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## ENGENIUS CORDLESS PHONES

America's Best Long Distance Cordless Phones for PBX/Phone Systems!!

Direct Extensions on your PBX/Phone System – Expandable Up to 90 handsets – Walkie-Talkie & Phones!!

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# DuraFon 1X Industrial Cordless

Digital Long Range Cordless Phone System EN



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## Safety Instructions

**Caution:** *Your wireless telephone gives you freedom and flexibility to stay in touch while you move around. However, when using your phone equipment, safety instructions should be followed to avoid the risks of fire, electric shock, injury to person, and damage to property.*

### General Safety Instructions

1. When using your wireless phone, ensure your safety and the safety of others:
  - a. Always watch where you are walking and standing.
  - b. Don't let a phone call distract you from working safely.
2. In an emergency:
  - a. If an emergency occurs, dial the emergency phone number. Remember: if you are in an area where your phone does not have a clear signal from the base, it is highly probable that the call may not go through. Locate the nearest landline telephone or other communications device to call for help.
  - b. Emergency calls may not automatically provide emergency personnel with your name, phone number or location.
3. Notice to Hearing Aid Users: This phone system is compatible with inductively coupled hearing aids.
4. Notice to Cardiac Pacemaker Users: Preliminary studies done by the US FDA and others have shown that, although interference to the implanted cardiac pacemaker may occur when operating very closely, wireless telephones "do not seem to pose a significant problem for pacemaker wearers." However, until more is known, FDA suggests that people with pacemakers may want to take precautions when using or carrying a wireless telephone to ensure that there is ample distance between the telephone and the pacemaker. Do not carry the handset in a breast pocket. If you have any reason to suspect that interference is taking place, turn off your handset immediately.

### Product Safety Instructions

1. Read and understand all instructions.
2. Follow all warnings and instructions including those marked on the product.

3. Changes or modifications to this product not expressly approved by the manufacturer will void the warranty and the FCC authorization to operate the equipment. Use only manufacturer provided accessories.
4. Do not use the telephone near water. Never spill liquid of any kind on this product.
5. Unplug the product from the wall telephone jack and power outlet before cleaning. Do not use liquid or aerosol cleaners. Use damp cloth for cleaning.
6. Do not place this product on an unstable cart, stand, or table. The product may fall and cause personal injury or damage to the product or other property.
7. Power Outage: In the event of a power outage, your handset charger will not recharge the handset battery, and the base station will not allow you to make an outgoing call or take an incoming call. Both the charger and the base station require electricity for operation. You should have a telephone that does not require electricity available for use during power outage, or have a temporary backup power supply.
8. Slots or openings in the product's housing are provided for ventilation. These openings must not be blocked or covered. Placing the product on a bed, carpeting, or other similar surface may block these openings and should be avoided. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
9. Never push objects of any kind into this product through housing slots/openings as they may damage the product, touch dangerous voltage points or short out parts that could result in fire, electric shock, or injury.
10. 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 supply to your home, consult your dealer or local power company.
11. Do not overload wall power outlets and extension cords as this may result in fire or electric shock.
12. To avoid electric shock or burn, do not disassemble this product. Send this product to an authorized service center when service or repair work is required. Call Customer Service for locations near you. Opening or removing covers may expose you to dangerous voltages, electrical currents or other risks. Incorrect reassembling of the product may cause electric shock when the product is subsequently used.
13. Avoid using the product during a storm. There may be a risk of electric shock from lightning.

14. Do not place the product where persons can step, trip, or fall on it.
15. Do not place conductive objects over or near the antenna.
16. Do not use the product to report a gas leak while in the vicinity of the leak.
17. Do not install the base station or the handset charger near microwave ovens, radios, TV sets, speakers, or other electrical equipment. These appliances may cause interference to the product or experience interference from the product.
18. Unplug the base station or the charger adaptor from the power outlet and refer to an authorized service center under the following conditions:
  - a. If liquid had been spilled into the product.
  - b. When the power supply cord or plug is damaged or frayed.
  - c. If the product has been exposed to rain or water.
  - d. If the product does not operate normally by following the operating instructions.
  - e. If the product has been dropped or housing has been damaged.
  - f. If the product shows a distinct change in performance.

#### **Battery Safety Instructions**

1. Use only manufacturer approved Li-ion rechargeable batteries and charger. Do not use other types of rechargeable batteries or non-rechargeable batteries. The batteries could short-circuit, and the battery enclosure may be damaged causing a hazardous condition.
2. Follow the charging instruction in this manual and instruction labels and markings in the handset and charger compartments.
3. Battery must be recycled or disposed of properly. Do not dispose the battery in a fire. The cells may explode.
4. Do not dispose of the battery in municipal waste. Check with local codes for disposal instructions.
5. Exercise care in handling the batteries in order not to short-circuit the battery with conductive materials such as rings, bracelets, keys, pocketknife, and coins. The battery or conductive material may overheat and cause burn or fire.
6. Do not expose batteries to rain or water.
7. Do not open or mutilate the battery. Released electrolyte is corrosive and may cause injury to eyes or skin. The electrolyte may be toxic if swallowed.
8. During charging, the battery heats up. This is normal and is not dangerous.

## Regulatory Information

DuraFon 1X  
FCC ID: NI3-SN1302  
IC: 3616A-SN1302

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

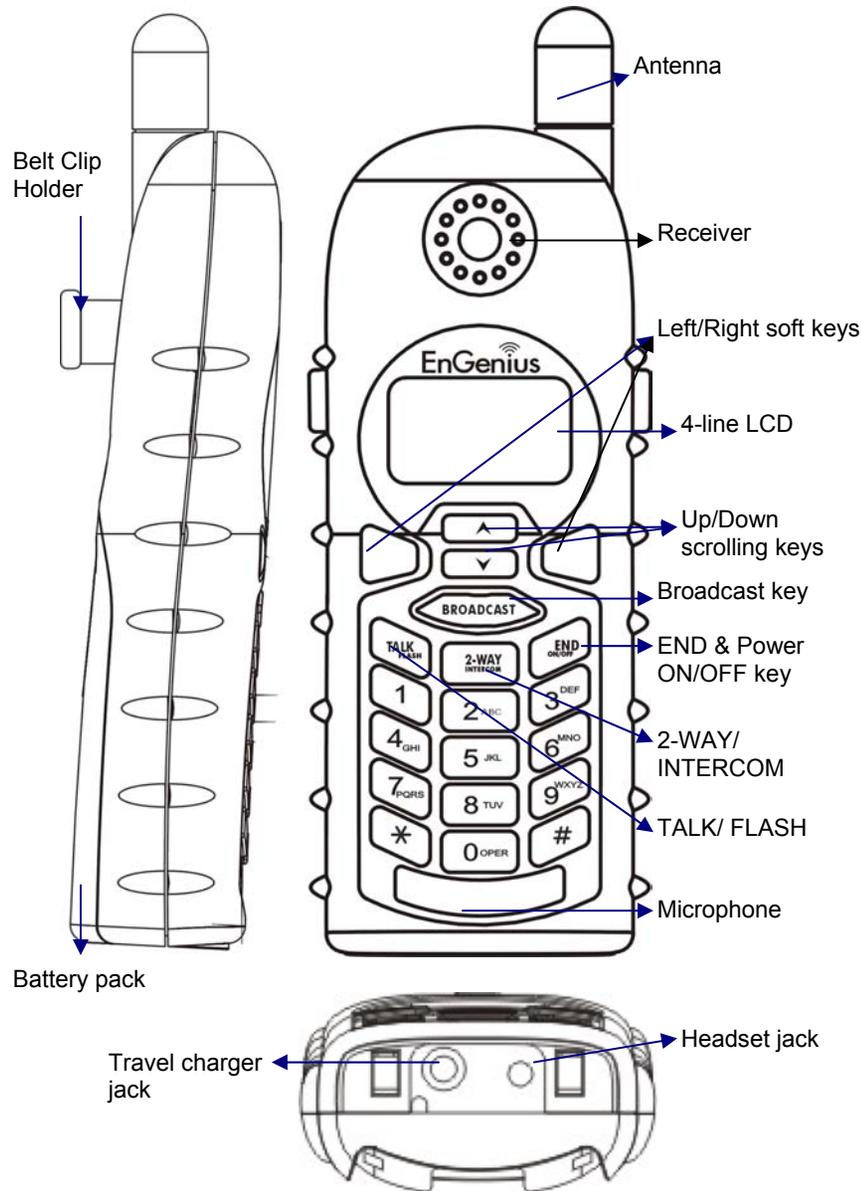
- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received, including interference that may cause undesired operation.

