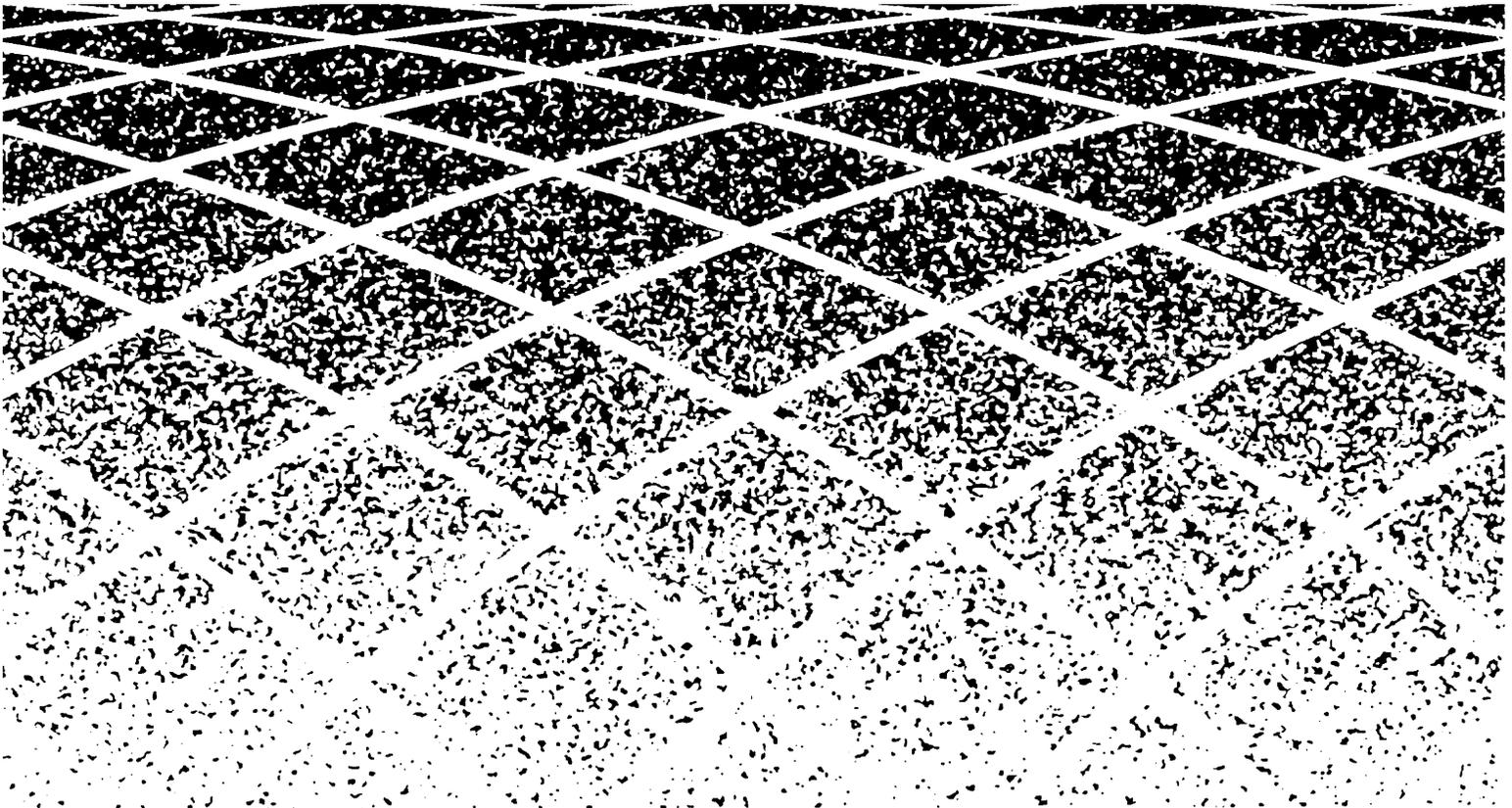




AT&T

TransTalk™ 9000
Digital Wireless System
MDW 9010 Wireless Telephone
Installation and Use



Notice

Every effort was made to ensure that the information in this booklet was complete and accurate at the time of printing. However, information is subject to change. The pictures in this booklet are for illustrative purposes only; your actual hardware may look slightly different.

Federal Communications Commission (FCC) and Industry Canada (IC) Information

For details, see Appendix B.

Security

Toll fraud, the unauthorized use of your telecommunications system by an unauthorized party (for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf) can result in substantial additional charges for your telecommunications services. You are responsible for the security of your system. There may be a risk of toll fraud associated with your telecommunications system. You are responsible for programming and configuring your equipment to prevent unauthorized use. Your system administrator should read all documents provided with this product to fully understand the features that can introduce the risk of toll fraud and the steps that can be taken to reduce that risk. AT&T does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. AT&T will not be responsible for any charges that result from such unauthorized use.

Trademarks

TransTalk is a trademark of AT&T and PARTNER, MERLIN, MERLIN LEGEND, DEFINITY and SYSTIMAX are registered trademarks of AT&T. Supra is a registered trademark of Plantronics, Inc.

Warranty

AT&T provides a limited warranty for this product; see Appendix A.

Ordering Information

The order number for this booklet is 503-801-141. The order number for the *MDW 9010 Wireless Telephone Quick Reference* is 503-801-142. To order additional copies of these reference materials, call 1 800 457-1235 or 1 317 361-5353. To order parts and accessories, see "Ordering Replacement & Optional Parts" in Chapter 4.

Customer Support

In the continental U.S., call 1 800 628-2888 if you need assistance when using your wireless phone with a PARTNER, MERLIN, or MERLIN LEGEND system. Consultation charges may apply. For all other systems, follow the procedure you normally use to get support for your communications system.

Outside the continental U.S., contact your AT&T Representative or local Authorized Dealer.

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Introduction

1

About the MDW 9010

Congratulations on the purchase of your new TransTalk™ 9000 Digital Wireless System **MDW 9010 Wireless Telephone**. MDW stands for Multi-line Digital Wireless. This product was designed to AT&T's high standards for innovation, reliability, and convenience.

The MDW 9010 phone is wireless; the telephone line cord to the phone was eliminated. This provides flexibility, so that you may not require additional telephone wiring when you move into a new building, or change the phone's location in an existing building. The phone can be located as required. All you need is an electrical outlet, and a test check to make sure that the handset is in range of its matching radio module.

The phone is portable, so there is no handset cord. This portability lets you move about your work area or home with freedom, without giving up the features of a corded phone.

The **handset** communicates through a matching **radio module**, not the **battery charger** where the handset sits for charging. Each handset can be used only with the radio module packaged with the handset. The handset and the radio module each have the same unique security code to identify the matching pair. And there is built-in and secure automatic registration between the handset and radio module, so that your system is ready to use after powering up.

A **carrier** (also known as a backplane) is required in order to use multiple wireless phones within the same zone (area of coverage). Holding up to six radio modules, a carrier synchronizes radio signals for proper operation of multiple phones, ensuring consistent voice quality and range. Multiple carriers can be linked to support up to 18 wireless phones in a single zone; linked carriers are automatically synchronized with each other.

As a special feature, a spare battery pack can be stored in the battery charger, allowing for extended phone usage. For convenience, a headset can be connected to the phone to allow hands-free conversation.

This booklet describes MDW 9010 telephone installation. Also included with the phone is a *Telephone Quick Reference* card that contains information about displays and controls on the handset and the battery charger.

After you have installed your MDW 9010 phone and understand the controls and displays, use the programming and call handling instructions that come with your communications system; follow the user instructions for the phone type identified below:

| For this communications system... | Use the instructions for a... |
|------------------------------------------|--------------------------------------|
| PARTNER® | MDW 9000 phone. |
| MERLIN®, MERLIN Plus, and MERLIN II | 5-button phone. |
| MERLIN LEGEND® | 10-button ATL set. |
| System 25 | 10-button ATL set. |
| System 75, System 85, and DEFINITY®* | 7303s set. |

NOTE:

The MDW 9010 phone is fully compatible with the PARTNER family of communications systems. For the remaining communications systems, however, you must carefully note the functional differences between your wireless phone and the phone type identified in the table, as listed in Chapter 6, "MDW 9010 Compatibility."

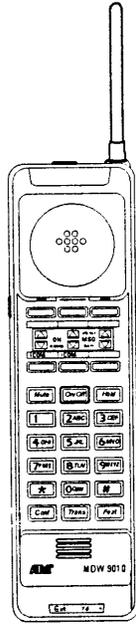
Privacy Information

The MDW 9010 phone is designed to protect the privacy and security of your voice conversation. The set uses continuously changing radio frequencies and digital encoding techniques to make it impossible for eavesdropping to occur through the use of commercially available analog radio scanners.

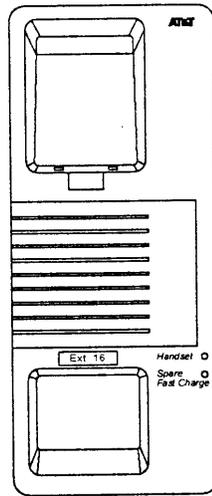
* For DEFINITY G3V3 systems, you can administer the system for the MDW 9000 telephone (rather than a 7303s set) and follow the user's instructions in the *MDW 9000 Wireless Telephone User's Guide*, order number 555-230-768.

Parts List

Along with this booklet and the *Telephone Quick Reference* card, the box should contain the items shown below. If it does not, call for customer support as described on the inside front cover of this booklet.



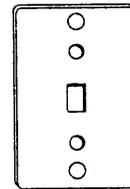
Handset



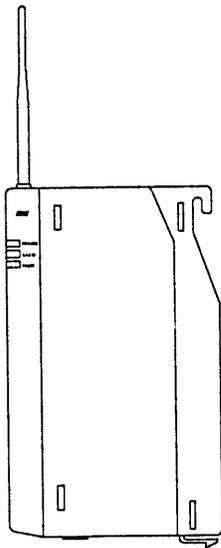
Battery Charger with Mounting Base



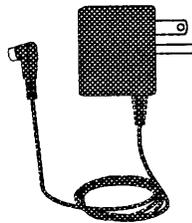
Battery Pack



Wall Mounting Plate



Radio Module



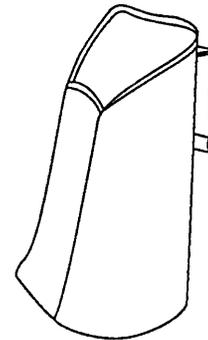
Charging Cradle 11-foot (3.4 m)
Power Cord/Standard AC
Adapter



Philips Head
Wood Screws (2)



8-foot (2.4 m)
Telephone Line Cord

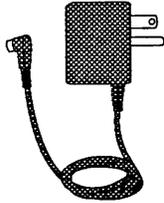


Handset Carrying
Holster

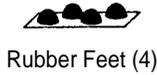
Additional Parts

The following parts may be necessary, depending upon your installation.

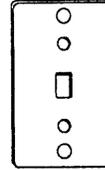
Kit of parts (order number D-182866) is required only when a single MDW 9010 phone is installed:



Radio Module 11-foot (3.4 m)
Power Cord/AC Adapter



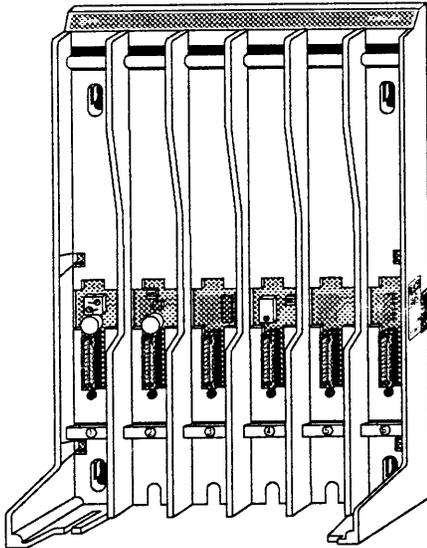
Rubber Feet (4)



Wall Mounting
Plate

Philips Head
Wood Screws (2)

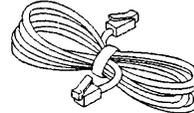
Required when two or more MDW 9010 phones are installed:



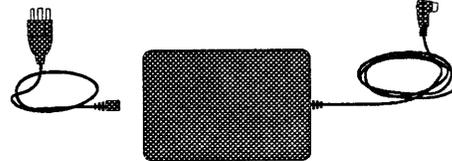
Carrier



Philips Head
Wood Screws (4)



Expansion Cable 6-foot (1.8 m)
for multiple-carrier installation



Carrier Assembly 25-foot (7.6 m)
Power Cord and Standard AC Adapter

Installing the MDW 9010

2

Important Safety Instructions

This booklet contains instructions related to safety labels on the product:

-  **WARNING** *indicates the presence of a hazard that can cause severe or fatal personal injury if the hazard is not avoided.*
-  **CAUTION** *indicates the presence of a hazard that will or can cause minor personal injury or property damage if not avoided.*

Always follow these basic safety precautions when installing this product to reduce risk of injury from fire or electric shock.

Make sure the radio module, carrier, and battery charger are unplugged before you install them.

-  **The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.**
-  **WARNING: Risk of Electric Shock**
Failure to properly ground this product will result in a risk of electrical shock, which can cause serious personal injury. This product requires a 3-prong AC power receptacle for safe operation. You should have your receptacle checked by a qualified electrician before connecting this equipment.
-  **WARNING:**
The rechargeable battery pack contains nickel and cadmium. Do not burn or puncture the battery pack. Like other batteries of this type, if it is burned or punctured, it could release toxic material which could cause injury. Do not dispose of it in household garbage. For information about recycling or proper disposal, consult your local solid waste (garbage) collection or disposal organization.

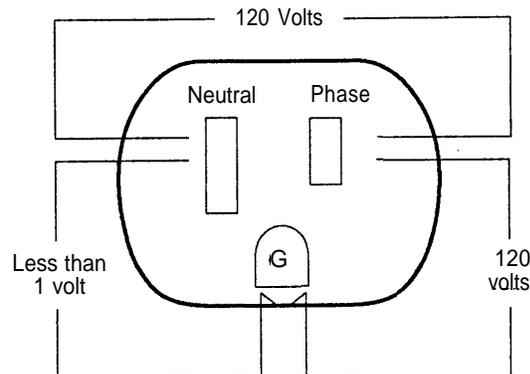
Additional Safety Instructions for Installation Personnel

- Install the product to meet all environmental and electrical requirements listed in Appendix C.
- All wiring that connects to this equipment and becomes part of the building wiring must be a minimum of CLASS 2 or U.L. Listed Communications cable.
- Do not install telephone wiring during a lightning storm.
- Do not install telephone jacks in a wet location unless the jack is specifically designed for wet locations. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Install this product securely on a stable surface. Damage may result if the product falls.
- Never place this product near or over a radiator or heat register.
- Slots and openings in the housing and the back or bottom are provided for ventilation. To protect the housing from overheating, these openings must not be blocked or covered. Therefore, do not place the product on a bed, sofa, rug, or other similar surface. Also, do not place this product in an enclosed area unless proper ventilation is provided.
- Install this product in a protected location where no one can step on or trip over power cords and telephone line cords. Do not place objects on the cords that may cause damage or abrasion.
- Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it. Do not overload wall outlets as this can result in the risk of fire or electric shock. Do not staple or otherwise attach the power cord to building surfaces.
- Use only the Model # PIDB-270 power supply shipped with this product for the battery charger or radio module.
- Use only the Model # SW109 power supply shipped with the carrier.
- Use only the correct power source. If you are not sure of the power supply to your location, consult your local power company.
- This product uses a 3-prong plug in continental U.S. locations. Such plugs are designed for your safety. Do not attempt to defeat this purpose. If your wall outlet will not accept the plug, the outlet should be replaced by an electrician.
- Use only the type of battery pack shipped with this product.

AC Outlet Check

Have a qualified electrician check all of the outlets into which the MDW 9010 radio modules or carriers as well as the communications system switch/control unit will be plugged. The electrician should check that the hot, neutral, and ground wires are properly connected to the outlet by using a circuit tester.

The outlet can also be tested using a voltmeter by taking the measurements as shown:



NOTE:

If there is no current to the outlet or the voltages are not correct, the problem should be corrected by a qualified electrician.

⚠ CAUTION:

This equipment is for installation on AT&T PARTNER, PARTNER Plus, PARTNER II, MERLIN, MERLIN Plus, MERLIN II, MERLIN LEGEND, System 25, System 75, System 85, and DEFINITY communications systems only.

⚠ WARNING:

Installation of this equipment for In-Range Out of Building (IROB) conditions requires the use of protectors. See the documentation that came with your communications system for more information.

Go to "Radio Modules and Carriers."

