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EXHIBIT E

SYSTEM MANUAL

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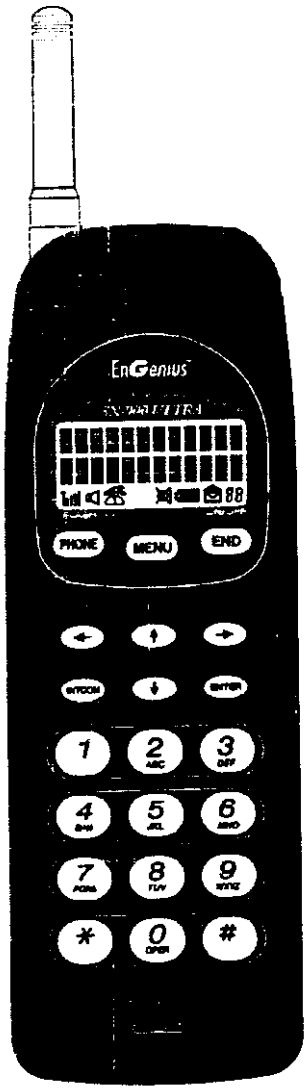
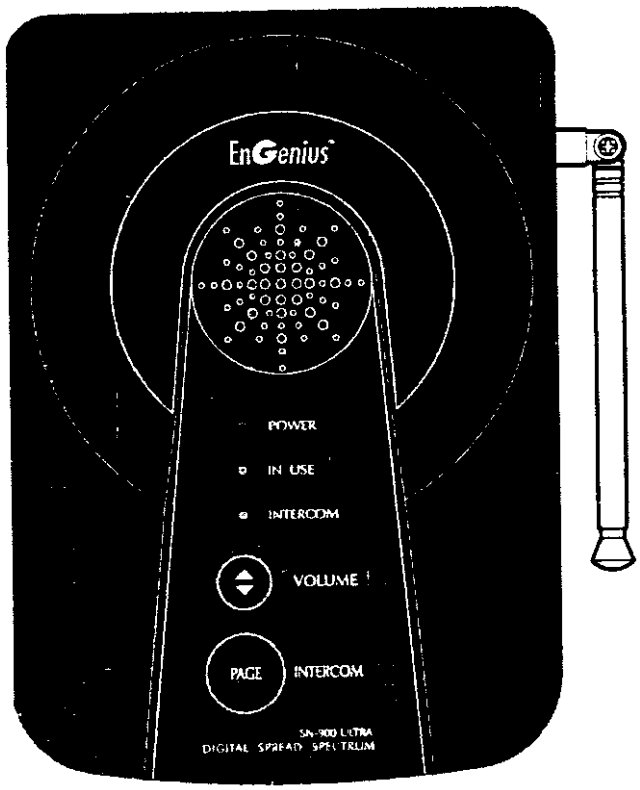
FCC ID: NNA-SN-900U

EnGenius™

SN-900 Ultra Digital Spread Spectrum

User's Manual





Cardiac Pacemakers

(This information applies only to 900 MHz Digital Wireless Telephone Systems):

Preliminary studies performed at the U.S. Food and Drug Administration (FDA) and elsewhere have shown that when digital wireless telephones using technology similar to 900 MHz Wireless Telephones are placed very close to implanted cardiac pacemakers, interference with the operation of the pacemaker may occur. ***These preliminary studies show that interference is not likely to occur when there is a reasonable distance between the telephone and the implanted pacemaker and stops when the phone is in the "battery save mode" or moved so that it is more than 3 inches from the pacemaker.*** Based on these preliminary studies, the FDA has concluded that digital wireless telephones "do not seem to pose a significant problem for pacemaker wearers."

Until more is known, the FDA suggests that people with pacemakers may want to take some simple precautions when using or carrying digital wireless telephones to ensure that there is ample distance between the digital cellular telephone and the pacemaker:

For example, not placing the phone next to the pacemaker implant (in a shirt or coat pocket directly over the pacemaker implant, etc.) when the phone is turned on ready to receive a call.

CONTENTS

Introduction 1
For Best Performance 2
Charge battery pack 2
Register handset with base unit 2
Choose Base Unit Location 3
EnGenius™ Optional External Antenna Installation Instructions 4
Order Information 4
Warning 4
Site Selection 4
Antenna Installation 5
Important Safety Instructions 6
Handset 9
Handset Diagram 9
Handset Features 10
Additional Handset Features 14
Base Unit 16
Base Unit Diagram 16
Base Unit Features 17
Additional Base Unit Features 18
Battery Charger 19
Battery Charger Diagram 19
Battery Charger Features 20
Additional Battery Charger Features 21

Getting Started 22
Initial Setup 22
Base Unit Setup 22
Handset Cradle / Charger Unit Setup 23
Charging New Battery 24
Installing New Battery 25
Low Battery Indicators 26
Battery Replacement 26
Discharging Battery 27
Registering Phone 29

Operating Instructions 30
Operation Modes 30

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Base Operation Modes 30
Handset Operation Modes 31
Making Calls 33
Voice Volume 38
Putting a Call on Hold 38
Putting a Call on Mute 39
Call Waiting – Receiving a Second Call ... 39
Transferring Calls 40
Transferring Calls With the Hold Option 41
Disconnecting Calls 42
Handset to Handset Calls 42
Paging from Base to Handset 43
Using Base Unit Options 44
Setting Ring Volume 44
Setting Voice Volume 44
Using Handset Menu Options 45
Main Menu Function Chart 45
Main Menu Option 45
Registration Option 46
Directory Option 48
Caller ID Option 53
Ringer Volume Option 55
Parameter Option (Setting Handset Preferences) 56

Product Information 59
Privacy: 59
Automatic Security Coding: 59
Electrical Power: 59
Potential Interference: 60
Rechargeable Batteries: 60

Troubleshooting 61

Limited Warranty 66

Technical Specifications & Operating Environment 69
Technical Specifications 69
Operating Environment 71

FCC Regulations 72
FCC Registration and Repair Information: Part 68 of FCC Rules 72

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Interference Information: Part 15 of FCC Rules 74

Industry Canada Requirements 76

Industry Canada Compliance Notice..... 77

INTRODUCTION

The **EnGenius™ SN-900 Ultra Digital Spread Spectrum System** is a long-range, technologically advanced communication system consisting of a base unit, a handset, a battery charger, two Nickel-Cadmium battery packs and an optional externally-mounted antenna.

This system has been developed with Digital Spread Spectrum Technology that uses a code to generate a random frequency hopping scheme, ensuring security and clarity during your conversations. (Not only does this system use over 16 million different code combinations, it automatically "hops" to different frequencies over 200 times per second.)

The base unit operates as the command center for the SN-900 communication system, capable of supporting up to nine (9) handsets. The base plugs into a standard analog telephone jack and provides a wireless communication link with the handset using the 902 to 928 MHz Band. Communication is possible from base to handset, handset to base and handset to handset independent of the base unit (much like walkie-talkies except that their operation is digital and full-duplex, meaning that you can talk and listen at the same time).

Unlike many phone systems today, both the base unit and handset cease to transmit when there is no activity, thus minimizing interference.

The SN-900 Ultra Digital Spread Spectrum System features a 2-line, 24 character alphanumeric LCD and an additional line of multiple icons, providing an intuitive user interface. The handset display prompts you in easy-to-follow steps that help you quickly access and use the many options available – also allowing easy customization of the handset to fit your own specific needs using only a few keys.

The wireless handset is powered by a rechargeable 4.8 volt battery pack. The Received Signal Strength Indicator (RSSI) constantly measures the signal strength and provides only the power you need for operation (using 15 incremental levels of power).

Battery life is further enhanced with the automatic power saving (sleep) mode when the handset is not in use. Additionally, the handset may be turned off completely to extend the battery life.

The battery charger functions as a handset cradle/charger and is equipped with an additional fast charger for the spare battery.

For Best Performance

Charge battery pack

Before you can use and program the handset you must charge the battery pack. For the quickest battery charge it is recommended that you use the **Fast Charge** compartment of the battery charger—this option will require 80 minutes to fully charge the battery pack (see **Charging New Battery** under **Getting Started**).

Register handset with base unit

Because the handset must be able to complete a communication link with the base unit to access an outgoing line, it is necessary to first register the handset with the base unit. The registration process establishes the handset as an authorized user of the system (see **Registering Phone Option** under **Operating Instructions**).

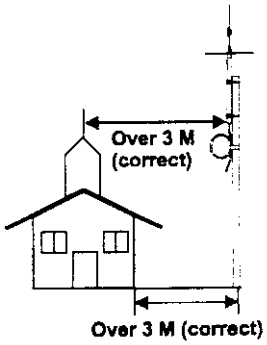
Choose Base Unit Location

Place the base unit on a stable surface, preferably in a high central location, in close proximity to a power outlet, a telephone outlet and with as few obstructions to the antenna as possible.

Although the technology of the EnGenius™ SN-900 Ultra Digital Spread Spectrum System minimizes interference from obstacles, the performance can be optimized by placing the base unit in a central location, away from large metal obstructions, large electrical appliances and other wireless phone systems.

Using this phone system near geographical obstacles such as large trees, hills, tunnels, large buildings and underground, may limit the calling distance.

If you encounter any of these obstacles, mounting the optional external antenna (order number SN-900 Antenna) on the highest point of your building or on a separate freestanding pole can increase the communication range of the phone system:



EnGenius™ Optional External Antenna Installation Instructions

For safety and optimum performance, be sure to read these instructions carefully.

Order Information

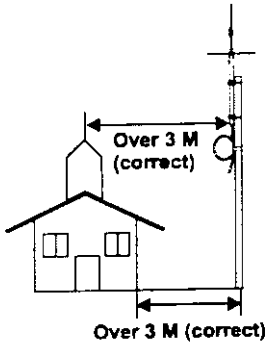
Please order the EnGenius™ SN-900 Antenna.

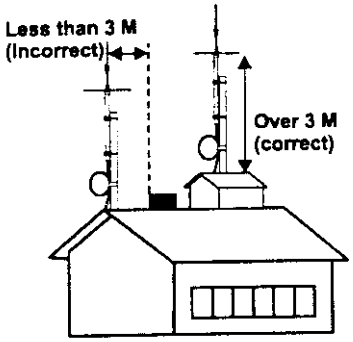
Warning

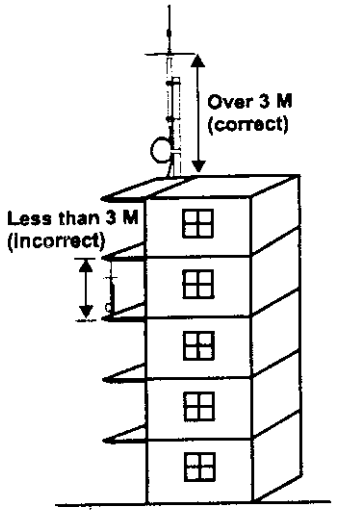
- For your safety, keep the antenna way from electric power lines to avoid electric shock.
- Do not install the antenna in the rain to avoid lightning strikes.

Site Selection

- The higher the antenna is installed, the better the communication will be. If you can install the antenna higher then surrounding obstructions, the communication range will be better.
- The ground plane should be at least three meters (10 feet) above the ground.
- No obstruction can be present within three meters (10 feet) from the antenna.



