

## TEL-FLASHTELEPHONES

- Tel-Flash
- Tel-Flash/MessageWaiting
- Tone Dialing
- Ringer Volume Control
- Hearing-Aid Compatible

### THANK YOU FOR PURCHASING THIS TELEPHONE



We want you to know all about your new telephone, how to install it, the features it provides, and the services you can expect from its use. We have included this information in your Owner's Instruction Manual.

### PLEASE READ BEFORE INSTALLING AND USING YOUR NEW TELEPHONE.

### BEFORE USING YOUR TELEPHONE

This telephone includes a Handset with Receiver Volume Control that complies with FCC Part 68 requirements mandated by the Hearing Aid Compatibility Act of 1988.

The Volume Control is a small rotary knob that protrudes from the inside of the Handset handle. The rotary knob may be conveniently operated with the thumb, index, or middle finger while holding the handset.

Rotating the knob toward the Receiver (upper) end of the Handset will increase the loudness from the Receiver.

Rotating the knob toward the Microphone (lower) end of the Handset will decrease the loudness from the Receiver.

The Volume Control will not disable the Receiver. The minimum loudness setting of the Volume control will usually produce a comfortable listening level for persons with no hearing impairment.

## LIMITED WARRANTY

If this telephone was purchased by you new in the U.S. or Puerto Rico, **CORTELCO** warrants the telephone against defects in material and workmanship for a period of five (5) years from the date of original purchase. This warranty is in lieu of all other express warranties. During the warranty period, **CORTELCO** agrees to repair or, at its option, replace the defective telephone, or any part of it without charge for parts or labor. This is your exclusive remedy. This warranty does not cover damage resulting from accident, misuse, abuse, improper installation or operation, lack of reasonable care, the affixing of any attachment not provided by **CORTELCO** with the telephone and loss of parts. The warranty is voided in the event any unauthorized person alters or repairs the telephone.

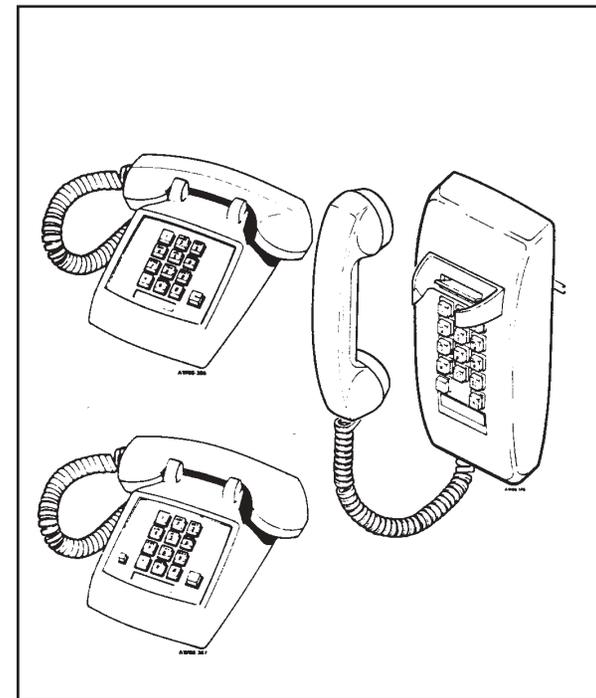
Telephone companies use different types of equipment and offer various types of services to customers. **CORTELCO does not warrant that this telephone is compatible with the type of equipment of any particular phone company or the services provided by it.**

**CORTELCO** DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, **CORTELCO** ASSUMES NO RESPONSIBILITY FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

If failure occurs and your telephone is in warranty, service shall be provided by returning the telephone to **CORTELCO - Repair Center, 1703 Sawyer Road, Corinth, Mississippi 38834, shipping prepaid.** The telephone will be repaired or replaced if examination by us determines the telephone to be defective. Telephones that receive damage as a result of shipping will require you to file a claim with the carrier.

## OWNER'S INSTRUCTION MANUAL



**TEL-FLASH<sup>TM</sup>**  
**TELEPHONES**

**CORTELCO**

# IMPORTANT SAFETY INSTRUCTIONS

Always follow basic safety precautions when using your telephone equipment to reduce the risk of fire, electrical shock, and injury.

