PC Server 330 S/390 8640-PB0 -11Y -21Y
System Assembly, Configure and Test Procedure

08/10/1998

Version: 1.4

Technical Content: John A. Hupcey, Martin J. Ziskind

Document Abstract

This document is the procedure used to manufacture the PC 330 S/390 Server for the PID Program and for Internal IBMers.

Summary of Changes

Version number	Date	Nature of Change	Revision Tag	Date Approved
1.0	04/20/1998	Version 1.0 Initial Release	n.a.	04/24/1998
1.1	05/12/1998	Version 1.1 Updated VM/ESA IPL Test	n.a.	05/13/1998
1.2	07/30/1998	Version 1.2 Updated Process For P390-E Card	n.a.	08/01/1998
1.3	08/03/1998	Version 1.3 Updated for Public distribution	n.a.	08/03/1998
1.4	08/10/1998	Version 1.4 Updated for Public distribution	n.a.	08/10/1998

Contents

Overview

This procedure is used to manufacture the PC Server 330 S/390 System. A base model 8640-PB0 (-11Y or -21Y are acceptable) PC Server is unpacked, assembled, configured, tested, and prepared for shipment. The PC Server 330 S/390 Workorder is used as a record of server manufacturing. The PC Server 330 Assembly Checklist is used during the PC Server 330 S/390 assembly phase.

The PC Server 330 S/390 Workorder

The PC Server 330 S/390 Workorder is created when an order is received. The PC Server 330 S/390 Workorder is used as a record of Server manufacturing. Throughout this procedure references to the PC Server 330 S/390 Workorder are made. The workorder contains the customer information, hardware/software requirements, parts lists, and processing log. The workorder checklist corresponds to the sections of this procedure. As each section of this procedure is completed the Technician/Operator will record they're employee number and date the applicable section on the checklist.

Using this Procedure

The Technician/Operator should thoroughly review the applicable sections of the procedure prior to performing the work. Throughout this procedure the Technician/Operator will enter various commands or use the mouse to perform functions in a windows environment. The following highlighting conventions are used:

Bold - Identifies text, keyboard/keys, or mouse functions that must be performed exactly as specified. Words or commands to be typed in are case sensitive!

Italics - Identifies text, screens, media, and selections as they appear to the user.

Bold Underscored - Used to emphasize critical actions or steps that must be followed EXACTLY as specified.

Example One:

1. Select option 2 ***Advanced Functions*** and press **Enter**.

   Note: In the next step the text must be typed in **Exactly** as specified.

2. Enter **CAsE senSITivE** and press **Enter**.

In the example above the user is to select option 2 from the current menu or list displayed on the screen and then press Enter. Selecting the option may be done in several ways depending on the product being used. In step 2 the user would type in CAsE senSITivE and press the enter key.

Throughout this document the term ***Select*** is used direct the operator to choose menu options. Selecting can be accomplished via mouse or direct keyboard entry. The operator at their discretion can opt to use either method to perform a variety of operations.

Safety Training

The following training is required for the configuration and test of the PC Server Unit.

- Current in Electrical Safety training
- Current in Safe Lifting training

FOLLOW THE IBM SAFETY GUIDELINES WHEN WORKING ON PC UNITS. FOR INFORMATION ON IBM SAFETY, TYPE 'WOW SAFETY' ON VM COMMAND LINE.

Product Training

The following requirements must be met to work on PC Server Units

- IBM approved ESD course.
- Completion of a training session given by a certified person.

PROPER ESD PRECAUTIONS ARE REQUIRED WHEN HANDLING SENSITIVE PARTS

Remove PC Server 330 S/390 from Shipping Carton

This section describes the procedure to correctly remove a PC Server 330 S/390 from the shipping carton. All shipping carton components and contents are to be set aside for repacking and shipment.

1. Inspect the shipping carton and note any damage. A heavily damaged carton will be replaced.
2. Remove the four white tobutsu clips.
3. Remove the top box section by pulling up and away from the lower box section containing the server.
4. Remove the three foam cushions from the unit.
5. Remove the Accessory Kit (ship group) carton.
6. Remove the server from the lower box section and move to the applicable assembly area.
7. Reassemble the shipping carton and store for reuse.

Sign off on the workorder and proceed to the next section.

PC Server 330 S/390 Assembly

In this section the PC Server 330 S/390 will be inspected and additional hardware installed. The PC Server 330 Assembly Checklist is used as a record of assembly.

Obtain a PC Server 330 User' Handbook. The handbook will be used to perform several steps of the assembly procedure.

> NOTE: ALL PC Server 330 S/390 CARDS & COMPONENTS ARE ESD SENSITIVE.
> PROPER ESD PARTS HANDLING PROCEDURES **MUST** BE FOLLOWED.

PC Server 330 S/390 Inspection

A visual quality inspection is performed on the exterior and interior of the server. Any damage or defects should be recorded on the PC Server 330 Assembly Checklist.

Visual Inspection

1. Obtain a PC Server 330 Assembly Checklist.
2. Loosen the 3 thumb screws securing the side cover, slide the cover back and remove it from the server.
3. Record the server serial number on the PC Server 330 Assembly Checklist.
4. Inspect the system and processor board connector slots for damage.
5. Ensure one 64MB DIMM is installed in the processor board.
6. Inspect the server signal and power cabling for damage.
7. Inspect the exterior of the server for dents, scratches, defects.
8. Quality check all work performed.
9. Record your employee number and date on the PC Server 330 Assembly Checklist.

Install PC Server 330 S/390 Hardware

The following items are required to assemble the PC Server 330 S/390:

Parts List

Table 1. System Unit P/N List

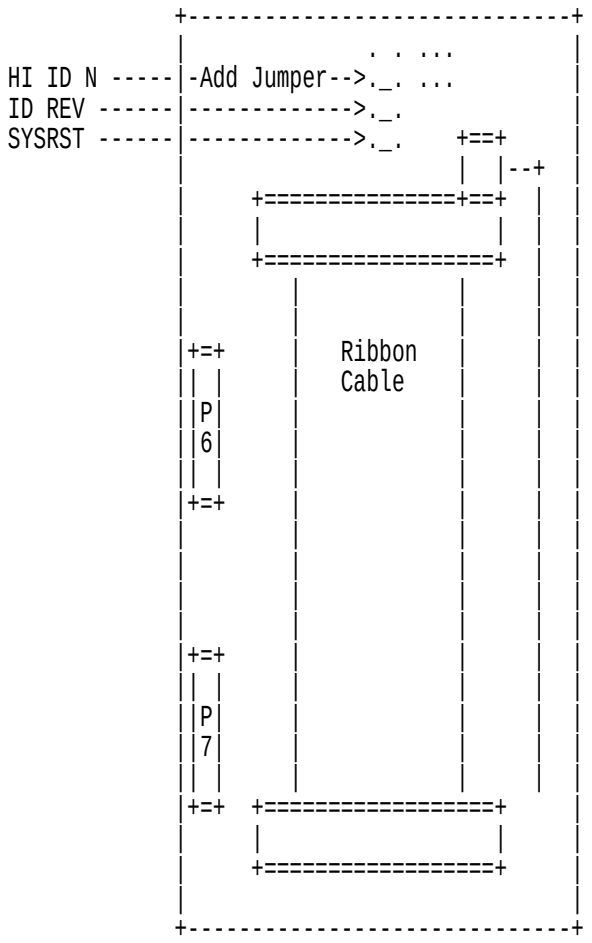
Qty.	Part Number	Description
1	60H9678	P330PB0 system unit
1	01K1282	12/24GB 4mm DDS-3 Tape Drive
6	94G7491	Hot Swap Hard Drive 4.5 GB
1	72H2667	Plastic Bezel (shipped in accessory kit)
1	72H2665	Metal Filler Bar (shipped in accessory kit)
1	39H8058	ARTIC960 Adapter Card
1	47H0031	S/390 Parallel Channel Adapter Card (PARCA)
1	61G2940	4MB Memory SIMM
1	11J4299	S/390 Processor Card (P390E) w/256MB
1	41H8900	LANStreamer Adapter Card (Token Ring)
1	76H0238	Video Memory 40 pin DRAM (1 set of two)
1	47H0039	9662 Label

Check Back Plane Jumper Settings & Add Jumper

Locate the four rows of pins at the top of the Internal Drive Back Plane. Verify the presence of jumpers at positions 3 & 4.

Note: The back plane is located behind the power supply, remove the four screws securing the power supply to gain access to the jumper area. A flash light or high intensity lamp and a needle nose pliers will be required to verify and install the jumpers.

- Add a jumper to position # 2 (HI ID N) on back plane as shown below.



Internal Drive Back Plane Rear View

- Reinstall the power supply.

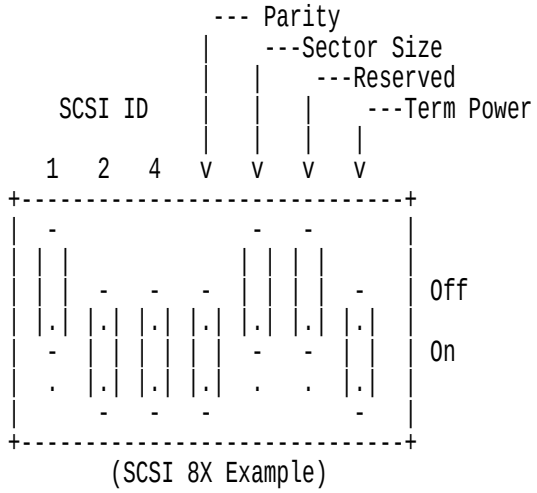
Quality check all work performed.

Record your employee number and date on the PC Server 330 Assembly Checklist.

Check CD-ROM Jumper Settings

Check the CD-ROM jumper settings. The SCSI ID for the CD-ROM should be preset to 6. The jumper block should appear as in the example below:

Warning: Different CDROM drives are installed at the factory, jumper settings may not appear exactly as shown below. Insure that the jumpers on SCSI ID 2, 4, Parity and Term Power are set to on. All other jumpers should be off. Do Not Enable Termination



1. Quality check all work performed.
2. Record your employee number and date on the PC Server 330 Assembly Checklist.

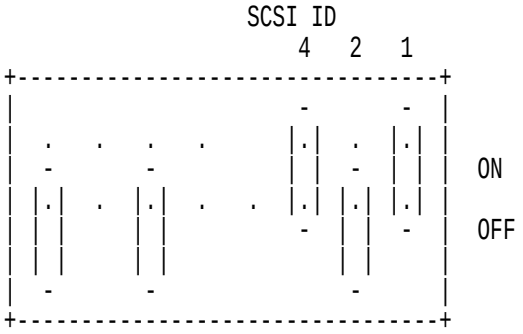
Install 4mm DDS-3 Tape Drive

The drawings on pages 221 through 228 of the PC Server 330 User' Handbook should be used as an aid to install the 4mm tape drive.

