

2-9451



# Four-Line Business Phone with Intercom User's Guide



## FCC REGISTRATION INFORMATION

Your telephone equipment is registered with the Federal Communications Commission and is in compliance with parts 15 and 68, FCC Rules and Regulations.

### 1 Notification to the Local Telephone Company

On the bottom of this equipment is a label indicating, among other information, the FCC Registration number and Ringer Equivalence Number (REN) for the equipment. You must, upon request, provide this information to your telephone company.

The REN is useful in determining the number of devices you may connect to your telephone line and still have all of these devices ring when your telephone number is called. In most (but not all) areas, the sum of the RENs of all devices connected to one line should not exceed 5. To be certain of the number of devices you may connect to your line as determined by the REN, you should contact your local telephone company.

#### Notes

- This equipment may not be used on coin service provided by the telephone company.
- Party lines are subject to state tariffs, and therefore, you may not be able to use your own telephone equipment if you are on a party line. Check with your local telephone company.
- Notice must be given to the telephone company upon permanent disconnection of your telephone from your line.

### 2 Rights of the Telephone Company

Should your equipment cause trouble on your line which may harm the telephone network, the telephone company shall, where practicable, notify you that temporary discontinuance of service may be required. Where prior notice is not practicable and the circumstances warrant such action, the telephone company may temporarily discontinue service immediately. In case of such temporary discontinuance, the telephone company must: (1) promptly notify you of such temporary discontinuance; (2) afford you the opportunity to correct the situation; and (3) inform you of your right to bring a complaint to the Commission pursuant to procedures set forth in Subpart E of Part 68, FCC Rules and Regulations.

The telephone company may make changes in its communications facilities, equipment, operations of procedures where such action is required in the operation of its business and not inconsistent with FCC Rules and Regulations. If these changes are expected to affect the use or performance of your telephone equipment, the telephone company must give you adequate notice, in writing, to allow you to maintain uninterrupted service.

## INTERFERENCE INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment 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 this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna (that is, the antenna for radio or television that is "receiving" the interference).
- Reorient or relocate and increase the separation between the telecommunications equipment and receiving antenna.
- Connect the telecommunications equipment into an outlet on a circuit different from that to which the receiving antenna is connected.
- Consult the dealer or an experienced radio/TV technician for help.

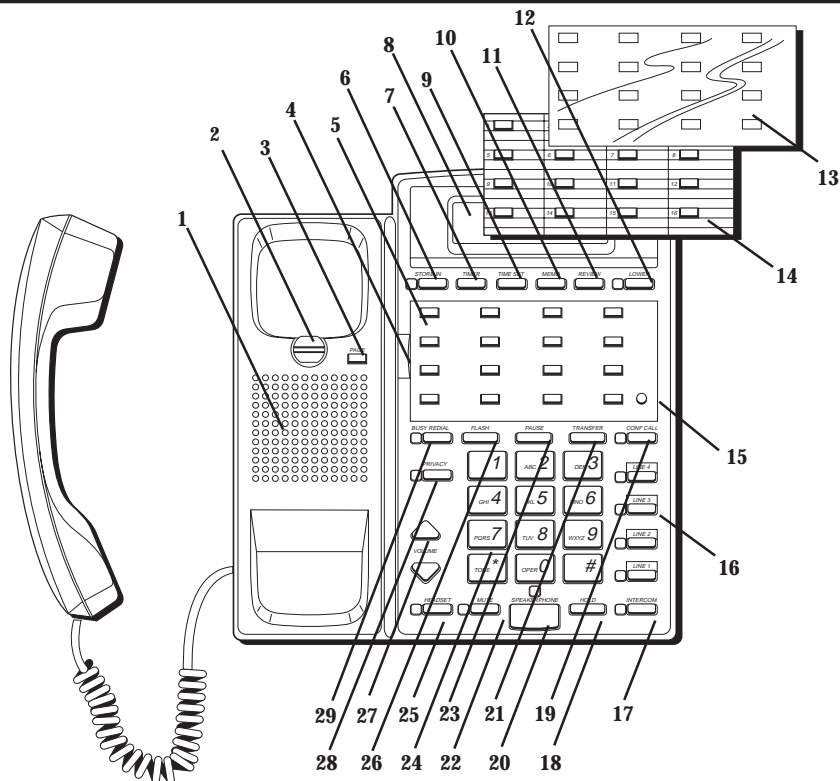
If these measures do not eliminate the interference, please consult your dealer or an experienced radio/television technician for additional suggestions. Also, the Federal Communications Commission has prepared a helpful booklet, "How To Identify and Resolve Radio/TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Please specify stock number 004-000-00345-4 when ordering copies.

## HEARING AID COMPATIBILITY

This telephone system meets FCC standards for Hearing Aid Compatibility.

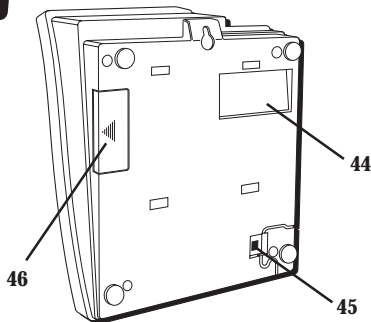
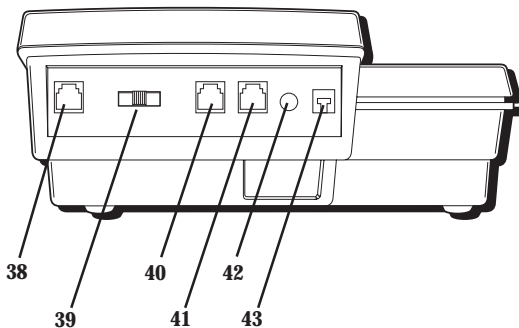
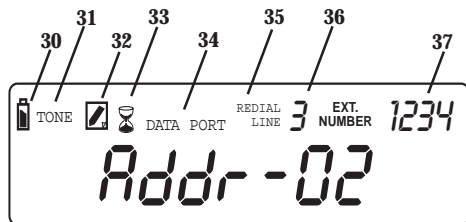
FCC NUMBER IS LOCATED ON THE CABINET BOTTOM  
REN NUMBER IS LOCATED ON THE CABINET BOTTOM

