Field Bill of Material (FBM)

INSTALLATION of MICROCODE EC D46130 and Other Suffixes

On 3746-900 attached to 3745-xxA or on 3746-950 alone

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Before Installation (Steps 1-8)

WARNING to CE:

- Customer Console(s): DCAF level should be 1.3 + CSD UB20924.

Very Important

The **Manage ESCON Processors** function is now only used to:

1. Display the **ESCON lines** status.
2. Display the **ESCON stations** status.
3. Manage the **ESCON couplers** status.

If you need to modify your **ESCON processor configuration**, use the new function **Configure ESCON Processors**, see details in 16.0, “Appendix A. ESCON Configuration.” on page 19.

1.0 Machines Affected

3745 Models xxA or 3746 Models 9x0 without Microcode Level received with the optical disk of this FBM.

Checkpoint: If the EC level is not the one received with the optical disk of this FBM, you must upgrade the Service Processor and the 3746-9x0 according to these instructions.

Note: Refer to Step 1.1 for verifying your level of code.

1.1 Displaying the Level of Code Installed

1. On **MOSS-E View** window, click on **Help.**
2. On **Help** window, click on **About.**
3. On the **MOSS-E View About** window, click on **Licensed Internal Code.** The microcode EC number is displayed.
4. Click on **Close**, then **OK** to leave the function.

2.0 Related BMs and ECs

None.

3.0 BMs to be Installed

FBM PN	FBM Title
02L2976	Installation of Microcode EC D46130 or higher on 3746-900 attached to 3745-XXA, or on 3746-950.

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. Call your support center to obtain the Microcode Fixe(s) (MCF) to be installed with the new LIC.
4. Before starting the installation, ask the customer:
   - To provide the maintenance password (Default: IBM3745).
   - To logoff the Service Processor (SP), if not already done.
5. Ensure that both the 3745 and 3746-9x0, types and models, are registered in RETAIN (CCPF).

   For U.S.A machines, please call the Raleigh Multiplexor Support Center and verify your machine's registration in CCPF for:
   - The seven digit serial number of the 3745 and 3746-9x0 are correct.
   - The three digit model designation for the 3745 and 3746-9x0 are correct.

5.0 Programming

None.

6.0 Purpose and Description

6.1 Purpose

Update the 3746-9x0 microcode.

6.2 Description

Install the new level microcode EC D46130 or higher.

- On the Service Processor, and
- Install on the 3746-9x0(s).

7.0 Installation Time

The installation time depends on the number of 3746-9x0 connected to the same Service Processor (Maximum 2). In the case of multiple 3746-9x0 connected to a Service Processor, global maintenance window must be requested to the customer. This will allow the customer to upgrade the 3746-900, and/or the 3746-950.

This global maintenance will be divided in up to 3 sub windows, one corresponding to each phase of the upgrade:

- Phase 1 is used to upgrade the Service Processor and the NNP (if any). The upgrade of NNPs is disruptif for the traffic running thru these units.
- Phases 2 and 3, are used to update each 3746-9x0 machine attached to the Service Processor. These phases are disruptive, but may be performed serially to avoid disrupting all machines at the same time.
- Nondisruptive operation estimated time:
  - 3746-9x0/MOSS-E Code level upgrade on the Service Processor: 35 up-to 60 minutes for LIC install + 35 to 45 minutes per NNP + 18 minutes to apply the latest MCLs.
- Disruptive operation estimated times per 3746-9x0:
  - 3746-9x0 General IML: 6 minutes.
  - 3746-9x0 EEPROM Upgrade: 6 minutes.

FFB/M Installed	Machine Hrs	System Hrs	Nbr of CE
02L2976	1 to 3	0.0	1

8.0 Tools/Materials Required

None.

Installation (Steps 9-12)

9.0 Safety

Not applicable.

10.0 Details of Installation

The largest configuration will be upgraded in 3 phases:

Phase 1: 3746-9x0/MOSS-E code level upgrade on the Service Processor as described in 10.1, “Procedure 1 - 3746-9x0/MOSS-E Code Level Upgrade..”

Phase 2: Code level upgrade on the first 3746-9x0, as described in 10.2, “Procedure 2 - 3746-9x0 Code Level Upgrade..”

Phase 3: Code level upgrade on the second 3746-9x0 (if any), as described in 10.2, “Procedure 2 - 3746-9x0 Code Level Upgrade..”