1. **Read and understand all instructions** in the Owner's Instruction Manual.
2. **Read all warnings** and follow all instructions marked on the product.
3. **Unplug this product from the wall outlet before cleaning.** Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
4. **Do not use the telephone near water.** For example, do not use near a bathtub, wash bowl, kitchen sink, laundry tub, swimming pool, or in a wet basement.
5. **Do not place this product on an unstable cart or stand.** The product may fall causing serious damage to the product.
6. **Do not place any objects on the telephone line cord.** Do not locate the telephone where the line cord will be walked on.
7. **Do not block or cover ventilation slots and openings** in the bottom of the telephone. The openings should never be blocked by placing the telephone on a bed, sofa, rug, or other similar surfaces. This telephone should never be placed near or over a radiator or heat register. This telephone should never be placed in a built-in installation unless proper ventilation is provided.
8. **Never spill liquid on the telephone or push objects of any kind through ventilation slots.** Liquid or objects may touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock.
9. **Do not disassemble this product.** Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electrical shock when the product is subsequently used.
10. **Avoid using a telephone during a local thunderstorm.** There may be a remote risk of electrical shock from lightning.

11. **Do not use a telephone in the vicinity of a gas leak** to report the leak, or otherwise.
12. **Unplug the telephone from the wall outlet and refer servicing to qualified service personnel** under the following conditions:
  - When the line cord is frayed or plugs damaged.
  - If liquid has been spilled into the telephone.
  - If the telephone has been exposed to rain or water.
  - If the telephone does not operate properly by following the operating instructions.
  - If the telephone has been dropped or the housing damaged.
  - If the telephone exhibits distinct change in performance.

## SAVE THESE INSTRUCTIONS

15-101-613

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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.

*Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

**NOTE:** 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.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

# THE FCC WANTS YOU TO KNOW

**DESIGN COMPLIANCE** Your telephone is designed to comply with FCC Rules and Regulations, Part 68. It can be connected to the telephone network as FCC-registered terminal equipment. The registration number is printed on the label on the bottom of your telephone.

**NOTIFICATION TO THE TELEPHONE COMPANY** As a customer of the local telephone company, you must, if they ask, tell them before connecting your telephone to the telephone company lines. The telephone company may need the FCC registration number and the ringer equivalence of the telephone. This information is printed on a label on the bottom of your telephone.

**RINGER EQUIVALENCE** The ringer equivalence indicates the amount of power that your telephone draws from the telephone company line during ringing. The number is printed on the label on the bottom of your telephone.

If you have more than one telephone (or other terminal device) connected to the telephone company line, you should total the ringer equivalence numbers (REN's), and be sure that the total is not more than five. Your telephones may not ring if the total is more than five. Also, in some rural locations, your telephone may not ring if the REN total is more than three.

**RESTRICTIONS** You must not connect your telephone to coin-operated lines or party lines.

**INTERFERENCE POTENTIAL** Your telephone has a push-button dial that generates radio frequency energy. If not properly used, it may interfere with radio and television reception. If the telephone does cause interference with reception, move the radio or television to another electrical circuit or another location. If necessary, you may need to seek advice from an experienced technician.

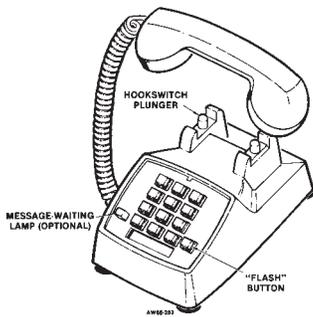
**INSTALLATION** This model telephone must be connected to the telephone company lines through a modular jack. The required USOC for the modular jack is RJ11C for desk mounting and RJ11W for wall mounting. The USOC number is printed on the label on the bottom of your telephone.

**TYPE OF DIALING** Your telephone has a push-button TONE dial. You must have TONE service from your telephone company to use your telephone for dialing. Note that you will usually be charged extra for TONE service.

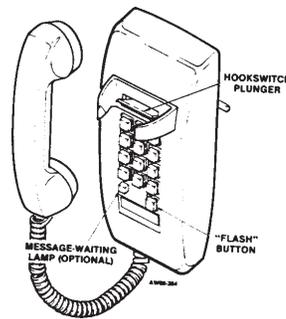
**HEARING-AID COMPATIBILITY** The handset on your telephone will work with magnetically-coupled hearing aids. You can use a hearing aid equipped with a T (Telephone) switch.

**IN CASE OF TROUBLE** If your telephone should cause problems on the telephone line, the telephone company can temporarily disconnect your service. The telephone company must then notify and allow you to correct the problem.

The telephone company may from time to time change its lines or equipment. They must notify you if planned changes will affect your telephone service, to allow you to take steps to prevent interruptions.



Model 2500 TEL-FLASH Telephone (Ordering Code 2500\*\*-VBA-20F)  
With Optional Message Waiting Lamp (Ordering Code 2500\*\*-VBA-27F)



Model 2554 TEL-FLASH Telephone (Ordering Code 2554\*\*-VBA-20F)  
With Optional Message Waiting Lamp (Ordering Code 2554\*\*-VBA-27F)

## FEATURES OF YOUR TELEPHONE

The TEL-FLASH telephone is designed for use with modern PABXs, hybrid communication systems, and central offices providing custom calling features.

