Maintenance and Service Guide

HP Docking Station
HP Advanced Docking Station

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This guide is a troubleshooting reference used for maintaining and servicing the HP Docking Station and the HP Advanced Docking Station. It provides comprehensive information on identifying docking station features, components, and spare parts; troubleshooting problems; and performing disassembly procedures.

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1

Product Description

The HP Docking Station and HP Advanced Docking Station
provide desktop convenience with full port replication capability
in a space-saving design. The easy docking system provides port
replication and cable management in one product. The advanced
docking station also provides a MultiBay II slot and an
ExpressCard slot.

HP Advanced Docking Station and HP Smart Adapter

HP Docking Station and HP Smart Adapter

The HP Docking Station and HP Advanced Docking Station are compatible with the following computer models:

■ HP Compaq nc2400 Notebook PC

■ HP Compaq nc4200 and nc4400 Notebook PCs

■ HP Compaq tc4200 and tc4400 Tablet PCs

■ HP Compaq nc6110, nc6120, and nc6140 Notebook PCs

■ HP Compaq nx6110 and nx6120 Notebook PCs

■ HP Compaq nc/nx6115 and nc/nx6125 Notebook PCs

■ HP Compaq nc6220 and nc6230 Notebook PCs

■ HP Compaq nx6320, nc6320, and nx6310 Notebook PCs

■ HP Compaq nx6325 and HP Compaq nx6315 Notebook PCs

■ HP Compaq nc6400 Notebook PC

■ HP Compaq 6510b and 6515b Notebook PCs

■ HP Compaq 6710s, 6710b, 6715s, and 6715b Notebook PCs

■ HP Compaq nx7400 Notebook PC

■ HP Compaq nc8200, nw8200, and nx8200 Notebook PCs

■ HP Compaq nw8440, nc8430, and nx8420 Notebook PCs

■ HP Compaq 8510w and 8510p Notebook PCs

■ HP Compaq 8710w and 8710p Notebook PCs

■ HP Compaq nw9440 and nx9420 Notebook PCs

1.1 **Features**

- ■ Integrated cable lock slot
- ■ Security slot (for standard cable lock)
- ■ HP Smart Adapter external AC adapter (charges docked PC)
- ■ Lights (power, docking)
- ■ Integrated MultiBay II (advanced docking station only)
- ■ MultiBay II activity light (advanced docking station only)
- ■ ExpressCard slot (advanced docking station only)
- ■ Dual-link DVI support for following computer models:
  - ❏ HP Compaq 8510p and 8510w Notebook PC
  - ❏ HP Compaq 8710p and 8710w Notebook PC

- ■ Connectors:
    - ❏ Monitor stand port
    - ❏ External monitor port
    - ❏ Serial port
    - ❏ Parallel port
    - ❏ Keyboard connector
    - ❏ Mouse connector
    - ❏ Audio-out (headphone) jack
    - ❏ Audio-in (microphone) jack
    - ❏ Digital video (DVI) port
    - ❏ Composite video jack
    - ❏ RJ-45/Ethernet (network) jack
    - ❏ RJ-11 (modem) jack
    - ❏ Universal Serial Bus (USB) 2.0 ports
        - ◆ Docking station—3 USB 2.0 ports
        - ◆ Advanced docking station—5 USB 2.0 ports
    - ❏ Powered USB port
    - ❏ S-Video-out jack
    - ❏ Power connector

1.2 **External Components**

The external components on the top of the docking station are shown in the following illustration and described in Table 1-1.
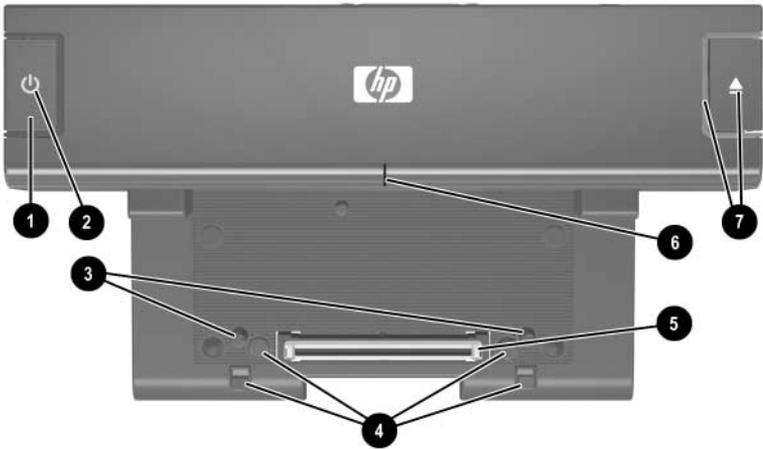
Top Components, Docking Station

Table 1-1
Top Components, Docking Station

Item	Component	Description
1	Power button	Turns on power to the computer.
2	Power light	Indicates the state of the computer and is turned on when the computer is turned on.
3	Docking posts (2)	Align and secure the computer for proper connection to the docking station.
4	Computer eject mechanisms (4)	Disconnect the computer from the docking station when you press the eject button.
5	Docking connector	Connects the computer to the docking station.
6	Visual alignment indicator	Helps you correctly align the computer when connecting it to the docking station.
7	Computer eject button and docking light	Ejects the computer from the docking station. The docking light is turned on when the computer is properly aligned.

The external components on the top of the advanced docking station are shown in the following illustration and described in Table 1-2.
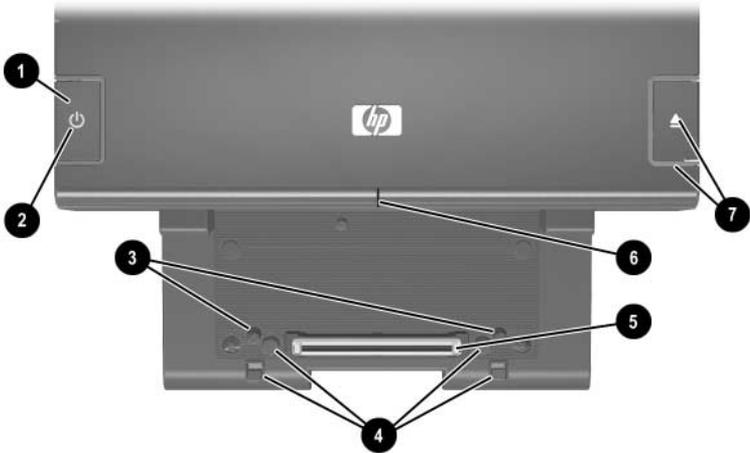

Top Components, Advanced Docking Station

Table 1-2
Top Components, Advanced Docking Station

Item	Component	Description
1	Power button	Turns on power to the computer.
2	Power light	Indicates the state of the computer and is turned on when the computer is turned on.
3	Docking posts (2)	Align and secure the computer for proper connection to the docking station.
4	Computer eject mechanisms (4)	Disconnect the computer from the docking station when you press the eject button.
5	Docking connector	Connects the computer to the docking station.
6	Visual alignment indicator	Helps you correctly align the computer when connecting it to the docking station.
7	Computer eject button and docking light	Ejects the computer from the docking station. The docking light is turned on when the computer is properly aligned.