Radio Modules and Carriers

This section explains how to install radio modules and carriers. You should proceed through this section in the following order:

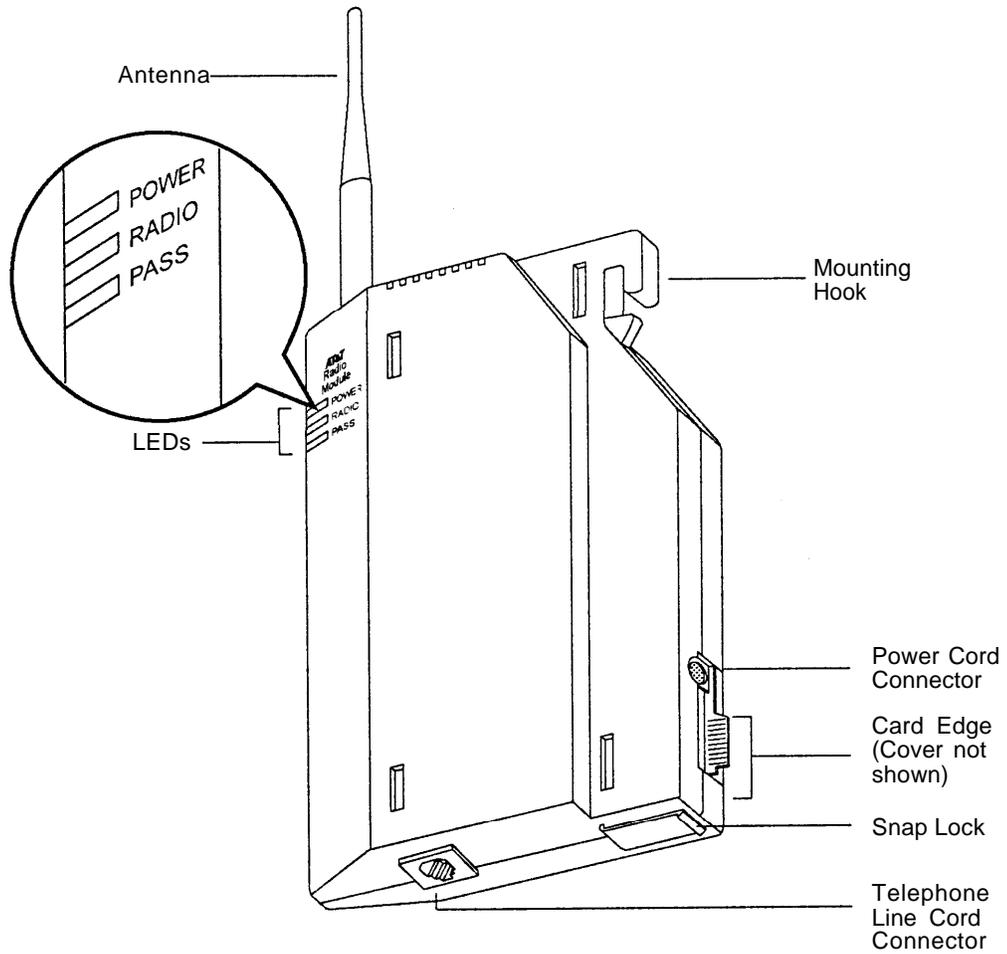
1. "Key Components"
2. "Positioning a Single Radio Module or Carrier(s)"
3. Choose one of the following paths, depending upon which components you are installing:
 - If you are installing a single radio module, go to "Installing a Single Radio Module."
 - If you are installing a single carrier, go to
 - a. "Setting the Power Level." Then go to either
 - b. "Installing a Single Carrier on a Shelf or Desk" or "Installing a Single Carrier on a Wall."
 - If you are installing multiple carriers, go to all of the following:
 - a. "Setting the Power Level" then
 - b. "Setting the Control/Expansion DIP Switch" then
 - c. "Installing Multiple Carriers."
4. "Installation Self-Test"

NOTE:

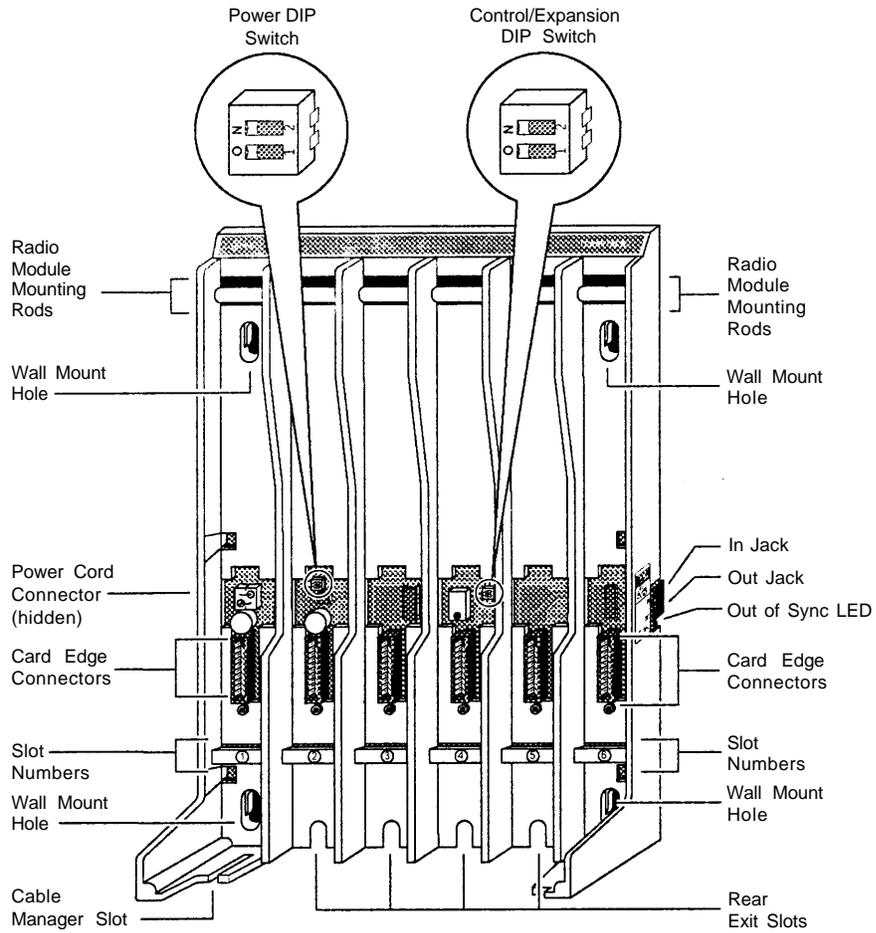
The illustrations in this chapter depict PARTNER system hardware; your hardware may differ from these illustrations.

Key Components

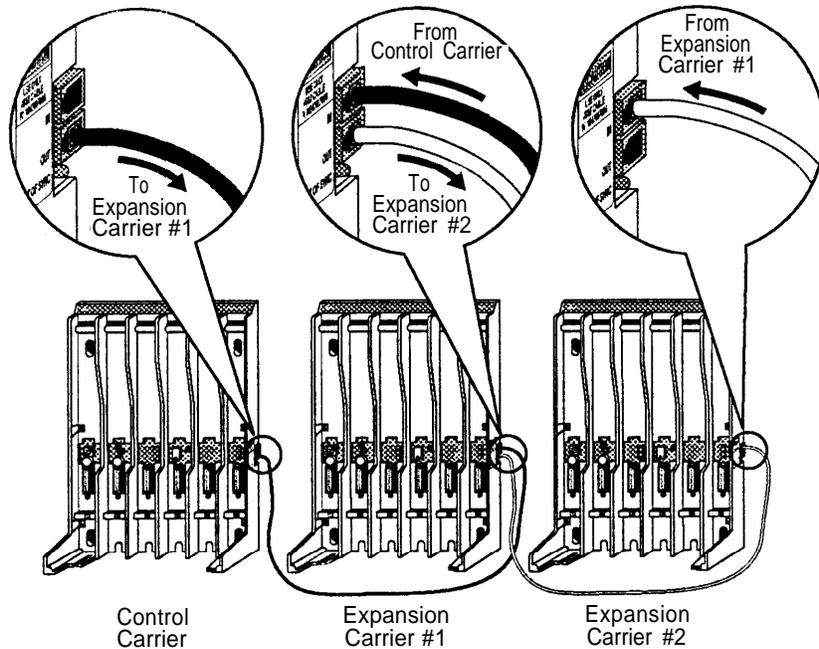
Each **radio module** communicates with a corresponding handset.



A **carrier** is required when installing two or more MDW 9010 telephones.

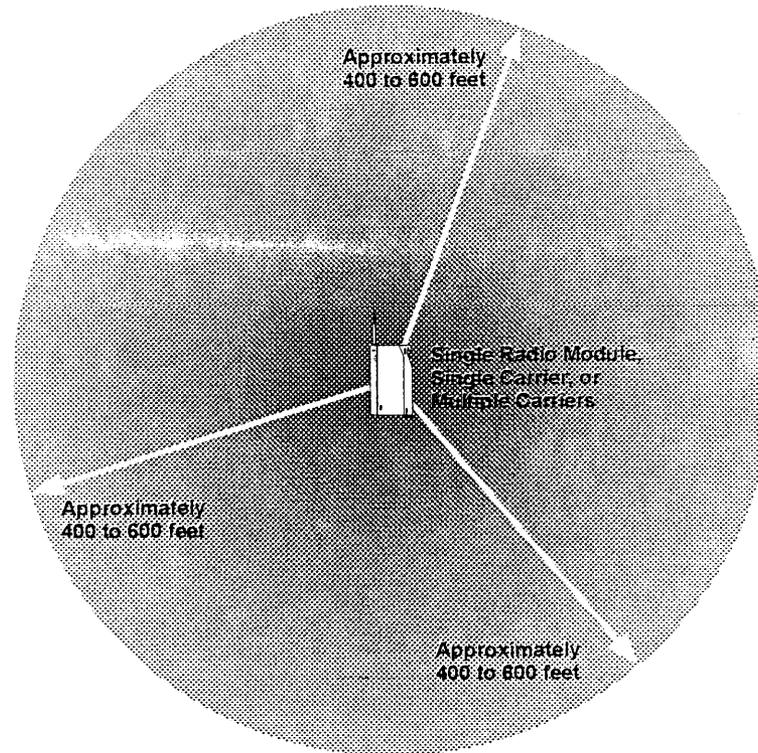


Using the **expansion cable** provided with each carrier, you may link up to three carriers.



Positioning a Single Radio Module or Carrier(s)

All of your MDW 9010 handsets and their corresponding radio modules operate within a single zone of coverage:



The range depends on your particular operating environment. For indoor use, intervening walls will reduce the phone's range. Try to stay away from concentrations of structural metal, such as steel and aluminum, and reinforced concrete.

IMPORTANT:

The MDW 9010 phone has a built-in testing feature that you can use before installation to help determine proper placement of the radio module. To perform the test, all you need is an electrical outlet for the radio module and a charged battery pack in the handset (you do not need a communications system switch/control unit). Refer to "Wireless Test Mode" later in this chapter for details.

General Positioning Rules

Before you install the radio module or carrier(s), note the following rules regarding location and use. **Failure to follow these rules will result in poor performance of your MDW 9010 phone system.**

- Position the radio module or carrier(s) in a central location, relative to the handset(s) usage area. For convenience, you may want to place the radio module or carrier(s) in the same room, and on the same wall, as your communications system switch/control unit. If your switch/control unit is located in a remote location, you may have to run a telephone line cord from your switch/control unit to the centrally positioned radio module or carrier(s). The maximum distance is 1,000 feet (333 m) of 26-gauge cable.

-
- At least **6 feet (2 m)** is required between the radio module or carrier(s) and the communications system switch/control unit.
 - The radio module or carrier(s) should be placed high on the wall for optimum voice quality and range. Allow at least 6 inches (15.2 cm) of space between the top of the antenna on the radio modules and the ceiling.
 - The radio module or carrier(s) should never be installed above a drop, suspended level ceiling.
 - **The radio module or carrier(s) should not be within 6 feet (2 m) of equipment with microprocessors such as answering machines, personal computers, and fax machines; electromagnetic equipment such as electric motors; or electrical main power feeds, junction boxes, circuit-breaker panels, fuse boxes, or 220-volt power lines.**
 - The radio module or carrier(s) should *not* share the same power line as equipment with microprocessors such as answering machines, personal computers, and fax machines; or electromagnetic equipment such as electric motors.
 - If your communications system uses an uninterruptable power supply, such as a backup generator, be sure to connect the radio module or carrier(s) to that power supply.

Additional rules for a single radio module only:

- Installing a single radio module on a shelf or desk is not recommended, because it greatly reduces the range and quality of the transmission.
- Install a single radio module within 3 feet (1 m) of either side of, and within 6 to 8 feet (2 to 2.6 m) above, a properly grounded 3-prong electrical outlet that is not controlled by an on/off switch.
- You can install a single radio module in a remote location using a telephone line cord to connect the radio module to the communications system switch/control unit. IROBs must be used for out-of-building installations.

Additional rules for installing one or more carriers:

- Install carrier(s) within 15 feet (5 m) of either side of, and within 6 to 8 feet (2 to 2.6 m) above, a properly grounded 3-prong electrical outlet that is not controlled by an on/off switch.
- Choose a location where handset users will not approach the carrier(s) within a radius of 6 feet (1.8 m) for 1 or 2 carriers or 10 feet (3.1 m) for 3 carriers.
- Carrier(s) cannot be exposed outdoors to the elements.
- When installing multiple carriers:
 - Install multiple carriers 1 foot (0.3 m) optimally to 4 feet (1.2 m) apart.
 - Install multiple carriers on the same horizontal axis (do not install one carrier higher or lower than another).
 - Install the control carrier as the leftmost carrier, using only the expansion cables provided.
 - There must always be a radio module in slot 6 of the control carrier.

Go to **one** of the following sections:

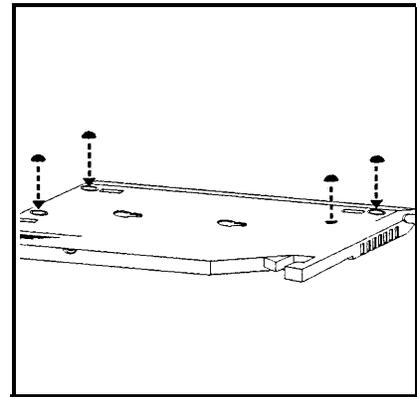
- **If Installing one MDW 9010 phone, go to “Installing a Single Radio Module.”**
- **Otherwise, go to “Setting the Power Level.”**

Installing a Single Radio Module

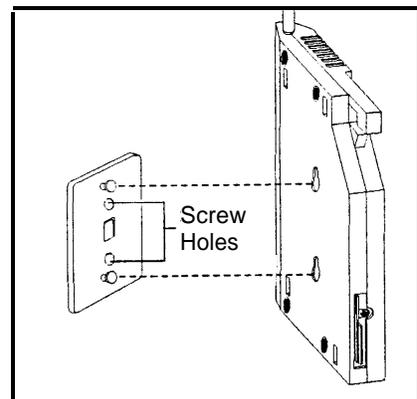
- Install high on wall, leaving at least 6 inches (15.2 cm) between antenna and ceiling
- See “Key Components” earlier in this chapter for additional picture detail

1 Check to make sure the radio module’s power cord is unplugged from the wall outlet before continuing.

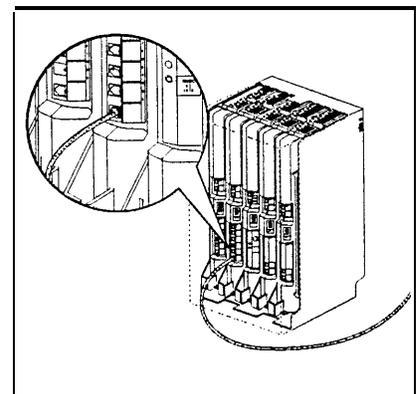
2 Detach the rubber feet. Apply them to marked areas on the underside of the radio module.



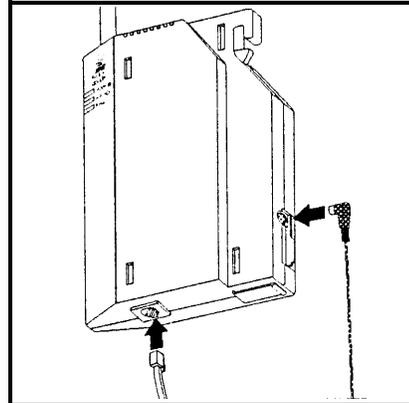
3 Place the wall mounting plate against the wall. Choose a location backed by a wooden stud (if unavailable, use toggle bolts instead of the supplied wood screws). Lightly tap a nail into the wall to start holes. Then screw the plate flush to the wall. Place the radio module over the plate, then slide it downward to lock it into place. (Note: Do not remove the plastic cap covering the radio module’s card edge.)



4 Insert one end of the telephone line cord into an extension jack or terminal/station connector on your communications system switch/control unit (refer to your communications system manual for the proper location).

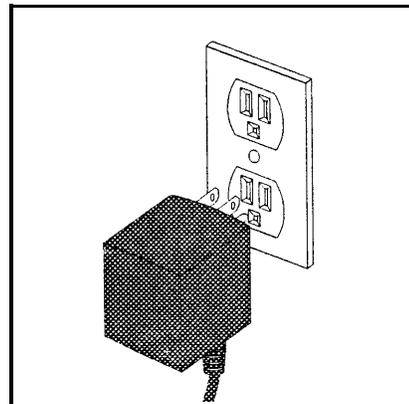


- 5** Insert the radio module's power cord into the side of the radio module. Insert the other end of the telephone line cord into the bottom of the radio module.



- 6** Plug the power cord/AC adapter into a properly grounded 3-prong wall outlet that is not controlled by an on/off switch.

⚠ CAUTION: *Never connect or disconnect the telephone line cord while the radio module is plugged into the wall outlet.*



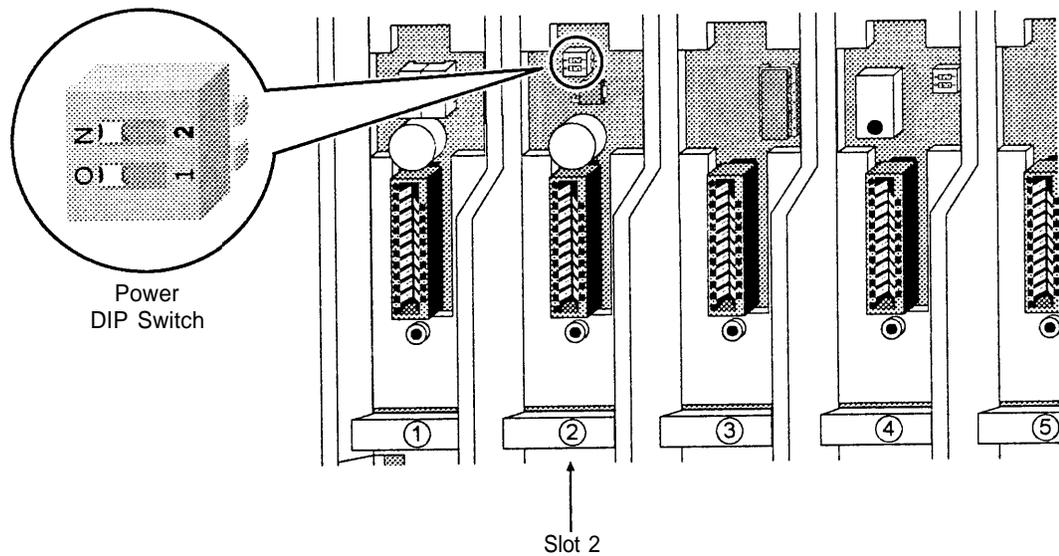
Go to "Installation Self-Test."

Setting the Power Level

If you are installing one or more carriers in a strip mall, high-rise office building, or similar environment, the MDW 9010 phones may interfere with other wireless products in use.

- If this is the case, you may need to adjust the range of the carriers to prevent overlapping with the other wireless products; follow the instructions in this section.
- If this is not the case, skip this section and go to “Setting the Control/Expansion DIP Switch.”

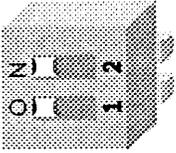
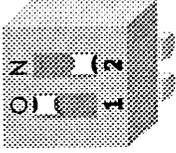
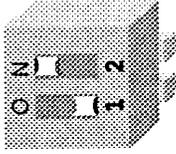
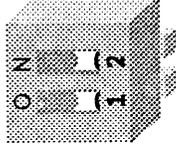
You may adjust the range by setting each carrier’s power DIP switch, located in slot 2:



Use a nonmetallic, pointed object to set each carrier's DIP switch according to the following table.

