

General Timing Chart / General Circuit Diagram

iR8500 Series

Canon

IMPORTANT

This documentation is published by Canon Inc., Japan, to serve as a source of reference for work in the field.

Specifications and other information contained herein may vary slightly from actual machine values or those found in advertising and other printed matter.

Any questions regarding the information contained herein should be directed to the Copier Service Department of the Sales Company.

This documentation is intended for all sales areas, and may contain information not applicable to certain areas.

Reproduction without permission not allowed.

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

COPYRIGHT 2001 CANON INC.

Printed in Japan

Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Contents

1	General Timing Chart.....	1
	Single-Sided Copy.....	1
	Single-Sided Copy.....	3
	Single-Sided Print.....	5
	Double-Sided Copy.....	7
	Double-Sided Copy.....	9
	Double-Sided Print.....	11
2	General Circuit Diagram.....	13
	Signal Names.....	13
	General Circuit Diagram.....	25

1 General Timing Chart
Single-Sided Copy
iR105i/iR105+ / iR9070

A4, 2 Originals, Single-Sided Copy

	Setting original in ADF	Copy Start key ON	Picking up 1st sheet	Picking up 2nd sheet /Forming 1st sheet image	Forming 2nd sheet image
Scanner home position sensor (PS1)	█				█
Image leading edge sensor (PS3)				█	
Scanning lamp (FL1)	█				█
Laser scanner motor (M4)	█				█
Laser	█				█
Scanner motor (M5)	█				█
Pre-exposure lamp	█				█
Primary charging	█				█
Grid bias	█				█
Developing bias (DC)	█				█
Developing bias (AC)	█				█
Pre-transfer charging (DC)	█				█
Pre-transfer charging (AC)	█				█
Transfer charging	█				█
Separation charging	█				█
Fixing main heater (H1)	▨				▨
Fixing sub heater (H2)	▨				▨
Pickup motor (M2)	█				█
Right deck pickup clutch (CL10)	█				█
Right deck pickup solenoid (SL7)	█				█
Right deck paper sensor (PS22)	█				█
Vertical path 1 paper sensor (PS47)	█				█
Image write start sensor (PS60)	█				█
Registration paper sensor (PS5)	█				█
Internal delivery sensor (PS9)	█				█
External delivery sensor (PS10)	█				█
Delivery speed switching clutch (CL21)	█				█
Fixing inlet guide solenoid (SL1)	█				█
Registration brake clutch (CL3)	█				█
Developing clutch (CL4)	█				█
Registration clutch (CL2)	█				█
Pre-registration clutch (CL5)	█				█
Pre-registration brake clutch (CL6)	█				█
Vertical path 1 clutch (CL8)	█				█
Drum motor (M0)	█				█
Main motor (M1)	█				█
Fixing motor (M3)	█				█
Delivery flapper solenoid (SL3)	█				█
Fixing web solenoid (SL2)	█				█
Reversing flapper solenoid (SL11)	█				█
Duplexing reversal motor (M11)	█				█
Duplexing feeder motor (M12)	█				█
Horizontal registration motor (M15)	█				█
Duplexing reversal sensor (PS12)	█				█
Lower feeding middle clutch (CL16)	█				█
Lower feeding right clutch (CL17)	█				█
Duplex outlet sensor (PS61)	█				█
Count up signal	█				█

Single-Sided Copy

/ iR8070

A4, 2 Originals, Single-Sided Copy

	Setting original in ADF	Copy Start key ON	Picking up 1st sheet	Picking up 2nd sheet / Forming 1st sheet image	Forming 2nd sheet image
Scanner home position sensor (IR8500: PS 1, IR7200: PS 102)	█				
Image leading edge sensor (PS3)				█	
Scanning lamp (IR8500: FL 1, IR7200: LA 100)			█	█	█
Laser scanner motor (M4)	█				
Laser	█				
Scanner motor (IR8500: M 5, IR7200: M 101)	█				
Pre-exposure lamp	█				
Primary charging	█				
Grid bias	█				
Developing bias (DC)	█				
Developing bias (AC)	█				
Pre-transfer charging (DC)	█				
Pre-transfer charging (AC)	█				
Transfer charging	█				
Separation charging	█				
Fixing main heater (H1)	▨				
Fixing sub heater (H2)	▨				
Pickup motor (M2)	█				
Right deck pickup clutch (CL10)	█				
Right deck pickup solenoid (SL7)	█				
Right deck paper sensor (PS22)	█				
Vertical path 1 paper sensor (PS47)	█				
Registration paper sensor (PS5)	█				
Internal delivery sensor (PS9)	█				
External delivery sensor (PS10)	█				
Delivery speed switching clutch (CL21)	█				
Fixing inlet guide solenoid (SL1)	█				
Registration brake clutch (CL3)	█				
Developing clutch (CL4)	█				
Registration clutch (CL2)	█				
Pre-registration clutch (CL5)	█				
Pre-registration brake clutch (CL6)	█				
Vertical path 1 clutch (CL8)	█				
Drum motor (M0)	█				
Main motor (M1)	█				
Fixing motor (M3)	█				
Delivery flapper solenoid (SL3)	█				
Fixing web solenoid (SL2)	█				
Reversing flapper solenoid (SL11)	█				
Duplexing reversal motor (M11)	█				
Duplexing feeder motor (M12)	█				
Horizontal registration motor (M15)	█				
Duplexing reversal sensor (PS12)	█				
Lower feeding middle clutch (CL16)	█				
Lower feeding right clutch (CL17)	█				
Count up signal	█				

A4, 2 Sheets, Single-Sided Print

	Print command	Picking up 1st sheet	Picking up 2nd sheet /Forming 1st sheet image	Forming 2nd sheet image
Laser scanner motor (M4)				
Laser				
Pre-exposure lamp				
Primary charging				
Grid bias				
Developing bias (DC)				
Developing bias (AC)				
Pre-transfer charging (DC)				
Pre-transfer charging (AC)				
Transfer charging				
Separation charging				
Fixing main heater (H1)				
Fixing sub heater (H2)				
Pickup motor (M2)				
Right deck pickup clutch (CL10)				
Right deck pickup solenoid (SL7)				
Right deck paper sensor (PS22)				
Vertical path 1 paper sensor (PS47)				
Registration paper sensor (PS5)				
Internal delivery sensor (PS9)				
External delivery sensor (PS10)				
Delivery speed switching clutch (CL21)				
Fixing inlet guide solenoid (SL1)				
Registration brake clutch (CL3)				
Developing clutch (CL4)				
Registration clutch (CL2)				
Pre-registration clutch (CL5)				
Pre-registration brake clutch (CL 6)				
Vertical path 1 clutch (CL8)				
Drum motor (M0)				
Main motor (M1)				
Fixing motor (M3)				
Delivery flapper solenoid (SL3)				
Fixing web solenoid (SL2)				
Reversing flapper solenoid (SL11)				
Duplexing reversal motor (M11)				
Duplexing feeder motor (M12)				
Horizontal registration motor (M15)				
Duplexing reversal sensor (PS12)				
Lower feeding middle clutch (CL16)				
Lower feeding right clutch (CL17)				
Count up signal				

A4, 4 Originals, Double-Sided Copy

	Setting original in ADF		Copy Start key ON			
	Picking 1st sheet	Picking up 2nd sheet	Copying on 1st sheet face	Copying on 2nd sheet face	Copying on 1st sheet back	Copying on 2nd sheet back
Scanner home position sensor (PS1)						
Image leading edge sensor (PS3)						
Scanning lamp (FL1)						
Laser scanner motor (M4)						
Laser						
Scanner motor (M5)						
Pre-exposure lamp						
Primary charging						
Grid bias						
Developing bias (DC)						
Developing bias (AC)						
Pre-transfer charging (DC)						
Pre-transfer charging (AC)						
Transfer charging						
Separation charging						
Fixing main heater (H1)						
Fixing sub heater (H2)						
Pickup motor (M2)						
Right deck pickup clutch (CL10)						
Right deck pickup solenoid (SL7)						
Right deck paper sensor (PS22)						
Vertical path 1 paper sensor (PS47)						
Image write start sensor (PS60)						
Registration paper sensor (PS6)						
Internal delivery sensor (PS9)						
External delivery sensor (PS10)						
Delivery speed switching clutch (CL21)						
Fixing inlet guide solenoid (SL1)						
Registration brake clutch (CL3)						
Developing clutch (CL4)						
Registration clutch (CL2)						
Pre-registration clutch (CL5)						
Pre-registration brake clutch (CL 6)						
Vertical path 1 clutch (CL8)						
Drum motor (M0)						
Main motor (M1)						
Fixing motor (M3)						
Delivery flapper solenoid (SL3)						
Fixing web solenoid (SL2)						
Reversing flapper solenoid (SL11)						
Duplexing reversal motor (M11)						
Duplexing feeder motor (M12)						
Horizontal registration motor (M15)						
Duplexing reversal sensor (PS12)						
Lower feeding middle clutch (CL16)						
Lower feeding right clutch (CL17)						
Duplex outlet sensor (PS61)						
Count up signal						

F.1-4

A4, 4 Originals, Double-Sided Copy

	Setting original in ADF	Copy Start key ON	Picking 1st sheet	Picking up 2nd sheet	Copying on 1st sheet face	Copying on 2nd sheet face	Copying on 1st sheet back	Copying on 2nd sheet back
Scanner home position sensor (IR8500: PS 1, IR7200: PS 102)								
Image leading edge sensor (PS3)								
Scanning lamp (IR8500: FL 1, IR7200: LA 100)								
Laser scanner motor (M4)								
Laser								
Scanner motor (IR8500: M 5, IR7200: M 101)								
Pre-exposure lamp								
Primary charging								
Grid bias								
Developing bias (DC)								
Developing bias (AC)								
Pre-transfer charging (DC)								
Pre-transfer charging (AC)								
Transfer charging								
Separation charging								
Fixing main heater (H1)								
Fixing sub heater (H2)								
Pickup motor (M2)								
Right deck pickup clutch (CL10)								
Right deck pickup solenoid (SL7)								
Right deck paper sensor (PS22)								
Vertical path 1 paper sensor (PS47)								
Registration paper sensor (PS5)								
Internal delivery sensor (PS9)								
External delivery sensor (PS10)								
Delivery speed switching clutch (CL21)								
Fixing inlet guide solenoid (SL1)								
Registration brake clutch (CL3)								
Developing clutch (CL4)								
Registration clutch (CL2)								
Pre-registration clutch (CL5)								
Pre-registration brake clutch (CL 6)								
Vertical path 1 clutch (CL8)								
Drum motor (M0)								
Main motor (M1)								
Fixing motor (M3)								
Delivery flapper solenoid (SL3)								
Fixing web solenoid (SL2)								
Reversing flapper solenoid (SL11)								
Duplexing reversal motor (M11)								
Duplexing feeder motor (M12)								
Horizontal registration motor (M15)								
Duplexing reversal sensor (PS12)								
Lower feeding middle clutch (CL16)								
Lower feeding right clutch (CL17)								
Count up signal								

A4, 2 sheets, Double-Sided Print

	Print command	Picking 1st sheet	Picking up 2nd sheet	Printing on 1st sheet face	Printing on 2nd sheet face	Printing on 1st sheet back	Printing on 2nd sheet back
Laser scanner motor (M4)							
Laser							
Pre-exposure lamp							
Primary charging							
Grid bias							
Developing bias (DC)							
Developing bias (AC)							
Pre-transfer charging (DC)							
Pre-transfer charging (AC)							
Transfer charging							
Separation charging							
Fixing main heater (H1)							
Fixing sub heater (H2)							
Pickup motor (M2)							
Right deck pickup clutch (CL10)							
Right deck pickup solenoid (SL7)							
Right deck paper sensor (PS22)							
Vertical path 1 paper sensor (PS47)							
Registration paper sensor (PS6)							
Internal delivery sensor (PS9)							
External delivery sensor (PS10)							
Delivery speed switching clutch (CL21)							
Fixing inlet guide solenoid (SL1)							
Registration brake clutch (CL3)							
Developing clutch (CL4)							
Registration clutch (CL2)							
Pre-registration clutch (CL5)							
Pre-registration brake clutch (CL6)							
Vertical path 1 clutch (CL8)							
Drum motor (M0)							
Main motor (M1)							
Fixing motor (M3)							
Delivery flapper solenoid (SL3)							
Fixing web solenoid (SL2)							
Reversing flapper solenoid (SL11)							
Duplexing reversal motor (M11)							
Duplexing feeder motor (M12)							
Horizontal registration motor (M15)							
Duplexing reversal sensor (PS12)							
Lower feeding middle clutch (CL16)							
Lower feeding right clutch (CL17)							
Count up signal							

2 General Circuit Diagram

Signal Names

List of Signals/Abbreviations

iR105i/iR105+ / iR9070

The following is a list of the signals and abbreviations used in this chapter and the circuit diagrams.

MEMO:

The abbreviations in parentheses are electrical signals, but are analog signals, which cannot be expressed in terms of '1' or '0'. Others are digital signals, which may be expressed in terms of '1' or '0'.

T-2-1

AFTER_JOIN_PS	Post-confluence sensor detection signal
BUFFER_CL	Hopper internal magnet roller drive clutch drive command
BUFFER_MOTOR (-)	Hopper internal toner feeder motor drive command 2
BUFFER_MOTOR (+)	Hopper internal toner feeder motor drive command 1
BUFFER_NG	Hopper internal toner lower limit sensor detection signal
BUFFER_WARNING	Hopper internal toner sensor detection signal
C3_FEED_CL_ON	Cassette 3 pickup clutch drive command
C3_FEED_PS	Cassette 3 pickup sensor detection signal
C3_LENGTH	Cassette 3 paper length sensor detection signal
C3_LIFT_PS	Cassette 3 lifter sensor detection signal
C3_LIFTER_MOTOR	Cassette 3 lifter motor drive command
C3_OPEN_PS	Cassette 3 open/closed sensor detection signal
C3_PAPER_PS	Cassette 3 paper sensor detection signal
C3_PICKUP_SL	Cassette 3 pickup solenoid drive command
C3_PLEVER_VR	Cassette 3 paper level detection signal
C3VR	Cassette 3 paper width volume detection signal
C4_FEED_CL_ON	Cassette 4 pickup clutch drive command
C4_FEED_PS	Cassette 4 pickup sensor detection signal
C4_LENGTH	Cassette 4 paper length sensor detection signal
C4_LIFT_PS	Cassette 4 lifter sensor detection signal
C4_LIFTER_MOTOR	Cassette 4 lifter motor drive command
C4_OPEN_PS	Cassette 4 open/closed sensor detection signal
C4_PAPER_PS	Cassette 4 paper sensor detection signal
C4_PICKUP_SL_ON	Cassette 4 pickup solenoid drive command
C4_PLEVER_VR	Cassette 4 paper level detection signal
C4VR	Cassette 4 paper width volume detection signal
CARTRIGE_DETECT	Cartridge detecting switch detection signal

CARTRIGE_MOTORCARTRIGE_	Cartridge internal toner feeder motor drive command
MOTOR+	Cartridge internal toner feeder motor drive command
CARTRIGE_OPEN_PS	Toner cartridge cover open/closed sensor detection signal
CLEW_PS	Fixing claw jam sensor detection signal
CURL_FAN_STOP	De-curling fan lock detection signal
DCP_FAN1_STOP	Power supply cooling fan 1 lock detection signal
DCP_FAN2_STOP	Power supply cooling fan 2 lock detection signal
DECK_PULL_PS	Front deck (left) feeding sensor detection signal
DEV_FAN_STOP	Developing fan lock detection signal
DEV_SLEEVE_CL_ON	Developing cylinder deceleration clutch drive command
DEV1_SLEEVE_CL_ON	Developing clutch drive command
DEVELOP_IS	Developing assembly internal toner sensor detection signal
DOCUMENT_TOP	Image leading edge sensor detection signal
DRUN_FAN_STOP	Drum fan lock detection signal
DRUN_MOTOR_LOCK	Drum motor lock detection signal
DRUN_MOTOR_ON	Drum motor drive command
DUP-INV_PS	Duplexing reversal sensor detection signal
EXHAUST_FAN_STOP	Fixing assembly heat discharge fan lock detection signal
EXIT_DEL_PS	External delivery sensor detection signal
EXIT_FAN1_LOCK	Delivery adhesion-proofing fan lock detection signal
FEED_MOTOR_FG	Pickup motor frequency signal
FEED_MOTOR_ON	Pickup motor drive command
FIXEXIT_DEL_PS	Fixing feeding unit outlet sensor detection signal
FL_TH	Scanning lamp thermal sensor detection signal
FLAP_SL	Delivery flapper solenoid drive command
FREAD_FAN_STOP	Stream reading fan lock detection signal
FRONT_DR_OPEN	Front cover open/closed detecting switch detection signal
FRONT_JOIN_PS	Pre-confluence sensor detection signal
FUSE_M_LOCK	Fixing motor lock detection signal
FUSE_M_ON	Fixing motor drive command
GLASS_PS	Copyboard glass sensor detection signal
INT_DEL_PS	Internal delivery sensor detection signal
INV_FAN_STOP	Inverter cooling fan lock detection signal
INV_GUIDE_SL	Reversing flapper solenoid drive command
KAKIKOMI_PS	Image write start sensor detection signal
LASER1_FAN_STOP	Scanner cooling fan lock detection signal
LASER2_FAN_STOP	Laser driver cooling fan lock detection signal
LDECK_FEED_CL	Deck (left) pickup clutch drive command

LDECK_FEED_PS	Front deck (left) pickup sensor detection signal
LDECK_LIFT_MOTOR	Deck (left) lifter motor drive command
LDECK_LIFT_PS	Front deck (left) lifter sensor detection signal
LDECK_LIMIT_PS	Front deck (left) limit sensor detection signal
LDECK_OPEN_PS	Front deck (left) open/closed sensor detection signal
LDECK_PAPER_PS	Front deck (left) paper sensor detection signal
LDECK_PICKUP_SL	Deck (left) pickup solenoid drive command
LDECK_PLEVEL_M	Front deck (left) paper level middle sensor detection signal
LDECK_PLEVEL_U	Front deck (left) paper level high sensor detection signal
LDECK_PULL_CL	Deck (left) feeding clutch drive command
LOCK	System fan lock detection signal
LOCK	Duplex feed fan lock detection signal
LOW_DR_OPEN	Lower right cover open/closed sensor detection signal
LOWPASS_C_CL	Lower feeding middle clutch drive command
LOWPASS_R_CL	Lower feeding right clutch drive command
MAIN_MOTOR_FG	Main motor frequency signal
MAIN_MOTOR_ON	Main motor drive command
MAIN_TENP	Fixing main thermistor detection signal
MLT_CURL_ENTRY	Manual feed sensor detection signal
MLT_DR_OPEN	Manual feed tray cover open/closed sensor detection signal
MLT_FEED_CL	Manual feed tray pickup clutch drive command
MLT_PAPER_PS	Manual feed tray paper sensor detection signal
MLT_PICKUP_SL_BACK	Manual feed pickup clutch solenoid drive command
MLT_PICKUP_SL_PULL	Manual feed pickup clutch solenoid drive command
MLT_PULL_CL	Manual feed tray feeding clutch drive command
MLT_VOLUME	Manual feed tray paper width volume detection signal
MOTOR_ON	Vibration motor drive command
MUTI DOOR OPEN	Manual feed tray cover open/closed detecting sensor detection signal
OPT_HP1	Scanner home position sensor detection signal
OPT_MOTOR_FAN_STOP	Scanner moter cooling fan lock detection signal
ORI_SIZE_ON/OFF	Original size sensor ON/OFF detection signal
ORI_SIZE1	Original size sensor detection signal 1
ORI_SIZE2	Original size sensor detection signal 2
ORI_SIZE3	Original size sensor detection signal 3
ORI_SIZE4	Original size sensor detection signal 4
PATH1_CL_ON	Vertical path 1 clutch drive command
PATH1_PS	Vertical path 1 paper sensor detection signal

PATH2_CL_ON	Vertical path 2 clutch drive command
PATH2_PS	Vertical path 2 paper sensor detection signal
PATH3_CL_ON	Vertical path 3 clutch drive command
PATH3_PS	Vertical path 3 paper sensor detection signal
PATH4_CL_ON	Vertical path 4 clutch drive command
PATH4_PS	Vertical path 4 paper sensor detection signal
POST_FAN_STOP	Pre-transfer charging fan lock detection signal
POST_M.C_BK	Pre-transfer charging wire cleaning motor drive command (reverse)
POST_M.C_FW	Pre-transfer charging wire cleaning motor drive command (forward)
POTENTIAL_ON	Potential sensor detection signal
POTENTIAL_SIG	Potential sensor detection signal
PRESSING_PLATE_OPEN	Copyboard cover open/closed sensor detection signal
PRIM_FAN_STOP	Primary charging assembly fan lock detection signal
PRIMARY_V.C_BK	Primary charging wire cleaning motor drive command (reverse)
PRIMARY_V.C_FW	Primary charging wire cleaning motor drive command (forward)
PRIREGI_BRAKE_CL_ON	Pre-registration brake clutch drive command
PRIREGI_CL_ON	Pre-registration clutch drive command
RDECK_FEED_CL	Deck (right) pickup clutch drive command
RDECK_FEED_PS	Front deck (right) pickup sensor detection signal
RDECK_LIFT_MOTOR (24VU)	Deck (right) lifter motor drive command
RDECK_LIFTER_PS	Front deck (right) lifter sensor detection signal
RDECK_LIMIT_PS	Front deck (right) limit sensor detection signal
RDECK_OPEN_PS	Front deck (right) open/closed sensor detection signal
RDECK_PAPER_PS	Front deck (right) paper sensor detection signal
RDECK_PICKUP_SL_ON	Deck (right) pickup solenoid drive command
RDECK_PLEVEL_M	Front deck (right) paper level middle sensor detection signal
RDECK_PLEVEL_U	Front deck (right) paper level high sensor detection signal
RDECK_PULL_PS	Front deck (right) feeding sensor detection signal
REGI_BRAKE_CL	Registration brake clutch drive command
REGIST_CL	Registration clutch drive command
REGIST_PS	Registration paper sensor detection signal
REVER_OPEN_PS	Fixing/feeding unit releasing lever sensor detection signal
RUP_DR_OPEN	Upper right cover open/closed sensor detection signal
SEP_EXHAUST_FAN_STOP	Scanner motor cooling fan lock detection signal
SIDE_REGI_PS	Horizontal registration sensor detection signal

SPEED_DEL_CL	Delivery speed switching clutch drive command
STOP	Separation fan lock detection signal
SUB_TEMP	Fixing sub thermistor detection signal
T/S_W.C_OUT1	Transfer/separation charging wire cleaning motor drive command 1
T/S_W.C_OUT2	Transfer/separation charging wire cleaning motor drive command 2
THERN_HUM_SENSOR	Environment sensor detection signal
UNITLOCK_SL_BACK	Fixing feeding unit locking solenoid drive command (back)
UNITLOCK_SL_PULL	Fixing feeding unit locking solenoid drive command (pull)
U-TURN_PS	Duplex outlet sensor detection signal
VASIE_TONER_PACKED_DTC	Waste toner clog detecting switch detection signal
WASTE_TONER_OVER_PS	Waste toner case full sensor detection signal
WEB_LESS	Fixing cleaning belt sensor detection signal
WEB_SL	Fixing cleaning belt solenoid drive command
WEB_WARNING	Fixing cleaning belt warning sensor detection signal

List of Signals/Abbreviations

/ iR8070

The following is a list of the signals and abbreviations used in this chapter and the circuit diagrams.

MEMO:

The abbreviations in parentheses are electrical signals, but are analog signals, which cannot be expressed in terms of '1' or '0'. Others are digital signals, which may be expressed in terms of '1' or '0'.

T-2-2

AFTER_JOIN_PS	Post-confluence sensor detection signal
ADF_OPEN*	Copyboard cover open/closed sensor detection signal
BUFFER_CL	Hopper internal magnet roller drive clutch drive command
BUFFER_MOTOR (-)	Hopper internal toner feeder motor drive command 2
BUFFER_MOTOR (+)	Hopper internal toner feeder motor drive command 1
BUFFER_NG	Hopper internal toner lower limit sensor detection signal
BUFFER_WARNING	Hopper internal toner sensor detection signal
C3_FEED_CL	Cassette 3 pickup sensor detection signal
C3_FEED_PS	Cassette 3 pickup clutch drive command
C3_LENGTH0	Cassette 3 paper length sensor detection signal
C3_LIFT_PS	Cassette 3 lifter sensor detection signal
C3_LIFTER_MOTOR	Cassette 3 lifter motor drive command

C3_OPEN_PS	Cassette 3 open/closed sensor detection signal
C3_PAPER_PS	Cassette 3 paper sensor detection signal
C3_PICKUP_SL	Cassette 3 pickup solenoid drive command
C3VR	Cassette 3 paper width volume detection signal
C4_FEED_CL	Cassette 4 pickup clutch drive command
C4_FEED_PS	Cassette 4 pickup sensor detection signal
C4_LENGTH0	Cassette 4 paper length sensor detection signal
C4_LIFT_PS	Cassette 4 lifter sensor detection signal
C4_LIFTER_MOTOR	Cassette 4 lifter motor drive command
C4_OPEN_PS	Cassette 4 open/closed sensor detection signal
C4_PAPER_PS	Cassette 4 paper sensor detection signal
C4_PICKUP_SL	Cassette 4 pickup solenoid drive command
C4VR	Cassette 4 paper width volume detection signal
CARTRIGE_DETECT	Cartridge detecting switch detection signal
CARTRIGE_MOTOR-	Cartridge internal toner feeder motor drive command
CARTRIGE_MOTOR+	Cartridge internal toner feeder motor drive command
CARTRIGE_OPEN_PS	Toner cartridge cover open/closed sensor detection signal
CLAW_JAM	Fixing claw jam sensor detection signal
CURL_FAN_STOP	De-curling fan lock detection signal
D_SENS3*	Original size sensor detection signal 3
DCP_FAN1_STOP	Power supply cooling fan 1 lock detection signal
DCP_FAN2_STOP	Power supply cooling fan 2 lock detection signal
DECK_PULL_PS	Front deck (left) feeding sensor detection signal
DEV_FAN_STOP	Developing fan lock detection signal
DEV_SLEEVE_CL	Developing cylinder deceleration clutch drive command
DEV1_SLEEVE_CL	Developing clutch drive command
DEVELOP_IS	Developing assembly internal toner sensor detection signal
DOCUMENT_TOP	Image leading edge sensor detection signal
DRUM_FAN_STOP	Drum fan lock detection signal
DRUM_MOTOR_LOCK	Drum motor lock detection signal
DRUM_MOTOR_ON	Drum motor drive command
DUP-INV_PS	Duplexing reversal sensor detection signal
EXHAUST_FAN_STOP	Fixing assembly heat discharge fan lock detection signal
EXIT_DEL_PS	External delivery sensor detection signal
EXIT_FAN1_LOCK	Delivery adhesion-proofing fan lock detection signal
FEED_FAN_STOP	Feeding fan lock detection signal
FEED_MOTOR_FG	Pickup motor frequency signal
FEED_MOTOR_ON	Pickup motor drive command

FIXEXIT_DEL_PS	Fixing feeding unit outlet sensor detection signal
FL_TH	Scanning lamp thermal sensor detection signal
FLAP_SL	Delivery flapper solenoid drive command
FREAD_FAN_STOP	Stream reading fan lock detection signal
FRONT_DR_OPEN	Front cover open/closed detecting switch detection signal
FRONT_JOIN_PS	Pre-confluence sensor detection signal
FUSE_M_LOCK	Fixing motor lock detection signal
FUSE_M_ON	Fixing motor drive command
GLASS_PS	Copyboard glass sensor detection signal
HPSENS	Scanner home position sensor detection signal
INT_DEL_PS	Internal delivery sensor detection signal
INV_ERR	Inverter error signal
INV_FAN_STOP	Inverter cooling fan lock detection signal
INV_GUIDE_SL	Reversing flapper solenoid drive command
INV_PS	Reversal sensor detection signal
LAMP_ON	Scanning lamp drive command
LASER1_FAN_STOP	Scanner cooling fan lock detection signal
LASER2_FAN_STOP	Laser driver cooling fan lock detection signal
LDECK_FEED_CL	Deck (left) pickup clutch drive command
LDECK_FEED_PS	Front deck (left) pickup sensor detection signal
LDECK_LIFT_MOTOR (24VU)	Front deck (left) lifter motor drive command
LDECK_LIFT_PS	Front deck (left) lifter sensor detection signal
LDECK_LIMIT_PS	Front deck (left) limit sensor detection signal
LDECK_OPEN_PS	Front deck (left) open/closed sensor detection signal
LDECK_PAPER_PS	Front deck (left) paper sensor detection signal
LDECK_PICKUP_SL	Front deck (left) pickup solenoid drive command
LDECK_PLEVEL_M	Front deck (left) paper level middle sensor detection signal
LDECK_PLEVEL_U	Front deck (left) paper level high sensor detection signal
LDECK_PULL_CL	Deck (left) feeding clutch drive command
LOCK	System fan lock detection signal
LOWPASS_C_CL	Lower feeding middle clutch drive command
LOWPASS_R_CL	Lower feeding right clutch drive command
MAIN_MOTOR_FG	Main motor frequency signal
MAIN_MOTOR_ON	Main motor drive command
MAIN_TENP	Fixing main thermistor detection signal
MLT_CULA_ENTRY	Manual feed sensor detection signal
MLT_DR_OPEN	Manual feed tray cover open/closed sensor detection signal
MLT_FEED_CL	Manual feed tray pickup clutch drive command

MLT_PAPER_PS	Manual feed tray paper sensor detection signal
MLT_PICKUP_SL_BACK	Manual feed pickup clutch solenoid drive command
MLT_PICKUP_SL_PULL	Manual feed pickup clutch solenoid drive command
MLT_PULL_CL	Manual feed tray feeding clutch drive command
MLT_VOLUME	Manual feed tray paper width volume detection signal
MUTI DOOR OPEN	Manual feed tray cover open/closed detecting sensor detection signal
OAI_SIZE3_ON/OFF	Original size sensor ON/OFF detection signal 3
OAI_SIZE4_ON/OFF	Original size sensor ON/OFF detection signal 4
OPT_HP1	Scanner home position sensor detection signal
OPT_MOTOR_FAN_STOP	Scanner motor cooling fan lock detection signal
ORI_SIZE1_ON/OFF	Original size sensor ON/OFF detection signal 1
ORI_SIZE2_ON/OFF	Original size sensor ON/OFF detection signal 2
PATH1_CL	Vertical path 1 clutch drive command
PATH1_PS	Vertical path 1 paper sensor detection signal
PATH2_CL	Vertical path 2 clutch drive command
PATH2_PS	Vertical path 2 paper sensor detection signal
PATH3_CL	Vertical path 3 clutch drive command
PATH3_PS	Vertical path 3 paper sensor detection signal
PATH4_CL	Vertical path 4 clutch drive command
PATH4_PS	Vertical path 4 paper sensor detection signal
POLYGON_FAN_STOP	Laser scanner fan lock detection signal
POST_FAN_STOP	Pre-transfer charging fan lock detection signal
POST_M.C_BK	Pre-transfer charging wire cleaning motor drive command (reverse)
POST_M.C_FW	Pre-transfer charging wire cleaning motor drive command (forward)
POTENTIAL_ON	Potential sensor detection signal
POTENTIAL_SIG	Potential sensor detection signal
PRESSING_PLATE_OPEN	Copyboard cover open/closed sensor detection signal
PRIM_FA_STOP	Primary charging assembly fan lock detection signal
PRINARY_V.C_BK	Primary charging wire cleaning motor drive command (reverse)
PRINARY_V.C_FV	Primary charging wire cleaning motor drive command (forward)
PRIREGI_BRAKE_CL	Pre-registration brake clutch drive command
PRIREGI_CL	Pre-registration clutch drive command
RDECK_FEED_CL	Front deck (right) pickup clutch drive command
RDECK_FEED_PS	Front deck (right) pickup sensor detection signal
RDECK_LIFT_MOTOR (24VU)	Front deck (right) lifter motor drive command

RDECK_LIFTER_PS	Front deck (right) lifter sensor detection signal
RDECK_LINIT_PS	Front deck (right) limit sensor detection signal
RDECK_OLEVEL_U	Front deck (right) paper level high sensor detection signal
RDECK_OPEN_PS	Front deck (right) open/closed sensor detection signal
RDECK_PAPER_PS	Front deck (right) paper sensor detection signal
RDECK_PICKUP_SL	Front deck (right) pickup solenoid drive command
RDECK_PLEVEL_M	Front deck (right) paper level middle sensor detection signal
RDECK_PULL_PS	Front deck (right) feeding sensor detection signal
REGI_BRAKE_CL	Registration brake clutch drive command
REGIST_CL	Registration clutch drive command
REGIST_PS	Registration paper sensor detection signal
REVER_OPEN_PS	Fixing/feeding unit releasing lever sensor detection signal
ROW_DR_OPEN	Lower right cover open/closed sensor detection signal
RUP_DR_OPEN	Upper right cover open/closed sensor detection signal
SEP_FAN_STOP	Separation fan lock detection signal
SIDE_REGI_PS	Horizontal registration sensor detection signal
SIZE1	Original size sensor detection signal 1
SIZE2	Original size sensor detection signal 2
SIZE3	Original size sensor detection signal 3
SIZE4	Original size sensor detection signal 4
SPEED_DEL_CL	Delivery speed switching clutch drive command
SUB_TENP	Fixing sub thermistor detection signal
T/S_W.C_OUT1	Transfer/separation charging wire cleaning motor drive command 1
T/S_W.C_OUT2	Transfer/separation charging wire cleaning motor drive command 2
UNITLOCK_SL_BACK	Fixing feeding unit locking solenoid drive command (back)
UNITLOCK_SL_PULL	Fixing feeding unit locking solenoid drive command (pull)
U-TURN_PS	U-turn sensor detection signal
VASIE_TONER_PACKED_DIC	Waste toner clog detecting switch detection signal
WASTE_TONER_OVER_PS	Waste toner case full sensor detection signal
WEB_LESS	Fixing cleaning belt sensor detection signal
WEB_SL	Fixing cleaning belt solenoid drive command
WEB_WARNING	Fixing cleaning belt warning sensor detection signal

List of Signals/Abbreviations

iR85+

The following is a list of the signals and abbreviations used in this chapter and the circuit diagrams.

MEMO:

The abbreviations in parentheses are electrical signals, but are analog signals, which cannot be expressed in terms of '1' or '0'. Others are digital signals, which may be expressed in terms of '1' or '0'.

T-2-3

AFTER_JOIN_PS	Post-confluence sensor detection signal
BUFFER_CL	Hopper internal magnet roller drive clutch drive command
BUFFER_MOTOR (-)	Hopper internal toner feeder motor drive command 2
BUFFER_MOTOR (+)	Hopper internal toner feeder motor drive command 1
BUFFER_NG	Hopper internal toner lower limit sensor detection signal
BUFFER_WARNING	Hopper internal toner sensor detection signal
C3_FEED_CL	Cassette 3 pickup sensor detection signal
C3_FEED_PS	Cassette 3 pickup clutch drive command
C3_LENGTH0	Cassette 3 paper length sensor detection signal
C3_LIFT_PS	Cassette 3 lifter sensor detection signal
C3_LIFTER_MOTOR	Cassette 3 lifter motor drive command
C3_OPEN_PS	Cassette 3 open/closed sensor detection signal
C3_PAPER_PS	Cassette 3 paper sensor detection signal
C3_PICKUP_SL	Cassette 3 pickup solenoid drive command
C3VR	Cassette 3 paper width volume detection signal
C4_FEED_CL	Cassette 4 pickup clutch drive command
C4_FEED_PS	Cassette 4 pickup sensor detection signal
C4_LENGTH0	Cassette 4 paper length sensor detection signal
C4_LIFT_PS	Cassette 4 lifter sensor detection signal
C4_LIFTER_MOTOR	Cassette 4 lifter motor drive command
C4_OPEN_PS	Cassette 4 open/closed sensor detection signal
C4_PAPER_PS	Cassette 4 paper sensor detection signal
C4_PICKUP_SL	Cassette 4 pickup solenoid drive command
C4VR	Cassette 4 paper width volume detection signal
CARTRIGE_DETECT	Cartridge detecting switch detection signal
CARTRIGE_MOTOR-	Cartridge internal toner feeder motor drive command
CARTRIGE_MOTOR+	Cartridge internal toner feeder motor drive command
CARTRIGE_OPEN_PS	Toner cartridge cover open/closed sensor detection signal
CLAW_JAM	Fixing claw jam sensor detection signal
CURL_FAN_STOP	De-curling fan lock detection signal
DCP_FAN1_STOP	Power supply cooling fan 1 lock detection signal
DCP_FAN2_STOP	Power supply cooling fan 2 lock detection signal
DECK_PULL_PS	Front deck (left) feeding sensor detection signal

DEV_FAN_STOP	Developing fan lock detection signal
DEV_SLEEVE_CL	Developing cylinder deceleration clutch drive command
DEV1_SLEEVE_CL	Developing clutch drive command
DEVELOP_IS	Developing assembly internal toner sensor detection signal
DRUM_FAN_STOP	Drum fan lock detection signal
DRUM_MOTOR_LOCK	Drum motor lock detection signal
DRUM_MOTOR_ON	Drum motor drive command
DUP-INV_PS	Duplexing reversal sensor detection signal
EXHAUST_FAN_STOP	Fixing assembly heat discharge fan lock detection signal
EXIT_DEL_PS	External delivery sensor detection signal
EXIT_FAN1_LOCK	Delivery adhesion-proofing fan lock detection signal
FEED_FAN_STOP	Feeding fan lock detection signal
FEED_MOTOR_FG	Pickup motor frequency signal
FEED_MOTOR_ON	Pickup motor drive command
FIXEXIT_DEL_PS	Fixing feeding unit outlet sensor detection signal
FLAP_SL	Delivery flapper solenoid drive command
FRONT_DR_OPEN	Front cover open/closed detecting switch detection signal
FRONT_JOIN_PS	Pre-confluence sensor detection signal
FUSE_M_LOCK	Fixing motor lock detection signal
FUSE_M_ON	Fixing motor drive command
HPSENS	Scanner home position sensor detection signal
INT_DEL_PS	Internal delivery sensor detection signal
INV_GUIDE_SL	Reversing flapper solenoid drive command
INV_PS	Reversal sensor detection signal
LASER1_FAN_STOP	Scanner cooling fan lock detection signal
LASER2_FAN_STOP	Laser driver cooling fan lock detection signal
LDECK_FEED_CL	Deck (left) pickup clutch drive command
LDECK_FEED_PS	Front deck (left) pickup sensor detection signal
LDECK_LIFT_MOTOR (24VU)	Front deck (left) lifter motor drive command
LDECK_LIFT_PS	Front deck (left) lifter sensor detection signal
LDECK_LIMIT_PS	Front deck (left) limit sensor detection signal
LDECK_OPEN_PS	Front deck (left) open/closed sensor detection signal
LDECK_PAPER_PS	Front deck (left) paper sensor detection signal
LDECK_PICKUP_SL	Front deck (left) pickup solenoid drive command
LDECK_PLEVEL_M	Front deck (left) paper level middle sensor detection signal
LDECK_PLEVEL_U	Front deck (left) paper level high sensor detection signal
LDECK_PULL_CL	Deck (left) feeding clutch drive command
LOCK	System fan lock detection signal

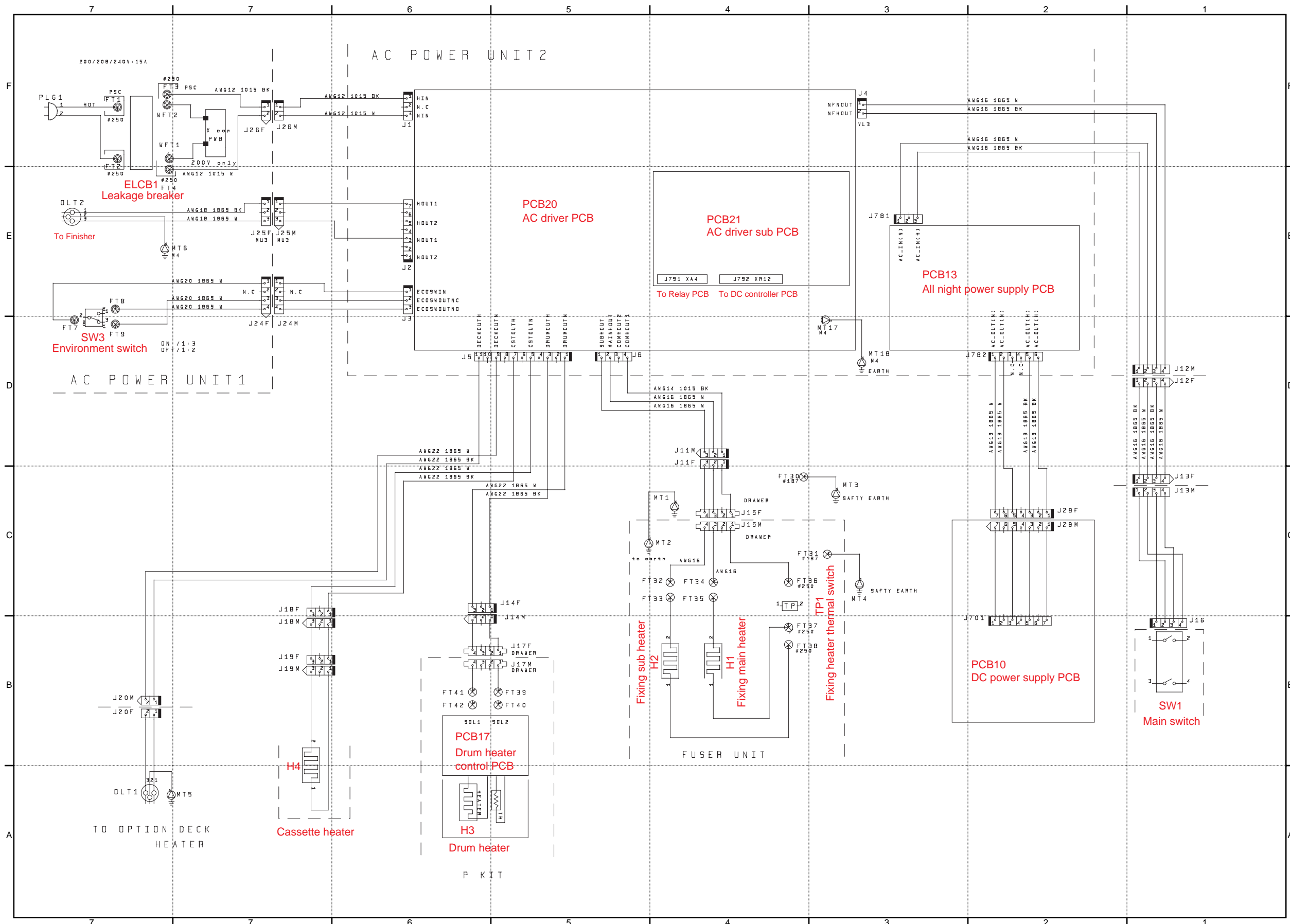
LOWPASS_C_CL	Lower feeding middle clutch drive command
LOWPASS_R_CL	Lower feeding right clutch drive command
MAIN_MOTOR_FG	Main motor frequency signal
MAIN_MOTOR_ON	Main motor drive command
MAIN_TENP	Fixing main thermistor detection signal
MLT_CULA_ENTRY	Manual feed sensor detection signal
MLT_DR_OPEN	Manual feed tray cover open/closed sensor detection signal
MLT_FEED_CL	Manual feed tray pickup clutch drive command
MLT_PAPER_PS	Manual feed tray paper sensor detection signal
MLT_PICKUP_SL_BACK	Manual feed pickup clutch solenoid drive command
MLT_PICKUP_SL_PULL	Manual feed pickup clutch solenoid drive command
MLT_PULL_CL	Manual feed tray feeding clutch drive command
MLT_VOLUME	Manual feed tray paper width volume detection signal
MUTI DOOR OPEN	Manual feed tray cover open/closed detecting sensor detection signal
PATH1_CL	Vertical path 1 clutch drive command
PATH1_PS	Vertical path 1 paper sensor detection signal
PATH2_CL	Vertical path 2 clutch drive command
PATH2_PS	Vertical path 2 paper sensor detection signal
PATH3_CL	Vertical path 3 clutch drive command
PATH3_PS	Vertical path 3 paper sensor detection signal
PATH4_CL	Vertical path 4 clutch drive command
PATH4_PS	Vertical path 4 paper sensor detection signal
POLYGON_FAN_STOP	Laser scanner fan lock detection signal
POST_FAN_STOP	Pre-transfer charging fan lock detection signal
POST_M.C_BK	Pre-transfer charging wire cleaning motor drive command (reverse)
POST_M.C_FW	Pre-transfer charging wire cleaning motor drive command (forward)
POTENTIAL_ON	Potential sensor detection signal
POTENTIAL_SIG	Potential sensor detection signal
PRIM_FA_STOP	Primary charging assembly fan lock detection signal
PRINARY_V.C_BK	Primary charging wire cleaning motor drive command (reverse)
PRINARY_V.C_FV	Primary charging wire cleaning motor drive command (forward)
PRIREGI_BRAKE_CL	Pre-registration brake clutch drive command
PRIREGI_CL	Pre-registration clutch drive command
RDECK_FEED_CL	Front deck (right) pickup clutch drive command
RDECK_FEED_PS	Front deck (right) pickup sensor detection signal

