



VCO

The "Read and Talk" Telephone



Operating Instructions

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Important Safety Instructions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and persons including the following:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the telephone.
3. Do not use this telephone near a bathtub, wash basin, kitchen sink or laundry tub, in a wet basement, near a swimming pool or anywhere else there is water.
4. Avoid using a telephone (other than a cordless type) during a storm. There may be a remote risk of electrical shock from lightning.
5. Do not use the telephone to report a gas leak in the vicinity of the leak.
6. Unplug this telephone from the wall outlets before cleaning. Do not use liquid cleaners or aerosol cleaners on the telephone. Use a damp cloth for cleaning.
7. Place this telephone on a stable surface. Serious damage and/or injury may result if the telephone falls.
8. Do not cover the slots and openings on this telephone. This telephone should never be placed near or over a radiator or heat register. This telephone should not be placed in a built-in installation unless proper ventilation is provided.
9. Operate this telephone using the electrical voltage as stated on the base unit or the owner's manual. If you are not sure of the voltage in your home, consult your dealer or local power company.
10. Do not place anything on the power cord. Install the telephone where no one will step or trip on the cord.
11. Do not overload wall outlets or extension cords as this can increase the risk of fire or electrical shock.
12. Never push any objects through the slots in the telephone. They can touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock. Never spill liquid of any kind on the telephone.
13. To reduce the risk of electrical shock, do not take this phone

apart. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.

14. Unplug this product from the wall outlets and refer servicing to the manufacturer under the following conditions:
 - A. When the power supply cord or plug is frayed or damaged.
 - B. If liquid has been spilled into the product.
 - C. If the telephone has been exposed to rain or water.
 - D. If the telephone does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment may require extensive work by a qualified technician to restore the telephone to normal operation.
 - E. If the telephone has been dropped or the case has been damaged.
 - F. If the telephone exhibits a distinct change in performance.
15. Never install telephone wiring during a lightning storm.
16. Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
17. Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
18. Use caution when installing or modifying telephone lines.
19. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

ADDITIONAL SAFETY NOTES FOR CANADIAN USERS

The following items are included as part of the CS-03 Requirements. The standard connecting arrangement for the equipment is CA11A. This product meets the applicable Industry Canada technical specifications.

NOTICE: The Canadian Department of Communications

Important Safety Instructions

label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective operational and safety requirements. The Department does not guarantee that the equipment will operate to the user's satisfaction. Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company

cause to request the user disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate. The Ringer Equivalent Number is an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalent Number of all the devices not exceed five.

SAVE THESE INSTRUCTIONS

Thank you for selecting the VCO Voice Carry Over amplified telephone from Ameriphone. These Operating Instructions and the associated Quick Operating Guide provide you with the information you need to use your VCO effectively and safely. Read this manual thoroughly before using your telephone. Keep the manual near the telephone for easy reference.

Warranty Service

Your telephone is designed to provide years of quality service. But, should the phone malfunction and the Trouble-shooting Chart on page 20 not resolve the problem, follow the Warranty procedure on page 22.

Sales Receipt

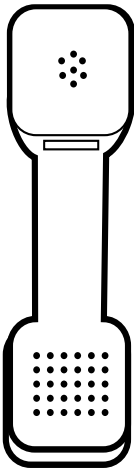
Be sure to save your sales receipt as proof of purchase date should you need warranty service.

Help from Ameriphone

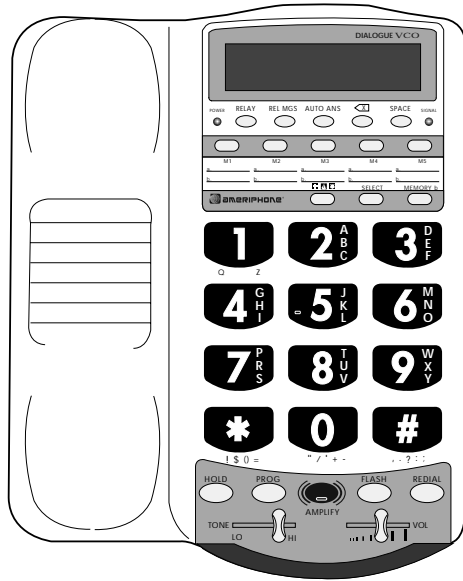
For help with using your VCO, call our Customer Service Department at 800-874-3005

Please make sure your VCO package includes the items shown in Figure 1.

