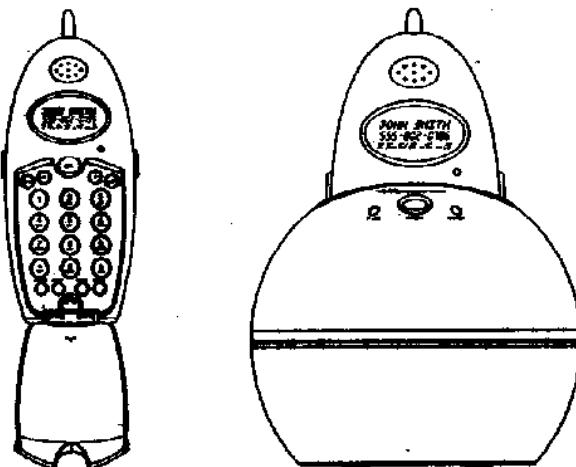




MSP-PH2400



Congratulations on your selection of the **MSP-PH2400** from Memorex®. This quality 2.4GHz cordless telephone with Caller ID and Call Waiting, like all Memorex® products, has been designed to give you many years of continuous service and represents the best value for your money. It requires little maintenance and is easy to setup and operate.

IMPORTANT SERVICE INFORMATION

Read this manual before attempting to setup or use this instrument. It contains important information regarding safe installation and use. Keep this manual for future reference. Also save the carton, packing and proof of purchase to simplify and accelerate any needed action. If you need assistance or service, call 1-800-919-3647. You can also visit our web site at: <http://www.memcorpinc.com> for technical support and information on our other products.



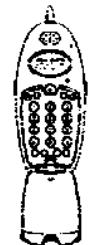
WARNING

To prevent fire or shock hazard, do not expose this product to rain or any type of excess moisture. If accidentally dropped into water, the adapter should immediately be unplugged from the wall along with the telephone line cord.

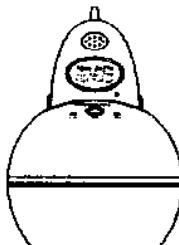


THIS SYMBOL IS INTENDED TO ALERT THE USER OF THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE OWNER'S MANUAL.

CARTON CONTENTS



HANDSET



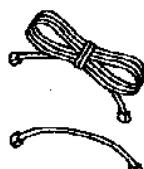
BASE UNIT



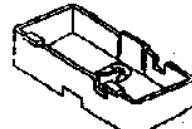
RECHARGEABLE NI-MH
BATTERY PACK



ADAPTER
(9VDC, 300mA)



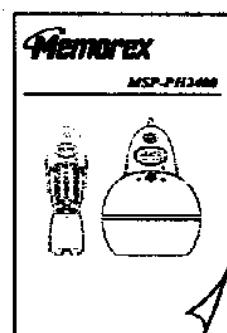
TELEPHONE
LINE CORD
(Short & Long)



WALL MOUNT
BRACKET



BELT CLIP



USER'S MANUAL

SAVE THESE INSTRUCTIONS



IMPORTANT SAFETY INSTRUCTIONS

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

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near a bathtub, washbowl, kitchen sink and laundry tub, in a wet basement or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet at the back or bottom are provided for ventilation, to protect it from overheating. These openings should never be blocked or covered. The openings should never be blocked by placing the product on the bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
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 supply to your home, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.
9. Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.
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 electric shock. Never spill liquid of any kind on the product.
11. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified service contractor when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
12. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power supply cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the product.
 - C. If the product has been exposed to rain or water.
 - D. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating

instructions. Improper adjustments of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

- E. If the product has been dropped or the cabinet has been damaged.
- F. If the product exhibits a distinctive change in performance.
- 13. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- 14. Do not use the telephone to report a gas leak in the vicinity of the leak.

SAVE THESE INSTRUCTIONS



BATTERY SAFETY INSTRUCTIONS

CAUTION:

To reduce the risk of fire or injury to persons, read and follow these instructions:

- 1. Use only the following type and size of handset battery pack:
Cordless Telephone Battery Pack
SANIK DC3.6V, 600 mAh, Ni-cd Battery Pack
- 2. Do not dispose of the battery in a fire. The cell may explode. Check with local codes for possible special disposal instructions.
- 3. Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- 4. Exercise care in handling the battery in order not to short the battery with conducting material such as rings, bracelets and keys. The battery or conductor may overheat and cause burns.
- 5. Recharge only the battery provided with or identified for use with this product. The battery may leak corrosive electrolyte or explode if it is not the correct type.
- 6. Do not attempt to rejuvenate the battery provided with or identified for use with this product by heating them. Sudden release of the battery electrolyte may occur causing burns or irritation to eyes or skin.
- 7. When inserting the batteries into this product, the proper polarity or direction must be observed. Reverse insertion of batteries can cause charging that may result in leakage or explosion.
- 8. Remove the batteries from this product if the product will not be used for a long period of time (several months or more) since during this time the battery could leak in the product.

9. Discard "dead" batteries as soon as possible since "dead" batteries are more likely to leak in a product.
10. Do not store this product, or the battery provided with or identified for use with this product, in high-temperature areas. Batteries that are stored in a freezer or refrigerator for the purpose of extending shelf life should be stabilized at room temperature prior to use after cold storage.
11. Disconnect telephone lines before installing batteries.