RDECK_LIFT_MOTOR (24VU)	Front deck (right) lifter motor drive command
RDECK_LIFTER_PS	Front deck (right) lifter sensor detection signal
RDECK_LINIT_PS	Front deck (right) limit sensor detection signal
RDECK_OLEVEL_U	Front deck (right) paper level high sensor detection signal
RDECK_OPEN_PS	Front deck (right) open/closed sensor detection signal
RDECK_PAPER_PS	Front deck (right) paper sensor detection signal
RDECK_PICKUP_SL	Front deck (right) pickup solenoid drive command
RDECK_PLEVEL_M	Front deck (right) paper level middle sensor detection signal
RDECK_PULL_PS	Front deck (right) feeding sensor detection signal
REGI_BRAKE_CL	Registration brake clutch drive command
REGIST_CL	Registration clutch drive command
REGIST_PS	Registration paper sensor detection signal
REVER_OPEN_PS	Fixing/feeding unit releasing lever sensor detection signal
ROW_DR_OPEN	Lower right cover open/closed sensor detection signal
RUP_DR_OPEN	Upper right cover open/closed sensor detection signal
SEP_FAN_STOP	Separation fan lock detection signal
SIDE_REGI_PS	Horizontal registration sensor detection signal
SPEED_DEL_CL	Delivery speed switching clutch drive command
SUB_TENP	Fixing sub thermistor detection signal
T/S_W.C_OUT1	Transfer/separation charging wire cleaning motor drive command 1
T/S_W.C_OUT2	Transfer/separation charging wire cleaning motor drive command 2
UNITLOCK_SL_BACK	Fixing feeding unit locking solenoid drive command (back)
UNITLOCK_SL_PULL	Fixing feeding unit locking solenoid drive command (pull)
U-TURN_PS	U-turn sensor detection signal
VASIE_TONER_PACKED_DIC	Waste toner clog detecting switch detection signal
WASTE_TONER_OVER_PS	Waste toner case full sensor detection signal
WEB_LESS	Fixing cleaning belt sensor detection signal
WEB_SL	Fixing cleaning belt solenoid drive command
WEB_WARNING	Fixing cleaning belt warning sensor detection signal

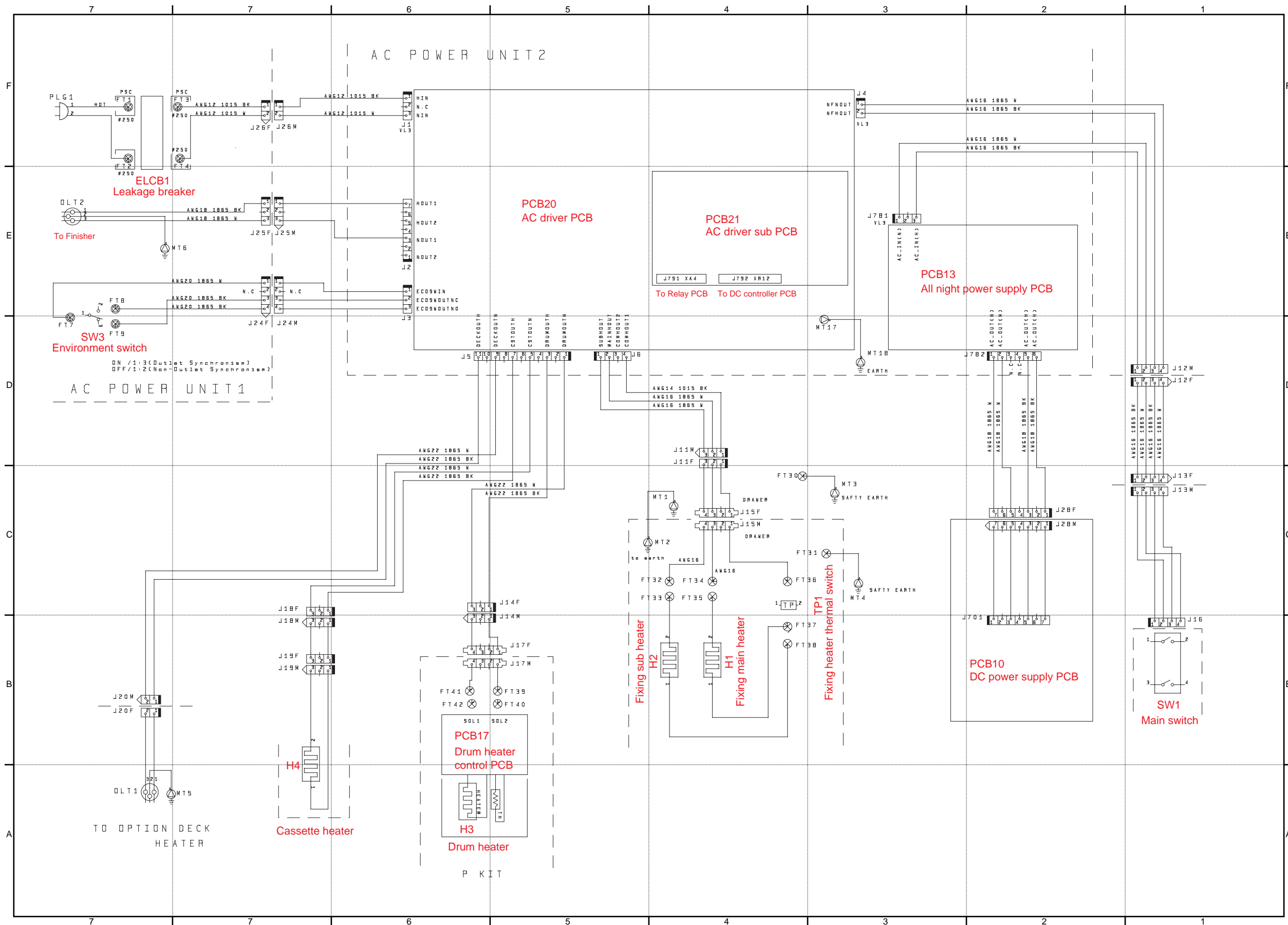
General Circuit Diagram

General Circuit Diagram (1/24)