The external components on the left side of the docking station are shown in the following illustration and described in Table 1-3.

Left-Side Components, Docking Station

Table 1-3
Left-Side Components, Docking Station

Item	Component	Description
1	Power button and power light	Turns on power to the computer. The light indicates the state of the computer, and is turned on when the computer is turned on.
2	USB port	Allows you to connect USB devices.
3	Powered USB port	Allows you to connect to select USB devices.

The external components on the left side of the advanced docking station are shown in the following illustration and described in Table 1-4.

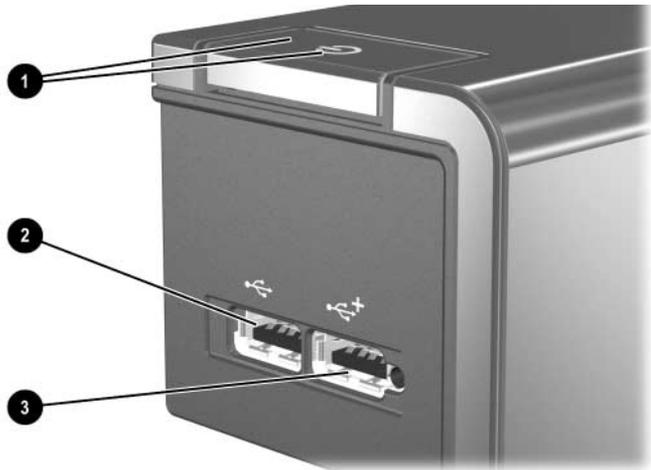*Left-Side Components, Advanced Docking Station*

Table 1-4
Left-Side Components, Advanced Docking Station

Item	Component	Description
1	MultiBay II light	Lights to indicate MultiBay II drive activity.
2	MultiBay II	Supports 9.5-mm MultiBay II drives such as hard drives and optical drives.
3	USB ports (3)	Allow you to connect USB devices.
4	Powered USB port	Allows you to connect to select USB devices.
5	ExpressCard slot	Allows you to connect ExpressCard devices to the docking station.
6	Power button and power light	Turns on power to the computer. The light is turned on when the computer is turned on.

The external components on the right side of the docking station are shown in the following illustration and described in Table 1-5.
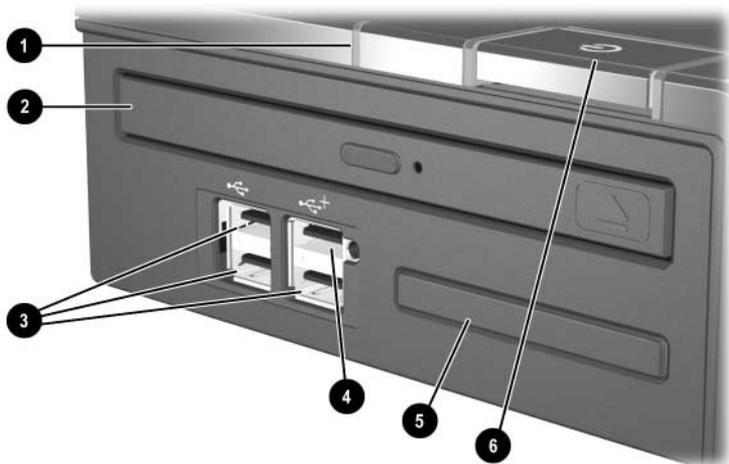

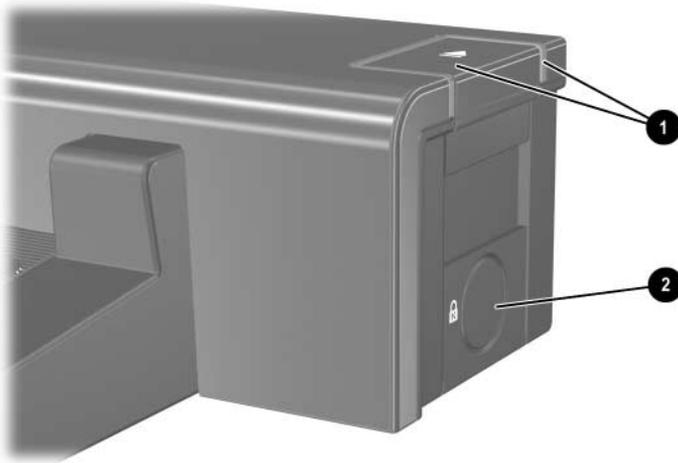*Right-Side Components, Docking Station*

Table 1-5
Right-Side Components, Docking Station

Item	Component	Description
1	Computer eject button and dock light	Ejects the computer from the docking station. The dock light is turned on when the computer is properly aligned.
2	Integrated cable lock slot	Supports the cable lock, which secures the docking station and a connected computer.

The external components on the right side of the advanced docking station are in the following illustration below and described in Table 1-6.

Right-Side Components, Advanced Docking Station

Table 1-6
Right-Side Components, Advanced Docking Station

Item	Component	Description
1	Computer eject button and docking light	Ejects the computer from the docking station. The docking light is turned on when the computer is properly aligned.
2	Integrated cable lock slot	Supports the cable lock, which secures the docking station, connected computer, and MultiBay II drive.

The external components on the rear of the docking station are shown in the following illustration and described in Table 1-7.
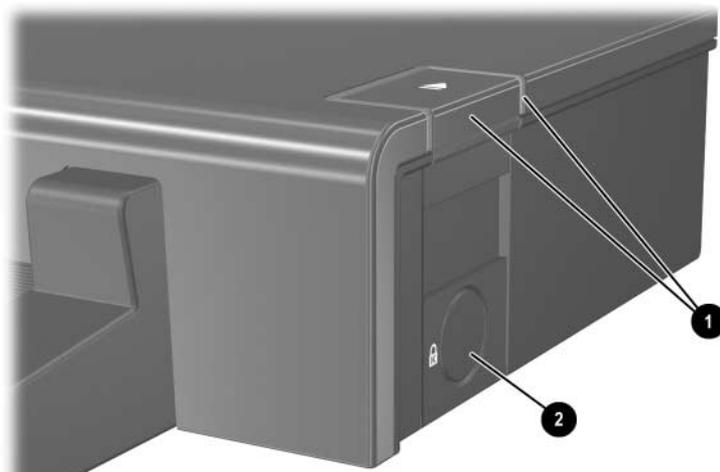