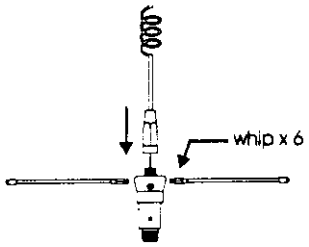




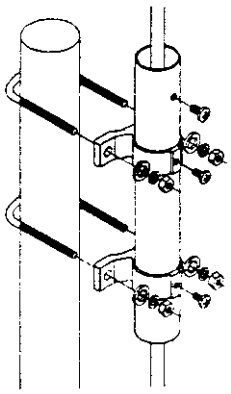
Antenna Installation

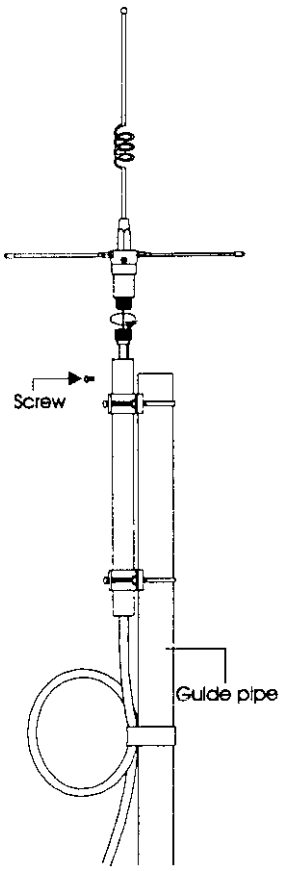
1. Find a mast (metal pole) which is longer then five meters and 25 to 50 mm (1" to 1.9") in diameter.

2. Assemble the antenna body and six whips.



3. Fit the guide pipe and bracket on the mast firmly.





4. Connect the coaxial cable to the antenna.

Important Safety Instructions

When using this product, always follow basic safety precautions to reduce the risk of injury, fire, and electrical shock, including the following practices:

1. **Read and understand all instructions** included in the user's manual. In addition, observe all warnings and instructions marked on the product.

2. **Avoid using a telephone during thunderstorms.** There may be a remote chance of electrical shock from lightning.

3. **Do not use a telephone in the vicinity of a gas leak.** Report a suspected gas leak immediately, but use a telephone away from the area where gas may be leaking. Because this product is a wireless model, make sure the base is also removed from the area.

4. **Do not use this product near water, or when you are wet.** For example, do not use it in a wet basement or shower, or next to a swimming pool, bathtub, kitchen sink, or laundry tub.

5. **Unplug this product from any line or power source before cleaning or if it comes in contact with any liquids.** Do not use liquids or aerosol sprays for cleaning. Use only a damp cloth when cleaning. Do not plug the product back in until it has dried thoroughly.

6. **Install this product in a protected location** where it is not at risk of falling and no one can trip over any line or power cord. Protect cords from damage or fraying. Do not place any objects on the power cord.

7. **This product should be operated only from the type of power source indicated on the marking label.** If you are not sure of the type of power

supplied to your home, consult your dealer or local Power Company. If this product has user replaceable batteries, replace batteries only as described in your user's manual. Do not burn or puncture batteries because they contain caustic chemicals.

8. **Do not short circuit the battery pack.** The metal bands on the battery pack should never come in contact with a conductive surface at the same time. Also, do not let two battery metal bands touch each other.

9. **Do not block slots and openings in the cabinet and the back or bottom, these are provided for ventilation.** To protect it from overheating, do not block these openings by placing the product on the bed, sofa, rug, or other similar surfaces. This product should never be placed near or over a radiator or exceed the environmental specifications listed in this manual. In addition, this product should not be placed in a built-in installation where proper ventilation is not available.

10. **Never push objects of any kind into this product through cabinet slots** as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electrical shock.

11. **To reduce the risk of electrical shock, do not disassemble this product.** If service or repair work is required, contact EnGenius Customer Service at 1-425-556-1848, or email us at info@suptel.com. Opening or removing cabinet parts other than specified access doors may expose you to dangerous voltages or other risks. Incorrect reassembling can cause electrical shock when the appliance is subsequently used.

12. **Do not overload wall outlets and extension cords as this can result in the risk of fire or electrical shock.**

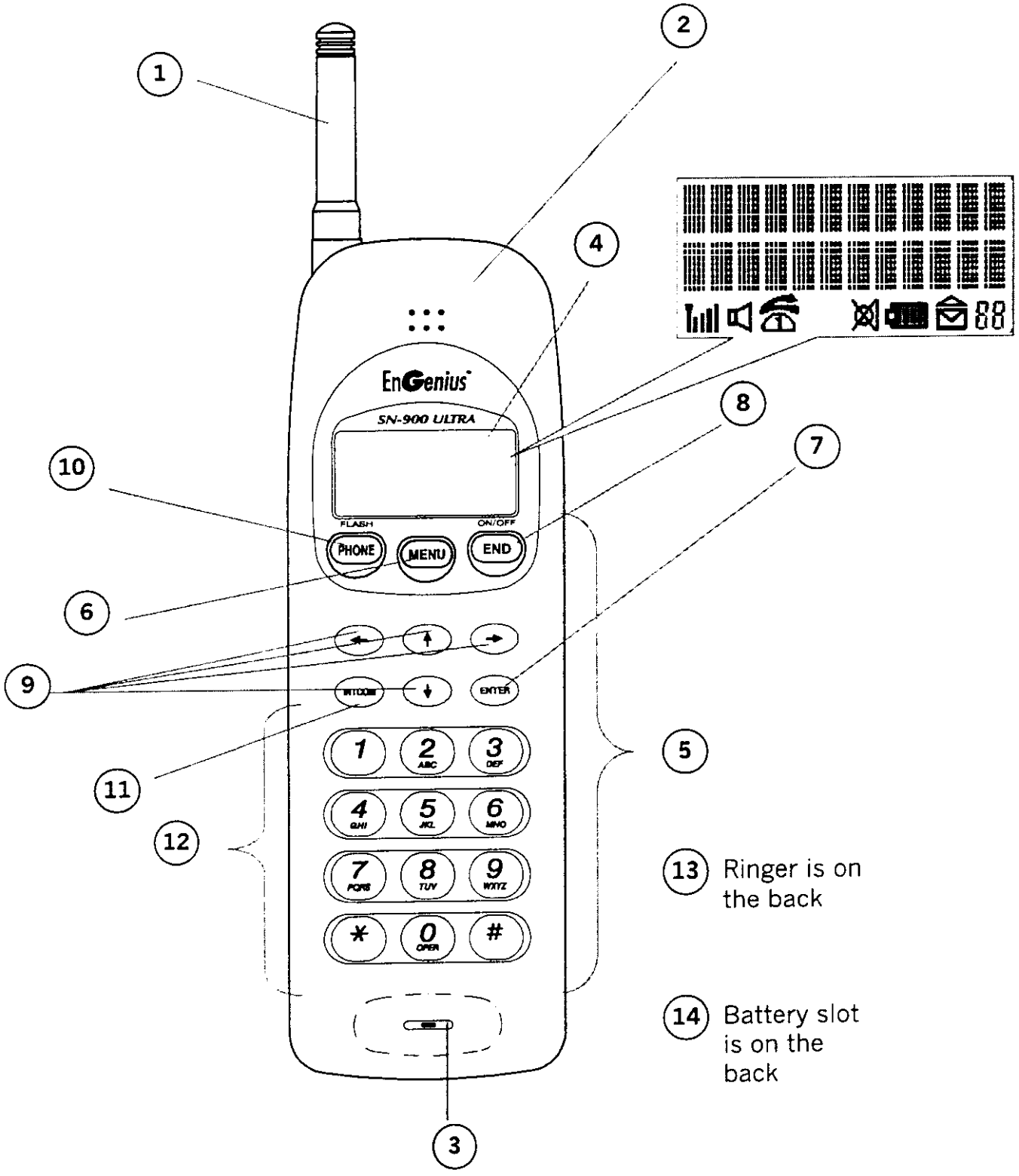
13. **Unplug this product from the wall outlet if any of the following situations should occur:**

- When the power supply cord or plug is damaged of frayed.
- If liquid has been spilled into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions.
- If the product has been dropped and the cabinet has been damaged.
- If the product exhibits a distinct change in performance.

SAVE THESE INSTRUCTIONS

Handset

Handset Diagram



13 Ringer is on the back

14 Battery slot is on the back

Handset Features

(1) Antenna

- Extends for improved reception.

(2) Earpiece

(3) Microphone

- Functions as mouthpiece.

(4) Liquid Crystal Display (LCD)

- The display has Light Emitting Diode (LED) backlighting and blinks with an incoming call.
- Consists of two lines each capable of displaying up to 12 alphanumeric characters (for a total of 24 alphanumeric characters).
- Third line contains six icons and a two digit numeric display:

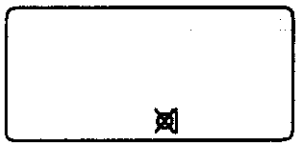
Indicates RF signal strength.

- The number of bars is proportional to the strength of the RF signal received.

Indicates intercom mode is active.

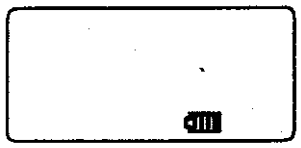
Indicates call in progress (on-hook or off-hook).

Indicates that the microphone is muted.



Indicates battery strength.

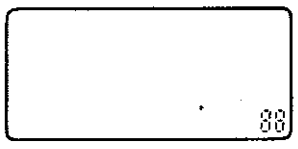
- Number of bars is proportional to the amount of battery life remaining.



Indicates caller ID log.

- Closed envelope indicates unread messages; open envelope indicates all messages have been read. No envelope will be displayed if no information is stored in the log or you do not have caller ID service.

This is a 2 digit 7-segment display that tracks handset ID number, Caller ID log, Phone Directory record location index, etc.



(5) Keypad

- Keypad lights up with a key press (unless the backlight option is set to OFF) or incoming or intercom call.
- Consists of 21 keys.

6 (MENU) · use to access menu mode

7 (ENTER) · use to accept/confirm a selection or to save a setting

8 (END) · a triple function key

- In IDLE mode, it can be used as a power ON/OFF toggle switch.
- In TALK mode, it can be used to end a phone call or intercom call – similar to hanging up a conventional telephone.
- While in the MENU mode, it can be used as an escape key to return to previous menu.

NOTE Holding this key down for more than two seconds will turn the handset power on or off.

9 (↑) (↓) (←) (→)

- Up, down, left and right arrows are used to move the cursor in the MENU edit mode or to select a menu option.
- The (←) and (→) keys are used to view or select information contained on the LCD.
- The (←) functions as a delete key when a phone number has been input incorrectly.

TIP: A menu item is selected by moving the → cursor next to the desired item and pressing the (ENTER) key to accept the selection.

(10) (PHONE) · a double function key

- In the IDLE mode, can be used as TALK or to initiate an outgoing call or to answer an incoming call.
- When using Call Waiting service you must first subscribe to Call Waiting service from your local phone company, phone can also be used as FLASH in the TALK mode to momentarily place the current call on hold to answer another incoming call.

NOTE While in the IDLE mode, pressing the (PHONE) key is the same as lifting a conventional telephone receiver off the hook. While in the TALK mode, pressing (PHONE) is the same as pressing the conventional telephone receiver hook for a moment.

(11) (INTCOM)

- In IDLE mode use to initiate an intercom call to the base or another handset.
- If a call is in progress, use to transfer a call to another handset.

(12) (1) (2) (3) (4) (5) (6) (7) (8) (9) (*) (0) (#)

- Used for dialing as on a conventional telephone as well as entering the alphabet into the Phone Directory.

(13) **Ringer**

Emits several different sounds to indicate various events or alarms:

Single beep: successful operation.

Double beep: failed operation or invalid key.

Periodic single beep (repeats every two seconds): low battery warning.

Periodic long beep (2 second beep repeats every 30 seconds): indicates there is a call on hold.