SAVE THESE INSTRUCTIONS



INSTALLATION PRECAUTIONS

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



FCC NOTICE

The FCC requires that you be advised of certain requirements involving the use of this telephone.

1. This telephone is Hearing Aid Compatible.
2. This equipment complies with 47C FR Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the registration number and Ringer Equivalence Number (REN) for this equipment. If requested, provide this information to your telephone company.
3. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all of those devices ring when your number is called. In most, but not all areas, the sum of the RENs of all devices should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, as determined by the REN, you should call your local telephone company to determine the maximum REN for your calling area.
4. If your telephone causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify

you in advance. But if advance notice is not practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC.

5. Your telephone company may make changes to its facilities, equipment, operations or procedures that could affect the proper operation of your equipment. If they do, you will be given advance notice so as to give you an opportunity to maintain uninterrupted service.
6. If you experience trouble with the telephone, please contact MEMOCORP Inc., 3200 Meridian Parkway, Weston, FL33331, USA at 1-800-919-3647 for repair/warranty information. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or you are sure that the equipment is not malfunctioning.
7. This equipment may not be used on coin service provided by the telephone company. Connection to party line service is subject to state tariffs. (Contact your state public utility commission or corporation commission for information).
8. **WARNING:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measure:

- Reorient and relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver needed.
- Consult the dealer of an experienced radio / TV technician for help.

9. Some cordless phones operate at frequencies that may cause interference to nearby TVs and VCRs; To minimize or prevent such interference, the base of the cordless phone should not be placed near or on top of a TV or VCR. If interference is experienced, moving the cordless telephone farther away from the TV or VCR will often reduce or eliminate the interference.
10. USOC Jack type is RJ11C and the compatible Jack is Part 68 compliance.

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GETTING TO KNOW YOUR NEW PHONE

IMPORTANT: Subscription to Caller ID (CID) / Call Waiting ID services from your local phone company is required for using the Caller ID / Call Waiting ID features of the unit.

Your new telephone gives you the ultimate in cordless telephone sound quality with the luxury of Caller ID and Call Waiting ID.

This is your first cordless telephone, you will soon discover that your cordless is similar to regular telephones, except without the cord. If you have owned a cordless in the past, you will discover that the telephone is the most powerful and full-functioned Call Waiting ID cordless telephone on the market, some key features are:

- 40 name and number Caller ID / Call Waiting ID memory (Caller List)
- 20 name and number programmable memory (Directory)
- Hearing -aid compatibility
- Automatic or manual selection of the clearest of 40 channels

Unlike regular telephones, your cordless does not work during power failures. We do not recommend you to use a cordless telephone as the only phone in your residence.

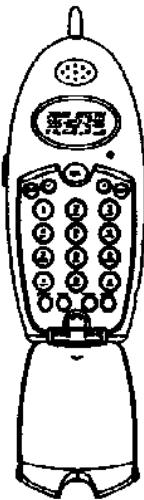
INTRODUCTION TO CALLER ID AND CALL WAITING ID

The unit's Caller ID / Call Waiting ID devices allow you to take advantage of the Caller Identification delivery service offered by your local telephone company. For more information, you can refer to the following Question and Answer table:

QUESTIONS	ANSWERS
What is Caller ID?	Caller ID is a device that identifies the calling party before you answer a call. This device can be used to screen unwanted calls and eliminate harassment from annoying calls.
What is Call Waiting ID?	Call Waiting ID is a device that identifies the call waiting party before you answer a call.
How does Caller ID and Call Waiting ID work?	When used with Caller ID / Call Waiting ID service, the Caller ID / Call Waiting ID device displays the name (if available), and the telephone number (if available) of the person calling before you answer your telephone.
Who provides Caller ID service?	Your local telephone company. However, not all local telephone companies provide Caller ID service. Please call your local phone company to confirm that the service is available before you install the device.
How can I activate my Caller ID?	For your Caller ID unit to function, you must first arrange with your local telephone company to have Caller ID / Call Waiting ID service installed on your line. There is an extra charge added to your monthly telephone bill for this service. Before using this unit, please read this instruction manual carefully.

DESCRIPTION

CONTROLS' LOCATION AND FUNCTION

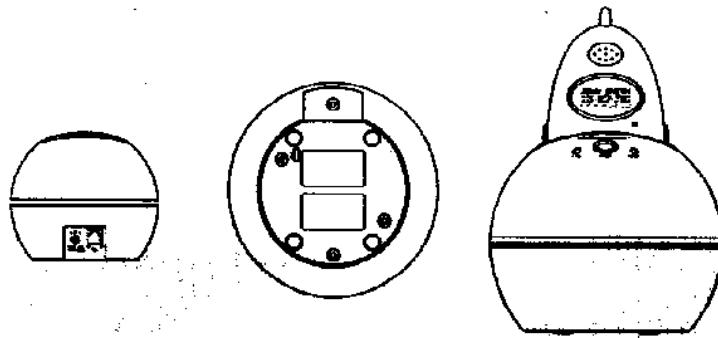


(Figure 1)

HANDSET CONTROL

1. **LCD Display:** Shows call information, phone status, prompts and directory entries.
2. **TALK Button:** Press this button to place a call, answer a call, or end a call.
3. **OPTION Button:** During you view the caller list, press to place a long distance call or to place a local call.
- 4.5. **^ (UP) / V (DOWN) Button:** Allows you to adjust the handset volume (3 steps) in TALK mode. It also allows you to view the caller list or / and directory.
6. **SHIFT LEFT Button:** Press to move left on large LCD Display.
7. **PROG / SCAN Button:** While in standby mode, this button allows you to set the handset in Programming mode. While in Talk mode, it is used to manually select one of the 40 operating channels when you experience interference on the handset.
8. **DIR / SAVE Button:** Allows you to retrieve a memory (name and phone number) from the personal directory (up to 20 memories). Saves the changes on the listed items.
9. **Microphone:** Used for speaking with callers.
10. **Flip Key Cover:** Used to cover the keys.