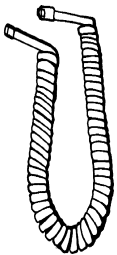
Package Checklist



Handset



Base Unit



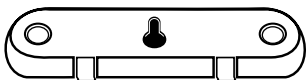
Handset
Coil Cord



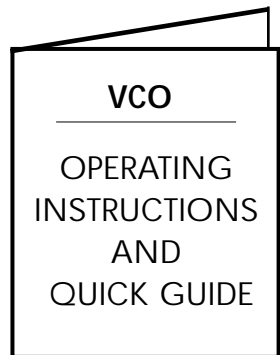
Telephone Line Cords



AC Adapter



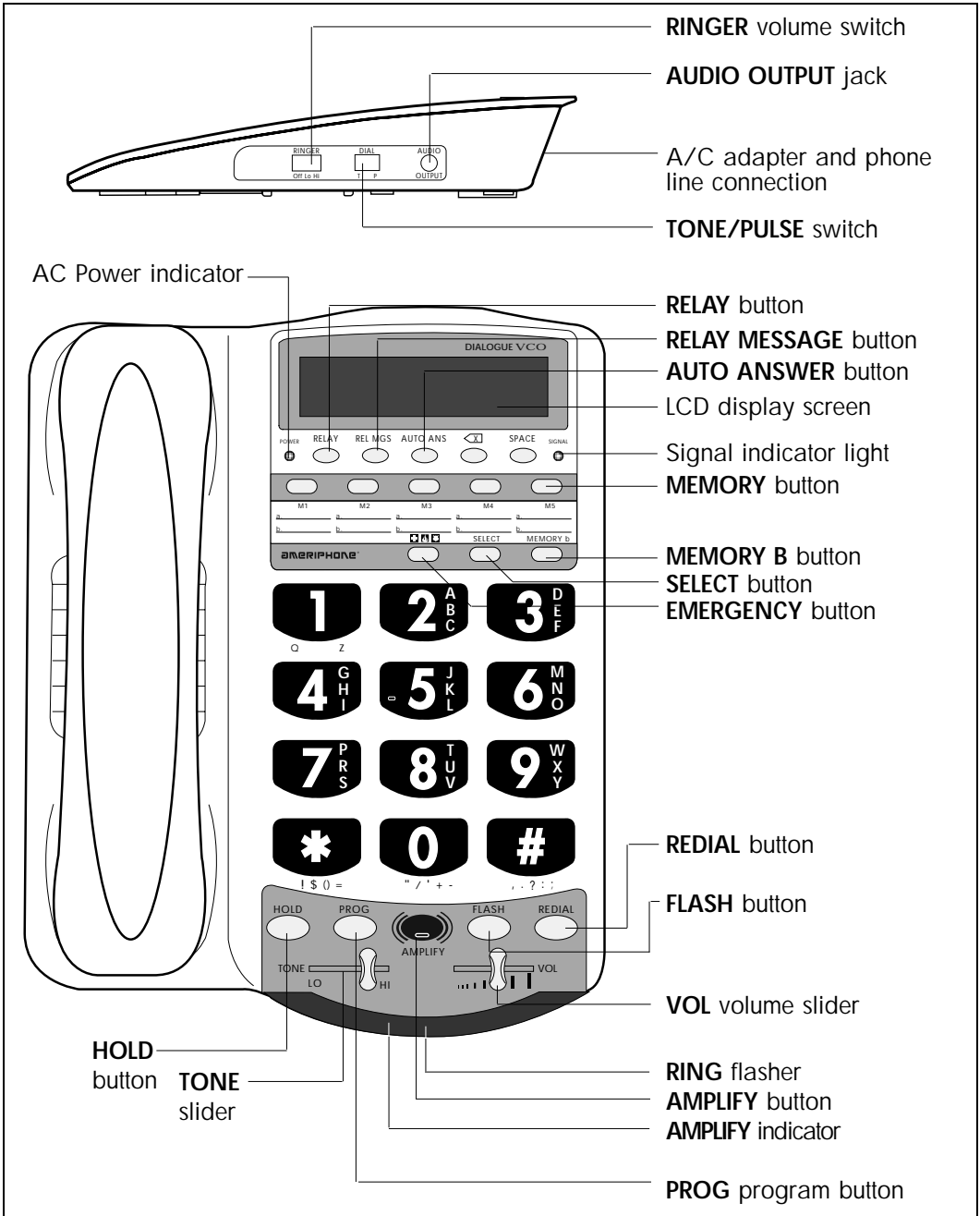
Mounting Bracket



Operating Guides

Figure 1 - Package Checklist

Features on the VCO



6 Figure 2 - Base Unit Controls

Setting up Your VCO

There are three steps involved in setting up your VCO.

- Insert four AA rechargeable NiCad batteries for back-up in case of AC power outage.
- Decide if you want the phone to sit on a desk or hang on the wall.
- Connect the telephone components.

Installing the Backup Batteries

If there is a power outage, the VCO will operate for 4 - 8 hours with four AA rechargeable NiCad batteries (not included). If the phone is not in use, the batteries will stay charged for several months.

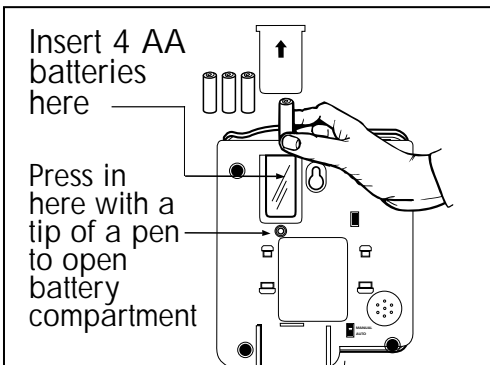


Figure 3 - Accessing the Batteries

To Install New Batteries:

1. Slide open the battery compartment cover on the bottom of the telephone (Figure 3). You may need to press the tip of a pen into the opening under the battery door or with the tip of a pen.
2. Install four fresh AA rechargeable NiCad batteries. Be sure to match the battery polarity as imprinted on the base of the compartment. (The "+" and "-" symbols).

Connecting for Desk or Wall Mount

Set the dial mode switch to **T** (tone) if you have touch tone service. Set the switch to **P** (pulse) if you have rotary dialing.

Desktop Use:

1. Connect the telephone line cord and the handset cord to the telephone as shown in Figure 4.
2. Plug the AC adapter into an electric outlet and into the telephone as shown in Figure 4.

Setting up Your VCO

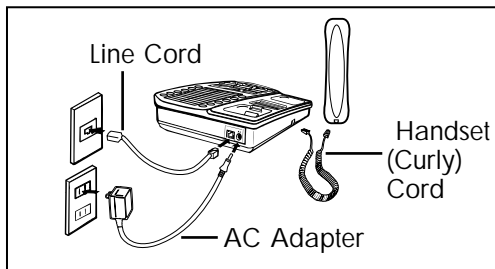


Figure 4 - Connecting the Components

3. Lift the handset and listen for a dial tone.
The phone is ready to use.

For Wall Mounting

1. Slide the handset hook out of the base as shown in Figure 6 and reverse its position so that the hook points up and will hold the handset when you hang up.