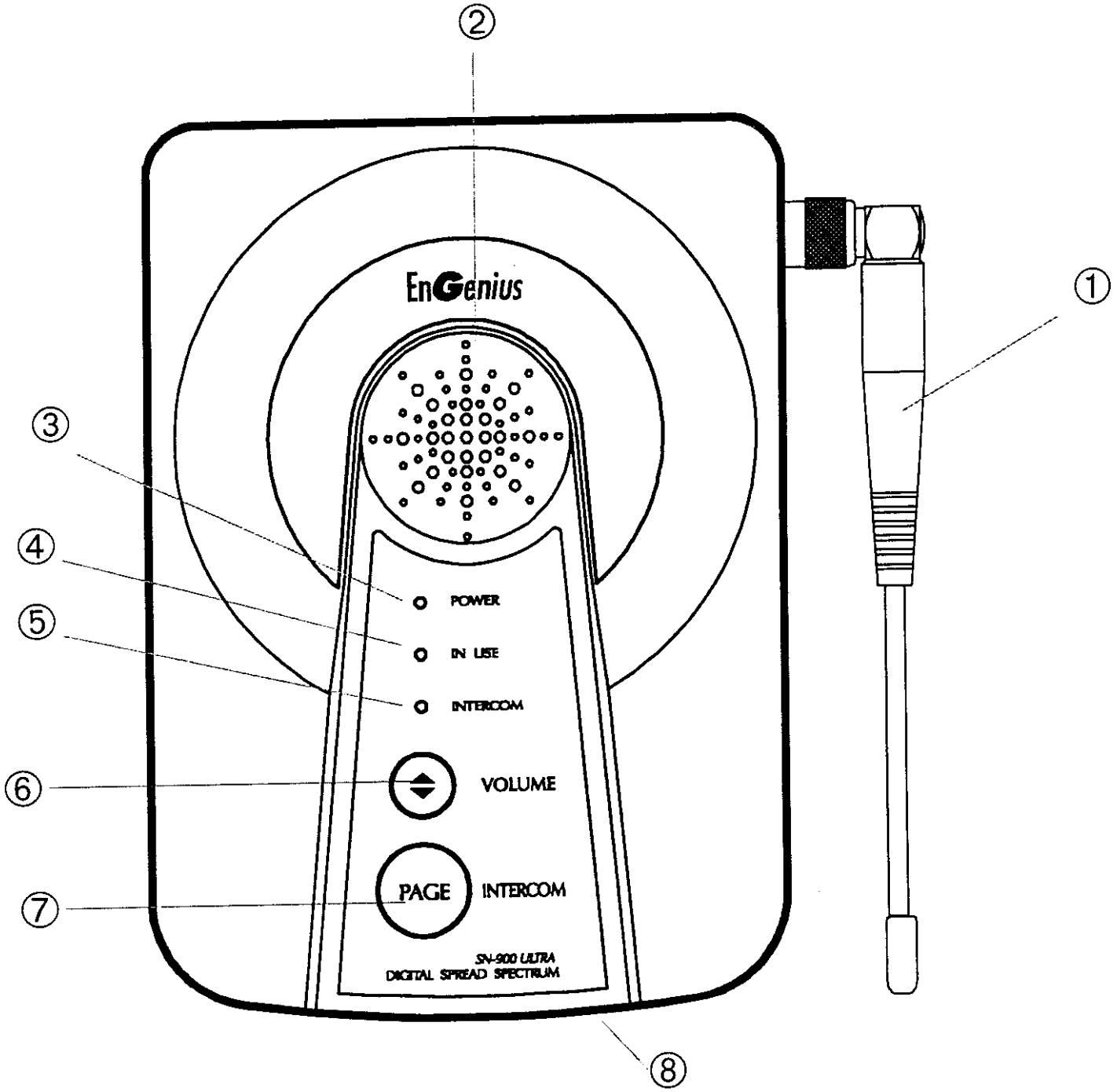
Additional Handset Features

- System assigned security ID (upon registration with the base) to prevent unauthorized calls.
- Programmable Phone Directory of up to 30 phone numbers (up to 16 digits) and names (up to 12 characters).
- Memory dial for any number from the Phone Directory.
- Last number redial.
- Caller ID information shown on incoming calls when using Caller ID service.
- Caller ID information will be shown during Call Waiting, when using Call Waiting and Caller ID services.
- Caller ID log for up to 30 calls including: caller's name, number, date and time stamp.
- Intercom communications with base unit.
- Call transfer to another handset within the system.
- Handset to handset communication independent of the base unit.
- 3 level adjustable ringer volume control.
- 6 level adjustable voice volume control.
- Ringer or vibration alert option.

- Automatic Tone/Pulse dial option.
- Touch any key to answer.
- Automatic power saving mode.
- Low battery alarm and display.
- Keypad illumination.
- Auto power management.
- Hold.
- Mute.

Base Unit

Base Unit Diagram



Base Unit Features

① Antenna

- Swivel-based for ease of positioning.

NOTE A separate external antenna may be purchased to further extend the range of transmission and reception.

② Speaker

③ POWER LED

- This LED indicates whether the unit is on or off.

④ IN USE LED

- When this LED is lit, a phone call, intercom call, or handset registration is in progress.

⑤ INTERCOM LED

- When the base is in INTERCOM mode, this lamp will be lit.

⑥ VOLUME

- The ⇕ key is used to adjust the ringer volume in IDLE mode and the voice level in the TALK (intercom) mode.

⑦ INTERCOM

- The INT key is used to initiate an intercom call from the base to all handsets.

⑧ Microphone

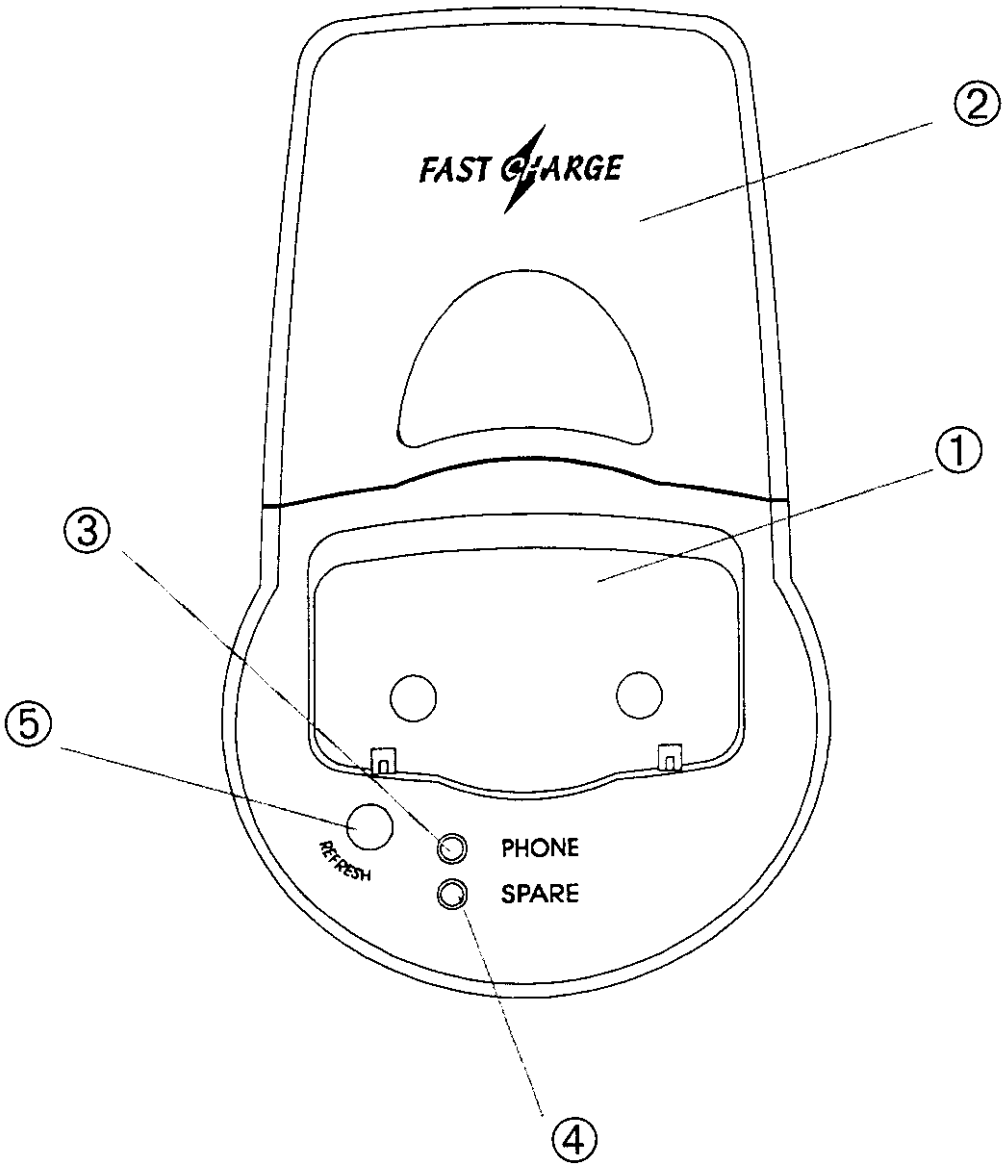
- Provides voice transmission during intercom mode.

Additional Base Unit Features

- Supports up to nine (9) handsets.
- Handset registration security system.
- Adjustable 3 level ringer / voice volume control.

Battery Charger

Battery Charger Diagram



Battery Charger Features

① Handset Charging Cradle

- Holds handset when not in use
- Will charge handset battery pack each time it is placed in the cradle.

② Fast Charge Spare Battery Compartment

- Spare battery pack is recharged when placed in compartment.

③ PHONE LED

- LED is lit when the Phone Cradle is in use.

④ SPARE LED

- LED is lit when the Fast Charge Compartment is in use.
- If there is no LED color, it means no spare battery is in the charging slot.
- If the LED is green, it means the spare battery is fully charged.
- If the LED is red, it means the spare battery is charging
- If the LED is blinking red, it means the spare battery is discharging. The LED will go to solid red when the spare battery is fully discharged and then charge the battery automatically.

⑤ REFRESH Button

- Before recharging a spare battery, the battery can be fully discharged by pressing this button.

Additional Battery Charger Features

- Handset and spare battery pack can be charged simultaneously.
- Fast Charger Unit recharges battery pack in approximately 80 minutes.
- The discharge procedure takes approximately 10 hours for a fully charged battery.
- The handset charging procedure is a trickle charge process and may take approximately 12 hours to complete if the battery has been fully discharged.
- It is impossible to overcharge the batteries using the charger.

GETTING STARTED

Initial Setup

1. Unpack handset, base unit, charger and instructions from shipping boxes. Retain packing materials for future shipping.

2. Choose a location for the base unit near a standard electrical wall outlet (110v AC) and a telephone wall outlet.

3. Install the fully charged battery pack in the handset (see **Charging New Battery** in the next section).

4. Follow handset registration procedures as outlined in **Register Phone Option** under **Operating Instructions**.

Base Unit Setup

There are four possible setups for the base unit:

- Base unit alone.
- Base unit plus telephone answering device.
- Base unit plus standard telephone.
- Base unit plus telephone answering device and standard telephone.

Instructions for each of these setups are covered below.

1. Place base unit in the desired location. Raise the antenna arm into an upright position.

2. Plug small end of AC adapter into the receptacle on the back of the unit marked DC 8V.

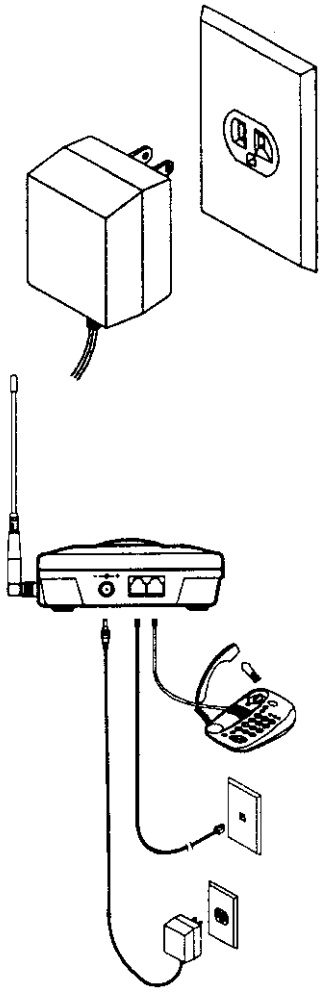
3. Plug the two-pronged AC adapter into the electrical wall outlet.

