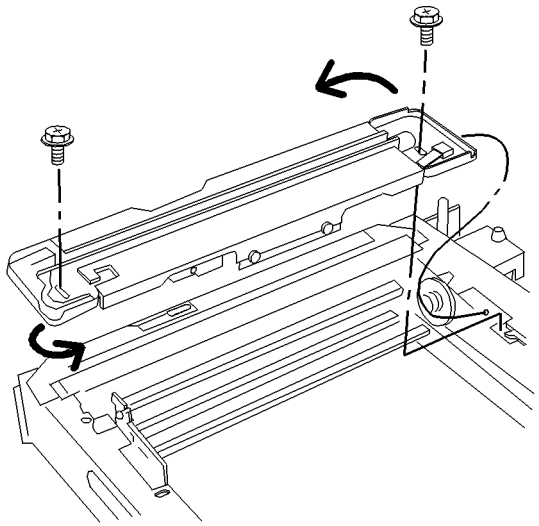
**Figure 1 Disconnecting Lamp Wire Harness**

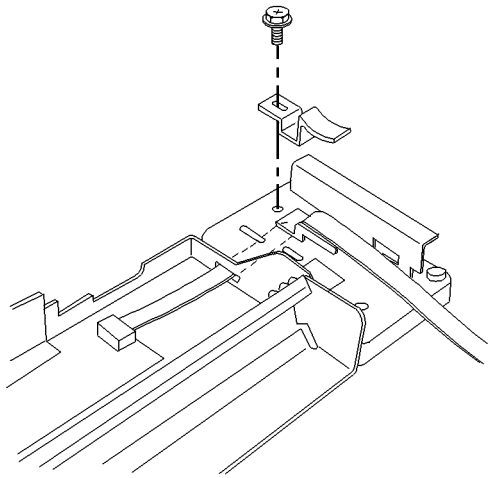
5. Remove Full Rate Carriage (Figure 2).
   a. Remove screws (2).
   b. Remove Full Rate Carriage.



0 101074A-CAR

**Figure 2 Removing Full Rate Carriage**

6. Remove Lamp Wire Harness from Full Rate Carriage (Figure 3).
   a. Flip Full Rate Carriage.
   b. Remove screw.
   c. Remove guide.
   d. Disconnect connector.
   e. Remove Lamp Wire Harness.



0101075A-CAR

**Figure 3 Removing Lamp Wire Harness**

## Replacement

***NOTE:*** *After reinstalling parts, adjust positions of Full Rate/Half Rate Carriages (ADJ 6.1).*

# REP 7.1 Tray 5

## Parts List on PL 2.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Power Switch Cover (REP 14.6).
3. Remove Upper Rear Left Cover (REP 14.4).
4. Close Left Door Transport.
5. Remove Tray 5 (Figure 1).
   a. Observe position of harness for later reinstallation.
   b. Disconnect Tray 5 connector.
   c. Disconnect harness Clip from frame.
   d. Remove Screws (2).
   e. Pull out Tray 5 while applying a small amount of lifting force to right side.

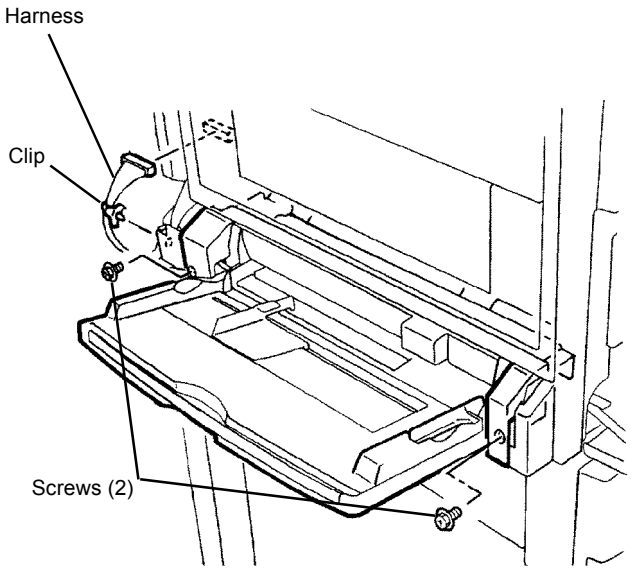



**Figure 1 Removing Tray 5**

## Replacement

**CAUTION**

*Duplex Paper Guide must be in up position before installing Tray 5.*

1. Open Left Door Transport. Pivot and hold Duplex Paper Guide against Left Door Transport and then close Left Door Transport.
2. Install Tray 5.

# REP 7.2 Tray 5 Feed Roll

## Parts List on PL 2.14

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Power Switch Cover (REP 14.6).
3. Remove Upper Rear Left Cover (REP 14.4).
4. Close Left Door Transport.
5. Remove Tray 5 (REP 7.1).
6. Remove Chute (Figure 1).
   a. Remove Screws (3).
   b. Lift to remove Chute.

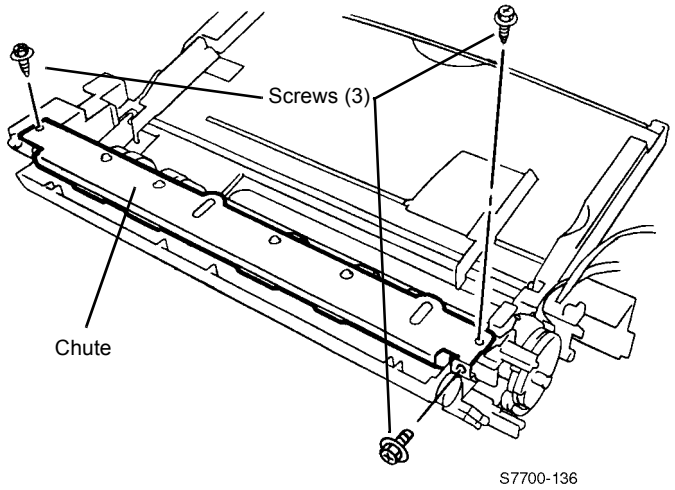



**Figure 1 Removing Chute**

7. Remove Feed Roll (Figure 2).
   a. Release Locking Tab from groove on shaft and slide Lock Roll away from Feed Roll.
   b. Slide Feed Roll to disengage drive pin and remove Feed Roll.

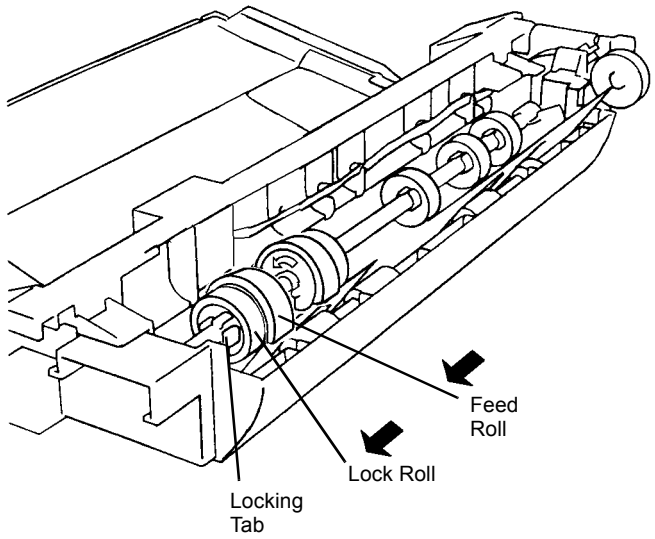



**Figure 2 Removing Feed Roll**

## Replacement

Ensure Arrow is positioned as shown (Figure 3).

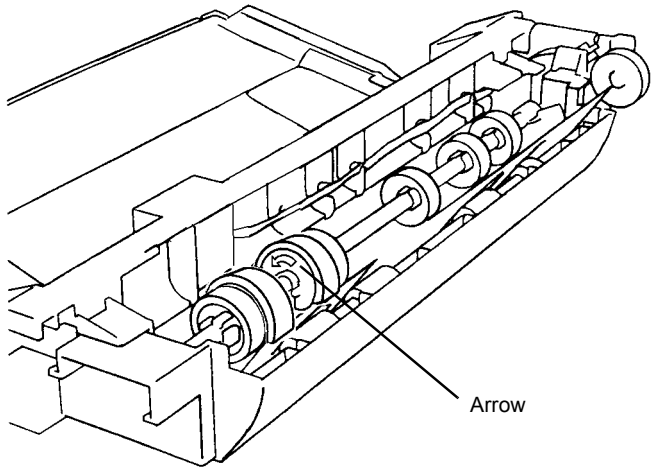



**Figure 3 Installing Feed Roll**

# REP 7.3 Tray 1 Feeder

## Parts List on PL 2.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Pull out Tray 1 to paper loading position.
2. Open Tray 1 Left Door.
3. Remove Tray 1 Feeder (Figure 1).

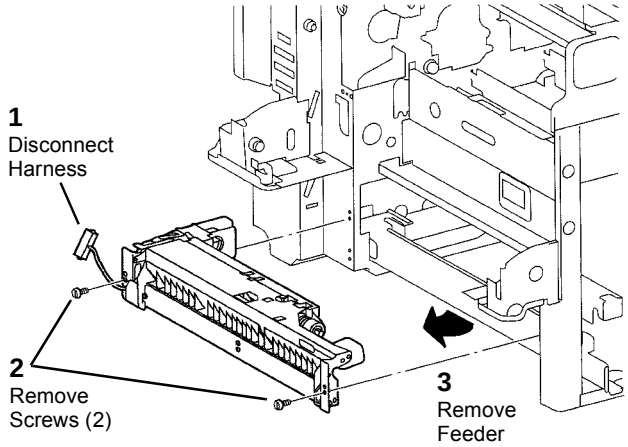



**Figure 1 Removing Tray 1 Feeder**

# REP 7.4 Tray 1 Feed/Lift Motor

## Parts List on PL 2.4

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Pull out Tray 1 to paper loading position.
2. Open Tray 1 Left Door.
3. Remove Tray 1 Feeder (REP 7.3).
4. Remove Tray 1 Feed Motor (Figure 1).

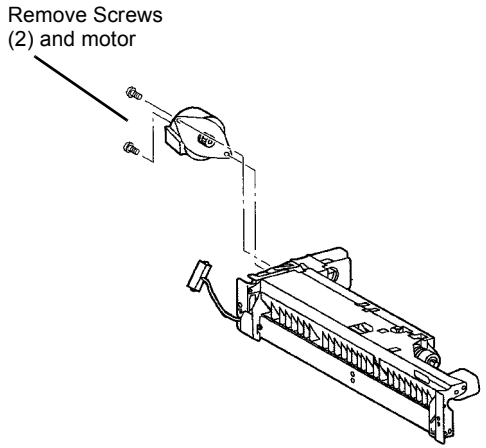



**Figure 1 Removing Tray 1 Feed Motor**

# REP 7.5 Tray 1 Paper Size Sensor

## Parts List on PL 2.1

## Removal

### WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove High Voltage Power Supply Chassis (REP 1.6).

***NOTE:*** *Step 3 can be omitted if Low Voltage Power Supply P/Jís are disconnected before performing step 4.*

3. Remove 3.3 VDC and 5 VDC Low Voltage Power Supply (REP 1.4).
4. Remove Chassis for 3.3 VDC and 5 VDC Low Voltage Power Supply.
   a. Release harnesses from harness clips (3).
   b. Remove screws (4) and remove Chassis.
5. Remove Developer Drive Module (REP 4.3).
6. Remove Tray 1 Paper Size Switch (Figure 1).
   a. Disconnect P/J.
   b. Remove Screws (2) and remove Tray 1 Paper Size Switch.

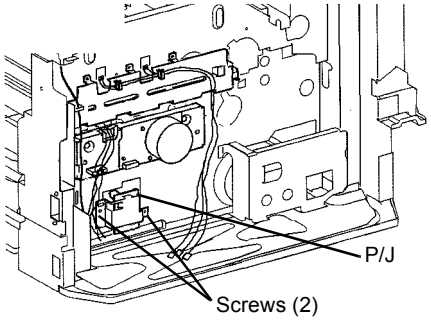



**Figure 1 Removing Tray Paper Size Switch**

# REP 7.6 Tray 3

## Parts List on PL 16.1

## Removal

### WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open HCF Left Door.
2. Remove Tray 3 (Figure 1).
   a. Pull out Tray 3.
   b. Remove Screw.
   c. Pivot bottom of Tray Lock away from Tray 3 and pull out Tray 3 to remove it.

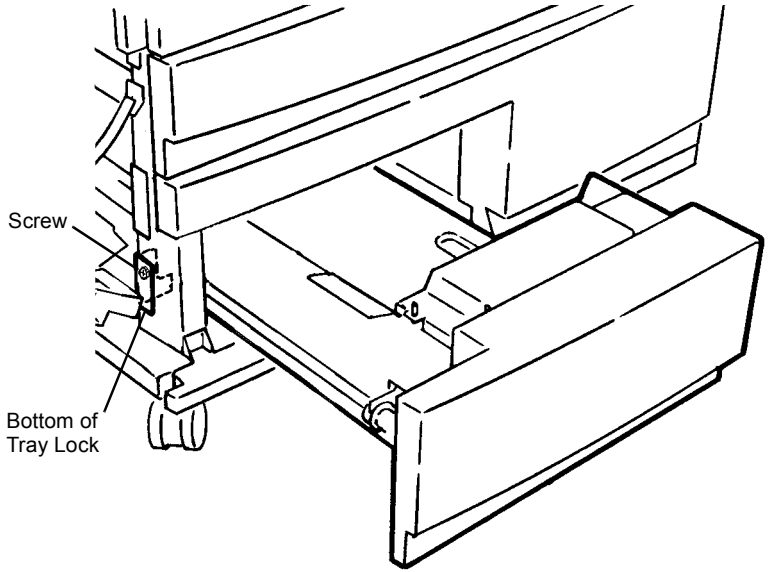



**Figure 1 Removing Tray 3**

# REP 7.7 Tray 4

## Parts List on PL 16.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Pull out Tray 4.
2. Remove Tray 4 (Figure 1).
   a. Pull out Tray 4.
   b. Remove Transport Screws (2).
   c. Remove Tray Lock Screws (2).
   d. Remove Tray Lock.
   e. Pull out Tray 4 to remove it.

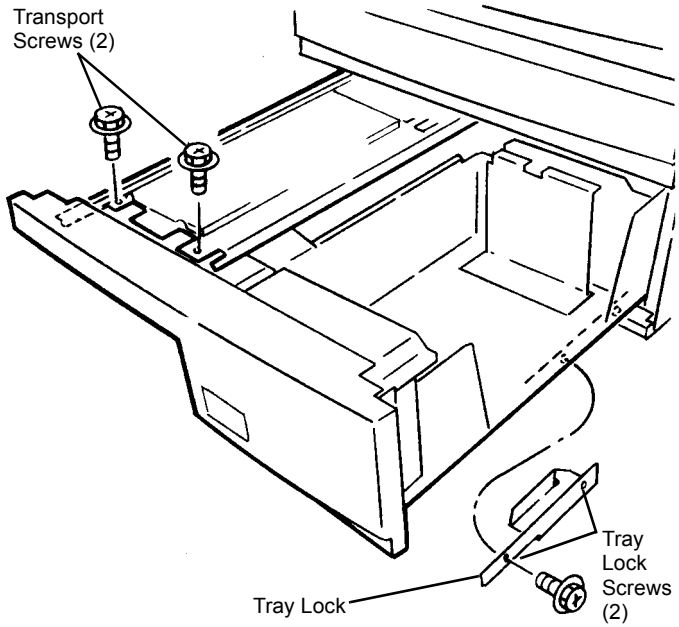



**Figure 1 Removing Tray 4**

# REP 7.8 Tray 1

## Parts List on PL 2.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Pull out Tray 1.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.

# REP 7.9 Tray 2

## Parts List on PL 16.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Pull out Tray 2.
2. Lift end of tray to disengage lock on rail (not visible) and remove tray.

# REP 7.10 Tray 2 Feeder

## Parts List on

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Pull out Tray 2.
2. Remove the Left Lower Cover. (PL 16.16)
3. Remove the Tray 2 Feeder (Figure 1).

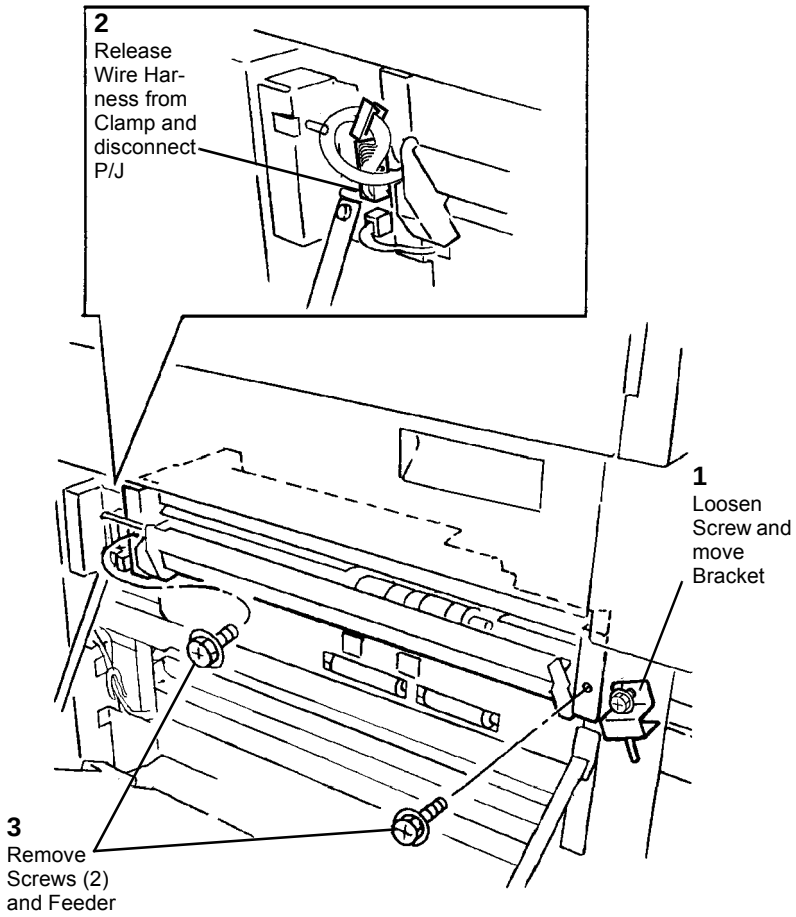



**Figure 1 Removing the Tray 2 Feeder**

# REP 7.11 Tray 3 Feeder

## Parts List on

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Tray 2.
2. Pull out Tray 3 and Tray 4.
3. Open the Left Cover.
4. Remove the Lower Chute.
5. Remove the Tray 3 Feeder Assembly (Figure 1).

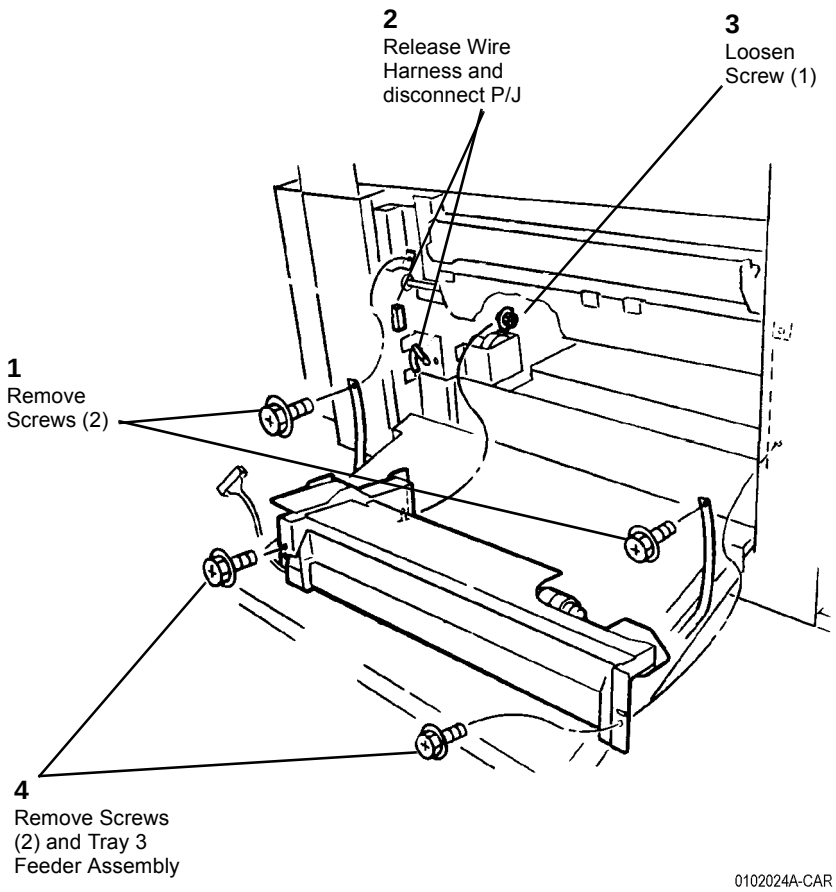



**Figure 1 Removing the Tray 3 Feeder Assembly**

6. Remove the Tray 3 Feeder from mounting bracket (Figure 2).

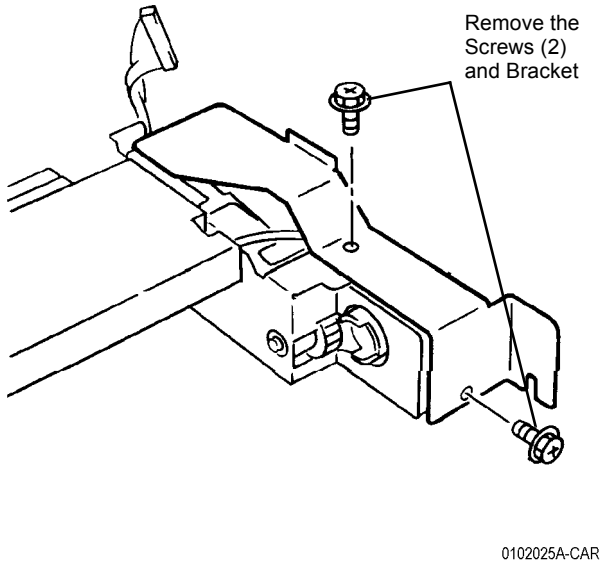



**Figure 2 Removing Tray 3 Feeder from Bracket**

# REP 7.12 Tray 4 Feeder

## Parts List on

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Tray 2.
2. Pull out the Tray 3/4.
3. Remove the Stud Bracket (Figure 1).

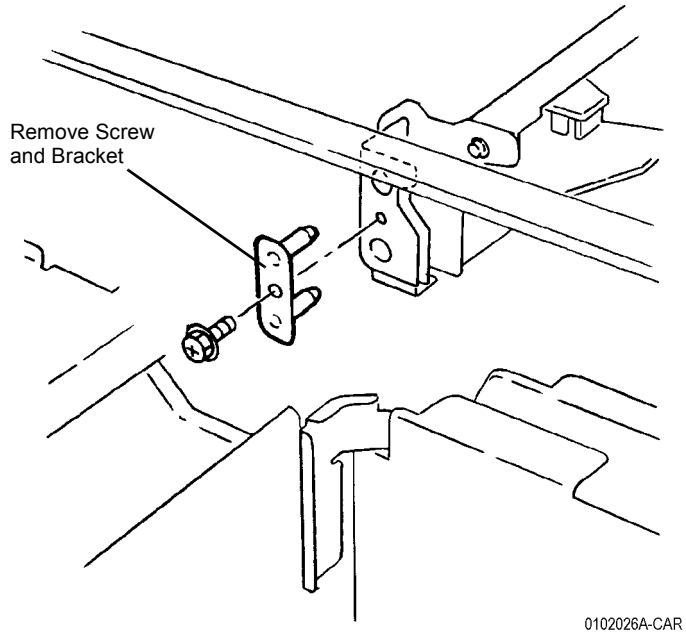



**Figure 1 Removing Stud Bracket**

4. Remove the Tray 4 Feeder Assembly (Figure 2).

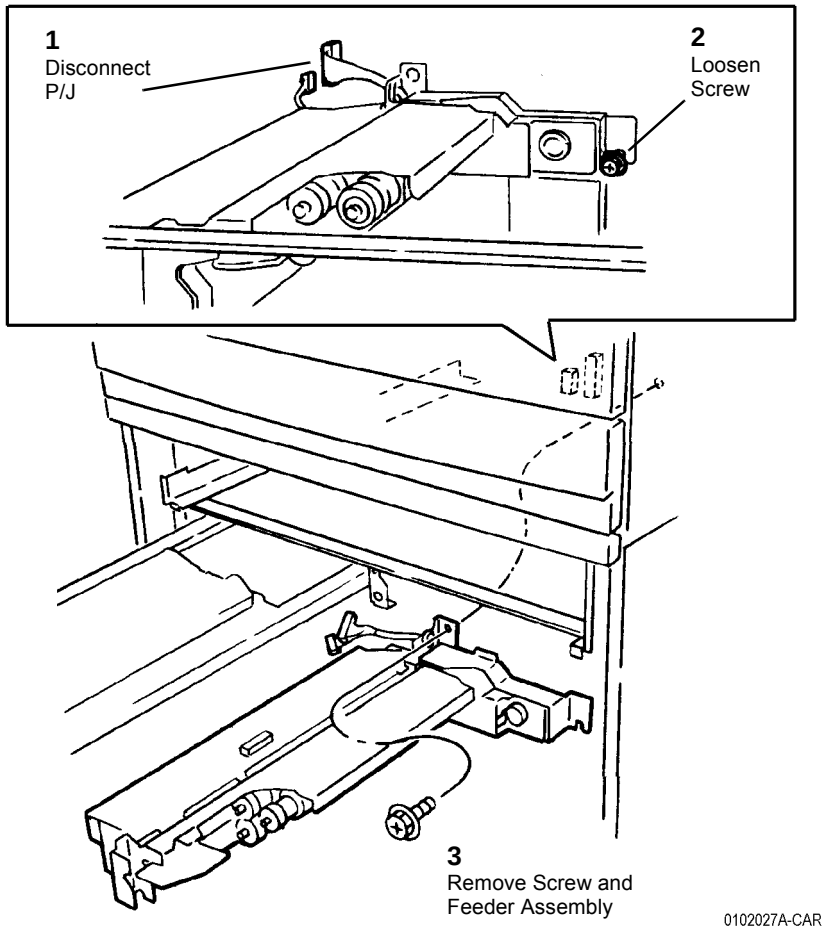



**Figure 2 Removing the Tray 4 Feeder Assembly**

5. Remove the Tray 4 Feeder Guides (Figure 3).

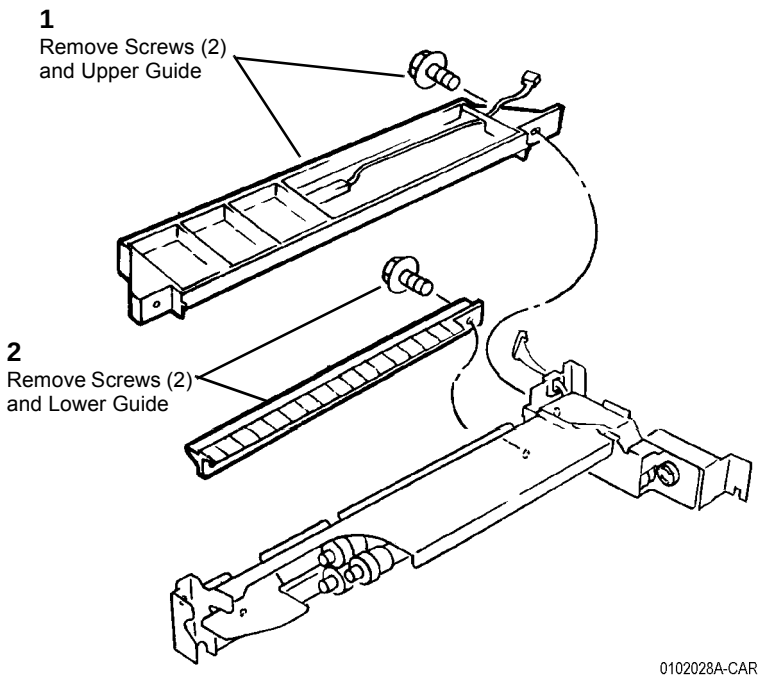



**Figure 3 Removing the Guides**

6. Remove Brackets from Tray 4 Feeder Assembly (Figure 4).

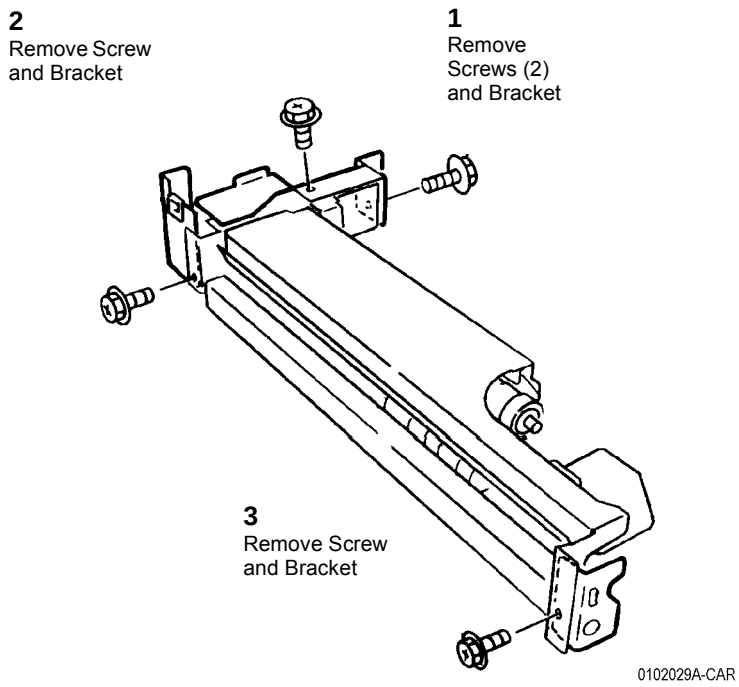



**Figure 4 Removing the Brackets**

# REP 8.1 Left Cover Assembly

## Parts List on PL 2.9

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Power Switch Cover (REP 14.6).
3. Remove Upper Rear Left Cover (REP 14.4).
4. Close Left Cover Assembly.
5. Remove Tray 5 (REP 7.1).
6. Remove Fuser Front Cover (REP 14.8).
7. Disconnect Electrical Connectors (3) (Figure 1).

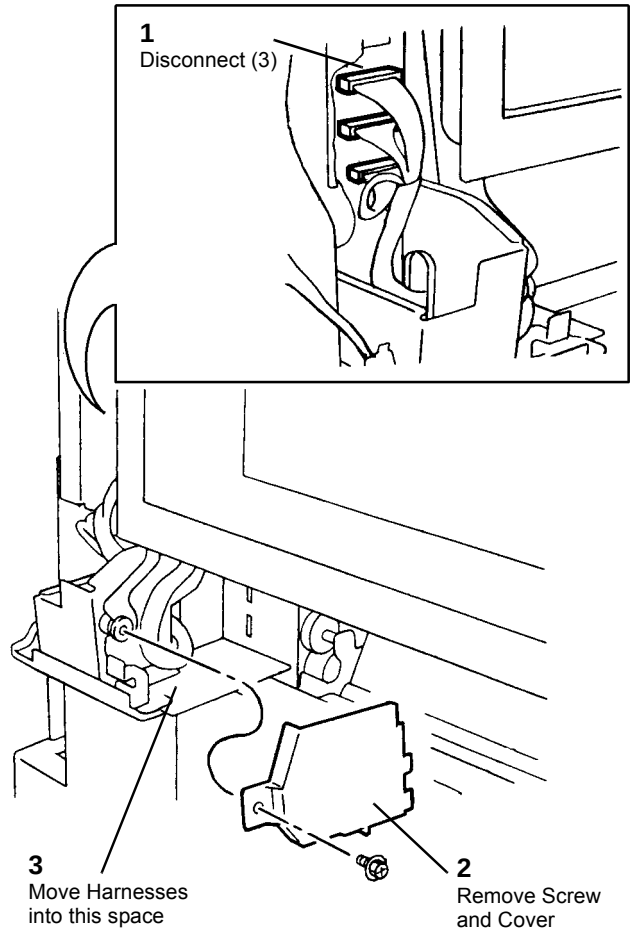



**Figure 1 Disconnecting Electrical Connectors (3)**

8. Remove Left Cover Assembly (Figure 2).

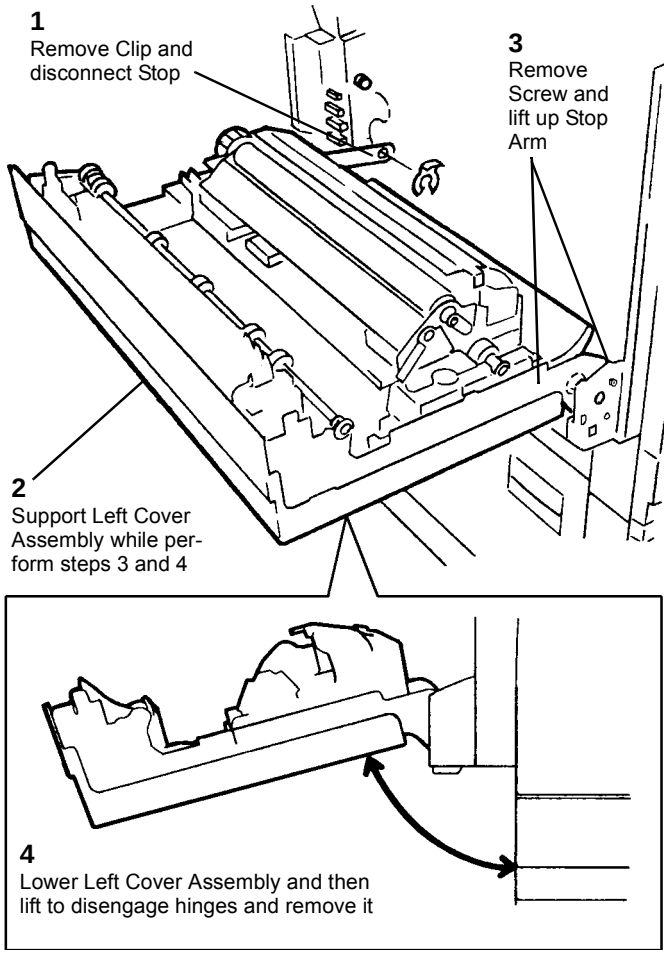



**Figure 2 Removing Left Cover Assembly**

## Replacement

Install Left Cover Assembly on hinge pins, manually align marks on Motion Damper, then tip up transport to engage Motion Damper gears and connect stop arm on Stop Pin (Figure 3).

**CAUTION**

*Before closing Left Cover Assembly to connect harness, hold up black plastic Duplex Baffle while closing transport.*

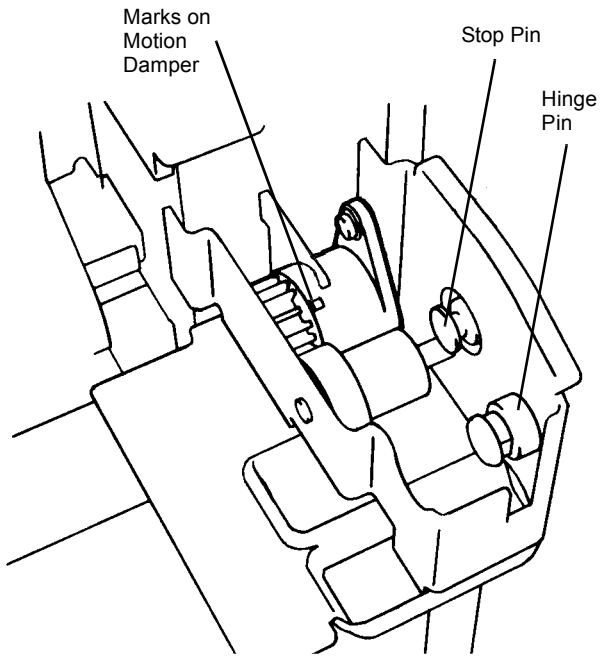



**Figure 3 Aligning Marks on Motion Damper**

# REP 8.2 Duplex Chute

## Parts List on PL 2.8

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Power Switch Cover (REP 14.6).
3. Remove Upper Rear Left Cover (REP 14.4).
4. Close Left Cover Assembly.
5. Remove Tray 5 (REP 7.1).
6. Open and close Left Cover Assembly to allow Duplex Paper Guide to swing down.
7. Swing Duplex Paper Guide back and forth while carefully pushing Duplex Paper Guide toward rear. Key in front hinge pin will enter hinge pin slot and front hinge pin will disengage hinge pin hole. Move Duplex Paper Guide toward front to disengage rear hinge pin.

## Replacement

Install Left Cover Assembly on hinge pins, manually align marks on Motion Damper, then tip up transport to engage Motion Damper gears and connect stop arm on Stop Pin (Figure 3).

**CAUTION**

*Before closing Left Cover Assembly to connect harness, hold up black plastic Duplex Baffle while closing transport.*

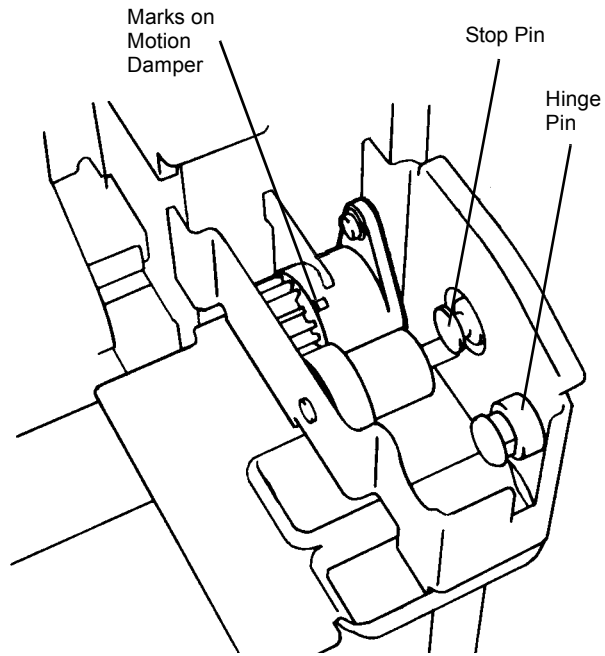



**Figure 1 Aligning Marks on Motion Damper**

## REP 8.3 Duplex Transport Assembly

### Parts List on PL 2.7

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Duplex Transport Assembly (Figure 1).
   a. Remove Clip and Left Upper Cover.
   b. Loosen Screws and remove Duplex Transport Assembly.

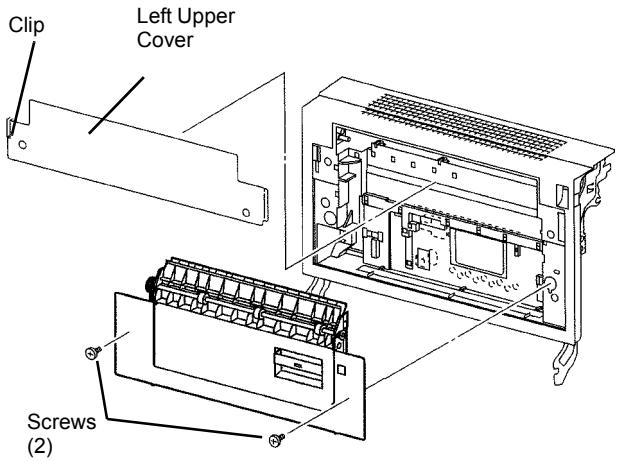



**Figure 1 Removing** Duplex Transport Assembly

### Replacement

## REP 8.5 Inverter Transport

### Parts List on PL 11.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Left Cover Assembly.
2. Remove Inverter Transport (Figure 1).
   a. Remove E-rings (2), Bearings (2), and Transport Shaft.
   b. Remove Screws (2).
   c. Remove Inverter Transport.

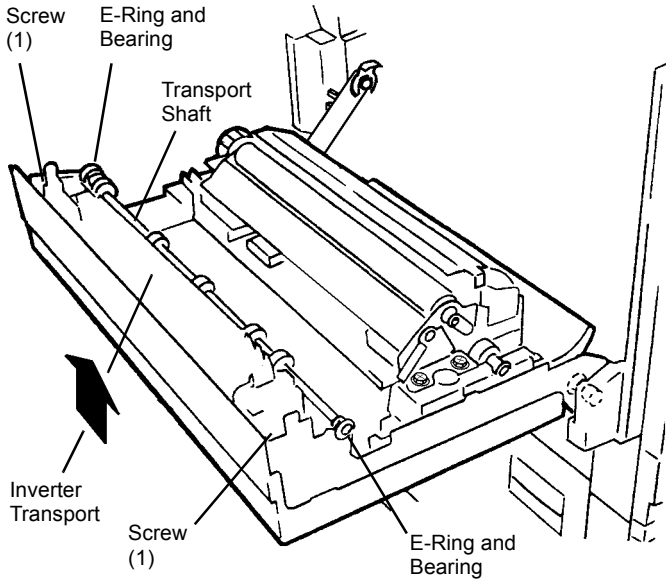



**Figure 1 Removing Inverter Transport**

# REP 8.6 Registration Transport Assembly

## Parts List on PL 2.6

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Power Switch Cover (REP 14.6).
3. Remove Upper Rear Left Cover (REP 14.4).
4. Close Left Cover Assembly.
5. Remove Tray 5 (REP 7.1).
6. Remove Left Cover Assembly (REP 8.1).
7. Remove Registration Transport Assembly (Figure 1).
   a. Observe position of harness for later reinstallation.
   b. Remove Screws (2).
   c. Pivot top of Registration Transport out and disconnect Harness.
   d. Lift to remove Registration Transport.

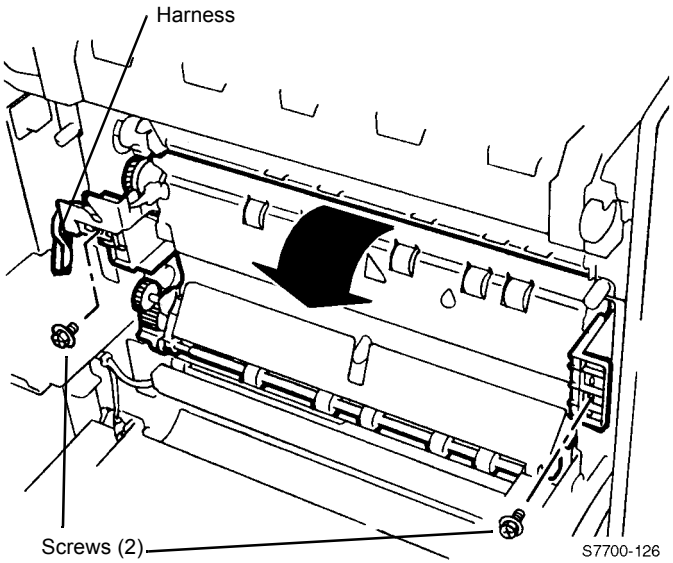



**Figure 1 Removing Registration Transport Assembly**

## Replacement

***NOTE:*** *bearing is equipped with two Anti-rotation Tabs. If one breaks during removal, install bearing so other tab is employed.*

***NOTE:*** *Check that ground spring is pressing against Bronze bushing after installing it.*

# REP 8.7 Exit Transport Assembly

## Parts List on PL 2.10

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Remove Rear Cover (REP 14.2).
4. Remove Power Switch Cover (REP 14.5).
5. Remove Exit Transport (Figure 1).
   a. Disconnect P/Jís (2).
   b. Remove Screws (3)
   c. Rotate Exit Transport slightly to disengage Tab and then lift to remove Exit Transport.

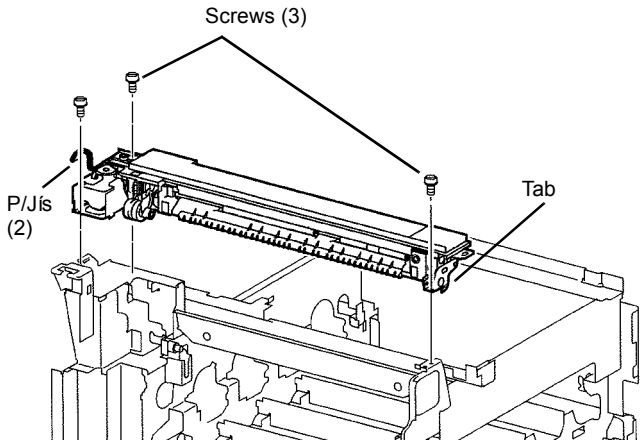



**Figure 1 Removing Exit Transport**

# REP 9.1 Drum Cartridge

## Parts List on PL 4.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Drum Cartridge.
   a. Open Left Cover Assembly.
   b. Open Front Cover.
   c. Actuate orange release and pull out Drum Cartridge.

**CAUTION**

*Drum Cartridge photoreceptor damage is likely if Drum Cartridge is handled carelessly. This results in image quality defects. Use caution when Drum Cartridge is removed from machine.*

   d. Place Drum Cartridge in a black bag.

# REP 9.2 ROS Shutter Motor

## Parts List on PL 8.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Remove Power Switch Cover (REP 14.6).
3. Remove Upper Rear Left Cover (REP 14.4).
4. Close Left Cover Assembly.
5. Remove MSI Tray (REP 7.1).
6. Remove Left Cover Assembly (REP 8.1).
7. Remove Registration Transport (REP 8.6).
8. Remove Shutter Actuator(Figure 1).

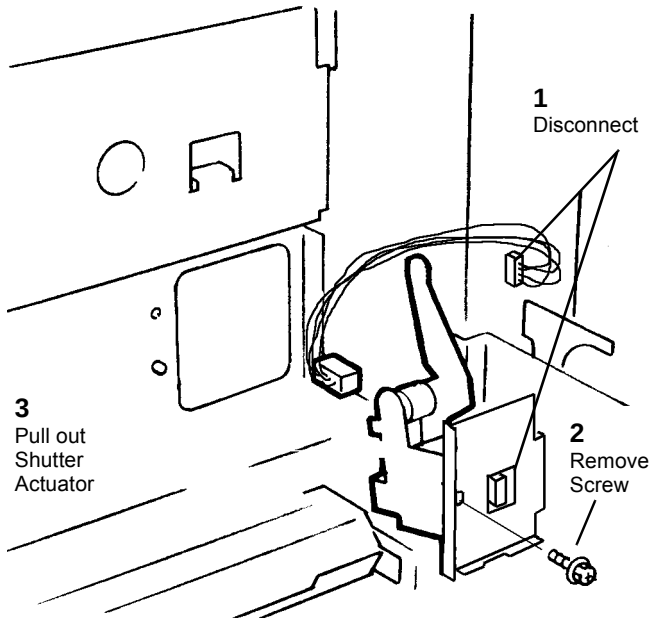



**Figure 1 Removing Shutter Actuator**

## Replacement

Ensure solenoid arm engages

## REP 9.3 Waste Toner Cartridge Cover

### Parts List on PL 4.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Waste Cartridge Cover (Figure 1).
   a. Open Waste Cartridge Cover.
   b. Remove Screw.
   c. Remove Waste Toner Cartridge Cover.

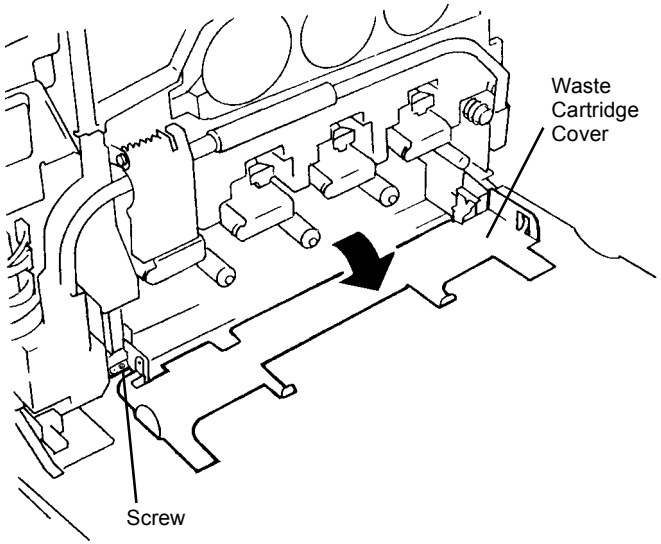



**Figure 1 Removing Waste Toner Cartridge Cover**

## REP 9.4 Waste Toner Cartridge

### Parts List on PL 4.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Waste Cartridge (Figure 1).
   a. Open Waste Cartridge Cover.
   b. Release Lever and move half way down.
   c. Pull out to remove Waste Cartridge.

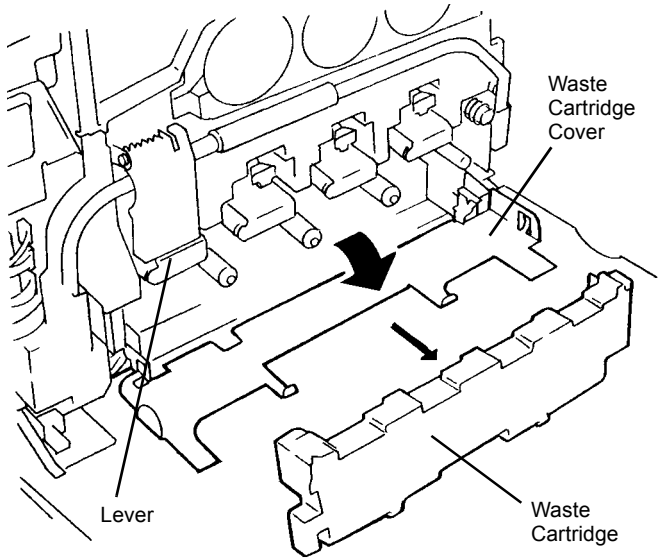



**Figure 1 Removing Waste Cartridge**

# REP 9.5 Full Toner Sensor

## Parts List on PL 4.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Waste Cartridge (REP 9.4).
3. Remove Waste Cartridge Cover (REP 9.3).
4. Access Waste Cartridge Full Sensor (Figure 1).
   a. Lift Left End slightly and pull left to disengage Mounting Tabs.
   b. Rotate Sensor Support and remove. Left End harness connection limits movement.

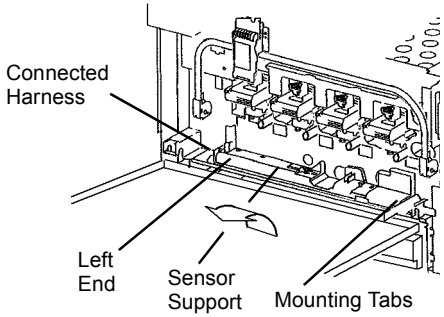



**Figure 1 Accessing Waste Cartridge Full Sensor**

5. Remove Waste Cartridge Full Sensor (Figure 2).
   a. Push against Sensor Head while releasing Locking Tabs.
   b. Disconnect sensor from harness.

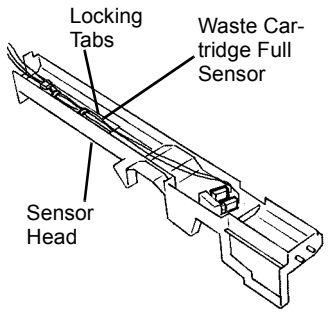



**Figure 2 Removing Waste Cartridge Full Sensor**

# REP 9.6 Inner Cover

## Parts List on PL 10.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Open Left Cover Assembly.
3. Remove Y, M, C, K, Drum.
4. Remove Fuser Front Cover (REP 14.8).
5. Release and move Xerographic Release Lever half way down.
6. Remove Dispenser Assembly Cover (Figure 1).
   a. Remove Screws (4).
   b. Remove Dispenser Assembly Cover.

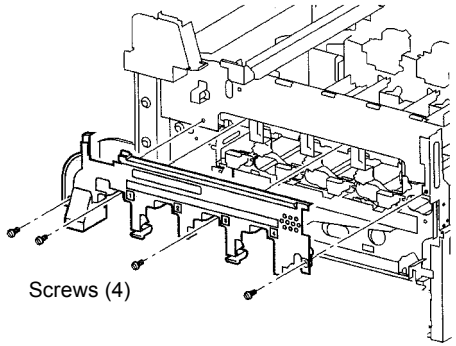



**Figure 1 Removing Toner Transport Cover**

# REP 9.7 Toner Dispenser

## Parts List on PL 6.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Release and move Xerographic Release Lever half way down.
4. Remove Dispenser Assembly Cover (REP 9.6).
5. Remove Drum Cartridges as required.

**CAUTION**

*Y must be removed first, followed in order by M, C, then K. They must be reinstalled in reverse order of removal, which is install K, C, M, and then Y.*

6. Prepare to remove Toner Transport (Figure 1).
   a. Carefully pull out Toner Outlet Door while holding Housing back to shut off toner outlet.

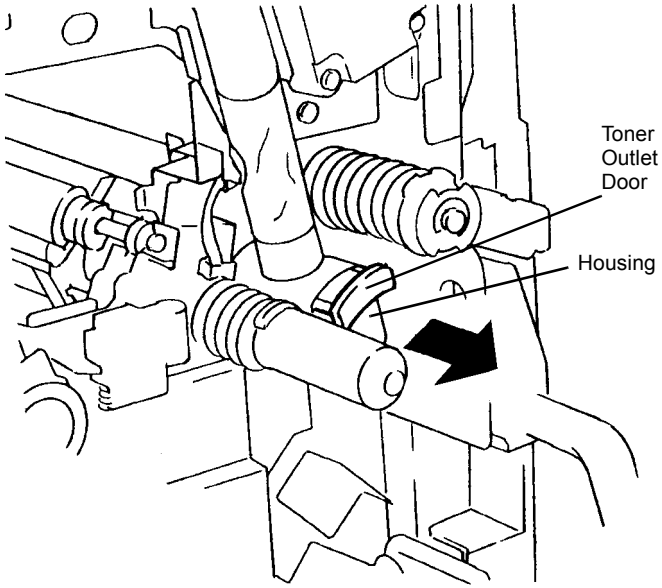



**Figure 1 Closing Toner Outlet**

7. Remove Toner Transport (Figure 2).
   a. Remove Screw,

**CAUTION**

*Connection Tube may separate from upper or lower housing.*

*Agitator may disconnect if flex coupling is compressed enough so agitator hits inside bottom of lower housing*

   b. Pull out Upper and Lower Housings together while ensuring flexible Connection Tube remains connected.

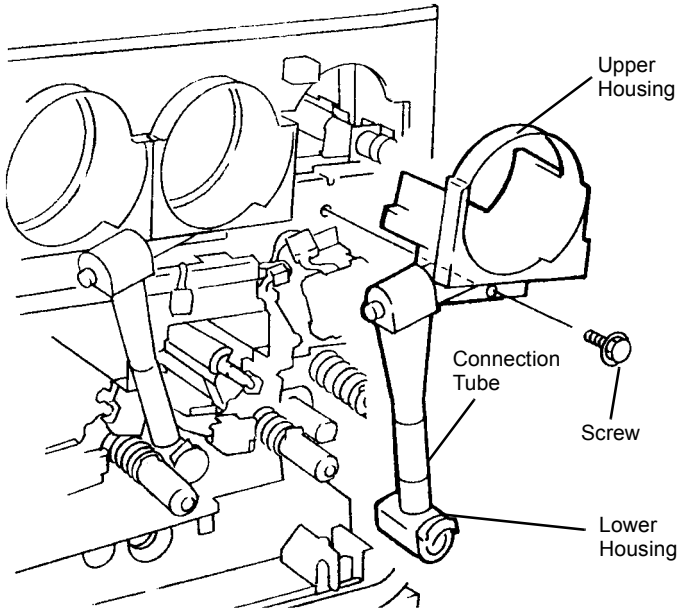



**Figure 2 Removing Toner Transport**

# REP 9.8 Plate Assembly

## Parts List on PL 4.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges.
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Fuser Front Cover (REP 14.8).
6. Release and move Xerographic Release Lever half way down.
7. Remove Dispenser Assembly Cover (REP 9.6).
8. Remove all Dispenser Assemblies (REP 9.7).

**CAUTION**

*Note position of harnesses. Correct harness routing is required for assembly.*

***NOTE:*** *In next step, do not remove sensor.*

9. Remove housing for Waste Cartridge Full Sensor (REP 9.5).
10. Disconnect Developer Housing Plugs, 4 large and 4 small (small not shown).
    Position wires straight out from machine. Wires remain stationary while removing Plate Assembly (Figure 1).

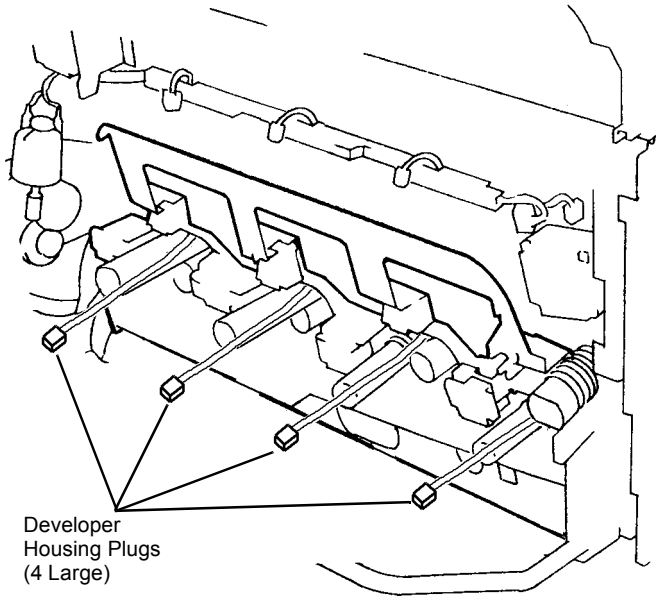



**Figure 1 Disconnecting Developer Housing Plugs**

11. Disconnect Developer Housing Harnesses (Figure 2).
    a. Open Harness Clip and remove harness from Clip.
    b. Disconnect Harness P/Jís (3).
    c. Remove Screw from Inner Left Harness Cover and remove cover.
    d. Remove Developer Housing Harnesses from additional harness clips (not shown, under Harness Cover).

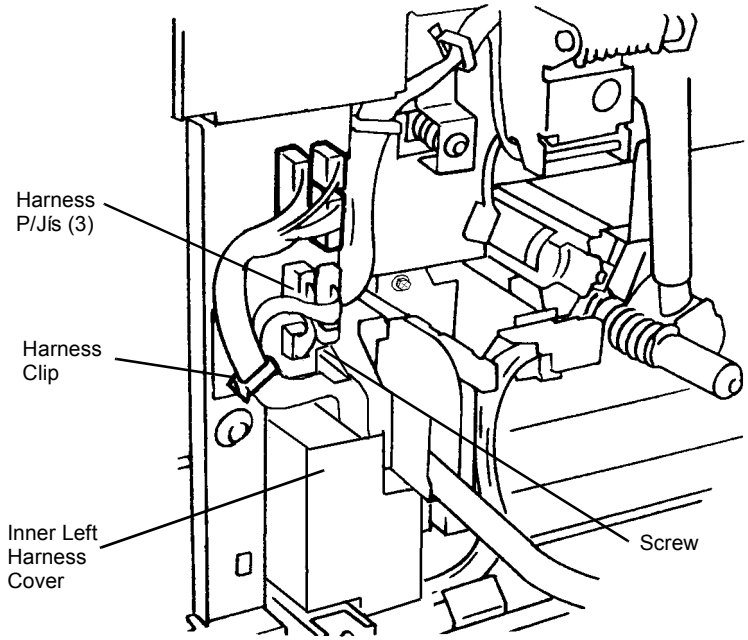



**Figure 2 Disconnecting Developer Harnesses**

12. Remove Plate Assembly (Figure 3).
    a. Remove Screws (6).
    b. Pull Plate Assembly toward front to remove it. Ensure harnesses are cared for.

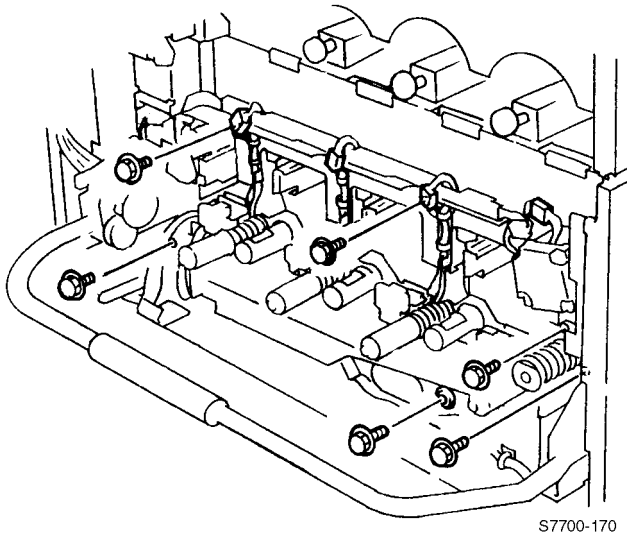



**Figure 3 Removing Plate Assembly**

# REP 9.9 Developer Housing

## Parts List on PL 6.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges.
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Fuser Front Cover (REP 14.8).
6. Move Xerographic Release Lever up to a mid position.
7. Remove Dispenser Assembly Cover (REP 9.6).
8. Remove all Dispenser Assemblies (REP 9.7).

***NOTE:*** *In next step, do not remove sensor.*

9. Remove housing for Waste Cartridge Full Sensor (REP 9.5).

***NOTE:*** *In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.*

10. Remove Plate Assembly (REP 9.8).

**CAUTION**

*IBT belt damage results when Developer Housing is removed carelessly.*

11. Remove Developer Housing (Figure 1).

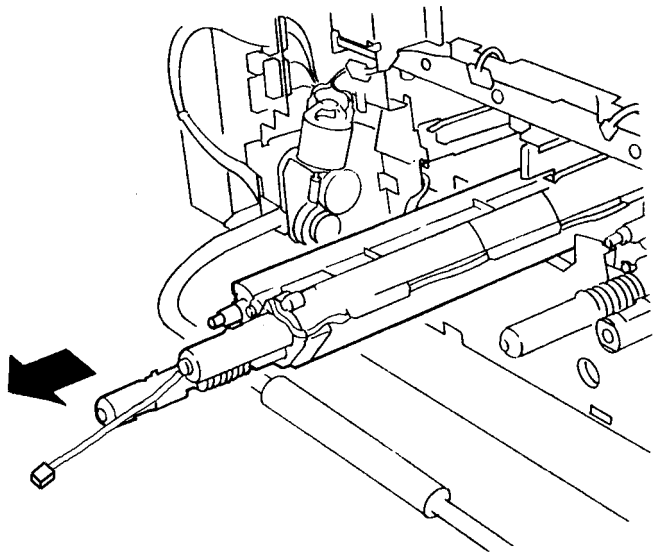


**Figure 1 Removing Developer Housing**

## Replacement

***NOTE:*** *If installing a new Developer Housing, go to step 1. If reinstalling existing developer housing, go to 5.*

1. Install new Developer (REP 9.10) as required.
2. *Remove ATC Sensor Setup Data Tag from new* Developer Housing. *On tag, highlight K, C, M, or Y as required for color of developer housing.* Tag will be installed during machine reassembly.

**CAUTION**

*Image quality defects occur when ATC Sensor Data is mishandled in dC921.*

3. During machine assembly, install *ATC Sensor Setup Data Tag as shown (*Figure 2*).*

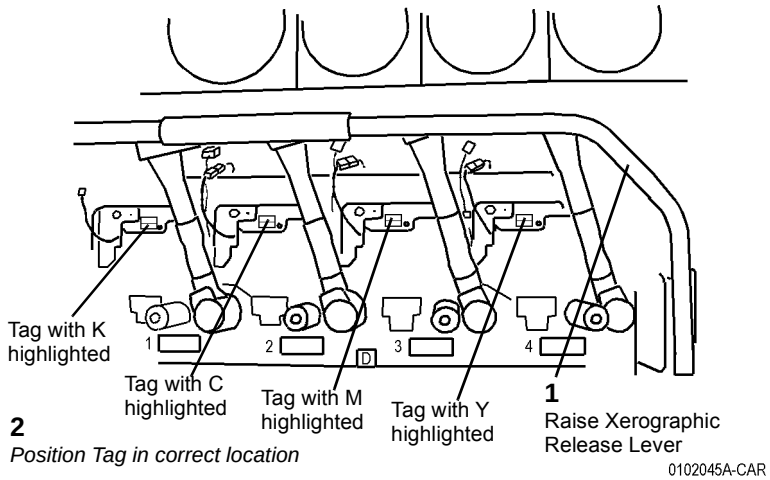



**Figure 2** *Installing ATC Sensor Setup Data Tag*

4. Perform dC921 ATC Sensor Setup (ADJ 9.2).
5. While reinstalling Developer Housing ensure pin at rear of Developer Housing engages hole in rear frame of machine.

# REP 9.10 Developer

## Parts List on PL 6.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges.
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Fuser Front Cover (REP 14.8).
6. Release and move Xerographic Release Lever half way down.
7. Remove Dispenser Assembly Cover (REP 9.6).
8. Remove all Dispenser Assemblies (REP 9.7).

***NOTE:*** *In next step, do not remove sensor.*

9. Remove housing for Waste Cartridge Full Sensor (REP 9.5).

***NOTE:*** *In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.*

10. Remove Plate Assembly (REP 9.8).
11. Remove Developer Housing (REP 9.9).
12. Remove Developer. (Figure 1).
    a. Carefully observe position of wiring harness for later reinstallation.

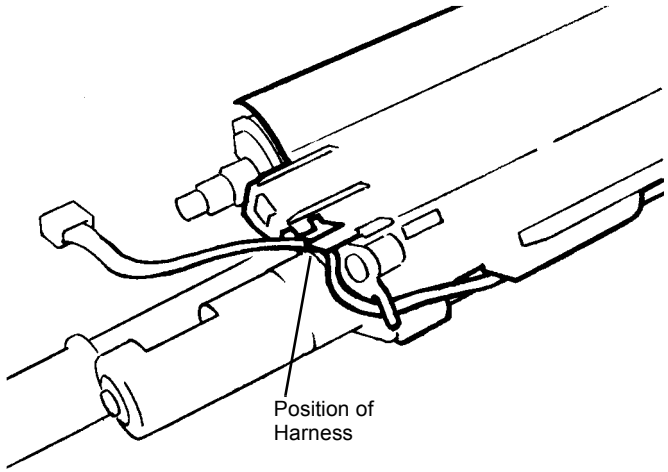



**Figure 1 Observing position of Harness**

b. Remove Housing Cover (Figure 2).

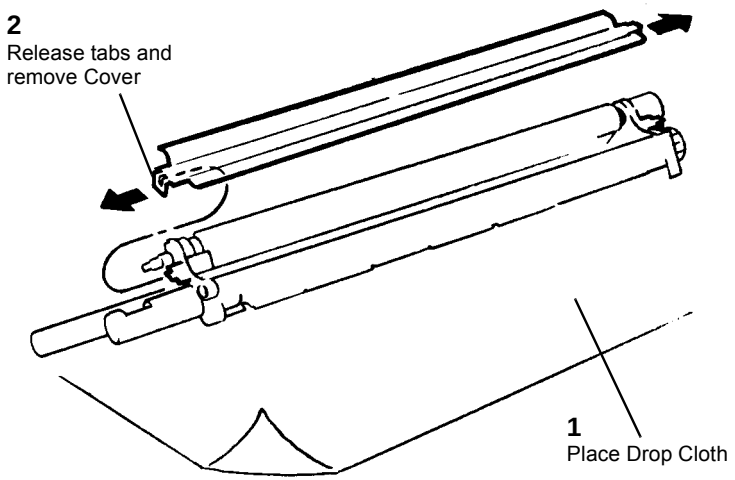



**Figure 2 Removing Housing Cover**

c. Rotate Drive Gear to remove Developer (Figure 3).

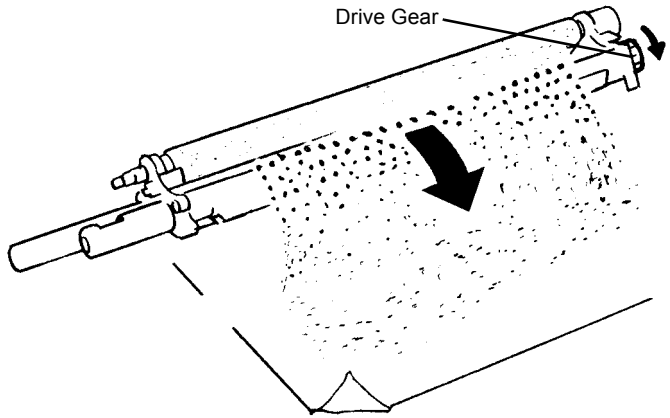



**Figure 3 Removing Developer**

## Replacement

1. Rotate Drive Gear while installing new Developer (Figure 4).

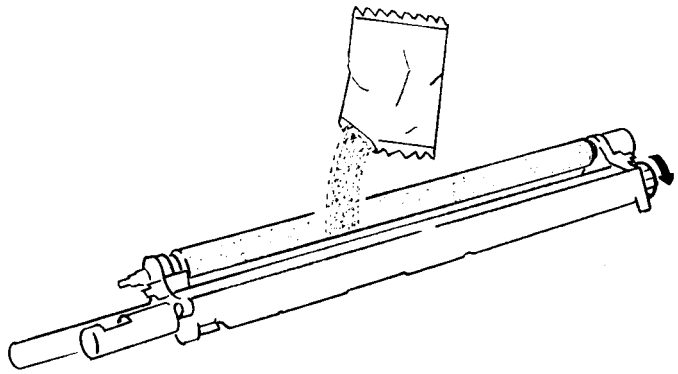


**Figure 4 Installing Developer**

2. Install Developer Housing.
   a. Ensure pin at rear of Developer Housing engages hole in rear frame of machine.
   b. Reassemble machine.
   c. Adjust ATC Sensor (ADJ).

# REP 9.11 Toner Dispenser Base Assembly

## Parts List on PL 6.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Drum Cartridges.
3. Remove Fuser Front Cover (REP 14.8).
4. Release and move Xerographic Release Lever half way down.
5. Remove Dispenser Assembly Cover (REP 9.6).
6. Remove all Dispenser Assemblies (REP 9.7).
7. Remove Top Cover (REP 14.1).
8. Remove Right Cover (REP 14.3).
9. Remove Toner Dispense Module (Figure 1).
   a. Remove Screws (2).
   b. Carefully observe position of wiring harness for later reinstallation
   c. Disconnect motor connectors (4).
   d. Lift to remove Toner Dispense Module.

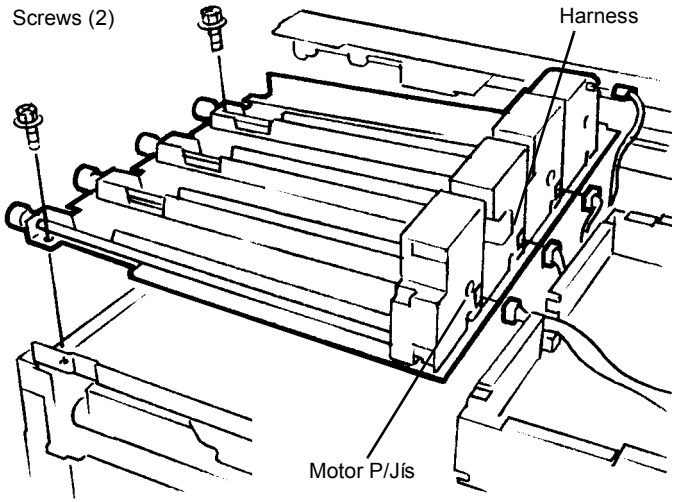



**Figure 1 Removing Toner Dispense Module**

## REP 9.12 IBT Steering Drive Assembly

### Parts List on PL 1.3

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Release and move Xerographic Release Lever half way down.
4. Remove Dispenser Assembly Cover (REP 9.6).
5. Remove Steering Drive Motor (Figure 1).
   a. Disconnect Motor P/J.
   b. Remove Screws (3).
   c. Pull out to remove using care to avoid damage to steering gear.

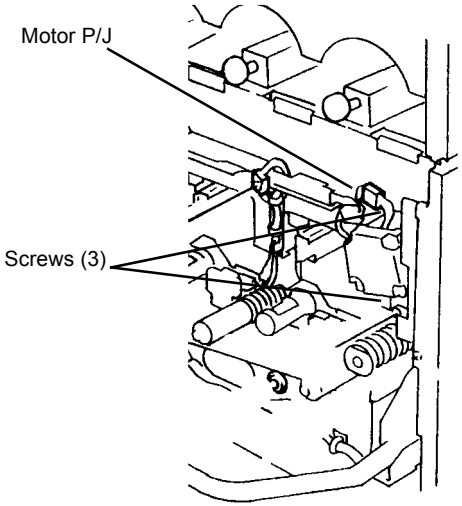



**Figure 1 Removing Steering Drive Motor**

## REP 9.13 Agitator Motor Assembly

### Parts List on PL 4.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Waste Cartridge (REP 9.4).
3. Remove Fuser Front Cover (REP 14.8).
4. Release and move Xerographic Release Lever half way down.
5. Remove Dispenser Assembly Cover (REP 9.6).
6. Remove Waste Toner Agitator (Figure 1).
   a. Disconnect P/J.
   b. Remove Screws (2) and remove Waste Toner Agitator.

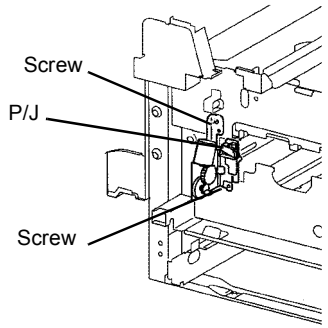



**Figure 1 Removing Waste Toner Agitator**

## REP 9.14 MOB Sensor Assembly

**Parts List on PL 1.3**

**Removal**

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Waste Cartridge (REP 9.4).
3. Remove Fuser Front Cover (REP 14.8).
4. Release and move Xerographic Release Lever half way down.
5. Remove Dispenser Assembly Cover (REP 9.6).
6. Remove Waste Toner Agitator (REP 9.13).
7. Remove MOB Sensor Assembly (Figure 1).
   a. Open Harness Clip and remove harness from Clip.
   b. Remove Screw and remove Inner Left Harness Cover.
   c. Disconnect Harness P/Jís (3)
   d. Remove MOB Sensor Assembly Harnesses (violet) from additional harness clips (not shown).
   e. Remove MOB Sensor Assembly Screw and pull out to remove MOB Sensor Assembly. Xerographic Release Lever must be down as shown.

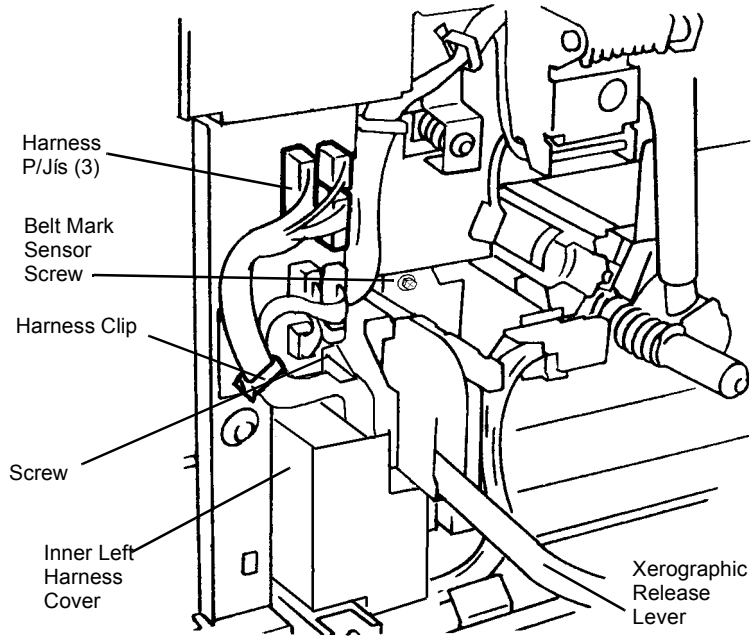



**Figure 1 Removing MOB Sensor Assembly**

## REP 9.15 IBT Belt Assembly

**Parts List on PL 5.2**

**Removal**

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Release and move Xerographic Release Lever down.
3. Open Right Side Door.
4. Remove IBT Belt Assembly (Figure 1).
   a. Lift to release Slide Lock.
   b. Pull out IBT Unit to remove it. Use Handle to transport IBT Unit.
   c. Protect IBT Belt Assembly from direct light.

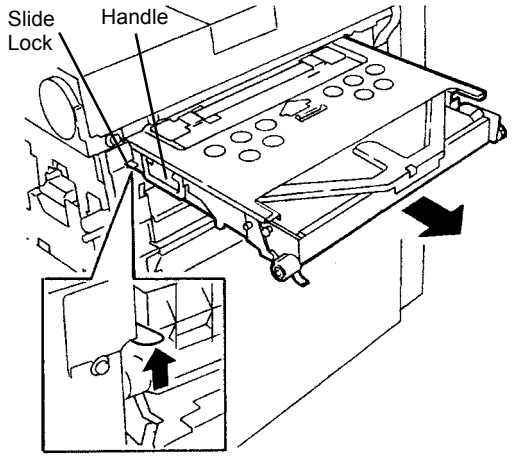



**Figure 1 Removing IBT Belt Assembly**

# REP 9.16 IBT Cleaner Assembly

## Parts List on PL 5.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Release and move Xerographic Release Lever down.
3. Remove Right Cover (REP 14.3).
4. Remove IBT Belt Assembly just enough to access Belt Cleaner (REP 9.15).

**CAUTION**

*In next step, toner may spill out of Belt Cleaner if cleaner is handled carelessly.*

5. Remove Screws and remove Belt Cleaner (Figure 2).

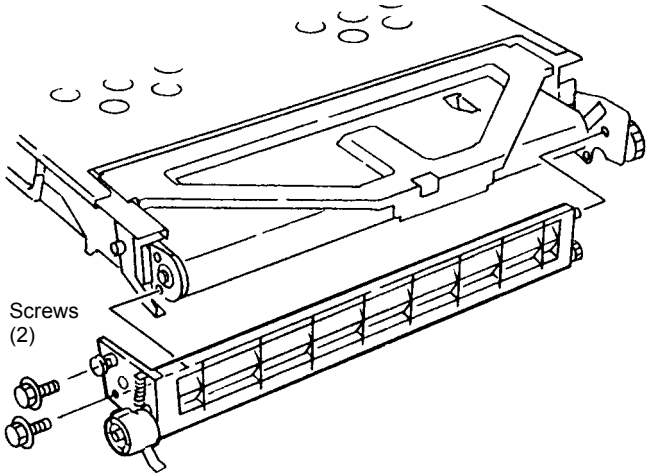



**Figure 1 Removing IBT Cleaner Assembly**

## Replacement

Ensure both rear locating pins engage holes in IBT Belt Assembly frame during installation of IBT Cleaner Assembly.

# REP 9.17 Auger Assembly

## Parts List on PL 5.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Waste Cartridge (REP 9.4).
3. Release and move Xerographic Release Lever down.
4. Remove Right Cover (REP 14.3).
5. Remove Belt Module (REP 9.15).
6. Move Xerographic Release Lever to up position.
7. Remove Waste Toner Agitator (Figure 1).
   a. Remove Screws (2).
   b. Move Waste Auger toward Bearing to disengage Cutout from Bearing.
   c. Remove Waste Auger.

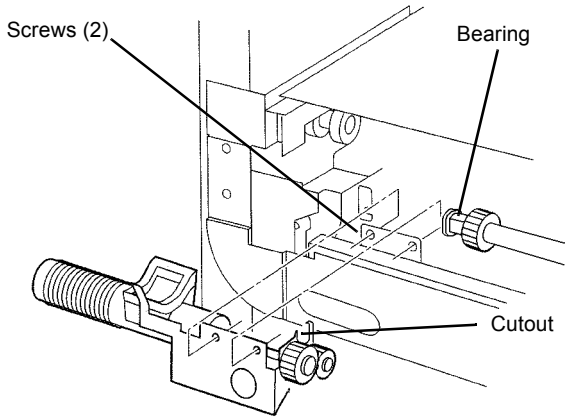



**Figure 1 Removing Waste Toner Agitator**

## Replacement

Move Xerographic Release Lever to down position before reinstalling Belt Module.

# REP 9.18 Lever

## Parts List on PL 5.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Inner Left Harness Cover (REP 14.10).
6. Release and move Xerographic Release Lever down.
7. Remove Drum Cartridges.
8. Remove Right Cover (REP 14.3).
9. Remove Belt Module (REP 9.15).
10. Remove Xerographic Release Lever (Figure 1).
    a. Remove Screw, Washer, and Hinge Pin.
    b. Remove E-Ring and Hinge Pin.
    c. Remove Xerographic Release Lever.

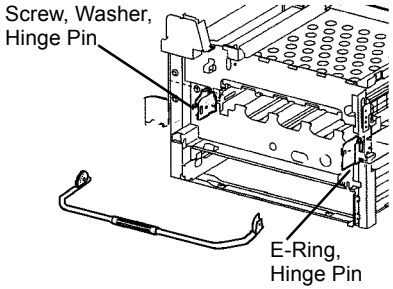



**Figure 1 Removing Xerographic Release Lever**

## Replacement

Move Xerographic Release Lever to down position before reinstalling Belt Module.

# REP 9.19 Left Hinge/Right Hinge

## Parts List on PL 5.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Inner Left Harness Cover (REP 14.10).
6. Release and move Xerographic Release Lever down.
7. Remove Drum Cartridges.
8. Remove Right Cover (REP 14.3).
9. Remove Belt Module (REP 9.15).
10. Remove Xerographic Release Lever (REP 9.18).
11. Remove Xerographic Release Lever Brackets (Figure 1).
    a. Remove Screws (2) and remove Bracket.
    b. Remove Screws (2) and remove Bracket.

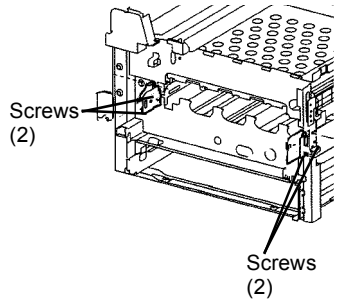



**Figure 1 Removing Xerographic Release Lever**

## Replacement

Move Xerographic Release Lever to down position before reinstalling Belt Module.

# REP 9.20 Right Lift Assembly

## Parts List on PL 5.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Inner Left Harness Cover (REP 14.10).
6. Release and move Xerographic Release Lever down.
7. Remove Drum Cartridges.
8. Remove Right Cover (REP 14.3).
9. Remove Belt Module (REP 9.15).
10. Remove Xerographic Release Lever (REP 9.18).
11. Remove Lift Bracket (Figure 1).
    a. Remove E-Rings (2) and Washers (2).
    b. Remove Screws (4) and remove Lift Bracket.
    c. Remove Bearings (2) and Washers (2).

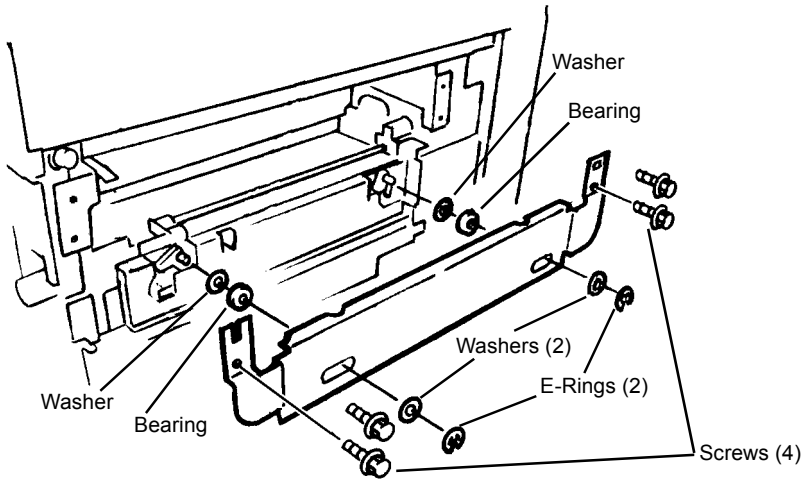



**Figure 1 Removing Lift Bracket**

12. Remove Right Xerographic Lift (Figure 2).
    a. Remove Auger Mounting Screws (2).
    b. Remove Lift Position Screw.
    c. Remove Secondary Position Screw.
    d. Remove Lower Screws (2).
    e. Remove Right Xerographic Lift.

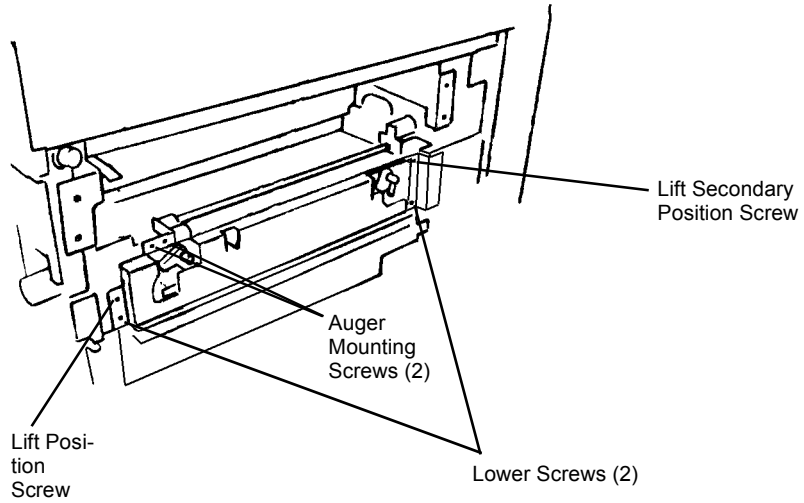



**Figure 2 Removing Right Xerographic Lift**

## Replacement

Move Xerographic Release Lever to down position before reinstalling Belt Module.

# REP 9.21 Left Lift Assembly

## Parts List on PL 5.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Inner Left Harness Cover (REP 14.10).
6. Release and move Xerographic Release Lever down.
7. Remove Drum Cartridges.
8. Remove Right Cover (REP 14.3).
9. Remove Belt Module (REP 9.15).
10. Remove Xerographic Release Lever (REP 9.18).
11. Remove Rear Cover (REP 14.2).
12. Remove Power Switch Cover (REP 14.6).
13. Remove Upper Rear Left Cover (REP 14.4).
14. Close Left Cover Assembly.
15. Remove MSI Tray (REP 7.1).
16. Remove Left Cover Assembly (REP 8.1).
17. Optional for improved visibility: Remove Fuser Module (REP 10.1).
18. Remove Registration Transport (REP 8.6).
19. Remove Dispenser Assembly Cover (REP 9.6).
20. Remove Waste Toner Agitator (REP 9.13).
21. Remove Belt Mark Sensor (REP 9.14).
22. Remove Left Xerographic Release Lever Bracket (REP 9.19).
23. Remove Front Cover (REP 14.7).
24. Remove K and C Toner Cartridges.
25. Remove K and C Dispenser Assembly (REP 9.7).

***NOTE:*** *In next step, do not remove sensor from housing*

26. Remove housing for Waste Cartridge Full Sensor (REP 9.5).

***NOTE:*** *In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.*

27. Remove Plate Assembly (REP 9.8).
28. Remove K and C Developer Housing (REP 9.9).
29. Remove Left Xerographic Lift (Figure 1).

***NOTE:*** *In next step, use a magnet to capture E-Ring and Washer while removing them.*

a. From inside Developer Housing cavity, remove E-Ring and Washer from each end of Left Xerographic Lift.

b. Remove Screws (4).

c. Remove Left Xerographic Lift and maintain orientation to ensure Bearings (2) and Washers (2) do not fall off posts.

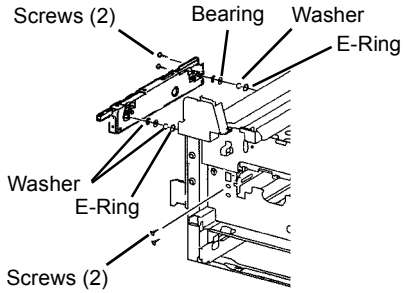



**Figure 1 Removing Left Xerographic Lift**

## Replacement

1. Install Lift.
   a. Position Lift in frame.
   b. Raise or lower xerographic frame as required and push in or pull out Lift actuator as required to engage lift bearings with slots in xerographic frame.
   c. Install front top screw, then front bottom screw, then rear screws (2).
   d. Install washers (2) and e-rings (2).
2. Assemble remaining machine components.

# REP 9.22 Transfer Belt

## Parts List on PL 5.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*Cover Transfer Belt in a black bag.*

***NOTE:*** *Keep your hand off Transfer Belt.*

1. Remove IBT Belt Assembly (REP 9.15).
2. Remove IBT Cleaner Assembly (REP 9.16).
3. Remove Stand Plate (Figure 1).
   a. Remove Screw (2).
   b. Remove Stand Plate in direction of arrow.

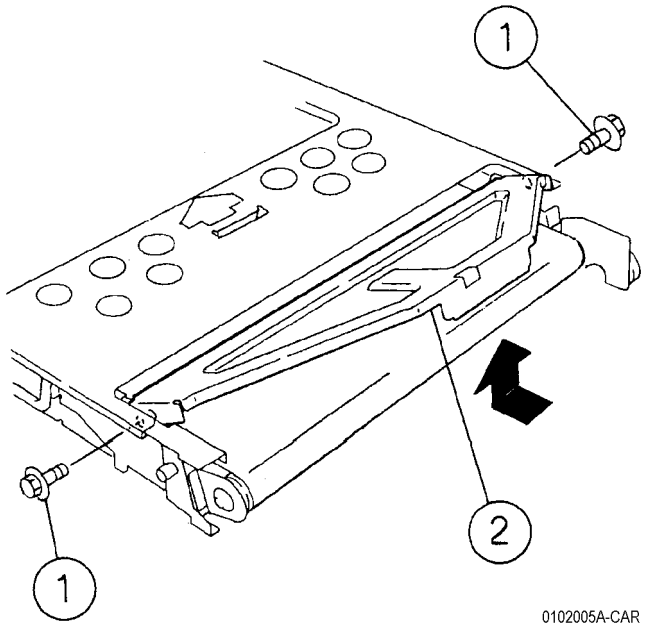



**Figure 1 Removing Stand Plate**

4. Remove Handle (Figure 2).

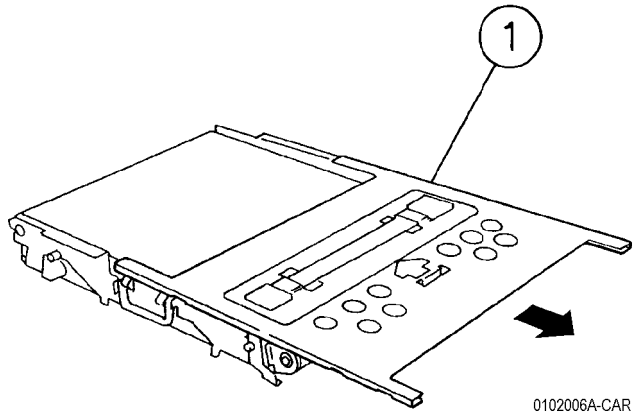



**Figure 2 Removing Handle**

5. Remove screws on both sides (Figure 3).

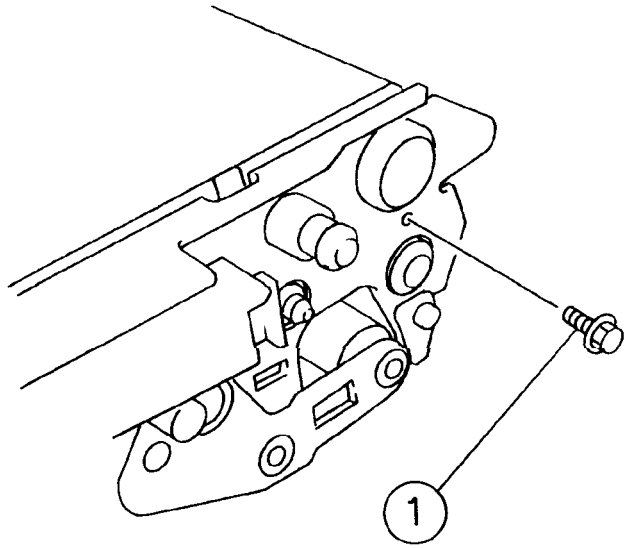



**Figure 3 Removing Screws (both sides)**

6. Position Latch (Figure 4)
   a. Remove Screw.
   b. Remove Latch.
   c. Fix Latch.

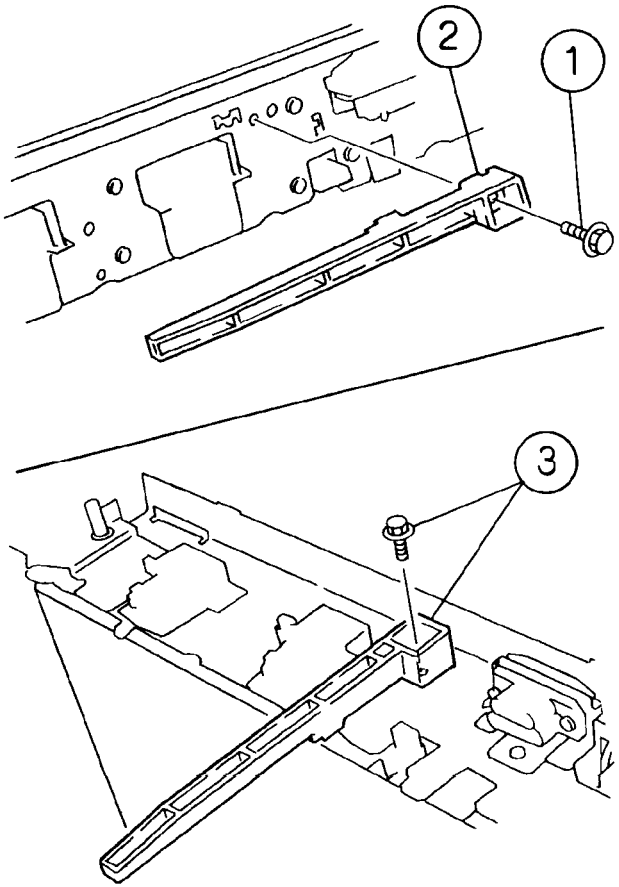



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**Figure 4 Positioning Latch**

7. Install Stand Plate (Figure 5)
   a. Install Plate.

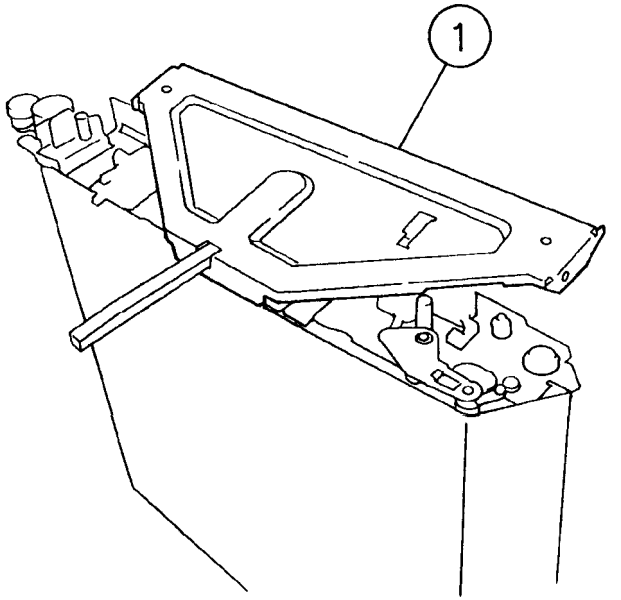


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**Figure 5 Installing Stand Plate**

8. Place Stand Plate below and stand IBT Belt Assembly.
9. Relax tension of Belt on both sides (Figure 6)
   a. Push up Bracket.
   b. Push up Lever and hang Pin on Hole.

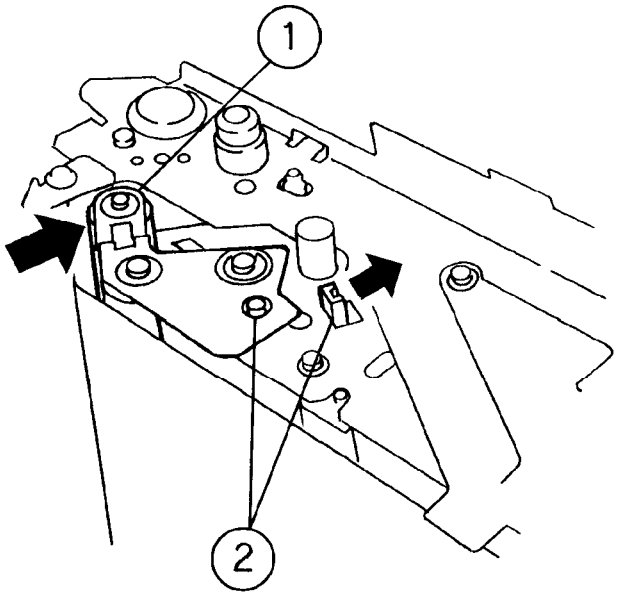


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**Figure 6 Relaxing Belt Tension**

10. Remove Bracket (Figure 7)
    a. Remove Screw (2).
    b. Remove Bracket.
    c. Remove Screw (3).
    d. Remove Bracket.

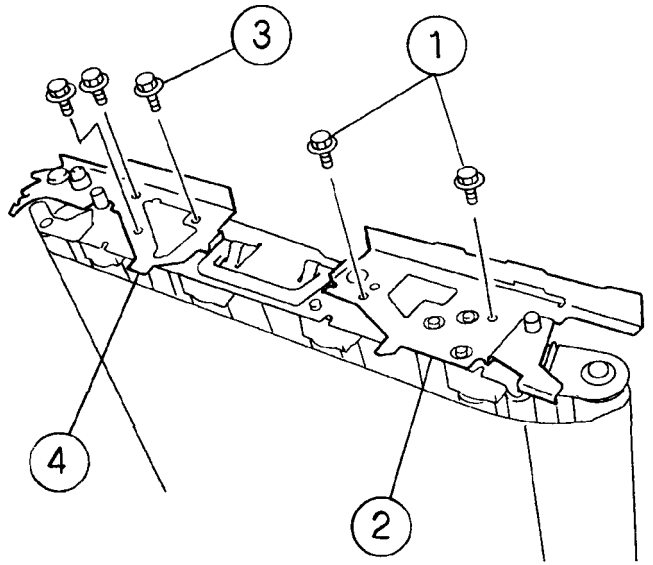


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**Figure 7 Removing Bracket**

11. Pull out BUR ROLL Housing from Hole below and move it in arrow direction (Figure 8)
    a. Pull Housing.
    b. Turn Housing to move it.

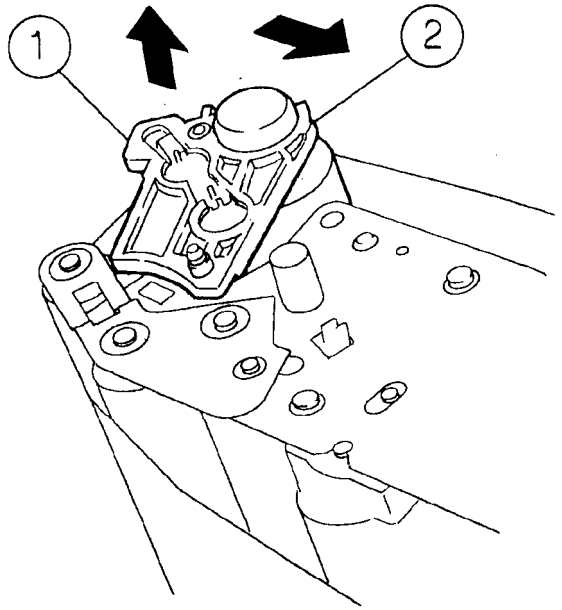


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**Figure 8 Pulling Out BUR Roll Housing**

12. Remove Transfer Belt (Figure 9)

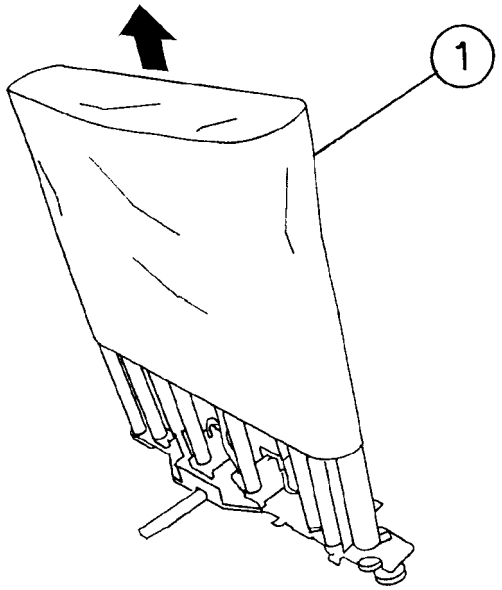


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**Figure 9 Removing Transfer Belt**

## Replacement

1. Install Transfer Belt with Reflector at rear (Figure 10).

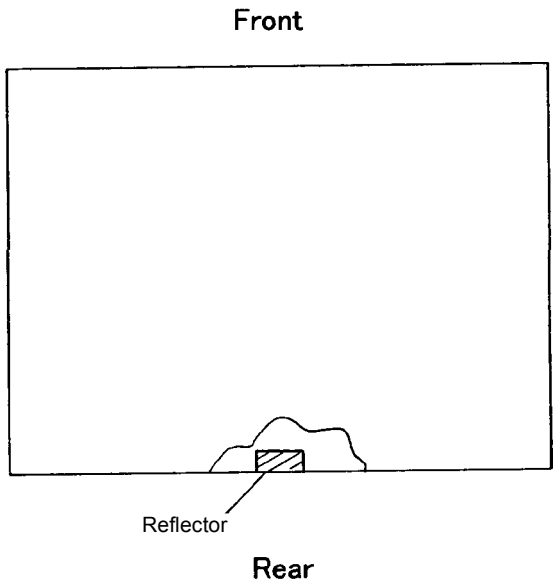


**Figure 10 Installing Transfer Belt**

2. After installing Transfer Belt, move it to center of IBT Frame (exposed parts of IBT Drive Roll are same at In and Out sides) (Figure 11).

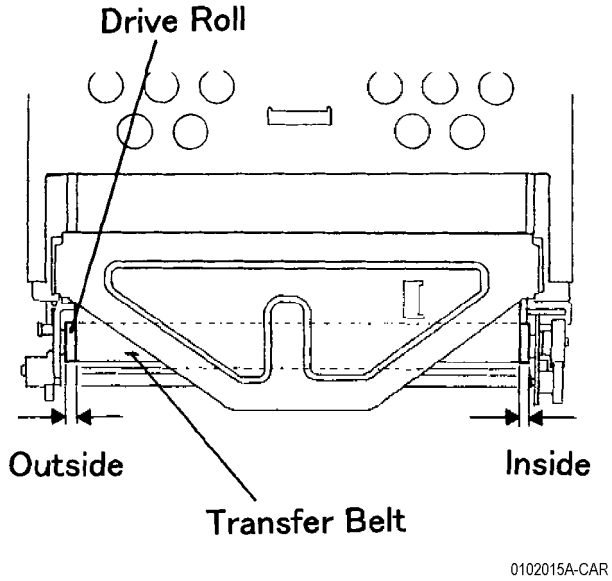


**Figure 11 Positioning Transfer Belt**

3. If Transfer Belt is skewed or wrinkled, perform following steps: (Figure 12)
   a. Relax tension of Belt.
   b. Rotate Gear in arrow direction and move Transfer Belt.

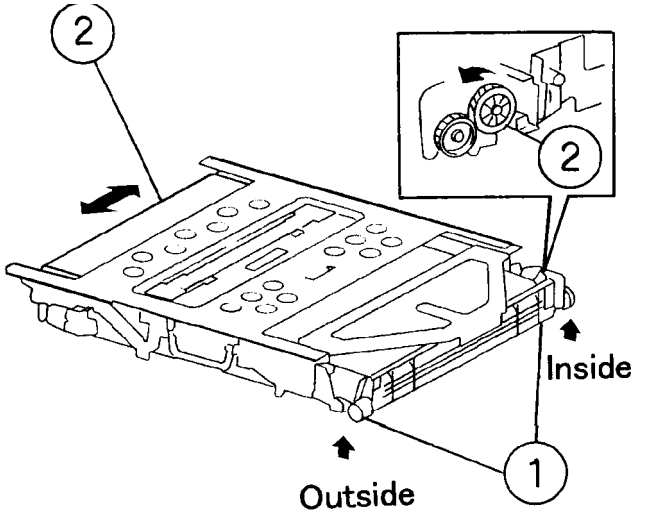


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**Figure 12 Re-positioning Transfer Belt**

## REP 9.23 1st BTR Roll

### Parts List on PL 5.4

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Release and move Xerographic Release Lever down.
3. Open Right Side Door.
4. Remove IBT Assembly (REP 9.15).
5. Remove Transfer Belt (REP 9.22).
6. Remove 1st BTR Roll (Figure 1).

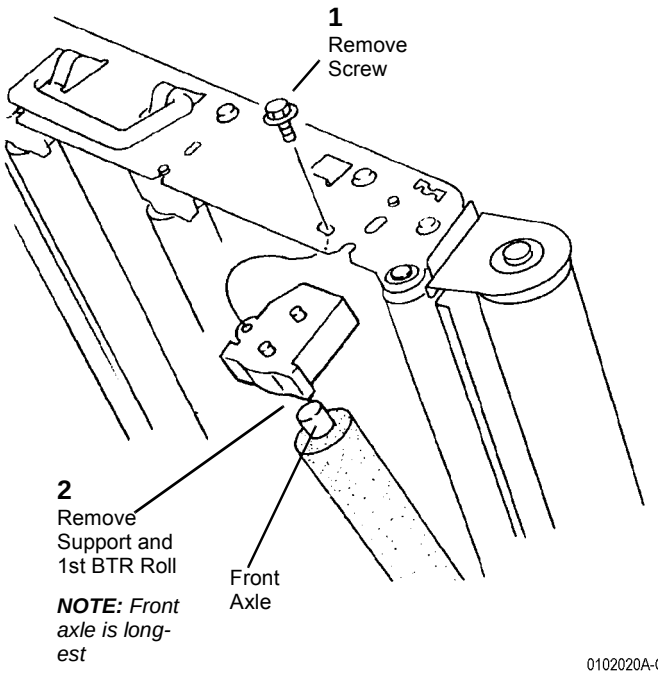


**Figure 1 Removing 1st BTR Roll**

## REP 9.24 2nd BTR Roll

### Parts List on PL 2.8

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove 2nd BTR (Figure 1).
   a. Open Left Cover Assembly.
   b. Remove Screws (4).
   c. Remove 2nd BTR with Support Brackets

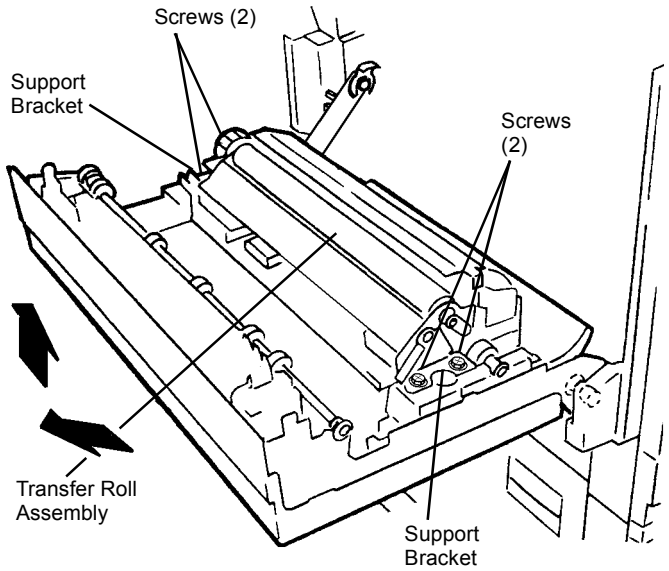


**Figure 1 Removing 2nd BTR**

# REP 9.26 ATC Sensor

## Parts List on PL 6.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (REP 14.7).
2. Remove Drum Cartridges.
3. Remove Waste Cartridge (REP 9.4).
4. Remove Waste Cartridge Cover (REP 9.3).
5. Remove Fuser Front Cover (REP 14.8).
6. Release and move Xerographic Release Lever half way down.
7. Remove Dispenser Assembly Cover (REP 9.6).
8. Remove all Dispenser Assemblies (REP 9.7).

***NOTE:*** *In next step, do not remove sensor.*

9. Remove housing for Waste Cartridge Full Sensor (REP 9.5).

***NOTE:*** *In next step, it may not be necessary to disconnect harnesses for Plate Assembly (PL 4.2) to remove a developer housing.*

10. Remove Plate Assembly (REP 9.8).
11. Remove Developer Housing (REP 9.9).
12. Release Harness from Harness Clips (Figure 1).

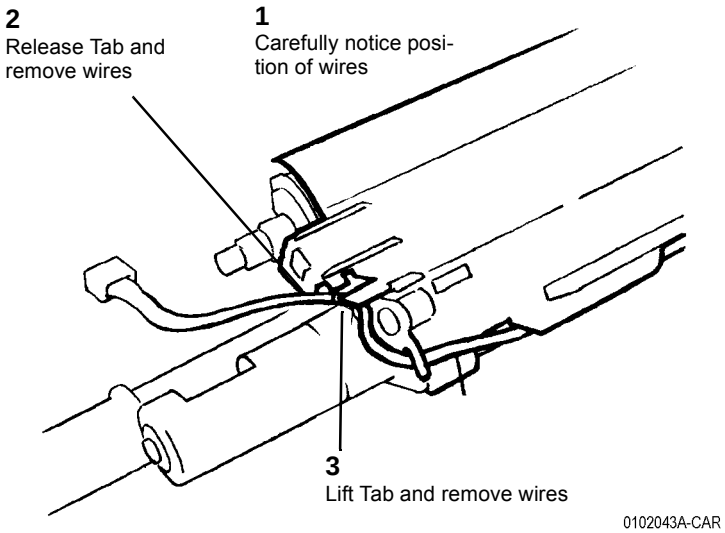


**Figure 1 Removing Harness form Clips**

13. Remove ATC Sensor (Figure 2).

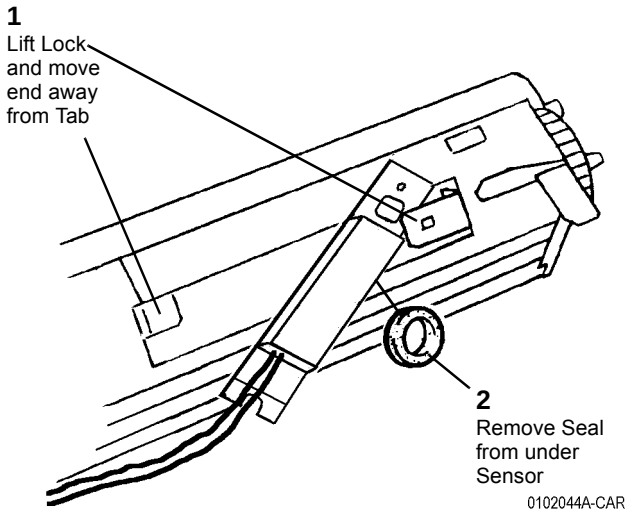


**Figure 2 Removing ATC Sensor**

## Replacement

***NOTE:*** *Remove ATC Sensor Setup Data Tag from new sensor. On tag, highlight K, C, M, or Y as required for color of developer housing. Raise* Xerographic Release Lever and *install Tag in position shown (Figure 3).*

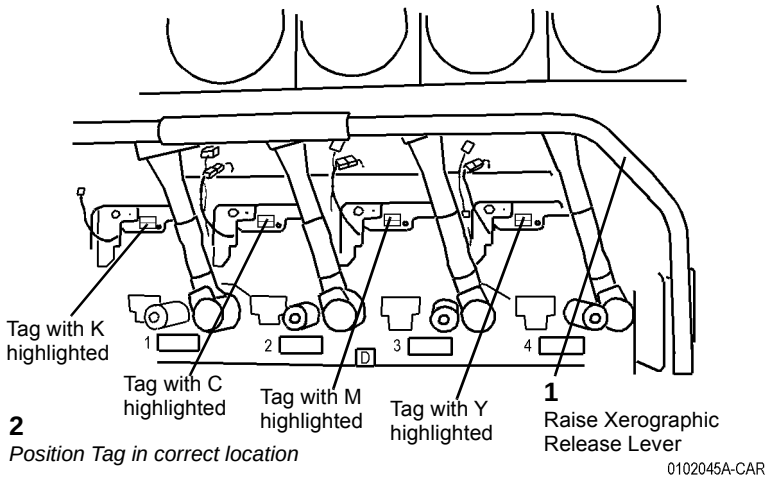


**Figure 3** *Installing ATC Sensor Setup Data Tag*

***NOTE:*** *Perform dC921 ATC Sensor Setup (ADJ 9.2).*

# REP 9.27 Retract Shaft

## Parts List on PL 5.4

## Replacement

***NOTE:*** *Cam and Flag must be aligned as shown, both on the same side (Figure 1).*

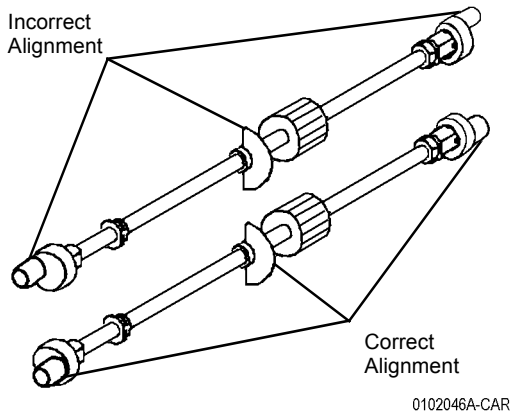


**Figure 1 Cam and Flag Alignment**

# REP 10.1 Fuser

## Parts List on PL 7.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**WARNING**

**Personal injury may result from grasping hot areas of Fuser Module. If a hot Fuser Module must be removed, grasp Fuser Module by black plastic frame component, shown in figure (Figure 1).**

**CAUTION**

*Damage to work surface may result if a hot Fuser Module is removed and positioned on an unprotected work surface. Place a hot fuser on ten sheets of paper.*

1. Open Left Cover Assembly.
2. Remove Fuser Module (Figure 1).
   a. Loosen Screws (2). (PL 1.1)

**WARNING**

**If machine was making copies within 30 minutes, Fuser Module is hot. Grasp Fuser Module using Grip Rings.**

   b. Use Grip Rings to pull Fuser Module out.

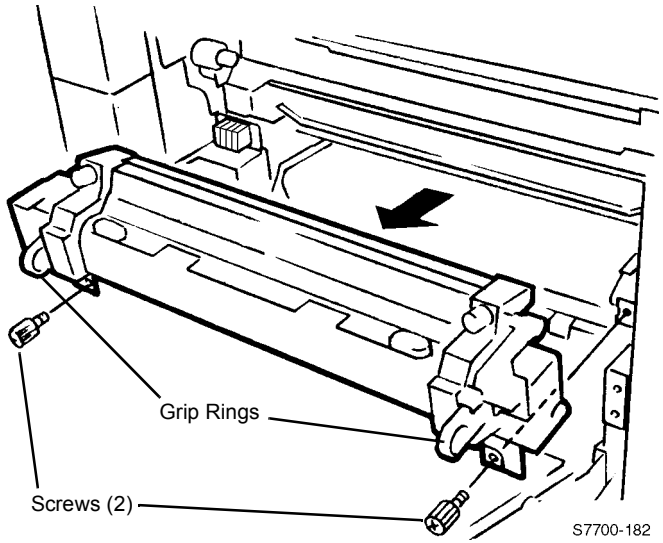


**Figure 1 Removing Fuser Module**

# REP 10.2 Fuser Fan

## Parts List on PL 8.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**WARNING**

**Personal injury may result from grasping hot areas of Fuser Module. If a hot Fuser Module must be removed, grasp Fuser Module by black plastic frame component, shown in figure (Figure 1).**

**CAUTION**

*Damage to work surface may result if a hot Fuser Module is removed and positioned on an unprotected work surface. Place a hot fuser on ten sheets of paper.*

1. Open Front Cover.
2. Remove Right Cover (REP 14.3).
3. Remove Top Cover (REP 14.1).
4. Remove Rear Cover (REP 14.2).
5. Remove Fuser Cooling Fan (Figure 1).
   a. Disconnect P/J.
   b. Remove Screws (2) and lift to remove Fuser Cooling Fan.

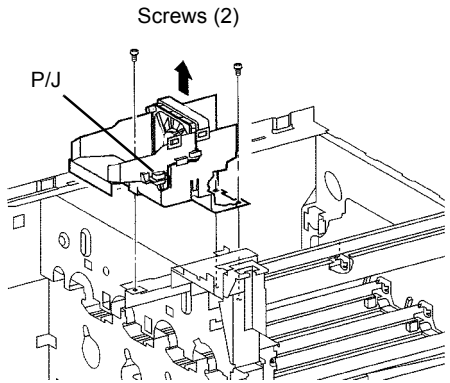


**Figure 1 Removing Fuser Cooling Fan**

# REP 10.3 Main/Sub Heater Rod

## Parts List on PL 7.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Fuser Assembly (REP 10.1).
2. Remove the following parts:
   - Front Cover (REP 14.7)
   - Handle (PL 7.2)
   - Rear Cover (PL 7.2)
   - Handle (PL 7.2)
3. Disconnect P/Jís (2) at rear of Fuser (Figure 1).

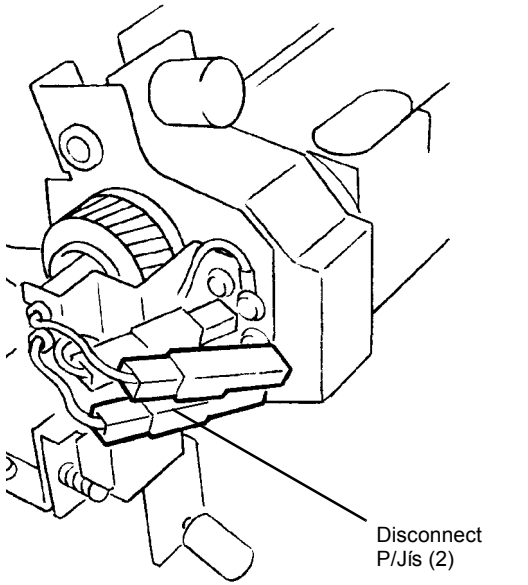


**Figure 1 Disconnecting Connectors**

4. Prepare Fuser at front (Figure 2).

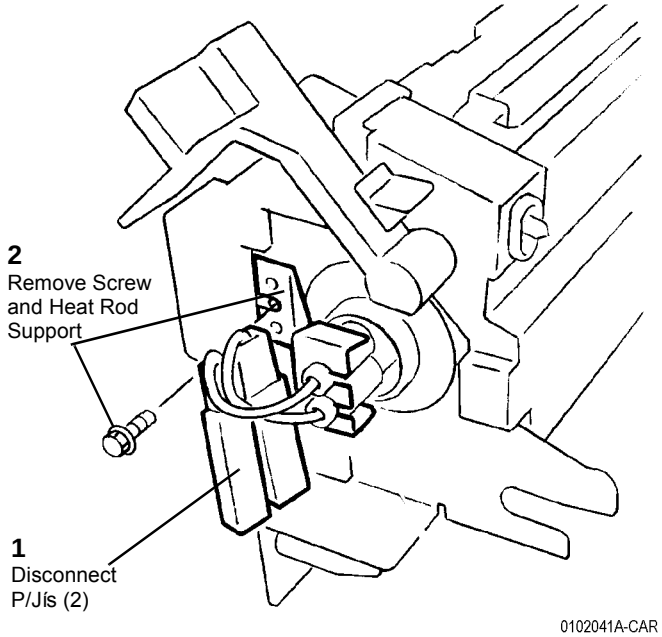


**Figure 2 Preparing Fuser at Front**

5. Remove Heater Rods (Figure 3).

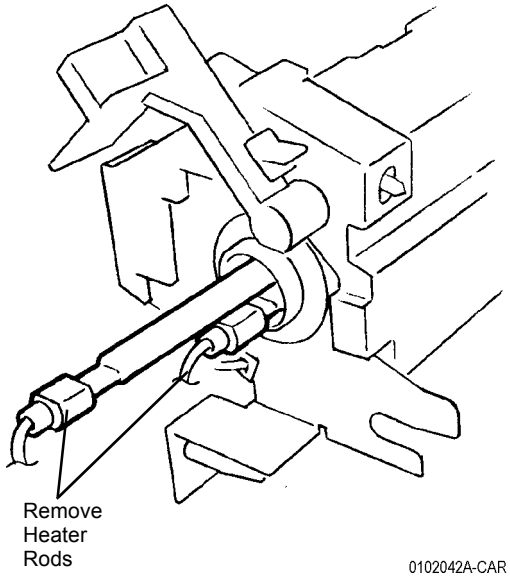


**Figure 3 Removing Heater Rods**

# REP 12.1 H Transport Assembly

## Parts List on PL 17.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Disconnect P/J (Figure 1).

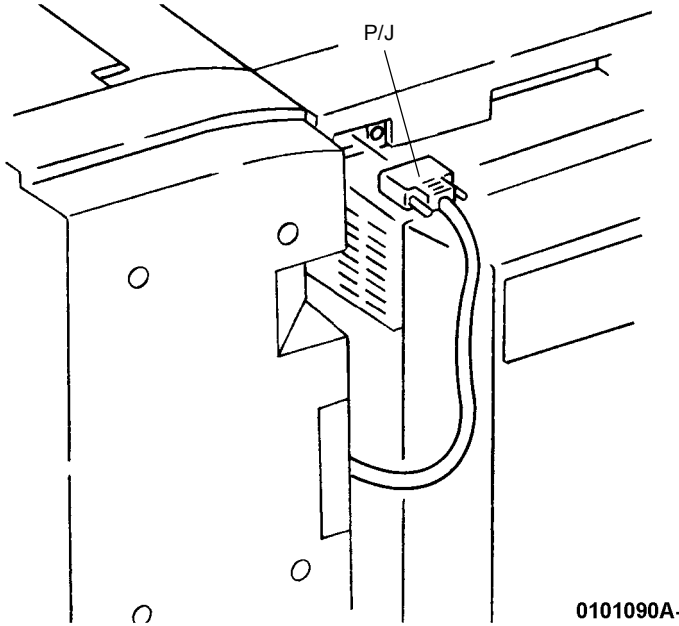


**Figure 1 Disconnecting P/J**

2. Disengage Hook (2) from the Stud on both sides and remove H Transport Assembly (Figure 2).

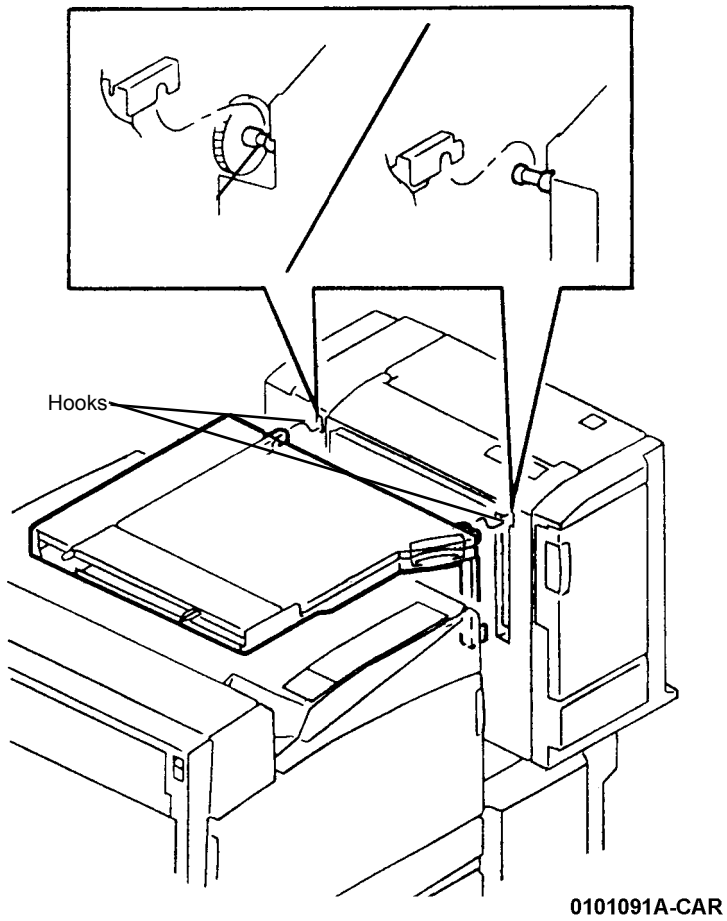


**Figure 2 Removing H Transport**

# REP 12.2 H Transport Belt

## Parts List on PL 17.4

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the H Transport Assembly (REP 12.1).
2. Remove the following parts:
   a. H Transport Front Cover (PL 17.3)
   b. H Transport Rear Cover (PL 17.3)
   c. Stop (PL 17.3)
3. Remove the H Transport Cover (Figure 1).

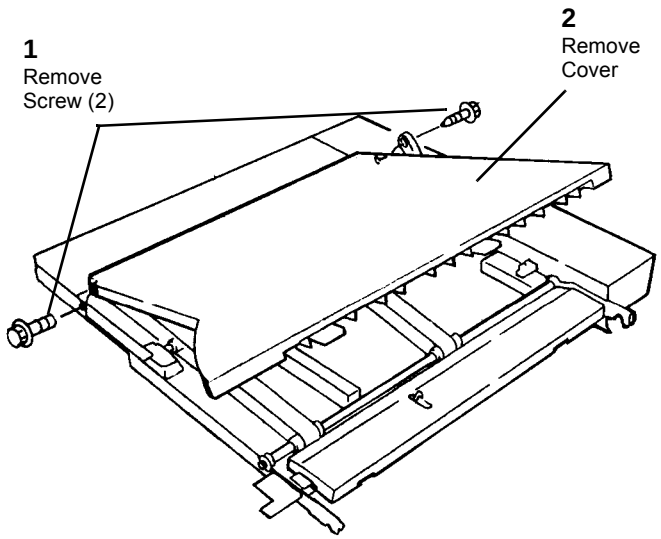


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**Figure 1 Removing the H Transport Cover**

4. Remove the Gate In Solenoid Assembly (Figure 2).

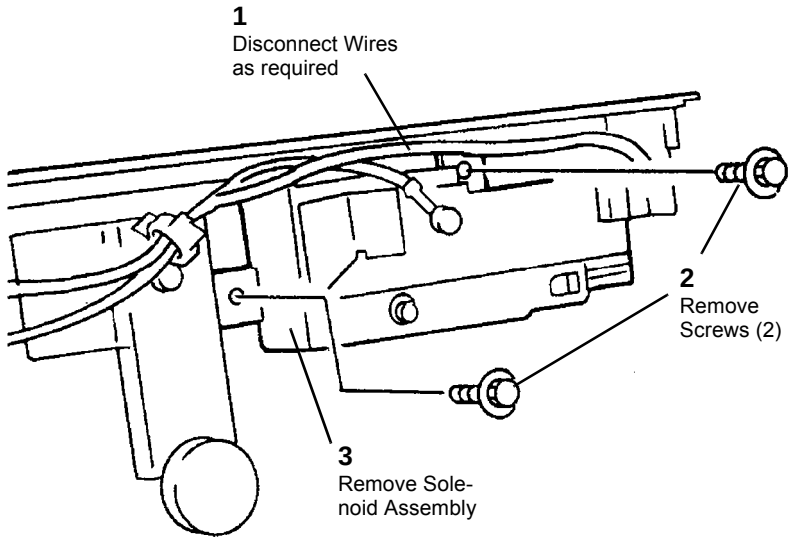


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**Figure 2 Removing the Gate In Solenoid Assembly**

5. Remove the Entrance Upper Cover (Figure 3)

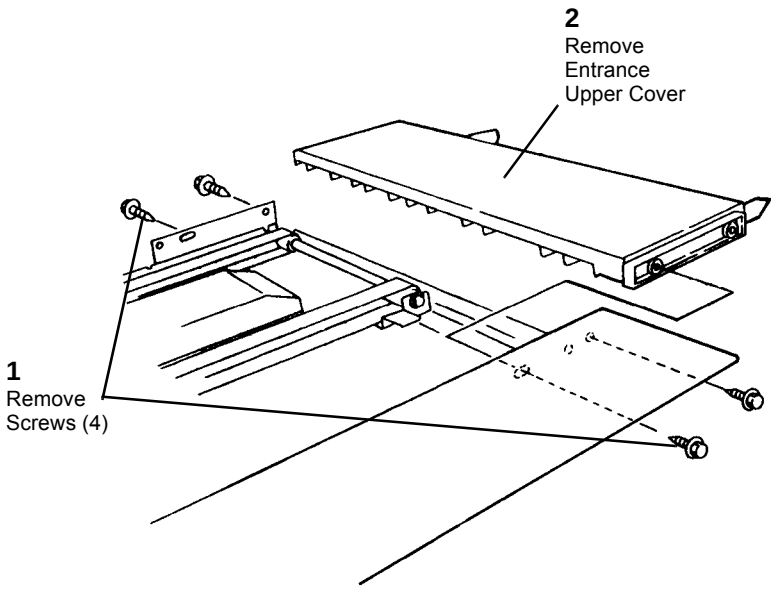


**Figure 3 Removing the Entrance Upper Cover**

6. Remove the input H Transport Roll (Figure 4).

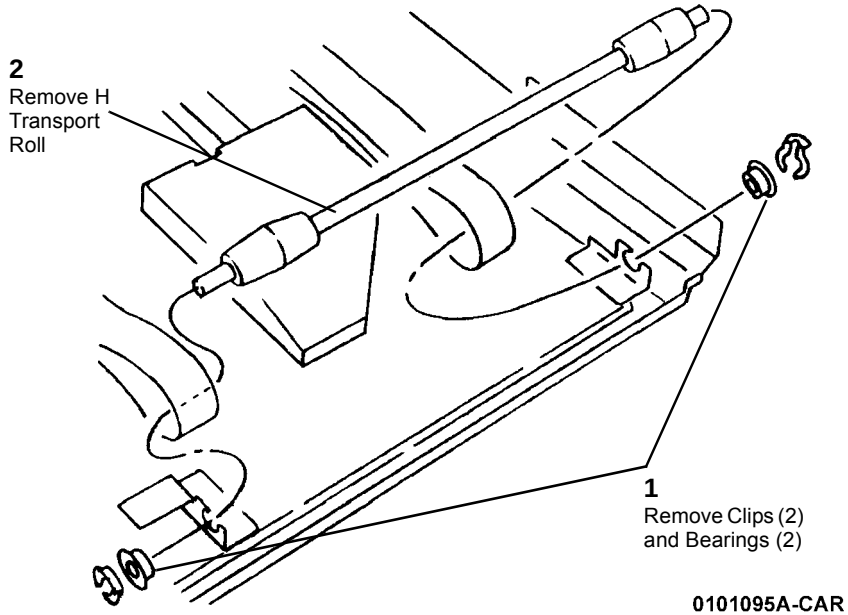


**Figure 4 Removing the H Transport Roll**

7. Remove the output H Transport Roll (Figure 5).

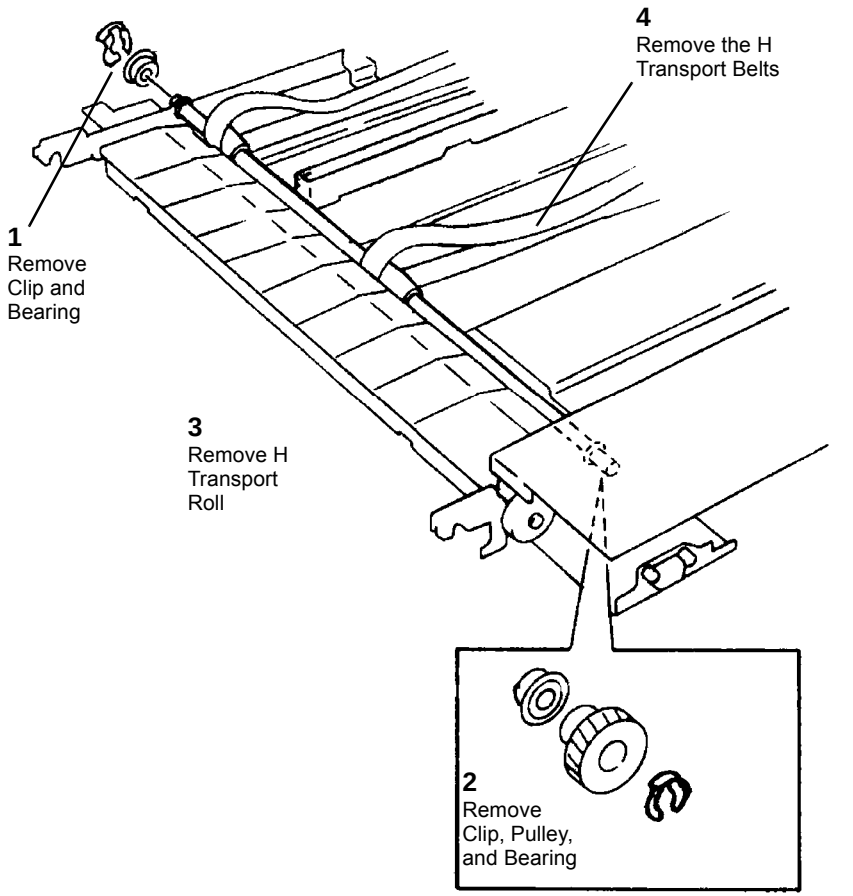


**Figure 5 Removing the H Transport Roll**

# REP 12.3 Entrance Sensor

## Parts List on PL 17.4

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the H Transport Assembly (REP 12.1).
2. Remove the following:
   a. H Transport Front Cover (PL 17.3)
   b. H Transport Rear Cover (PL 17.3)
   c. Stop (PL 17.3)
3. Remove the Entrance Upper Cover (REP 12.17).
4. Remove the Cover (Figure 1).
   a. Push up the hook (2).
   b. Remove the Cover, while moving it in the arrow direction.

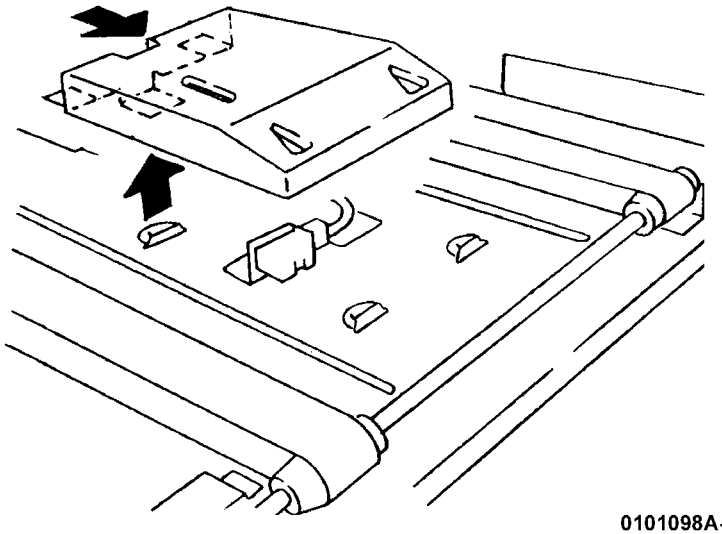

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**Figure 1 Removing the Cover**

5. Remove the H Transport Entrance Sensor and Top Tray Full Sensor (Figure 2).

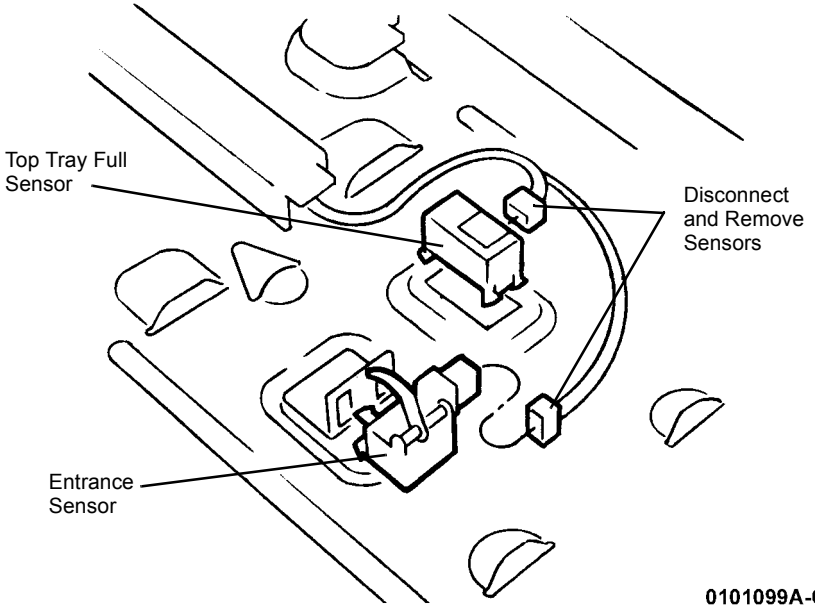


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**Figure 2 Removing Entrance Sensor and Top Tray Full Sensor**

# REP 12.4 Finisher

## Parts List on PL 17.5

## Removal

**CAUTION**

*Make sure to have two people to operate since the Finisher Unit weighs more than 16Kg.*

*When one person operates, detach the unit following the Steps after making it weigh less than 16Kg. Take extreme care to avoid lower back injury.*

1. Separate IIT and IOT.
2. Remove the following parts:
   a. H Transport Assembly (REP 12.2)
   b. H Transport Front Cover (PL 17.3)
   c. H Transport Rear Cover (PL 17.3)
   d. Stacker Tray (PL 17.1)
   e. Right Lower Cover (PL 17.5)
3. Remove the Thumbscrews (2) (Figure 1).

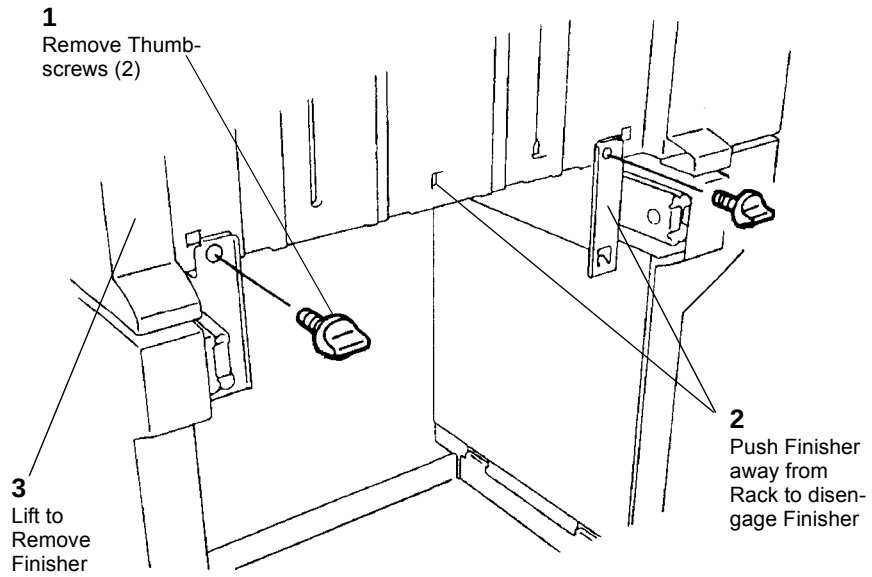


**Figure 1 Removing Thumbscrews**

4. Lift the Finisher from the Rack (Figure 2).

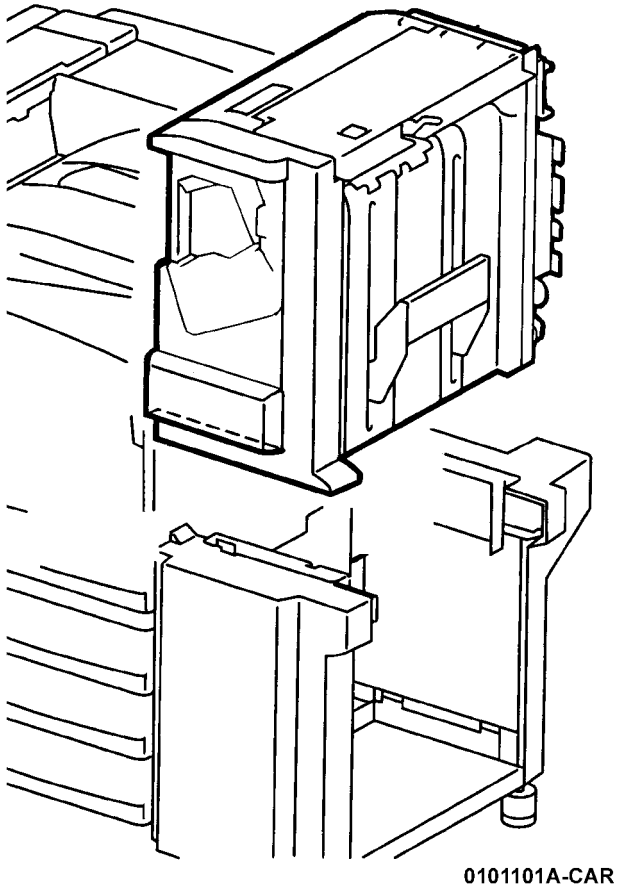


**Figure 2 Removing Finisher from Rack**

# REP 12.5 Stack Height Sensor Assembly

## Parts List on PL 17.6

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Links from the Top Cover Assembly (Figure 1).

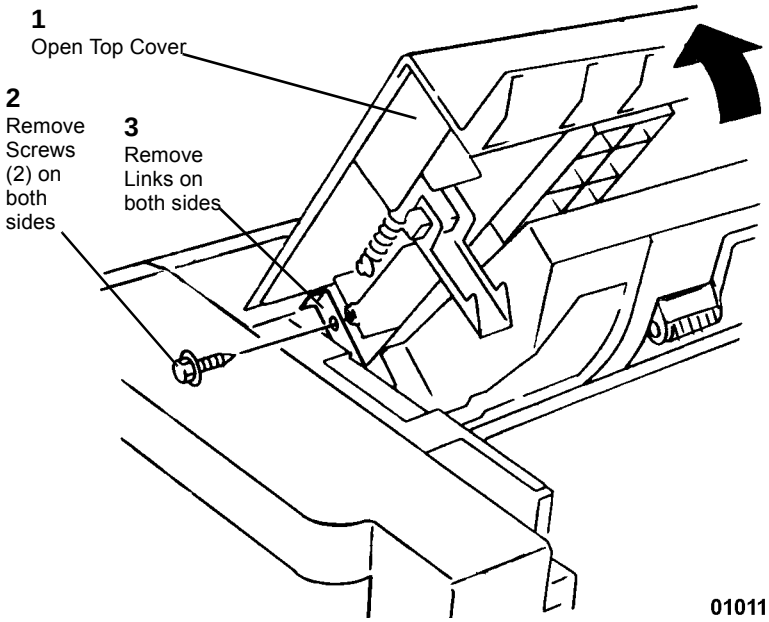


**Figure 1 Removing Links from Top Cover Assembly**

2. Remove the Stack Height Sensor Assembly (Figure 2).

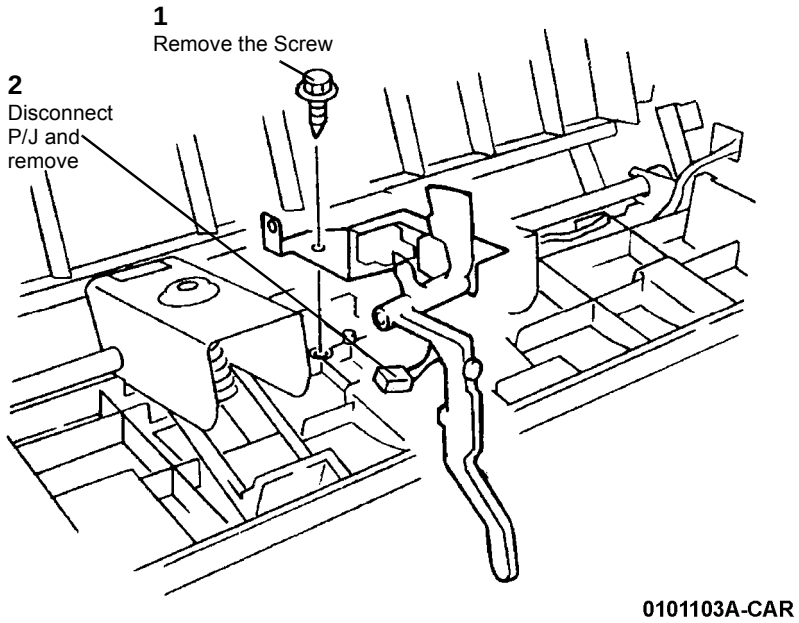


**Figure 2 Removing Stack Height Sensor Assembly**

# REP 12.6 Eject Roll Assembly

## Parts List on PL 17.6

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the following parts:
   a. Rear Cover (PL 17.5)
   b. Stacker Tray (PL 17.1)
   c. Right Cover (PL 17.5)
   d. Front Cover (PL 17.5)
2. Remove the Bracket (Figure 1).

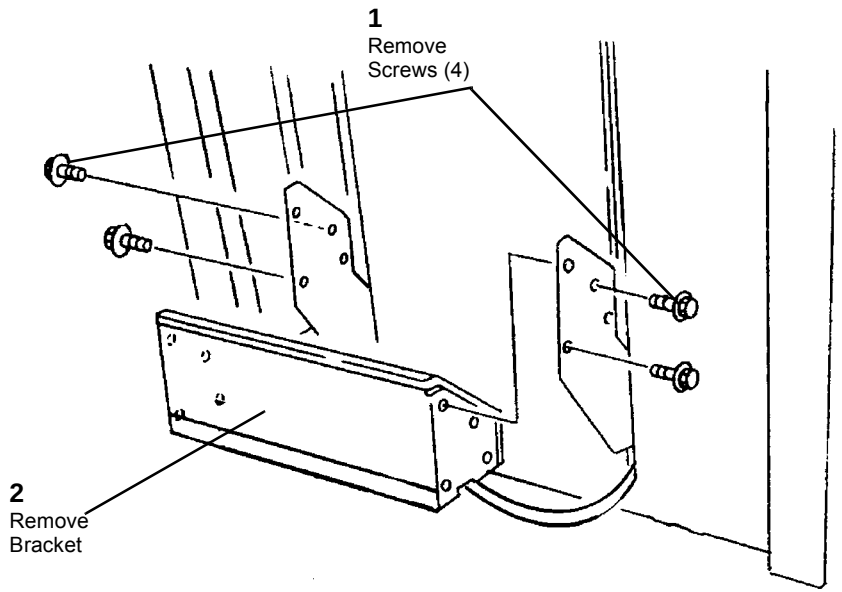


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**Figure 1 Remove the Bracket**

3. Disconnect P/J (Figure 2).

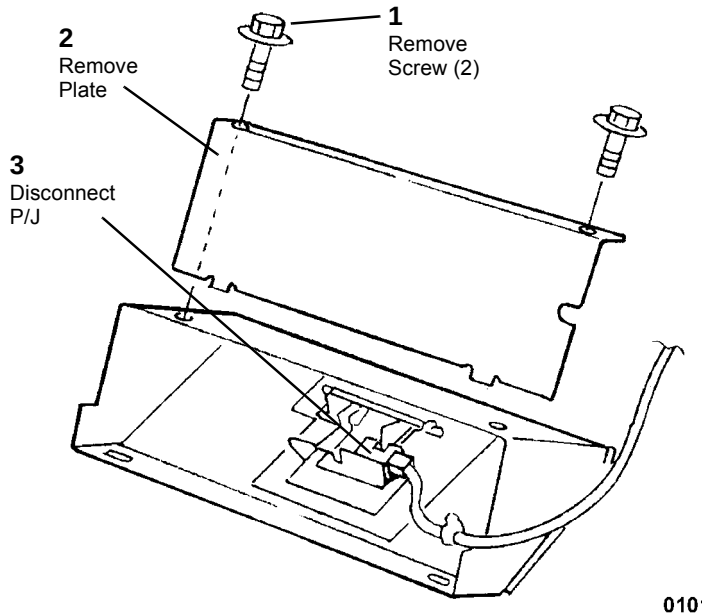


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**Figure 2 Disconnecting P/J**

4. Remove the Thumbscrews (2) (Figure 3).

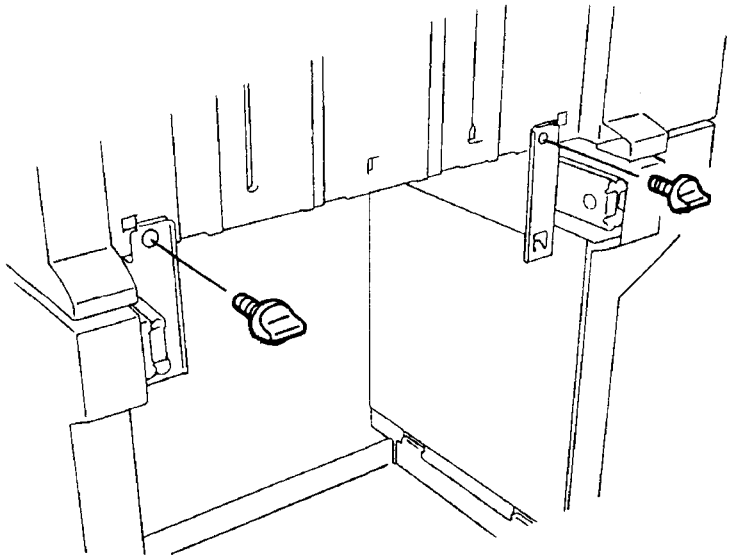

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**Figure 3 Removing Thumbscrews**

5. Remove the Tray Guide (Figure 4).

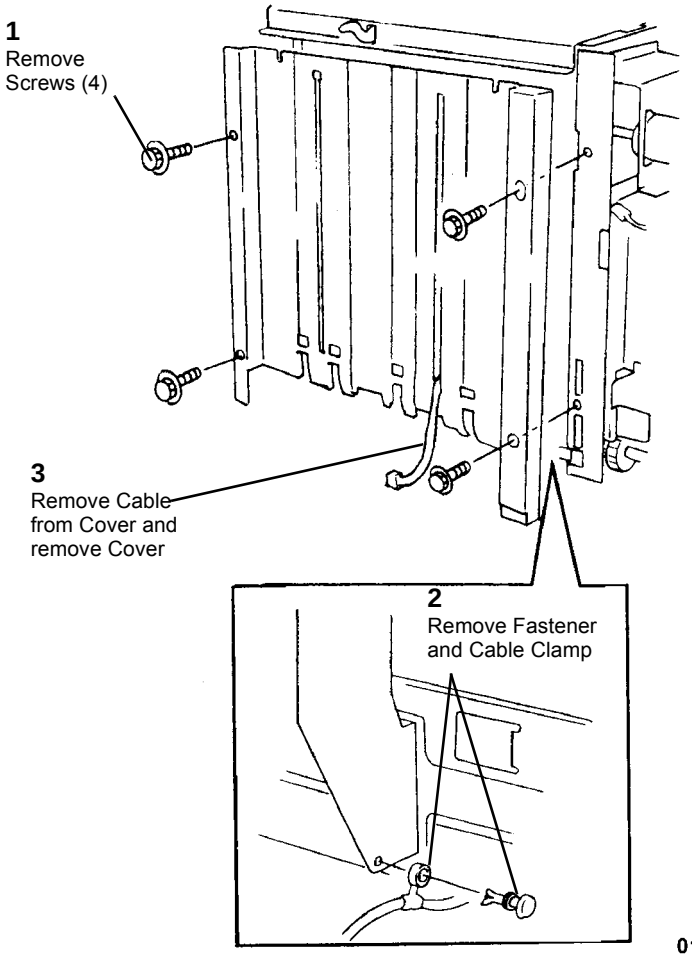


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**Figure 4 Removing Tray Guide**

6. Remove the Sensor (Figure 5).

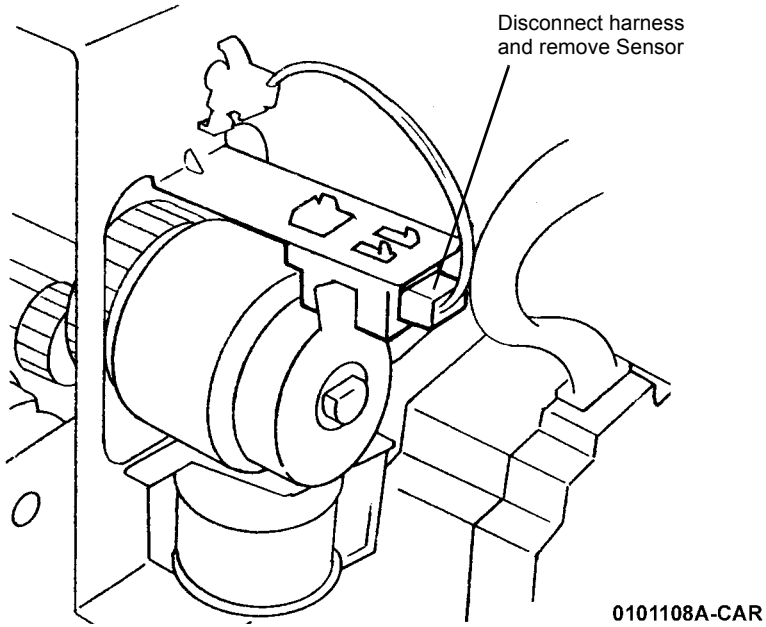



**Figure 5 Remove Sensor**

7. Remove Eject Roll (Figure 6).

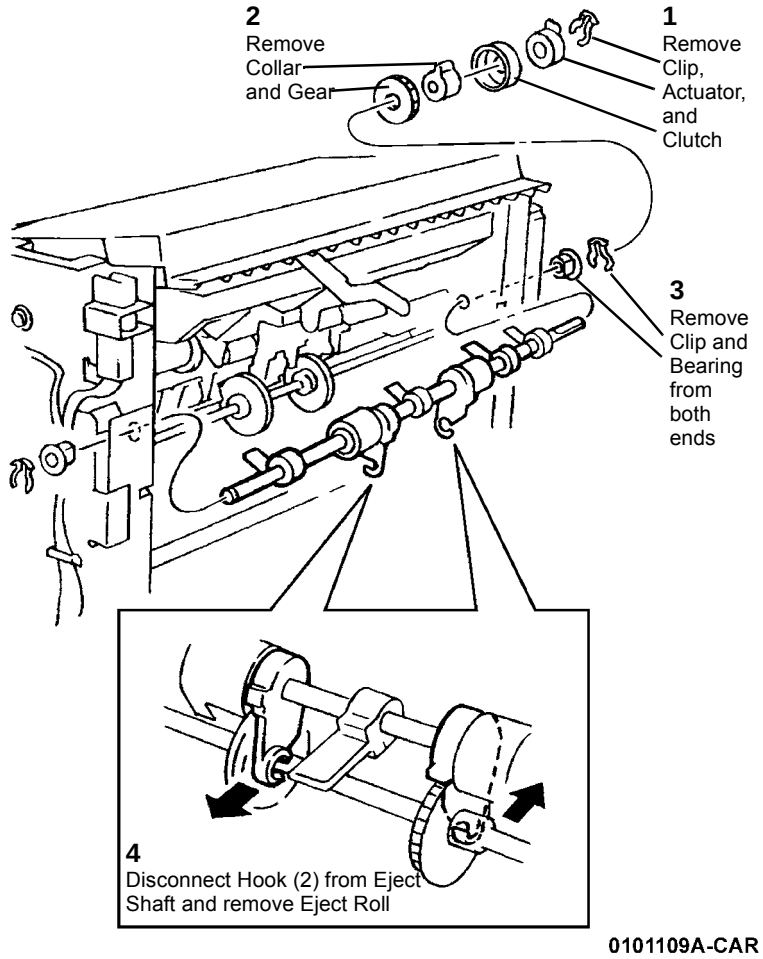



**Figure 6 Removing Eject Roll**

8. Remove Eject Shaft (Figure 7).

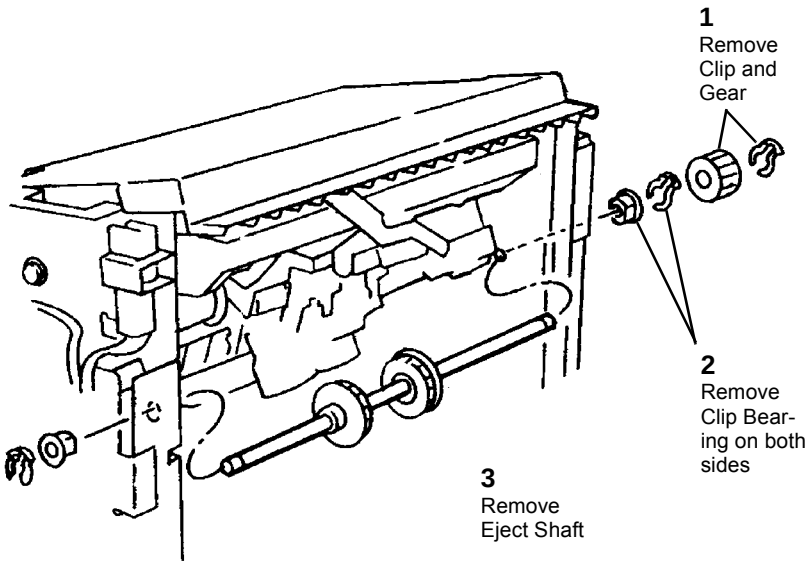



**Figure 7 Removing Eject Shaft**

## Replacement

***NOTE:*** *When replacing Feed Roll or Eject Shaft, replace them simultaneously.*

***NOTE:*** *When installing the Clutch, ensure to insert the Stop into Clutch grooves (Figure 8).*

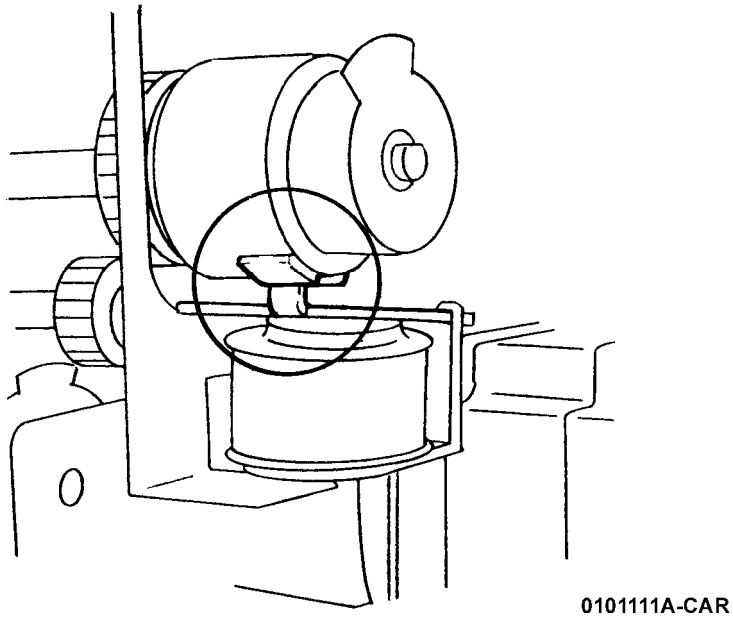



**Figure 8 Inserting Stop into Clutch Grooves**

# REP 12.7 Decurler Roll

## Parts List on PL 17.7

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the following parts:
   a. Front Cover (PL 17.5)
   b. Rear Cover (PL 17.5)
   c. Top Cover (PL 17.5)
2. Remove the Arm (Figure 1).

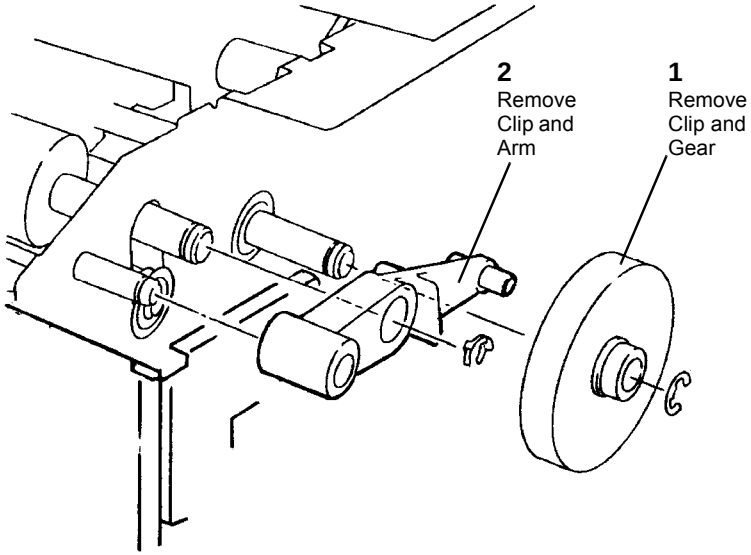



**Figure 1 Removing the Arm**

3. Remove the Decurler Roll (Figure 2).

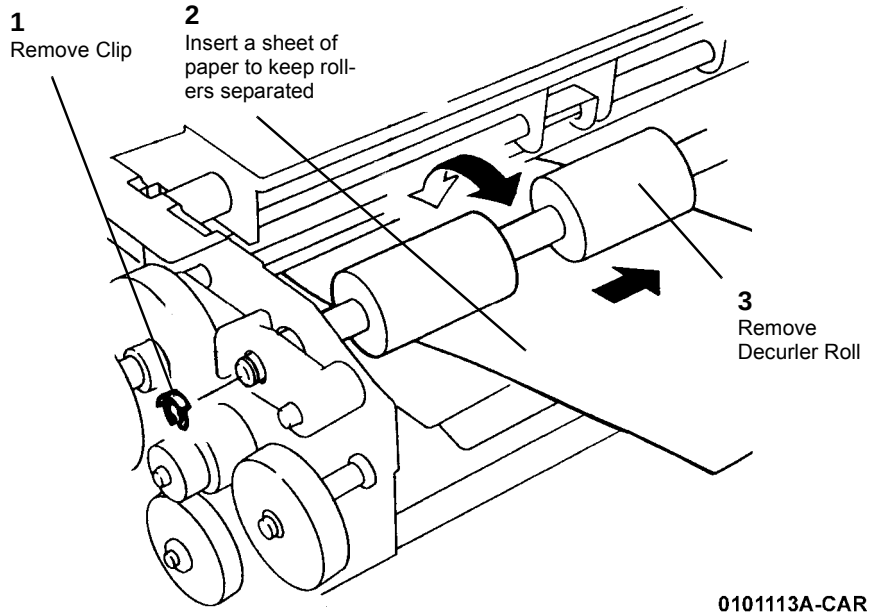



**Figure 2 Removing the Decurler Roll**

# REP 12.8 Finisher Drive Motor

## Parts List on PL 17.7

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Rear Cover (PL 17.14).
2. Remove the Finisher Drive Motor (Figure 1).

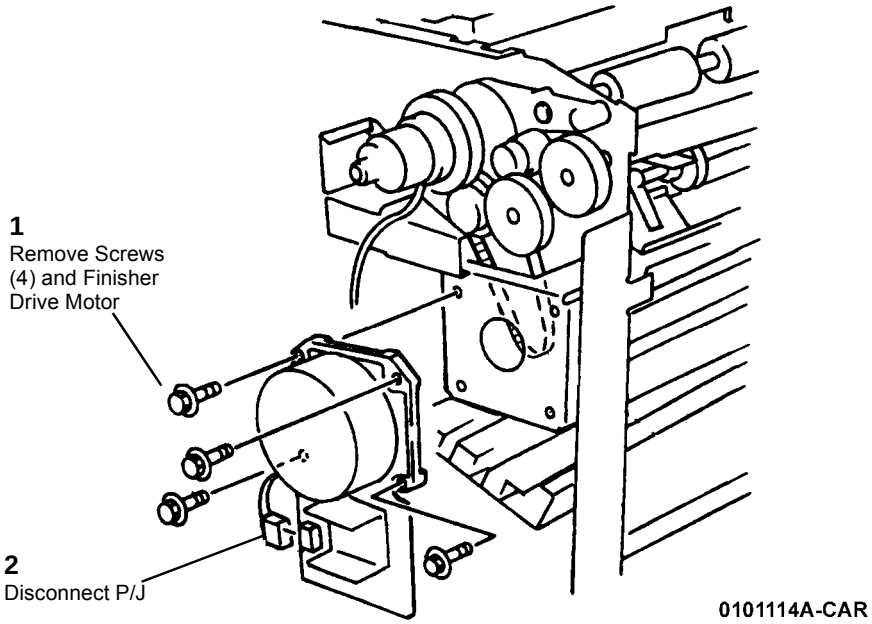



**Figure 1 Removing the Finisher Drive Motor**

## Replacement

***NOTE:*** *Hang the Belt to the Guide when installing the Drive Motor.*

# REP 12.9 Belt

## Parts List on PL 17.7

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Rear Cover (PL 17.5)
2. Rotate the Actuator (Figure 1).

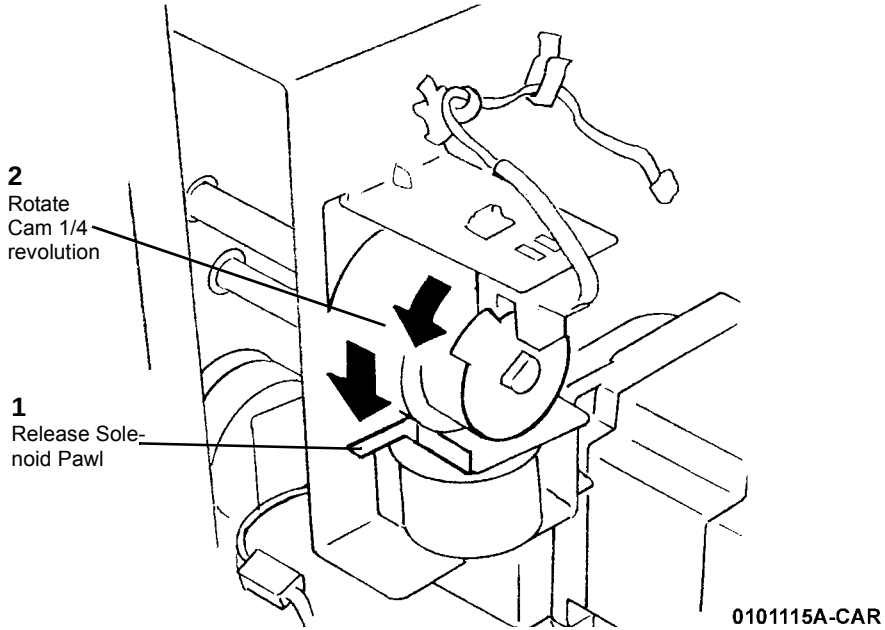



**Figure 1 Rotate the Actuator**

3. Release Harnesses (Figure 2).

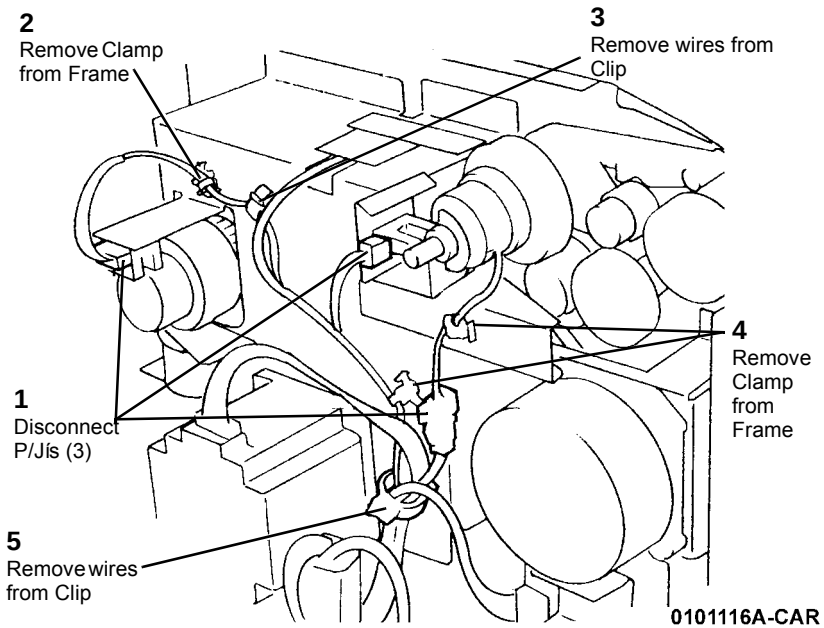



**Figure 2 Releasing Harnesses**

4. Remove the Cam Bracket Assembly (Figure 3).
   a. Remove the Screws (4).
   b. Remove the Cam Bracket Assembly.

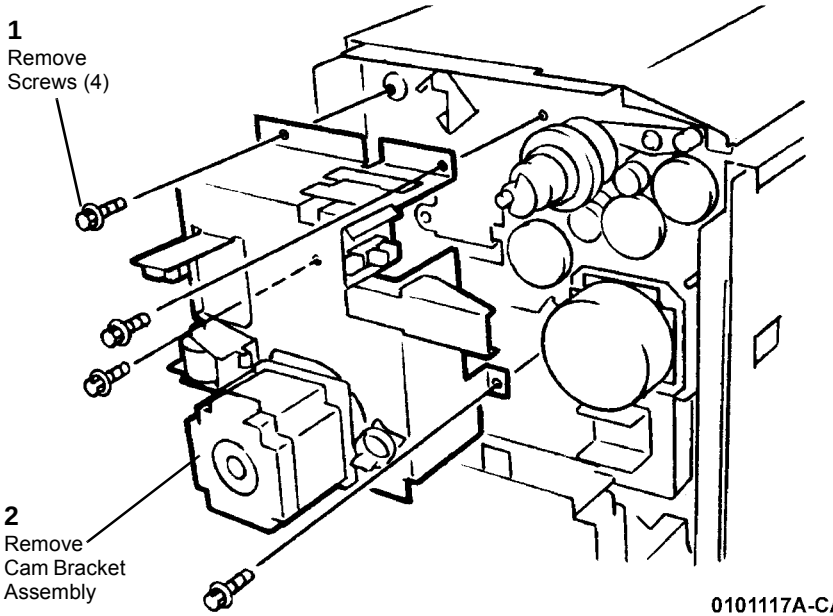



**Figure 3 Removing the Cam Bracket Assembly**

5. Remove the Belt (Figure 4).

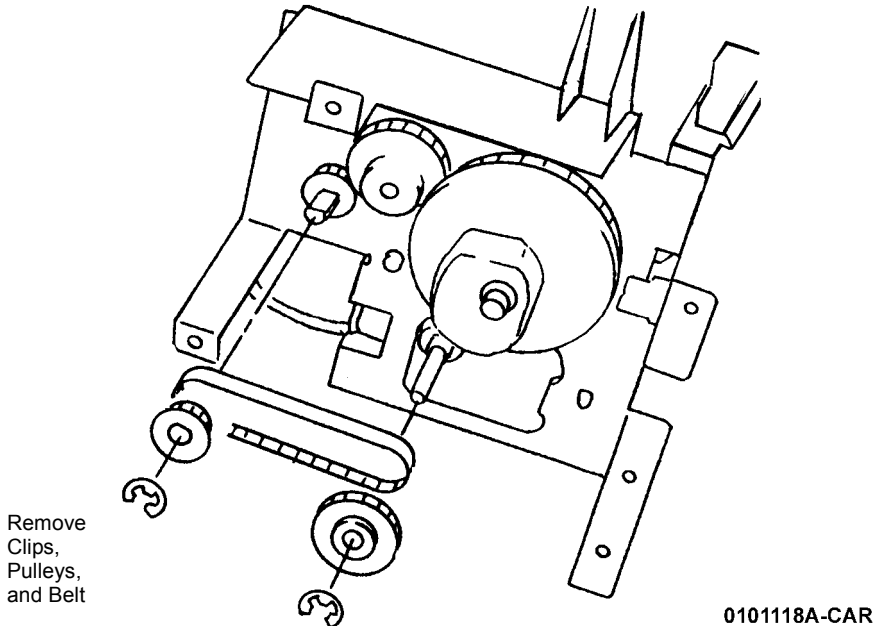



**Figure 4 Removing the Belt**

## Replacement

***NOTE:*** *During assembly, refer to Figure 5.*

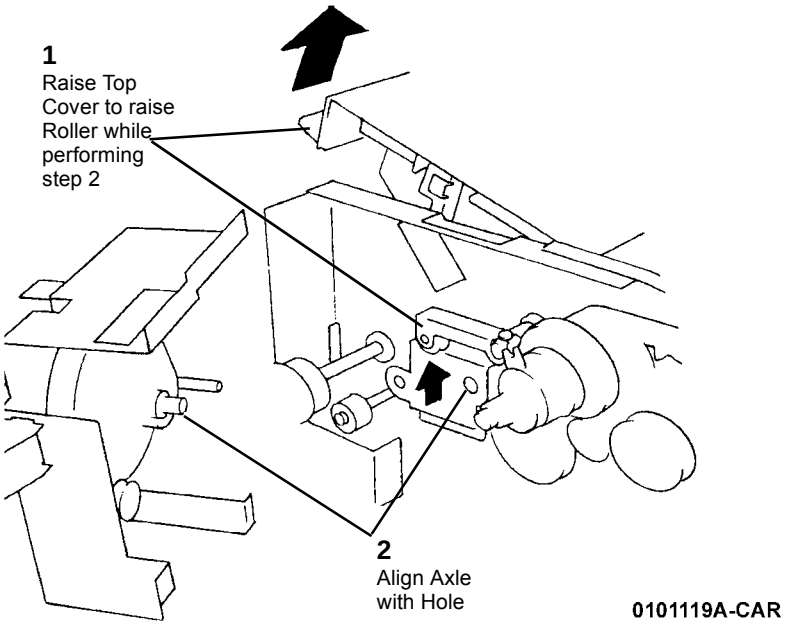



**Figure 5 Inserting Axle of Cam Bracket Assembly into Hole**

***NOTE:*** *During assembly, refer to Figure 6.*

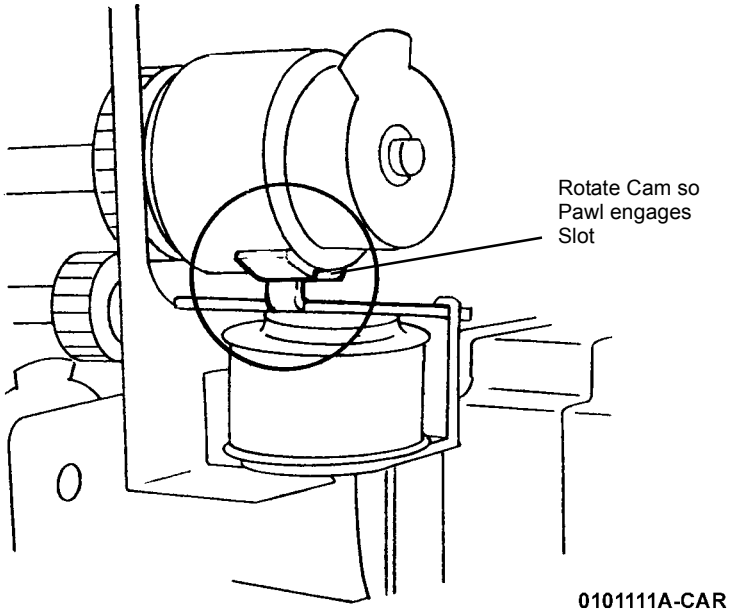



**Figure 6 Engaging Pawl with Slot**

# REP 12.10 Rail

## Parts List on PL 17.9

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the following:
   a. Front Cover (PL 17.5)
   b. Rear Cover (PL 17.5)
2. Remove Harness from Stapler (Figure 1).

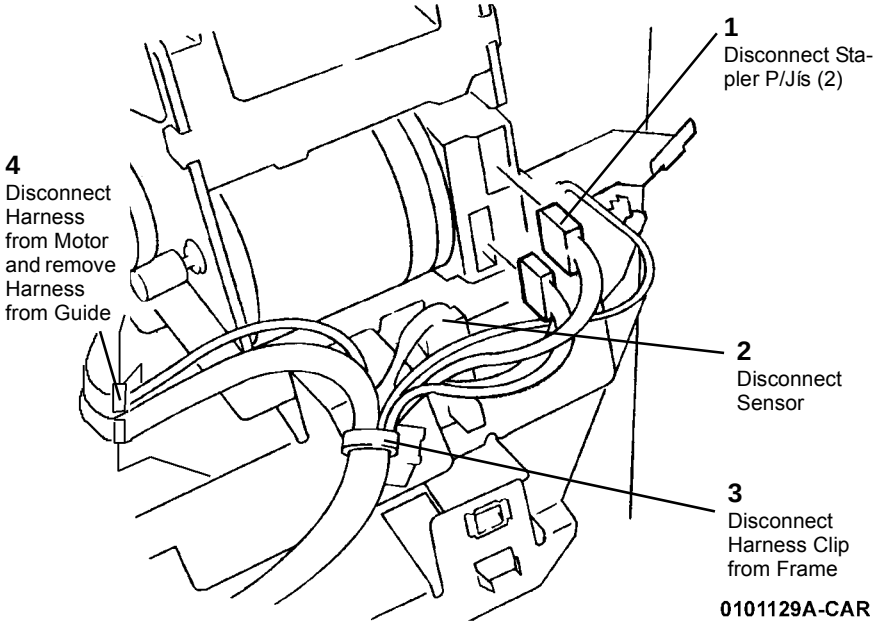



**Figure 1 Removing Harness from Stapler**

3. Remove Stapler Assembly (Figure 2).

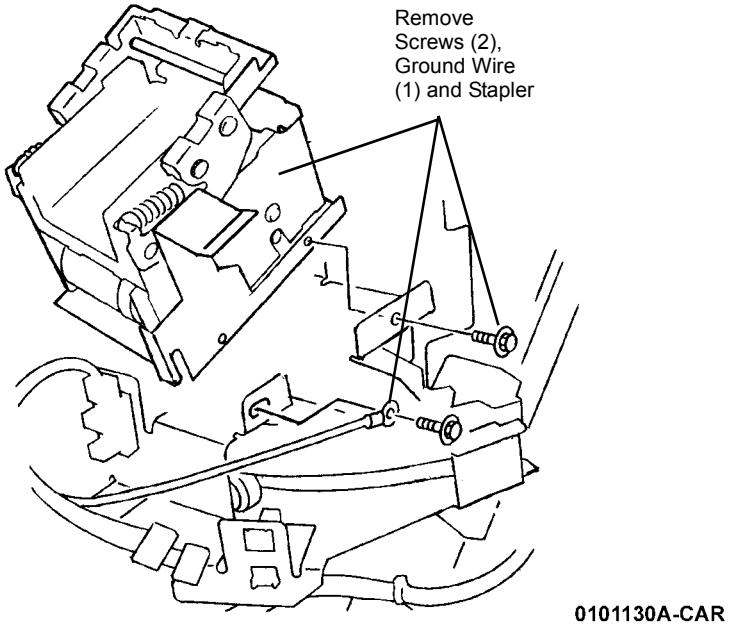



**Figure 2 Removing Stapler Assembly**

4. Remove the PWB Cover (Figure 3).

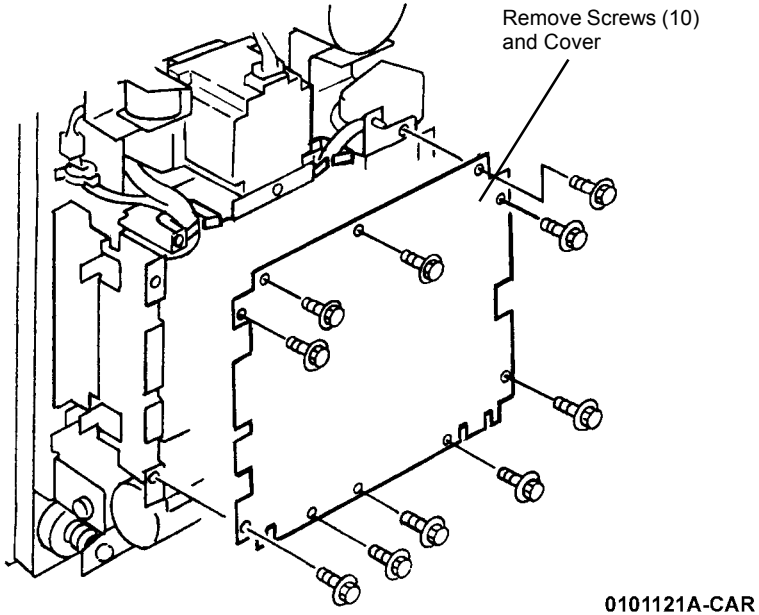



**Figure 3 Removing the PWB Cover**

5. Move the PWB Chassis down (Figure 4).

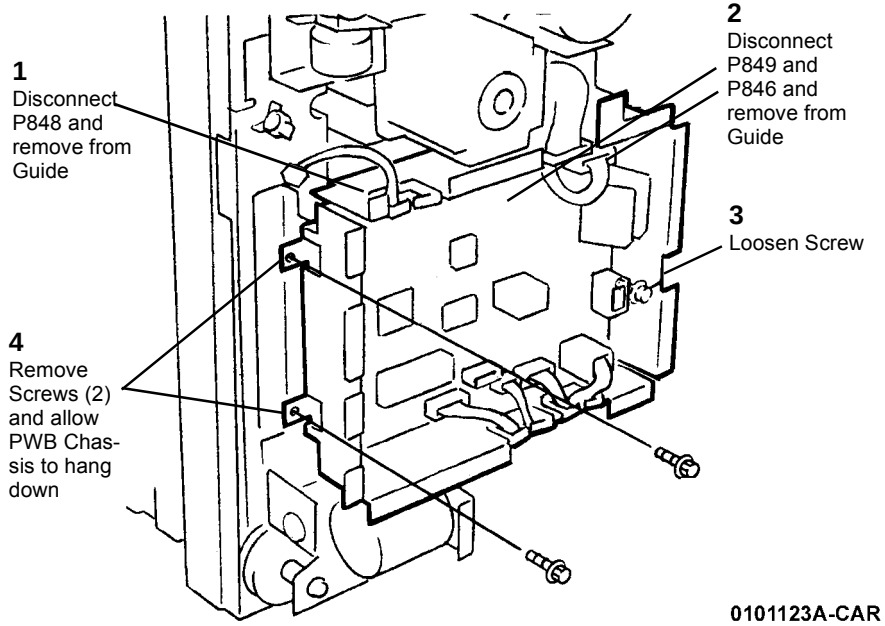



**Figure 4 Moving PWB Chassis Down**

6. Remove Rear Rail Mounting Screws (2) (Figure 5).

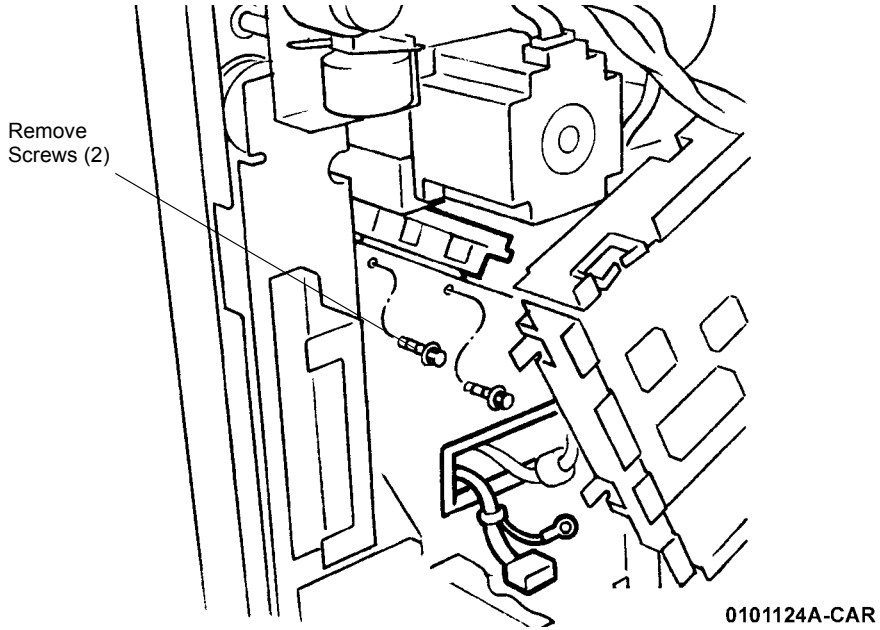



**Figure 5 Removing Rear Rail Mounting Screws (2)**

7. Remove Front Rail Mounting Screws (2) (Figure 6).

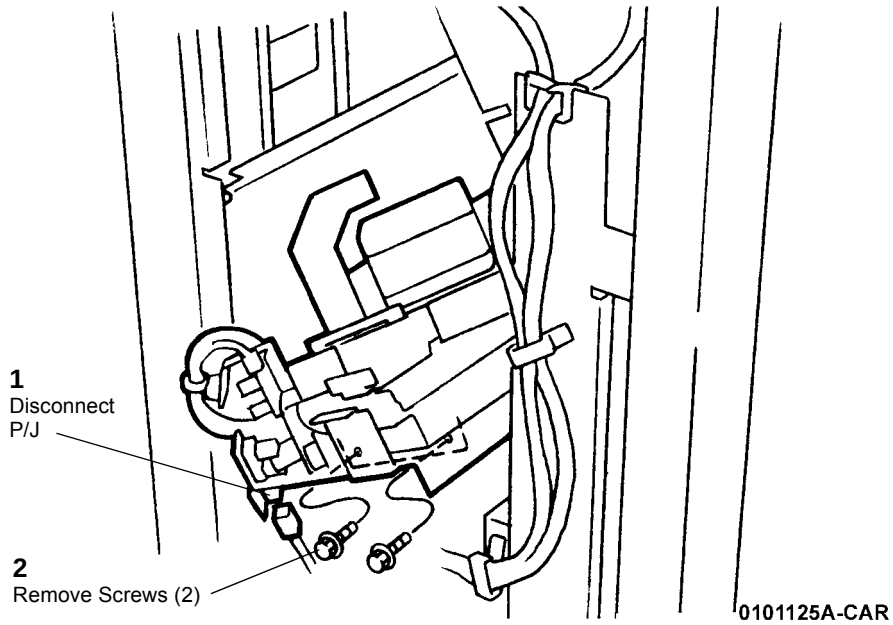
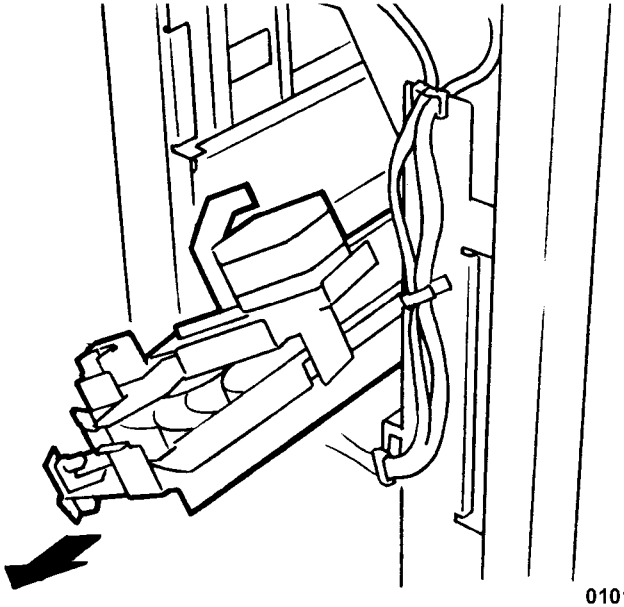



**Figure 6 Removing Front Rail Mounting Screw**

8. Remove the Rail Assembly (Figure 7).



0101126A-CAR

**Figure 7 Removing Rail Assembly**

9. Remove the Carriage Assembly (Figure 8).

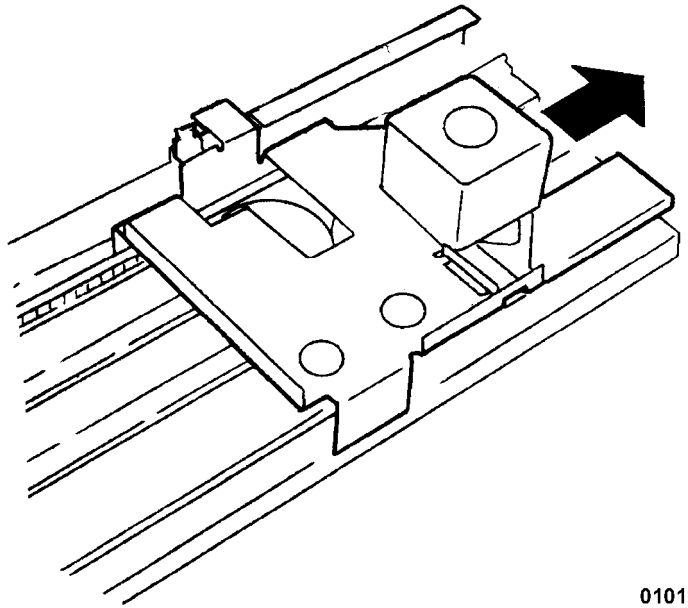


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**Figure 8 Removing the Carriage Assembly**

10. Remove Screws (5) and remove Rail (Figure 9).

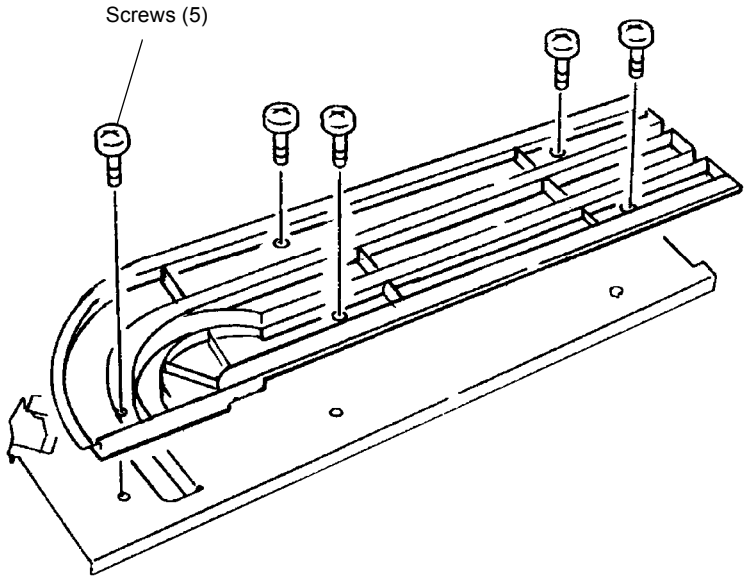


**Figure 9 Removing Rail**

# REP 12.11 Stapler Assembly

## Parts List on PL 17.9

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open the Front Cover.
2. Disconnect Stapler P/Jís (2) (Figure 1).

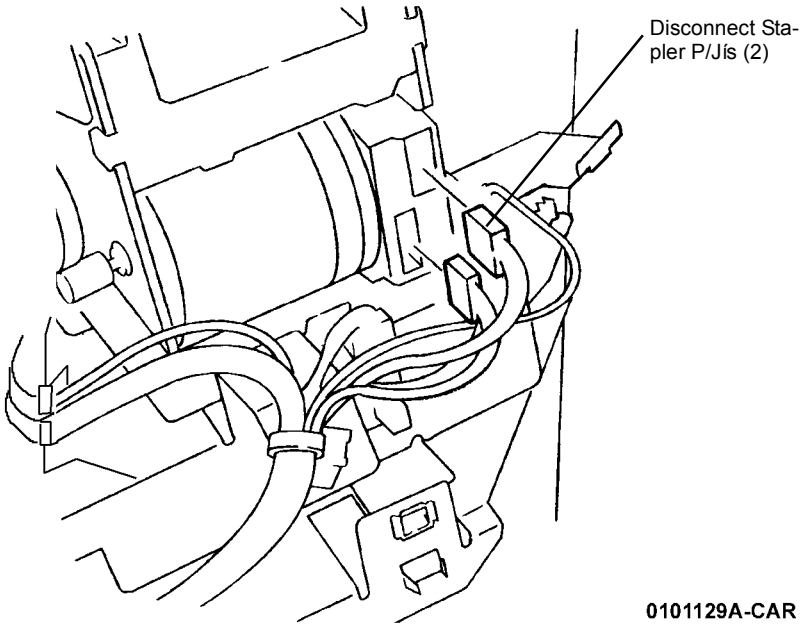


**Figure 1 Disconnecting P/Jís**

3. Remove the Stapler Assembly (Figure 2).

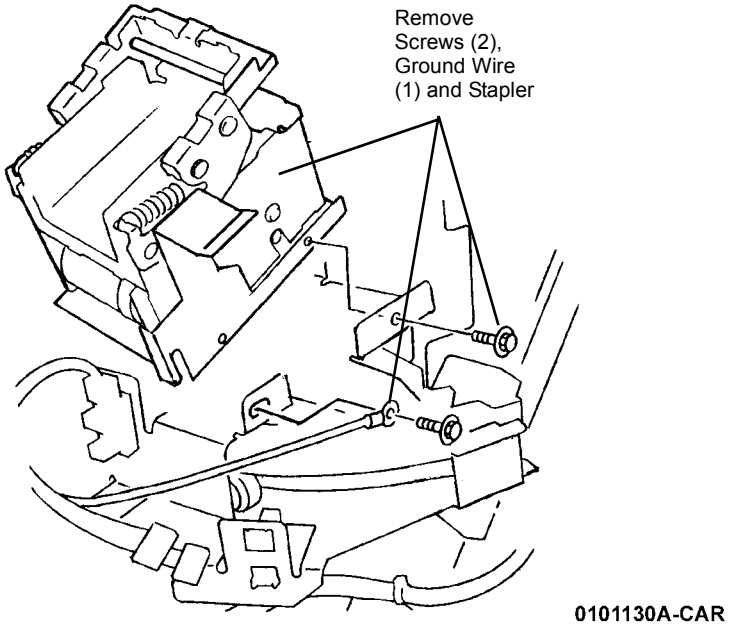


**Figure 2 Removing Stapler Assembly**

## Replacement

***NOTE:*** *Insert Stapler Assembly Tab into Slot (Figure 3).*

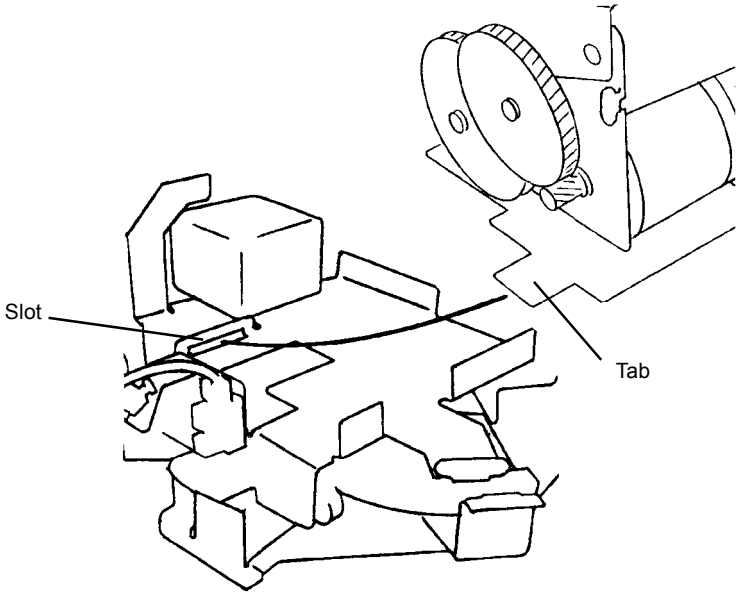


**Figure 3 Inserting Tab into Slot**

# REP 12.12 Compiler Tray Assembly

## Parts List on PL 17.10

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the following parts:
   a. Rear Cover (PL 17.5)
   b. Stacker Tray (PL 17.1)
   c. Right Cover (PL 17.5)
   d. Front Cover (PL 17.5)
2. Remove the Bracket (Figure 1).

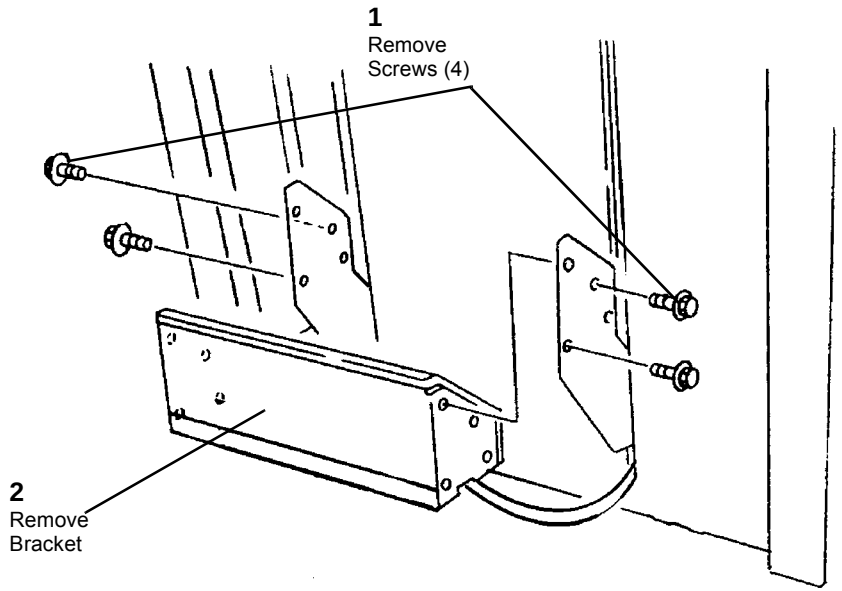


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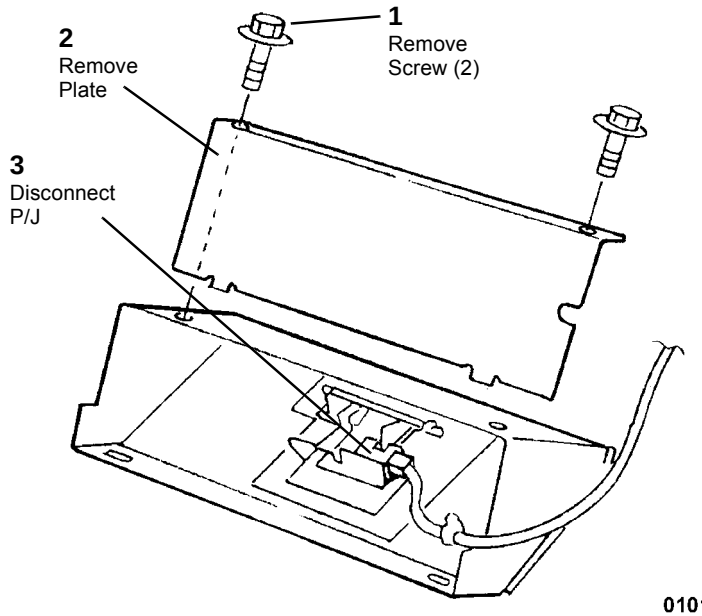
**Figure 1 Remove the Bracket**

3. Disconnect P/J (Figure 2).




0101105A-CAR

**Figure 2 Disconnecting P/J**

4. Remove Thumbscrews (2) (Figure 3).

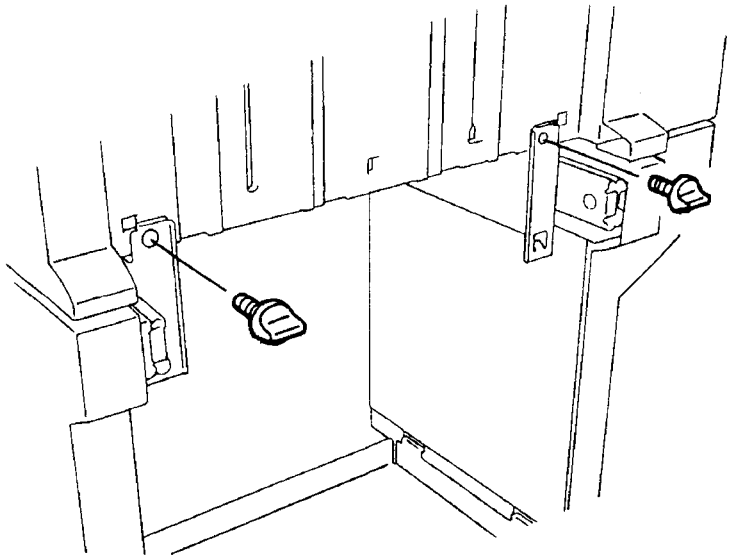


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**Figure 3 Removing Thumbscrews (2)**

5. Remove the Tray Guide (Figure 4).

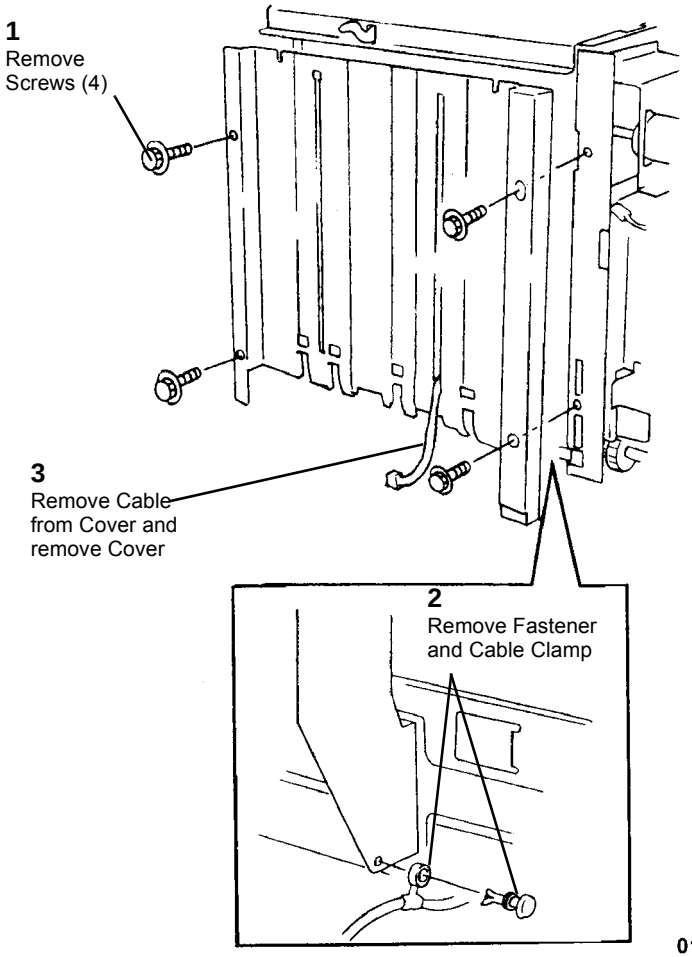


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**Figure 4 Removing Tray Guide**

6. Release Compiler Tray Harness (Figure 5).

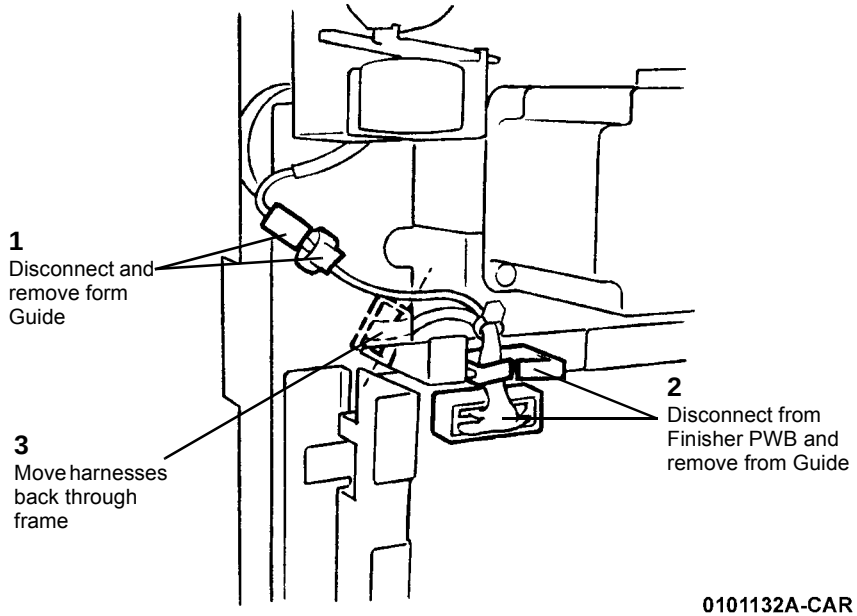



**Figure 5 Releasing Compiler Tray Harness**

7. Remove the Screw on the Inboard side (Figure 6).

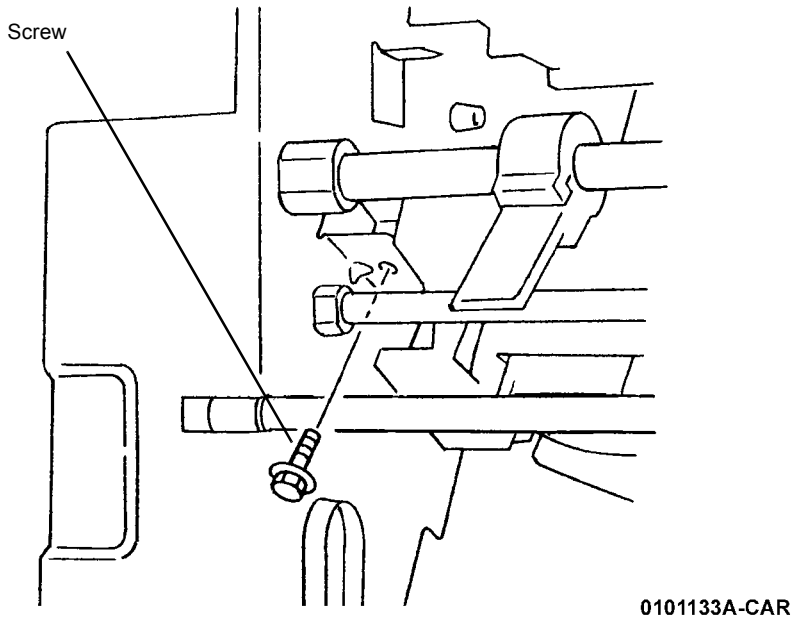



**Figure 6 Removing Screw on Inboard Side**

8. Remove the Compiler Tray Assembly (Figure 7).

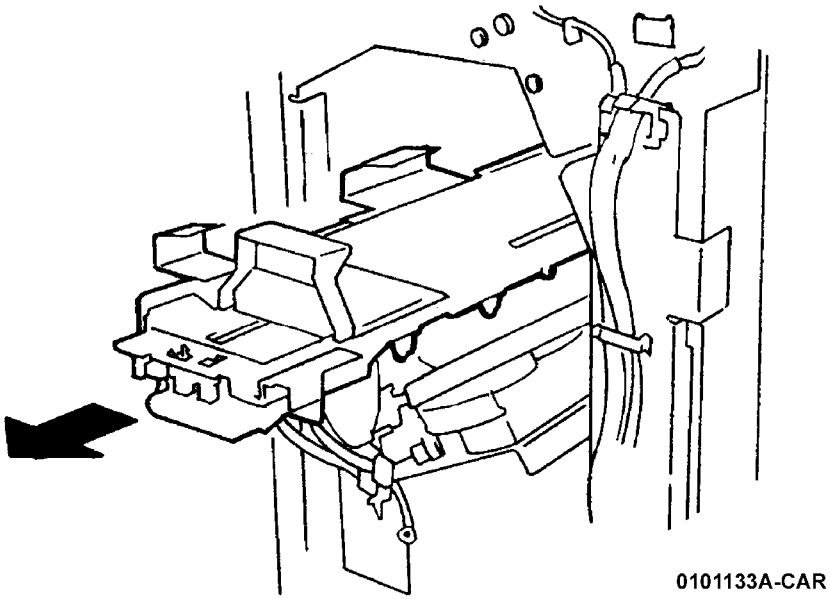



**Figure 7 Removing Compiler Tray Assembly**

# REP 12.13 Stacker Motor Assembly

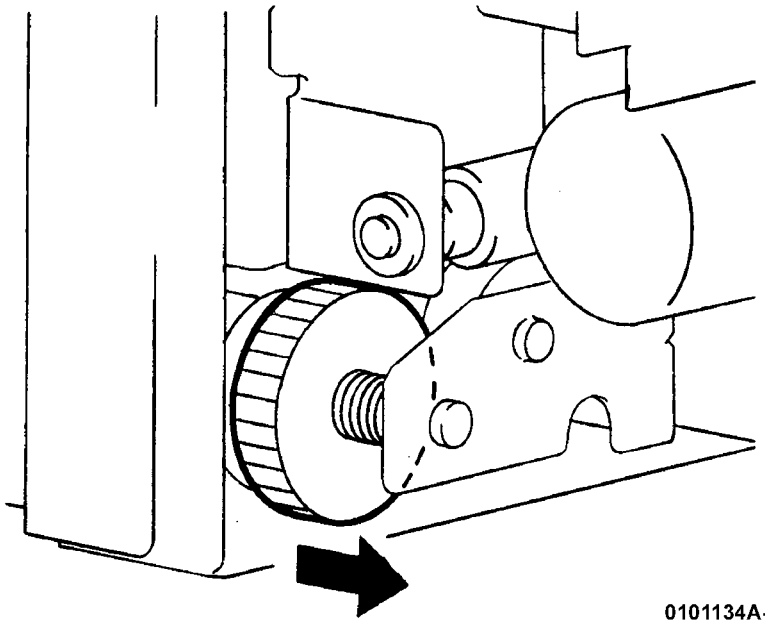
## Parts List on PL 17.11

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Rear Cover (PL 17.5)
2. Hold Stacker Tray and move Gear to lower the Stack Tray (Figure 1).



0101134A-CAR

**Figure 1 Moving Gear to Lower Stack Tray**

3. Remove the screws on PWB Chassis (Figure 2).

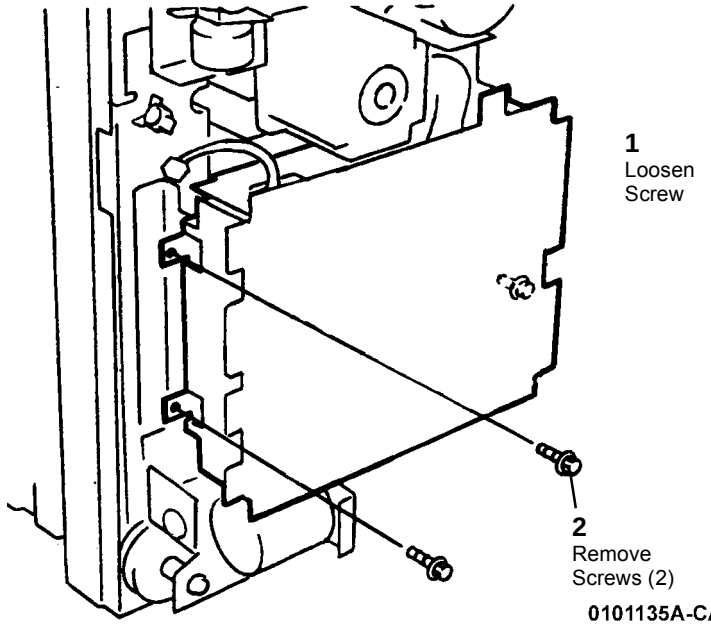



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**Figure 2 Removing Screws on PWB Chassis**

4. Remove the Stacker Motor Assembly (Figure 3).
   a. Remove the screws (3) while sliding the PWB Chassis upward.
   b. Slide the Gear.
   c. Remove the Stacker Motor Assembly.

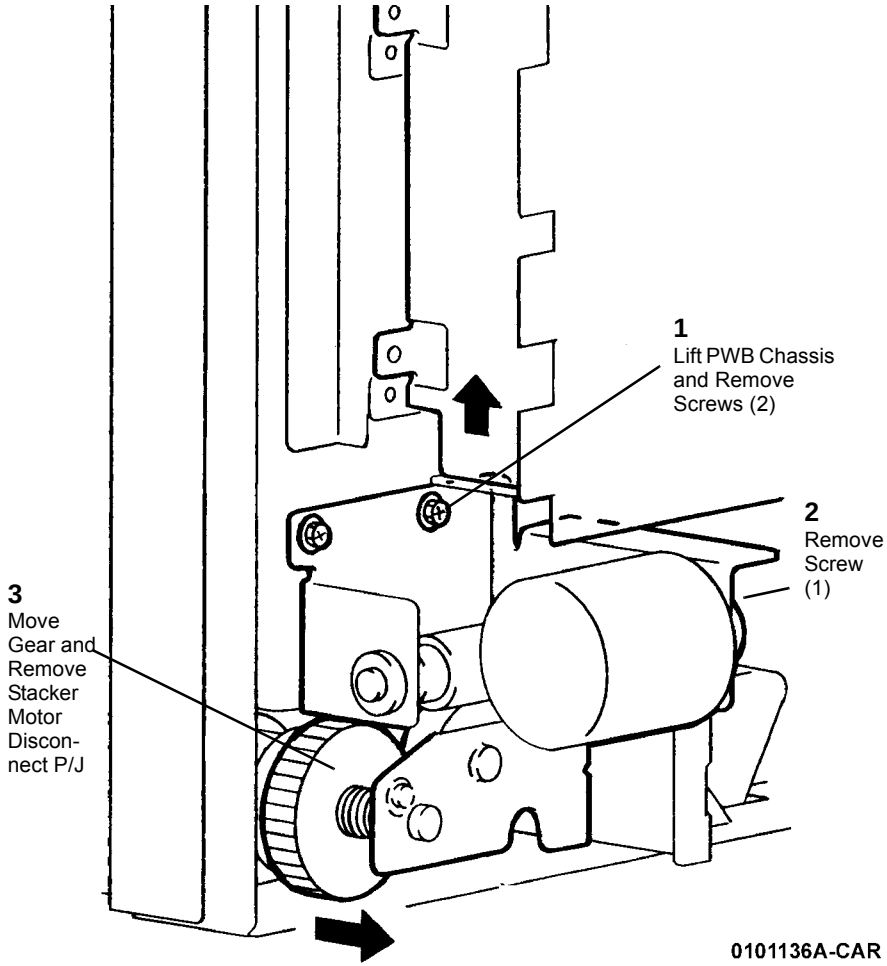


**Figure 3 Removing Stacker Motor Assembly**

# REP 12.14 Front Elevator Bracket

## Parts List on PL 17.11

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the following parts:
   a. Rear Cover (PL 17.5)
   b. Stacker Tray (PL 17.1)
   c. Right Cover (PL 17.5)
   d. Front Cover (PL 17.5)
2. Remove the Bracket (Figure 1).

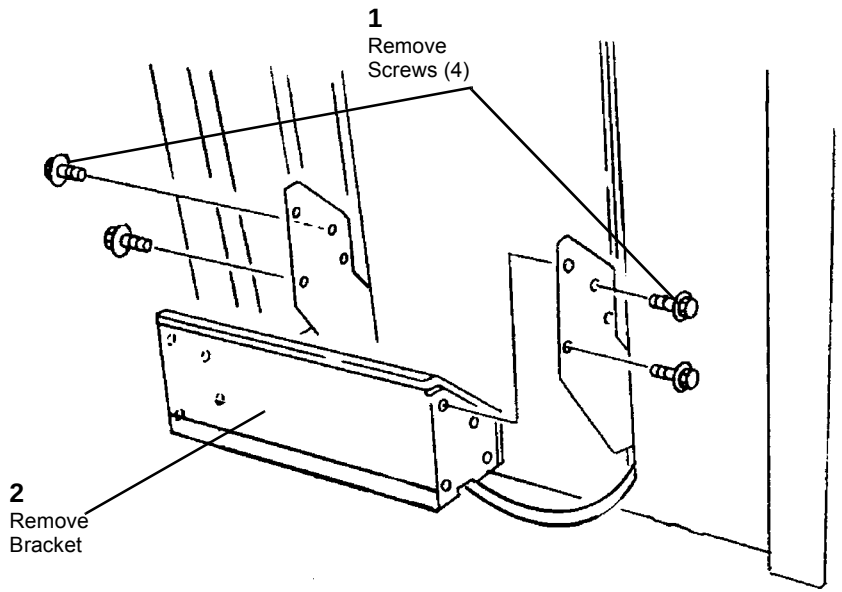


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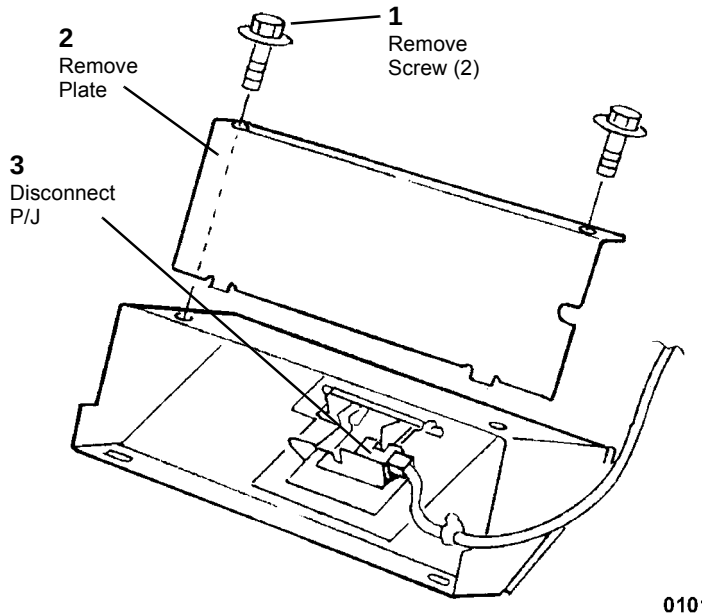
**Figure 1 Remove the Bracket**

3. Disconnect P/J (Figure 2).




0101105A-CAR

**Figure 2 Disconnecting P/J**

4. Remove the Thumbscrews (2) (Figure 3).

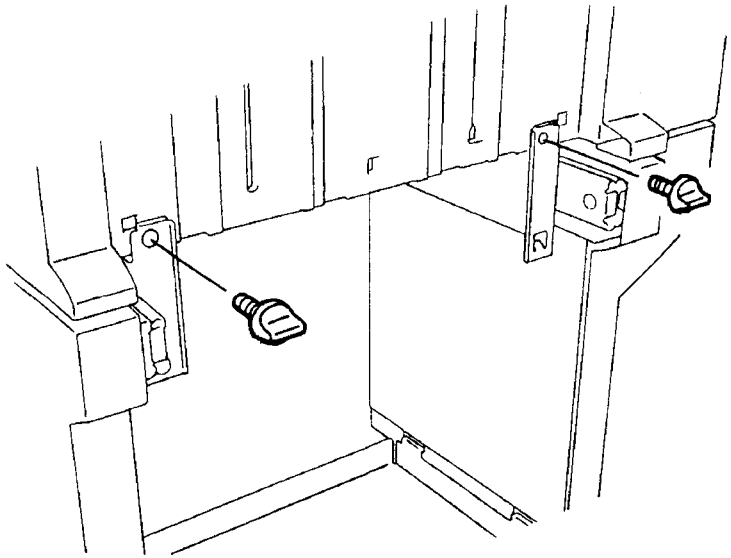


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**Figure 3 Removing Thumbscrews**

5. Remove the Tray Guide (Figure 4).

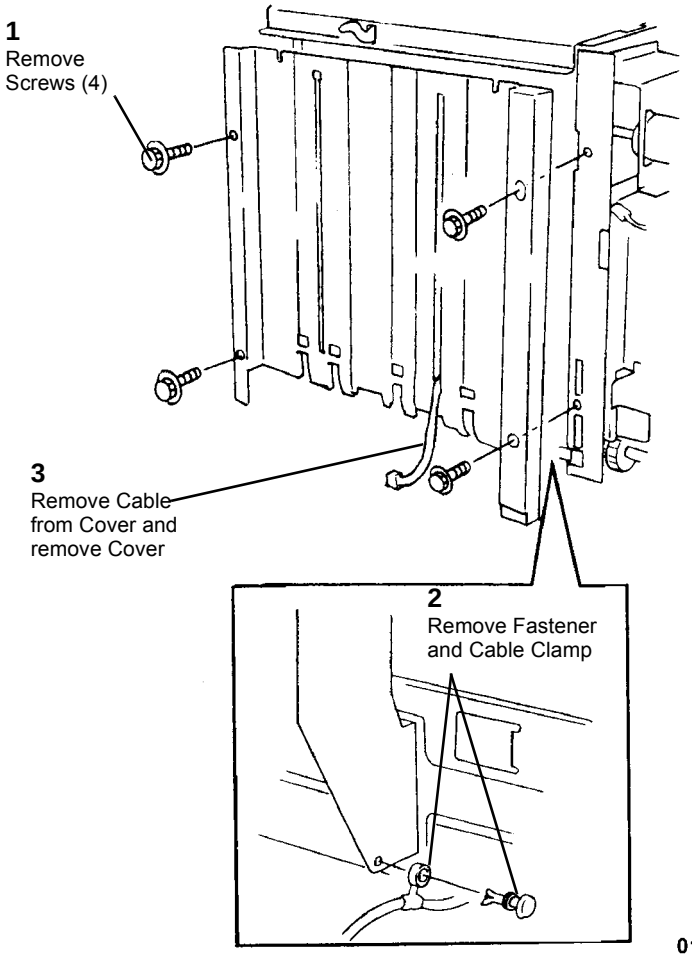


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**Figure 4 Removing Tray Guide**

6. Move PWB Chassis (Figure 5).

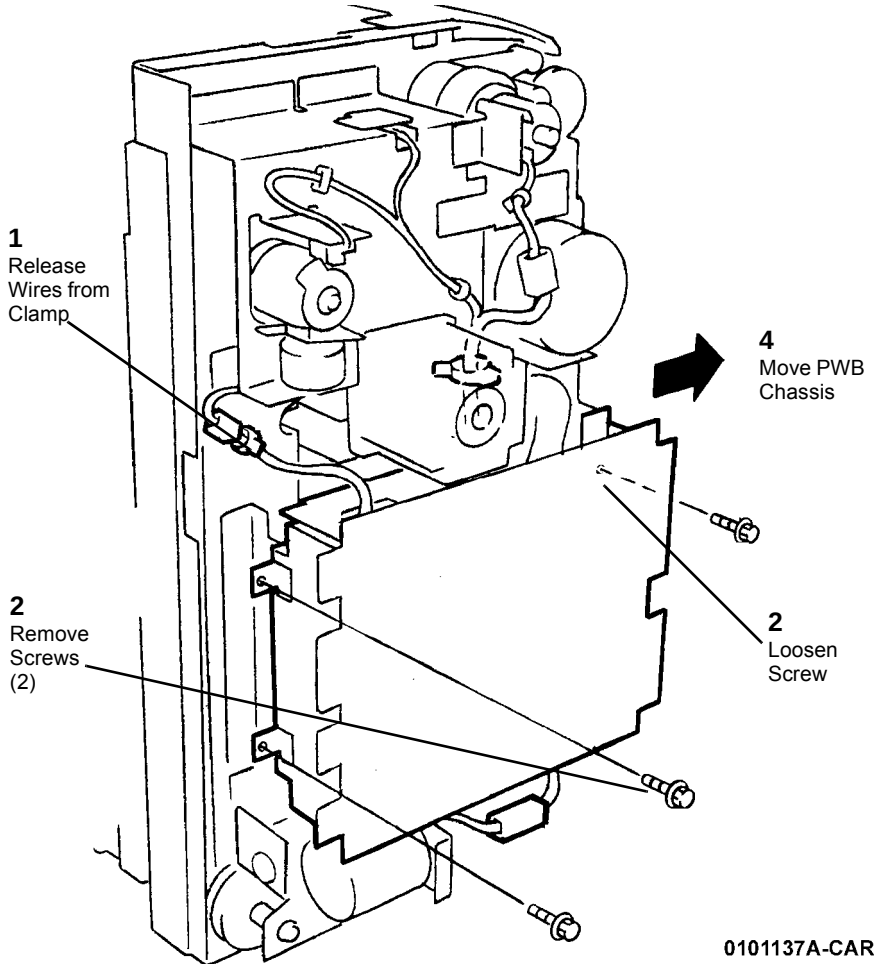


**Figure 5 Moving PWB Chassis**

7. Remove Front Elevator Bracket (Figure 6).

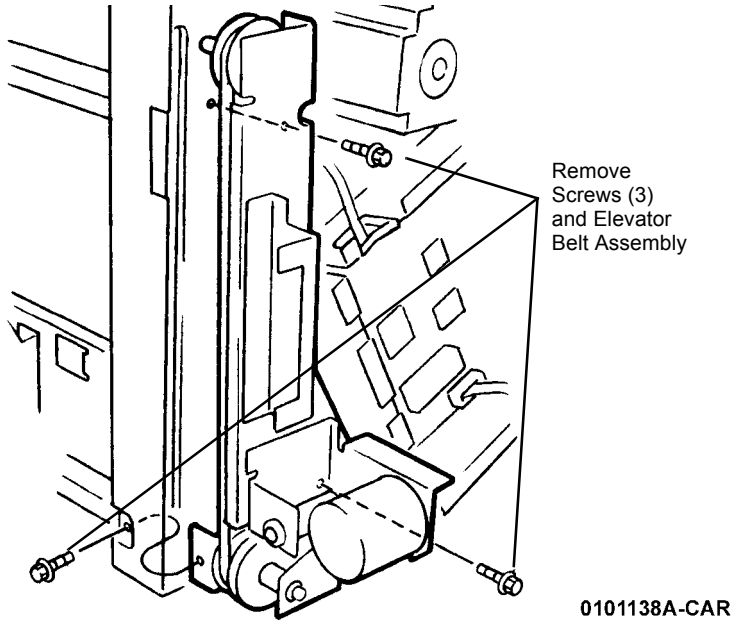


**Figure 6 Removing Elevator Belt Assembly**

# REP 12.15 Paddle Gear Shaft

## Parts List on PL 17.12

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the following parts:
   a. Stapler Assembly (REP 12.11).
   b. Rear Cover (PL 17.5).
2. Remove the Cam Bracket Assembly (REP 12.18).
3. Remove the Bearing (Figure 1).

