

## IBM INSTALLATION INSTRUCTION

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**TITLE:** HIGH SPEED SCANNER INSTALLATION (FC 4741)  
In 3745 MODEL 170/150/130

**STATUS:**

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### BEFORE INSTALLATION (Steps 1-8)

#### 1.0 MACHINES AFFECTED:

3745 MODEL 170 150 130

#### 2.0 PREREQUISITES/CONCURRENT/COMPANION:

##### 2.1 Prerequisite:

None

##### 2.2 Concurrent - (Must be installed together)

None

##### 2.3 Companion - (May be installed separately)

None

#### 3.0 B/M(S) TO BE INSTALLED

##### 3.1 Install the following B/Ms:

B/M 03f5058 - HPTSS installation (FC4741)  
03F5060 - Installation instructions

##### 3.2 In EMEA install the following FFB/M.

B/M 03F5174 - HPTSS External cable SPAIN, NORWAY, DENMARK, IRELAND  
B/M 03F5154 - HPTSS X21 External cable (EMEA except FRANCE)  
B/M 03F5061 - HPTSS X21 External cable .(EMEA FRANCE only)

##### 3.3 In Domestic and AG/APG.

External cables are provided thru the customer order chart.

#### 4.0 PREPARATION:

1. Familiarize yourself with the purpose and details of the installation instruction prior to obtaining the customer machine time commitment.
2. Check all the items and count the parts listed on the B/M to be installed to determine that all the parts were received
3. Using the *HONE installation printout* determine the adapter cards positions to be installed.

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## Notes

1. Up to 2 *HPTSS* can be installed in 3745 170 / 130.  
Only one *HPTSS* can be installed in 3745 model 150.
2. In model 170 and 130 the first *HPTSS* must be installed in adapter position 3 (*Card positions AIT2 and AIU2*) and the second *HPTSS* must be installed in adapter position 4 (*Card positions AIR2 and AIS2*)
3. In model 150 the *HPTSS* is installed in adapter position 3 (*Card positions AIT2 and AIU2*)

## 5.0 PROGRAMMING:

### 5.1 Diagnostic programs.

CDF to reflect this change will be performed in step 11.0. This is essential to allow internal diagnostics to be run properly.

### 5.2 System programs.

The customer must update the control program to implement this change.

- NCP Tier		Usage Limits (Up to...)
		-----
1		1 TSS/HPTSS + 1 TRA + 2 CA
2		2 TSS/HPTSS + 1 TRA + 2 CA
2.5		6 TSS/HPTSS + 0 TRA + 4 CA
	or	2 TSS/HPTSS + 2 TRA + 4 CA
3		8 TSS/HPTSS + 0 TRA + 8 CA
	or	4 TSS/HPTSS + 4 TRA + 8 CA
4		24 TSS/HPTSS + 0 TRA + 16 CA
	or	20 TSS/HPTSS + 4 TRA + 16 CA

## 6.0 PURPOSE AND DESCRIPTION:

### 6.1 Purpose.

Install a HPTSS feature.

### 6.2 Description.

Install Adapters cards, internal cable.

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### 7.0 INSTALLATION TIME:

FFB/M	Machine Hrs.	System Hrs.
03F5058	00.7	00.0
Test	00.8	
-----		
Total	1.5	

### 8.0 SPECIAL TOOLS AND/OR MATERIALS REQUIRED:

ESD kit P/N 6428316

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## INSTALLATION (Steps 9-11)

### 9.0 SAFETY

Remove all electrical power from the machine and associated machines prior to beginning hardware installation.

Review the *Safety Procedures* located at the beginning of the *3745 Maintenance Information Procedure (MIP)* manual, SY33-2070.

Review *Safety Notices* located at the beginning of the *Maintenance Information Procedures* manual.

### 10.0 DETAILS OF INSTALLATION

Before proceeding with installation the following steps must be performed:

- Ask customer to set all lines and channel addresses off-line for this controller.
- Ask customer to logoff the console if not already done.
- Ask customer for *Maintenance Password*

#### 10.1 Checking, Diagnostics, Power off.

##### 10.1.1 On control panel:

Check that *Power Control* indicator displays 3.

