Field Feature Bill of Material (FFBM)
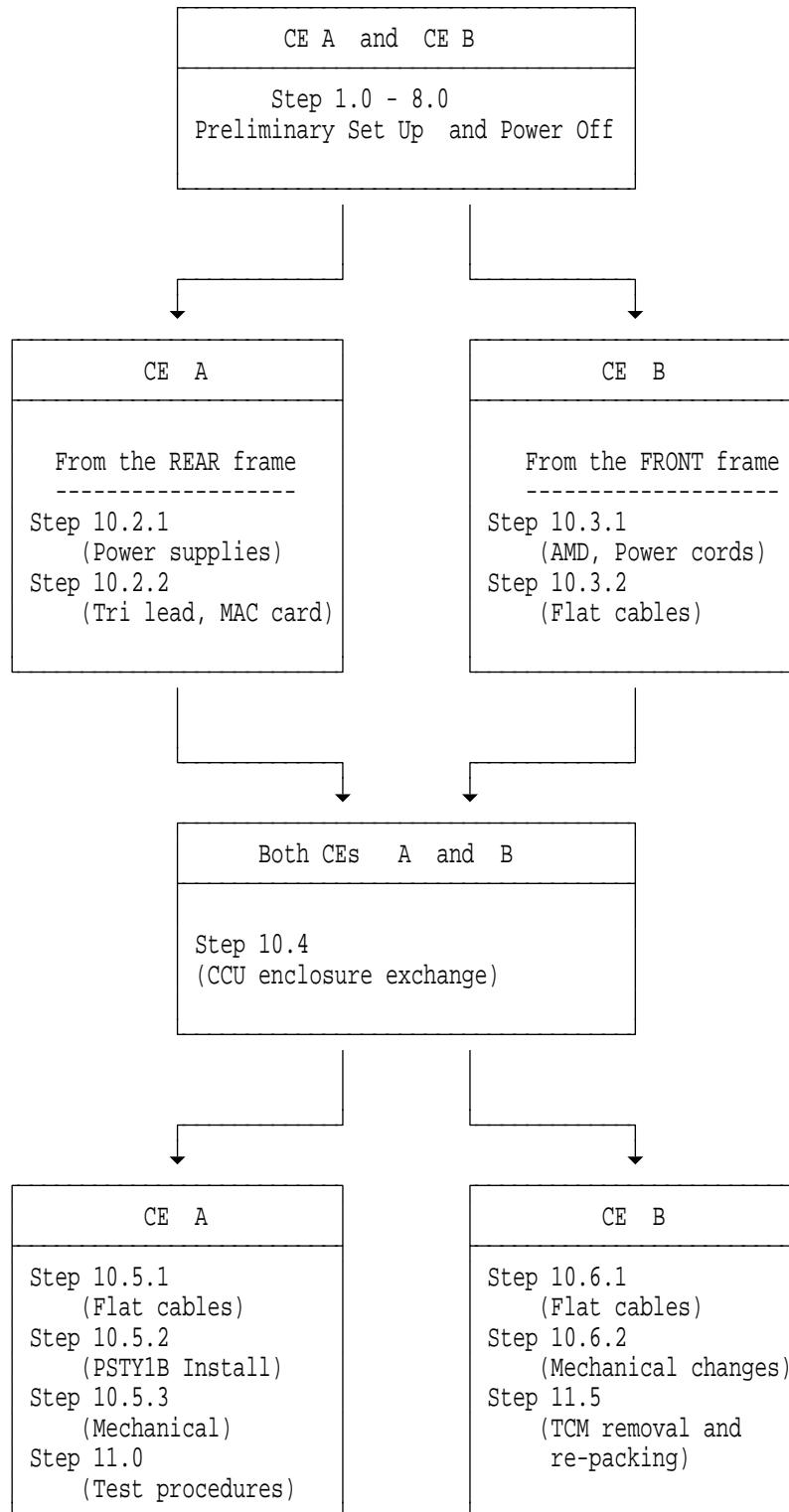
PN 17G5536

CONVERT an IBM 3745 Model 41A to 61A

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

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2

As instructions are divided in two procedures, 2 CEs may be used for the installation. An additional person may be called to move the enclosure unit.

```
┌─────────────────────────────────────────┐
│            CE A  and  CE B              │
├─────────────────────────────────────────┤
│           Step 1.0 - 8.0                │
│    Preliminary Set Up  and Power Off    │
└─────────────────────────────────────────┘
```

```
┌─────────────────────────┐     ┌─────────────────────────┐
│          CE  A          │     │          CE  B          │
├─────────────────────────┤     ├─────────────────────────┤
│                         │     │                         │
│   From the REAR frame   │     │   From the FRONT frame  │
│   -------------------   │     │   --------------------  │
│ Step 10.2.1             │     │ Step 10.3.1             │
│     (Power supplies)    │     │     (AMD, Power cords)  │
│ Step 10.2.2             │     │ Step 10.3.2             │
│     (Tri lead, MAC card)│     │     (Flat cables)       │
└─────────────────────────┘     └─────────────────────────┘
```

```
┌─────────────────────────────────────────┐
│          Both CEs   A  and  B           │
├─────────────────────────────────────────┤
│                                         │
│ Step 10.4                               │
│ (CCU enclosure exchange)                │
└─────────────────────────────────────────┘
```

```
┌─────────────────────────┐     ┌─────────────────────────┐
│          CE  A          │     │          CE  B          │
├─────────────────────────┤     ├─────────────────────────┤
│ Step 10.5.1             │     │ Step 10.6.1             │
│     (Flat cables)       │     │     (Flat cables)       │
│ Step 10.5.2             │     │ Step 10.6.2             │
│     (PSTY1B Install)    │     │     (Mechanical changes)│
│ Step 10.5.3             │     │ Step 11.5               │
│     (Mechanical)        │     │     (TCM removal and    │
│ Step 11.0               │     │      re-packing)        │
│     (Test procedures)   │     │                         │
└─────────────────────────┘     └─────────────────────────┘
```

Before Installation (steps 1-8)

VERY IMPORTANT

MES should be installed without delay, after receipt, to avoid multiple MCLs needed for the microcode.

Net Priced Feature

All parts removed from this machine are IBM property and must be returned to IBM.

1.0 Machines Affected

IBM 3745 Model 41A.

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

2.0 Related BMs and ECs

None.

3.0 BMs to be Installed

Install one of the following FFBM.

```
FFBM 17G5549 - Convert a 3745 41A to 61A
                  (4MB memory size)
    or
FFBM 17G5550 - Convert a 3745 41A to 61A
                  (8MB memory size)
    or
FFBM 17G5551 - Convert a 3745 41A to 61A
                  (16MB memory size)

and  17G5536 - Installation Instructions.
```

4.0 Preparation

1. Familiarize yourself with the purpose and details of the installation instruction before negotiating machine time with the customer.

2. Check all items listed on the BM(s) to determine that all parts have been received.

3. The installation must be performed off-line.

4. Ensure that RETAIN search has been performed and all prerequisites have been installed.
   Perform a search using **3745CCUPGRADE** as **SAS keyword**

5. To check if a new MCLs level is necessary, perform a RETAIN search using **3745UPGRADE CODE LEVEL** for the TDR which gives the most recent level of microcode available for this machine (model).

   To install the last level of MCLs, the most efficient way is with the LIC upgrade procedure. Use the RETAIN search, **3745ECA134 COF**, for the TDR which explains the procedure for ordering the latest level microcode from COF.

   Third party can get the latest level of code through their normal microcode ordering procedures.

   MCLs can be obtained from RETAIN (If if the customer provide an RSF link), or by ordering the 3746 optical disk MCL via CCSS.