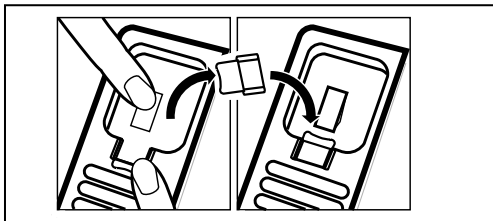


Figure 5 - Reversing the Hook

2. Insert the tabs of the phone base into the slots in the lower position of the base as shown in Figure 7. Push the mounting bracket in and down firmly until it snaps into place.

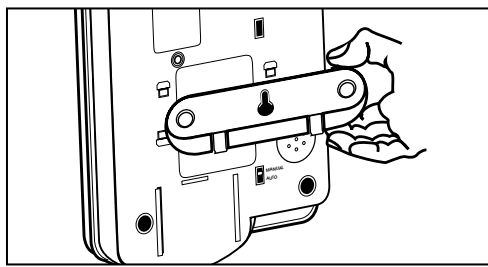


Figure 6 - Mounting Bracket for Wall Mounting

3. Locate a desired wall phone jack near an AC outlet and hold phone upright.
4. Plug the short phone line cord into the wall outlet as shown in Figure 8.

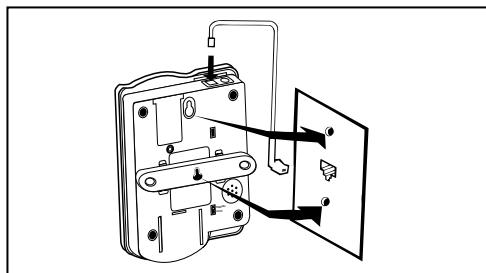


Figure 8 - Wall mounting installation

Setting up Your VCO

5. Angle the phone downward to feel for the LOWER protruding nail head. Insert the WALL JACK'S nail head into the LOWER part of the phone's mounting bracket.
6. Once the lower nail head has been inserted, insert the UPPER nail head into the phone's bracket and slide the phone down until it is firmly in place on the wall.
7. Once firmly in place, attach the short line cord to the phone, the AC adapter to the phone and attach the phone's handset.
8. Plug the AC adapter into the AC wall outlet. Lift the handset and listen for a dial tone. The phone is now ready to use.

Using Your VCO

Incoming Voice Volume

1. Press the **AMPLIFY** button as shown in Figure 8 to turn the incoming voice amplifier on or off. When **AMPLIFY** is on, the **AMPLIFY** indicator comes on.

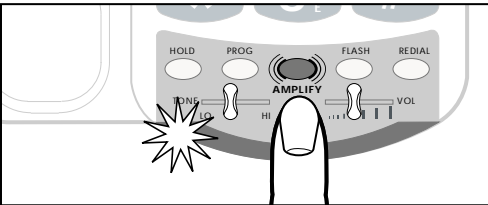


Figure 8 - AMPLIFY Button and Indicator

2. Adjust the volume in the handset by moving the **VOL** slide control in Figure 9. With **AMPLIFY** on, incoming volume will be up to 26 dB louder.

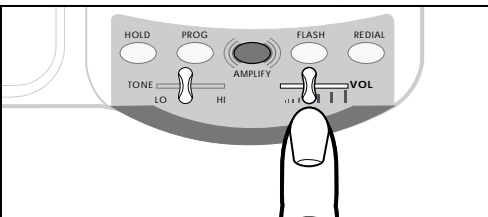


Figure 9 - Volume Slide Control

Incoming Voice Tone

The VCO also has a tone control , so you can adjust of the sound frequency level to best suit your hearing. To identify the sound frequency range that best suits your needs, follow these steps:

1. When you hear a voice on the line, press the **AMPLIFY** button as shown in Figure 8.
2. Adjust the **TONE** slide control as in Figure 10 to suit your hearing.

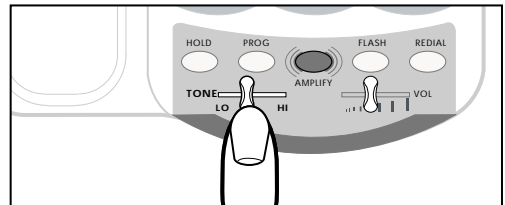


Figure 10 - Tone Slide Control

Ringer Volume

1. You can adjust the **RINGER VOLUME** as high as 95 dB. The settings available are **OFF**, **LO** and **HI** as shown in Figure 11.

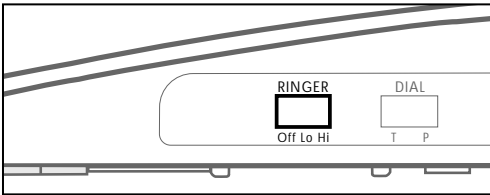


Figure 11 - Ringer Volume

Hold

To put the line on hold, press the **HOLD** button and return the handset to its cradle. In telephone mode, the screen shows "CALL-ON HOLD & MUTE". In text mode, it shows and transmits the message "PLS HOLD...".

Note: If you pick up an extension phone on the same line when the VCO is on **HOLD**, the VCO will disconnect and you can continue your conversation on the extension

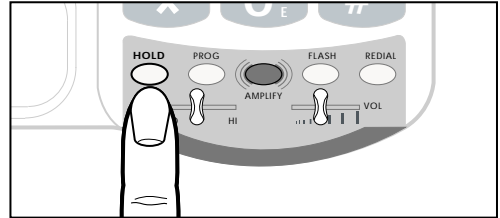


Figure 12 - Hold Button

phone. If you do not pick up the phone at another extension in 3 minutes, the phone will disconnect.

Last Number Redial

To redial the last number dialed, lift the handset and press **REDIAL**. The phone will redial up to 31 digits.

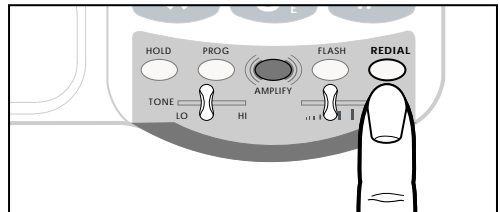


Figure 13 - Redial Button

Using Your VCO

Flash

Press the FLASH button as shown in Figure 14 to access the special services available from your local phone company such as Call Waiting and 3-Way Calling.

