



Field Feature Bill of Material (FFBM)

PN 89H4321

Installation of the 2nd Expansion Enclosure (FC 5016)

in IBM 3746 Model 900 or 950.

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Before Installation (Steps 1-8)

1.0 Machines Affected

3746 Model 900 or 950

This feature should only be applied on the machine serial for which it is specified.

2.0 Related BMs and ECs

2.1 Prerequisites

(Must be installed prior to this installation)

- Microcode EC D46120 or Higher

Checkpoint: Check that the CSS 1 EC level is D46120.000 or higher.

Note: Refer to the **SPIM**, chapter 3, 'Displaying the EC Level of the code'.

- Documentation EC E63495 or Higher

Checkpoint: EC level on PRD sheet (vol 1).

2.2 Concurrent

(Must be installed together)

None.

2.3 Companion

(May be installed together)

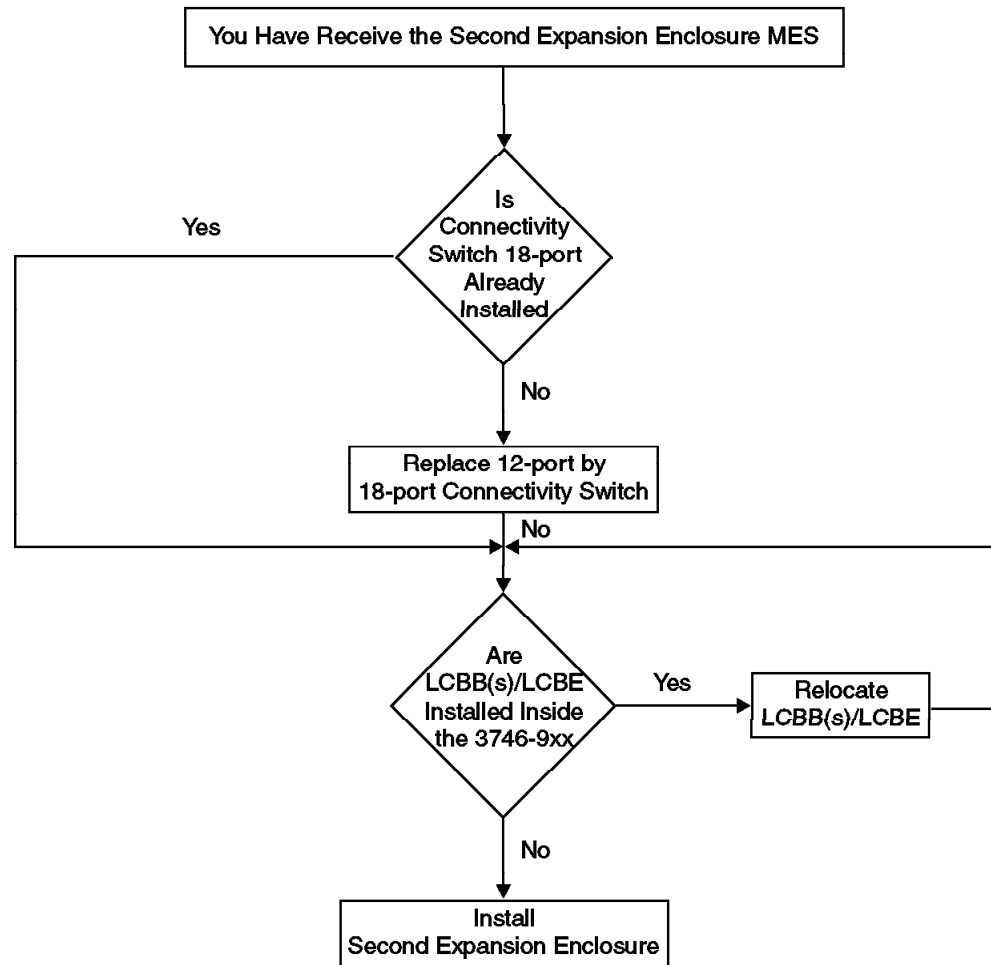
None.

3.0 BMs to be Installed

FFBM	Title
89H4321	2nd Expansion Enclosure (FC 5016)
80G5154	Switch Card 18-port (If 12-port switch installed).



4.0 Preparation



- Familiarize yourself with the purpose and details of these installation instructions before negotiating machine time with the customer.
- Check all the items and count the parts listed on the BM(s) to be installed to verify whether all parts were received.

5.0 Programming

None.



6.0 Purpose and Description

6.1 Purpose.

To increase of the connectivity of the 3746-9x0.

6.2 Description

Install an 2nd expansion enclosure and associated cabling in a 3746-9x0.