# CONTROLS AND FEATURES



- |                    |                    |                          |                         |
|--------------------|--------------------|--------------------------|-------------------------|
| 1. Speaker         | 9. TIME SET button | 16. LINE buttons         | 22. MUTE button         |
| 2. Handset hook    | 10. MEMO button    | 17. INTERCOM button      | 23. PAUSE button        |
| 3. PAGE button     | 11. REVIEW button  | 18. HOLD button          | 24. Key pad buttons     |
| 4. Index lock      | 12. LOWER button   | 19. CONF CALL button     | 25. HEADSET button      |
| 5. Memory buttons  | 13. Index cover    | 20. SPEAKER PHONE button | 26. FLASH button        |
| 6. STORE IN button | 14. Index card     | 21. TRANSFER button      | 27. VOLUME buttons      |
| 7. TIMER button    | 15. PROGRAM button | 22. MUTE button          | 28. PRIVACY button      |
| 8. Display         |                    | 23. PAUSE button         | 29. BUSY/ REDIAL button |

# CONTROLS AND FEATURES



- |                               |                               |                              |
|-------------------------------|-------------------------------|------------------------------|
| 30. Battery symbol            | 36. Line currently being used | 43. Power cord strain relief |
| 31. Touch-tone dialing symbol | 37. Extension number          | 44. Battery compartment door |
| 32. Memo symbol               | 38. DATA PORT                 | 45. Headset jack             |
| 33. Timer symbol              | 39. DATA PORT line switch     | 46. Mini User's Guide door   |
| 34. Data port symbol          | 40. LINE 1+2                  |                              |
| 35. Redial symbol             | 41. LINE 3+4                  |                              |
|                               | 42. AC power jack             |                              |

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**WARNING:** TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

	<p><b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	
<p>THE LIGHTNING FLASH AND ARROW-HEAD WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF "DANGEROUS VOLTAGE" INSIDE THE PRODUCT.</p>	<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	<p>THE EXCLAMATION POINT WITHIN THE TRIANGLE IS A WARNING SIGN ALERTING YOU OF IMPORTANT INSTRUCTIONS ACCOMPANYING THE PRODUCT.</p>
<p>SEE MARKING ON BOTTOM / BACK OF PRODUCT</p>		

# INTRODUCTION

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Your Four-Line Business Phone with Intercom is a full-featured phone ideally suited for home or office use. It is designed to receive up to 4 incoming telephone lines and to serve up to 16 station users. In an installed system, your phone provides such features as: 32 memory locations, busy redial, hold, conference call, intercom, call transfer, LCD display, and speakerphone capabilities.

Please read this user's guide carefully to familiarize yourself with all the features of your new phone. Also, make sure to retain this guide for future reference.

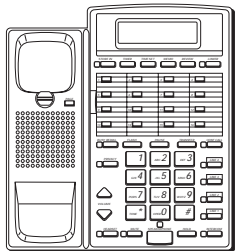


# BEFORE YOU BEGIN

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## PARTS CHECKLIST

Make sure your package includes the following items:



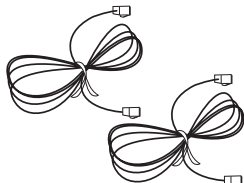
**Base unit**



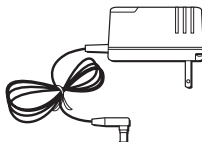
**Handset**



**Handset cord**



**Line cords**

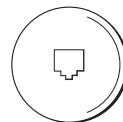


**AC power supply**

**CAUTION:** Use only the Thomson 5-2418 power supply that is compatible with this unit. Using other power supplies may damage the unit.

## MODULAR JACK REQUIREMENTS

You need an RJ14 type modular jack, which is the most common type of phone jack and might look like the one pictured here. If you don't have a modular jack, call your local phone company to find out how to get one installed.



## GETTING STARTED

**VERY IMPORTANT:** In order to have full system operation of your phone (i.e. intercom, transfer, page, etc.), lines 1 and 2 must be connected and common to all phones connected to the system. Only other 2-9451 or 2-9450 models are compatible for full system operation. Also, the telephone lines must be connected before AC power is connected. The phone may not install properly, otherwise.

Your Four-Line Business Phone with Intercom is designed for easy installation in your home or office. It is important, however, to follow these few simple guidelines:

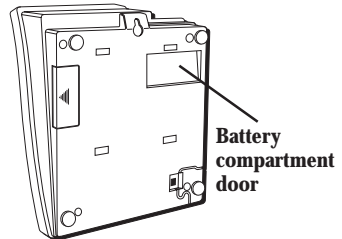
- Take a few minutes to read this material so that you thoroughly understand the sequence of steps to be followed for proper installation of your business phone.
- As you read the instructions, you may require additional line cords or other components not included with this product. These items will be indicated by the words not provided.

**NOTE:** Make sure you keep these instructions for future reference. You may need to add stations or make changes to the system later.

# INSTALLATION

**IMPORTANT:** It is imperative you follow these steps in sequence for proper installation of the phone. Telephone line cords must be connected before AC power connection is made. The phone may not install properly, otherwise. Also, without AC power or the battery installed, pulse dialing and the flash function will not operate.

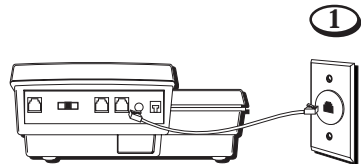
1. Carefully turn over the phone. On the bottom is the battery compartment door. Remove the screw on the door with a screwdriver and open the door.
2. Install a 9V battery, paying close attention to the battery polarity. Close the battery compartment door, and tighten the screw back in place. Carefully turn the phone over again.



**NOTE:** The backup battery is important because should you experience a power outage, you will still be able to use the phone.

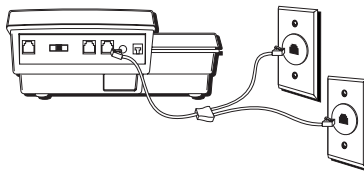
## DESKTOP INSTALLATION

1. Connect an end of one of the long telephone line cords to the jack on the back of the phone labeled LINE 1,2. Connect the other end to the wall jack(s) labeled 1 & 2. There are two possibilities for this connection.
  - One 2-line RJ14 wall jack. Connect the other end of the line cord to the wall jack.



OR

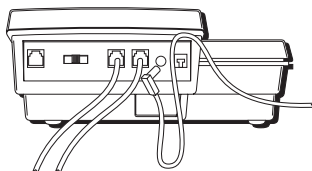
- Two single RJ11 wall jacks.
- Connect the other end of the line cord to a 2-line adapter (not provided). Then connect the adapter to the wall jacks with two short telephone line cords (also not provided).



2

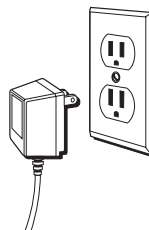
If you want to connect LINE 3 and 4, use the same procedure as in step 1.

