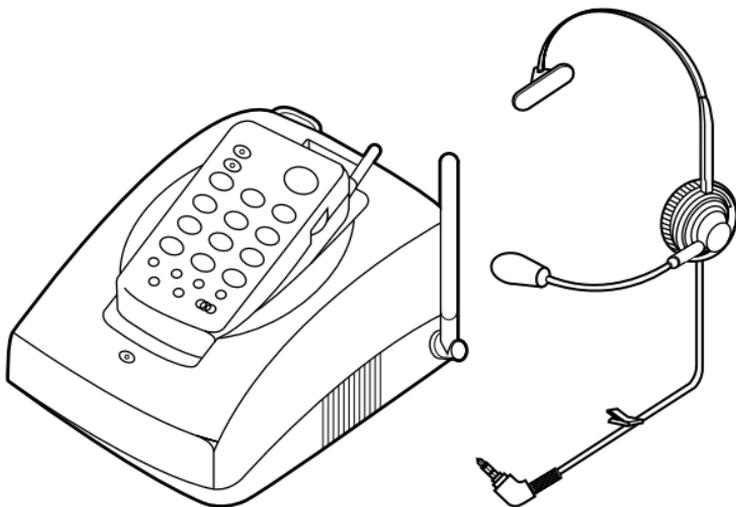




Vision 2000 900-MHz Cordless Headset Telephone



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)

FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**

Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018

Web site: www.blackbox.com • E-mail: info@blackbox.com

FEDERAL COMMUNICATIONS COMMISSION
AND
INDUSTRY CANADA
RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication.

It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

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

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie Canada.

**FCC Requirements for
Telephone-Line Equipment**

1. The Federal Communications Commission (FCC) has established rules which permit this device to be directly connected to the telephone network with standardized jacks. This equipment should not be used on party lines or coin lines.
2. If this device is malfunctioning, it may also be causing harm to the telephone network; this device should be disconnected until the source of the problem can be determined and until the repair has been made. If this is not done, the telephone company may temporarily disconnect service.
3. If you have problems with your telephone equipment after installing this device, disconnect this device from the line to see if it is causing the problem. If it is, contact your supplier or an authorized agent.
4. The telephone company may make changes in its technical operations and procedures. If any such changes affect the compatibility or use of this device, the telephone company is required to give adequate notice of the changes.

5. If the telephone company requests information on what equipment is connected to their lines, inform them of:
 - a. The telephone number that this unit is connected to.
 - b. The ringer equivalence number.
 - c. The USOC jack required: RJ-11C.
 - d. The FCC registration number.

Items (b) and (d) can be found on the unit's FCC label. The ringer equivalence number (REN) is used to determine how many devices can be connected to your telephone line. In most areas, the sum of the RENs of all devices on any one line should not exceed five (5.0). If too many devices are attached, they may not ring properly.

6. In the event of an equipment malfunction, all repairs should be performed by your supplier or an authorized agent. It is the responsibility of users requiring service to report the need for service to the supplier or to an authorized agent.

Certification Notice for
Equipment Used in Canada

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications-network protective, operation, and safety requirements. Industry Canada does not guarantee 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 (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 maintenance facility—in this case, Black Box. 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 LOAD NUMBER (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop which is used by the device, to prevent overloading. The termination on a loop may consist of any combination of devices, subject only to the requirement that the total of the load numbers of all the devices does not exceed 100.

**NORMAS OFICIALES MEXICANAS (NOM)
ELECTRICAL SAFETY STATEMENT**

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.

10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energia.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos liquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

WARNING! SAFETY INSTRUCTIONS

These basic safety precautions should be followed in order to reduce the risk of injury, fire, or electrical shock.

1. Read all instructions carefully.
2. Follow the instructions and heed all warnings in this manual and on the product.
3. Unplug the phone from the wall outlet before cleaning. For cleaning, use only a damp cloth with a mild soap.
4. Do not use this product in or near water (such as in a bath tub, swimming pool, laundry tub, or in a wet basement).
5. Operate this product only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your local power company.
6. Protect your telephone line cord from damage. Do not place the cord in locations where people will walk on it or it will be abused by other objects placed on it.