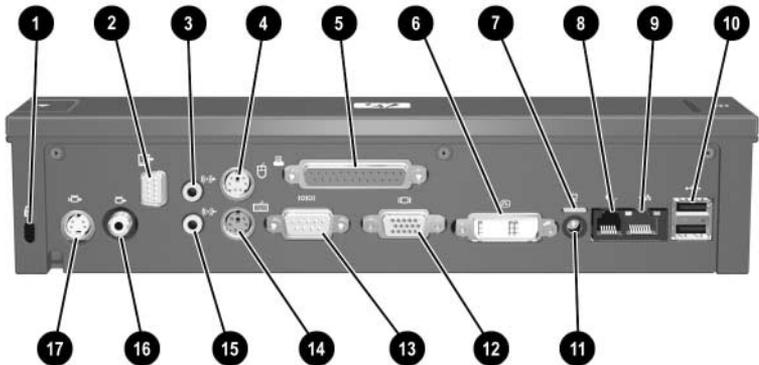*Rear Components, Docking Station*

Table 1-7
Rear Components, Docking Station

Item	Component	Description
1	Security cable slot	Connects an optional security cable lock.
2	Monitor stand port	Connects an optional HP Monitor Stand to the docking station.
3	Audio-out (headphone) jack	Connects an audio output device such as headphones or speakers.
4	Mouse connector	Connects a PS/2 mouse.
5	Parallel port	Connects a parallel device such as a printer.
6	Digital video (DVI) jack	Connects a DVI device such as a flat panel monitor.

Table 1-7
Rear Components, Docking Station *(Continued)*

Item	Component	Description
7	Power light	Is turned on when the docking station is connected to AC power.
8	RJ-11 (modem) jack	Connects a telephone cable.
9	RJ-45 (network) jack	Connects a network cable.
10	USB ports (2)	Connect USB devices.
11	Smart Adapter power connector	Connects the docking station to the HP Smart Adapter AC adapter.
12	External monitor port	Connects a VGA monitor.
13	Serial port	Connects a serial device such as a mouse.
14	Keyboard connector	Connects a PS/2 keyboard.
15	Audio-in (microphone) jack	Connects home audio equipment such as CD and MP3 players.
16	Composite video jack	Connects a composite video device such as a TV.
17	S-Video-out jack	Connects an S-Video device such as a TV, VCR, or camcorder.

The external components on the rear of the advanced docking station are shown in the following illustration and described in Table 1-8.
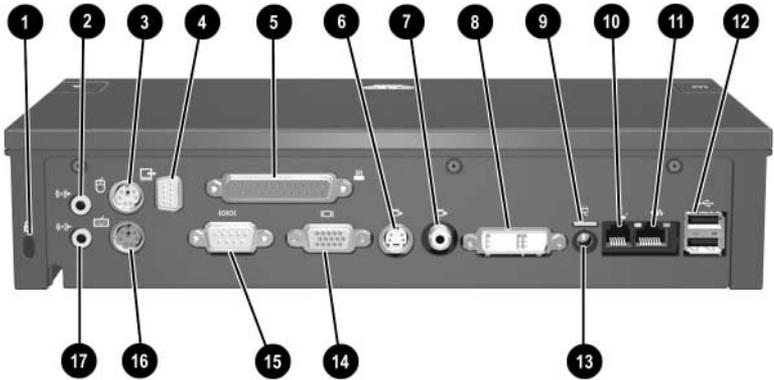

Rear Components, Advanced Docking Station

Table 1-8
Rear Components, Advanced Docking Station

Item	Component	Description
1	Security cable slot	Connects an optional security cable lock.
2	Audio-out (headphone) jack	Connects an audio output device such as headphones or speakers.
3	Mouse connector	Connects a PS/2 mouse.
4	Monitor stand port	Connects an optional HP Monitor Stand to the docking station.

Table 1-8
Rear Components, Advanced Docking Station *(Continued)*

Item	Component	Description
5	Parallel port	Connects a parallel device such as a printer.
6	S-Video-out jack	Connects an S-Video device such as a TV, VCR, or camcorder.
7	Composite video jack	Connects a composite video device such as a TV.
8	Digital video (DVI) jack	Connects a DVI device such as a flat panel monitor.
9	Power light	Is turned on when the docking station is connected to AC power.
10	RJ-11 (modem) jack	Connects a telephone cable.
11	RJ-45 (network) jack	Connects a network cable.
12	USB ports (2)	Connect USB devices.
13	Smart Adapter power connector	Connects the docking station to the HP Smart Adapter AC adapter.
14	External monitor port	Connects a VGA monitor.
15	Serial port	Connects a serial device such as a mouse.
16	Keyboard connector	Connects a PS/2 keyboard.
17	Audio-in (microphone) jack	Connects home audio equipment such as CD and MP3 players.

1.3 **Design Overview**

This section presents a design overview of key parts and features of the HP Docking Station and HP Advanced Docking Station. Refer to Chapter 3, "Illustrated Parts Catalog," to identify replacement parts, and Chapter 5, "Removal and Replacement Procedures," for disassembly steps.

The docking stations provide the following device connections:

- Monitor stand port, for use with the HP Monitor Stand
- Digital video (DVI) jack
- Audio-out (headphone) jack
- Audio-in (microphone) jack
- RJ-11 (modem) jack
- RJ-45 (network) jack
- USB 2.0 connectors (3 on docking station, 5 on advanced docking station)
- Powered USB 2.0 port
- S-Video out
- Serial port
- Parallel port

2

Troubleshooting

⚠️ **WARNING:** Only authorized technicians trained by HP should repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly-/module-level repair. Because of the complexity of the individual boards and subassemblies, do not attempt to make repairs at the component level or modifications to any printed wiring board. Improper repairs can create a safety hazard. Any indication of component replacement or printed wiring board modification may void any warranty or exchange allowances.

This chapter contains troubleshooting information for the HP Docking Station and HP Advanced Docking Station. Carefully match the symptoms of the malfunction against the problem description in the troubleshooting tables to avoid a misdiagnosis. Refer to Chapter 5 for all removal and replacement procedures.

Follow these guidelines when troubleshooting:

■ Complete the recommended actions in the order in which they are given.

■ When the problem is resolved, do not complete the remaining troubleshooting steps.

2.1 Troubleshooting Checklist

When troubleshooting a problem, check the following list for possible solutions before replacing parts:

■ Verify that cables are connected properly to the suspected defective part.

■ Verify that all required device drivers are installed.

2.2 Problems and Solutions

The following tables list possible problems, the possible cause of each problem, and the recommended solution.

Docking Problems and Solutions

Problem	Possible Cause	Solution
The computer is not properly connected to the docking station.	The computer may be properly aligned, but is not fully seated or docked in the docking station.	Press the eject button all the way in to eject the computer. Lift the computer away from the docking station. Then realign the computer visual alignment indicator with the indicator on the docking station, and reconnect the computer. Ensure that the computer is properly aligned and seated, and fully docked by gently pressing down on the computer until you hear a click. If accessories are attached, they should now work properly.
The computer is turned on and properly docked, but the power light and dock light are not on.	Power cord is not plugged into either the docking station or the AC outlet.	Properly plug in power cord.