7.0 Installation Time

FFBM	Machine Hours	System Hours	Nbr of CE
89H4321			
- CS Replacement	0.5	0.0	1
- LCB(s) Relocation	0.5	0.0	1
- 2nd Exp. Encl. Instl.	0.5	0.0	1

8.0 Tools/Materials Required

ESD kit (PN 6428316).

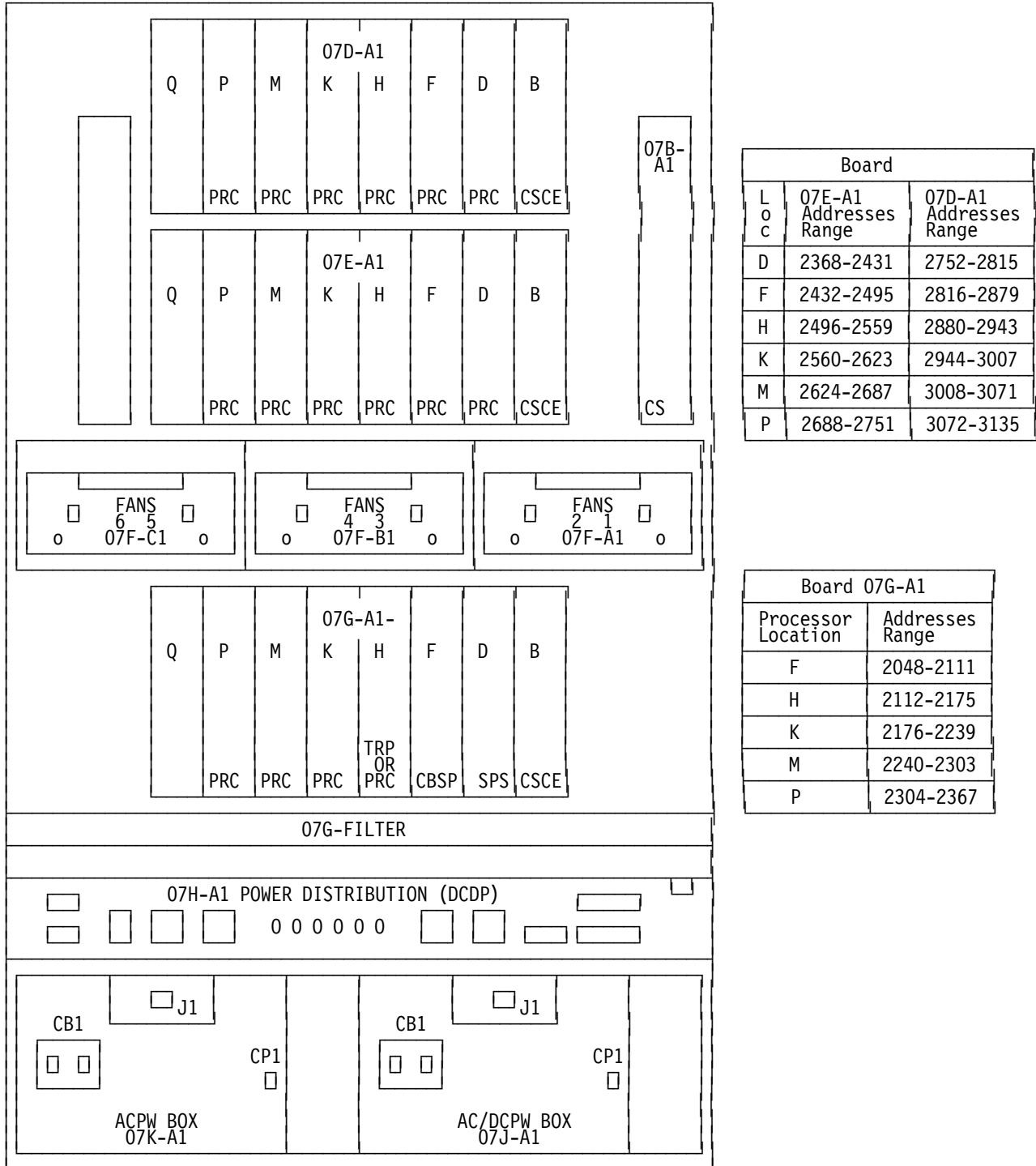


Figure 1. 3746 Model 950 Front Side

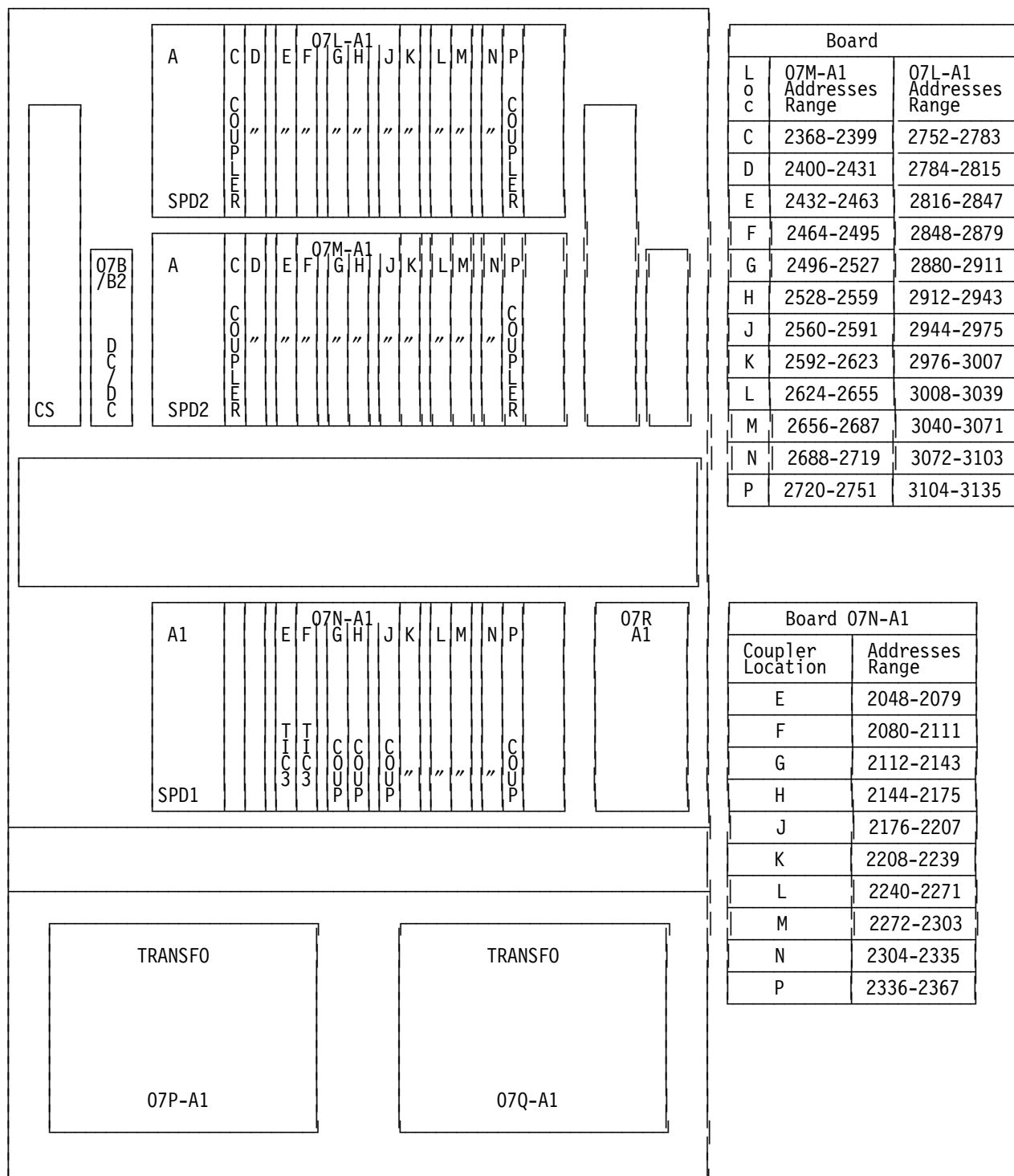


Figure 2. 3746 Model 950 Rear Side

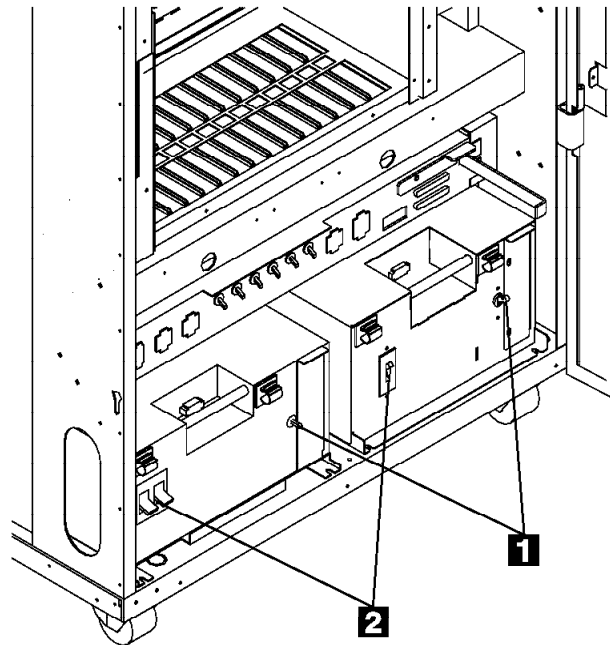
Installation (Steps 9-11)