6. Follow the unpacking instructions attached to the case to unpack the MES material.
   Do not damage the packing boxes, they will be used for repacking.

7. Before starting Model conversion ensure that the complete 3745 is available.

Additional information:

- All parts to be removed should be handled carefully. Returnable parts must be received at the factory in good order.

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- To save installation time and machine down time, some tasks will be performed after the General IPL Section (Step 11.4).

- When hardware installation is complete and before starting Test Procedure section (11.0), each CE should check the other CE's work.

5.0 Programming

5.1 Diagnostic Programs

To reflect this change, CDF will be upgraded 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.

6.0 Purpose and Description

6.1 Purpose

Convert a 3745 Model 41A to a 3745 Model 61A.

6.2 Description

- Remove the TCM CCU enclosure, PSTY1s, Air Moving Device, and associated cabling.

- Install a new CCU enclosure with Fans, new PSTY1Bs, and associated cabling. Logics cards will not be re-used.

7.0 Installation Time

To be reported as MES

FFBM	Machine hours	System Hours	Nbr of CEs
17G5549 or 17G5550 or 17G5551	2.0	0.0	2
Test Time	1.90	0.0	
Total Time	3.90	0.0	

8.0 Tools/Materials Required

- ESD kit (PN 6428316)
- TCM tool kit (PN 69X7667)
- Isopropyl alcohol.

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Installation (steps 9-11)

9.0 Safety

- Review the **Safety Notices** and the **Service Inspection Procedures** located at the beginning of the *3745 Maintenance Information Procedure (MIP)* manual, SY33-2054.

10.0 Details of Installation

Before the installation, ask the customer:

- To set all lines and channel addresses offline for this controller and associated machines.

- To provide the maintenance password.

- To logoff the Service Processor, if not already done.

10.1 Checking, Diagnostics

10.1.1 MOSS IML

From the control panel:

___ 1. Check that the **Power Control** indicator displays **3**. If it does not, record the value __. Then, set the **Power Control** indicator to **3**.
Press the **Validate** key.

___ 2. Set the **Service Mode** indicator to **1**.
Press the **Validate** key.

___ 3. Set the **Function** indicator to **1**.
Press the **Validate** key.

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

10.1.2 Logon

From the Service Processor:

___ 1. On **MOSS-E View** window, click on **Program**.

___ 2. Click on **LOG ON MOSS-E**.

___ 3. Enter the maintenance password, press **Enter**

Administrator Maintenance Mode is displayed on the lower line of the window.

10.1.3 Open MOSS/MOSS-E Session

___ 1. On the **MOSS-E View** window, double click on the **ICON** of the identified 3745. On the **3745 Menu** window, double click on **MOSS Console**.

Wait for **Function Selection Rules** screen.

10.1.4 Disable Channel Adapters

___ 1. Enter **CID**, press **Enter**.

___ 2. On **CA Interface Display** screen, record the **Enabled Channel Adapters**, then **Disable** all the CAs.

Note: If 3746 A11 is installed, press **F8** to display channels 8 to 16.

___ 3. Wait for **Interface Status Disabled** for all channels.

___ 4. Press **F1**.

___ 5. If CCU running, enter **RST** to reset the CCU.
MOSS goes in **MOSS ALONE** state.

Note: CCU must be selected with **CSR** function before performing **RST** function. Perform CSR/RST sequence for each CCU.

10.1.5 Verify the CDF

___ 1. Enter **CDF**, press **Enter**.

___ 2. Enter **4** (VERIFY), press **Enter**.
The value from the **CDF DATA** and the **MACHINE DATA** should be identical.
If there is a discrepancy, physically, verify the features, and if correct, update the CDF with machine values.
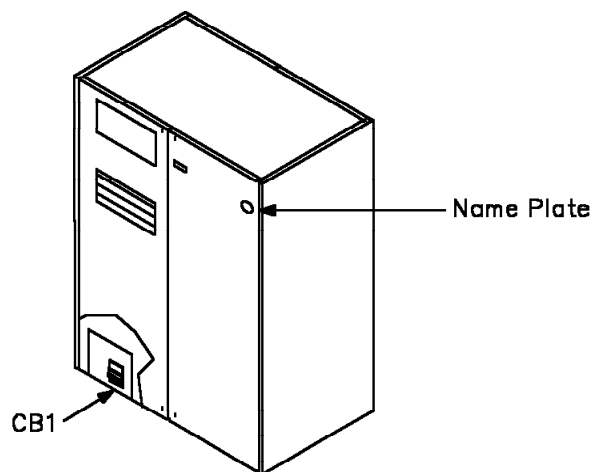Enter **2**, press **Enter**.

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___ 3. When **CDF VERIFY COMPLETED** is displayed, press **F1**.

10.1.6 Run the Diagnostics

___ 1. Enter **ODG**, press **Enter**.

___ 2. Enter **3** (IOCB), press **Enter**.

- If **NO ERROR FOUND** is displayed, press **F1**.

- Otherwise, see the *MIP*, Chapter 1.

10.1.7 Power OFF

___ 1. From the control panel, press the **Power OFF** key.

___ 2. Open the front system cover, then switch OFF **CB1**.

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10.2 CE 'A' Tasks

Warning: Follow existing ESD procedures when handling logic parts.

10.2.1 Power Supplies

Open the rear system door(s), disconnect the ground wire(s) (if present) from the right door and remove the door.

Note: To provide clearance for easier door removal, you may have to loosen two screws securing the end cover.

__ 1. From the rear, remove the shield .**1**. over the CCU cards if present.

__ 2. Locate the PSTY1 in location 01Q and 01R, then remove the plastic cover from the power TB(s) .**2**. . Disconnect all FDS cables from the TB(s).
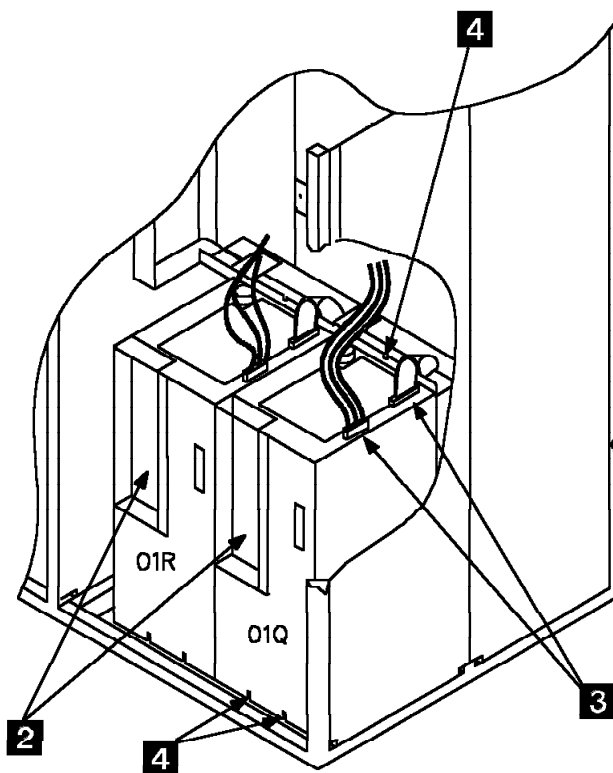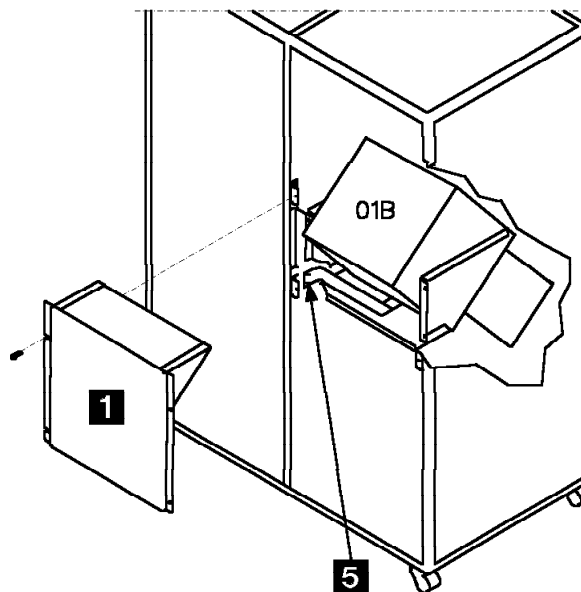
Tape the FDS cables end to the enclosure (use tape provided for repacking).