1. The term "IC:" before the radio certification number only signifies that Industry of Canada technical specifications were met.
2. This telephone system complies with rules of the FCC Part 68 and Canadian IC/DOC CS-03. On the bottom of the base station is a label that contains, among other information, the FCC Registration Number, Ringer Equivalence Number (REN) and the Universal Service Order Code, which is RJ-11C in the U.S. or CA-11A in Canada. Your telephone company may ask you for this information.
3. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all devices ring when your telephone number is called. In most, but not all, areas the sum of the REN's of all devices connected to one line should not exceed 5.0. To be certain of the number of devices you may connect to your phone line, you should contact your local telephone company for the maximum REN in your area.
4. If your telephone equipment causes problems to the telephone network, the telephone company may ask you to disconnect your phone system from the line until the problem has been corrected. Consult with your local phone company for your rights if this happens.
5. Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper functioning of your telephone system. Consult with your local phone company for your rights if this happens.
6. This telephone system may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.
7. This telephone system has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC Rules and RSS210 of the DOC Rules. These limits are designed to provide reasonable protection against harmful interference in a general public installation. Operations of these devices may still encounter interference from/to nearby TV's, VCR's, radios, computers, or other electronic devices. To minimize or prevent such interference, the telephone system should not be placed or operated near other electronic devices.
8. However, there is no guarantee that interference will not occur in a particular installation. If this telephone system does cause interference to other electronic devices, which can be determined by turning the system off and on, the user is encouraged to try to correct the interference by one or several of the following measures:
  - a. We recommend at least 20 feet between the system and other electronic devices.
  - b. Connect the base station to a power outlet on a circuit separate from that used by the device experiencing interference. Consult the dealer or an experienced electronic technician for help.

## Equipment Checklist

1. In a Base + Handset package, please find the following components:
  - a. Base Station x 1
  - b. Base Antenna x 1
  - c. Base AC/DC Adaptor x 1
  - d. Handset x 1
  - e. Low Profile Handset Antenna x 1
  - f. Optimal Performance Handset Antenna x 1
  - g. 1700mA Li-ion Battery Pack x 1
  - h. Charger x 1
  - i. Charger AC/DC Adaptor x 1
  - j. Telephone Cord x 1
  - k. Belt Clip x 1
  - h. User's Manual, Quick Guide, and Warranty Card
2. In a Handset package, please find the following components:
  - a. Handset x 1
  - b. Low Profile Handset Antenna x 1
  - c. Optimal Performance Handset Antenna x 1
  - d. 1700mA Li-ion Battery Pack x 1
  - e. Charger x 1
  - f. Charger AC/DC Adaptor x 1
  - g. Belt Clip x 1
  - h. Quick Guide, and Warranty Card
3. Optional Accessories
  - a. Outdoor Antenna Kit (including antenna and cable)
  - b. Lightning Protection Kit (including cable)
  - c. DuraPouch
  - d. Belt Clip
  - e. Spare Battery
  - f. Low Profile Handset Antenna
  - g. Optimal Performance Handset Antenna
  - h. Headset
  - i. Antenna Splitter (including cable)
  - j. Audio-in Cable

## Handset Illustration



## Handset Features

### Basic Handset Features

1. 4-line LCD (Liquid Crystal Display)
  - a. The LCD display has LED (Light Emitting Diode) for backlighting.
  - b. The 1<sup>st</sup> line of LCD consists of icons.
  - c. Icons explanation from left to right
    - (1) **RSSI** (Receive Signal Strength Indicator)  
During a call, the number of bars is proportional to the radio signal strength received.
    - (2) **Call in-progress** (ON/OFF-Hook)  
Indicates if phone line mode is active
    - (3) **Intercom in-progress**  
Indicates if Intercom mode is active
    - (4) **Handset ID**  
Displays a handset icon and a 2-digit Handset ID
    - (5) **Two-Digit Address Index**  
Shows address index when viewing contents of the call logs.
    - (6) **Line Indicator**  
Indicates the number of the line being accessed by the handset.
    - (7) **Battery Strength**
      - Number of bars is proportional to the amount of battery time remaining.
      - Indicates charging when in charger cradle.
  - d. The 2<sup>nd</sup> and 3<sup>rd</sup> lines of the LCD, maximum 14 characters each, display status, message, menu selections, or user-editable alphanumeric characters.
  - e. The last line displays the left and right soft keys.



- b. Sends a Flash signal to phone line to retrieve a dial tone after the call ends, or to perform the call waiting feature provided by local phone companies during a call.
4. 2-WAY/INTERCOM
    - a. Places an intercom call to another handset ID or a group ID (**group paging**).
    - b. Intercom calls are digital, full duplex, and are conducted without the assistance from the base.
  5. BROADCAST
    - a. Half duplex broadcasting to handsets for immediate announcement
    - b. Half duplex broadcasting to base stations  
[please refer to page 23 for detail operation]
  6. Left/Right Soft Keys
    - a. Make menu selection.
  7. Up(▲) /Down(▼) Scrolling Keys
    - a. Scroll through records and menu selections.
    - b. Adjust receiver voice volume when in Talk mode.
  8. END; On/Off Key
    - a. Ends a call.
    - b. Leaves current menu operation, up one level.
    - c. Press for 3 seconds to off the power

### Additional Handset Features

1. Multiple handsets registration
  - a. Up to 9 handsets can be registered to a base station; up to 36 handsets can be accommodated to the system
  - b. ID 11-19; 21-29; 31-39; 41-49: individual Handset IDs. ID 11 and 12 are the first two ID's assigned by the base and are designated "administrators" who can change base settings such as "flash time" and other base administrative functions.
  - c. ID 01-09: Group IDs. Handsets can "subscribe" from the handset menu to group(s) and be paged when an intercom caller enters a Group ID.
2. Ringer / Vibrator

- a. Six-level ringer volume selections (high/ medium/ low/ vibrate/ vibrate-then-ring/ off)
  - b. Four ringer type selections
3. Caller ID
    - a. Displays incoming call phone number and name on the LCD (needs Caller ID service from local telephone company)
  4. Call Waiting with Caller ID
    - a. Displays 2<sup>nd</sup> incoming call information on the same phone line when 1<sup>st</sup> call is in progress (needs Call Waiting with Caller ID service from local telephone company)
  5. Name Tagging with Caller ID
    - a. Matches the Caller ID with the phone book entries; once matched, the LCD screen will display the name or nickname instead of pure Caller ID info (needs Call Waiting with Caller ID service from local telephone company)
  6. DND (Do Not Disturb, i.e., Silent Ring)
  7. Three Call Logs
    - a. Called Log: Stores 10 phone numbers (up to 28 digits each) dialed most recently. Can perform last-number redial on all 10 numbers.
    - b. Received Call Log: 10 entries (14-digit phone number, 14-character names, and time stamp), needs Caller ID service from local telephone company.
    - c. Missed Call Log: 10 entries (14-digit phone number, 14-character names, and time stamp), needs Caller ID service from local telephone company.
    - d. Phone numbers and names can be saved into phonebook while in display.
  8. Call Barring
    - a. Block the users from dialing the long distance calls or international calls
    - b. Up to 5 digits of each call barring setting; up to 4 entries allowed
    - c. If you need to dial a specific number to retrieve the dial tone, you need to key in that number while setting the call barring

[Note] you need to key in the accurate user ID and password to perform this feature. The default password is 0000.

9. Any Key Answer (except END, Silent Soft Key)
10. Key-guard
11. Dialing Prefix
  - a. Up to 14 digits, including pause(s), one access code can be pre-programmed to be added automatically in front of the dialed number when dialing from call logs, phonebook, and dial-and-send dialing.
12. Call Hold
  - a. Places call on hold
  - b. Battery Hot Swap: Change battery while call is on hold.
13. Mute
14. Phonebook
  - a. 30 entries, each stores a phone number or handset ID (up to 28-digit) and name (up to 14-character)
  - b. Alphabetically sorted display and search by letter
  - c. Dial from display
  - d. During the stand-by mode, you can enter the phonebook by pressing ▲ or ▼ scrolling key
15. Key Tone
  - a. Three-level key-tone volume selections (high/low/off)
  - b. Four key-tone type selections
16. Call Timer
  - a. Display call time duration for current call during and immediately after the call
17. Text Messaging:
  - a. Editing Message: from a handset, users can edit the short text message for up to 50 characters. Up to 5 messages can be edited and stored.
  - b. Sending Message: In view mode, handset can send a message to another handset or a group of handsets.
  - c. Incoming Message: A distinctive tone alerts an incoming message. The message will stay on LCD display for 8 seconds and then is saved in memory. A total of 5 incoming messages can be saved.
18. Programmable PBX Options