2. For the handset, connect one end of the coiled handset cord to the jack on the side of the base unit. Take the other end of the cord and plug it into the jack at the bottom of the handset. Then place the handset in the cradle.
3. Plug the AC power supply cord into the jack on the back of the unit labeled AC 9V. Thread the cord behind the strain relief to stabilize the cord to prevent it from disconnecting easily. Then plug the AC power supply into an electrical outlet.
4. Follow the steps in "Setting Up Your Station Address" to continue installing your phone.



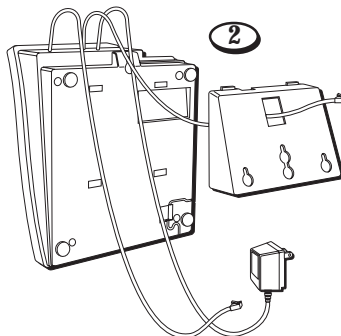
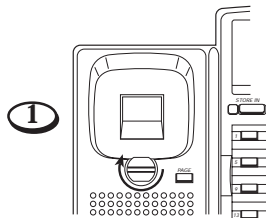
3

**CAUTION:** Use only the Thomson 5-2418 power supply that is compatible with this unit. Using other power supplies may damage the unit.

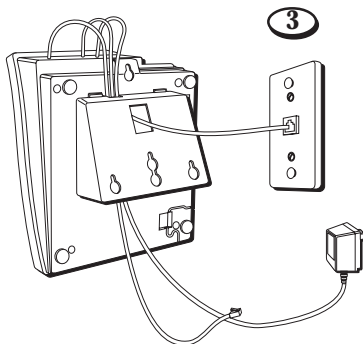


## WALL MOUNT INSTALLATION

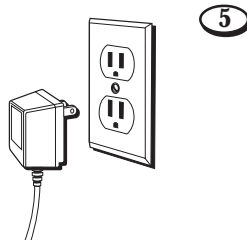
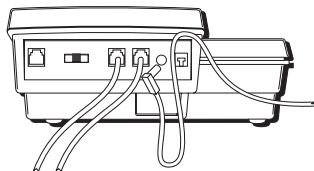
1. Turn the handset hook 180° until it clicks into place.
2. Connect one end of the telephone line cord to the jack on the back of the phone labeled LINE 1,2. For full 4-line use, connect a line cord to the LINE 3,4 jack. Thread the LINE 1,2 line cord through the hole in the wall mount bracket. Insert the wall mount bracket onto the bottom of the base unit by lining up the tabs, making sure to route the AC power cord and the LINE 3,4 line cord into the slot at the bottom of the bracket. Snap it into place. Connect the LINE 1,2 and LINE 3,4 line cords to their respective wall jacks.



3. Hold the phone against the wall plate (not included) so that the posts on the wall plate slide into the keyholes on the wall mount bracket. Slide the phone down firmly so that it locks securely into place.



4. For the handset, connect one end of the coiled handset cord to the jack on the side of the base unit. Take the other end of the cord and plug it into the jack at the bottom of the handset. Then place the handset in the cradle.
5. Plug the AC power supply cord into the jack on the back of the unit labeled AC 9V. Thread the cord behind the strain relief to stabilize the cord to prevent it from disconnecting easily. Then plug the AC power supply into an electrical outlet.
6. Follow the steps in "Setting Up Your Station Address" to continue installing your phone.



**CAUTION:** Use only the Thomson 5-2418 power supply that is compatible with this unit. Using other power supplies may damage the unit.

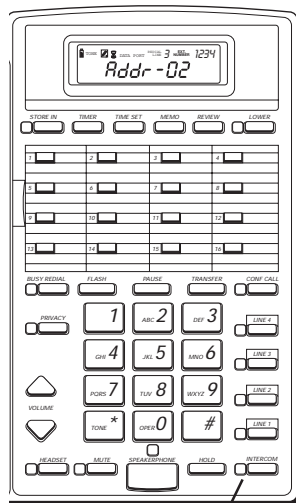
# SETTING UP YOUR STATION ADDRESS

Your phone has the ability to be set up as either a 2-9451 (the default), or a 2-9450. If you have an existing 2-9450 system, this phone can be set to be fully compatible with your system. See "Changing the Phone to a 2-9450 Model".

**VERY IMPORTANT:** In order to have full system operation of your phone (i.e. intercom, transfer, page, etc.), lines 1 and 2 must be connected and common to all phones connected to the system. Only other 2-9451 or 2-9450 models are compatible for full system operation. Also, the telephone lines must be connected before AC power is connected. The phone may not install properly, otherwise.

The display reads *Addr.*

1. Enter the station address number you want to assign (01-16) or press the corresponding memory button. The display indicates what station you have entered.
2. Press the # key to confirm. The INTERCOM indicator flashes red as it checks the system line connections and station address. If the line cords are connected properly and the station address is valid, you will hear a confirmation tone. This indicates that the station address has been successfully assigned.



**INTERCOM  
indicator**

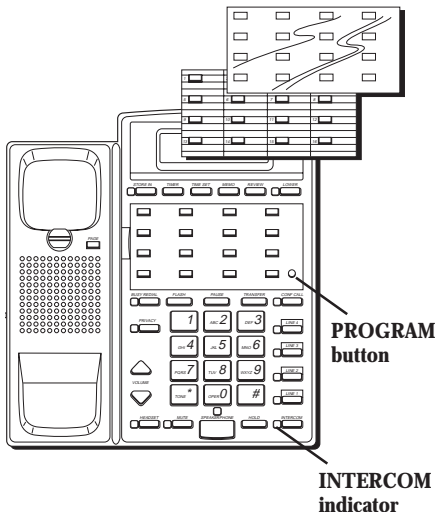




## CHANGING THE PHONE TO A 2-9450 MODEL

This phone can also be set up to be compatible with an existing 2-9450 system.

1. Press PROGRAM, which is under the acrylic memory index cover and memory index card.
2. Press 0.
3. Press the # key to confirm. The display reads *Addr-*.
4. Enter the station address number you want to assign (01-16) or press the corresponding memory button. The display indicates what station you have entered.
5. Press the # key to confirm. The INTERCOM indicator flashes red as it checks the system line connections and station address. If the line cords are connected properly and the station address is valid, you will hear a confirmation tone. This indicates that the station address has been successfully assigned.



**NOTE :** If you program the 2-9451 as a 2-9450, the Page Group feature will not be available. Line 3 and line 4 must be common for all phones on the system.