11. **EDIT/FLASH Button:** (EDIT) Press to edit listed items. (FLASH) Momentarily hangs up the phone to access custom calling features such as Call waiting or Three-way calling provided by your local phone company.
12. **DEL (Delete) / RE/PA (Redial/Pause) Button:** (Delete) Press and hold down to delete items (Redial). Press to redial the last number you dialed. (Pause) Press to insert pause while dialing.
13. **Headset Jack:** A jack located on the side of the handset used for connecting your headset to enjoy a hands-free communication.
14. **SHIFT RIGHT Button:** Press to move right on large LCD Display.
15. **CALLS Button:** Press to see the caller list.
16. **MSG/NEW CALL LED Indicator:** Red LED blinks when you have new message(s) and call(s).
17. **Receiver:** Allows you to hear calls.



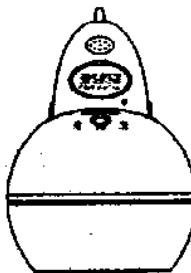
(Figure 2)

BASE UNIT CONTROLS:

1. **4VDC Adapter Jack:** A jack located on the rear side of the base unit used for connecting the adapter to the base unit.
2. **TEL LINE Jack:** Accepts line cord to make connection with modular type telephone outlet.
3. **T / P (TONE / PULSE) Switch:** Allows you to select the appropriate dialing service. TONE for tone dialing or PULSE for rotary service.
4. **IN USE LED Indicator:** Lights up steadily when the phone is in talk mode and turns off when the handset is not in use. Also lights up steadily when paging the handset.
5. **CHARGE LED Indicator:** Lights up steadily when the handset is being charged on the base and turns off when the handset is removed from its cradle.
6. **PAGE Button:** Allows you to locate the handset when it is not on the base.
7. **Charge Terminals:** Used for charging the handset battery.

DESKTOP USE

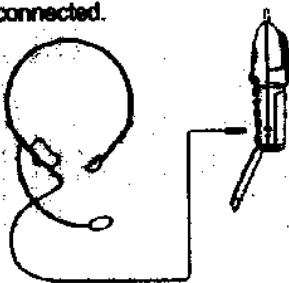
Connect the telephone line cord to the TEL LINE jack on the rear of the base unit and connect the opposite end to the telephone modular jack.



(Figure 3)

CONNECTING THE HEADSET

For hands free conversation, a headset (not included) is connected to the headset jack as shown in Figure 4. The handset receiver and microphone are disabled when the headset is connected.



(Figure 4)

Press the TALK button to answer or place a call using the headset. Refer to the manufacturer's headset manual for more details.

POWER INSTALLATION

BASE UNIT POWER CONNECTION

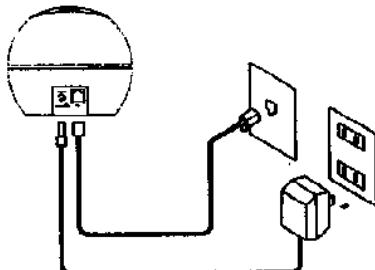


CAUTION:

You must use a Class 2 Power Source 9VDC 300mA. The plug should correctly

fit the base unit's adapter jack.

1. Plug the adapter into a standard AC outlet.
2. Insert the small plug into the adapter jack on the rear of shown in the base as Figure 8.



(Figure 5)

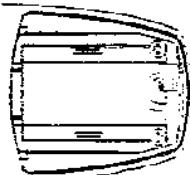
HANDSET BATTERY INSTALLATION



CAUTION:

Use only the Nickel Metal Hydride (Ni-MH) battery type included with this unit. Use of other battery types may cause injuries or damage. Ensure to insert the correct battery polarity as shown on the battery compartment during the battery installation.

1. Remove the battery compartment cover of the handset by pressing the top of the cover and sliding it down.
2. Connect the rechargeable Ni-MH battery as shown on Figure 9.
3. Insert the Ni-MH battery into the battery compartment of the handset.



(Figure 6)

4. Slide the battery compartment cover firmly in its closed position.

INITIAL SETUP

Before you can use your cordless telephone, the handset must be charged for at least 14 hours. See charging instruction in the **MAXIMIZING BATTERY LIFE** section.

SETTING THE TONE / PULSE MODE

Select the appropriate dialing service by moving the T / P (TONE / PULSE) switch at the rear side of the base unit:

- T (TONE) for Tone service, or
- P (PULSE) for Rotary service.



T / P

(Figure 7)

SETTING THE HANDSET RINGER ON / OFF MODE

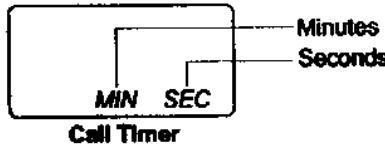
The handset must be set to ring ON mode in order to ring when receiving an incoming call. See PROGRAMS OPERATION section on page 21.

