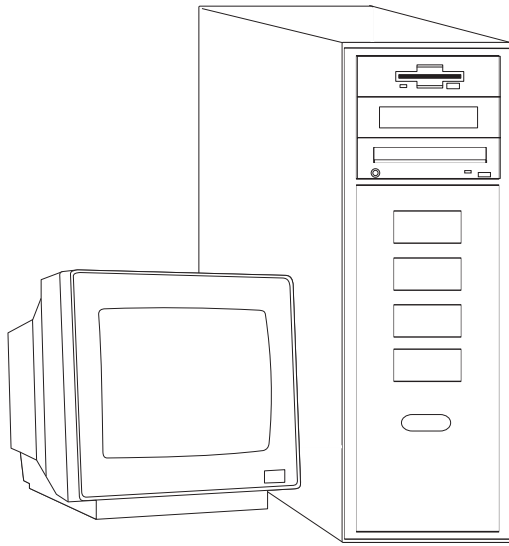


# Compaq Proliant 2000/4000/4500/4500R



Compaq Proliant 2000/4000/4500/4500R

## Specifications

### Processor

- Intel 486/50, 5/66,100,133,166; R is rack-mountable

### Memory

- 2000: 16/32MB RAM up to 512MB; 4000: 64MB RAM up to 512MB; 4500/4500R: 16MB up to 1.024GB

### I/O Expansion Slots

- 8-32bit EISA bus master slots

### Diskette Drive

- 1-3.5" 1.44 diskette drive

### Integrated Features

- 2-Serial, parallel, pointing device port, 32-bit Fast SCSI-2 network, integrated graphics

### Internal Expansion Bays

- 2000/4500R- 5, 4000/4500: 7-internal hot pluggable bays

### I/O Architecture (Buses supported)

- Compaq Flex, TriFlex PC architecture

### Power Supply

- 445 watt power supply, 4500/4500R: 488/540 watt

### Diagnostics

- Normal Post Diags performed on Power UP of system.
- For Advanced Diags use Diskette version 9.0
- Troubleshoot according to errors found during test

## Tools And Software Requirements

- Flat bladed and Torx T-8, T-10, and T-15 screwdrivers
- Needle nose pliers, \* ROM removal tool
- Diagnostics and formatted blank diskettes
- Anti-static wrist strap

## Jumper Settings for SCSI ID

Proliant 4500/4500R Drive Bay#	SCSI ID	Pin3 ID2	Pin2 ID1	Pin1 ID0
6	6	ON	ON	OFF
5	5	ON	OFF	ON

## Switch Settings Proliant 2000/4000

### SW2 (003116, 003862, 004486)

Switch	Position	Function
S1	OFF*/ON	turns on video/turns off video
S2	OFF	turns off processor
	ON	turns on processor
S3	OFF*	reserved
S4	OFF*	turns off diskette boot
	ON	turns on diskette boot
S5	OFF*	turns off pwr-on password
	ON	turns on pwr-on password
S6	OFF*/ON	turns off NV RAM/turns on

## Switch Settings Proliant 4500/4500R

### SW1 (004308)

Switch	Position	Function
S1	OFF*/ON	turns on video/turns off video
S2	OFF*	turns on configuration lock
	ON	turns off configuration lock
S3	OFF*	syst. installed in tower chassis
	ON	syst. installed in rack chassis
S4	OFF*	diskette boot based on config
	ON	diskette boot despite config
S5	OFF*	turns on pwr-on password
	ON	turns off pwr-on password
S6	ON	clears config. memory

\* Default

## Removal Procedures

Before beginning removal complete the following:

1. Turn off the computer and any peripheral devices.
2. Disconnect AC power cord from the outlet and system.
3. Disconnect all peripheral devices.

## System Cover

**Warning:** High voltage is present, use caution when running the Proliant without the system cover on.

1. Lift and remove the front bezel door
2. Loosen thumb screws and remove at front of panel
3. Slide system unit cover forward then up
4. Rack-Mounted: Turn 1/4 turn screws on front panel.
5. Slide the cover back and up.

