

## **Field Feature Bill of Material (FFBM)**

**PN 03F5152**

### **REMOVAL of a Token Ring Adapter (FC 4771) from IBM 3745 Models 130/150/170/17A**

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## Before Removal (steps 1-8)

### 1.0 Machines Affected

3745 Models 130/150/170/17A.

### 2.0 Related BMs and ECs

None.

### 3.0 BMs to be Used

- 03F5152 - Installation Instructions.
- 03F5051 - TRSS Feature removal (FC 4771)

#### 3.1 As Required FFBM

- 03F5175 - BPC2 card installation

### 4.0 Preparation

1. Familiarize yourself with the purpose and details of these installation instructions before negotiating machine time with the customer.
2. Check all the items and count parts listed on the BM(s) to be installed to determine whether all parts were received.
3. See the *HONE Configuration Sheet* and the following notes to determine the position of the adapter to be installed.

#### Notes:

1. Only one TRSS (TRA1) can be installed in 150/160/170/17A.  
TRM card: position A1-L2.  
TIC2 cards: positions A1-J2 and K2.
2. Two TRSSs can be installed in a Model 130.
  - The first TRA is plugged in the same position as in Models 150/160/170/17A.
  - To the second TRA2:  
TRM card: position A1-P2.  
TIC2 cards: positions A1M2 and N2.

#### 3. Bypass cards

If you remove a TRA2 from a Model 130 and if TRA1 remains installed or if you remove the TRSS (TRA1) from Model 17A with a 3746 Model 900 attached, a BPC2 card must be plugged in position A1-P4 on Model 130 or in position I4 on Model 17A.

### 5.0 Program Update

#### 5.1 Diagnostic Programs

To reflect this change, the CDF will be updated in Step 11.0. This is essential to allow the internal diagnostics to be run properly.

#### 5.2 System Programs

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

### 6.0 Purpose and Description

#### 6.1 Purpose

Remove a Token Ring Adapter (TRSS).

#### 6.2 Description

Remove Adapter cards and internal cable.

### 7.0 Removal Time

FFBM Installed	Machine Hours	System Hours
03F5051	0.7	0.0
Test time	0.3	0.0
Total time	1.0	0.0

### 8.0 Tools/Materials Required

ESD kit (PN 6428316).

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## Removal (steps 9-11)

### 9.0 Safety

- The adapter removal must be performed offline.
- Review the **Safety Notices** and the **Safety Inspection Procedures** located at the beginning of the *3745 Maintenance Information Procedures (MIP)* manual (SY33-2070).

### 10.0 Details of Removal

Before the removal, ask the customer:

- To set all the lines and channel addresses offline for this controller.
- To deactivate all resources of the 3746 Model 900, if attached.
- For the maintenance password.
- To logoff the console (3745-130/150/170) or the Service Processor (SP) (3745-17A), if not already done.

### 10.1 Checking, Diagnostics, Power OFF

#### 10.1.1 Checking

##### 10.1.1.1 From the 3745 Control Panel

- 1. Check that **Power Control** displays **3**.
- 2. If it does not, record the value \_\_\_\_.  
Set the **Power Control** value to **3**.  
Press the **Validate** key.

- If you are removing an adapter in a Model 17A, go to Step 10.1.1.3, "From the Service Processor."
- Otherwise, continue.

##### 10.1.1.2 From the 3745-X10 Console

- 1. From the **CA INTERFACE DISPLAY** screen, record **Enabled channel adapters**. Then, **disable** all channel adapters.
- 2. Wait for **Interface Status Disabled** for all CAs. Press **F4**.
- 3. Enter the maintenance password, press **Send**.
- 4. If the CCU is running, enter **RST** to reset the CCU.  
The MOSS goes in **MOSS ALONE** state.

- Go to Step 10.1.1.4, "Display the CDF."

