

## Hardware Options

This chapter tells how to install hardware options such as additional memory, removable modules, an external keyboard or keypad, VGA monitor, mouse and printer. For operating instructions, read the manual included with the accessories.



*Always turn off the system before you install an external device. Also, if devices such as a printer or a monitor use a separate power source, turn on the devices first before you turn on the system.*

### 3.1 Additional Memory

The system has two memory slots that let you install up to 40 MB of memory using 4/8/16MB industry-standard DIMMs (dual inline memory modules).

Table 3-1 lists the possible memory configurations. Other configurations are not available.

Table 3-1 Memory Configurations

Onboard	Slot I	Slot II	Total Memory
8 MB	0 MB	0 MB	8 MB
8 MB	4 MB	4 MB	16 MB
8 MB	8 MB	8 MB	24 MB

8 MB	16 MB	16 MB	40 MB
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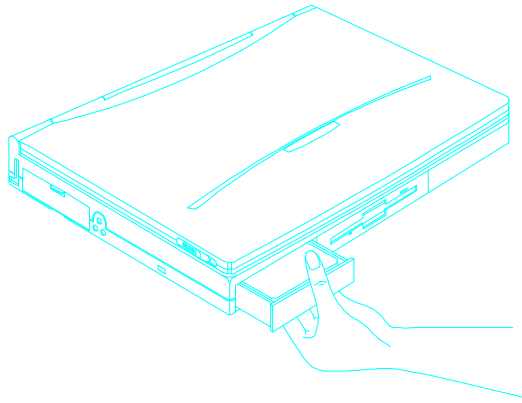
After installing the memory modules, the system automatically detects and reconfigures the total memory size during the POST routines.

Should you decide to add memory, we recommend that you seek the help of a qualified service technician. Improper installation may damage the notebook or cause a malfunction. Consult your authorized dealer for assistance.

## 3.2 Hard Disk Drive Upgrade and Swapping

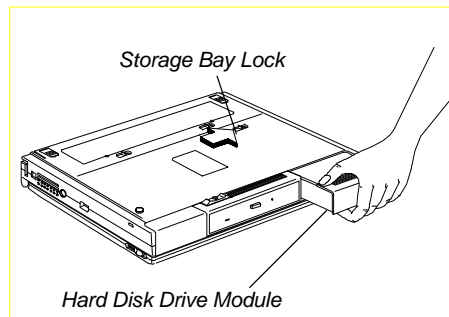
This notebook has an easy-to-remove hard disk drive that lets you perform easy storage swaps and upgrades. The storage bay accepts 2.5-inch hard disk drives. Refer to Appendix B for a list of the hard disk drives available.

We recommend that you seek the help of a qualified service technician if you decide to perform an upgrade. Improper installation may cause a malfunction or serious damage. Contact your dealer for additional hard disk drive modules.



*Figure 3-1 Removable Hard Disk Drive Module*

## Removing a Hard Disk Module



Turn off the power before removing or installing a module. The system must also not be in standby or suspend mode.

Release the storage bay lock and pull the hard disk drive module out of the storage bay.



*Remember to enter the Setup utility to make the proper settings. If you replace the hard disk drive with a drive of a different type, enter Setup and set the IDE Adapter 0 Master parameter to the correct drive type. Refer to Chapter 4.*



*For hassle-free drive swaps, we suggest you set the IDE Adapter 0 Master drive type parameter to [Auto]. Refer to Chapter 4.*

### 3.3 Removable CD-ROM Drive

This multimedia notebook has an optional removable CD-ROM drive module that fits into the accessory bay (interchangeable with the removable diskette drive or secondary battery pack). The ultra-slim module, with its front panel location, gives you easy access to multimedia applications.

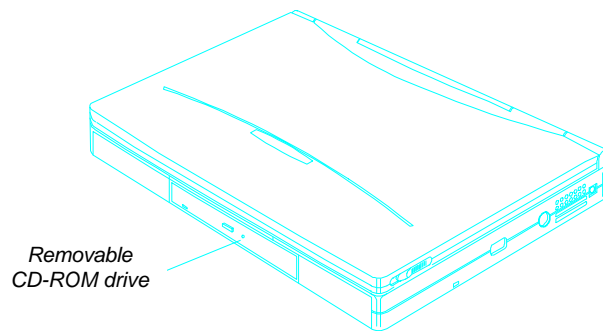
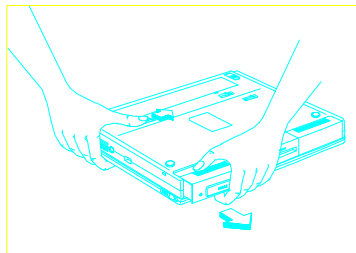