7. Never put objects of any kind into the housing slots of this product, as they may touch dangerous voltage points or cause shorting out of electrical components, causing shock or fire hazard. Be careful to keep liquids of any kind from spilling on this product.
8. To avoid the risk of electrical shock, never attempt to disassemble this product. Removing housing covers could expose you to dangerous voltages or electrical shock.
9. In the following conditions, unplug this product from power source and consult a qualified service technician:
 - a. When the power supply cord is damaged.
 - b. If liquid has been spilled into the product.
 - c. If the product has been dropped or the housing is damaged.
 - d. If the product has a distinct change in performance.
 - e. If the product does not operate properly when you follow the operating instructions.

10. Do not use the telephone to report gas leaks if it's in the vicinity of the leak.
11. To prevent the risk of shock or fire, do not overload outlets and extension cords.

WARNING! BATTERY PRECAUTIONS

1. Use only the required size and type of battery for replacement (3.6 volt @ 600 mAh metal hydride battery).
2. Dispose of batteries properly. Check local codes for disposal instructions.
3. Do not attempt to open or mutilate the battery. It contains corrosive electrolyte, which is harmful if swallowed and may damage eyes and skin.
4. Be careful not to contact the battery with conductors such as keys or jewelry. These may cause the battery to overheat, causing burns.
5. Do not attempt to recharge the batteries by heating them. The battery may leak or explode.

6. Be sure to observe the proper polarity or direction when installing the battery. Reversing the direction of the battery can cause charging and result in leakage or explosion.
7. Remove the battery if the product will not be used for several months or more.
8. Discard dead batteries promptly to avoid leakage into the product.
9. Do not store this product or the battery in high temperatures. If the batteries are stored in refrigerator, they should be protected from condensation. Batteries should be brought to room temperature before use.

TRADEMARKS

Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.

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1. Introduction

1.1 Description

The Vision 2000 900-MHz Cordless Headset Telephone gives you high-quality telephone communication and convenient portability. This product consists of a base unit and a remote cordless keypad. The keypad allows you to make or take calls while away from the base unit. The lightweight headset provides hands-free operation, providing you with the freedom to do other tasks while on the phone.

1.2 Features

- Lightweight headset with adjustable microphone boom.
- Advanced circuitry produces clear sound comparable to a corded phone.
- Secure Guard Access Protection blocks other cordless phone users from using your line when the remote keypad is away from the base unit.
- Last-number redial.

- AutoScan automatically selects a clear channel.
- Mute switch allows you to turn off the microphone so the caller cannot hear you.
- Memory button lets you access and store up to ten numbers in speed-dial memory.
- Select from 40 available channels with the Channel button.
- Flash button for use with certain telephone company services.
- Tone/Pulse switch.
- Ringer Hi/Lo switch for adjusting ringer volume.
- Ringer On/Off switch.
- Belt clip.
- 200-foot (61-m) range.
- Volume control.
- Hearing-aid compatible.

2. Installation

2.1 Getting Started

Unpack the Vision 2000 900-MHz Cordless Headset Telephone and make sure you have all the items listed below.

- (1) base unit with headset holder
- (1) remote unit
- (1) monaural headset
- (1) power supply
- (1) 6-ft. (1.8-m) RJ-11 cable

If anything is missing or damaged, please call Black Box at 724-746-5500.

2.2 Choosing a Location

Place the telephone in a location which is near an AC power outlet and a telephone line jack. The location you choose for the base unit could affect the range and reception of the phone. Try different locations to find the best performance.

2.3 Connecting the Telephone

1. Plug one end of the supplied telephone line cord to the TEL LINE jack on the back of the base unit.
2. Connect the remaining end of the line cord into your telephone line jack.
3. Put the antenna in a vertical position.
4. Connect the headset holder to the slot on the back of base unit (see Figure 2-1).

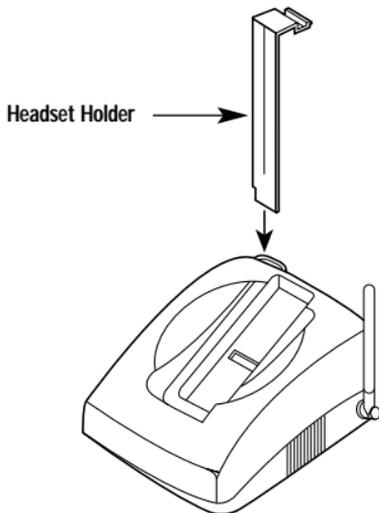


Figure 2-1. Connecting the headset holder to the base unit.