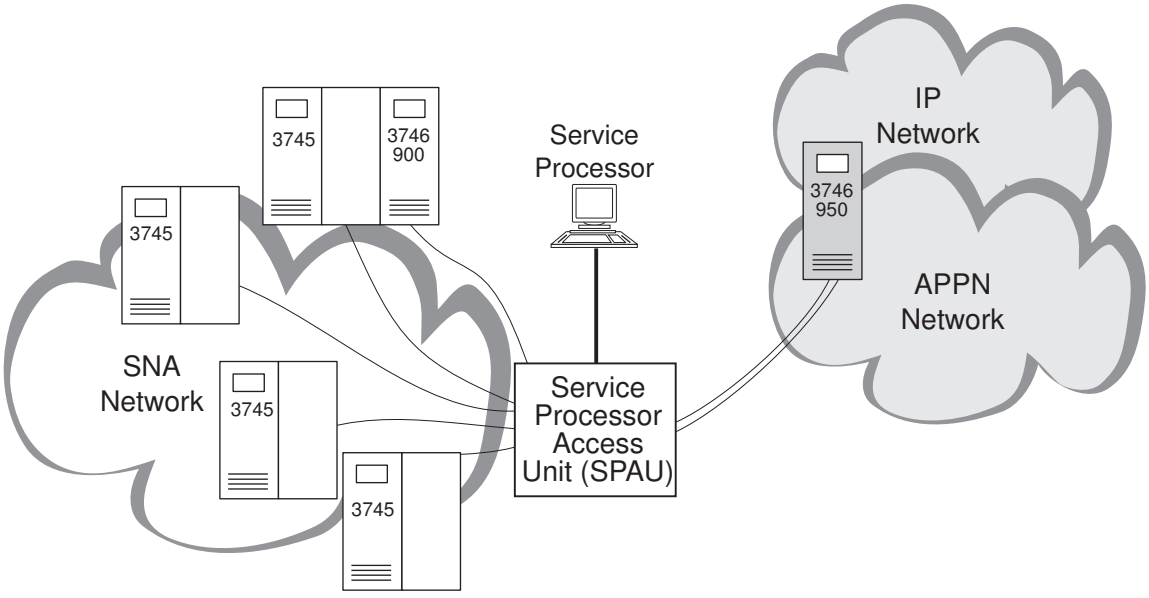


Figure 1. Service Processor Maximum Configuration.

10.1 Procedure 1 - 3746-9x0/MOSS-E Code Level Upgrade.

10.1.1 Power OFF the Service Processor

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

__ 2. Double click on **shut-down**, then enter the maintenance password, and click on **OK**.

__ 3. When the pop-up appears saying shut down has completed, power OFF the Service Processor.

10.1.2 LIC Installation

__ 1. Insert the **Service Processor installation diskette 1 (PN 80G5134)** in the disk drive, then

__ 2. Power **ON** the Service Processor.

__ 3. Insert the **optical disk (PN 58G7796)** in the optical disk drive.

__ 4. Wait for the reboot completion, and when the first blue screen is displayed, press **Enter**.

__ 5. On the **Service Processor Installation main Menu**, select on option 2 **(Update Licensed Internal Code)**, then press **Enter**

__ 6. Press **Enter** to acknowledge the confirmation pop up.

__ 7. If HDD 400Mb in your Service Processor, you are requested to insert the **Service Processor installation diskette 2 (PN 80G5135)** and follow the prompts until **Operation successfully completed**.

__ 8. If you have two 3746-9x0s connected to the same Service Processor, using the arrow keys, select the target 3746-9x0 code to be updated, and pressing the space bar, specify if you want to update the code for the selected 3746-9x0 (by default the two 3746-9x0 are selected), then press **Enter**.

__ 9. Wait until message Update Licensed Internal Code, Operation Successfully Completed, then click on **OK**.

__ 10. After **Operation Completion** panel, select option 6 **(Exit)**, then press **Enter**.

__ 11. Press **Enter** to acknowledge the confirmation pop up.

__ 12. When message **Remove the diskette and disk from the drives** is displayed, remove them.

__ 13. Reinitialize the Service Processor by pressing **Enter** key, the reboot will take about 20 minutes before you see the MOSS_E Main view.

__ 14. When the Service Processor is reinitialized, enter the Service Processor Administrator Password (default is IBM3745).

Note: If an error occurs, note the displayed message and press **Enter**. Keep the diskette available for investigation (log files: EULHIERR.LOG, OUT_BAK.1 and OUT_BAK.2), stored on diskette and hard disk for PE.

10.1.3 Applying the Latest MCLs Received on 3746-900 MOSS-E

If RSF facility is available, retrieve MCLs from 'IBM Support System'. See Process A described in the chapter **"Handling the Microcode Change Level (MCL)"** in the *SPIM*. Then, apply the latest MCLs on 3746-900 and the Service Processor following process C and process D of the *SPIM*.

