

# Rack-Mountable ProLiant 4500R

| System Boards*                                  | Assembly   | Spare Part |
|-------------------------------------------------|------------|------------|
| System I/O Board, SCSI                          | 004308-001 | 188414-001 |
| 5/100 Processor Board                           | 005154-001 | 184793-001 |
| 5/133 Processor Board W/ 2MB Cache              | 004715-001 | 213417-001 |
| 5/133 Processor Board w/ 512 KB Cache           | 005390-001 | 213438-001 |
| 5/166 Processor Board                           | 005590-001 | 213466-001 |
| Drive Backplane Board, Wide SCSI, Hot Pluggable | 004839-001 | 169185-001 |
| Pass Through Board, Wide SCSI                   | 004349-001 | 199612-001 |

\* All processor boards listed in this table ship with a processor chip installed.

## SW1 Switch Settings (004308)

| SW | Function                   | Set to ON                                                               | Set to OFF *                                                            |
|----|----------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| S1 | VIDEO DISABLE              | Disables integrated video controller                                    | Enables the integrated video controller                                 |
| S2 | CONFIGURATION LOCK         | Disables configuration changes                                          | Enables configuration changes                                           |
| S3 | CHASSIS                    | System installed in rack chassis                                        | System installed in tower chassis                                       |
| S4 | DISKETTE BOOT OVERRIDE     | Enables system booting from diskette drive regardless of config setting | System booting from the diskette drive is controlled by config settings |
| S5 | POWER-ON PASSWORD          | Clears password                                                         | System booting is password protected if a password is set               |
| S6 | CONFIGURATION MEMORY CLEAR | Clears the configuration memory                                         |                                                                         |

\* Default.

## Jumper Settings For SCSI-ID

| Device in Drive Bay | SCSI ID | PIN 3<br>ID2 | PIN 2<br>ID1 | PIN 1<br>ID0 |
|---------------------|---------|--------------|--------------|--------------|
| 6                   | 6       | ON           | ON           | OFF          |
| 5                   | 5       | ON           | OFF          | ON           |

**NOTE:** SCSI Ids for bays 0-3 are preset to 0-3 respectively. No two drives can have the same SCSI ID.

## Keyboard/Monitor/Mouse Switch Box Switch Settings. SPN 169968-001 4-Port Switch Box Board 1: Monitor Controlling DIP Switches

| DIP Switch Banks | Controlling DIP Switches | Server Controlled |
|------------------|--------------------------|-------------------|
| S1               | Switches 1 – 4           | Server 1          |
|                  | Switches 5 – 8           | Server 2          |
| S2               | Switches 1 – 4           | Server 3          |
|                  | Switches 5 – 8           | Server 4          |

# Rack-Mountable ProLiant 4500R

## Keyboard/Monitor/Mouse Switch Box Switch Settings. SPN 169968-002

### 8-Port Switch Box Board 1: Monitor Controlling DIP Switches

| DIP Switch Banks | Controlling DIP Switches | Server Controlled |
|------------------|--------------------------|-------------------|
| S1               | Switches 1 – 4           | Server 1          |
|                  | Switches 5 – 8           | Server 2          |
| S2               | Switches 1 – 4           | Server 3          |
|                  | Switches 5 – 8           | Server 4          |
| S3               | Switches 1 – 4           | Server 5          |
|                  | Switches 5 – 8           | Server 6          |
| S4               | Switches 1 – 4           | Server 7          |
|                  | Switches 5 – 8           | Server 8          |

## Keyboard/Monitor/Mouse Switch Box Switch Settings.

### Monitor Mode Board 1, DIP Switch Settings for Each Server Monitor

| Monitor Type      | SW 1 & 5 | SW 2 & 6 | SW 3 & 7 | SW 4 & 8 |
|-------------------|----------|----------|----------|----------|
| VGA Monochrome    | OFF      | OFF      | ON       | OFF      |
| VGA/SVGA          | OFF      | ON       | OFF      | OFF      |
| SVGA – Compaq 430 | ON       | ON       | OFF      | ON       |
| XVGA: IBM 8512    | OFF      | ON       | OFF      | OFF      |
| XVGA: IBM 8513    | OFF      | ON       | OFF      | OFF      |
| XVGA: IBM 8514    | ON       | ON       | OFF      | OFF      |
| XVGA: IBM 8515    | ON       | OFF      | OFF      | OFF      |

**NOTE:** Each bank of DIP switches (S1 and S2) for the 4-Port switch box and (S1, S2, S3, and S4) for the 8-port switch box must reflect the type of monitor configured on the server.