__ 3. From the top of PSTY1(s), unplug the Power Control Bus cables from connectors J2 and the Power On Reset cables from J1 .**3**. .

> ┌─ **Warning** ──────────────
> Secure the power bus cable in the raceway to prevent damage during the CCU enclosure exchange.

__ 4. Remove the 3 screws .**4**., and remove the PSTY1(s) from the 3745 (the power cords have been routed back by CE 'B').

__ 5. Disconnect the FDS ground cable attached to the frame .**5**. . Save screws.

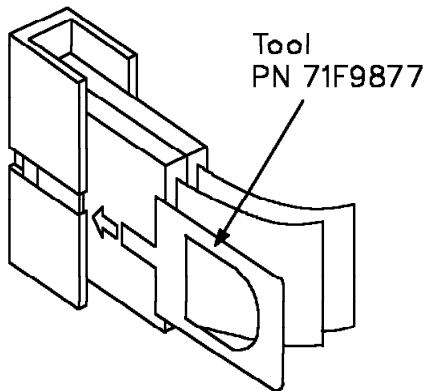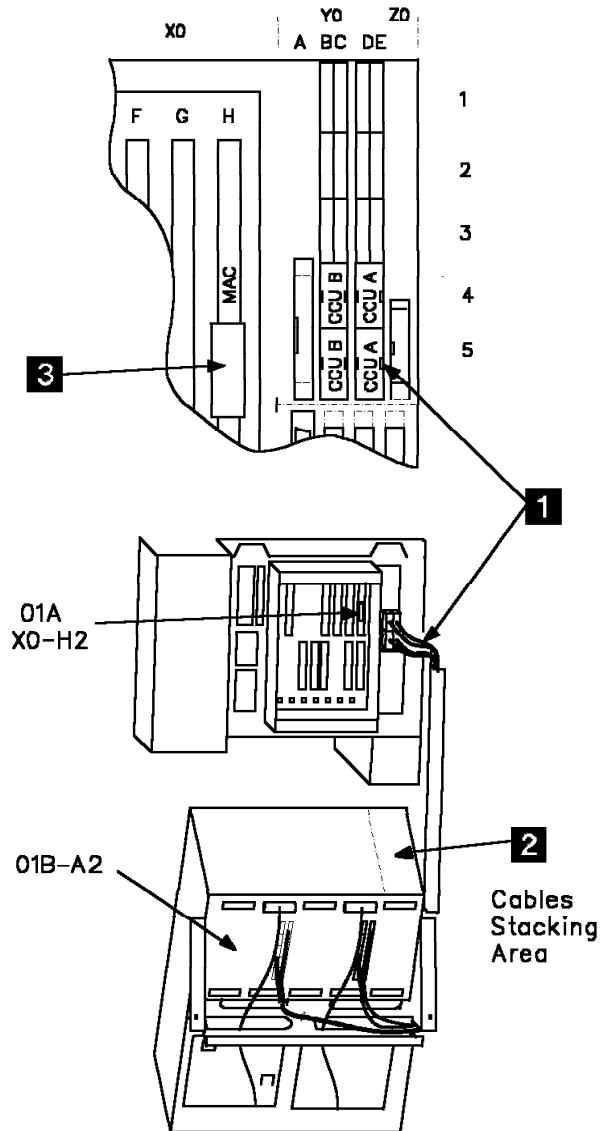| 3745	PN 17G5536	EC C38405	EC C38405A	EC D55799	EC D55883	EC E27926
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10.2.2 Tri Lead Cables, MAC Card Exchange

___ 1. Locate the MOSS board in 01A, and the tri lead cables connected in 01A-Y0D4/D5, E4/E5 and 01A-Y0B4/B5 and C4/C5 .**1**..

> **Note**
>
> To prevent damage to cables and board, use the tool (PN 71F9877) to unlock the connector as shown in the figure below.
> Gently insert the blade, then pull on cable housing to remove the cable.

Tool
PN 71F9877

___ 2. Unplug the cables and route them back to the CCU Enclosure.
Secure tri lead cables in the right side of CCU cage .**2**..

___ 3. In MOSS board, locate the MAC card in 01A-X0H2, and remove the cable connected to the MAC card .**3**..
Route the cable back to the CCU enclosure, and secure it in the right side of CCU cage .**2**..

___ 4. Remove the spring clips securing the locks of MAC card.

___ 5. Remove the MAC card.

___ 6. Install the new MAC card provided by the FFBM in same position.

___ 7. Re-install the spring clips on MAC card , then take 'H' label off the old card and put it on the new card.

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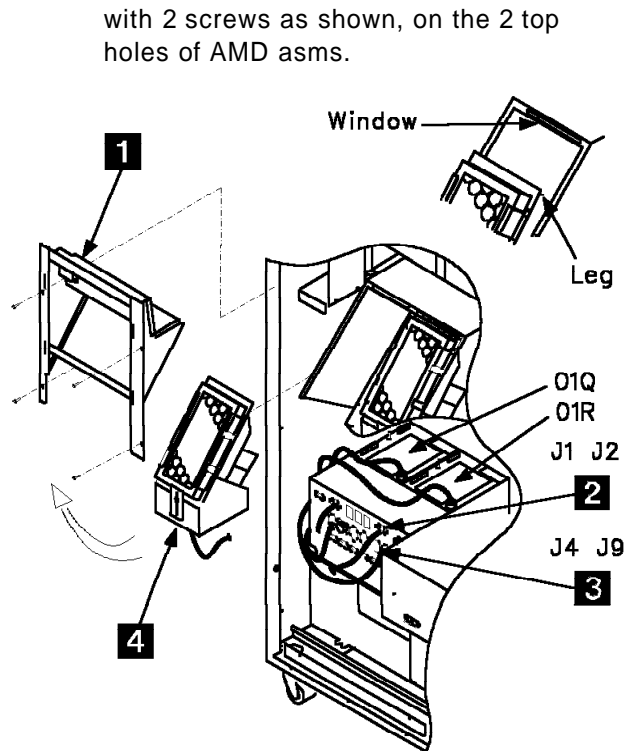## 10.3 CE 'B' Tasks

Warning: Follow existing ESD procedures when handling logic parts.

10.3.1 AMD, Power Cords

___ 1. From the front of the 3745, remove the 4 screws. Remove the shield .**1**. (will not be re-used) over the AMD(s) (Air Moving Device).

___ 2. Unplug the AMD power cables from primary power box connectors J1 and J2 .**2**.

___ 3. Remove the 4 screws securing each AMD. Then, remove the AMDs from the machine .**4**.

   Note: Swing out the bottom of AMD to disengage the top leg.

___ 4. Unplug the PSTY1 power cables .**3**. from connectors J4 and J9. Then, route them to the rear of 3745.

10.3.2 Flat Cables

___ 1. Open the operator panel gate.

   ┌─ **Note** ─────────────────────────┐

   To prevent damage to cables and board, use the tool (PN 71F9877) to unlock the connector as shown in the figure on previous page.
   Gently insert the blade, then pull on the cable.

   └──────────────────────────────────┘

___ 2. Check that all cables from **SACU** board are correctly identified. Rewrite plug location on cables if not readable.