4. Plug telephone line cord into the next receptacle on the back marked LINE.

5. Plug the telephone line cord into the telephone wall outlet.

6. If you wish to use a telephone answering device, plug the telephone line cord from LINE into your answering machine instead. The answering machine has a telephone cord that will then be plugged into the telephone wall outlet.

7. A standard telephone may also be plugged into the last receptacle on the back of the unit marked TEL.

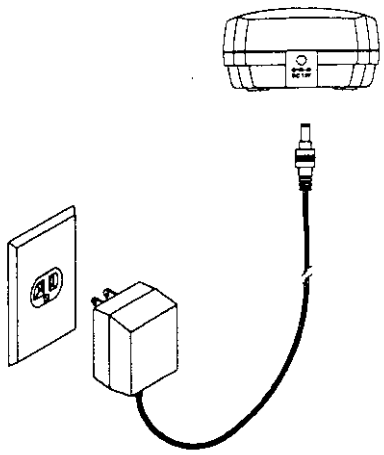


Handset Cradle / Charger Unit Setup

The location for the cradle/charger requires a standard electrical wall outlet.

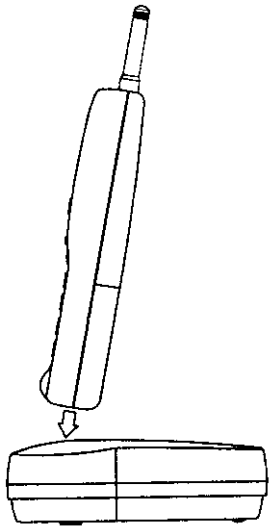
1. Plug the small end of the AC adapter into the receptacle in the back of the charger unit.

2. The two-pronged AC adapter is then plugged into the wall outlet.



Charging New Battery

The battery charger can charge the handset and the spare battery pack at the same time. It consists of a spare battery charge compartment and a cradle for charging the handset.

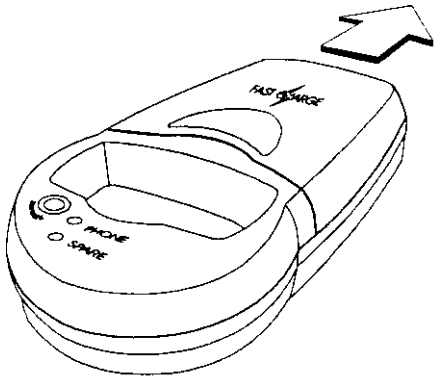


1. To charge the handset, simply place in the cradle with keypad facing the front of the charger. The green PHONE indicator light will go on.

TIP: The PHONE LED is always green and indicates that the handset is properly placed in the charging cradle and charging. This DOES NOT mean that the battery is fully charged. You must check the battery icon on the handset LCD after removing if from the charger.

NOTE Allow 12 hours to fully charge the handset from empty. It is impossible to overcharge the battery.

2. To simultaneously charge the spare battery, slide the cover off the FAST CHARGE compartment.



NOTE The Fast Charger takes approximately 80 minutes to fully charge a spare battery.

3. Place battery pack with metal contacts facing the front of the charger. Align the metal contacts with the battery connection prongs in the compartment. The SPARE indicator light will go on. Slide cover back in place.

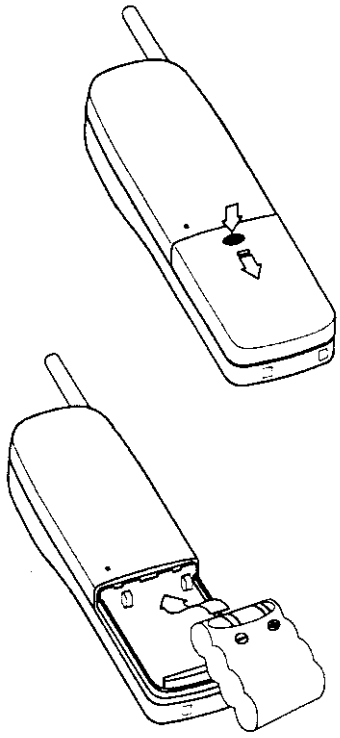
NOTE SPARE LED:

- Blinking red = discharging
- Solid red = charging
- Green = fully charged

Installing New Battery

1. With handset laying face down, locate battery compartment cover. Press down on cover catch and slide cover off.

2. Install the battery pack with its metal contacts toward the top of the battery compartment, aligning the metal contacts with the battery connection prongs in the compartment.



3. Slide cover back on until it clicks in place.

NOTE If the metal contacts are not in the proper alignment with the compartment prongs, the phone will not work. Remove battery pack and reinstall correctly.

Low Battery Indicators

Charge the batteries when one of the following happens:

- Phone beeps twice every two seconds.
- Battery icon does not show any segments or is empty.
- Phone does not respond when a key is pressed.
- LCD and backlighting become dim.

Battery Replacement

Your phone system runs on 2 nickel-cadmium rechargeable battery packs. Each battery provides up to four hours of talk time, based in range, terrain and environmental conditions, or up to 40 hours of standby time. These battery packs, although rechargeable, will eventually reach their expected life span. The expected life span of a battery pack under optimum conditions is approximately 300 charges (a charge is defined as going from an empty battery to a fully charged battery). If a battery pack does not hold a full charge it should be replaced with an authorized battery pack (EnGenius® **SN-900UL NiCd,** 4.8v/800mAH, P/N: 710300244*80).

Discharging Battery

It is recommended that you fully discharge the battery after every 1 to 2 weeks of use.

1. Place spare battery in SPARE (FAST CHARGE) slot.
2. Press REFRESH button on charger.
   - REFRESH button turns red.
   - SPARE LED flashes red until fully discharged.
   - While charging, the "spare" LED is a constant red and the REFRESH light turns off.
   - Once fully charged the SPARE LED turns green.

NOTE When the battery is completely discharged, the battery charger will automatically begin the recharging cycle. The procedure to discharge a fully charged battery will take approximately 10 hours for a fully charged battery. The charging cycle will take 80 minutes.

Please only use EnGenius **SN-900UL NiCd** (4.8v/800mAH) P/N: 710300244*80 batteries to avoid damage to handset. Remember to charge the new battery for approximately 12 hours if it is in the phone cradle charging or 80 minutes in the spare fast charger slot before first use.

BATTERY SAFETY INFORMATION

To reduce the risk of fire or injury:

- Do not dispose of battery in fire. There is a risk of explosion.
- Do not open, puncture or mutilate battery.
- Avoid any contact with battery electrolytes. Wash skin or eyes should this occur and consult a doctor immediately.
- Do not allow the NiCd battery pack metal bands to come in contact with any metal surface or another battery in order to avoid permanent damage and possible fire.

The batteries included with this product are recyclable. At the end of their useful life, under various state and local laws, it may be illegal to dispose of these batteries in the municipal waste system. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Registering Phone

The **EnGenius SN-900 Ultra Digital Spread Spectrum** communication system requires each handset to be registered with the base unit before any use of the handset is attempted. **The handsets will not work if this step has not been completed successfully.**

For more information on this step please refer to "**Registration Mode**" under **Handset Operation Modes** and **Registering Phone Option** which may be found under **Using Handset Menu Options.**

IMPORTANT NOTE Upon registration, the base unit assigns a "station ID" to the handset. It also updates the handset database with the system security code (system ID) and the newly assigned station ID. This security code is checked by the base unit prior to any connection to the telephone network or an outgoing line. By validating the handset security code each time, the base unit monitors and restricts any unauthorized user access.

OPERATING INSTRUCTIONS

Operation Modes

Both the base unit and handset have levels of operation at which time only certain procedures or functions can be performed. These levels or modes of operation will be referred to throughout this manual and vary from base unit to handset.

Base Operation Modes

The base unit operates in three different modes: **IDLE, TALK**, and **REGISTRATION**.

IDLE MODE – this is the default mode. The intercom and volume keys are active in IDLE mode. The POWER LED is red.

TALK MODE – the base operates in this mode during an incoming or outgoing intercom call and an incoming or outgoing phone call. Volume key is active in TALK mode. POWER, IN USE and INTERCOM (when it is an intercom call) LEDs are red.

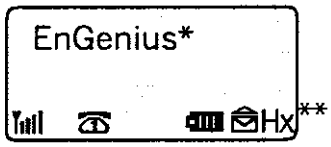
REGISTRATION MODE – the base enters this mode by simultaneously holding down the intercom and volume keys for three seconds. There are no active base unit keys once this mode has been entered. The IN USE and POWER LEDs are red. The IN USE LED will come on and stay active for approximately 10 seconds and then turn off.

Handset Operation Modes

The handset operates in one of five different modes: **IDLE, MENU, TALK, REGISTRATION** and **CRADLE**.

IDLE MODE

This is the default operating mode.



- The LCD will show the following icons in the IDLE mode:
- All keys with the exception of the arrow keys are active in IDLE mode.
- If there is no on-going activity, the handset automatically goes into SLEEP mode to save battery life.
- Pressing any key on the handset returns it to the IDLE mode.
- The handset can be turned off completely by holding down the ON/OFF (END) key for 5 seconds.

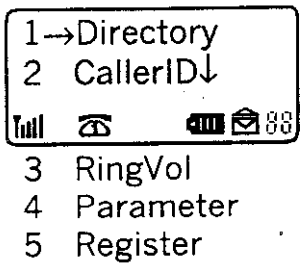
NOTE *This is the handset owner's name which can be edited in the menu mode.

The 2-digit location normally shows the handset ID (Hx, where x is the handset number), **except in the following cases:

- When retrieving Caller ID messages when in the **Caller ID Option** (caller ID must be ordered from your local phone service provider) – it indicates the number of new entries in the caller ID log, if any.
- When using the **Phone Directory Option** – it indicates the phone directory slot or index number being accessed.

MENU MODE

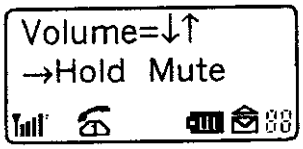
- Pressing the (MENU) key activates MENU mode.
- The screen will look like this in MENU mode:
- In MENU mode, the handset settings and information contained in memory can be changed. For example: the caller ID log and Phone Directory.
- All keys are active in MENU mode.
- If the handset remains inactive in MENU mode for 30 seconds (no keys are used or an incoming call), it will exit MENU mode and return to IDLE mode.



NOTE The functions available through the MENU selection will be covered in greater detail under **Using Handset Menu Options.**

TALK MODE

- When the handset is in IDLE mode,pressing the (PHONE) key will activate TALK mode or an incoming, outgoing or intercom call.
- The screen will look like this in TALK mode:

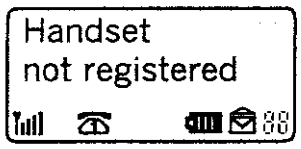


- Active keys in this mode: (PHONE), (1) (2) (3) (4) (5) (6) (7) (8) (9) (0) (*) (#), and (←) (↑) (→) (↓)

NOTE In this mode the (PHONE) key functions as a FLASH key. Pressing the (PHONE) key will temporarily place the call on hold while answering another call in the Call Waiting feature. Pressing the (PHONE) key again will return you to the original call.

REGISTRATION MODE

- It is necessary to register the handset with the base unit before its first use.
- Specific instructions on how to register the handset are covered in detail under Registering Phone Option under the Operating Instructions section.
- If the handset is not registered with the base unit, any attempt to make an outgoing call or intercom call to another handset will fail. The LCD will read:



CRADLE MODE

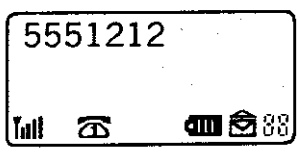
- Placing the handset into the charger cradle activates the handset CRADLE mode.
- While in the CRADLE mode, the battery charging unit recharges the handset battery pack.
- To answer an incoming or intercom call, remove the handset from the cradle. The handset will automatically operate in TALK mode. A call can be ended by simply placing the handset in the cradle, similar to hanging up a receiver on a receiver hook, or pressing (END).