Do you have any NNP attached to the Service Processor?

- If **No**, go to 10.1.5, "Service Processor Customization."
- If **Yes**, continue with next step.

10.1.4 Upgrade the NNP(s) on 3746-9x0.

On the **MOSS-E View** screen,

__ 1. Double click on the the **3746-9x0** icon.

__ 2. On the **3746-9x0 Menu** screen, click on **Network Node Processor (NNP) Management**.

__ 3. Double click on **Install/Remove/Change/Restore LIC/NNP**.

__ 4. Click on **NNP-A**, then click on **Change LIC on NNP**.

__ 5. When requested, insert the **Network Node Processor installation diskette (PN 80G5136)** and follow the prompts until **Operation successfully completed** (Up to 35')

__ 6. Click on **Close**.

If installed, repeat on the above procedure on NNP-B

10.1.5 Service Processor Customization.

__ 1. On the **MOSS-E View** screen, double click on the **Service Processor** object icon.

__ 2. Click on **"Configuration Management"**.

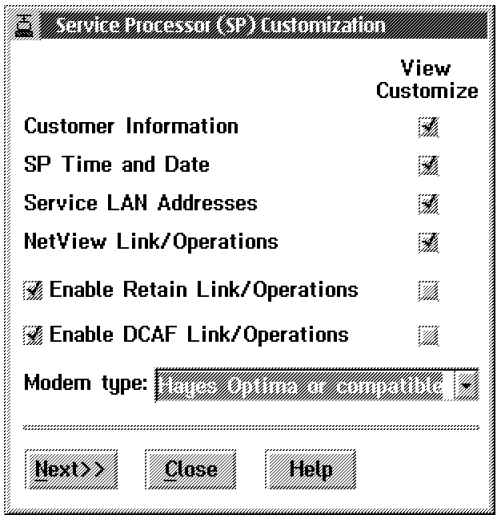
__ 3. Click on **"Service Processor (SP) Customization"**.

On the **Service Processor (SP) Customization** screen:

___ 4. Click on every **View Customize** check boxes.

___ 5. Click on **Modem type** drop down list, then select (click on) the modem and connection type of the modem used. Then,

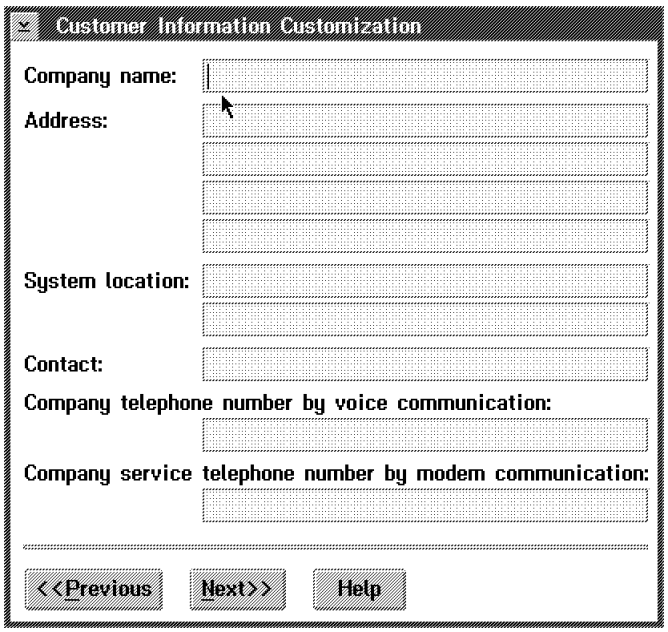
___ 6. Click on **Next>>** button.



On the **Customer Information Customization** screen:

___ 7. Verify the information recorded and make the necessary changes. Then,

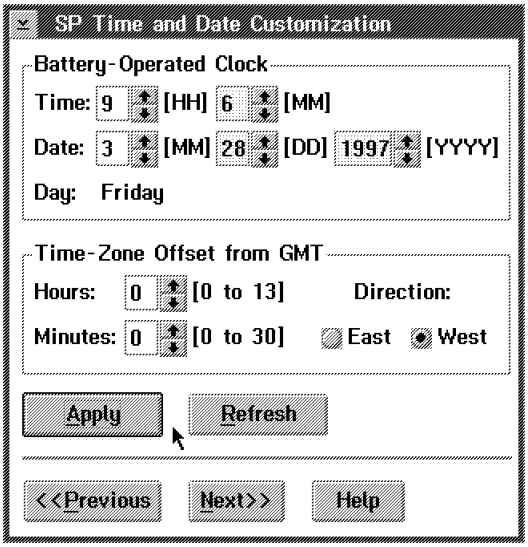
___ 8. Click on **Next>>** button.