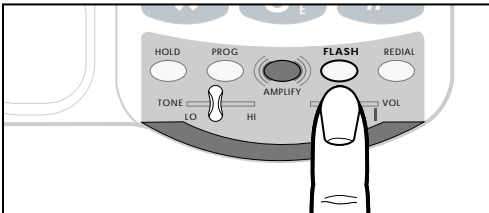


Figure 14 - Flash Button

Unanswered Call Indicator

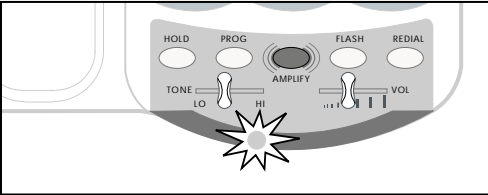


Figure 15 - Unanswered Call Indicator

If an incoming call is not answered by a person after 4 rings, the unanswered call indicator will flash. The light will continue to flash until the handset is lifted or AC power is disconnected. This feature does not require any optional telephone company services. It is useful if you were away for a short time while expecting a call. To cancel this feature, unplug the AC adapter and remove all batteries. Press the **HOLD** button while reconnecting the AC adapter, and then re-install batteries. Repeat this procedure to enable this feature again.

Programming the Relay Service Number

1. Lift handset and press **PROG** button.

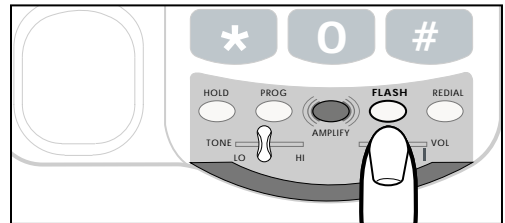


Figure 16 - Flash Button

2. Enter the **RELAY** phone number using the keypad.



Figure 17 - Telephone Keypad

3. Press **RELAY** button to store the number. Hang up immediately.

Special Features

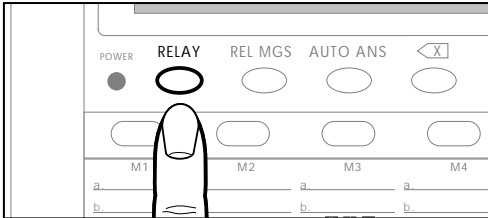



Figure 18 - RELAY Button

Programming Emergency Calling Message/Your Home Phone

Number and Long Distance Carrier

To Program:

1. Lift handset and press PROG button and then  button.

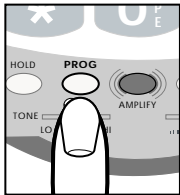


Figure 19 - PROG Button

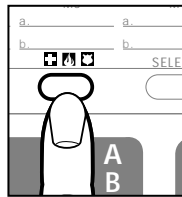



Figure 20 - EMERGENCY Button

2. Enter 911 if available, or your local emergency service number, up to 14 digits. Press  to save.

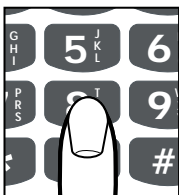


Figure 21 - Telephone Keypad

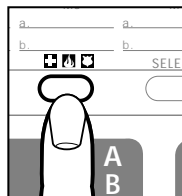


Figure 22 - EMERGENCY Button

3. Type your name (up to 30 letters) and press to save. (For number/letter, press key repeatedly until the desired number/letter appears on screen. Wait one second for cursor to advance to the next space. See section on "communicating in text telephone (TTY/TDP) mode" making a TTY call.)

4. Type your address (up to 45 letters) and press to save.

5. Enter your home phone number (up to 14 digits) and press to save.

If your relay requires you to provide the name of your long distance carrier continue with step 6, otherwise skip to step 7

6. Type your long distance carrier (up to 14 letters), and press to save.


7. Hang up.

8. To change any information, repeat from step 1.

Making Emergency VCO Calls with voice

1. Dial emergency number 911.
2. When number answers, signal light flashes.
3. Say your name, address and the help needed.

Making Emergency VCO Calls with text and Sending Emergency Message

1. Lift handset.
2. Dial the emergency number if it has not been programmed into (see previous section).
3. Press .

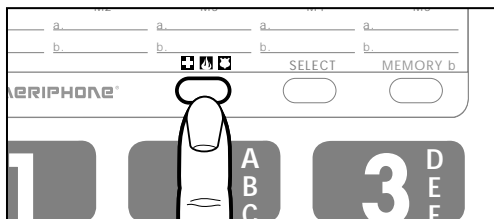



Figure 23 - EMERGENCY Button

4. The VCO phone dials the emergency number (if programmed) and transmits this present message: *"HELP! I AM A VCO USER, PLS RESPOND BY TYPING ON A TTY, AND LISTEN TO ME ON UR PHONE, (your name), (your address), (your number) GA"*.
5. This message will re-transmit every few seconds.
6. The message will stop when it starts receiving the typed message from the dispatcher. Or, you can stop and start the message by pressing .
7. Continue conversation by reading and talking.

Memory dialing the emergency service and the emergency message feature are provided only as a convenience. Ameriphone assumes no responsibility for customer reliance upon these features.

Special Features

Programming the Memory Buttons

You can automatically dial ten (10) programmed telephone numbers using the memory buttons shown in Figure 24. Each button can be programmed (or reprogrammed using the same procedure) for a phone number up to 15 digits long.