IMPORTANT:

You must set the DIP switch for all of the carriers to the same setting.

| Desired Range (Approximate) | Power DIP Switch Settings |
|-----------------------------------|--------------------------------------------------------------------------------------|
| 400 to 600 feet (122 to 183 m) |  |
| 300 to 400 feet (91 to 122 m) |  |
| 150 to 300 feet (46 to 91 m) |  |
| 100 to 150 feet (31 to 46 m) |  |

Go to **one** of the following sections:

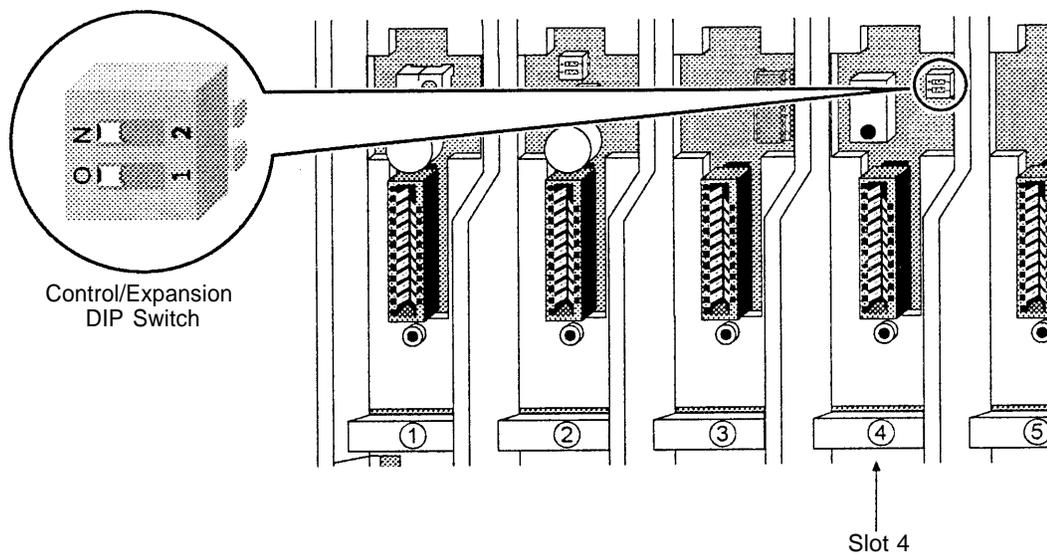
- If installing multiple carriers, go to “Setting the Control/Expansion DIP Switch.”
- Otherwise, go to “Installing a Single Carrier on a Shelf or Desk” or “Installing a Single Carrier on a Wall.”

Setting the Control/Expansion DIP Switch

You must follow the instructions in this section if you are installing multiple carriers. Otherwise, skip to “Installing a Single Carrier on a Shelf or Desk” or “Installing a Single Carrier on a Wall.”

If you are installing multiple carriers, you must designate one carrier as the **control** carrier and the remaining carrier(s) as **expansion** carriers. The control carrier acts as the “lead” carrier—its transmit and receive patterns control the expansion carrier(s), ensuring that all of the linked carriers function as a single system.

You set the control/expansion DIP switch, located in slot 4, to configure the carrier:



Use a nonmetallic, pointed object to set each carrier’s DIP switch according to the following table.

IMPORTANT:

Only one carrier can be the control carrier; the other carrier(s) must be expansion carriers.

| To designate the carrier as a... | Use this setting for the DIP switch... |
|----------------------------------------------------|----------------------------------------|
| control carrier (one carrier only) | |
| expansion carrier (one or two additional carriers) | |

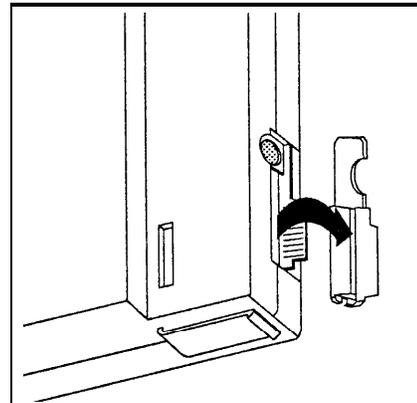
Go to “Installing Multiple Carriers.”

Installing a Single Carrier on a Shelf or Desk

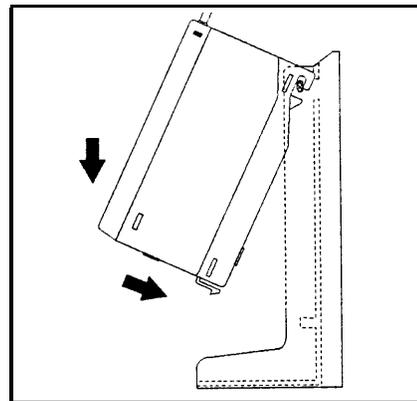
- You will not receive optimum performance if unit is placed on a desk or low shelf
- Install as high as possible, leaving at least 6 inches (15.2 cm) between antennas and ceiling if on high shelf
- Never install or remove a radio module from a carrier that is plugged into a wall outlet (hot insertion)
- See “Key Components” earlier in this chapter for additional picture detail

1 Check to make sure the carrier's power cord is unplugged from the wall outlet before continuing.

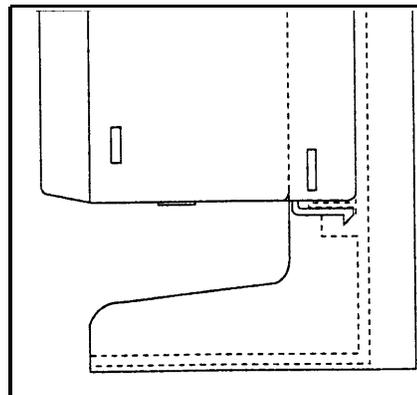
2 Remove the plastic cap covering each radio module's card edge before installing the radio modules in the carrier.



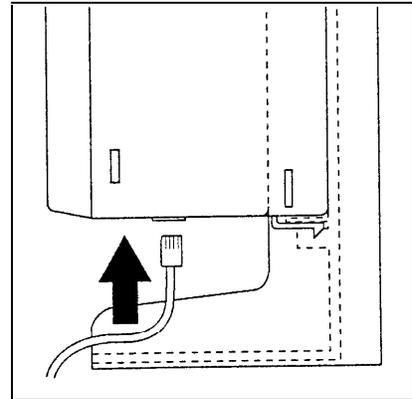
3 Starting from the leftmost slot (#1), insert each radio module into the carrier by hooking it onto the radio module mounting rod. Slowly swing the radio module's card edge into the card edge connector on the back of the carrier.



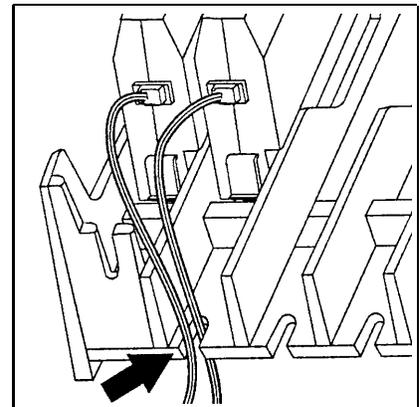
4 When the card edge is fully seated, a snap lock on the bottom of the radio module will engage.



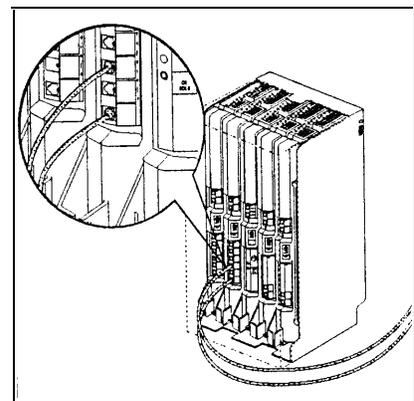
- 5** Insert a telephone line cord into the bottom of each radio module.



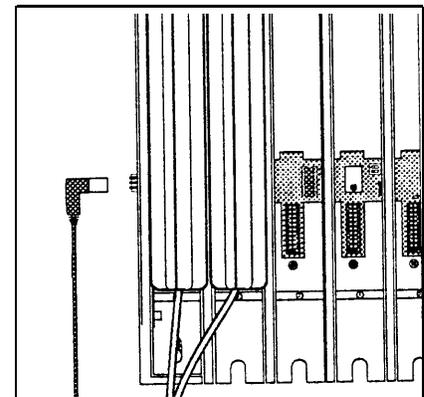
- 6** Slide the telephone line cords through the rear exit slots on the bottom of the carrier. Cords originating from slots 1 and 6 can share exit slots with cords from slots 2 and 5 respectively.



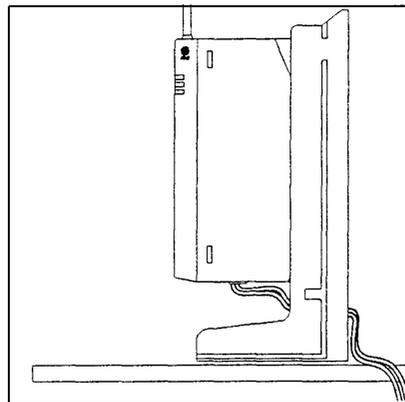
- 7** Insert the free end of the telephone line cord into the appropriate extension jack or terminal/station connector on your communications system switch/control unit (refer to your communications system manual for the proper location).



- 8** Insert the carrier's power cord into the left side of the carrier.



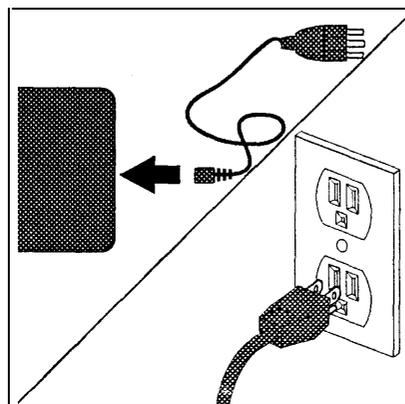
- 9** Place the carrier on its feet towards the back of the shelf or desk, making sure it is in a stable position. Be sure the telephone line cords come out the rear exit slots in the back of the unit. Arrange the power cord and telephone line cords beneath the shelf or desk so no one can step on them or trip over them.



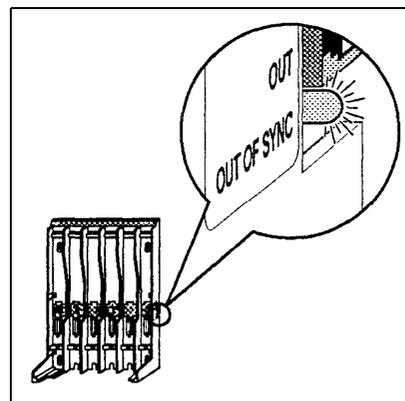
- 10** Insert the carrier's power cord into the AC adapter, then plug the AC adapter into a properly grounded 3-prong wall outlet that is not controlled by an on/off switch.

If appropriate, you can wall mount the AC adapter using its attached wall-mounting bracket.

⚠ CAUTION:
Never connect or disconnect telephone line cords, or insert or remove radio modules, while the carrier is plugged into the wall outlet.



- 11** Verify that the carrier's Out of Sync light is not lit. If the light is lit, power down and then repower the carrier. If the light is still lit, call for help as described on the inside front cover of this booklet.



Go to "Installation Self-Test."

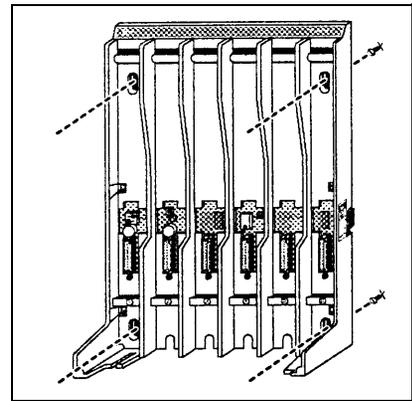
Installing a Single Carrier on a Wall

- Install high on wall, leaving at least 6 inches (15.2 cm) between antennas and ceiling
- Never install or remove a radio module from a carrier that is plugged into a wall outlet (hot insertion)
- See “Key Components” earlier in this chapter for additional picture detail

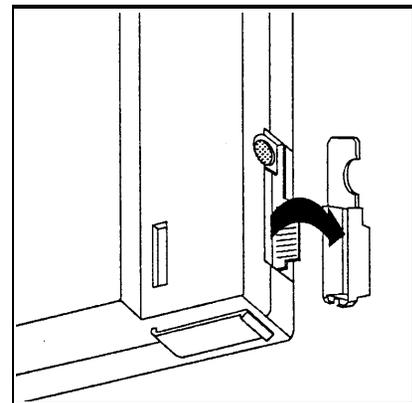
1 Check to make sure the carrier's power cord is unplugged from the wall outlet before continuing.

2 Place the carrier against the wall. Choose a location backed by a wooden stud (if unavailable, use toggle bolts instead of the supplied wood screws). Hold the carrier straight; use a level if needed. Using a nail or pencil, mark screw locations through the four wall mount holes.

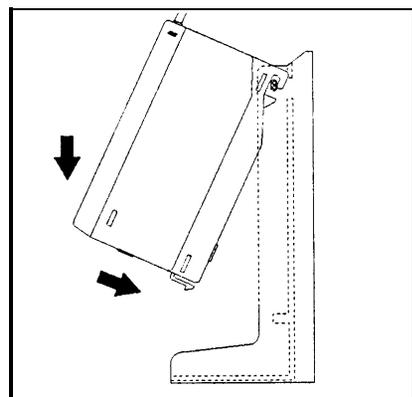
Start the screws, leaving the screw heads approximately ½" (12 mm) from the wall. Place the carrier assembly over the screws, then slide it downward to lock it into place. Tighten the screws.



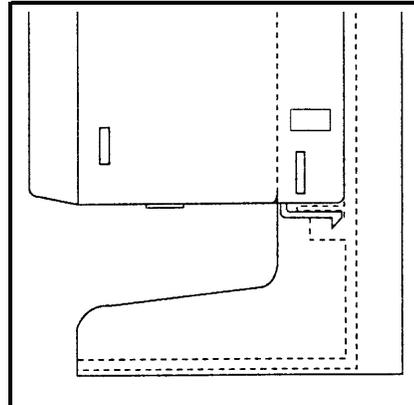
3 Remove the plastic cap covering each radio module's card edge before inserting the radio modules into the carrier.



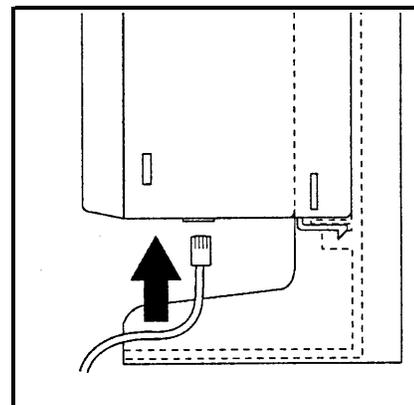
4 Starting from the leftmost slot (#1), insert each radio module into the carrier by hooking it onto the radio module mounting rod. Slowly swing the radio module's card edge into the card edge connector on the back of the carrier.



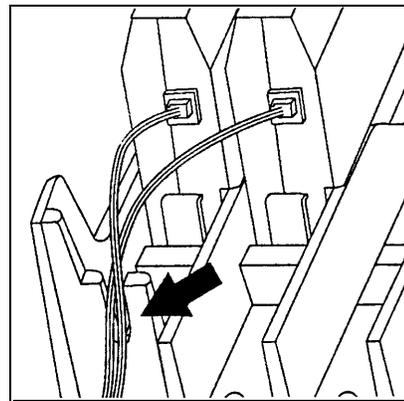
5 When the card edge is fully seated, a snap lock on the bottom of the radio module will engage.



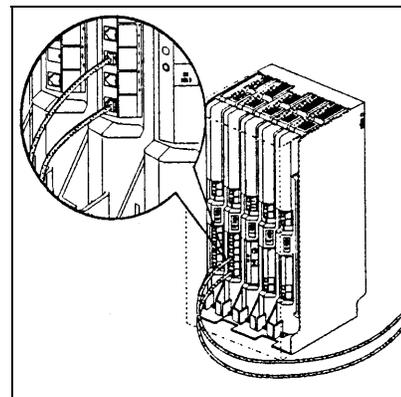
6 Insert a telephone line cord into the bottom of each radio module.



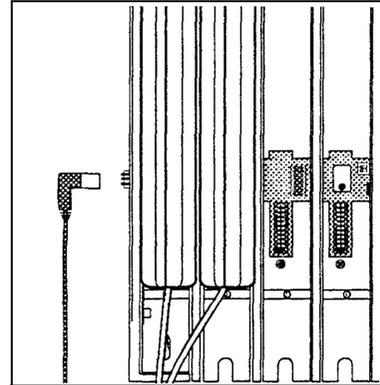
7 Slide the telephone line cords through the cable manager slot on the left front of the carrier.



8 Insert the free end of the telephone line cord into the appropriate extension jack or terminal/station connector on your communications system switch/control unit (refer to your communications system manual for the proper location).



- 9** Insert the carrier's power cord into the left side of the carrier.



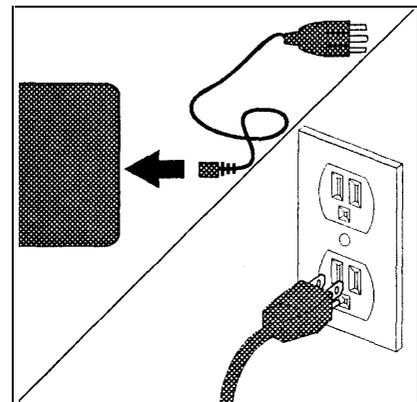
- 10** Insert the carrier's power cord into the AC adapter, then plug the AC adapter into a properly grounded 3-prong wall outlet that is not controlled by an on/off switch.

If appropriate, you can wall mount the AC adapter using its attached wall-mounting bracket.

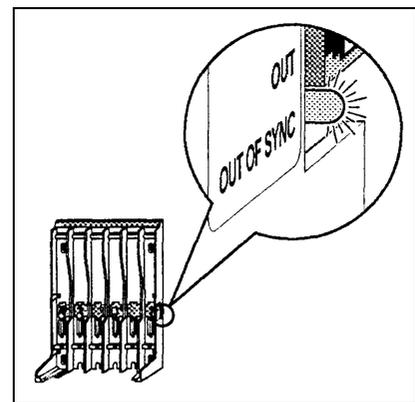


CAUTION:

Never connect or disconnect telephone line cords, or insert or remove radio modules, while the carrier is plugged into the wall outlet.