On the **SP Time and Date Customization** screen:

__ 9. Verify the information recorded and make the necessary changes. Then,

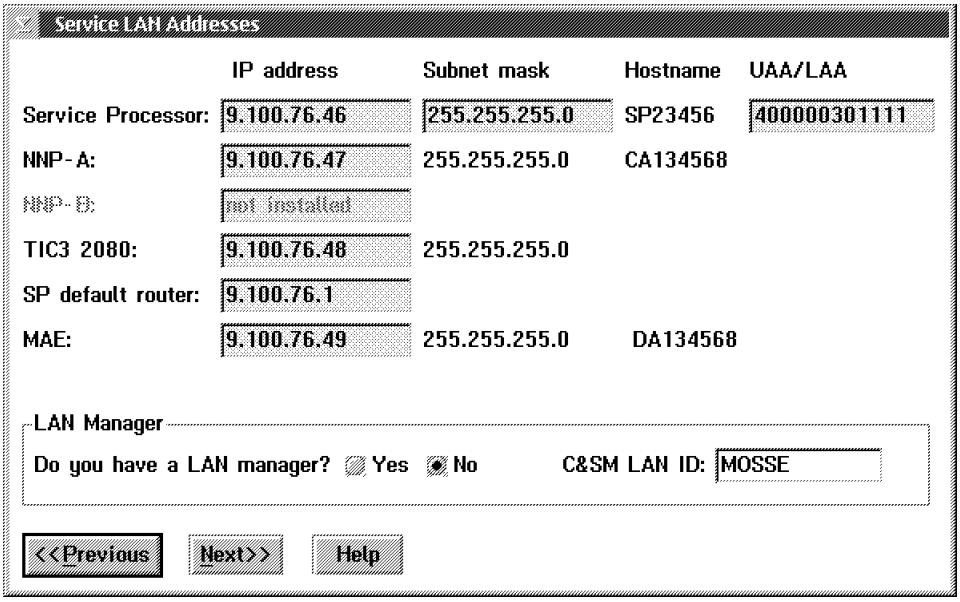
__ 10. Click on **Next>>** button.



On the **Service LAN Addresses** screen:

__ 11. Verify the information recorded and make the necessary changes. Then,

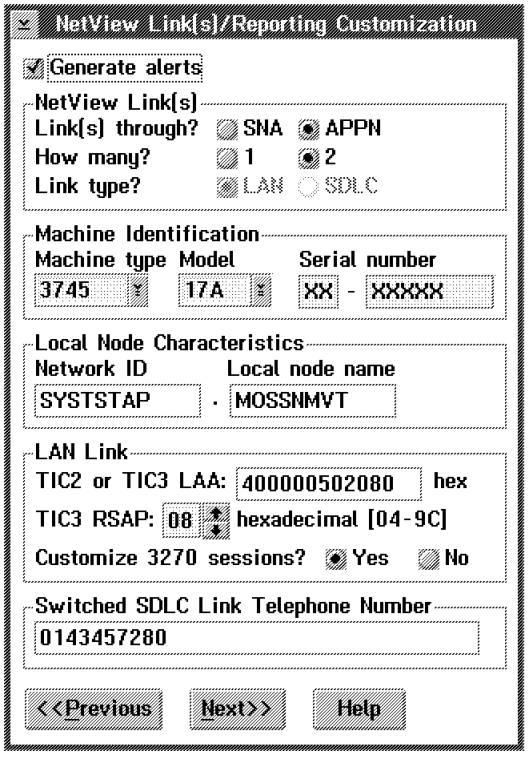
__ 12. Click on **Next>>** button.



On the **Netview Link(s)/Reporting Customization** screen:

__ 13. Verify the information recorded and make the necessary changes. Then,

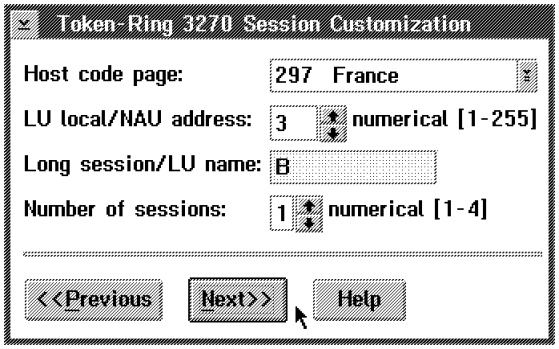
__ 14. Click on **Next>>** button.