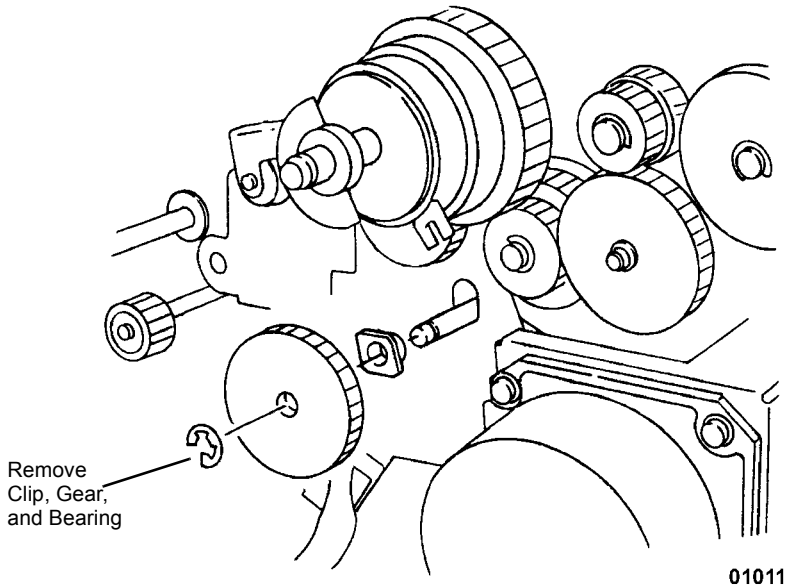


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**Figure 1 Removing Bearing**

4. Remove Screw on Paddle Gear Shaft (Figure 2).

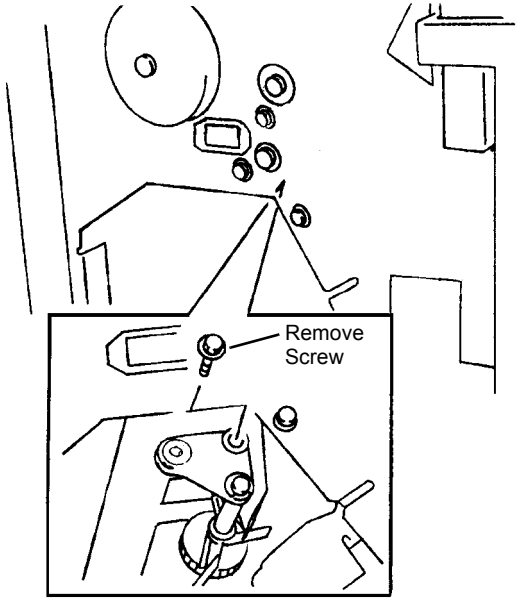


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**Figure 2 Removing Screw on Paddle Gear Shaft**

5. Remove the Paddle Gear Shaft (Figure 3).

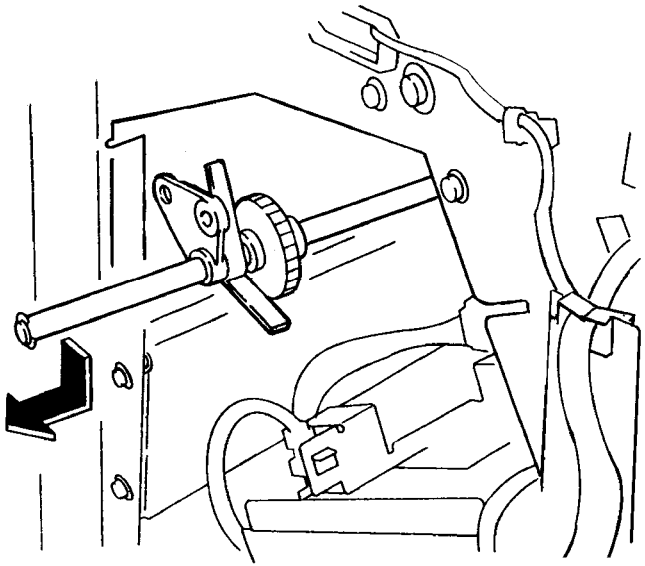

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**Figure 3 Removing Paddle Gear Shaft**

# REP 12.16 Finisher PWB

## Parts List on PL 17.13

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (PL 17.5).
2. Remove the PWB Cover (Figure 1).

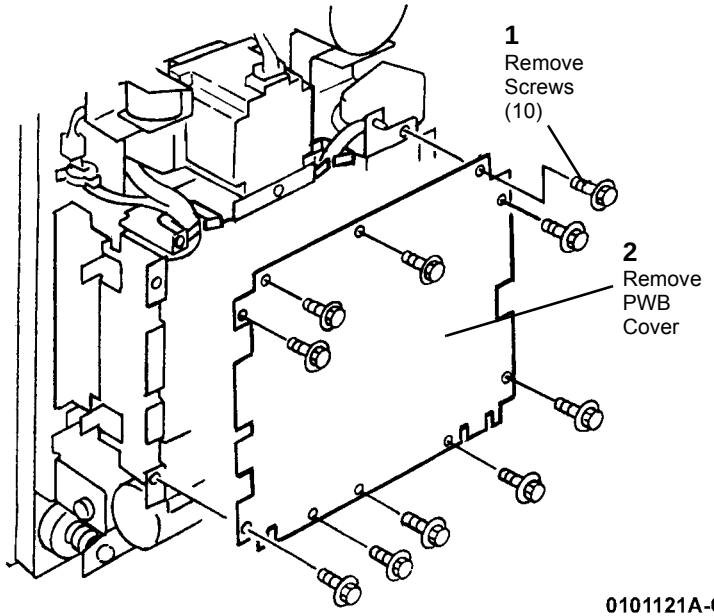



**Figure 1 Removing PWB Cover**

3. Disconnect P/Jís (Figure 2).

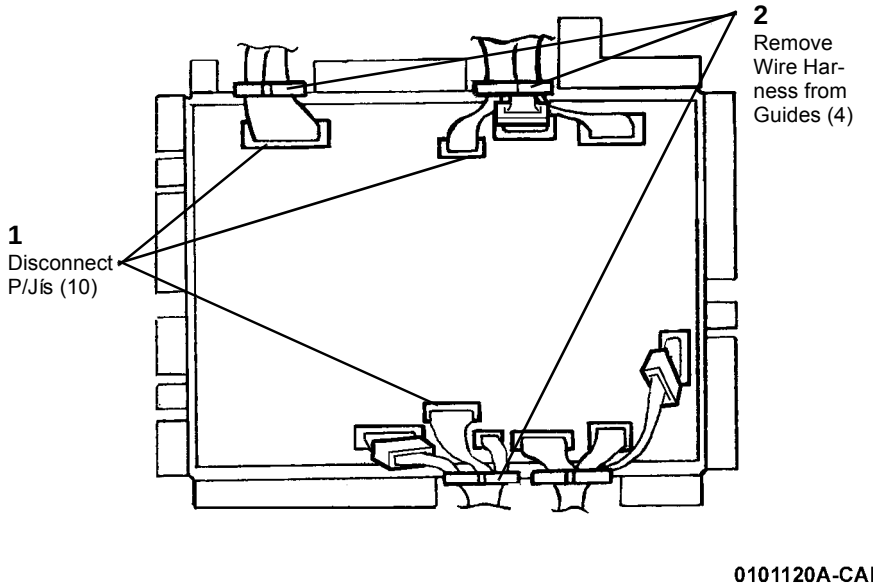



**Figure 2 Disconnecting P/Jís**

4. Remove the Finisher PWB (Figure 3).

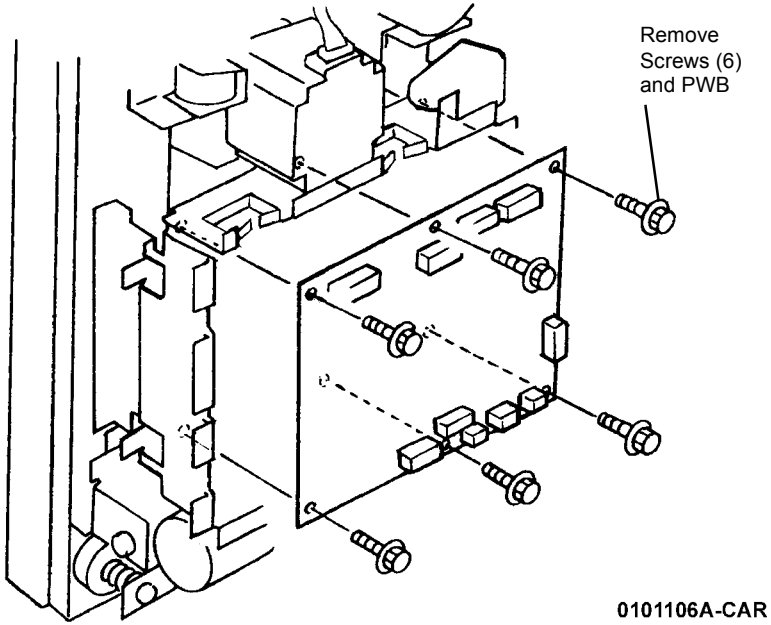



**Figure 3 Removing Finisher PWB**

## Replacement

***NOTE:*** *When installing, keep the Core (Figure 2) inside the PWB Box.*

# REP 12.17 Entrance Upper Cover

## Parts List on PL 17.3

## Removal

1. Remove the H Transport Assembly (REP 12.1).
2. Remove the following:
   a. H Transport Front Cover (PL 17.3)
   b. H Transport Rear Cover (PL 17.3)
   c. Stop (PL 17.3)
3. Remove the H Transport Cover (Figure 1).

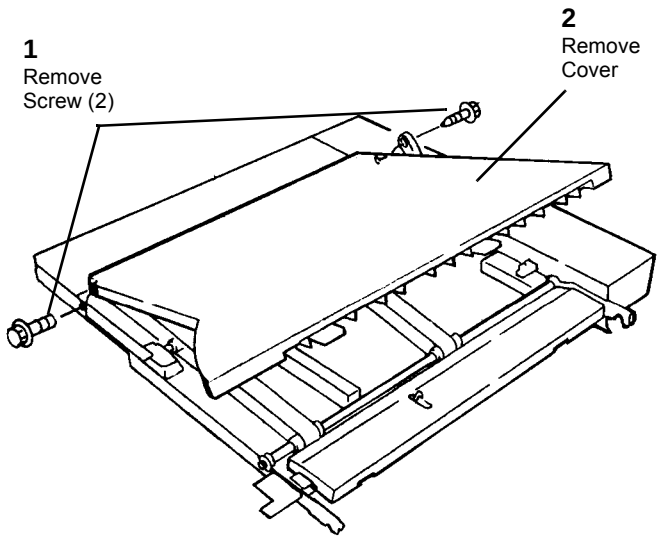



**Figure 1 Removing the H Transport Cover**

# REP 12.18 Cam Bracket Assembly

## Parts List on PL 17.8

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove the Rear Cover (PL 17.5)
2. Rotate the Actuator (Figure 1).

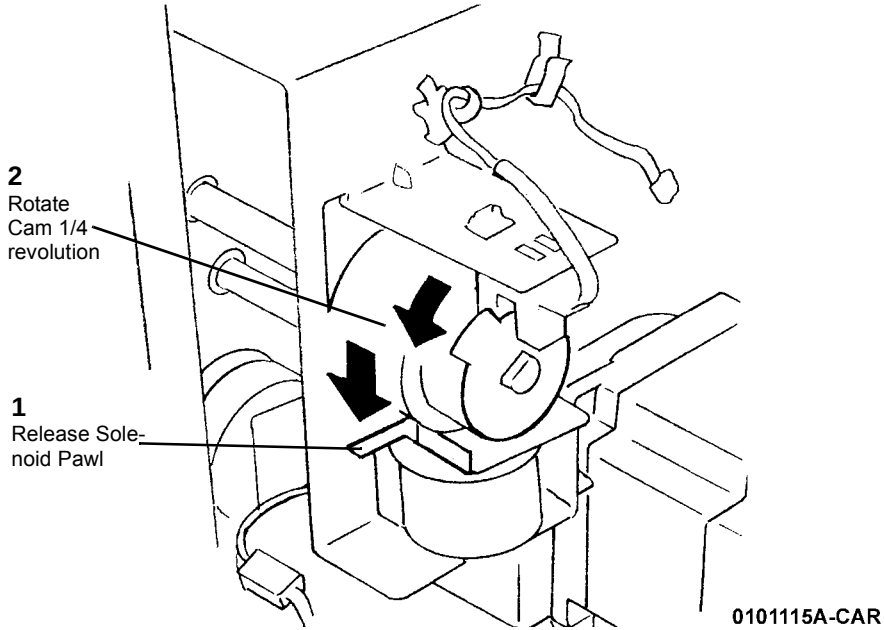



**Figure 1 Rotate the Actuator**

3. Release Harnesses (Figure 2).

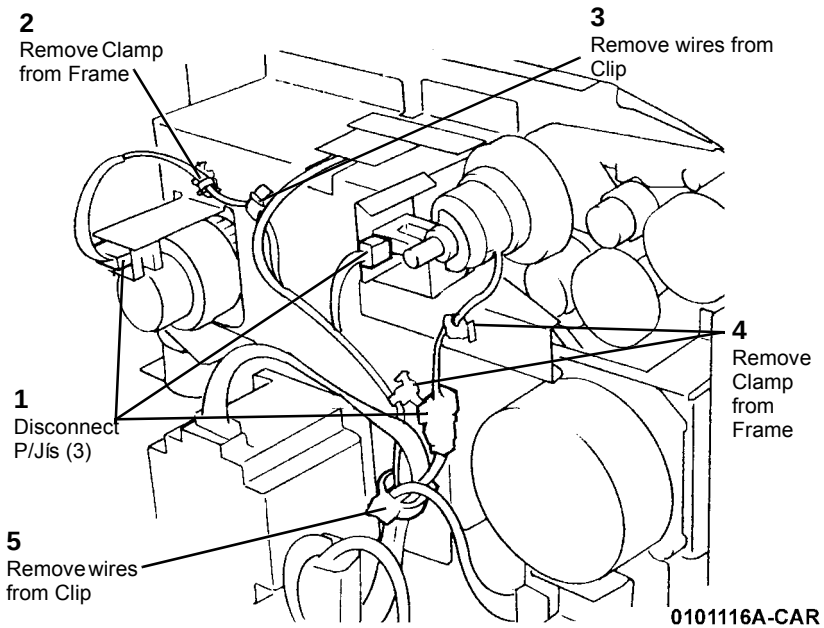



**Figure 2 Releasing Harnesses**

4. Remove the Cam Bracket Assembly (Figure 3).
   a. Remove the Screws (4).
   b. Remove the Cam Bracket Assembly.

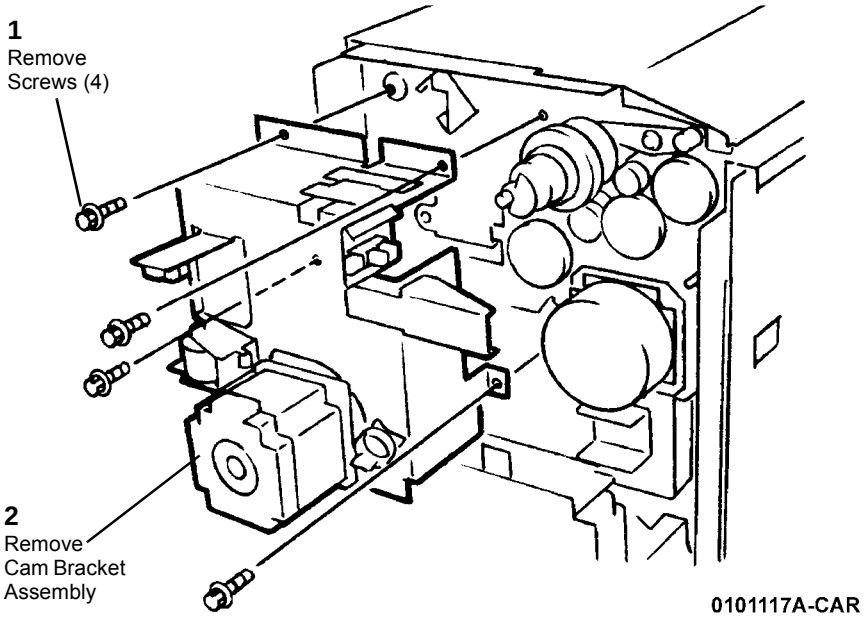



**Figure 3 Removing the Cam Bracket Assembly**

## Replacement

***NOTE:*** *During assembly, refer to Figure 4.*

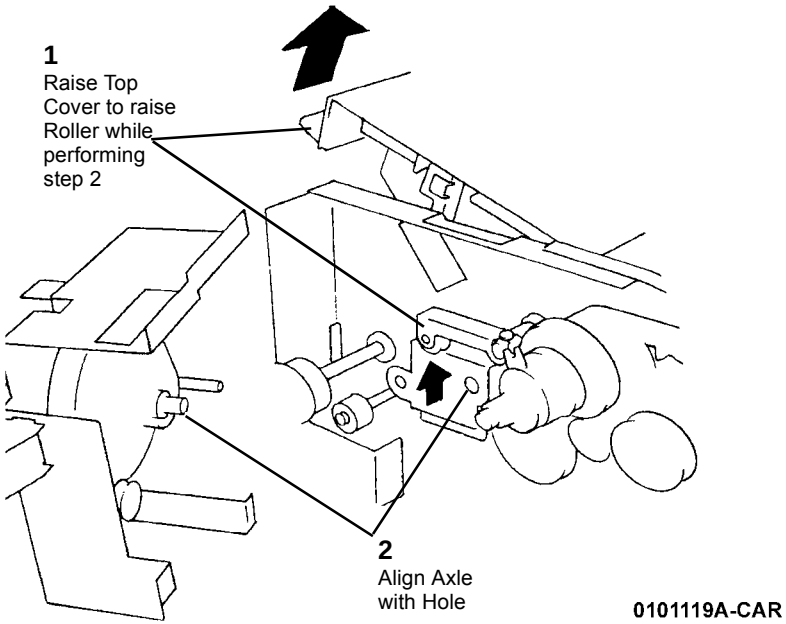



**Figure 4 Inserting Axle of Cam Bracket Assembly into Hole**

***NOTE:*** *During assembly, refer to Figure 5.*

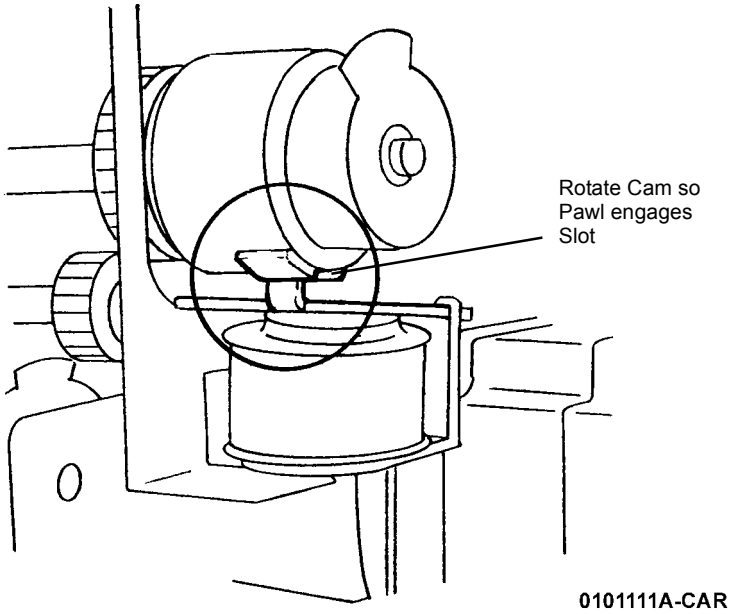



**Figure 5 Engaging Pawl with Slot**

# REP 12.19 Finisher Rack Assembly

## Parts List on PL 17.1

## Removal

1. Remove Finisher (REP 12.4).
2. Loosen Feet (Figure 1).

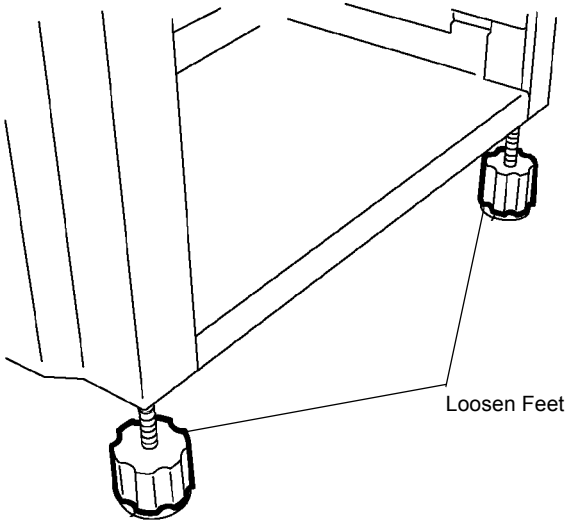



**Figure 1 Loosening Feet**

3. Remove Bottom Plate (Figure 2).

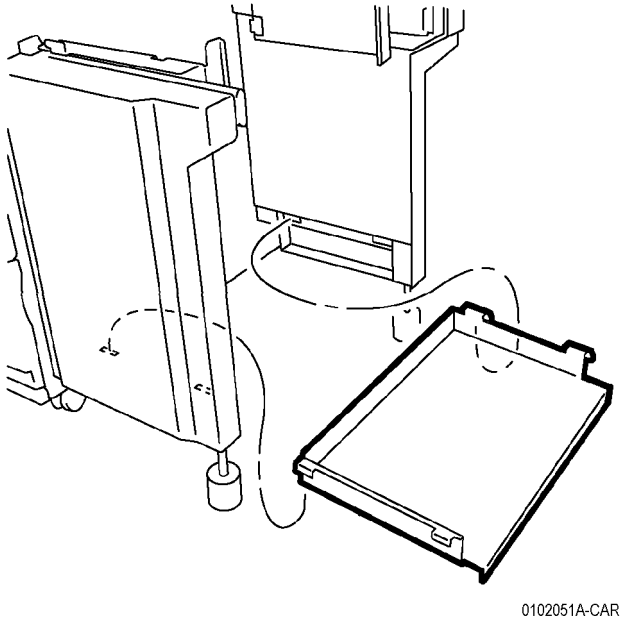



**Figure 2 Removing Bottom Plate**

4. Remove Rear Rack (Figure 3).

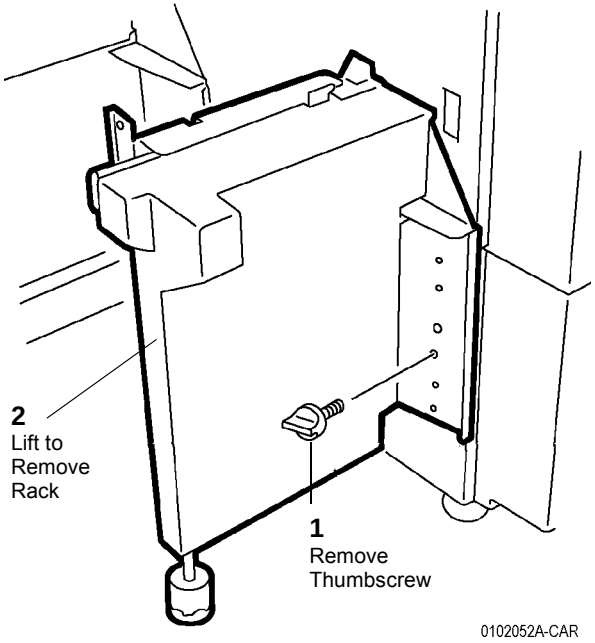



**Figure 3 Removing Rear Rack**

5. Remove Front Rack (Figure 4).

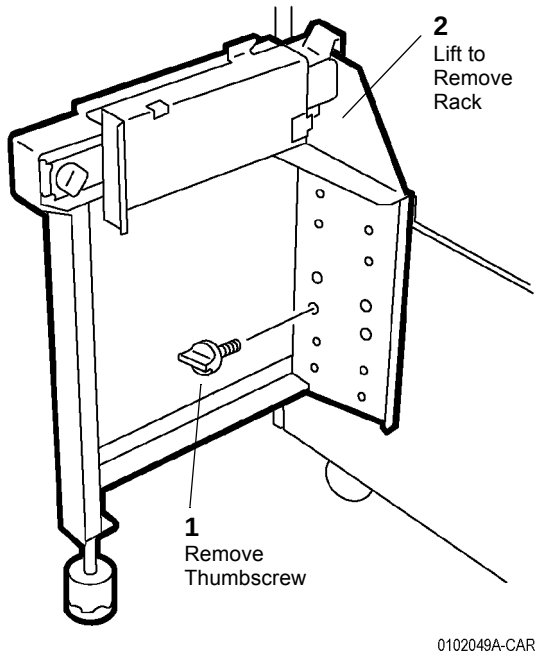



**Figure 4 Removing Front Rack**

# REP 12.20 Lowering Stacker Tray

## Parts List on PL 17.1

## Purpose

If the need arises to lower the Stacker Tray quickly or without power applied perform following:

1. Remove Finisher Rear Cover (PL 17.5).
2. While holding the Stacker Tray, move the gear outward and the Stacker Tray is released (Figure 1).

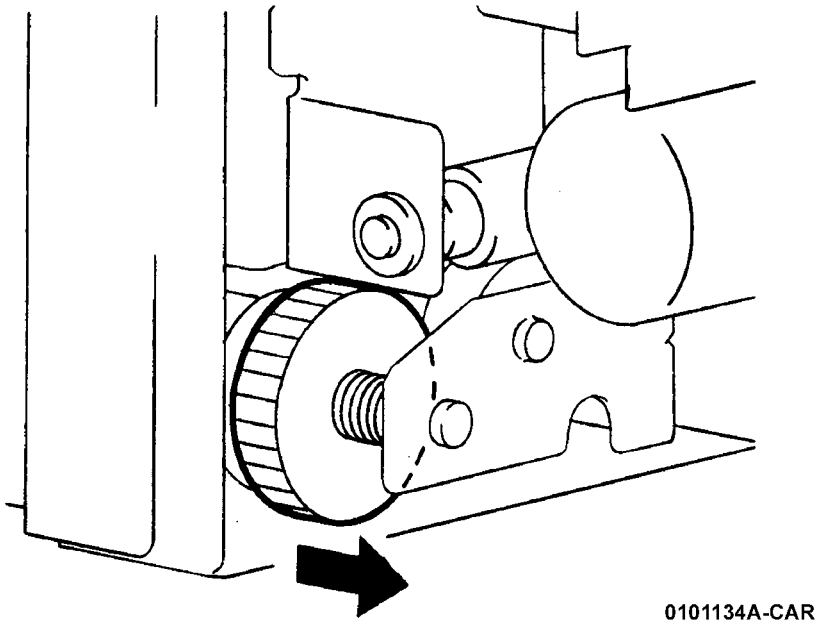



**Figure 1 Moving Gear to Lower Stack Tray**

# REP 14.1 Top Cover

## Parts List on PL 10.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Finisher H Transport (REP 12.1).
2. Remove Finisher (REP 12.4).
3. Remove Front and Rear Brackets (Figure 1).

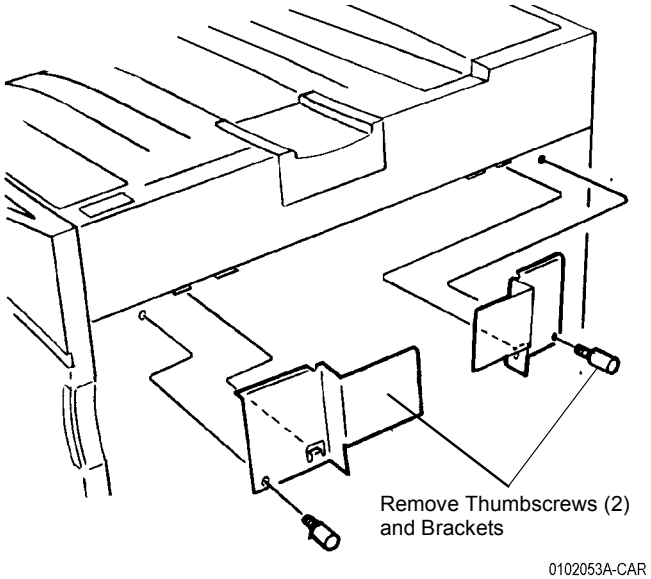



**Figure 1 Removing Brackets**

4. Remove Finisher Rack Assembly (REP 12.19).
5. Remove Gate Cover (Figure 2).

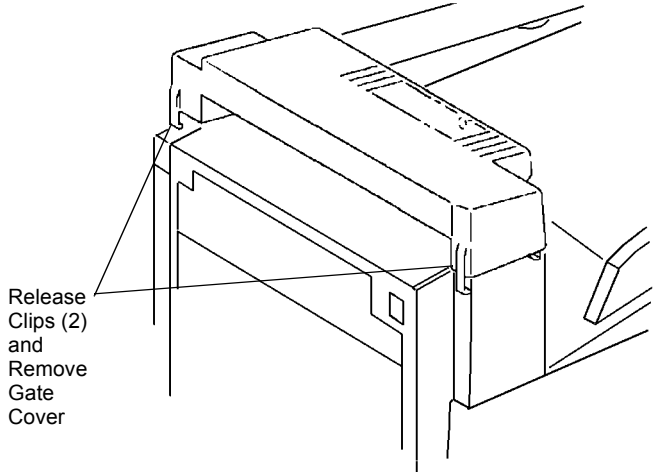



**Figure 2 Removing Gate Cover**

6. Remove Right Cover (REP 14.3).
7. Remove Top Cover (Figure 3).
   a. Open Front Cover.
   b. Remove Screws (3).
   c. Remove Top Cover.

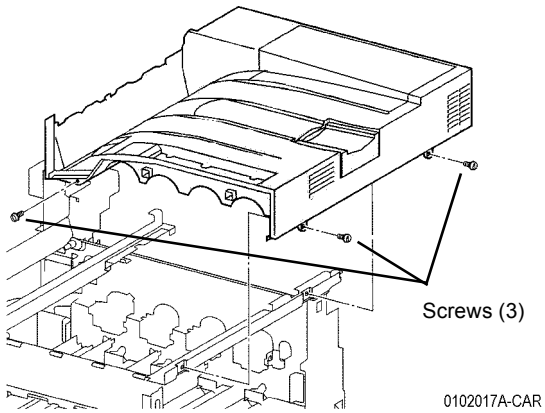



**Figure 3 Removing Top Cover**

## REP 14.2 Rear Cover

### Parts List on PL 10.3

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (Figure 1).
   a. If optional feeder is installed, open Harness Cover and disconnect Harnesses
   b. Remove Screws (4).
   c. Remove Rear Cover.

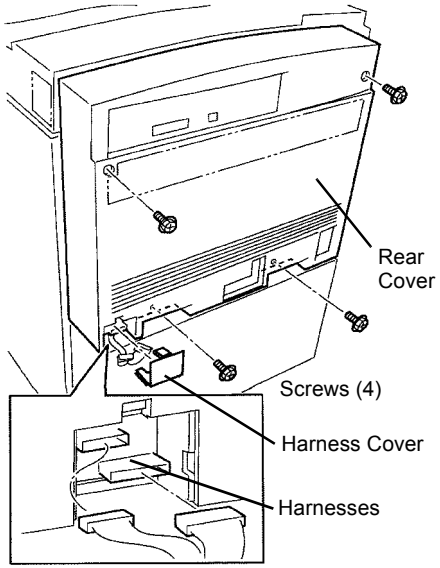



**Figure 1 Removing Rear Cover**

## REP 14.3 Right Cover

### Parts List on PL 10.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Right Cover (Figure 1).
   a. Open Right Door.
   b. Remove Screws (3).
   c. Push cover down, or allow cover to drop slightly to release Hidden Tabs, then pull cover away and remove it.

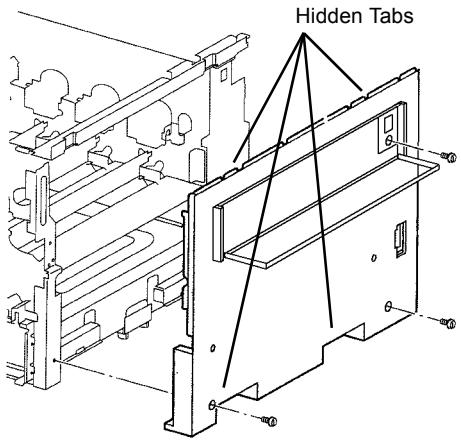



**Figure 1 Removing Right Cover**

## REP 14.4 Rear Left Middle Cover

### Parts List on PL 10.3

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Open Left Cover Assembly.
3. Remove Power Switch Cover (REP 14.5).
4. Remove Upper Rear Left Cover (Figure 1).
   a. Remove Screw (1).
   b. Lift slightly to disengage hidden tab and remove Upper Rear Left Cover.

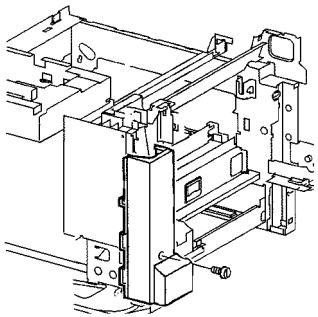


**Figure 1 Removing Upper Rear Left Cover**

## REP 14.5 Rear Left Upper Cover

### Parts List on PL 10.3

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Rear Cover (REP 14.2).
2. Open Left Cover Assembly.
3. Remove Power Switch Cover (Figure 1).
   a. Remove Screw (1).
   b. Push end of cover in direction shown to release Hidden Tabs (2).
   c. Pull up to release Hidden Tab (1) and remove Power Switch Cover.

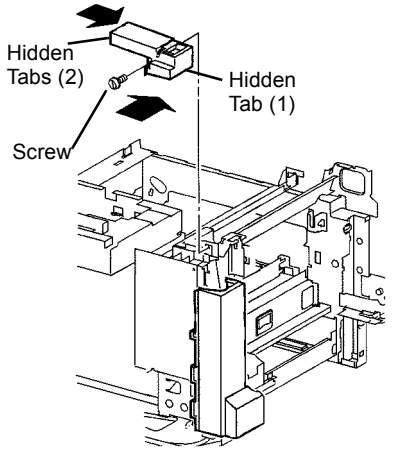



**Figure 1 Removing Power Switch Cover**

# REP 14.6 Left Lower Cover Assembly

## Parts List on PL 2.3

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Lower Left Cover (Figure ).
   a. Open Left Lower Cover Assembly.
   b. Carefully observe position of wiring harness for later reinstallation.
   c. Disconnect harness connector and remove harness from harness guide.
   d. Use flat tipped screwdriver to pry out Pivot Lock.
   e. Remove Pivot Pin Sleeve.
   f. Remove Lower Left Cover.

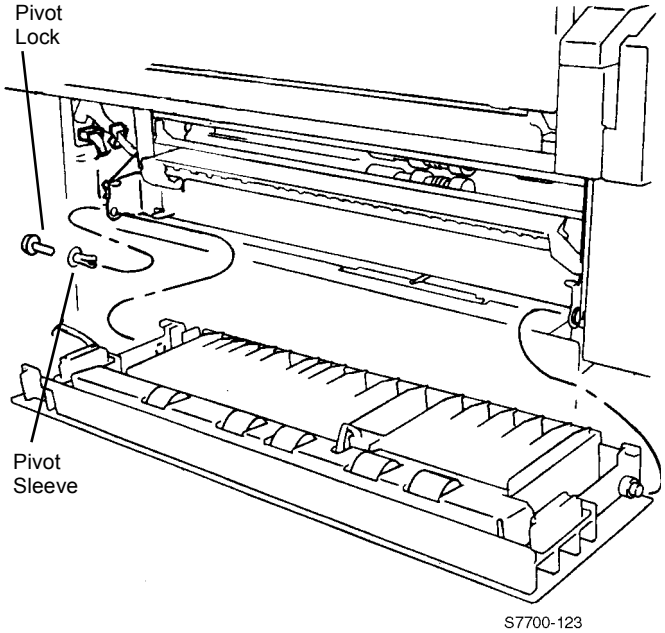



**Figure 1 Removing Left Lower Cover Assembly**

## Replacement

***NOTE:*** *Partially install Pivot Sleeve. Then install Left Lower Cover Assembly and push in Pivot Sleeve.*

# REP 14.7 Cover Assembly

## Parts List on PL 10.1

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover.
   a. Open Tray 1 approximately 100 mm for possible cover support.
   b. Open Front Cover.
   c. Remove screw to disconnect Support Strap from cover.
   d. Repeat c for other strap.
   e. Remove screws (2) on Hinge Pin Locks and remove hinge pin locks.
   f. Remove Front Cover.

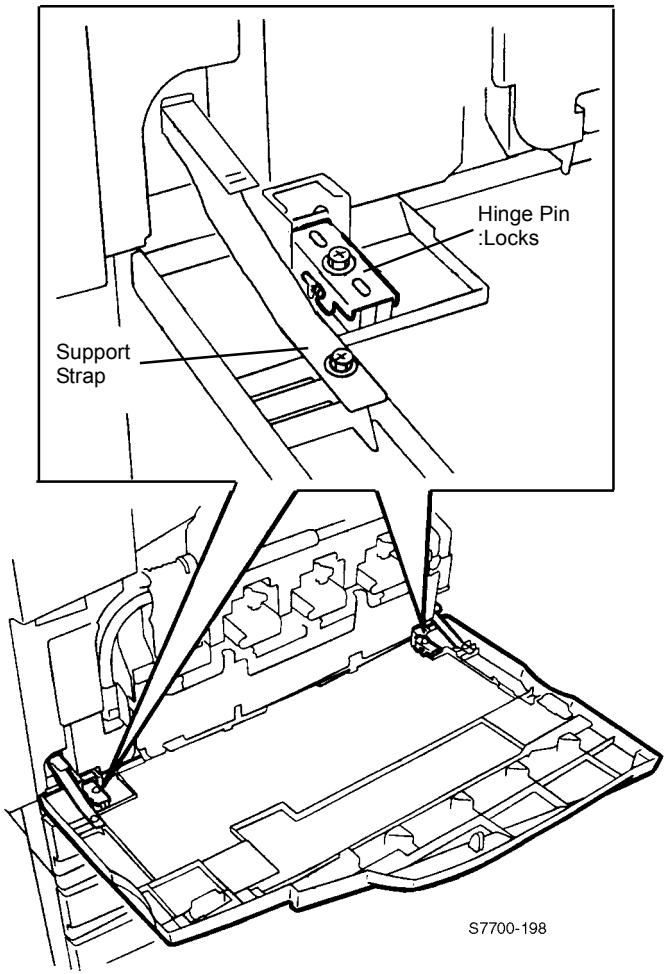



**Figure 1 Removing Front Cover**

# REP 14.8 Fuser Cover

## Parts List on PL 10.2

## Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Cover (Figure ).
   a. Remove Screws (2).
   b. Move cover up to release Hidden Tabs (3) and pull out to remove cover.

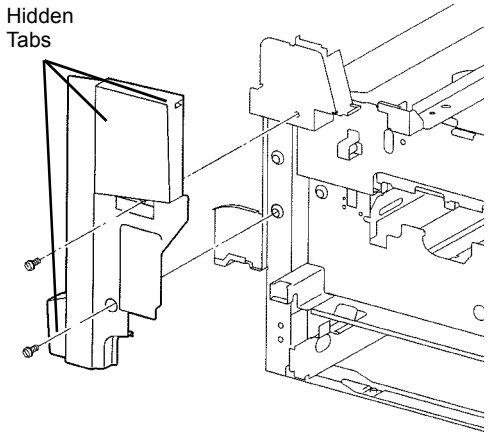



**Figure 1 Removing Fuser Cover**

## REP 14.9 Rear Cover

### Parts List on PL 16.16

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Thumbscrews (4).
2. Remove Screws (4) and remove Lower Rear Cover.

## REP 14.10 Inner Cover

### Parts List on PL 8.1

### Removal

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Open Front Cover.
2. Remove Fuser Front Cover (REP 14.8).
3. Remove Waste Cartridge Cover (REP 9.3).
4. Remove Inner Cover (Figure 1).
   a. Open Harness Clip and remove harness from Clip.
   b. Remove Screw and remove Harness Cover.

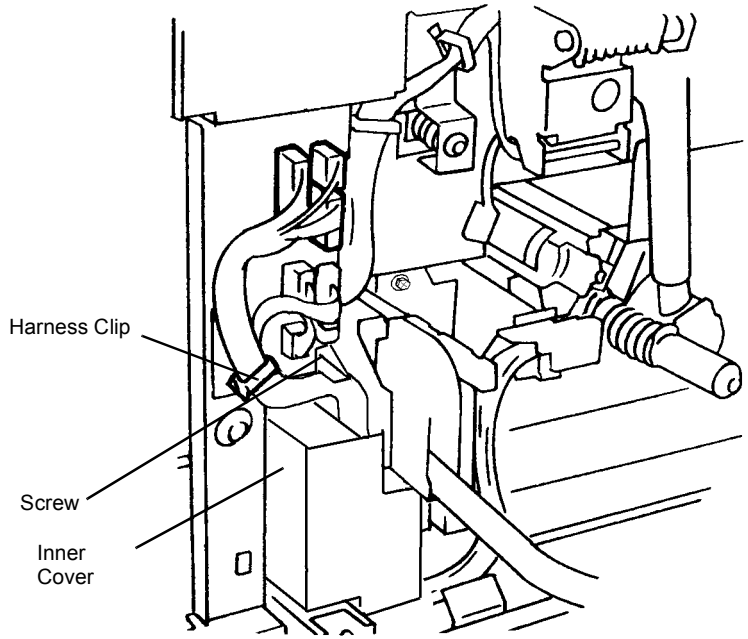



**Figure 1 Removing Inner Cover**

## REP 14.11 Left Cover Assembly

**Parts List on PL 16.13**

**Removal**

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Lower Cover (REP 14.12).
2. Remove Left Cover Assembly (Figure 1).
   a. Remove Screws (2) and Straps (2) from frame.
   b. Remove Screw (1) and Pivot Support and remove Left Cover Assembly.

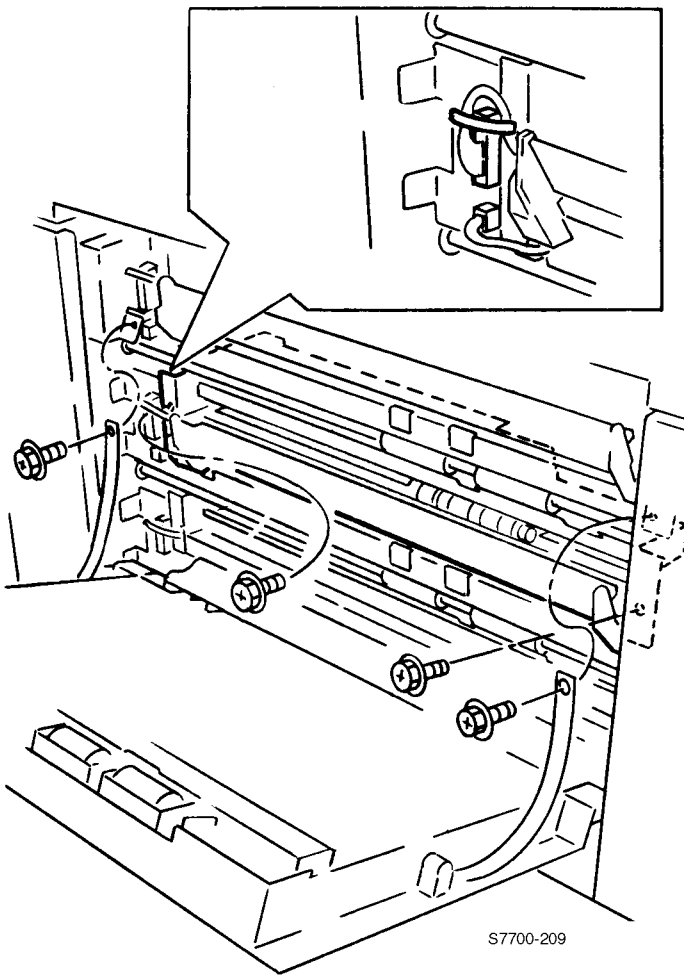



**Figure 1 Removing Left Cover Assembly**

## REP 14.12 Lower Cover

**Parts List on PL 16.16**

**Removal**

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Lower Cover (Figure 1).
   a. Remove Screws (4).
   b. Open Left Cover Assembly.
   c. Remove Lower Cover.

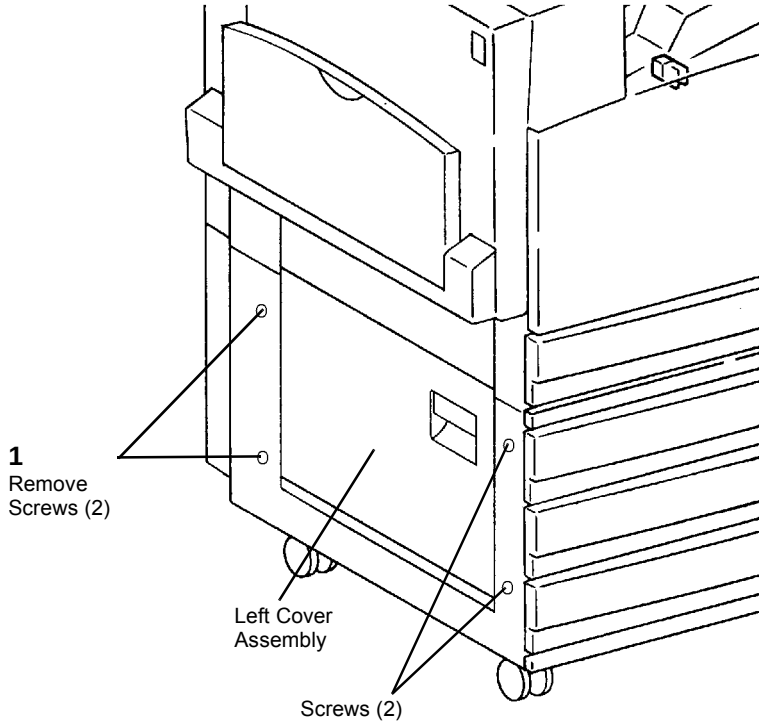



**Figure 1 Removing Lower Cover**

# ADJ 5.1 DADF Side Registration

## Purpose

Align image scanned from document with left side edge of paper.

## Check

1. Make two copies from the Platen Glass to be used as DADF originals.
   a. Register Test Chart 82E8220 on Platen with side edge metrics SE1 through SE4 against rear registration guide.
   b. Select the following:
      ï 1 to 1 sided
      ï A3 or 11 x 17 Paper Supply
      ï 100% Reduce/Enlarge
      ï 2 Copies
   c. Press Start and write DADF Original 1 on first copy and DADF Original 2 on second copy.
2. Verify side edge registration of DADF Originals.
   a. On DADF Original 2 measure and record the distance between the side edge and the reference line and write A next to this measurement (Figure 1).
   b. Check that A is 10.0 ±0.5mm. If A is 10.0 ±0.5 mm, go to step 3.

      If A is not 10.0 ±0.5 mm, check both of the following and then return to the beginning of this procedure.
      i. DC129 IOT Lead Edge/Side Edge Registration (ADJ 9.9).
      ii. IIT Side Edge Registration (ADJ 9.11)

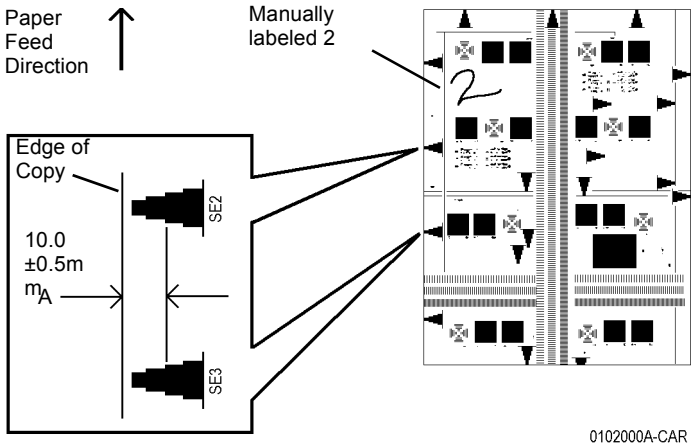



**Figure 1 Verifying Side Edge Registration of DADF Originals**

3. Check DADF Side Edge Registration for Side 1.
   a. Load both DADF Originals in DADF, 1 on top, with side edge metrics SE1 through SE4 against rear registration guide. Check that side guide touches documents.
   b. Select the following:
      ï 1 to 1-sided
      ï A3 or 11 x 17 Paper Supply
      ï 100% Reduce/Enlarge
      ï 2 Copies
   c. Press Start and discard the first copy.
   d. On side 1 of copy 2 measure and record the distance between the side edge and the reference line and write B next to this measurement (Figure 2).

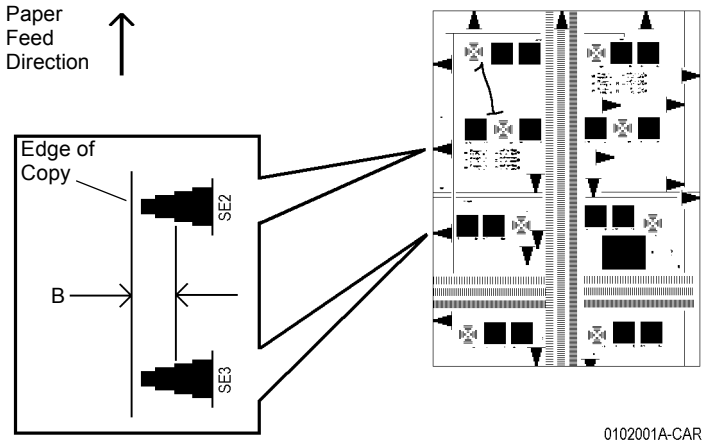



**Figure 2 Checking Side Edge Registration of DADF**

   e. Compare B to A. B must be within ±1.1 mm of A.

      If the difference between B and A is greater than 1.1 mm, go to step 1 of the adjustment.

      Otherwise go to step 4.
4. Check DADF Side Edge Registration for Side 2.
   a. Make a 2-sided test pattern.
      i. Load DADF originals 1 and 2 face up, 1 on top, with side edge metrics toward rear of DADF.
      ii. Select 1 to 2-sided and press Start to make the 2-sided test pattern
   b. Make test copies.
      i. Load 2-sided test pattern with side 1 edge metrics up and toward rear of DADF.
      ii. Select the following:
         ï 2 to 1 sided
         ï A3 or 11 x 17 Paper Supply
         ï 100% Reduce/Enlarge
         ï 1 Copy
      iii. Press the Start button.
   c. Check that side edge metrics are same distance from edge of paper for both copies.

      If the difference is greater than ±1.1 mm, go to step 2 of the adjustment.

      Otherwise DADF Side Registration is good.

## Adjustment

1. Adjust Side 1 DADF Side Registration.
   a. Enter NVM Rear/Write (DC131) [715-015].

      *NOTE: Increasing value moves side edge metrics SE1 through SE4 toward edge.*

   b. If B is more than A, increase the NVM value (15 = approx. 1 mm).

      If B is less than A, decrease the NVM value (15 = approx. 1 mm).

   c. Check results of adjustment and adjust if required.
2. Adjust Side 2 DADF Side Registration.
   a. Enter NVM Rear/Write (DC131) [715-128].

      *NOTE: Increasing value moves side edge metrics SE1 through SE4 toward edge.*

   b. If copy 2 edge metric is farther away from edge than copy 1, increase the NVM value (15 = approx. 1 mm).

      If copy 2 edge metric is closer to edge than copy 1, decrease the NVM value (15 = approx. 1 mm).

   c. Check results of adjustment and adjust as required.

      ***NOTE:*** *2 to 2-sided or 2 to 1-sided must be selected to view a change in [715-128].* [715-128] produces no change in *1 to 2-sided copying*.

***NOTE:*** *Total lead edge deviation for DADF is ±1.6 mm. Total lead edge deviation for IIt is* ±0.5 mm. This leaves ±1.1 mm for DADF when a copy paper test pattern is made for use in DADF.

# ADJ 5.2 DADF Counterbalance

## Purpose

Correct DADF opening and closing action.

## Check

1. Check DADF opening and closing action.
   a. Raise DADF and check that it remains in fully raised position.
   b. Check that the DADF closes from a height of 100 ±50mm by its own weight without excessive noise (Figure 1).

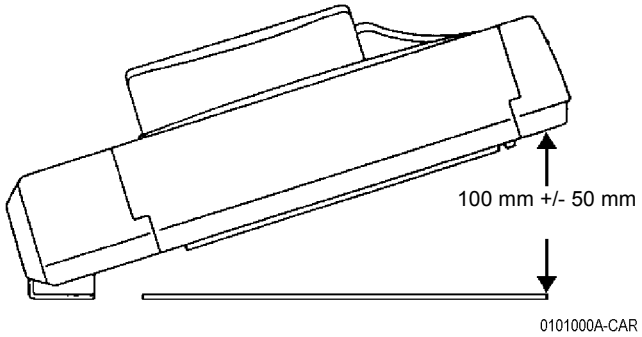



**Figure 1 Checking DADF Height**

## Adjustment

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

**CAUTION**

*When removing the Rear Cover, disconnect LED Connector on DADF PWB.*

1. Remove the Rear Cover. (REP 5.18)
2. Adjust the Left Counterbalance (Figure 2).

   ***NOTE:*** *Rotate in A direction for stronger spring pressure*
   *Rotate in B direction for weaker spring pressure*

   a. Loosen the nut.
   b. Rotate the Set Screw for the adjustment.
   c. Tighten the nut.

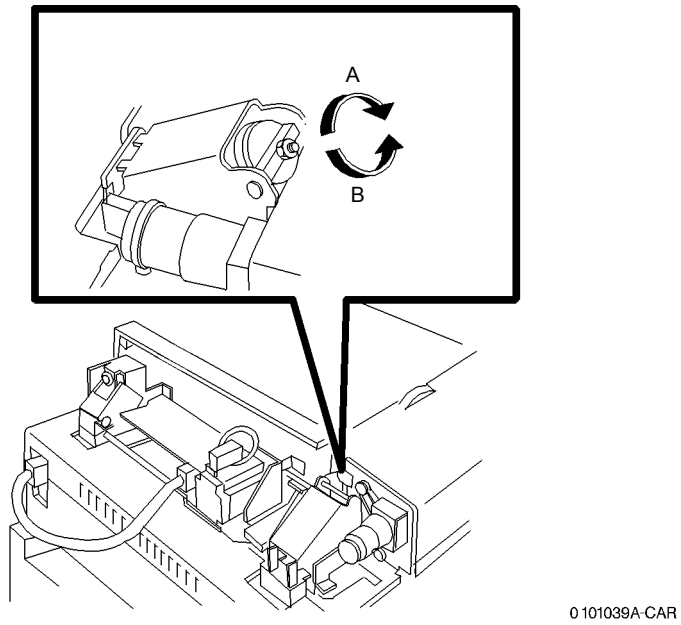



**Figure 2 Adjusting Left Counterbalance**

# ADJ 5.3 DADF Parallelism

## Purpose

Enable parallel Document placement and image scan.

## Check

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover. (PL 20.1)
2. Remove Entrance Tray. (PL 20.1)
3. Remove the Document Transport. (REP 5.17 )
4. Check DADF Parallelism.
   a. Manually hold down the DADF.
   b. Check that the distance between the DADF Rear Frame and the Rear Registration Edge is 20 ±1 mm (Figure 1).
   c. Perform the same check at the left end of the DADF.

   If 20 ±1 mm is not measured in each check, or the measurements are different, go to the adjustment.

   Otherwise DADF Parallelism is good.

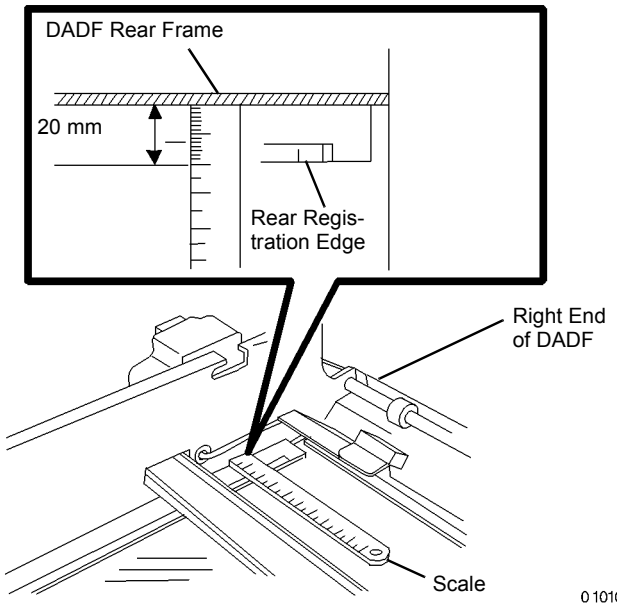



**Figure 1 Checking DADF Parallelism**

## Adjustment

**CAUTION**

*The DADF Parallelism must be made within ±1mm of the specified range.*

**CAUTION**

*When removing the Rear Cover, disconnect LED Connector on DADF PWB.*

1. Remove Rear Cover (REP 5.18).
2. Adjust DADF Parallelism (Figure 2).

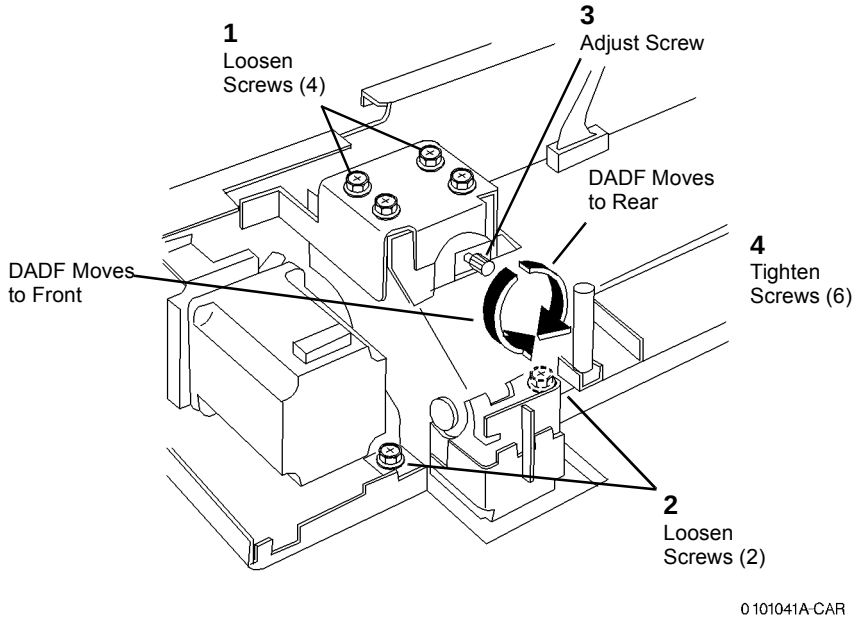



**Figure 2 Adjusting DADF Parallelism**

3. Adjust Left Counterbalance if required.
4. Repeat the check.

# ADJ 5.4 Document Transport Height

## Purpose

Enable document feed at the correct speed and free of skew.

## Check

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Remove Front Cover (PL 20.1).
2. Entrance Tray (PL 20.1).
3. Check Document Transport Height (Figure 1).
   a. At left end of Document Transport, check that there is 24.5 ±0.3 mm between top of Document Transport Frame and Top of Rear Registration Edge.
   b. At Right end of Document Transport, check that there is 24.5 ±0.3 mm between top of Document Transport Frame and Top of Rear Registration Edge.
   c. If there is more or less than specified, perform the adjustment on the counterbalance for the side that is not in specification. Adjust both counterbalances if required.

   Otherwise, Document Transport Height is good.

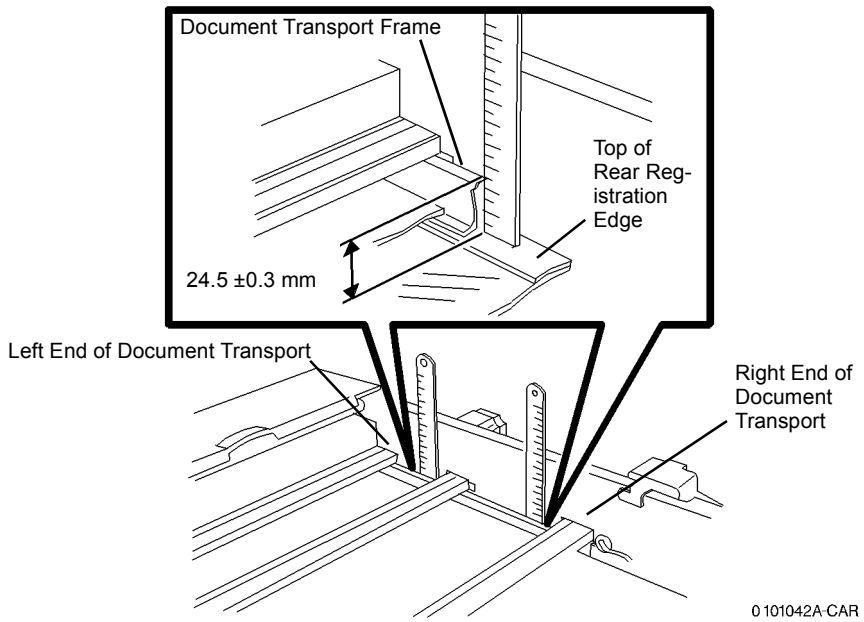



**Figure 1 Checking Document Transport Height**

## Adjustment

**CAUTION**

*When removing the Rear Cover, disconnect LED Connector on DADF PWB.*

1. Remove Rear Cover (REP 5.18).
2. Raise DADF and loosen the Screws (2) (Figure 2).

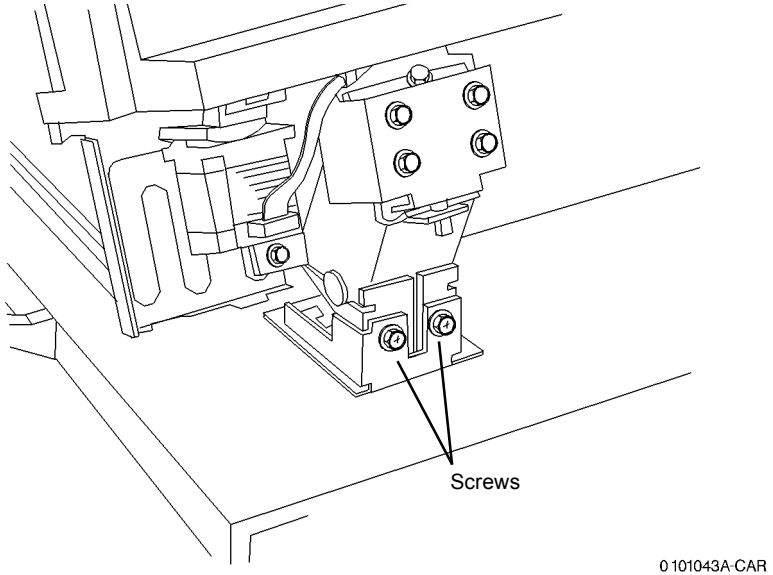



**Figure 2 Loosening Screws**

3. Adjust Document Transport Height (Figure 3).

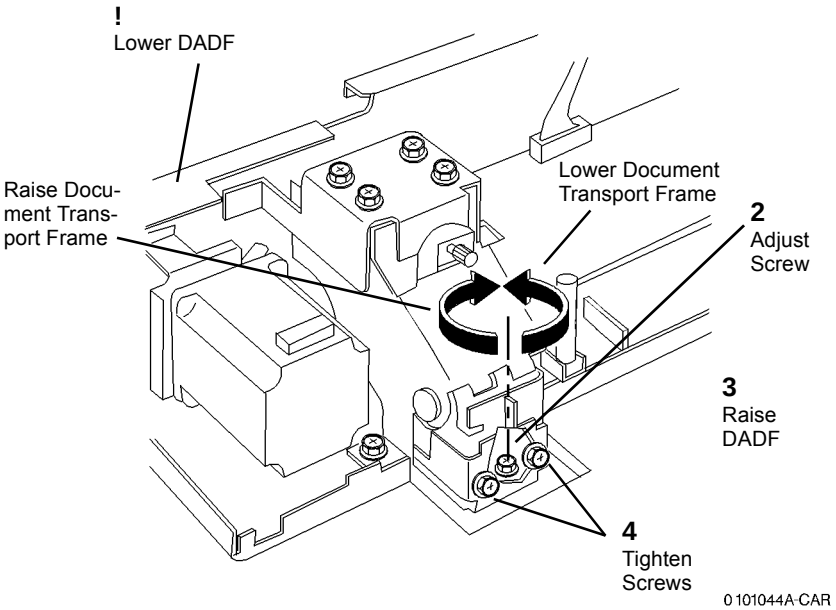



**Figure 3 Adjusting Document Transport Height**

4. Repeat check.

# ADJ 5.5 DADF Top Registration

## Purpose

Align image scanned from document with top edge of paper.

## Check

1. Make two DADF originals.
   a. Register Test Chart 82E8220 on Platen with lead edge metrics LE1 through LE3 against left registration guide.
   b. Select the following:
      ï 1 to 1 sided
      ï A4 or 8.5 x 11 Long Edge Feed Paper Supply
      ï 100% Reduce/Enlarge
      ï 2 Copies
   c. Press Start and write DADF Original 1 on first copy and DADF Original 2 on second copy.
2. Verify top edge registration of DADF Originals.
   a. On copy 2 measure and record the distance between the top edge and the reference line and write A next to this measurement (Figure 1).
   b. Check that A is 10.0 ±0.5 mm. If A is 10.0 ±0.5 mm, go to step 3.

      If A is not 10.0 ±0.5 mm, check both of the following and then return to the beginning of this procedure.
      i. DC129 IOT Lead Edge/Side Edge Registration (ADJ 9.9).
      ii. IIT Side Edge Registration (ADJ 9.11)

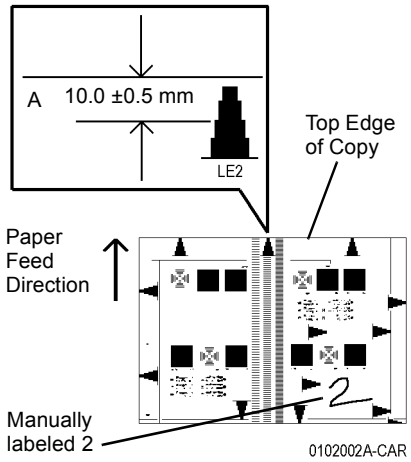



**Figure 1 Verifying Top Edge Registration of DADF Originals**

3. Check DADF Top Edge Registration for Side 1.
   a. Load both DADF Originals in DADF, 1 on top, with top edge metrics LE1 through LE3 toward right.
   b. Select the following:
      ï 1 to 1-sided
      ï A4 or 8.5 x 11 Long Edge Feed Paper Supply
      ï 100% Reduce/Enlarge
      ï 2 Copies
   c. Press Start and discard the first copy.
   d. On side 1 of copy 2 measure and record the distance between the top edge and the reference line and write B next to this measurement (Figure 2).

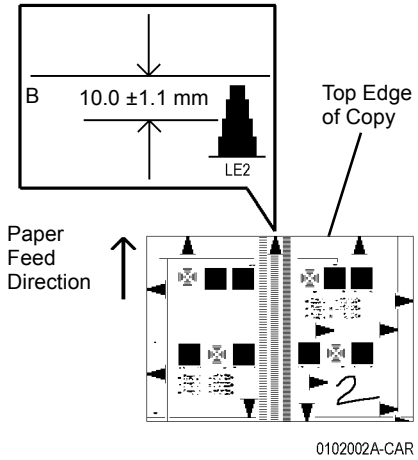



**Figure 2 Checking Top Edge Registration of DADF**

   e. Compare A to B . B must be within 0 ±1.1 mm of A.

      If the difference between A and B is greater than 1 mm, go to step 1 of the adjustment.

      Otherwise go to step 4.
4. Check DADF Side Edge Registration for Side 2.
   a. Make a 2-sided test pattern.
      i. Load DADF originals 1 and 2 face up, 1 on top, with top edge metrics toward right.
      ii. Select 1 to 2-sided and press Start to make the 2-sided test pattern
   b. Make test copies.
      i. Load 2-sided test pattern with side 1 edge metrics up and toward right of DADF.
      ii. Select the following:
         ï 2 to 1 sided and press Start.
         ï A4 or 8.5 x 11 Long Edge Feed Paper Supply
         ï 100% Reduce/Enlarge

ï 1 Copy

iii. Press the Start button.

c. Check that top edge metrics are same distance from edge of paper for both copies.

If the difference is greater than 1 mm, go to step 2 of the adjustment.

Otherwise DADF Side Registration is good.

## Adjustment

1. Adjust Side 1 DADF Side Registration.
   a. Enter NVM Rear/Write (DC131) [710-005].

      *NOTE: Increasing value moves lead edge metrics LE1 through LE3 toward edge.*

   b. If B is more than A, increase the NVM value (5 = approx. 1 mm).

      If B is less than A, decrease the NVM value (5 = approx. 1 mm).

   c. Check results of adjustment and adjust if required.
2. Adjust Side 2 DADF Side Registration.
   a. Enter following NVM Rear/Write (DC131)

      [710-025] for B5 SEF or smaller

      [710-026] for B5 LEF, A4 SEF/LEF, 8.5x11 SEF/LEF

      [710-027] for 8.5 x 14, B4, A3, 11x17

      *NOTE: Decreasing value moves lead edge metrics LE1 through LE3 toward edge.*

   b. If copy 2 edge metric is farther away from edge than copy 1, decrease the NVM value ( 5 = approx. 1 mm).

      If copy 2 edge metric is closer to edge than copy 1, increase the NVM value (5 = approx. 1 mm).

   c. Check results of adjustment and adjust as required.

      ***NOTE:*** *2 to 2-sided or 2 to 1-sided must be selected to view A change in [710-02X]. [710-02X] produces no change in 1 to 2-sided copying*.

***NOTE:*** *Total lead edge deviation for DADF is ±1.6 mm. Total lead edge deviation for IIt is* ±0.5 mm. This leaves ±1.1 mm for DADF when a copy paper test pattern is made for use in DADF.

# ADJ 5.6 DADF Document Detection

## Purpose

Preliminary-Enable document size sensing.

## Check

dC927 Size Detection Automatic Correction

Perform this adjustment when the following operation is conducted:

- ï Replacing of the DADF ASSY.
- ï When an error is detected after replacing Registration Roll, Feed Roll, and Retard Roll.
- ï When an error is found on the size detection.

Scan three sheets of document continuously in the DADF. Comparing the Slow Scan length detected in the DADF with the standard value, correct the NVM data automatically. The NVM data subject to the correction is "Document Slow Scan size correction value in Non CVT Mode" (Chain Link No.710-003).

Documents for scanning differ depending on each market as below.

FX, XE/AP: A4LEF (Slow scan length accuracy (210.0mm ±0.7mm))

XC: 8.5"x11"LEF (Slow scan length accuracy (215.9mm ±0.7mm))

## Adjustment

1. Enter dC 527.
2. Set three documents to be transported in the DADF.
   *Document sizes to be transported differ depending on each market.
   FX, XE/AP: A4LEF (Slow scan length accuracy (210.0mm ±0.7mm))
   XC: 8.5"x11"LEF (Slow scan length accuracy (215.9mm ±0.7mm))
3. When the [Enter] button is pressed, DADF starts pulling in the document and calculate the correction value. At this point, the [Entering] message appears.
4. The corresponding NVM data is updated and PSW screen indicates that the process has been completed
   Or, if this process becomes NG, the NVM data is not updated and the message telling that NG has occurred appears on the screen.
5. Pressing the [Exit] button completes the servicing.
   Specification on Result Confirmation
   The following result can be checked in the NVM Read after the process completes.

**Table 1**

| Chain-Link | Indicated Data Name | Remarks |
|---|---|---|
| 710-003 | Document slow scan size correction value in Non CVT Mode | Setup Range=144~256 (Equivalent to ±56 Step [±10mm] <- Left 0.18mm/ Step)<br>Initial value: 200 (But the factory adjustment value is set as the initial value.) |

<Restrictions to Note>

- ï Once this process has started, it cannot be stopped (interrupted) half-way until it completes irrespective of success or failure.
- ï This process does not allow the fourth sheet onwards to be pulled in when documents of four or more sheets are set in the DADF.

***NOTE:*** *If the result is NG after the adjustment, perform the process again.*

# ADJ 5.7 DADF Non-standard Document Custom Registration

## Purpose

Preliminary-Document sizes other than DADF detectable document size (non-standard size) are registered and transported as standard document size. Hence, special document sizes specified by a user can be transported.

## Check

Document size detection is performed based on custom-registered data and the DADF process is performed by making the specified document sizes as scanning size. Only one custom-registration is available. If the registered data is valid, document size detection is performed, placing priority over the existing detection table.

Preparation:

1. Borrow the non-standard document to be custom- registered from the customer.
2. Check which direction (LEF or SEF) the customer wants to run in.
3. Check which paper size and direction the customer wants to make copies of.
4. Check the length of Fast Scan direction (X) and Slow Scan direction (Y) in Scale etc. of the borrowed document accurately and write them down.

## Adjustment

1. Enter the UI Diag and change the NVM Read/Write.
2. Set the following NVM Data to be custom-registered detection.

   ***NOTE:*** *Set Fast Scan direction max. value - Fast Scan direction min. value are 200 or below. (within 20mm)*

   ***NOTE:*** *Set slow scan direction max. value - slow scan direction min. value are 200 or below. (within 20mm)*

   ***NOTE:*** *The following sizes cannot be entered in order to prevent mis-detection of the size sensor.*

   - *Fast Scan direction Max.:2190~2290*
   - *Fast Scan direction Min.:2810~2910*

   For the X and Y obtained at Preparation:

   - Set the 710-024 data to 1. (Have the custom-registration valid.)
   - Store (X+10) x 10 in the 710-018 data. (Set the Fast Scan direction Max. value)
   - Store (X-10) x 10 in the 710-019 data. (Set the Fast Scan direction Min. value)
   - Store (Y+10) x 10 in the 710-020 data. (Set the Slow scan direction Max. value)
   - Store (Y-10) x 10 in the 710-021 data. (Set the Slow scan direction Min. value)
   - Enter the 710-022 data. (Select the paper size that the customer specifies from the table below, and enter it.)
   - Enter the 710-023 data. (Select the paper direction that the customer specifies from the table below, and enter it.)

     Enter the 710-023 data. (Select the paper direction that the customer specifies from the table below, and enter it.)

     The following are information regarding the NVM entered above.

**Table 1**

| Chain-Link | Indicated Data Name | Remarks |
|---|---|---|
| 710-018 | Fast Scan direction Max. value Note1) | Setup Range=1297~3070<br>Set by 0.1mm (initial value=2970) |
| 710-019 | Fast Scan direction Min. value Note1) | Setup Range=1297~3070<br>Set by 0.1mm (initial value=2970) |
| 710-020 | Slow Scan direction Max. value Note2) | Setup Range=1297~4418<br>Set by 0.1mm (initial value=2100) |
| 710-021 | Slow Scan direction Min. value Note2) | Setup Range=1297~4418<br>Set by 0.1mm (initial value=2100) |
| 710-022 | Specified paper code for custom-registration | 03: 5.5 x 8.5<br>0.4: A5<br>05: B5<br>08: A4<br>09: 8x10<br>10: 8.5x11<br>11; 8.5x12.4<br>12: 8.5x13<br>13: 8.5x14<br>14: B4<br>15: A3<br>16: 11x17<br>17: 8K (267x388mm)<br>20: ILLEGAL SIZE (Initial Value=08) |
| 710-023 | Feed direction of document size | 0: LEF, 1:SEF (Initial Value=0) |

3. Check the settings of the NVM Data again.
4. Set the document that was custom-registered for the size detection table in the DADF and feed it. -> Check that the document size is detected as specified.

   ***NOTE:*** *Be careful with scan data image missing since the non-standard document size is handled as standard document size.*

# ADJ 6.1 Full/Half Rate Carriage

## Purpose

Establish Full Rate and Half Rate Carriage position.

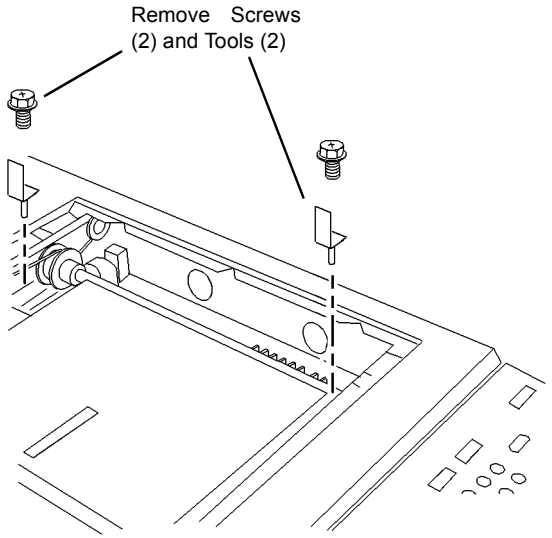
## Check

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

***NOTE:*** *The Half Rate Carriage is checked, and adjusted if required by repositioning a pulley. Then the Full Rate Carriage is checked, and adjusted if required by repositioning the carriage on the cable.*

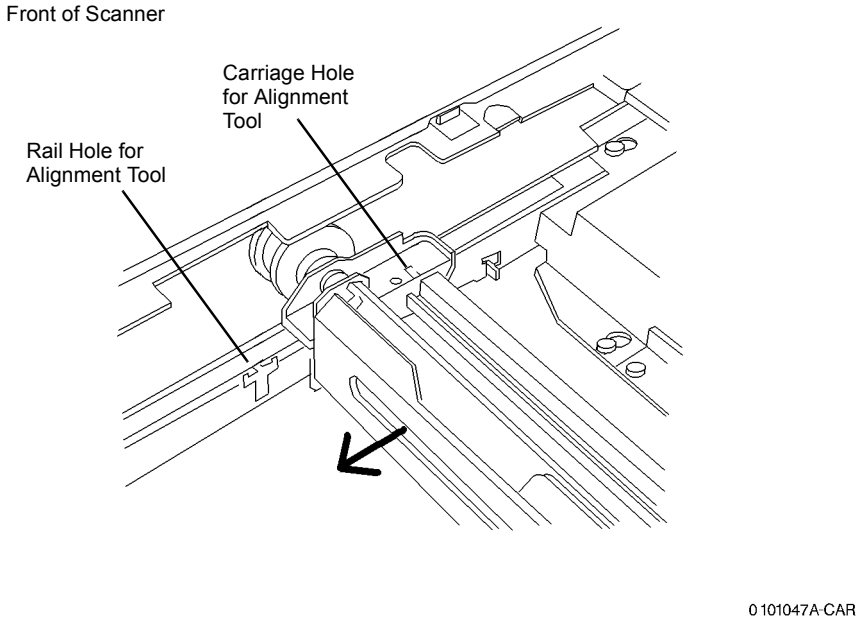
1. Remove Platen Glass (REP 6.2).
2. Remove Alignment Tools (2) from Storage (Figure 1).




0 101046A-CAR

**Figure 1 Removing Tools**

3. Align Half Rate Carriage with Rail Hole (Figure 2).
   a. Manually move Full Rate Carriage away from home position approximately 105 mm while observing Rail Tool Hole to align with Carriage Tool Hole in Half Rate Carriage.




0 101047A-CAR

**Figure 2 Aligning Half Rate Carriage with Rail Hole**

4. Install Alignment Tool in front end of Half Rate Carriage (Figure 3).

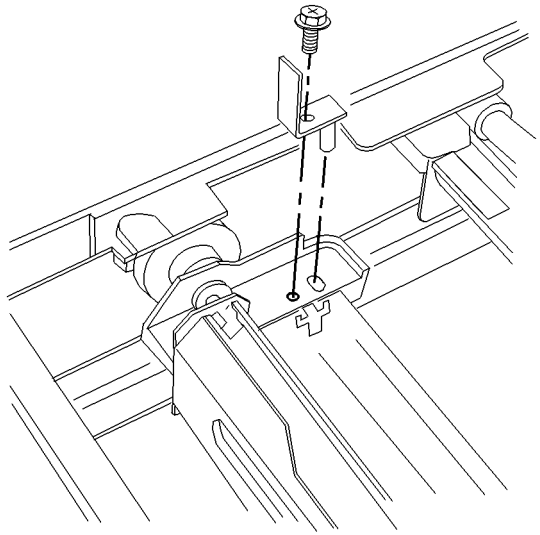


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**Figure 3 Installing Alignment Tool in Front End of Half Rate Carriage**

5. Check that tool will install in other end of carriage.

   If the tool installs, go to step 6.

   If tool does not install, loosen the Set Screw (2) and turn the pulley to align the tool holes with each other (Figure 4).

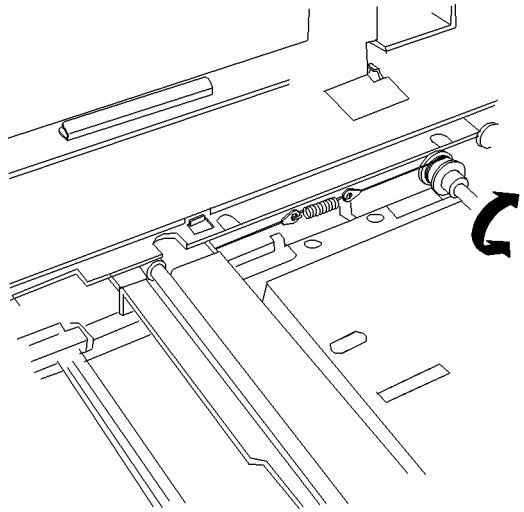

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**Figure 4 Loosening the Set Screw (2)**

6. Check that Alignment Tool can be installed through frame into alignment hole in Full Rate Carriage (Figure 5).

   If Alignment Tool fits through frame hole into Full Rate Carriage Alignment Hole, perform the same check at the rear of the carriage.

   If the rear of the carriage is aligned, the check is good.

   If the rear of the carriage is not aligned, go to the adjustment.

   If Alignment Tool does not fit through frame hole into Full Rate Carriage Alignment Hole, go to the adjustment.

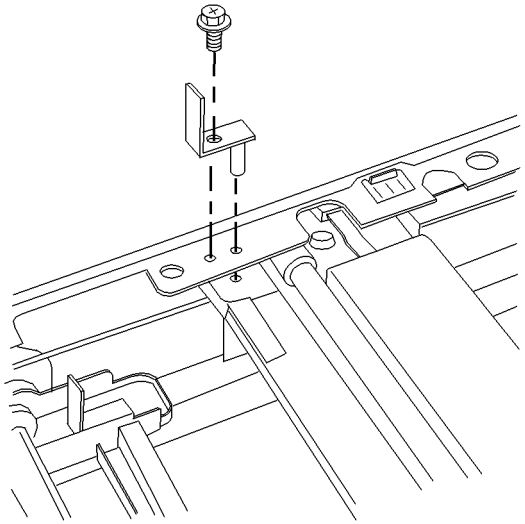

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**Figure 5 Checking Alignment Tool in Full Rate Carriage**

## Adjustment

*NOTE: Front of Full Rate Carriage shown. Adjustment steps are same for rear of Full Rate Carriage.*

1. Adjust Full Rate Carriage (Figure 6).
   a. Loosen Screw.
   b. Move carriage so that Alignment Tool will drop into Alignment Holes.
   c. Tighten Screw.

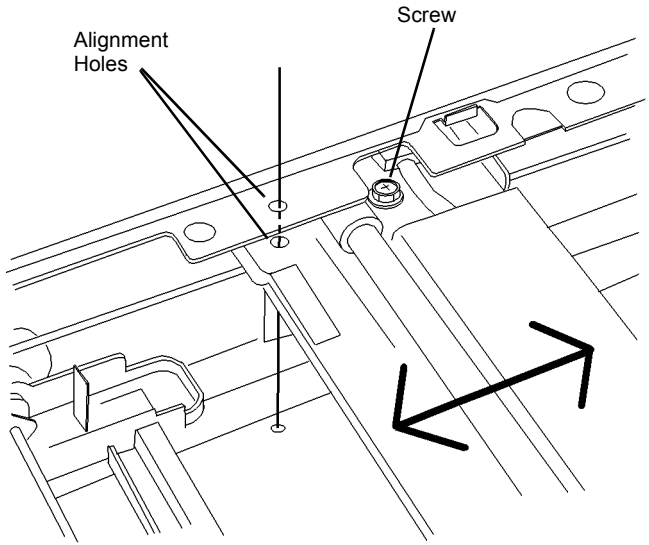


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**Figure 6 Adjust Full Rate Carriage**

# ADJ 9.1 Max Setup

## Purpose

To conduct a check of the machine and set it up so that excellent copy quality can be consistently obtained by stabilizing the development potential and copy density.

## Adjustment

Max Setup consists of 5 separate adjustments that should be performed in the following sequence:

1. ADJ 9.7, IIT Calibration (dC945)

***NOTE:*** *Perform ADJ 9.2* ***only*** *when replacing the ATC Sensor or Developer Housing.*

2. ADJ 9.2, ATC Sensor Setup (dC921)
3. ADJ 9.3, TRC Control/Toner Density Setup (dC922)
4. ADJ 9.4, ADC Output (dC934)

***NOTE:*** *Perform ADJ 9.5* ***only*** *when the customer requests.*

5. ADJ 9.5, Manual TRC Adjust (dC924)

# ADJ 9.2 ATC Sensor Setup (dC921)

## Purpose

***NOTE:*** *This procedure should only be performed when the ATC Sensor or Developer Housing has been replaced, or when there is reason to believe that the calibration values in NVM are incorrect.*

To set the calibration values [ATC Correction Coefficient], [ATC Correction Offset] in NVM to calibrate the new ATC Sensor.

## Adjustment

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **TC/ATC Sensor** Setup tab.
4. Locate the ATC Sensor calibration code on the ATC Sensor. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
5. Enter the last 2 digits of this code into the appropriate column of the first row.
6. Select the **Read** button.
7. Proceed to ADJ 9.3, TRC Control/Toner Density Setup (dC922)

## ADJ 9.3 TRC Control/Toner Density Setup (dC922)

### Purpose

To check the output of ATC Sensor and to determine if TC Control performed normally.

Allows manual adjustment of TC if control is not functioning.

### Check

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **TRC Control** tab.
4. Load letter size paper (8.5 x 11 or A4) into Tray 1.
5. Select the **Start** button. The machine will read the output of the ATC Sensor and display the results in the row labeled **ATC Mean Detected Value**. If the routine is unable to read the ATC Sensor correctly, this fact will be displayed in the row labeled **ATC Sensor Fail Determination**.
6. If the row labeled **ATC Sensor Fail Determination** displays OK for all colors, continue with the check. If any color is not OK, go to the appropriate RAP (9-380 for yellow, 9-381 for magenta,09-382 for cyan, or 9-383 for black) to fix the problem before continuing with this procedure.
7. Compare the data in the row labeled **ATC Mean Detected Value** with the data in the row labeled **ATC Control Environment Correction Standard**. If the measured value for any color is more than 50 bits higher or lower than the target (correction standard) value, perform the Adjustment.
8. If the Check is OK, proceed to ADJ 9.4, ADC Output Check.

### Adjustment

The **Tone Judge** window in the upper right portion of the screen shows the result of the ATC Sensor read. Perform the following steps to adjust the toner density.

1. Select **Run**. The control logic will automatically tone up or tone down each color per the display.
2. When the tone up/down cycle is complete, select **Start** to re-run the check.

***NOTE:*** *It is not necessary to repeat the tone up/down procedure until the match is exact.*

3. Repeat steps 2 and 3 until the **ATC Mean Detected Value** is within 50 bits of the **ATC Control Environment Correction Standard** for all colors.
4. Proceed to ADJ 9.4, ADC Output Check.

## ADJ 9.4 ADC Output Check (dC934)

### Purpose

- To check the following functions
- ADC (2 gradation) patch for Potential Control on the IBT
- ADC Sensor output
- Laser Diode light output

### Check

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **ADC AGC Setup** tab.
4. Select the **Start** button. The machine will read the output of the ADC Sensor, The Laser Diode, and Developer bias, and display the results on the screen.
5. Check for unsatisfactory results:
   - If a fault code is declared, go to the RAP for that code. Resolve the problem, then repeat the Check.
   - If **ADC Shutter Fail** is NG go to the 9-654 RAP and troubleshoot the shutter solenoid circuits
   - If **ADC Sensor Fail** is NG go to the 9-654 RAP and troubleshoot the sensor circuits.

# ADJ 9.5 TRC Adjust (dC924)

## Purpose

**CAUTION**

*Perform this adjustment only to correct a strong customer complaint. Altering the setpoints will affect both Print and Copy modes. Also, there is quite a bit of overlap among the low, medium, and high densities. For these reasons, it is recommended that this procedure not be used unless absolutely necessary.*

To adjust image quality (TRC) to meet the user's preference, by increasing or decreasing the center value of gradation correction for each (YMCK) color, in low density, medium density, and high density ranges.

## Adjustment

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
2. Under the **Adjustments** tab, select **Max Setup**.
3. Select the **TRC Adjust** tab.
4. Type in the desired value; the default is 128, and the range is from 0 to 255. the results on the screen.
5. Select **Save**.
6. Perform a Temporary Call Closeout, then switch the machine power off then on
7. Make 2 prints or copies; the changes are not implemented until the 2nd print is made.
8. Repeat steps 4 through 7 until the customer is satisfied with the image quality.

# ADJ 9.6 Color Registration (dC685)

## Purpose

To establish correct horizontal and vertical positioning of the four primary color images

The procedure consists of the following steps, which must be performed in the listed sequence:

1. **Belt Edge Learn** - to align the Transfer Belt positioning system.
2. **Fine Skew Setup** - automatically performs horizontal and vertical alignment, and reports any skew in the various images caused by ROS misalignment. This skew must be corrected through manual adjustment
3. **IN/OUT Setup** - automatically performs magnification adjustment so that scan lines are the same length for all four colors. Also checks for skew.
4. **Center Setup** - Aligns the midpoints of scan lines for all colors, for magnification balance.

There is also a **Rough Skew Setup** for cases where the skew is outside the measurement parameters of the Fine Skew test.

This procedure is required if any of the following occur:

- ROS removal
- NVM Initialization
- An Image Quality RAP directed performance of this procedure.

## Check

***NOTE:*** *Excessive toner on the Transfer Belt will prevent completion of the adjustment. Make sure that there are no Image Quality problems, and that the IBT Cleaner is functioning correctly. Resolve any Image Quality problems before attempting this adjustment.*

1. Open the Front door and cheat the interlock.
2. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
3. Under the **Adjustments** tab, select **RegiCon**.

### Set the Belt Edge Alignment

1. Select the **Belt Edge Learn Mode** tab.
2. Select the **Edge Learn Mode** button.
3. Select **Start**.
4. If Edge Learn fails, check:
   - Installation of IBT Belt Assembly (REP 9.15).
   - Installation of IBT Edge Sensor (PL 5.4).
   - Installation of IBT Home Sensor (PL 5.4).

   Perform Edge Learn again. If it fails, replace the IBT Edge Sensor (PL 5.4).

   If it fails again, replace IBT Home Sensor (PL 5.4).
5. When Edge Learn is successful, select the **RegiCon Setup Cycle (dC685)** tab.

### Check the Fine Skew Setup

1. Select the **Skew (Fine) Setup** button.
2. Select **Start**.
3. Check the **Judgement** window. If NG is displayed, perform the Rough Skew Setup then repeat the Fine Skew check.
4. If **OK** is displayed in the **Judgement** window, check the **Skew Correction** row in the **Skew Values** window. If a value greater than 1 is displayed for any color, perform the Adjustment, then perform the IN/OUT Setup check.

### Check the IN/OUT Setup

1. Select the **IN/OUT Setup** button.
2. Select **Start**
3. Check the **Judgement** window. If NG is displayed, perform the Adjustment, then perform the Center Registration check
4. If IN/OUT Setup is **OK**, check the Center Registration.

### Check the Center Registration

1. Remove the Waste Toner Cartridge.
2. Move MOB sensor to the center position (Figure 1).

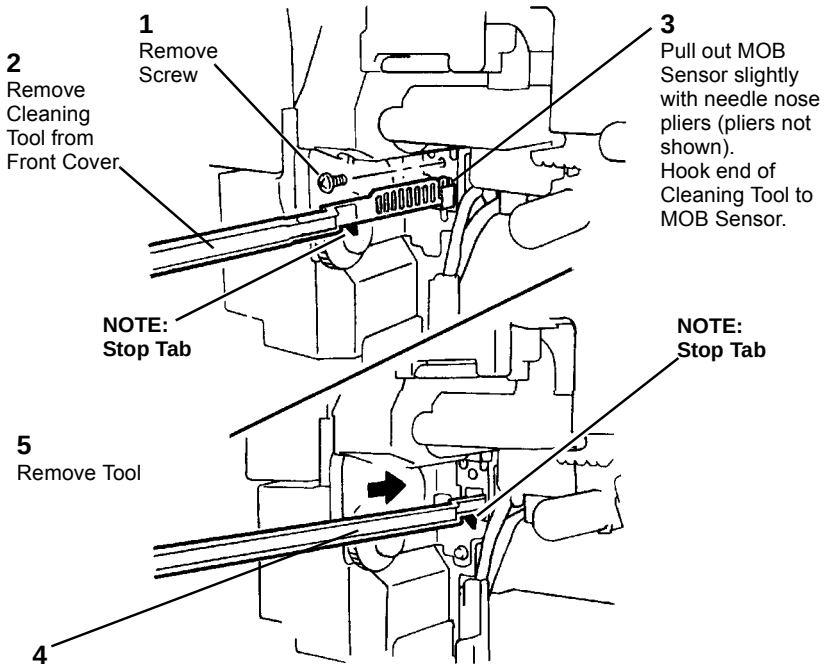



**Figure 1 Moving MOB Sensor to Center Position**

3. Reinstall the Waste Toner Cartridge.

4. Select the **Center Setup** button.
5. Select **Start**.

**CAUTION**

*Make sure not to hook the wiring harness when moving the MOB Sensor.*

6. If Center Setup is OK, dC685 is complete. Use the Cleaning Tool to pull the MOB Sensor back to the original position, and fasten the screw.

   If Center Setup fails, ensure MOB Sensor is positioned to the rear. Go back to step 1 of the Center check.

**Check the Rough Skew Setup**

1. Select the **Skew (Rough) Setup** button.
2. Select **Start**.
3. Check the **Judgement** window. If NG is displayed, there is a problem with the ROS, the IBT Assembly, or the MOB Sensor.
4. If **OK** is displayed in the **Judgement** window, check the **Skew Correction** row in the **Skew Values** window. If a value greater than 1 is displayed for any color, perform the Adjustment, then repeat the Fine Skew Setup check.

## Adjustment

1. In the **Skew Values** window, record the value for each color in the **Skew Correction** row. This is the required number of rotations of the adjustment screw.

**WARNING**

**To avoid exposure to laser light, reinstall the Waste Cartridge before attempting to recheck the adjustment.**

2. Remove the Waste Toner Cartridge (REP 9.4).
3. For each color, rotate the appropriate (CYMK) adjustment screw (Figure 2) in + (CW), or - (CCW) direction the number of clicks recorded in step 1.

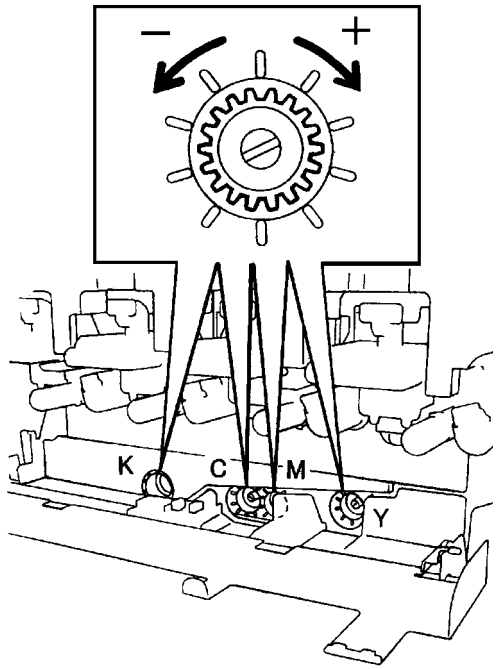



**Figure 2 Adjusting Skew**

4. Reinstall Waste Toner Cartridge (REP 9.4).

Check IOT Lead Edge/Side Edge (ADJ 9.9) after performing this adjustment.

## ADJ 9.7 IIT Calibration (dC945)

### Purpose

- To calculate and set up the White Reference Correction Coefficient.
- To correct the IIT sensitivity dispersion (CCD Calibration).
- Adjust the light axis correction data when replacing the Lens unit.

### Adjustment

1. Clean the Optics:
   a. Switch off the power and allow the Exposure Lamp to cool off.
   b. Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
   c. Clean the Exposure Lamp with a clean cloth and Film Remover.
   d. Clean the Lens with Lens and Mirror Cleaner and lint free cloth.
2. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
3. Under the **Adjustments** tab, select **Max Setup**.
4. Select the **IIT Calibration** tab.
5. Select the **White Reference Adjustment** button.
6. Press **Start**.
7. Follow the instructions on the PWS screen, then select OK.
8. Select the **Read** button.
9. The setup values are displayed on the **White Reference Setup Value** screen.
10. When White Reference setup is done, select the CCD Calibration button.
11. Press **Start**.
12. Follow the instructions on the screen, then select OK.
13. The obtained data is displayed in the **b* Calibration Coefficients** window.
14. Select [Close] to return to the Color Image Quality Adjustment screen.

***NOTE:*** *Do not select Optical Axis Calibration unless replacing the Lens Kit (PL 18.4). Refer to REP 6.4.*

## ADJ 9.8 Hard Disk Diagnostics/Setup (dC355)

### Purpose

**CAUTION**

*This procedure does not work as described in the current tool; the spec is being rewritten. This description is an attempt to document the new spec. DO NOT USE.*

To perform the diagnostics in the hard disk and setup (initialization) of each partition.

***NOTE:*** *Perform this procedure only after the customer's approval is obtained. Check what kind of data are stored in each partition according to the list below since some partitions store fonts etc. that the customer has installed.*

***NOTE:*** *Setup function is only available from customer's mode or UI-Diag mode in Partition A.*

### Adjustment

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS).
2. Under the **Diagnostics** tab, select **System Test**.
3. Select the **Hard Disk Diag. Program** tab.
4. Select the appropriate **Partition** (see Table 1.)

**Table 1 Partition Content**

| Display of appropriate hard disk column | Size (GB) | Stored information and usages |
|---|---|---|
| MP All | All | All the items in Partition 1~6 |
| MP Partition 1 (a) | 2.0 | Font, Form/Logo, SMB Folder (Config. txt, driver), Job Template |
| MP Partition 2 (b) | 2.0 | Printing range |
| MP Partition 3 (c) | 1.2 | Scan, Report, Mailbox, Security - Print |
| MP Partition 4 (d) | 2.0 | PLD, Others |
| MP Partition 5 (e) | 2.0 | Copying range |
| MP Partition 6 (f) | 0.5 | Spool Cont Control Information, Log |

5. Select the Diag Type (see Table 2).

**Table 2**

| Work Item | Details |
|---|---|
| Setup | Initialize the file system. It is required when the management data of the file system corrupts and when read errors occur. |
| Hard Disk Test Read Verify) | Perform the Read verify diagnostics of all the sectors in designated partitions. Sector numbers where a read error is occurring will appear. |
| Troubleshooting | Perform the hard disk ROM check and controller diagnostics. |
| Trouble Prediction | Perform the SMART (Self-monitoring analysis and reporting technology) to predict latent troubles on the hard disk. |

6. Press **Start**.

# ADJ 9.9 IOT Registration Series (dC129)

## Purpose

The purpose is to adjust the position of the printed image on the page. This is done by changing the value in the appropriate NVM location in dC129. This controls where the ROS writes the image.

## Introduction

This series consists of 4 procedures:

- Lead Edge Registration (Trays 1-4)
- Side Edge Registration (Trays 1-5)
- Duplex (Side 2) Registration
- Lead Edge Registration for Tray 5

All procedures must be checked.

## Lead Edge Registration (Paper Trays 1 - 4)

## Purpose

To correctly set the lead edge of the image in relation to the edge of the paper. There is one lead edge setting for Trays 1 - 4.

## Check

1. Connect the PWS to the machine and enter Diagnostic Mode (refer to Entering Diagnostic Mode using the PWS). Select dC129 from the **DC Quick** menu
2. Load Tray 1 with the largest paper used by the customer.
3. Select **ALL** in the **Lead Edge** column.
4. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge.
5. Take the third pattern that was printed and measure from the lead edge to point ëAí on Figure 1 (the intersection of the 7th line from the left edge and the first line from the lead edge).

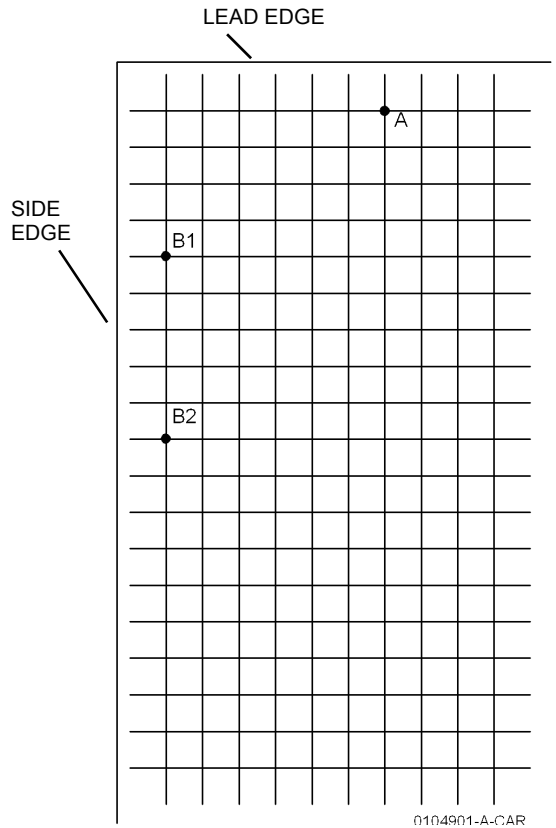



**Figure 1 Measurement points**

6. If the measured value is not 21.6mm±0.5, perform the Adjustment.

## Adjustment

1. Use the Right and Left Arrow buttons to move the image toward or away from the lead edge of the paper. Each click on the button moves the image 0.25mm. The cumulative amount of shift is indicated in the **Lead Reg.** box.
2. After adjusting the registration, click **Set Adjust Value**.

***NOTE:*** *Changes made to the NVM for LE registration are not implemented unless the machine exits Diagnostic Mode.*

3. Go to the **Service Exit** tab and select **Temporary Closeout**.
4. After the machine reboots and is ready to copy, reconnect the PWS.
5. Select **Start**.
6. Repeat the check/adjustment until the specifications are met.
7. Select **Save [LR]** to save the new NVM settings.
8. Proceed to **Side Edge Registration for Paper Trays 1 - 5**.

## Side Edge Registration for Paper Trays 1 - 5

### Purpose

***NOTE:*** *Each Paper Tray has a separate setting for side edge registration.*

To correctly position the side edge of the image in relation to the outboard edge of the paper.

### Check

1. Check that paper is loaded in all trays, and that the paper guides are adjusted correctly. For Tray 1 and Tray 2, use 11 x 17 in. or A3 paper if available.
2. Select **Tray 1** in the **Side Edge** column.
3. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge.

   ***NOTE:*** *Print All prints from each tray in numerical sequence from Tray 1 through Tray 6 (HCF - if installed). Make sure to keep the sheets in the correct sequence.*

4. Take the third pattern that was printed and measure the following: perform the Adjustment for that tray.

   For paper larger than letter size: from the intersection between the 1st line from the left top edge and the 10th line from the lead edge of the paper (point ëB2í on Figure 1).

   For paper letter size (A4/8.5 x 11) or smaller: from the intersection between the 1st line from the left top edge and the 5th line from the lead edge of the paper (point ëB1í on Figure 1).
5. If the measured value is not 21.6mm±0.5, perform the Adjustment.
6. If the measurement is within specifications, repeat the Check for Trays 2 - 5. Perform the Adjustment for any tray that is not within specifications.
7. If all trays are within specifications, proceed to **Duplex (Side 2) Registration**.

### Adjustment

1. Select the paper tray to be adjusted from the **Side Edge** column.
2. Use the Up and Down Arrow buttons to move the image toward or away from the outboard edge of the paper. Each click on the button moves the image 0.21 mm. The cumulative amount of shift is indicated in the **Side Reg.** box.
3. After adjusting the registration, click **Set Adjust Value**.
4. Select **Start**.
5. Repeat the check/adjustment until the specifications are met.
6. Select **Save [SR]** to save the new NVM settings.
7. Repeat steps 1 through 6 for each tray that requires adjustment.
8. Proceed to **Duplex (Side 2) Registration**.

## Duplex (Side 2) Registration

### Purpose

The purpose of this procedure is to correctly position the lead edge and side edge of the image in relation to the edge of the paper.

### Check

1. Ensure that Paper Tray 1 contains paper and that the paper guides are adjusted correctly. If available, load the tray with 11 x 17 in. or A3 paper.
2. Select **Duplex (Side 2)** in the **Lead Edge** column.

***NOTE:*** *Side 2 will be face down in the output tray.*

3. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge.
4. **Check Lead Edge**:

   Check the Side 2 Lead Edge Registration (Figure 1). If the measured value is not 21.6mm±0.5, perform the Adjustment.
5. **Check Side Edge**:

   Check the Side Edge Registration (Figure 1). If the measured value is not 21.6mm±0.5, perform the Adjustment.

### Adjustment

**Duplex Lead Edge:**

1. Use the Right and Left Arrow buttons to move the image toward or away from the lead edge of the paper. Each click on the button moves the image 0.25mm. The cumulative amount of shift is indicated in the **Lead Reg.** box.
2. After adjusting the registration, click **Set Adjust Value**.

***NOTE:*** *Changes made to the NVM for LE registration are not implemented unless the machine exits Diagnostic Mode.*

3. Go to the **Service Exit** tab and select **Temporary Closeout**.
4. After the machine reboots and is ready to copy, reconnect the PWS
5. Select **Start**.
6. Repeat the check/adjustment until the specifications are met.
7. Select **Save [LR]** to save the new NVM settings.

**Duplex Side Edge:**

1. Select **Duplex (Side 2)** in the **Side Edge** column
2. Use the Up and Down Arrow buttons to move the image toward or away from the outboard edge of the paper. Each click on the button moves the image 0.21mm. The cumulative amount of shift is indicated in the **Side Reg.** box.
3. After adjusting the registration, click **Set Adjust Value**.
4. Select **Start**.
5. Repeat the check/adjustment until the specifications are met.
6. Select **Save [SR]** to save the new NVM settings.

## Lead Edge Registration for Tray 5 (MSI)

### Purpose

***NOTE:*** *There are three settings for Tray 5 Lead Edge; one for standard weight paper, one for heavyweight stock, and one for extra-heavyweight stock.*

To correctly set the lead edge of the image in relation to the edge of the paper.

### Check

1. Load Tray 5 with the largest standard weight paper used by the customer.
2. Select **Tray 5 (MSI)** in the **Lead Edge** column.
3. Press the **Start** button on the screen. As the prints are made, mark each to indicate the lead edge.
4. Take the third pattern that was printed and measure from the lead edge to point ëAí on Figure 1 (the intersection of the 7th line from the left edge and the first line from the lead edge).
5. If the measured value is not 21.6mm±0.5, perform the Adjustment.
6. If the customer uses heavyweight or extra-heavyweight stock, load Tray 5 with the stock. Select Tray 5 (HW) or Tray 5 (XHW), as appropriate. Repeat the check.

### Adjustment

1. Use the Right and Left Arrow buttons to move the image toward or away from the lead edge of the paper. Each click on the button moves the image 0.25mm. The cumulative amount of shift is indicated in the **Lead Reg.** box.
2. After adjusting the registration, click **Set Adjust Value**.

***NOTE:*** *Changes made to the NVM for LE registration are not implemented unless the machine exits Diagnostic Mode.*

3. Go to the **Service Exit** tab and select **Temporary Closeout**.
4. After the machine reboots and is ready to copy, reconnect the PWS.
5. Select **Start**.
6. Repeat the check/adjustment until the specifications are met.
7. Select **Save [LR]** to save the new NVM settings.

# ADJ 9.10 IIT Lead Edge Registration

### Purpose

To adjust the IIT scan timing in the Slow Scan direction and to correct the copy position.

### Check

**CAUTION**

*Perform this adjustment only if absolutely required; the IIT Lead Edge Registration affects the precision of the document size detection.*

***NOTE:*** *Before performing this procedure, make sure that the IOT Lead Edge Registration is correct. Refer to ADJ 9.9, IOT Side/Lead Edge Registration.*

1. Place the Geometric Test Pattern on the Platen Glass correctly and make a copy with the following settings:
   - Copy Mode: Black
   - Paper Size: 11 x 17 in or A3
   - Magnification: 100%
   - No. of Copies: 2
2. On the 2nd copy, check that the distance from the lead edge to the top of Step 3 on the LE2 scale is 10.0mm +/- 2.1mm (Figure 1).

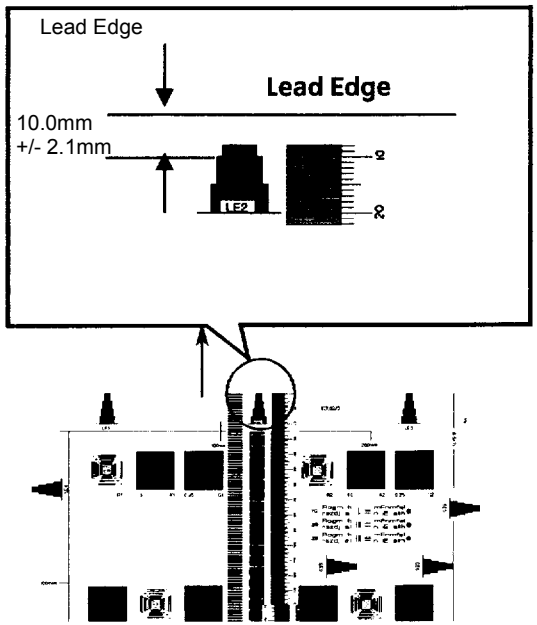



**Figure 1 Checking IIT Side Registration**

3. If the value is not within the specified range, Perform the Adjustment:

## Adjustment

1. Enter dC131 [715-301].
2. Change the value:
   - ï Each bit represents 0.036 mm
   - ï Increase the value to move the image toward the lead edge.
   - ï Decrease the value to move the image away from the lead edge.

# ADJ 9.11 IIT Side Edge Registration

## Purpose

To adjust the IIT scan timing in the Fast Scan direction and to correct the copy position.

## Check

**CAUTION**

*Perform this adjustment only if absolutely required; the IIT Lead Edge Registration affects the precision of the document size detection.*

***NOTE:*** *Before performing this procedure, make sure that the IOT Side Edge Registration is correct. (Refer to ADJ 9.9, IOT Side/Lead Edge Registration.)*

1. Load 11 x 17 in. or A3 paper into Tray 2.
2. Place the Geometric Test Pattern on the Platen Glass correctly and make a copy with the following settings:
   - ï Copy Mode: Black
   - ï Paper Tray: Tray 2
   - ï Magnification: 100%
   - ï No. of Copies: 2
3. On the 2nd copy, check that the distance from the lead edge to the top of Step 3 on the SE2 and SE3 scales is 10.0mm +/- 1.6mm (Figure 1).

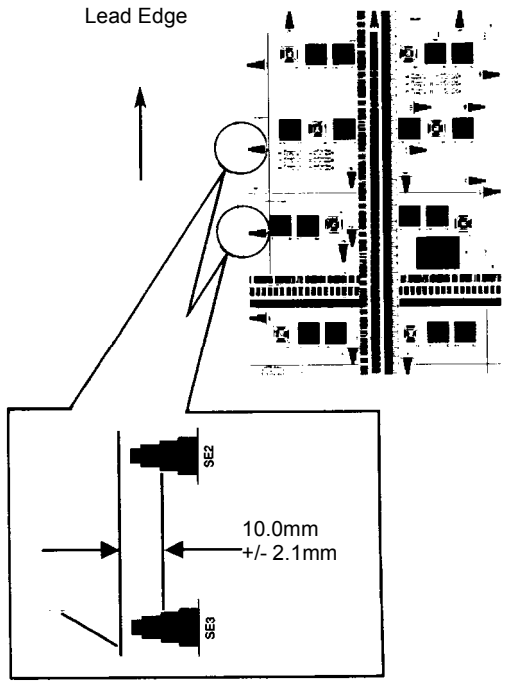



**Figure 1 Checking IIT Side Edge Registration**

4. If the value is not within the specified range, perform the Adjustment:

### Adjustment

### Purpose

1. Enter dC131 [715-014].
2. Change the value:
   - Each bit represents 0.036 mm
   - Increase the value to move the image toward the edge.
   - Decrease the value to move the image away from the edge.

## ADJ 9.12 IIT Vertical/Horizontal Magnification

### Purpose

To correct the horizontal (fast scan)/vertical (slow scan) magnification ratio for a 100% copy.

### Check

**CAUTION**

*Perform this procedure only if absolutely required; changing IIT magnification may adversely affect resolution due to ASIC shift, and may cause a color shift.*

***NOTE:*** *Before performing this procedure, make sure that the IOT horizontal/vertical magnification ratios are correct.*

1. Place the Geometric Test Pattern on the Platen Glass and make a copy using the following copy mode settings:
   - Copy Mode: Black
   - Document Type: Text/Photo
   - Paper: 11 x17 in. or A3
   - Magnification: 100%
   - No. of Copies: 2
2. Check the 2nd copy for the following:
3. **Check horizontal magnification** (Figure 1):

   Measure the 200mm line running from near LE1 to near LE3. If the dimension is not 200mm ±1mm, perform the Adjustment.

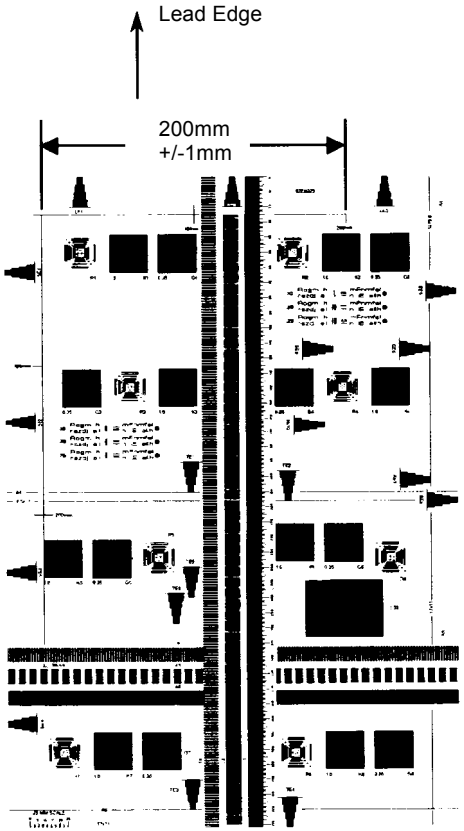



**Figure 1 Checking Horizontal Magnification**

4. **Check vertical magnification** (Figure 2):

   Measure the 300mm line running from near LE1 to the trail edge of the 1.8lp ladder. If the dimension is not 300mm ±1.5mm, perform the Adjustment.

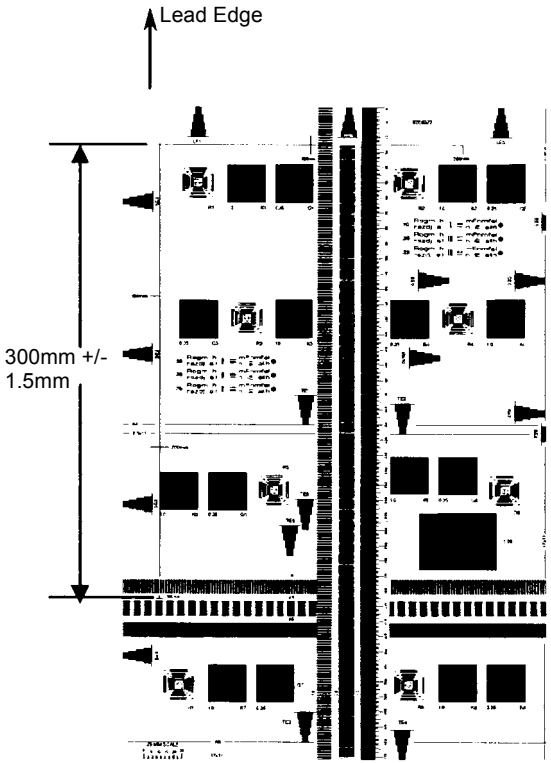



**Figure 2 Checking Vertical Magnification**

## Adjustment

1. **Horizontal Magnification Adjustment**
   - ï Enter dC131 [715-234]
   - ï Each bit represents 0.1% change:
     Increase the value to lengthen the line
     Decrease the value to shorten the line
2. Vertical Magnification Adjustment
   - ï Enter dC131 [715-302]
   - ï Each bit represents 0.1% change:
     Increase the value to lengthen the line
     Decrease the value to shorten the line

# ADJ 9.13 UI Display Calibration

## Purpose

Adjust the display by making the buttons on the display correspond to the Touch Panel, so that users can correctly select the content indicated on the display.

Perform this adjustment when UI PWB or the Control Panel are replaced.

## Adjustment

***NOTE:*** *Use the touch pen for the adjustment as it is installed in the UI Control Panel of the machine. A tapered substitute can be replaced if the pen has been lost. In this case, care should be taken not to have the UI surface scratched.*

1. Switch off the power and remove the Control Panel Cover.
2. Remove the Touch Pen (Figure 1).

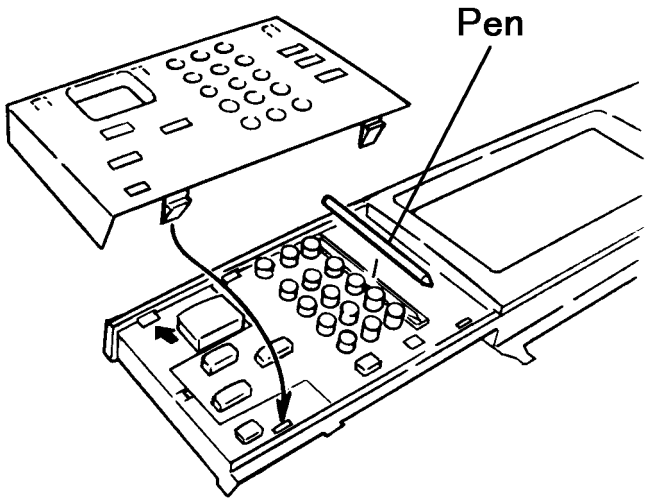



**Figure 1 Accessing the Touch Pen**

3. Switch on the power while simultaneously holding down the numerical keys **0**, **1**, and **3** on the Control Panel.

   Calibration Screen 1 will be displayed (Figure 2).

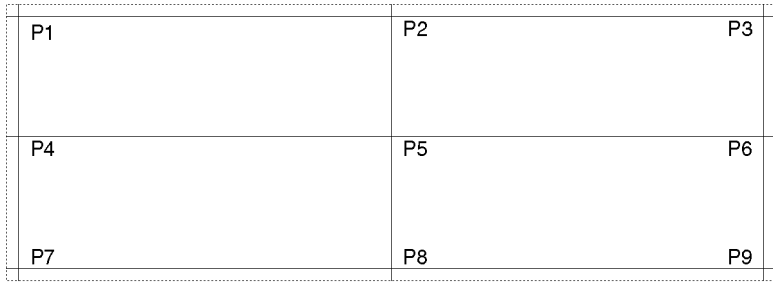



**Figure 2 Calibration Screen 1**

4. In numeric sequence (P 1 to P 9), touch the intersections of the vertical and horizontal lines with the touch pen. A message is displayed on the screen after each touch.

   After pressing down all the buttons, the machine will calculate the deviation and the correction value on the coordinates. This automatic calculation takes about 0.1 second.
5. Calibration Screen 2 will be displayed (Figure 3).
6. Apply the adjusting pen to each of the four line intersections. A black square should appear at the point of contact, and a beep should sound.
   - If four beeps are heard, adjustment is OK.
   - If you donít hear four beeps, repeat the adjustment from step 3.

**Figure 3 Adjustment Screen #2**

7. Switch off the power. Restore the pen to its original place and reinstall the Control Panel Cover.

# ADJ 9.14 Inboard/Outboard Density

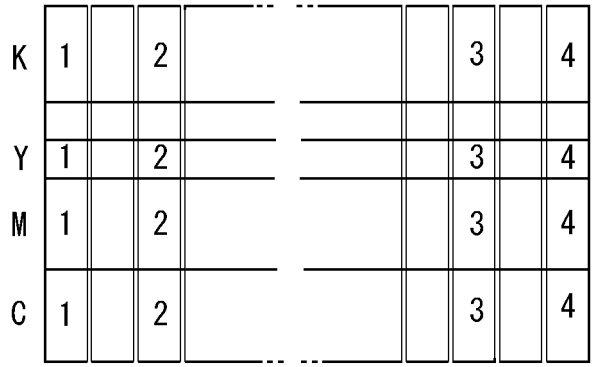
## Purpose

To perform the ROS In/Out light quantity correction with this adjustment, when IN/Out densities are different but the parameters other than ROS light quantity judges that all is normal.

## Adjustment

1. Enter dC612.
2. Select the Test Pattern in the modes as shown below and print out the test pattern.
   - ï Pattern name: Binary highlight PG LUT: C-TRA On IOT ON
     (Pattern No 13??? 25?)
   - ï Color Mode: 4C
   - ï Cin (%): 20%
   - ï Number of prints: 1
   - ï Tray: Tray 1/A4LEF
   - ï Resolution: Not specified
   - ï Binary ED screen
   - ï Print: single mode
3. Select the pattern that has the same inclination on the four check points in the test pattern from the 20 patterns below.

   Write down the Pattern number. (Vertical axis shows density, and horizontal axis shows width direction in the pattern)




0104903-A-CAR

**Figure 1** Check Point

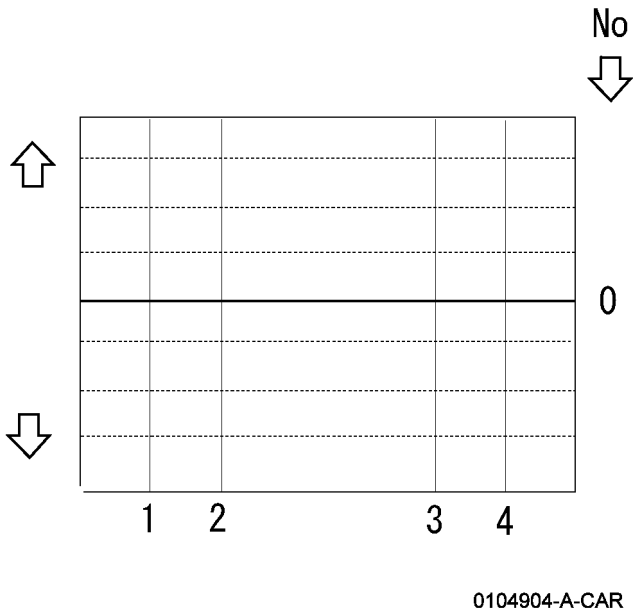



**Figure 2** Standard Pattern: Pattern 0

<Group 1: when the patterns become darker along the rear> (Fig. 3)

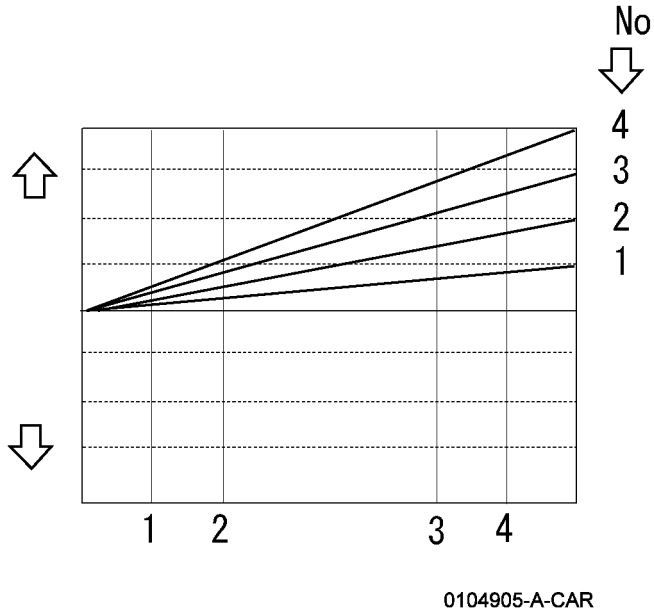



**Figure 3 Group 1**

<Group 2: when the patterns become darker along the front> (Fig. 4)

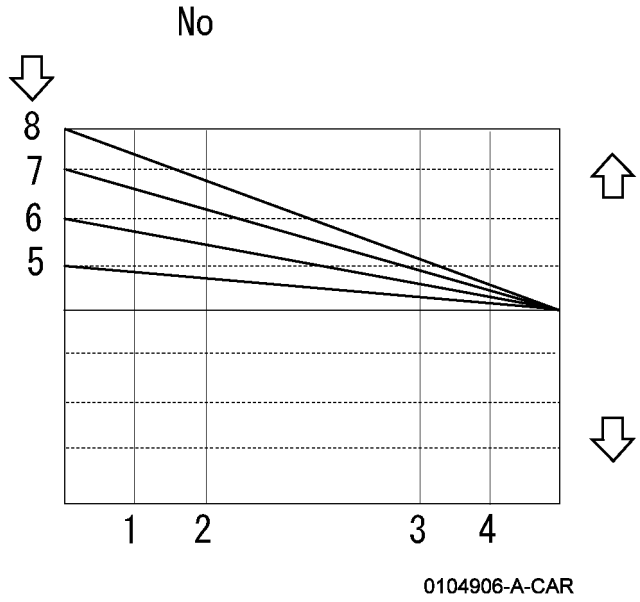



**Figure 4** Group 2

Group 3: when the patterns are dark/light for only both edges. (Fig. 5)

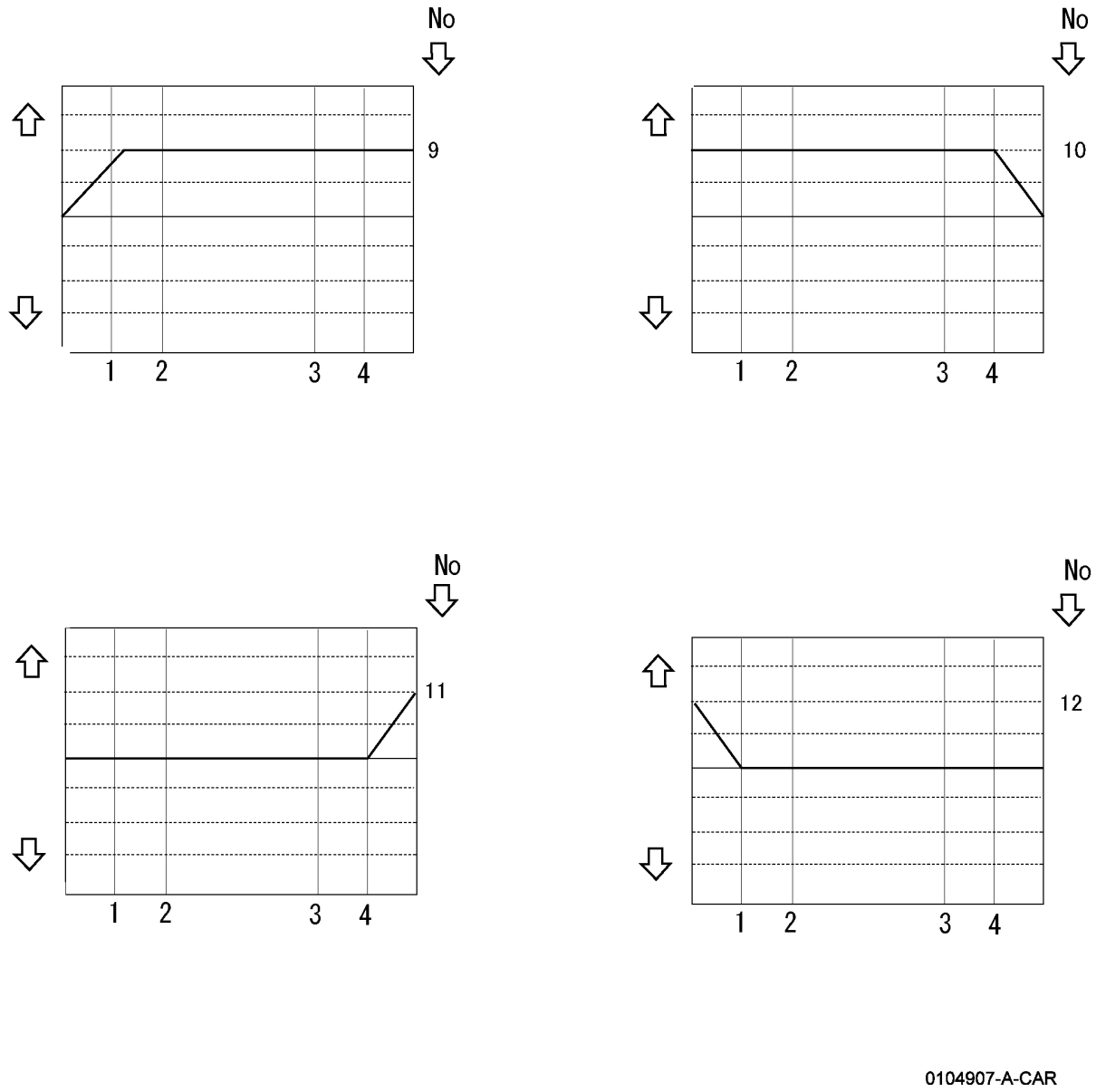



**Figure 5 Group 3**

<Group 4: when the patterns are dark only in the center areas> (Fig. 6)

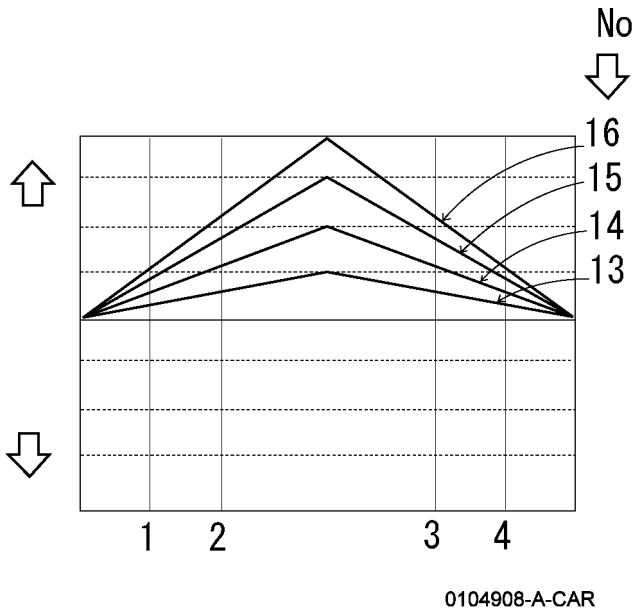



**Figure 6 Group 4**

<Group 5: when the patterns are light only in the center areas> (Fig. 7)

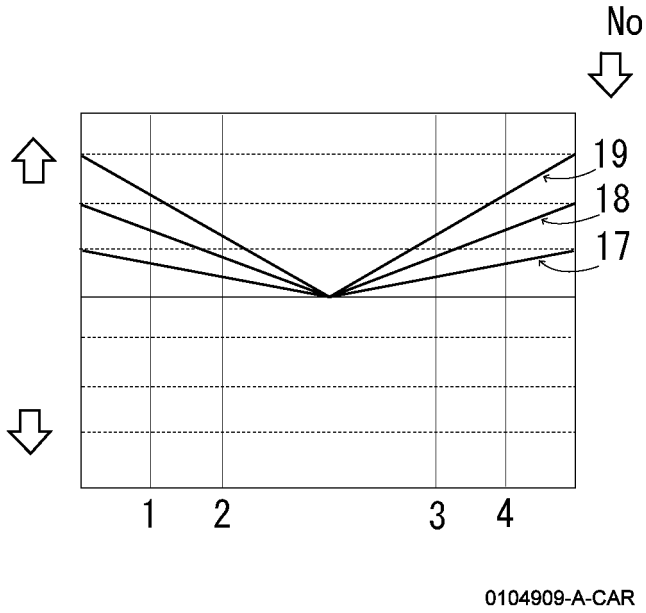



**Figure 7 Group 5**

4. Select a pattern and change the following NVM corresponding to the pattern.

   ***NOTE:*** *Do NOT use the value other than the recommended values below as the NVM value.*

   The In/Out density adjustment is available by changing the 6 NVM below.

**Table 1**

| Chain/Link no. | NVM names |
|---|---|
| [753-801] | Legible Adjustment (Yellow) |
| [753-802] | Legible Adjustment (Magenta) |
| [753-803] | Legible Adjustment (Cyan) |
| [753-804] | Legible Adjustment (Black) |
| [753-805] | InOut Pattern setting (Yellow) |
| [753-806] | InOut Pattern setting (Magenta) |
| [753-807] | InOut Pattern setting (Cyan) |
| [753-808] | InOut Pattern setting (Black) |

**Table 2** Pattern No. 0~9

| Pattern # NVM | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| [753-801] | 1024 | 973 | 922 | 870 | 819 | 1024 | 1024 | 1024 | 1024 | 922 |
| [753-802] | 1024 | 973 | 922 | 870 | 819 | 1024 | 1024 | 1024 | 1024 | 922 |
| [753-803] | 1024 | 1024 | 1024 | 1024 | 1024 | 973 | 922 | 870 | 819 | 1024 |
| [753-804] | 1024 | 1024 | 1024 | 1024 | 1024 | 973 | 922 | 870 | 819 | 1024 |
| [753-805] | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| [753-806] | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| [753-807] | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| [753-808] | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

**Table 3** Pattern No. 10~9

| Pattern # NVM | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|---|---|---|---|---|---|---|---|---|---|---|
| [753-801] | 1024 | 922 | 1024 | 1024 | 1024 | 1024 | 1024 | 973 | 922 | 870 |
| [753-802] | 1024 | 922 | 1024 | 1024 | 1024 | 1024 | 1024 | 973 | 922 | 870 |
| [753-803] | 922 | 1024 | 922 | 1024 | 1024 | 1024 | 1024 | 973 | 922 | 870 |
| [753-804] | 922 | 1024 | 922 | 1024 | 1024 | 1024 | 1024 | 973 | 922 | 870 |
| [753-805] | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| [753-806] | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| [753-807] | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| [753-808] | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |

Reference Information

The correct light quantity value in ROS is normally 1024. If the value is decreased by 5%, the light quantity decreases too.

Hence, entering the 5 stages of light quantity correction value by 5% is possible as below.

1024: Correct ROS Light Quantity Value

973: Light quantity value of 5% down

922: Light quantity value of 10% down

870: Light quantity value of 15% down

919: Light quantity value of 20% down

5. Take test patterns again with the Step 2 mode after changing.
6. Repeat Steps 3~5 until the density distribution that the client requests can be obtained.
7. Check the condition using the customer's samples. (Or ask the customer to print out the sample from the same file and check the density on it.)

***NOTE:*** *Be careful in servicing because tone jump trouble may occur if the adjustment is corrected drastically. The tone jump is a noticeable difference in the midstream of gradations when the gradations etc. are printed out.*

***NOTE:*** *When copying, borrow the document or sample that the clients has complained about. (To show the adjustment result after the adjustment)*

# ADJ 12.1 Finisher Alignment

## Purpose

Align IOT copy output with entrance to Finisher H Transport.

## Adjustment

**WARNING**

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch on or electrical power applied to the machine.**

1. Ensure H Transport is set correctly (Figure 1) and (Figure 2).

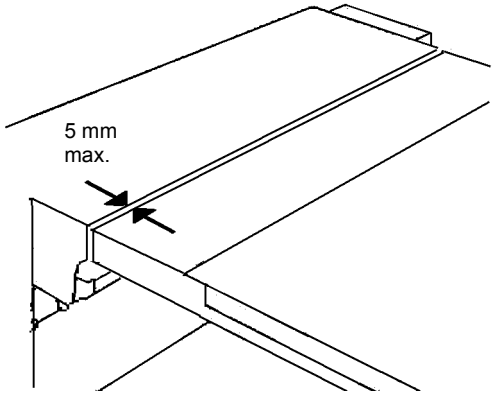



**Figure 1 H Transport Clearance**

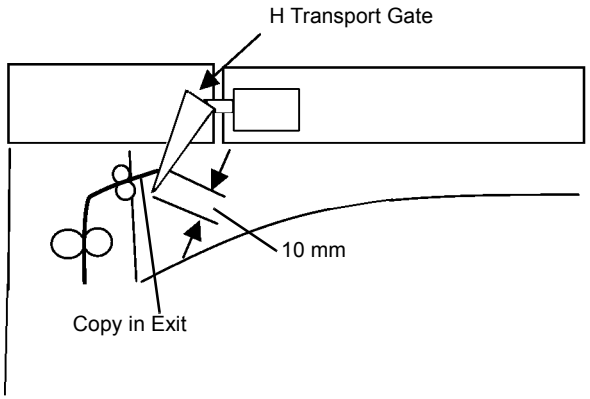



**Figure 2 H Transport Gate Clearance**

# 5 Parts List

# Introduction

## Overview

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

## Organization

### Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

### Electrical Connectors and Fasteners

This section contains the illustrations and descriptions of the plugs, jacks, and fasteners used in the machine. A part number listing of the connectors is included.

### Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimetres unless otherwise identified.

### Part Number Index

This index lists all the spared parts in the machine in numerical order. Each number is followed by a reference to the parts list on which the part may be found.

## Other Information

### Abbreviations

Abbreviations are used in the parts lists and the exploded view illustrations to provide information in a limited amount of space. The following abbreviations are used in this manual:

**Table 1**

| Abbreviation | Meaning |
|---|---|
| **A3** | 297 x 594 Millimetres |
| **A4** | 210 x 297 Millimetres |
| **A5** | 148 x 210 Millimetres |
| **AD** | Auto Duplex |
| **AWG** | American Wire Gauge |
| **EMI** | Electro Magnetic Induction |
| **GB** | Gigabyte |
| **KB** | Kilobyte |
| **MB** | Megabyte |
| **MM** | Millimetres |
| **MOD** | Magneto Optical Drive |
| **NOHAD** | Noise Ozone Heat Air Dirt |
| **PL** | Parts List |
| **P/O** | Part of |
| **R/E** | Reduction/Enlargement |
| **REF**: | Refer to |
| **SCSI** | Small Computer Systems Interface |
| **W/** | With |
| **W/O** | Without |

**Table 2**

| | **Operating Companies** |
|---|---|
| **Abbreviation** | **Meaning** |
| **AO** | Americas Operations |
| **NASG - US** | North American Solutions Group - US |
| **NASG** - Canada | North American Solutions Group - Canada |
| **XE** | Xerox Europe |

## Symbology

Symbology used in the Parts List section is identified in the Symbology section.

## Service Procedure Referencing

If a part or assembly has an associated repair or adjustment procedure, the procedure number will be listed at the end of the part description in the parts lists e.g. (REP 5.1, ADJ 5.3)

# Subsystem Information

## Use of the Term "Assembly"

The term "assembly" will be used for items in the part number listing that include other itemized parts in the part number listing. When the word "assembly" is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

## Brackets

A bracket is used when an assembly or kit is spared, but is not shown in the illustration. The item number of the assembly or kit precedes the bracket; the item numbers of the piece parts follow the bracket.

## Tag

The notation "W/Tag" in the parts description indicates that the part configuration has been updated. Check the change Tag index in the General Information section of the Service Data for the name and purpose of the modification.

In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available is listed as “W/Tag,” install the Tag kit or all of the piece parts. The Change Tag Index tells you which kit or piece parts you need.

Whenever you install a Tag kit or all the piece parts that make up a Tag, mark the appropriate number on the Tag matrix.

## Symbology

A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.

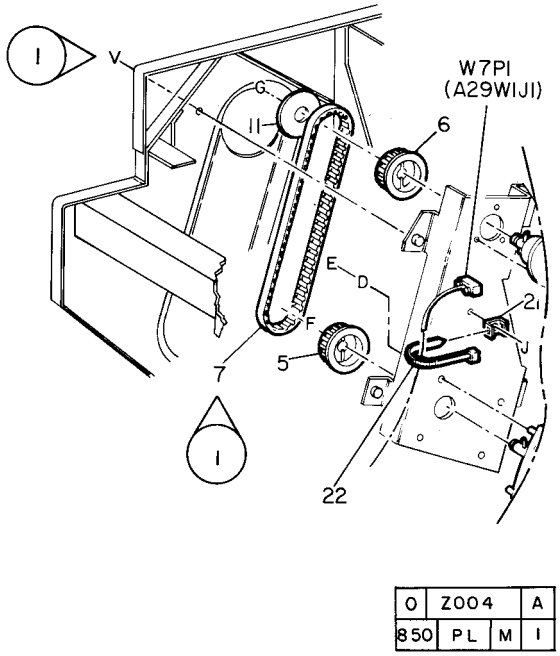



**Figure 1 With Tag Symbol**

A Tag number within a circle having a shaded bar and pointing to an item number shows that the configuration of the part shown is the configuration before the part was changed by the Tag number within the circle (Figure 2).

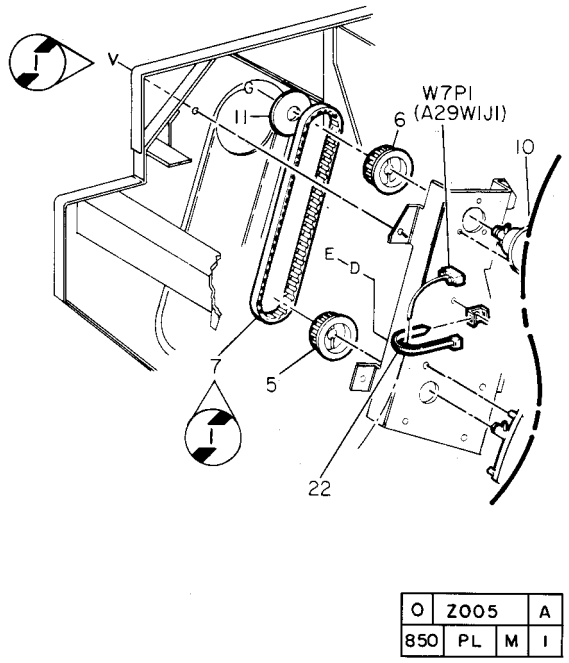



**Figure 2 Without Tag Symbol**

A tag number within a circle with no apex shows that the entire drawing has been changed by the tag number within the circle (Figure 3). Information on the modification is in the Change Tag Index.

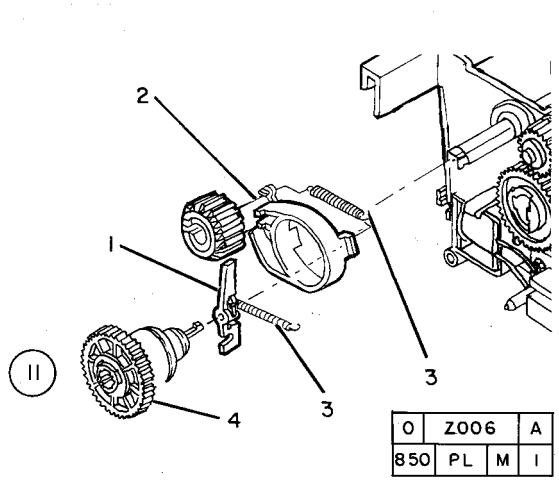



**Figure 3 Entire Drawing With Tag Symbol**

A tag number within a circle with no apex and having a shaded bar shows that the entire drawing was the configuration before being changed by the tag number within the circle (Figure 4).

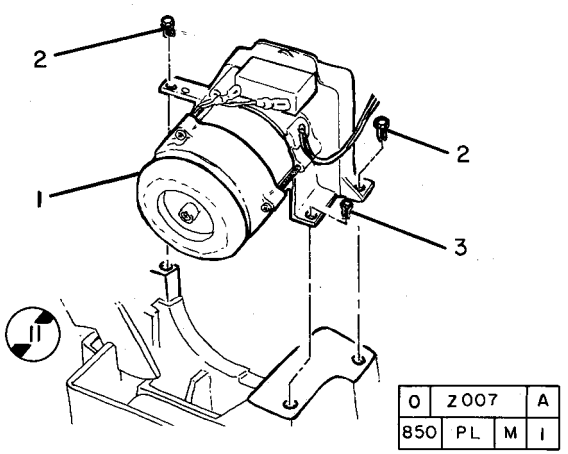
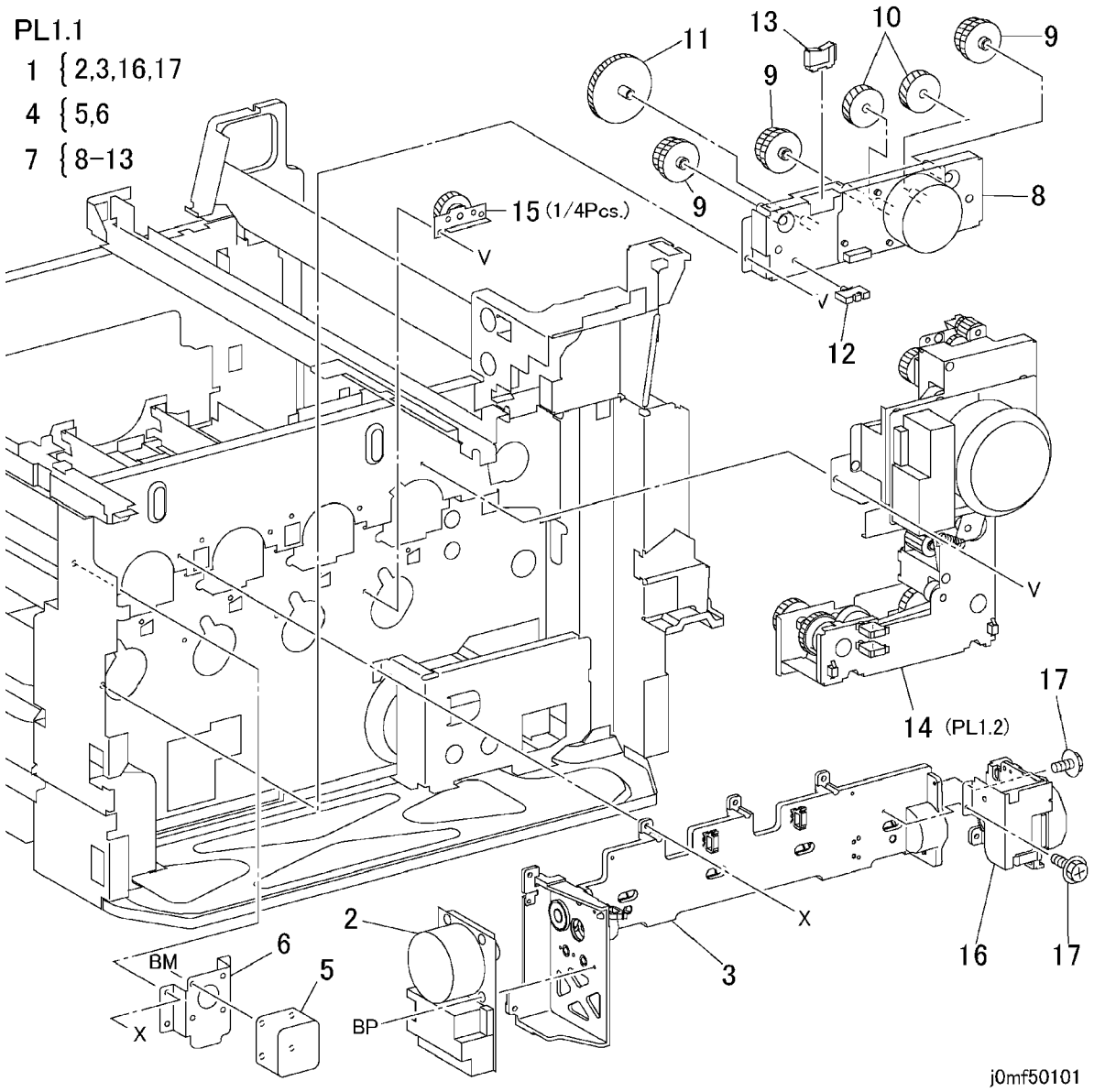



**Figure 4 Entire Drawing Without Tag Symbol**

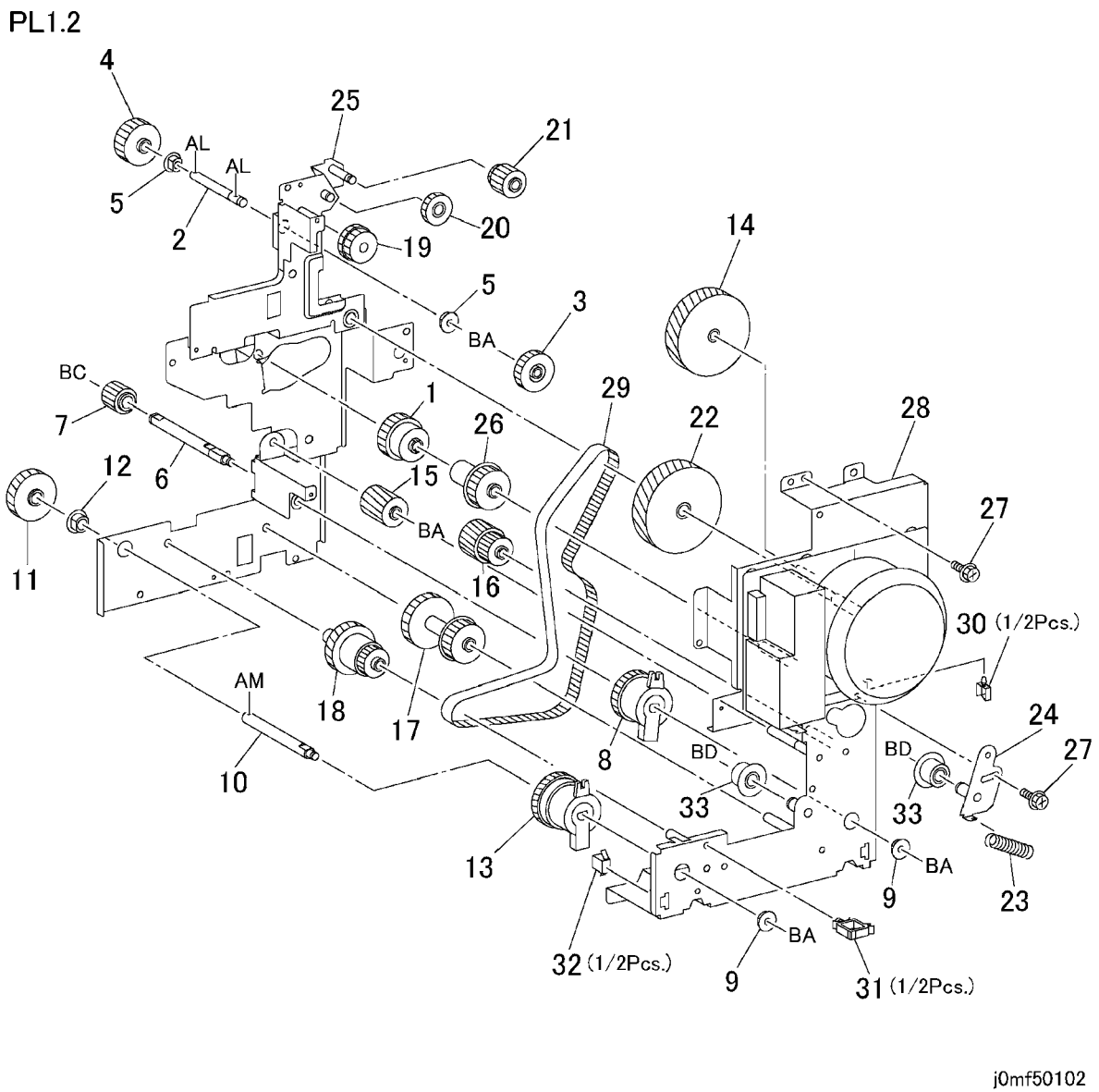
## PL 1.1 Drive Unit

| Item | Part | Description |
|---|---|---|
| 1 | 007K85750 | Drum Motor Assembly (REP 4.4) |
| 2 | – | Drum Motor (P/O PL 1.1 Item 1) |
| 3 | – | Gear Bracket (P/O PL 1.1 Item 1) |
| 4 | 007K87110 | IBT Motor Assembly (REP 4.2) |
| 5 | – | IBT Motor (P/O PL 1.1 Item 4) |
| 6 | – | Gear Bracket (P/O PL 1.1 Item 4) |
| 7 | 007K86400 | Developer Drive Motor Assembly (REP 4.3) |
| 8 | – | Developer Drive Motor (P/O PL 1.1 Item 7) |
| 9 | – | Gear (47/38T) (P/O PL 1.1 Item 7) |
| 10 | – | Gear (51/25T) (P/O PL 1.1 Item 7) |
| 11 | – | Gear (P/O PL 1.1 Item 7) (76T) |
| 12 | – | Clamp (P/O PL 1.1 Item 7) |
| 13 | – | Edge Saddle (P/O PL 1.1 Item 7) |
| 14 | 007K86920 | Main Drive Motor Assembly (REP 4.1) |
| 15 | 007K87220 | Developer Gear |
| 16 | – | Drum Motor (K) (P/O PL 1.1 Item 1) |
| 17 | – | Screw (P/O PL 1.1 Item 1) |



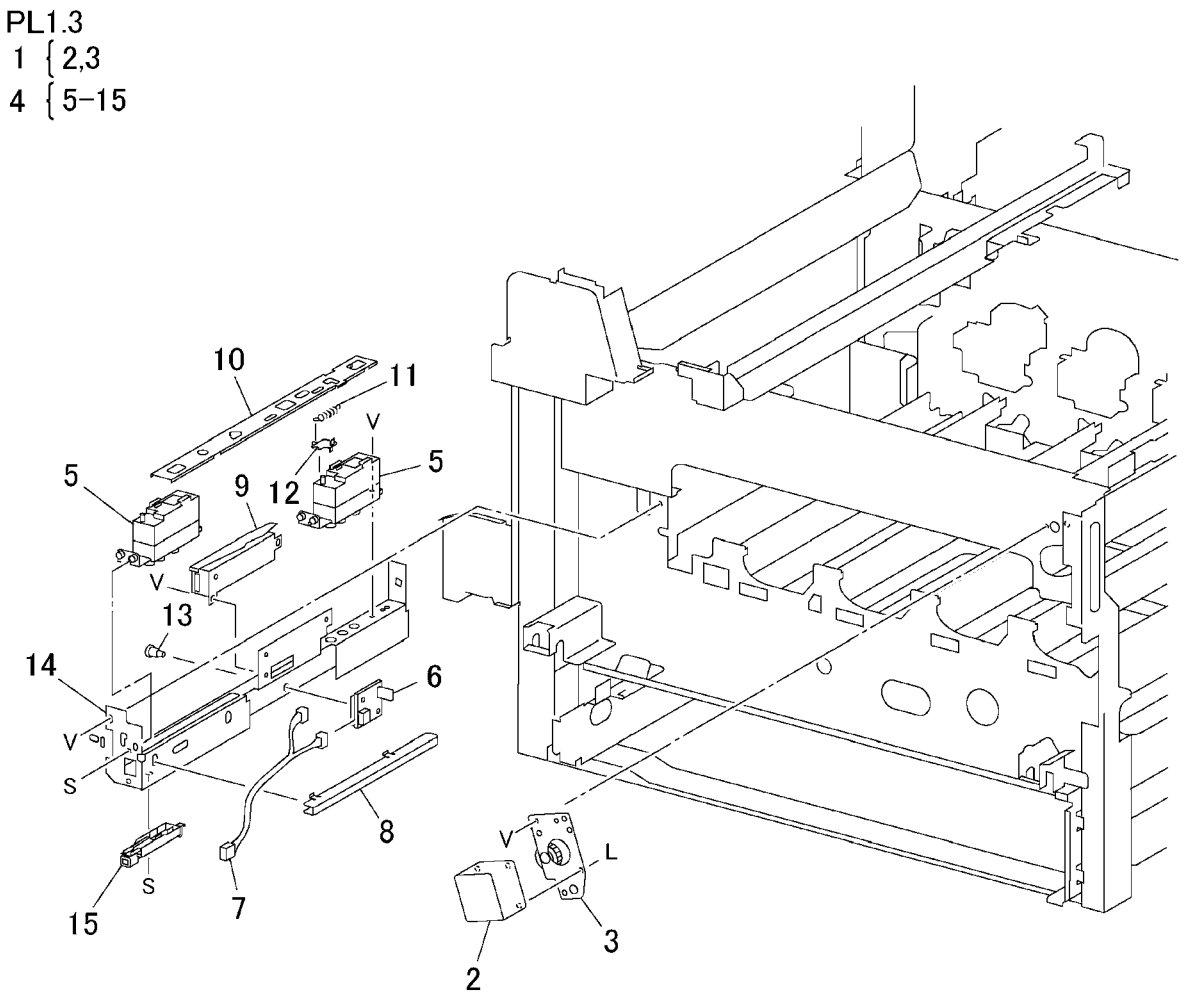
## PL 1.2 Main Drive Motor Assembly

| Item | Part | Description |
|---|---|---|
| 1 | – | Friction Clutch (Not Spared) |
| 2 | – | Shaft (Not Spared) |
| 3 | – | Gear (32T) (Not Spared) |
| 4 | – | Gear (28T) (Not Spared) |
| 5 | – | Bearing (Not Spared) |
| 6 | – | Shaft (Not Spared) |
| 7 | – | Gear (20T) (Not Spared) |
| 8 | 121K22470 | Takeaway Clutch |
| 9 | – | Bearing (Not Spared) |
| 10 | – | Shaft (Not Spared) |
| 11 | – | Gear (39T) (Not Spared) |
| 12 | – | Bearing (Not Spared) |
| 13 | 121K23270 | Developer K Clutch |
| 14 | – | Gear (69/27T) (Not Spared) |
| 15 | – | Gear (23T) (Not Spared) |
| 16 | – | Gear (28/22T) (Not Spared) |
| 17 | – | Gear (45/30T) (Not Spared) |
| 18 | – | Gear (41/21T) (Not Spared) |
| 19 | – | Gear (24/20T) (Not Spared) |
| 20 | – | Gear (19T) (Not Spared) |
| 21 | – | Gear (18T) (Not Spared) |
| 22 | – | Gear (73/23T) (Not Spared) |
| 23 | – | Spring (Not Spared) |
| 24 | – | Tension Bracket (Not Spared) |
| 25 | – | Bracket (Not Spared) |
| 26 | – | Pulley (Not Spared) |
| 27 | – | Screw (Not Spared) |
| 28 | – | Main Motor (Not Spared) |
| 29 | – | Belt (Not Spared) |
| 30 | – | Clamp (Not Spared) |
| 31 | – | Clamp (Not Spared) |
| 32 | – | Connector (Not Spared) |
| 33 | – | Pulley (Not Spared) |



# PL 1.3 IBT Steering Motor and MOB Sensor

| Item | Part | Description |
|---|---|---|
| 1 | 007K85580 | IBT Steering Motor Assembly (REP 9.12) |
| 2 | – | IBT Steering Motor (P/O PL 1.3 Item 1) |
| 3 | – | Plate (P/O PL 1.3 Item 1) |
| 4 | 130K60865 | MOB Sensor Assembly (REP 9.14,ADJ 9.6) |
| 5 | – | MOB Sensor (P/O PL 1.3 Item 4) |
| 6 | – | Environment Sensor (P/O PL 1.3 Item 4) |
| 7 | – | Wire Harness (P/O PL 1.3 Item 4) |
| 8 | – | Cover (P/O PL 1.3 Item 4) |
| 9 | – | ADC Sensor (P/O PL 1.3 Item 4) |
| 10 | – | Shutter (P/O PL 1.3 Item 4) |
| 11 | – | Spring (P/O PL 1.3 Item 4) |
| 12 | – | Link (P/O PL 1.3 Item 4) |
| 13 | – | Spacer (P/O PL 1.3 Item 4) |
| 14 | – | MOB Bracket (P/O PL 1.3 Item 4) |
| 15 | – | Slide (P/O PL 1.3 Item 4) |

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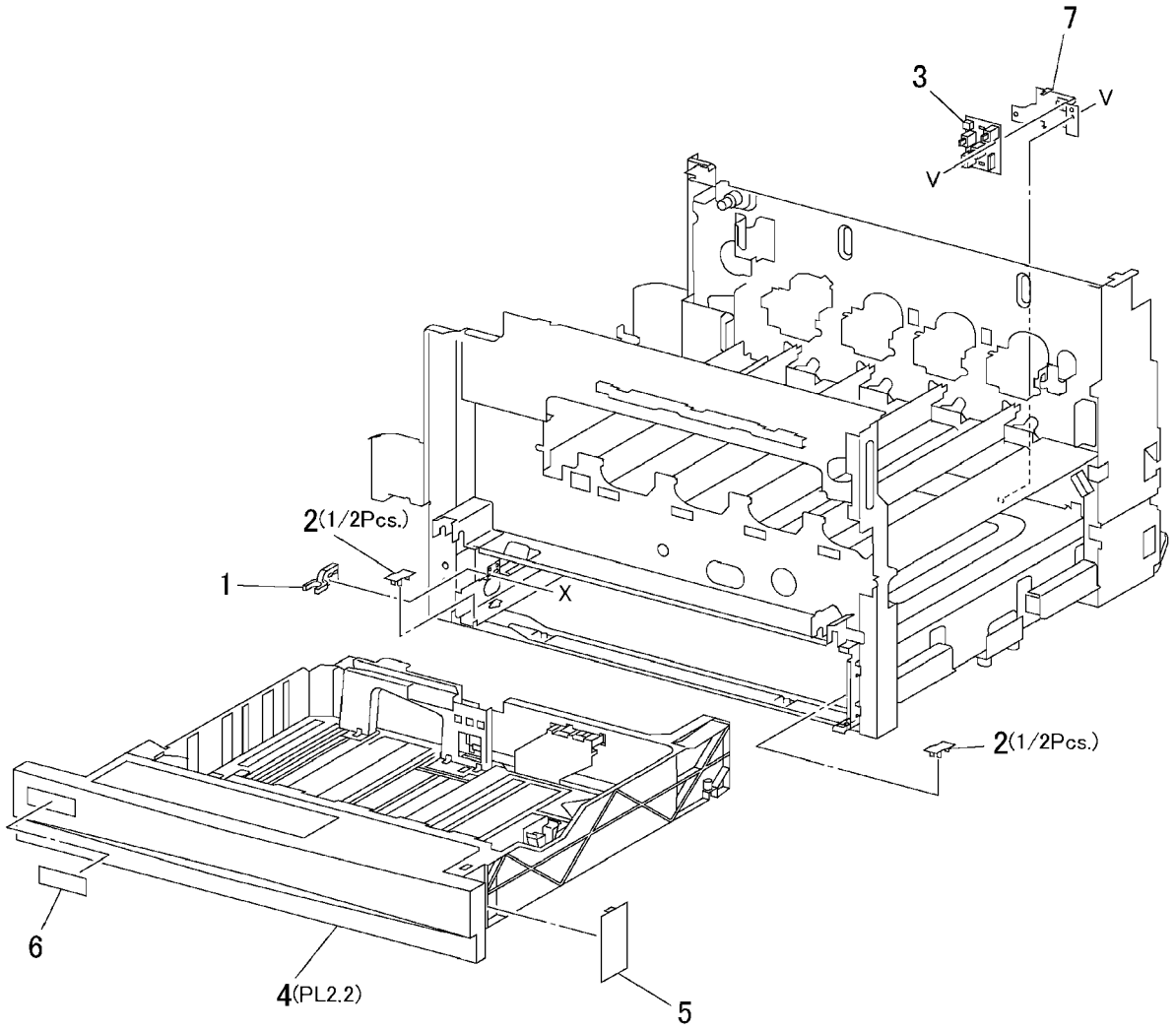
# PL 2.1 Tray 1: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 003E23672 | Stop |
| 2 | 014E42850 | Spacer |
| 3 | 110K08541 | Tray 1 Paper Size Sensor (REP 7.5) |
| 4 | 050K48170 | Tray 1 (REP 7.8) |
| 5 | – | Cover (Not Spared) |
| 6 | 892E41110 | Label (1) |
| 7 | – | Bracket (Not Spared) |

PL2.1

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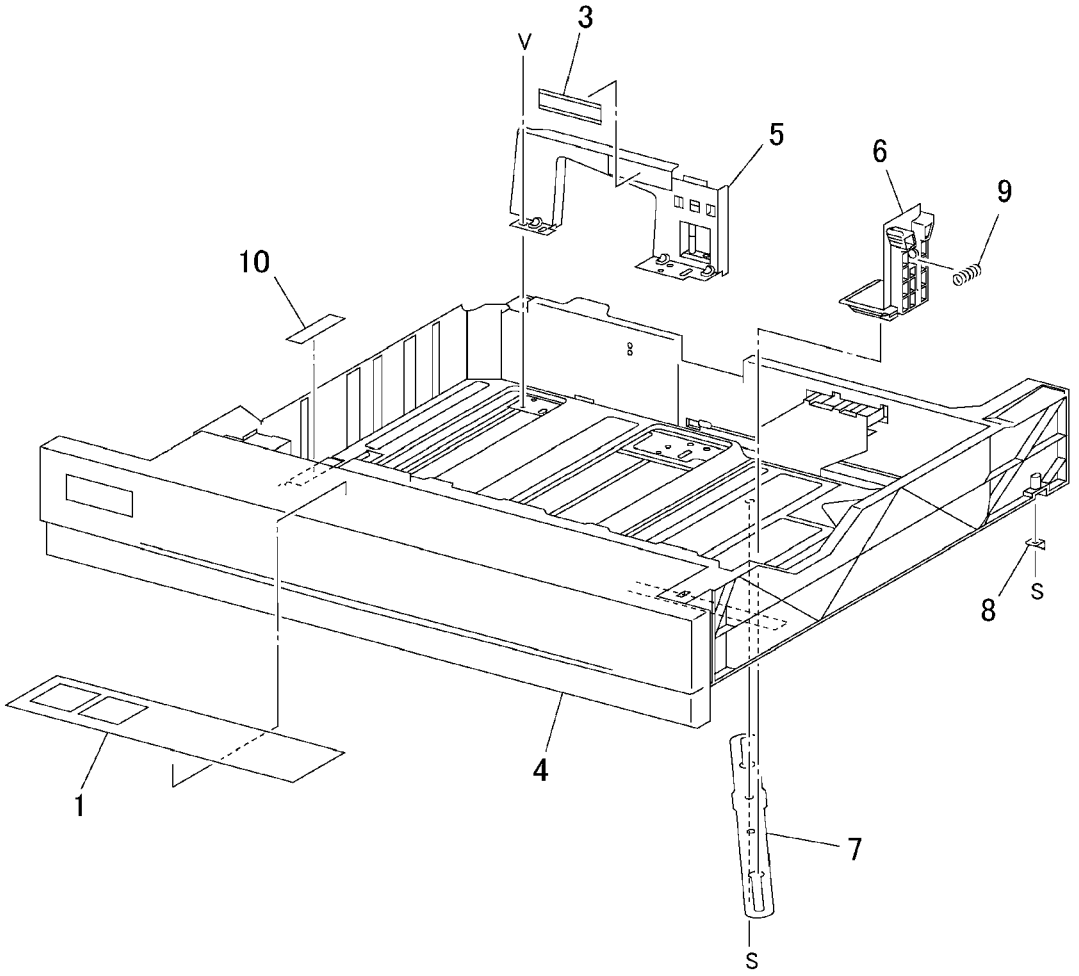
# PL 2.2 Tray 1: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 892E13310 | Instruction Label |
| 3 | – | Max Label (Not Spared) |
| 4 | – | Tray (Not Spared) |
| 5 | – | Side Guide (Not Spared) |
| 6 | – | End Guide (Not Spared) |
| 7 | – | Link (Not Spared) |
| 8 | – | Stop (Not Spared) |
| 9 | – | Spring (Not Spared) |
| 10 | – | Pad (Not Spared) |

PL2.2

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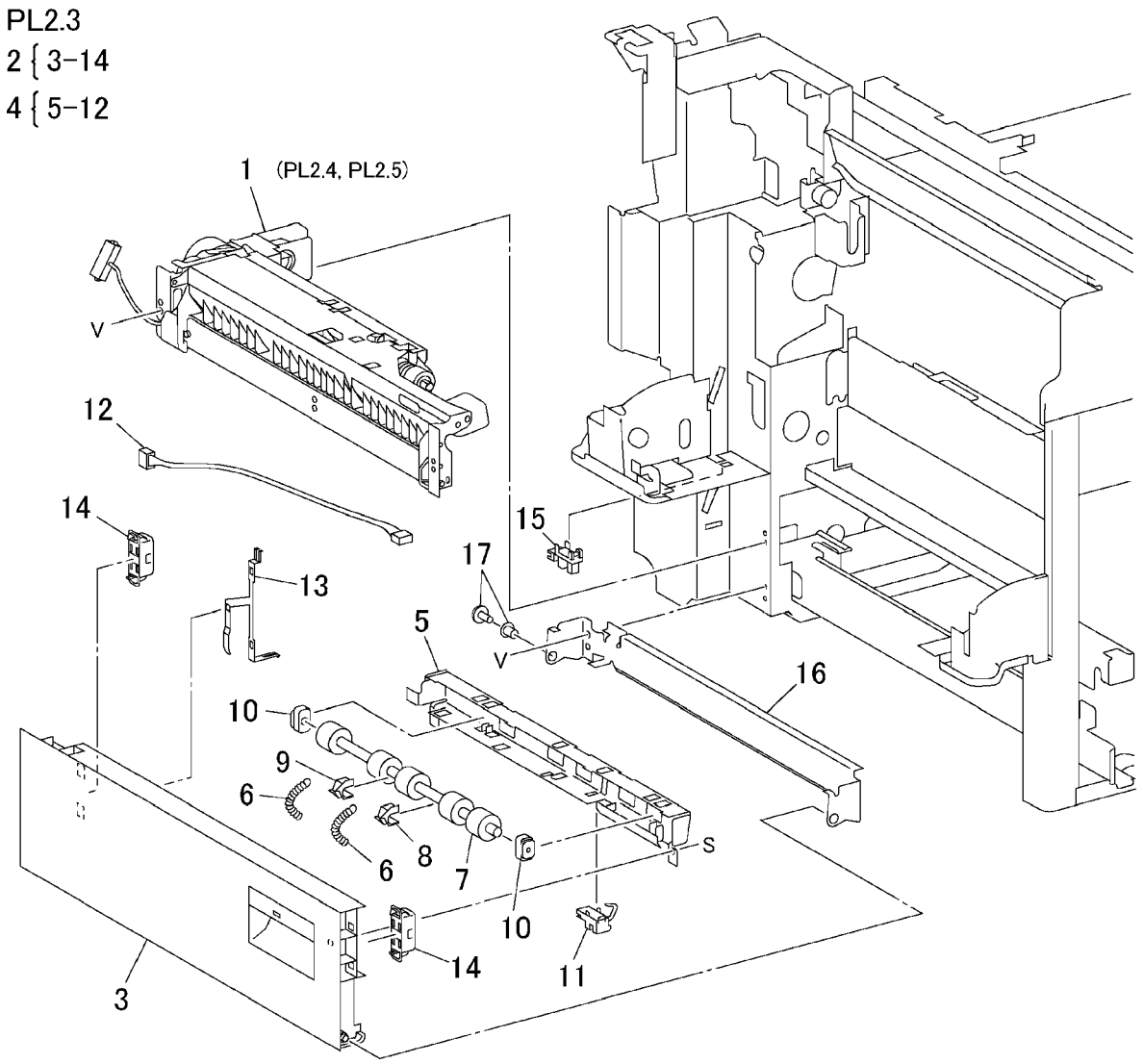
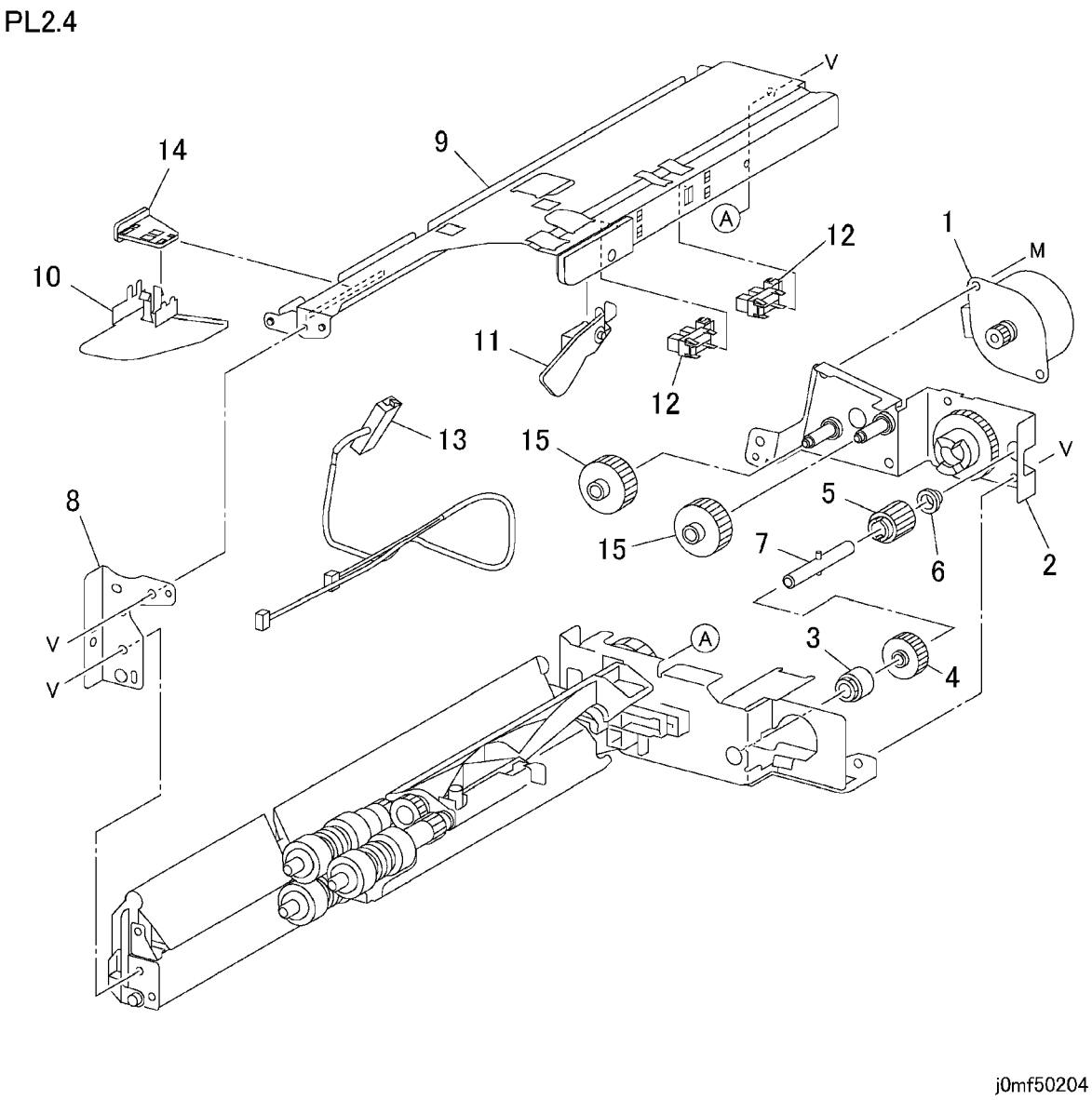
# PL 2.3 Tray 1 Feeder and Left Lower Cover Assembly

| Item | Part | Description |
|---|---|---|
| 1 | 059K15573 | Tray 1 Feeder (REP 7.3) |
| 2 | 802K13193 | Left Lower Cover Assembly (REP 14.6) |
| 3 | – | Left Lower Cover (P/O PL 2.3 Item 2) |
| 4 | – | Pinch Roll (P/O PL 2.3 Item 2) |
| 5 | – | Bracket (P/O PL 2.3 Item 2) |
| 6 | – | Spring (P/O PL 2.3 Item 2) |
| 7 | – | Pinch Roll (P/O PL 2.3 Item 2) |
| 8 | – | Bearing (P/O PL 2.3 Item 2) |
| 9 | – | Bearing (P/O PL 2.3 Item 2) |
| 10 | – | Bearing (P/O PL 2.3 Item 2) |
| 11 | 130K60851 | Tray 1 Feedout Sensor |
| 12 | – | Wire Harness (P/O PL 2.3 Item 2) |
| 13 | – | Ground Plate (P/O PL 2.3 Item 2) |
| 14 | – | Magnet (P/O PL 2.3 Item 2) |
| 15 | 130E82190 | LH Lower Cover Interlock Switch |
| 16 | – | Bracket (Not Spared) |
| 17 | 029E31600 | Rivet |



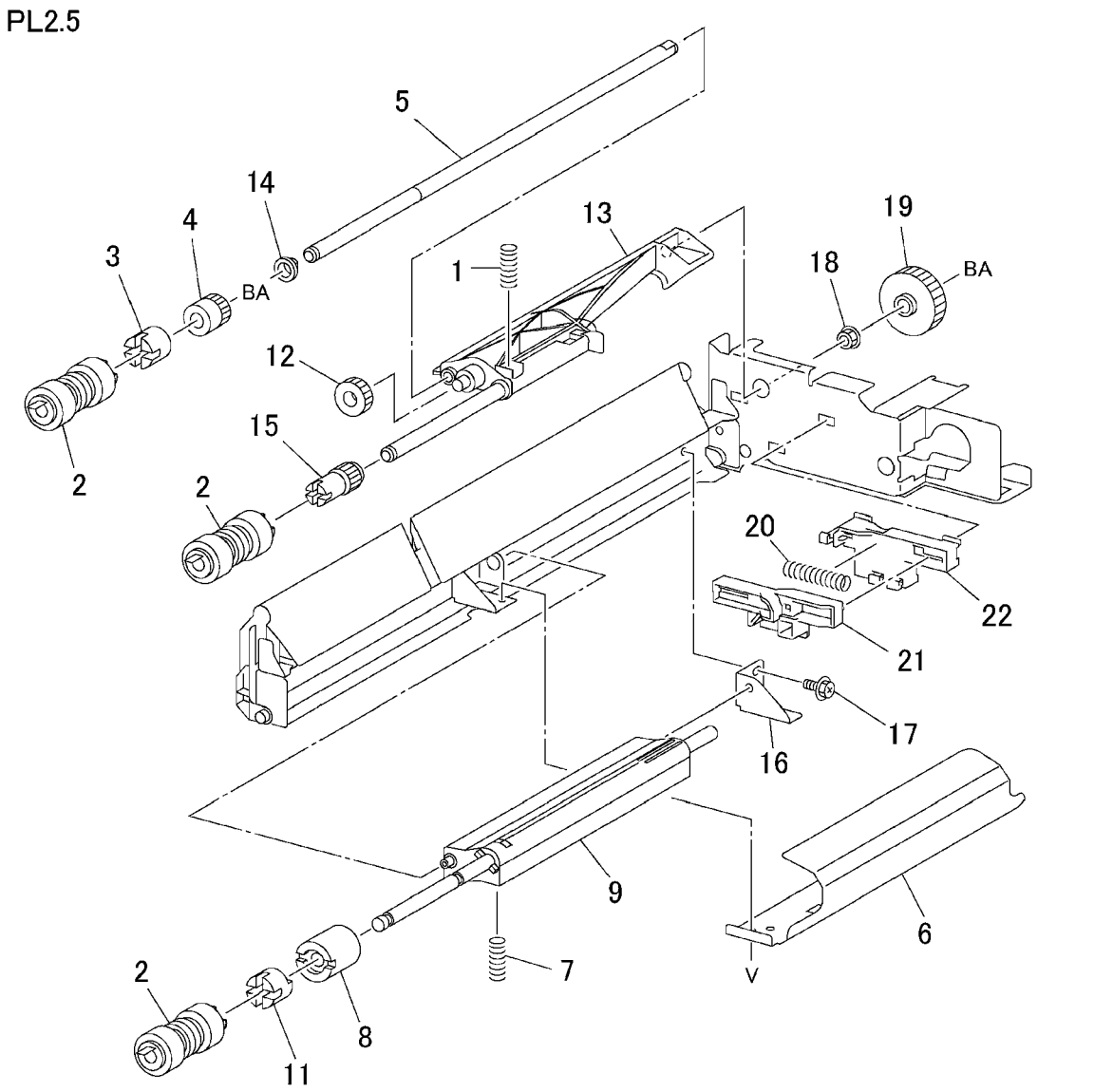
# PL 2.4 Tray 1 Feeder: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 127K23230 | Tray 1 Feed/Lift Motor (REP 7.4) |
| 2 | – | Bracket (Not Spared) |
| 3 | 005K83081 | One-way Clutch |
| 4 | 007K85730 | One-way Gear |
| 5 | – | Gear (13T) (Not Spared) |
| 6 | – | Bearing (Not Spared) |
| 7 | – | Shaft (Not Spared) |
| 8 | – | Front Frame (Not Spared) |
| 9 | – | Upper Frame (Not Spared) |
| 10 | – | Front Chute (Not Spared) |
| 11 | – | Actuator (Not Spared) |
| 12 | 130E82190 | Tray 1 Level / No Paper Sensor |
| 13 | – | Wire Harness (Not Spared) |
| 14 | – | Support (Not Spared) |
| 15 | – | Gear (15T) (Not Spared) |



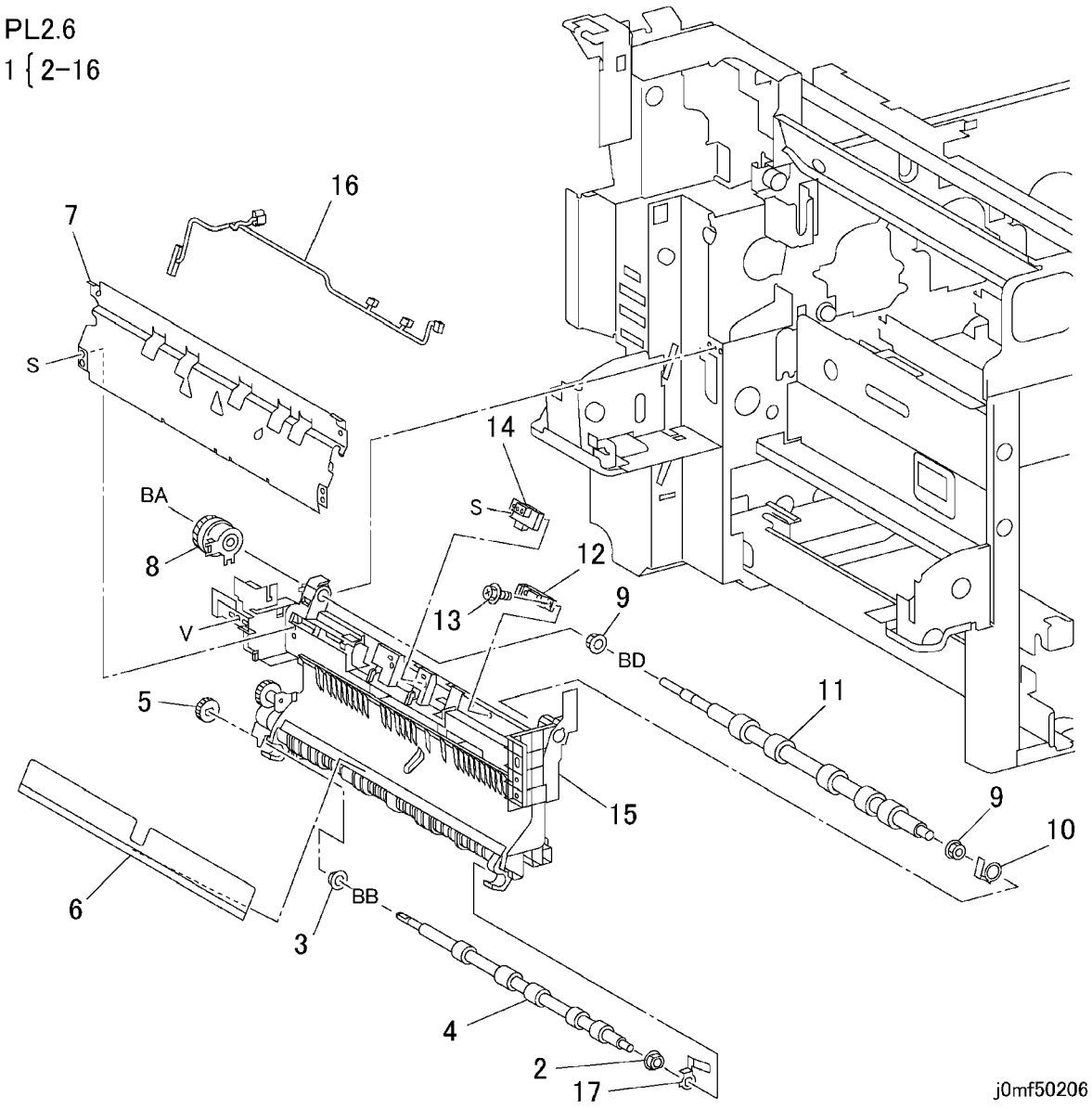
## PL 2.5 Tray 1 Feeder: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Spring (Not Spared) |
| 2 | 600K78460 | Roll Kit (3 Rolls/Kit) |
| 3 | 005K05890 | One-way Clutch |
| 4 | – | Gear (Not Spared) |
| 5 | – | Shaft (Not Spared) |
| 6 | – | Chute (Not Spared) |
| 7 | – | Spring (Not Spared) |
| 8 | – | Friction Clutch (Not Spared) |
| 9 | – | Support (Not Spared) |
| 11 | – | Spacer (Not Spared) |
| 12 | – | Gear (31T) (Not Spared) |
| 13 | – | Support (Not Spared) |
| 14 | – | Bearing (Not Spared) |
| 15 | – | Gear (Not Spared) |
| 16 | – | Support (Not Spared) |
| 17 | – | Screw (Not Spared) |
| 18 | – | Bearing (Not Spared) |
| 19 | – | Gear (35T) (Not Spared) |
| 20 | – | Spring (Not Spared) |
| 21 | – | Lever (Not Spared) |
| 22 | – | Holder (Not Spared) |



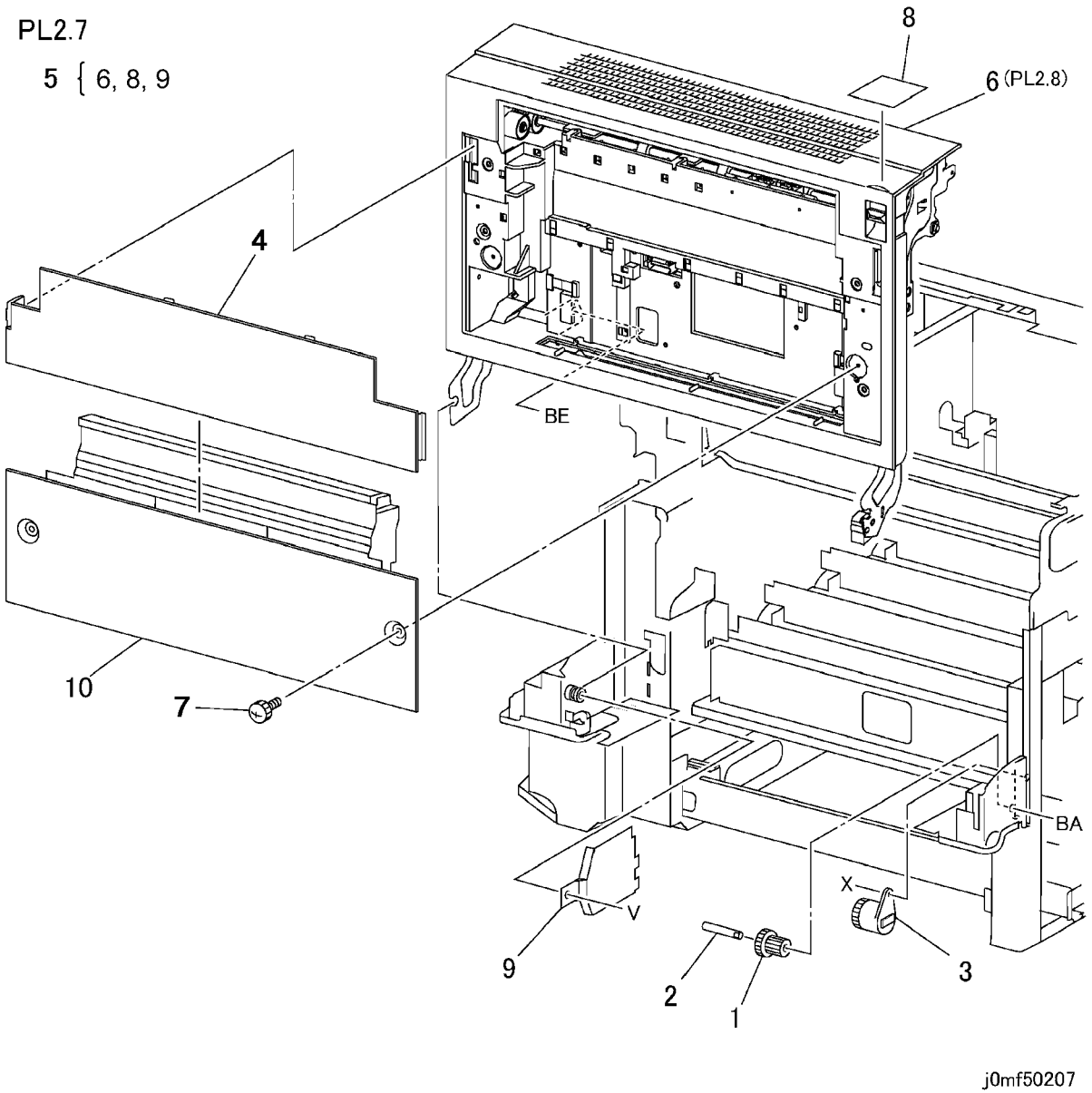
## PL 2.6 Registration Transport

| Item | Part | Description |
|---|---|---|
| 1 | 059K24661 | Registration Transport Assembly (REP 8.6) |
| 2 | – | Bearing (P/O PL 2.6 Item 1) |
| 3 | – | Bearing (P/O PL 2.6 Item 1) |
| 4 | – | Takeaway Roll (P/O PL 2.6 Item 1) |
| 5 | – | Gear (22T) (P/O PL 2.6 Item 1) |
| 6 | – | Paper Guide (P/O PL 2.6 Item 1) |
| 7 | – | Registration Chute (P/O PL 2.6 Item 1) |
| 8 | 121K22220 | Registration Clutch |
| 9 | – | Bearing (P/O PL 2.6 Item 1) |
| 10 | – | Ground Plate (P/O PL 2.6 Item 1) |
| 11 | – | Registration Roll (P/O PL 2.6 Item 1) |
| 12 | 130E82650 | Registration Sensor |
| 13 | – | Screw (P/O PL 2.6 Item 1) |
| 14 | 160K46290 | OHP Sensor |
| 15 | – | Registration Support (P/O PL 2.6 Item 1) |
| 16 | – | Wire Harness (P/O PL 2.6 Item 1) |
| 17 | – | Ground Plate (Not Spared) |



## PL 2.7 Left Cover Unit

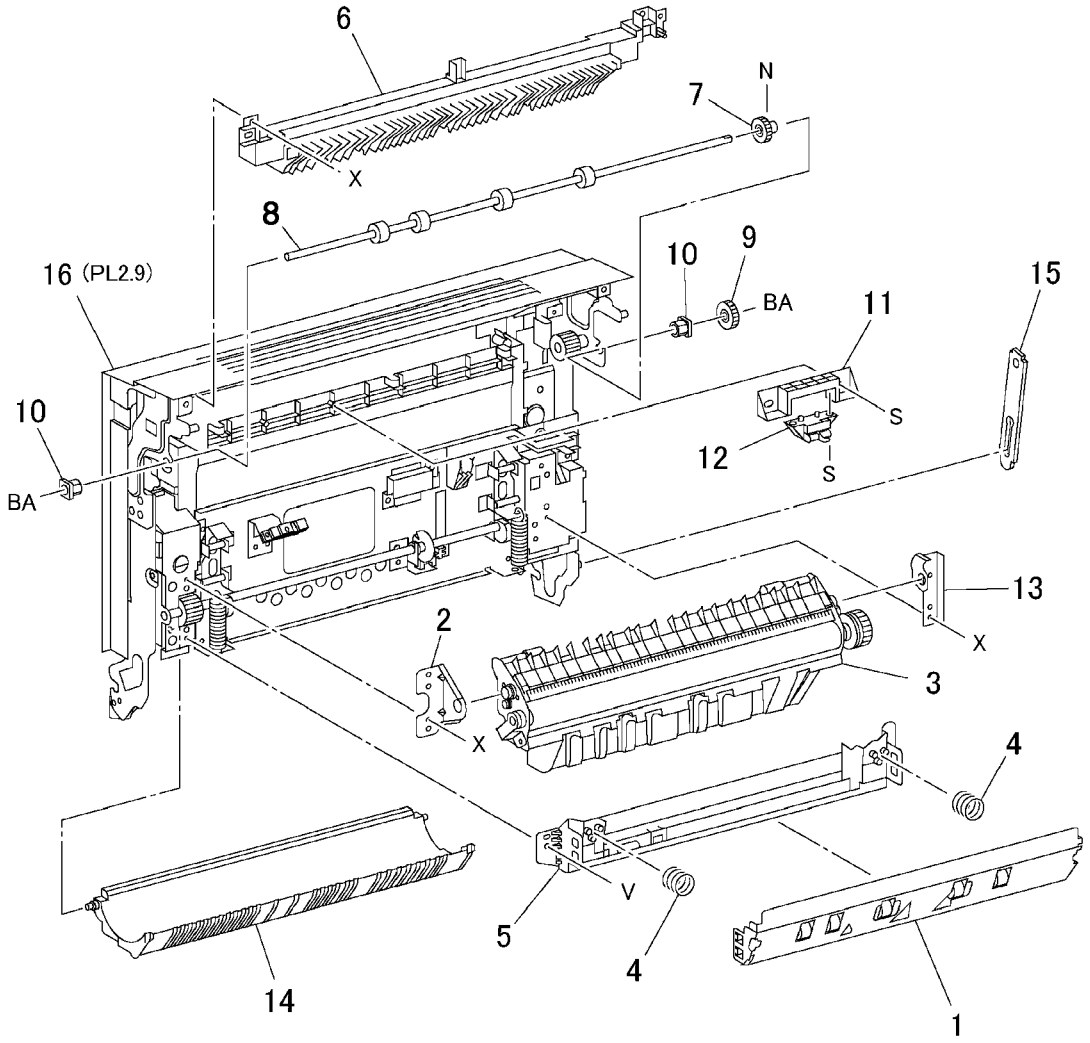
| Item | Part | Description |
|---|---|---|
| 1 | 007E64740 | Damper Gear (11/23T) |
| 2 | – | Stud (Not Spared) |
| 3 | 004E11831 | Damper (White) |
| 4 | – | Left Upper Cover (Not Spared) |
| 5 | 802K45490 | Left Cover Assembly |
| 6 | – | Left Cover (P/O PL 2.7 Item 5) |
| 7 | – | Screw (Not Spared) |
| 8 | – | Label (P/O PL 2.7 Item 5) |
| 9 | – | Cover (P/O PL 2.7 Item 5) |
| 10 | – | Left Cover (Not Spared) |



# PL 2.8 Left Cover Assembly: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 054K22410 | Registration Chute |
| 2 | – | Holder (Not Spared) |
| 3 | 604K07070 | 2nd BTR (REP 8.1) |
| 4 | 809E29620 | Spring |
| 5 | 015K48381 | Support |
| 6 | 054E16330 | Exit Chute |
| 7 | 007E62630 | Gear (22T) |
| 8 | 059K15611 | Exit Roll |
| 9 | 007E75201 | Gear |
| 10 | – | Bearing (Not Spared) |
| 11 | – | Holder (Not Spared) |
| 12 | 110K10650 | Fuser Exit Switch |
| 13 | – | Holder (Not Spared) |
| 14 | 054K16130 | Duplex Chute (REP 8.2) |
| 15 | – | Stop (Not Spared) |
| 16 | – | Left Cover (Not Spared) |

PL2.8

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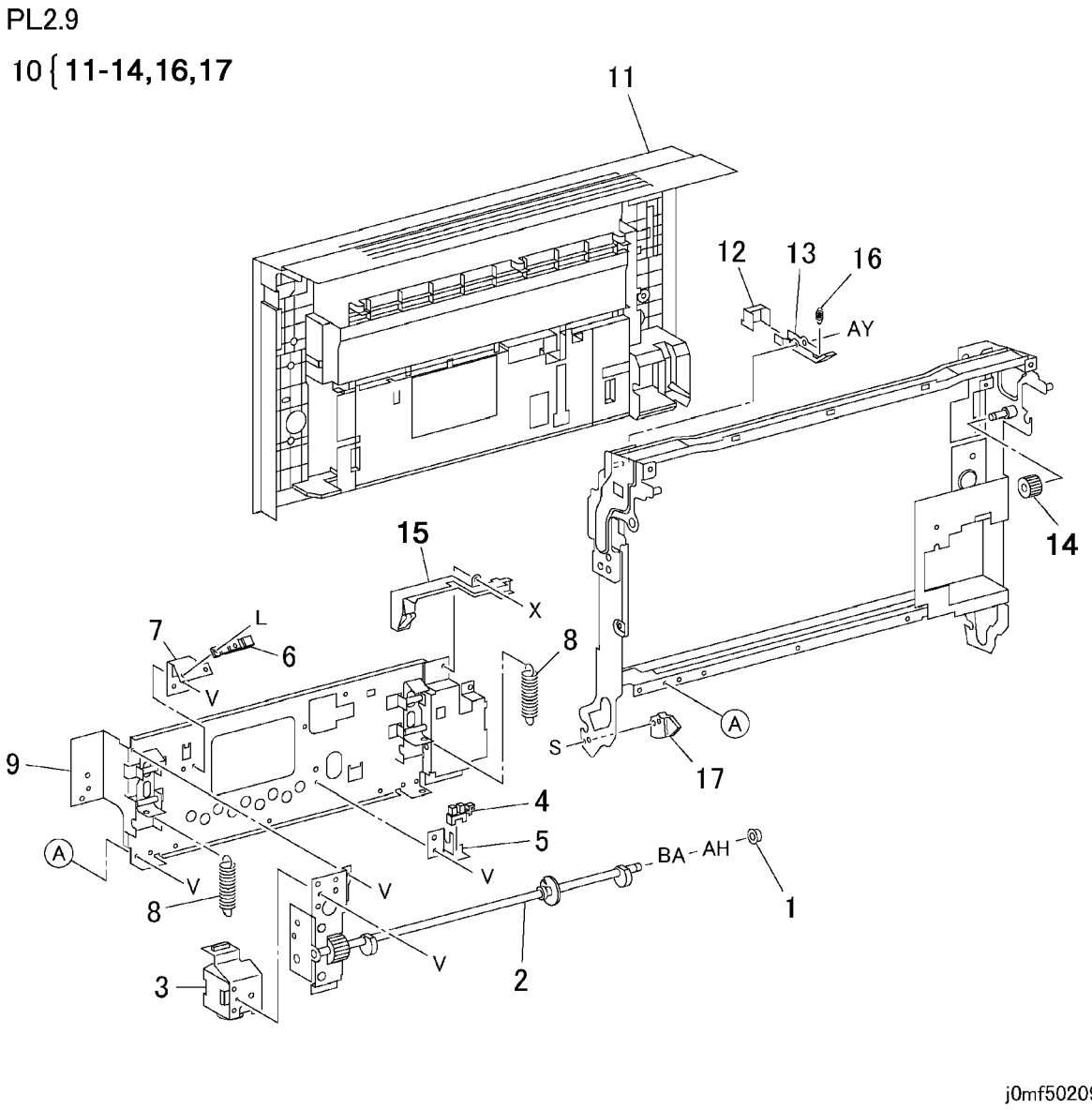
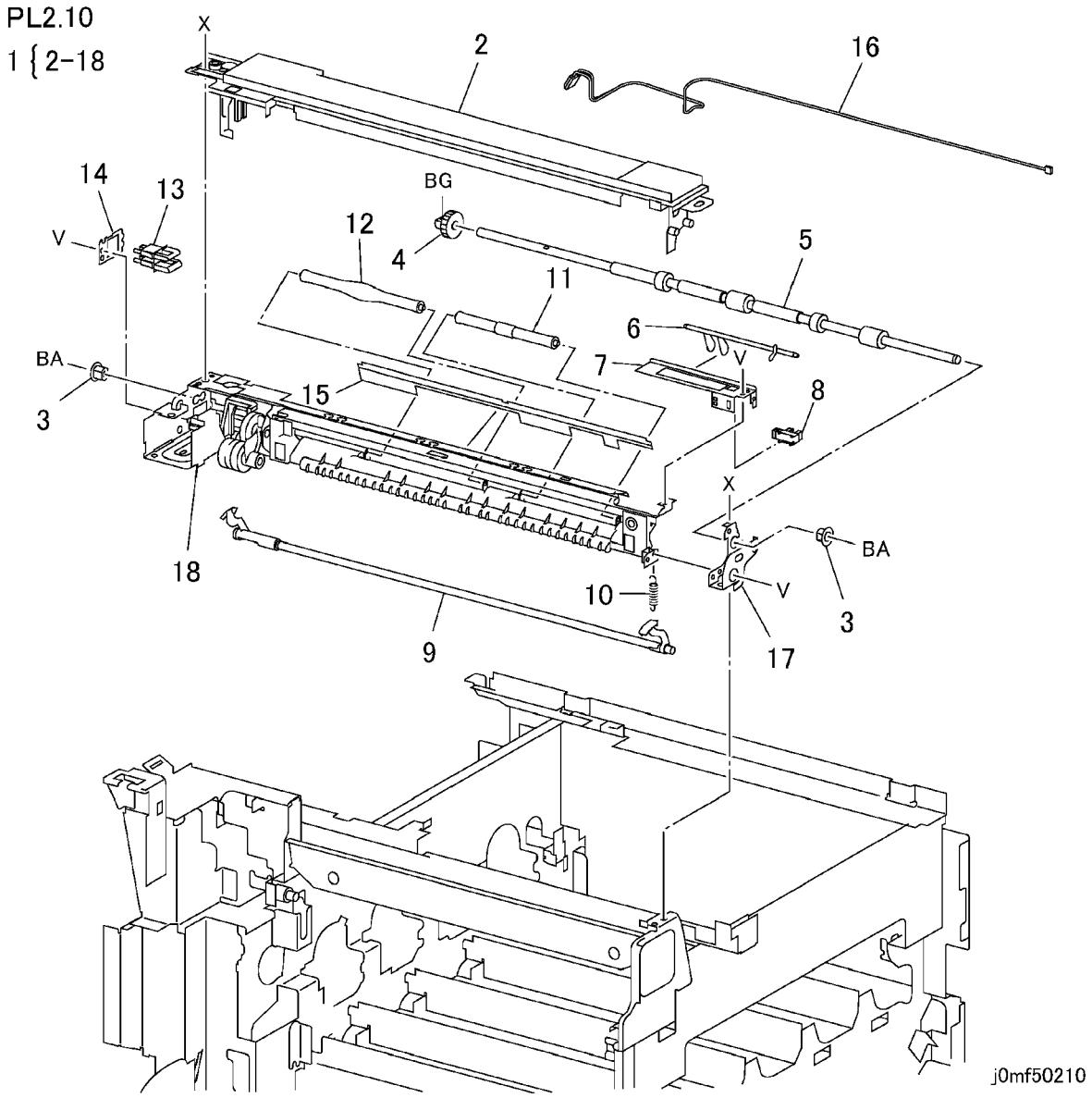
## PL 2.9 Left Cover Assembly: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Bearing (Not Spared) |
| 2 | 007K85522 | Gear |
| 3 | 127K29511 | 2nd BTR Retract Motor |
| 4 | 130E82190 | 2nd BTR Retract Sensor |
| 5 | – | Bracket (Not Spared) |
| 6 | 130E84300 | POB Sensor |
| 7 | – | Bracket (Not Spared) |
| 8 | – | Spring (Not Spared) |
| 9 | – | Bracket (Not Spared) |
| 10 | 802K27073 | Left Cover Assembly (REP 8.1) |
| 11 | – | Left Cover (P/O PL 2.9 Item 10) |
| 12 | – | Lever (P/O PL 2.9 Item 10) |
| 13 | – | Bracket (P/O PL 2.9 Item 10) |
| 14 | – | Gear (21T) (P/O PL 2.9 Item 10) |
| 15 | – | Connector Assembly |
| 16 | – | Spring (P/O PL 2.9 Item 10) |
| 17 | 007K86931 | Damper Gear (45T) |



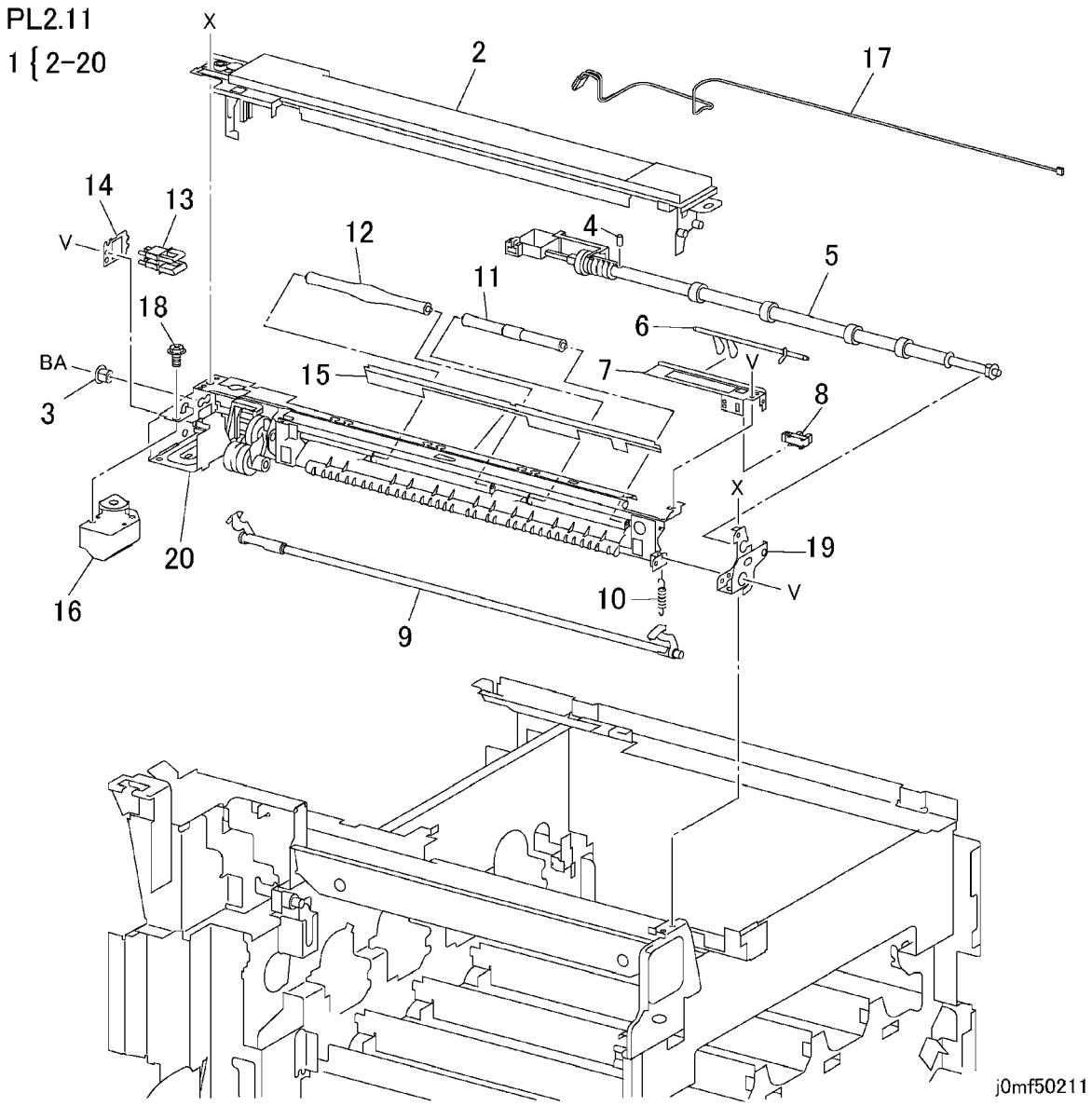
# PL 2.10 Exit Transport Assembly

| Item | Part | Description |
|---|---|---|
| 1 | – | Exit Transport (Not Spared) |
| 2 | – | Exit Transport Cover (Not Spared) |
| 3 | – | Bearing (Not Spared) |
| 4 | – | Gear (20T) (Not Spared) |
| 5 | – | Exit Roll (Not Spared) |
| 6 | – | Actuator (Not Spared) |
| 7 | – | Bracket (Not Spared) |
| 8 | 130E82190 | Full Paper Stack Sensor |
| 9 | – | Latch (Not Spared) |
| 10 | – | Spring (Not Spared) |
| 11 | – | Pinch Roll (Not Spared) |
| 12 | – | Pinch Roll (Not Spared) |
| 13 | – | LH Cover Interlock Switch (Not Spared) |
| 14 | – | Bracket (Not Spared) |
| 15 | – | Static Eliminator (Not Spared) |
| 16 | – | Wire Harness (Not Spared) |
| 17 | – | Front Bracket (Not Spared) |
| 18 | – | Frame (Not Spared) |



# PL 2.11 Exit Transport Assembly (OCT)

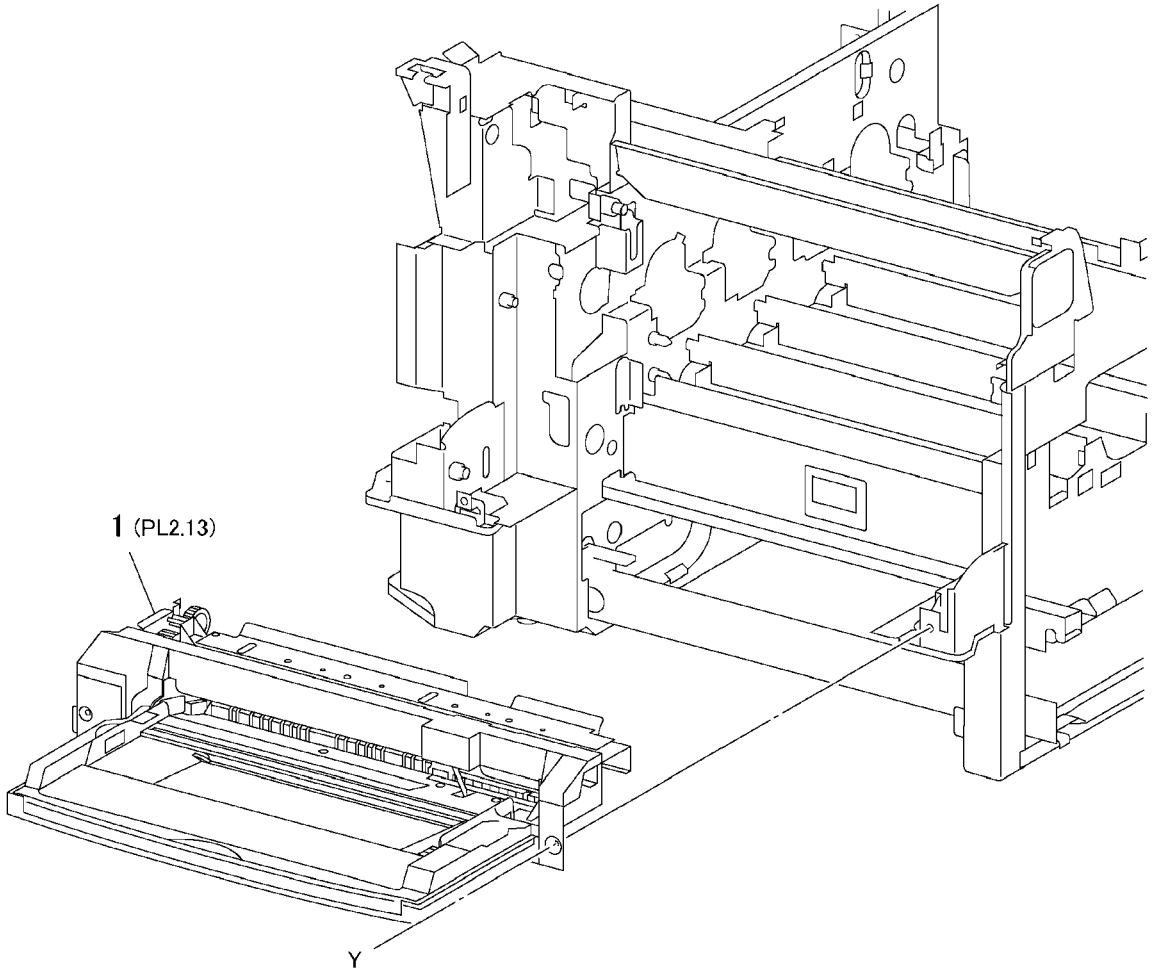
| Item | Part | Description |
|---|---|---|
| 1 | 059K24690 | Exit Transport Assembly (REP 8.7) |
| 2 | – | Exit Transport Cover (Part of Item 1) |
| 3 | – | Bearing (Part of Item 1) |
| 4 | – | Pin (Part of Item 1) |
| 5 | – | Exit Roll (Part of Item 1) |
| 6 | 120E18160 | Actuator |
| 7 | – | Bracket (Part of Item 1) |
| 8 | 130E82190 | Full Paper Stack Sensor |
| 9 | – | Latch (Part of Item 1) |
| 10 | – | Spring (Part of Item 1) |
| 11 | – | Pinch Roll (Part of Item 1) |
| 12 | – | Pinch Roll (Part of Item 1) |
| 13 | – | LH Cover Interlock Switch (Part of Item 1) |
| 14 | – | Bracket (Part of Item 1) |
| 15 | – | Static Eliminator (Part of Item 1) |
| 16 | – | Offset Motor (Part of Item 1) |
| 17 | – | Wire Harness (Part of Item 1) |
| 18 | – | Screw (Part of Item 1) |
| 19 | – | Front Bracket (Part of Item 1) |
| 20 | – | Frame (Part of Item 1) |



# PL 2.12 Tray 5: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 059K24801 | Tray 5 (REP 7.1) |

PL2.12

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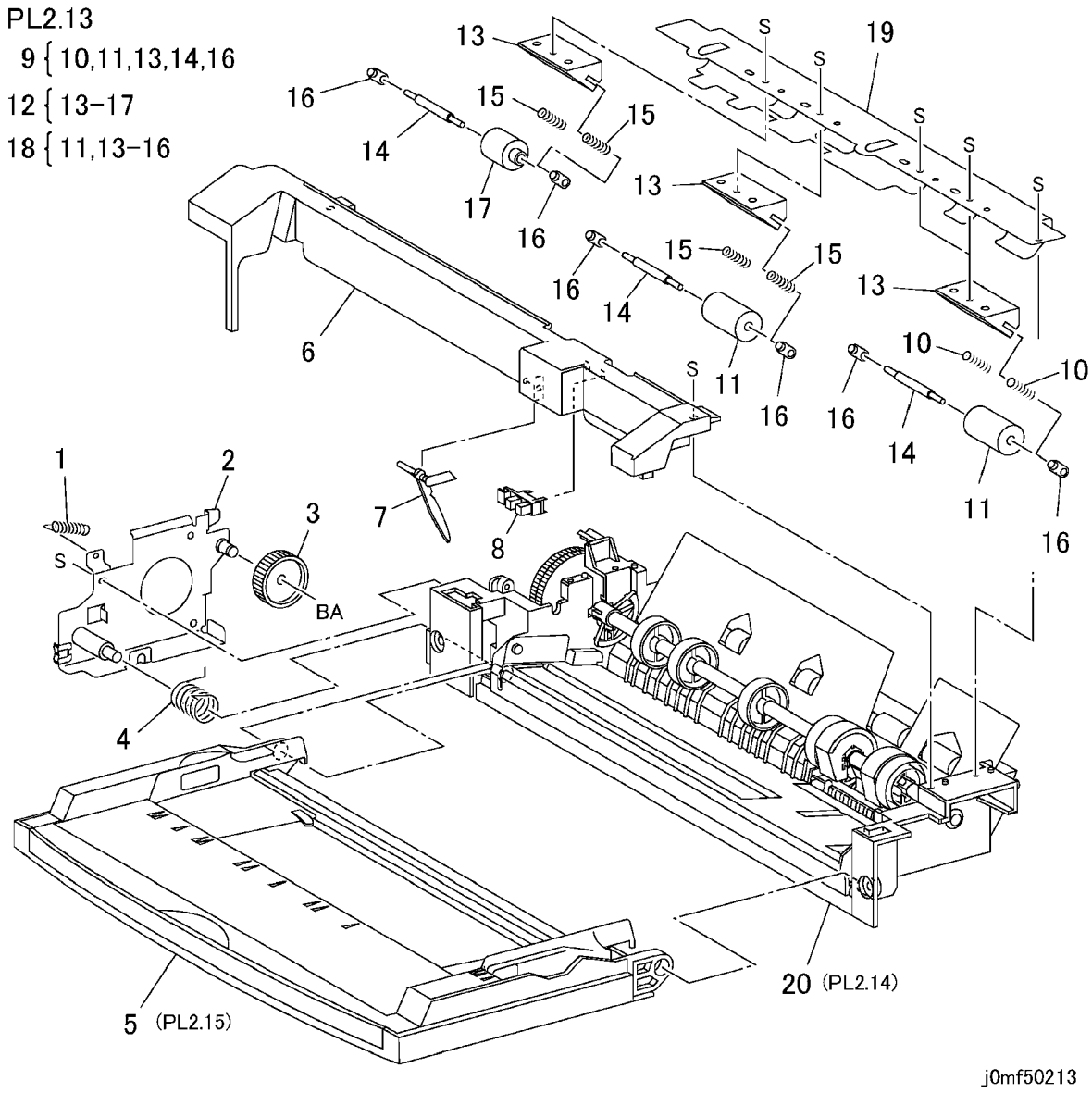
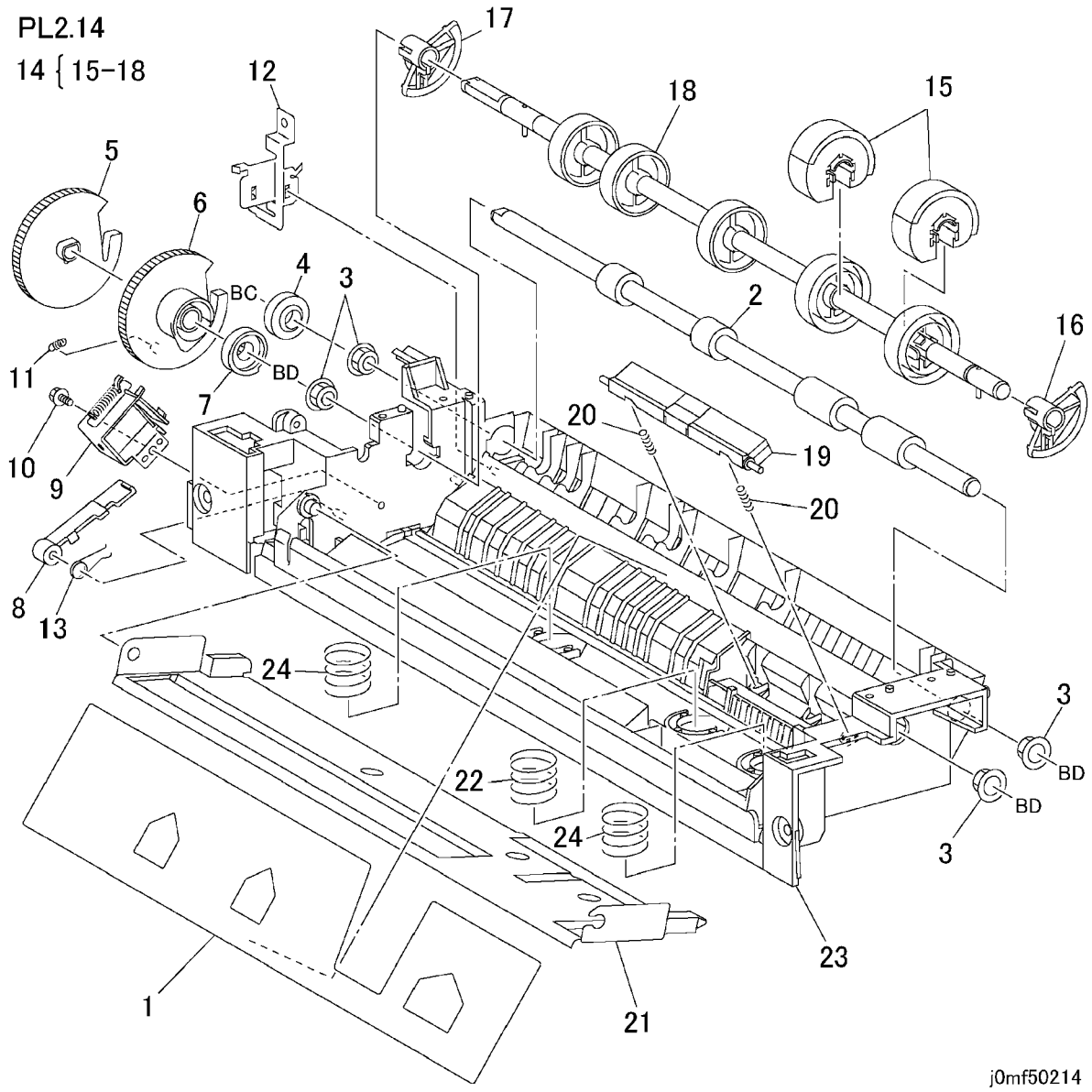
## PL 2.13 Tray 5: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Spring (Not Spared) |
| 2 | – | Bracket (Not Spared) |
| 3 | – | Gear (Not Spared) |
| 4 | – | Spring (Not Spared) |
| 5 | 050K48181 | Tray 5 Assembly |
| 6 | – | Upper Frame (Not Spared) |
| 7 | 120E11971 | Actuator |
| 8 | 130E82190 | Tray 5 No Paper Sensor |
| 9 | – | Pinch Roll Assembly (Not Spared) |
| 10 | – | Spring (Not Spared) |
| 11 | – | Pinch Roll 1/2 (Not Spared) |
| 12 | – | Pinch Roll 3 (Not Spared) |
| 13 | – | Guide (Not Spared) |
| 14 | – | Shaft (Not Spared) |
| 15 | – | Spring (Not Spared) |
| 16 | – | Spacer (Not Spared) |
| 17 | – | Pinch Roll 3 (Not Spared) |
| 18 | – | Pinch Roll 2 (Not Spared) |
| 19 | – | Chute (Not Spared) |
| 20 | – | Tray 5 Feed Assembly (Not Spared) |



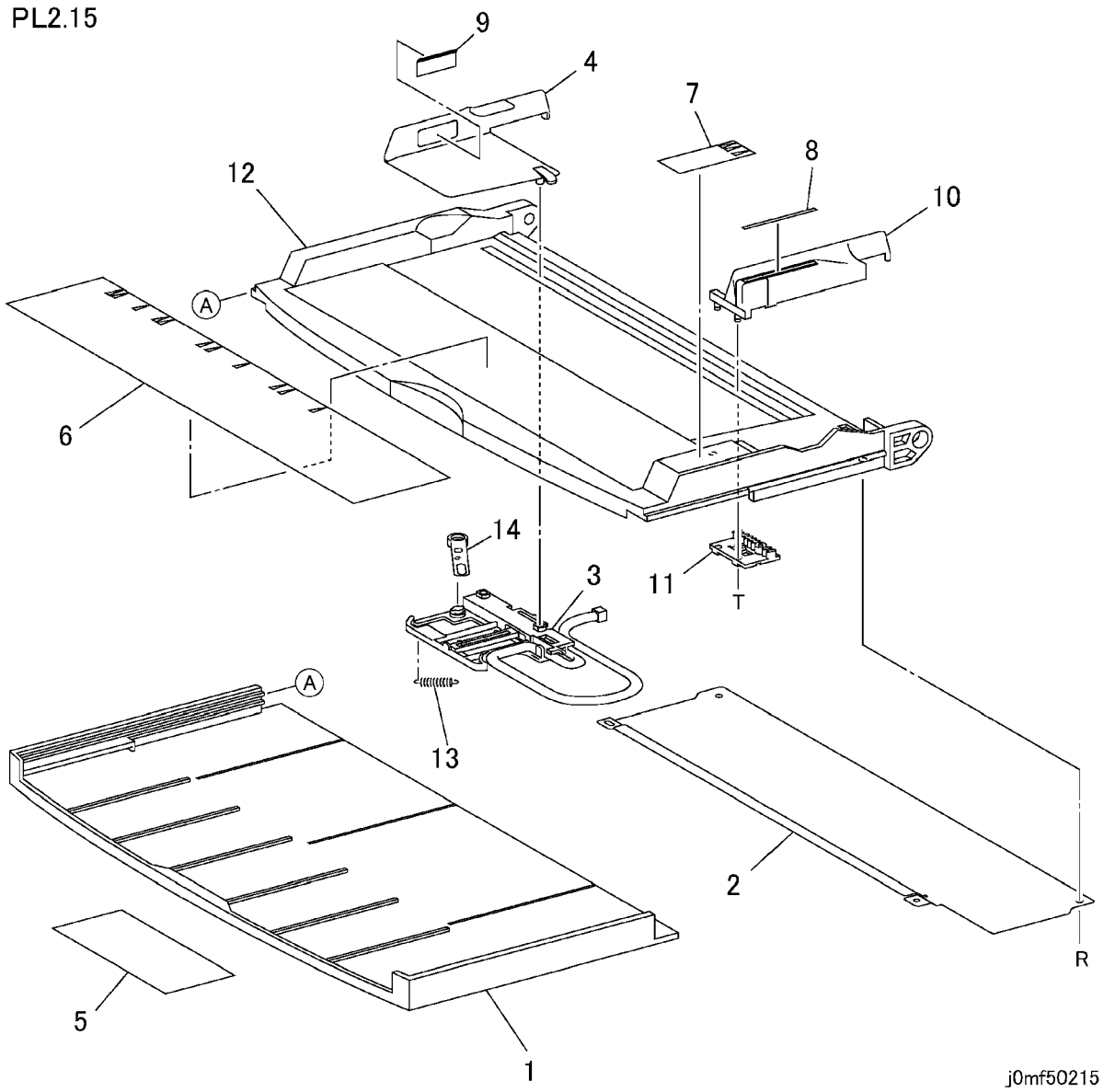
## PL 2.14 Tray 5 Feed Assembly

| Item | Part | Description |
|---|---|---|
| 1 | 038E23560 | Paper Guide |
| 2 | – | Takeaway Roll (Not Spared) |
| 3 | – | Bearing (Not Spared) |
| 4 | – | Gear (Not Spared) |
| 5 | – | Pick-up Gear (Not Spared) |
| 6 | – | Cam Gear (Not Spared) |
| 7 | – | Stop Lever (Not Spared) |
| 8 | – | Gear Lever (Not Spared) |
| 9 | 121E87830 | Tray 5 Feed Solenoid |
| 10 | – | Screw (Not Spared) |
| 11 | – | Spring (Not Spared) |
| 12 | – | Ground Plate (Not Spared) |
| 13 | – | Spring (Not Spared) |
| 14 | 059K24020 | Feed Roll Assembly |
| 15 | 059K24010 | Feed Roll (REP 7.2) |
| 16 | – | Cam (P/O PL 2.14 Item 14) |
| 17 | – | Cam (P/O PL 2.14 Item 14) |
| 18 | – | Shaft (P/O PL 2.14 Item 14) |
| 19 | 019K97130 | Retard Pad |
| 20 | – | Spring (Not Spared) |
| 21 | – | Bottom Plate (Not Spared) |
| 22 | – | Spring (Not Spared) |
| 23 | – | Lower Frame (Not Spared) |
| 24 | – | Spring (Not Spared) |



