

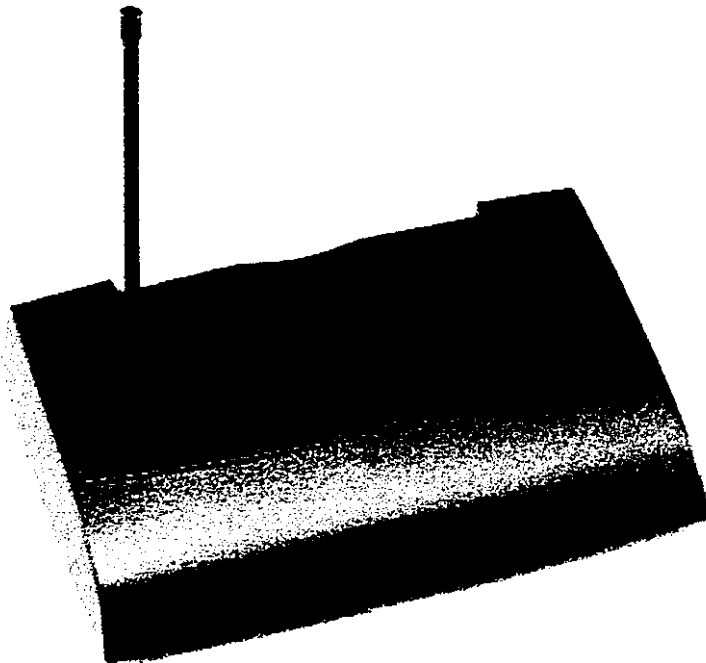
TECOM CO., LTD.
FCC ID.: D6XCTS400
EUT : Cordless Telephone System

Exhibit E User's Manual

brother®

CTS-400

Digital Cell Unit



OWNER'S MANUAL



Brother International Corporation has made every effort to ensure the technical accuracy of this manual. Features and technical data are subject to change without notice.

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WARNING

Brother International Corporation doesn't represent this unit to be waterproof. To reduce the risk of fire, electrical shock, or damage to the unit, do not expose this unit to rain or moisture.

IMPORTANT SAFETY INSTRUCTIONS

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electrical 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 dry cloth for cleaning.
 4. Do not use this product near water for example, near a sink or in a wet area.
 5. Do not place this product on an unstable cart, stand, or table. The telephone may fall, causing serious damage to the unit.
 6. To protect the product from overheating, do not block or cover any slots or openings in the unit. 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.
 8. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be damaged by persons walking on it.
 9. Do not overload wall outlets and extension cords, as this can result in the risk of fire or electrical shock.
 10. With the exception of maneuvering the dips switches as instructed in this manual, never push objects of any kind into this product through the cell unit slots, as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.
 11. To reduce the risk of electric shock, do not disassemble this product. Contact qualified service personnel 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 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 when following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment 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 distinct change in performance.
13. Do not use the telephone to report a gas leak in the vicinity of the leak.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the manual accompanying the equipment.

FCC INFORMATION

Part 15 of FCC Rules:

Some telephone company equipment generates and uses radio frequency energy that, if not properly installed, may cause interference to radio and television reception. The unit has been tested and found to meet the standards for a Class B computing device as specified in subpart J of Part 15 of the FCC rules.

These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If your unit causes interference to radio or television reception when it is in use, try the following to correct the problem:

1. Re-orient the receiver, television or radio antenna.
2. Relocate the television, radio or other receiver.
3. Plug the unit into an outlet that is not on the same circuit as the one used for your radio or television.

You may also refer to the FCC booklet: "How to Identify and Resolve Radio-Television Interference Problems" which can be ordered from U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Part 68 of FCC Rules:

This product complies with Part 68 of FCC Rules. Upon request by your telephone company, you must provide the FCC registration number and the REN. These numbers are both located on the bottom of the digital cell unit. The unit must not be connected to: 1) coin-operated systems, 2) party-line systems, and 3) electronic key telephone systems that do not have standard analog telephone extension ports.

This product has been tested and found to comply with all applicable UL and FCC standards. This product's design enables it to be connected to most telephone lines. However, each device you connect to the telephone line draws power. This power draw is known as the Ringer Equivalence Number (REN) which is identified on the bottom of the digital cell unit. If you use more than one device on the line, add up all the RENs. If the total is more than 5.0, your telephone(s) may not ring and your answering machine might not answer. If devices do not ring, remove one or more of the devices from the line.

Repair:

If it is determined that this product is malfunctioning, the FCC requires that it not be used. Unplug the unit from the wall outlet until the problem is corrected. Repairs can only be made by the manufacturer, its authorized agents, or by others authorized by the FCC.

Rights of the Telephone Company:

If the unit is causing harm to the telephone network, the Telephone Company may temporarily disconnect your telephone service. If necessary, they will notify you as soon as possible.

You will be given the opportunity to correct the problem and you will be informed of your right to file a complaint with the FCC, if you feel the Telephone Company acted improperly. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your unit. If such changes are to be implemented, you will be notified.

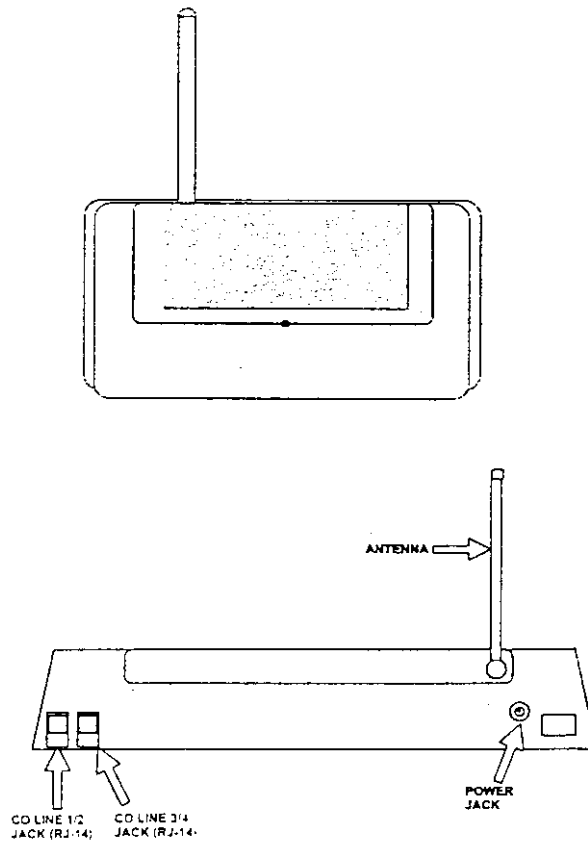
This system is Hearing Aid Compatible.

INTRODUCTION

1. Becoming Familiar With Your Cordless Telephone System

The CTS-400 system consists of one (1) or two (2) cell units and up to twelve (12) cordless handsets. Each cell provides two RF links (paths) for intercom and outside calling by any cordless handset.

The cell unit and its jacks are illustrated below.



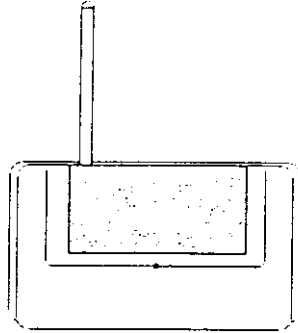
2. The Features

Your CTS-400 system provides many features such as:

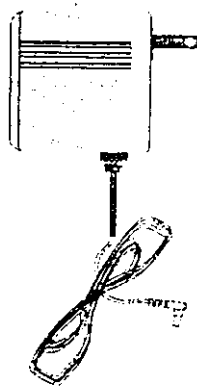
- Four (4) CO/PBX Line Capacity
- Tone/Pulse Dialing Modes
- Speed Dialing
- Last Number Redial
- Intercom Calling
- Paging to Executive Speakerphones
- Conference
- Call Transfer
- Hold
- Flash
- Pause
- Push-to-Mute
- Headset Compatibility
- Ringer and Receive Volume Controls
- Smart Charge Monitors Battery Charge to Prevent Overcharging
- Optional Caller ID Integration
- Hearing Aid Compatible

3. What's Included With Your Cell Unit

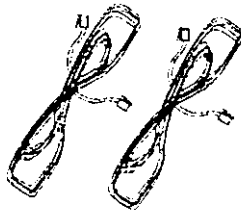
Cell Unit



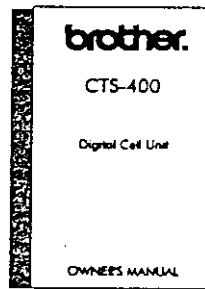
Power Adapter



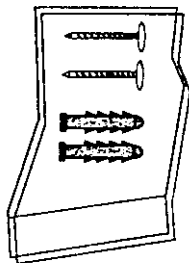
Line Cords



Owner's Manual



Wall Mounting
Screws & Anchors



4. Components of the CTS-400 System

4.1 Cordless Handset

The following features are provided with the cordless telephone:

- Four (4) CO Line/PBX Capacity
- Tone/Pulse Dialing Modes
- Speed Dialing (10 Number)
- Last Number Redial
- Intercom Calling
- Paging to Executive Speakerphone
- Conference
- Call Transfer
- Hold
- Flash
- Pause
- Push-to-Mute
- Headset Compatibility
- Ringer and Receive Volume Control
- Smart Charge Monitors Battery Charge to
Prevent Overcharging
- Optional Caller ID Integration
- Hearing Aid Compatible

4.2 Cell Unit

The multi-cell cordless system can be configured with one (1) or two (2) cell units. Each cell provides two RF links (paths) for intercom and outside calling by any cordless handset.