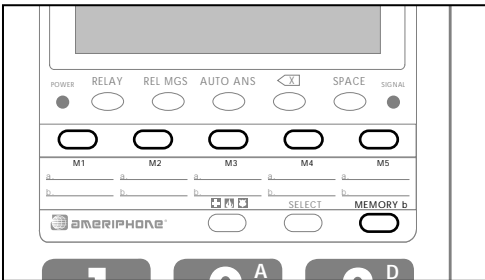
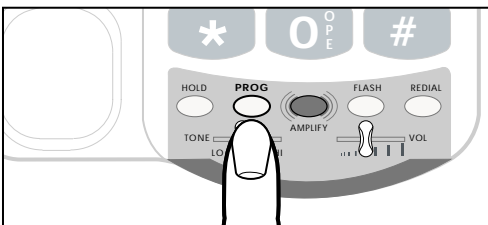


Figure 24 - Memory Buttons

To Program the first 5 numbers into a memory Button, Follow these Steps:

1. Lift the handset and press **PROG** as shown in Figure 25.



16 Figure 25 - **PROG** Button

2. Enter the phone number on the keypad (Figure 26) just as you would dial it normally. If you need to dial a "1" and/or the area code, be sure to include it.

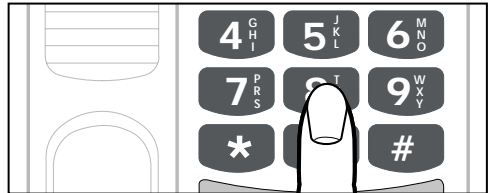


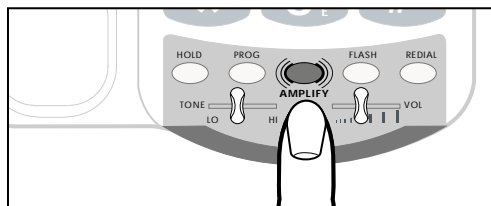
Figure 26 - Telephone Keypad

3. Select and press a memory (M1-M5) button (Figure 24) to store this number on that button.
 4. Immediately hang up the handset.
- Note:** Any number previously stored at that button number will be overwritten.
5. To change a stored number, repeat the programming process starting with step 1.

Note: Please do not program 911 into any memory button

To Store the Second 5 Numbers Into the Same Memory Locations:

1. Lift the handset and press **PROG** as shown in Figure 25.
2. Enter the phone number on the keypad just as you would dial it normally, as shown in Figure 26.
3. Press the **MEMORY b** button and then the desired MEMORY (M1-M5) button (Figure 24) to store this number as the second phone number in the same memory location.



AMPLIFY Button

Using Relay with VCO

A person with hearing loss who uses their voice can use voice carry over (VCO) through the toll-free local relay service to communicate with a hearing person.

In a VCO (voice carry over) call, the hard of hearing person speaks directly to the other party. The Communications Assistant (CA) relays the response from the other person, which shows up as text on your VCO phone screen. You just read and talk.

It is not possible to speak to the other person or to the CA while the VCO is receiving text

Making Standard Phone Calls

1. Make or answer voice calls as usual.
2. Press the AMPLIFY button to turn amplifier ON/OFF.
3. Adjust VOLUME and TONE slide controls to suit your hearing
4. Hang up to reset.

messages. You must wait for the completed message as indicated by the word "GA" on the screen from the CA. It is important to let the other party know it is their turn to speak by saying "GA" or "GO AHEAD."

Some relay services offer to relay calls from one VCO user to another VCO user, called Voice-To-Voice Relay or VTV. Contact your local relay service for more information. The relay services vary from state to state, and the procedures using the VCO phone may vary slightly. Follow the steps below to determine which procedure you should use for your local relay service.

Making VCO Calls

If your relay service has a dedicated phone number for TTY/TDD calls listed on the directory, use that number for making outgoing VCO calls. (The voice number is for people to call you through the relay service).

Follow These Steps to Make VCO Calls:

1. To make an outgoing VCO call, lift the handset and push the "**RELAY**" button or direct dial 7-1-1, using your keypad. The Communications Assistant (CA) announces in Text mode, " Hi, VCO call, PLS GA".

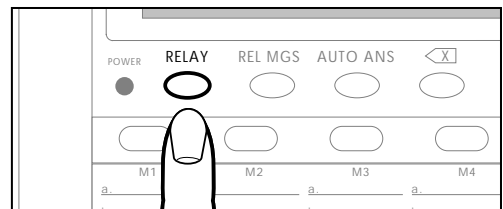


Figure 27 - **RELAY** button

2. Press **REL MSG** button to request a VCO call.

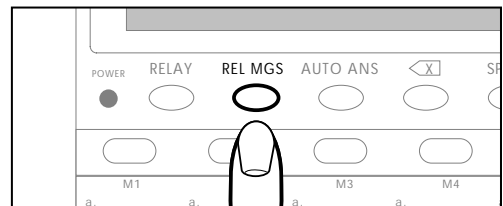


Figure 28 - **REL MSG** button

Special Features

3. When prompted with "GA" on the display, voice the number you're calling. (In some areas, you may only provide calling information by text.)
4. When the call is connected, read incoming messages on display screen and start speaking when you see "GA". Voice your conversation through the handset and be sure to say "go ahead" when you're finished speaking and it's the other person's turn to talk.
5. Continue your conversation by reading and talking.
6. Hang up the handset when you are finished.

If your relay service has a common phone number for both voice and TTY/TDD calls, you can provide calling information by either voice or text:

Provide Calling Information by Voice:

1. Dial from keypad or from **RELAY** memory.

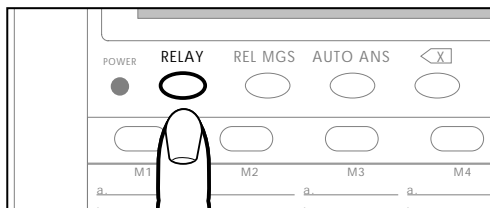


Figure 29 - **RELAY** button

2. The CA answers in voice (you can tell from the flickering of the signal indicator). Speak into the handset and tell the CA that you are a VCO user and give the CA all the calling instructions. Repeat the information one more time to ensure the CA received all of the instructions.