# PL 2.15 Tray Assembly

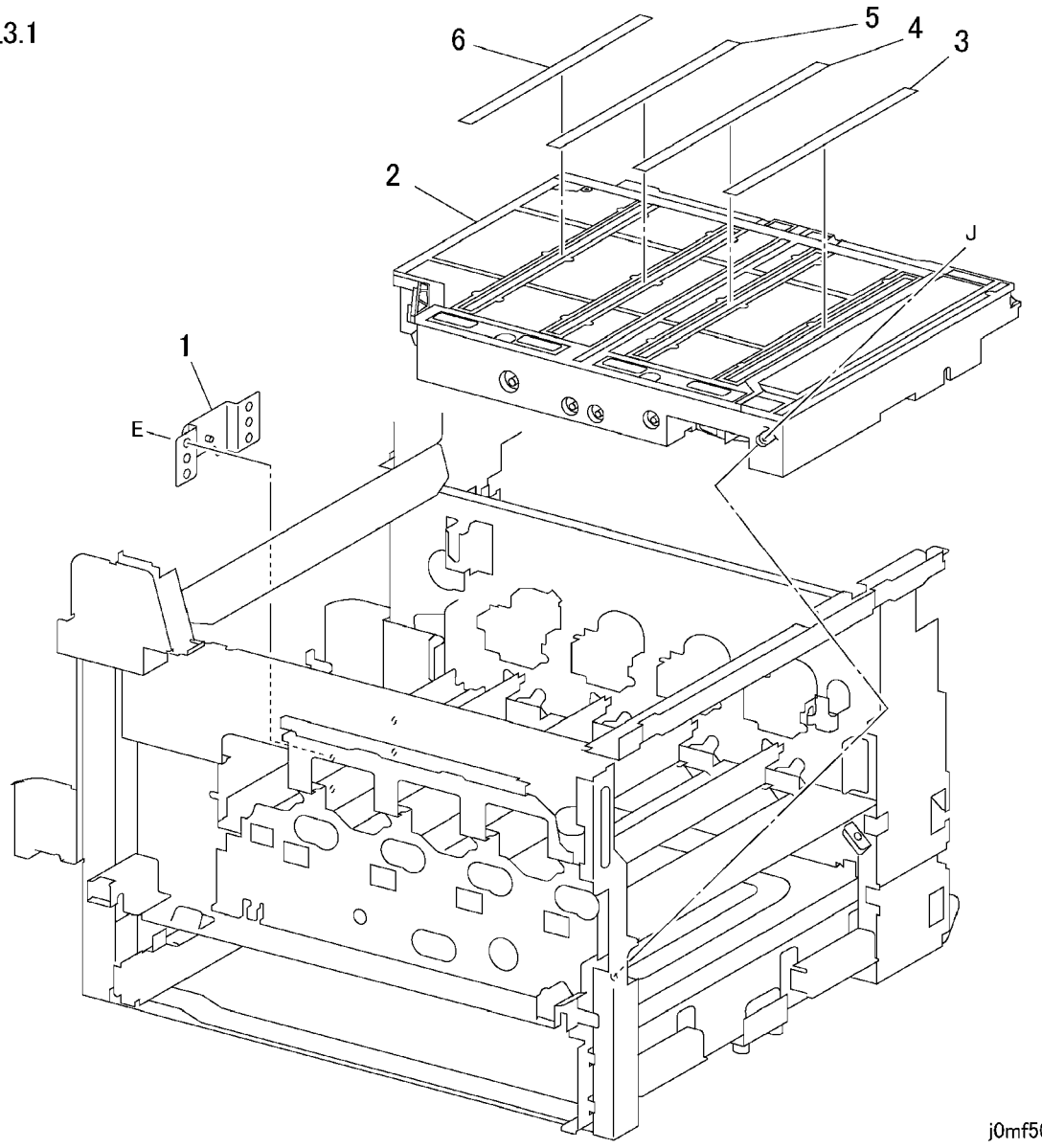
| Item | Part | Description |
|---|---|---|
| 1 | – | Lower Tray (Not Spared) |
| 2 | – | Cover (Not Spared) |
| 3 | – | Paper Size Sensor (Not Spared) |
| 4 | – | Side Guide (Not Spared) |
| 5 | – | Attention Label (Not Spared) |
| 6 | – | Instruction Label (Not Spared) |
| 7 | – | Label (Not Spared) |
| 8 | – | Label (Not Spared) |
| 9 | – | Max Label (Not Spared) |
| 10 | – | Registration Guide (Not Spared) |
| 11 | – | Holder (Not Spared) |
| 12 | – | Tray (Not Spared) |
| 13 | – | Spring (Not Spared) |
| 14 | – | Link (Not Spared) |



## PL 3.1 ROS Assembly

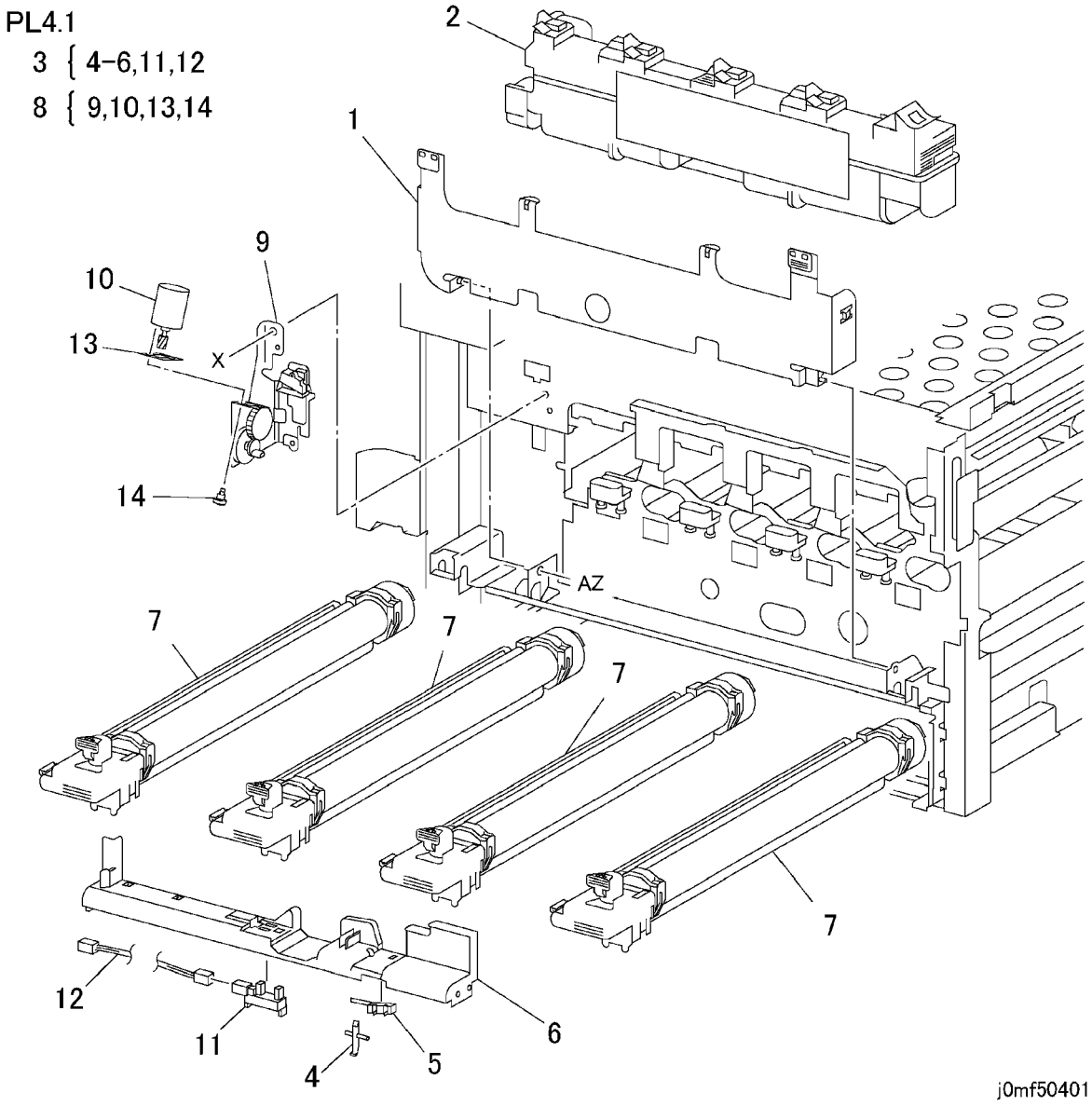
| Item | Part | Description |
|---|---|---|
| 1 | – | Bracket (Not Spared) |
| 2 | 062K10881 | ROS (REP 6.1,ADJ 9.6) |
| 3 | – | Seal Glass (Y) (Not Spared) |
| 4 | – | Seal Glass (M) (Not Spared) |
| 5 | – | Seal Glass (C) (Not Spared) |
| 6 | – | Seal Glass (K) (Not Spared) |

PL3.1



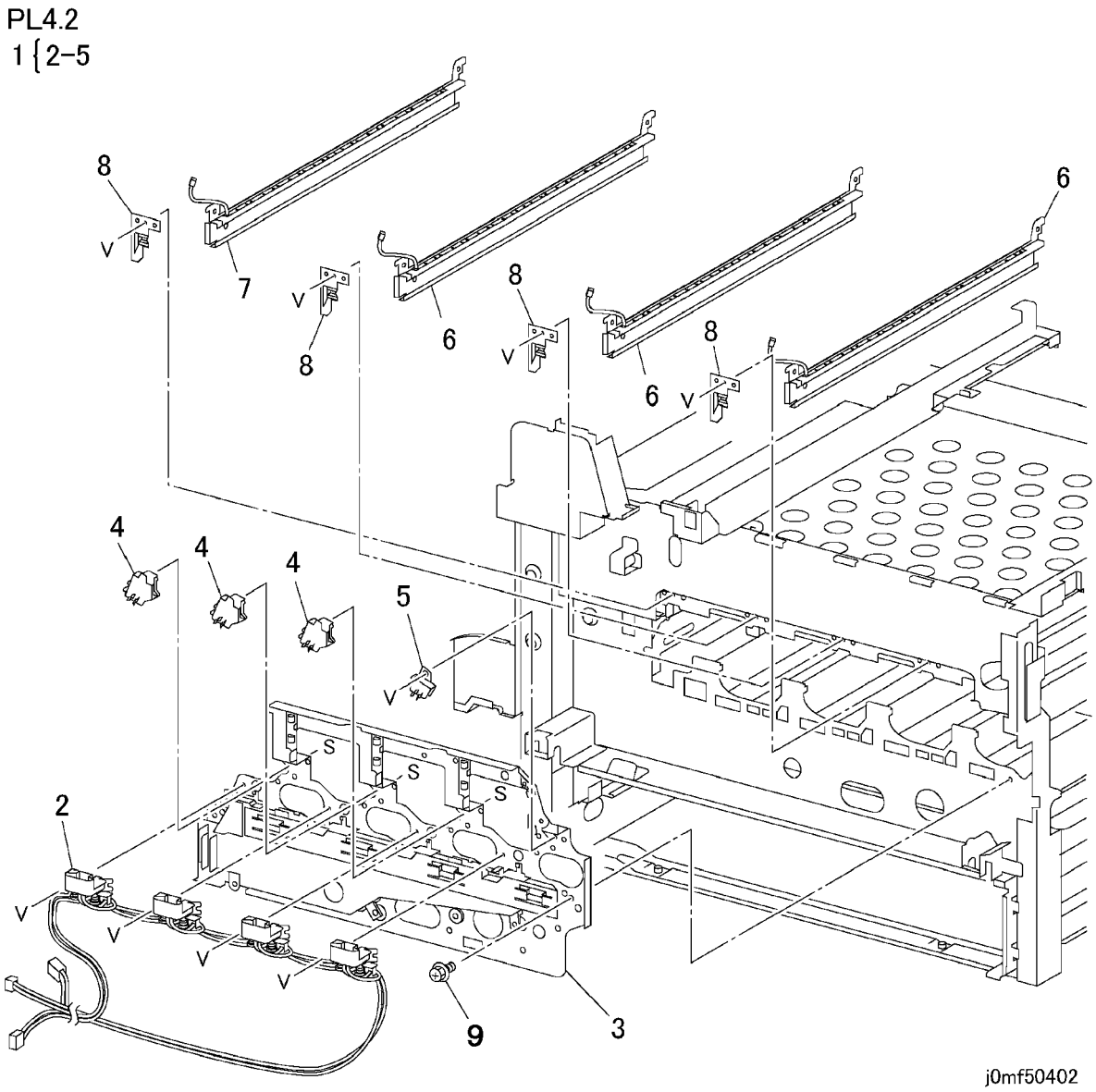
## PL 4.1 Xerographic Module: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 802K47090 | Waste Toner Cartridge Cover (REP 9.3) |
| 2 | – | Waste Toner Cartridge (Not Spared) (REP 9.4) |
| 3 | 003K86121 | Sensor Holder Assembly |
| 4 | – | Lever (P/O PL 4.1 Item 3) |
| 5 | – | Waste Toner Cartridge Interlock Switch (P/O PL 4.1 Item 3) |
| 6 | – | Holder (P/O PL 4.1 Item 3) |
| 7 | – | Drum Cartridge (Not Spared) (REP 9.1) |
| 8 | 127K29242 | Agitator Motor Assembly (REP 9.13) |
| 9 | – | Bracket (P/O PL 4.1 Item 8) |
| 10 | – | Agitator Motor (P/O PL 4.1 Item 8) |
| 11 | 130E91010 | Full Toner Sensor (REP 9.5) |
| 12 | – | Wire Harness (P/O PL 4.1 Item 3) |
| 13 | – | Damper (P/O PL 4.1 Item 8) |
| 14 | – | Screw (P/O PL 4.1 Item 8) |



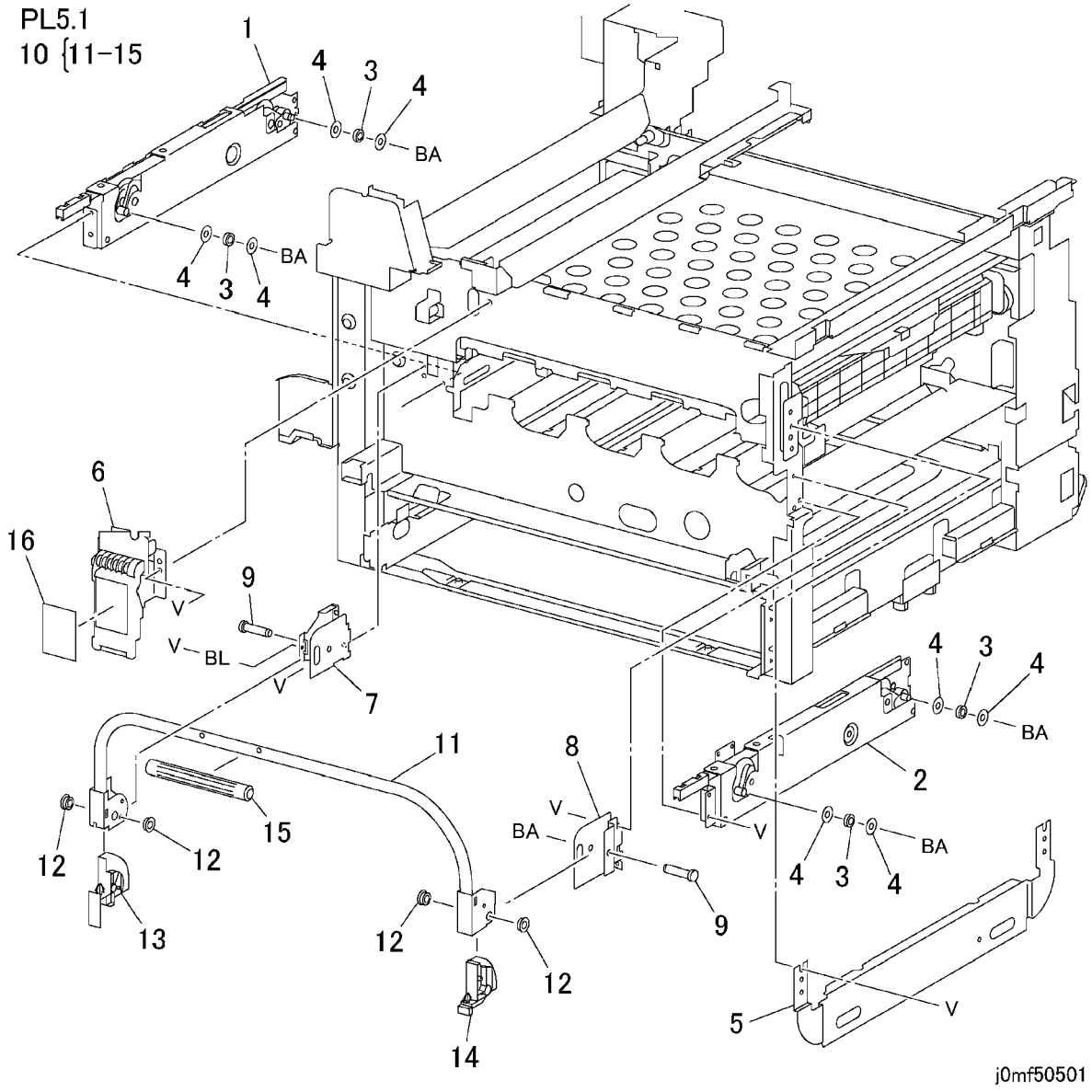
# PL 4.2 Xerographic Module: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 015K52320 | Plate Assembly (REP 9.8) |
| 2 | – | Wire Harness (P/O PL 4.2 Item 1) |
| 3 | – | Xero PLate (P/O PL 4.2 Item 1) |
| 4 | – | Block (M, C, K) (P/O PL 4.2 Item 1) |
| 5 | – | Block (Y) (P/O PL 4.2 Item 1) |
| 6 | 122K93330 | Erase Lamp w/Rail (Y, M, C) |
| 7 | 122K93340 | Erase Lamp w/Rail (K) |
| 8 | – | Bracket (Not Spared) |
| 9 | – | Screw (Not Spared) |



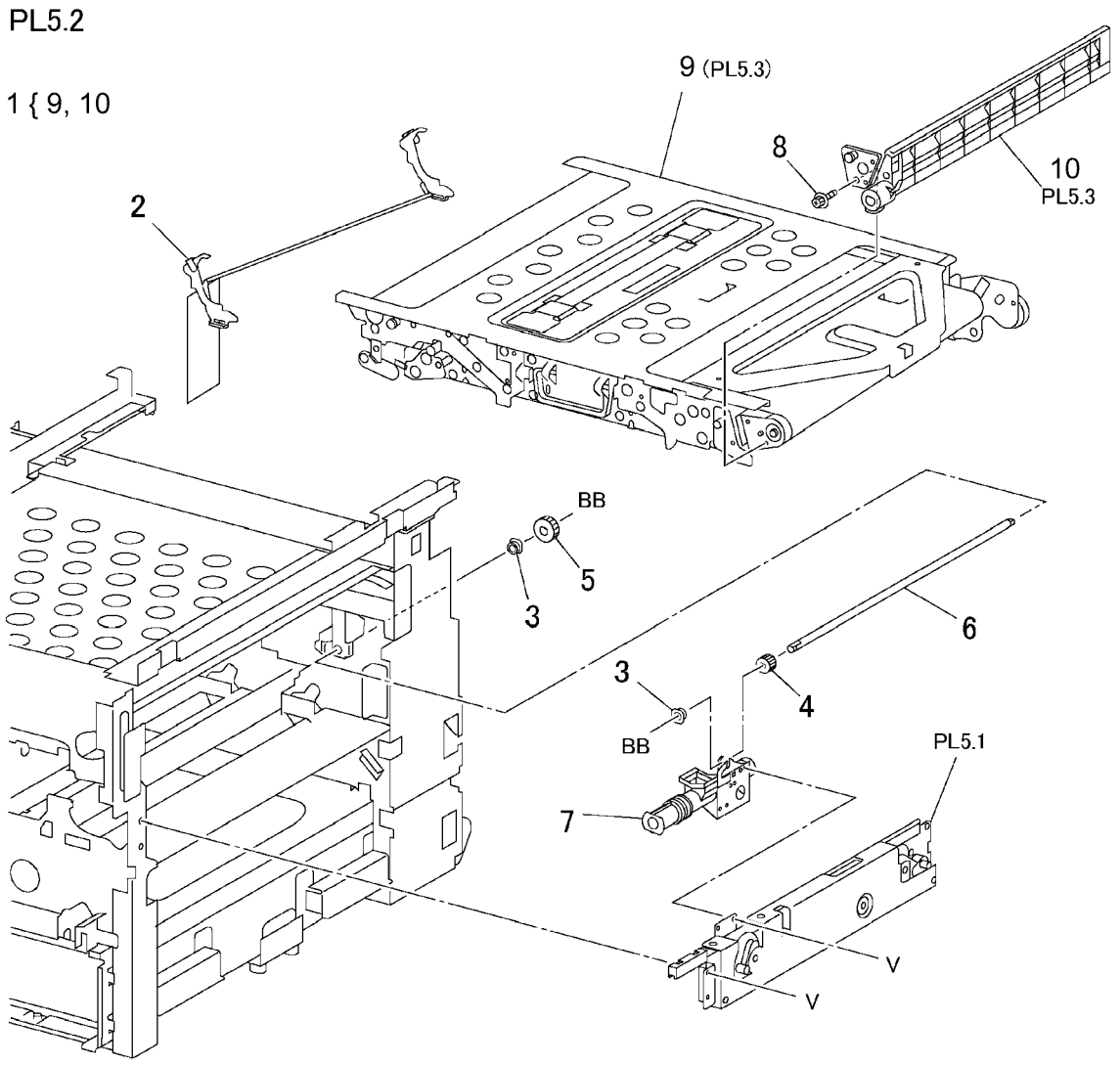
## PL 5.1 Lift Unit

| Item | Part | Description |
|---|---|---|
| 1 | 001K70542 | Left Lift Assembly (REP 9.21) |
| 2 | 001K70551 | Right Lift Assembly (REP 9.20) |
| 3 | – | Bearing (Not Spared) |
| 4 | – | Washer (Not Spared) |
| 5 | – | Plate (Not Spared) |
| 6 | 003K12680 | Latch Assembly |
| 7 | 003E52290 | Left Hinge (REP 9.19) |
| 8 | 003E52300 | Right Hinge (REP 9.19) |
| 9 | 006E71740 | Shaft |
| 10 | 011K94970 | Lever Assembly |
| 11 | – | Lever (P/O PL 5.1 Item 10) (REP 9.18) |
| 12 | – | Bearing (P/O PL 5.1 Item 10) |
| 13 | – | Left Cap (P/O PL 5.1 Item 10) |
| 14 | – | Right Cap (P/O PL 5.1 Item 10) |
| 15 | – | Grip (P/O PL 5.1 Item 10) |
| 16 | – | Label (Not Spared) |



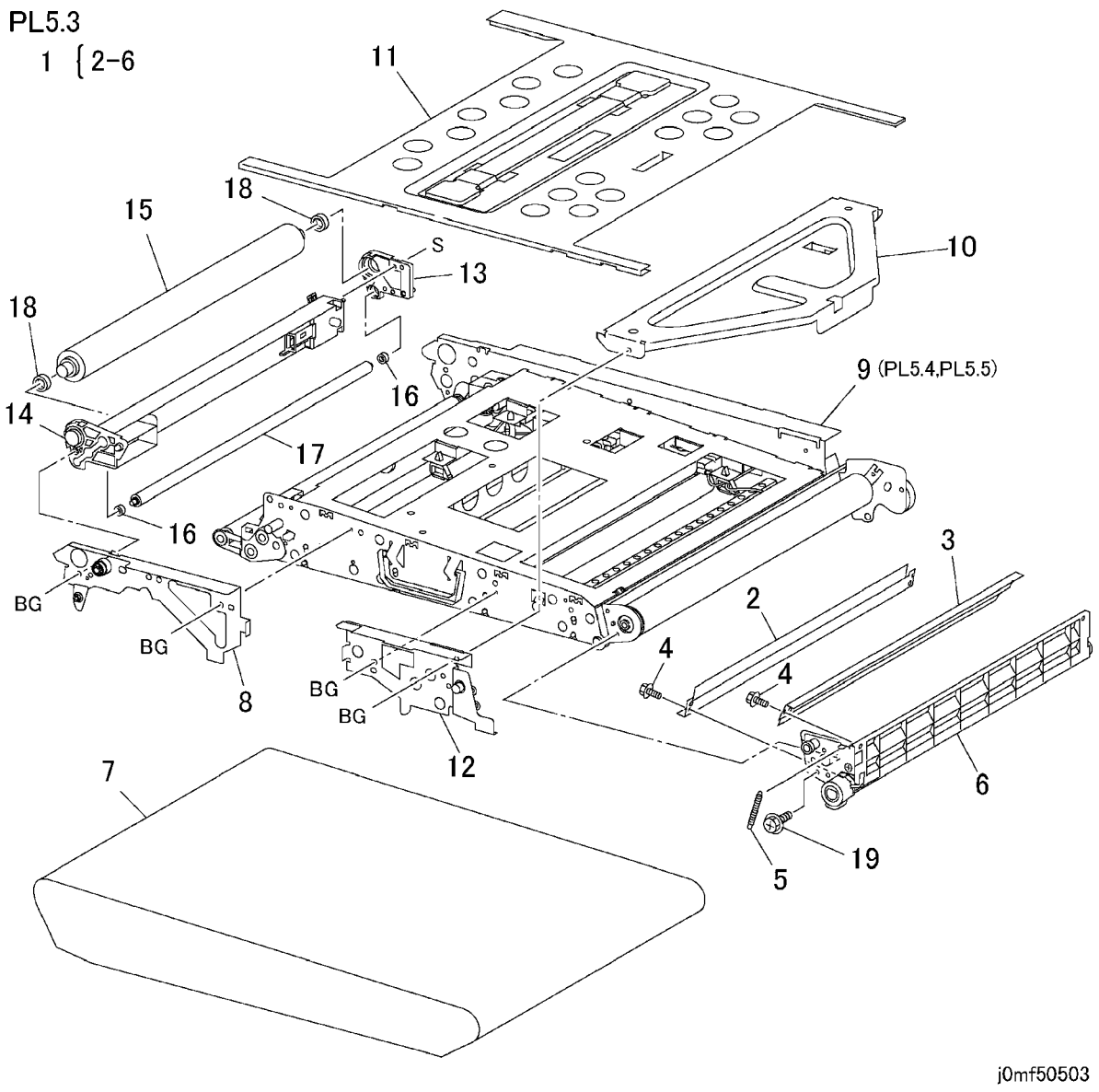
## PL 5.2 IBT Unit

| Item | Part | Description |
|---|---|---|
| 1 | 604K07050 | IBT Belt Assembly (REP 9.15,ADJ 9.6) |
| 2 | 003K12650 | Removal Support |
| 3 | – | Bearing (Not Spared) |
| 4 | 007E61910 | Gear (14T) |
| 5 | 007E61890 | Gear (18T) |
| 6 | – | Shaft (Not Spared) |
| 7 | 802K12950 | Auger Assembly (REP 9.17) |
| 8 | – | Screw (Not Spared) |
| 9 | – | IBT Belt Assembly (P/O PL 5.2 Item 1) |
| 10 | 604K07060 | IBT Belt Cleaner Assembly |



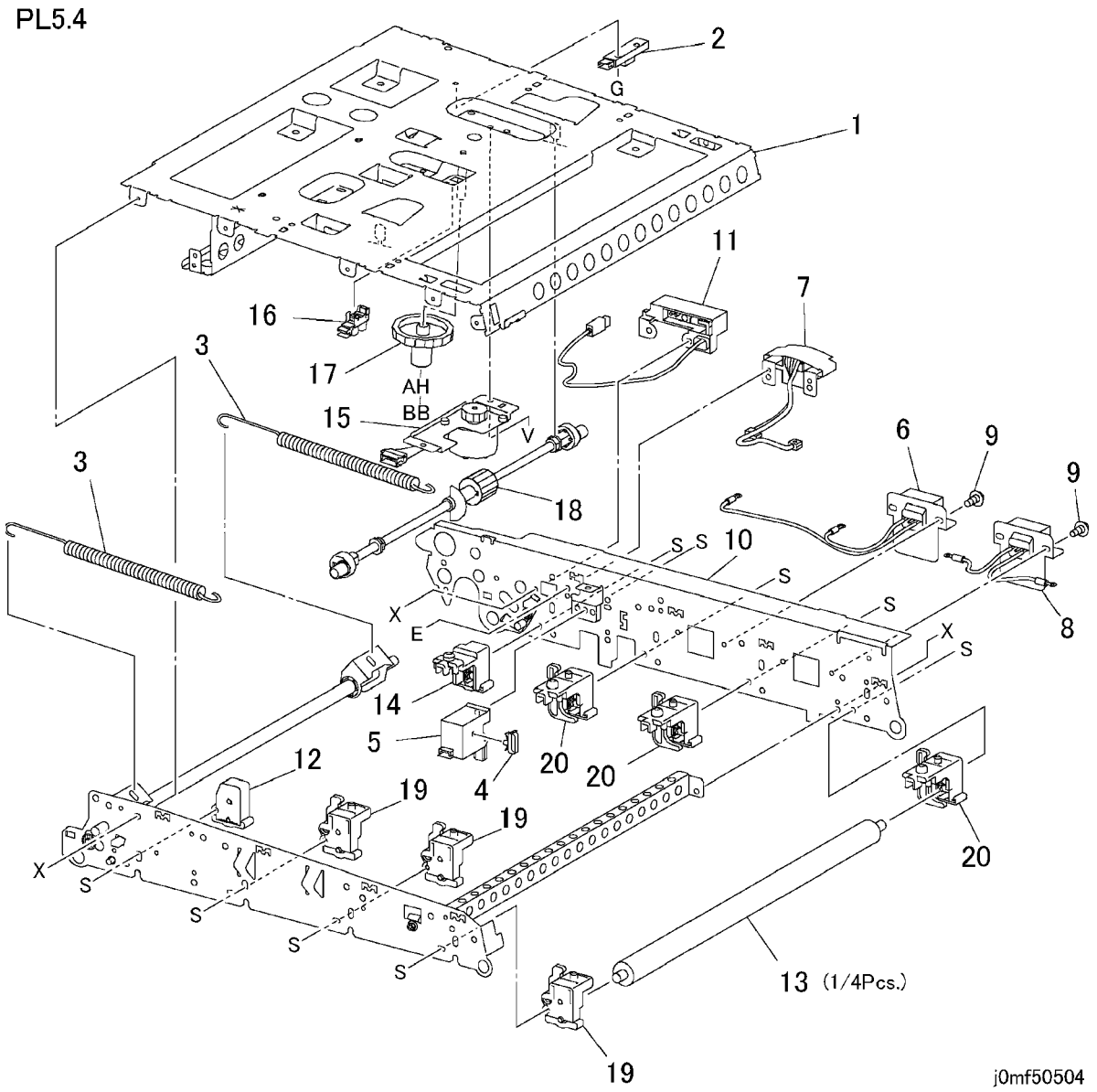
## PL 5.3 IBT Belt Assembly

| Item | Part | Description |
|---|---|---|
| 1 | – | IBT Belt Cleaner Assembly (P/O PL 5.2 Item 1) (REP 9.16) |
| 2 | – | Blade (P/O PL 5.3 Item 1) |
| 3 | – | Seal (P/O PL 5.3 Item 1) |
| 4 | – | Screw (P/O PL 5.3 Item 1) |
| 5 | – | Spring (P/O PL 5.3 Item 1) |
| 6 | – | Housing (P/O PL 5.3 Item 1) |
| 7 | 064K91451 | Transfer Belt (ADJ 9.6) |
| 8 | – | Support (P/O PL 5.2 Item 9) |
| 9 | – | IBT Frame (P/O PL 5.2 Item 9) |
| 10 | – | Right Handle (P/O PL 5.2 Item 9) |
| 11 | – | Left Handle (P/O PL 5.2 Item 9) |
| 12 | – | Bracket (P/O PL 5.2 Item 9) |
| 13 | – | Housing (P/O PL 5.2 Item 9) |
| 14 | – | Housing (P/O PL 5.2 Item 9) |
| 15 | 059K23150 | Backup Roll |
| 16 | – | Bearing (P/O PL 5.2 Item 9) |
| 17 | – | Pre Roll (P/O PL 5.2 Item 9) |
| 18 | 013E18980 | Bearing |
| 19 | – | Screw (P/O PL 5.2 Item 1) |



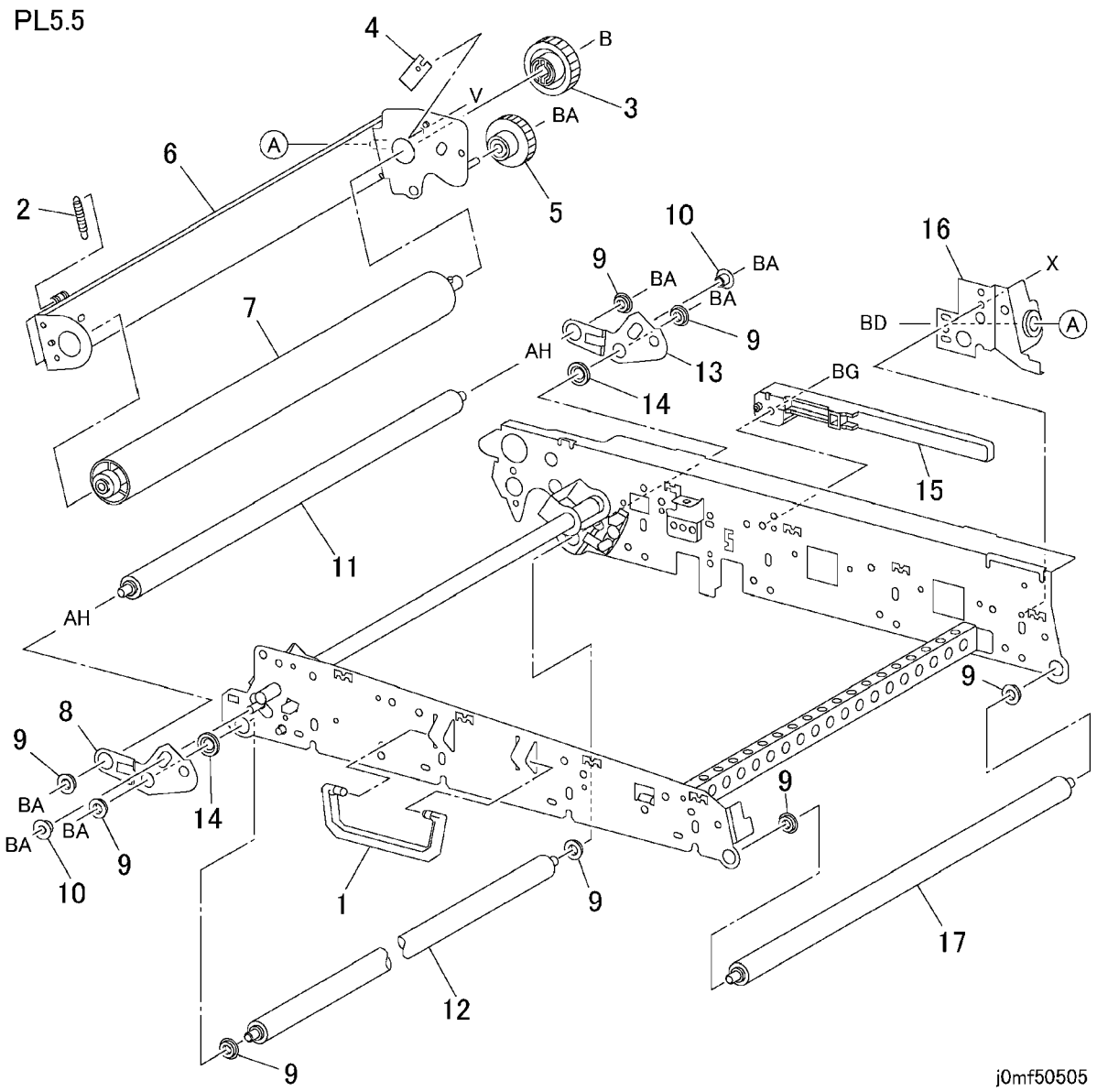
# PL 5.4 IBT Frame Assembly: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Frame (Not Spared) |
| 2 | 130E84270 | IBT Home Sensor (ADJ 9.6) |
| 3 | – | Spring (Not Spared) |
| 4 | – | Clamp (Not Spared) |
| 5 | 130K60830 | IBT Edge Sensor (ADJ 9.6) |
| 6 | 162K56020 | Connector (C, K) |
| 7 | – | Connector (Not Spared) |
| 8 | 162K61090 | Connector (Y, M) |
| 9 | – | Screw (Not Spared) |
| 10 | – | Rear Frame (Not Spared) |
| 11 | – | Connector (Not Spared) |
| 12 | 019K98200 | Front Holder |
| 13 | 059K21260 | 1st BTR Roll |
| 14 | 019K98190 | Rear Holder |
| 15 | 127K33950 | Retract Motor |
| 16 | 130E82190 | Retract Sensor |
| 17 | – | Worm Gear (Not Spared) |
| 18 | – | Retract Shaft (Not Spared) |
| 19 | 019K97550 | Front Holder |
| 20 | 019K97540 | Rear Holder |



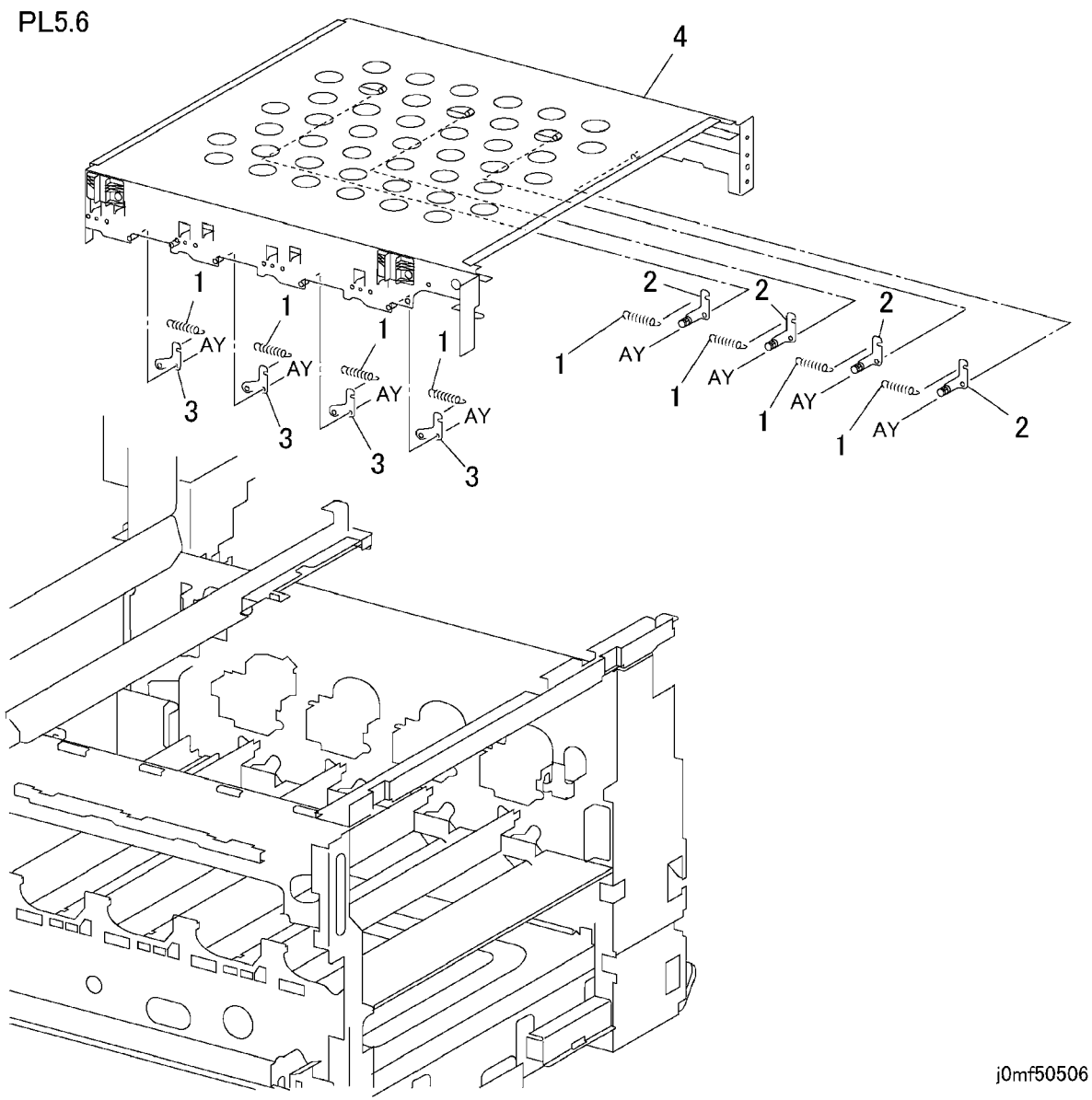
# PL 5.5 IBT Frame Assembly: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Handle (Not Spared) |
| 2 | – | Spring (Not Spared) |
| 3 | – | Gear (Not Spared) |
| 4 | – | Plate (Not Spared) |
| 5 | – | Gear (Not Spared) |
| 6 | – | Bracket (Not Spared) |
| 7 | – | Top Roll (Not Spared) |
| 8 | – | Front Bracket (Not Spared) |
| 9 | – | Bearing (Not Spared) |
| 10 | – | Bearing (Not Spared) |
| 11 | – | Roll (Not Spared) |
| 12 | – | Roll (Not Spared) |
| 13 | – | Rear Bracket (Not Spared) |
| 14 | – | Collar (Not Spared) |
| 15 | – | Latch (Not Spared) |
| 16 | – | Bracket (Not Spared) |
| 17 | – | Roll (Not Spared) |



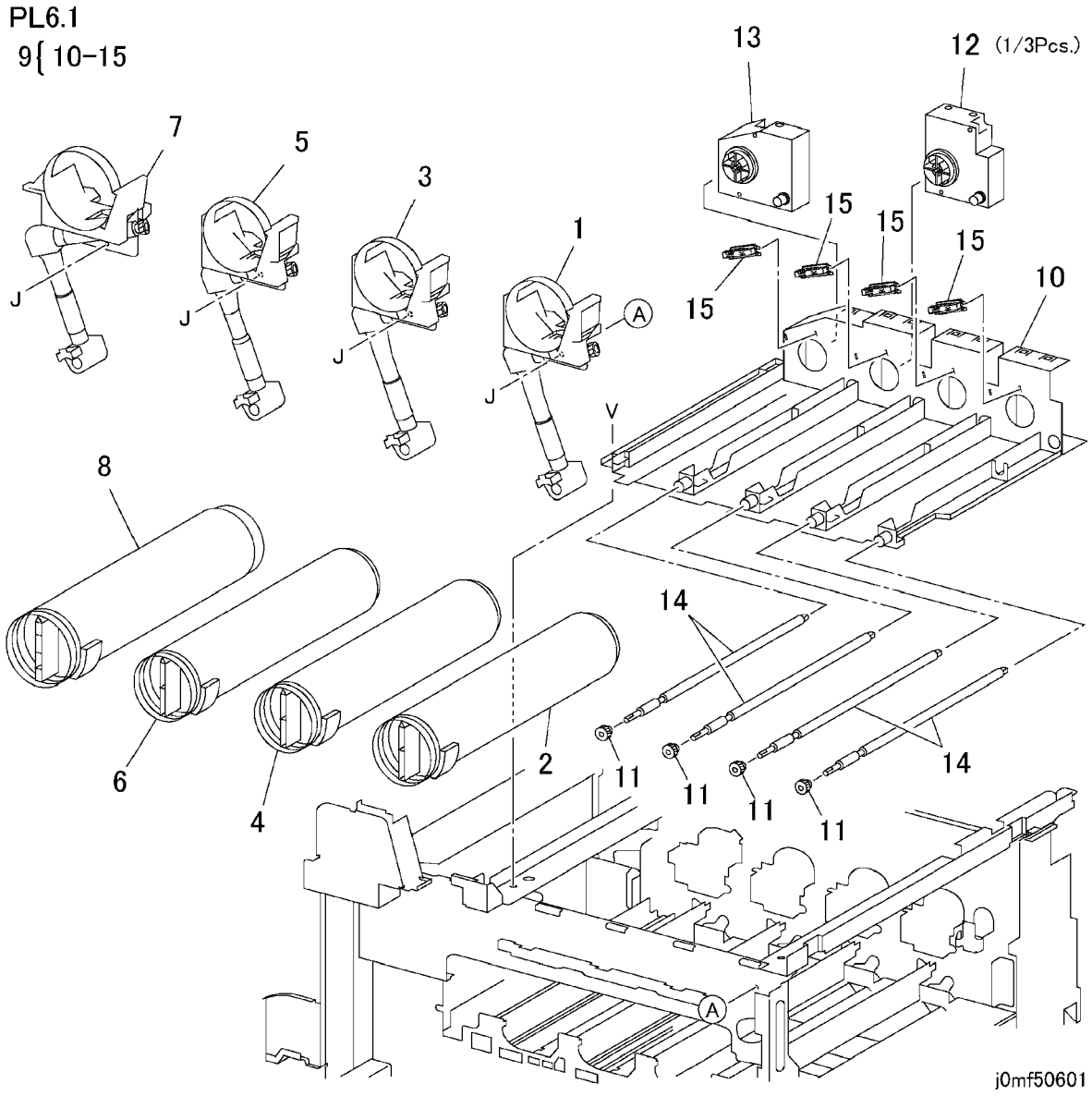
# PL 5.6 IBT Elevator

| Item | Part | Description |
|---|---|---|
| 1 | 809E26330 | Spring |
| 2 | 015K49480 | Rear Plunger |
| 3 | 015K49310 | Front Plunger |
| 4 | – | Frame (Not Spared) |



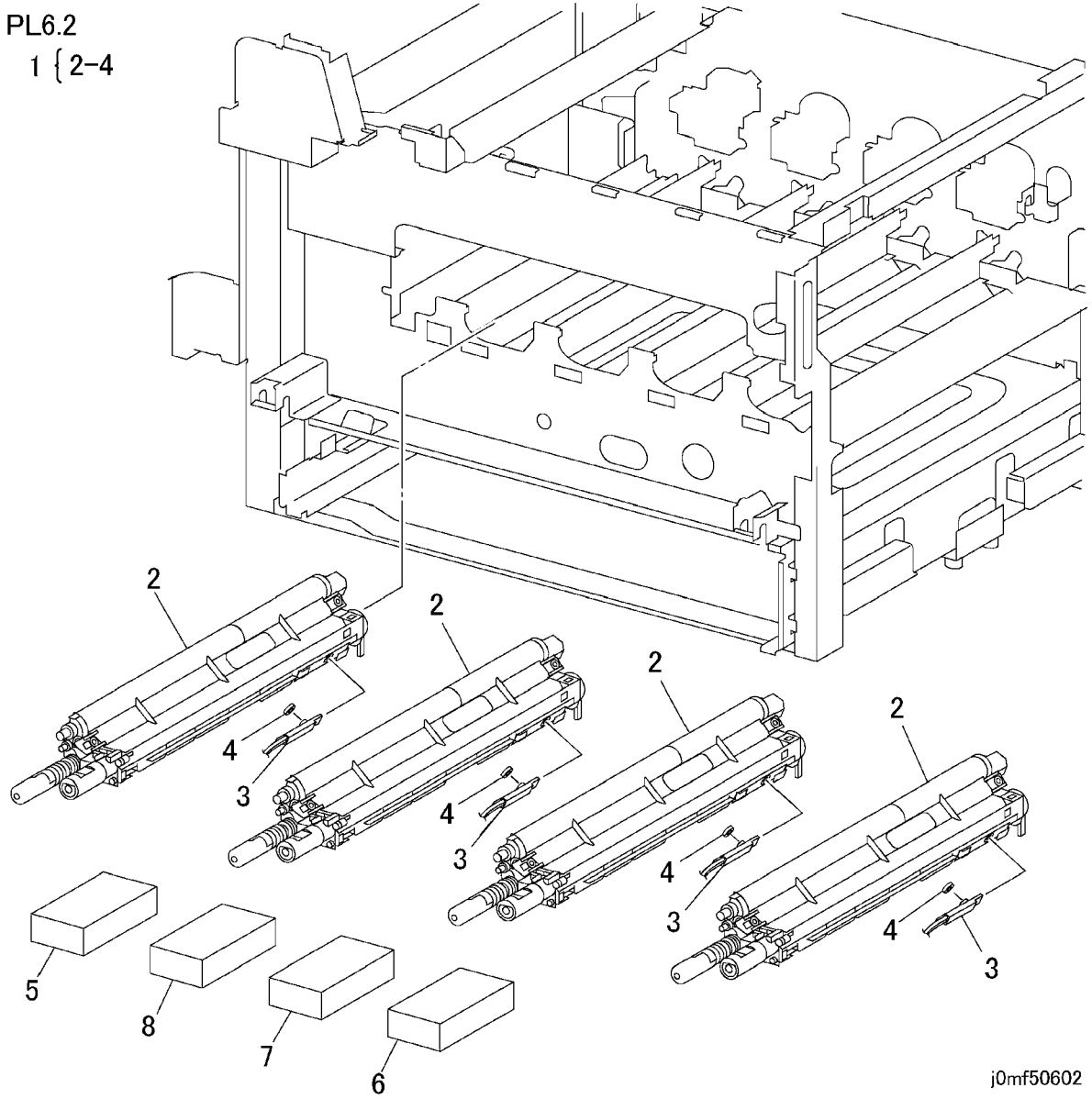
## PL 6.1 Developer Unit: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 802K45910 | Toner Dispenser (Y) (REP 9.7) |
| 2 | – | Toner Cartridge (Not Spared) |
| 3 | 802K45920 | Toner Dispenser (M) (REP 9.7) |
| 4 | – | Toner Cartridge (Not Spared) |
| 5 | 802K45930 | Toner Dispenser (C) (REP 9.7) |
| 6 | – | Toner Cartridge (Not Spared) |
| 7 | 802K45940 | Toner Dispenser (K) (REP 9.7) |
| 8 | – | Toner Cartridge (Not Spared) |
| 9 | 802K33090 | Toner Dispenser Base Assembly (REP 9.11) |
| 10 | – | Toner Dispenser Base (P/O PL 6.1 Item 9) |
| 11 | – | Gear (P/O PL 6.1 Item 9) |
| 12 | 127K33930 | Toner Dispenser Motor (Y, M, C) |
| 13 | 127K33940 | Toner Dispenser Motor (K) |
| 14 | – | Shaft (P/O PL 6.1 Item 9) |
| 15 | 116K90810 | New Cartridge Detect Switch |



## PL 6.2 Developer Unit: 2 of 2

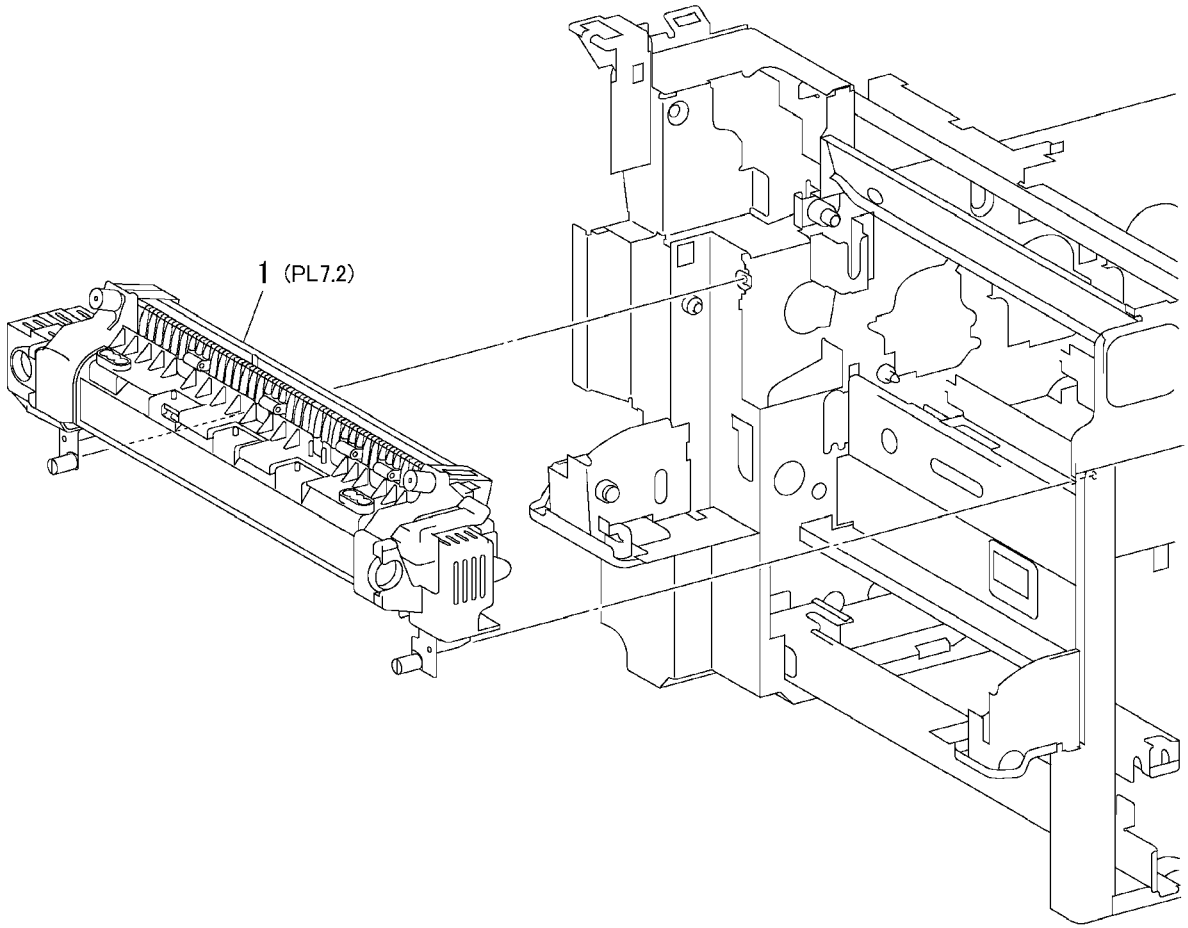
| Item | Part | Description |
|---|---|---|
| 1 | 802K28891 | Developer Housing (Y, M, K, C) (REP 9.9,ADJ 9.1) |
| 2 | – | Developer Housing (P/O PL 6.2 Item 1) |
| 3 | 130K63000 | ATC Sensor (Y, M, K, C) (ADJ 9.1) |
| 4 | 035E65010 | Seal |
| 5 | 604K07520 | Developer (K) (REP 9.10,ADJ 9.1) |
| 6 | 604K07490 | Developer (Y) (REP 9.10,ADJ 9.1) |
| 7 | 604K07500 | Developer (M) (REP 9.10,ADJ 9.1) |
| 8 | 604K07510 | Developer (C) (REP 9.10,ADJ 9.1) |



## PL 7.1 Fuser Assembly: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 126K14890 | Fuser (220V) (REP 10.1) |
| – | 126K13940 | Fuser (120V) (REP 10.1) |

PL7.1

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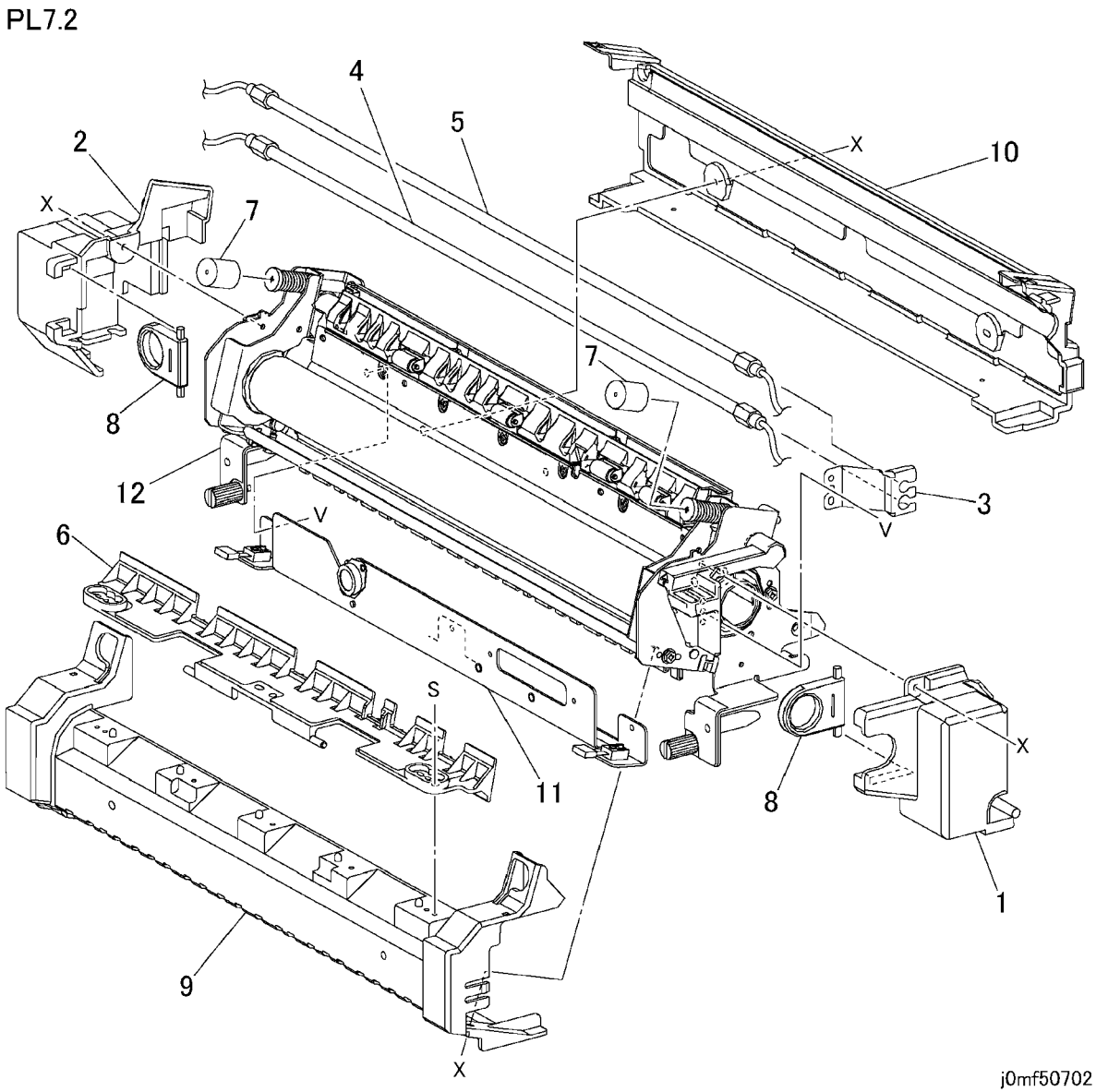
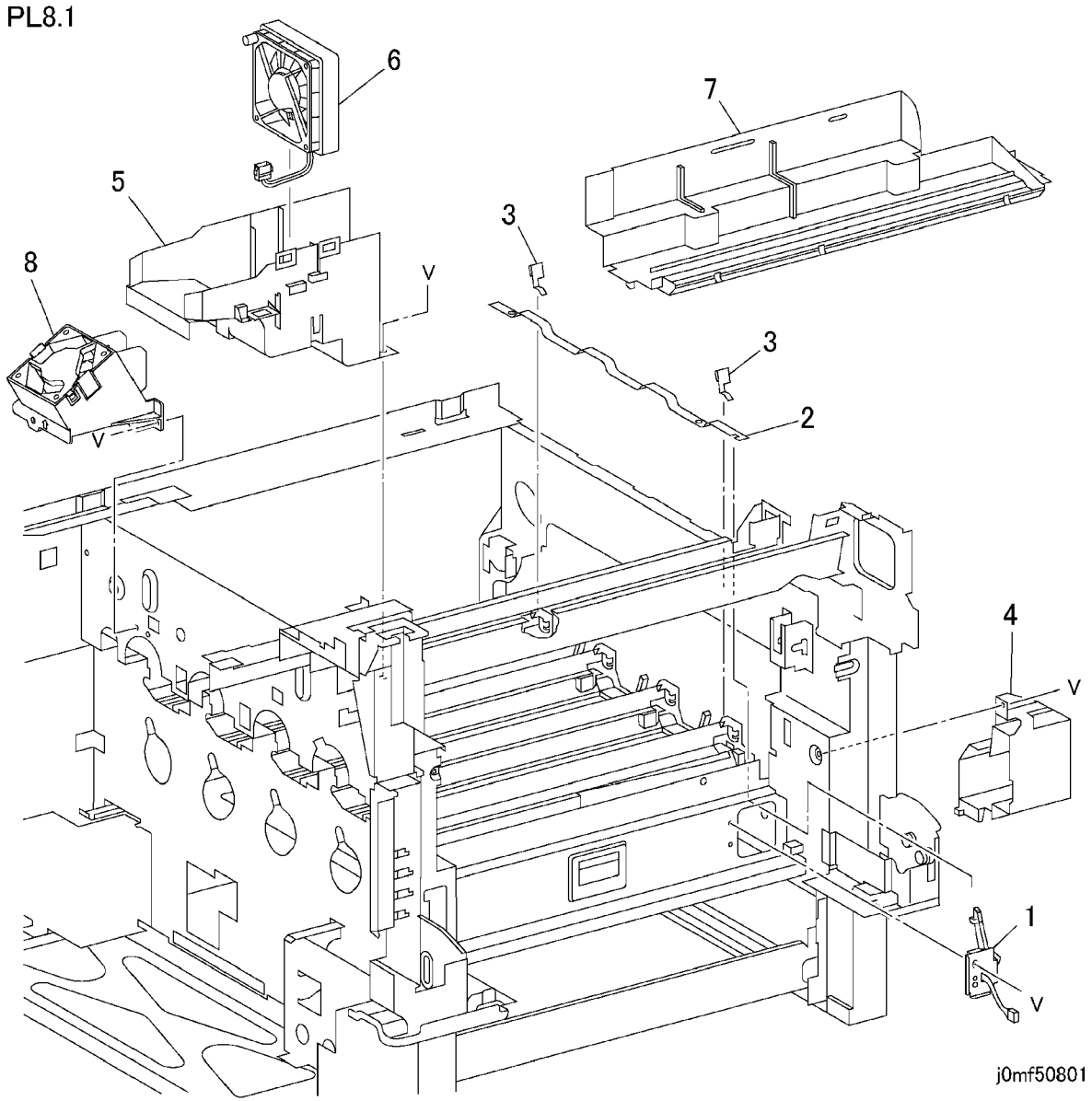
# PL 7.2 Fuser Assembly: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Front Cover (Not Spared) |
| 2 | – | Rear Cover (Not Spared) |
| 3 | – | Front Lamp Bracket (Not Spared) |
| 4 | 126K13950 | Main Heater Rod (110V) |
| – | 126K13980 | Main Heater Rod (220V) |
| 5 | 126K13990 | Sup Heater Rod (220V) |
| – | 126K13960 | Sup Heater Rod (110V) |
| 6 | – | Exit Chute (Not Spared) |
| 7 | – | Cap (Not Spared) |
| 8 | – | Handle (Not Spared) |
| 9 | – | Upper Cover (Not Spared) |
| 10 | – | Lower Cover (Not Spared) |
| 11 | 130K61020 | Sensor Assembly |
| 12 | – | Fuser (Not Spared) |



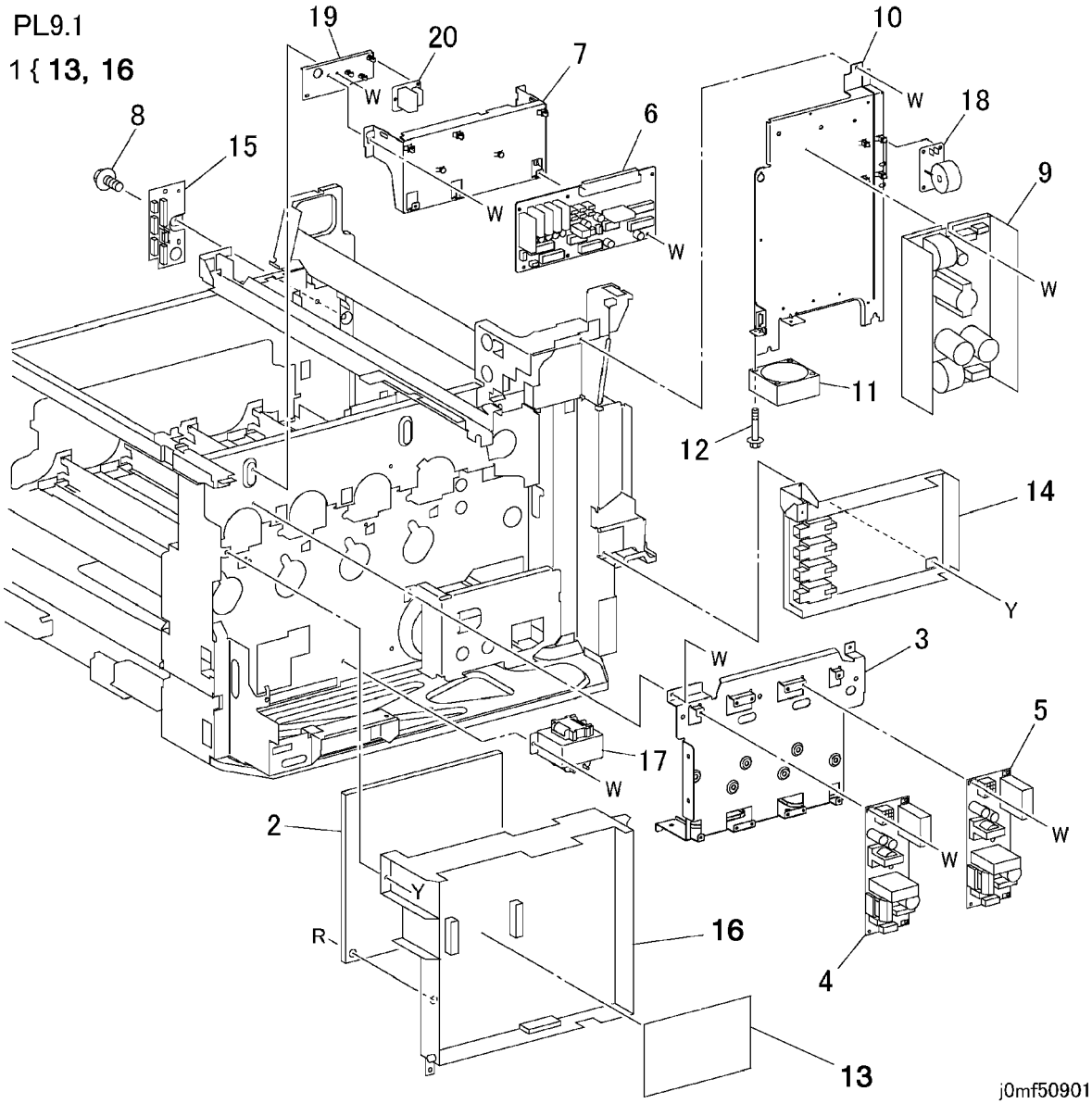
## PL 8.1 Air System

| Item | Part | Description |
|---|---|---|
| 1 | 127K32730 | ROS Shutter Motor (REP 9.2) |
| 2 | – | Link (Not Spared) |
| 3 | – | Spring (Not Spared) |
| 4 | – | Inner Cover (Not Spared) (REP 14.10) |
| 5 | – | Duct (Not Spared) |
| 6 | 127K29340 | Fuser Fan (REP 10.2) |
| 7 | – | Duct (Not Spared) |
| 8 | 127K36640 | ROS Fan |



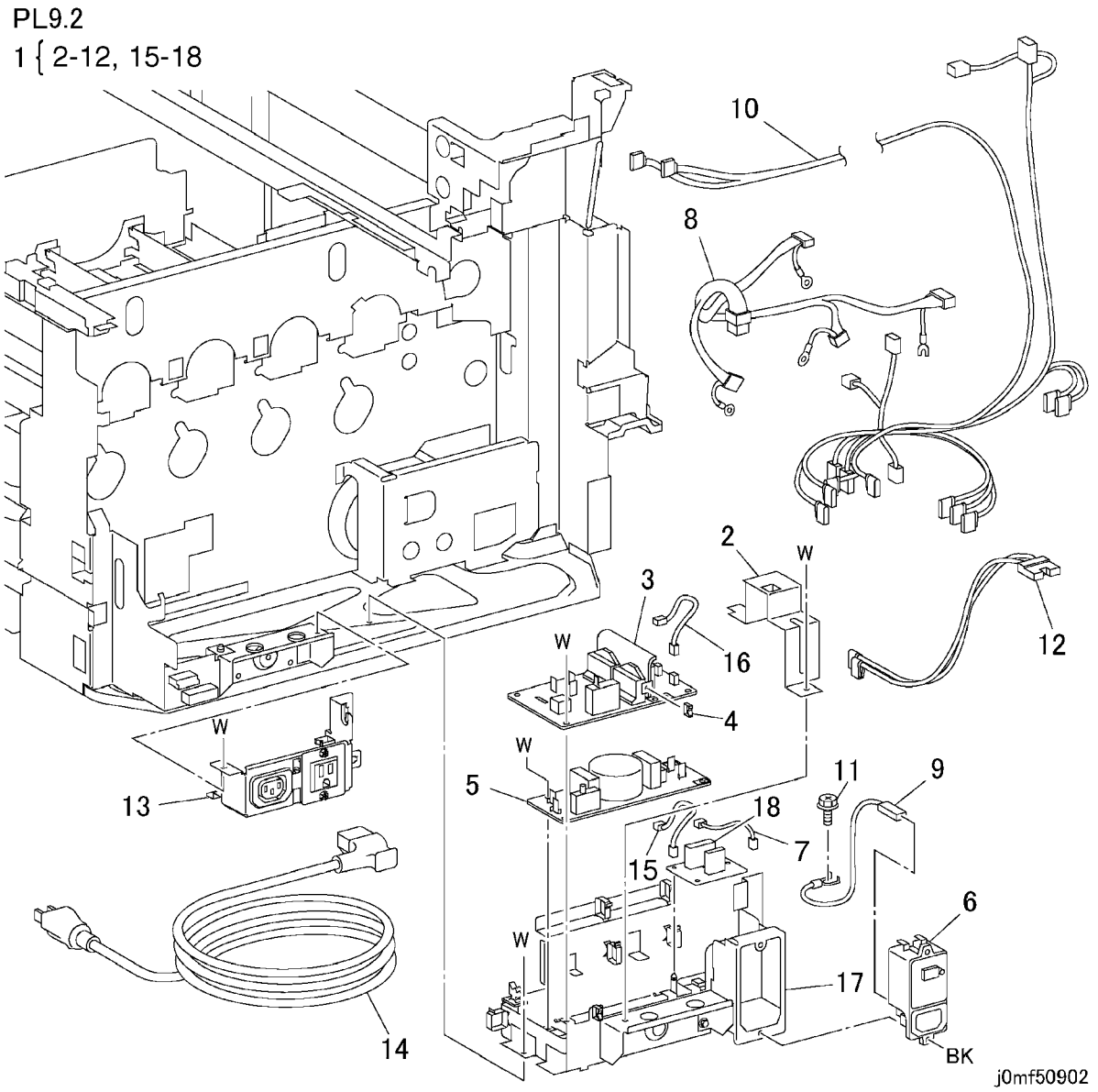
## PL 9.1 Electrical Components: 1 of 3

| Item | Part | Description |
|---|---|---|
| 1 | 105K18771 | HVPS (T5) (REP 1.6 REP 1.7) |
| 2 | 105E09980 | HVPS (T7) (REP 1.6 REP 1.7) |
| 3 | – | LVPS Bracket (Not Spared) (REP 1.1) |
| 4 | 105E11130 | 3.3V LVPS (110V) (REP 1.4) |
| – | 105E09810 | 3.3V LVPS (220V) (REP 1.4) |
| 5 | 105E09820 | 5V LVPS (110V) (REP 1.4) |
| – | 105E09830 | 5V LVPS (220V) (REP 1.4) |
| 6 | 160K76802 | Interface PWB (REP 1.8) |
| 7 | – | LVPS Bracket (Not Spared) (REP 1.9) |
| 8 | – | Screw (Not Spared) |
| 9 | 105E09760 | 24V LVPS (220V) (REP 1.5) |
| – | 105K18641 | 24V LVPS (110V) (REP 1.5) |
| 10 | – | Bracket (Not Spared) (REP 1.9) |
| 11 | 127K29330 | LVPS Fan |
| 12 | – | Screw (Not Spared) |
| 13 | – | HVPS Control PWB (P/O PL 9.1 Item 1) |
| 14 | 105E09970 | HVPS (T6) (REP 1.10) |
| 15 | – | Connector Chassis (Not Spared) |
| 16 | – | T5/T7 HVPS Chassis (P/O PL 9.1 Item 1) |
| 17 | 103E27220 | Resistor (220V) |
| – | 104E93610 | Choke Coil (110V) |
| 18 | 160K84400 | Fuser Noise Filter |
| 19 | – | Plate (Not Spared) |
| 20 | 160K87730 | Interlock Relay PWB |



## PL 9.2 Electrical Components: 2 of 3

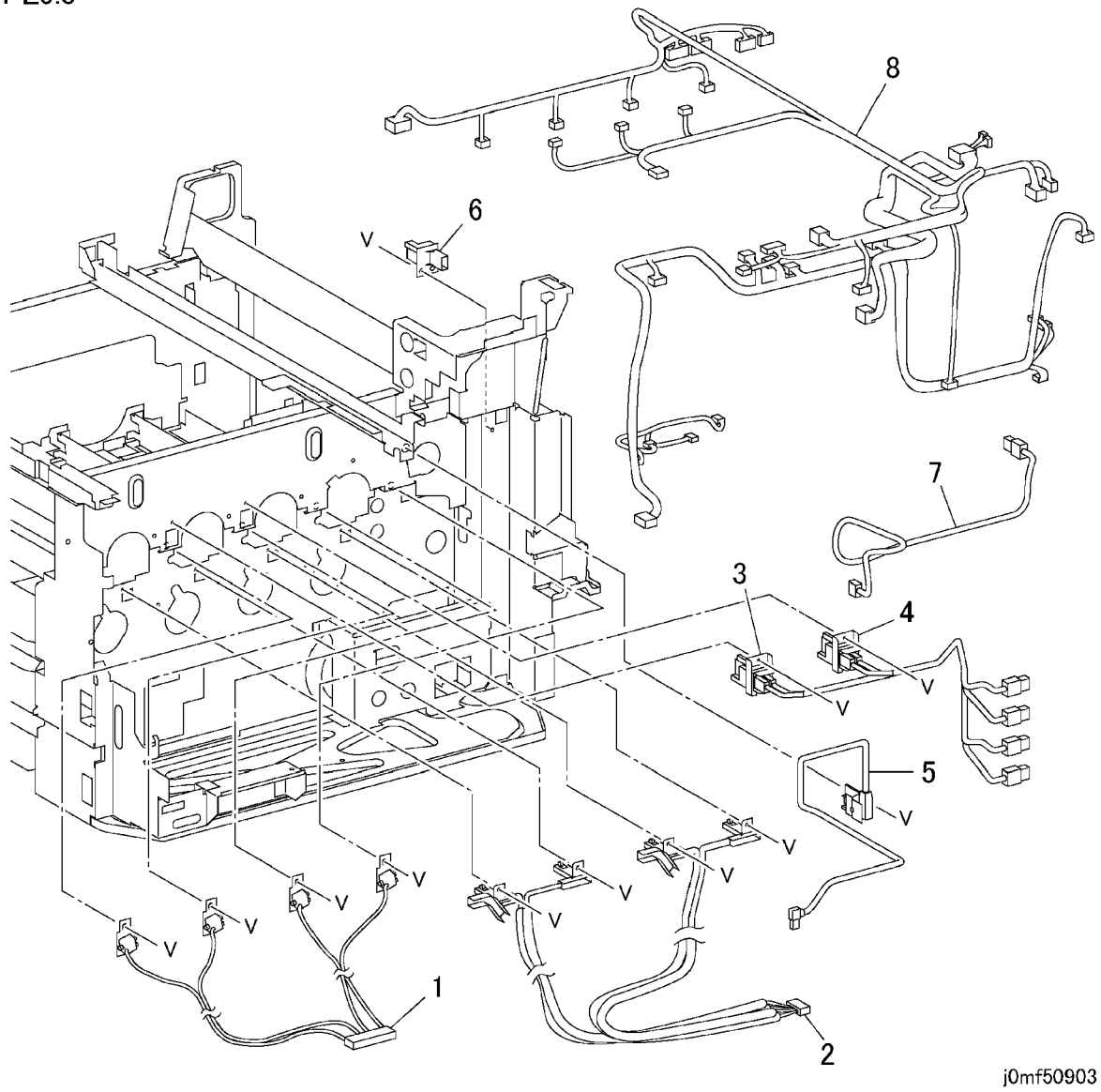
| Item | Part | Description |
|---|---|---|
| 1 | 101K38980 | AC Power Chassis Assembly (220V) |
| – | 101K38810 | AC Power Chassis Assembly (110V) |
| 2 | – | Bracket (P/O PL 9.2 Item 1) |
| 3 | 160K84820 | AC Drive PWB (220V) (REP 1.11) |
| – | 160K76770 | AC Drive PWB (110V) (REP 1.11) |
| 4 | – | Clamp (P/O PL 9.2 Item 1) |
| 5 | 160K84800 | Noise Filter PWB (220V) |
| – | 160K76760 | Noise Filter PWB (110V) |
| 6 | 908W01200 | GFI Breaker |
| 7 | 962K08820 | Wire Harness |
| 8 | – | Wire Harness (P/O PL 9.2 Item 1) |
| 9 | – | Wire Harness (P/O PL 9.2 Item 1) |
| 10 | – | Wire Harness (P/O PL 9.2 Item 1) |
| 11 | – | Screw (P/O PL 9.2 Item 1) |
| 12 | – | Wire Harness (P/O PL 9.2 Item 1) |
| 13 | 074K94320 | Outlet Panel |
| 14 | 917W00723 | Power Cord (110V) |
| – | 117E94370 | Power Cord (220V) |
| 15 | 162K69330 | Wire Harness |
| 16 | – | Wire Harness (P/O PL 9.2 Item 1) |
| 17 | – | AC Power Chassis (P/O PL 9.2 Item 1) |
| 18 | 160K77201 | Delay PWB |



# PL 9.3 Electrical Components: 3 of 3

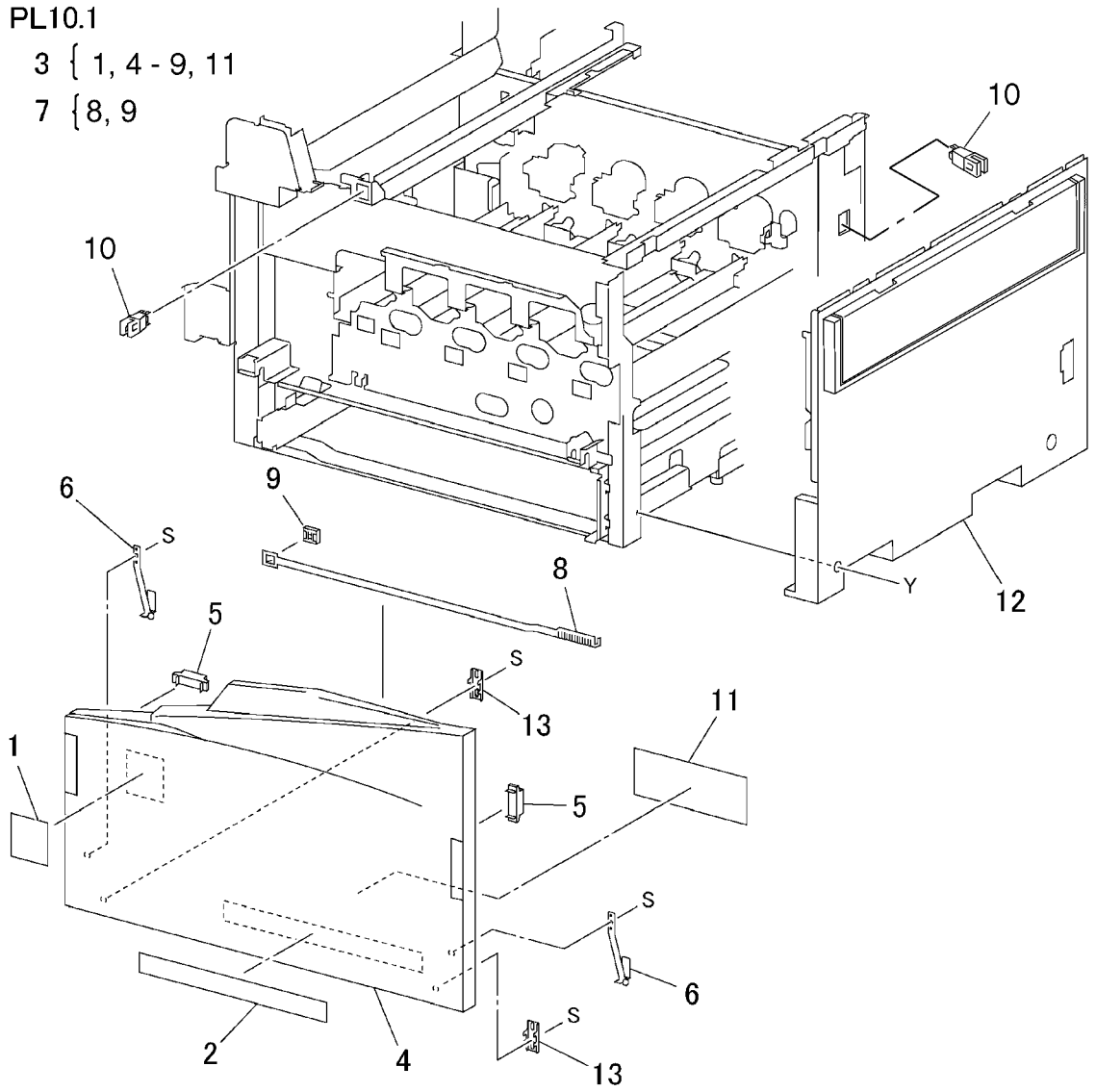
| Item | Part | Description |
|---|---|---|
| 1 | 014K81604 | Developer Block |
| 2 | 162K62110 | Wire Harness |
| 3 | 162K55941 | Wire Harness (Y, M) |
| 4 | 162K55971 | Wire Harness (C, K) |
| 5 | 162K56000 | 2nd Wire Harness |
| 6 | 113K82310 | DTS Connector |
| 7 | 162K56031 | DTS Wire Harness |
| 8 | 962K09800 | DC Wire Harness |

PL9.3



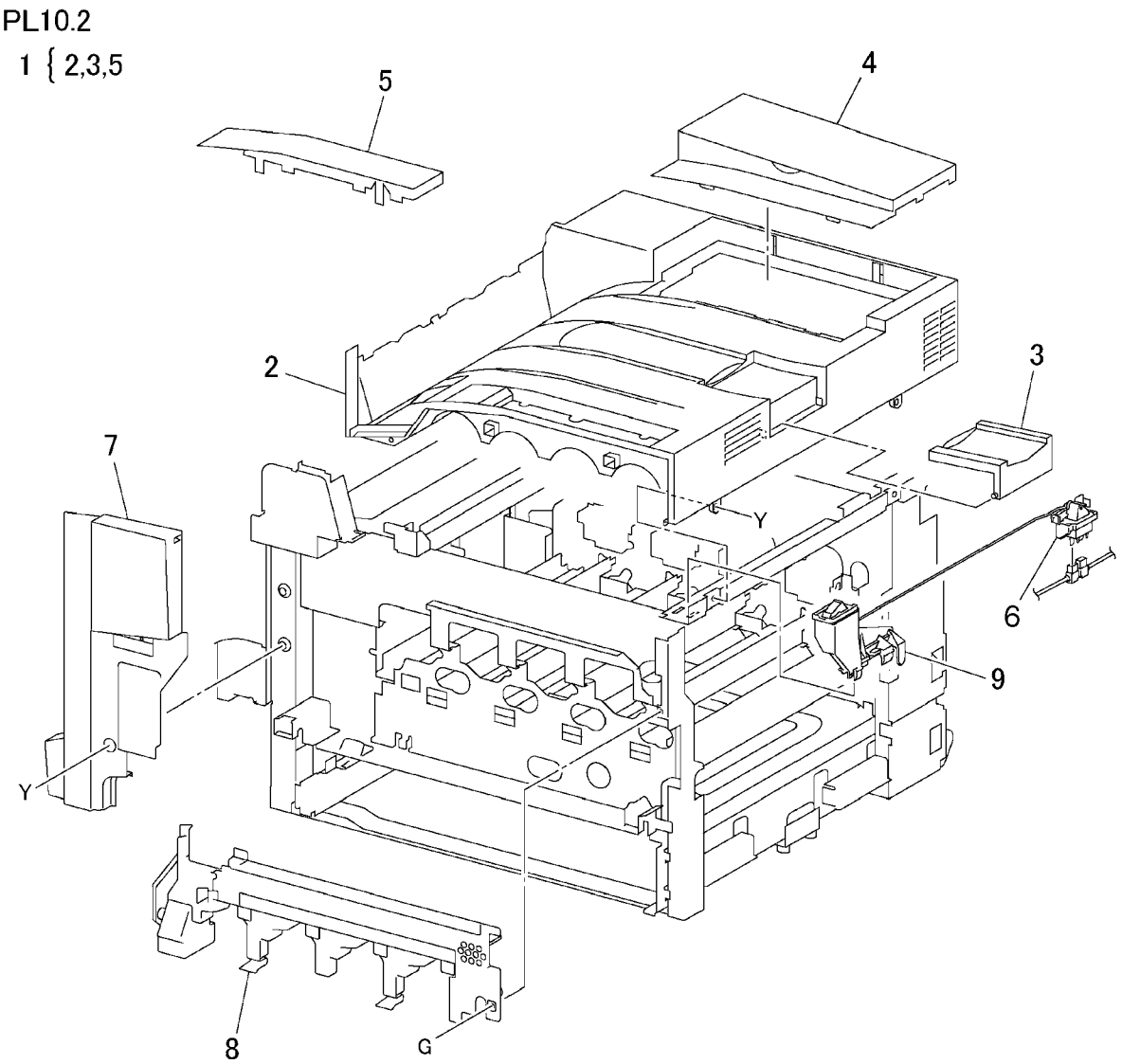
## PL 10.1 Front Cover

| Item | Part | Description |
|---|---|---|
| 1 | 891E75951 | Logo Plate |
| 2 | 892E78280 | Name Plate (16/32) |
| – | 892E78290 | Name Plate (22/40) |
| 3 | 802K46050 | Front Cover Assembly (REP 14.7) |
| 4 | – | Front Cover (P/O PL 10.1 Item 3) |
| 5 | – | Magnet (P/O PL 10.1 Item 3) |
| 6 | – | Strip (P/O PL 10.1 Item 3) |
| 7 | 042K91990 | Rod Cleaner Assembly |
| 8 | – | Rod Cleaner (P/O PL 10.1 Item 7) |
| 9 | – | Cleaner Base (P/O PL 10.1 Item 7) |
| 10 | 110E94770 | Front Interlock Switch, Right Interlock Switch |
| 11 | – | Label (P/O PL 10.1 Item 3) |
| 12 | 802K46060 | Right Cover (REP 14.3) |
| 13 | – | Hinge (Not Spared) |



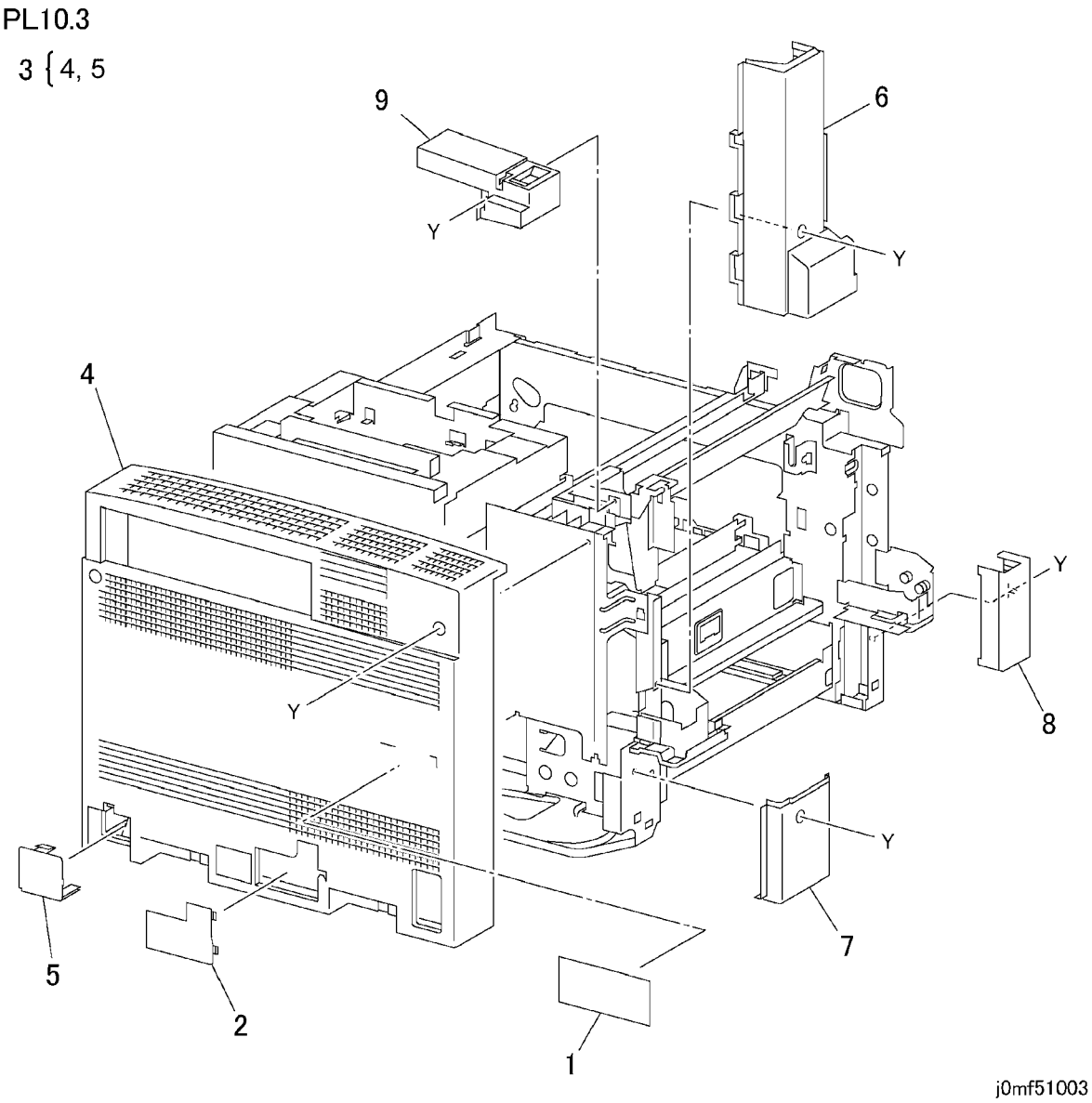
## PL 10.2 Top Covers and Inner Covers

| Item | Part | Description |
|---|---|---|
| 1 | 802K29610 | Top Cover Assembly (REP 14.1) |
| 2 | – | Top Cover (P/O PL 10.2 Item 1) |
| 3 | – | Stop (P/O PL 10.2 Item 1) |
| 4 | 802E12400 | Connector Cover |
| 5 | – | Panel (P/O PL 10.2 Item 1) |
| 6 | 110K11211 | Main Power Switch |
| 7 | 802E12430 | Fuser Cover (REP 14.8) |
| 8 | 802K45710 | Inner Cover (REP 9.6) |
| 9 | 012K94260 | Link |



## PL 10.3 Rear Cover

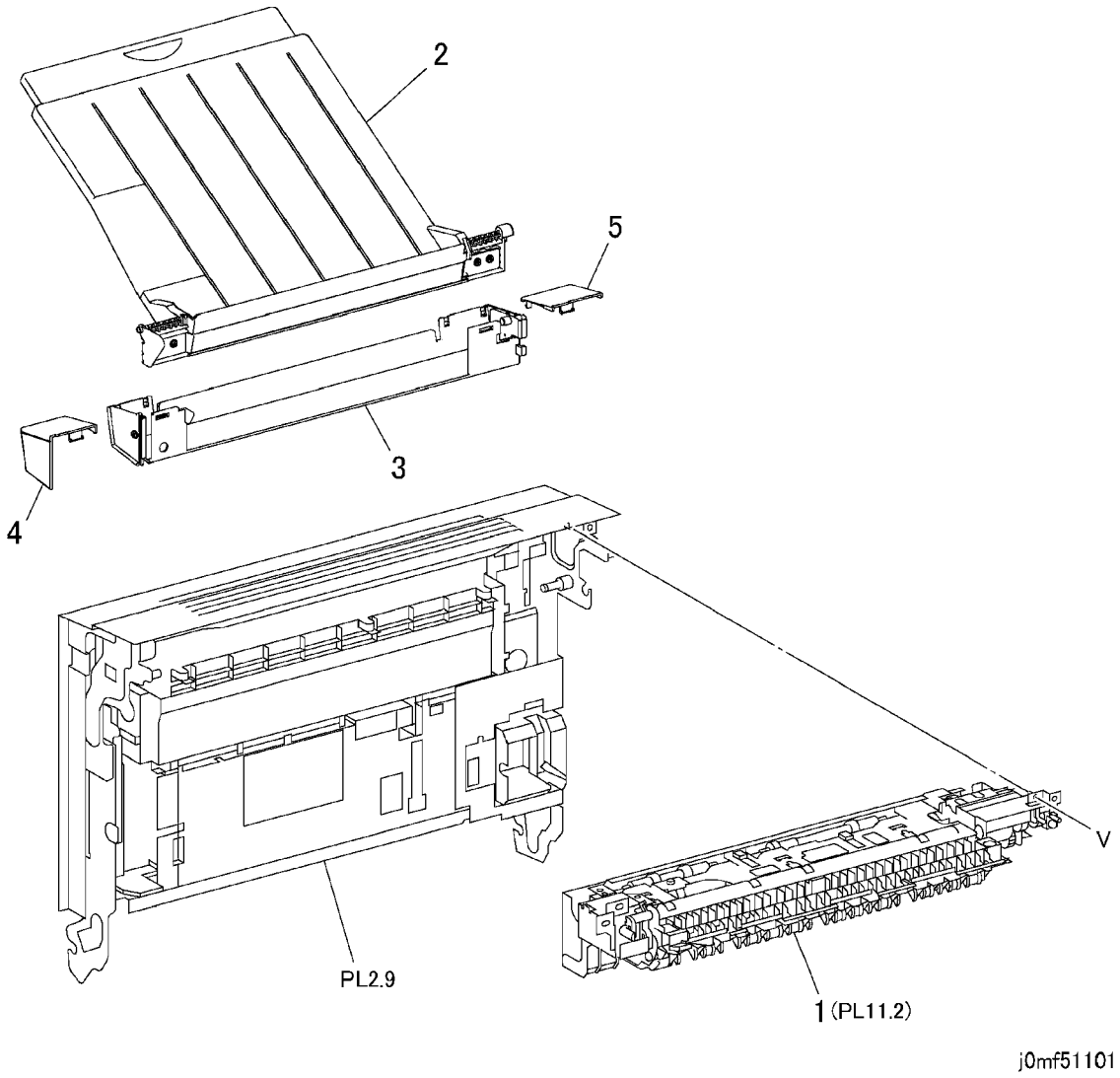
| Item | Part | Description |
|---|---|---|
| 1 | – | Data Plate (Not Spared) |
| 2 | 802E12480 | Blind Cover |
| 3 | 802K28110 | Rear Cover Assembly |
| 4 | – | Rear Cover (P/O PL 10.3 Item 3) (REP 14.2) |
| 5 | 802E12490 | Blind Cover |
| 6 | 802E12500 | Rear Left Middle Cover (REP 14.4) |
| 7 | – | Rear Left Lower Cover (Not Spared) |
| 8 | – | Front Left Cover (Not Spared) |
| 9 | 802E27860 | Rear Left Upper Cover (REP 14.5) |



# PL 11.1 Inverter Transport: 1 of 2

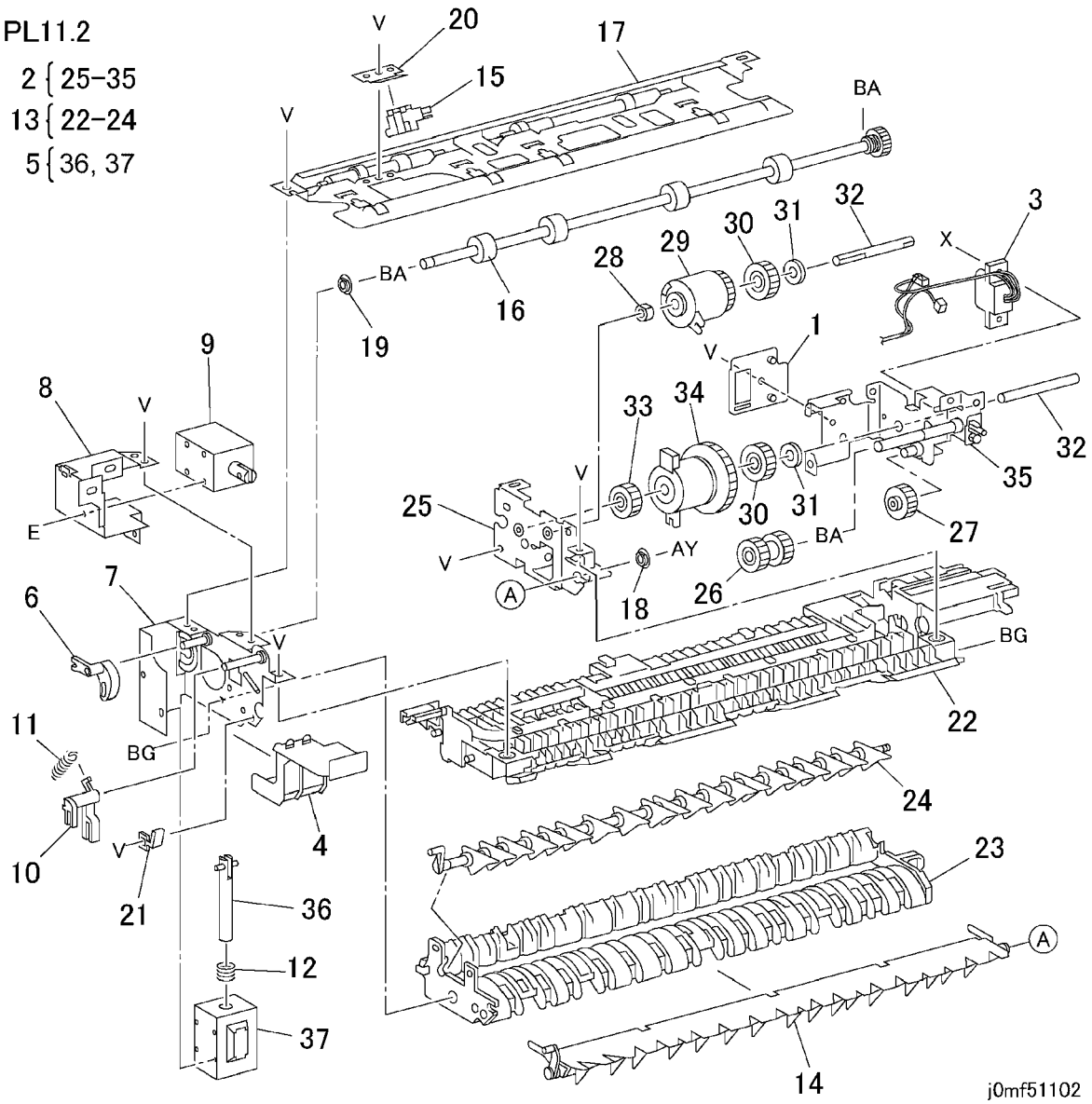
| Item | Part | Description |
|---|---|---|
| 1 | 059K16742 | Inverter Transport (REP 8.5) |
| 2 | – | Face-up Tray (Not Spared) |
| 3 | – | Cover (Not Spared) |
| 4 | – | Front Cover (Not Spared) |
| 5 | – | Rear Cover (Not Spared) |

PL11.1



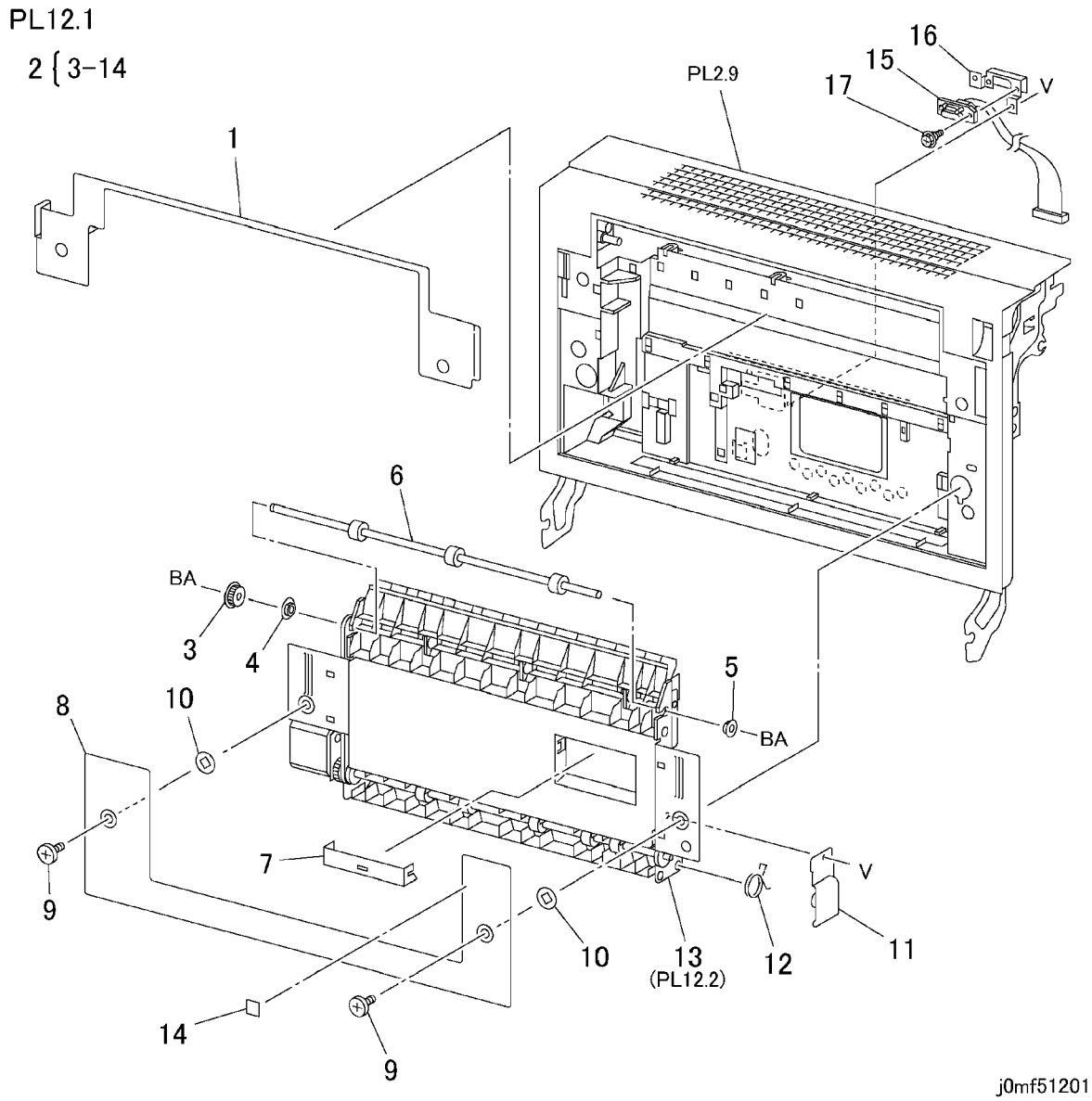
## PL 11.2 Inverter Transport: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Cover (Not Spared) |
| 2 | 015K45802 | Clutch Assembly |
| 3 | – | Wire Harness (Not Spared) |
| 4 | – | Bracket (Not Spared) |
| 5 | 121K23560 | Duplex Gate Solenoid |
| 6 | – | Link (Not Spared) |
| 7 | – | Bracket (Not Spared) |
| 8 | – | Bracket (Not Spared) |
| 9 | 121K82870 | Exit Gate Solenoid |
| 10 | – | Link (Not Spared) |
| 11 | – | Spring (Not Spared) |
| 12 | – | Spring (Not Spared) |
| 13 | 054K17241 | Inverter Chute Assembly |
| 14 | 054K17252 | Exit Gate |
| 15 | 130K93230 | Face-up Sensor |
| 16 | 059K16750 | Roll |
| 17 | – | Pinch Roll Assembly (Not Spared) |
| 18 | – | Bearing (Not Spared) |
| 19 | – | Bearing (Not Spared) |
| 20 | – | Bracket (Not Spared) |
| 21 | – | Holder (Not Spared) |
| 22 | – | Upper Chute (P/O PL 11.2 Item 13) |
| 23 | – | Lower Chute (P/O PL 11.2 Item 13) |
| 24 | – | Duplex Gate (P/O PL 11.2 Item 13) |
| 25 | – | Bracket (P/O PL 11.2 Item 2) |
| 26 | – | Gear (P/O PL 11.2 Item 2) |
| 27 | – | Gear (P/O PL 11.2 Item 2) |
| 28 | – | Spacer (P/O PL 11.2 Item 2) |
| 29 | 121K22860 | Forward Clutch |
| 30 | – | Gear (23T) (P/O PL 11.2 Item 2) |
| 31 | – | Bearing (P/O PL 11.2 Item 2) |
| 32 | – | Shaft (P/O PL 11.2 Item 2) |
| 33 | – | Gear (23T) (P/O PL 11.2 Item 2) |
| 34 | 121K22870 | Reverse Clutch |
| 35 | 011E10711 | Interlock Actuator |
| 36 | – | Plunger (P/O PL 11.2 Item 5) |
| 37 | – | Linear Solenoid (P/O PL 11.2 Item 5) |



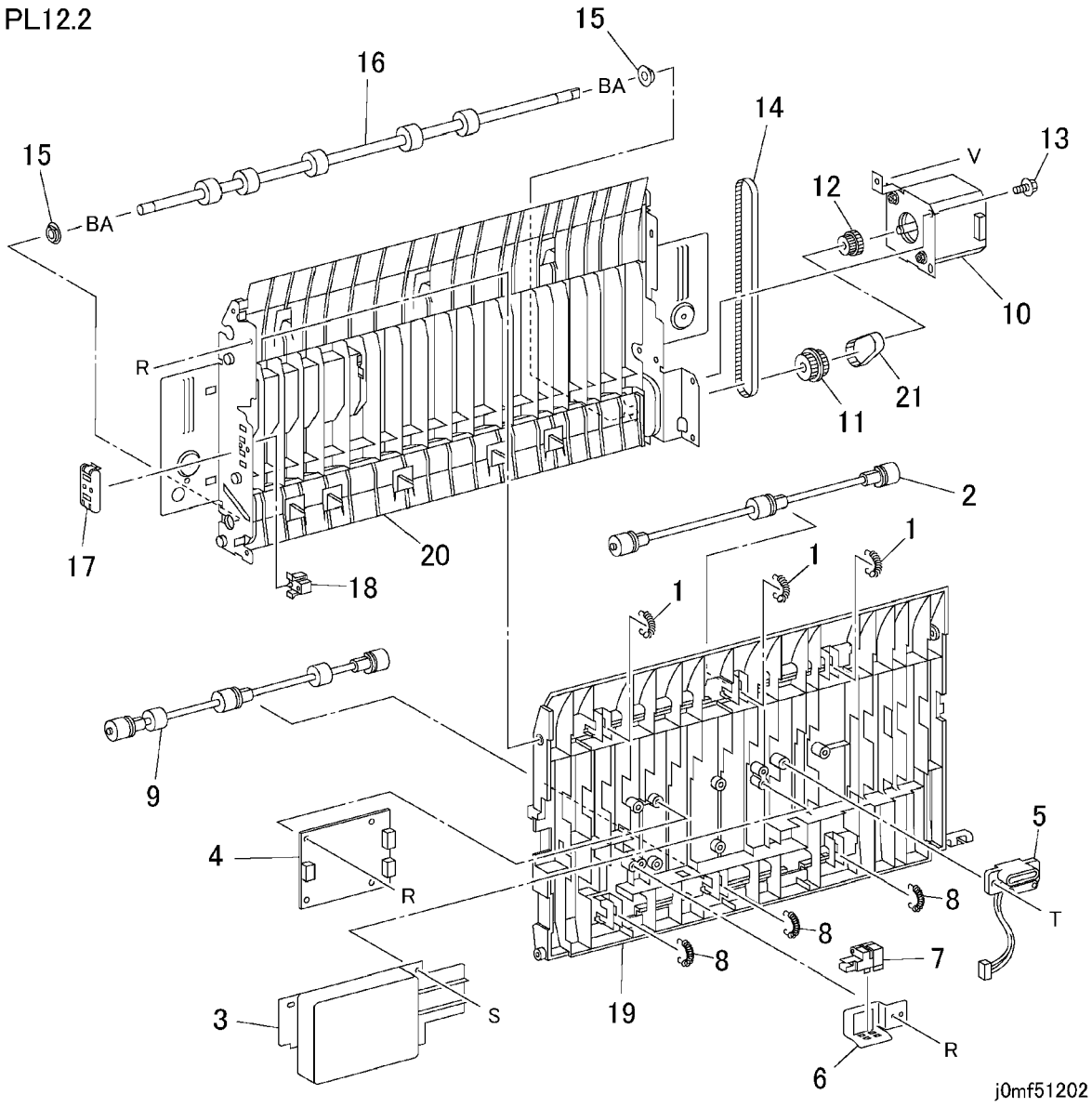
## PL 12.1 Duplex Transport Assembly: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Duplex Transport Upper Cover (Not Spared) |
| 2 | 059K18714 | Duplex Transport Assembly (REP 8.3) |
| 3 | – | One-way Pulley (P/O PL 12.1 Item 2) |
| 4 | – | Bearing (P/O PL 12.1 Item 2) |
| 5 | – | Bearing (P/O PL 12.1 Item 2) |
| 6 | 059K23960 | Duplex Transport Roll |
| 7 | – | Handle (P/O PL 12.1 Item 2) |
| 8 | – | Lower Cover (P/O PL 12.1 Item 2) |
| 9 | – | Screw (P/O PL 12.1 Item 2) |
| 10 | – | Nylon Washer (P/O PL 12.1 Item 2) |
| 11 | – | Cover (P/O PL 12.1 Item 2) |
| 12 | – | Spring (P/O PL 12.1 Item 2) |
| 13 | – | Duplex Transport (P/O PL 12.1 Item 2) |
| 14 | – | Label (P/O PL 12.1 Item 2) |
| 15 | – | Wire Harness (Not Spared) |
| 16 | – | Bracket (Not Spared) |
| 17 | – | Screw (Not Spared) |



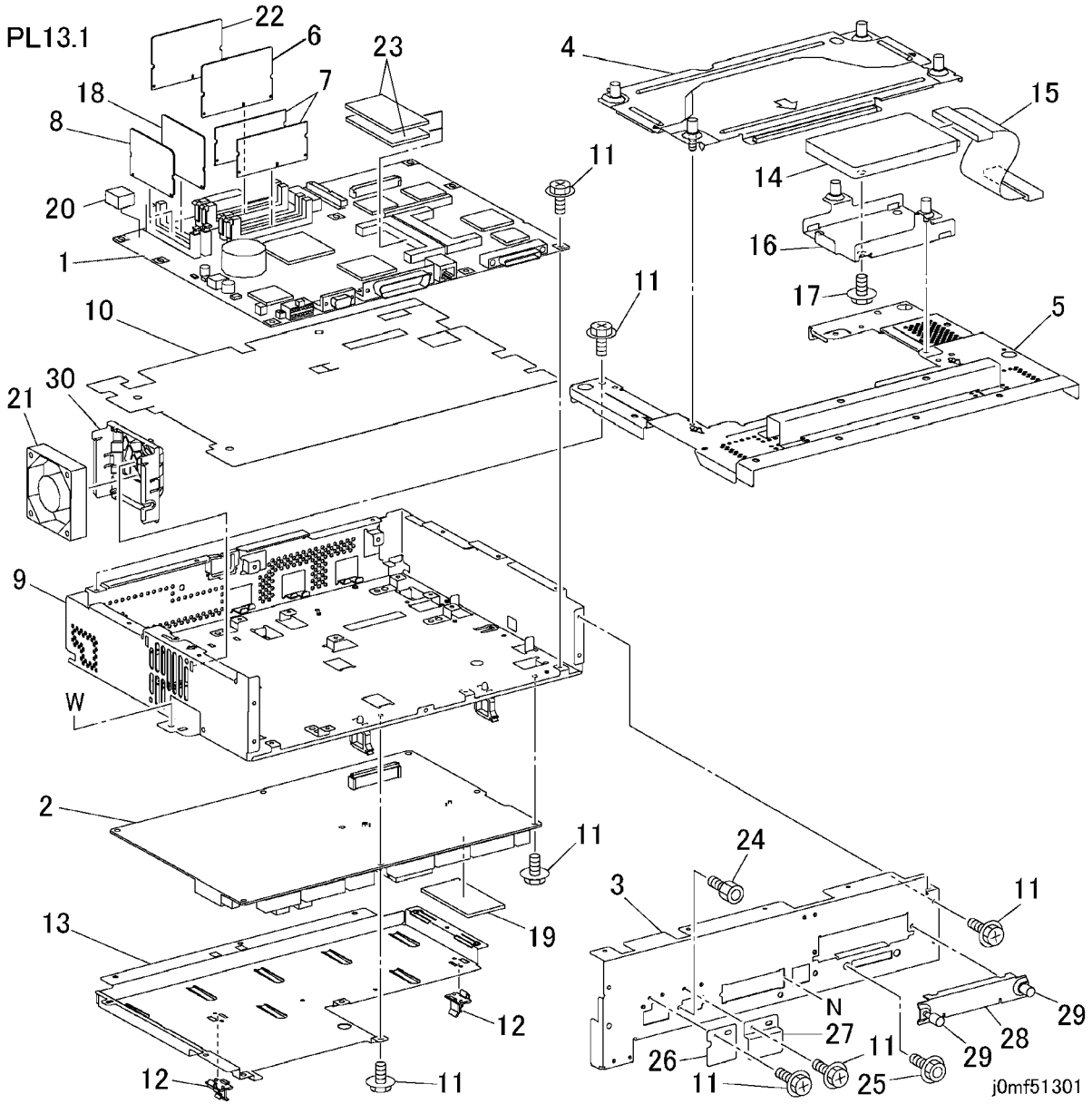
## PL 12.2 Duplex Transport Assembly: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Spring (Not Spared) |
| 2 | 022K33920 | Pinch Roll |
| 3 | – | Cover (Not Spared) |
| 4 | 160K66860 | Duplex Transport PWB |
| 5 | – | Wire Harness (Not Spared) |
| 6 | – | Bracket (Not Spared) |
| 7 | 130K61250 | Duplex Transport Wait Sensor |
| 8 | – | Spring (Not Spared) |
| 9 | 059K23980 | Pinch Roll |
| 10 | 127K29930 | Duplex Transport Motor |
| 11 | – | Pulley (20/21T) (Not Spared) |
| 12 | – | Pulley (16T) (Not Spared) |
| 13 | – | Screw (Not Spared) |
| 14 | – | Belt (Not Spared) |
| 15 | – | Bearing (Not Spared) |
| 16 | 059K23970 | Wait Roll |
| 17 | – | Cover (Not Spared) |
| 18 | – | Interlock Switch (Not Spared) |
| 19 | – | Inner Chute (Not Spared) |
| 20 | – | Outer Chute (Not Spared) |
| 21 | – | Belt (Not Spared) |



## PL 13.1 ESS

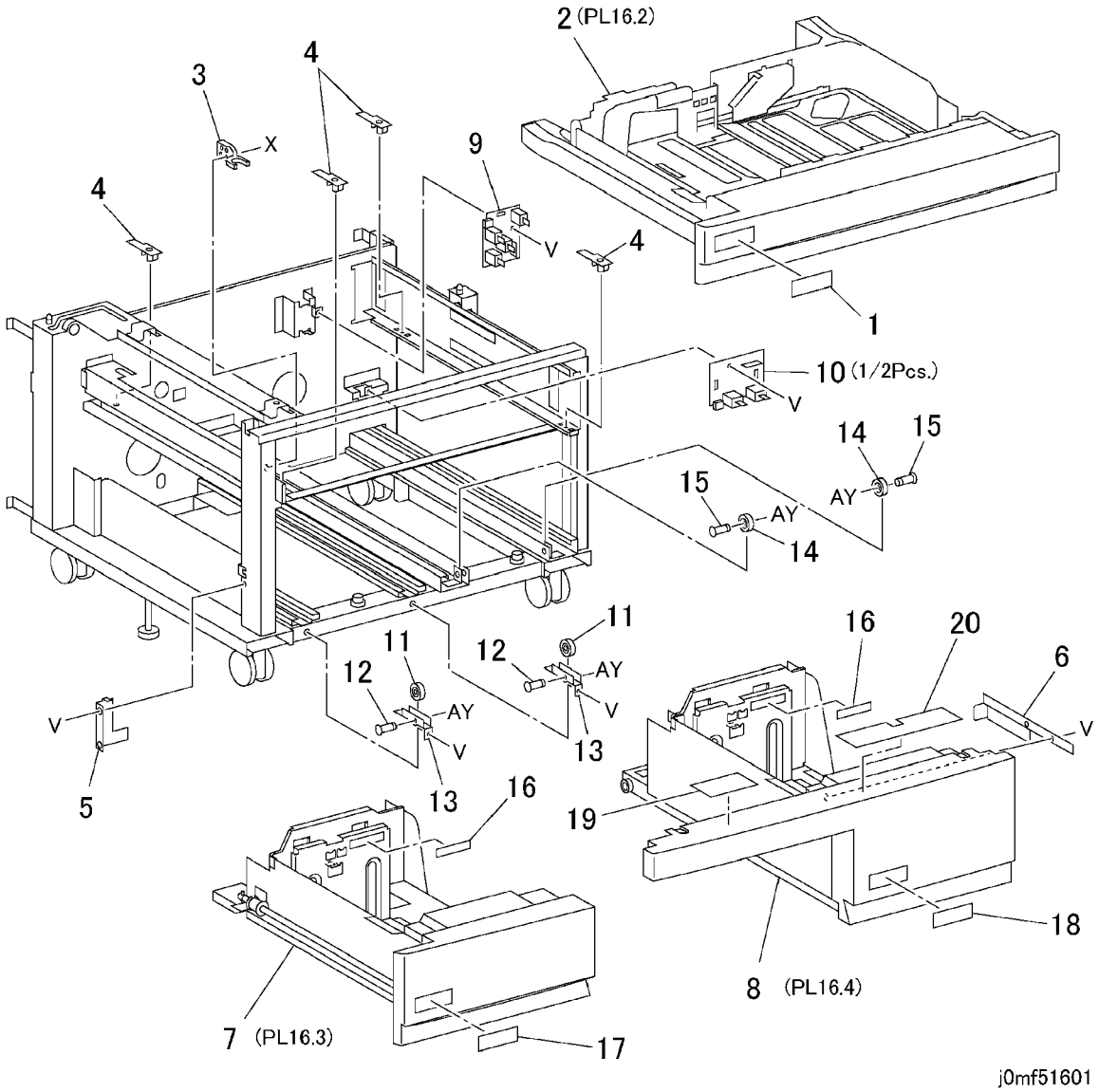
| Item | Part | Description |
|---|---|---|
| 1 | 160K74231 | ESS PWB |
| 2 | 160K90840 | MCU PWB (REP 1.2) |
| 3 | – | Rear Panel (Not Spared) |
| 4 | – | DIMM Cover (Not Spared) |
| 5 | – | Top Cover (Not Spared) |
| 6 | 537K62680 | PS-2 ROM |
| 7 | 133K22400 | SDRAM 256MB |
| 8 | 160K82222 | ESS NVM PWB |
| 9 | – | ESS Chassis (Not Spared) (REP 1.3) |
| 10 | – | Seal (Not Spared) |
| 11 | – | Screw (Not Spared) |
| 12 | – | Support (Not Spared) |
| 13 | – | Cover (Not Spared) |
| 14 | 121K27751 | HDD (ADJ 9.8) |
| 15 | 962K08641 | HDD Harness Assembly |
| 16 | – | Bracket (Not Spared) |
| 17 | – | Screw (Not Spared) |
| 18 | 538K94570 | Font ROM |
| 19 | 160K76650 | MCU NVM PWB |
| 20 | 537K61180 | MAC ROM |
| 21 | 127K32920 | ESS Fan |
| 22 | 537K62670 | PS-1 ROM |
| 23 | 133K21100 | SDRAM 64MB |
| – | 133K21200 | SDRAM 128MB |
| 24 | – | Screw (Not Spared) |
| 25 | – | Screw (Not Spared) |
| 26 | – | Blind Panel (Not Spared) |
| 27 | – | Blind Panel (Not Spared) |
| 28 | – | Option Panel (Not Spared) |
| 29 | – | Screw (Not Spared) |
| 30 | – | Fan Guard (Not Spared) |



## PL 16.1 Tray 2/3/4 Assembly

| Item | Part | Description |
|---|---|---|
| 1 | 891E49060 | Label (Tray 2) |
| 2 | 050K48170 | Tray 2 (REP 7.9) |
| 3 | 003E23672 | Stop |
| 4 | 014E42850 | Spacer |
| 5 | – | Tray 3 Stop (Not Spared) |
| 6 | – | Tray 4 Stop (Not Spared) |
| 7 | 050K43130 | Tray 3 (REP 7.6) |
| 8 | 050K43120 | Tray 4 (REP 7.7) |
| 9 | 110K08541 | Tray 2 Paper Size Switch |
| 10 | 110K10880 | Tray 3/4 Paper Size Switch |
| 11 | 059E95930 | Roll |
| 12 | – | Shaft (Not Spared) |
| 13 | – | Bracket (Not Spared) |
| 14 | – | Roll (Not Spared) |
| 15 | – | Shaft (Not Spared) |
| 16 | – | Max Label (Not Spared) |
| 17 | 891E49510 | Label (Tray 3) |
| 18 | 891E49520 | Label (Tray 4) |
| 19 | 892E28491 | Label |
| 20 | – | Instruction Label (Not Spared) |

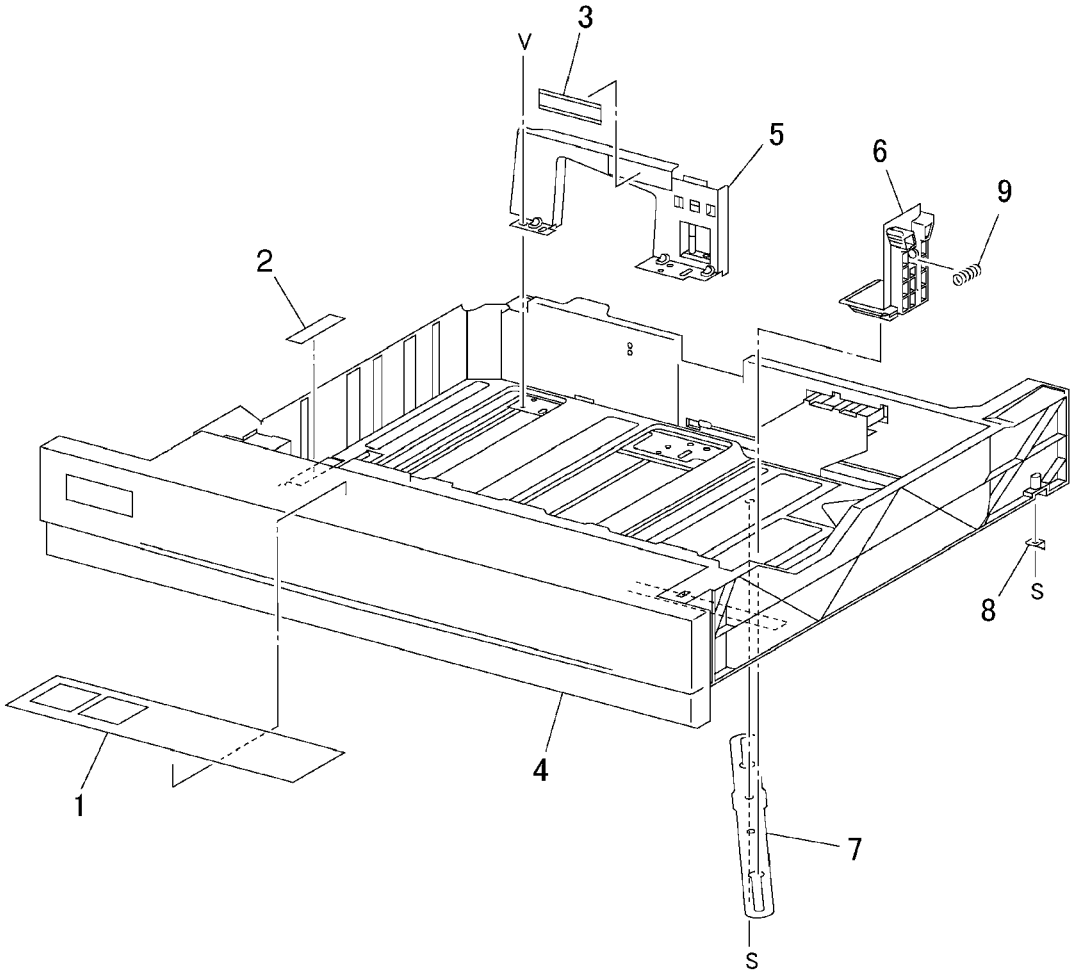
PL16.1



# PL 16.2 Tray 2

| Item | Part | Description |
|---|---|---|
| 1 | 892E74500 | Instruction Label |
| 2 | – | Pad (Not Spared) |
| 3 | – | Max Label (Not Spared) |
| 4 | – | Tray (Not Spared) |
| 5 | – | Side Guide (Not Spared) |
| 6 | – | End Guide (Not Spared) |
| 7 | – | Link (Not Spared) |
| 8 | – | Stop (Not Spared) |
| 9 | – | Spring (Not Spared) |

PL16.2

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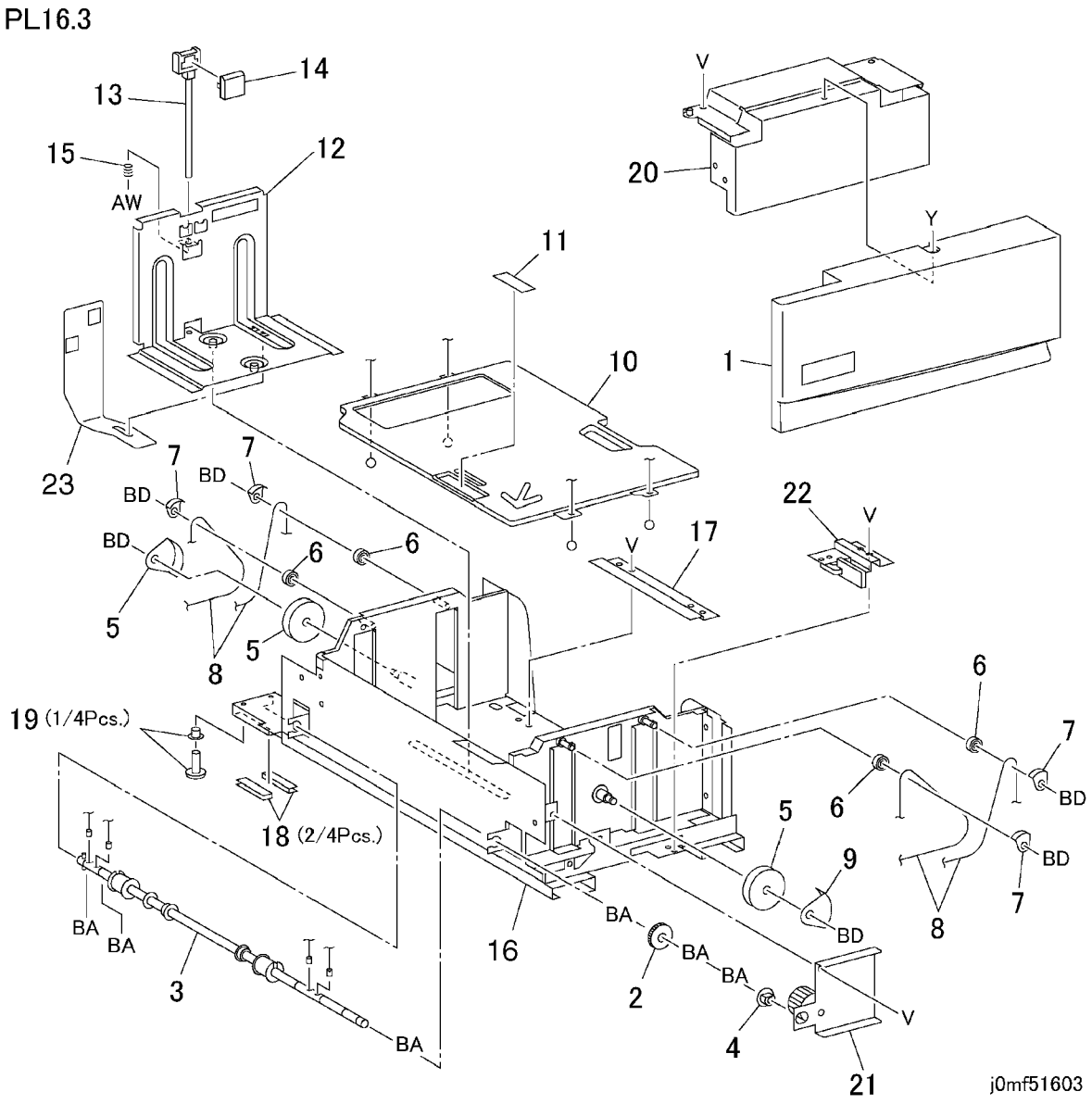
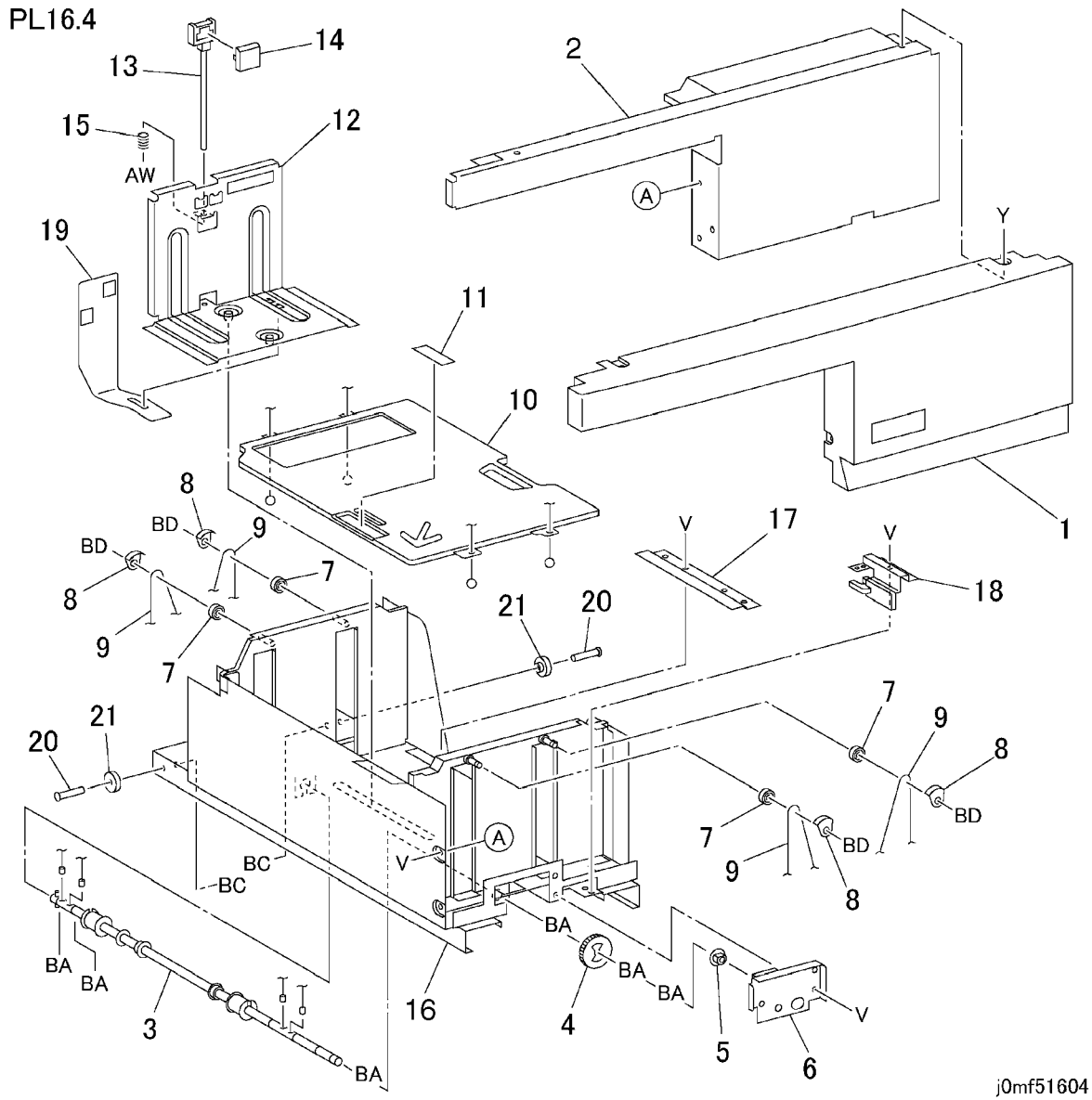
## PL 16.3 Tray 3

| Item | Part | Description |
|---|---|---|
| 1 | 802E23990 | Tray 3 Cover |
| 2 | – | Pulley (Not Spared) |
| 3 | – | Lift Shaft (Not Spared) |
| 4 | – | Bearing (Not Spared) |
| 5 | – | Pulley (Not Spared) |
| 6 | – | Pulley (Not Spared) |
| 7 | – | Cable Guide (Not Spared) |
| 8 | 020E93120 | Tray Cable |
| 9 | – | Cable Guide (Not Spared) |
| 10 | – | Bottom Plate (Not Spared) |
| 11 | – | Pad (Not Spared) |
| 12 | – | Side Guide (Not Spared) |
| 13 | – | Knob (Not Spared) |
| 14 | – | Knob (Not Spared) |
| 15 | 009E26970 | Spring |
| 16 | – | Frame (Not Spared) |
| 17 | – | Bracket (Not Spared) |
| 18 | – | Spacer (Not Spared) |
| 19 | – | Spacer (Not Spared) |
| 20 | – | Bracket (Not Spared) |
| 21 | – | Brake (Not Spared) |
| 22 | – | Latch (Not Spared) |
| 23 | – | Actuator (Not Spared) |



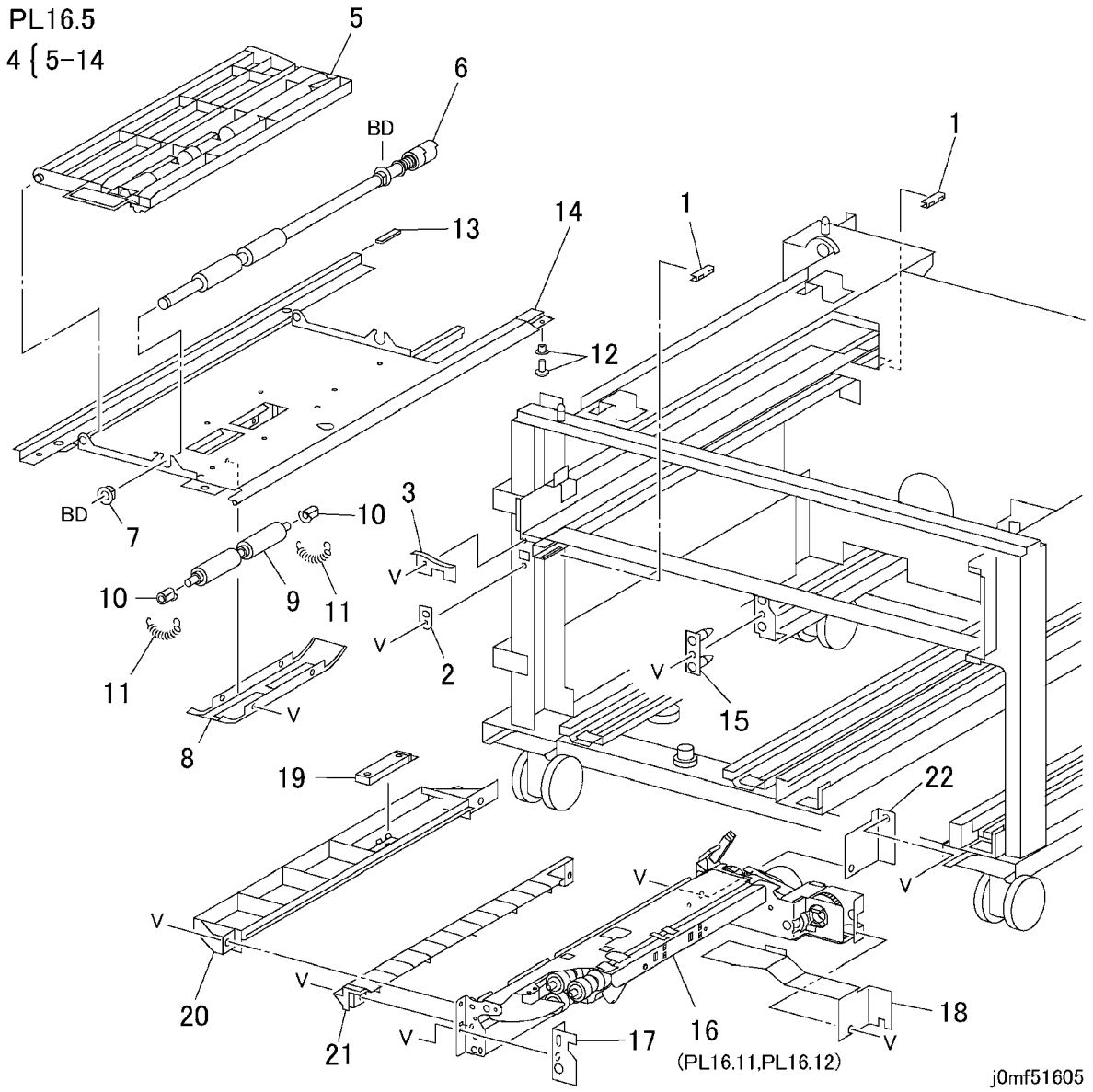
## PL 16.4 Tray 4

| Item | Part | Description |
|---|---|---|
| 1 | 802E23980 | Tray 4 Cover |
| 2 | – | Tray Front Frame (Not Spared) |
| 3 | – | Lift Shaft (Not Spared) |
| 4 | – | Lift Gear (Not Spared) |
| 5 | – | Bearing (Not Spared) |
| 6 | – | Brake (Not Spared) |
| 7 | – | Pulley (Not Spared) |
| 8 | – | Cable Guide (Not Spared) |
| 9 | 012E10070 | Tray Cable |
| 10 | – | Bottom Plate (Not Spared) |
| 11 | – | Pad (Not Spared) |
| 12 | – | Side Guide (Not Spared) |
| 13 | – | Knob (Not Spared) |
| 14 | – | Knob (Not Spared) |
| 15 | 009E26970 | Spring |
| 16 | – | Tray Frame (Not Spared) |
| 17 | – | Bracket (Not Spared) |
| 18 | – | Latch (Not Spared) |
| 19 | – | Actuator (Not Spared) |
| 20 | – | Shaft (Not Spared) |
| 21 | 059E95920 | Roll |



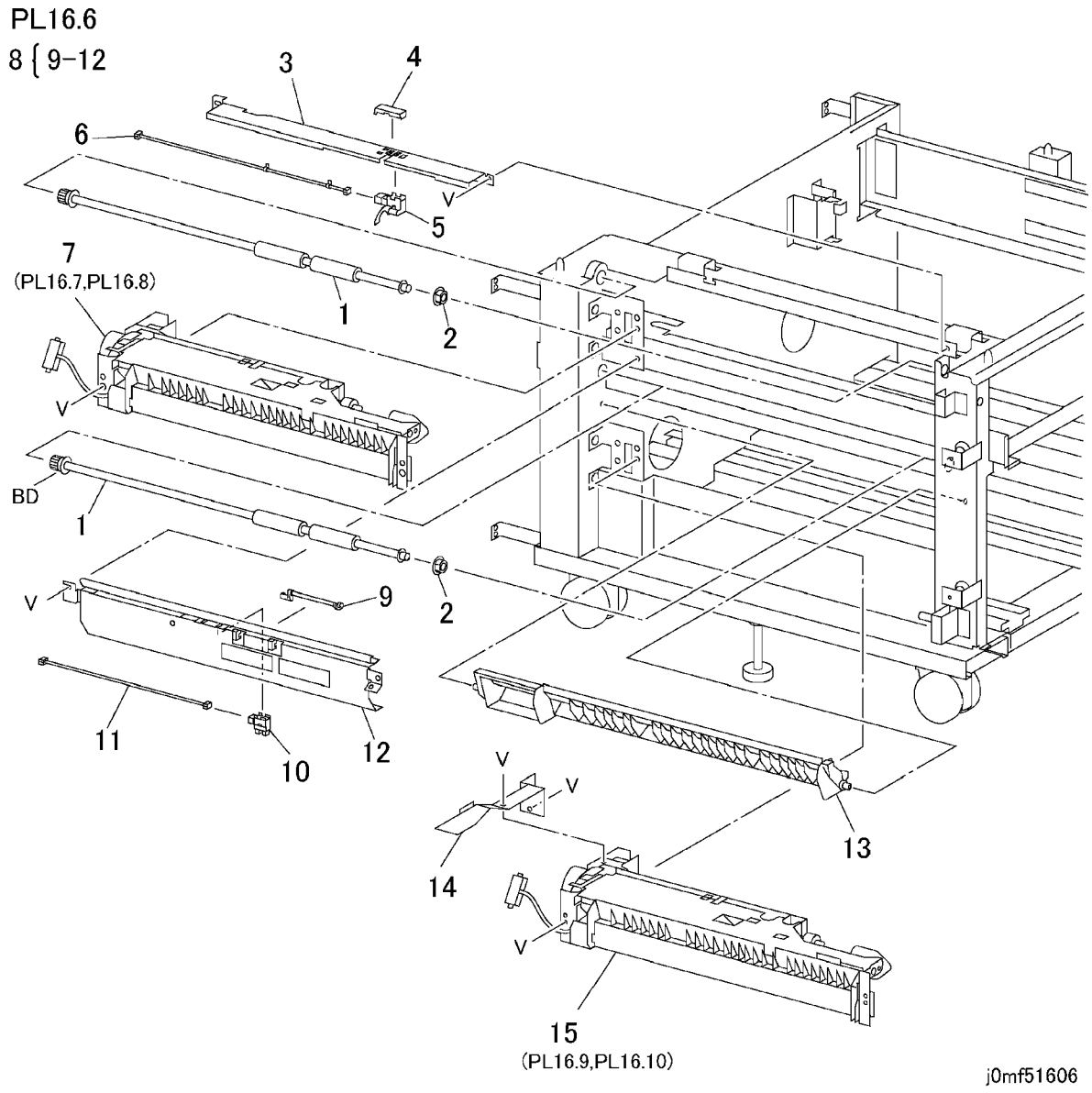
## PL 16.5 Paper Feeder: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Spacer (Not Spared) |
| 2 | – | Guide (Not Spared) |
| 3 | – | Stop (Not Spared) |
| 4 | 059K21790 | Tray 4 Transport Assembly |
| 5 | – | Upper Chute (P/O PL 16.5 Item 4) |
| 6 | – | Takeaway Roll (P/O PL 16.5 Item 4) |
| 7 | – | Bearing (P/O PL 16.5 Item 4) |
| 8 | – | Cover (P/O PL 16.5 Item 4) |
| 9 | – | Pinch Roll (P/O PL 16.5 Item 4) |
| 10 | – | Bearing (P/O PL 16.5 Item 4) |
| 11 | – | Spring (P/O PL 16.5 Item 4) |
| 12 | – | Spacer (P/O PL 16.5 Item 4) |
| 13 | – | Spacer (P/O PL 16.5 Item 4) |
| 14 | – | Lower Chute (P/O PL 16.5 Item 4) |
| 15 | – | Bracket (Not Spared) |
| 16 | 059K18283 | Tray 4 Feeder |
| 17 | – | Bracket (Not Spared) |
| 18 | – | Bracket (Not Spared) |
| 19 | 130E82650 | Tray 4 Feedout Sensor |
| 20 | 054E18540 | Upper Chute |
| 21 | 054E18530 | Lower Chute |
| 22 | – | Bracket (Not Spared) |



# PL 16.6 Paper Feeder: 2 of 2

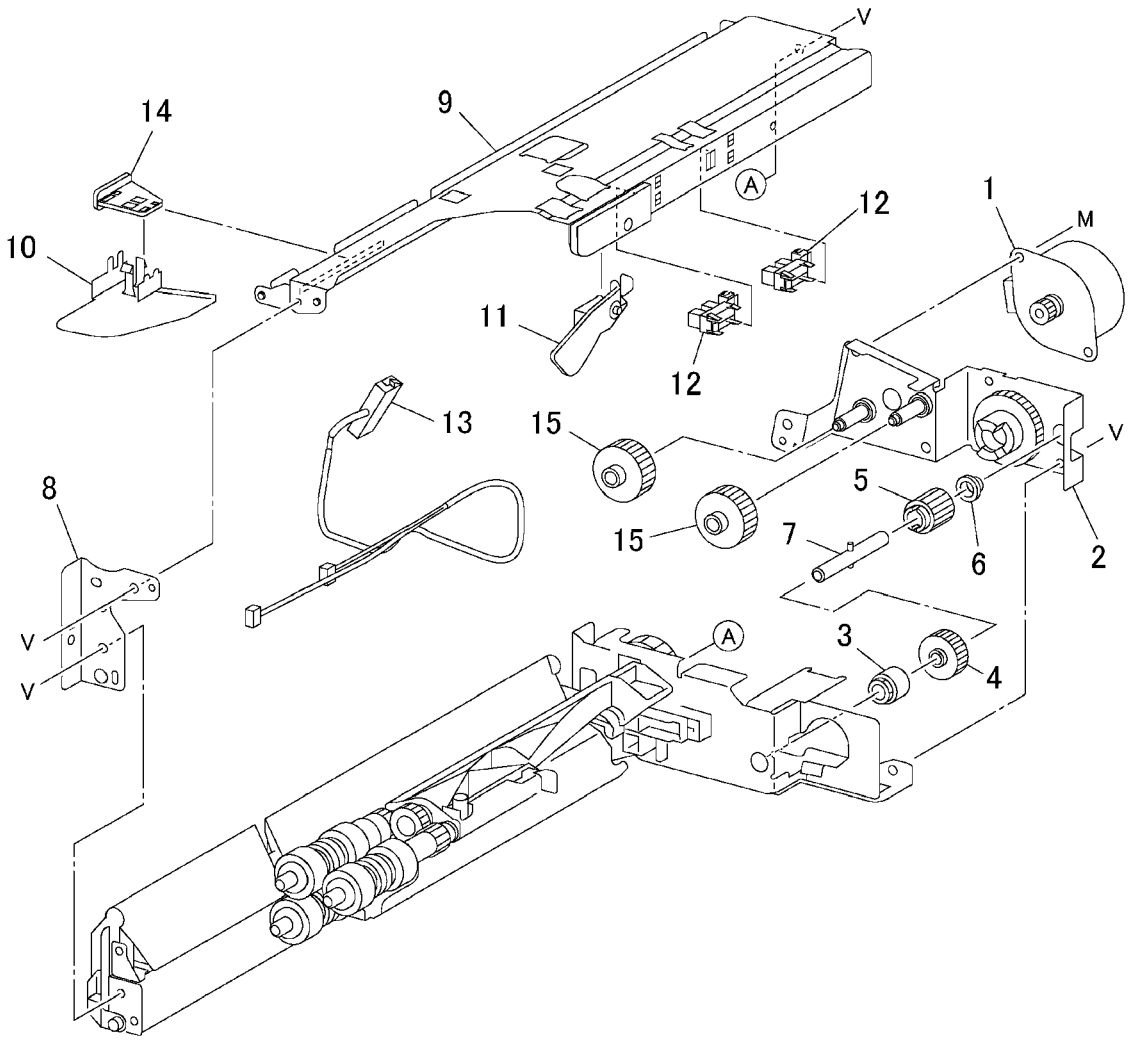
| Item | Part | Description |
|---|---|---|
| 1 | 059K18900 | Takeaway Roll |
| 2 | – | Bearing (Not Spared) |
| 3 | – | Chute (Not Spared) |
| 4 | – | Cover (Not Spared) |
| 5 | 130K61510 | Takeaway Sensor |
| 6 | 162K62810 | Wire Harness |
| 7 | 059K15573 | Tray 2 Feeder |
| 8 | 054K18270 | Chute Assembly |
| 9 | – | Actuator (P/O PL 16.6 Item 8) |
| 10 | 130E81600 | Tray 3 Feedout Sensor |
| 11 | – | Wire Harness (P/O PL 16.6 Item 8) |
| 12 | – | Chute (P/O PL 16.6 Item 8) |
| 13 | 054E18520 | Lower Chute |
| 14 | – | Bracket (Not Spared) |
| 15 | – | Tray 3 Feeder (Not Spared) |



# PL 16.7 Tray 2 Feeder: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 127K23230 | Tray 2 Feed/Lift Motor |
| 2 | – | Bracket (Not Spared) |
| 3 | 005K83081 | One-way Clutch |
| 4 | 007K85730 | One-way Gear |
| 5 | – | Gear (13T) (Not Spared) |
| 6 | – | Bearing (Not Spared) |
| 7 | – | Shaft (Not Spared) |
| 8 | – | Front Frame (Not Spared) |
| 9 | – | Upper Frame (Not Spared) |
| 10 | – | Front Chute (Not Spared) |
| 11 | – | Actuator (Not Spared) |
| 12 | 130E82190 | Tray 2 Level Sensor |
| 13 | – | Wire Harness (Not Spared) |
| 14 | – | Support (Not Spared) |
| 15 | – | Gear (29T) (Not Spared) |

PL16.7

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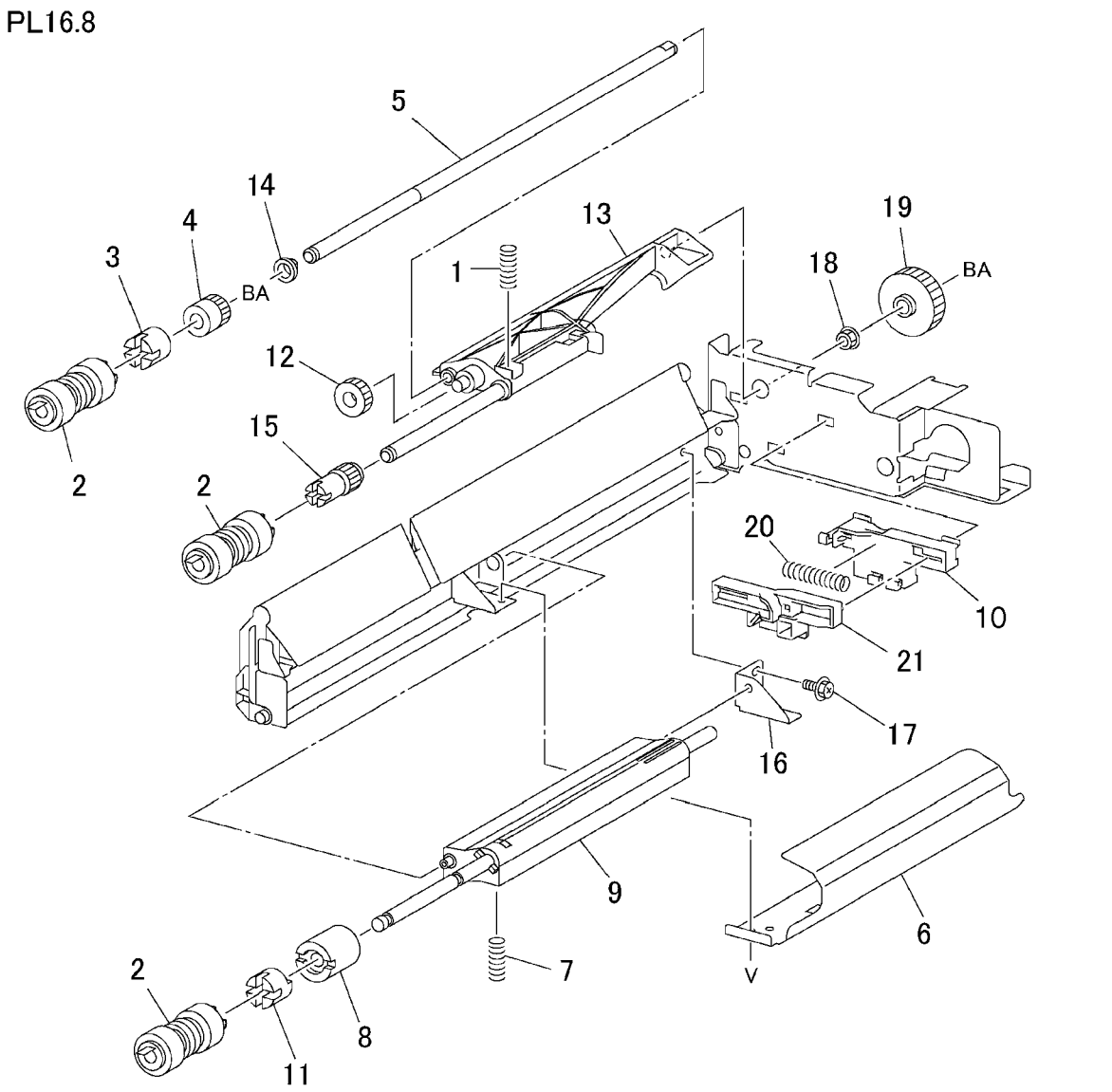
## PL 16.8 Tray 2 Feeder: 2 of 2

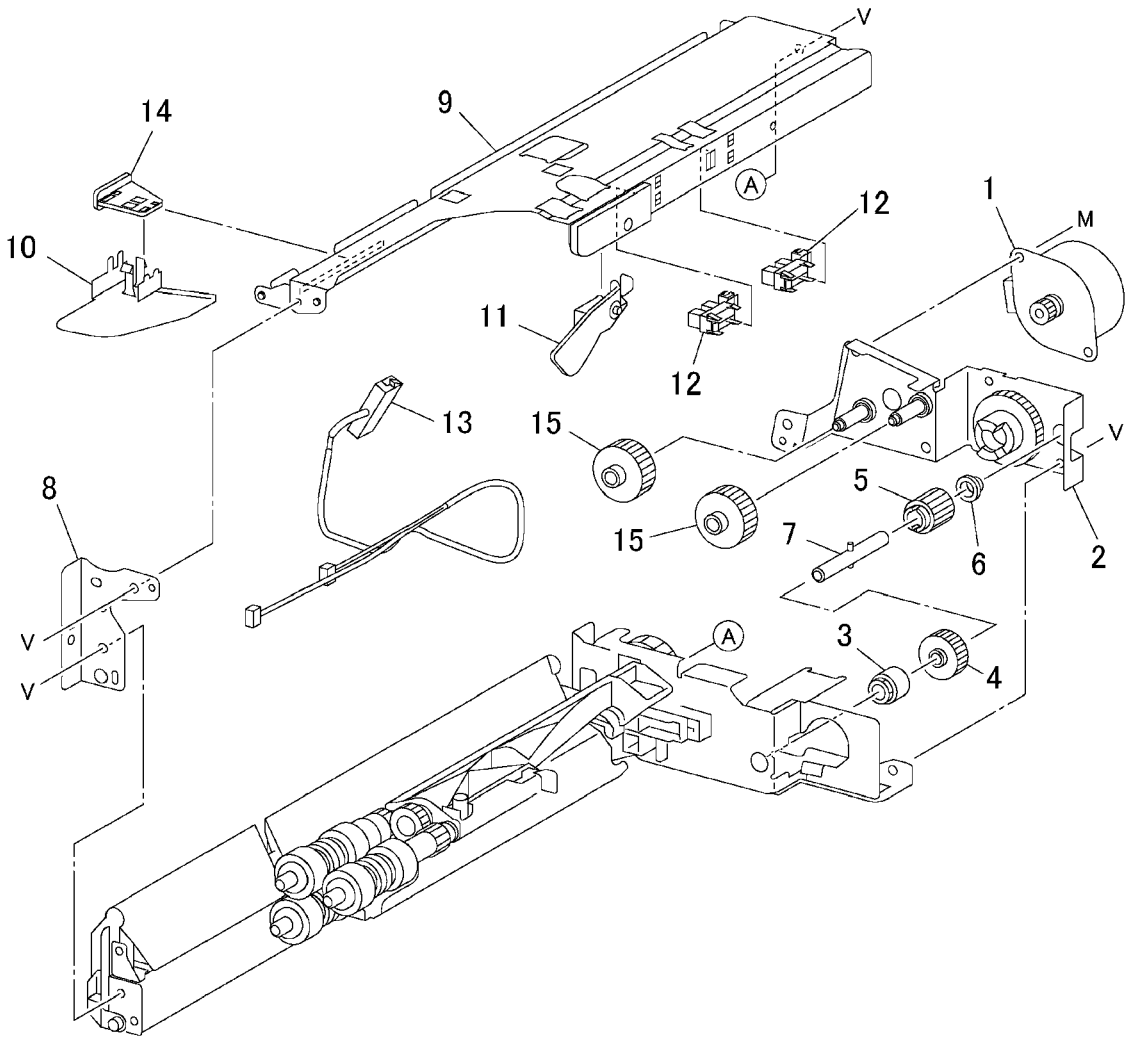
| Item | Part | Description |
|---|---|---|
| 1 | – | Spring (Not Spared) |
| 2 | 600K78460 | Roll Kit (3 Rolls/Kit) |
| 3 | 005K05890 | One-way Clutch |
| 4 | – | Gear (Not Spared) |
| 5 | – | Shaft (Not Spared) |
| 6 | – | Chute (Not Spared) |
| 7 | – | Spring (Not Spared) |
| 8 | – | Friction Clutch (Not Spared) |
| 9 | – | Support (Not Spared) |
| 10 | – | Holder (Not Spared) |
| 11 | – | Spacer (Not Spared) |
| 12 | – | Gear (31T) (Not Spared) |
| 13 | – | Support (Not Spared) |
| 14 | – | Bearing (Not Spared) |
| 15 | – | Gear (Not Spared) |
| 16 | – | Support (Not Spared) |
| 17 | – | Screw (Not Spared) |
| 18 | – | Bearing (Not Spared) |
| 19 | – | Gear (35T) (Not Spared) |
| 20 | – | Spring (Not Spared) |
| 21 | – | Lever (Not Spared) |



# PL 16.9 Tray 3 Feeder: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 127K23230 | Tray 3 Feed/Lift Motor |
| 2 | – | Bracket (Not Spared) |
| 3 | 005K83081 | One-way Clutch |
| 4 | 007K85730 | One-way Gear |
| 5 | – | Gear (13T) (Not Spared) |
| 6 | – | Bearing (Not Spared) |
| 7 | – | Shaft (Not Spared) |
| 8 | – | Front Frame (Not Spared) |
| 9 | – | Upper Frame (Not Spared) |
| 10 | – | Front Chute (Not Spared) |
| 11 | – | Actuator (Not Spared) |
| 12 | 130E82190 | Tray 3 Level/No Paper Sensor |
| 13 | – | Wire Harness (Not Spared) |
| 14 | – | Support (Not Spared) |
| 15 | – | Gear (29T) (Not Spared) |

PL16.9

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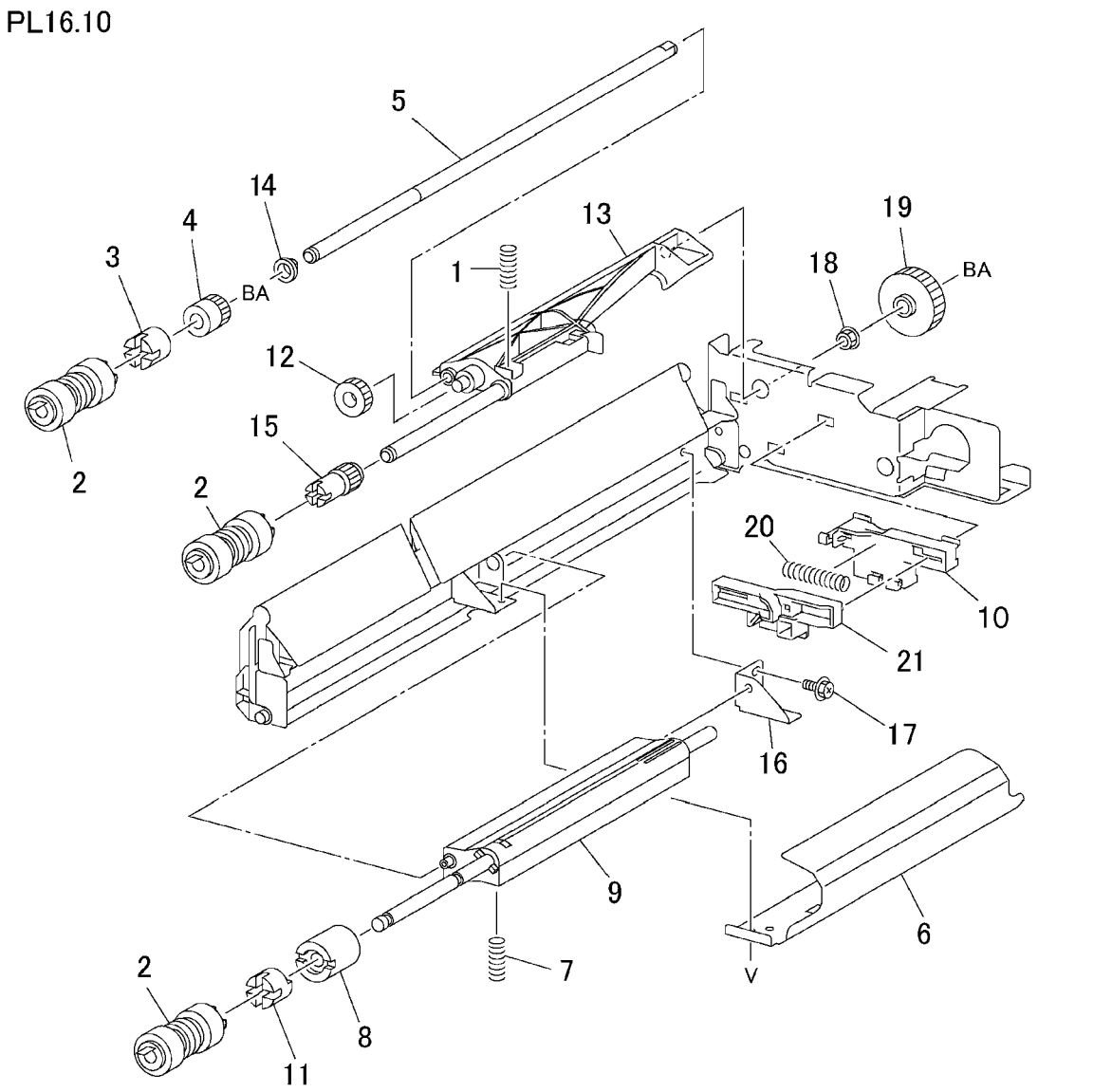
## PL 16.10 Tray 3 Feeder: 2 of 2

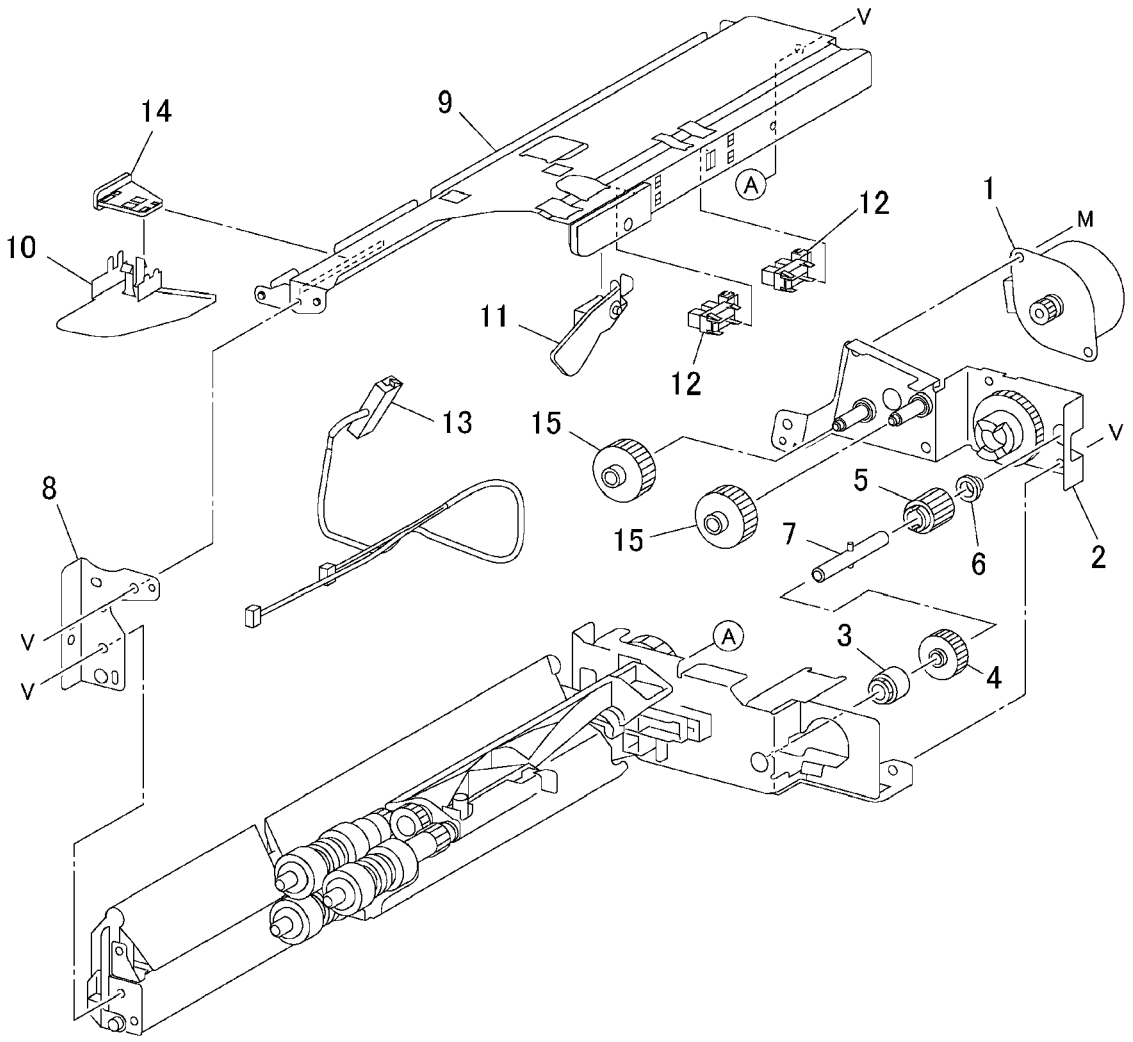
| Item | Part | Description |
|---|---|---|
| 1 | – | Spring (Not Spared) |
| 2 | 600K78460 | Roll Kit (3 Rolls/Kit) |
| 3 | 005K05890 | One-way Clutch |
| 4 | – | Gear (Not Spared) |
| 5 | – | Shaft (Not Spared) |
| 6 | – | Chute (Not Spared) |
| 7 | – | Spring (Not Spared) |
| 8 | – | Friction Clutch (Not Spared) |
| 9 | – | Support (Not Spared) |
| 10 | – | Holder (Not Spared) |
| 11 | – | Spacer (Not Spared) |
| 12 | – | Gear (31T) (Not Spared) |
| 13 | – | Support (Not Spared) |
| 14 | – | Bearing (Not Spared) |
| 15 | – | Gear (Not Spared) |
| 16 | – | Support (Not Spared) |
| 17 | – | Screw (Not Spared) |
| 18 | – | Bearing (Not Spared) |
| 19 | – | Gear (35T) (Not Spared) |
| 20 | – | Spring (Not Spared) |
| 21 | – | Lever (Not Spared) |



# PL 16.11 Tray 4 Feeder: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 127K23230 | Tray 4 Feed/Lift Motor |
| 2 | – | Bracket (Not Spared) |
| 3 | 005K83081 | One-way Clutch |
| 4 | 007K85730 | One-way Gear |
| 5 | – | Gear (13T) (Not Spared) |
| 6 | – | Bearing (Not Spared) |
| 7 | – | Shaft (Not Spared) |
| 8 | – | Front Frame (Not Spared) |
| 9 | – | Upper Frame (Not Spared) |
| 10 | – | Front Chute (Not Spared) |
| 11 | – | Actuator (Not Spared) |
| 12 | 130E82190 | Tray 4 Level/No Paper Sensor |
| 13 | 162K56590 | Wire Harness |
| 14 | – | Support (Not Spared) |
| 15 | – | Gear (29T) (Not Spared) |

PL16.11

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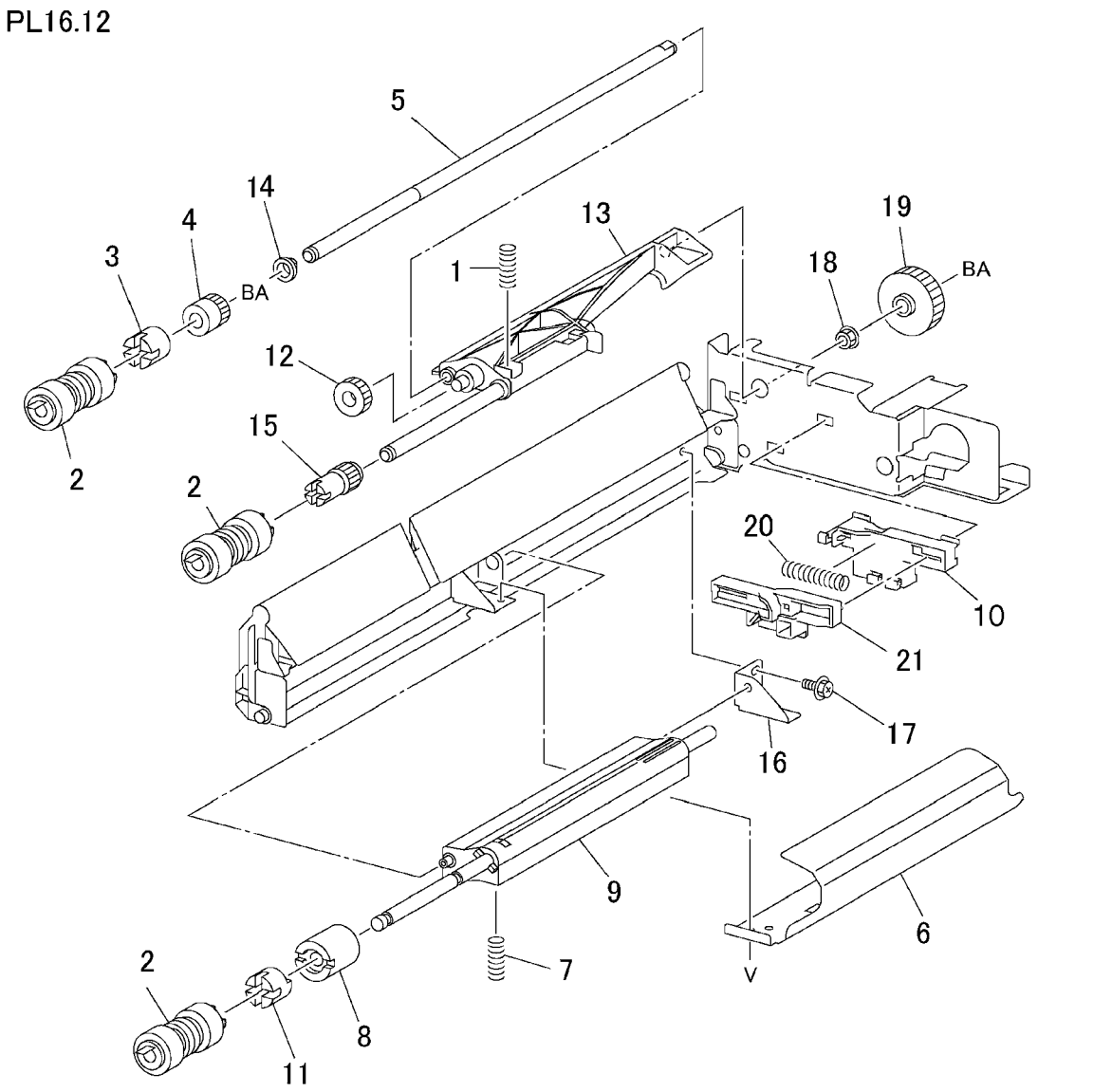
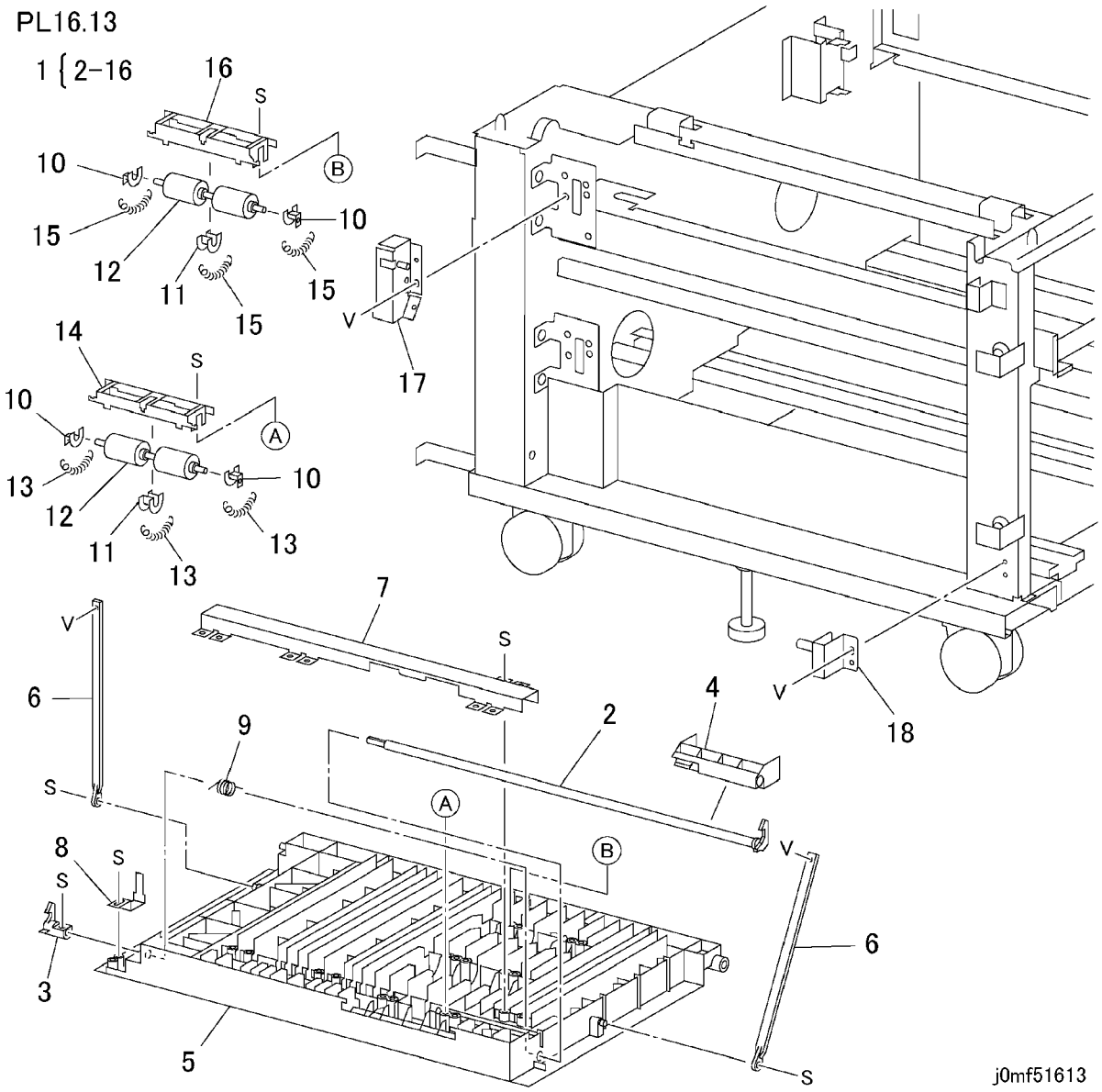
# PL 16.12 Tray 4 Feeder: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | – | Spring (Not Spared) |
| 2 | 600K78460 | Roll Kit (3 Rolls/Kit) |
| 3 | 005K05890 | One-way Clutch |
| 4 | – | Gear (Not Spared) |
| 5 | – | Shaft (Not Spared) |
| 6 | – | Chute (Not Spared) |
| 7 | – | Spring (Not Spared) |
| 8 | – | Friction Clutch (Not Spared) |
| 9 | – | Support (Not Spared) |
| 10 | – | Holder (Not Spared) |
| 11 | – | Spacer (Not Spared) |
| 12 | – | Gear (31T) (Not Spared) |
| 13 | – | Support (Not Spared) |
| 14 | – | Bearing (Not Spared) |
| 15 | – | Gear (Not Spared) |
| 16 | – | Support (Not Spared) |
| 17 | – | Screw (Not Spared) |
| 18 | – | Bearing (Not Spared) |
| 19 | – | Gear (35T) (Not Spared) |
| 20 | – | Spring (Not Spared) |
| 21 | – | Lever (Not Spared) |



## PL 16.13 Left Cover Assembly

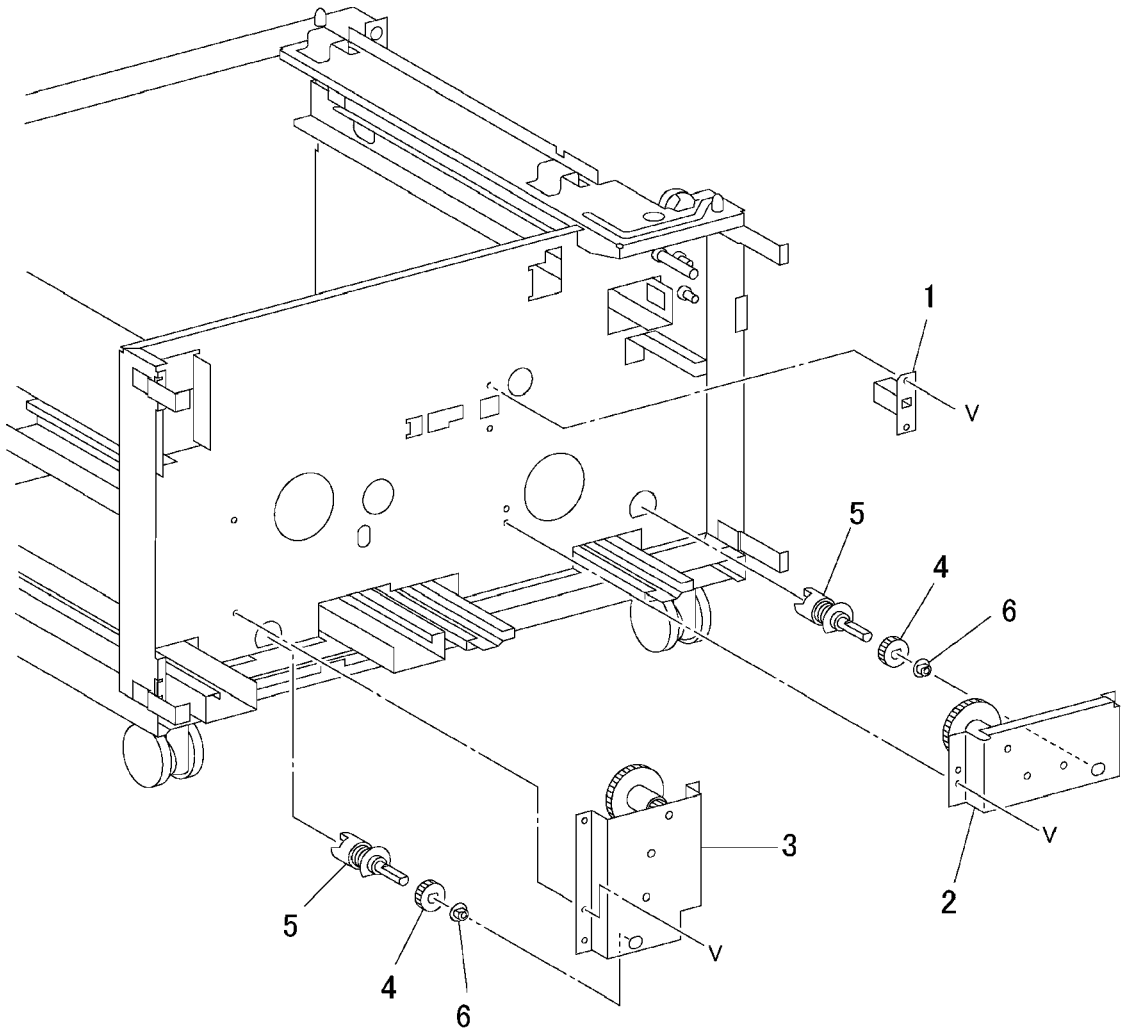
| Item | Part | Description |
|---|---|---|
| 1 | 802K25731 | Left Cover Assembly (REP 14.11) |
| 2 | 003E53700 | Shaft |
| 3 | 003E53710 | Hook |
| 4 | 011E10800 | Handle |
| 5 | – | Left Cover (P/O PL 16.13 Item 1) |
| 6 | – | Support (P/O PL 16.13 Item 1) |
| 7 | – | Chute (P/O PL 16.13 Item 1) |
| 8 | – | Actuator (P/O PL 16.13 Item 1) |
| 9 | – | Spring (P/O PL 16.13 Item 1) |
| 10 | – | Bearing (P/O PL 16.13 Item 1) |
| 11 | – | Bearing (P/O PL 16.13 Item 1) |
| 12 | – | Pinch Roll (P/O PL 16.13 Item 1) |
| 13 | 809E28960 | Spring |
| 14 | – | Bracket (P/O PL 16.13 Item 1) |
| 15 | 809E28980 | Spring |
| 16 | – | Bracket (P/O PL 16.13 Item 1) |
| 17 | 015K49470 | Interlock Switch |
| 18 | – | Bracket (Not Spared) |



# PL 16.14 Tray 3/4 Lift Gear Assembly

| Item | Part | Description |
|---|---|---|
| 1 | – | Transport Guide |
| 2 | 015K49460 | Gear Assembly (Tray 3) |
| 3 | 015K49450 | Gear Assembly (Tray 4) |
| 4 | 007E66080 | Lift Gear |
| 5 | 011K96790 | Coupling |
| 6 | – | Bearing |

PL16.14

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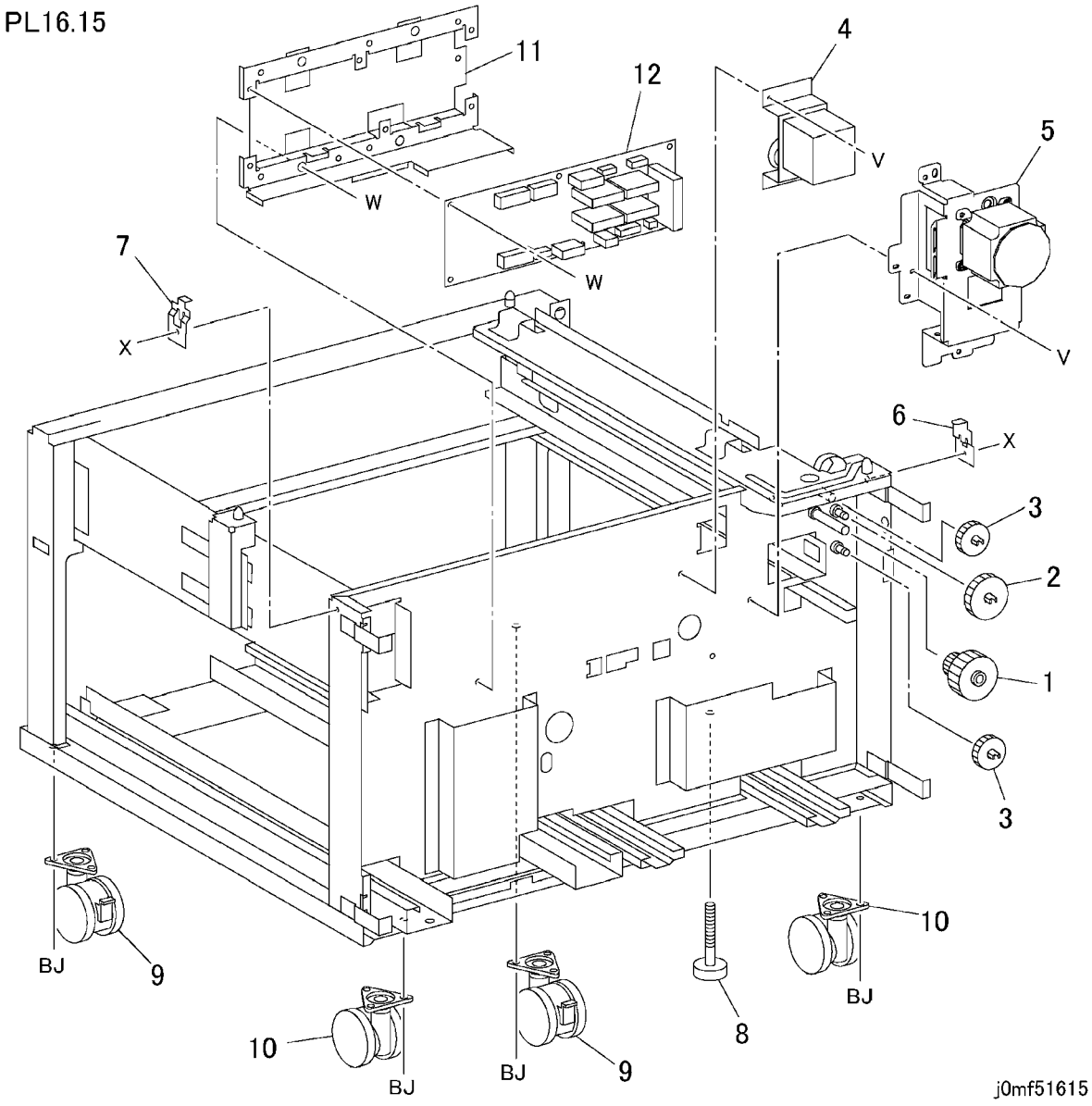
# PL 16.15 Electrical Components and Casters

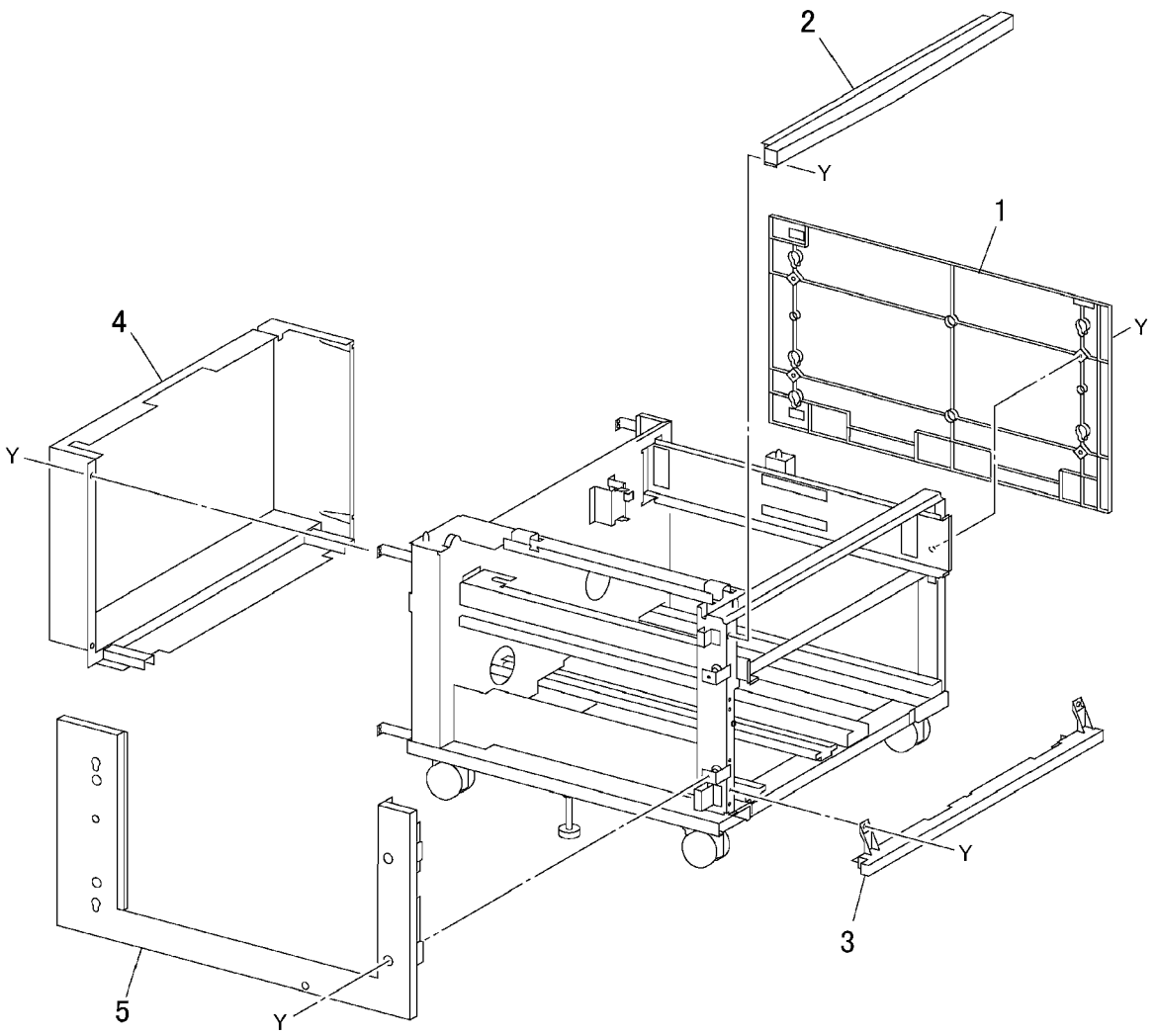
| Item | Part | Description |
|---|---|---|
| 1 | 007E66060 | Gear (23/46T) |
| 2 | 007E66070 | Gear (46T) |
| 3 | 007E66050 | Gear (33T) |
| 4 | 127K31840 | Takeaway Motor 2 |
| 5 | 127K36020 | Takeaway Motor 1 |
| 6 | – | Left Coupling (Not Spared) |
| 7 | – | Right Coupling (Not Spared) |
| 8 | – | Foot (Not Spared) |
| 9 | 017K92350 | Caster |
| 10 | 017K92360 | Caster |
| 11 | – | Bracket (Not Spared) |
| 12 | 160K85980 | Tray Module PWB |



## PL 16.16 Covers

| Item | Part | Description |
|---|---|---|
| 1 | – | Right Cover (Not Spared) |
| 2 | 802E23950 | Front Upper Cover |
| 3 | 802E23960 | Front Lower Cover |
| 4 | 802K36580 | Rear Cover (REP 14.9) |
| 5 | 802E23930 | Left Lower Cover (REP 14.12) |

PL16.16

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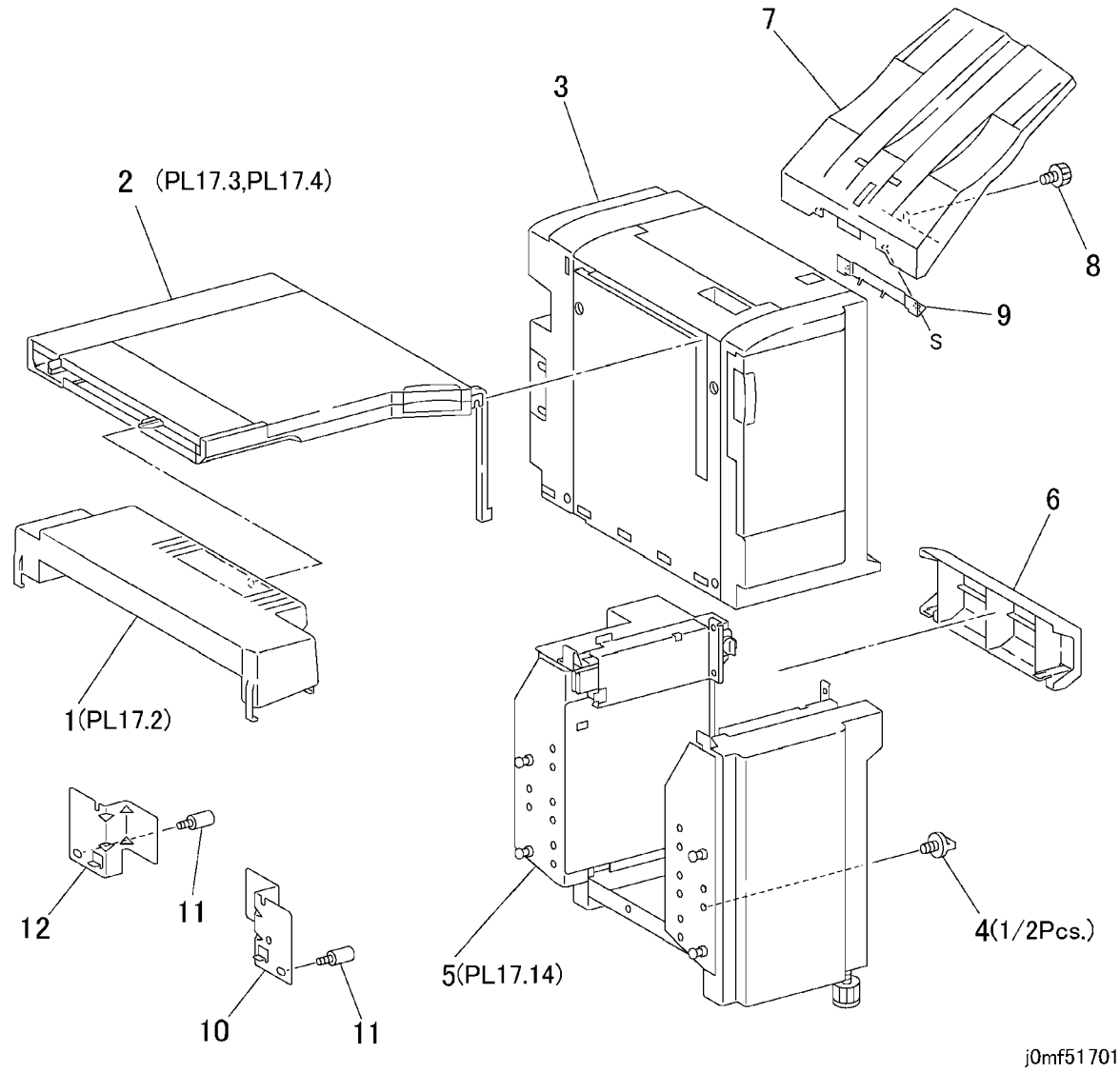
## PL 17.1 Finisher

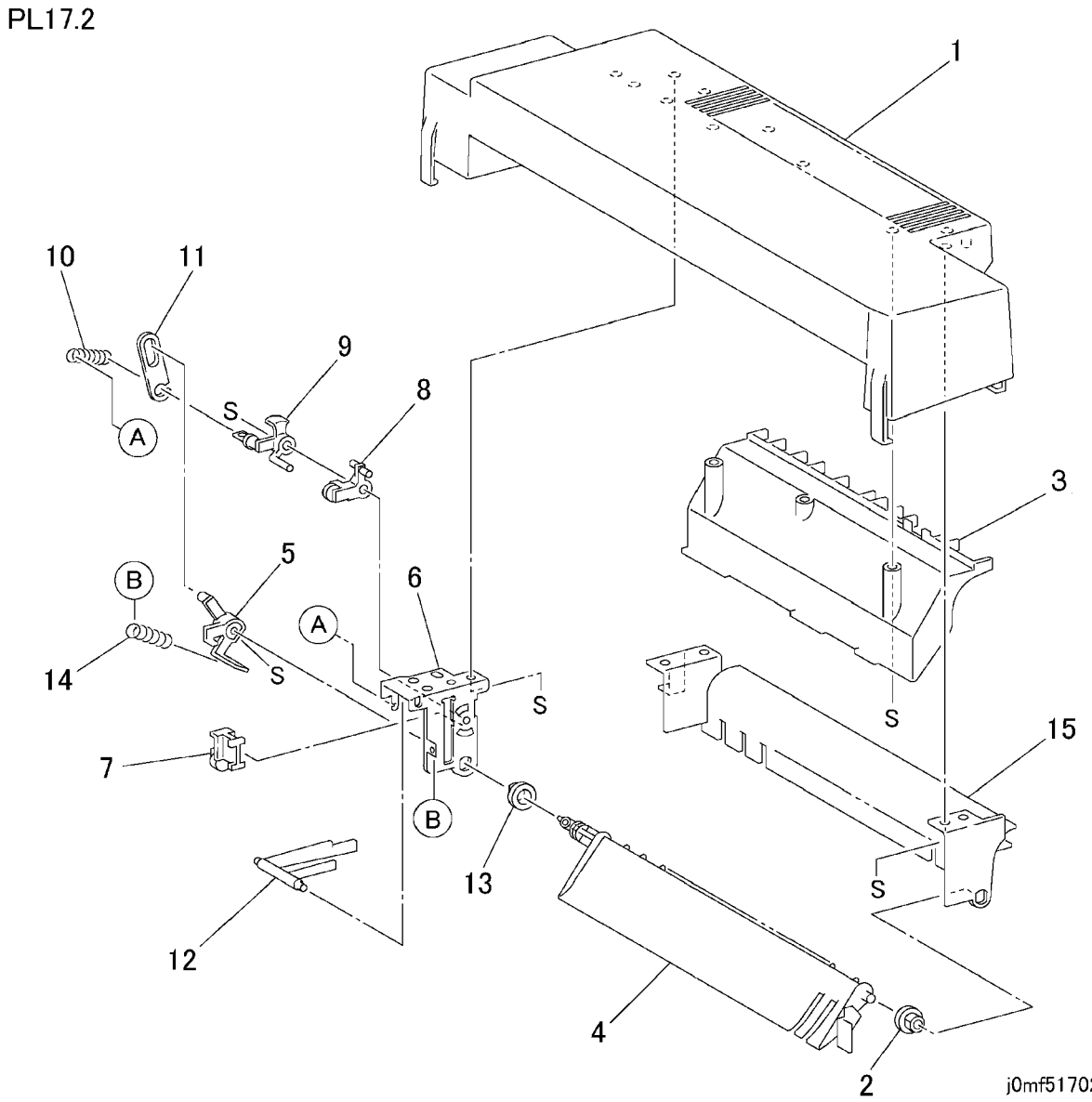
| Item | Part | Description |
|---|---|---|
| 1 | 802K36650 | Gate Assembly |
| 2 | 801K02480 | H-Transport Assembly (REP 12.1) |
| 3 | – | Stapler Finisher (Not Spared) |
| 4 | 003K12090 | Thumbscrew |
| 5 | – | Rack Assembly (Not Spared) (REP 12.19) |
| 6 | – | Right Cover (Not Spared) |
| 7 | – | Stacker Tray (Not Spared) (REP 12.20) |
| 8 | 026E93560 | Screw |
| 9 | – | Bracket (Not Spared) |
| 10 | – | Front Bracket (Not Spared) |
| 11 | – | Stud Screw (Not Spared) |
| 12 | – | Rear Bracket (Not Spared) |

PL17.1



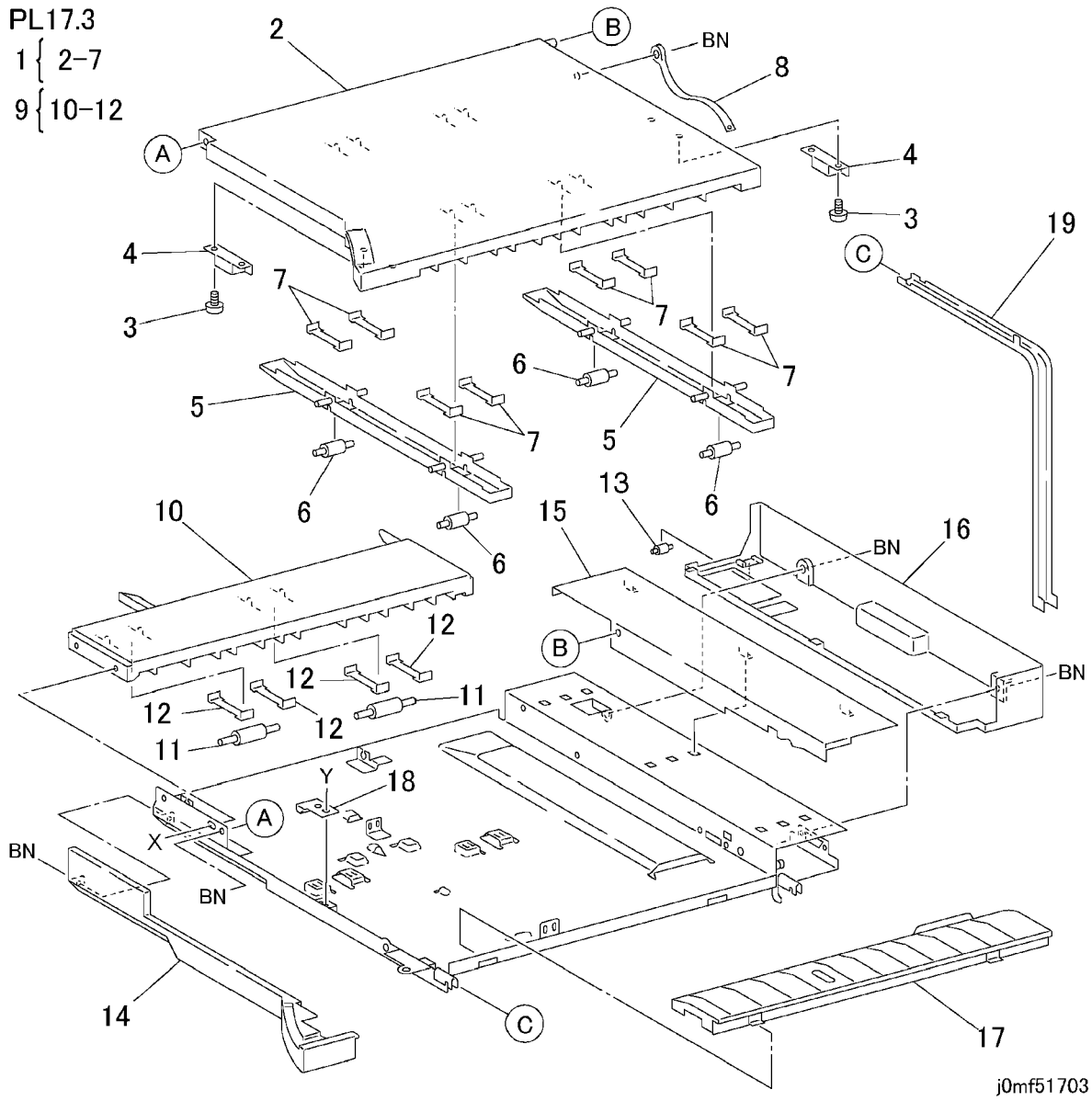
## PL 17.2 Gate Assembly

| Item | Part | Description |
|---|---|---|
| 1 | – | Gate Cover (Not Spared) |
| 2 | – | Bearing (Not Spared) |
| 3 | – | Chute (Not Spared) |
| 4 | – | In Gate (Not Spared) |
| 5 | – | In Gate Lever (Not Spared) |
| 6 | – | Gate Bracket (Not Spared) |
| 7 | – | Link Assembly (Not Spared) |
| 8 | – | Lever Assembly (Not Spared) |
| 9 | – | Lever (Not Spared) |
| 10 | – | Spring (Not Spared) |
| 11 | – | Gate Link (Not Spared) |
| 12 | 120E20700 | Actuator |
| 13 | – | Bearing (Not Spared) |
| 14 | – | Spring (Not Spared) |
| 15 | – | Exit Chute (Not Spared) |



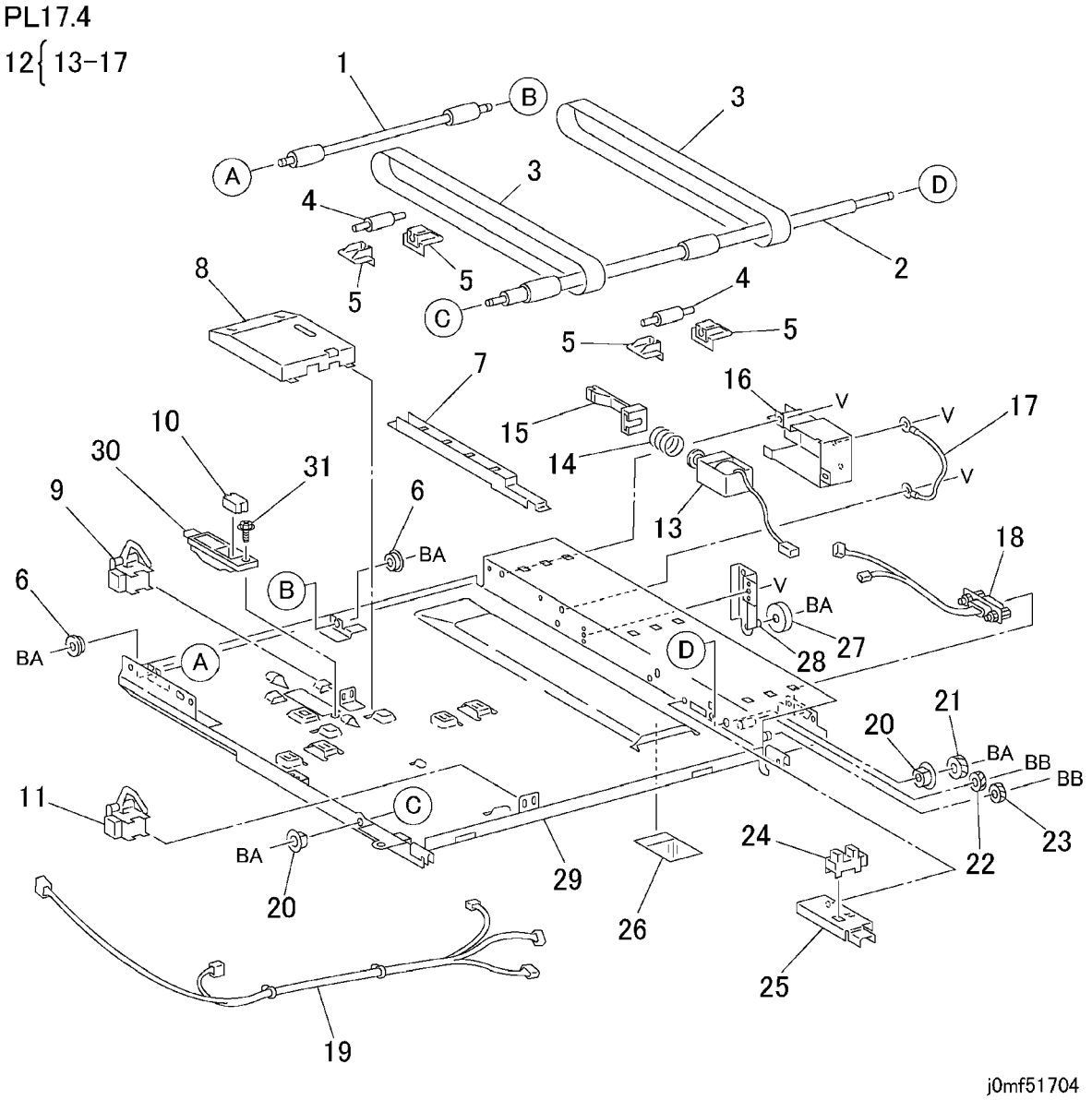
# PL 17.3 H-Transport Assembly: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 802K28600 | H-Transport Cover Assembly |
| 2 | – | H-Transport Cover (P/O PL 17.3 Item 1) |
| 3 | – | Screw (P/O PL 17.3 Item 1) |
| 4 | 121E91450 | Magnet |
| 5 | – | Guide (P/O PL 17.3 Item 1) |
| 6 | – | Roll (P/O PL 17.3 Item 1) |
| 7 | – | Spring Plate (P/O PL 17.3 Item 1) |
| 8 | – | Stop (Not Spared) |
| 9 | 802K28590 | Entrance Upper Cover Assembly |
| 10 | – | Entrance Upper Cover (P/O PL 17.3 Item 9) |
| 11 | – | Roll (P/O PL 17.3 Item 9) |
| 12 | – | Spring Plate (P/O PL 17.3 Item 9) |
| 13 | – | Roll (Not Spared) |
| 14 | – | Front Cover (Not Spared) |
| 15 | – | Upper Rear Cover (Not Spared) |
| 16 | – | Rear Cover (Not Spared) |
| 17 | – | Exit Guide (Not Spared) |
| 18 | – | Stop (Not Spared) |
| 19 | – | Support (Not Spared) |



# PL 17.4 H-Transport Assembly: 2 of 2

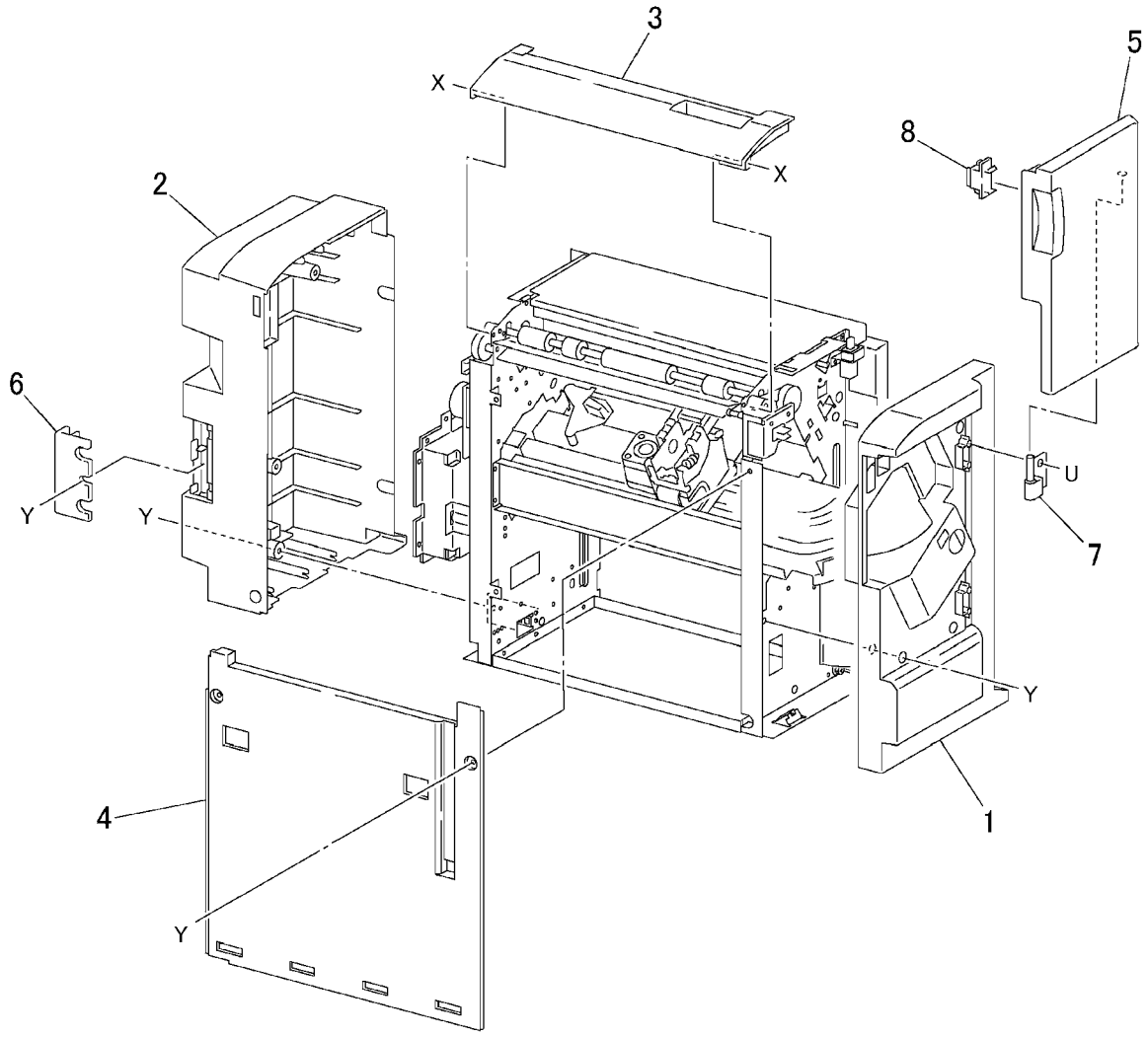
| Item | Part | Description |
|---|---|---|
| 1 | – | H-Transport Roll (In) (Not Spared) |
| 2 | – | H-Transport Roll (Out) (Not Spared) |
| 3 | 023E20020 | H-Transport Belt (REP 12.2) |
| 4 | – | Roll (Not Spared) |
| 5 | – | Support (Not Spared) |
| 6 | – | Bearing (Not Spared) |
| 7 | 802E30150 | Harness Guide |
| 8 | 802E30140 | Cover |
| 9 | 130K93360 | Entrance Sensor (REP 12.3) |
| 10 | 130E82970 | Top Tray Full Sensor |
| 11 | 130K62360 | Exit Sensor |
| 12 | 802K28580 | Gate In Solenoid Assembly |
| 13 | – | Gate In Solenoid (P/O PL 17.4 Item 12) |
| 14 | – | Spring (P/O PL 17.4 Item 12) |
| 15 | – | LInk (P/O PL 17.4 Item 12) |
| 16 | – | Cover (P/O PL 17.4 Item 12) |
| 17 | – | Ground Wire (P/O PL 17.4 Item 12) |
| 18 | 162K69070 | Wire Harness |
| 19 | 162K69060 | Wire Harness |
| 20 | – | Bearing (Not Spared) |
| 21 | 007E67850 | Gear (37T) |
| 22 | 007E67860 | Gear (30T) |
| 23 | 007E67870 | Gear (26T) |
| 24 | 130E82540 | Interlock Sensor |
| 25 | – | Bracket (Not Spared) |
| 26 | 038E24650 | Paper Guide |
| 27 | 022E88210 | Roll |
| 28 | – | Bracket (Not Spared) |
| 29 | – | Frame (Not Spared) |
| 30 | – | Bracket (Not Spared) |
| 31 | – | Screw (Not Spared) |



## PL 17.5 Covers

| Item | Part | Description |
|---|---|---|
| 1 | 802E28560 | Front Cover |
| 2 | 802E28520 | Rear Cover |
| 3 | 802E28530 | Top Cover |
| 4 | 802E28540 | Left Cover |
| 5 | 802E28550 | Front Cover Door |
| 6 | 802E28570 | Left Panel |
| 7 | – | Hinge (Not Spared) |
| 8 | 121E88470 | Magnet |

PL17.5

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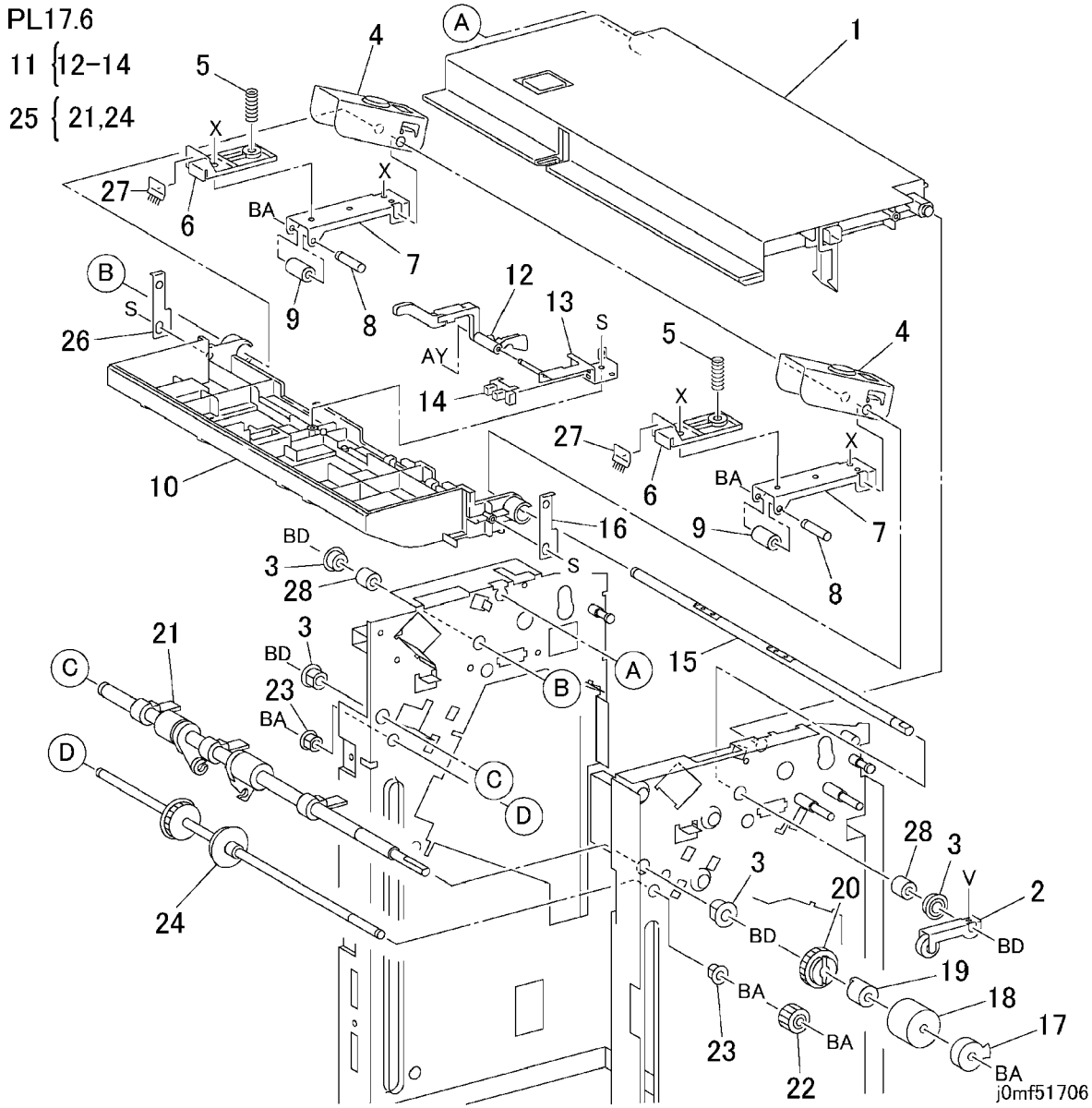
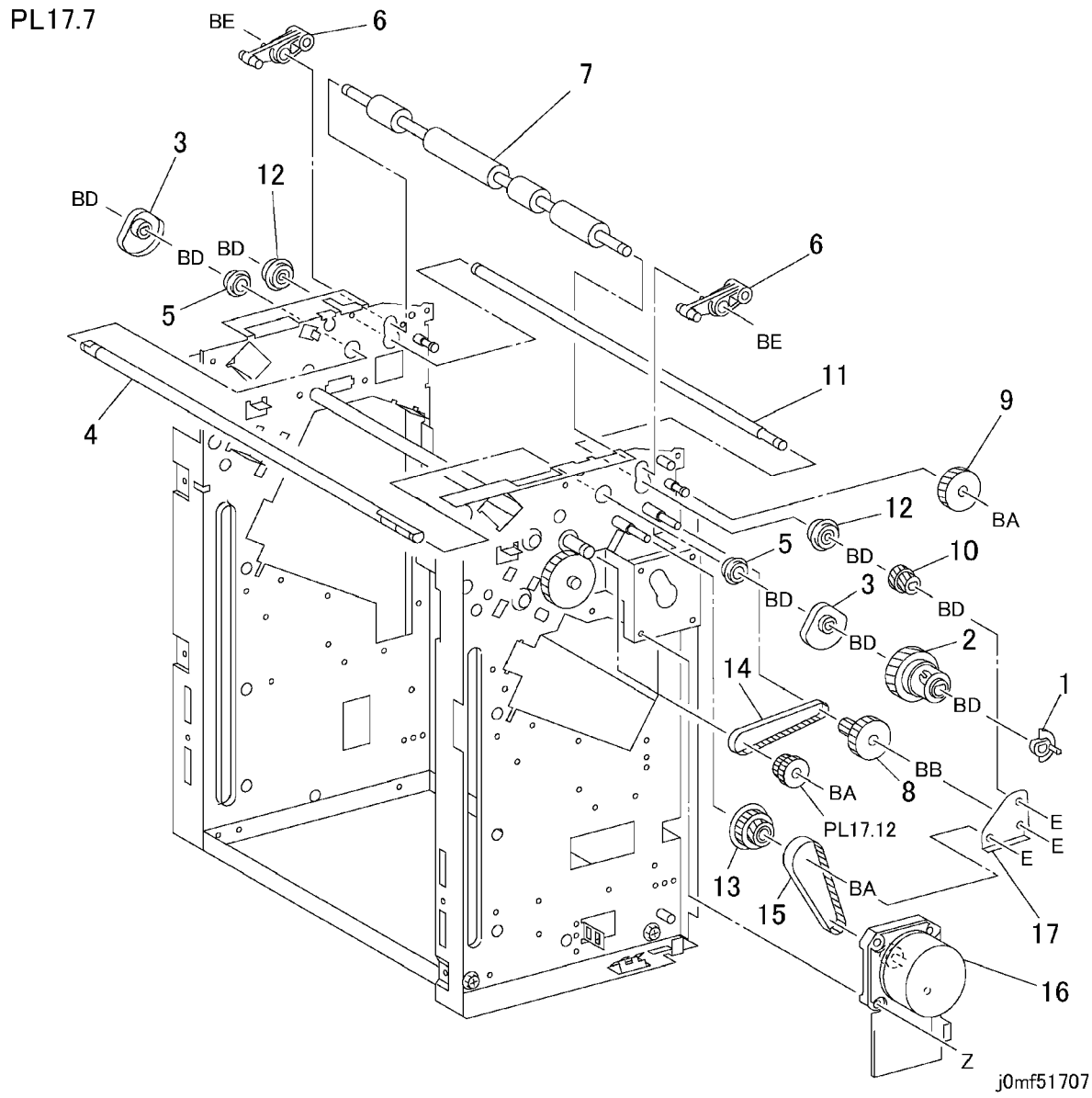
# PL 17.6 Top Cover and Eject Roll

| Item | Part | Description |
|---|---|---|
| 1 | 802K28570 | Top Cover |
| 2 | – | Arm (Not Spared) |
| 3 | – | Bearing (Not Spared) |
| 4 | – | Bracket (Not Spared) |
| 5 | – | Spring (Not Spared) |
| 6 | 830E81670 | Support |
| 7 | – | Bracket (Not Spared) |
| 8 | – | Shaft (Not Spared) |
| 9 | 022K62610 | Eject Pinch Roll |
| 10 | – | Eject Chute (Not Spared) |
| 11 | 130K61920 | Stack Height Sensor Assembly (REP 12.5) |
| 12 | – | Actuator (P/O PL 17.6 Item 11) |
| 13 | – | Bracket (P/O PL 17.6 Item 11) |
| 14 | 130E82530 | Stack Height Sensor |
| 15 | – | Shaft (Not Spared) |
| 16 | – | Link (Not Spared) |
| 17 | 120E20970 | Actuator |
| 18 | 005E16220 | Clutch |
| 19 | 005E16510 | Collar |
| 20 | 007E67760 | Gear (28Z) |
| 21 | – | Eject Roll (P/O PL 17.6 Item 25) |
| 22 | 007K86910 | Gear (20T) |
| 23 | 013E20240 | Bearing |
| 24 | – | Eject Shaft (P/O PL 17.6 Item 25) |
| 25 | 006K21730 | Eject Roll Assembly (REP 12.6) |
| 26 | – | Link (Not Spared) |
| 27 | – | Static Eliminator (Not Spared) |
| 28 | – | Collar (Not Spared) |



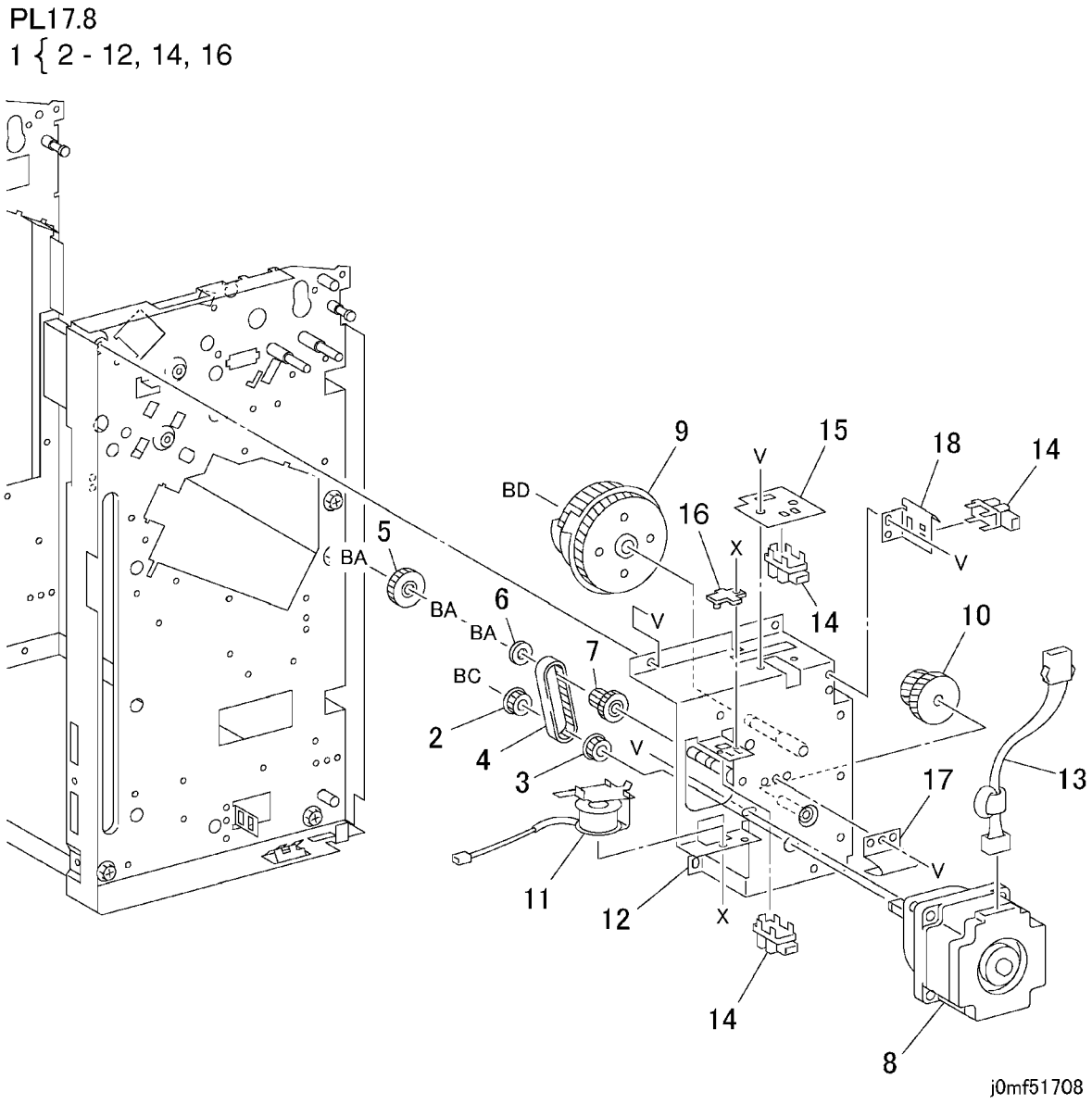
# PL 17.7 Paper Transportation: 1 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 120E20690 | Actuator |
| 2 | 121K24610 | Decurler Cam Clutch |
| 3 | 008E94070 | Cam |
| 4 | – | Shaft (Not Spared) |
| 5 | – | Bearing (Not Spared) |
| 6 | 031E94030 | Arm |
| 7 | 059K20210 | Decurler Roll (REP 12.7) |
| 8 | 007E67740 | Gear (40Z/20T) |
| 9 | 007E67750 | Gear (40Z) |
| 10 | 007E72090 | Gear (18Z/21T) |
| 11 | – | Shaft (Not Spared) |
| 12 | – | Bearing (Not Spared) |
| 13 | 007E67730 | Gear (23Z/52T) |
| 14 | 023E20160 | Belt (REP 12.9) |
| 15 | 423W29655 | Belt |
| 16 | 127K32840 | Finisher Drive Motor (REP 12.8) |
| 17 | – | Bracket (Not Spared) |