4.3 Line Cord Manager

The Line Cord Manager allows you to easily connect your equipment to the wall jack outlets and customize the wiring according to your preferences.

4.4 Executive Speakerphone

The following features are provided with the speakerphone:

- Handsfree Speakerphone
- Supertwist 2 x 16 Dot Matrix Liquid Crystal Display
- Four (4) CO Lines with Line Status Indication
- Intercom with Direct Station Select Buttons
- Line-In-Use Detection of Other Connected Telephones (fax, modem, etc.)
- Speed Dialing (18 Number)
- Call Forward to Cordless Handsets and Speakerphones
- Auto Busy Redial
- Page
- Ringer Enable/Disable
- Selectable Ring Tone
- Ringer and Receive Volume Control
- Privacy Release
- Conference
- Call Transfer
- Delayed Ring
- Optional Caller ID (Requires Caller ID Server)
- Hearing Aid Compatible

4.5 Caller ID Server

The optional Caller ID Server provides the telephones with Caller ID capability. The server enables the telephones to identify both the name and number (if provided by the Telephone Company) of a caller. Only one server is needed for each system. The server will store caller ID information for forty (40) calls received on any of four (4) caller ID lines.

You must subscribe to Caller ID service from your local telephone company.

INSTALLATION

1. Site Planning

For optimum operation, effective site planning is necessary. Once the cell unit is installed, no further maintenance is required. The cell unit should be positioned in the center of the coverage area, where transmission is unobstructed, to ensure better reception and range. The unit should not be installed in areas where excessive heat or humidity is present. Do not install the unit near items that generate electrical noise such as motors, fluorescent lights, etc. as they may effect the integrity of the system. When possible, avoid locating the cell unit directly behind metal objects or walls that could obstruct clear "line of sight" operation with the cordless handsets.

You may install the cell unit on the wall or desk top near a standard 120V AC outlet and telephone line jack. The cell unit requires 8 conductor (4 pair) twisted telephone wiring.

Note: The maximum loop distance for telephone wiring connecting to all cell units and Executive Speakerphones must not exceed 600 cable feet (using 24 AWG wiring).

2. Configuration

The system consists of a cell unit, cordless handsets, and speakerphones. Each cell unit provides two (2) voice channels for intercom and outside calls. You may accommodate up to twelve (12) handsets with one (1) or two (2) cell units. A system may consist of two (2) cell units used together to expand the coverage area or increase total number of simultaneously talking handsets.

3. Installing the Cell Unit

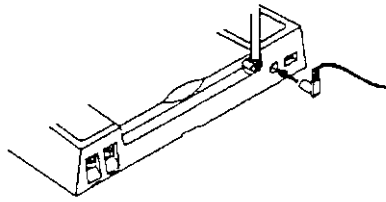
You may choose from two (2) installation options:

- locate the cell unit on a desk or tabletop, or
- mount the cell unit on the wall.

You will need to position the cell unit within ten (10) feet of a standard 120V AC outlet and a telephone jack wired for two (2) RJ-14 jacks (L1/L2 and L3/L4). If your wall jacks aren't configured in this manner, refer to Installing the Line Cord Manager, section 3.3.

3.1 Desk/Tabletop Mounting

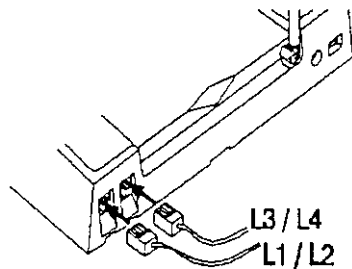
1. Plug the AC power cord into the back side of the cell unit near the antenna.



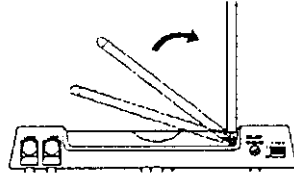
2. Plug one 2-pair telephone line cord into the cell unit jack labeled L1/L2 and the other end of this cord into the wall jack wired for outside lines 1 and 2.

Plug one end of the second line cord into the cell unit jack labeled L3/L4 and the other end into the wall jack wired for outside lines 3 and 4.

Caution: If the line cords are reversed, the cell unit will not communicate with the other cell unit or speakerphones.

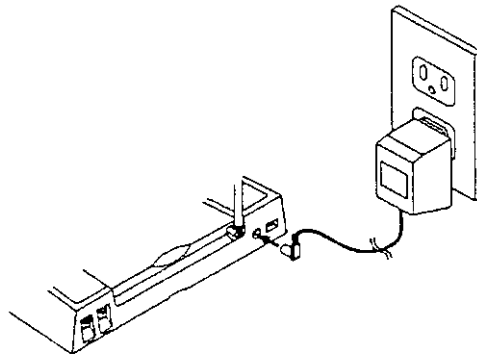


-
3. Rotate the antenna on the cell unit to a vertical position.



4. Plug the AC power cord adapter into a standard 120VAC wall outlet. Monitor the power lamp. It should be flashing fast during the power up process.

Note: Use only the AC power adapter provided with the cell unit.



5. Ensure that all cords are positioned to prevent tripping and rubbing which could create a potential electrical hazard.

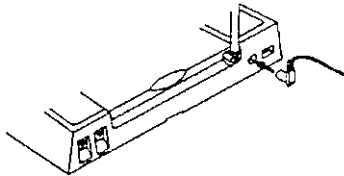
Refer to section 4 to program and send the digital system security code (SSC). After the first cell is operating and has the SSC programmed, the second cell will be automatically updated with the SSC by the first cell. Install the second cell unit at this time (optional).

For your convenience, an installation checklist is provided at the back of this manual.

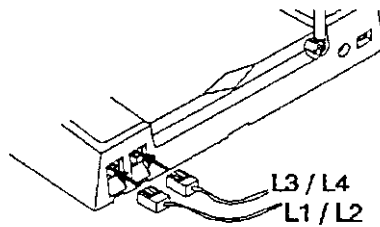
3.2 Wall Mounting - Directly on the Wall

You may mount the cell directly on the wall. You will want to ensure the following:

- The location where the cell will be mounted should be away from electrical cables, pipes, or other items which may be punctured when the cell is attached to the wall.
 - Locate the cell unit within ten (10) feet of a 120VAC outlet.
 - Run 4-pair twisted telephone cabling to the cell site and mount the wall jack within seven (7) feet of the cell unit.
1. Using the template at the back of this manual, insert the two (2) screws and anchoring devices into the wall 3-5/16 inches apart horizontally, allowing approximately 1/5 inches between the wall and screw heads for mounting the cell. Ensure that the screws are secure.
 2. Plug the AC power cord into the back side of the cell unit near the antenna.

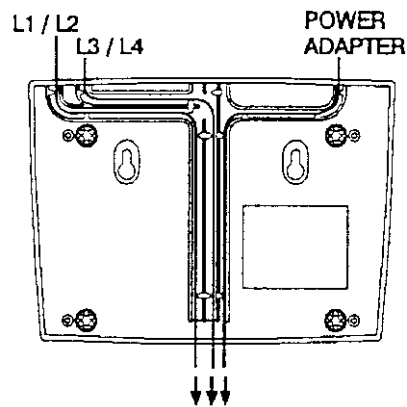


3. Plug one telephone line cord into the jack labeled L1/L2 and the other into the jack labeled L3/L4 on the back side of the cell unit.