On the **Token-Ring 3270 Session Customization** screen:

__ 15. Verify the information recorded and make the necessary changes. Then,

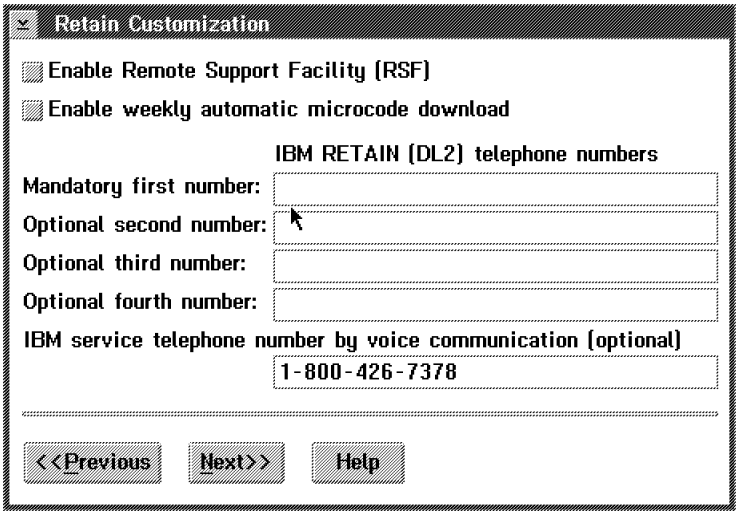
__ 16. Click on **Next>>** button.



On the **Retain Customization** screen:

__ 17. Verify the information recorded and make the necessary changes. Then,

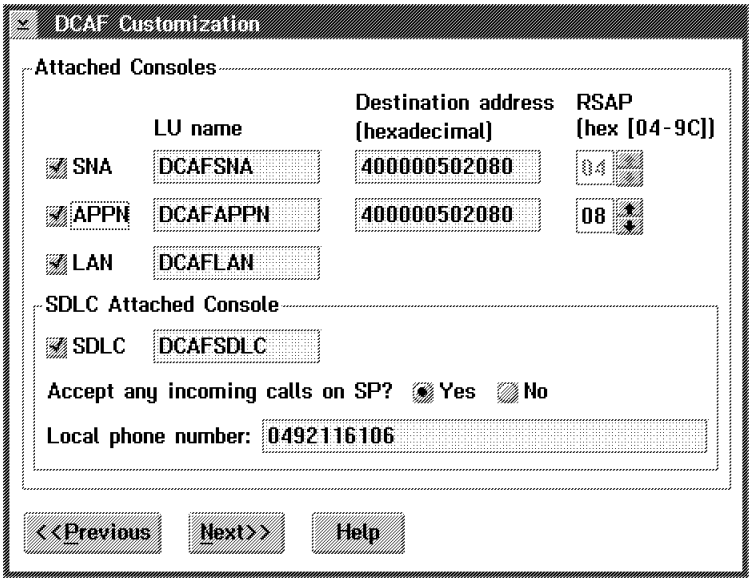
__ 18. Click on **Next>>** button.



On the **DCAF Customization** screen:

__ 19. Verify the information recorded and make the necessary changes. Then,

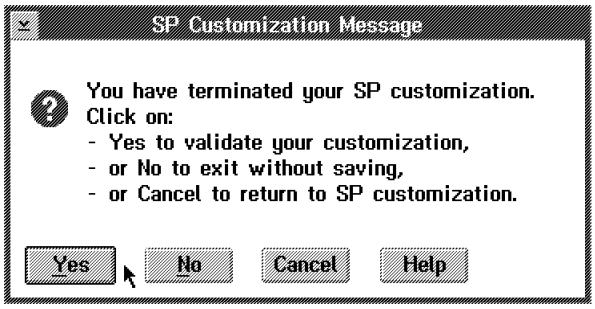
__ 20. Click on **Next>>** button.



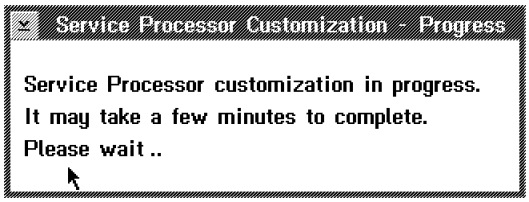
On **SP Customization Message** screen:

__ 21. Click on **Yes** button, to validate your customization, or

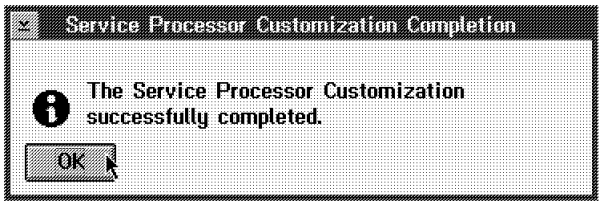
Click on **Cancel** button, to return to **Service Processor (SP) Customization** screen (Page 9)).