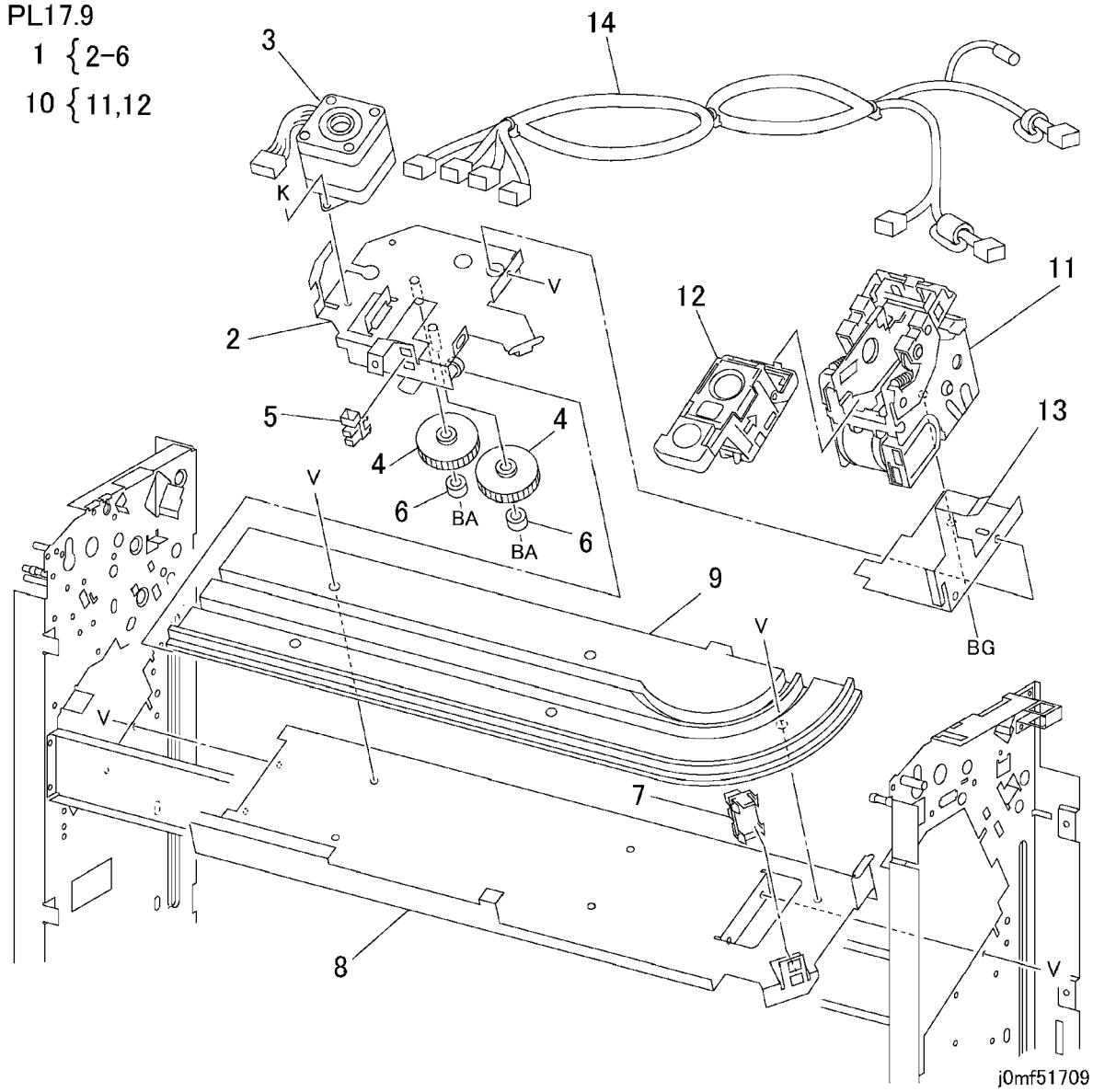
# PL 17.8 Paper Transportation: 2 of 2

| Item | Part | Description |
|---|---|---|
| 1 | 015K52280 | Cam Bracket Assembly |
| 2 | 020E34970 | Pulley |
| 3 | 007E67780 | Gear (15Z) |
| 4 | 423W28054 | Belt |
| 5 | 007E67810 | Gear (30Z) |
| 6 | – | Collar (P/O PL 17.8 Item 1) |
| 7 | 007E67790 | Gear Pulley |
| 8 | 127K32870 | Eject Motor |
| 9 | 007E67800 | Cam Gear |
| 10 | 007E67770 | Gear (42Z/27Z) |
| 11 | 121K24620 | Set Clamp Solenoid |
| 12 | – | Bracket (P/O PL 17.8 Item 1) |
| 13 | – | Wire Harness (Not Spared) |
| 14 | 130E82540 | Home Sensor |
| 15 | – | Plate (Not Spared) |
| 16 | – | Stop (P/O PL 17.8 Item 1) |
| 17 | – | Spring (Not Spared) |
| 18 | – | Bracket (Not Spared) |



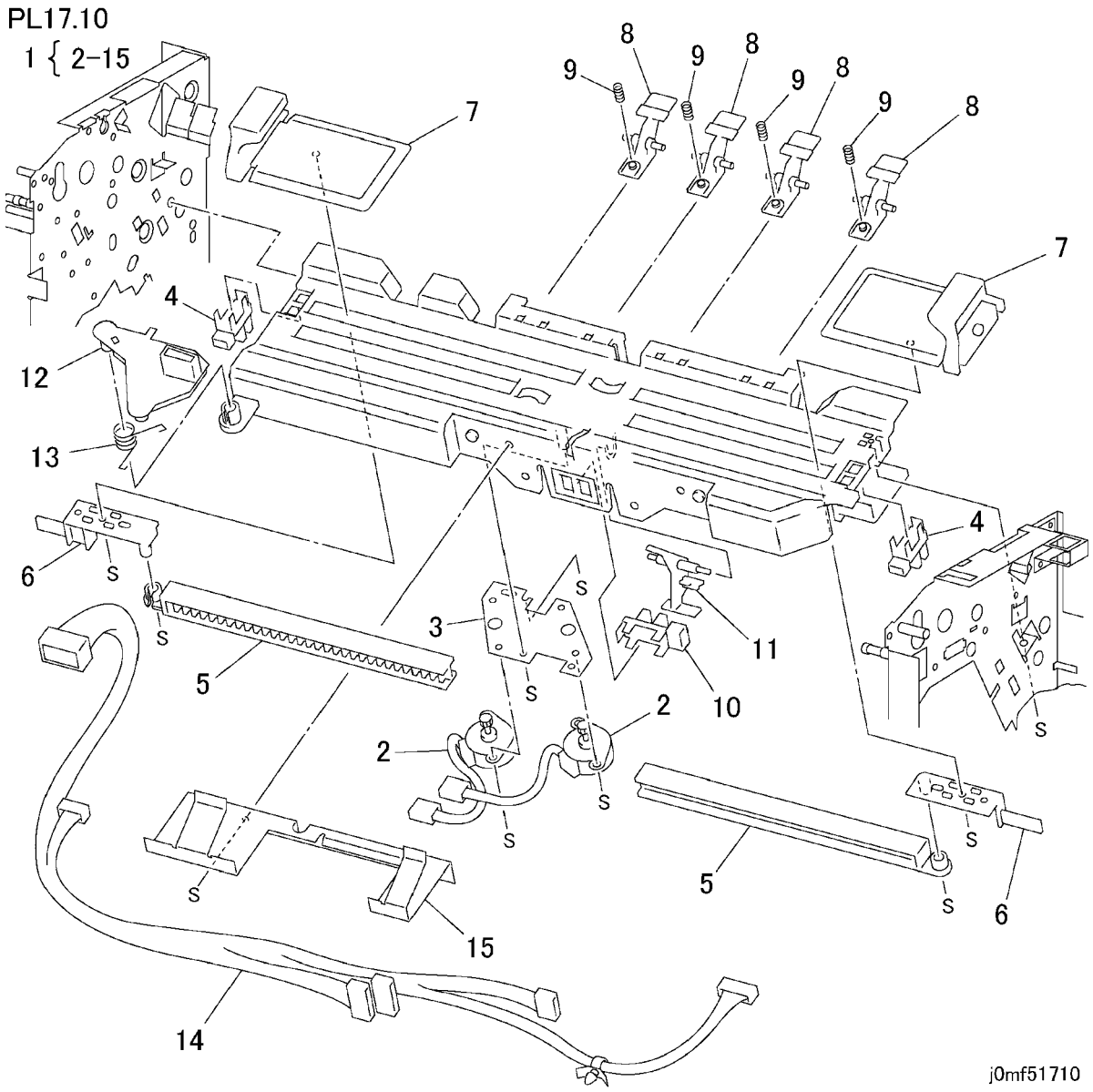
## PL 17.9 Stapler Unit

| Item | Part | Description |
|---|---|---|
| 1 | 041K94260 | Carriage Assembly |
| 2 | – | Bracket (P/O PL 17.9 Item 1) |
| 3 | 127K32860 | Staple Move Motor |
| 4 | – | Gear (P/O PL 17.9 Item 1) |
| 5 | 130E82530 | Staple Sensor |
| 6 | – | Roll (P/O PL 17.9 Item 1) |
| 7 | – | Staple Front Corner Sensor (Not Spared) |
| 8 | – | Plate (Not Spared) |
| 9 | 001E59600 | Rail (REP 12.10) |
| 10 | 029K91990 | Stapler Assembly (REP 12.11) |
| 11 | – | Stapler (P/O PL 17.9 Item 10) |
| 12 | – | Cartridge (P/O PL 17.9 Item 10) |
| 13 | – | Bracket (Not Spared) |
| 14 | 962K07440 | Stapler Harness |



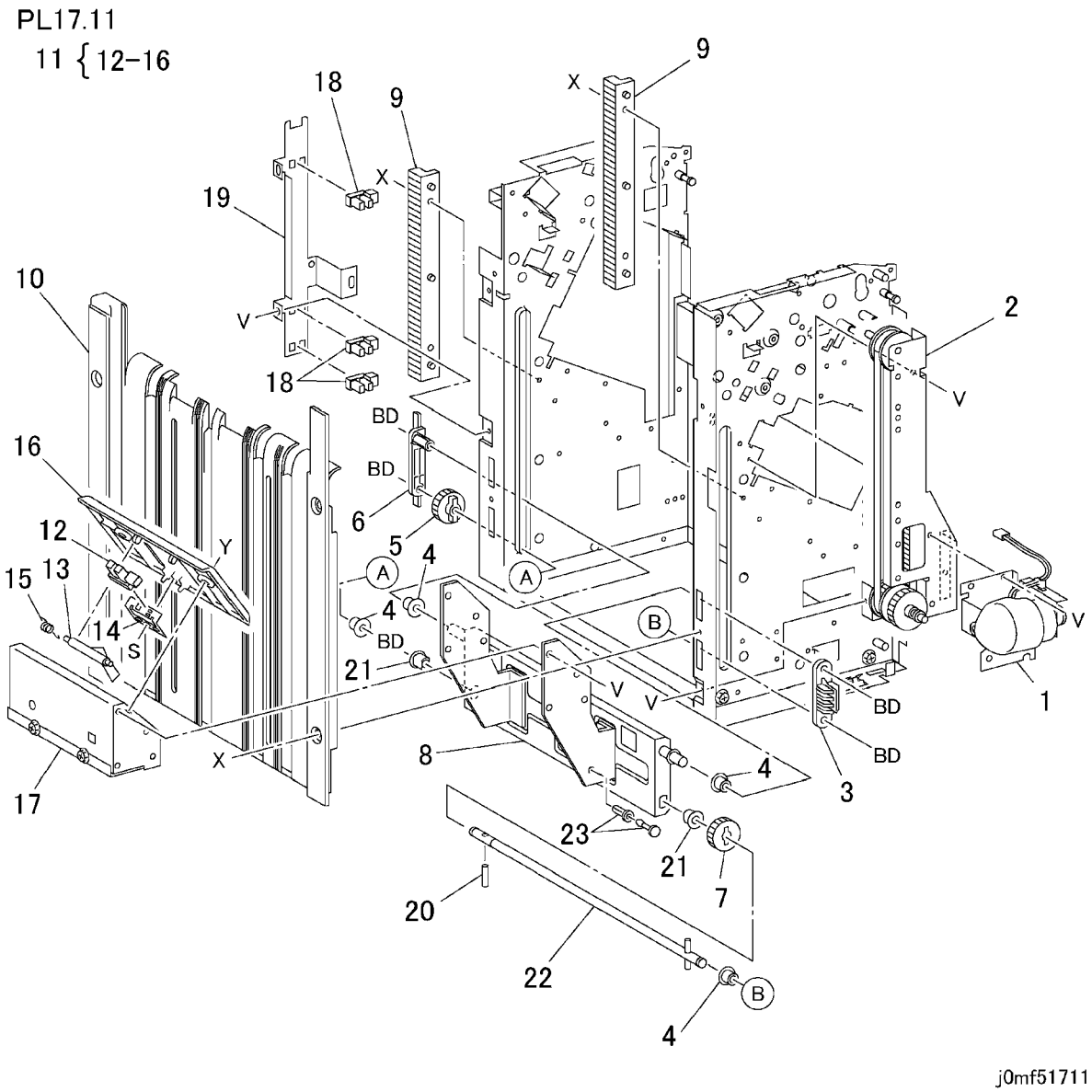
# PL 17.10 Compiler Tray Assembly

| Item | Part | Description |
|---|---|---|
| 1 | 050K43880 | Compiler Tray Assembly (REP 12.12) |
| 2 | 127K32850 | Front/Rear Tamper Motor |
| 3 | – | Plate (P/O PL 17.10 Item 1) |
| 4 | 130E82530 | Front/Rear Tamper Home Sensor |
| 5 | – | Rack (P/O PL 17.10 Item 1) |
| 6 | – | Actuator (P/O PL 17.10 Item 1) |
| 7 | – | Tamper (P/O PL 17.10 Item 1) |
| 8 | – | Finger (P/O PL 17.10 Item 1) |
| 9 | – | Spring (P/O PL 17.10 Item 1) |
| 10 | 130E82540 | Compiler Paper Sensor |
| 11 | – | Actuator (P/O PL 17.10 Item 1) |
| 12 | 038E24410 | Paper Guide |
| 13 | 809E33600 | Spring |
| 14 | – | Wire Harness (P/O PL 17.10 Item 1) |
| 15 | – | End Guide (P/O PL 17.10 Item 1) |



# PL 17.11 Elevator

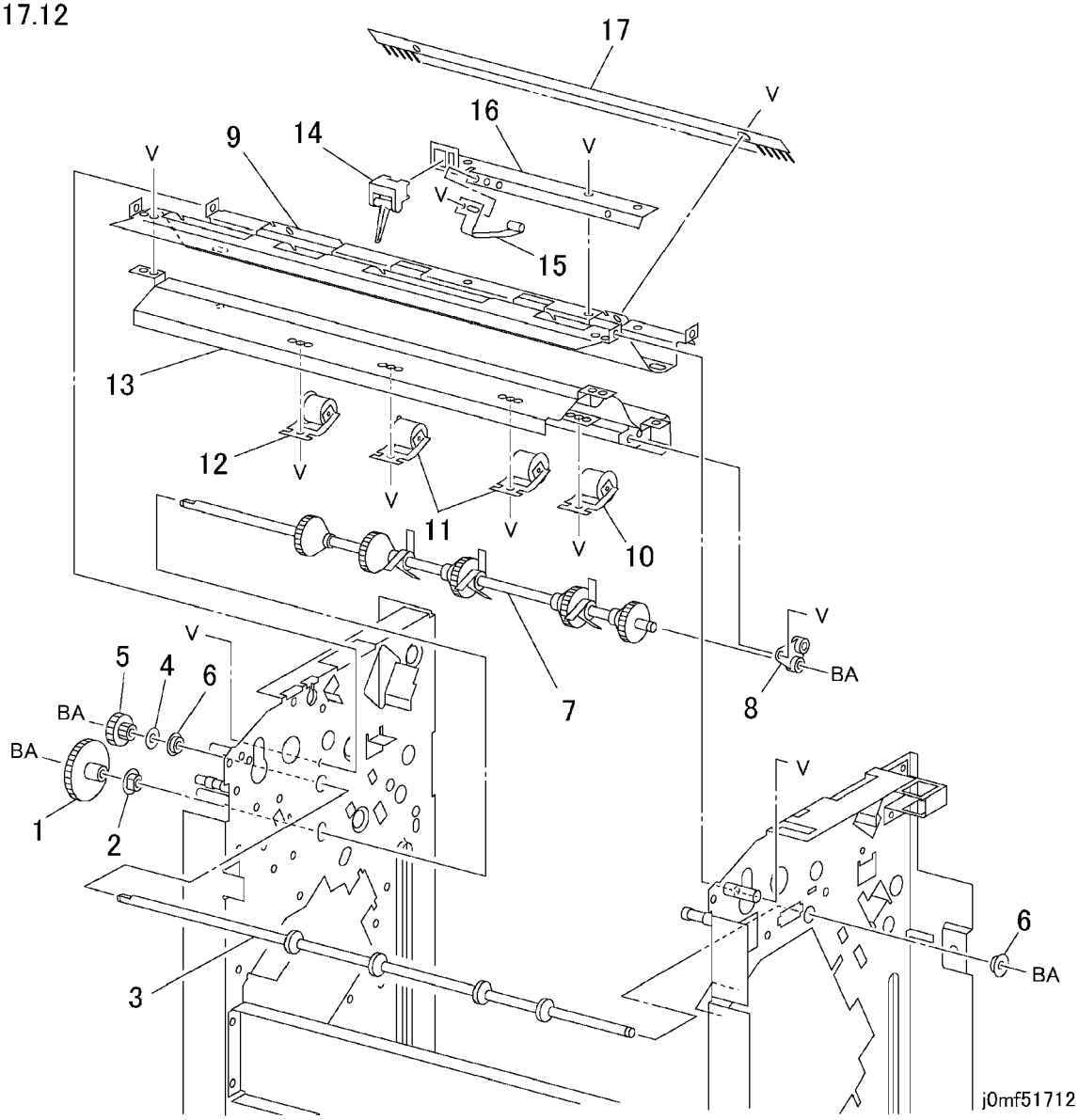
| Item | Part | Description |
|---|---|---|
| 1 | 127K33420 | Stacker Motor Assembly (REP 12.13) |
| 2 | 015K50680 | Front Elevator Bracket (REP 12.14) |
| 3 | 019E50340 | Clamp |
| 4 | – | Bearing (Not Spared) |
| 5 | 007E67830 | Rear Gear |
| 6 | – | Actuator (Not Spared) |
| 7 | 007E67840 | Front Gear |
| 8 | – | Bracket (Not Spared) |
| 9 | 007E67820 | Rack |
| 10 | – | Tray Guide (Not Spared) |
| 11 | 015K51640 | Paper Stack Sensor Assembly |
| 12 | 130E82530 | Sensor |
| 13 | – | Actuator (P/O PL 17.11 Item 11) |
| 14 | – | Bracket (P/O PL 17.11 Item 11) |
| 15 | – | Spring (P/O PL 17.11 Item 11) |
| 16 | – | Cover (P/O PL 17.11 Item 11) |
| 17 | – | Bracket (Not Spared) |
| 18 | – | Sensor (Not Spared) |
| 19 | – | Bracket (Not Spared) |
| 20 | – | Pin (Not Spared) |
| 21 | – | Bearing (Not Spared) |
| 22 | – | Shaft (Not Spared) |
| 23 | – | Rivet (Not Spared) |



# PL 17.12 Exit Assembly

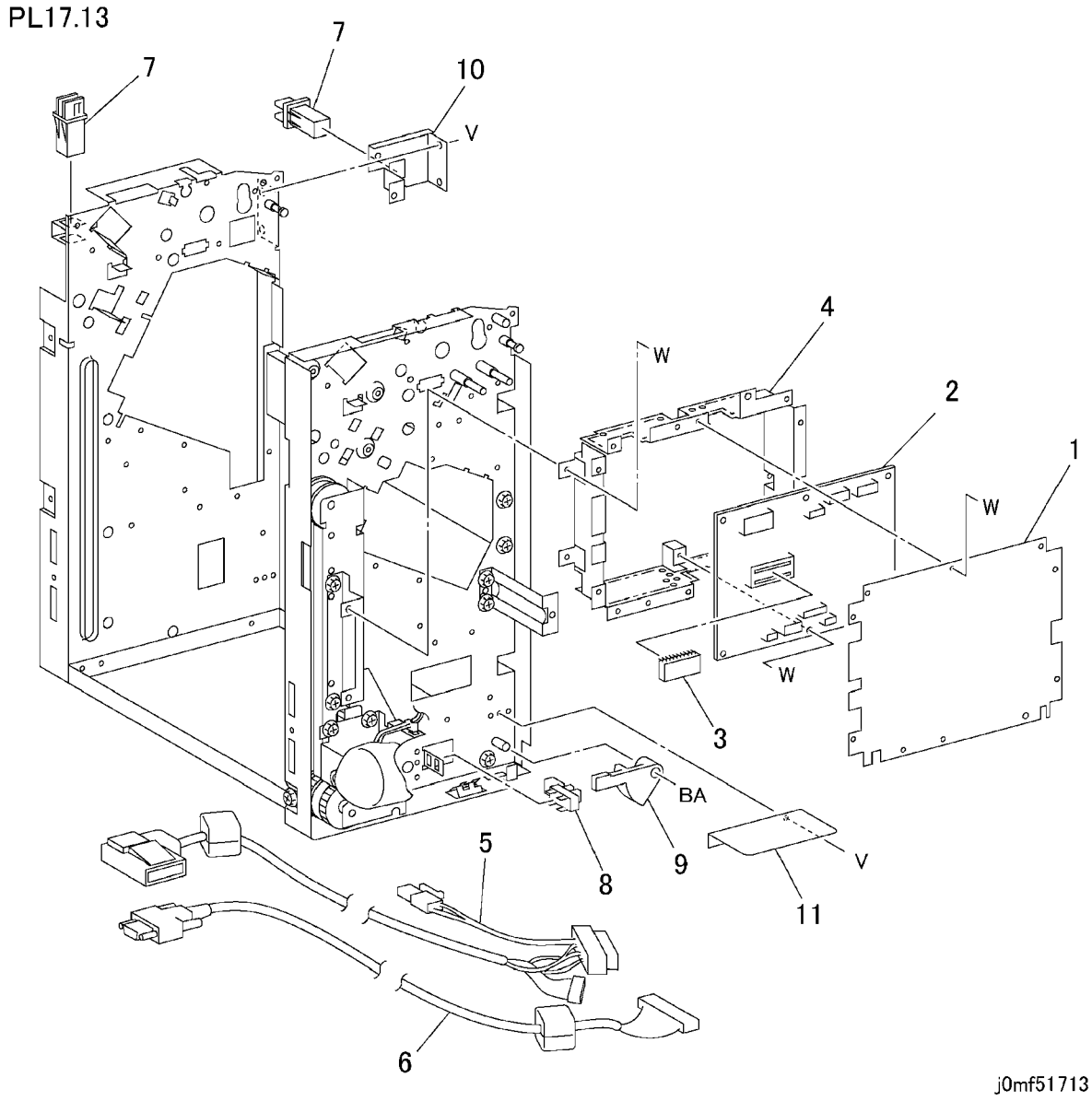
| Item | Part | Description |
|---|---|---|
| 1 | 007E72080 | Gear (48Z) |
| 2 | – | Bearing (Not Spared) |
| 3 | 006K21720 | Exit Shaft |
| 4 | – | Collar (Not Spared) |
| 5 | 007E72070 | Gear (32Z/18T) |
| 6 | – | Bearing (Not Spared) |
| 7 | 006K21970 | Paddle Gear Shaft (REP 12.15) |
| 8 | 013E20250 | Paddle Bearing |
| 9 | – | Lower Exit Chute (Not Spared) |
| 10 | 022K65880 | Pinch Roll |
| 11 | – | Pinch Roll (Not Spared) |
| 12 | – | Pinch Roll (Not Spared) |
| 13 | – | Upper Exit Chute (Not Spared) |
| 14 | 130K94740 | Compiler Entrance Sensor |
| 15 | – | Spring Plate (Not Spared) |
| 16 | – | Bracket (Not Spared) |
| 17 | 105E11320 | Static Eliminator |

PL17.12



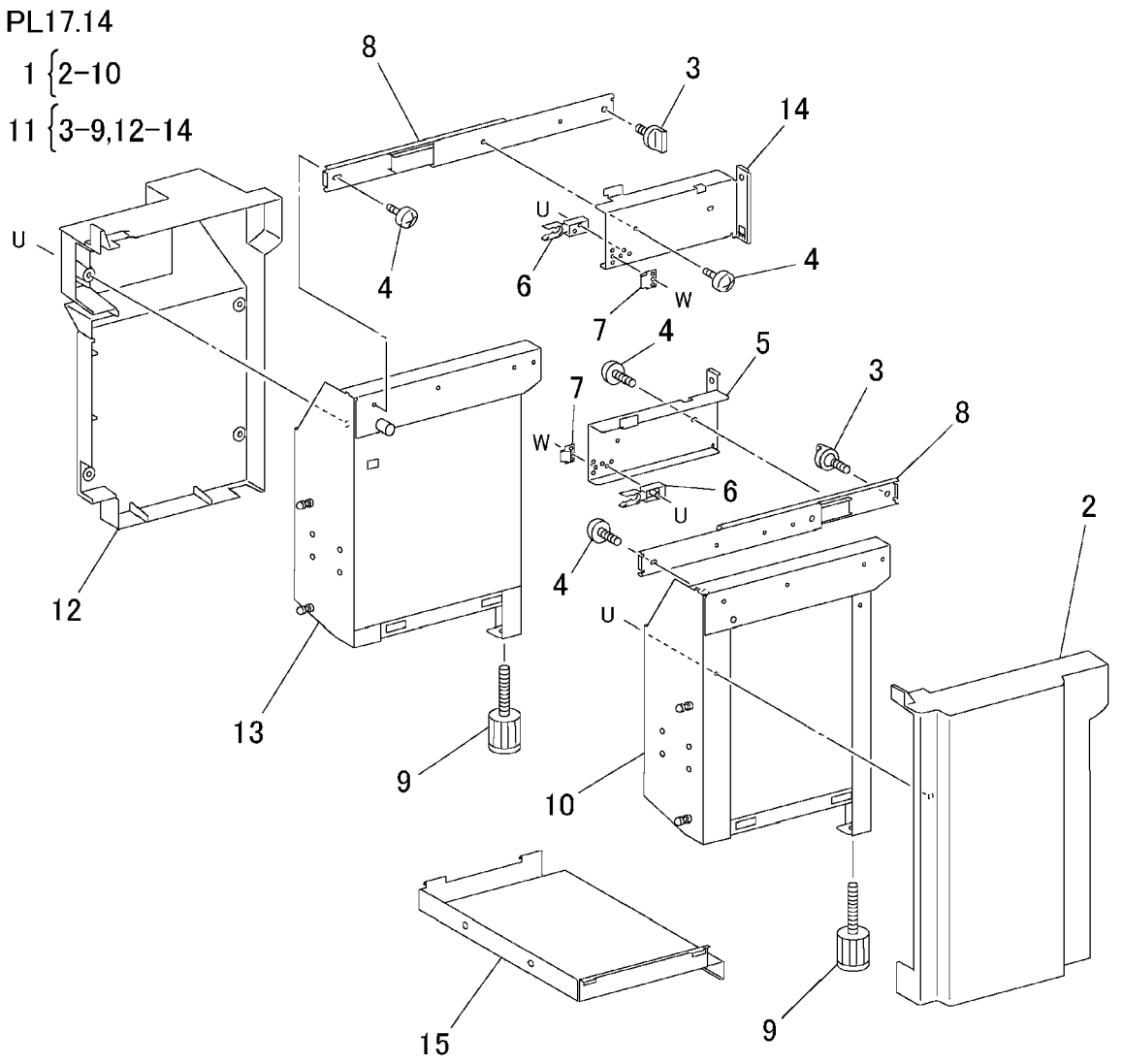
# PL 17.13 Electrical Components

| Item | Part | Description |
|---|---|---|
| 1 | – | PWB Cover (Not Spared) |
| 2 | 160K76660 | Finisher PWB (REP 12.16) |
| 3 | 537K64070 | ROM |
| 4 | – | PWB Bracket (Not Spared) |
| 5 | 962K10120 | DC Harness |
| 6 | 962K10130 | Cable |
| 7 | 110E97990 | Top Cover/Front Door Interlock Switch |
| 8 | 130E82530 | Docking Interlock Switch |
| 9 | – | Spring Plate (Not Spared) |
| 10 | – | Bracket (Not Spared) |
| 11 | – | Plate (Not Spared) |



## PL 17.14 Rack Assembly

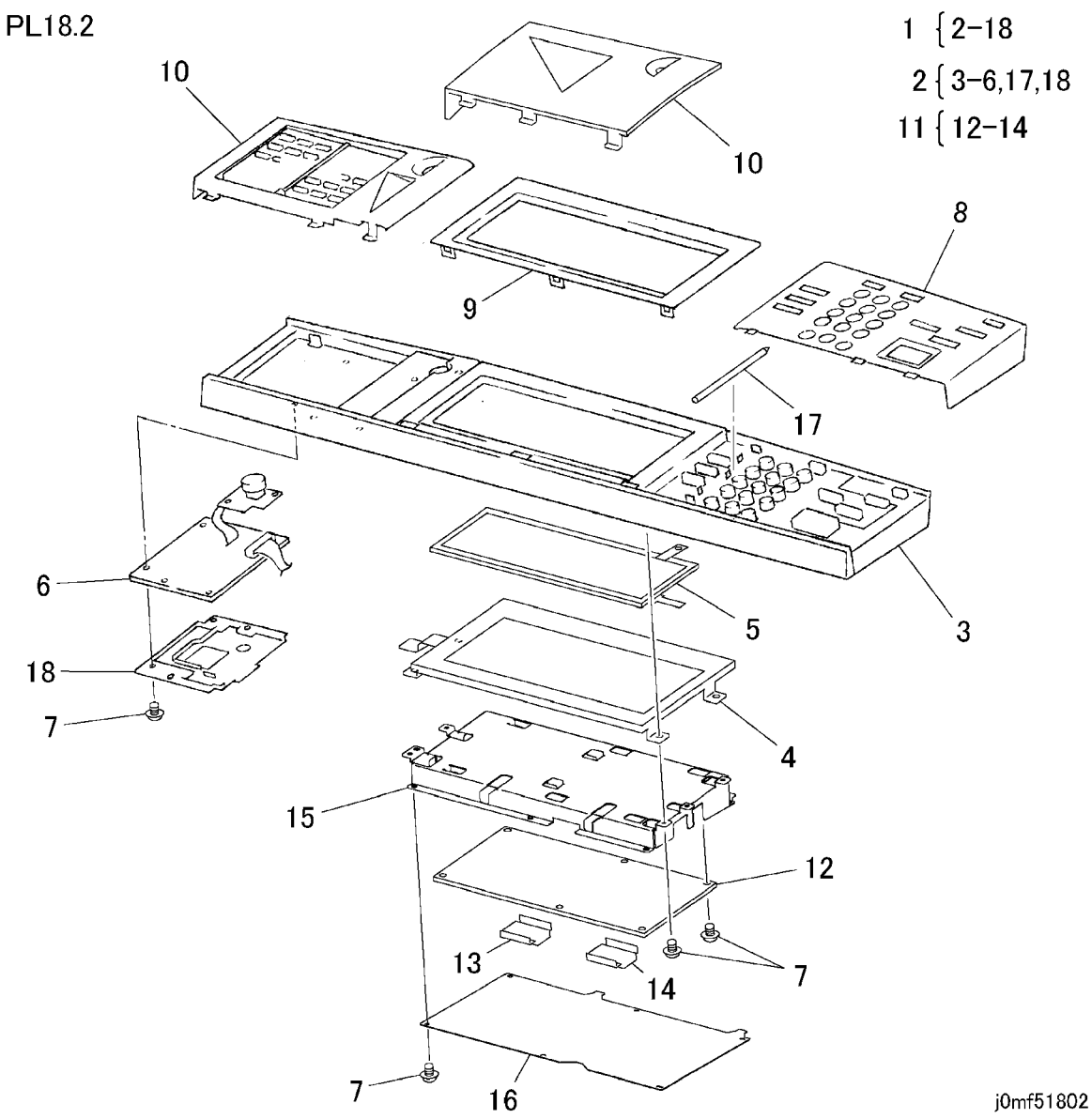
| Item | Part | Description |
|---|---|---|
| 1 | 802K36660 | Front Rack Assembly |
| 2 | – | Front Cover (P/O PL 17.14 Item 1) |
| 3 | 003K12090 | Knob Screw |
| 4 | – | Screw (P/O PL 17.14 Item 1,PL 17.14 Item 11) |
| 5 | – | Bracket (P/O PL 17.14 Item 1,PL 17.14 Item 11) |
| 6 | – | Stop (P/O PL 17.14 Item 1,PL 17.14 Item 11) |
| 7 | – | Spring Plate (P/O PL 17.14 Item 1,PL 17.14 Item 11) |
| 8 | 001E60050 | Rail |
| 9 | 017E94660 | Foot |
| 10 | – | Front Rack (P/O PL 17.14 Item 1) |
| 11 | 802K36670 | Rear Rack Assembly |
| 12 | – | Rear Cover (P/O PL 17.14 Item 11) |
| 13 | – | Rear Rack (P/O PL 17.14 Item 11) |
| 14 | – | Bracket (P/O PL 17.14 Item 11) |
| 15 | 015E77040 | Bottom Plate |




j0mf51714

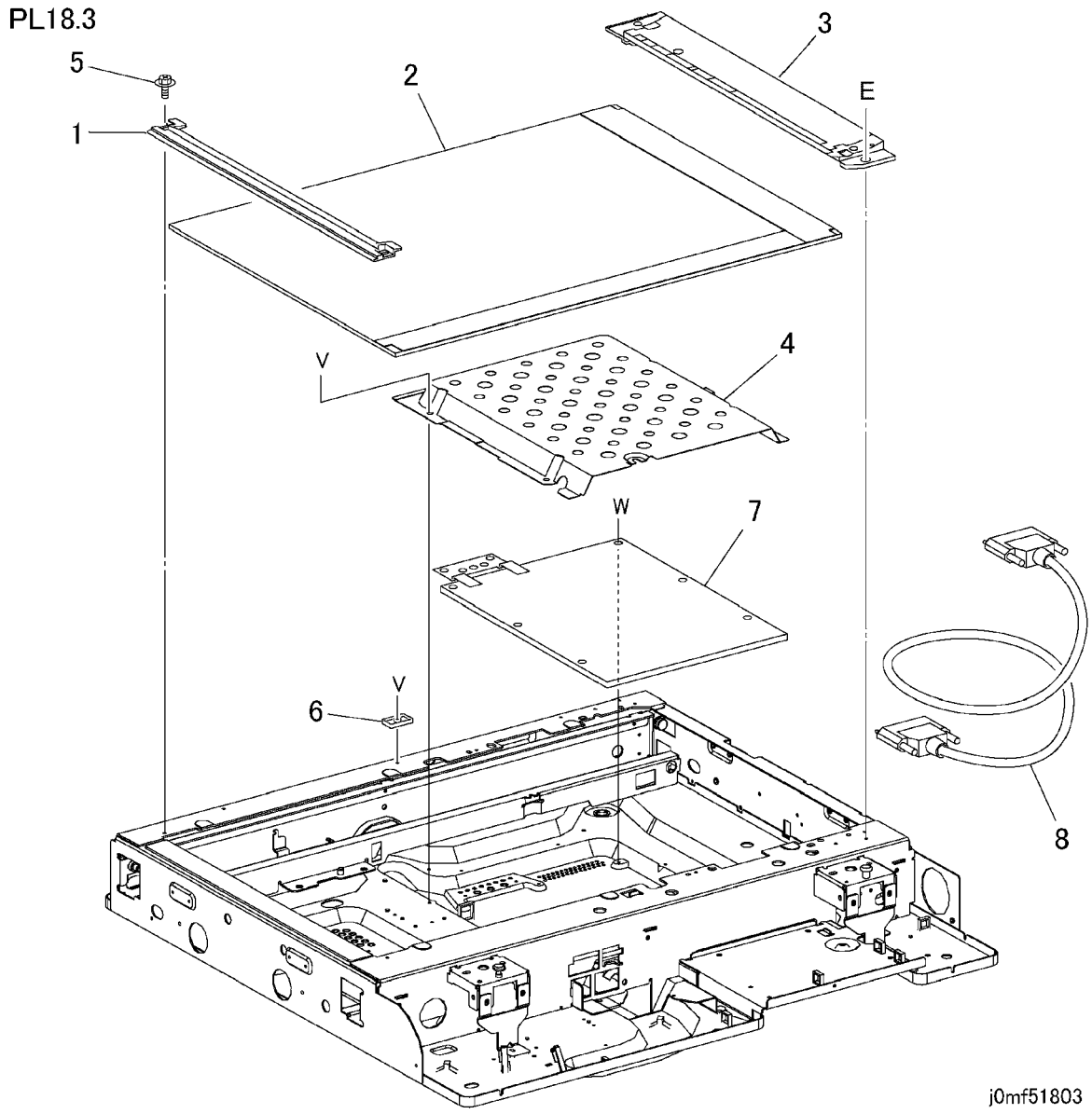
## PL 18.2 Control Panel

| Item | Part | Description |
|---|---|---|
| 1 | 802K46022 | Control Panel Assembly |
| 2 | – | Control Panel Housing (P/O PL 18.2 Item 1) |
| 3 | – | Panel Housing (P/O PL 18.2 Item 1) |
| 4 | 123K94020 | Display |
| 5 | 110K11100 | Touch Panel (ADJ 9.13) |
| 6 | 160K75800 | VR PWB (ADJ 9.13) |
| 7 | – | Screw (P/O PL 18.2 Item 1) |
| 8 | – | Right Panel (P/O PL 18.2 Item 1) |
| 9 | – | Center Panel (P/O PL 18.2 Item 1) |
| 10 | 802E32860 | One-touch Panel |
| 11 | 160K77367 | UI PWB Assembly (ADJ 9.13) |
| 12 | – | UI PWB Base (P/O PL 18.2 Item 1,PL 18.2 Item 11) |
| 13 | – | ROM (P/O PL 18.2 Item 11) |
| 14 | – | ROM (P/O PL 18.2 Item 11) |
| 15 | – | Bracket (P/O PL 18.2 Item 1) |
| 16 | – | Plate (P/O PL 18.2 Item 1) |
| 17 | – | Adjust Pen (P/O PL 18.2 Item 1) |
| 18 | – | Bracket (P/O PL 18.2 Item 1) |



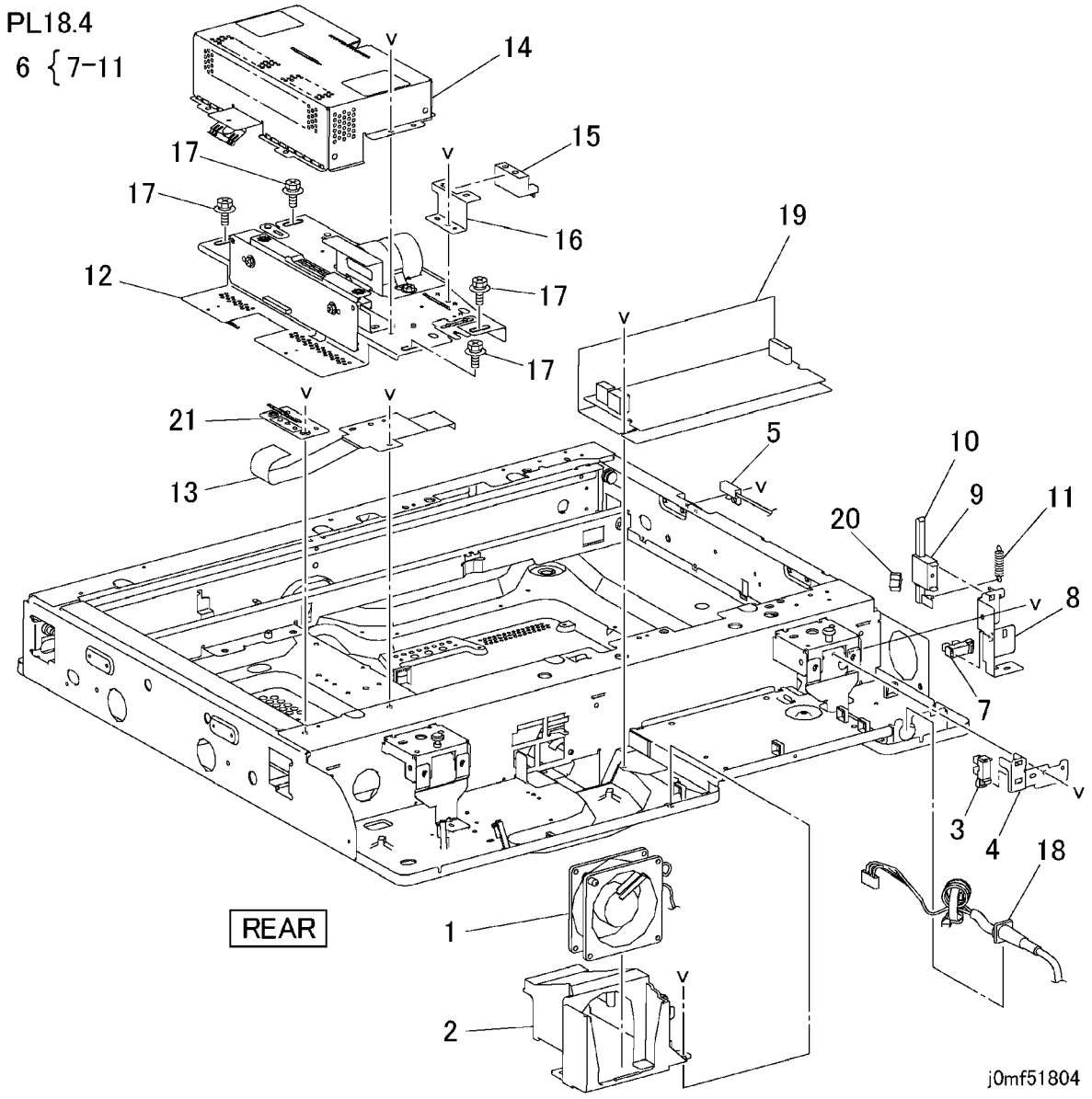
## PL 18.3 Platen Glass

| Item | Part | Description |
|---|---|---|
| 1 | – | Right Side Plate (Not Spared) |
| 2 | 090K92820 | Platen Glass (REP 6.2) |
| 3 | 050K43070 | Registration Gate |
| 4 | – | IPS Cover (Not Spared) |
| 5 | – | Screw (Not Spared) |
| 6 | 068E10210 | Platen Glass Support |
| 7 | 160K66429 | ITT/IPS PWB |
| 8 | 117E20840 | Cable |



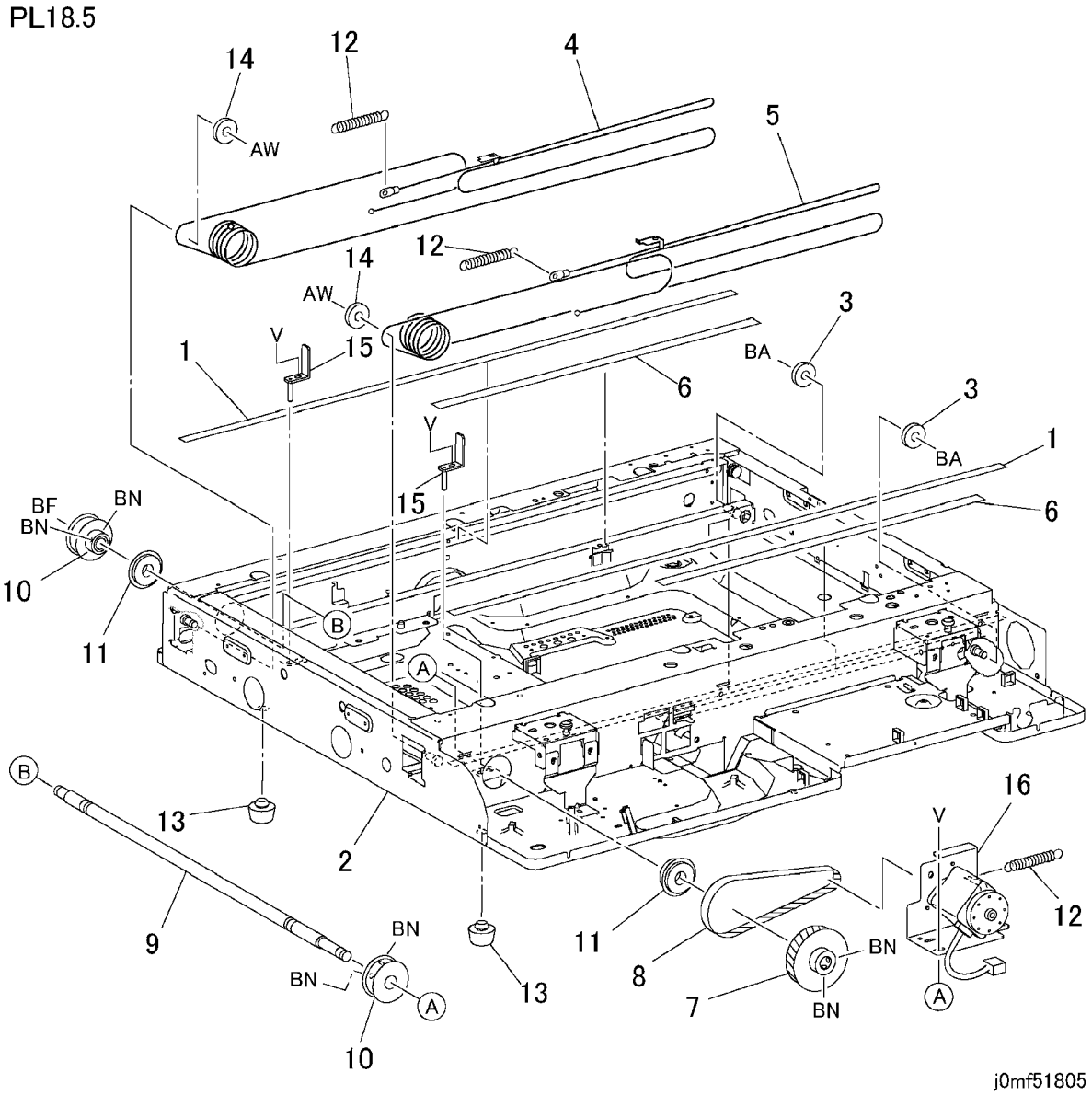
## PL 18.4 CCD PWB, Sensor

| Item | Part | Description |
|---|---|---|
| 1 | 127K33160 | IPS Fan |
| 2 | – | Bracket (Not Spared) |
| 3 | 130K62000 | IIT Registration Sensor |
| 4 | – | Bracket (Not Spared) |
| 5 | 110K08471 | Platen Open Switch |
| 6 | 130K62580 | Platen Angle Sensor Assembly |
| 7 | 107E08680 | Platen Angle Sensor |
| 8 | – | Bracket (P/O PL 18.4 Item 6) |
| 9 | – | Support (P/O PL 18.4 Item 6) |
| 10 | – | Actuator (P/O PL 18.4 Item 6) |
| 11 | 009E55450 | Spring |
| 12 | 604K05330 | Lens Kit (Kit contains CCD PWB and Lens Assembly) (REP 6.4) (ADJ 9.7) |
| 13 | 117K30960 | CCD Flat Cable |
| 14 | – | Lens Cover (Not Spared) |
| 15 | – | APS Sensor (Not Spared) |
| 16 | – | Bracket (Not Spared) |
| 17 | – | Screw (Not Spared) |
| 18 | 962K05910 | AC Harness (220V) |
| – | 962K05900 | AC Harness (120V) |
| 19 | 105E10480 | IIT LVPS (100V) |
| – | 105E10650 | IIT LVPS (220V) |
| 20 | 019E49830 | Clamp |
| 21 | – | Plate (Not Spared) |



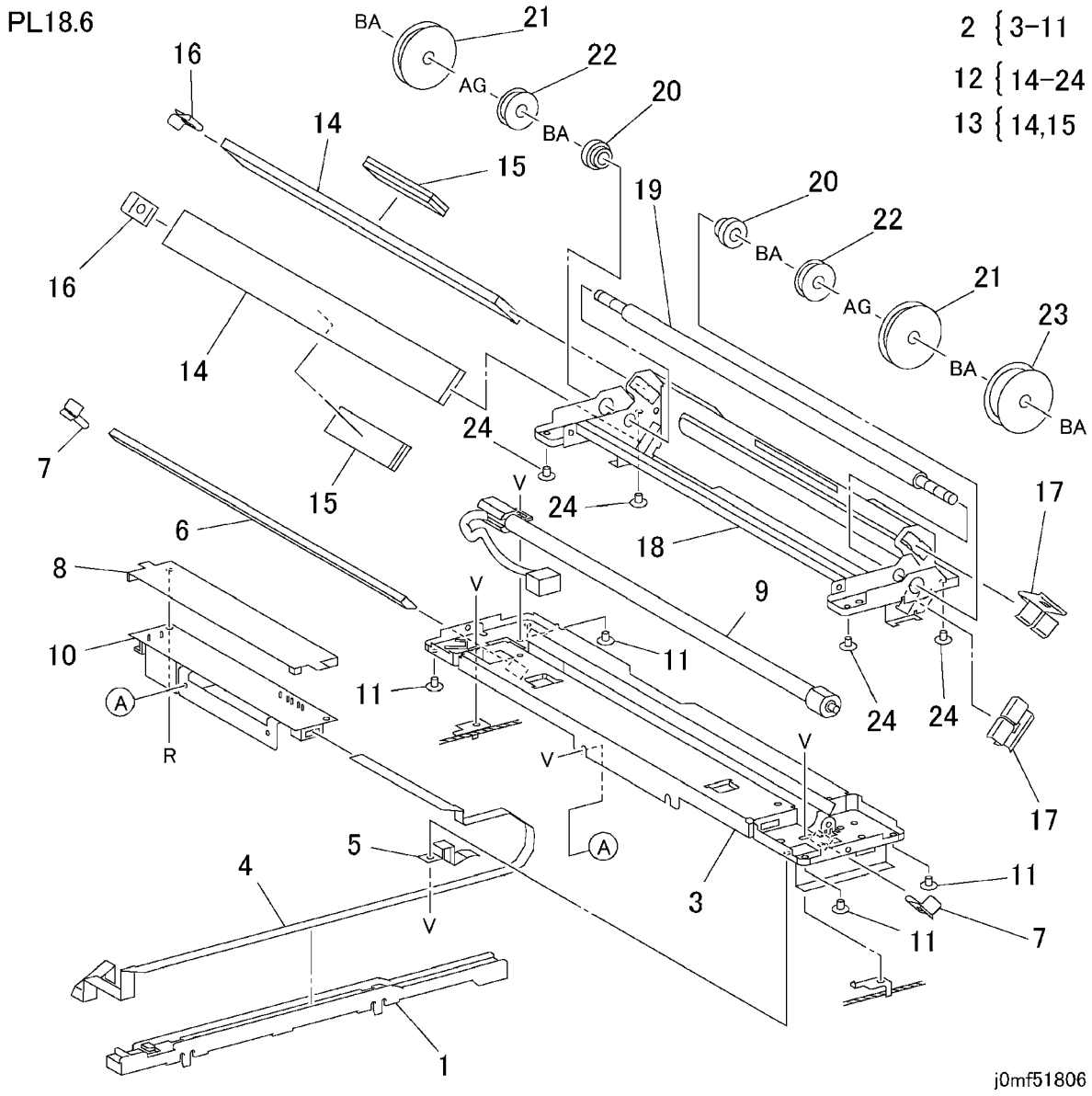
## PL 18.5 Carriage Cable/ Motor

| Item | Part | Description |
|---|---|---|
| 1 | 063E94040 | Tape |
| 2 | – | Frame (Not Spared) |
| 3 | 020E99590 | Pulley |
| 4 | 012K94110 | Front Carriage Cable (REP 6.11) |
| 5 | 012K94120 | Rear Carriage Cable (REP 6.11) |
| 6 | 063E94050 | Tape |
| 7 | 020E32740 | Timing Pulley |
| 8 | 023E19300 | Belt |
| 9 | – | Capstan Shaft (Not Spared) |
| 10 | 020E25090 | Capstan Pulley |
| 11 | 413W10950 | Bearing |
| 12 | 009E62830 | Spring |
| 13 | 017E92060 | Foot |
| 14 | – | Pulley (Not Spared) |
| 15 | – | Stop Bracket (Not Spared) |
| 16 | 127K32140 | Carriage Motor (REP 6.12) |



## PL 18.6 Full/Half Rate Carriage

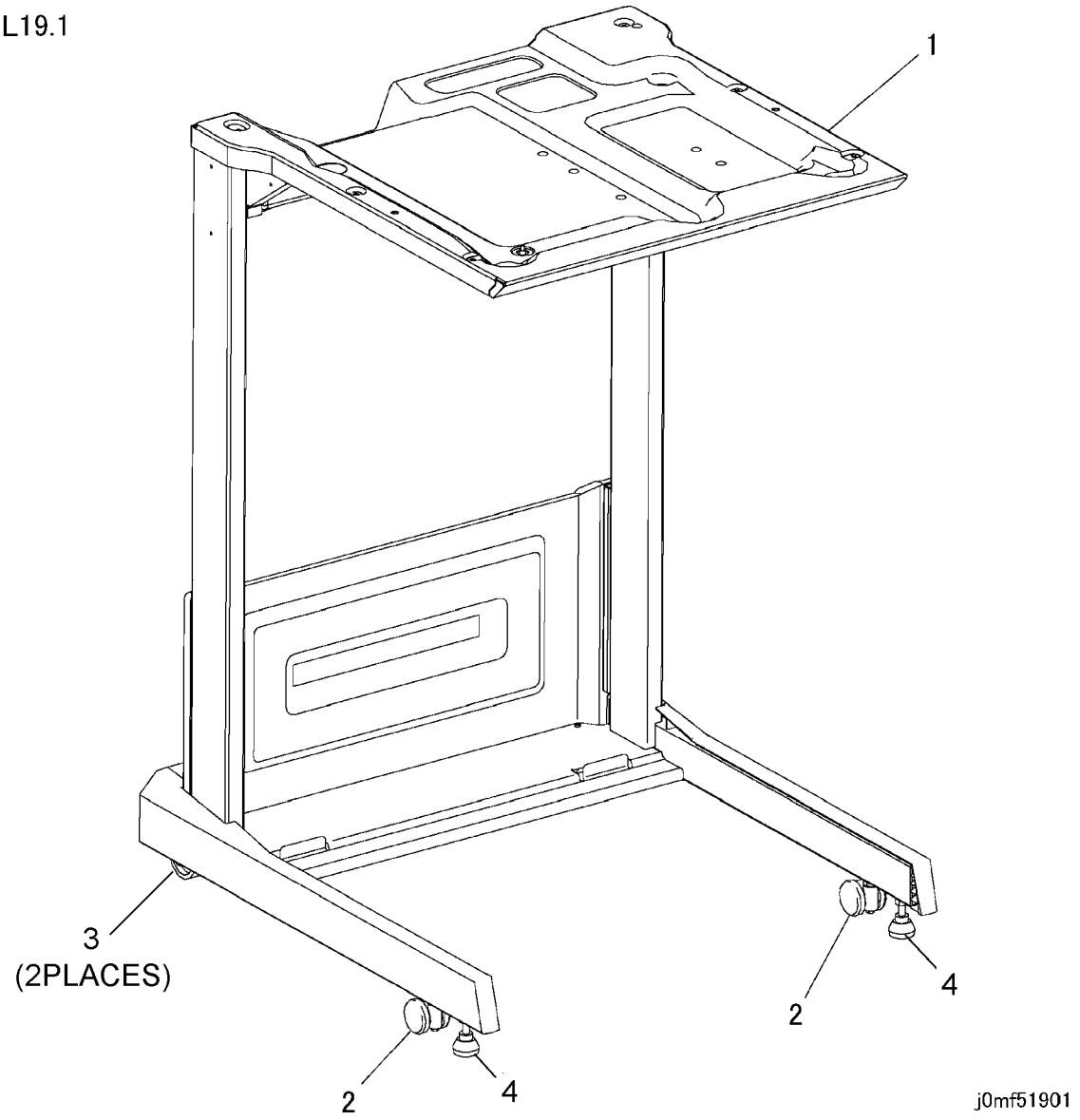
| Item | Part | Description |
|---|---|---|
| 1 | – | Harness Guard (Not Spared) |
| 2 | 041K94050 | Full-Rate Carriage Assembly (ADJ 6.1) |
| 3 | – | Full-Rate Carriage (P/O PL 18.6 Item 2) |
| 4 | 117E19780 | Lamp Wire Harness (REP 6.14) |
| 5 | – | No 1 Motor (P/O PL 18.6 Item 2) |
| 6 | 062E10040 | No 1 Mirror |
| 7 | 019E50400 | Clip |
| 8 | 118E12090 | Insulator |
| 9 | 122E92030 | Exposure Lamp (REP 6.13) |
| 10 | 105E10510 | Lamp Ballast PWB |
| 11 | – | Pad (P/O PL 18.6 Item 2) |
| 12 | 041K94271 | Half-Rate Carriage Assembly (ADJ 6.1) |
| 13 | 062K10730 | No 2 and No 3 Mirror |
| 14 | – | No 2, No 3 Mirror (P/O PL 18.6 Item 2,PL 18.6 Item 13) |
| 15 | – | Damper (P/O PL 18.6 Item 2,PL 18.6 Item 13) |
| 16 | – | Single Clip (P/O PL 18.6 Item 12) |
| 17 | 809E09110 | Clip |
| 18 | – | Half-Rate Carriage (P/O PL 18.6 Item 12) |
| 19 | – | Shaft (P/O PL 18.6 Item 12) |
| 20 | 004E06560 | Damper Bearing |
| 21 | – | Pulley (P/O PL 18.6 Item 12) |
| 22 | 020K94970 | Pulley |
| 23 | – | Harness Pulley (P/O PL 18.6 Item 12) |
| 24 | 019E49470 | Pad |



## PL 19.1 Rack

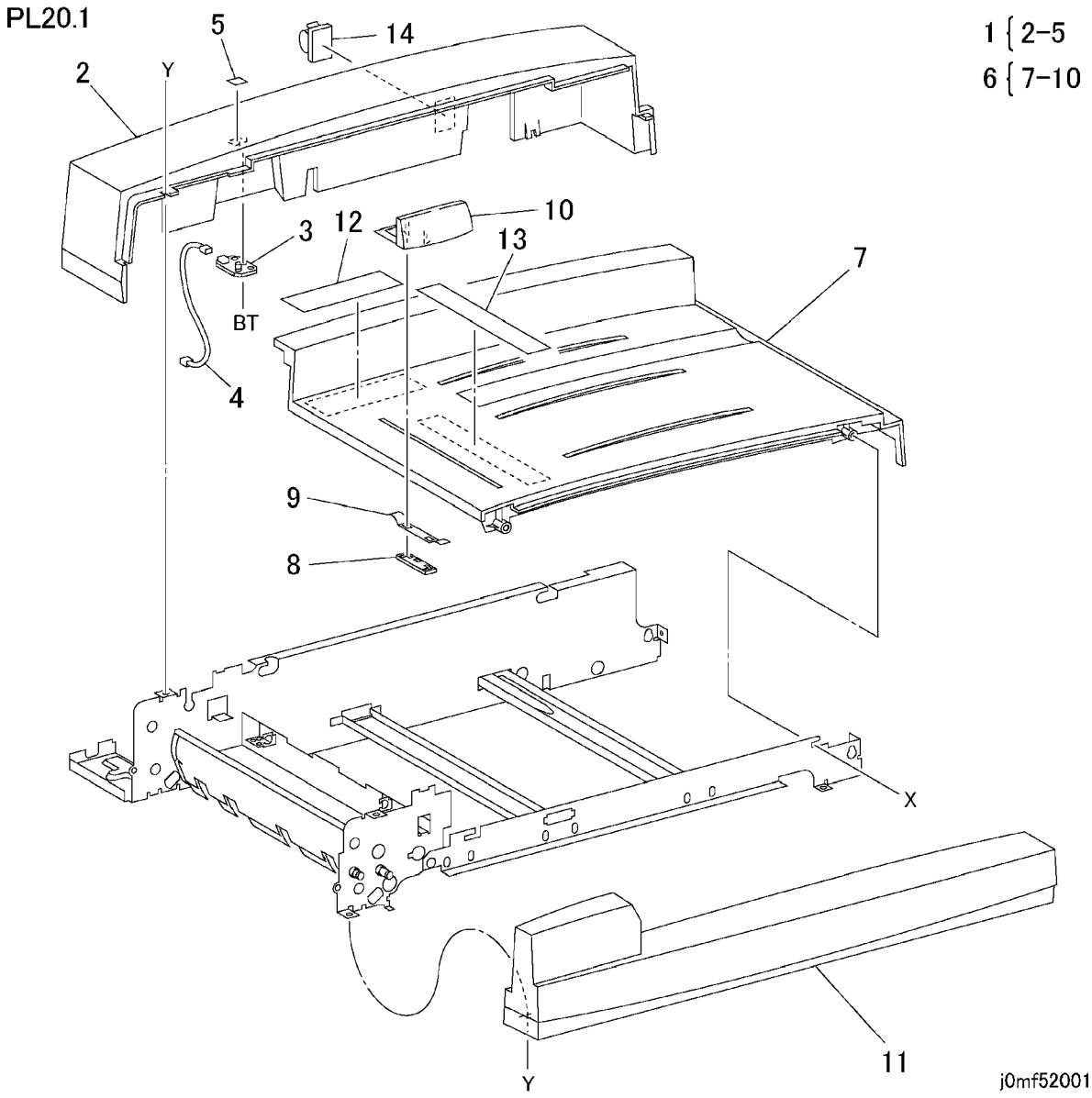
| Item | Part | Description |
|---|---|---|
| 1 | – | Rack (Not Spared) |
| 2 | 017E94710 | Swivel Caster |
| 3 | 017E94730 | Stationary Caster |
| 4 | 017E94700 | Foot |

PL19.1



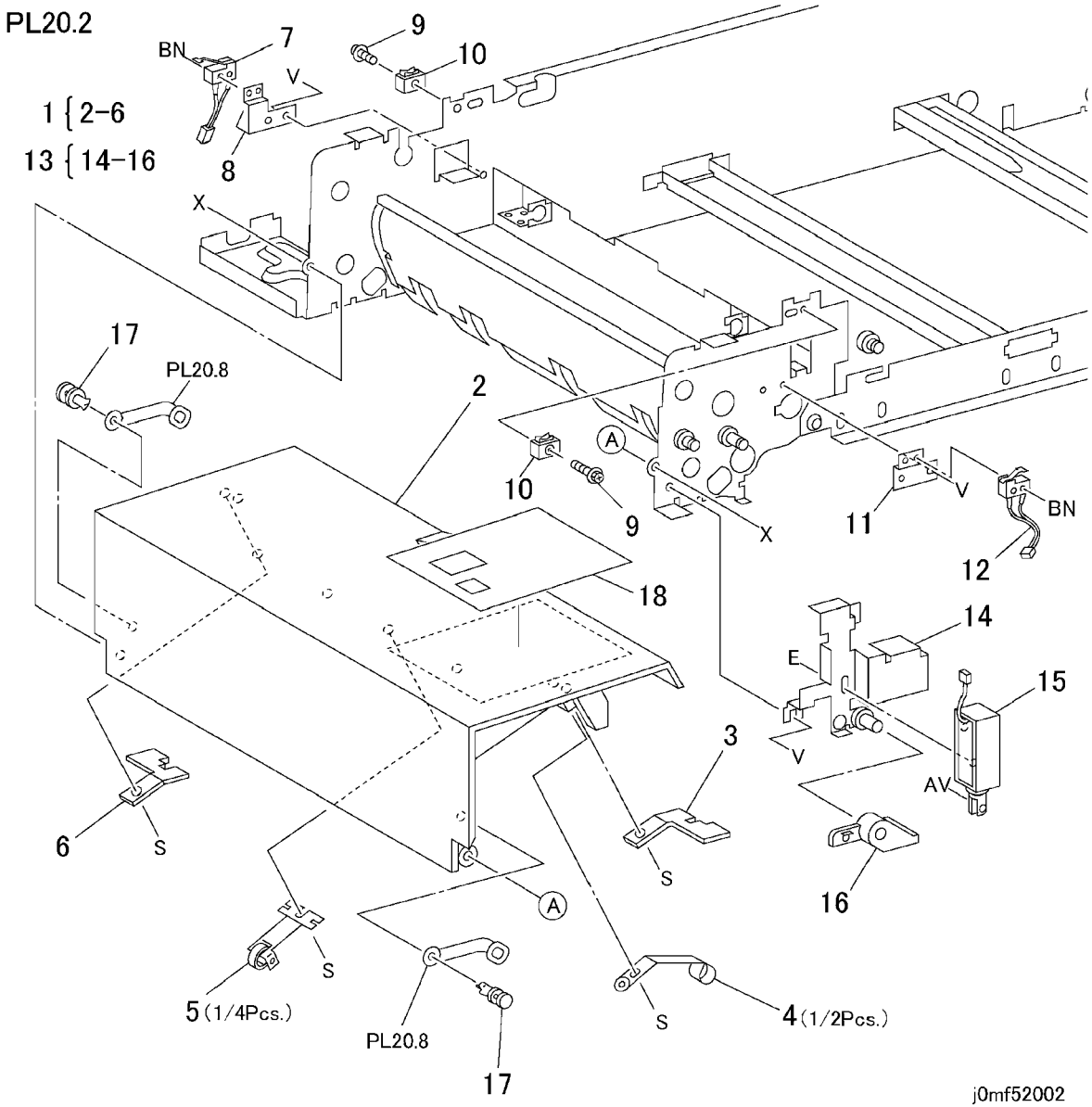
## PL 20.1 Front/Rear Cover, Entrance Tray

| Item | Part | Description |
|---|---|---|
| 1 | 048K76180 | Rear Cover Assembly (REP 5.18) |
| 2 | – | Rear Cover (P/O PL 20.1 Item 1) |
| 3 | 140K60480 | LED PWB |
| 4 | – | Wire Harness (P/O PL 20.1 Item 1) |
| 5 | 891E65180 | Label (Display) |
| 6 | 050K36410 | Entrance Tray Assembly |
| 7 | – | Entrance Tray (P/O PL 20.1 Item 6) |
| 8 | – | Plate (P/O PL 20.1 Item 6) |
| 9 | 009E26870 | Spring Plate |
| 10 | 032K93800 | Document Guide |
| 11 | 048E64200 | Front Cover |
| 12 | – | Label (Not Spared) |
| 13 | 891E65210 | Size Label |
| 14 | – | Clamp (Not Spared) |



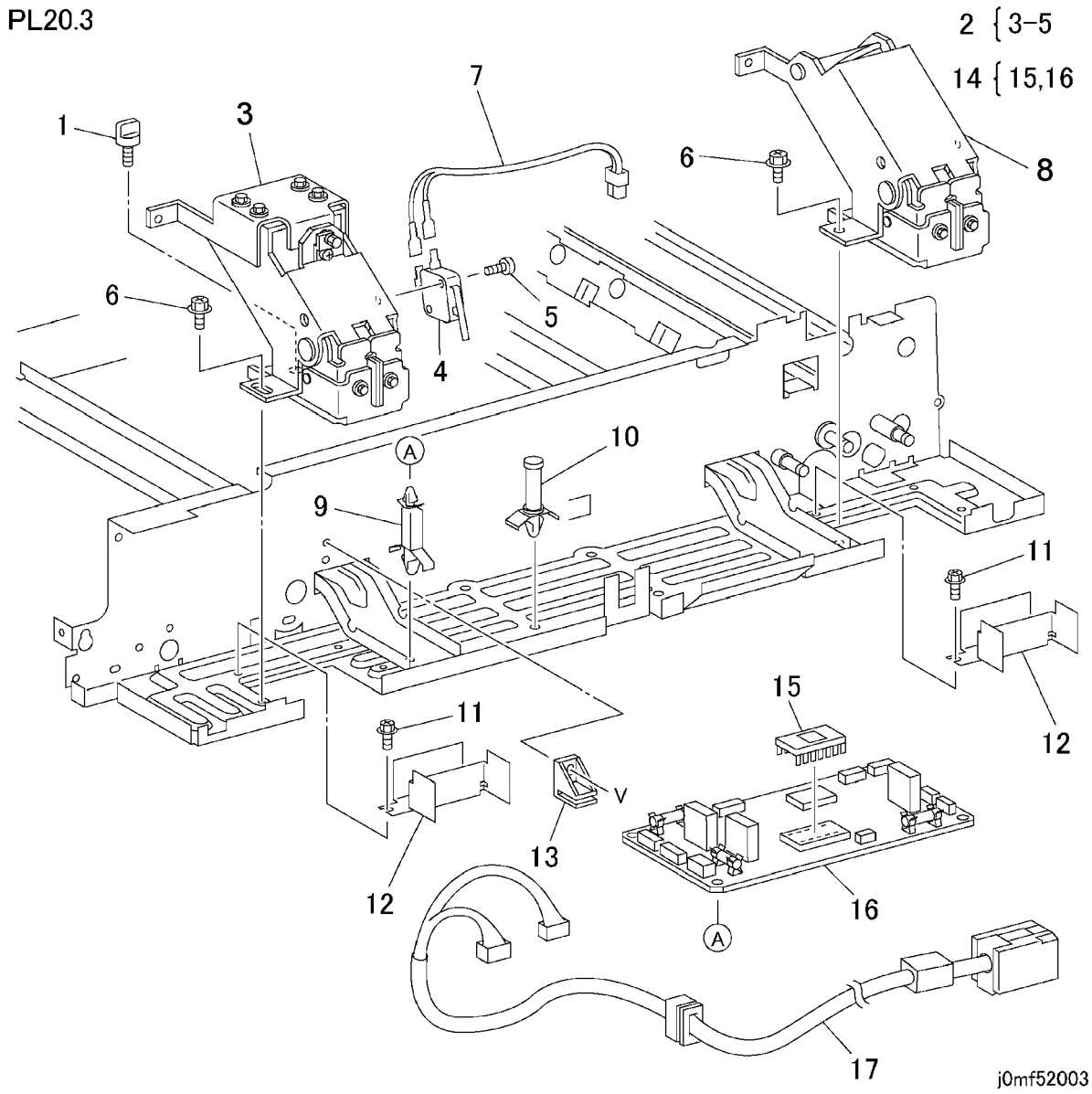
# PL 20.2 Top Cover, Registration Gate Solenoid

| Item | Part | Description |
|---|---|---|
| 1 | 054K13621 | Top Cover Assembly |
| 2 | – | Top Cover (P/O PL 20.2 Item 1) |
| 3 | 015E48890 | Front Magnet Plate |
| 4 | 809E11130 | Spring |
| 5 | 059K11880 | Pinch Roll |
| 6 | 015E48900 | Front Magnet Plate |
| 7 | 110K07850 | Top Cover Interlock Switch (Rear) |
| 8 | – | Bracket (Not Spared) |
| 9 | – | Screw (Not Spared) |
| 10 | 121K93870 | Magnet |
| 11 | – | Bracket (Not Spared) |
| 12 | 110K07870 | Top Cover Interlock Switch (Front) |
| 13 | 121K22710 | Registration Gate Solenoid Assembly (REP 5.2) |
| 14 | – | Bracket (P/O PL 20.2 Item 13) |
| 15 | – | Registration Gate Solenoid (P/O PL 20.2 Item 13) |
| 16 | – | Registration Arm (P/O PL 20.2 Item 13) |
| 17 | 019E93510 | Push Rivet |
| 18 | – | Label (Not Spared) |



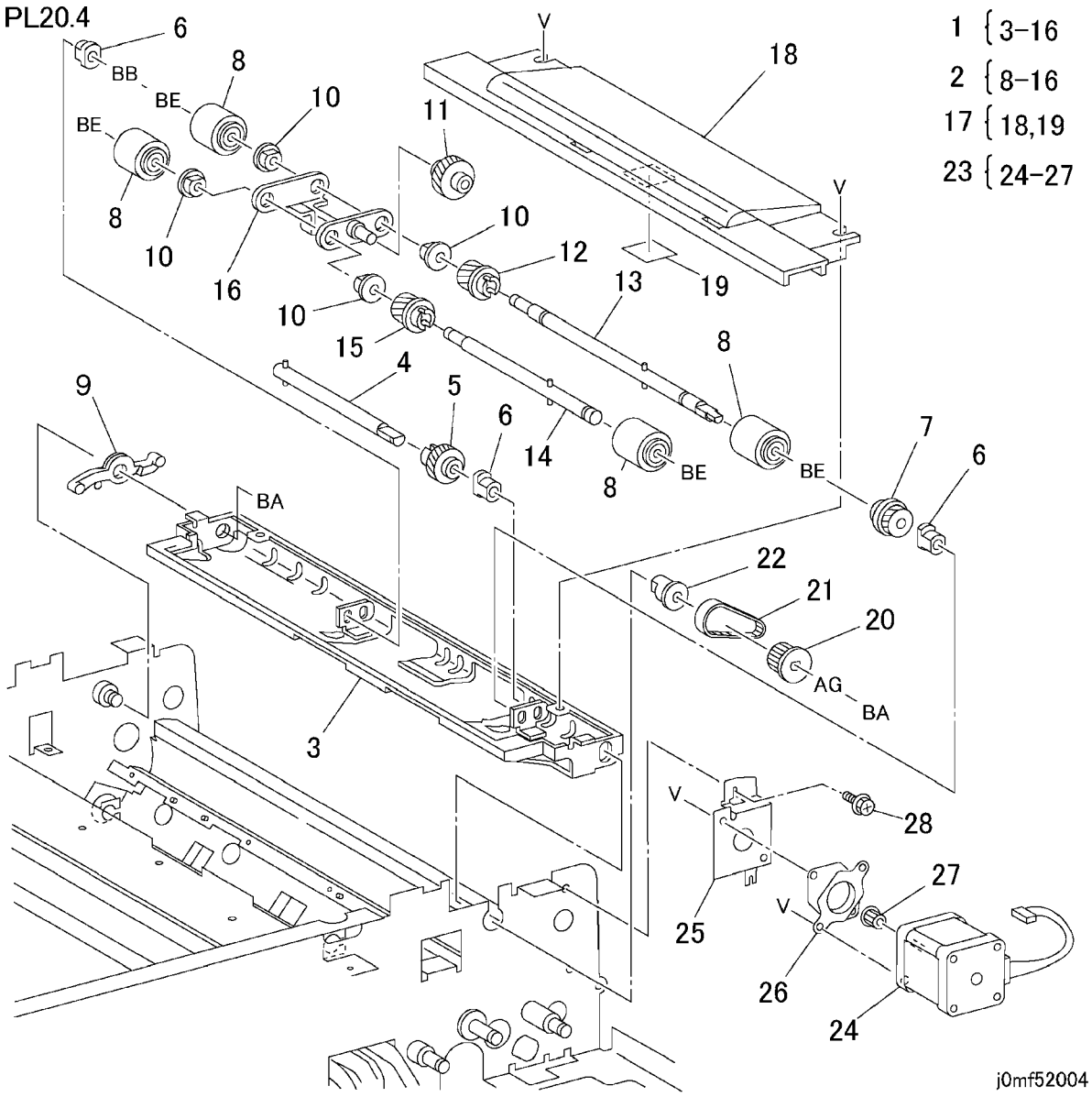
# PL 20.3 Counterbalance, DADF Control PWB

| Item | Part | Description |
|---|---|---|
| 1 | 003K91881 | Thumbscrew |
| 2 | 036K91431 | Right Counterbalance (REP 5.3) |
| 3 | – | Counterbalance (P/O PL 20.3 Item 2) (ADJ 5.2 ADJ 5.3 ADJ 5.4) |
| 4 | – | DADF Interlock Switch (P/O PL 20.3 Item 2) |
| 5 | – | Screw (P/O PL 20.3 Item 2) |
| 6 | – | Screw (Not Spared) |
| 7 | – | Wire Harness (Not Spared) |
| 8 | 036K91420 | Left Counterbalance (REP 5.3,ADJ 5.2 ADJ 5.3 ADJ 5.4) |
| 9 | – | PWB Support (Not Spared) |
| 10 | – | PWB Support (Not Spared) |
| 11 | – | Screw (Not Spared) |
| 12 | – | Safety Bracket (Not Spared) |
| 13 | – | PWB Support (Not Spared) |
| 14 | 160K83080 | DADF Control PWB Assembly (W/ROM) (REP 5.4) |
| 15 | – | ROM (P/O PL 20.3 Item 14) |
| 16 | – | DADF Control PWB (P/O PL 20.3 Item 14) |
| 17 | 162K64340 | Wire Harness |



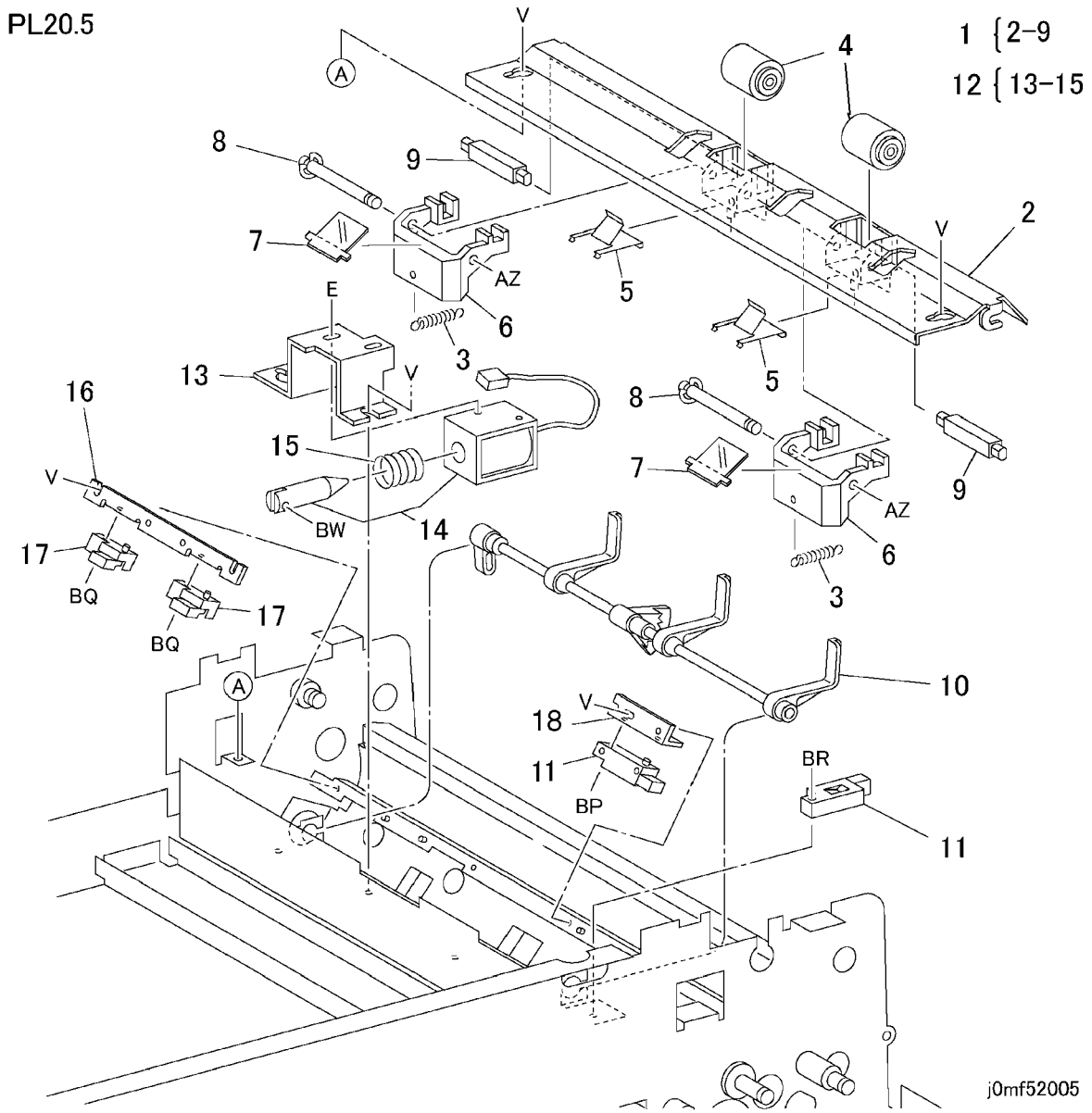
# PL 20.4 Document Feed Chute (Upper), Feed Motor

| Item | Part | Description |
|---|---|---|
| 1 | 054K13600 | Document Feed Upper Chute Assembly |
| 2 | 059K11840 | Feed Roll Assembly |
| 3 | – | Upper Baffle (P/O PL 20.4 Item 1) |
| 4 | – | Drive Shaft (P/O PL 20.4 Item 1) |
| 5 | – | Gear (P/O PL 20.4 Item 1) |
| 6 | 013E92760 | Bearing |
| 7 | – | Gear (P/O PL 20.4 Item 1) |
| 8 | 600K90370 | Roll Kit (2 Rolls/Kit) (REP 5.6 REP 5.7) |
| 9 | 012E09750 | Link |
| 10 | 413W77359 | Bearing |
| 11 | – | Gear (P/O PL 20.4 Item 1,PL 20.4 Item 2) |
| 12 | – | Gear (P/O PL 20.4 Item 1,PL 20.4 Item 2) |
| 13 | – | Feed Shaft (P/O PL 20.4 Item 1,PL 20.4 Item 2) |
| 14 | – | Nudger Shaft (P/O PL 20.4 Item 1,PL 20.4 Item 2) |
| 15 | – | Gear (P/O PL 20.4 Item 1,PL 20.4 Item 2) |
| 16 | – | Housing (P/O PL 20.4 Item 1,PL 20.4 Item 2) |
| 17 | 802K08320 | Inner Cover Assembly |
| 18 | – | Inner Cover (P/O PL 20.4 Item 17) |
| 19 | – | Pad (P/O PL 20.4 Item 17) |
| 20 | – | Pulley (Not Spared) |
| 21 | 023E20000 | Belt |
| 22 | – | Bearing (Not Spared) |
| 23 | 127K32680 | Feed Motor Assembly (REP 5.5) |
| 24 | – | Feed Motor (P/O PL 20.4 Item 23) |
| 25 | – | Motor Bracket (P/O PL 20.4 Item 23) |
| 26 | – | Damper (P/O PL 20.4 Item 23) |
| 27 | – | Pulley (P/O PL 20.4 Item 23) |
| 28 | – | Screw (Not Spared) |



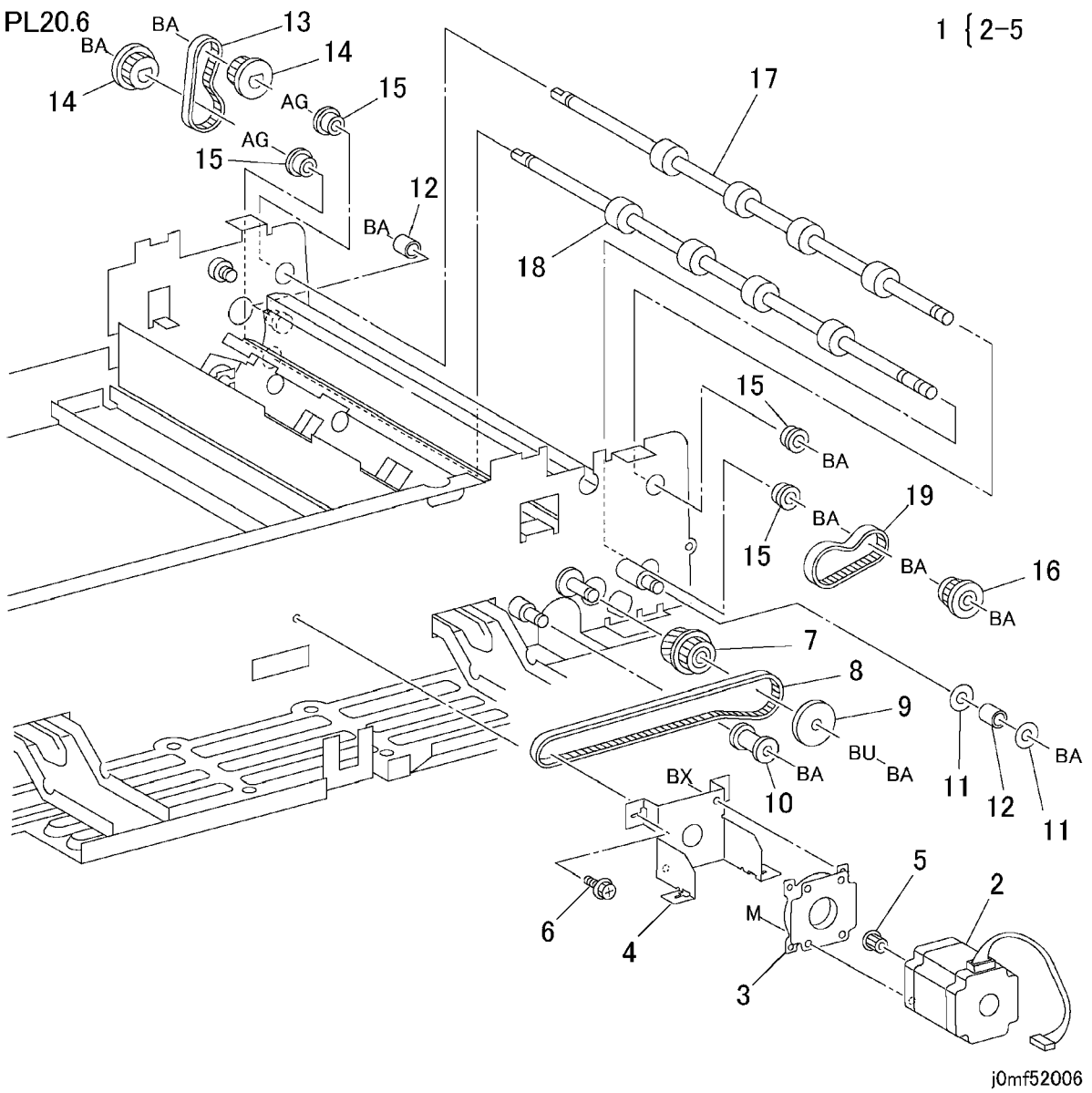
# PL 20.5 Document Feed Chute (Lower)

| Item | Part | Description |
|---|---|---|
| 1 | 054K18780 | Lower Chute Assembly (REP 5.8) |
| 2 | – | Lower Chute (P/O PL 20.5 Item 1) |
| 3 | – | Spring (P/O PL 20.5 Item 1) |
| 4 | 059K19720 | Retard Roll (REP 5.9) |
| 5 | – | Spring Plate (P/O PL 20.5 Item 1) |
| 6 | – | Arm (P/O PL 20.5 Item 1) |
| 7 | 055K19260 | Guard |
| 8 | – | Arm Shaft (P/O PL 20.5 Item 1) |
| 9 | – | Retard Shaft (P/O PL 20.5 Item 1) |
| 10 | – | Set Gate (Not Spared) |
| 11 | 130K60600 | Document Sensor, Registration Sensor (REP 5.11) |
| 12 | 121K22690 | Set Gate Solenoid Assembly (REP 5.10) |
| 13 | – | Bracket (P/O PL 20.5 Item 12) |
| 14 | – | Set Gate Solenoid (P/O PL 20.5 Item 12) |
| 15 | – | Spring (P/O PL 20.5 Item 12) |
| 16 | – | Bracket (Not Spared) |
| 17 | 130E80890 | Size Sensor 1 (Rear), Size Sensor 2 (Front) (REP 5.12) |
| 18 | – | Bracket (Not Spared) |



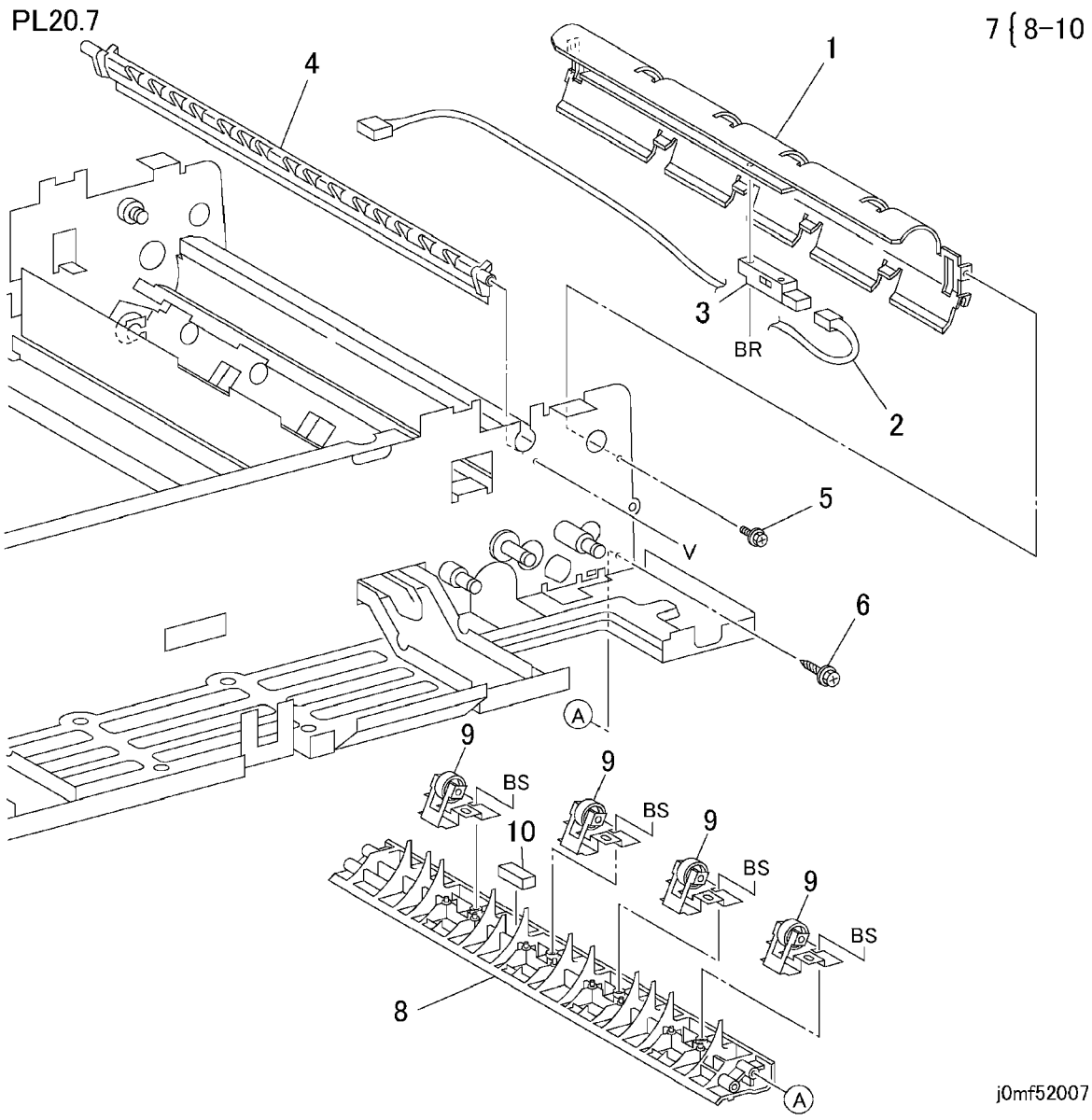
# PL 20.6 DADF Belt Motor, Duplex Roll

| Item | Part | Description |
|---|---|---|
| 1 | 127K32690 | DADF Belt Motor Assembly (REP 5.13) |
| 2 | – | DADF Belt Motor (P/O PL 20.6 Item 1) |
| 3 | – | Damper (P/O PL 20.6 Item 1) |
| 4 | – | Bracket (P/O PL 20.6 Item 1) |
| 5 | – | Pulley (P/O PL 20.6 Item 1) |
| 6 | – | Screw (Not Spared) |
| 7 | 007K86700 | Gear Pulley |
| 8 | 023E19990 | Belt |
| 9 | – | Spacer (Not Spared) |
| 10 | – | Tension Roll (Not Spared) |
| 11 | – | Spacer (Not Spared) |
| 12 | – | Tension Roll (Not Spared) |
| 13 | 023E20010 | Belt |
| 14 | 020E21050 | Pulley |
| 15 | – | Bearing (Not Spared) |
| 16 | 020K91230 | Pulley |
| 17 | 022K37080 | Upper Duplex Roll |
| 18 | 022K37070 | Lower Duplex Roll |
| 19 | 023E12230 | Belt |



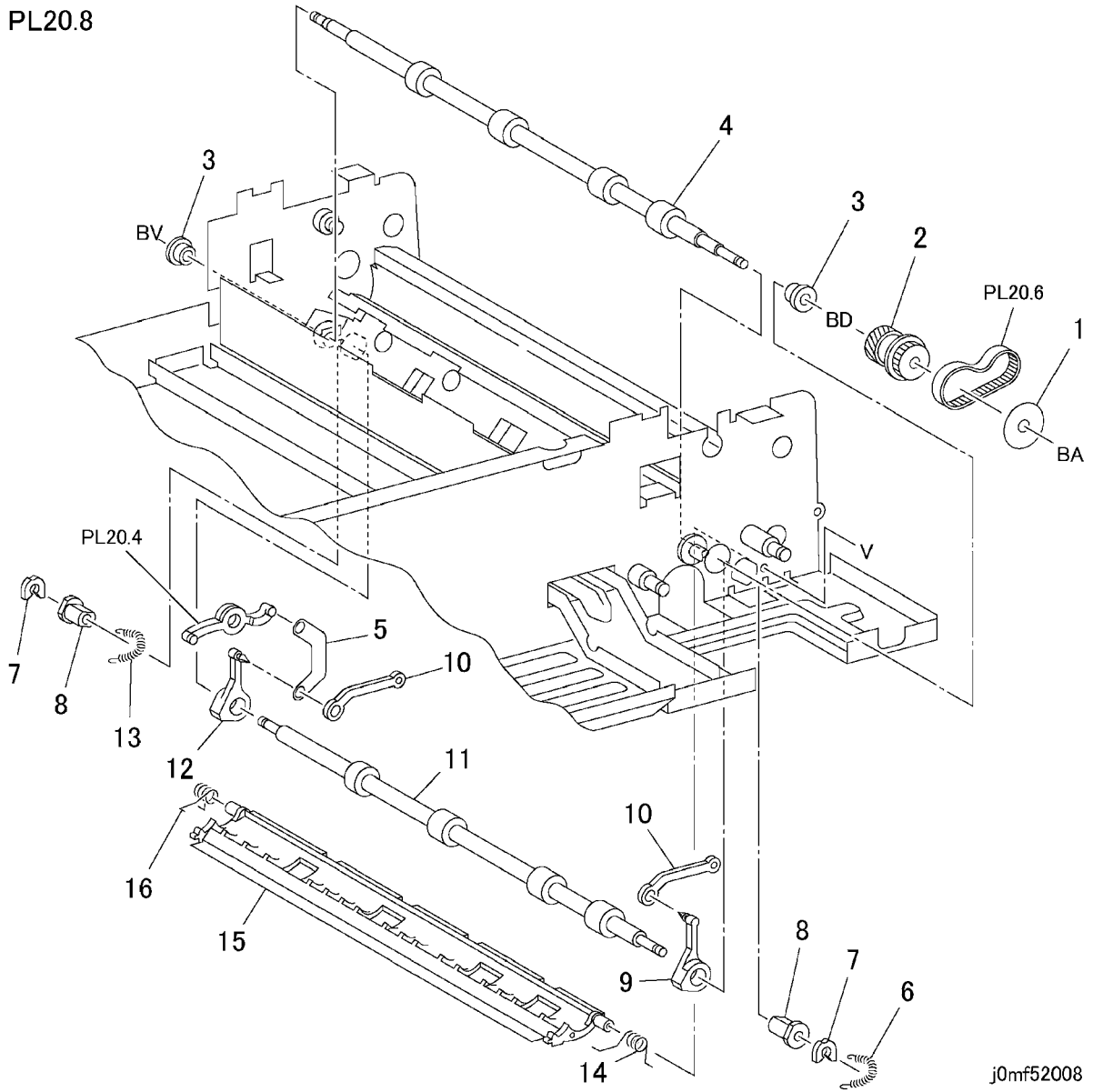
# PL 20.7 Duplex Chute

| Item | Part | Description |
|---|---|---|
| 1 | – | Duplex Chute (Not Spared) |
| 2 | – | Wire Harness (Not Spared) |
| 3 | 130K60600 | Duplex Sensor (REP 5.14) |
| 4 | 050K46690 | Gate |
| 5 | – | Screw (Not Spared) |
| 6 | – | Screw (Not Spared) |
| 7 | 054K18790 | Lower Chute Assembly |
| 8 | – | Lower Chute (P/O PL 20.7 Item 7) |
| 9 | – | Pinch Roll (P/O PL 20.7 Item 7) |
| 10 | 121E90640 | Open Switch Magnet |



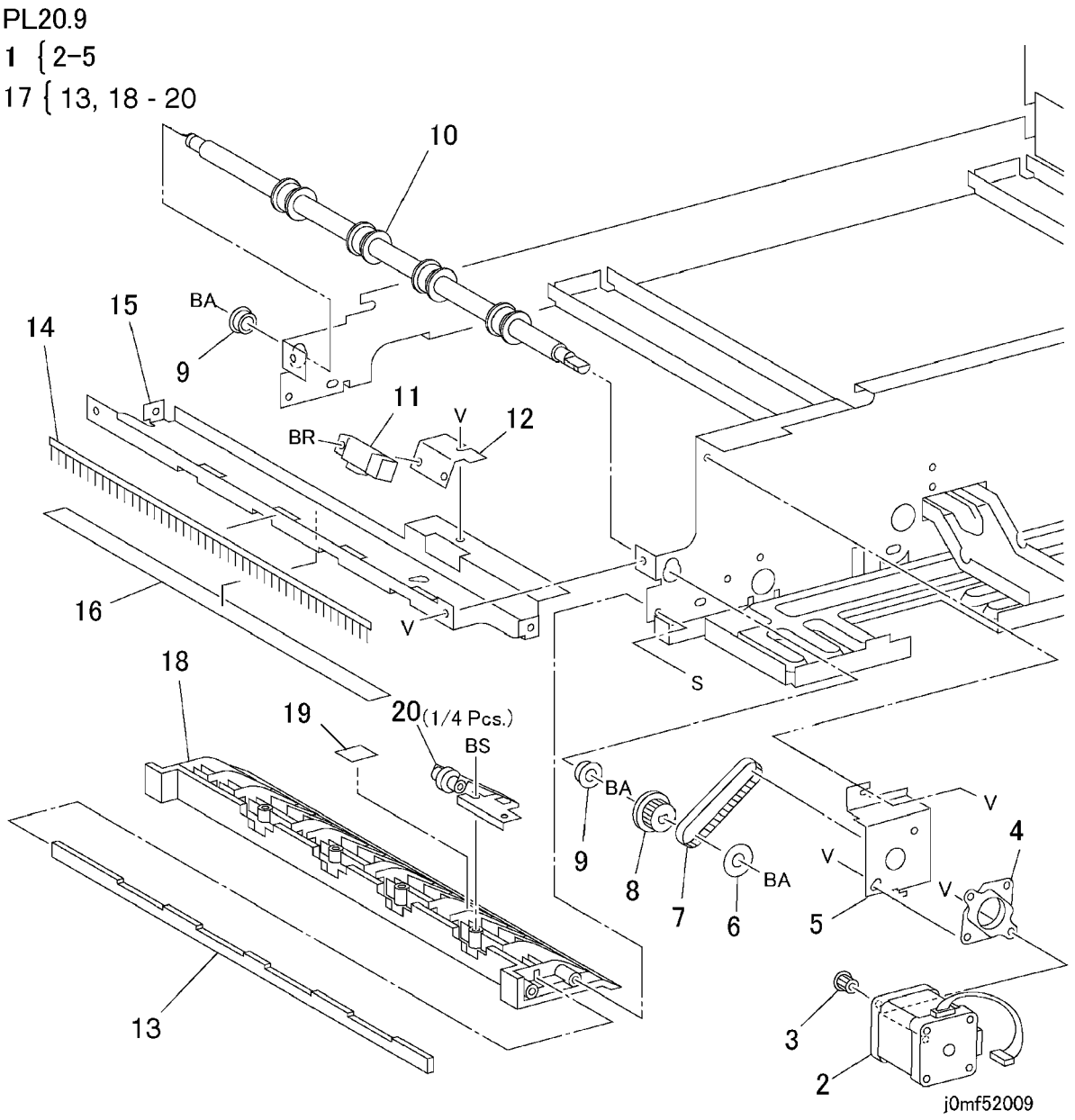
# PL 20.8 Registration Roll

| Item | Part | Description |
|---|---|---|
| 1 | – | Spacer (Not Spared) |
| 2 | 007K81120 | Gear Pulley |
| 3 | – | Bearing (Not Spared) |
| 4 | 059K19750 | Registration Roll |
| 5 | 012E09760 | Link |
| 6 | 809E04210 | Rear Spring |
| 7 | 005E80250 | Clip |
| 8 | 013E94561 | Bearing |
| 9 | 008E90941 | Rear Cam |
| 10 | 012E91960 | Link |
| 11 | 022K38040 | Registration Pinch Roll (REP 5.15) |
| 12 | 008E90931 | Front Cam |
| 13 | 809E04220 | Front Spring |
| 14 | 009E28570 | Spring |
| 15 | 050K46690 | Gate |
| 16 | 009E28560 | Spring |



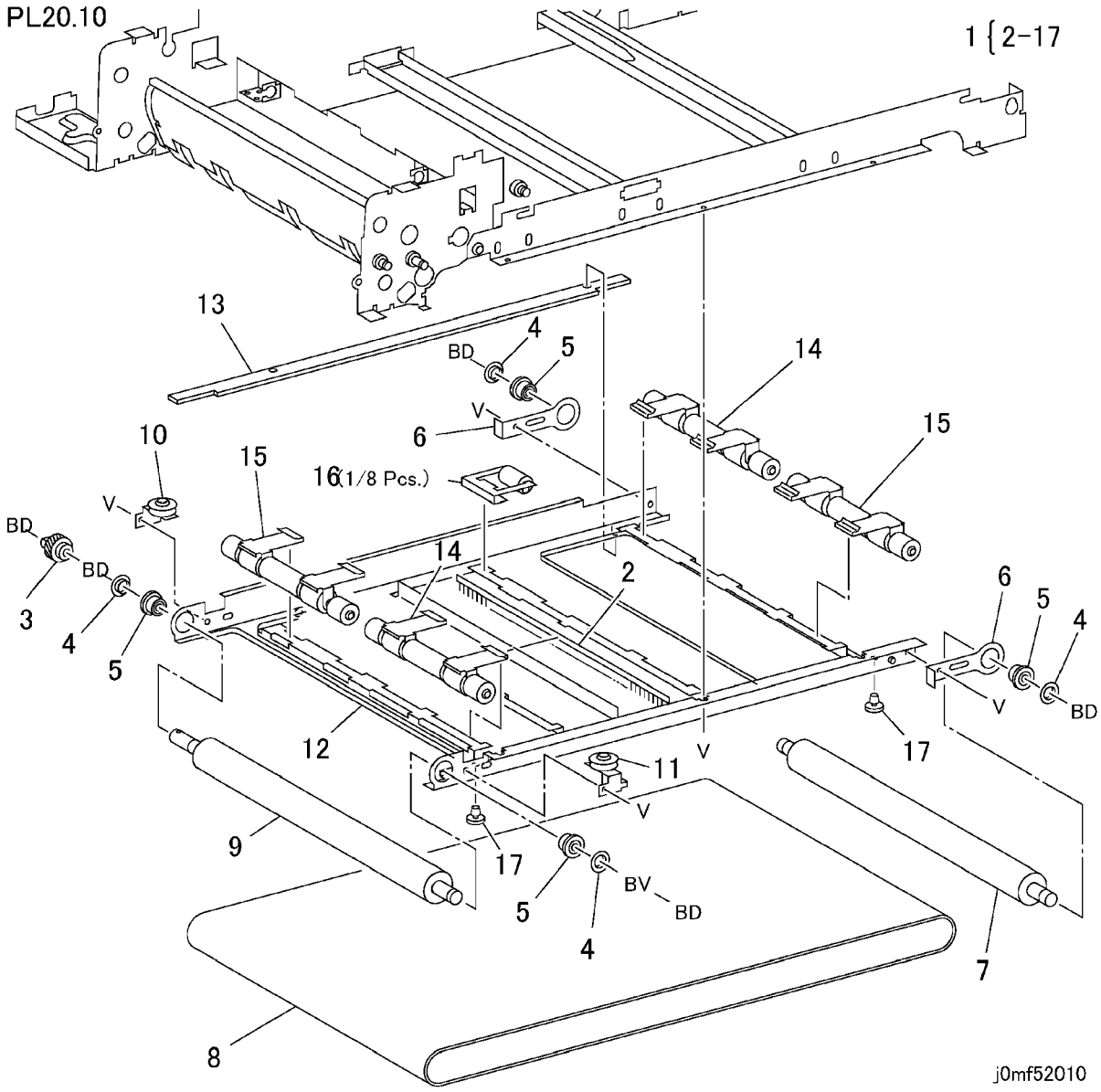
## PL 20.9 Exit Motor/Chute

| Item | Part | Description |
|---|---|---|
| 1 | 127K32640 | Exit Motor Assembly (REP 5.16) |
| 2 | – | Exit Motor (P/O PL 20.9 Item 1) |
| 3 | – | Pulley (P/O PL 20.9 Item 1) |
| 4 | – | Damper (P/O PL 20.9 Item 1) |
| 5 | – | Bracket (P/O PL 20.9 Item 1) |
| 6 | – | Spacer (Not Spared) |
| 7 | 023E20000 | Belt |
| 8 | 020E93230 | Pulley |
| 9 | – | Bearing (Not Spared) |
| 10 | 059K11860 | Exit Roll |
| 11 | 130K60600 | DADF Exit Sensor |
| 12 | – | Bracket (Not Spared) |
| 13 | – | Plate (P/O PL 20.9 Item 17) |
| 14 | 105E06910 | Static Eliminator |
| 15 | – | Exit Upper Chute (Not Spared) |
| 16 | 055K26060 | Document Guard |
| 17 | 054K13081 | Lower Exit Chute |
| 18 | – | Exit Lower Chute (P/O PL 20.9 Item 17) |
| 19 | – | Sensor Pad (P/O PL 20.9 Item 17) |
| 20 | 059K11821 | Pinch Roll |



# PL 20.10 Document Transport, Platen Belt

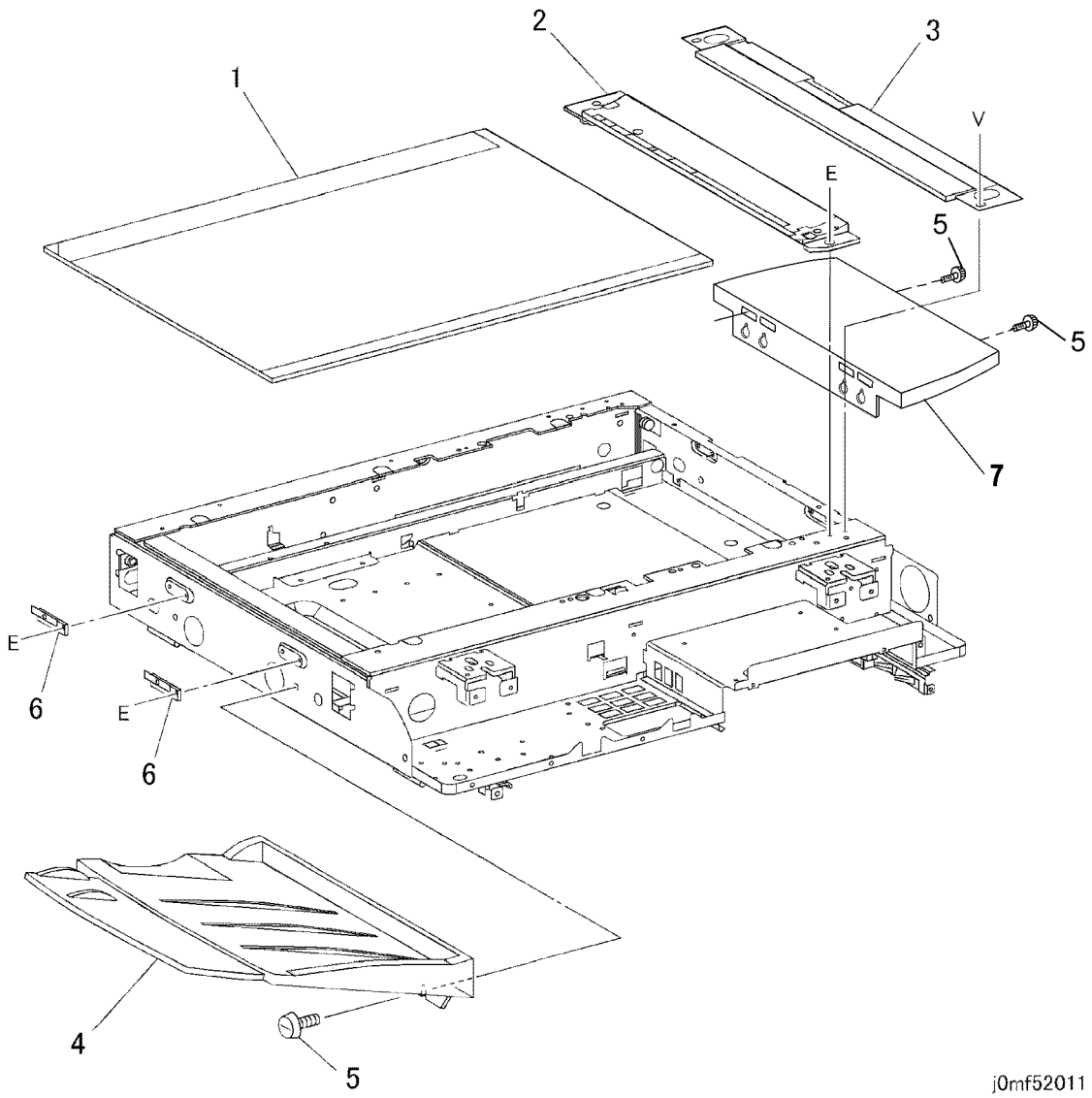
| Item | Part | Description |
|---|---|---|
| 1 | – | Document Transport (Not Spared) (REP 5.17) |
| 2 | – | Static Eliminator (Not Spared) |
| 3 | 007E66340 | Gear |
| 4 | – | Collar (Not Spared) |
| 5 | 013E80970 | Bearing |
| 6 | 049E91070 | Tension Plate |
| 7 | 022K39710 | Idler Roll |
| 8 | 023E15690 | Platen Belt (REP 5.19) |
| 9 | – | Drive Roll (Not Spared) |
| 10 | – | Belt Guide (Not Spared) |
| 11 | – | Belt Guide (Not Spared) |
| 12 | – | Transport Frame (Not Spared) |
| 13 | – | Deflector (Not Spared) |
| 14 | – | Pinch Roll (Not Spared) |
| 15 | – | Pinch Roll (Not Spared) |
| 16 | – | Pinch Roll (Not Spared) |
| 17 | – | Damper (Not Spared) |



# PL 20.11 Platen Glass, Registration Gate, Exit Tray

| Item | Part | Description |
|---|---|---|
| 1 | 090K92820 | Platen Glass (REP 6.2) |
| 2 | 050K43070 | Registration Gate |
| 3 | 015K83700 | Plate |
| 4 | 673K51382 | Exit Tray |
| 5 | 003E43840 | Thumbscrew |
| 6 | 830E17490 | Bracket |
| 7 | 050E88440 | Wing Tray |

PL20.11



## Common Hardware

| Item | Part | Description |
|---|---|---|
| A | 112W27651 | Screw (M3x6) |
| B | 112W27659 | Screw (M3x6) |
| C | 112W27851 | Screw (M3x8) |
| D | 112W28451 | Screw (M3x14) |
| E | 113W20457 | Screw (M3x4) |
| F | 113W20651 | Screw (M3x6) |
| G | 113W20857 | Screw (M3x8) |
| H | 113W21057 | Screw (M3x10) |
| J | 113W21657 | Screw (M3x16) |
| K | 113W27451 | Screw (M3x4) |
| L | 113W27551 | Screw (M3x5) |
| M | 113W27651 | Screw (M3x6) |
| N | 113W27851 | Screw (M3x8) |
| P | 113W28051 | Screw (M3x10) |
| Q | 113W28851 | Screw (M3x20) |
| R | 153W17655 | Thread-forming Screw (M3x6) |
| S | 153W17855 | Thread-forming Screw (M3x8) |
| T | 153W18055 | Thread-forming Screw (M3x10) |
| U | 153W27855 | Thread-forming Screw (M3x8) |
| V | 158W27655 | Screw (M3x6) |
| W | 158W27663 | Screw (M3x6) |
| X | 158W27855 | Screw (M3x8) |
| Y | 158W27863 | Screw (M3x8) |
| Z | 158W28255 | Screw (m3x12) |
| AA | 158W35855 | Screw (M4x8) |
| AB | 220W21250 | Flange Nut (M3) |
| AC | 251W24251 | Washer (4) |
| AD | 251W24450 | Washer (4) |
| AE | 252W24250 | Nylon Washer (4) |
| AF | 252W26450 | Nylon Washer (5) |
| AG | 252W27350 | Nylon Washer (6) |
| AH | 252W27450 | Nylon Washer (6) |
| AJ | 252W29450 | Nylon Washer (8) |
| AK | 271W16050 | Dowel Pin (2x10) |
| AL | 271W28250 | Dowel Pin (3x12) |
| AM | 271W28650 | Dowel Pin (3x16) |
| AN | 271W28950 | Dowel Pin (3x22) |
| AP | 271W36850 | Dowel Pin (4x20) |
| AQ | 285W15651 | Spring Pin (2x6) |
| AR | 285W15851 | Spring Pin (2x8) |
| AS | 285W16251 | Spring Pin (2x12) |
| AT | 285W28051 | Spring Pin (3x10) |
| AU | 285W28251 | Spring Pin (3x12) |
| AV | 285W28651 | Spring Pin (3x16) |
| AW | 354W15251 | E-Clip (2) |
| AX | 354W19251 | E-Clip (2.5) |
| AY | 354W21251 | E-Clip (3) |
| AZ | 354W21254 | K-Clip (3) |
| BA | 354W24251 | E-Clip (4) |
| BB | 354W24254 | K-Clip (4) |
| BC | 354W26251 | E-Clip (5) |
| BD | 354W27251 | E-Clip (6) |
| BE | 354W27254 | K-Clip (6) |
| BF | 354W29251 | E-Clip (8) |
| BG | 113W20657 | Screw (M3x6) |
| BH | 113W16051 | Screw (M2x10) |
| BJ | 158W45055 | Screw (M5x10) |
| BK | 158W36355 | Screw (M4x12) |
| BL | 251W24451 | Washer (4) |
| BM | 113W20557 | Screw (M3x5) |
| BN | 113W15851 | Screw |
| BP | 113W28056 | Screw (M3x10) |
| BQ | 113W28251 | Screw (M3x12) |
| BR | 113W28256 | Screw (M3x12) |
| BS | 153W27650 | Thread-forming Screw (M3x6) |
| BT | 153W27850 | Thread-forming Screw (M3x8) |
| BU | 252W27250 | Nylon Washer (6) |
| BV | 252W29350 | Nylon Washer (8) |
| BW | 285W29151 | Spring Pin (3x25) |
| BX | 158W35655 | Screw (M4x6) |

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| | PL 17.14 |
| 003K12650 | PL 5.2 |
| 003K12680 | PL 5.1 |
| 003E23672 | PL 16.1 |
| | PL 2.1 |
| 003E43840 | PL 20.11 |
| 003E52290 | PL 5.1 |
| 003E52300 | PL 5.1 |
| 003E53700 | PL 16.13 |
| 003E53710 | PL 16.13 |
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| 802K46060 | PL 10.1 |
| 802K47090 | PL 4.1 |
| 809E04210 | PL 20.8 |
| 809E04220 | PL 20.8 |
| 809E09110 | PL 18.6 |
| 809E11130 | PL 20.2 |
| 809E26330 | PL 5.6 |
| 809E28960 | PL 16.13 |
| 809E28980 | PL 16.13 |
| 809E29620 | PL 2.8 |
| 809E33600 | PL 17.10 |
| 830E17490 | PL 20.11 |
| 830E81670 | PL 17.6 |
| 891E49060 | PL 16.1 |
| 891E49510 | PL 16.1 |
| 891E49520 | PL 16.1 |
| 891E65180 | PL 20.1 |
| 891E65210 | PL 20.1 |
| 891E75951 | PL 10.1 |
| 892E13310 | PL 2.2 |
| 892E28491 | PL 16.1 |
| 892E41110 | PL 2.1 |
| 892E74500 | PL 16.2 |
| 892E78280 | PL 10.1 |
| 892E78290 | PL 10.1 |
| 908W01200 | PL 9.2 |
| 917W00723 | PL 9.2 |
| 962K05900 | PL 18.4 |
| 962K05910 | PL 18.4 |
| 962K07440 | PL 17.9 |
| 962K08641 | PL 13.1 |
| 962K08820 | PL 9.2 |
| 962K09800 | PL 9.3 |
| 962K10120 | PL 17.13 |
| 962K10130 | PL 17.13 |

# 6 General Procedures & Information

## Diagnostics



## General Procedures



## General Information



## Tools and Supplies

# Entering Diagnostic Mode using the PWS

## Procedure

The following procedure describe how to enter the Diagnostics Mode with the PWS.

1. Inform the customer that the machine will be undergoing service and will not be available. (Copy jobs and local print jobs will be stopped).
2. Disconnect the machine from the customer network.
3. Connect the Portable Work Station (PWS) to the machine (Figure 1).

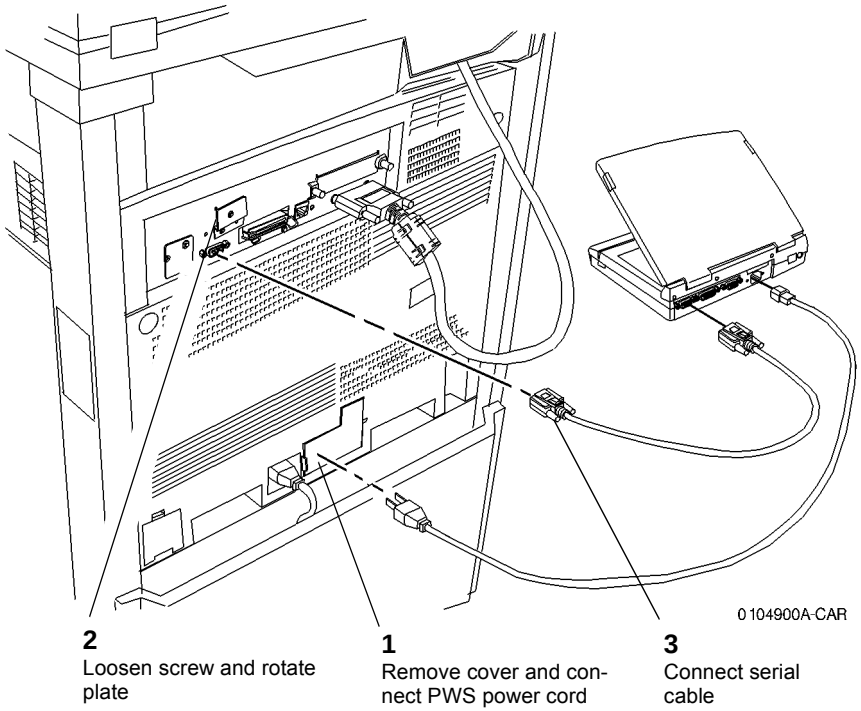



**Figure 1 Connecting the PWS**

4. Switch on the PWS.
5. Make sure the machine is not copying or printing. The machine UI should display **Ready to Copy** when there are no pending jobs.
6. At the PWS, enter the **GSNLock Password** and select **OK**.
7. From the Start menu in the lower left corner, select Programs\Xerox Applications\DC 1632 PWS Tools.

***NOTE:*** *The PWS cannot connect to the machine if it is in Power Save mode. Ensure that the machine indicates* ***Ready to Copy*** *before launching the PWS Tools.*

8. The **Diagnostics Tool screen** will display.
   a. Select **Use Local DB** from the **Diagnostics Tool screen**. The **PWS Diagnostic Service Entry Window** displays.
   b. While the machine is connected to the PWS, the machine UI will display the message, **Connecting to the Machine**.
9. When the tool starts obtaining machine data, that data is displayed on the Service Entry Screen. When the system has obtained the machine data, it displays **Complete** at the upper left corner of the Service Entry Screen.

   The data listed in Table 1 will be displayed.

**Table 1 Machine Data displayed at Service Entry**

| Heading | Contents | Description |
|---|---|---|
| Machine Data | Product Code | Displays a code allocated to each machine to identify the machine. |
| | Serial Number | Displays a 6-digit number (0-9) allocated to each machine type to identify the machine. |
| | Total Copies | Displays the total number of copies/prints |
| | Copies Since Last Call | Displays the total number of copies/prints since the last CSE visit (complete closeout). |
| | Software Version | Displays current IOT S/W Version |
| Non-Zero Jams | ID, Description, Occurrences | Displays the Jams that have occurred since the last complete closeout. |
| HFSI Requiring Replacement | ID, Description, Threshold, Count. | Displays the component(s) (HFSI) that has exceeded the life Threshold). |
| Faults in Progress (Current Faults) | ID, Description, Primary | Displays current (active) faults in the machine. |

10. If communication is lost between the PWS and the machine, click **Reconnect** from the main file menu.
11. To exit the Diagnostic Mode:
    a. Select the **Service Exit Tab**.
    b. Click on the appropriate close-out buttons:
       - **Complete Closeout**
       - **Temporary Closeout**
    c. After the PWS has disconnected from the machine, select **Exit PWS** to close the tool.

# UI Diagnostic Mode

Diagnostic routines are mainly instructed/executed through the PWS. The UI Diagnostic mode tis provided for simple tasks that do not require connection with the PWS.

## Procedure

Access the UI Diagnostic mode by following the procedures below.

**Entering the UI Diagnostic mode**

1. At the Control Panel, press and hold the **0** key for 5 seconds, then press the **Start** button while still pressing the 0 key.

   The **CE Mode - Password Entry** screen will appear.
2. Enter the Access Number (6789) and press **Confirm**.

   The colors on the display will be reversed to indicate that the mode has changed to the UI Diagnostic mode.

**Accessing Diagnostic routines**

1. Press the **Access** button on the Control Panel
2. Press the **System Settings** button on the display
3. Press the **Common Settings** button on the display
4. Press the **Diagnostics** button on the display
5. The following dC routines can be accessed from the UI screen
   a. DC301 NVM Initialization

      - Select the subsystem to be initialized and press the Start button on the display. Refer to dC301 for details.

   b. DC355 Hard Disk Initialization

      - Only Partition A can be initialized. For full initialization, refer to ADJ 9.8.

   c. DC131 NVM Read/Write

      - follow the instructions on the screen. If one or more NVM locations is changed, the machine will reboot upon exit. Refer to dC131 for details.

**Printing Service Reports**

1. To access Service reports, follow the **Entering the UI Diagnostic mode** procedure.
2. After entering the Access Number, press the **Machine Status** button on the Control Panel.
3. Select the **Billing Meter/Print Reports** tab on the display.
4. Press the **Print Reports/List** button.
5. Press the **CE** button
6. The following reports can be printed.
   a. Debug Log
   b. HFSI Report
   c. Jam Report
   d. Shutdown Report
   e. Fail Report

**Exiting UI Diagnostic mode**

**CAUTION**

*Ensure that the machine is not inadvertently left in UI Diagnostic Mode.*

There are three ways to exit from the UI Diagnostic mode.

- Switch the power off and on.
- perform the following:
  - Press **Close** to exit any of the service screens that were opened.
  - When the **System Settings** screen is displayed, press Exit
  - When the reversed-color Copy Mode screen is displayed, press the **Start** button while the **0** key is pressed.
- If the **Restart** button is displayed in the screen, pressing the button will restart the operation and exit from the mode.

# DC Quick (CODE Number LIST)

Once in the Service Mode, dC Routines can be selected by dC Number or by selecting the appropriate tabs starting at the Service Entry Screen.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Using the DC Quick pull-down menu (upper-right side of Diagnostics Service Entry Screen), select the desired dC routine.

   Table 1 is a complete list of dC Routines that are available from the DC Quick pull-down menu.

**Table 1 dC Routines**

| dC Number | Name | Description |
|---|---|---|
| 100 | Service Entry Screen | 1. Displays the Service Routine Tabs.<br>2. Lists Active Faults<br>3. Lists the item names of the HFSIs that exceeded life expectancy.<br>4. Lists the jams that have occurred since the last Call Closeout.<br>5. Displays IOT S/W Version. |
| 118 | Jam Counter | Displays the following: Number of jam events since the last Complete Closeout (performed in Service Exit) to the current Number of jams. |
| 120 | Fail Counters | Displays the following: Number of Fault events after the last Complete Closeout (performed in Service Exit) to the current copy count. |
| 122 | Shut-down History | 1. Displays the history in three categories: Document Jam, Paper Jam and Other Fault.<br>2. Displays the most recent 40 Faults (without categorizing) |
| 129 | Automatic Setting: Adjust System Registration | The IOT lead registration and side registration are matched. |
| 131 | NVM access: Read/Write NVM | You can reference or set/change the NVM data. |
| 132 | Set Machine Serial Number. Read Billing Meter Information | If you have replaced the PWB that has a Machine Serial Number, check the PWB and set the Machine Serial Number. Reads Billing Meter Information for the following:<br>ï MCU PWB<br>ï ESS PWB<br>ï ESS NVM PWB |
| 135 | Service Data HFSI Counter | Displays the regular part replacement life expectancy (threshold) and current value (usage). You can change the replacement life expectancy to a preset value in the PWS database and reset the current value. |
| 140 | Component Check: Analog Monitor | Monitor the analog values of the sensors (A/D conversion) while operating the components (e.g., C.C). You can temporarily change the output value. |
| 188 | Service Mode Exit Screen | Displays the requirements for exit from the Service Mode. |
| 301 | NVM access: NVM initialization | Initiates NVM Data initialization |
| 305 | System Test: Component Operation Check UI Component Check | Checks the UI Screen and Component Panel Button operation. |
| 330 | Component Check: Component Control | Displays the instructions and results of the Input Component Check and Output Component Check<br>1. You can monitor each Input Component or check the operation of each Output Component.<br>2. You can simultaneously check multiple Input Components and Output Components up to 11 total. |
| 351 | NVM Background Processing | 1. Saves and restores values of all NVM in PWS dC131 database.<br>***NOTE:*** *Background Read must complete prior to saving.*<br>2. Start and Stop background NVM Read.<br>3. Saves/restores machine settings. Saves NVM values listed:<br>4. Resets all HFSI. |
| 355 | HDD Diagnostics | Perform maintenance on HDD. |
| 361 | NVM access: Save/Restore NVM | Saves the machine NVM data in the PWS. Restores the machine NVM data (stored in the PWS) back to the machine. |

**Table 1 dC Routines**

| dC Number | Name | Description |
|---|---|---|
| 371 | Configuration Page | Allows viewing of current software version and Market Place setting, Machine Configuration, Output Device(s), Accessories, Tray 1 Paper Size setting, Feature Config., and Input Device.<br>These settings can be changed to align with the machine configuration. |
| 612 | Color Test Pattern Print | 1. Outputs a test pattern to identify a copy quality problem.<br>2. Generates a test pattern from the Pattern Generator in the machine. |
| 685 | Regicon | Color Registration/Skew setup |
| 921 | ATC Calibration | Enter ATC Sensor Calibration code into NVM. |
| 922 | TRC Control/Toner Density Adjustment | Measure the grayscale patch by the ADC sensor. Make the LUT for IOT TRC correction. |
| 924 | TRC Adjustment | Manually fine adjust each color (low/mid/high density) in PG. |
| 934 | ADC/AGC Setup | Execute automatic adjustment of the ADC Sensor Gain. |
| 945 | IIT calibration | 1. Calculate and set the white reference compensation coefficient.<br>2. Correct the IIT sensitivity variation. |
| 956 | Belt Edge Learn | Set up the Belt Edge Sensor. |

## dC100 Service Entry

When entering Diagnostics, this routine allows you to view faults in progress, Non-Zero Jams and HFSI items requiring replacement. Service entry allows you to view product information, such as:

- Product Code
- Machine Serial Number
- Total Copies
- Copies since Last Call
- IOT Software Version

### Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Check the **HFSI Requiring Replacement**.
3. Check the **Non-Zero Jams**. Jams that have occurred since the last service exit with the Complete Closeout option selected. Check for any Jams that have a high number of occurrences.
4. Check the **Faults In Progress**. If any faults in progress are displayed, troubleshoot accordingly.
5. Select the **Refresh** button to have the PWS request and receive the latest information on Total Copies, Copies Since Last Call, Non-Zero Jams or HFSI Requiring Replacement.

# dC118 Jam Counter

## Purpose

Displays the number of occurrences of Jams from time of previous Complete Closeout on service exit until present.

***NOTE:*** *This procedure does not count jams detected while in the Service Mode.*

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select **Maintenance** on the Service Entry Screen.
3. Select the **Jam Counters (dC 118)**.
4. The screen displays all jam-related fault codes, and the number of times that the fault has occurred since the last time the **Complete Closeout** option was selected when exiting Diagnostic Mode.
5. The following subsets of data are selectable:
   - ï All Jams
     - This is the default. All jam-related faults are listed
   - ï DADF Jams
     - Selecting this tab lists only the DADF jam codes.
   - ï Paper Jams
     - Selecting this tab lists only the paper supply and paper feeding jam codes.
   - ï Non-Zero Jams
     - Selecting this tab lists only those jam codes that have had at least one occurrence since the last time the **Complete Closeout** option was selected.

# dC120 Fail Counter

## Purpose

Displays the number of occurrences of each fault since the last Service Exit with the Complete Closeout option selected.

***NOTE:***

- ï *The machine does not count the faults detected while in the Service Mode.*
- ï *The machine does not count interlock open detected faults while the Main Processor is stopped.*

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select **Maintenance** on the Service Entry Screen.
3. Select the **Fail Counters (dC120)** tab.
4. The screen displays all fault codes that have occurred since the last time the **Complete Closeout** option was selected when exiting Diagnostic Mode.

   The codes are listed in ascending order; to list in descending order, click on **ID** in the table header.

   If machine data was previously saved to diskette, and Diagnostic Mode was entered with the **Read From Diskettes** option selected, the previous fault history #Occurrence will display in the P1 column. If this same procedure was performed previously, the fault history #Occurrence will display in P2, then P3, up to columns P7.
5. The following subsets of data are selectable:
   - ï All Faults
   - ï DADF Faults
   - ï System faults
   - ï Xero Faults

# dC122 Shutdown History

## Purpose

To display the Last 40 Faults (History).

***NOTE:***

1. *fault detected while in Service Mode are not counted.*
2. *An Interlock open while the machine is stopped is not counted.*
3. *If multiple faults occurred in the machine, the primary fault is recorded.*

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select the **Diagnostics Tab**.
3. Select the **Shutdown Hist (dC122)** tab.
4. The system displays the faults that occurred in Customer Mode since the last service call closeout, up to a maximum of 40 faults.
5. The information in the lower right corner of the screen (Input, Original, Paper, Tray, Output) reflects the fault highlighted in the Table.
6. The following subsets of data are available:
   - **Last 40 Faults History** (default screen).
     - displays the 40 newest faults and lists copy count when each occurred.
   - **Last 40 Faults Occurrences**
     - displays the 40 newest faults and lists the number of occurrences.
   - **DADF Jams**
     - displays the 40 newest DADF jams and lists copy count when each occurred.
   - **Paper Jams**
     - displays the 40 newest paper jams and lists copy count when each occurred.
   - **Fail**
     - displays the 40 newest non-jam faults and lists copy count when each occurred.
7. To clear the shutdown history, select **Complete Closeout** in the Service Mode Exit screen (dC188). Exiting from the Service Mode clears all data in the Shut-Down History.

# dC129 System Registration Setup

## Purpose

Performs the Lead Registration and Side Registration adjustments by looking at the output of the built-in Test Pattern.

***NOTE:*** *For details on the dC129 System Registration adjustment, see ADJ 9.9 IOT Registration Series (dC129).*

# dC131 NVM Read/Write

## Purpose

Reads, sets or changes the NVM data.

## Procedure

### Module Selection

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select **Adjustments** in the Service Entry Screen.
3. The system displays one of the Read/Write Screens. dC131 NVM Read/Write is the default screen.
4. Select a **Sub-System** from the Vertical Left Tab List. The default tab is **All**.

**Table 1 Module Selection**

| Module item | Chain number allocation |
|---|---|
| All | 700 - 999 |
| UI/Tools | 700, 720 |
| IISS | 715 |
| Config/System | 719, 740 |
| Xfer | 746 |
| RegiCon | 760 |
| PHM | 742 |
| DADF | 710 |
| Xero | 751 |
| Drives / Output | 741, 764 |
| ProCon | 752 |
| Developer | 762 |
| Fuser | 744 |
| Other | 755, 769 |
| Errors (number of errors) | Displays and NVM outside of the ranges listed in the PWS database. |
| Changed (number pending change) | Displays any with new value entered in the New column, but not written yet. |

### Reading NVM

1. Select an **ID** from the Sub-System Table, then click **Read NVM**, or double click on the line **ID** and the value will be read in the **Value** column.

   The **Range Check** column will fill in.

### Writing NVM

1. To change a value, enter a new value in the **New** column and press **Enter**.
2. When a new value is entered, the **Changed** tab will turn green. The number in parentheses count the number of pending NVM values. Clicking this tab will show a list of all the changed values. These locations can be written individually or as a block from this tab, or can be canceled.
3. Select **Write NVM**.
   a. If the input value is valid (within the range), the system writes the new NVM value in the NVM location in the machine.
   b. If the input value is invalid, the system displays the following message in the information screen, The **given NVM value is out of range. NVM was not changed**.
   c. If the NVM cannot be changed (Write protected NVM), the system displays the following message, **The specified NVM is read only**.
4. When the system writes the new value in the specified NVM code, the value is updated in the **New** box and reduces the count in the Changed Tab.

**Table 1 Chain 700**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 700-006 | Configuration | - | 0x00~0x08 | [P, SP, CSP, CFSP] Set up at factory production. It allocates bits in the following P(rinter), F(ax), C(opy), S(can). P = 0x01, F = 0x02, C = 0x04, S = 0x08. |
| 700-073 | Page Memory Size | - | 64*1024*1024~256*1024*1024 | bytes (Auto Setting) |
| 700-075 | ART User Buffer Size | 32KB | 32*1024~2048*1024 | 32KB~2048KB (32KB interval) |
| 700-076 | PostScript Buffer Size | | 8*1024*1024~32*1024*1024 | Color machine = [8 MB~32 MB] B/W machine = [4.5 MB~32 MB] (0.25 MB interval) |
| 700-078 | Form Buffer Size | 128 KB | 128*1024~2048*1024 | 128 KB~2048 KB |
| 700-080 | HPGL/Auto Layout Buffer Size | 64 KB | 64*1024~5120*1024 | 64 KB~5120 KB (32 KB interval) |
| 700-081 | Parallel Buffer Size | 64KB | - | 64 KB~1 MB (32 KB interval) |
| 700-082 | TBD | 256KB | 64*1024~1*1024*1024 | 64 KB~1 MB (32 KB interval) |
| 700-083 | Lpd Buffer Size | 256KB | 64*1024~1*1024*1024 | 64 KB~1 MB (32 KB interval) |
| 700-084 | NetWare Buffer Size | 256KB | 64*1024~1*1024*1024 | 64 KB~1 MB (32 KB interval) |
| 700-085 | AppleTalk Buffer Size | 256KB | - | 64 KB~1 MB (32 KB interval) |
| 700-086 | SMB Buffer Size | 256KB | 64*1024~1*1024*1024 | 64 KB~1 MB (32 KB interval) |
| 700-087 | IPP Buffer Size | 256KB | 64*1024~1*1024*1024 | 64 KB~1 MB (32 KB interval) |
| 700-088 | Salutation Buffer Size | 256KB | - | 64 KB~1 MB (32 KB interval) |
| 700-089 | HDD Status | - | -2~0 | 0 = Yes, -1 = Error, -2 = No (Auto Detect) |
| 700-120 | Time Zone | 540 | - | Displays the Time difference from GMT. E.g. Japan = 540, Hawaii = -600 |
| 700-124 | Auto Clear Timer | 1min | 0~240 | MF = 0, 1~4 = [Disable (0), 1~4min] (in increments of 1min) P = 0, 1~30 = [Disable (0), 1~30min] (in increments of 1min) |
| 700-125 | Job Cancel Timer | 10min | 0~5940 | 0 = Disable 240~5940 = 4~99min (in increments of 1min) |
| 700-126 | Operating Timer | 10sec | 0~240 | 0 = Disable 1~240 = [1~240sec] (in increments of 1sec) |
| 700-127 | Job End Timer | 6sec | 0~240 | 0 = Disable 1~240 = [1~240sec] (in increments of 1sec) |
| 700-128 | Scanning Timer | 4sec | 1~20 | 1~20 = [1~20sec (1sec unit) |
| 700-129 | LowPower Mode Timer | 15 | 6~240 | 6~240 = [6~240min (in increments of 1min)] |
| 700-130 | Sleep Mode Timer | 60min | 15~240 | 15~240 = [15~240min (in increments of 1min)] |
| 700-131 | Sleep Mode Available | 1 | [Setup Range] = | 0 = Disable, 1 = Enable |

**Table 1 Chain 700**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 700-132 | Operation Panel OK Beep | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-133 | Operation Panel NG Beep | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-134 | Job Complete Beep with Copy | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-135 | Job Complete Beep without Copy | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-136 | Abnormal Warning Beep | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-137 | Job Incomplete Beep | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-138 | Ready Beep | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-139 | Toner Empty Warning Beep | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-140 | Bell Tone | 2 | 0~3 | 0 = Off, 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-141 | Line Monitor Tone | 2 | 0~3 | 1 = Low volume, 2 = Medium volume, 3 = High volume |
| 700-144 | Auto Log Print Flag | 0 | 0~1 | 0 = OFF 1 = ON |
| 700-145 | Report Duplex Print | 0 | 0~1 | 0 = OFF 1 = ON |
| 700-146 | Mail Box Receive Report | ON | 0~1 | 0 = OFF 1 = ON |
| 700-147 | Protocol Monitor Output Control | 0 | 0~2 | 0= When instructed 1= When error occurs 2= When normal |
| 700-151 | Transmission Report on Error Output Control | 1 | 0~2 | [0=OFF, 1=ON, 2=Output at normal] |
| 700-152 | User Abort Transmission Report Output Control | 0 | 0~1 | 0= Do not output 1= Output |
| 700-153 | TBD | 0 | 0~1 | 0 = Do not register 1 = Register |
| 700-164 | Language | Japanese | [Setup Range] 1 | 1 = Japanese, 2 = English, 3 = French, 4 = German, 5 = Italian, 6 = Spanish, 7 = Portuguese, 8 = Russian, 9 = Chinese, 10 = Korean, 11 = Thai, 12 = Vietnamese, 13 = Taiwanese |
| 700-165 | Country Code | 0=Undefined | - | 0=Undefined, 840 =USA, 124=Canada, 076=Brazil, 3=Latin America -> Cannot be assigned 826=UK, 276=Germany, 380=Italy, 250=France, 724=Spain, 528=Holland, 756=Swiss, 752=Sweden, 056=Belgium, 040=Austria, 620=Portugal, 246=Finland, 208=Denmark |
| 700-166 | Territory | - | [Setup Range] = | 1=FX, 2=XC, 3=XE, 4=AP |
| 700-169 | Print Priority | 48 | 18~48 | 48 = Priority 0 (low), 38 = Priority 1, 28 = Priority 2, 18 = Priority 3 (high), Default = Priority 0 (48) |
| 700-170 | Copy Priority | Priority 1 (38) | 18~48 | 48 = Priority 0 (low), 38 = Priority 1, 28 = Priority 2, 18 = Priority 3 (high), Default = Priority 0 (38) |
| 700-171 | KO Tools Entry Password | NULL | - | ASCII '0'~'9'. 4 ~12 digits. |
| 700-172 | TBD | - | - | "6789" Fixed value |
| 700-175 | Transaction Report Display point | 0 | 0~1 | 0= Displays lead edge in 40 digits 1= Displays rear edge in 40 digits |
| 700-197 | Max. Job Numbers | 60002>90 | 90~3000 | Set up 90 (min.)~3000 (max.) in increments of 1. 02>30~3000 |
| 700-198 | TBD | 1 | 0~1 | 1 = Permit, 0 = Prohibits |
| 700-207 | TBD | - | - | 0 = Not valid, 1 = Valid |
| 700-301 | SEEPROM Serial# (1st digit) | - | - | Alphanumerics (ASCII) |
| 700-302 | SEEPROM Serial# (2nd digit) | - | - | Alphanumerics (ASCII) |
| 700-303 | SEEPROM Serial# (3rd digit) | - | - | Alphanumerics (ASCII) |
| 700-304 | SEEPROM Serial# (4th digit) | - | - | Alphanumerics (ASCII) |
| 700-305 | SEEPROM Serial# (5th digit) | - | - | Alphanumerics (ASCII) |
| 700-306 | SEEPROM Serial# (6th digit) | - | - | Alphanumerics (ASCII) |
| 700-307 | SEEPROM Serial# (7th digit) | - | - | Alphanumerics (ASCII) |
| 700-308 | SEEPROM Serial# (8th digit) | - | - | Alphanumerics (ASCII) |

**Table 1 Chain 700**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 700-309 | SEEPROM Serial# (9th digit) | - | - | Alphanumerics (ASCII) |
| 700-310 | SEEPROM Serial# (10th digit) | - | - | Alphanumerics (ASCII) |
| 700-311 | Battery Backup SRAM Serial # (1st digit) | - | - | Alphanumerics (ASCII) |
| 700-312 | Battery Backup SRAM Serial # (2nd digit) | - | - | Alphanumerics (ASCII) |
| 700-313 | Battery Backup SRAM Serial # (3rd digit) | - | - | Alphanumerics (ASCII) |
| 700-314 | Battery Backup SRAM Serial # (4th digit) | - | - | Alphanumerics (ASCII) |
| 700-315 | Battery Backup SRAM Serial # (5th digit) | - | - | Alphanumerics (ASCII) |
| 700-316 | Battery Backup SRAM Serial # (6th digit) | - | - | Alphanumerics (ASCII) |
| 700-317 | Battery Backup SRAM Serial # (7th digit) | - | - | Alphanumerics (ASCII) |
| 700-318 | Battery Backup SRAM Serial # (8th digit) | - | - | Alphanumerics (ASCII) |
| 700-319 | Battery Backup SRAM Serial # (9th digit) | - | - | Alphanumerics (ASCII) |
| 700-320 | Battery Backup SRAM Serial # (10th digit) | - | - | Alphanumerics (ASCII) |
| 700-321 | SEEPROM Product # (1st digit) | - | - | Alphanumeric (ASCII) |
| 700-322 | SEEPROM Product # (2nd digit) | - | - | Alphanumeric (ASCII) |
| 700-323 | SEEPROM Product # (3rd digit) | - | - | Alphanumeric (ASCII) |
| 700-324 | SEEPROM Product #(4th digit) | - | - | Alphanumeric (ASCII) |
| 700-325 | Battery Backup SRAM Product # (1st digit) | - | - | Alphanumeric (ASCII) |
| 700-326 | Battery Backup SRAM Product # (2nd digit) | - | - | Alphanumeric (ASCII) |
| 700-327 | Battery Backup SRAM Product # (3rd digit) | - | - | Alphanumeric (ASCII) |
| 700-328 | Battery Backup SRAM Product # (4th digit) | - | - | Alphanumeric (ASCII) |
| 700-329 | SEEPROM Product Code (1st digit) | - | - | Alphanumerics (ASCII) |
| 700-330 | SSEEPROM Product Code (2nd digit) | - | - | Alphanumerics (ASCII) |
| 700-331 | SEEPROM Product Code (3rd digit) | - | - | Alphanumerics (ASCII) |
| 700-332 | SEEPROM Product Code (4th digit) | - | - | Alphanumerics (ASCII) |
| 700-333 | SEEPROM Product Code (5th digit) | - | - | Alphanumerics (ASCII) |
| 700-334 | SEEPROM Product Code (6th digit) | - | - | Alphanumerics (ASCII) |
| 700-335 | SEEPROM Product Code (7th digit) | - | - | Alphanumerics (ASCII) |
| 700-336 | SEEPROM Product Code (8th digit) | - | - | Alphanumerics (ASCII) |

**Table 1 Chain 700**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 700-337 | Configuration (info. On SEEPROM) | - | - | [P, SP, CSP, CFSP (C)] Set at factory. It allocates bits in the following into P(rinter), F(ax), C(opy), S(can) respectively and display it in that disjunction. P = 0x01, F = 0x02, C = 0x04, S = 0x08 |
| 700-338 | Territory (SEEPROM) | - | 1~4 | 1=FX, 2=XC, 3=XE, 4=AP |
| 700-339 | IOT ROM Major version | - | - | (Auto Setting) |
| 700-340 | IOT ROM Minor version | - | - | (Auto Setting) |
| 700-341 | IOT ROM Revision version | - | - | (Auto Setting) |
| 700-342 | Sys Main ROM Major | - | - | (Auto Setting) |
| 700-343 | Sys Main ROM Minor | - | - | (Auto Setting) |
| 700-344 | Sys Main ROM Revision | - | - | (Auto Setting) |
| 700-348 | IIT ROM Major | - | - | (Auto Setting) |
| 700-349 | IIT ROM Minor | - | - | (Auto Setting) |
| 700-350 | IIT ROM Revision | - | - | (Auto Setting) |
| 700-351 | DADF ROM Major | - | - | (Auto Setting) |
| 700-352 | DADF ROM Minor | - | - | (Auto Setting) |
| 700-353 | DADF ROM Revision | - | - | (Auto Setting) |
| 700-354 | UI Frame ROM Major | - | - | (Auto Setting) |
| 700-355 | UI Frame ROM Minor | - | - | (Auto Setting) |
| 700-356 | UI Frame ROM Revision | - | - | (Auto Setting) |
| 700-357 | UI control ROM Major | - | - | (Auto Setting) |
| 700-358 | UI control ROM Minor | - | - | (Auto Setting) |
| 700-359 | UI control ROM Revision | - | - | (Auto Setting) |
| 700-360 | Product Code (1st digit) | - | - | Alphanumerics (ASCII) |
| 700-361 | Product Code (2nd digit) | - | - | Alphanumerics (ASCII) |
| 700-362 | Product Code (3rd digit) | - | - | Alphanumerics (ASCII) |
| 700-363 | Product Code (4th digit) | - | - | Alphanumerics (ASCII) |
| 700-364 | Product Code (5th digit) | - | - | Alphanumerics (ASCII) |
| 700-365 | Product Code (6th digit) | - | - | Alphanumerics (ASCII) |
| 700-366 | Product Code (7th digit) | - | - | Alphanumerics (ASCII) |
| 700-367 | Product Code (8th digit) | - | - | Alphanumerics (ASCII) |
| 700-368 | Lpd Buffer Size (Memory Spool) | 1MB (1*1024*1024) | 512*1024~32*1024*1024 | Memory Spool = [512 KB~32 MB] (256 KB interval) |

## 710-xxx DADF NVM List

**Table 2 Chain 710**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 710-001 | ADF Fail Bypass | 0 | 0~1 | 0 = Bypass ON 1 = Bypass OFF |
| 710-002 | JAM Bypass | 0 | 0~1 | 0 = Bypass ON 1 = Bypass OFF |
| 710-005 | Regi Sensor Off to Belt Motor Slow-down Step (Non CVT Mode) | 250 | 217~283 | No. of Steps after the Regi Sensor turned Off and until the Belt Motor started to reduce speed in the Non CVT Mode. Lead Regi Adjustment Value = 5 +/-5mm |

**Table 2 Chain 710**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 710-006 | DupMode RegiSensor On to Belt Mot. Slowdown Step (Non CVT Mode) | 44 | 19~69 | [Description] = No. of Steps after the Regi Sensor turned On and until the Belt Motor started to reduce speed in the Non CVT Mode (Reverse & Reverse Output Loop) Regi Roll Loop Adjustment Value at Reverse & Reverse Output = 4 +/-5mm |
| 710-012 | 8.5x11"LEF Threshold | 2093 | 1993~2193 | Threshold to separated the size detection of 8.5x11"LEF and 8x10"LEF. |
| 710-013 | B5SEF/8x10"SEF Switching | 0 | 0~1 | 0 = B5SEF(FX/XE/AP), 1 = 8x10"SEF(XC) |
| 710-014 | 11x15"SEF/8K Switching (for AP market) | 0 | 0~1 | 11x15"SEF, 1 = 8K |
| 710-018 | FS MAX value | 2970 | 1297~3070 | For customized registration of DADF Document Size Detection Decurler |
| 710-019 | FS MIN value | 2970 | 1297~3070 | For customized registration of DADF Document Size Detection Decurler |
| 710-020 | SS MAX value | 2100 | 1297~4418 | For customized registration of DADF Document Size Detection Decurler |
| 710-021 | SS MIN value | 2100 | 1297~4418 | For customized registration of DADF Document Size Detection Decurler |
| 710-022 | Document Size | 8 | 3~20 | For customized registration of DADF Document Size Detection Decurler |
| 710-023 | Document Process Direction | 0 | 0~1 | For customized registration of DADF Document Size Detection Decurler |
| 710-024 | DADF Doc Size Detection Table | 0 | 0~1 | For customized registration of DADF Document Size Detection Decurler |
| 710-025 | S Size Side2 Lead Regi Adjust | 250 | 217~283 | Side 2 Lead Regi Correction Value of S Size document. Unit = Step (S Size = 131.7mm~158.0mm in Slow Scan Direction) |
| 710-026 | M Size Side2 Lead Regi Adjust | 250 | 217~283 | Side 2 Lead Regi Correction Value of M Size document. Unit = Step (M Size = 158.1mm~245.9mm in Slow Scan Direction) |
| 710-027 | L Size Side2 Lead Regi Adjust | 250 | 217~283 | Side 2 Lead Regi Correction Value of L Size document. Unit = Step (L Size = 246.0mm~460.0mm in Slow Scan Direction) |
| 710-800 | ADF Static Jam Count Total (No Sensor Sensed Jam) | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-801 | ADF Static Jam Count Since Reset (No Sensor) | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-802 | ADF Document Input Sensor Static Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-803 | ADF DocInput SNR Static Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-804 | ADF Registration Sensor Static Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-805 | ADF Regi Sensor Static Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-806 | ADF Exit Sensor Static Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-807 | ADF Exit Sensor Static Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-808 | ADF Duplex Sensor Static Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-809 | ADF Duplex Sensor Static Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-810 | ADF Regi SNR On NonInvert Dynamic-Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-811 | ADF Regi SNR On Dynamic Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |

**Table 2 Chain 710**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 710-812 | ADF RegiSNR Off NonInvert Dynamic-Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-813 | ADF Regi SNR Off Dynamic Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-814 | ADF Regi SNR On Dynamic Jam Count Total (invert) | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-815 | ADF RegiSNROn DynamicJamCount Since Reset (invert) | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-816 | ADF Regi SNR Off Dynamic Jam Count Total (invert) | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-817 | ADF RegiSNROffDynamicJamCount Since Reset (invert) | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-818 | ADF Exit Sensor On Dynamic Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-819 | ADF Exit Sensor On Dynamic Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-820 | ADF Exit Sensor Off Dynamic Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-821 | ADF Exit Sensor Off DynamicJam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-822 | Size Mismatch Jam Count Total | 0 | 0~65535 | Cumulative Jam Counter (Write not permitted) |
| 710-823 | Size Mismatch Jam Count Since Reset | 0 | 0~65535 | Cumulative Jam Counter at the previous clearing (Write not permitted) |
| 710-900 | Feed Life Count (upper digits) | 36 | 0~65535 | Feed Count Replacement Life (Upper digits) (Write not permitted) |
| 710-901 | Feed Life Count (lower digits) | 40704 | 0~65535 | Feed Count Replacement Life (Lower digits) (Write not permitted) |

## 715-xxx IIT NVM List

**Table 3 Chain 715**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 715-001 | PreIPS Fail Bypass | 0 | 0~1 | 0 = Fail Bypass is not available, 1 = Fail Bypass is available |
| 715-004 | ACS Detection Level | 2 | 0~4 | Level 0 (judged from Black and White)~Level 4 (judged from Color) |
| 715-014 | PRadjF | 120 | 0~240 | Fast Scan Direction Regi Correction Value (Dot) Adjustment at factory. VLSS=PROMVLSS+PRadjF -120 - Shift Amount |
| 715-015 | DADF FS Offset | 71 | 0~150 | Fast Scan Offset Value (Dot) when DADF is used. VLSS=PROMVLSS+PRadjF -120 +DADF Offset- Shift Amount, Adjustment at factory. (DUP Side can be used too) |
| 715-016 | Side Registration Shift (-) | 0 | 0~256 | For VLSS=PROMVLSS+PRadjF - 120 - Shift Amount and (Dot) Regi adjustments. |
| 715-017 | COSAC FS1x5 Filter | 0 | 0~1 | 0 = OFF, 1 = ON (Moire reduction) |
| 715-018 | COSAC Special Feature (Setting range is TBD) | 0 | 0~2047 | bit 0 -> 0 = Normal, 1 = LSWIDE LineSync Active large width bit 1 -> 0 = Normal, 1 = AGOC Cancel, Manual Setup from NVM-AGCP, AOCP. bit 2 -> 0 = Normal, 1 = Forward revolution output (ONPF=0) |
| 715-051 | AOCerr | 0 | 0~255 | No. of times the AOC flow has ended in an abnormal way. |
| 715-080 | Pshad (1) | 148 | 115~255 | Red W-Ref Correction Coefficient Adjustment at factory. |
| 715-081 | Pshad (2) | 158 | 115~255 | Green W-Ref Correction Coefficient Adjustment at factory. |
| 715-082 | Pshad (3) | 165 | 115~255 | Blue W-Ref Correction Coefficient Adjustment at factory. |

**Table 3 Chain 715**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 715-083 | Pshad (4) | 65 | 0~127 | Red W-Ref Correction Coefficient P Paper Adjustment at factory. |
| 715-084 | Pshad (5) | 72 | 0~127 | Green W-Ref Correction Coefficient P Paper Adjustment at factory. |
| 715-085 | Pshad (6) | 69 | 0~127 | Blue W-Ref Correction Coefficient P Paper Adjustment at factory. |
| 715-113 | A6/Postcard Detection | 0 | 0~1 | 0 = A6 Document, 1 = Postcard Document (XC 0 = Postcard, 1 = A6) |
| 715-114 | A4S/8.5in Detection 1 | 0 | 0~1 | 0 = A4 Fixed (Other than XC), Letter Fixed (XC), 1 = Can be changed by Area Switching 2 |
| 715-115 | A4S/8.5in Detection 2 | 3 | 0~6 | 0 = 210mm(A4S)~6 = 216mm(8.5") |
| 715-116 | Original detection table for special paper | 0 | 0~2 | 0 = Do not use special table 1 = A Series (A4L when APS is Off, and A3S when APS is On) 2 = Inch Series (Letter LEF when APS is Off, and 11x17" when APS is On) |
| 715-128 | DADF FS Offset (side 2) | 71 | 01~50 | Fast Scan Offset value (Dot) on IPS at DADF DUP Side 2. VLSS=PROMVLSS+PRadjF - 50 +DADF Offset Side 2 Adjustment at factory. |
| 715-138 | Document Size Detection | 0 | 0~1 | 0 = Detection by 4 Registers, 1 = Detection by 3 Registers (Contamination Countermeasure) |
| 715-139 | B5/8x10" Detection | 0 | 0~1 | B5/8x10" Switching (Default 0 = B5 Detection, 1 = 8x10" Detection) |
| 715-140 | 8K Detection | 0 | 0~1 | 8K detection specification (Default 0 = Do not detect, 1 = Detect) |
| 715-141 | 8.5x13"/8.5x14" Detection | 0 | 0~1 | 8.5x13"/8.5x14" Detection Switching Specification in AP/XE markets. |
| 715-142 | NutAngleF | 990 | 0~1980 | Front NUT Revolution Angle (990~1980 = Right revolution angle, 0~990 = Left revolution angle) |
| 715-143 | NutAngleR | 990 | 0~1980 | Rear NUT Revolution Angle (990~1980 = Right revolution angle, 0~990 = Left revolution angle) |
| 715-200 | External Area of FS Sampling | 255 | 0~511 | Speed Priority AE/Fast Scan direction undetected area |
| 715-204 | Maximum Sampling Value of Background color | 90 | 0~255 | Speed Priority AE/Sampling Upper Limit/BMAX |
| 715-205 | Initial Background color Value | 0 | 0~255 | Speed Priority AE/Background level initial value/INIT |
| 715-208 | Line to Fix Variation | 48 | 0~255 | Speed Priority AE/Slow Scan variation fixed position/NCON |
| 715-212 | Background Color Suppression mode for BW | 2 | 0~2 | Speed Priority AE/Suppression Mode Setup in B/W 0 = Register, 1 = Fixed, 2 = Vary |
| 715-213 | Background Color Suppression mode for Color | 0 | 0~2 | Speed Priority AE/Suppression Mode Setup in Color 0 = Register, 1 = Fixed, 2 = Vary |
| 715-214 | Undercolor Data for BW | 0 | 0~255 | Speed Priority AE/Fixed background color data in B/W Register Mode |
| 715-215 | Undercolor Data for Color | 0 | 0~255 | Speed Priority AE/Fixed background color data in Color Register Mode |
| 715-218 | Gamma Data for BW | 1 | 0~2 | AE GAMMA Data in B/W mode 0 = GMD=2, 1 = GMD=3, 2 = GMD=5 |
| 715-219 | Gamma Data for Color | 1 | 0~2 | AE GAMMA Data in Color mode 0 = GMD=2, 1 = GMD=3, 2 = GMD=5 |
| 715-220 | Color Balance Default = Y/Low density | 4 | 0~8 | Default Color Balance Adjustment Level Y Color Low density |
| 715-221 | Color Balance Default = Y/Medium density | 4 | 0~8 | Default Color Balance Adjustment Level Y Color Medium density |
| 715-222 | Color Balance Default = Y/High density | 4 | 0~8 | Default Color Balance Adjustment Level Y Color High density |
| 715-223 | Color Balance Default = M/Low density | 4 | 0~8 | Default Color Balance Adjustment Level M Color Low density |
| 715-224 | Color Balance Default = M/Medium density | 4 | 0~8 | Default Color Balance Adjustment Level M Color Medium density |
| 715-225 | Color Balance Default = M/High density | 4 | 0~8 | Default Color Balance Adjustment Level M Color High density |
| 715-226 | Color Balance Default = C/Low density | 4 | 0~8 | Default Color Balance Adjustment Level C Color Low density |
| 715-227 | Color Balance Default = C/Medium density | 4 | 0~8 | Default Color Balance Adjustment Level C Color Medium density |
| 715-228 | Color Balance Default = C/High density | 4 | 0~8 | Default Color Balance Adjustment Level C Color High density |

**Table 3 Chain 715**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 715-229 | Color Balance Default = K/Low density | 4 | 0~8 | Default Color Balance Adjustment Level K Color Low density |
| 715-230 | Color Balance Default = K/Medium density | 4 | 0~8 | Default Color Balance Adjustment Level K Color Medium density |
| 715-231 | Color Balance Default = K/high density | 4 | 0~8 | Default Color Balance Adjustment Level K Color High density |
| 715-232 | Photo reproduction level | 1 | 0~2 | 0 = Above Text, 1 = Normal, 2 = Above Photo |
| 715-233 | Text/Photo separation level | 2 | 0~4 | 0 = Above Text, 1 = Slightly above text, 2 = Normal, 3 = Slightly above photo, 4 = Above Photo |
| 715-234 | FS Magnification Adjustment | 50 | 0~100 | Magnification fine adjustment in Fast Scan direction. Specified in units between range of 0~100. The value indicates the magnification adjustment with 0= -5%, 50= 0% and 100= 5% at ±5% (0.1% unit) (Adjustment at factory.) |
| 715-237 | Normal Density Text (BW Copy) | 128 | 0~256 | B/W COPY Text Normal Density Adjustment |
| 715-238 | High Density Text (BW Copy) | 128 | 0~256 | B/W COPY Text Darker 3 Density Adjustment |
| 715-239 | Normal Density Text (Scan) | 128 | 0~256 | Scan Text Normal Density Adjustment |
| 715-240 | High Density Text (Scan) | 128 | 0~256 | Scan Text Darker 3 Density Adjustment |
| 715-241 | SS Not Detect Area for Platen model (Real Time AE) | 38 | 0~65535 | Slow Scan Non-detection area Setup value at Real Time AE for platen model. |
| 715-242 | SS Not Detect Area for DADF model DADF mode (Real Time AE) | 38 | 0~65535 | Slow Scan Non-detection area Setup value at Real Time AE for DADF model platen job. |
| 715-243 | SS Not Detect Area for DADF model Platen mode (Real Time AE) | 38 | 0~65535 | Slow Scan Non-detection area Setup value at Real Time AE for DADF model DADF job. |
| 715-244 | B/W-Offset for Text/Image Platen mode (Real Time AE) | 10 | 0~255 | For AE OFFSET data Platen text/photo in B/W model |
| 715-245 | B/W-Offset for Text Platen mode (Real Time AE) | 10 | 0~255 | For AE OFFSET data Platen text in B/W model |
| 715-246 | B/W-Offset for Map Platen mode (Real Time AE) | 10 | 0~255 | For AE OFFSET data Platen map in B/W model |
| 715-247 | B/W-Offset for Text/Image DADF Single Side mode (Real Time AE) | 13 | 0~255 | For AE OFFSET data DADF Single Side Document text/photo in B/W model |
| 715-248 | B/W-Offset for Text DADF Single Side mode(Real Time AE) | 15 | 0~255 | For AE OFFSET data DADF Single Side Document text in B/W model |
| 715-249 | B/W-Offset for Map DADF Single Side mode Real Time AE) | 13 | 0~255 | For AE OFFSET data DADF Single Side Document map in B/W model |
| 715-250 | B/W-Offset for Text/Image DADF Duplex Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Duplex Side Document text/photo in B/W model |
| 715-251 | B/W-Offset for Text DADF Duplex Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Duplex Side Document text in B/W model |
| 715-252 | B/W-Offset for Map DADF Duplex Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Duplex Side Document map in B/W model |
| 715-253 | Color-Offset for Text/Image Platen mode (Real Time AE) | 15 | 0~255 | For AE OFFSET data Platen text/photo in Color model |
| 715-254 | Color-Offset for Text Platen mode (Real Time AE) | 15 | 0~255 | For AE OFFSET data Platen text in Color model |
| 715-255 | Color-Offset for Text Platen mode (Real Time AE) | 15 | 0~255 | For AE OFFSET data Platen map in Color model |

**Table 3 Chain 715**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 715-256 | Color-Offset for Text/Image DADF Single Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Single Side Document text/photo in Color model |
| 715-257 | Color-Offset for Text DADF Single Side mode (Real Time AE) | 18 | 0~255 | For AE OFFSET data DADF Single Side Document text in Color model |
| 715-258 | Color-Offset for Map DADF Single Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Single Side Document map in Color model |
| 715-259 | Color-Offset for Text/Image DADF Duplex Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Duplex Side Document text/photo in Color model |
| 715-260 | Color-Offset for Text DADF Duplex Side mode (Real Time AE) | 18 | 0~255 | For AE OFFSET data DADF Duplex Side Document text in Color model |
| 715-261 | Color-Offset for Map DADF Duplex Side mode (Real Time AE) | 17 | 0~255 | For AE OFFSET data DADF Duplex Side Document map in Color model |
| 715-300 | IIT Fail Bypass | 0 | 0~1 | 0 = Fail Bypass is not available, 1 = Fail Bypass is available |
| 715-301 | SS Registration Adjustment | 100 | 16~184 | Slow Scan Direction Regi Correction Value (0.036mm/step) Adjustment at factory. |
| 715-302 | SS Magnification Adjustment | 50 | 44~56 | Slow Scan direction Magnification Correction Value (0.1%/step) Adjustment at factory. |
| 715-400 | Platen/ADF | 0 | 0~1 | 0 = Platen model 1 = ADF model Adjustment at factory. |
| 715-401 | AGOC Timing | 15 | 0~29 | Time between Power ON/Energy Saver recovery and AGOC (min.) (0 = Timer not available) |
| 715-800 | IIISS/ADF Communication Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-801 | IISS/ADF Communication Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-802 | IIISS RAM CHECK Failure Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-803 | IISS RAM CHECK Failure Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-804 | EEPROM Failure Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-805 | EEPROM Failure Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-806 | Fan Failure Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-807 | Fan Failure Count Since Reset | 0 | 0~065535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-808 | Scan Carriage Position Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-809 | Scan Carriage Position Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-810 | Scan CRG Init Regi SNR Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-811 | Scan CRG Init Regi Sensor Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-812 | PreIPS (X) Recognition Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-813 | PreIPS (X) Recognition Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-814 | Lamp Failure Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-815 | Lamp Failure Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |

**Table 3 Chain 715**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 715-816 | CRG Over Run Fail Count Overall Total (Scan End) | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-817 | CRG Over Run Fail Count Since Reset (Scan End) | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-818 | CRG Over Run Fail Count Overall Total (Home End) | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-819 | CRG Over Run Fail Count Since Reset (Home End) | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-820 | CRG INIT Motor Driver Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-821 | CRG INIT Motor Driver Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-822 | Platen AGC Channel 1 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-823 | Platen AGC Channel 1 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-824 | Platen AGC Channel 2 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-825 | Platen AGC Channel 2 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-826 | Platen AGC Channel 3 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-827 | Platen AGC Channel 3 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-828 | Platen AGC Channel 4 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-829 | Platen AGC Channel 4 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-830 | Platen AGC Channel 5 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-831 | Platen AGC Channel 5 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-832 | Platen AGC Channel 6 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-833 | Platen AGC Channel 6 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-834 | Platen AOC Channel 1 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-835 | Platen AOC Channel 1 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-836 | Platen AOC Channel 2 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-837 | Platen AOC Channel 2 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |

Table 3 Chain 715

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 715-838 | Platen AOC Channel 3 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-839 | Platen AOC Channel 3 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-840 | Platen AOC Channel 4 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-841 | Platen AOC Channel 4 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-842 | Platen AOC Channel 5 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-843 | Platen AOC Channel 5 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-844 | Platen AOC Channel 6 Fail Count Overall Total | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-845 | Platen AOC Channel 6 Fail Count Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-854 | Original Size Sensor Failure Total Count | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-855 | Original Size Sensor Failures Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-856 | IIT Memory Hot Line Failure Total Count | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-857 | IIT Memory Hot Line Failures Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-858 | DADF RAM CHECK Failure Total Count | 0 | 0~65535 | Cumulative Fail Counter (Write not permitted) |
| 715-859 | DADF RAM CHECK Failures Since Reset | 0 | 0~65535 | Cumulative Fail Counter at the previous clearing (Write not permitted) |
| 715-900 | Scan Life Count (upper digits) | 36 | 0~65535 | Scan Count Replacement Life (Upper Level) (Write not permitted) |
| 715-901 | Scan Life Count (lower digits) | 40704 | 0~65535 | Scan Count Replacement Life (Lower Level) (Write not permitted) |

## 719--xxx IIT/DADF Software NVM List

Table 4 Chain 719

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 719-001 | Version No. (Upper level) | 0 | 0~65535 | Indicates the IISS Version No. |
| 719-002 | Market Information | 0 | 0~3 | FX=0, AP=1, XC=2, XE=3 |
| 719-003 | A4/Letter | 1 | 0~3 | Basic unit of document size. For A4 = bit0=1, letter = bit=1 *Checking of range is not performed. |
| 719-004 | ADF Version No. | 0 | 0~65535 | Indicates the ADF Version No. |
| 719-005 | IISS Major Version | 0 | 0~65535 | IISS Major Version No. |
| 719-006 | IISS Minor Version | 0 | 0~65535 | IISS Minor Version No. |
| 719-007 | IISS Revision Version | 0 | 0~65535 | IISS Revision Version No. |
| 719-008 | IISS Patch Version | 0 | 0~65535 | IISS Patch Version No. |

**Table 4 Chain 719**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 719-010 | ADF Major Version | 0 | 0~65535 | ADF Major Version No. |
| 719-011 | ADF Minor Version | 0 | 0~65535 | ADF Minor Version No. |
| 719-012 | ADF Revision Version | 0 | 0~65535 | ADF Revision Version No. |
| 719-013 | ADF Patch Version | 0 | 0~65535 | ADF Patch Version No. |

## 720-xxx ESS Meter/Counter NVM List

**Table 5 Chain 720**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 720-002 | Billing | PFV BILLING TYPE1 | 1~6 | 1 = Billing1, 2 = Billing2, 3 = Billing3, 4 = Billing4, 5 = Billing5, 6 = Billing6 |
| 720-003 | Master Print-Full Color | - | 0~1999999 | 0~1,999,999 |
| 720-004 | Master Print-Color1 | - | 0~1999999 | 0~1,999,999 |
| 720-005 | Master Print-Color2 | - | 0~1999999 | 0~1,999,999 |
| 720-006 | Master Print-B&W | - | 0~1999999 | 0~1,999,999 |
| 720-012 | Backup1 Print-Full Color | - | 0~1999999 | 0~1,999,999 |
| 720-013 | Backup1 Print-Color1 | - | 0~1999999 | 0~1,999,999 |
| 720-014 | Backup1 Print-Color2 | - | 0~1999999 | 0~1,999,999 |
| 720-015 | Backup1 Print-B&W | - | 0~1999999 | 0~1,999,999 |
| 720-040 | [PSW Display] Group | 0 | 0~999999999999 | 0~999999999999 (0 means not set up) |
| 720-041 | TBD | 0 | 0~999999999999 | 0~999999999999 (0 means not set up) |
| 720-042 | TBD | 0 | 0~3 | 0 = FreeAccess, 1 = Color Only, 2 = B&W Only, 3 = Cannot be used |
| 720-043 | TBD | 0 | 0~3 | 0 = FreeAccess, 1 = Color Only, 2 = B&W Only, 3 = Cannot be used |
| 720-044 | Group C Mode to use | 0 | 0~3 | 0 = FreeAccess, 1 = Color Only, 2 = B&W Only, 3 = Cannot be used |

## 740--xxx IOT Manager NVM List

**Table 6 Chain 740**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 740-024 | RegiCon Request Flag | 0 | 0~255 | 0 = Performed, 1 = Not performed |
| 740-025 | Edge Check Request Flag | 0 | 0~255 | 0 = Performed, 1 = Not performed |
| 740-026 | ProCon Request Flag | 0 | 0~255 | 0 = Performed, 1 = Not performed |

## 741--xxx Drive NVM List

**Table 7 Chain 741**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 741-054 | NVM_PR_MOT_HIGH_PULSE (PR (Drum) Motor Speed Fine Adjustment (Standard) | 23 | 0~40 | Performs fine adjustment of Drum Speed at Standard Speed. Increases the Drum Speed by +1 (approx. 0.05%) with respect to the initial value. Decreases the Drum Speed by -1 (approx. 0.05%). |
| 741-055 | NVM_PR_MOT_LOW_PULSE (PR (Drum) Motor Speed Fine Adjustment (Heavy Weight /Transparency) | 23 | 0~40 | Fine adjusts the Drum Speed at half speed. Increases the Drum Speed by +1 (approx. 0.05%) with respect to the initial value. Decreases the Drum Speed by -1 (approx. 0.05%). |
| 741-056 | Belt Home Fail Too Long Counter | 0 | 0~3 | It is necessary to reset the No. of Occurrence of Belt Home Fail Too Long to 3. |
| 741-057 | NoPaperRun Mode SW | 0 | 0~2 | 0 = Normal NoPaperRun 1 = MainMotor Stop 2 = Main/Dev. Motor Stop |
| 741-068 | NVM_PR_MOT_DOUBLE_PULSE (PR (Drum) Motor Speed Fine Adjustment (Double Speed) | 22 | 0~40 | Fine adjusts the Drum Speed at double speed. Increases the Drum Speed by +1 (approx. 0.05%) with respect to the initial value. Decreases the Drum Speed by -1 (approx. 0.05%). |

## 742--xxx Paper Handling NVM List

**Table 8 Chain 742**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 742-001 | Invert Clutch CW Off Timing | 82 | 0~163 (1bit= 2.4462ms) | Paper inversion position adjustment (P Speed) default=2300ms |
| 742-002 | Invert Clutch CW Off Timing (MF-1) | 106 | 0~259 (1bit= 1.31136ms) | Paper inversion position adjustment (Double Speed) |
| 742-006 | RegiLoopLengthAjust (Tray Standard Paper) | 41 | 0~81 (1bit= 2.4462ms) | Regi Loop Length Adjustment (P Speed) for Standard Paper from Tray. Default=260ms |
| 742-007 | RegiLoopLengthAjust (Tray Standard Paper) (MF) | 41 | 0~81 (1bit= 1.31136ms) | Regi Loop Length Adjustment (Double Speed) for Standard Paper from Tray |
| 742-009 | RegiLoopLengthAjust (Tray 5 Standard Paper) | 41 | 0~81 | Regi Loop Length Adjustment (P Speed) for Standard Paper from Tray 5 (1bit= 2.4462ms) |
| 742-011 | RegiLoopLengthAjust (Tray 5 Standard Paper) (MF) | 41 | 0~81 (1bit= 1.322ms) | Regi Loop Length Adjustment (Double Speed) for Standard Paper from MSI |
| 742-013 | RegiLoopLengthAjust (Tray 5 Heavy2 Paper) | 41 | 0~81 (1bit= 4.8924ms) | Regi Loop Length Adjustment (Half Speed) for Heavy Weight Paper from MSI. Default=221ms |
| 742-014 | RegiLoopLengthAjust (DUP) (2sheets of paper) | 41 | 0~81 (1bit= 2.4462ms) | Regi Loop Length Adjustment (P Speed) from Dup (Feeding length Letter-LEF and Shorter) Default=157ms |
| 742-015 | RegiLoopLengthAjust (DUP) (MF) | 76 | 0~152 (1bit= 1.31136ms) | Regi Loop Length Adjustment (Double Speed) from Dup |
| 742-016 | T/A Clutch On Timing (From Regi Start) | 20 | 8~32 (1bit= 2.4462ms) | Synchronize adjustment to be same as Regi Clutch at Regi Start (-30~30ms) Default=0ms |
| 742-017 | Dup On Timing (From Regi Start) | 20 | 0~40 (1bit= 2.4462ms) | Synchronize adjustment to be same as Regi Clutch at Regi Start (P Speed). Default=373ms |
| 742-018 | Full Stack Paper Sensing Condition | 2 | 1~12 (1bit= 5sec) | Full Stack Detection Condition (5~60sec). |
| 742-019 | Full Stack Paper Cancel Condition | 1 | 1~30 (1bit= 1sec) | Full Stack Cancel Condition (1~30sec) |
| 742-020 | Feed Start Timing (MSI) | 41 | 0~82 (1bit= 2.4462ms) | Feed Start Timing Adjustment from Pitch (P Speed) (850~1050ms). Default=950ms |

**Table 8 Chain 742**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 742-021 | Feed Start Timing (MSI) (MF) | 150 | 0~300 (1bit= 1.31136ms) | Feed Start Timing Adjustment from Pitch (Double Speed) (100~500ms) |
| 742-022 | Feed Motor Off Timing | 10 | 0~35 (1bit= 10ms) | Feed Motor Off Timing Adjustment from T/A Nip |
| 742-023 | Regi Clutch Off Timing | 41 | 0~81 (1bit= 2.4462ms) | Adjusts the time between the paper rear edge has passes the Regi Sensor and the Regi Clutch Turns Off (P Speed) (90~290ms). Default=190ms |
| 742-024 | Regi Clutch Off Timing (MF) | 76 | 0~152 (1bit= 1.31136ms) | Adjusts the time between the paper rear edge has passes the Regi Sensor and the Regi Clutch Turns Off (Double Speed) |
| 742-025 | ADJUST SIDE REGI (ALL) | 25 | 0~50 (1bit= 0.211mm) | Side Regi Adjustment (ALL, Offset value) |
| 742-026 | ADJUST SIDE REGI (MSI) | 20 | 0~50 (1bit= 0.211mm) | Side Regi Adjustment (MSI) |
| 742-027 | ADJUST SIDE REGI (Dup) | 22 | 0~50 (1bit= 0.211mm) | Side Regi Adjustment (Dup) |
| 742-028 | ADJUST LEAD REGI (ALL) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (ALL, Offset value) |
| 742-029 | ADJUST LEAD REGI (Tray) | 12 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (P Speed) from Tray |
| 742-030 | ADJUST LEAD REGI (Tray) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (Double Speed) from Tray |
| 742-031 | ADJUST LEAD REGI (MSI) (Standard Paper) | 11 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (P Speed) Standard Paper from Tray 5 |
| 742-032 | ADJUST LEAD REGI (MSI) (Standard Paper) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (Double Speed) Standard Paper from MSI |
| 742-033 | ADJUST LEAD REGI (MSI) (Heavy1) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (P Speed) Heavy Weight Paper 1 from Tray 5 |
| 742-034 | ADJUST LEAD REGI (MSI) (Heavy2) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (Half Speed) Heavy Weight Paper 2 from Tray 5 |
| 742-035 | ADJUST LEAD REGI (MSI) (Heavy Paper1) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (Half Speed) Heavy Weight Paper 1 from Tray 5 |
| 742-036 | ADJUST LEAD REGI (MSI) (Heavy Paper2) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (Half Speed) Heavy Weight Paper 2 from Tray 5 |
| 742-037 | ADJUST LEAD REGI (Dup) | 11 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (P Speed) (Side2) |
| 742-038 | ADJUST LEAD REGI (Dup) | 20 | 0~40 (1bit= 0.2544mm) | Lead Regi Adjustment (Double Speed) (Side2) |
| 742-039 | Jam Bypass | 0 | 0~255 | 0 = Normal Mode 255 = Jam Bypass |
| 742-040 | OCT Start Timing (Offset) | 42 | 0~202 (1bit= 2.4462ms) | OCT (Offset) Start Timing Adjustment (P Speed) |
| 742-041 | OCT Start Timing (Offset) | 42 | 0~202 (1bit= 1.31136ms) | OCT (Offset) Start Timing Adjustment (Double Speed) |
| 742-046 | Face Up Tray Condition | 0 | 0~1 | Face Up Tray Present 0 = No 1 = Yes |
| 742-047 | OCT Start Timing (Home) | 17 | 0~112 (1bit= 2.4462ms) | OCT (Home) Start Timing Adjustment (P Speed) |

**Table 8 Chain 742**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 742-048 | OHP Sheet Sensing Condition | 1 | 0~1 | Transparency Detection 1 = Detect 0 = Does not detect |
| 742-049 | Tray 5 Side Guide Min Data | 972 | 927~1017 (1bit= 1mm) | Saves the Tray 5 Size Detection Min Value |
| 742-050 | Tray 5 Side Guide Max Data | 52 | 7~97 (1bit= 1mm) | Saves the Tray 5 Size Detection Max Value |
| 742-051 | FEED START TIMING 1Tray | 82 (450ms) | 0~163 (1bit= 2.4462ms) | Adjusts the time between Pitch (Standard Signal IOT) and FEED Starts (250~650ms). |
| 742-052 | FEED START TIMING 1Tray | 82 | 0~163 (1bit= 1.31136ms) | |
| 742-053 | ADJUST SIDE REGI 1Tray | 22 | 0~50 (1bit= 0.211mm) | SIDE REGI Adjustment for each TRAY |
| 742-054 | PAPER THE REST 1Tray | 0 | 0~4000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-055 | PRE T/A START TIMING 3TM-1 | 74 | 0~115 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (303~803ms) |
| 742-056 | PRE T/A START TIMING 3TM-2 | 74 | 0~115 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (365~865ms) |
| 742-057 | PRE T/A START TIMING 3TM-3 | 74 | 0~115 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (429~929ms) |
| 742-058 | PRE T/A START TIMING TTM-1 | 10 | 0~16 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) |
| 742-059 | PRE T/A START TIMING TTM-2 | 74 | 0~115 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (457~957ms) |
| 742-060 | PRE T/A START TIMING TTM-3 | 74 | 0~115 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (431~931ms) |
| 742-061 | PRE T/A START TIMING 1TM-1 | 102 | 0~204 (1bit= 2.4462ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (303~803ms). Default=553ms |
| 742-062 | ADJUST PRE FEED POSITION 3TM-1 | 0 | 0~40 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (0~400ms). |
| 742-063 | ADJUST PRE FEED POSITION 3TM-2 | 0 | 0~40 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (0~400ms). |
| 742-064 | ADJUST PRE FEED POSITION 3TM-3 | 0 | 0~40 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (0~400ms). |
| 742-065 | ADJUST PRE FEED POSITION TTM-1 | 0 | 0~40 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (0~400ms). |
| 742-066 | ADJUST PRE FEED POSITION TTM-2 | 0 | 0~40 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (0~400ms). |
| 742-067 | ADJUST PRE FEED POSITION TTM-3 | 37 | 10~50 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (100~500ms). Default=370ms |
| 742-068 | ADJUST PRE FEED POSITION 1TM-1 | 0 | 0~40 (1bit= 10ms) | Adjust the Time between the FEED OUT SNR ON and the FEED MOT OFF (0~400ms). |
| 742-069 | MAIN FEED START TIMING 3TM-1 | 20 | 0~44 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (330~830ms). |
| 742-070 | MAIN FEED START TIMING 3TM-2 | 20 | 0~44 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (570~1070ms). |

**Table 8 Chain 742**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 742-071 | MAIN FEED START TIMING 3TM-3 | 20 | 0~44 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (810~1310ms). |
| 742-072 | MAIN FEED START TIMING TTM-1 | 20 | 0~44 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (330~830ms). |
| 742-073 | MAIN FEED START TIMING TTM-2 | 20 | 0~44 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (780~1280ms). |
| 742-074 | MAIN FEED START TIMING TTM-3 | 20 | 0~44 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (1410~1910ms). |
| 742-075 | MAIN FEED START TIMING 1TM-1 | 25 | 0~50 (1bit= 10ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (330~830ms).Default=580ms |
| 742-076 | ADJUST SIDE REGI 2Tray | 20 | 0~50 (1bit= 0.211mm) | SIDE REGI adjustment of 2TRAY |
| 742-077 | ADJUST SIDE REGI 3Tray | 20 | 0~50 (1bit= 0.211mm) | SIDE REGI adjustment of 3TRAY |
| 742-078 | ADJUST SIDE REGI 4Tray | 20 | 0~50 (1bit= 0.211mm) | SIDE REGI adjustment of 4TRAY |
| 742-079 | ADJUST SIDE REGI TrayModuleAll | 25 | 0~50 (1bit= 0.211mm) | SIDE REGI adjustment of 2, 3, 4TRAY (Batch adjustment) |
| 742-080 | PAPER THE REST 3TM-1 | 0 | 0~4000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-081 | PAPER THE REST 3TM-2 | 0 | 0~4000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-082 | PAPER THE REST 3TM-3 | 0 | 0~4000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-083 | PAPER THE REST TTM-1 | 0 | 0~4000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-084 | PAPER THE REST TTM-2 | 0 | 0~12000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-085 | PAPER THE REST TTM-3 | 0 | 0~15000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-086 | PAPER THE REST 1TM-1 | 0 | 0~4000 | Saves the Cumulative LIFT UP Time from TRAY insertion (For remaining detection calculation as=A). |
| 742-087 | OCT Condition | 1 | 0~1 | 0 = Not available, 1 = Available |
| 742-088 | Dup On Timing (From Regi Start) | 20 | 0~40 (1bit= 1.31136ms) | Synchronize adjustment to be same as the Regi Clutch at Regi Start (Double Speed) |
| 742-089 | OCT Start Timing (Home) | 17 | 0~112 (1bit= 1.31136ms) | OCT (Home) Start Timing Adjustment (Double Speed) |
| 742-093 | PRE T/A START TIMING 3TM-1 | 139 | 0~215 (1bit= 1.31136ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (303~803ms) |
| 742-094 | PRE T/A START TIMING 3TM-2 | 139 | 0~215 (1bit= 1.31136ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (365~865ms) |
| 742-095 | PRE T/A START TIMING 3TM-3 | 139 | 0~215 (1bit= 1.31136ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (429~929ms) |
| 742-096 | PRE T/A START TIMING TTM-2 | 139 | 0~215 (1bit= 1.31136ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (457~957ms) |
| 742-097 | PRE T/A START TIMING TTM-3 | 139 | 0~215 (1bit= 1.31136ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (431~931ms) |
| 742-098 | MAIN FEED START TIMING 3TM-1 | 38 | 0~83 (1bit= 1.31136ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (330~830ms). |
| 742-099 | MAIN FEED START TIMING 3TM-2 | 38 | 0~83 (1bit= 1.31136ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (570~1070ms). |

Table 8 Chain 742

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 742-100 | MAIN FEED START TIMING 3TM-3 | 38 | 0~83 (1bit= 1.31136ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (810~1310ms). |
| 742-101 | MAIN FEED START TIMING TTM-2 | 38 | 0~83 (1bit= 1.31136ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (780~1280ms). |
| 742-102 | MAIN FEED START TIMING TTM-3 | 38 | 0~83 (1bit= 1.31136ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (1410~1910ms). |
| 742-103 | Select A/B or INCH (SMH Auto Detect) | 0 | 0~1 | 0 = A/B series, 1 = Inch series |
| 742-104 | Select 2ndBTR Cleaning (SMH Auto Detect) | 1 | 0~1 | 0 = No, 1 = Yes |
| 742-105 | RegiLoopLengthAjust (DUP) (a sheet of paper) | 41 | 0~81 (1bit= 2.4462ms) | Lead Regi Length Adjustment (P Speed) from Dup (Feeding Length Letter-LEF and longer)Default=157ms |
| 742-106 | PRE T/A START TIMING 3TM-1 (Half) | 37 | 0~58 (1bit= 4.8924ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (303~803ms) |
| 742-107 | PRE T/A START TIMING 3TM-2 (Half) | 37 | 0~58 (1bit= 4.8924ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (365~865ms) |
| 742-108 | PRE T/A START TIMING 3TM-3 (Half) | 37 | 0~58 (1bit= 4.8924ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (429~929ms) |
| 742-109 | PRE T/A START TIMING TTM-2 (Half) | 37 | 0~58 (1bit= 4.8924ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (457~957ms) |
| 742-110 | PRE T/A START TIMING TTM-3 (Half) | 37 | 0~58 (1bit= 4.8924ms) | Adjusts the Time between PRE T/A Starts and Standard Signal (IOT) (431~931ms) |
| 742-111 | MAIN FEED START TIMING 3TM-1 (Half) | 10 | 0~22 (1bit= 4.8924ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (330~830ms). |
| 742-112 | MAIN FEED START TIMING 3TM-2 (Half) | 10 | 0~22 (1bit= 4.8924ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (570~1070ms). |
| 742-113 | MAIN FEED START TIMING 3TM-3 (Half) | 10 | 0~22 (1bit= 4.8924ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (810~1310ms). |
| 742-114 | MAIN FEED START TIMING TTM-2 (Half) | 10 | 0~22 (1bit= 4.8924ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (780~1280ms). |
| 742-115 | MAIN FEED START TIMING TTM-3 (Half) | 10 | 0~22 (1bit= 4.8924ms) | Adjust the Time between the MAIN FEED Starts and the PRE T/A (1410~1910ms). |

## 744--xxx User NVM List

Table 9 Chain 744

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 744-001 | STS-1 CONT TEMP in Low PWR Mode | 80 | 0~160 (1 bit=1 deg. C) | Main-Lamp temperature control in Low-Power Mode. Setting the default as 0 Degrees Celsius is same as Fuser-Off. It is necessary for high temperature for recovery Time Claim. |
| 744-002 | STS-2 CONT TEMP in Low PWR Mode | 80 | 0~160 (1 bit=1 deg. C) | Sub-Lamp temperature control in Low-Power Mode. Setting the default as 0 Degrees Celsius is same as Fuser-Off. It is necessary for high temperature for recovery Time Claim. |
| 744-003 | UM status by High Temperature Error Detection | 0 | 0~2 | 0 (Normal) or 1 (STS-1 High Temperature Error Detection) or 2 (STS-2 High Temperature Error Detection).UM Status occurs when either STS-1 or STS-2 High Temperature Error Detection is detected. Once this occurs, UM cannot be canceled unless this NVM value is changed to 0 by entering the Diag Mode in the Interlock-Open status of the M/C-Front Cover. |

**Table 9 Chain 744**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 744-004 | STS-2 High-TEMP-Not-Ready TEMP | 220 | 150~250<br>(1 bit=1 deg.C) | Once the STS-2 reaches High Temperature Not-Ready Temperature, the Fuser is moved to sagging status. This is because when continuous Run is performed for A5SEF and below, Temperature Distribution Control would fail. |
| 744-005 | STS-1 Ready Temperature | 150 | 100~150<br>(1 bit=1 deg.C) | For an appropriate distribution of [Ready to copy] Temperature. |
| 744-006 | STS-2 Ready Temperature | 127 | 100~150<br>(1 bit=1 deg.C) | For an appropriate distribution of [Ready to copy] Temperature. |
| 744-007 | STS-1 Stand-by Temperature | 160 | 100~200<br>(1 bit=1 deg.C) | For an appropriate distribution of Standby Temperature. |
| 744-008 | STS-2 Stand-by Temperature | 160 | 100~200<br>(1 bit=1 deg.C) | For an appropriate distribution of Standby Temperature. |
| 744-051 | Environment Temperature Correction | 3 | 0~5 | Environment dependent correction coefficient for level of fusing. Temperature AD value shift amount when the environment temperature varies 1 Degrees Celsius from 20 Degrees Celsius. Corrects the target temperature of Ready temperature/Standby temperature/RUN. Both STS-1 and STS-2 have the same temperature. Corrects between 10 ~ 20 Degrees Celsius. Correction is not performed outside this range. 0 = No 1 = 0.2 Degrees Celsius/Environment Temperature (Maximum 2 Degrees Celsius) 2 = 0.4 Degrees Celsius/Environment Temperature (Maximum 4 Degrees Celsius) 3 = 0.6 Degrees Celsius/Environment Temperature (Maximum 6 Degrees Celsius) 4 = 0.8 Degrees Celsius/Environment Temperature (Maximum 8 Degrees Celsius) 5 = 1.0 Degrees Celsius/Environment Temperature (Maximum 10 Degrees Celsius) |
| 744-052 | STS-1 Low TEMP Not-Ready TEMP | 125 | 100~150<br>(1 bit=1 deg.C) | Once the STS-1 reaches Low Temperature Not-Ready Temperature, the Fuser is moved to sagging status to avoid poor fusing. |
| 744-053 | STS-2 Low TEMP Not-Ready TEMP | 125 | 100~150<br>(1 bit=1 deg.C) | Once the STS-2 reaches Low Temperature Not-Ready Temperature, the Fuser is moved to sagging status to avoid poor fusing. |
| 744-054 | HFSI Counter Index | 0 | 0~5 | For HFSI Counter Symmetry |
| 744-085 | Plain Paper S Setting Temperature | 5 | 0~5 | 0 = Light Weight paper (55~63gsm) 1 = Plain paper (64~70gsm) 2 = Plain paper (71~80gsm) 3 = Bond (81~89gsm) 4 = Bond (90~98gsm) 5 = Bond (99~105gsm) |
| 744-196 | Plain Paper S Setting Temperature | 2 | 0~2 | 0 = Light Weight paper (55~63gsm) 1 = Plain paper (64~80gsm) 2 = Bond (81~105gsm) |
| 744-197 | 104 OHP Pitch Adjustment Value | 0 | 0~10<br>(1 count=1 pitch) | OHP Blocking Measures; It prevents OHP Blocking by lowering the PPM with increase of Pitch. A4LEF = PPM=66/(4+NVM value) A4SEF = PPM=66/(5+NMV value) |
| 744-198 | 52 OHP Pitch Adjustment Value | 1 | 0~10<br>(1 count=1 pitch) | OHP Blocking Measures; It prevents OHP Blocking by lowering the PPM with increase of Pitch. A4LEF = PPM=33/(3+NVM value) A4SEF = PPM=33/(4+NVM value) |

## 746--xxx Zero Transfer NVM List

**Table 10 Chain 746**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 746-006 | 2nd Resistance detection calculation results | 245 | 102~921<br>(1bit= -4.888V) | Measures the resistance of the Secondary Transfer part composed of 2nd BTR and Backup Roll at printable -1000V and display the voltage at Secondary Transfer corresponding that resistance. Secondary Transfer Voltage=245x-4.888=-1200V (Display range = 500V~- 4500V) |
| 746-007 | Final output value (Voltage value) | 17 | 0~1023<br>(1bit= 1M Ohm) | Measures and displays the resistance of the Secondary Transfer part composed of 2nd BTR and Backup Roll at printable -1000V. (Display range = 0~1023M Ohm) |
| 746-009 | Calculation results of Absolute Humidity | 9 | 0~200 | Displays the absolute humidity calculated from the relative humidity and relative temperature. (Absolute Humidity=(5.375-0.077*Temperature+0.027*Temperature 2)*Humidity/100) |

**Table 10 Chain 746**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 746-012 | 2nd Output | 368 | 0~921 (1bit= -4.888V) | For Component Control (0~- 4500V) |
| 746-013 | DTS Output | 818 | 0~818 (1bit= -3.666V) | For Component Control (0~- 3000V) |
| 746-017 | Resistance detection calculation results Y | 51 | 31~255 ( 1bit= 0.196µA) | Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 µA) in Y Color 1ST BTR. |
| 746-018 | Resistance detection calculation results M | 51 | 31~255 (1bit= 0.196µA) | Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 µA) in M Color 1ST BTR. |
| 746-019 | Resistance detection calculation results C | 51 | 31~255 (1bit= 0.196µA) | Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 µA) in C Color 1ST BTR. |
| 746-020 | Resistance detection calculation results K | 102 | 25~459 (1bit= 0.196µA) | Displays the output current corresponding to the resistance of the Primary Transfer part calculated from the voltage measured at fixed current (10 µA) in K Color 1ST BTR. |
| 746-021 | 1ST BTR Output Remote Normal-speed Y | 86 | 0~200 (1bit= 1%) | For primary transfer output adjustment of Y Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-017. ex., At 100 = Primary Transfer Current=14 µAx1.0=10 µA; At 150 = Primary Transfer Current=14 µAx1.5=21 µA |
| 746-022 | 1ST BTR Output Remote Normal-speed M | 86 | 0~200 (1bit= 1%) | For primary transfer output adjustment of M Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-018. ex., At 100 = Primary Transfer Current=14 µAx1.0=10 µA; At 150 = Primary Transfer Current=14 µAx1.5=21 µA |
| 746-023 | 1ST BTR Output Remote Normal-speed C | 86 | 0~200 (1bit= 1%) | For primary transfer output adjustment of C Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-019. ex., At 100 = Primary Transfer Current=14 µAx1.0=10 µA; At 150 = Primary Transfer Current=14 µAx1.5=21 µA |
| 746-024 | 1ST BTR Output Remote Normal-speed K | 86 | 0~200 (1bit= 1%) | For primary transfer output adjustment of K Color at FC104mmsec. Displays the multiplication value in primary transfer current of 746-020. ex., At 100 = Primary Transfer Current=14 µAx1.0=10 µA; At 150 = Primary Transfer Current=14 µAx1.5=21 µA |
| 746-025 | 1ST BTR Output Remote Half-speed FC Y | 36 | 0~200 (1bit= 1%) | For primary transfer output adjustment of Y Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-017. ex., @ 50 = Primary Transfer Current=14 µAx0.5=7 µA |
| 746-026 | 1ST BTR Output Remote Half-speed FC M | 36 | 0~200 (1bit= 1%) | For primary transfer output adjustment of M Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-018. ex., At 50 = Primary Transfer Current=14 µAx0.5=7 µA |
| 746-027 | 1ST BTR Output Remote Half-speed FC C | 36 | 0~200 (1bit= 1%) | For primary transfer output adjustment of C Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-197. ex., At 50 = Primary Transfer Current=14 µAx0.5=7 µA |
| 746-028 | 1ST BTR Output Remote Half-speed FC K | 36 | 0~200 (1bit= 1%) | For primary transfer output adjustment of K Color at FC52mmsec. Displays the multiplication value in primary transfer current of 746-020. ex., At 50 = Primary Transfer Current=14 µAx0.5=7 µA |
| 746-029 | 1ST BTR Output Remote Twice-speed BW K | 186 | 0~255 (1bit= 1%) | For primary transfer output adjustment of K Color at BW 194mmsec. Displays the multiplication value in primary transfer current of 746-020 |
| 746-030 | 1ST BTR Output Remote Normal-speed BW K | 100 | 0~200 (1bit= 1%) | For primary transfer output adjustment of K Color at BW 104mmsec. Displays the multiplication value in primary transfer current of 746-020 |
| 746-031 | 1ST BTR Output Remote Half-speed BW K | 36 | 0~200 (1bit= 1%) | For primary transfer output adjustment of K Color at BW 52mmsec. Displays the multiplication value in primary transfer current of 746-020 |
| 746-032 | 1ST BTR Present Output Y | 51 | 31~255 (1bit= 0.196µA) | Displays the Resistance Detection Calculation results * remote. |
| 746-033 | 1ST BTR Present Output M | 51 | 31~255 (1bit= 0.196µA) | Displays the Resistance Detection Calculation results * remote. |
| 746-034 | 1ST BTR Present Output C | 51 | 31~255 (1bit= 0.196µA) | Displays the Resistance Detection Calculation results * remote. |

**Table 10 Chain 746**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 746-035 | 1ST BTR Present Output K | 102 | 25~459 (1bit= 0.196μA) | Displays the Resistance Detection Calculation results * remote. |
| 746-059 | Remote for Plain paper A Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper A side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-060 | Remote for Plain paper B Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper B side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-061 | Remote for Plain paper C Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper C side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-062 | Remote for Plain paper D/E Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper D/E side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-063 | Remote for Plain paper F/G Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper F/G side 1 |
| 746-064 | Remote for Plain paper S Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | Secondary Transfer output adjustment of Plain paper S side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-065 | Remote for Label stock Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Label side 1 Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-066 | Remote for Thin paper Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Thin paper side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-067 | Remote for Heavyweight paper1 Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Heavy Weight paper 1 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-068 | Remote for Heavyweight paper2 Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Heavy Weight paper 2 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-069 | Remote for Postcard Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Postcard side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-070 | Remote for Envelope Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Envelope side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-071 | Remote for MLT-faced Postcard Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of MLT-faced Postcard side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-072 | Remote for Transparency Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Transparency side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-073 | Remote for Tack Film Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Tack Film side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-074 | Remote for Heavyweight coat paper1 Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Coated paper 1 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-075 | Remote for Heavyweight coat paper2 Side1 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Coat paper 2 side 1. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-076 | Remote for Plain paper A Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper A side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-077 | Remote for Plain paper B Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper B side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-078 | Remote for Plain paper C Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper C side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-079 | Remote for Plain paper D/E Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper D/E side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |

**Table 10 Chain 746**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 746-080 | Remote for Plain paper F/G Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper F/G side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-081 | Remote for Plain paper S Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper S side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-082 | Remote for Heavyweight paper1 Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Heavy Weight paper 1 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-083 | Remote for Heavyweight paper2 Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Heavy Weight paper 2 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-084 | Remote for Postcard Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Postcard side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-085 | Remote for Envelope Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Envelope side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-086 | Remote for MLT-faced Postcard Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of MLT-faced Postcard side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-087 | Remote for Heavyweight coat paper1 Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Coat paper 1 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-088 | Remote for Heavyweight coat paper2 Side2 (Output Duty) | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Coat paper 2 side 2. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-089 | 2ND BTR Present Output | 245 | 102~921 (1bit= -4.888V) | Ideographication of (- 500V~- 4500V) Resistance Detection Calculation results x remote. |
| 746-090 | Plain paper S Control NVM1 (FC Side1) | 0 | 0~6 | 0 = Control -S-1 (FCside1 secondary transfer output for paper according to P paper) 1 = Control -S-2 (FCside1 secondary transfer output for paper according to recycle paper) 2 = Control -S-3 (FCside1 secondary transfer output for paper according to poor surface smoothness of 4024 20lb) 3 = Control -S-4 (FCside1 secondary transfer output for paper according to poor surface smoothness of 4024 24lb) 4 = Control -S-5 (FCside1 secondary transfer output for paper applicable to the 4 items described above) 5 = Control -S-6 (FCside1 secondary transfer output based on the secondary transfer coefficient stored in the undisclosed NVM of 746-304~355 in this case) |
| 746-091 | Plain paper S Control NVM1 (BW Side1) | 0 | 0~1 | 0 = Control -S-7 (For BW side 1 of Plain paper A~G) 1 = Control -S-8 (For BW side 1 of paper applicable to the above) |
| 746-092 | Plain paper S Control NVM1 (FC Side2) | 0 | 0~5 | 1 = Control -S-9 (FCside2 secondary transfer output for P paper) 1 = Control -S-10 (FCside2 secondary transfer output for recycle paper) 2 = Control -S-11 (FCside2 secondary transfer output for 4024 20lb) 3 = Control -S-12 (FCside2 secondary transfer output for of 4024 24lb) 4 = Control -S-13 (FCside2 secondary transfer output for paper applicable to the 4 items described above) 5 = Control -S-14 (FCside2 secondary transfer output based on the secondary transfer coefficient stored in the undisclosed NVM of 746-356~407 in this case) |
| 746-408 | Output Remote for DTS normal-speed Side1 | 0 | 0~100 (1bit= 1%) | Displays the multiplication value by DTS output adjustment |
| 746-409 | Output Remote for DTS normal-speed Side2 | 50 | 0~100 (1bit= 1%) | Displays the multiplication value by DTS output adjustment |
| 746-410 | Output Remote for DTS half-speed Side1 | 100 | 0~100 (1bit= 1%) | Displays the multiplication value by DTS output adjustment |
| 746-411 | Output Remote for DTS half-speed Side2 | 100 | 0~100 (1bit= 1%) | Displays the multiplication value by DTS output adjustment |
| 746-412 | Output Remote for DTS twice-speed Side1 | 0 | 0~100 (1bit= 1%) | Displays the multiplication value by DTS output adjustment |

**Table 10 Chain 746**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 746-413 | Output Remote for DTS twice-speed Side2 | 50 | 0~100 (1bit= 1%) | Displays the multiplication value by DTS output adjustment |
| 746-423 | Toner Band Width (in process direction) | 3 | 0~22 (1bit= 1mm) | For adjustment of Toner Band Width in process direction |
| 746-424 | Toner Band Width (in axial direction) | 137 | 0~137 (1bit= 1mm) | For adjustment of Toner Band Width in axial direction |
| 746-425 | Toner Band Density | 60 | 10~100 (1bit= 1%) | For adjustment of Toner Band Density |
| 746-959 | 2nd CLN MINUS BIAS OUTPUT (for Environment no.0, 1, 2, 3) | 123 | 102~921 (1bit= -4.888V) | For 2ND BTR Cleaning Bias setup for each environment The resistance detection result of remote cannot be reflected |
| 746-960 | 2nd CLN MINUS BIAS OUTPUT (for Environment no.4) | 123 | 102~921 (1bit= -4.888V) | For 2ND BTR Cleaning Bias setup for each environment. The resistance detection result of remote cannot be reflected |
| 746-961 | 2nd CLN MINUS BIAS OUTPUT (for Environment no.5, 6) | 123 | 102~921 (1bit= -4.888V) | For 2ND BTR Cleaning Bias setup for each environment. The resistance detection result of remote cannot be reflected |
| 746-962 | 2nd CLN MINUS BIAS OUTPUT (for Environment no.7, 8, 9) | 123 | 102~921 (1bit= -4.888V) | For 2ND BTR Cleaning Bias setup for each environment. The resistance detection result of remote cannot be reflected |
| 746-963 | Y offset distance | 16 | 0~16 (1bit= 1ms) | Distance of 0ms~39ms between Drum contact and 1ST BTR |
| 746-964 | M offset distance | 16 | 0~16 (1bit= 1ms) | Distance of 0ms~39ms between Drum contact and 1ST BTR |
| 746-965 | C offset distance | 16 | 0~16 (1bit= 1ms) | Distance of 0ms~39ms between Drum contact and 1ST BTR |
| 746-966 | K offset distance | 16 | 0~16 (1bit= 1ms) | Distance of 0ms~39ms between Drum contact and 1ST BTR |
| 746-967 | 1st BTR Vmonitor Y | 36 | 4~178 (1bit= 28.01V) | Displays the voltage at primary transfer resistance detection (100~5000V) |
| 746-968 | 1st BTR Vmonitor M | 36 | 4~178 (1bit= 28.01V) | Displays the voltage at primary transfer resistance detection (100~5000V) |
| 746-969 | 1st BTR Vmonitor C | 36 | 4~178 (1bit= 28.01V) | Displays the voltage at primary transfer resistance detection (100~5000V) |
| 746-970 | 1st BTR Vmonitor K | 36 | 4~178 (1bit= 28.01V) | Displays the voltage at primary transfer resistance detection (100~5000V) |
| 746-971 | Remote for Plain paper A ~G Normal speed BW Side1 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper A ~G 104mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-972 | Remote for Plain paper A ~G twice speed BW Side1 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper A ~G 194mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-973 | Remote for Plain paper A ~G Normal speed BW Side2 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper A ~G 104mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-974 | Remote for Plain paper A ~G twice speed BW Side2 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper A ~G 194mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-975 | Remote for Plain paper S Normal speed BW Side1 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper S 104mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-976 | Remote for Plain paper S twice speed BW Side1 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper S 194mmsec side1 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-977 | Remote for Plain paper S Normal speed BW Side2 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper S 104mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |
| 746-978 | Remote for Plain paper S twice speed BW Side2 | 100 | 0~200 (1bit= 1%) | For Secondary Transfer output adjustment of Plain paper S 194mmsec side2 BW. Displays the multiplication value in secondary transfer resistance calculation result of 746-006. |

**Table 10 Chain 746**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 746-979 | Delay Time for 1stBTR Home Positioning | 300 | 0~6000 (1bit= 0.1sec) | Delay Time 0~10min |
| 746-980 | Selection heavyweight paper1 | 0 | 0~1 | 0 = Secondary Transfer Voltage for Heavy Weight Paper 1. 1 = Secondary Transfer Voltage for Heavy Weight Paper Coat Paper 1 |
| 746-981 | Selection heavyweight paper2 | 0 | 0~1 | 0 = Secondary Transfer Voltage for Heavy Weight Paper 2. 1 = Secondary Transfer Voltage for Heavy Weight Paper Coat Paper 2 |

## 751--xxx Procon NVM List

**Table 11 Chain 751**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 751-052 | BCR Charge Compensate mode (SW) | 0 | 0~3 | Charge Correction 0 = Performs Wear & Environment Correction (Default) 1 = Disables Charge Correction 2 = Performs Environment CorrectiON. ONly 3 = Performs Wear CorrectiON. ONly |
| 751-053 | BCR VM temperature & humidity compensate mode (SW) | 0 | 0, 1 | Vmid Factor Environment Correction 0 = Execute 1 = Disable |
| 751-132 | BOTTLE FULL Counter Print (Max Value) | 900 | 0~65535 | Max Setup Value of EMP Counter Print (1 Count=1print) |
| 751-133 | BOTTLE FULL (Flag) | 0 | 0~2 | 0 = Empty 1 = NEAR FULL 2 = FULL |
| 751-134 | BOTTLE NOT POSITION (Flag) | 0 | 0, 1 | Availability of the Toner Waster Bottle (0 = Bottle set 1 = No bottle) |
| 751-135 | Print Volume (Counter) | 0 | 0~65535 | Total count of No. of Prints (1 Count=1 sheet) |
| 751-136 | BOTTLE FULL Counter Dispense (Max Value) | 500 | 0~65535 | Max Setup Value of EMP Counter Dispense (1 Count=1sec) |
| 751-137 | Dispense Time Count (4Color Counter) | 0 | 0~65535 | Total Count of 4 Colors Dispense Time |
| 751-138 | BOTTLE SNS MODE (SW) | 0 | 0~2 | Specifies the Count method until BOTTLE FULL 0 = Auto(Print&Dispense) 1 = Only No. of Prints 2 = Only Dispense time |
| 751-159 | BCR CLN Trigger (SW) | 3 | 0~3 | Selection SW for Trigger types to operate the BCR CLN 0 = CV COUNT 1 = DRUM CYCLE COUNT 2 = PIXEL COUNT 3 = PV Count+ Pixel Count+DRUM Cycle |
| 751-160 | CV COUNT TOTAL (Counter) | 0 | 0~65535 | Each Cumulative ERU by Billing Count (1 Count=1pv) |
| 751-161 | DRUM CYCLE COUNT TOTAL | 0 | 0~65535 | Cumulative DRUM Cycle (1 Count=10cycle) |
| 751-162 | PIXEL COUNT TOTAL (Counter) | 0 | 0~10000000 | Cumulative K Color Pixel Count. Units of 1 step is based on the ICDC Control Pixel Count (1 Count=1dot/1 gradation) |
| 751-163 | BCR CLN CV Count Limit Value (Limiter) | 25 | 0~255 | Threshold in operating BCR CLN (Operation after reaching this value) (1 Count=100pv) |
| 751-164 | BCR CLN Cycle Count Limit Value (Limiter) | 50 | 0~255 | Threshold in operating BCR CLN (Operation after reaching this value) (1 Count=1k cycle) |
| 751-165 | BCR CLN Pixel Count Limit Value (Limiter) | 50 | 0~255 | Operating threshold for BCR CLN. (1 Count=(1dot/1 gradation)/10K) |
| 751-167 | BCR Cleaning Count | 0 | 0~1000 | Reads the No. of BCR CLN Operations. (1 Count=1 time) |
| 751-168 | CRU Type | 0 | 0~255 | 01h = P/SP (Domestic FX brand) 02h = MF (Domestic FX brand) 03h = P (FJ Company OEM) 04h = P (JDL Company OEM) 05h = P (IBM Company OEM) 06h-0Fh = Reserve (Domestic FX brand) 10h = P(OPBFX brand) 11h-1Fh = Reserve (OPB brand) 20h-FFH = Reserve (From now, assigns in MN/OEM when necessary) 30h-3Fh = FXAP |
| 751-177 | P/R Life Warning (Limiter) | 265 | 0~500 | Warning value of Drum Cartridge (All engine common) (1 Count=1kCy) |

**Table 11 Chain 751**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 751-178 | P/R Life End of Life (Limiter) | 280 | 0~500 | End of Life value of Drum Cartridge (All engine common) (1 Count=1kCy) |
| 751-200 | #Y_BCR DC corrected VH value | 620 | 0~1023 | VH Output Value of #Y Engine after Correction (All Speed common) (1 Count=-1.173V) |
| 751-201 | #M_BCR DC corrected VH value | 620 | 0~1023 | VH Output Value of #M Engine after Correction (All Speed common) (1 Count=-1.173V) |
| 751-202 | #C_BCR DC corrected VH value | 620 | 0~1023 | VH Output Value of #C Engine after Correction (All Speed common) (1 Count=-1.173V) |
| 751-203 | #K_BCR DC corrected VH value | 620 | 0~1023 | VH Output Value of #K Engine after Correction (All Speed common) (1 Count=-1.173V) |

## 752-xxx Procon NVM List

**Table 12 Chain 752**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 752-027 | Vdark Average | 0 | 0~1023 | ADC average detected value at expansion LED OFF. |
| 752-028 | Vref Average | 0 | 0~1023 | ADC average detected value of reference board reflection at expansiON. ON. |
| 752-029 | Vcln Average | 0 | 0~1023 | ADC average detected value of belt reflection at expansiON. ON. |
| 752-030 | Diffusion Vcln Average | 0 | 0~1023 | ADC average detected value of Belt reflection Light at diffusiON. ON. |
| 752-031 | Vpatch Average [Y] [CinA] | 0 | 0~1023 | ADC average detected value of CinA (low Cin) Patch. |
| 752-032 | Vpatch Average [M] [CinA] | 0 | 0~1023 | ADC average detected value of CinA (low Cin) Patch. |
| 752-033 | Vpatch Average [C] [CinA] | 0 | 0~1023 | ADC average detected value of CinA (low Cin) Patch. |
| 752-034 | Vpatch Average [K] [CinA] | 0 | 0~1023 | ADC average detected value of CinA (low Cin) Patch. |
| 752-035 | Vpatch Average [Y] [CinB] | 0 | 0~1023 | ADC average detected value of CinB (high Cin) Patch. |
| 752-036 | Vpatch Average [M] [CinB] | 0 | 0~1023 | ADC average detected value of CinB (high Cin) Patch. |
| 752-037 | Vpatch Average [C] [CinB] | 0 | 0~1023 | ADC average detected value of CinB (high Cin) Patch. |
| 752-038 | Vpatch Average [K] [CinB] | 0 | 0~1023 | ADC average detected value of CinB (high Cin) Patch. |
| 752-050 | Fail ADC Sensor | 0 | 0~1 | ADC Sensor Fail |
| 752-051 | Fail ADC Shutter | 0 | 0~1 | ADC Shutter Fail |
| 752-052 | Fail ADC Patch [Y] | 0 | 0~1 | ADC Patch Fail |
| 752-053 | Fail ADC Patch [M] | 0 | 0~1 | ADC Patch Fail |
| 752-054 | Fail ADC Patch [C] | 0 | 0~1 | ADC Patch Fail |
| 752-055 | Fail ADC Patch [K] | 0 | 0~1 | ADC Patch Fail |
| 752-056 | Diffusion Correction Factor | 350 | 0~1023 | Diffusion Output Standardization factor |
| 752-057 | RADC Target [Y] | 415 | 0~1023 | RADC Control Density Target Value |
| 752-058 | RADC Target [M] | 360 | 0~1023 | RADC Control Density Target Value |
| 752-059 | RADC Target [C] | 355 | 0~1023 | RADC Control Density Target Value |
| 752-060 | RADC Target [K] | 310 | 0~1023 | RADC Control Density Target Value |
| 752-061 | RADC Average [Y] | 400 | 0~1023 | RADC shift average value |
| 752-062 | RADC Average [M] | 370 | 0~1023 | RADC shift average value |
| 752-063 | RADC Average [C] | 338 | 0~1023 | RADC shift average value |
| 752-064 | RADC Average [K] | 380 | 0~1023 | RADC shift average value |
| 752-069 | ATC Correction Factor [Y] | 1000 | 0~4095 | ATC Sensor Sensitivity Correction Factor |
| 752-070 | ATC Correction Factor [Y] | 1000 | 0~4095 | ATC Sensor Sensitivity Correction Factor |
| 752-071 | ATC Correction Factor [Y] | 1000 | 0~4095 | ATC Sensor Sensitivity Correction Factor |
| 752-072 | ATC Correction Factor [Y] | 1000 | 0~4095 | ATC Sensor Sensitivity Correction Factor |

**Table 12 Chain 752**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 752-073 | ATC Correction Offset [Y] | 10000 | 8976~11023 | ATC Sensor Sensitivity Correction Offset |
| 752-074 | ATC Correction Offset [M] | 10000 | 8976~11023 | ATC Sensor Sensitivity Correction Offset |
| 752-075 | ATC Correction Offset [C] | 10000 | 8976~11023 | ATC Sensor Sensitivity Correction Offset |
| 752-076 | ATC Correction Offset [K] | 10000 | 8976~11023 | ATC Sensor Sensitivity Correction Offset |
| 752-081 | ATC Average [Y] | 0 | 0~1023 | ATC Average detected value after sensor sensitivity correction |
| 752-082 | ATC Average [M] | 0 | 0~1023 | ATC Average detected value after sensor sensitivity correction |
| 752-083 | ATC Average [C] | 0 | 0~1023 | ATC Average detected value after sensor sensitivity correction |
| 752-084 | ATC Average [K] | 0 | 0~1023 | ATC Average detected value after sensor sensitivity correction |
| 752-089 | ATC Fluctuation [Y] | 0 | 0~1023 | ATC Fluctuation Range detected value after sensor sensitivity correction |
| 752-090 | ATC Fluctuation [M] | 0 | 0~1023 | ATC Fluctuation Range detected value after sensor sensitivity correction |
| 752-091 | ATC Fluctuation [C] | 0 | 0~1023 | ATC Fluctuation Range detected value after sensor sensitivity correction |
| 752-092 | ATC Fluctuation [K] | 0 | 0~1023 | ATC Fluctuation Range detected value after sensor sensitivity correction |
| 752-109 | Number of Continuous ATC Fails [Y] | 0 | 0~255 | No. of Continuous ATC Fails |
| 752-110 | Number of Continuous ATC Fails [M] | 0 | 0~255 | No. of Continuous ATC Fails |
| 752-111 | Number of Continuous ATC Fails [C] | 0 | 0~255 | No. of Continuous ATC Fails |
| 752-112 | Number of Continuous ATC Fails [K] | 0 | 0~255 | No. of Continuous ATC Fails |
| 752-114 | Warn ATC Max & Min [Y] | 0 | 0~2 | ATC Upper and Lower Limits Warning (0 = Normal, 1 = ATC Output low HiTC, 2 = ATC Output high LowTC) |
| 752-115 | Warn ATC Max & Min [M] | 0 | 0~2 | ATC Upper and Lower Limits Warning (0 = Normal, 1 = ATC Output low HiTC, 2 = ATC Output high LowTC) |
| 752-116 | Warn ATC Max & Min [C] | 0 | 0~2 | ATC Upper and Lower Limits Warning (0 = Normal, 1 = ATC Output low HiTC, 2 = ATC Output high LowTC) |
| 752-117 | Warn ATC Max & Min [K] | 0 | 0~2 | ATC Upper and Lower Limits Warning (0 = Normal, 1 = ATC Output low HiTC, 2 = ATC Output high LowTC) |
| 752-118 | Warn ATC Fluctuation Max & Min [Y] | 0 | 0~2 | ATC Fluctuation Range Lower Limit Warning (0 = Normal, 1 = To little fluctuation) |
| 752-119 | Warn ATC Fluctuation Max & Min [M] | 0 | 0~2 | ATC Fluctuation Range Lower Limit Warning (0 = Normal, 1 = To little fluctuation) |
| 752-120 | Warn ATC Fluctuation Max & Min [C] | 0 | 0~2 | ATC Fluctuation Range Lower Limit Warning (0 = Normal, 1 = To little fluctuation) |
| 752-121 | Warn ATC Fluctuation Max & Min [K] | 0 | 0~2 | ATC Fluctuation Range Lower Limit Warning (0 = Normal, 1 = To little fluctuation) |
| 752-122 | Fail ATC Patch [Y] | 0 | 0~1 | ATC Sensor Fail |
| 752-123 | Fail ATC Sensor [M] | 0 | 0~1 | ATC Sensor Fail |
| 752-124 | Fail ATC Sensor [C] | 0 | 0~1 | ATC Sensor Fail |
| 752-125 | Fail ATC Sensor [K] | 0 | 0~1 | ATC Sensor Fail |
| 752-130 | Set ATC Control Nominal Value [0] [Y] | 628 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-131 | Set ATC Control Nominal Value [0] [M] | 628 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-132 | Set ATC Control Nominal Value [0] [C] | 628 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-133 | Set ATC Control Nominal Value [0] [K] | 643 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-134 | Set ATC Control Nominal Value [1] [Y] | 668 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-135 | Set ATC Control Nominal Value [1] [M] | 668 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-136 | Set ATC Control Nominal Value [1] [C] | 668 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-137 | Set ATC Control Nominal Value [1] [K] | 683 | 0~1023 | [ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-138 | Set ATC Control Nominal Value [2] [K] | 603 | 0~1023 | ATC Control Nominal Value before environment/deterioration correction as center setup |
| 752-156 | ATC Control Nominal Value [Y] | 500 | 0~1023 | [Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value OFFSET] |
| 752-157 | ATC Control Nominal Value [M] | 500 | 0~1023 | [Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value OFFSET] |

**Table 12 Chain 752**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 752-158 | ATC Control Nominal Value [C] | 500 | 0~1023 | [Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value OFFSET] |
| 752-159 | ATC Control Nominal Value [K] | 500 | 0~1023 | [Set ATC Control Nominal Value]+[ATC Environment Correction Value]+[ATC Deterioration Correction Value]+[ATC Nominal Value OFFSET] |
| 752-162 | Temp Average | 100 | 80~200 | Temperature average value after converting the temperature sensor output to temperature (80 = -20 Degree Celsius, 100 = 0 Degree Celsius, 200 = 100 Degree Celsius) |
| 752-163 | Humidity Average | 0 | 0~100 | Humidity average value after converting the humidity sensor output to humidity |
| 752-176 | Fail Environment SNR TEMP | 0 | 0~1 | [Detection relation (Temperature/Humidity)] Temperature Sensor Fail (Fixed as [Standard Temperature]) |
| 752-177 | Fail Environment SNR Humidity | 0 | 0~1 | [Detection relation (Temperature/Humidity)] Temperature Sensor Fail (Fixed as [Standard Temperature]) |
| 752-324 | SW_DispMode | 0 | 0~2 | Dispense method changing SW (0=ATC+ICDC, 1=ICDC, 2=Timer Disp) |
| 752-357 | Timer Disp time [Y] | 5 | 0~250 | Timer Disp Setup Time |
| 752-358 | Timer Disp time [M] | 5 | 0~250 | Timer Disp Setup Time |
| 752-359 | Timer Disp time [C] | 5 | 0~250 | Timer Disp Setup Time |
| 752-360 | Timer Disp time [K] | 5 | 0~250 | Timer Disp Setup Time |
| 752-369 | SW Potential Control ON/OFF | 0 | 0~1 | 0 = Controls LD Light Quantity 1 = Fixed LD Light Quantity |
| 752-371 | LD Light qty. when Potential Control is OFF [Y] | 300 | 0~1023 | LD Light Quantity Value when Potential Control is OFF. |
| 752-372 | LD Light qty when Potential Control is OFF [M] | 300 | 0~1023 | LD Light Quantity Value when Potential Control is OFF. |
| 752-373 | LD Light qty when Potential Control is OFF [C] | 300 | 0~1023 | LD Light Quantity Value when Potential Control is OFF. |
| 752-374 | LD Light qty when Potential Control is OFF [K] | 300 | 0~1023 | LD Light Quantity Value when Potential Control is OFF. |
| 752-375 | Ideal LD light qty [Y] | 450 | 0~1023 | LD Light Quantity Ideal Value Calculated from Delta LD Light Quantity. |
| 752-376 | Ideal LD light qty [M] | 450 | 0~1023 | LD Light Quantity Ideal Value Calculated from Delta LD Light Quantity. |
| 752-377 | Ideal LD light qty [C] | 450 | 0~1023 | LD Light Quantity Ideal Value Calculated from Delta LD Light Quantity. |
| 752-378 | Ideal LD light qty [K] | 400 | 0~1023 | LD Light Quantity Ideal Value Calculated from Delta LD Light Quantity. |
| 752-394 | Change in Lim_d_LD Light qty on Job-start | 40 | 0~1023 | Limit of Delta LD Light Quantity Feedback at Job Start. |
| 752-395 | Change in Lim_d_LD Light qty on Job & Jobend | 20 | 0~1023 | Limit of Delta LD Light Quantity Feedback at Job End/during Job. |
| 752-396 | Change in Lim_d_LD Light qty on Ton-erRecovery | 200 | 0~1023 | Limit of Delta LD Light Quantity Feedback at recovery. |
| 752-397 | Change in Lim_d_LD Light qty on Job-start (CL) | 40 | 0~1023 | Limit of Delta LD Light Quantity Feedback at Job Start (YMC Color differences considered) |
| 752-398 | Change in Lim_d_LD Light qty on Job & Jobend (CL) | 20 | 0~1023 | Limit of Delta LD Light Quantity Feedback at Job End/during Job (YMC Color differences considered) |
| 752-439 | Warn LD light amount Setting [Y] | 0 | 0~1 | Warning when the LD Light Quantity reached Upper or Lower Limit. |
| 752-440 | Warn LD light amount Setting [M] | 0 | 0~1 | Warning when the LD Light Quantity reached Upper or Lower Limit. |
| 752-441 | Warn LD light amount Setting [C] | 0 | 0~1 | Warning when the LD Light Quantity reached Upper or Lower Limit. |
| 752-442 | Warn LD light amount Setting [K] | 0 | 0~1 | Warning when the LD Light Quantity reached Upper or Lower Limit. |
| 752-453 | VBias [Y] | 887 | 0~1023 | DC VBias value |
| 752-454 | VBias [M] | 887 | 0~1023 | DC VBias value |

Table 12 Chain 752

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 752-455 | VBias [C] | 887 | 0~1023 | DC VBias value |
| 752-456 | VBias [K] | 887 | 0~1023 | DC VBias value |
| 752-474 | Flag Empty Detection Status [Y] | 0 | 0~3 | Flag of Empty status (0 = Normal 1 = In Empty Count 2 = Near Empty 3 = End) |
| 752-475 | Flag Empty Detection Status [M] | 0 | 0~3 | Flag of Empty status (0 = Normal 1 = In Empty Count 2 = Near Empty 3 = End) |
| 752-476 | Flag Empty Detection Status [C] | 0 | 0~3 | Flag of Empty status (0 = Normal 1 = In Empty Count 2 = Near Empty 3 = End) |
| 752-477 | Flag Empty Detection Status [K] | 0 | 0~3 | Flag of Empty status (0 = Normal 1 = In Empty Count 2 = Near Empty 3 = End) |
| 752-496 | Nominal value for NEAR Detection [Y] | 625 | 0~32767 | Count threshold for Near Detection |
| 752-497 | Nominal value for NEAR Detection [M] | 625 | 0~32767 | Count threshold for Near Detection |
| 752-498 | Nominal value for NEAR Detection [C] | 625 | 0~32767 | Count threshold for Near Detection |
| 752-499 | Nominal value for NEAR Detection [K] | 625 | 0~32767 | Count threshold for Near Detection |
| 752-784 | Fail Disp Unusual [Y] | 0 | 0~1 | Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old.<br>0 = Normal; 1 = Error |
| 752-785 | Fail Disp Unusual [M] | 0 | 0~1 | Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old.<br>0 = Normal; 1 = Error |
| 752-786 | Fail Disp Unusual [C] | 0 | 0~1 | Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old.<br>0 = Normal 1 = Error |
| 752-787 | Fail Disp Unusual [K] | 0 | 0~1 | Fail when new Toner Cartridge is installed and the Disp Motor Drive did not shift from new to old.<br>0 = Normal 1 = Error |
| 752-788 | Min PV Threshold | 3 | 0~255 | Minimum PV from Near empty to empty (M/Cstop) |
| 752-804 | DispTime Totalizing value for age Correction [Y] | 0 | 0~4294967295 | Cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer. |
| 752-805 | DispTime Totalizing value for age Correction [M] | 0 | 0~4294967295 | Cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer. |
| 752-806 | DispTime Totalizing value for age Correction [C] | 0 | 0~4294967295 | Cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer. |
| 752-807 | DispTime Totalizing value for age Correction [K] | 0 | 0~4294967295 | Cumulative dispense time for deterioration correction of ATC Control nominal value. Set to 0 at replacement of Developer. |
| 752-814 | Pre Near EMP Factor | 80 | 0~255 | Factor correcting [Near Detection Nominal Value] after Pre Near is displayed. |