TELEPHONE OPERATION

TO PLACE A CALL

1. Press the TALK button on the handset. The Call Timer starts to count. The base unit IN USE LED indicator will light up.
2. Listen for a dial tone.
3. Dial the telephone number. The phone numbers appear on the LCD Display as you enter the number.
4. When finished with your call, press the TALK button or place the handset on the base unit. The base IN USE LED indicator will turn off.

NOTE: The call timer will start to count once you press the TALK button.



TO RECEIVE A CALL

NOTE: If you are expecting incoming calls, the handset must be programmed to RING ON mode.

A. IF THE HANDSET IS ON THE BASE UNIT

1. Since the unit features "Auto-Answer", simply pick up the handset from the base cradle when the phone rings. The LCD Display will show "TALKING".
2. Start your conversation.
3. To end your conversation, either press the TALK button or place the handset on the base unit. The base IN USE LED indicator will turn off.

B. IF THE HANDSET IS OUT OF THE BASE UNIT

1. When the phone rings, press the TALK button on the handset. The LCD Display will show "TALKING" and the base unit IN USE LED will light up.
2. Start your conversation.
3. To end your conversation, either press the TALK button or place the handset on the base unit. The base IN USE LED indicator will turn off.

LAST NUMBER REDIAL

A. AFTER HEARING A BUSY TONE WHEN PLACING A CALL

1. If you get a busy tone, press handset TALK button to hang up.
2. Press the handset TALK button again and listen for a dial tone.
3. Press the handset RE/PA button. This will automatically redial the last telephone number you called (Up to 32 digits).
4. When finished with your call, press the TALK button or place the handset on the base unit. The base IN USE LED Indicator will turn off.

B. WHEN THE HANDSET IS OFF THE BASE UNIT AND IN STANDBY MODE

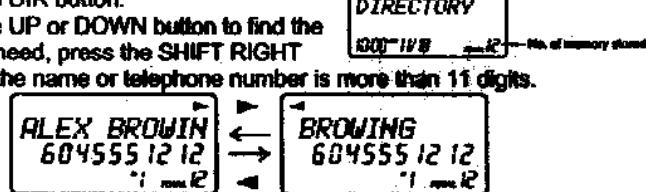
1. Press the TALK button on the handset and listen for a dial tone.
2. Press the RE/PA button. This will automatically redial the last telephone number you called (Up to 32 digits).
3. When finished with your call, press the TALK button or place the handset on the base unit. The base IN USE LED Indicator will turn off.

NAME AND TELEPHONE NUMBER DIRECTORY

This DIRECTORY lets you scroll through the list to find the person you need for one touch dialing. You can store up to 20 names and telephone numbers in the Memory.

A. VIEWING THE DIRECTORY

1. Press the DIR button.
2. Press the UP or DOWN button to find the one you need, press the SHIFT RIGHT button if the name or telephone number is more than 11 digits.



NOTE: To exit the DIRECTORY List at anytime, press the DIR button.

B. SPEED VIEWING THE DIRECTORY

1. Press the DIR button.
2. Enter the first letter of a name. (See page 14 for detail of entering a letter)
3. Press the DOWN button to find all names with same first letter.

SAVING IN THE DIRECTORY

1. Press the DIR button.
2. Press the EDIT button.
3. Use the TELEPHONE KEYPAD button (0~9) to enter the name. (see page 30 for detail) you can store up to 15 characters.
4. Press the DOWN button once.
5. Enter the telephone number using the TELEPHONE KEYPAD button (0~9). You can store up to 16 digits.

6. Press and hold down the SAVE button.

7. Press the DIR button to go back to STANDBY mode.

NOTE: If no active buttons are pressed for 20 seconds, the LCD Display will automatically return to STANDBY mode. It will not save a duplicate telephone number or a name without the corresponding telephone number in the DIRECTORY.

A. PREFERRED CALLS (VIP)

You can assign PREFERRED CALL which will generate a special ringer sound at the start of the second ring to any welcome caller in the directory.

1. Press the DIR button.
2. Press the UP or DOWN button or enter the first letter of a name to find the one you need.
3. Press the PROG button once. The LCD Display will show "VIP".
4. Press and hold down the SAVE button to save the preferred call and go back to STANDBY mode.

B. BLOCKED CALLS

You can assign a BLOCKED CALL which will disable the ringer sound from the second ring to any caller in the directory.

1. Press the DIR button.
2. Press the UP or DOWN button or enter the first letter of a name to find the one you need.
3. Press the PROG button twice. The LCD Display will show "REJ".
4. Press and hold down the SAVE button to save the preferred call and go back to STANDBY mode.

TELEPHONE KEYPAD CHARACTERS

The TELEPHONE KEYPAD buttons (1-9) are used to enter the characters when entering names. Press the appropriate KEYPAD button to get the following characters.

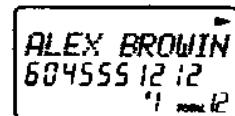
KEYPAD BUTTON	CHARACTERS
1	Space & () , * , 1
2	A B C 2
3	D E F 3
4	G H I 4
5	J K L 5
6	M N O 6
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	0

For example, if you want to enter the character "C", press the "2" KEYPAD button, the first character displayed will be "A". Press the "2" button again to display "B", and press again to display the letter "C".