## Field Replaceable Units

Memory	Assembly	OEM Part	IBM Part
Mem. Exp. Bd.	002563-001	139947-001	20H8574
4MB 70ns mod.	118665-004	141754-001	20H6294
4MB 60ns *		139139-001	37H1197
4MB 80ns mod.	115665-002	118741-001	93F7237
8MB 60ns *		139140-001	37H1198
8MB 70ns mod.	129041-002	141755-001	90G7098
8MB 80ns mod.	129041-001	128954-001	93F7238
16MB 60ns *		139141-001	37H1199
16MB 70ns mod.	137143-003	149947-001	90G7101
16MB 80ns mod.	137143-002	139143-001	90G7880
32MB 60ns *		139142-001	37H1200
32MB 70ns mod.	139973-002	149948-001	20H8476
32MB 80ns mod.	139973-001	139949-001	20H8554
64MB 80ns mod. <sup>1</sup>		188489-001	61H8955

<sup>1</sup> Proliant 4500 only, \* Proliant 4500R only

## Controller Boards

Description	Assembly	OEM Part	IBM Part
SMART contrlr	002969	142130-001	20H8547
	003596	181132-001	20H8736
Fast SCSI-2	002682	142040-001	90G6451
Fast wide SCSI-2/E	003529	199634-001	37H1205
NetFlex contrlr	002709	142041-001	20H8539
NetFlex contrlr TR	142035	142042-001	20H8555
NetFlex-2 ENET-TR	003382	142222-001	20H8566
NetFlx-2 Dual ENET	003101	142151-001	20H8567
NetFlex-2 TR	003647	199521-001	20H8538
NetFlex-2 Dual TR	003104	142195-001	20H8630
NetFlex-3/E contrlr	004162	169801-001	52H5606
NetFlex-3/P contrlr	004165	169811-001	74H2685
NtFlx-3 100base TX	004183	169805-001	61H8949
NtFlx3 100VG upgd	004189	169803-001	61H8947

## Internal Hard Drive

Size	OEM Part	IBM Part
550MB Pluggable Fast SCSI-2	146799-001	20H8716
1.05GB Plggbl Fast SCSI-2	146717-001	20H8717
2.1GB Pluggable Fast SCSI-2	199428-001	20H8576
2.1GB Plggbl Fast-wide SCSI-2 <sup>1</sup>	199643-001	52H5595
4.3GB Pluggable Fast SCSI-2	199584-001	52H5605
4.3GB Plggbl Fast-wide SCSI-2 <sup>1</sup>	199598-001	52H5596

<sup>1</sup> Requires fast-wide SCSI-2 backplane upgrade

System Bds	Assembly	OEM Part	IBM Part
486/50*	003164	136812-001	20H8564
486/50**	003474	148672-001	20H8563
5/66	002443-004	148677-001	20H8568
5/90	004495-001,011	163848-001	48H7139
5/100	03756	163832-001	67H9849
5/100 <sup>1,2</sup>	005154-001	184793-001	52H5600
5/133 <sup>2</sup>	004715	213417-001	74H3820
I/O Bd 5/66,90,100	004486	163707-001	48H7137
I/O 486/50,5/66,100	003116/003862	148550-001	20H8571
I/O Bd. SCSI <sup>1,2</sup>	004308-001	188414-001	52H5599
Drv bckpln SCSI <sup>2</sup>	004839-001	169185-001	62H0931
Drv. bkpln,hot SCSI <sup>1</sup>	004542-001	188490-001	61H8956
Pass Thru Bd. SCSI <sup>1,2</sup>	004349-001	199612-001	52H5607

\* Dual prcssr

\*\* Quad prcssr,

<sup>1</sup> 4500 only,

<sup>2</sup> 4500R only

Diskette Drives	OEM Part	IBM Part
1.2MB	112566-001	93F7252
1.44MB	144207-001	20H8548
1.44MB (optional)	112565-001	93F7107

