

2 Configuring the LPX30WB

Although the LPX30WB system board is packaged in protective materials, it is important to use care while unpacking and setting up.

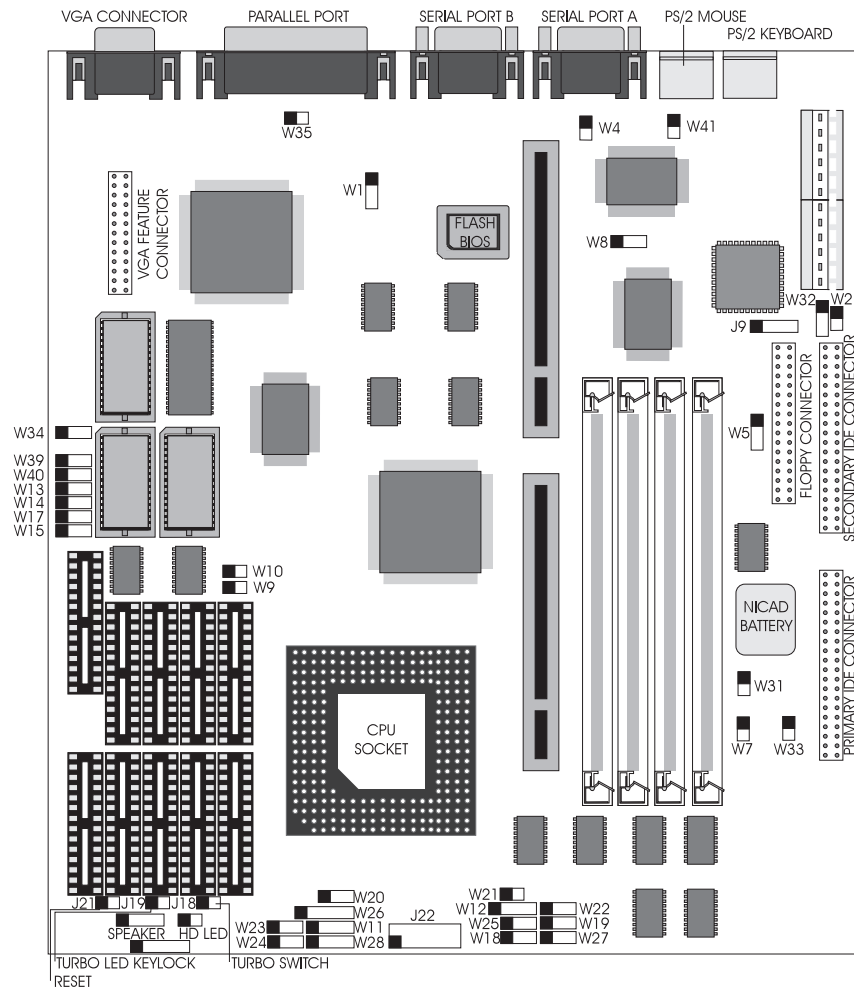
Static Electricity

The LPX30WB is shipped from the factory in an antistatic bag. To reduce the possibility of damage, it is important to neutralize any accumulated static charges on your body before handling the board. The best way to do this is to ground yourself using a special wrist or ankle strap. If you do not have a strap, you should touch both of your hands to a safely grounded object. After you have grounded yourself, ground the LPX30WB via the solder pads surrounding one of its mounting holes.

Once the LPX30WB is removed from its packaging, place it on top of the antistatic bag. Carefully inspect the board for damage which may have occurred during shipment.

Office Environment

Make sure the finished computer system is in an area with good ventilation. The system should not be in direct sunlight, near heaters, or exposed to moisture, dust, or dirt.



CPU Voltage

Warning:

This system board has been factory set to support 5.0V processors. If using a 3.3V or 4.0V processor, you must install a Power Module (Appendix E).

Failure to install a Power Module could result in damage to the CPU.

Table 2-1 lists the voltage requirements for CPUs supported by this system board.

CPU	Manufacturer(s)	Voltage
486SX	Intel, AMD	5.0V
486DX	Intel, AMD	5.0V
486DX2	Intel	5.0V
486DX2	AMD	3.3V or 5.0V
486SL-series	Intel	5.0V
Write-Back Enhanced 486DX2	Intel	5.0V
486DX4	Intel, AMD	3.3V
Pentium OverDrive	Intel	5.0V
Cyrix 486DX/DX2	Cyrix	5.0V
Cyrix 486DX2V-80	Cyrix	4.0V

Table 2-1 CPU Voltage Requirements

Jumper Settings

Table 2-2 and 2-3 list the jumper settings to select the CPU installed in your system.