To enter the next character, press the appropriate button. If, however, the next character is on the same button as the previous character, you will first need to press the SHIFT RIGHT ► button. Pressing the SHIFT RIGHT ► button a second time will produce a space. If you want to change any character, you can go back to the incorrect character by pressing the SHIFT LEFT ◀ button. To delete the character inside the cursor "■", press and hold the DEL button.

EDITING NAME AND NUMBER IN THE DIRECTORY

1. Press the DIR button.
2. Press the UP or DOWN button to find the one you want to edit.
3. Press the EDIT button to edit the name.



ALEX BROWN
604555 12 12
"1 2"

4. Press and hold the SHIFT LEFT ◀ or RIGHT ► button to move the cursor to the letter or number you want to change.
To erase, press the DEL button.
To add, use the TELEPHONE KEYPAD buttons (0-9). (see page 17 for details.)
5. Press the UP or DOWN button to edit the number.
6. Press and hold the SHIFT LEFT ◀ or RIGHT ► button to move the cursor to the number you want to change.
To erase the number on the left of the cursor, press and hold the DEL button.
To add, use the TELEPHONE KEYPAD buttons (0-9). (see page 17 for details.)
7. Press and hold down the SAVE button to confirm.



ALEX BROWN
604555 12 12
"1 2"

cursor is blinking

IMPORTANT: It is not advisable to save a telephone number without the corresponding name in the DIRECTORY. This will lead to improper displays on Private and Out of Area calls.

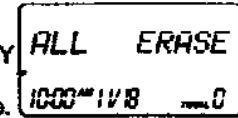
NOTE: When no active buttons are pressed for 20 seconds, the LCD Display will automatically return to STANDBY mode.

PLACING CALLS FROM THE DIRECTORY

1. Press the DIR button.
2. Press the UP or DOWN button to find the one you want to call.
3. Press the OPTION button to select call number.
4. Press TALK to start conversation.
5. To end your conversation, either press the TALK button or place the handset on the base unit.

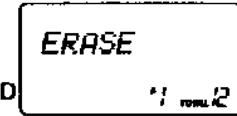
DELETING ALL RECORDS IN THE DIRECTORY

1. Press the DIR button.
2. Press and hold down the DEL button at STANDBY mode.
3. Press the DIR button to return to STANDBY mode.



SELECTIVE DELETING IN THE DIRECTORY

1. Press the DIR button.
2. Press the UP or DOWN button to find the one you want to delete.
3. Press and hold down the DEL button, then the LCD Display will display the next item in the directory.
4. Press the DIR button to return to STANDBY mode.



MIXED MODE DIALING (Temporary Pulse to Tone Dialing)

1. If you only have pulse (rotary dialing) service in your area and want to access Tone services (Bank by Phone, etc.), ensure that the T/P (Tone/Pulse) switch is set to the Pulse position.
2. Press the TONE (*) button once to switch from Pulse to Tone dialing temporarily. Pulse dialing mode resumes when the call is ended.

PAUSE FUNCTION

- In some cases, such as PABX or long distance service, a pause may be needed in the dialing sequence. Pressing the handset RE / PA button inserts the programmed time interval between dialed numbers.

FLASH FUNCTION

- Used to access custom calling features such as Call Waiting or Three-Way Calling provided by your local phone company. Flash can also be used to restore a dial tone to make a new call.

CHANNEL SELECTION (40 Channels)

- Your cordless telephone lets you select a channel from the 40 frequencies available to transmit signals between the base unit and handset. If the existing channel becomes noisy or starts having interference, you can either move closer to the base unit or press the PROG / SCAN button on the handset until a better reception is found.

OUT OF RANGE WARNING

- The handset and base unit communicate up to a certain maximum range. The distance can be affected by weather, power lines, or even other cordless telephone.
- If you far away from the base unit, the handset beeps and "OUT RANGE" is shown on the LCD Display to warn you that the background noise level is too high for proper communication between the handset and the base unit.
- When you hear this sound and see the "OUT RANGE" display, you should move closer to the base unit. Otherwise, the call will automatically cut off after 20 seconds.

LOW BATTERY WARNING

- When the handset battery voltage level is low, the handset LCD Display shows "LOW BATTERY".
- Return the handset on the base cradle to charge.

PAGING FUNCTION

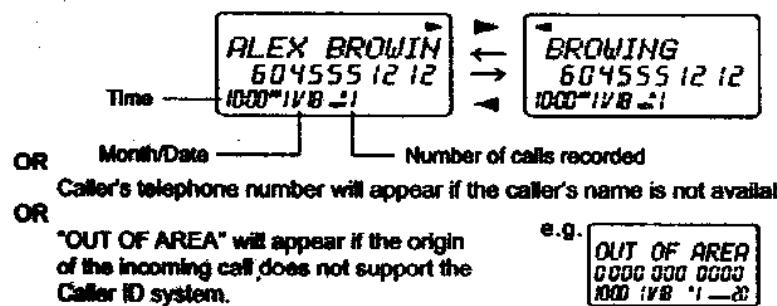
- If you have misplaced the handset or need to alert the person nearby the handset, press the PAGE button on the base unit. Each press of this button will activate the handset to beep for 20 seconds and LCD Display shows "PAGING" while it is being paged by the base unit.