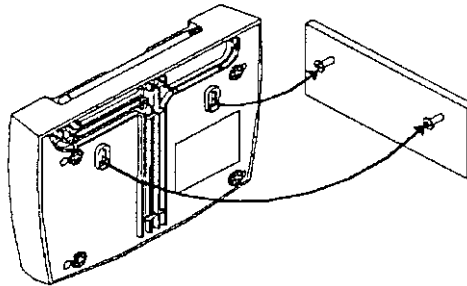


If the AC outlet and/or telephone jacks are located below the cell unit refer to Steps 4 and 5.

4. Route the power cord and telephone cords through the channels on the bottom of the cell unit.



5. Position the cell unit on the two screws in the wall and slide the cell downward to secure it to the wall.




6. Raise the antenna on the cell unit
-

-
7. Plug the telephone line cords into the telephone wall jacks. Observe L1/L2 and L3/L4 polarity.

Caution: If the telephone line cords are reversed, the cell unit will not communicate with the other cell unit or speakerphones.

8. Plug the AC power cord adapter into a standard 120V AC wall outlet

Note: Use only the AC power adapter provided with the cell unit. 

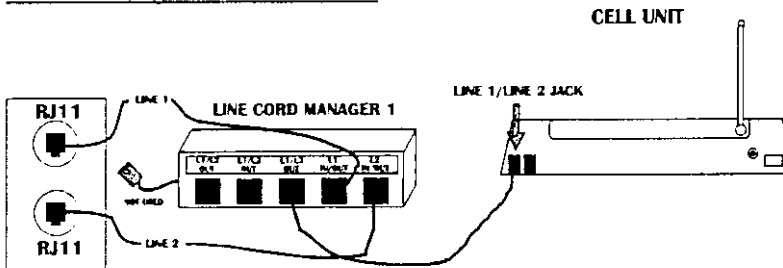
9. Ensure that all cords are positioned to prevent tripping and rubbing which could create a potential electrical hazard.

3.3 Installing the Line Cord Managers

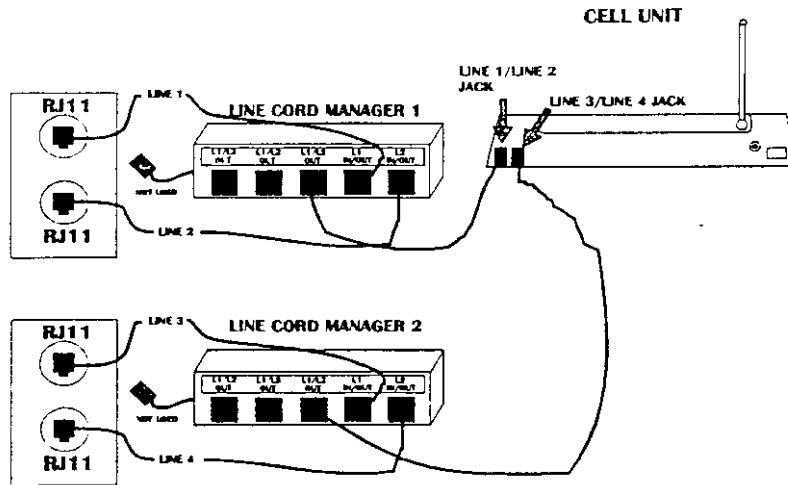
You can customize the installation of the cell unit and other equipment (speakerphone, facsimile, etc.) using the Line Cord Manager(s). The Line Cord Managers are typically used in the following wiring scenarios:

- Two Lines using Two RJ11 Wall Jacks
- Four Lines using Four RJ11 Wall Jacks
- Two Lines using One RJ14 Wall Jack
- Four Lines using Two RJ14 Wall Jacks

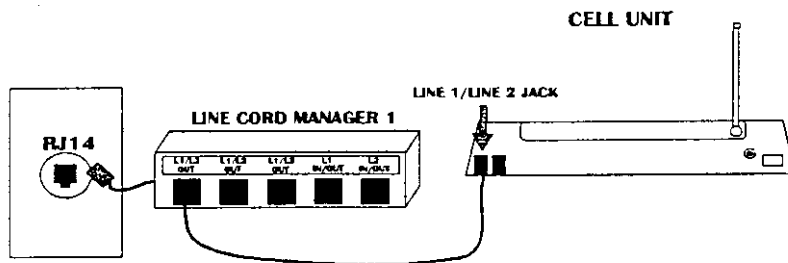
Two Lines using Two RJ11 Wall Jacks



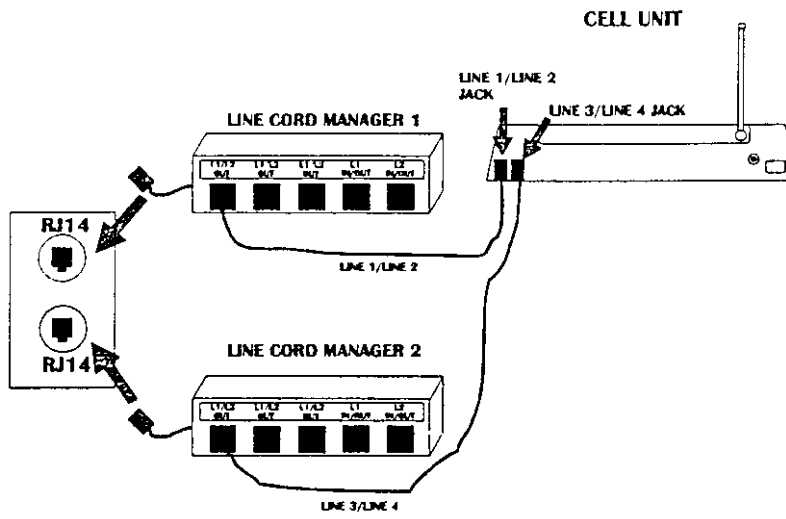
Four Lines using Four RJ11 Wall Jacks



Two Lines using One RJ14 Wall Jack



Four Lines using Two RJ14 Wall Jacks



4. Setting the System Security Code

The system security code prevents interference or unauthorized use from other systems. A unique system security code is important to protect your privacy.

The security code is first programmed on the handset and is then transmitted to the cell unit. All cordless handsets must be programmed for the same security code. Only one handset needs to transmit the code to the cell via the "Air Link" procedure in section 4.2.

4.1 Cordless Handset

1. Press **MEM** .



2. Dial **#** HEADSET . The display will show:



3. Dial **#** HEADSET . The display will show the current programmed code (this area will be blank if a code has not yet been programmed).
4. Dial a 6-digit security code. The code may consist of 0-9, *, #, flash, and pause.
5. Press **MEM** .

4.2 Air Link

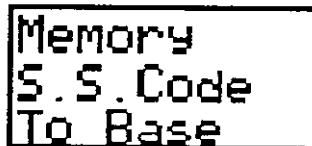
The system security code (SSC) should already be programmed for the cordless handset. Once the first cell unit is plugged in, you have approximately 10 seconds to perform the following steps.

1. Power-up the first cell unit (ID 1) and move the cordless handset close to it.
2. Press **MEM**.
3. Dial **#** MEMORY. The display will show:



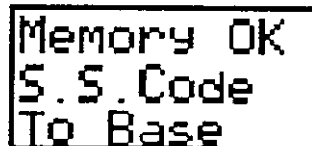
Memory
S.S. Code
XXXXXXXX

4. Press and hold ***10*** until you hear a confirmation tone. The display will show:



Memory
S.S. Code
To Base

5. Once you hear a confirmation tone, you may release the key. The display will show:



Memory OK
S.S. Code
To Base


Note: If you have a second cell unit installed, after one (1) minute the second cell unit will operate by the same system security code. To change the code in the future, repeat the above steps.

MAINTENANCE

1. Resetting the Cordless Handset

Resetting the handset will return all programmed settings to default values.

1. Press **MEM**.
2. Dial ***100**.
3. Press **▲**. The display shows:



Memory
Reset ?

4. Press **MEM**. The display shows:



Memory OK
Reset

Note: If the System Security Code has been programmed, the handset will not be able to link with the cell and will display cell unit 0 ("BS:0 or No Svc").