Making Calls

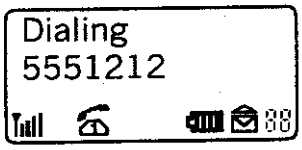
You can make an outgoing call in one of two ways:

Preview the number before connecting to an outgoing line.

1. From the IDLE mode, enter the number you wish to call. The number you input will appear on the handset screen as typed. For example, the number ⑤⑤⑤-①②①② would appear as:

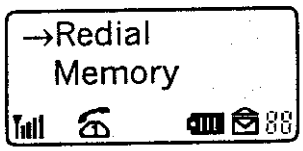


2. If an incorrect number has been entered, use the ← key to delete the incorrect number, then re-enter the numbers you wish.
3. When the correct number shows on the screen, press (PHONE) to make the call.
4. You will hear a dial tone and the screen will show the number being dialed:



Enter the number after getting the dial tone.

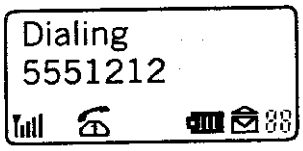
While the handset is in the IDLE mode you can press (PHONE) to make a call. When the dial tone is heard the screen will show:



At this prompt you can dial a number using one of three methods:

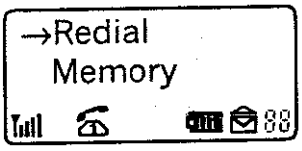
Manual dial

1. Enter the phone number.
2. The screen will display the number being dialed:

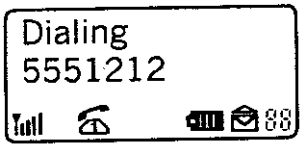


Redial

When the LCD shows the following screen:



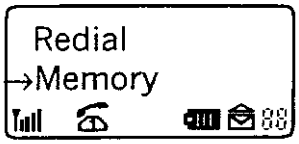
1. Press (ENTER) to redial the last number called.
2. The screen will display the number being redialed:



Memory dial

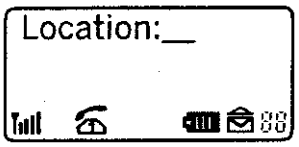
To call a number stored in the handset's memory or Phone Directory*, you must first access the Directory.

1. Press the ⊕ key to select MEMORY as shown:

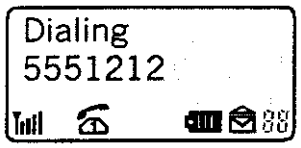


2. Press (ENTER)

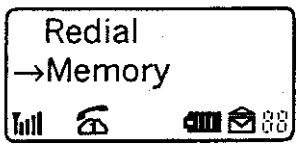
3. You will then be prompted to enter the location or the phone number index code:



4. Enter the 2 digit index code** (i.e. 1=01 etc.) and the screen will show:



5. If no phone number is stored in the selected directory location, or if you have entered an invalid index number, the screen will display:

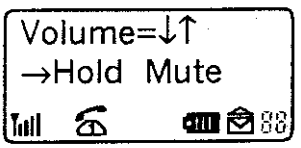


6. Press (ENTER) to retry the memory dial steps

   OR

   Press (END) to cancel the outgoing call.

7. When the handset has dialed the selected phone number***the screen will display:



TIP: The call can be terminated from the handset by pressing (END) or by returning the handset to the cradle.

*See **Directory Option** for additional instructions on how to use and update this feature.

See **NOTE at end of section to correctly enter phone number index code.

***If the handset is unable to link to the base unit it will return to IDLE mode. The handset will display "No base" for five seconds or until a key is pressed.

NOTE Telephone numbers that you have stored in the Phone Directory will have been indexed with a number from 1 to 30. To access the correct index number or location, follow these steps:

Always enter a 2 digit number:

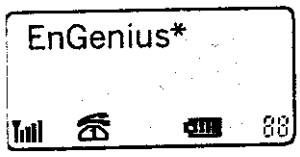
- For example, if the location number is 3 press (0) then (3).
- If the index number is 12 press (1) then (2).

Answering Calls

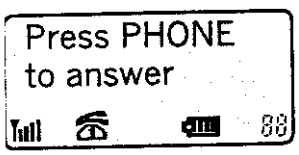
All handsets that have been registered for use with the base unit, and are in the IDLE mode, will ring when an incoming call is received. The keypad and backlight of each handset will also blink to let you know the phone is ringing.

1. Before you answer the incoming call, you will see one of the following readouts on the handset LCD:

   - Handset is on the charger cradle. No caller ID service.

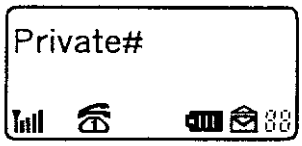


   - Handset is off the cradle. No caller ID service.

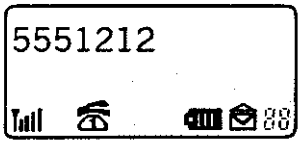


Handset may be on or off the cradle.

- Caller ID service*, but the ID has been blocked.



- Caller ID service*, but only the number has been transmitted.



- Caller ID* service, all information has been transmitted.

2. If the handset is in the charger cradle, pick up the handset to answer the call. Otherwise, press (PHONE) or any key except (END) to take the incoming call.

3. When the call is answered the LEDs will stop blinking and you will see a screen that looks like this:

***Caller ID service must first be ordered from your local phone company for these screen displays to function.**

NOTE The first handset to answer a call will connect to the base unit and will operate in TALK mode. Other registered handsets will be locked out of the call. **However they will still be able to participate in handset to handset calls.**

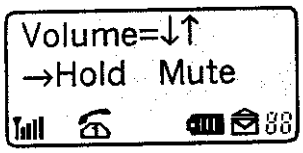
Voice Volume

Adjusting the volume on the handset can be done only during a call or when in the TALK mode.

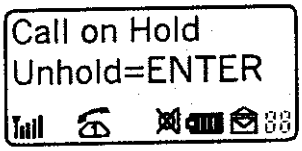
- When in the TALK mode, the ↓ and ↑ keys can be used to adjust the volume to 6 different levels.

Putting a Call on Hold

1. When a call is in progress it can be put on hold by pressing ENTER when the → key is next to HOLD as shown on the following display:

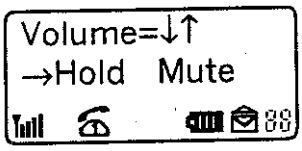


   The display will then show:



2. To bring the call back on line, press ENTER.

   The display will return to this screen:



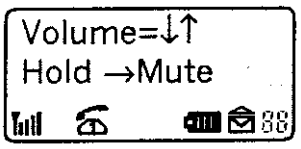
The handset will sound one long beep every 30 seconds when a call is on hold as a reminder that you have a call which needs to be ended.

NOTE The base unit will maintain the communication link with the incoming call as long as it is on hold. No other outgoing call or page from the base can be completed until the call on hold is ended by the handset.

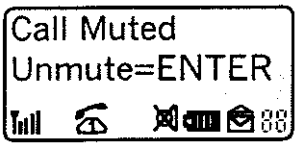
Putting a Call on Mute

With the handset is in the TALK mode. to select the MUTE function:

1. Use the ⊕ key to move the arrow next to MUTE. Press the (ENTER) key.



The display will then show:



2. To remove MUTE, press (ENTER) again.

NOTE When the mute is activated (ON), the handset user cannot be heard by the caller, but can still hear the caller. The mute feature is automatically turned off when the call is ended.

Call Waiting – Receiving a Second Call

If you have Call Waiting service through your Telephone Company and you wish to take a second incoming call you will use the FLASH feature:

1. In the TALK mode, the (PHONE) key operates as a FLASH function which allows you to place the first call on hold and answer the second call. Unlike when using the HOLD feature, the LCD will not change to reflect that the first call is "temporarily on hold."

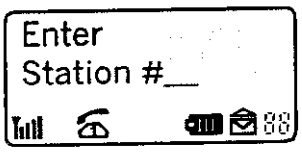
2. Pressing (PHONE) again will return you to the first call, placing the second call on hold.

3. You can terminate either call by pressing (END) while in that call.

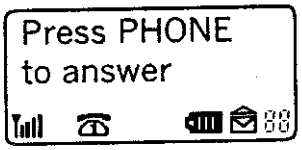
Transferring Calls

Calls may be transferred between registered handsets while a call is in progress.

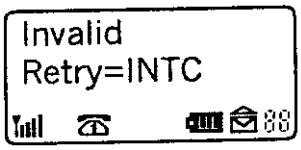
1. In the TALK mode, to initiate a call transfer, press the (INTCOM) key on the originating handset.
2. The originating handset LCD will show a prompt for the target handset ID number:



3. The call transfer can be canceled at any point by pressing (END).
4. To continue the call transfer, enter the ID number of the target handset.
   - The call will be transferred to the target handset.
   - The target handset will ring and the LEDs will blink, signaling an incoming call.
   - The target handset LCD will show the following readout:



1. If the target handset does not respond within 20 to 30 seconds, the call is transferred back to the originating handset.
2. If an invalid handset ID number has been entered, an error message will be displayed:



   Repeat steps 1 –4.

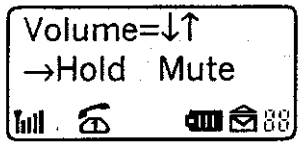
NOTE A handset ID number is invalid if:

- The number is 0.
- The number is the same as the originating handset.
- The number of the target handset is not registered with the base unit.

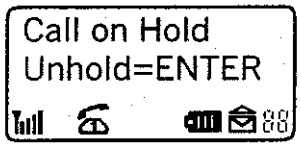
Transferring Calls With the Hold Option

If you wish to announce the call that you are about to transfer, follow the steps below:

1. From the TALK mode, place the call on hold by pressing (ENTER) when the → is next to HOLD on the display:

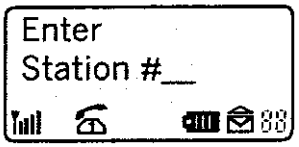


2. The LCD will then show the following screen:



3. Press the (INTCOM) key.

4. The originating handset LCD will show a prompt for the target handset ID number:

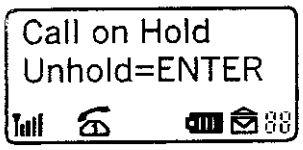


5. The handset to handset call can be canceled at this point by pressing (END).

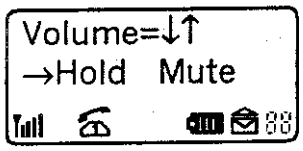
6. To continue the call, enter the ID number of the target handset.
   - The target handset will ring and the LEDs will blink, signaling an incoming call.
   - The target handset LCD will show the following readout:

   - Upon answering, the originating and target handset users can talk.

7. When the handset to handset call has been terminated by either handset pressing (END), the originating handset will receive the following display:



8. Take the call off hold by pressing (ENTER) the display now shows:

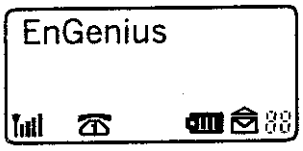


9. Then follow steps 1-6 in **Transferring Calls** to transfer the incoming call to the target handset.

Disconnecting Calls

From the TALK mode, you can end a call by pressing (END) on the keypad or by placing the handset in the cradle. The handset will return to the IDLE mode.

The LCD will show the following:



Handset to Handset Calls

In addition to outgoing calls, the EnGenius SN-900 **Ultra Digital Spread Spectrum System** allows internal calls (calls between stations within the system or intercom calls). Intercom calls can be placed between handsets, handset to base, or base to handset.

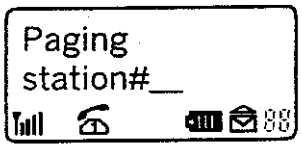
Intercom calls originated from the handset, while in the IDLE mode, may be sent to either the base unit or to another handset.