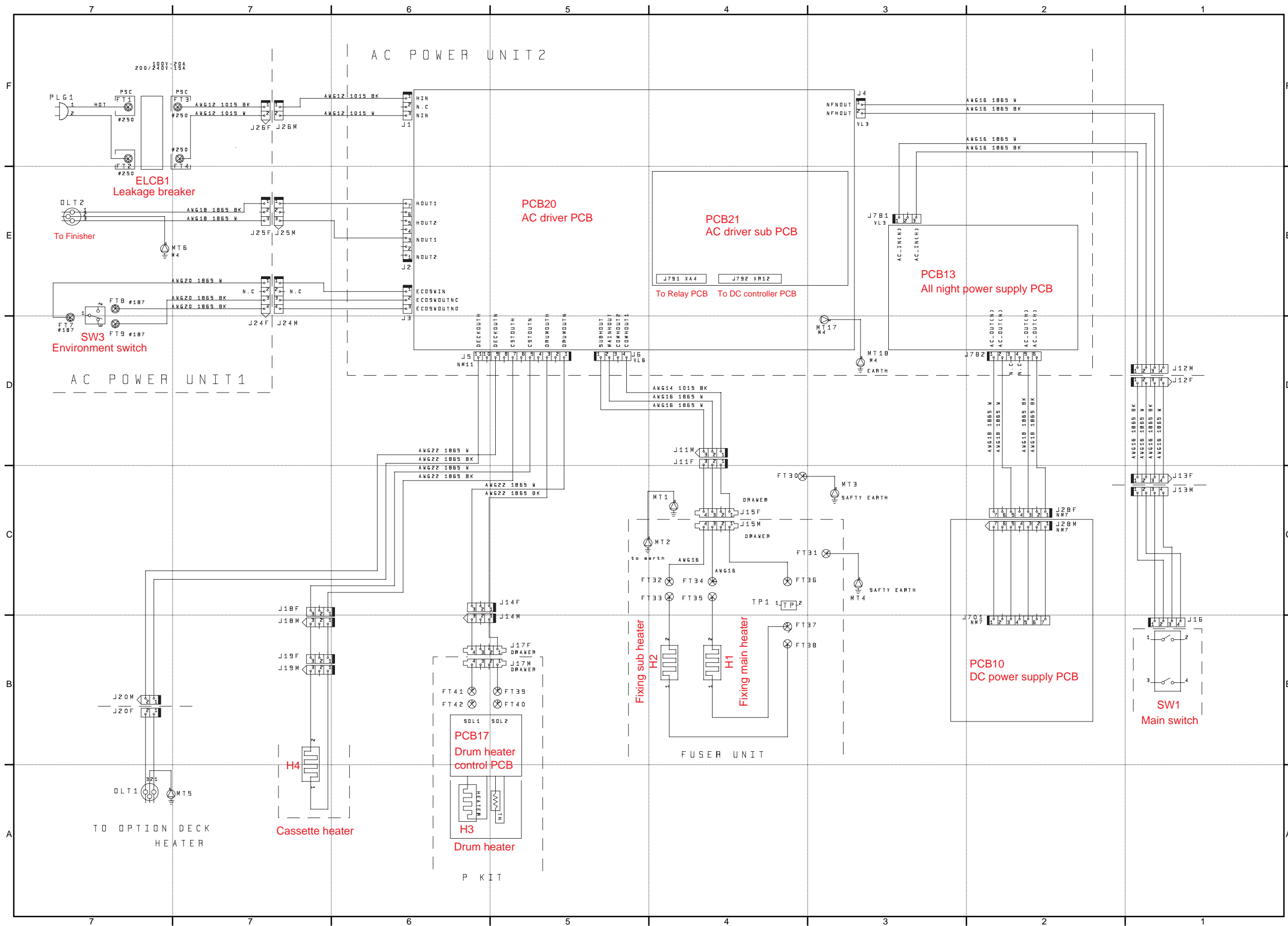
iR105i/iR105+ / iR9070



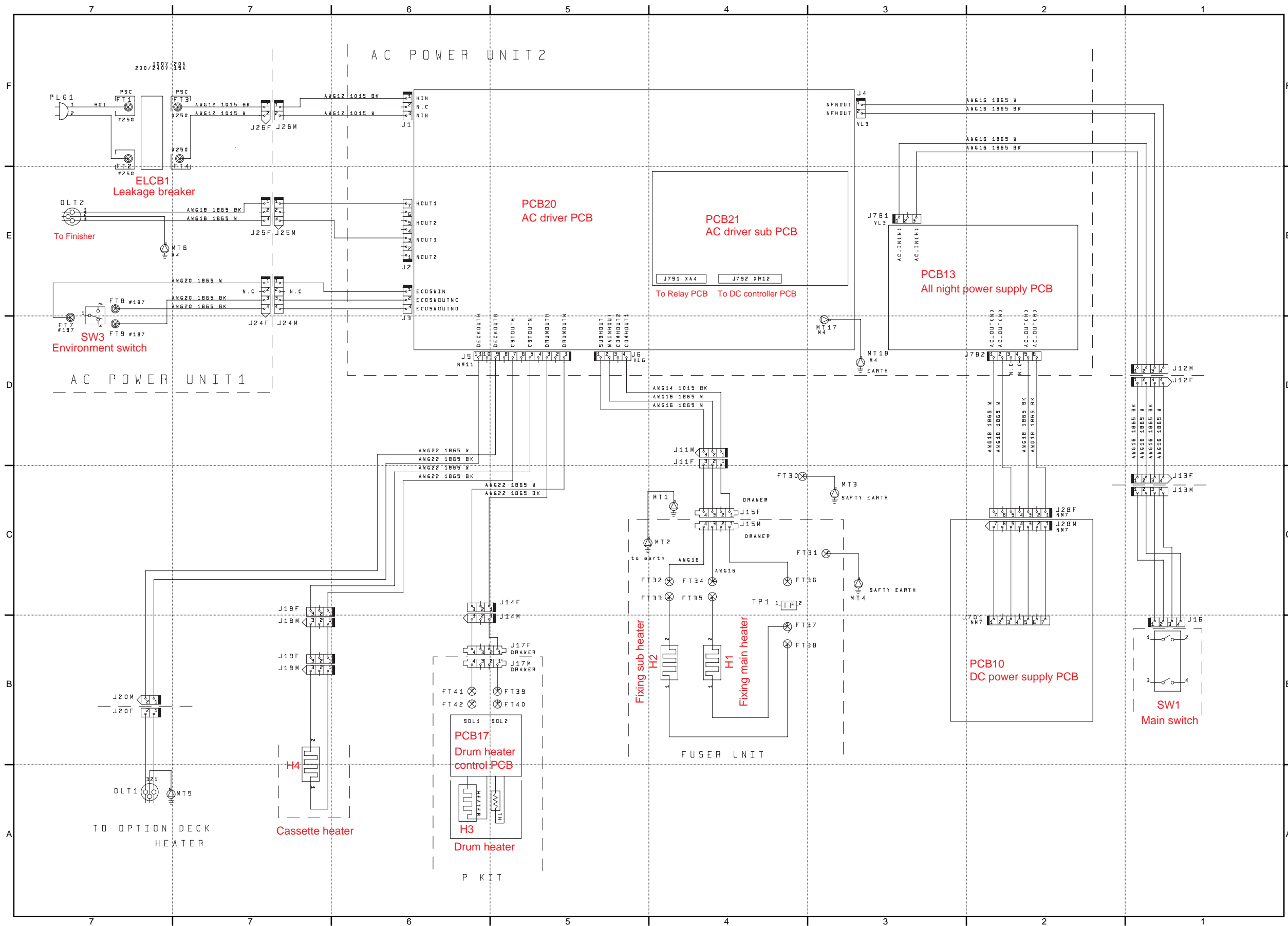
F-2-1



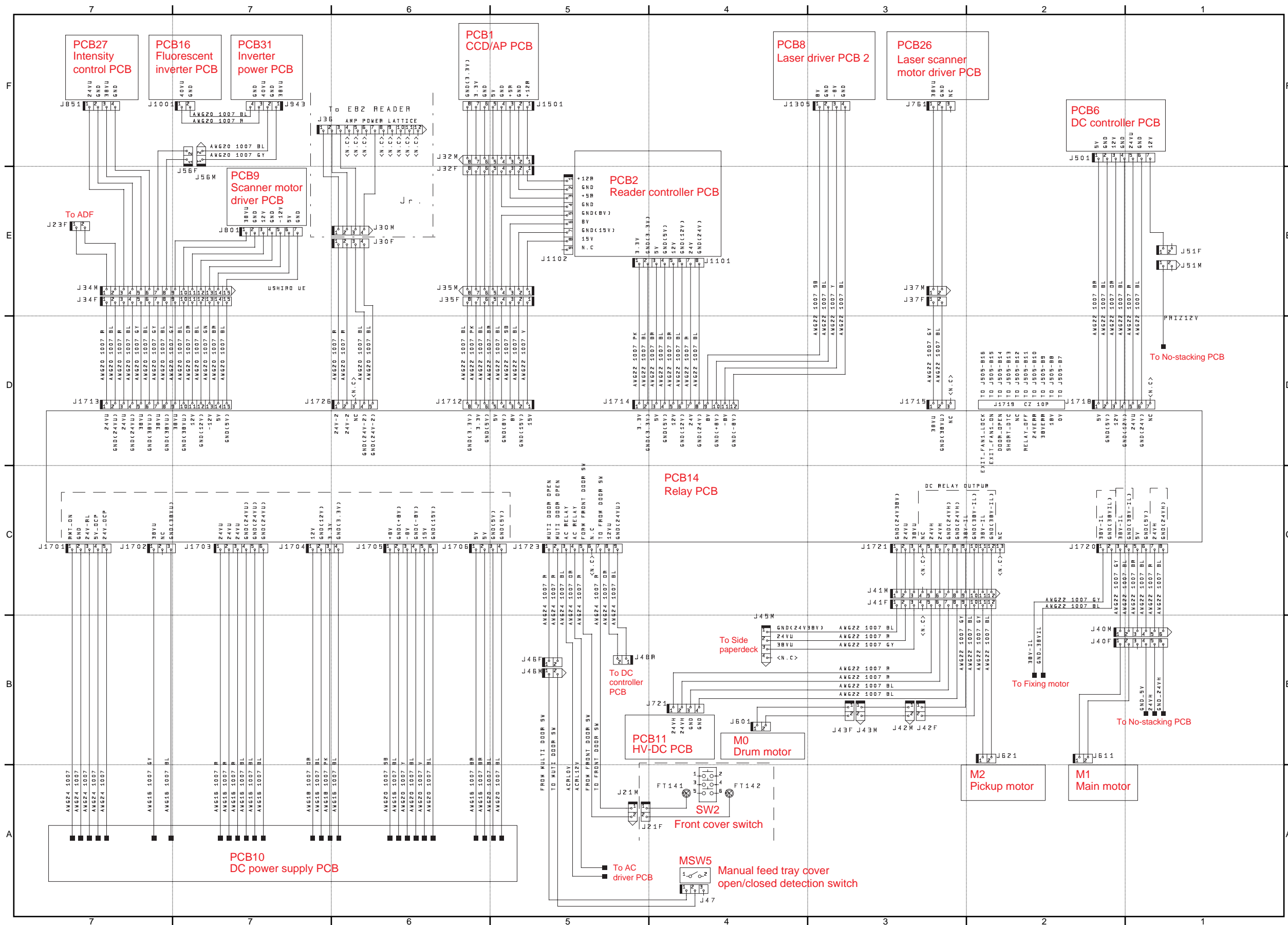
F-2-2



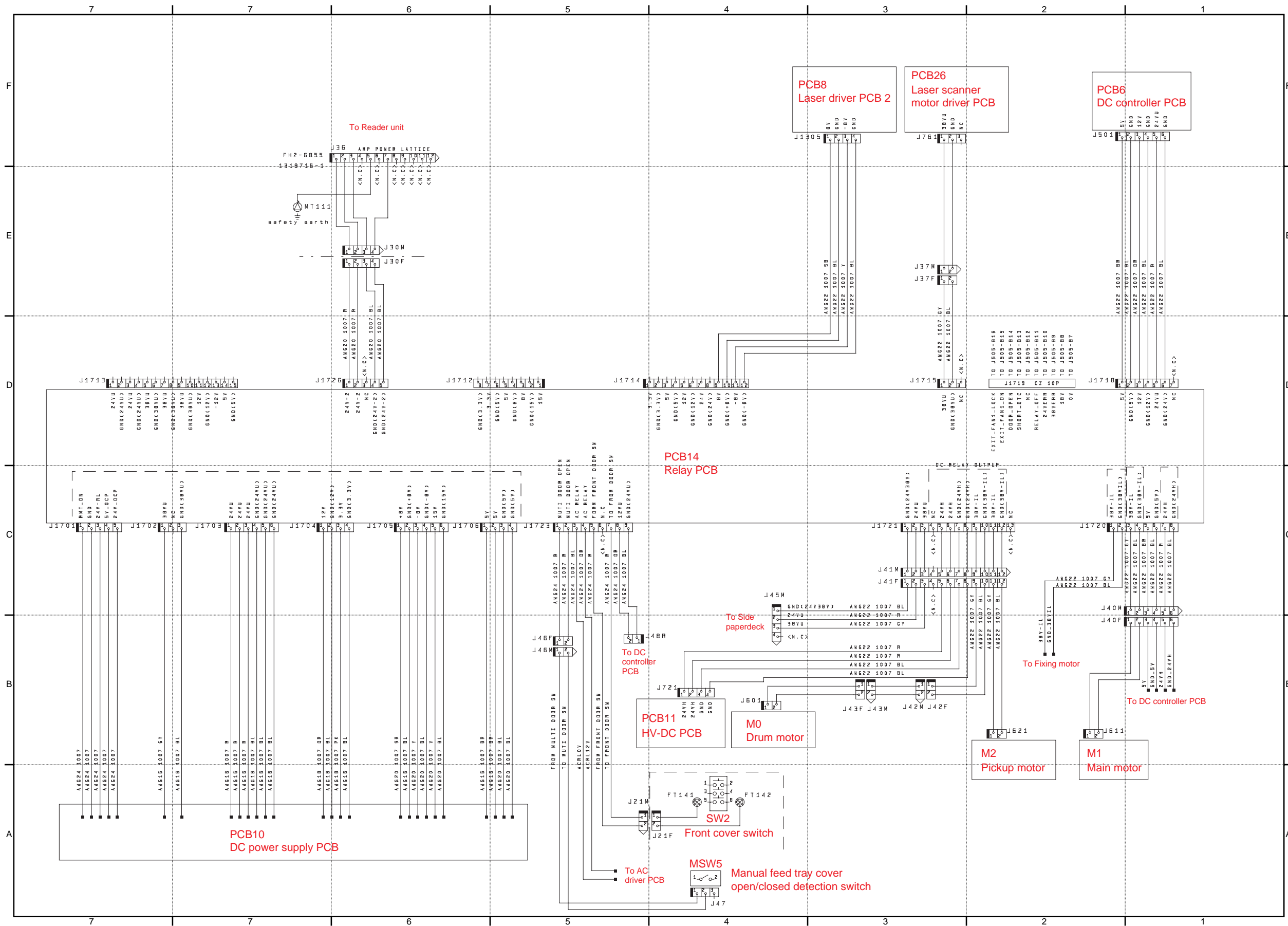
F-2-3



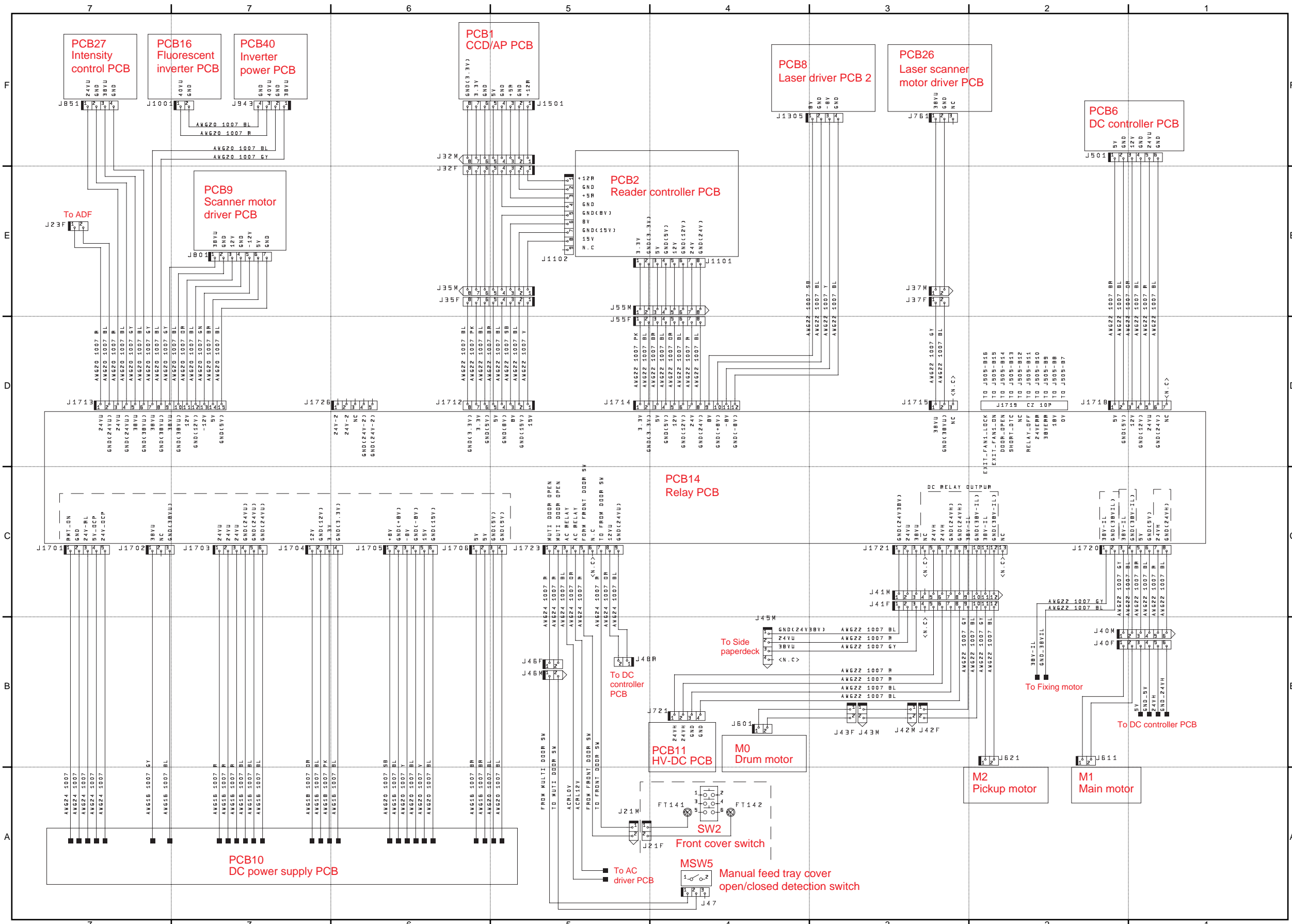
F-2-4



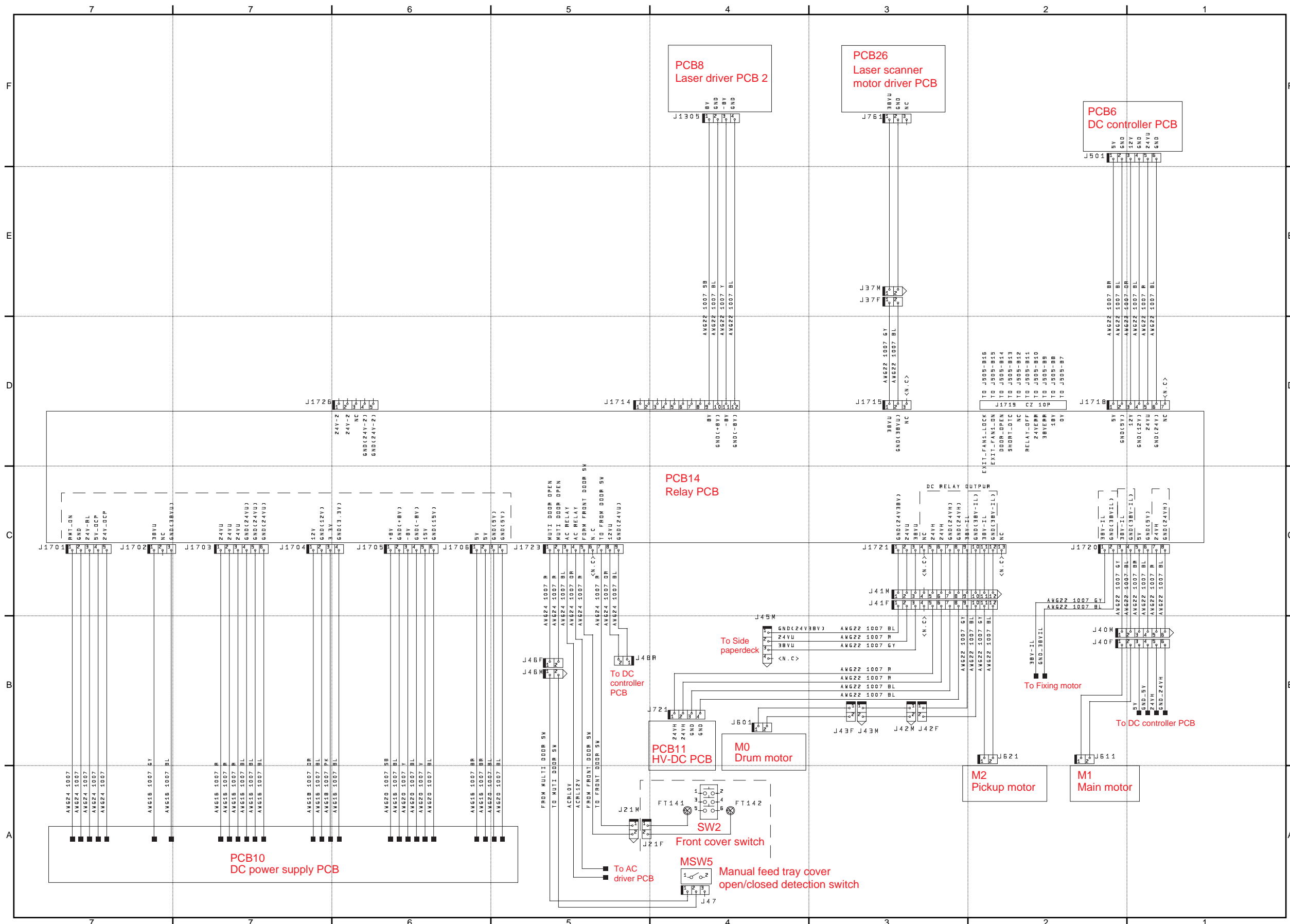
F-2-5



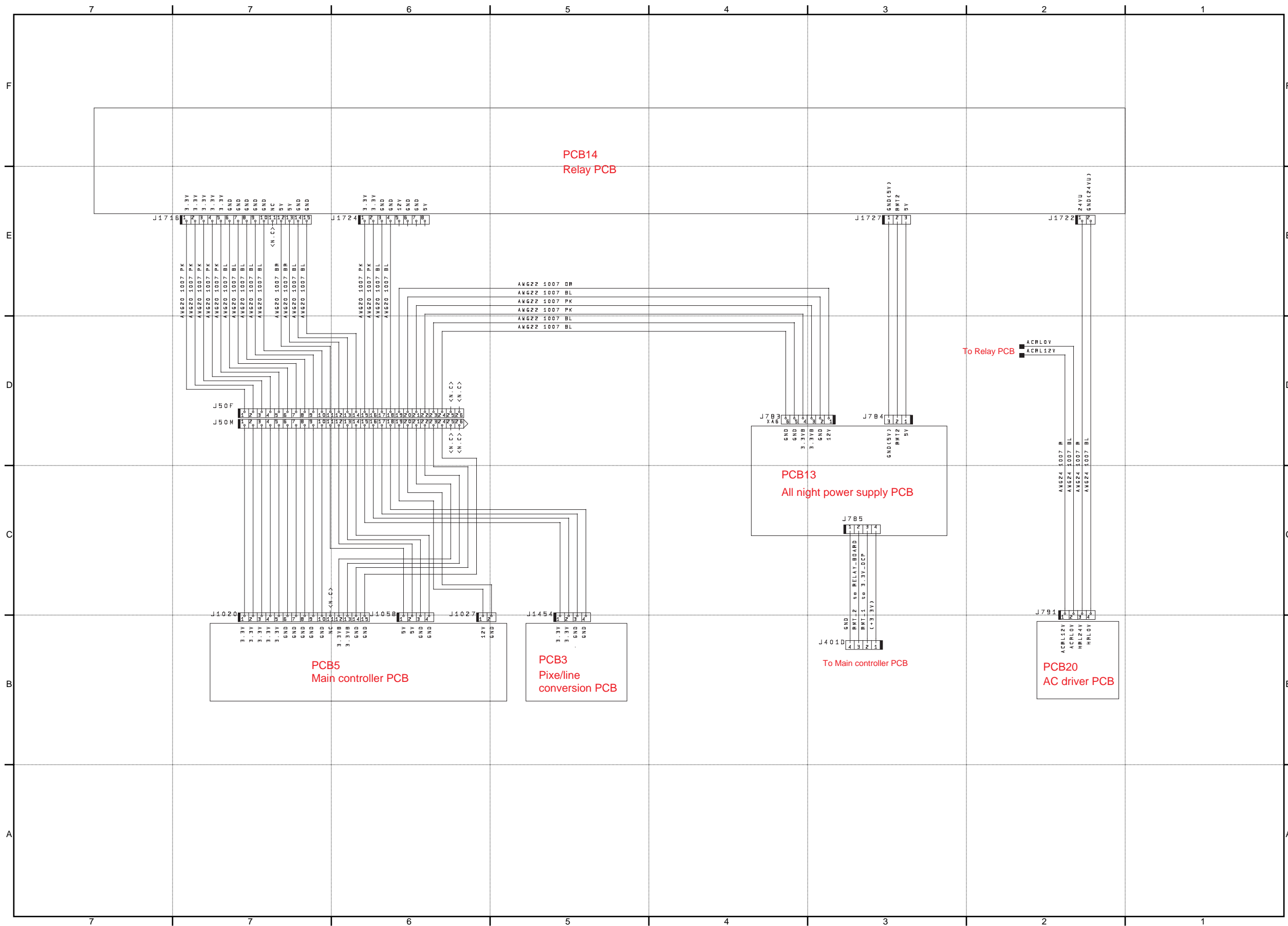
F-2-6



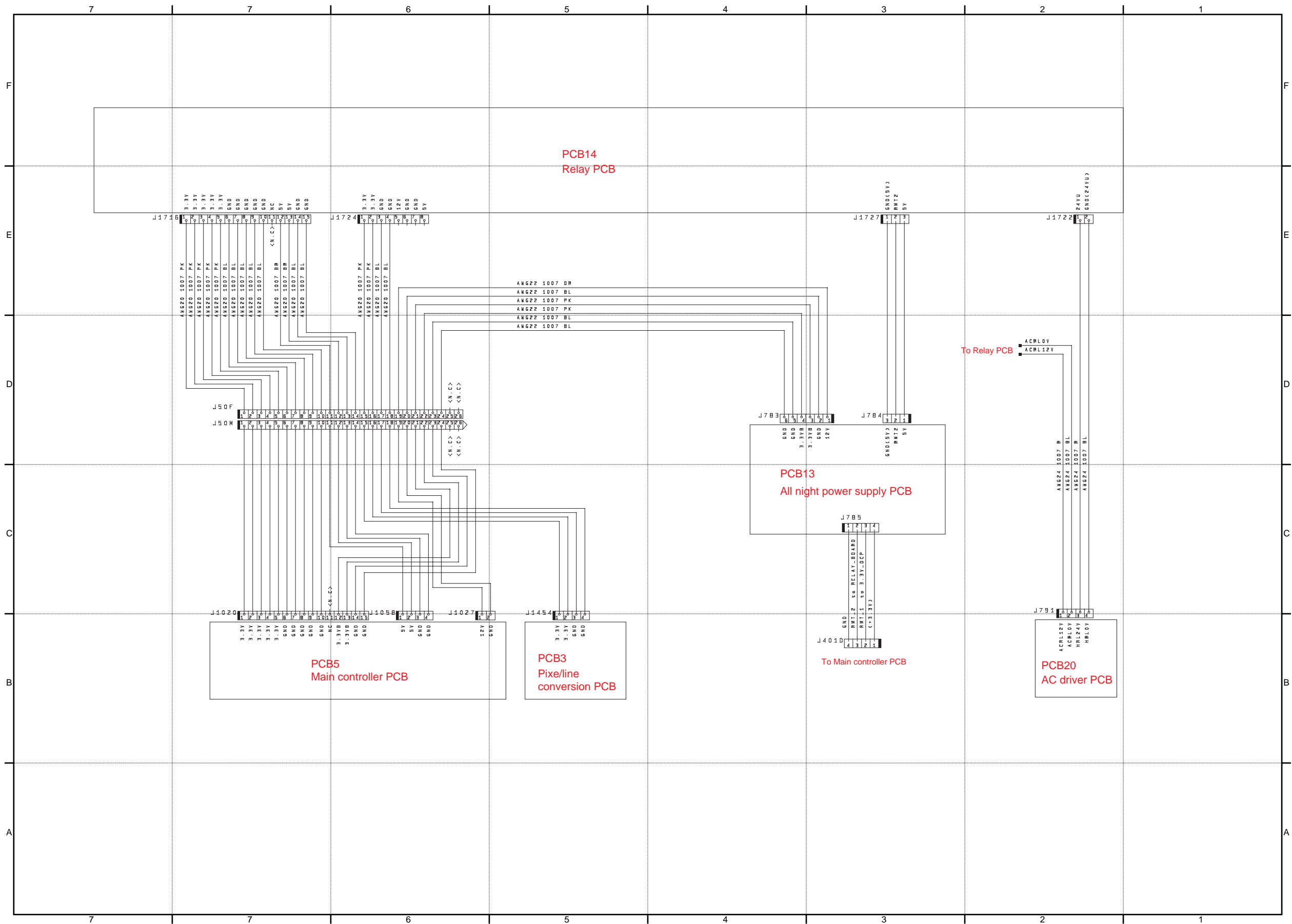
F-2-7



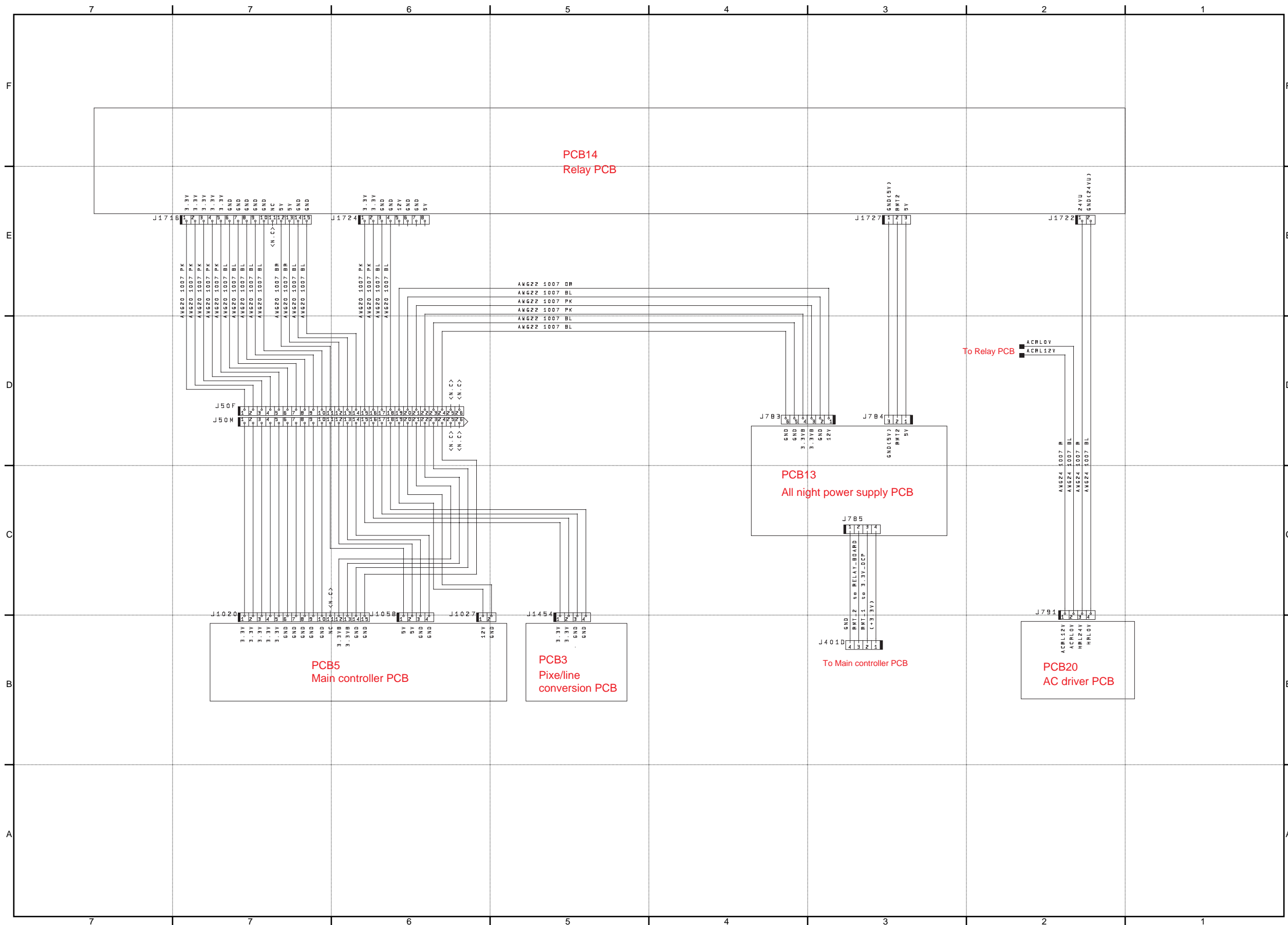
F-2-8

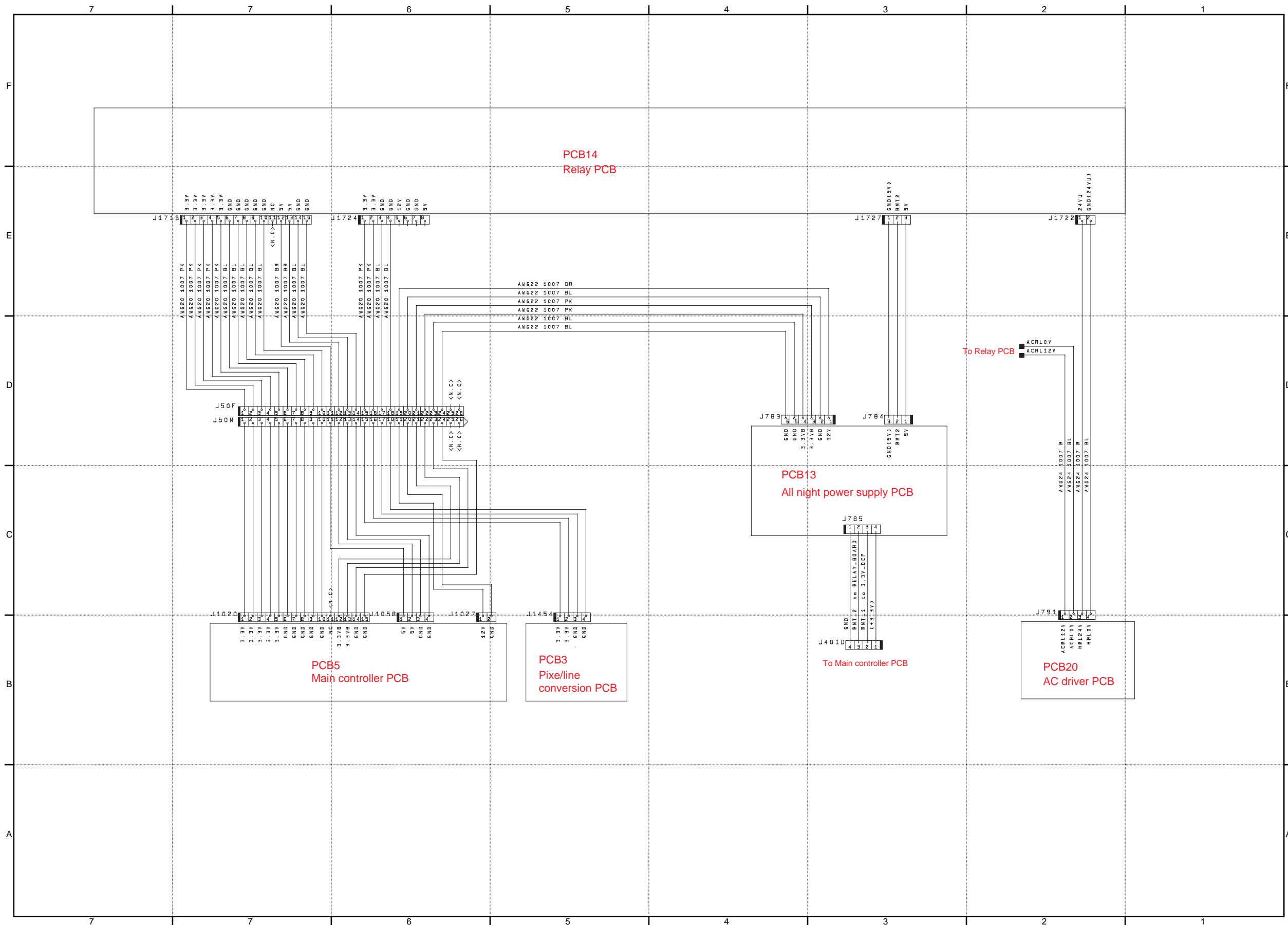


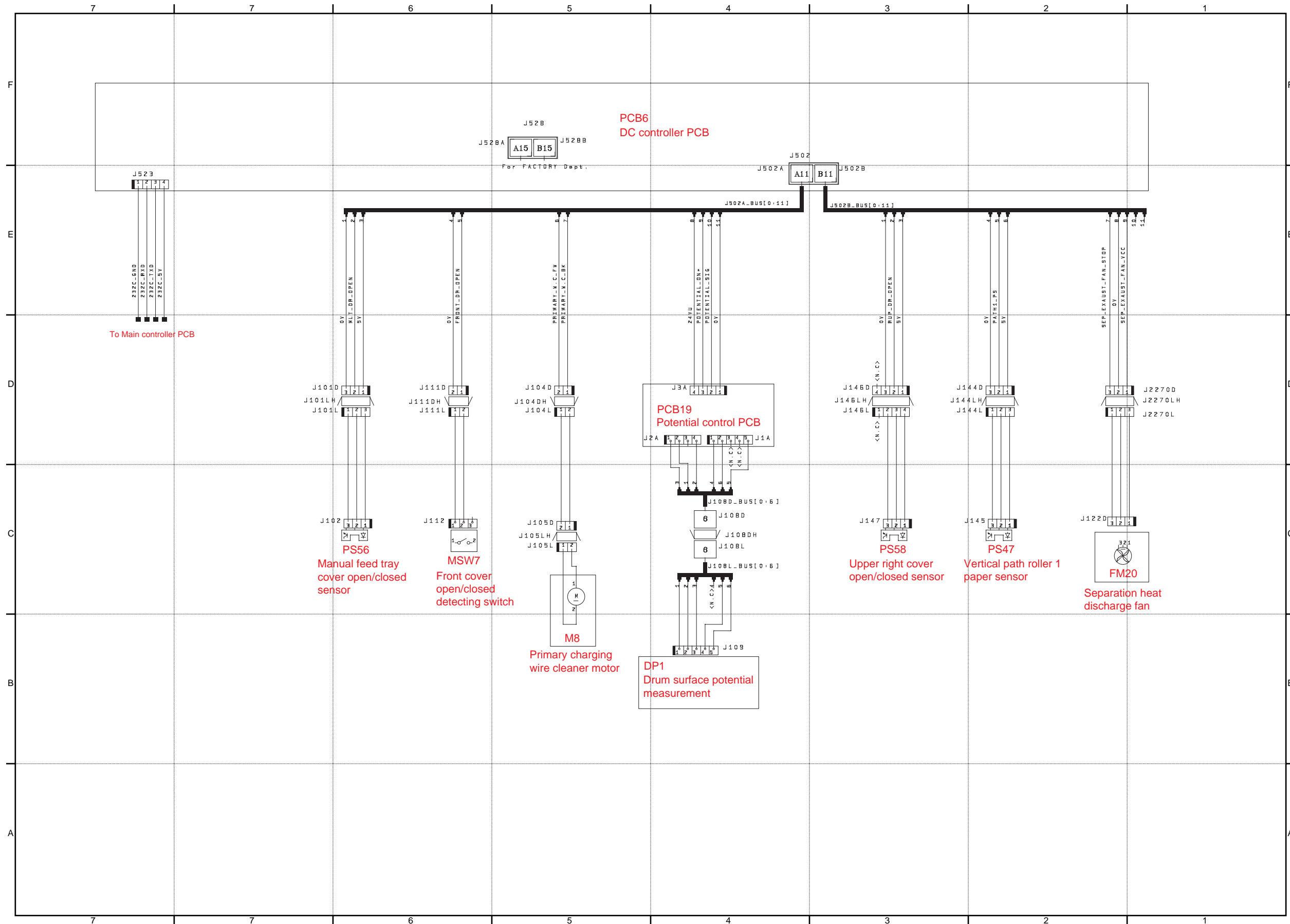
F-2-9



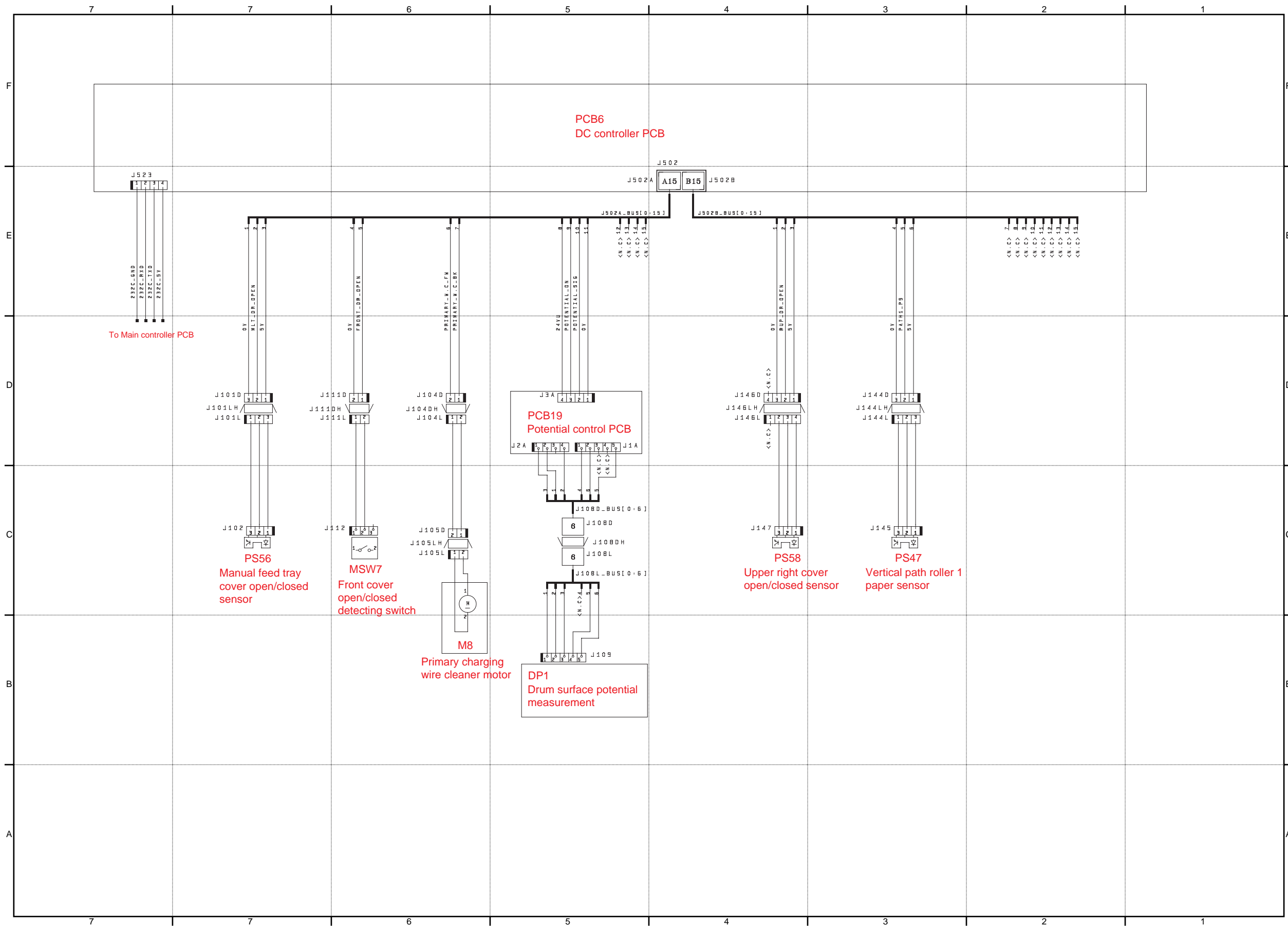
F-2-10



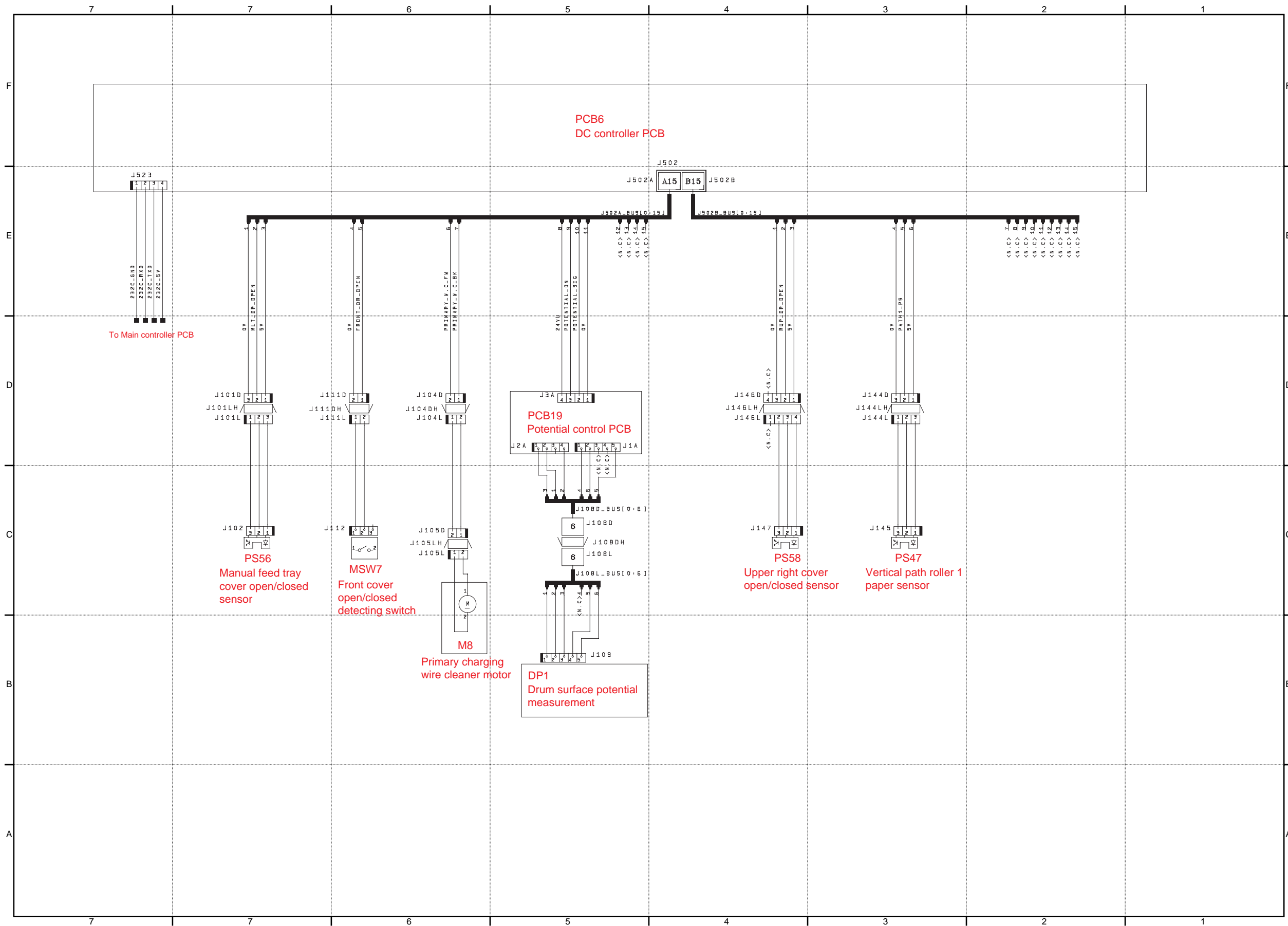




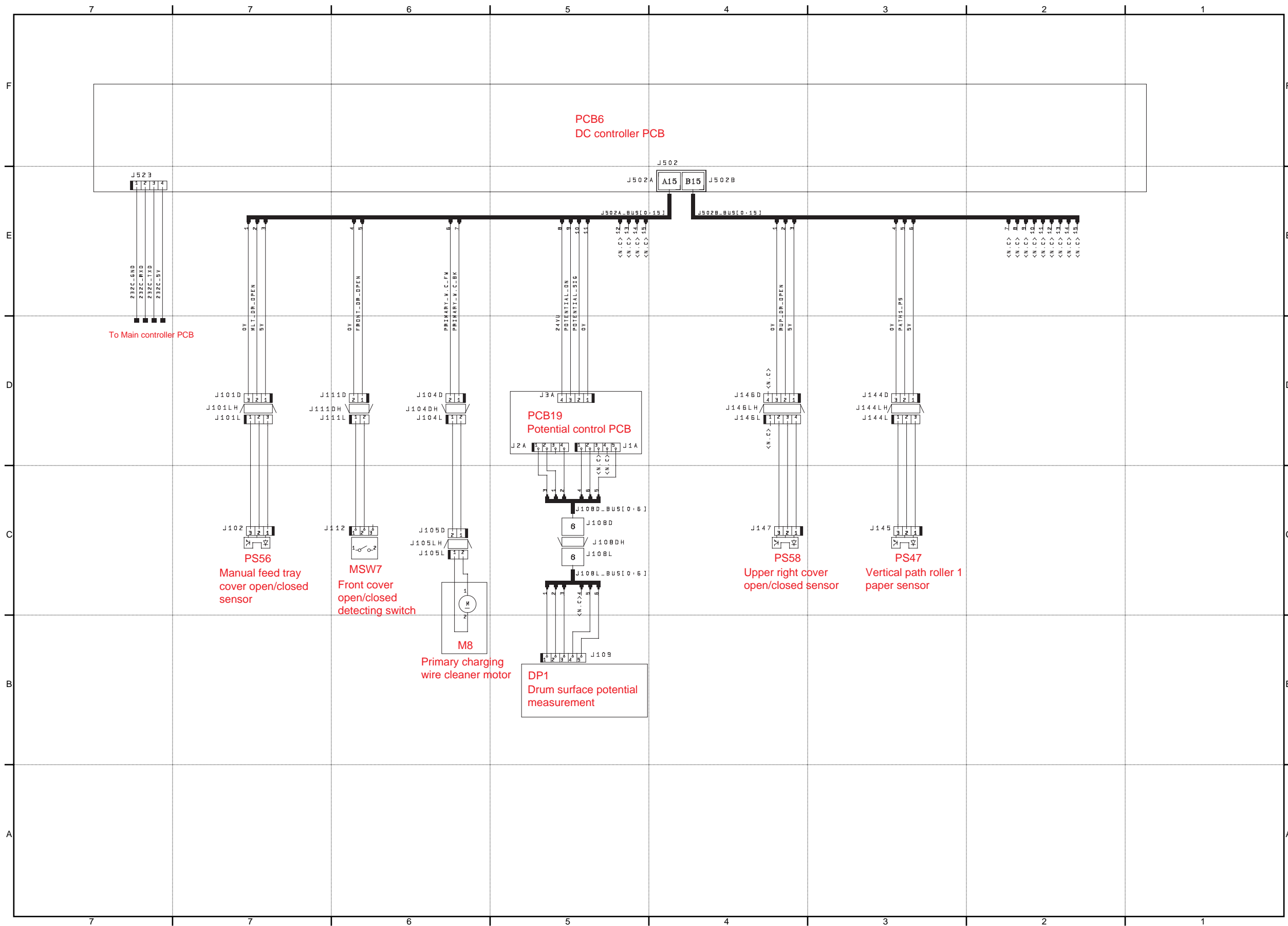
F-2-13



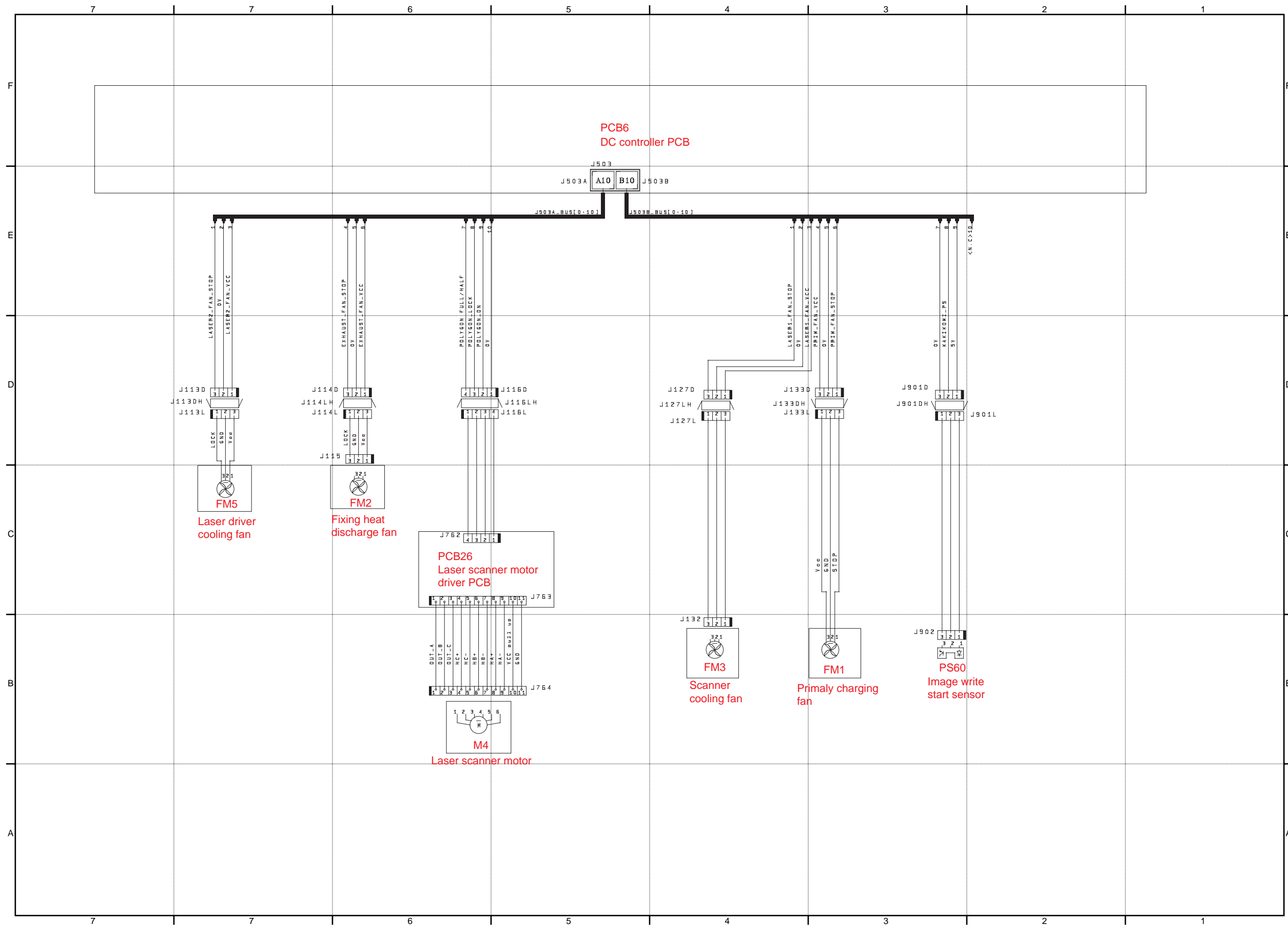
F-2-14



F-2-15

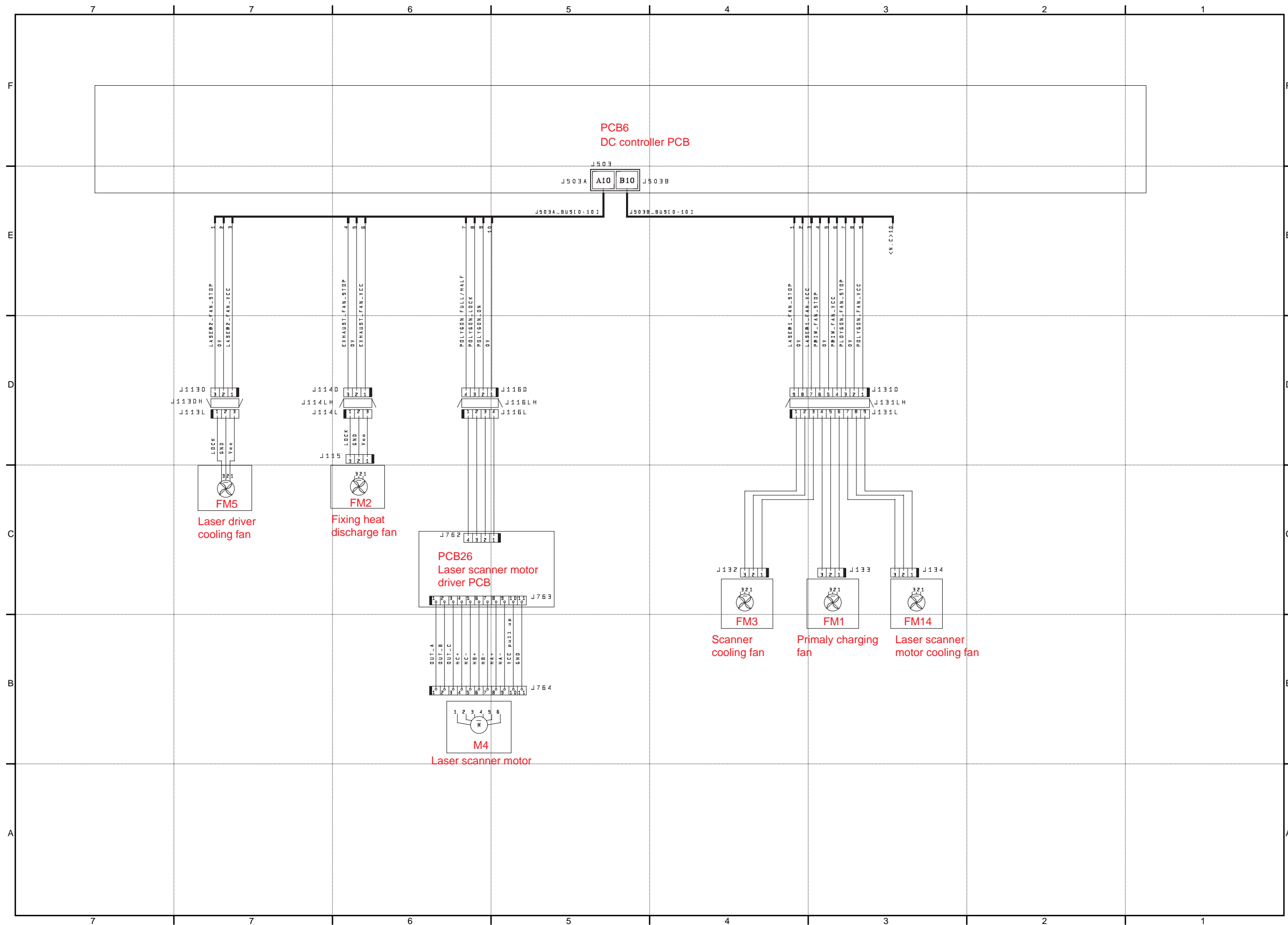


F-2-16



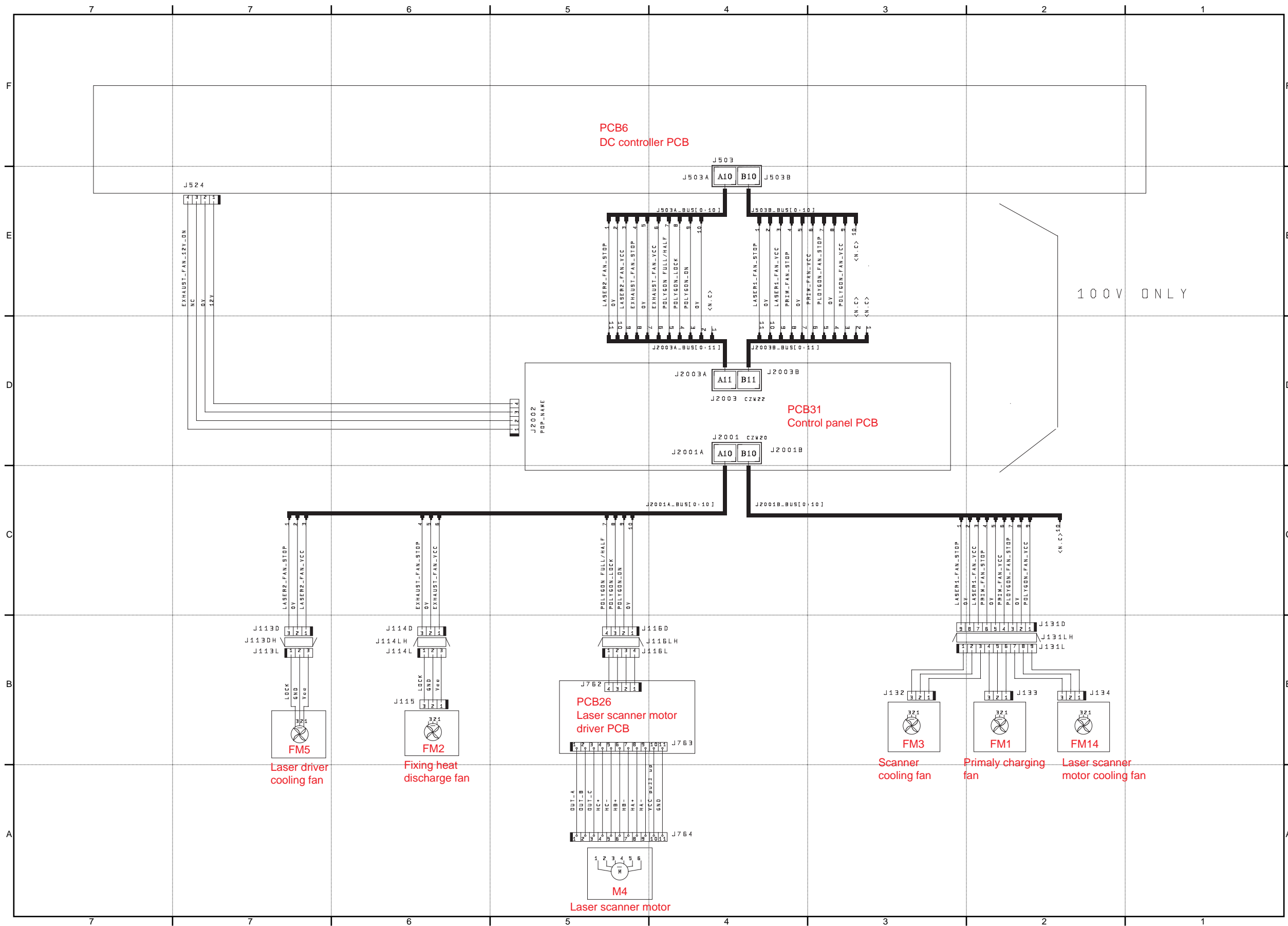
F-2-17

(5/24)

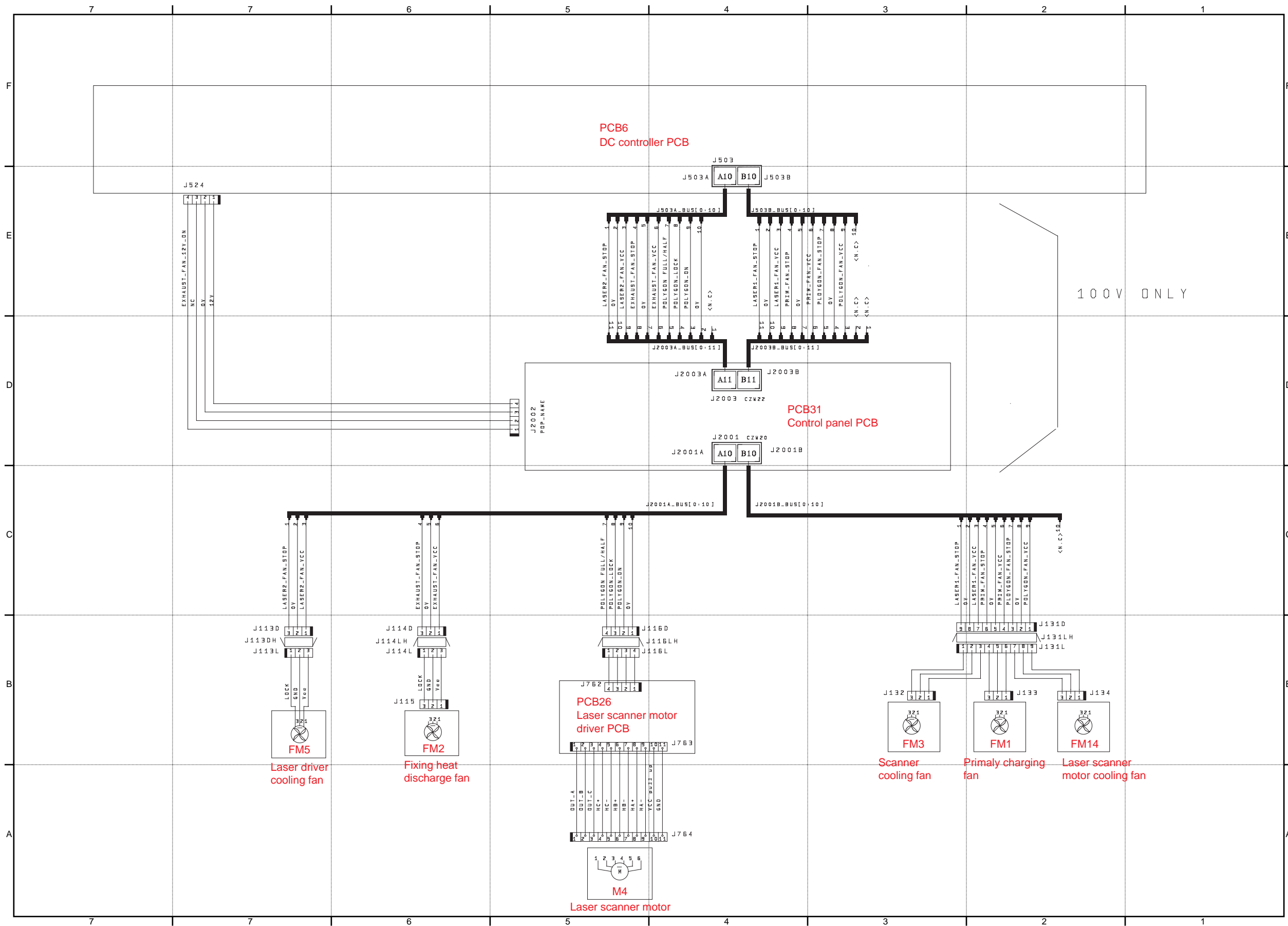


(5/21)