CTS-400 PRODUCT SPECIFICATIONS

The Brother *CTS-400* Digital Cordless Telephone System can be installed behind any PBX, or as a stand alone SOHO (small office home office) application with Brother Executive Speakerphones.

Capacity

System Capacity:

- 2 Digital Cell Units (DCU)
- Up to 12 Cordless Handsets*
- Up to 12 Executive Speakerphones*
- 1 Inter-Cell Intercom Link
- 4 CO/PBX/Centrex Lines

DCU Capacity:

- 2 RF Talk Links
- 4 CO/PBX/Centrex Lines
- 2 Intra-Cell Intercom Links
- 12 Cordless Handsets

Security Codes: 3-7 million

*Only twelve (12) telephones (cordless or speakerphone) total per system.

CTS-400 Digital Cell Unit (DCU)

- Physical: Modular, Desk/Wall mounted, Diagnostic LED, High Gain
Omni-Antenna
- Power: Class 2 Transformer
Input: 120VAC, 60Hz, 8.5W
Output: 12VDC, 400mA
10 Ft. Cord
- Electrical: 4 CO/PBX Lines, 2 Wire, Loop Start
600 Ohms, 24/48VDC
Ringer Equivalence 0.3B
-

Mechanical: 2 each RJ-14C Jack
Dip Switch ID Setting
Power Jack 12VDC

RF: 902-928 MHz
Digital TDMA

Dimensions: 217 mm long
152 mm wide
39 mm high

Weight: 17.3 oz.

Specifications, features, and availability of optional accessories are all subject to change without prior notice.

CTS-400 SYSTEM INSTALLATION CHECKLIST

1. Unpack the first cell unit.
2. Power up the cell unit and verify that the telephone line cords are plugged in properly.
3. Is the power lamp flashing fast? (Cell powering up, no System Security Code (SSC) programmed).
4. Install the battery in the CTS-400 cordless handset. Check to see if the cell ID appears in the handset display.
5. Program the 6-digit SSC in the handset. (MEM, #, #, code, MEM programming sequence).
6. Program a new extension number (handset ID 11-22) (MEM, *, extension number, MEM programming sequence).
7. Send the SSC to the cell (MEM, #, press and hold * programming sequence), within 10 seconds after power up.
8. Press Line 1-4 buttons and verify dial tone on all CO lines at the cell.

Repeat above Steps 1-3 for the second optional cell unit.

Unpack other CTS-400 cordless handsets.

**CTS-400 CELL UNIT
WALL MOUNTING TEMPLATE**



3-5/16 Inches





brother®

CTS-400SA





brother®

CTS-400

Cordless Handset

OWNER'S MANUAL





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WARNING

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NICKEL METAL HYDRIDE BATTERY

WARNING

One Nickel Metal Hydride battery is provided with each handset. This battery may not be fully charged when received. Charge the battery before using the cordless handset. Refer to "Charging the Handset Battery" in the Installation section of this manual.

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the manual accompanying the equipment.

IMPORTANT SAFETY INSTRUCTIONS

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electrical 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 dry cloth for cleaning.
 4. Do not use this product near water; for example, near a sink or in a wet area.
 5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the unit.
 6. To protect the product from overheating, do not block or cover any slots or openings in the unit. 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.
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7. This product should be operated only from the type of power source indicated on the marking label.
 8. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be damaged by persons walking on it.
 9. Do not overload wall outlets and extension cords, as this can result in the risk of fire or electrical shock.
 10. Never push objects of any kind into this product as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.
 11. To reduce the risk of electric shock, do not disassemble this product. Contact qualified service personnel 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 product 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 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 when following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment 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 distinct change in performance.
 13. Do not use the product to report a gas leak in the vicinity of the leak.

CAUTION

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

1. Use only the appropriate type and size battery pack specified in this manual.
 2. Do not dispose of the battery pack in a fire. Refer to the Installation section concerning proper battery disposal.
 3. Do not open or mutilate the battery pack. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
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4. Exercise care in handling the battery in order not to short out the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
 5. Charge the battery pack provided with or identified for use with this product only in accordance with the instructions and limitations specified in the instruction manual provided for this product.
 6. Observe proper polarity orientation between the battery pack and battery charger.

SAVE THESE INSTRUCTIONS

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These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If your unit causes interference to radio or television reception when it is in use, try the following to correct the problem:

1. Re-orient the receiver, television or radio antenna.
2. Relocate the television, radio or other receiver.
3. Plug the unit into an outlet that is not on the same circuit as the one used for your radio or television.

You may also refer to the FCC booklet: "How to Identify and Resolve Radio-Television Interference Problems" which can be ordered from U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

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This product complies with Part 68 of FCC Rules. Upon request by your telephone company, you must provide the FCC registration number and the REN. These numbers are both located on the bottom of the digital cell unit. The unit must not be connected to: 1) coin-operated systems, 2) party-line systems, and 3) electronic

key telephone systems that do not have standard analog telephone extension ports.

This product has been tested and found to comply with all applicable UL and FCC standards. This product's design enables it to be connected to most telephone lines. However, each device you connect to the telephone line draws power. This power draw is known as the Ringer Equivalence Number (REN) which is identified on the bottom of the digital cell unit. If you use more than one device on the line, add up all the RENs. If the total is more than 5.0, your telephone(s) may not ring and your answering machine might not answer. If devices do not ring, remove one or more of the devices from the line.

Repair:

If it is determined that this product is malfunctioning, the FCC requires that it not be used. Unplug the unit from the wall outlet until the problem is corrected. Repairs can only be made by the manufacturer, its authorized agents, or by others authorized by the FCC.

Rights of the Telephone Company:

If the unit is causing harm to the telephone network, the Telephone Company may temporarily disconnect your telephone service. If necessary, they will notify you as soon as possible.

You will be given the opportunity to correct the problem and you will be informed of your right to file a complaint with the FCC, if you feel the Telephone Company acted improperly. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your unit. If such changes are to be implemented, you will be notified.

This system is Hearing Aid Compatible.

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PRODUCT SPECIFICATIONS

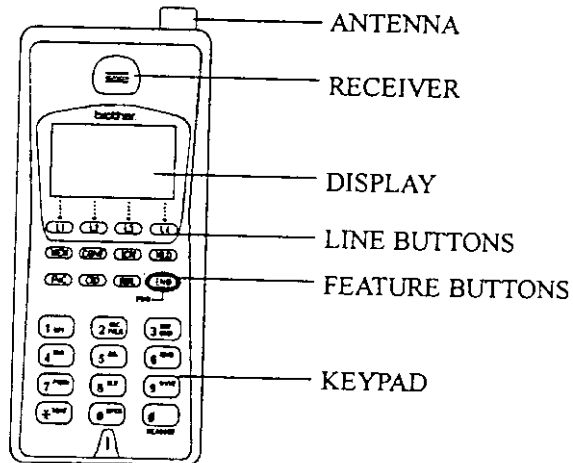
QUICK PROGRAMMING CARD

BATTERY CHARGER TEMPLATE

INTRODUCTION

1. Becoming Familiar With Your Handset

The CTS-400 handset provides you with the most advanced technology and features such as conference, speed dialing, intercom and paging. Each handset has a display and various buttons as shown below.



Feature Buttons:
MEM – for programming
CONF – for conferencing
ICM – intercom button
HLD – hold button
CID – for caller ID review
RDL – last number redial
END – to end a call

FNC - function button

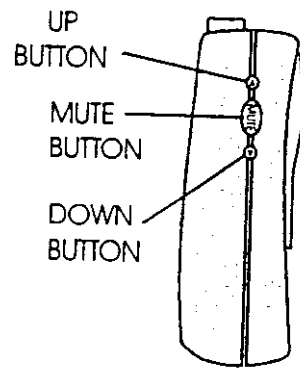
FNC + 1 - backspace

FNC + 2 - pause

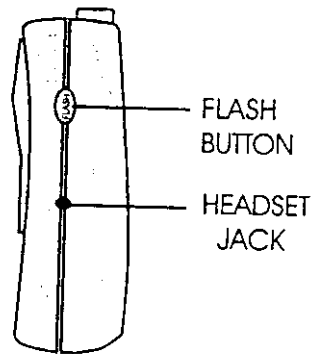
FNC + 3 - do-not-disturb (DND)

FNC + # - headset mode

There are feature buttons on both sides of the handset:



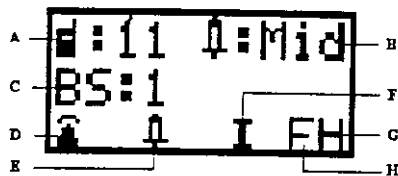
LEFT SIDE



RIGHT SIDE

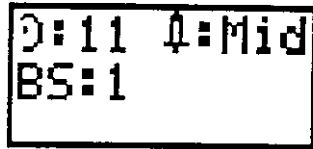
2. The Display

The display provides valuable information concerning the status of the lines, station identification, ringer volume, etc.