1. To initiate the call press (INTCOM) followed by a "station" ID number.

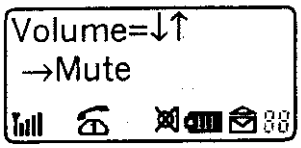
   A station ID number is any number from 0 to 9:

   0 = Designates the base unit
   1-9 = Designates a registered handset

2. The LCD will now display:



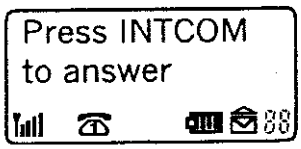
3. Once the voice link is successfully established, the handsets' LCD will display:



4. The intercom call can be terminated by the handset at any time by pressing (END).

Paging from Base to Handset

1. Pressing the base unit (PAGE) or INTERCOM key, will page all registered handsets. The first handset to answer the page will establish a voice link with the base.
2. The INTERCOM LED will flash until a handset responds. The light will stay lit until the link is terminated.
3. Before a handset answers, the page can be canceled from the base by pressing (PAGE) again. However, once a handset answers, only the answering handset can end the intercom call.



NOTE **A page to a handset cannot be initiated from the base while an incoming call is ringing into the system.** The IN USE LED flashes to indicate an incoming call is in progress.

Using Base Unit Options

Setting Ring Volume

- When the base unit is not in use (TALK or intercom mode), the volume key will control the ring volume.
- There are three volume levels: low, medium and high. Each time you press the volume key the volume will move to the next level: LOW→MED→HIGH→LOW.

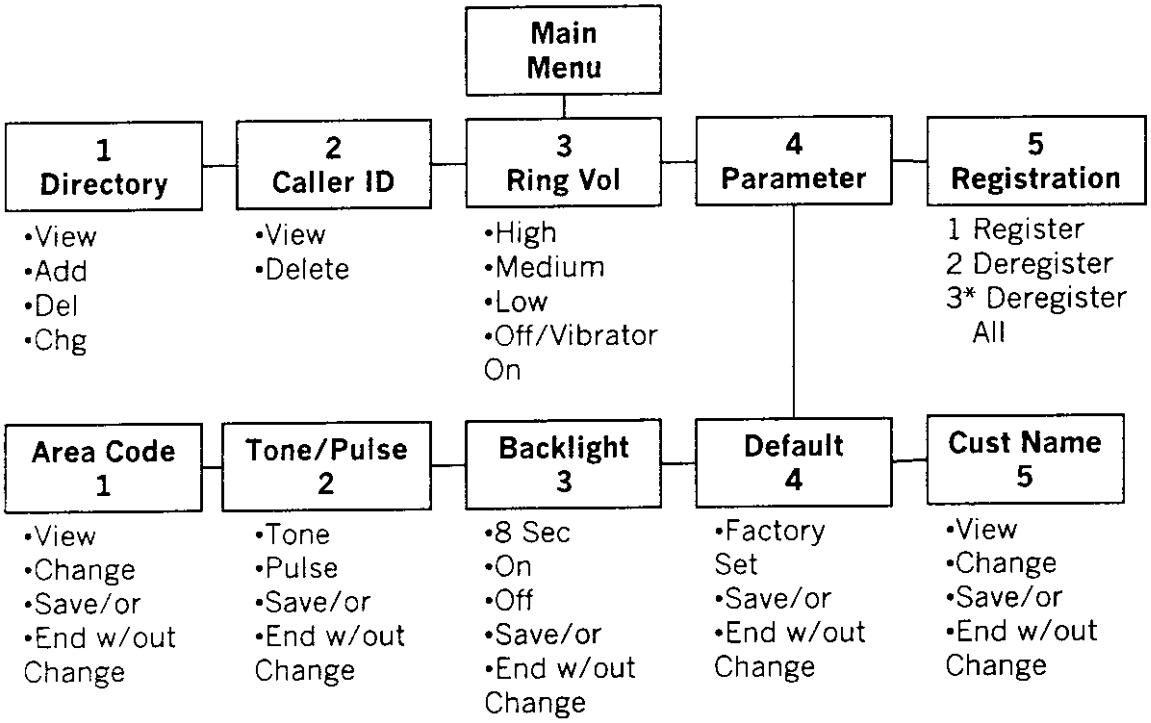
NOTE A ringing volume tone will sound briefly to indicate the ringer volume level selected.

Setting Voice Volume

- While the base is in use (TALK or intercom mode), the volume key will control the voice volume.
- The three levels of voice volume are: low, medium and high. Each time the volume key is pressed the volume will be adjusted to the next level until the maximum level is reached and then it will return to low again: LOW→MEDIUM→HIGH→LOW.

Using Handset Menu Options

Main Menu Function Chart



Main Menu Option

When the handset is not activated for a call, or in the IDLE mode, the main menu can be accessed by pressing the (MENU) key.

Once in the main menu, a list of available options will be displayed two menu items at a time as shown:

1. Use the ↑ or ↓ arrow key to select a menu item.
2. You then make your selection by pressing the (ENTER) key or enter the menu item number directly using the keypad.

3 RingVol
4 Parameter
5 Register

Registration Option

Each handset needs to register with the base the first time it is used. Before the registration process is started the handset battery pack must be fully charged.

1. To place the base unit in register mode, press and hold down the VOLUME key (⇕) and the INTERCOM key (PAGE) at the same time for 3 seconds.

2. The base will beep once when it successfully enters the register mode.

3. From the IDLE mode, to place the handset in register mode, either press (MENU) and then the (↓) to select REGISTER then (ENTER)

   OR

   press (MENU) and then the (5) key on the handset keypad.

4. The handset registration menu will have two options:

   Register* - This option is used to add a handset to the communication system, thereby allowing it access to the telephone line.

   Deregister** – Used to remove handset from the communication system and eliminate telephone line access.

5. To register handset press ①.
   To deregister handset press ②.

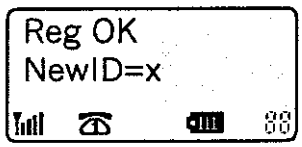
   Allow several seconds for the registration process to be completed by the base unit, the results of the registration process will be displayed on the LCD.

*The registration can be canceled at this point by pressing (END).

**** SECURITY FUNCTION** A third option is available for deregistering all the handsets at once and generating a new system ID code (system registration reset). This option can be selected by pressing (3) then (*).

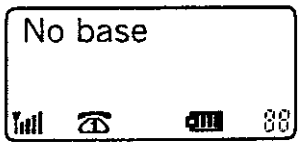
6. The result of the registration or deregistration procedure will be displayed on the LCD for 5 seconds. There are 5 possible results:

   - Registration is successful.
     New handset ID will be displayed

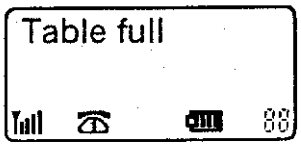


   - Deregistration is successful.

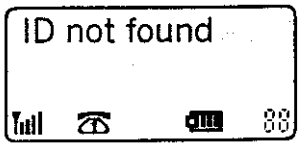
   - Failed registration or deregistration.
     Base failed to respond to handset.
     Steps must be repeated to retry procedure.



   - Base has already registered maximum number of handsets it can support. You must deregister a handset before a new one can be added to the system. The base supports up to 9 handsets.



   - Deregistration failed. Base cannot find handset ID in its database. Repeat procedure.



7. Press (END) to return to the handset main screen.

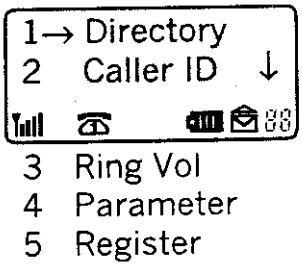
Directory Option

This feature allows you to store up to 30 frequently used telephone numbers (up to 16 digits) and names (up to 12 characters) in a directory that resides in the handset memory.

You may view or edit items to the phone directory at any time.

DIRECTORY VIEW MODE

1. To view the Directory from the IDLE mode, press the (MENU) button.
2. While in the main menu, use the ↑ ↓ arrow keys to select DIRECTORY (Option 1), then press the (ENTER) key from the keypad.



TIP: A shortcut is to enter the number of the menu option when in the main menu function.

3. Information in the Phone Directory is stored vertically as shown in **Table I** below. You can use the ↑ ↓ keys to move through the directory records. Please note that only the ↓ will be displayed on slot number one and only the ↑ will be displayed on slot number 30.

Table 1

RECORD NUMBER	RECORD INFORMATION
01	Telephone #1 Name #1
02	Telephone #2 Name #2

DIRECTORY EDIT MODE

To enter the **directory edit mode** the display must show a telephone number even if both a phone number and a name are part of the record. Press → or ← followed by ENTER to select ADD or DEL or CHG:

ADD Option

This option allows you to add an entry to the phone directory.

1. If the directory is full, the following will be displayed on the LCD:

2. If there are open records, the LCD will display:

3. **A new phone number record can be entered using the keypad, but the following characters require a special key combination:**

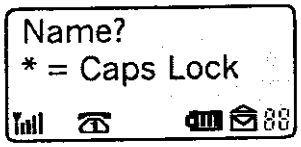
   Two second pause: press the * key two times (**) – the letter "P" will appear as a part of the phone number to indicate a pause

   Space: press the # key two times (##)

   Dash: press the # key three times (###)

4. After entering the phone number, press ENTER to save it.

5. You will then be prompted to enter a name that goes with the phone number. You may leave the name field blank by pressing END or enter a name (see **Table 2** for available characters that may be used in the name field):



As indicated on the LCD prompt, the (*) key is used to switch between the upper and lower case letters.

NOTE In the name editing mode, all letters will automatically be entered in the upper case. Since this is the default setting, using the (*) key will then allow you to enter lower case letters. This function will stay locked in the lower case mode until the (*) key is pressed again, or the name edit mode is terminated.

6. To enter a letter or number, press the keypad number key (which shows the correct information) once, twice, three or more times depending on the order of the information on the key.

   For example: press (2) once for the number 2, twice for the letter "A," three times for the letter "B" and four times for the letter "C." **See Table 2** for a complete list of available characters and their corresponding numerical keys.

NOTE If any two consecutively pressed numerical keys are different, the cursor is automatically moved forward to the next character field. In order to repeat the current character or number in the next position, press (→) to advance the cursor. The (←) key can be used as a backspace to delete the previous field.

7. When the name is entered correctly, press (ENTER) to save the name or press (END) to return to the phone book view mode.

Table 2

Available Characters for use in Name Field

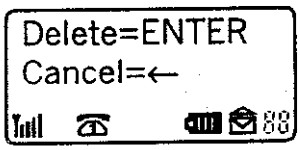
Key	Characters
1	1 space – ' + , . *
2	2 A B C Ç
3	3 D E F
4	4 G H I
5	5 J K L
6	6 M N O Ñ
7	7 P Q R S
8	8 T U V
9	9 W X Y Z
0	0
*	CAPS LOCK
#	#

Example: In the directory mode, to enter the name "Jane Doe" the following key sequence would be used:

55*2266633311*33*6666333
J a n e D o e

DEL Option

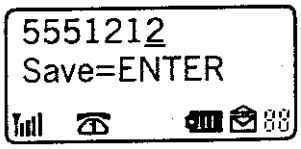
This option allows you to remove a record from the phone directory.

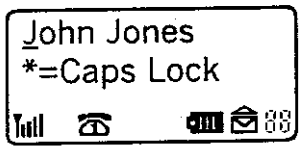


1. After choosing this option, a confirmation prompt will be displayed:
2. At this point, the record can be deleted by pressing (ENTER) or can be kept (cancel deleted) by pressing (←).
3. You will then be returned to the phone directory view mode.

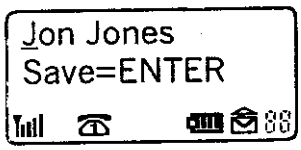
CHG Option

This option allows a phone record to be changed.





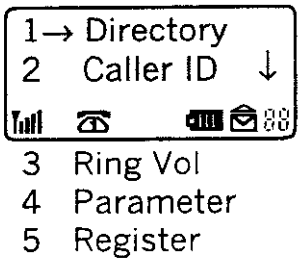
1. While in this option the following will be displayed:
2. The (←) key can be used to delete any part of the phone record.
3. If a name is a part of the record you will receive the following prompt:
4. The cursor will appear under the first letter of the name. To move the cursor to the letter you wish to change use the (←) key. The (←) key will function as a backspace to delete letters. If you leave the name unchanged you can exit the CHG option by pressing (END).
5. If you make a change, you will receive this prompt:
6. Press (ENTER) to save your change.