5. Connect the power adapter to the DC 9V jack on the back of the base unit (see Figure 2-2).

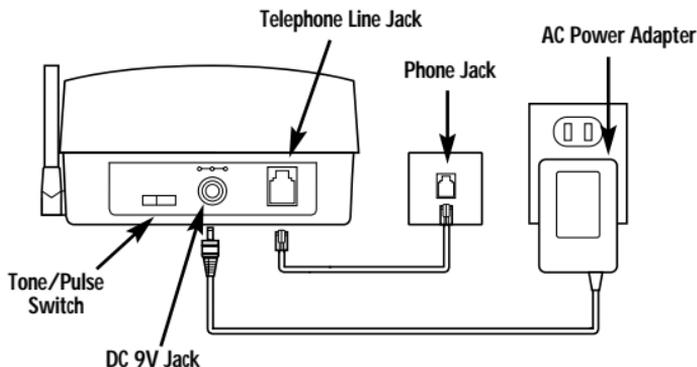


Figure 2-2. Connecting the power adapter to the jack on the base unit.

6. Plug the power adapter into an AC power outlet.

2.4 Installing the Battery Pack

The telephone comes with a rechargeable metal hydride 3.6V @600mA battery pack. The battery pack must be charged for at least 16 hours before the first use.

To install the battery pack into the remote keypad unit, follow these instructions.

1. Remove the battery cover on the remote keypad by sliding the top of the battery cover in the direction of the arrow (see Figure 2-3).

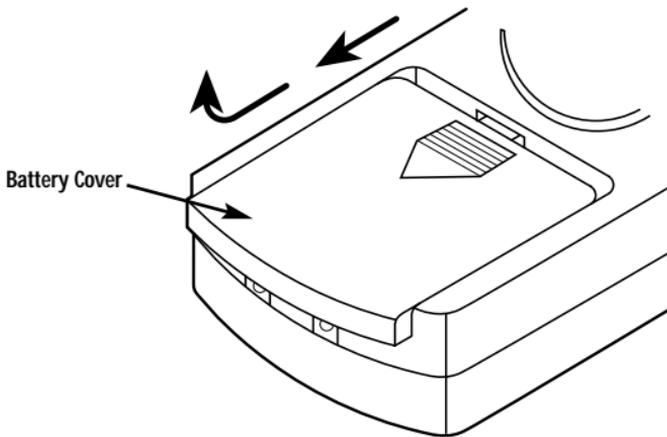


Figure 2-3. Removing the cover.

2. Carefully push the battery pack connector onto the connector pins inside the battery compartment (see Figure 2-4).

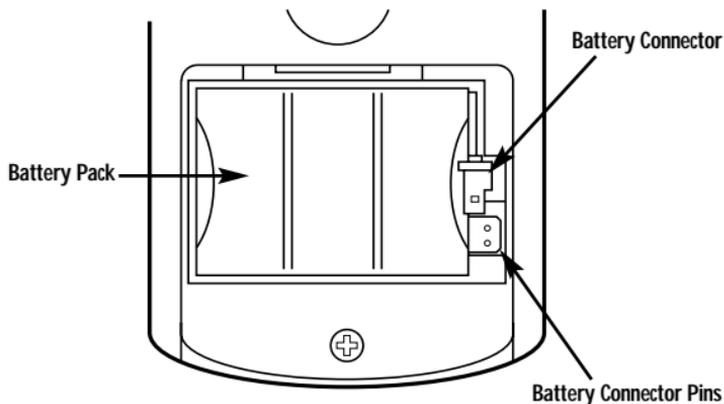


Figure 2-4. Connecting the battery pack.