## SYSTEM VERIFICATION

The following procedures should be used to test the system's configuration and identify possible line connection errors. The phone must be connected to the AC power outlet, lines 1 and 2 must be connected to the LINE 1,2 jack, and the phone must be programmed with a station address number.

### OTHER STATIONS

1. Press LINE 1.
2. Look at all the other stations. If they all indicate line 1 is being used, the connection is correct.

OR

1. Press the INTERCOM button. The display reads *INT-* and the INTERCOM indicator comes on.
2. Enter a station address to check by using the keypad. The display indicates what station you have entered. If the station you entered is connected to the system, a paging sound will be heard at the station you are calling and the INTERCOM indicator will flash red. If the station is not connected to the system, you will hear an error tone, and intercom will be cancelled.

### YOUR STATION

1. Press REVIEW.
2. Press INTERCOM. The display will read *Addr-* with the two-digit station address (01-16).

**NOTE:** To change the station address, see "Changing a Station Address".

# CLOCK SETUP

## PROGRAMMING THE HOUR FORMAT

The clock is capable of being set to a 12- or 24-hour format. The default is 12-hour mode.

1. Press PROGRAM.
2. Press TIME SET.
3. Press 0 for 12-hour mode, or 1 for 24-hour mode.
4. Press # to confirm.

## SETTING THE TIME

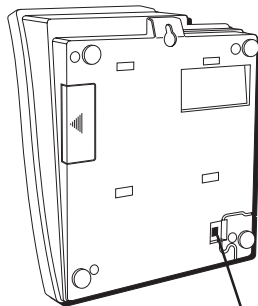
1. Press TIME SET.
2. Enter the 4-digit time. For instance, in 12-hour mode, 9:00 a.m. would be 0900.

## HEADSET

An optional headset can be used as an alternative to using the handset, and is especially useful for long calls. Contact Hello-Direct, Plantronics, or your local telephone products dealer for the availability of a compatible headset.

Connect the coiled headset cord to the headset jack on the bottom of the base unit.

When the headset is not in use, simply press the HEADSET button to turn off headset mode and return to normal handset or speakerphone mode.



**Headset  
jack**

**CAUTION:** Use only an UL registered headset. Using a non-registered headset may damage the unit.

# BASIC OPERATION

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Your phone provides the convenience of accessing 4 separate telephone lines, each obtained from the telephone company and each having its own phone number. This is generally applicable to small offices. It provides for 16 telephones (or stations) to share multiple lines. Each station is interconnected to all others by an intercom.

## MAKING OUTSIDE CALLS

### USING THE HANDSET

1. Pick up the handset and the phone will select an open line.
2. Wait for a dial tone.
3. Dial a phone number.
4. Hang up the handset when finished.

### USING THE SPEAKERPHONE

1. Press the SPEAKERPHONE button and the phone will select an open line.
2. Wait for a dial tone.
3. Dial a phone number.
4. Press SPEAKERPHONE when finished.

**NOTE:** Only one-way conversation is possible in speakerphone mode. When you are speaking, you are transmitting. When you are listening, you are receiving. You can't do both at the same time. The phone will automatically switch between transmitting and receiving depending on the level of the voice or the room noise picked up by the speakerphone mic.

## **USING THE HEADSET**

1. Press the HEADSET button. The HEADSET indicator blinks.
2. Press the line you want.
3. Wait for a dial tone.
4. Dial a phone number.
5. Press HEADSET to turn it off.

**NOTE:** If the headset is not connected, an error tone is heard when the HEADSET button is pressed.

## **RECEIVING INCOMING CALLS**

### **USING THE HANDSET**

When the phone rings, the corresponding line's indicator flashes rapidly.

1. Pick up the handset. The line is automatically selected.
2. When you are finished, hang up the handset.

### **USING THE SPEAKERPHONE**

When the phone rings, the corresponding line's indicator flashes rapidly.

1. Press the SPEAKERPHONE button. The speakerphone comes on automatically and selects a line.
2. When you are finished, press SPEAKERPHONE.

## **USING THE HEADSET**

1. When the phone rings, the corresponding line's indicator flashes rapidly.
2. Press the line button. If the headset mode is not on, you must first press HEADSET. The HEADSET indicator blinks.
3. When you are finished, press the HEADSET.

**NOTE:** Whether you are making or receiving a call, the caller will be disconnected if you press another line without putting the call on hold first.

## **SWITCHING BETWEEN USING THE SPEAKERPHONE, HANDSET, AND HEADSET**

To switch to the speakerphone, press SPEAKERPHONE. The speakerphone indicator will come on.

To switch to the handset, pick up the handset. The speakerphone or headset will go off.

To switch to the headset, press HEADSET. The headset indicator will come on.

## **TIMER**

During a phone conversation, a call will be timed. The call time and timer symbol show on the display. When finished, the total time of the call stays on the display for 15 seconds. To review the timer once it has disappeared from the display, press the TIMER button. To review the call timer for all 4 lines, continue pressing TIMER.

## MUTE

Use the MUTE button to interrupt a phone conversation to talk privately with someone else in the room. A conversation can be muted with speakerphone, handset, or headset use.

1. Press MUTE to activate the mute feature. The mute indicator will come on.
2. Press MUTE again to turn it off.

**NOTE:** Switching from speakerphone to handset or headset cancels mute.

## DO NOT DISTURB

This feature can be set at individual telephones to disable (silence) an incoming ring signal, intercom, or page. To program the duration of Do Not Disturb, see "Adjusting Do Not Disturb".

1. While the phone is not in use, press PRIVACY. The indicator blinks and the display shows, in hours, how long the ringer will be disabled. When there is an incoming call or an intercom call, the status indicators will function as normal but no ringing or voice announcements will be heard.
2. To cancel, press PRIVACY again.

**NOTE:** To override Do Not Disturb, see "Intercom". Do Not Disturb is automatically cancelled when you place or answer a call.

# HOLD

## PLACING A CALL ON HOLD

1. Press HOLD. The indicator for the line on hold flashes green.
2. Hang up or press another line button.

The phone emits a beep every 30 seconds as a reminder. At the other stations, the indicator will blink red but no beep will be heard.

**NOTE:** If you put a call on HOLD while in PRIVACY mode, no one but you can access the line on hold. Anyone trying to access the line will receive an error tone.

## PICKING UP A CALL ON HOLD

1. Lift the handset, or press SPEAKERPHONE or HEADSET.
2. Press the line on hold.

**NOTE:** The call on hold can be picked up at any station using this procedure.

# FLASH

Use the FLASH button to activate custom calling services such as call waiting or call transfer, which are available through your local phone company.