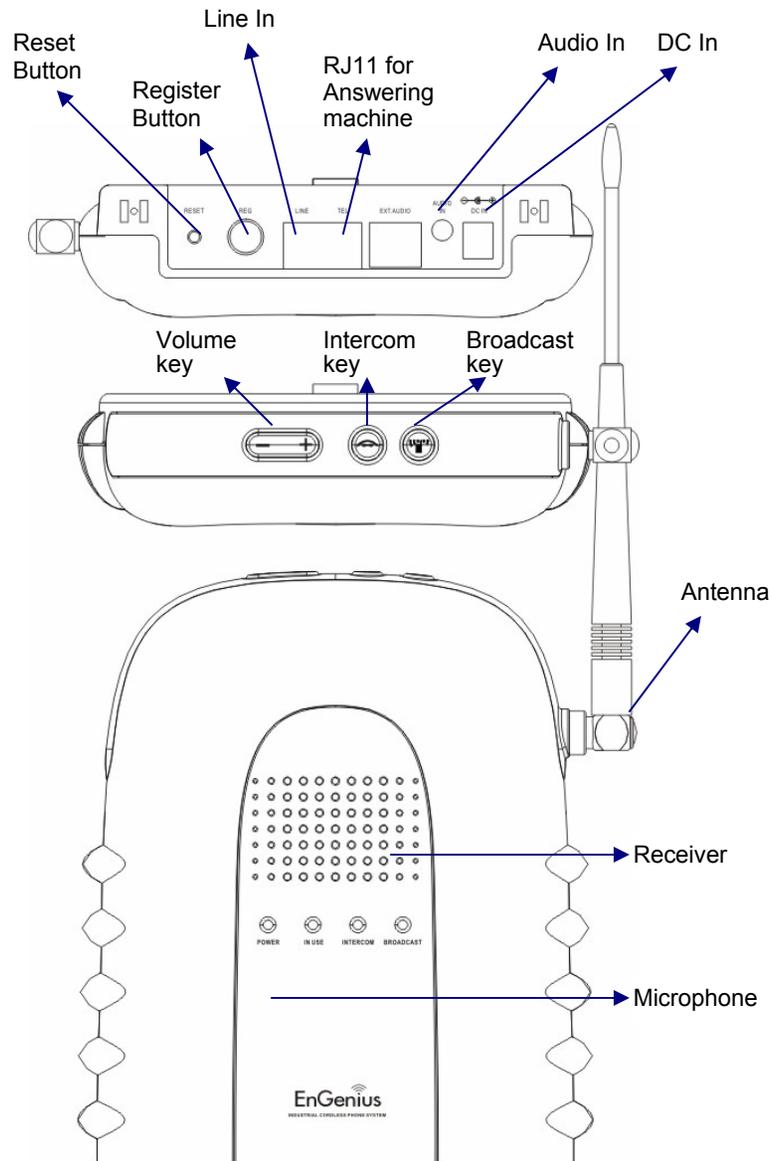
- a. Allows user to pre-program the most frequently used PBX features along with feature codes into DuraFon which is adjunct to the PBX system.
- b. Up to 9 entries can be saved.
- c. Once the feature and feature codes are programmed, user can quickly perform those functions during the call by pressing the **OPTION** soft key.

### Administrator Features

Handsets 11 and 12 are designated administrators. Both have the same authority to perform base station administrative functions from their handset menu selections. No password is required.

1. Supports both DTMF and Pulse dialing
  - a. From an administrator handset (Handset 11 or 12 ), press MENU-9-1 to select Tone or Pulse dialing mode.
  - b. Default is Tone dialing.
2. Administrator programmable Flash key timing
  - a. From an administrator handset (Handset 11 or 12), press MENU-9-2-4 to select flash key timing
  - b. 9-level (100 ms - 900 ms) timing selections, default= 600 ms.
  - c. The default value (600 ms) works in most areas. Changing this setting may result in Flash function not working. Change only when you are certain of the new value would work.
3. Call Transfer to PBX Extension
  - a. When install the DuraFon 1X is installed behind a PBX system, you can pre-program the feature code of call transfer function.
  - b. Need to adjust the Flash time to match your PBX setting.

## Base Illustration



## Base Features

### Basic Base Station Features

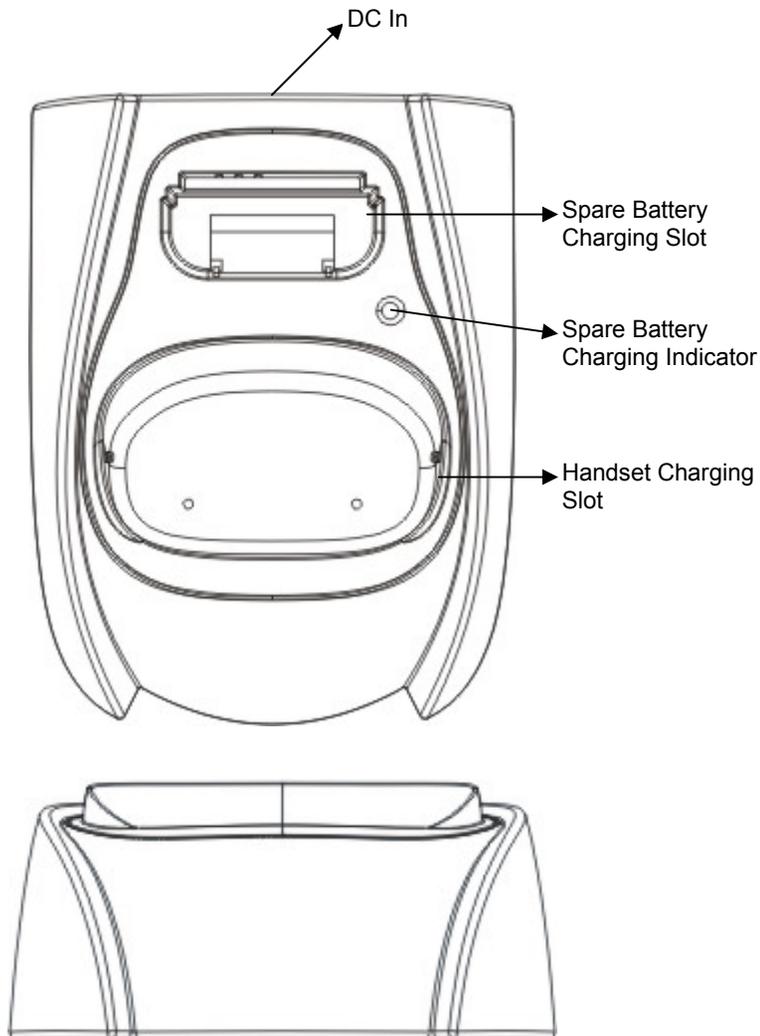
1. Antenna
  - a. The antenna port has a **reverse thread connector**; to remove antenna or cable, turn clockwise; to install, turn counterclockwise. Improper installation may damage the connector
  - b. When using an outdoor antenna, locate the antenna (not the base station itself) as high as possible for a clear transmission path.
2. LED
  - a. Power: it indicates base station has power.
  - b. In-Use: it indicates an active telephone line.
  - c. Intercom: it indicates "Intercom" taking place.
  - d. Broadcast: it indicates "Broadcast" taking place.
3. Reset Button
  - a. Restores base station to factory settings
  - b. Reset button is indented to prevent accidental system reset.
  - c. All handsets (including administrator) and additional base(s) need to be re-registered after a base station reset.
4. Registration Key (REG)
 

Enters registration mode along with handset, assigns handset ID (11-99).
5. Line
 

Standard RJ-11C/CA-11A connector to plug in the telephone line
6. Telephone:
 

Another RJ-11C to plug in the optional answering machine
7. Audio-in Jack (3.5mm)
8. DC In: to plug in the power adaptor
9. Voice Volume

## Charger Illustration



## Charger Features

1. DC In  
Connects to Charger AC Adaptor.
2. Handset Charging Slot
  - a. Charge handset battery when handset is placed in cradle.
  - b. Refer to the handset LCD for charging status
    - (1) Charging: LCD screen showed "Charging"
    - (2) Fully Charged: battery status bar stands still and the LCD screen would display "Fully Charged"
    - (3) Charge Fail: Should there be any error occurred during charging mode, the LCD screen would display "Charge Fail"
3. Spare Battery Charging Slot
  - a. Charge spare battery when battery is placed in slot.
  - b. LED as the spare battery charging indicator
    - (1) Slot is empty and the power is on: LED is Green light
    - (2) Charging: LED is Orange light
    - (3) Fully Charged: LED returns to Green light
4. It is impossible to overcharge the battery using this charger.

### Notes:

1. Fully charge battery packs before first use.
2. Both handset and spare batteries can be charged at the same time.
3. Handset will be "power on" automatically when placing on the charging slot.
4. However, if you run drain the battery, it would take around one minute for handset to auto power on.

5. The adaptor for charging station can be used as travel charger as well. However, you can not turn off the power while charging with the travel charger. A Warning message: "Unplug Travel Charger than OFF the power" will be shown on the LCD display.