3. Place the battery pack in the compartment and replace the cover.

2.5 Installing the Headset

1. Plug the 2.5-mm stereo plug on the headset cord into the jack located on top of the remote keypad.

2. Place the headset cord under the strain relief clip on the side of the remote keypad (see Figure 2-5).

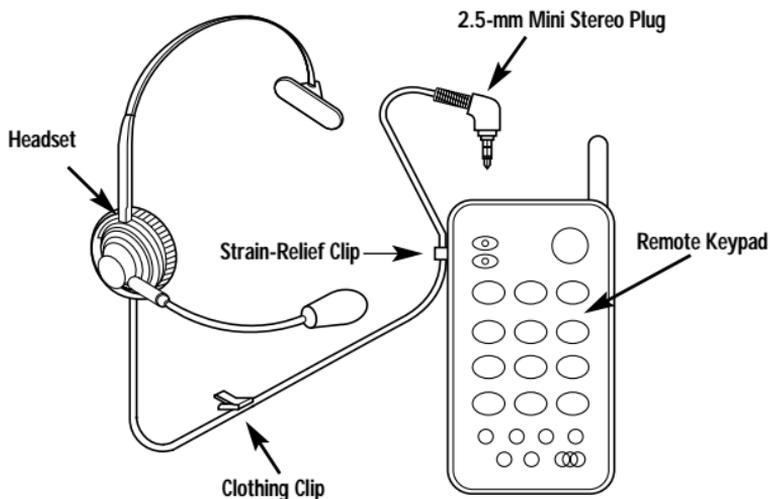


Figure 2-5. Installing the headset.

2.6 Charging the Battery Pack

Put the remote keypad into the top of the base unit.

1. The In Use/Charge indicator will light up if the keypad is in the base (see Figure 2-6).

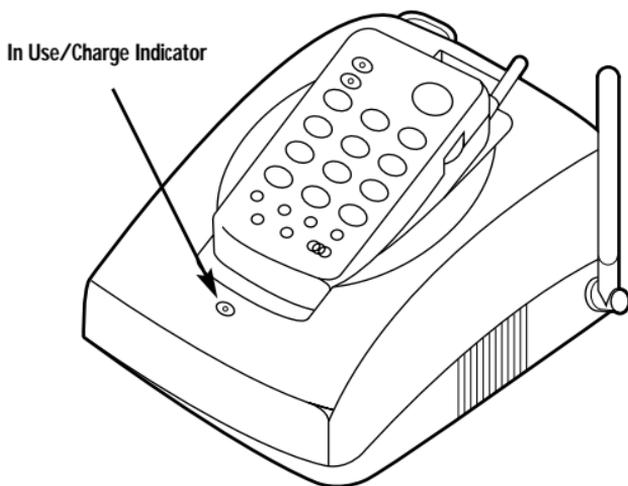


Figure 2-6. Putting the keypad in the base.

2. If the indicator does not light when the keypad is in the base, check the battery pack and AC adapter connection.

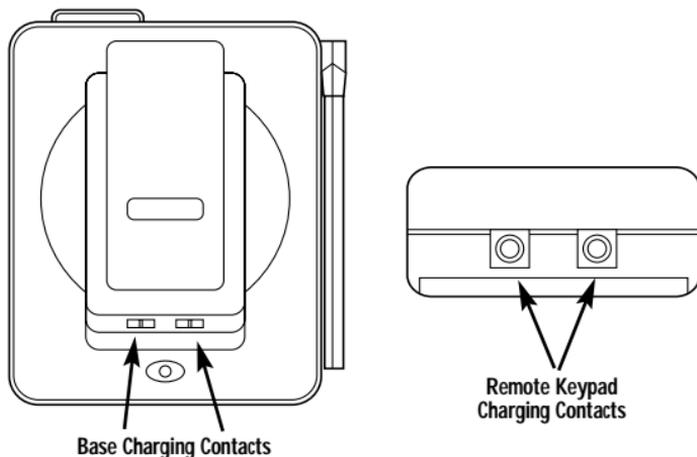


Figure 2-7. Checking the battery connections.

3. Operation

After the first charging and again with subsequent recharging of the battery pack, the phone may not work and you may hear error tones.

- If you hear error tones, put the remote keypad in the base unit for 5 seconds. This will reset the security code.
- Recharge the battery when the Batt. Low indicator on the keypad lights. If the battery power is too low, the indicator will not light.
- If the In Use/Charge indicator fails to light when placing the keypad in the base unit, you may need to clean the contacts on the keypad and base. Use a pencil eraser to clean the contacts (see Figure 2-7).
- To maintain the battery pack's charging ability, allow the battery to fully discharge once a month. To do this, keep the keypad off the base unit until the Batt. Low indicator lights.

3.1 Adjusting the Headset

Put on the headset and adjust the band until it feels comfortable against your ear and the top of your head (see Figures 3-1 and 3-2).