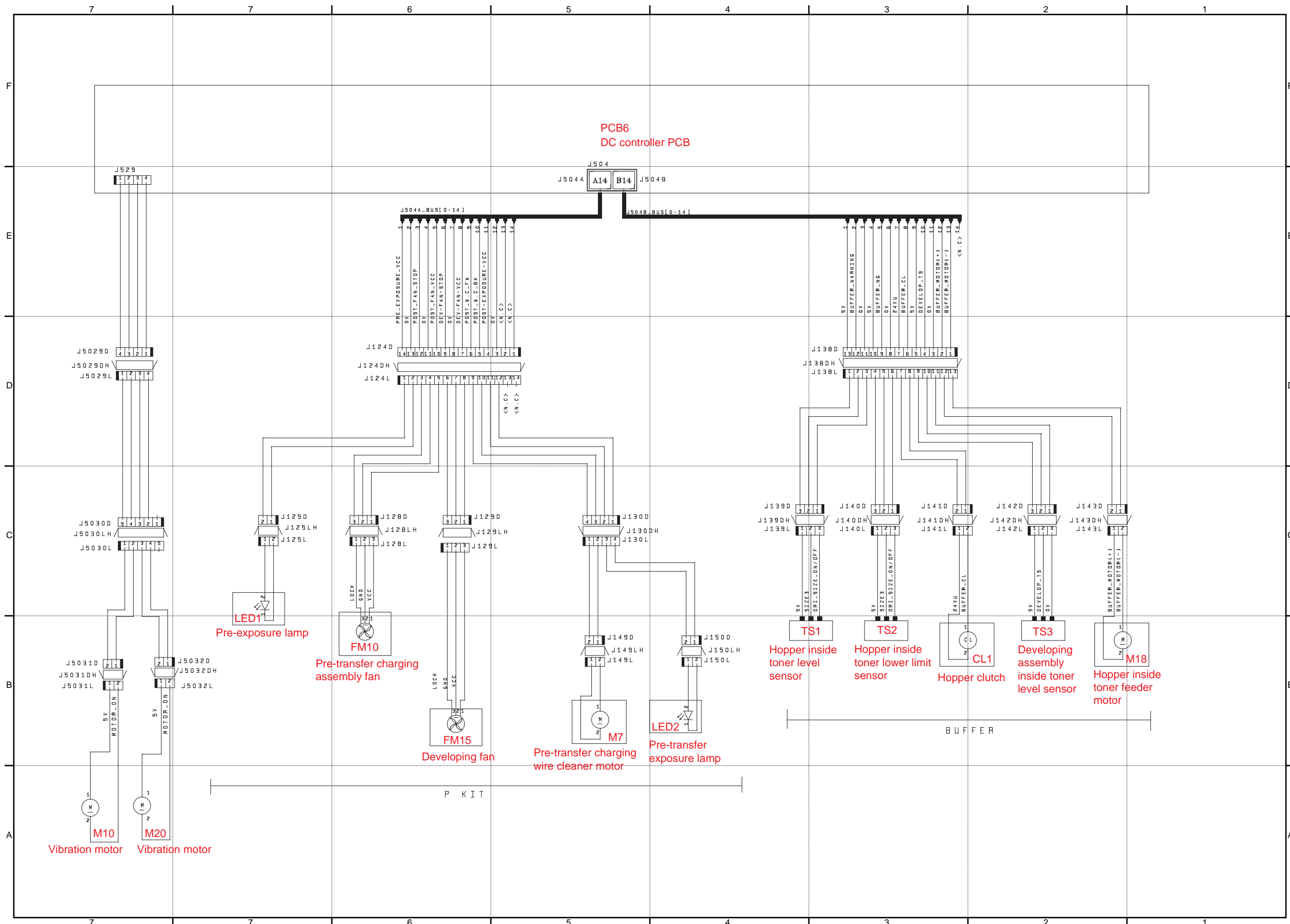
F-2-18



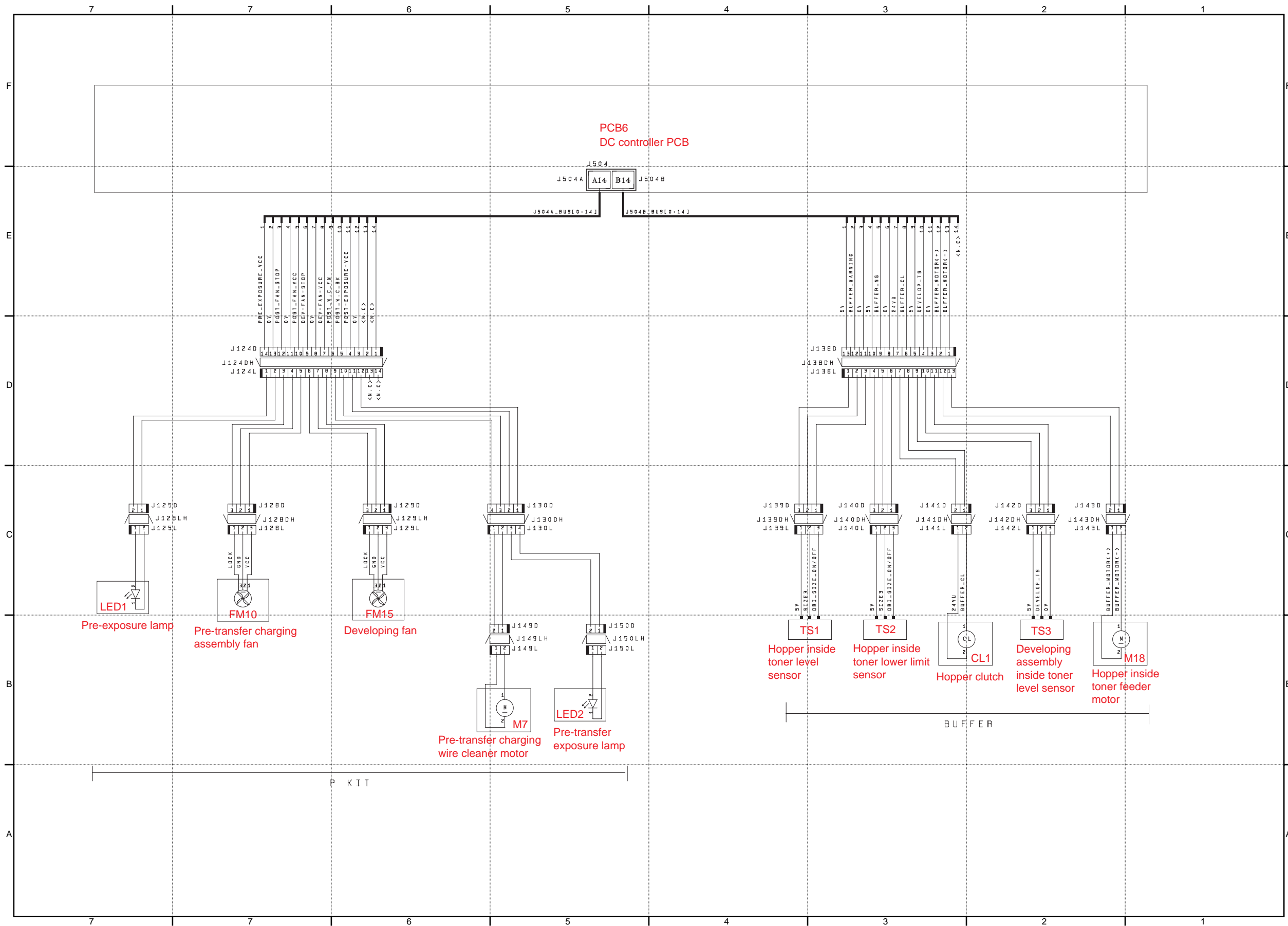
F-2-19



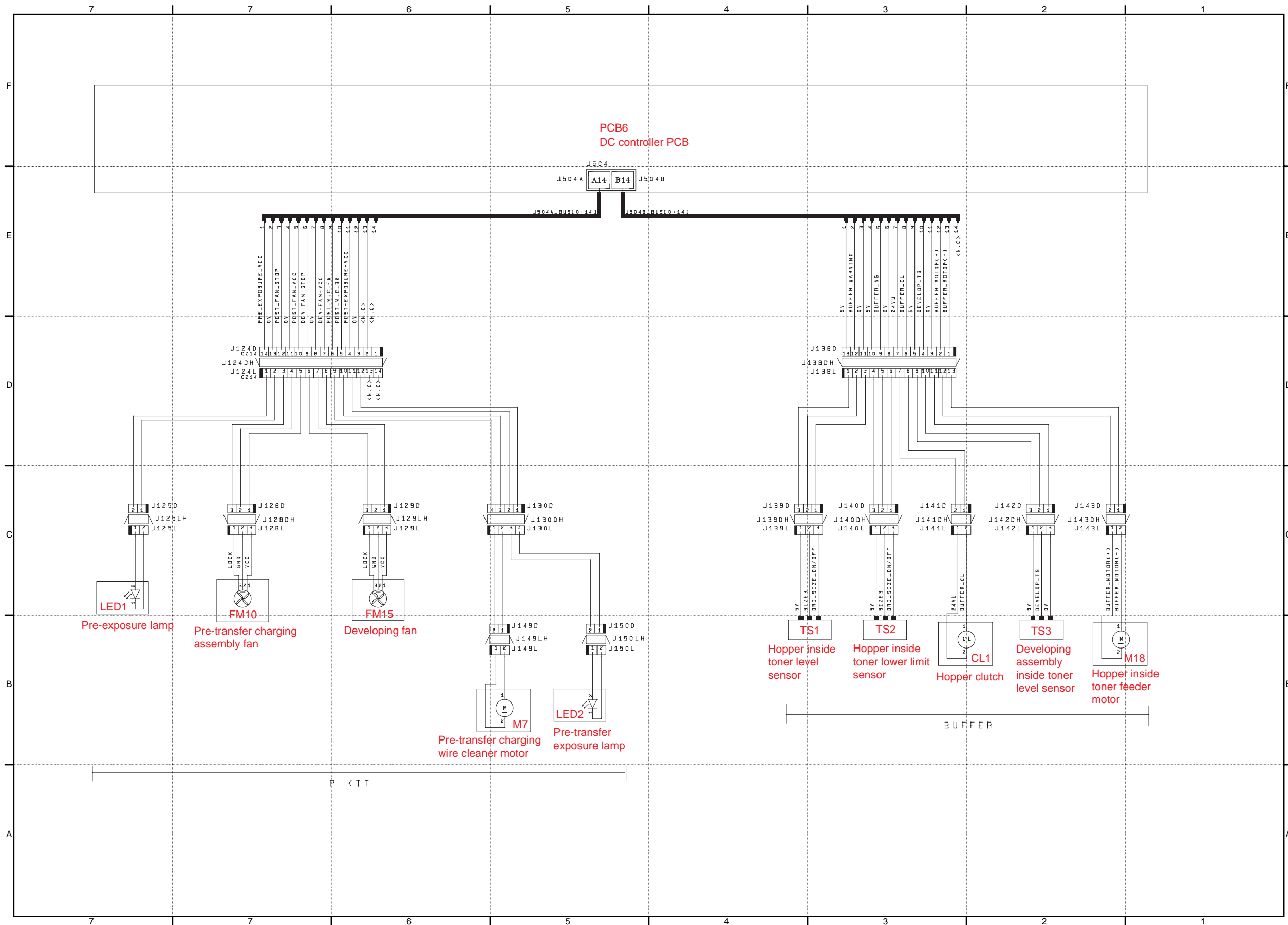
F-2-20



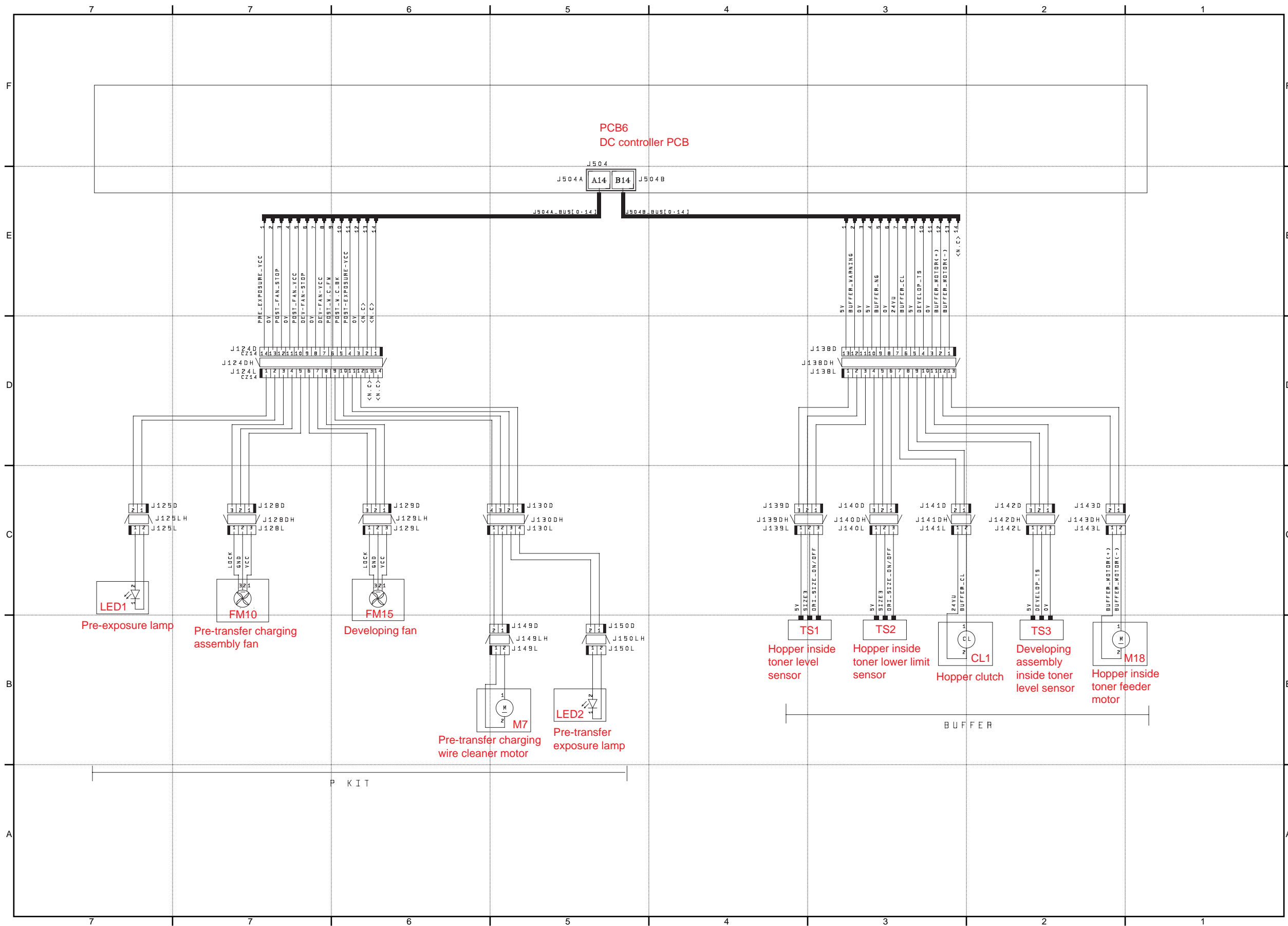
F-2-21



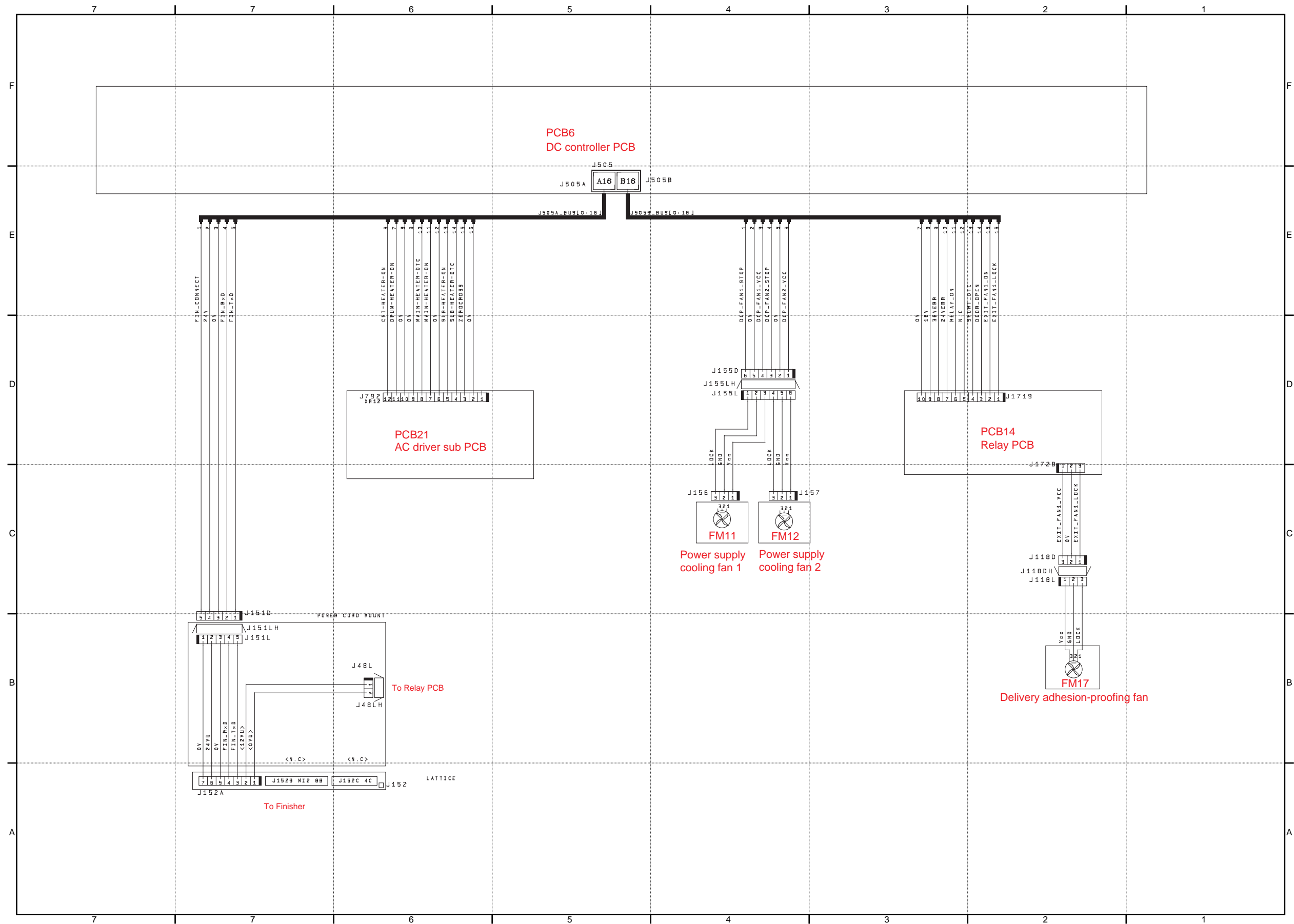
F-2-22



F-2-23

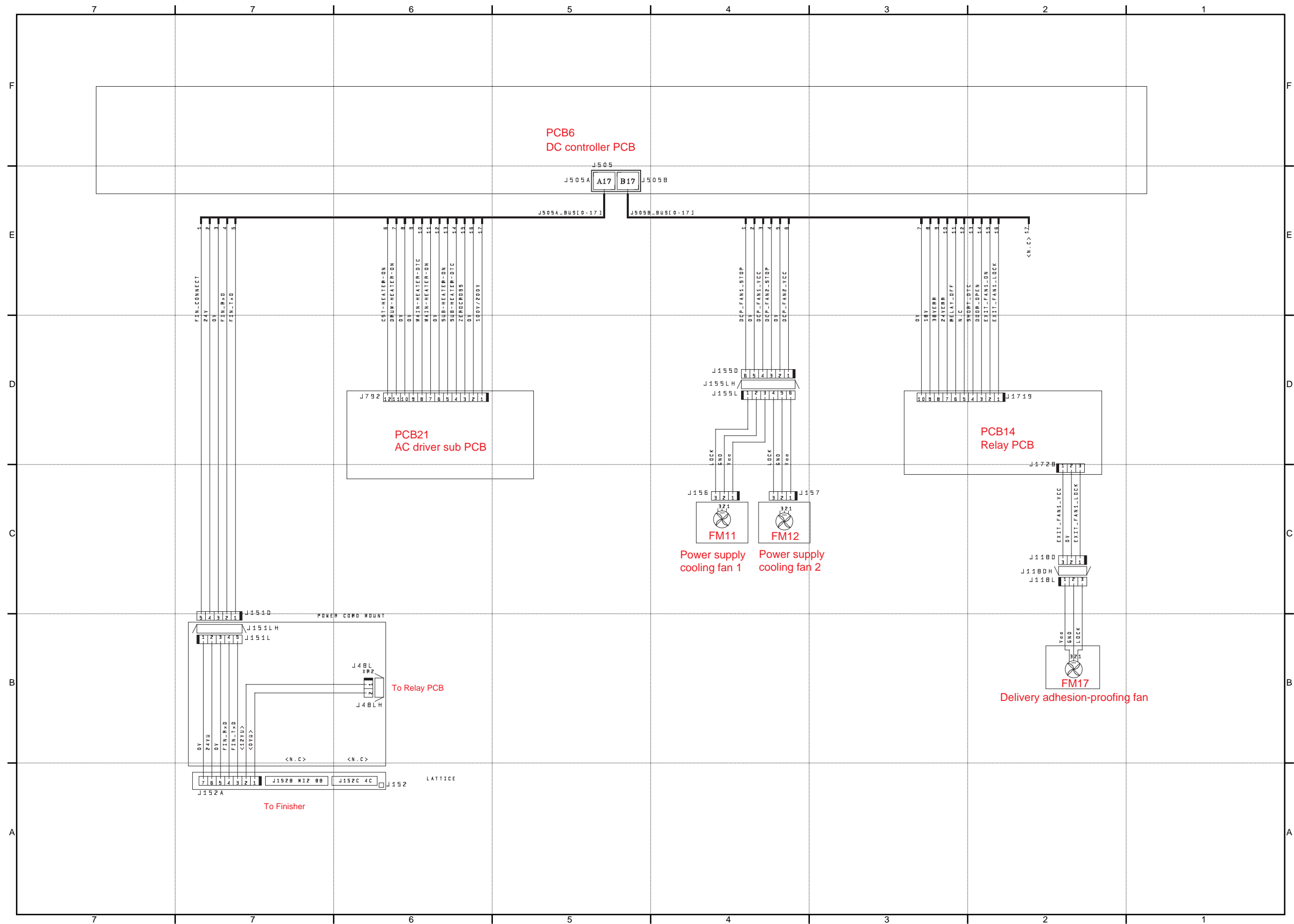


F-2-24



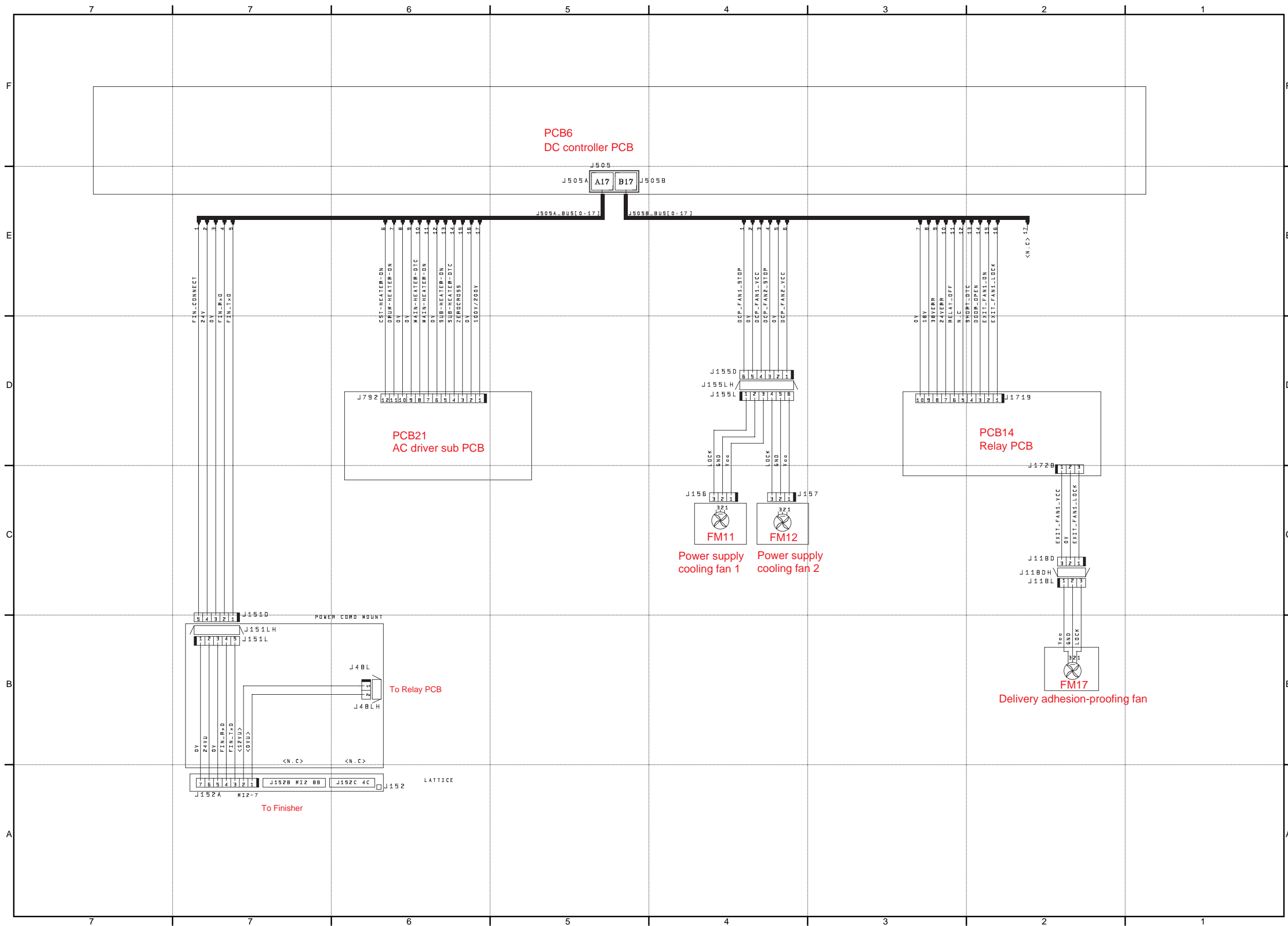
F-2-25

(7/24)

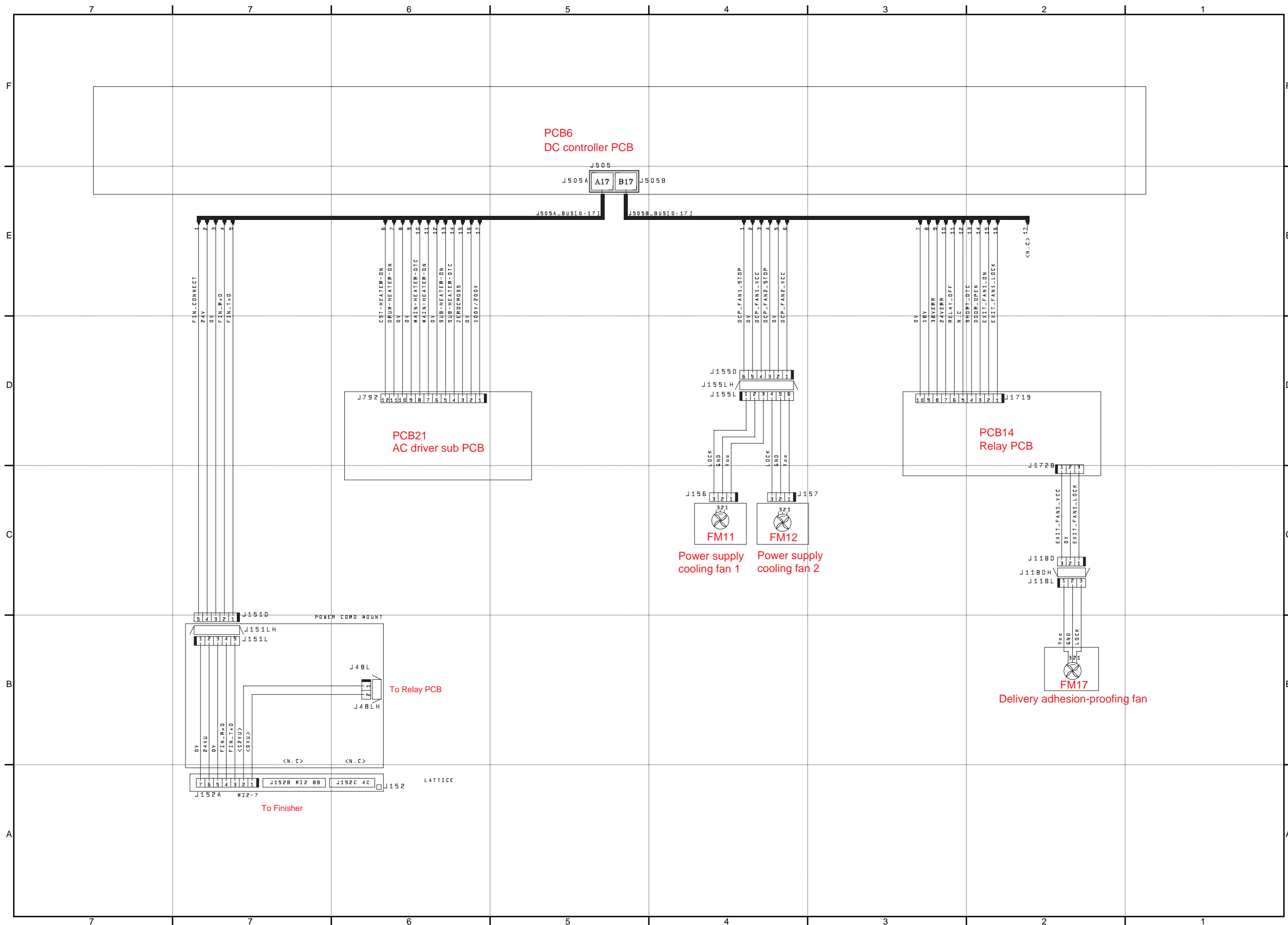


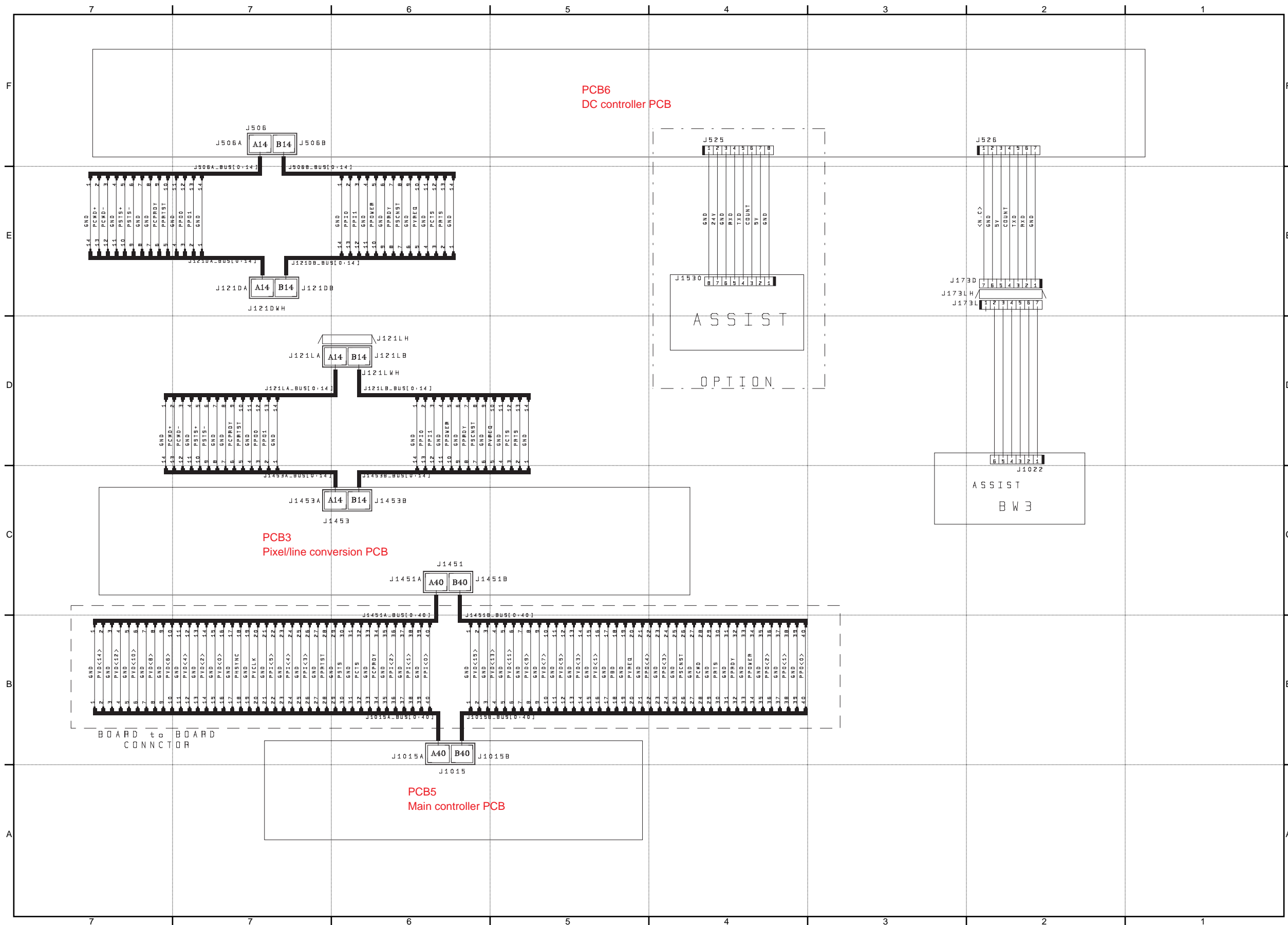
F-2-26

(7/21)

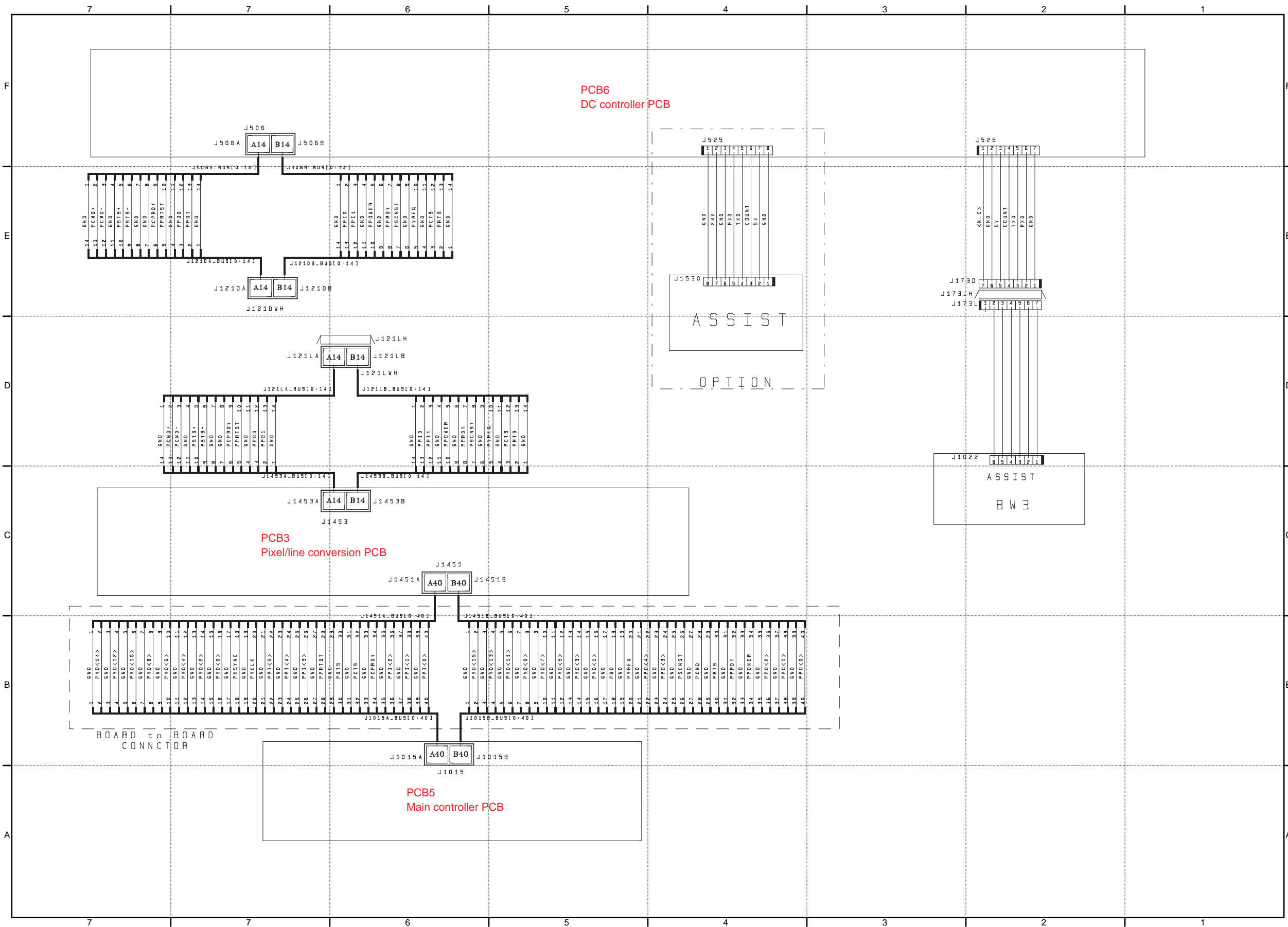


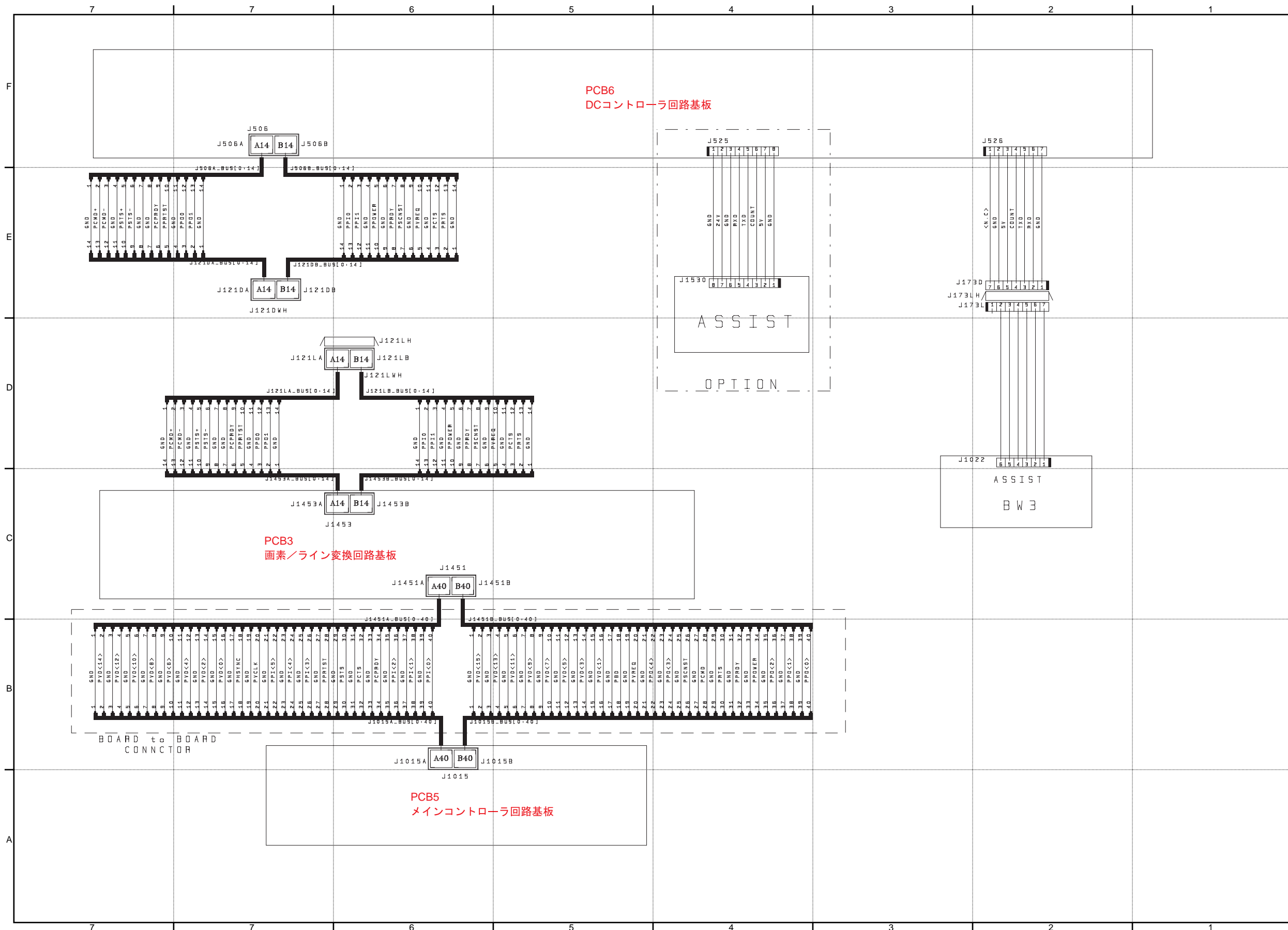
F-2-27





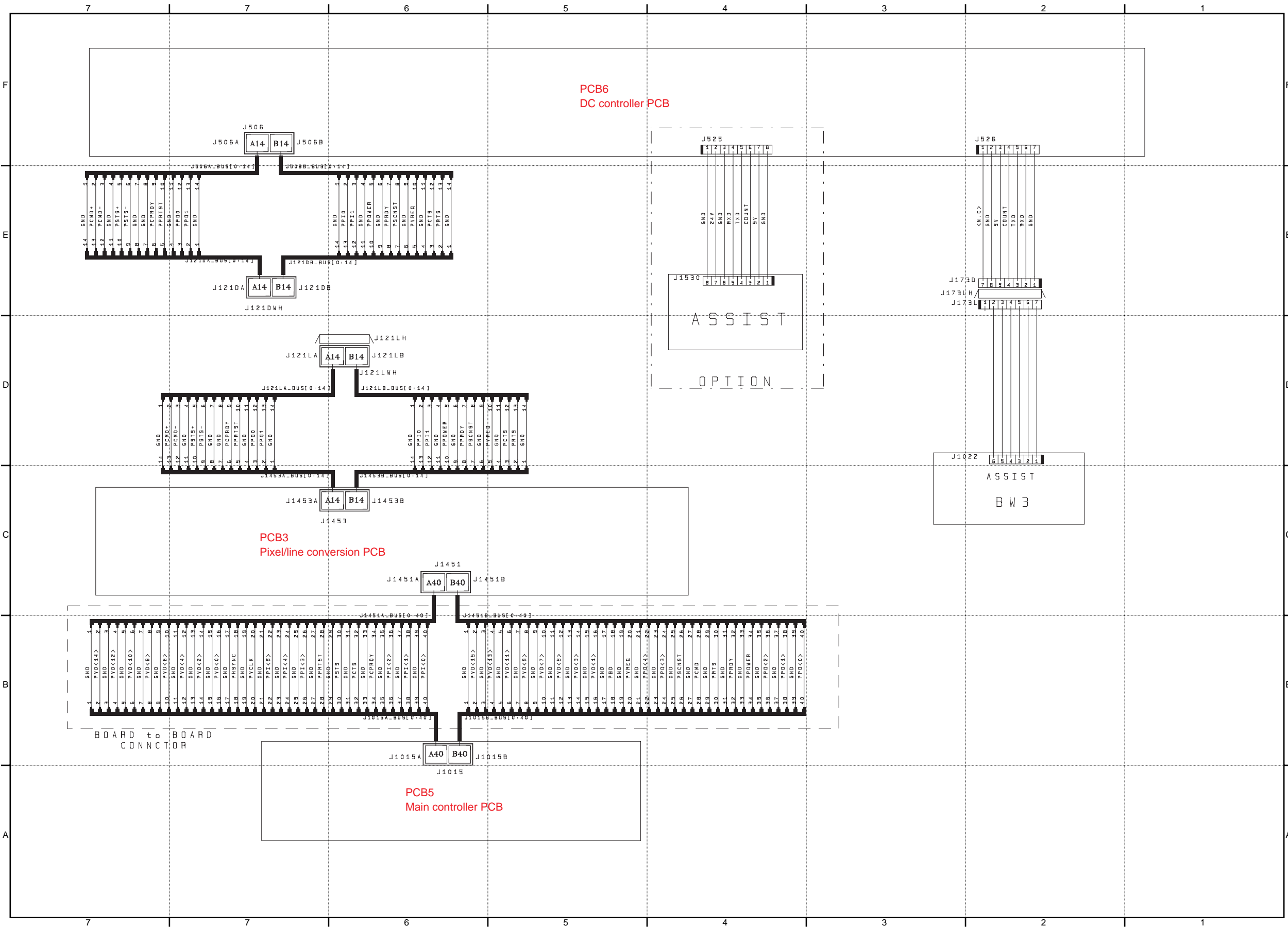
F-2-29





F-2-31

(8/24)