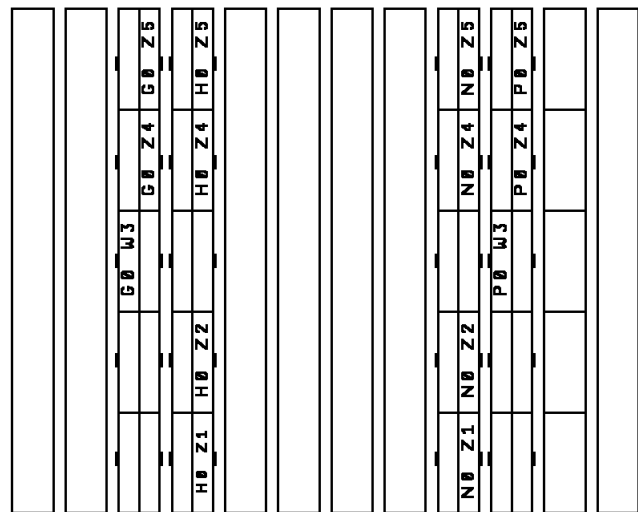___ 3. Unplug the flat cables from the **SACU** board.

   ┌─ **Warning** ──────────────────────┐

   Secure cables in the raceway to prevent damage during CCU enclosure exchange.

   └──────────────────────────────────┘

___ 4. Refer to figure on next page (View A) and attach the handhold (PN 76F9077) .**2**.

with 2 screws as shown, on the 2 top holes of AMD asms.

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10.4 CCU Enclosure Exchange

CAUTION:
CCU enclosure can weight up to 45 Kg (100 lb).

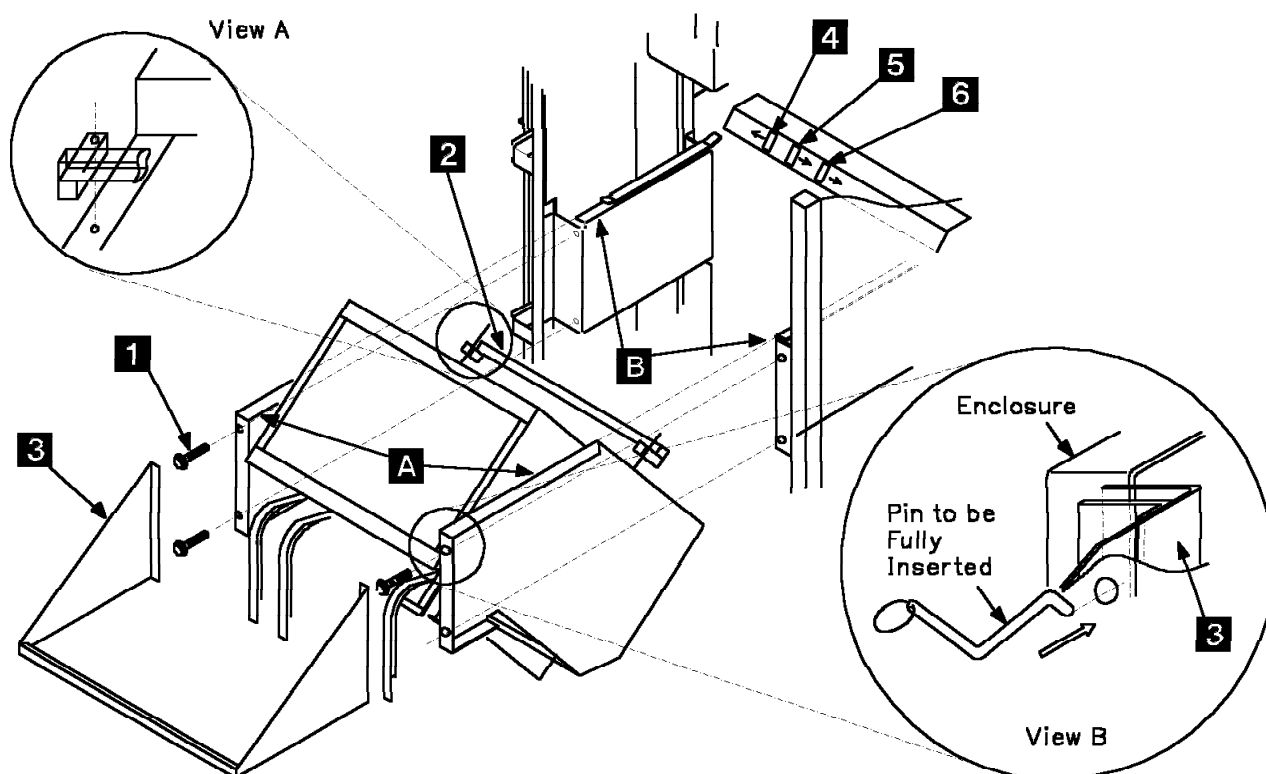**An additional person may be needed because of the weight of the enclosure unit.**
The first person is placed on the right side of enclosure, the second on the left side, and the third, if needed, at the front of the enclosure using the handhold provided.

Note: Ensure that all flat cables are protected from damage during CCU enclosure exchange.

10.4.1 TCM Enclosure Removal

__ 1. Remove the 4 screws .**1**. securing the CCU enclosure.

__ 2. Pull the enclosure, approximately 15 cm, out of the 3745.

__ 3. From the rear of 3745, attach the handhold (PN 76F9076) .**3**. to the enclosure as shown in the figure below. This will allow the third person involvement if needed. The handhold is clipped to the right and left sides of the CCU enclosure (see view B). Secure the handhold with the attached pins.

__ 4. Two persons grasp the enclosure asm by the handhold .**2**. and at the SACL board. The third person, if needed, grasps the front handhold .**3**..
Slide the asm out of the 3745.

__ 5. Put the enclosure in a safe place.

__ 6. Install 3 clamps (PN 34F1295) as follows:
Remove the clamp .**4**., and stick a clamp 9 cm (3.5 in.) to the left.
Remove the clamp .**5**. and stick a clamp 3 cm (1.1 in.) to the right.
Remove the clamp .**6**. and stick a clamp 1 cm (0.4 in.) to the right.

View A

Enclosure

Pin to be Fully Inserted

View B

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10.4.2 New CCU Enclosure Installation

__ 1. Move the new CCU enclosure, still on its shipping pallet assembly, close to the machine.

__ 2. If three persons are needed, remove handhold (PN 76F9076) from the TCM CCU enclosure and attach it to the new CCU enclosure (need to tilt the enclosure on the shipping pallet).