1. Unpack the 4mm DDS tape drive. Discard the backup software package. Store the tape media kit with the server accessory kit. The 12/24GB DDS/3 4mm Internal Tape Drive User's Guide will be used to aid in installing the tape drive.
2. Inspect the tape drive for defects.
3. Check the tape drive jumper settings:

   Refer to pages 1-2 & 1-3 in the 12/24GB DDS/3 4mm Internal Tape Drive User's Guide to check/set the SCSI ID to 5. Term Power and Disable Active Termination should be set to off.

   The example on the next page shows how the jumper block should appear:



4. Store the 12/24GB DDS/3 4mm Internal Tape Drive User's Guide in the server accessory kit.
5. Remove the cover plates from bay 9 &10 by inserting a small flat-blade screwdriver under the side of the cover plate. Lift the cover plate and remove it from the server front panel. Discard in the recycle bin.
6. Remove the signal and power cables from the diskette drive.
7. Remove the four screws from the metal drive housing containing the diskette drive (the tape drive will be installed in the housing). Remove the drive housing from the server.
8. Remove the two metal bezels from the metal housing, located under the diskette drive.
9. Install the metal filler bezel into the drive housing, below the diskette drive, using one of the screws removed in step 8.
10. Remove the front bezel from the drive assembly. Discard in the recycle bin.
11. Remove the mounting brackets from the drive assembly (4 screws). Discard in the recycle bin.
12. Install the tape drive into the drive housing, using the screws supplied with the drive kit. Ensure the tape drive is aligned/flush with the front of the diskette drive.
13. Plug the SCSI converter P/N 32G3925 into the signal connector on the back of the tape drive. **Warning:** The adapter block CAN be plugged incorrectly. Make sure the locating key is centered in the slot and all pins are properly engaged.
14. Reinstall the drive housing into the server, making sure to align the far side properly over the two brackets located under bay 8. Secure the drive housing using the 4 screws.
15. Install the smaller bezel option from the 12/24GB DDS/3 4mm Internal Tape Drive User's Guide
16. Install the plastic bezel option from the 12/24GB DDS/3 4mm Internal Tape Drive User's Guide in the gap between the diskette drive and tape drive. Ensure the diskette drive, bezel, and tape drive are aligned/flush with the front of the server.
17. Reinstall the diskette drive signal and power cables.
18. Locate and remove the ty-wrap holding the power supply cables.
19. Plug power supply cable P6 in to the back of the tape drive
20. Neatly bundle and ty-wrap the remaining unused power supply cables
21. Plug the empty connector from the ribbon cable attached to the CDROM drive to the SCSI adapter on the 4mm tape drive.
22. Ensure a terminator is installed on last position of ribbon cable.
23. Quality check all work performed.

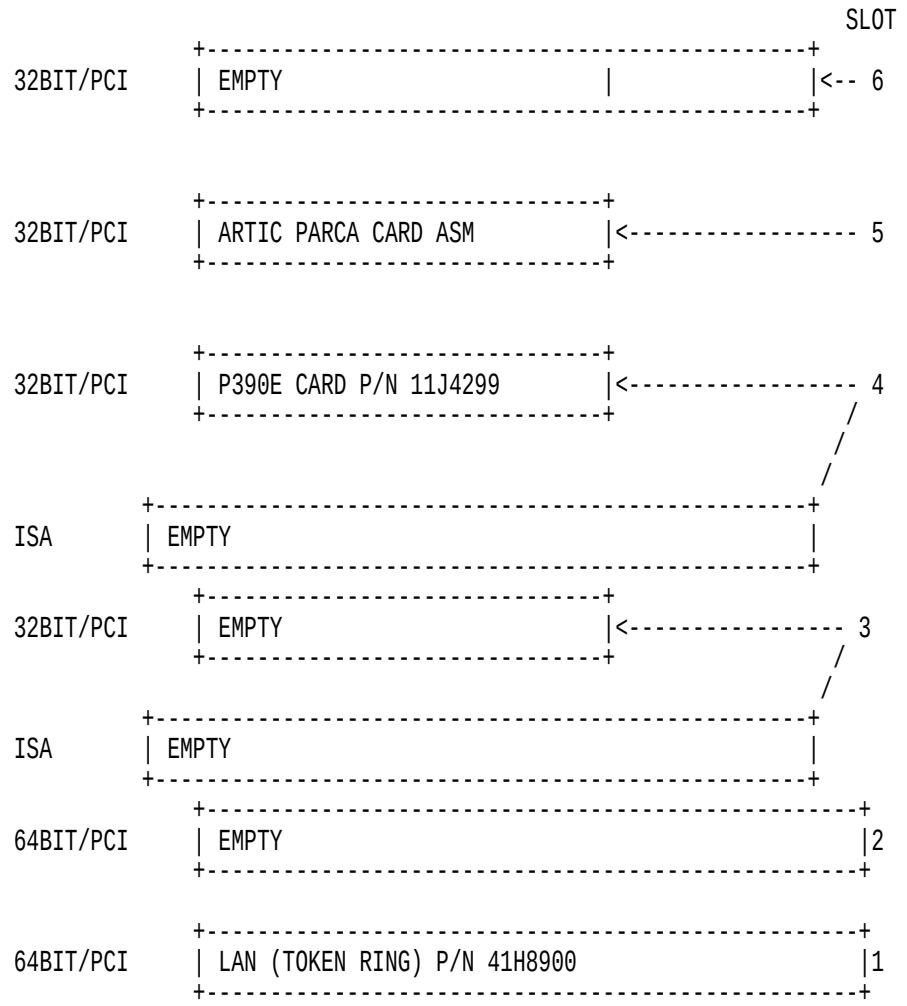
24. Record your employee number and date on the PC Server 330 Assembly Checklist.

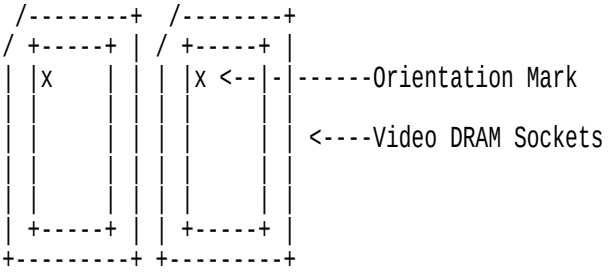
Install Adapter Cards & Video Memory

Table 2. Card Installation List		
Qty.	**Part Number**	**Description**
1	39H8058	ARTIC960 Adapter Card
1	47H0031	S/390 Parallel Channel Adapter Card (PARCA)
1	11J4299	S/390 Processor Card (P390E) w/256MB
1	61G2940	4MB Memory SIMM
1	41H8900	LANStreamer Adapter Card (Token Ring)
1	76H0238	Video Memory 40 pin DRAM (Set of 2 Modules)

Install the cards listed in the table above. Refer to the PC Server 330 User' Handbook pages 185 through 188 and the the diagram on the next page for card slot locations on the server system board.

NOTE: PROPER ESD HANDLING PROCEDURES **MUST** BE FOLLOWED
WHEN INSTALLING CARDS.





NOTE: ALL PC Server 330 S/390 CARDS & COMPONENTS ARE ESD SENSITIVE.
PROPER ESD PARTS HANDLING PROCEDURES MUST BE FOLLOWED.

1. Remove the metal covers from server slots 1, 4, and 5. Retain the screws for card installation, discard the metal covers in the recycle bin.
2. Install two video DRAM modules into the sockets located below the PCI slots. Locate the small dot on the module with the arrow in the the upper left corner of the socket as shown on the previous page.

   Note: Installation of the video modules may be easier with the server laying on it's side.
3. Obtain a LANStreamer (token-ring) card
4. Install the LANStreamer card in PCI slot 1. Install and tighten the retaining screw.
5. Obtain a P390 Processor card
6. Install the card in PCI slot 4. Install and tighten the retaining screw.
7. ARTIC960/PARCA Adapter Assembly:

   The ARTIC960 Card and the PARCA AIB will be assembled as a unit and installed in PCI slot 5. The 4MB SIMM is installed on the ARTIC card.

   a. Obtain the ARTIC960 card, PARCA card and 4MB memory SIMM.
   b. Refer to the IBM ARTIC960 PCI Co-Processor Platform Guide to Operations Chapter 2, Installation. Perform step 1 on page 2-3.
   c. Perform step 3 on pages 2-5 to 2-8
   d. Install the card assembly into PCI slot 5. Install and tighten the retaining screw.
   e. Record your employee number and date on the PC Server 330 Assembly Checklist

Install 6 Hot Swap Hard Drives

Six Hot-Swap hard-drives will be installed in server bays 1 to 6. The hot-swap hard-drive is an assembly of the hard-drive and and a hot-swap tray.

NOTE: PROPER HARD-DRIVE HANDLING PROCEDURES MUST BE FOLLOWED.

1. If necessary unlock and open the door on the front of the server.
2. Open the interior door.
3. Inspect the connector on the backplane in the server prior to installing the hard-drive.
4. Unpack a hard-drive and inspect the drive/hot-swap tray assembly for defects. Ensure all hot-swap tray to hard-drive cables are secure.
5. Move the blue hot-swap tray knob clockwise to the unlocked position.
6. Position the drive tray assembly horizontally with the connector facing the backplane.
7. Align the side of the tray with the raised guides in the drive bay.
8. Slide the tray to the rear of the bay until it connects to the backplane. Only slight pressure is required to make the connection with the backplane connector. When the drive is properly connected to the backplane, the handle is flush with the metal housing.
9. Move the blue hot-swap tray knob counter-clockwise to the locked position.

10. Repeat steps 4 through 9 to install the remaining five drives in bays 2 through 6.
11. Quality check all work performed.
12. Record your employee number and date on the PC Server 330 Assembly Checklist.

Final Checks

1. Perform a visual quality inspection of all work performed in this section.
2. At the rear of the server locate the information label.
3. Locate the Bar Code on the the information label.
4. Attach a 9662 label p/n 47H0039 to the server cover, to the left (horizontally) of the label Bar Code.
5. Ensure all defects/problems have been resolved before signing off this section.
6. Record your employee number and date on the PC Server 330 Assembly Checklist
7. Attach the PC Server 330 Assembly Checklist to the server and move it to the applicable test area or staging area.

PC Server 330 S/390 System Test

Hardware/Software Required

The software needed to load the operating systems is listed in table 4 on the following page. Verify that all software used is at the latest level specified.

* If the software items change to newer versions. Check with P/390 Development for approval. Martin Ziskind (800) 633-7437.