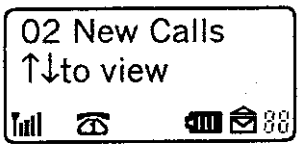
TIP: Pressing (END) will return you to the main menu at any time.

Caller ID Option

To use this option you must first subscribe to the Caller ID service offered by your local telephone company. Caller ID information will then appear on the LCD and also be stored in the handset for later retrieval.



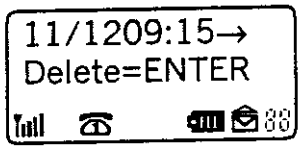
1. From the IDLE mode, press (MENU) to enter the Main Menu.
2. To access the caller ID information stored in the handset, press ⊕ key to move the → next to the Caller ID option in the main menu and press (ENTER) Again, selecting the corresponding number from the keypad will immediately take you into this option. The LCD will display:

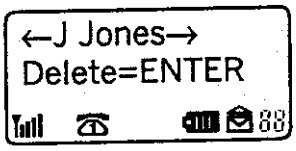


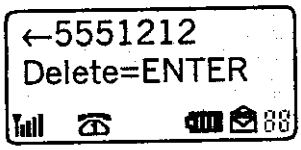
NOTE The top line of this display shows the number (02) of **new caller ID entries** since the last time you checked the caller ID log. The bottom right-hand 2 numbers keep track of the **number of unviewed caller ID entries** in the log.

3. Press ⊕ key to view the most recent call or the ⊕ key to view the oldest call information.
4. The caller ID log will store up to three information fields:
   - Date and time stamp
   - Caller name if transmitted
   - Caller phone number if transmitted
5. The caller ID information will be displayed one field at a time on the top LCD row.

6. The → and ← keys can be used to scroll right or left to view all the information as shown here:

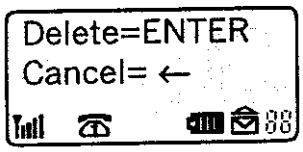






NOTE The bottom right 2 digits show the number of unviewed caller ID records.

7. The displayed record can be deleted by pressing (ENTER). The LCD will display:



8. Press (ENTER) again to confirm the deletion, or press ← to cancel your request.

NOTE Once the caller ID capacity (30 records) has been reached, the oldest record is overwritten with the newest record.

9. While in the caller ID view mode, the displayed number can be dialed by pressing (PHONE).

10. Press (END) to return to the main menu.

CALLER ID WITH CALL WAITING OPTION

To take advantage of this option you must first subscribe to both Call Waiting and Caller ID service with your Telephone Company.

- When in a call, you will be alerted to an incoming call with a short beep. The phone number and name of the incoming caller will be displayed simultaneously.
- You can place the first call on hold and answer the second call by pressing (PHONE). Pressing (PHONE) again will switch back to the first call.

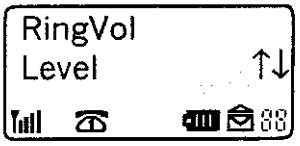
Ringer Volume Option

1. From the IDLE mode press (MENU) to enter the Main Menu.

2. To select Ring Vol from the main menu, press ⊕ to move the → next to the item and press (ENTER) or press (3) on the keypad.

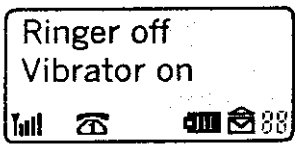
3 Ring Vol
4 Parameter
5 Register

3. Once in this option, the current ring volume level will be displayed on the second row of the LCD:



4. Ring levels are: HIGH, MEDIUM, LOW and RINGER OFF/VIBRATOR ON. The ⊕ key can be used to raise the ring volume a level at a time. The ⊖ key lowers the volume one level at a time. Each time this key is pressed a softer ringer tone is generated and the new ring volume setting is displayed on the LCD time until the minimum level (OFF) is reached.

5. When the ring volume is turned off, the vibrator alert is automatically turned on and will vibrate with an incoming or intercom call. The LCD will display:



6. Selecting (END) returns you to the main menu.

Parameter Option (Setting Handset Preferences)

This menu option can be used to set: **local area code, dial mode**, and the **backlight**. Selecting **default** within this option allows you to reset these preferences (plus the ring volume) back to the factory settings. **Custom name** is the name that appears on the LCD in the IDLE mode.

1. From the IDLE mode, press (MENU) to enter the Main Menu. Then Press the ⊙ key to move the → to Parameters in the main menu then press (ENTER) or press 4 on the keypad.

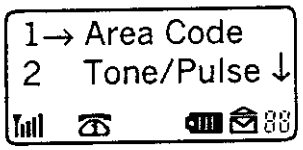
   A list of available options should be displayed two items at a time (the ↑ or ↓ arrows can be used to move to the desired option):

3 Ring Vol
4 Parameter
5 Register

2. Press the (ENTER) key to select the option or press the number key from the keypad that corresponds to the option you are selecting.

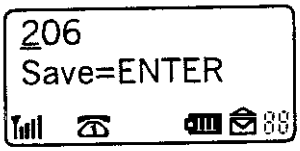
SETTING THE AREA CODE

This option allows you to set the area code that will be displayed as a part of your caller ID information. Also, by setting your area code, when you auto dial a number in your same area code it will not dial the area code, only the phone number



3 Backlight
4 Default
5 Cust Name

1. When this option is accessed the current local area code is displayed as shown:

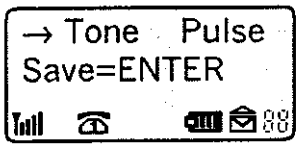


2. The field for the area code has a maximum of 3 numbers.

3. The area code can be edited by typing the new numbers over the current digits. The ◄ key can be used to delete the number to the left of the cursor and the ► key can be used to move to the desired number.
4. Press ENTER to save the new area code setting or press END to return to the parameter menu without saving the number.

SETTING THE TONE / PULSE MODE

You may set your handset to either tone or pulse mode.

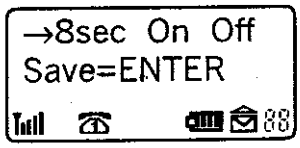


1. After selecting this option the LCD will show the current setting as shown:
2. The◄ ► keys can be used to change the setting.

3. Press ENTER to save the new dial mode or press END to return to the parameter menu without saving.

SETTING THE BACKLIGHT

You may set the length of time the backlight stays lit when the handset is in use or you may turn it off completely.

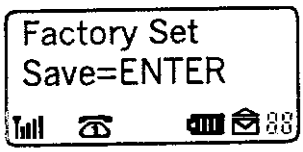


1. The◄ ► keys can be used to choose one of the three options:
2. Press ENTER to save the new backlight setting or press END to return to the parameter menu without saving.

NOTE It is recommended that you set the backlight to the factory setting of 8 sec. Leaving the backlight on will deplete the battery pack more quickly.

SETTING THE DEFAULT

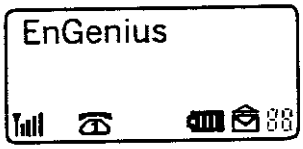
Selecting this option allows you to reset the dial mode, backlight and ring/voice volume to the factory settings.



1. The LCD will show:
2. Press (ENTER) to save the factory settings or (END) to cancel the selection. Either action will return you to the parameter menu.

SETTING THE CUSTOM NAME

This option allows you to select either a name or a greeting that will be displayed on the LCD in IDLE mode or when the handset is turned on.



1. Accessing this option displays the current name setting:
2. The custom name can then be edited by using the numbered keys on the keypad to overwrite the existing characters.

> **NOTE** This procedure is similar to the phone directory name edit mode (see **Table 2 - Available Characters** under **Directory Option**).

3. In this option both LCD lines can be used. The (↑) (↓) keys can be used to move the cursor from one line to the other.

4. Press (ENTER) to save the new custom name or press (END) to return to the parameter menu without saving the change.

PRODUCT INFORMATION

Privacy:

The features that make a wireless phone convenient may create some limitations to the user. Calls are transmitted between the base and handset by radio waves, so there is a possibility that your wireless phone conversations could be intercepted by radio receiving equipment within the range of the wireless handset. **As a result, be cautioned that wireless phone conversations may not be as private as those on corded phones.**

Automatic Security Coding:

This phone system randomly selects one of 16 million possible security codes. This digital security coding technology allows the handset and base to recognize each other automatically, thus minimizing the chance that an unauthorized wireless phone will have access to your telephone line. In addition, to maximize your security, we have implemented frequency hopping which automatically causes your phone to "hop" to different channels at the rate of over 200 channels per second. This is similar to a military security system that has been adopted by the private sector for public use.

Electrical Power:

The base unit of this telephone system must be connected to a working electrical outlet. It is best if a wall switch does not control the outlet. **It will not be possible to make calls from the handset if the base unit is switched off, unplugged or if the power source is interrupted.**

Potential Interference:

Some wireless telephones may cause interference to other electrical appliances such as TVs, VCR or stereos. To minimize or prevent such interference, do not place the base unit of this phone system near or on top of such equipment. If interference is experienced, moving the wireless telephone farther away from the TV or VCR will frequently reduce or eliminate the problem.

Rechargeable Batteries:

The batteries included with this product contain nickel and cadmium. They should be handled carefully like any other batteries to reduce the risk of fire or injury:

- Do not dispose of battery in fire. There is a risk of explosion.
- Do not open, puncture or mutilate battery.
- Avoid any contact with battery electrolytes. Wash skin or eyes should this occur and consult a doctor immediately.

The batteries included with this product are recyclable. At the end of their useful life, under various state and local laws, it may be illegal to dispose of these batteries in the municipal waste system. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

TROUBLESHOOTING

SITUATION	REMEDY
PHONE DOESN'T WORK AT ALL	• Make sure the base unit power cord is plugged in. • Check to see that the telephone line cord is plugged firmly into the base unit and wall jack. • Make sure that the battery pack is fully charged. If the battery icon is empty you must charge the battery pack. • If you recently installed a new battery pack, check to see if it has been installed properly with the metal connections in alignment with the battery compartment prongs.

NO DIAL TONE	• Make sure the base unit power cord is plugged in. • Check to see that the telephone line cord is plugged firmly into the base unit and wall jack. • Make sure that the battery pack is fully charged. If the battery icon is empty you must charge the battery pack. • If you recently installed a new battery pack, check to see if it has been installed properly with the metal connections in alignment with the battery compartment prongs. • If there still is no dial tone, disconnect the base unit from the telephone jack and connect a working telephone. If there is no dial tone on the known working phone, the problem is in your wiring or local service. Call your local telephone company.
YOU GET NOISE, STATIC, OR A WEAK SIGNAL EVEN WHEN NEAR THE BASE	• Sometimes other appliances plugged into the same circuit as the base unit can cause interference. Try moving the base unit or relocate the appliances.