**HANDSET** The handset receiver is compatible with magnetically-coupled hearing aids.

**PUSH-BUTTON DIAL** The push-button dial is used to dial numbers using TONE dialing. You must have tone service for your telephone company to use this telephone.

**RINGER VOLUME CONTROL** The ringer volume control is used to set ringing for high volume, low volume, or silence ringing. If the switch is set to silence ringing, you will not hear the ringer when someone calls you.

**TEL-FLASH** The convenient FLASH button is used, rather than the hookswitch, to access PBX features such as transfer, hold, and conference.

**MESSAGE WAITING LAMP** The optional message waiting lamp is used in PABX applications to indicate that the station user should contact the message center. The lamp operates with 90 VDC supplied by the connected equipment.

## MAINTENANCE INFORMATION

**Treat your telephone with care** for trouble-free performance. Avoid dropping the handset. Carefully place the handset on-hook after use.

**Clean your telephone with a damp cloth.** Stains may be removed with a mild soap. Do not use liquid or aerosol detergents or cleaning agents.

## USING YOUR TELEPHONE

### MAKING AND ANSWERING CALLS

Lift the handset to receive dial tone for making a call or to answer an incoming call. You can end a call by placing the handset on-hook.

### SENDING A FLASH

*Use The Flash Button For Features Access.  
Use The Hookswitch Plunger For Positive Disconnect.*

To signal your telephone system during a call, press the FLASH button. The results of a flash signal depend on the services you have available from the telephone company. For example, if you have "second-call waiting" provided by your central office, operating the FLASH button puts the first call on hold and connects you to the waiting call.

Refer to the user instructions included with your PABX. When a "hookswitch flash" is indicated, use the FLASH button. Do NOT use the hookswitch as this will disconnect you.

To disconnect after transferring or completing a call, simply hang up your handset. If you want to make another call without hanging up, press and release the hookswitch plunger; wait for dial tone; and dial the number. Operating the hookswitch plunger will disconnect you for a minimum of 1.2 seconds. Remember that a new dial tone will be slightly delayed when you use this procedure.

### ANSWERING A MESSAGE WAITING SIGNAL

**You will be signaled by a flashing message waiting lamp** when you have a message waiting. Operation of the message center will, of course, depend on your telephone system. Usually, you can dial the number for the message center, retrieve your message, and the message center attendant will turn off the message waiting lamp on your telephone.

## REPAIR OF YOUR TELEPHONE

**DO NOT ATTEMPT TO REPAIR THE TELEPHONE YOURSELF.** Telephones manufactured by CORTELCO must be returned to us for repair.

**You can return your telephone to CORTELCO** for repair or replacement in accordance with our LIMITED WARRANTY.

**DATE-OF-PURCHASE** CORTELCO warrants telephones against defects in material and workmanship in accordance with our LIMITED WARRANTY. If your telephone is returned for repair, include a copy of your sales receipt containing the date-of-purchase. DO NOT INCLUDE THE ORIGINAL SALES RECEIPT.

**If date-of-purchase is not included,** the factory date printed on the label on the bottom of your telephone will be used as the date-of-purchase. The factory date allows six months for distribution and sale of the telephone.

**If you return your telephone for repair,** the warranty period is not extended. The original date-of-purchase continues to apply to your warranty.

**OUT-OF-WARRANTY REPAIR** We will repair this telephone for a nominal fee after the LIMITED WARRANTY has expired if you send it to us in a complete and undamaged condition. The repaired telephone will be shipped to you C.O.D., freight collect.

**FOREIGN ATTACHMENTS** Remove all attached devices, such as adapter plugs or long cords, from your telephone before returning for repair. We do not assume responsibility for repair or return of attachments. Check our LIMITED WARRANTY.

**RETURN-FOR-REPAIR PACKAGING** If you are returning a telephone to us for repair, package it carefully, preferably in the original carton. Be sure to include your return address, a copy of the sales receipt showing date-of-purchase, and a note describing the problem you have with your telephone. Shipping must be prepaid. If the telephone is in warranty, it will be repaired or replaced, at our option, at no cost to you, and it will be returned shipping prepaid.

Ship telephones (shipping prepaid) to:

CORTELCO REPAIR CENTER  
1703 SAWYER ROAD  
CORINTH, MS 38834

# INSTALLING YOUR TELEPHONE

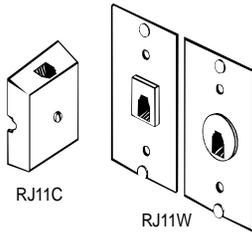
## MODULAR JACKS

To install your telephone, you must have a modular wall jack at the desired location, or a 4-prong jack that can be modified with a 4-prong adapter. If your telephone line does not have a modular wall jack, or a jack that can be modified, you must have one installed.