## Keyboard/Monitor/Mouse Switch Box Switch Settings.

### Mode/Function DIP Switches Board Number 2 S1 DIP Switch Default Settings

| Switch Number | Function or Mode             | Default Setting      |
|---------------|------------------------------|----------------------|
| 1             | Reserved                     | Enabled (ON)         |
| 2             | Soft Switching Mode          | Enabled (ON)         |
| 3             | Keyboard Broadcasting Mode * | Disabled (OFF)       |
| 4             | Mouse Broadcasting Mode *    | Disabled (OFF)       |
| 5             | Scan Mode                    | Enabled (ON)         |
| 6             | Tiering Mode                 | Disabled (OFF) Slave |
| 7             | Not Used                     |                      |
| 8             | Not Used                     |                      |

\* If enabled, this function should be used with extreme caution. Broadcast Mode sends commands to all attached servers.

## Memory

| Boards/Modules       | Speed | Assembly   | Spare Part |
|----------------------|-------|------------|------------|
| Memory Expansion Bd. |       | 002563-001 | 139947-001 |
| 4 MB SIMM            | 60 ns |            | 139139-001 |
| 4 MB SIMM            | 70 ns | 118665-004 | 141754-001 |
| 4 MB SIMM            | 80 ns | 118665-002 | 118741-001 |
| 8 MB SIMM            | 60 ns |            | 139140-001 |
| 8 MB SIMM            | 70 ns | 129041-002 | 141755-001 |
| 8 MB SIMM            | 80 ns | 129041-001 | 128954-001 |
| 16 MB SIMM           | 60 ns |            | 139141-001 |
| 16 MB SIMM           | 70 ns | 137143-003 | 149947-001 |
| 16 MB SIMM           | 80 ns | 137143-002 | 139143-001 |
| 32 MB SIMM           | 60 ns |            | 139142-001 |
| 32 MB SIMM           | 70 ns | 139973-002 | 149948-001 |
| 32 MB SIMM           | 80 ns | 139973-001 | 139949-001 |
| 64 MB SIMM           | 70 ns |            | 188489-001 |

# Rack-Mountable ProLiant 4500R

| Controller Boards                             | Assembly | Spare Part |
|-----------------------------------------------|----------|------------|
| SMART Array Controller*                       | 002969   | 142130-001 |
|                                               | 003596   | 181132-001 |
| SMART-2/E Array Controller*                   | 194771   | 194752-001 |
| Fast SCSI-2 Controller                        | 002682   | 142040-001 |
| Fast-Wide SCSI-2/E Controller                 | 003529   | 199634-001 |
| NetFlex Controller                            | 002709   | 142041-001 |
| NetFlex Controller Token Ring Module          | 142035   | 142042-001 |
| NetFlex-2 ENET-TR Controller                  | 003382   | 142222-001 |
| NetFlex-2 DualPort ENET Controller            | 003101   | 142151-001 |
| NetFlex-2 TR Controller                       | 003647   | 199521-001 |
| NetFlex-2 DualPort TR Controller              | 003104   | 142195-001 |
| NetFlex-3/E Controller                        | 004162   | 169801-001 |
| NetFlex-3/P Controller                        | 004165   | 169811-003 |
| NetFlex-3 100 Base-TX UTP Module              | 004183   | 169805-001 |
| NetFlex-3 100 VG-AnyLAN UTP Module            | 004189   | 169803-001 |
| 10/100 TX PCI UTP Controller                  | 005139   | 169849-001 |
| 10 T, PCI UTP Controller                      | 006064   | 242501-001 |
| 4/16 TR PCI IBM UTP/STP Controller            | N/A      | 199764-001 |
| 50-Pin to 68-Pin Adapter (standard to wide) * |          | 189638-001 |
| 68-Pin to 50-Pin Adapter (wide to standard) * |          | 189631-001 |
| SMART-2DH Array Controller                    | 295244   | 295243-001 |

\* Cable adapters are supported *only* between the controller and the internal SCSI cable. Adapters are NOT supported between the device and the cable. "SMART" controllers use adapter 189638-001. "SMART-2/E & 2/P" controllers use adapter 189631-001.

