

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

**PN 03F5052**

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

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3745  
FFBM

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## Before Installation (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 Installed

- 03F5052 - Installation Instructions.
- 03F5050 - TRSS Feature installation (FC 4771)

#### 3.1 As Required FFBMs

- 03F5175 - BPC2 card (if you install the first TRA in a Model 130)
- 03F5056 - BPC1 card (to fill empty CSC/CSP slots in Models 130/170/17A.

#### 3.2 In EMEA Install the Following FFBM

- 03F5151 - External cables for TRA.

#### 3.3 In Domestic and AG/APG

External cables are provided through the customer order chart.

### 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 can be installed in 150/170/17A.
  - The TIC cards are installed in positions A1-J2 and K2.
  - The TRM card is plugged in position A1-L2.
2. Two TRSSs can be installed in a Model 130.
  - The first TRA is plugged in the same position as in Models 170/17A.
  - The second TRA is installed in positions A1-M2, N2, and P2.
3. Bypass cards
  - In a Model 130, a BPC2 card must be plugged in position A1-P2 if only TRA1 is installed.
  - In Models 130/170/17A, a BPC1 card must be plugged in each empty CSC/CSP card slot after the first TRA1 installation.

## 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.

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

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## 6.0 Purpose and Description

Install a Token Ring Adapter (TRSS) cards and internal cable.

## 7.0 Installation Time

FFBM Installed	Machine Hours	System Hours
03F5050	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).

## Installation (steps 9-11)

## 9.0 Safety

- The adapter installation 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 Installation

Before the installation, 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 installing 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 3745-1X0 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" on page 5.

#### 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**.

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- \_\_\_ 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.

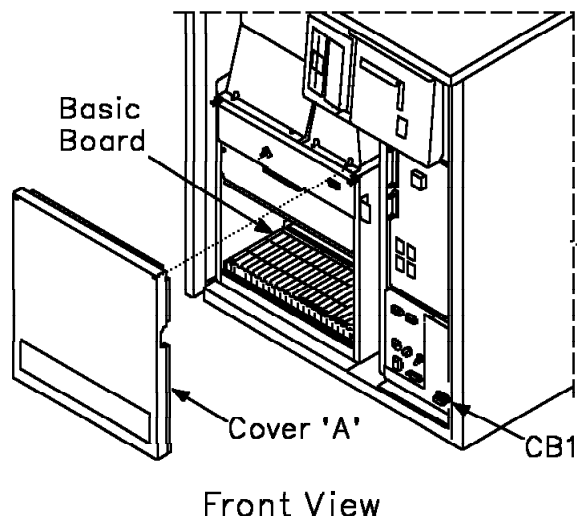
- \_\_\_ 1. Enter **CDF**, press **Send/Enter**.
- \_\_\_ 2. Enter **1** (DISPLAY/UPDATE), press **Send/Enter**.
- \_\_\_ 3. Enter **10** (LINE ADAPTERS (LA)), press **Send/Enter**.
- \_\_\_ 4. Check for the presence of an **N** for the LA position (1 or 2) to be installed according to the *HONE configurator 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, switch **CB1** off.



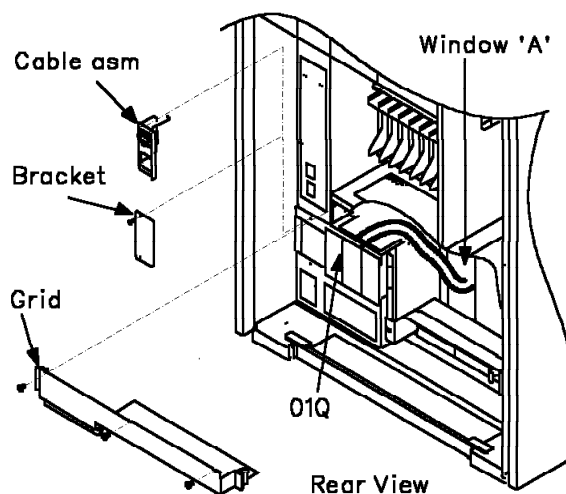
### 10.2 Hardware Installation

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

#### 10.2.1 TRSS Internal Cable Installation

From the rear of 3745:

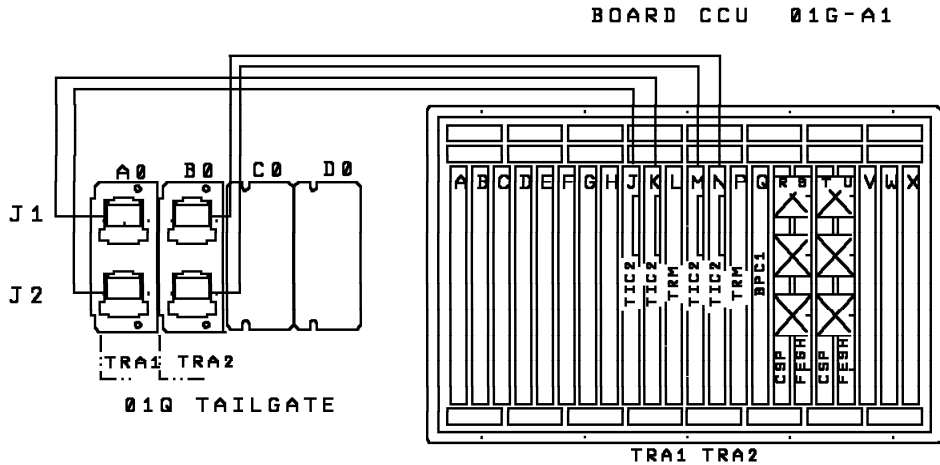
- \_\_\_ 1. Open the 3745 cover, and locate the TRSS tailgate in position 01Q at the bottom left of the 3745.
- \_\_\_ 2. Identify the connector position to be installed.



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**Notes:**

- a. If you install the TRA1, the cable will be installed in A0.
- b. If you install the TRA2 (Model 130), the cable will be installed in B0.
- \_\_\_ 3. Remove the dummy bracket (two screws) from the identified tailgate position and save the two screws.
- \_\_\_ 4. Remove the grid (three screws) over the CA tailgate.

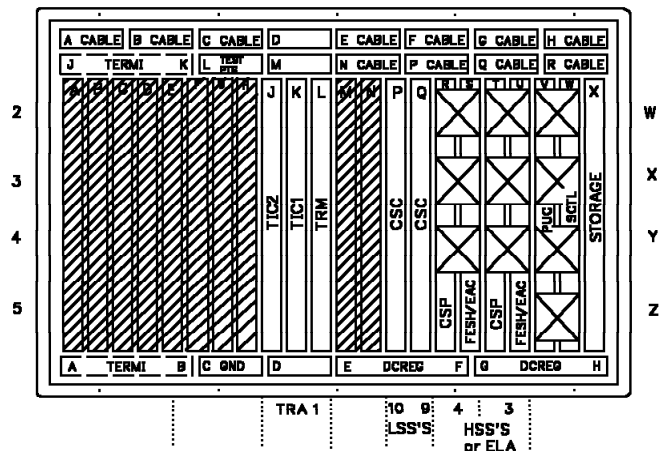


**NOTE: TRA2 INSTALLED IN MACHINE 3745-130 ONLY.**

- \_\_\_ 5. Pass the two cables connectors of TRSS asm cable (PN 03F4693) thru the window 'A' of the frame and route the cable to the front of the machine.
- \_\_\_ 6. Secure the connector of the TRSS cable on the tailgate with the screws removed in previous Step.
- \_\_\_ 7. For EMEA, connect the external TRSS cable received with FFBM according to the customer configuration.
- \_\_\_ 8. Re-install the grid (three screws) over the CA tailgate.

## 10.2.2 Adapter Cards Installation

- \_\_\_ 1. Check that the holders are installed on cards received with the FFBM.
- \_\_\_ 2. Identify the position of cards to be installed, and remove the dummy cards, and/or the BPC1 card(s).
- \_\_\_ 3. Before plugging the TIC2 cards, connect the internal cable assembly installed in previous Step to sockets J1.
- \_\_\_ 4. Secure the cable asm on the frame with clamp (PN 65X9923) and screw (PN 1621197).