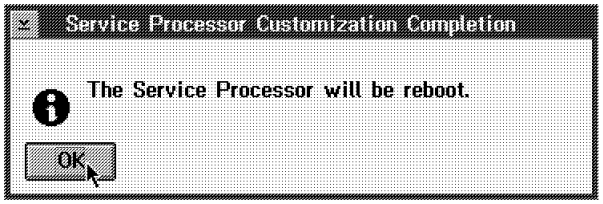
__ 22. The Service Processor customization start, follow the progress on the following screen. wait until completion.



__ 23. Wait until completion. Then, click on **OK** button.



__ 24. When the following screen appears, click on **OK** button.



End of Procedure 1, Go to 10.2, "Procedure 2 - 3746-9x0 Code Level Upgrade." on page 14 .

10.2 Procedure 2 - 3746-9x0 Code Level Upgrade.

__ 1. Ask the Customer for a maintenance window on the 3746-9x0 with traffic deactivated.

__ 2. Perform a general IML on the 3746-9x0

10.2.1 3746-9x0 EEPROM Upgrade.

__ 1. Click on **3746-9x0 Menu**.

__ 2. Click on **Change Management**.

__ 3. Double click on **Upgrade/Downgrade EEPROM**.

__ 4. The **Upgrade Status** area will show the processors to be changed in reverse video.

__ 5. Click on **OK** to start the upgrade function.
Wait (up to 10 minutes) until the Upgrade Status is completed for each processor.

__ 6. Click on **Cancel** to leave the function.

10.2.2 Saving Configuration Parameters

__ 1. Double click on the **Service Processor** icon.

__ 2. Click on **Operation Management**.

__ 3. Double click on **Manage Disks and Databases**.

__ 4. Use the radio button to select **Save databases on optical disk** to save the configuration parameters.

__ 5. Click on **OK** and wait for completion. If error, note message and contact support.

__ 6. Click on **Cancel** to exit from the function.

10.2.3 Updating Installation Parameters Diskettes

Once you have upgraded the hardware of the machine, you have to regenerate the format on the Installation Parameters Diskettes using the following procedure: (Duration approximately 13 minutes)

__ 1. On the **Service Processor** menu, click on **Configuration Management**, click on **Manage 3745/3746 Installation/Removal**.

__ 2. On the **Controller Installation** menu, Click on the **3746-9x0** installed, then Click on **SAVE**.

Following pop up window confirming **Saving Active CDF-E as Reference**:

__ 3. Insert the **3746-900 installation parameters diskette (PN 17G5878)** of the 3746-9x0, then click on **OK**.

__ 4. On the third pop up screen confirming CDF-E saved to diskette, remove diskette as instructed, click on **OK**.

__ 5. Perform the above saving procedure for the backup diskettes, then click on **Cancel**.

End of Procedure 2..

Is another 3746-9x0 attached to the Service Processor?

- **Yes,** Go to “Phase 3:” on page 6.
- **No,** Go to 10.3, “Returning the Machine to Customer.”

10.3 Returning the Machine to Customer

Do you have any NNP attached to the Service Processor?

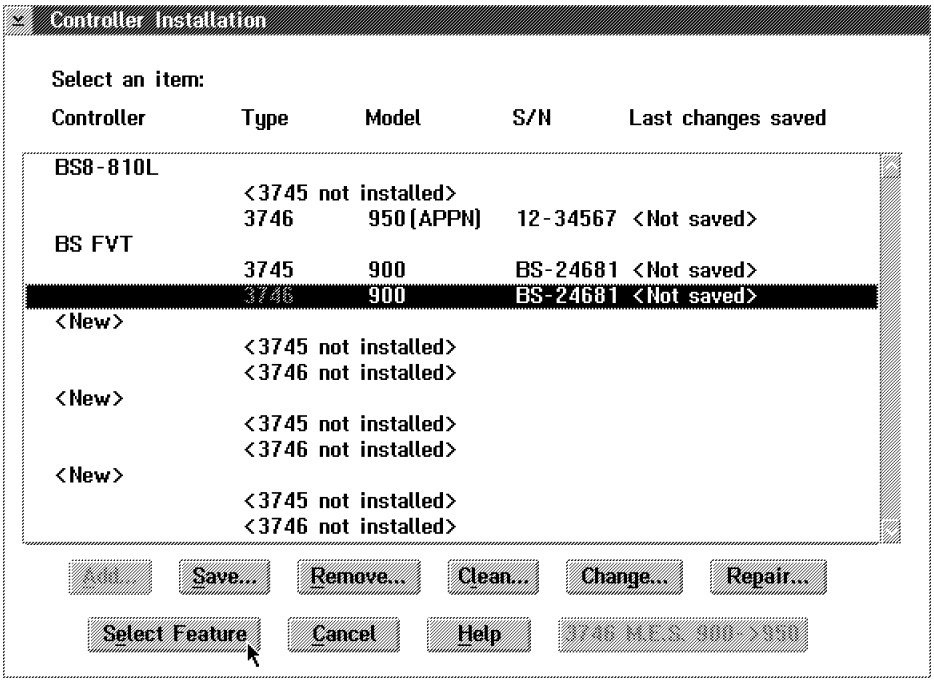
- **YES**, Ask the customer if he wants to load the adapter code (APPN or IP) per processor type? Customer Answer:
  - **YES**, go to 10.3.1, “Adapter Code Loading per Processor Type.”
  - **NO**, go to 10.3.2, “Logging OFF from Service Processor.” on page 17
- **NO**, go to 10.3.2, “Logging OFF from Service Processor.” on page 17