Figure 3-2 Removable CD-ROM Drive Module

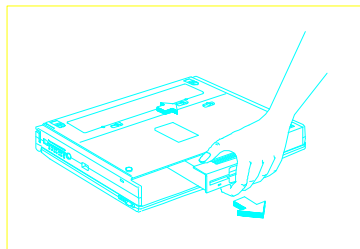
#### Installing a CD-ROM Drive Module with AC Adapter

Follow these steps to install the CD-ROM drive module and an AC adapter:

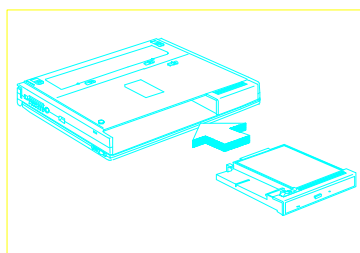


1. **Make sure the system power is off.** Remove the primary battery pack from the power bay by unlocking the power bay lock and pulling the battery out.

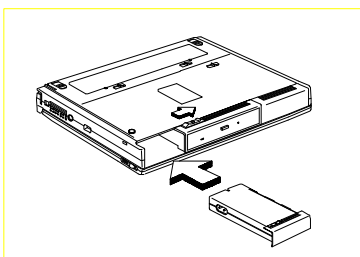
If the AC adapter is installed, unlock the AC adapter lock and remove it from the power bay.



2. Remove the diskette drive by unlocking the accessory bay lock and pulling the drive out. Set aside.



3. Insert the CD-ROM drive module into the accessory bay and click into place.



4. Lock the CD-ROM drive unit.

You can insert the AC adapter (minus the extender module) into the power bay and click into place.

You can also choose to connect the AC adapter externally. Refer to section 1.7.

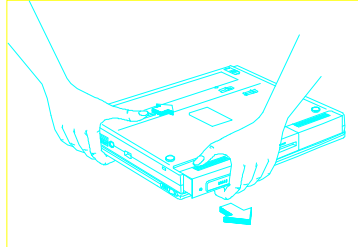


*You need to install the CD-ROM driver to use the CD-ROM drive. Refer to the CD-ROM installation sheet or Appendix D.*

*Set the IDE Adapter 0 Slave parameter to [CD] in Setup if you want to boot from the CD-ROM. Refer to Chapter 4.*

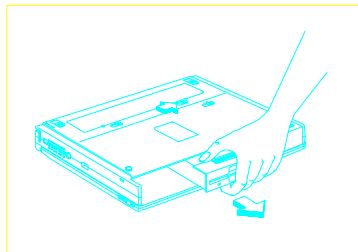
## Installing the CD-ROM Drive Module with a Battery Pack<sup>1</sup>

Follow these steps to install a CD-ROM drive module and a battery pack:

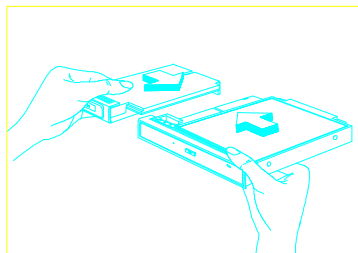


1. **Make sure the system power is off.** Remove the primary battery pack from the power bay by unlocking the power bay lock and pulling the battery out.

If the AC adapter is installed, unlock the AC adapter lock and remove it from the power bay.



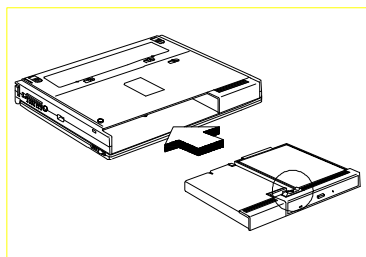
2. Remove the diskette drive by unlocking the accessory bay lock and pulling the drive out. Set aside.



3. Attach the CD-ROM drive module to the 6-cell Li-Ion battery pack.

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<sup>1</sup> The battery pack used together with the CD-ROM drive module is an optional 6-cell Li-Ion battery. You can install the CD-ROM drive with the 6-cell Li-Ion battery pack when this becomes available.



4. Insert the CD-ROM drive/battery pack unit into the accessory and power bays.

Lock the CD-ROM drive unit after inserting the unit.




