

PN 43P1354

**INSTALLATION of Microcode Level D39894E
in IBM 3745 Models 21A/31A/41A/61A
OR
INSTALLATION of Microcode Level D40002A
in IBM 3745 Model 17A**

Written by: J. Michaut
Checked by: J. Combes
Approved by: A. Badino
Reviewed by: B. Griffin

Before Installation (1-8)

1.0 Machines Affected

3745 Models 21A/31A/41A/61A
3745 Model 17A

2.0 Related BMs and ECs

None.

3.0 BM(s) to Be Installed

Description Microcode	FRU BM
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X1A	43P1337
17A	43P1338

4.0 Preparation

1. Familiarize yourself with the purpose and details of these installation instructions before to obtain the customer machine time commitment.
2. Check all the items and count the parts listed on the B/M to be installed to determine whether all parts were received.
3. Ensure that a current set of backup diskettes have been created by saving hard disk onto diskettes before to powering OFF the 3745. They will be used to restore the HDD if the installation of the new microcode fails.

5.0 Programming

None.

6.0 Purpose and Description

6.1 Purpose

To install the 3745-X1A or 17A MOSS microcode.

6.2 Description

Install microcode at level D39894E (X1A) or D40002A (17A) and latest MCLs.

7.0 Installation Time

B/M	Machine Hrs	System Hrs	Nbr of CE
43P1337 (X1A)	0.7	0.0	
43P1338 (17A)	0.7	0.0	

8.0 Tools/Materials Required

None.

Installation (Steps 9-11)

9.0 Safety

The microcode installation will be performed with the machine powered ON.

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

10.0 Details of Installation

Before the installation, ask the customer:

- ___ • To set all lines and channel addresses offline for the 3745.
- ___ • To log off the console, if not already done.
- ___ • The **maintenance password**.

10.1 Checking, Diagnostics, Power OFF

From the Local Console

- ___ 1. From the **CA INTERFACE DISPLAY** screen, record the **Enabled channel adapters**, then **Disable** all channel adapters.
- ___ 2. Wait for interface status **Disabled** for all CAs.

From the Control Panel

- ___ 3. Check that the **Power control** indicator displays **3**.
- ___ 4. If it does not, record the value ___, then press the **Power Control** key until **3** is displayed.
Press the **Validate** key.
- ___ 5. Press the **Power OFF** key.

10.2 IML from the Diskette

Take the two sets of diskettes shipped with this FB/M. If not already done, label one set **NORMAL** and one set **BACKUP**.

- ___ 1. Insert the new **NORMAL PRIMARY** diskette into the 3745 diskette drive.
- ___ 2. From the control panel, check that **Service Mode** indicator displays **1**.
- ___ 3. If it does not, press the **Service Mode** key until **1** is displayed.
Press the **Validate** key.

- ___ 4. Set the **Function** indicator to **9** (Load from diskette).
Press the **Validate** key.
- ___ 5. Press the **Power ON Reset** key.

The MOSS IML will be complete with **F0E** or **FE9** displayed on panel.

10.3 Microcode Installation

10.3.1 MOSS/MOSS-E Connection

- ___ 1. On the **MOSS-E View** window, double-click the icon (PURPLE) of the identified 3745.
- ___ 2. Double-click MOSS Console. The Function Selection Rules screen appears.

10.3.2 Microcode EC Installation

- ___ 1. Select **EC Microcode Installation**, then type **1** and press **Enter**.
- ___ 2. Use the **NORMAL** set of diskettes, and follow the prompts on the console until the function is completed.

Notes:

- a. Use only one set of diskettes (NORMAL) for this installation. The same set must be used for the checking pass and for the pass that installs on the hard disk. Use of a different set can lead to lost CDF data.
- b. You will receive the following messages during the reading of the PRIMARY diskette:
 - **Increasing in disk size (up to 80MB)**
 - **Please wait several minutes.**
 - **Read checking in progress. Please wait several minutes.**
 - **Copy load module in progress** will appear if NCP load modules are on the hard disk.

(The Alternate Track Assignment screen will now appear.)

Press **F6** to continue with the EC installation. Follow the prompts on the SP screen.

If the microcode installation fails on 'diskette checking,' try again with the BACKUP diskettes. If the installation fails during 'diskette loading,' see the *Service Function* manual, Chapter 11, "Hard Disk Trouble Analysis and Replacement", Procedure 1.

- ___ 3. When the message **EC XXXXX correctly installed** appears, remove the sixth diskette from the diskette drive.

10.3.3 MOSS IML

From the control panel:

- ___ 1. Press the **Power Off** key.
 - ___ 2. Set the **Function** indicator to **1**, and press the **Validate** key.
 - ___ 3. Set the **Service Mode** indicator to **2**, and press the **Validate** key.
 - ___ 4. Press the **Power ON Reset** key.
- The MOSS IML is completed when F0E appears on the control panel.
 - If another code appears, see the *MIP*, Chapter 2, and follow the appropriate procedure.

10.3.4 MOSS/MOSS-E Connection

- ___ 1. On the **MOSS-E View** window, double-click the icon of the identified 3745.
- ___ 2. Double-click **MOSS Console**.

Wait for the Function Selection Rules screen to appear.

