

Cat. No. 43-652
OWNER'S MANUAL

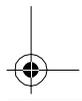
Please read before using this equipment.

ET-652

Two-Line Speakerphone



RadioShack®



FEATURES

Your RadioShack ET-652 Two-Line Speakerphone lets you make or receive calls on two separate telephone lines using either the handset or the built in speakerphone. You can connect up to five ET-652s to the same telephone line (depending on the phone line's power; see "Read This Before Installation" on Page 3).

Your ET-652 has these features:

Line Status Indicators — let you see at a glance if a line is available, in use, or on hold.

20-Number Memory Dialing — lets you store up to 20 numbers in memory for easy dialing.

Distinctive Ring — tells you which line is ringing.

Redial — lets you quickly redial the last number dialed.

Flash — sends an electronic switch-hook signal for use with special phone services, such as Call Waiting.

Hold — lets you put one or both lines on hold with a separate indicator for each line.

Volume Control — lets you adjust the volume you hear through the handset.

Speakerphone — lets you make or answer calls without using the handset.

Tone or Pulse Dialing — lets you use your phone with tone or pulse (rotary) dialing and lets you switch from pulse to tone dialing for long-distance, bank-by-phone, or other special services.

Hearing-Aid Compatibility — lets you use your phone with hearing aids that have a T (telephone) switch.

Your ET-652 has been tested and found to comply with all applicable standards.

Warning: To prevent fire or shock hazard, do not expose this product to rain or moisture.

	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

READ THIS BEFORE INSTALLATION

Your ET-652 conforms to federal regulations, and you can connect it to most telephone lines. However, each device that you connect to the telephone line draws power from the line. We refer to this power draw as the device's *ringer equivalence number*, or REN. The REN is on the bottom of the base.

If you are using more than one phone or other device on the line, add up all the RENs. If the total is more than five, your phones might not ring. In rural areas, a total REN of three might impair ringer operation. If ringer operation is impaired, remove a device from the line.

FCC STATEMENT

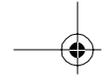
This telephone complies with Part 68 of *FCC Rules*. You must, upon request, provide the FCC registration number and the REN to your telephone company. Both numbers are on the bottom of the telephone.

Note: You must not connect your phone to any of the following:

- coin-operated systems
- party line systems
- most electronic key phone systems

We recommend you record your phone's serial number here. The number is on the bottom of the base.

Serial Number _____



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INSTALLATION

MOUNTING THE PHONE

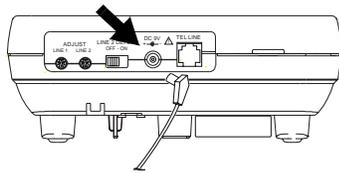
You can place the ET-652 on a desk or table, mount it on a standard wall plate, or mount it directly on a wall. Choose a location that is:

- near an AC outlet
- near a modular telephone line jack
- out of the way of normal activities

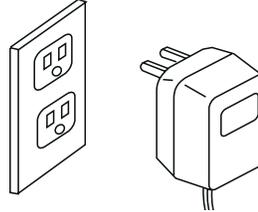
Caution: You must use a Class 2 power source that supplies 9 volts DC and delivers at least 300 mA. Its center tip must be set to negative, and its plug must fit the ET-652's **9V DC** jack. The supplied AC adapter meets these specifications. Using an adapter that does not meet the specifications could damage the ET-652 or the adapter.

Connecting the AC Adapter

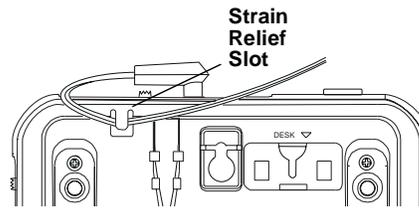
1. Insert the supplied AC adapter's barrel plug into the **9V DC** jack on the back of the phone.