## 753-xxx ProCon 2 NVM List

Table 13 Chain 753

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 753-001 | ADC Tone Correction Switch | 0 | 0~1 | [2P TRC] 2 Patch ADC Gradation CorrectiON. ON/Off Switch (0=On, 1=Off) |
| 753-002 | IOT Manual ADJ LUT Switch | 0 | 0~1 | [2P TRC] IOT Manual Adjustment LUT On/Off Switch (0=On, 1=Off) |
| 753-004 | P LUTCin [K] [E] | 1 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-005 | P LUTCin [K] [C] | 34 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-006 | P LUTCin [K] [A] | 77 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-007 | P LUTCin [K] [B] | 134 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-008 | P LUTCin [K] [D] | 255 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-009 | P LUTCin [Color] [E] | 1 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-010 | P LUTCin [Color] [C] | 51 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |

**Table 13 Chain 753**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 753-011 | P LUTCin [Color] [A] | 102 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-012 | P LUTCin [Color] [B] | 204 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-013 | P LUTCin [Color] [D] | 255 | 0~255 | [2P TRC] P LUTCin (fixed number) when the Delta LUT is calculated. |
| 753-014 | Patch Cin [Y] [CinA] | 102 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-015 | Patch Cin [M] [CinA] | 102 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-016 | Patch Cin [C] [CinA] | 102 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-017 | Patch Cin [K] [CinA] | 77 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-018 | Patch Cin [Y] [CinB] | 204 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-019 | Patch Cin [M] [CinB] | 204 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-020 | Patch Cin [C] [CinB] | 204 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-021 | Patch Cin [K] [CinB] | 134 | 0~255 | [2P TRC] = 2P Patch Cin (Value is changed by the gradation correction result). (Change factor from MF) Changes name from [TRC Patch Cin in Job] |
| 753-022 | TRC Target RADC [Y] [A] | 780 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-023 | TRC Target RADC [Y] [B] | 415 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-024 | TRC Target RADC [M] [A] | 740 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-025 | TRC Target RADC [M] [B] | 360 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-026 | TRC Target RADC [C] [A] | 725 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-027 | TRC Target RADC [C] [B] | 355 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-028 | TRC Target RADC [K] [A] | 730 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-029 | TRC Target RADC [K] [B] | 310 | 0~1023 | [2P TRC] Target RADC for Gradation Correction |
| 753-030 | TRC Current RADC [Y] [A] | 780 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-031 | TRC Current RADC [Y] [B] | 415 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-032 | TRC Current RADC [M] [A] | 740 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-033 | TRC Current RADC [M] [B] | 360 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-034 | TRC Current RADC [C] [A] | 725 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-035 | TRC Current RADC [C] [B] | 355 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-036 | TRC Current RADC [K] [A] | 730 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-037 | TRC Current RADC [K] [B] | 310 | 0~1023 | [2P TRC] Current RADC for Gradation Correction |
| 753-801 | Legible Y | 1024 | 0~2047 | Legible Adjustment (Y) |
| 753-802 | Legible M | 1024 | 0~2047 | Legible Adjustment (M) |
| 753-803 | Legible C | 1024 | 0~2047 | Legible Adjustment (C) |
| 753-804 | Legible K | 1024 | 0~2047 | Legible Adjustment (K) |
| 753-805 | Pattern Y | 0 | 0~19 | InOut Pattern Setup (Y) |
| 753-806 | Pattern M | 0 | 0~19 | InOut Pattern Setup (M) |
| 753-807 | Pattern C | 0 | 0~19 | InOut Pattern Setup (C) |

**Table 13 Chain 753**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 753-808 | Pattern K | 0 | 0~19 | InOut Pattern Setup (K) |

## 755-xxx CRUM NVM List

**Table 14 Chain 755**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 755-001 | #Y_Drum Life Count - kCy | 0 | 0~3000 (1bit= 1Kcycle) | To determine Drum Life |
| 755-002 | #Y_Drum Cycle Count - Total | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | Total P/R Cumulative No. of Rotations [To detect Life] |
| 755-003 | DC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | DC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-004 | AC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | AC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-005 | Print Count - Color | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for FC Job. |
| 755-006 | Print Count - Black | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for BW Job. |
| 755-007 | #Y_Print Count - Full Color, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for FC Job. |
| 755-008 | #Y_Print Count - Black, A4L only | 0 | 0~20000K (1312D00h) | Accumulates the No. of Prints - A4LEF for BW Job. |
| 755-009 | #Y_Shutdown Count - Full Color | 0 | 0~65535 (FFFFh) | Accumulates the No. of ShutDowns during FC Job. |
| 755-010 | #Y_Shutdown Count - Black | 0 | 0~65535 (FFFFh) | Accumulates the No. of ShutDowns during BW Job. |
| 755-011 | #Y_Setup Count - Full Color | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after FC Job. |
| 755-012 | #Y_Setup Count - Black | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after BW Job. |
| 755-013 | #Y_First Install - Year | 0 | 0~99 (63h) | Writes the date info when the first job was performed. |
| 755-014 | #Y_First Install - Month | 0 | 0~12 (Ch) | Writes the date info when the first job was performed. |
| 755-015 | #Y_First Install - Day | 0 | 0~31 (1Fh) | Writes the date info when the first job was performed. |
| 755-016 | #Y_First install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-017 | #Y_First install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-018 | #Y_Last install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-019 | #Y_Last install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-020 | #Y_Machine Serial No. - Write count | 0 | 0~65535 (FFFFh) | Accumulates the No. of M/C into which CRU is installed. |
| 755-022 | #Y_CRU TYPE | CRU Type | 0~255 (FFh) | CRU Type is recorded. |
| 755-028 | #M_Drum Life Count - kCy | 0 | 0~3000 (BB8h) | To determine Drum Life |
| 755-029 | M_Drum Cycle Count - Total | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | Total P/R Cumulative No. of Rotations [To detect Life] |
| 755-030 | #M_DC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | DC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-031 | #M_AC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | AC Charged I P/R Cumulative No. of Rotations [To detect Life] |

**Table 14 Chain 755**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 755-032 | #M_Print Count - Color | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for FC Job. |
| 755-033 | #M_Print Count - Black | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for BW Job. |
| 755-034 | #M_Print Count - Full Color, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for FC Job. |
| 755-035 | #M_Print Count - Black, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for BW Job. |
| 755-036 | #M_Shutdown Count - Full Color | 0 | 0~65535 (FFFFh) | [Description] = |
| 755-037 | #M_Shutdown Count - Black | 0 | 0~65535 (FFFFh) | [Description] = |
| 755-038 | #M_Setup Count - Full Color | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after FC Job. |
| 755-039 | #M_Setup Count - Black | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after BW Job. |
| 755-040 | #M_First Install - Year | 0 | 0~99 (63h) | Writes the date info when the first job was performed. |
| 755-041 | #M_First Install - Month | 0 | 0~12 (Ch) | Writes the date info when the first job was performed. |
| 755-042 | #M_First Install - Day | 0 | 0~31 (1Fh) | Writes the date info when the first job was performed. |
| 755-043 | #M_First install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-044 | #M_First install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-045 | #M_Last install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-046 | #M_Last install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-047 | #M_Machine Serial No. - Write count | 0 | 0~65535 (FFFFh) | Accumulates the No. of M/C into which CRU is installed. |
| 755-049 | #M_CRU TYPE | CRU Type | 0~255 (FFh) | CRU Type is recorded. |
| 755-055 | #C_Drum Life Count - kCy | 0 | 0~3000 (BB8h) | To determine Drum Life |
| 755-056 | #C_Drum Cycle Count - Total | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | Total P/R Cumulative No. of Rotations [To detect Life] |
| 755-057 | #C_DC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | DC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-058 | #C_AC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | AC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-059 | #C_Print Count - Color | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for FC Job. |
| 755-060 | #C_Print Count - Black | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for BW Job. |
| 755-061 | #C_Print Count - Full Color, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for FC Job. |
| 755-062 | #C_Print Count - Black, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for BW Job. |
| 755-063 | #C_Shutdown Count - Full Color | 0 | 0~65535 (FFFFh) | [Description] = |
| 755-064 | #C_Shutdown Count - Black | 0 | 0~65535 (FFFFh) | [Description] = |
| 755-065 | #C_Setup Count - Full Color | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after FC Job. |
| 755-066 | #C_Setup Count - Black | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after BW Job. |
| 755-067 | #C_First Install - Year | 0 | 0~99 (63h) | Writes the date info when the first job was performed. |
| 755-068 | #C_First Install - Month | 0 | 0~12 (Ch) | Writes the date info when the first job was performed. |

**Table 14 Chain 755**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 755-069 | #C_First Install - Day | 0 | 0~31 (1Fh) | Writes the date info when the first job was performed. |
| 755-070 | #C_First install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-071 | #C_First install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-072 | #C_Last install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-073 | #C_Last install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-074 | #C_Machine Serial No. - Write count | 0 | 0~65535 (FFFFh) | Accumulates the No. of M/C into which CRU is installed. |
| 755-076 | #C_CRU TYPE | CRU Type | 0~255 (FFh) | CRU Type is recorded. |
| 755-082 | #K_Drum Life Count - kCy | 0 | 0~3000 (BB8h) | To determine Drum Life |
| 755-083 | #K_Drum Cycle Count - Total | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | Total P/R Cumulative No. of Rotations [To detect Life] |
| 755-084 | #K_DC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | DC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-085 | #K_AC Drum Cycle Count | 0 | 0~6M (5B8D80h) (1bit= 0.1cycle) | AC Charged I P/R Cumulative No. of Rotations [To detect Life] |
| 755-086 | #K_Print Count - Color | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for FC Job. |
| 755-087 | #K_Print Count - Black | 0 | 0~100K (186A0h) | Accumulates the No. of Prints for BW Job. |
| 755-088 | #K_Print Count - Full Color, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for FC Job. |
| 755-089 | #K_Print Count - Black, A4L only | 0 | 0~20000K (1312D00h) (1bit= 100/A4.1 sheet) | Accumulates the No. of Prints - A4LEF for BW Job. |
| 755-090 | #K_Shutdown Count - Full Color | 0 | 0~65535 (FFFFh) | |
| 755-091 | #K_Shutdown Count - Black | 0 | 0~65535 (FFFFh) | |
| 755-092 | #K_Setup Count - Full Color | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after FC Job. |
| 755-093 | #K_Setup Count - Black | 0 | 0~65535 (FFFFh) | Accumulates the No. of Setups immediately after BW Job. |
| 755-094 | #K_First Install - Year | 0 | 0~99 (63h) | Writes the date info when the first job was performed. |
| 755-095 | #K_First Install - Month | 0 | 0~12 (Ch) | Writes the date info when the first job was performed. |
| 755-096 | #K_First Install - Day | 0 | 0~31 (1Fh) | Writes the date info when the first job was performed. |
| 755-097 | #K_First install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-098 | #K_First install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C Serial No. when the CRU was first installed. |
| 755-099 | #K_Last install, Part#1 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-100 | #K_Last install, Part#2 | 0 | 0~65535 (FFFFh) | Records the M/C (2nd time onwards) Serial No. when the CRU was last installed. |
| 755-101 | #K_Machine Serial No. - Write count | 0 | 0~65535 (FFFFh) | Accumulates the No. of M/C into which CRU is installed. |
| 755-103 | #K_CRU TYPE | CRU Type | 0~255 (FFh) | CRU Type is recorded. |

Table 15 Chain 760

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 760-006 | Block | 3 | 0~4 | Threshold of pattern valid no. of Blocks. Fail occurs if the value is not corrected below the Threshold. |
| 760-007 | Y-MAG | 716 | 0~1432 | Adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video lock. (4 Colors/Correction Resolution Ability = 1/4 Pixel unit) |
| 760-008 | M-MAG | 716 | 0~1432 | Adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video lock. (4 Colors/Correction Resolution Ability = 1/4 Pixel unit) |
| 760-009 | C-MAG | 716 | 0~1432 | Adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video lock. (4 Colors/Correction Resolution Ability = 1/4 Pixel unit) |
| 760-010 | K-MAG | 716 | 0~1432 | Adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video lock. (4 Colors/Correction Resolution Ability = 1/4 Pixel unit) |
| 760-011 | Y-BAL | 421 | 0~842 | Adjusts the Left Right Magnification with respect to Fast Scan direction image center by changing the slant of ROS Video Lock Sweep. (4 Colors/Correction Resolution Ability = 1/8 Pixel unit) |
| 760-012 | M-BAL | 421 | 0~842 | Adjusts the Left Right Magnification with respect to Fast Scan direction image center by changing the slant of ROS Video Lock Sweep. (4 Colors/Correction Resolution Ability = 1/8 Pixel unit) |
| 760-013 | C-BAL | 421 | 0~842 | Adjusts the Left Right Magnification with respect to Fast Scan direction image center by changing the slant of ROS Video Lock Sweep. (4 Colors/Correction Resolution Ability = 1/8 Pixel unit) |
| 760-014 | K-BAL | 421 | 0~842 | Adjusts the Left Right Magnification with respect to Fast Scan direction image center by changing the slant of ROS Video Lock Sweep. (4 Colors/Correction Resolution Ability = 1/8 Pixel unit) |
| 760-015 | Y-Skew misregistration | 500 | 0~1000 | 100=1 rotation. 500 and above=CW direction, Below 500=CCW direction |
| 760-016 | M-Skew misregistration | 500 | 0~1000 | 100=1 rotation. 500 and above=CW direction, Below 500=CCW direction |
| 760-017 | C-Skew misregistration | 500 | 0~1000 | 100=1 rotation. 500 and above=CW direction, Below 500=CCW direction |
| 760-018 | K-Skew misregistration | 500 | 0~1000 | 100=1 rotation. 500 and above=CW direction, Below 500=CCW direction |
| 760-019 | Y-XSO | 236 | 0~472 | Adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-020 | M-XSO | 236 | 0~472 | Adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-021 | C-XSO | 236 | 0~472 | Adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-022 | K-XSO | 236 | 0~472 | Adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-023 | Y-YSO | 237 | 0~474 | Adjusts the Slow Scan direction write start position by the No. of LS Signal Counts from the ROS/Image/Patch Start Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-024 | M-YSO | 237 | 0~474 | Adjusts the Slow Scan direction write start position by the No. of LS Signal Counts from the ROS/Image/Patch Start Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-025 | C-YSO | 237 | 0~474 | Adjusts the Slow Scan direction write start position by the No. of LS Signal Counts from the ROS/Image/Patch Start Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-026 | K-YSO | 237 | 0~474 | Adjusts the Slow Scan direction write start position by the No. of LS Signal Counts from the ROS/Image/Patch Start Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-027 | Regi Con/Circum. Length Correction implement SW | 3 | 0~3 | For check during servicing etc. 0 = Does not perform Regi Control nor Circumference Length Correction 1 = Performs Regi Control, does not perform Circumference Length Correction 2 = Does not perform Regi Control, performs Circumference Length Correction 3 = Performs Regi Control and Circumference Length Correction |
| 760-028 | RC Start Temp | 40 | 10~250 | Threshold of (Normal) Regi Control Implementation Temperature difference. Value on the left is 10 times of the Temperature. (0.1 Degree Celsius interval) |

**Table 15 Chain 760**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 760-029 | OLRC implementation SW | 1 | 0~1 | 0 = Does not perform OLRegi Control 1 = Performs OLRegi Control |
| 760-030 | Y-OLRC Start Temp | 30 | 10~100 | Threshold of Yellow Open Loop Regi Control Implementation Temperature difference. Value on the left is 10 times of the Temperature. (0.1 Degree Celsius interval) |
| 760-031 | M-OLRC Start Temp | 30 | 10~100 | Threshold of Magenta Open Loop Regi Control Implementation Temperature difference. Value on the left is 10 times of the Temperature. (0.1 Degree Celsius interval) |
| 760-032 | K-OLRC Start Temp | 30 | 10~100 | Threshold of Black Open Loop Regi Control Implementation Temperature difference. Value on the left is 10 times of the Temperature. (0.1 Degree Celsius interval) |
| 760-035 | Aok (for Diag Regi Con) | 20 | 1~24 | Threshold of No. of valid Blocks of fine adjustment pattern at Diag Regi Control (DC685). NG occurs if the value is out corrected below the Threshold. |
| 760-036 | Aok (for normal Regi Con) | 8 | 1~12 | Threshold of No. of valid Blocks of fine adjustment pattern at Normal Regi Control. NG occurs if the value is out corrected below the Threshold. |
| 760-037 | LEDset-IN-A | 2 | 0~2 | MOB LED ON/OFF and Light Quantity Step at IN side. 0 = Off 1 = Low 2 = High |
| 760-038 | LEDset-IN-B | 2 | 0~2 | MOB LED ON/OFF and Light Quantity Step at IN side.0 = Off 1 = Low 2 = High |
| 760-043 | LEDset-OUT-A | 2 | 0~2 | MOB LED ON/OFF and Light Quantity Step at OUT side. 0 = Off 1 = Low 2 = High |
| 760-044 | LEDset-OUT-B | 2 | 0~2 | MOB LED ON/OFF and Light Quantity Step at OUT side 0 = Off 1 = Low 2 = High |
| 760-049 | Y-XBI | 0 | 0~3 | Adjusts the Fast Scan direction write start position by Switching the Video Lock position phase from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-050 | M-XBI | 0 | 0~3 | Adjusts the Fast Scan direction write start position by Switching the Video Lock position phase from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-051 | C-XBI | 0 | 0~3 | Adjusts the Fast Scan direction write start position by Switching the Video Lock position phase from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-052 | K-XBI | 0 | 0~3 | Adjusts the Fast Scan direction write start position by Switching the Video Lock position phase from SOS Signal. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-053 | Y-OLXSO | 10 | 0~20 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-054 | M-OLXSO | 10 | 0~20 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-055 | C-OLXSO | 10 | 0~20 | The normal Regi Control cycle separately adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-056 | K-OLXSO | 10 | 0~20 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by the No. of Video Locks from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-057 | Y-OLXBI | 0 | 0~3 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by replacing the Video Locks phase from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-058 | M-OLXBI | 0 | 0~3 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by replacing the Video Locks phase from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-059 | O-OLXBI | 0 | 0~3 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by replacing the Video Locks phase from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |

**Table 15 Chain 760**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 760-060 | K-OLXBI | 0 | 0~3 | The normal Regi Control cycle, separately adjusts the Fast Scan direction write start position by replacing the Video Locks phase from SOS signal in an Open Loop, from the temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-061 | Y-OLYSO | 4 | 0~20 | The normal Regi Control cycle, separately adjusts the Slow Scan direction write start position by the LS signal No. of Counts from the ROS Image/Patch start signal in an Open Loop from the Temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-062 | M-OLYSO | 10 | 0~20 | The normal Regi Control cycle, separately adjusts the Slow Scan direction write start position by the LS signal No. of Counts from the ROS Image/Patch start signal in an Open Loop from the Temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-063 | C-OLYSO | 10 | 0~20 | The normal Regi Control cycle, separately adjusts the Slow Scan direction write start position by the LS signal No. of Counts from the ROS Image/Patch start signal in an Open Loop from the Temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-064 | K-OLYSO | 10 | 0~20 | The normal Regi Control cycle, separately adjusts the Slow Scan direction write start position by the LS signal No. of Counts from the ROS Image/Patch start signal in an Open Loop from the Temperature detection result. (4 Colors/Correction Resolution Ability = 1 Pixel unit) |
| 760-065 | Y-OLMAG | 100 | 0~200 | The normal Regi Control separately adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video Lock in an Open Loop from the Temperature detection result. (4 Colors/ Correction Resolution Ability = 1/4 Pixel unit) |
| 760-066 | M-OLMAG | 100 | 0~200 | The normal Regi Control separately adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video Lock in an Open Loop from the Temperature detection result. (4 Colors/ Correction Resolution Ability = 1/4 Pixel unit) |
| 760-067 | C-OLMAG | 100 | 0~200 | The normal Regi Control separately adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video Lock in an Open Loop from the Temperature detection result. (4 Colors/ Correction Resolution Ability = 1/4 Pixel unit) |
| 760-068 | K-OLMAG | 100 | 0~200 | The normal Regi Control separately adjusts the Fast Scan direction image 100% magnification by switching the average frequency of each ROS Video Lock in an Open Loop from the Temperature detection result. (4 Colors/ Correction Resolution Ability = 1/4 Pixel unit) |
| 760-070 | Y-LD light volume at last RegiCon | 0 | 0~1023 | LD Light Quantity when Regi Control is performed. |
| 760-071 | M-LD light volume at last RegiCon | 0 | 0~1023 | LD Light Quantity when Regi Control is performed. |
| 760-072 | C-LD light volume at last RegiCon | 0 | 0~1023 | LD Light Quantity when Regi Control is performed. |
| 760-073 | K-LD light volume at last RegiCon | 0 | 0~1023 | LD Light Quantity when Regi Control is performed. |
| 760-074 | Y-XSO after LD light volume change | 236 | 0~472 | XSO value after correction based on the LD Light Quantity variation |
| 760-075 | M-XSO after LD light volume change | 236 | 0~472 | XSO value after correction based on the LD Light Quantity variation |
| 760-076 | C-XSO after LD light volume change | 236 | 0~472 | XSO value after correction based on the LD Light Quantity variation |
| 760-077 | K-XSO after LD light volume change | 236 | 0~472 | XSO value after correction based on the LD Light Quantity variation |
| 760-078 | Y-XBI after LD light volume change | 0 | 0~3 | XBI value after correction based on the LD Light Quantity variation |
| 760-079 | M-XBI after LD light volume change | 0 | 0~3 | XBI value after correction based on the LD Light Quantity variation |
| 760-080 | C-XBI after LD light volume change | 0 | 0~3 | XBI value after correction based on the LD Light Quantity variation |
| 760-081 | K-XBI after LD light volume change | 0 | 0~3 | XBI value after correction based on the LD Light Quantity variation |

Table 16 Chain 762

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 762-002 | #YMC Normal VM1 value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC energized voltage at YMC Color/Normal speed (104mm/s) |
| 762-008 | #YM_DB AC Normal Vp-p value | 600 | 0~1023 (1bit= 1.491Vpp) | AC peak to peak energized voltage at YM Color/Normal speed. |
| 762-012 | #K_DB DC Normal Vm1 value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC energized voltage at K Color/Normal speed (104mm/s) |
| 762-013 | #CK_DB AC Normal Vp-p value | 600 | 0~1023 (1bit= 1.491Vpp) | AC peak to peak energized voltage at CK Color/Normal speed. |
| 762-018 | #YMC_DB DC Half-speed Vm1 value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC energized voltage at YMC Color/Half speed (52mm/s) |
| 762-024 | #YM_DB AC Half-speed Vp-p value | 600 | 0~1023 (1bit= 1.491Vpp) | AC peak to peak energized voltage at YM Color/Half speed. |
| 762-028 | #K_DB DC Half-speed Vm1 value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC energized voltage at K Color/Half speed (52mm/s) |
| 762-029 | #CK_DB AC Half-speed Vp-p value | 600 | 0~1023 (1bit= 1.491Vpp) | AC peak to peak energized voltage at CK Color/Half speed. |
| 762-043 | Pixel/Drum rotation threshold for Deve-Band | 20 | 0~65535 | A standard value (Cumulative No. of Pixels/Drum Rotations) for creation DeveBand. |
| 762-044 | Cumulative ICDC_Band_Value_Y | 0 | 0~409600 | Y Color Cumulative Pixels |
| 762-045 | Cumulative ICDC_Band_Value_M | 0 | 0~409600 | M Color Cumulative Pixels |
| 762-046 | Cumulative ICDC_Band_Value_C | 0 | 0~409600 | C Color Cumulative Pixels |
| 762-047 | Cumulative ICDC_Band_Value_K | 0 | 0~409600 | K Color Cumulative Pixels |
| 762-053 | #YM_DB AC Normal Frequency | 60 | 0~127 | AC Energized Voltage Frequency at YM Color Normal Speed |
| 762-054 | #YM_DB AC Normal Output Phase value | 65 | 0~127 | AC Energized Voltage Phase Value at YM Color Normal Speed |
| 762-059 | #CK_DB AC Normal Frequency | 60 | 0~127 | AC Energized Voltage Frequency at CK Color Normal Speed |
| 762-060 | #CK_DB AC Normal Output Phase value | 65 | 0~127 | AC Energized Voltage Phase Value at CK Color Normal Speed |
| 762-064 | #YM_DB AC Half-speed Frequency | 60 | 0~127 | AC Energized Voltage Frequency at YM Color Half Speed |
| 762-065 | YM_DB AC Half-speed Output Phase value | 65 | 0~127 | AC Energized Voltage Phase Value at YM Color Half Speed |
| 762-070 | #CK_DB AC Half-speed Frequency | 60 | 0~127 | AC Energized Voltage Frequency at CK Color Half Speed |
| 762-071 | #CK_DB AC Half-speed Output Phase value | 65 | 0~127 | AC Energized Voltage Phase Value at CK Color Half Speed |
| 762-081 | #Y_DB DC VB1 ON Normal Timing | 110 | 0~255 (1bit= 2.4462ms) | Rising timing from Vm1 to VB1 at Y Color Normal Speed. |
| 762-082 | #M_DB DC VB1 ON Normal Timing | 110 | 0~255 (1bit= 2.4462ms) | Rising timing from Vm1 to VB1 at M Color Normal Speed. |
| 762-083 | #C_DB DC VB1 ON Normal Timing | 110 | 0~255 | Rising timing from Vm1 to VB1 at C Color Normal Speed. (1bit= 2.4462ms) |
| 762-084 | #K_DB DC VB1 ON Normal Timing | 102 | 0~255 | Rising timing from Vm1 to VB1 at K Color Normal Speed. (1bit= 2.4462ms) |
| 762-089 | #Y_DB DC VB OFF Normal Timing | 90 | 0~255 | Falling timing from VB to VB2 at Y Color Normal Speed. (1bit= 2.4462ms) |

**Table 16 Chain 762**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 762-090 | #M_DB DC VB OFF Normal Timing | 90 | 0~255 | Falling timing from VB to VB2 at M Color Normal Speed. (1bit= 2.4462ms) |
| 762-091 | #C_DB DC VB OFF Normal Timing | 90 | 0~255 | Falling timing from VB to VB2 at C Color Normal Speed. (1bit= 2.4462ms) |
| 762-092 | #K_DB DC VB OFF Normal Timing | 82 | 0~255 | Falling timing from VB to VB2 at K Color Normal Speed. (1bit= 2.4462ms) |
| 762-093 | #YM_DB AC ON Normal Timing | 110 | 0~255 | AC Voltage Energized timing at YM Color Normal Speed. (1bit= 2.4462ms) |
| 762-094 | #CK_DB AC ON Normal Timing | 110 | 0~255 | AC Voltage Energized timing at CK Color Normal Speed. (1bit= 2.4462ms) |
| 762-095 | #YM_DB AC OFF Normal Timing | 118 | 0~255 | AC Voltage off timing at YM Color Normal Speed. (1bit= 2.4462ms) |
| 762-096 | #CK_DB AC OFF Normal Timing | 118 | 0~255 | AC Voltage Off timing at CK Color Normal Speed. |
| 762-105 | #Y_DB DC VB1 ON Half-speed Timing | 104 | 0~255 (1bit= 4.8924ms) | Rising timing from Vm1 to VB1 at Y Color Half Speed. |
| 762-106 | #M_DB DC VB1 ON Half-speed Timing | 104 | 0~255 (1bit= 4.8924ms) | Rising timing from Vm1 to VB1 at M Color Half Speed. |
| 762-107 | #C_DB DC VB1 ON Half-speed Timing | 104 | 0~255 (1bit= 4.8924ms) | Rising timing from Vm1 to VB1 at C Color Half Speed. |
| 762-108 | #K_DB DC VB1 ON Half-speed Timing | 94 | 0~255 (1bit= 4.8924ms) | Rising timing from Vm1 to VB1 at K Color Half Speed. |
| 762-113 | #Y_DB DC VB OFF Half-speed Timing | 92 | 0~255 (1bit= 4.8924ms) | Falling timing from VB to VB2 at Y Color Half Speed. |
| 762-114 | #M_DB DC VB OFF Half-speed Timing | 92 | 0~255 (1bit= 4.8924ms) | Falling timing from VB to VB2 at M Color Half Speed. |
| 762-115 | #C_DB DC VB OFF Half-speed Timing | 92 | 0~255 (1bit= 4.8924ms) | Falling timing from VB to VB2 at C Color Half Speed. |
| 762-116 | #K_DB DC VB OFF Half-speed Timing | 88 | 0~255 (1bit= 4.8924ms) | Falling timing from VB to VB2 at K Color Half Speed. |
| 762-117 | #YM_ DB AC ON Half-speed Timing | 110 | 0~255 (1bit= 4.8924ms) | AC Voltage Energized timing at YM Color Half Speed. |
| 762-118 | #CK_ DB AC ON Half-speed Timing | 110 | 0~255 (1bit= 4.8924ms) | AC Voltage Energized timing at CK Color Half Speed. |
| 762-119 | #YM_ DB AC OFF Half-speed Timing | 108 | 0~255 (1bit= 4.8924ms) | AC Voltage off timing at YM Color Half Speed. |
| 762-120 | #CK_ DB AC OFF Half-speed Timing | 108 | 0~255 (1bit= 4.8924ms) | AC Voltage off timing at CK Color Half Speed. |
| 762-121 | #YMC_Deve MOT ON Normal Timing | 184 | 0~255 | Color Developer during motor rising timing at Normal Speed. (1bit= 2.4462ms) |
| 762-122 | #YMC_Deve MOT OFF Normal Timing | 303 | 0~1023 | Color Developer during motor falling timing at Normal Speed. (1bit= 2.4462ms) |
| 762-123 | #YMC_Deve MOT ON Half-speed Timing | 184 | 0~255 (1bit= 4.8924ms) | Color Developer during motor rising timing at Half Speed. |
| 762-124 | #YMC_Deve MOT OFF Half-speed Timing | 303 | 0~1023 (1bit= 4.8924ms) | Color Developer during motor falling timing at Half Speed. |
| 762-134 | #K_Deve C/L ON Normal Timing | 164 | 0~255 | K Color Developer during clutch rising timing at Normal Speed. (1bit= 2.4462ms) |
| 762-135 | #K_Deve C/L OFF Normal Timing | 531 | 0~1023 | K Color Developer during clutch falling timing at Normal Speed. (1bit= 2.4462ms) |
| 762-136 | #K_Deve C/L ON Half-speed Timing | 164 | 0~255 (1bit= 4.8924ms) | K Color Developer during clutch rising timing at Half Speed. |
| 762-137 | #K_Deve C/L OFF Half-speed Timing | 531 | 0~1023 (1bit= 4.8924ms) | K Color Developer during clutch falling timing at Half Speed. |

**Table 16 Chain 762**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 762-173 | #Y_DB DC VB ON Normal Timing | 370 | 0~1023 | Rising timing from VB3 to VB at Y Color Normal Speed. (1bit= 2.4462ms) |
| 762-174 | #M_DB DC VB ON Normal Timing | 370 | 0~1023 | Rising timing from VB3 to VB at M Color Normal Speed. (1bit= 2.4462ms) |
| 762-175 | #C_DB DC VB ON Normal Timing | 370 | 0~1023 | Rising timing from VB3 to VB at C Color Normal Speed. (1bit= 2.4462ms) |
| 762-176 | #K_DB DC VB ON Normal Timing | 370 | 0~1023 | Rising timing from VB3 to VB at K Color Normal Speed. (1bit= 2.4462ms) |
| 762-177 | #Y_DB DC VB ON Half-speed Timing | 370 | 0~1023 (1bit= 4.8924ms) | Rising timing from VB3 to VB at Y Color Half Speed. |
| 762-178 | #M_DB DC VB ON Half-speed Timing | 370 | 0~1023 (1bit= 4.8924ms) | Rising timing from VB3 to VB at M Color Half Speed. |
| 762-179 | #C_DB DC VB ON Half-speed Timing | 370 | 0~1023 (1bit= 4.8924ms) | Rising timing from VB3 to VB at C Color Half Speed. |
| 762-180 | #K_DB DC VB ON Half-speed Timing | 370 | 0~1023 (1bit= 4.8924ms) | Rising timing from VB3 to VB at K Color Half Speed. |
| 762-185 | #YMC_DB DC Normal VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value of YMC Color/Normal Speed. |
| 762-186 | #K_DB DC Normal VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value of K Color/Normal Speed. |
| 762-187 | #YMC_DB DC Half-speed VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value of YMC Color/Half Speed. |
| 762-188 | #K_DB DC Half-speed VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value of K Color/Half Speed. |
| 762-190 | #4DB DC Hi-speed VM1 Value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC Energized Voltage value at K Color/High Speed. |
| 762-194 | #K_DB DC Hi-speed VM3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value at K Color/High Speed. |
| 762-195 | #K_DB DC Vm0 ON Hi-speed Timing | 107 | 0~255 (1bit= 1.3114ms) | Rising timing from 0v to Vm0 at K Color/High Speed. |
| 762-196 | #K_DB DC Vm1 OFF Hi-speed Timing | 99 | 0~255 (1bit= 1.3114ms) | Falling timing from Vm1 to Vm0 at K Color/High Speed. |
| 762-197 | #K_DB DC VB1 ON Hi-speed Timing | 130 | 0~255 (1bit= 1.3114ms) | Rising timing from Vm1 to VB1 at K Color/High Speed. |
| 762-202 | #K_DB DC VB OFF Hi-speed Timing | 91 | 0~255 (1bit= 1.3114ms) | Falling timing from VB to VB2 at K Color/High Speed. |
| 762-203 | #CK_DB AC ON Hi-speed Timing | 137 | 0~255 (1bit= 1.3114ms) | AC Voltage Energized timing at CK Color High Speed. |
| 762-204 | #CK_DB AC OFF Hi-speed Timing | 137 | 0~255 (1bit= 1.3114ms) | AC Voltage off timing at CK Color High Speed. |
| 762-210 | #K_DB DC VB ON Hi-speed Timing | 370 | 0~1023 (1bit= 1.3114ms) | Rising timing from VB3 to VB at K Color/High Speed. |
| 762-211 | #1, 2DB AC Target Value at 1200dpi | 600 | 0~1023 (1bit= 1.491V) | AC peak to peak energized voltage at YM Color 1200dpi/Normal Speed Setup |
| 762-213 | #3, 4DB AC Target Value at 1200dpi | 600 | 0~1023 (1bit= 1.491V) | AC peak to peak energized voltage at CK Color 1200dpi/Normal Speed Setup |
| 762-215 | #1, 2DB AC Target Value at 1200dpi/ Half-speed | 600 | 0~1023 (1bit= 1.491V) | AC peak to peak energized voltage at YM Color 1200dpi/Half Speed Setup |

**Table 16 Chain 762**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 762-217 | #3, 4DB AC Target Value at 1200dpi/ Half-speed | 600 | 0~1023 (1bit= 1.491V) | AC peak to peak energized voltage at CK Color 1200dpi/Half Speed Setup |
| 762-219 | toner_band_width_YMC | 10 | 0~30 | Xero/Deve band width Setup value at YMC Color |
| 762-220 | toner_band_width_K | 10 | 0~30 | Xero/Deve band width Setup value at K Color |
| 762-221 | toner_band_density_Half-speed_YMC | 153 | 0~255 (1bit= 0.3922%) | Half Speed Xero/Deve band density setup value at YMC Color |
| 762-222 | toner_band_density_Half-speed_K | 153 | 0~255 (1bit= 0.3922%) | Half Speed Xero/Deve band density setup value at K Color |
| 762-223 | toner_band_density_Normal_YMC | 153 | 0~255 (1bit= 0.3922%) | Normal Speed Xero/Deve band density setup value at YMC Color |
| 762-224 | toner_band_density_Normal_K | 153 | 0~255 (1bit= 0.3922%) | Normal Speed Xero/Deve band density setup value at K Color |
| 762-225 | toner_band_density_Hi-speed_YMC | 51 | 0~255 (1bit= 0.3922%) | High Speed Xero/Deve band density setup value at YMC Color |
| 762-226 | toner_band_density_Hi-speed_K | 153 | 0~255 (1bit= 0.3922%) | High Speed Xero/Deve band density setup value at K Color |
| 762-228 | #YM_DB AC Hi-speed Vp-p Value | 600 | 0~1023 (1bit= 1.491Vpp) | AC peak to peak energized voltage at YM Color High Speed. |
| 762-229 | #CK_DB AC Hi-speed Vp-p Value | 600 | 0~1023 (1bit= 1.491Vpp) | AC peak to peak energized voltage at CK Color High Speed. |
| 762-231 | #YM_DB AC Hi-speed Frequency | 60 | 0~127 | AC energized voltage frequency at YM Color High Speed. |
| 762-232 | #YM_DB AC Hi-speed Output Phase Value | 65 | 0~127 | AC energized voltage phase value at YM Color High Speed. |
| 762-233 | #CK_DB AC Hi-speed Frequency | 60 | 0~127 | AC energized voltage frequency at CM Color High Speed. |
| 762-234 | #CK_DB AC Hi-speed Output Phase Value | 65 | 0~127 | AC energized voltage phase value at CK Color High Speed. |
| 762-236 | #Y_DB DC Hi-speed Vm1 Value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC Energized Voltage value at Y Color High Speed. |
| 762-237 | #M_DB DC Hi-speed Vm1 Value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC Energized Voltage value at M Color High Speed. |
| 762-238 | #C_DB DC Hi-speed Vm1 Value | 351 | 0~1023 (1bit= -0.684V) | Vm1 Developer DC Energized Voltage value at C Color High Speed. |
| 762-239 | #Y_DB DC Hi-speed VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value at Y Color High Speed. |
| 762-240 | M_DB DC Hi-speed VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value at M Color High Speed. |
| 762-241 | #C_DB DC Hi-speed VB3 Value | 877 | 0~1023 (1bit= -0.684V) | VB3 Developer DC Energized Voltage value at C Color High Speed. |
| 762-242 | #Y_DB DC Vm0 ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Rising timing from 0v to Vm0 at Y Color High Speed. |
| 762-243 | #M_DB DC Vm0 ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Rising timing from 0v to Vm0 at M Color High Speed. |
| 762-244 | #C_DB DC Vm0 ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Rising timing from 0v to Vm0 at C Color High Speed. |

**Table 16 Chain 762**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 762-245 | #Y_DB DC Vm1 OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Falling timing from Vm1 to Vm0 at Y Color High Speed. |
| 762-246 | #M_DB DC Vm1 OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Falling timing from Vm1 to Vm0 at M Color High Speed. |
| 762-247 | #C_DB DC Vm1 OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Falling timing from Vm1 to Vm0 at C Color High Speed. |
| 762-248 | #Y_DB DC VB1 ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Rising timing from Vm1 to VB1 at Y Color High Speed. |
| 762-249 | #M_DB DC VB1 ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Rising timing from Vm1 to VB1 at M Color High Speed. |
| 762-250 | #C_DB DC VB1 ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Rising timing from Vm1 to VB1 at C Color High Speed. |
| 762-251 | #Y_DB DC VB OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Falling timing from VB to VB2 at Y Color High Speed. |
| 762-252 | #M_DB DC VB OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Falling timing from VB to VB2 at M Color High Speed. |
| 762-253 | #C_DB DC VB OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | Falling timing from VB to VB2 at C Color High Speed. |
| 762-254 | #YM_DB AC ON Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | AC Voltage Energized timing at YM Color High Speed. |
| 762-255 | #YM_DB AC OFF Hi-speed Timing | 366 | 0~2000 (1bit= 1.3114ms) | AC Voltage off timing at YM Color High Speed. |
| 762-256 | #Y_DB DC VB ON Hi-speed Timing | 1382 | 0~2000 (1bit= 1.3114ms) | Rising timing from VB3 to VB at Y Color High Speed. |
| 762-257 | #M_DB DC VB ON Hi-speed Timing | 1382 | 0~2000 (1bit= 1.3114ms) | Rising timing from VB3 to VB at M Color High Speed. |
| 762-258 | #C_DB DC VB ON Hi-speed Timing | 1382 | 0~2000 (1bit= 1.3114ms) | Rising timing from VB3 to VB at C Color High Speed. |
| 762-259 | FPOT DB Vm0 ON Normal Timing | 110 | 0~255 (1bit= 2.4462ms) | Rising timing from 0v to Vm0 at K Color FPOT. |
| 762-260 | FPOT DB Vm0 ON Hi-speed Timing | 110 | 0~255 (1bit= 1.3114ms) | Rising timing from 0v to Vm0 at K Color FPOT. |
| 762-261 | FPOT DB AC ON Normal Timing | 110 | 0~255 | AC Voltage Energized timing at FPOT Normal Speed. (1bit= 2.4462ms) |
| 762-262 | FPOT DB AC ON Hi-speed Timing | 110 | 0~255 (1bit= 1.3114ms) | AC Voltage Energized timing at FPOT High Speed. |

## 764-xxx Output (Finisher) NVM List

**Table 17 Chain 764**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 764-001 | Mix Stack | 0 | 0~1 | 0 = Disable 1 = Enable |
| 764-002 | Set Count | 50 | 10~100 | Maximum No. of sets allowed |
| 764-003 | Unstaple Compile Sheet Count (Small Size) | 50 | 10~100 | No. of Small Size paper compiled. |

**Table 17 Chain 764**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 764-004 | Maximum Compile Sheet Count | 50 | 10~100 | No. of paper compiled. |
| 764-005 | Sheet Width of Last Ejected Sheet | 65535 | 0~65535 | Width of last ejected sheet on the Stacker. Rewrites in Sleep Mode |
| 764-006 | Sheet Length of Last Ejected Sheet | 65535 | 0~65535 | Length of last ejected sheet on the Stacker. Rewrites in Sleep Mode |
| 764-007 | Sheet Width of Maximum Size Sheet | 65535 | 0~65535 | Maximum paper size (Width) output to the Stacker. Rewrites in Sleep Mode |
| 764-008 | Sheet Length of Maximum Size Sheet | 65535 | 0~65535 | Maximum paper size (Length) output to the Stacker. Rewrites in Sleep Mode |
| 764-009 | Number Of Ejected Staple Set | 0 | 0~255 | No. of Stapled Sets output. Rewrites in Sleep Mode |
| 764-010 | Mix Sensor Level Indicate | 0 | 0~1 | MixSensor ON/OFF. Rewrites in Sleep Mode |
| 764-011 | Staple Mode of Last Set | 255 | 0~255 | Staple Mode of last set. Rewrites in Sleep Mode |
| 764-012 | Sleep Mode Recovery Indicate | 0 | 0~1 | Indication of entry into the Sleep Mode at IOT Recovery. Rewrites in Sleep Mode |
| 764-013 | Unstaple Compile Sheet Count (Large Size) | 25 | 10~100 | No. of Large Size paper compiled. |

## 770-xxx ESS IO Port/Protocol Setting NVM List

**Table 18 Chain 770**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 770-001 | Parallel Port Enable | Enable | 0~1 | 0 = Stop 1 = Start Up |
| 770-002 | Parallel Print ModeType | Auto | 1~23 | 1 = Auto, 14 = Dump, 15 = ART, 16 = PLW, 3 = HPGL2, 8 = ESCP, 5 = PostScript, 10 = TIFF (AP version 1 = Auto, 2 = PCL6, 5 = PostScript |
| 770-003 | Parallel PJL Switch | ON | FALSE~TRUE | 0 = OFF 1 = ON |
| 770-004 | Parallel Adobe Protocol | Standard | 0~2 | 0 = Standard 1 = Binary 2 = TBCP |
| 770-005 | Parallel Auto Feed Time | 6 (30sec) | 1~255 | 1-255 (5-1275 sec) |
| 770-006 | Parallel Input Prime | ON | 0~1 | 0 = OFF 1 = ON |
| 770-007 | Parallel COMM Mode | ON | 0~1 | 0 = ON 1 = OFF |
| 770-009 | TBD | 0 | 0~1 | 0 = IEEE P1284 1 = Centronics |
| 770-010 | Ethernet Transfer Rate | Auto | - | 0x7F = Auto, 2 = 100BASE-TX, 1 = 10BASE-T |
| 770-030 | NetWare Frame Type | Auto | - | 255 = Auto 2 = Ethernet II 4 = Ethernet SNAP 3 = Ethernet 802.2 1 = Ethernet 802.3 6 = Token SNAP 5 = Token 802.5 |
| 770-040 | EtherTalk Port Enable | Disable | 0~1 | 0 = Disable 1 = Enable |
| 770-041 | EtherTalk Print Type | Post-Script | - | PostScript |
| 770-042 | EtherTalk JCL Enable is EtherTalk PJL Enable for AP | ON | FALSE~TRUE | 0 = OFF 1 = ON |
| 770-050 | Netware Port Enable | Stop | - | 0 = Stop 1 = Start Up |
| 770-051 | Netware Print Mode Type | Auto | - | 1 = Auto, 16 = ART, 17 = PLW, 3 = HPGL2, 8 = ESCP, 5 = PostScript, 10 = TIFF, 23 = Dump (AP Version 1 = Auto, 2 = PCL6, 5 = PostScript) |
| 770-052 | Netware JCL Enable is Netware PJL Enable for AP | ON | FALSE~TRUE | 0 = Cannot be used 1 = Can be used |
| 770-053 | NetWare TBCP Valid | None | FALSE~TRUE | 0 = None 1 = TBCP |
| 770-054 | NetWare Trans. Protocol | IPX/SPX | - | 1 = IPX/SPX, 2 = TCP/IP, 3 = both |
| 770-060 | Lpd Port Enable | Start Up | - | 0 = Stop 1 = Start Up |

**Table 18 Chain 770**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 770-061 | Lpd Print Mode Type | Auto | - | 1 = Auto, 16 = ART, 17 = PLW, 3 = HPGL2, 8 = ESCP, 5 = PostScript, 10 = TIFF, 23 = Dump (AP Version 1 = Auto, 2 = PCL6, 5 = PostScript) |
| 770-062 | Lpd JCL Enable is Lpd PJL Enable for AP | ON | FALSE~TRUE | 0 = OFF 1 = ON |
| 770-063 | TBCP Valid Flag | None | FALSE~TRUE | 0 = None 1 = TBCP |
| 770-064 | Lpd Spool Mode | Non Spool | - | 0 = Non Spool 1 = Spool |
| 770-065 | Lpd Time-out | 16sec | - | 2~3600sec (Setup range = 2~65,535) |
| 770-070 | Lpd Address Limitation | No | - | 1 = Yes 0 = No |
| 770-071 | lpd Valid IP Address 1 | 0.0.0.0 | - | 00000000~FFFFFFFF |
| 770-072 | lpd Valid IP Address 2 | 0.0.0.0 | - | 00000000~FFFFFFFF |
| 770-073 | lpd Valid IP Address 3 | 0.0.0.0 | - | 00000000~FFFFFFFF |
| 770-074 | lpd Valid IP Address 4 | 0.0.0.0 | - | 00000000~FFFFFFFF |
| 770-075 | lpd Valid IP Address 5 | 0.0.0.0 | - | 00000000~FFFFFFFF |
| 770-080 | SMB Port Enable | Start Up | 0~1 | 0 = Stop 1 = Start Up |
| 770-081 | SMB Print Mode Type | Auto | - | 1 = Auto, 16 = ART, 17 = PLW, 3 = HPGL2, 8 = ESCP, 5 = PostScript, 10 = TIFF, 23 = Dump (AP Version 1 = Auto, 2 = PCL6, 5 = PostScript) |
| 770-082 | SMB JCL Enable is SMB PJL Enable for AP | ON | FALSE~TRUE | 0 = OFF 1 = ON |
| 770-083 | SMB TBCP Valid Flag | None | FALSE~TRUE | 0 = None 1 = TBCP |
| 770-084 | SMB Spool Mode | Non Spool | - | 0 = Non Spool 1 = Spool |
| 770-085 | SMB Transport Protocol | both | - | 2 = TCP/IP, 4 = NetBeui, 6 = both |
| 770-090 | IPP Port Enable | Stop | 0~1 | 0 = Stop 1 = Start Up |
| 770-091 | IPP Print Mode Type | Auto | - | 1 = Auto, 16 = ART, 17 = PLW, 3 = HPGL2, 8 = ESCP, 5 = PostScript, 10 = TIFF, 23 = Dump (AP Version 1 = Auto, 2 = PCL6, 5 = PostScript) |
| 770-092 | IPP JCL Enable is IPP PJL Enable for AP | ON | FALSE~TRUE | 0 = OFF 1 = ON |
| 770-093 | IPP TBCP Valid Flag | None | FALSE~TRUE | 0 = None 1 = TBCP |
| 770-094 | Acl Authorization | OFF (none) | - | 0 = OFF 1 = ON |
| 770-095 | Use DNS Name | On | FALSE~TRUE | On, Off |
| 770-097 | Port no. | 80 | 0~9999 | 0, 80, any one value between 8000~9999 |
| 770-098 | IPP Spool Mode | Non Spool | - | 0 = Non Spool 1 = Spool |
| 770-099 | Time Out | 60 | 0~65535 | 0~65535 [Sec] |
| 770-100 | DHCP Mode | DHCP | - | 0x10 = Manual, 4 = BOOTP, 2 = DHCP, 1 = RARP |
| 770-101 | IP Address | 0.0.0.0 | 0x00000000~0xFFFFFFFF | 00000000~FFFFFFFF |
| 770-102 | Subnet Mask | 0.0.0.0 | 0x00000000~0xFFFFFFFF | 00000000~FFFFFFFF |
| 770-103 | Gateway Address | 0.0.0.0 | 0x00000000~0xFFFFFFFF | 00000000~FFFFFFFF |

**Table 18 Chain 770**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 770-110 | DNS Auto Config. | DHCP | 0~1 | 0x10 = Manual Setting, 0x02 = DHCP |
| 770-112 | DNS Domain Name | NULL | [Setup Range] = | DNS Domain Name (Normally, it is within 255 characters including the "." (dot) at the end which is not displayed) |
| 770-120 | TBD | DHCP | [Setup Range] = | 0x10 = Manual Setting, 0x02 = DHCP |
| 770-121 | TBD | 0.0.0.0 | [Setup Range] = | 00000000~FFFFFFFF |
| 770-123 | TBD | 0.0.0.0 | 0x00000000~0xFFFFFFFF | 00000000~FFFFFFFF |
| 770-130 | Agent Port Enable | Start Up | 0~1 | 0 = Stop 1 = Start Up |
| 770-131 | Agent Transport Flag | UDP | - | 0 = both OFF, 1 = IPX, 2 = UDP, 3 = both ON |
| 770-133 | Agent Community Name | NULL | - | JISX0201 Character Code 12 Characters (Replace to "fxSystemMgr" on the PDU) Agent Community Name 1 ~ Agent Community Name 10 |
| 770-140 | EWS Port Enable | Start Up | 0~1 | 0 = Stop 1 = Start Up |
| 770-150 | Salutation Port Enable | Stop | 0~1 | 0 = Stop 1 = Start Up |
| 770-160 | MFIO Port Enable | Stop | 0~1 | 0 = Stop 1 = Start Up |
| 770-166 | HTTP Max Session | 5 | - | 1~10 |
| 770-190 | Mail Service Start/Stop | 1 | 0~1 | 1 = Start Up, 0 = Stop |
| 770-191 | Address of Mail Sender | NULLR | [Setup Range] = | Maximum 128 ASCII characters (types include alphanumerics, [@] [. (period)] [+] [-] [=] [_ (underscore)] [/] [<] [>]). Format = username@domain.name |
| 770-202 | SMTP Mail Server IP Address | 0.0.0.0 | 0x00000000~0xFFFFFFFF | 00000000~FFFFFFFF |

## 780-xxx ESS Print Frame Setting NVM List

**Table 19 Chain 780**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 780-013 | Paper Type for Tray 1 | 22 | [Setup Range] = | 22 = Bond 1 = Plain Paper 14 = Recycled Paper 23~27 = Custom Paper 1~5 |
| 780-014 | Paper Type for Tray 2 | 22 | [Setup Range] = | 22 = Bond 1 = Plain Paper 14 = Recycled Paper 23~27 = Custom Paper 1~5 |
| 780-015 | Paper Type for Tray 3 | 22 | [Setup Range] = | 22 = Bond 1 = Plain Paper 14 = Recycled Paper 23~27 = Custom Paper 1~5 |
| 780-016 | Paper Type for Tray 4 | 22 | [Setup Range] = | 22 = Bond 1 = Plain Paper 14 = Recycled Paper 23~27 = Custom Paper 1~5 |
| 780-018 | Paper Type for SMH | 22 | [Setup Range] = | 22 = Bond 1 = Plain Paper 14 = Recycled Paper 23~27 = Custom Paper 1~5 |
| 780-019 | User Define = Name of Types 1 Paper | NULL | [Setup Range] = | Maximum 24 characters of ASCII (M/N) |
| 780-020 | User Define = Name of Types 2 Paper | NULL | [Setup Range] = | Maximum 24 characters of ASCII (M/N) |
| 780-021 | User Define = Name of Types 3 Paper | NULL | [Setup Range] = | Maximum 24 characters of ASCII (M/N) |
| 780-022 | User Define = Name of Types 4 Paper | NULL | [Setup Range] = | Maximum 24 characters of ASCII (M/N) |
| 780-023 | User Define = Name of Types 5 Paper | NULL | [Setup Range] = | Maximum 24 characters of ASCII (M/N) |
| 780-025 | Image Quality Control Category = Bond paper | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |

**Table 19 Chain 780**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 780-026 | Image Quality Control Category = Plain Paper | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-027 | Image Quality Control Category = Recycle Paper | 0x04 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-028 | Image Quality Control Category = Custom Paper 1 | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-029 | Image Quality Control Category = Custom Paper 2 | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-030 | Image Quality Control Category = Custom Paper 3 | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-031 | Image Quality Control Category = Custom Paper 4 | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-032 | Image Quality Control Category = Custom Paper 5 | 0x02 | 0x01~0x80 | 0x01 = Plain Paper A (J paper/JD paper/J Coat paper/CX28lb equivalent) 0x02 = Plain Paper B (P paper/C2 paper equivalent) 0x04 = Plain Paper C (WR100/Green100 equivalent) 0x08 = Plain Paper D (4024-20lb/Askul equivalent (Normal)) 0x10 = Plain Paper E (4024-20lb/Askul equivalent (gradation emphasis)), 0x20 = Plain Paper F (4024-24lb equivalent (Normal)) 0x40 = Plain Paper G |
| 780-050 | Paper Type Priority = Bond Paper | 3 | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-051 | Paper Type Priority = Plain Paper | 1 | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-052 | Paper Type Priority = Recycle Paper | 2 | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-053 | Paper Type Priority = Custom Paper 1 | X | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-054 | Paper Type Priority = Custom Paper 2 | X | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-055 | Paper Type Priority = Custom Paper 3 | X | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-056 | Paper Type Priority = Custom Paper 4 | X | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-057 | Paper Type Priority = Custom Paper 5 | X | 0x01~0xff | 1~8 = 1~8 X = 0xff 0 = X (According to priority not controlled by APS/ATS) Repetition allowed |
| 780-060 | Tray 1 Priority | 1 | 1~4 | The priority follows the number; 1 is the highest priority. Repetition not allowed. |
| 780-061 | Tray 2 Priority | 2 | 1~4 | The priority follows the number; 1 is the highest priority. Repetition not allowed. |
| 780-062 | Tray 3 Priority | 3 | 1~4 | The priority follows the number; 1 is the highest priority. Repetition not allowed. |
| 780-063 | Tray 4 Priority | 4 | 1~4 | The priority follows the number; 1 is the highest priority. Repetition not allowed. |
| 780-066 | Edge Erase Adjustment value (Lead Edge) | 4.0 | 40~50 | 4.0~5.0mm (0.1mm unit) |
| 780-067 | Edge Erase Adjustment value (Trail Edge) | 2.0 | 20~30 | 2.0~3.0mm (0.1mm unit) |

**Table 19 Chain 780**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 780-068 | Edge Erase Adjustment value (Side) | 2.0 | 10~30 | 1.0~3.0mm (0.1mm unit) |
| 780-069 | Image Enhancement MC Setting | 1 | 0~1 | 0 = OFF 1 = ON |
| 780-072 | Offset operation of Center Tray | 1 | 0~2 | 0 = Offset Off 1 = Offset Per Set 2 = Offset Per Job |
| 780-073 | Offset operation of Finisher Tray | 1 | 0~2 | 0 = Offset Off 1 = Offset Per Set 2 = Offset Per Job |

## 790-xxx ESS Panel Display Setting NVM List

**Table 20 Chain 790**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 790-001 | Startup Display Setting | 0 | 0~2 | 0= Features Programming Screen 1= Job Management Screen 2= Machine Status Screen |
| 790-002 | Function Setup Startup Display | 1 | 0~3 | 0= Menu 1= Copy 3= Scanner |
| 790-004 | Toner Near Empty advance notification | 1 | 0~1 | 0= No display 1= Display |
| 790-050 | Pre Set Tray 1 | 1 | 1~5 | 1= Tray 1 2= Tray 2 3= Tray 3 4= Tray 4 5= SMH |
| 790-051 | Pre Set Tray 2 | 2 | 1~5 | 1= Tray 1 2= Tray 2 3= Tray 3 4= Tray 4 5= SMH |
| 790-052 | Pre Set Tray 3 | 3 | 1~5 | 1= Tray 1 2= Tray 2 3= Tray 3 4= Tray 4 5= SMH |
| 790-060 | Pre Set Magnification 1 | 1 | 1~7 | 1~7= Fixed Magnification 1~7 |
| 790-061 | Pre Set Magnification 2 | 2 | 1~7 | 1~7= Fixed Magnification 1~7 |
| 790-070 | Default Tray Setting in Copy Mode | 0 | 0~5 | 0 = Auto 1= Tray 1 2= Tray 2 3= Tray 3 4= Tray 4 5= SMH |
| 790-071 | Tray at Auto Cancellation | 1 | | 1= Tray 1 2= Tray 2 3= Tray 3 4= Tray 4 |
| 790-072 | Default Magnification Setting in Copy Mode | 0 | 0~8 | 0=100% 1~7= Fixed Magnification 1~Fixed Magnification 7 8= Auto |
| 790-073 | Fixed Magnification 1 Setting | 3 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-074 | Fixed Magnification 2 Setting | 7 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-075 | Fixed Magnification 3 Setting | 8 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-076 | Fixed Magnification 4 Setting | 9 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-077 | Fixed Magnification 5 Setting | 10 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-078 | Fixed Magnification 6 Setting | 11 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-079 | Fixed Magnification 7 Setting | 13 | 1~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-090 | Default Color Mode | 0 | 0~5 | 0= OFF 1= Auto 2= B/W 3= 4 Colors 4= Single Color 5= Dual Color |
| 790-091 | Default Single Color Selection | 1 | 0~12 | |
| 790-092 | Default Dual Color Selection (Achromatic Color) | 0 | 0~12 | 1~6= Fixed Registered Color 1~6 7~12= User Registered Color 1~6 |
| 790-093 | Default Dual Color Selection (Chromatic Color) | 1 | 0~12 | 1~6= Fixed Registered Color 1~6 7~12= User Registered Color 1~6 |

**Table 20 Chain 790**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 790-094 | Default B/W Document Type | 0 | 0~9 | 0= Text, 1= Text/Photo (Print), 2= Text/Photo (Photo Paper), 3= Text/Photo (Copy Document), 4= Photo (Print), 5= Photo (Photo Paper), 6= Photo (Copy Document) |
| 790-096 | Default 4 Color/Auto Document Type | 1 | 0~9 | 0= Text, 1= Text/Photo (Print), 2= Text/Photo (Photo Paper), 3= Text/Photo (Copy Document), 4= Photo (Print), 5= Photo (Photo Paper), 6= Photo (Copy Document) 7= Map, 8= Highlighted Originals, 9= Inkjet Originals |
| 790-097 | Default Background Color Removal | 1 | 0~1 | 0= OFF, 1= ON |
| 790-098 | Default Density Adjustment | 3 | 0~6 | 0= Lighter 3, 1= Lighter 2, 2= Lighter 1, 3= Normal, 4= Darker 1, 5= Darker 2, 6= Darker 3 |
| 790-100 | Default Color Balance (Y= Low Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-101 | Default Color Balance (Y= Medium Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-102 | Default Color Balance (Y= High Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-103 | Default Color Balance (M= Low Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-104 | Default Color Balance (M= Medium Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-105 | Default Color Balance (M= High Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-106 | Default Color Balance (C= Low Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-107 | Default Color Balance (C= Medium Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-108 | Default Color Balance (C= High Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-109 | Default Color Balance (K= Low Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-110 | Default Color Balance (K= Medium Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-111 | Default Color Balance (K= High Density) | 0 | 0~6 | 0~6= -3~3 (Lighter 3, Lighter 2, Lighter 1, Normal, Darker 1, Darker 2, Darker 3) |
| 790-120 | Default Color Shift | 2 | 0~4 | 0= -20 Degrees, 1= -10 Degrees, 2= 0 Degrees, 3= +10 Degrees, 4= +20 Degrees |
| 790-121 | Default Color Saturation | 2 | 0~4 | 0= Stronger 2 (Higher), 1= Stronger 1 (High), 2= Normal, 3= Softer 1 (Low), 4= Softer 2 (Lower) |
| 790-122 | Default Sharpness | 2 | 0~4 | 0= Sharper, 1= Sharp, 2= Normal, 3= Soft, 4= Softer |
| 790-123 | Default Contrast | 2 | 0~4 | 0= Stronger 2, 1= Stronger 1, 2= Normal, 3= Softer 1, 4= Softer 2 |
| 790-124 | Default Center/Corner Shift Position (Side1) | 0 | 0~10 | 0= Off, 1= Center, 2= Upper Right, 3= Lower Right, 4= Upper Left, 5= Lower Left, 6= Upper Center, 7= Lower Center, 8= Left Center, 9= Right Center |
| 790-125 | Default Center/Corner Shift Position (Side2) | 10 | 0~10 | 0= Off, 1= Center, 2= Upper Right, 3= Lower Right, 4= Upper Left, 5= Lower Left, 6= Upper Center, 7= Lower Center, 8= Left Center, 9= Right Center, 10= Symmetry position with Side 1 |
| 790-126 | Default Top and Bottom Edge Erase | 5 (mm) | 0~50 | 0 (mm)~50 (mm) increments of 1mm |
| 790-127 | Default Left and Right Edge Erase | 5 (mm) | 0~50 | 0 (mm)~50 (mm) increments of 1mm |
| 790-128 | Default Center Erase | 0 (mm) | 0~50 | 0 (mm)~50 (mm) increments of 1mm |
| 790-129 | Rotation Default Setting | 1 | 0~2 | 0= Always Enabled 1= Enabled only at APS/AMS 2= Always Disabled |
| 790-130 | Image Orientation Default Setting | 0 | 0~2 | 0= Auto, 1= Portrait document Left, 2= Portrait document Right |

**Table 20 Chain 790**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 790-131 | Fixed Size 1 of Copy Document Size Input | 13 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-132 | Fixed Size 2 of Copy Document Size Input | 10 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-133 | Fixed Size 3 of Copy Document Size Input | 11 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-134 | Fixed Size 4 of Copy Document Size Input | 6 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-135 | Fixed Size 5 of Copy Document Size Input | 7 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-136 | Fixed Size 6 of Copy Document Size Input | 12 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-137 | Fixed Size 7 of Copy Document Size Input | 8 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-138 | Fixed Size 8 of Copy Document Size Input | 9 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-139 | Fixed Size 9 of Copy Document Size Input | 11x17SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-140 | Fixed Size 10 of Copy Document Size Input | 17 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-141 | Fixed Size 11 of Copy Document Size Input | 18 | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-180 | Default [Document Orientation] in Copy Mode | 0 | 0~1 | 0= Head to Top, 1= Head to Left |
| 790-181 | Duplex feature default setting | 0 | 0~3 | 0= OFF (1 to 1 Sided), 1= 1 to 2 Sided, 2= 2 to 1 Sided,3= 2 to 2 Sided |
| 790-182 | Default Collate Mode in Copy Mode | 0 | 0~2 | 0= Auto, 1= Collated, 2= Uncollated |
| 790-183 | Default Output Tray in Copy Mode | 0 | 0~2 | 0= Center Tray 1= Side Tray 2= Finisher Tray * Options that are not installed cannot be selected. |
| 790-186 | Default Communication Mode | 2 | 0~6 | 1= G4 Auto, 2= G3 Auto, 3= International Communication (Communication Speed is below 4800bps) 4= G3 5 = G3 (ECM) 6 = G3 (ECM) - Forced4800 |
| 790-187 | Default Density (Scan Density) | 3 | 0~6 | 0= Lighter 3, 1= Lighter 2, 2= Lighter 1, 3= Normal, 4= Darker 1, 5= Darker 2, 6= Darker 3 |
| 790-188 | Default Image Quality (Document Type) | 0 | 0~2 | 0=Text, 1=Photo, 2=Text/Photo |
| 790-189 | Default Resolution (Scan Resolution) | 0 | 0~3 | 0= Normal, 1= High Quality (200x200), 2= High Quality (400x400), 3= High Quality (600x600) |
| 790-190 | Default Monitor Print | OFF | 0~1 | 0= OFF 1= ON |

**Table 20 Chain 790**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 790-192 | Default Sender Records | ON | 0~1 | 0= OFF 1= ON |
| 790-193 | Default display starting number of Receiver List | 1 | 1~500 | 1~500 |
| 790-194 | Default Mixed Size | OFF | 0~1 | 0= OFF 1= ON |
| 790-195 | Default Receive Mode | 0 | 0~1 | 0= Auto Receive, 1= Manual Receive |
| 790-222 | Default Mixed Size | 0 | 0~1 | 0= OFF 1= ON |
| 790-223 | Default Color Mode | 2 | 0~2 | 0= Full Color, 1= Grey Color, 2= B/W Binary |
| 790-224 | Default Document Type | 0 | 0~2 | 0= Text, 1= Text/Photo, 2= Photo |
| 790-225 | Default Resolution | 200dpi | 0~3 | 0= 200dpi, 1= 300dpi, 2= 400dpi, 3= 600dpi |
| 790-226 | Default Top and Bottom Edge Erase | 2 (mm) | 0~50 | 0 (mm)~50 (mm) increments of 1mm |
| 790-227 | Default Left and Right Edge Erase | 2 (mm) | 0~50 | 0 (mm)~50 (mm) increments of 1mm |
| 790-228 | Default Center Erase | 0 (mm) | 0~50 | 0 (mm)~50 (mm) increments of 1mm |
| 790-229 | Default Density/Brightness Adjustment (Using data common to Density, Brightness) | 3 | 0~6 | 0= Brightness (Density) 3, 1= Brightness (Density) 2, 2= Brightness (Density) 1, 3= Normal, 4= Brightness (Density) -1, 5= Brightness (Density) -2, 6= Brightness (Density) -3 |
| 790-230 | Default Contrast Adjustment | 2 | 0~4 | 0= Stronger 2, 1= Stronger 1, 2= Normal, 3= Softer 1, 4= Softer 2 |
| 790-231 | Fixed Size 1 of Scan Document Size Input | A3SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-232 | Fixed Size 2 of Scan Document Size Input | A4SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-233 | Fixed Size 3 of Scan Document Size Input | A4LEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-234 | Fixed Size 4 of Scan Document Size Input | A5SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-235 | Fixed Size 5 of Scan Document Size Input | B4SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-236 | Fixed Size 6 of Scan Document Size Input | B5SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-237 | Fixed Size 7 of Scan Document Size Input | 11x17SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-238 | Fixed Size 8 of Scan Document Size Input | 8.5x11SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-239 | Fixed Size 9 of Scan Document Size Input | 8.5x11LEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |

**Table 20 Chain 790**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 790-240 | Fixed Size 10 of Scan Document Size Input | 5x7 (Photo 2L Size) | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-241 | Fixed Size 11 of Scan Document Size Input | 3.5x5 (Photo L Size) | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-250 | Fixed Size 1 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-251 | Fixed Size 1 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-252 | Fixed Size 2 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-253 | Fixed Size 2 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-254 | Fixed Size 3 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-255 | Fixed Size 3 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-256 | Fixed Size 4 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-257 | Fixed Size 4 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-258 | Fixed Size 5 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-259 | Fixed Size 5 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-260 | Fixed Size 6 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-261 | Fixed Size 6 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-262 | Fixed Size 7 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-263 | Fixed Size 7 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-264 | Fixed Size 8 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-265 | Fixed Size 8 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-266 | Fixed Size 9 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-267 | Fixed Size 9 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-268 | Fixed Size 10 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-269 | Fixed Size 10 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-270 | Fixed Size 11 Fast Scan | NULL | 15~297 | 15~297mm |
| 790-271 | Fixed Size 11 Slow Scan | NULL | 15~432 | 15~432mm |
| 790-272 | Default [Document Orientation] in SCAN Mode | 0 | 0~1 | 0= Head to Top, 1= Head to Left |
| 790-273 | Default 1 setting of SCAN Fixed magnification | 50.0% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-274 | Default 2 setting of SCAN Fixed magnification | 70.7% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-275 | Default 3 setting of SCAN Fixed magnification | 81.6% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-276 | Default 4 setting of SCAN Fixed magnification | 86.6% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-277 | Default 5 setting of SCAN Fixed magnification | 115.4% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-278 | Default 6 setting of SCAN Fixed magnification | 122.4% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |

**Table 20 Chain 790**

| Chain-Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 790-279 | Default 7 setting of SCAN Fixed magnification | 141.4% | 0~18 | 1 =25.0, 2 =35.3, 3 =50.0, 4 =57.7, 5 =61.2 6 =64.7, 7 =70.7, 8 =81.6, 9 =86.6 10 =115.4, 11 =122.5, 12 =129.4 13 =141.4, 14 =163.2, 15 =173.2 16 =200.0, 17 =282.8, 18 =400.0% |
| 790-280 | Output Size 1 | A3SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-281 | Output Size 2 | A4SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-282 | Output Size 3 | A4LEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-283 | Output Size 4 | A5SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-284 | Output Size 5 | B4SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-285 | Output Size 6 | B5SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-286 | Output Size 7 | 11x17SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-287 | Output Size 8 | 8.5x11SEF | 1~50 | 1 = Postcard, 2 = A6SEF, 3 = A6LEF, 4 = B6SEF, 5 = B6LEF, 6 = A5SEF, 7 = A5LEF, 8 = B5SEF, 9 = B5LEF, 10 = A4SEF, 11 = A4LEF, 12 = B4SEF, 13 = A3SEF, 14 = Postcard (4x6), 15 = 5.5x8.5SEF, 16 = 5.5x8.5LEF, 17 = 8.5x11SEF, 18 = 8.5x11LEF |
| 790-288 | Default Background Color Removal in SCAN Mode | 0 | 0~1 | 0= OFF, 1= ON |
| 790-290 | Basic Screen Preset Magnification 1 | 2 | 1~7 | 1~7= Fixed Magnification 1~7 |
| 790-291 | Basic Screen Preset Magnification 2 | 4 | 1~7 | 1~7= Fixed Magnification 1~7 |
| 790-292 | Basic Screen Preset Magnification 3 | 7 | 1~7 | 1~7= Fixed Magnification 1~7 |

## 800-xxx ESS Print Service Setting

**Table 21 Chain 800**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 800-001 | APS Job Recovery Method | 6 | - | 6 = Displays add paper (SPS Off), 5 = Uses a larger paper size (no adjustment), 2 = Uses a nearest paper size (no adjustment), 7 = Only Oceans2 uses a substitution. (Abort) = |
| 800-006 | Expand Print Mode | Normal | - | 1 = Normal, 2 = Expand |

Table 22 Chain 810

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 810-002 | Y Component | "80%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-003 | M Component | "100%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-004 | C Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-005 | Y Component | "92%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-006 | M Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-007 | C Component | "100%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-008 | Y Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-009 | M Component | "80%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-010 | C Component | "100%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-011 | Y Component | "100%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-012 | M Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-013 | C Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-014 | Y Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-015 | M Component | "100%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-016 | C Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-017 | Y Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-018 | M Component | "0%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-019 | C Component | "100%" | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-020 | Y Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-021 | M Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-022 | C Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-023 | Y Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-024 | M Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-025 | C Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-026 | Y Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-027 | M Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-028 | C Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-029 | Y Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-030 | M Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-031 | C Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-032 | Y Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-033 | M Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-034 | C Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-035 | Y Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-036 | M Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-037 | C Component | 0 | 0~128 | "0%"~"100%", 1/128% unit (0~128) |
| 810-038 | Background Suppression | "No" | 0~1 | "Yes", "No" |
| 810-039 | Density Adjustment | "Lighter 1" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |

**Table 22 Chain 810**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 810-040 | Color Balance (Y = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-041 | Color Balance (Y = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-042 | Color Balance (Y = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-043 | Color Balance (M = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-044 | Color Balance (M = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-045 | Color Balance (M = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-046 | Color Balance (C = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-047 | Color Balance (C = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-048 | Color Balance (C = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-049 | Color Balance (K = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-050 | Color Balance (K = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-051 | Color Balance (K = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-052 | Color Shift | "0 Degrees" | 0~4 | "-20 Degrees", "-10 Degrees", "0 Degrees", "+10 Degrees", "+20 Degrees" |
| 810-053 | Color Saturation | "Higher 2" | 0~4 | "Higher 2", "Higher 1", "Normal", "Lower 1", "Lower 2" |
| 810-054 | Sharpness | "Normal" | 0~4 | "Sharper 2", "Sharper 1", "Normal", "Softer 1", "Softer 2" |
| 810-055 | Contrast | "Normal" | 0~4 | "Stronger 2", "Stronger 1", "Normal", "Softer 1", "Softer 2" |
| 810-056 | Background Suppression | "Off" | 0~1 | "On", "Off" |
| 810-057 | Density Adjustment | "Darker 1" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-058 | Color Balance (Y = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3 |
| 810-059 | Color Balance (Y = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-060 | Color Balance (Y = High Density) | "Darker 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-061 | Color Balance (M = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-062 | Color Balance (M = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-063 | Color Balance (M = High Density) | "Darker 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-064 | Color Balance (C = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-065 | Color Balance (C = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-066 | Color Balance (C = High Density) | "Darker 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-067 | Color Balance (K = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-068 | Color Balance (K = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-069 | Color Balance (K = High Density) | "Darker 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |

**Table 22 Chain 810**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 810-070 | Color Shift | "0 Degrees" | 0~4 | "-20 Degrees", "-10 Degrees", "0 Degrees", "+10 Degrees", "+20 Degrees" |
| 810-071 | Color Saturation | "Higher 1" | 0~4 | "Higher 2", "Higher 1", "Normal", "Lower 1", "Lower 2" |
| 810-072 | Sharpness | "Sharper 2" | 0~4 | "Sharper 2", "Sharper 1", "Normal", "Softer 1", "Softer 2" |
| 810-073 | Contrast | "Stron-ger 2" | 0~4 | "Stronger 2", "Stronger 1", "Normal", "Softer 1", "Softer 2" |
| 810-074 | Background Suppression | "On" | 0~1 | "On", "Off" |
| 810-075 | Density Adjustment | "Normal" | 0~6 | "Lighter 3", "Lighter2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-076 | Color Balance (Y = Low Density) | "Lighter 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-077 | Color Balance (Y = Medium Density) | "Lighter 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-078 | Color Balance (Y = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-079 | Color Balance (M = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-080 | Color Balance (M = Medium Density) | "Darker 1" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-081 | Color Balance (M = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-082 | Color Balance (C = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-083 | Color Balance (C = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-084 | Color Balance (C = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-085 | Color Balance (K = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-086 | Color Balance (K = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-087 | Color Balance (K = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-088 | Color Shift | "0 Degrees" | 0~4 | "-20 Degrees", "-10 Degrees", "0 Degrees", "+10 Degrees", "+20 Degrees" |
| 810-089 | Color Saturation | "Normal" | 0~4 | "Higher 2", "Higher 1", "Normal", "Lower 1", "Lower 2" |
| 810-090 | Sharpness | "Normal" | 0~4 | "Sharper 2", "Sharper 1", "Normal", "Softer 1", "Softer 2" |
| 810-091 | Contrast | "Normal" | 0~4 | "Stronger 2", "Stronger 1", "Normal", "Softer 1", "Softer 2" |
| 810-092 | Background Suppression | "On" | 0~1 | "On", "Off" |
| 810-093 | Density Adjustment | "Normal" | 0~6 | "Lighter 3", "Lighter2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-094 | Color Balance (Y = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-095 | Color Balance (Y = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-096 | Color Balance (Y = High Density) | "Lighter 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |

**Table 22 Chain 810**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 810-097 | Color Balance (M = Low Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-098 | Color Balance (M = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-099 | Color Balance (M = High Density) | "Lighter 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-100 | Color Balance (C = Low Density) | "Darker 1" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-101 | Color Balance (C = Medium Density) | "Darker 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-102 | Color Balance (C = High Density) | "Darker 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-103 | Color Balance (K = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-104 | Color Balance (K = Medium Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-105 | Color Balance (K = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-106 | Color Shift | "0 Degrees" | 0~4 | "-20 Degrees", "-10 Degrees", "0 Degrees", "+10 Degrees", "+20 Degrees" |
| 810-107 | Color Saturation | "Normal" | 0~4 | "Higher 2", "Higher 1", "Normal", "Lower 1", "Lower 2" |
| 810-108 | Sharpness | "Normal" | 0~4 | "Sharper 2", "Sharper 1", "Normal", "Softer 1", "Softer 2" |
| 810-109 | Contrast | "Normal" | 0~4 | "Stronger 2", "Stronger 1", "Normal", "Softer 1", "Softer 2" |
| 810-110 | Background Suppression | "On" | 0~1 | "On", "Off" |
| 810-111 | Density Adjustment | "Normal" | 0~6 | "Lighter 3", "Lighter2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-112 | Color Balance (Y = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-113 | Color Balance (Y = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-114 | Color Balance (Y = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-115 | Color Balance (M = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-116 | Color Balance (M = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-117 | Color Balance (M = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-118 | Color Balance (C = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-119 | Color Balance (C = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-120 | Color Balance (C = High Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-121 | Color Balance (K = Low Density) | "Normal" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-122 | Color Balance (K = Medium Density) | "Lighter 3" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-123 | Color Balance (K = High Density) | "Darker 2" | 0~6 | "Lighter 3", "Lighter 2", "Lighter 1", "Normal", "Darker 1", "Darker 2", "Darker 3" |
| 810-124 | Color Shift | "0 Degrees" | 0~4 | "-20 Degrees", "-10 Degrees", "0 Degrees", "+10 Degrees", "+20 Degrees" |

**Table 22 Chain 810**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 810-125 | Color Saturation | "Normal" | 0~4 | "Higher 2", "Higher 1", "Normal", "Lower 1", "Lower 2" |
| 810-126 | Sharpness | "Normal" | 0~4 | "Sharper 2", "Sharper 1", "Normal", "Softer 1", "Softer 2" |
| 810-127 | Contrast | "Sharper 1" | 0~4 | "Stronger 2", "Stronger 1", "Normal", "Softer 1", "Softer 2" |
| 810-128 | Operation when Memory Overflow occurs | 0 | 0~1 | 0 = Stop, 1 = Print |
| 810-129 | Max. No. of Copy Sheets accumulated | 999 | 1~999 | 1-999 = [1~999 pages] |
| 810-130 | Build Job Setup Menu Display | No dis-play | 0~1 | 0 = No display 1 = Display |

## 840-xxx ESS Scan Setting NVM List

**Table 23 Chain 840**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 840-001 | SCAN Feature Setting | 0 | 0~1 | 0 = Enable1 = Disable |
| 840-002 | [NVM Name] = (Scan Illegal Operation) | 1 | 0~1 | 0 = Discards the stored document 1 = Validates the stored document |
| 840-003 | Maximum No. of Storage | 999 | 1~999 | 1~999 sheets |
| 840-004 | Brightness 3 Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-005 | Brightness 2 Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-006 | Brightness 1 Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-007 | Brightness -1 Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-008 | Brightness -2 Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-009 | Brightness -3 Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-010 | Brightest Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-011 | Brighter Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-012 | Softer Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-013 | Softest Setting | TBD | 0~200 | 0~200 = [-100~100] |
| 840-019 | RGB Color Space | 0 | 0~1 | [Standard Color Space] = 0 [Device Color Space] = 1 |

## 870-xxx ESS Diagnosis Setting NVM List

**Table 24 Chain 870**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 870-001 | TBD | Normal | - | Normal, Diag (Auto setting) |
| 870-010 | XERO = CRU #1 PR Wear previous value | - | - | 0~99999999 |
| 870-011 | XERO = CRU #2 PR Wear previous value | - | - | 0~99999999 |
| 870-012 | XERO = CRU #3 PR Wear previous value | - | - | 0~99999999 |
| 870-013 | XERO = CRU #4 PR Wear previous value | - | - | 0~99999999 |

**Table 24 Chain 870**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 870-014 | XERO = #1CRU WARNING previous value | - | - | 0~99999999 |
| 870-015 | XERO = #1DRUM Total CYCLE previous value | - | - | 0~99999999 |
| 870-016 | XERO = #2DRUM Total CYCLE previous value | - | - | 0~99999999 |
| 870-017 | XERO = #3DRUM Total CYCLE previous value | - | - | 0~99999999 |
| 870-018 | XERO = #4DRUM Total CYCLE previous value | - | - | 0~99999999 |
| 870-019 | XERO = #1DRUM DC CYCLE previous value | - | - | 0~99999999 |
| 870-020 | XERO = #2DRUM DC CYCLE previous value | - | - | 0~99999999 |
| 870-021 | XERO = #3DRUM DC CYCLE previous value | - | - | 0~99999999 |
| 870-022 | XERO = #4DRUM DC CYCLE previous value | - | - | 0~99999999 |
| 870-023 | XERO = #1DRUM AC CYCLE previous value | - | - | 0~99999999 |
| 870-024 | XERO = #2DRUM AC CYCLE previous value | - | - | 0~99999999 |
| 870-025 | XERO = #3DRUM AC CYCLE previous value | - | - | 0~99999999 |
| 870-026 | XERO = #4DRUM AC CYCLE previous value | - | - | 0~99999999 |
| 870-027 | Xfer = IBT Belt (IMPS) previous value | - | - | 0~99999999 |
| 870-028 | Xfer = IBT Belt (CYCLE) previous value | - | - | 0~99999999 |
| 870-029 | Xfer = 1st BTR previous value | - | - | 0~99999999 |
| 870-030 | Xfer = Back Up Roll previous value | - | - | 0~99999999 |
| 870-031 | Xfer = 2nd BTR Unit previous value | - | - | 0~99999999 |
| 870-032 | Xfer = Bearing BTR previous value | - | - | 0~99999999 |
| 870-033 | Xfer = Trim within Transfer Module previous value | - | - | 0~99999999 |
| 870-034 | Xfer = Belt Cleaner Blade previous value | - | - | 0~99999999 |
| 870-035 | Xfer = BBelt Cleaner Film Seal previous value | - | - | 0~99999999 |
| 870-036 | PH = 1Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-037 | PH = Tray 5 NMBR of Feeds previous value | - | - | 0~99999999 |

**Table 24 Chain 870**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 870-038 | PH = 3TM 2Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-039 | PH = 3TM 3Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-040 | PH = 3TM 4Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-041 | PH = 1TM 2Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-042 | PH = TTM 2Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-043 | PH = TTM 3Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-044 | PH = TTM 4Tray NMBR of Feeds previous value | - | - | 0~99999999 |
| 870-045 | PV (CV) Counter for FILTER Life previous value | - | - | 0~99999999 |

## 900-xxx ESS Tag-Matrix NVM List

**Table 25 Chain 900**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 900-001 | Tag 1V | 0 | 0~1 | Tag Information 1V |
| 900-002 | Tag 2V | 0 | 0~1 | Tag Information 2V [0 = OFF, 1 = ON] |
| 900-003 | Tag 3V | 0 | 0~1 | Tag Information 3V [0 = OFF, 1 = ON] |
| 900-004 | Tag 4V | 0 | 0~1 | Tag Information 4V [0 = OFF, 1 = ON] |
| 900-005 | Tag 5V | 0 | 0~1 | Tag Information 5V [0 = OFF, 1 = ON] |
| 900-006 | Tag 6V | 0 | 0~1 | Tag Information 6V [0 = OFF, 1 = ON] |
| 900-007 | Tag 7V | 0 | 0~1 | Tag Information 7V [0 = OFF, 1 = ON] |
| 900-008 | Tag 8V | 0 | 0~1 | Tag Information 8V [0 = OFF, 1 = ON] |
| 900-009 | Tag 9V | 0 | 0~1 | Tag Information 9V [0 = OFF, 1 = ON] |
| 900-010 | Tag 10V | 0 | 0~1 | Tag Information 10V [0 = OFF, 1 = ON] |
| 900-011 | Tag 11V | 0 | 0~1 | Tag Information 11V [0 = OFF, 1 = ON] |
| 900-012 | Tag 12V | 0 | 0~1 | Tag Information 12V [0 = OFF, 1 = ON] |
| 900-013 | Tag 13V | 0 | 0~1 | Tag Information 13V [0 = OFF, 1 = ON] |
| 900-014 | Tag 14V | 0 | 0~1 | Tag Information 14V [0 = OFF, 1 = ON] |
| 900-015 | Tag 15V | 0 | 0~1 | Tag Information 15V [0 = OFF, 1 = ON] |
| 900-016 | Tag 16V | 0 | 0~1 | Tag Information 16V [0 = OFF, 1 = ON] |
| 900-017 | Tag 17V | 0 | 0~1 | Tag Information 17V [0 = OFF, 1 = ON] |
| 900-018 | Tag 18V | 0 | 0~1 | Tag Information 18V [0 = OFF, 1 = ON] |
| 900-019 | Tag 19V | 0 | 0~1 | Tag Information 19V [0 = OFF, 1 = ON] |
| 900-020 | Tag 20V | 0 | 0~1 | Tag Information 20V [0 = OFF, 1 = ON] |
| 900-021 | Tag 21V | 0 | 0~1 | Tag Information 21V [0 = OFF, 1 = ON] |

**Table 25 Chain 900**

| Chain/Link | Name | Default | Range | Description |
|---|---|---|---|---|
| 900-022 | Tag 22V | 0 | 0~1 | Tag Information 22V [0 = OFF, 1 = ON] |
| 900-023 | Tag 23V | 0 | 0~1 | Tag Information 23V [0 = OFF, 1 = ON] |
| 900-024 | Tag 24V | 0 | 0~1 | Tag Information 24V [0 = OFF, 1 = ON] |
| 900-025 | Tag 25V | 0 | 0~1 | Tag Information 25V [0 = OFF, 1 = ON] |
| 900-026 | Tag 26V | 0 | 0~1 | Tag Information 26V [0 = OFF, 1 = ON] |
| 900-027 | Tag 27V | 0 | 0~1 | Tag Information 27V [0 = OFF, 1 = ON] |
| 900-028 | Tag 28V | 0 | 0~1 | Tag Information 28V [0 = OFF, 1 = ON] |
| 900-029 | Tag 29V | 0 | 0~1 | Tag Information 29V [0 = OFF, 1 = ON] |
| 900-030 | Tag 30V | 0 | 0~1 | Tag Information 30V [0 = OFF, 1 = ON] |
| 900-031 | Tag 31V | 0 | 0~1 | Tag Information 31V [0 = OFF, 1 = ON] |
| 900-032 | Tag 32V | 0 | 0~1 | Tag Information 32V [0 = OFF, 1 = ON] |

# dC132 Serial Number/Billing Meter Synchronization

## Purpose

Checks the Billing Meters and sets the Machine Serial Number when fault 103-208 occurs. This routine also reads the Billing Meters and can be accessed at any time for this purpose.

## Procedure

**CAUTION**

*Failure to comply with the board replacement procedure in GP 10 Replacing Billing PWBs, could result in catastrophic NVM corruption.*

Follow the procedure described in GP 10 Replacing Billing PWBs.

# dC135 HFSI Counters

## Purpose

This routine displays the service life (Threshold) and the current value (count) of the periodic replacement parts. Replacement life change, and current value resets are possible.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select **Maintenance** on the **Service Entry** Screen. The **All Jams** screen displays as the default screen.
3. Select **HFSI Counters (dC135)** tab on the Maintenance screen.
4. The **HFSI Counters** screen displays the replacement life (Threshold) and the current value (count) of the periodic replacement parts. Two vertical tabs allow display of all HFSI counters, or only those counters that are over threshold.
5. Refer to Detailed Maintenance Activities in Section 1. Perform the listed Service Action for all HSFI counters that are at or near threshold.
6. To reset the count after replacing the parts, select the appropriate HFSI item, then select the **Reset Counter** button.

# dC140 Analog Monitor

## Purpose

Monitors the analog values of the A/D converter sensors by driving each component (e.g.;, C.C). Temporary change of output values is possible. Output component check is also possible.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select the **Analog Monitor (dC140) tab** in the **Diagnostics Screen**.
3. The system displays the Analog Monitor Screen.
   a. The system displays the analog output component names and the analog input component names with the Chain Link Numbers (ID column) in the table in the order of Chain Link number.
   b. The status of all output components show **Disabled**. The **Level** columns are blank.
4. To run an output component check:
   a. Select a **component to check**.
   b. Select **Start** in the output component check.
   c. The output component in the machine is switched on.
   d. The PWS changes the output component status to **Enable**.
   e. **Turn ON** another component to check the output component in the machine.

   ***NOTE:*** *If the component has a runtime restriction, the component is switched on for that period and automatically switched off.*

   ***NOTE:*** *Some components cannot be turned on at the same time another component is turned on. If you turn on a component, the first component turned on will be automatically turned off.*

   ***NOTE:*** *If the component cannot be automatically turned off, the following message appears:!* ***Cannot check the component. Stop another output component****.*

### Check Multiple Components

1. To check multiple components simultaneously, repeat Step 5a through 5e.
2. To stop the check, select **Stop** while the component is selected, or select **Stop All** which switches off all output components.

   ***NOTE:*** *The output component is switched OFF. The status shows* ***Disabled****.*

### Changing Output Levels

1. If you temporarily change the output level, you can check the output component by using the [+] or [-] to increment/decrement the output level by 1.
2. Select the component whose output level you want to change. Select [+] to increment or [-] to decrement.
3. Increment or decrement the output level by 1. The new output level is input into the system and the Analog Monitor shows the new output level in the Level column. If the output level entered is out of the range, the Information screen shows the following message:! **Invalid value. Enter again**. (A value that is out of the range is a value that is higher than the upper limit or lower than the lower limit defined by the machine.)

# dC188 Exiting from Service Mode

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select the **Service Exit** Tab on the Screen.
3. The Service Exit Screen (dC188) displays.
4. The exit options are:
   - Complete Closeout
   - Temporary Closeout

   ***NOTE:*** *Selecting* ***Complete Closeout*** *resets the Shutdown History (dC122), Fault Counter (dC120), Jam Counters (dC118) and the numbers of copies since the last call.*

5. Select **Complete Closeout** or **Temporary Closeout**. The machine reboots. The UI message **Ready to Copy** displays.

   ***NOTE:*** *Selecting* ***Temporary Closeout*** *exits from the Service Mode without resetting the Shutdown History (dC122), Fault Counter (dC120), Jam Counter (dC118), and the number of copies since last call.*

6. Select.
7. Select **Exit PWS** to close from the PWS diagnostic tool even if the PWS has been disconnected from the machine.
8. After Exit PWS is selected, the following message will display, **Would you like to copy Machine Data to the a:drive? Yes or No**.
   - If **Yes** is selected, insert a diskette into a:drive and the PWS will write Machine Data to a:drive and the diagnostic tool will close.
   - If **No** is selected the diagnostic tool will close.

   ***NOTE:*** *If the PWS is disconnected from the machine after the machine entered the Service Mode, the PWS and the machine do not automatically exit from the Service Mode. If the machine is disconnected from the PWS,* ***Power-OFF/ON*** *to exit from the Service Mode.*

# dC301 NVM Initialization

## Purpose

This procedure may be needed when the machine cannot recover for some unknown reasons, including problems such as producing blank copies/prints, Xerographic CRUs not recognized, continuously giving system fault, etc.

## Initial Actions to be taken:

Obtain all of the following information:

- ï Disconnect any Foreign Interface Devices prior to performing this procedure.
- ï NVM Value Factory Setting Report (Typically it is located in the Tray 1 pocket)
- ï Any Customer Setting Auditron Account from the System Administrator
- ï Any setting changes (specifically NVM settings) shown on the machineís service log.
- ï Any Customer Settings in the Tools Mode.

## Procedure

1. TBD.

**Table 1 NVM Initialization**

| Name | Description |
|---|---|
| IOT | The following NVM locations will be initialized:<br>ï Chain 740 - links 020 through 419<br>ï Chain 741 - All<br>ï Chain 742 - links 055 through 079<br>ï Chain 744 - All<br>ï Chain 746 - All<br>ï Chain 753 - All<br>ï Chain 751 - All except links 168 and 364<br>ï Chain 760 - All<br>ï Chain 762 - All<br>ï Chain 764 - All |
| IIT/IPS | The following NVM locations will be initialized:<br>ï Chain 715 - links 001 through 017 |

**Table 1 NVM Initialization**

| Name | Description |
|---|---|
| SYS-System | The following NVM locations will be initialized:<br>ï Chain 700 - links 006, 065 through 070, 088, 116, 122, 127, 128, 147, 164 through 166, 174, 176 through 181, 197, 208<br>ï Chain 701 - links 912, 917, 924, 929<br>ï Chain 720 -link 002<br>ï Chain 730 - links 00 through 006<br>ï Chain 770 - links 124, 203<br>ï Chain 780 - links 065 through 068<br>ï Chain 785 - links 008, 009<br>ï Chain 790 - links 003, 004, 099<br>ï Chain 801 - links 104, 204, 304, 404, 504, 604, 704, 804, 904<br>ï Chain 802 - links 004, 104, 204, 304, 404, 504, 604, 704, 804, 904<br>ï Chain 803 - link 004<br>ï Chain 810 - links 002 through 019, 038 through 127<br>ï Chain 820 - links 003, 007 through 009, 017 through 019, 024, 026, 027, 029<br>ï Chain 823 - links 001 through 005, 008 through 011, 030 through 047<br>ï Chain 830 - links 001 through 004, 084, 085<br>ï Chain 850 - links 001 through 004, 007, 009 through 012, 015<br>ï Chain 860 - links 009, 013, 020, 025, 031, 032 |
| SYS-User | All user settable NVM locations in the following chains will be reset:<br>Chains 700, 780, 785, 790, 800, 801, 802, 803, 804, 805, 806, 810, 820, 823, 830, 840 |
| All | All of the above-listed NVM locations will be reset. |

# dC305 UI Component Check

## Purpose

Checks the operations of the UI Screen and Control Panel buttons.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select the **Diagnostics** Tab in the Service Entry Screen.
3. Select the **System Test** Tab in the Diagnostics Screen. The System Test Screen displays. The UI Component Check dC305 is the default screen.
4. Select **Start**. The following message displays, **Perform the UI Component Check on the Machine. When complete, select Stop**.
5. Select **OK**.
6. Touch the **UI Screen** in a different locations. The highlighted point moves to the new location.
7. All LEDs should be illuminated when the dC305 Touch Screen Test is displayed. Select **Stop** to Turn-OFF all LEDs.
8. Select **Stop** on the Component Check Screen.
9. The Touch Screen Test Screen on the machine UI closes.

# dC330 Component Control

## Purpose

The purpose of the dC330 Component Control is to display the logic state of input signals and to energize output components.

***NOTE:*** *Refer to Table 1 for a list of all Input Components listed by Chain/Link ID number. Refer to Table 2 for a list of all Output Components listed by Chain/Link ID number.*

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select the **Diagnostics Tab** on the Service Entry Screen.
3. Select **Component Control** (dC330) on the Diagnostic Entry Screen.
4. The dC330 Screen is displayed. The display indicates the following:
   - Input/Output Components
   - ID Number (chain/function order)
   - Active Stack (including ID and state of component)

   ***NOTE:*** *The Component Control Codes can be selected in categories by their related system, such as: Processor, System, Sorter / OCT / Mailbox, Finisher, DADF, HCF and ITT.*
5. Activate the desired component code by double clicking on the Chain/Link ID number or by clicking once on the Chain/Link ID number then selecting the **Start Button**. The IDís will display in the Active Stack.
6. Press the **Stop** button or **double click** the active component in the active stack box to end the test. The ID and Active Stack components are removed from the Active Stack box.

**Stacking Component Codes**

1. To stack several codes, select the first code and press **Start**, then select the next code and press **Start**. Continue to enter up to eleven codes.
2. The selected ID appears in the ID column of the Active Stack box and the state changes to Run; H or L as applicable.
3. Stop a highlighted component by pressing **Stop** or double click the active component in the Active Stack Box
4. To switch Off all components and clear the screen, press **Stop All**.

***NOTE:*** *Components that are currently running are shaded in Green. Components that have been run are shaded in Yellow.*

***NOTE:*** *When exiting dc330, the machine resets and communication between the PWS and the machine is momentarily lost. The PWS will reconnect automatically.*

**Table 1 Input Component Control Codes**

| Code | Name | Description |
|---|---|---|
| 001-300 | INTLK_1 | High when Open is detected. ON: High |
| 001-301 | INTLK_2 | High when Open is detected. ON: High |
| 001-302 | LH LOW I/L SW | High when Open is detected. ON: High |
| 001-304 | LH 3TM I/L SW | Low when Open is detected. ON: Low |

**Table 1 Input Component Control Codes**

| Code | Name | Description |
|---|---|---|
| 001-306 | INTLK_3 | High when Open is detected. ON: High |
| 004-100 | Belt Home Sensor | [Operation Description]: IBT is not at Home Position. Open circuit. It is necessary to operate IBT 5V ON. ON: High |
| 004-101 | Drum Motor YMC Fail Detection | PR (Drum) Motor YMC Failure ON: High |
| 004-102 | Drum Motor K Fail Detection | PR (Drum) Motor K Failure ON: High |
| 004-200 | FAN_LOCK_FAIL | Fan rotation is stopped ON: FAIL |
| 005-102 | Document Sensor | No paper detected by Document Sensor ON: High |
| 005-110 | Regi Sensor (DADF) | Paper detected by Regi Sensor ON: Low |
| 005-115 | Exit Sensor | Paper detected by Exit Sensor ON: Low |
| 005-119 | Dup Sensor | Paper detected by Dup Sensor ON: Low |
| 005-150 | #1 Size Sensor | No paper detected by #1 Size Sensor ON: High |
| 005-151 | #2 Size Sensor | No paper detected by #2 Size Sensor ON: High |
| 005-201 | Exchange from IISS | Document Exchange InstructiON. ON from IISS ON: Low |
| 005-300 | Platen I/L Switch | Platen Cover Open ON: High |
| 005-301 | Top Cover I/L Switch | Top Cover Inter Lock Open ON: High |
| 006-160 | Polygon Motor Ready Signal | Regular rotation of Polygon Motor ON: Low |
| 006-201 | Sheet Abort | Document Regist ON: Low |
| 006-212 | IIT Regi Sensor | Deactuation of Regi Sensor ON: Low |
| 006-240 | ADF Exist | DADF is not installed ON: High |
| 006-251 | APS Sensor1 | Document is detected ON: APS SNR1: Low, APS ON: High |
| 006-253 | APS Sensor3 | Document is detected ON: APS SNR3: Low, APS ON: High |
| 006-272 | PM-0 | Flash Memory writing is not in progress ON: Inside PWBA |
| 006-281 | IPS Fan Fail | High when FAN failure is detected. ON: High |
| 006-300 | Platen I/L Switch | Low when Platen closed. ON: Low |
| 006-301 | Angle Sensor | Low when Platen closed. ON: Low |
| 007-100 | #1Tray Size SW1 | ON: AN value |
| 007-101 | #1Tray Size SW2 | ON: AN value |
| 007-102 | #1Tray Size SW3 | ON: AN value |
| 007-103 | #1Tray Size SW4 | ON: AN value |
| 007-104 | #2Tray Size SW1 | ON: AN value |
| 007-105 | #2Tray Size SW2 | ON: AN value |
| 007-106 | #2Tray Size SW3 | ON: AN value |
| 007-107 | #2Tray Size SW4 | ON: AN value |
| 007-108 | #3Tray Size SW1 | ON: AN value |
| 007-109 | #3Tray Size SW2 | ON: AN value |

**Table 1 Input Component Control Codes**

| Code | Name | Description |
|---|---|---|
| 007-110 | #3Tray Size SW3 | ON: AN value |
| 007-111 | #3Tray Size SW4 | ON: AN value |
| 007-112 | #4Tray Size SW1 | ON: AN value |
| 007-113 | #4Tray Size SW2 | ON: AN value |
| 007-114 | #4Tray Size SW3 | ON: AN value |
| 007-115 | #4Tray Size SW4 | ON: AN value |
| 007-116 | #1Level Sensor | Lift Up ON: High |
| 007-117 | #2Level Sensor | Lift Up ON: High |
| 007-118 | #3Level Sensor | Lift Up ON: High |
| 007-119 | #4Level Sensor | Lift Up ON: High |
| 007-120 | #1Nopaper Sensor | No paper ON: High |
| 007-121 | #2Nopaper Sensor | No paper ON: High |
| 007-122 | #3Nopaper Sensor | No paper ON: High |
| 007-123 | #4Nopaper Sensor | No paper ON: High |
| 007-125 | SMH No paper Sensor | No paper ON: High |
| 007-128 | Face Up Tray Detect | Low when Tray is installed ON: Low |
| 008-100 | #1Feed Out Sensor | Paper detected ON: High |
| 008-102 | #3Feed Out Sensor | Paper detected ON: High |
| 008-103 | #4Feed Out Sensor | Paper detected ON: High |
| 008-104 | Regi Sensor | No paperON: Low |
| 008-105 | Dup Wait Sensor | Paper detected ON: High |
| 008-106 | T/A Sensor | Paper detected ON: High |
| 008-107 | TTM Path Sensor1 | Paper detected |
| 008-108 | TTM Path Sensor2 | Paper detected |
| 008-109 | OHP Sensor#L | ON: Low |
| 008-110 | OHP Sensor#R | ON: Low |
| 008-300 | DUP Open Switch | ON: High |
| 009-101 | Toner_Y New | CRU Connection of color is open (The CRU in use is present, or it is not present) ON: Low=new, High=old |
| 009-102 | Toner_M New | CRU Connection of color is open (The CRU in use is present, or it is not present) ON: Low=new, High=old |
| 009-103 | Toner_C New | CRU Connection of color is open (The CRU in use is present, or it is not present) ON: Low=new, High=old |
| 009-104 | Toner_K New | CRU Connection of color is open (The CRU in use is present, or it is not present) ON: Low=new, High=old |
| 009-150 | TNR FULL SNR | ON: High |
| 009-151 | #Y_CRU detect | CRU is installed |
| 009-152 | #M_CRU detect | CRU is installed |

**Table 1 Input Component Control Codes**

| Code | Name | Description |
|---|---|---|
| 009-153 | #C_CRU detect | CRU is installed |
| 009-154 | #K_CRU detect | CRU is installed |
| 009-200 | 2nd BTR Retract Sensor | RetractiON. ON: Low |
| 009-201 | POB Sensor | Paper detected ON: Low |
| 009-203 | 1st BTR Retract Sensor | RetractiON. ON: Low |
| 010-101 | Fuser Exit | Paper detected ON: High |
| 010-102 | Full Paper Stack Sensor | NotFull ON: Low |
| 010-103 | Face Up Exit Sensor | Paper detected ON: High |
| 012-100 | IOT Regi Clutch | Clutch OFF ON: High |
| 012-101 | Compiler Tray Exit Sensor | Paper detected ON: High |
| 012-102 | Compiler Paper Sensor | Paper detected ON: High |
| 012-103 | H-Tra Ent. Sensor | Paper detected ON: High |
| 012-104 | H-Tra Exit Sensor | Paper detected ON: High |
| 012-200 | Stacker Paper Sensor | Paper detected ON: High |
| 012-201 | Stacker Height Sensor | Higher than the detection surface ON: High |
| 012-202 | Stacker Upper Limit Sensor | Upper Limit position. ON: High |
| 012-204 | Stacker Stack A Sensor | Non-transmissive position. ON: High |
| 012-205 | Stacker Stack B Sensor | Non-transmissive position. ON: High |
| 012-207 | [PWS Display] Staple Head Home Sensor | Not at Home position. ON: High |
| 012-208 | Low Staple Switch | Low Staple ON: High |
| 012-209 | [PSW Display] Staple Ready Sensor | Not at Ready position. ON: High |
| 012-210 | Eject Clamp Home Sensor | Not at Home Position (Roller is DOWN) ON: High |
| 012-211 | Set Clamp Home Sensor | Not at Home Position (transmissive) ON: High |
| 012-212 | Rear Tamper Home Sensor | Home position. ON: High |
| 012-215 | H-Tra IOT Full Paper Sensor | No paper ON: High |
| 012-216 | Front Tamper Home Sensor | Home position. ON: High |
| 012-217 | Decurler Cam Position Sensor | Not at Home Position (transmissive) ON: High |
| 012-224 | Stapler Move Sensor | Non-transmissive position. ON: High |
| 012-225 | Stapler Front Corner Sensor | Front Corner position. ON: High |
| 012-300 | Front Cover Interlock Switch | Open ON: High |
| 012-301 | Top Cover Interlock Switch | Open ON: High |
| 012-302 | Docking Interlock Sensor | Docking release ON: High |
| 012-305 | H-Tra Interlock Sensor | Open ON: High |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 004-001 | Steering Motor | Reswitch the Steering Cam to Home position. ONce and operate it at half cycle after that. | 004-005 |
| 004-002 | IBT Motor (104mm/sec) | Operate with the IBT unit removed. The Belt might be damaged since the Belt Work Control is not performed. | 004-012, 004-013 |
| 004-004 | Main Motor (104mm/sec) | Rotate at medium speed. Operate the motor with the 2nd BTR nipped, or the LH Cover opened. Otherwise, the 2nd BTR might damage the teeth. | 004-007, 004-008 |
| 004-005 | Steering Motor Home Position | ON: Low | 004-001 |
| 004-007 | Main Motor (52mm/sec) | Rotate at half speed. Operate the motor with the 2nd BTR nipped, or the LH Cover opened. Otherwise, the 2nd BTR might damage the teeth. | 004-004, 004-008 |
| 004-008 | Main Motor (194mm/sec) | Rotate at double speed. Operate the motor with the 2nd BTR nipped, or the LH Cover opened. Otherwise, the 2nd BTR might damage the teeth. | 004-004, 004-007 |
| 004-012 | IBT Motor (52mm/sec) | Rotate at half speed. Operate with the IBT unit removed. The Belt might be damaged since the Belt Work Control is not performed. | 004-012, 004-013 |
| 004-013 | IBT Motor (194mm/sec) | Rotate at double speed. Operate with the IBT unit removed. The Belt might be damaged since the Belt Work Control is not performed. | 004-002, 004-012 |
| 004-014 | IBT_5V ON | ON: High | - |
| 004-050 | Fuser Fan, LV Fan and Rear Fan Rotation High speed | Rotate the FUSER FAN, LV FAN and REAR FAN at high speed. (Rotation is Low at Power ON) | - |
| 005-011 | Set Gate Solenoid Open | Turn Set Gate Open ON (Towards bottom of Nudger Roll) for 5sec -> Auto OFF | - |
| 005-012 | Set Gate Solenoid Close | Turn Set Gate Close ON (Towards bottom of Nudger Roll) for 5sec -> Auto OFF | - |
| 005-040 | Feed Mot. | DADF Feed Motor for 2sec -> Auto OFF | - |
| 005-055 | Belt Motor Non CVT Mode (CW) | Rotate the DADF Belt Motor forward. | 005-056 |
| 005-056 | Belt Motor Non CVT Mode (CCW) | Rotate the DADF Belt Motor backward. | 005-055 |
| 005-075 | Regi Gate Solenoid | Push the Regi Gate with the Arm to turn it ON for 5sec -> Auto OFF | - |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 005-081 | Exit Motor Non CVT Mode | Operate the DADF Exit Motor | - |
| 005-083 | Doc Ready | switch ON the Doc Ready signal. | - |
| 005-084 | Doc Set LED | switch ON the DOC SET LED | - |
| 006-002 | IIT Exposure Lamp | switch the Lamp ON for 180sec -> Auto OFF | - |
| 006-004 | IPS Cooling Fan (Low speed) | After operating the IPS Cooling Fan at high speed for 5sec, operate it at low speed. ON: FAN ON: 24V, FAN Slow: L->H (About 13V) | - |
| 006-005 | IIT Scan Motor (Scan) | More it 50mm from current position in Scan direction -> Auto OFF | 006-006 |
| 006-006 | IIT Scan Motor (Return) | More it 50mm from current position in Return direction -> Auto OFF | 006-005 |
| 006-014 | IPS Cooling Fan (High speed) | Operate the IPS Cooling Fan at high speed. | - |
| 006-030 | LD ON Enable Signal (concurrently for 4 colors) | [Operation Description]: | - |
| 006-031 | Polygon Motor Start Signal | [Operation Description]: | - |
| 006-086 | IIT Image Area | IMG-AREA Signal Output ON: P727 LVDS (Differential) High | - |
| 006-091 | Exchange To ADF | Turn ON the document exchange command signal to the DADF | - |
| 007-003 | SMH FEED Clutch | [Operation Description]: | - |
| 007-004 | HOTLINE_TRAY | Not used. | - |
| 008-001 | #1Feed Motor (Fwd) | Feed (Rotate #1Feed Motor in paper feed direction at 200mm/sec) | 8-002 |
| 008-002 | #1Feed Motor (Rev) | It turns OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp. | 8-001 |
| 008-003 | #2Feed Motor (Fwd) | Feed (Turn #2Feed Motor On in paper feed direction at 192mm/sec) | 8-004 |
| 008-004 | #2Feed Motor (Rev) | It turns OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp. | 8-003 |
| 008-005 | #3Feed Motor (Fwd) | Feed (Turn #3Feed Motor On in paper feed direction at 192mm/sec) | |
| 008-006 | #3Feed Motor (Rev) | It turns OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp. | 8-005 |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 008-007 | #4Feed Motor (Fwd) | Feed (Turn #4Feed Motor On in paper feed direction at 192mm/sec) | 8-008 |
| 008-008 | #4Feed Motor (Rev) | It turns OFF automatically 6sec after LiftUp has started, or when the Level Snr detected LiftUp. LiftUp cannot be performed when the Level Snr should detect LiftUp. | 8-007 |
| 008-009 | Dup Motor (200.1mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-010, 011, 012, 053, 054, 055, 056 |
| 008-010 | Dup Motor (104mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-009, 011, 012, 053, 054, 055, 056 |
| 008-011 | Dup Motor (200.1mm/sec) Long | [Operation Description]: | 8-009, 010, 012, 053, 054, 055, 056 |
| 008-012 | Dup Motor (104mm/sec) Long | [Operation Description]: | 8-009, 010,011, 053, 054, 055, 056 |
| 008-021 | 3TM TA Motor (52mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-022, 023, 024, 025, 026, 027, 028 |
| 008-022 | 3TM TA Motor (104mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-021, 023, 024, 025, 026, 027, 028 |
| 008-023 | 3TM TA Motor (192mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-021, 022, 024, 025, 026, 027, 028 |
| 008-024 | 3TM TA Motor (370mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-021, 022, 023, 025, 026, 027, 028 |
| 008-025 | 3TM TA Motor (52mm/sec) Long | [Operation Description]: | 8-021, 022, 023, 024, 026, 027, 028 |
| 008-026 | 3TM TA Motor (104mm/sec) Long | [Operation Description]: | 8-021, 022, 023, 024, 025, 027, 028 |
| 008-027 | 3TM TA Motor (192mm/sec) Long | [Operation Description]: | 8-021, 022, 023, 024, 025, 026, 028 |
| 008-028 | 3TM TA Motor (370mm/sec) Long | [Operation Description]: | 8-021, 022, 023, 024, 025, 026, 027 |
| 008-029 | TTM TA Motor (52mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-030, 031, 032, 033, 034, 035, 036 |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 008-030 | TTM TA Motor (104mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-029, 031, 032, 033, 034, 035, 036 |
| 008-031 | TTM TA Motor (192mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-029, 030, 032, 033, 034, 035, 036 |
| 008-032 | TTM TA Motor (370mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-029, 030, 031, 033, 034, 035, 036 |
| 008-033 | TTM TA Motor (52mm/sec) Long | [Operation Description]: | 8-029, 030, 031, 032, 034, 035, 036 |
| 008-034 | TTM TA Motor (104mm/sec) Long | [Operation Description]: | 8-029, 030, 031, 032, 033, 035, 036 |
| 008-035 | TTM TA Motor (192mm/sec) Long | [Operation Description]: | 8-029, 030, 031, 032, 033, 034, 036 |
| 008-036 | TTM TA Motor (370mm/sec) Long | [Operation Description]: | 8-029, 030, 031, 032, 033, 034, 035 |
| 008-037 | Regi Clutch | Turns ON. Turns OFF automatically at 400msec. | None |
| 008-038 | #1TA Clutch | Turns ON. Turns OFF automatically at 400msec. | None |
| 008-042 | Invert Clutch CW | Turns ON in output direction. Turns OFF automatically at 400msec. | None |
| 008-043 | Invert Clutch CCW | Turns ON in Invert direction. Turns OFF automatically at 400msec. | None |
| 008-045 | Exit Gate Solenoid | Turns ON in output direction. Turns OFF automatically at 200msec. | None |
| 008-046 | Dup Gate Solenoid | Turns ON in Face Up direction. Turns OFF automatically at 200msec. | None |
| 008-047 | TTM TM Motor2 (370mm/sec) | Start operation. Turns OFF automatically at 1000msec. | None |
| 008-048 | TTM TM Motor2 (370mm/sec) Long | [Operation Description]: | None |
| 008-049 | MOB2LED_CHNG | MOB SNR2 LED Light quantity switching signal, Light quantity UP (increase voltage) at PORT H. ON: ANA Output LED2 Light quantity UP | None |
| 008-050 | OB2LED_ON | MOB SNR2 LED ON. ON: ANA output | None |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 008-051 | MOB1LED_CHNG | MOB SNR1 LED Light quantity switching signal, Light quantity UP (increase voltage) at PORT H. ON: ANA Output LED1 Light quantity UP | None |
| 008-052 | MOB1LED_ON | MOB SNR1 LED ON. ON: ANA output | None |
| 008-053 | Dup Motor (373.2mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-009, 010, 011, 012, 054, 055, 056 |
| 008-054 | Dup Motor (194mm/sec) | Start operation. Turns OFF automatically at 1000msec. | 8-009, 010, 011, 012, 053, 055, 056 |
| 008-055 | Dup Motor (373.2mm/sec) Long | [Operation Description]: | 8-009, 010, 011, 012, 053, 054, 056 |
| 008-056 | Dup Motor (194mm/sec) Long | [Operation Description]: | 8-009, 010, 011, 012, 053, 054, 055 |
| 009-001 | #Y_Disp MOT_Y | Y Color Disp. MOT turns ON, and turns OFF automatically after 5sec. | - |
| 009-002 | #M_Disp MOT | M Color Disp. MOT turns ON, and turns OFF automatically after 5sec. | - |
| 009-003 | #C_Disp MOT | C Color Disp. MOT turns ON, and turns OFF automatically after 5sec. | - |
| 009-004 | #K_Disp MOT | K Color Disp. MOT turns ON, and turns OFF automatically after 5sec. | - |
| 009-005 | #Y_DB DC | Y Color Developer Bias DC Component Output | - |
| 009-006 | #M_DB DC | M Color Developer Bias DC Component Output | - |
| 009-007 | #C_DB DC | C Color Developer Bias DC Component Output | - |
| 009-008 | #K_DB DC | K Color Developer Bias DC Component Output | - |
| 009-009 | #YM_DB AC | YM Color Developer Bias AC Component Output | - |
| 009-012 | #CK_DB AC | CK Color Developer Bias AC Component Output | - |
| 009-013 | Deve_CL | The clutch for driving K Color turns ON, and turns OFF automatically after 5sec. | - |
| 009-014 | Deve_MOT Normal-speed | The MOT for driving Color turns ON at normal speed and turns OFF automatically after 5sec. | 9-16 |
| 009-016 | Deve_MOT Half-speed | The MOT for driving Color turns ON at higher speed and turns OFF automatically after 5sec. | 9-14 |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 009-026 | #Y_BCR DC | High voltage output value of BCR DC_Y. ON: PWM | 9-30 |
| 009-027 | #M_BCR DC | High voltage output value of BCR DC_M. ON: PWM | 9-31 |
| 009-028 | #C_BCR DC | High voltage output value of BCR DC_C. ON: PWM | 9-32 |
| 009-029 | #K_BCR DC | High voltage output value of BCR DC_K. ON: PWM | 9-33 |
| 009-030 | #Y_BCR AC | High voltage output value of BCR AC_Y. ON: PWM | 9-26 |
| 009-031 | #M_BCR AC | High voltage output value of BCR AC_M | 9-27 |
| 009-032 | #C_BCR AC | High voltage output value of BCR AC_C | 9-28 |
| 009-033 | #K_BCR AC | High voltage output value of BCR AC_K | 9-29 |
| 009-034 | [PSW Display] AGT MOT | AGITATOR MOT ON | |
| 009-035 | CRUM PWR | Power ON of CRUM-YMCK | |
| 009-038 | BCR ACDC K CHG | [Operation Description]: DEVE_AC_K changes at connector terminals trailing. | |
| 009-039 | BCRAC Clock | Frequency signal common to BCR AC All Colors. | |
| 009-040 | ROS Shutter Close | ROS Shutter: Rotates in Close direction (Brush: Contact direction). | 9-41 |
| 009-041 | ROS Shutter Open | ROS Shutter: Rotates in Open direction (Brush: Retract direction). ON: HHH | 9-40 |
| 009-042 | #K_Erase Lamp 104mm/s | K ERASE LAMP lit. | 9-43, 9-44 |
| 009-043 | #K_Erase Lamp 52mm/s | Not in use | 9-42, 9-44 |
| 009-044 | #K_Erase Lamp 194mm/s | Not in use | 9-42, 9-43 |
| 009-045 | #YMC_Erase Lamp 104mm/s | YMC ERASE LAMP lit. | 9-46 |
| 009-046 | #YMC_Erase Lamp 52mm/s | Not in use | 9-45 |
| 009-051 | 2nd BTR Contact | Driving of BTR2RETMOT. Turns OFF 800ms after the Retract SNR detected the Contact Position (High). | - |
| 009-052 | 2nd BTR Retract | Turns OFF 60ms after the Retract SNR detected the Retract Position (Low). | - |
| 009-053 | De Tack Saw HV | Turn on DTS HV. | - |
| 009-054 | 1st BTR Contact | Turns OFF 100ms after the Retract SNR detected the Contact Position (High). | - |
| 009-055 | 1st BTR Retract | Turns OFF 100ms after the Retract SNR detected the Retract Position (Low). | - |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 009-076 | Specular reflection LED | When the Specular Reflection LED of ADC SNR turns ON and YMC density is detected. | - |
| 009-077 | Diffusion reflection LED | When the Diffusion Reflection LED of ADC SNR turns ON and K density is detected. | - |
| 009-078 | ADC Sensor Shutter Open | Turns OFF automatically after 100msec. | 9-79 |
| 009-079 | ADC Sensor Shutter Close | Turns OFF automatically after 100msec. | 9-78 |
| 009-080 | ATC Sensor 5V ON | 5V Power supply to ATC SNR. | - |
| 010-001 | OCT Motor (CW) | Turns ON forward and turns OFF automatically at 150msec. | 010-002 |
| 010-002 | OCT Motor (CCW) | Turns ON reverse and turns OFF automatically at 150msec. | 010-001 |
| 012-001 | Main Drive Motor On/Off | [Operation Description]: | 12-71 |
| 012-010 | Rear Tamper Motor Low Front On/Off | Turns OFF automatically after 100pulses. | 12-11, 12-12, 12-13, 12-14, 12-15 |
| 012-011 | Rear Tamper Motor Middle Front On/Off | Turns OFF automatically after 100pulses. | 12-10, 12-12, 12-13, 12-14, 12-15 |
| 012-012 | Rear Tamper Motor High Front On/Off | Turns OFF automatically after 100pulses. | 12-10, 12-11, 12-13, 12-14, 12-15 |
| 012-013 | Rear Tamper Motor Low Rear On/Off | Turns OFF automatically after 100pulses. | 12-10, 12-11, 12-12, 12-14, 12-15 |
| 012-014 | Rear Tamper Motor Middle Rear On/Off | Turns OFF automatically after 100pulses. | 12-10, 12-11, 12-12, 12-13, 12-15 |
| 012-015 | Rear Tamper Motor High Rear On/Off | Turns OFF automatically after 100pulses. | 12-10, 12-11, 12-12, 12-13, 12-14 |
| 012-020 | Staple Motor Close On/Off | Stops at Home Position. | 12-21 |
| 012-021 | Stapler Motor Reverse | Turns OFF automatically after 110msec. | 12-20 |
| 012-030 | Eject Motor FORWARD On/Off | Turns OFF automatically after 2000pulses. | 12-31, 12-32, 12-33, 12-34, 12-41 |
| 012-031 | Eject Motor Reverse On/Off | Turns OFF automatically after 2000pulses. | 12-30, 12-32, 12-33, 12-34, 12-4 |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 012-032 | Eject Clamp Low Down | Turns OFF automatically at 702pulses after the Eject Home Snr detected Home Position. | 12-30, 12-31, 12-33, 12-34, 12-41 |
| 012-033 | Eject Clamp Middle Down | Turns OFF automatically at 365pulses after the Eject Home Snr detected Home Position. | 12-30, 12-31, 12-32, 12-34, 12-41 |
| 012-034 | Eject Clamp UP | Turns OFF automatically at 46pulses after the Eject Home Snr detected Home Position. | 12-30, 12-31, 12-32, 12-33, 12-41 |
| 012-040 | Set Clamp Paddle Solenoid | Turns OFF automatically after 1000msec. | 12-41 |
| 012-041 | Set Clamp Paddle Rev | Turns OFF automatically at Mot: 583pulses and Sol: 200msec. | 12-30, 12-31, 12-32, 12-33, 12-34, 12-40 |
| 012-050 | Stacker Motor UP On/Off | Turns OFF automatically after 500msec. | 12-51 |
| 012-051 | Stacker Motor Down On/Off | [Operation Description]: | 12-50 |
| 012-060 | H-Tra Gate In Solenoid Open | Turns OFF automatically after 200msec. | 12-61 |
| 012-061 | H-Tra Gate In Solenoid Close | Turns OFF automatically after 200msec. | 12-60 |
| 012-070 | Decurler Cam Clutch On | Turns OFF automatically after 1000msec. | 12-71 |
| 012-071 | Decurler Penetration Change | Turns OFF automatically after the Decurler Home Snr detected On. (Stops when the Home Snr detected ON -> OFF or OFF -> ON by turning ON Decurler Cam Clutch 500ms after driving the Main Drive Motor.) | 12-1, 12-70 |
| 012-080 | Stapler Move Motor High Front On/Off | Turns OFF automatically at 250pulses. | 12-81, 12-82, 12-83 |
| 012-081 | Stapler Move Motor Low Font On/Off | Turns OFF automatically at 250pulses. | 12-80, 12-82, 12-83 |
| 012-082 | Stapler Move Motor High Rear On/Off | Turns OFF automatically at 250pulses. | 12-80, 12-81, 12-83 |
| 012-083 | Stapler Move Motor Low Rear On/Off | Turns OFF automatically at 250pulses. | 12-80, 12-81, 12-82 |
| 012-091 | Front Tamper Motor Low Front On/Off | Turns OFF automatically at 100pulses. | 12-92, 12-93, 12-94, 12-95, 12-96 |
| 012-092 | Front Tamper Motor Middle Front On/Off | Turns OFF automatically at 100pulses. | 12-91, 12-93, 12-94, 12-95, 12-96 |

**Table 2 Output Component Control Codes**

| Code | Name | Description | Conflicts |
|---|---|---|---|
| 012-093 | Front Tamper Motor High Front On/Off | Turns OFF automatically at 100pulses. | 12-91, 12-92, 12-94, 12-95, 12-96 |
| 012-094 | Front Tamper Motor Low Rear On/Off | Turns OFF automatically at 100pulses. | 12-91, 12-92, 12-93, 12-95, 12-96 |
| 012-095 | Front Tamper Motor Middle Rear On/Off | Turns OFF automatically at 100pulses. | 12-91, 12-92, 12-93, 12-94, 12-96 |
| 012-096 | Front Tamper Motor High Rear On/Off | Turns OFF automatically at 100pulses. | 12-91, 12-92, 12-93, 12-94, 12-95 |

# dC351 NVM Background Processing

## Purpose

Consists of 5 subroutines:

- **Machine Settings** - This routine saves the current machine settings or restores the previously-saved machine settings.
- Manufacturing NVM - This routine automatically loads a region-specific set of values into NVM.
- **Dust Off Reset** - This routine sets all HFSI counters to zero.

***NOTE:*** *The following subroutines are intended for engineering/manufacturing use. They should not be performed as part of normal repair or maintenance unless you are specifically directed.*

- NVM Background Read - This routine polls all NVM locations in the machine, and stores the values in the diagnostic tool database.
- **Save / Restore NVM** - This routine saves current NVM settings or to restore previously saved NVM settings

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select the **Adjustments** tab.
3. Select the **NVM Init, S/R** tab.
4. Select the **NVM Background Processing (dC351)** tab.

**Machine Settings**

1. Press the **Save Machine Settings** button to record the values of approximately 320 NVM locations containing data unique to a specific machine. The data is saved in on the PWS hard drive. The data will remain available until the PWS is connected to a different machine.

   To make a permanent record of machine settings, perform the following:

   a. Go to dC188. Select **Temporary Call Closeout**, then exit the PWS tool.

   b. When the PWS displays the message **Would you like to copy Machine Data to the a: drive? Yes or No**, select **Yes** and insert a diskette. The PWS will write Machine Data to the diskette and the diagnostic tool will close.

   c. Restart the PWS tool and select **Read from Floppy** on the opening screen. This loads the data from the diskette into the PWS tool database, but does not load data into the machine NVM.
2. To load previously saved machine settings into NVM, press the **Restore Machine Settings** button.

Manufacturing NVM

This routine is intended primarily for initial setup prior to shipment to a customer location, but it can be used to restore machine setting to their as-delivered state. This may be necessary if the NVM was initialized without saving machine settings, or in the case of a 103-208 fault code

1. Select the market region for the installation.
2. Press the **Batch Write NVM** button.

**Save/Restore NVM**

1. Press the **Background Read** button. This will read all locations in the dC 131 database. This will require approximately 20 minutes to complete.

**CAUTION**

*The NVM data is saved in RAM only. If the PWS Tools program is closed or if the PWs is switched off, the data will be lost.*

2. Press the **Save Current NVM Settings** button. This will store the NVM data is the PWS memory.

**CAUTION**

*If the PWS is disconnected from the machine during NVM Restore, ALL NVM data may be lost*

3. To load the saved data into the machine NVM, press the **Restore Saved NVM Settings** button. This will require approximately 20 minutes to complete, and must not be interrupted.

# dC355 Hard Disk Diagnostic Program

## Purpose

***NOTE:*** *For details on dC355 Hard Disk Diagnostic Program, see Adjustments: ADJ 9.8.*

# dC371 Configuration Page

## Purpose

Allows easy viewing and set-up of machine configuration.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select **Adjustments** on the Service Entry Screen.
3. Select **NVM Init, S/R** (the default screen).
4. Select **Configuration Page (dC371)**. The Configuration Page Screen is displayed.
5. Make selections on the screen from the following categories:
   a. **Market Place**
      - ï XC (NASG)
      - ï XE (ESG)
      - ï FX
      - ï FX / AP

   b. **Machine Config**
      - ï Digital Copier
      - ï Copier / Printer
      - ï Copier / Printer / Scanner
      - ï Printer with UI

   c. Output Device(s)
      - ï Simple Catch Tray
      - ï Ofssetting Catch Tray
      - ï Finisher

   d. Input Device
      - ï DADF
      - ï Platen Only
6. Select **Save** to save the options or select **Reset** to reset the default settings back to original options prior to entering Configuration Page (dC371).

# dC612 Color Test Pattern Print

## Purpose

Prints the test patterns in the machine, to help identify Image Quality problems.

## Procedure

1. Enter the **Diagnostic Mode**. Refer to Entering Diagnostic Mode using the PWS.
2. Select **Diagnostics** in the Service Entry Screen.
3. Select **Test Pattern (dc612)**.
   a. To print a Test Pattern, select **Image Process System**:
      i. Select the **Pattern Number** from the menu.
      ii. Select the **Paper Tray**.
      iii. Set the **number of prints** to output in the Print Count Box and select **Start**.
   b. To print the Image Output Test Pattern, select **Image Output System**.
      i. Image Output System
      ii. Paper (Simplex/Duplex)
      iii. Paper Tray/Size
      iv. Paper Type
      v. Screen Type
      vi. Color Mode
      vii. Set the number of prints to output and select **Start**.

## Test Patterns

**CAUTION**

*The patterns currently displayed do not match the descriptions in the table. The correct pattern number/descriptions are TBD.*

For details on the test pattern generation location and output path, see Table 1:

**Table 1 Test Patterns**

| Pattern # | Pattern Name | Overview | Purpose | Location |
|---|---|---|---|---|
| 1 | ROS Check | Seal Glass Cleaning Guide: 20% Half Tone Full Band Width KCMRY Fast Scan direction Stripe Pattern | The engine where defect has occurred can be determined as an output sheet contains Seal Glass smearing. -> To determine defect engine | IOT |
| 2 | Halftone (IOT) | Seal Glass Cleaning Guide: 20% Half Tone Full Band Width Full Half Tone. Select the density from Cin=0~100. | Defect can be detected/evaluated (streaks, uneven density, banding) | IOT |
| 3 | Grid 1dot | (For separating troubles) 512 dot Pitch Grid Pattern with 1 dot width | - Around Alignment and Color Regi<br>- Secondary Transfer part magnification failure | IOT |
| 4 | Fast Scan 8 Gradation | (For separating troubles) Fast Scan direction 8 Gradation Pattern | For development.<br>For ASIC debug. | IOT |
| 5 | A1 Patch | Forms a bi-axial near the IN and OUT edges in full color. (Chevron Pattern) At normal Regi Control cycle: Approx. half cycle of IBT Belt (2 sheets of A4 continuous) At Diag Regi Control cycle: Approx. 1 cycle of IBT Belt (1: 4 sheets of A4 continuous) | For Color Regi adjustment in Diag DC685-1 (Skew Fine Setup) and DC685-2 (In/Out Setup) during JOB, at beginning of JOB and end of JOB. Also, for Color Regi reading in DC681 and DC684. | Controller |
| 6 | A2 Patch | Forms a 1 axial near CNT for approx. 1 cycle (1: 4 sheets of A4 continuous) of IBT Belt in full color. (Chevron Pattern) | For Color Regi adjustment in Diag DC685-3 (Center Setup) | Controller |
| 7 | B1 Patch | Forms a bi-axial near the IN and OUT edges for approx. 1 cycle (1: 4 sheets of A4 continuous) in full color. ("<" pattern) | For Color Regi rough adjustment in Diag DC685-1 (Skew Fine Setup) and 685-4 (Skew Rough Setup). | Controller |
| 8 | B2 Patch | Forms a 1 axial near CNT for approx. 1 cycle (1: 4 sheets of A4 continuous) of IBT Belt in full color. ("<" pattern) | For Color Regi adjustment in Diag DC685-3 (Center Setup) | Controller |
| 9 | C Patch | Forms a three-axle IN/CNT/OUT in approx. 1 cycle (1: 4 sheets of A4 continuous) of IBT Belt in single color C. (Chevron Pattern) | For Diag DC683 (to check Sensor, Cyan and position shift). | Controller |
| 10 | Binary/Auto Gradation Correction PG (For Printer) LUT: C-TRA OFF IOT OFF | (For gradation correction) Gradation pattern for gradation correction for printing LUT: C-TRA OFF IOT OFF | To output during Auto Gradation Correction. For checking CTRACS feature. The same pattern as this output pattern is even output in the CTRACS feature (Reads the output pattern by IIT and sets up the color reproducibility) inside the Tools (opened to customer). The test pattern here is able to check the setup effects of the Printer feature. | Controller |

**Table 1 Test Patterns**

| Pattern # | Pattern Name | Overview | Purpose | Location |
|---|---|---|---|---|
| 11 | Binary/Auto Gradation Correction PG (For Printer) LUT: C-TRA OFF IOT ON | (For gradation correction) Gradation pattern for gradation correction for printing LUT: C-TRA OFF IOT ON | To output during Auto Gradation Correction. For checking CTRACS feature. The same pattern as this output pattern is even output in the CTRACS feature (Reads the output pattern by IIT and sets up the color reproducibility) inside the Tools (opened to customer). The test pattern here is able to check the setup effects of the Printer feature. | Controller |
| 12 | Binary/Auto Gradation Correction PG (For Printer) LUT: C-TRA OFF IOT OFF | (For gradation correction) Gradation pattern for gradation correction for printing LUT: C-TRA OFF IOT OFF | To output during Auto Gradation Correction. For checking CTRACS feature. The same pattern as this output pattern is even output in the CTRACS feature (Reads the output pattern by IIT and sets up the color reproducibility) inside the Tools (opened to customer). The test pattern here is able to check the setup effects of the Printer feature. | Controller |
| 13 | Binary/Auto Gradation Correction PG (For Printer) LUT: C-TRA ON IOT ON | (For gradation correction) Gradation pattern for gradation correction for printing LUT: C-TRA ON IOT ON | To output during Auto Gradation Correction. For checking CTRACS feature. The same pattern as this output pattern is even output in the CTRACS feature (Reads the output pattern by IIT and sets up the color reproducibility) inside the Tools (opened to customer). The test pattern here is able to check the setup effects of the Printer feature. | Controller |
| 14 | Binary/Auto Gradation Correction PG (For Copy) LUT: C-TRA OFF IOT OFF | (For gradation correction) Gradation pattern for gradation correction for copying LUT: C-TRA OFF IOT OFF | To output during Auto Gradation Correction. For checking CTRACS feature. Same as 10. The test pattern here is able to check the setup effects of the Copy feature. | IPS |
| 15 | Binary/Auto Gradation Correction PG (For Copy) LUT: C-TRA OFF IOT ON | (For gradation correction) Gradation pattern for gradation correction for copying LUT: C-TRA OFF IOT ON | To output during Auto Gradation Correction. For checking CTRACS feature. Same as 10. The test pattern here is able to check the setup effects of the Copy feature. | IPS |
| 16 | Binary/Auto Gradation Correction PG (For Copy) LUT: C-TRA ON IOT OFF | (For gradation correction) Gradation pattern for gradation correction for copying LUT: C-TRA ON IOT OFF | To output during Auto Gradation Correction. For checking CTRACS feature. Same as 10. The test pattern here is able to check the setup effects of the Copy feature. | IPS |
| 17 | Binary/Auto Gradation Correction PG (For Copy) LUT: C-TRA ON IOT ON | (For gradation correction) Gradation pattern for gradation correction for copying LUT: C-TRA ON IOT ON | To output during Auto Gradation Correction. For checking CTRACS feature. Same as 10. The test pattern here is able to check the setup effects of the Copy feature. | IPS |
| 18 | Binary/Process Control LUT: C-TRA OFF IOT OFF | (Density adjustment, gradation check) Gradation pattern for density adjustment LUT: C-TRA OFF IOT OFF | The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC. | IPS |
| 19 | Binary/Process Control LUT: C-TRA OFF IOT ON | (Density adjustment, gradation check) Gradation pattern for density adjustment LUT: C-TRA OFF IOT ON | The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC. | IPS |
| 20 | Binary/Process Control LUT: C-TRA ON IOT ON | (Density adjustment, gradation check) Gradation pattern for density adjustment LUT: C-TRA ON IOT OFF | The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC. | IPS |
| 21 | Binary/Process Control LUT: C-TRA ON IOT ON | (Density adjustment, gradation check) Gradation pattern for density adjustment LUT: C-TRA ON IOT ON | The Primary color/Secondary color/Tertiary color gradation reproducibility can be checked by crossing over to entire gradation. For checking TRC. | IPS |

**Table 1 Test Patterns**

| Pattern # | Pattern Name | Overview | Purpose | Location |
|---|---|---|---|---|
| 22 | Binary/Highlight PG LUT: C-TRA OFF IOT OFF | (Highlight gradation check) Gradation pattern for highlight adjustment LUT: C-TRA OFF IOT OFF | In the gradation reproducibility of Primary color/Secondary color/ Tertiary color, the highlight parts easily varied can be checked in details. For checking TRC. | IPS |
| 23 | Binary/Highlight PG LUT: C-TRA OFF IOT ON | (Highlight gradation check) Gradation pattern for highlight adjustment LUT: C-TRA OFF IOT ON | In the gradation reproducibility of Primary color/Secondary color/ Tertiary color, the highlight parts easily varied can be checked in details. For checking TRC. | IPS |
| 24 | Binary/Highlight PG LUT: C-TRA ON IOT OFF | (Highlight gradation check) Gradation pattern for highlight adjustment LUT: C-TRA ON IOT OFF | In the gradation reproducibility of Primary color/Secondary color/ Tertiary color, the highlight parts easily varied can be checked in details. For checking TRC. | IPS |
| 25 | Binary/Highlight PG LUT: C-TRA ON IOT ON | (Highlight gradation check) Gradation pattern for highlight adjustment LUT: C-TRA ON IOT ON | In the gradation reproducibility of Primary color/Secondary color/ Tertiary color, the highlight parts easily varied can be checked in details. For checking TRC. | IPS |
| 26 | IIT/FS Incre/Gradation | (For separating troubles) Fast Scan direction gradation YMC process BK pattern | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 27 | IIT/SS Incre/Gradation | (For separating troubles) Slow Scan direction gradation YMC process BK pattern | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 28 | Shading Data Output | (For separating troubles) Shading RAM data output pattern | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 29 | COSAC Count Mode/ YMCK Vertical Stripe | (For separating troubles) 10.84mm width YMCK Vertical Stripe Pattern | For separating troubles. It determines the defective locations when an error image was output. Normal: Pre IPS Asic onwards can be determined as normal. | IPS |
| 30 | COSAC Count Mode/8 Gradation Patch | (For separating troubles) 21.67x10.84mm 8 Gradation Patch Pattern | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 31 | COSAC Solid PG ALL AAh | (For development) Entire Solid Data Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 32 | AES L* Pass Check | (For separating troubles) 32.51mm Grey + 10.84mm White, Vertical Stripe Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 33 | VIPER Grid/4C | (For development) 10.84mm Grid Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 34 | VIPER Grid/BW | (For development) 10.84mm Grid Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 35 | FSRE Count Mode/ Grid | (For separating troubles) 5.42mm YMCK Grid Pattern. | For separating troubles. It determines the defective locations when an error image was output. Normal: Pre IPS Asic onwards can be determined as normal. | IPS |
| 36 | FSRE Count Mode/ Slanting Grid | (For separating troubles)5.42mm YMCK Slanting Grid Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |

**Table 1 Test Patterns**

| Pattern # | Pattern Name | Overview | Purpose | Location |
|---|---|---|---|---|
| 37 | VIPER Fixed Pattern Output/BW Binary | (For separating troubles) Connection between IPS-Controller CHK Entire 2dot width Horizontal Ladder Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 38 | VIPER Fixed Pattern Output/4C Binary | (For separating troubles) Entire 2dot width Horizontal Ladder Pattern. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 39 | TAG Fixed Binary COPY-1 | (For development) TAG='0' Fixed COPY. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |
| 40 | TAG Fixed Binary COPY-2 | (For development) TAG='1' Fixed COPY. | For development.<br>Determine the defect locations when IPS defect and ASIC poor installation etc. has occurred. | IPS |

## dC685 Color Registration

### Purpose

***NOTE:*** *For details on dC685 Color Registration, see Adjustments Section 4: ADJ 9.6.*

## dC921 TC/ATC Sensor Setup

### Purpose

***NOTE:*** *For details on dC921 TC/ATC Sensor Setup, see Adjustments Section 4: ADJ 9.2.*

## dC922 TRC Control

### Purpose

***NOTE:*** *For details on dC922 TRC Control, see Adjustments Section 4: ADH 9.3 dC922 TRC Control Adjustment.*

## dC924 TRC Adjust

### Purpose

To manually fine adjust the low/medium/high densities (TRC) for each color.

***NOTE:*** *For details on TRC Adjust, see Adjustments Section 4: ADJ 9.5.*

## dC929 Max Setup

### Purpose

***NOTE:*** *For the execution sequence of the Max Setup Functions, see Adjustments Section 4: ADJ 9.1.*

## dC934 ADC/AGC Setup

### Purpose

Automatically adjusts the ADC Sensor Gain.

***NOTE:*** *For details on dC934 ADC/AGC Setup, see Adjustment Section 4: ADJ 9.4.*

## dC945 IIT Calibration

### Purpose

Functional details:

- Computes and sets the White Reference Correction Coefficient.
- Corrects the IIT Sensitivity Dispersion.

***NOTE:*** *For details on dC945 IIT Calibration, see Adjustments Section 4: ADJ 9.7.*

## dC956 Belt Edge Learn Mode

### Purpose

***NOTE:*** *For details on dC956 Belt Edge Learn Mode, see Adjustments Section 4: ADJ 9.6.*

# GP 1 Network Printing Simulation

## Description

This procedure details a method of troubleshooting network printing problems.

## Procedure

[name?? - NextGen PWS Tool release???] includes an LPR Spooler application [Xerox TCP/IP Port Monitor - name???]. Install/Launch this application [instructions??]

**Creating a printer on the PWS**

1. Click the Windows **Start** button
2. Select **Settings**, then **Printers**
3. Select **Add Printer**
4. On the **Add Printer Wizard** screen, click **Next**
5. Click Have Disk. Print Drivers can be found on:
   - ï [Customer CD - name?? -path??]
   - ï [S/W upgrade CD - name?? - path??]
   - ï latest driver can also be downloaded from the Xerox website
6. Insert the CD and locate the driver [filename??]. Click OK
7. When the **Add Printer Wizard** asks the port you want to use, select LPT1: then click **Next**
8. On the next screen, enter a name for the printer. Do not set this printer as the default.
9. Select **No** when asked if you want to print a test page, then click **Finish**.

**Configuring the printer port**

1. In the **Printers** folder, right-click on the new printer and select **Properties**.
2. Click **Add Port**
3. In the Add Port screen, click **Other**, then select **Xerox TCP/IP Port** and click **OK**.
4. Enter the name and IP address for the [DC1632/2240] then click **Next**.
5. Select **Custom**, then **Setup**
6. Setup<<<???? then **Next**.
7. Click **Finish** to close the Wizard and return to the **Properties** screen.
8. Click Apply to save the port configuration.

**Configuring the print driver**

1. In the **Properties** screen, select the **Printer** tab. Select the appropriate configuration items.
2. In the **Properties** screen, select the **Configuration** tab.
3. Select **Custom Paper Size**. In the **Units** box, select **Inches**.
4. Click OK to return to the **Properties** screen. Select the **Paper/Output** tab. Set the [???] to 8.5 x 11.î
5. Click Apply to save the print driver configuration.
6. A simple test of the printing function can be performed by selecting the **General** tab then clicking **Print Test Page**.

# GP 4 Intermittent Problem RAP

The purpose of this RAP is to provide guidance for resolving an intermittent problem. This is not an exact procedure, but a set of recommended actions that use the resources of the service manual to help locate the cause of an intermittent problem.

## Procedure

1. Check the service log. Recent service actions may provide information about the problem. For example, a component that was recently replaced to correct another problem may be the cause of the new intermittent problem.
2. Run the machine in a mode that vigorously exercises the function that is suspected. The machine may fail more frequently or may fail completely under these conditions. Look for signs of failure or abnormal operation.

   An intermittent problem can usually be associated with a RAP, since when it does fail, it results in a fault code, a jam code, or some other observable symptom.
3. Using the RAP that is associated with the symptom of the intermittent problem, examine all of the components that are referenced in the RAP. Look for:
   - ï contamination, such as a feed roller that has a build up of dirt or toner
   - ï wear, such as gear teeth that are rounded or have excessive backlash
   - ï HFSI, even if they are not near or have not exceeded the SPEC LIFE or COPY COUNT value
   - ï wires chafing against components of the machine, especially against moving components
   - ï misaligned, misadjusted, or incorrectly installed components
   - ï slow or slipping clutches; slow or binding solenoids
   - ï damaged components
   - ï excessive heat, or symptoms of excessive heat, such as the discoloration of a component
   - ï loose cables or wires
4. Using the RAP that is associated with the symptom of the intermittent problem, perform all of the adjustments for the components or functions that are referenced in the RAP. Check to ensure that the adjustment can be made and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem.
5. Operate all of the components in the appropriate RAP that is associated with the symptom of the intermittent problem with DC330 Component Control. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
6. Check that the AC and DC power are within specification.
7. Get technical advice or assistance when it is appropriate. This will depend upon the situation and the established local procedures.
8. Examine the components that are not in the RAP, but are associated with the function that is failing. Refer to the BSDs. Look for:
   - ï contamination, such as a feed roller that has a build up of dirt or toner
   - ï wear, such as gear teeth that are rounded or have excessive backlash
   - ï HFSI, even if they are not near or have not exceeded the SPEC LIFE or COPY COUNT value

- ï wires chafing against components of the machine, especially against moving components
- ï misaligned, misadjusted, or incorrectly installed components
- ï slow or slipping clutches; slow or binding solenoids
- ï damaged components
- ï excessive heat, or symptoms of excessive heat, such as the discoloration of a component
- ï loose cables or wires

9. Perform the adjustments for the components that are not in the RAP, but are associated with the function that is failing. Refer to the BSDs. Check to ensure that the adjustment CAN BE MADE and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem
10. Operate all of the components that are not in the RAP, but are associated with the function that is failing with DC330 Component Control  Refer to the BSDs. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
11. Replace any components or consumables that are known to be a frequent cause of the problem. When doing this, consider the cost and time required. If the suspected item is inexpensive, can be installed quickly, and has a high probability of resolving the problem, then it is reasonable to replace it.
12. Leave an accurate and detailed record of your actions in the service log. Describe what you have observed, what actions you took, and the recommended next steps.

# GP 10 Replacing Billing PWBs

## Description

This procedure is used to maintain serial number and billing data integrity when Billing PWBs must be replaced.

## Procedure

**CAUTION**

*To maintain the integrity of the serial number and billing data never replace all three PWBs at once. If any of the following billing data PWBs needs replacing, replace them **ONE PWB AT A TIME**, according to this procedure:*

- ï *ESS PWB (PL 9.1).*
- ï *MCU PWB (PL 9.1).*
- ï *ESS NVM PWB (PL 9.1).*

1. Connect the PWS. Select dC132 in the DC Quick Pull-down menu.
2. Compare the serial numbers displayed for the three PWBs with the serial number on the data plate. Note any that do not agree.

***NOTE:** If any of the following conditions exist, escalate the call to Field engineering or the NTC:*

- ï *The displayed serial numbers match each other but do not match the data plate.*
- ï *Two or more numbers do not agree with the data plate and the third number*
- ï *The displayed numbers are all different.*

3. If one serial number does not match the others, the **Set Serial Number** button will become active. Click on the button. A series of pop-up windows will open. Follow the instructions on the screen to synchronize the serial numbers.

**CAUTION**

*To maintain the integrity of the serial number and billing data never replace all three PWBs at once. Replacing all three PWBs at once will cause unrecoverable NVM corruption. If a PWB needs replacing, only replace **ONE AT A TIME**. If the problem is not resolved, reinstall the original PWB and renter the serial number before attempting to replace a different PWB.*

4. If any PWB will not synchronize, replace that PWB and re-synchronize.

# GP 12 Printing Reports

## Description

This procedure describes how to print a Configuration Report. Printing Configuration Reports can help you troubleshoot and configure the Printer.

## Procedure

1. Press the **Machine Status** button on the Control Panel.
2. Select the **Billing Meter/Print Report** tab on the display.
3. Press the **Print Report/List** button.
4. Select the **Copy Mode Settings** button.
5. Select the **Settings List** button.
6. Press the **Start** button.

The following reports can be printed from the UI Diagnostic Mode:

1. Debug Log
2. HFSI Report
3. Jam Report
4. Shutdown Report
5. Fail Report

## Space Requirements

Space requirements are shown in Figure 1 (without Finisher) and Figure 2 (with Finisher).

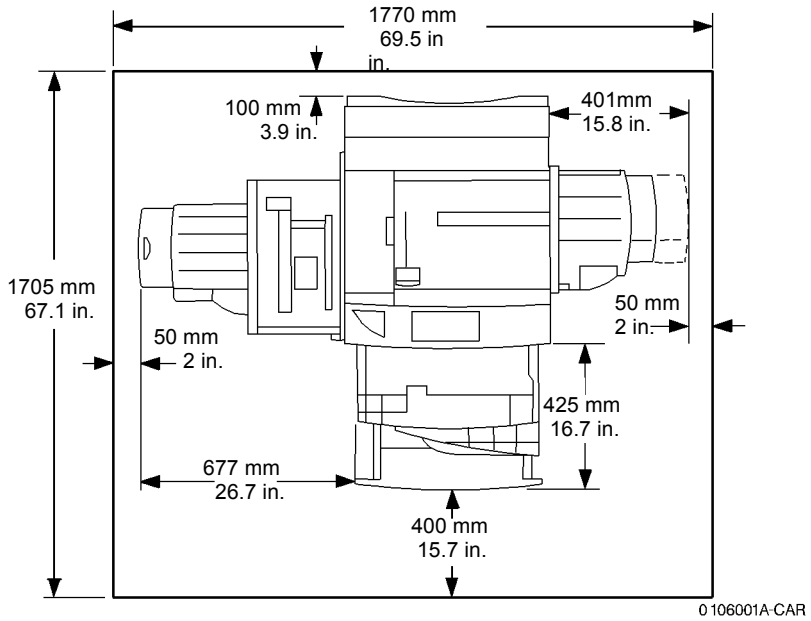



**Figure 1 Space Requirement w/out Finisher**

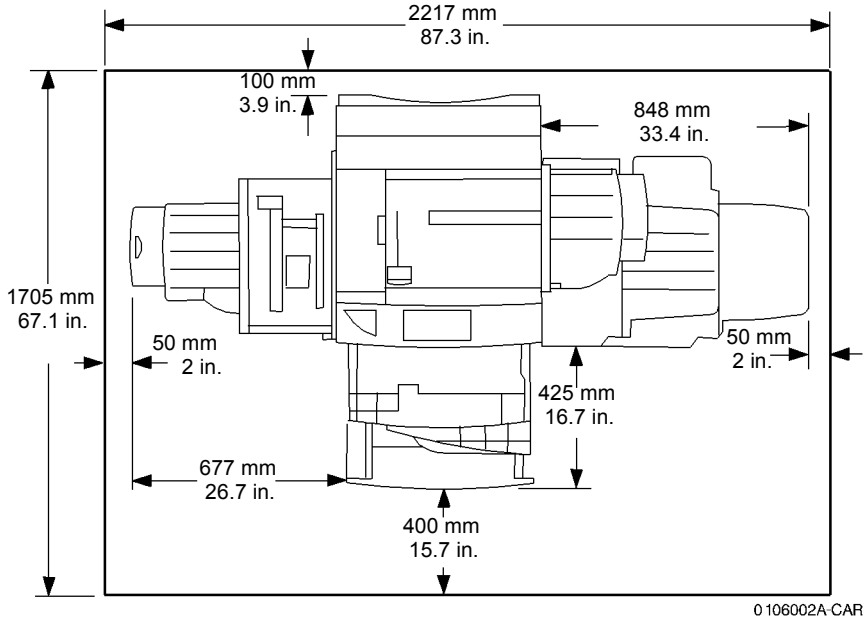



**Figure 2 Space Requirement w/Finisher**

## Paper Specifications

**Table 1 Paper Specifications**

| Specification | Paper Trays 1 - 4 | Tray 5 (MSI) |
|---|---|---|
| Paper Sizes | Trays 1 & 2<br>ï Min: A5 SEF (148 x 210 mm)<br>ï Max: A3/11 x 17 in.<br>Trays 3 & 4<br>ï A4, 8.5 x 11 in., and B5<br>ï LEF only | Paper<br>ï Min: 100 x 140 mm (post-card)<br>ï Max: 305 x 483 mm/12 x 19 in.<br>Envelopes<br>ï Min: 98 x 190 mm (Monarch 7 3/4 size) |
| Paper Weights | Optimum: 24 lb/90 gsm<br>Range: 64 - 105 gsm | Range: 55 - 220 gsm |
| Capacities 20 lb (80 gsm) | 3040 sheets total:<br>ï Tray 1: 520 sheets<br>ï Tray 2: 520 sheets<br>ï Tray 3: 867 sheets<br>ï Tray 4: 1133 sheets | 100 sheets |

## Product Specs.

**Table 1 Product Specifications TBD - sample table**

| | |
|---|---|
| Document Size: Document Glass | 5.5î x 8.5î (A5) LEF to 11î x 17î SEF (A3) |
| R/E Capability: Metric | Variable Percentages: 50% to 200%<br>Preset Percentages: 50%, 70%, 100%, 141%, & 200% |
| R/E Capability: Inches | Variable Percentages: 50% to 200%<br>Preset Percentages: 50%, 78%, 100%, 129%, & 200% |
| Copy/Print Rate | TBD copies / minute 8.5î x 11î (A4)<br><br>17 copies / minute 8.5î x 11î (A4) |
| Output Tray Capacity | 100 sheets maximum |
| First Copy Output Time | 8.5î x 11î (A4): 6 seconds, Tray 1 |
| Warm Up Time | less than 45 seconds |
| Machine Weight | 80 lb. / 36.3 kg<br>Stand: 46 lbs. / 20.9 kg<br>Tray 2: 14 lbs. / 6.4 kg |

## Power Requirements

- Single phase (two wires plus ground)
- 110 - 127 VAC/60 Hz (99 - 135 VAC, 55 to 62 Hz)
- 220 - 240 VAC/50 Hz (198 to 255 VAC, 48.5 to 51.5 Hz)

### Power Consumption (5 minute average)

- Machine Running: TBD watts (maximum)
- Standby: TBD watts
- Power Saver: TBD watts
- Low Power: TBD watts

## Environmental Data and Requirements

### Ambient Temperature and Humidity requirement:

- Minimum: 10∫ C/50∫F at 15% humidity
- Maximum: 35∫ C/99∫F at 85% humidity

### Heat Output (5 minute average)

- Machine Running Maximum: 1537 BTU/Hr.
- Standby Ready: 341 BTU/Hr.
- Power Saver: 198 BTU/Hr.
- Low Power: 150 BTU/Hr.

## Common Tools

**Table 1 Common Tools**

| Description | Part Number |
|---|---|
| Screw Driver (-) 3 x 50 | 600T40205 |
| Screw Driver (+) 6 x 100 | 600T1989 |
| Screw Driver (+) NO.1 | 499T356 |
| Stubby Driver (+) (-) | 600T40210 |
| Screw Driver (=) 100MM | 499T355 |
| Spanner and Wrench 5.5 x 5.5 | 600T40501 |
| Spanner and Wrench 7x 7 | 600T40502 |
| Hex Key Set | 600T02002 |
| Box Driver 5.5MM | 600T1988 |
| Side Cutting Nipper | 600T40903 |
| Round Nose Pliers | 600T40901 |
| Digital Multi-meter Set | 600T2020 |
| Interlock Cheater | 600T91616 |
| Silver Scale 150MM | 600T41503 |
| CE Tool Case | 600T1901 |
| Magnetic Screw Pick-up Tool | 600T41911 |
| Scriber Tool | 600T41913 |
| Magnetic pickup | 600T41911 |
| Loupe | 600T42008 |
| Flash Light | 600T1824 |
| Brush | 600T41901 |
| Tester Lead Wire (red) | 600T 9583 |
| Tester Lead Wire (black) | 600T2030 |

## Product Tools and Test Patterns

**Table 1 Tools and Test Patterns**

| Description | Part Number |
|---|---|
| Color Test Pattern | 82E13030 |
| Geometric Test Pattern | 82E8220 |
| HVPS test probe (1/10X) | 600T1653 |
| HVPS test probe adapter | 600T1996 |
| Copy Paper Carrying Case | 600T1999 |
| Copy Paper Zip Lock Bag | 600T2000 |
| Xerox Color Xpressions Plus 24# 11×17 in, | |
| Colotech Plus - 90 gsm - A3 | |
| Service and Machine NVM Log | 700P97436 |
| Serial Cable | 600T2058 |
| Parallel Printer Cable | 117E19340 |
| PWS power cord adapter | 600T2018 |
| L Probe | 600T02177 |

## Cleaning Materials

**Table 1 Cleaning Materials**

| Description | NASG Part Number | ESG Part Number |
|---|---|---|
| Cleaning fluid (8oz., Formula A) | 43P48 | 8R90034 |
| Film remover (8 oz.) | 43P45 | 8R90176 |
| Lens/mirror cleaner | 43P81 | 8R90178 |
| Lint-free (white) cleaning cloth | 19P3025 | 19P3025 |
| Lint-free Optics cleaning cloth | 499T90417 | 499T90417 |
| Cleaning towels | 35P3191 | 600S4372 |
| Drop cloth | 35P1737 | 35P1737 |
| Cotton Swab | 35P2162 | 35P2162 |

## Machine Consumables

**Table 1 Consumables**

| Name | Part Number |
|---|---|
| Drum Cartridge | 13R586 |
| Cyan Toner Cartridge | 6R1123 |
| Magenta Toner Cartridge | 6R1124 |
| Yellow Toner Cartridge | 6R1125 |
| Black Toner Cartridge | 6R1122 |
| Waste Toner Bottle | 8R12903 |
| Staple Cartridge | 8R12915 |

# Glossary of Terms

Table 1

| Term | Description |
|---|---|
| A3 | Paper size 297 millimeters (11.69 inches) x 420 millimeters (16.54 inches). |
| A4 | Paper size 210 millimeters (8.27 inches) x 297 millimeters (11.69 inches). |
| AC | Alternating Current is type of current available at power source for machine. |
| ACT | Advanced Customer Training: A course that teaches customers to perform some of service that is normally performed by Xerox Service Representative. |
| A/D | Analog to Digital refers to conversion of signal |
| ADJ | Adjustment Procedure |
| Bit | Binary digit, either 1 or 0, representing an electrical state. |
| CCD | Charge Coupled Device (Photoelectric Converter) |
| CD | Circuit Diagram |
| Chip | An Integrated Circuit (IC) (see Firmware) |
| CRU | Customer Replaceable Unit |
| DC | Direct Current is type of power for machine components. Machine converts AC power from power source to DC power. |
| DMM | Digital Multimeter is generic name for meter that measures voltage, current, or electrical resistance. |
| EME | Electromagnetic Emissions are emitted from machine during normal operation and power of these emissions are reduced by machine design features. |
| EPS | External Print Server |
| ESD | Electrostatic Discharge. A transfer of charge between bodies at different electrostatic potential. |
| ESU | Electrostatic Set Up |
| FIRM-WARE | A Chip loaded with software identified by date or revision. |
| GFD | Ground Fault Device |
| GND | Ground |
| HFSI | High Frequency Service Item |
| HVPS | High Voltage Power Supply |
| Hz | Hertz (Cycles per second) |
| IQ | Image Quality |
| KC | 1000 copies |
| LCD | Liquid Crystal Display |
| LE | Lead Edge of copy or print paper, with reference to definition of term TE |
| LED | Light Emitting Diode |
| LEF | Long Edge Feed |
| LVPS | Low Voltage Power Supply |
| MF | Multi-Function |
| MN | Multinational |
| NIC | Network Interface Card |
| NVM | Non Volatile Memory |

Table 1

| Term | Description |
|---|---|
| OEM | Original equipment manufacturer |
| OGM | On-going Maintenance |
| PC | Personal Computer |
| PCM | Power and Control Module also referred to as Electronic Control System Module |
| PL | Parts List |
| PO | Part of (Assembly Name) |
| PWB | Printed Wiring Board |
| PWS | Portable Workstation for Service |
| PJ | Plug Jack (electrical connections) |
| RAM | Random Access Memory |
| RAP | Repair Analysis Procedure for diagnosis of machine status codes and abnormal conditions |
| R/E | Reduction/Enlargement refers to features selection or components that enable reduction or enlargement |
| REP | Repair Procedure for disassembly and reassembly of component on machine |
| RIS | Raster Input Scanner |
| ROM | Read Only Memory |
| ROS | Raster Output Scanner - Device that transfers digitally processed image, using laser light, to photoreceptor. |
| SAD | Solid Area Density |
| SCP | Service Call Procedure |
| SEF | Short Edge Feed |
| Self-test | An automatic process that is used to check Control Logic circuitry. Any fault that is detected during self-test is displayed by fault code or by LEDs on PWB. |
| SIMM | Single Inline Memory Module used to increase printing capacity |
| Simplex | Single sided copies |
| TE | Trail Edge of copy or print paper, with reference to definition of term LE |
| UM | Unscheduled Maintenance |
| UI | User Interface |
| USB | Universal Serial Bus |
| W/ | With - indicates machine condition where specified condition is present |
| W/O | Without - indicates machine condition where specified condition is not present |
| XBRA | Xerox Brazil |
| XLA | Xerox Latin America |
| XMEX | Xerox Mexico |

# 7 Wiring Data

**Plug/Jack Locations**



**Wirenets**



**BSDs**

# Plug/Jack Locations

## How to use the Plug/Jack Location List

The Plug/Jack Location List below is provided to locate plugs, jacks, or other terminating devices. Locate the desired termination device in the first column (Plug/Jack Number) of the list. Refer to the second column (Figure Number) to determine the figure number of the electrical termination device. Refer to the (Item Number) column to determine the item number in the adjacent Figure Number column. The fourth column supplies the title of the Figure.

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 2 | Figure 12 | 8 | HVPS T5, T7, +24V LVPS |
| 15A | Figure 16 | 19 | I/F PWB, MAIN Motor, LVPS T2 |
| 16 | Figure 16 | 16 | I/F PWB, MAIN Motor, LVPS T2 |
| 42 | Figure 18 | 10 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| 43 | Figure 18 | 11 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| 46 | Figure 18 | 1 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| J70 | Figure 18 | 12 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| 72 | Figure 12 | 9 | HVPS T5, T7, +24V LVPS |
| 102 | Figure 3 | 1 | Inverter Transport Assembly |
| 103 | Figure 8 | 4 | MSI Unit |
| 104 | Figure 7 | 3 | Exit Transport Assembly |
| 106 | Figure 19 | 3 | Left Lower Assembly, Tray 1 Feeder |
| 108 | Figure 19 | 2 | Left Lower Assembly, Tray 1 Feeder |
| 109 | Figure 5 | 4 | Registration Transport Assembly |
| 111 | Figure 3 | 14 | Inverter Transport Assembly |
| 113 | Figure 3 | 8 | Inverter Transport Assembly |
| 115 | Figure 17 | 10 | Developer Motor, Tray 1 Size Switch |
| 116 | Figure 2 | 3 | MOB Sensor Assembly |
| 117 | Figure 2 | 1 | MOB Sensor Assembly |
| 119 | Figure 11 | 5 | IBT Belt Assembly |
| 121 | Figure 11 | 4 | IBT Belt Assembly |
| 122 | Figure 11 | 2 | IBT Belt Assembly |
| 125 | Figure 19 | 7 | Left Lower Assembly, Tray 1 Feeder |
| 129 | Figure 1 | 10 | Xerographic |
| 130 | Figure 1 | 9 | Xerographic |
| 131 | Figure 1 | 7 | Xerographic |
| 132 | Figure 1 | 5 | Xerographic |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 133 | Figure 1 | 16 | Xerographic |
| 135 | Figure 4 | 5 | Duplex Transport Assembly |
| 136 | Figure 4 | 6 | Duplex Transport Assembly |
| 140 | Figure 3 | 12 | Inverter Transport Assembly |
| 144 | Figure 2 | 2 | MOB Sensor Assembly |
| 150 | Figure 19 | 4 | Left Lower Assembly, Tray 1 Feeder |
| 151 | Figure 1 | 12 | Xerographic |
| 152 | Figure 1 | 15 | Xerographic |
| 153 | Figure 1 | 19 | Xerographic |
| 154 | Figure 1 | 17 | Xerographic |
| 155 | Figure 5 | 3 | Registration Transport Assembly |
| 163 | Figure 9 | 11 | Toner Dispense Motor, Main Switch |
| 165 | Figure 9 | 8 | Toner Dispense Motor, Main Switch |
| 171 | Figure 1 | 4 | Xerographic |
| 172 | Figure 7 | 2 | Exit Transport Assembly |
| 173 | Figure 13 | 9 | Outlet Panel Assembly, Fuser PWB |
| 203 | Figure 16 | 10 | I/F PWB, MAIN Motor, LVPS T2 |
| 205 | Figure 19 | 1 | Left Lower Assembly, Tray 1 Feeder |
| 207 | Figure 1 | 11 | Xerographic |
| 208 | Figure 16 | 24 | I/F PWB, MAIN Motor, LVPS T2 |
| 210 | Figure 16 | 22 | I/F PWB, MAIN Motor, LVPS T2 |
| 211 | Figure 6 | 8 | Fuser Assembly |
| 212 | Figure 6 | 11 | Fuser Assembly |
| 214 | Figure 12 | 11 | HVPS T5, T7, +24V LVPS |
| 215 | Figure 3 | 5 | Inverter Transport Assembly |
| 216 | Figure 3 | 15 | Inverter Transport Assembly |
| 217 | Figure 3 | 4 | Inverter Transport Assembly |
| 218 | Figure 3 | 2 | Inverter Transport Assembly |
| 219 | Figure 3 | 3 | Inverter Transport Assembly |
| 220 | Figure 7 | 4 | Exit Transport Assembly |
| 221 | Figure 17 | 7 | Developer Motor, Tray 1 Size Switch |
| 222 | Figure 7 | 1 | Exit Transport Assembly |
| 223 | Figure 1 | 8 | Xerographic |
| 224 | Figure 1 | 6 | Xerographic |
| 225 | Figure 1 | 3 | Xerographic |
| 226 | Figure 1 | 20 | Xerographic |
| 227 | Figure 9 | 17 | Toner Dispense Motor, Main Switch |
| 228 | Figure 9 | 12 | Toner Dispense Motor, Main Switch |
| 229 | Figure 9 | 10 | Toner Dispense Motor, Main Switch |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 230 | Figure 9 | 9 | Toner Dispense Motor, Main Switch |
| 231 | Figure 5 | 5 | Registration Transport Assembly |
| 232 | Figure 17 | 9 | Developer Motor, Tray 1 Size Switch |
| 233 | Figure 1 | 2 | Xerographic |
| 234 | Figure 17 | 1 | Developer Motor, Tray 1 Size Switch |
| 235 | Figure 17 | 2 | Developer Motor, Tray 1 Size Switch |
| 237 | Figure 11 | 3 | IBT Belt Assembly |
| 240 | Figure 5 | 2 | Registration Transport Assembly |
| 251 | Figure 3 | 6 | Inverter Transport Assembly |
| 255 | Figure 2 | 4 | MOB Sensor Assembly |
| 260 | Figure 6 | 5 | Fuser Assembly |
| 261 | Figure 6 | 6 | Fuser Assembly |
| 262 | Figure 6 | 3 | Fuser Assembly |
| 263 | Figure 6 | 4 | Fuser Assembly |
| 264 | Figure 6 | 9 | Fuser Assembly |
| 265 | Figure 8 | 2 | TRAY 5 |
| 288 | Figure 9 | 18 | Toner Dispense Motor, Main Switch |
| 300 | Figure 14 | 5 | ESS assembly |
| 310 | Figure 14 | 18 | ESS assembly |
| 311 | Figure 14 | 6 | ESS assembly |
| J332 | Figure 14 | 1 | ESS assembly |
| 333 | Figure 14 | 3 | ESS assembly |
| J335 | Figure 14 | 19 | ESS assembly |
| 336 | Figure 14 | 12 | ESS assembly |
| 337 | Figure 14 | 8 | ESS assembly |
| 338 | Figure 14 | 20 | ESS assembly |
| J340 | Figure 14 | 15 | ESS assembly |
| J341 | Figure 14 | 16 | ESS assembly |
| J342 | Figure 14 | 17 | ESS assembly |
| J343 | Figure 14 | 18 | ESS assembly |
| 344 | Figure 14 | 14 | ESS assembly |
| P347 | Figure 14 | 11 | ESS assembly |
| 400 | Figure 15 | 8 | MCU-MF PWB |
| 401 | Figure 15 | 11 | MCU-MF PWB |
| 402 | Figure 15 | 12 | MCU-MF PWB |
| 403 | Figure 15 | 2 | MCU-MF PWB |
| 404 | Figure 15 | 4 | MCU-MF PWB |
| 405 | Figure 15 | 5 | MCU-MF PWB |
| 406 | Figure 15 | 6 | MCU-MF PWB |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 407 | Figure 15 | 3 | MCU-MF PWB |
| J410 | Figure 15 | 10 | MCU-MF PWB |
| P410 | Figure 16 | 4 | I/F PWB, MAIN Motor, LVPS T2 |
| J460 | Figure 14 | 7 | ESS assembly |
| P460 | Figure 15 | 1 | MCU-MF PWB |
| J496 | Figure 15 | 9 | MCU-MF PWB |
| 498 | Figure 15 | 7 | MCU-MF PWB |
| 501 | Figure 12 | 19 | HVPS T5, T7, +24V LVPS |
| 502 | Figure 12 | 6 | HVPS T5, T7, +24V LVPS |
| 505 | Figure 12 | 7 | HVPS T5, T7, +24V LVPS |
| 510 | Figure 16 | 23 | I/F PWB, MAIN Motor, LVPS T2 |
| 510B | Figure 16 | 18 | I/F PWB, MAIN Motor, LVPS T2 |
| 511 | Figure 16 | 15 | I/F PWB, MAIN Motor, LVPS T2 |
| 514 | Figure 10 | 3 | ROS Assembly |
| 515 | Figure 10 | 2 | ROS Assembly |
| 516 | Figure 10 | 7 | ROS Assembly |
| 517 | Figure 10 | 8 | ROS Assembly |
| 518 | Figure 10 | 9 | ROS Assembly |
| 526 | Figure 10 | 5 | ROS Assembly |
| 527 | Figure 10 | 1 | ROS Assembly |
| 528 | Figure 10 | 6 | ROS Assembly |
| 529 | Figure 10 | 4 | ROS Assembly |
| 530 | Figure 16 | 13 | I/F PWB, MAIN Motor, LVPS T2 |
| 531 | Figure 16 | 7 | I/F PWB, MAIN Motor, LVPS T2 |
| 532 | Figure 16 | 14 | I/F PWB, MAIN Motor, LVPS T2 |
| 533 | Figure 16 | 1 | I/F PWB, MAIN Motor, LVPS T2 |
| 534 | Figure 16 | 9 | I/F PWB, MAIN Motor, LVPS T2 |
| 535 | Figure 16 | 20 | I/F PWB, MAIN Motor, LVPS T2 |
| 536 | Figure 16 | 8 | I/F PWB, MAIN Motor, LVPS T2 |
| 538 | Figure 4 | 1 | Duplex Transport Assembly |
| 539 | Figure 4 | 3 | Duplex Transport Assembly |
| 540 | Figure 4 | 4 | Duplex Transport Assembly |
| 541 | Figure 23 | 14 | TT Module (rear) |
| 546 | Figure 23 | 1 | TT Module (rear) |
| 547 | Figure 23 | 4 | TT Module (rear) |
| 548 | Figure 23 | 15 | TT Module (rear) |
| 549 | Figure 23 | 13 | TT Module (rear) |
| **550** | Figure 16 | 3 | I/F PWB, MAIN Motor, LVPS T2 |
| 550 | Figure 26 | 5 | DADF (2 of 2) |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| **551** | Figure 16 | 25 | I/F PWB, MAIN Motor, LVPS T2 |
| 551 | Figure 26 | 4 | DADF (2 of 2) |
| **552** | Figure 16 | 26 | I/F PWB, MAIN Motor, LVPS T2 |
| 552 | Figure 23 | 6 | TT Module (rear) |
| **553** | Figure 16 | 17 | I/F PWB, MAIN Motor, LVPS T2 |
| 553 | Figure 23 | 10 | TT Module (rear) |
| 554 | Figure 23 | 11 | TT Module (rear) |
| 555 | Figure 23 | 5 | TT Module (rear) |
| 557 | Figure 23 | 2 | TT Module (rear) |
| 561 | Figure 23 | 12 | TT Module (rear) |
| 564 | Figure 23 | 3 | TT Module (rear) |
| 568 | Figure 16 | 2 | I/F PWB, MAIN Motor, LVPS T2 |
| 569 | Figure 16 | 27 | I/F PWB, MAIN Motor, LVPS T2 |
| 570 | Figure 12 | 4 | HVPS T5, T7, +24V LVPS |
| 571 | Figure 12 | 17 | HVPS T5, T7, +24V LVPS |
| 572 | Figure 12 | 3 | HVPS T5, T7, +24V LVPS |
| 573 | Figure 12 | 1 | HVPS T5, T7, +24V LVPS |
| 574 | Figure 12 | 18 | HVPS T5, T7, +24V LVPS |
| 575 | Figure 16 | 12 | I/F PWB, MAIN Motor, LVPS T2 |
| 576 | Figure 16 | 11 | I/F PWB, MAIN Motor, LVPS T2 |
| **580** | Figure 12 | 14 | HVPS T5, T7, +24V LVPS |
| 580 | Figure 25 | 8 | DADF (1 of 2) |
| **581** | Figure 12 | 2 | HVPS T5, T7, +24V LVPS |
| 581 | Figure 25 | 9 | DADF (1 of 2) |
| 582 | Figure 25 | 6 | DADF (1 of 2) |
| 583 | Figure 25 | 5 | DADF (1 of 2) |
| 585 | Figure 25 | 4 | DADF (1 of 2) |
| 586 | Figure 25 | 11 | DADF (1 of 2) |
| 587 | Figure 25 | 1 | DADF (1 of 2) |
| 588 | Figure 26 | 6 | DADF (2 of 2) |
| 589 | Figure 26 | 2 | DADF (2 of 2) |
| **590** | Figure 18 | 5 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| 590 | Figure 26 | 7 | DADF (2 of 2) |
| 591 | Figure 25 | 2 | DADF (1 of 2) |
| **592** | Figure 18 | 6 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| 592 | Figure 26 | 1 | DADF (2 of 2) |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 593 | Figure 18 | 14 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| 594 | Figure 26 | 9 | DADF (2 of 2) |
| 595 | Figure 26 | 10 | DADF (2 of 2) |
| 596 | Figure 26 | 13 | DADF (2 of 2) |
| 597 | Figure 26 | 8 | DADF (2 of 2) |
| 598 | Figure 26 | 11 | DADF (2 of 2) |
| 599 | Figure 26 | 3 | DADF (2 of 2) |
| **J600** | Figure 5 | 1 | Registration Transport Assembly |
| **P600** | Figure 6 | 10 | Fuser Assembly |
| **600** | Figure 26 | 12 | DADF (2 of 2) |
| 602 | Figure 1 | 24 | Xerographic |
| 605 | Figure 11 | 1 | IBT Belt Assembly |
| 608 | Figure 1 | 25 | Xerographic |
| **J610** | Figure 8 | 1 | MSI Unit |
| P610 | Figure 17 | 3 | Developer Motor, Tray 1 Size Switch |
| 611 | Figure 7 | 5 | Exit Transport Assembly |
| **J612** | Figure 3 | 9 | Inverter Transport Assembly |
| P612 | Figure 17 | 3 | Developer Motor, Tray 1 Size Switch |
| **J613** | Figure 3 | 10 | Inverter Transport Assembly |
| P613 | Figure 17 | 5 | Developer Motor, Tray 1 Size Switch |
| 614 | Figure 1 | 18 | Xerographic |
| 617 | Figure 19 | 6 | Left Lower Assembly, Tray 1 Feeder |
| 619 | Figure 1 | 1 | Xerographic |
| 620 | Figure 5 | 6 | Registration Transport Assembly |
| 622 | Figure 1 | 22 | Xerographic |
| 623 | Figure 19 | 5 | Left Lower Assembly, Tray 1 Feeder |
| 624 | Figure 1 | 21 | Xerographic |
| **P626** | Figure 3 | 13 | Inverter Transport Assembly |
| J626 | Figure 4 | 2 | Duplex Transport Assembly |
| 631 | Figure 1 | 23 | Xerographic |
| **J633** | Figure 3 | 3 | Inverter Transport Assembly |
| P633 | Figure 3 | 7 | Inverter Transport Assembly |
| 639 | Figure 16 | 5 | I/F PWB, MAIN Motor, LVPS T2 |
| **J640** | Figure 3 | 11 | Inverter Transport Assembly |
| P640 | Figure 17 | 6 | Developer Motor, Tray 1 Size Switch |
| 641 | Figure 16 | 6 | I/F PWB, MAIN Motor, LVPS T2 |
| 646 | Figure 17 | 8 | Developer Motor, Tray 1 Size Switch |
| 668 | Figure 12 | 15 | HVPS T5, T7, +24V LVPS |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 669 | Figure 12 | 16 | HVPS T5, T7, +24V LVPS |
| 670 | Figure 20 | 9 | TT Module (Tray 2,3 feeder) |
| 672 | Figure 20 | 7 | TT Module (Tray 2,3 feeder) |
| 674 | Figure 23 | 9 | TT Module (rear) |
| 700 | Figure 28 | 5 | IIT (rear) |
| 702 | Figure 28 | 3 | IIT (rear) |
| 705 | Figure 28 | 4 | IIT (rear) |
| **J711** | Figure 27 | 8 | IIT (front) |
| P711 | Figure 24 | 10 | Control Panel |
| **J712** | Figure 27 | 7 | IIT (front) |
| P712 | Figure 24 | 9 | Control Panel |
| 713 | Figure 24 | 5 | Control Panel |
| 714 | Figure 24 | 4 | Control Panel |
| 715 | Figure 24 | 11 | Control Panel |
| 720 | Figure 27 | 3 | IIT (front) |
| 721 | Figure 27 | 9 | IIT (front) |
| 722 | Figure 27 | 5 | IIT (front) |
| 724 | Figure 27 | 2 | IIT (front) |
| 725 | Figure 27 | 10 | IIT (front) |
| 726 | Figure 27 | 1 | IIT (front) |
| 727 | Figure 28 | 9 | IIT (rear) |
| 734 | Figure 28 | 7 | IIT (rear) |
| 735 | Figure 28 | 6 | IIT (rear) |
| 736 | Figure 28 | 8 | IIT (rear) |
| 737 | Figure 27 | 4 | IIT (front) |
| 738 | Figure 28 | 10 | IIT (rear) |
| 739 | Figure 28 | 2 | IIT (rear) |
| 741 | Figure 27 | 6 | IIT (front) |
| 742 | Figure 27 | 12 | IIT (front) |
| 746 | Figure 27 | 11 | IIT (front) |
| 747 | Figure 27 | 4 | IIT (front) |
| J750 | Figure 28 | 1 | IIT (Rear) |
| P750 | Figure 25 | 10 | DADF (1 0f 2) |
| 765 | Figure 25 | 7 | DADF (1 0f 2) |
| 769 | Figure 25 | 3 | DADF (1 0f 2) |
| J800 | Figure 31 | 8 | Finisher (rear) (1 0f 2) |
| P800 | Figure 16 | 21 | I/F PWB, MAIN Motor, LVPS T2 |
| 801 | Figure 12 | 5 | HVPS T5, T7, +24V LVPS |
| 814 | Figure 20 | 5 | TT Module (Tray 2,3 feeder) |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 815 | Figure 20 | 4 | TT Module (Tray 2,3 feeder) |
| 816 | Figure 22 | 5 | TT Module (Tray 2,3,4, Paper Size Switch) |
| 818 | Figure 20 | 5 | TT Module (Tray 2,3 feeder) |
| 819 | Figure 20 | 4 | TT Module (Tray 2,3 feeder) |
| 820 | Figure 22 | 3 | TT Module (Tray 2,3,4, Paper Size Switch) |
| 821 | Figure 20 | 6 | TT Module (Tray 2,3 feeder) |
| 822 | Figure 21 | 1 | TT Module (Tray 2,3 feeder) |
| 823 | Figure 21 | 2 | TT Module (Tray 2,3 feeder) |
| 824 | Figure 22 | 3 | TT Module (Tray 2,3,4, Paper Size Switch) |
| 825 | Figure 21 | 3 | TT Module (Tray 2,3 feeder) |
| 826 | Figure 23 | 7 | TT Module (rear) |
| 827 | Figure 20 | 3 | TT Module (Tray 2,3 feeder) |
| 828 | Figure 20 | 3 | TT Module (Tray 2,3 feeder) |
| 829 | Figure 21 | 4 | TT Module (Tray 2,3 feeder) |
| 841 | Figure 20 | 8 | TT Module (Tray 2,3 feeder) |
| 842 | Figure 23 | 8 | TT Module (rear) |
| 843 | Figure 32 | 9 | Finisher PWB |
| 844 | Figure 32 | 8 | Finisher PWB |
| 845 | Figure 32 | 5 | Finisher PWB |
| 846 | Figure 32 | 6 | Finisher PWB |
| 847 | Figure 32 | 7 | Finisher PWB |
| 848 | Figure 32 | 3 | Finisher PWB |
| 849 | Figure 32 | 4 | Finisher PWB |
| 850 | Figure 32 | 12 | Finisher PWB |
| 851 | Figure 32 | 10 | Finisher PWB |
| 852 | Figure 32 | 11 | Finisher PWB |
| 853 | Figure 29 | 4 | H-Transport Assembly |
| 854 | Figure 29 | 2 | H-Transport Assembly |
| 855 | Figure 29 | 1 | H-Transport Assembly |
| 856 | Figure 29 | 8 | H-Transport Assembly |
| 858 | Figure 29 | 5 | H-Transport Assembly |
| 859 | Figure 29 | 6 | H-Transport Assembly |
| 860 | Figure 29 | 3 | H-Transport Assembly |
| 861 | Figure 29 | 7 | H-Transport Assembly |
| 862 | Figure 30 | 7 | Tamper Unit, Staple Unit |
| 863 | Figure 30 | 11 | Tamper Unit, Staple Unit |

**Table 1 Plug / Jack Location List**

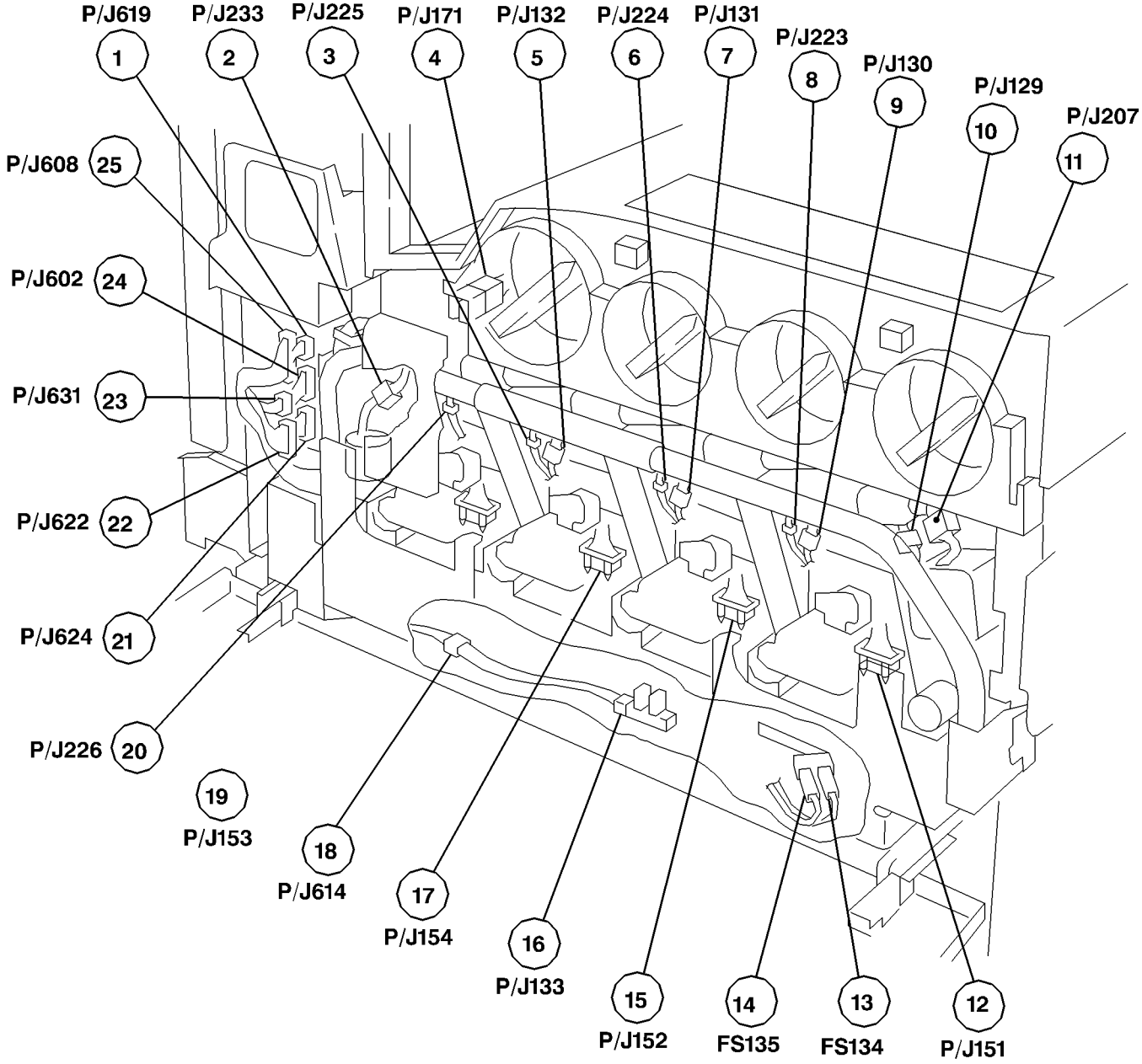
| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| 864 | Figure 30 | 12 | Tamper Unit, Staple Unit |
| 865 | Figure 30 | 14 | Tamper Unit, Staple Unit |
| 866 | Figure 31 | 9 | Finisher (rear) (1 0f 2) |
| 867 | Figure 31 | 2 | Finisher (rear) (1 0f 2) |
| 868 | Figure 31 | 1 | Finisher (rear) (1 0f 2) |
| 869 | Figure 31 | 12 | Finisher (rear) (1 0f 2) |
| 870 | Figure 30 | 13 | Tamper Unit, Staple Unit |
| 871 | Figure 30 | 16 | Tamper Unit, Staple Unit |
| 873 | Figure 31 | 10 | Finisher (rear) (1 0f 2) |
| 874 | Figure 30 | 1 | Tamper Unit, Staple Unit |
| 875 | Figure 30 | 3 | Tamper Unit, Staple Unit |
| 876 | Figure 30 | 2 | Tamper Unit, Staple Unit |
| 877 | Figure 30 | 5 | Tamper Unit, Staple Unit |
| 878 | Figure 30 | 4 | Tamper Unit, Staple Unit |
| 879 | Figure 31 | 7 | Finisher (rear) (1 0f 2) |
| 880 | Figure 31 | 5 | Finisher (rear) (1 0f 2) |
| 881 | Figure 31 | 6 | Finisher (rear) (1 0f 2) |
| 882 | Figure 31 | 11 | Finisher (rear) (1 0f 2) |
| 883 | Figure 31 | 3 | Finisher (rear) (1 0f 2) |
| 884 | Figure 31 | 4 | Finisher (rear) (1 0f 2) |
| 885 | Figure 30 | 10 | Tamper Unit, Staple Unit |
| 886 | Figure 30 | 8 | Tamper Unit, Staple Unit |
| 887 | Figure 30 | 9 | Tamper Unit, Staple Unit |
| 888 | Figure 30 | 15 | Tamper Unit, Staple Unit |
| 889 | Figure 32 | 2 | Finisher PWB |
| 890 | Figure 30 | 6 | Tamper Unit, Staple Unit |
| 891 | Figure 30 | 17 | Tamper Unit, Staple Unit |
| 892 | Figure 32 | 1 | Finisher PWB |
| J903 | Figure 12 | 13 | HVPS T5, T7, +24V LVPS |
| J925 | Figure 12 | 12 | HVPS T5, T7, +24V LVPS |
| J4401 | Figure 14 | 11 | ESS assembly |
| J4500 | Figure 14 | 9 | ESS assembly |
| 4510 | Figure 14 | 10 | ESS assembly |
| CN1 | Figure 24 | 8 | Control Panel |
| CN2 | Figure 24 | 7 | Control Panel |
| CN5 | Figure 24 | 6 | Control Panel |
| CN9 | Figure 24 | 1 | Control Panel |
| CN10 | Figure 24 | 13 | Control Panel |
| CN11 | Figure 24 | 2 | Control Panel |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| CN12 | Figure 24 | 3 | Control Panel |
| CN13 | Figure 24 | 14 | Control Panel |
| FS37 | Figure 6 | 2 | Fuser Assembly |
| FS38 | Figure 6 | 1 | Fuser Assembly |
| FS39 | Figure 18 | 3 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS40 | Figure 18 | 2 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS41 | Figure 18 | 4 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS45 | Figure 18 | 9 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS47 | Figure 18 | 7 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS48 | Figure 18 | 8 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS51 | Figure 12 | 10 | HVPS T5, T7, +24V LVPS |
| FS56 | Figure 9 | 14 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS57 | Figure 9 | 13 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS61 | Figure 18 | 16 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS62 | Figure 18 | 15 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS68 | Figure 9 | 15 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS69 | Figure 9 | 16 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS76 | Figure 18 | 13 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS77 | Figure 18 | 17 | AC Drive PWB, Noise Filter PWB, Delay PWB |
| FS78 | Figure 13 | 4 | Outlet Panel Assembly, Fuser PWB |
| FS79 | Figure 13 | 3 | Outlet Panel Assembly, Fuser PWB |
| FS80 | Figure 13 | 8 | Outlet Panel Assembly, Fuser PWB |
| FS81 | Figure 13 | 5 | Outlet Panel Assembly, Fuser PWB |
| FS82 | Figure 13 | 7 | Outlet Panel Assembly, Fuser PWB |
| FS83 | Figure 13 | 6 | Outlet Panel Assembly, Fuser PWB |
| FS90 | Figure 18 | 18 | AC Drive PWB, Noise Filter PWB, Delay PWB |

**Table 1 Plug / Jack Location List**

| Plug / Jack Number | Figure Number | Item Number | Figure Title |
|---|---|---|---|
| FS134 | Figure 1 | 13 | Xerographic |
| FS135 | Figure 1 | 14 | Xerographic |
| FS150 | Figure 13 | 2 | Outlet Panel Assembly, Fuser PWB |
| FS151 | Figure 13 | 1 | Outlet Panel Assembly, Fuser PWB |
| FS180 | Figure 9 | 19 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS181 | Figure 9 | 1 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS182 | Figure 9 | 2 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS183 | Figure 9 | 3 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS184 | Figure 9 | 4 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS185 | Figure 9 | 5 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS186 | Figure 9 | 6 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS187 | Figure 9 | 7 | Toner Dispense Motor (Y,M,C,K), Main Switch |
| FS812 | Figure 20 | 1 | TT Module (Tray 2,3 feeder) |
| FS813 | Figure 20 | 2 | TT Module (Tray 2,3 feeder) |
| LCD CN1 | Figure 24 | 12 | Control Panel |
| | | | |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1
P/J233
2
P/J225
3
P/J171
4
P/J132
5
P/J224
6
P/J131
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P/J223
8
P/J130
9
P/J129
10
P/J207
11
P/J608
25
P/J602
24
P/J631
23
P/J622
22
P/J624
21
P/J226
20
19
P/J153
18
P/J614
17
P/J154
16
P/J133
15
P/J152
14
FS135
13
FS134
12
P/J151
0 735001A-CAR

Figure 1 Xerographics

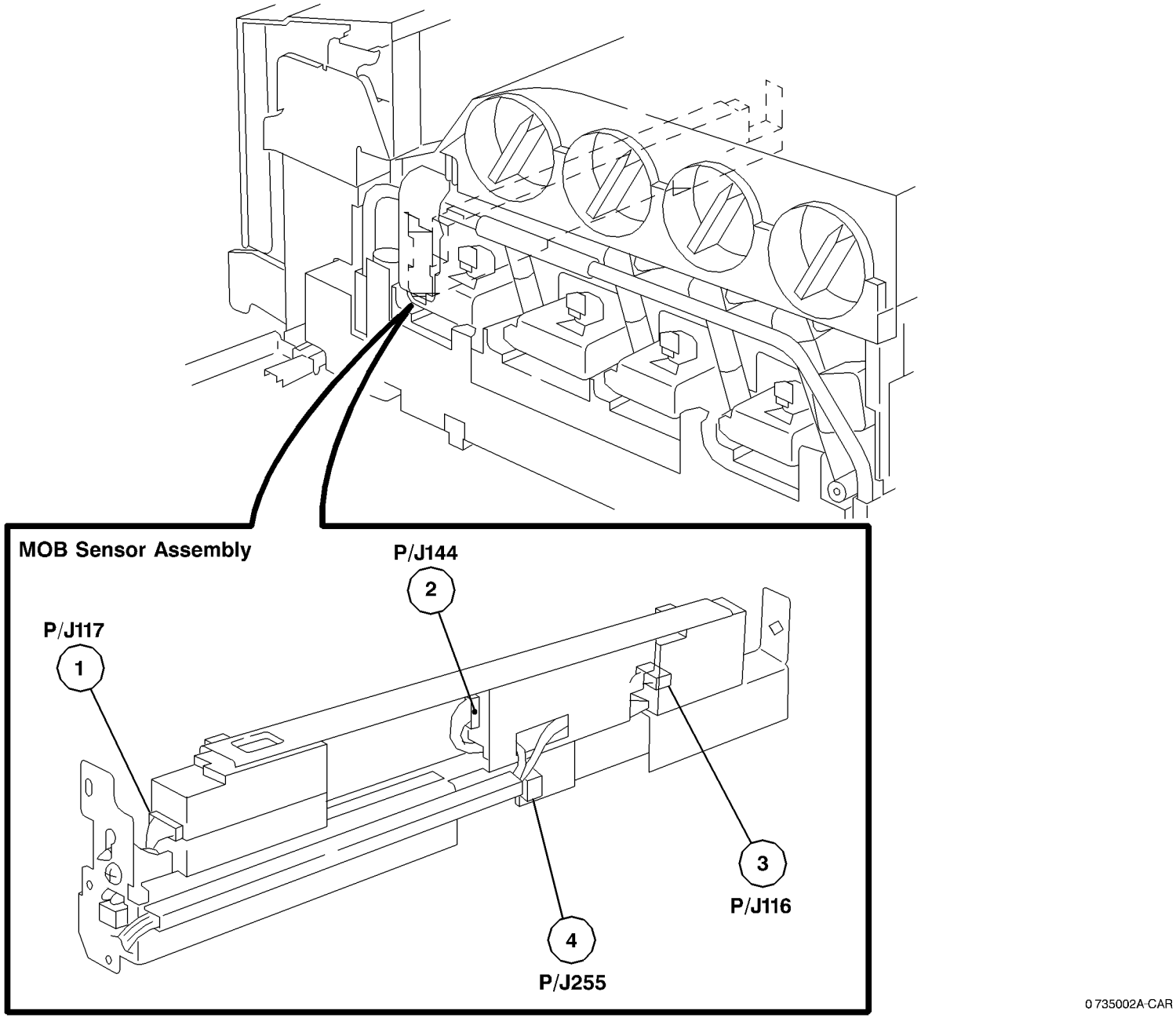



**Figure 2 MOB Sensor Assembly**

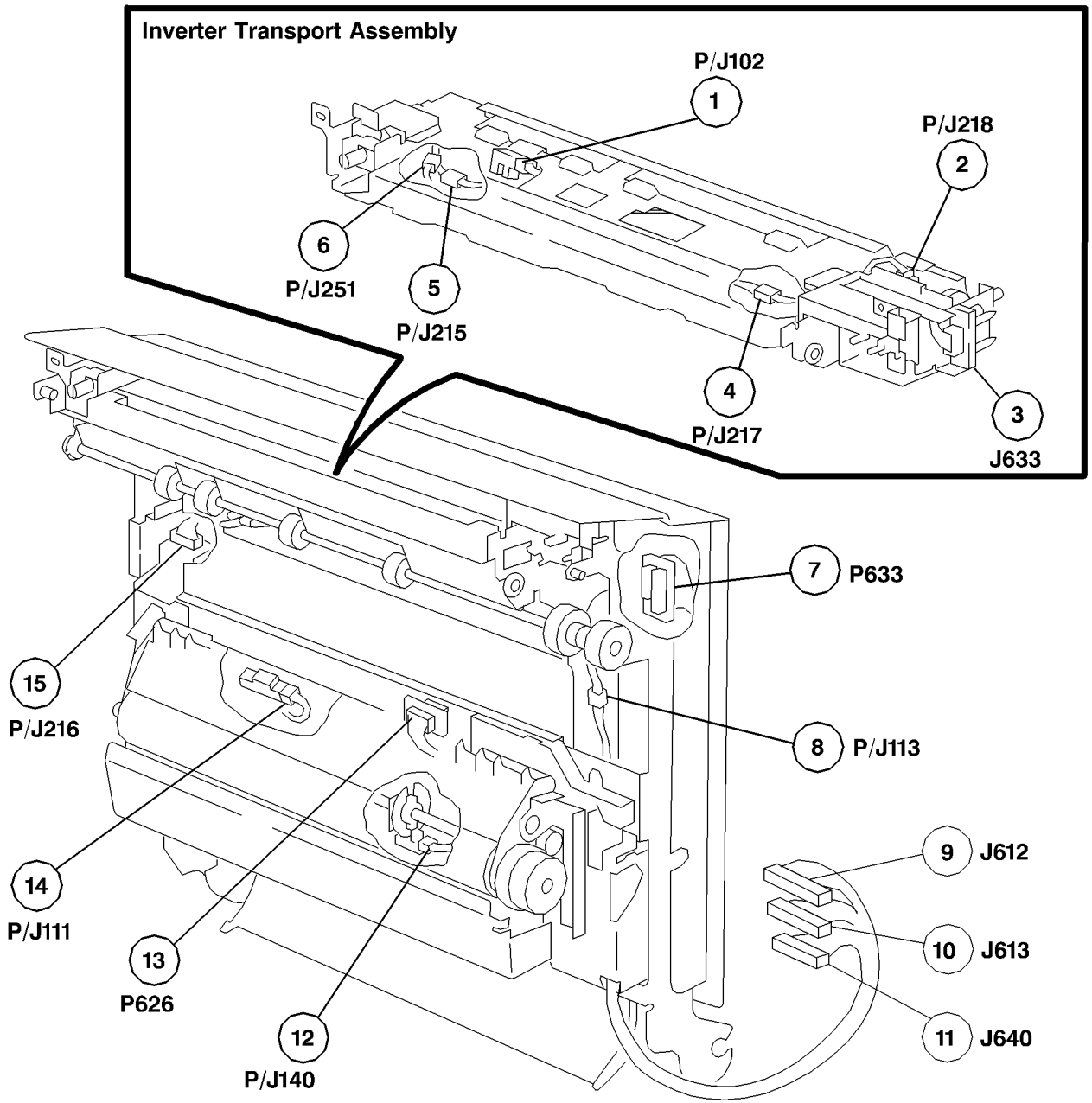



**Figure 3 Inverter transport Assembly**

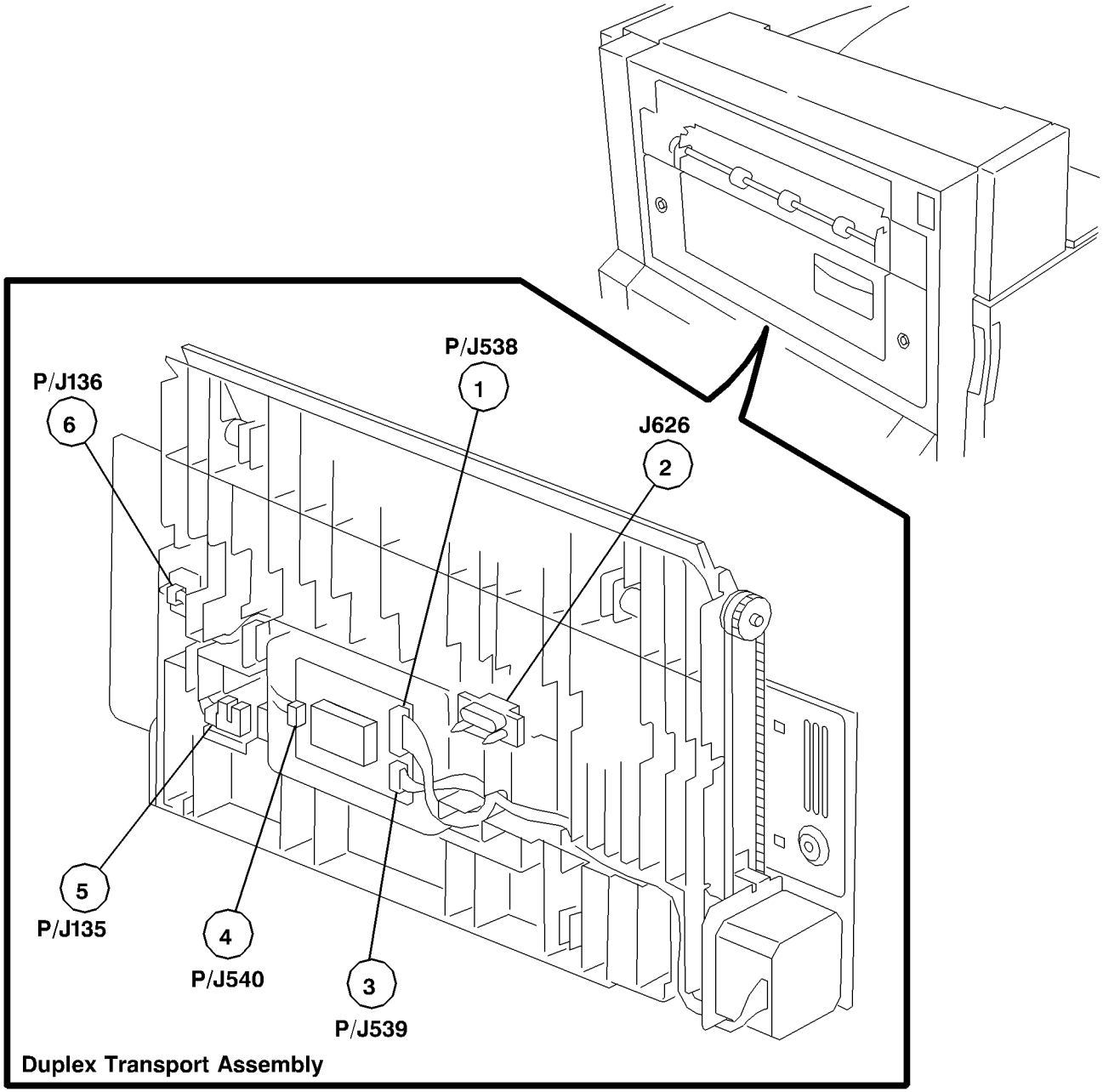



**Figure 4 Duplex Transport Assembly**

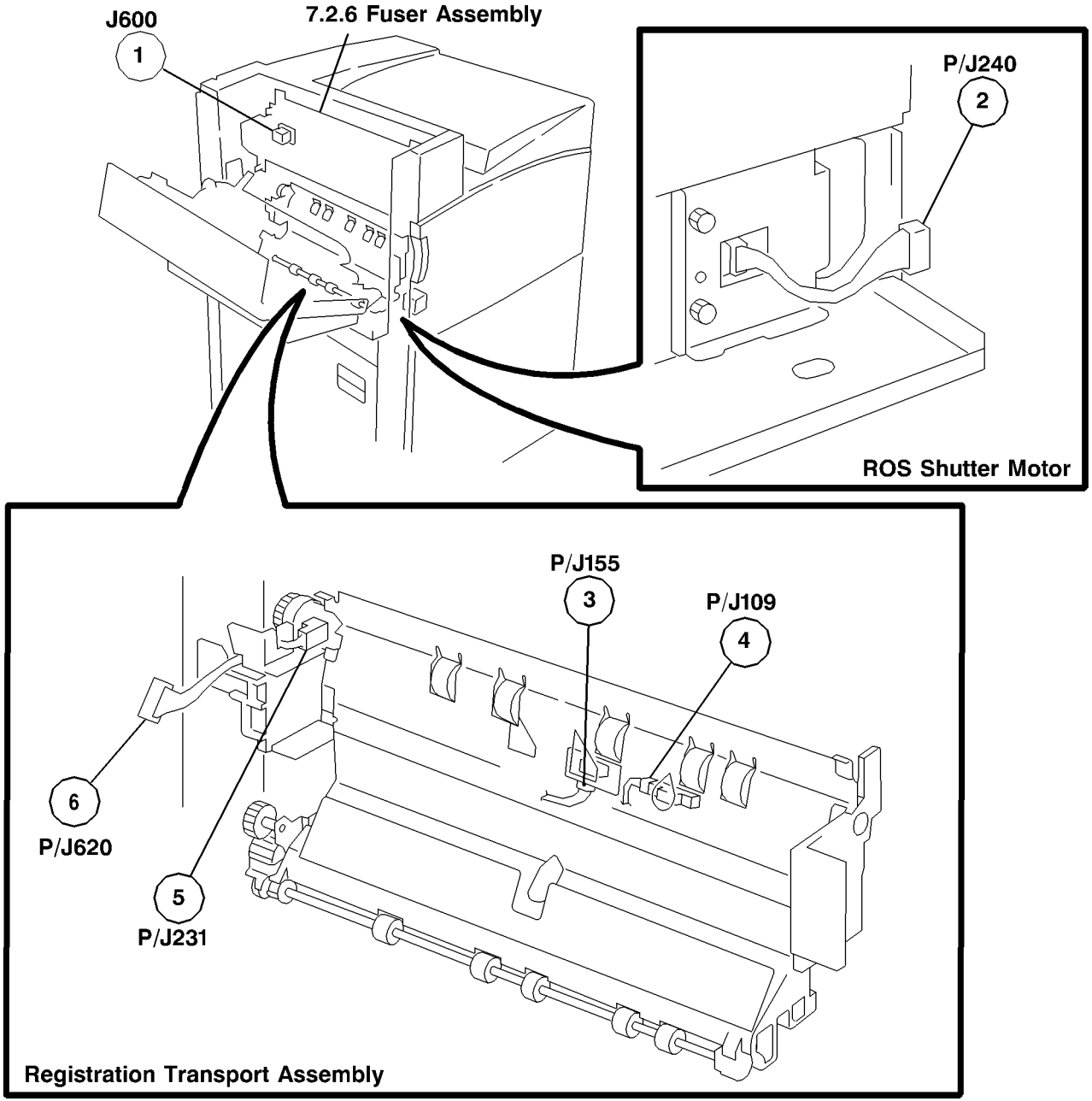



**Figure 5 Registration Transport Assembly**

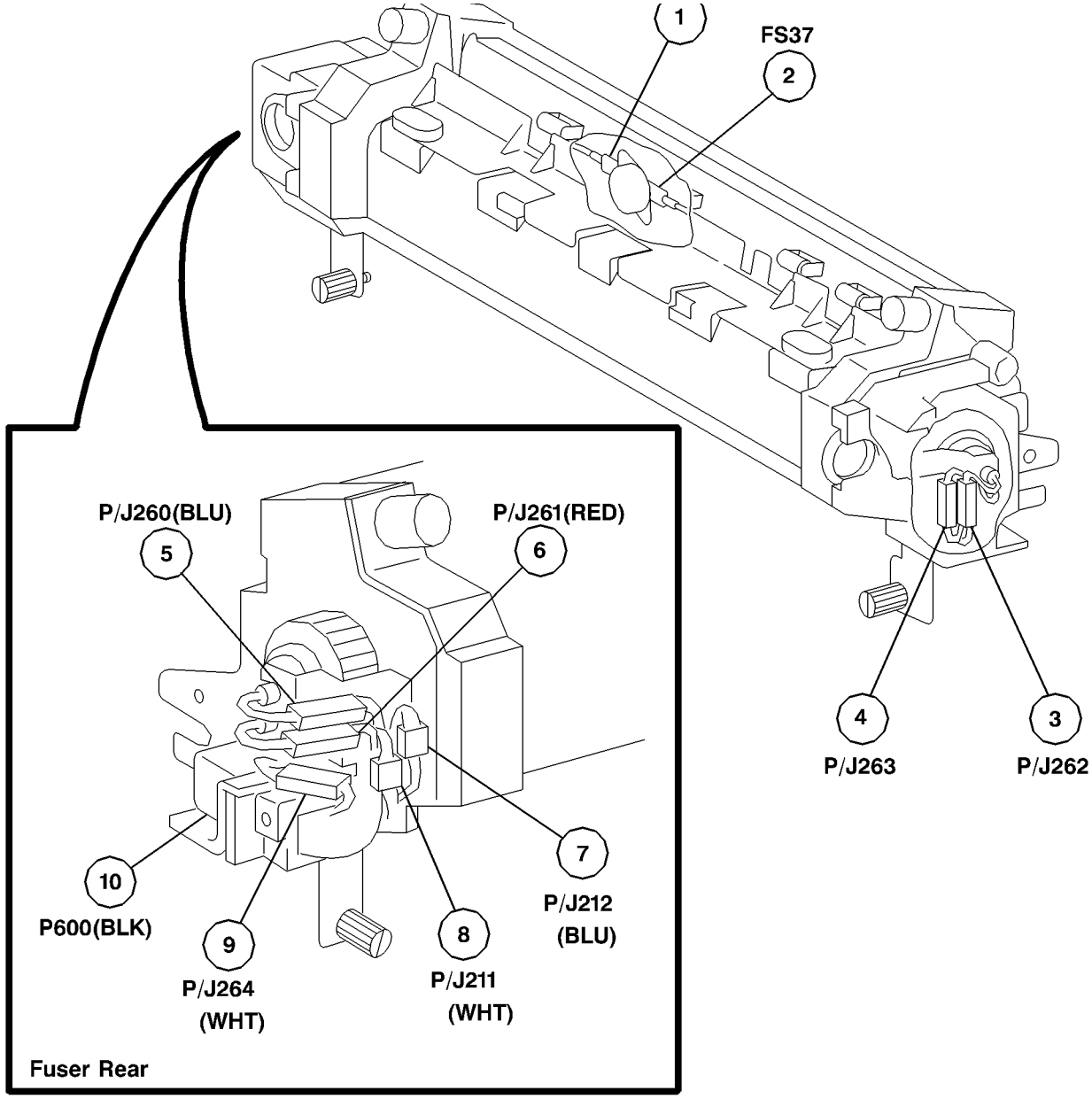



**Figure 6 Fuser Assembly**

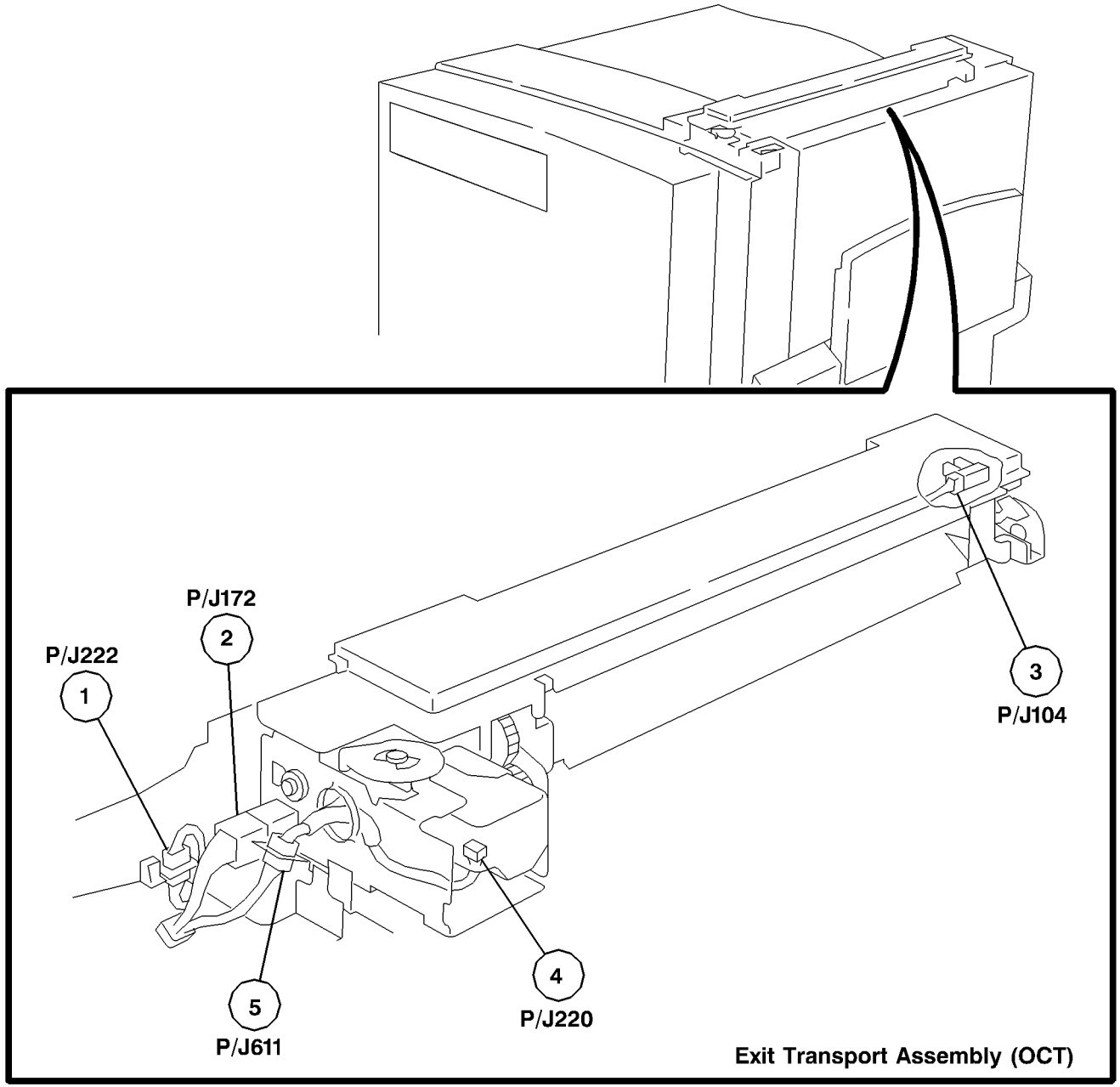
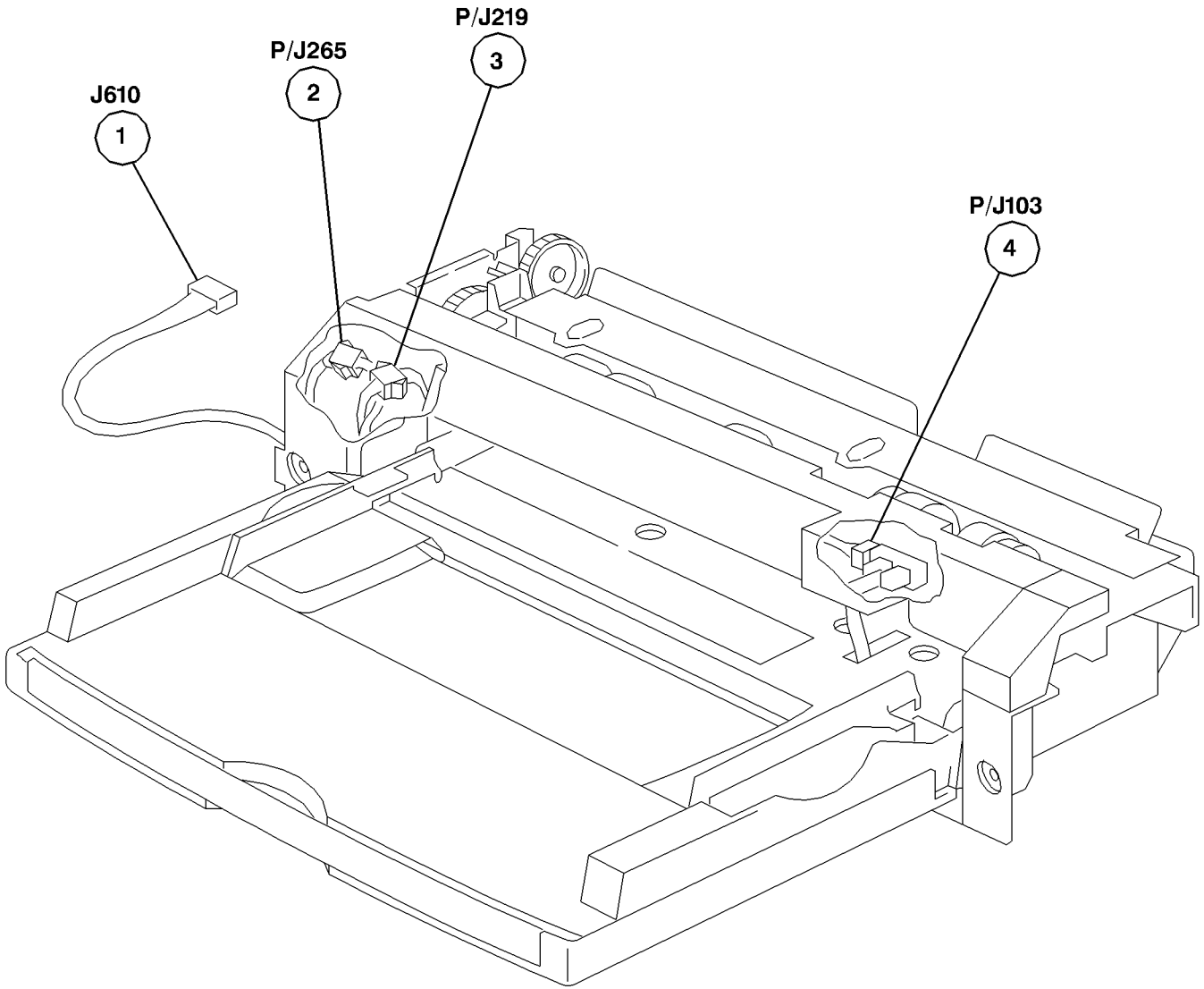



**Figure 7 Exit Transport Assembly (OCT)**




0 735008A-CAR

**Figure 8 TRAY 5**

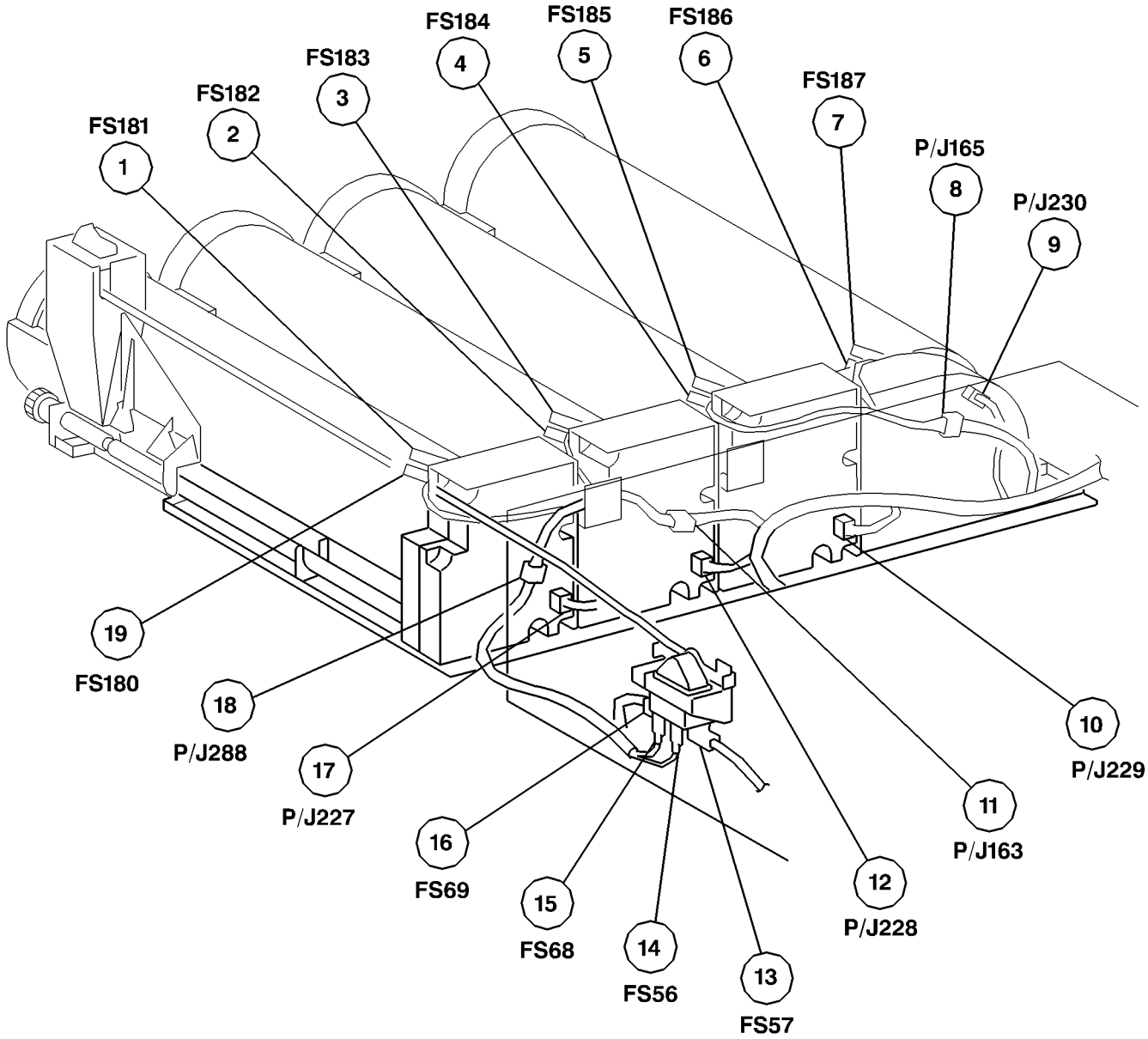



**Figure 9 Toner Dispense Motor (Y,M,C,K), Main Switch**

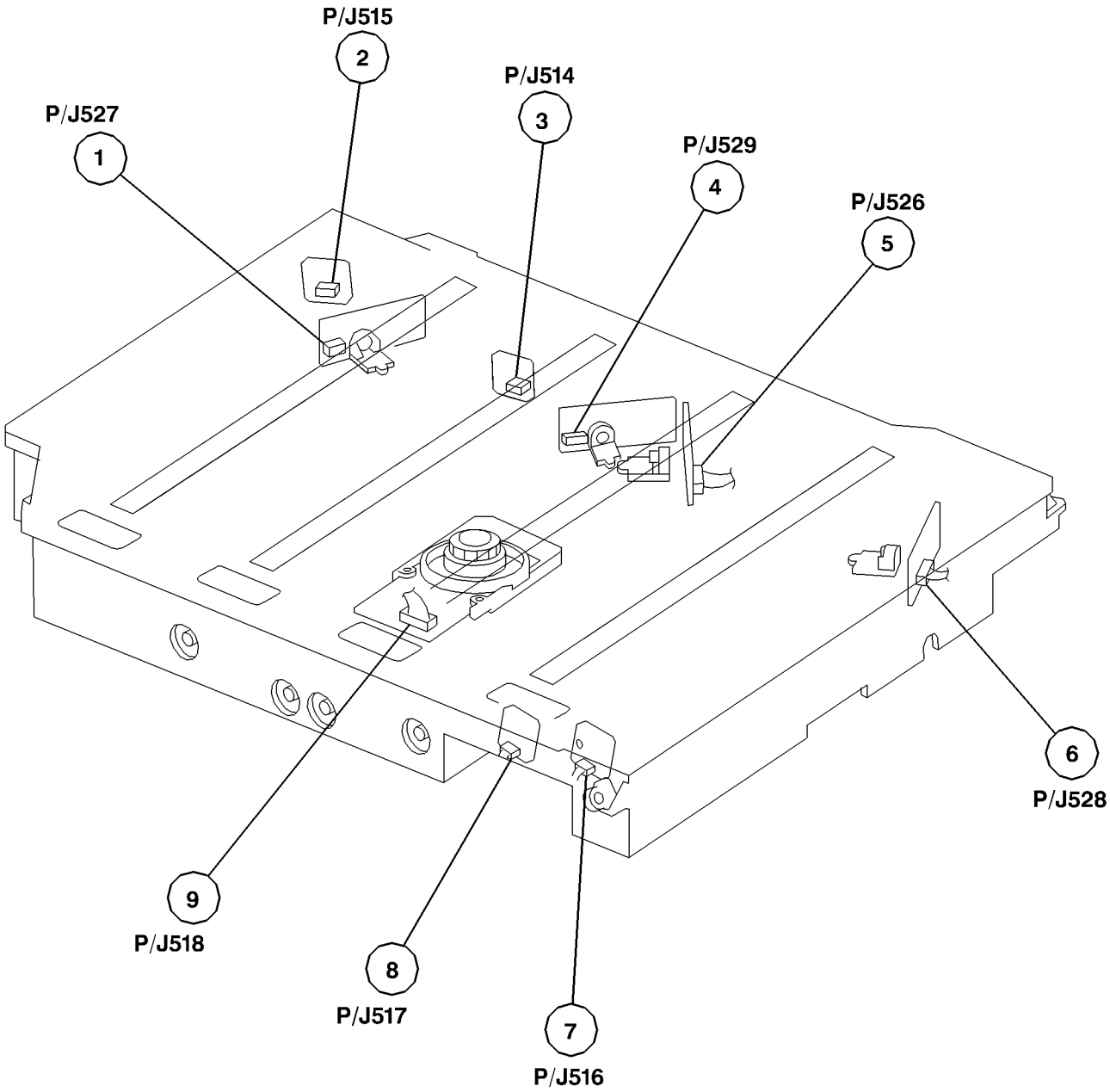
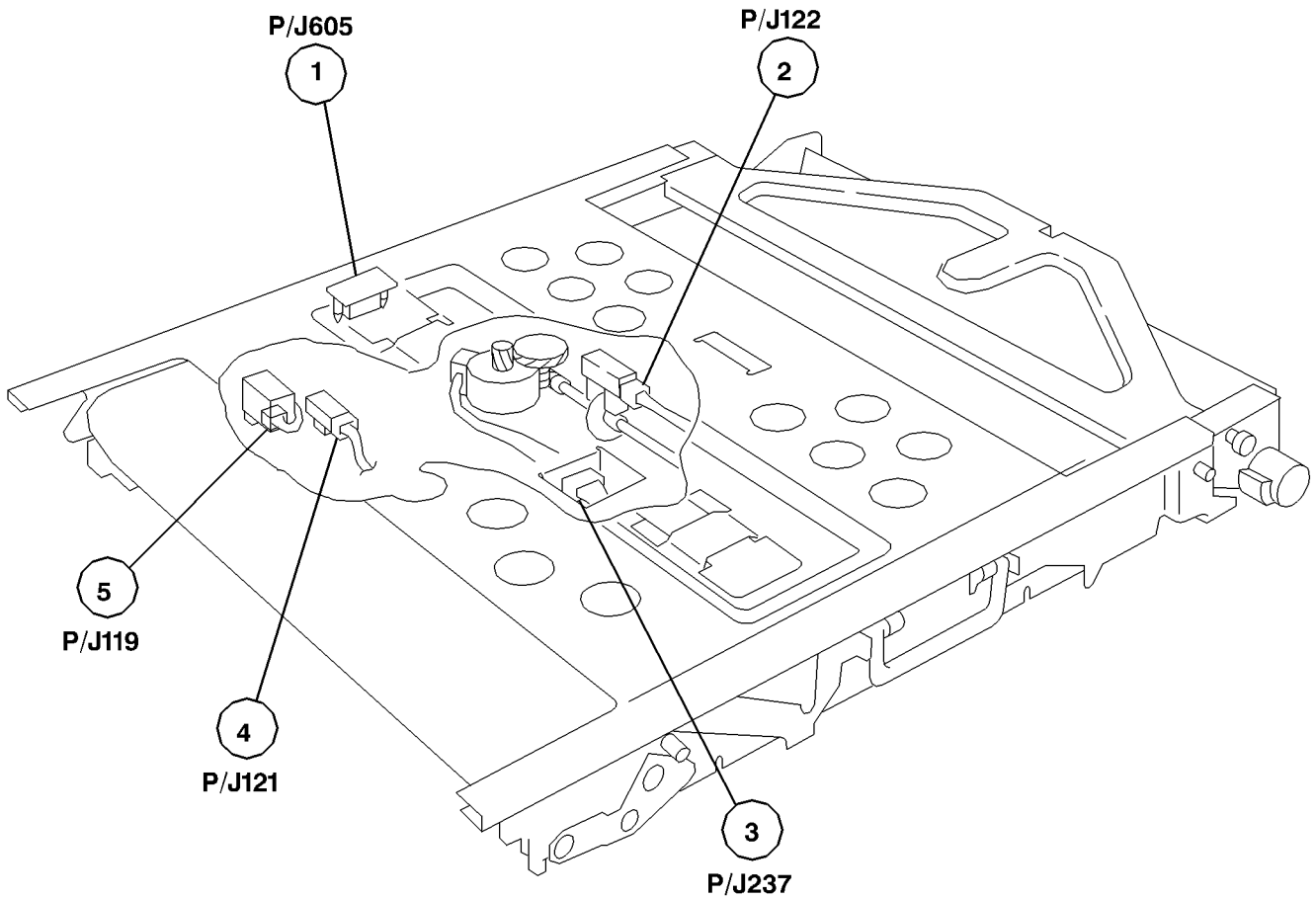