## Getting Started

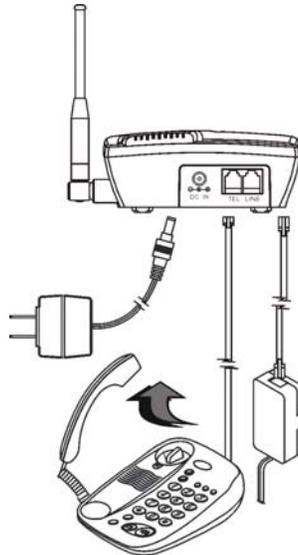
### Base Station Installation

There are three possible base station setups:

- Base station alone
- Base station plus telephone answering device
- Base station plus standard telephone

For best performance, maintain at least a distance of 1 meter (about 3 feet) between the base station and other electronic devices (e.g., TV, computer, stereo, fax machine, answer machine, cordless phone, etc.)

1. Install base station antenna.  
The base station's antenna port has a **reverse-thread connector**; to install antenna or cable, turn counter-clockwise; to remove, turn clockwise. Improper installation may damage the connector.
2. Plug the transformer end of the base station AC/DC adaptor into a standard AC electrical power outlet, plug the other end into the "DC In" jack on the back of the base station.
  - a. The base adaptor's DC plug is larger in dimension than the charger's DC plug. The charger adaptor's DC plug will not fit into the base's DC In jack.
  - b. The base station's power supply (DC Adaptor) and telephone line should be plugged into a surge protector with phone line protection.
3. Plug phone cord into the "LINE" Jack
4. A standard telephone or answering machine can be plugged into the adjacent receptacle on the bottom of the base station marked TEL
5. To use the Music/Message-On-Hold feature: Connect one end of a



standard audio cable into a radio or audio player, and plug the other (3.5 mm) end into the MOH jack on back of the base.

### Handset and Charger Installation

1. Plug the transformer end of the Charger AC/DC adaptor into a standard AC electric power outlet, plug the other end into the "DC In" jack on the back of the Charger.
2. Install battery pack onto the handset.
3. Install handset antenna.
4. Place handset onto the charger front slot.
5. The phone system is now ready to perform basic functions such as making and receiving phone calls and intercom calls. No base station or handset programming is needed for basic operations.
6. Charging cradle may be wall mounted, but an "L" bracket should be used for support under the cradle to avoid breaking mounting slots. An "L" bracket is not included, but can be purchased from a local home center.

#### Note:

1. Handset(s) packaged along with a Base Station are pre-registered at the factory. If you have a new handset, you will need to register the handset with the base station in order to be recognized as a member handset by the base(s) and by other handsets. See Handset Registration.
2. Fully charge battery packs before the first usage.

## Basic Operations

### Operation Modes

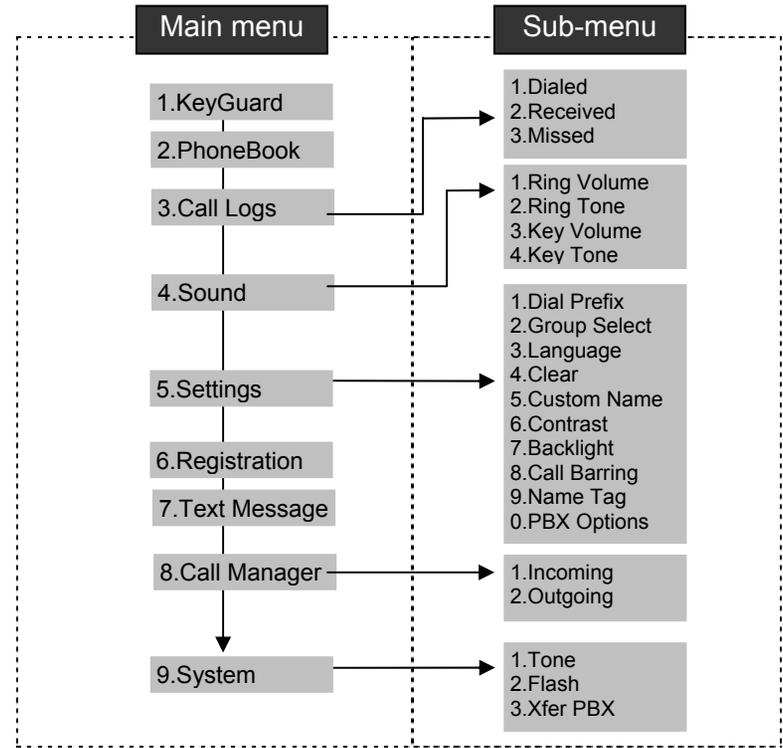
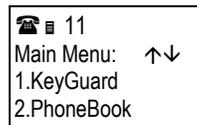
Both the base station and handset have levels of operation at which time only certain procedures of functions can be performed.

#### A. Base Operation Modes

1. **IDLE mode**- this is the default mode. The intercom, broadcast, and volume keys are active in IDLE mode.
2. **TALK mode**- the base operates in this mode during phone call, intercom, and broadcast operation. The “In Use”, “Intercom”, and “Broadcast” LED will light up respectively.
3. **REGISTRATION mode**- the base enters this mode by pressing the REG button for three seconds. There are no active base unit keys once this mode has been entered. Four LEDs will light up in Registration mode.

#### B. Handset Operation Modes

1. **IDLE mode**- this is the default mode.
  - a. If there is no on-going activity, the handset automatically goes into SLEEP/IDLE mode to save battery power.
  - b. The handset can be turned off completely by holding down the END key for 3 seconds.
  - c. The idle screen display (custom name) can be edited.
  - d. The 2-digit number represents the handset ID.
2. **Menu mode**
  - a. Press the Right soft function key to activate MENU mode.
  - b. In MENU mode, the handset settings and information contained in memory can be changed.
  - c. The functions available through the MENU selection are covered in greater detail from page 40.
  - d. The MENU structure display as below:



### Making a Telephone Call

1. Press TALK, wait for dial tone, and then enter phone number.
2. Alternatively, you can enter phone number first then press TALK key. When using this method, you can use the **CLEAR** (Left) and **DELETE** (Right) soft keys to edit the number entered. “Clear” erases the entire line but remains in the dialing mode. “Delete” erases the last digit entered.
3. **Speed dial** by access the entries in the phone book
  - a. Press ▲ or ▼ scrolling key to enter the phone book
  - b. Press TALK to dial the number.
4. To abort dialing, press END key.



**Notes:**

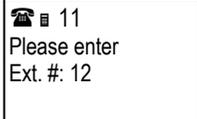
1. After a link established, the Base ID will appear on the upper-right corner. If no Base ID show up, it applied that you are approaching the boundary of the coverage.
2. If the line is occupied, the LCD shows "No Line Available" and handset returns to standby mode.
3. If a link cannot be established, the LCD will show "No Base" after a 12-second time out.
4. A call duration timer will start displaying the length of the call after link is established.

**Making a 2-Way/ Intercom Call**

The EnGenius Industrial Cordless Phone System offers private, Intercom/ 2-way radio calls independent of the base station. Intercom/ 2-way communication can be placed from or to base stations and handsets.

**A. Handset to Handset Calls**

1. Press Intercom key followed by a two-digit handset ID or Group ID.
2. Press END key to end the call.

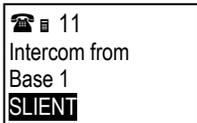


**Notes:**

1. Intercom calls can be made regardless if the Base Station is present.
2. If a Group ID is entered, the first handset (belonging to that group) that answers will establish a link with the caller. See Handset Group Subscription.
3. If a link cannot be established, the LCD shows "No Connection" after a 12-second time out.

**B. Intercom/2-Way from Base to Handset**

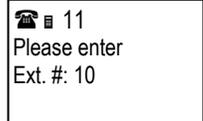
1. Press Intercom key on the base station to intercom all registered handsets. The first handset to answer will establish a voice link with the base.
2. The INTERCOM LED will flash until a handset responds.
3. The base unit will page for 15 seconds, then terminate the page if no handset responds.
4. Before a handset answers, the INTERCOM can be cancelled from the



base by pressing INTERCOM again. However, once a handset answers, only the answering handset can end the call.

**C. Intercom/2-Way from Handset to Base**

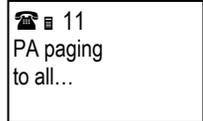
1. Press Intercom key followed by a two-digit base ID. [Note: Base 1 ID as 10, Base 2 ID as 20, Base 3 ID as 30, and Base 4 ID as 40]
2. The base will ring once, then automatically connect the intercom call from a handset.



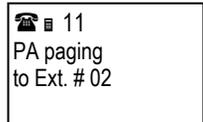
**Making a Broadcast**

**A. Handset to Handset Calls**

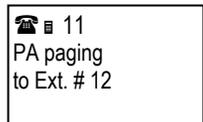
1. Broadcasting all handsets
  - a. Press "BROADCAST" key from one handset.
  - b. After hearing bi-bi-beep signal; begin broadcast message.
  - c. All related handsets, within communication range of initiating handset, will receive the broadcast.
  - d. Press END key to end the broadcasting.