If not, record the value \_\_, then press *power control* key until 3 is displayed, press *validate* key.

##### 10.1.2 On local console power on:

- From interface display screen, record *enabled channel adapters* then *Disable* all channel adapters.
- Wait for *Interface status disabled* for all CA's  
Press *F4*
- Enter the *Maintenance Password*, press *SEND*.
- If CCU running, enter *RST* to reset the CCU. MOSS goes in *MOSS ALONE* state.

##### 10.1.3 Display the Configuration Data File (CDF) on local console

- Enter *CDF*, Press *SEND*.
- Select *DISPLAY/UPDATE*, Press *SEND*.
- Select *LA*, Enter *10*, Press *SEND*.  
Check for a *N* under the LA position you have to install according to the *HONE Installation sheet*  
Press *F1*.

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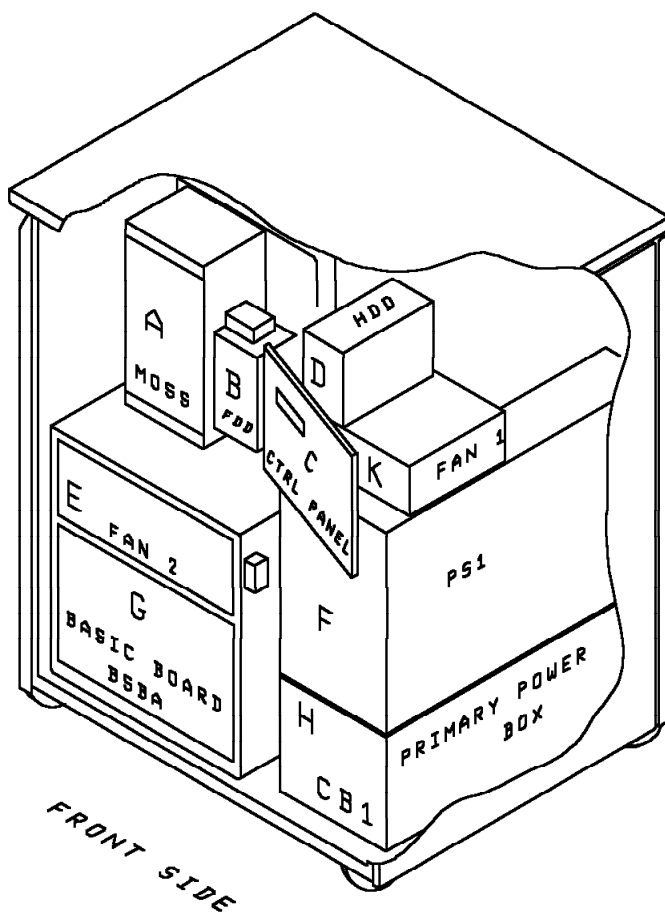
### 10.1.4 Run Diagnostics.

- Enter *ODG*, Press *SEND*.
- Select *IOCB*, Enter 3, Press *SEND*.
  - If any error is reported, go to *Maintenance Information Procedure (MIP)* chapter 1 and follow appropriate procedure.
  - If no error reported, Press *F1*.

**Note:** If one HPTSS is already installed , HPTSS diagnostics should be run to check the DMA bus.

### 10.1.5 Power off.

- Power off the 3745 from control panel.
- Open the system cover and switch off *CBI*.