**Figure 10 ROS Assembly**




0 735011A CAR

**Figure 11 IBT Belt Assembly**

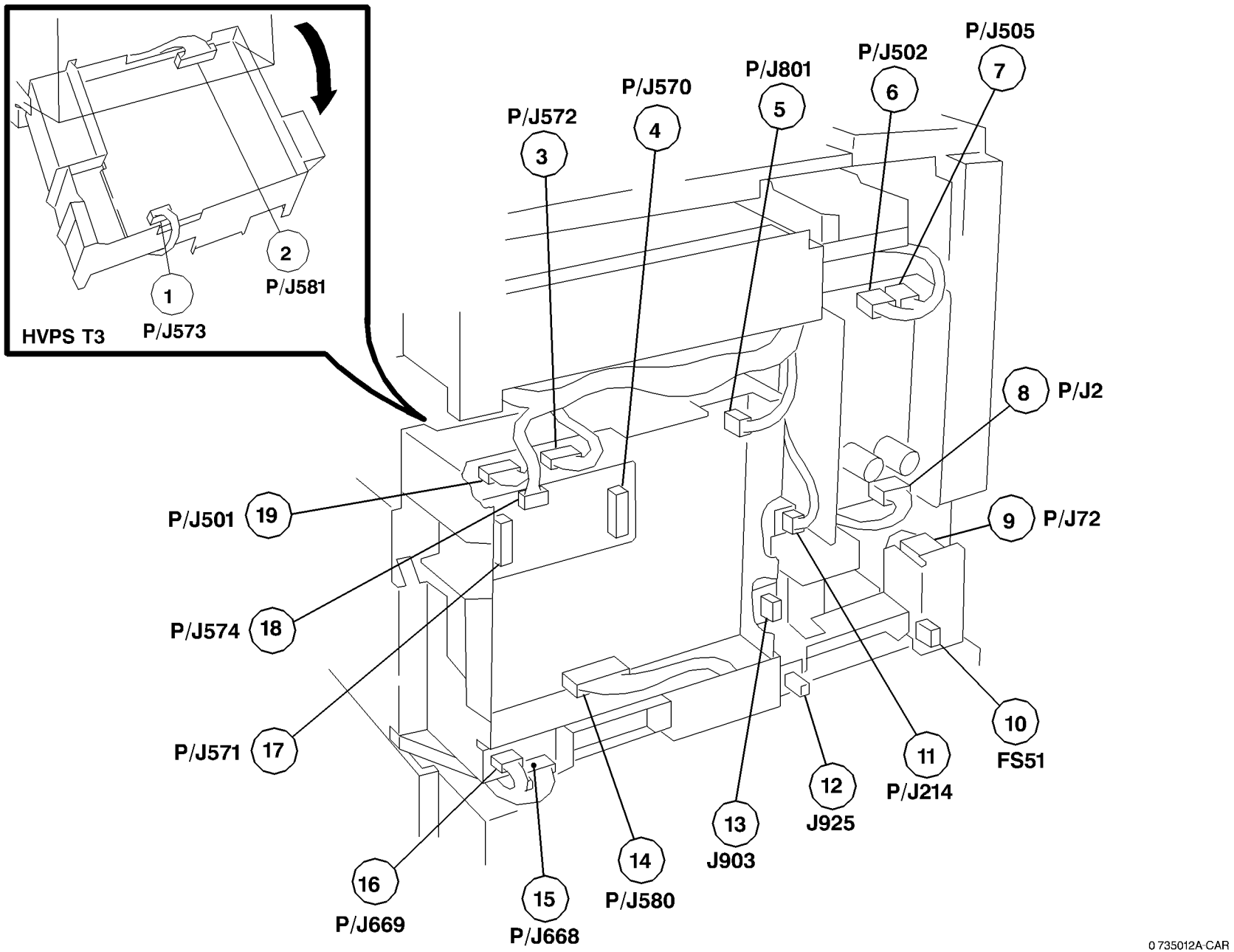



**Figure 12 HVPS T5, T7, +24V LVPS**

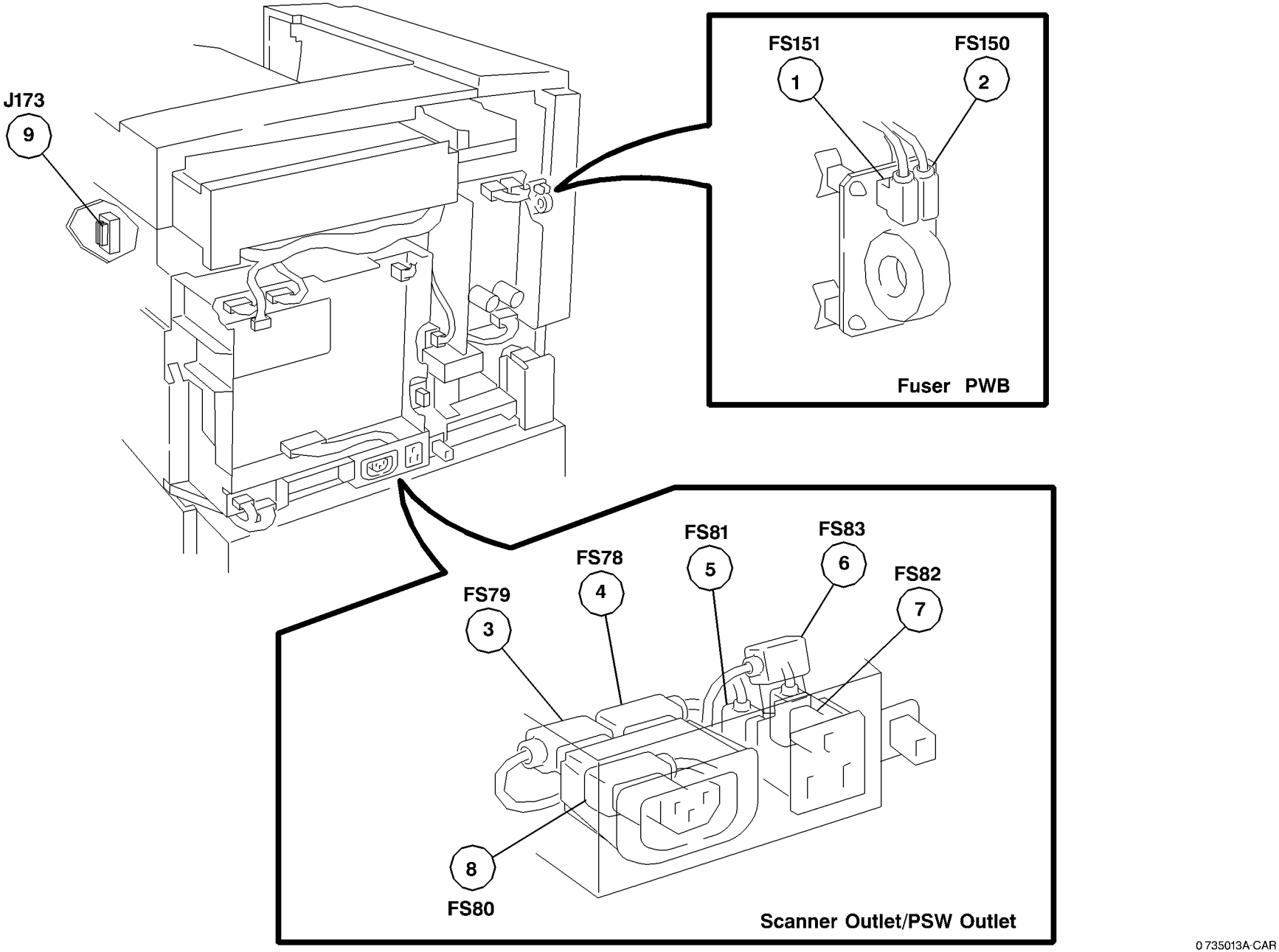



**Figure 13 Outlet Panel Assembly, Fuser PWB**

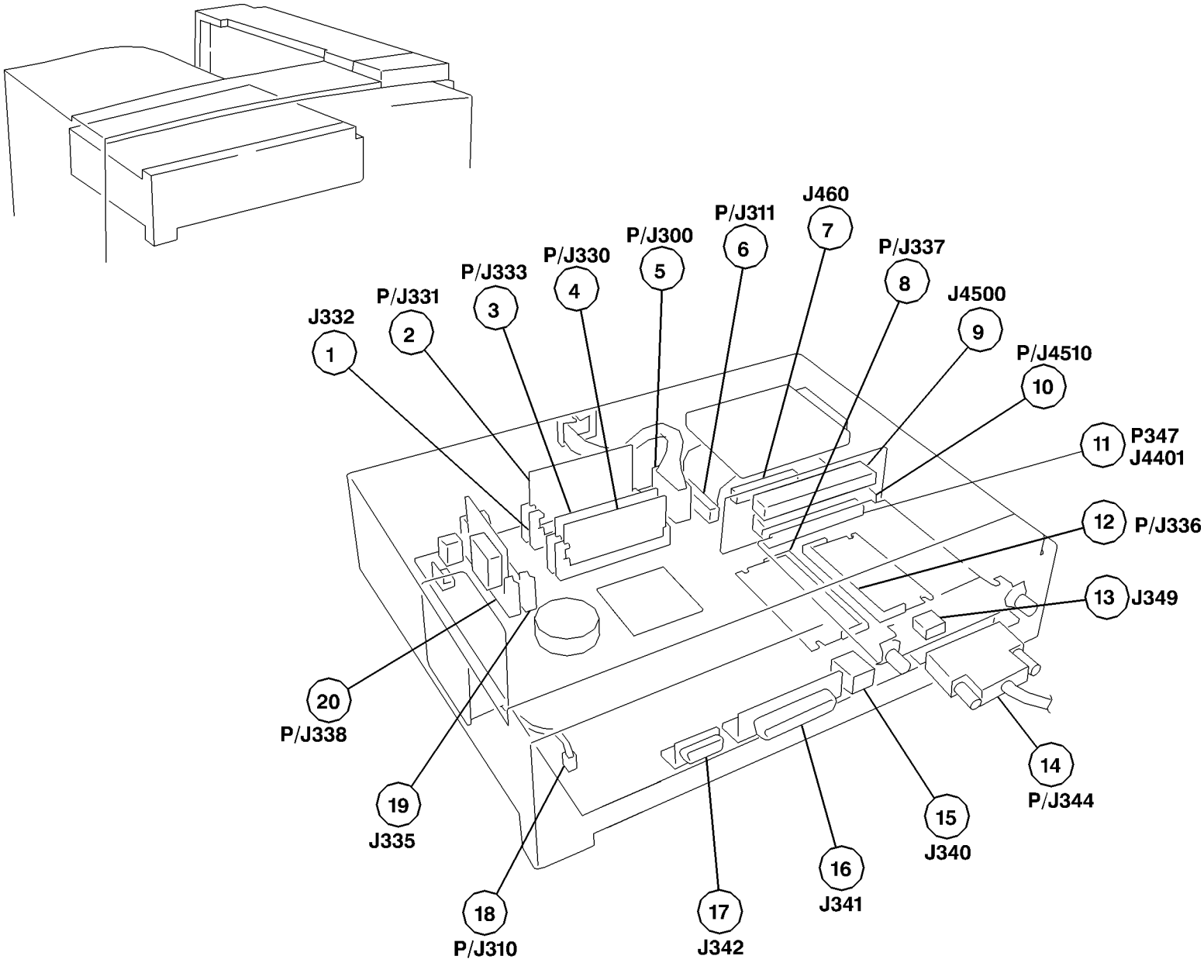



**Figure 14 ESS Assembly**

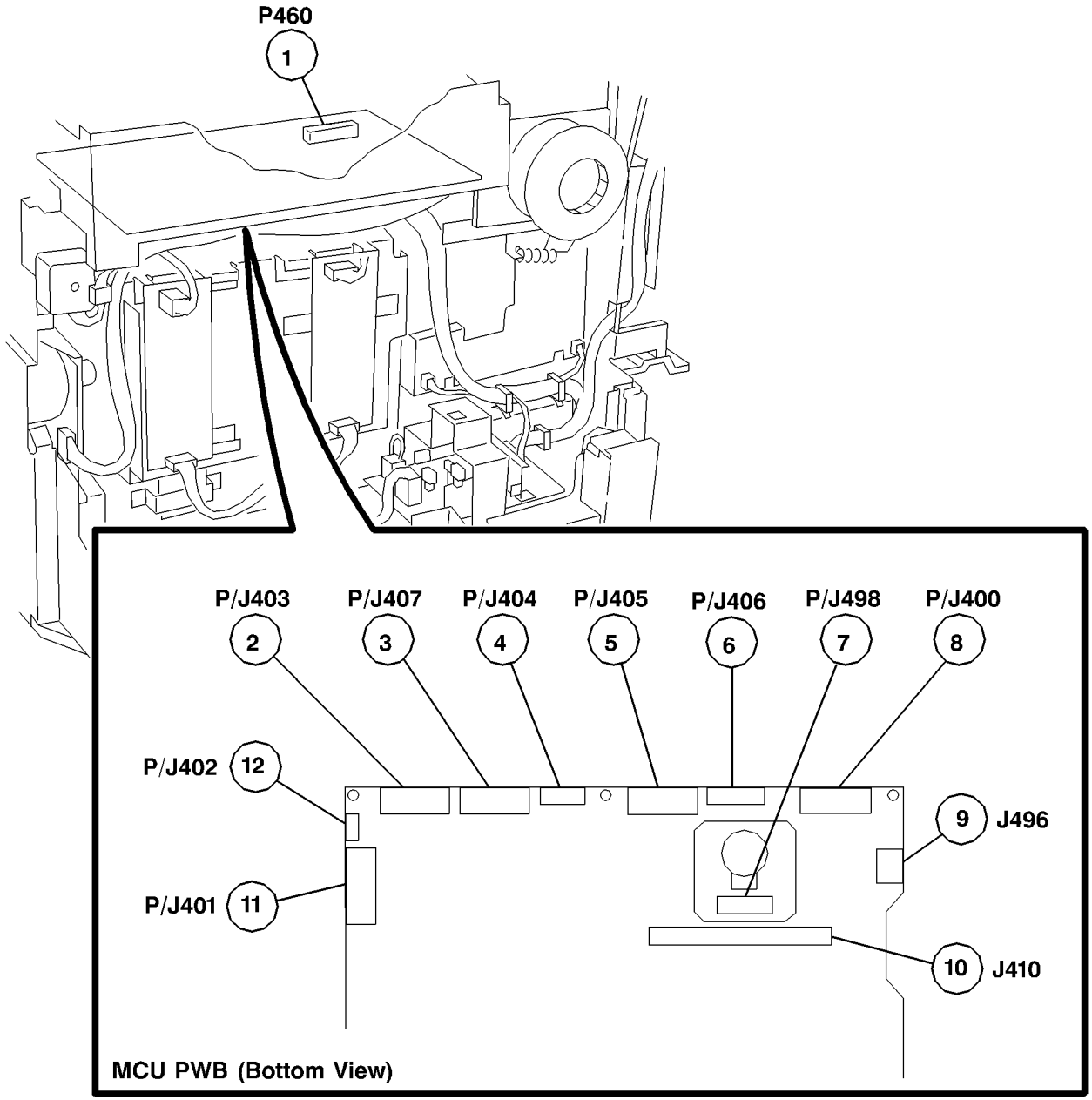



**Figure 15 MCU-MF PWB**

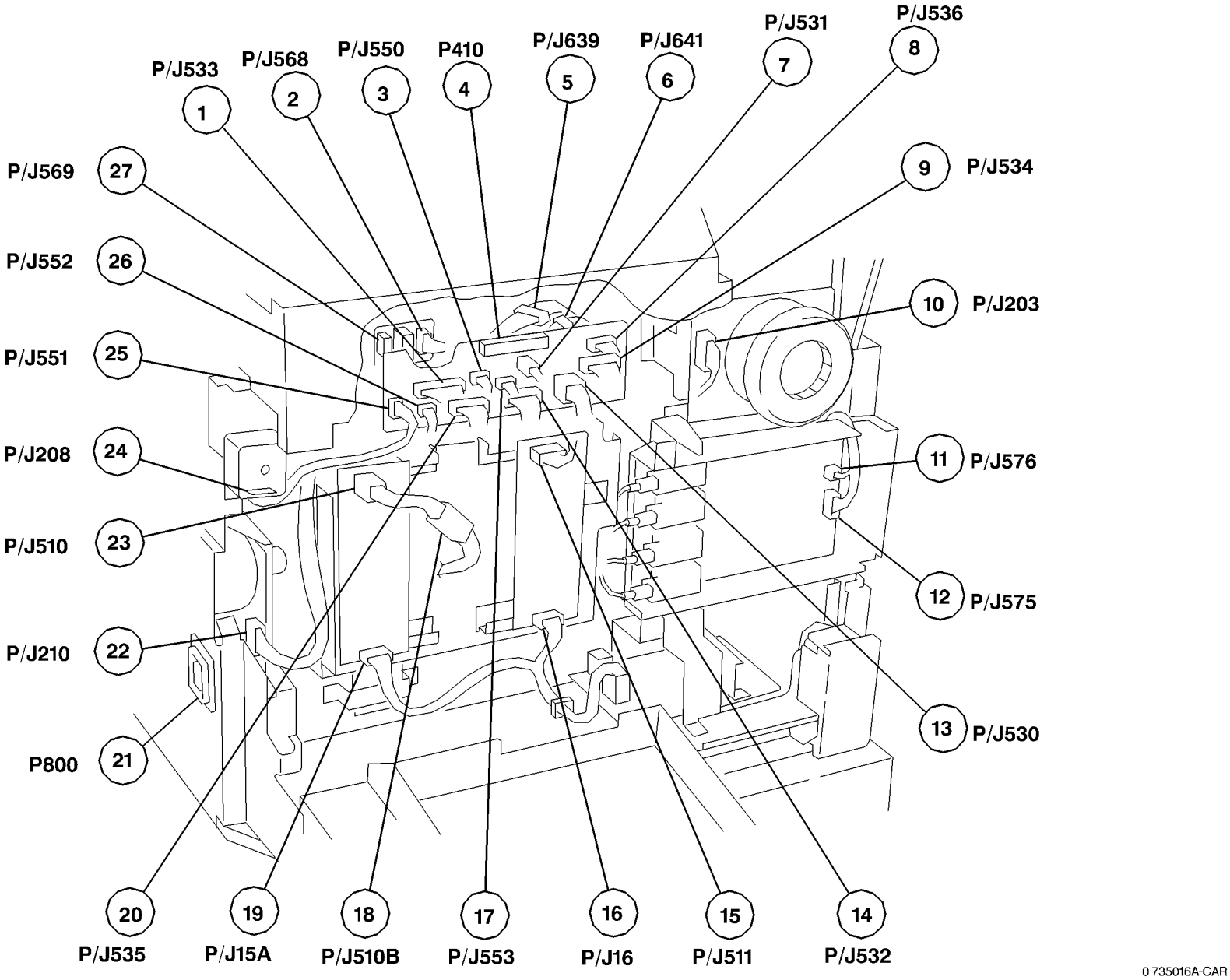



**Figure 16 I/F PWB, Main Motor, LVPS T2**

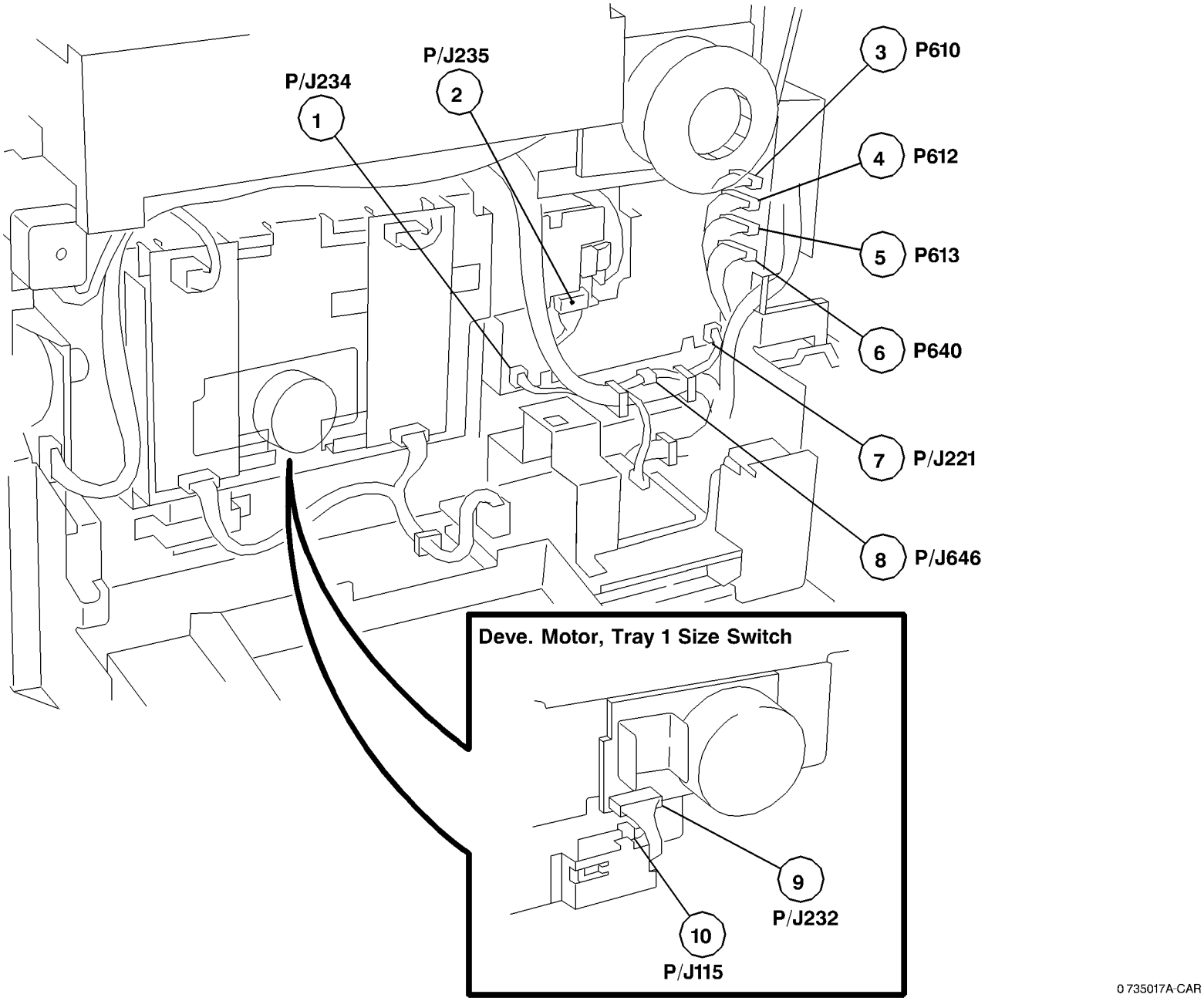



**Figure 17 Developer Motor, Tray 1 Size Switch**

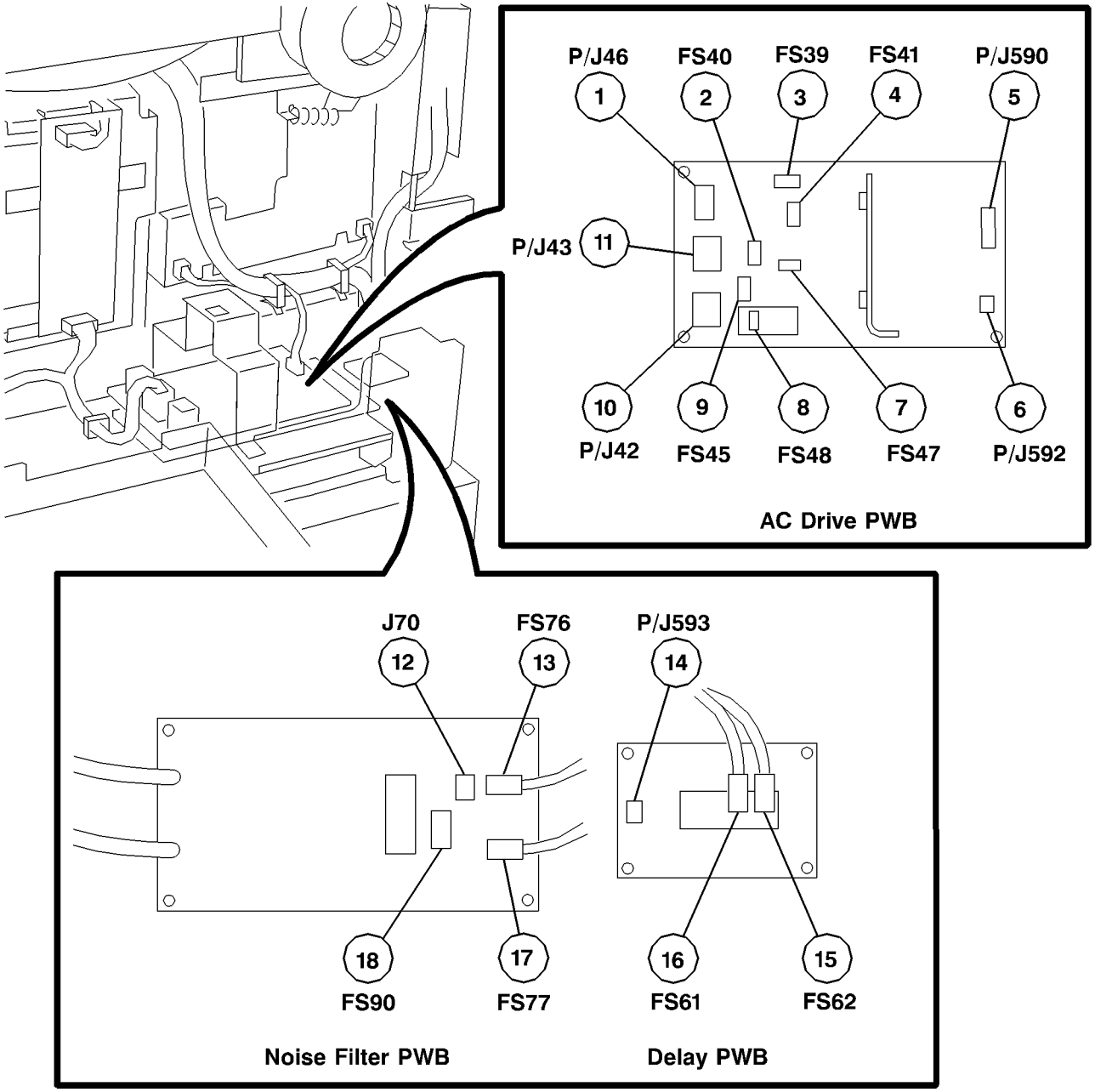



**Figure 18 AC Drive PWB, Noise Filter PWB, Delay PWB**

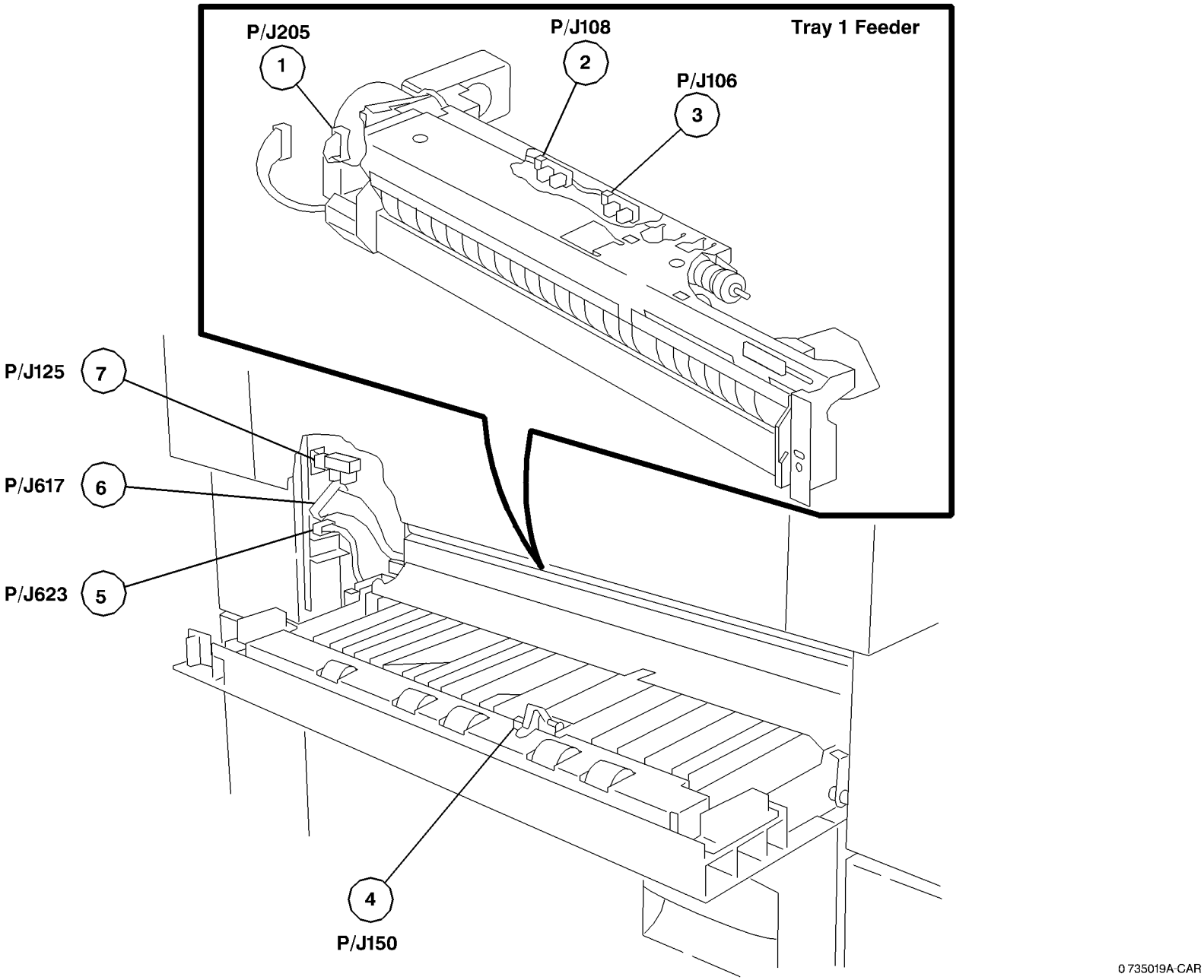



**Figure 19 Left Lower Assembly, Tray 1 Feeder**

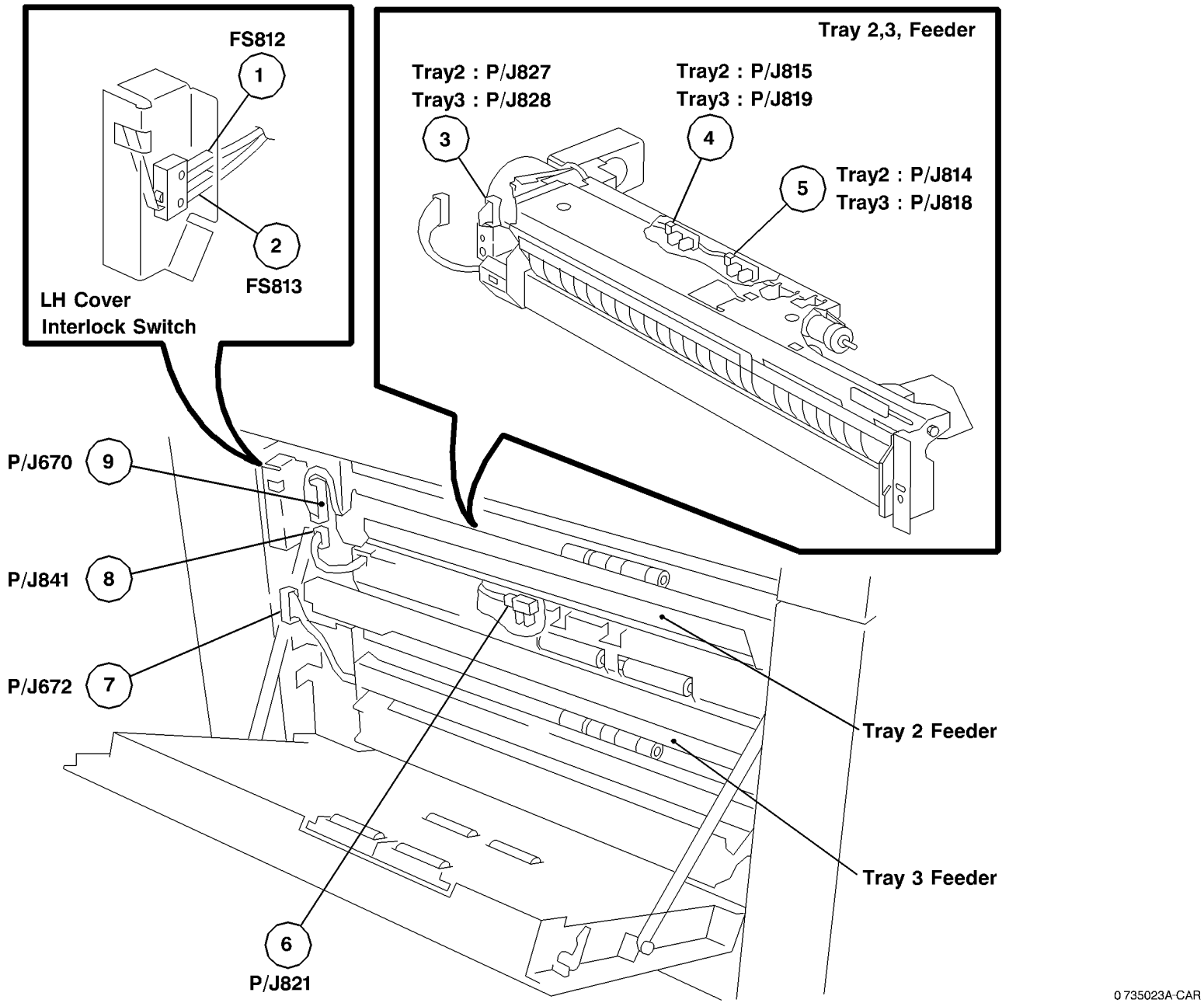



**Figure 20 TT Module (Tray 2, 3 feeder)**

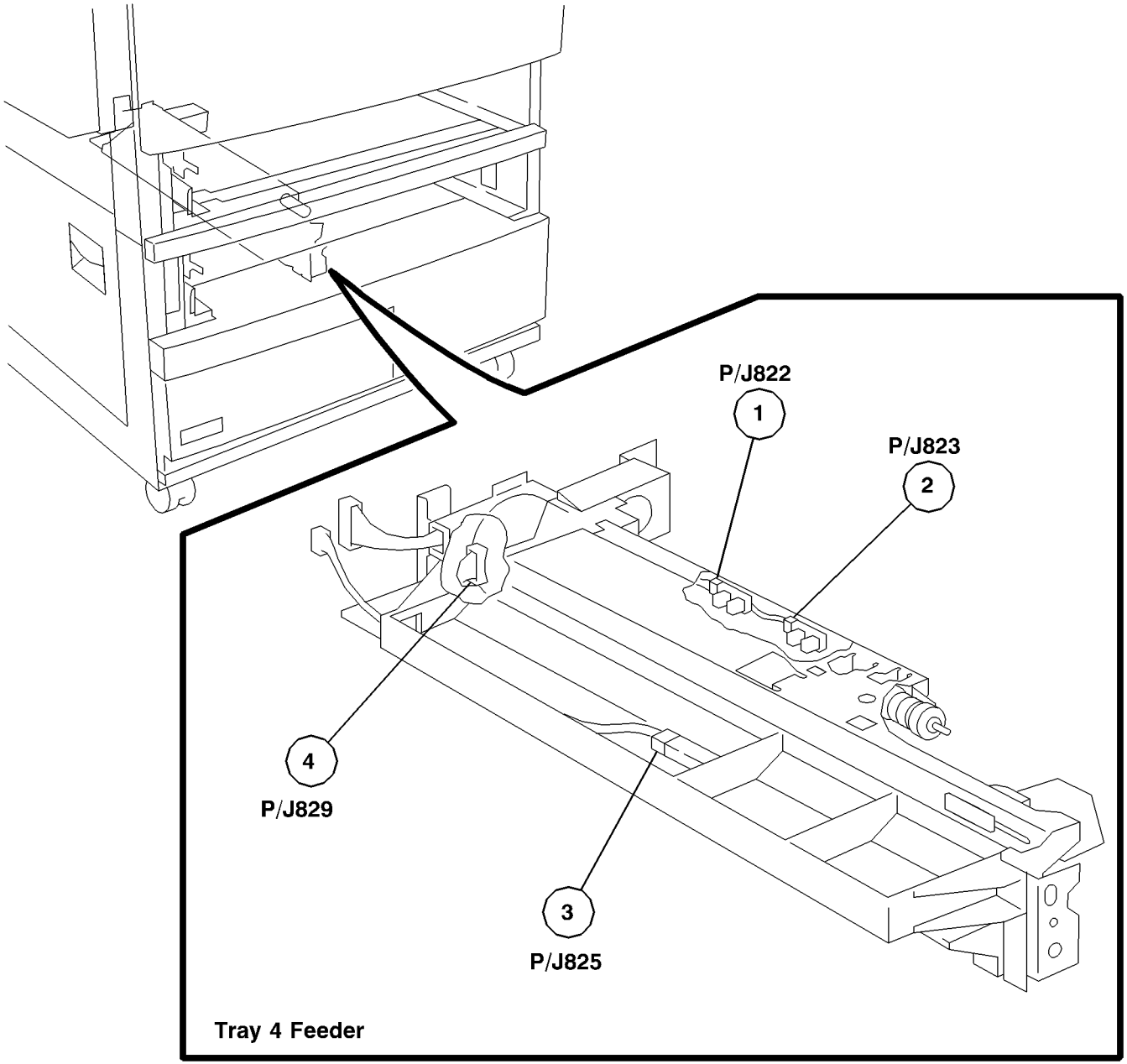



**Figure 21 TT Module (Tray 4 Feeder)**

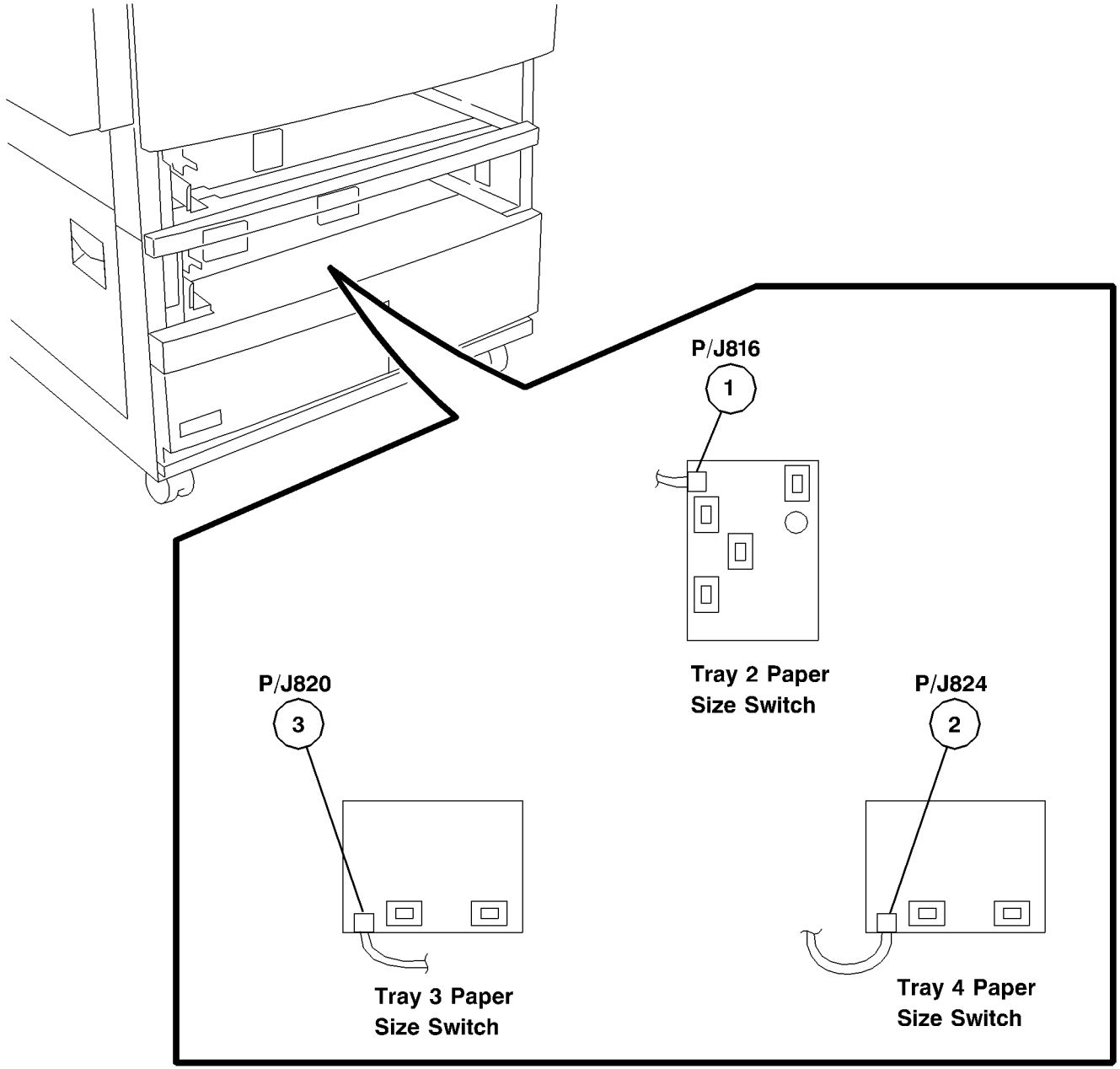



**Figure 22 TT Module (Tray 2,3,4 Paper Size Switches)**

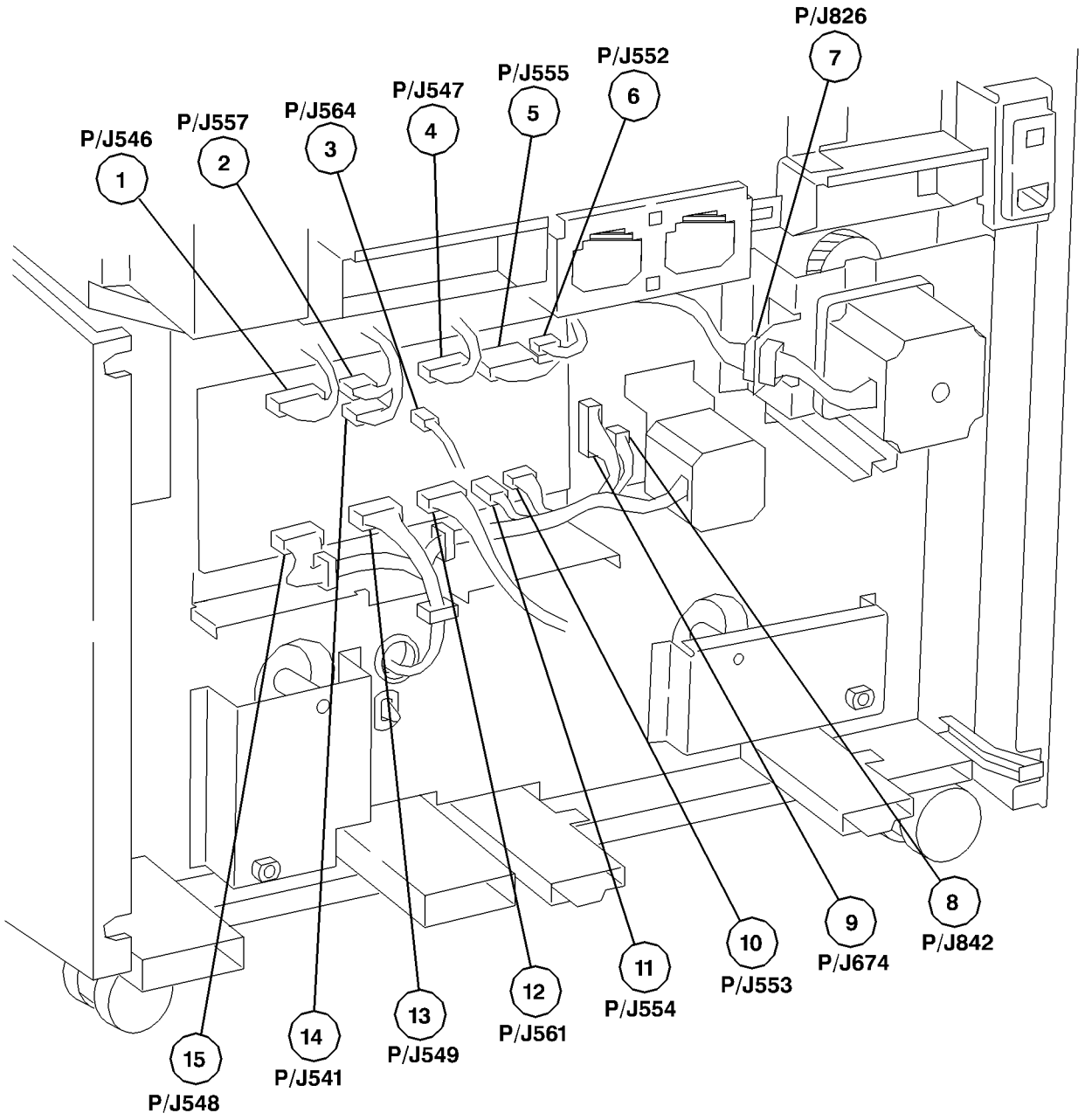



**Figure 23 TT Module (rear)**

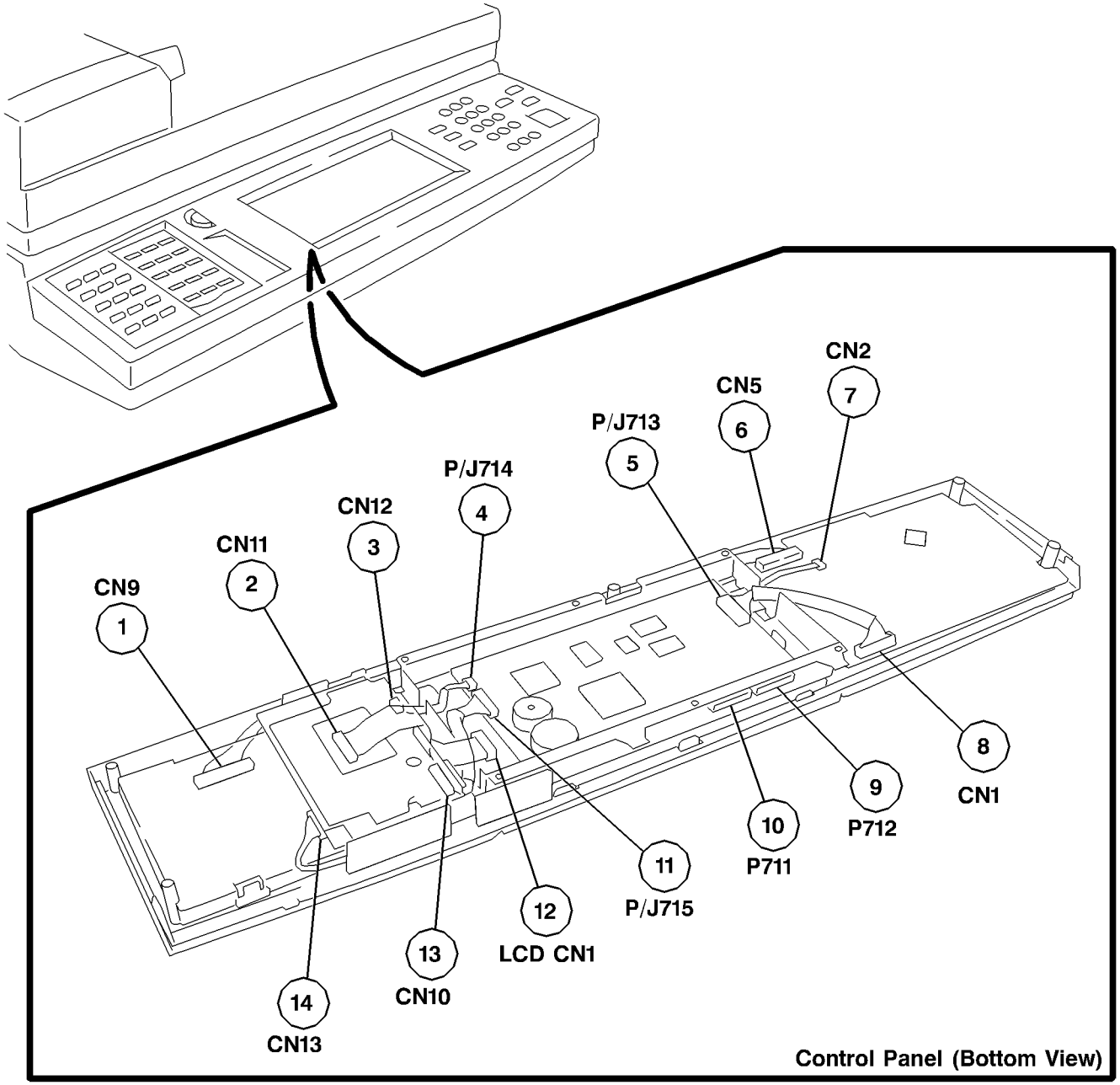



**Figure 24 Control Panel**

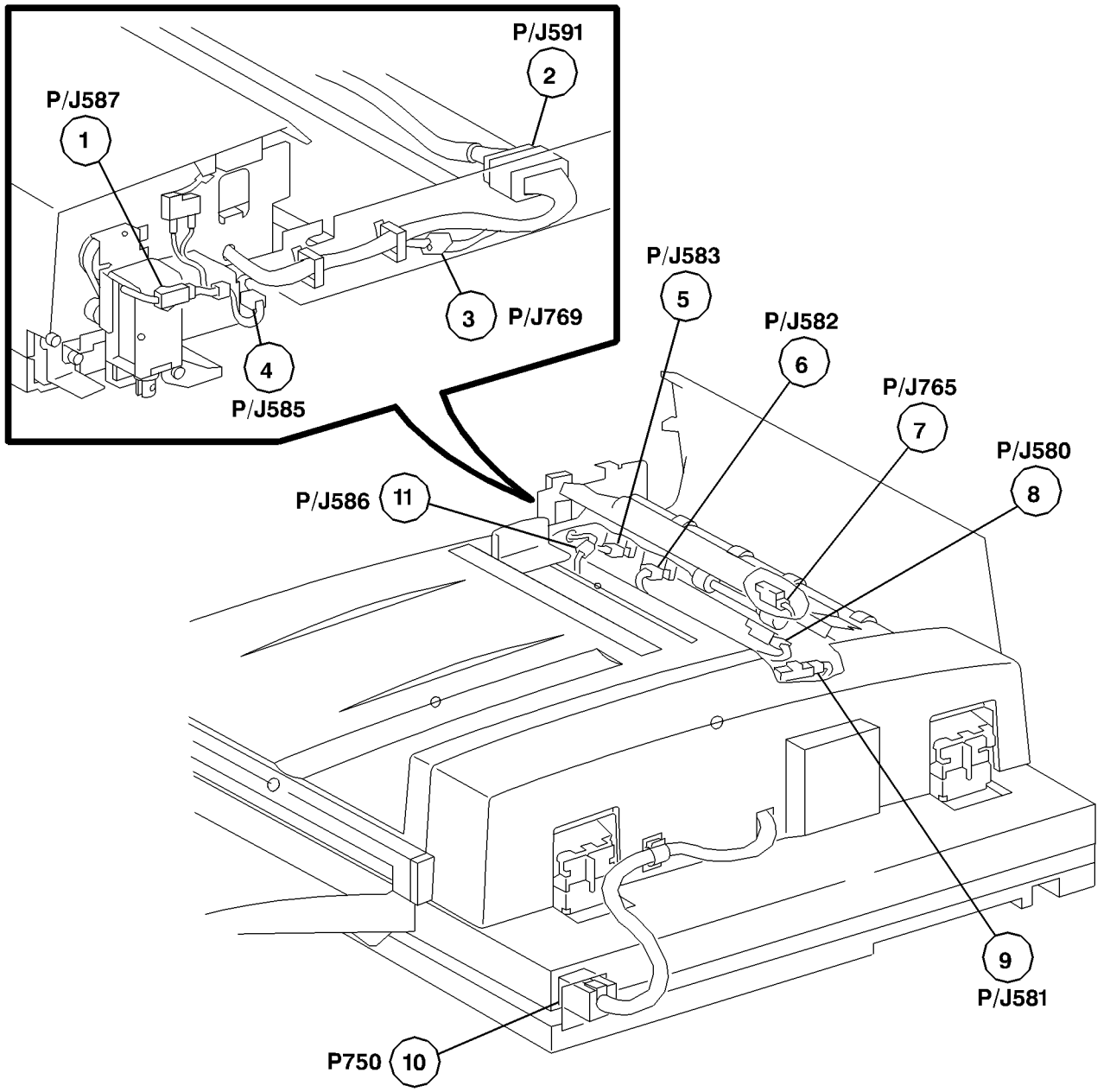



**Figure 25 DADF (1 of 2)**

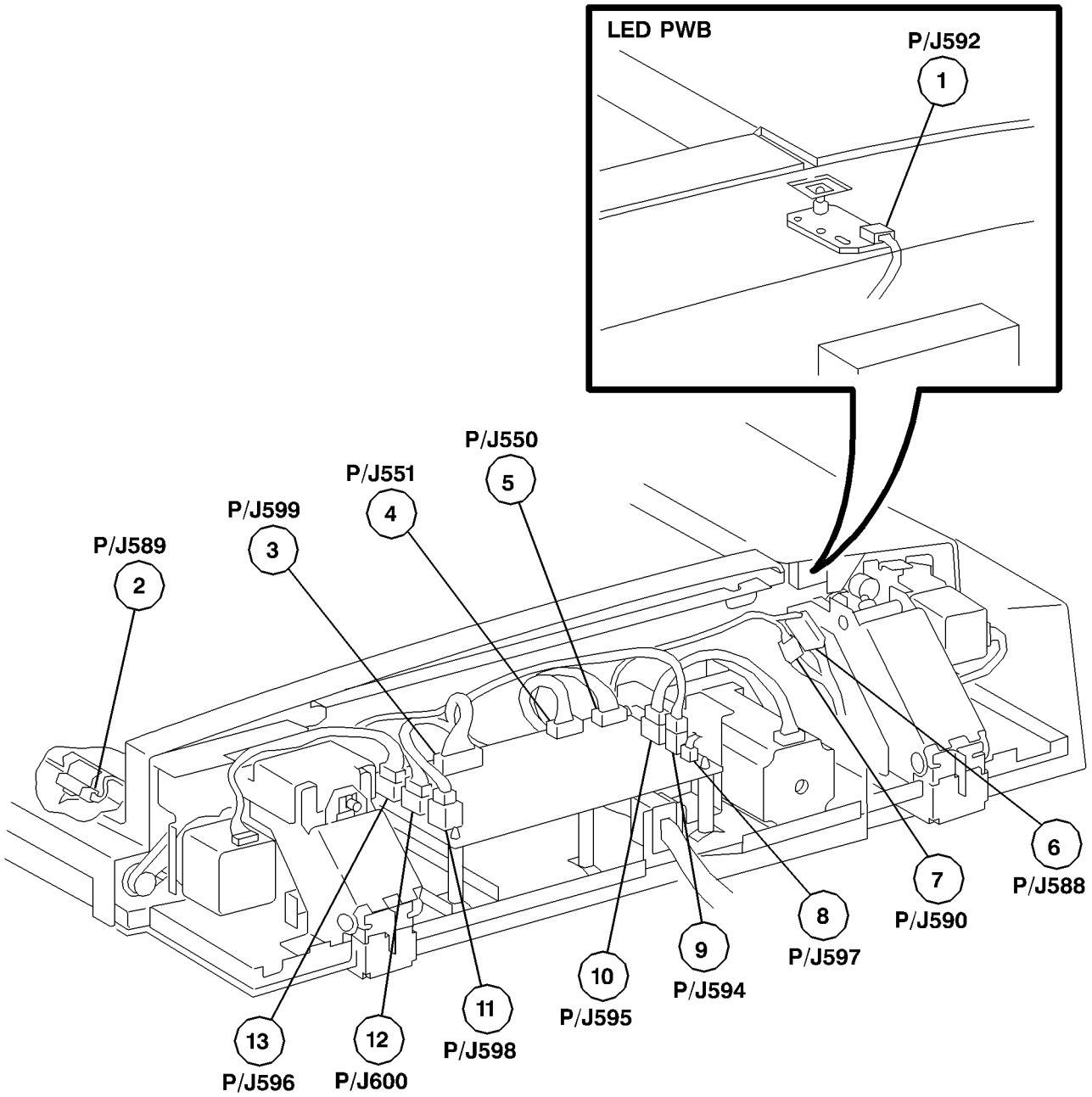



**Figure 26 DADF (2 0f 2)**

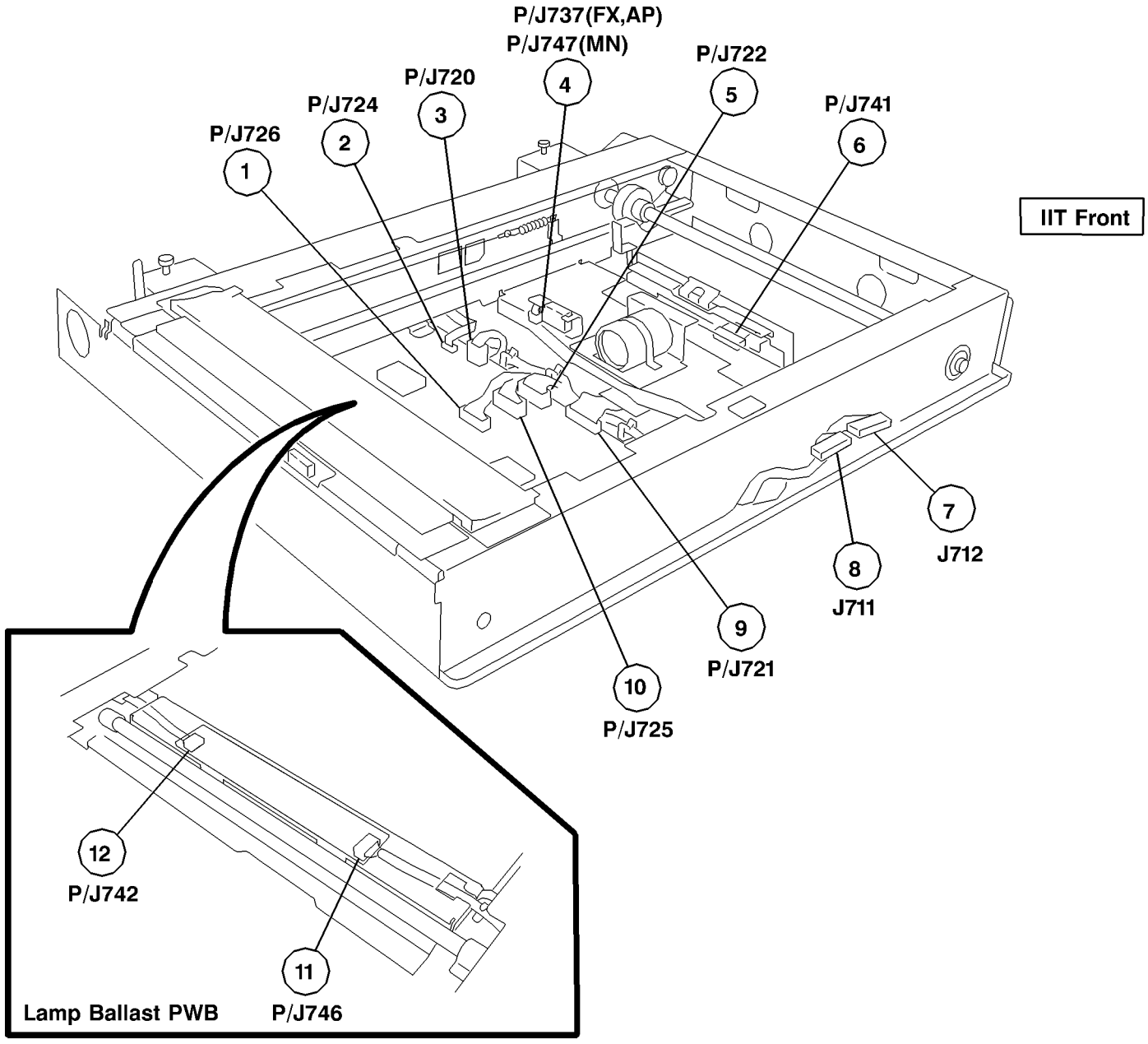



**Figure 27 IIT (front)**

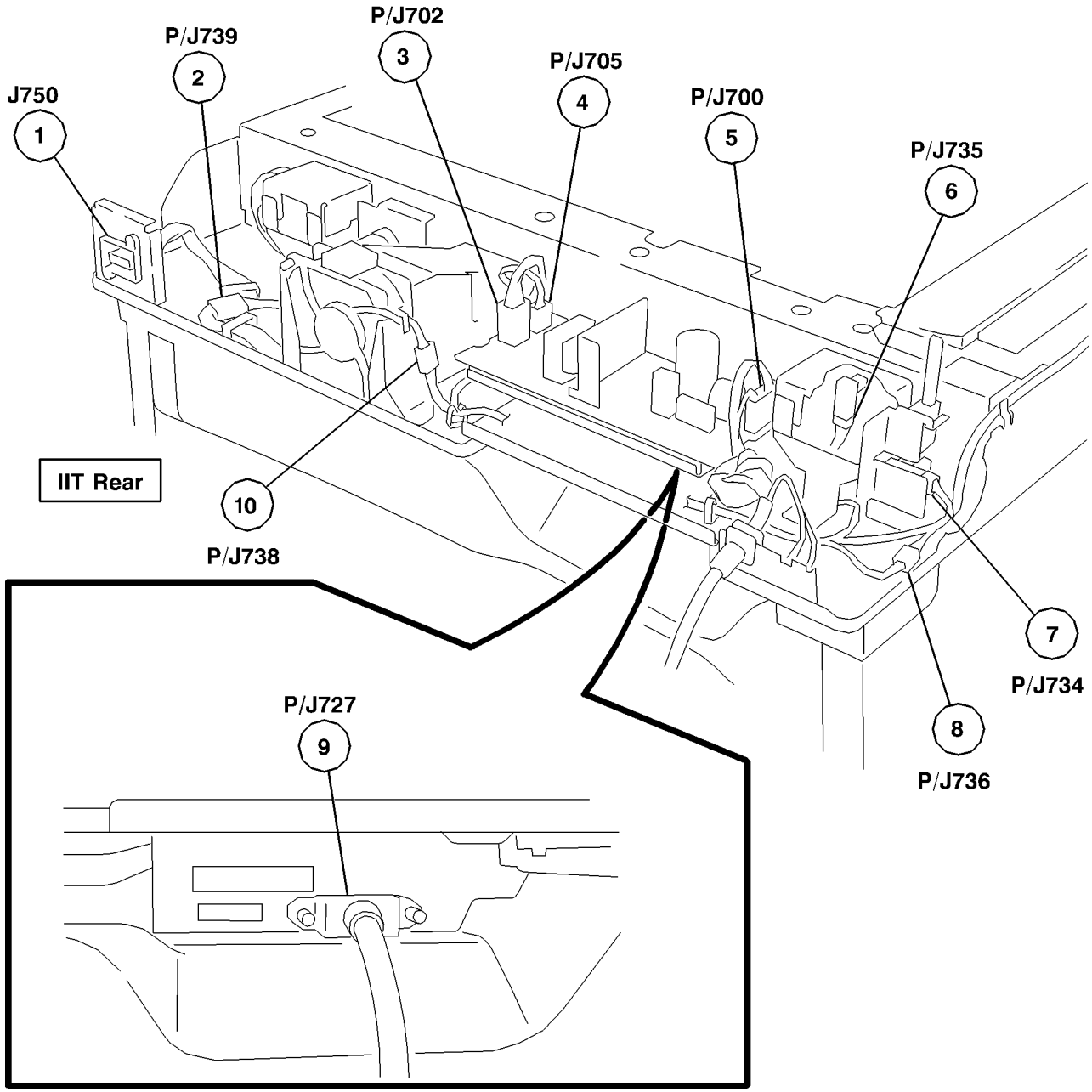



**Figure 28 IIT (rear)**

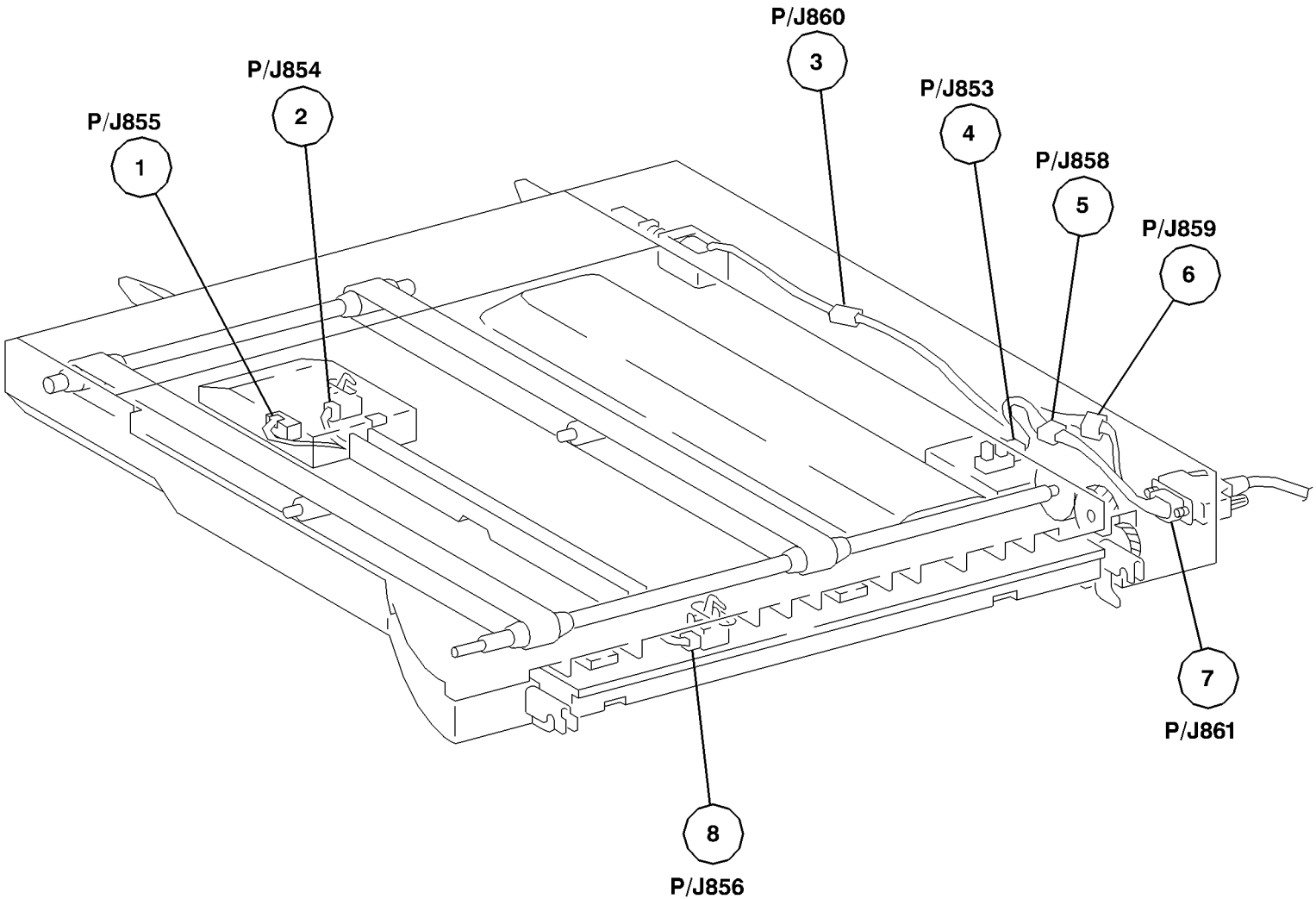



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**Figure 29 H - Transport Assembly**

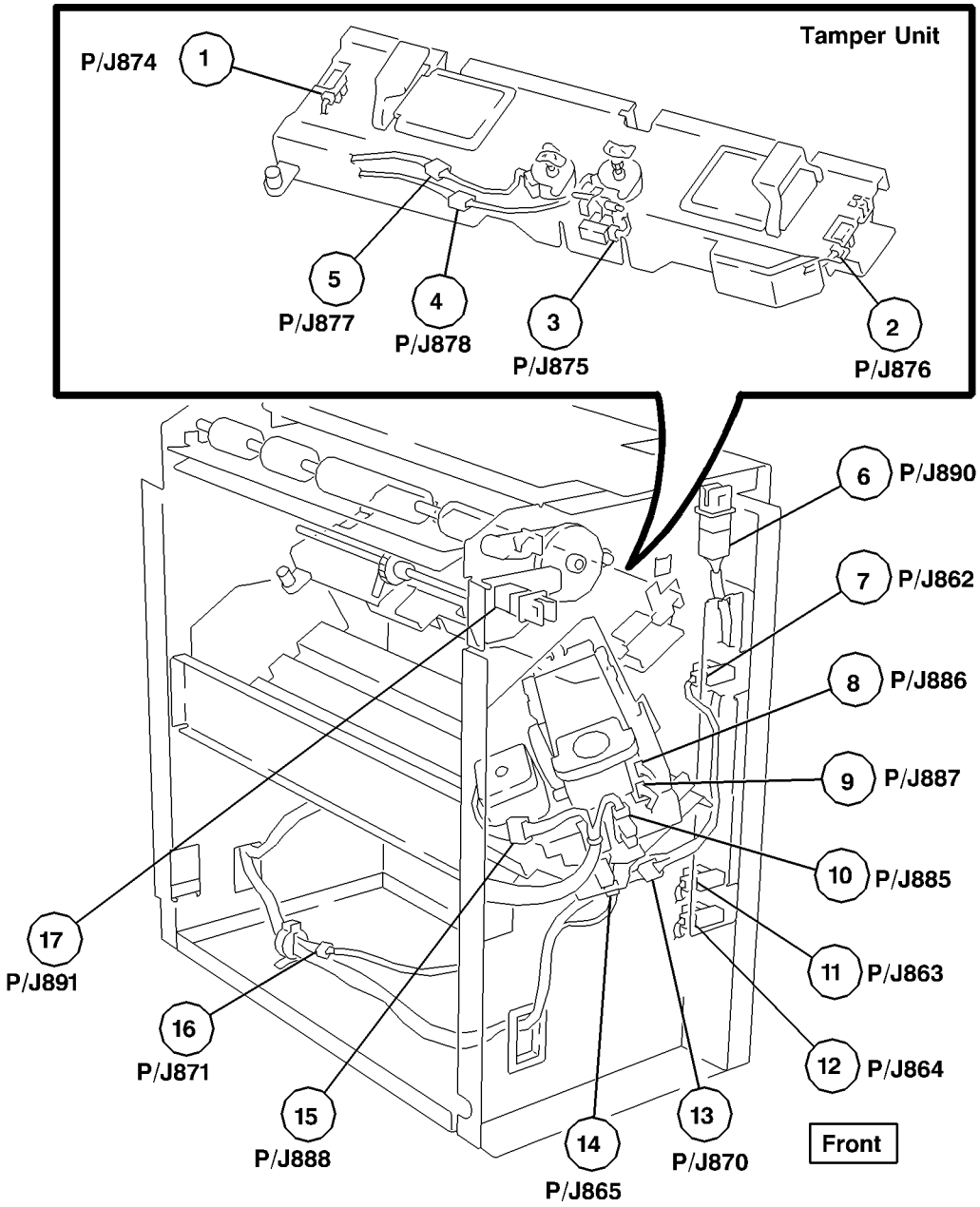


**Figure 30 Tamper Unit, Staple Unit**

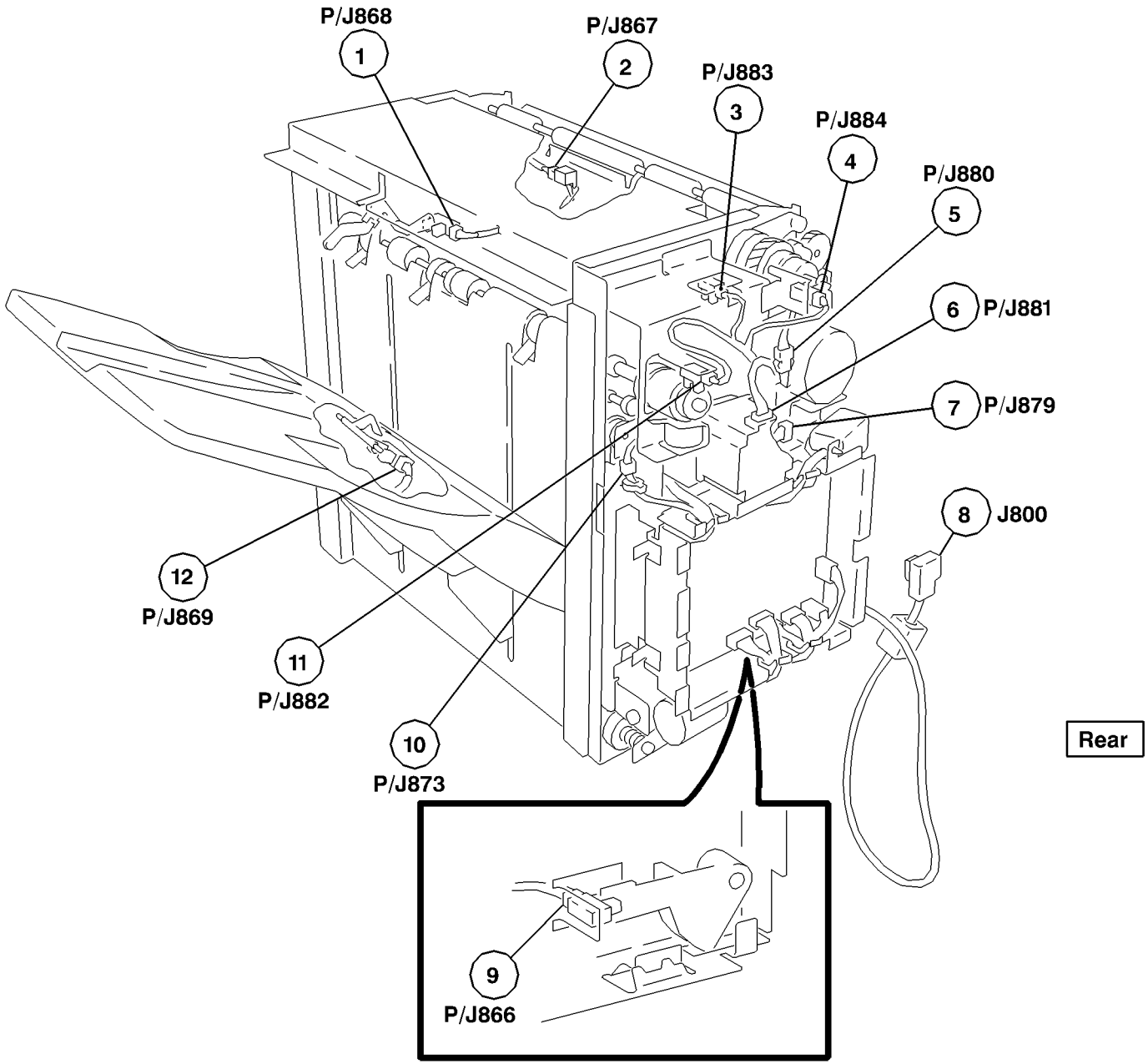


**Figure 31 Finisher (rear) (1 0f 2)**

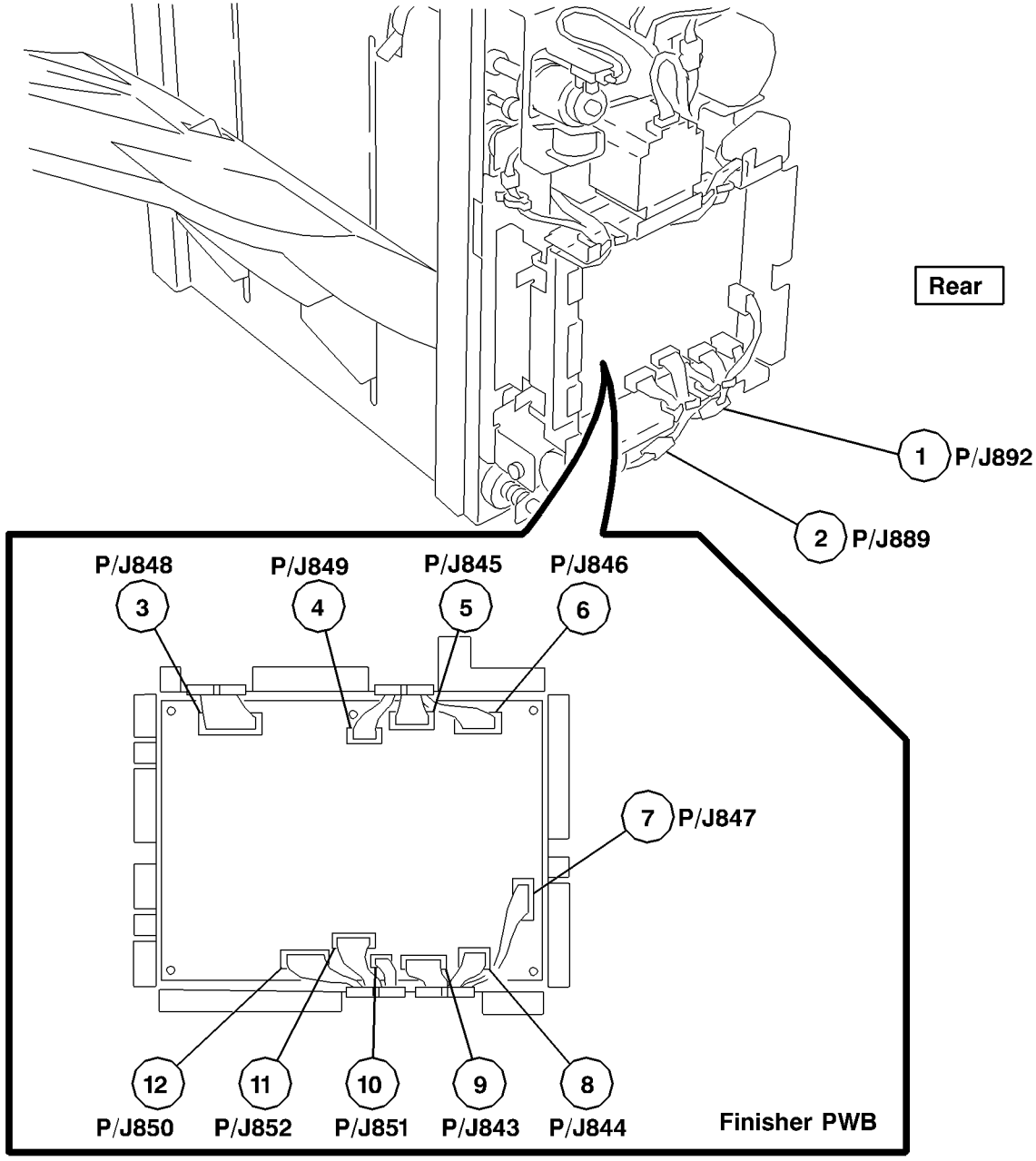


**Figure 32 Finisher PWB**

## ACH

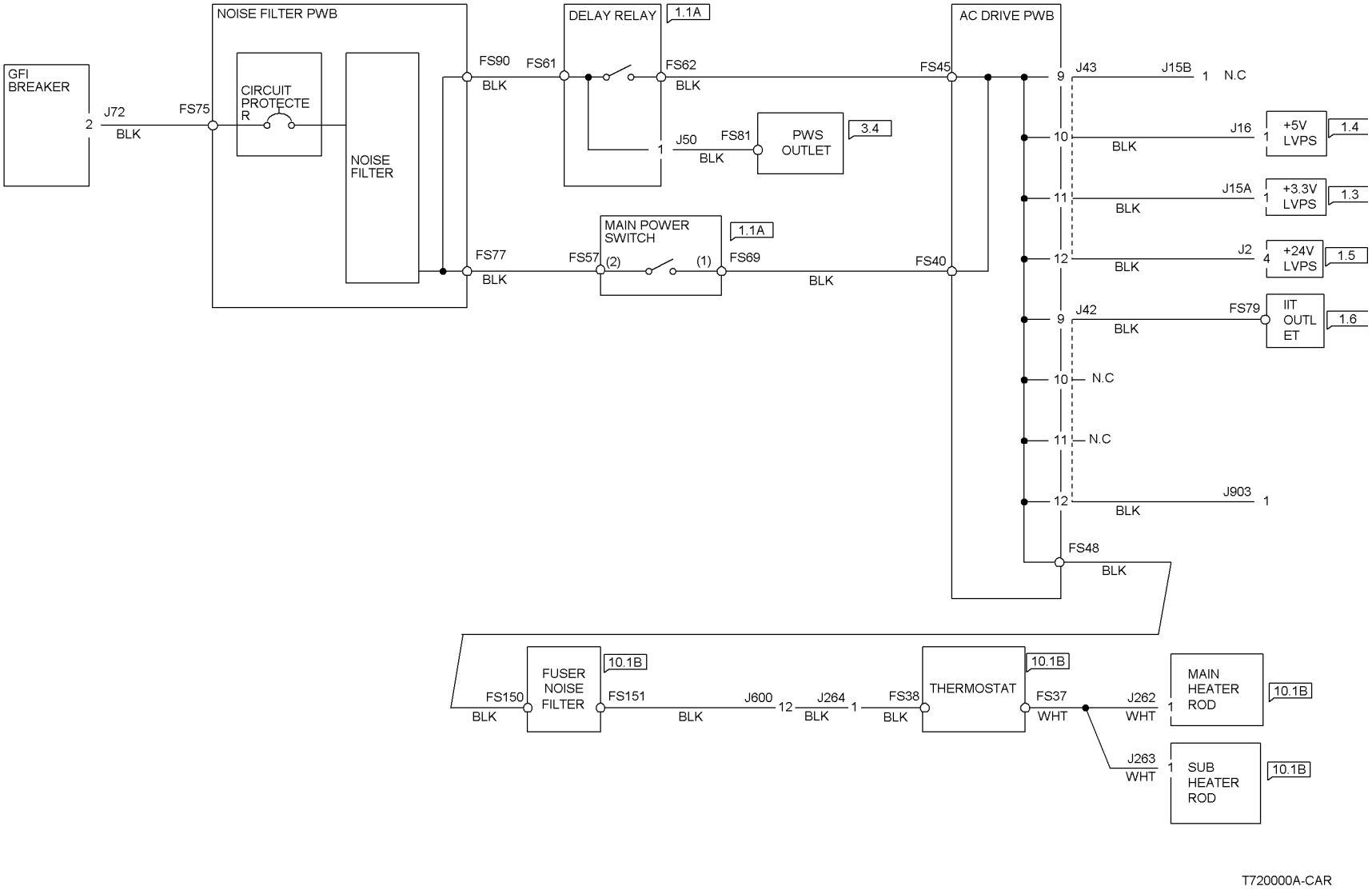


**Figure 1 ACH Wirenet**

## ACN

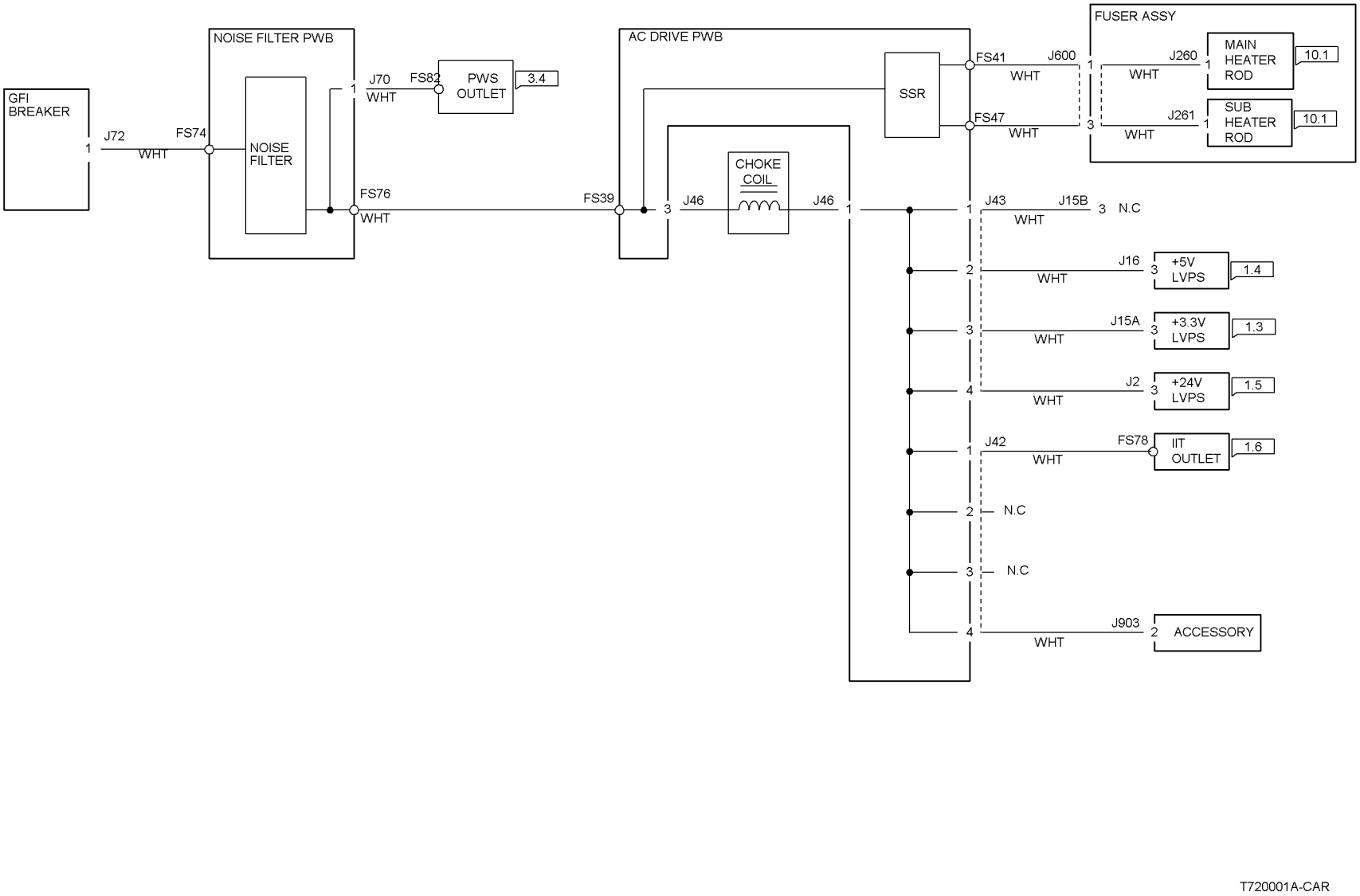


**Figure 2 ACN Wirenet**

## +3.3VDC

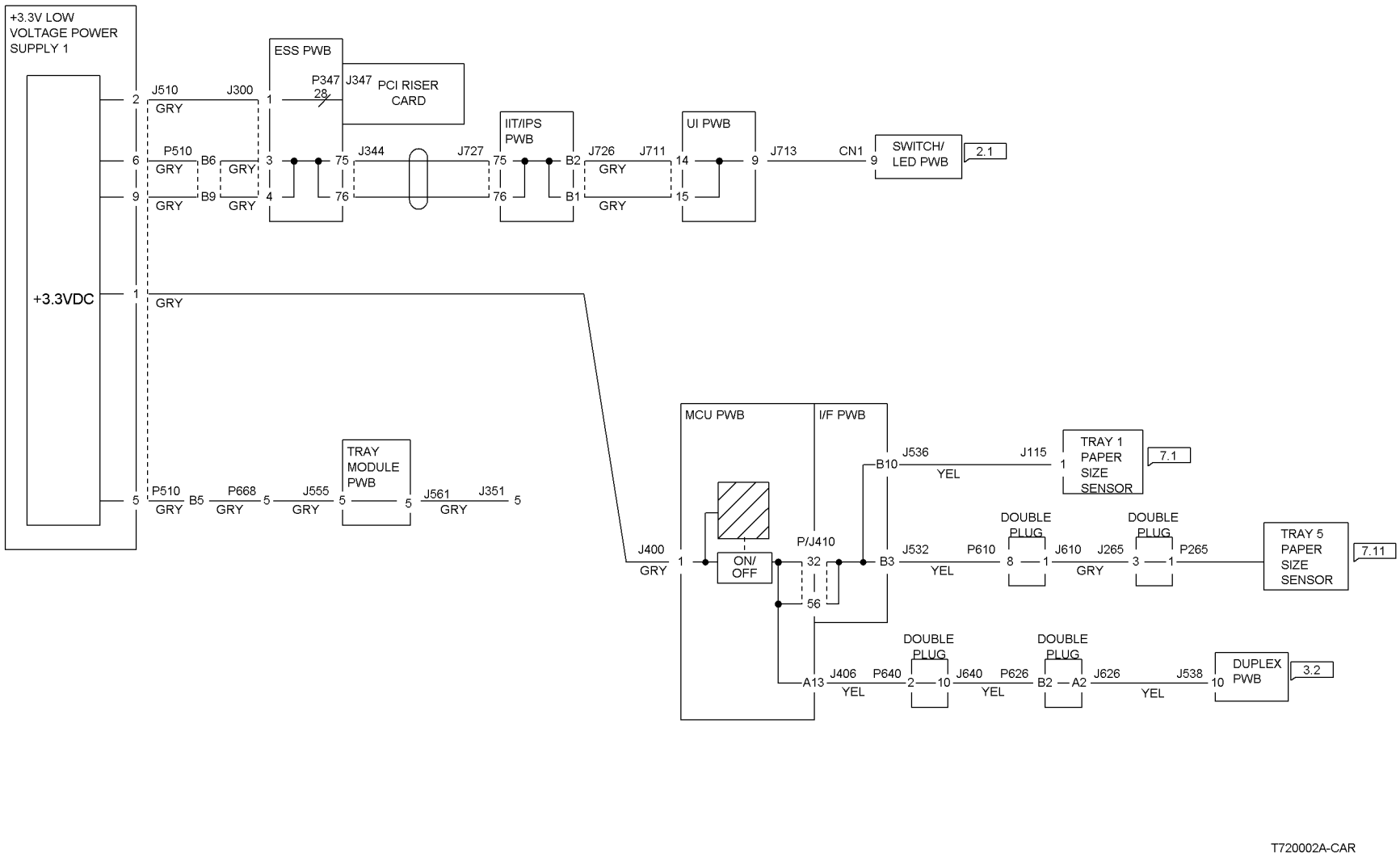


**Figure 3 +3.3VDC Wirenet**

## 3.3V RTN

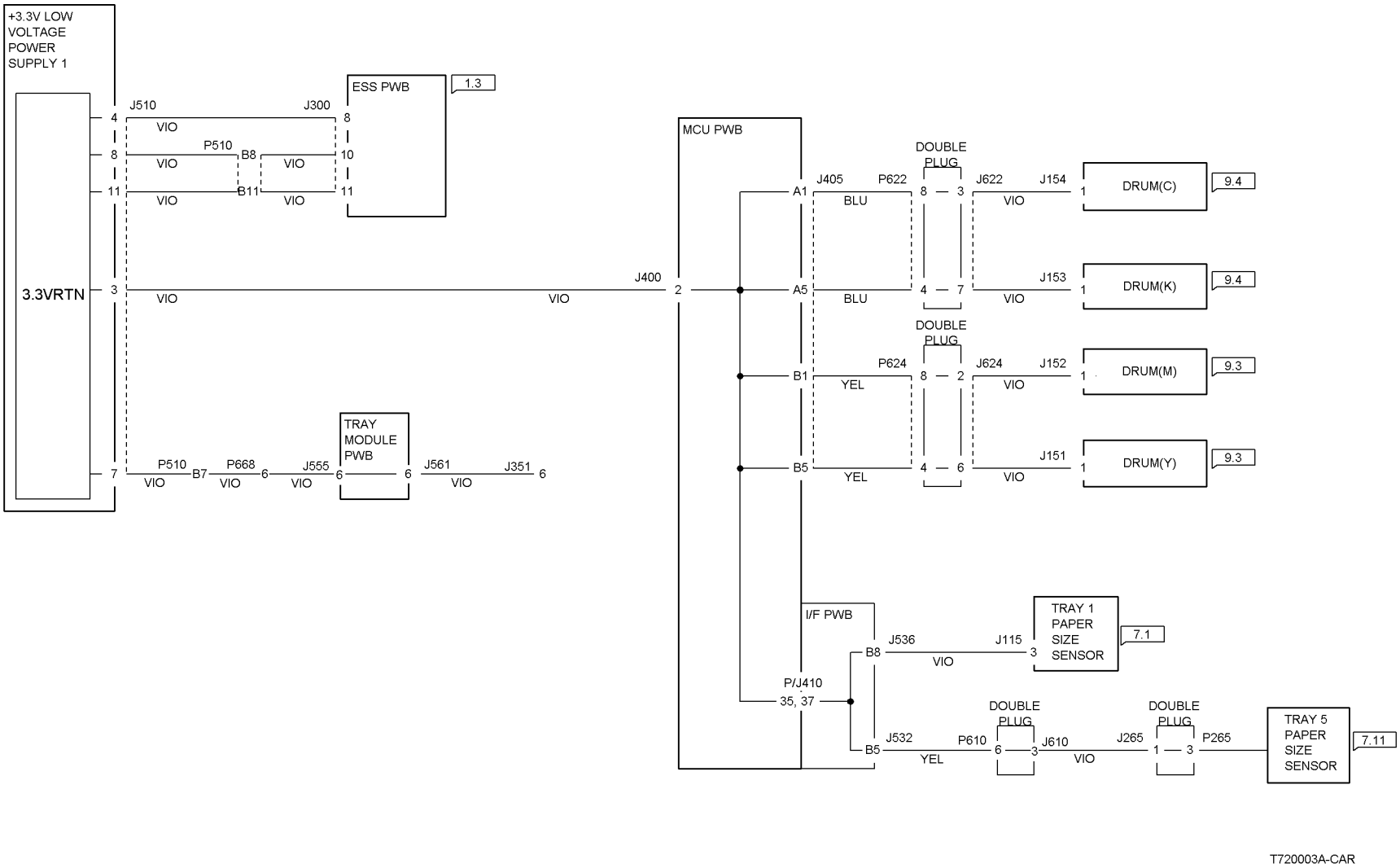


**Figure 4 3.3V RTN Wirenet**

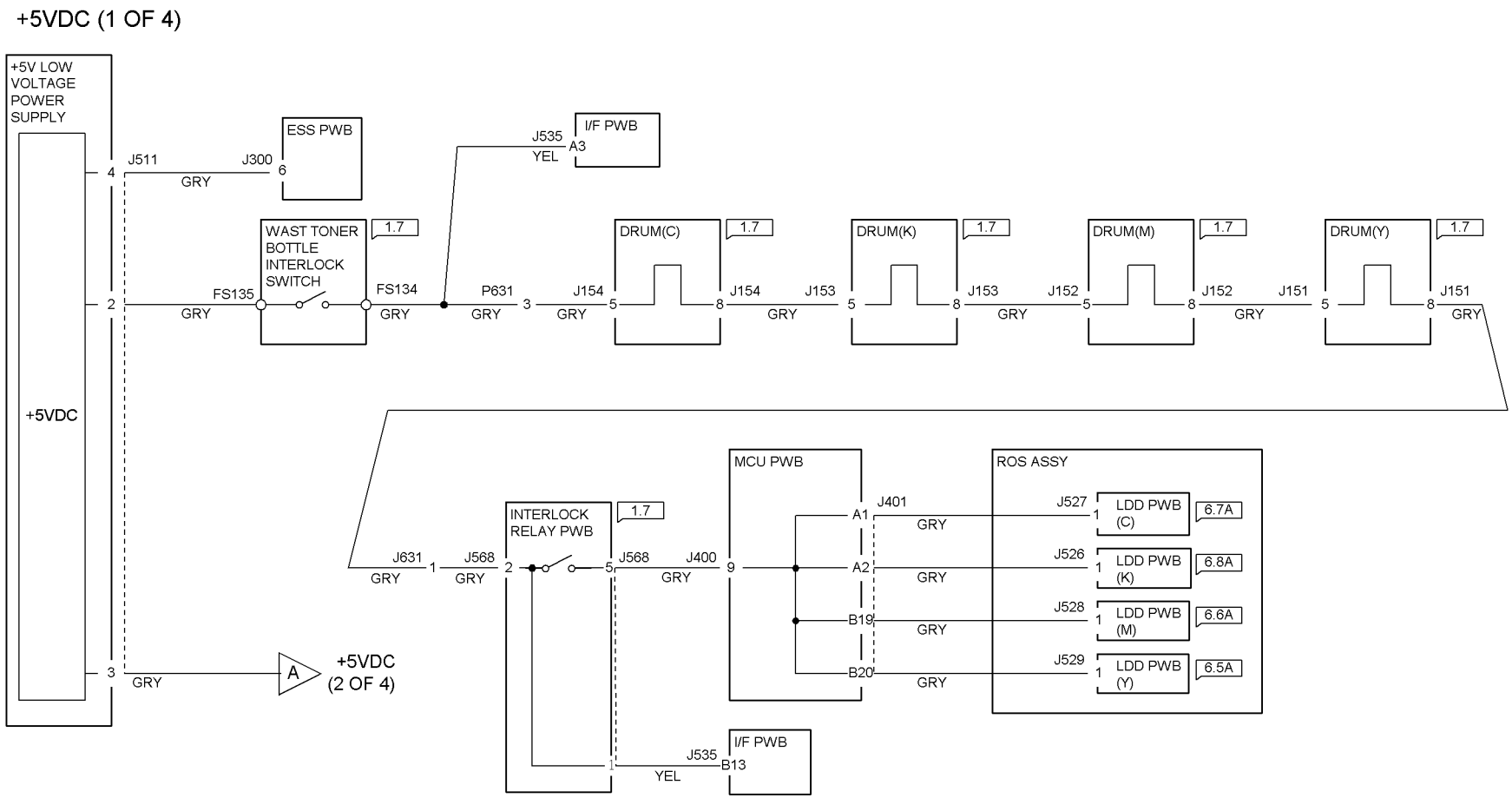


**Figure 5 +5.5VDC (1 of 4) Wirenet**

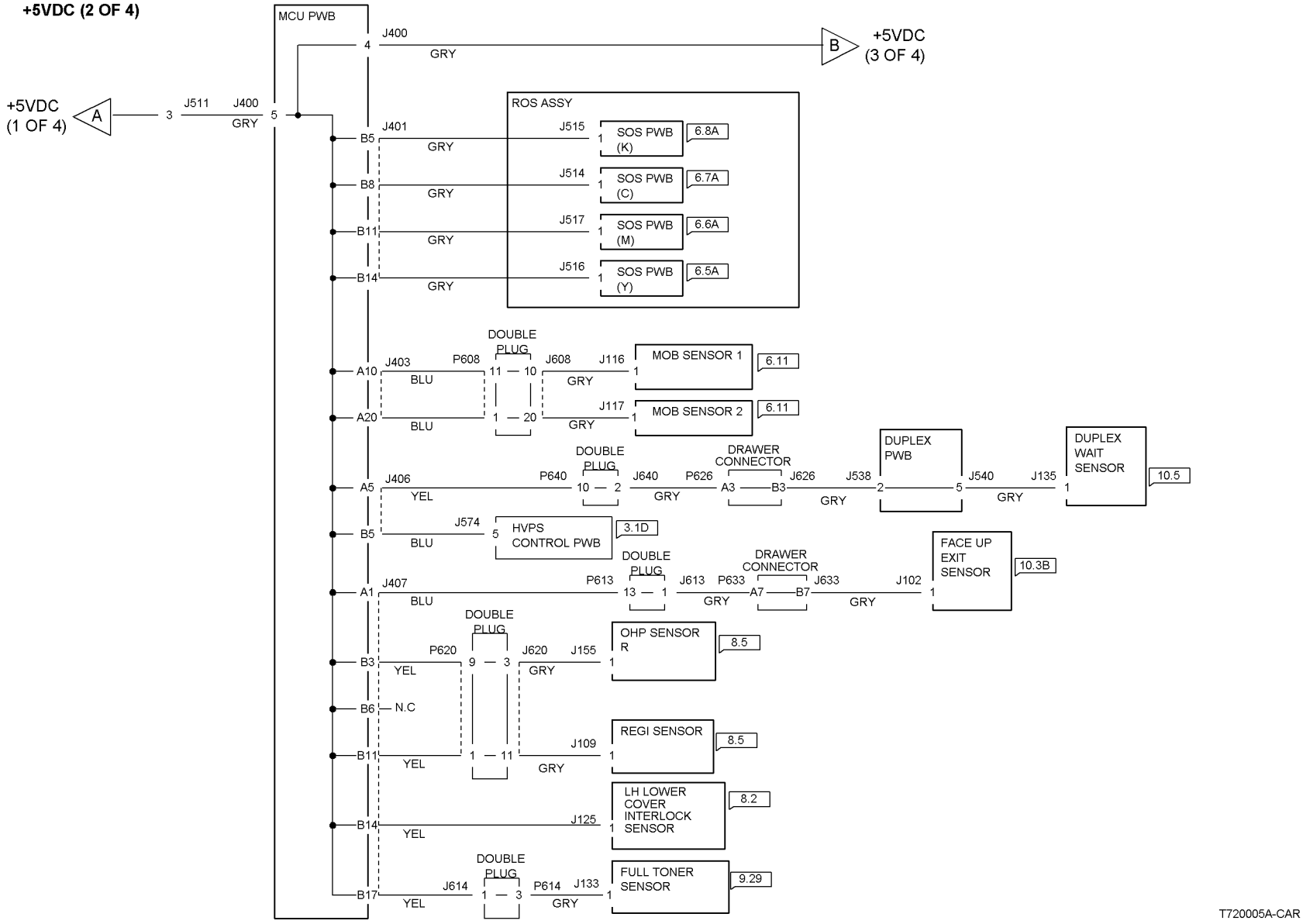


**Figure 6 +5.5VDC (2 of 4) Wirenet**

**+5VDC (3 of 4)**

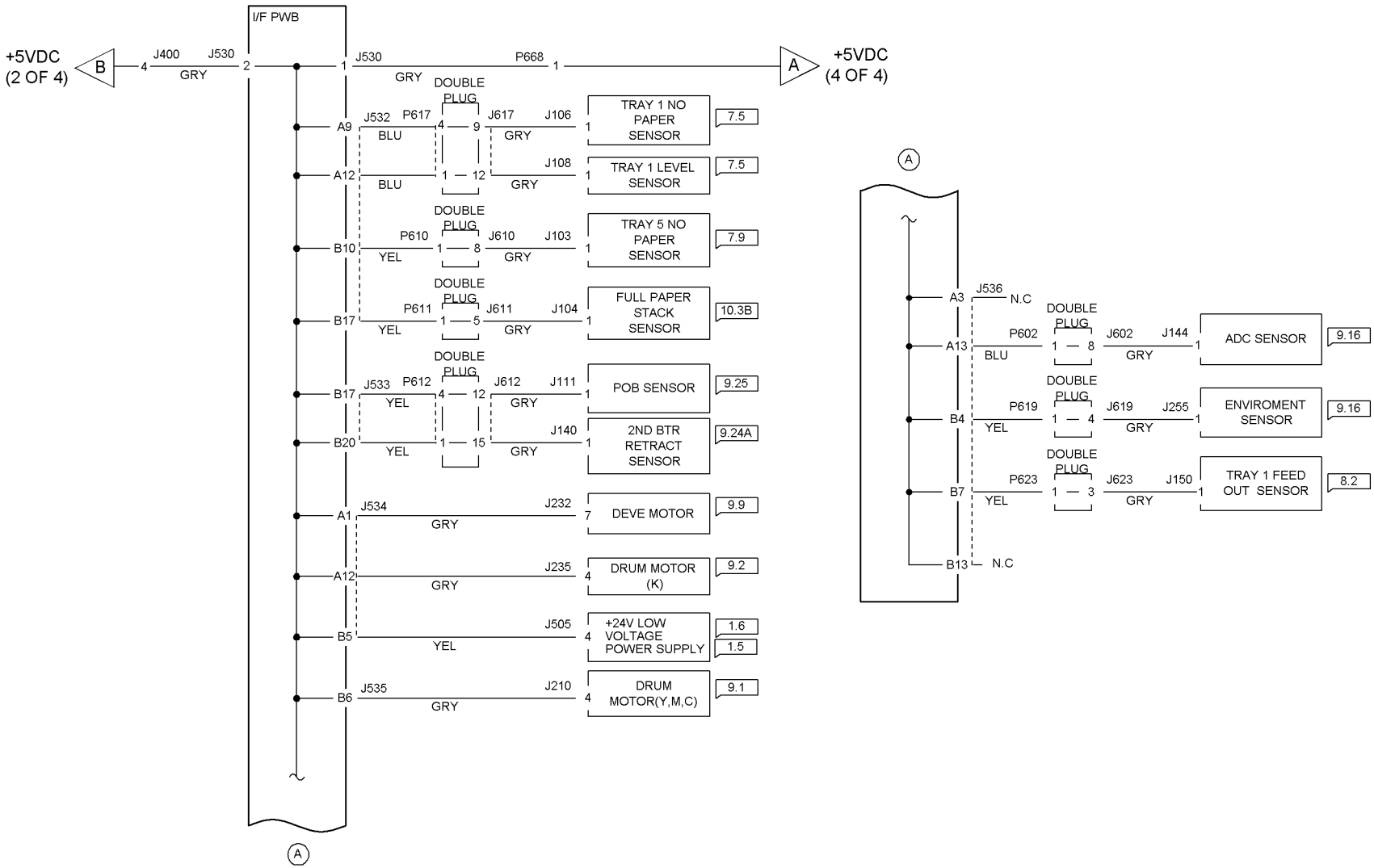


**Figure 7 +5.5VDC (3 of 4) Wirenet**

**+5VDC (4of 4)**

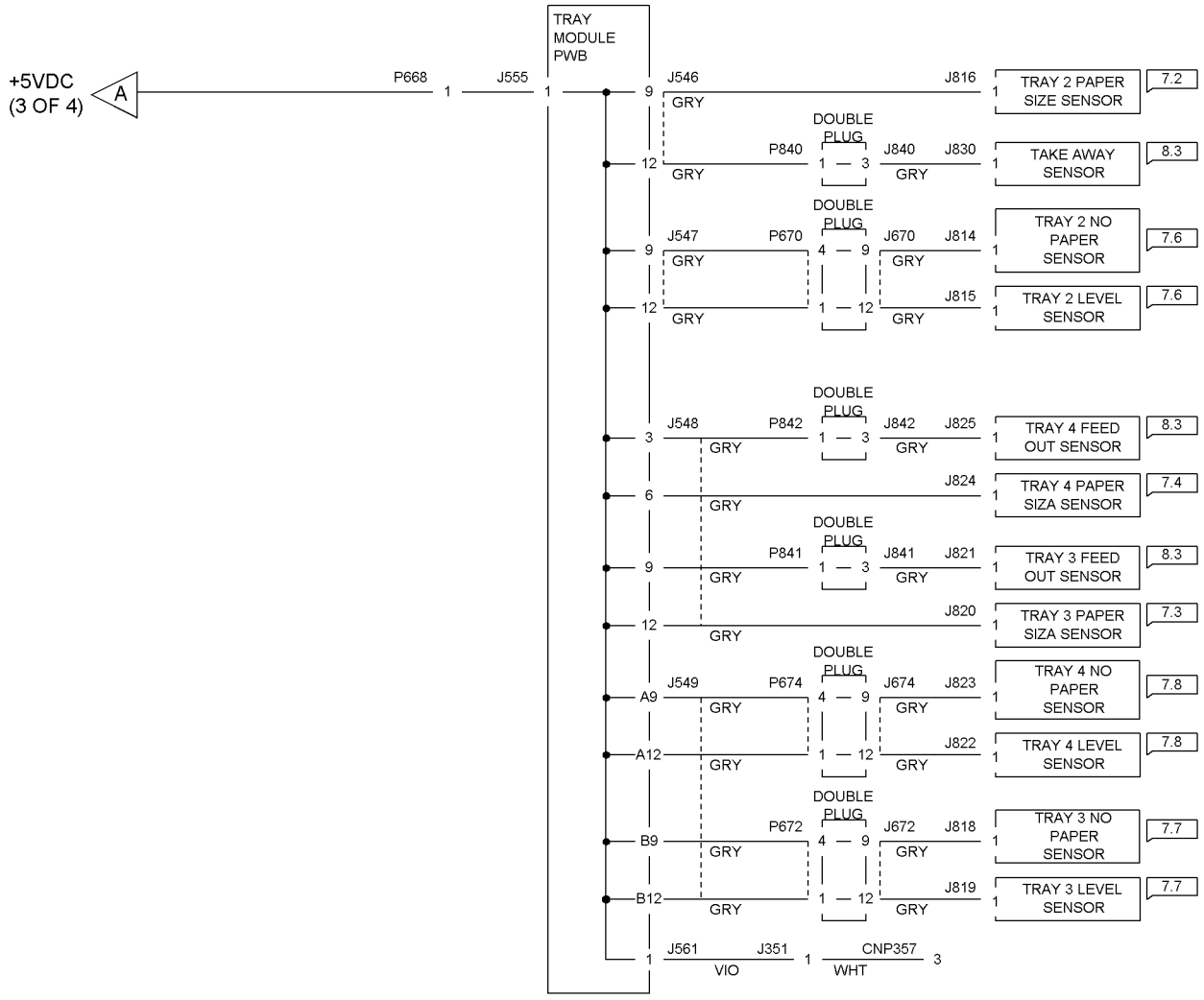


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**Figure 8 +5.5VDC (4 of 4) Wirenet**

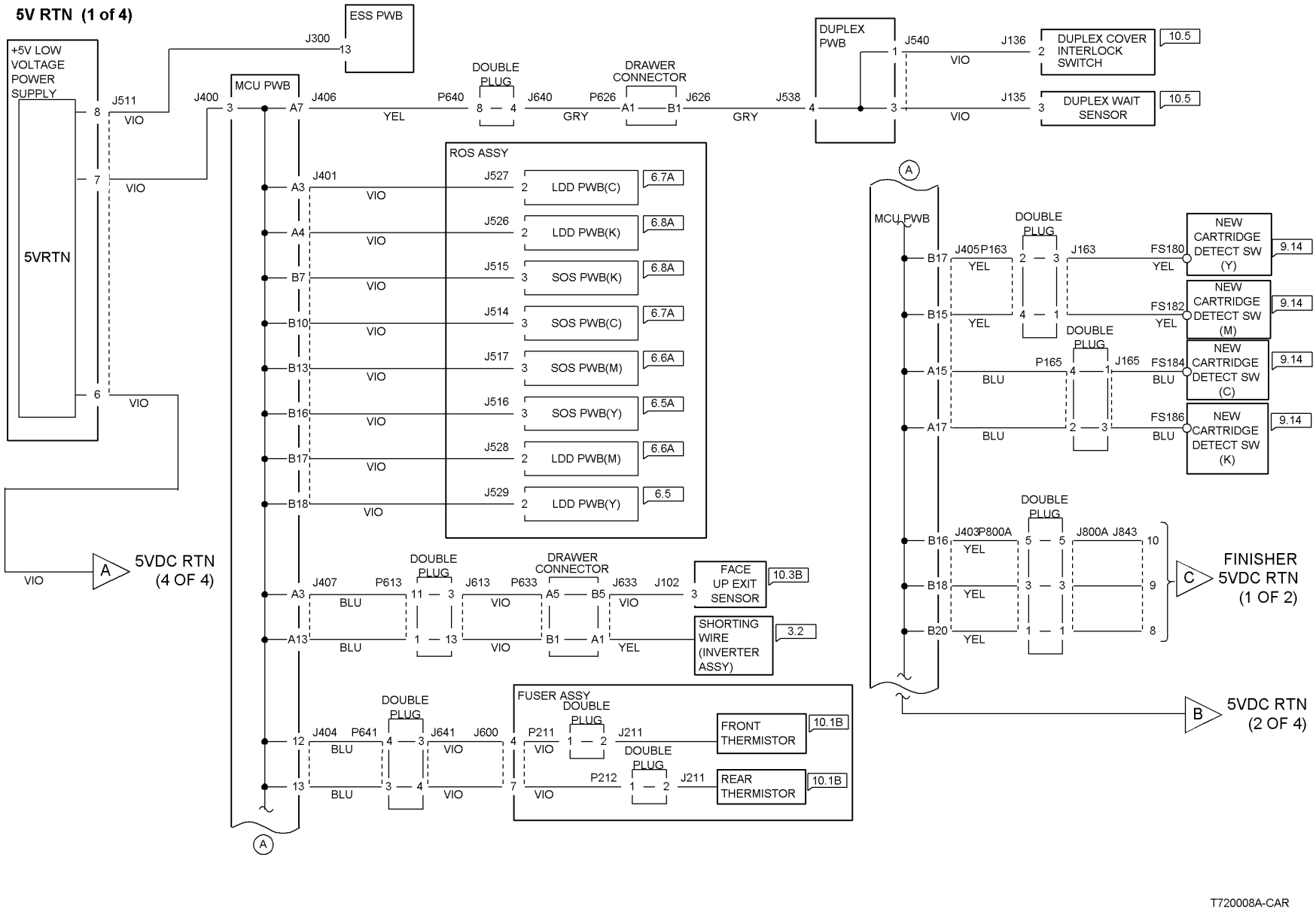


**Figure 9 5V RTN (1 of 4) Wirenet**

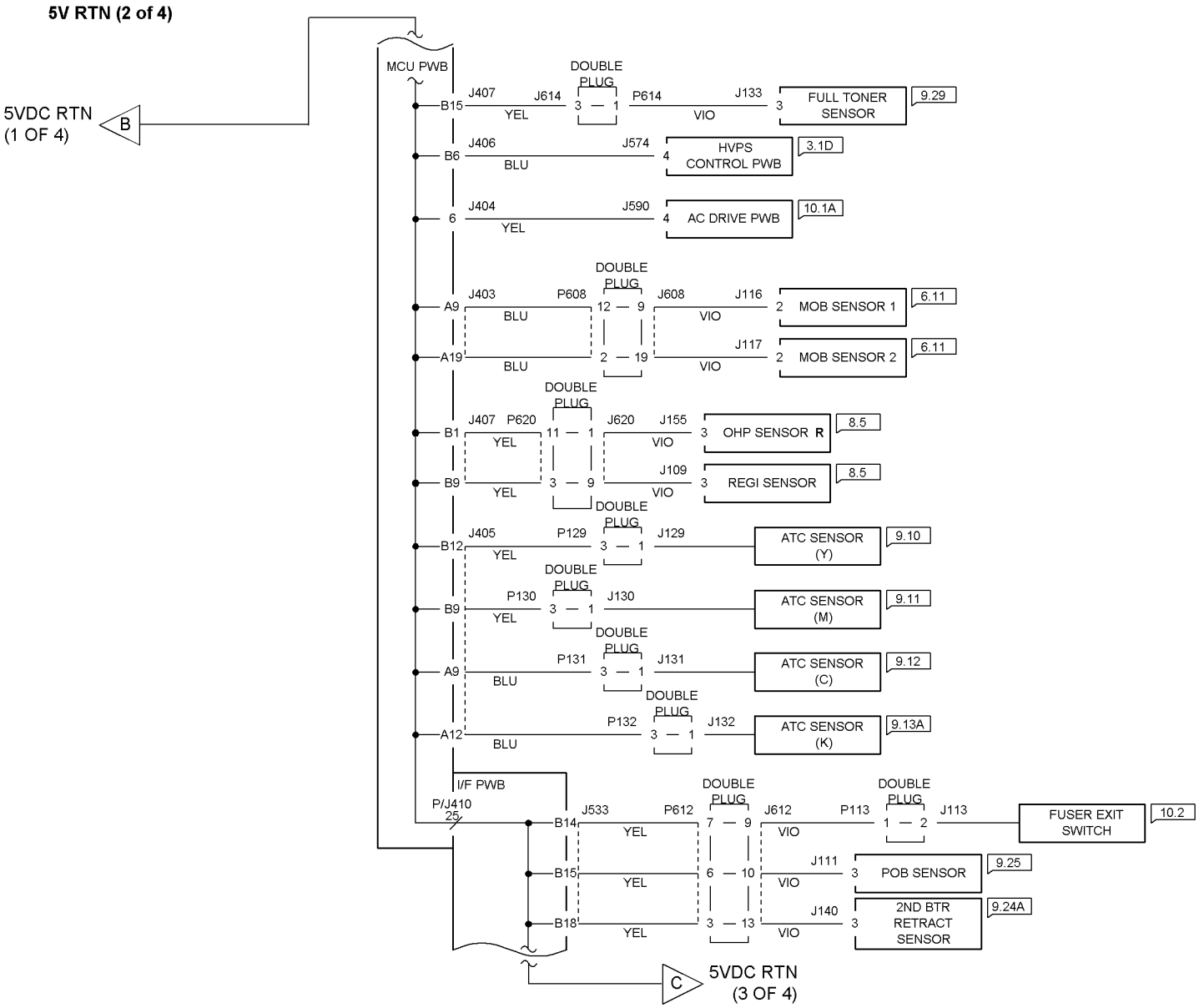


**Figure 10 5V RTN (2 of 4) Wirenet**

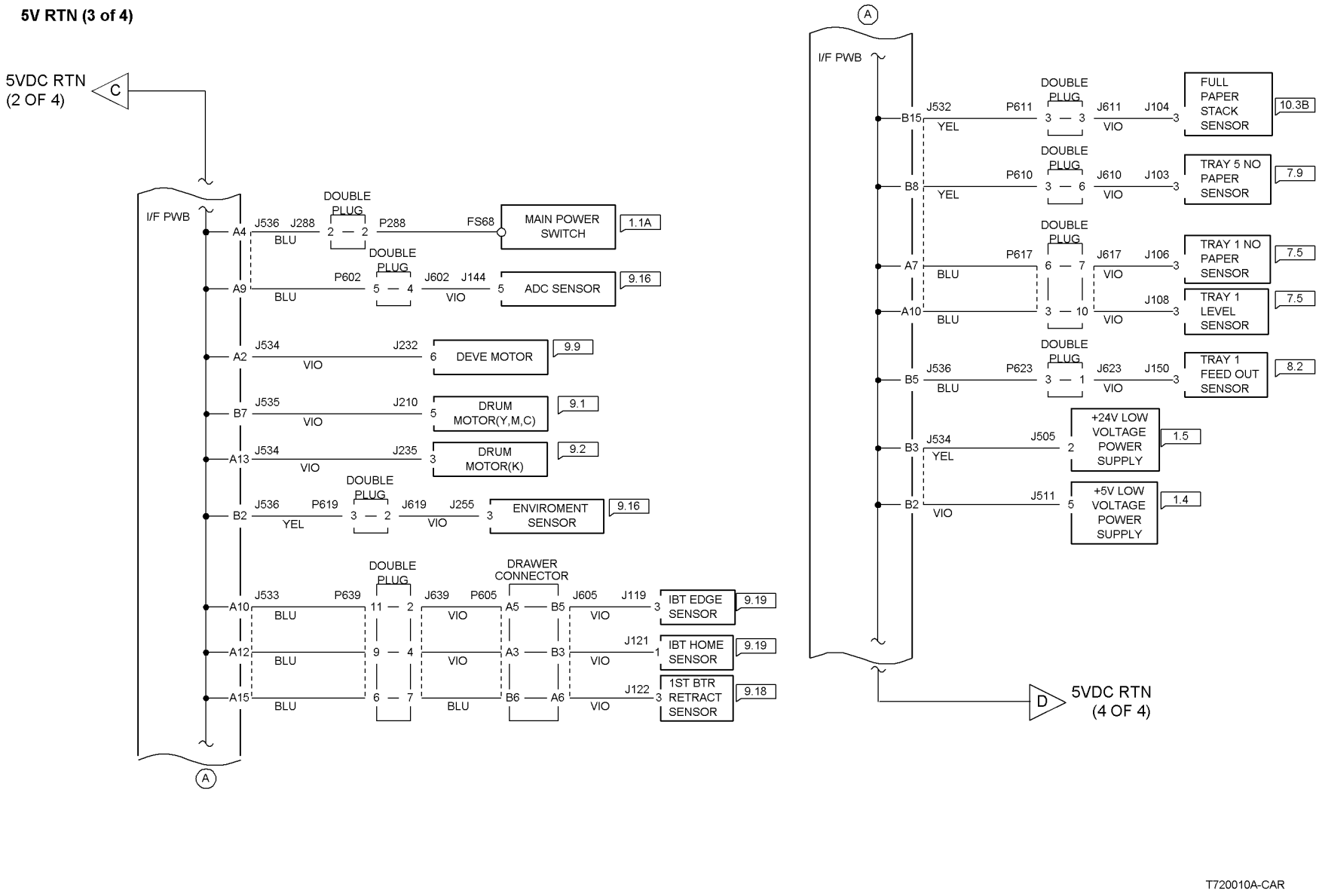


**Figure 11 5V RTN (3 of 4) Wirenet**

**5V RTN (4 of 4)**

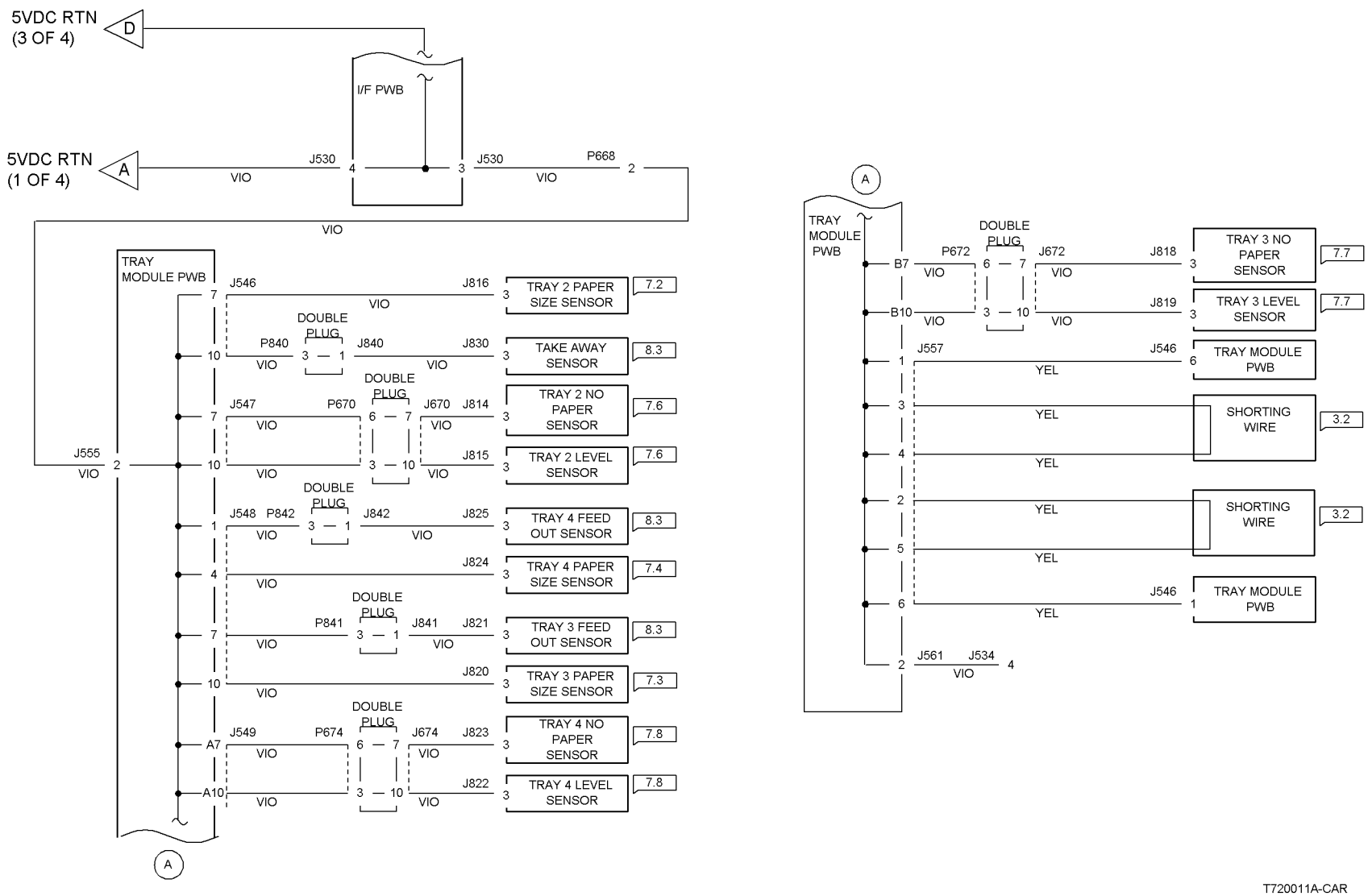


**Figure 12 5V RTN (4 of 4) Wirenet**

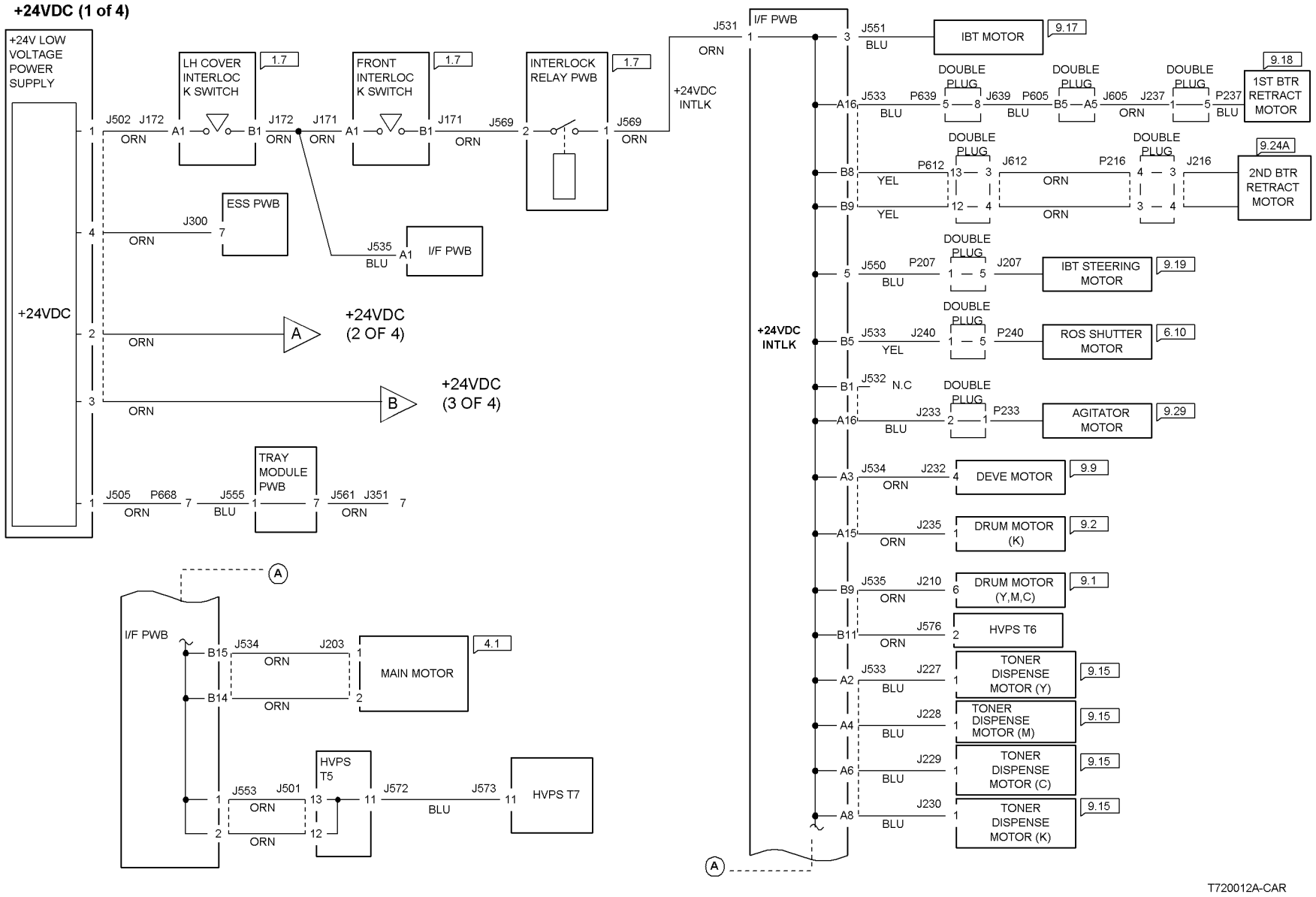


**Figure 13 +24VDC (1 of 4)**

**+24VDC (2 OF 4)**

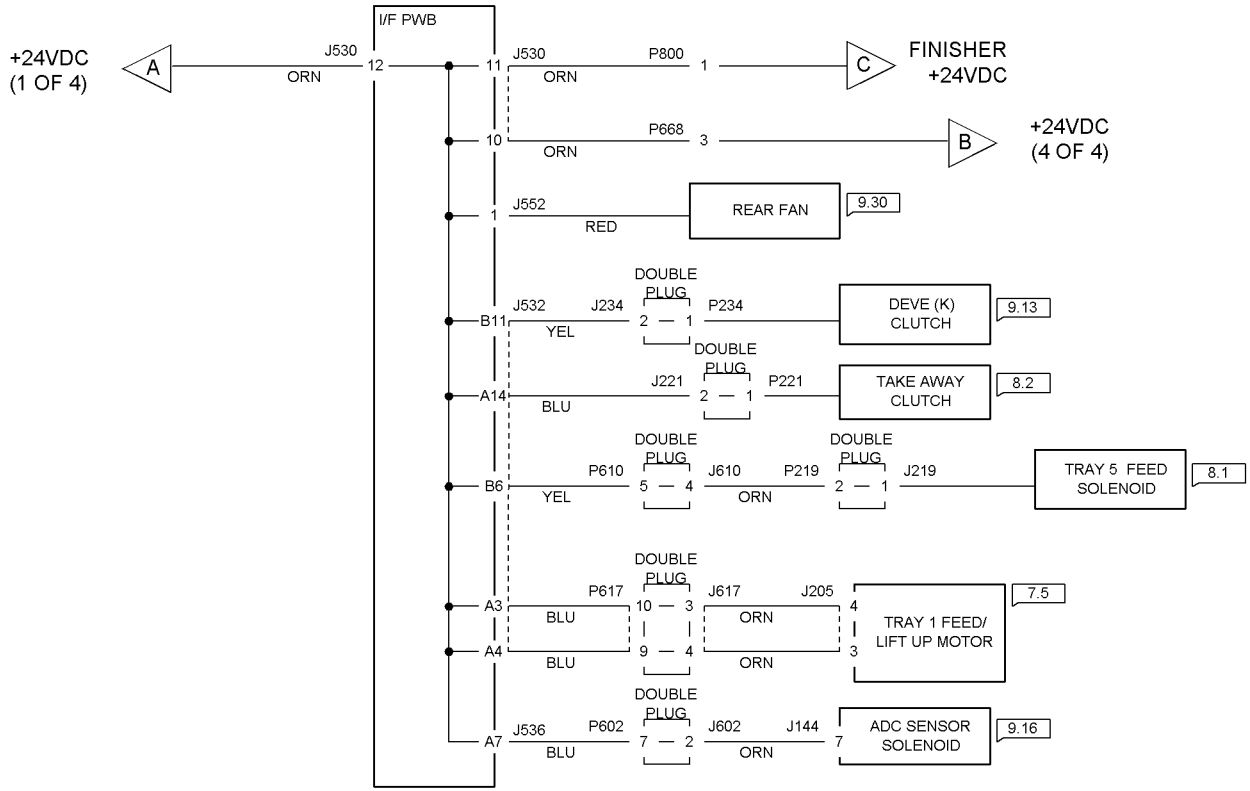


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**Figure 14 +24VDC (2 of 4)**

**+24VDC (3 of 4)**

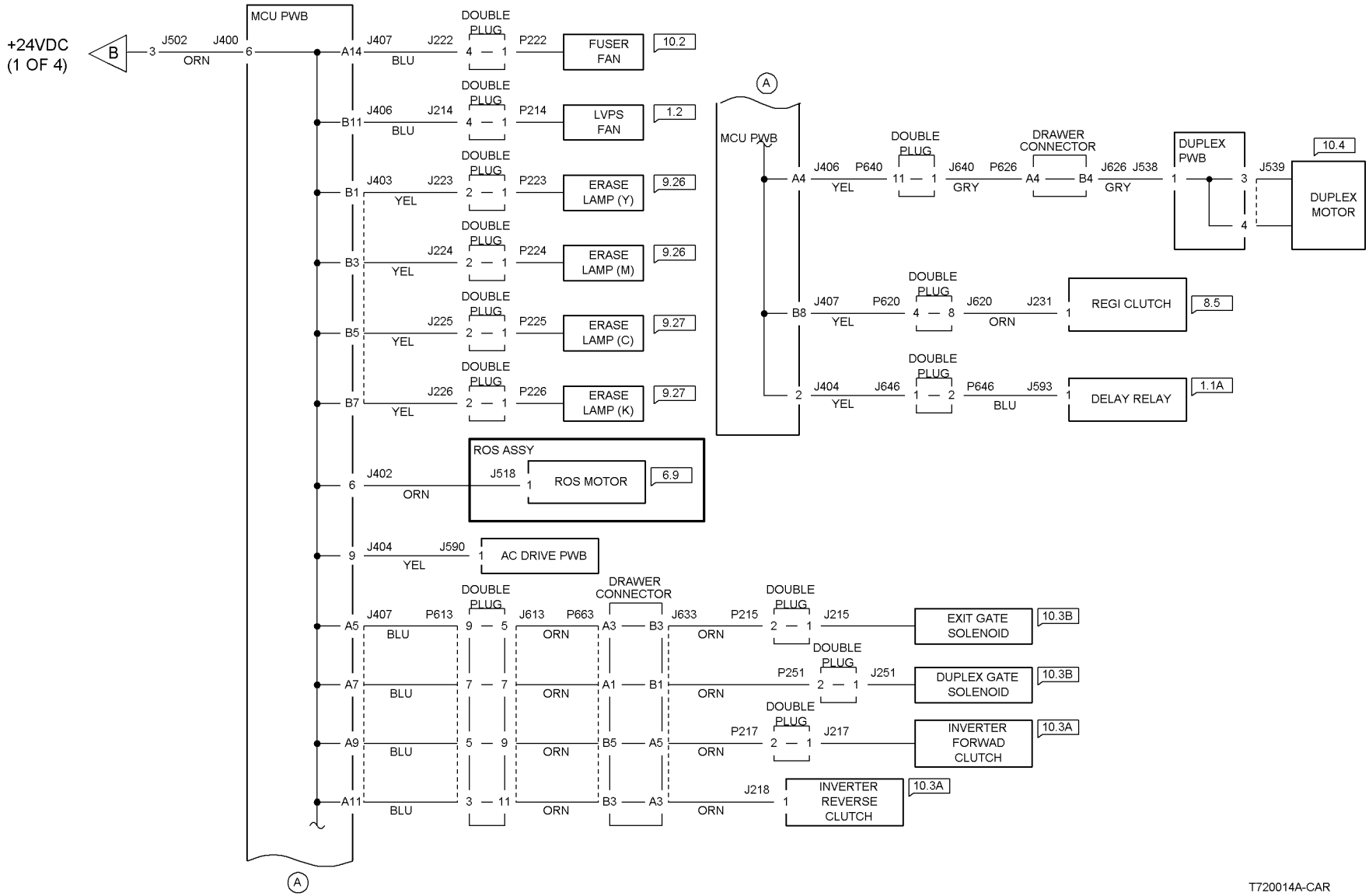


**Figure 15 +24VDC (3 of 4)**

**+24VDC (4 of 4)**

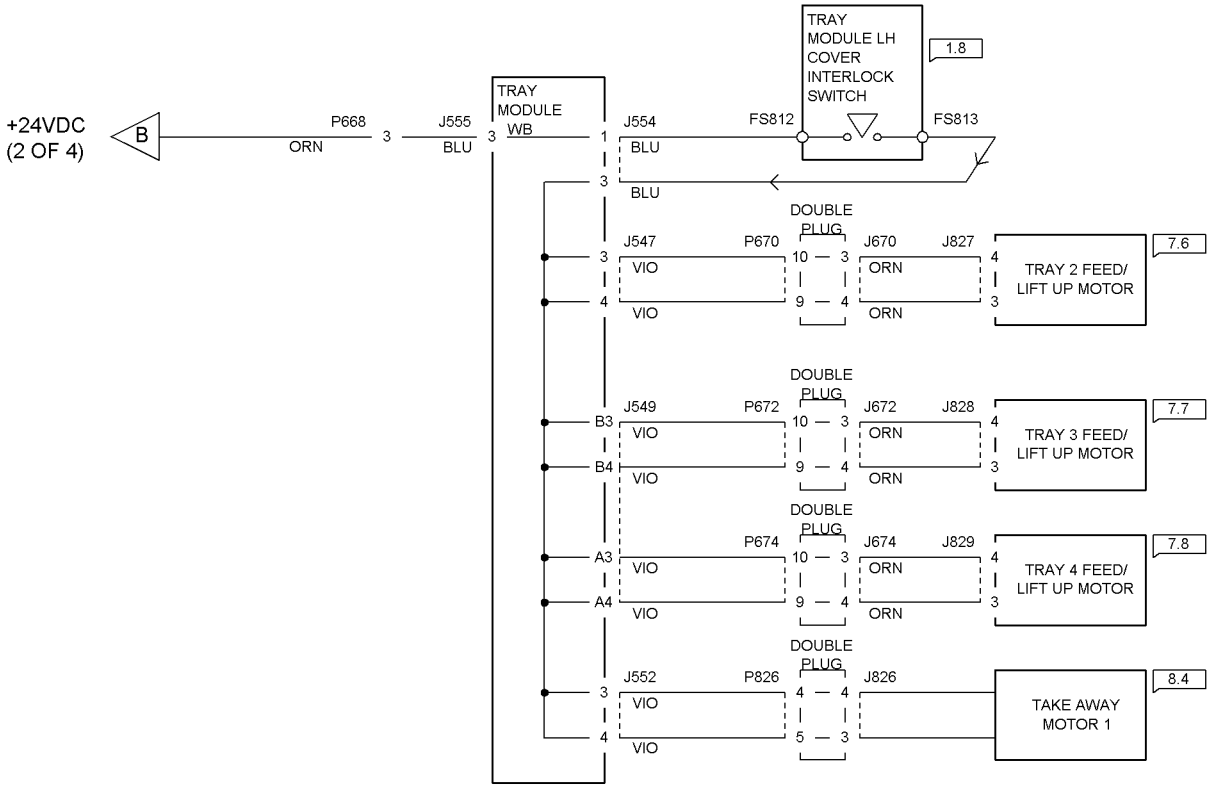


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**Figure 16 +24VDC (4 of 4)**

**24V RTN (1 of 2)**

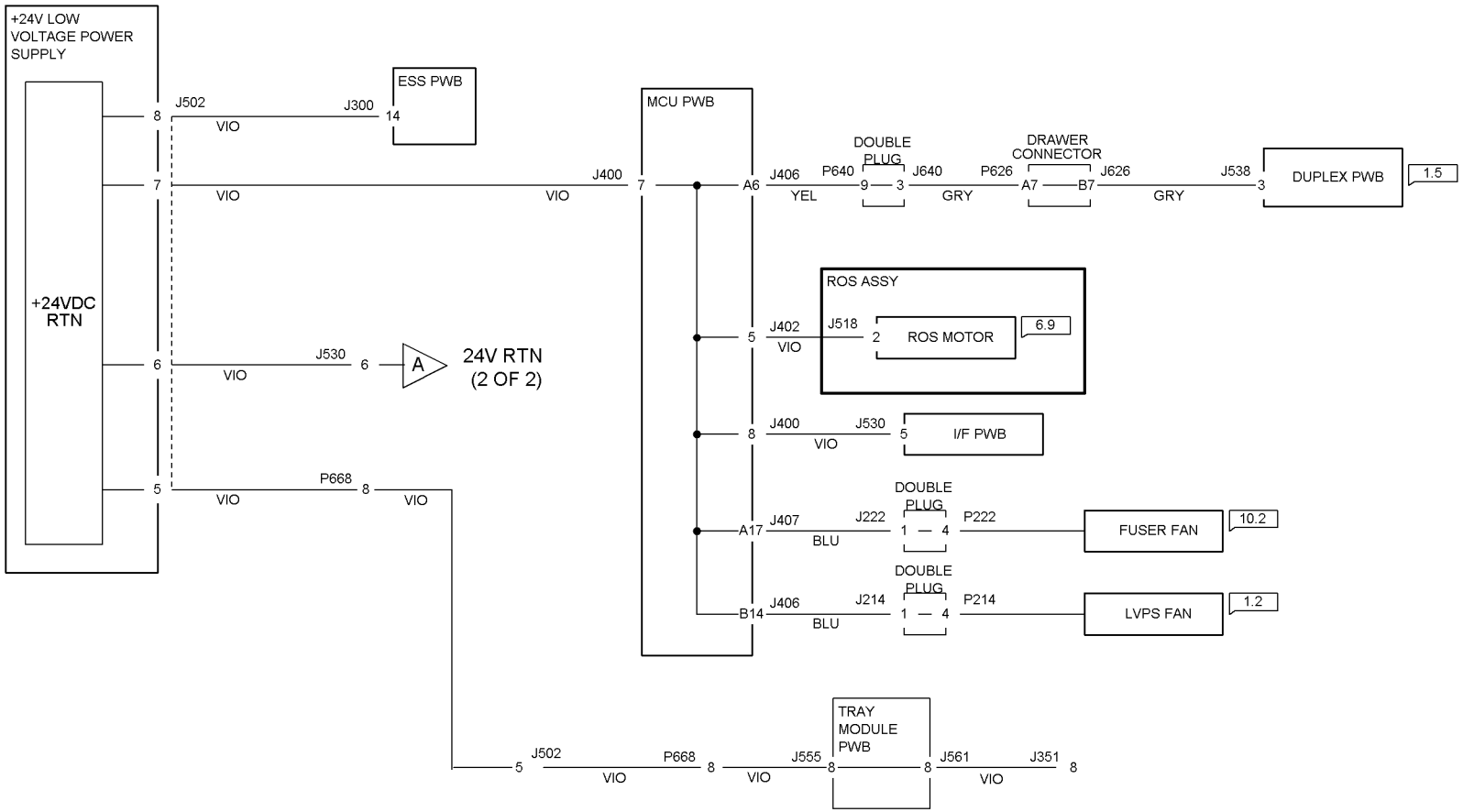


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**Figure 17 24V RTN (1 of 4)**

**24V RTN (2 0f 2)**

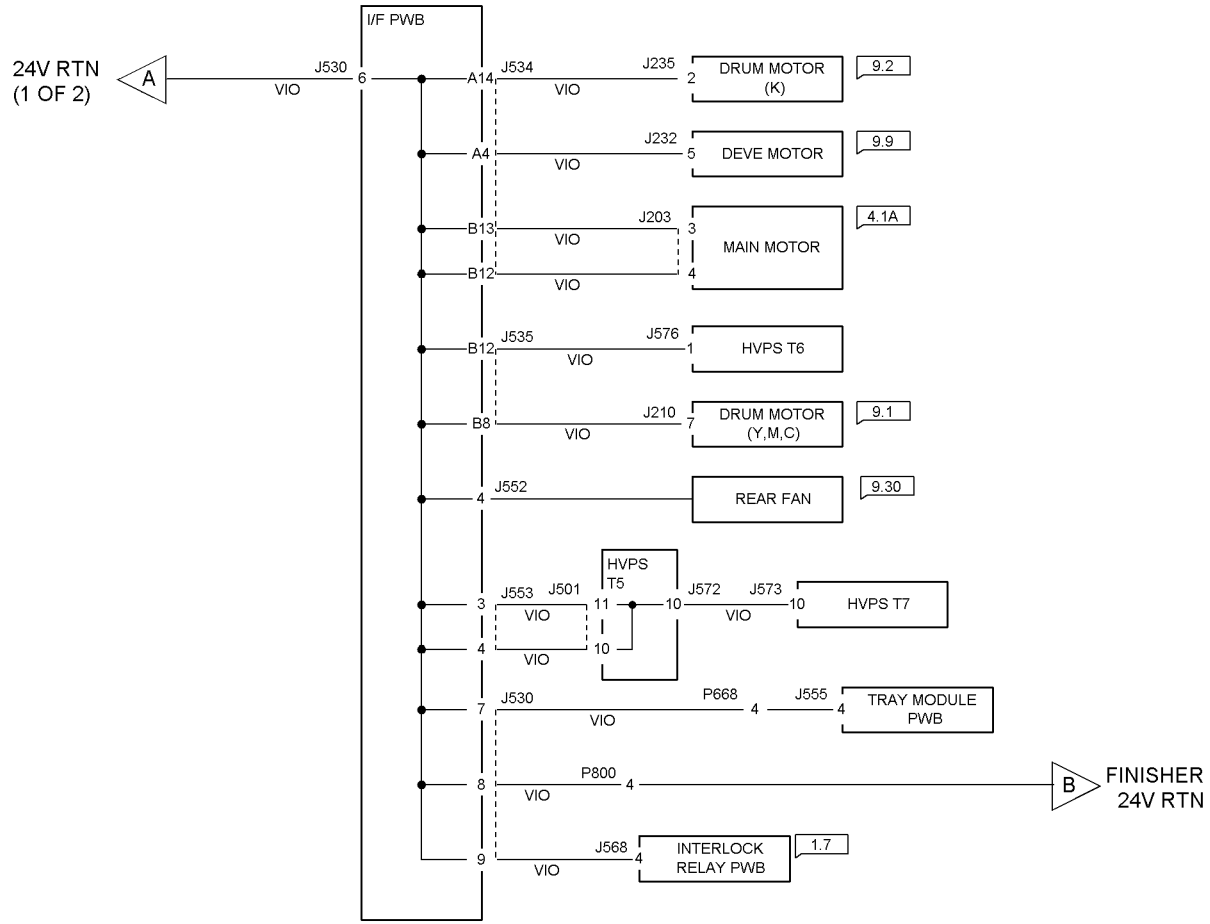


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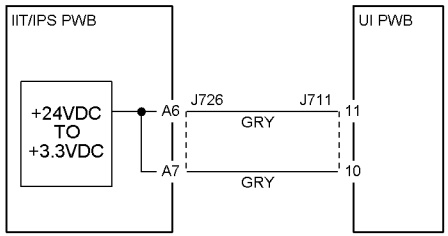
**Figure 18 24V RTN (2 of 4)**

**IIT +3.3VDC**




**IIT DC COM (3.3V RTN)**

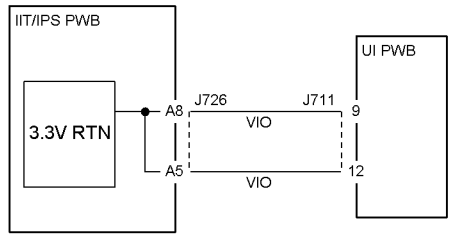



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**Figure 19 IIT +3.3VDC & 3.3V RTN Wirenets**

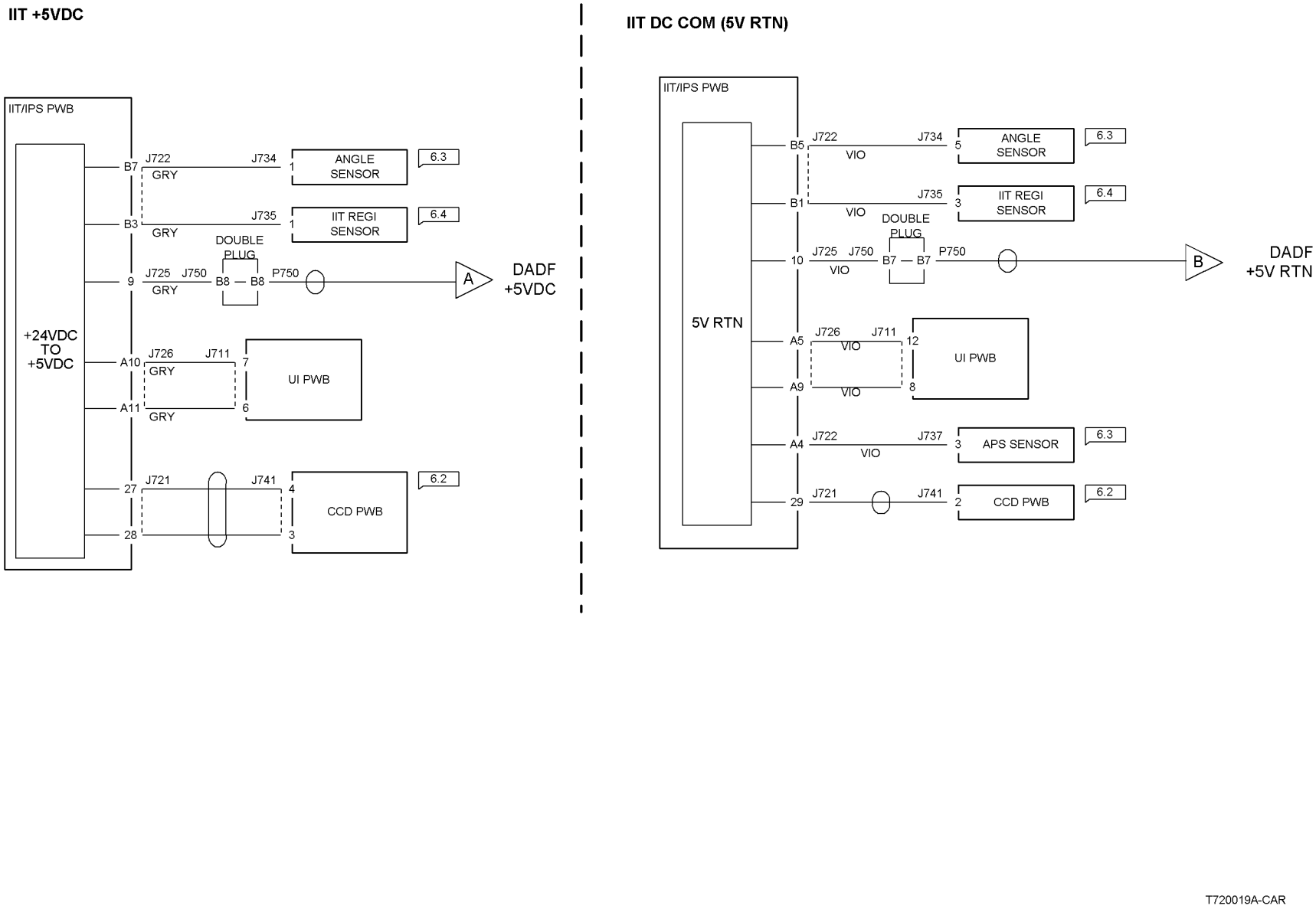


**Figure 20 IIT +5VDC & 5V RTN Wirenets**

**IIT +24VDC**

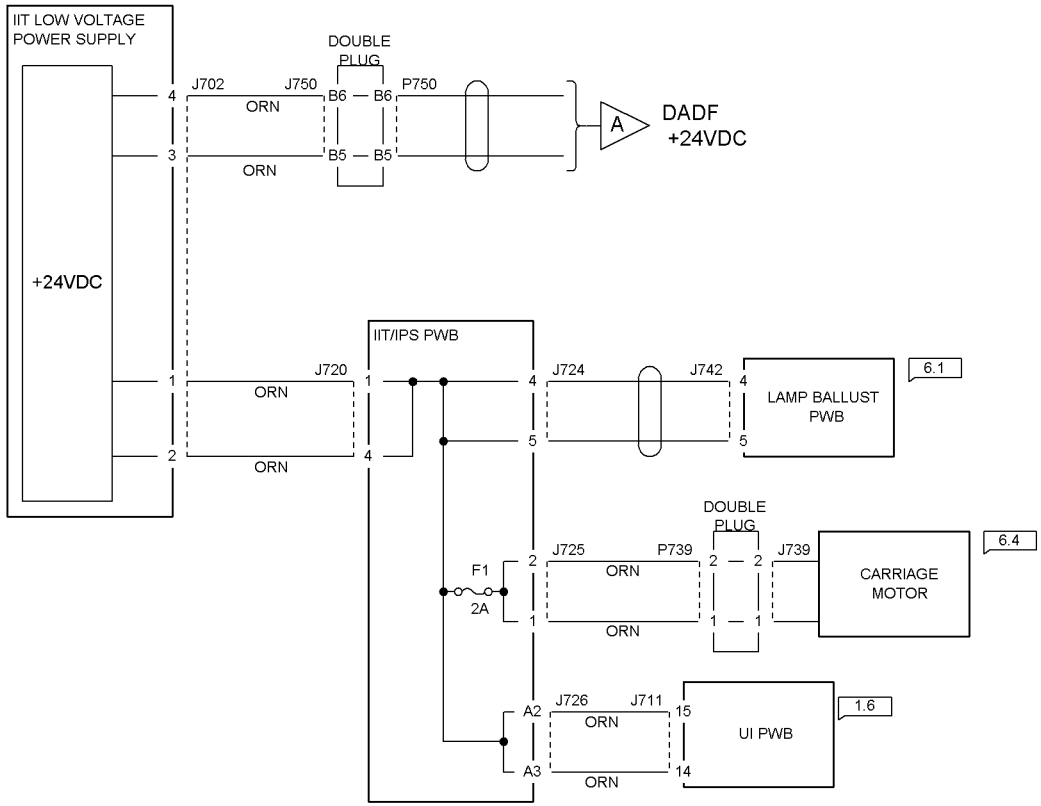


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**Figure 21 IIT +24VDC Wirenet**

**IIT DC COM (24V RTN)**

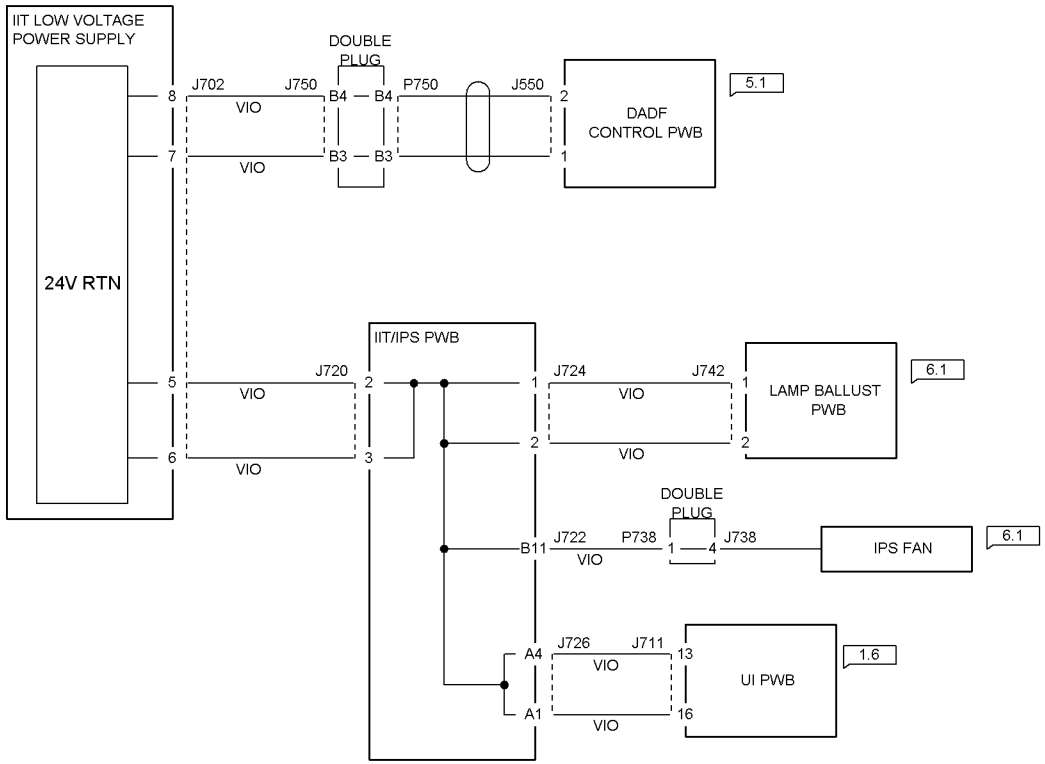


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**Figure 22 IIT 24V RTN**

**DADF +5VDC**

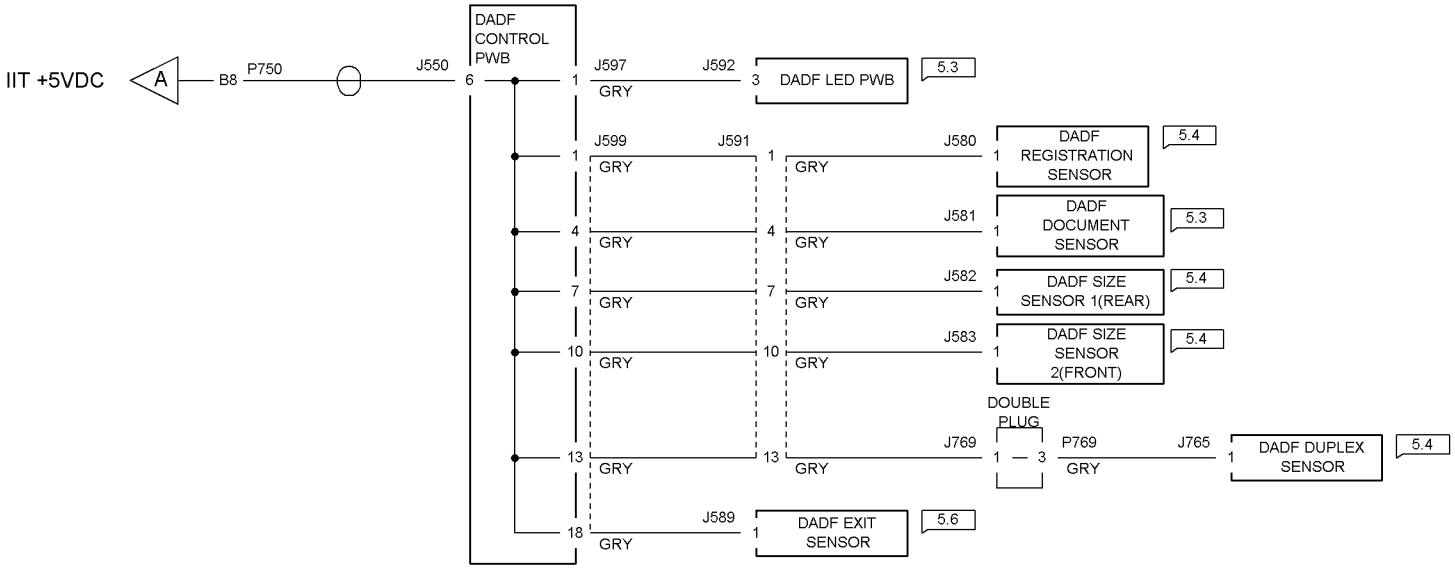


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**Figure 23 DADF +5VDC Wirenet**

**DADF DC COM (5V RTN)**

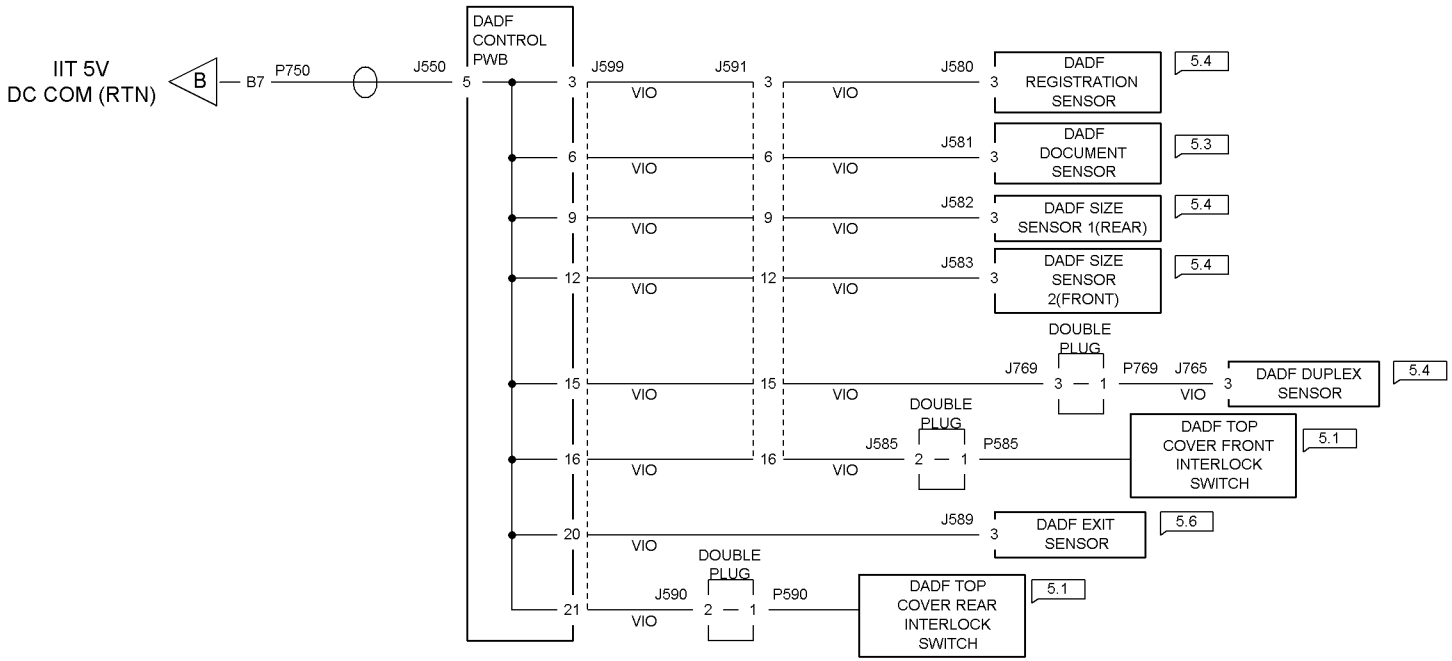


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**Figure 24 DADF 5V RTN**

**DADF +24VDC**

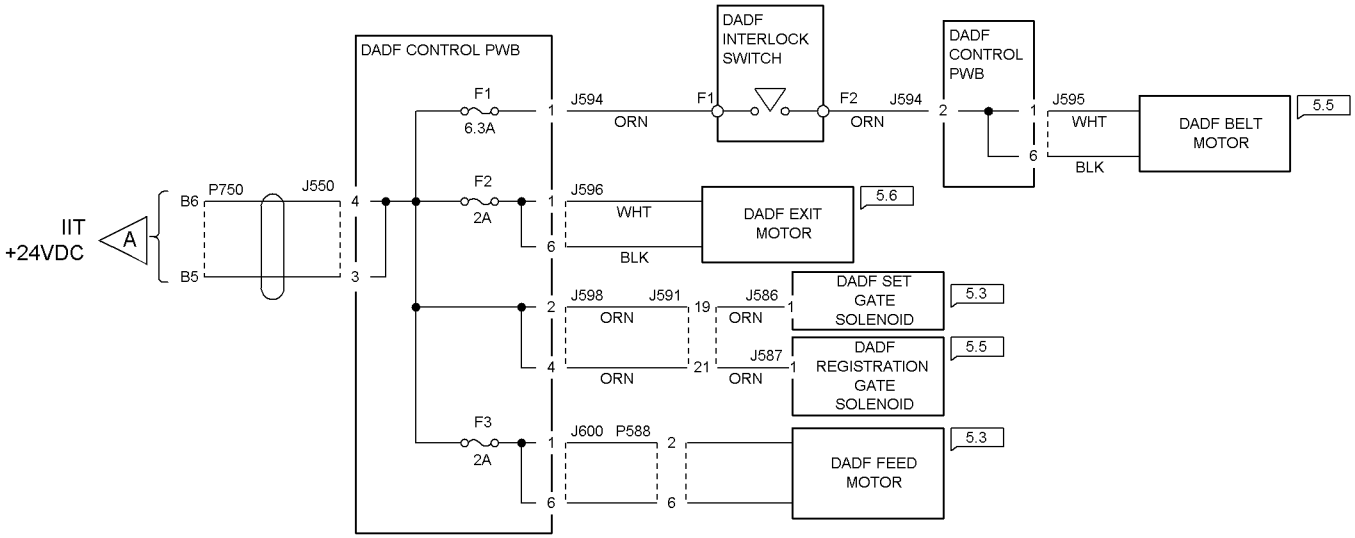


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**Figure 25 DADF +24VDC Wirenet**

**FINISHER +5VDC(1 0f 2)**

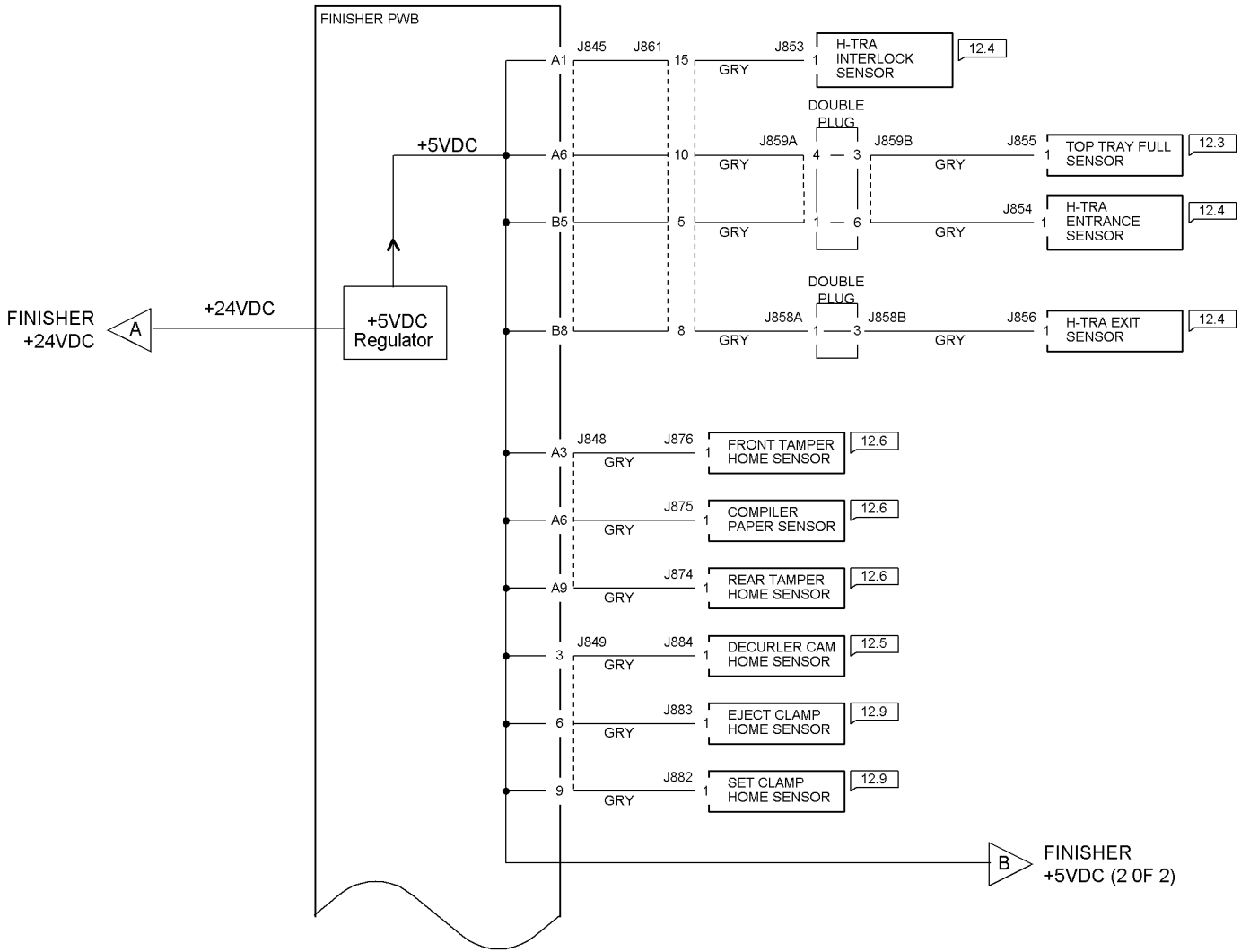


**Figure 26 finisher +5VDC (1 of 2) Wirenet**

**FINISHER +5VDC (2 of 2)**

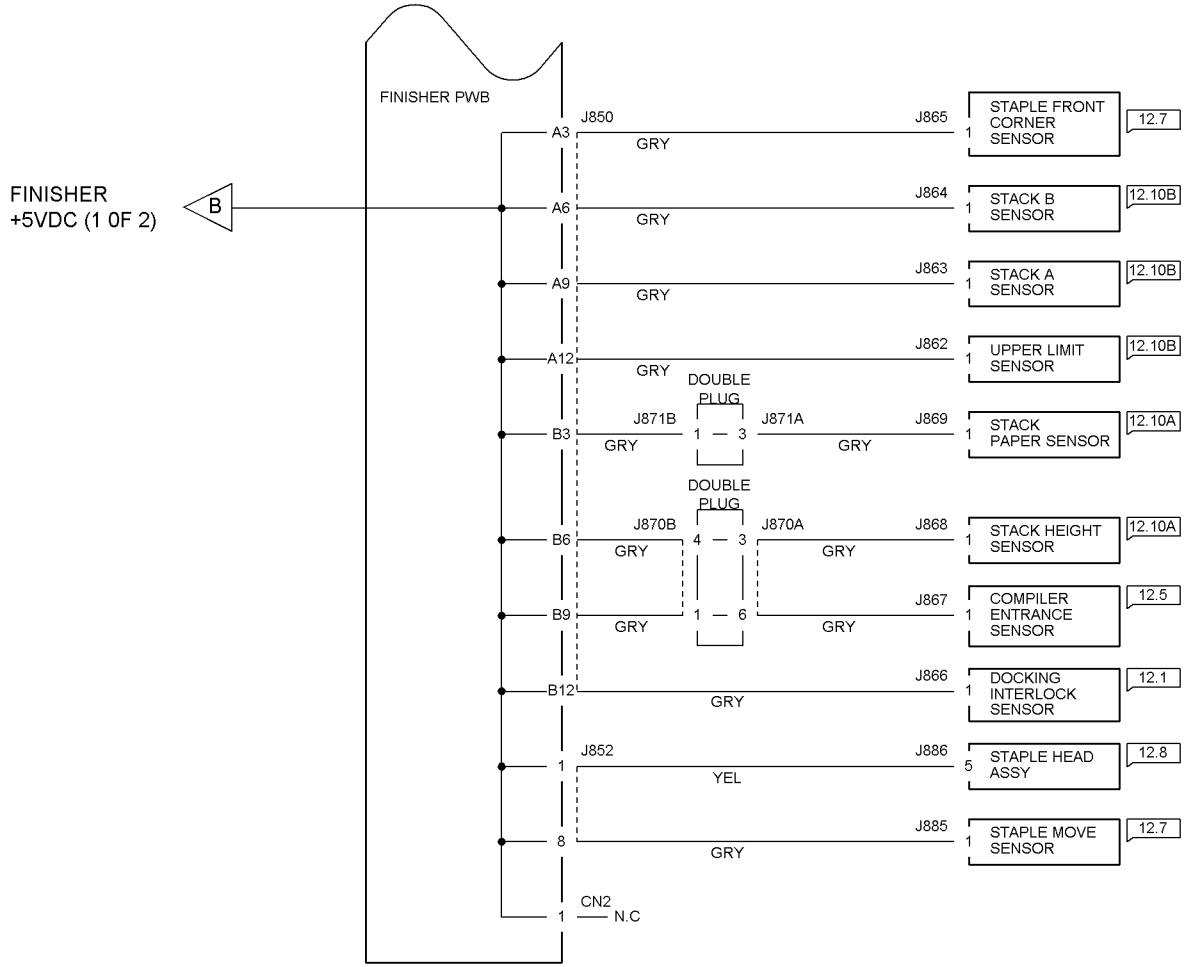


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**Figure 27 +5VDC (2 of 2) Wirenet**

**FINISHER 5V RTN (1 of 2)**

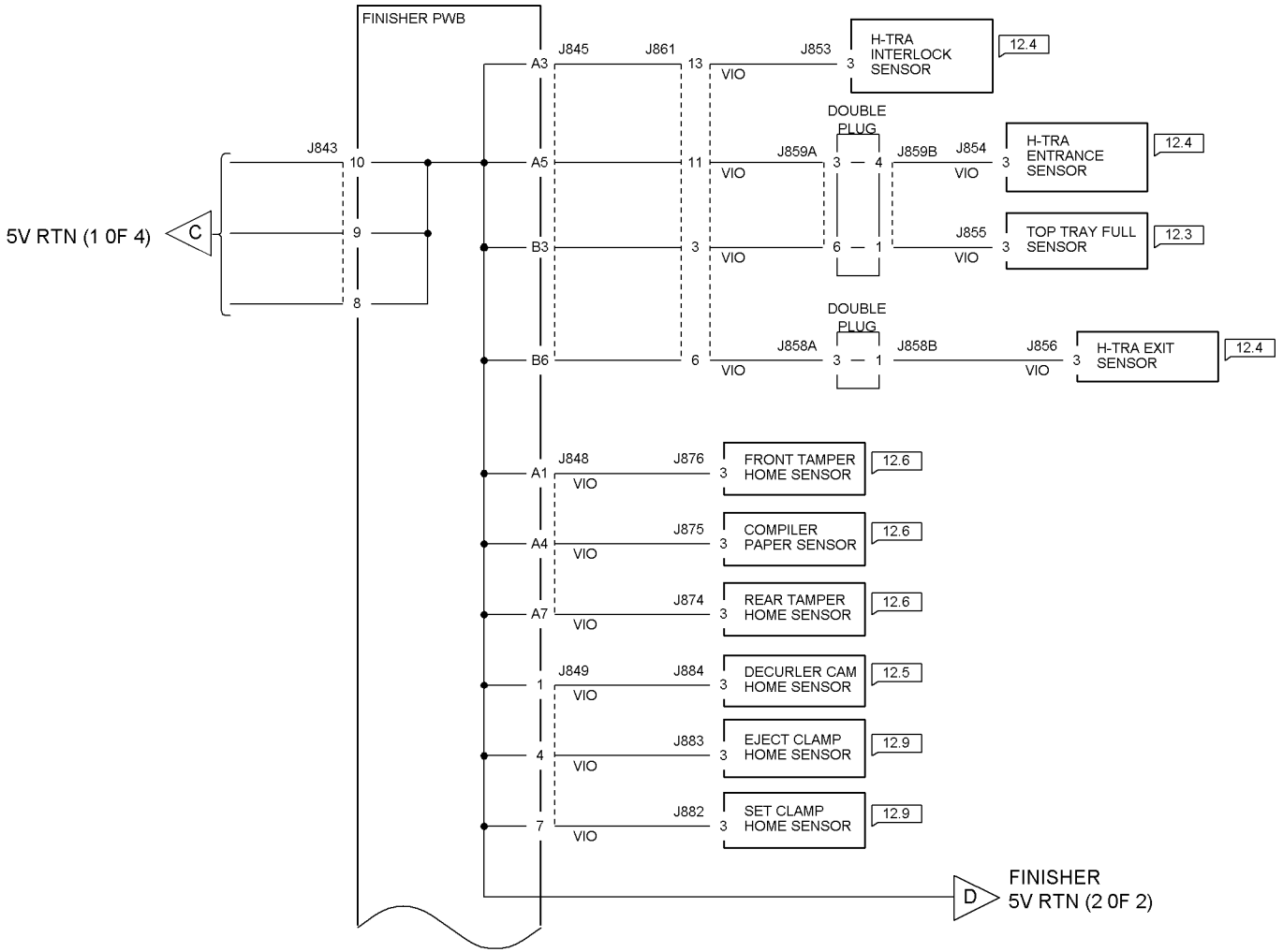


**Figure 28 5V RTN (1 of 2) Wirenet**

**FINISHER 5V RTN (2 0f 2)**

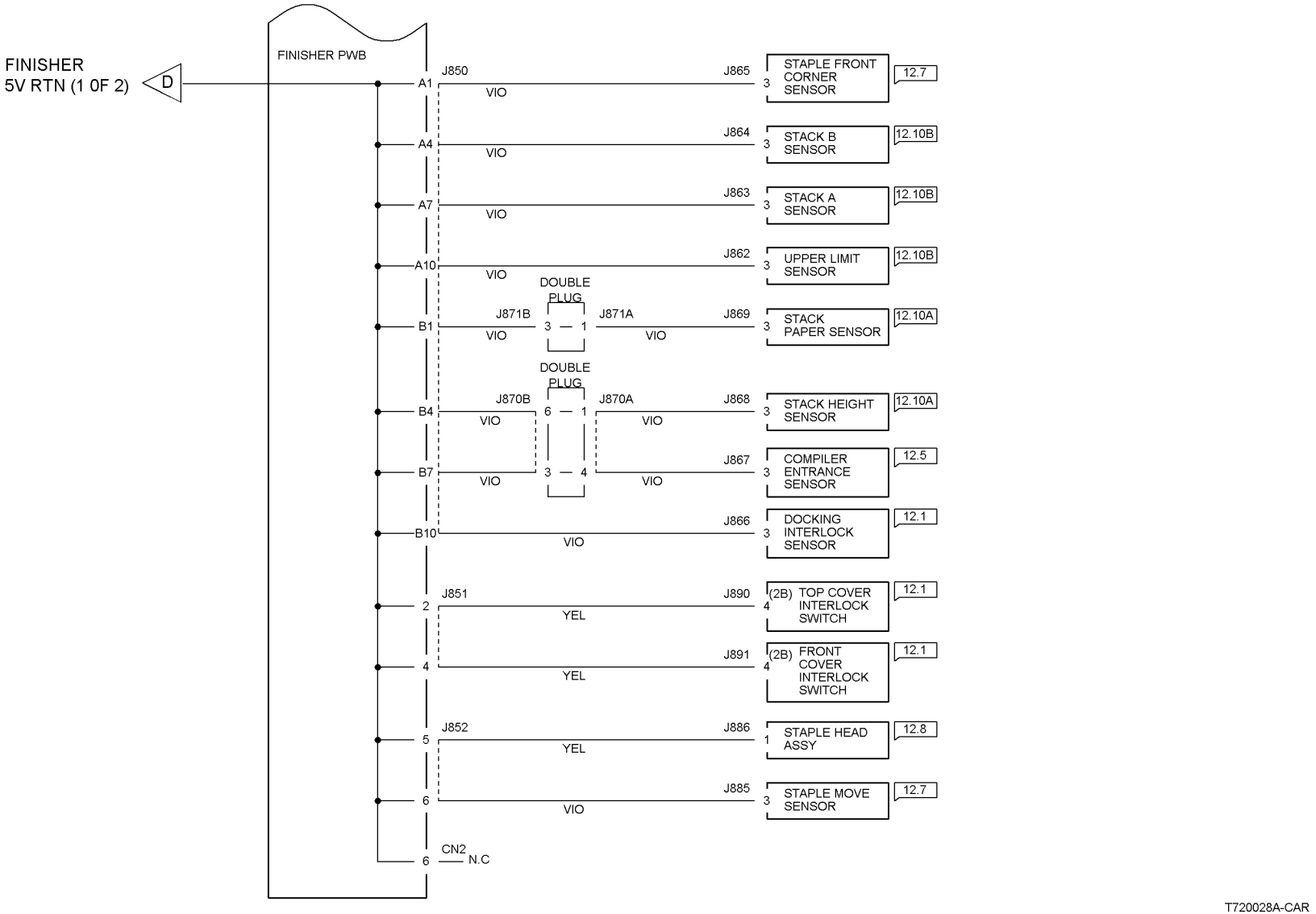


**Figure 29 5V RTN (2 of 2) Wirenet**

**FINISHER +24VDC**

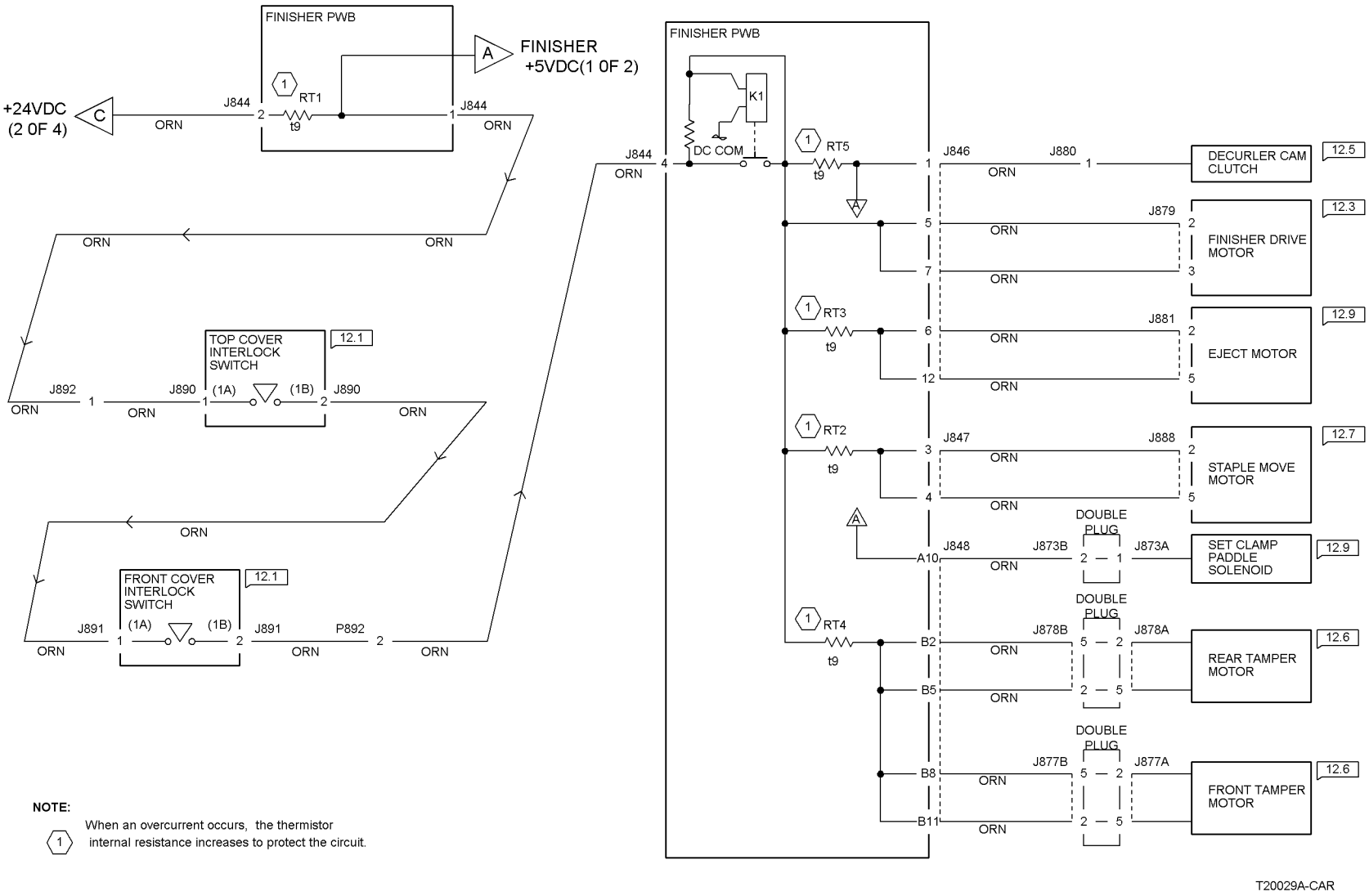


**Figure 30 Finisher +24VDC Wirenet**

**FINISHER DC COM (24V RTN)**

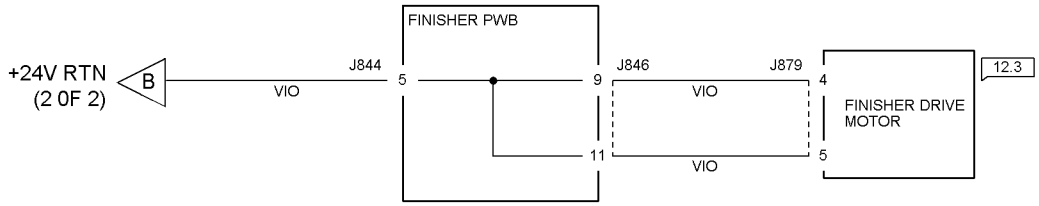


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**Figure 31 Finisher 24V RTN Wirenet**

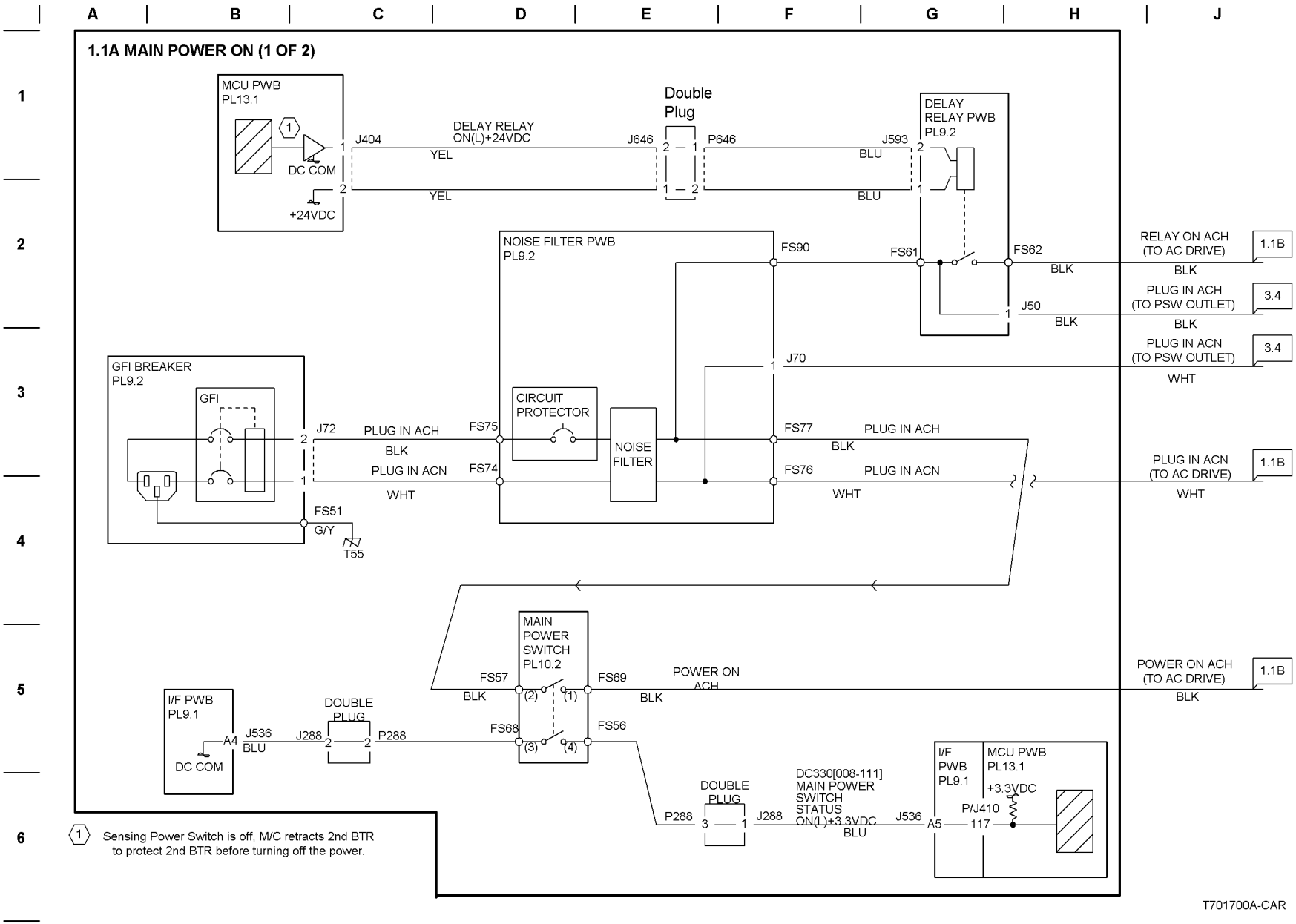



**Figure 1 1.1B Main Power On (2 0f2)**

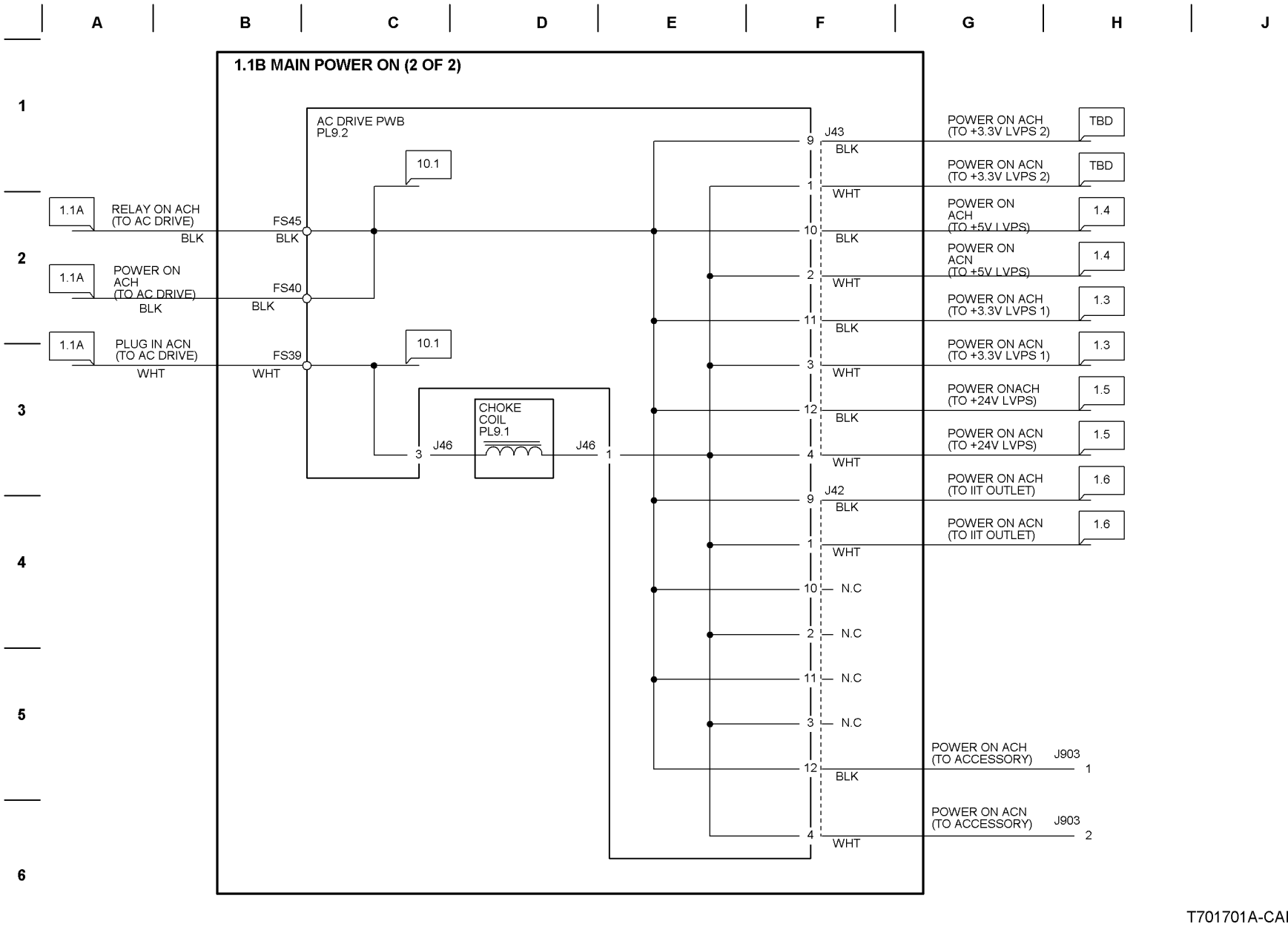
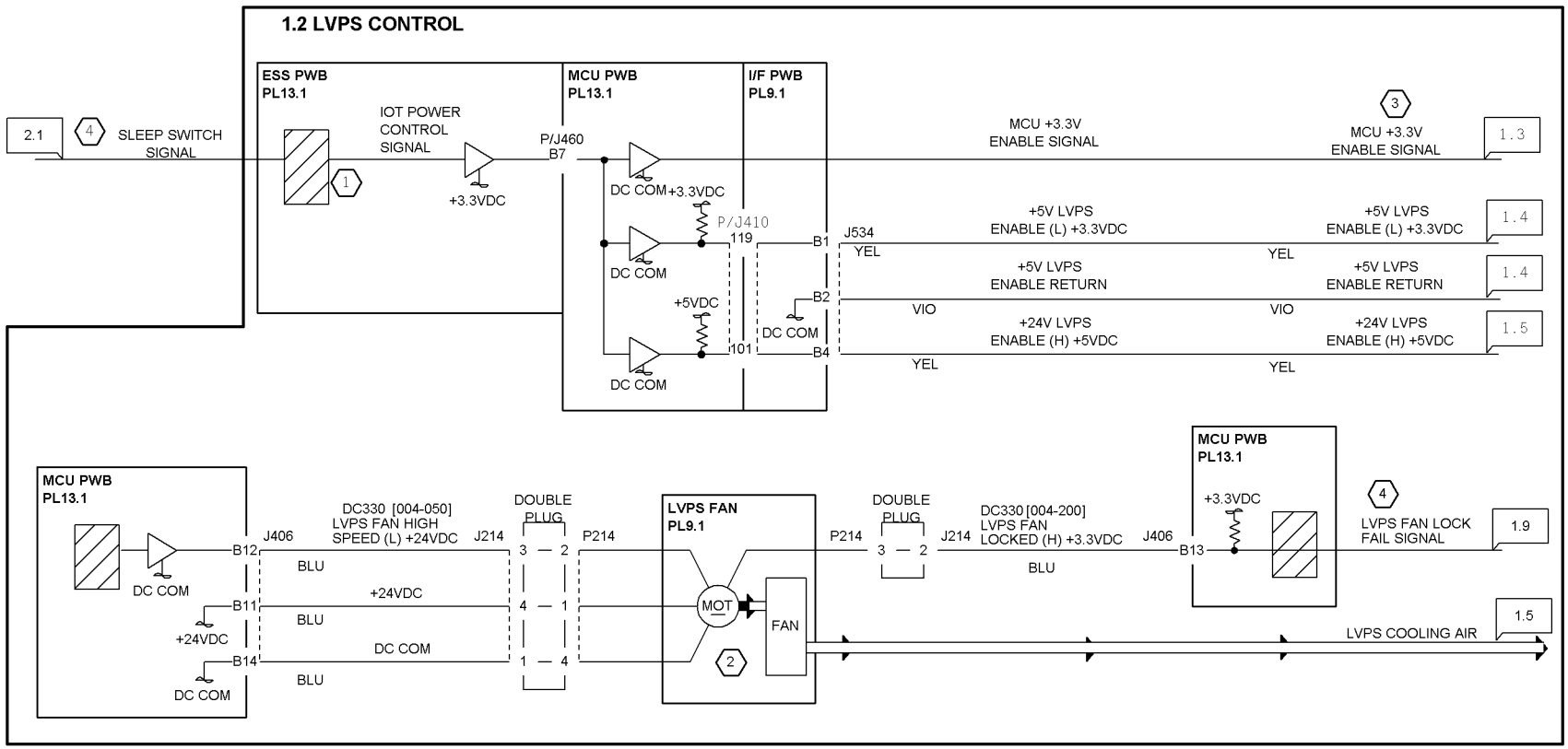



**Figure 2 Main Power On (2 of 2)**




**NOTE:**

1. In Sleep Mode, M/C turns off the +5V LVPS and +24V LVPS Enable signal to cut off the +5V DC and +24V DC output.
   In Sleep Mode, though +3.3V LVPS remains on, +3.3V DC supplied to either of the PWBs is cut off to part of ESS PWB and all the parts of MCU PWB. (See CH 1.3.)
2. LVPS Fan starts low-speed rotation at power on and keeps it with M/C on standby.
   LVPS Fan starts high-speed rotation at Main Motor On and transits to low-speed rotation 15sec (adjustable in NVM) after Main Motor Off.
   In Sleep Mode, LVPS Fan stops rotating because +24V DC is cut off.
3. Wiring in MCU PWB
4. Virtual Line

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**Figure 3 LVPS Control**

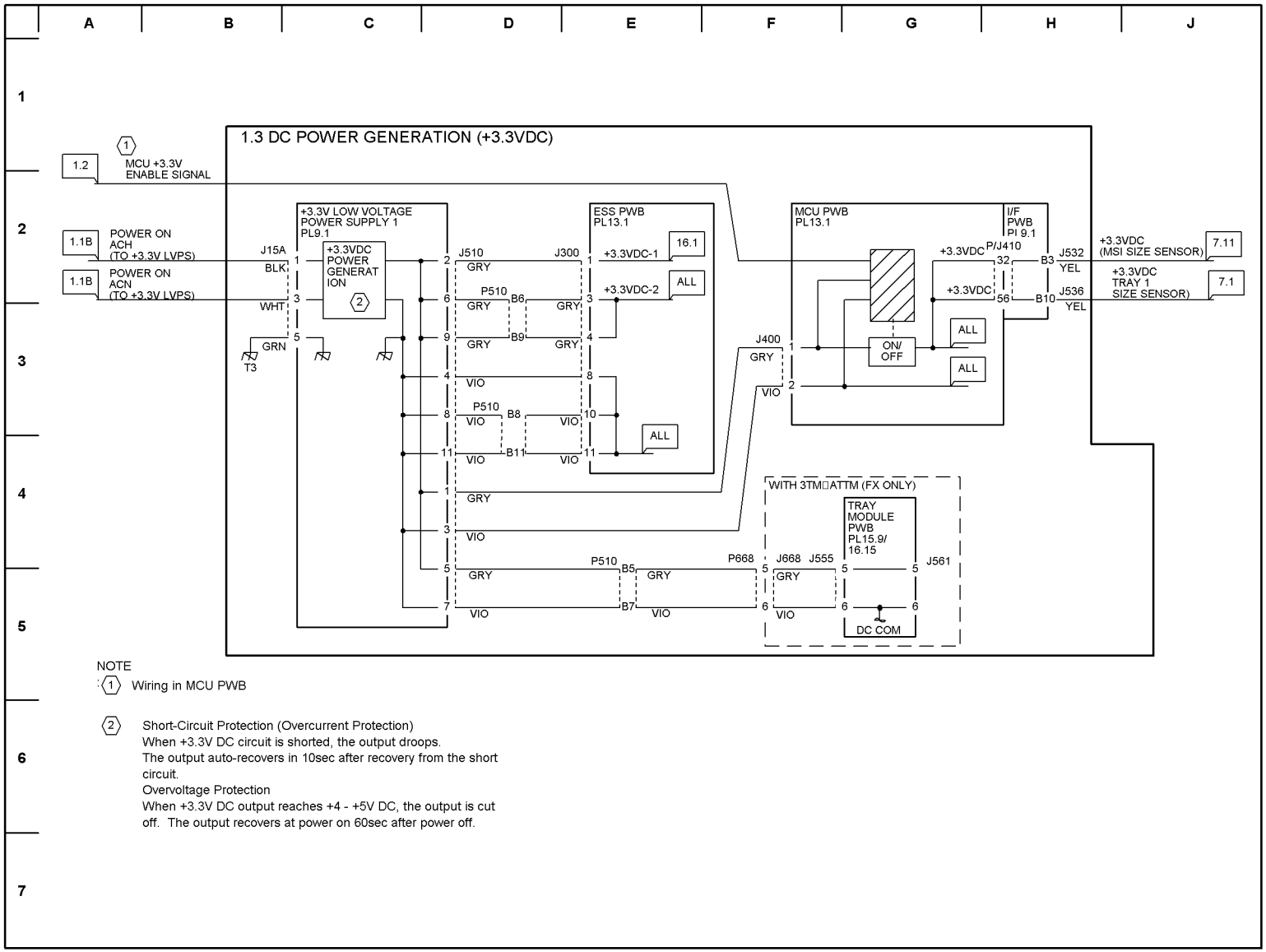


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**Figure 4 DC Power Generation (+3.3VDC)**

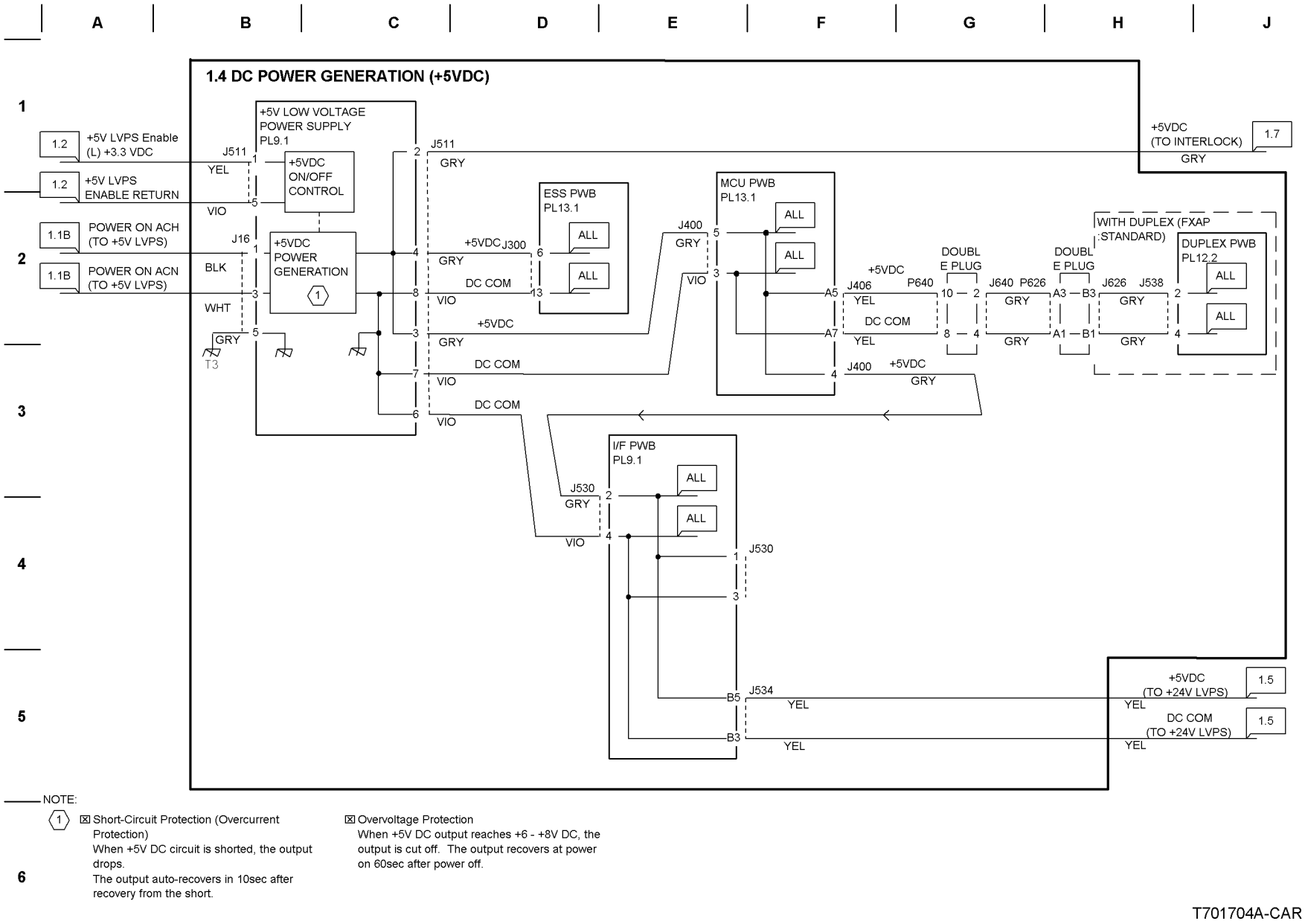


**Figure 5 DC Power Generation**

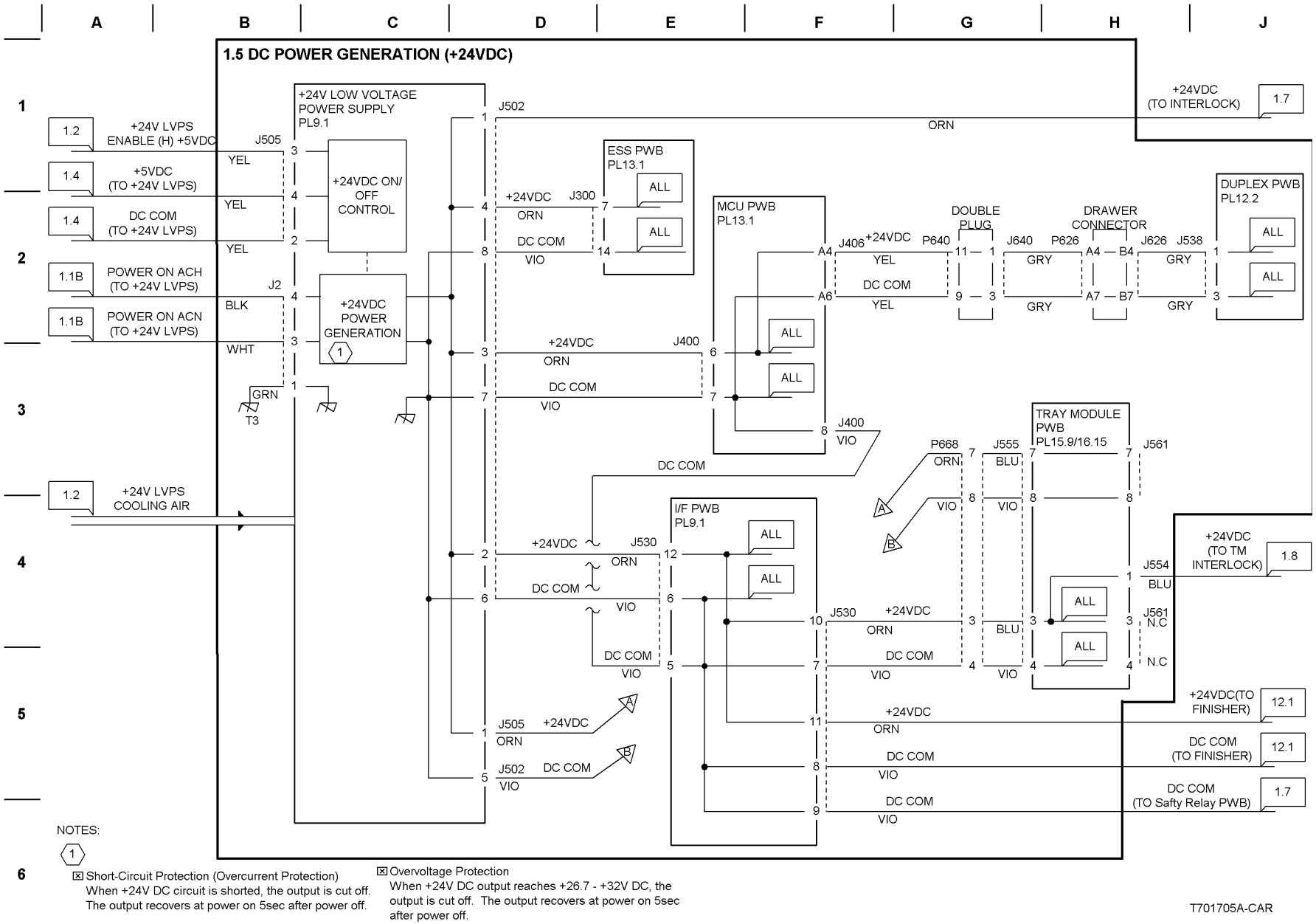


**Figure 6 DC Power generation (+24VDC)**

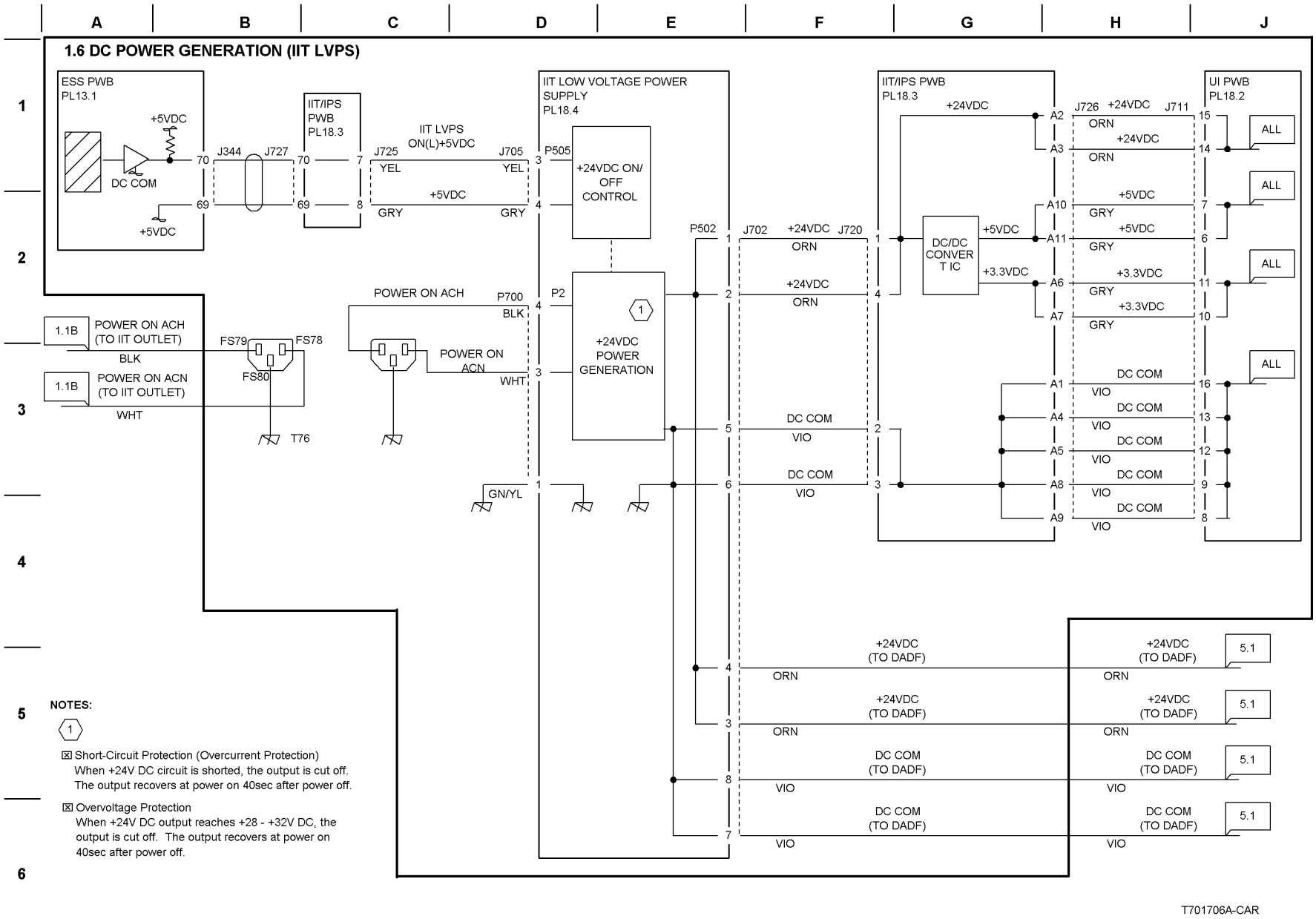


**Figure 7 DC Power Generation (IIT LVPS)**

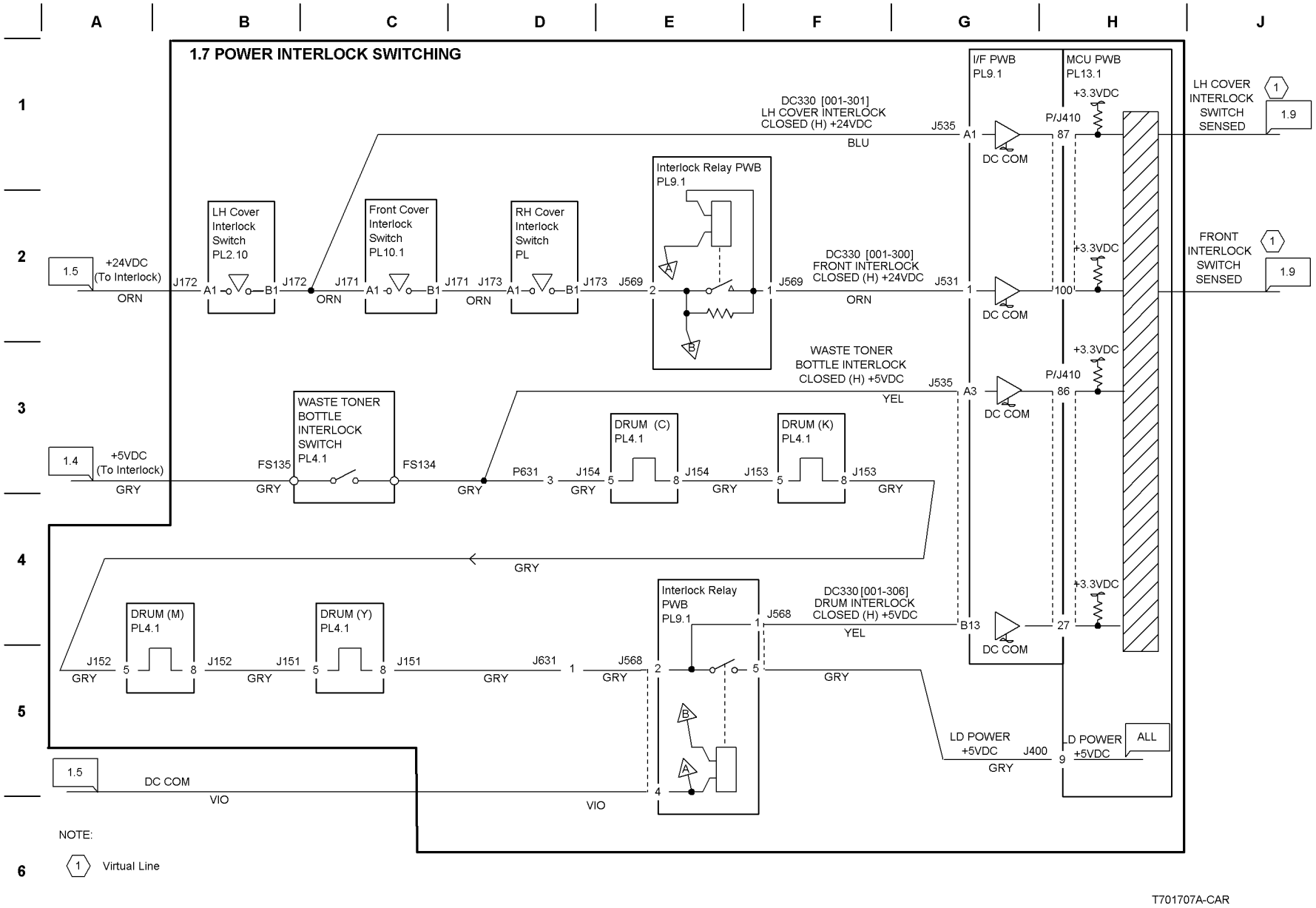


**Figure 8 Power Interlock Switching**

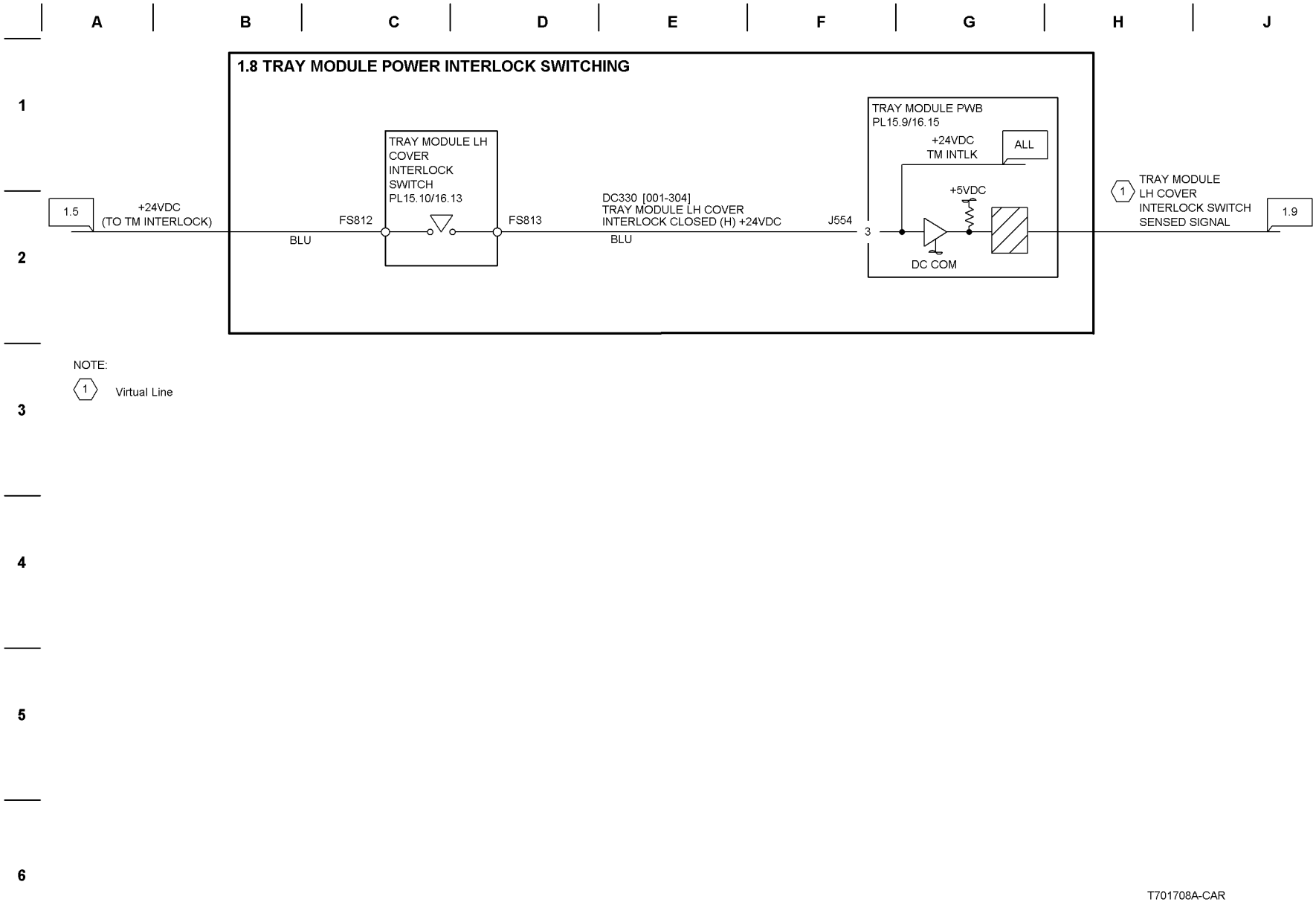


**Figure 9 Tray Module Power Interlock Switching**

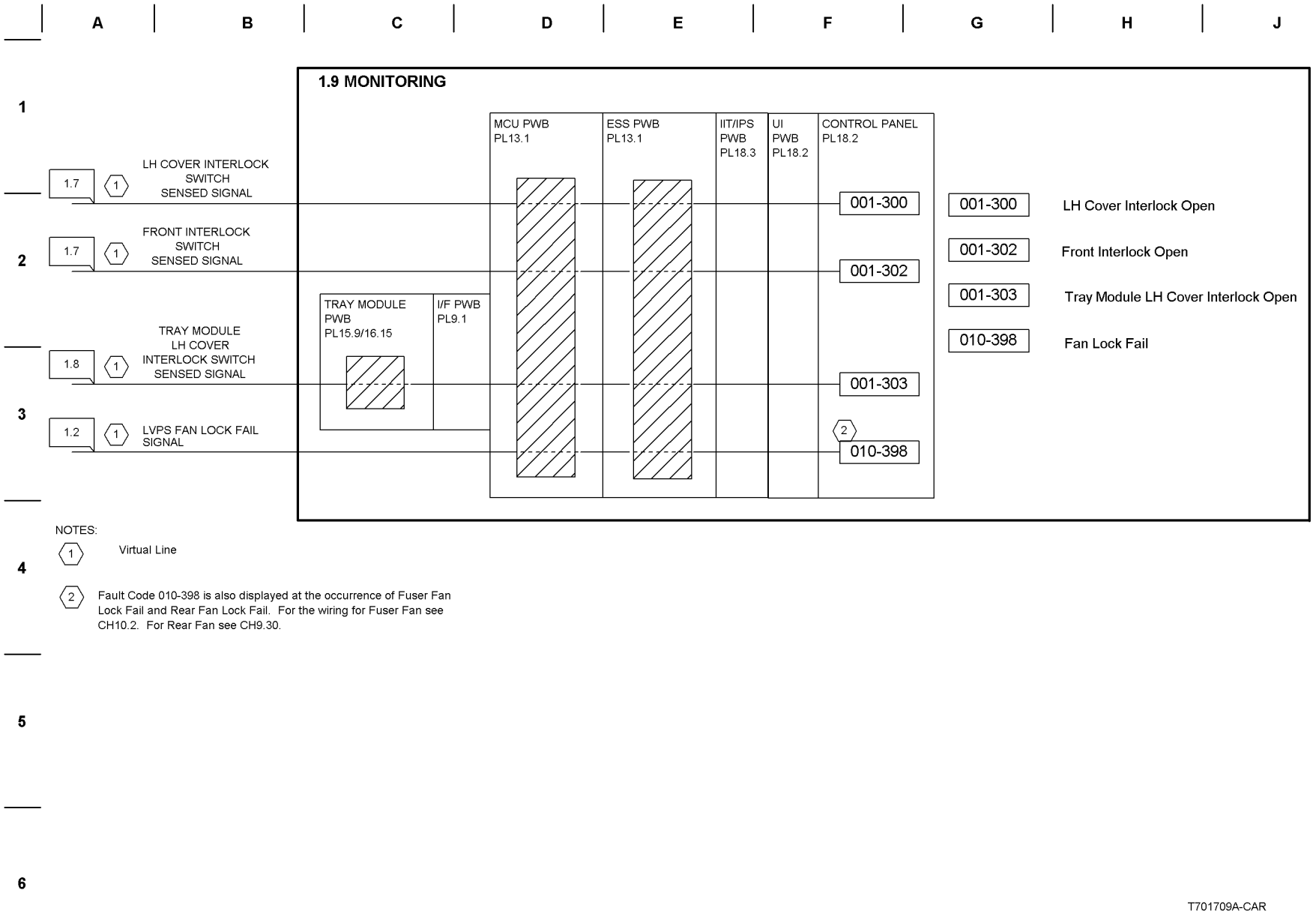


**Figure 10 Monitoring**

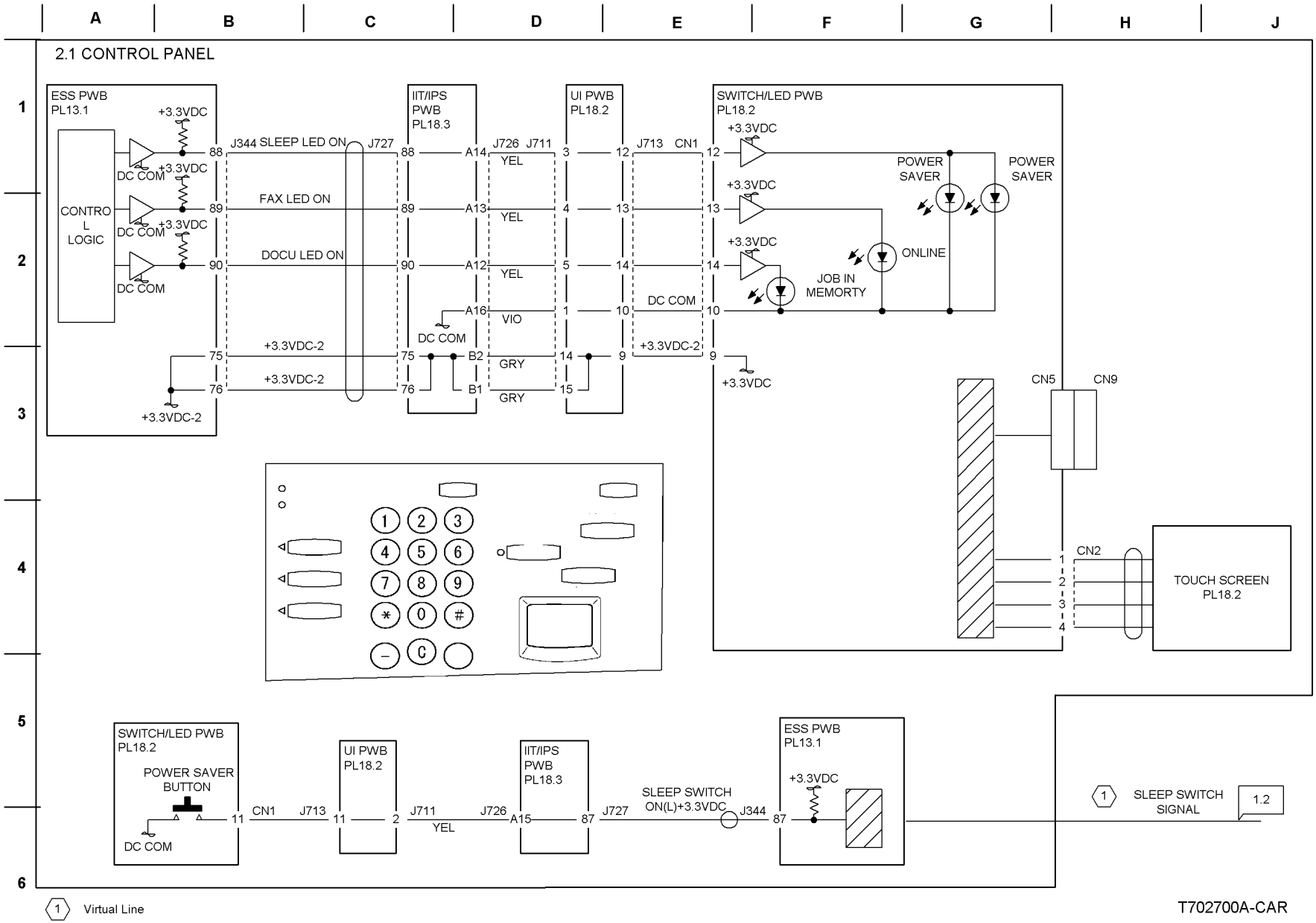


**Figure 1 Control Panel**

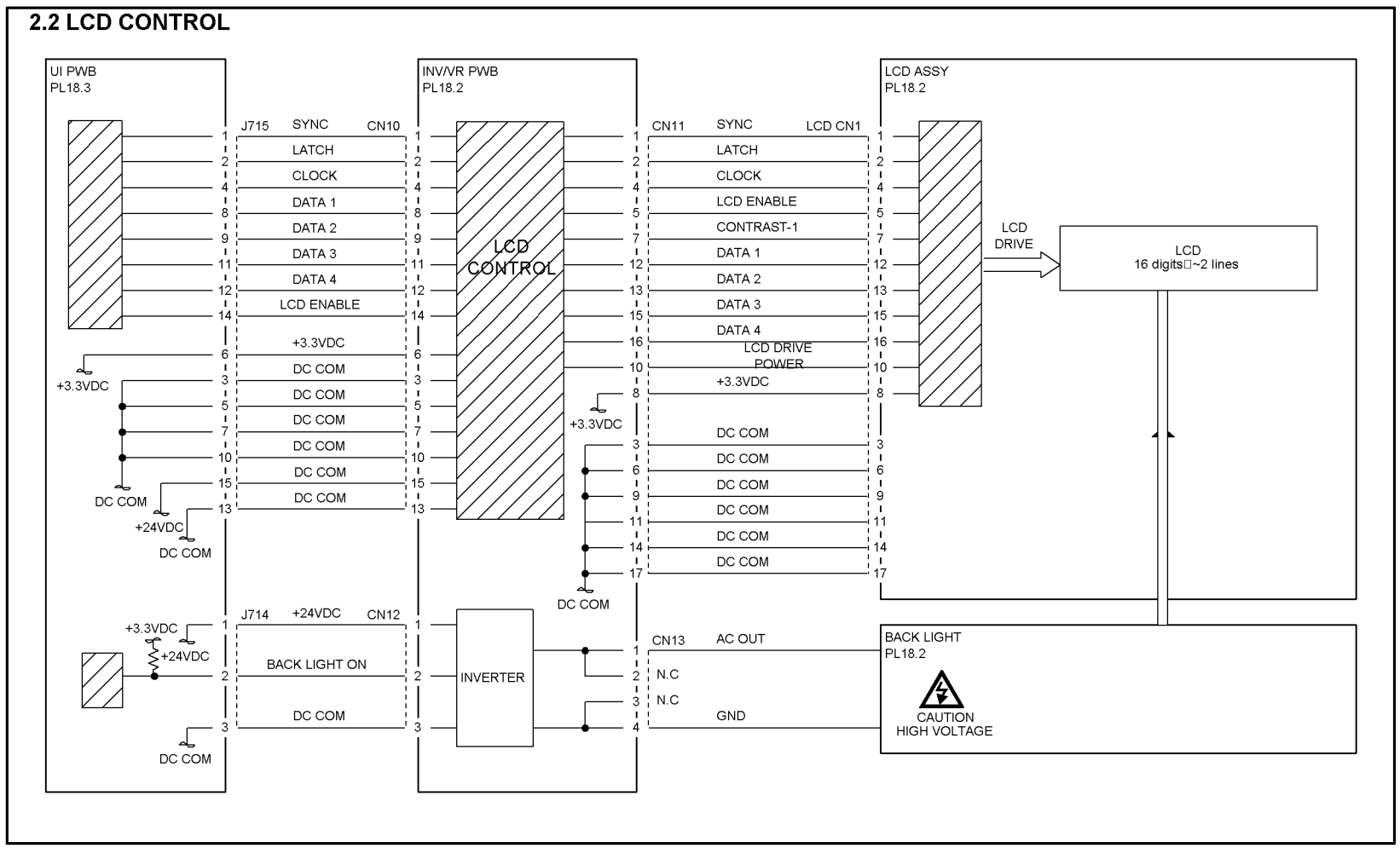


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**Figure 2 LCD Control**

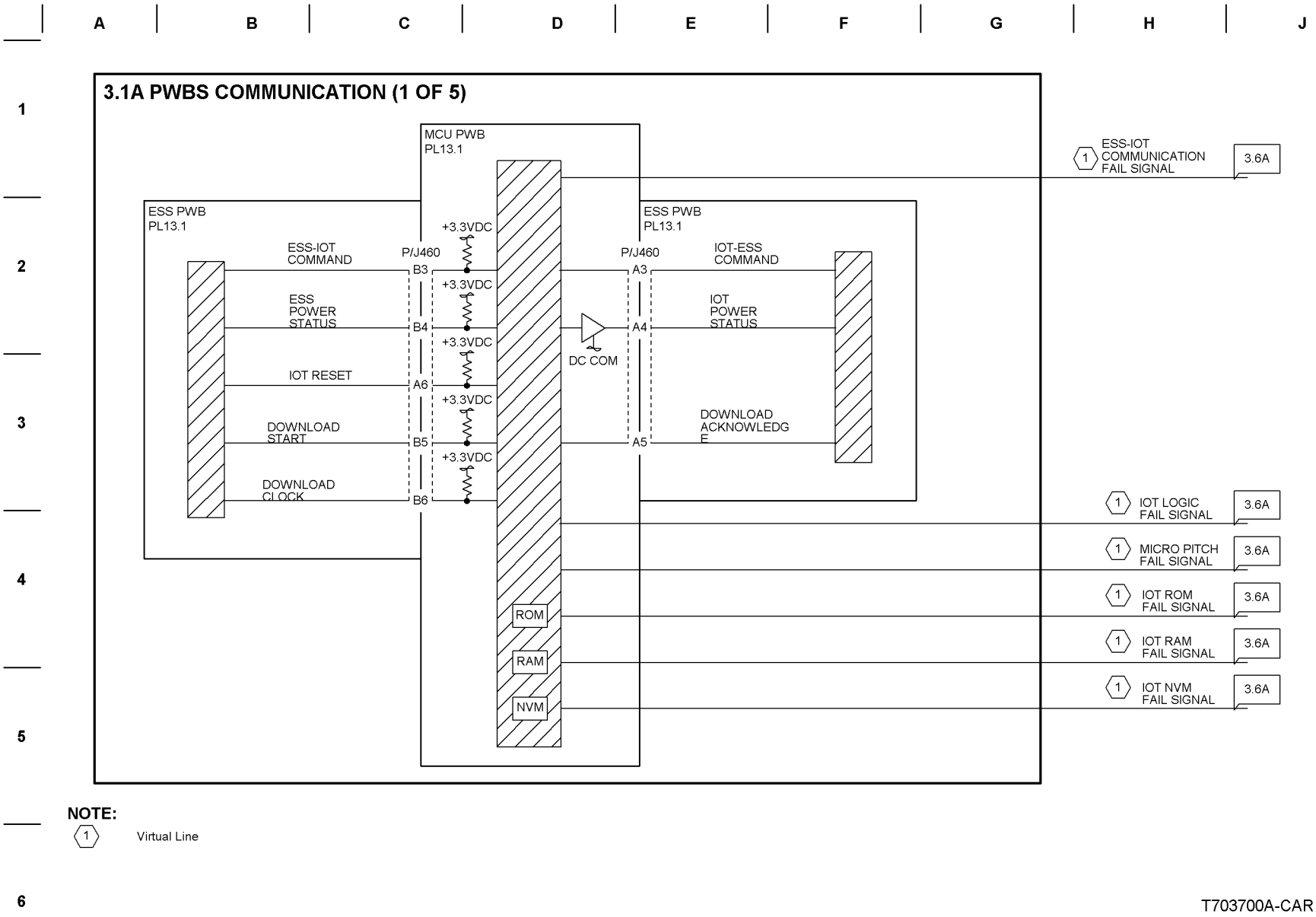


**Figure 1 PWBs Communication**

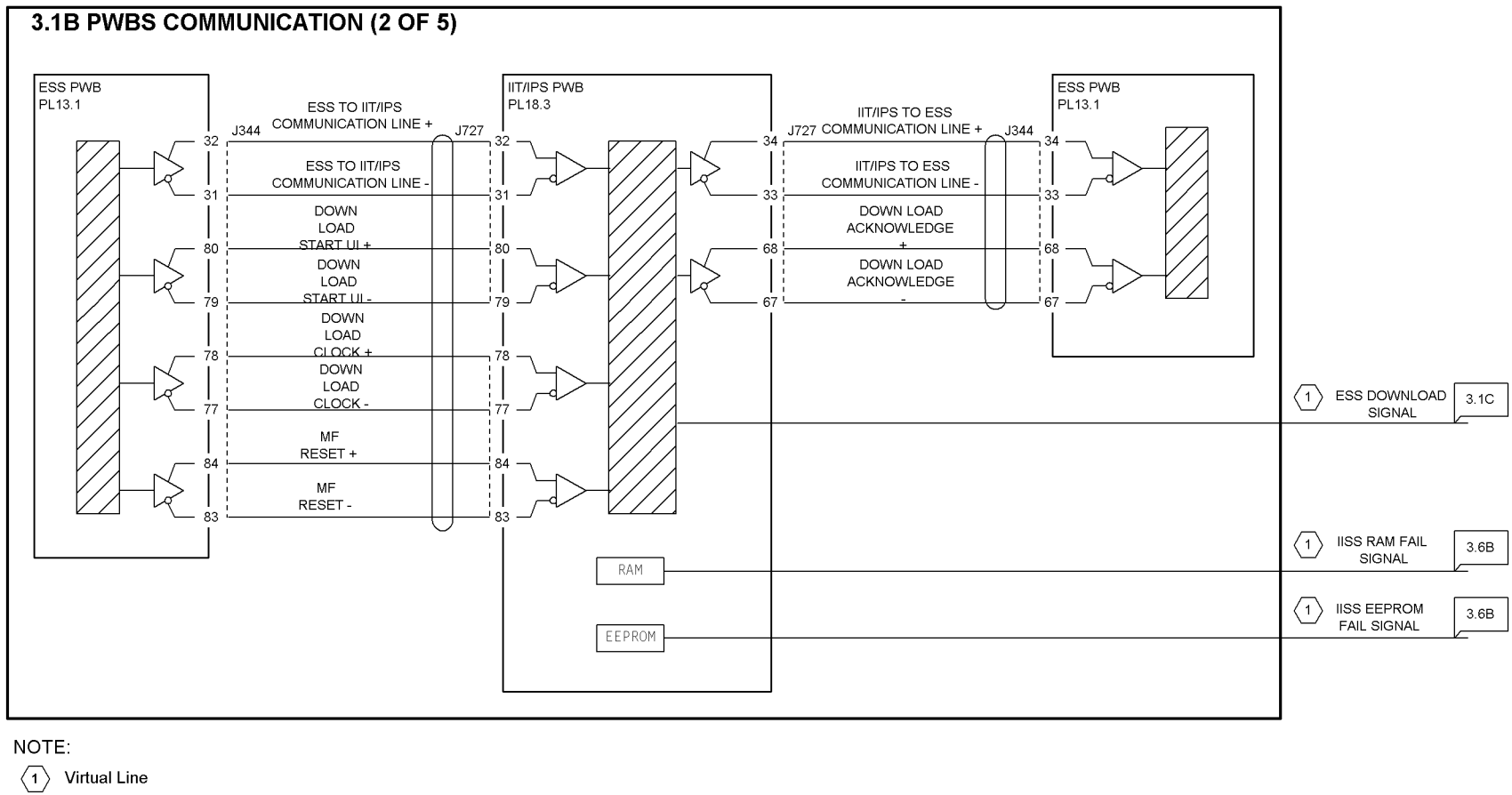


**Figure 2 PWB Communication (2 0f 5)**

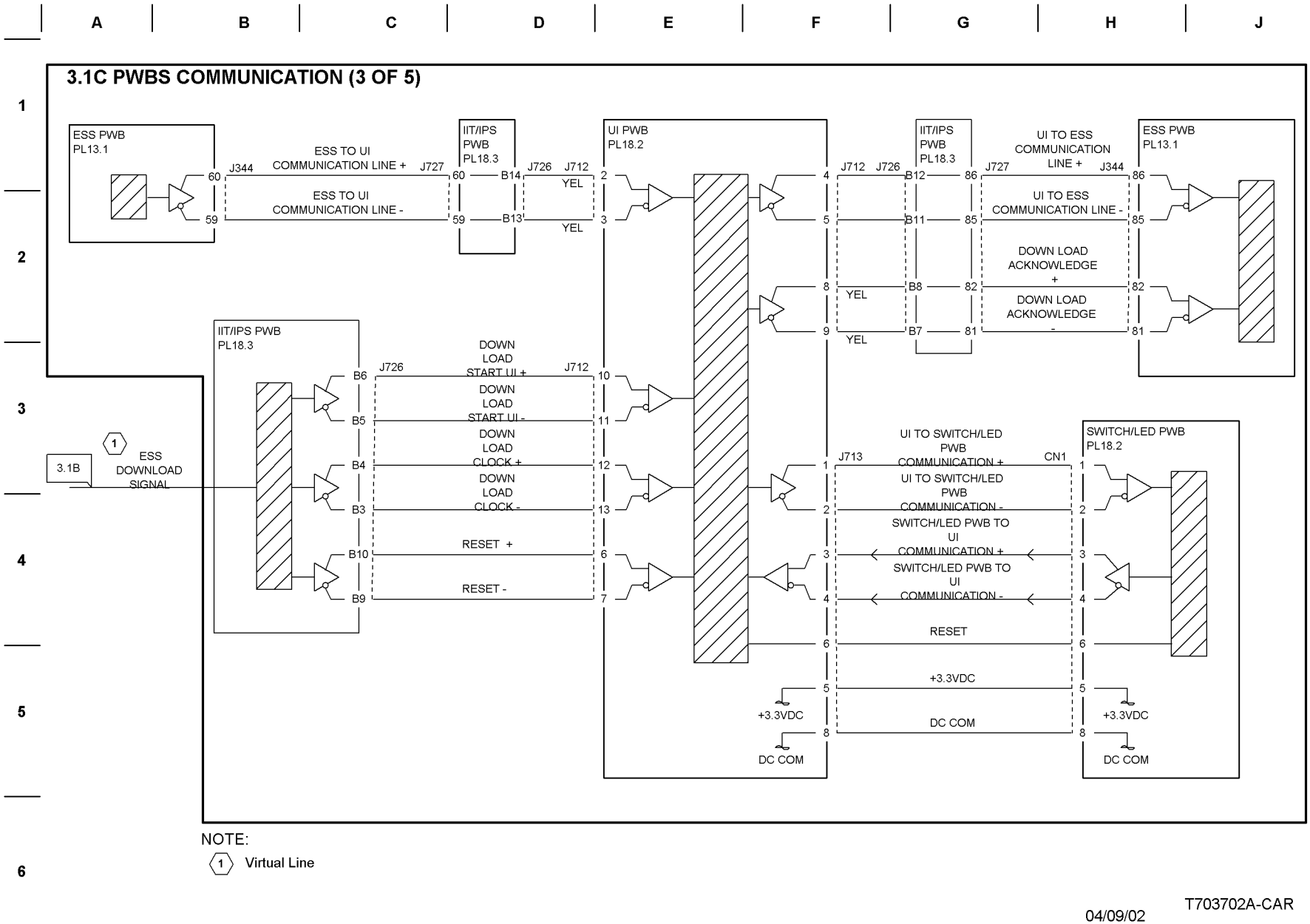


**Figure 3 PWB Communication (3 0f 5)**

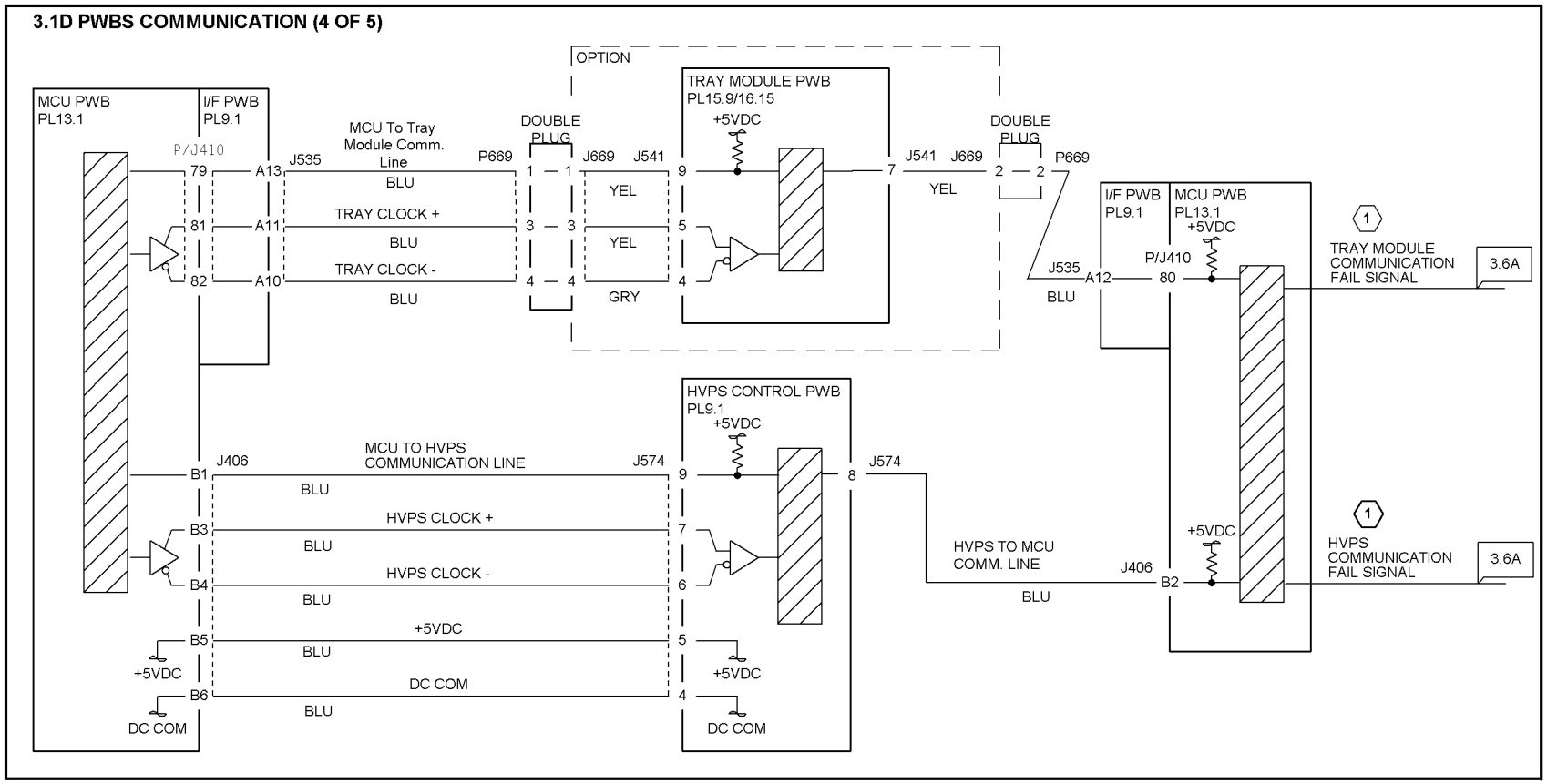


**Figure 4 PWB Communication (4 0f 5)**

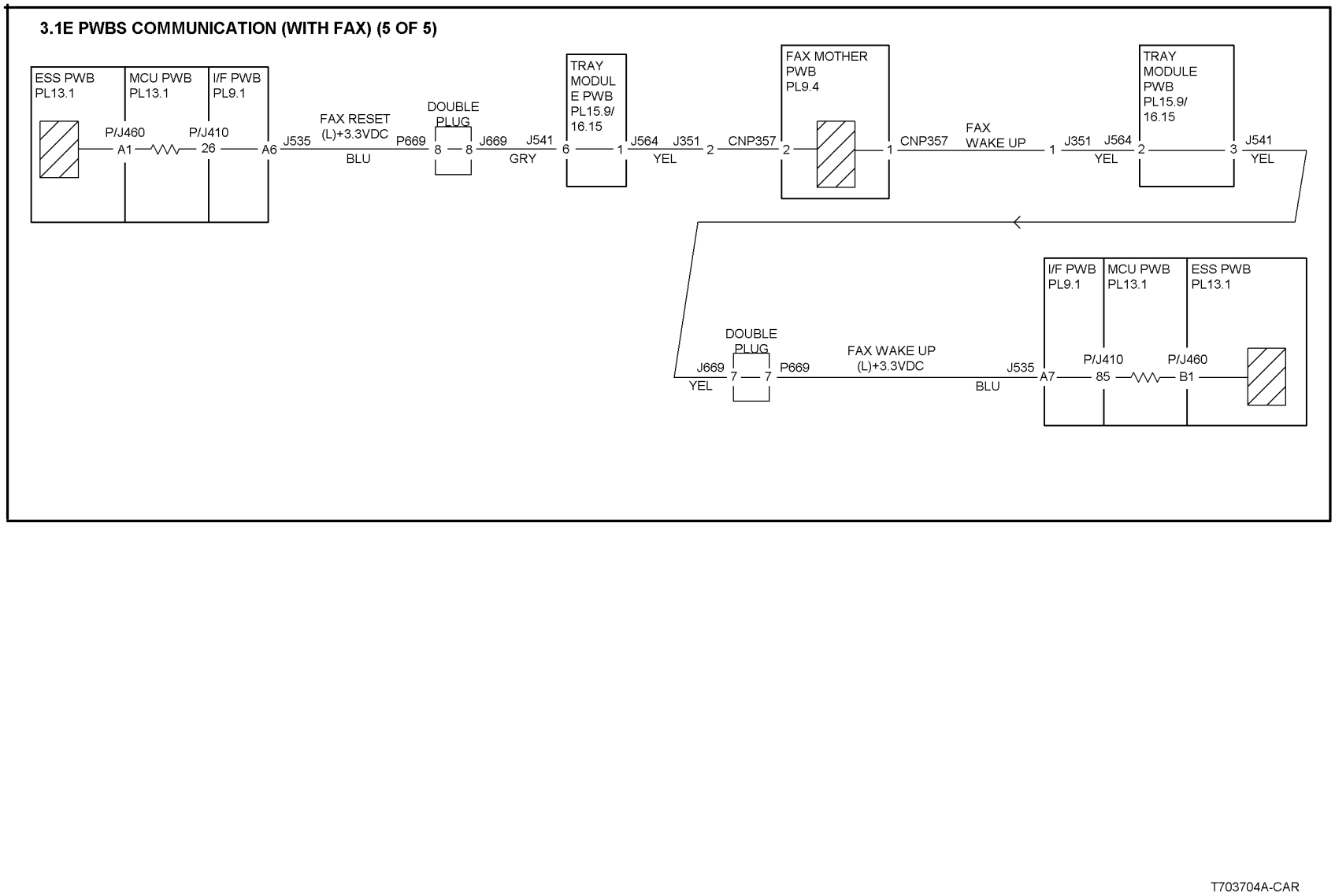


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**Figure 5 PWB Communication (4 0f 5)**