2. Broadcasting a group of handsets
  - a. Enter the Group ID and then press "BROADCAST" key.
  - b. After hearing bi-bi-beep signal; begin broadcast message.
  - c. All related handsets, within group and within communication range of initiating handset, will receive the broadcast.
  - d. Press END key to end the broadcasting.

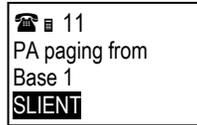


3. Broadcasting an individual handset
  - a. Enter the Handset ID and then press "BROADCAST" key.
  - b. After hearing bi-bi-beep signal; begin broadcast message.
  - c. The related handset, within communication range of initiating handset, will receive the broadcast.
  - d. Press END key to end the broadcasting.



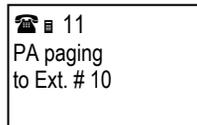
### B. Broadcasting from Base to Handset

1. Broadcast to all handsets
  - a. Press Broadcast key on the base station to broadcast to all registered handsets.
  - b. After hearing bi-bi-beep signal; begin broadcast message.
  - c. The Broadcast LED will light up.
  - d. Press the Broadcast key again and return to IDLE mode.



### C. Broadcasting from Handset to Base

1. Broadcast to the base station
  - a. Enter the Base ID and then press "BROADCAST" key.
  - b. After hearing bi-bi-beep signal; begin broadcast message.
  - c. The related base, within communication range of initiating handset, will receive the broadcast.
  - d. Press the END key to end the broadcasting.



### Redial

1. Press **REDIAL** (Left) soft key.
2. The LCD shows the last phone number dialed. To dial this number, press **DIAL** (Left) soft key.
3. Use Up or Down Arrow Key to scroll through the last 10 phone numbers dialed. Select and press **DIAL** key.  
[Note] Intercom numbers (Handset ID) are not stored in the last 10 numbers dialed log.

### Receiving a Telephone Call

1. When an incoming call arrives, the ringer will ring or vibrate unless the ringer has been turned off.
2. If the handset is on the charger cradle (ringer will be temporarily switched to "Ring" if it has been set to "Vibrate"), lift the handset and start the conversation.
3. If the handset is not on the cradle, press any key (except END, and the

Silent soft key) to answer.

#### Notes:

1. You can press **SILENT** (Left) soft key if you choose to ignore the call. Unlike turning off the ringer (from the handset menu), the **SILENT** key operation is valid only for the current call.
2. If Caller ID service is available, the LCD will display the incoming call information. If the LCD shows "Private" or "Unknown", the caller's information may have been blocked by the caller or the originating phone company.

### Receiving an Intercom Call

1. When an intercom call arrives, the ringer will ring or vibrate unless the ringer has been turned off. Press TALK to answer the intercom call.
2. If the handset is on the charger cradle (ringer will be temporarily switched to "Ring" if it has been set to "Vibrate"), lift the handset and start the conversation.
3. If the handset is not on the cradle, press any key (except END and the SILENT soft key) to answer.

#### Notes:

1. The LCD displays the caller's Handset ID.
2. You can press the **SILENT** if you choose to ignore the call. Unlike turning off the ringer the SILENT key operation is valid only for the current call.

### Ending a Call

To end a telephone or intercom call, press END key or place handset into charging cradle.

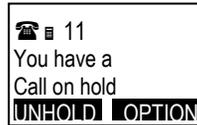
### Adjusting Receiver (Earpiece) Voice Volume

1. Voice volume can only be adjusted during a call.
2. There are 6 levels of volume selections. Default as volume 4. Use ▲ and ▼ scrolling key to adjust.
3. The new setting remains effective for all future calls until changed.



## Placing a Call On Hold

1. When a call is in progress, it can be put on hold by pressing the **HOLD** (Right) soft key.
2. To return to the conversation, press **UNHOLD**



### Notes:

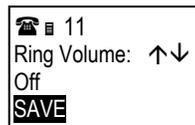
1. The call being placed on hold can only be “un-hold” by the handset that puts it on hold.
2. Handset LCD displays a call is being on hold. An alert tone (double beep) every 30 seconds will remind the handset that a call is being on hold.
3. If the operation (e.g., call transfer) after putting a call on-hold fails, the held call may be dropped.
4. You can power off the handset (e.g., change battery) while call is on hold. After power on again, you can continue the call by pressing **UNHOLD** (Left) soft key or select “3” from the Option menu to terminate the hold state.
5. You can only unhold the call when within the coverage area of the base. Once you’re out of the base coverage, you can return to stand-by using “Clear hold” function in the OPTION list item #3.

## Mute

1. After a link is established, you can press **OPTION** (Left) soft key and press “0” to mute the handset microphone.
2. When mute is active, the other party will not hear your voice, but you can still hear the other party.
3. To end the mute, press **UNMUTE** (Left) soft key. Mute is effective only for the current call.

## Do Not Disturb (Silent Ring)

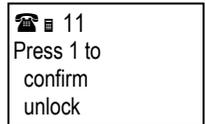
1. Enter the key sequence MENU – Sounds – Ring Volume, then select “Off”. Press **SAVE** to confirm your choice. This will turn off the ringer until it is turned on again from the menu.
2. For temporary silencing the ringer when an incoming



call arrives, press **SILENT** (Left) soft key.

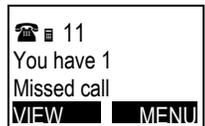
## Key Guard

1. To prevent accidental dialing, you can press Menu (Right) soft key, then press “1” to select KeyGuard option. The handset keypad is locked. No key entry is accepted except the power on/off key.
2. To unlock the keypad, press **UNLOCK** (Left) soft key, then, within 2 seconds, press the digit “1” to unlock.
3. Key Guard is in effect until unlocked or powered off.



## To View Missed Call(s)

1. Whenever you have missed incoming call(s), you can press **VIEW** soft key to enter the call logs information.
2. You need to subscribe the caller ID service from local telecom company to retrieve this data.



## Battery Recharge and Replacement

1. Charge the battery when one or several of the following happen:
  - a. Phone beeps twice every two seconds.
  - b. Battery icon is empty.
  - c. Phone does not respond when a key is pressed.
  - d. LCD and backlighting become dim.
  - e. Talk range shortfall is experienced.
2. You can replace the handset battery after placing the call-in-progress on hold.
3. Battery talk time and standby time vary depending on the talk/standby pattern and the operating distance. Returning the handset back to the charging cradle as often as possible is recommended for best performance. **Use only manufacturer provided battery and charger!**

## Advanced Operations

### Handset Registration

1. If your handset(s) is purchased as part of a system, it has been pre-registered with the base station at the factory.
2. If Handset ID reads "00," that means it is a new handset or the ID has been erased. You need to register the handset with the base station.
3. Registration:
  - a. Press MENU-6 to enter the registration mode
  - b. Press and hold the base's Registration (REG) button for 2 seconds until 4 LEDs light up.
  - c. Press handset key "1", this completes the registration process. When you register the handset to BASE 10, the base will assign a handset ID between 11 and 19. The assigned ID will be displayed on the handset LCD, indicating successful registration.
  - d. Repeat above steps for all additional handsets.
  - e. The first two handsets registered will be given ID 11 and 12, which gives them administrator privileges.
4. De-registration:
  - a. You can de-register a handset from a base. De-registration will reset the Handset ID to 00, erase the system security code, and free up the old ID for future registration.
  - b. After deregistration, the handset will not be able to use the base to make or receive phone calls, nor can it intercom other handsets.
  - c. Press handset Menu (Right) soft key.
  - d. Press the handset number key "6", this will enter the handset registration menu.
  - e. Press and hold the base's REG button for 2 seconds until 4 LEDs come on.
  - f. Press the handset number key "2", this completes the de-registration process. Upon successful de-registration, the handset will show ID "00".

#### Notes:

1. The base has a 30 second registration timeout starting from

- pressing the REG button. The handset has a 12 second registration timeout starting from the registration or de-registration option has been selected. The base and handset will automatically exit registration mode after timeout.
2. When you conduct the registration procedure with BASE 20, the handset ID will be ranging from 21 to 29.
3. Up to 4 bases can be installed to form a sub-multiple line system.
4. Repeat registration or de-registration process if unsuccessful.

### Handset Group Subscription

1. Up to nine handset groups (01-09) can be defined and handsets can decide which group(s) they want to be in.
2. For example, Group 1 represents the Customer Service Group, Group 2 represents the Sales Group, and Group 3 is the Marketing Group. Suppose that Handset 11 wants to receive incoming rings for all Sales and Marketing related calls. Then handset 11 will need to "subscribe" to Group 2 and Group 3.
3. Group Selections:
  - a. Press handset Menu-5 to enter the handset setting menu
  - b. Press number "2", handset enters group select menu.
  - c. Press **ADD** soft key and enter two-digit group number (01-09) to add membership in a group.
  - d. Repeat for all desired groups.
  - e. Delete group selections by pressing **DELETE** (Right) soft key and enter group number.