YOU GET NOISE, STATIC, OR A WEAK SIGNAL WHEN AWAY FROM THE BASE	• You may be out of range of the base unit. Either move closer to the base or relocate the base unit. • The signal may be blocked by buildings, large trees or hills, move out of the way of these obstructions. • If you encounter this problem frequently you may want to consider adding the externally mounted antenna to increase reception.
YOUR CALLER FADES IN AND OUT	• You may be approaching the maximum range for the system. Move closer to the base unit.
YOU HEAR NOISE IN THE HANDSET AND NONE OF THE KEYS OR BUTTONS WORK	• Turn the handset completely off. Then turn the handset on. • Check battery; recharge if necessary.
HANDSET DOES NOT RING WHEN SOMEONE IS TRYING TO CALL OR INTERCOM YOU	• The handset may not be registered with the base unit. Refer to **Registering Phone Option** under **Operating Instructions.** • The ringer volume is set to off or is operating in the vibrator mode. Select RingVol from the handset main menu and pick a new ringer level.
BASE UNIT DOES NOT RING DURING INTERCOM MODE	• Check to ensure the power cord is correctly plugged into the back of the unit and into the wall outlet.
YOU CANNOT STORE A PHONE NUMBER AND NAME IN MEMORY	• All 30 slots in the Phone Directory may be in use. Delete information in one of the slots to make room for the new phone number and name information

INTERCOM DOES NOT FUNCTION	• Handset may be out of range from the base unit or the handset you are trying to reach. • Other station may be busy. • Handset may not be registered for use with the base unit.
THE HANDSET BEEPS TWICE EVERY TWO SECONDS	• This is a low battery indicator. Replace battery pack or recharge handset.
BATTERY ICON IS EMPTY	• This is a low battery indicator. Replace battery pack or recharge handset.
PHONE DOES NOT RESPOND WHEN A KEY IS PRESSED	• This is a low battery indicator. Replace battery pack or recharge handset.
LCD AND BACKLIGHT BECOME DIM WHEN THE PHONE IS IN IDLE MODE	• This is a low battery indicator. Replace battery pack or recharge handset.
YOU HAVE RECHARGED THE BATTERY AND THE PHONE CONTINUES TO BEEP TWICE EVERY TWO SECONDS	• Purchase new battery pack and fully charge before placing in the handset.
THE PHONE LED ON THE CHARGER IS GREEN WHEN THE HANDSET IS IN THE CRADLE	• This is normal and indicates that the handset battery pack is being charged.
THE SPARE LED ON THE CHARGER IS BLINKING RED	• This indicates that the battery pack in the Fast Charger is being fully discharged.
THE SPARE LED ON THE CHARGER IS SOLID RED	• The battery pack in the Fast Charger is being recharged.
THE SPARE LED ON THE CHARGER IS GREEN	• The battery pack in the Fast Charger is fully charged.
A NEW OR ADDITIONAL HANDSET DOES NOT WORK	• The handset may not be registered with the base unit. Register the handset.

ACCIDENTALLY STARTED DISCHARGE CYCLE.	• Unplug charger unit, remove battery pack. • Plug charger back in, place battery pack in Fast Charge compartment. This will reset the Fast Charge compartment to its battery charging mode.
SYSTEM DOES NOT RESPOND	• Perform the following steps in the order listed: 1) Disconnect the power to the base. 2) Remove the handset battery pack. 3) Wait 30 seconds. 4) Reconnect power to the base. 5) Replace the handset battery pack. With a fully charged battery, turn on the handset. 6) If the handset says base not found, and the base is turned on, register the handset to the base.
IF YOU CANNOT SOLVE YOUR PROBLEM	• Call our Customer Service Department at 1-425-556-1848.

LIMITED WARRANTY

Modifications to this product not expressly approved by the manufacturer, may void the user's authority to operate the equipment.

This warranty applies only to products purchased and used in the United States, its territories and Canada.

What is covered:

Any manufacturing defect in materials or workmanship on the handset, base unit and charger.

For how long:

Two years from date of purchase. (Keep the original receipt for proof of purchase date.)

What we will do:

If this product is defective in materials or workmanship and is returned to us within two years of the date of purchase with proof of purchase, we will repair it or, at our option, replace it at no charge to you.

If we repair this product, we may use new or reconditioned replacement parts. If we choose to replace this product, we may replace it with a new or reconditioned unit of the same or similar design. The repair or replacement will be warranted for either (a) 90 days or (b) the remainder of the original two-year warranty period, whichever is longer.

Limitations:

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 two years from date of purchase. We will not pay for loss of time, loss of business, inconvenience, loss of use of this product, bodily injury or property damage caused by this product 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.

What we ask you to do:

To get warranty service on this product, you must provide proof of the date of purchase. Call EnGenius™ Customer Service at 1-425-556-1848 for the address of the nearest authorized service location. You are responsible for paying all shipping, insurance and handling costs to return the product to us. We suggest you retain your original package and packing material in the event you need to ship the product. When sending the product to a service location, include your name, address, phone number, proof of date of purchase and a description of the operating problem. After repairing or replacing this product, we will ship it to your home or business in the United States or Canada.

What this warranty does not cover:

This warranty does not cover batteries nor defects resulting from events outside of the manufacturer's control including, but not limited to, accidents, damage while in transit to our service location, alterations, unauthorized repair, failure to follow instructions, damage resulting from misuse, mishandling (including bent or broken antenna),or operations outside of the normal operating range, conditions or environment, fire, flood, other acts of

SIZE

Handset:	2 ½ x 1 ¼ x 6 ¾ inches 60 x 35 x 170 mm
Base:	7 x 5 x 2 inches 173 x 124 x 50 mm
Charger:	5 ¼ x 3 ¼ x 1 ¾ inches 133 x 82 x 45 mm

WEIGHT

Handset:	With battery: 12 ounces 340 grams
Base:	16 ounces 454 grams
Charger:	6 ounces 170 grams

ANTENNA LENGTH

Handset:	2 5/8 inches (retracted) 7 ½ inches (extended) 64 mm (retracted) 191 mm (extended
Base:	6 inches (fixed) 152 mm
Externally Mounted:	24 inches (mounting bracket plus antenna) 610 mm

SPECIFICATIONS ARE TYPICAL AND MAY CHANGE WITHOUT NOTICE.

Operating Environment

- Do not place the unit in rooms where the temperature is less than 5°C (41°F) or greater than 40°C (104°F).
- Allow 10 cm (4") clearance around the unit for proper ventilation.
- Avoid excessive smoke, moisture, magnetic fields dust, mechanical vibration, shock, or direct sunlight.
- Keep the handset, base and charger away from magnetic fields, cards, or devices.
- Consult the manufacturer of any personal medical devices, such as pacemakers, to determine if they are adequately shielded from external RF energy. (The unit operates in the frequency range of 902 MHz to 928 MHz and the power level can range from less than .1 watt to 1 watt.)
- Do not use the unit in health care facilities when any regulations posted in the area instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Routine care

- Do not use benzene, thinner, or any abrasive powder, to clean the unit. Wipe it with a soft cloth slightly dampened with water or mild soap. Do not use excess water or cleaning solvents of any kind.
- When the unit is not used for long periods of time, the base unit should be unplugged from the AC outlet.

If there is any trouble

Disconnect the unit from the telephone line and connect a known working phone. If the known working phone operates properly, have your unit repaired by one of our authorized service technicians.

TECHNICAL SPECIFICATIONS & OPERATING ENVIRONMENT

Technical Specifications

FREQUENCY CONTROL

Phase Locked Loop (PLL) Synthesizer

MODULATION TYPE

Binary FSK

TRANSMISSION FREQUENCY

902 MHz to 928 MHz (over 130 channels within this range.)
Digital security with frequency hopping to different frequencies more than 200 times per second.

RECEIVING FREQUENCY

902 MHz to 928 MHz (over 130 channels within this range.)

POWER SOURCE

Handset: 4.8v, 800mAH, NiCd Battery Pack

Base Unit: AC Adapter

Charger: AC Adapter

NOMINAL EFFECTIVE RANGE

Maximum power allowed by FCC. Actual operating range may vary according to environmental conditions at the time of use.

God and use outside of the United States and Canada. Nor do we warrant this product to be compatible with any particular telephone equipment or party line, key telephone systems or more sophisticated customer premises switching systems. If this product is not covered by our warranty, call us at 1-425-556-1848 for advice as to whether we will repair this product and other repair information, including charges. We, at our option, may replace rather than repair this product with a new or reconditioned one of the same or similar design. The repair or replacement will be warranted for 90 days.

This warranty is the only one we give on this product, and it sets forth all our responsibilities regarding the product. There are no other express warranties.

State Law Rights:

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

FCC Regulations

FCC Registration and Repair Information: Part 68 of FCC Rules

This telephone product has been registered with the Federal Communications Commission (FCC) in accordance with Part 68 of its rules. The FCC requires us to tell you the following information:

- **Connection and use with the nationwide telephone network**

  An FCC compliant telephone cord and modular plug is provided with this product. This product is designed to be connected to the telephone network or premises wiring using a compatible modular jack with is Part 68 compliant. See Initial Setup Instructions in the user's manual.

  This equipment may not be used with Coin Telephone Lines or with Party Lines.

- **Notification to the telephone company**

  Upon request of your local telephone company, you are required to provide them with the following information:

  The "line" to which you will connect the telephone equipment (that is, your phone number), and

  The telephone equipment's FCC registration number and ringer equivalence number (REN). These numbers are on the back or bottom of your telephone equipment.

  The REN is useful to determine how many devices you may connect to your telephone line and still have them ring when you are called. In most, but not all areas, the sum of all RENs should be 5 or

less. You may want to contact your local telephone company for more information.

- **Repair instructions**

  If it is determined that your telephone equipment is malfunctioning, the FCC requires that it not be used and that it be unplugged from the modular jack until the problem has been corrected.

  The base unit contains no user serviceable parts. The handset contains a user replaceable battery pack.

  Repairs to this telephone equipment can only be made by the manufacturer or its authorized agents or by others who may be authorized by the FCC. For repair procedures, follow the instructions outlined under the Limited Warranty

- **Rights of the telephone company**

  If this telephone product is causing harm to the telephone network, the Telephone Company may temporarily discontinue your telephone service. If possible, the Telephone Company will notify you before interrupting service. If advance notice is not practical, you will be notified as soon as possible.

  You will be given the opportunity to correct the problem and you will be informed of your right to file a complaint with the FCC.

  Your telephone company may make changes in its facilities, equipment, operation, or procedures that could affect the proper functioning of this product. If such changes are planned, you will be notified.

- **This telephone is compatible with inductively coupled hearing aids.**

- **Programming/testing of Emergency Numbers**

If this product has memory dialing locations, you may choose to store police, fire department and emergency medical service telephone numbers in these locations. If you do, please keep three things in mind:

i) We recommend that you also write the telephone number down, so that you can still dial the emergency number manually if the memory-dialing feature does not work.

ii) This feature is provided only as a convenience, and the manufacturer assumes no responsibility for customer reliance upon the memory number.

iii) Testing the emergency telephone numbers you have stored is not recommended. However, if you do make a call to an emergency number:

- You must remain on the line and briefly explain the reason for the call before hanging up.
- Programming/testing of emergency numbers should be performed during off-peak hours, such as in the early morning or late evening, when the emergency services tend to be less busy.

Interference Information: Part 15 of FCC Rules

Some telephone equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used properly, may cause interference to stereo and television reception.

This product has been tested and found to meet the standards for a Class B digital device, as specified in Part 15 of the FCC Rules. These specifications are

designed to provide against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

If this product causes interference to your stereo, telephone answering device or television reception when it is in use, you might correct the interference with any one or all of these measures:

- Where it can be done safely, re-orient the receiving television or stereo antenna.
- To the extent possible, relocate the television or stereo, or other receiver with respect to the telephone equipment.
- Plug your product into an AC outlet that is not on the same circuit as one used by your stereo or television.
- Move the telephone answering device (3 feet or 1 meter) from the base unit.

INDUSTRY CANADA REQUIREMENTS

The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). 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. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

A representative designated by the supplier should coordinate repairs to certified equipment. Any repairs or alterations made by a 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 connection 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.

Ringer Equivalence Number: See the FCC label.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminal devices to be connected to a telephone interface to prevent overloading. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Number of all the devices not exceed five (5) in most cases, but not all; check with your local exchange carrier.

Industry Canada Compliance Notice

This wireless telephone uses radio communications between the handset and the base set, and may not ensure privacy of communications. Other devices including other wireless telephones may interfere with the operation of this wireless telephone or cause noise during operation. Other wireless telephones or radio communications systems could access units not containing coded access signaling. Wireless telephones must not cause interference to any licensed radio service. Complies with ICES-003 Class B.

Avis De Conformation

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la class B prescrites dans le Reglement sur le brouillage radioelectriqes edicte par le ministere des Communications du Canada.

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Literature Order# M-1000-001