Docking Problems and Solutions *(Continued)*

Problem	Possible Cause	Solution
Some of the ports or connectors do not work, even though the docking light is turned on.	The computer may be properly aligned, but is not fully seated or docked in the docking station.	Press the eject button all the way in to eject the computer. Lift the computer away from the docking station. Then realign the computer visual alignment indicator with the indicator on the docking station, and reconnect the computer. Ensure that the computer is properly aligned and seated, and fully docked by gently pressing down on the computer until you hear a click. If accessories are attached, they should now work properly.

Undocking Problems and Solutions

Problem	Possible Cause	Solution
The computer will not disconnect from the docking station.	The connectors may be jammed.	Press the eject button all the way in. If the computer does not disconnect, repeat this procedure to disconnect the computer. ⚠ Applying excessive force may damage connector pins.
	The cable lock is in the locked position.	Unlock the cable lock and then disconnect the computer.

External Device Problems and Solutions

Problem	Possible Cause	Solution
A new device is not recognized as part of the system.	The computer may be properly aligned, but is not fully seated or docked in the docking station.	Press the eject button all the way in to eject the computer. Lift the computer away from the docking station. Then realign the computer visual alignment indicator with the indicator on the docking station, and reconnect the computer. Ensure that the computer is properly aligned and seated, and fully docked by gently pressing down on the computer until you hear a click. If accessories are attached, they should now be recognized by the system.
	The device cable or power cord is loose.	■ Ensure that all cables are securely connected to the device and the docking station. ■ Ensure that all power cords are securely connected to the device or docking station and to an AC outlet.
	The device was connected while the system was on.	Turn off the computer, turn on the device (if applicable), and then restart the computer.
	Cabling is incorrect.	Ensure that the device cable is in the correct connector on the docking station.
	You may need to install device drivers on the computer.	Install drivers according to the device manufacturer's instructions.

Optical Drive Problems and Solutions

Problem	Possible Cause	Solution
The system cannot read the optical disc.	The disc is not properly seated in the drive tray.	Remove the disc, reseat it in the drive tray, and then close the drive tray.
	The disc is upside down.	Remove the disc, turn it over, and then close the drive tray.
	The disc may be dirty or scratched.	Clean or replace the disc.
The system cannot eject the media tray.	The disc is not properly seated in the media tray.	Turn off the computer, and then manually eject the media tray.
	There is no power to the advanced docking station.	■ Turn on power to the system, and then eject the disc. ■ Manually eject the disc.

MultiBay II Problems and Solutions

| Problem	Possible Cause	Solution
The MultiBay II drive is not recognized.	The drive is not properly inserted in the MultiBay II.	Remove the drive, and then reinsert it.
	The drive was inserted while the power was on.	Restart the computer while the drive is in the MultiBay II.

3

Illustrated Parts Catalog

This chapter provides an illustrated parts breakdown and a reference for spare part numbers and option part numbers.
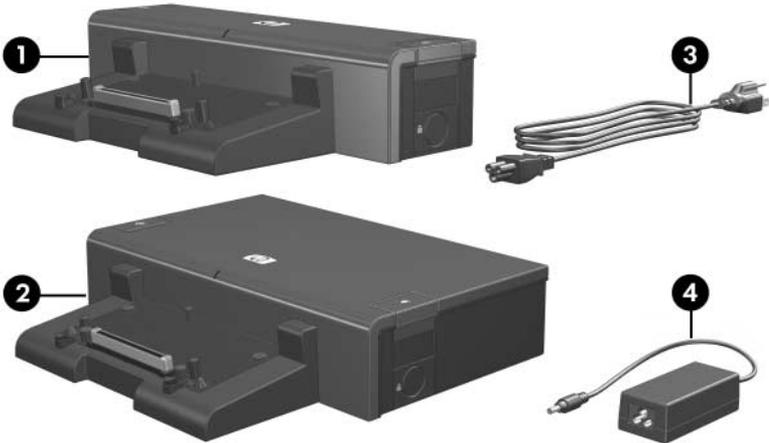
3.1 Serial Number Location

When ordering parts or requesting information, provide the docking station serial number and model number located on the bottom of the base plate.
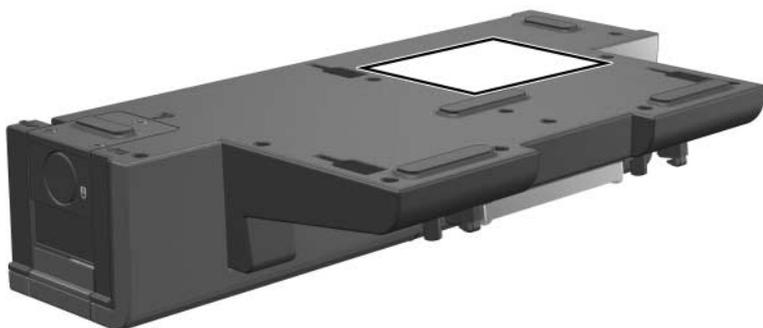
Serial Number Location

3.2 Major Components

*Major Components, HP Docking Station and
HP Advanced Docking Station*

Table 3-1
HP Docking Station/HP Advanced Docking Station
Major Components

Item	Description	Spare Part Number
1	**HP Docking Station (whole unit replacement)**	449720-001
2	**HP Advanced Docking Station (whole unit replacement)**	449721-001
3	**Power cord**	
	For use in Australia	246959-011
	For use in Brazil	246959-201
	For use in Denmark	246959-081
	For use in Europe, Middle East, and Africa	246959-021
	For use in Italy	246959-061
	For use in Japan	246959-291
	For use in Korea	246959-AD1
	For use in Switzerland	246959-AG1
	For use in the United Kingdom	246959-031
	For use in the United States	246959-001
4	**AC adapter**	
	Smart Adapter AC adapter, 135-W, PFC	397803-001
	Smart Adapter AC adapter, 120-W, PFC	391174-001