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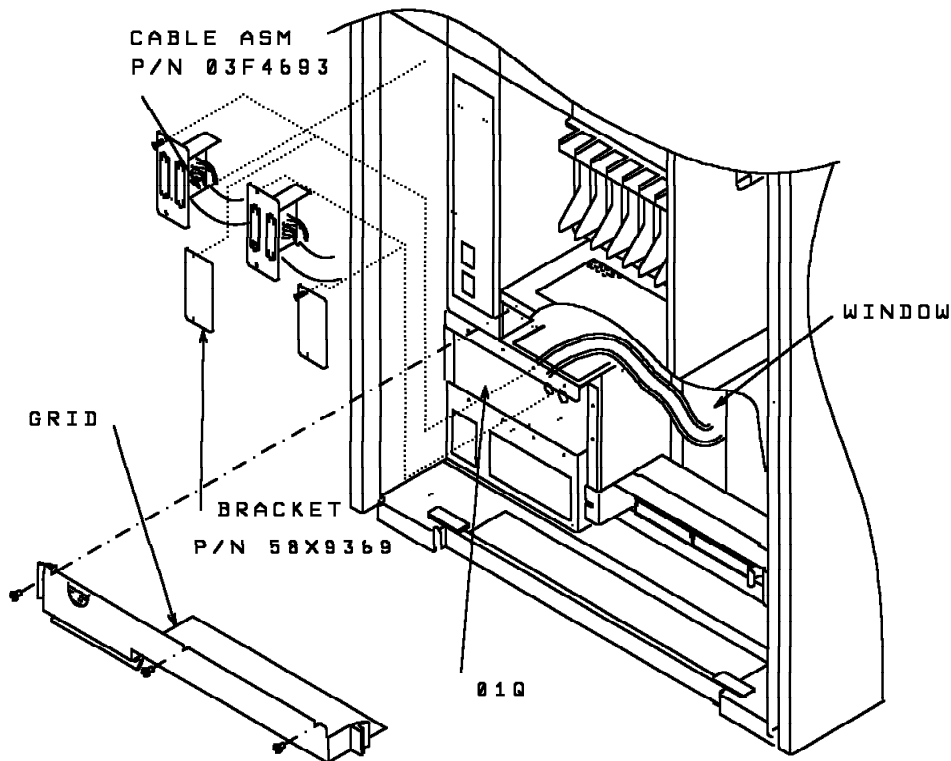
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### 10.2 Hardware Installation

Follow the existing *ESD procedures* when handling logic parts.

#### 10.2.1 HPTSS internal cable asm P/N 03F4693 installation.

- Open the rear system cover.
- Locate the *HPTSS* tailgate in position Q at the 3745 bottom left, and locate the connector position to be installed.



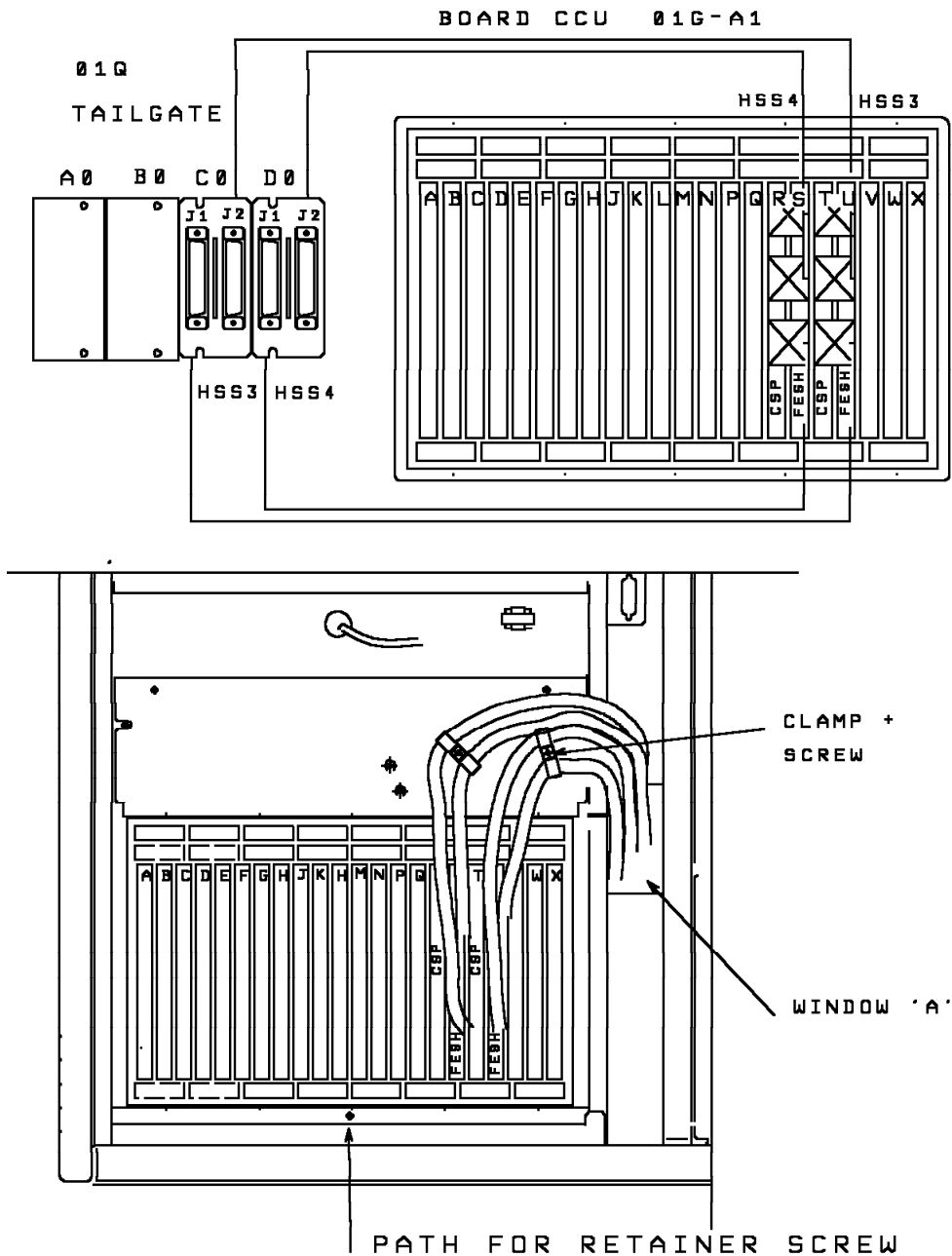
The first HPTSS adapter tailgate connector in 3745 model 170 and 130 is installed in position 01Q-C0, the second is installed in position 01Q-D0.