#### Notes:

1. The handset can change group affiliations at any time.
2. The base (administrator) is not responsible for group assignments. Consequently, it cannot de-subscribe a handset from a group.

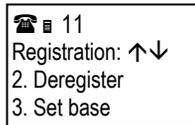
### Registration of Additional Base

1. DuraFon 1X can be installed as the multiple base configurations: up to 4 base units can be registered. The BASE 10 serve as the master base.

2. Use admin handset, HS 11 or HS12, to conduct the registration for 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> base unit.

3. Registration:

- a. Press MENU-6 from HS 11 to enter the registration mode
- b. Press and hold the Registration (REG) button on that additional base unit, which you want to add into the system, for 2 seconds until 4 LEDs light up.
- c. Press handset key “3”, then enter the base ID i.e. 20 for 2<sup>nd</sup> base, 30 for 3<sup>rd</sup> base, or 40 for 4<sup>th</sup> base; this completes the registration process.

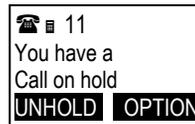


### Call Transfer

1. While a telephone call is in progress, you can place call on hold and transfer the call.

2. Press **HOLD** soft key to put call on hold.

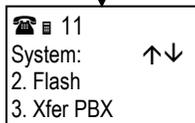
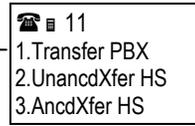
3. Press **OPTION** soft key to enter feature list for selection.



4. Three types of transfer method:

a. Transfer PBX

- (1) When DuraFon 1X is adjunct to the PBX system, you can transfer the call to an assigned PBX extension.
- (2) Proprietary PBX systems usually require a specific feature code to transfer a call.
- (3) You can pre-program that feature code by entering the “System” mode (Menu-9); you need to enter the base ID to link to the base station
- (4) Press 3 and then enter the specific “call transfer” feature code



b. Un-announced Call Transfer:

Press “END” before the destination handset answers, the call is automatically transferred to the destination handset.

c. Announced Call Transfer:

- (1) Speak to the destination handset.

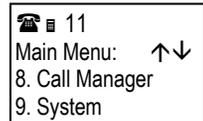
- (2) Press **XFER** soft key or the END to end announcement. The call is transferred to the destination handset.

**Notes:** If the destination handset does not answer after handset paging timeout, the call is routed back to the originating handset.

### Call Manager

“Call Manager” feature allows the handset to be set to receive all incoming, transferred, and 2-Way/Intercom calls OR just transferred and 2-Way/Intercom calls. The option is selectable by base 1 to base 4. Besides, this feature allows you to select a specific base station to make an outgoing call.

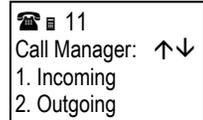
1. Decide whether to receive the incoming, transferred, and 2-Way/Intercom calls from a specific base station:



- a. Press menu 8 to enter the Call Manager function. The screen will display:

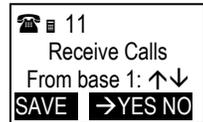
- b. Press 1 to enter “incoming” setting.

- c. Use ▲ and ▼ Scrolling keys to select a base from base 1 to base 4.



- d. Then press the **→YES NO** key to switch between Yes and No, then press **SAVE** key to confirm the setting.

- e. Repeat the process until all base stations from which calls are to be accepted have been selected for the handset.

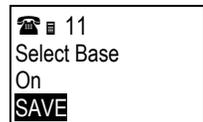


2. Decide whether to select a specific base station to make outgoing call:

- a. Press menu 8 to enter the Call Manager function.

- b. Press 2 to enter “Outgoing” setting.

- c. Use ▲ and ▼ to select either On or Off. Scroll to On and press **SAVE** if you want to select a specific base station before you make an outgoing call. The default setting is Off.



### Change System Settings by Administrator

There are four types of system setting that can be adjusted by Administrator.

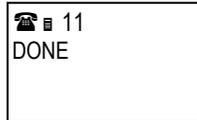
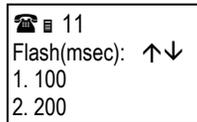
1. Tone

- a. Press Menu-9 and enter the two-digit base ID to enter the System mode.

- b. Press 1 to enter Tone selection
- c. You can adjust the dial mode between Tone and Pulse.
- d. The default setting is Tone.

2. Flash

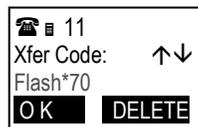
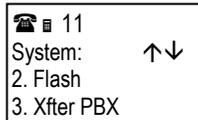
- a. Press Menu-9 and enter the two-digit base ID to enter the System mode.
- b. Press 2 to enter Flash selection
- c. You can adjust the flash time from 100ms to 900 ms (9 levels to choose from.) For example, press “2” if the desired flash time is 200ms. You will see “DONE” once you finish the setting.
- d. The default setting is 600ms.



**Notes:** If the base station is adjunct to a PBX system, it is recommended to adjust the flash time of DuraFon 1X to match the PBX spec.

3. Xfer PBX

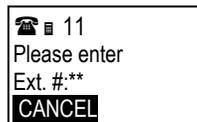
- a. This function is useful if the base station attached to the PBX system through either the analog port or the Digital Adaptor. Press Menu-9 and enter the two-digit base ID to enter the System mode.
- b. Press 3 to enter Xfer PBX setting mode
- c. Use ▲ or ▼ scrolling key to switch between ON and OFF. The default setting is OFF.
- d. Select ON and press **SAVE** key
- e. You can key in the specific “call transfer” feature code and press OK to confirm the setting. For example, if your PBX is N brand, you need to key in “Flash”+”\*”+”70” as the call transfer code.
- f. You will see a “DONE” confirmation.



**Notes:** Since the base station is adjunct to a PBX system, you need to adjust the flash time of DuraFon 1X to match the PBX spec and then program the “call transfer” code.

4. Set next Handset ID to be assigned

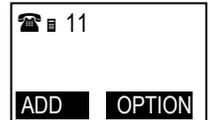
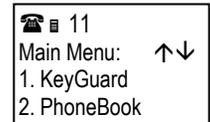
- a. This function is useful if you want to assign a designed handset ID to a specific handset. Press Menu-9 and enter the two-digit base ID to enter the administration mode.



- b. Press 4 and then enter two digits ID number to be assigned. You will see “Saving Configuration” and a Done confirmation.

Phonebook Operations

- 1. You can store up to 30 entries in the phonebook. Each entry can contain a phone number or handset ID (up to 28 digits) and a name (up to 14 characters).
- 2. To access phonebook, press menu follow by “2” or ▲ or ▼ scrolling key when handset in standby mode.
- 3. To add a new entry:
  - a. Press **ADD** soft key.
  - b. Enter a phone number when LCD prompts “Number?” Use **DELETE** soft key to delete the last digit entered. Press **SAVE** when completed.
  - c. You will then be prompted to enter a name for the phone number just entered.
    - (1) Press **SAVE** key to enter a phone number without a name. All records without naming will be placed on top of the list, in the order they are entered.
    - (2) To enter the name, press the corresponding keypad number one or more times according to the order of the character on the key.
    - (3) Use **DELETE** soft key to delete the last character entered. When completed, press **SAVE** soft key to confirm your selection.

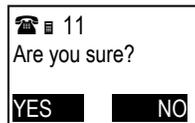
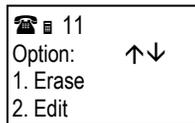
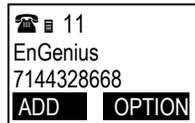


**Notes:**

- 1. When enter a phone number, the cursor automatically advances to the next digit field. Use ▲ or ▼ scrolling key to move the cursor backward or forward to insert or delete.
- 2. When entering a name, the cursor automatically advances to the next character field if you press a different key for the next character. If you need to enter consecutive characters from the same key, you can wait for the cursor to advance or use ▲ or ▼ scrolling key to move the cursor backward or forward manually. Also use ▲ or ▼ to move the cursor to insert or delete.
- 3. By default, all letters are entered in the upper case. Use the \* key to toggle between upper and lower cases.
- 4. A “Pause” entry represents a 2.8 second delay in dialing the following digits, which is useful when calling a sequence of segmented numbers (e.g., access code, credit card number, auto-attendant entries, etc.) Pause is entered by pressing the \* key twice (LCD displays P). Entering pause twice (PP) will result in 5.6 seconds pause in the dialing.