3.3 Miscellaneous Spares Kit
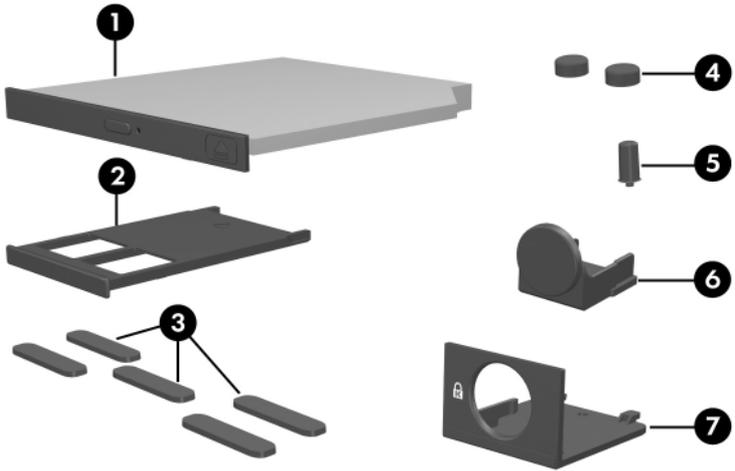
Miscellaneous Spares Kit

Table 3-2
Miscellaneous Plastics Kit

Item	Description	Spare Part Number
	Miscellaneous Plastics Kit, includes:	380089-001
1	MultiBay II dummy card	
2	ExpressCard slot dummy card	
3	Large rubber feet, 5 each	
4	Small rubber feet, 2 each	
5	Rubber bumper (protects unit and computer when docking)	
6	Cable lock bezel blank	
7	Cable lock bezel	

3.4 Sequential Part Number Listing

Table 3-3
Sequential Part Number Listing

Spare Part Number	Description
246959-001	Power cord for use in the United States
246959-011	Power cord for use in Australia
246959-021	Power cord for use in Europe, the Middle East, and Africa
246959-031	Power cord for use in the United Kingdom
246959-061	Power cord for use in Italy
246959-081	Power cord for use in Denmark
246959-201	Power cord for use in Brazil
246959-291	Power cord for use in Japan
246959-AD1	Power cord for use in Korea
246959-AG1	Power cord for use in Switzerland
380089-001	Miscellaneous Plastics Kit
391174-001	AC adapter, 120-W, PFC
397803-001	AC adapter, 135-W, PFC
449720-001	HP Docking Station
449721-001	HP Advanced Docking Station

4

Removal and Replacement Preliminaries

This chapter provides essential information for proper and safe removal and replacement service.

4.1 Tools Required

You will need the following tools to complete the removal and replacement procedures:

■ Magnetic screwdriver

■ Phillips P0 screwdriver

■ 5.0-mm hex socket for system board standoffs

■ Flat-bladed screwdriver

■ Tool kit (includes connector removal tool, loopback plugs, and case utility tool)

4.2 Service Considerations

The following sections include some of the considerations that you should keep in mind during disassembly and assembly procedures.

✎ As you remove each subassembly from the docking base, place the subassembly (and all accompanying screws) away from the work area to prevent damage.

Plastic Parts

Using excessive force during disassembly and reassembly can damage plastic parts. Use care when handling the plastic parts. Apply pressure only at the points designated in the maintenance instructions.

Cables and Connectors

△ **CAUTION:** When servicing the expansion base, ensure that cables are placed in their proper locations during the reassembly process. Improper cable placement can damage the expansion base.

Cables must be handled with extreme care to avoid damage. Apply only the tension required to unseat or seat the cables during removal and insertion. Handle the cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing cables. Ensure that the cables are routed in such a way that they cannot be caught or snagged by parts being removed or replaced. Handle flex cables with extreme care; these cables tear easily.

4.3 Preventing Electrostatic Damage

Many electronic components are sensitive to electrostatic discharge (ESD). Circuitry design and structure determine the degree of sensitivity. Networks built into many integrated circuits provide some protection, but in many cases, the discharge contains enough power to alter device parameters or melt silicon junctions.

A sudden discharge of static electricity from a finger or other conductor can destroy static-sensitive devices or microcircuitry. Often the spark is neither felt nor heard, but damage occurs.

An electronic device exposed to electrostatic discharge might not be affected at all and can work perfectly throughout a normal cycle. Or the device might function normally for a while, and then degrade in the internal layers, reducing its life expectancy.

4.4 Packaging and Transporting Precautions

Use the following grounding precautions when packaging and transporting equipment:

■ To avoid hand contact, transport products in static-safe containers, such as tubes, bags, or boxes.

■ Protect all electrostatic-sensitive parts and assemblies with conductive or approved containers or packaging.

■ Keep electrostatic-sensitive parts in their containers until the parts arrive at static-free workstations.

■ Place items on a grounded surface before removing them from their containers.

■ Always be properly grounded when touching a sensitive component or assembly.

■ Store reusable electrostatic-sensitive parts from assemblies in protective packaging or nonconductive foam.

■ Use transporters and conveyors made of antistatic belts and roller bushings. Ensure that mechanized equipment used to move materials is wired to ground and that proper materials are selected to avoid static charging. When grounding is not possible, use an ionizer to dissipate electric charges.

4.5 **Workstation Precautions**

Use the following grounding precautions at workstations:

■ Cover the workstation with approved static-shielding material (refer to Table 4-2, "Static-Shielding Materials").

■ Use a wrist strap connected to a properly grounded work surface and use properly grounded tools and equipment.

■ Use conductive field service tools, such as cutters, screwdrivers, and vacuums.

■ When using fixtures that must directly contact dissipative surfaces, only use fixtures made of static-safe materials.

■ Keep the work area free of nonconductive materials, such as ordinary plastic assembly aids and Styrofoam.

■ Handle electrostatic-sensitive components, parts, and assemblies by the case or PCM laminate. Handle these items only at static-free workstations.

■ Avoid contact with pins, leads, or circuitry.

■ Turn off power and input signals before inserting or removing connectors or test equipment.

4.6 **Grounding Equipment and Methods**

Grounding equipment must include either a wrist strap or a foot strap at a grounded workstation.

■ When seated, wear a wrist strap connected to a grounded system. Wrist straps are flexible straps with a minimum of one megohm ±10% resistance in the ground cords. To provide proper ground, wear a strap snugly against the skin at all times. On grounded mats with banana-plug connectors, use alligator clips to connect a wrist strap.

■ When standing, use foot straps and a grounded floor mat. Foot straps (heel, toe, or boot straps) can be used at standing workstations and are compatible with most types of shoes or boots. On conductive floors or dissipative floor mats, use foot straps on both feet with a minimum of one megohm resistance between the operator and ground. To be effective, the conductive strips must be worn in contact with the skin.

Other grounding equipment recommended for use in preventing electrostatic damage includes

■ Antistatic tape.

■ Antistatic smocks, aprons, and sleeve protectors.

■ Conductive bins and other assembly or soldering aids.

■ Nonconductive foam.

■ Conductive tabletop workstations with ground cords of one megohm resistance.

■ Static-dissipative tables or floor mats with hard ties to the ground.

■ Field service kits.

■ Static awareness labels.

■ Material-handling packages.

■ Nonconductive plastic bags, tubes, or boxes.

■ Metal tote boxes.

■ Electrostatic voltage levels and protective materials.

Table 4-1 shows how humidity affects the electrostatic voltage levels generated by different activities.