PCB6
DC controller PCB

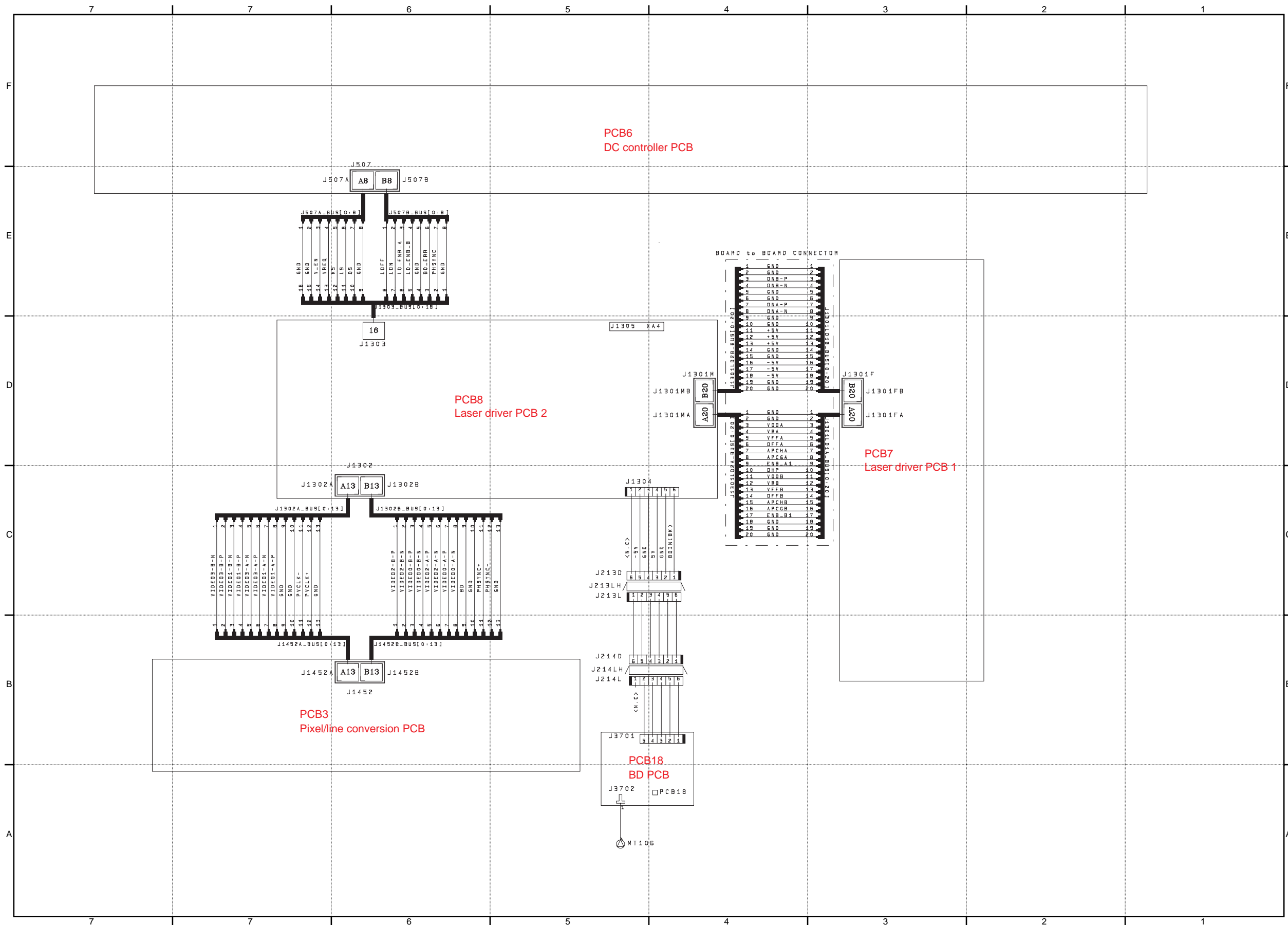
PCB3
Pixel/line conversion PCB

PCB5
Main controller PCB

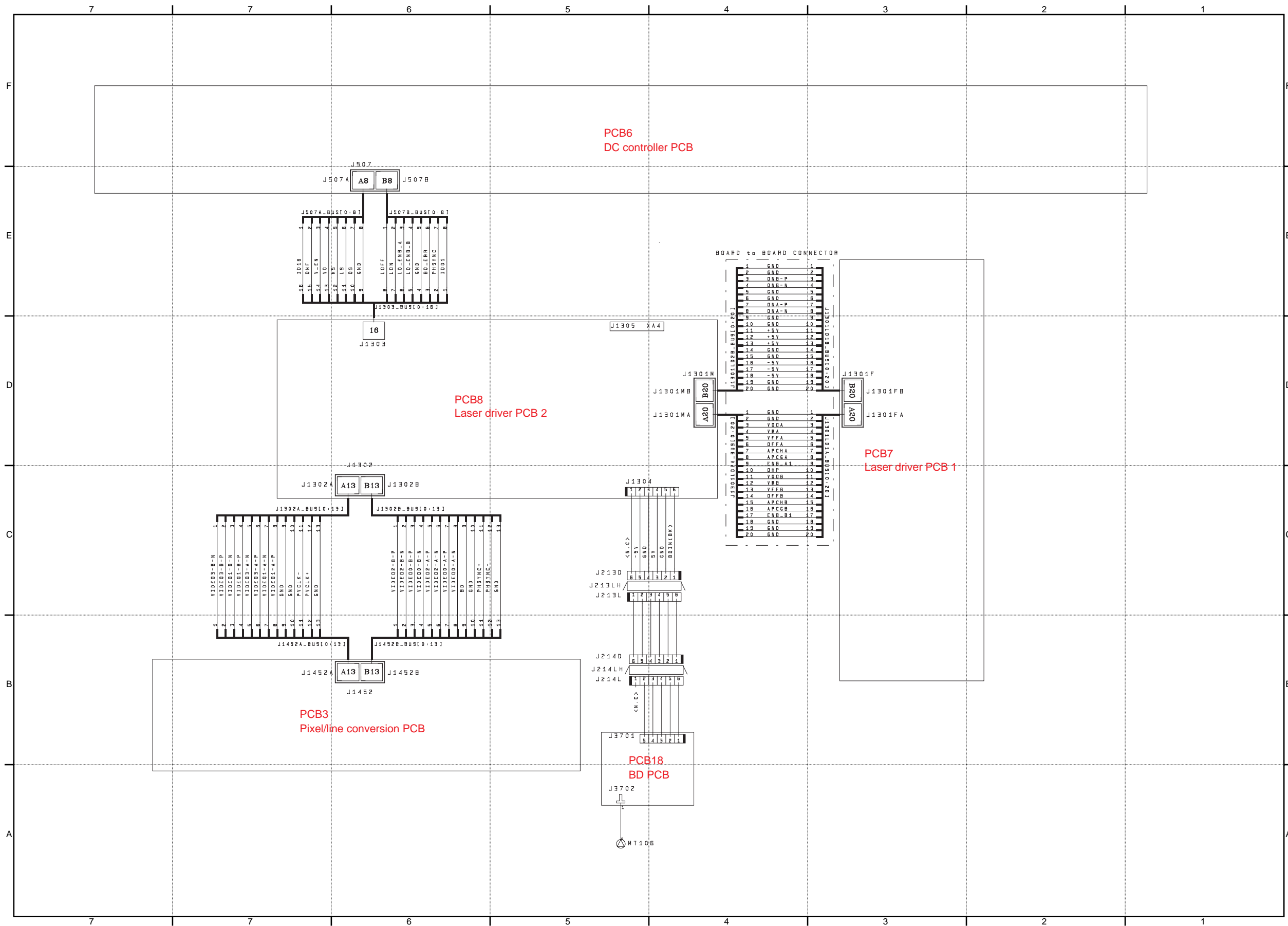
ASSIST
OPTION

ASSIST
BW3

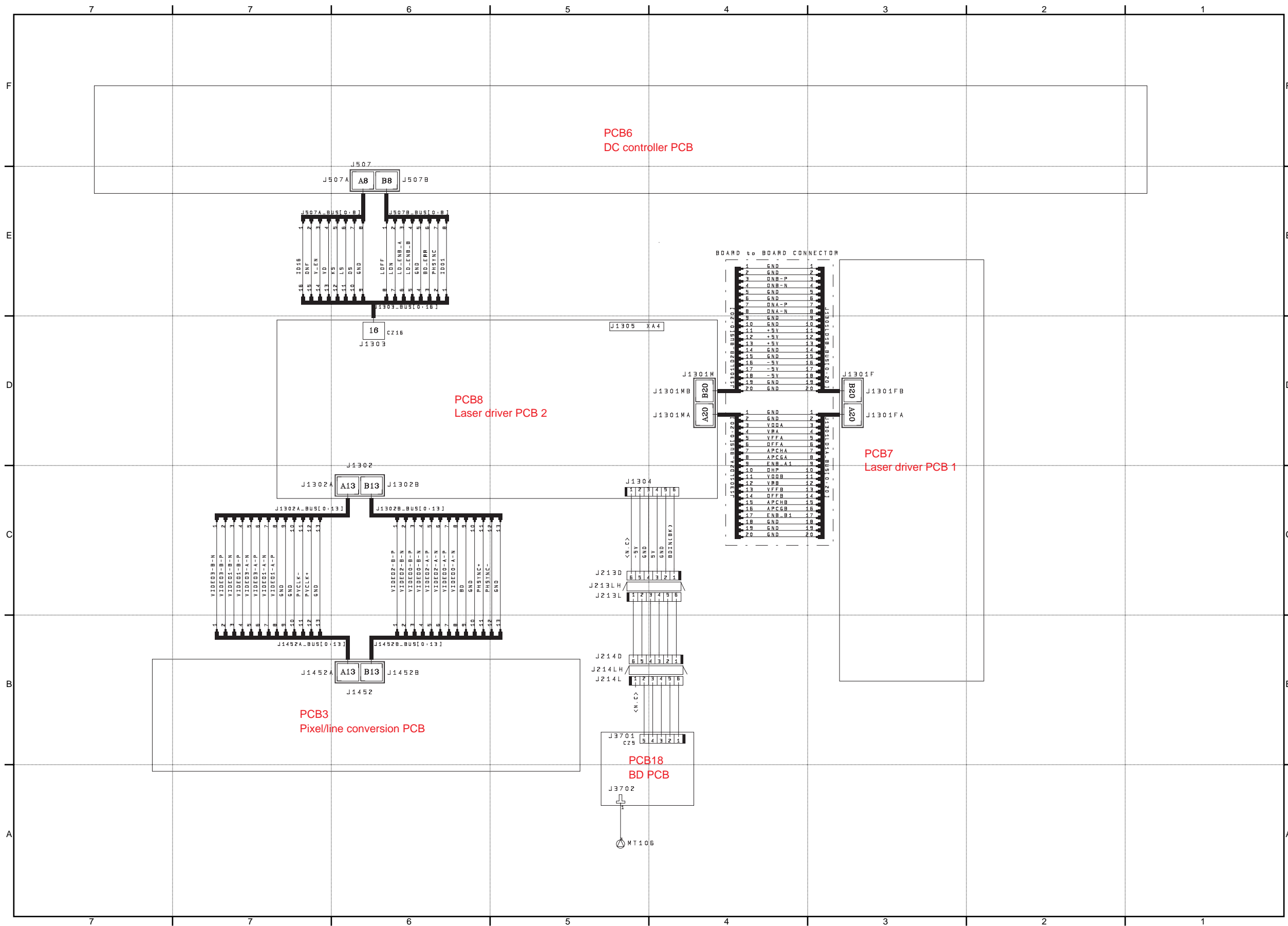
F-2-32



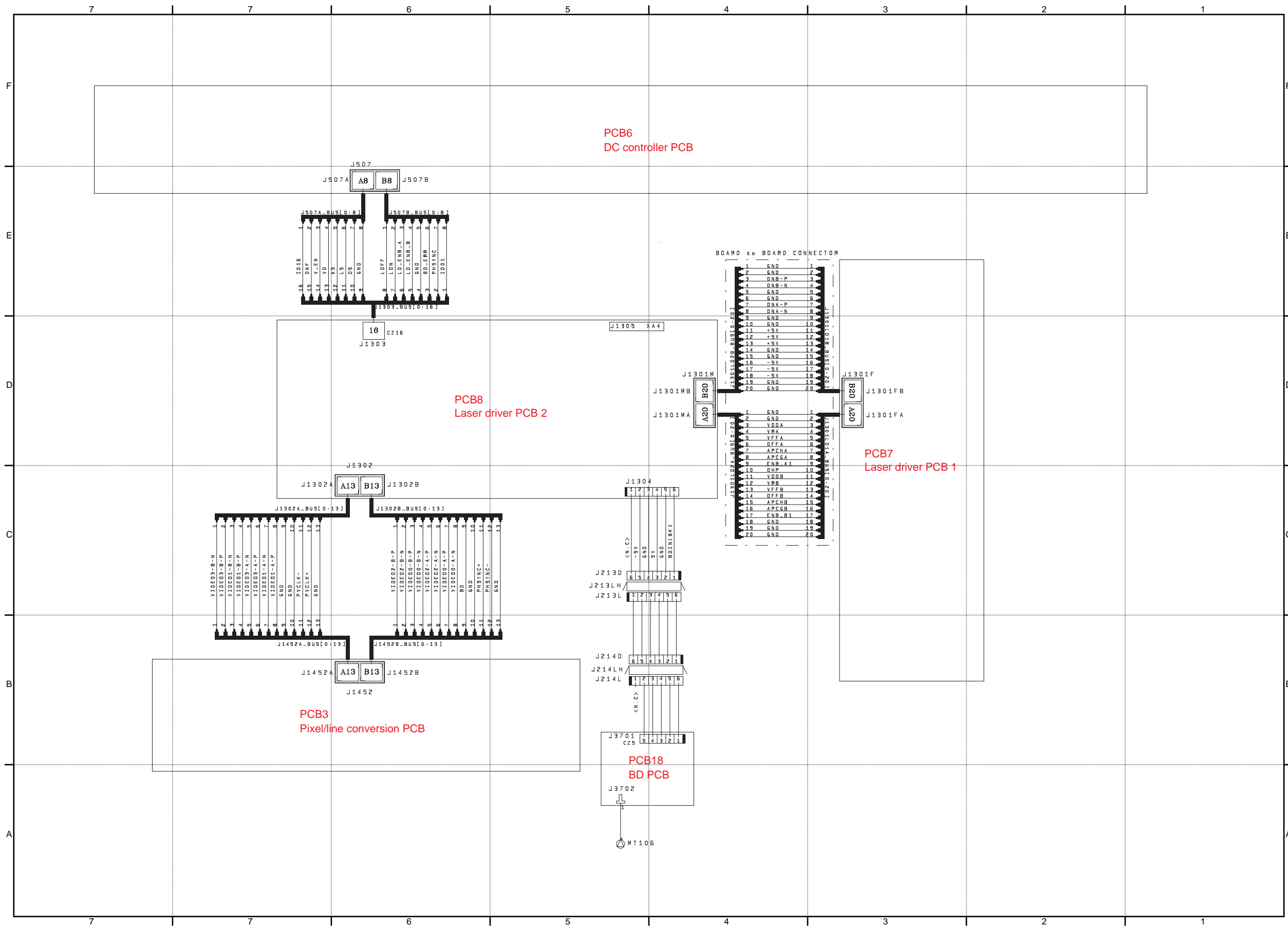
F-2-33



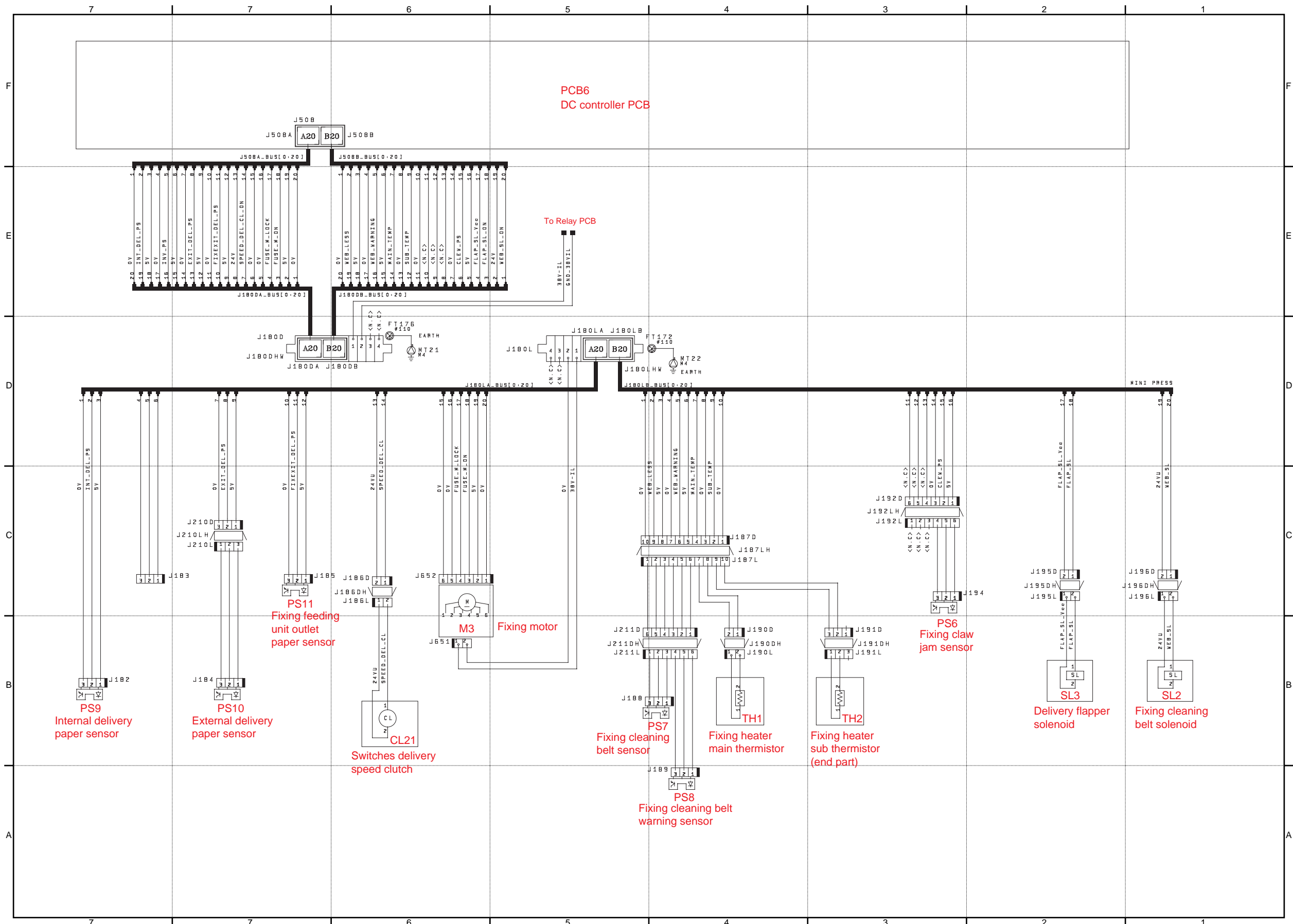
F-2-34



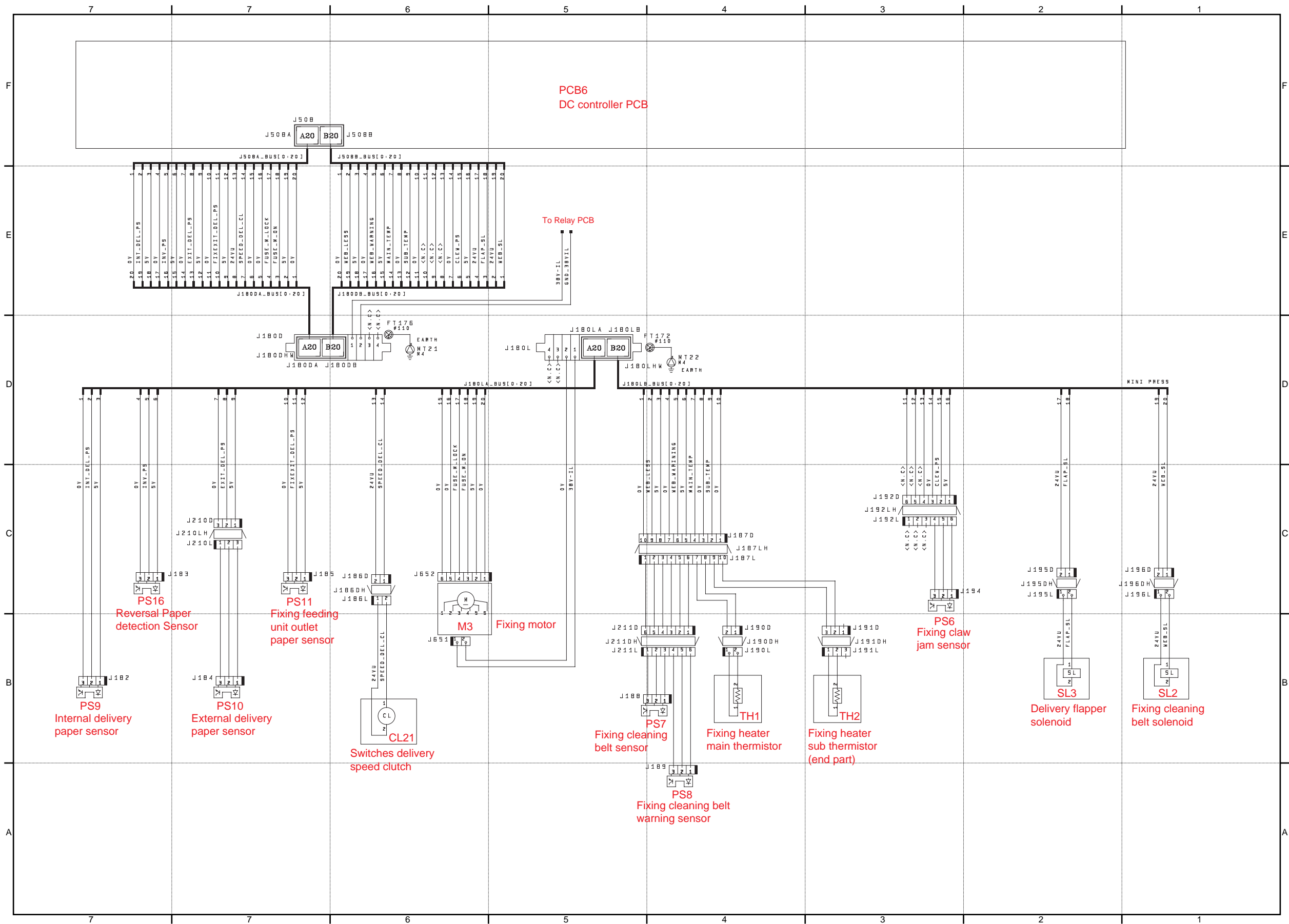
F-2-35



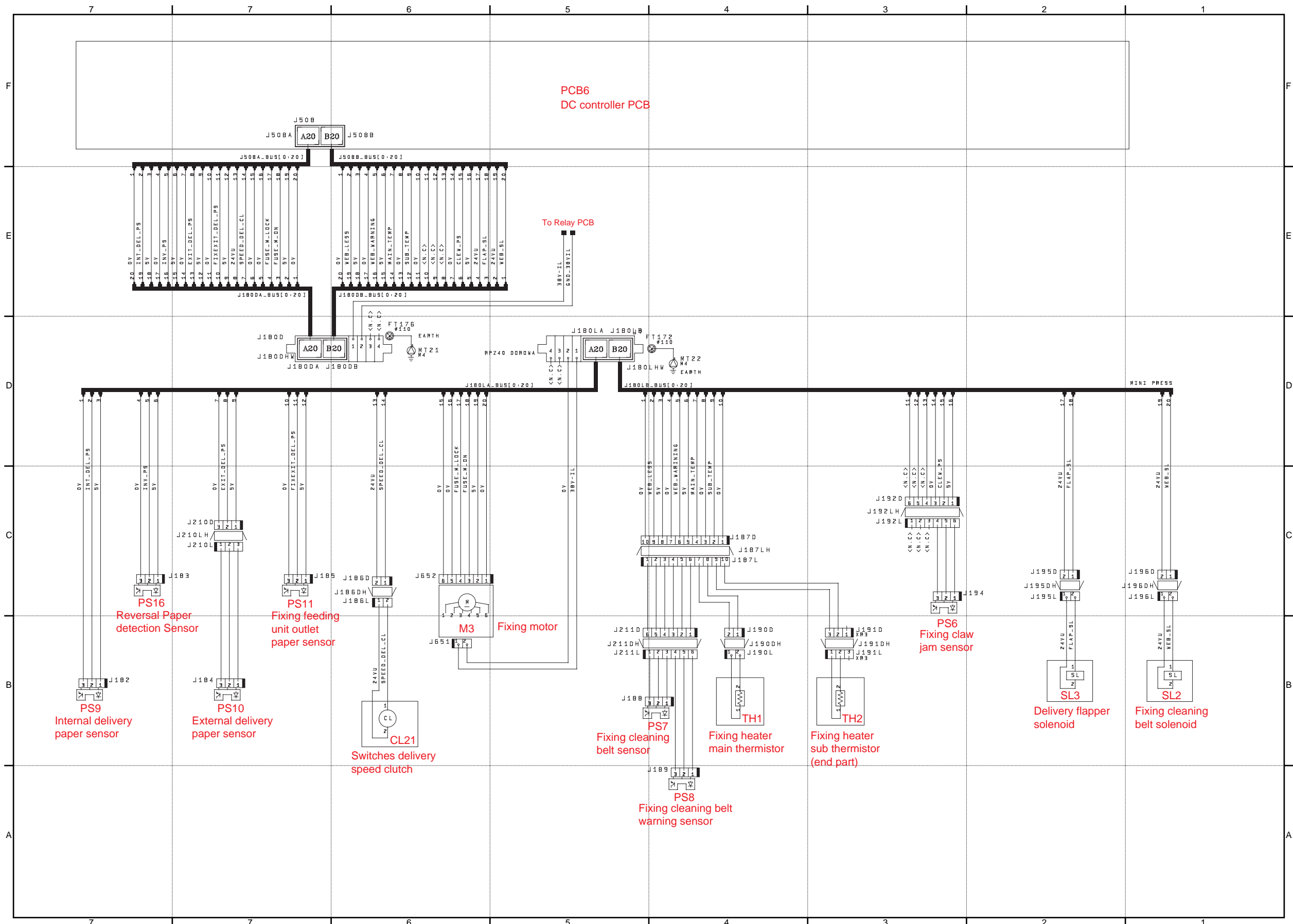
F-2-36

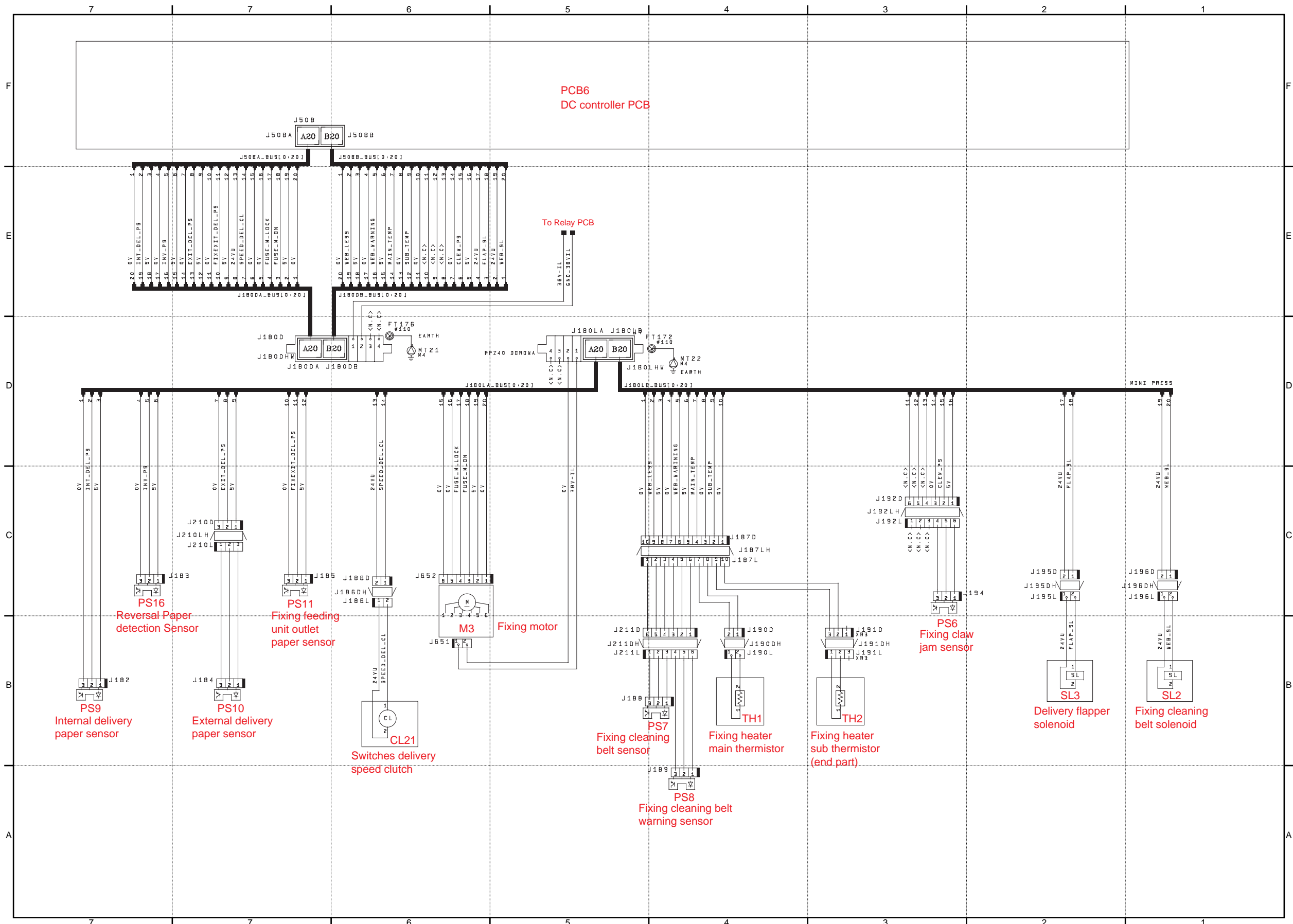


F-2-37

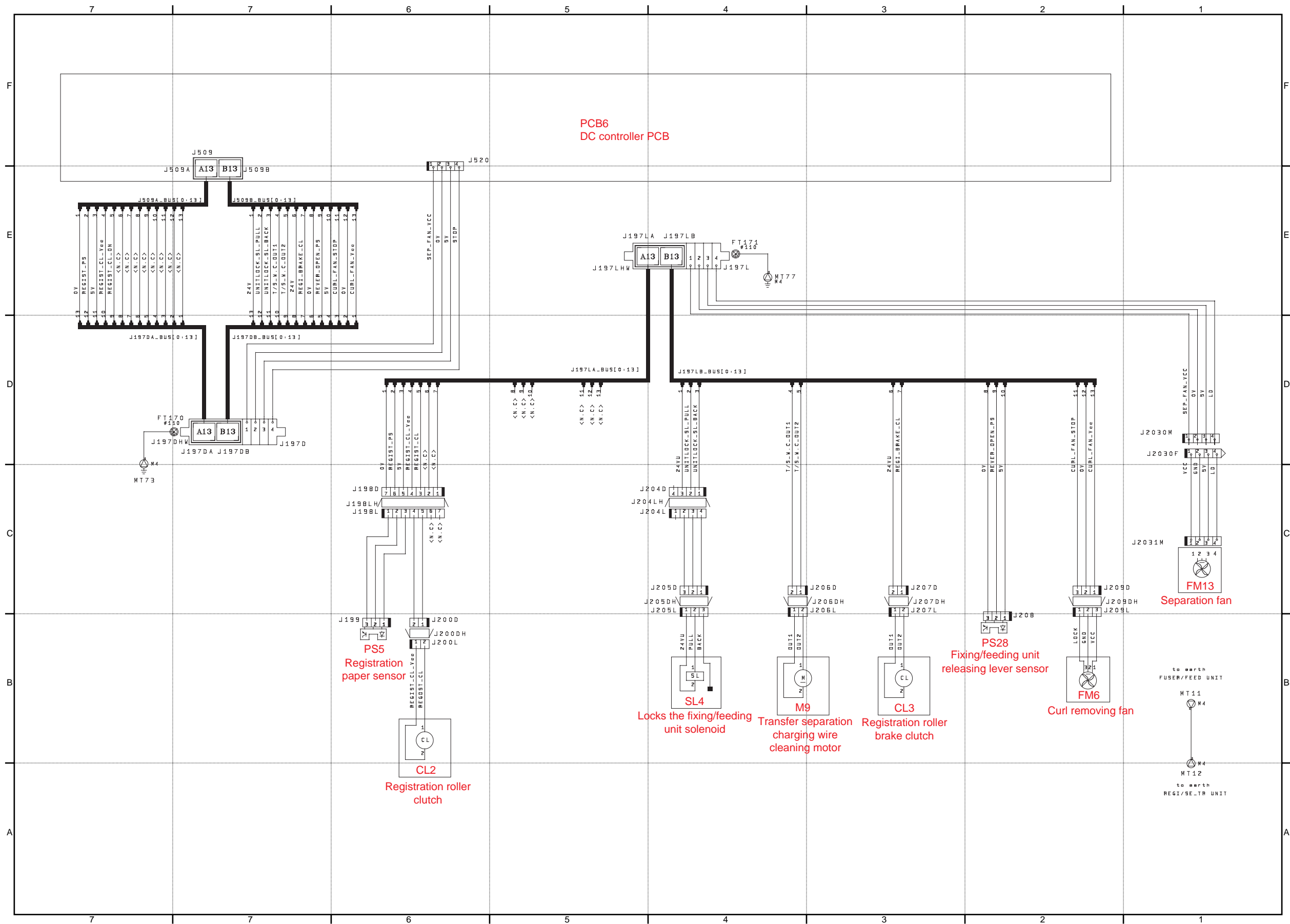


F-2-38

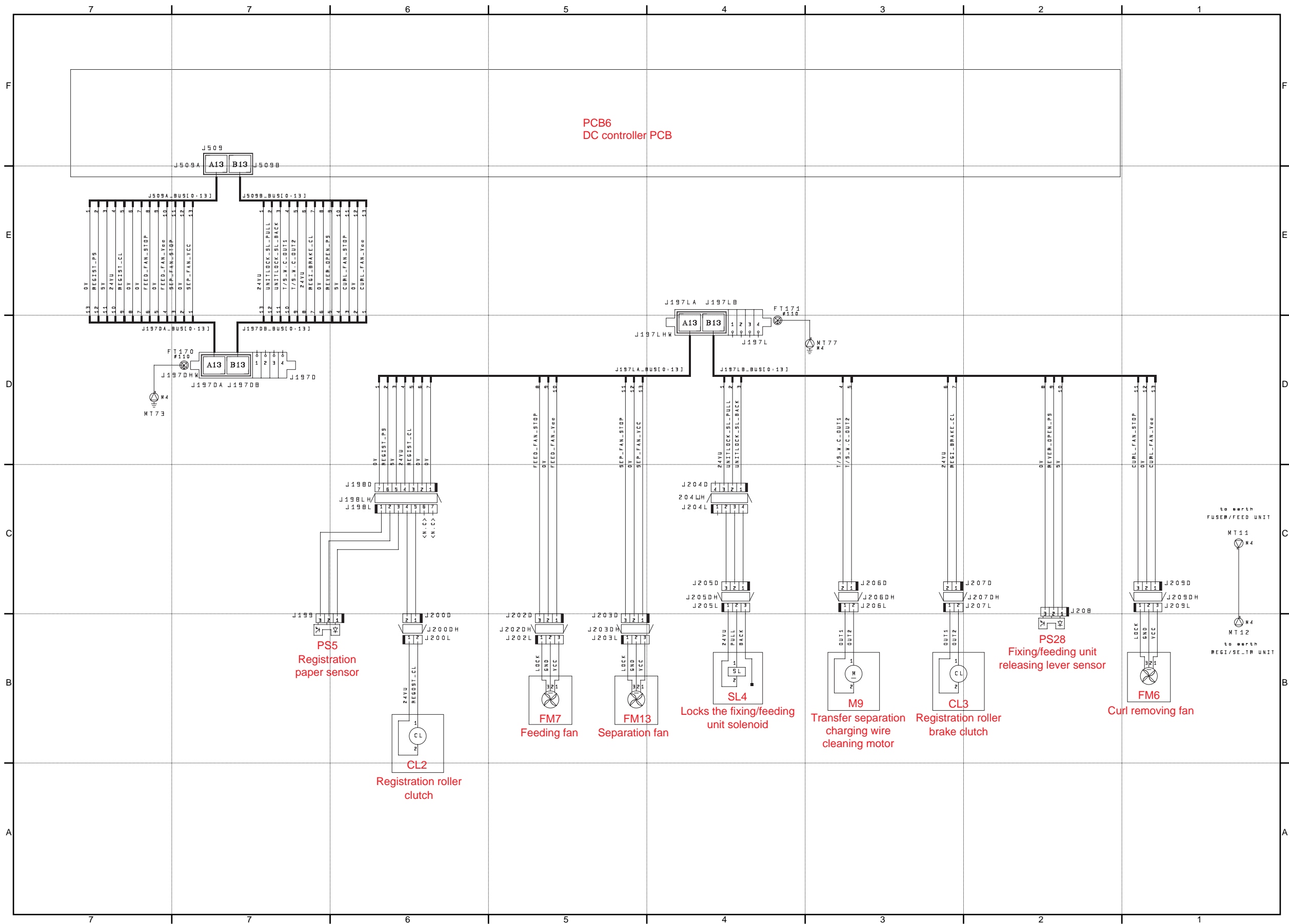




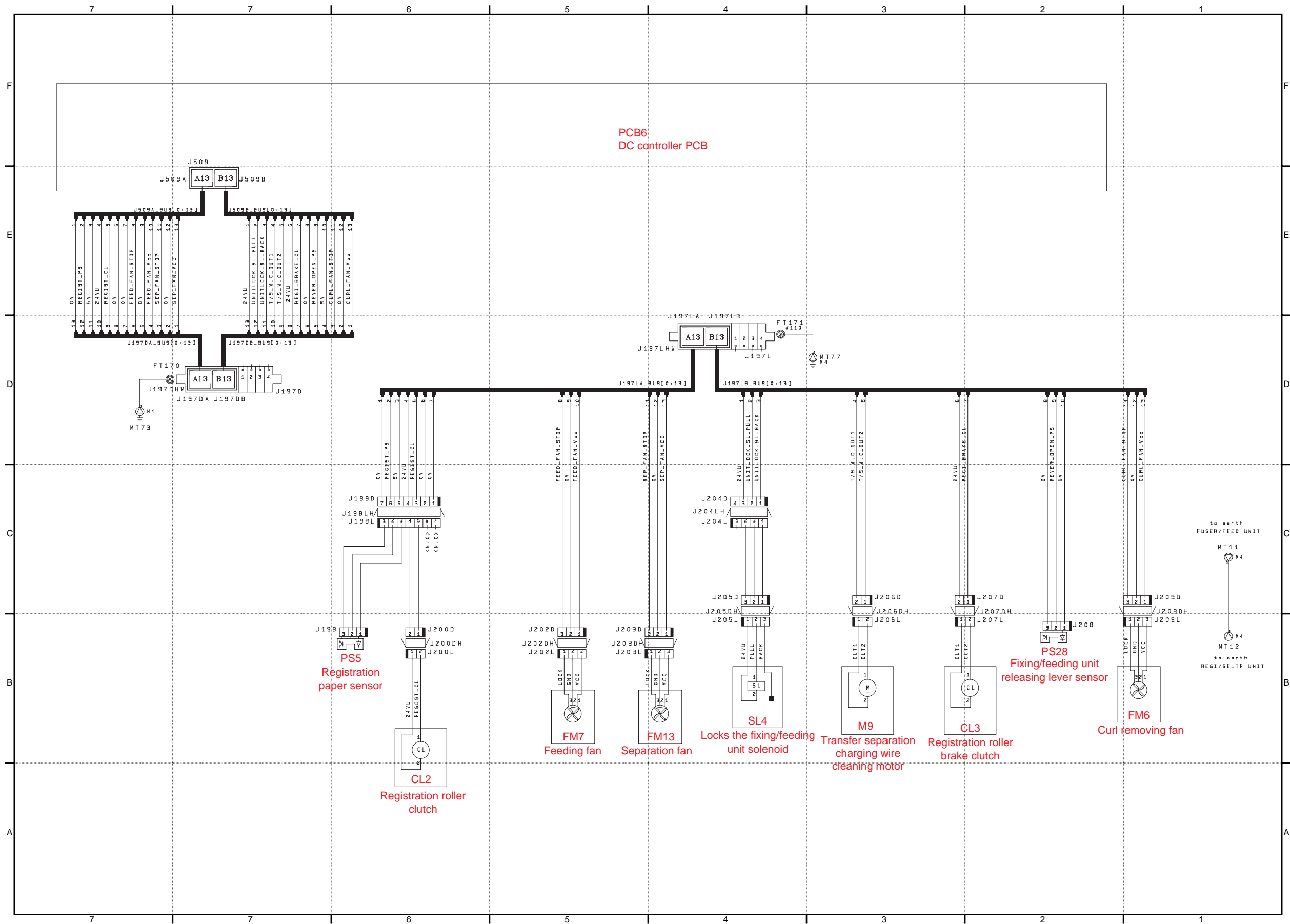
F-2-40



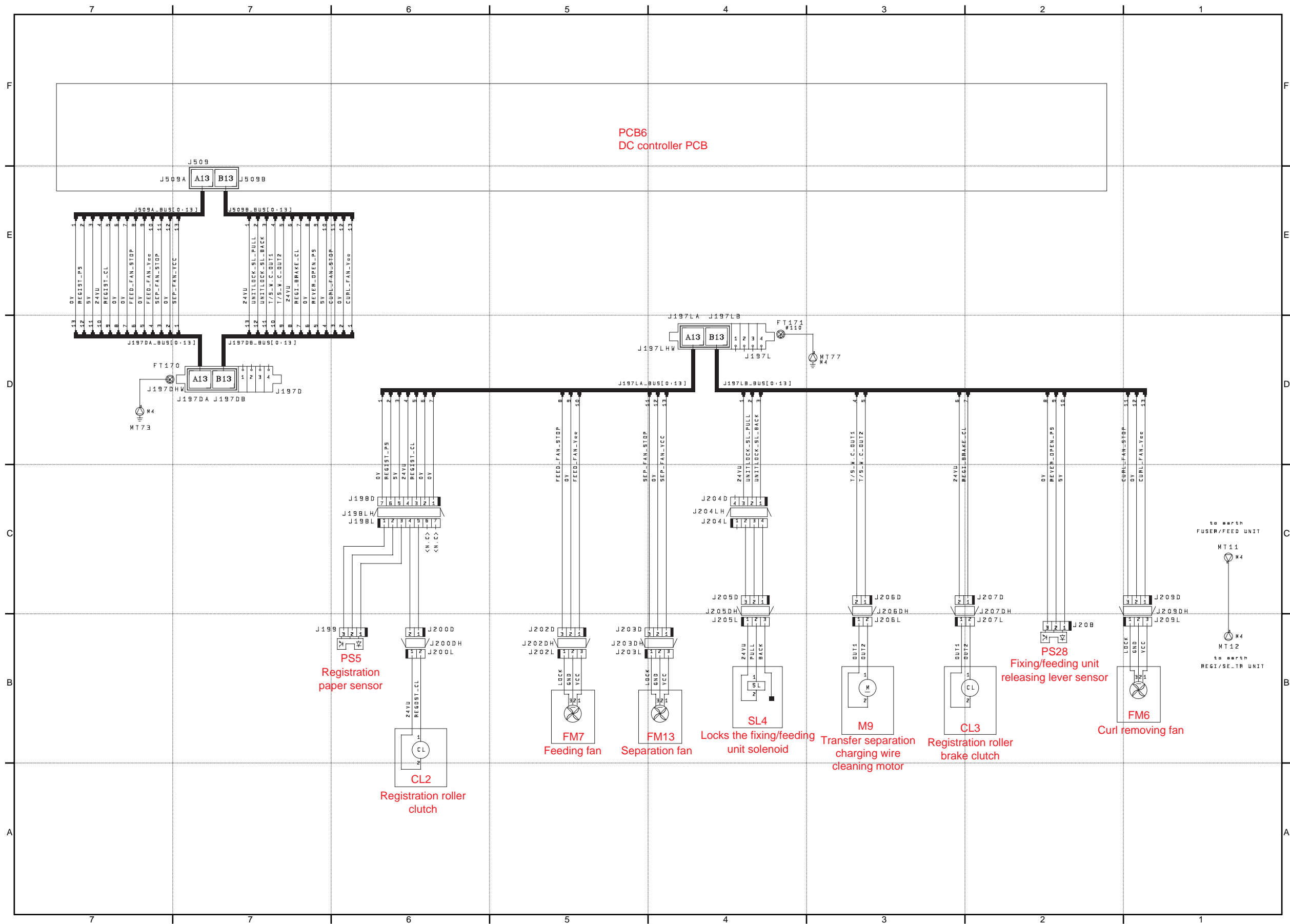
F-2-41