4. The entries are alphabetically sorted and stored as a list in an ascending order (A to Z) from the top of the list.
  - a. If the phonebook is entered from the menu, the first entry displayed is the top of the list.
  - b. If the phonebook is entered using the  $\nabla$  arrow, the first entry displayed is the top of the list.
  - c. If the phonebook is entered using the  $\blacktriangle$  arrow, the first entry displayed is the bottom of the list.
5. The first line of LCD display shows name and the 2<sup>nd</sup> line shows the phone number. If the phone number is longer than 14 digits, press **OPTION** soft key and select Option 3 to view the complete number.
6. To search for a record:
  - a. Use  $\blacktriangle$  or  $\nabla$  scrolling key to enter the Phone Book mode.
  - b. Press a key that corresponds to the first character of the name you are looking for.
  - c. For example, you are looking for "EnGenius", and then press the number "3" once.
  - d. Use  $\blacktriangle$  or  $\nabla$  scrolling key to locate the exact record you are looking for.

7. To erase phonebook:
  - a. Use  $\blacktriangle$  or  $\nabla$  scrolling key or the alphabetical search method to locate the record to be erased or edited.
  - b. Press **OPTION** soft key to enter editing menu.
  - c. Press "1" to erase the desinated phone entry.
  - d. LCD shown "Are you sure?" Press **YES** to double confirm your change.



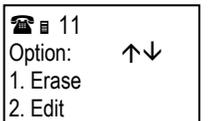
8. To edit phonebook:
  - a. Use  $\blacktriangle$  or  $\nabla$  scrolling key or the alphabetical search method to locate the record to be erased or edited.
  - b. Press **OPTION** soft key to enter editing menu.
  - c. Press "2" to edit the desinated phone entry.
9. Dial from display:
  - a. Press TALK or Intercom to dial the phone number or Handset ID displayed.

**Notes:**  
Character Table:

Key	Characters and Orders
1	' + , . * ( ) & 1
2	A B C 2
3	D E F 3
4	G H I 4
5	J K L 5
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	0
*	Toggle case when in character editing * P (Pause) when in number editing
#	Space – when in character editing # when in number editing

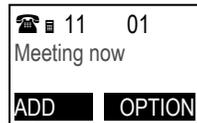
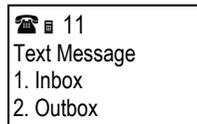
### Call Barring

1. Block the users from dialing the long distance calls or international calls. You need the password to enter the setting. The default PW is "0000".
2. Use  $\blacktriangle$  or  $\nabla$  scrolling key to switch between On and Off of this setting. The default is "Off". Press **SAVE** to confirm your selection.
3. To edit the Call Barring code
  - a. Once turn on the call barring feature, you can key in the "call barring" code.
    - (1) Up to 5 digit can be edit to be call barring code. For example, if you want to block all call dialing to Manhanttan, NY area, you can enter 1212 as the call barring code.
    - (2) If you base station is adjuct to a PBX system, please also include that specific number to retrieve the PSTN tone.
  - b. Press **OPTION** to erase or edit the call barring codes.
  - c. Up to 5 sets of call barring codes can be programmed.

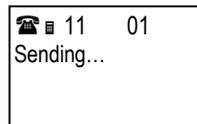
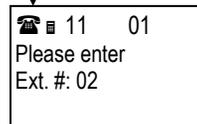


## Text Messaging

1. Short text messages, up to 50 characters each, can be sent from a handset to another handset or a group of handsets.
2. Up to 5 outgoing messages can be edited, stored and sent. They are stored in the "Outbox" in the order they are entered, with Message 01 being the most recent entry. The message counter on the upper right corner of the LCD display shows the message ID.
3. Up to 5 received messages can be stored for later reference. They are stored in the "Inbox" in the order they are received, with Message 01 being the most recently received. The message counter on the upper right corner of the LCD display shows the message ID.
4. Viewing and editing outgoing text messages:
  - a. Press Menu (Right) soft key while the handset is in standby.
  - b. Press "7" following by "2" to enter Outbox menu.
  - c. Press **ADD** soft key to enter a new text message.
    - (1) Enter characters using the Character Table and method discussed in the Phonebook section.
    - (2) Use  $\blacktriangle$  or  $\blacktriangledown$  scrolling key to move the cursor backward or forward to insert character or delete the character. For example, you are editing the message 1 as "Meeting now."
    - (3) When finished, press **SAVE** soft key to save change. You will see the Text Message ID as 01 on the upper right corner of the LCD screen.



Send this message to Group 02



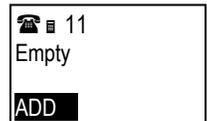
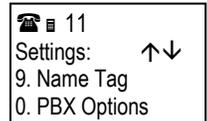
5. Sending a text message:
  - a. While viewing the message, press Intercom key followed by a Handset ID or a Group ID (01-09).
  - b. The current message is sent.
  - c. There will be no acknowledgement returned.
6. To erase or edit the current messages:
  - a. Press Menu-7-2 to enter outbox text message.
  - b. Press **OPTION** soft key to erase or edit the current message:
    - (1) Press "1" and confirm to erase message. Subsequent messages will be moved up in the

Outbox.

- (2) Press "2" to edit message. Follow the instructions above for entering a new message.
7. Receiving a text message:
  - a. When a message arrives, a double beep alerts the arrival of a text message.
  - b. The text message remains on the LCD display for 8 seconds and then is automatically stored in the Inbox.
8. Viewing received text messages:
  - a. Press Menu-7-1 to enter Inbox menu
  - b. The LCD displays Message 01, the most recent received message. Use  $\blacktriangle$  or  $\blacktriangledown$  to view previous messages. The LCD displays Empty if there is no inbound text message.
  - c. Press **SAVE** soft key to return the message to Inbox.
  - d. Press **DELETE** soft key and confirm to delete the current message. Subsequent messages will be moved up in the Inbox.

## Programmable PBX Options

1. When DuraFon 1X base unit is installed behind a the PBX system, it is feasible to pre-program some PBX features along with their feature codes into the system.
2. Up to 9 most frequently used PBX feature codes can be pre-programmed.
3. Name and enter PBX feature codes:
  - a. Press Menu (Right) soft key while the handset is in standby.
  - b. Press "5" following by "0" to enter "PBX Options" menu.
  - c. Press **ADD** soft key to enter PBX feature.
  - d. Key in the name of the PBX features just like editing a phonebook entry i.e. PBX Transfer. Press **SAVE** to confirm your entries.
  - e. Key in the feature code of the correspondence PBX feature i.e. Flash\*70. Press **SAVE** to confirm your entries.
  - f. The first PBX feature and the correspondence



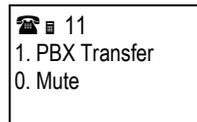
feature code you enter will appear on the LCD screen.

[note] "F" represents the Flash signal

- g. Press Option soft key to Erase or Edit the PBX feature you program into the system
- h. Repeat the same operation to edit the second and even the third PBX feature that you will use frequently.

4. Using pre-programmed PBX feature during the call.

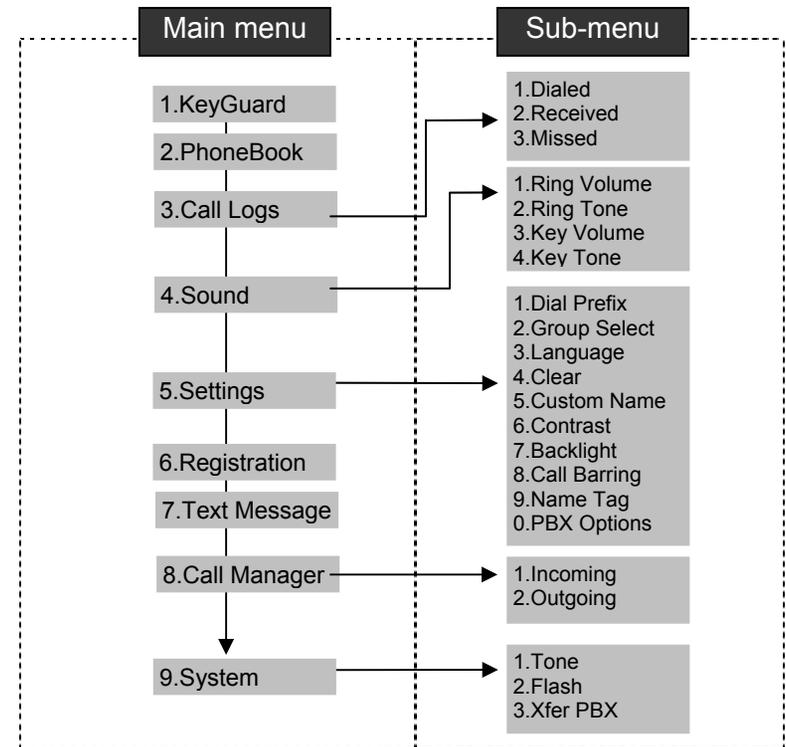
- a. Press **OPTION** soft key while the handset is in talk mode.
- b. Press the correspondence number of the function you want to perform i.e. press 1 to perform "PBX Transfer" function
- c. Press END when you finish the desired function and back to standby mode.