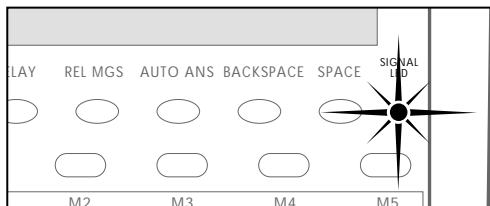


Figure 30 - Signal Indicator

3. When connected, read incoming messages on display and start speaking when "GA" appears. Say "go ahead" when you're done and it's the other person's turn to talk.

4. Continue your conversation by reading and talking.

2. Dial the number you're calling on the keypad (if you make a mistake, press **PROG** to go back one space to erase the incorrect number), followed by pressing the * and # keys (this will type "GA".)

Provide Calling Information by Text:

1. After the CA answers the call first in voice, wait quietly for one or two seconds, the CA will then answer in text. When you see "GA", press **SELECT** then **REL MSG** buttons. You'll see "VCO CALL PLS GA" on your display.

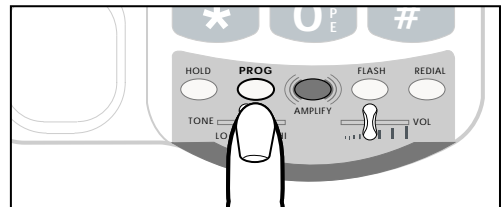


Figure 32 - **PROG** button

3. When connected, proceed with your call by reading and talking.

In areas where the CA needs to know your long distance carrier and /or your home phone number, you must complete the steps in the "Programming Your Emergency Calling Message" section.

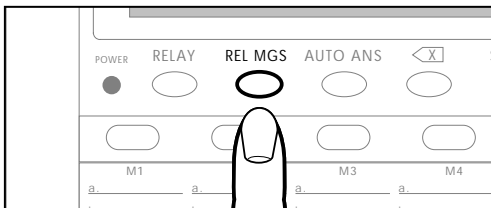


Figure 31 - **REL MSG** button

1. When requested by the CA, press **REDIAL**.

Special Features

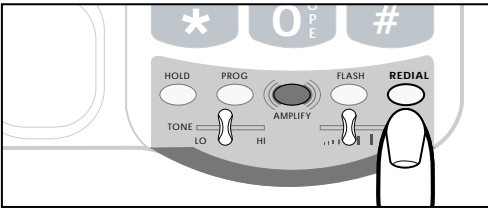


Figure 33 - **REDIAL** button

2. Your VCO phone will transmit:
"My number is...., My Long Distance Carrier is....GA".

Making VCO Calls by Memory

Dialing:

After you press **RELAY** and reach a CA, pressing any memory button will inform the CA that you want to make a VCO call and give them the phone number stored in the memory button, all at the same time. There is no need to voice the phone number.

1. Lift handset.
2. Press **RELAY**.

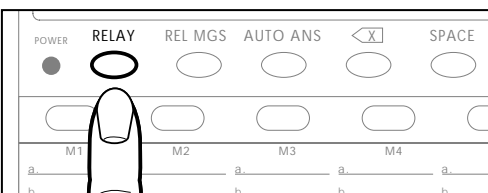


Figure 34 - **RELAY** button

3. When the CA answers in text mode, press the desired memory button. If the number is stored as the second number in the memory, press **MEMORY b** first and then the memory button.
4. The phone sends and displays this message on the screen; *"I AM A VCO USER, PLS CALL (number stored in memory button selected), GA"*. You don't need to voice the phone number. If necessary, press the same memory button to repeat the message.
5. When connected, proceed with the call as in normal VCO communications.

The above procedure works only when the telephone is in text mode. When operating in the telephone mode, pressing any memory button dials the phone number stored in that memory. (See "Memory Dialing" section)

Answering VCO Calls

1. Lift the handset when the phone rings.
2. Press **REL MSG**. Read the incoming message on the display.

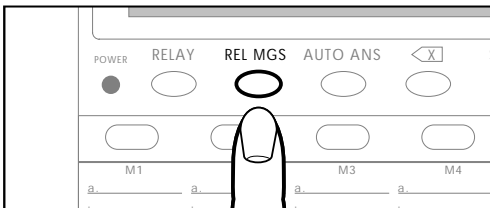


Figure 35 - REL MSG button

3. When you see "GA" on the screen, speak to the calling party. If nothing appears on screen, it is not a VCO call, it is a voice call. Say into the phone, "I am a VCO user. Please call me through your state relay operator". Provide the relay service voice line number.

4. Continue your conversation by reading and talking.

We strongly advise you to tell your friends and associates to call you through the relay service using the voice relay number for their state.

Communicating in Text Telephone (TTY/TDD) Mode

Making a TTY Call:

You may use the VCO to communicate with a text telephone (TTY/TDD). The party you called will begin using their TTY and send you a greeting message. When the VCO receives text messages, it automatically switches from regular telephone mode to text mode. The screen will display "BAUDOT MODE," and then the text received. After "GA" appears, you can then respond by using the keypad of the VCO to type your messages.

Special Features

To type a TTY message, use the keys of the keypad and their corresponding letters (i.e. number **2** is also for letters A, B, and C). On the screen, watch the character above the cursor change as you repeatedly press the same key. When the desired letter is shown, wait one second for the cursor to advance to the next space. Then enter the next character. **SPACE** is used as the space bar, and **BACKSPACE** is used for backspace and correction. The letters "Q" and "Z" are located in key number **1**, other characters of punctuation are created with the *, **0**, and # keys.

Text Transmission Speed Selection:

The VCO defaults to the U.S baud rate of 45.5 when using text communications. To change to International baud rate, just press **SELECT** then **AUTO ANS**. The screen will read "INT SPEED SELECTED." You can switch back to U.S. speed in the same manner or by hanging up.

Acoustic Coupling of a TTY to the VCO:

1. Pick up the handset and place it into TTY acoustic cups.
2. Dial number from the VCO keypad.
3. Press **SELECT** to go to Baudot mode.
4. Press **1** key four times until "&" appears on the screen.
5. Continue conversation using the TTY.
6. When finished, hang up the handset.