__ 3. Lift the enclosure from the shipping pallet (use the enclosure top bar). Put the part of the enclosure marked .**A**. on the slides .**B**. in 3745 (refer to figure on previous page).
Slide the enclosure partially in 3745.
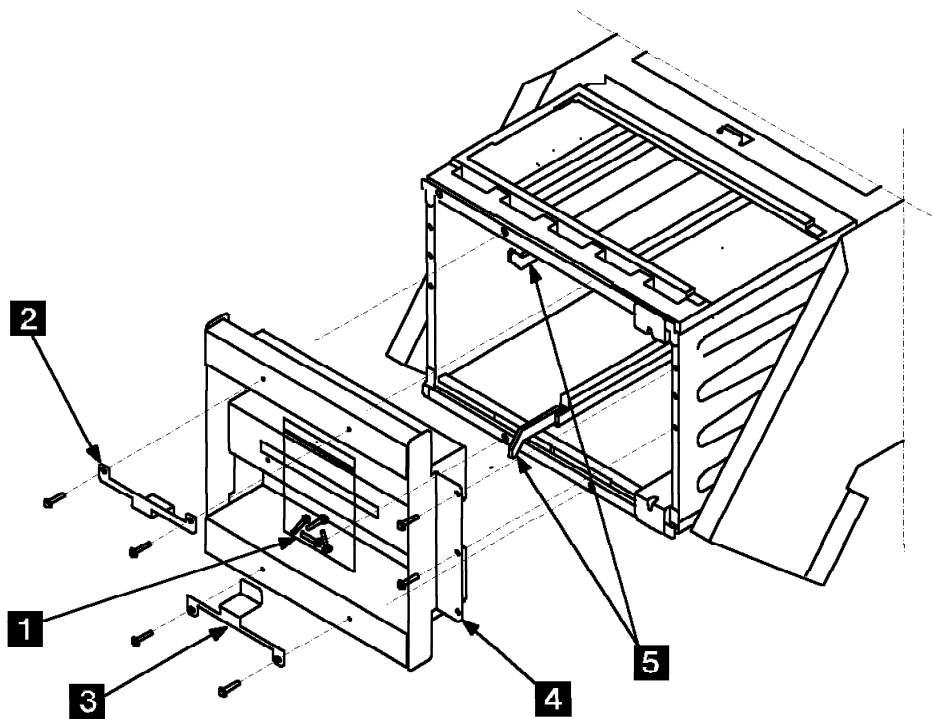
> **Note**
>
> When the enclosure is on its slides, check from the front of the 3745 that there is no risk of damaging flat cables, FDS cables, and FAN power cords.

__ 4. Remove the handhold and slide the enclosure in place.

10.4.3 Card Locking

__ 1. Secure the enclosure with the screws provided in the bag attached to the cage .**1**..

__ 2. Remove 4 screws securing the red bracket .**4**. and remove it.

__ 3. Remove brackets (PN 61F4485) .**2**. (top) and (PN 61F4486) .**3**. (bottom).
Save brackets/screws for re-install.

__ 4. On each card location, carefully move levers .**5**. inwards simultaneously.

> **Note:** To improve contact, operate the levers 3 times.

__ 5. Install brackets .**2**. at the top and .**3**. at the bottom of the CCU cage. Use screws saved in Step 2. Position brackets to lock the **STER** cards in position.

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10.5 CE 'A' Tasks

10.5.1 Flat Cables

___ 1. Place the template (PN 76F8595) .**1**. as shown on figure. The template should be positioned as far up and left as permitted by the frame.

> **Note:** Remove existing cable clamps which interfere with the correct placement of the template.

___ 2. Attach 4 clamps (PN 34F1295) in the windows of the template .**2**..

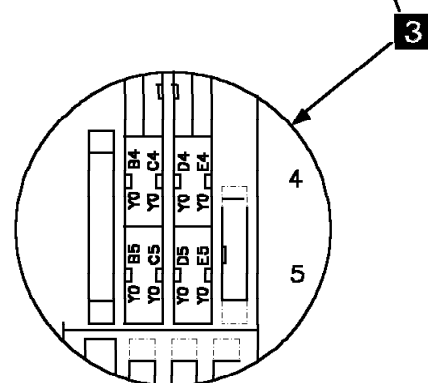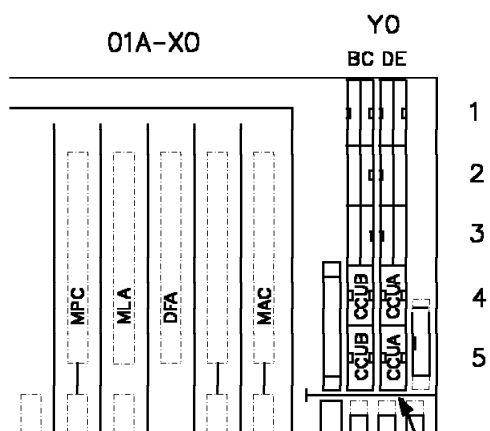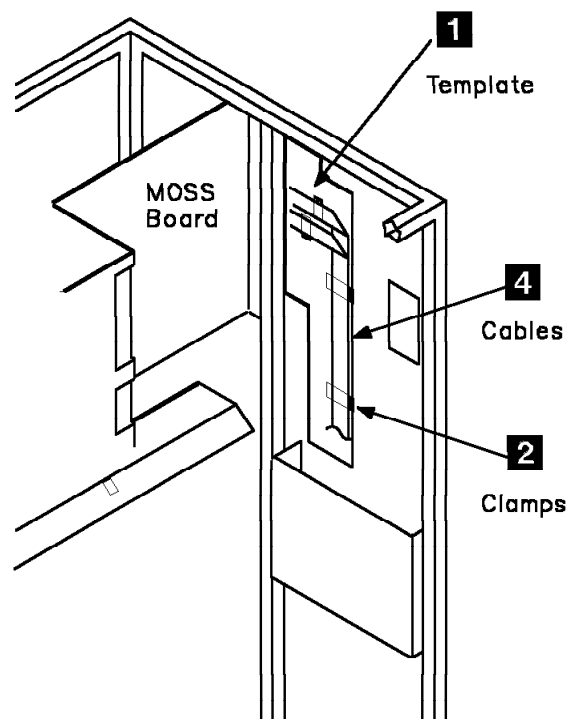> **Note:** Place the clamps as shown on the template.

___ 3. Remove the template.

___ 4. Place the pre-folded flat cables (PN 76F8591 and 76F8592) in the clamps (cables are tied all-together).

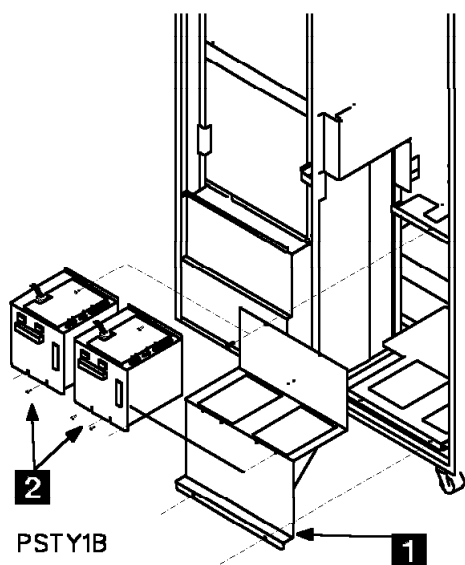___ 5. Plug the flat cables, one at a time, on MOSS board .**3**. in the following sequence:

- Y0E4, Y0D4, Y0E5, Y0D5.
- Y0C4, Y0B4, Y0C5, Y0B5.

___ 6. Route the Flat cables through the machine to CE 'B'. .**4**.

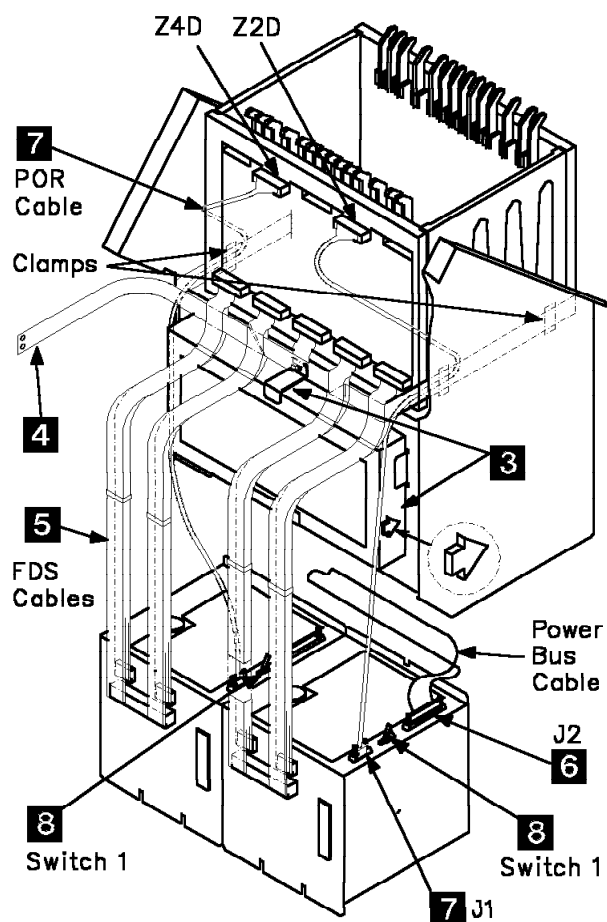| 3745	PN 17G5536	EC C38405	EC C38405A	EC D55799	EC D55883	EC E27926
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10.5.2 PSTY1B Installation

___ 1. Install the PSTY1B support bracket asm (PN 71F9950) .**1**. and **secure it at the bottom with 2 screws** provided in the bag attached to it.
Do not tighten the screws.