| Miscellaneous Internal *                      | Assembly   | Spare Part |
|-----------------------------------------------|------------|------------|
| 2400 Baud Modem (DAA)                         | 124611-001 | 127831-001 |
| 2400 Baud LTE Modem <sup>1</sup>              | 001732-002 | 121250-001 |
| SpeedPaq Modem                                | 135698-001 | 199906-001 |
| L3 Cache Daughter Board <sup>2</sup>          |            | 163808-001 |
| Hot-Pluggable Tray Adapter (Fast-Wide SCSI-2) | 146729-004 | 199656-001 |
| Hot-Pluggable Tray Adapter (Fast SCSI-2)      | 146729-003 | 146781-001 |

\* Refer to Appendix E for country-specific modem part numbers.

<sup>1</sup> North America.

<sup>2</sup> Works with 5/100 processor board assy. 005154 only.

| Miscellaneous External                                                   | Spare Part |
|--------------------------------------------------------------------------|------------|
| See "Rack Mountable ProLiant Storage System" section for information on: |            |
| * External hot-pluggable hard drives                                     |            |
| * Stand-By Recovery Server Option and cables                             |            |
| * On-Line Recovery Server Option and cables                              |            |
| See "Rack Mountable SCSI Storage Expander" section for information on:   |            |
| * External non-pluggable hard drives                                     |            |
| * External tape drives                                                   |            |
| Compaq 4-Port, Keyboard/Mouse/Monitor Switch                             | 242696-001 |
| Compaq 8-Port, Keyboard/Mouse/Monitor Switch                             | 242697-001 |

# Rack-Mountable ProLiant 4500R

| Hard Drives                                           | Spare Part |
|-------------------------------------------------------|------------|
| 9.1 GB Non Hot-Pluggable Wide Ultra 1.6" <sup>1</sup> | 199886-001 |
| 9.1 GB Hot-Pluggable Wide SCSI 1.6" <sup>1</sup>      | 199888-001 |
| 9.1 GB Non Hot-Pluggable Fast-SCSI-2                  | 199885-001 |
| 4.3 GB Hot-Pluggable Wide Ultra 1" <sup>1</sup>       | 242622-001 |
| 4.3 GB Non Hot-Pluggable Wide Ultra 1" <sup>1</sup>   | 242606-001 |
| 4.3 GB Hot-Pluggable FW SCSI-2                        | 199598-001 |
| 4.3 GB Non Hot-Pluggable FW SCSI-2                    | 199599-001 |
| 4.3 GB Hot-Pluggable Fast-SCSI-2                      | 199584-001 |
| 4.3 GB Non Hot-Pluggable Fast-SCSI-2                  | 199585-001 |
| 2.1 GB Hot-Pluggable Wide Ultra 1" <sup>1</sup>       | 242603-001 |
| 2.1 GB Non Hot-Pluggable Wide Ultra 1" <sup>1</sup>   | 242604-001 |
| 2.1 GB Hot-Pluggable FW SCSI-2 1"                     | 199878-001 |
| 2.1 GB Hot-Pluggable FW SCSI-2                        | 199643-001 |
| 2.1 GB Non Hot-Pluggable FW SCSI-2                    | 199644-001 |
| 2.1 GB Hot-Pluggable Fast-SCSI-2                      | 199428-001 |
| 2.1 GB Non Hot-Pluggable Fast-SCSI-2                  | 142272-001 |
| 1.05 GB Hot-Pluggable Fast SCSI-2                     | 146717-001 |
| 1.05 GB Non Hot-Pluggable Fast SCSI-2                 | 146799-001 |
| 1" Drive Tray, SCA Connector*                         | 242801-001 |
| 1" Drive Tray, Fast-Wide Connector*                   | 199880-001 |
| 1" Drive Tray, Fast-SCSI-2 Connector *                | 242593-001 |
| 1.6" Drive Tray, Fast-Wide Connector                  | 199656-001 |
| 1.6" Drive Tray, Fast-SCSI-2 Connector                | 146781-001 |

<sup>1</sup>Limited to Fast-Wide SCSI Bus Speeds.

\* Drive Tray Kits contain 1" and 1.6" covers without side-springs.