1. If the headset is loose, remove it and carefully push the band inward slightly. If the headset is too tight, carefully pull the band out to loosen it.
2. The headset can be worn on either the right or left ear. The microphone boom can be swiveled for either position.
3. Position the microphone boom about 1 inch from your mouth. Avoid twisting the microphone at the end of the boom, as this may damage wiring.
4. Attach the headset cord to your lapel or collar with the included clothing clip. This will help keep the cord out of your way.
5. Always place the headset on the headset holder when it's not in use.

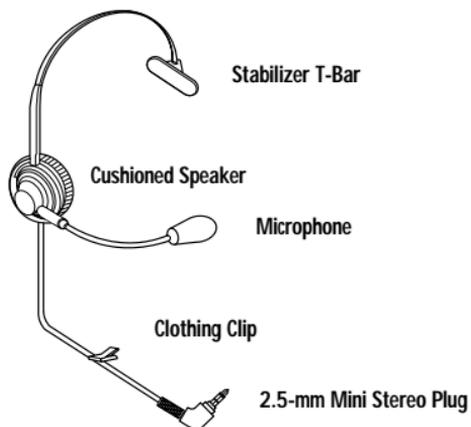


Figure 3-1. Parts of the Headset.

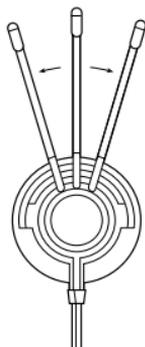


Figure 3-2. Adjusting the Microphone.

3.2 Setting the Tone/Pulse Switch

Set the Tone/Pulse switch for the type of service you have. The switch is located on the rear of the base unit (see Figure 3-3).

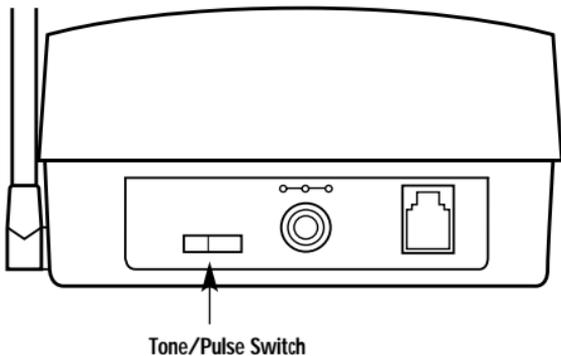


Figure 3-3. Setting the tone/pulse switch.

3.3 Using the Belt Clip

Use the belt clip for hands-free operation. The clip is made to rotate 360 degrees for easier dialing when the keypad is clipped to your belt.

3.4 Making and Receiving Calls

1. Put on the headset and adjust the fit if needed.
2. Be sure the Ringer switch on the keypad is On.
3. Push the Talk/Hang Up button. The In Use indicator will light (see Figure 3-4).

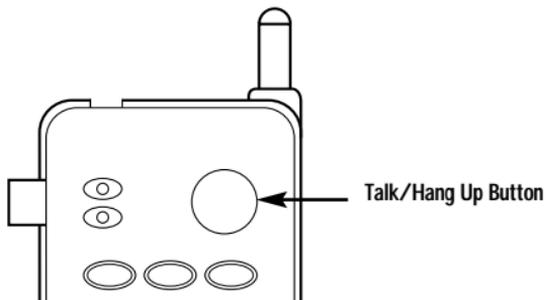


Figure 3-4. Talk/Hang Up button.

4. After hearing a dial tone, enter the number you want to call.
5. To hang up, press the Talk/Hang Up button or replace the keypad on the base.
6. To take a call when the keypad is on the base, remove the keypad from the base. The In Use indicator will light.

7. To take a call when the keypad is not on the base, press the Talk/Hang Up button. The In Use indicator will light.
8. To conserve power, set the Ringer switch to the off position when the keypad is away from the base. Make sure you have other phones on the same line which can be heard from your location.
9. When you press a button on the keypad, an audible tone will be heard. This means the base unit has accepted your command.
10. Three tones indicates an error, too much interference, or that you are too far from the base station.
11. If there is too much interference, move closer to the base station before pressing any buttons. Severe interference could cause loss of communication with the base and disconnect your call. If this happens, return the keypad to the base for a few seconds.

3.5 Changing Channels

The 900-MHz Cordless Headset Telephone contains a feature which automatically scans for a clear channel when you press the Talk/Hang Up button. If you do experience interference while on a call, press the Chan. button to switch to another channel until you find one with clear reception (see Figure 3-5).