Table 3. Hardware List

Qty.	Part Number	Description
1	6473048	Channel Terminator Block

Table 4. Software List, CD-ROM & Diskette			
Part Number	**Version**	**Description**	**Origin**
24L7785	21A	PC Server 330 8640-PB0 BIOS Diskette	ftp://ftp.pc.ibm.com/pub/pccbbs/pc_servers/
24L7803	2.70.08	IBM PC ServeRAID BIOS/Firmware Diskette	ftp://ftp.pc.ibm.com/pub/pccbbs/pc_servers/
11J6368 P390/E	2.01	PC Server System P/390 - Advanced Diagnostics And LIC Diskette	Included in 11J6355
24L7804	2.70.08	IBM PC ServeRAID Configura-tion Diskette	ftp://ftp.pc.ibm.com/pub/pccbbs/pc_servers/
	V.4	OS/2 Warp Server Advanced Diskette 1 (Modified)	See Procedure
27H9329	V.4	OS/2 Warp Server V.4 Advanced 2 CDROM Set + Installation Diskette	Purchase from IBM
02L1852	2.1	PCI Token Ring Adapter NDIS Device Drivers Diskette 2	Supplied With Token Ring Card
4306793	3.1.1	IBM PC Server 330 8640-PB0 Ethernet Support Diskette 1	ftp://ftp.pc.ibm.com/pub/pccbbs/pc_servers/
4306788	3.03.14	IBM PC Server 330 8640-PB0 S3 Trio 64V+ OS/2 Device Driver Diskette	ftp://ftp.pc.ibm.com/pub/pccbbs/pc_servers/
	5/2/97	CHKDSK.ZIP Diskette	ftp://p390.ibm.com/p390/os2
24L7807	2.70.08	IBM PC ServeRAID Device Drivers & Utilities Diskette	ftp://ftp.pc.ibm.com/pub/pccbbs/pc_servers/
11J6355	2.5	PC Server System P/390E - Program Diskette Pack P/N's 11J6361 thru 11J6366 Disks 1-6 thru 6-6 plus 11J6368	IBM Poughkeepsie Manufacturing
LCD4-0382-03	2.4.0	Application Development System for OS/390 (North America Only) 3 CD-ROM Set	IBM Boulder
LCD4-1816-00	2.4.0	Application Development System for OS/390 (World Trade only) 3 CD-ROM Set	IBM Boulder
4122417	4.21	eNetwork Personal Communi-cations CDROM	Purchase from IBM
		OS/2 Fixpack CD	http://bmtmicro.com ($15.00) or IBM

Preliminary Checks

A valid order should have been received prior to beginning this section and all remaining sections of this procedure. In the following sections the PC Server 330 S/390 will be setup and tested.

Obtain the PC Server 330 S/390 Workorder for the system about to begin test and record the customer information from the Order Analysis Sheet (OAS). If an OAS is not available omit the customer information.

Check the OAS for the Device RPQ Specify Code (SC). Record on the PC Server 330 S/390 Workorder the ordered Operating System Software to be loaded:

SC 2497 - OS/390 AD System (default)

SC 2498 - VSE/ESA AD System

SC 2499 - VM/ESA AD System

If an OAS is not available, the default OS/390 AD System will be loaded.

At this point the PC Server 330 S/390 to be used should be determined. As you proceed to the setup sections ensure all open items (defects, missing parts, etc) are transferred from the assembly checklist to the PC Server 330 S/390 Workorder. Record the 8640-PB0 Server serial number on the PC Server 330 S/390 Workorder.

Setup and Configuration

Prepare PC Server 330 S/390 for Configuration and Test

1. Connect the monitor, keyboard, mouse and AC power cord to the server
2. Plug the monitor and server AC power cables into an available AC outlet

   Note: If the monitor or server powers on, immediately press the power on/off push buttons on the units to power off.

   Note: The same monitor type that is shipping with the system must be used during the systems setup and test process.

PC Server 330 S/390 Setup and Configuration

1. Power on the monitor
2. Power on the Server and check the following:

   - Cooling fan is running, with no noise or interference from cabling
   - No excess noise or vibrations

   The server boot sequence will pause while initializing the ServeRAID adapter. Due to the installation of additional hard drives, cards and the 4mm DDS Tape Drive, an apparent configuration problem will be reported. This is normal at this time. The screen will briefly appear as in the example below, and the boot sequence will continue.

```
Initializing Adapter Number 1            Please wait starting drives..

Adapter post and configuration error codes: ISPR=EF10   BCS=09   ECS=20


Following new drives found (old state: new state: ch: bay:)
(EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)

Your System has a configuration error due to above condition(s)
```

Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Updating the Flash BIOS

1. The machine should come up to a screen with a picture of a floppy disk and an arrow pointing to the floppy drive. Insert the ***PC Server 330 8640-PB0 BIOS*** diskette and press **F1**.
2. Press **Enter** to continue.
3. Select 1 ***United States***
   - Verify the serial number of the system matches what's displayed and press **Y/N**
   - Verify the machine type/model match ***8640-PB0 and press*** **Y/N.**
   - ***If the POST/BIOS code on the system is the same version as that on the disk, press*** **Enter** ***to continue.***
   - ***The POST/BIOS update will commence.***
4. At the prompt remove the disk and press **Enter**.

Note: The machine should re-boot to a screen with a picture of a floppy disk and an arrow pointing to the floppy drive.

Load BIOS Firmware

1. Insert the ***IBM PC ServeRAID BIOS/Firmware*** floppy disk and press **F1**.
2. Press **Enter** at Choice **1** ***ServeRaid, BIOS and FIRMWARE update***.
3. At the prompt remove the disk and press; **Ctrl/Alt & Del** to re-boot the system.

   Note: Watch the screen, after the IBM Logo appears watch the lower left for the prompt to press **F1** for the ***Diagonstic/Setup Utility***. Press **F1** to enter ***Configuration/Diagnostic***

Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Configuration and Setup Utility

Note: During this section the left/right & up/down arrow keys are used to to select options from the on screen menu.

1. If a ***Configuration Error*** screen press **Enter** to continue.
2. Press **Enter** for ***Configuration Setup Utility***.
3. Select ***Load Default Settings***. Press **Enter** to select.
4. Press **Enter** to continue at the ***Load Default Settings*** box.
5. Select ***System Summary*** press **Enter**.
   - Verify
     - Video memory @ ***2048KB***
     - Extended memory @ ***63MB***
     - Disk Drive A = ***1.44MB 3.5"***
6. Press **Escape** to continue.
7. Select ***System Information*** press **Enter**
8. Select ***Product Data*** press **Enter**
   - Verify
     - Machine Type/Model = ***8640 PB0***
     - System Serial number matches
9. Press **Escape**
10. Press **Escape**
11. Select ***Devices and I/O Ports*** press **Enter**
    - Verify
      - ***Mouse Installed***
      - ***Disk Drive 'A' = 1.44 MB 3.5"***

        Note: If devices are not installed use arrow keys to change settings and install.
12. Press **Escape**
13. Select ***Date & Time*** Press **Enter**
    - Set the following:
      - Time of Day to ***Military***
      - Date: MM/DD/YYYY
14. Press **Escape**
15. Select ***Start Options*** Press **Enter**
    - Select ***Keyboard NumLock State*** set to **OFF**
    - Select ***First Startup Device*** set to **Diskette Drive 0**

- Select ***Second Startup Device*** set to **Hard Disk**
- Select ***Third Startup Device*** set to **Disabled**
- Select ***Power On Self Test*** set to **QUICK**

16. Press **Escape**
17. Select ***Advanced Setup*** Press **Enter**
    - Select ***PCI Control*** Press **Enter**
18. Select ***PCI Device Enable/Disable*** Press **Enter**
    - Select ***Planar USB*** set to **Disabled**
    - Press **Escape**
19. Select ***Planar PCI Interrupt Selection*** Press **Enter**
    - Set ***Planar Raid IRQ*** to **IRQ15**
    - Set ***Planar SCSI IRQ*** to **IRQ14**
    - Set ***Planar Enet IRQ*** to **IRQ14**
    - Press **Escape**
20. Select ***Adapter PCI Interrupt Selection*** Press **Enter**
    - Set ***Slot 1 IntA IRQ*** to **IRQ14** (Token Ring Card)
    - Set ***Slot 4 IntA IRQ*** to **IRQ11** (P390 Card)
    - Set ***Slot 5 IntA IRQ*** to **IRQ10** (Artic Parca Card)
    - Press **Escape**
    - Press **Escape**
    - Press **Escape**

    Note: You should now be at the ***Config/Setup Utility*** menu.
21. Select ***Save Settings*** Press **Enter**
    - Press **Enter** to continue.
    - Press **Escape**

Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Diagnositc/Setup Utilities

1. Select ***Diagnostic Utility*** Press **Enter**
2. Press **Enter** to ***Run Diagnostic***.
   - Set ***Stop On Error*** to **Yes**
3. Select ***Single Run*** Press **Enter**
4. At the ***Selection*** screen change ***No*** to **Yes** on all selections except: ***Diskette A, Parallel Port*** and ***Serial Port*** test
5. Select ***Run Selected Diagnostics*** press **Enter**
6. At the prompt for ***Dram Memory Tests*** scroll to ***Accept Options*** and press **Enter**

   Note: Do not press any keys as the system will run through a series of self tests.
7. At the ***Diagnostic Terminated*** screen verify: ***Testing Completed Successfully*** press **Enter**
8. Press **Esc** (3x)
9. Continue to next section.

Card Diagnostics

Perform this section to run diagnostics on the P390 processor card.

1. At the diskette prompt, insert the ***PC Server S/390 Advanced Diagnostics and LIC Diskette*** into the diskette drive and press **Enter**
2. When the ***P/390*** logo is displayed, press **Enter**
3. At the main menu press **2**, ***Run the S/390 Microproccessor Complex Diagnostic Program*** and press **Enter**
4. On the ***Diagnostic Program*** menu press **Enter**
5. Press **C** to select ***run the diagnostic with Coded messages***
6. Wait for message ***P/390 Adapter SUCCESSFULLY PASSED all Tests***.
7. If the diagnostics run successfully then skip to step 9.
8. If the diagnostics fail, error information will be displayed. Perform the following steps if the diagnostics fail:
   a. Record **All** displayed error information on the PC Server 330 S/390 Workorder.
   b. End the diagnostic and power off the server
   c. Replace the P390 card and attach a red tag to the suspect defective card
   d. Power on the server and rerun the diagnostics
   e. If the diagnostics fail again then notify the lead technician, do not proceed further.
   f. If the diagnostics run successfully then perform the following steps:
      1) End the diagnostic and power off the server
      2) Remove the replacement P390 card and install the suspect card
      3) Power on the server and rerun the diagnostics

4) If the diagnostics fail record **All** displayed error information on the PC Server 330 S/390 Workorder, if different from the original failure. Note on the workorder that the card was confirmed defective.