## 28.8k-bps Modem

| Country | Assembly   | Spare Part | RJ-11 Phone Cable | Option     |
|---------|------------|------------|-------------------|------------|
| U.S.    | 223610-002 | 259214-002 | 127949-001        | 259213-001 |

| CD-ROM Drives                  | Spare Part |
|--------------------------------|------------|
| Tray Load, Internal            | 142223-201 |
| Caddy Load                     | 133881-001 |
| Quad Speed Tray Load, Internal | 184783-001 |
| 8X, IDE                        | 295934-001 |

| Diskette Drives    | Spare Part   |
|--------------------|--------------|
| 1.2 MB             | Discontinued |
| 1.44 MB (standard) | 144207-201   |
| 1.44 MB (optional) | 112565-001   |

# Rack-Mountable ProLiant 4500R

| <b>Tape Drives</b>                        | <b>Spare Part</b> | <b>Tape Cartridge</b> | <b>Spare Part</b> |
|-------------------------------------------|-------------------|-----------------------|-------------------|
| 525-MB ACA                                | 142073-001        | 525 MB QIC Cart.      | 119504-001        |
| 1.2 GB Tape Drive                         | 199615-001        | 1.2 GB QIC Cart.      | 199625-001        |
| 2/8-GB DAT Clam Gray                      | 142074-001        | 1.3 GB 60 M DDS1      | 131167-001        |
|                                           |                   | 2.0 GB 90 M DDS1      | 131148-001        |
|                                           |                   | DAT Cleaning Cart.    | 131194-001        |
| 2/8-GB DAT Beach Gray                     | 142074-201        | 1.3 GB 60 M DDS1      | 131167-001        |
|                                           |                   | 2.0 GB 90 M DDS1      | 131148-001        |
|                                           |                   | DDS1 Cleaning Cart.   | 131194-001        |
| 2/4-GB DAT                                | 142074-201        | 1.3 GB 60 M DDS1      | 131167-001        |
|                                           |                   | 2.0 GB 90 M DDS1      | 131148-001        |
|                                           |                   | DDS1 Cleaning Cart.   | 131194-001        |
| 4/16-GB TurboDAT Clam Gray                | 199464-001        | 4.0 GB 120M DDS2      | 199496-001        |
|                                           |                   | DDS2 Cleaning Cart.   | 242618-001        |
| 4/16-GB TurboDAT Beach Gray               | 199464-201        | 4.0 GB 120M DDS2      | 199496-001        |
|                                           |                   | DDS2 Cleaning Cart.   | 242618-001        |
| 4/8-GB DAT                                | 295163-001        | 4.0 GB 120M DDS2      | 199496-001        |
|                                           |                   | DDS2 Cleaning Cart.   | 242618-001        |
| TurboDAT Autoloader (internal) Clam Gray  | 199466-001        | 4 Cartridge Magazine  | 199467-001        |
|                                           |                   | 12 Cartridge Magazine | 199468-001        |
| TurboDAT Autoloader (internal) Beach Gray | 199466-201        | 4 Cartridge Magazine  | 199467-001        |
|                                           |                   | 12 Cartridge Magazine | 199468-001        |
| 10/20 Table Top DLT                       | 199676-001        | 10/20 GB Data Cart.   | 199703-001        |
| 10/20 Internal DLT                        | 199746-001        | DLT Cleaning Cart.    | 199705-001        |
| 15/30 Table Top DLT                       | 242469-001        | 15/30 GB Data Cart.   | 242467-001        |
| 15/30 Internal DLT                        | 242468-001        | DLT Cleaning Cart.    | 199705-001        |
| 35/70 Table Top DLT                       | 242854-B21        | 35/70 GB Data Cart.   | 295394-001        |
| 35/70 Internal DLT                        | 242853-B21        | DLT Cleaning Cart.    | 199705-001        |