- 11** Verify that the carrier's Out of Sync light is not lit. If the light is lit, power down and then repower the carrier. If the light is still lit, call for help as described on the inside front cover of this booklet.



Go to "Installation Self-Test."

Installing Multiple Carriers

- Install each carrier high on wall, leaving at least 6 inches (15.2 cm) between antennas and ceiling
- Install each carrier 1 foot (0.3 m) optimal to 4 feet (1.2 m) from its neighboring carrier
- Never install or remove a radio module from a carrier that is plugged into a wall outlet (hot insertion)
- See “Key Components” earlier in this chapter for additional picture detail

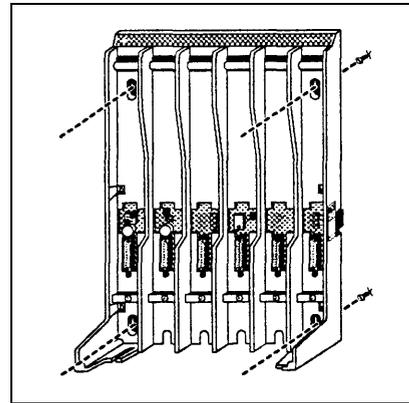
1 Check to make sure the carrier's power cord is unplugged from the wall outlet before continuing.

2 Choose a location backed by a wooden stud for the carrier (if unavailable, use toggle bolts instead of the supplied wood screws).

IMPORTANT:

The leftmost carrier must be the control carrier.

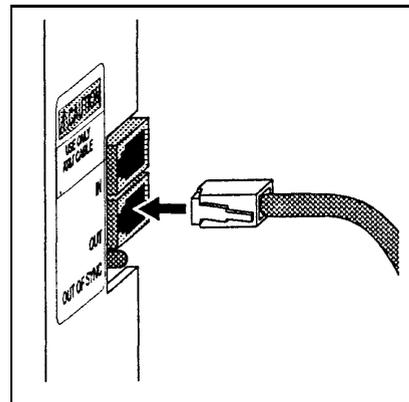
Place the carrier against the wall, leaving enough room to the right for additional carrier(s) if applicable. Hold the carrier straight; use a level if needed. Using a nail or pencil, mark screw locations through the four wall mount holes. Start the screws, leaving the screw heads approximately ½" (12 mm) from the wall.



3 Repeat steps 1 and 2 for each carrier.

4 Place the carrier over the screws, then slide it downward to lock it into place. Be sure that the leftmost carrier is the control carrier. Tighten the screws. Repeat for each carrier.

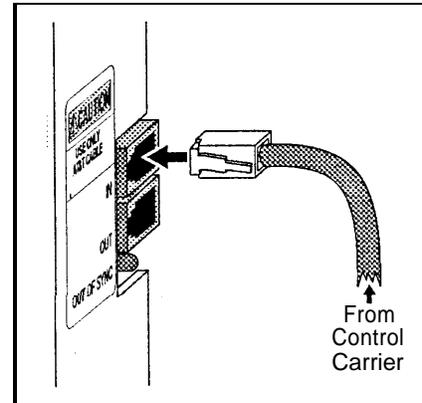
5 Connect an expansion cable to the OUT jack of the control carrier.



- 6** Insert the free end of the expansion cable into the IN jack of the expansion carrier immediately to the right of the control carrier.

NOTE:

Although installing an expansion cable into the wrong IN or OUT jack will not harm either carrier, doing so causes all handsets to work improperly and the Out of Sync LED to light.

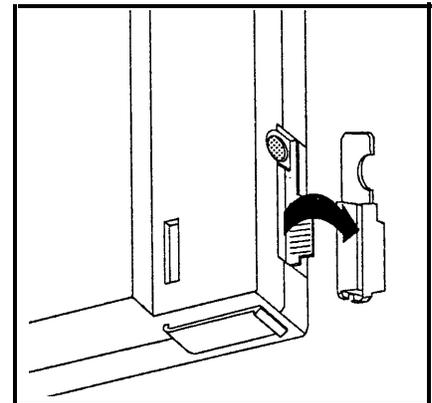


- 7** If you have a second expansion carrier:

- a. Connect an expansion cable to the OUT jack of expansion carrier #1.
- b. Insert the free end of the expansion cable into the IN jack of expansion carrier #2.

See “Key Components” earlier in this chapter for an illustration of a three-carrier setup.

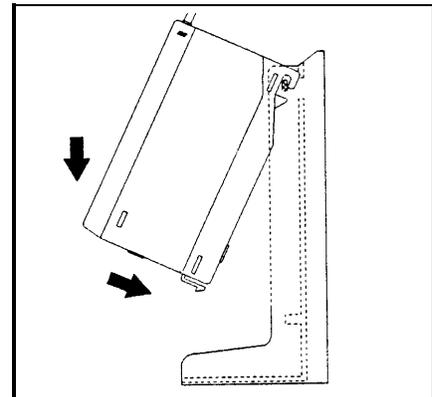
- 8** Remove the plastic cap covering each radio module’s card edge before inserting the radio modules into the carriers.



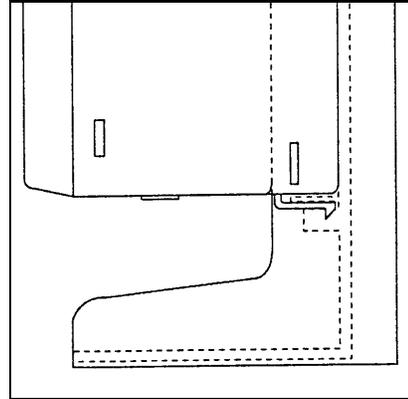
- 9** Working from left to right, insert a radio module into each slot, starting with slot 1; hook each radio module onto a mounting rod. Slowly swing the radio module’s card edge into the card edge connector on the back of the carrier.

IMPORTANT:

There must always be a radio module in slot 6 of the control carrier.



- 10** When the card edge is fully seated, a snap lock on the bottom of the radio module will engage.

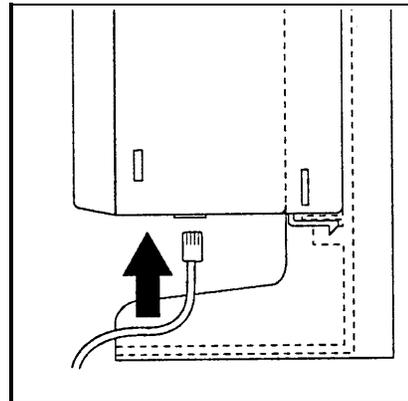


- 11** Repeat Steps 9 and 10 for each carrier, until each radio module is inserted into a carrier.

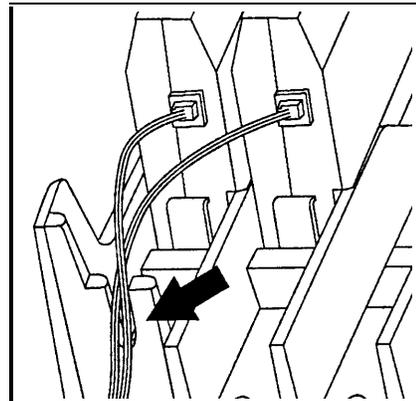
NOTE:

Fill all six slots of the current carrier before inserting radio modules into the next carrier.

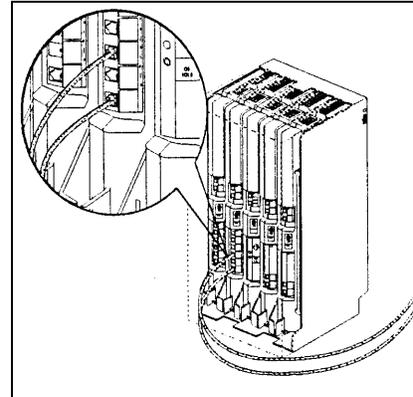
- 12** Insert a telephone line cord into the bottom of each radio module.



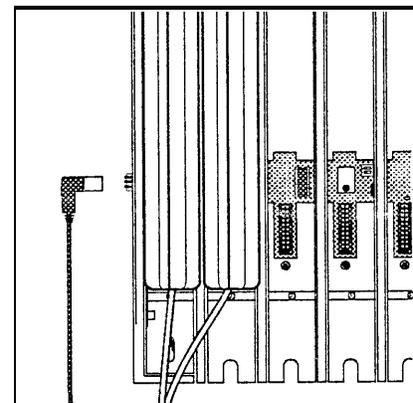
- 13** Slide the telephone line cords through the cable manager slot on the left front of each carrier.



- 14** Insert the free end of the telephone line cord into the appropriate extension jack or terminal/station connector on your communications system switch/control unit (refer to your communications system manual for the proper location).

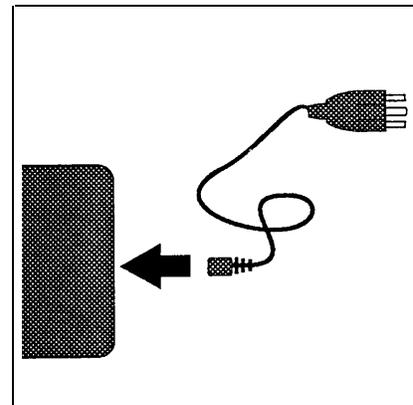


- 15** Insert a power cord into the left side of each carrier.



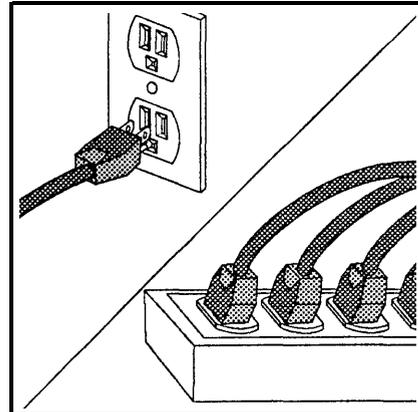
- 16** Insert each carrier's power cord into its AC adapter.

If appropriate, you can wall mount each AC adapter using its attached wall-mounting bracket.

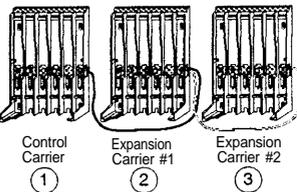


17 Plug each carrier's AC adapter into one of the following power sources that is not controlled by an on/off switch:

- properly grounded 3-prong wall outlets or
- a surge suppressor strip.

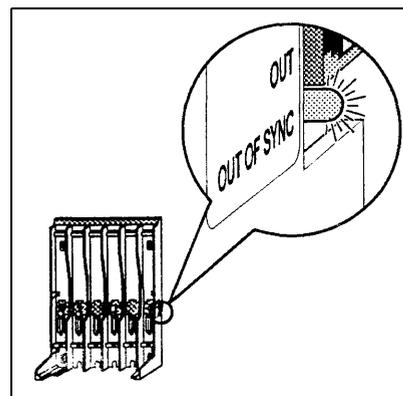


18 Power the carriers as follows:

| If the carriers are plugged into... | Then... |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| one surge suppressor strip | power the strip. <u>Result:</u> All carriers will power simultaneously. |
| separate wall outlets | power all carriers in this order:  |

⚠ CAUTION:
Never connect or disconnect telephone line cords, or insert or remove radio modules, while the carrier is plugged into the wall outlet.

19 Verify that the carriers' Out of Sync lights are not lit. If a light is lit, power down and then repower the carriers as described in Step 18. If the light is still lit, call for help as described on the inside front cover of this booklet.



Go to "Installation Self-Test."

Installation Self-Test

Upon installation, the Power and Pass LEDs on each radio module will light. The radio module(s) then initiate a 2-minute self-test and synchronization. If a radio module's Pass LED does not light, repower the module or its carrier. Refer to "Troubleshooting" later in this booklet if the LED still does not light.

NOTE:

The Radio LED also *may* light upon installation; however, since the Radio LED has no significance during the self-test, ignore its operation.

The Radio LED indicates a connection between the handset and the radio module; it lights when the handset is being used as long as the battery pack in the handset is charged.

Go to "Battery Charger."

Battery Charger

This section explains how to choose a location for the battery charger and install it. It also explains how to insert and remove a battery pack.

Positioning the Battery Charger

The battery charger can be placed on a desk, or it can be mounted on a wall. Before you install the battery charger, note the following considerations:

- Locate the battery charger within 5 feet (1.6 m) of either side of (and for wall or shelf mounting, within 5 feet (1.6 m) above) a properly grounded 3-prong electrical outlet that is not controlled by an on/off switch.
- If your communications system uses an uninterruptable power supply, such as a backup generator, be sure to connect the battery charger to that power supply.
- Do not locate the battery charger where it will be exposed to direct sunlight or water.

⚠ WARNING:

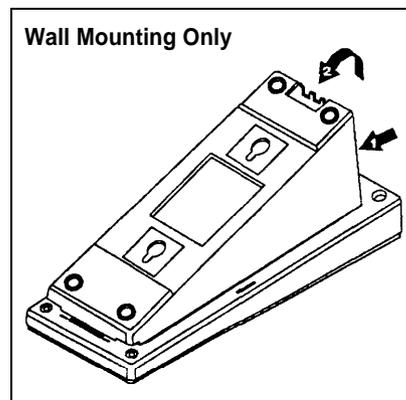
The Rechargeable battery contains nickel and cadmium. Do not burn or puncture the battery. Like other batteries of this type, if it is burned or punctured, it could release toxic material which could cause injury. Do not dispose of it in household garbage. For information about recycling or proper disposal, consult your local solid waste (garbage) collection or disposal organization.

Installing the Battery Charger

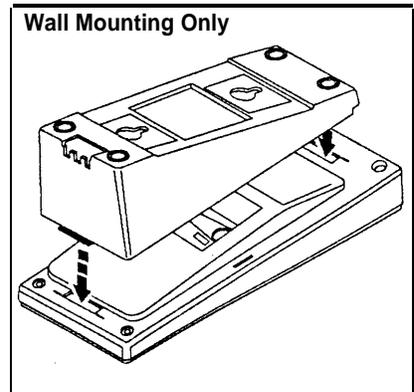
- If you are wall mounting the battery charger, follow Steps 1 through 9
- If you are desk mounting the battery charger, follow only Steps 1, 4, 5, and 9

1 Check to make sure the battery charger's power cord is unplugged from the wall outlet before continuing. If you are desk mounting, skip to Step 4.

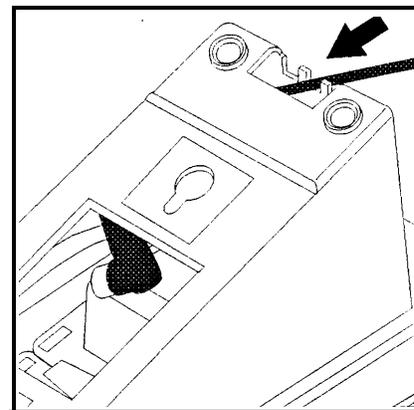
2 To wall mount, gently place the battery charger upside down. Push in the wide end of the mounting base (1) and lift upwards (2) to separate the base from the battery charger.



3 Reverse the mounting base (so the wide end of the mounting base is above the narrow end of the battery charger). Insert the tab on the narrow end of the mounting base into the slot on the wide end of the battery charger. Insert the tab on the wide end of the mounting base into the slot on the narrow end of the battery charger, pushing the mounting base down and slightly inward until the tabs lock into place.

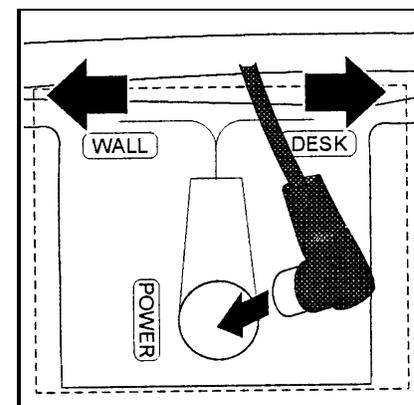


4 Insert the battery charger's power cord/AC adapter through the hole in the bottom of the wide end of the mounting base.

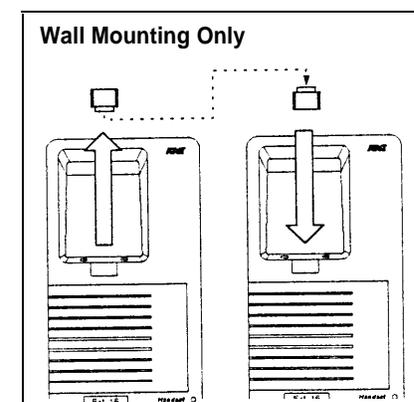


5 Insert the power cord/AC adapter into the battery charger plug marked Power. Route the power cord/AC adapter into the channel marked Desk or Wall.

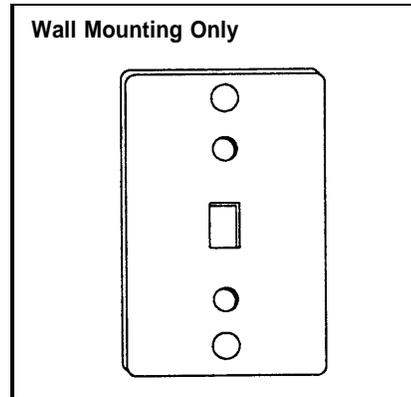
If desk mounting, place the battery charger on the desk, then go to Step 9. If wall mounting, continue with Step 6.



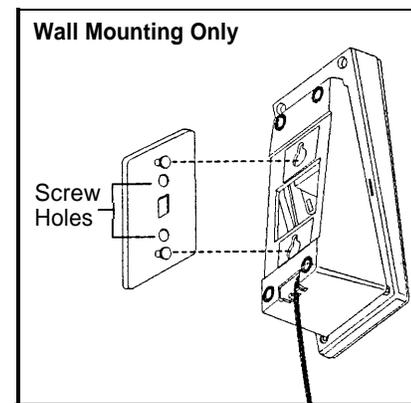
6 Reverse the handset hook on the battery charger. Slide the handset hook up out of its slot. Then turn the hook upside down and replace it in the slot with the top protruding so the handset can hang from it.



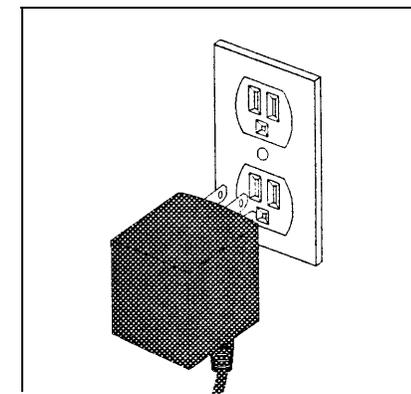
7 Place the wall mounting plate against the wall. Choose a location backed by a wooden stud (if unavailable, use toggle bolts instead of the supplied wood screws). Lightly tap a nail into the wall to start the holes.