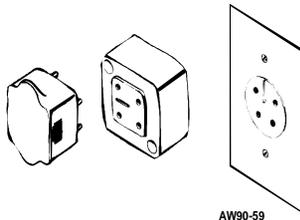
**DANGER:** To reduce the risk of electrical shock and personal injury, observe the following when installing station wiring:

1. Never install telephone wiring during a lightning storm.
2. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4. Use caution when installing or modifying telephone lines.

Various types of modular wall jacks are shown to the right. The USOC RJ11C modular wall jack is for desk telephones and the USOC RJ11W modular wall jack is for modular wall telephones.



The USOC RJ11W modular wall jack must be in the correct mounting position before mounting a modular wall telephone. Check to make sure it is in the position shown.

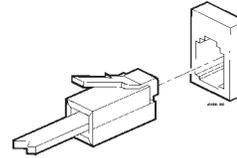


Various types of 4-prong wall jacks are shown to the right along with a 4-prong adapter. The 4-prong adapter plugs into the wall jack for modular wall jack service.

# INSTALLING YOUR TELEPHONE

## DESK INSTALLATION

To install the Model 2500 desk telephone, use the long modular line cord supplied with your telephone. Plug one end of the line cord into the connector on the back of your telephone and the opposite end into the modular wall jack. Your telephone is ready to use.

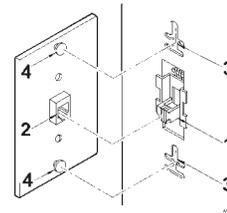


To disconnect your telephone, press the spring clip on the line cord plug and pull out.

## WALL INSTALLATION

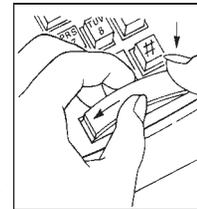
To install a modular wall telephone, refer to the diagram to the right.

- Fit the plug (1) on the back of the telephone into the jack (2).
- Align slotted holes (3) on the back of the telephone over the mounting studs (4).
- Gently pull down on the telephone until it locks in place.



## NUMBER CARD

Write or type correct telephone number on number card and fit into number card slot in the telephone faceplate. Insert one end of the clear plastic retainer in one end of the slot and, holding the retainer as shown at right, bend the opposite end down into the slot and let it snap into place. To remove the retainer, insert a straightened paper clip into the small slot in the retainer and pry outward.



## CHECK FOR DIAL TONE

Lift the handset and listen for dial tone.

- When you hear dial tone, your telephone is ready to use.
- If you do not hear dial tone, refer to the Telephone Service Problems part of your manual.

## SET THE RINGER VOLUME

If the ringer control is set to off to silence ringing, you cannot hear the ringer when someone calls you. Move the control toward LOUD to increase volume.

# INSTALLING YOUR TELEPHONE

## MESSAGE WAITING LAMP WIRING

Wiring inside the telephone on the networks PBA can be changed to connect the message waiting lamp across the alternate BK/YL pair. (See Table.) In this configuration the message waiting lamp is controlled on and off by the connected equipment.

MESSAGE WAITING LAMP CONDUCTOR CHANGES FOR ALTERNATE BK/YL PAIR			
2500		2554	
FROM	TO	FROM	TO
F G	E1 L1	G *GF2 (dial)	E1 L1

\* Remove Dial PBA Strapping Plug.

The telephone is shipped from the factory with the message waiting lamp circuit connected across the Tip and Ring (RD/GN) pair. In this configuration the message waiting lamp is off when the handset is off-hook.

# TELEPHONE SERVICE PROBLEMS

If you have any problems with your telephone service, determine if the problem is with your telephone or the telephone company lines. BEFORE CALLING THE TELEPHONE COMPANY, be aware that they may charge you for a service call if the problem is caused by your telephone.

## NODIAL TONE

- Unplug your telephone from the wall jack. Plug a substitute telephone that is known to work properly into the same wall jack.
- If the problem persists when using the substitute telephone, notify the telephone company.
- If the substitute telephone works properly, you must have your telephone repaired before reconnecting it to the wall jack.

## DIAL TONE BUT NO RINGING

- Check that the RINGER VOLUME CONTROL is not set to OFF.
- Set the RINGER VOLUME CONTROL to HIGH and have someone on another line call you. Before answering the call, set the RINGER VOLUME CONTROL to the desired volume.