___ 2. Install two PSTY1B (PN 26F1733) .**2**. with 6 screws (PN 2665528), provided in the bag attached to the support bracket.
Place the power supply labelled **CCUA** in 01Q, and the power supply labelled **CCUB** in 01R.

___ 3. Tighten the two bottom screws of the power supply bracket.
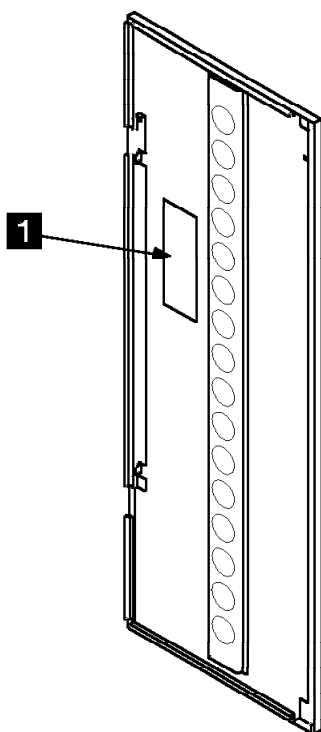Feed the PSTY1B power cords to the front of the machine.

PSTY1B

___ 4. Loosen the screw securing the bracket .**3**. and install the filter (PN 58X9295) under the CCU enclosure.
Note the arrow direction for air flow.
Tighten the screw.

___ 5. Connect the FDS ground cable to the frame .**4**.. Secure it with the screws saved in Step 10.2.1, "Power Supplies" on page 8.

___ 6. Connect the FDS cables .**5**. to the PSTY1B with screws (PN 61F4511), provided in a bag attached to the power supply.
Connect cables on TB1/TB2 first.

___ 7. Connect the power control bus cable to connector J2 of each power supply .**6**..

___ 8. Locate the Power On Reset cable (PN 61F4448) .**7**. connected in SACL positions 01B-A2Z2-D and 01B-A2Z4-D.
Route the cables to PSTY1B and connect them as follows:

```
from 01B-A2Z2-D to 01Q-J1
from 01B-A2Z4-D to 01R-J1
```

___ 9. On PSTY1B in 01Q check that switch 1 is set to A (CCUA) .**8**..
On PSTY1B in 01R check that switch 1 is set to B (CCUB) .**8**..

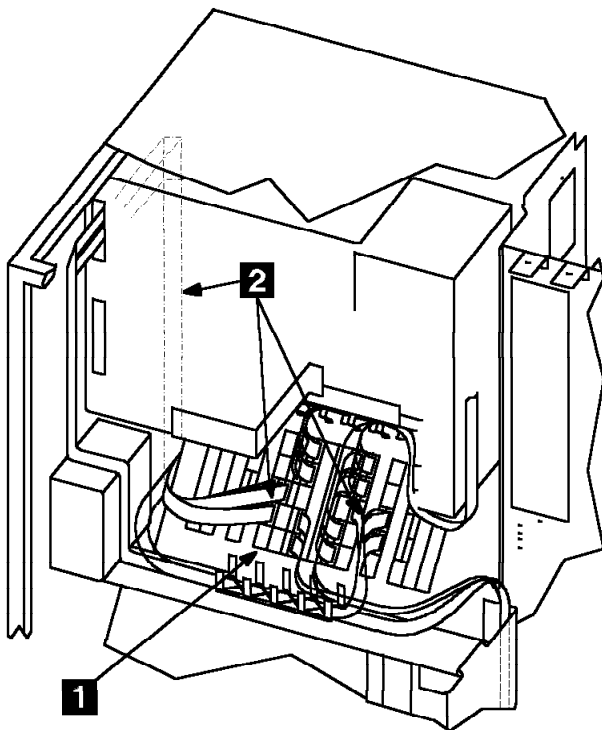| 3745 FFBM	PN 17G5536 14 of 24	EC C38405 06APR93	EC C38405A 17JUN93	EC D55799 16SEP94	EC D55883 11MAY95	EC E27926 14MAR97

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10.5.3 Mechanical

___ 1. Re-install shield over CCU board if removed in Step 10.2.1, "Power Supplies" on page 8.

___ 2. Re-install the rear door removed in Step 10.2.1, "Power Supplies" on page 8.

   Note: Tighten end cover screws if they were loosened.

___ 3. Re-connect ground wires (if present).

___ 4. Affix label (PN 71F9997) over existing label on the door .**1**. . Close the door.

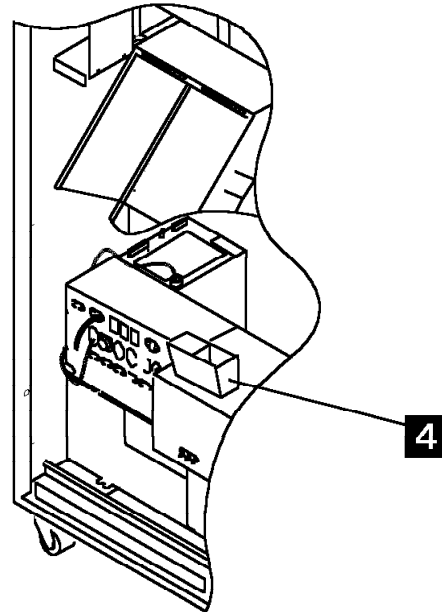| 3745 | PN 17G5536 | EC C38405 | EC C38405A | EC D55799 | EC D55883 | EC E27926 |
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10.6 CE 'B' Tasks

10.6.1 I/O Cables

___ 1. Reconnect Flat cables on SACU board
.**1**.
Refer to the template on SACU board.

___ 2. Route and connect to the SACU board
flat cable group (PN 76F8591 and
76F8592) which were prepared by CE 'A'
.**2**..