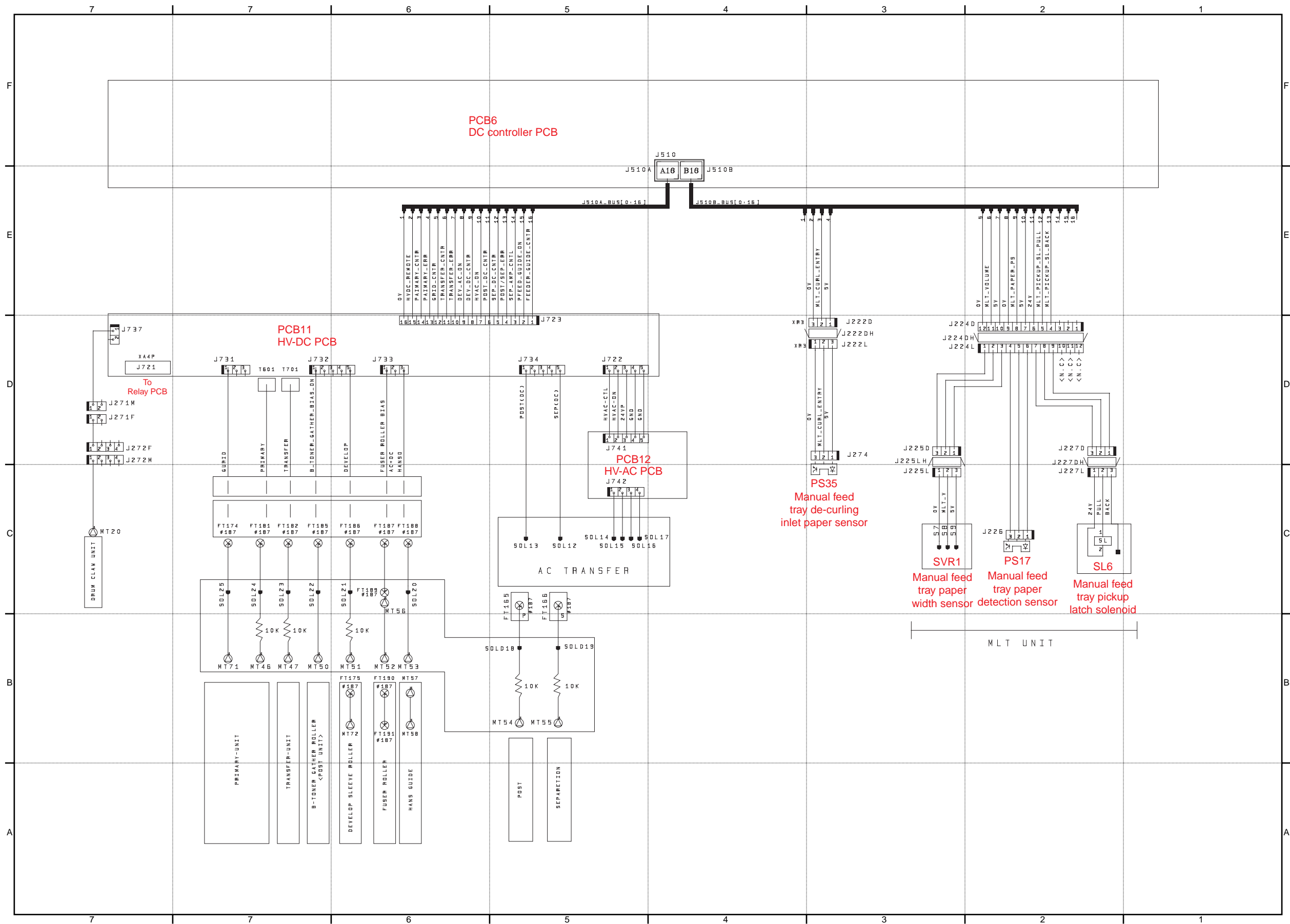
F-2-42



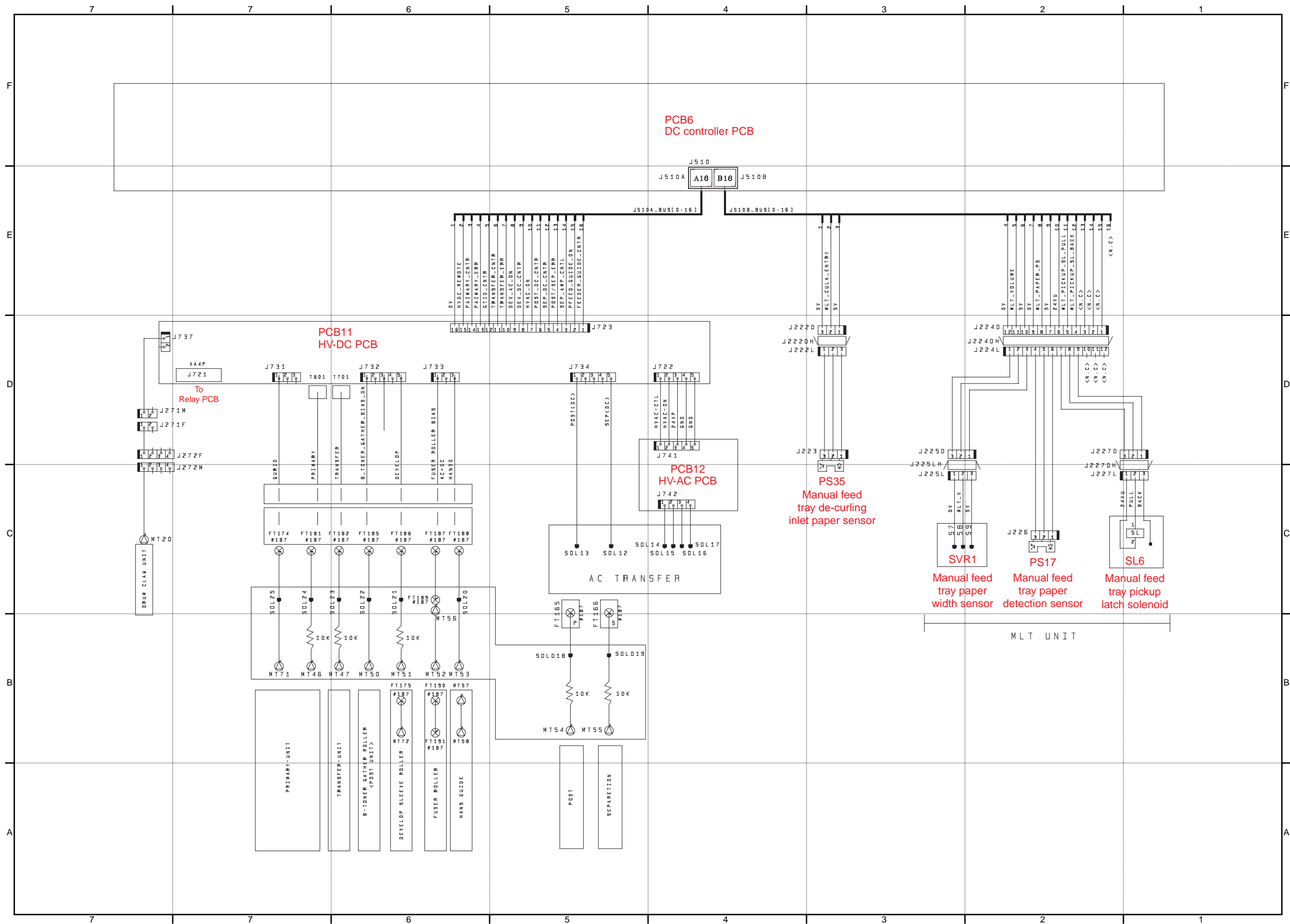
F-2-43



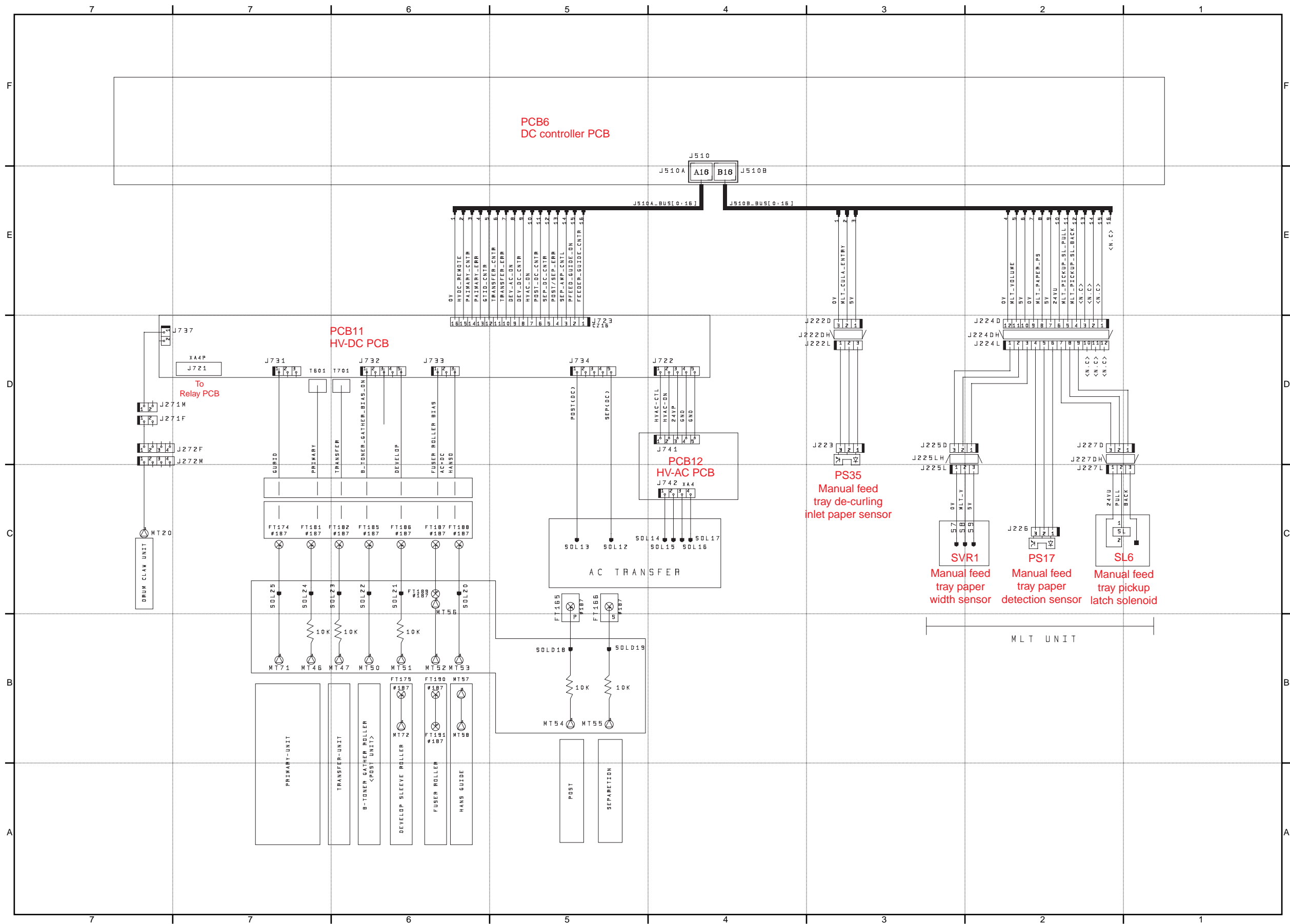
F-2-44



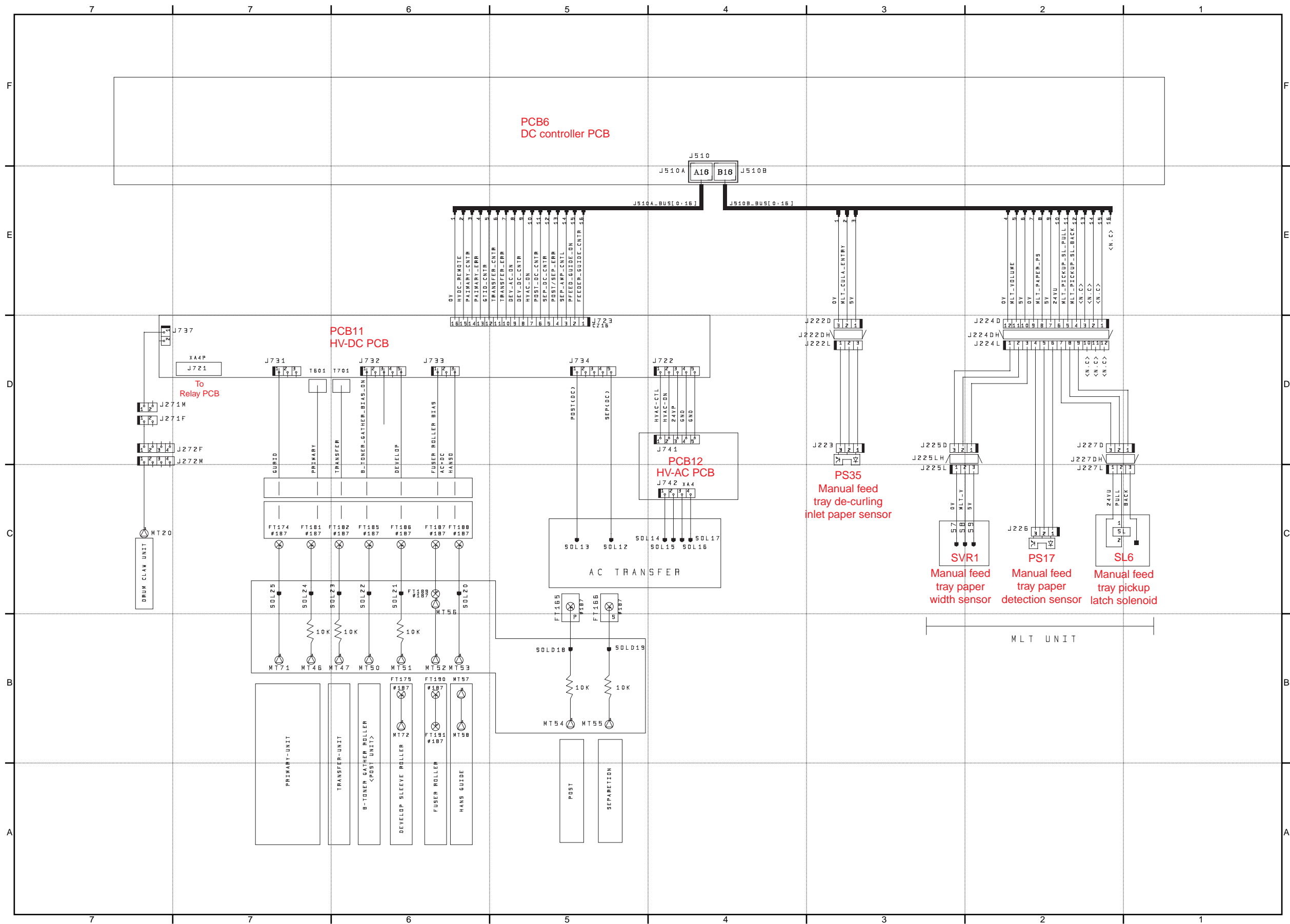
F-2-45



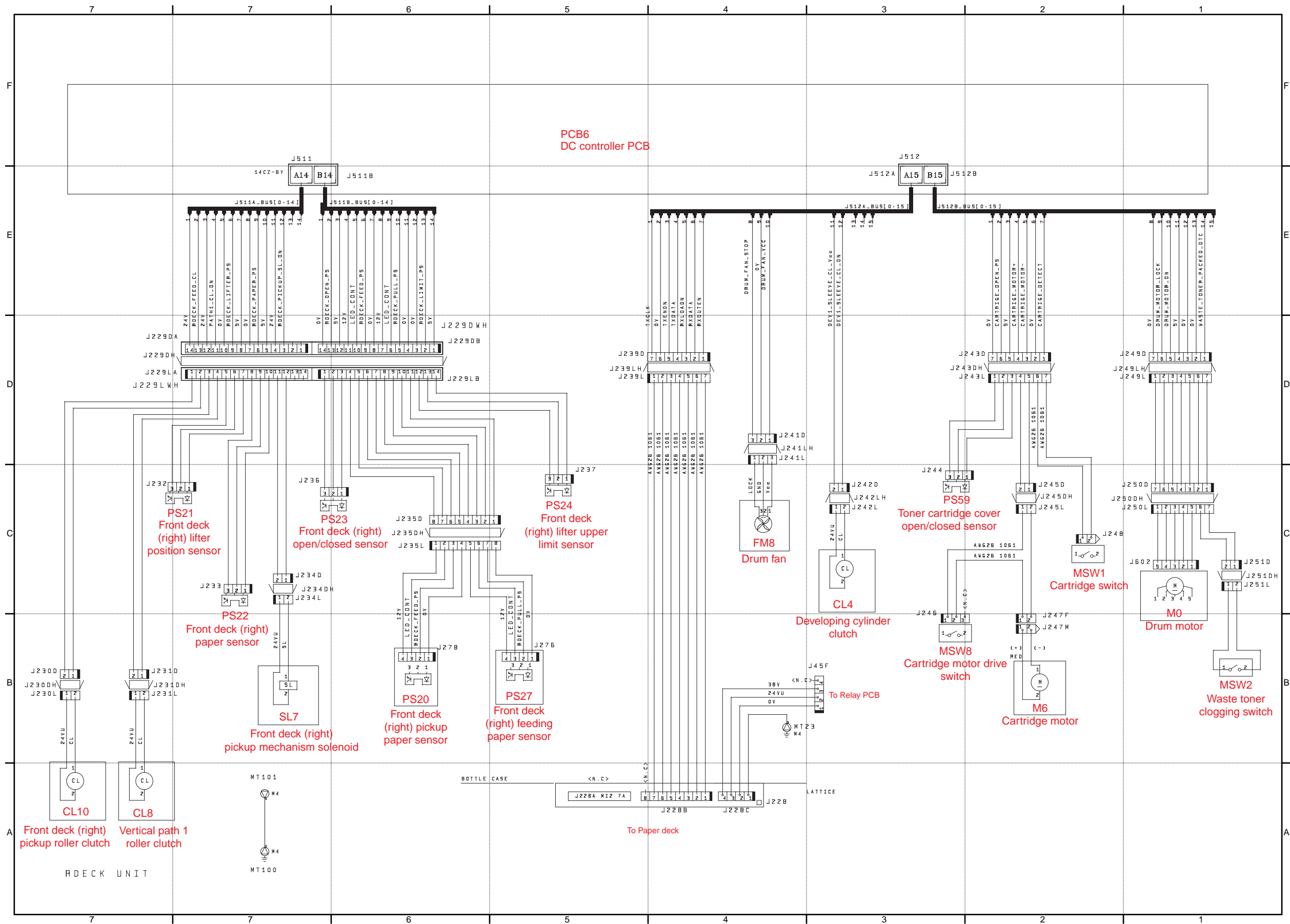
F-2-46



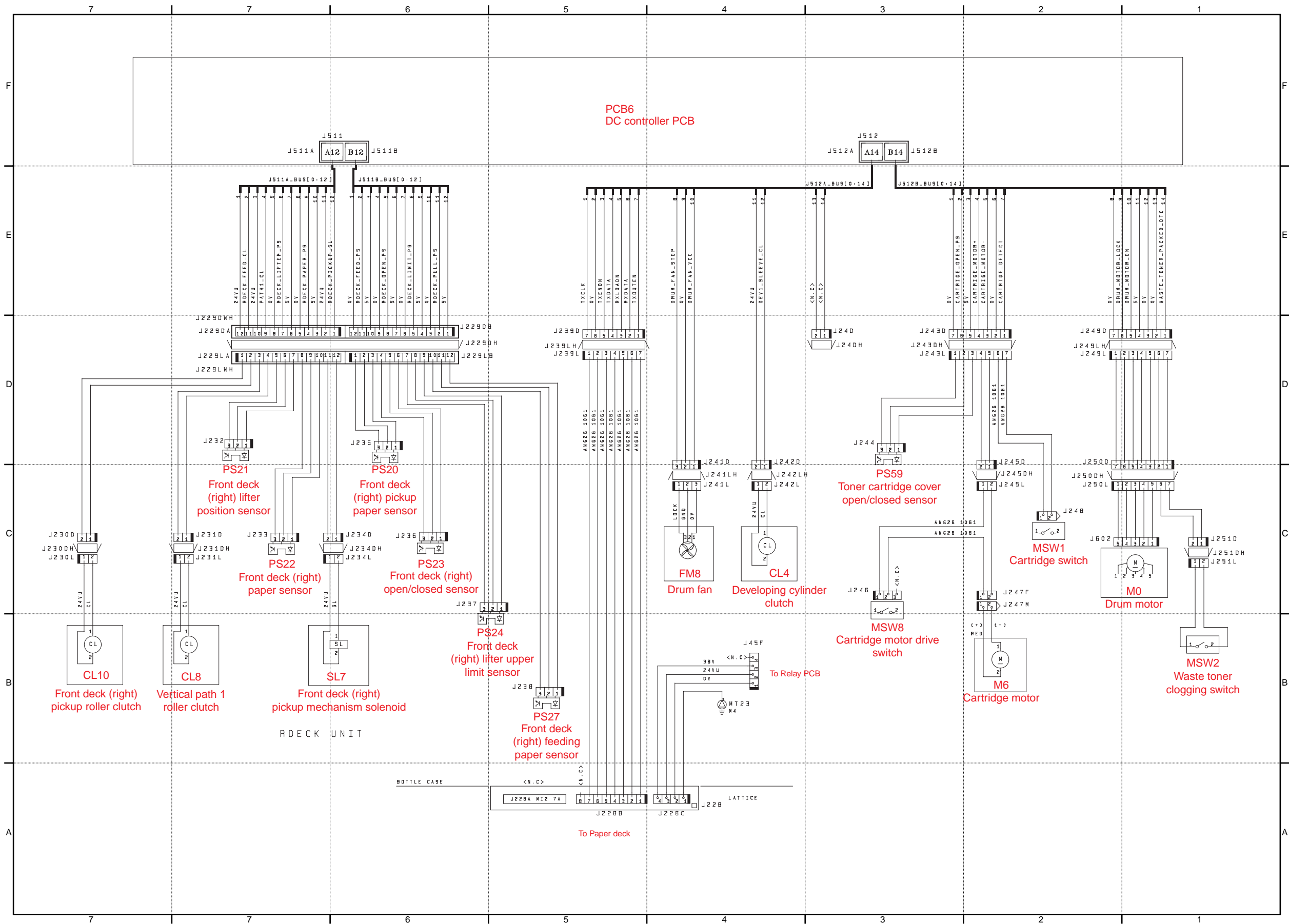
F-2-47



F-2-48

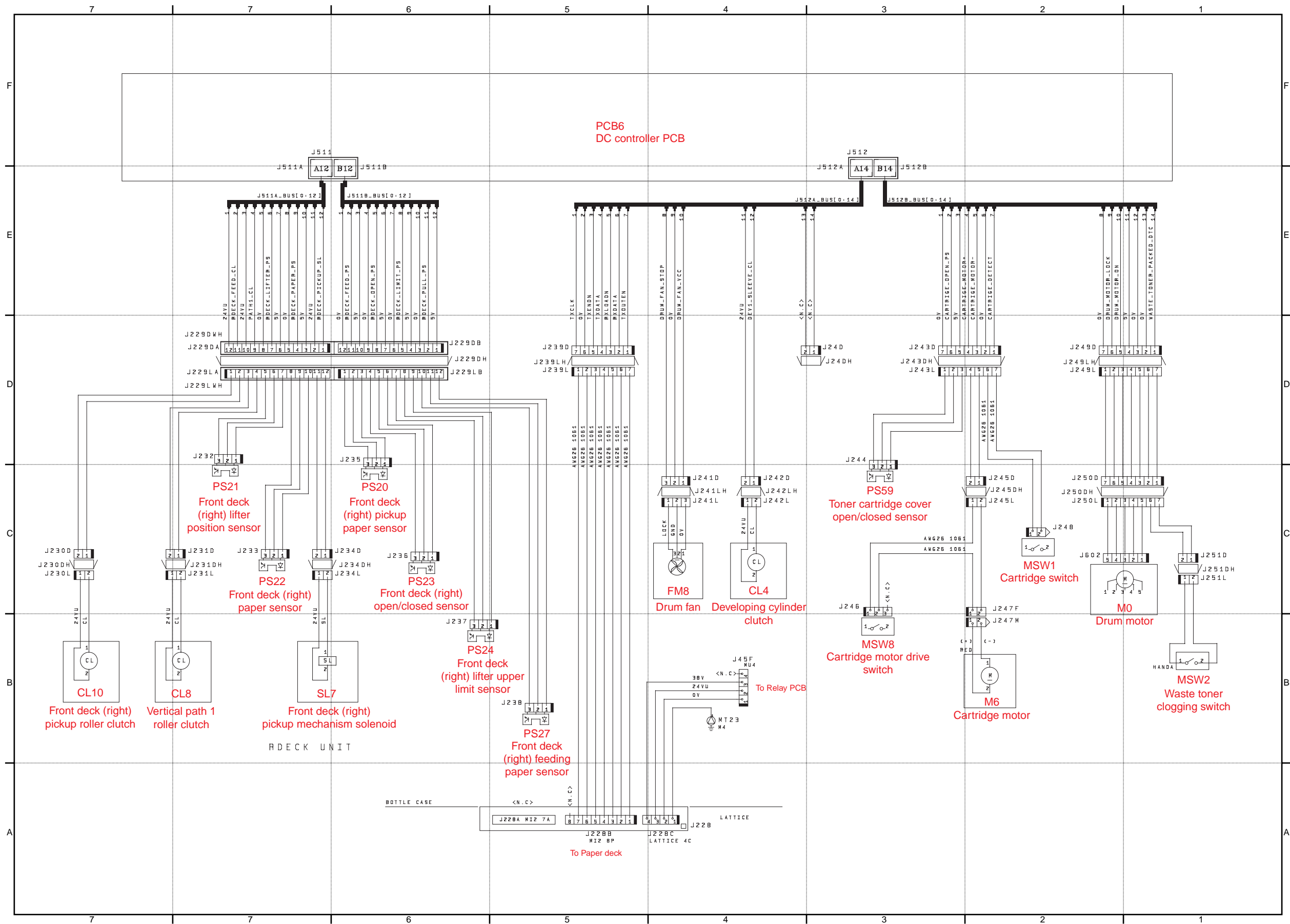


PCB6
DC controller PCB

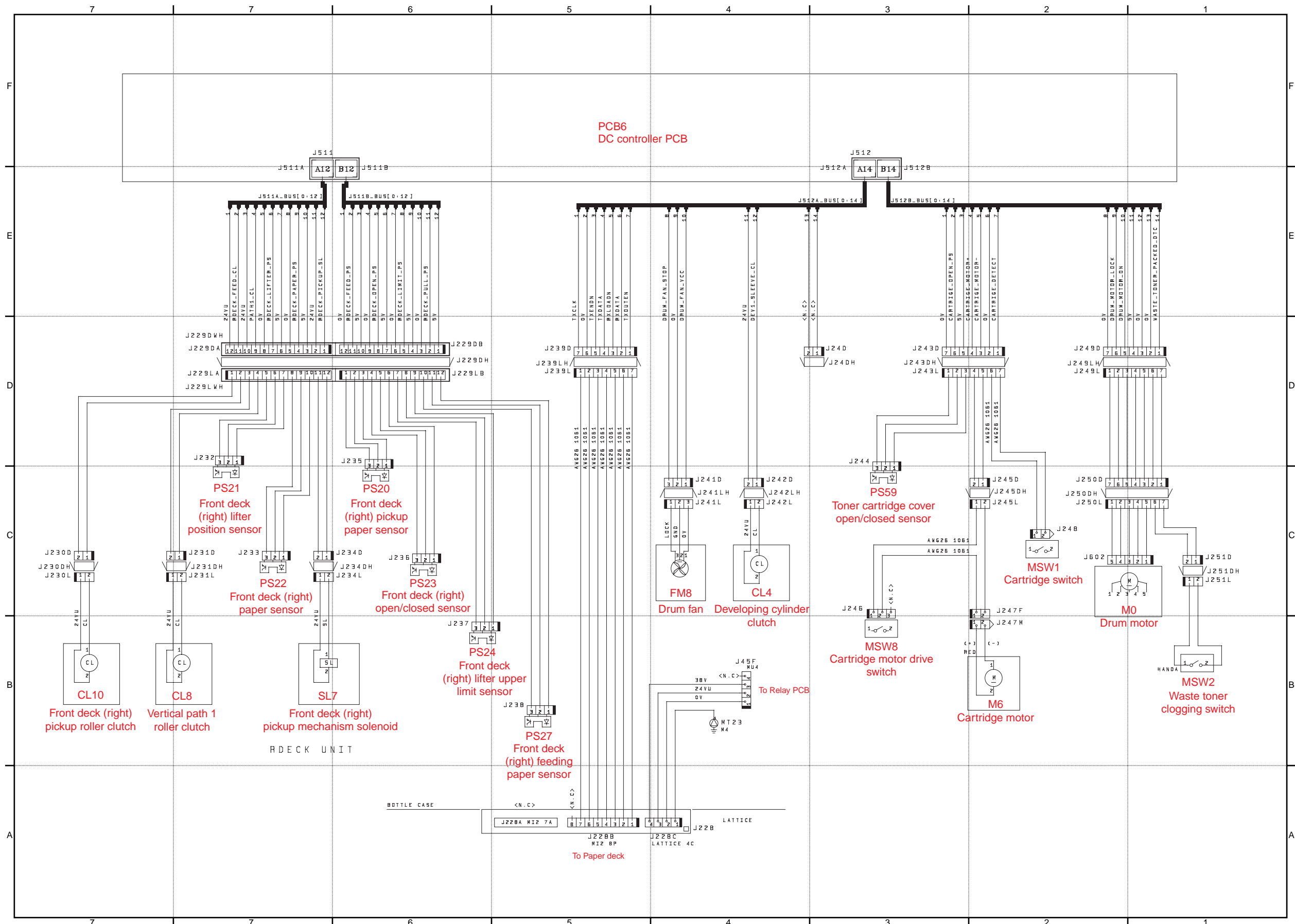


PCB6
DC controller PCB

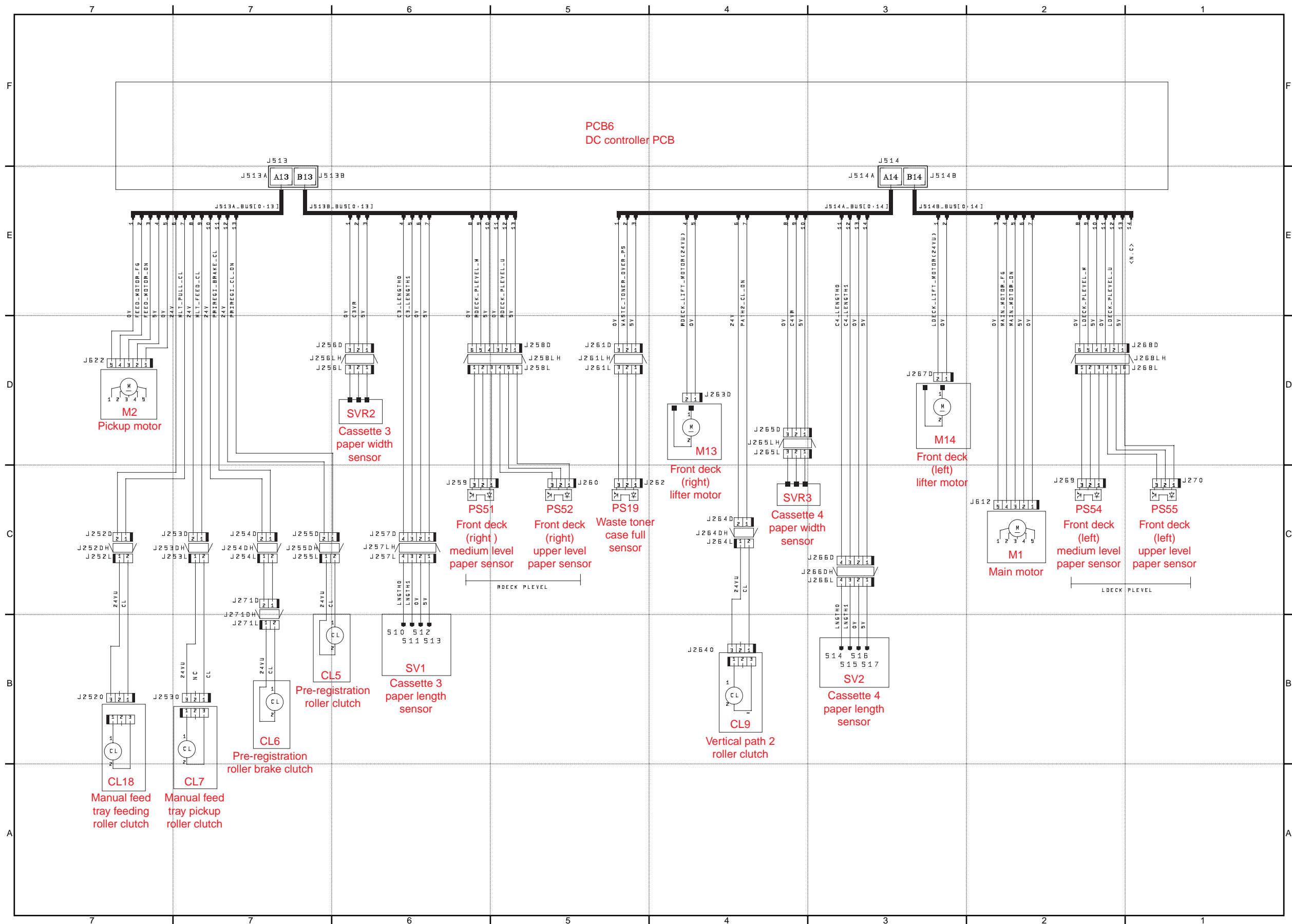
F-2-50

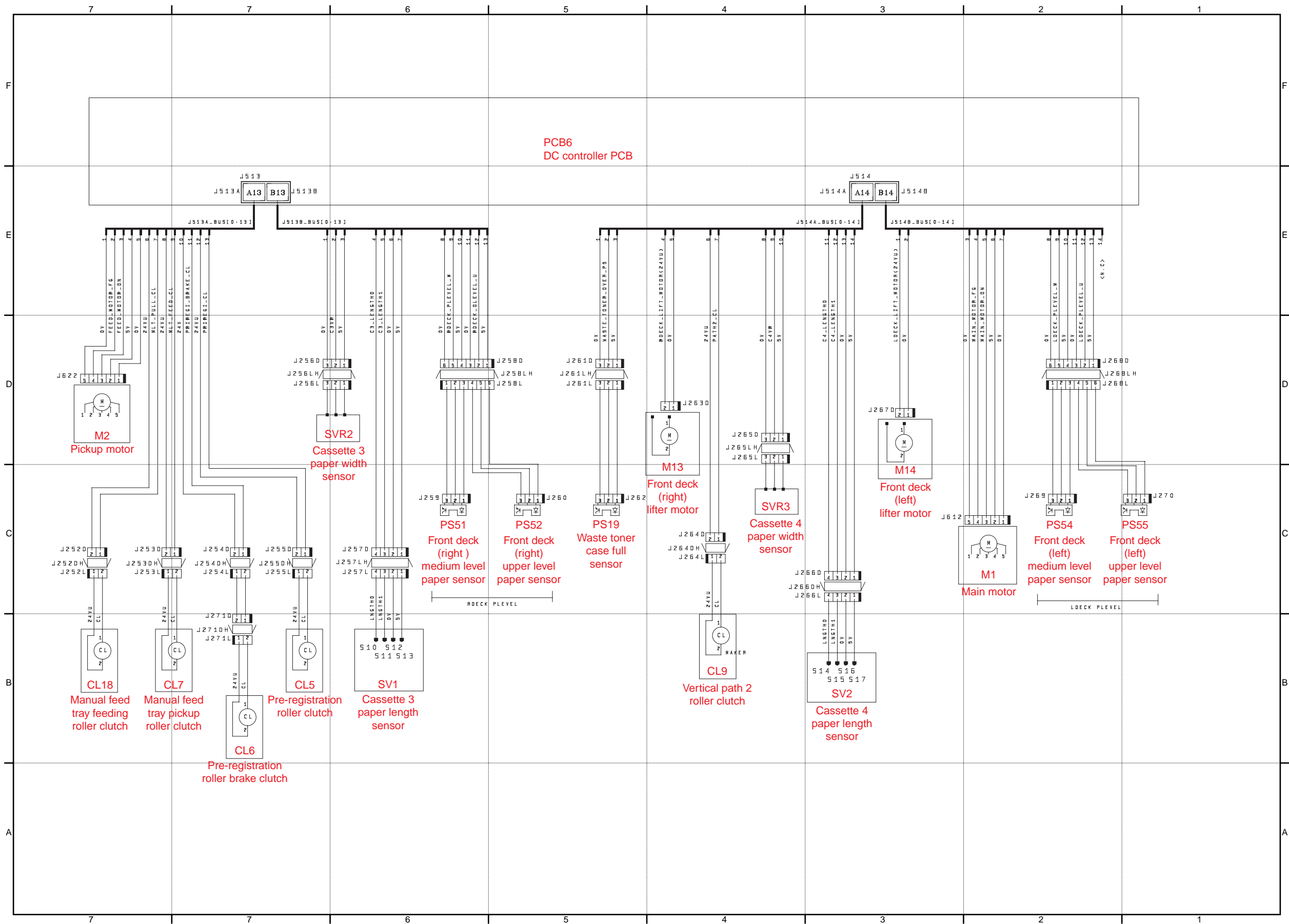


F-2-51

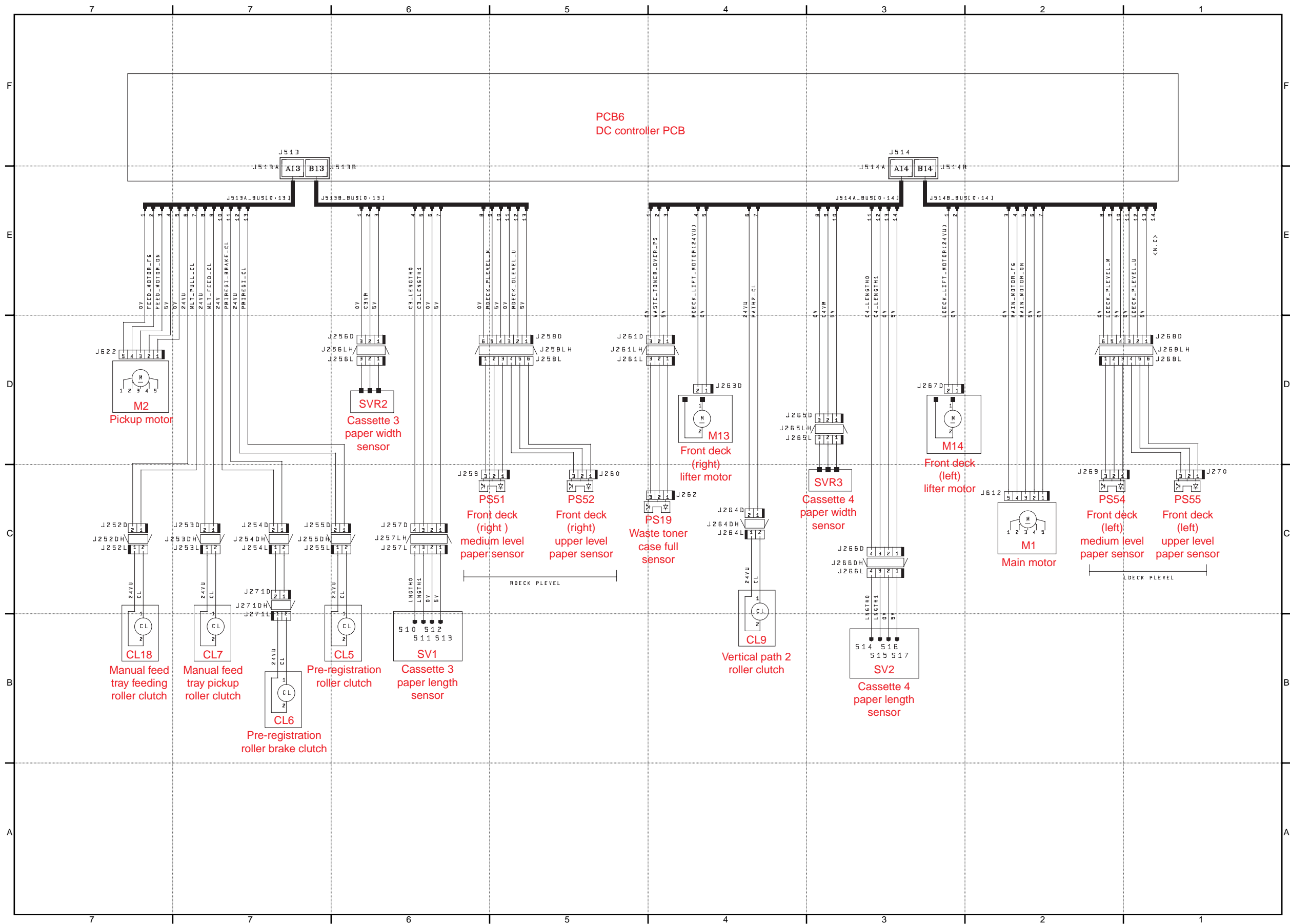


F-2-52

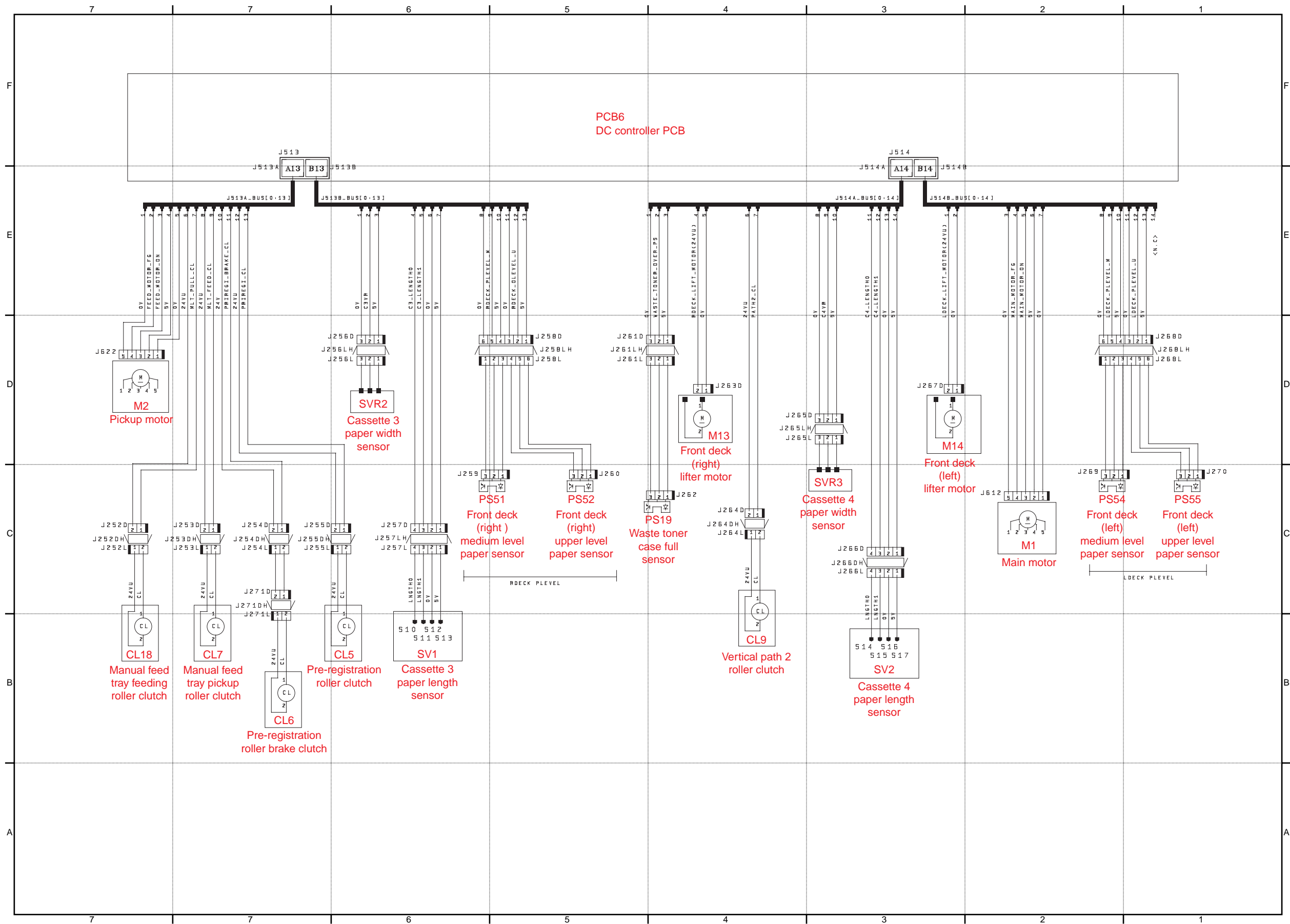




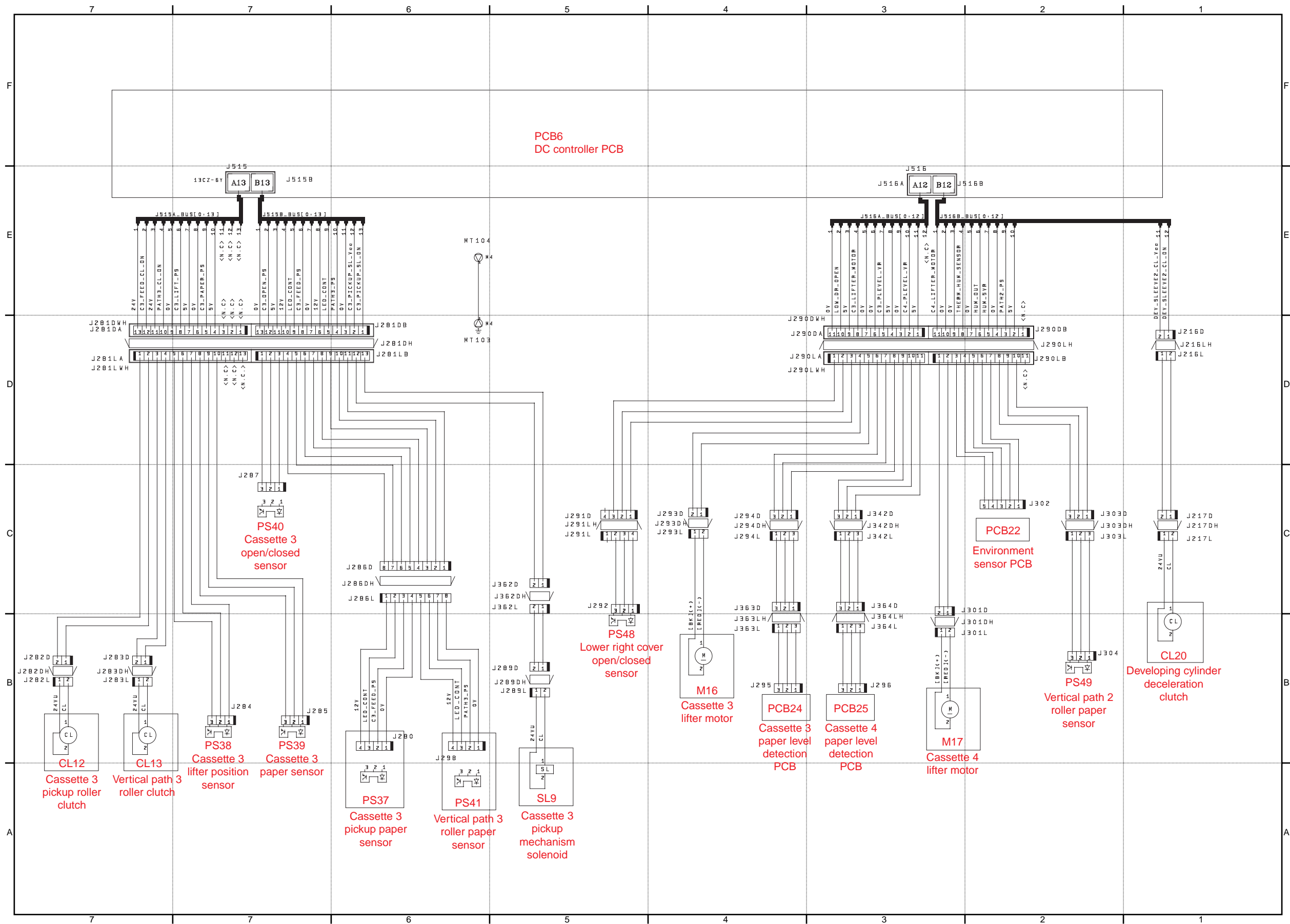
F-2-54