8 Screw the wall mounting plate flush to the wall. Place the battery charger over the plate, then slide it downward to lock it into place.



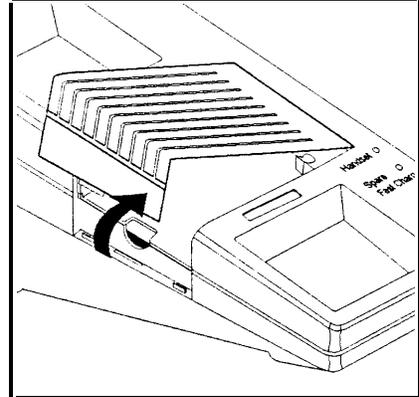
9 Plug the power cord/AC adapter into a properly grounded 3-prong wall outlet that is not controlled by an on/off switch.



Inserting a Battery Pack Into the Fast Charge Compartment

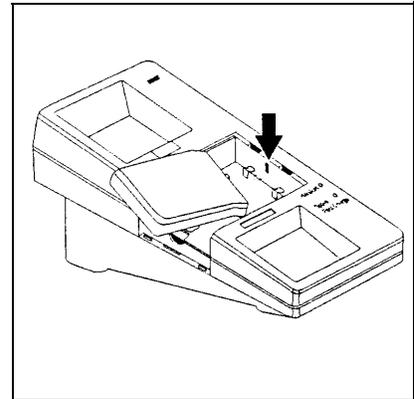
- See “The Battery Charger” in Chapter 3 for additional picture detail

1 Press the finger grip on the side of the cover and lift off the cover.



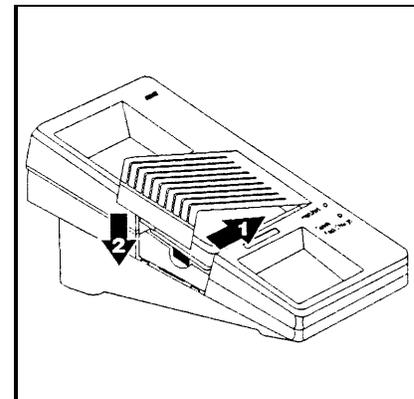
2 Insert the tab on the battery pack into the hole on the side of the fast charge compartment. Push down the battery pack to lock it into place. The Spare Fast Charge LED should light; if it does not, try reseating the battery pack.

The Spare Fast Charge LED remains lit until the battery pack is removed from the compartment.



3 Replace the cover by inserting it in the cover holes (1). Then swing the cover downward until it locks into place (2).

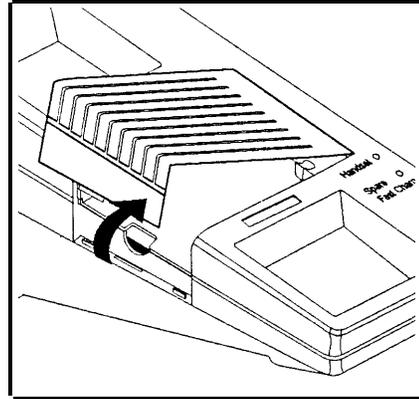
The battery pack will be fully charged and ready to use in 2.5 to 6 hours, depending on its charge state. (See “Extending Battery Life” in Chapter 3 for more information.)



Removing a Battery Pack From the Fast Charge Compartment

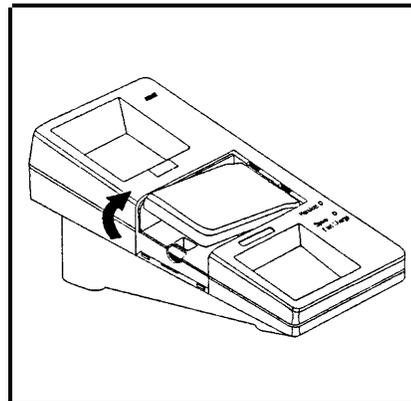
- See “The Battery Charger” in Chapter 3 for additional picture detail

1 Press the finger grip on the side of the cover and lift off the cover.



2 Insert your finger in the finger-hole under the battery pack, then gently pull the battery pack upward and out.

The Spare Fast Charge LED will go off.



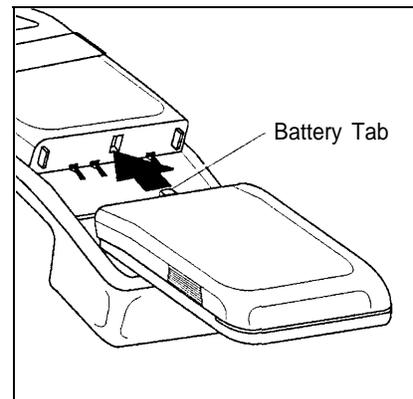
Go to “Handset.”

Handset

This section explains how to install the handset battery pack, test the handset, and fill out labels.

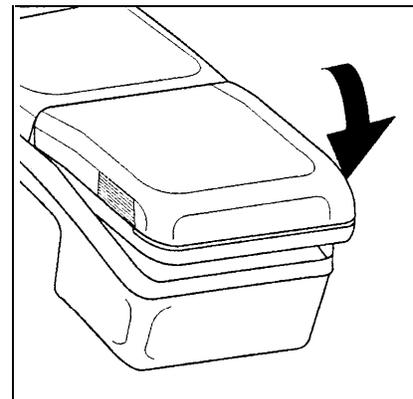
Inserting and Removing the Handset's Battery Pack

1 To insert the battery pack, insert the tab in the battery pack into the hole along the top edge of the battery compartment on the handset.

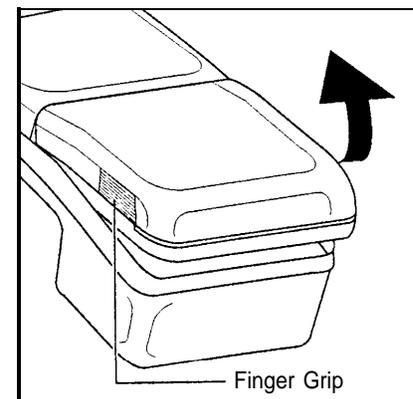


2 Press the battery pack downward to lock it into place.

The battery pack must be charged prior to use. See "Battery Charger" earlier in this chapter for instructions.



3 To remove the battery pack, grasp the finger grips on both sides of the battery pack, then gently pull the battery pack upward and out.



Testing the Handset: Local Test Mode

This test activates the audio warning signal and all visual indicators on the handset display.

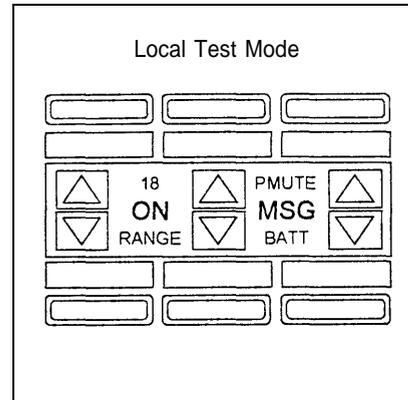
1. Make sure the handset is turned off.
2. Press [#] for at least 5 seconds.
3. While still holding [#], press [*On/Off*].

The handset emits two beeps and all indicators on the display appear as shown on the right.

If the beeps do not sound or the indicators do not appear, call for customer support as described on the inside front cover of this booklet.

4. Press [*On/Off*] to exit Local Test Mode.

You must exit this mode to initiate proper call handling.



Wireless Test Mode

You can determine sound clarity, signal strength, and voice quality using Wireless Test Mode. By performing the tests as you walk around the area in which the handset will be used, you can determine the handset's range and the voice quality throughout the area of coverage.

The following procedure provides instructions for all of the Wireless Test Mode tests. You can perform the tests multiple times and in any order; and you can exit at any time by pressing [*On/Off*].

NOTE:

Ignore anything that displays if you press [4] or [5] while in Wireless Test Mode. These displays are for AT&T Technicians' use only.

1. To **enter** Wireless Test Mode:
 - a. Make sure the handset is turned off.
 - b. Press [2] for at least 5 seconds.
 - c. While still holding [2], press [*On/Off*].

T (for Test) appears in the handset display. You hear two beeps, then simulated dial tone.
2. To determine **sound clarity**, listen to the simulated dial tone as you walk around.

A clear, steady tone indicates good sound clarity.

-
3. To determine **signal strength**, press [1].

The display shows a number from 1 to 10. The higher the number, the stronger the signal, as shown in the table below.

| Display Number | Signal Strength Is |
|----------------|--------------------------------|
| 10 | Strong/almost error free |
| 9 | Strong/almost error free |
| 8 | Strong/almost error free |
| 7 | Very good/some errors |
| 6 | Very good/some errors |
| 5 | Good/more errors |
| 4 | Good to Fair/more errors |
| 3 | Fair/more errors |
| 2 | Near end of range |
| 1 | Near end of range/loss of link |

4. To determine **voice quality**, press [2].

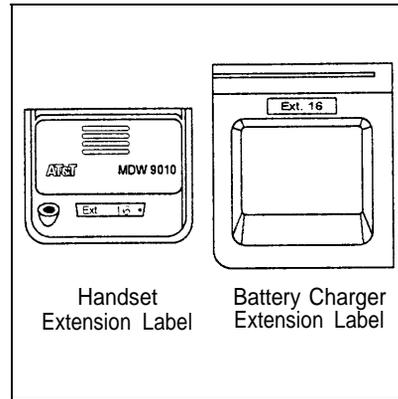
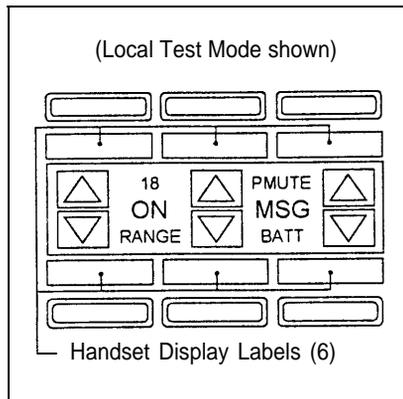
The display shows a number between 1 to 10. The higher the number, the better the voice quality, as shown in the table below. A low number may indicate potential interfering devices (such as another radio transmitter) in the area.

| Display Number | Voice Quality Is |
|----------------|---------------------------------------------|
| 10 | Very good |
| 9 | Very good |
| 8 | Errors, but not noticeable in normal speech |
| 7 | Errors, but not noticeable in normal speech |
| 6 | Noticeable noise |
| 5 | Noticeable noise |
| 4 | Noisy but intelligible speech |
| 3 | Noisy but intelligible speech |
| 2 | Garbled speech |
| 1 | Unintelligible speech |

5. To **exit** Wireless Test Mode, press [*On/Off*].

Filling Out Labels

Remove the protective film from the handset display. Using a *ballpoint pen or pencil only*, write the following information on the erasable labels:



On the handset display labels, write the line numbers or programmed features assigned to each of the outside line/programmable/intercom/drop buttons. For more information, see Chapter 6, "MDW 9010 Compatibility."

On the handset extension label (below the mouthpiece) and on the battery charger's extension label, write the phone's extension number.

NOTE:

If you use a pencil or *ballpoint pen* on these labels, you will be able to erase the information later. Do *not* use felt-tip or other types of non-erasable markers. Also, do not remove the labels.

Using the MDW 9010

3

Important Safety Instructions

This booklet contains instructions related to safety labels on the product:

- ▲ **WARNING** *indicates the presence of a hazard that can cause severe or fatal personal injury if the hazard is not avoided.*
- ▲ **CAUTION** *indicates the presence of a hazard that will or can cause minor personal injury or property damage if not avoided.*

Always follow these basic safety precautions when using this product to reduce risk of injury from fire or electric shock.

- ▲ **The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.**
- ▲ **WARNING: Risk of Electric Shock**
Failure to properly ground this product will result in a risk of electrical shock, which can cause serious personal injury. This product requires a 3-prong AC power receptacle for safe operation. You should have your receptacle checked by a qualified electrician before connecting this equipment.
- ▲ **WARNING:**
The rechargeable battery contains nickel and cadmium. Do not burn or puncture the battery. Like other batteries of this type, if it is burned or punctured, it could release toxic material which could cause injury. Do not dispose of it in household garbage. For information about recycling or proper disposal, consult your local solid waste (garbage) collection or disposal organization.

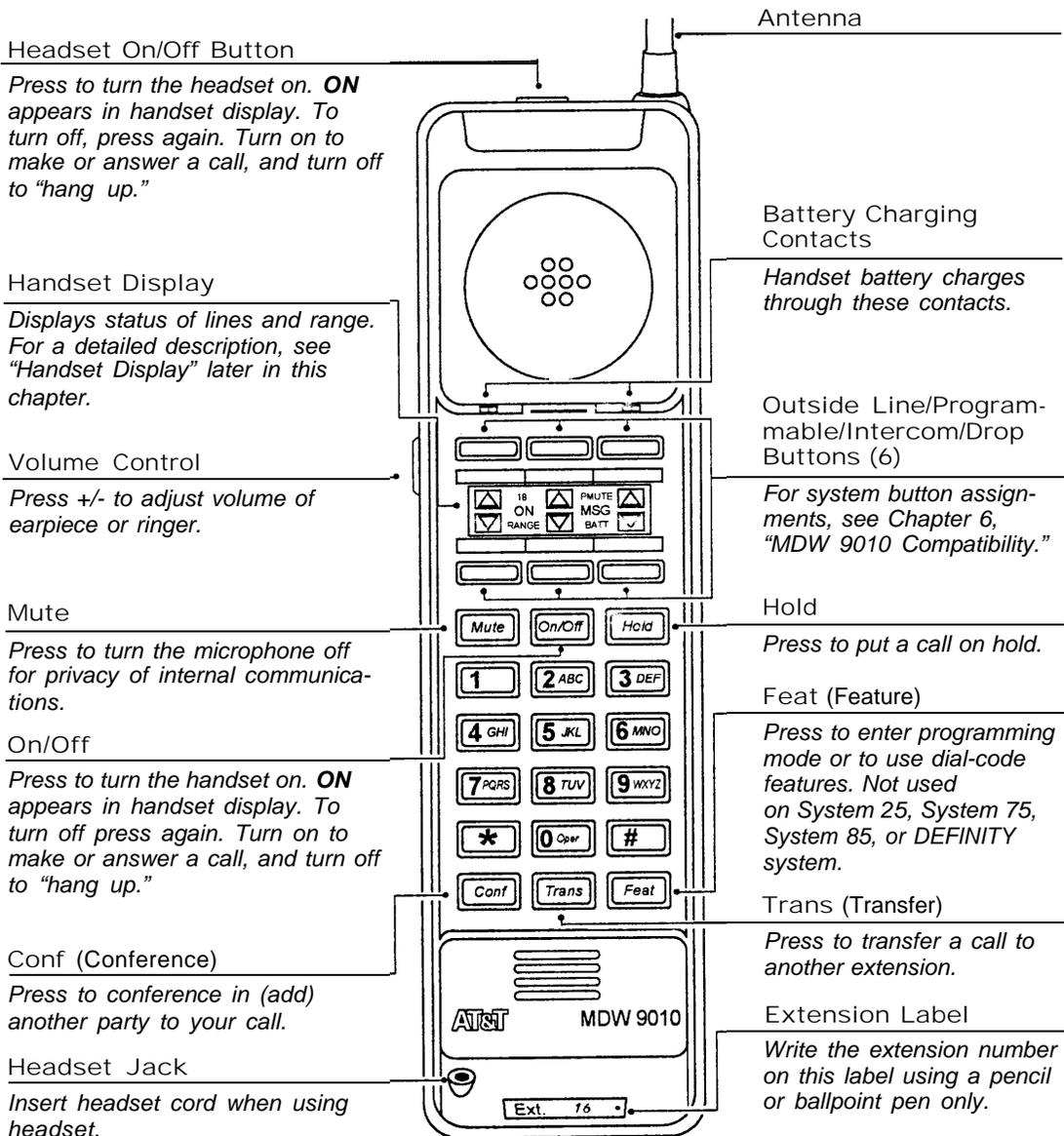
-
- Read and understand all instructions in this booklet before using this product.
 - Observe all warnings and instructions marked on the product.
 - Do not use the product near water or when you are wet. If product comes in contact with any liquids, unplug the power cord and telephone line cords immediately. Do not plug the product back in until it has dried thoroughly.
 - Never push objects of any kind into this product through housing slots, since the objects may touch hazardous voltage points or short out parts that could result in a risk of electric shock. Never spill liquid of any kind on the telephone.
 - Never place this product near or over a radiator or heat register.
 - Slots and openings in the housing and the back or bottom are provided for ventilation. To protect the housing from overheating, these openings must not be blocked or covered. Therefore, do not place the product on a bed, sofa, rug, or other similar surface. Also, do not place this product in an enclosed area unless proper ventilation is provided.
 - Use only the Model # PIDB-270 power supply shipped with this product for the battery charger or radio module.
 - Use only the Model # SW109 power supply shipped with the carrier.
 - Use only the correct power source. If you are not sure of the power supply to your location, consult your local power company.
 - This product uses a 3-prong plug in continental U.S. locations. Such plugs are designed for your safety. Do not attempt to defeat this purpose. If your wall outlet will not accept the plug, the outlet should be replaced by an electrician.
 - Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it. Do not overload wall outlets as this can result in the risk of fire or electric shock. Do not staple or otherwise attach the power cord to building surfaces.
 - Use only the type of battery pack shipped with this product.
 - If you suspect a gas leak, report it immediately, but use a telephone away from the area in question. The telephone's electrical contacts could generate a tiny spark. While unlikely, it is possible that this spark could ignite a heavy concentration of gas. This product is not approved for use in areas labeled by the Occupational Safety and Health Administration (OSHA) as "explosive environments." Only "Explosive Atmosphere Telephones" may be used in such hazardous environments.
 - Unplug this product from wall outlets and telephone jacks before cleaning. Clean exposed parts with a soft, damp cloth. Do not use liquid or aerosol cleaners.

-
- Unplug this product from the wall outlet, remove the telephone line cord from the modular wall jack or communications system switch/control unit, and refer servicing to qualified service personnel under the following conditions:
 - When the power cord or plug is damaged or frayed.
 - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - If the product has been dropped and the housing has been damaged.
 - This product should be serviced by (or taken to) a qualified service center when service or repair work is required. Do not open the product, there are no user serviceable components inside.