9.0 Safety

- This installation must be performed 3746-9x0 power off.
- Review the **Safety Notices** and the **Service Inspection Procedures** located at the beginning of the:
 - 3746 Model 900 Service Guide manual, SY33-2116, or
 - 3746 Model 950 Service Guide manual, SY33-2106.

10.0 Details of Installation

- ___ 1. Ask the customer to deactivate all the lines connected to the 3746-9x0.
- ___ 2. From the control panel of the 3746-9x0 set the **Power Control** indicator to **3**, and press the **Validate** key.
- ___ 3. Press the **Standby** key.
- ___ 4. Wait (30 seconds) until **Standby** indicator is permanently **ON**.
- ___ 5. Open the front and rear 3746-9x0 covers.
- ___ 6. Switch **OFF** the **CP1(s)** **1**, then
- ___ 7. Switch **OFF** the **CB1(s)** **2**.



10.1 Removing the Internal Covers

(Refer to Component location label on the rear and front door).

From the rear of the 3746-9x0: ,

- ___ 1. Unfasten the screws of the covers **1** to **6** and remove the covers.

From the front of the 3746-9x0: ,

- ___ 2. Unfasten the screws of the covers **8** and **9** and remove the covers.
- ___ 3. Save all covers removed for reinstallation.

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Do you have to replace the connectivity switch

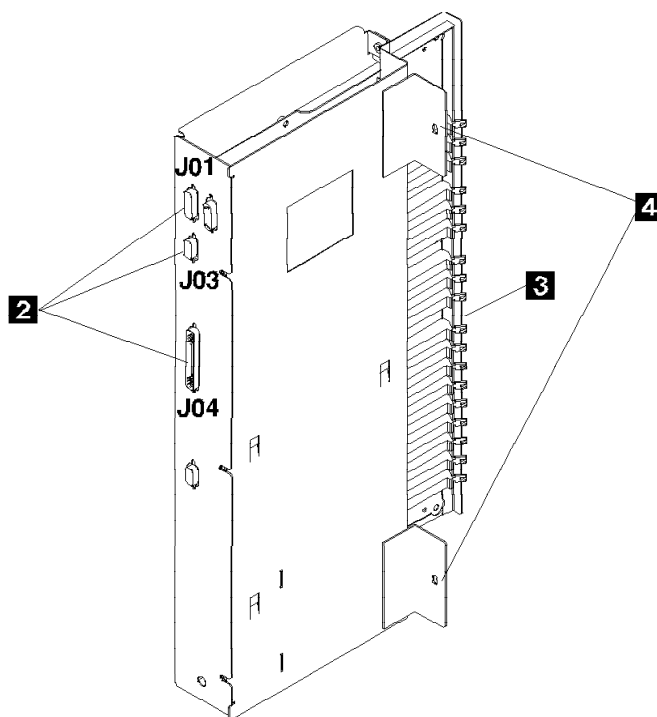
- YES, go to 10.1.1, "Exchanging the Connectivity Switch" on page 9.
- NO, go to 10.2, "Relocating the LCBB/LCBE" on page 10.

10.1.1 Exchanging the Connectivity Switch

1. Locate the connectivity switch using Figure 1 on page 6 and Figure 2 on page 7.

From the rear of the 3746-9x0:

2. Unplug connectors, from the back of the CS in the following order, J01, J03 and J04. **2**



Rear Side

Figure 3. 3746 Model 900 Connectivity Switch

From the front the 3746-9x0 :

3. Unplug the CSCE cable **3** from CS connectors D through P (Black and gray areas).
4. Remove the two screws holding the CS. **4**
5. Pull the CS out of the machine (be careful not to damage the cables).
6. Install the new CS and secure it with the screws. **4**



- ___ 7. Plug the processor cables previously removed. **3**

From the rear of the 3746-9x0:

- ___ 8. Reconnect the cables **2** in the following order: (1) Power cable J04, (2) Service bus J01 and (3) Control cable J03.

Is there a LCBB installed in the 3746-9x0?

- YES, go to 10.2, "Relocating the LCBB/LCBE."
- NO, go to 10.3, "Installing the Enclosure." on page 11.