10.3.1 Adapter Code Loading per Processor Type.

Note

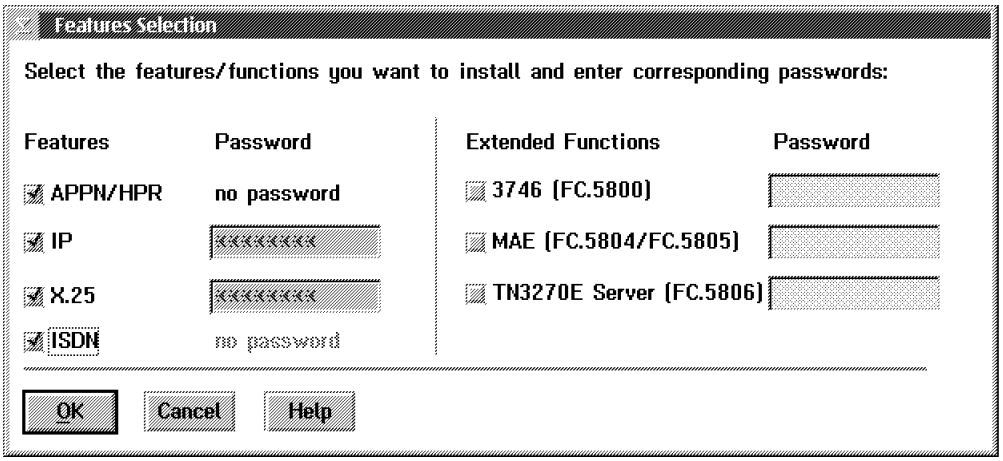
This procedure can be applied to each 3746-9x0 with a Network Node Processor.

__ 1. On the **Controller Installation** menu, select the 3746-9x0 by clicking on the **<3746-9x0>** line, then click on **"Select Feature"**.

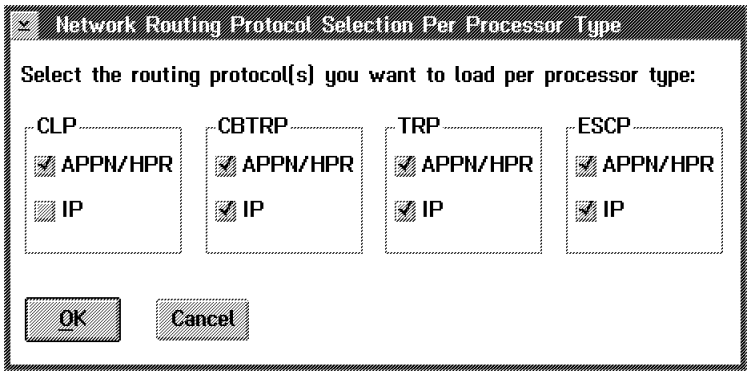


__ 2. On the **Feature Selection** menu, click on **OK**.

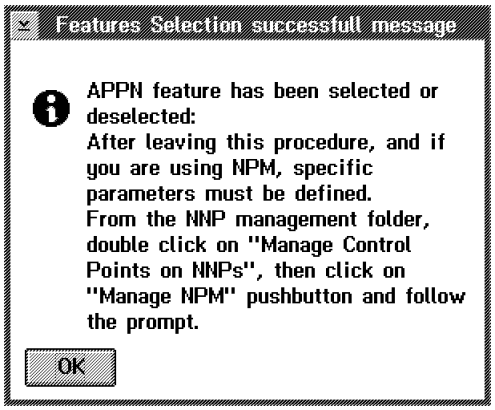
Note: For certain features a password will be required and must be ordered separately.



