

Field Feature Bill of Material (FFBM)

PN 03F5164

REMOVAL of a Channel Adapter CA UK/not UK (FC 1563/1573), or TPS UK/not UK (FC 8320) from IBM 3745 Models 130/170/17A

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In these instructions, the generic term CA (Channel Adapter) is used for both CADS and BCCA. CADS (Channel Adapter Data Streaming) and BCCA (Buffer Chaining Channel Adapter) terms will be used when the identification of a specific adapter type is required.

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Before Removal (steps 1-8)

1.0 Machines Affected

3745 Models 130/170/17A.

2.0 Related BMs and ECs

None.

3.0 BM(s) to be Used

- 03F5164 - Installation instructions
- 03F5063 - Channel Adapter U.K./not U.K. removal
- or 03F5068 - TPS Adapter U.K./not U.K. removal

4.0 Preparation

1. Familiarize yourself with the purpose and details of these removal 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. Using the *HONE Configurator sheet* and the following tables determine the positions where feature(s) and card(s) will be removed.

CA Removal with:

1) board populated with CA(s) only

	IOC BUS			
REMOVAL SEQUENCE	4th CA5	3th CA6	2nd CA7	1st CA8
TAILGATE CONN. ON CCU BOARD	H	F	D	B
CARD POSITIONS	CAL CADR	G2 H2	E2 F2	C2 D2 A2 B2

2) board populated with CA(s) and TPS(s)

	IOC BUS			
THE TWO TPS INSTALLATION	CA5 + TPS		CA7 + TPS	
TAILGATE CONN. ON CCU BOARD	H	F	D	B
CARD POSITIONS	CAL CADR-A CADR-B	G2 H2 F2	C2 D2 B2	
BPC1		E4	A4	

5.0 Programming

5.1 Diagnostics Program

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

5.2 Systems Programs

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

6.0 Purpose and Description

6.1 Purpose

Remove CA U.K. or not U.K., or TPS U.K. or not U.K..

6.2 Description

Remove CA cards and associated Channel tailgate.

7.0 Removal Time

FFBM Used	Machine Hours	System Hours
03F50636 (CA UK/not UK) and/or 03F5068 (TPS UK/not UK)	0.4	0.0
Test Time	0.4	0.0
Total Time	0.8	0.0

8.0 Tools/Material Required

ESD kit (PN 6428316).

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 (3745-130/170) 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" on page 5.
- 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."

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 **9** (CA),

press **Send/Enter**.

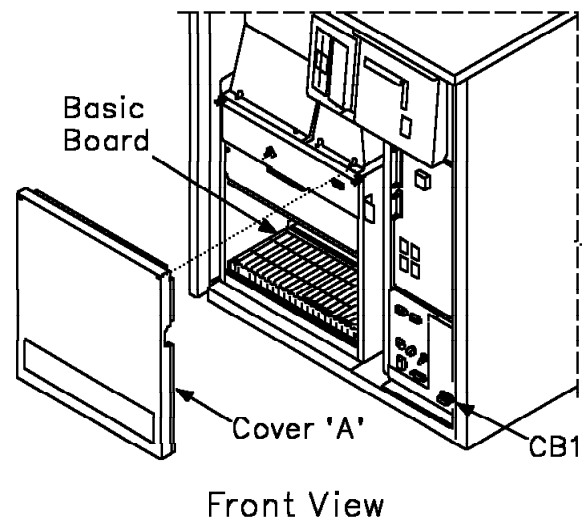
- ___ 4. Enter **0** for all CAs.
press **Send/Enter** (not required if micro-code EC A97910 or higher is installed).
- ___ 5. Check for the presence of a **Y** for the CA position to be installed according to the *HONE configurator sheet* and tables in step 4.0, "Preparation" on page 3.
Press **F1**.