10.2 Relocating the LCBB/LCBE

10.2.1 Removing the LCBB/LCBE

- ___ 1. Remove the cable of the LCBB (coming from the LIC11).
- ___ 2. Unplug the DCE/DTE cable(s) connected to the ARC(s).
- Note:** If the cable are hard wired on the ARC(s), unplug the ARC(s) from the LCBB/LCBE.
- ___ 3. Remove the LCBB/LCBE **1** (4 screws **2** per LCBB or LCBE)

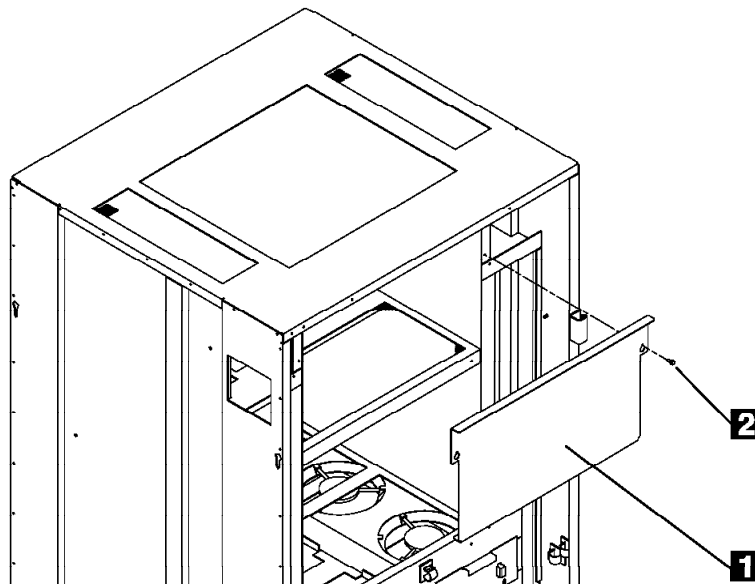
10.2.2 Re-installing the LCBB/LCBE

- ___ 1. Ask to the Customer where the LCBB/LCBE should be re-installed.
- ___ 2. Verify that the external cable (from LIC11 to LCBB) you have received is at the right length regarding the new LCBB location.
- ___ 3. Install the LCBB/LCBE at the location defined by the customer (See the *Connection and Integration Guide (CIG)*, SA33-0129, Chapter 2, Installing a LCB).
- ___ 4. Install/Route the LCBB to LIC11 external cable, plug it on the LCBB, then on the LIC11 coupler.
- ___ 5. Re-route/re-plug all the DCE/DTE cables connected to the ARC(s).
- Note:** If the cable are hard wired on the ARC(s), Re-route the DCE/DCE cables and re-plug the ARC(s) on the LCBB/LCBE.

10.3 Installing the Enclosure.

From the front of the 3746-9x0:

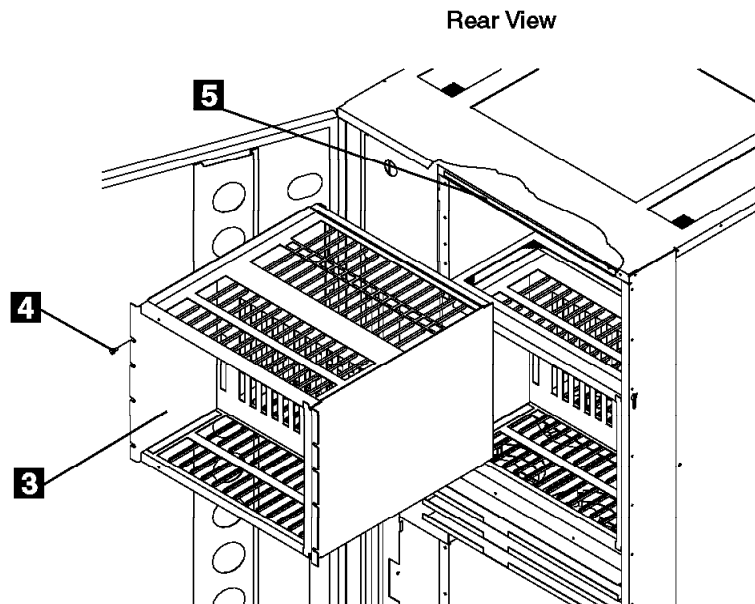
- ___ 1. Remove the cover (PN 72F1198) **1**.



Front View

From the rear of the 3746-9x0:

- ___ 2. Slide the enclosure **3** (PN 03F7365) into the frame, secure with six screws **4** (PN 1621210).
- ___ 3. Install label 07L on the frame **5** (Part of label PN 72F0681).