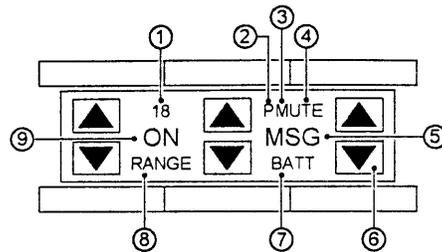
The Handset

This section describes the handset's controls, display, and indicators. It also explains how to use a carrying holster and a headset.

Handset Controls



Handset Display



- ① 18 indicates Local Test Mode; 1 through 10 are used in Wireless Test Mode.
- ② P indicates programming mode.
- ③ MUTE indicates handset microphone is turned off after pressing [*Mute*].
- ④ T indicates handset is in Wireless Test Mode.
- ⑤ MSG indicates a message has been deposited in your voice mailbox.
- ⑥ Line Status Indicators. See below.
- ⑦ BATT indicates low battery voltage. Handset also emits 2 beeps. For more information, see “Low Battery Indicator” later in this chapter.
- ⑧ RANGE indicates handset is out of range or almost out of range. Handset also beeps. For more information, see “Handset Range Indicators” later in this chapter.
- ⑨ ON indicates handset has been turned on after pressing [*On/Off*].

Line Status Indicators

There are six line status indicators; each one corresponds to a specific outside line/programmable/intercom/drop button. The indicators show either a triangle or a rectangle, signifying activity as follows:

PARTNER Systems:

A **triangle** (▲ or ▼) is the equivalent of a green LED on a wired phone and indicates activity at YOUR extension.

A **rectangle** (□) is the equivalent of a red LED on a wired phone and indicates activity at ANOTHER extension.

All Other Systems:

A **triangle** (▲ or ▼) is the equivalent of a red LED on a wired phone and indicates either the line you are currently using or the line you will use once you start to dial or accept an incoming call.

A **rectangle** (□) is the equivalent of a green LED on a wired phone and indicates the status of the line, such as whether the line is idle, ringing, or busy.

Call Alerter

If a call comes in while the phone is idle, the handset rings. If you are already on a call, the handset chirps.

Handset Range Indicators

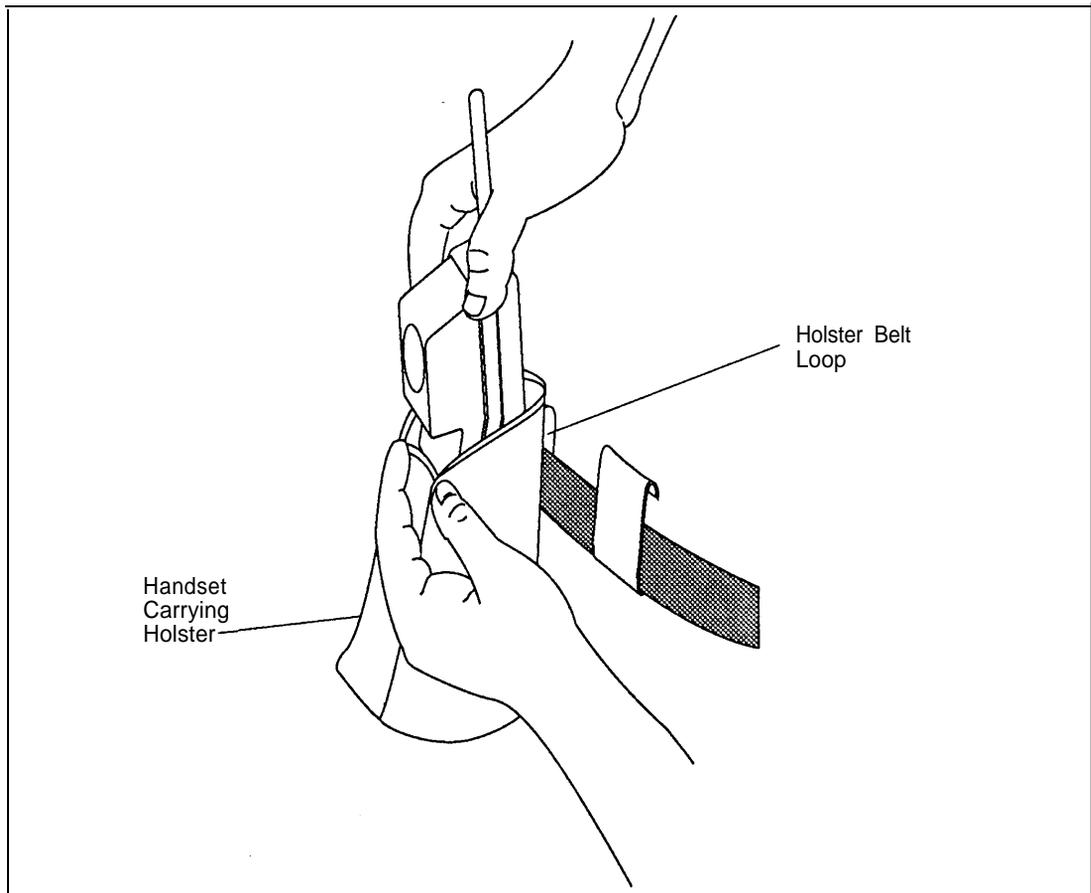
The handset provides an audible and a visual warning signal to alert you when the handset is not within optimal range of the radio module. Depending on how far away the handset is from the radio module, the signal functions as follows:

- **Out of optimal range.** If you walk into an area that is near the end of the optimal operating range of the radio module, the handset emits two beeps and flashes the **RANGE** indicator continuously. At this point, you can continue your conversation or initiate a call, but you are likely to experience a degradation in voice quality.
- **Loss of communication link.** If you walk into an area that is out of operating range of the radio module, the handset emits five beeps and flashes the **RANGE** indicator five times. In this case, you must bring the handset within range of the radio module within several seconds or the handset will turn off. If the handset turns off, it appears that your call was disconnected; however it has only been put on Hold. To talk with your party, move back towards the radio module, press [*On/Off*], then proceed as you would for any call placed on Hold.
- **Cannot establish communication link.** If you are completely out of range of the radio module when you attempt to make a call, the handset emits two beeps and flashes the **RANGE** indicator two times; then the handset automatically turns off. To make the call, move back towards the radio module and try again.

Refer to Chapter 5, "Troubleshooting," for additional information about out-of-range conditions.

Using the Carrying Holster

The carrying holster allows you to carry the handset with you without having to hold it in your hand. To attach the holster to your belt, simply thread your belt through the holster's belt loop. Then slip the handset into the holster.



To easily remove the handset from the carrying holster, place one hand on the holster to hold it in place (as shown in the picture above) then pull the handset out with the other hand.

Using a Headset

This telephone is equipped with a single-prong headset jack on the bottom of the handset (near the mouthpiece). A headset assists in call answering, and provides hands-free operation. AT&T offers a headset designed for use with your wireless phone.

NOTE:

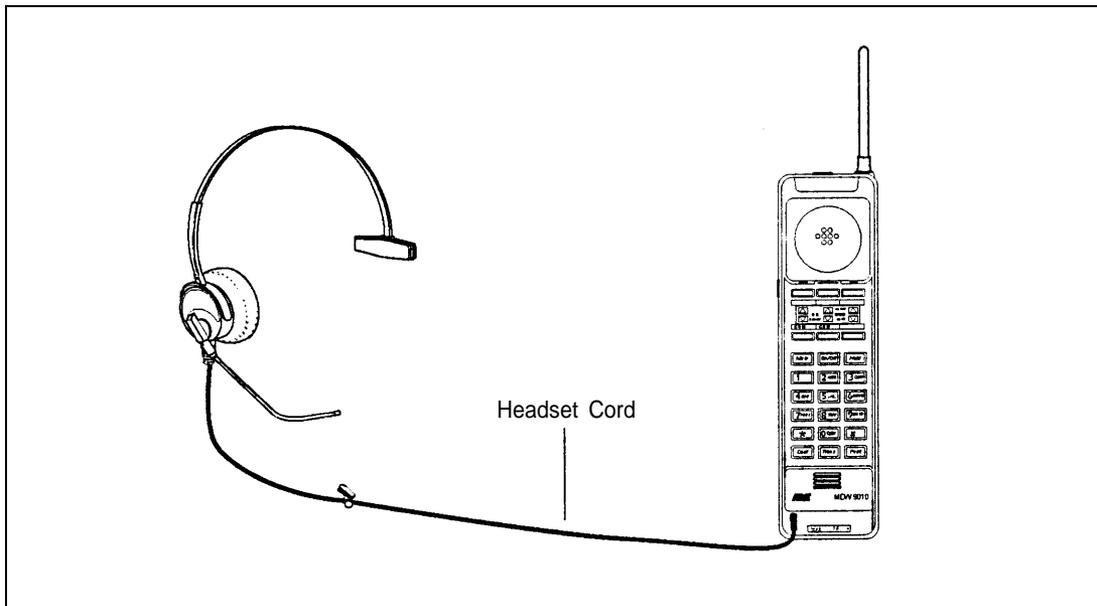
The range of the handset is diminished when you are using a headset. You may need to move closer to the radio module, or move the radio module closer to you.

To use a headset, simply plug the headset cord into the headset jack on the handset.

▲ CAUTION:

Do not plug any other device into the headset jack.

When using the carrying holster, insert the headset cord into the handset before you insert the handset into the holster.



If desired, the headset cord can be removed from the handset without the call being dropped. You can then use the handset as you normally would.

NOTE:

Calls cannot be heard on the handset when the headset is connected to the headset jack. The handset microphone is also deactivated.

Using the Headset On/Off Button

For convenience when using the carrying holster, the headset [*On/Off*] button near the antenna should be used. This button will become active **only** when the headset cord is plugged into the headset jack. It is identical in function to the [*On/Off*] button to the left of the [*Hold*] button.

Answering Calls with a Headset

When you receive a call, you will hear a ringing tone coming from the handset (you will not hear a tone from the headset itself). To answer the call, press the headset [On/Off] button near the antenna (or [On/Off] to the left of [Hold] if the handset is not in the holster).

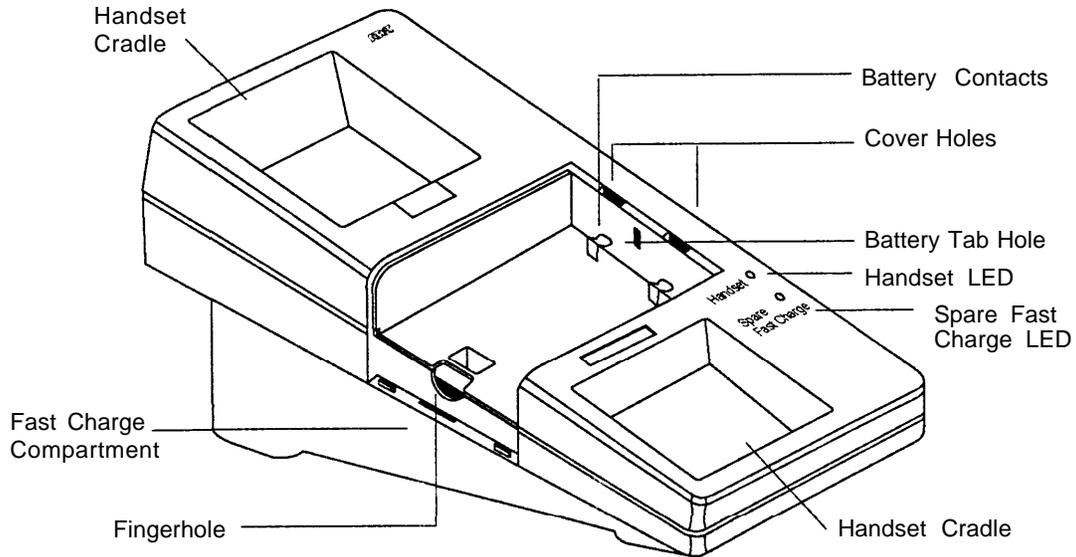
Placing Calls with a Headset

To place a call with a headset:

1. Remove the handset from the carrying holster.
2. Press the [On/Off] button near the antenna to access an available line.
3. Dial the number as described in the user instructions that come with your communications system.
4. Press the [On/Off] button to end the call.

The Battery Charger

This section describes the battery charger and explains how to use battery packs properly.



NOTE:

Do not touch, push, or pull any exposed battery contacts.

The charger offers these features:

■ The **Fast Charge compartment:**

- **Fast charges** a battery pack in 2.5 hours
- **Refreshes** the battery pack by fully discharging it before recharging it. This process reduces or eliminates the potential “memory” effect.

NOTE:

The memory effect, which reduces a battery’s capacity, is caused when you recharge a battery before it is fully discharged.

■ The **Handset Cradle:**

- **Slow charges** the handset battery pack.

- #### ■ The **Handset LED**, when lit, indicates that the handset battery pack is in charge mode. (The battery pack is installed in the handset, and the handset is on the battery charger.)

- The **Spare Fast Charge LED**, when lit, indicates that a battery pack is in the fast charge compartment:

| When the Spare Fast Charge LED... | The battery pack inside the fast charge compartment is... |
|-----------------------------------|-----------------------------------------------------------|
| is steady red | being discharged. |
| is steady orange | being fast charged. |
| is steady green | fully charged. |
| flashes orange | defective; replace the battery pack. |

The battery charger will charge *both* the handset battery pack and the battery pack in the fast charge compartment at the same time.

NOTE:

Before you use the MDW 9010 handset for the first time, the battery pack must be charged.

Low Battery Indicator

When the handset is on and the battery power is low, the handset will emit two beeps and the **BATT** indicator in the handset display will flash. When this occurs, you have approximately 1 to 2 minutes of talk time left. At this point, you can either:

- Complete your call, turn the handset off, and recharge the battery pack, or
- If you have a charged spare battery pack, place your call on Hold and replace the handset battery pack with the spare battery pack from the fast charge compartment of the battery charger. Wait 6 to 10 seconds, then turn the handset on and proceed as you would for any call placed on Hold.

NOTE:

If you continue talking, the handset will turn off when the battery pack is drained. Your call will be placed on Hold automatically so you can swap battery packs.

Extending Battery Life

Although a battery pack can be charged in the handset when the handset rests in the battery charger's handset cradle, the fast charge compartment's refresh process is optimized to give a much faster and more efficient charge to the pack. The fast charge compartment fully discharges the battery pack before recharging it, thereby ensuring the best possible charge.

The following table shows how long refreshing takes, depending on how much charge is left in the battery pack when you insert it into the fast charge compartment:

| Battery-Pack Charge State | Discharge Time | Recharge Time | Total Time |
|-------------------------------------------|----------------|---------------|------------|
| Low charge (lights BATT indicator) | 0.5 hours | 2 hours | 2.5 hours |
| Full charge | 4 hours | 2 hours | 6 hours |

IMPORTANT:

Depending on the level of memory effect that the battery has, it is sometimes necessary to refresh the battery pack in the fast charge compartment twice. (Insert the battery pack in the fast charge compartment and leave it there until the Spare Fast Charge LED is steady green. Remove the battery pack from the fast charge compartment, then reinsert it and leave it until the Spare Fast Charge LED is steady green a second time.)

Note that your handset will consume power during both talk time (when the handset is on) and standby time (when the handset is turned off, but out of the battery charger). A fully charged battery pack provides about 4.5 hours of talk time or about 30 hours of standby time. As a guideline, you can expect a 1 hour reduction in talk time for every 7 hours of standby time. Similarly, you can expect a 7 hour reduction in standby time for every hour of talk time.

We highly recommend that you purchase a second battery pack to use as a spare. With the spare battery pack in the battery charger's fast charge compartment, you are assured of having a fresh, usable battery pack while you are using the battery pack in the handset.

The slow charge that the cradle sends to the handset battery helps keep the handset operational while it is not in use. It is not a substitute for the refreshing and quick charging capability of the fast charge compartment. With this in mind, use the battery charger's fast charge compartment as the primary recharger.

Follow these steps to ensure an uninterrupted supply of power to your MDW 9010 phone:

| Action | Reason |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you have only one battery pack, place the pack into the fast charge compartment at the end of each day. | The fast charge compartment refreshes the battery pack, optimizing the battery's performance and extending its life. Because the handset never discharges the battery pack, be sure to insert the pack into the battery charger's fast charge compartment at least once a day. |
| If you have two battery packs, exchange the packs between the handset and the fast charge compartment at least once a day. Alternate the battery packs between the handset and the battery charger's fast charge compartment, even if the handset battery never lights the handset's BATT indicator. | The fast charge compartment refreshes the battery pack, optimizing the battery's performance and extending its life. |

Maintaining the MDW 9010

4

Important Safety Instructions

This booklet contains instructions related to safety labels on the product:

- ▲ **WARNING** *indicates the presence of a hazard that can cause severe or fatal personal injury if the hazard is not avoided.*
- ▲ **CAUTION** *indicates the presence of a hazard that will or can cause minor personal injury or property damage if not avoided.*

This telephone is designed to provide trouble-free performance without any special maintenance procedures. To reduce the risk of accidental damage:

- Keep the telephone in an area free of dust, smoke, and moisture; do not block the air vents by placing objects on top of the radio module.
 - Do not place the telephone near a heating duct, radiator, or other heat source, and do not drop or expose it to excessive shock or vibration.
 - Unplug the battery charger, radio module, or carrier if its power cord is damaged, if liquid is spilled into it, or if its housing becomes cracked or otherwise damaged.
 - To clean your telephone, wipe the outside housing with a soft, dust-free cloth. If absolutely necessary, you may use a cloth *slightly* dampened with a mild soap and water solution. Dry quickly with a soft cloth.
- ▲ **CAUTION:**
Your telephone contains sensitive electronic parts. Never submerge it in any kind of liquid, and never use detergents, alcohols, solvents, abrasive cleaners, or an excessive amount of water when cleaning the housing and faceplate. To do so could result in irreparable damage.

Always follow these basic safety precautions when installing or using this product to reduce risk of injury from fire or electric shock.

⚠ *The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.*

⚠ **WARNING: Risk of Electric Shock**
Failure to properly ground this product will result in a risk of electrical shock, which can cause serious personal injury. This product requires a 3-prong AC power receptacle for safe operation. You should have your receptacle checked by a qualified electrician before connecting this equipment.

⚠ **WARNING:**
The rechargeable battery contains nickel and cadmium. Do not burn or puncture the battery. Like other batteries of this type, if it is burned or punctured, it could release toxic material which could cause injury. Do not dispose of it in household garbage. For information about recycling or proper disposal, consult your local solid waste (garbage) collection or disposal organization.