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

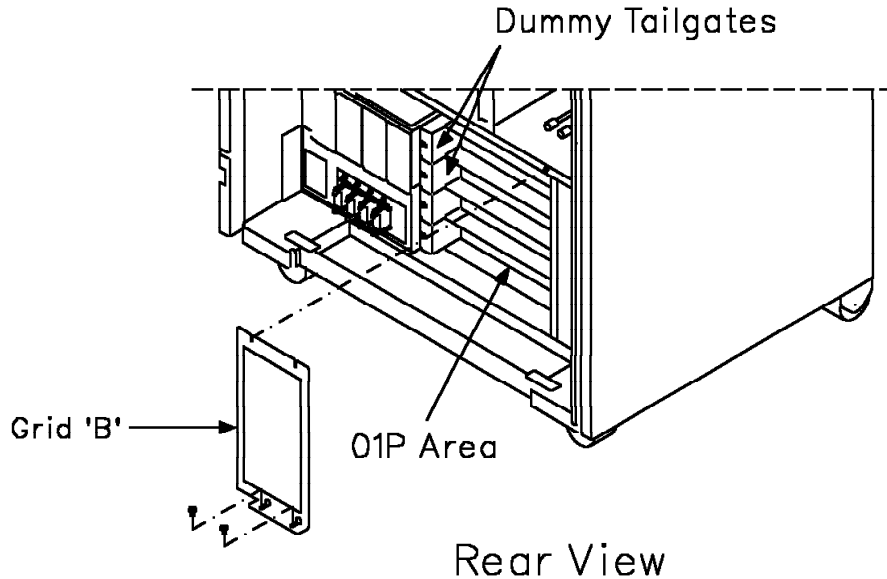
Warning: Follow the existing ESD procedures when handling logic parts.

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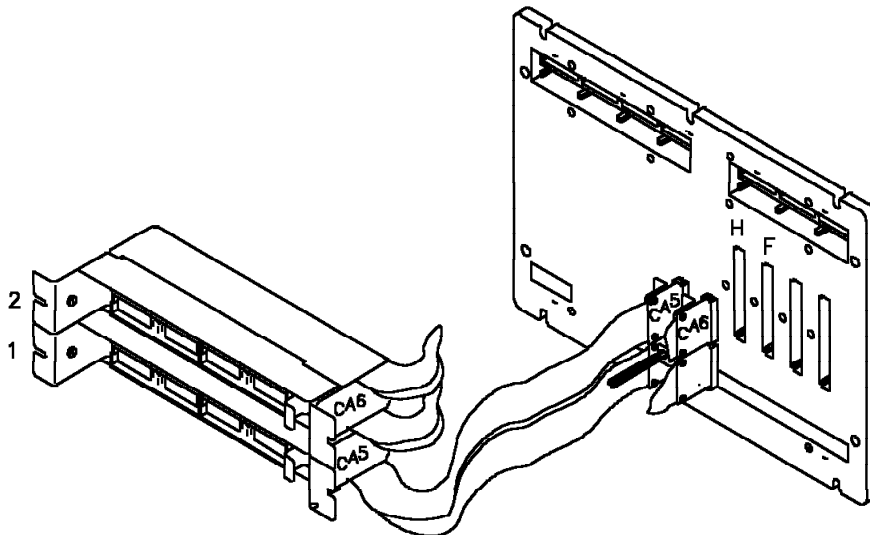
10.2.1 Tailgate Removal

From the rear of the machine:

- ___ 1. Locate the channel tailgate in position **01P**.
- ___ 2. From the right side of **01P**, remove the grid 'B' (four screws), and save for the reinstallation.
- ___ 3. Identify the channel tailgate(s) position selected in Step 4.0, "Preparation" on page 3.
- ___ 4. Disconnect external channel cables from CA tailgate(s) to be removed.
- ___ 5. Loosen the screws of flex cable(s) and unplug from CCU board.
- ___ 6. Remove the tailgate(s) (PN 11F6750) (two screws), and save for the reinstallation.
- ___ 7. Install the dummy tailgate(s) (PN 03F4633) in same positions using screws retained in previous step.