# TEMPORARY TONE

If you have pulse (rotary) service, and want to access customer calling services that require tone dialing (such as getting information from a local bank), you can use this feature.

- Press the TONE button ( \* ) after you have connected to the customer calling service to enable tone dialing.

When you hang up, the phone automatically resumes pulse dialing.

**TIP:** Temporary Tone can also be used while storing numbers in memory by pressing TONE ( \* ) at the necessary point in the storage sequence.



## **REDIAL**

1. Pick up the handset, or press SPEAKERPHONE or HEADSET.
2. The line is automatically selected. (For headset, press the line you want.)
3. Wait for a dial tone.
4. Press REDIAL.

**NOTE:** The redial function will not operate if the number to be redialed contains more than 30 digits. If the number is longer than that, you will hear an error tone.

## **REVIEWING THE REDIAL BUFFER**

1. Press REVIEW.
2. Press REDIAL. The last number stored in the redial buffer shows on the display.

## **AUTOMATIC BUSY REDIAL**

If the phone number dialed is busy, your telephone can automatically redial the number up to 10 times. It will use the line currently selected to make the calls.

## **WHEN YOU RECEIVE A BUSY SIGNAL**

1. Hang up the phone.
2. Press BUSY REDIAL. The busy redial indicator will flash between redial attempts and the speaker will beep when a connection is made. If you do not pick up the handset or speakerphone within 60 seconds, the telephone will disconnect.

## **BUSY REDIAL IS CANCELLED WHEN**

- You press BUSY REDIAL again.  
or
- A call comes in on the same line between redial attempts.  
or
- You pick up the handset or press SPEAKERPHONE.  
or
- Ten attempts have been made and the line is still busy.

**NOTE:** Auto busy redial is factory set to a 30 second interval between call attempts. You can reprogram the interval if you desire. See “Adjusting Busy Redial”.

## **TRANSFER**

### **TRANSFERRING A CALL TO ANOTHER STATION**

1. With the caller on the line, press TRANSFER.
2. Within 5 seconds of pressing TRANSFER, press the 2-digit station location button (01-16) or memory button where you wish to transfer the call. The line's indicator blinks yellow until the party you are transferring to picks up the call. Once picked up, the indicator will turn solid red. The indicator on the receiving party's line will rapidly flash yellow and ring at a different frequency until he or she picks up the call.
  - If the transferred call has not been picked up at the other station within 30 seconds, you will hear a beep at your station. The transfer cancels, the line is put on hold, and the line indicator flashes green.

- If the party at the other station doesn't pick up the transferred call, and you wish to attempt to transfer to another station, press the line you want and repeat the transfer process.
- If the station number you pressed is not valid, you will hear an error tone and the transfer cancels.
- If the party you pressed is in Do Not Disturb mode, *DND* shows on the display. The transfer is cancelled and the call is put on hold.
- If the party's station is busy, *BUSY* shows on the display.

## **RECEIVING A TRANSFER FROM ANOTHER STATION**

If a call is being transferred to your station, you will hear a different ring sound. The indicator of the line being transferred to you flashes yellow. To answer the call, press that line button.

If you are on the line when a call is being transferred to you, you will hear 3 pending beeps to alert you of the call and the light will flash yellow. You can put your current call on hold by pressing **HOLD**, then pick up the new transferred call by pressing the line button.

**NOTE:** During the transfer, the only two stations that can access the line being transferred are: a) the transferring station, or; b) the station receiving the transfer.

## **PRIVACY**

While in use, a line can be secured so that no one else can listen to the conversation. This feature only applies to 2-9450/ 2-9451 phones, however. Other phones which are not compatible with these models can still access the line.

### **PROVIDING PRIVACY ON A CALL**

At any time during a conversation, you can use the Privacy feature to secure the line.

1. While on a line, press PRIVACY. The indicator will come on.
2. To cancel, press PRIVACY again or hang up.

**NOTE:** If you put a call on hold while in Privacy, no one but you can access the line on hold.

## **VOLUME**

The ringer, speaker, and handset/headset volumes can be set independently with the VOLUME up and down buttons. Your telephone comes with preset settings which can be adjusted to individual taste. To return to the preset settings, press both the up and down buttons simultaneously. There are 15 possible volume settings per mode. A tone will indicate when the top or bottom level is reached.

### **RINGER VOLUME**

1. While the phone is on the hook, press the VOLUME up or down button. The phone will ring with the current setting.

2. While holding the up or down button, the ringer volume will sound the current setting. Release when you've reached the desired volume level. Tapping either button, while the phone is ringing, will allow you to adjust the volume one step at a time. The phone will store the setting once the button is released.

**NOTE:** To turn the ringer off, on, or change the ringing pattern, see "Adjusting the Ringers".

## **SPEAKERPHONE, HANDSET, AND HEADSET VOLUME**

- While the phone is in use, press the VOLUME up or down buttons to the desired volume. The phone will store the setting once the button is released.

**NOTE:** The handset and headset volumes will return to the default settings after you hang up the phone.

## **CONFERENCE**

This feature allows you to have a 3-way conversation using any combination of 2 lines.

*To connect*

1. To place a call, press the line you want. If you already have someone on the line, skip to step 2.
2. Press HOLD.
3. Place a call on another line.
4. Press CONFERENCE.
5. Talk to both parties.

**NOTE:** If you have more than one line on hold, and you are attempting a conference, you must select the line you want to conference.

*To disconnect one of the parties*

Simply press the line of the person you want to continue talking to, and the other party will be automatically disconnected.

*To disconnect both parties*

Simply hang up the handset, or press SPEAKERPHONE or HEADSET.

**NOTE:** By pressing HOLD first, you may then disconnect from each party individually.

## **INTERCOM**

### **ONE-TOUCH INTERCOM**

You can intercom a station by simply pressing the station number (memory keys 1-16). The handset must be hung up and neither the speakerphone nor the headset can be in use for this feature to work.

### **INTERCOMING A STATION**

1. If the INTERCOM indicator is red, it is in use. Wait until the indicator goes out.
2. Press INTERCOM. The indicator will turn green. (Pick up the handset if you want to use it instead.)
3. Press the 2-digit station number (01-16) or memory button you want. The station you want will ring and its INTERCOM indicator will flash red. If the station called does not answer in 90 seconds, intercom will be cancelled. When the person you want to call answers, the speakerphone will automatically come on. If you want to use the handset, pick it up. For the headset, press HEADSET.
4. To end the conversation, hang up or press INTERCOM.

