



Figure 1. NEC RISCserver 2200

Specifications

Processor

- MIPS RISC processor 100/200MHz

Memory

- 32 or 64MB standard, expands to 384MB

I/O Expansion Slots

- Six EISA bus master 32 bit slots

Diskette Drive

- 1.44MB, 3.5" standard

Integrated Features

- Keyboard and mouse connector
- Two RS232C serial ports and One Centronics parallel graphics connector and 16 bit BitBLT graphics controller
- Fast SCSI-2 device connector and FDD controller
- Two RJ-11 data modem connectors
- RJ-45 10BaseT connector
- Integrated math co-processor and write back cache,

Internal Expansion Bays

- Up to three 5.25" user accessible drive bays
- Up to eight 3.5" internal drive bays.

I/O Architecture (Bus s supported)

- EISA

Power Supply

- 300 Watt

Diagnostics

- Normal Post Diags performed on Power UP of system.
- NEC EISA configuration utility diskette.
- Troubleshoot according to errors found during test.

CMOS Access

- QAPlus/FE

Tools and Software Requirements

- 1/4" Flat bladed screwdriver
- Phillips #2 screwdriver
- T-15 Torx screwdriver
- Needle nose pliers
- Diags and formatted blank diskette
- Anti-static wrist strap

Jumper/Switch Settings

System Board, Jumper Settings

Jumper	Setting	Function
JP7	shorted * open	Internal VGA video on Internal VGA video off

* Default

Connector Labels

System Board

System Board	Connector Labels
VGA feature	J2
VGA monitor display	J9
Fan connector	JA2,JA3
Power LED	JA6
Disk LED	JA7
Speaker	JA8
Power supply connector	JA9,JA10,JA11,JA12

I/O Board

I/O Board	Connector Labels
SCSI-2 port 0	J1
SCSI-2 port 1	J2
Floppy diskette drive	J3
Serial Port (COM1)	J7
Serial Port (COM2)	J8
Parallel Port	J9

Special Notice:

- SIMMs with silver connectors should be used.
- SIMMs are x by 36 bit with 72 pins (x = 1,2,4,4DD Meg)
- Don't place VRAM or SIMMs on a carpet/cloth surface.
- Maximum external SCSI-2 cable length is 6 ft.
- Don't place VRAM or SIMMs on a carpet/cloth surface.
- When installing non NEC hard drives make sure power consumption is below 9 watts to avoid excess heat and a limit to number of drives due to power over usage.

Removal Procedures

Initial Steps and Cables

1. Turn off the computer and any peripheral devices.
2. Make some notes on the cable connections.
3. Disconnect AC power cord from outlet and system.
4. Disconnect all peripheral devices from the computer.
5. Discharge any static with the static strap to ground.

Systems Access Door

1. Open the two way interlocked door by pressing on its left door release button.
2. Remove three screws located on the left frame's face next to the 3.5" drive bay area.
3. Unlock the access door by turning the key in the lock clockwise until unlocked
4. You may open access door at this time.

Removal Procedures (Continued)

Removing the processor boards

1. Perform initial removal steps and remove system cover as described before.
2. Locate primary processor board at J15 on system board
3. Open or release the card locks located at the end of the guides in which the processor board slides.
4. Remove primary processor card by pulling straight-out the guides
5. To replace reverse the steps above

To remove the secondary processor

1. Locate secondary processor board at J14 on system board.
2. Open or release the card locks located at the end of the guides in which the processor board slides.
3. Remove secondary processor card by pulling straight-out the guides.
4. To replace reverse the steps above

Removing System Board

1. Remove cables and system covers as described before
2. Remove Processor boards as described above.
3. To remove the expansion boards, unscrew the support bracket screw on the end of the card. Next, gently rock card until card clears the slot on the system board. Remove and place aside. Repeat for all boards!
4. Label the cables and associated connectors on the system boards for reinstall.
5. Remove eleven screws securing the board to chassis.
6. Lift system board by the edge to remove from chassis.

Removing the SCSI Distribution Panel

1. Remove cables and system cover as described before
2. Turn switch to "power off" for the device tray
3. Locate 3-1/2" device bay for all the internal hard drives, should be in the front of lower area behind access door.
4. Pull on the handles to release each device tray (up to 8)
5. Slide each device tray forward and out of the bay area while noting the position of each device tray.
6. Open side interlock access door to the left side of the bay area when facing the unit from the front.
7. Locate the SCSI distribution panel, this is the panel that all the device trays plugged into.
8. Remove while labeling each of the data and power cables associated to the SCSI distribution panel.
9. Remove eight screws securing the panel to the chassis.
10. Slip the distribution panel out the chassis through the opening in the side of the chassis.
11. Once removed from the system note the switch settings on the distribution board and duplicate these setting on the new distribution panel if you are replacing it for the following switch names: SW1, SW2, SW3, SW4, SW5, SW6. They should either be in "T" for terminator or "C" for connector position.

Note: The last slot on the distribution panel should always terminated as the last device.

Field Replaceable Units

Memory	OEM Part	IBM Part
4MB @ 1MB X 36 SIMM	158-082311-070	22H1978
8MB @ 2MB X 36 SIMM	158-082376-070	37H8533
16MB @ 4MB X 36 SIMM	158-082316-070	37H8534
32MB @ 8MB X 36 SIMM	158-082380-070	37H8547
Memory Expansion Board	158-026159-000B	67H9674

Internal Storage Devices	OEM Part	IBM Part
1.0GB, SCSI-2 HD	158-050395-327	61H6054
2.0GB, SCSI-2 HD	158-050395-335	61H5791
4.0GB, SCSI-2 HD	158-050395-336	61H5785
CD ROM	158-050755-000	37H9317

Video Boards	OEM Part	IBM Part
Jaguar video board	158-050644-000	66H0416

Processor Boards	OEM Part	IBM Part
Processor board	158-050786-000A	37H9310

System Boards	OEM Part	IBM Part
I/O board	158-026158-001B	61H5780
System board	158-050761-000	37H9309

Tape Drives	OEM Part	IBM Part
525MB SCSI-2 tape drive	158-050389-100	37H8553
2.0/8.0GB DAT tape drive	158-050389-200	37H8554

Diskette Drives	OEM Part	IBM Part
5.25", 1.2MB Floppy	158-053476-000	22H1988
3.5", 1.44MB Floppy	158-050522-006	37H9316

Cables	OEM Part	IBM Part
AC Power cable	808-857649-101A	22H0531
SCSI cable, Ext., 3 devices	158-050511-001	66H7469
SCSI data cable, 5 devices	158-050510-002	66H7467
Video cable	158-050629-000	66H7486
Floppy signal cable	158-050561-001	66H7474

Miscellaneous	OEM Part	IBM Part
SCSI distribution panel	158-050763-000	37H9308
Battery 3.6v	158-082410-150	37H9311
Processor Fan (2)	158-050695-011	37H9312
Power supply (300 Watt)	158-050772-000	37H9314
Fan 12v with wire	158-050695-019	37H9315
NEC PS/2 style mouse	158-050484-002	55H1100
Keyboard PS/2 style	158-050707-000	37H8765