##### 10.1.1.3 From the Service Processor

- 1. On the **MOSS-E View** window, click on **Program**.
- 2. Click on **LOG ON MOSS-E**.
- 3. Enter the maintenance password, press **Enter**.
- 4. On the **MOSS-E View** window, double click on the icon of the identified 3745.
- 5. On the **3745 Menu** window, double click on **MOSS Console**.
- 6. When **MOSS Console** screen is displayed, enter **CID**, press **Enter**.
- 7. From the **CA INTERF DISPLAY** screen, record **Enabled channel adapters**. Then, **disable** all channel adapters.
- 8. When all CAs are **DISABLED**, press **F1**.
- 9. If CCU running, enter **RST** to reset the CCU.  
The MOSS goes in **MOSS ALONE** state.

##### 10.1.1.4 Display the CDF

**Note:** From this point, the **Send** key is used only for a local console. For a Service Processor, press the **Enter** key.

- 1. Enter **CDF**, press **Send/Enter**.
- 2. Enter **1** (DISPLAY/UPDATE), press **Send/Enter**.
- 3. Enter **10** (LINE ADAPTERS (LA)), press **Send/Enter**.

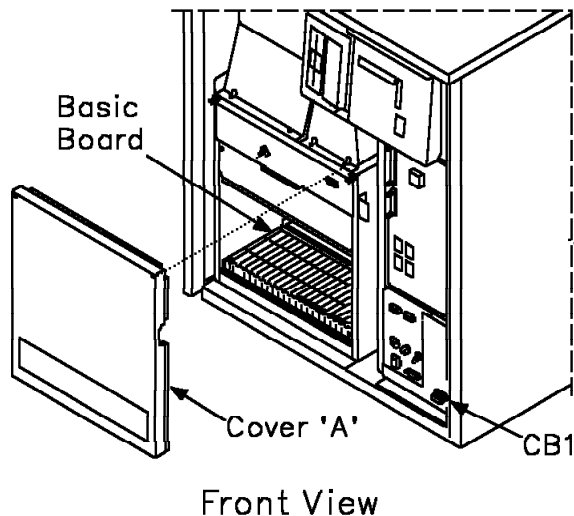
- 4. Check for the presence of a **Y** for the LA position (1 or 2) to be removed according to the *HONE configurator sheet* and notes in step 4.0, "Preparation" on page 3. Press **F1**.

### 10.1.2 Diagnostics

- 1. Enter **ODG**, press **Send/Enter**.
- 2. Enter **3** (IOCB), press **Send/Enter**.
  - If **NO ERROR FOUND** is displayed, press **F1**.
  - Otherwise, see the *MIP*, Chapter 1.

### 10.1.3 Power OFF

- 1. From the 3745 control panel, press the **Power OFF** key.
- 2. Open the front cover and switch **CB1** OFF.



## 10.2 Hardware Removal

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

### 10.2.1 Adapter Cards Removal

- 1. Remove the cover 'A'.
- 2. Identify the position of cards to be removed,
  - Disconnect the TRA internal cable from the TIC cards.
  - and unplug the cards from the board.

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
								T I C	T I C	T R M	T I C	T I C	T R M								
								(TRA1)			(TRA2)										

Figure 1. Basic Board (01G-A1)

- 3. Insert the cards in the bags provided with the FFBM.
- 4. Remove the clamp (PN 65X9923) and screw (PN 1621197) securing the cable asm on the frame.
- 5. Install 3 fillers (PN 2733278) in place of TRA cards.