**Notes:**

- 1. This feature would be useful if the DuraFon 1X base unit is adjunct to a PBX system.
- 2. Only "Mute" function will be displayed if you have not pre-programmed any PBX features into the system.
- 3. The DuraFon 1X's Programmable PBX Options may not function with all PBX / Key systems due to the diversity of various proprietary systems.

## Menu Operations



- 1. Press MENU (Right) soft key while the phone is in standby.
- 2. Press "1" to lock keypad (see Key Guard operation on page 27).
- 3. Press "2" to view, search, delete, and edit the phonebook (see Phonebook instruction on page 34).
- 4. Press "3" to view the last 10 numbers called, received, or missed. Records can be erased or edit/save into the phonebook.
  - a. Press "1" to view the last 10 phone numbers dialed, starting from the most recent one. Use ▲ or ▼ to scroll through the list. Press **OPTION** for options.
    - (1) Erase: press "1" and confirm to erase the current record.
    - (2) Save: press "2" to edit and save or save without editing into the phonebook.

- (3) View Number: press “3” to view the complete number if the phone number is longer than 14 digits.
- b. Press “2” to view the last 10 phone numbers received, starting from the most recent one. Use ▲or▼ to scroll through the list. Press **OPTION** for options.
  - (1) Erase: press “1” and confirm to erase the current record.
  - (2) Save: press “2” to edit and save or save without editing into the phonebook.
  - (3) View Number: press “3” to view the complete number if the phone number is longer than 14 digits.
  - (4) No entries: the LCD displays “No entries” if there is no “Received call logs”. Please note that you need to subscribe to Caller ID service from your local teleco to facilitate this function.
- c. Press “3” to view the last 10 phone numbers received but didn’t answer, starting from the most recent one. Use ▲or▼ to scroll through the list. Press **OPTION** for options.
  - (1) Erase: press “1” and confirm to erase the current record.
  - (2) Save: press “2” to edit and save or save without editing into the phonebook.
  - (3) View Number: press “3” to view the complete number if the phone number is longer than 14 digits.
  - (4) No entries: the LCD displays “No entries” if there is no “Missed call logs”. Please note that you need to subscribe the Caller ID service from your local teleco to facilitate this function.
- d. While viewing any of the three call logs, press **DIAL** to dial the phone number.

**Notes:**

1. Only phone numbers are stored in the three call logs. Intercom calls are not recorded.
2. Caller ID service is required from your local phone company in order to receive phone numbers, names and time stamps on incoming calls. The Received and Missed Call Logs will register no incoming calls if Caller ID service is not available.

- 5. Press “4” to set sound-related settings:
  - a. Press “1” to select ringer volume: use ▲or▼ to scroll through 6 options: Medium, Low, Off, Vib-then-Ring, Vibrate and High. Press **SAVE** to save selection. Default = Medium.
  - b. Press “2” to select ringer tone: use the ▲or▼ to scroll through 4 options: 0, 1, 2, and 3. Press **SAVE** to save selection. Default = 0.
  - c. Press “3” to select key volume when a key is pressed: use ▲or▼ to

- scroll through 3 options: High, Low, and Off. Press **SAVE** to save selection. Default = Low.
  - d. Press “4” to select key tone: use the ▲or▼ to scroll through 4 options: 0, 1, 2, and 3. Press **SAVE** to save selection. Default = 0.
- 6. Press “5” to change handset settings:
    - a. Press “1” to set dialing prefix:
      - (1) Use ▲or▼ to scroll and select to turn on or off the dialing prefix feature. Default = Off.
      - (2) If “On” is selected, the handset is prompted to enter a prefix, up to 14 digits.
      - (3) Use **Delete** and ▲or▼ scrolling key to edit prefix.
      - (4) When this feature is turned on, the LCD will prompt the user on each outgoing phone call except during redial or dialing by pressing the TALK key first whether to use the dialing prefix. The current prefix is also displayed. Press **Yes** or **No** soft key to add the prefix to the beginning of the number.
      - (5) This feature is useful for access code, calling card, and credit card calls, etc.
    - b. Press “2” to Group Select: see Handset Group Subscription on page 30.
    - c. Press “3” to select language
      - (1) Use ▲or▼ to select English, French, or Spanish. The default setting is English.
      - (2) Press **SAVE** to confirm your selection.
    - d. Press “4” to clear call logs and phonebook:
      - (1) Press “1” and confirm to delete the entire phonebook.
      - (2) Press “2” and confirm to clear the three call logs (Called, Received, and Missed).
    - e. Press “5” to change the power-up LCD display to show, e.g., company name or other greeting message:
      - (1) Use ▲or▼ to move the cursor backward or forward to insert (to the left of the cursor) or delete (the character above the cursor, or left of the cursor if cursor is on the right of the last character).
      - (2) Enter characters using the Character Table and method discussed in the Phonebook section.
      - (3) When finished; press **SAVE** to save change.
    - f. Press “6” to change LCD display contrast:
      - (1) Use ▲or▼ to scroll through values 1 to 16. Pick one that is most suitable to you. Default = 10.
      - (2) When finished; press **SAVE** to save change.
    - g. Press “7” to change the LCD backlight:

- (1) Use ▲or▼ to scroll through options: On, Off, and 8 Seconds. Default = 8 seconds, meaning that the backlight will turn off the backlight after 8 seconds of inactivity.
  - (2) When finished; press **SAVE** to save change.
- h. Press “8” to edit Call Barring
- (1) Need to Enter Password to edit the call barring code to be executed. The default PW is “0000.”
  - (2) Please refer to page 36 for detail operation.
- i. Press “9” to enable Name tag
- (1) Use ▲or▼ to switch between On and Off. The default setting is Off.
  - (2) When finished; press **SAVE** to save change.
- j. Press “0” to program PBX features that you use frequently
- (1) Program and save the most frequently used PBX functions into DuraFon 1X system
  - (2) Please refer to page 38 for detail operation.
7. Press “6” to register or de-register handset and base: See the detail instructions on page 29.
8. Press “7” to view inbox text message(s) or edit outbox text message(s). See the detail instructions on page 37.
9. Press “8” to enter Call Manager setting.
- a. Press “1” to edit “incoming call” setting. See the detail instructions on page 32.
  - b. Press “2” to edit “outgoing call” setting.
    - (1) Once activate Select BS function, you need to enter the base ID which you want to choose for an outgoing call.
    - (2) The default setting is OFF.
10. Press “9” then enter a base ID to access System settings. See the detail instructions on page 32.

## Technical Specifications

Electrical Specifications	Base Station	Portable Handset
Frequency	902-928 MHz	902-928 MHz
RF Power	Peak: 708 mW Average: 76 mW	Peak: 708 mW Average: 76 mW
Channel Spacing	200 kHz	200 kHz
Number of Channels	128	128
Modulation	MSK	MSK
Multiple Access	Frequency Hopping TDD	Frequency Hopping TDD
Frequency Hopping Rate	100 per second	100 per second
TDMA Frame Length	10 ms	10 ms
Number of Slots/Frame	4	4
Receiver Sensitivity	< -108 dBm (@ BER 10 <sup>-2</sup> )	< -108 dBm (@ BER 10 <sup>-2</sup> )
Antenna Connector	Reverse TNC	Non-standard
Antenna Gain	2 dBi 5 dBi External (optional)	0.5 dBi (short antenna) 2 dBi (tall antenna)
TX Power Control Range	NA	100-708 mW
Telephone Interface	RJ11 x 2	NA
Speech Coding	8 kbps G.729A	8 kbps G.729A
Channel Coding	8 kbps Convolutional + CRC	8 kbps Convolutional + CRC
Transmission Data Rate	170.678 kbps	176.678 kbps
User Data Rate	128 kbps duplex	128 kbps duplex
Duplex	Time Division Duplex (TDD)	Time Division Duplex (TDD)
Voice Quality	TIA/EIA-470B	TIA/EIA-470B
No. of System ID	65,536	65,536
Ring Signal	20-50 Hz, 12-90 Vrms	NA
Flash Time	100-900 ms programmable	NA
Power Source	120V/12V AC/DC Adapter	3.6 V, 1700 mAh Li-ion Battery
Charger Current	NA	600 mA (900mA for spare battery slot)
Charge Time	NA	4 hours (from empty)
Regulation Compliance	FCC Part 15, Part 68 CAN/DOC RSS210, CS03	FCC Part 15, Part 68 CAN/DOC RSS210, CS03 Hearing Aid Compatible
Operating Temperature	-10 – 60 °C	-10 – 60 °C
Storage Temperature	-10 – 70 °C	-10 – 70 °C
Humidity	20 – 75 %	20 – 75 %
Dimension with antenna	188*161*42mm	161*58*31mm
Weight	424g	175g

### Notes:

1. NA = Not Applicable.
2. The manufacturer reserves the right to change designs and specifications without notice.



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