- A - Indicates handset or headset mode, and extension number.
- B - Ringer Volume Level
- C - Base (Cell) Station ID number for current cell unit being used
- D - Line 1 is in-use by a user in the system.
- E - Line 2 is ringing at your station.
- F - You are using Line 3 (I-USE)
- G - Line 4 is on Hold.
- H - Function Key has been pressed.

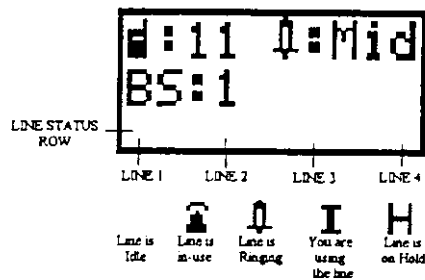
Other Symbols:



Row 1:

Ear Shape - indicates headset operation

Row 3 (line status):



General information shown on the display:

- The numbers you are dialing when you make a call (row 1).
- Your Handset ID number (appears next to the handset or headset shape in row 1).
- The Base Station ID number for the current cell being used. (appears next to "BS" in row 2).
- The ringer volume level ("Low", "Mid", or "Hi" appears next to the Bell shape in row 1).
- Call duration will appear next to the Base Station ID (on the right side of row 2).
- "DND" replaces ringer volume level display when the Do Not Disturb feature is enabled (right side in row 1).
- "F" will be displayed briefly to the left of the Line 4 Status when the **FNC** button is pressed.

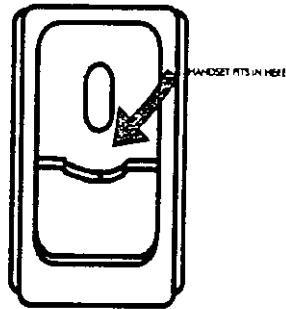
3. The Features

Your CTS-400 Cordless Handset provides many features such as:

Four (4) CO Line/PBX Capacity
Tone/Pulse Dialing Modes
Speed Dialing (10 Number)
Last Number Redial
Intercom Calling
Paging to Executive Speakerphone
Conference
Call Transfer
Hold
Flash
Pause
Push-to-Mute
Headset Compatibility
Ringer and Receive Volume Control
Smart Charge Monitors Battery Charge to
Prevent Overcharging
Optional Caller ID Integration
Hearing Aid Compatible

4. What's Included With Your Handset

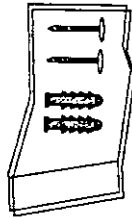
Handset Battery Charger
"Fast Charger"



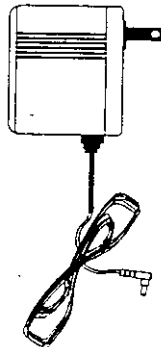
Belt Clip



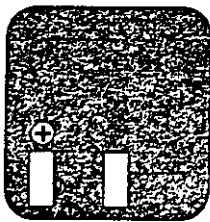
Wall Mounting
Screws & Anchors



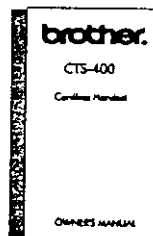
Power Adapter
For Charger



One (1) Nickel
Metal-Hydride Battery



Owner's Manual



5. Components of the CTS-400 System

5.1 Cordless Handset

The following features are provided with the cordless telephone:

- Four (4) CO Line/PBX Capacity
- Tone/Pulse Dialing Modes
- Speed Dialing (10 Number)
- Last Number Redial
- Intercom Calling
- Paging to Executive Speakerphone
- Conference
- Call Transfer
- Hold
- Flash
- Pause
- Push-to-Mute
- Headset Compatibility
- Ringer and Receive Volume Control
- Smart Charge Monitors Battery Charge to
Prevent Overcharging
- Optional Caller ID Integration
- Hearing Aid Compatible

5.2 Cell Unit

The multi-cell cordless system can be configured with one (1) or two (2) cell units. Each cell provides two RF links (paths) for intercom and outside calling by any cordless handset.

5.3 Executive Speakerphone

The following features are provided with the speakerphone:

- Handsfree Speakerphone
- Supertwist 2 x 16 Dot Matrix Liquid Crystal
Display
- Four (4) CO Lines with Line Status Indication
- Intercom with Direct Station Select Buttons
- Line-In-Use Detection of Other Connected
Telephones (fax, modem, etc.)

Speed Dialing (18 Number)
Call Forward to Cordless Handsets or
Speakerphones
Auto Busy Redial
Page
Ringer Enable/Disable
Selectable Ring Tone
Ringer and Receive Volume Control
Privacy Release
Conference
Call Transfer
Delayed Ring
Optional Caller ID (Requires Caller ID Server)

5.4 Caller ID Server

The optional Caller ID Server provides the telephones with Caller ID capability. The server enables the telephones to identify both the name and number (if provided by the Telephone Company) of a caller. Only one server is needed for each system. The server will store caller ID information for forty (40) calls received on any of four (4) caller ID lines.

You must subscribe to Caller ID service from your local telephone company.

INSTALLATION

1. Site Planning

For optimum operation, site planning considerations are always important. Refer to the Installation section of the CTS-400 Digital Cell Unit Owner's Manual for site planning recommendations.

2. Configuration

The CTS-400 system consists of a cell unit, cordless handsets, and speakerphones. Each cell unit provides two (2) talk channels for intercom and outside calls. A system may consist of one (1) or two (2) cell units wired together to accommodate a maximum of twelve (12) cordless handset users!

3. Installing the Handset Battery Charger

You may choose from two (2) installation options:

- locate the charger on a desk or tabletop, or
- mount the charger on the wall.

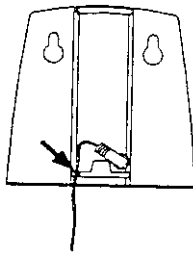
You will need to locate the charger near a standard 120V AC outlet. The power adapter used with the charger has an extended length cord (10 feet).

Note: Use only the AC power adapter provided with the charger.

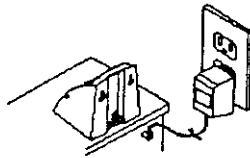


3.1 Desk/Tabletop Mounting

1. Plug the AC power cord into the back side of the charger. Route the cord through the channel.



2. Plug the AC power cord adapter into a standard 120V AC wall outlet. The red lamp located at the front of the charger will briefly light and then turn off.



3. Ensure that all cords are positioned to prevent tripping and rubbing which could create a potential electrical hazard.

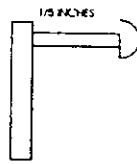
3.2 Wall Mounting - Directly on the Wall

You will want to ensure the following:

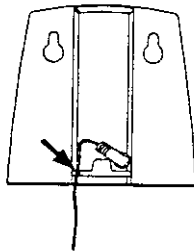
- The location where the charger will be mounted should be away from electrical cables, pipes, or other items which may be punctured when the screws are inserted into the wall.
- The wall should be capable of supporting the charger weight.
- Use the screws and anchoring devices provided with the charger.
- The charger is located near an AC outlet.

A template is provided at the back of this manual to assist you with the installation of the charger unit directly onto the wall.

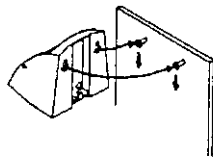
1. Insert the two (2) screws and anchoring devices into the wall 2 inches apart horizontally, allowing approximately 1/5 inch between the wall and screw heads for mounting the charger. Ensure that the screws are secure.



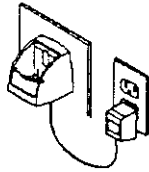
2. Plug the AC power cord into the back side of the charger. Route the power cord through the channel on the bottom of the charger.



3. Position the charger on the two screws in the wall and slide the charger downward to secure it to the wall.



-
4. Plug the AC power cord adapter into a standard 120V AC wall outlet. The red lamp located at the front of the charger will briefly light and then turn off.



Note: Use only the AC power adapter provided with the charger.