5) If the diagnostics run successfully, record on the PC Server 330 S/390 Workorder the defect is intermittent.

g. End the diagnostic and power off the server

h. Remove the defective or suspect P390 card and install the known good replacement card.

i. Power on the server and rerun the diagnostics, ensure successful completion.

j. Reject the defective card and arrange for a replacement

9. Press **Enter** to continue.
10. Press **ESC** key to exit from ***Diagnostic Program*** menu.
11. After the ***System Restarting*** panel is displayed, remove the diskette from drive A.
12. Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Configure Hard Drives - RAID 5

In this section the Hard Drives will be configured into one RAID level 5 array containing 1 logical drive.

Configure Hard Drives

Note: In this section when prompted to ***Select*** an option you can either enter the option number directly using the number keys or scroll to the selection and press enter. If you choose to select the option directly with the number keys pressing enter is not required.

1. Insert a ***IBM PC ServeRAID Configuration Diskette*** into the diskette drive.
2. Press **Enter** to re-boot the server
3. From the Main Menu select option **7** ***Advanced Functions***
4. Select option **7** ***Init/View/Synchronize Config.***
   - Select **2** ***Initialize Configuration***
   - Press **2** to ***Confirm***

     Note: Wait for the message ***RAID Subsystem Configuration Has Been Initialized*** Press **Any Key** to continue.
   - Select **8** ***EXIT***
5. Press **5** ***Change RAID Parameters***.
6. Tab to ***Stripe Unit Size = 16K***
   - Verify
     - ***Rebuild Priority*** = ***HIGH***
     - ***Unattended Mode*** = ***OFF***
     - ***Read Ahead*** = ***ON***
7. Press **Enter**
8. Select **2** ***Yes*** to Confirm
9. Press **Escape** to Main Menu.
10. Select **2** ***Yes*** to save.
11. Press **Enter** to continue.
12. Press **Escape** to Main Menu.
13. Select option **4** ***Create/Delete/Copy Log Drive.***
14. Select option **3** ***Create Disk Array***
15. Press **Enter** 6 times to change arrays 9 through 14 to ***ONLINE***
16. Select option **4** ***Define Logical Drive.***
17. Press **Enter** at ***Select Array to Define Logical Drive***.
18. Select option **1** ***RAID 5***

19. Press **Enter** to accept ***21515***
20. Select **2** ***Yes*** to Confirm
    - At the ***Attention screen*** press **Enter**.
    - Select **2** ***Yes*** to perform ***Quick Initialization***.
    - Press **any key** to return to the ***Main Menu***
    - At the ***Attention screen*** press **Enter**.
    - Select **2** ***Yes***

      Note: At this point the machine will begin the synchronization process, this will take about 1 hour.

      Note: Some machines may perform initialization in the background, if an attention screen noting that initialization in occurring in the background appears you may continue with step 22 without waiting for the initialization step.
21. When the message ***Synchronization of selected logical drives successful*** appears press **Any Key** to continue.
22. At ***Create/Delete/Copy*** log drive, press **Escape**
23. At Main Menu select option **7** ***Advanced Functions***
24. At Advanced Functions select option **4** ***Change Write Policy.***
25. At ***Array ID Size*** press **Enter** to change the field ***WRT POL*** to **WB**.
    - Press **Escape** to make change.
    - Select **2** ***Yes*** to Confirm
    - At ***Saved Configuration Successful*** press **Any Key** to return.
26. At ***Advanced Functions*** select **2** for ***Backup IPS ServeRAID Config.***
27. Insert a blank formatted diskette labeled **PC Server 330 S/390 Disk Array Configuration Backup**
28. Type **P390RAID** press **Enter**.
29. Select ***2*** **Yes** to Confirm
30. When the message ***Backed up configuration successful*** appears remove the diskette.

    Note: This Diskette will ship with the machine documentation.
31. Press **Any Key** to continue.
32. At ***Advanced Functions*** select **9** to exit.
33. At ***Main Menu*** select **8** to exit.
34. At the ***Attention screen*** press **Any Key** to continue.
35. Press **2 Yes** to confirm.
36. Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Final Checks

Ensure all diagnostic tests performed in this section passed successfully. Notify the lead technician if problems/failures were recorded and NOT corrected.

Install a S/390 channel terminator block p/n 6473048 to the external connector on the S/390 channel card in slot 5.

Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

System Configuration From 4mm DDS Backup Tape

Note: If the system is to be configured from 4mm DDS tape proceed with this section. If the system is to be manually configured skip this step and proceed to the next section: **Install OS/2 Warp Server Advanced**

1. Insert ***Utility Diskette 1*** in drive
2. Insert 4mm DDS Backup Tape
3. Re-boot machine **(Ctrl+Alt+Delete)**
4. At the prompt remove ***Diskette 1*** and insert ***Diskette 2*** press **Enter**
5. Verify:
   - ***Allocated Tape Unit*** address = ***01,01***
   - ***Available Tape Unit*** address = ***01,01***
6. Press **ENTER** when done reading
7. At the A: prompt type: **FDISK** and press **Enter**
8. At the FDISK window ***Free Space = 21510 MBytes*** press **Enter**
9. Select ***Create Partition*** press **Enter**
10. Enter **800** press **Enter**
11. Select ***Primary Partition*** press **Enter**
12. Select ***at Start of free space*** press **Enter**
13. Verify ***C: Primary Unformatted = 804***
    - Use arrow keys to select: ***None :PRI/LOG Freespace 20705*** and press **Enter**
    - Select ***Create Partition*** and press **Enter**
    - Press **Enter** to accept ***20705***
    - Select ***Extended Logical Drive*** and press **Enter**
    - Verify ***D: Logical Unformatted = 20705***
    - Press **F3** to exit
14. Select ***Save and Exit*** and press **Enter**
15. At the Red ***Drive Letter Changed*** box remove the ***utility diskette 2*** and replace it with ***utility diskette 1***
16. Reboot the system by pressing **Ctrl+Atl+Del**
17. Follow the prompt to change diskettes and press **Enter**
18. At the message ***SCSI 3480*** verify that:
    - ***Available Tape unit***
    - ***Allocated Tape unit***
      - All = ***01,01*** (same as in step 5 above)
19. Press **Enter** when done reading

20. At the A: prompt type: **FORMAT C: /V:OS2** and press **Enter** (If Redoing the disk label is OS2)
21. Press **Y** to proceed with format
22. At the prompt type:
    - **SYSINSTX C:** and press **Enter**
    - **XTAPE REW** and press **Enter**
    - **XTAPE LOAD C:*.*** and press **Enter**
23. Verify: ***Total Files Skipped = 0***
24. When file load completes remove the diskette and DDS tape and reboot **(Ctrl+Atl+Del)**
25. At an OS/2 window type: **FORMAT D: /FS:HPFS /V:DATA** and press **Enter**
26. Press **Y** to proceed with format

Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the section for **Optional Operating Systems Installation**

Install OS/2 Warp Server Advanced

In this section the PC operating system and additional products will be installed on the server. The installation steps must be performed in sequence and exactly as described.

If at any time you feel a mistake was made (keystrokes, etc) then **STOP** and notify the lead technician for assistance.

Device Drivers for S3 SVGA support, AMD Ethernet, and the Token Ring card are also loaded in this section.

Install OS/2 Warp Server Advanced Version 4

1. Insert a ***OS/2 Installation Diskette Version 4 for CD ROM*** into the diskette drive.
2. Insert a ***OS/2 WARP Version 4 Advanced Server CD-ROM 1*** into the cd-rom drive.
3. Reboot **(Ctrl-Alt-Del)** the server
4. An information screen will be displayed. Remove the OS/2 installation diskette, install a ***OS/2 WARP Server Advanced Ver. 4 Diskette One (modified)*** and press **Enter**

   Note: The OS/2 Warp logo will appear, wait for the welcome screen.
5. At the ***Welcome!*** screen press **Enter**
6. At the ***INSTALLATION*** screen select option **2** ***Advanced Installation***
7. At the ***Preparing the Hard Disk*** screen select option **2** ***Specify your own installation partition***

   The fdisk program will run and the ***FDISK*** window is displayed.

   Note: An info box is also displayed stating ***A partition with at least 35MB must be set Installable, press any key***. This message can be ignored.
8. Press **Enter** twice to display the options menu.
9. Select ***Create Partition*** press **Enter**
10. Accept or type **800** at the ***Size of Partition*** field by pressing **Enter**
11. Press **Enter** to select ***Primary Partition***
12. Select ***Create Start of Free Space*** and press **Enter**
13. Press **Enter** to display the options menu
14. Select ***Set Installable*** and press **Enter**
15. In the ***New Name*** field type **OS2** and press **Enter**
16. Use the arrow keys to select ***None: PRI/LOG*** and press **Enter**
17. Select ***Create Partition*** and press **Enter**
18. Press **Enter** to accept ***20705*** as size of partition.
19. Use the arrow keys to select ***Extended Logical Drive*** and press **Enter**

- Verify
  - ***C:Primary D:Logical***

20. Press **F3**
    - Select ***Save and Exit***
    - Press **Enter**
21. An information screen is displayed when hard disk partitioning is complete. Follow the screen instructions to insert the ***OS/2 Installation Diskette V4*** and press **Enter**

    The system will reboot.
22. Follow the screen instructions to remove the installation diskette and install a ***(Modified) OS/2 Diskette 1***, and press **Enter**
23. When the ***Welcome!*** screen is displayed press **Enter**
24. Select option 2 ***Advanced Installation*** and press **Enter**
25. On the ***Installation Drive Selection*** screen select option 1 ***accept the drive*** and press **Enter**
26. On the ***Select the File System*** screen select option 2 ***Fat file system*** and press **Enter**
27. When the message ***Your Boot Drive Is Not HPFS*** is displayed press **Enter**

    OS/2 installation will start.
28. At the Prompt remove the diskette and press **Enter** to continue.
29. The ***System Configuration*** screen will be displayed. Verify the configuration settings:
    - ***Country*** should be ***US***
    - ***Keyboard*** should be ***US***
    - ***Mouse*** should be ***PS/2 (TM) Style Pointing Device***
    - ***Serial device support*** should be ***Support installed***
    - ***Primary Display*** should be ***SVGA (S3)***
    - ***Secondary Display*** should be ***none***
    - ***Advanced Power Management*** should be ***No Support Installed***
    - ***CD-ROM Device Support*** should be ***IBM CD-ROM II, enhanced CD***
    - ***Multi-Media Device Support*** should be ***None***
    - ***PCMCIA Support*** should be ***No support installed***
    - ***Printer*** should be ***No printers attached***
    - ***SCSI Adapter Support*** should be ***none***
30. Click on **OK**
31. The ***Select System Default Printer*** screen is displayed. Select ***IBM 4201 Proprinter (IBM42XX.DRV)*** and click on **OK** (scroll down through the list to locate the 4201 printer)
32. On the ***Display Drive Install*** screen select ***Vidio Graphics Array (VGA)*** and click on **OK**
33. On the ***System Configuration*** screen click on **OK**
34. The ***OS/2 Setup and Installation*** screen is displayed. Verify all boxes are selected (√ is present) and click on **Install**
35. The ***Advanced Options*** screen is displayed. Remove the √ from ***Add existing programs to your Desktop*** and click on **OK**
36. At the ***Information*** screen click on **OK**. (**DO NOT** enter any information)

37. The ***OS/2 Warp Server Setup and Installation*** screen is displayed. De-select ***File and Print Sharing Services*** by removing the √ add a √ to ***TCP/IP Services***, ensure no other boxes are checked!
38. Click on **OK**
39. The ***Configuration*** screen is displayed, click on **Install**
40. On the ***Add Adapter*** screen click on ***Other Adapter***, the ***Location*** field should be prefilled with ***A:***
41. Insert a ***PCI Token Ring Adapter NDIS Drivers Diskette*** into the diskette drive.
42. Click on **OK** to load files from diskette
43. On the ***Network Adapter Driver Disk*** screen:
    a. Click on ***IBM PCI Token-Ring Adapter { IBMTRP.OS2 }***
    b. Click on the ***Token Ring*** button
    c. Click on **OK**
    d. Files will be loaded from the diskette. When the file load completes remove the diskette from the drive.