**NOTE:** You will hear an error tone if the station address is not valid or not connected to the system. If the station you want to reach is busy, the display will show *BUSY* and the party will hear a pending tone, alerting him of the intercom. If the party's station is in Do Not Disturb (DND) mode, your station's *PRIVACY* indicator will flash. To override DND, see "Overriding a Station Using Do Not Disturb".

## **OVERRIDING A STATION USING DO NOT DISTURB**

1. Press *INTERCOM*.
2. Press the memory location for the station you want to reach. If the station is in Do Not Disturb (DND), the display will read *DND* and the *PRIVACY* indicator will flash.
3. To override DND, press *LOWER*, then *PRIVACY*. The intercom will then ring at the desired station.

**NOTE:** This only overrides the privacy at the station you are trying to reach. All other stations using DND will be unaffected.

## **RECEIVING AN INTERCOM**

The *INTERCOM* indicator will flash red to let you know someone is trying to intercom you. The display will also read *Int-* followed by the station address attempting to reach you. Press *INTERCOM*. (Pick up the handset or press *HEADSET* if you want to use it instead.)

## **PAGING ALL STATIONS**

1. Lift the handset.
2. Press *PAGE* and listen for the beep. The other stations will automatically activate their speakphones and receive your page.
3. Talk into the handset. You will have 30 seconds paging in this mode. After 30 seconds, the page will be cancelled.
4. When finished, hang up.

**NOTE:** If no page group number is assigned, all stations will be paged.

## **PAGING A GROUP**

1. Lift the handset.
2. Press LOWER.
3. Press PAGE.
4. Press the one digit (1-9) number for the group you want to page. Press 0 to page all stations.
5. Listen for the beep. The other stations in the specified group will automatically activate their speakphones and receive your page.
6. Talk into the handset. You will have 30 seconds paging in this mode. After 30 seconds, the page will be cancelled.
7. When finished, hang up.

**NOTE:** To program your own page group number, see “Programming Your Page Group”.

Also, phones which have the page function disabled or those that are in Do Not Disturb mode cannot be paged. Paging can only be done from the handset or headset.

## **DISABLING OR ENABLING PAGE**

The station page can be disabled or enabled on each individual station. The default is set to enable.

1. With the handset hung up, press STORE IN.
2. Press PAGE.
3. Press 0 for disable, 1 for enable.
4. Press # to confirm.



# MEMORY

Each of the 16 memory buttons has the capability of storing 2 separate telephone numbers (up to 30 digits each). Each memory button accesses an upper and a lower memory location. The LOWER button accesses those numbers stored in the lower memory locations.

## STORING A NUMBER

1. Press the STORE IN button. The STORE indicator comes on.
2. Enter the phone number you want to store using the keypad digits. The numbers you enter show on the display.
3. Press STORE IN again. The STORE indicator blinks red.
4. Press the memory location button (1-16) where you want to store the number. If you want to store it in upper memory, simply press the memory location button. If you want to store it in lower memory, press the LOWER button. The red indicator comes on. Press the memory location button where you want to store the number.
5. For future reference, you may want to write the name or number of the party you have stored in this location in the corresponding space on the memory index card.
6. Repeat steps 1-5 for any additional numbers you want to store, up to a total of 32.
7. To cancel the storing procedure at any time, press STORE IN. If the indicator is blinking, press it once. If it is continuously lit, press it twice.

**NOTE:** The storage procedure will automatically cancel after 15 seconds if no keys are pressed.

Also, when pulse mode is used, pressing the TONE “\*” key before programming will store all digits in tone.

## CHANGING A STORED NUMBER

If you want to change the stored number, simply enter the new number over the old number using the previous memory storing procedure. To erase a stored number, press STORE IN twice, then the memory location you want to erase.

## STORING A CHAIN OF NUMBERS

You can link together a dialing sequence of phone numbers in separate memory locations by combining them in a single memory location or have another memory location stored in one of the locations to be linked.

<i>For example</i>	<i>Memory Location</i>
Local access number of long distance company	6
Authorization code (ID)	7
Where entire sequence is to be stored including long distance phone number	8

### *Storing*

1. Press STORE IN.
2. Press memory location 6.
3. Press PAUSE.
4. Press memory location 7.
5. Press PAUSE.
6. Enter long distance number.
7. Press STORE IN.
8. Press location 8, where the entire location is to be stored.
9. Write the name for this location on the memory index card.

**NOTE:** When a chain number is stored in a memory location, it cannot be stored as another chain number sequence in a separate memory location.

## **STORING THE LAST NUMBER DIALED**

You can quickly and easily store into memory the last number dialed by pressing the redial button. Follow steps #1-7 of "Storing a Number ", but press REDIAL instead of entering the number through the keypad.

## **STORING A PAUSE**

Use the PAUSE button to insert a pause when a delay is needed in the dialing sequence (for example, when you must dial a 9 to get an outside line or when you must enter codes to access your bank's information line).

## **STORING A FLASH**

Use the FLASH button to insert a flash into your stored numbers for special features from your telephone company which may require it.

## **SPECIAL MEMORY STORAGE INFORMATION**

If more than 30 digits are attempted to be stored, an error tone will occur and the sequence will stop.

Because 30 is the maximum number of digits you can store in a single memory location, it is important to note the number of digits consumed when you store function keys. Memory digits are used as follows:

<i>Button pressed</i>	<i>Digits used</i>
Telephone keypad number	1
Pause button	1
Flash button	1
Tone/pulse switching	2
Memory location	3
Redial button	amount of redialed number

## DIALING A STORED NUMBER

1. Pick up the handset, press SPEAKERPHONE, or press HEADSET.
2. Press the line you want.
3. Wait for a dial tone.
4. Press the memory button of the person you want to call. If the number is stored in lower memory, press the LOWER button first. The number automatically dials.

## CHAIN DIALING

This process allows you to dial a succession of stored numbers from separate memory locations. This is useful when you must dial several sequences of numbers, such as with frequent calls via a telephone company long distance provider.

*For example*

*Memory location*

Local access number of long distance company

6

Authorization code (ID)

7

Long distance phone number

8

*Using*

1. Press the line you want.
2. Press memory location 6. (Press pause if needed.)
3. Press memory location 7. (Press pause if needed.)
4. Press memory location 8.

## **REVIEWING A NUMBER STORED IN A MEMORY LOCATION**

1. Press REVIEW.
2. Press the memory location you want to review. The display shows the number stored in that location.

**NOTE:** If the memory location contains a chain dial number, the display shows the number of the memory location only.

## **STORING A MEMO**

With this feature, you are able to temporarily store a number into memory (up to 30 digits), even while you are on the phone.