The HPTSS adapter tailgate connector installed in 3745 model 150 is installed in position 01Q-C0.

- Remove the dummy bracket from the identified tailgate position and save screws.
- Remove the grid over the CA tailgate.

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- Pass the two cables connectors of *HPTSS asm cable P/N 03F4693* thru the bottom window A of the frame and route the cable to the front of the machine.

Secure the cable tailgate with the screws removed in previous step.

For EMEA, connect the external HPTSS cable received with FFB/M according to customer configuration.

- Re-install the grid over the CA tailgate.

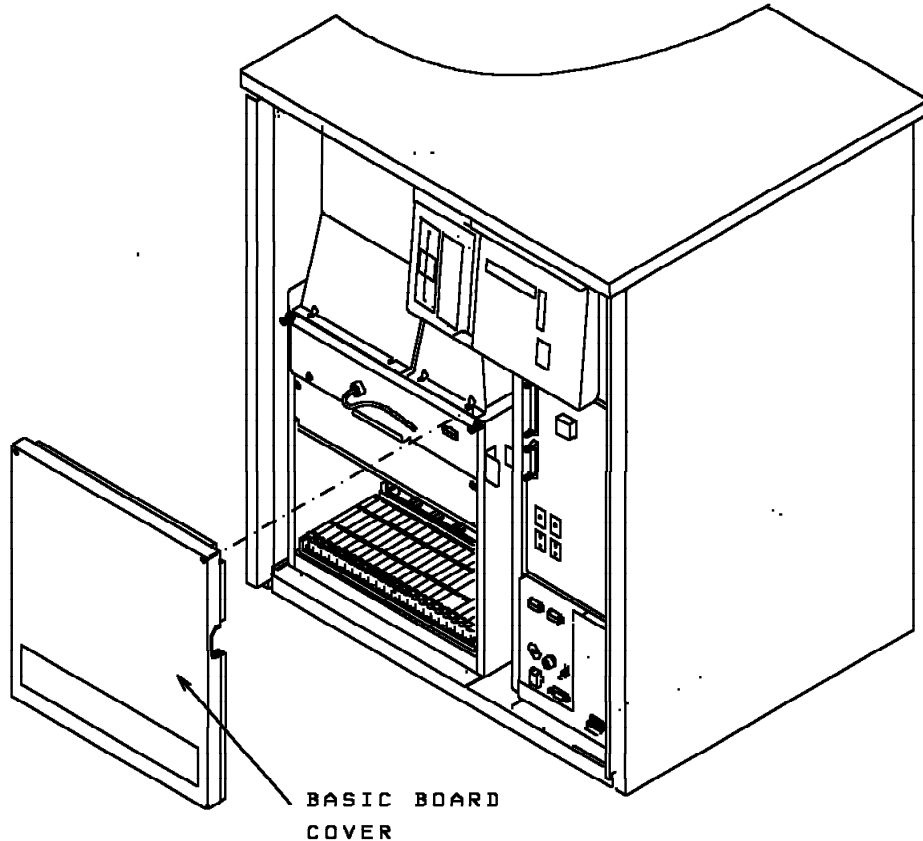
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### 10.2.2 DC-REG card installation.