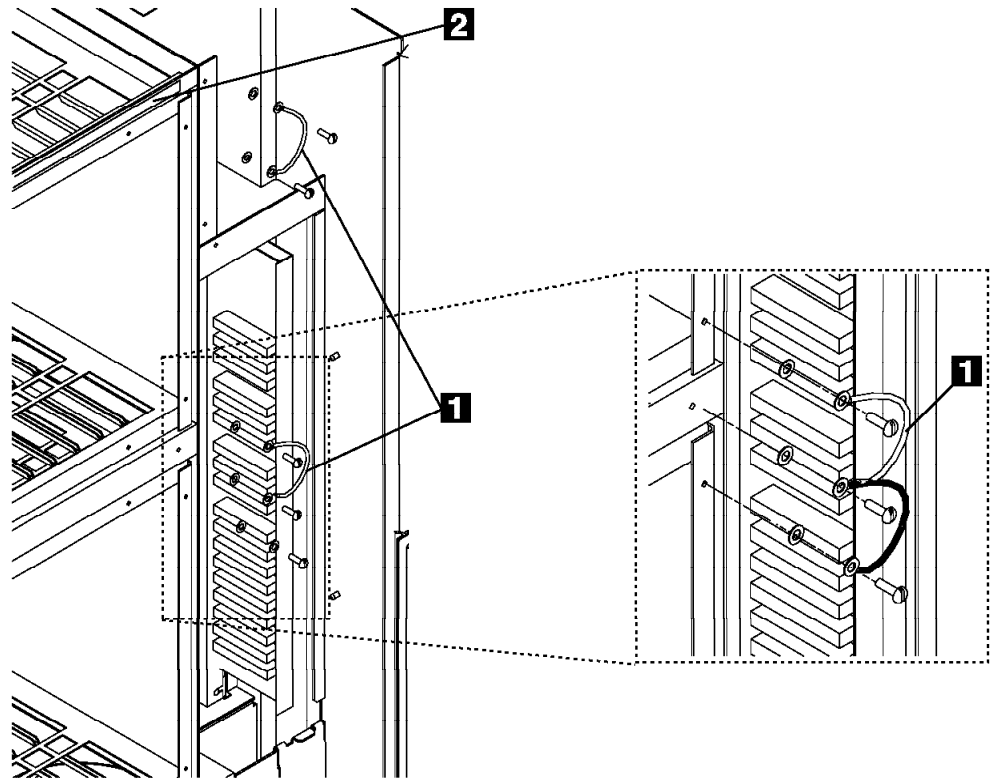


Rear View



From the front of the 3746-9x0:

- ___ 4. Install the two ground jumpers **1** (PN 72F1250) with 4 screws (PN 1621191) and 4 lockwasher (PN 17G5852).
- ___ 5. Install label 07D on the frame **2** (Part of label PN 72F0681).