1. Press MEMO.
2. Enter the phone number you want to store using the keypad digits.
3. Press MEMO to exit.

## **REVIEWING A MEMO**

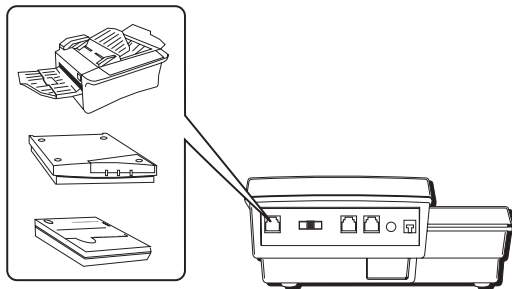
1. Press REVIEW.
2. Press MEMO. The number will be displayed on the display.

## **STORING A MEMO INTO A PERMANENT MEMORY LOCATION**

1. Press STORE IN.
2. Press MEMO.
3. Press STORE IN.
4. Press the memory location key where you want to store the memo.

## DATA PORT

This phone is equipped with a DATA PORT jack for you to connect an auxiliary phone device, such as a fax machine, computer modem, answering machine, or even a cordless phone.



The DATA PORT switch on the back of the phone controls the Data Port function by enabling you to choose the line that the DATA PORT uses, either line 1, line 2, line 3, or line 4.

You can use the DATA PORT to hook up your fax machine, for example, and then set the DATA PORT switch to LINE 4 in order to receive faxes on the phone number for line 4.

In the event that you are talking to someone on line 4 and want that person to fax something to you, change the DATA PORT switch to LINE 2 or LINE 3, and give the person the phone number for line 2 or line 3. Your fax machine now can receive calls on line 2 or line 3.

**IMPORTANT:** Be sure to switch the fax machine back to the normal line when you are done because outside callers who do not know that you have switched lines will not be able to reach your fax machine if they dial the line 4 number.

# SPECIAL FEATURES

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## ADJUSTING THE RINGERS

The ringers for all 4 of the lines can be set independent of one another.

1. Press STORE IN.
2. Press the desired line button.
3. Press 0-4 for different ringer sounds (0 disables).
4. Press # to confirm.

**NOTE:** The line indicators will still continue to flash for incoming calls even with the ringer disabled.

## ADJUSTING THE CONTRAST OF THE DISPLAY

1. Press STORE IN.
2. Press VOLUME up to increase the contrast, VOLUME down to decrease.
3. Press # to confirm.

**NOTE:** To change the display to the default contrast setting, press + and - together, then # to confirm.

## SETTING THE PRIORITY LINE

A priority line allows you to select one of the 4 lines to have precedence over the other 3 lines.

1. Press STORE IN.
2. Press LOWER.
3. Press any line button to enter Priority Line mode.
4. Press the line button you want to have priority.
5. Press # to confirm.

**NOTE:** To change the priority line, repeat the same process but choose a different line in step 4.

## PROGRAMMING THE PAUSE DURATION

1. Press PROGRAM.
2. Press PAUSE.
3. Press the amount for the duration (0-9); i.e. 1=100ms, 9=900ms. The default is 0 for automatic dial tone detect.
4. Press # to confirm.

## PROGRAMMING THE FLASH DURATION

1. Press PROGRAM.
2. Press FLASH.
3. Press the amount for the duration (1-9); i.e. 1=100ms, 9=900ms. The default is 6.
4. Press # to confirm.



## PROGRAMMING THE EXTENSION NUMBER

The line 3 and line 4 extension numbers are used for some of the advanced functions utilized by the system.

1. Press PROGRAM.
2. Press the line you want to set.
3. Enter the 4-digit extension number (0-9 for each digit).
4. Press # to confirm.

## PROGRAMMING A PAGE GROUP

Your station can be assigned to one of a total of 9 groups for the paging functions. Each station in a page group must be programmed as follows:

1. Press PROGRAM.
2. Press PAGE. *PAGE* shows on the display.
3. Press the page group number (0-9) you want to assign to your station.
4. Press # to confirm.

**NOTE:** The default is 0 for no page group assignment.

## PROGRAMMING THE PULSE/TONE MODE

1. Press PROGRAM.
2. Press the asterisk (\*) key.
3. Press 0 for tone, 1 for pulse.
4. Press # to confirm.

## **ADJUSTING DO NOT DISTURB**

The length of time before the Do Not Disturb feature is cancelled can be adjusted from 1 to 9 hours, or unlimited.

1. Press STORE IN.
2. Press PRIVACY.
3. Press the keypad digit (1-9) for the desired length of time, or 0 for unlimited.
4. Press # to confirm.

## **ADJUSTING THE AUTOMATIC BUSY REDIAL TIME INTERVAL**

The busy redial default for the time between call attempts is set for 30 seconds but can be adjusted in 10 second increments between 0 and 90 seconds.

1. Press PROGRAM.
2. Press BUSY REDIAL.
3. Press the keypad digit 0-9 to set the desired length of time corresponding to 0-90 seconds.
4. Press # to confirm.

## **ADJUSTING THE WAIT FOR BUSY TONE DETECT**

The time the phone waits until it receives a busy tone can also be adjusted.

1. Press PROGRAM.
2. Press LOWER.
3. Press BUSY REDIAL.
4. Press the keypad digit 0-5 to set the desired length of time corresponding to 0.5-5.5 seconds.
5. Press # to confirm.

## SETTING AUTO INTERCOM

The intercom function requires picking up the handset or pressing INTERCOM when you receive an intercom call. For “hands-free” operation, the phone can be set to automatically answer in the speakerphone mode when being intercommed.

**TIP:** You can use this feature for room monitoring.

1. Press PROGRAM.
2. Press LOWER.
3. Press INTERCOM.
4. Press the digit for the desired default mode. Press 1 for automatic intercom operation during intercom, or 0 for manual intercom operation.
5. Press # to confirm.

## CHANGING A STATION ADDRESS

1. Press PROGRAM.
2. Press INTERCOM. The display reads *Addr-*.
3. Press the new 2-digit station address (01-16) or memory location button you want.
4. Press # to confirm. The indicator will blink red while the phone checks the new station location. If it is already assigned, you will hear an error tone. You must then select another one. The INTERCOM indicator will turn off.

# TROUBLESHOOTING GUIDE

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In case of difficulty, please check the following Troubleshooting Guide before seeking service.