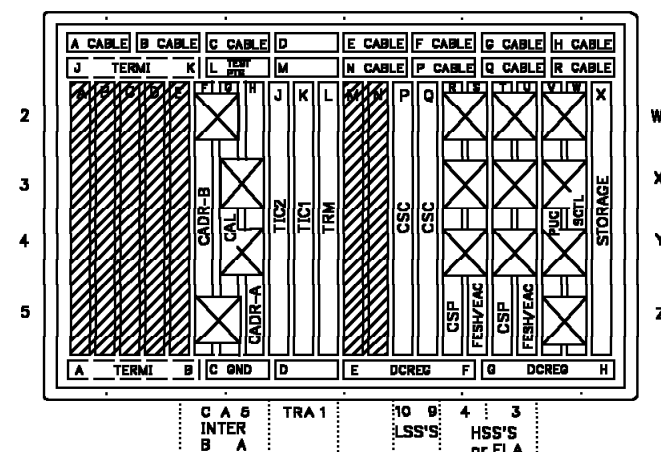
- ___ 8. On the tailgate (PN 11F6750), verify that the **Select Out** bypass switch is in the normal position.
- ___ 9. Disconnect EPO cable(s) according to the customer configuration.
- ___ 10. Reinstall the grid 'B' (four screws).



10.2.2 Card Removal

From the front side of the machine:

1. Locate the basic board in position 01G, remove and retain cover 'A' (two screws).
2. Identify the channel adapter card positions, and remove the dummy cards from positions where feature will be installed.
3. Remove The crossovers from cards.
4. Unplug cards(s) from board (two cards for a CA and one card for a TPS).
5. Insert cards in envelopes (PN 7387345 and 7385016).



10.2.2.1 BPC1 Card Removal

1. If you have removed a TPS Feature, you have to remove the adjacent BPC1 card. Identify the position using tables in step 4.0, "Preparation" on page 3.
2. Install dummy card(s) in free position(s).
3. Reinstall the cover 'A' over the basic board.

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 3745-1X0 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 **4 (VERIFY)**, press **Send/Enter**. The values from **DISK DATA** and the **MACHINE DATA** should be identical except for the adapter you have just removed.
 3. To update the CDF with machine values, enter **2**, press **Send/Enter**.
- If **CDF VERIFY COMPLETED** is displayed, press **F6**.
 - Otherwise, see the *MIP*, Chapter 1.

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11.2 Display the CDF

- ___ 1. Enter **1** (DISPLAY/UPDATE), press **Send/Enter**.
- ___ 2. Enter **9** (CA), press **Send/Enter**.
An **N** should appear under the CA you have just installed.
Check the **CA TYPE** value: 6 for CADS or 7 for a BCCA.
- ___ 3. Enter the LA number, press **Send/Enter**.

11.3 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.

11.4 Save Hard Disk Contents Onto the Backup set of Diskettes

- ___ 1. Enter **DIF**, press **Send/Enter**.
- ___ 2. Enter **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."
- Otherwise, continue.

11.5 From the 3745-1X0 Console

Re-enable the channel adapters disabled in Step 10.1.1.2, "From the 3745-1X0 Console" on page 5.

- 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 channel adapter recorded in Step 10.1.1.3, "From the Service Processor" on page 5.
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.

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Headings			
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<u>id</u>	<u>File</u>	<u>Page</u>	<u>References</u>
TABLE	P03F5164 SCRIPT	3	4.0, Preparation 5, 6, 7
OO	P03F5164 SCRIPT	4	10.1.1.1, From the 3745 Control Panel 8
NN	P03F5164 SCRIPT	5	10.1.1.2, From the 3745-1X0 Console 8
SP1	P03F5164 SCRIPT	5	10.1.1.3, From the Service Processor 4, 8
CDF1	P03F5164 SCRIPT	5	10.1.1.4, Display the CDF 5
SP3	P03F5164 SCRIPT	7	10.3.3, From the Service Processor 7
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SP4	P03F5164 SCRIPT	8	11.6, From the Service Processor 8
IPL	P03F5164 SCRIPT	8	11.7, General IPL 8
PP	AFTRINSR	9	After Removal (steps 12-15)

Processing Options

Runtime values:

Document fileid	P03F5164 SCRIPT
Document type	PNCDOC
Document style	FBII
Profile	EDFPRF30
Service Level	21Jun90
SCRIPT/VS Release	3.2.1
Date	94.02.03
Time	08:44:52
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

Imbed Trace

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Page 5	PRESSEND
Page 8	LOGOFFSP
Page 9	AFTRINSR