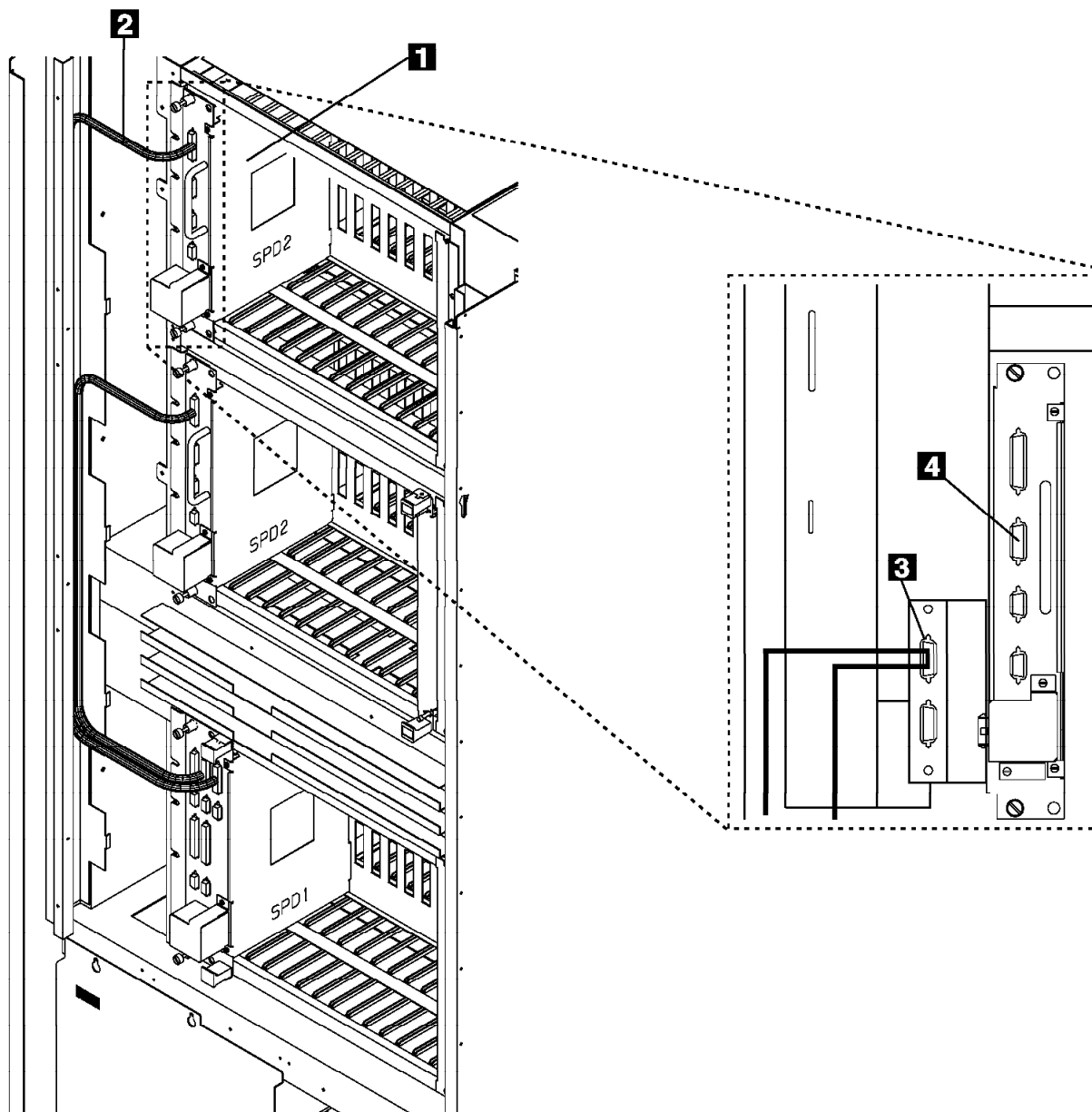
Front View



10.4 Installing the SPD2 Cassette and Cables.

From the rear of the 3746-9x0:

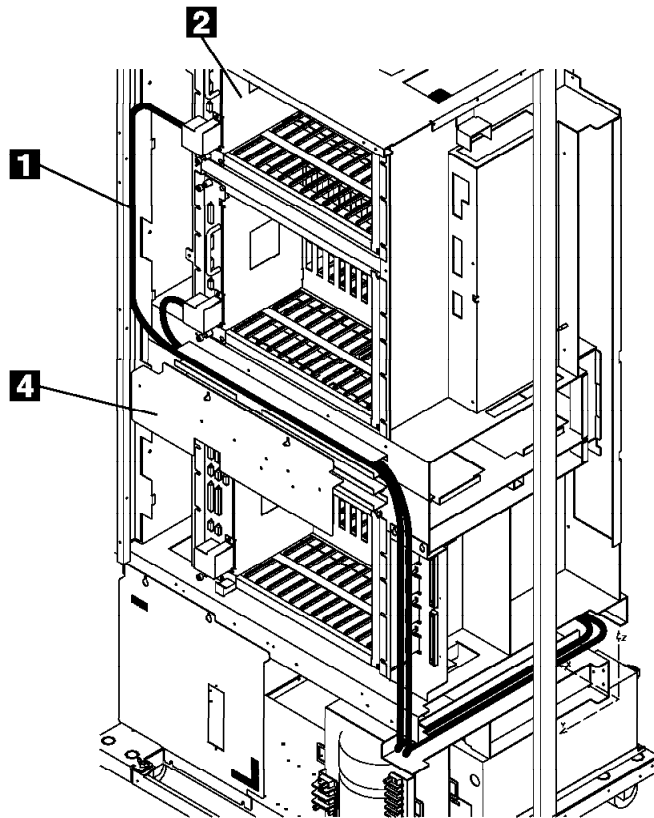
- 1. Plug the SPD2 cassette **1** in position A, then fasten and secure it using the two captive screws.
- 2. Plug and route the cable **2** (PN 72F1196) from SPD2-J1 to SPD1-J3.
- 3. Move the plug, on cable **3** (PN 03F7578) from the dummy connector to SPD2-J2 **4**.