<i>Problem</i>	<i>Solution</i>
No dial tone	<ul style="list-style-type: none"><li>• Check installation:<ul style="list-style-type: none"><li>— Are the telephone line cords connected to the phone and the wall jack? Are they damaged?</li></ul></li><li>• Does the hook switch pop up when the handset is lifted?</li><li>• Check the SPEAKERPHONE button. Is the indicator off?</li><li>• Is the pulse/tone mode programmed correctly? Pulse or tone may not be compatible with your local dialing service.</li><li>• Disconnect the phone from the wall jack and connect another phone to the same jack. If there is no dial tone in the second phone, the problem might be your wiring or local service.</li></ul>
Dial tone is OK, but the phone does not dial out.	<ul style="list-style-type: none"><li>• Make sure the pulse/tone mode is programmed correctly.</li></ul>
You cannot be heard by the other party.	<ul style="list-style-type: none"><li>• Is the handset or headset cord inserted properly and securely?</li><li>• Is MUTE on?</li></ul>
Phone does not ring.	<ul style="list-style-type: none"><li>• Is the ringer turned off?</li><li>• Is Do Not Disturb activated?</li><li>• You may have too many extension phones on your line. Try unplugging some phones.</li><li>• See solutions for "No dial tone."</li></ul>

<i>Problem</i>	<i>Solution</i>
Incoming voice too low or none at all.	<ul style="list-style-type: none"> <li>• Check setting of volume control.</li> </ul>
Indicator and tone feedback flutter when dialing in pulse mode	<ul style="list-style-type: none"> <li>• This is normal as power is fluctuating as phone dials.</li> </ul>
Memory dialing doesn't work	<ul style="list-style-type: none"> <li>• Did you program the memory location keys correctly?</li> <li>• Did you follow proper dialing sequence?</li> <li>• Make sure the pulse/tone mode is programmed correctly.</li> </ul>
Battery LOW indicator blinks or is solid	<ul style="list-style-type: none"> <li>• The 9V battery needs replacing or is not installed.</li> </ul>
Intercom does not function correctly	<ul style="list-style-type: none"> <li>• Make sure lines 1 and 2 are connected properly and common to all phones on the system.</li> <li>• Make sure all station addresses involved have been assigned.</li> </ul>
Transfer does not function correctly	<ul style="list-style-type: none"> <li>• Make sure lines 1 and 2 are connected properly and common to all phones on the system.</li> <li>• Check the connections for lines 3 and 4.</li> <li>• Make sure the extension number has been programmed for lines 3 and 4.</li> </ul>
Display reads <i>Addr-</i>	<ul style="list-style-type: none"> <li>• The station address needs to be re-assigned due to a duplicate station address in the system. See "Changing the Station Address".</li> </ul>

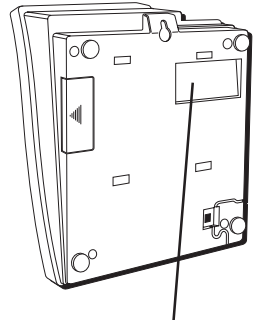
# REPLACING THE BATTERY

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Your Four-Line Business Phone with Intercom has been designed to accept a 9-volt battery for backup power. In the event you experience a power outage, you will still be able to use the phone.

1. Carefully turn over the phone. On the bottom is the battery compartment door. Remove the screw on the door with a screwdriver.
2. Open the door and remove the old battery.
3. Install a new 9V battery, close the battery compartment door, and tighten the screw back in place.

**CAUTION:** Replace only with a 9-volt, alkaline battery.



**Battery  
compartment  
door**

## **GENERAL PRODUCT CARE**

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To keep your telephone working and looking good, follow these guidelines:

- Avoid putting the phone near heating appliances and devices that generate electrical noise (for example, motors or fluorescent lamps).
- DO NOT expose to direct sunlight or moisture.
- Avoid dropping the handset, as well as other rough treatment to the phone.
- Clean the phone with a soft cloth.
- Never use a strong cleaning agent or abrasive powder because this will damage the finish.
- Retain the original packaging in case you need to ship the phone at a later date.

## **SERVICE**

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The FCC requires this product to be serviced only by the manufacturer or its authorized service agents. In accordance with FCC requirements, changes or modifications not expressly approved by Thomson Consumer Electronics could void the user's authority to operate this product. For instructions on how to obtain service, refer to the warranty included in this guide or call Consumer Information at 1-800-448-0329.

Attach your sales receipt to the booklet for future reference or jot down the date this product was purchased or received as a gift. This information will be valuable if service should be required during the warranty period.

Purchase date \_\_\_\_\_ Name of store \_\_\_\_\_



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# LIMITED WARRANTY

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## What your warranty covers:

- Any defect in materials or workmanship.

## For how long after your purchase:

- One year.

(The warranty period for rental units begins with the first rental or 45 days from date of shipment to the rental firm, whichever comes first.)

## What we will do:

- Provide you with a new or, at our option, a refurbished unit.
- The exchange unit is under warranty for the remainder of the original product's warranty period.

## How to make a warranty claim:

- Properly pack your unit. Include any cables, etc., which were originally provided with the product. We recommend using the original carton and packing materials.
- Include in the package evidence of purchase date such as the bill of sale. Also print your name and address and a description of the defect. Send standard UPS or its equivalent to:

**Thomson Consumer Electronics, Inc.**  
**Product Exchange Center**  
**11721 B Alameda Ave.**  
**Socorro, Texas 79927**

- Pay any charges billed to you by the Exchange Center for service not covered by the warranty.
- Insure your shipment for loss or damage. Thomson accepts no liability in case of damage or loss.
- A new or refurbished unit will be shipped to you prepaid freight.

## What your warranty *does not* cover:

- Customer instruction. (Your Owner's Manual provides information regarding operating instructions and user controls. For additional information, ask your dealer.)
- Installation and setup service adjustments.
- Batteries.
- Damage from misuse or neglect.
- Products which have been modified or incorporated into other products.
- Products purchased or serviced outside the USA.
- Acts of God, such as but not limited to lightning damage.

## Product Registration:

- Please complete and mail the Product Registration Card packed with your unit. It will make it easier to contact you should it ever be necessary. The return of the card is not required for warranty coverage.

## How state law relates to this warranty:

- This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

## If you purchased your product outside the USA:

- This warranty does not apply. Contact your dealer for warranty information.

Model 2-9451  
15339430 (Rev. 2 E/S)  
99-06  
Printed in China

 **THOMSON CONSUMER ELECTRONICS**

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