- From the front of the machine, remove the basic board cover.



FRONT VIEW

**Note:** If you install a HPTSS in Adpt position 3 (cards in T2,L2) a DCREG card has to be plugged in A1ZG of base board, if so, unplug cards from positions A1R2 to A1X2. If you install a HPTSS in Adpt position 4 (cards in R2,S2) a DCREG card has to be plugged in A1-ZE of base board, if so, unplug cards from positions A1K2 to A1U2 .  
**Be sure that cards are labelled according to their positions.**

- With a torque wrench, unfasten the bottom 'spring retainer' screw.
- Disengage the retainer and install the DC-REG card in identified position.
- Replace the retainer and tight the screw.

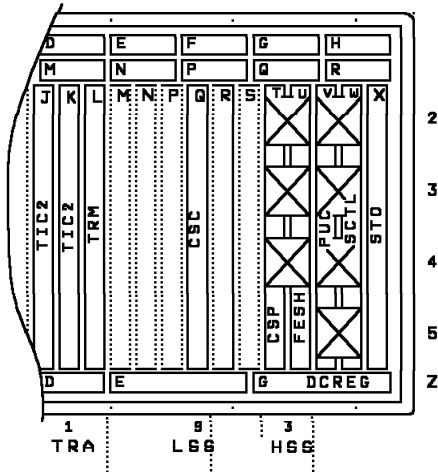
### 10.2.3 Adapter cards installation.

- Check that holders are installed on cards received with FFB/M
- Identify the position of cards to be installed and remove dummy cards, and/or BPC1 card.
- Install the cards in position. (CSP card in 01A-R2 or T2, FESH card in 01A-S2 or U2)

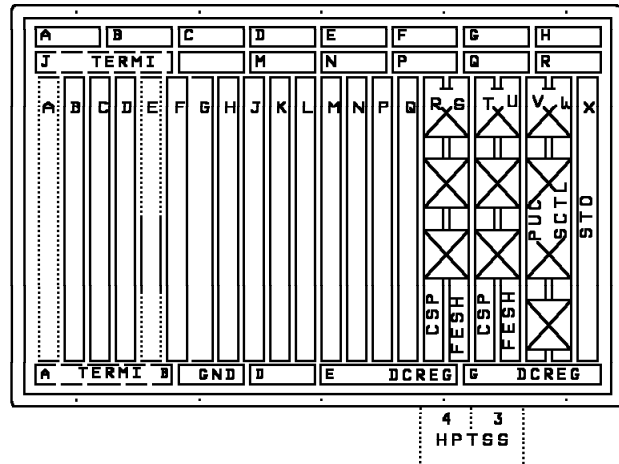
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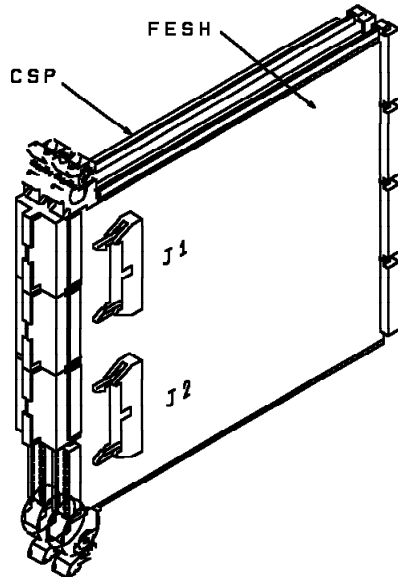
3745 150 CARDS LOCATION



3745 170 OR 130 CARDS LOCATION



**Note:** Before seating the *FESH* card, connect the 2 connectors P1 and P2 of cable assembly installed in previous step, to sockets J1 and J2 respectively.