NOTE: Even if the handset is in RING OFF mode, the base unit can page the handset.

CALLING OPERATION

VIEW CALLER INFORMATION DURING INCOMING CALLS

1. When there is an incoming call, the name and the telephone number of the caller will automatically appear after the first ring. Press the SHIFT RIGHT button to view a name of more than 11 digits.



OR

"UNKNOWN" will appear if the origin of the incoming call has no name and does not support the Caller ID system.

e.g.

UNKNOWN
uuuu uuuu uuuu
1000-1111 1 20

Unknown name
0 is Out of Area

OR

"PRIVATE" and/or "P- ---" will appear if the caller's name and/or telephone number is blocked.

OR

"ERROR" will appear if the wrong data was received from the telephone line.

OR

The name stored in the DIRECTORY will appear for an incoming call with matching telephone numbers.

"MSG Waiting" (Message Waiting)

The MSG / NEW CALL LED indicator will blink when there is a message for you from your telephone company if you have subscribed to Voice Mail message service and if you have requested Visual Message Indication from your local telephone company. "MSG" will appear on the LCD Display in STANDBY mode. To remove the MESSAGE WAITING indication, see page 26 for detail.

CALL WAITING

When you subscribe to Call Waiting service from your local telephone company, this telephone will display the name and number of the second caller while you are having a conversation.

1. When you are having a conversation, this telephone will automatically display the name and number of the second caller.
2. Press the FLASH button to answer the second caller. The first caller's name and number will be displayed.
3. When you have finished, press the FLASH button to continue with your conversation with the first caller.

JIM CARRY
800-2-10-8950
00 MIN 18 SEC L2

2ND CALLER

ALEX BROWN
804-555-1212
00 MIN 18 SEC

1ST CALLER

"CALL-FWD" (Forwarded Call)

Appears on the upper left hand side, when the incoming call has been assigned to your telephone number.

"L-D-C" (Long Distance Call)

Appears on the upper left hand side, when the incoming call is a long distance call and the service is provided by your local telephone company.

CALLER LIST

Records call information for up to 40 incoming calls such as caller's name and telephone number together with the date and time of the call. After recording a new incoming call, the NEW CALL indicator will blink and the display will look as shown below:

RING: ON	No. of new calls.
1000 "1/18 20...20	Maximum calls = 40

VIEWING THE CALLER LIST

1. Press CALLS button, then press the DOWN button to view the latest record, or press the UP button to view the first record, press the SHIFT RIGHT ➤ button if the name has more than 11 digits.

ALEX BROWIN 604555 12 12 1000 "1/18 21	◀	▶	BROWING 604555 12 12 1000 "1/18 21	◀
--	---	---	--	---

2. Press the DIR button to go back to STANDBY mode.
(If no active buttons are pressed for 20 seconds or you have viewed the last record in the Caller's List, the LCD Display will automatically return to STANDBY mode.)

PLACING A CALL FROM THE CALLER LIST

1. Press the CALLS button.
2. Press the DOWN button to select from the latest record, or press the UP button to select from the first record.
3. Press the OPTION button to select call number.
Press OPTION button key,
 - i. If area code matched, Press OPTION key;
 - a. One time to dial 1+7 digits
 - b. Two times to dial area code + 7 digits
 - c. Three times to dial 1 + area code + 7 digits
 - ii. If area code does not matched, Press OPTION key;
 - a. One time to dial 10 digits.
 - b. Two times to dial 1 + 10 digits
4. Press TALK button to dial out.
5. To end your conversation, either press the TALK button or place the handset on the base unit.

EDITING THE CALLER LIST BEFORE DIALING

1. Press the CALLS button.
2. Press the UP or DOWN button to find the caller.
3. Press the EDIT button.
4. Move the cursor by pressing and holding the SHIFT LEFT or RIGHT button around 2 seconds to the digit you want to change. To erase digits, press and hold the DEL button around 2 seconds. To add digits, use the TELEPHONE KEYPAD (0~9) buttons.

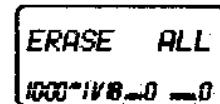
SAVING THE NAME AND NUMBER IN THE CALLER LIST INTO THE DIRECTORY

1. Press the CALLS button.
2. Press the UP or DOWN button to find the caller.
3. Press and hold down the SAVE button.

NOTE: It is not advisable to save a telephone number without the corresponding name. This will lead to improper display on Private and Out of Area calls.

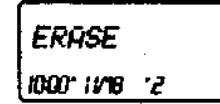
DELETING ALL RECORDS IN THE CALLER LIST

1. Press the CALLS button at standby mode.
2. Press and hold the DEL button around 2 seconds.
3. The LCD Display will automatically return to STANDBY mode.



SIMULTANEOUS DELETING IN THE CALLER LIST

1. Press the CALLS button.
2. Press the UP or DOWN button to find the caller.
3. Press and hold down the DEL button, then the LCD Display will show the next item in the directory.
4. Press the CALLS button to return to STANDBY mode.



PROGRAMS OPERATION

This unit contains the following special Programs:

A. LANGUAGE	F. PBX NUMBER
B. SILENT ON/OFF	G. PBX MODE
C. TIME SET	H. PAUSE TIME
D. AREA CODE	I. MSG WAITING
E. LCD CONTRAST	J. RING ON/OFF

To access, press the PROG button at standby mode, then press the TELEPHONE KEYPAD (0~9) or the UP or DOWN button.