2. Plug the adapter into a standard AC outlet.



3. Route the adapter's cord through the strain relief slot on the bottom of the phone.



Connecting to the Phone Lines

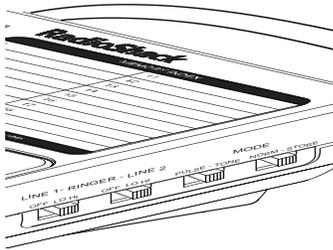
To take full advantage of the ET-652's capabilities, you must have two phone lines with separate phone numbers. If you have only one line, you can order a second from your phone company.

Notes:

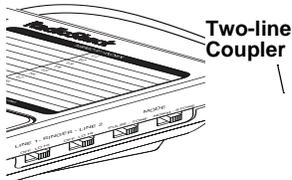
- The line that connects the phone jack to the phone company wiring must be twisted-pair cable. Otherwise, you might hear interference (crosstalk) between the two lines.
- Your phone connects directly to a modular phone line jack. If your phone wiring does not have a modular jack, you can update it using jacks and adapters available at your local RadioShack store, or have the phone company update it for you.

- The USOC number of the two-line jack to be installed is RJ14C (RJ14W for a wall plate). The USOC number of a single-line jack is RJ11C.

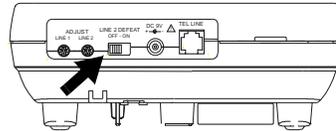
Plug one end of the supplied two-line telephone cord into the jack on the back of the phone. Then plug the cord's other end into a modular telephone line jack.



If you use two single-line jacks, you must connect the lines with an optional two-line coupler (such as RadioShack Cat. No. 279-401).

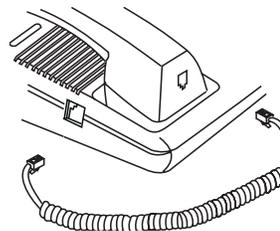


Note: If you use the ET-652 with only one line, set **LINE 2 DEFEAT** on the back of the phone to **OFF**. This turns off Line 2's status indicator.



Connecting the Handset

Plug the supplied coiled handset cord into the jacks on the handset and the left side of the phone.



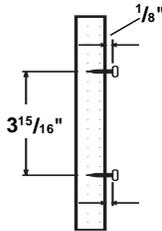
Note: Your local RadioShack store sells a variety of longer coiled handset cords, which are especially useful when you mount the phone on the wall.

Mounting on a Wall or Wall Plate

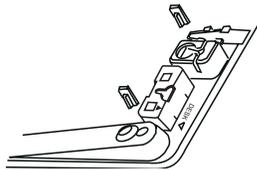
Notes:

- When mounting the ET-652 on a wall plate, use the supplied short modular cord to connect the phone to the wall plate jack. Your local RadioShack store carries a variety of phone line cords.
- To mount the ET-652 directly on a wall, you need two screws (not supplied) with heads that fit the keyhole slots on the bottom of the phone.

Drill two holes $3\frac{15}{16}$ inches (100 mm) apart. Then thread a screw into each hole, letting the heads extend about $\frac{1}{8}$ inch (3 mm) from the wall.

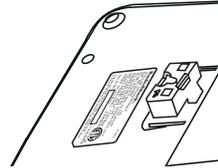


1. Remove the mounting bracket from the **DESK** socket by pressing in the tabs on both sides and lifting. (You might need to use a small screwdriver to press in the tabs.)



2. Put the bracket into the **WALL** socket with the arrow on the bracket aligned to the arrow by the socket,

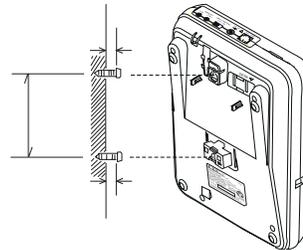
then push upward until the bracket snaps into place.



3. Lift the handset holder and turn it one half turn.

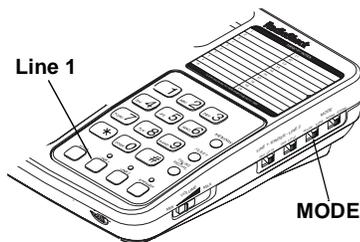


4. Place the phone's two keyhole slots over the wall plate studs (or the screws, if you are mounting the phone on a wall). Press downward on the phone to secure it.



