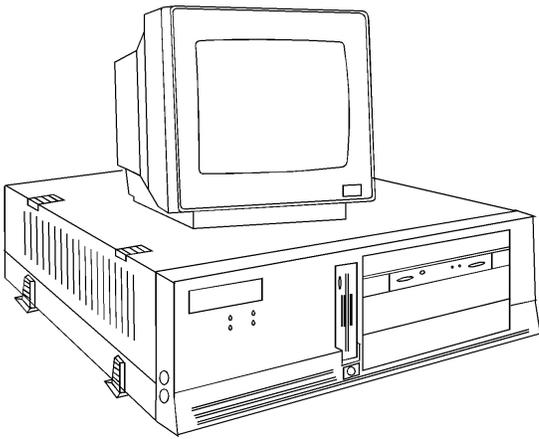**Figure 1. NEC Image RISCstation**

Specifications

Processor
- MIPS R4400, 66.67MHz external, 132MHz internal

Memory
- 16MB RAM standard, expands to 128MB

I/O Expansion Slots
- Five total expansion slots
    one dedicated to the memory board
    one dedicated to the video board
    one dedicated to the I/O board
    two available full size 8/16 bit AT slots.

Diskette Drive
- 1.44MB, 3.5'' standard

Integrated Features
- Ethernet interface
- Controller support for up to:
    Six SCSI-2 devices
    Two diskette drives
- One Parallel port
- Two serial ports
- Video controller w/ 1MB VRAM
- CD ROM reader
- 32KB primary cache
- 128KB secondary cache
- PS/2 style keyboard
- PS/2 style mouse

Internal Expansion Bays
- Three 5.25'' user accessible
- One 3.5'' user accessible
- Two 3.5'' internal drive bays

I/O Architecture (Bus s supported)
- ISA
- Local Bus

Dimensions
- 6.1''h X 16.9''w X 16.3''d

Power Supply
- 200 Watt

Tools and Software Requirements
- 1/4'' Flat bladed screwdrivers
- 2 PT Phillips screwdrivers
- T-15 Torx screwdrivers
- Needle nose pliers
- Diags and formatted blank diskette
- Anti-static wrist strap

Jumper/Switch Settings

System Board

Jumper	Setting	Function
JP1	1-2 *	Secondary cache installed
	2-3	Primary cache only
JP2	1-2 *	Adds 1 W.S. to end of CPU cycle
	2-3	No W.S. added to end of CPU cycle
JP3	1-2 *	Manufacturing jumper
JP4	1-2	2 clock cycles during tag updates
	2-3 *	1 clock cycle during tag updates
JP5	1-2 *	Manufacturing jumper
JP6	1-2 *	2 clock cycles during cache reads
	2-3	1 clock cycle during cache reads

* Default, W.S. = Wait State

Video Board Setting

Jumper	Setting	Function
JP1/JP2	Closed/ Open	Memory clock @ 38.0
	Closed/ Closed	Memory clock @ 45.0
	Open / Open	Memory clock @ 50.0
	Open* / Closed*	Memory clock @ 52.0
JP3	Always Open*	Controller interrupt
JP4/JP5	1 - 2 / 1 - 2	Memory size 0.5 MB
	1 - 2* / 2 - 3*	Memory size 1.0 MB
	2 - 3 / 1 - 2	Memory size 1.5 MB
	2 - 3 / 2 - 3	Memory size 2.0 MB

* Default

Removal Procedures

Before beginning removal complete the following steps:
1. Turn off the computer and any peripheral devices.
2. Disconnect AC power cord from outlet and system.
3. Disconnect all peripheral devices from the computer.
4. Discharge any static by touching the static strap to chassis.

System Cover

How to remove the cover:
1. Locate the two locking tabs at the bottom of the front panel.
2. Firmly press the tabs and swing the front panel up and away from the system unit.
3. Unlock the cover if locked, by locating the two locking tabs on the left and right sides of the unit.
4. Pull the tabs outward and slide the cover back a half inch to the rear of the unit.
5. Lift the cover up and off to remove.

Special Notices:

Diagnostics
- For CMOS use QAPlus/FE or (F2) during power-ON
- For Advanced Diags use a PC Diagnostic Utility
- Normal Post Diags performed on Power UP of system
- Troubleshoot according to errors found during test

BIOS Functions
- All IRQ used by built- in ports are not available for use by any ISA cards in the system

Memory
- Memory used is 1,2,4,8MB x 36 bits @ 70ns speed
- Same speed and same density type SIMMs are needed within the same memory bank.
- Different size memory banks may be intermixed when adding memory to system board.   It is necessary that Bank 0 have larger SIMMs then Bank 1 when populating the memory board

Hardware
- If CD-ROM reader is installed do not stand unit in tower position (vertical) because the reader will jam.
- All NEC hard drives are formatted at the factory and need no formatting and are configured as primary.
- All switch settings will not be reflected until the system has been completely repowered.

Field Replaceable Units

Memory	OEM Part	IBM Part
4MB @ 1MB X 36 SIMM	158-053409-008	37H8767
8MB @ 2MB X 36 SIMM	158-082376-070	37H8533
16MB @ 4MB X 36 SIMM	158-053409-010	37H8769
32MB @ 8MB X 36 SIMM	158-053409-011	37H8770

Internal Hard Drive	OEM Part	IBM Part
1.0GB, SCSI-2 HD	158-050395-327	61H6054
1.3GB, SCSI-2 HD	158-050395-317	93F8684
2.0GB, SCSI-2 HD	158-050395-328	61H6055
540MB, SCSI-2 HD	158-050395-314	93F8685

Video Boards	OEM Part	IBM Part
Video board	158-053694-002	67H9758

I/O Boards	OEM Part	IBM Part
I/O board	158-053694-003	67H9759

System Boards	OEM Part	IBM Part
System board	158-053694-005	67H9761

CD-ROM Drives	OEM Part	IBM Part
CD-ROM reader	03377149	48H4397
CD ROM reader	09601111	67H7730
CD-ROM, External	03377146	48H4396

Diskette Drives	OEM Part	IBM Part
5.25'', 1.2MB Floppy	158-053476-000	22H1988
3.5'', 1.44MB Floppy	158-053475-000	20H9484

Cables	OEM Part	IBM Part
SCSI cable, internal	158-050694-321	66H7505
FDD signal cable	158-050694-306	66H7501
SCSI cable (External)	09601058	53H1293

Miscellaneous	OEM Part	IBM Part
Memory Expansion Board	158-053694-004	67H9760
Keyboard PS/2 style	158-050550-000	20H9481
Fan	158-050694-301	66H7499
Keyboard / Mouse assembly	158-050614-017	48H7026
Keyboard / Mouse interface	158-050614-019	20H9482
Push rod power supply	158-050694-304	66H7500
Ethernet connector	158-050694-308	66H7502
Power supply (200 Watt)	158-050694-312	66H9715
Serial COM1 assembly	158-050694-322	66H7506
Serial COM2 assembly	158-050694-323	66H7507
Printer port assembly	158-050694-324	66H7508
BootROM	158-050694-309	66H7503
NEC PS/2 style mouse	158-050484-001	67H9708