Table 4-1
Typical Electrostatic Voltage Levels

Event	Relative Humidity		
	10%	**40%**	**55%**
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of bench worker	6,000 V	800 V	400 V
Removing DIPS from plastic tube	2,000 V	700 V	400 V
Removing DIPS from vinyl tray	11,500 V	4,000 V	2,000 V
Removing DIPS from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCB	26,500 V	20,000 V	7,000 V
Packing PCBs in foam-lined box	21,000 V	11,000 V	5,000 V

✎ A product can be degraded by as little as 700 V.

Table 4-2 lists the shielding protection provided by antistatic bags and floor mats.

Table 4-2
Static-Shielding Materials

Material	Use	Voltage Protection Level
Antistatic plastic	Bags	1,500 V
Carbon-loaded plastic	Floor mats	7,500 V
Metallized laminate	Floor mats	5,000 V

5

Removal and Replacement Procedures

This chapter provides removal and replacement procedures.

You must remove up to three screws (for the cable lock) when servicing the docking station. Make note of each screw location during removal and replacement.

Refer to Appendix A, "Screw Listing," for detailed information on screw sizes, locations, and usage.

5.1 Serial Number

Report the docking station serial number to HP when requesting information or ordering spare parts. The serial number is located on the bottom of the docking station.
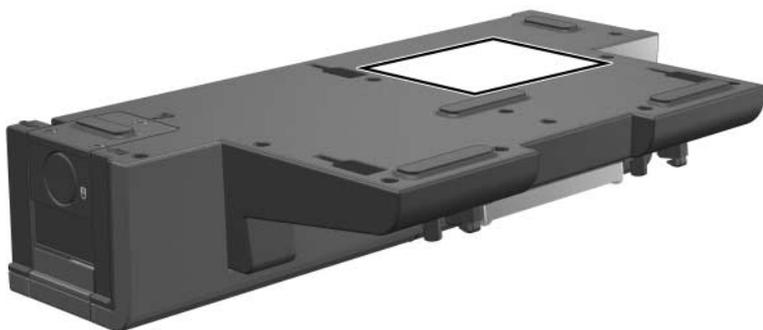
Serial Number Location

5.2 Preparing the Docking Station for Disassembly

Perform the following steps before disassembling the docking station:

1. If a computer is connected to the docking station, close the computer. If you close the computer with the power turned on, the computer may enter Standby mode. To resume operation after undocking, open the computer, and then press the power button.

Closing the Computer

2. Press the eject button ❶. The computer disconnects from the docking station.

3. Lift up the computer ❷ and set it aside.
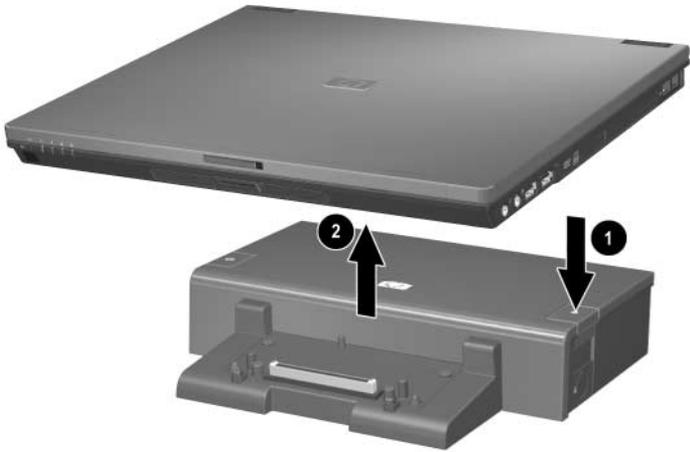
Undocking the Computer

4. Disconnect all external devices connected to the docking station.

5. Disconnect the power cord from the docking station.

5.3 **Installing the Cable Lock**

✎ Security solutions are designed to act as deterrents. These deterrents may not prevent a product from being mishandled or stolen.

The cable lock allows you to secure the docking station and a docked computer, or the advanced docking station with a docked computer and MultiBay II drive installed.

Install the cable lock into the integrated cable lock slot on the right side of the docking station, as shown in the following illustrations.

Identifying the Cable Lock Slot

To install the cable lock:

1. Loop the cable around a stationary object.

2. Turn the docking station upside down, and then remove the three PM2.5x5 screws from the cable lock bezel ❶.

3. Remove the bezel from the docking station ❷, and then remove the bezel blank from the cable lock bezel ❸.
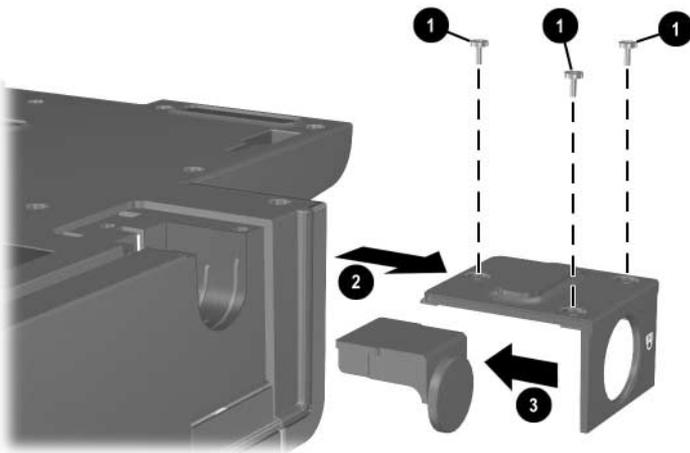
Removing the Cable Lock Bezel and Bezel Blank

4. With the lock and key in the unlocked position and the t-bar on the back of the lock in the vertical position, insert the lock into the center groove in the cable lock slot in the docking station ❶.

5. Insert the cable into the recessed cable channel in the base of the docking station ❷.
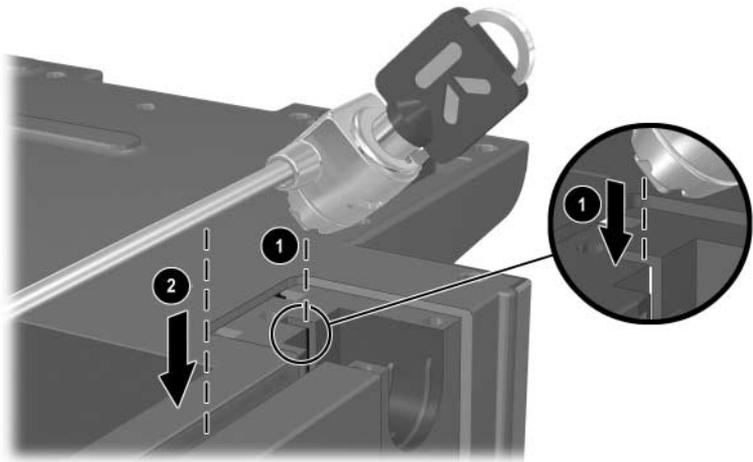
Inserting the Cable Lock