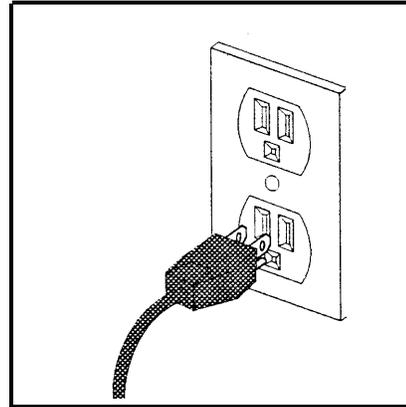
- Read and understand all instructions in this booklet before using this product.
- Observe all warnings and instructions marked on the product.
- Do not use the product near water or when you are wet. If product comes in contact with any liquids, unplug the power cord and telephone line cords immediately. Do not plug the product back in until it has dried thoroughly.
- Never push objects of any kind into this product through housing slots, since the objects may touch hazardous voltage points or short out parts that could result in a risk of electric shock. Never spill liquid of any kind on the telephone.
- Never place this product near or over a radiator or heat register.
- Slots and openings in the housing and the back or bottom are provided for ventilation. To protect the housing from overheating, these openings must not be blocked or covered. Therefore, do not place the product on a bed, sofa, rug, or other similar surface. Also, do not place this product in an enclosed area unless proper ventilation is provided.
- Use only the Model # PIDB-270 power supply shipped with this product for the battery charger or radio module.
- Use only the Model # SW109 power supply shipped with the carrier.
- Use only the correct power source. If you are not sure of the power supply to your location, consult your local power company.
- This product uses a 3-prong plug in continental U.S. locations. Such plugs are designed for your safety. Do not attempt to defeat this purpose. If your wall outlet will not accept the plug, the outlet should be replaced by an electrician.
- Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it. Do not overload wall outlets as this can result in the risk of fire or electric shock. Do not staple or otherwise attach the power cord to building surfaces.
- Use only the type of battery pack shipped with this product.

-
- If you suspect a gas leak, report it immediately, but use a telephone away from the area in question. The telephone's electrical contacts could generate a tiny spark. While unlikely, it is possible that this spark could ignite a heavy concentration of gas. This product is not approved for use in areas labeled by the Occupational Safety and Health Administration (OSHA) as "explosive environments." Only "Explosive Atmosphere Telephones" may be used in such hazardous environments.
 - Unplug this product from wall outlets and telephone jacks before cleaning. Clean exposed parts with a soft, damp cloth. Do not use liquid or aerosol cleaners.
 - Unplug this product from the wall outlet, remove the telephone line cord from the modular wall jack or communications system switch/control unit, and refer servicing to qualified service personnel under the following conditions:
 - When the power cord or plug is damaged or frayed.
 - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - If the product has been dropped and the housing has been damaged.
 - This product should be serviced by (or taken to) a qualified service center when service or repair work is required. Do not open the product, there are no user serviceable components inside.
 - Always unplug the carrier's power cord/AC adapter from the wall outlet when:
 - Removing a radio module.
 - Moving a radio module to a new slot in the carrier.
 - Installing a new radio module.
 - Connecting or disconnecting telephone line cords.

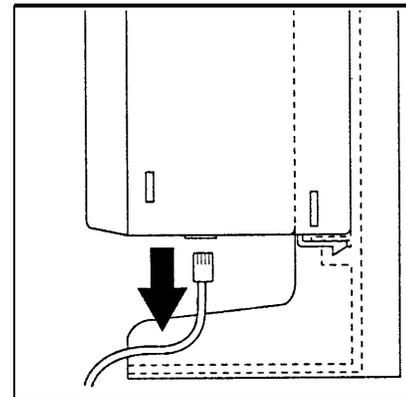
Removing a Radio Module From the Carrier

- See “Key Components” in Chapter 2 for additional picture detail
- If you have multiple carriers, slot 6 of the control (leftmost) carrier must always contain a radio module

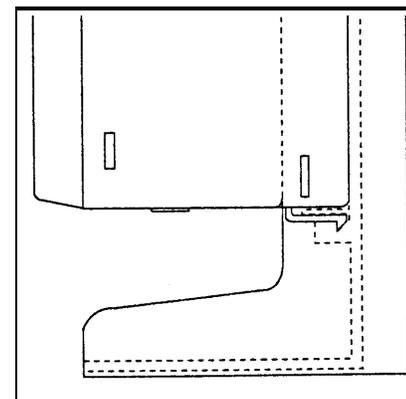
1 Unplug the carrier's power cord/AC adapter from the wall outlet.



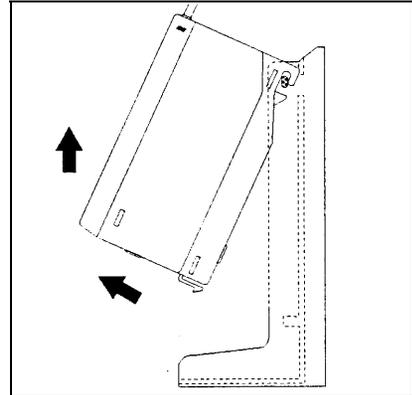
2 Unplug the telephone line cord from the bottom of the radio module.



3 Press up and hold the snap lock on the bottom rear of the radio module.



-
- 4** Slowly swing the radio module's card edge out of the card edge connector on the back of the carrier, releasing the snap lock when clear. Unhook the radio module from the radio module mounting rod by gently lifting upward.



- 5** If you removed a radio module from slot 6 of the control (leftmost) carrier, you must insert another radio module into this slot. Failure to do so will cause the carriers to go out of synchronization.

Swapping Extensions

If you want to change your phone's extension number assignment, make sure the radio module or carrier is unplugged before you unplug the telephone line cord from the communications system switch/control unit. **Power down and then repower the carrier(s) after all extension changes are made.**

Ordering Replacement & Optional Parts

To order replacement parts or optional equipment in the continental U.S., call the AT&T Sourcebook Sales, AT&T Catalog Sales, or AT&T National Parts Sales Center toll free. When ordering, please use the part numbers shown in the table below.

| Item | AT&T Sourcebook Sales 1 800 451-2100 | AT&T Catalog Sales 1 800 635-8866 | AT&T National Parts Sales Center 1 800 222-PART |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------|
| Battery Pack White Black | 32034A 32036A | 32034A 32036A | 107546400 107546392 |
| Soft Holster (Clip-On) | 32041A | 32041A | 107679409 |
| Handset Carrying Holster Gray Black | NA NA | NA NA | 846628527 846501401 |
| Handset Carrying Case (Hard) | 11135X | 11135X | NA |
| Battery Charger (includes Battery, Power Cord and AC Adapter) White Black | 32040A-10 32040A-9 | 32040A-10 32040A-9 | 107581506 107581498 |
| Power Cord and AC Adapter for Battery Charger (11 foot (3.4 m)) | NA | NA | 847523404 |
| Carrier | 3204-CR2A | 3204-CR2A | 107503906 |
| Power Cord and AC Adapter for Carrier (25 foot (7.6 m)) | NA | NA | 847224227 |
| Expansion Cable for Multiple-Carrier Installation (6 foot (1.8 m)) | NA | NA | 847667870 |
| Telephone Line Cord (8 foot (2.4 m)) | NA | NA | 103786794 |
| Power Cord and AC Adapter for Radio Module (11 foot (3.4 m)) | NA | NA | 847523404 |
| Supra® 900 Headset | 3122-041A | 3122-041A | 407156892 |
| Kit of Parts (For Single MDW 9010 Installation) | D-182866 | D-182866 | 107586828 |

Outside the continental U.S., contact your AT&T Representative or local Authorized Dealer.

Troubleshooting

5

Procedures

If you have a problem with your wireless phone, you may be able to solve it by following the procedures listed here. If you cannot resolve the problem, call for help as described on the inside front cover of this booklet.

Installation Problems

| Symptom | Possible Causes | Possible Solutions |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| After plugging the radio module or carrier into an electrical outlet, one or more radio module POWER LEDs do not light. | Radio module or carrier(s) are plugged into an electrical outlet controlled by a switch. | Plug the radio module or carrier(s) into an outlet not controlled by a switch. |
| | Power cord of radio module or carrier(s) is not inserted properly. | Unplug the AC adapter from the electrical outlet. Disconnect and then carefully reinsert the power cord into the radio module or carrier(s). Plug the AC adapter back into the electrical outlet. |
| | Power cord of radio module or carrier(s) is defective. | Call for help.* |
| After plugging the radio module or carrier into an electrical outlet, a radio module's PASS LED does not light. | Radio modules are not synchronized properly. | 1. Power down, then repower the control carrier. 2. Power down, then repower the expansion carrier(s). 3. If the problem persists, call for help.* |
| | Radio module or carrier is inoperable. | Call for help.* |

* See "Customer Support" on the inside front cover of this booklet.

Installation Problems (continued)

| Symptom | Possible Causes | Possible Solutions |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| One or more Out of Sync lights are lit, radio module PASS LEDs are not lit, or both. | Expansion cable(s) are installed in the wrong IN or OUT jacks, or are not fully inserted into the correct jacks. | <ol style="list-style-type: none"> 1. Verify that all expansion cables are installed in the correct IN and OUT jacks. 2. Ensure that all expansion cables are fully inserted into their jacks. 3. Power down, then repower the control carrier. 4. Power down, then repower the expansion carrier(s). |
| | The carriers were not powered in the correct order. | |
| | A telephone line cord was disconnected and reconnected without powering down and repowering the carrier(s). | |

Handset Problems

| Symptom | Possible Causes | Possible Solutions |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| After placing the handset in the battery charger's handset cradle, the handset does not turn off. | Battery charger is plugged into an electrical outlet controlled by a switch. | Plug the battery charger into an outlet not controlled by a switch. |
| | Battery charger's power cord is not inserted properly or is not inserted at all. | Unplug the AC adapter from the electrical outlet. Disconnect and then carefully reinsert the power cord into the battery charger. Plug the AC adapter back into the electrical outlet. |
| After pressing [<i>On/Off</i>], dial tone is not heard and handset display does not show anything. | Battery pack is not charged sufficiently. | Remove the handset battery pack, place it in the battery charger's fast charge compartment until fully charged. If you have a charged battery pack, place it in the handset while the other battery pack recharges. |
| | Telephone line cord is not plugged into the radio module. | Power down the radio module or carrier(s). Plug the telephone line cord into the radio module, then repower the radio module or carrier(s). |
| Handset does not respond to repeated [<i>On/Off</i>] button presses. | There was a recent occurrence of lightning, or a power failure. | <ul style="list-style-type: none"> ■ Remove the battery pack from the handset for 10 seconds, then replace it. ■ Check to see if the radio module or carrier is receiving power. |

Handset Problems (continued)

| Symptom | Possible Causes | Possible Solutions |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| After pressing [<i>On/Off</i>], dial tone is not heard and the RADIO LED on the radio module does not light. | There is no battery pack in the handset. | Insert a battery pack in the handset. |
| | Battery pack is not inserted properly in the handset. | Make sure the battery pack is inserted properly in the handset. |
| | Battery pack is not charged sufficiently. | Remove the handset battery pack, place it in the battery charger's fast charge compartment until fully charged. If you have a charged battery pack, place it in the handset while the other battery pack recharges. |
| | Handset is out of range of its matching radio module. | Move the handset closer to the radio module. |
| | There is interference from another electrical device (microwave) or metal walls. | Remove the electrical device that is causing interference, or move the handset to another location. |
| You can hear the party on the other end, but they cannot hear you. MUTE appears in the handset display. | The [<i>Mute</i>] button was pressed inadvertently. | Press [<i>Mute</i>] again to turn off the mute feature. |
| After pressing [<i>On/Off</i>], the handset beeps and RANGE shows in the handset display. | Handset is out of range of its matching radio module. | Move the handset closer to the radio module. |
| | An electrical device is interfering with your communications link. | Remove the interfering device or power it off, or move the handset to another location. |
| No ring on incoming call, RANGE appears in handset display. | Handset is out of range of its matching radio module. | Move the handset closer to the radio module. |
| While talking and walking, the handset beeps and RANGE flashes in the handset display. | You are approaching an out-of-range condition. | Move back towards the handset's matching radio module until the display stops showing RANGE . |

Handset Problems (continued)

| Symptom | Possible Causes | Possible Solutions |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| While talking and waking, the handset beeps and RANGE flashes in the handset display. You keep walking away from the handset's matching radio module, the display goes blank, and your call appears to be disconnected. | You are out of range of the radio module. YOUR CALL HAS NOT BEEN DISCONNECTED. IT HAS BEEN PLACED ON HOLD. | Move back towards the radio module. Press [<i>On/Off</i>], then proceed as you would for any call placed on Hold. |
| After placing a call on Hold, you walk away from the handset's matching radio module. Your handset beeps, the handset display flashes RANGE , and your call appears to be disconnected. | You are out of range of the radio module. YOUR CALL HAS NOT BEEN DISCONNECTED. IT IS STILL ON HOLD. | Move back towards the radio module. Press [<i>On/Off</i>], then proceed as you would for any call placed on Hold. |
| Handset display beeps and shows RANGE in an area where the handset used to work well. | A power loss has thrown the carriers out of synchronization. | Check the carriers' Out of Sync lights. If any are lit, repower the carriers in order, from left to right. |
| Range for calls is lower than expected. | There are environmental limitations. | Reinstall the radio module or carrier as high as possible on the wall and away from electrical equipment. See "General Positioning Rules" in Chapter 2 for more information. |

Battery Problems

| Symptom | Possible Causes | Possible Solutions |
|---------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BATT appears in the handset display. | Battery power is low. | You have 1 to 2 minutes of talk time left. Either: <ul style="list-style-type: none"> ■ Complete your call, turn the handset off, and recharge the battery pack in the battery charger's fast charge compartment. ■ If you have a fully charged spare battery pack, place your call on Hold. Swap the battery packs. Wait 6 to 10 seconds, then turn the handset on and proceed as you would for any call placed on Hold. |

Battery Problems (continued)

| Symptom | Possible Causes | Possible Solutions |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The handset battery pack does not last as long as it used to under similar conditions. | The battery pack needs to be refreshed. | When BATT flashes, insert the handset battery pack into the fast charge compartment until the Spare Fast Charge LED is steady green (2.5 to 6 hours). |
| You get less than 4.5 hours of talk time when you use a battery pack that was charged in the fast charge compartment. | The battery pack needs to be refreshed a second time. | Reinsert the battery pack into the fast charge compartment until the Spare Fast Charge LED is steady green again. |

Fast Charger Problems

| Symptom | Possible Causes | Possible Solutions |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handset LED on battery charger does not light when handset is placed in battery charger. | Handset is not seated properly in battery charger. | Make sure the handset is seated properly in the battery charger. Also check that there are no obstructions on the handset or battery charger contacts. Try cleaning the contacts with a soft eraser. |
| | Battery charger is plugged into an electrical outlet controlled by a switch. | Plug the battery charger into an outlet not controlled by a switch. |
| | The handset battery pack is defective or dead. | If you have a fully charged spare battery pack, use it to replace the battery pack in the handset. Place the handset battery pack in the battery charger's fast charge compartment. |
| Spare Fast Charge LED on battery charger does not light when the battery pack is placed in battery charger's fast charge compartment. | The battery pack is not seated properly in battery charger's fast charge compartment. | Make sure the battery pack is seated properly in the battery charger's fast charge compartment. Also check that there are no obstructions on the battery pack or battery charger contacts. Try cleaning the contacts with a soft eraser. Wait one minute. If the LED still doesn't light, order a new battery pack. |
| Spare Fast Charge LED flashes orange. | The battery pack is defective or dead. | Wait one minute. If the LED still doesn't light, order a new battery pack. |
| | The battery pack is defective or dead. | Order a new battery pack. |

Voice Quality Problems

| Symptom | Possible Causes | Possible Solutions |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handset range and voice quality are not as good as they were before. | A competing radio device has been installed in the area. | Place the handset in Wireless Test Mode as described in Chapter 2. If the signal strength and voice quality readings are low, look for a newly installed radio device nearby. Remove it or move your handset's matching radio module. |
| | Carriers are out of synchronization. | <ol style="list-style-type: none"> 1. Verify that all expansion cables are installed in the correct IN and OUT jacks. 2. Ensure that all expansion cables are fully inserted into their jacks. 3. Power down, then repower the control carrier. 4. Power down, then repower the expansion carrier(s). |
| Voice quality in a specific location is poor and noisy. | Handset is too close to the carrier(s). | Move the handset at least 6 feet (1.8 m) away for a one- or two-carrier setup, or 10 feet (3.1 m) away for a three-carrier setup. |
| Volume is too low at any setting and there is noise on the line. | Handset or radio module is not working properly. | Place the handset in Wireless Test Mode and determine sound clarity as described in Chapter 2. If the dial tone is clear and strong, the handset and radio module are OK. |
| | The connection between the radio module or carrier and the switch/control unit is not proper. | Check the connection between the radio module or carrier and the switch/control unit. |
| | Telephone line may be producing noise. | Report line trouble to your local phone company. |
| Your business has two or more wireless phones installed and all handsets seem to have developed interference problems at the same time. | There was a recent occurrence of lightning, or a power failure. | Unplug the carrier's AC adapter from the electrical outlet. Wait 10 seconds, then plug the AC adapter back into the outlet. |

Voice Quality Problems (continued)

| Symptom | Possible Causes | Possible Solutions |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| You are on a call and you hear radio interference when another call rings. | System in key mode has all lines set to ring. An incoming call "wakes up" all of the other radio modules at the same time to ring the other phones. | Refer to Chapter 6, "MDW 9010 Compatibility," to reset line ringing options. |
| Voice quality for a call in progress degrades for more than 6 seconds (PARTNER, PARTNER Plus, PARTNER II in key mode, MERLIN, MERLIN Plus, and MERLIN II phone systems only). | Line ringing options are incorrectly set for extensions with radio modules in the first expansion carrier. | Refer to Chapter 6, "MDW 9010 Compatibility," to reset line ringing options. |

MDW 9010 Compatibility

6

Programming and Call Handling Instructions

After you have installed your MDW 9010 phone and understand the controls and displays, use the programming and call handling instructions that come with your communications system; follow the user instructions for the phone type identified below:

| For this communications system... | Use the instructions for a... |
|------------------------------------------|--------------------------------------|
| PARTNER® | MDW 9000 phone. |
| MERLIN®, MERLIN Plus, and MERLIN II | 5-button phone. |
| MERLIN LEGEND® | 10-button ATL set. |
| System 25 | 10-button ATL set. |
| System 75, System 85, and DEFINITY®* | 7303s set. |

NOTE:

The MDW 9010 phone is fully compatible with the PARTNER family of communication systems. For the remaining communications systems, however, you must carefully note the functional differences between your wireless phone and the phone type identified in the table, as described on the following pages.