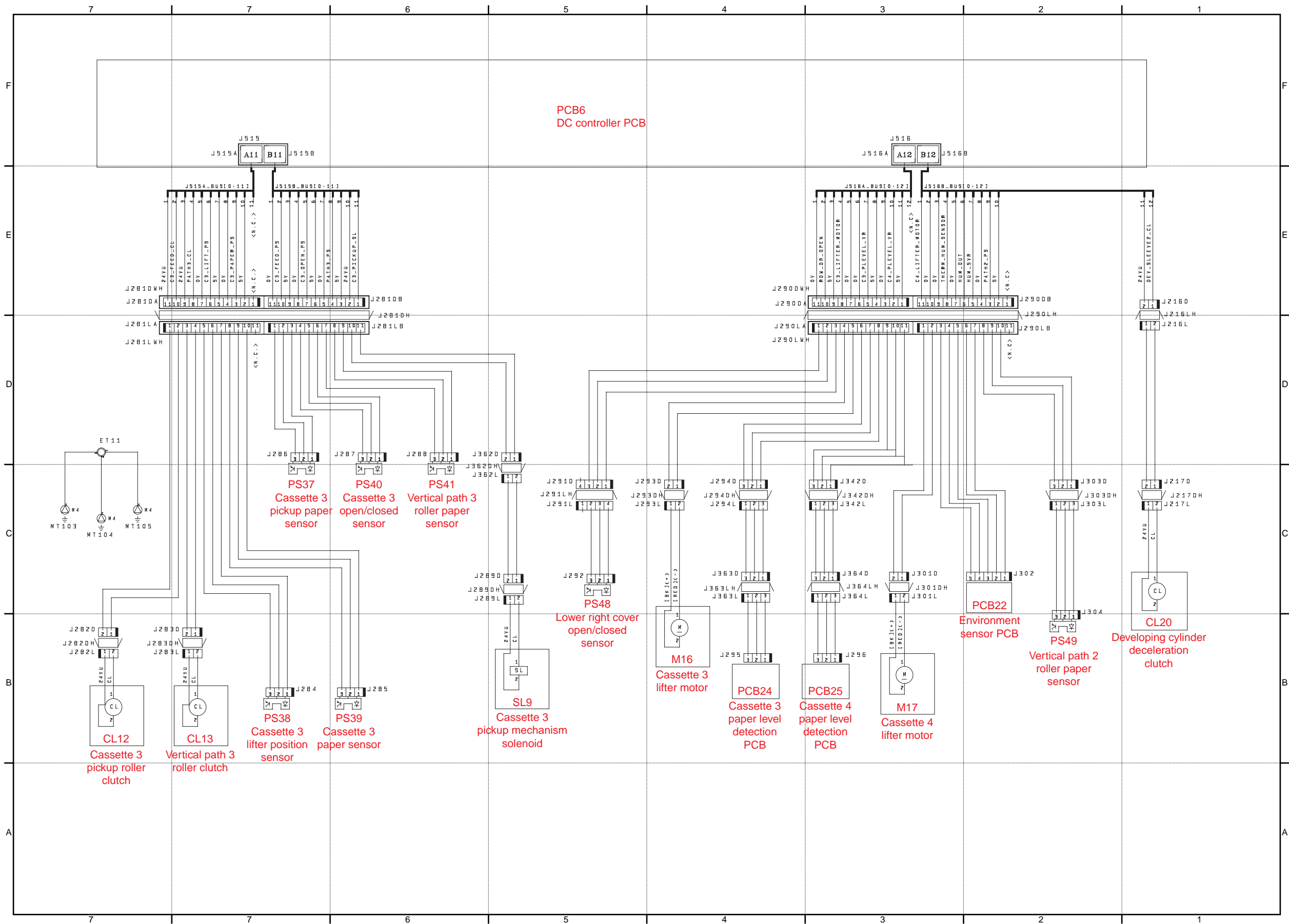
PCB6
DC controller PCB



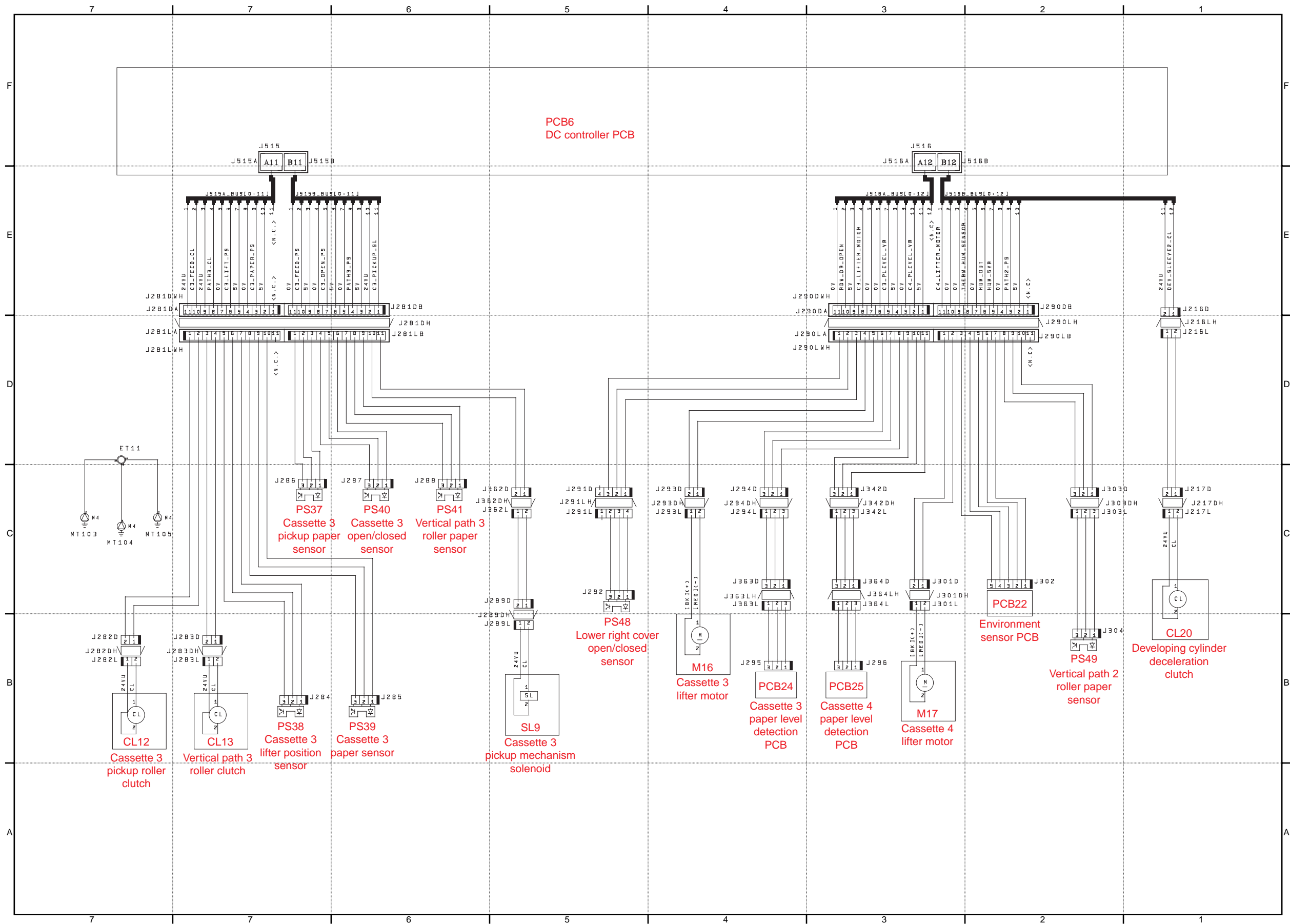
PCB6
DC controller PCB

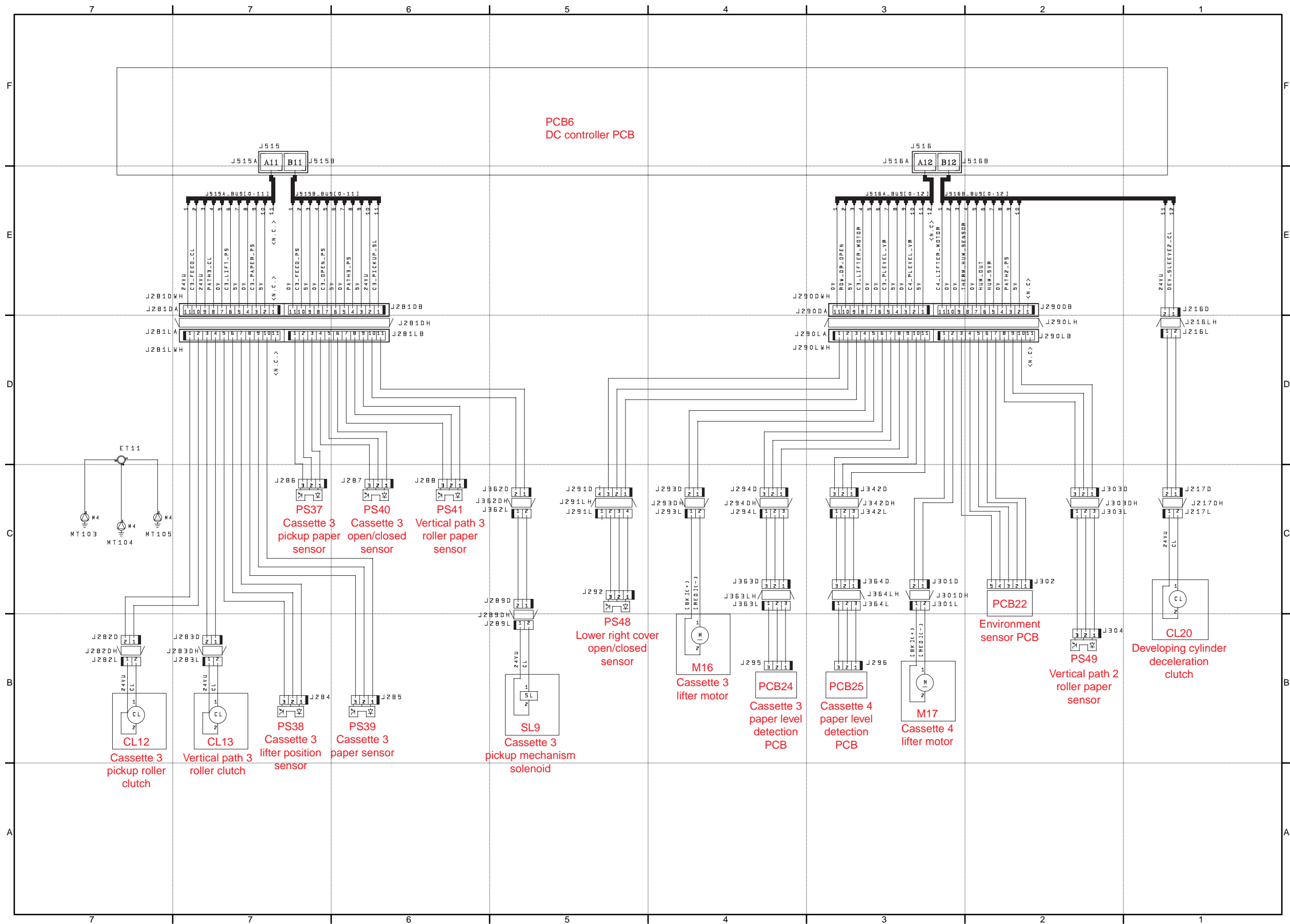


F-2-57

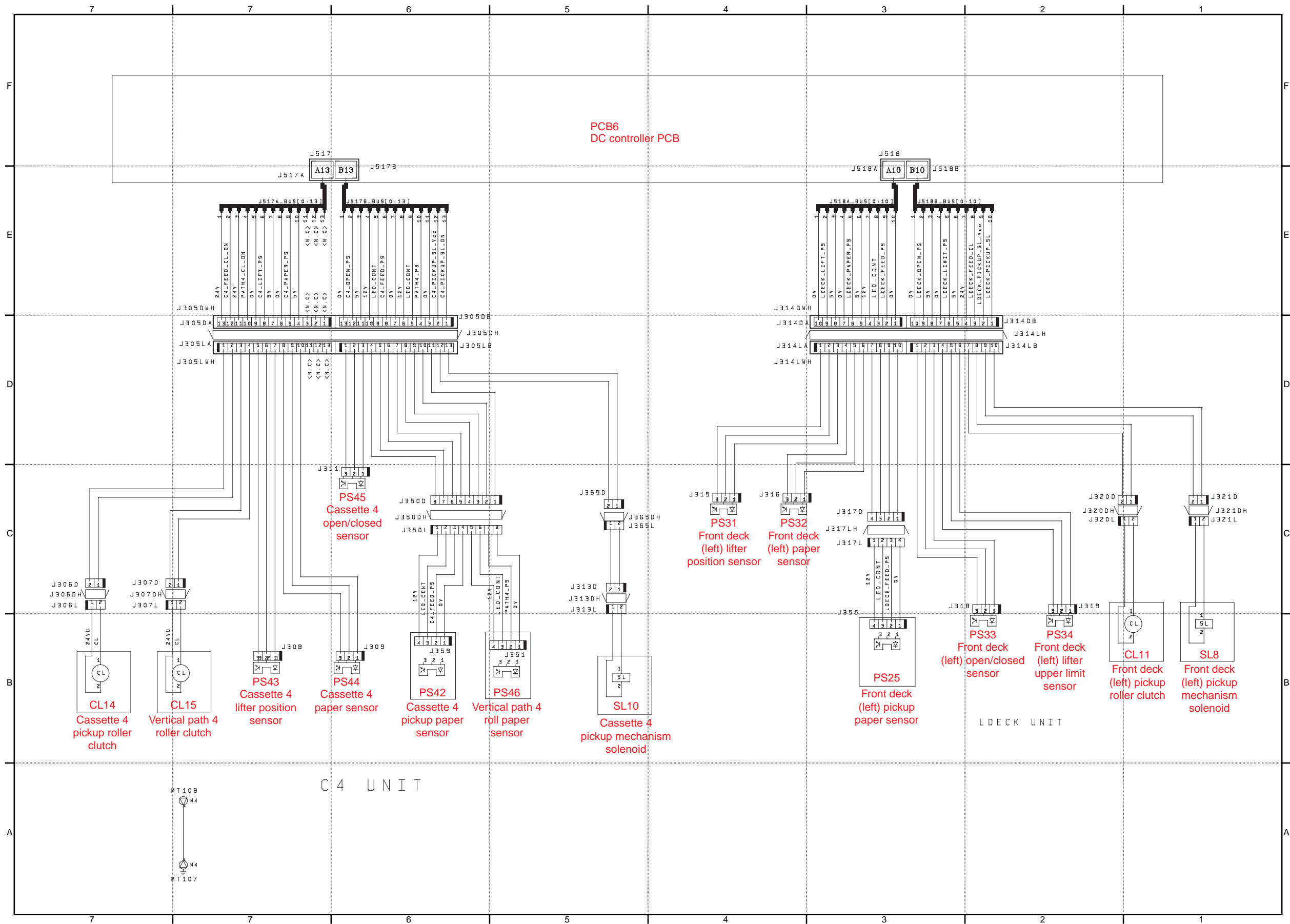


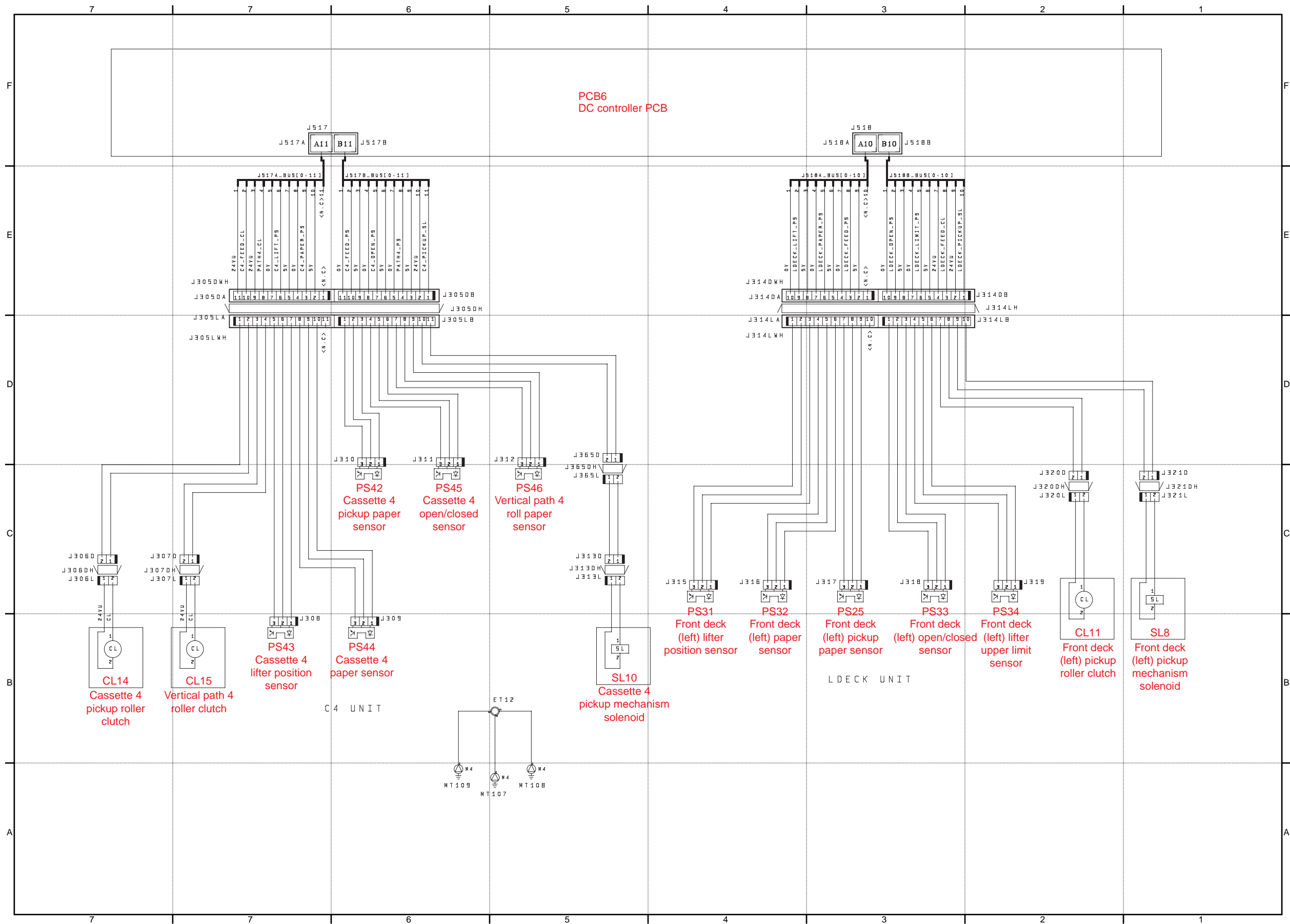
PCB6
DC controller PCB

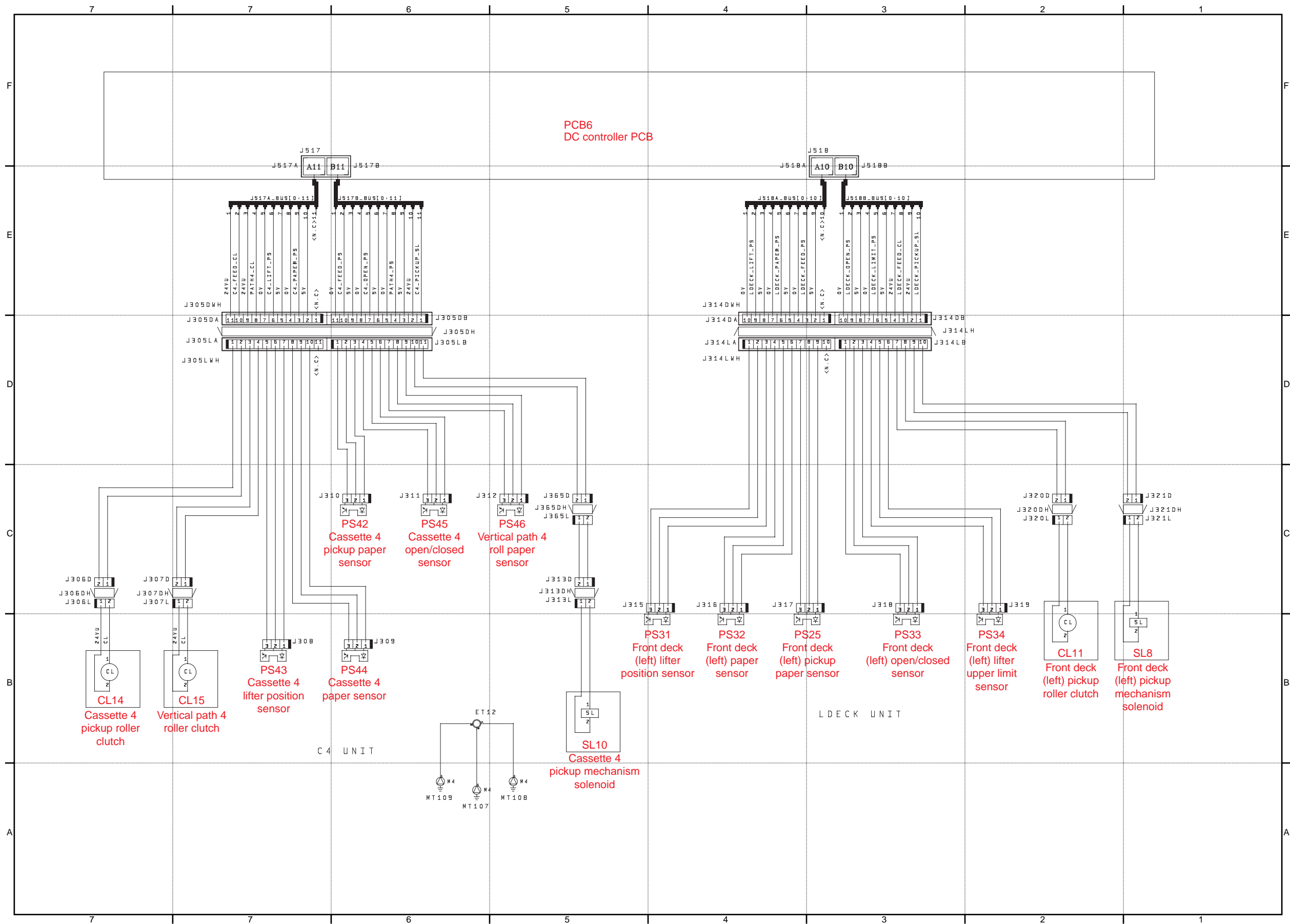




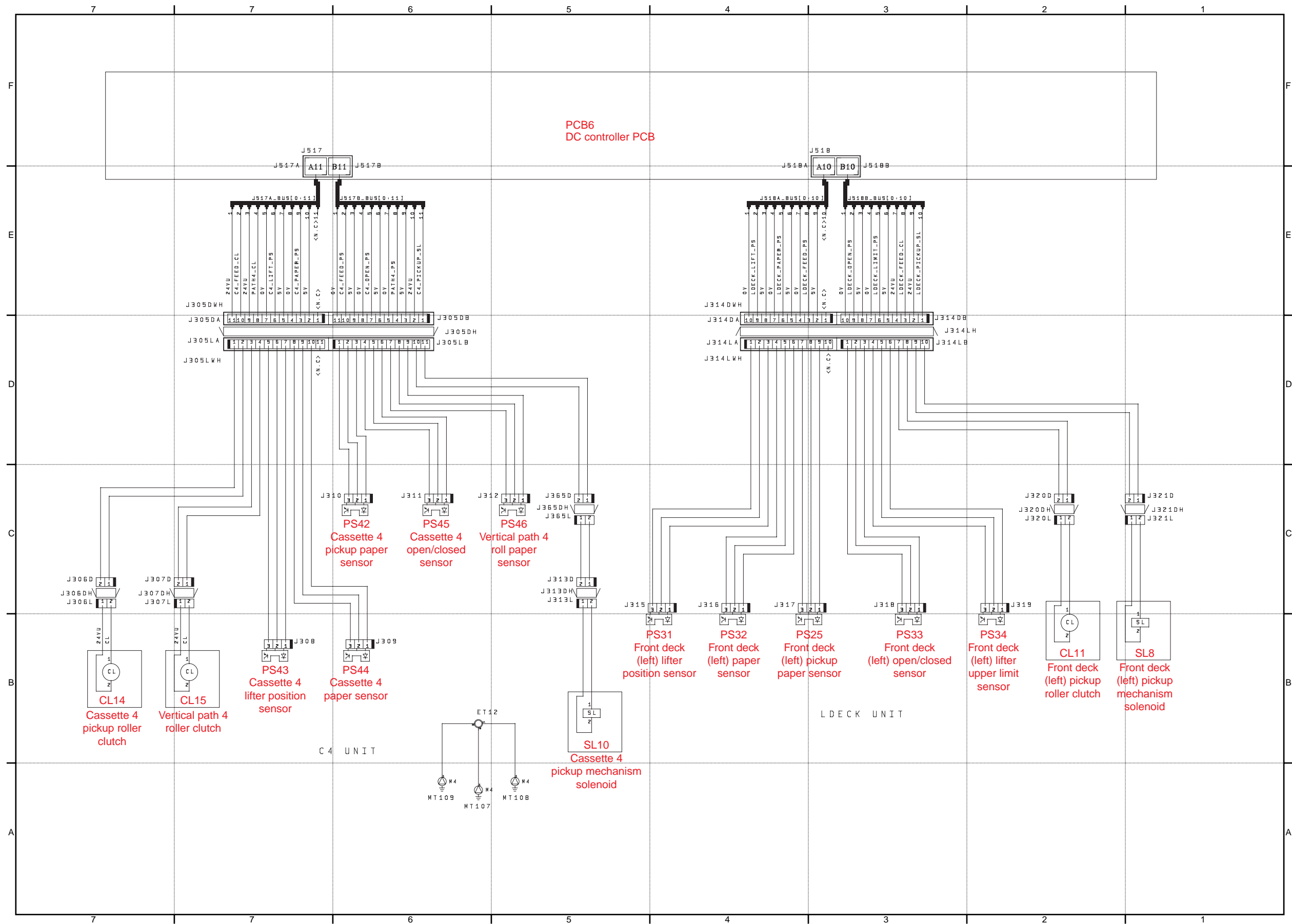
F-2-60

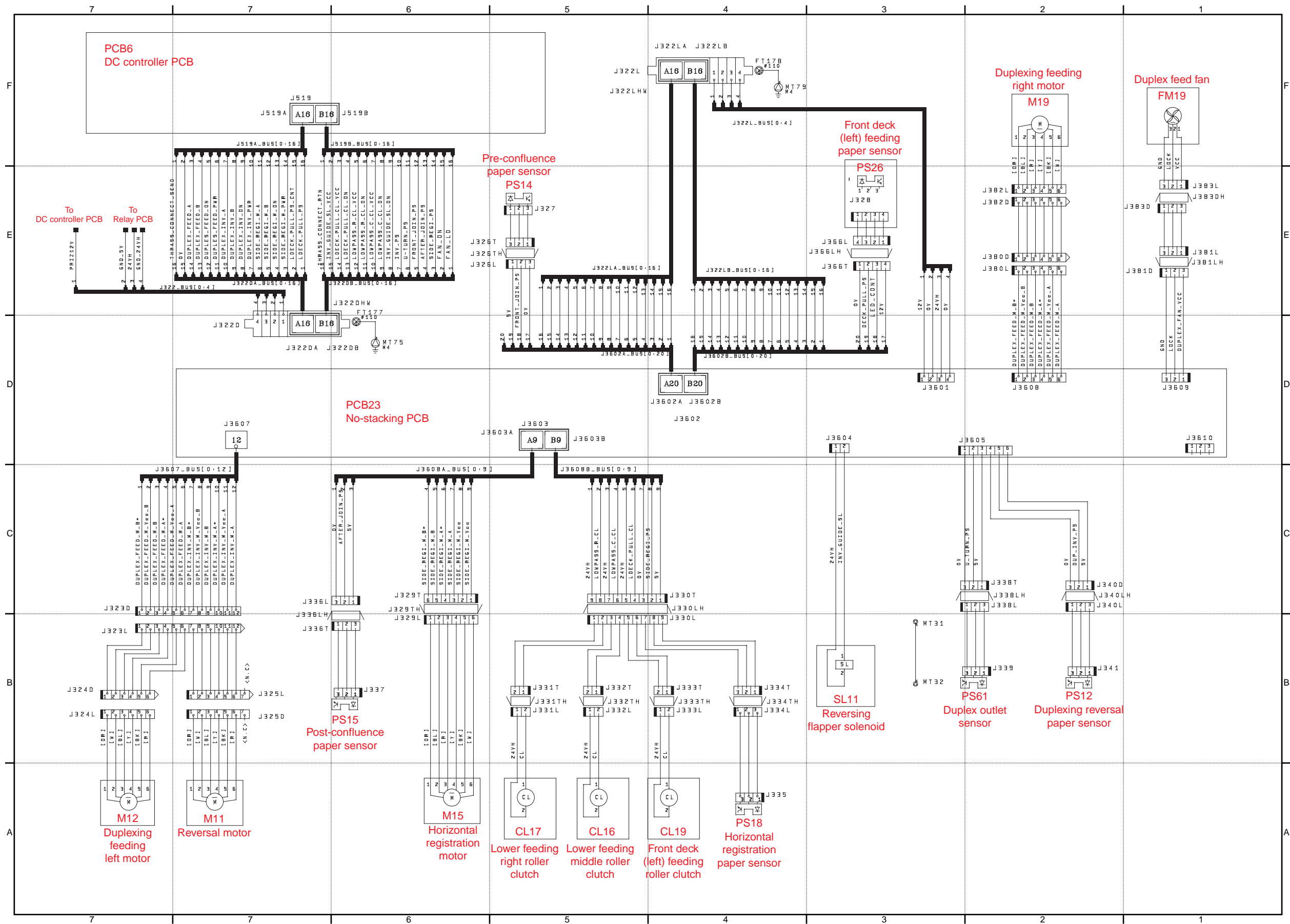


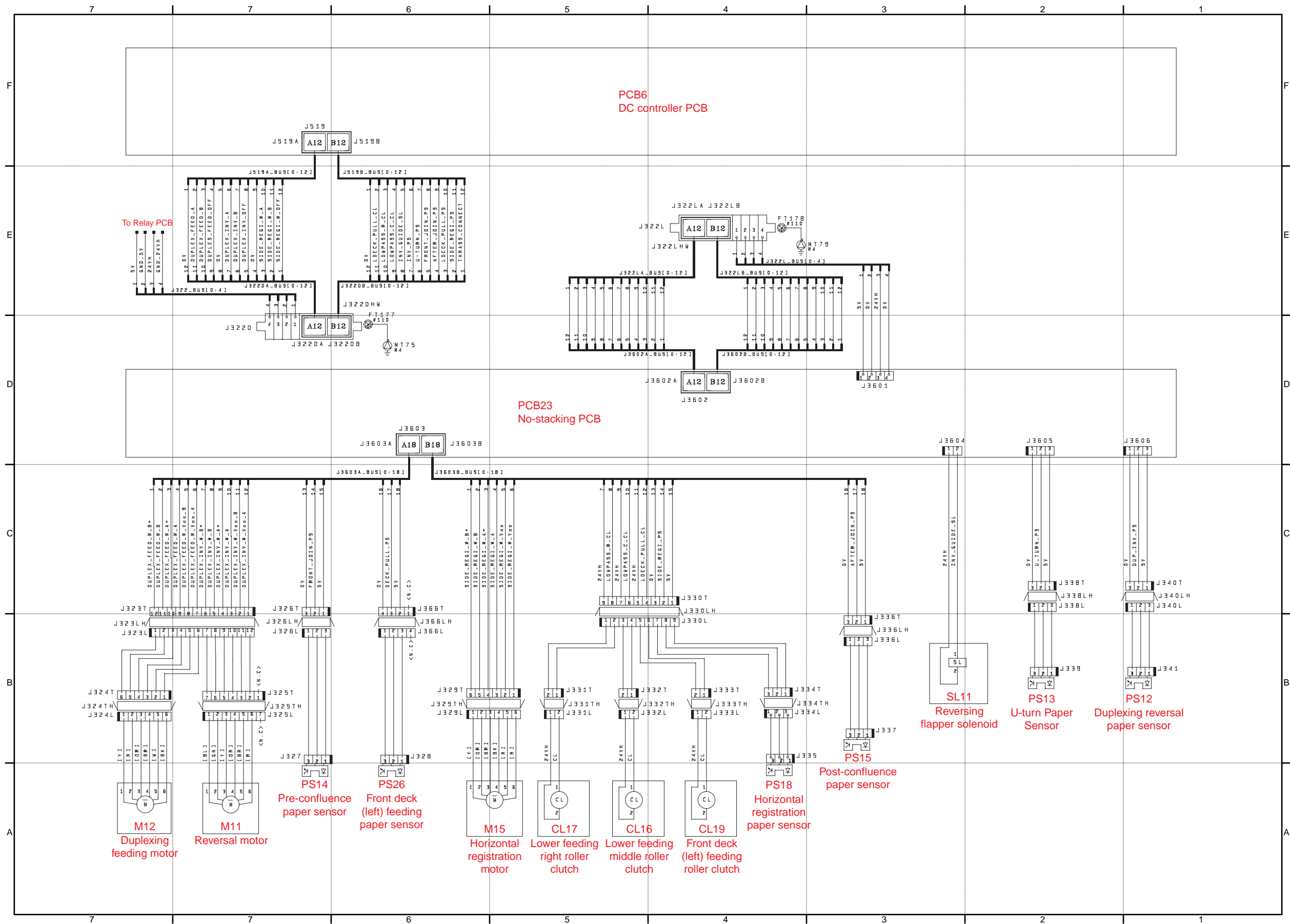




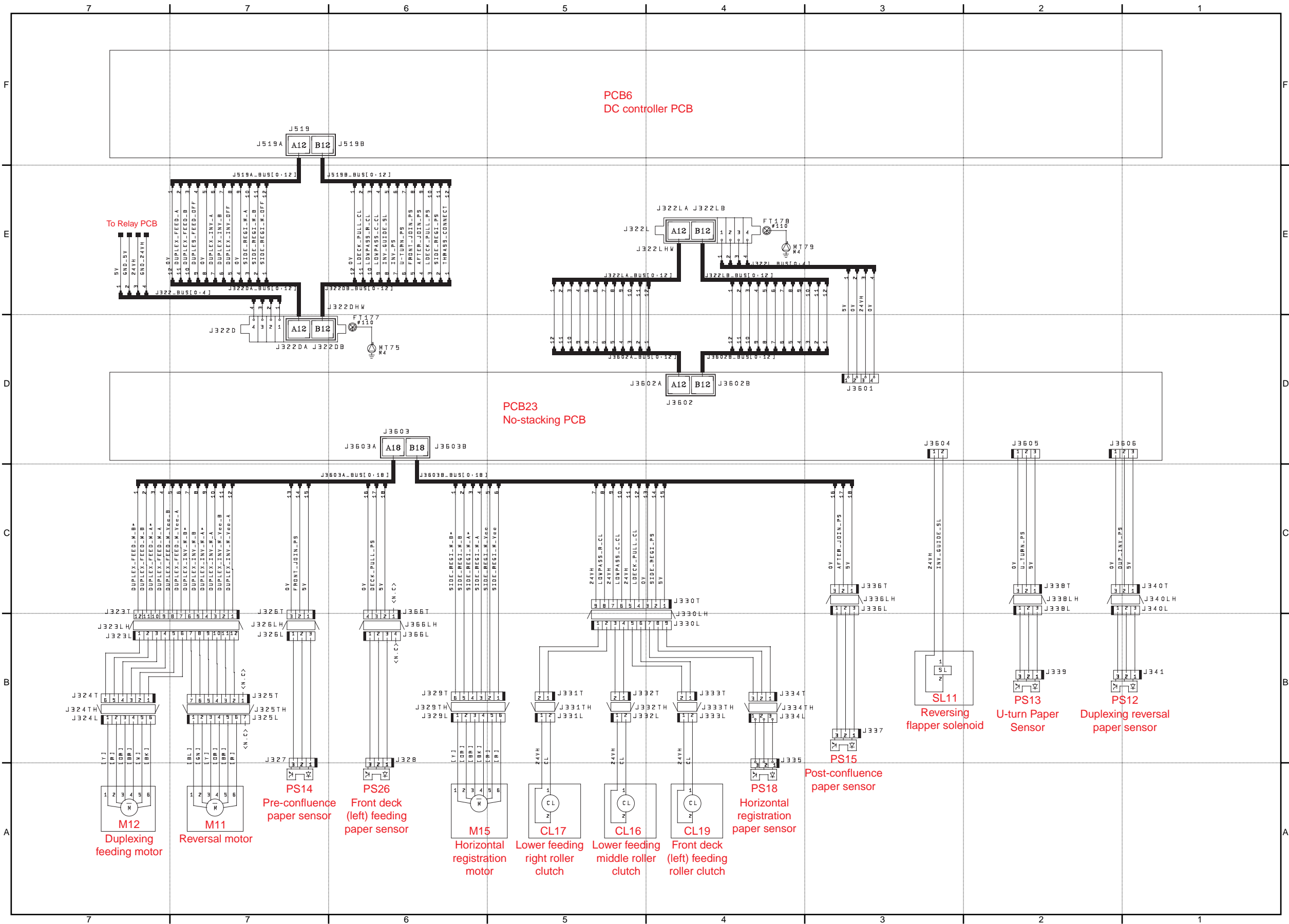
F-2-63



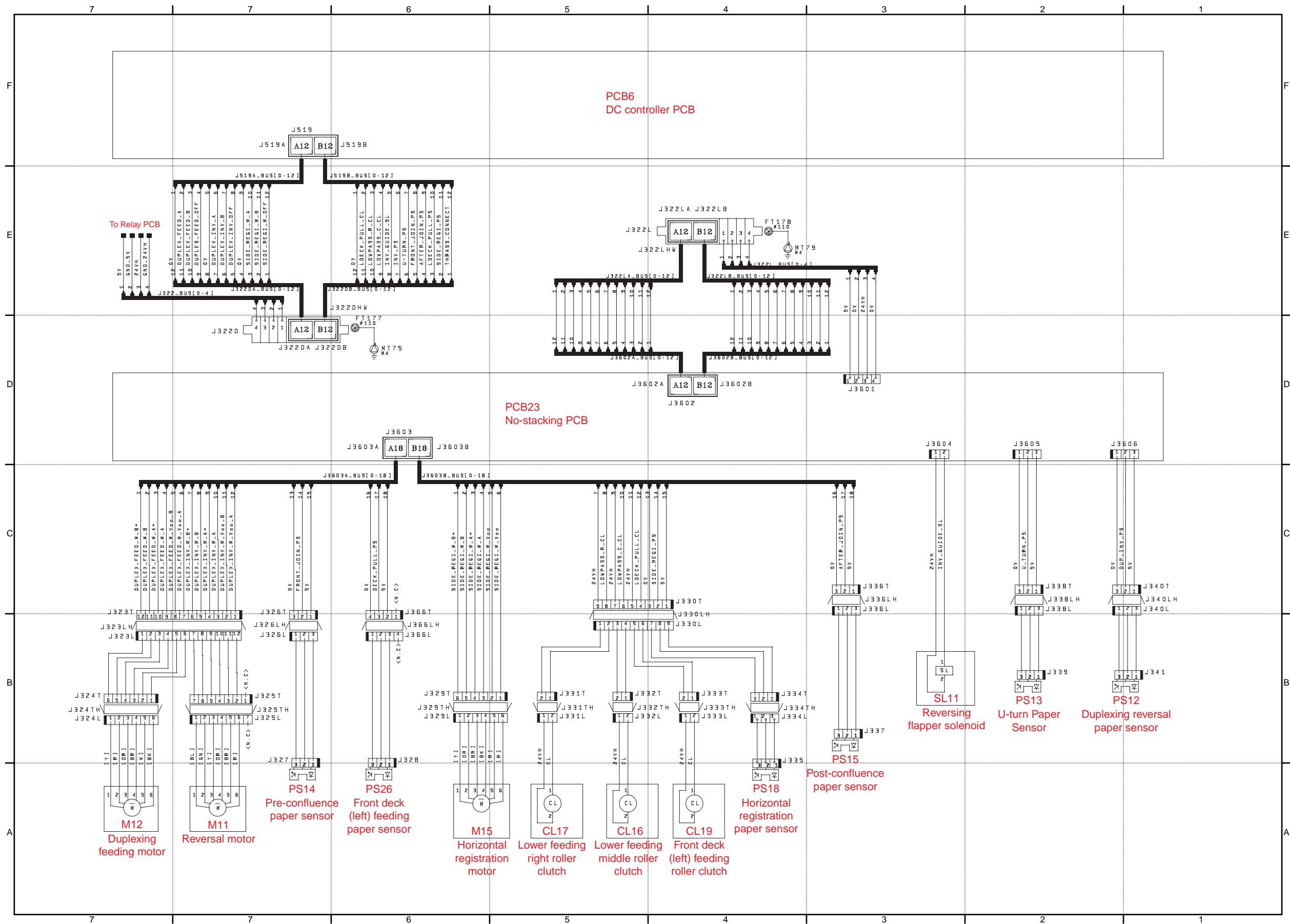


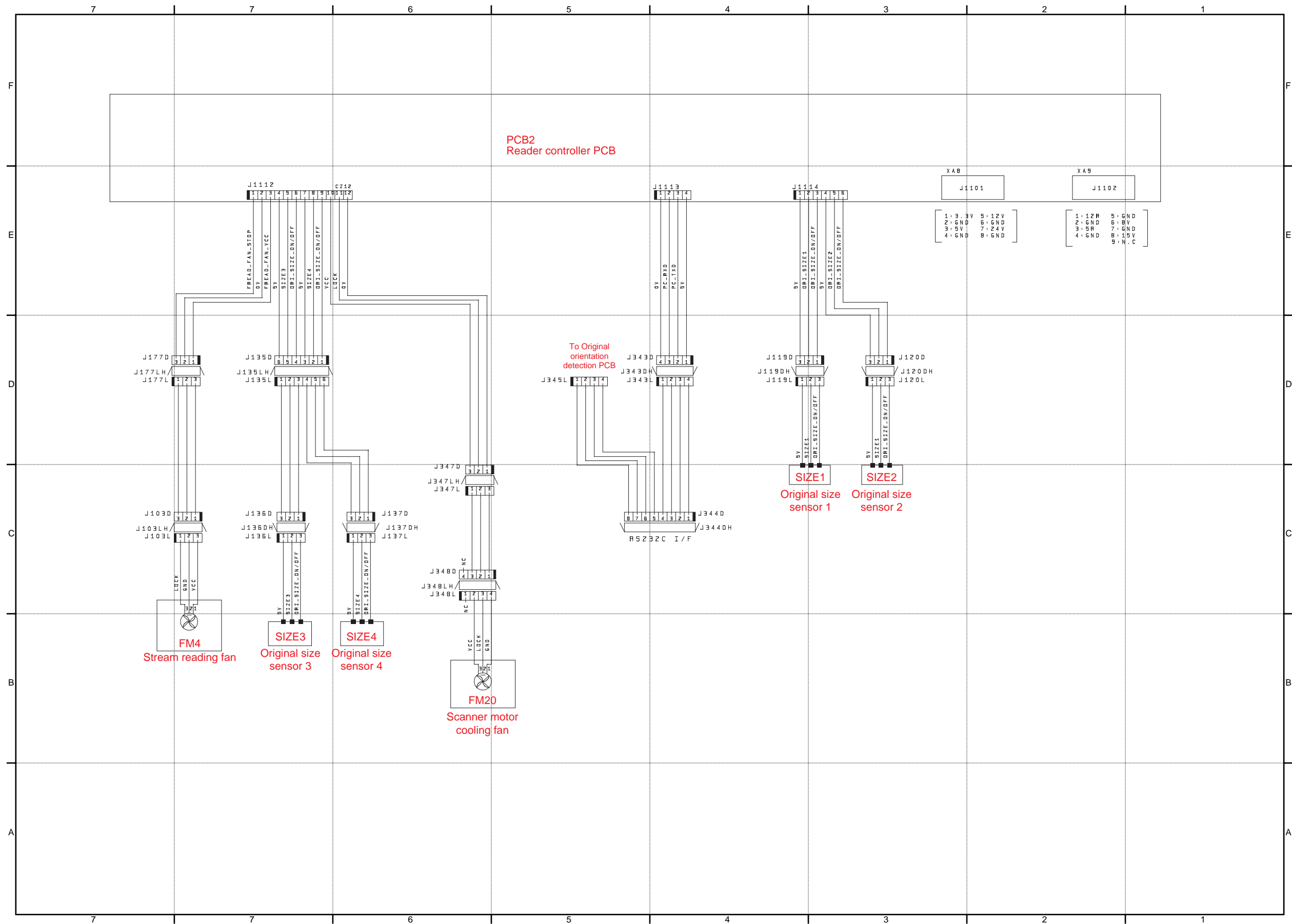


F-2-66

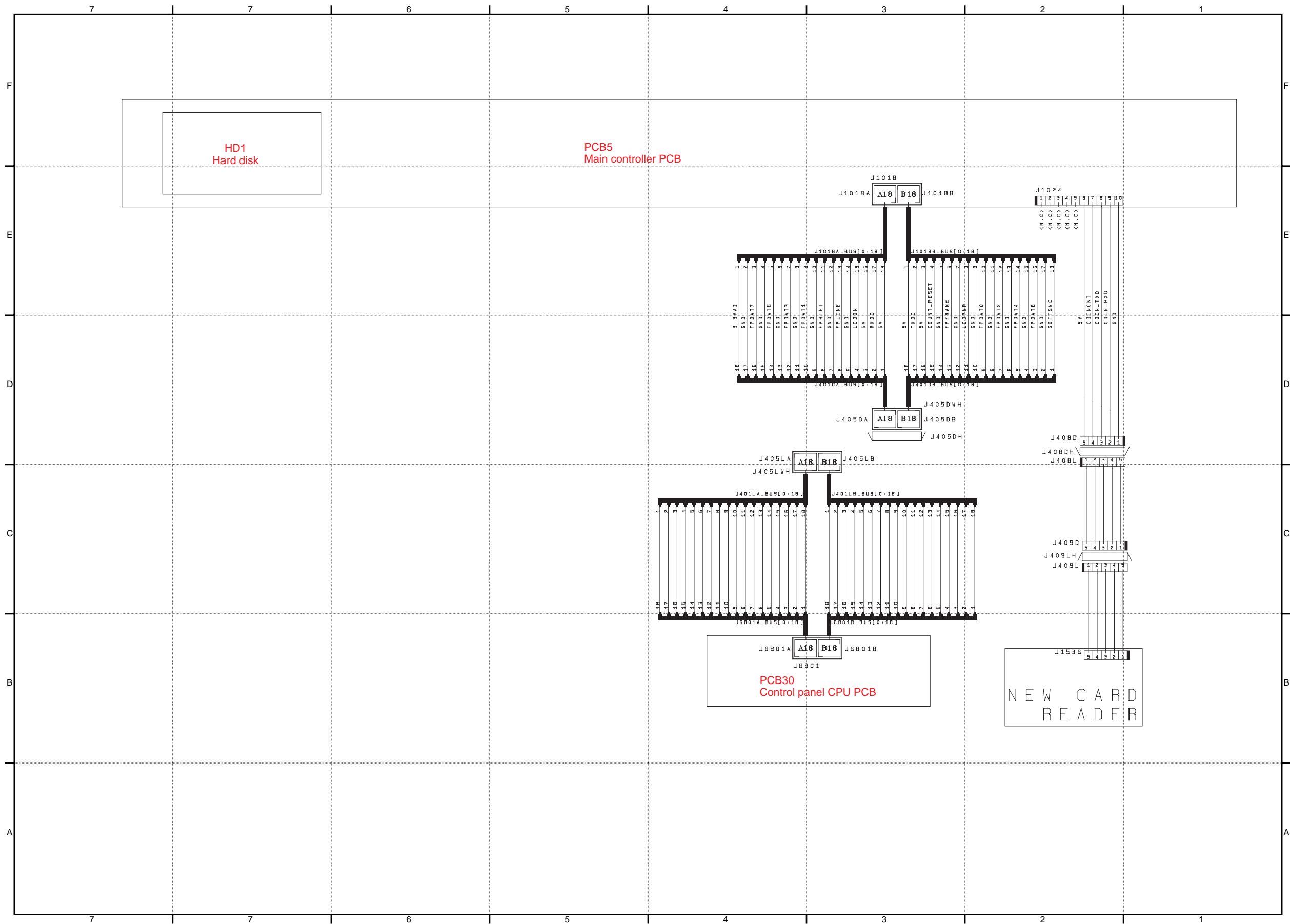


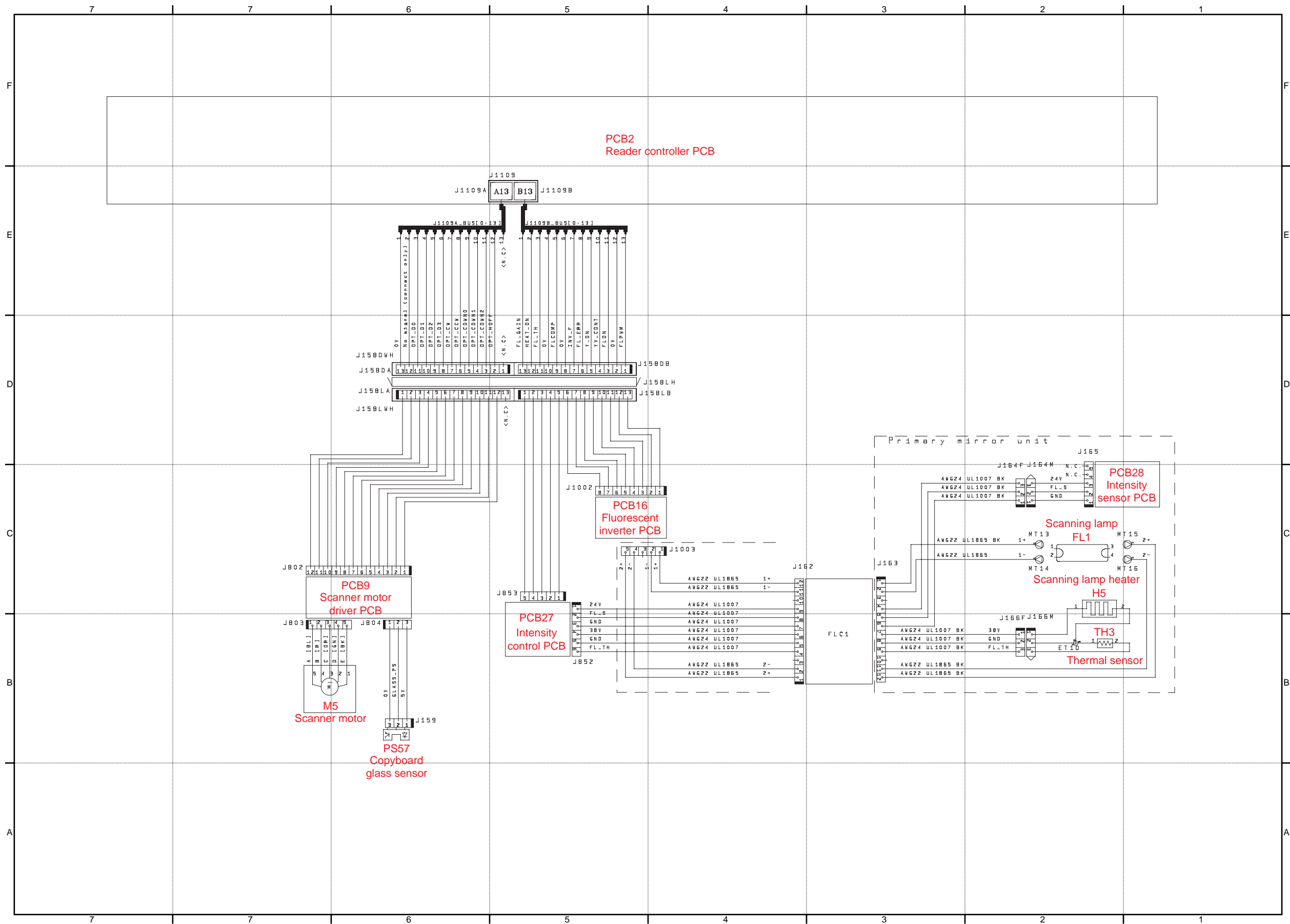