__ 3. According to the customer's requirement, on the **Network Routing Protocol Selection Per Processor Type** menu, disable or enable the protocol loaded per processor type, then click on **OK**.



__ 4. Read the information message, then click on **"OK"**.



__ 5. When completed, click on **"OK"** and perform a general IML to activate the feature installed.

__ 6. Repeat this procedure to the next 3746-9x0 with NNP, then go to 10.3.2, “Logging OFF from Service Processor.”

10.3.2 Logging OFF from Service Processor.

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

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

11.0 Test Procedures

Not applicable.

12.0 Field Updating

None.

After Installation (13-15)

13.0 Publications Update

None.

14.0 Parts Disposition

14.1 Purchased Machines

The LIC (Optical Disk) is declared as Sensitive parts. Keeping the Master and Back-up Disks, RETURN all extra Optical disk to your local Branch office, to be returned to plant of Manufacturing HAVANT.

15.0 Machine Records

- Install updated machine history provided or record the machine history the EC D46130 or higher on BM 58G5544.
- Report the installation and quality according to the existing procedure.

16.0 Appendix A. ESCON Configuration.

Very Important

Since EC D22560, the functions used to define the ESCON resources have changed:

- Up to now, you could use:
  - Either the EGA tool (level 3.6, stand-alone tool). or
  - the "Manage ESCON Processors" (function accessible from the 3746-9x0 menu).
- Now, to configure your ESCON processors, a new function has been developed and added on the service processor:
  - "Configure ESCON Processors".
    Invoking this function, you will use EGA (local, level 3.8).

A new version of the EGA tool (level 3.8, stand-alone tool) is also available. With this version you can export/import a configuration to/from a diskette.

Note: The "Manage ESCON Processors" function is now ONLY used to:

1. Display the lines status.
2. Display the stations status.
3. Manage the ESCON couplers status.

To be able to modify the ESCON configuration, save or re-enter your ESCON parameters as follows:

__ 1. **How did you define the ESCON resources?**
If you have defined your ESCON resources using:
   - The EGA tool (3.6), go to 5 on page 20.
   - "Manage ESCON processors" function, go to 2.

__ 2. Record Your ESCON Configuration Parameters:

On your service processor:

__ a. From the 3746-9x0 menu, click on **Configuration Management**.

__ b. Double click on **Manage ESCON processors** and use this function to display and record your configuration parameters on a paper sheet, then go to 3.

__ 3. Install the EGA Tool (3.8):

Obtain EGA 3.8 from your SE, then install on a PS/2 (or equivalent and running OS/2). Follow the installation instructions given in the READ EGA file (accessible from MKTTOOLS).

__ 4. Re-enter your ESCON Resources Definition: Using the EGA tool, re-enter you ESCON resources according to the parameters recorded in 2, then go to 6 on page 20.

__ 5. Install the New Version of EGA (3.8):

Note: To be able to recover the configuration data, install this new version on the same PS/2 where the old version was installed. Make sure that the configuration in EGA matches your current configuration. Obtain from your SE and replace your EGA with the new version (3.8) of the EGA tool. Follow the instructions given in the READ EGA file.

__ 6. Export your ESCON Configuration using EGA:

Using EGA, export your configuration on a diskette:

__ a. On the EGA primary screen, click on **Subset**.

__ b. Click on **Export** and insert a diskette to record the configuration, then

__ c. Go to 7 and ask your CE to upgrade the LIC to EC D46130 or higher.

__ 7. Install Driver EC D46130 or higher:

Use the Installation instructions PN 02L2976, go to “Installation (Steps 9-12)” on page 6.

Note: When migrating from driver EC D22510"K" to EC D46130 or higher, the current ESCON configuration is saved. When the installation is completed, using the ‘Manage ESCON Processors’ function you can display this configuration by selecting the option ‘Display old configuration’. This can help you to check what you recorded manually in 2.

__ 8. Import your Configuration:

From the 3746-9x0 menu:

__ a. Click on **Configuration Management**.

__ b. Double click on **Configure ESCON Processor**.

__ c. Click on **OK**.

__ d. Click on Subset.

__ e. Click on **Import** and insert the diskette which contains the configuration file saved in 6.

__ 9. Activate your Configuration:

__ a. Open the imported configuration, and save it.

__ b. Answer ‘YES’ to the message asking you to transmit the configuration to the ESCP.

__ c. Click on **OK** on the message explaining that a re-iml of the machine is required.

__ d. Then, Re-IML your 3746-9x0

End of instructions.