Using Text Auto Answering Machine

The VCO's automatic answering machine can record 1728 total characters in text messages. The answering machine sends out the factory preset outgoing message that reads "THX U FOR CLG, PLS

LV A MSG GA" to greet each caller.

To Turn on the Answering Machine:

1. Pick up the handset.
2. Press the **AUTO ANS** button. The screen reads: *"AUTO ANS ON 00 MSG 1=READ 2=ERASE 3=OFF"*. The number of old messages previously received will be displayed until you erase them. Erase old messages when not needed to ensure enough memory for new messages.
3. Hang up the handset. The answering machine is now ready to take messages.

To Play back Recorded Messages:

1. The screen will indicate the number of messages you have received.
2. Press **1** to read your messages. Or press **1** again

to fast forward to the next message. When finished, press **2** to erase messages.

3. Press **3** to turn off the answering machine.

Programming your Password (for remote message retrieval only):

For security, you can set up a personalized password to protect the privacy of the messages left on your VCO answering machine.

1. Lift handset and press **AUTO ANS**.
2. Press **4**.
3. Type your password after the " / " by following the typing procedures.
4. When complete, press **SELECT** to return to auto answering mode.
5. When you retrieve your messages remotely, you must enter your password exactly. See section below.

Retrieving Messages Remotely:

1. Call your VCO from a text telephone, another VCO, or a TTY/ TDD pay phone.
2. When your VCO answers, you will see the greeting message.
3. Type a backslash " / ", and your password if you've set one up. Then press the space bar or return key.
4. Your messages will scroll on the TTY screen.
5. At the end of the messages, "ERASE MSG? Y/N" appears, followed by "REPEAT MSGS? Y/N". Type "Y" for yes and "N" for no.

Using an External Voice Answering Machine

Because the VCO can be used as a standard amplified telephone by the whole family, you may wish to connect an external voice answering machine to your VCO. However, the VCO has an Auto Answer function which is turned ON by pressing the AUTO ANS button on the VCO. If a voice answering machine is connected to the VCO and is ON when the VCO's Auto Answer is ON, when the VCO answers the call, it will shut off the voice answering machine and nothing will be recorded. Also, if the VCO is receiving text at the same time you are playing back voice messages, the voice message playback will interfere with the reception of the text messages.

If you wish to use a voice answering machine with your VCO, you may. But, you must make certain that the Auto Answering function is OFF.

Direct Audio Output

The **AUDIO OUTPUT** socket allows you to connect the VCO to a hearing aid, neck loop, cochlear implant or other assistive listening devices.

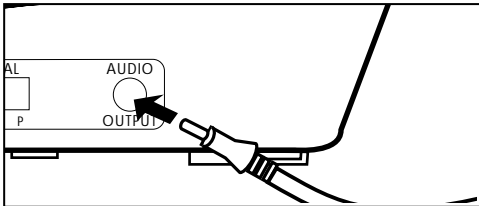


Figure 36 - Audio Output Socket

To use this port, plug in a compatible auxiliary cable and connect it to your assistive listening device. Speak into the handset when you use the Audio Output connection.

Cochlear Implant Adapter Cord:

A cochlear adapter cord is available from Ameriphone that can be used to plug the VCO directly into a speech processor.

WARNING! During thunderstorms, avoid using telephones, electric shock from lightning can occur. Before plugging any cord into your speech processor, you must consult your implant manufacturer.

Connecting the Speech Processor:

Plug the mono end of the plug into the speech processor.

Plug the stereo end of the plug into the Audio Output socket on the phone.

Speak into the handset when using the Cochlear Implant Adapter Cord.

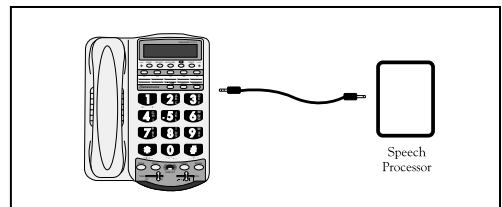


Figure 37 - Connecting the Speech Processor

Connecting to the LVD

The VCO can be used with the LVD from Ameriphone, the large visual display for the Q-90 TTY. Attach the LVD cable to the connector on the back of the VCO. Be careful not to bend any pins.

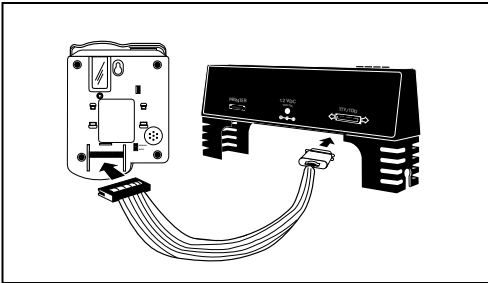


Figure 38 - Connecting the LVD

Connecting to the Q-90 Printer

The VCO can be used with the Q-90 Printer from Ameriphone. Attach the Q-90 Printer cable to the connector on the back of the VCO.

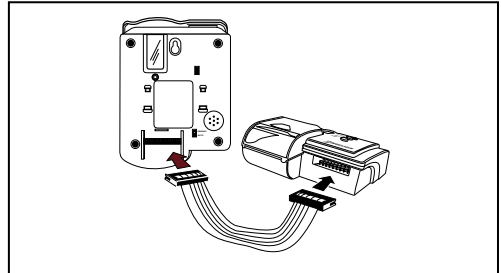


Figure 39 - Connecting the Q-90 Printer

Connecting to the LVD and the Q-90 Printer

The VCO can be connected to both the LVD and the Q-90 Printer through the use of an optional cable. The cable is available from Ameriphone and can connect the LVD to the Q-90 Printer. The Ameriphone item number for the cable is #79028.