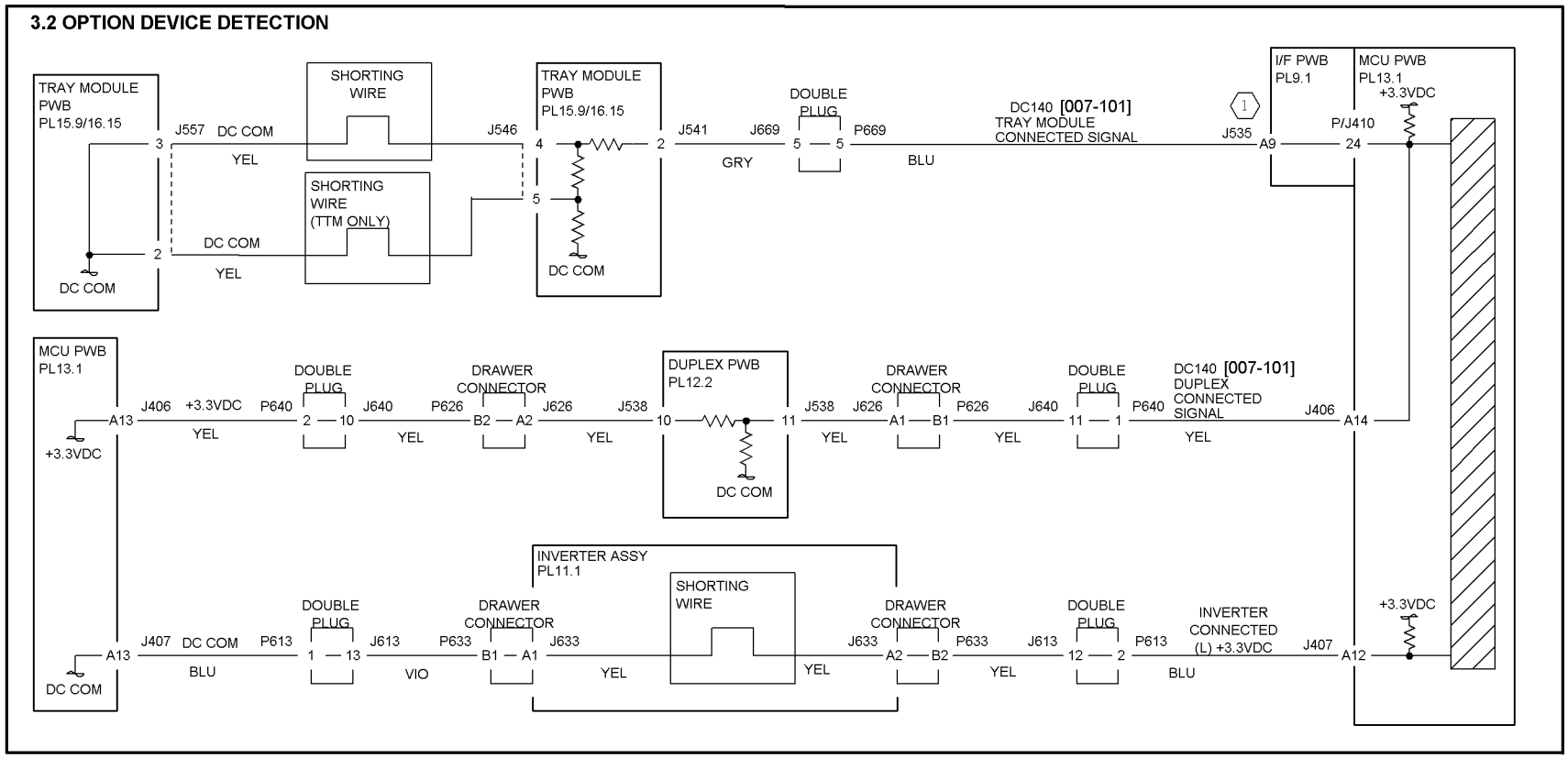


**Figure 6 Option Device Detection**

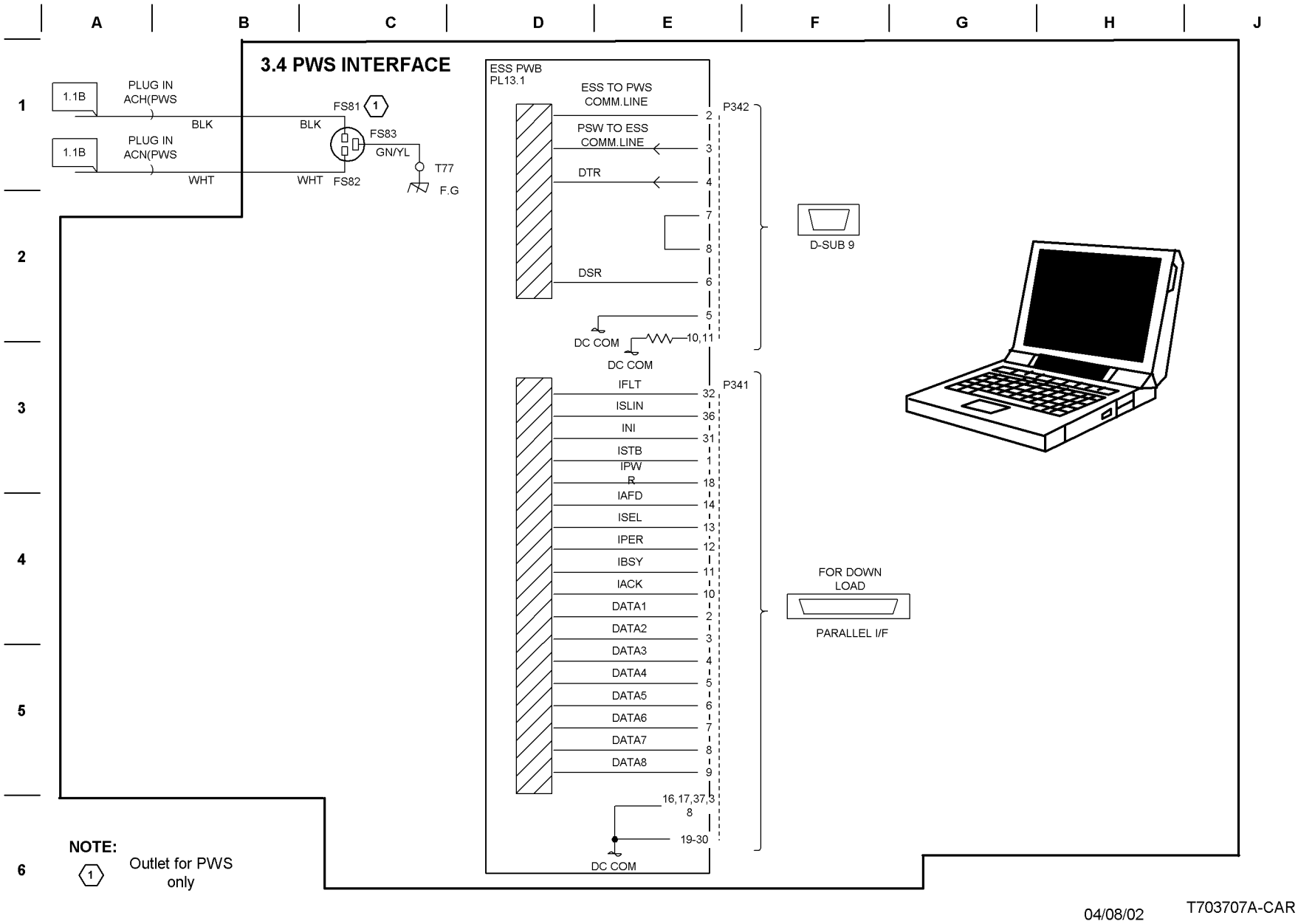


**Figure 7 PWS Interface**

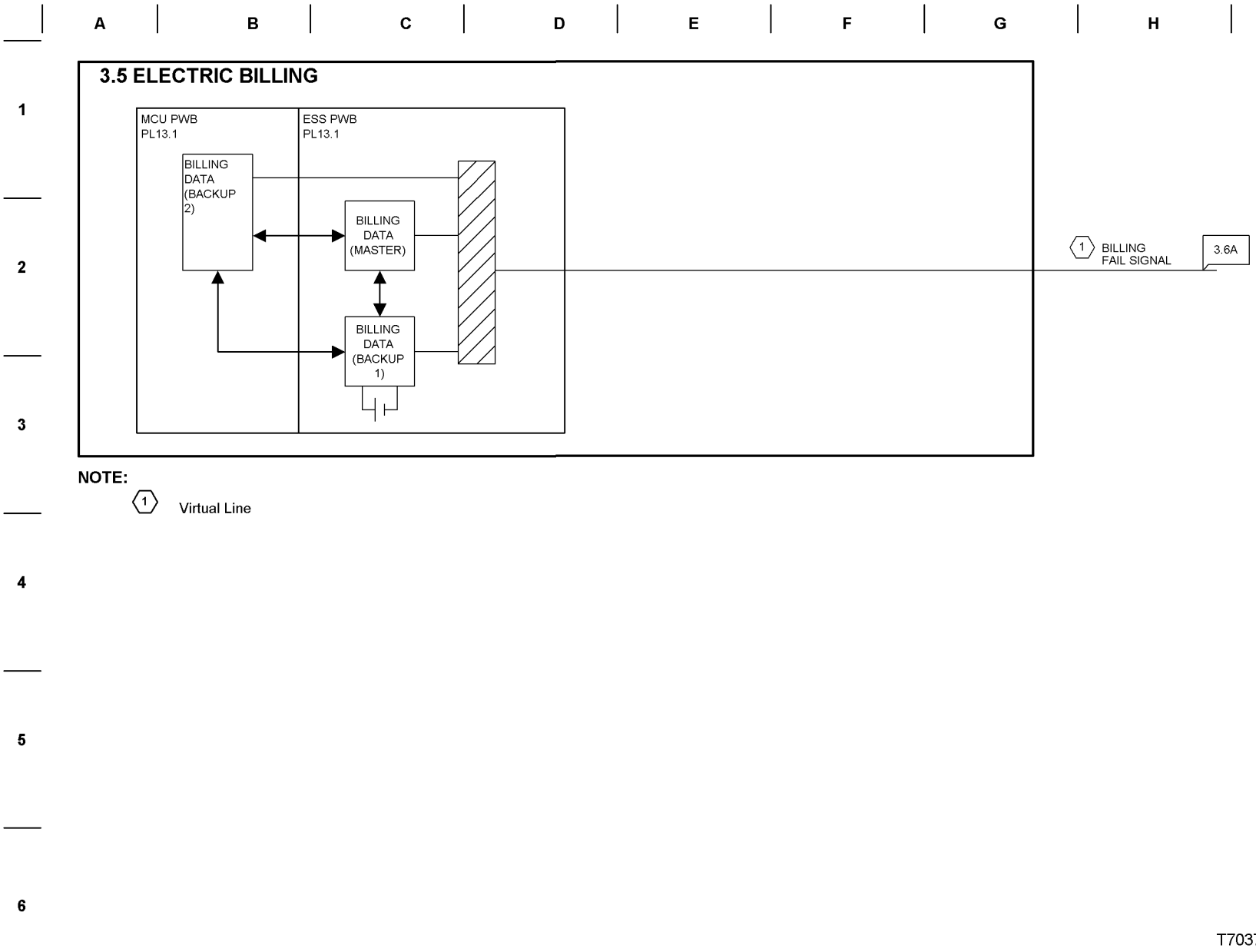


**Figure 8 Billing**

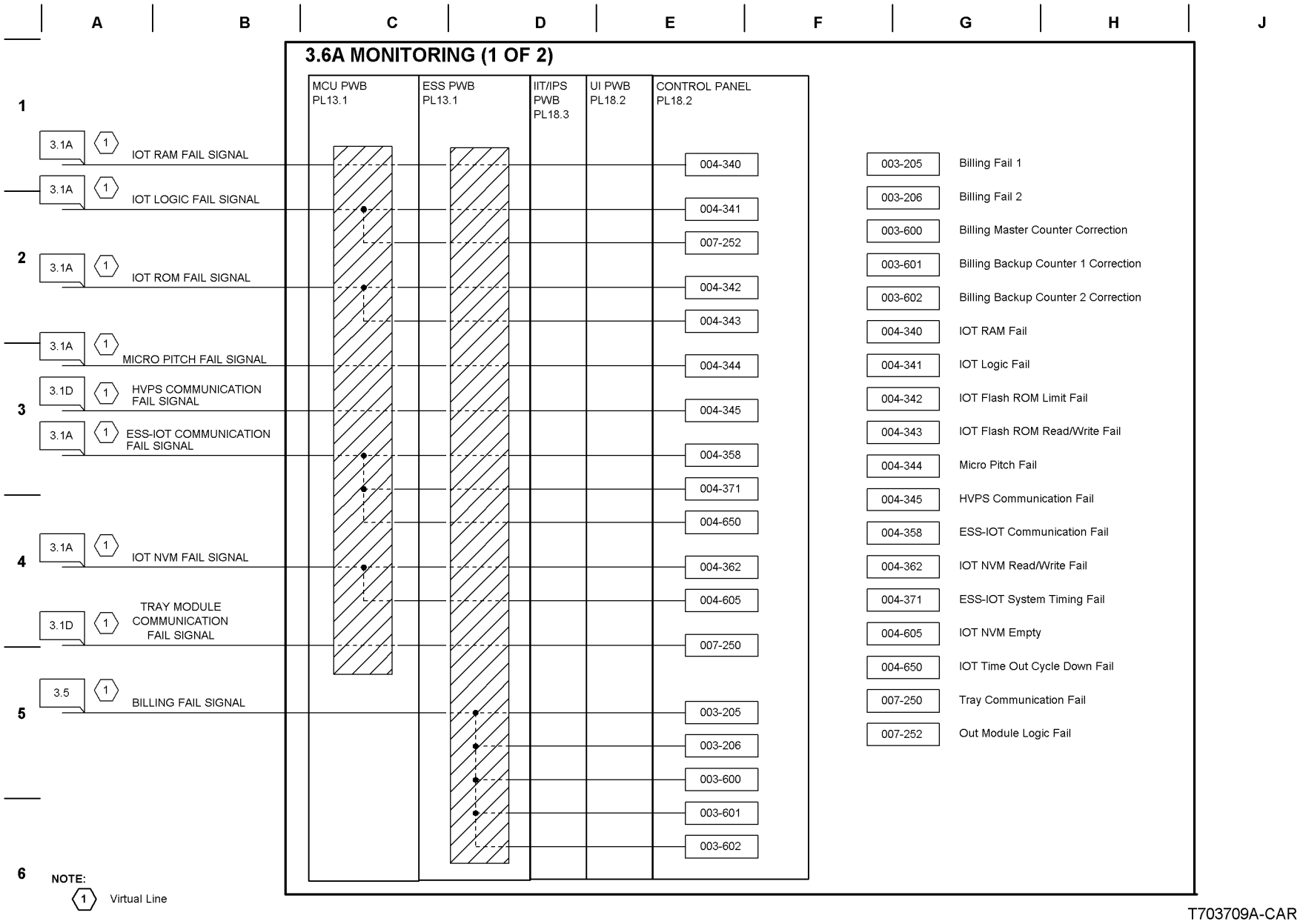


**Figure 9 Monitoring**

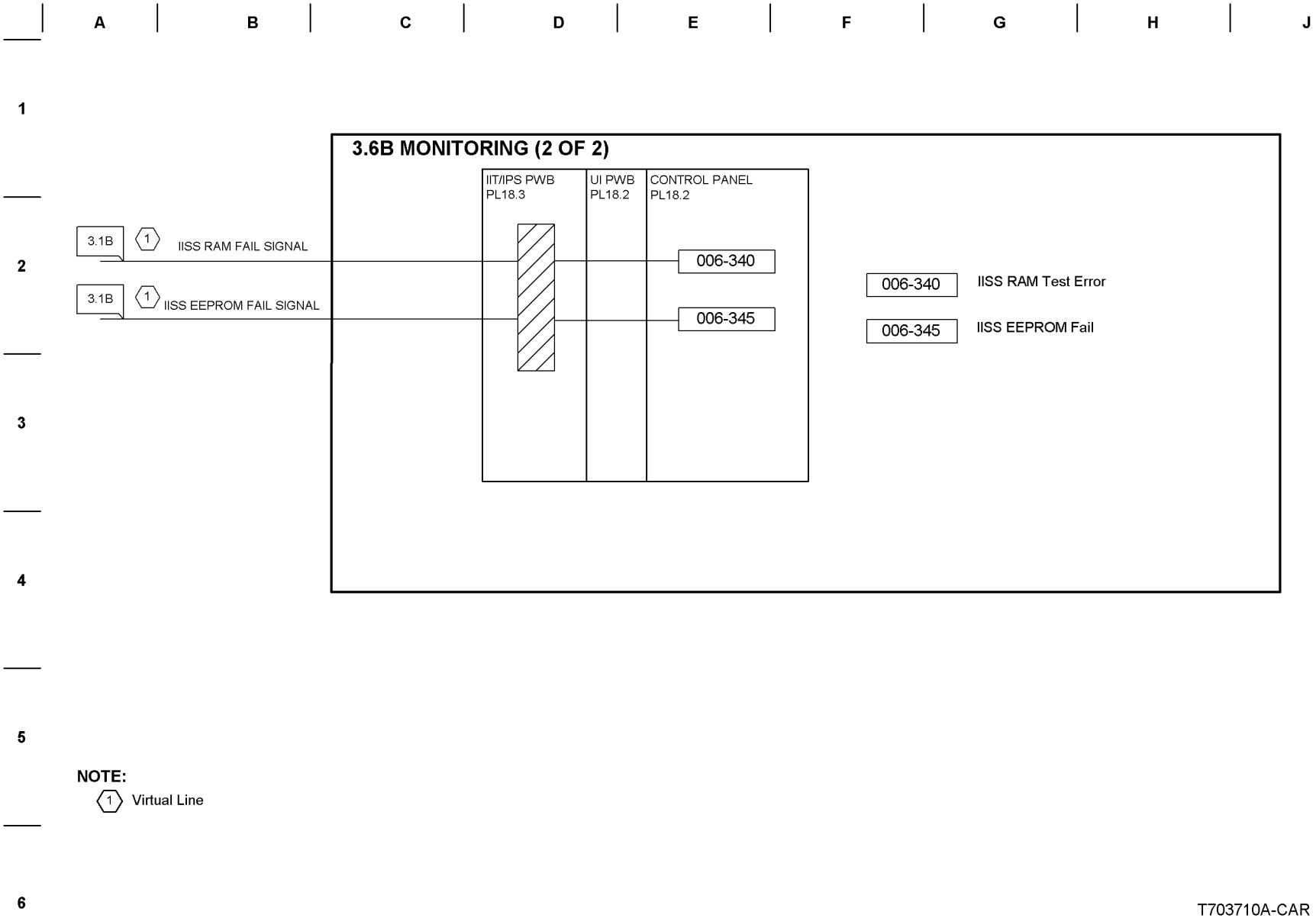


**Figure 10 Monitoring (2 of 2)**

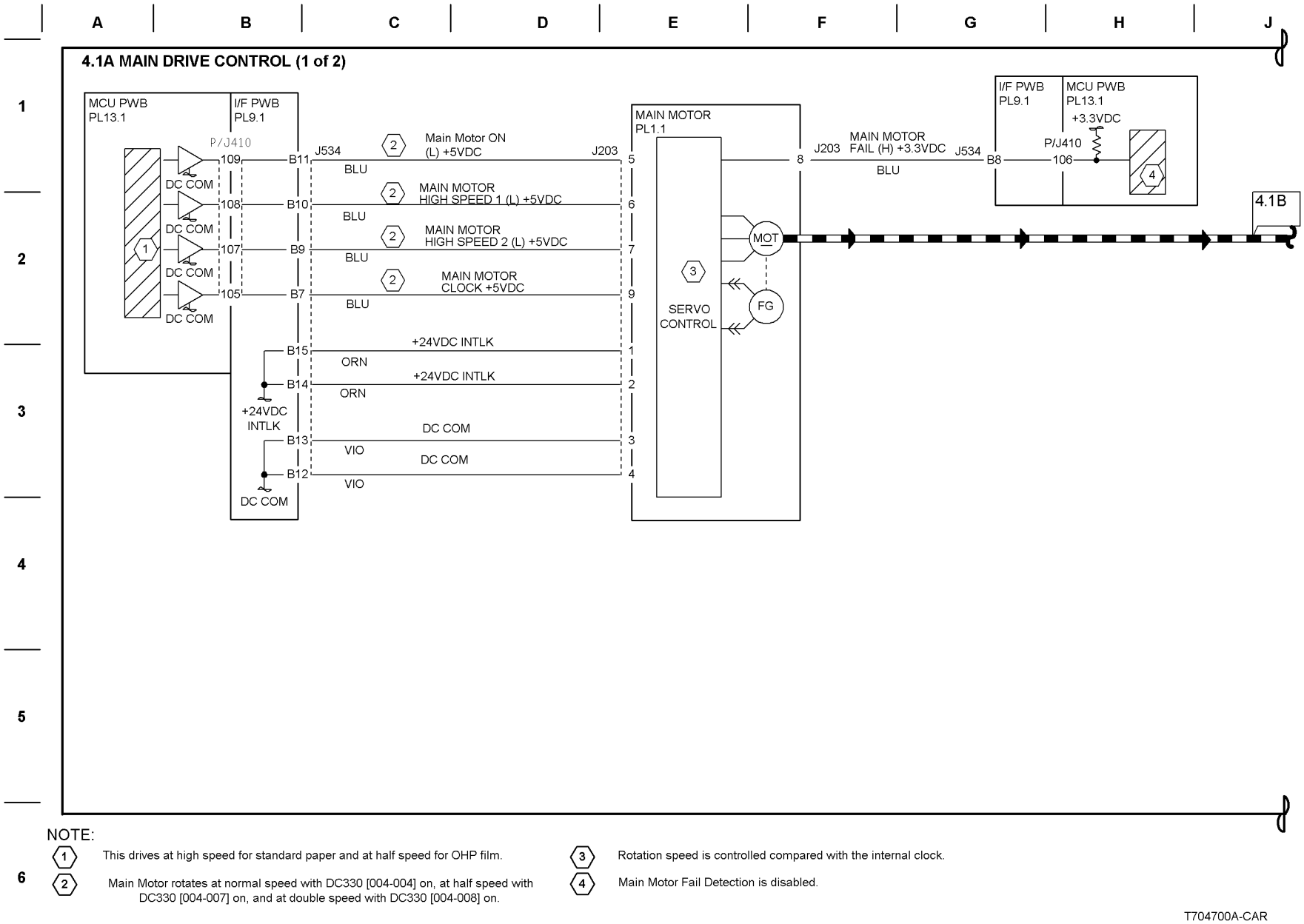


**Figure 1 Main Drive (1 of 2)**

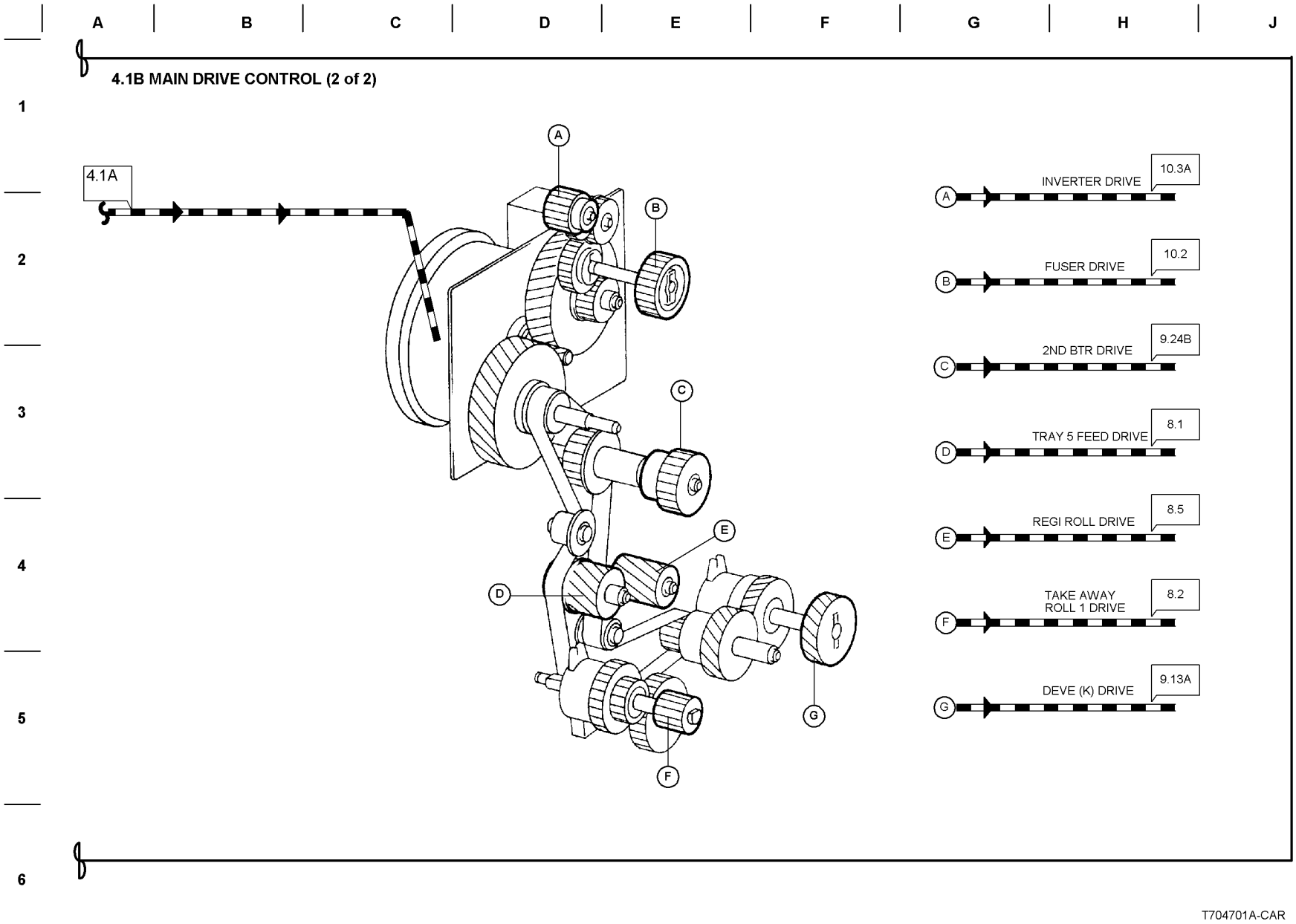


**Figure 2 Main Drive (2 of 2)**

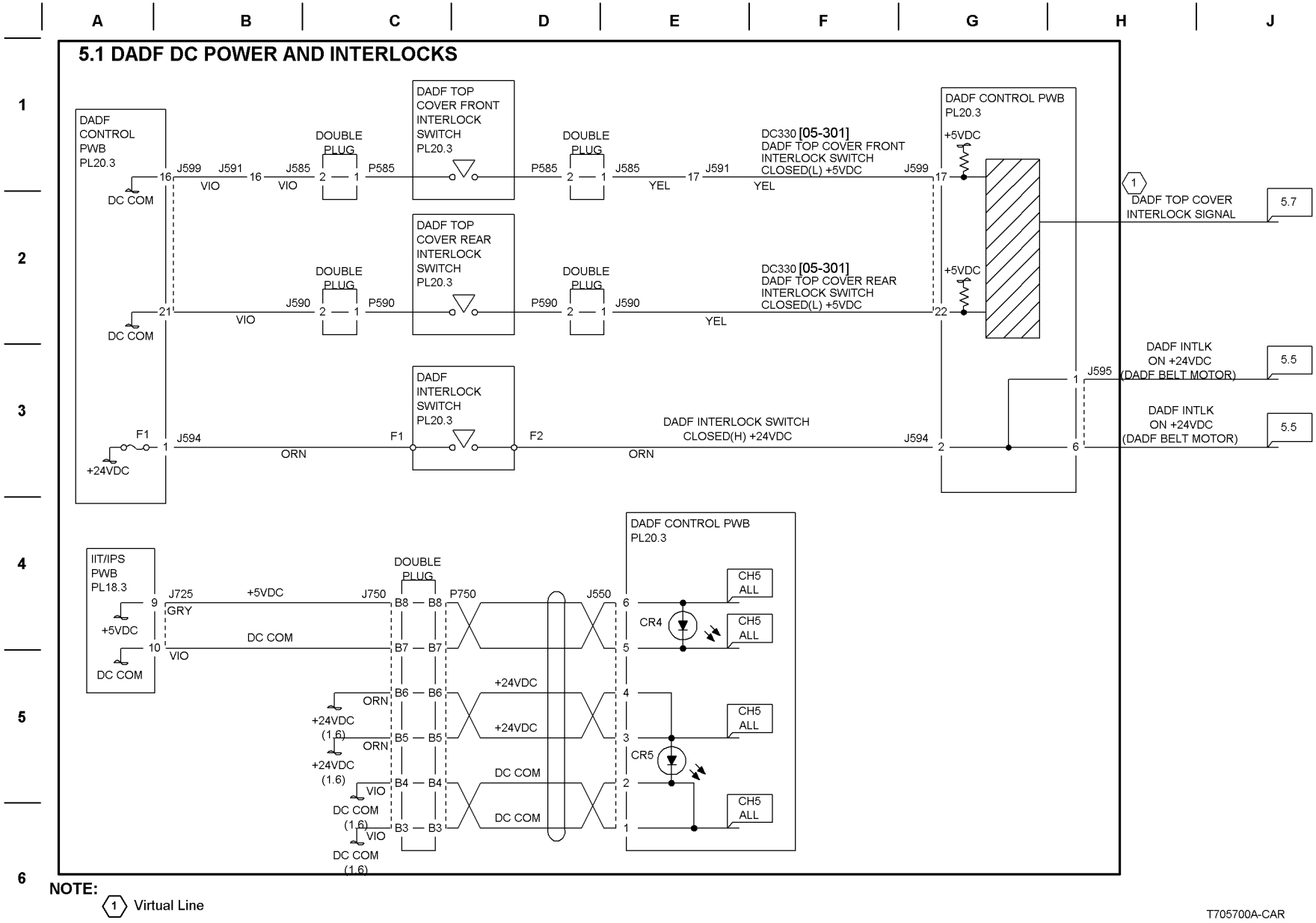


**Figure 1 DADF DC Power and Interlocks**

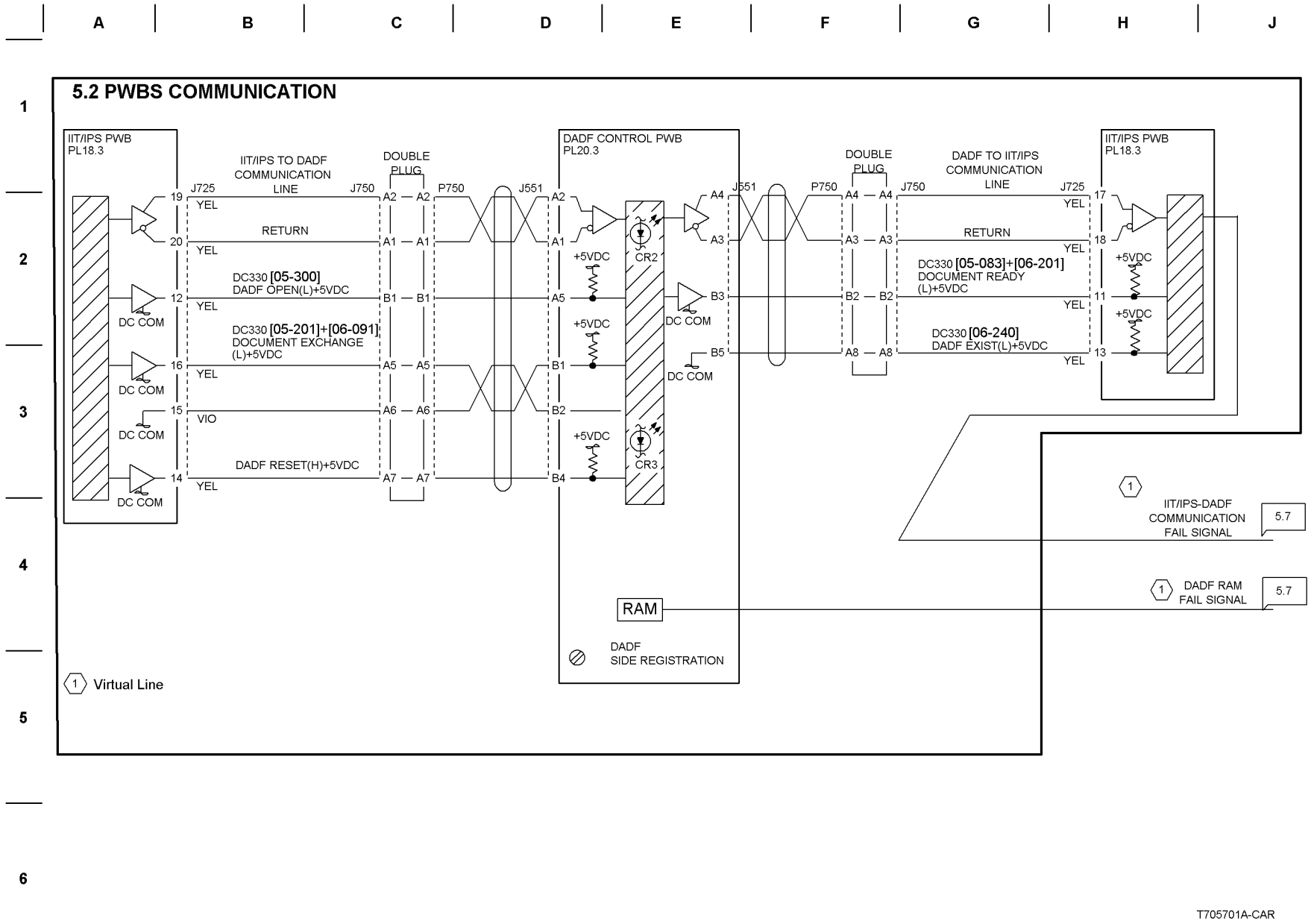


**Figure 2 PWB Communications (1 0f 2)**

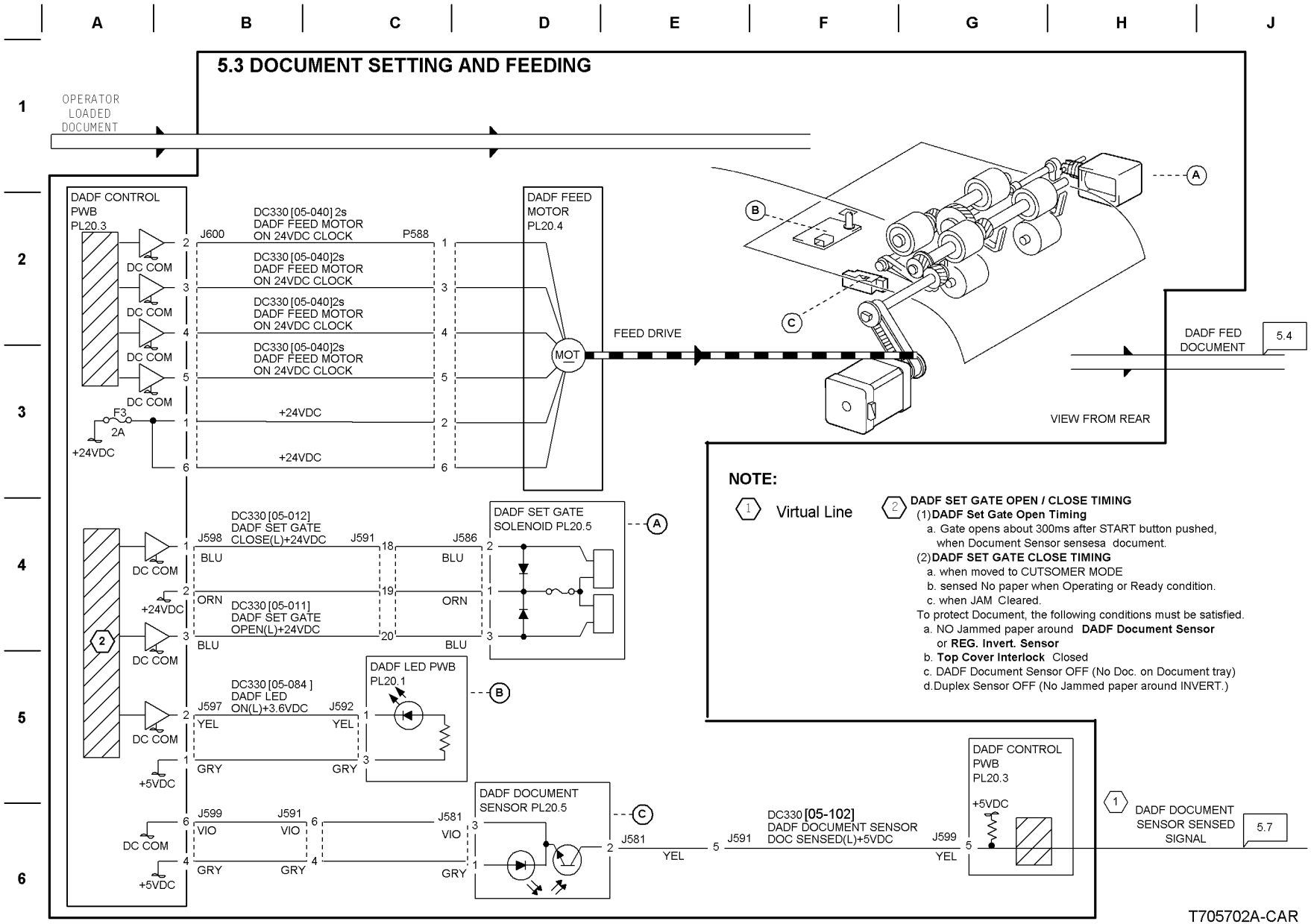


**Figure 3 Document Setting and Feeding**

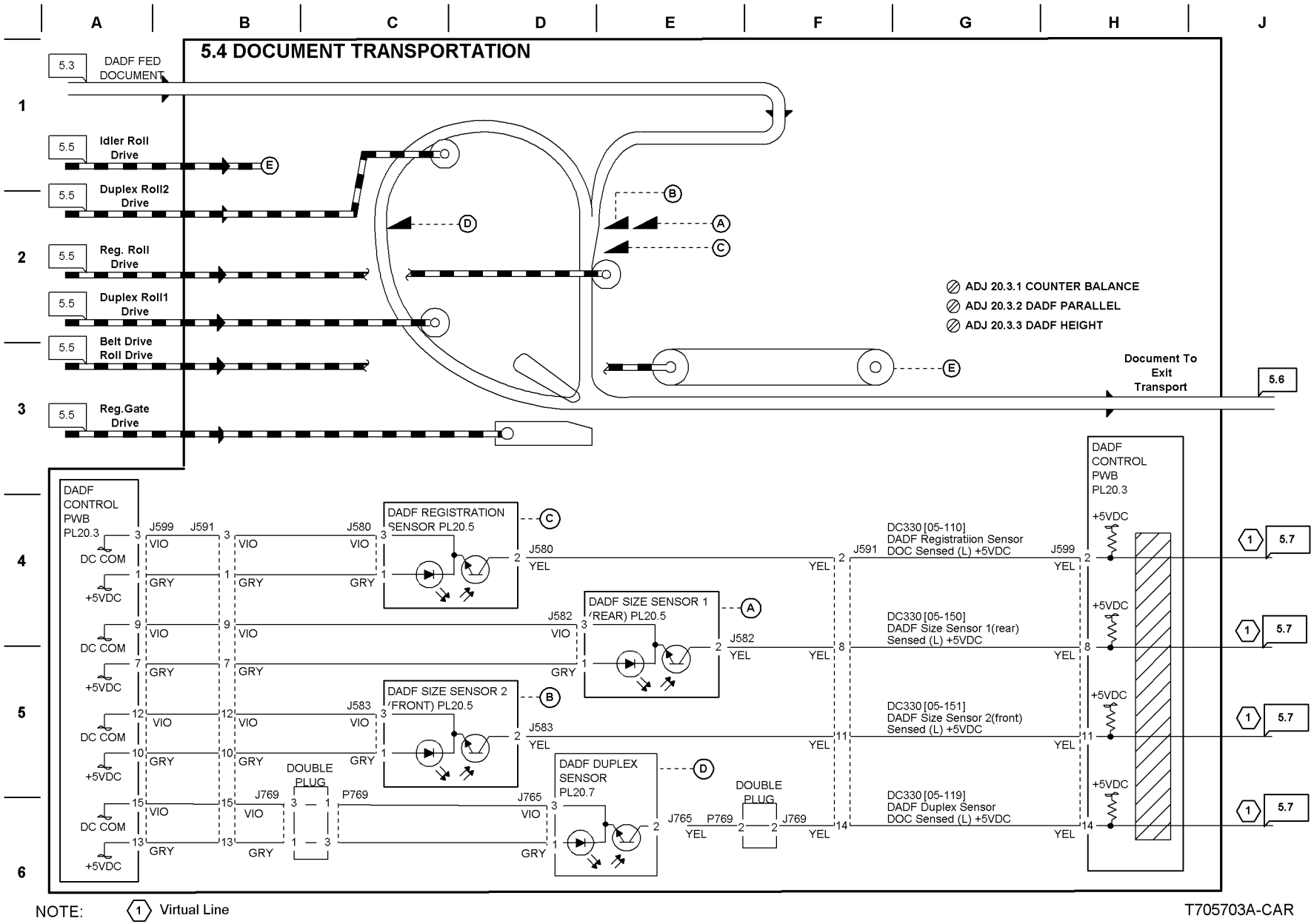


**Figure 4 Document Transportation**

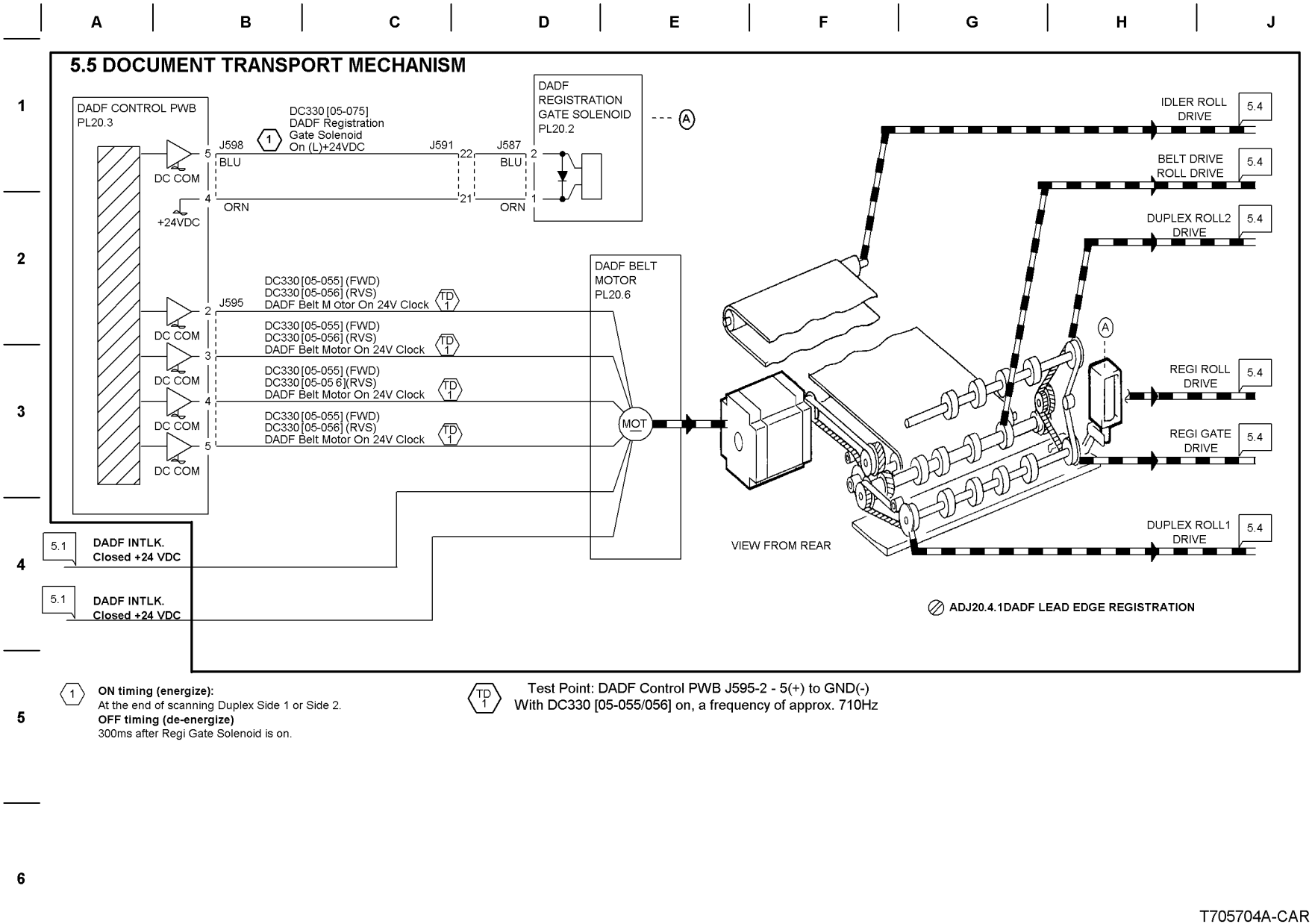


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**Figure 5 Document transport**

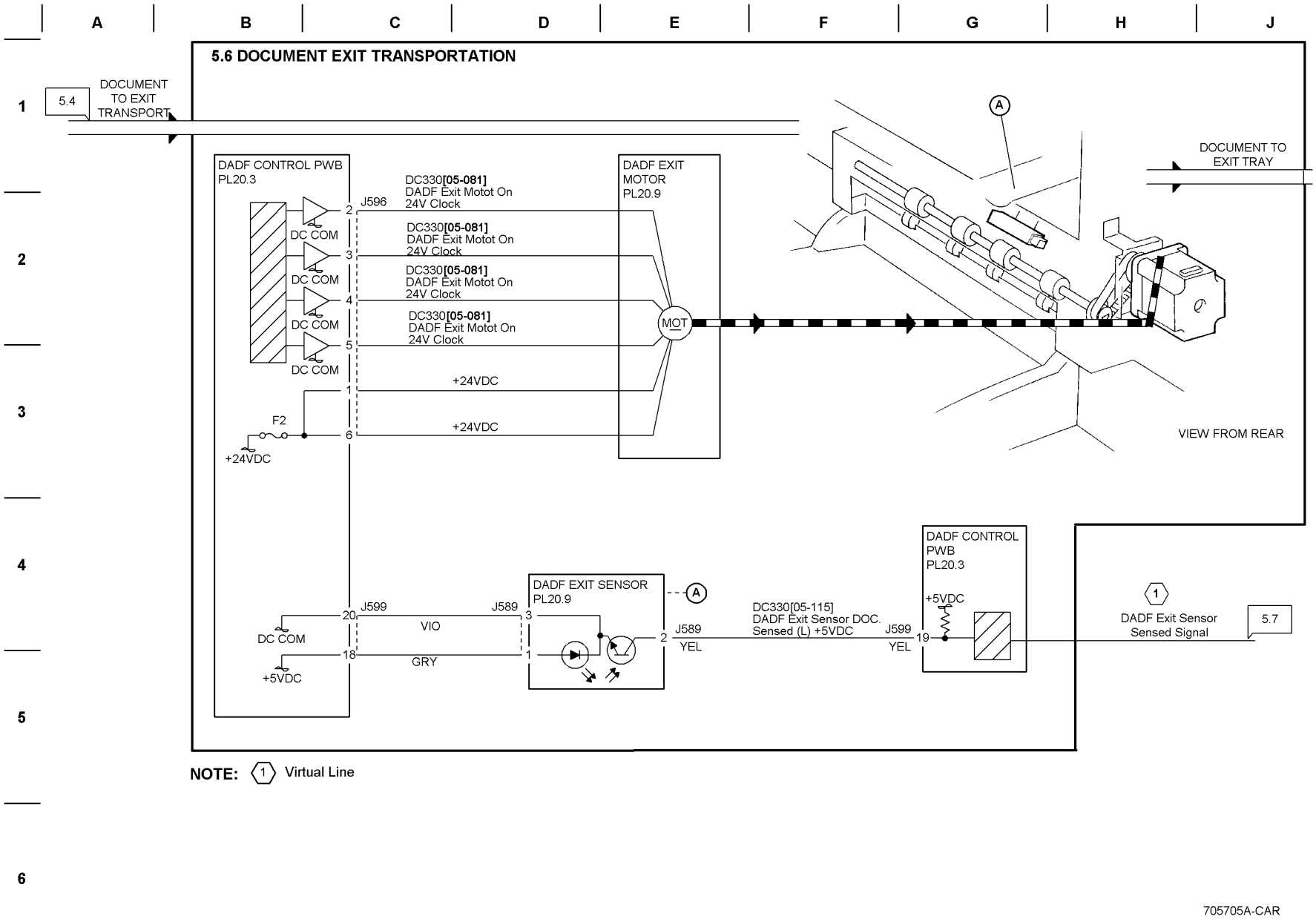



**Figure 6 Document Exit transportation**

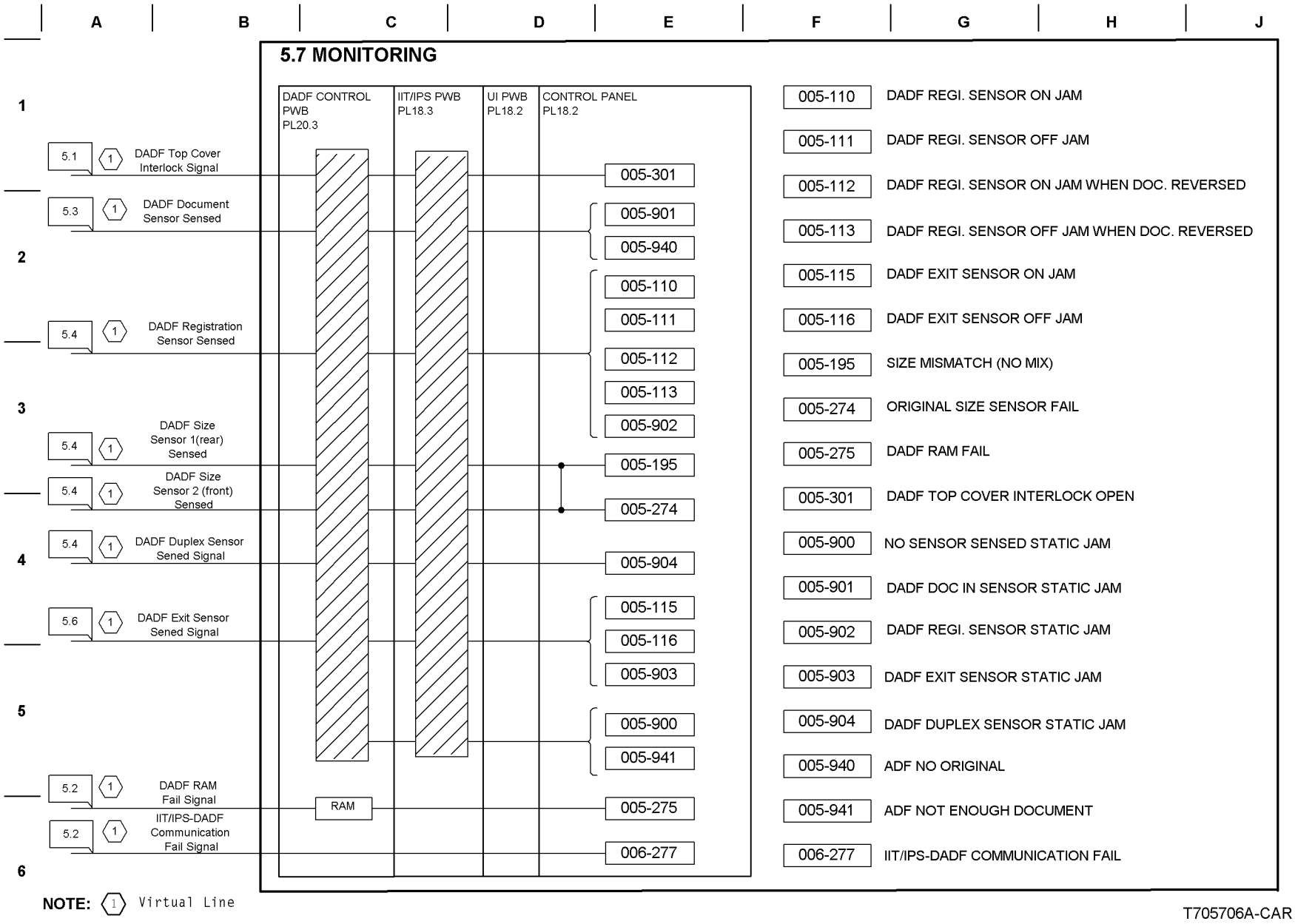
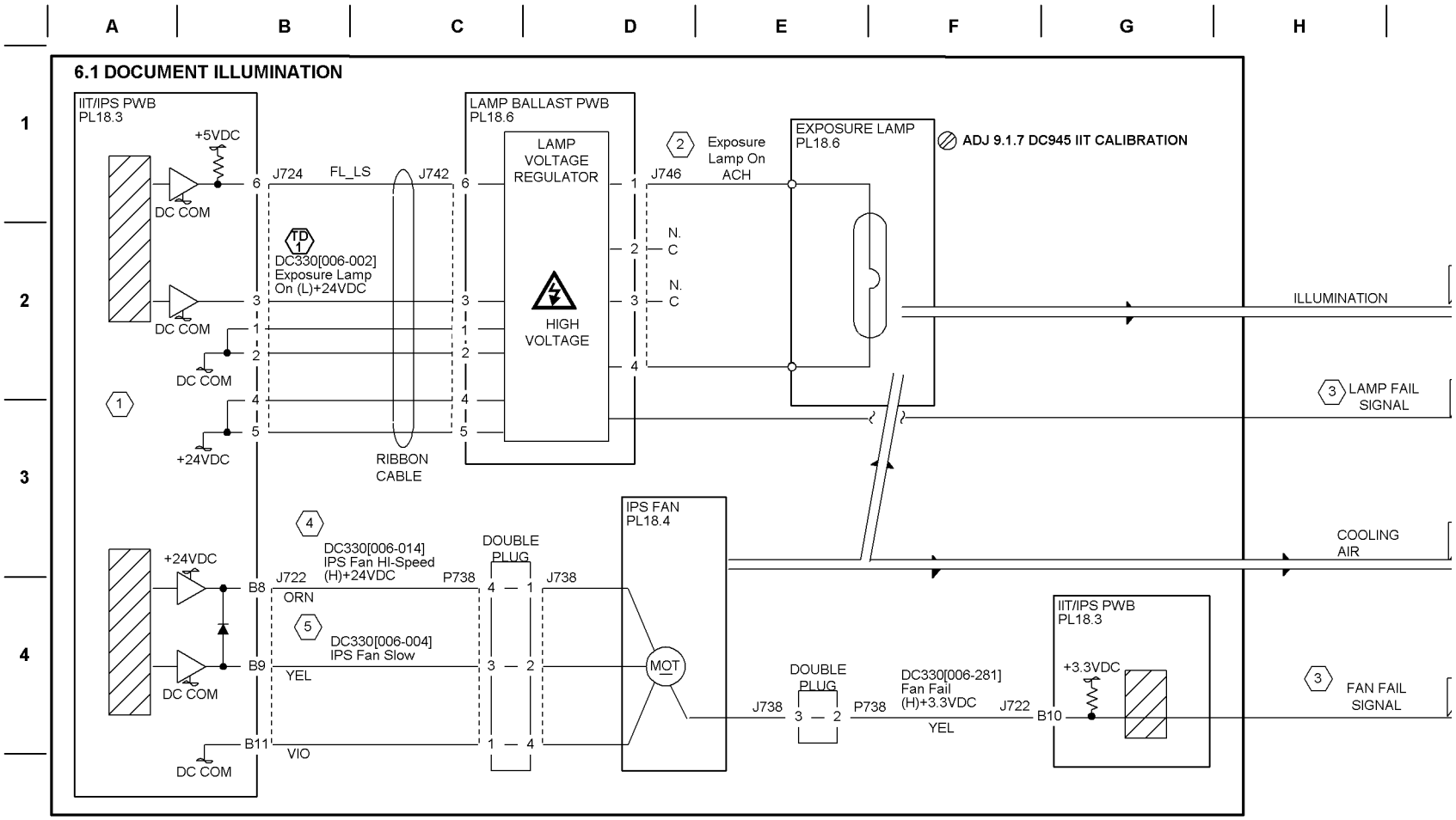



**Figure 7 DADF Monitoring**




**NOTES:**

**Exposure Lamp ON/OFF Timing**

1. **1.ON timing**
   a. When performing AGC/AOC/Shading Correction (in initialization)
   b.15 min after POWER ON.
   c. When a document is sensed (by Platen Angle Sensor).
   d. At the start of scanning a doc. (synch with the transfer of Carriage from the size detection position)
   e. When performing White Variation Correction before starting to scan a doc.
   f. 30 or more min before the next scan in the same job.
   g. At the end of a job 2 hours after power on, and afterwards, at the end of jobs at 2-hour intervals.
   **2. 2. OFF timing**
   a. At the end of AGC/AOC/Shading Correction (in initialization)

2. Don't use tester for the measurement of high voltage.

3. Virtual Line

4. Rotates at low speed in DC330 [006-004].

5. 5 Rotates at high speed in DC330 [006-014].

TD 1 Test Point of IIT Drive PWB J724-3 (+) GND)
With DC330 [06-002] on, approx. +7.8VDC

**Figure 1 Document Illumination**

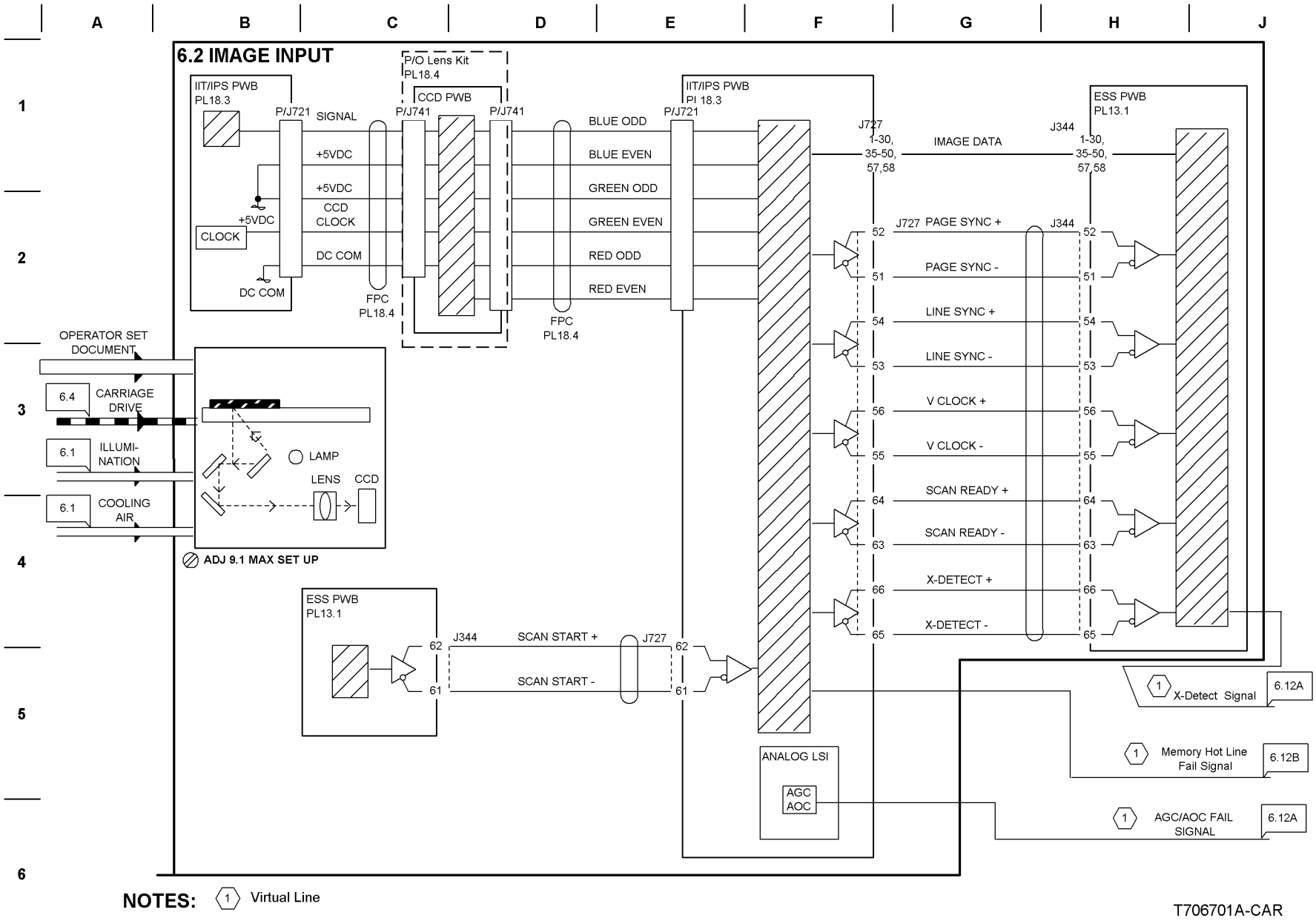



**Figure 2 Image Input**

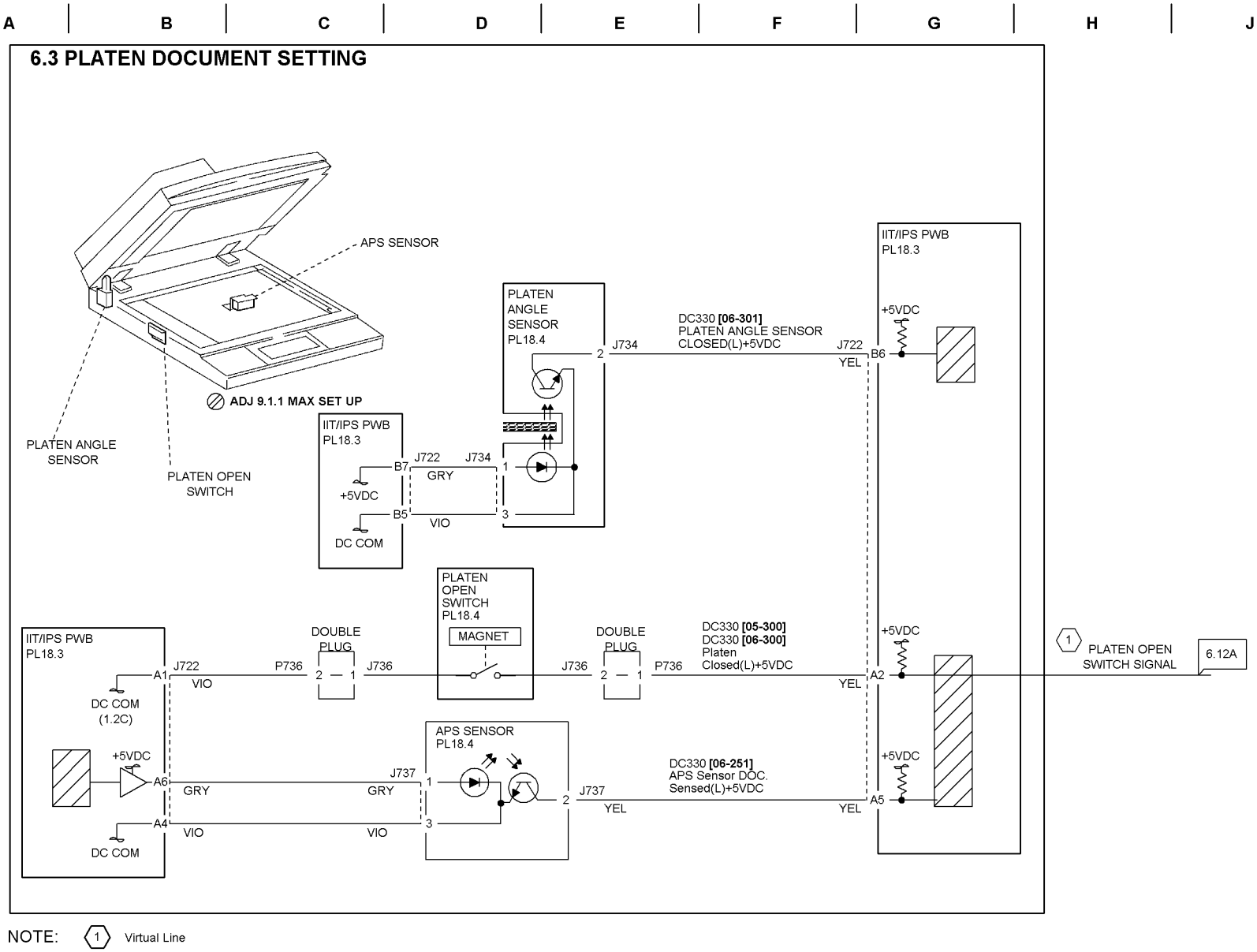



**Figure 3 Platen Document Setting**

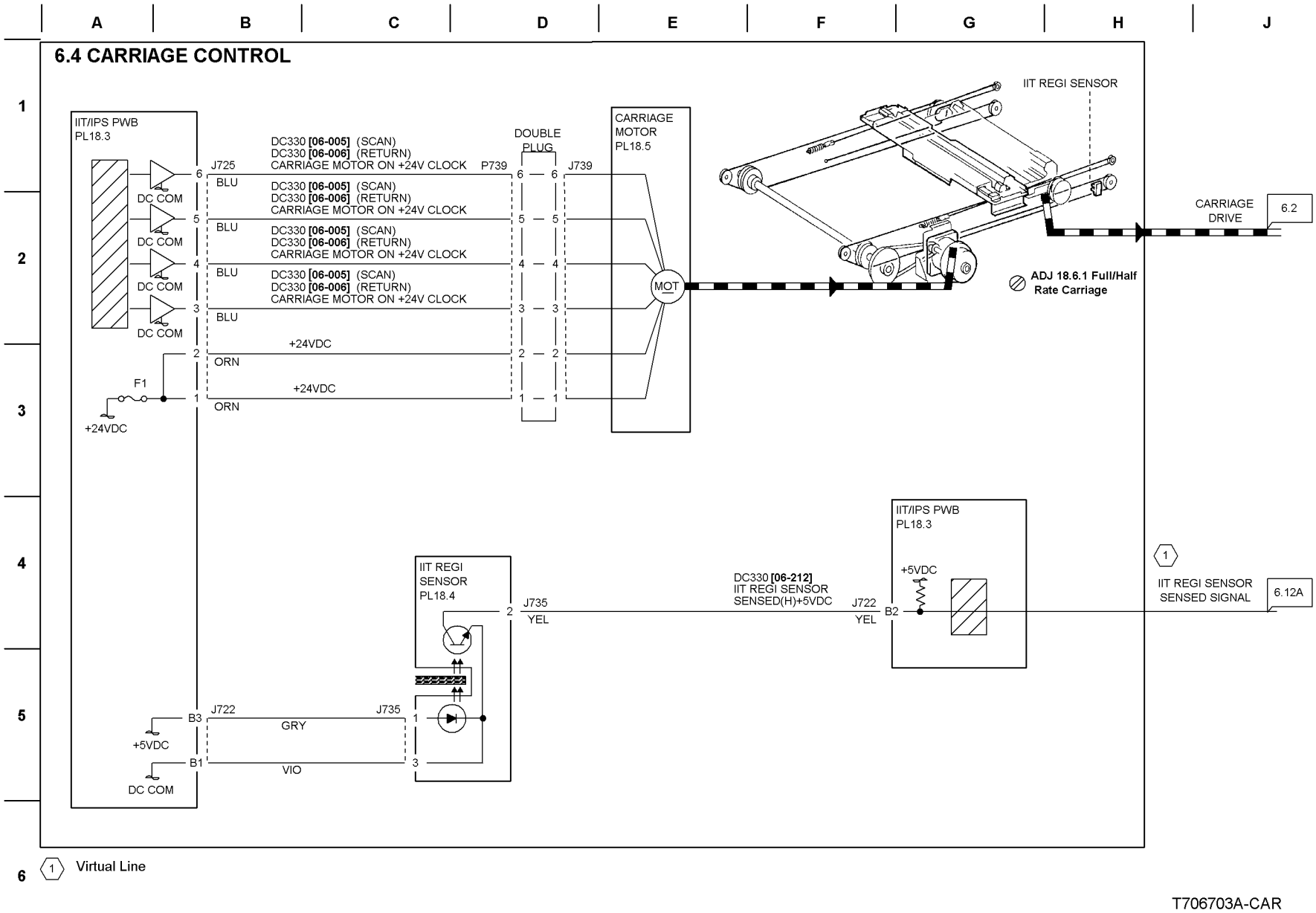



**Figure 4 Carriage Control**

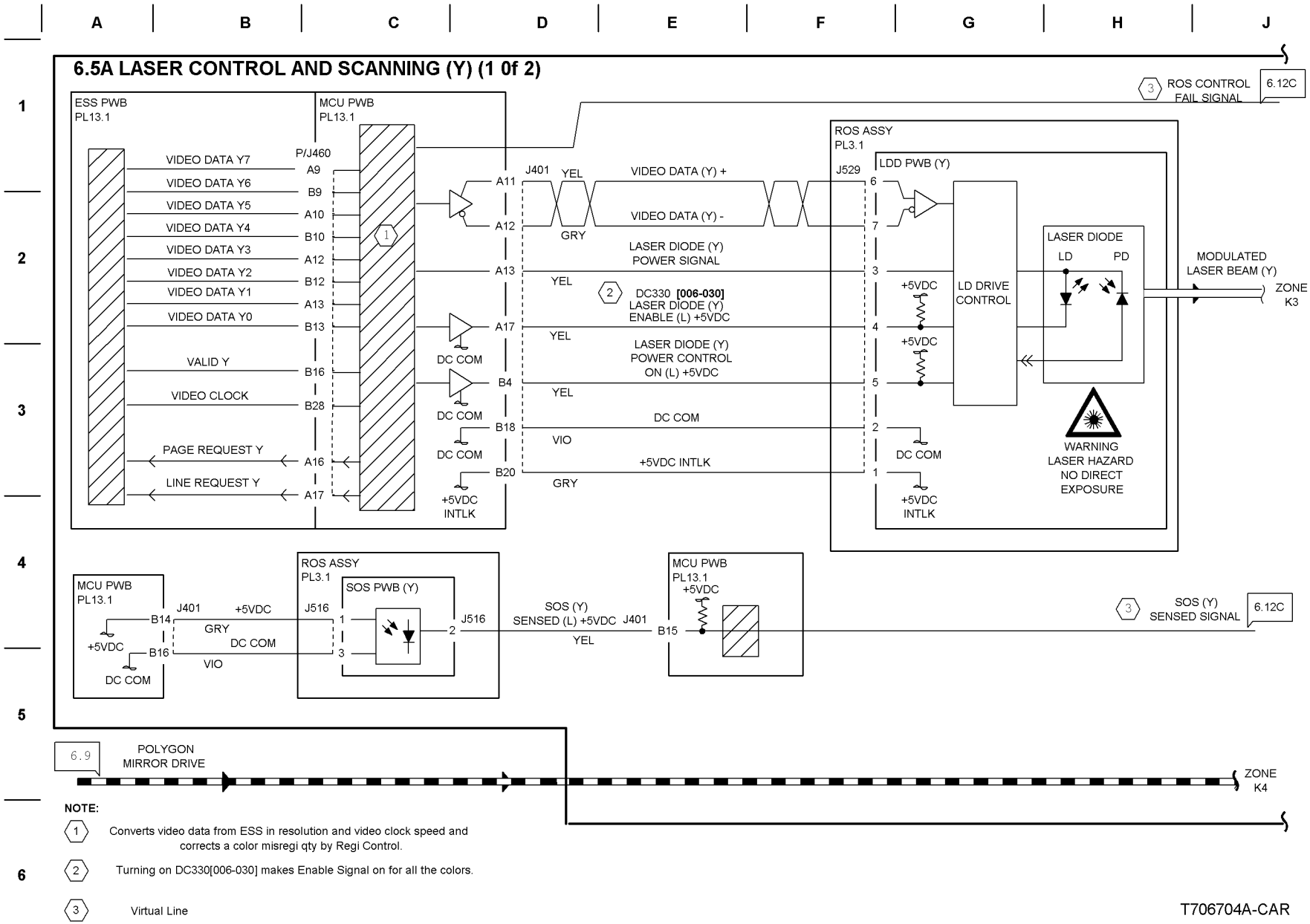



**Figure 5 Laser Control and Scanning (Y) (1 0f 2)**

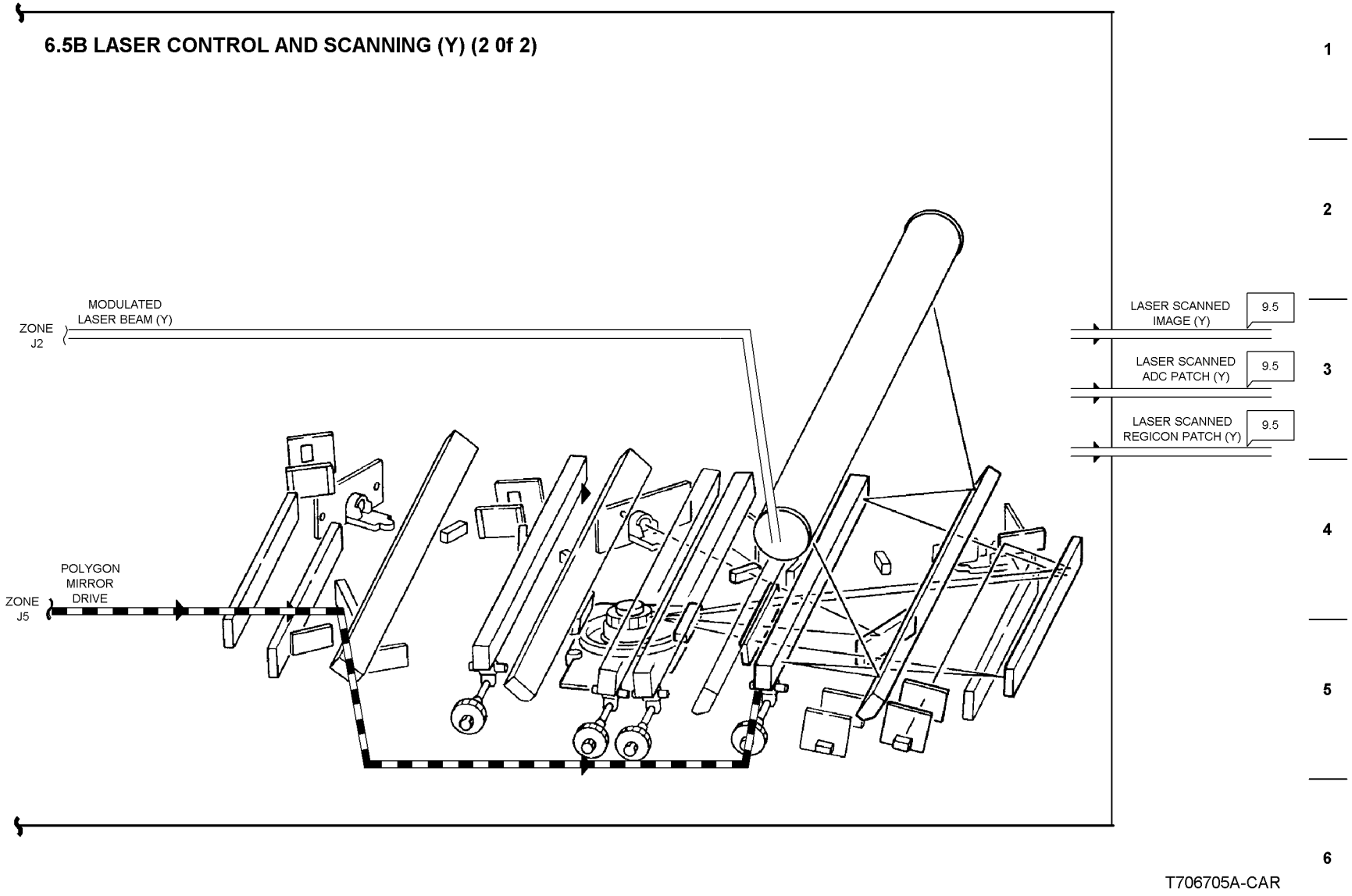



**Figure 6 Laser Control and Scanning (Y) (2 0f 2)**

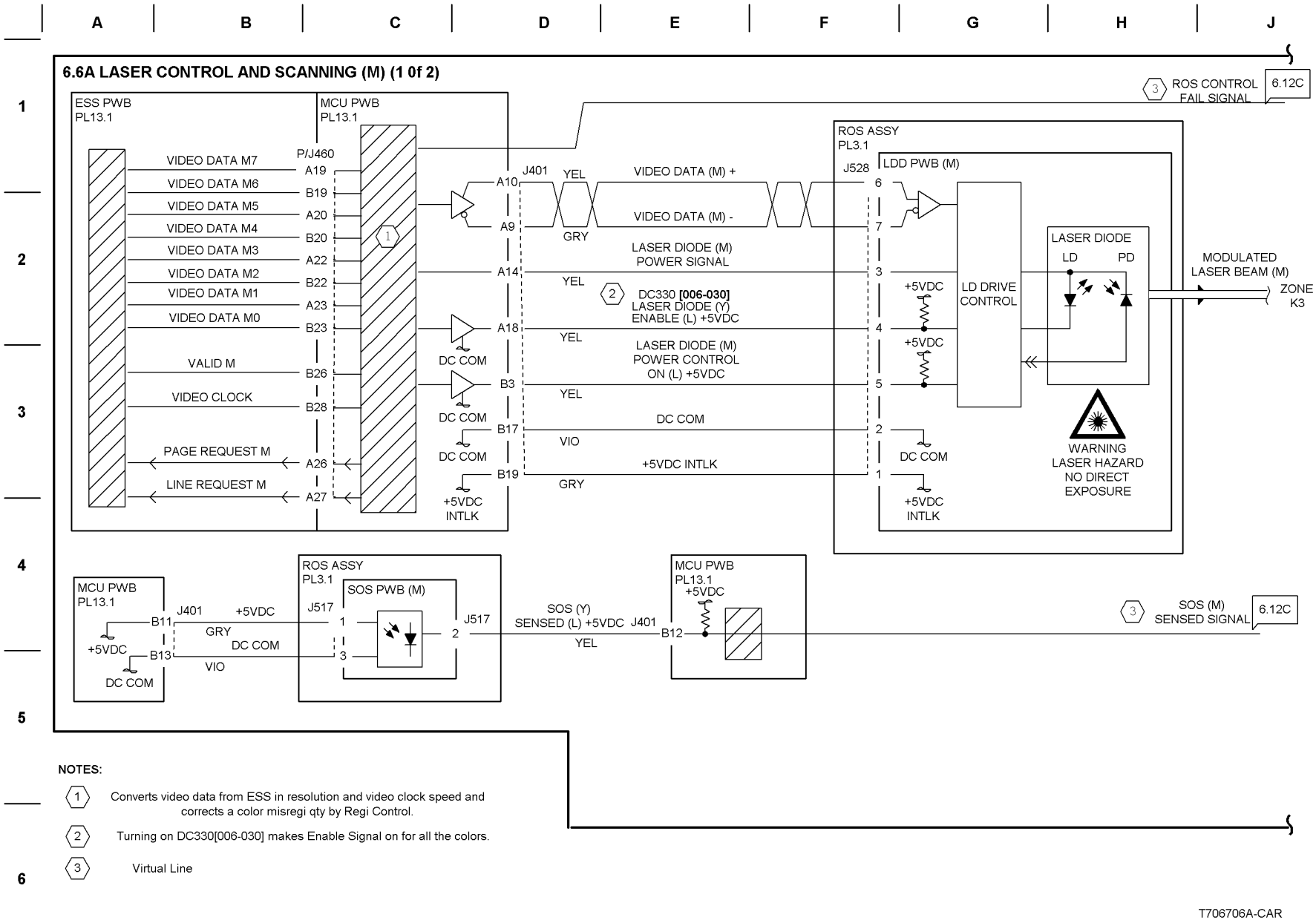



**Figure 7 Laser Control and Scanning (M) (1 0f 2)**

## 6.6B LASER CONTROL AND SCANNING (M) (2 0f 2)

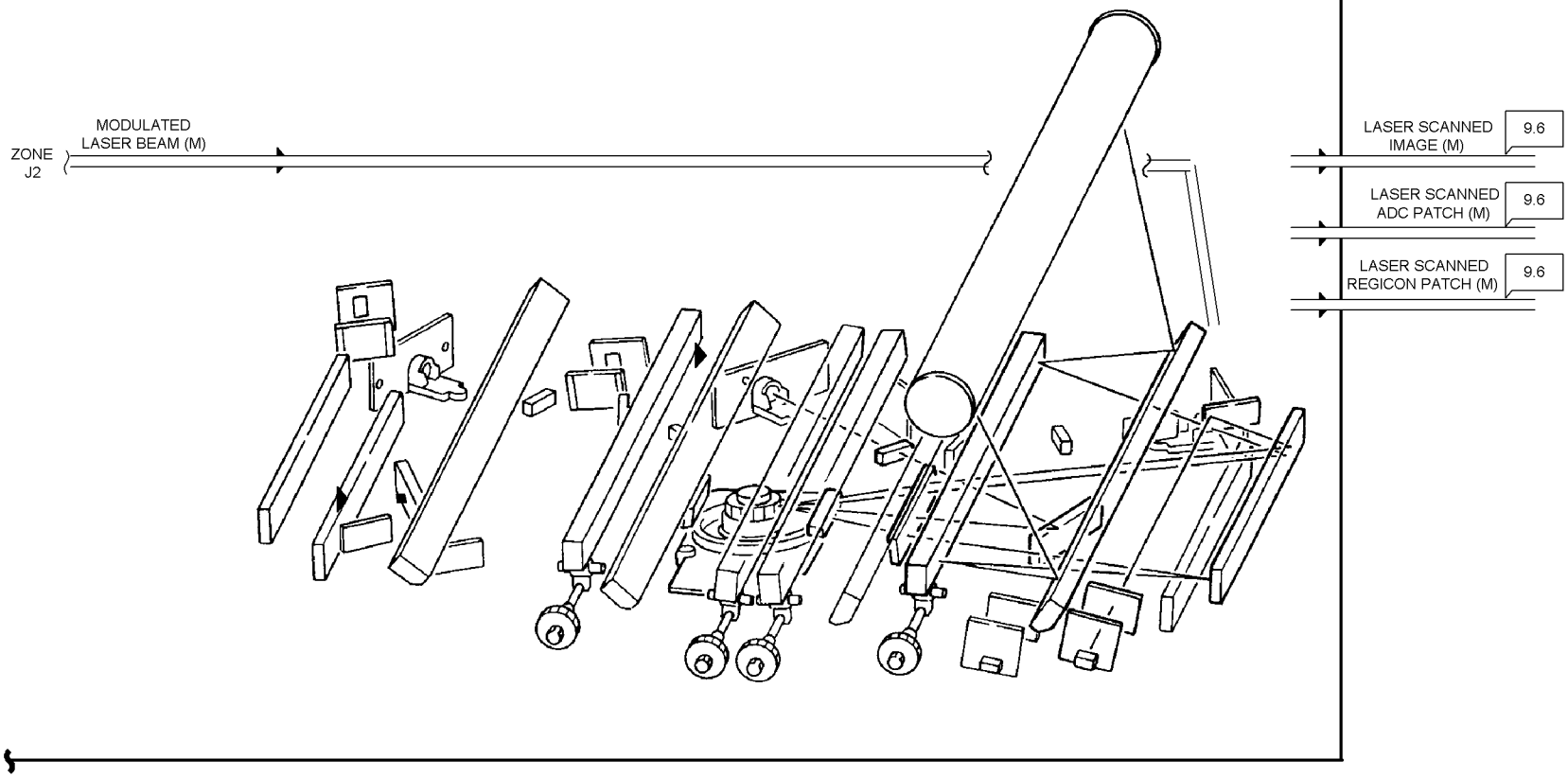



**Figure 8 Laser Control and Scanning (M) (2 0f 2)**

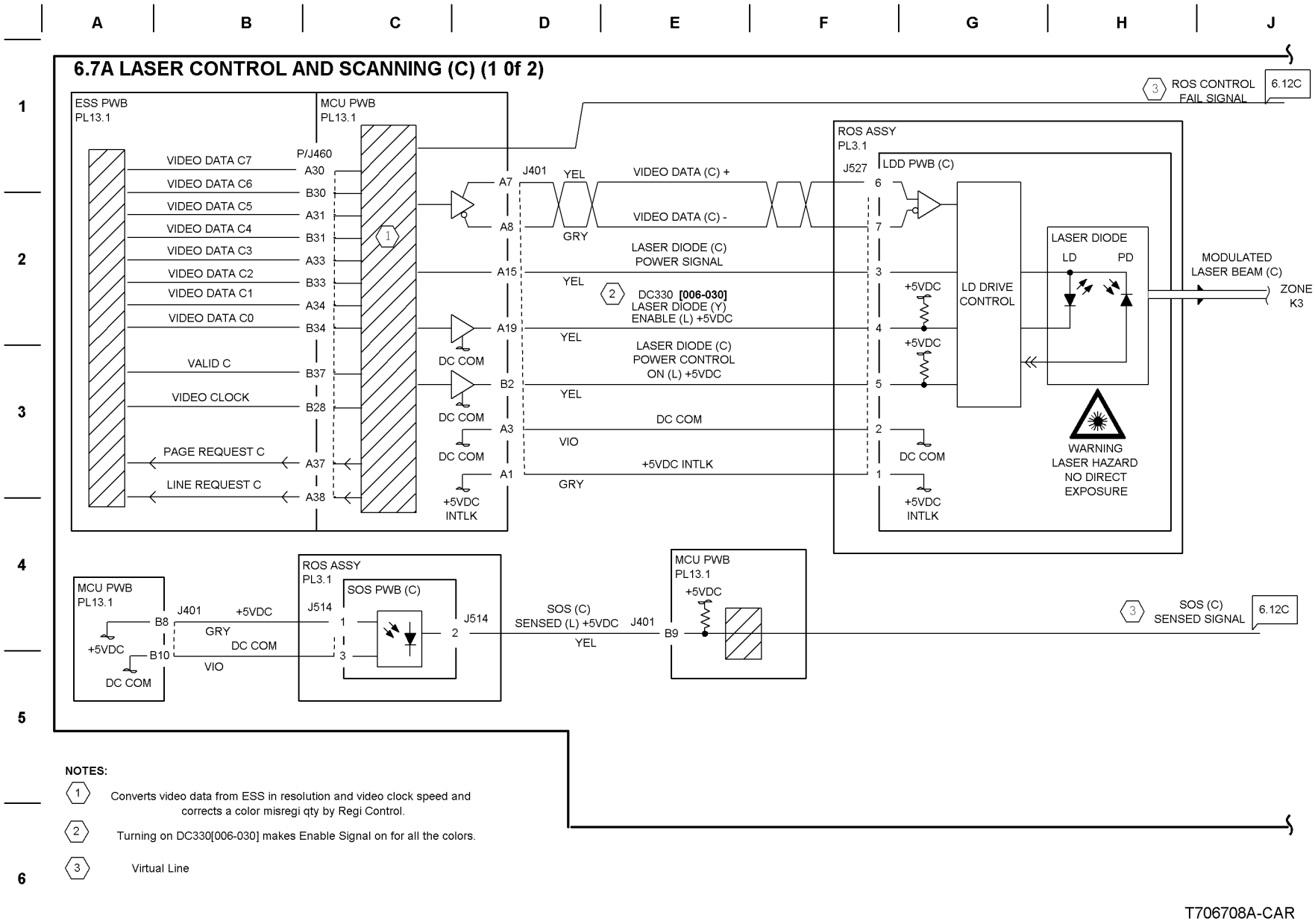



**Figure 9 Laser Control and Scanning (C) (1 0f 2)**

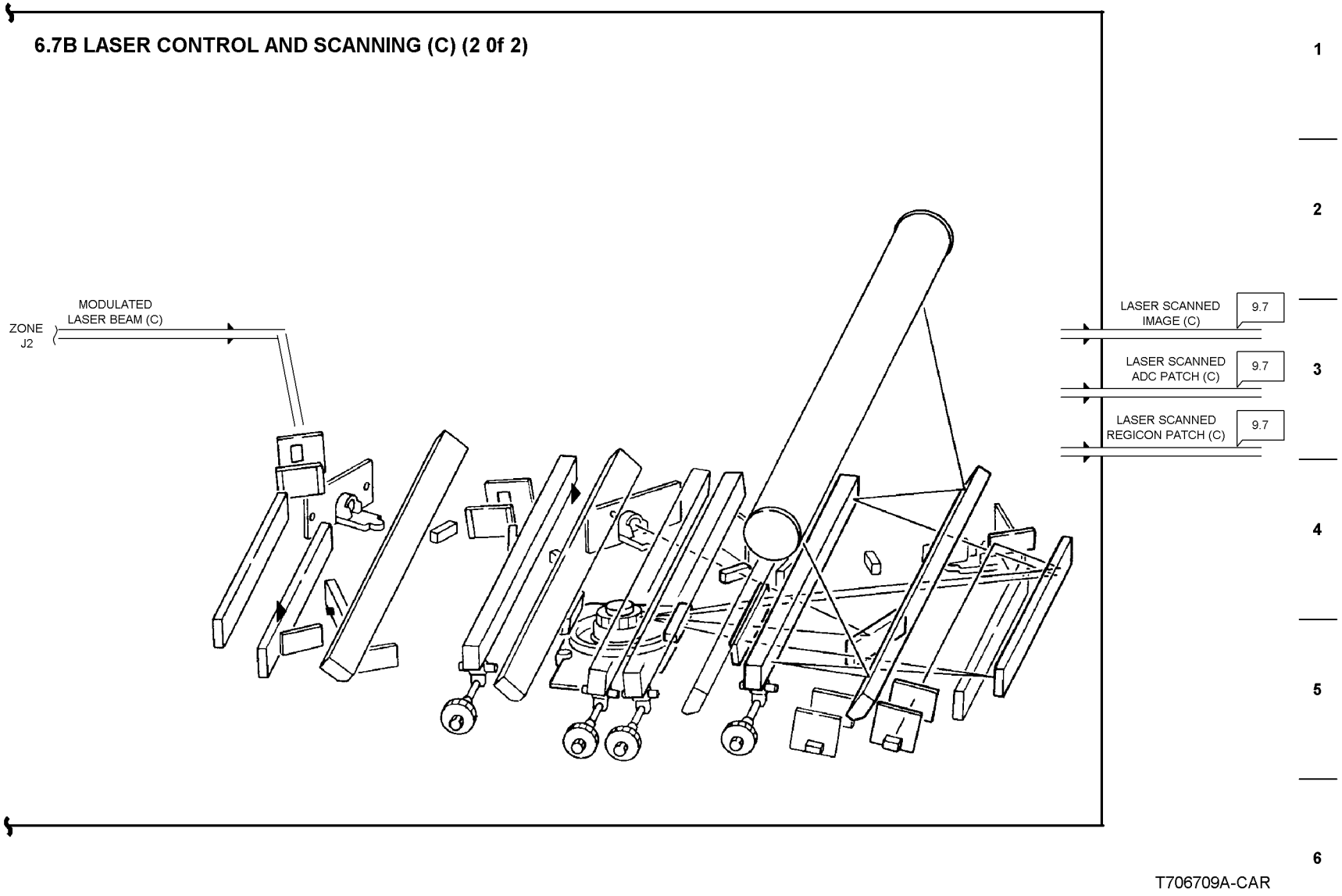



**Figure 10 Laser Control and Scanning (C) (2 0f 2)**

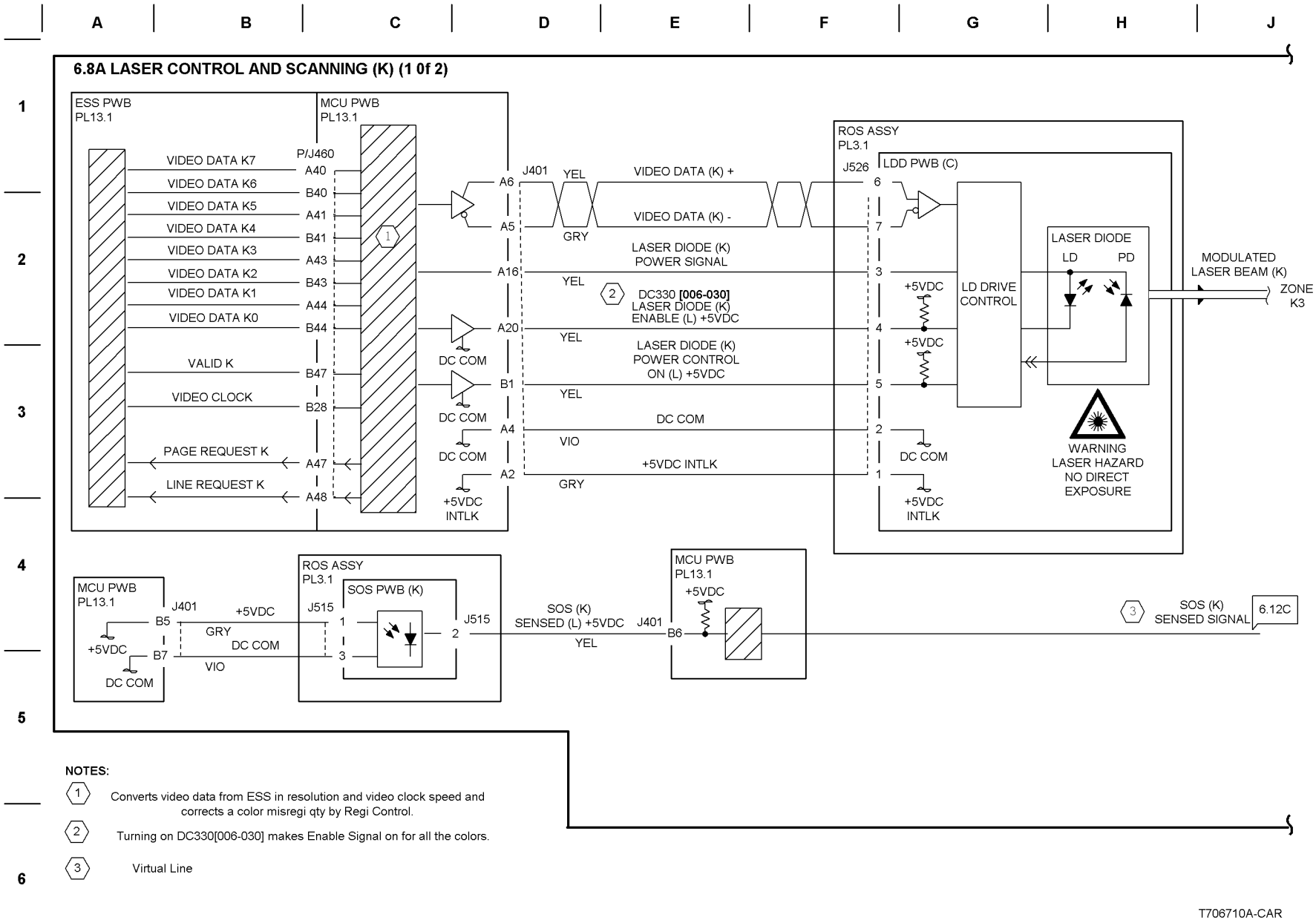



**Figure 11 Laser Control and Scanning (K) (1 0f 2)**

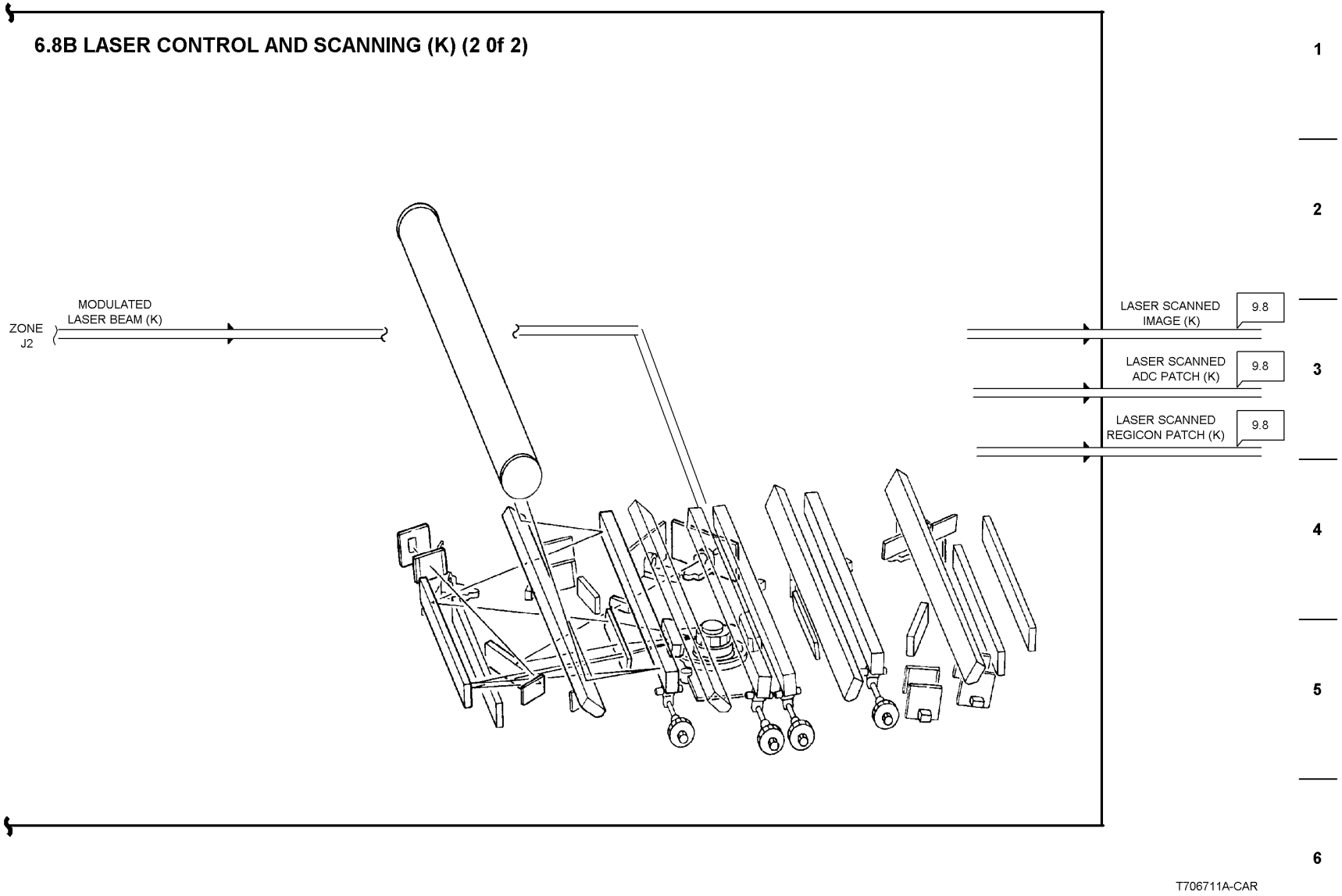



**Figure 12 Laser Control and Scanning (K) (2 0f 2)**

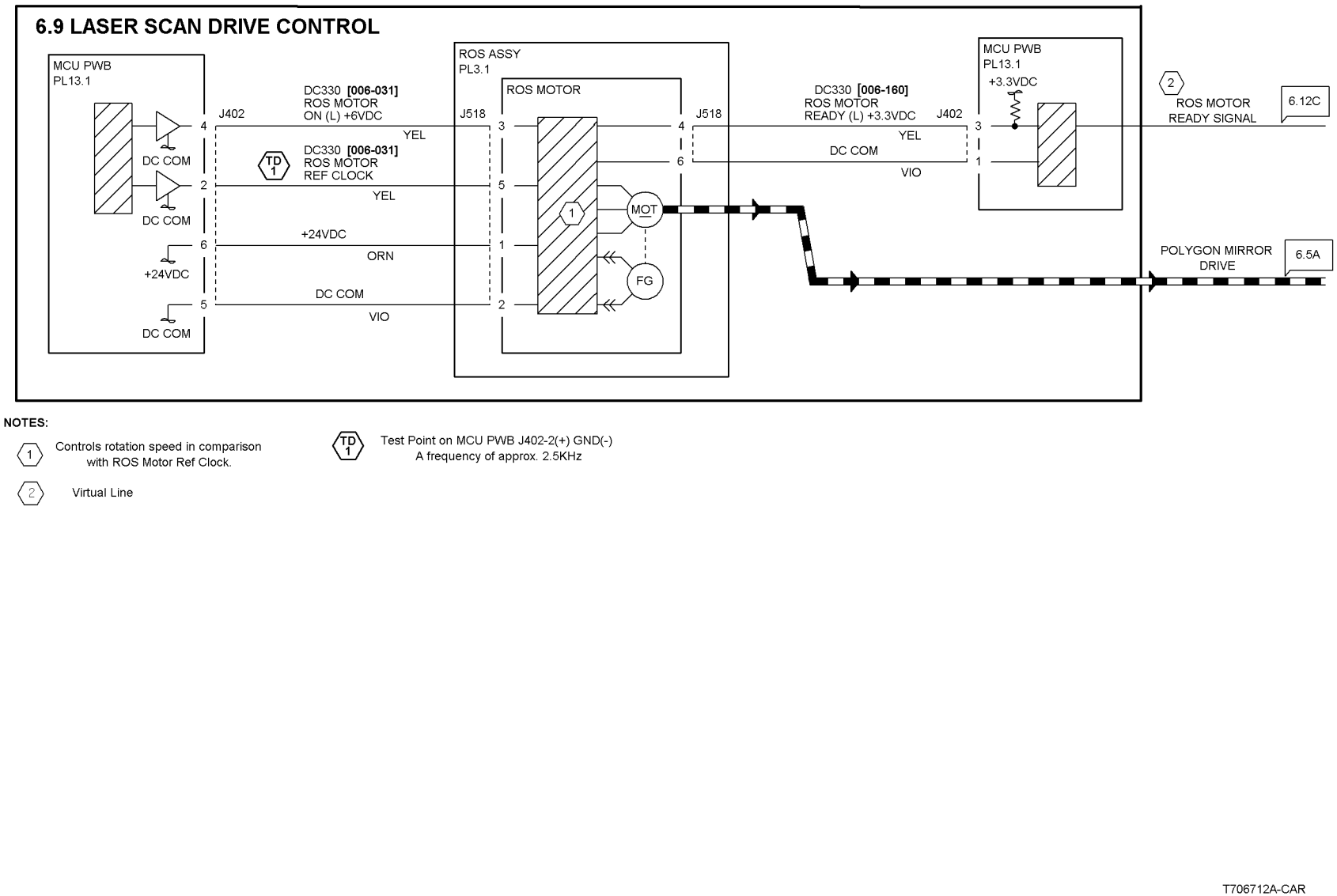



**Figure 13 Laser Scan drive Control**

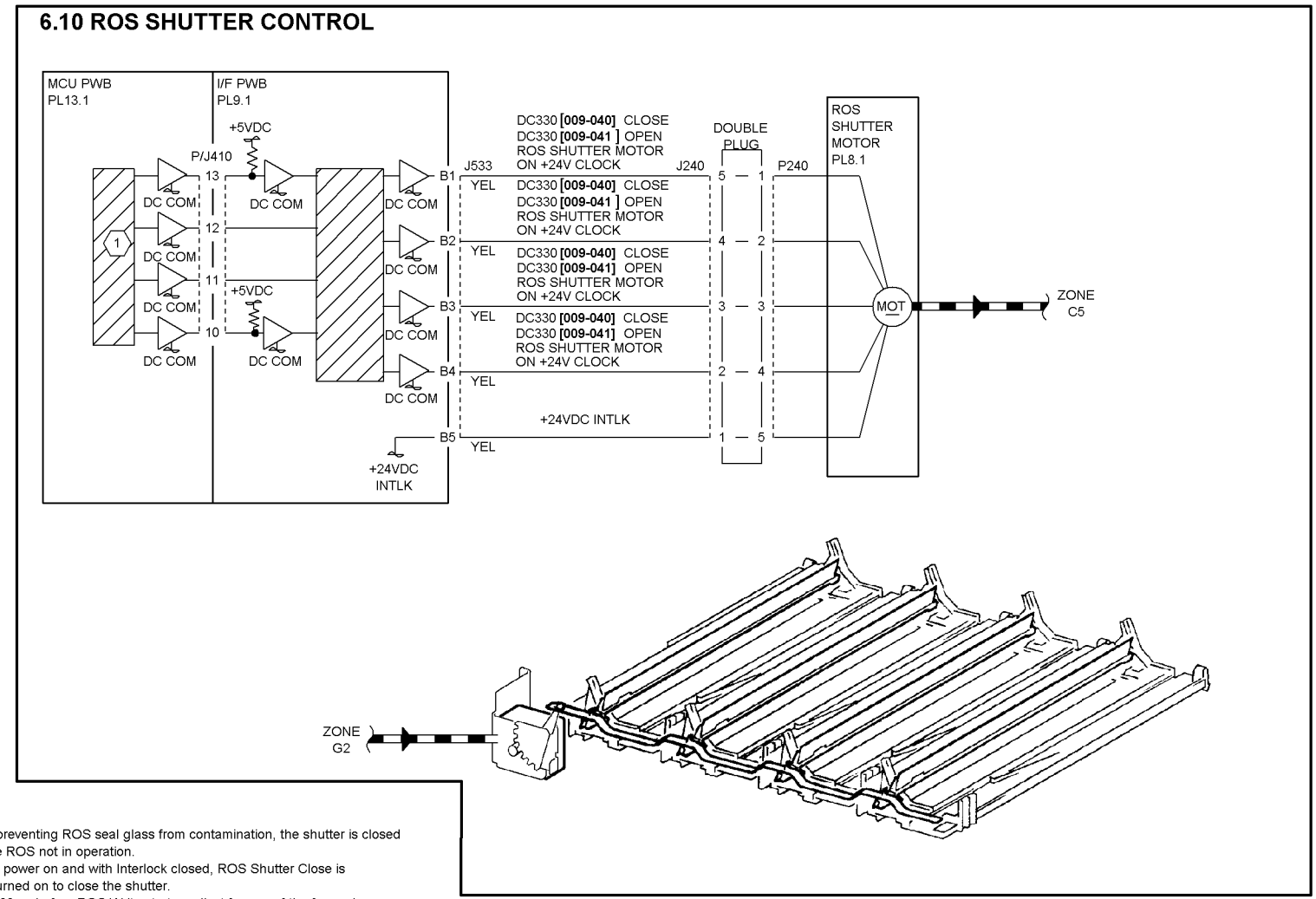



**Figure 14 Ross Shutter Control**

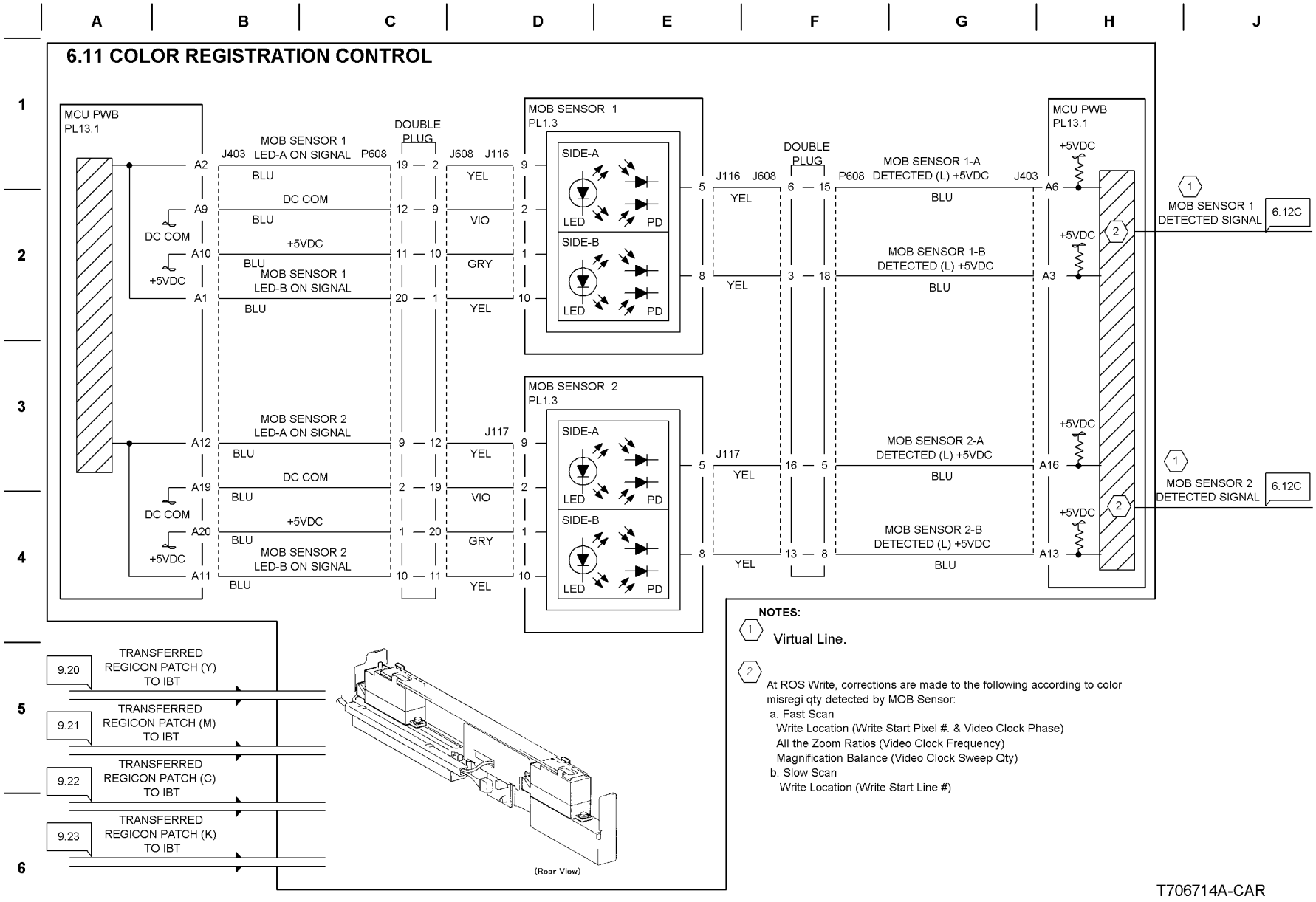



**Figure 15 Color Registration Control**

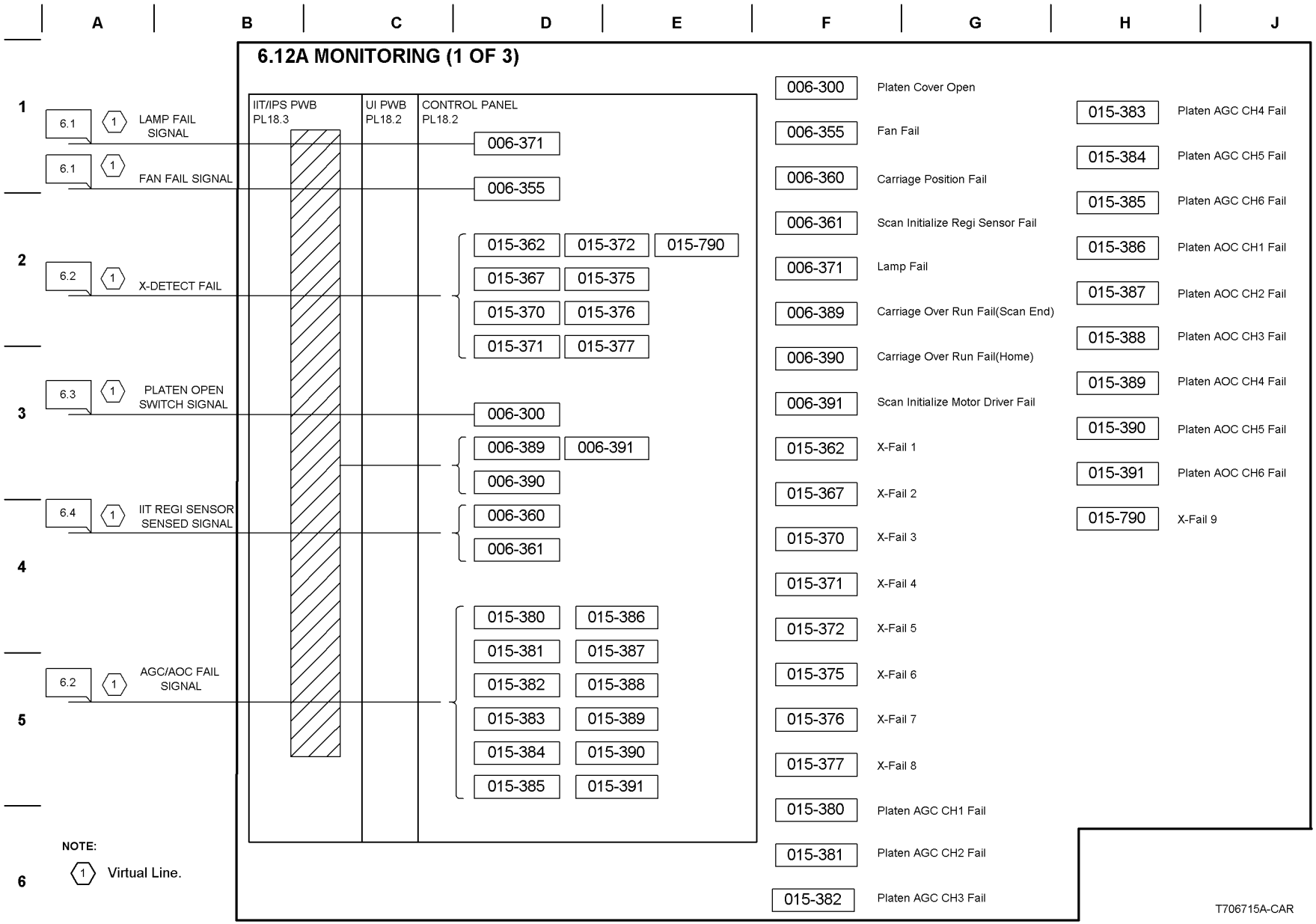



**Figure 16 Image Monitoring (1 0f 3)**

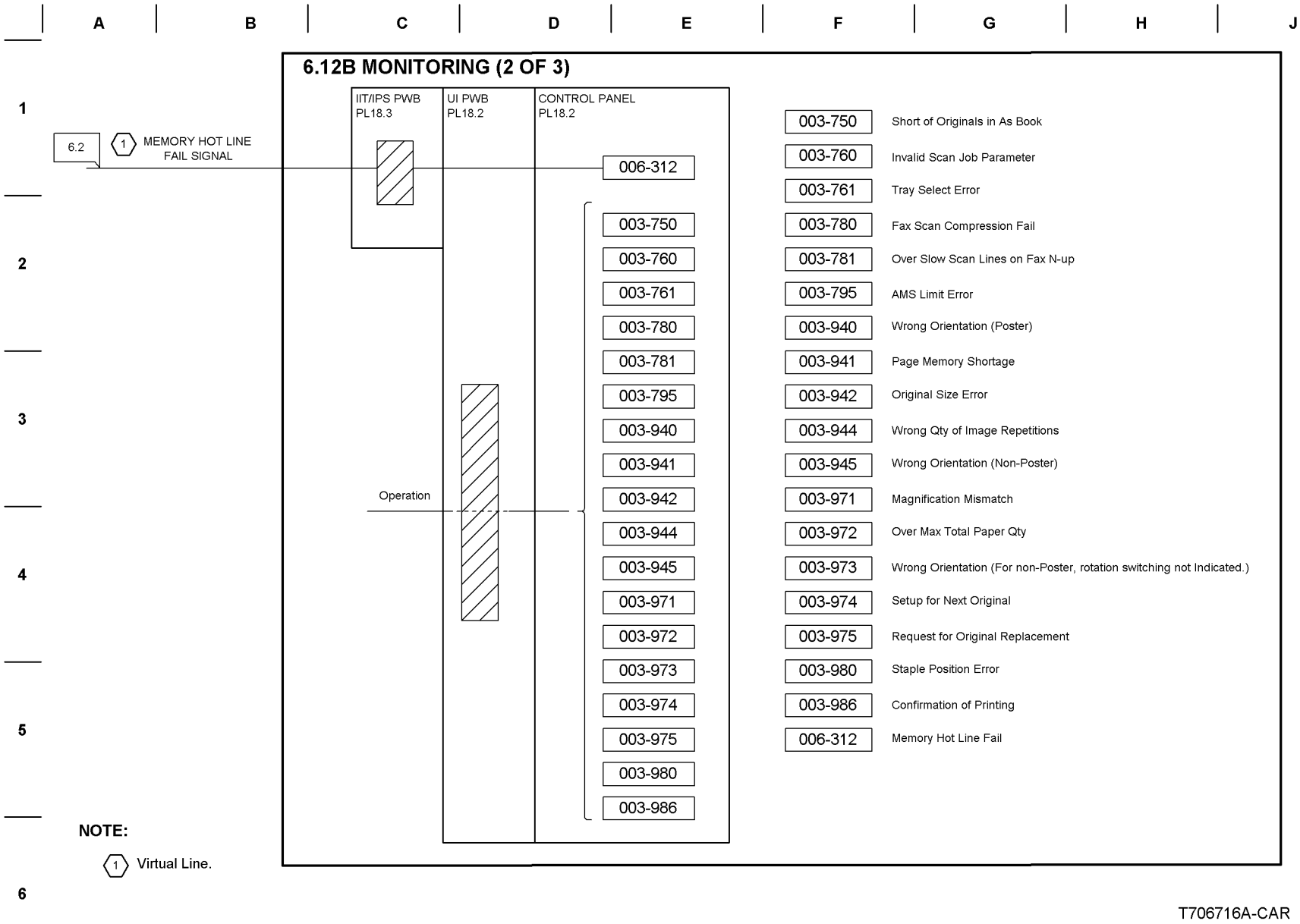



**Figure 17 Image Monitoring (2 0f 3)**

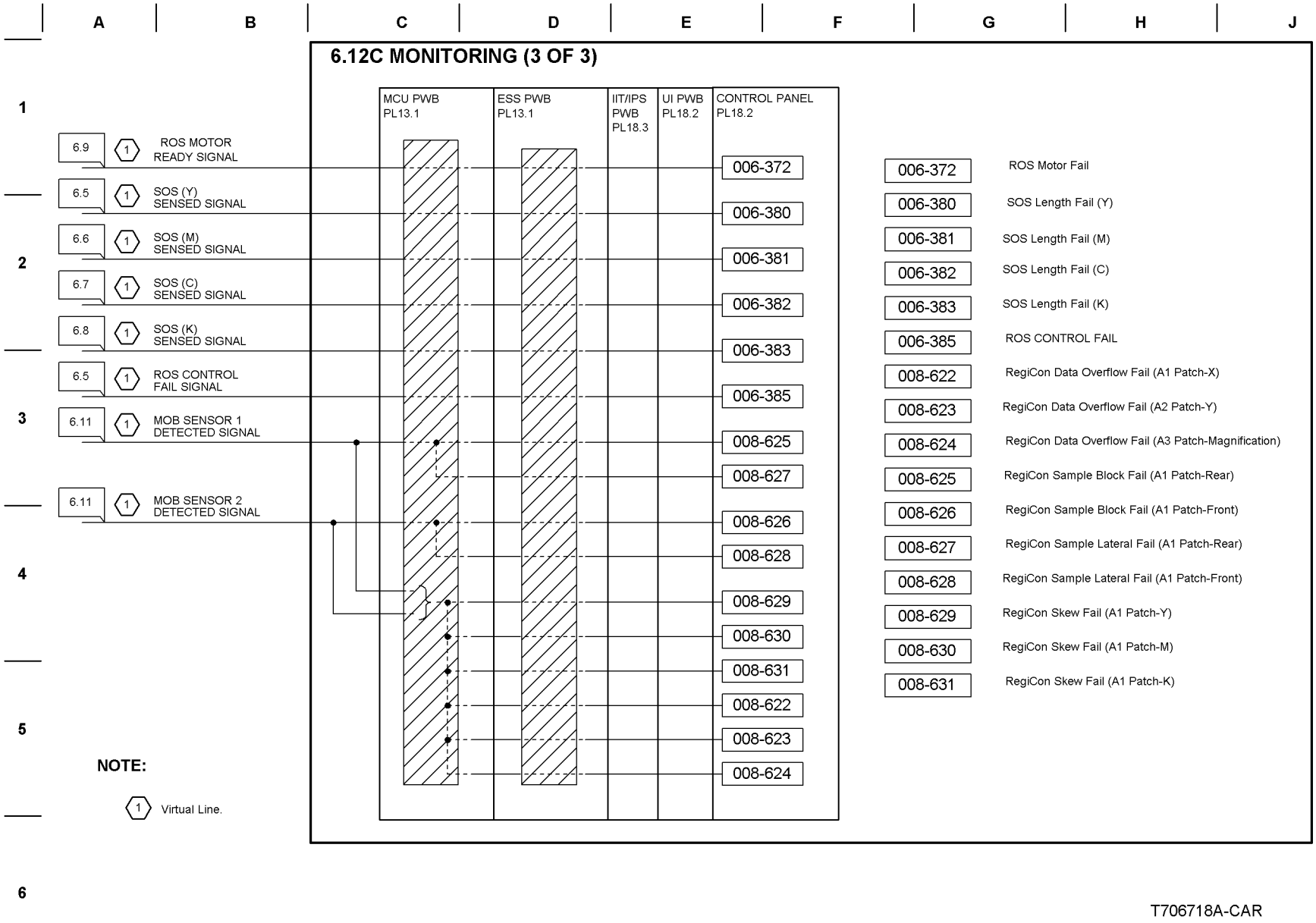
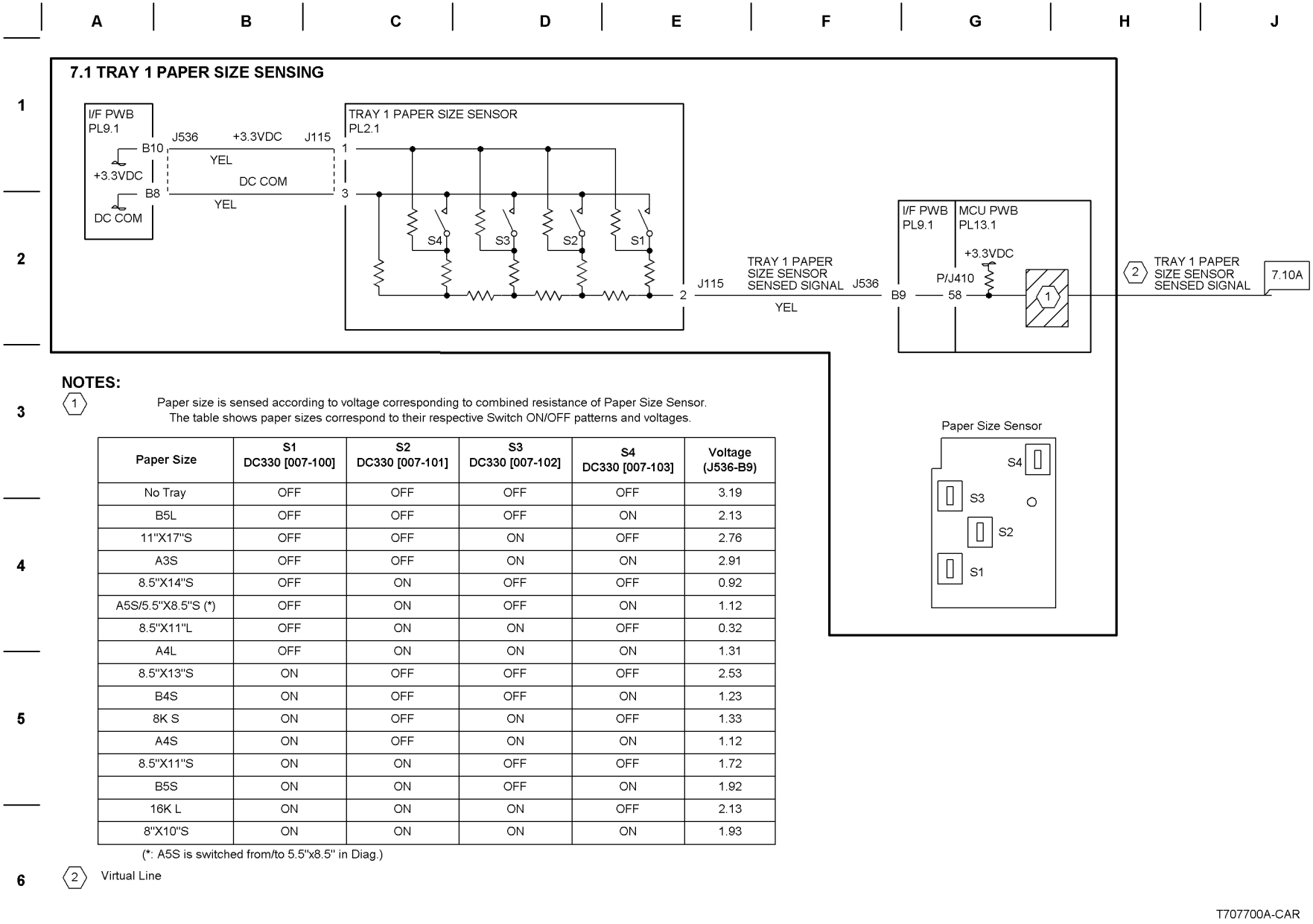


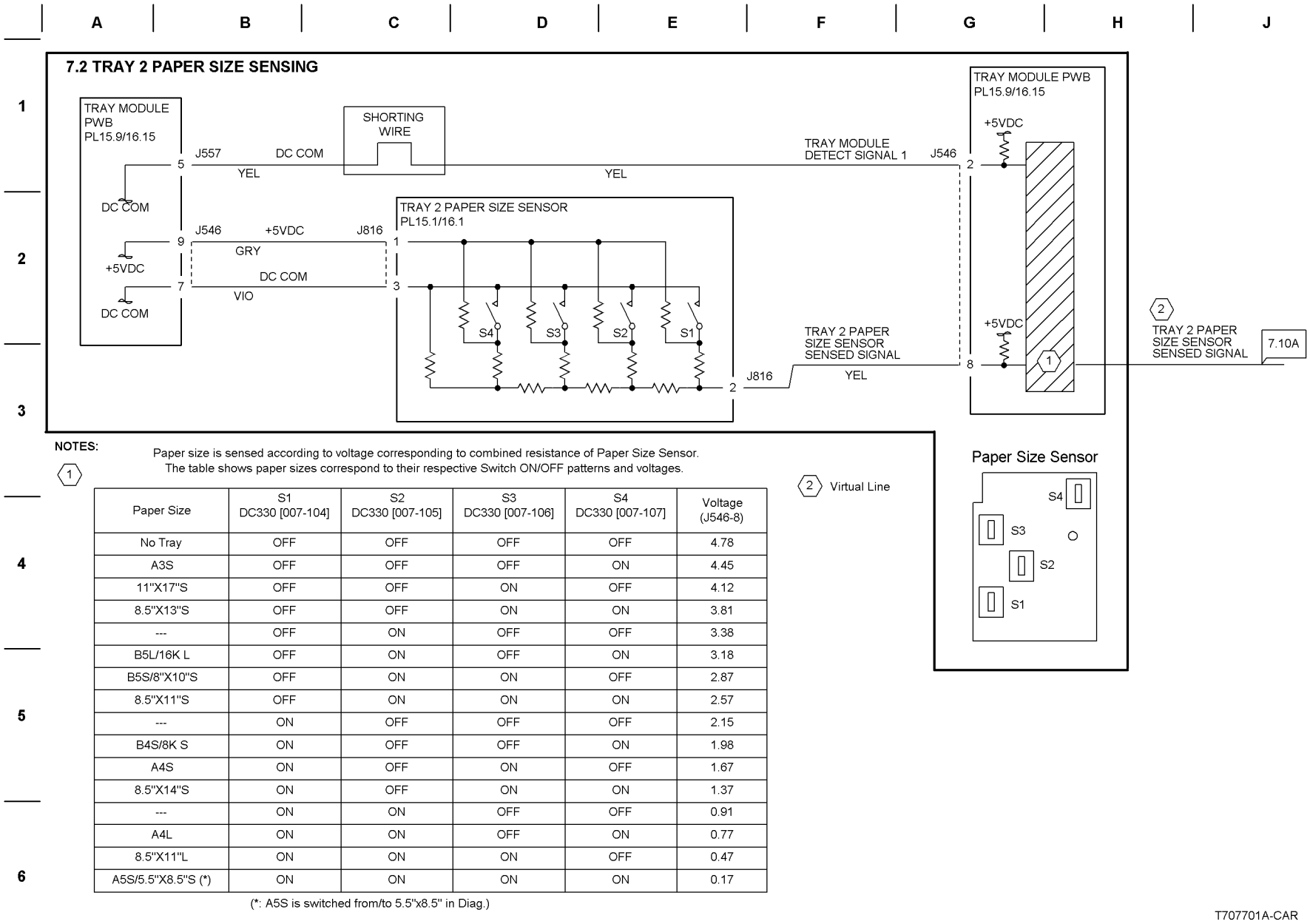

**Figure 18 Image Monitoring (3 0f 3)**




| Paper Size | S1 DC330 [007-100] | S2 DC330 [007-101] | S3 DC330 [007-102] | S4 DC330 [007-103] | Voltage (J536-B9) |
|---|---|---|---|---|---|
| No Tray | OFF | OFF | OFF | OFF | 3.19 |
| B5L | OFF | OFF | OFF | ON | 2.13 |
| 11"X17"S | OFF | OFF | ON | OFF | 2.76 |
| A3S | OFF | OFF | ON | ON | 2.91 |
| 8.5"X14"S | OFF | ON | OFF | OFF | 0.92 |
| A5S/5.5"X8.5"S (*) | OFF | ON | OFF | ON | 1.12 |
| 8.5"X11"L | OFF | ON | ON | OFF | 0.32 |
| A4L | OFF | ON | ON | ON | 1.31 |
| 8.5"X13"S | ON | OFF | OFF | OFF | 2.53 |
| B4S | ON | OFF | OFF | ON | 1.23 |
| 8K S | ON | OFF | ON | OFF | 1.33 |
| A4S | ON | OFF | ON | ON | 1.12 |
| 8.5"X11"S | ON | ON | OFF | OFF | 1.72 |
| B5S | ON | ON | OFF | ON | 1.92 |
| 16K L | ON | ON | ON | OFF | 2.13 |
| 8"X10"S | ON | ON | ON | ON | 1.93 |

(*: A5S is switched from/to 5.5"x8.5" in Diag.)

**Figure 1 Tray 1 Paper Size Sensing**




NOTES:

(1) Paper size is sensed according to voltage corresponding to combined resistance of Paper Size Sensor.
The table shows paper sizes correspond to their respective Switch ON/OFF patterns and voltages.

(2) Virtual Line

| Paper Size | S1 DC330 [007-104] | S2 DC330 [007-105] | S3 DC330 [007-106] | S4 DC330 [007-107] | Voltage (J546-8) |
|---|---|---|---|---|---|
| No Tray | OFF | OFF | OFF | OFF | 4.78 |
| A3S | OFF | OFF | OFF | ON | 4.45 |
| 11"X17"S | OFF | OFF | ON | OFF | 4.12 |
| 8.5"X13"S | OFF | OFF | ON | ON | 3.81 |
| --- | OFF | ON | OFF | OFF | 3.38 |
| B5L/16K L | OFF | ON | OFF | ON | 3.18 |
| B5S/8"X10"S | OFF | ON | ON | OFF | 2.87 |
| 8.5"X11"S | OFF | ON | ON | ON | 2.57 |
| --- | ON | OFF | OFF | OFF | 2.15 |
| B4S/8K S | ON | OFF | OFF | ON | 1.98 |
| A4S | ON | OFF | ON | OFF | 1.67 |
| 8.5"X14"S | ON | OFF | ON | ON | 1.37 |
| --- | ON | ON | OFF | OFF | 0.91 |
| A4L | ON | ON | OFF | ON | 0.77 |
| 8.5"X11"L | ON | ON | ON | OFF | 0.47 |
| A5S/5.5"X8.5"S (*) | ON | ON | ON | ON | 0.17 |

(*: A5S is switched from/to 5.5"x8.5" in Diag.)

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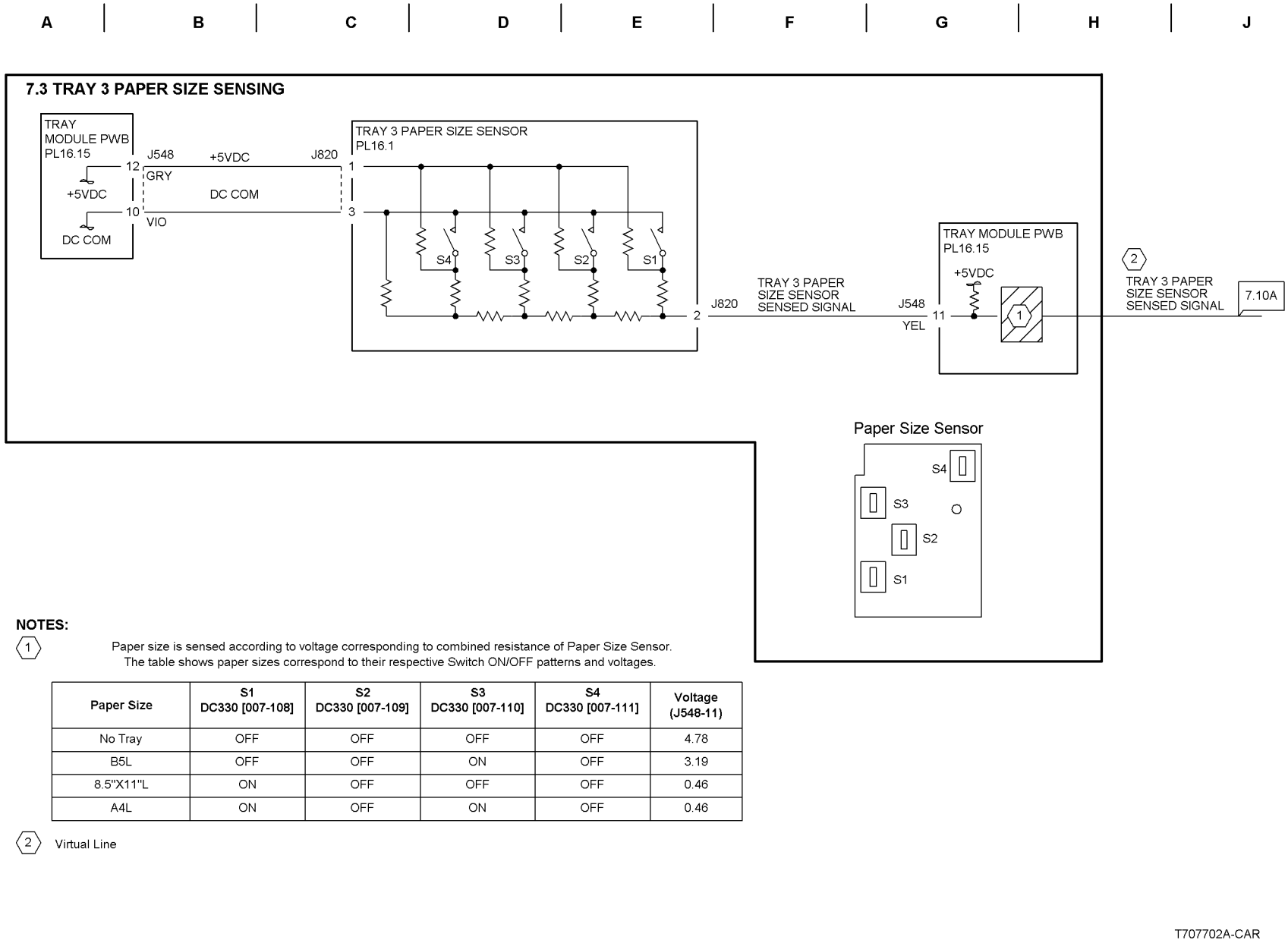
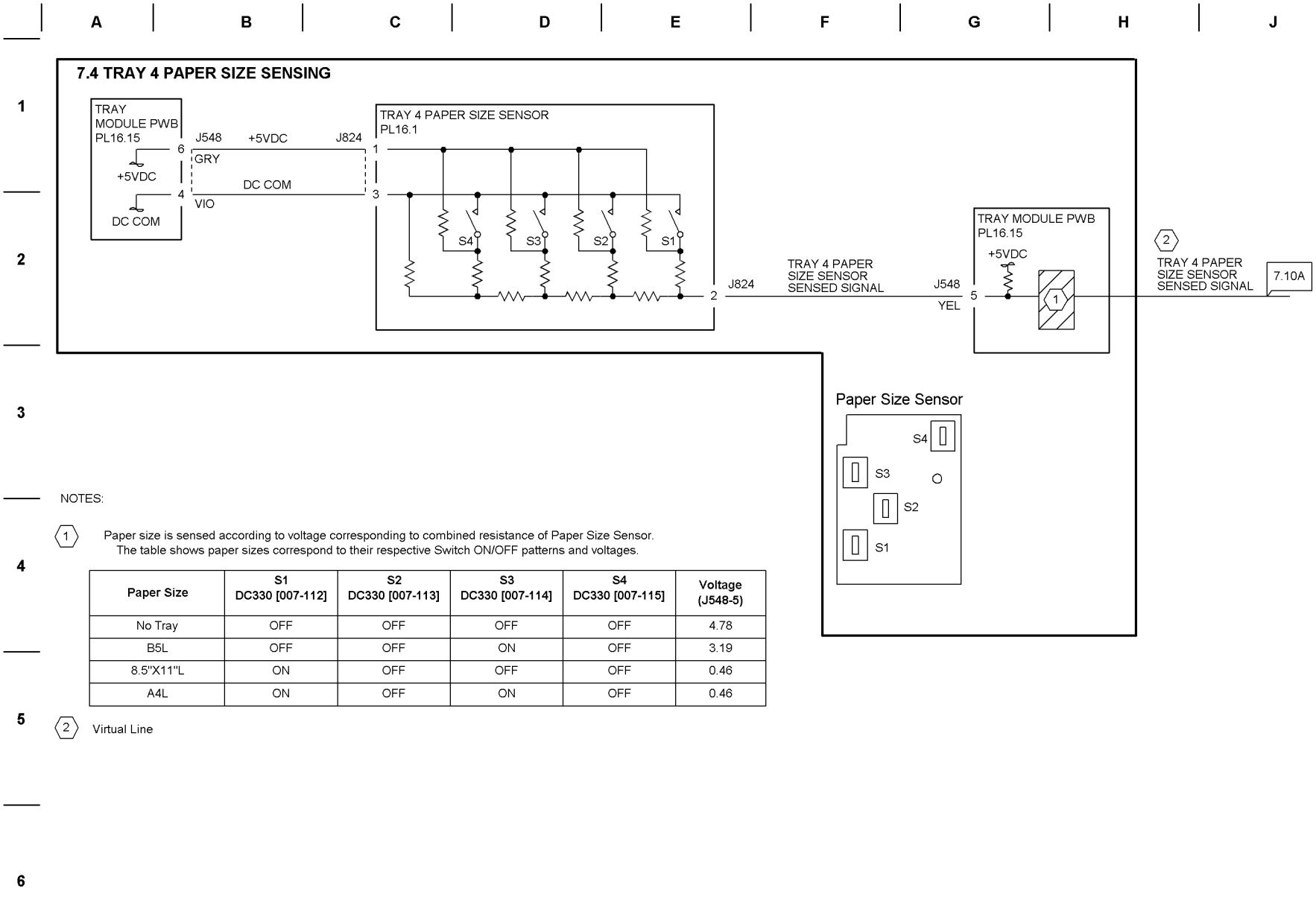
**Figure 2 Tray 2 Paper Size Sensing**




| Paper Size | S1 DC330 [007-108] | S2 DC330 [007-109] | S3 DC330 [007-110] | S4 DC330 [007-111] | Voltage (J548-11) |
|---|---|---|---|---|---|
| No Tray | OFF | OFF | OFF | OFF | 4.78 |
| B5L | OFF | OFF | ON | OFF | 3.19 |
| 8.5"X11"L | ON | OFF | OFF | OFF | 0.46 |
| A4L | ON | OFF | ON | OFF | 0.46 |

**Figure 3 Tray 3 Paper Size Sensing**




NOTES:

(1) Paper size is sensed according to voltage corresponding to combined resistance of Paper Size Sensor. The table shows paper sizes correspond to their respective Switch ON/OFF patterns and voltages.

| Paper Size | S1 DC330 [007-112] | S2 DC330 [007-113] | S3 DC330 [007-114] | S4 DC330 [007-115] | Voltage (J548-5) |
|---|---|---|---|---|---|
| No Tray | OFF | OFF | OFF | OFF | 4.78 |
| B5L | OFF | OFF | ON | OFF | 3.19 |
| 8.5"X11"L | ON | OFF | OFF | OFF | 0.46 |
| A4L | ON | OFF | ON | OFF | 0.46 |

(2) Virtual Line

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**Figure 4 Tray 4 Paper Size Sensing**

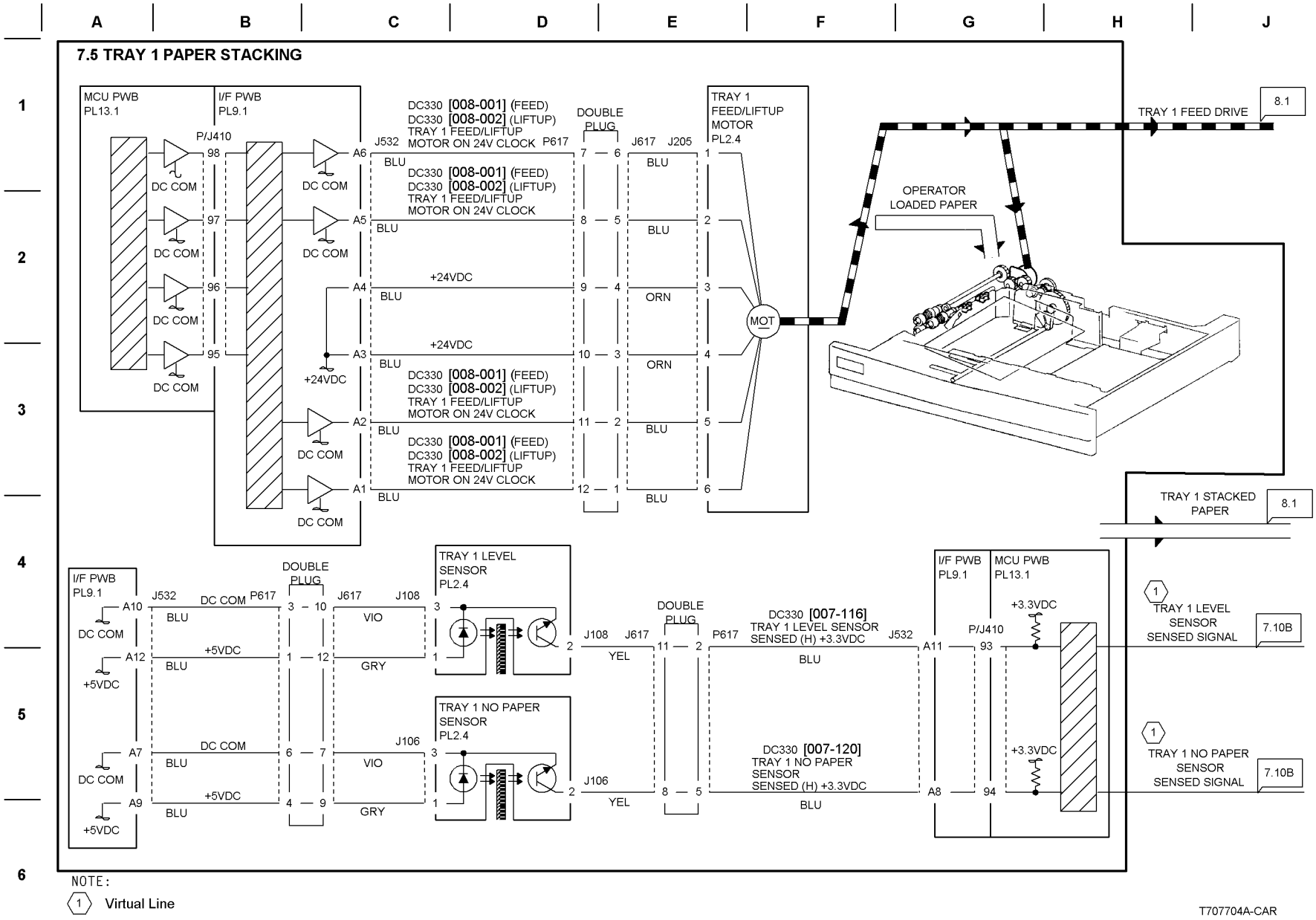



**Figure 5 Tray 1 Paper Stacking**

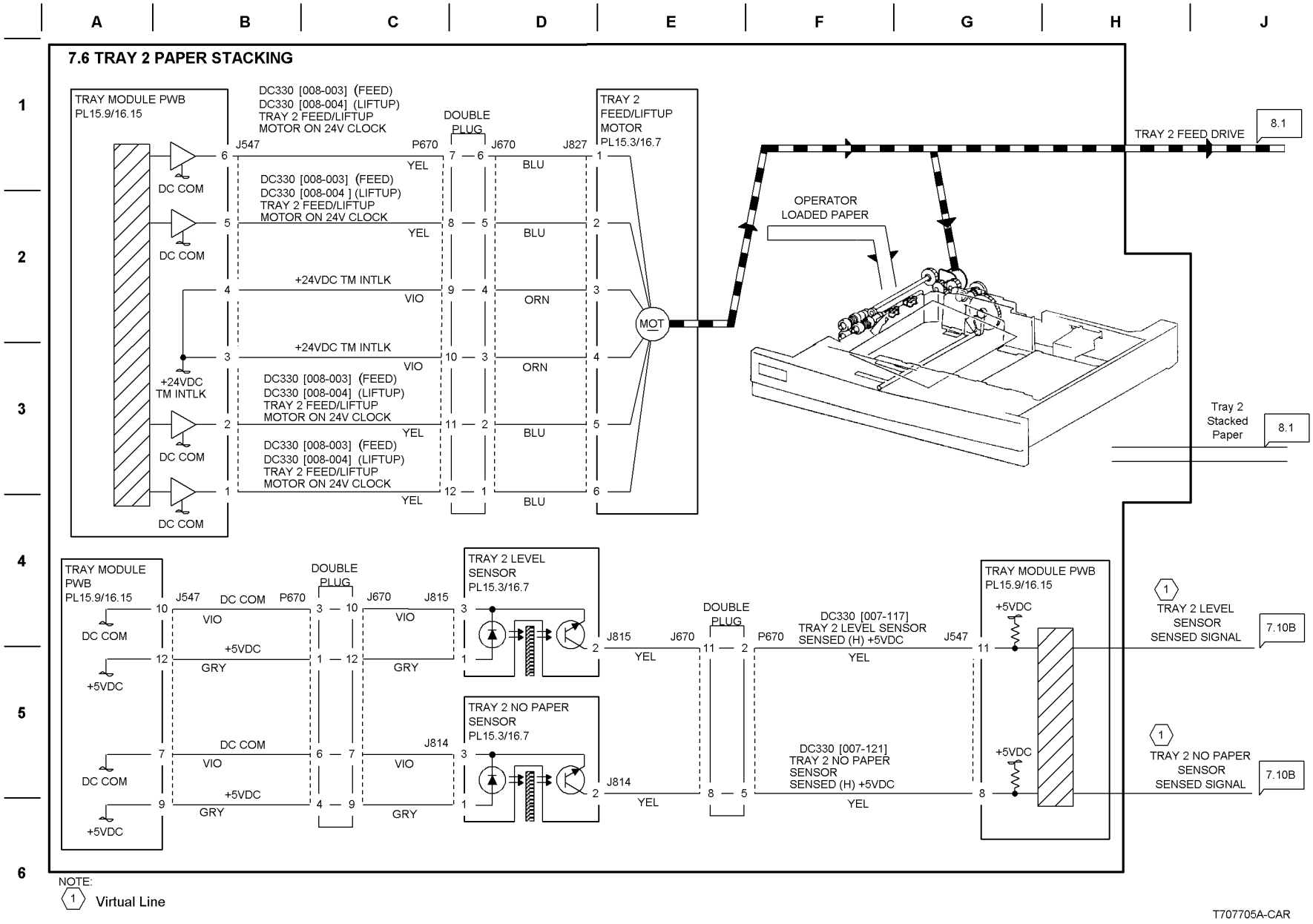



**Figure 6 Tray 2 Paper Stacking**

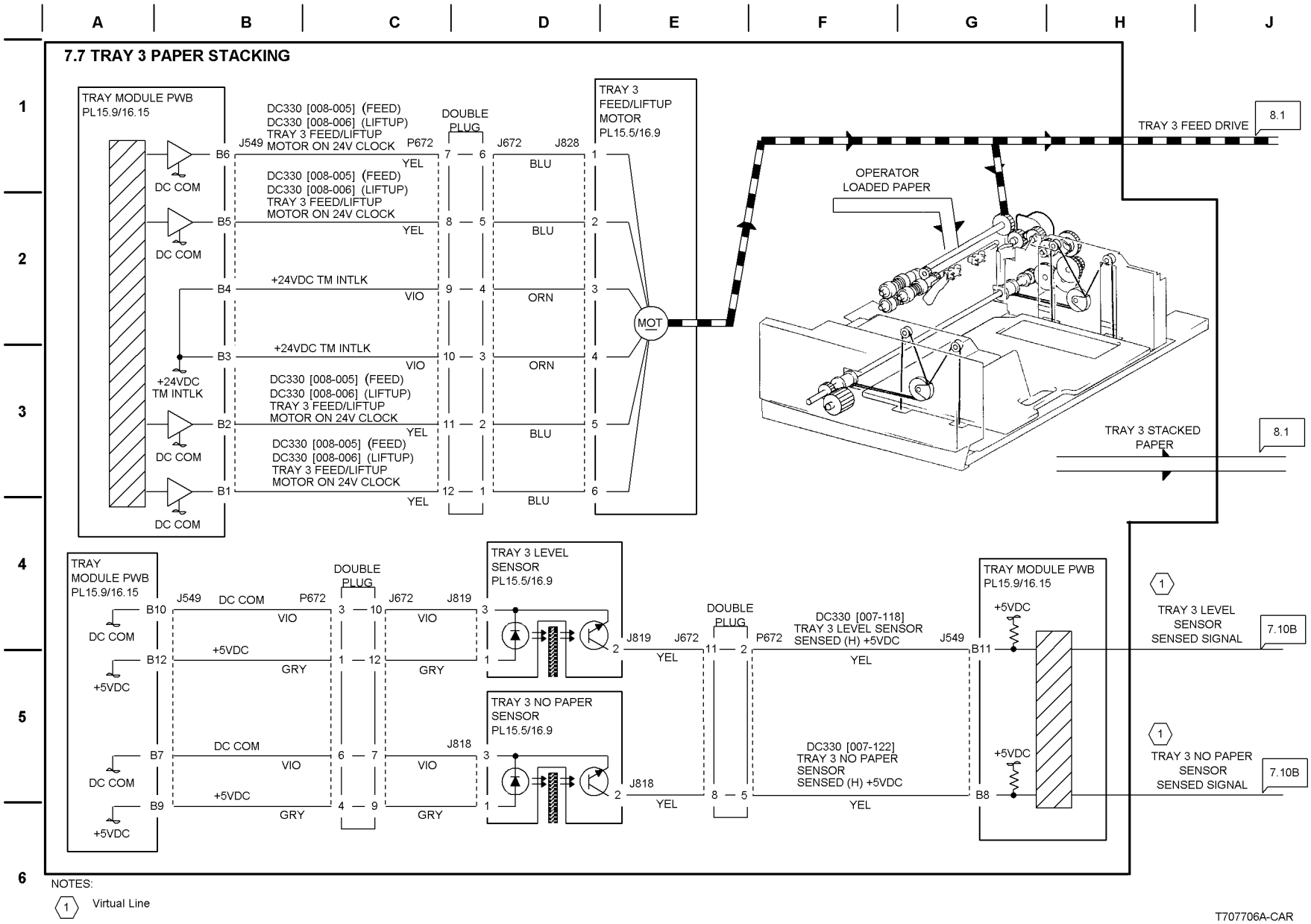



**Figure 7 Tray 3 Paper Stacking**

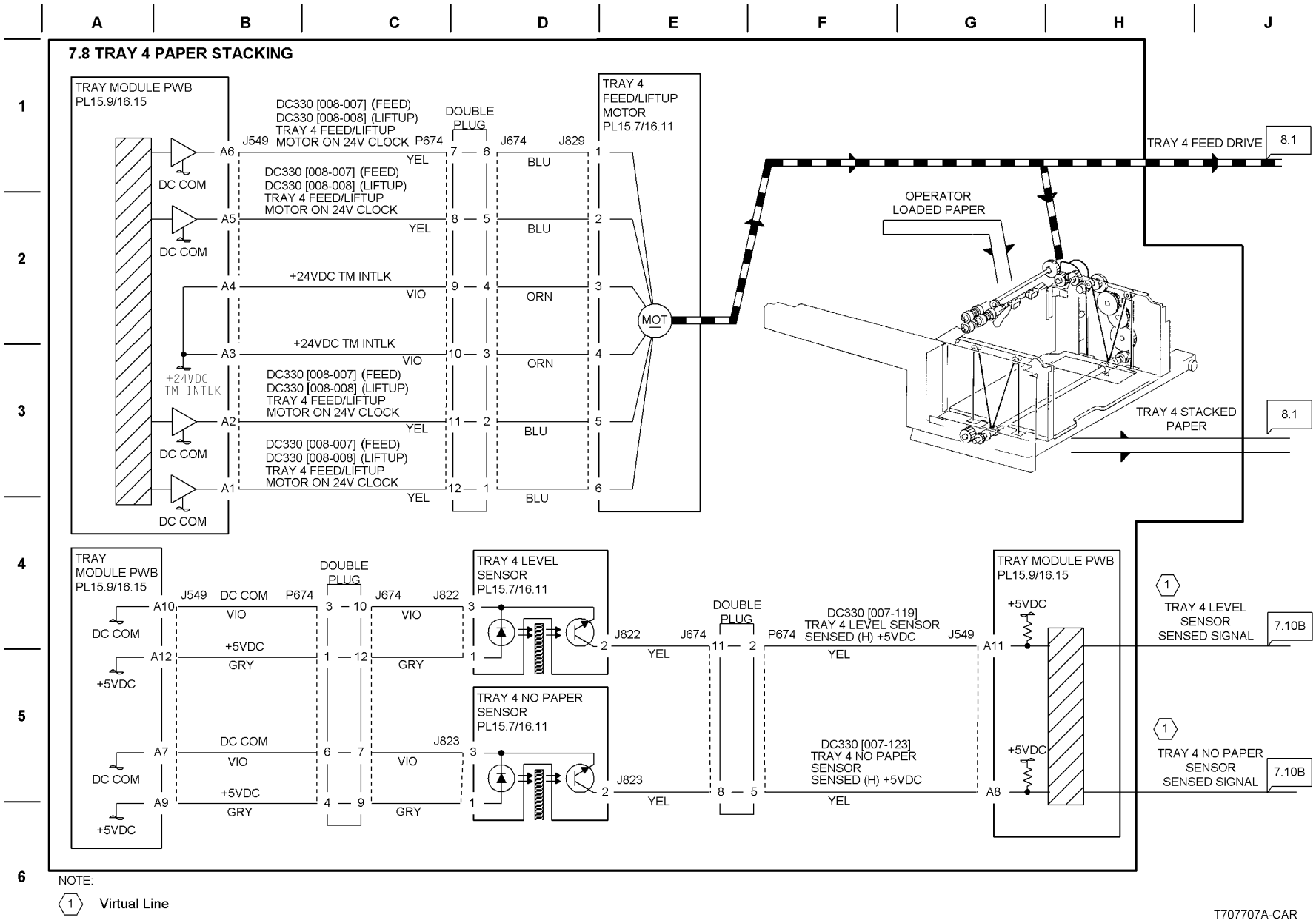
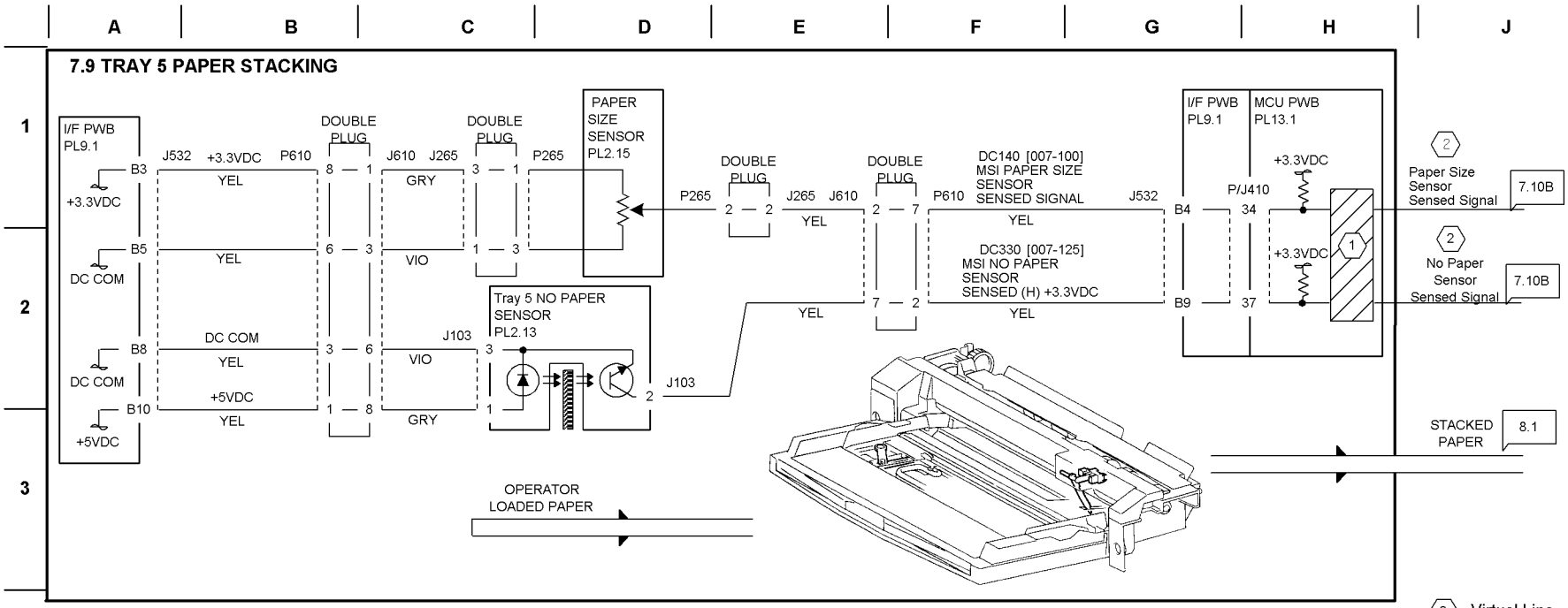



**Figure 8 Tray 4 Paper Stacking**




NOTE:

(1) Paper width (size in Fast Scan direction) is sensed according to voltage corresponding to resistance of MSI Paper Size Sensor. The table shows paper sizes (widths) correspond to their respective voltages.

| Paper Size | Voltage (J535-A8) | AD Value DC140 [007-100] |
|---|---|---|
| Post Card S | 3.315 | 971 |
| A6S | 3.064 | 949 |
| B6S | 2.736 | 848 |
| 5.5"X8.5"S | 2.569 | 796 |
| A5S | 2.451 | 759 |
| B5S | 1.967 | 609 |
| A5L | 1.568 | 486 |
| A4S | | |
| 8.5"X11"S | 1.484 | 460 |
| 8.5"X12.4"S | | |
| 8.5"X13"S | | |
| 8.5"X14"S | | |

| Paper Size | Voltage (J535-A8) | AD Value DC140 [007-100] |
|---|---|---|
| 8"X10"L | 0.941 | 291 |
| B5L | 0.899 | 278 |
| B4S | | |
| 16K L | 0.756 | 234 |
| 8K S | | |
| 8.5"X11"L | 0.580 | 189 |
| 11"X17"S | | |
| A4L | 0.329 | 101 |
| A3S | | |
| 12"X18"S | 0.273 | 84 |
| 12.6"X18"S | 0.165 | 51 |

Ref Paper length (size in Slow Scan direction) is sensed according to time from Regi Clutch ON to the time paper passes Regi Sensor. The table shows paper sizes (lengths) correspond to their respective times.

| Paper Size | Duration (ms) |
|---|---|
| Post Card S | 1278.8 |
| A6S | |
| B6S | 1605.8 |
| 5.5"X8.5"S | 1931.7 |
| A5S | 1875.0 |
| B5S | 2326.9 |
| A5L | 1278.8 |
| A4S | 2711.5 |
| 8.5"X11"S | 2542.3 |
| 8.5"X12.4"S | 2884.6 |
| 8.5"X13"S | 3030.8 |
| 8.5"X14"S | 3275.0 |

| Paper Size | Duration(ms) |
|---|---|
| 8"X10"L | 1809.6 |
| B5L | 1605.8 |
| B4S | 3355.8 |
| 16K L | 1721.2 |
| 8K S | 3596.2 |
| 8.5"X11"L | 1931.7 |
| 11"X17"S | 4007.7 |
| A4L | 1875.0 |
| A3S | 3894.2 |
| 12"X18"S | 4251.9 |
| 12.6"X18"S | |

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**Figure 9 Tray 5 Paper Stacking**

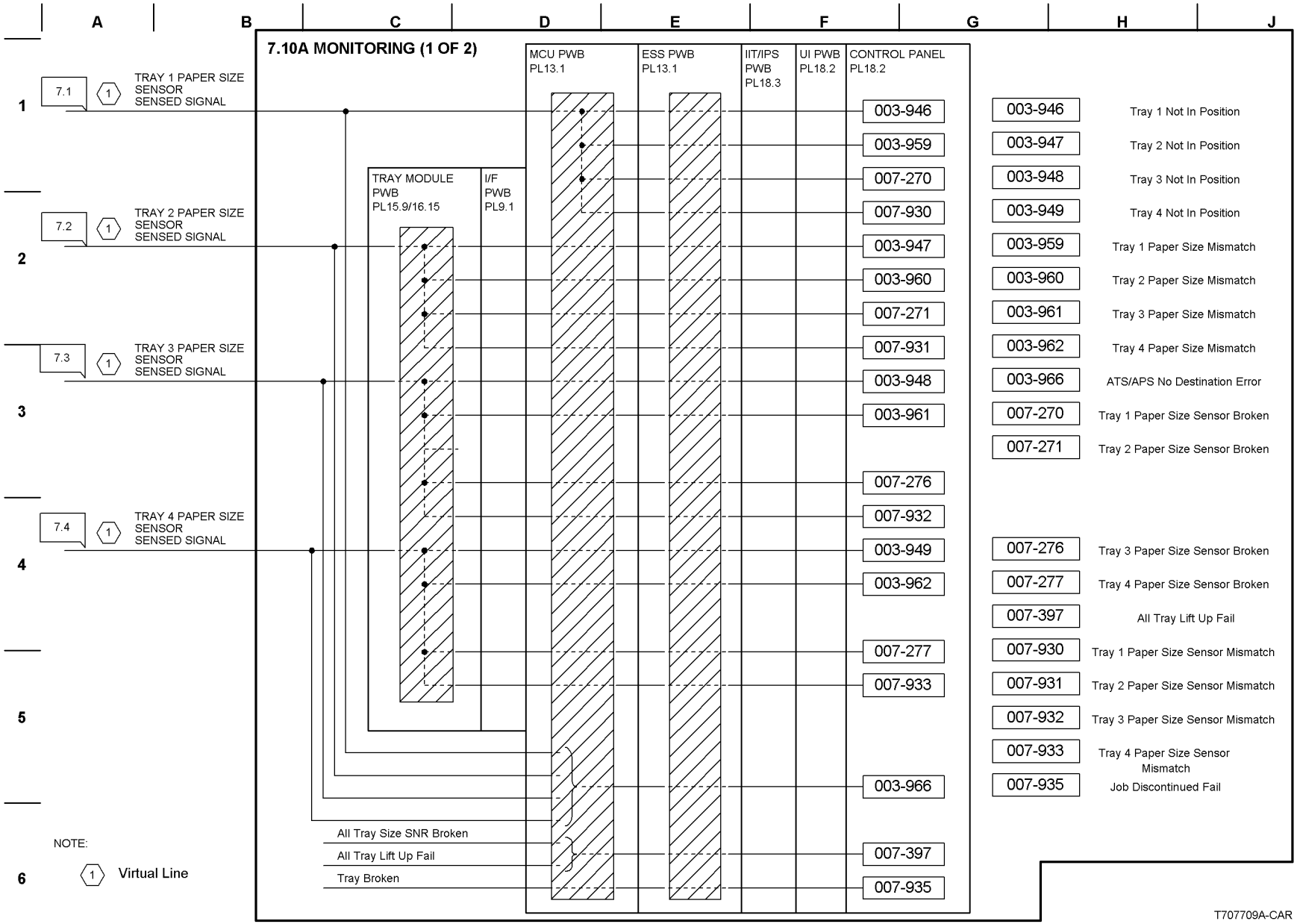



**Figure 10 Paper Feed Monitoring (1 0f 2)**

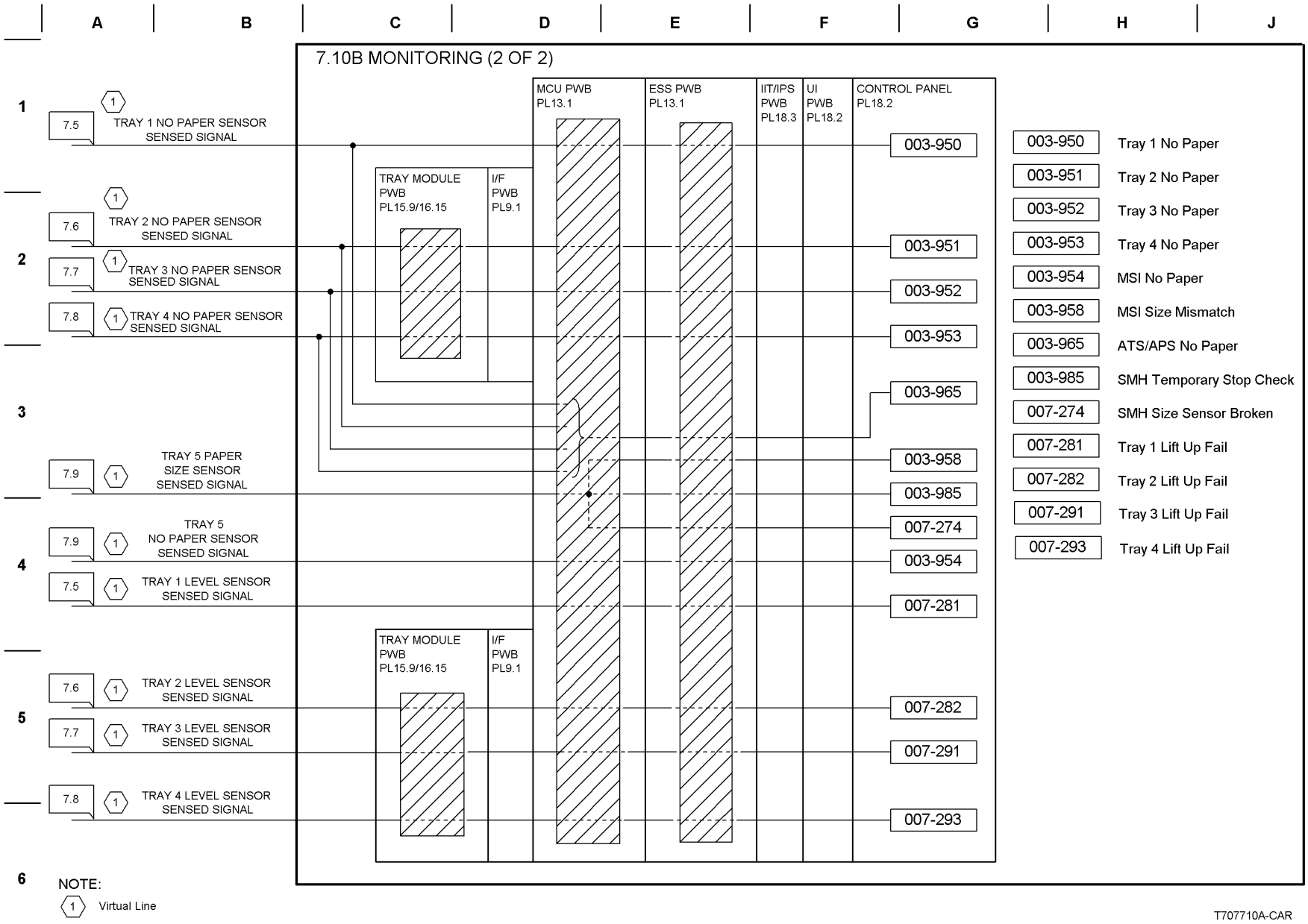



**Figure 11 Paper Feed Monitoring (2 0f 2)**

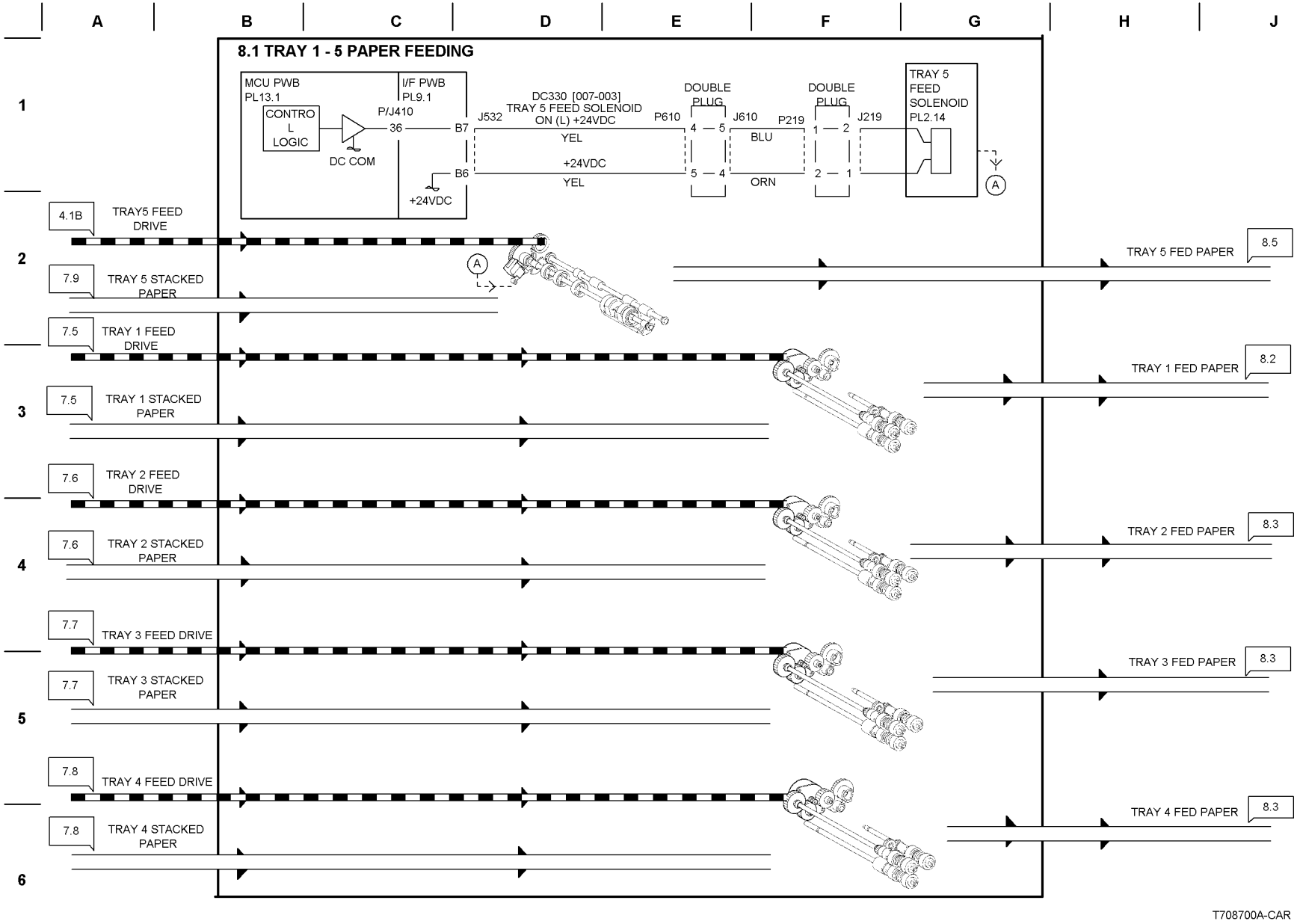



**Figure 1 Tray 1 - 5 Paper Feeding**

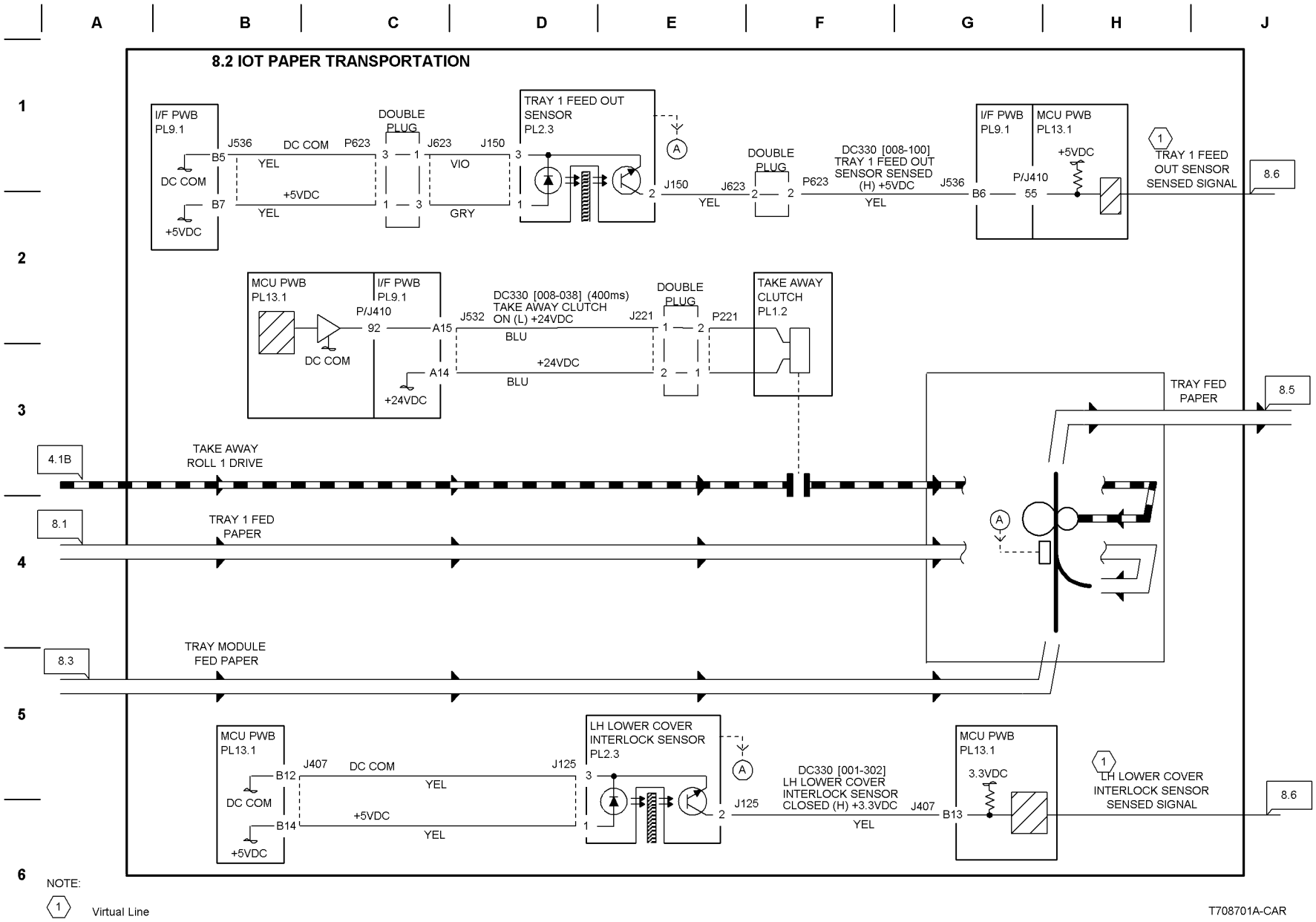



**Figure 2 IOT Paper Transportation**

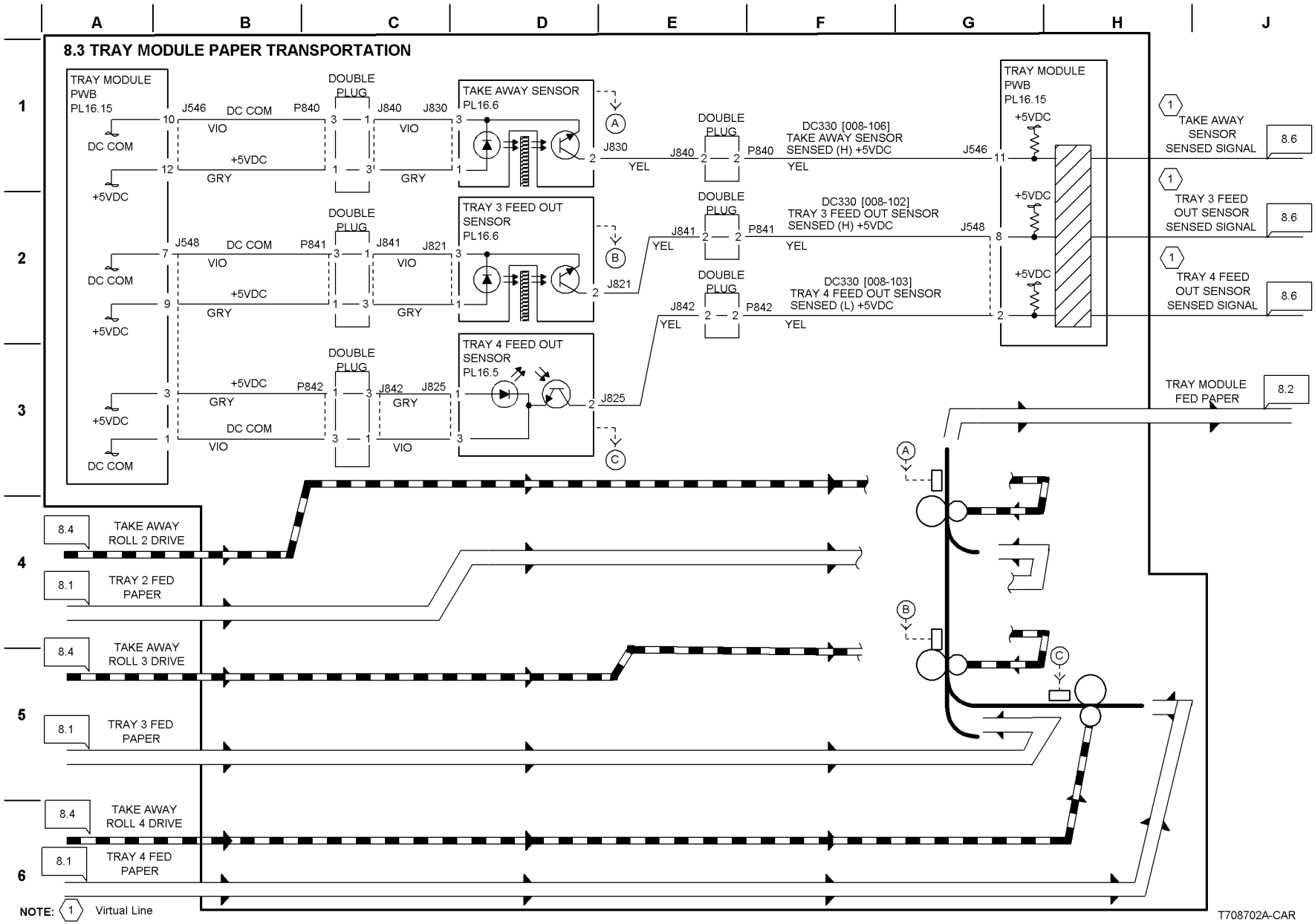
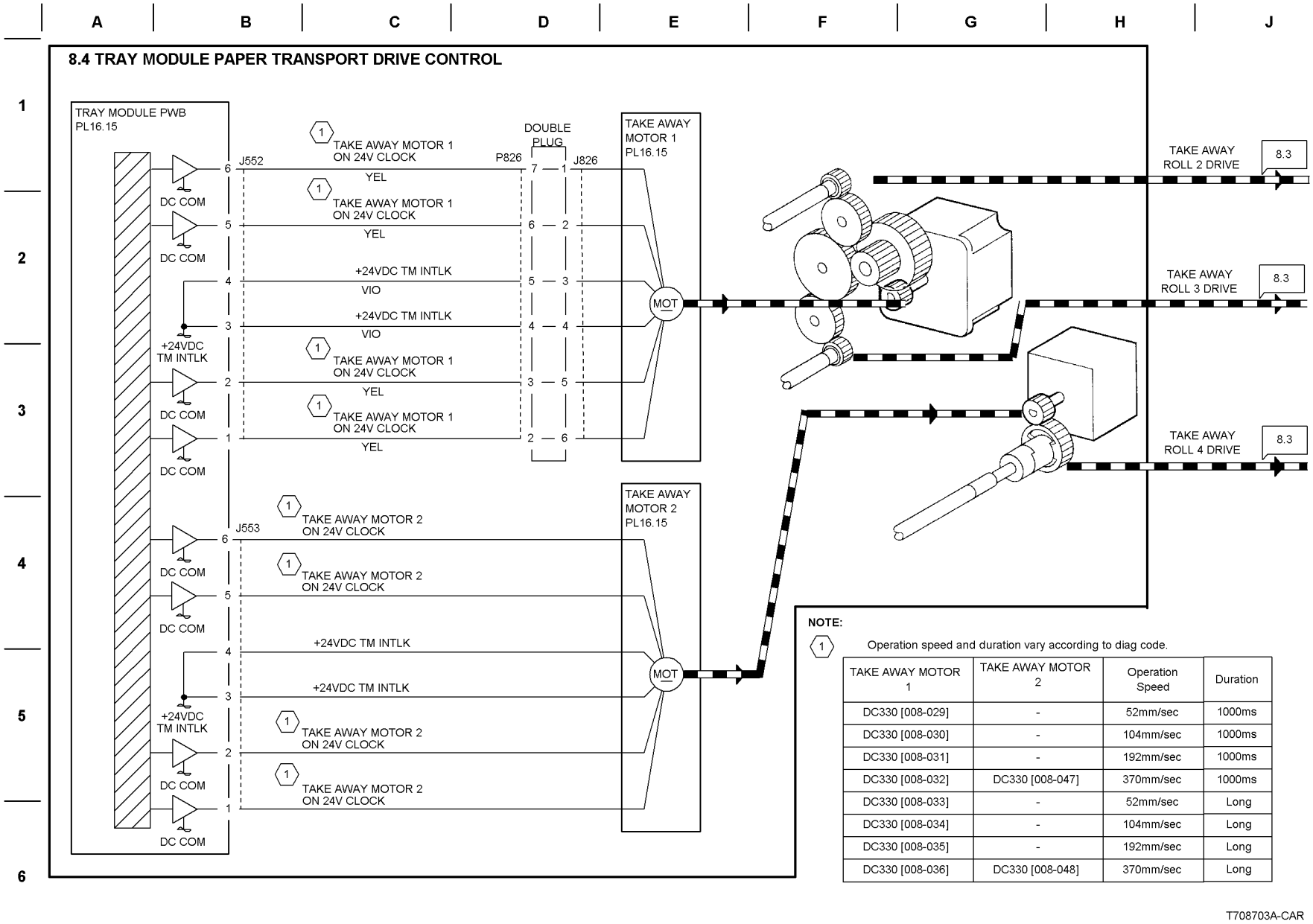



**Figure 3 Tray Module Paper transportation**




| TAKE AWAY MOTOR 1 | TAKE AWAY MOTOR 2 | Operation Speed | Duration |
|---|---|---|---|
| DC330 [008-029] | - | 52mm/sec | 1000ms |
| DC330 [008-030] | - | 104mm/sec | 1000ms |
| DC330 [008-031] | - | 192mm/sec | 1000ms |
| DC330 [008-032] | DC330 [008-047] | 370mm/sec | 1000ms |
| DC330 [008-033] | - | 52mm/sec | Long |
| DC330 [008-034] | - | 104mm/sec | Long |
| DC330 [008-035] | - | 192mm/sec | Long |
| DC330 [008-036] | DC330 [008-048] | 370mm/sec | Long |

**Figure 4 Tray Module Paper Transportation Drive Control**

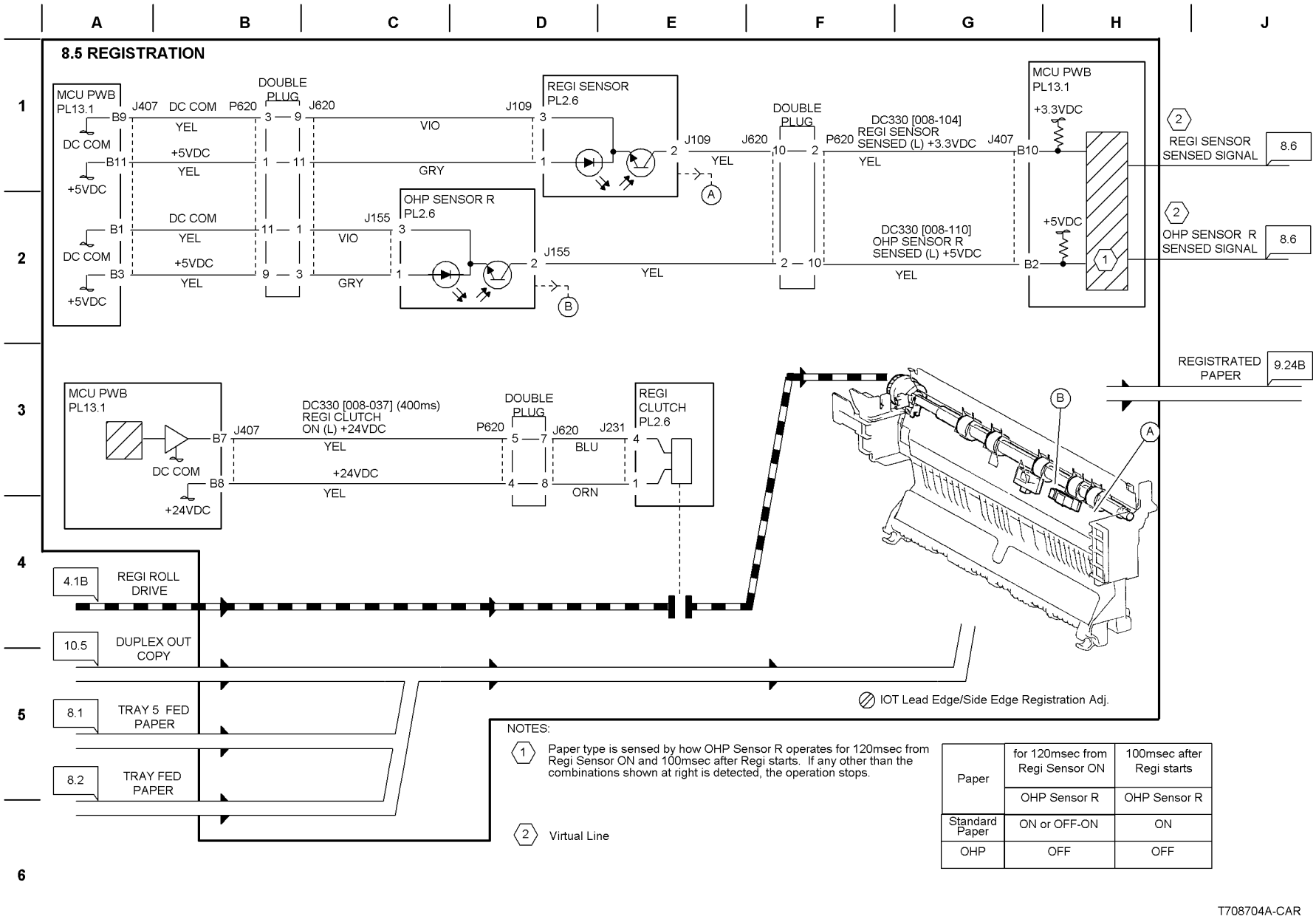



**Figure 5 Registration**

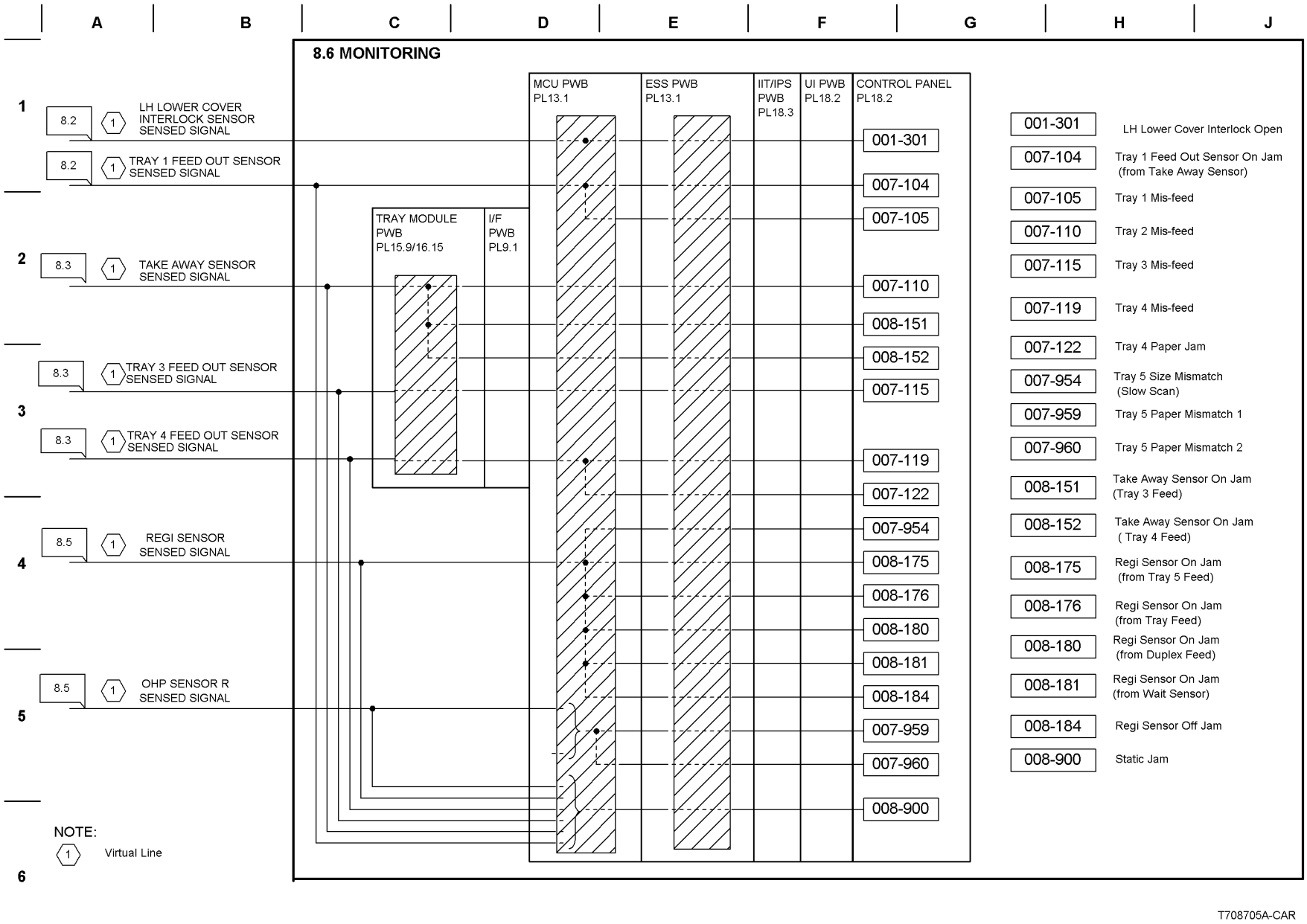



**Figure 6 Monitoring**

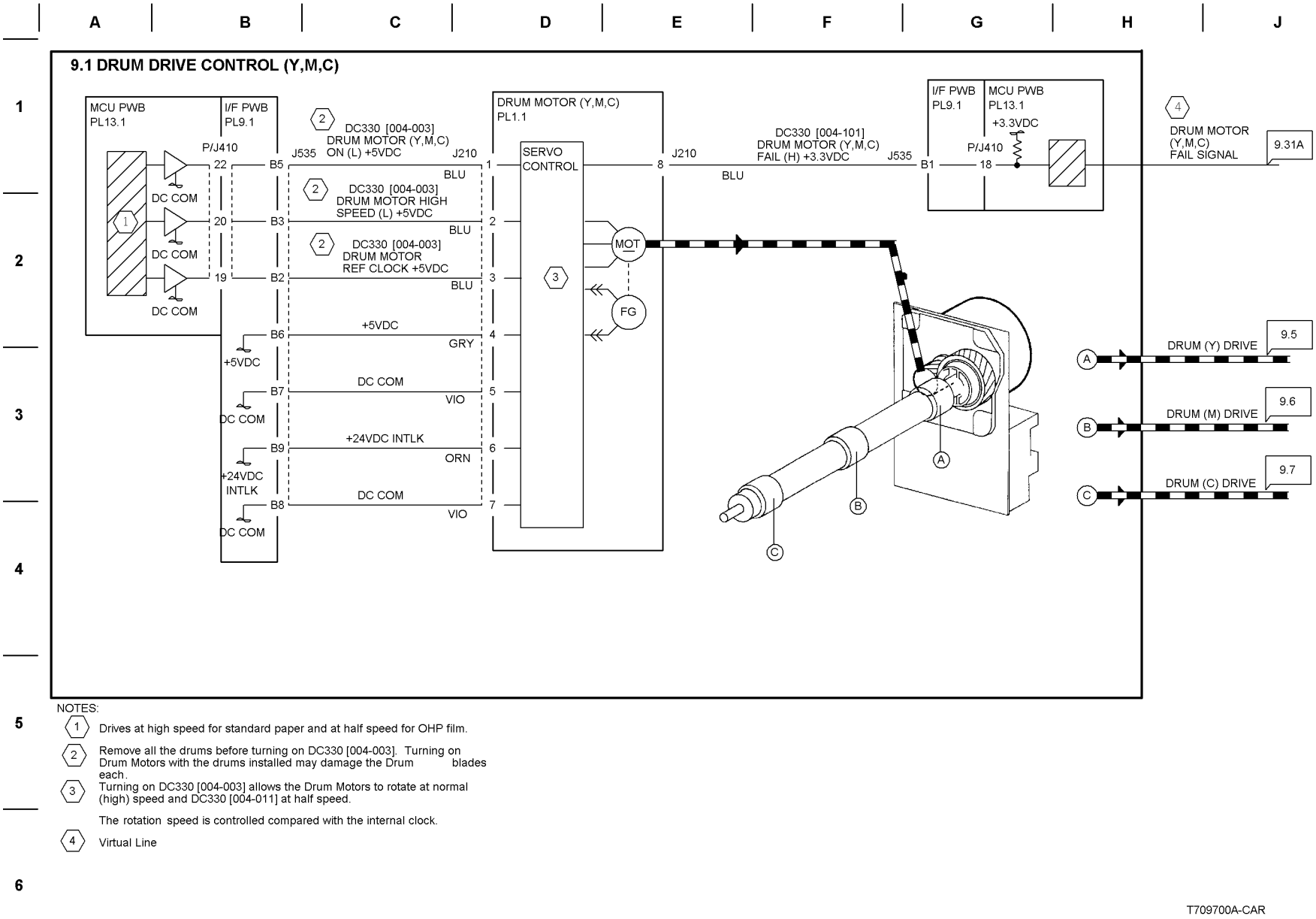
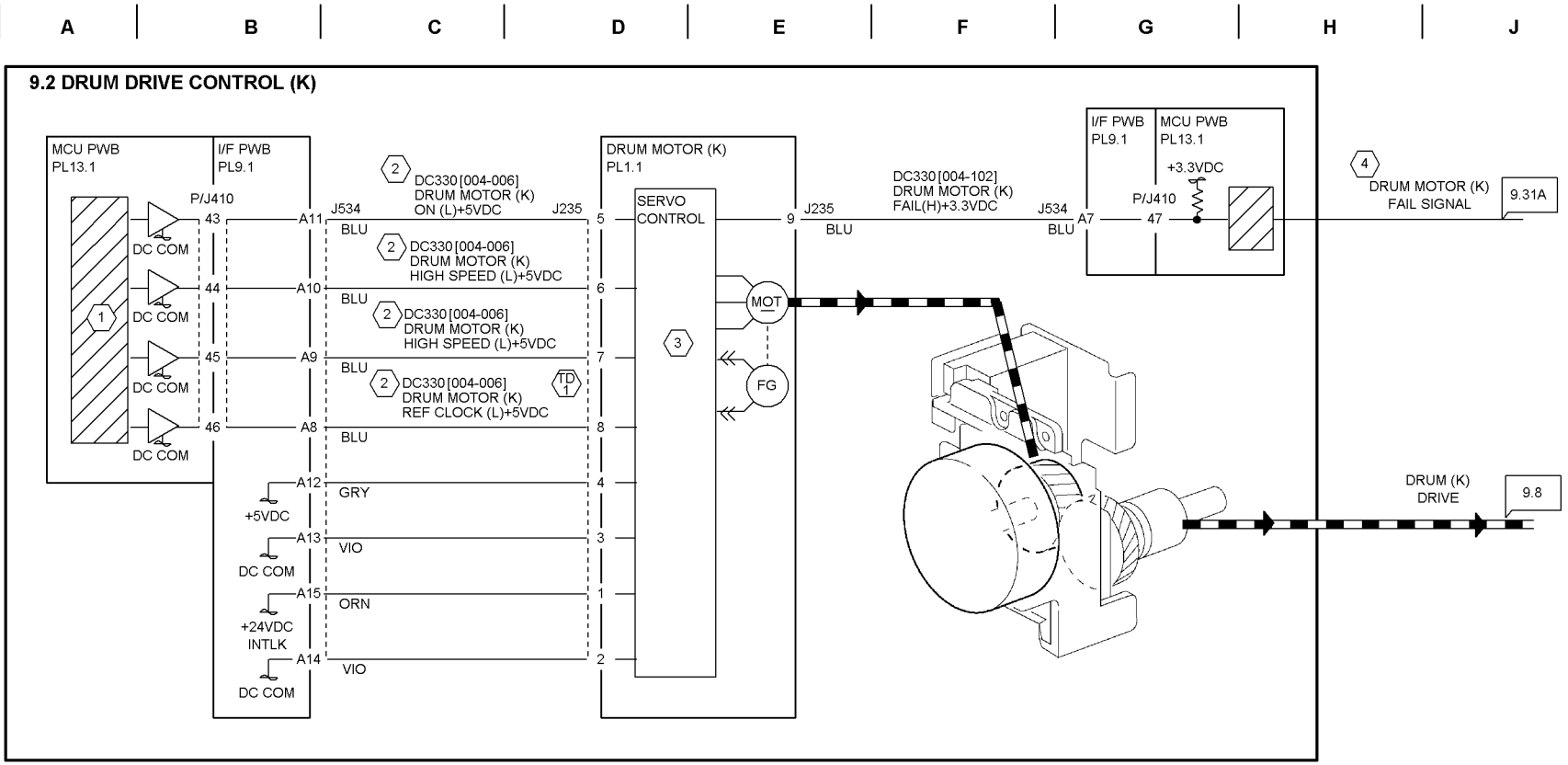



**Figure 1 Drum Drive Control (Y, M, C)**




NOTES:

1. Drives at high speed for standard paper and at half speed for OHP film.
2. Remove Drum K before turning on DC330 [004-006]. Turning on Drum Motor with the drum installed may damage the Drum blade. Turning on DC330 [004-006] allows the Drum Motor to rotate at normal (high) speed, DC330 [004-009] at half speed, and DC330 [004-010] at double speed.
3. The rotation speed is controlled in comparison with the internal clock.
4. Virtual Line

TD 1 Test Point: MCU PWB J407-B3(+) to GND(-) A frequency of approx. 1.285KHz

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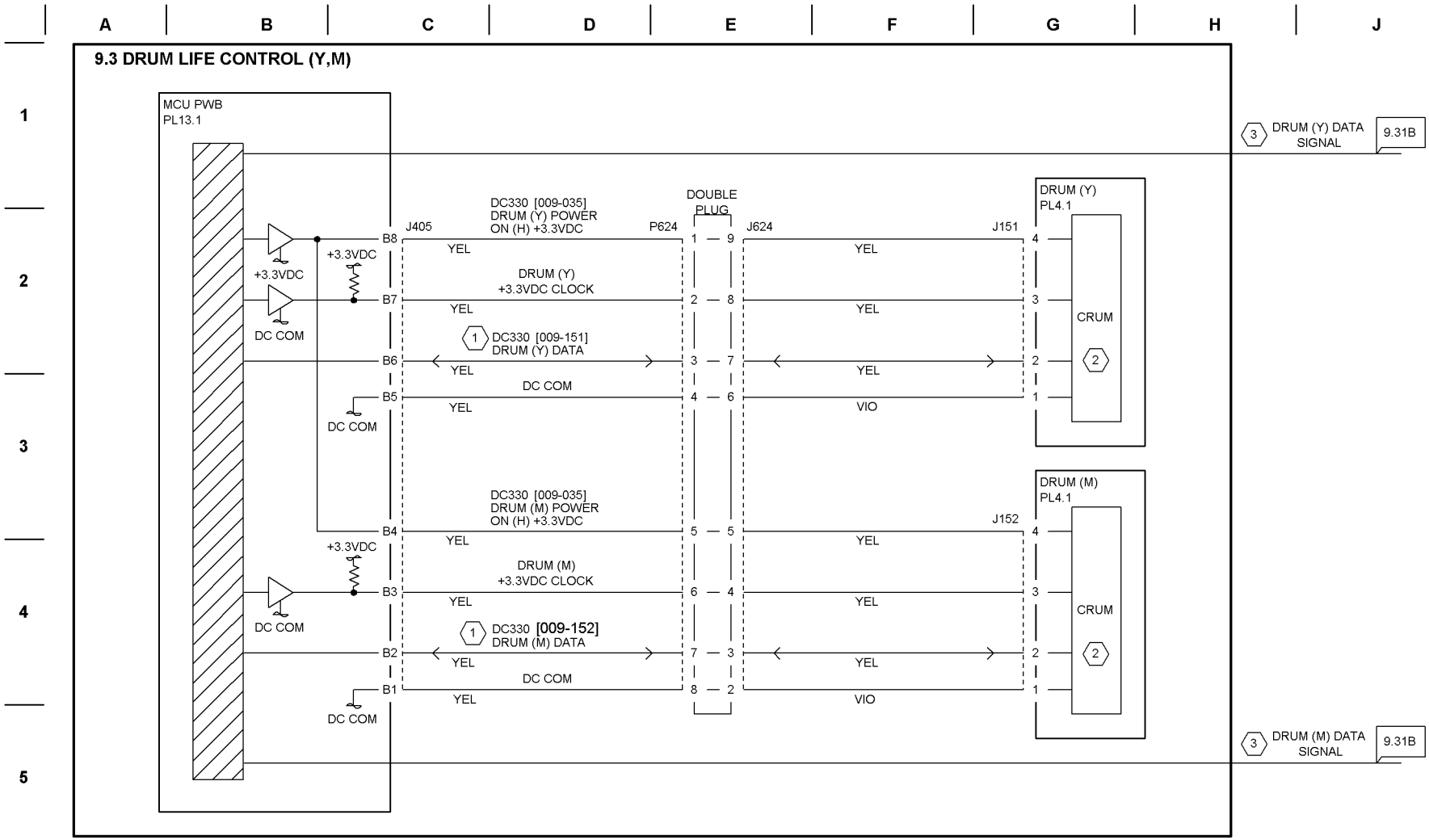
**Figure 2 Drum Drive Control (K)**




**NOTES:**

1. DC330 [009-151] & [009-152]: Drum Detect
   With Drum installed properly, High is displayed. However, no proper display appears for Drum Cartridge installed at factory shipment.
2. Drum Cartridge installed at factory shipment has no Crum. The life of the drum cartridge is controlled based on data in M/C NVM.
3. Virtual Line

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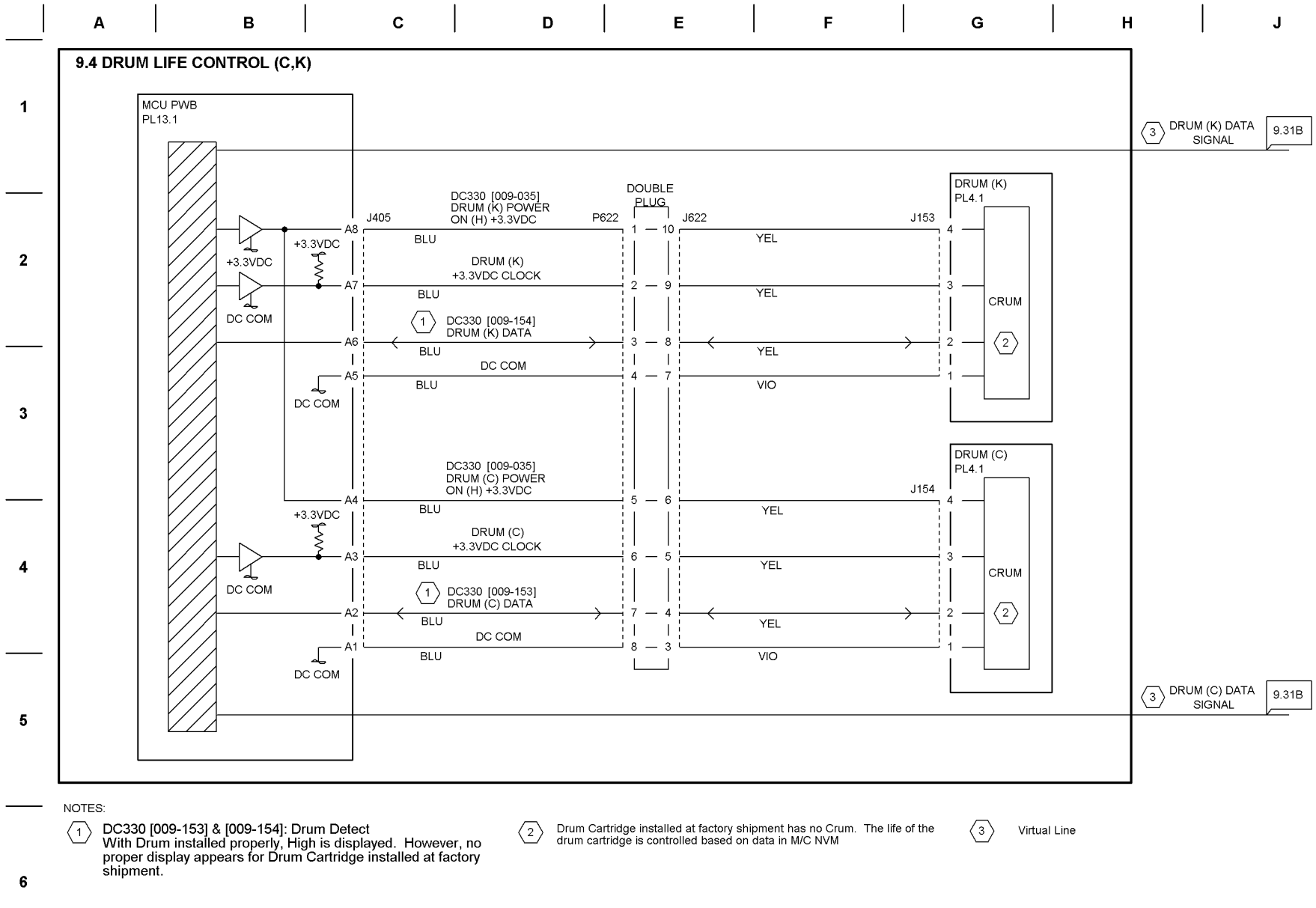
**Figure 3 Drum Life Control (Y,M)**




NOTES:

1. DC330 [009-153] & [009-154]: Drum Detect
   With Drum installed properly, High is displayed. However, no proper display appears for Drum Cartridge installed at factory shipment.
2. Drum Cartridge installed at factory shipment has no Crum. The life of the drum cartridge is controlled based on data in M/C NVM
3. Virtual Line

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**Figure 4 Drum Life Control (C,K)**

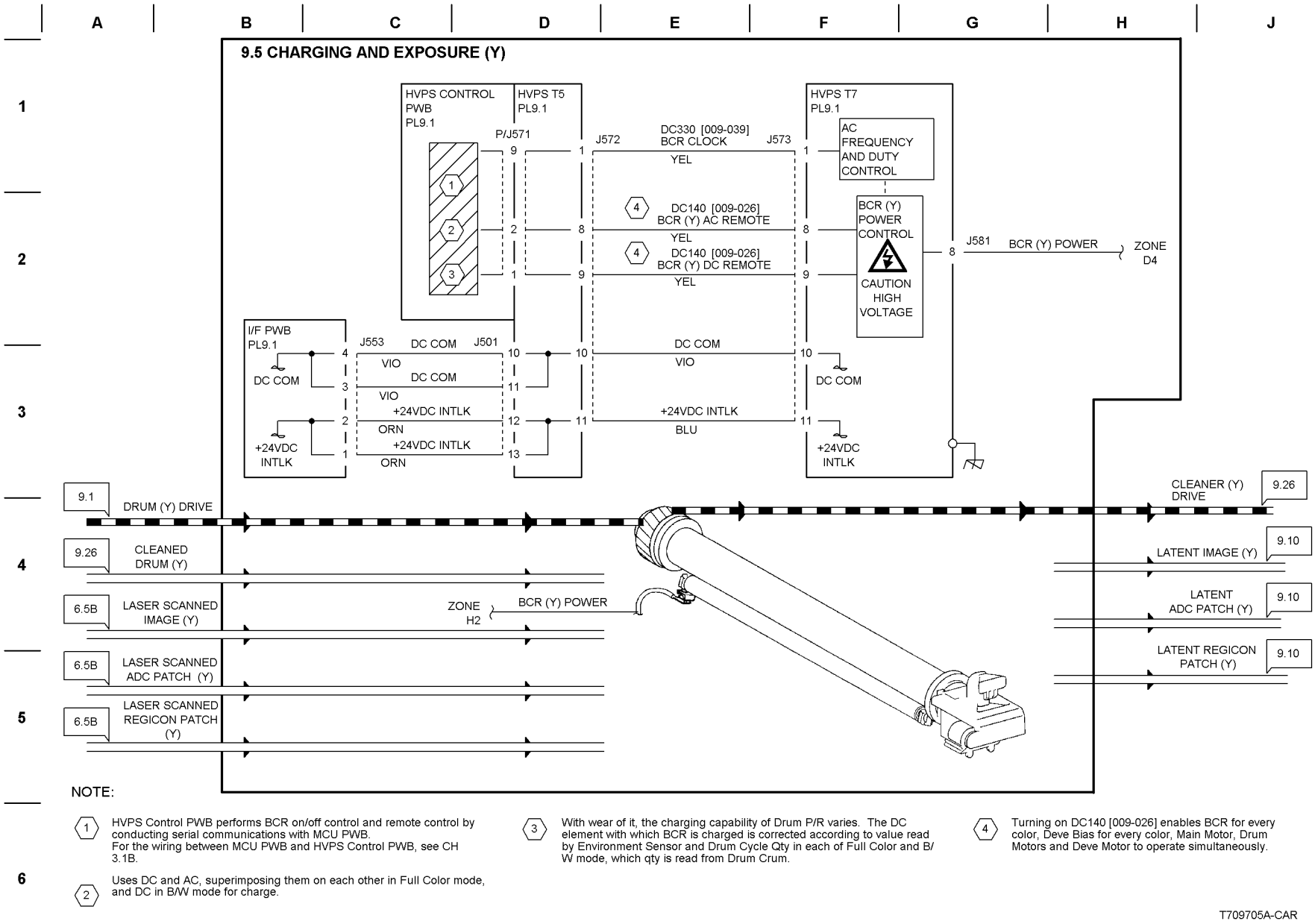



**Figure 5 Charging and Exposure (Y)**

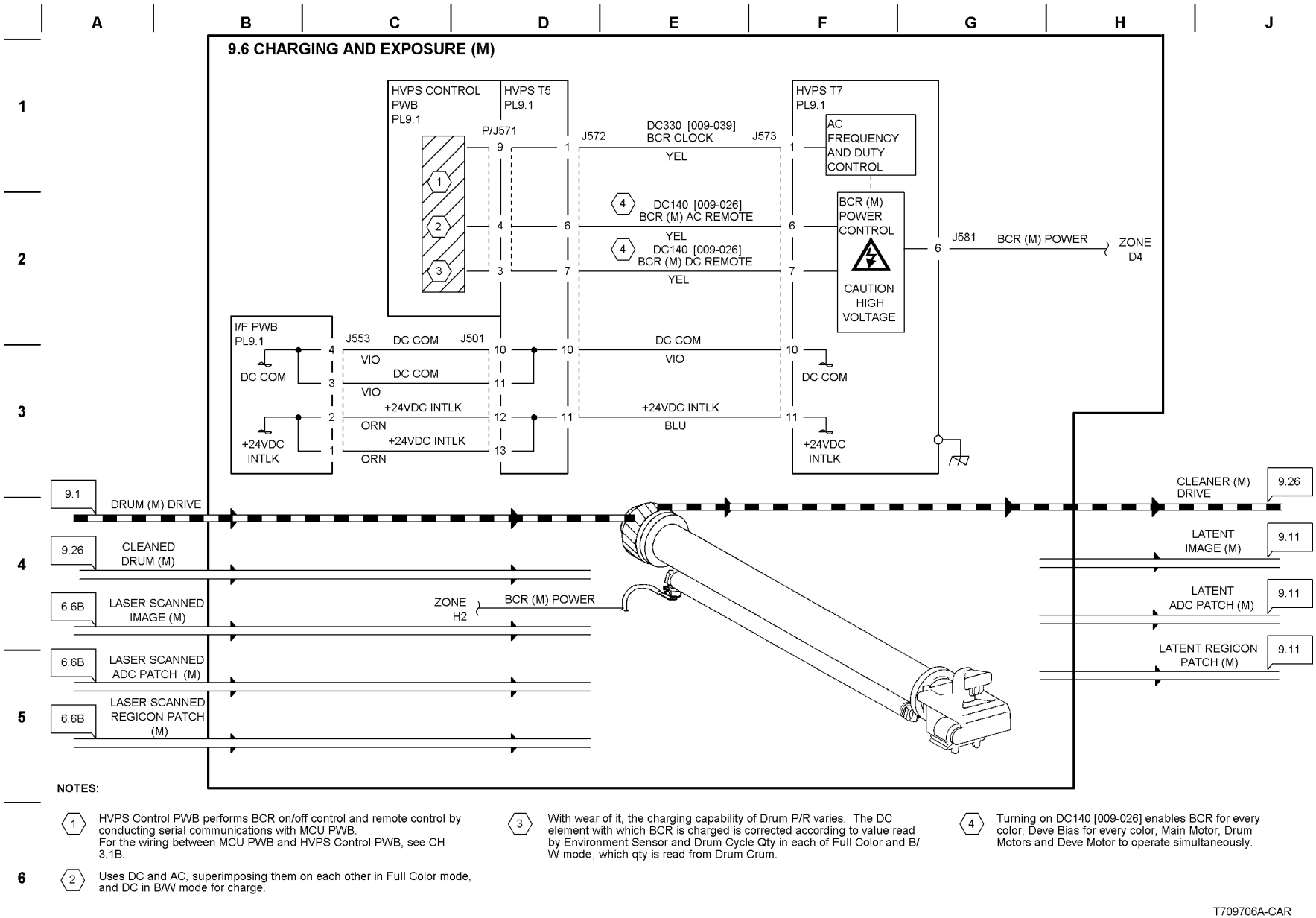
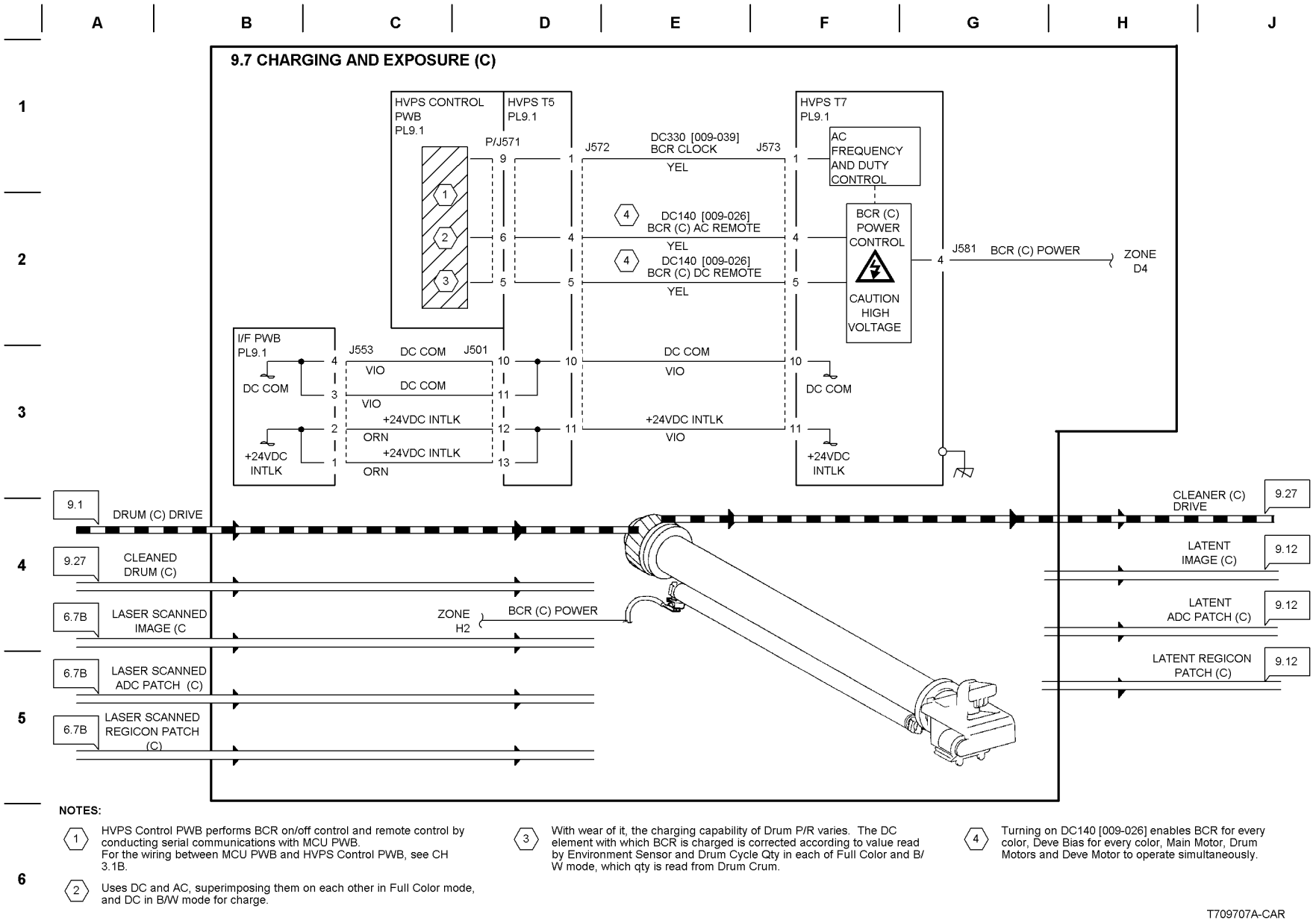



**Figure 6 Charging and Exposure (M)**




**NOTES:**

1. HVPS Control PWB performs BCR on/off control and remote control by conducting serial communications with MCU PWB. For the wiring between MCU PWB and HVPS Control PWB, see CH 3.1B.
2. Uses DC and AC, superimposing them on each other in Full Color mode, and DC in B/W mode for charge.
3. With wear of it, the charging capability of Drum P/R varies. The DC element with which BCR is charged is corrected according to value read by Environment Sensor and Drum Cycle Qty in each of Full Color and B/W mode, which qty is read from Drum Crum.
4. Turning on DC140 [009-026] enables BCR for every color, Deve Bias for every color, Main Motor, Drum Motors and Deve Motor to operate simultaneously.