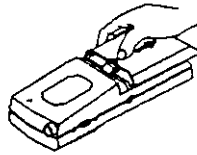
5. Ensure that all cords are positioned to prevent tripping and rubbing which could create a potential electrical hazard.

4. Installing/Changing the Handset Battery

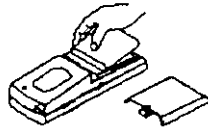
Typically, the battery will last more than one year with normal charging and use.

You will need to install the battery in the handset.

1. Remove the battery cover located on the back side of the handset by pushing the cover in the direction of the arrow.



2. Install the battery by aligning the contacts on the battery with the contacts in the battery compartment.



3. Re-install the battery cover.

5. Charging the Handset Battery

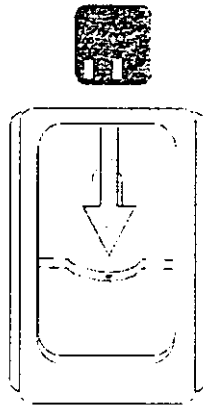
The handset includes a Nickel Metal-Hydride battery. Refer to section 4 to properly install the battery for operation. You can charge the battery by itself in the charger or while it is installed in the handset.

When you charge the battery ensure the following:

- Do not charge the battery for more than 24 hours since this may decrease the battery life.
- Do not charge the battery in temperatures below 32°F (0° C) or over 104°F (40°C).
- Do not charge the battery in direct sunlight or in high humidity.
- Only use the battery intended to be used with the cordless handset.
- Do not dispose of the battery in a fire. This may result in battery leakage or the battery may become hot and may cause personal injury.
- Do not short-circuit the battery. This may also result in battery leakage or the battery may become hot and cause personal injury.
- Do not attempt to disassemble the battery.
- Fully discharge the battery prior to long periods of disuse.

To Charge the Battery When Not Installed:

Place the battery in the charger.



The charger lamp will light steady while the battery is charging. If the battery is extremely low, the lamp may not light immediately. When the battery is fully charged the lamp will flash.

Note: When the battery is removed from the handset all programmable memory is retained.

To Charge the Battery While in the Handset:

The "fast charger" will fully charge the battery in less than 2-1/2 hours.

1. Place the handset in the charging unit so the display and buttons are facing you. The charger lamp will light steady while the battery is charging. If the battery is extremely low, the lamp may not light immediately. When the battery is fully charged the lamp will flash.
2. Lift the handset from the battery charger. The lamp will turn off. Your handset is now fully charged and ready for operation.

When the handset is in the standby mode the battery may remain charged for up to four (4) days. The display will show "BATT" to indicate a low battery. During a telephone call, you will hear a *low battery* warning tone repeated every sixty (60) seconds. The battery talk time is approximately ten (10) hours. Refer to the Product Specifications section at the end of this manual for further details concerning the battery.

Using the Power Down feature will prolong the life of the battery. Refer to section 7 in the Installation section of this manual for more information concerning this feature.

DISPOSAL OF NICKEL METAL-HYDRIDE BATTERY

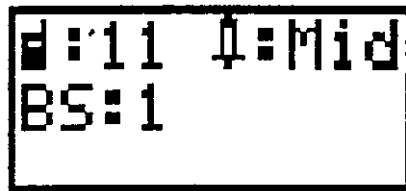
The Nickel Metal-Hydride battery must be disposed of properly. In some areas the disposal of Nickel Metal-Hydride batteries in household or business trash may be prohibited.

Do not handle a damaged or leaking battery.

6. Standby Mode

Once you have installed the battery and it is charged, the handset remains in the standby (idle) mode. All functions are performed from the standby mode.

The display shows the following information in the standby mode.



7. Power Down/Power On Mode

You can place the handset in power down or “battery save” mode but you will not receive or be able to make calls. This mode preserves the battery and standby time.

To power down the handset, simply press and hold **END** for about 2 seconds. You will hear confirmation tone and the display will turn off.

In the Power Down mode, you will not hear any ringing when a call is received and the display will not show the status of the lines.

To power up the handset again, press and hold

END until the display turns on.

8. Setting the Identification

Default Setting: 11

It is strongly recommended that you change the handset identification (ID) from the default setting on all handsets prior to complete system installation. This will eliminate the potential problem of interference which will occur when any two handsets are assigned the same ID.

While the handset is in the Standby mode:

1. Press **MEM** . The display will show:

A rectangular display area showing the word "Memory" in a monospaced font.

2. Dial ***MEM** . The display will show:

A rectangular display area showing the text "Memory", "Handheld", and "ID:XX" on three separate lines.

(where xx is the handset ID number).

3. Dial a two-digit intercom station number (11-22).

For instance, if you dial 12 the display will show:

A rectangular display area showing the text "Memory", "Handheld", and "ID:12" on three separate lines.

4. Press **MEM** . You will hear confirmation tone and the programming mode is terminated. The display will briefly show:

A rectangular display area showing the text "Memory OK", "Handheld", and "ID:12" on three separate lines.

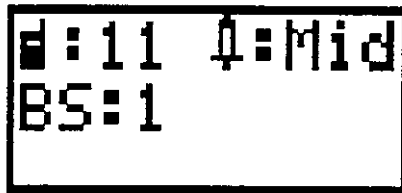
9. Setting the Ringer and Receive Volume

9.1 Ringer Volume



Default Setting: Mid Level

You may adjust the handset ringer volume to a low, medium, or high level. Each time the level is changed you will hear the new ringer volume setting. You may adjust the ringer volume while the handset is in the Standby mode, or during CO Line or intercom ringing.

While the handset is in the Standby mode the display will show the current ringer volume level setting. For instance, if the volume is set to the middle level the display will show:





A rectangular display showing the following text: "d:11" on the top left, "r:Mid" on the top right, and "BS:1" on the bottom left.

Press  or  on the left side of the handset. The handset will briefly ring enabling you to hear the new setting and the display will also show the new setting.

If you are adjusting the ringer volume level while the handset is ringing, the display will not show the current or adjusted setting.

9.2 Receive Volume


You can adjust the receive volume during a call.

Press  or  on the left side of the handset during an intercom or CO line call (service will not be disrupted).

10. Assigning CO Line Ringing


Default Setting: All Lines Ring

You may turn off the ringing of any of the lines at your handset.

1. Press .




Memory

2. Dial .



Memory
Handheld
ID:XX

3. Press  to select the first CO line. The display will show:



Memory
CO1 Ring
On

-
- Dial any number on the dial pad to turn the ringing off for that CO line. (Dialing a number on the dial pad allows you to toggle between the "on" and "off" selections).


The display will show the following if you turn the ringing off for CO line 1:

```
Memory
CO1 Rins
Off
```

- Press **MEM**. The display will show:

```
Memory OK
CO1 Rins
Off
```

Repeat Steps 1 through 5 above to program the ringing for all four (4) lines. When

you perform step 3, press  twice to program CO line 2; three times to program CO line 3, etc.

11. Adjusting the Ringer Tone Setting

Default Setting: Type 1

There are four (4) different ringing sounds you may select. The tone which you select will be applied to all four (4) lines and intercom ringing.


- Press **MEM**.

```
Memory
```

-
2. Dial ***194** .



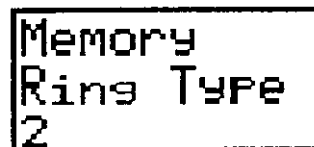
Memory
Handheld
ID:XX

3. Press  until the display shows:



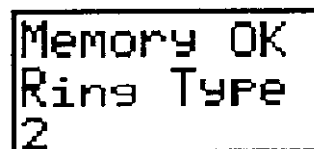
Memory
Ring Type
1

4. Dial a number (1-4) for a different ringing sound. You will briefly hear the ringing sound which you have selected and the display will also indicate which type you selected. For instance, if you selected type 2 the display will show:



Memory
Ring Type
2

5. Press **MEM** . The display shows:



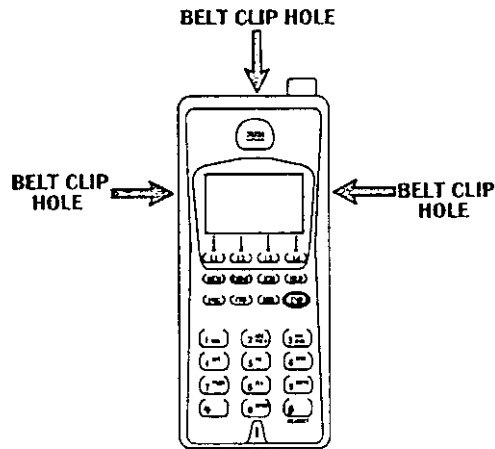
Memory OK
Ring Type
2

12. Installing the Belt Clip

A belt clip is provided as an accessory with your cordless handset. The clip can be installed on the handset to enable you to carry the handset on your belt.