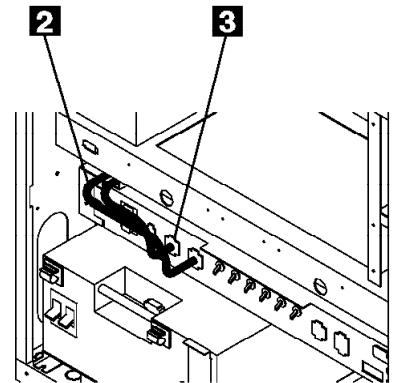
Rear View



- ___ 4. Plug and route the cable **1** (PN 03F7644) from SPD2-J5 **2** to DCDP-J2 **3**.
- ___ 5. Verify that CP6 and CP7 are set ON.
- ___ 6. Reinstall cover **4** and its cables in clamps



Rear View

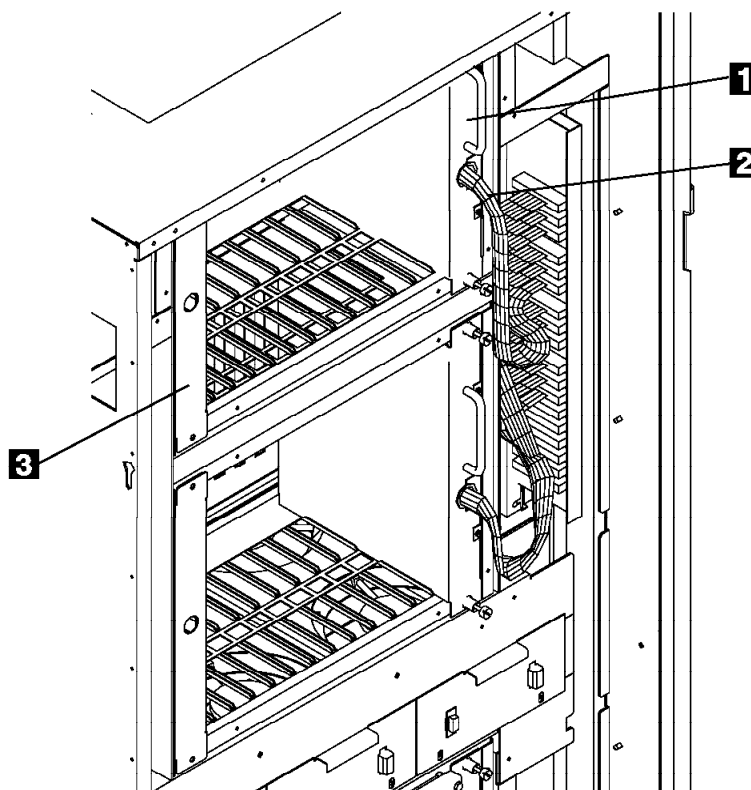


Front View

10.5 Installing the CSCE Cassette and Cables.

From the front of the 3746-9x0:

- ___ 1. Plug the CSCE cassette **1** in position A, then fasten and secure it using the two captive screws.
- ___ 2. Plug the CSCE cable **2** to CS connectors D through P (White area).
- ___ 3. Install the blanking plate **3** (PN 03F7448) with 2 screws **3** (PN 1621210).



10.6 Re-installing the Internal Covers.

(Refer to Component location label on the rear and front door).

From the rear of the 3746-9x0:

- ___ 1. Install the cover No.6 (PN 72F1010), fasten the screws.
- ___ 2. Re-install the covers No. 2 to 5, fasten the screws.

From the front of the 3746-9x0:

- ___ 3. Re-install the covers 8 and 9, fasten the screws.



11.0 Test Procedures

- 1. Switch ON the CB1(s), then CP1(s).
Wait until the **Standby** indicator is permanently ON.
- 2. Press the **Start** key.
Wait for SRC **00-00-0000** displayed on the control panel.
- 3. Plug a Processor on any slot of the enclosure just installed.

Note: Use a spare processor or take a processor from the enclosure below.
- 4. On the **Service processor** look at on the Active CDF-E of the 3746-9x0 concerned. Is the status of the processor installed in the new enclosure **Disconnect**?
 - If **NO**, verify the plugging of the connectivity switch.

Note: If the problem persist inform the support.
 - If **YES**, Remove the processor from the enclosure just installed.
- 5. Set the **Power Control Mode** indicator to its initial value.
Press the **Validate** key.

Important Note

From this point, the traffic can be restarted and feature cassettes can be installed in concurrent maintenance via other MES.
Then, install the dummy processor (PN 03F7521) and coupler (PN 03F7522) cassettes received with this FFBM (an enclosure must be fully populated).

- 6. Close the front and rear covers of the 3746-9x0
- 7. Inform the customer that he can re-start the traffic.

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.