Entering Station Programming Mode

On all PARTNER, MERLIN, and MERLIN LEGEND systems:

- To enter programming mode, turn on the handset, press [*Intercom*], then press [*Feat*] followed by [*␣*] [*␣*].
- To exit programming mode, press [*Feat*] followed by [*␣*] [*␣*] or turn off the handset.

NOTE:

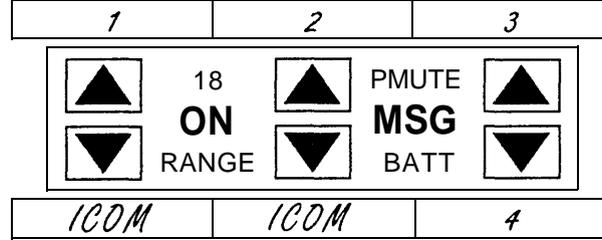
The above instructions do not apply on System 25, System 75, System 85, and DEFINITY systems, because features are assigned by the system administrator.

* For DEFINITY G3V3 systems, you can administer the system for the MDW 9000 telephone (rather than a 7303s set) and follow the user's instructions in the *MDW 9000 Wireless Telephone User's Guide*, order number 555-230-768.

Programming System Features

PARTNER Systems

- PARTNER II and PARTNER Plus system buttons should be assigned as follows; 1, 2, 3, and 4 are line or feature buttons (for a PARTNER system, buttons 1 through 4 are line only):



Setting the line ringing options: Use the following guidelines to ensure optimal voice quality when using MDW 9010 phones with a PARTNER, PARTNER Plus, or PARTNER II system in key mode:

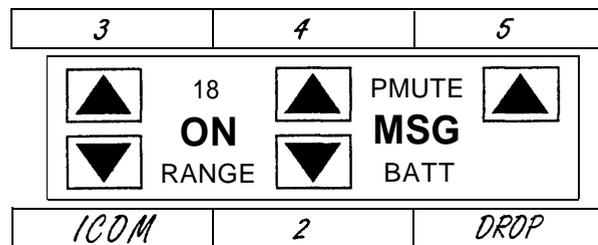
| AT&T Phone System | System with Two Carriers (one control and one expansion carrier) | System with Three Carriers (one control and two expansion carriers) |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PARTNER | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in the expansion carrier to No Ring. (Install an external audible alert for these extensions.) | Not applicable: PARTNER supports up to 12 phones. |
| PARTNER PLUS, PARTNER II | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in the expansion carrier to Delayed Ring. | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in expansion carrier #1 to Delayed Ring. 3. Set Line Ringing for each extension that has a radio module in expansion carrier #2 to No Ring. (Install an external audible alert for these extensions.) |

NOTE:

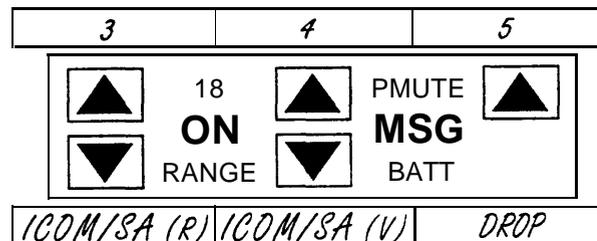
For PARTNER II hybrid systems that use pooled lines, set the Line Ringing options as described in the above table if more than six MDW 9010 handsets have the same pooled line appearance.

MERLIN Systems

- It is recommended that you use MERLIN 206/410/820 systems installed with Feature Package 2 with your wireless phone.
- On MERLIN II and MERLIN LEGEND systems, you must connect your wireless phone to an available jack on either a 408 outside line/analog telephone module or a 008 analog telephone module.
- You must disable the Voice Announce feature. This telephone does not have a speaker function.
- The wireless phone should not be assigned to a paging group.
- To program the Ringing Option feature, use the “arrow” and “rectangle” indicators in the display as the equivalent of red and green LEDs, respectively.
- For MERLIN II system users, if you program an Auto Intercom button, idle line preference must be set to intercom.
- If any of your incoming lines has the call waiting feature, program the Recall feature on one of the programmable buttons and press it before you pick up a waiting call. You can dial #50 before you pick up a waiting call on the following: MERLIN 206/410/820 systems only with Feature Package 2, and all MERLIN Plus, MERLIN II, and MERLIN 1030/3070 systems. Pressing the [*On/Off*] button will disconnect the call.
- MERLIN 206/410/820 and MERLIN Plus system buttons should be assigned as follows; 2, 3, 4, and 5 are line *or* feature buttons:



- To use MERLIN LEGEND system feature codes with this phone, program the top right-hand button as a System Feature button. This will permit you to use the wide array of LEGEND system features by turning the set on, pressing the System Feature button, and dialing the appropriate “*” code number. Your wireless phone's [*Feat*] button only allows you to enter programming mode. It does not work when using MERLIN LEGEND system features.
- MERLIN 1030/3070, MERLIN II, and MERLIN LEGEND system buttons should be assigned as follows; 3, 4, and 5 are line *or* feature buttons:



Setting the line ringing options: Use the following guidelines to ensure optimal voice quality when using MDW 9010 phones with MERLIN, MERLIN Plus, and MERLIN II:

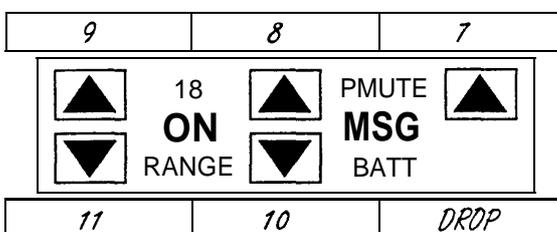
| AT&T Phone System | System with Two Carriers (one control and one expansion carrier) | System with Three Carriers (one control and two expansion carriers) |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MERLIN, MERLIN II, MERLIN PLUS | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in the expansion carrier to Delayed Ring. | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in expansion carrier #1 to Delayed Ring. 3. Set Line Ringing for each extension that has a radio module in expansion carrier #2 to No Ring. (Install an external audible alert for these extensions.) |

NOTE:

For MERLIN LEGEND systems that use pooled lines, set the Line Ringing options as described in the above table if more than six MDW 9010 handsets have the same pooled line appearance.

System 25

- For Releases 1, 2, and 3, this telephone **must** be administered as a 10-button MERLIN set (type 303).
- Either a TN762B Hybrid pack or a ZTN79 ATL pack must be used to connect the switch and the MDW 9010 telephone.
- Assigning features may be done **only** by the system administrator.
- Use the following features with caution:
Automatic Intercom, Bridging, Coverage, Direct Station Selection, Personal Line, Pooled Facility, Send All Calls (use with single ring reminder).
Since these features provide visual indication that the feature is turned on, be aware that if you turn off the handset when using that feature, you may forget that the feature is on.
- Do not assign the following features: Auto Answer, Scroll, Inspect, Directory, Next, Local, Call, and Manual Callback Queuing.
- If programming the Flex DSS or Repertory Dial feature, dial the number to be recorded and push the button you are assigning to the feature. You will receive 3 short beeps and a dial tone to confirm programming.
- If you are programming numbers for the Station Speed Dial feature, dial the numbers to be stored then dial the Personal Speed Dialing code (#20 through #39), including the #. Listen for a confirmation tone followed by a dial tone.
- System 25 buttons should be assigned as follows; 7, 8, 9, 10, and 11 are system access or feature buttons:



NOTE:

For System 25 systems that use pooled lines, set the Line Ringing options as described in the following table if more than six MDW 9010 handsets have the same pooled line appearance.

| AT&T Phone System | System with Two Carriers (one control and one expansion carrier) | System with Three Carriers (one control and two expansion carriers) |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System 25 | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in the expansion carrier to Delayed Ring. | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in expansion carrier #1 to Delayed Ring. 3. Set Line Ringing for each extension that has a radio module in expansion carrier #2 to No Ring. (Install an external audible alert for these extensions.) |

System 75, System 85, and DEFINITY Systems

This phone must be administered as a 7303s Hybrid terminal for the following systems:

- System 75 - R1V1, R1V2, and R1V3
- System 85 - R2V1, R2V2, R2V3, and R2V4
- DEFINITY G1 - (R1V4)
- DEFINITY G2 - G2.1 and G2.2 - (R2V5, R2V6)
- DEFINITY G3 Version 1 - (R1V5)
- DEFINITY G3 Version 1.1 and Version 2

Native terminal administration is provided in DEFINITY G3 Version 3.

On the older switch types that do not accommodate Universal modules (System 85 - R2V1, R2V2, R2V3, and R2V4), an ANN17B Hybrid pack in conjunction with a DS-1 carrier must be used to connect the switch and the MDW 9010 telephone. On the newer switches that accommodate Universal modules:

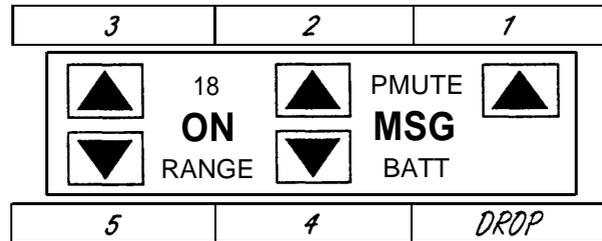
- System 75 - R1V1, R1V2, and R1V3
- DEFINITY G1 - (R1V4)
- DEFINITY G3 Version 1 - (R1V5)
- DEFINITY G3 Version 1.1 and Version 2
- DEFINITY G3 Version 3

A TN762B Hybrid pack must be used with the Universal carrier for this purpose. Depending upon the actual hardware configuration, DEFINITY G2 - G2.1 and G2.2 may utilize either an ANN17B or TN762B pack. In either case, the latest vintage packs are recommended.

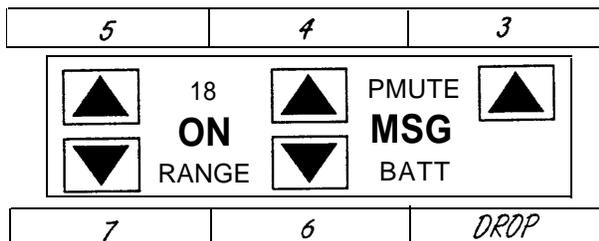
Note that for DEFINITY G2.1 and G2.2, General Terminal Administration (GTA) may be used to set up "custom" set types so that administration may be done using that custom set type.

Set administration and button feature assignment may be done only by the system administrator. It is recommended that you do not use features that require visuals (the LCD feature indicator) to be updated while the set is turned off. Also, since some features, such as Send All Calls, provide visual indication that the feature is turned on, be aware that if you turn off the handset when using that feature, you may forget that the feature is on.

- System 75 and DEFINITY G1 and G3 system buttons should be assigned as follows: 1, 2, 3, 4, and 5 are line or feature buttons:



- System 85 and DEFINITY G2 system buttons should be assigned as follows: 3, 4, 5, 6, and 7 are line or feature buttons:



NOTE:

For System 75, System 85, and DEFINITY systems that use pooled lines, set the Line Ringing options as described in the following table if more than six MDW 9010 hand-sets have the same pooled line appearance.

| AT&T Phone System | System with Two Carriers (one control and one expansion carrier) | System with Three Carriers (one control and two expansion carriers) |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System 75, System 85, DEFINITY Systems | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in the expansion carrier to Delayed Ring. | <ol style="list-style-type: none"> 1. Set Line Ringing for each extension that has a radio module in the control carrier to Ring. 2. Set Line Ringing for each extension that has a radio module in expansion carrier #1 to Delayed Ring. 3. Set Line Ringing for each extension that has a radio module in expansion carrier #2 to No Ring. (Install an external audible alert for these extensions.) |

Warranty and Repair Information



AT&T Limited Warranty and Limitation of Liability

AT&T warrants to you, the customer, that your wireless telephone system will be in good working order on the date AT&T or its Authorized Dealer delivers or installs the system whichever is later ("Warranty Date"). If you notify AT&T or its Authorized Dealer within one year of the Warranty Date that your system is not in good working order, AT&T will without charge to you repair or replace, at its option, the system components that are not in good working order. Repair or replacement parts may be new or refurbished and will be provided on an exchange basis. If AT&T determines that your system cannot be repaired or replaced, AT&T will remove the system and, at your option, refund the purchase price of your system or apply the purchase price towards the purchase of another AT&T system.

If you purchased your system directly from AT&T, AT&T will perform warranty repair in accordance with the terms and conditions of the specific type of AT&T maintenance coverage you selected. A written explanation of AT&T's types of maintenance coverage may be obtained from AT&T by calling 1 800 247-7000 (in the continental U.S. only). If you purchased your system from an AT&T Authorized Dealer, contact your dealer for the details of the maintenance plan applicable to your system.

This AT&T limited warranty covers damage to the system caused by power surges. Unless otherwise expressly agreed to in a written agreement signed by AT&T, AT&T will not be responsible under this limited warranty for damages resulting from:

- Failure to follow AT&T's installation, operation, or maintenance instructions;
- Unauthorized system modification, movement, or alteration;
- Unauthorized use of common carrier communication services accessed through the system;
- Abuse, misuse, or negligent acts or omissions of the customer and persons under the customer's control; or
- Acts of third parties and acts of God.

Regulatory Information

B

This appendix contains information about the Federal Communications Commission and Industry Canada.

FCC Part 15 Rules

The AT&T MDW 9010 Wireless Pocketphone has been tested and has been found to comply with *FCC Part 15 Rules*. These specifications are designed to provide reasonable protection against harmful interference in a commercial or residential installation. This wireless telephone generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the telephone does cause harmful interference to radio or television reception, which can be determined by turning the telephone off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Where it can be done safely, reorient the receiving television or radio antenna.
- To the extent possible, relocate the television, radio, or other receiver with respect to the telephone.
- Plug the telephone into an electrical outlet that is not on the same circuit as one used by the radio or television

IC RSS-210 Compliance

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference including interference that may cause undesirable operation of the device.

| |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| The user is cautioned that modifications to this telephone, not expressly approved by AT&T, could void the user's authority to operate the equipment. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|

Hearing Aid Compatibility

This wireless telephone is compatible with inductively-coupled hearing aids.

Specifications

C

| GENERAL | | | | |
|---------------------------------------|------------------------------------------|------------------------------------------------------------|----------------------------------|--|
| Model: | MDW 9010 | | | |
| Dimensions and Weights: | Handset | 10.0"(L) x 2.43"(H) x 1.5"(W) 25.4 x 6.17 x 3.8 cm | 0.75 lbs 0.34 kgs | |
| | Handset w/Battery Pack | 10.0"(L) x 2.43"(H) x 1.5"(W) 25.4 x 6.17 x 3.8 cm | 1.25 lbs 0.57 kgs | |
| | Battery Charger | 9.75"(L) x 5.13"(H) x 3.94"(W) 24.77 x 13.03 x 10.01 cm | 1.00 lbs 0.45 kgs | |
| | Battery Charger w/Battery Pack | 9.75"(L) x 5.13"(H) x 3.94"(W) 24.77 x 13.03 x 10.01 cm | 1.50 lbs 0.68 kgs | |
| | Battery Pack | 3.0"(L) x .75"(H) x 2.5"(W) 7.6 x 1.9 x 6.35 cm | 0.50 lbs 0.23 kgs | |
| | Headset w/Cord (approx.) | 10.5"(L) x 1.2"(H) x 5.6"(W) 26.67 x 3.05 x 14.22 cm | 0.17 lbs 0.08 kgs | |
| | Radio Module (RM) | 12.1"(L) x 1.5"(H) x 5.5"(W) 30.73 x 3.81 x 13.97 cm | 1.50 lbs 0.68 kgs | |
| | Carrier (CA) | 14.0"(L) x 2.5"(H) x 9.0"(W) 35.56 x 6.35 x 22.86 cm | 3.00 lbs 7.62 kgs | |
| | Carrier w/6 RMs | 14.0"(L) x 2.5"(H) x 9.0"(W) 35.56 x 6.35 x 22.86 cm | 12.00 lbs 5.44 kg | |
| | Power Supply (Battery Charger and RM) | 3.19"(L) x 1.94"(H) x 2.17"(W) 8.09 x 4.92 x 5.50 cm | 1.10 lbs 0.50 kgs | |
| | Power Supply (CA) | 5.13"(L) x 1.6"(H) x 1.6"(W) 13.03 x 4.06 x 4.06 cm | 1.70 lbs 0.77 kgs | |
| | Operating Temperature: | Temperature range: | 4.4° C (40° F) to 40° C (104° F) | |
| | | Relative humidity: | 15% to 95% | |
| | Electrical Specifications (Power) | Handset | 2.0 watts | |
| Battery Charger | | 1.5 watts | | |
| Radio Module | | 4.0 watts | | |
| Carrier w/6 RMs | | 24.0 watts | | |
| Power Supply (Battery Charger and RM) | | 6.0 watts (10V 600mA) | | |
| | Power Supply (CA) | 30.0 watts (9V) | | |
| Battery Pack Life: | Nickel Cadmium | 4.5 hours talk time/30 hours standby time | | |

| | |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RF SYSTEM PARAMETERS | |
| Frequency Band: | 902.1 - 927.9 MHz |
| Channel Spacing: | 150 KHz |
| Total Channel Capability: | 50 (Channels Dynamically allocated out of 173) |
| Duplex Method: | Time Division Duplex (TDD) (Transmit and Receive on same frequency) |
| Transmitter Output Power: | Dynamic Power Adjustment: 1mW ERP Minimum to 160mW ERP Maximum |
| Receiver Sensitivity: | -100 dBm at Antenna Port |
| OTHER | |
| Electrical Requirements: | <ul style="list-style-type: none"> ■ 105-135VAC, 50-60 Hz, 3-prong outlet separate ground, separately fused at 15 amps. ■ Outlet must not be controlled by an on/off switch ■ Grounding to comply with Underwriters Laboratories (UL) 1459 |
| Requirements For Out-Of-Building Extensions: | <p>Installation of a telephone or other standard (tip/ring) device in another building requires the following In-Range Out-of-Building (IROB) protectors to protect the switch/control unit and telephone device from electrical surges:</p> <ul style="list-style-type: none"> ■ MDW 9010 phone: two AT&T 503A1 protectors (ETR) two AT&T 343B protectors (ATL) |
| Wiring: | <ul style="list-style-type: none"> ■ MDW 9010 phone: AT&T SYSTIMAX® or at least 2-pair (4-wire) star ("home run" not "loop") ETR ■ AT&T SYSTIMAX or at least 4-pair (8-wire) star ("home run" not "loop") ATL ■ Bridging Adapter: AT&T 267F2 (ETR) ■ Bridging Adapter: AT&T 267C (ATL) ■ Range: 1,000 feet (305 meters) for the Radio Module (26 AWG) |

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Backplane. *See Carrier*

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