To install the belt clip:

1. Align the three pegs on the clip with the three holes on the handset.



2. Snap the belt clip into place on the handset.

PROGRAMMING

1. Flash

Default Setting: 0.6 seconds

The system Flash time for all handsets may be changed by any handset. The Flash time setting is adjustable from 0.1 second to 2 seconds.

1. Press **MEM**.



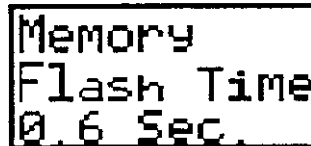
Memory

2. Dial ***100**.



Memory
Handheld
ID:XX

3. Press **▽** until the display shows:



Memory
Flash Time
0.6 Sec.

4. Dial the desired flash time (1 for 0.1 second, 2 for 0.2 seconds...0 for 1 second, * for 1.5 seconds, # for 2 seconds).
5. Press **MEM**. You will hear confirmation tone.

2. Speed Dial

2.1 Storing a Telephone Number

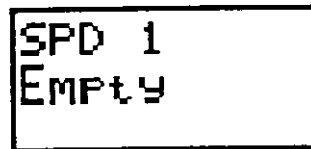
You may store ten (10) frequently dialed numbers in speed dial memory.

1. Press **MEM** . The display will show:



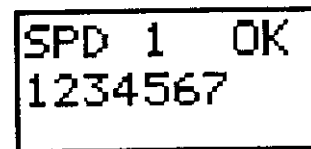
Memory

2. Dial the bin location(0-9) where you wish to store the number. The display will show:





SPD 1
Empty

3. Dial the telephone number (up to 16 digits) to be stored. (To store a pause: Press **FNC** and dial 2. To store a flash: Press FLASH). Dial ***Tone** to store a pulse-to-tone switchover). If you incorrectly dial a digit, you can press **FNC** + **1** to backspace.
4. Press **MEM** . You will hear confirmation tone and the display will briefly show the following prior to returning to the Stand By mode:



SPD 1 OK
1234567

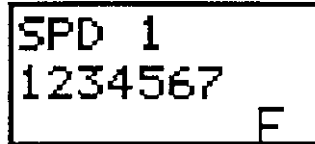
Note: You may also press  or  after step 1 or 2 to view the individual memory locations.

2.2 Storing the Last Number Redial Contents

1. Press **MEM** .
2. Dial the bin location where you wish to store the number.
3. Press **RDL** .
4. Press **MEM** .

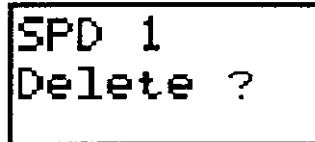
2.3 Erasing the Contents of a Speed Dial Bin

1. Press **MEM** .
2. Dial the bin location you wish to erase.
3. Press **FNC** . The display will show:



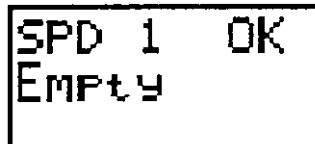
```
SPD 1
1234567
F
```

4. Press **END** . The display will show:



```
SPD 1
Delete ?
```

5. Press **MEM** to erase the memory. You will hear confirmation tone and the display shows:



```
SPD 1 OK
Empty
```

BASIC OPERATION

1. Making an Outside Call

Each cell provides two (2) RF links (paths) which will accommodate a maximum of two (2) calls (intercom and outside calls). A path must be available to make a call.

1.1 If a cell unit is available

1. Press a line button.
2. Dial the telephone number. The display will show:

```
1234567■  
BS:1 MM:ss  
I
```

3. Press **END** to hang up when you've completed your call.

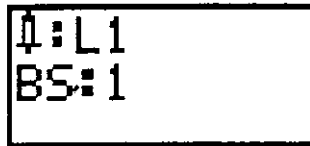
1.2 If a cell unit is busy

If the cell that you are accessing is busy when you attempt to access a line, you will hear a warning tone and the display will show the following:

```
d:11 Q:Mid  
BS:1 Busy
```

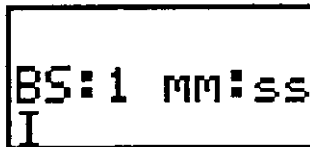
2. Answering an Outside Call

The display will show the following when a line is ringing (Let's assume Line 1 is ringing):



```
L1
BS:1
```

1. Press the line button corresponding to the ringing line. The display will show:



```
BS:1 MM:ss
I
```

2. Press **END** to hang up when you've completed your call.

Note: You may also dial any number on the keypad (0-9, *, #) to answer a ringing call. The call is answered according to the following priority: 1) Ringing Intercom Calls, 2) Transferred Calls, 3) CO Line Calls, 4) Hold Recall Calls. When you directly press the line button to answer a call, you override the answer priority.

3. Making an Intercom Call

Each cell provides two (2) paths which will accommodate a maximum of two (2) calls (intercom and outside calls). A path must be available to make a call.

3.1 Calling an Idle Telephone

Let's assume you are Station 12 and you are calling Station 15:

1. Press **ICM** . The display will show:

```
ICM To
BS:1
```

2. Dial the intercom number. For instance, if you dial intercom number 15 the display will show:

```
ICM To 15
BS:1
```

While the call is ringing at your station, the display will show:

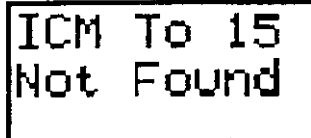
```
ICM To 15
BS:1 Ring
```

3. When the person you called answers your handset display will show:

```
ICM To 15
BS:1 Talk
```

4. Press **END** to end the call.

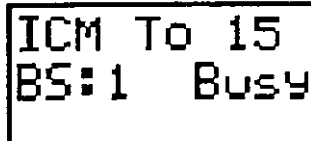
Note: If you dial an intercom number that has not been assigned, or a number for a station which has lost its link to the system, your handset will display:



ICM To 15
Not Found

3.2 Calling a Busy Telephone

If the extension you are calling is busy, or if the cell cannot find an idle RF link (path) to connect the called extension, your handset display will show:

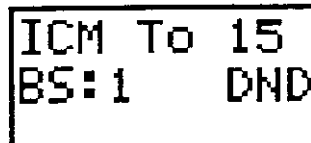


ICM To 15
BS:1 Busy

Note: The person you are calling will not receive any indication of the intercom call.

3.3 Calling a Telephone in Do Not Disturb

If the person you are calling has their telephone in DND your handset display will show:



ICM To 15
BS:1 DND

Note: The person you are calling will not receive any indication of the intercom call.

4. Answering an Intercom Call

For example, if Station 12 is calling you, your handset will ring and the display will show:

```
ICM By 12
BS:1 Ring
```

Press **(ICM)** (or any key on the keypad) to answer the intercom call. Your handset will display:

```
ICM By 12
BS:1 Talk
```

5. Placing a Call on Hold

While on a call:

1. Press **(HLD)**. The display will briefly show:

```
TRNF To
BS:1
H
```

2. Wait approximately 10 seconds or press **(END)** if you want to make an intercom call without transferring the line. The display will change to:

```
#:11 4:Mid
BS:1
H
```

6. Retrieving a Call on Hold

The display will show the following when a call is placed on Hold:

```
Q:11 Q:Mid  
BS:1  
H
```

After a call has been placed on Hold for 1 minute, the system sends a brief reminder tone to all of the handsets. The display will show:

```
Q:L1  
BS:1  
H
```

Press the line button corresponding to the holding line. The display will show:

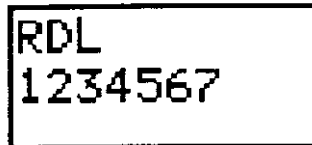
```
BS:1 MM:ss  
I
```

Note: You will hear a call waiting triple tone when you are on the line and receive the Hold Reminder ring.