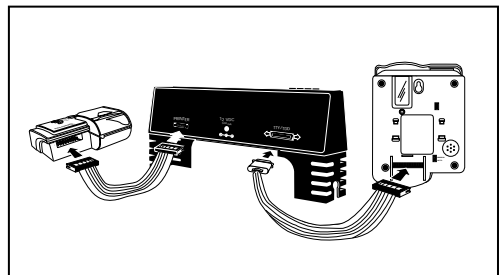


Figure 40 - Connecting the VCO to the LVD and the Q-90 Printer

Troubleshooting Chart

The chart below will help you solve most problems that may arise during operation of your telephone. Should the difficulty continue, contact Ameriphone or your authorized dealer for assistance.

SYMPTOM	CAUSE AND CORRECTIVE ACTION
Screen remains blank	No power. The screen runs on AC power, check that the AC adapter is plugged into the wall, and the receptacle is plugged into the VCO.
No dial tone	<ol style="list-style-type: none"> 1. Check all phone cord connections. 2. Remove back-up battery if installed. Plug in AC adapter first then re-install battery.
Letters do not appear when pressing keypad	Still in telephone mode. Press SELECT to enter text mode.
No number dialed when memory button pressed	No number stored in that memory button. See "Programming Frequently Dialed Numbers."
Nothing happens when RELAY is pressed	No number stored in the RELAY button. See "Programming the Relay Service Number."
Garbled message on screen	Press SELECT once to correct the incoming message.
Call cannot be dialed, or is dialed slowly	See "Installation" section to reset the dialing mode switch.
VCO does not have an audible ring	Make sure the ringer is not set to "Off" position.

Part 68 of FCC Rules Information

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the bottom of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug, RJ11 USOC, is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone

line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

If this telephone equipment, the VCO telephone, causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you

believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this telephone equipment, for repair or warranty information, please contact Walker / Ameriphone, 1-800-874-3005. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

DO NOT DISASSEMBLE THIS EQUIPMENT.

This telephone equipment is not intended to be repaired and it contains no repairable parts. Opening the equipment or any attempt to perform repairs will void the warranty. For service or

repairs, call 1-800-874-3005.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this telephone equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

This telephone equipment is hearing aid compatible.

We recommend the installation of an AC surge arrester in the AC outlet to which this equipment is connected. The telephone companies report that electrical surges, typically lightning transients, are very destructive to customer terminal equipment connected to AC power sources.

Customer-Owned Coin/Credit Card Phones:

To comply with state tariffs, the telephone company must be given notification prior to connection. In some states, the state public utility commission, public service commission or corporation commission must give prior approval of connection.

Part 15 of FCC Rules 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.

Your XL-40 Telephone has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of FCC rules. These limits are

designed to provide reasonable protection against harmful interference in 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, you are encouraged to try to correct the interference by one of the following measures:

1. Where it can be done safely, reorient the receiving television or radio antenna.
2. To the extent possible, relocate the television, radio or other receiver with respect to the telephone equipment.

(This increases the separation between the telephone equipment and the receiver.)

3. Connect the telephone equipment into an outlet on a circuit different from that to which the television, radio, or other receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

THE PARTY RESPONSIBLE
FOR PRODUCT COMPLIANCE
Ameriphone Products by Walker,
A Division of Plantronics, Inc.
12082 Western Avenue
Garden Grove, CA 92841
Telephone: 800-874-3005

Industry Canada Technical Specifications

This product meets the applicable Industry Canada technical specifications.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the

user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number is an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed five.

[The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.]

Warranty

This warranty applies only to Ameriphone products that are purchased and used in the United States or Canada.

Ameriphone warrants the VCO telephone against any defect in materials or workmanship for the period of one year from the date of purchase.

If your Ameriphone product is defective and returned within 30 days of the date of purchase, your VCO dealer will replace it at no charge.

If returned after 30 days, but within one year from the date of purchase, we will repair or replace it at no charge. In the repair of your VCO, we may use new or reconditioned replacement parts. If we elect to replace your VCO, we may replace it with a new or reconditioned product of the same or similar design. Repair or replacement will be warranted for either 90 days or the remaining time on the original warranty period, whichever is

Implied warranties, including those of fitness for a particular purpose and merchantability (an unwritten warranty that the product is fit for ordinary use), are limited to one year from date of purchase. We will not pay for loss of time, inconvenience, loss of use of your VCO, or property damage caused by your VCO or its failure to work, or any other incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above exclusions or limitations may not apply to you.

To get warranty service for your VCO, you must provide proof of the purchase date. Within 30 days of the date of purchase, return your VCO to the place where you purchased it for immediate replacement. After 30 days, call Ameriphone at 800-874-3005 VOICE or 800-772-2889 TTY for the authorized service center near you. You must

Warranty

prepay all shipping costs. We suggest you save the original package materials in the event you need to ship the VCO. When shipping for warranty repair, include your name, address, phone number, proof of date of purchase, and a description of the problem. After repairing the product, we, (or the service center) will ship it back to you at no cost within the United States and Canada. CANADIAN RESIDENTS: call Ameriphone at 800-874-3005, 800-772-2889 TTY for instructions.

This warranty does not cover defects resulting from accidents, damage while in transit to our service location, alterations, unauthorized repair, failure to follow instructions, misuse, use outside the United States or Canada, fire, flood, and acts of God. Nor do we warrant the product to be compatible with any particular telephone equipment, party line, key telephone systems, or more sophisticated switching

systems. If your VCO is not covered by this warranty, call us at 800-874-3005 or 800-772-2889 TTY for advice as to whether we will repair your VCO and other repair information. The repair shall be warranted for 90 days.

Specifications

Maximum gain

High frequency (3 kHz): 30 dB

Wide band (300 to 3000 Hz): 20 dB

Tone control range

Full range: 300 to 3000Hz

using one slide control.

Dimensions

Size: 9¹/₂" x 7" x 3¹/₄"

Weight: 2.52 lbs.

Power Requirements

AC adapter: 9V, 300 mA

4 AA rechargeable batteries
(optional)

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Precision engineered in the U.S.A.