10.6.2 Diskette Storage Box

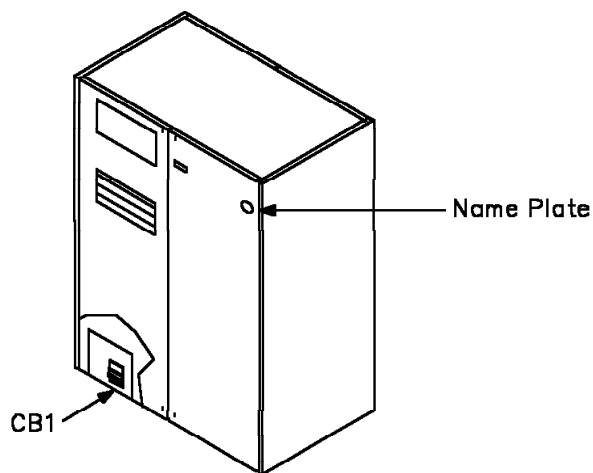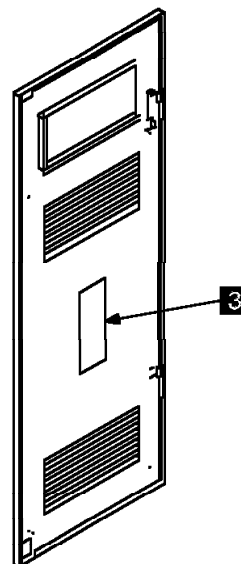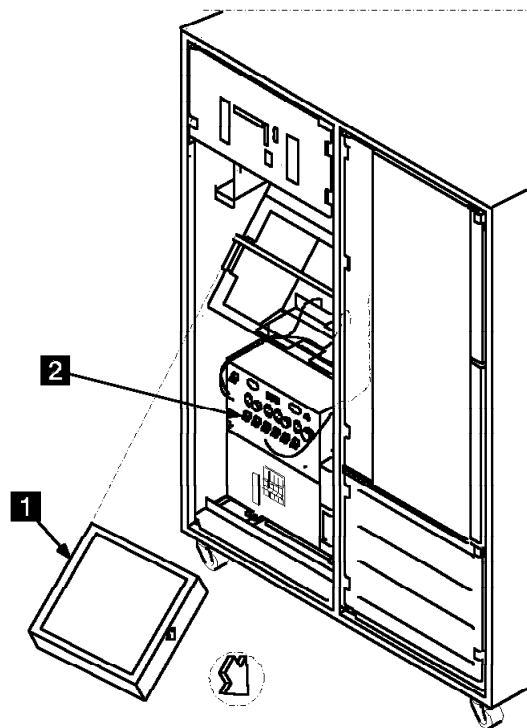- Install the new diskette storage box supplied
on the top of the PS6 .**4**..

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10.6.3 Mechanical Changes

___ 1. Install air filter (PN 58X9296) on the CCU enclosure .**1**. Secure it with the bottom bracket.
Note the arrow direction for air flow.

___ 2. Plug the power cords in primary power box .**2**. as follows:

```
PSTY1 01Q    Connector J4
PSTY1 01R    Connector J9
FAN CCUA     Connector J1
FAN CCUB     Connector J2
```

___ 3. Affix label (PN 71F9996) over existing label in front door .**3**..

___ 4. Remove the name plate from the front system cover, and clean any adhesive residue from the recessed area with Isopropyl alcohol.
Remove the paper from the back of new name plate (PN 71F9546) and affix the plate.

___ 5. Strike out the model number on the S/N label, only the nameplate will identify the model type from now on.

Name Plate

CB1

11.0 Test Procedures

Note: Ensure that each CE has verified the other's work before powering on the 3745.

11.1 Power ON

___ • Switch the 3745 **CB1** ON and close the system cover(s).

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From the control panel:

__ 1. Check that **Service Mode** indicator
display **1**.

__ 2. Set the **Function** indicator to **1**.
Press the **Validate** key.
Press the **Power ON** key.

The **MOSS IML** is completed when **F0E** is dis-
played on the control panel.

11.2 Open MOSS/MOSS-E Session

From the Service Processor, wait until the **ICON**
of the identified 3745 becomes purple.

__ 1. On the **3745 Menu** window, double click
on **MOSS Console**.

Wait for **Function Selection Rules** screen.

11.2.1 Update the CDF

__ 1. Enter **CDF**, press **Enter**.

__ 2. Enter **4** (VERIFY), press **Enter**.
The value from the **CDF DATA** and the
MACHINE DATA should be identical
except for the new hardware installed.

__ 3. To update the CDF with the machine
values, enter **2**, press **Enter**.

  • When **CDF VERIFY COMPLETED** is
    displayed, press **F6**.

11.2.2 Record the 3745 Model

From the Service Processor:

__ 1. On the **Service Processor** menu, double
click on **Manage 3745/3746-900 Installa-
tion**.

__ 2. Click on the line of the 3745 you have
just converted.

__ 3. Click on **Change**.

__ 4. On **Controller Model Change** message,
click on **Yes**.

From the 3745 control panel:

__ 5. Press the **Power OFF** key.

__ 6. Set the **Service Mode** indicator to **2**.
Press the **Validate** key.

__ 7. Set the **Function** indicator to **1**.
Press the **Validate** key.

__ 8. Press the **Power On Reset** key.
The MOSS IML is completed when **F0E** is
displayed on the control panel.

From the Service Processor:

__ 9. Click on **OK**.
The 3745 Model number is being
recorded.

__ 10. When the operation is completed, click
on **OK**.

__ 11. Click on **Cancel**.

__ 12. On the **3745 Menu** window, double click
on **MOSS Console**.

Wait for **Function Selection Rules** screen.

11.2.3 Run the Diagnostics

__ 1. Enter **ODG**, press **Enter**.

__ 2. Enter **2** (CCU), press **Enter**.

  • If **NO ERROR FOUND** is displayed,
    press **F1**.
  • Otherwise, see the *MIP*, Chapter 1.

__ 3. Enter **3** (IOCB), press **Enter**.

  • If **NO ERROR FOUND** is displayed,
    press **F1**.
  • Otherwise, see the *MIP*, Chapter 1.

__ 4. If no HSS/ELA feature is installed, press
F1 and go to next Step.
If HSS/ELA feature is installed in your
3745, run HSS/ELA diags on at least one
HSS/ELA on each DMA bus (Adp 1-4 and
5-8) with HSS/ELA adapter.

  • If **NO ERROR FOUND** is displayed, press **F1**.
  • Otherwise, see the *MIP*, Chapter 1.

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11.2.4 Air Filter Acknowledge

__ 1. Check all frame filters. replace if needed.

__ 2. Enter **POS**, press **Enter**.

__ 3. Select option **A**, press **Enter**.

__ 4. Select option **F** (Acknowledge Air Filter change), press **Enter**.

__ 5. Enter a **Y** to confirm, press **Enter**. When completed, press **F1**.

11.3 Close MOSS/MOSS-E Session

__ 1. Enter **CID**, press **Enter**.
__ 2. Re-enable all channel Adapters disabled in Step 10.1.4, "Disable Channel Adapters" on page 6.
__ 3. When CA are enabled, press **F1**.
__ 4. Enter **OFF**, press **Enter**.
__ 5. On **3745 Menu**, click on **Function**. Then, click on **Exit**.

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

11.4 General IPL

From the control panel:

__ 1. Set the **Power Control** indicator to its original value, recorded in Step 10.1.1, "MOSS IML" on page 6.
__ 2. Set the **Service Mode** indicator to **0**. Press the **Validate** key.
__ 3. Set the **Function** indicator to **0** (general IPL). Press the **Validate** key.

The general IPL starts.

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

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

11.5 Disk Save

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

11.5.1 Open MOSS/MOSS-E Session

From the Service Processor:

__ 1. On the **MOSS-E View** window, double click on the **ICON** of the identified 3745.

__ 2. On the **3745 Menu** window, double click on **MOSS Console**.

Wait for **Function Selection Rules** screen.

11.5.2 Save Disk Contents onto Diskettes

__ 1. If NCP is restarted and MOSS ONLINE, set the **MOSS OFF LINE**, enter **MOF**, press **Enter**.

Note: Select the CCU with CSR function 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 is completed, press **F1**.

11.6 Install Latest MLCs

Prior to returning the 3745 to the customer, you must install the latest MCLs.

__ 1. If you have an RSF link:
   Refer to the *SP Installation and Maintenance* Manual. Follow the procedure **Reporting problem to retain** in Chapter 3 and, when requested enter **Converting a Model A and testing the RSF link** as short description of the problem. The latest MCLs are automatically dowloaded. Then go to :**Handling Microcode Change level** in Chapter 3. When the RSF link is completed and the MCLs are installed, go to 11.7, "Close MOSS/MOSS-E Session" on page 20.