10.3.5 Applying the Latest MCLs Received on a 3745 X1A

Notes:

- 1. If RSF is available, perform the RSF link. Download and install the latest MCLs.
- 2. If RSF is not available, perform the following procedure.

Note

The process to apply MCLs on a 3745 is divided into four steps:

On the MOSS-E console:

- Step 1. Retrieve the MCLs received from the diskette or from RETAIN.
- Step 2. Read the information recorded in the cover letters.
- Step 3. Copy the MCLs from the MOSS-E hard disk to the MOSS hard disk.
- Step 4. Apply the MCLs.

Step 1. Retrieving the MCLs

Note: During this process, the MCLs are unpacked and copied on the MOSS-E hard disk.

- ___ a. From the Change Microcode window, select the option **Retrieve microcode changes**.
- ___ b. Select **Retrieve from diskette** or **Retrieve from RETAIN**, and click **OK**.

- ___ c. If you are retrieving from a diskette, insert the MCL diskette when requested.
- ___ d. Select the MCLs that you want to retrieve (all or specific ones), and click **OK**.
- ___ e. Confirm your choice, click **OK**, and wait for the retrieval to complete.

Step 2. Reading the Cover Letter Information

- ___ a. If not already logged, enter the SP maintenance password (the default is IBM3745).
- ___ b. Double-click the **SP object** icon.
- ___ c. Click **Change Management**.
- ___ d. Double-click **Manage Microcode Changes**.
- ___ e. Select **Display Cover Letter Information**, then click **OK**.
- ___ f. Read the information to determine if there is any prerequisite or corequisite needed before you apply these MCLs.

Step 3. Copying the MCLs on the MOSS Hard Disk Drive

From the Service Processor:

- ___ a. Double-click the **3745 Object** icon.
- ___ b. Double-click **MOSS Console**.
- ___ c. In the Moss primary window, type **MCF**, then press **Enter**.
- ___ d. Select **Option 2** to copy the MCL file. Press **F6** to quit.

Step 4. Applying the MCLs on the 3745 X1A

- ___ a. From the MCF selection screen, select **Option 1**, and press **Enter**.
- ___ b. From the MCF management screen, select **Option 2**, and press **Enter**. The progress of the MCF upgrade appears.

If the MCL file is empty, the message "**NO NEW MCF IN FILE**" or "**CODE ALREADY UPGRADED**" appears.
- ___ c. When the upgrade is completed, press **Enter**.
- ___ d. On the control panel, set the **Service Mode** indicator to **2**, and press the **Validate** key. Then, set the **Function** indicator to **1**, and press the **Validate** key.

A MOSS IML starts. Wait for the code **F0E/F0F**.

11.0 Test Procedures

11.1 Close MOSS/MOSS-E Session

- ___ 1. Wait until the 3745 Icon is purple, then on the **3745 Menu**, double click on **MOSS Console**.
Wait for the **Function Selection Rules** screen.
- ___ 2. Enter **CID**, and then press **Enter**.
- ___ 3. Re-enable the channel adapters disabled in Step 10.1, "Checking, Diagnostics, Power OFF" on page 5.
- ___ 4. When all CAs are enabled, press **F1**.
- ___ 5. Enter **OFF**, and then press **Enter**.
- ___ 6. On the **3745 Menu** window, click on **Function**, and then on **Exit**.

The session between the MOSS and the Service Processor is closed.

11.2 General IPL

From the 3745 control panel:

- ___ 1. Set the Power control indicator to its original value recorded in Step 10.1.1.
- ___ 2. Set the **Service Mode** indicator to **0**.
Press the **Validate** key.
- ___ 3. Set the **Function** indicator to **0**.
Press the **Validate** key.

The general IPL starts.

- If **FF4** code 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** successful.

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

11.3 Disk Save

When the customer network is restarted, save the contents of the hard disk on the **BACKUP** set of diskettes.

11.3.1 Open MOSS/MOSS-E Session

From the service processor:

- ___ 1. On the **MOSS-E View** window, double click on the **ICON** of the 3745 you have just installed.
- ___ 2. On the **3745 Menu** displayed, double click on **MOSS Console**.

Wait for **Function Selection Rules** screen.

11.3.2 Save Disk Contents onto Diskettes

- ___ 1. If NCP is restarted and MOSS ONLINE, set the MOSS OFFLINE, enter **MOF**, press **Enter**.

Note: If Model 61A, select the CCU first.

- ___ 2. Select **DIF**, press **Enter**.
- ___ 3. Select **2**.
- ___ 4. Enter the save-ID and press **Enter**.
- ___ 5. Follow prompts on console.
- ___ 6. When function complete, press **F1**.

11.4 Close MOSS/MOSS-E Session

- ___ 1. Enter **OFF**, press **Enter**.
- ___ 2. On the **3745 Menu** window, click on **Function**. Then, click on **Exit**.

The **MOSS-E View** window is displayed.

11.5 Logging OFF from SP

- ___ 1. On **MOSS-E View** window, click on **Program**.
- ___ 2. Click on **LOG OFF MOSS-E**.

After Installation (12-15)

12.0 Field Updating

None.

13.0 Publications Update

None.

14.0 Parts Disposition

None.

15.0 Machine Records

None.

End of instructions.