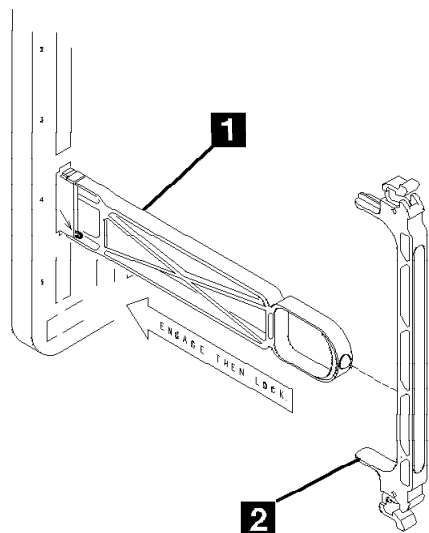
#### Important

- If you have removed a TRA2 (Model 130 only) and if the TRA1 is still installed, or if you have removed the TRA from a Model 17A with a 3746 Modem 900 attached, you must install a BPC2 card, go to step 10.2.1.1, "BPC2 Card Installation."
- Otherwise, go to step 10.2.2, "TRSS Internal Cable Removal" on page 6.

#### 10.2.1.1 BPC2 Card Installation

- 1. Remove the filler from position 01G-A1-P2 (Model 130) or L2 (Model 17A with 3746 Model 900 attached).
- 2. Install the extender **.1** on top of the **BPC2** card.
- 3. Plug the **BPC2** card in location 01G-A1-P4 or L4.

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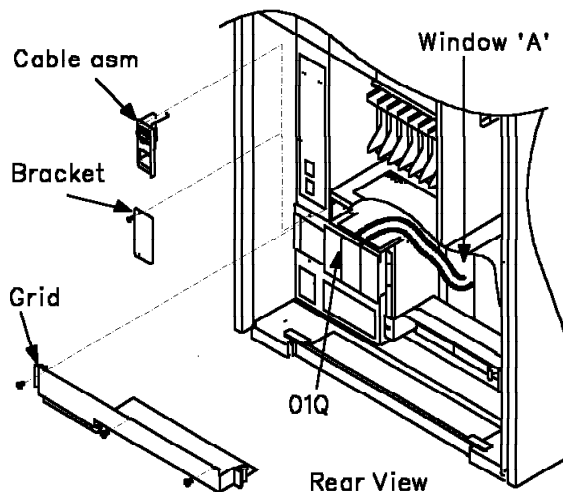
- \_\_\_ 4. Install the intermix brackets PN 1953110 .**2** on the BPC2 card installed.
- \_\_\_ 5. Reinstall the basic board cover (two screws).

## 10.2.2 TRSS Internal Cable Removal

From the rear of 3745:

- \_\_\_ 1. Open the 3745 rear cover, and locate the TRSS tailgate in position 01Q at the bottom left of the 3745.
- \_\_\_ 2. Identify the connector position to be removed.

- If you are removing the TRA1, remove the cable from A0.
- If you are removing the TRA2 (Model 130), remove the cable from B0.



- \_\_\_ 3. Remove the grid (three screws) over the CA tailgate.
- \_\_\_ 4. Remove the two screws of the TRA cable and save the two screws.
- \_\_\_ 5. Pass the TRSS asm cable thru the window 'A' of the frame and pull out the cable out of the machine.
- \_\_\_ 6. Install a dummy tailgate (PN 58X9369) with the screws removed in previous Step.
- \_\_\_ 7. Re-install the grid (three screws) over the CA tailgate.



## 10.3 Power ON

Switch **CB1** ON, and close system covers.

### 10.3.1 From the 3745 Control Panel

- \_\_\_ 1. set the **Function** indicator to 1.  
Press the **Validate** key.
- \_\_\_ 2. Press the **Power ON Reset** key.

The MOSS IML is completed when **F0E** is displayed on the 3745 control panel.

- If you have removed an adapter from a Model 17A, go to Step 10.3.3, "From the Service Processor."
- Otherwise, continue.

### 10.3.2 From the 3745-X10 Console

- \_\_\_ 1. When the **CA INTERFACE DISPLAY** screen is displayed, press **F4**.
- \_\_\_ 2. Enter the maintenance password, press **Send**.

- Go to Step 11.1, "Update the CDF."