SETTING THE DIALING MODE

Set **MODE** on the side of the phone for the type of service you have. If you are not sure which type you have, do this test.



1. Set **MODE** to **TONE**.
2. Press **Line 1**.
3. Lift the handset and listen for a dial tone.
4. Press any number other than **0**.

Note: If your phone system requires that you dial an access code (9, for example) before you dial an outside number, do not press the access code number either.

If the dial tone stops, you have touch-tone service on Line 1. If the dial tone continues, you have pulse service.

5. Hang up, then repeat the test for Line 2.
6. If you have pulse service on either line, set **MODE** to **PULSE**. If you have tone service on both lines, leave the switch to **TONE**.

SETTING THE RINGER VOLUME

Each line on the ET-652 has a distinctive ring tone and a separate volume control.

To change the ringer volume, set **RINGER** for the desired line to **OFF**, **LO**, or **HI**. With the ringer off, you can still answer calls if you hear an extension phone ring or see one of the ET-652's line indicators flash.



SETTING THE NORM/STORE SWITCH

The **NORM/STORE** switch is used to store memory numbers (see "Memory Dialing" on Page 13). Set it to **NORM** for normal operation.



CONFIRMING THE LINE NUMBERS

Follow these steps to determine which phone number is connected to which line.

1. Press **LINE 1**, then lift the handset.
2. Dial one of your phone numbers. If the **LINE 2** indicator flashes, the number is connected to Line 2. If you hear a busy signal, the number is connected to Line 1.



After you confirm the phone number for each line, write the number on the number card above the line-status indicator. (Use a paper clip to lift off the card's cover.)

CHECKING/ADJUSTING THE LINE-STATUS INDICATORS

You can check the status of each line by glancing at the line-status indicators.

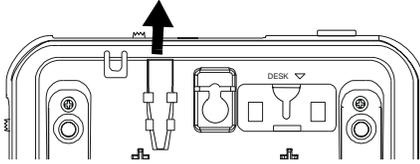
Indicator is:	Line is:
Not lighted	Not in use
Lighted	In use
Flashing rapidly	Ringing
Flashing slowly	On hold

Each line-status indicator is preset to work correctly with most telephone lines. However, in some cases you may need to adjust the indicators to ensure correct operation.

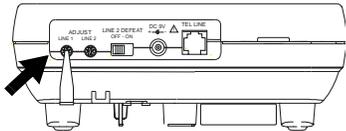
Follow these steps to test and adjust the line-status indicators.

1. Press **LINE 1**, then lift the handset. The **LINE 1** indicator should light steadily.
2. Press **HOLD**. The indicator should flash slowly.
3. If the indicator worked correctly, it does not need adjustment. Otherwise, proceed to Step 4.

4. Remove the adjustment tool from its bracket on the bottom of the phone.



5. Use the adjustment tool to turn the corresponding **LINE 1 ADJUST** control on the back of the phone until the indicator flashes slowly.



6. Press **LINE 1**. If the indicator still flashes slowly, turn **ADJUST** until it lights steadily.
7. Press **HOLD** again and repeat Steps 5 and 6 until the indicator works correctly with the line on and off hold.

Repeat this procedure for Line 2, then replace the adjustment tool in its bracket.

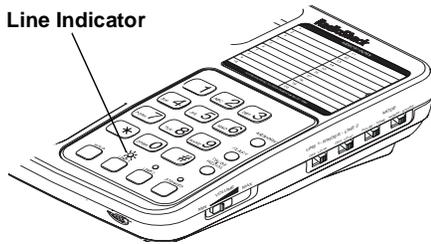
OPERATION

MAKING AND ANSWERING CALLS

To place a call, press the line button for an available line. Then, lift the handset, or press **SPEAKER** to use the speakerphone, and dial as you would with any other phone.



When you receive a call, that line's indicator flashes. To answer the call, press the line button (**LINE 1** or **LINE 2**) below the flashing indicator and lift the handset or press **SPEAKER**.