    Note: If a ***Configuration Error*** screen appears, click **OK** to continue.
44. On the ***Configuration*** screen click on ***Add Adapter***
45. Click on ***Other Adapter***, the ***Location*** field should be prefilled with ***A:***
46. Insert a ***PC Server 330 Ethernet Support Diskette 1*** into the diskette drive.
47. Click on **OK** to load files from diskette
48. On the ***Drivers Found*** screen:
    a. Click on ***AMD PCNet Family Ethernet Adapter***
    b. Click on the ***Ethernet*** button
    c. Click on **OK**
49. Files will be loaded from the diskette. When the file load completes remove the diskette from the drive.
50. On the ***Configuration*** screen click on ***AMD PCNet Family Ethernet Adapter***
51. Click on ***Add Protocol***
52. Click on ***IBM IEEE 802.2***
53. Click on **OK**
54. On the ***Configuration*** screen click on ***Install***
55. Click on **OK** to complete installation
56. When the ***OS/2 WARP Server Installation Complete*** screen appears click on ***Close***
57. Open the OS/2 Window
58. Hold down the right shift key and click the large □ in the upper right corner of the screen to **Maximize Window**
59. Type **MPTS** and press **Enter**
60. Click on **OK**

61. Click on ***Configure***
62. Click on ***Configure***
63. When the ***LAPS Configuration*** screen is displayed in the ***Current Configuration Window*** double click on ***IBM PCI Token Ring Adapter (IBMTRP.OS2)***
64. Enter the network adapter address as **400074900001**
65. Enter the PCI adapter network data rate configuration as **M16**
66. Click on **OK**
    - Verify
      - 0-IBM ***TCP/IP***
      - 0-IBM ***IEEE802.2***
      - Double click on: 0-IBM ***IEEE802.2***
        - Scroll to:
          - ***MAX Link Station*** and enter **63**
          - ***MAX SAPS*** and enter **7**
          - ***Maximun Number of Users Users*** and enter **7**
67. Click on **OK**
68. Click ***AMD and PCNET family Ethernet Adapter***
69. Click on ***IBM TCP/IP*** in ***Protocols*** box.
70. Click on **Add**
    - Verify
      - 1-IBM ***IEEE802.2***
      - 1-IBM ***TCP/IP***
71. Double click on ***1-IBM IEEE802.2***
72. Change the ***Type of Ethernet driver support*** to **D** and click on **OK**
73. Tab to ***Maximum Link Stations*** change the value to **63**
74. Select ***Maximum SAPs*** change the value to **7**
75. Tab to ***Maximum Number of Users*** change the value to **7**
76. Click on **OK**
77. Click on **OK** on the right
78. Click ***Close*** on the ***Configure*** screen.
79. Click ***Exit*** on the ***Multi Protocol Transport Services*** screen.
80. At the ***Update CONFIG.SYS*** screen
    - Verify:
      - √ in update box
      - Drives too update = C

81. Click on ***Exit***
82. At the ***CONFIG.SYS Updated*** screen click on **OK**
83. At the ***Exiting MPTS*** screen click on **EXIT**
84. On the ***config.sys update*** screen click on **OK**
85. Close the OS/2 Window
86. Shut down and Re-boot.

    Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Load S3 Device Driver

1. Insert a ***PC Server 330 8640-PB0 S3 64V+ OS/2 Device Driver*** diskette into the diskette drive
2. Double click on the OS/2 System Icon.
3. Double click on the ***Drives Icon*** from the desktop.
4. Double click on ***Drive A:*** icon
5. Double click on ***SETUP.CMD***
6. Press **Enter** at the ***SETUP.CMD*** window.

   Note: After the update completes:

   Note:

   - Verify:
     - ***Install using defaults for monitor type*** is selected.
7. Press **Enter** or click on **OK**.
8. Click on **OK** at ***Display Driver Install***
9. Server will shut down **Remove Diskette** after shut down completes.
10. Re-boot the server by pressing **Ctrl/Alt/Del**
11. After the system reboots click the **Right Mouse Button** on the ***Desk Top***.
12. Select ***System Setup***
13. Double click on ***System***
14. At the ***Screen Resolution*** scroll to ***1024x768x65536*** and **Single Click** to select.
15. Click on the ***Window*** tab
16. At ***animation*** click on ***Disabled***
17. At ***Button Appearance*** click on ***Minimize***
18. At ***Minimize Button Behavior*** click on ***Minimize Window to Desktop***
19. Close the all windows **Shutdown** and **Re-boot**

    Note: After the system re-boots verify that the changes took place. The Icons and desktop controls should appear smaller.

    Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

CHKDSK.ZIP Update.

1. Go to the OS/2 Window
2. Insert the ***CHKDSK.ZIP*** diskette
3. Type: **MD FIXES** and press **Enter**
4. Type: **CD FIXES** and press **Enter**
5. Type: **PKUNZIP2 A:CHKDSK.ZIP** and press **Enter**
6. Type: **INSTALL** and press **Enter**
7. Press **Enter** to scroll through the screens until prompted to ***press Y to continue install***
8. Press **Y**
9. Press **Enter** to accept
10. Remove the diskette, type **CD** \ and press **Enter**

    Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Install RAID Device Driver

Install IPS RAID Utility

1. Insert the ***IBM PC ServeRAID Device Drivers and Utilities*** diskette into the diskette drive.
2. Type **DDINSTAL** at the ***C:*** prompt in the OS/2 window and press **Enter**
3. Start loading the drivers by clicking on ***Install***

   A ***IBM PC ServeRAID Adapter ADD Installation*** window should be displayed as the device driver is loaded from diskette.
4. After the driver load completes click on **exit**
5. Click on **Yes** to confirm
6. Click on **OK**
7. Close the OS/2 window and double click on the **OS/2 System Icon**.
8. Double Click on **Drives**
9. Double Click on **Drive C**
10. Double Click on **OS/2 folder**
11. Maximize the ***OS/2 Icon View*** window
12. Scroll down and right mouse click on **IPSRADM.EXE**
13. Click on ***Create Shadow***
14. Double click on **DESKTOP**
15. Close all open OS/2 windows and remove diskette.
16. Shutdown and re-boot the server

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Create/Format Drives and Install P390 LIC/DM

Obtain the 6 ***PC Server S/390 Program Diskettes*** and the ***PC Server S/390 Advanced Diagnostics and LIC Diskette***.

Format Logical Drive D

1. Open an OS/2 Window
2. Type **FORMAT D: /FS:HPFS** and press **Enter**
3. Type **Y** and press **Enter** in response to the warning message
4. After the format completes you will be prompted to enter a volume label. Type: **DATA** and press **Enter**
5. Wait for the ***C:*** prompt to appear.

P390 Code Installation

1. Insert ***PC Server S/390 Program Diskette 1 of 6*** into the diskette drive
2. At an OS/2 window type **A:\INSTALL** and press **Enter**
3. When prompted to continue with the installation press **Y**
   a. At ***Company Name*** enter a . (period)
   b. At ***Contact Name*** enter a . (period)
   c. At ***E-Mail Address*** enter a . (period)
   d. At ***Telephone #*** enter a . (period)
   e. At ***Location*** enter a . (period)
4. Follow the on-screen instructions to install the P390 code:
   a. Type **C** to install the code on the ***C*** drive
   b. Type **Y** for ***TCP/IP Telnet Sessions***
   c. Load the remaining diskettes when instructed to do so.
   d. Press **Y** to update CONFIG.SYS
   e. Press **Enter** to complete the code install
   f. When the message ***Remember to Remove the Diskette from Drive A*** is displayed remove the diskette.
5. After the installation is completed shutdown and reboot the server

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Loading PC 3270

Install eNetwork Personal Communications

1. Insert the PC/3270 ***eNetwork Personal Communications*** CD-ROM into the CD-ROM Drive
2. Open an OS/2 window and type **E:Install**
   - Verify
     - ***eNetwork Personal Communications for OS/2 WARP*** is selected.
3. Click on **Installation**
   - Verify
     - ***Personal Communications is selected.*** click **Begin**
     - ***Run Personal Communications from my workstation*** click **OK**
4. At ***Personal Communications Installation Welcome*** click on **Next**
5. Select **3270 Emulator**
6. Click on **Next**
7. Click on **Next** at ***Specify Target Locations***
8. Click on **Full Installation**
9. Click on **Next**
10. Click on **Finish**
11. At ***Personal Communications*** click on **OK** or Press Enter
12. At ***Installation Successful*** click on **OK**
13. Click on **Yes**
14. Click on **Yes**
15. Remove CD
16. Follow prompts to shutdown and reboot.

Setup P/390 3270 Telnet Session

The following instructions will set up the P/390 3270 "Telnet" sessions. that will be used as the local 3270 system and user consoles.

1. Open the ***Personal Communications*** folder and double click on **Start/Configure Sessions** icon.
2. A blank 3270 screen will appear, overlayed by a ***Welcome*** message. Click on **Next** to clear the welcome message.
3. The ***IBM Software Registration*** window is displayed. Fill in the registration fields as listed below:
   a. Put a **. (period)** in the ***First and Last name*** fields & click **Next**
   b. Click **Next** at the ***Corporation/Organization*** screen.

c. Verify ***United States*** in the ***Country*** fields & click **Next**

d. Put a **. (period)** in the ***Address, City, State & Postal Code*** fields & click **Next**

e. Click **Next** at the ***Phone Number*** screen. Select ***I do not wish to receive any notifications, information or sales material*** & click **Next**

f. Select ***Finish Later, after installing other products*** & click **Next**

g. Click **OK** to ***finish registration***

h. When the ***Personal Communications*** window is displayed click **OK**

- The ***Customize Communications*** menu is displayed.