*You need to install the CD-ROM driver to use the CD-ROM drive. Refer to Appendix D.*

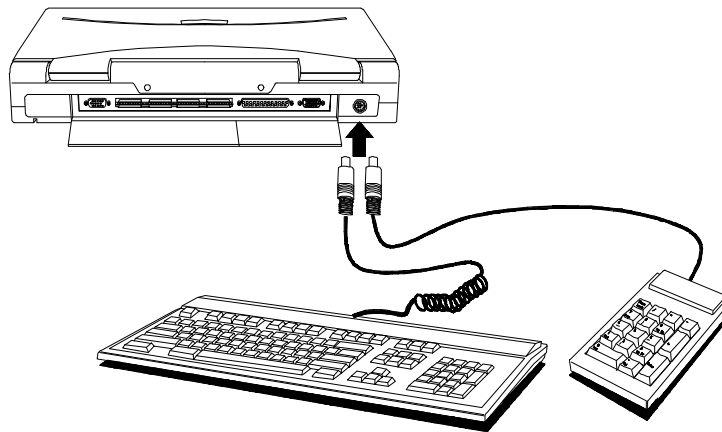
*Set the IDE Adapter 0 Slave parameter to [CD] in Setup if you want to boot from the CD-ROM. Refer to Chapter 4.*



### 3.4 External Keyboard or Keypad


This notebook has a keyboard with full-sized keys and an embedded keypad. If you do a lot of numeric data entry, you may want to use a 17-key numeric keypad for greater convenience. Also, if you feel more comfortable using a desktop keyboard, you can install a 101-/102-key, PS/2-type external keyboard.

Turn off the system before you connect an external keyboard or keypad into the keyboard/keypad/mouse connector (  ) on the rear panel. See Figure 3-3.



*Figure 3-3 Connecting an External Keyboard or Keypad*

## 3.5 External Monitor



To show graphical effects on a larger display, you can connect an external VGA monitor to the CRT port (  ) on the rear panel. See Figure 3-4. Read the monitor manual for additional instructions.



*Before you install a monitor, turn off the system. Always turn on the external monitor first before you turn on the system.*

*An external VGA monitor connected to the notebook automatically displays at 640 x 480 resolution. To display high-resolution VGA, see the README.DOC file of the VGA utility found on the system utilities diskette for instructions on how to install the required software driver. Refer to Appendix D for details.*

## 3.6 Printer

This notebook supports both serial and parallel printers. For a serial printer, plug the printer cable into a serial port (  ). For a parallel printer, plug the printer cable into the parallel port (  ). See Figure 3-4.





*Turn on the printer first before you turn on the system. See your printer manual for operating instructions.*

*If the printer does not function, enter Setup and see to it that the parallel port is enabled. Refer to section 4.4.1 for assistance..*

*If the system is already on and you are in Windows, you may need to restart Windows.*

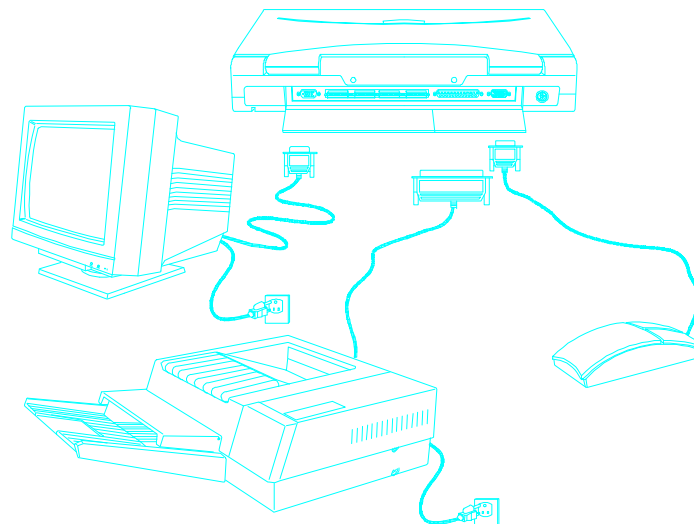
## 3.7 External Mouse

This notebook accepts either a serial mouse or PS/2-compatible mouse or similar pointing device. Installing a PS/2 mouse automatically disables the built-in trackpad.

If you use a serial mouse, plug it into the serial port (  ) on the rear panel. See Figure 3-4. If you use a PS/2-compatible mouse, plug it into the keyboard/ keypad/mouse connector (  ) on the rear panel. See Figure 1-5.