ENGLISH
'1 _{mm} 10

KEYPAD Button #1

SILENT
OFF
'2 _{mm} 10

KEYPAD Button #2

TIME SET
1000~1118 '3 _{mm} 10

KEYPAD Button #3

AREA CODE
'4 _{mm} 10

KEYPAD Button #4

CONTRAST
2
'5 _{mm} 10

KEYPAD Button #5

PBX NO.
9
'6 _{mm} 10

KEYPAD Button #6

PBX MODE
OFF
'7 _{mm} 10

KEYPAD Button #7

PAUSE TIME
2
'8 _{mm} 10

KEYPAD Button #8

MSG WAITING
DELETE
'9 _{mm} 10

KEYPAD Button #9

RING: ON
'10 _{mm} 10

KEYPAD Button #0

A. LANGUAGE

This telephone offers English, Spanish and French languages for your convenience.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #1 button.
3. Press the EDIT button.
4. Press the UP or DOWN button to select the language you desire. English is the preset language.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to standby mode.

B. SILENT ON/OFF

This telephone will generate the first ring sound even in the BLOCKED CALL mode to indicate that you have an incoming call. To keep silent in BLOCKED CALL mode, you can turn off the first ring sound.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #2 button.
3. Press the EDIT button.
4. Press the UP or DOWN button. SILENT OFF is the preset mode.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to standby mode.

C. TIME SET

Set the date and time.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #3 button.
3. Press the EDIT button.
4. Use the TELEPHONE KEYPAD button to enter the month, date, hour, and minute. The cursor moves automatically after entering each item.
5. Press the TELEPHONE KEYPAD #1 for AM setting, or press the TELEPHONE KEYPAD #2 for PM setting.
6. Press the PROG button to go back to STANDBY mode.

NOTE: The date and time will automatically set, if you have subscribed to the Caller ID service from your local telephone company.

D. AREA CODE

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #4 button.
3. Press the EDIT button.
4. Use the TELEPHONE KEYPAD button to enter the AREA code.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to STANDBY mode.

E. LCD CONTRAST

This unit enables you to select 3 brightness levels for the Large LCD Display.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #5 button.

3. Press the EDIT button.
4. Press the UP or DOWN button to adjust the brightness of the display.
Level 2 is the preset brightness.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to STANDBY mode.

F. PBX NUMBER

This unit enables you to preset the PBX number (such as an 8 or 9) while you are using a switchboard system.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #6 button.
3. Press the EDIT button.
4. Press the UP or DOWN button. (9 is the preset PBX number.)
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to STANDBY mode.

G. PBX MODE

This unit enables you to turn ON/OFF the PBX system depending on the telephone system you are using.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #7 button.
3. Press the EDIT button.
4. Press the UP or DOWN button.
PBX MODE OFF - set for direct line access. The preset PBX mode is OFF.
PBX MODE ON - system connected to a switchboard system.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to STANDBY mode.

NOTE: When placing a call in PBX mode ON, this telephone will automatically add the PBX number and a pause time before the dialed telephone numbers.

H. PAUSE TIME

This unit enables you to adjust the pause time when placing a call using a switchboard system or dialing long distance calls.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #8 button.
3. Press the EDIT button.
4. Press the UP or DOWN button to adjust the pausing time.
The preset pause time is 2 seconds.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to STANDBY mode.

I. MSG WAITING (Message Waiting)

To turn off the Message Waiting LCD/LED indicator.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #9 button.
3. Press the EDIT button.
4. Press and hold down the SAVE button, the Message Waiting LCD/LED indicator turn off.

5. Press the PROG button to go back to STANDBY mode.

IMPORTANT: Message Waiting LCD LED indicator will automatically turn on, if you have subscribed to Voice Mail message service and if you have Visual Message Indication from your local telephone company.

J. **RING ON / OFF**

To turn on or off the ringing sound.

1. Press the PROG button.
2. Press the TELEPHONE KEYPAD #0 button.
3. Press the EDIT button.
4. Press the UP or DOWN button. RING ON is the preset mode.
5. Press and hold down the SAVE button.
6. Press the PROG button to go back to standby mode.

IMPROVING CORDLESS RECEPTION

Follow these guidelines to improve cordless sound quality:

- Select an area to install the unit where it is closest to the center of your home or office. This will improve the operating range of the unit.
- Keep the base unit away from electrical equipment. Radio Frequency Interference (RFI) is sometimes generated by these appliances, which can cause a degradation in cordless reception.
- Keep the handset batteries charged as much as possible. Weak handset batteries can limit the range of cordless operation.

MAXIMIZING BATTERY LIFE

Repeated use or recharge of Ni-Cd batteries without periodic full discharge results in reduced useable charge time. When you notice the useable charge duration decreasing, fully discharge the Ni-Cd battery and recharge as described:

DISCHARGING

1. Unplug the telephone line cord from the unit.
2. Make sure that the adapter is connected.
3. Lift the handset out of the base cradle.
4. Press the TALK button of the handset and start discharging.

Once LOW BATTERY appears on the LCD Display, it means that the battery level is low. Let it fully discharge for 12 hours. Once the Ni-Cd battery is fully discharged, you may now charge the battery to its full capacity.