### 10.3.3 From the Service Processor

- \_\_\_ 1. Double click on the 3745 icon when it becomes **PURPLE**.
- \_\_\_ 2. On the **3745 Menu** window, double click on **MOSS console**.

Wait for **Function Selection Rules** screen.

## 11.0 Test Procedures

### 11.1 Update the CDF

- \_\_\_ 1. Enter **CDF**, press **Send/Enter**.
- \_\_\_ 2. Enter **3** (UPGRADE), press **Send/Enter**.
  - If **CDF UPGRADE COMPLETED** is displayed, press **F6**.
  - Otherwise, see the *MIP*, Chapter 1.

### 11.2 Display the CDF

- \_\_\_ 1. Enter **CDF**, press **Send/Enter**.
- \_\_\_ 2. Enter **1** (DISPLAY/UPDATE), press **Send/Enter**.
- \_\_\_ 3. Enter **10** (LINE ADAPTERS (LA)), press **Send/Enter**.  
An **N** should appear under the LA number you have just removed.  
Check the **LA TYPE** value: 3 for TRSS.
- \_\_\_ 4. Press **F1**.

### 11.3 Diagnostics

- \_\_\_ 1. Enter **ODG**, press **Send/Enter**.
- \_\_\_ 2. Enter **3** (IOCB).
  - If **NO ERROR FOUND** is displayed, press **F1**.
  - Otherwise, see the *MIP*, Chapter 1.

### 11.4 Save Hard Disk Contents Onto the Backup set of Diskettes

- \_\_\_ 1. Select **DIF**, press **Send/Enter**.
- \_\_\_ 2. Select **2**. Enter the date and save-ID, press **Send/Enter**.  
Follow the prompts on the console.
- \_\_\_ 3. When function is completed, press **F1**.

- If you have removed an adapter from a Model 17A, go to Step 11.6, "From the Service Processor" on page 8.
- Otherwise, continue.

### 11.5 From the 3745-X10 Console

Re-enable the channel adapters disabled in Step 10.1.1.2, "From the 3745-X10 Console" on page 4.

- Go to Step 11.7, "General IPL" on page 8.

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## 11.6 From the Service Processor

- \_\_\_ 1. On the **3745 Menu** window, double click on **MOSS Console**,
- \_\_\_ 2. Enter **CID**, press **Enter**.
- \_\_\_ 3. Enable the channel adapter recorded in Step 10.1.1.3, "From the Service Processor" on page 4.  
Wait until all channels are **E** in the E/D REQUEST column.  
Press **F1**.
- \_\_\_ 4. Enter **OFF**, press **Enter**.
- \_\_\_ 5. On the **3745 Menu** window, click on **Function**. Then, click on **Exit**.
- \_\_\_ 6. On the **MOSS-E View** window, click on **Program**.
- \_\_\_ 7. Click on **LOG OFF MOSS-E**.

## 11.7 General IPL

From the 3745 Control Panel:

- \_\_\_ 1. Set the **Power Control** indicator to its original value recorded in Step 10.1.1.1, "From the 3745 Control Panel" on page 4.
- \_\_\_ 2. Set the **Function** indicator value to **0** (general IPL).
- \_\_\_ 3. Press the **Validate** key.

The general IPL starts.

- If **FF4** is displayed on the control panel, ask the customer to load the control program.
- If the control program is loaded from the hard disk, **000** will be displayed when **IPL** is successful.

**Note:** The control program load can fail if a mismatch exists between the control program and the hardware configuration.

## After Removal (steps 12-15)

### 12.0 Field Updating

None.

### 13.0 Publications Update

None.

### 14.0 Parts Disposition

#### 14.1 Purchased Machines

Refer to the parts ownership matrix to determine the correct owner of removed/unused parts.

- For EMEA/APG/AG Areas, refer to *Hardware and General Service Code Description*.
- For Domestic Areas, return parts to the customer.

### 15.0 Machine Records

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

**End of instructions.**