6. Turn the key counterclockwise to lock ❶.

7. Remove the key from the lock ❷.

8. Reinsert the cable lock bezel onto the docking station ❸.

9. Replace the screws to secure the bezel ❹.
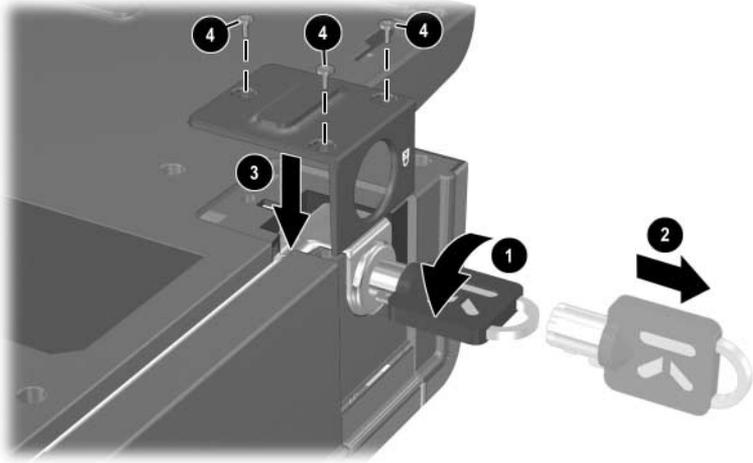
Securing the Cable Lock

The following illustration shows a docking station with the cable lock installed.
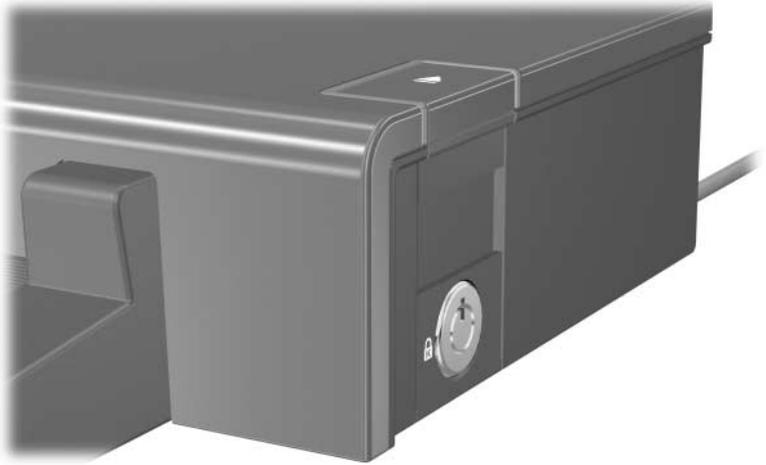
Docking Station with Cable Lock Inserted

6

Specifications

This chapter provides physical and performance specifications.

Table 6-1

HP Docking Station Specifications

Dimensions		
Height	28.0 cm	11.02 in
Width	6.1 cm	2.40 in
Length	15.3 cm	6.02 in
Weight		
	1.02 kg	2.24 lb
Temperature		
Operating	10°C to 35°C	50°F to 95°F
Nonoperating	-10°C to 60°C	14°F to 140°F
Relative humidity (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 90%, 38.7°C (101.6°F) maximum wet bulb temperature	
Power Supply		
Rated Voltage	100 to 240V	
Rated Current	2.5A rms	
Line Frequency	50 - 60 Hz	

Table 6-1

HP Docking Station Specifications *(Continued)*

Altitude

Operating	0 m to 3,048 m	0 ft to 10,000 ft
Non-operating	0 m to 9,144 m	0 ft to 30,000 ft

Shock

Operating	10 G, 11 ms, half-sine
Non-operating	60 G, 11 ms, half-sine

Vibration

Operating	0.5 G zero-to-peak, 10 to 500 Hz, 0.25 oct/min sweep rate
Non-operating	1 G, zero-to-peak, 10 to 500 Hz, 0.5 oct/min sweep rate

Table 6-2

HP Advanced Docking Station Specifications

Dimensions		
Height	28.0 cm	11.02 in
Width	6.1 cm	2.40 in
Length	24.3 cm	9.56 in
Weight		
	1.78 kg	3.93 lb
Temperature		
Operating	10°C to 35°C	50°F to 95°F
Nonoperating	-10°C to 60°C	14°F to 140°F
Relative humidity (noncondensing)		
Operating	10% to 90%	
Nonoperating	5% to 90%, 38.7°C (101.6°F) maximum wet bulb temperature	
Power Supply		
Rated Voltage	100 to 240V	
Rated Current	2.5A rms	
Line Frequency	50 - 60 Hz	

Table 6-2

HP Advanced Docking Station Specifications *(Continued)*

Altitude

Operating	0 m to 3,048 m	0 ft to 10,000 ft
Non-operating	0 m to 9,144 m	0 ft to 30,000 ft

Shock

Operating	10 G, 11 ms, half-sine
Non-operating	60 G, 11 ms, half-sine

Vibration

Operating	0.5 G zero-to-peak, 10 to 500 Hz, 0.25 oct/min sweep rate
Non-operating	1 G, zero-to-peak, 10 to 500 Hz, 0.5 oct/min sweep rate

A

Screw Listing

This appendix provides specification and reference information for the screws used in the HP Docking Station and the HP Advanced Docking Station.

Table A-1
Phillips M2.5×5.0 Screw
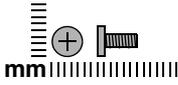
mm	Color	Qty.	Length	Thread	Head Width
	Black	3	5.0 mm	2.5 mm	4.0 mm

Where used:

Three screws that secure the cable lock cover to the base enclosure
(documented in Section 5.3)
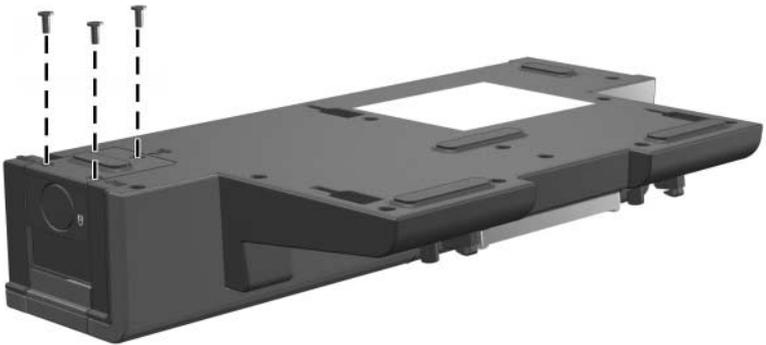
Phillips M2.5×5.0 Screw Locations

B

Connector Pin Assignments

Table B-1

Audio-In (Microphone) Jack
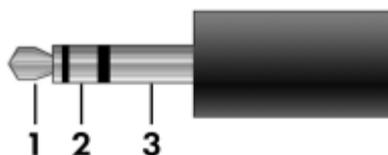
Pin	Signal	Pin	Signal
1	Audio signal in	3	Ground
2	Audio signal in		

