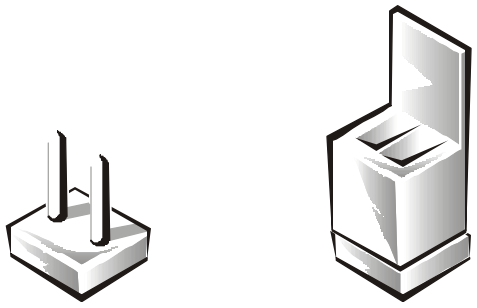
APPENDIX A
Jumpers, Switches, and Connectors

Jumpers and switches provide a convenient and reversible way of reconfiguring the circuitry on a printed circuit board. When reconfiguring your system, you may need to change jumper settings on your system board; you may also need to change jumper and/or switch settings on expansion cards or drives.

Jumpers

Jumpers are small blocks on a circuit board with two or more pins emerging from them. Plastic plugs containing a wire fit down over the pins. The wire connects the pins and creates a circuit.



To change a jumper setting, pull the plug off its pin(s) and carefully fit it down onto the pin(s) indicated.

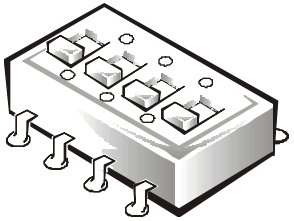
NOTICE: Make sure your system is turned off before you change a jumper setting. Otherwise, damage to your system or unpredictable results may occur.

A jumper is referred to as *open* or *unjumpered* when the plug is pushed down over only one pin or if there is no plug at all. When the plug is pushed down over two pins, the jumper is referred to as *jumpered*. The jumper setting is often shown in text as two numbers, such as *1-2*. The number *1* is printed on the circuit board so that you can identify each pin number based on the location of pin 1.

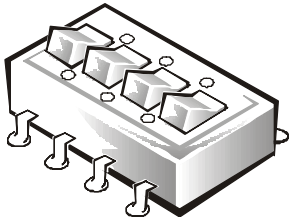
Figure A-1, shows the location and default settings of the jumper blocks on your system board. See Table A-1, System-Board Jumper Settings, for the designations, default settings, and functions of your system's jumpers.

Switches

Switches control various circuits or functions in your computer system. The switches you are most likely to encounter are dual in-line package (DIP) switches, which are normally packaged in groups of two or more switches in a plastic case. Two common types of DIP switches are *slide* switches and *rocker* switches (see the following illustration).



slide switch



rocker switch

Each of these switches has two positions, or *settings* (usually *on* and *off*). To change the setting of a slide switch, use a small, pointed object such as a small screwdriver or a straightened paper clip to slide the switch to the proper position. To change the setting of a rocker switch, use the screwdriver or paper clip to press down on the appropriate side of the switch. In either case, do not use a pen, pencil, or other object that might leave a residue on the switch.

System Board Jumpers

Figure A-1 and Table A-1 describe jumpers on the system board. "Disabling a Forgotten Password," later in this chapter, describes how to use the PASSWD jumper to clear an unknown system password.

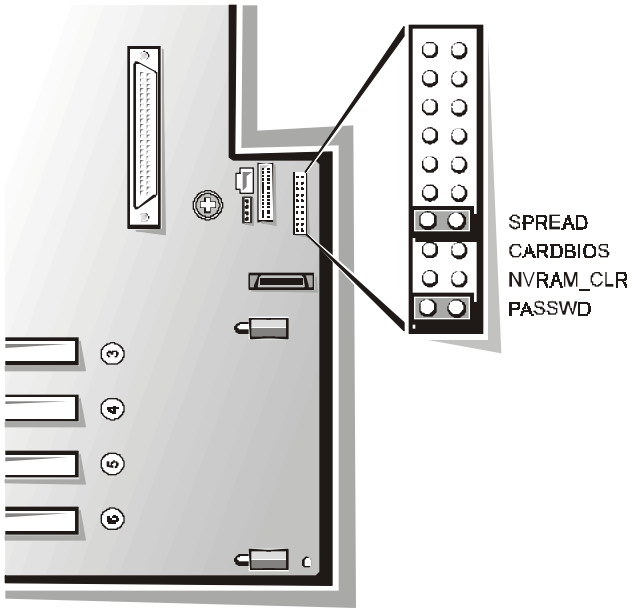


Figure A-1. System Board Jumpers

Table A-1. System-Board Jumper Settings

Jumper	Setting		Description
SPREAD			Reserved (*do not remove jumper plug*).
CARDBIOS			Reserved (*do not install jumper plug*).
NVRAM_CLR			Default
PASSWD		(default)	The password feature is enabled.
			The password feature is disabled.

 *jumpered*  *unjumpered*

NOTE: For the full name of an abbreviation or acronym used in this table, see the abbreviations and acronyms list at the end of this guide.

Disabling a Forgotten Password

The computer's software security features include a system password and a setup password, which are discussed in detail in "Using the System Setup Program," in the *User's Guide*. A password jumper on the system board enables or disables the password features and clears any password(s) currently in use.

To disable a forgotten system or setup password, perform the following steps.

NOTICE: See "Protecting Against Electrostatic Discharge" in the safety instructions at the front of this guide.

1. Remove the computer cover. See "Removing the Computer Cover" in Chapter 7 for instructions.
2. Refer to Figure A-1 for the location of the password jumper (labeled "PASSWD") on the system board.
3. Remove the jumper plug from the PASSWD jumper.
4. Replace the computer cover, and then reconnect the computer to an electrical outlet and turn it on.

   The existing passwords are not disabled (erased) until the system boots with the PASSWD jumper plug removed. However, before you assign a new system and/or user password, you must reinstall the jumper plug.

   NOTE: If you assign a new system and/or setup password with the jumper plug still removed, the system disables the new password(s) the next time it boots.

5. Repeat step 1.
6. Reinstall the jumper plug on the PASSWD jumper.
7. Replace the computer cover, and then reconnect the computer and peripherals to electrical outlets and turn them on.
8. Assign a new system or setup password.

   To assign a new system or setup password using the System Setup program, see your *User's Guide*.

System Board Labels

Table A-2, lists the labels for connectors and sockets on your system board and gives a brief description of their functions.

Table A-2. System Board Connectors and Sockets

Connector or Socket	Description
SVR_MGT	Server management bus connector (for the Dell OpenManage Remote Assistant Card)
HDLED	Hard-disk drive access indicator connector
BATTERY	Battery socket
PARALLEL/ SERIAL	Parallel and serial port connectors
DIMM_*x*	Memory module socket
FLOPPY	Diskette drive interface connector
FAN*x*	Fan connector
KYBD/MOUSE	Keyboard connector and mouse connector (stacked)
PANEL	Control panel connector
IDE1	IDE connector
PCI*n**	PCI expansion-card connectors
POWER_1	Main power input connector
SCSI*x*	Primary and secondary SCSI connectors
PROC*x*	Primary and secondary microprocessor connectors
VRM*x*	Voltage regulator module connectors
USB	USB connector
VGA	Monitor connector

NOTE: For the full name of an abbreviation or acronym used in this table, see the abbreviations and acronyms list at the end of this guide.