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**Figure 7 Charging and Exposure (C)**

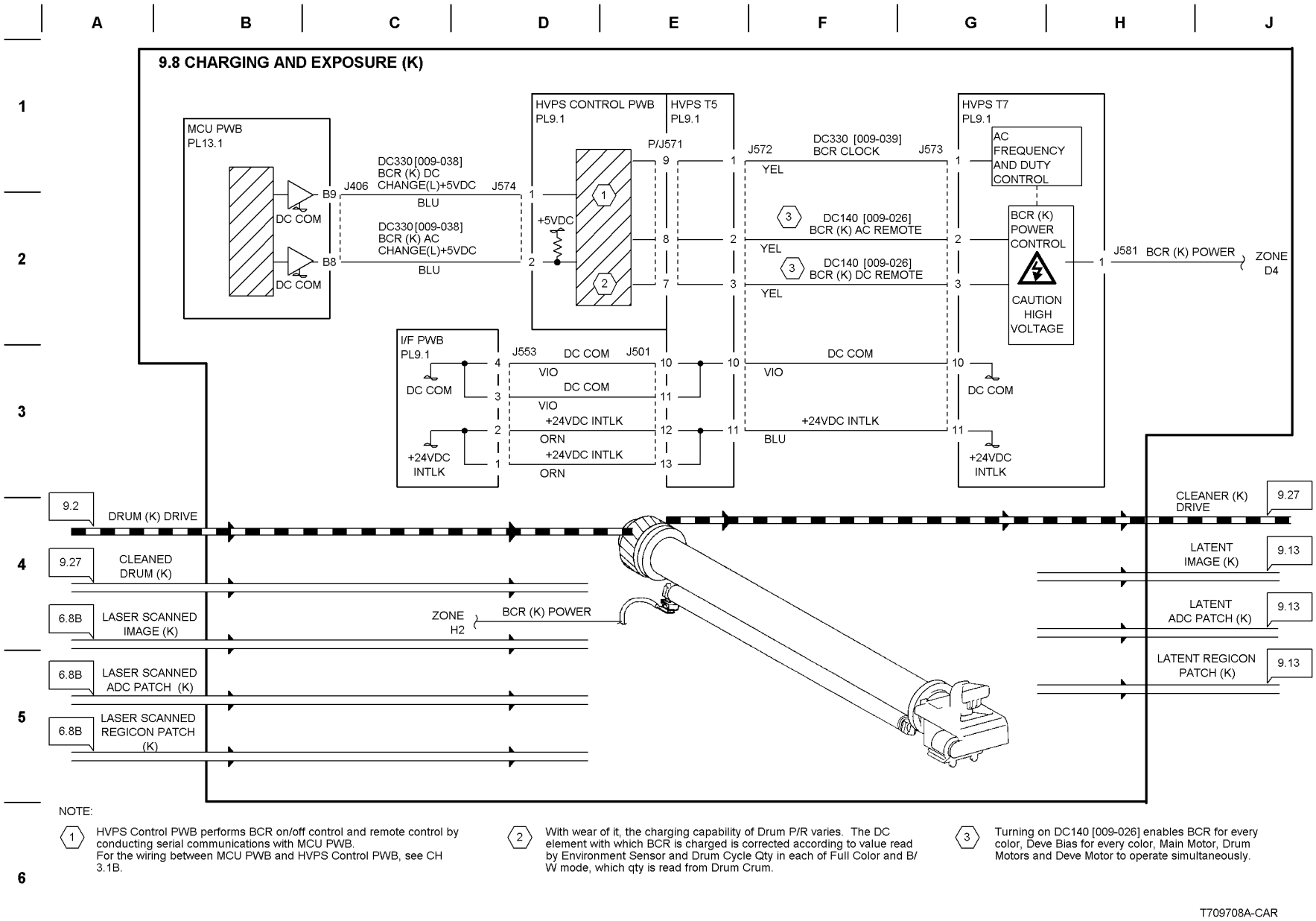
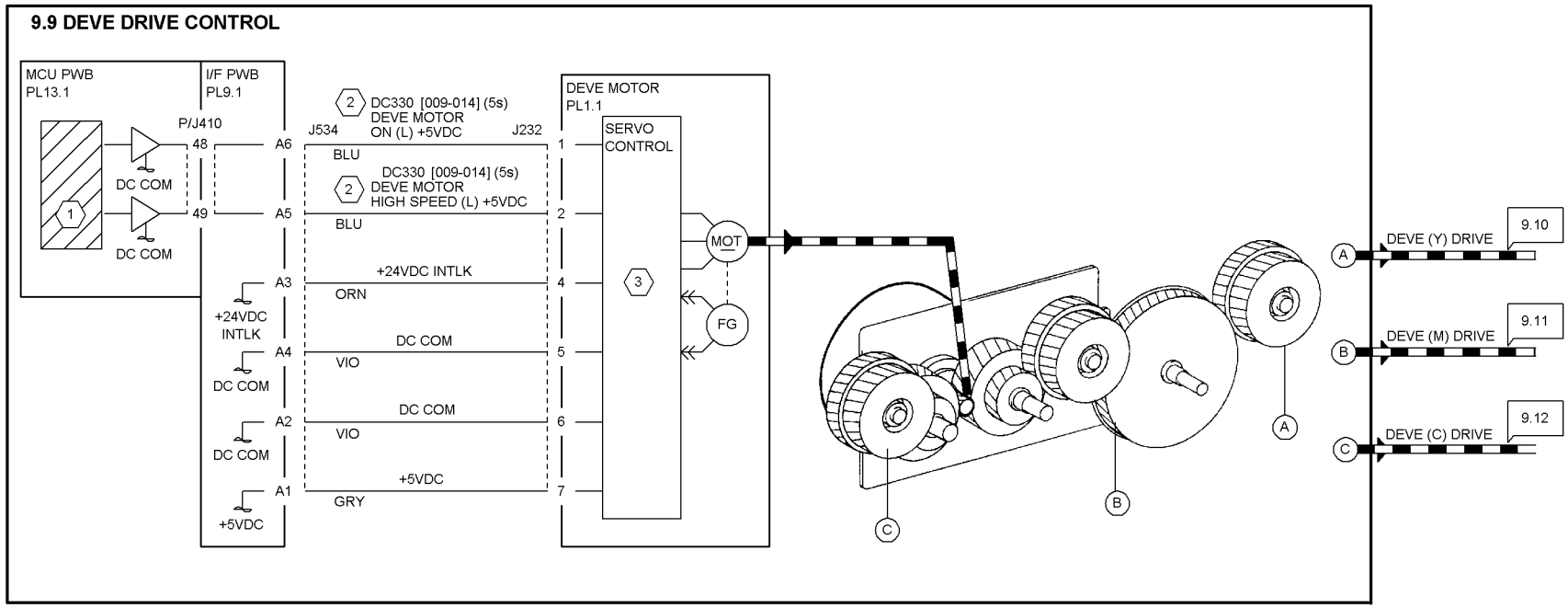



**Figure 8 Charging and Exposure (K)**




**NOTES:**

1. Drives at high speed for standard paper and at half speed for thick paper and OHP film.
2. Turning on DC330 [009-014] allows Deve Motor to rotate at normal (high) speed and DC330 [009-016] at half speed.
3. The rotation speed is controlled compared with the internal clock.

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**Figure 9 DEVE Drive Control**

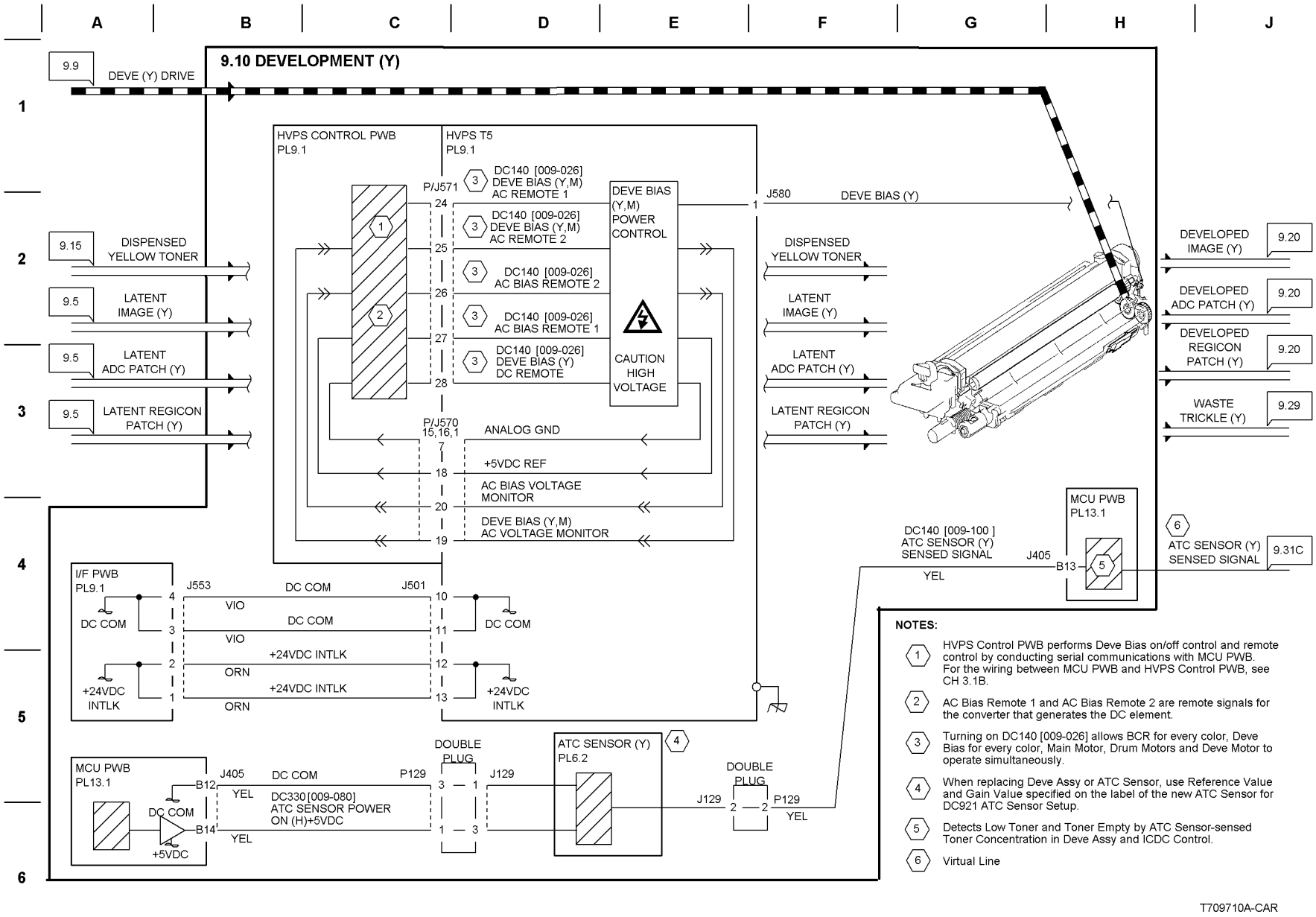



**Figure 10 Development (Y)**

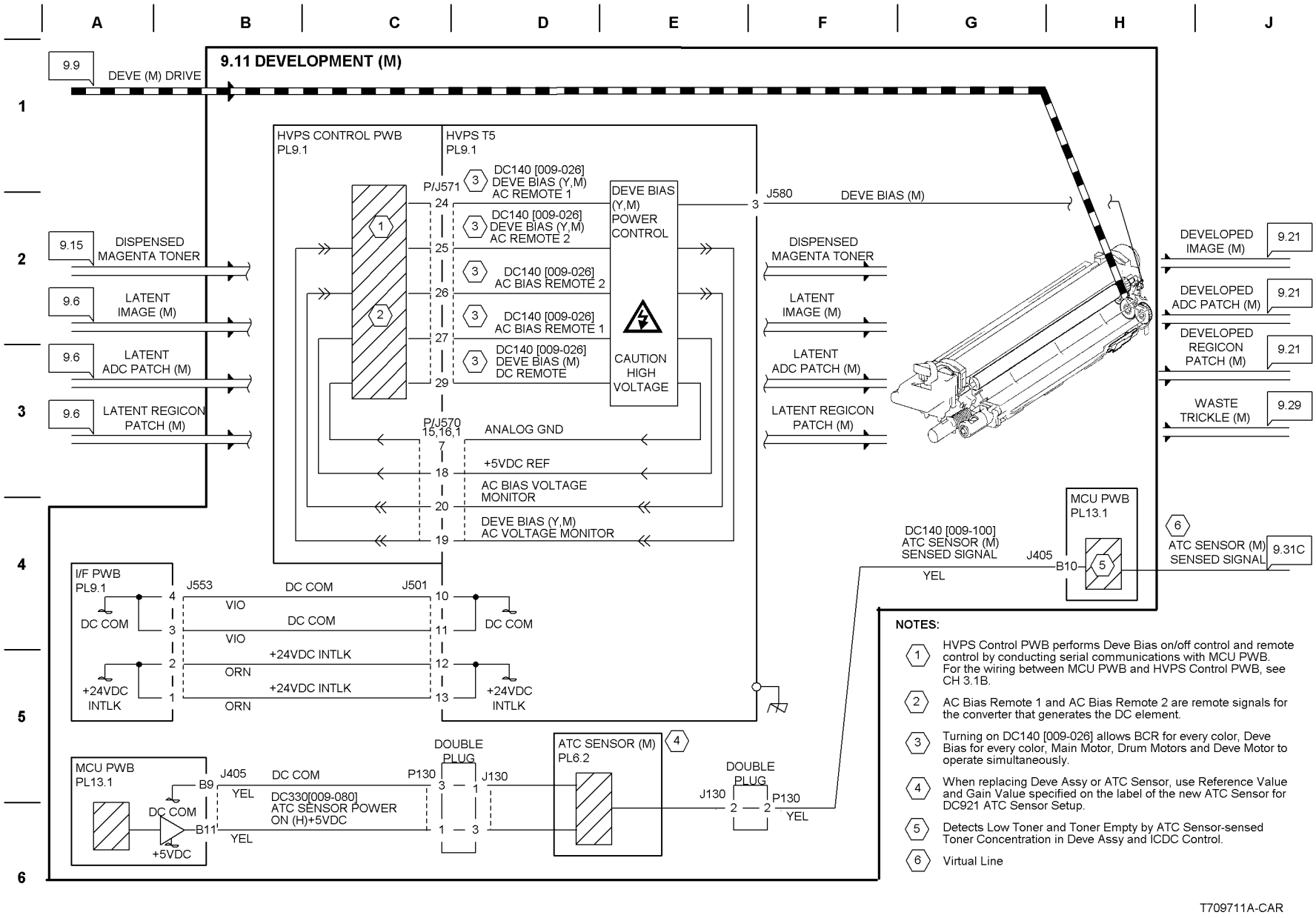



**Figure 11 Development (M)**

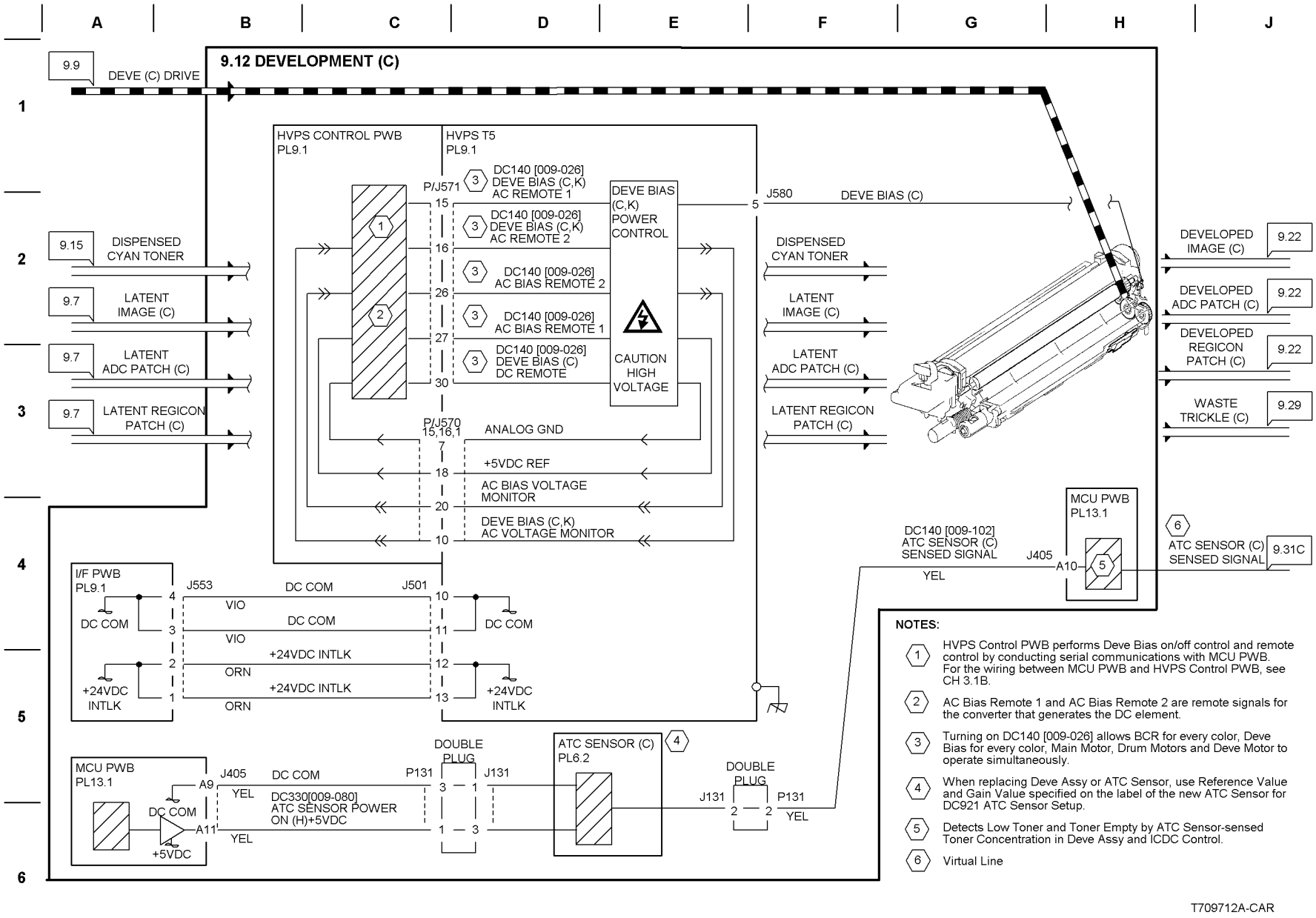



**Figure 12 Development (C)**

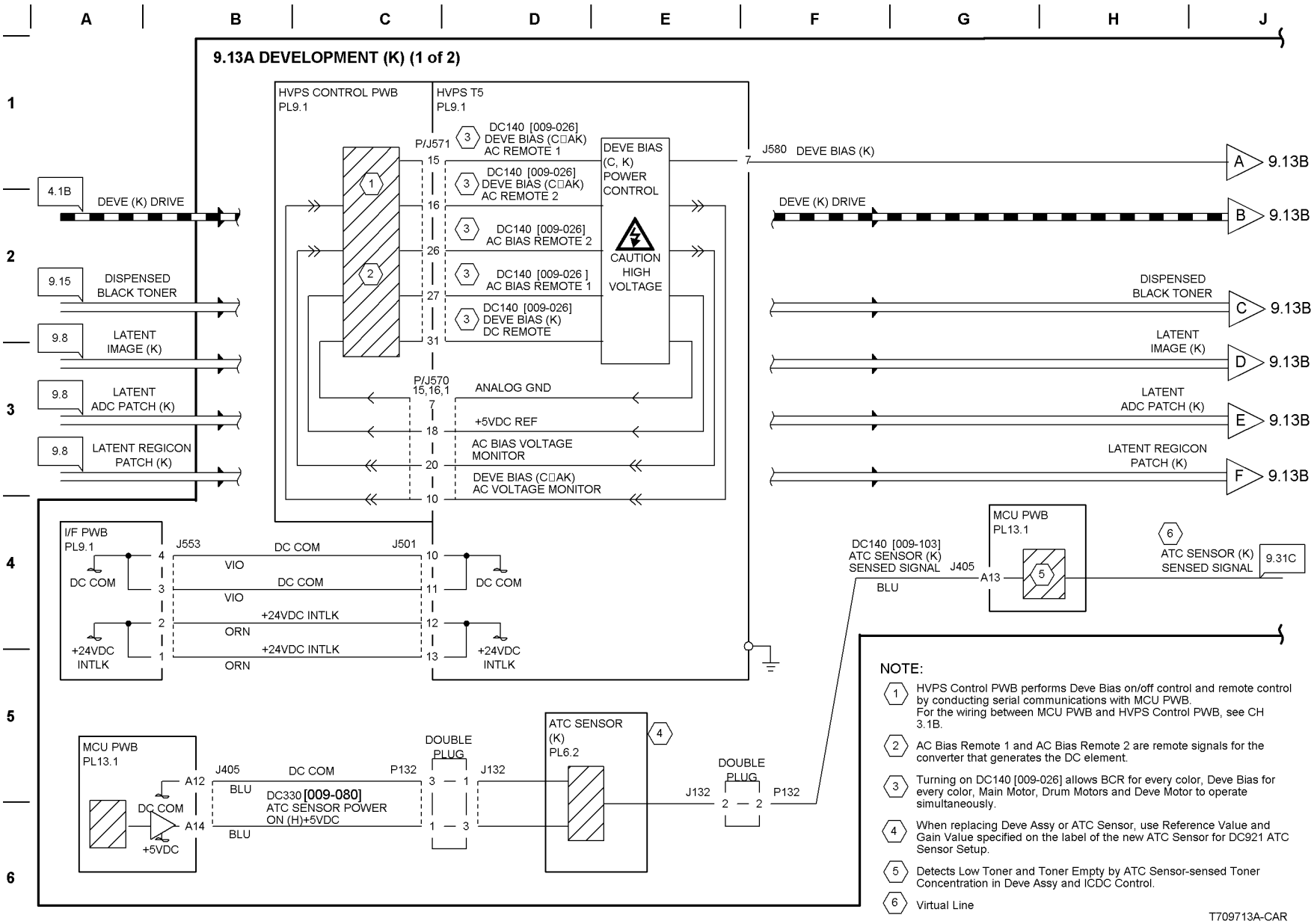



**Figure 13 Development (K) (1 of 2)**

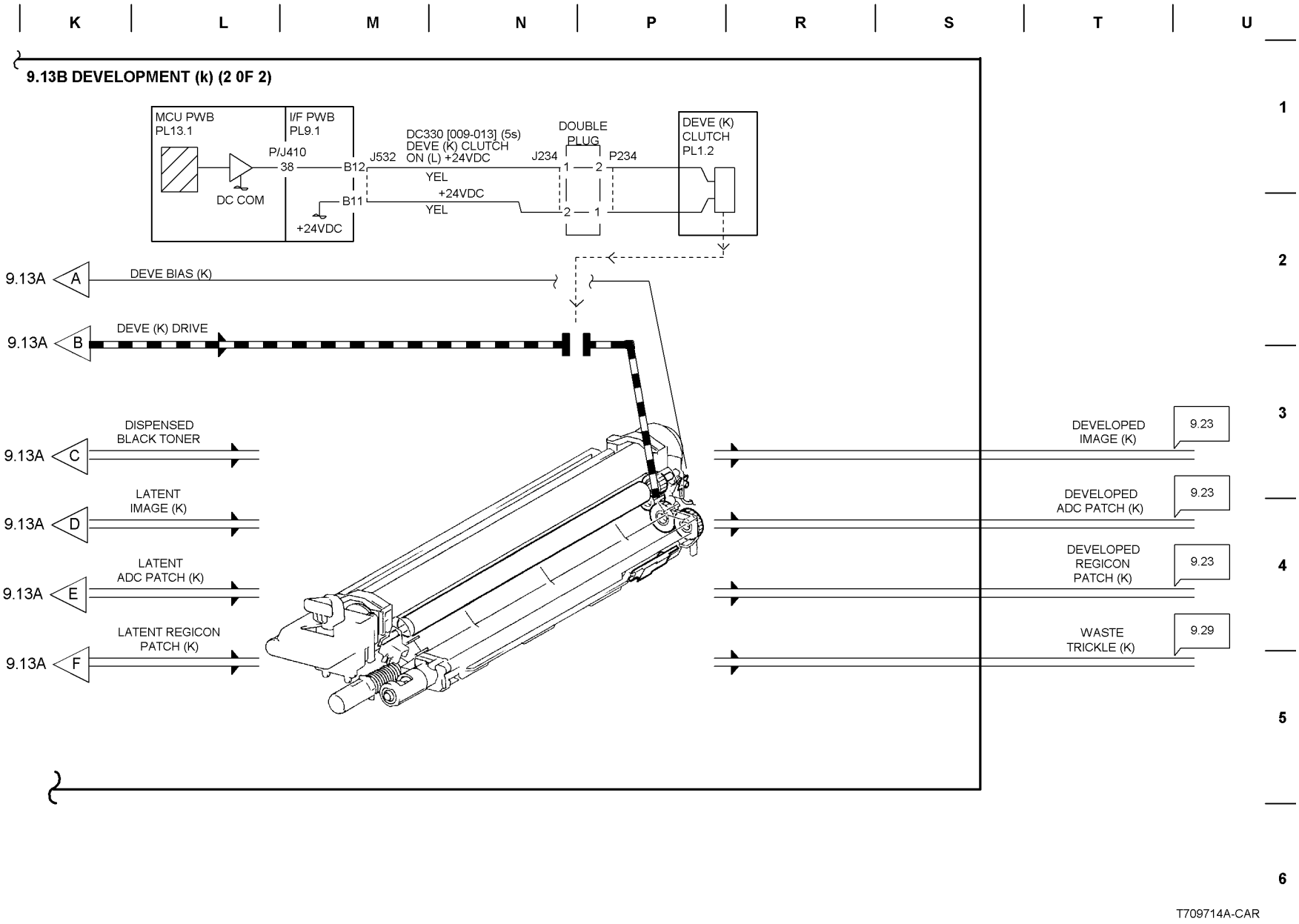



**Figure 14 Development (K) (2 of 2)**

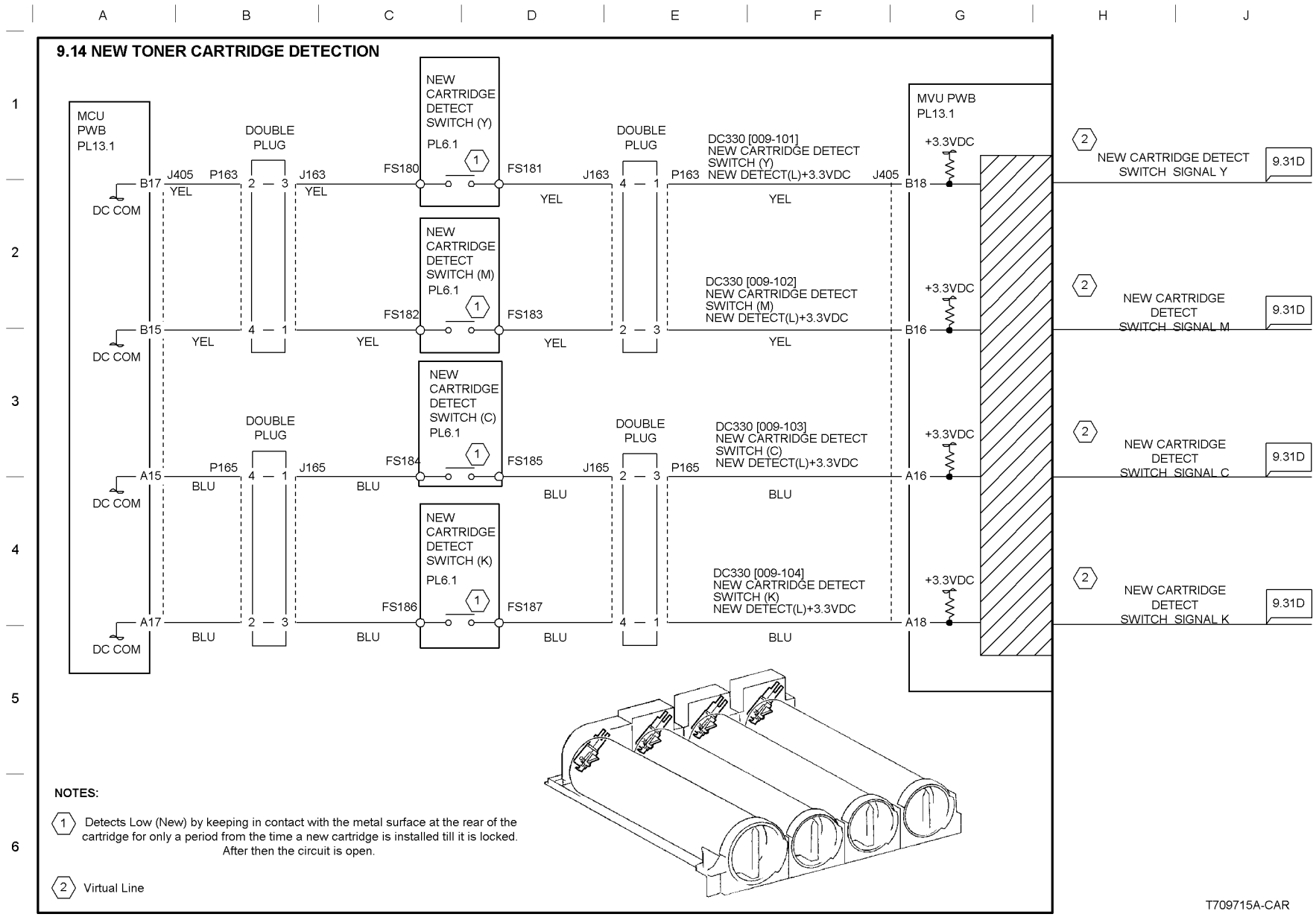
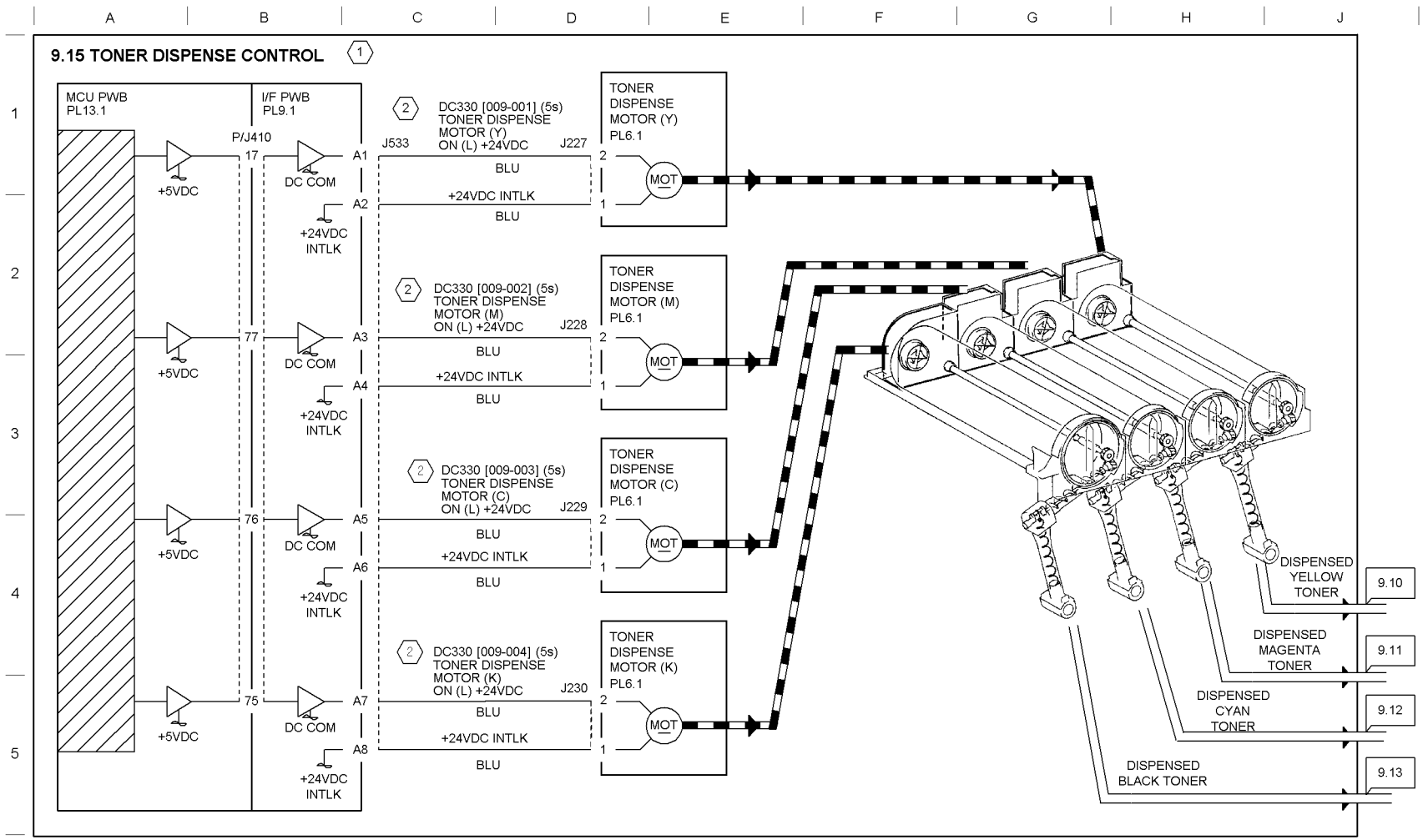



**Figure 15 New Toner Cartridge Detection**




**NOTE:**

1 This model has no Low Toner Sensor.
Low Toner/Toner Empty is detected by ATC Sensor-sensed Toner Concentration in Deve Assy and ICDC Control. For the ATC Sensor wiring, see CH9.10 - 9.13.

Toner Density Control
- ICDC Control estimates toner consumption qty for Dispense Control.
- Dispense Qty is corrected according to ATC Sensor-sensed Toner Concentration in Deve Assy.

Toner Empty Detection
- When ATC Sensor-sensed Toner Concentration in Deve Assy reduces below the spec, Low Toner is detected.
- When a total ICDC value exceeds the spec after the detection of Low Toner, Toner Empty is detected.

2 Never repeat turning on DC330 [009-001] - [009-004]. Turning on Toner Dispense Motor repeatedly causes toner blocking in Deve Assy.

**Figure 16 Toner Dispense Control**

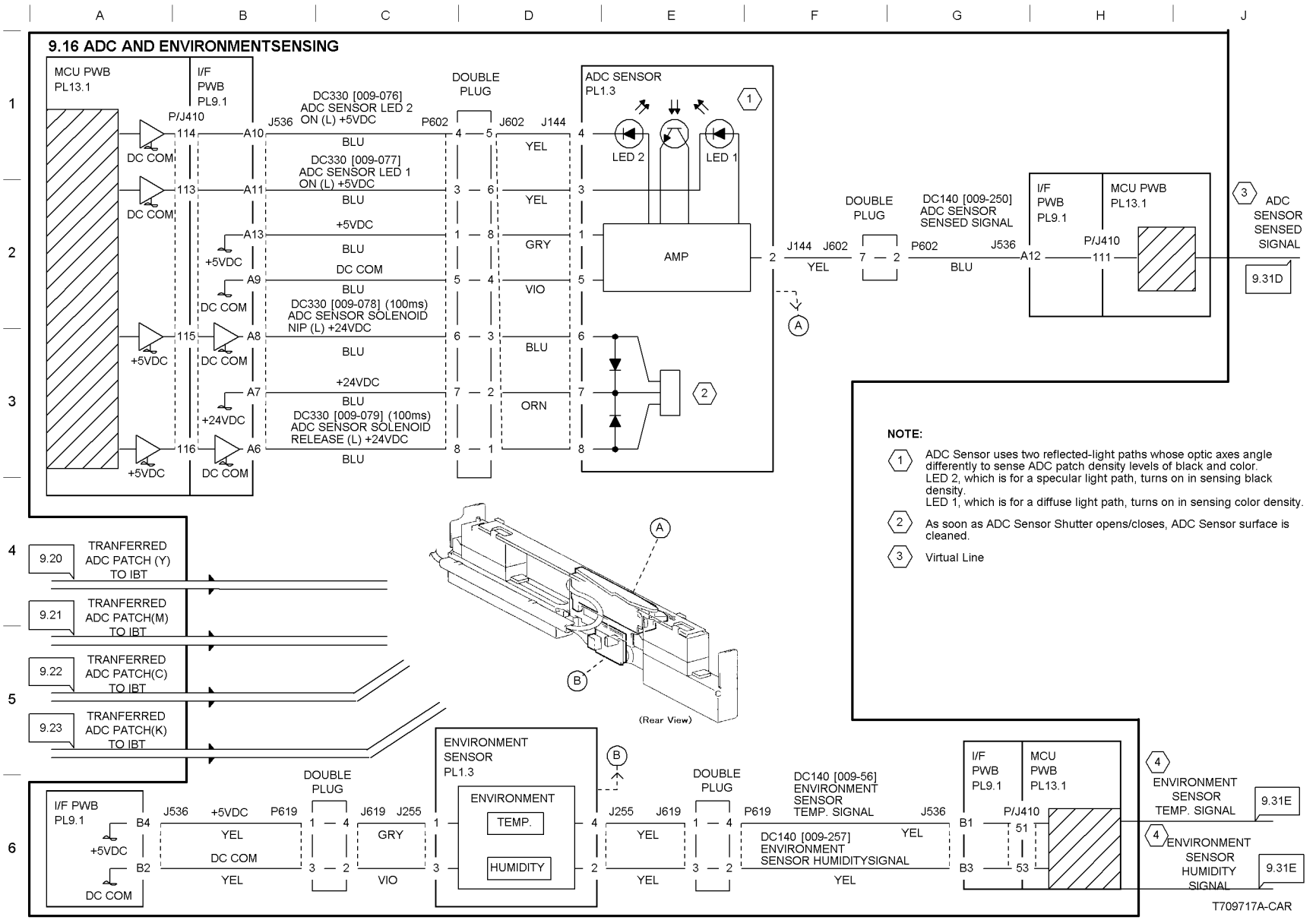
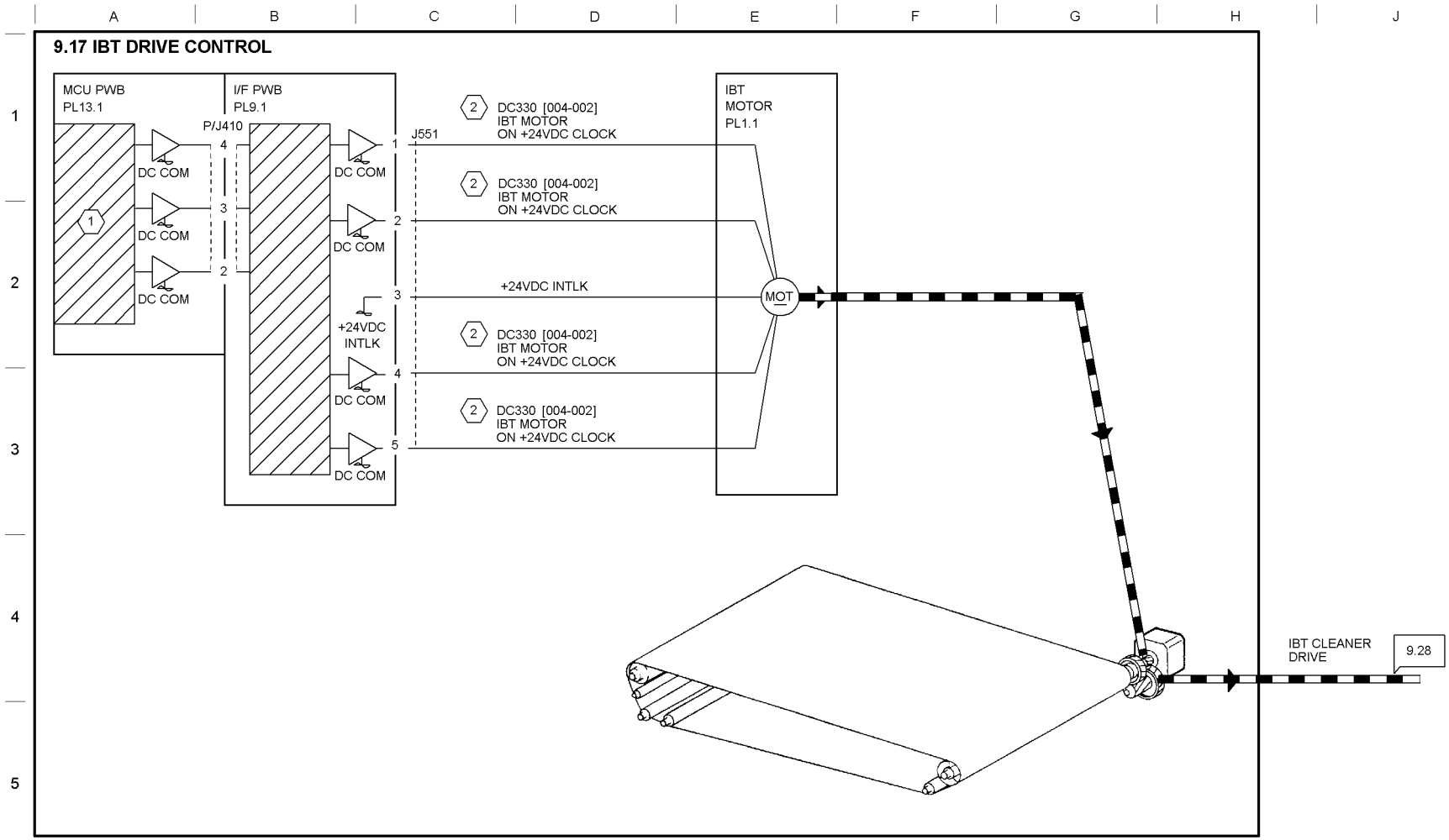



**Figure 17 ADC and Environment Sensing**




**NOTE:**

(1) Drives at high speed for standard paper and at half speed for OHP film.

(2) Lift up IBT Assy before turning on DC330 [004-002]. Turning on IBT Motor without lifting it up may damage IBT.
Turning DC330 [004-002] allows IBT Motor to rotate at normal speed, DC330 [004-012] at half speed and DC330 [004-013] at double speed.

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**Figure 18 IBT Drive Control**

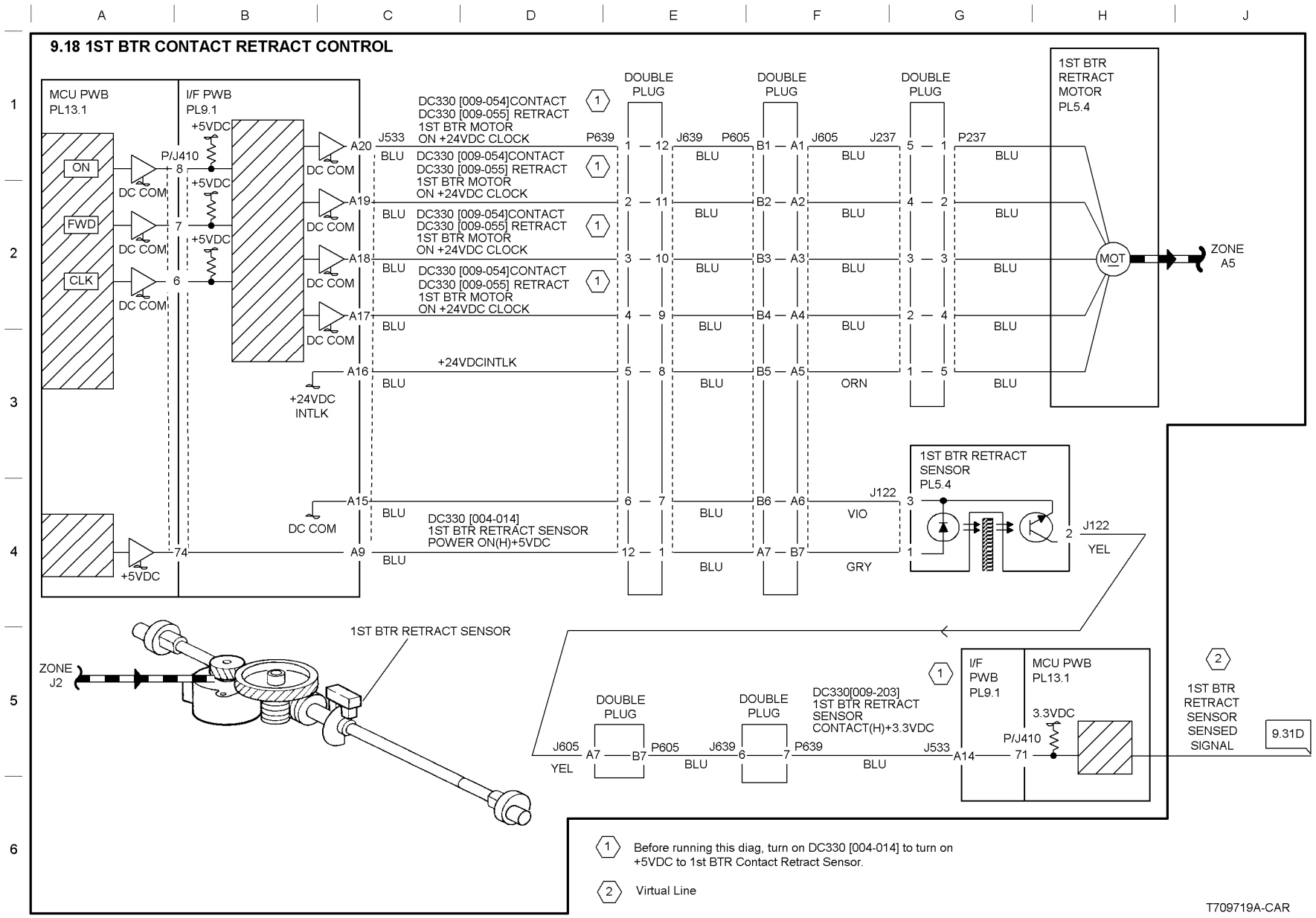



**Figure 19 1ST BTR Contact Retract Control**

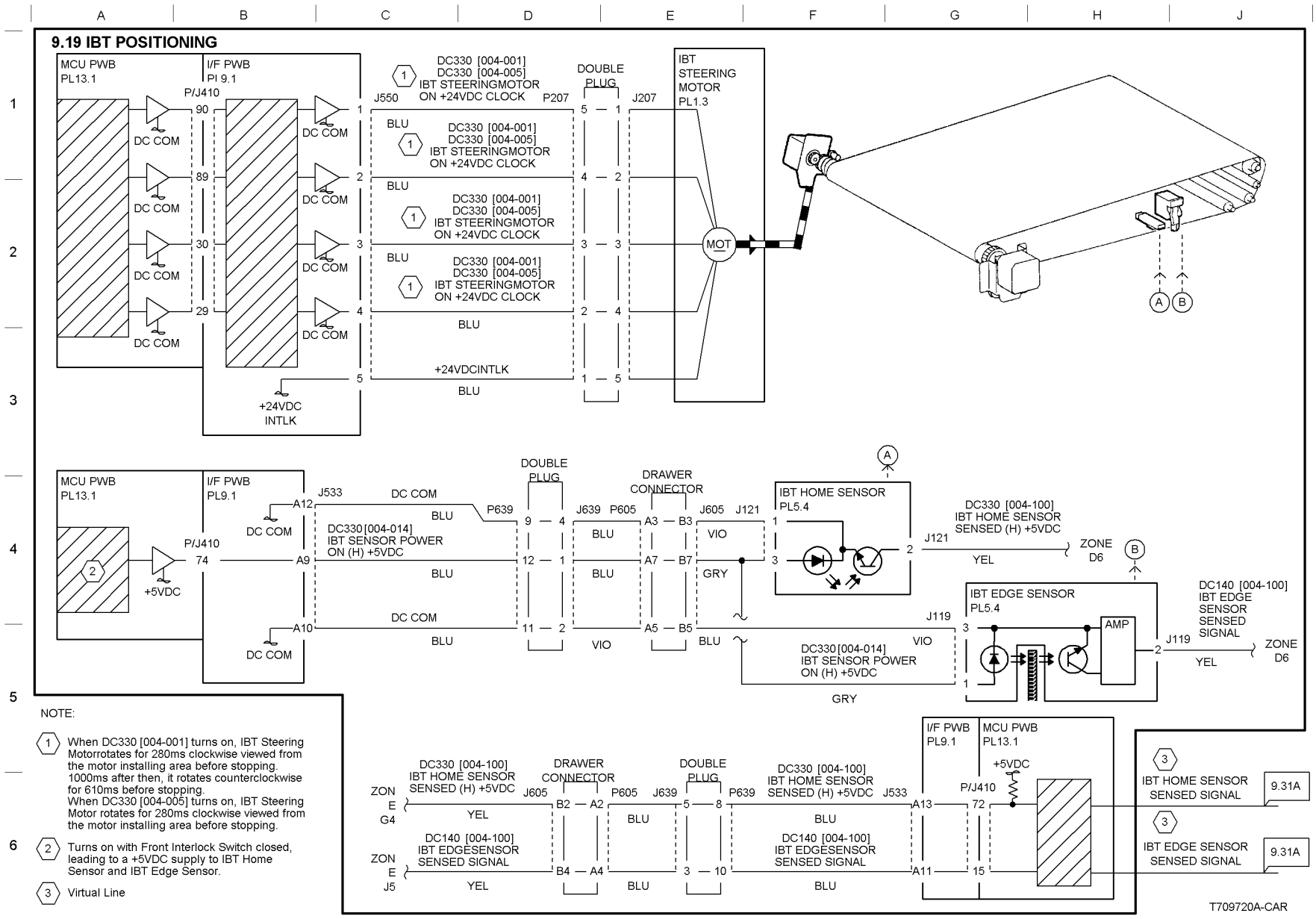
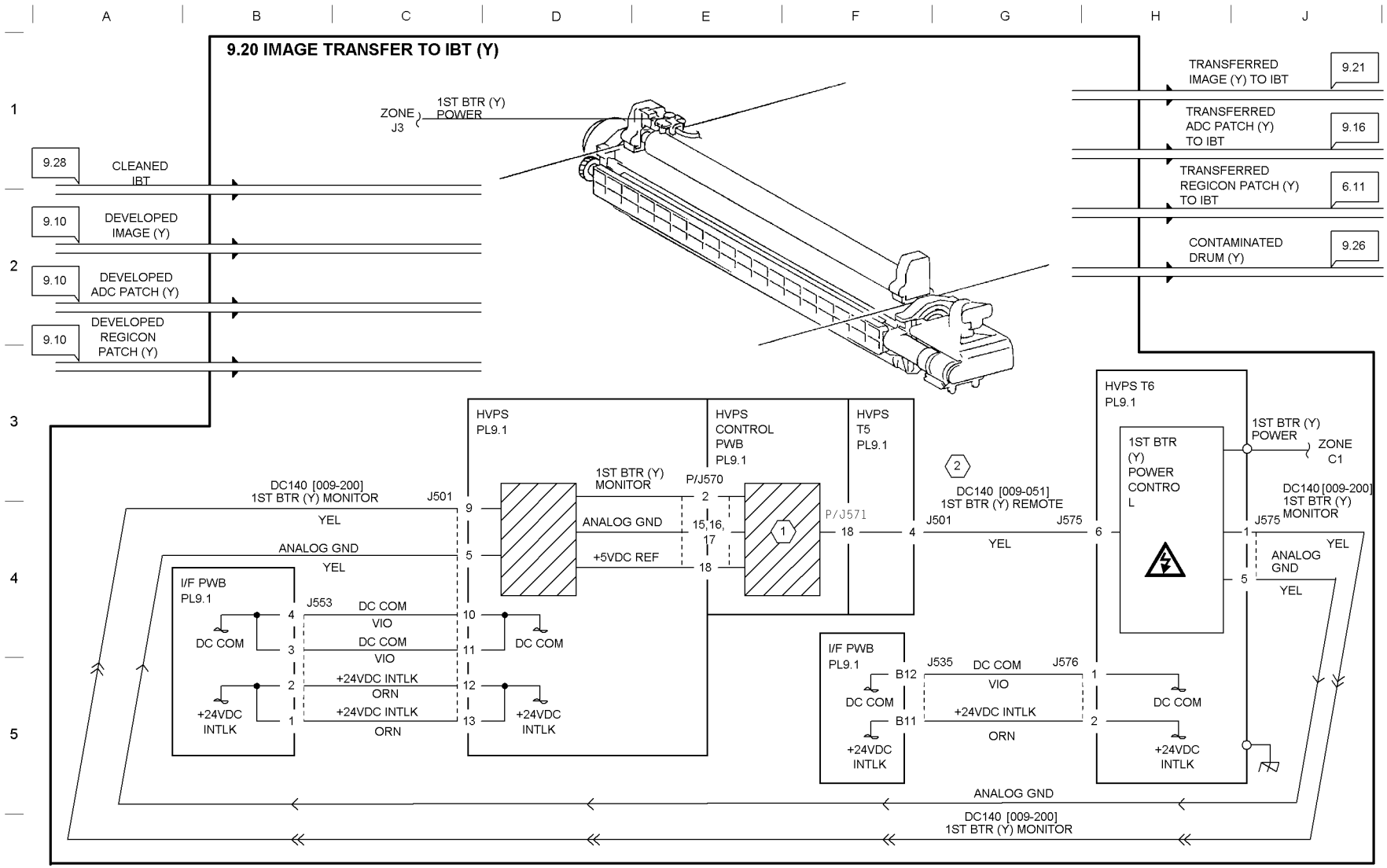



**Figure 20 IBT Positioning**




**NOTE:**

(1) HVPS Control PWB performs 1st BTR on/off control and remote control by conducting serial communications with MCU PWB. For the wiring from MCU PWB to HVPS Control PWB, see CH3.1B.

(2) Turning on DC140 [009-051] allows 1st BTR for every color to turn on.

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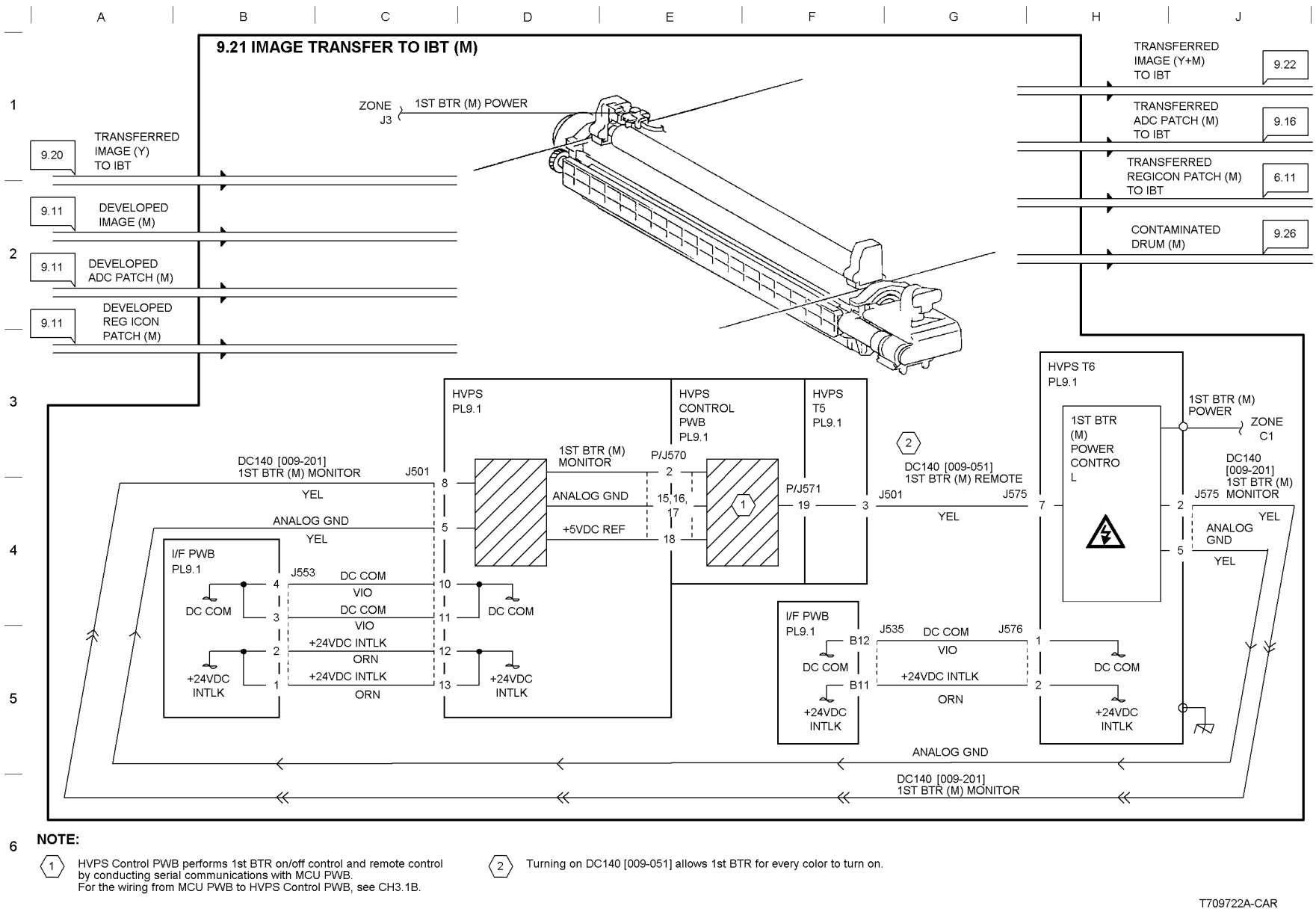
**Figure 21 Image transfer To IBT (Y)**




**NOTE:**

(1) HVPS Control PWB performs 1st BTR on/off control and remote control by conducting serial communications with MCU PWB.
For the wiring from MCU PWB to HVPS Control PWB, see CH3.1B.

(2) Turning on DC140 [009-051] allows 1st BTR for every color to turn on.

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**Figure 22 Image Transfer To IBT (M)**

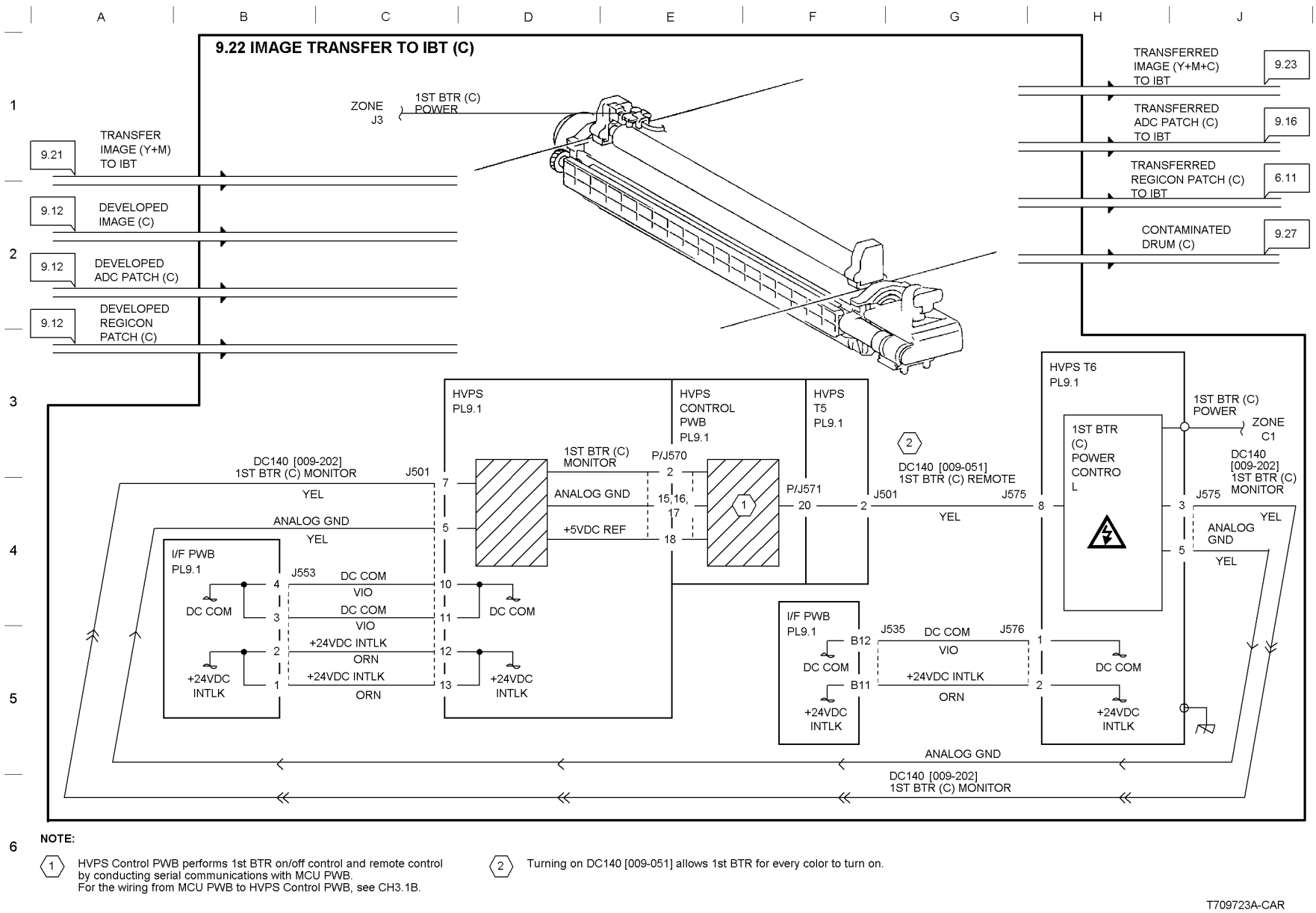
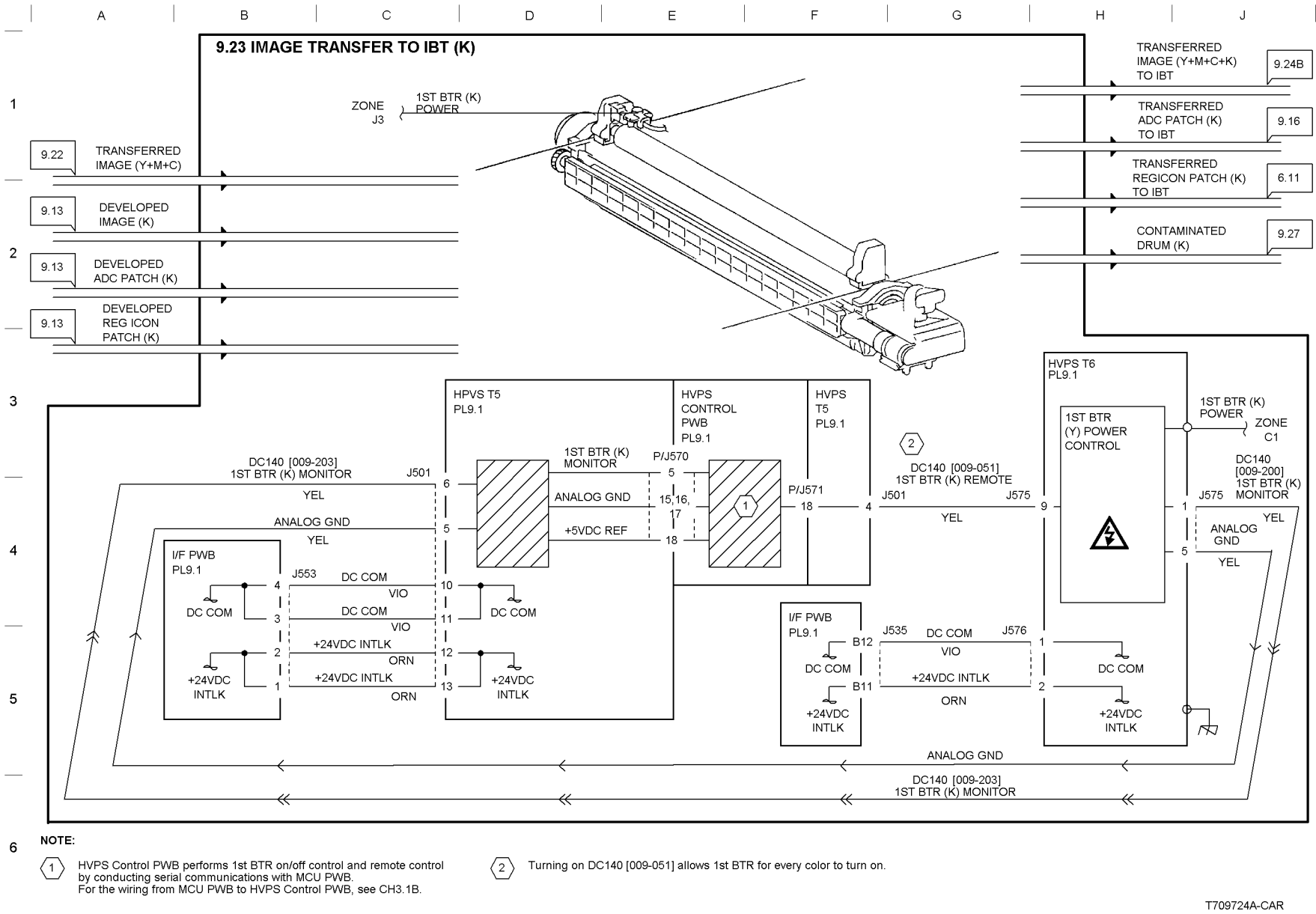



**Figure 23 Image Transfer To IBT (C)**




**NOTE:**

(1) HVPS Control PWB performs 1st BTR on/off control and remote control by conducting serial communications with MCU PWB.
For the wiring from MCU PWB to HVPS Control PWB, see CH3.1B.

(2) Turning on DC140 [009-051] allows 1st BTR for every color to turn on.

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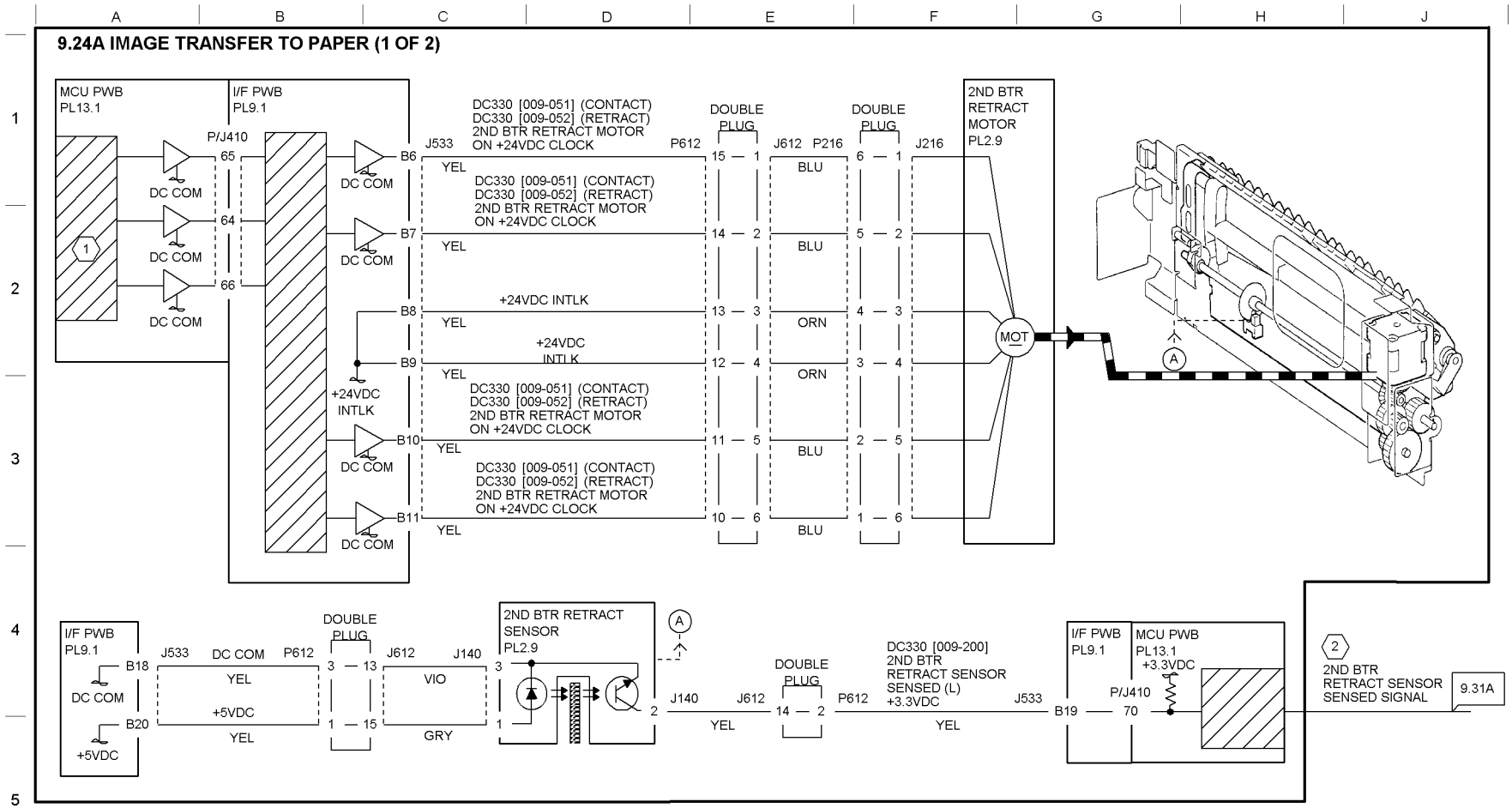
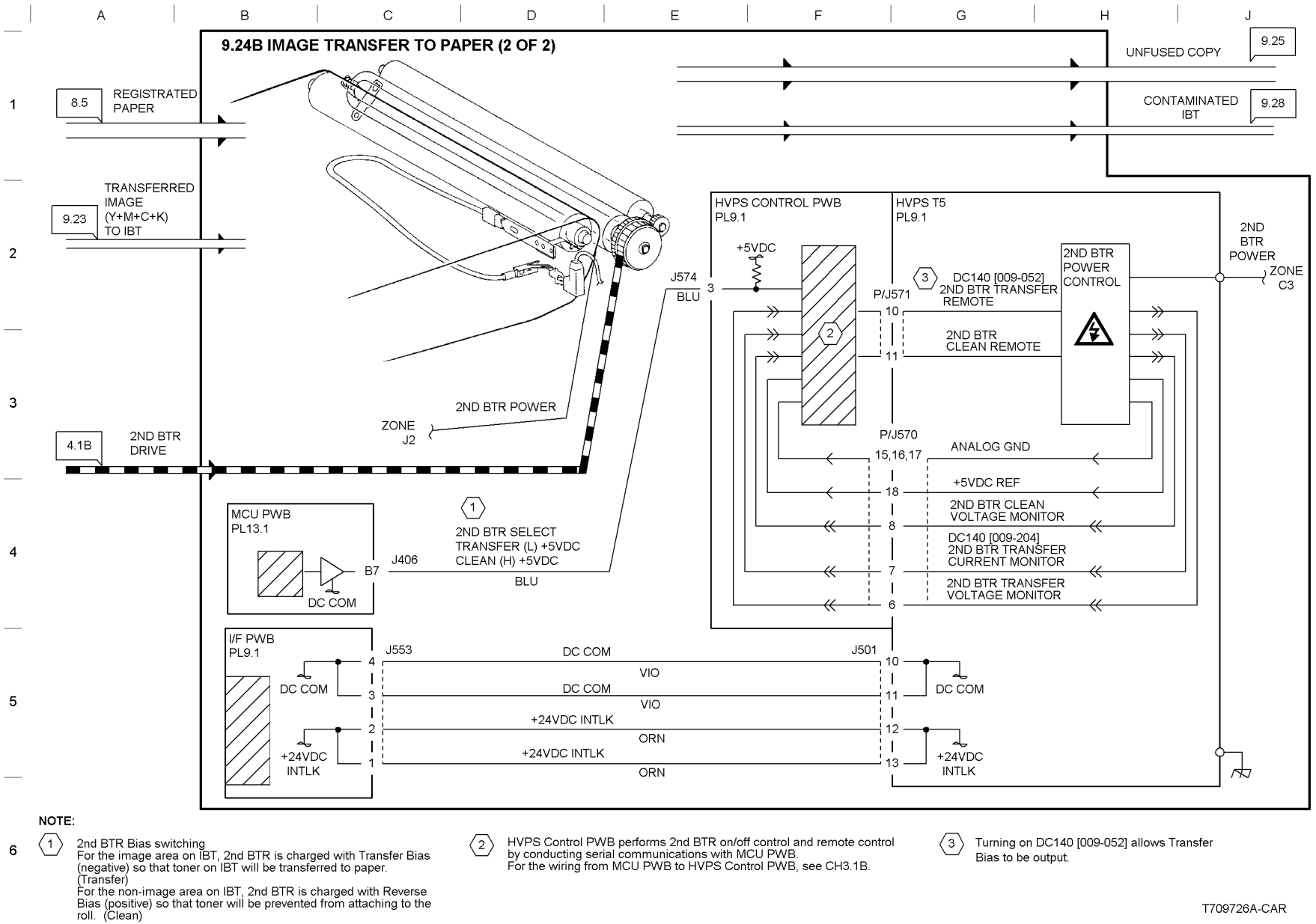
**Figure 24 Image Transfer To IBT (K)**




**NOTE:**

1. 2nd BTR contacts at power on, and retracts 5hrs (adjustable in NVM) after power off or IBT stops, or when M/C shuts down.
2. Virtual Line

**Figure 25 Image transfer To Paper (1 of 2)**




NOTE:

1. 2nd BTR Bias switching
   For the image area on IBT, 2nd BTR is charged with Transfer Bias (negative) so that toner on IBT will be transferred to paper. (Transfer)
   For the non-image area on IBT, 2nd BTR is charged with Reverse Bias (positive) so that toner will be prevented from attaching to the roll. (Clean)
2. HVPS Control PWB performs 2nd BTR on/off control and remote control by conducting serial communications with MCU PWB.
   For the wiring from MCU PWB to HVPS Control PWB, see CH3.1B.
3. Turning on DC140 [009-052] allows Transfer Bias to be output.

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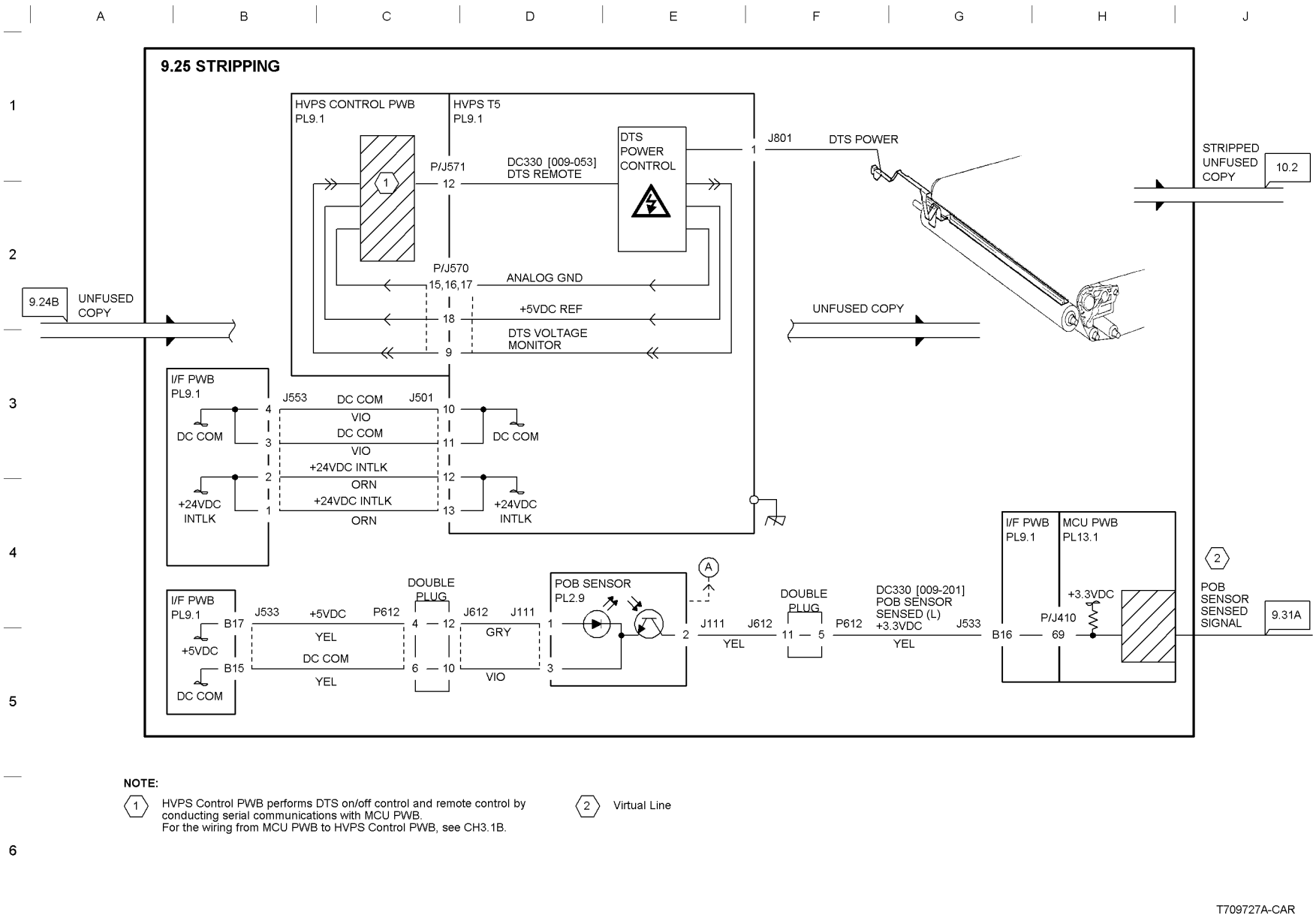
**Figure 26 Image transfer To Paper (2 of 2)**




**NOTE:**

1. HVPS Control PWB performs DTS on/off control and remote control by conducting serial communications with MCU PWB.
   For the wiring from MCU PWB to HVPS Control PWB, see CH3.1B.

2. Virtual Line

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**Figure 27 Stripping**

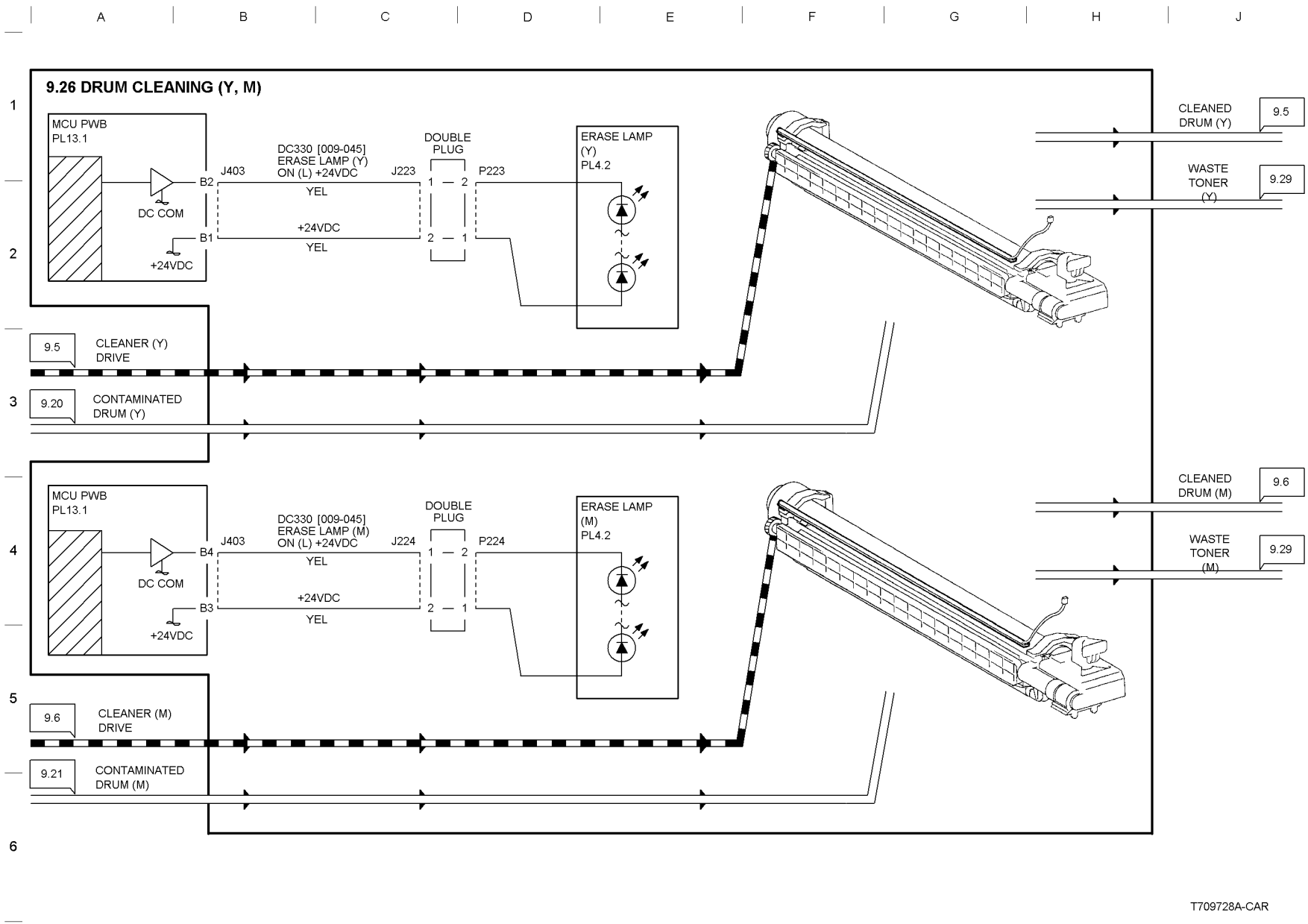



**Figure 28 Drum Cleaning (Y,M)**

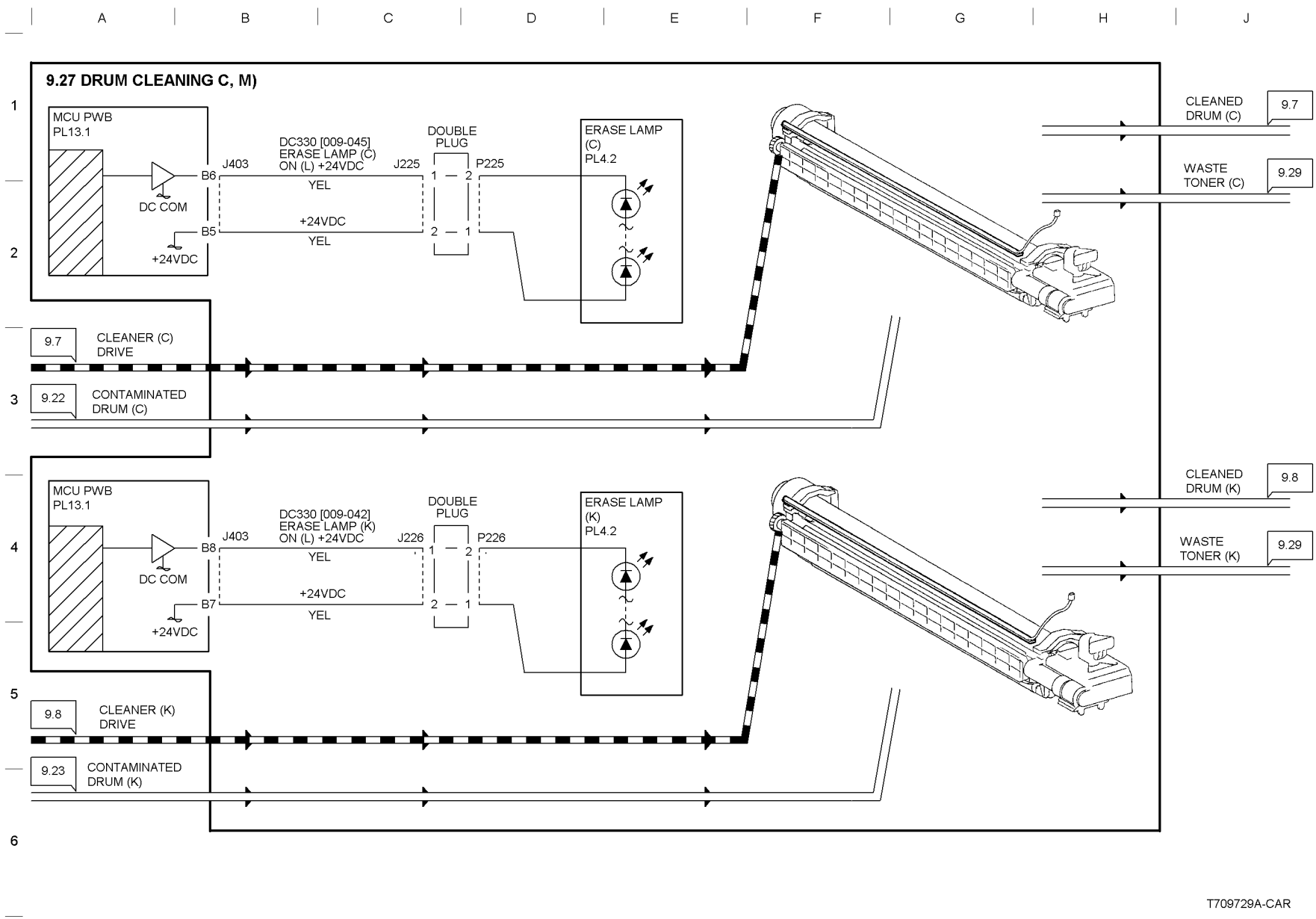



**Figure 29 Drum Cleaning (C,K)**

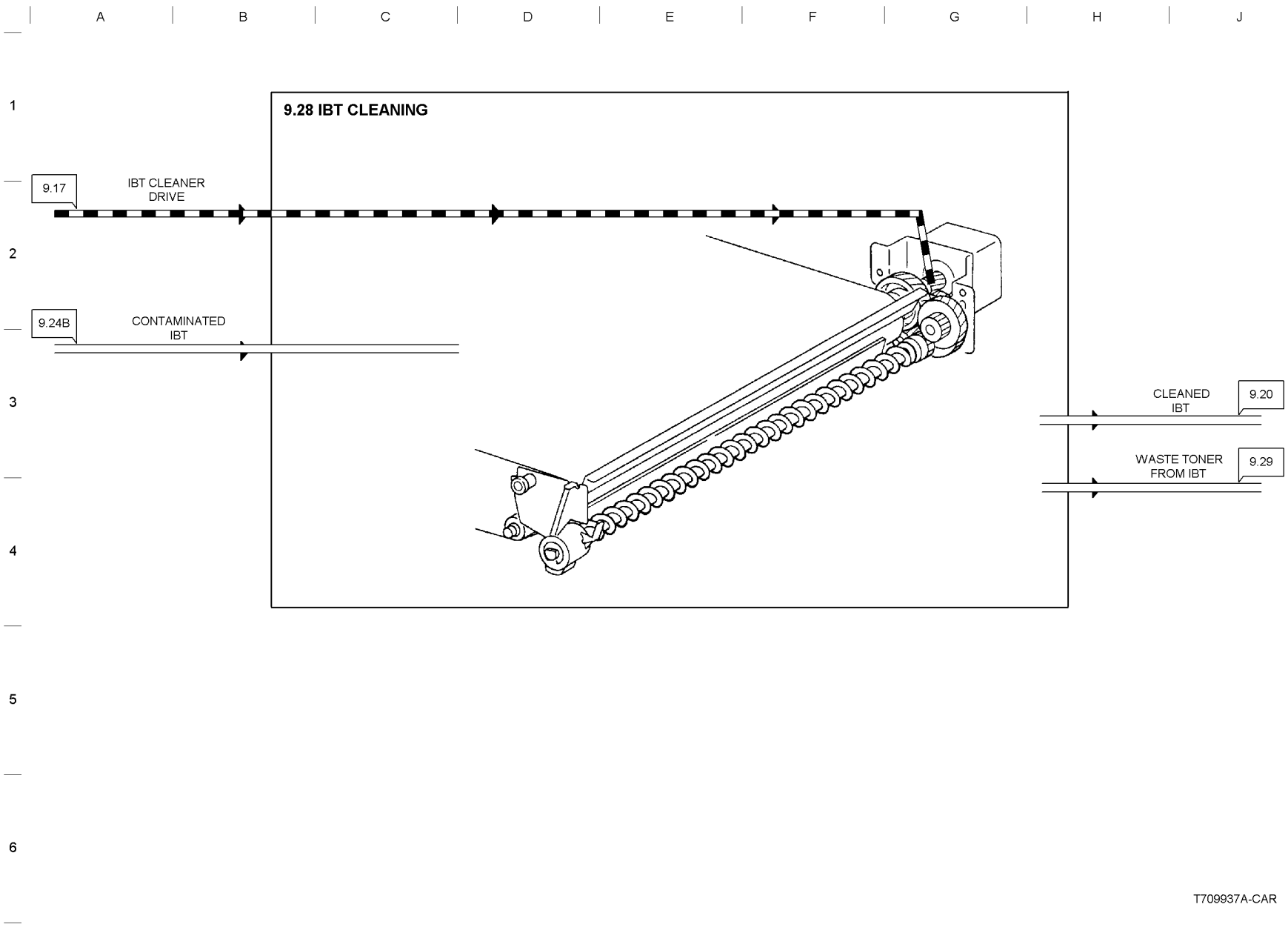



**Figure 30 IBT Cleaning**

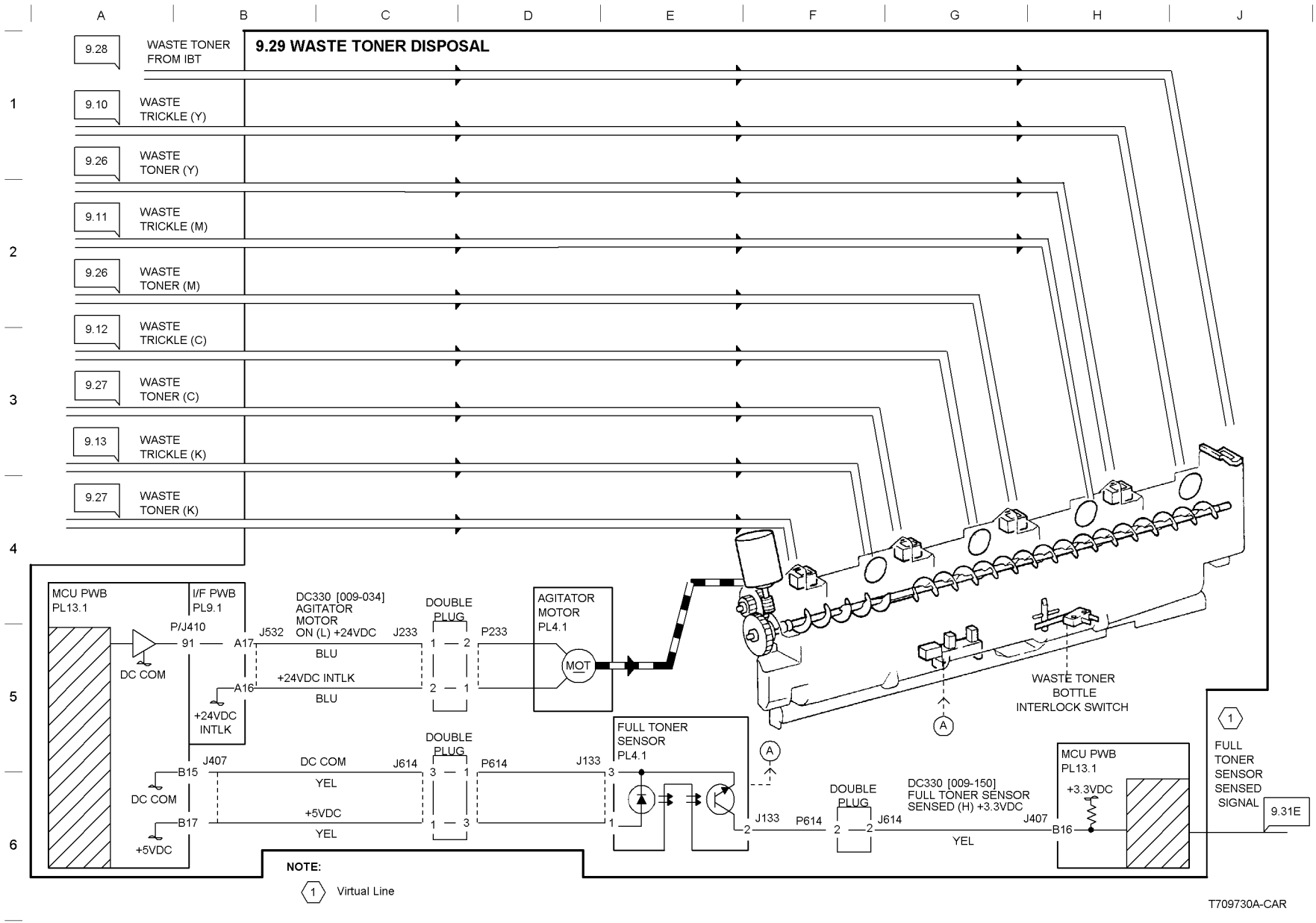
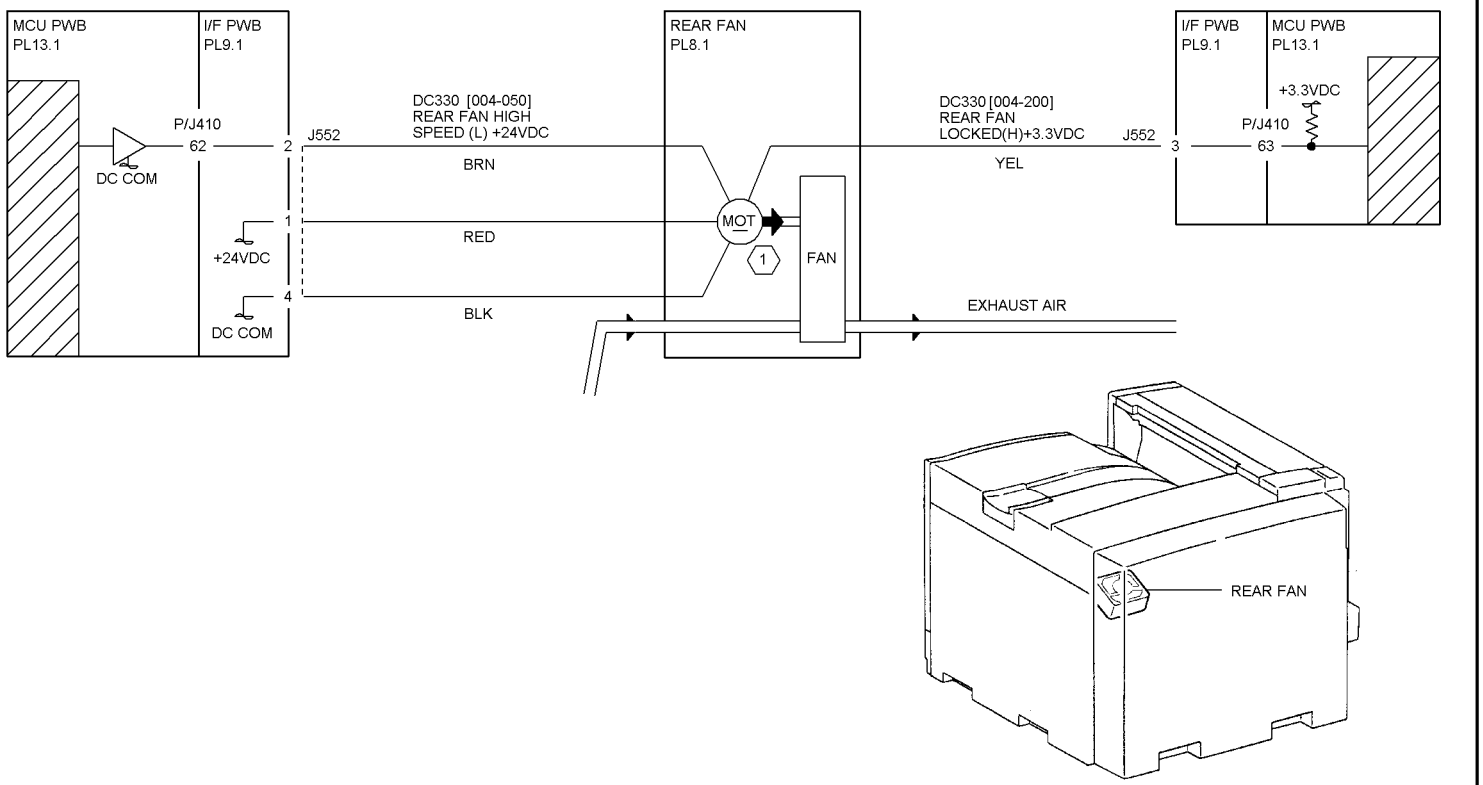



**Figure 31 Waste Toner Disposal**

## 9.30 REAR FAN CONTROL




**NOTE:**

(1) Rear Fan starts low-speed rotation at power on and keeps it with M/C on standby.
Rear Fan starts high-speed rotation at Main Motor On and transits to low-speed rotation 15sec (adjustable in NVM) after Main Motor Off.
In Sleep mode, the Fan stops rotating because +24VDC is cut off.

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**Figure 32 Rear Fan Control**

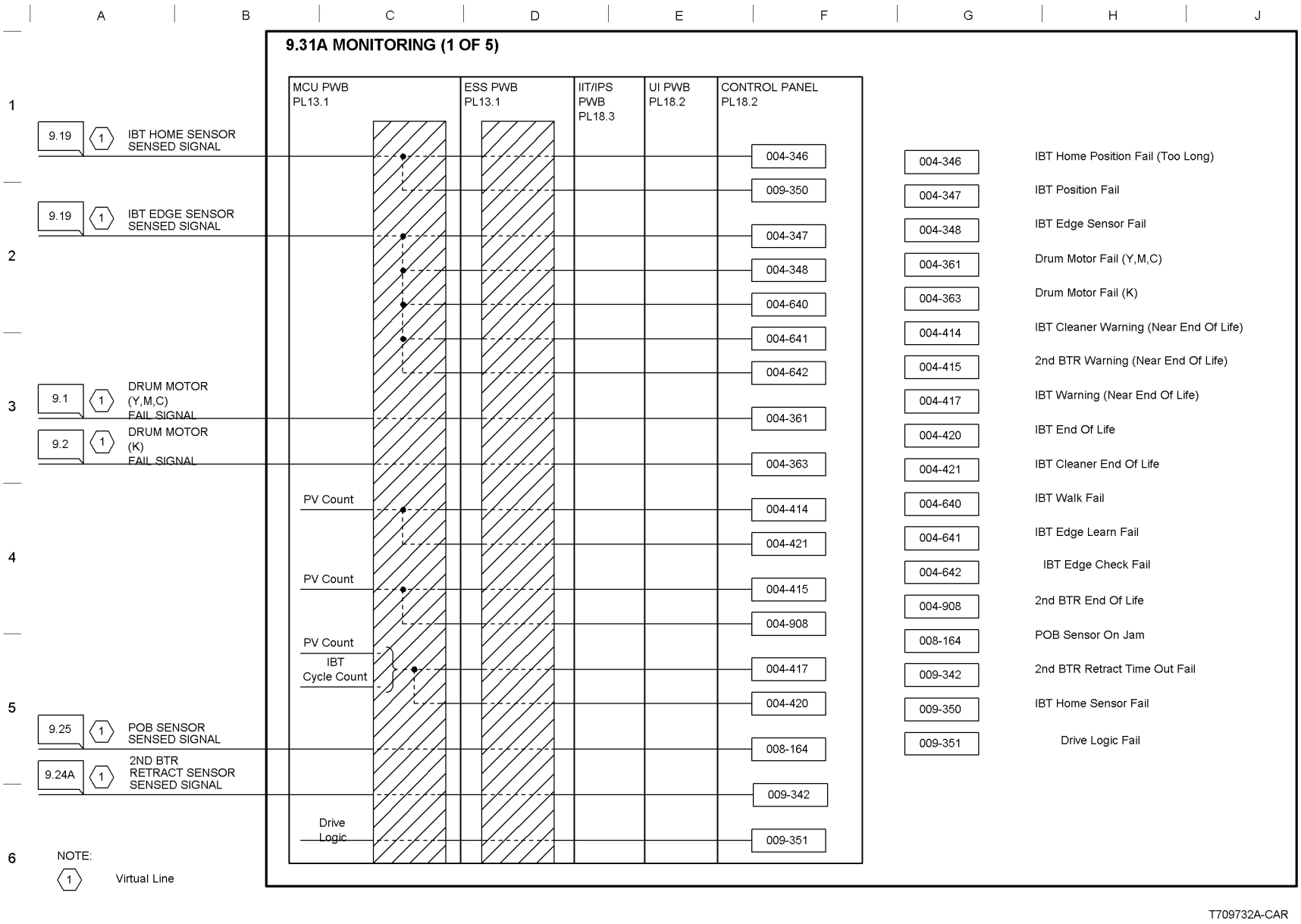



**Figure 33 Monitoring (1 of 5)**

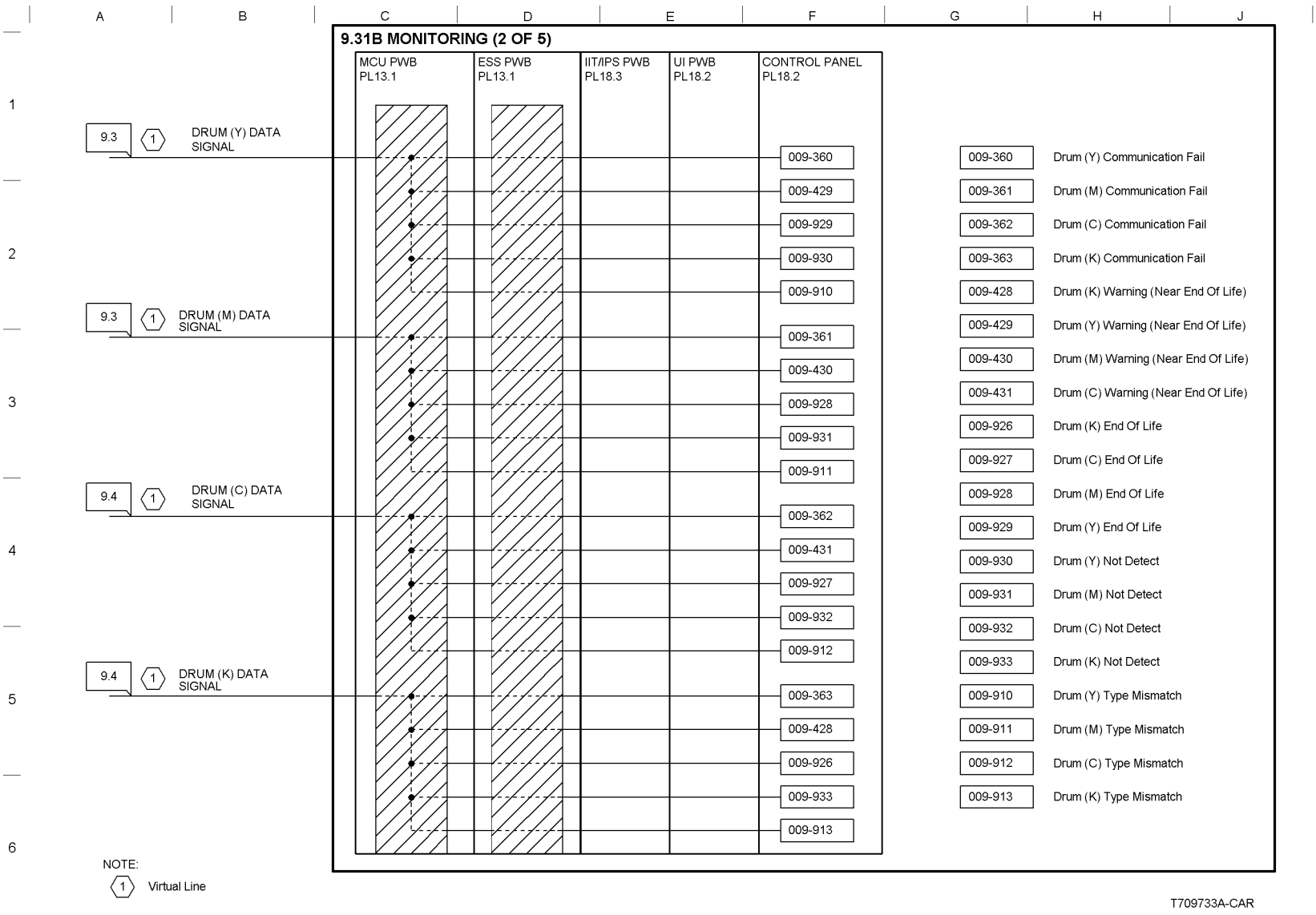



**Figure 34 Monitoring (2 of 5)**

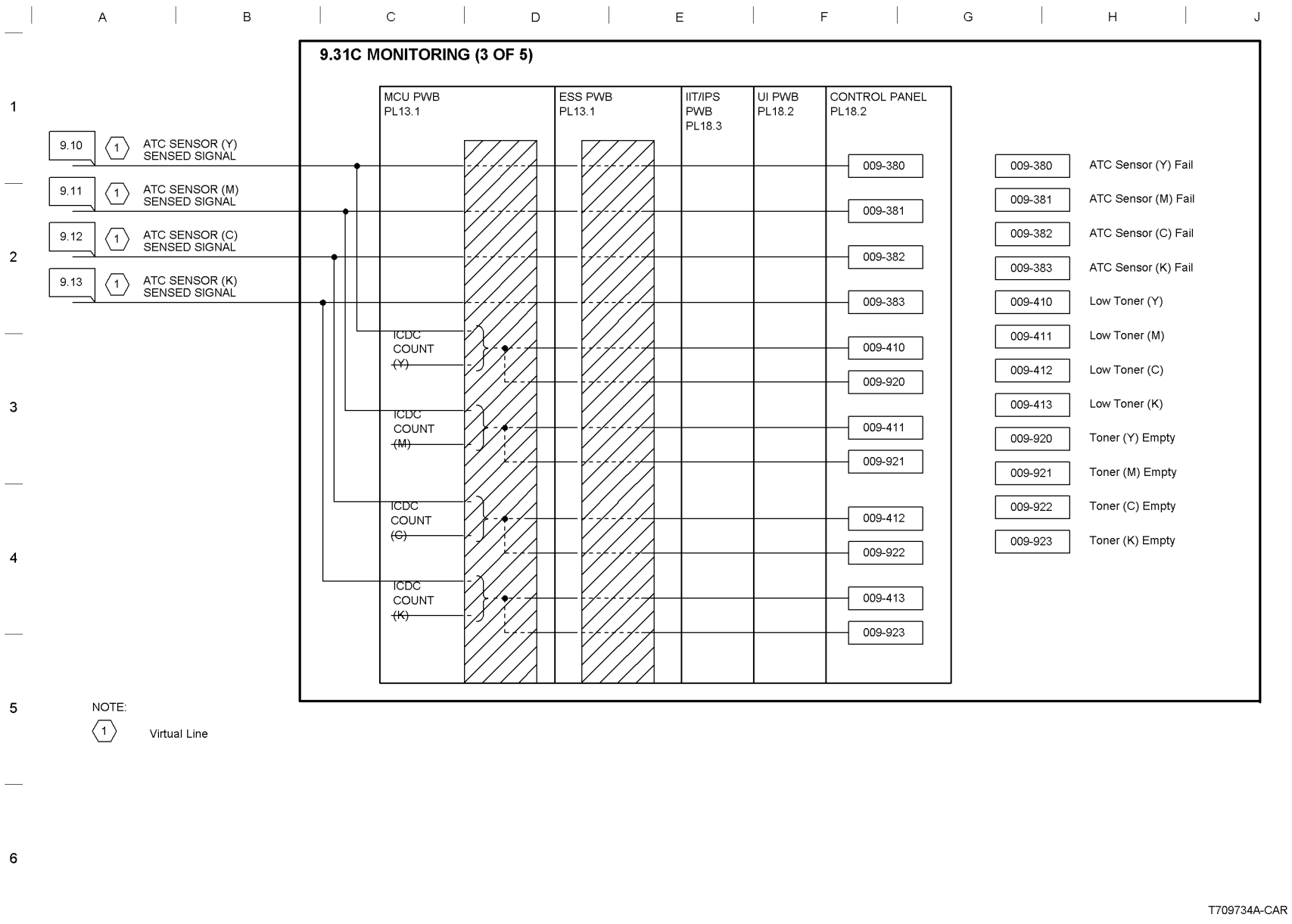



**Figure 35 Monitoring (3 of 5)**

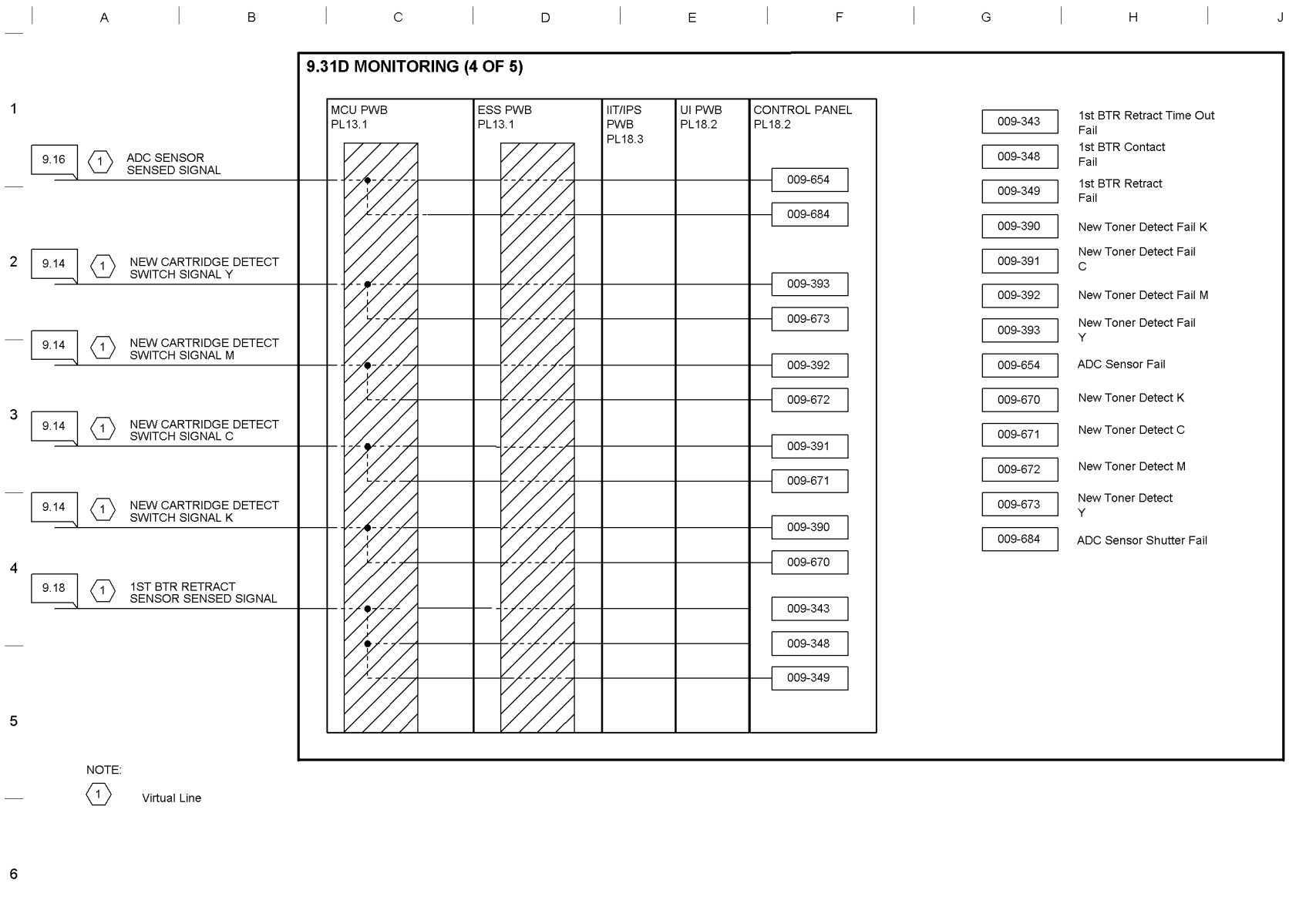



**Figure 36 Monitoring (4 of 5)**

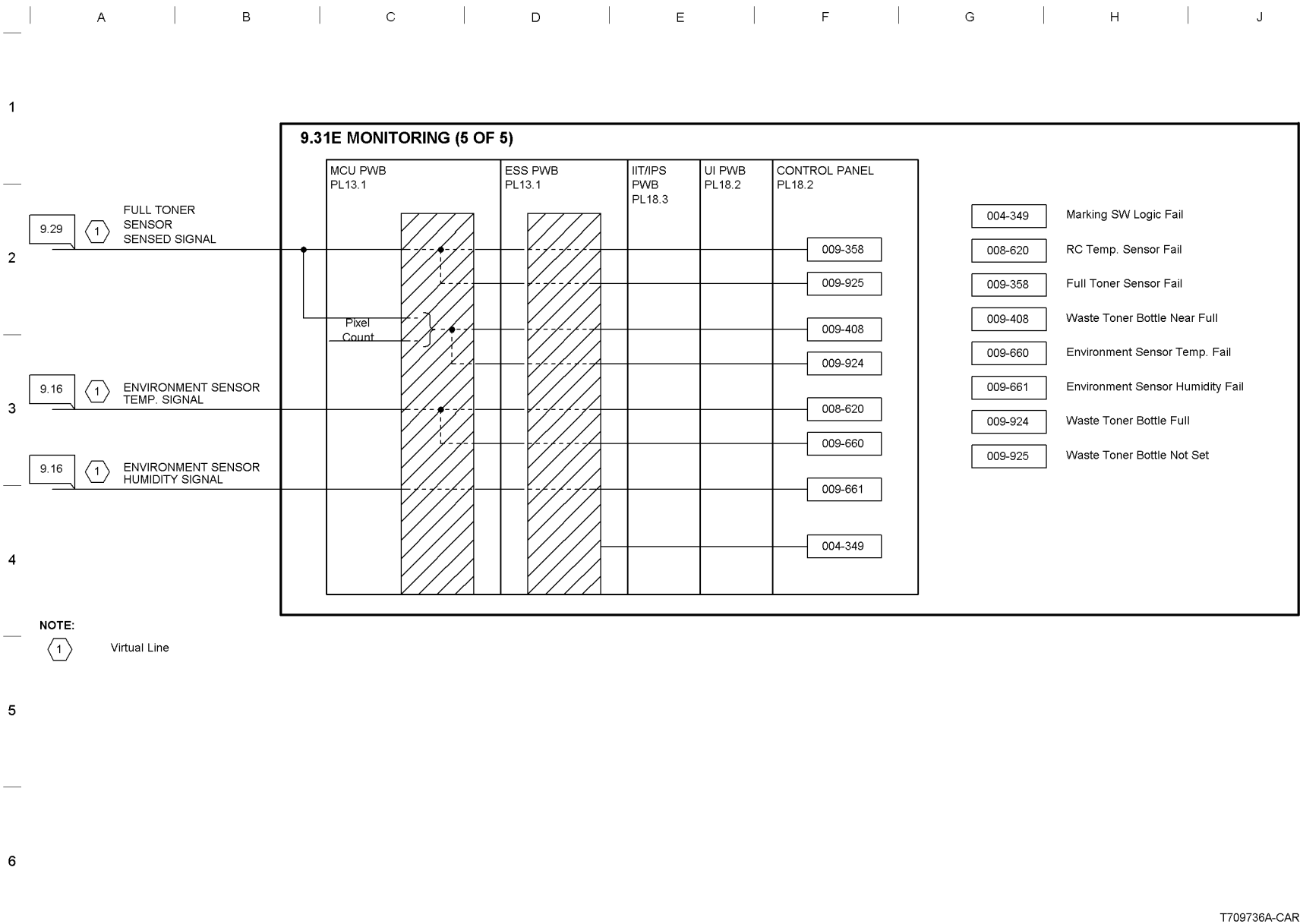



**Figure 37 Monitoring (5 of 5)**

# Chain 10 Fuser and Output

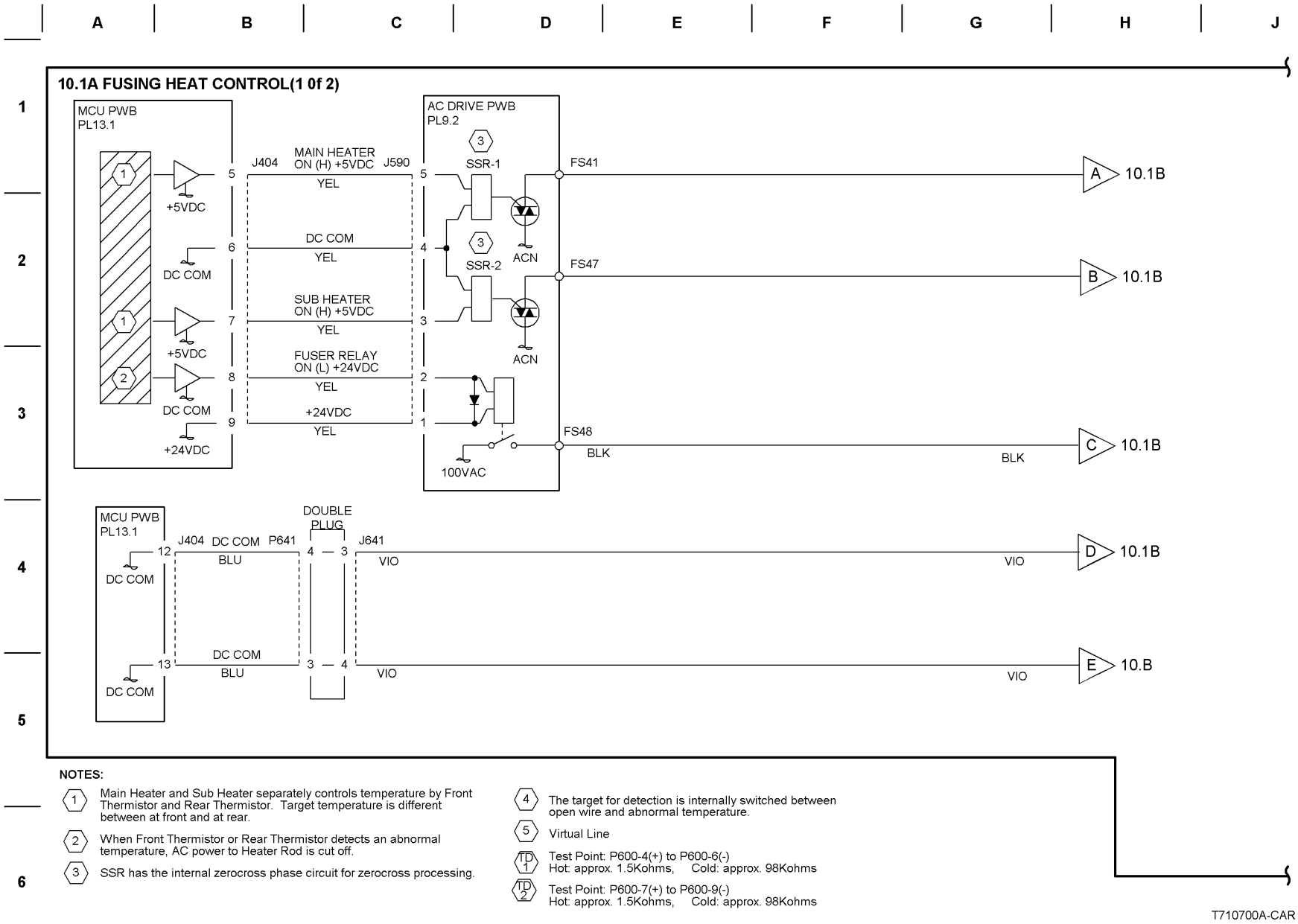



**Figure 1 Fusing Heat Control (1 of 2)**

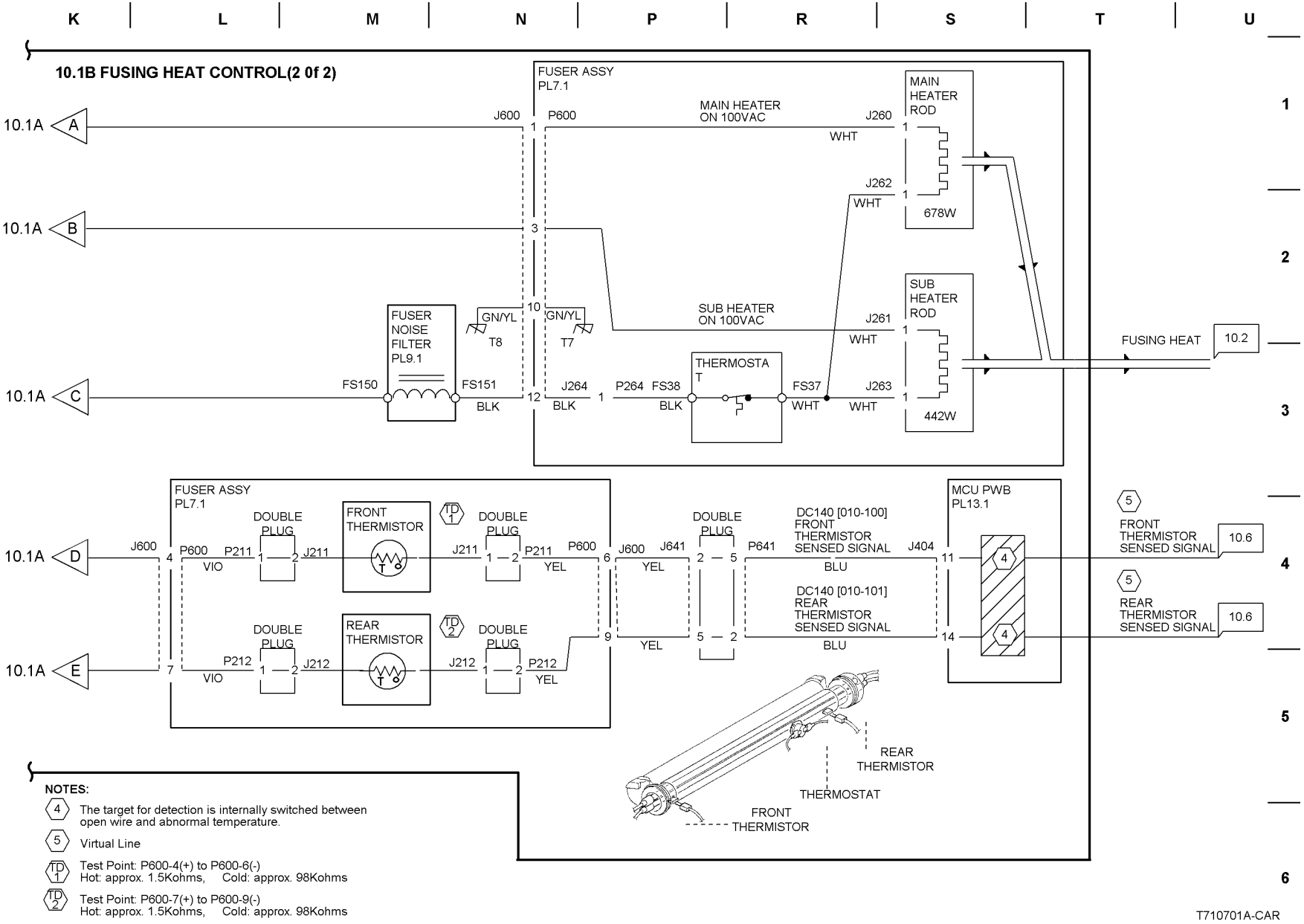
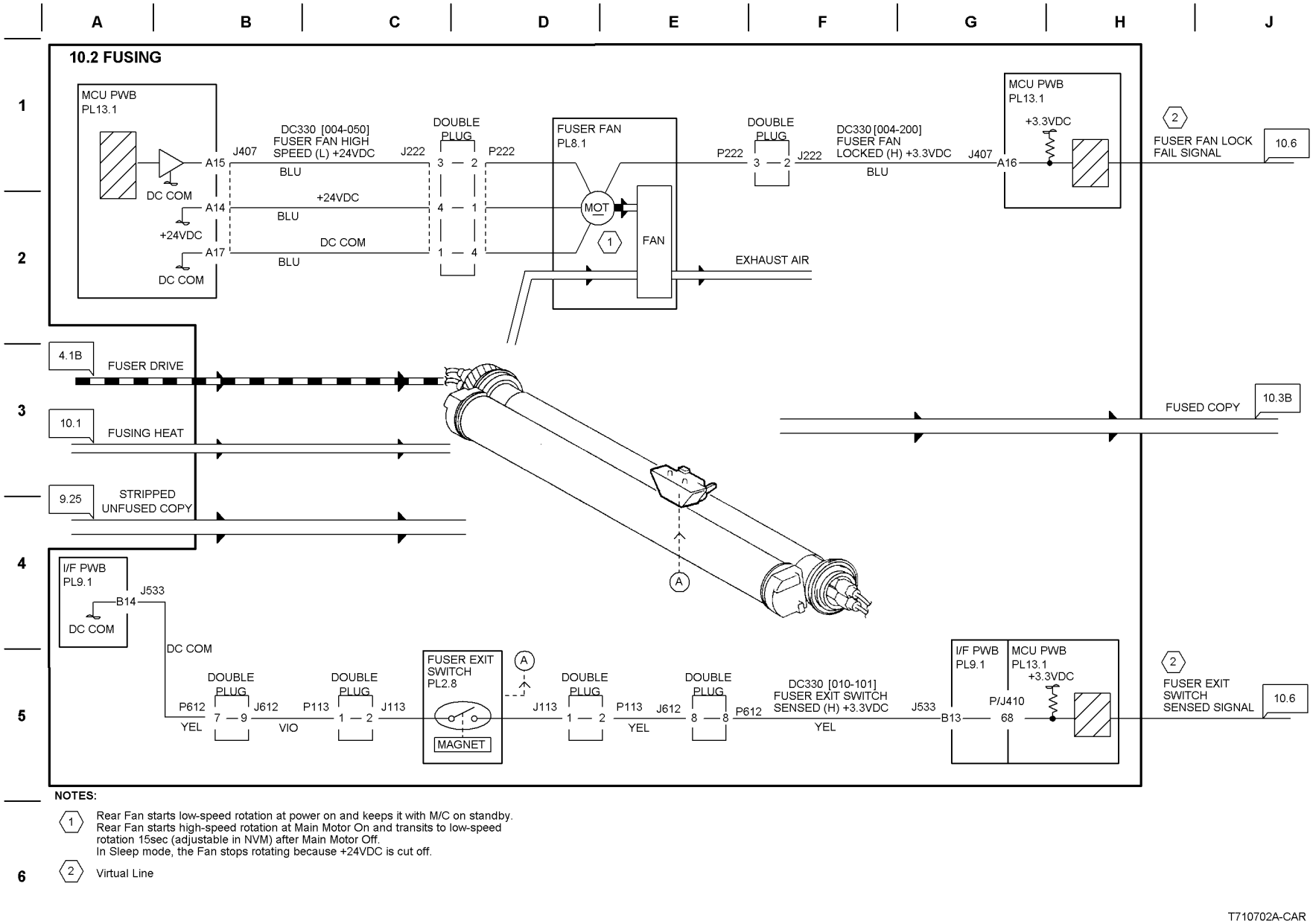



**Figure 2 Fusing Heat Control (2 of 2)**




**NOTES:**

1. Rear Fan starts low-speed rotation at power on and keeps it with M/C on standby. Rear Fan starts high-speed rotation at Main Motor On and transits to low-speed rotation 15sec (adjustable in NVM) after Main Motor Off. In Sleep mode, the Fan stops rotating because +24VDC is cut off.
2. Virtual Line

**Figure 3 Fusing**

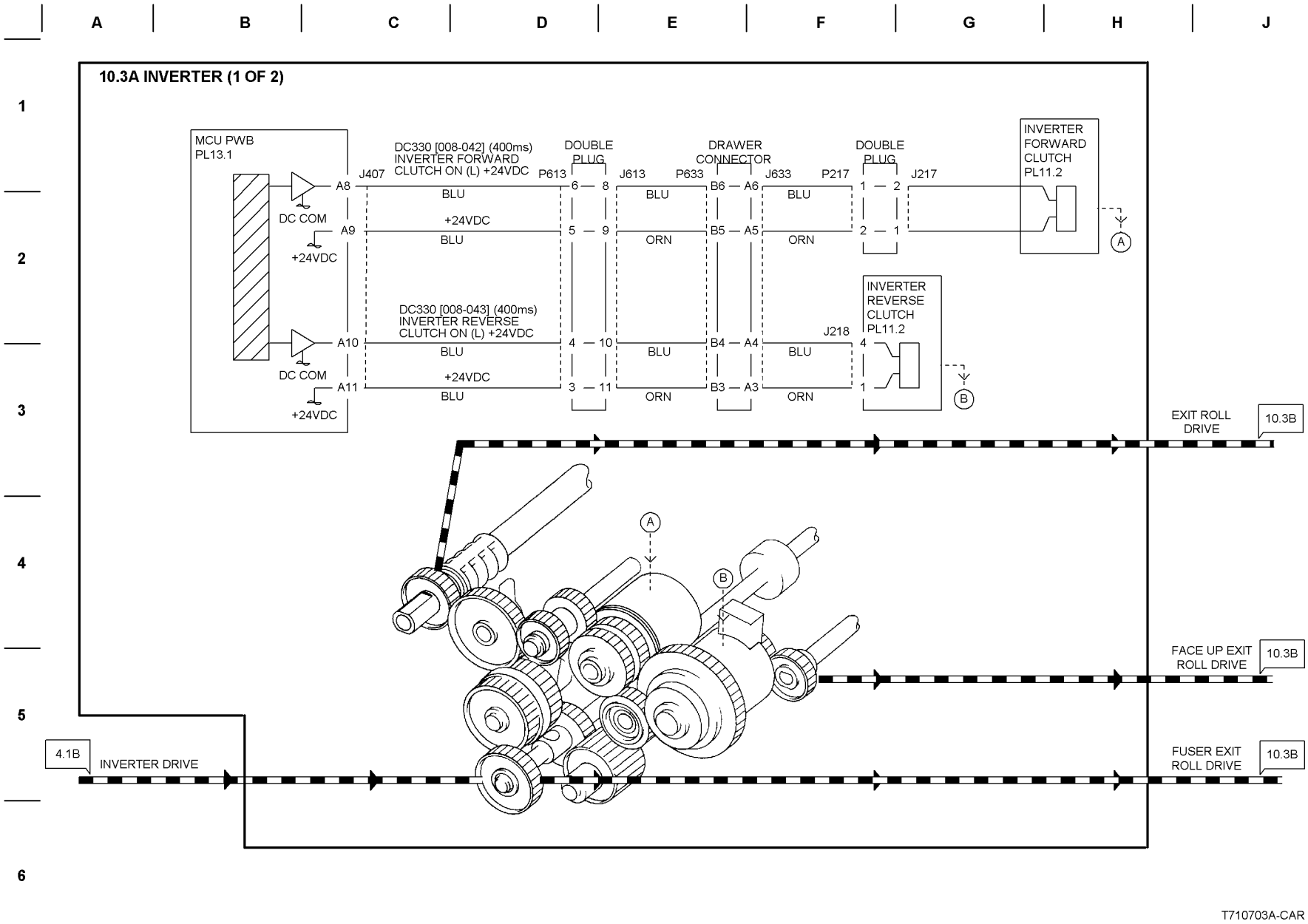



**Figure 4 Inverter (1 of 2)**

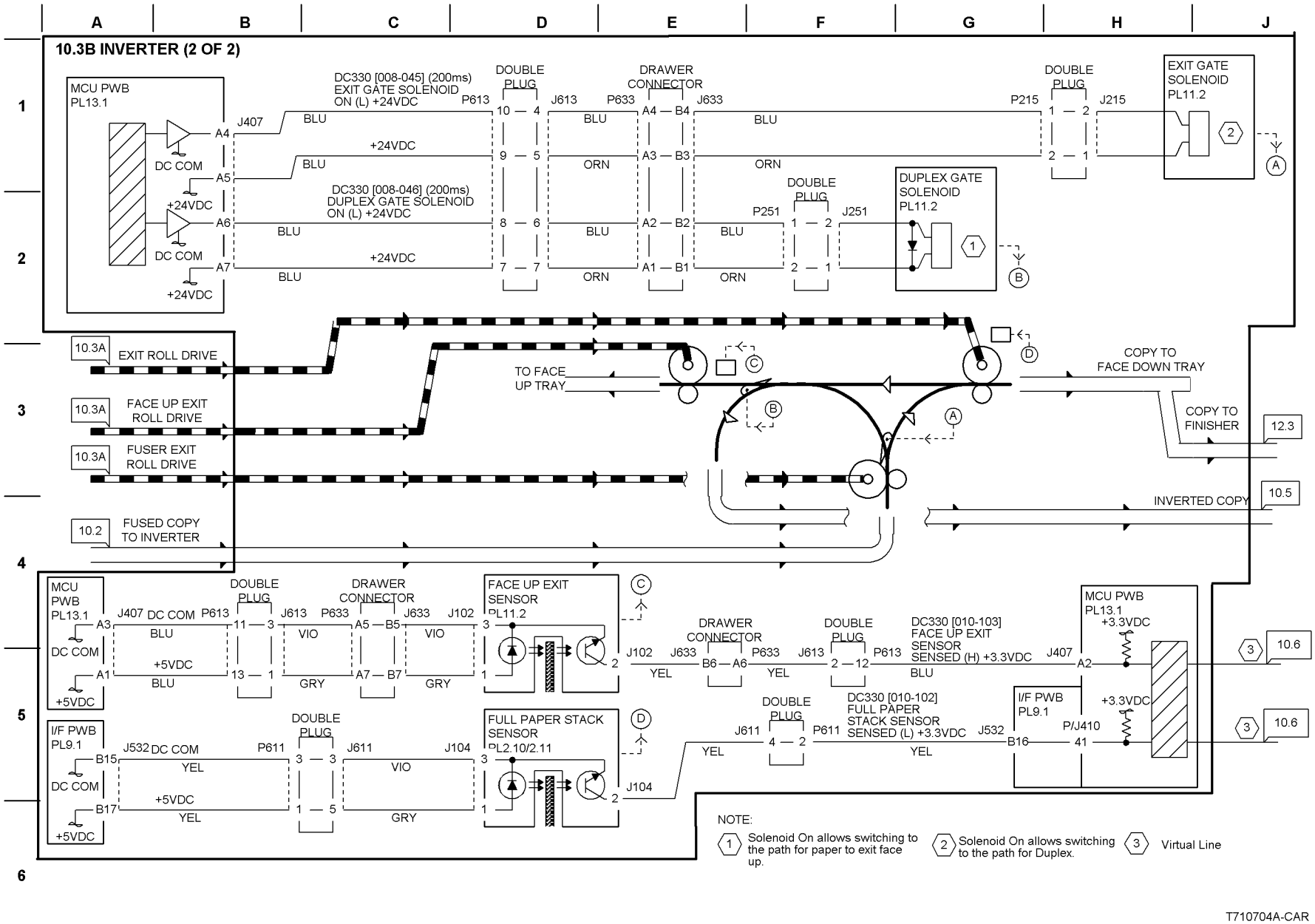
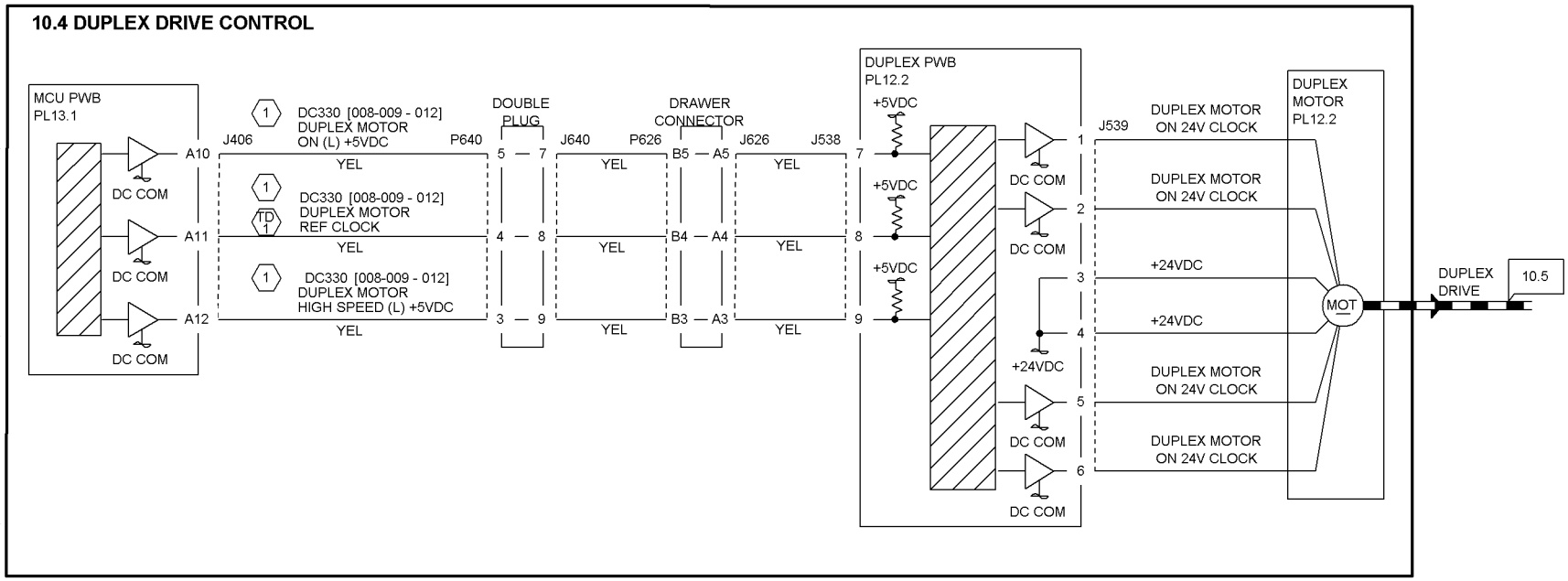



**Figure 5 Inverter (2 of 2)**




**NOTE:**

1 Operation speed and duration vary according to diag code.

| DUPLEX MOTOR | Operation Speed | Operation duration |
|---|---|---|
| DC330 [008-009] | 200mm/sec | 1000ms |
| DC330 [008-010] | 104mm/sec | 1000ms |
| DC330 [008-011] | 200mm/sec | Long |
| DC330 [008-012] | 104mm/sec | Long |

TD 1 Test Point: P600-4(+) to P600-6(-) a frequency of approx. 2.1KHz

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**Figure 6 Duplex Drive Control**

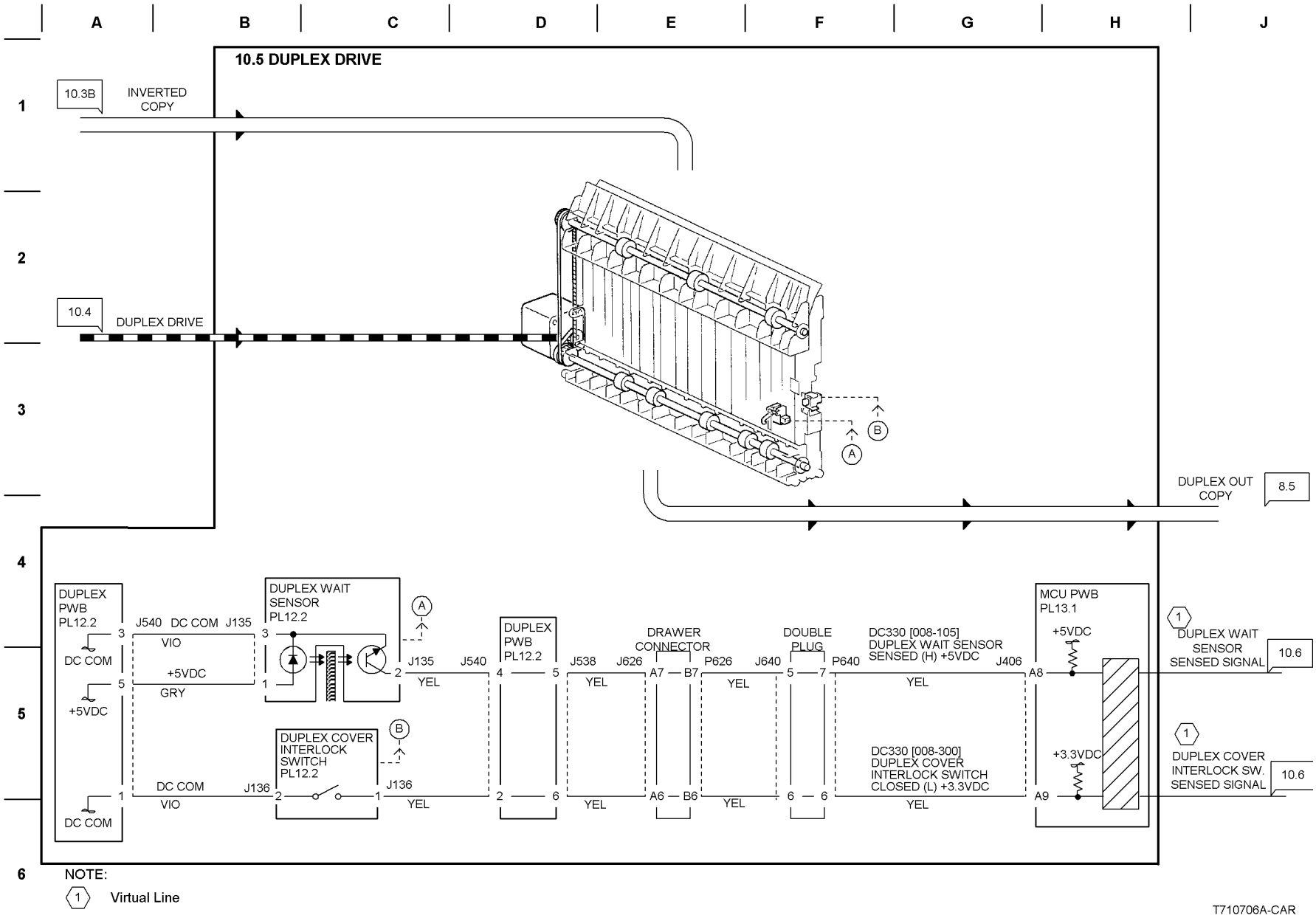



**Figure 7 Duplex Drive**

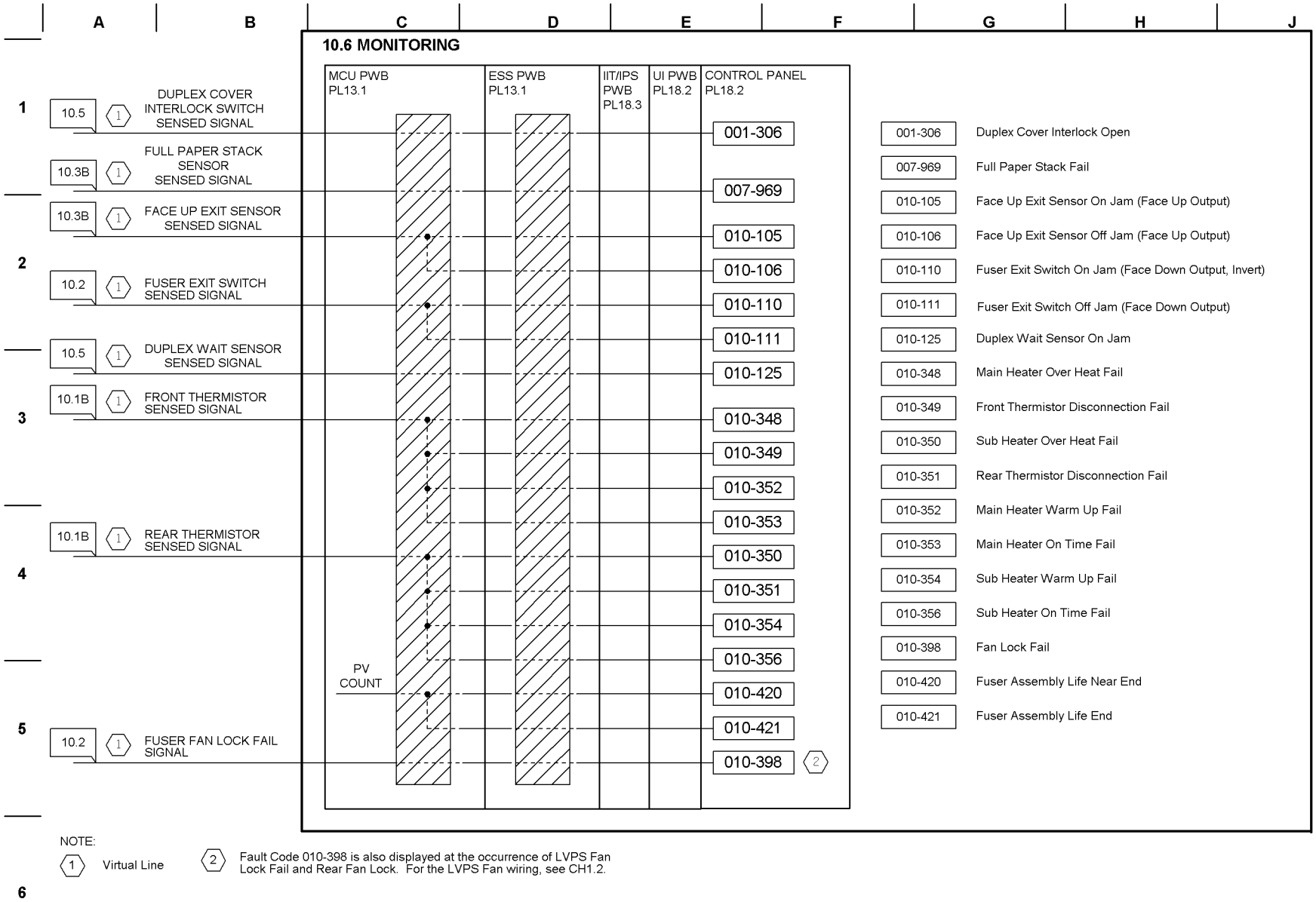



**Figure 8 Monitoring**

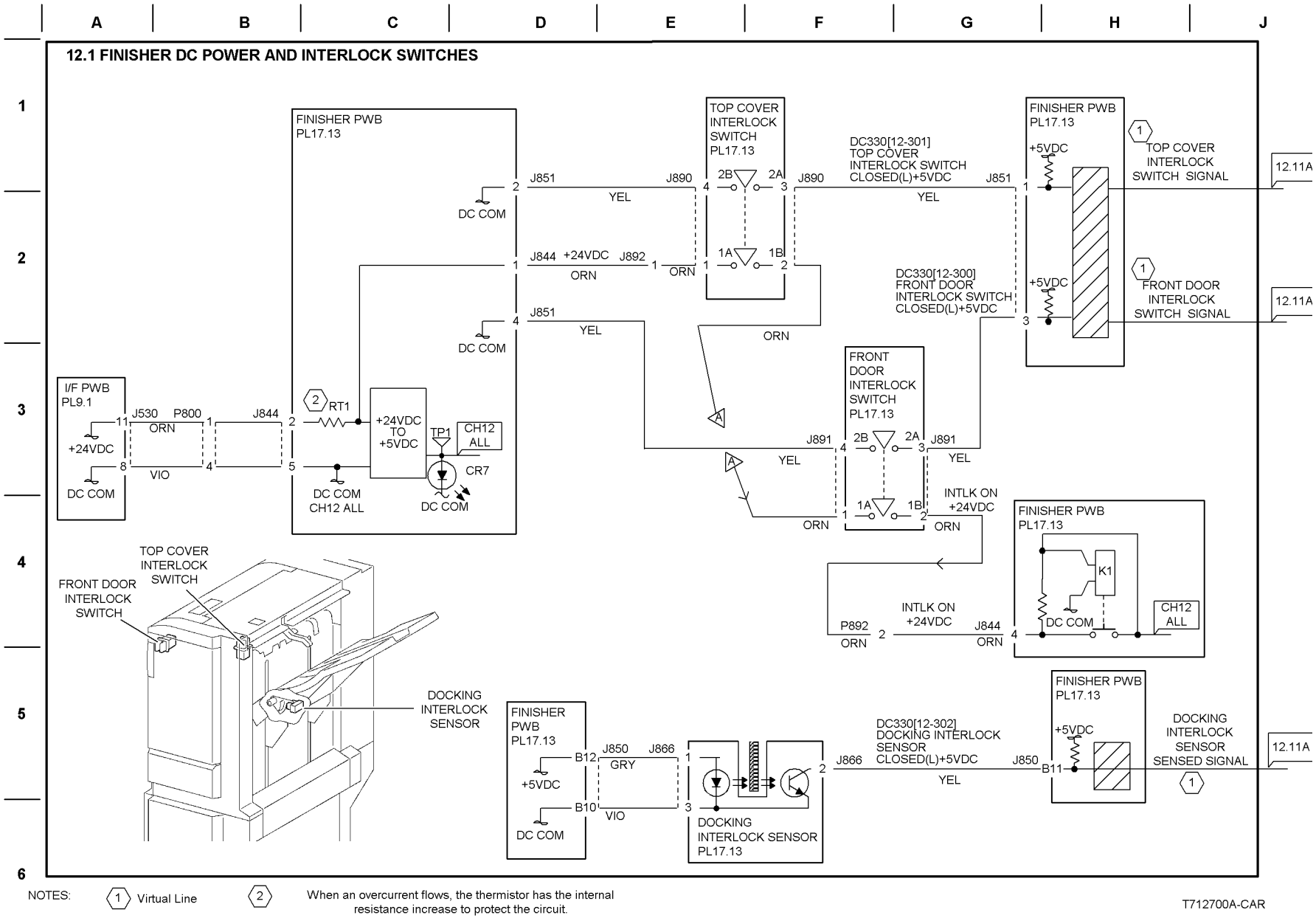



**Figure 1 DC Power and Interlocks**

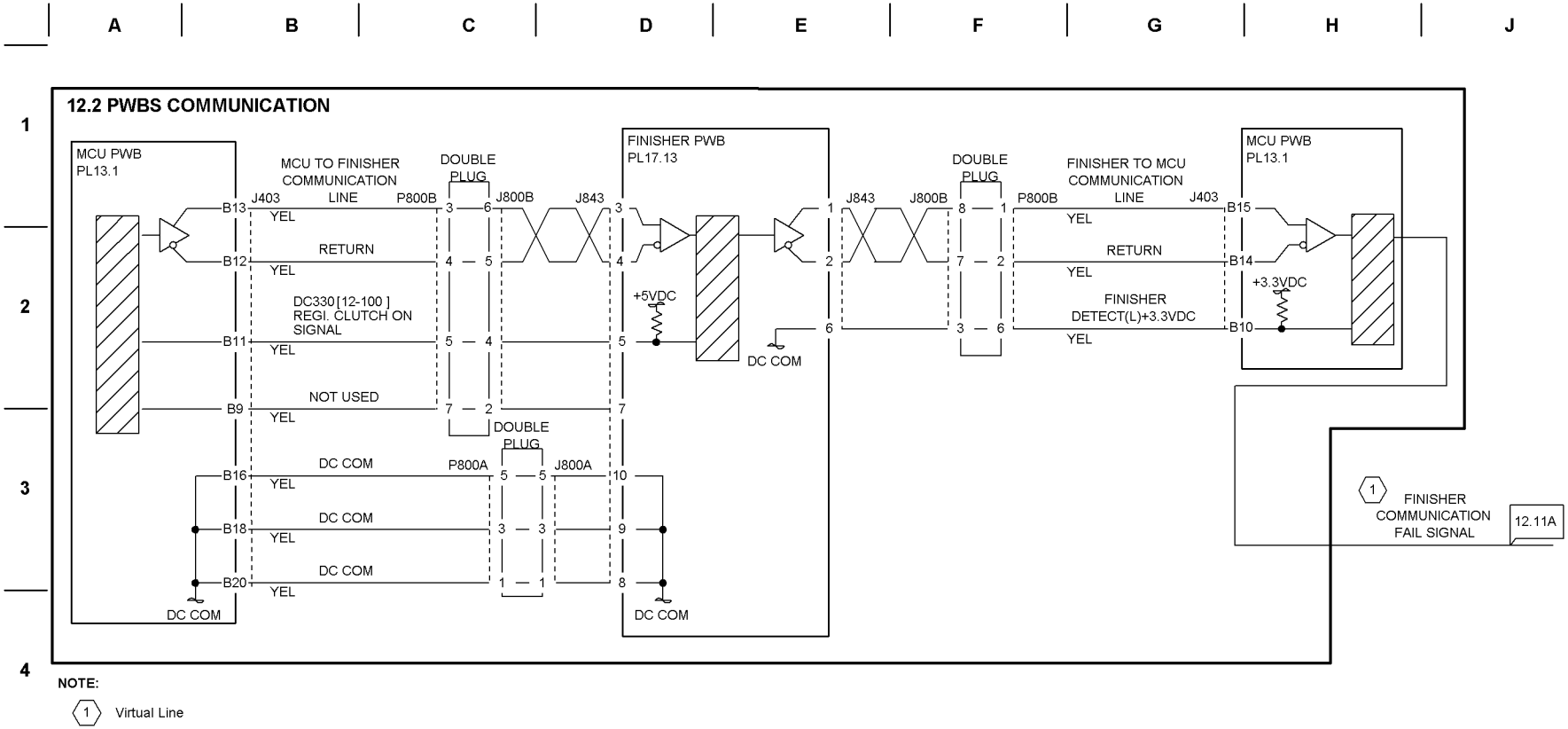



**Figure 2 PWBS Communications**

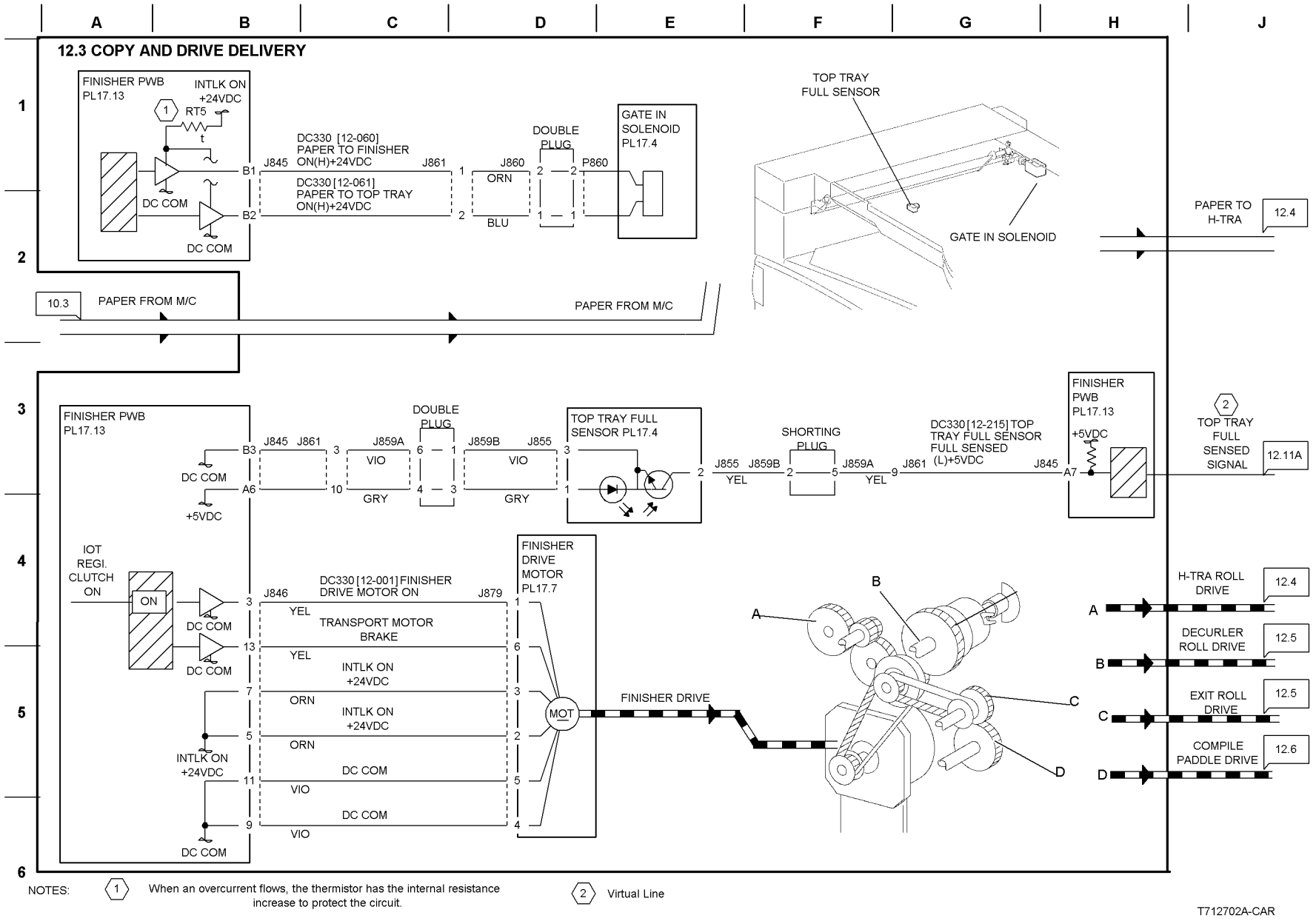



**Figure 3 Copy and Drive Delivery**

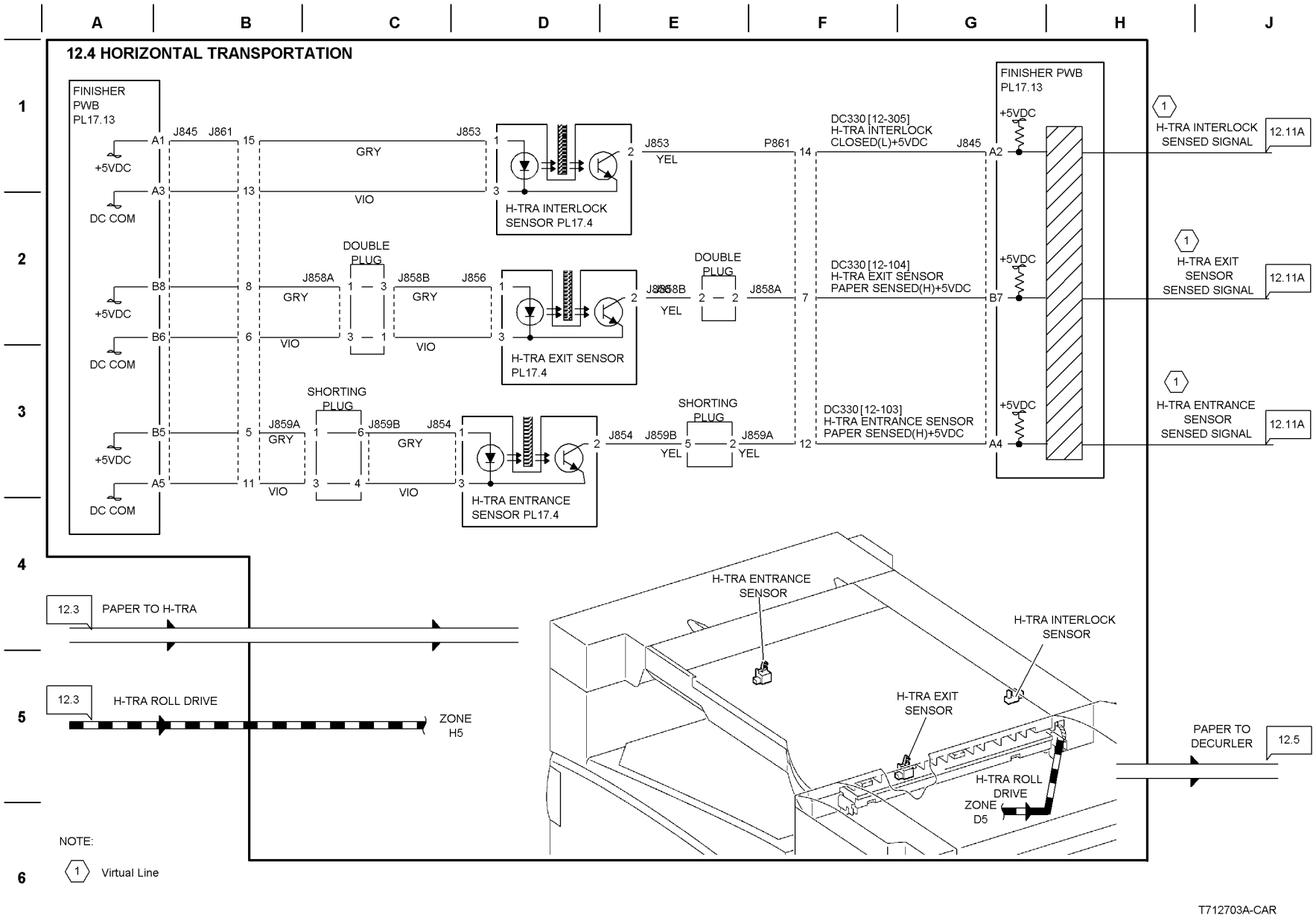
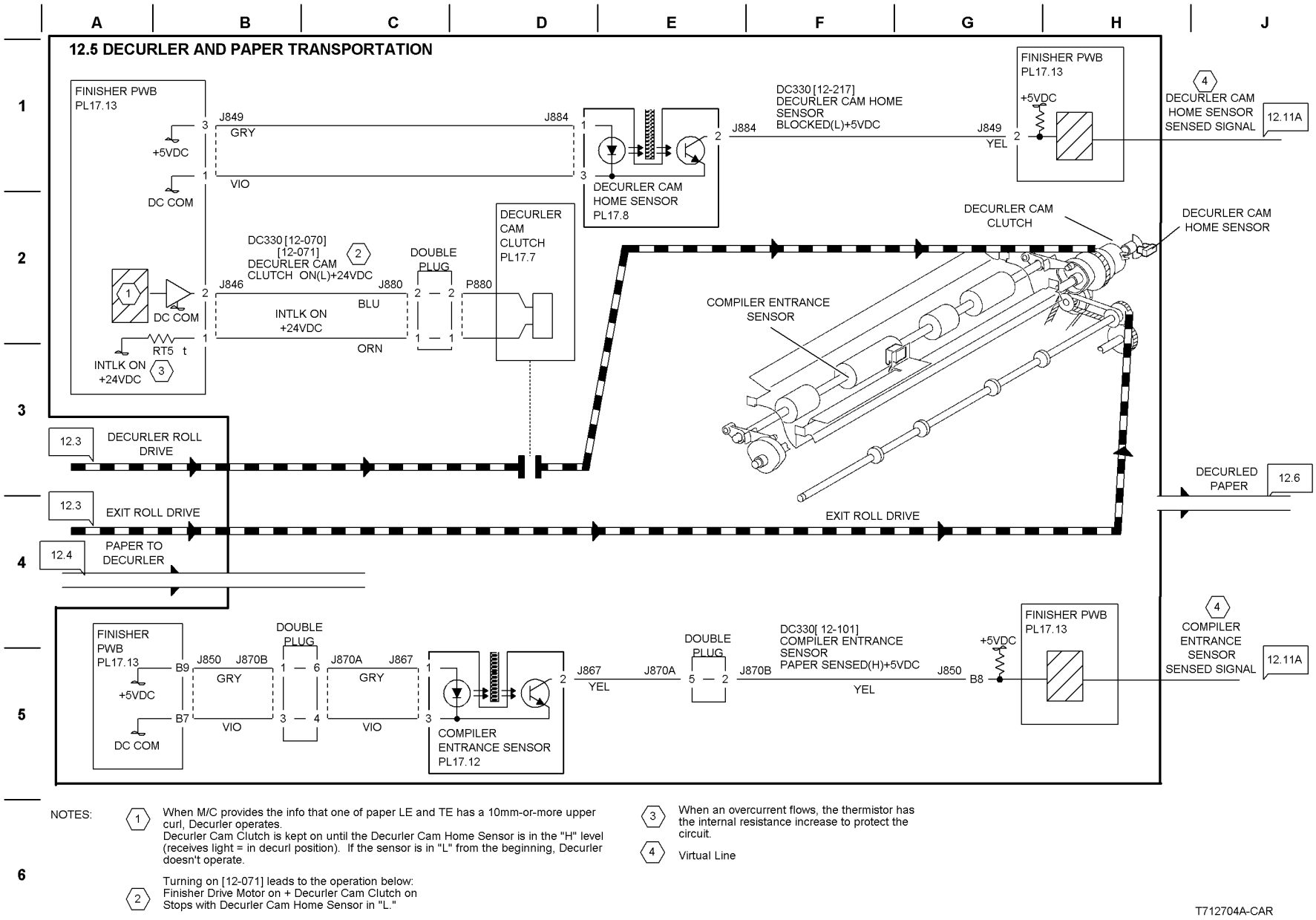



**Figure 4 Horizontal Transportation**




NOTES:

1. When M/C provides the info that one of paper LE and TE has a 10mm-or-more upper curl, Decurler operates.
   Decurler Cam Clutch is kept on until the Decurler Cam Home Sensor is in the "H" level (receives light = in decurl position). If the sensor is in "L" from the beginning, Decurler doesn't operate.
2. Turning on [12-071] leads to the operation below:
   Finisher Drive Motor on + Decurler Cam Clutch on
   Stops with Decurler Cam Home Sensor in "L."
3. When an overcurrent flows, the thermistor has the internal resistance increase to protect the circuit.
4. Virtual Line

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**Figure 5 Decurler and Paper Transportation**

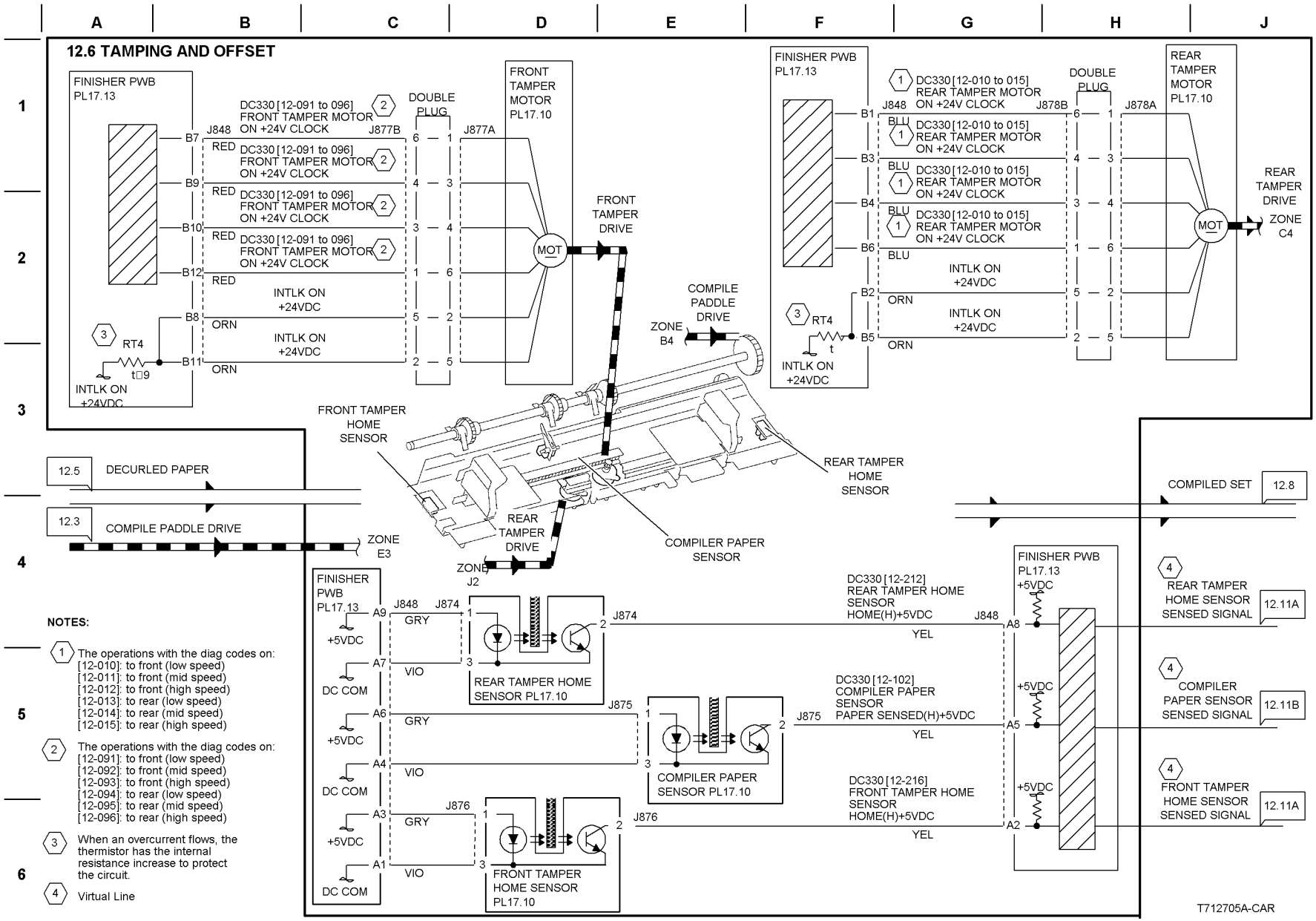
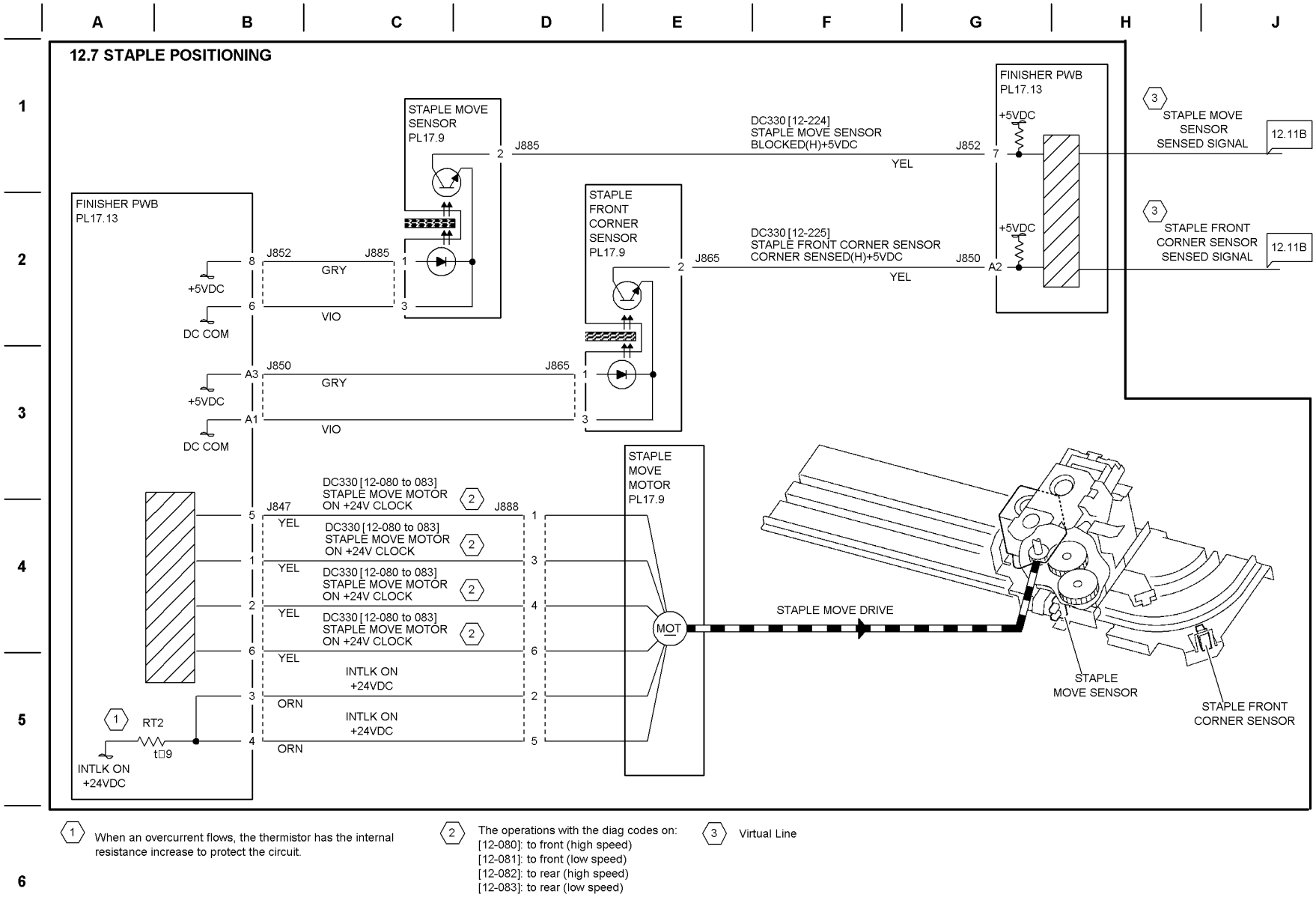



**Figure 6 Tamping and Offset**




1 When an overcurrent flows, the thermistor has the internal resistance increase to protect the circuit.

2 The operations with the diag codes on:
[12-080]: to front (high speed)
[12-081]: to front (low speed)
[12-082]: to rear (high speed)
[12-083]: to rear (low speed)

3 Virtual Line

**Figure 7 Staple Positioning**

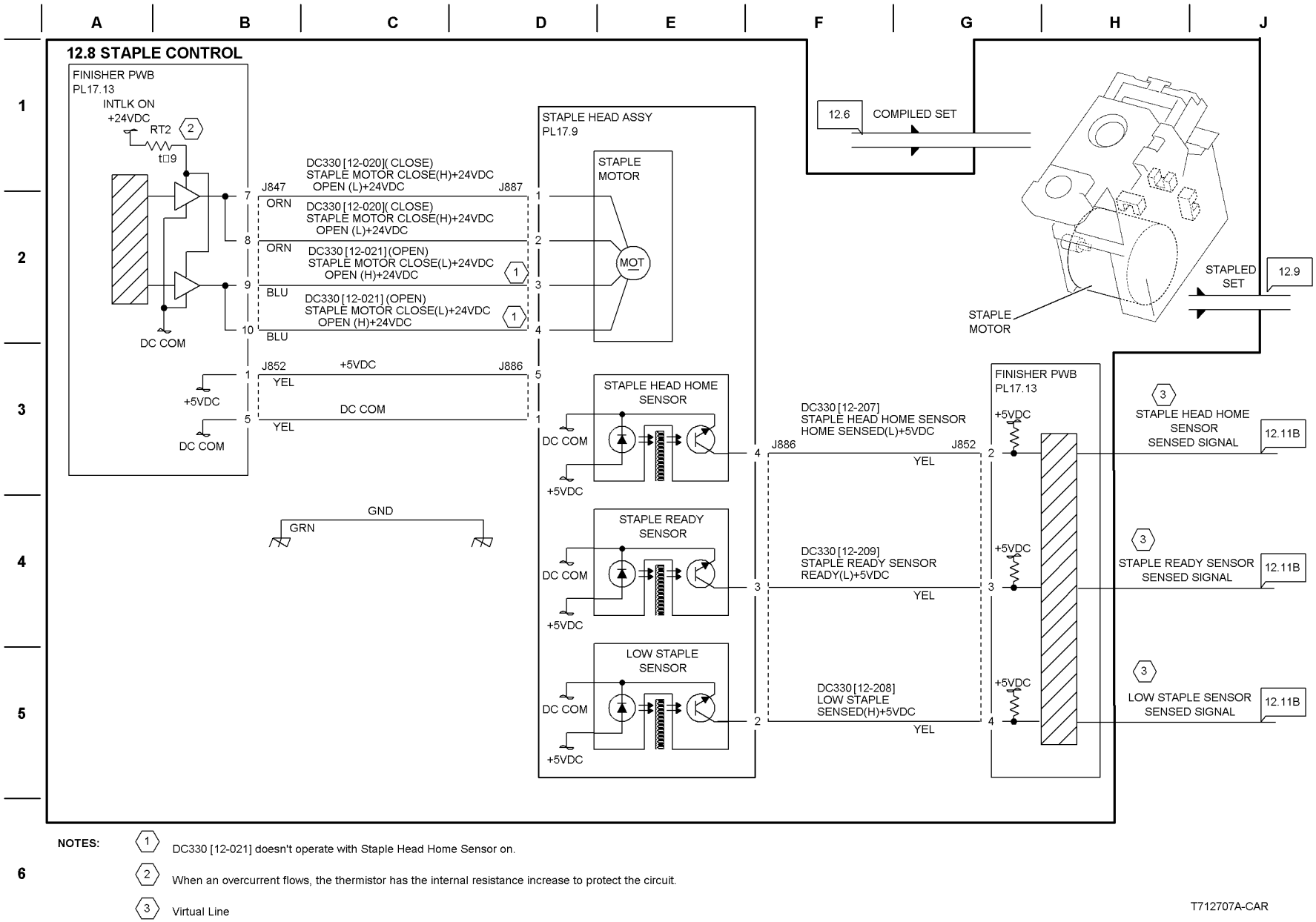



**Figure 8 Staple Control**

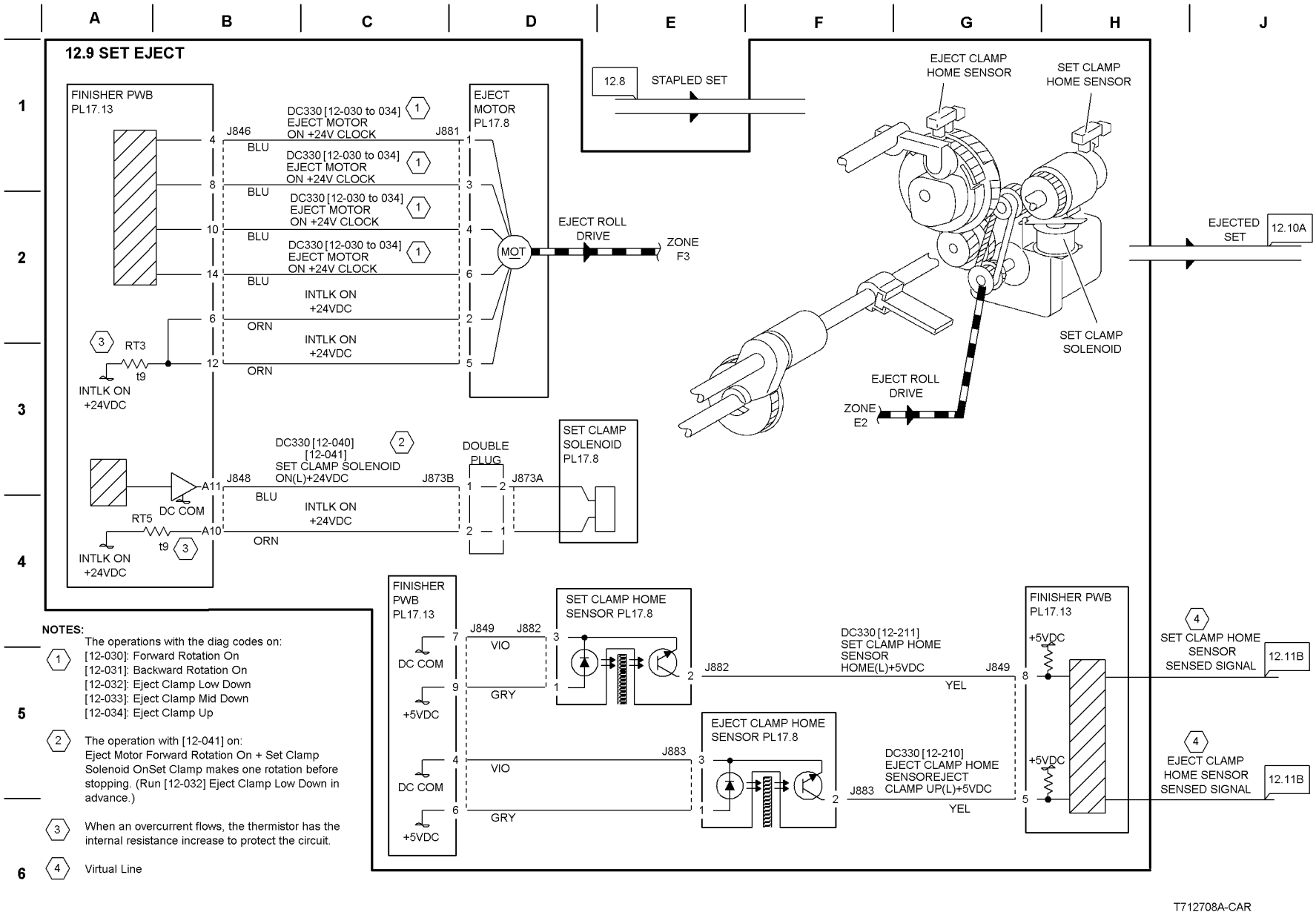



**Figure 9 Set Eject**

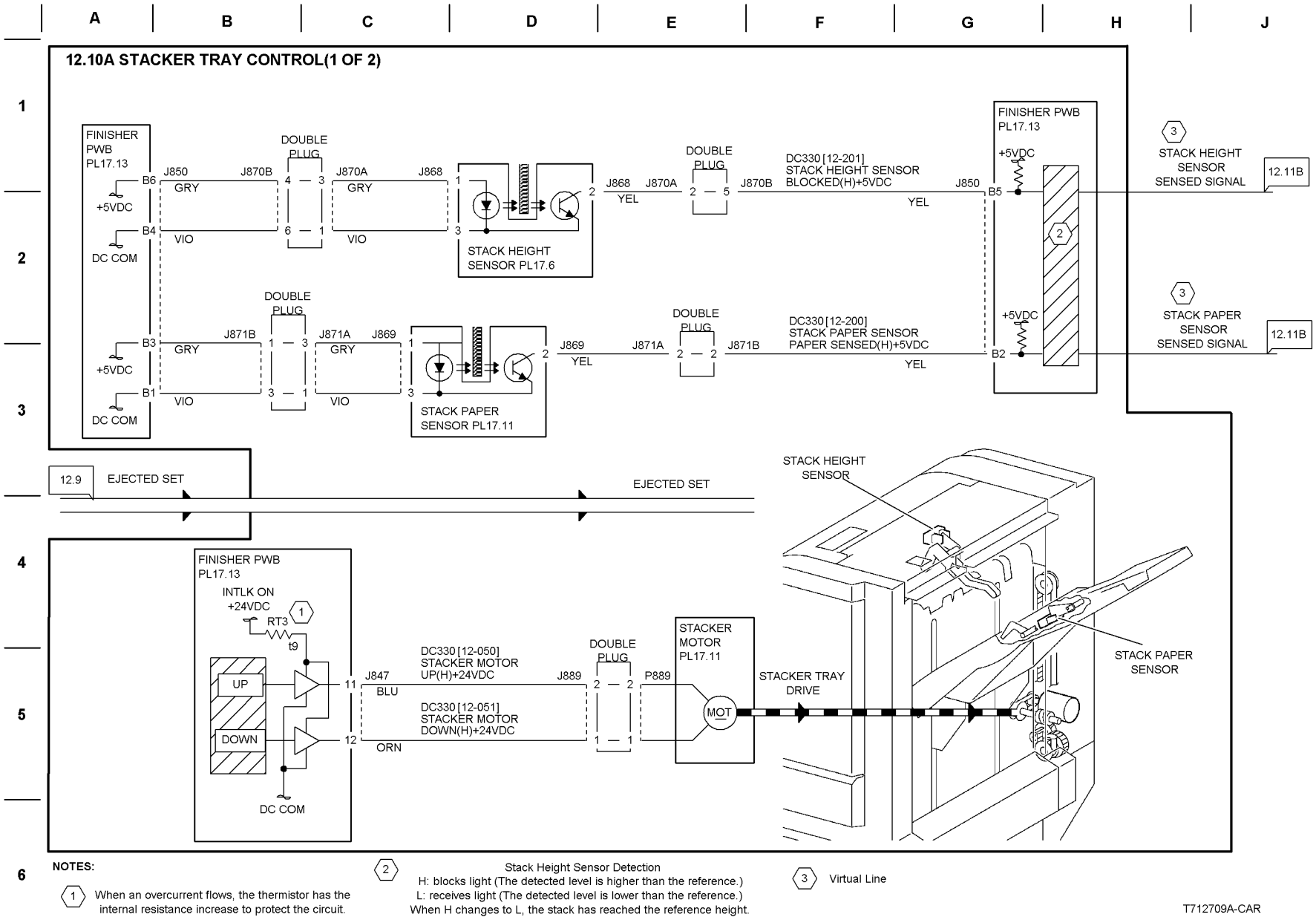



**Figure 10 stacker Tray Control (1 of 2)**

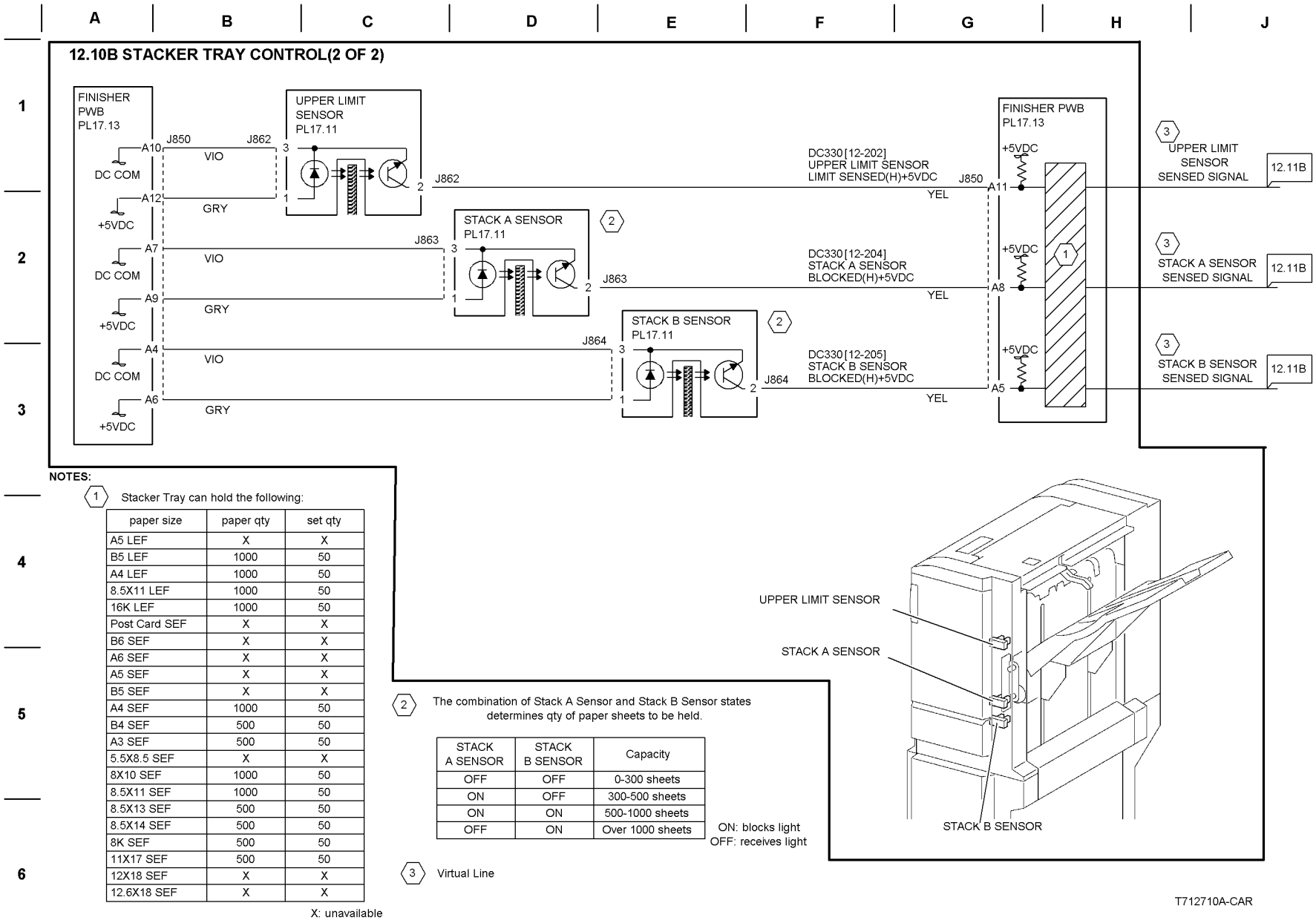



**Figure 11 Stacker Tray Control (2 of 2)**

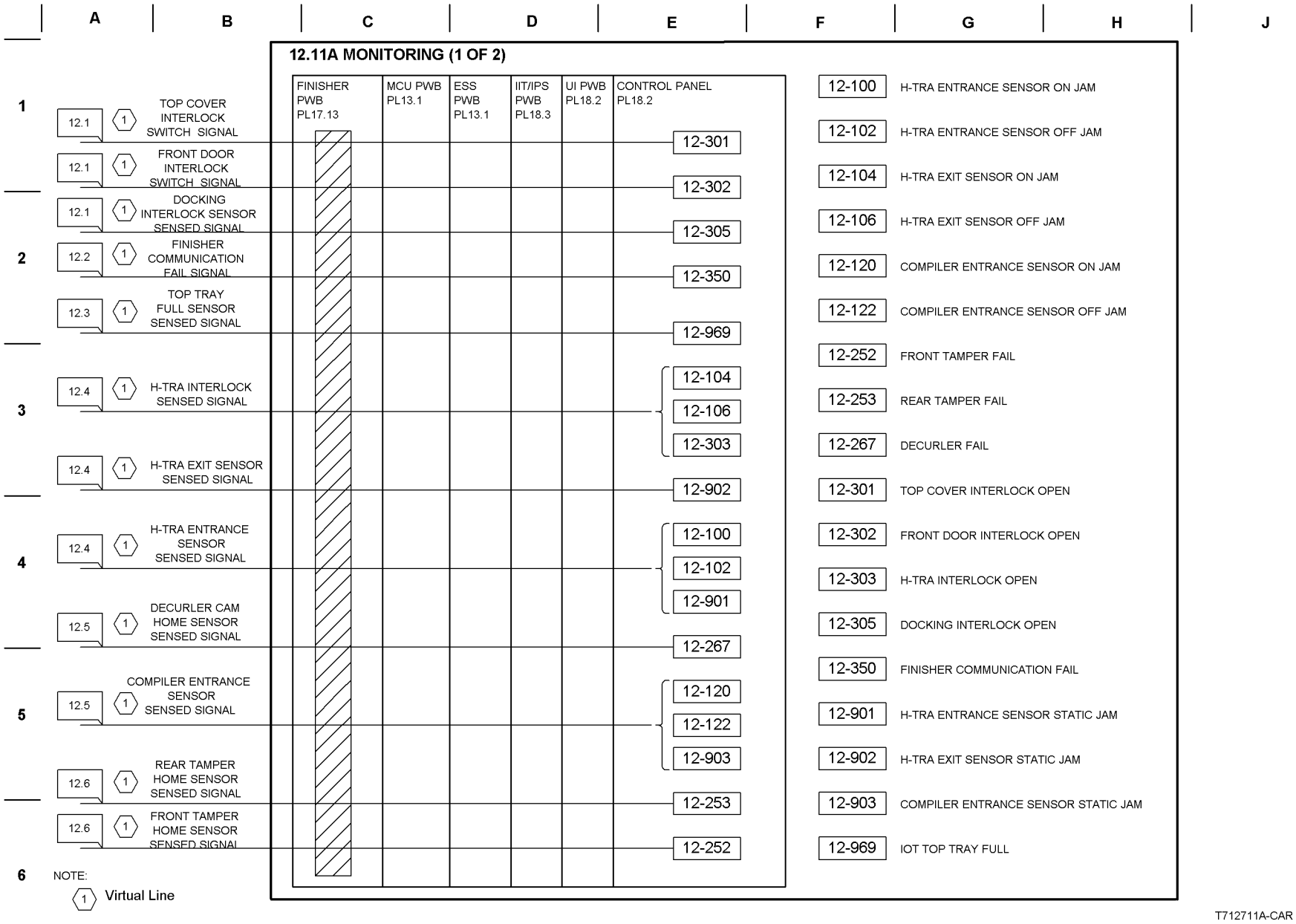



**Figure 12 Monitoring (1 0f 2)**

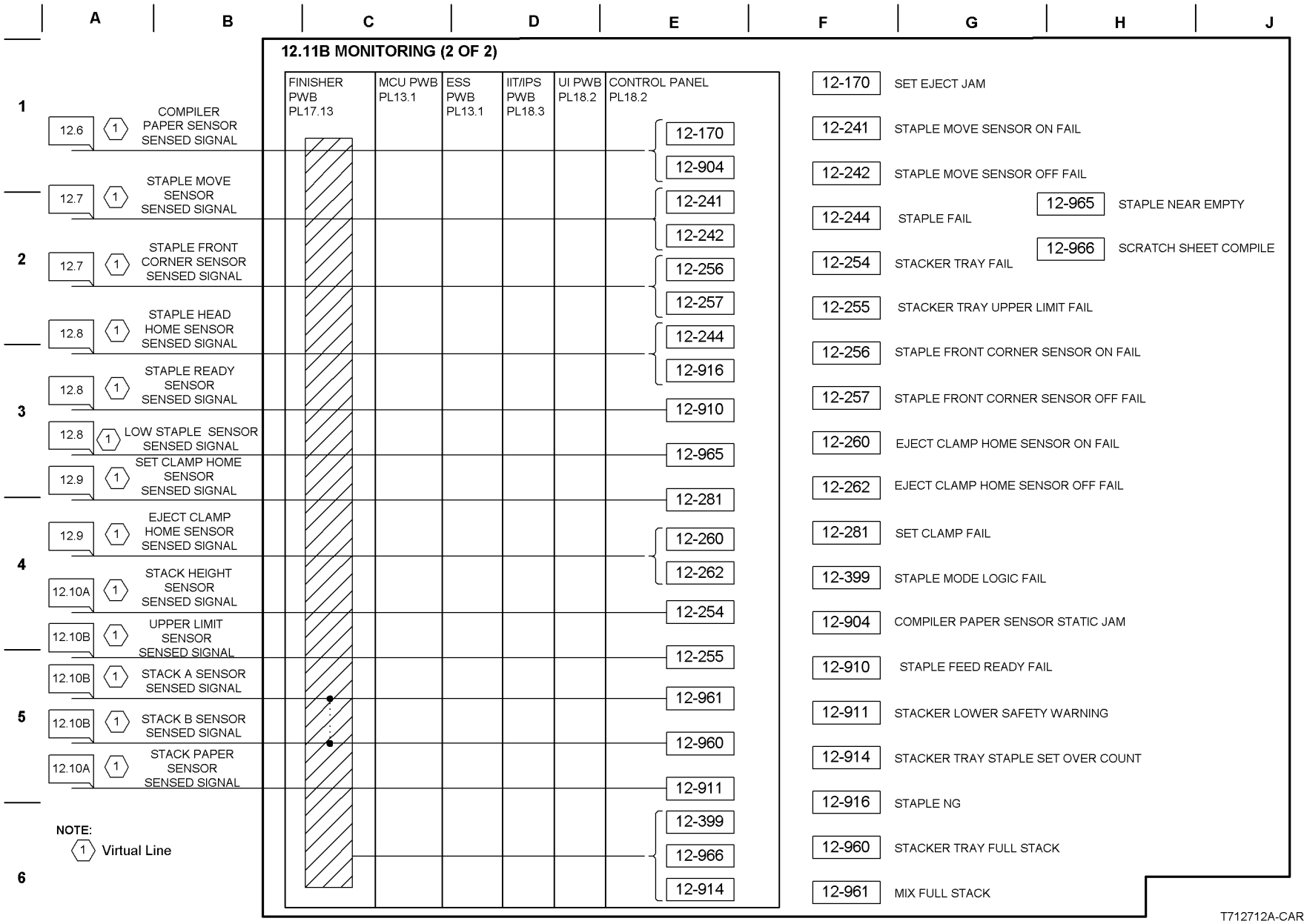



**Figure 13 Monitoring (2 0f 2)**

# Chain 16 ESS

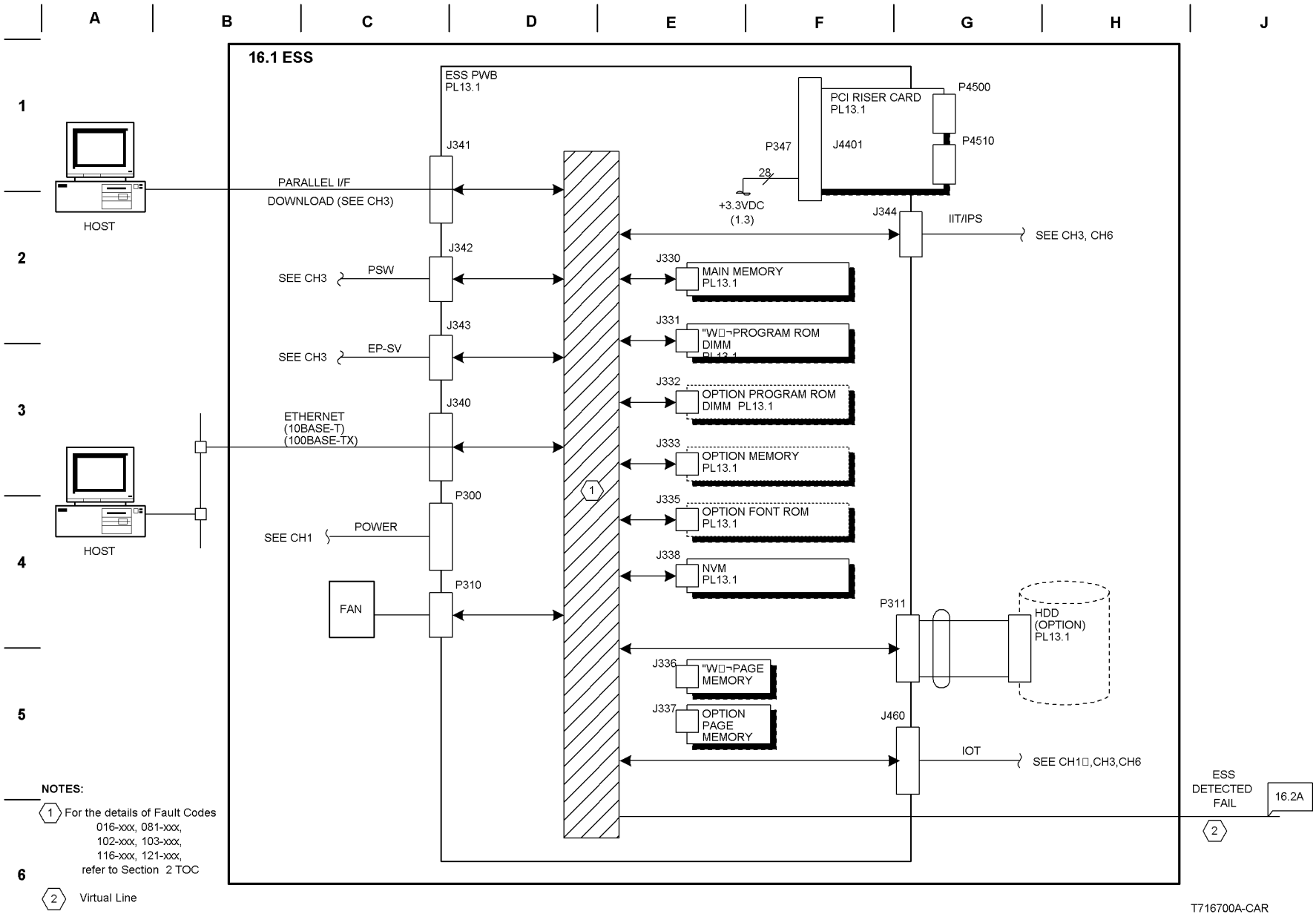



**Figure 1 ESS PWB**

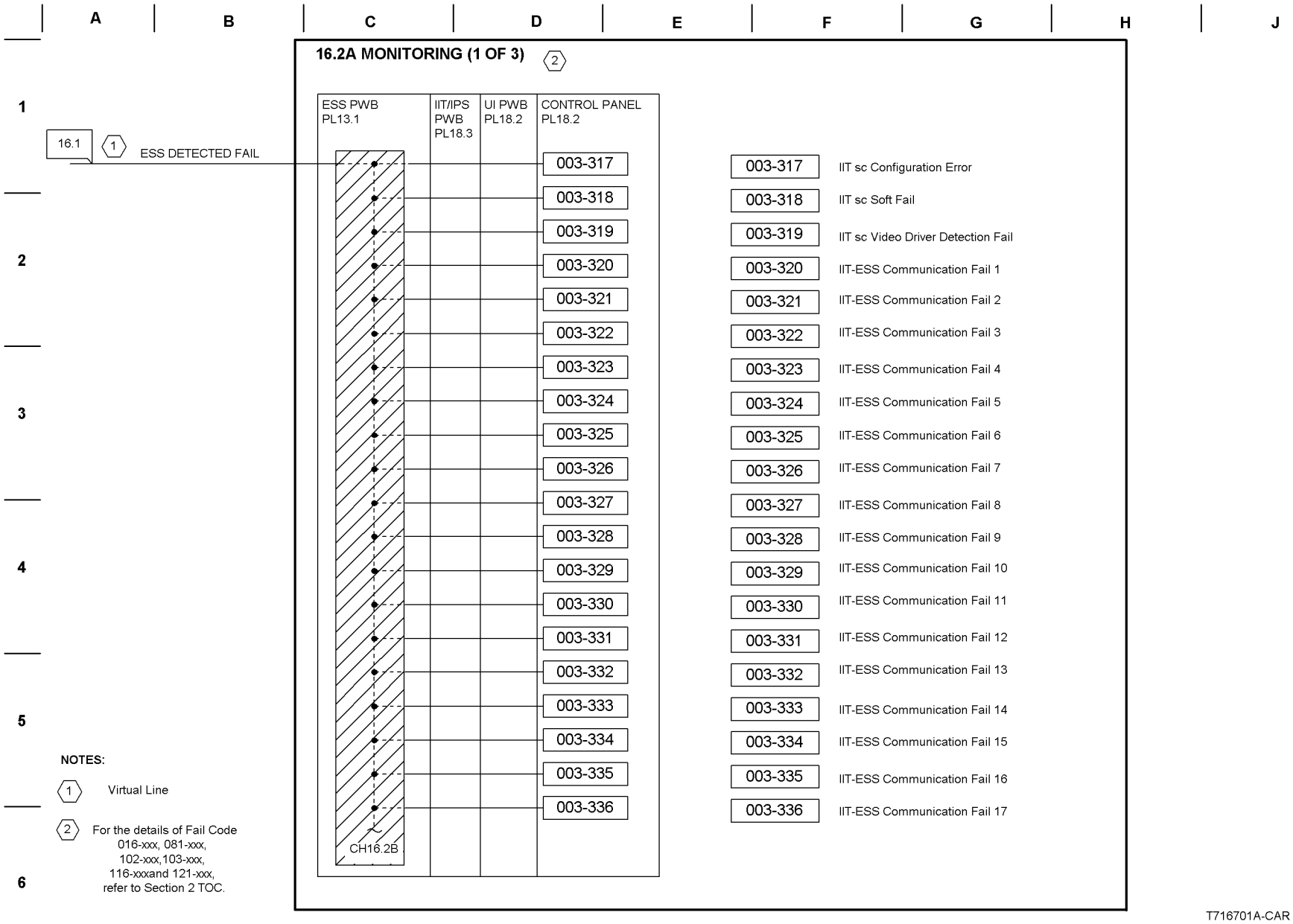



**Figure 2 ESS Monitoring (1 of 3)**

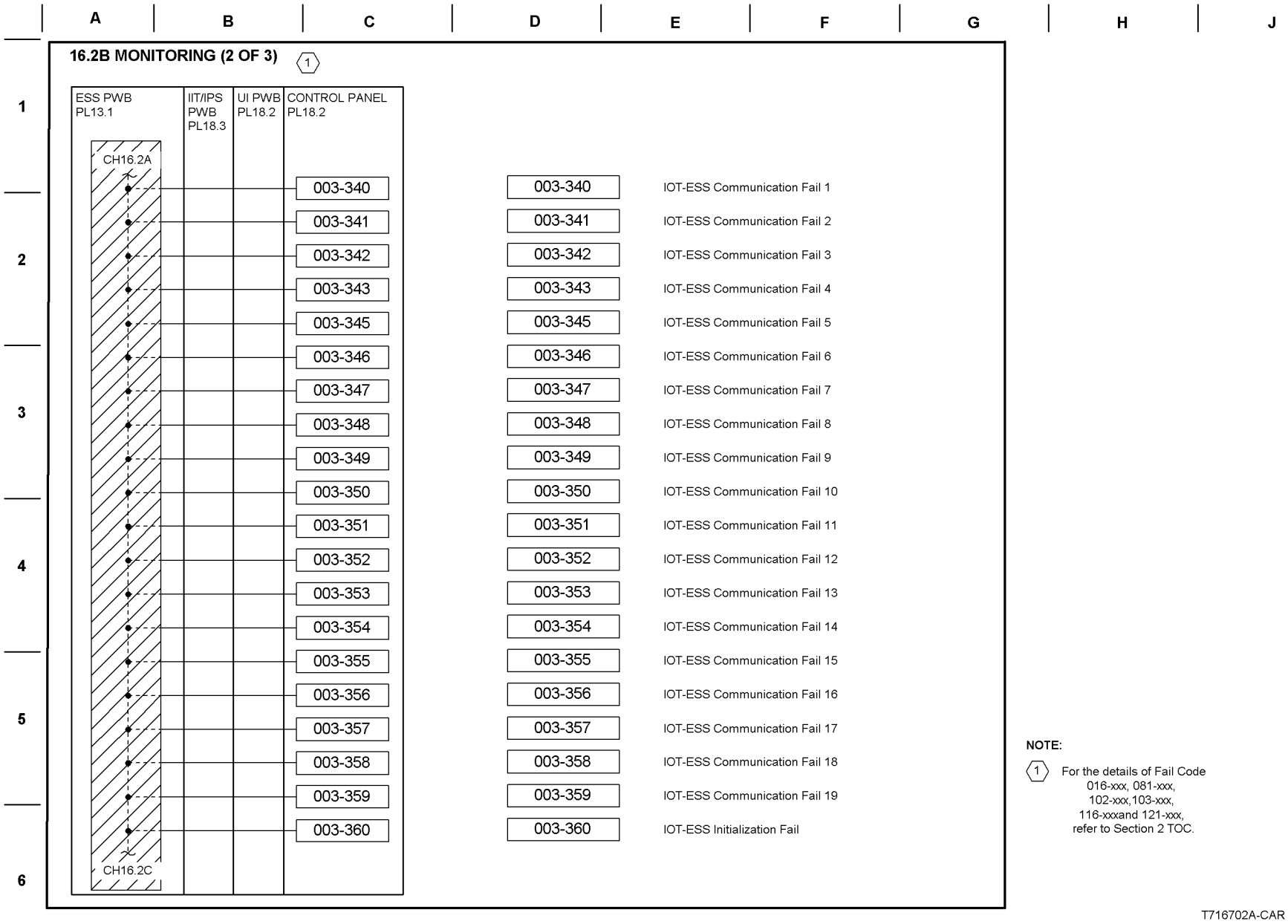
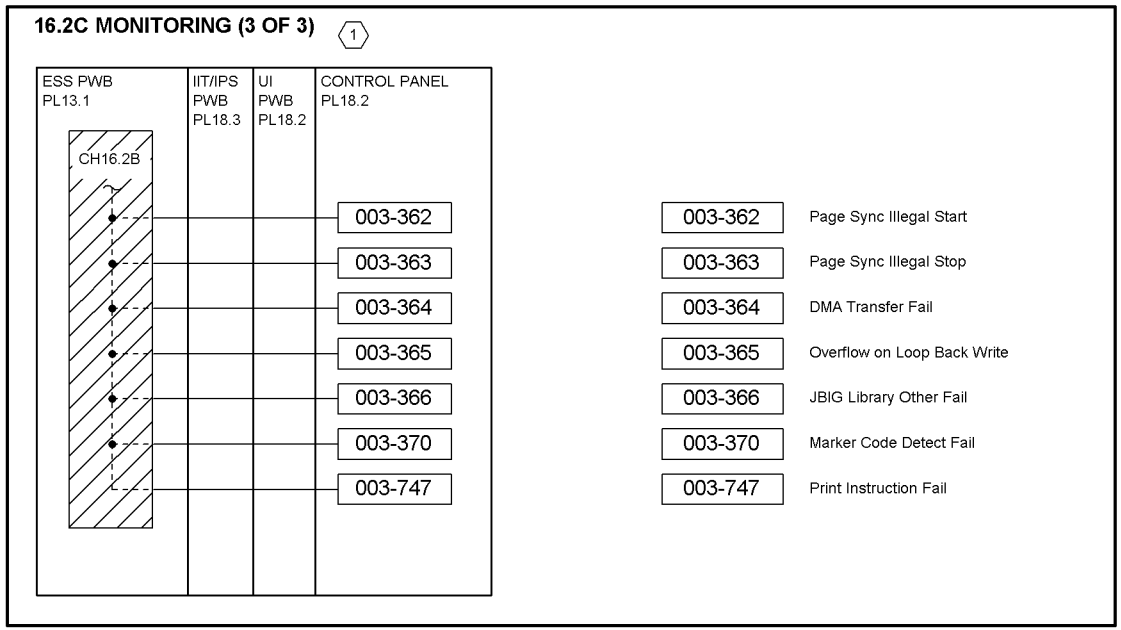



**Figure 3 ESS Monitoring (2 of 3)**




**NOTE:**

1. For the details of Fail Code 016-xxx, 081-xxx, 102-xxx, 103-xxx, 116-xxxand 121-xxx, refer to Section 2 TOC.

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**Figure 4 ESS Monitoring (3 of 3)**