4. Select
   - ***Interface = LAN***
   - ***Attachment = TCP/IP***
5. Click on **Configure** This brings up the ***Customize Communications - 3270 Host*** menu.
6. Set
   - ***Screen Size*** = **32x80**
   - ***Session Type*** = **Display**
   - ***Enable Host Graphics*** = **Yes**
7. Click on **Configure Link** the ***Telnet3270*** menu is displayed.
8. In ***Host Name or IP Address*** enter **127.0.0.1**
9. Click on **Advanced** A different ***Telnet3270*** menu is displayed.
10. Change:
    - ***Port Number*** = **7490**
    - √ the box ***Auto Reconnect***
11. Click on **OK**
12. Back to previous menu, click on **OK**
13. Back to previous menu, click on **OK**
14. Back to top-level menu, click on **OK** The blank 3270 screen is left.
15. Click on **File** on the line below the title bar.
16. Click on **Save** The ***WorkStation Profile as*** menu appears.
    - Change the file name to **P390.WS**
    - Click on **OK**
    - A pop-up message asks, ***Do you want to add an ICON for this session to the desktop?*** Click on **Yes**
    - At ***Personal Communications*** pop-up Click **OK**
17. Go to ***Personal Communications*** folder and double click on ***Multiple Sessions***
18. At ***P390.WS*** double click **3X**

Note: As you double click on P390.WS you will notice the lines being added in the right hand window, be sure to add only 3 lines.

19. Click on **File**
20. Click on **Save**
21. Save batch file as **P390.BCH**
22. Click on **OK**
23. A pop-up message asks, ***Add this new batch file to the desktop ?*** Click on **Yes**
24. Click on **OK**
25. Make a shadow of this new icon on the OS/2 desktop.
    - Point to the new icon ***(P390.BCH)***
    - Click once with the right mouse button.
    - Select ***Create Shadow***.
    - Click on ***Desktop*** selection, then click on Create button

Use this new ICON to start your P/390 local 3270 console before IPL P390 is done.

Manual Configuration Steps:

1. Go to the OS/2 window & enter the following text:
   - At the C: prompt type:

   a. **tedit C:\pcomos2\private\p390.ws** and press **Enter**

   b. Press **Esc**

   Note: Go to the bottom of the file and check for the following two lines, if not present press **insert** then press **Enter** to create a new line. Enter the text below **exactly** as shown.

   c. **[LT]**

   d. **IgnoreWCCStartPrint=y**
2. Press **PF4** to file.
3. Configure TCP/IP Loopback for local P/390 3270 Telnet sessions:

   a. From an OS/2 command prompt, type: **TCPCFG** and press **Enter**

   b. On the first menu, ***Configure Network Interface Parameters*** click on ***loopback interface*** in the left window.

   c. √ the ***Enable Interface*** box on the right.

   d. Make sure the IP ***address*** field contains **127.0.0.1**

   e. Double Click on the upper left corner to close the menu

   f. Click on **Save**

   g. Click on **No** in ***Autostarting Sendmail***

   h. Click on **Yes** in the ***Configuration Tool*** box

Run P390 Configurator.

1. Double click the P/390 icon
2. Double Click ***P/390 Configuration***
   - Press **Enter** at the ***Password Menu*** to get to the ***Functions*** main menu.
   - Select **F2** ***Update System Devices***
   - Press **F12** to go to the ***Start Device Manager Parameter Input Display***
   - Check that the parameter for LAN3274 is ***>/PORT=7490***
   - Press **F10** to return to ***Update System Devices*** menu.
   - Press **F10** to return to ***Main Menu*** then press **F6** to save.

If you are running VM on both the P/390 and the mainframe and wish to use a transparent file access (TFA) then proceed to the next page for instructions on setting up the TFA. Otherwise proceed to the next operation: **Update CONFIG.SYS.**

Optional Transparent File Access (TFA)

If you are running VM on both the P/390 and the mainframe and wish to use a transparent file access (TFA) then do the following:

1. Click on ***File*** on the line below the 3270 session bar.
2. Click on ***API Settings***
3. √ the ***SRPI box*** and click on **OK**
4. Click on **Yes**
5. Start the P/390 configurator and get to the ***Functions*** main menu.
6. Press **F2** to display the ***Update System Devices*** menu.
7. Scroll down to ***device 450*** (AWSTFA managed 3088).
8. Change the ***FN/P*** field to say **AWSHOST** (take off the 1).
9. Remove device 451 with the F9 key.
10. Press **F10** to return to the ***main menu***.
11. Press **F6** to ***save and Exit***

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Update CONFIG.SYS

1. Open an OS/2 window
2. Type: **TEDIT CONFIG.SYS** and press **Enter**
3. Press **Esc** then press the **Insert Key**
4. Press **Enter**
5. In caps type: **BASEDEV=OS2SCSI.DMD**
   - Press **Alt & L**
   - Scroll down to the line reading: ***BASEDEV=OS2DASD.DMD***
   - Press **Alt & M**
   - Press **Alt & U**
6. Press **Enter**
7. In caps type: **BASEDEV=CHKDSK.SYS** and press **Enter**
8. Press the **Insert Key** and Press **Enter**
9. Type: **SET RESTARTOBJECTS=STARTUPFOLDERSONLY**
10. Move cursor up to the line which reads: ***IFS=C:\OS2\HPFS.IFS /CACHE:64 /CRECL:4 /AUTOCHECK:D***
11. Change the text in the line so that ***CACHE:64*** reads: **CACHE:2048** and ***CRECL:4*** reads: **CRECL:64**
12. Scroll down and remove ***REM*** from line which reads: ***rem Device=C:\P390\SCSI3480.SYS 00,00*** and change ***00,00*** in this line to read: **01,00**
13. Go to the bottom of ***CONFIG.SYS*** **(Ctrl&End)**
14. Position the cursor on the line after: ***REM this must ALWAYS be the LAST line of CONFIG.SYS!!***
15. Press **ALT & L**
16. Go to the bottom line
17. Press **ALT & L**
18. Scroll up to position the cursor above the line saying: **REM Make sure these statements are ALWAYS at the bottom of CONFIG.SYS!!!!!**

    Note: WARNING be sure to select the line which reads exactly as stated above as there are similar lines of text in this file.
19. Press **ALT & M**
20. Press **ALT & U**
21. Press **F4** to save and exit
22. Right click on desktop
23. Click on ***Settings***
24. Click on ***Sort*** tab

25. √ ***Always maintain sort order***
26. Close the folder
27. Shutdown & reboot

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Cleanup Desktop

1. Us the right mouse button to drag icons from the desktop to the OS/2 system folder. All icons except: ***IPSRADM, OS/2 system, P390 & P390.BCH*** get moved to the OS/2 system.
2. Right click on ***P390.BCH*** icon (text highlited in blue)
   - Click on ***settings***
   - Click on the ***General*** tab
   - Change ***Title*** to **Start 3270 Sessions**
   - Close Folder
3. Double click on ***OS/2 System***
4. Double click on ***Startup Folder***
5. Right mouse click on ***IPSRADM*** (icon on top)
   - Click on ***create shadow***
   - Double click on ***Startup***
6. Right mouse click on ***P390***
   - Click on ***create shadow***
   - Double click on ***Startup***
7. Right mouse click on ***Start 3270 Sessions***
   - Click on ***create shadow***
   - Double click on ***Startup***
8. Close all windows
9. Double click the ***P390 icon***
10. Change the shape of the ***P/390 Icon View*** window by clicking and holding the mouse button on the window border and dragging the borders to make the window into a vertical rectangle. Size the rectangle so each of the icons is now stacked vertically and the descriptive text for each icon is visible. Move the reshaped window to the upper right sector of the viewing screen.
11. At the launch pad right click on:
    - ***Shredder***
      - Right click on **Delete**
      - Click on **Delete** at ***Delete Objects***
      - Click **Yes** to confirm.
    - ***Question Mark***
      - Right click on **Delete**
      - Click on **Delete** at ***Delete Objects***
      - Click **Yes** to confirm.

- ***Floppy Disk***
  - Right click on **Delete**
  - Click on **Delete** at ***Delete Objects***
  - Click **Yes** to confirm.
- ***C Drive***
  - Right click on **Delete**
  - Click on **Delete** at ***Delete Objects***
  - Click **Yes** to confirm.
- ***Printer***
  - Right click on **Delete**
  - Click on **Delete** at ***Delete Objects***
  - Click **Yes** to confirm.

12. Right click on the corner of the launch pad and click on **Settings**
    - On ***Launchpad Setting Page 1*** √ ***Display Vertical***
    - Press **Page Down** to go to ***Launchpad Setting Page 2***
    - Click on ***Do Not Display Actions Buttons***
    - Close the window
13. Open the ***OS/2 System*** folder
14. Right click and **Drag** the ***Drives*** icon to the launch pad so a black line appears above the ***OS/2*** prompt icon and **Drop** the icon there.
15. Close the ***OS/2 System*** folder
16. Right click and **Drag** the ***P390*** icon to the launch pad so a black line appears above the ***Drives*** icon and **Drop** the icon there.
17. Click the boarder and **Drag** the launch pad to the far right of the screen and **Drop** the launch pad under the ***P390 Icon View*** window.
18. Right click on the desktop.
19. Click on ***Settings***
20. Click on ***Menu*** tab
21. Right click and **Drag** the ***OS/2*** window icon from the launch pad to the lower yellowish window of the ***desktop Settings*** and **Drop** the icon there.
22. Click the ***Archive*** tab
23. √ ***Create Archive at each system restart***
24. Close the ***Desktop Settings*** window

Rename Icons

Note: Proceed with the following steps to rename the icons in the P390 Icon View.