__ 2. If you use the LIC Upgrade kit:

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Refer to the *SP Installation and Maintenance* Manual. Follow the procedure **Installing a new version of the Licensed Internal Code** in Chapter 3. When done go to 11.7, "Close MOSS/MOSS-E Session."

___ 3. If you use the 3746 Optical Disk MCLs: Refer to the *SP Installation and Maintenance* Manual. Follow the procedure **Handling Microcode Change Level** in Chapter 3. When done go to 11.7, "Close MOSS/MOSS-E Session."

11.7 Close MOSS/MOSS-E Session

___ 1. Enter **OFF**, press **Enter**.

___ 2. On the **3745 Menu**, click on **Function**. Then, on **Exit**.

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

11.8 Logging OFF from SP

___ 1. On the **MOSS-E View** window, click on **Program**.

___ 2. Click on **LOG OFF MOSS-E**.

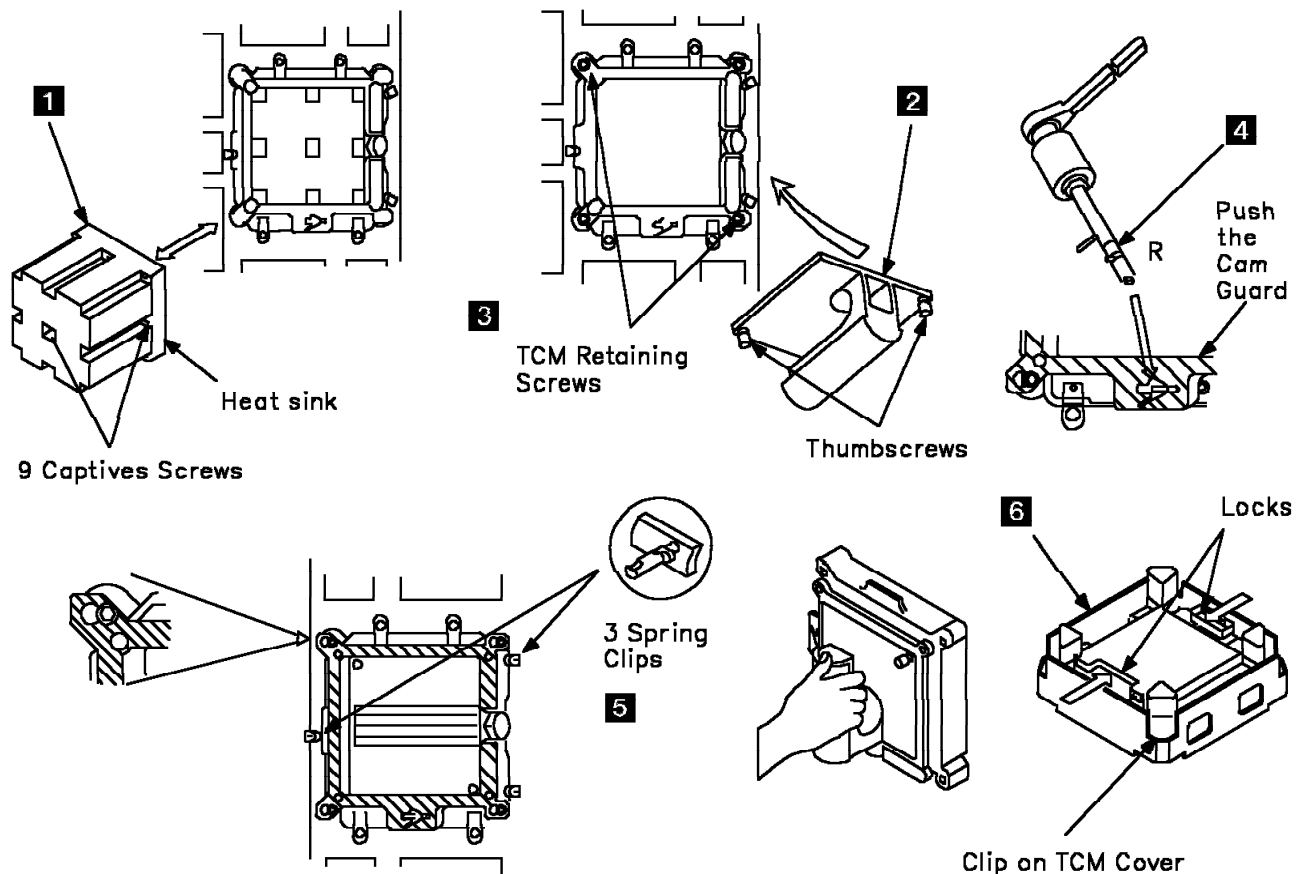| 3745	PN 17G5536	EC C38405	EC C38405A	EC D55799	EC D55883	EC E27926
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11.9 Re-packing

11.9.1 TCM Removal

TCMs will be sent back to IBM in the TCM BOXES provided by the FFBM.
Tools to be used in this section are provided by TCM tool kit.
Repeat this procedure for each TCM.

___ 1. Use the torque tool (PN 2360092) to loosen the 9 captives screws securing the TCM heat sink .**1**.. Carefully remove the heat sink.

___ 2. Install the handle provided by FFBM. Tighten the 2 thumbscrews .**2**..

___ 3. Use the torque tool (PN 2360092) to loosen completely the four TCM retaining screws (captives screws) .**3**..

___ 4. Use the TCM actuating tool (PN 5665909) to remove the TCM as follows: .**4**.

- Check that the detent pin in the tool is in the **Removal Position (R)**.
- Set the lever on the handle to drive in a counterclockwise direction. On the TCM, slide the cam guard to its left side limit.
- Insert the actuating tool into the module with indicator pin pointing to cammed position (9 o'clock). Be sure that the TCM actuation tool is fully inserted (red line not visible).
- Turn the actuating tool counter clockwise, to deactivate the latch. Remove the actuating tool.

___ 5. Unlatch the 3 spring clip retainers .**5**., hold the TCM handle firmly and carefully remove the TCM from the enclosure.

___ 6. Install the **Clip On TCM Cover** .**6**. (PN 7331541) on the TCM, then put the TCM in the TCM shipping container.

1 Heat sink

9 Captives Screws

3 TCM Retaining Screws

2 Thumbscrews

4 Push the Cam Guard R

3 Spring Clips 5

6 Clip on TCM Cover Locks

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11.9.2 TCM Enclosure

__ 1. Place the TCM enclosure on the shipping pallet assembly provided with the new enclosure.

__ 2. Secure it with the screws and nuts.

__ 3. Remove the bracket locking the **STER** cards in the TCM enclosure by removing 2 screws.

__ 4. Open carefully the **ZIF connectors** on all cards.

   Notes:

   a. In US, remove all cards from the CCU enclosure and put them in ESD envelopes and containers provided by the MES.

   b. In EMEA, remove the **storage** cards from the CCU enclosure and put them in ESD envelopes and containers provided with the MES.

__ 5. Install the **Red Bracket** removed in Step 10.4.3, "Card Locking" on page 12 over the CCU cards and secure it with 4 screws.

__ 6. Follow the re-packing instructions to send parts back to IBM.

After Installation (steps 12-15)

12.0 Field Updating

None.

13.0 Publications Update

None.

14.0 Parts Disposition

- **For parts listed in the RMER**

  All these parts become the property of IBM. You MUST RETURN these parts following the instructions given on the Returned Material Equipment Report (RMER) provided with this FFBM.

- **For parts not listed in the RMER**

  All these parts should be returned according to your local procedure.

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15.0 Machine Records

- Install the new **MACHINE HISTORY** supplied.
- Report installation (As MES activity) and quality to existing procedures.

End of instructions.

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