Table B-2

Audio-Out (Headphone) Jack
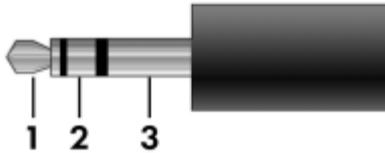
Pin	Signal	Pin	Signal
1	Audio out, left channel	3	Ground
2	Audio out, right channel		

Table B-3

External Monitor Port
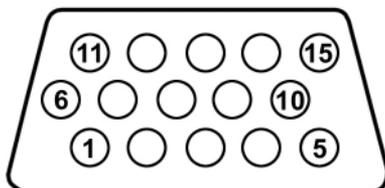
Pin	Signal	Pin	Signal
1	Red analog	9	+5 VDC
2	Green analog	10	Ground
3	Blue analog	11	Monitor detect
4	Not connected	12	DDC 2B data
5	Ground	13	Horizontal sync
6	Ground analog	14	Vertical sync
7	Ground analog	15	DDC 2B clock
8	Ground analog		

Table B-4

Keyboard/Mouse Connector
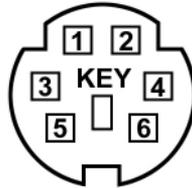
Pin	Signal	Pin	Signal
1	Keyboard/mouse DATA	4	+5 VDC
2	Keyboard/mouse DATA	5	Keyboard/mouse CLK
3	Ground	6	Keyboard/mouse CLK

Table B-5

Parallel Port
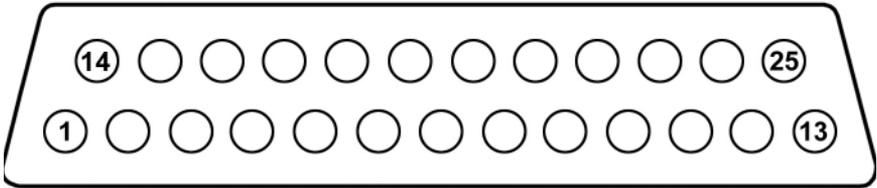
Pin	Signal	Pin	Signal
1	Strobe	14	Auto linefeed
2	Data bit 0	15	Error
3	Data bit 1	16	Initialize printer
4	Data bit 2	17	Select in
5	Data bit 3	18	Ground
6	Data bit 4	19	Ground
7	Data bit 5	20	Ground
8	Data bit 6	21	Ground
9	Data bit 7	22	Ground
10	Acknowledge	23	Ground
11	Busy	24	Ground
12	Paper end	25	Ground
13	Select		

Table B-6

RJ-11 (Modem) Jack
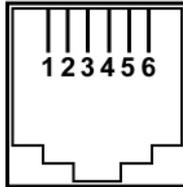
Pin	Signal	Pin	Signal
1	Unused	4	Unused
2	Tip	5	Unused
3	Ring	6	Unused

Table B-7

RJ-45 (Network) Jack
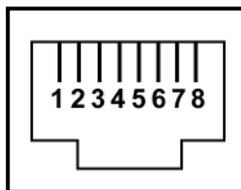
Pin	Signal	Pin	Signal
1	Transmit +	5	Unused
2	Transmit –	6	Receive –
3	Receive +	7	Unused
4	Unused	8	Unused

Table B-8

Serial Port
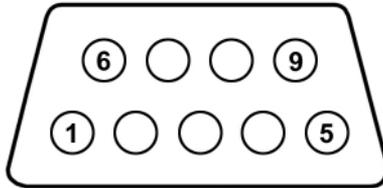
Pin	Signal	Pin	Signal
1	Carrier detect	6	Data set ready
2	Receive data	7	Ready to send
3	Transmit data	8	Clear to send
4	Data terminal ready	9	Ring indicator
5	Ground		

Table B-9

S-Video-Out Jack

Pin	Signal	Pin	Signal
1	TV-Ground	5	TV-CD
2	TV-CVBS	6	TV-Ground
3	TV-Ground	7	TV-YD
4	TV-Ground		

Table B-10

Universal Serial Bus Port
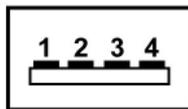
Pin	Signal	Pin	Signal
1	+5 VDC	3	Data +
2	Data –	4	Ground

C

Power Cord Set Requirements

3-Conductor Power Cord Set

The wide range input feature of the docking station permits it to operate from any line voltage from 100 to 120 or 220 to 240 volts AC.

The power cord set included with the docking station meets the requirements for use in the country or region where the equipment is purchased.

Power cord sets for use in other countries or regions must meet the requirements of the country or region where the docking station is used.

General Requirements

The requirements listed below are applicable to all countries or regions.

■ The length of the power cord set must be at least 1.5 m (5.0 ft) and a maximum of 2.0 m (6.5 ft).

■ All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country or region where the power cord set will be used.

■ The power cord sets must have a minimum current capacity of 10 amps and a nominal voltage rating of 125 or 250 V AC, as required by each country's or region's power system.

■ The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector for mating with the appliance inlet on the back of the docking station.

Country/Region Specific Requirements

3-Conductor Power Cord Set Requirements

Country/Region	Accredited Agency	Applicable Note Number
Australia	EANSW	1
Austria	OVE	1
Belgium	CEBC	1
Canada	CSA	2
Denmark	DEMKO	1
Finland	FIMKO	1
France	UTE	1
Germany	VDE	1
Italy	IMQ	1
Japan	METI	3

✎ NOTES:

1. The flexible cord must be <HAR> Type HO5VV-F, 3-conductor, 1.0 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

2. The flexible cord must be Type SPT-3 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.

3. The appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCT or VCTF, 3-conductor, 1.00 mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.

3-Conductor Power Cord Set Requirements *(Continued)*

Country/Region	Accredited Agency	Applicable Note Number
Korea	EK	4
The Netherlands	KEMA	1
Norway	NEMKO	1
People's Republic of China	CCC	5
Sweden	SEMKO	1
Switzerland	SEV	1
Taiwan	BSMI	4
United Kingdom	BSI	1
United States	UL	2

✎ NOTES:

1. The flexible cord must be <HAR> Type HO5VV-F, 3-conductor, 1.0 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

2. The flexible cord must be Type SPT-3 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15 A, 125 V) or NEMA 6-15P (15 A, 250 V) configuration.

3. The appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. The flexible cord must be Type VCT or VCTF, 3-conductor, 1.00 mm² conductor size. The wall plug must be a two-pole grounding type with a Japanese Industrial Standard C8303 (7 A, 125 V) configuration.

4. The flexible cord must be Type RVV, 3-conductor, 0.75 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

5. The flexible cord must be Type VCTF, 3-conductor, 0.75 mm² conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country or region where it will be used.

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