F-2-67



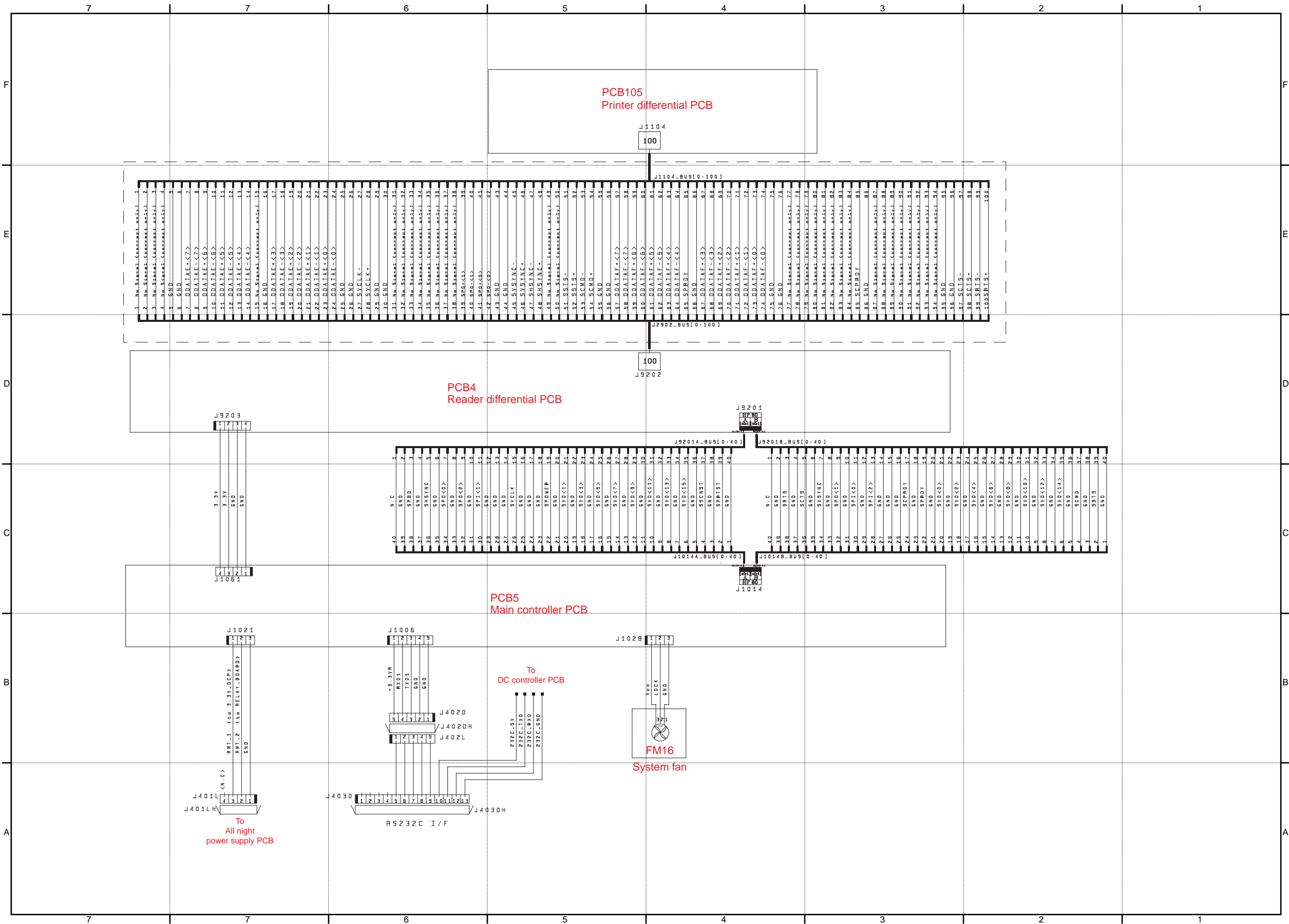


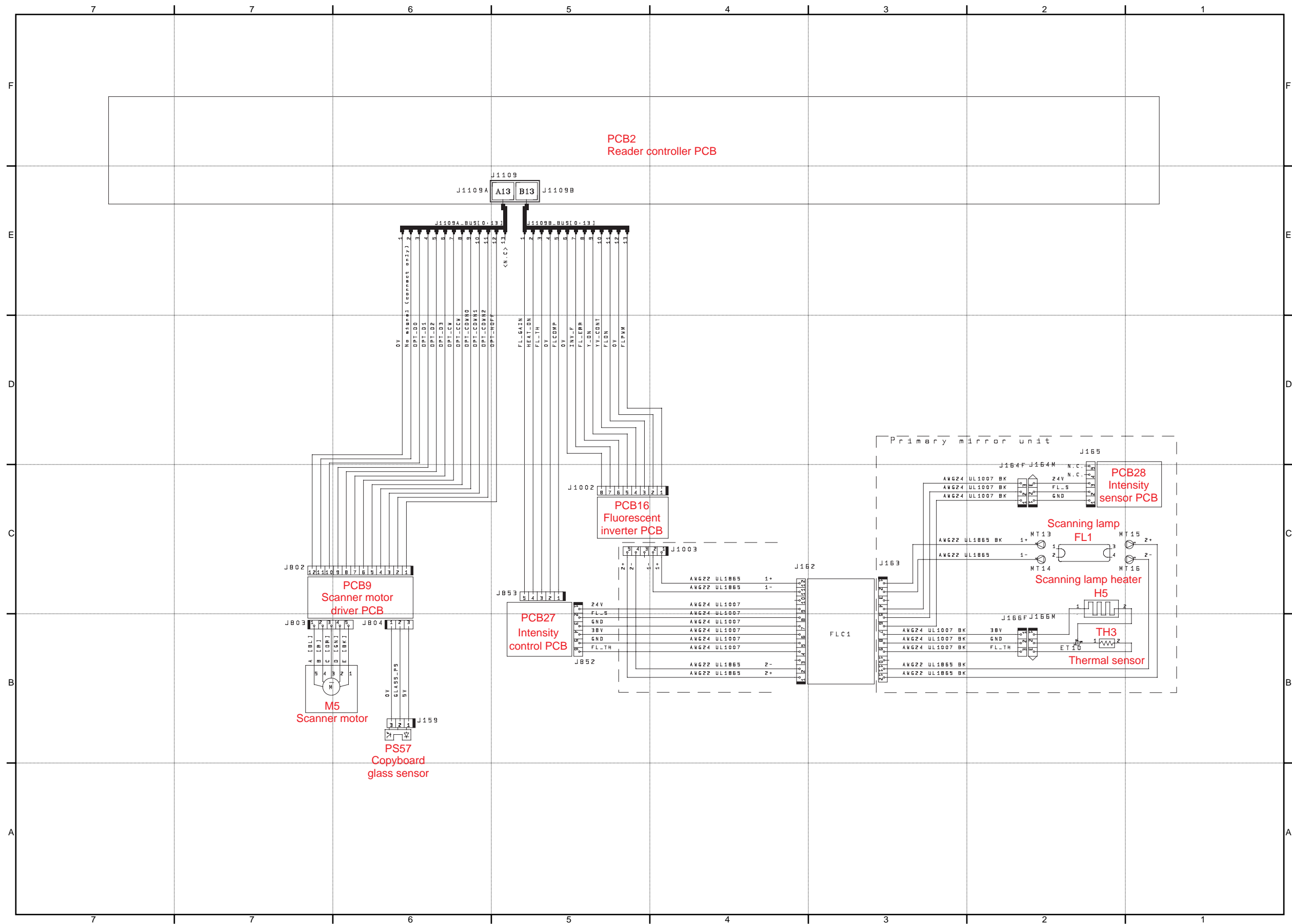
F-2-71



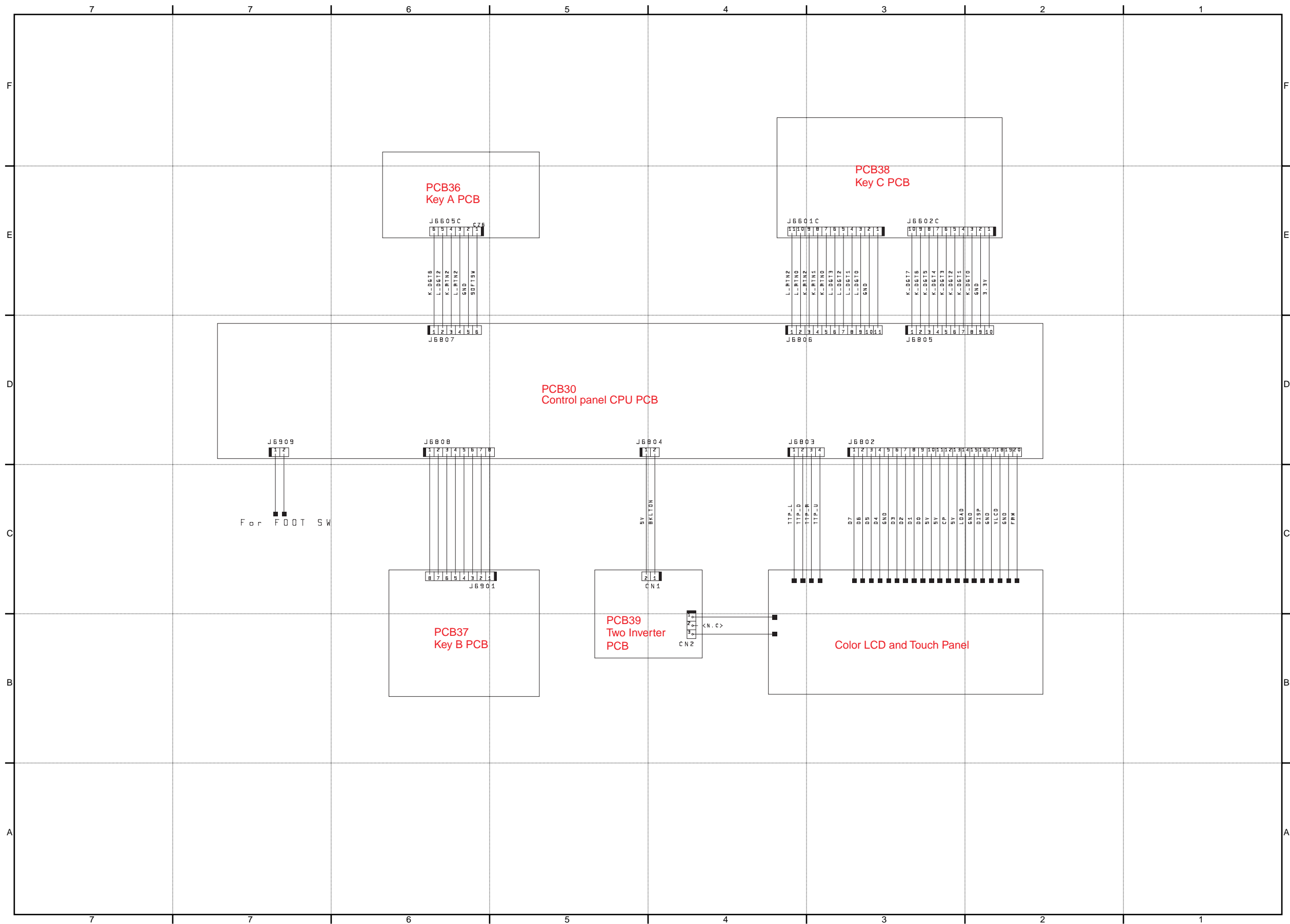


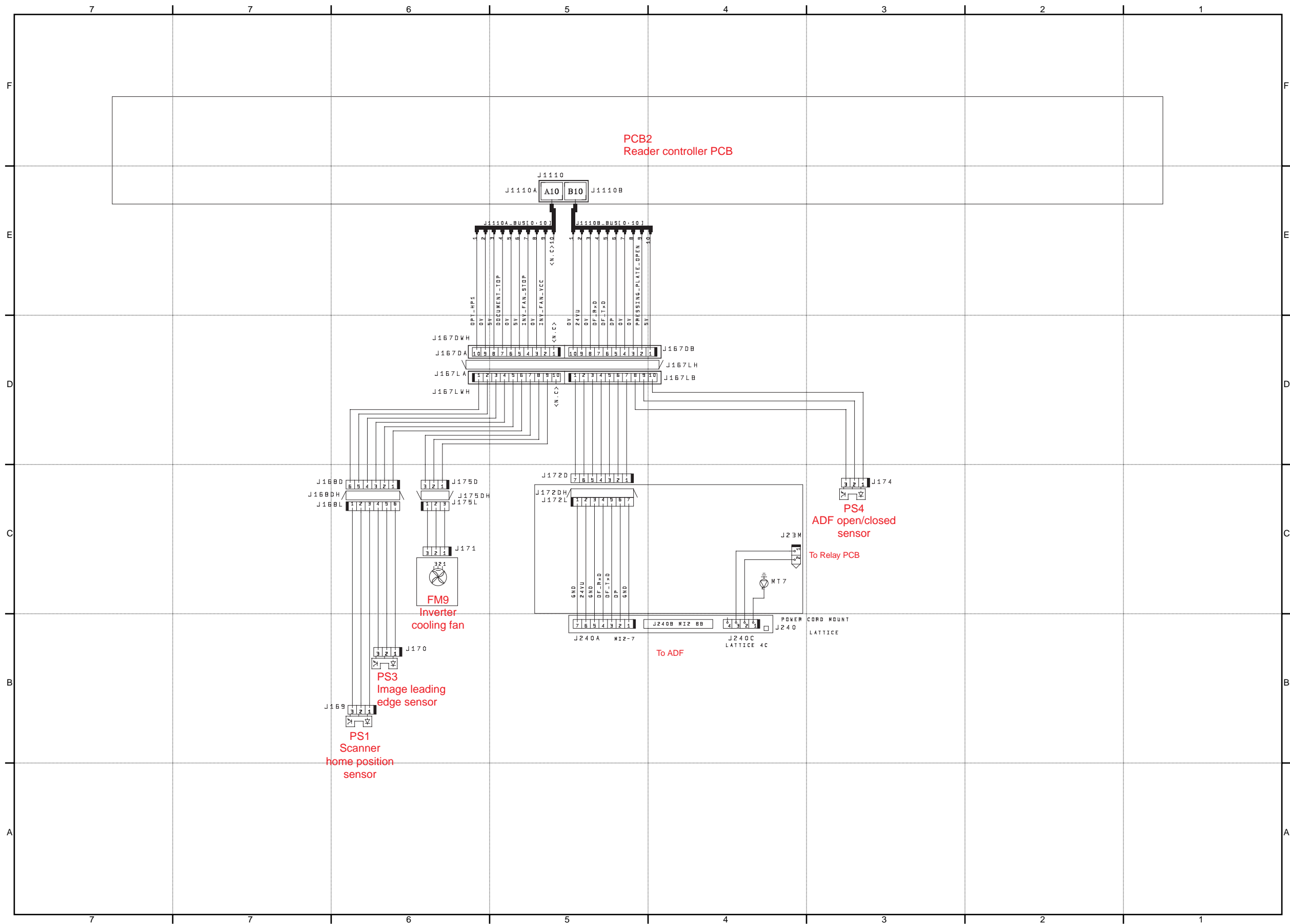
F-2-73



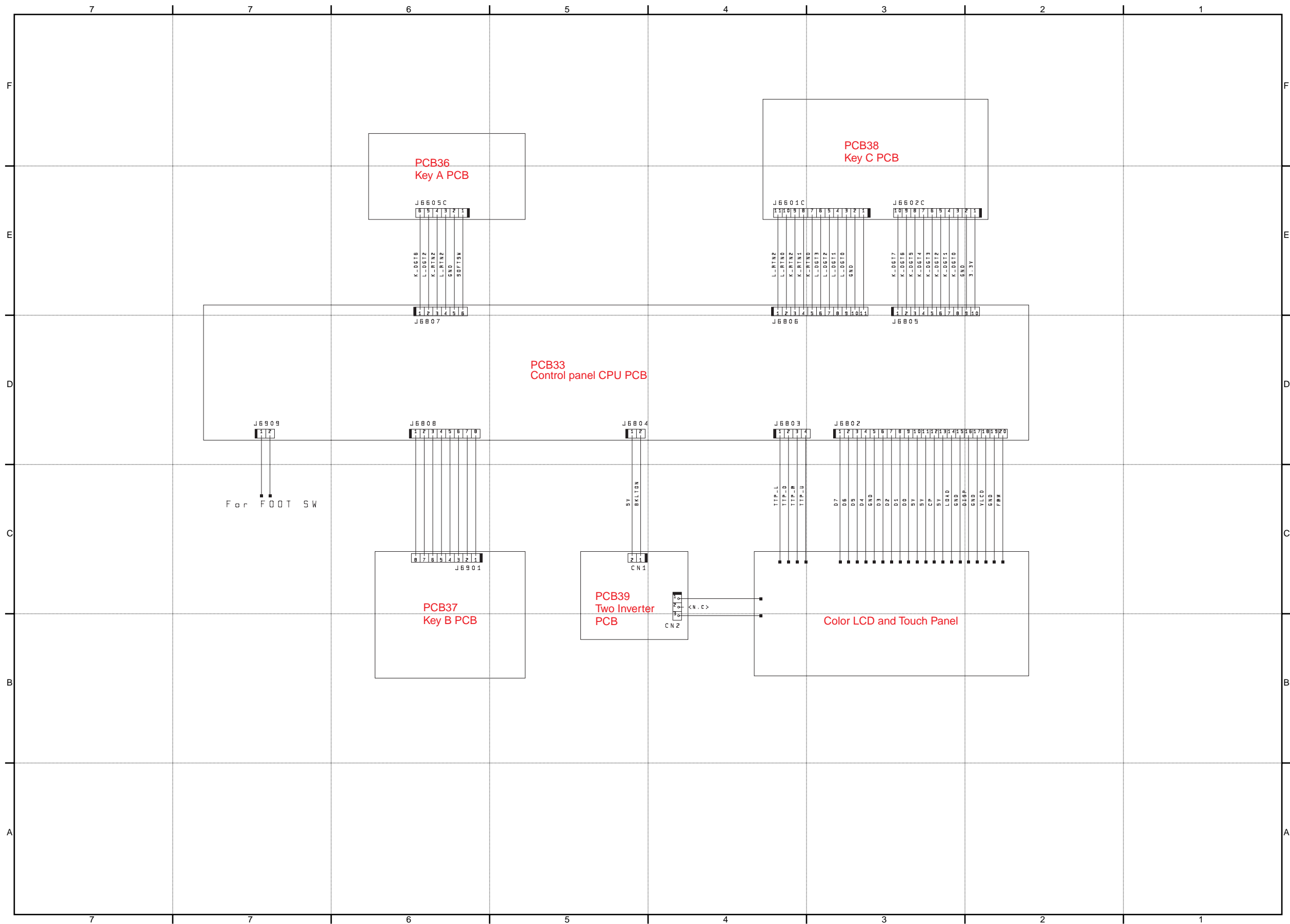


F-2-75

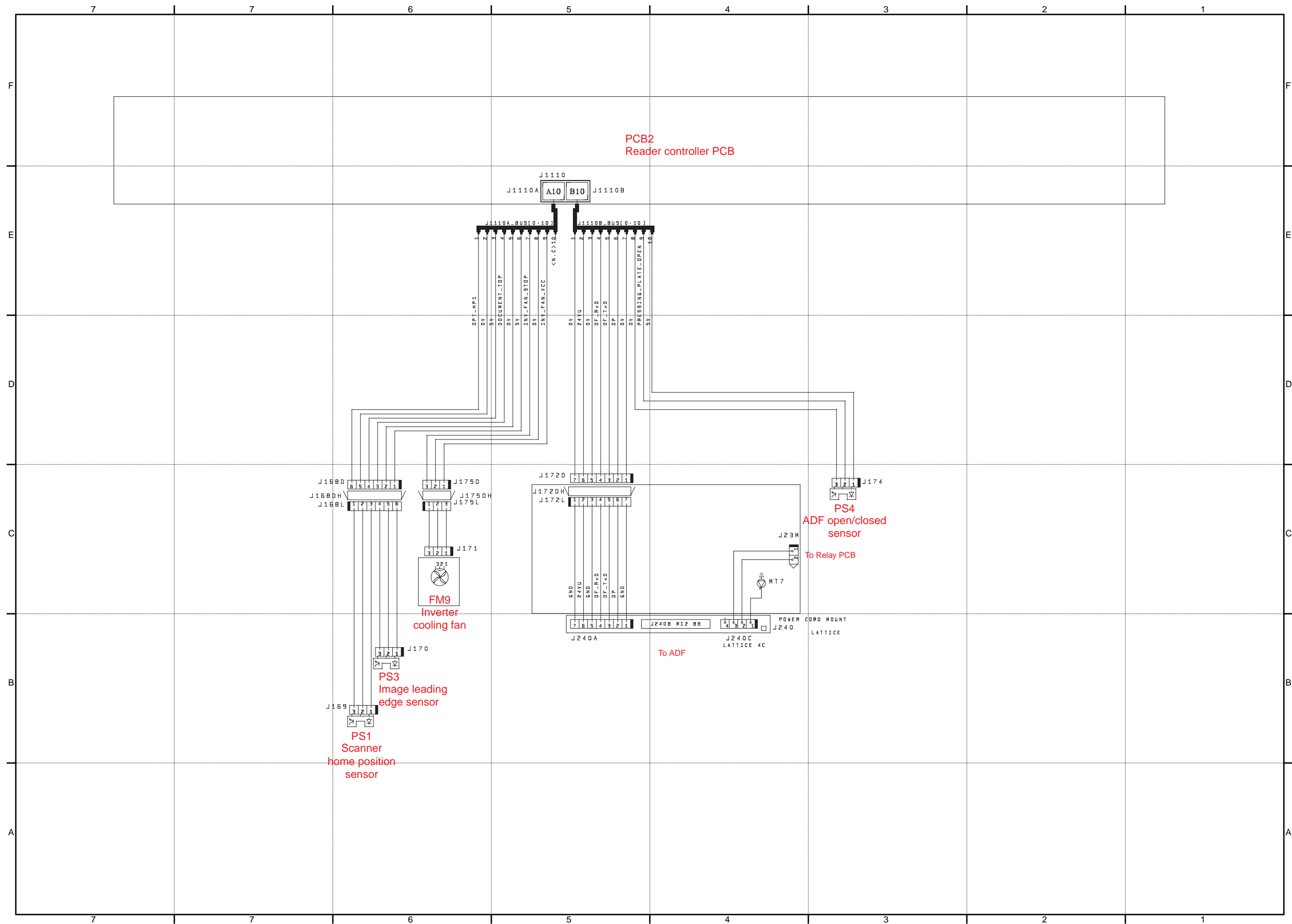




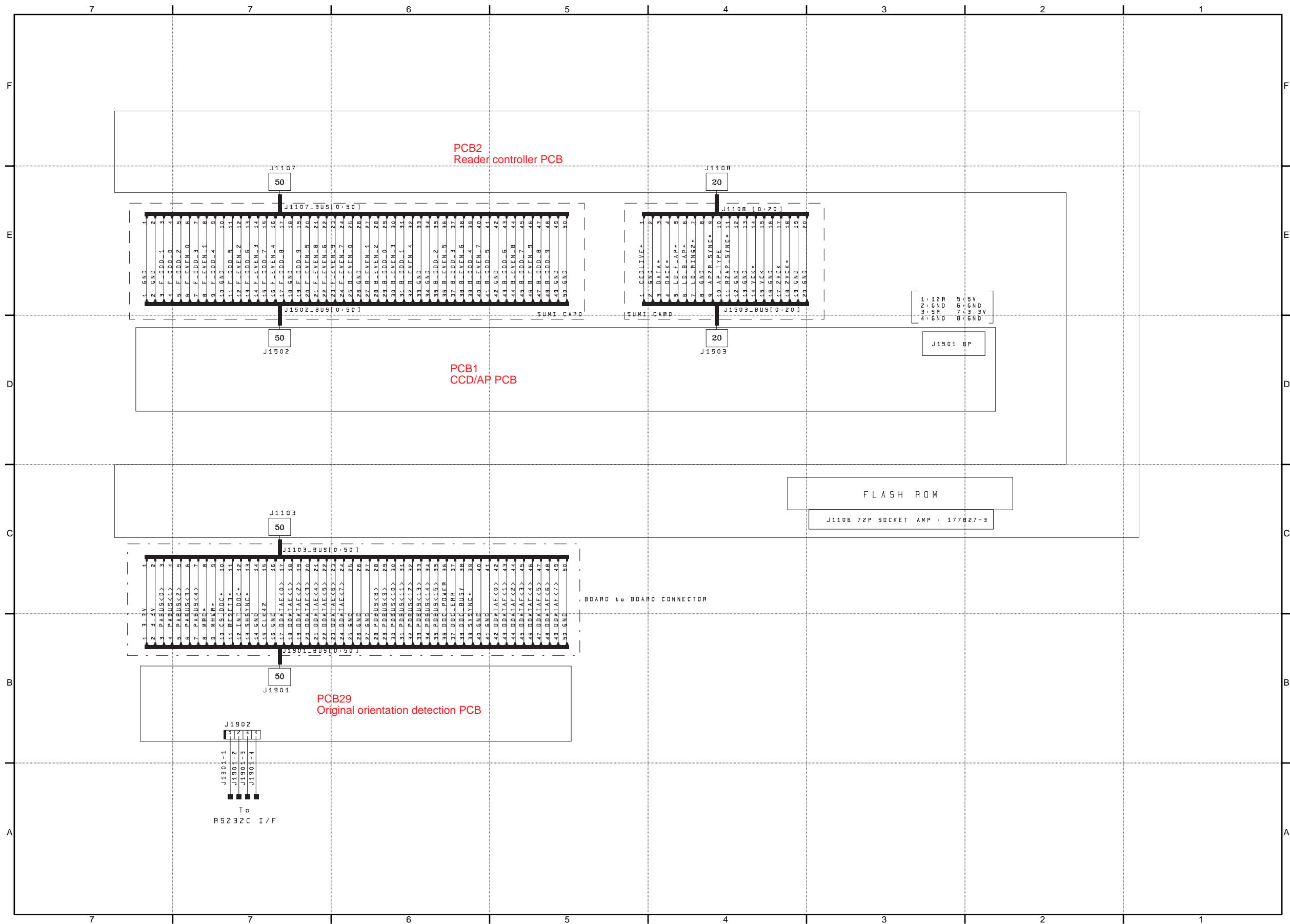
F-2-77

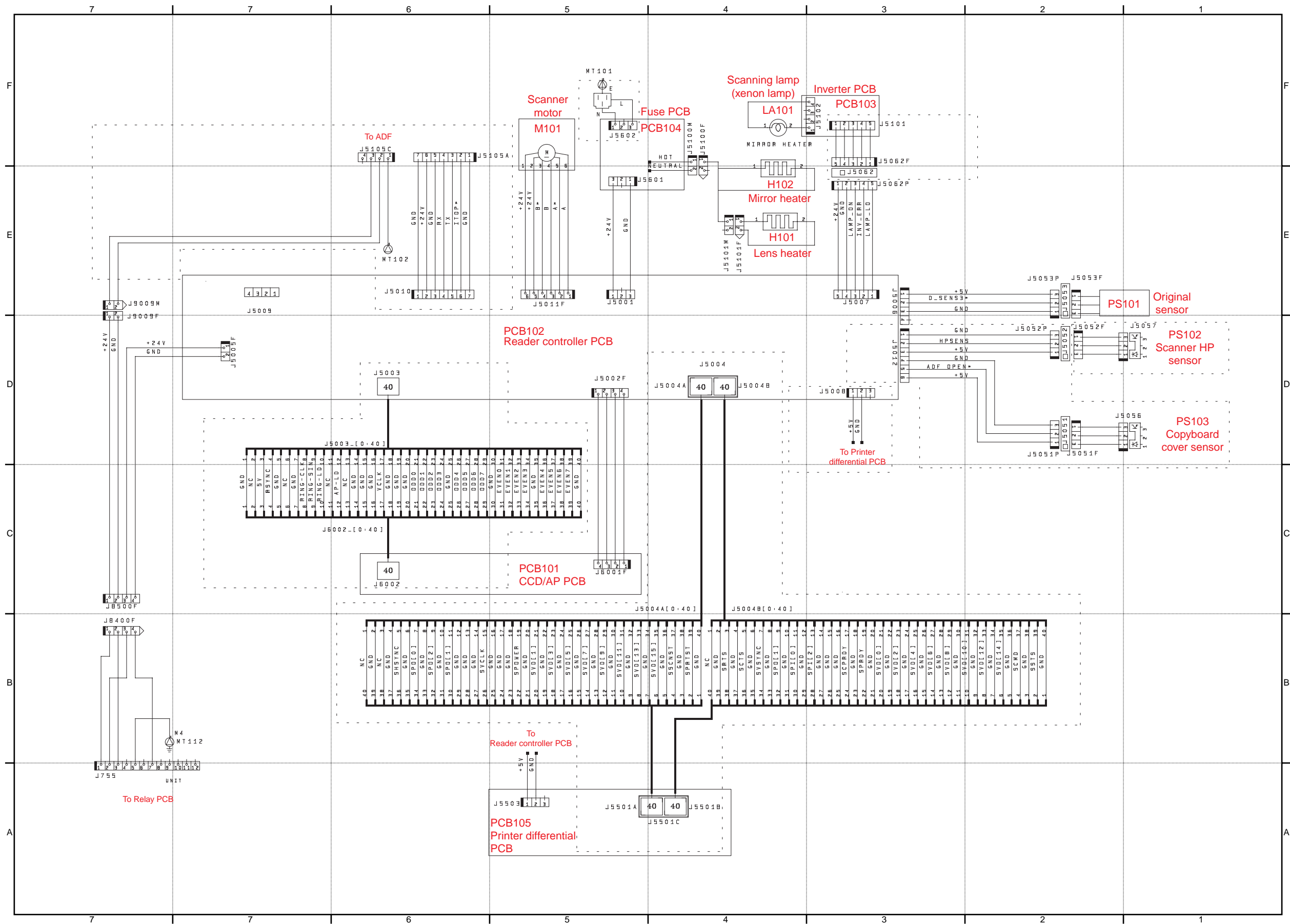


F-2-78

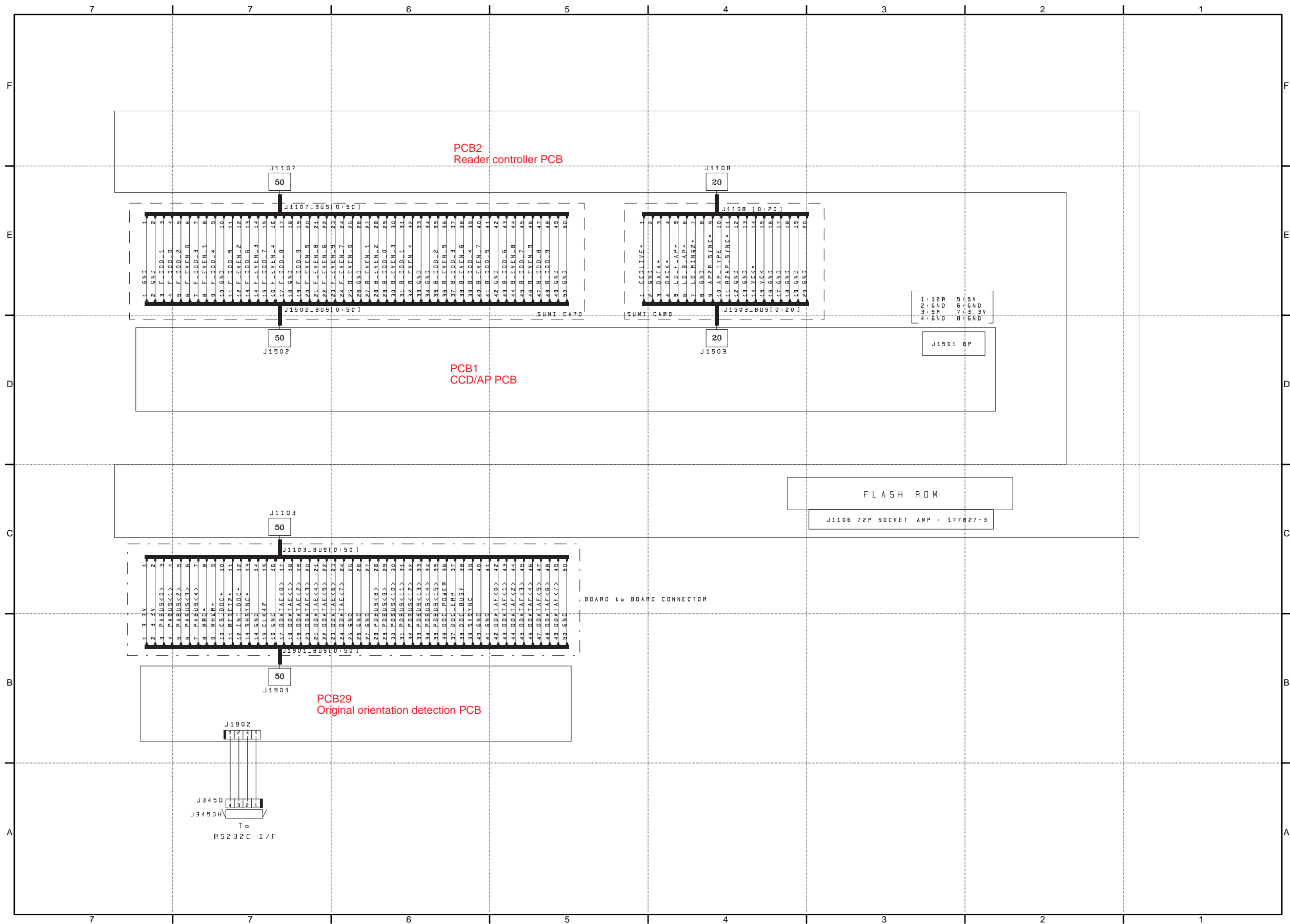


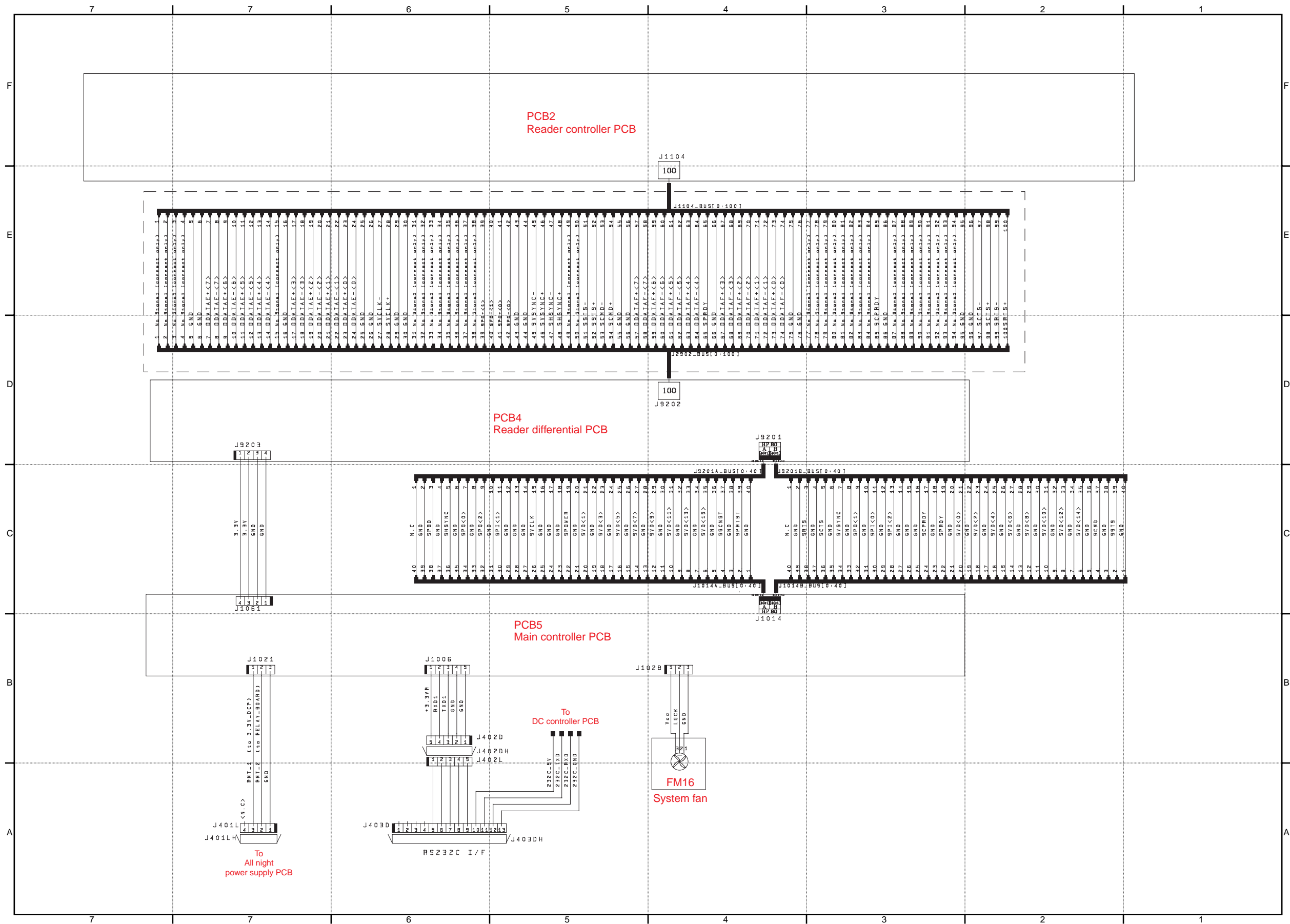
F-2-79

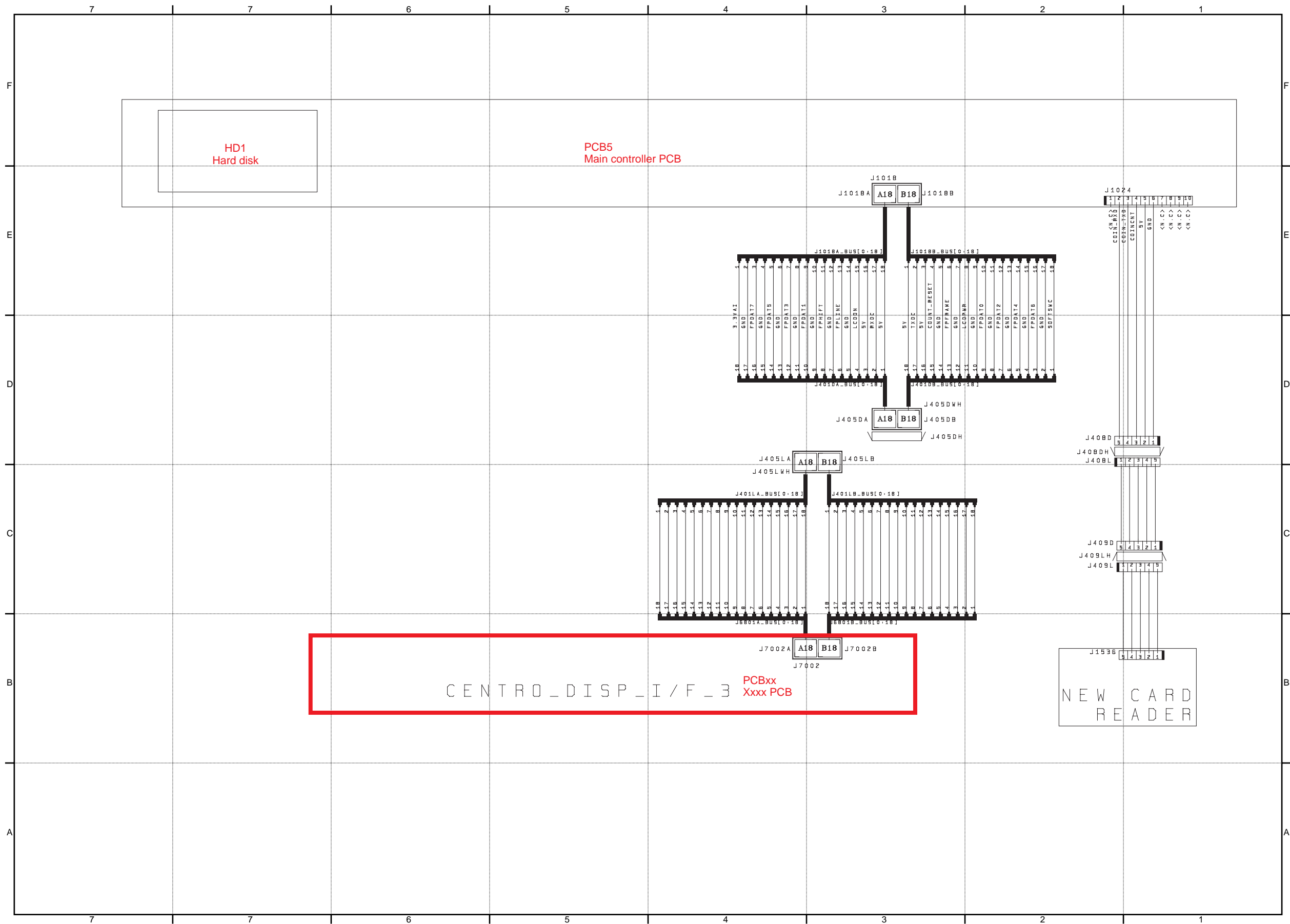




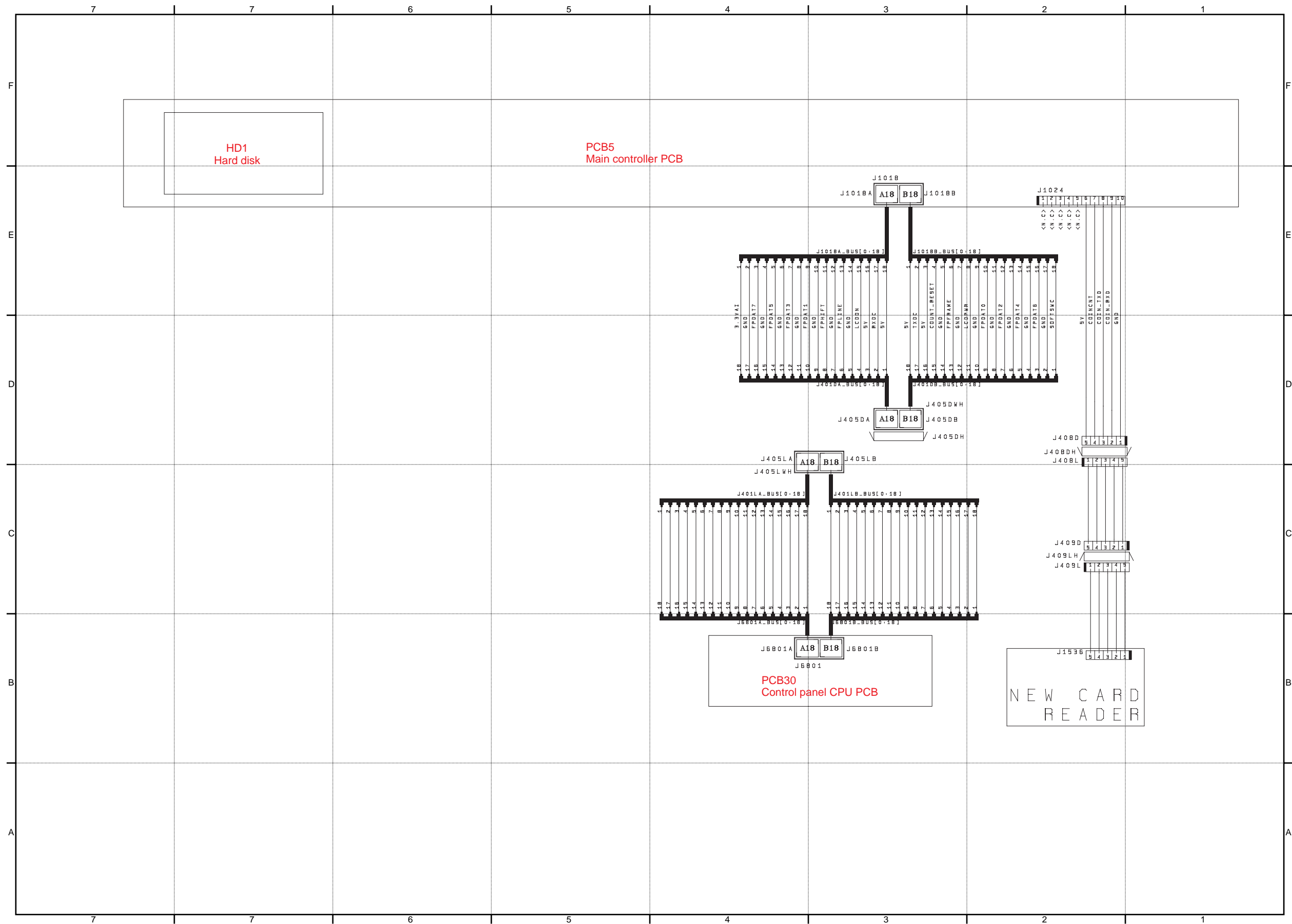
F-2-81

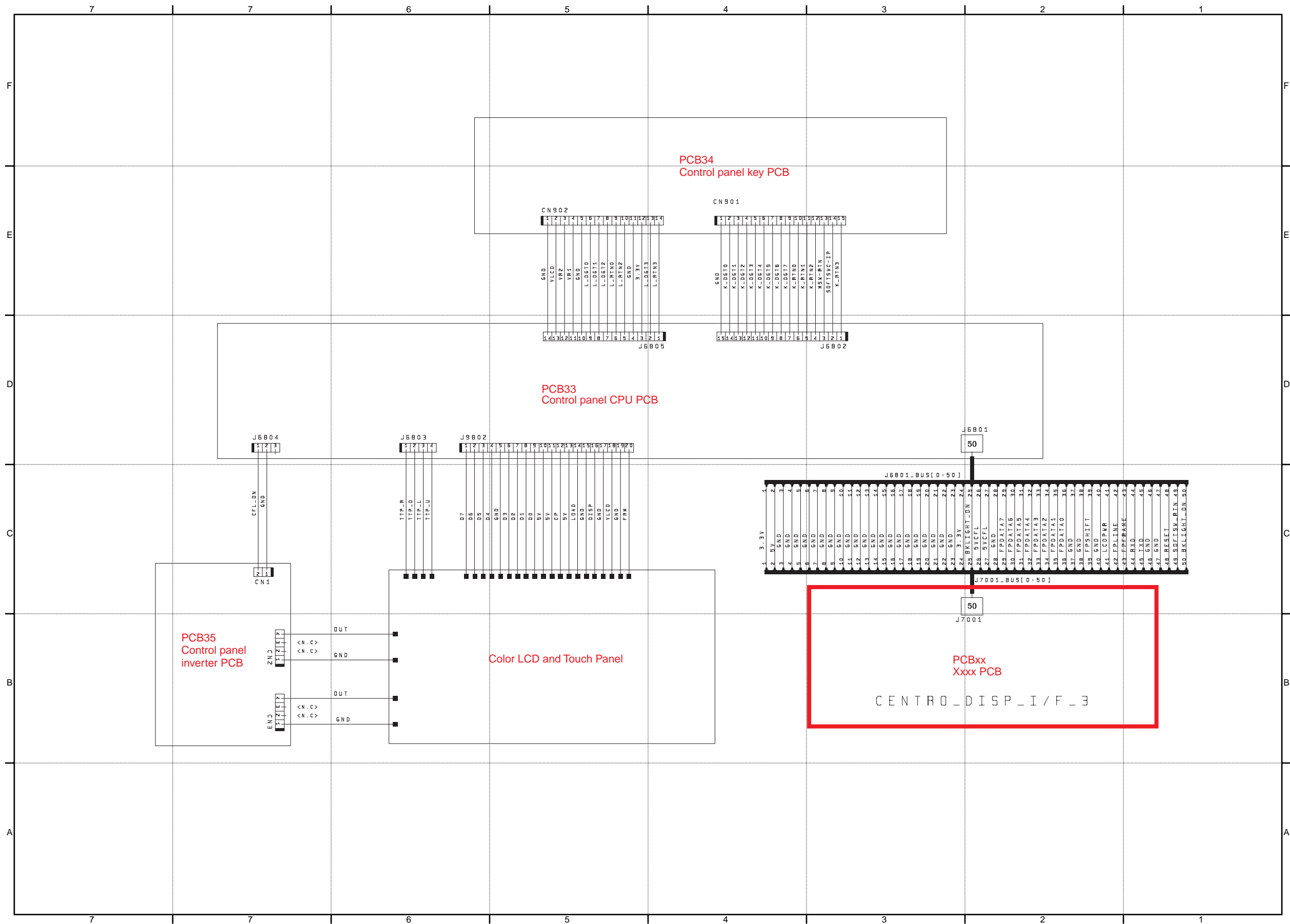


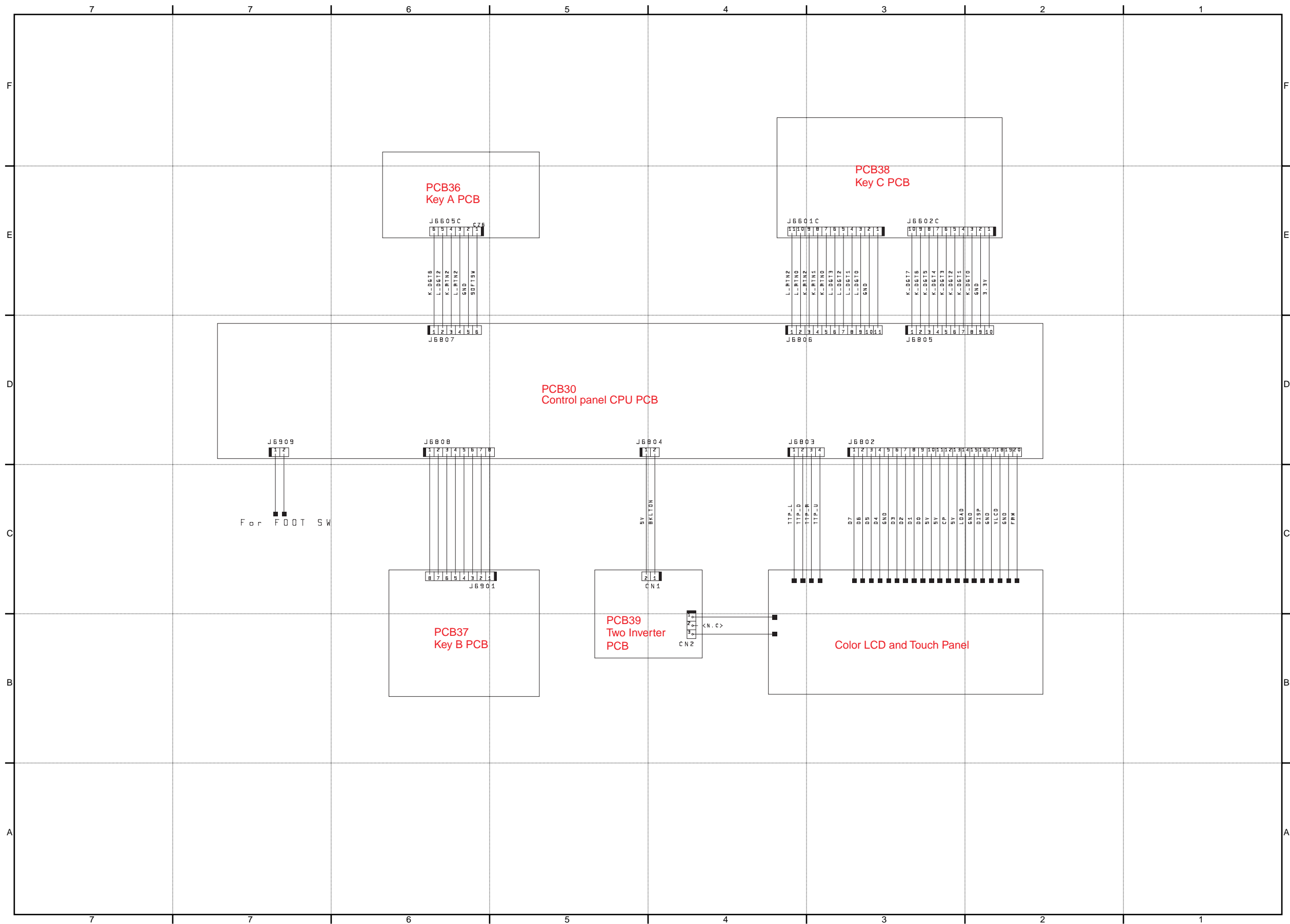




(23/24)







Jan 5 2005

Canon