*After you install the mouse, turn on the system. Run a mouse driver to activate the mouse. Read the mouse manual for more information.*



**Figure 3-4** Connecting a Monitor, a Parallel Printer and a Serial Mouse

## 3.8 Port Replicator

A port replicator is a unique tool that makes port expansion possible. Besides duplicating the ports on the notebook, it also adds extra ports for greater flexibility. For example, two serial ports, separate keyboard/keypad and mouse ports.

To install a port replicator, open the expansion port door and slide it inside the notebook. Then swing the two levers on both sides of the port replicator and attach it to the notebook. Refer to Figure 3-5.

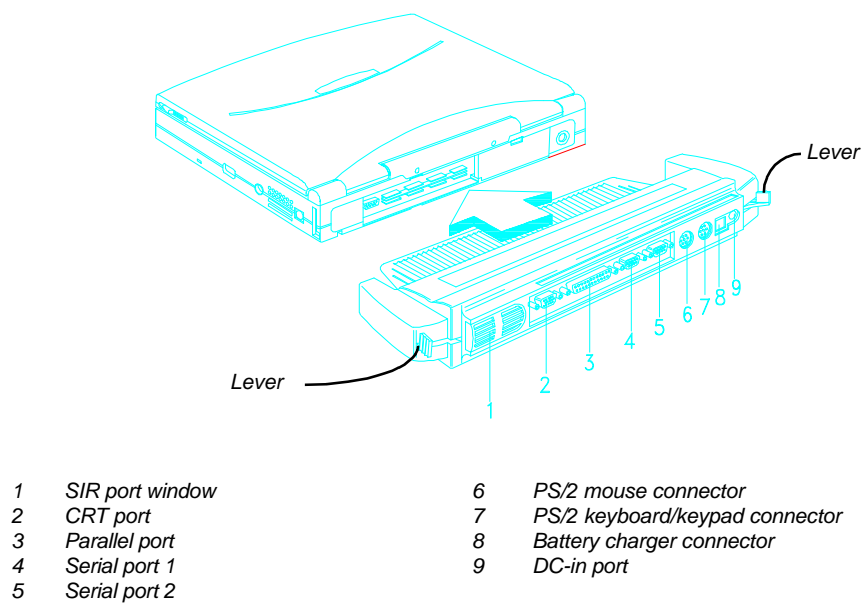



Figure 3-5 Connecting a Port Replicator

## Port Replicator Features

 *SIR port window* This lets you access the serial infrared port (for wireless communication).



*CRT port* This connects to an external VGA monitor.



*Parallel port* This connects to a parallel device.



*Serial port 1* This connects to a serial device.



*Serial port 2* This connects to a serial device.



*PS/2 mouse connector* This connects to an external PS/2-type mouse.



*PS/2 keyboard/keypad connector* This connects to an external PS/2-type keyboard or keypad.



*Battery charger connector* This connects an external battery charger.

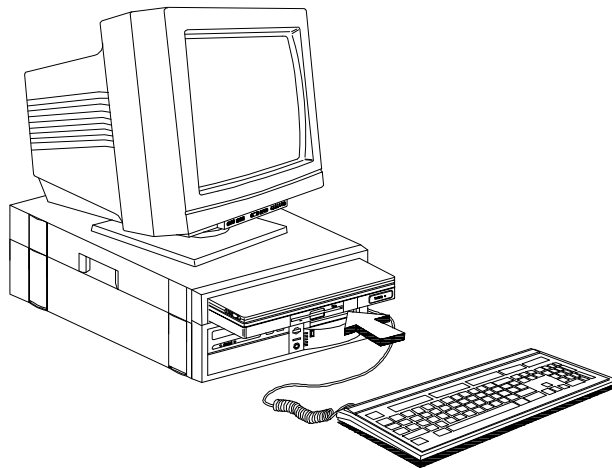


*DC-in port* This connects to an AC adapter.

To remove the port replicator unit, swing the two release levers towards the center. Remember to close the expansion port door.

## 3.9 Docking Station

A docking station is a solution to notebook expansion problems. It serves as a powerful office or home computer base, offering you the best of both worlds: expandability without sacrificing portability.



*Figure 3-6 Docking Station*

The docking station has a host of features including a removable cover for LCD or monitor, two external bays, an internal bay, a battery bay, three slots and full set of connectors.

You can equip your docking station with a CD-ROM drive, a hard disk drive and add-on cards. The built-in battery charger bay charges your battery pack(s). Refer to the docking station user's manual for details or contact your dealer.



*When the notebook is connected to the docking station, the setup and standby/suspend buttons are disabled.*