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### 10.2.2.1 BPC2 Card Installation (Model 130 only)

- If you have not installed a TRA1, go to 10.2.2.2, "BPC1 Card Installation."
- Otherwise, continue.

Two types of BPC2 are available:

1. First type: 4 wide card with a spacer (PN 398482) and a holder (PN 1953172), to be plugged in position A1-P2.
2. Second type: 1 wide card with an intermix bracket (PN 1953110) to be plugged in position A1-P4.

Remove the filler from position A1-P2 and install the BPC2 provided by the FFBM 03F5175.

### 10.2.2.2 BPC1 Card Installation

- For a **Model 170**: Plug a BPC1 card in each empty slot of CSP/CSC card (positions M4, N4, P4, Q4, R4, T4).
- For a **Model 130**: Plug a BPC1 card in each empty slot of CSP card if required (positions R4, T4).

Reinstall the basic board cover (two screws).

## 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 installed an adapter in 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**.

## 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**. A **Y** should appear under the LA number you have just installed. Check the **LA TYPE** value: 3 for TRSS.
4. Enter the LA number, press **Send/Enter**. Verify that TIC1 and TIC2 are recorded. Press **F1**.

### 11.3 Diagnostics

1. Enter **ODG**, press **Send/Enter**.
2. Enter **6** (TRSS). Enter the **Adapter Number**, press **Send/Enter**.
  - If **NO ERROR FOUND** is displayed, press **F1**.
  - Otherwise, see the *MIP*, Chapter 1.

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## 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.
- \_\_\_ 3. When function is completed, press **F1**.

- If you have installed an adapter in a Model 17A, go to Step 11.6, "From the Service Processor."
- Otherwise, continue.

## 11.5 From the 3745-X10 Console

Enable channel adapters disabled in step 10.1.1.2, "From the 3745-1X0 Console" on page 4.

- Go to Step 11.7, "General IPL."

## 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 CAs 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). 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 Installation (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.**

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PP	AFTRINS2	8	After Installation (steps 12-15)

Processing Options
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Runtime values:

Document fileid .....	P03F5052 SCRIPT
Document type .....	PNCDOC
Document style .....	FBII
Profile .....	EDFPRF30
Service Level .....	21Jun90
SCRIPT/VS Release .....	3.2.1
Date .....	94.02.03
Time .....	09:34:40
Device .....	3820A
Number of Passes .....	2
Index .....	YES
SYSVAR G .....	INLINE
SYSVAR P .....	3820
SYSVAR R .....	XREF
SYSVAR U .....	FNT382SS
SYSVAR W .....	XREF

Formatting values used:

Annotation .....	NO
Cross reference listing .....	YES
Cross reference head prefix only .....	NO
Dialog .....	LABEL
Duplex .....	SB
DVCF conditions file .....	(none)
DVCF value 1 .....	(none)
DVCF value 2 .....	(none)
DVCF value 3 .....	(none)
DVCF value 4 .....	(none)
DVCF value 5 .....	(none)
DVCF value 6 .....	(none)
DVCF value 7 .....	(none)
DVCF value 8 .....	(none)
DVCF value 9 .....	(none)
Explode .....	NO
Figure list on new page .....	YES
Figure/table number separation .....	YES
Folio-by-chapter .....	NO
Head 0 body text .....	(none)
Head 1 body text .....	(none)
Hyphenation .....	YES
Justification .....	NO

Language .....	ENGL
Layout .....	2
Leader dots .....	YES
Master index .....	(none)
Partial TOC (maximum level) .....	4
Partial TOC (new page after) .....	INLINE
Print example id's .....	NO
Print cross reference page numbers .....	YES
Process value .....	3820
Punctuation move characters .....	„
Read cross-reference file .....	XREF
Running heading/footing rule .....	NONE
Show index entries .....	NO
Table of Contents (maximum level) .....	3
Table list on new page .....	YES
Title page (draft) alignment .....	CENTER
Write cross-reference file .....	XREF

<div>Imbed Trace</div>
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