1. In the ***P390 Icon View*** Right click the ***IPL/P390*** Icon
   - Click on **Settings**
   - At the ***IPL P/390 Settings*** window click in the ***Parameters*** box and enter the following:

     /MAP D:\OS390\DEVMAP.MVS
   - Click on the ***General*** tab
   - In the ***Title*** box enter: **IPL P/390 OS/390**
   - Close the window

   Note: Perform this step ***Only*** if the optional **VSE** operating system has been installed.
2. In the ***P390 Icon View*** Right click on the ***IPL P390 OS/390*** icon.
   - Click on **Copy**
   - In ***New Name*** type: **IPL P390 VSE**
   - Double Click on ***P390*** (in ***Opened*** tab) and the icon will be added.
   - Right click on the newly created icon.
   - Click on ***Settings***
   - At the ***IPL P/390 VM Settings*** window click in the ***Parameters*** box and enter the following:

     /MAP D:\VSE\DEVMAP.VSE
   - Click on the ***General*** tab
   - In the ***Title*** box enter: **IPL P/390 VSE**
   - Close the window

   Note: Perform this step ***Only*** if the optional **VM** operating system has been installed.
3. In the ***P390 Icon View*** right click on the ***IPL P/390 VSE*** icon.
   - Click on **Copy**
   - In ***New Name*** type: **IPL P390 VM**
   - Double Click on ***P390*** (in ***Opened*** tab) and the icon will be added.
   - Right click on the newly created icon.
   - Click on ***Settings***
   - At the ***IPL P/390 Settings*** window click in the ***Parameters*** box and enter the following:

     /MAP D:\VMESA\DEVMAP.1VM
   - Click on the ***General*** tab
   - In the ***Title*** box enter: **IPL P/390 VM**
   - Close the window
4. Right click the desktop and select ***Shut Down***

5. Shut down and **Reboot** OS/2
6. Right click on the desktop
7. Click on ***Settings***
8. Click the ***Archive*** tab
9. Remove the √ at ***Create Archive at each system restart***
10. Close the ***Desktop Settings*** window

    Record your employee number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Remap Keyboard

1. At the ***PC 3270 Session*** click on the ***Map*** icon
2. Double click on the ***Esc*** key
   - Change ***Base*** to **[CLEAR]**
   - Click on ***Change Key***
3. Click on ***F1***
   - Change ***Alt*** to **[PA1]**
   - Click on **Change Key**
4. Click on ***F2***
   - Change ***Alt*** to **[PA2]**
   - Click on **Change Key**
5. Click on ***Up*** key
   - Change ***Base*** to **[PF7]**
   - Click on **Change Key**
6. Click on ***Dn*** key
   - Change ***Base*** to **[PF8]**
   - Click on **Change Key**
7. Click on ←┘ key (the one above the right shift key)
   - Change ***Base*** to **[Enter]**
   - Click on **Change Key**
8. Click on **File**
9. Click on **Save as**
10. Enter file name as: **P390.KMP**
11. Click on **OK**
12. Close the window

13. Click on **Yes** at prompt
14. At the same PC 3270 session click on **File**
15. Click on **Save**

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Installing OS/2 Fixpack

1. Insert ***OS/2 Fixpack*** CD
2. Go to an OS/2 Window
3. Type: **E:**
4. Type: **CD \RSU\WARP3\USENGLISH\FIXPAK35** and press **Enter**
5. Type: **INSTFP** press **Enter**
6. At ***Corrective service facility version 2-B*** click **OK**
7. Click ***Service*** button
8. At ***Archive Window Base Operating System*** Type: **C:ARCHOS2** and press **Enter**
9. At ***IBM Multimedia At Archive*** window Type: **C:\ARCHMM** and press **Enter**
10. Click **OK**
11. At ***Application In Use*** click **Continue**
12. At ***Newer File Service Permission*** type **C:\OS2\BOOT\AIC7870.ADD** and press **Enter**
13. Click **CANCEL**
14. At ***Service Permission*** click **OK**
15. At ***Corrective Service Facility*** message click **Exit**
16. Insert Diskette P/N **24L7807**
17. Type: **Copy A:\OS2\IPSRAID.ADD C:\OS2\BOOT** and press **Enter**
18. Type: **ERASE IPSRAID.ADD** and press **Enter**
19. Type: **ERASE \OS2\IPSRAID.ADD** and press **Enter**
20. Remove Diskette and CD
21. At OS/2 Window Type: **CD \P390** and press **Enter**
22. Type: TEDIT CUSTOMER.DAT
23. Replace the customer info in the file noted by the periods with the customer information from the OAS order sheet.
24. Shut down and reeboot the system.

Optional Operating Systems Installation

There are 3 operating systems options for the PC Server 330 S/390. Each machine will have one or more of the following operating systems installed.

** Note ** This procedure is for loading the AD CD-ROMs, not the PC or Pre-Configured ones. The only difference should be in the amount of CD's and some of the questions. Remember this is PIDs manufacturing guide. Also, the number of files will change with different releases. Each CD contains it's own README file, that should be followed.

Check the OAS for the Device RPQ Specify Code (SC). Record on the PC Server 330 S/390 Workorder the ordered Operating System Software to be loaded:

SC 2497 - OS/390 AD System (default)

SC 2498 - VSE/ESA AD System

SC 2499 - VM/ESA AD System

Load the operating system(s) specified per the instructions below:

OS/390 Operating System Installation (SC 2497)

Check the Order Analysis Sheet (OAS) to determine which S/390 Operating System should be installed. If the Specify Code (SC) is 2497 or an OAS is not assigned, continue with this section.

This section is used to install the OS/390 operating system from compact disks.

Install OS/390 Operating System

1. Install ***Application Development System OS/390 CD disk 1 of 3*** into the CD-ROM drive
2. Open and an OS/2 Window
3. Type **E:\INSTALL** and press **Enter**
4. Press **Y** to continue the installation
5. Press **E** for the source disk or **Enter** if the default source is already set to ***E:***.
6. Press **D** for the destination (where you want to install the OS/390 system files) disk
7. Press **Enter** at the prompt to do a complete install. **Do Not** press Y as this will result in a partial installation.
8. Press **Enter** again do do a complete install.
9. Remove ***OS/390 CD disk 1*** and install ***disk 2*** when ***Copy of PC Server S/390 OS/390 CD-ROM disk 1 is complete*** message appears.
10. Press **Enter**
11. Remove OS/390 CD disk 2 and install disk 3 when ***Copy of PC Server S/390 OS/390 CD-ROM disk 2 is complete*** message appears.

12. Press **Enter**
13. Remove OS/390 CD disk 3 when ***PC Server S/390 OS/390 Installation is complete*** message appears.
14. Verify no error messages are displayed.

Verify OS/390 Installation

1. Go to or open an OS/2 window
2. Type **D:** and press **Enter**
3. Type **TYPE OS390.LOG | MORE** and press **Enter**

   The contents of the OS390.LOG file will be displayed. Ensure no errors were logged during OS390 installation. The most common error occurs while unzipping source files. Press the enter key after reviewing each screen to scroll to the next page.
4. Type **dir D:\OS390** and press **Enter**
5. At OS/390 Ver. 2.4.0 there should be ***17 files and 2 hidden directories*** present for a total of ***19 files***.
6. Close the OS/2 window

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

VSE/ESA Operating System (SC 2498)

Check the Order Analysis Sheet (OAS) to determine which S/390 Operating System should be installed. If the Specify Code (SC) is 2498 continue with this section.

This section is used to install the VSE/ESA operating system from compact disks.

Install VSE/ESA Operating System

1. Install the CD for ***Application Development System for VSE/ESA Version 2.2.0***
2. Open an OS/2 window and enter **E:\INSTALL**
3. At the prompt to continue installation press ***Y***.
4. Type in the letter of the source disk. Use the ***default*** drive letter ***E***
5. Type **D** for the letter of the destination disk.
6. At the message ***VSE/ESA PC Server S/390 installation is complete.***, remove the CD.

Verify VSE Installation

1. Go to an OS/2 window.
2. Perform ONE of the following steps:
   a. If VSE/ESA is the only operating system ordered type **D:**
   b. If multiple operating systems have been ordered (VSE/ESA, OS/390, etc) type **E:**
3. Enter **CD VSE**
4. Enter **DIR**

   Eight files should be present.

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

VM/ESA Operating System (SC 2499)

Check the Order Analysis Sheet (OAS) to determine which S/390 Operating System should be installed. If the Specify Code (SC) is 2499 continue with this section.

This section is used to install the VM/ESA operating system from compact disks.

Install VM/ESA Operating System

1. Install the ***Application Development System for VM/ESA Version 2.2.0*** CD disk 1 into the CD-ROM drive
2. Open an OS/2 window and maximize the window.
3. Enter **E:\INSTALL**
4. Press **Y** to proceed with the installation.
5. Press **Enter** to accept the default source disk E.
6. Perform ONE of the following steps:
   a. If VM/ESA is the only operating system ordered type **D** to install the starter system files on destination disk D. VM file installation will begin.
   b. If multiple operating systems have been ordered (VM/ESA, OS/390, etc) type **D** to install the starter system files on destination disk D. VM file installation will begin.
7. Press **Enter** when the message ***Copy of PC Server S/390 VM/ESA files is complete*** is displayed.
8. ***Allocation of P/390 CP volumes*** will begin. At the prompt, press **Enter** to continue.
9. Press **Enter** to install VM/ESA Source/Maintenance disks. VM source installation will begin.
10. Wait for the message ***VM/ESA Source disks installation is complete***
11. At the prompt, press **Enter** to install ***VM/ESA Program Products***
12. At the prompt remove ***VM/ESA disk 1*** and install ***disk 2*** (program product CD), and press **Enter**.
13. A panel will be displayed to choose one of three install options. Perform the following:
    a. Press **1** to select ***VM/ESA Program Product run-time files***.
    b. Follow the displayed instructions to select all listed program products and press **Enter**.
    c. Press **Y** to proceed with the installation. VM program products installation will begin.
14. When the copy of VM Program Product files is complete the selection panel will be re-displayed. Perform the following:
    a. Press **2** to select ***VM/ESA Program Product source/maintenance files***
    b. Follow the displayed instructions to select all listed program products and press **Enter**.
    c. Press **Y** to proceed with the installation. VM program products source/maintenance installation will begin.
15. When the copy of VM program product source files is complete the selection panel will be re-displayed. Press **3** to exit install.
16. Remove the CD from the drive.

Verify VM/ESA Installation

1. Go to an OS/2 window.
2. Type **D:** and press **Enter**
3. type **DIR** and press **Enter**
4. Ensure the following directories are listed:

   VMESA
   VMPP
   VMPPSRC
   VMSRC

5. Close the OS/2 window.

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

IPL Tests

IPL Test for OS/390

Only perform this section if the OS/390 Operating System is installed.

IPL OS/390

1. On the launch pad double click on the ***P390*** folder
2. Double Click on the ***IPL P390*** icon, to IPL the operating system

   Note: All errors must be brought to the attention of the lead technician.

   The following can be used as a guide to completing OS/390 IPL. Messages will begin to scroll from the bottom to the top of the screen as OS/390 IPL progresses. Informational messages are in green, warning or error messages in red, and user prompt messages in white. Most warning messages are resolved as OS/390 IPLs and will change color from red to green. You ***may*** need to reply to one or more messages in order for OS/390 IPL to complete. Below is the general format of the OS/390 user prompt messages.

```
*hh.mm.ss   misc   *xx   message-id   message/text
   |         |       |       |              |
timestamp    |       |       |              --- message text
             |       |       |
             |       |       --- message identifier, ie: IKT003D
             |       |
             |       --- xx = message number, ie: 01, 02, etc.
             |
             --- miscellanies text that may not be present with all messages
```

   The format of the user response is **R xx,response**. The "R" means ***reply***, "xx" is the message number, and "response" is the required user response to MVS.