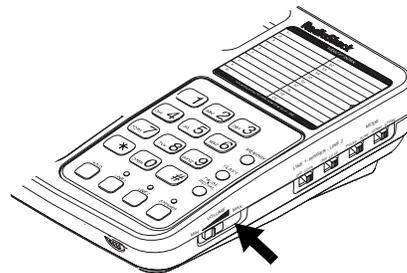
The ring for Line 2 has a lower pitch than the ring for Line 1. This helps you tell which line is ringing.

To end a call, hang up the handset or press **SPEAKER**.

SETTING THE VOLUME

Set the volume control on the handset to a comfortable level (usually **LO**).

Slide **VOLUME** on the right side of the phone toward **MIN** or **MAX** to set the speakerphone's volume.



Note: The ET-652 uses voice-operated keying, so both parties cannot speak at the same time when you use the speakerphone.

SWITCHING BETWEEN THE HANDSET AND THE SPEAKERPHONE

To switch from the handset to the speakerphone during a call, press **SPEAKER**, then place the handset on the base.

To switch from the speakerphone to the handset, just lift the handset. The speakerphone automatically turns off.

USING HOLD

To place a call on hold, press **HOLD**. The line's indicator flashes slowly.



Note: Pressing another line button without pressing **HOLD** disconnects the current call.

To release a call from hold, press that line's button, then press **SPEAKER** (if using the speakerphone) or pick up the handset. You can also release a call from hold by picking up any extension phone on that line.

USING REDIAL

You can quickly dial the last number dialed. When you hear a dial tone, press **REDIAL**.



Notes:

- The redial memory holds up to 32 digits, so you can redial long-distance as well as local numbers.
- The redial memory also holds pause entries. See "Entering a Pause" on Page 14.
- Both lines use the same redial memory.

USING FLASH

Use **FLASH** to perform the switchhook operation for special services, such as Call Waiting.



For example, if you have Call Waiting, press **FLASH** to take an incoming call without disconnecting the current call. Press **FLASH** again to return to the first call.

Note: If you do not have special phone services, pressing **FLASH** might disconnect the current call.

USING TONE SERVICES ON A PULSE LINE

Some special services, such as bank-by-phone, require tone signals. If you have pulse dialing, you can still use these special tone services by following these steps.

1. Be sure **MODE** is set to **PULSE**.
2. Call the service's main number.
3. When the service answers, press *****. Any additional numbers you dial are sent as tone signals.



4. When you hang up, the phone automatically resets to pulse mode.

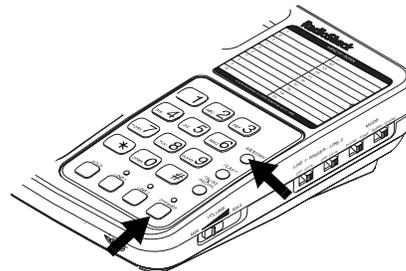
MEMORY DIALING

You can store up to 20 phone numbers and names in memory, then dial a stored number by entering a two-digit memory location number. Each number can contain up to 16 digits.

1. Set **NORM/STORE** on the right side of the phone to **STORE**.



2. Press the line button for an available line.
3. Lift the handset or press **SPEAKER**, then press **MEMORY**.



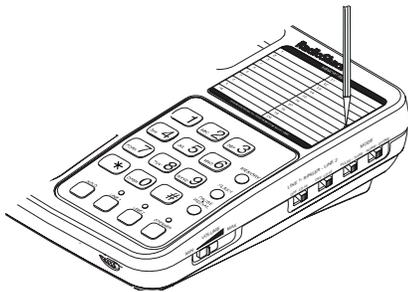
4. Set **VOLUME** to the middle setting, then enter the number and any tone and pause entries (see "Using Tone Services on a Pulse Line" on this page and "Entering a Pause" on Page 14).

Note: Each tone or pause entry uses one digit of memory.

5. Press **MEMORY**, then enter a two-digit memory location number (01–20).
6. To store additional numbers, press **MEMORY** again, then repeat Steps 4 and 5.