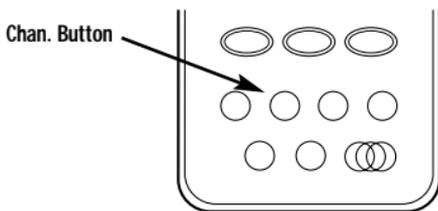


Figure 3-5. Chan. button.

3.6 Setting the Volume

The Volume control enables you to adjust the volume of the sound coming through the headset. Set the Volume control to a comfortable level. The control is located on the side of the keypad (see Figure 3-6).

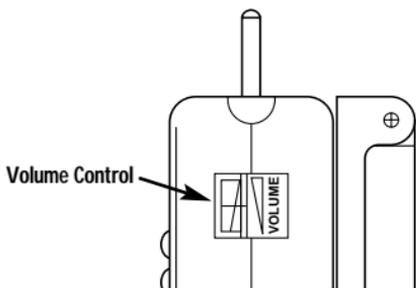


Figure 3-6. Volume control.

3.7 Setting the Ringer Hi/Lo Switch

Adjust the ringer volume that you hear through the keypad (see Figure 3-7).

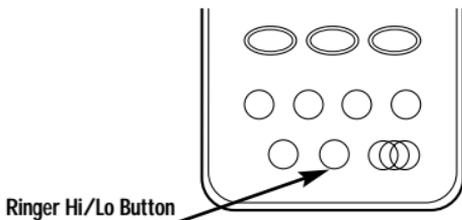


Figure 3-7. Ringer Hi/Lo button.

1. Press and hold the Ringer Hi/Lo button for one second. The ringer volume will change from high to low or low to high when the In Use indicator is off.

2. If you are on the phone or the phone is ringing, the Ringer Hi/Lo button is not functional.

3.8 Using the Redial/Pause Button

To redial the last number dialed, press the Talk button. When you hear dial tone, press the Redial/Pause button (see Figure 3-8).

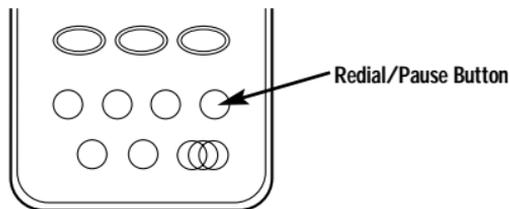


Figure 3-8. Redial/Pause button.

3.9 Using the Mute Button

The Mute button allows you to mute your voice so your caller cannot hear you. This feature can be helpful if you need to speak to someone else in the room without your caller hearing you. With the Mute button pressed, you can still hear your caller. Press and hold the Mute button on the keypad. Release the button to resume your conversation.

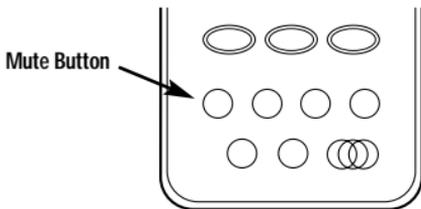


Figure 3-9. Mute button.

3.10 Using the Flash Button

Pressing the Flash button allows you to use special phone company services such as Call Waiting. If you have Call Waiting, you can place your call on hold and take a second call by pressing the Flash button (see Figure 3-10). Press the Flash button again to return to your original call.

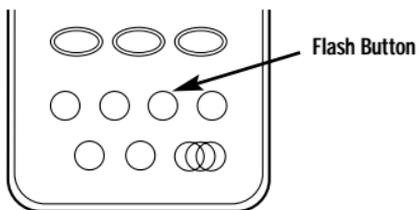


Figure 3-10. Flash button.

Be careful not to press the Flash button if you do not have any special phone company services as doing so may disconnect your call.

Flash entries and any numbers pressed after the Flash button will not be stored in the redial memory.

3.11 Storing Numbers in Memory

The telephone's speed-dial memory stores up to 10 phone numbers with a maximum of 16 digits each. To store phone numbers in memory, follow these instructions.

1. With the In Use indicator off, press the Memo button (see Figure 3-11).

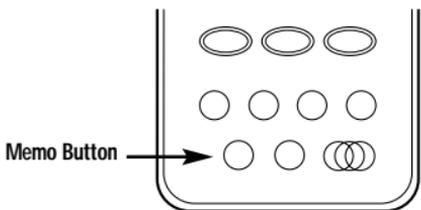


Figure 3-11. Memo button.