CHARGING

1. Make sure the adapter and telephone line cord are connected to the unit.
2. Place the handset on the base cradle. The CHARGE LED indicator of the base unit will light steadily.
3. Leave the handset charging on the base for 14 hours continuously to get a maximum charge.
4. The unit is now ready for regular use. Discharge and charge the Ni-Cd battery again once you notice a decrease in the useable charge time.

MAINTENANCE

1. Your phone should be situated away from heat sources such as radiators, heaters, stoves or any other appliance that produces heat.
2. Use a slightly damp cloth to clean the plastic cabinet. A mild soap will help to remove grease or oil. Never use polish, solvents, abrasives or strong detergents since these can damage the finish.

TROUBLESHOOTING

A. THE HANDSET UNIT TROUBLESHOOTING TABLE

Common Problem	Possible Solution / Causes
Normal tone	<ul style="list-style-type: none">• Check that the telephone line cord connectors at both ends are pushed in firmly until they click.• If you had a power failure or had unplugged the base unit, replace the handset on the base unit for two to five seconds to reset the system.
Does not ring	<ul style="list-style-type: none">• Check the RING ON / OFF mode on the handset. Set to RING ON mode to enable the handset ringer.• Check that the telephone line cord connectors at both ends are pushed in firmly until they click.• You may have exceeded the Ringer Equivalence Number (REN) limit of how many phones can be connected to the same line. The REN total of all devices (printed on the bottom label of each unit) should not exceed five (5). Disconnect the appropriate units to lower the REN total.

No power on the handset unit	<ul style="list-style-type: none"> Check the Ni-Cd battery pack for proper connection inside the battery compartment on the handset. The handset rechargeable Ni-Cd battery pack may need charging.
Does not charge	<ul style="list-style-type: none"> Check the Ni-Cd battery pack for proper connection inside the battery compartment on the handset. Make sure the charging contacts on both the base unit and the handset are in contact during charging. The charging contacts and terminals may need cleaning with an alcohol-dampened swab.
Range is limited	<ul style="list-style-type: none"> Move the base unit so that it is centrally located in your residence or office and make sure that the base unit is not located near appliances. The handset Ni-Cd battery may be weak. Recharge this Ni-Cd battery. Refer to the section "Improving Cordless Reception".
Cells received flutters or fades	<ul style="list-style-type: none"> The handset rechargeable Ni-Cd battery pack may need charging.
Interference on reception	<ul style="list-style-type: none"> Choose an alternate channel using the SCAN button on the handset. Refer to the section "Improving Cordless Reception".
Excessive static	<ul style="list-style-type: none"> Refer to the section "Improving Cordless Reception".

B. CALLER ID SYSTEM TROUBLESHOOTING TABLE

Symptoms	Possible Solution / Cause
The Caller ID panel is blank	<ul style="list-style-type: none"> Check the power connection. Check the telephone line cord connections. Check the batteries for proper installation.
The Caller ID does not show the caller's name and / or phone number.	<ul style="list-style-type: none"> The Caller ID unit will not function until you have Caller ID service provided by your local phone company. Call your local phone company to have Caller ID installed on your telephone line. Check your telephone line connections. Make sure all connections are secure and connected. If you pick up the phone before the second ring, the caller information will not be correctly received. If you have telephone answering device (TAD) connected with the unit, set the TAD to answer after two rings or more. If it is a blocked call or an out-of-area call, the caller's name and / or phone number will not appear on the display. If only the caller's phone number appears on the display, it may be a Single Data Message Format (SDMF) call as opposed to a Multiple Data Message Format (MDMF) call. Please call your local phone company to inquire about the service you have.
Unknown characters such as "NO NAME" or "NO DATA" appear on the LCD display.	<ul style="list-style-type: none"> On rare occasions, the Caller ID information may not be received correctly by the telephone company may have a problem with the transmission. This is not the fault of your Caller ID unit. It can only capture and store the data that is transmitted.
Cannot get Call Waiting Identification on the LCD panel.	<ul style="list-style-type: none"> Subscription to Caller ID Call Waiting (CIDCW) is required from your local phone company for the CIDCW function to operate properly. Call your local phone company for details.

TECHNICAL INFORMATION

This cordless phone uses radio frequencies to allow mobility. There are certain difficulties in using radio frequencies with a cordless telephone. While these are normal, the following could affect the operation of your system.

NOTE: Electric pulse noise is present in most homes at one time or another. This noise is most intense during electrical storms. Certain kinds of electric equipment such as light dimmers, fluorescent bulbs, motors, and fans also generate noise pulses. Because radio frequencies are susceptible to these noise pulses, you may occasionally hear them in your handset. Generally, they are minor annoyances and should not be interpreted as defects in your system.

RANGE: Because radio frequencies are used, location of the base unit can affect operating range. Try several locations in your home or business and pick the one that gives you the clearest signal.

INTERFERENCE: Some electronic devices operate in and/or generate interference near the operating frequencies of your cordless telephone. While several protection circuits are used to prevent unwanted signals, there may be periods when these unwanted signals cause interference. If interference occurs frequently, it can be minimized or eliminated by lowering the height of your base antenna or by relocating the base unit. You can check for interference before selecting the final base unit location by plugging in the phone.



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