CPU	W11	W12	W18	W19	W20	W21	W22
486SX	2-3	open	open	2-3	open	open	open
486DX/DX2	1-2, 3-4	3-4	open	2-3	open	open	open
SL Enhanced DX2	1-2, 3-4	3-4	open	2-3	2-3	open	open
Write-Back Enhanced 486DX2	1-2, 3-4	3-4	open	1-2	2-3	short	2-3
486DX4	1-2, 3-4	3-4	open	2-3	2-3	open	open
Pentium OverDrive	1-2, 3-4	2-3	open	1-2	2-3	open	open
Cyrix 486DX/DX2	1-2, 3-4	3-4	open	2-3	1-2	open	open
AMD 486DXL2	1-2, 3-4	3-4	open	2-3	open	open	open

Table 2-2 CPU Jumper Settings

CPU	W23	W24	W25	W26	W27	W28
486SX	1-2	2-3	open	open	open	open
486DX/DX2	1-2	2-3	open	open	open	open
SL Enhanced DX2	1-2	2-3	open	4-5	open	3-4
Write-Back Enhanced 486DX2	1-2	1-2	1-2	4-5	1-2	1-2, 3-4
486DX4	1-2	2-3	open	4-5	open	3-4
Pentium OverDrive	1-2	1-2	1-2	1-2	1-2	3-4
Cyrix 486DX/DX2	2-3	1-2	2-3	2-3	2-3	2-3
AMD 486DXL2	1-2	2-3	open	open	open	open

Table 2-3 CPU Jumper Settings (Cont'd.)

Note:

If you are using a 3.3V or 4.0V processor, you will need to install a special Power Module. See Appendix E for more information.

The maximum external clock frequency for a DX4 is 33 MHz.

Table 2-4 lists the jumper settings to select the speed of the CPU installed in your system.

Jumper	Speed	25MHz	33MHz	40MHz
W9		open	close	open
W10		open	close	close

Table 2-4 CPU Speed Selection

Table 2-5 lists the jumper settings to select the size of the external cache.

Jumper	Function	Setting
W13	0K 128K 256K	open 1-2 2-3
W14	0K 128K 256K	open 1-2 2-3
W15	0K 128K 256K	open 1-2 2-3
W17	0K 128K 256K	open 1-2 2-3

Table 2-5 External Cache Size Selection

Table 2-6 lists the jumper settings to enable or disable the VL IDE controller.

Jumper	Function	Setting
W7	Enable VL IDE controller (default) Disable VL IDE controller	1-2 2-3

Table 2-6 VL IDE Selection

Table 2-7 lists the jumper settings to set the VL IDE hard disk controller for IRQ14. Leave this set to IRQ14 unless you are using a SCSI controller and need to free up an unnecessary IRQ, or if you want to use the ISA IDE controller as the primary IDE controller.

Jumper	Function	Setting
W33	IRQ14 (default)	1-2
	IRQ15	2-3

Table 2-7 VL IDE IRQ14 Selection

Table 2-8 lists the jumper settings to enable or disable the IDE controller.

Jumper	Function	Setting
W8	Enable IDE controller (default)	2-3
	Disable IDE controller	1-2

Table 2-8 ISA IDE Selection

Table 2-9 lists the jumper settings to set the ISA IDE controller for IRQ14 or IRQ15.

Jumper	Function	Setting
W32	IRQ14 (default)	2-3
	IRQ15	1-2

Table 2-9 IDE Controller IRQ Selection

Table 2-10 lists the jumper settings to select the type of video installed.

Jumper	Function	Setting
W2	Color monitor (default)	close
	Monochrome monitor	open

Table 2-10 Video Selection

Table 2-11 lists the jumper settings to enable or disable the on-board VGA controller

Jumper	Function	Setting
W34	On-board VGA enabled (default)	2-3
	On-board VGA disabled	1-2
W39	On-board VGA enabled (default)	2-3
	On-board VGA disabled	1-2

Table 2-11 VGA Controller Selection

Table 2-12 lists the jumper settings to set the VGA controller for IRQ9.

Jumper	Function	Setting
W35	On-board VGA IRQ9 disabled (default)	open
	On-board VGA IRQ9 enabled	close

Table 2-12 VGA IRQ9 Selection

Table 2-13 lists the jumper settings to program the Flash BIOS.

Jumper	Function	Setting
W4	Flash BIOS write protected (default)	open
	Flash BIOS programmable	close

Table 2-13 BIOS Operation Selection

Table 2-14 lists the jumper settings to enable or disable the optional buzzer.

Jumper	Function	Setting
W31	Buzzer enabled (default)	close
	Buzzer disabled	open

Table 2-14 Buzzer Selection

Table 2-15 lists the jumper setting to reset the CMOS. With the computer's power off, move the jumper to pins 2 and 3 for about five seconds and place the jumper back on pins 1 and 2.

Jumper	Function	Setting
W5	Normal Operation (default)	1-2
	Reset CMOS	2-3

Table 2-15 CMOS Reset Jumper

Table 2-16 lists the jumper settings for case and peripheral connections.

Jumper	Function	Notes
J13	Primary IDE Connector	Can be disabled in CMOS.
J14	Secondary Connector	Can be disabled in CMOS.
J15	Floppy Connector	
J31	VGA Connector	
J12	Parallel Port Connector	Can be disabled in CMOS.
J10	Serial Port (Com 1)	Can be disabled in CMOS.
J11	Serial Port (Com 2)	Can be disabled in CMOS.
J5	PS/2 Keyboard	
J6	PS/2 Mouse	
J1 & J2	Power Supply Connectors	
J19	Turbo LED	1-5V DC; 2- Ground
J18	Turbo Switch	
J21	Reset	
J23	IDE LED	1-5V DC; 2- Ground
J20	Keylock/ Power LED	1-Power; 2-N/C; 3-Ground; 4-5V DC
J17	Speaker Connector	1-Speaker; 2-N/C; 3-Ground; 4-5V DC
J22	Power Module Connector	See Appendix E

Table 2-16 Case and Peripheral Connections