2. Enter the number you want to store, then press the Memo button again.
3. Press a number key (from 1–9) on the keypad. That number will be the memory location for the number you are storing.
4. A tone will indicate that the number has been stored in memory.
5. To change a number stored in memory, just store the new number in that memory location.

3.12 Entering a Pause in Stored Numbers

Some phone systems require you to dial an access code (9, for example) then wait for a dial tone before you can dial an outside line. To store the pause after the access code, press the Redial/Pause button at the appropriate point while entering the numbers in memory (see Figure 3-12).

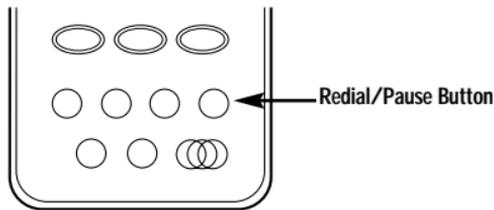


Figure 3-12. Redial/Pause button.

3.13 Dialing a Stored Number

To dial a number that is stored in memory:

1. Press the Talk/Hang Up button.
2. After you hear dial tone, press the Memo button, then press the appropriate memory location number (0–9) which you assigned to that particular stored number.

3. The number you have selected will be dialed automatically.

3.14 Chain Dialing

Some of your calls may require dialing more than one number in memory to complete the call, such as use of independent long distance services. You may dial numbers stored in different memory locations to facilitate these calls.

1. After you hear the dial tone, press the Memo button, then your memory location number (1-9) button.
2. When the call is answered, press the Memo button and the second memory location number to add additional numbers stored in that location.

4. Maintenance

The battery pack should be replaced if it does not hold a charge for 2 hours or more after an overnight charge.

1. Replace the battery with a new 3.6V @600 mAh metal hydride battery pack.
2. Be sure the replacement battery has a connector that matches the connector pins in the battery compartment.
3. Read the Battery Precautions on pages 10–11 before installing a new battery pack.
4. Dispose of the battery pack according to local guidelines for your area.
5. A fully charged battery will yield a maximum standby time of 7 days, talk time of 6 hours.

With proper care and maintenance, your Vision 2000 900-MHz Cordless Headset Telephone will perform trouble-free for many years. Follow the instructions below to maintain your new phone properly.

1. Do not allow the telephone to get wet. If it should get wet, unplug the phone from the power outlet and thoroughly wipe it dry. Moisture can corrode electronic components.
2. Keep the telephone away from extreme heat and cold.
3. Keep the telephone away from dust and dirt.
4. Handle the telephone with care. Dropping or mishandling the unit can cause malfunctioning.
5. Although the telephone contains circuitry which meets or exceeds FCC requirements for surge protection, a lightning strike near the phone lines could cause severe damage. Disconnect the telephone during an electrical storm or add more surge suppression devices.

5. Troubleshooting

5.1 Problems/Solutions

If you experience problems with your phone, check the following remedies.

Problem: The phone does not work.

Solution:

1. Is the Ringer switch On?
2. Are the AC adapter and phone cord installed correctly?
3. Recharge the battery pack.
4. Reset the security code by replacing the remote keypad into the base unit. Disconnect, then reconnect AC power.
5. Move the keypad closer to the base unit.

Problem: Interference.

Solution:

1. Move the keypad closer to the base unit.
2. Keep the phone away from sources of interference like computers, wireless electrical systems, and fluorescent lights.
3. Hang up and redial your number.

Problem: Decreased range.

Solution:

1. Raise the antenna on the base unit to the vertical position.
2. Recharge the battery pack.

5.2 Calling Black Box

If you determine that your Vision 2000 900-MHz Cordless Headset Telephone is malfunctioning, do not attempt to alter or repair the unit. It contains no user-serviceable parts. Contact Black Box at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem.
- when the problem occurs.
- the components involved in the problem.
- any particular application that, when used, appears to create the problem or make it worse.

5.3 Shipping and Packaging

If you need to transport or ship your telephone:

- Package it carefully. We recommend that you use the original container.

- If you are shipping the telephone for repair, make sure you include everything that came in the original package. Before you ship, contact Black Box to get a Return Authorization (RA) number.



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