3. Go to the 3270 Master Console Emulator Session

   The system is setup to auto-IPL. During the IPL you may receive these messages regarding JES2 cold startup:

```
* hh.mm.ss          *$HASP436 CONFIRM COLD START ON
* CKPT1 - VOLSER=SCPMV5 DSN=SYS1.HASPCKPT
* CKPT2 - NOT IN USE
* SPOOL - PREFIX=SCPMV  DSN=SYS1.HASPACE
* hh.mm.ss          *02 $HASP441 REPLY 'Y' TO CONTINUE INITIALIZATION OR
* 'N' TO TERMINATE IN RESPONSE TO MESSAGE HASP436
```

4. If the above messages appear enter **R 02,Y**.
5. If message ***xx ISTEXC200 - DYN COMMANDS MAY BE ENTERED*** appears enter **R xx,RELOAD** where xx = message number.
6. OS/390 IPL is complete when the TSO logon screen appears on the 3270 other Emulator Sessions

IPL Completion

1. Go to the MVS Master Console
2. Enter **S SHUTDOWN**
3. When message ***IST102I VTAM IS NOW INACTIVE*** appears the shutdown has completed. Continue with the next step.
4. In the ***P390*** folder double click on the ***End P390*** icon
5. Click on **OK** to terminate P390

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

IPL Test for VM/ESA

Only perform this section if VM/ESA was installed.

1. Go to the P390 folder
2. Double click on the ***P390 VM Icon*** Wait for the ***Operator session*** to appear.
3. Click on the 3270 session window and press **Esc** to clear the messages from the screen if the window fills with text.
4. VM IPL is complete when the logon screen appears on the other 3270 Emulator Sessions.
5. To End the Operating System enter **shutdown** at the operator session.
6. At the P/390 information pop up-window click on **OK**
7. Go to P390 Folder and double click on ***End P/390 Icon***
8. At the ***End P/390*** pop-up window click **OK**

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

IPL Test for VSE/ESA

Only perform this section if VSE/ESA was loaded.

1. Double click on the ***P390*** folder
2. Double click on the ***IPL P390*** icon, to IPL the operating system
3. Go to the 3270 Master Console Emulator session.
4. If a message stating ***"Overlap on Unexpired File"*** is present, then enter **0 Delete**

   Note: It may be necessary to enter this several times.
5. Go to another Emulator session.
6. VSE IPL is complete when the logon screen appears on the 3270 Emulator Session
7. Select option **A** and press **ENTER**
8. To end the operating system on the Master Console type:
   - **MSG F2**
   - **2 CEMT P,SHUT**
   - wait for **F2 is waiting for work**
   - **Z NET,QUICK**
   - **PEND**
   - Wait for **assign sysrdr**
9. Open the ***P390*** folder and double click on the ***End P390*** icon.
10. Click on ***yes*** to shutdown VSE and terminate P/390.

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Final System Check

Optional operating systems icon delete

Note: Check the PC Server 330 S/390 Workorder. If either (or both) of the VM and/or VSE operating systems are not installed their icons must be removed from the P/390 icon view.

1. Right click on the icon to be removed.
2. Click on ***delete***
3. Remove the √ from ***confirm object delete***
4. Click ***delete***

Final re-boot

1. On the ***launch pad*** click on ***Shutdown***
2. Click on ***Yes***
3. After shutdown completes power off the server
4. Wait 10 seconds and power on the server
5. Watch the screen and ensure no errors occur as the server proceeds through the bootup sequence
6. The following windows should be open and the screen appearance identical to the screen setup performed in the last section:

   Desktop-Icon View

   LaunchPad-Palette

   P390-Icon View

   A - A - 3270 Emulator

   B - B - 3270 Emulator

   C - C - 3270 Emulator

   RAID Administration and Monitor-RAID window
7. On the ***launch pad*** click on ***Shutdown***
8. Click on ***Yes***
9. After shutdown completes power off the server

Record your employee serial number and date on the PC Server 330 S/390 Workorder and proceed to the next section.

Packing

The completed PC 330 Server S/390 and 6547-00N G72 Color Monitor will be packed for shipment in the original shipping cartons. If the original cartons were damaged than perform the following steps:

1. Remove the machine type labels from the original shipping carton(s)
2. Obtain replacement shipping carton(s)/components
3. Attach the machine type labels to the replacement shipping carton(s)

Packing the PC Server 330 S/390

Attach the Factory Serial Number label to the server cover, below (vertically) the 9662 label p/n 47H0039.

Use the ***PC Server 330 S/390 Packing List*** in the PC Server 330 S/390 Workorder to correctly pack the server for shipment.

Packing the 6547-00N G72 Color Monitor

Use the ***6547-00N Color Monitor Packing List*** in the PC Server 330 S/390 Workorder to correctly pack the monitor for shipment.

The PC Server 330 S/390 Manufacturing Process is complete.

Record your employee serial number and date on the PC Server 330 S/390 Workorder

Note: This is the end of the build/test process. The next section is used as a reference for creating system backup 4mm DDS Tapes and the OS/2 Warp Server Advanced Diskette 1.

Creating 4mm Backup Tape & OS/2 Advanced Diskette 1

System Backup Tape Creation

1. Insert ***Utility Diskette 1*** and reboot server **(Ctrl+Alt+Del)**
2. Insert a blank 4mm DDS Tape
3. Follow Prompt to ***Insert Disk 2***
4. Verfiy: ***Allocated Tape Unit*** has an address of ***01,01*** (If none, verify hardware configuration)
5. Press **Enter**
6. At the A: prompt type: **XTAPE REW** and press **Enter**
7. Type: **XTAPE DUMP C:*.*** and press **Enter**
8. Verfiy:***Files with errors = 0***
9. At the A: prompt type: **XTAPE RUN** and press **Enter**
10. Remove the tape once rejected.

Making OS/2 Warp Server Advanced Diskette 1

1. Insert ***OS/2 Warp Server Advanced Diskette 1***(unmodified)
2. At the OS/2 Window type: **DISKCOPY A: B: /V** and press **Enter**
3. When prompted for a target insert a blank formatted diskette in drive A and press **Enter**
4. Say **NO** when prompted to ***Copy Another***
5. Type: **A:** and press **Enter**
6. Type: **ERASE FD*** and press **Enter**
7. Type: **ERASE AHA*** and press **Enter**
8. Type: **TEDIT CONFIG.SYS** and press **Enter**
9. Locate all 4 ***BASEDEV*** statements starting with ***AHA***
10. Press **Alt L** to mark the line.
11. Press **Alt D** to delete the line.
    - Repeat for each of the four lines starting with ***AHA***
12. Repeat procedure above for each of of the three ***BASEDEV*** lines starting with ***FD***
13. Press the **Insert** key, press **Enter**
14. Type: **BASEDEV=IPSRAID.ADD** and press **F4** to file.
15. Copy an updated ***AIC7870.ADD*** to the **A** Drive

    Note: This file can be obtained from ***ADAPTEC's FTP Site***

16. Copy from 24L7807 ***IBM PC SERVRAID DEVICE DRIVERS AND UTILITIES*** diskette the file called ***IPSRAID.ADD*** to the **A** Drive.

    Note: The file can be found in the ***OS2 Subdirectory*** on the 24L7807 diskette.

END-OF-DOCUMENT

NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
STARTING PASS 2 OF 2.
+ + + Page check: document requires more passes or extended cross-reference to resolve correctly. (Page 4 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 83 OF 'P390PB0'
+ + + Page check: stuff on page 3 on pass 1 is on page 4 on pass 2. (Page 4 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 83 OF 'P390PB0'
+ + + Page check: stuff on page 5 on pass 1 is on page 6 on pass 2. (Page 6 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 191 OF 'P390PB0'
+ + + Page check: stuff on page 6 on pass 1 is on page 7 on pass 2. (Page 7 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 212 OF 'P390PB0'
+ + + Page check: stuff on page 16 on pass 1 is on page 17 on pass 2. (Page 17 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 631 OF 'P390PB0'
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
NO APF FOUND FOR 'RDY' TAG.
'P390PB0' LINE 815: (EMP:RDY:9:1)(EMP:RDY:10:2)(EMP:RDY:11:3)(EMP:RDY:12:4)(EMP:RDY:13:5)(EMP:RDY:14:6)
+ + + Page check: stuff on page 24 on pass 1 is on page 25 on pass 2. (Page 25 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1044 OF 'P390PB0'
+ + + Page check: stuff on page 27 on pass 1 is on page 28 on pass 2. (Page 28 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1152 OF 'P390PB0'
+ + + Page check: stuff on page 29 on pass 1 is on page 30 on pass 2. (Page 30 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1227 OF 'P390PB0'
+ + + Page check: stuff on page 34 on pass 1 is on page 35 on pass 2. (Page 35 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1450 OF 'P390PB0'

+ + + Page check: stuff on page 35 on pass 1 is on page 36 on pass 2. (Page 36 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1489 OF 'P390PB0'
+ + + Page check: stuff on page 36 on pass 1 is on page 37 on pass 2. (Page 37 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1509 OF 'P390PB0'
+ + + Page check: stuff on page 37 on pass 1 is on page 38 on pass 2. (Page 38 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1541 OF 'P390PB0'
+ + + Page check: stuff on page 38 on pass 1 is on page 39 on pass 2. (Page 39 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1595 OF 'P390PB0'
+ + + Page check: stuff on page 42 on pass 1 is on page 43 on pass 2. (Page 43 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1805 OF 'P390PB0'
+ + + Page check: stuff on page 44 on pass 1 is on page 45 on pass 2. (Page 45 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 1856 OF 'P390PB0'
+ + + Page check: stuff on page 49 on pass 1 is on page 50 on pass 2. (Page 50 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 2072 OF 'P390PB0'
+ + + Page check: stuff on page 50 on pass 1 is on page 51 on pass 2. (Page 51 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 2111 OF 'P390PB0'
+ + + Page check: stuff on page 55 on pass 1 is on page 56 on pass 2. (Page 56 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 2318 OF 'P390PB0'
+ + + Page check: stuff on page 59 on pass 1 is on page 60 on pass 2. (Page 60 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 2455 OF 'P390PB0'
+ + + Page check: stuff on page 60 on pass 1 is on page 61 on pass 2. (Page 61 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 2500 OF 'P390PB0'
+ + + Page check: stuff on page 61 on pass 1 is on page 62 on pass 2. (Page 62 File: P390PB0)
'.EDFPGCK' WAS IMBEDDED AT LINE 230 OF '.EDFHEAD1'
'.EDFHEAD1' WAS IMBEDDED AT LINE 2525 OF 'P390PB0'