CD ROM Drives	OEM Part	IBM Part
Internal tray load <sup>1,2,3</sup>	142223-001	20H8472
External tray load <sup>2</sup>	199430-001	20H8471
Caddy load <sup>2,3</sup>	133881-001	93F9345
Quad speed, tray load, int. <sup>2,3</sup>	184783-001	52H9094

Tape Drives	OEM Part	IBM Part
525MB ACA	142073-001	90G6447
1.2GB TBU	199615-001	61H8964
2/8GB DAT	142074-001	20H8559
4/16GB TurboDat	199464-001	20H8549
Internal TurboDat Autoloader	199466-001	20H8551
10/20 table top DLT <sup>1</sup>	199676-001	61H8971
15/30 table top DLT <sup>2</sup>	242469-001	74H3304
10/20 int. DLT <sup>*</sup>	199746-001	

<sup>2</sup> Proliant 2000/4000 only, \* 4500R only, <sup>1</sup> Not for 4500R

Miscellaneous	Assembly	OEM Part	IBM Part
2400bd modem <sup>1,2,3</sup>	001732-002	121250-001	93F9380
Speedpaq 144/I <sup>2</sup>	003002	147453-001	55H1777
Speedpaq mdm <sup>1,3</sup>	135698-001	199906-001	20H8096
hot-plg tray adap <sup>1,3</sup>	146729-004	199656-001	61H8965
hot-plg drv tray <sup>1,2,3</sup>	146729-003	146781-001	20H8718
hot-plg drv bckpln <sup>2</sup>	004192-001	190060-001	20H8714
clock battery <sup>1,2,3</sup>		149344-001	20H8525
power supply <sup>2</sup>		148569-001	20H8578
power supply <sup>1</sup>		188406-001	55H5598
power supply <sup>3</sup>		188407-001	52H5604
488 watt pwr spl <sup>1,2</sup>		163828-001	37H1191
488 watt pwr spl <sup>3</sup>		162628-001	

<sup>1</sup> Proliant 4500, <sup>2</sup> Proliant 2000/4000, <sup>3</sup> Proliant 4500R

Cables	OEM Part	IBM Part
Internal SCSI HDD <sup>2</sup>	148589-001	48H6831
External SCSI signal <sup>1,2</sup>	146776-001	22H0168
External SCSI Signal 12' <sup>3</sup>	146776-004	20H8723
Internal SCSI-2 device <sup>1,2</sup>	148728-001	61H8937
Internal SCSI 2-device 36" <sup>3</sup>	165706-001	20H8720
LED cables <sup>3</sup>	165680-001	20H8719
LED cables <sup>1,2</sup>	148585-001	61H8934
Diskette drive signal <sup>1,2</sup>	143706-001	61H8930
Diskette drive signal <sup>3</sup>	165681-001	20H8722
Dualport ENET loopback <sup>1,2,3</sup>	142254-001	20H8725
Dual AUI breakout <sup>1,2,3</sup>	197134-001	20H8727
DLT, 6', std to centronics <sup>1,2</sup>	199714-001	61H8973
DLT, 6', wide to centronics <sup>1,2</sup>	199780-001	61H8975
DLT, 18", daisy chn table top <sup>1,2</sup>	199713-001	61H8972
DLT active terminator <sup>1,2</sup>	199715-001	61H8974
50-pin to 68-pin adapter <sup>1,2,3</sup>	189638-001	53H1431
Int. fast wide SCSI-2 23" <sup>1</sup>	189637-003	62H0930
Ext. 100 to 50 pin cable <sup>1,3</sup>	142159-001	20H8724
loop back cbl, NetFlex <sup>1,3</sup>	142054-001	55H1088

<sup>1</sup> 4500 only, <sup>2</sup> 2000/4000 only, <sup>3</sup> 4500R only

System ROM	OEM Part	IBM Part
System ROMPaq	143198-001	20H8731
Option ROMPaq	142207-001	37H1204
Drive Backplane ROM	146705-001	20H8735