7. When you finish storing numbers in memory, set **NORM/STORE** to **NORM**.

For each stored number, write the name of the person or company on the memory index. Use a paper clip to lift off the index's plastic cover. Replace the cover.



To replace a stored number, just store a new one in its place.

Entering a Pause

In some telephone systems, you must dial an access code (9, for example) and wait for a second dial tone before you can dial an outside number. You can store the access code with the phone number. However, you should also store a pause after the access code to allow the outside line time to connect.

To enter a 4-second pause while storing a phone number, press **PAUSE**. You can add more pause entries for a longer pause.



Dialing a Memory Number

1. Press **LINE 1** or **LINE 2**.
2. Lift the handset or press **SPEAKER**.
3. Press **MEMORY**.
4. Enter the memory location number (01–20) for the telephone number you want to dial.

Chain-Dialing Service Numbers

For quick recall of numbers for special services, store each group of numbers in its own memory location.

When calling special services (such as alternate long distance or bank-by-phone), dial the service's main number first. Then, at the appropriate place in the call, press **MEMORY** and enter the number for the location where the additional information is stored.

Note: You cannot store * if you have pulse dialing.

TROUBLESHOOTING

We do not expect you to have any problems with your ET-652, but if you do, these suggestions might help.

Problem	Suggestion
No dial tone.	Be sure you pressed the correct LINE button.
	Check that the phone line and handset cords are securely connected.
Line 1 works, but Line 2 does not.	Be sure you pressed the correct LINE button.
	Check that the line cord is correctly connected to an R14 jack. R14 jacks normally have four visible wire contacts.
Low volume or unusual sounds.	Someone has picked up another phone on the same line. Hang up the other phone.
The LINE 2 indicator stays on even when the line is not in use.	Set LINE 2 DEFEAT on the back of the base to OFF .
Can receive calls, but cannot make calls.	Set MODE correctly for the type of service you have (see "Setting the Dialing Mode" on Page 8).

If you still have problems, disconnect the ET-652. If other phones on the same line work properly, the fault is in this phone or its installation. If you cannot find the problem, take the ET-652 to your local RadioShack store for assistance.

CARE AND MAINTENANCE

Your RadioShack ET-652 Two-Line Speakerphone is an example of superior design and craftsmanship. The following suggestions will help you care for your cordless telephone so you can enjoy it for years.



Keep the ET-652 dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Use and store the ET-652 only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, and distort or melt plastic parts.



Keep the ET-652 away from dust and dirt, which can cause premature wear of parts.



Handle the ET-652 gently and carefully. Dropping it can damage circuit boards and cases and can cause the ET-652 to work improperly.



Wipe the ET-652 with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the ET-652.

Modifying or tampering with the ET-652's internal components can cause a malfunction and might invalidate its warranty and void your FCC authorization to operate it. If your ET-652 is not performing as it should, take it to your local RadioShack store for assistance. If the trouble is affecting the telephone lines, the phone company can ask you to disconnect your ET-652 until you have resolved the problem.



THE FCC WANTS YOU TO KNOW

In the unlikely event that your telephone causes problems on the telephone line, the telephone company can disconnect your service. The telephone company normally attempts to notify you in advance. If advance notice is not practical, the telephone company notifies you as soon as possible and advises you of your right to file a complaint with the FCC.

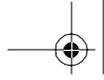
Also, the telephone company can make changes to its lines, equipment, operations, or procedures that could affect the operation of this telephone. The telephone company notifies you of these changes in advance so you can take the necessary steps to prevent interruption of your telephone service.

LIGHTNING

Your telephone has built-in protection circuits to reduce the risk of damage from surges in telephone line current. These protection circuits meet or exceed the FCC requirements. However, lightning striking the telephone lines can damage your telephone.

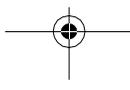
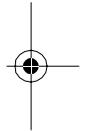
Lightning damage is not common. Nevertheless, if you live in an area that has severe electrical storms, we suggest that you unplug your telephone during storms to reduce the possibility of damage.





NOTES







Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

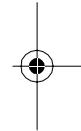
This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

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

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

We Service What We Sell

3/97



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