

Figure 1. NEC Image P90 Series

Specifications

Processor

- Intel Pentium 90MHz

Memory

- 8 or 16MB standard, expands to 192MB

I/O Expansion Slots

- 3 16Bit ISA
- 1 shared PCI/ISA
- 1 PCI Slot

Diskette Drive

- 1.44MB drive standard

Integrated Features

- PCI video controller.
- Mouse and Keyboard
- Enhanced parallel port and two serial ports.
- Sound Card
- 256K secondary cache
- CD-ROM and speakers

Optional Features

- Dual processor support

Internal Expansion Bays

- Six mass storage bays

I/O Architecture (Bus s supported)

- PCI / ISA

Dimensions

- 8.5 w x 17.5 d x 15.25 h

Power Supply

- 200 Watt

Diagnostics

- Normal Post Diags performed on Power UP of system.
- Troubleshoot according to errors found during test.

CMOS Access

- QAPlus/FE

Tools and Software Requirements

- Phillips head screwdriver
- Needle nose pliers
- Diags and formatted blank diskette
- Anti-static wrist strap

Jumper/Switch Settings

SW1 Switch Settings

Switch	Setting	Function
SW1-1	ON OFF *	Prevents BIOS reprogramming Allows BIOS reprogramming
SW1-2	ON OFF *	CPU frequency select at 100/50 CPU frequency select at 90/60
SW1-3	ON OFF *	CMOS clear is on CMOS clear is off
SW1-4	ON OFF *	Security is off Security is on
SW1-5 /6	ON/OFF OFF/OFF * ON/ON	CPU clock is 50MHz CPU clock is 60MHz CPU clock is 66MHz
SW1-7	OFF *	Reserved

* 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. Ground yourself with static strip before removing cover.

System Cover

How to remove the cover:

1. Unlock the system unit cover if locked.
2. Remove the four cover screws on the rear of the unit.
3. Slide the cover toward the rear about one inch.
4. Lift the cover up and off of the system.

Special Notices

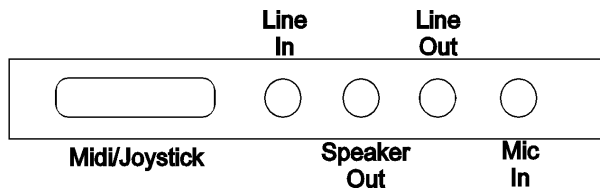
1. System has auto-sensing for parallel port to disable the on-board parallel port with the same I/O address.
2. Interrupts for the built-in serial ports are not available for ISA parallel ports.
3. All NEC hard disks are shipped with jumpers set for "master" and setup as the only IDE drive installed.
4. CD-ROM's Data Pin #1 is located next to power plug on the backside of the CD-ROM drive.
5. Set IDE CD-ROM to slave if used with a IDE Drive.
6. All storage devices must have 5-1/4" bracket for installation except external 3-1/2" (A:) floppy bay.

Connector Labels

Connector Function	Connector Labels
Diskette drive connector	J7
PCI/IDE HD drive connector	J11
Reset button connector	J12
Standard IDE Connector	J17
HD drive busy lamp connector	J18
Battery	J19
Speaker connector	J21
Fan connector	J23
Power supply connector	J24,J25
Power lamp connector	J28

Sound Card - Connection Panel

Memory Configurations



Notice:

1. There is 3 banks (B0-B2) containing two sockets.
2. Different size SIMMs may be placed in any bank provided, each bank have same size SIMMs.
3. Each memory bank must have same speed SIMMs.
4. Memory is 32 bits wide with 4 parity (x By 36)
5. Actual Memory Size is:
 $4x = 4 \times (1,2,4,8) = (4,8,16,32)$ Megs
6. Switch SIMMs between B1 & B2 if the system does not recognize the new SIMMs chips.

Combination of (x by 36) SIMMs by banks

Desired Meg	B0 Slot-1	B0 Slot 2	B1 Slot-1	B1 Slot-2	B2 Slot-1	B2 Slot-2
8*	1	1	--	--	--	--
16**	2	2	--	--	--	--
16	1	1	1	1	--	--
24	2	2	1	1	--	--
24	1	1	1	1	1	1
32	4	4	--	--	--	--
32	2	2	2	2	--	--
32	2	2	1	1	1	1
40	4	4	1	1	--	--
40	2	2	2	2	1	1
48	4	4	2	2	--	--
48	4	4	1	1	1	1
48	2	2	2	2	2	2
56	4	4	2	2	1	1
64	8	8	--	--	--	--
64	4	4	4	4	--	--
64	4	4	2	2	2	2
72	8	8	1	1	--	--
72	4	4	4	4	1	1
80	8	8	2	2	--	--
80	8	8	1	1	1	1
80	4	4	4	4	2	2
88	8	8	2	2	1	1
96	8	8	4	4	--	--
96	8	8	2	2	2	2
96	4	4	4	4	4	4
104	8	8	4	4	1	1
112	8	8	4	4	2	2
128	8	8	8	8	--	--
128	8	8	4	4	4	4
136	8	8	8	8	1	1
144	8	8	8	8	2	2
160	8	8	8	8	4	4
192	8	8	8	8	8	8

* Standard Memory ** Multi-Media Standard Memory

Field Replaceable Units

Memory	OEM Part	IBM Part
4MB @ 1MB X 36 SIMM	158-053409-008	37H8767
8MB @ 2MB X 36 SIMM	158-053409-009	37H8768
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
540MB, IDE HD	158-050395-322	71H0400
1.0GB, IDE HD	158-050395-330	61H6061

System Boards	OEM Part	IBM Part
System Board, no CPU	158-026168-000A	61H6059

Processors	OEM Part	IBM Part
Heat-sink for Pentium only	158-060279-000	66H7546
Pentium- 90MHz	802-149020-003A	66H0604

Diskette Drives	OEM Part	IBM Part
5.25", 1.2 MB Floppy	158-053476-000	22H1988
3.5", 1.44MB Floppy	808-870954-101A	37H8753

CD-ROM Drives	OEM Part	IBM Part
CD-ROM, 2x	03377172	55H1704

Cables	OEM Part	IBM Part
Audio cable	158-050647-000	66H7488
CD ROM IDE signal cable	158-050562-003	47H9549
Floppy signal cable	158-050561-000	55H1052

Miscellaneous	OEM Part	IBM Part
Battery 3.6v	158-060155-000	20H9490
NEC PS/2 style mouse	158-050484-002	55H1100
AC Power cord	808-857649-101A	22H0531
Sound board	158-050725-000	61H6060
Cover lock and key	158-050705-003	61H7417
Ext. speaker assembly	158-050746-000	61H5848
Top cover	158-050705-001	74H3378
Microphone	158-050642-000	37H8778
Power supply (200 Watt)	158-050684-000	48H7032
Headphone	158-050641-000	37H8777
Fan assembly	158-050705-014	61H5856
NEC SVGA Monitor	158-053605-000	20H9488
Multisync "3fge" color mon.	08119705	48H4804
Keyboard PS/2 style	158-050550-000	20H9481