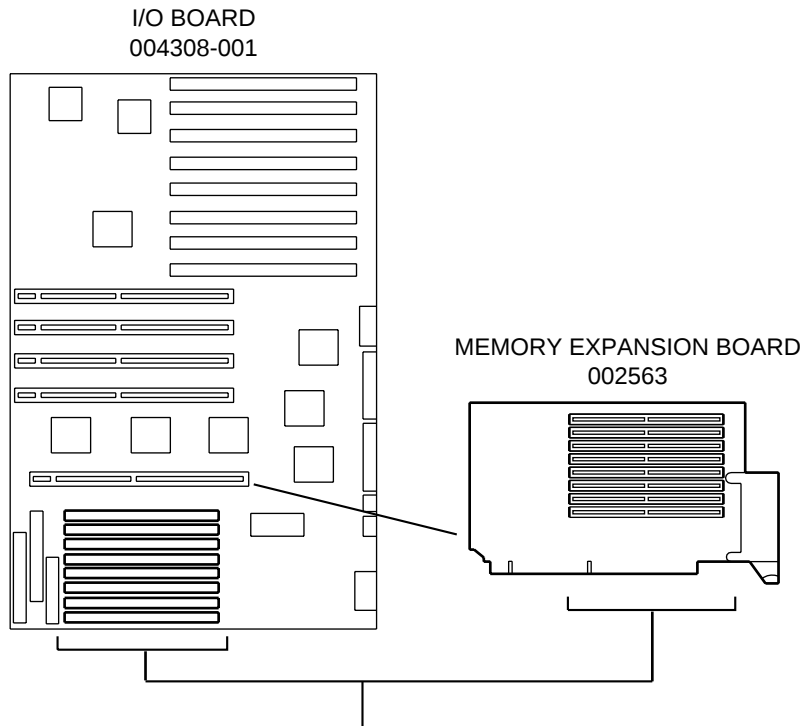
| <b>Cables</b>                                   | <b>Spare Part</b> |
|-------------------------------------------------|-------------------|
| Internal Fast-Wide SCSI-2 Cable, 32"            | 189637-004        |
| External SCSI Signal Cable, 12'                 | 146776-004        |
| Internal SCSI 2-Device Cable w/ Terminator, 36" | 165706-001        |
| LED Cables                                      | 165680-001        |
| Diskette Drive Signal Cable                     | 165681-001        |
| DualPort Ethernet Loopback (2 CH NIC)           | 142254-001        |
| 2 Channel Ethernet "Y" Cable                    | 197134-001        |
| External 100-Pin to 50-Pin Cable                | 142159-001        |
| Loop Back Cable, NetFlex                        | 142054-001        |
| Cable, Keyboard/Mouse/Monitor, SWB-CPU, 20'     | 187565-002        |
| Cable, Keyboard/Mouse/Monitor, SWB-CPU, 40'     | 187565-003        |

| <b>ROM Information</b> | <b>Spare Part</b> |
|------------------------|-------------------|
| System ROMPaq          | 143198-001        |
| Option ROMPaq          | 142207-001        |
| Drive Backplane ROM    | 146705-001        |

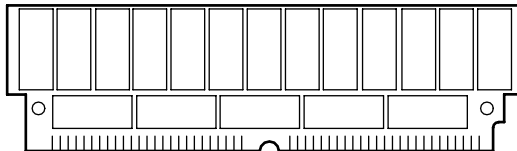
| <b>Power Supply/Battery</b>              | <b>Spare Part</b> |
|------------------------------------------|-------------------|
| Clock/Battery                            | 149344-001        |
| Power Supply                             | 188407-001        |
| 488 Watt Redundant Power Supply (Option) | 165628-001        |

# Rack-Mountable ProLiant 4500R

## Memory Upgrade Chart



SIMMS MUST BE ADDED IN SETS OF 4 OF THE SAME SIZE AND SPEED  
UP TO 512 MB ON THE SYSTEM BOARD AND  
UP TO 512 MB ON THE EXPANSION BOARD FOR  
UP TO 1.024 GIGABYTES TOTAL SYSTEM MEMORY



16-MB 70ns (4 x 4MB) - OPTION PN 149949-001  
16-MB 80ns (4 x 4MB) - OPTION PN 136816-001

32-MB 70ns (4 x 8MB) - OPTION PN 149912-001  
32-MB 80ns (4 x 8MB) - OPTION PN 136817-001

64-MB 70ns (4 x 16MB) - OPTION PN 149913-001  
64-MB 80ns (4 x 16MB) - OPTION PN 149341-001

128-MB 70ns (4 x 32MB) - OPTION PN 149914-001  
128-MB 80ns (4 x 32MB) - OPTION PN 139918-001

256-MB 70ns (4 x 64MB) - OPTION PN 188056-001

128-Bit Memory Expansion Board Option PN 188874-001