- Install 3 crossovers P/N 8645777 in position W, X, Y of cards.

10.2.4 Secure the cable asm with clamp P/N 03F5257 and screw P/N 1621197.

Reinstall Basic board cover

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### 11.0 TEST PROCEDURES:

#### 11.1 Power on.

Switch *CBI* in 3745 *ON* and close the system cover.

On control panel, press *Function* key until a flashing *I* is displayed.

Press *Validate* key.

Press *power on* key.

A *MOSS IML* is performed.

#### 11.2 On local console:

- When *CA interface display screen* is displayed, press *F4*
- Enter *Maintenance Password*, press *SEND*.

##### 11.2.1 Update the Configuration Data File (CDF)

- Enter *CDF*, Press *SEND*..
- Select *Verify*, Enter 4, press *SEND*..  
The values from the disk and the machine should be identical except for the adapter you have just installed.  
To update the CDF with machine values, enter 2, Press *Send* .
  - When function completed, msg "CDF verify completed" is displayed. .  
Press *F6*.
  - If adapters are not recognized go to MIP and follow appropriate procedure.

##### 11.2.2 Display the Configuration Data File (CDF).

- Select *DISPLAY/UPDATE*, Enter 1, Press *SEND*..
- Select *LA* Enter 10, Press *SEND*..  
*Y* should appear under the LA number (3 or 4) you have just installed. Check the *LA type* value. (2 for HPTSS)
- Press *F1*.

##### 11.2.3 Run Diagnostics.

- Enter *ODG*, Press *SEND*.
- Select *HPTSS*, Enter 7
- Enter the *Adapter Number*, Press *SEND*.
  - If any error is reported, go to *Maintenance Information Procedure (MIP)* chapter 1 and follow appropriate procedure.
  - If no error reported, press *F1*

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11.2.4 Save Configuration Data File (CDF) on BACK UP and NORMAL sets of diskettes.

- Enter *DIF*, Press *SEND*.
- Select 2,
- Enter the date and save ID, Press *SEND*.
- Follow prompts on console.  
When function complete, press *FI*.

**Note:** Repeat this step for each set of diskettes.

11.2.5 Logoff local console.

Re-enable all channel adapters disabled in step 10.

### 11.3 General IPL.

11.3.1 Set the Power control indicator the value previously recorded in step 10.1.1

11.3.2 On control Panel.

- Set the *Function* indicator value to 0 (General IPL)
- Press *validate* key.
- General IPL starts.

If steady *FF4* code is displayed on control panel, ask customer for Control Program loading.

If Control program is loaded from hard disk, *000* will be displayed when *IPL* successful.

**Note:** Control program can fails if a mismatch exists between control program and hardware configuration.

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### AFTER INSTALLATION (Steps 12-15)

#### 12.0 FIELD UPDATING:

NONE

#### 13.0 FIELD SUPPORT PUBLICATIONS:

NONE

#### 14.0 PARTS DISPOSITION:

- **Purchased Machines:** Refer to the ownership of parts matrix to determine the correct owner of removed/unused parts.
  - For Domestic Area, return parts to customer.
  - For EMEA/APG/AG Area, refer to *H.W. and General Service Code Description*

All parts determined to be the property of IBM should be processed as stated in the rental machine directions below.

- **Rental Machines:** Provide all (or the following) parts to the IBM branch office for potential return in accordance with existing return, recovery, and reclamation programs.

#### 15.0 MACHINE RECORDS:

- Install the new *MACHINE HISTORY* supplied .
- Report the installation and quality according to the existing procedure.

#### 16.0 END OF INSTRUCTIONS

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