7. Last Number Redial

To dial the last number dialed from the telephone:

1. Press **RDL** to review the number first. The display will show:



```
RDL
1234567
```

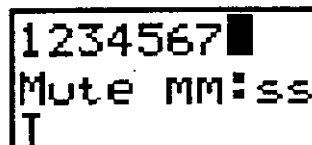
2. Press a line button and the number is automatically redialed.
3. Press **END** to end the call.

8. Muting a Call

The Mute feature turns off the telephone microphone so the distant party cannot hear you or to block out background noise momentarily. The **MUTE** button is located on the left side of the handset.

While on a line:

1. Press and hold **MUTE**. The display will show:



```
1234567 ■
Mute MM:ss
I
```

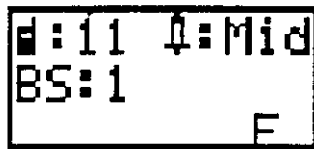
2. Release **MUTE** to deactivate the feature.

9. Do Not Disturb

You may use the DND feature to avoid telephone interruptions. When activated, you will not hear incoming ringing.

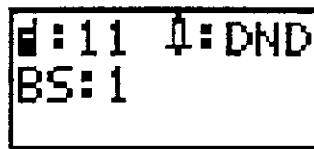
While the telephone is idle:

1. Press **(FNC)**. The display shows:



A rectangular LCD display showing the following text: the first line contains a battery icon, ':11', and '↓:Mid'; the second line contains 'BS:1'; and the bottom right corner contains the letter 'F'.

2. Dial **(3⁰⁰)** to activate DND. The display shows:



A rectangular LCD display showing the following text: the first line contains a battery icon, ':11', and '↓:DND'; the second line contains 'BS:1'.

Note: Follow Steps 1 and 2 above to also deactivate DND.

10. Transferring a Call

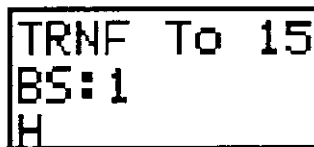
While on a call:

1. Press **(HLD)**. The display will show:



A rectangular LCD display showing the following text: the first line contains 'TRNF To'; the second line contains 'BS:1'; and the bottom left corner contains the letter 'H'.

2. You have approximately 10 seconds to dial the station number where you wish to transfer the call. Let's assume the call is transferred to Station 15. The display will show:

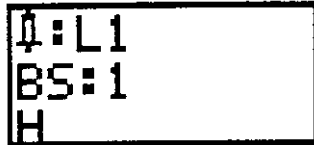


A rectangular LCD display showing the following text: the first line contains 'TRNF To 15'; the second line contains 'BS:1'; and the bottom left corner contains the letter 'H'.

Note: You do not have to find an available intercom or RF link (path) to transfer ringing to another party.

11. Receiving a Transferred Call

If you are not using your telephone, you will hear transfer ringing and your handset display will show:



A rectangular box representing a handset display with the following text:

```
Q:L1
BS:1
H
```

Note: If you are talking on your telephone you will hear a camp-on triple tone when you receive transfer ringing. Multiple lines can be camped-on to your busy handset. When you hang up, the camped-on line will ring at your handset.

12. Receiving a Transfer Recall

If a transferred call is not answered within one (1) minute, the call will recall to all the handsets. The handset display will show:



A rectangular box representing a handset display with the following text:

```
Q:L1
BS:1
H
```

Press the line button corresponding to the recalling line (or press any key on the keypad).

13. Conferencing

A three-way conference call may consist of two (2) outside lines or one (1) outside line and two (2) stations.

13.1 Conferencing Two (2) Outside Lines

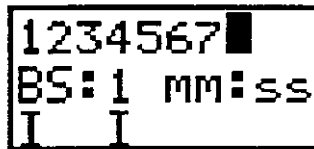
While on a call on the first line:

1. Press **(HLD)** . The first line is placed on Hold and the handset display shows:



```
TRNF To
BS: 1
H
```

2. Press a second line button.
3. Dial the telephone number for the second party.
4. Press **(CONF)** to conference the two lines together with your extension. The display will show:



```
1234567
BS: 1 MM: ss
I I
```

13.1 Conferencing One (1) Outside Line and Two (2) Stations

While on a call on the first line:

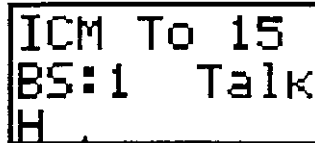
1. Press **(HLD)** . The first line is placed on Hold and the handset display shows:



```
TRNF To
BS: 1
H
```

2. Press **(ICM)** .
-

-
- Dial the intercom number for the other internal party. Your handset display will show:



ICM To 15
BS:1 Talk
H

- Press **CONF** to establish the conference.

14. Using the Flash Button

You may use Flash instead of pressing the hookswitch to access custom calling features provided by your telephone service such as call waiting, 3-way calling, etc.

The **FLASH** button is located on the right side of the handset.

While on a line:

- Press **FLASH** to obtain new dial tone.

Dial the new telephone number or service code.

15. Using the Pause Feature

You may use the Pause feature to insert a delay in a dialing sequence which may be needed to access certain banking and long distance services. Each pause is 3


seconds. You may press **FNC** **2nd** repeatedly to create a longer delay. A pause can be stored in speed dial memory.

Refer to Programming Section 2 to program a Pause in Speed Dial.

16. Speed Dialing

16.1 Dialing a Number Stored in Speed Dial

1. Press a line button.
2. Press **MEM**.
3. Dial the bin location where the number is stored. The telephone automatically dials the number and the display shows:



```
1234567
BS: 1 MM:ss
I
```

16.2 Reviewing a Number Stored in Speed Dial

You may review the contents of the speed dial bins without actually dialing the telephone numbers.

1. Press **MEM**.
2. Dial the bin location which you wish to review.

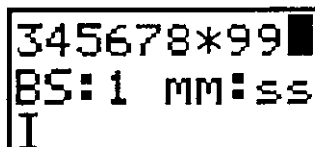
If you wish to dial the number after reviewing it, simply press any idle line button.

17. Tone Dialing

If you have pulse dialing service you may need to access a computer or calling services that use tone dialing.

While on a line:

1. Dial the telephone number in pulse mode.
2. Dial ***99** to change to the tone dialing mode.
3. Dial the remaining numbers to be dialed in the tone mode. The display will show:

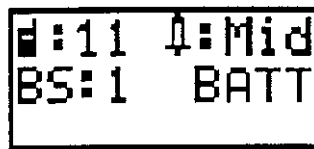


```
345678*99
BS: 1 MM:ss
I
```

Note: When you hang up the telephone will return to the pulse dialing mode.

18. Battery Low Warning

While you are using the handset, if the handset battery becomes weak you will hear a warning tone every minute and the display will show:



d:11 BS:1
Mid BATT

You must recharge the handset or install a fully charged battery.

19. Out of Range Signal

You may hear a signal (out of range warning signal) repeated whenever the handset is too far from the cell unit. The display will show:



Out Of
Range

If you remain out of range for more than 3 seconds the handset will preserve your call by placing it on Hold for 15 seconds. Within that 15 seconds, if you move back into range the system will automatically reconnect you with the outside caller. However, if you do not move back into range within the 15 seconds the call will be disconnected.

Whenever an Out of Range situation occurs, move closer to the cell to ensure that you are within range and to maintain a clear conversation.

Note: If a second cell unit has been installed, the handset may select the cell unit that is closest.

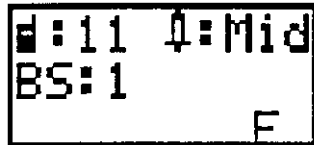
20. Using a Headset

You may plug a headset into the headset jack located below the **FLASH** button on the right side of the handset. When you enable the headset, the handset microphone will be automatically muted.

20.1 To Enable the Headset

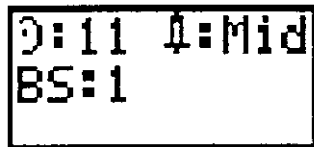
While the handset is idle or in the Talk mode:

1. Press **FNC**. The display will show:



```
0:11 0:Mid
BS:1
F
```

2. Dial **#** to activate the headset. The display will show:



```
0:11 0:Mid
BS:1
```

20.2 To Disable the Headset

1. Press **FNC**.
2. Dial **#** to deactivate the headset.

Note: To adjust the headset volume, refer to section 9.2 in the Installation section.

CALLER ID OPERATION

Your system must be equipped with a 4-Line Caller ID Server to interface with the caller ID service provided by your telephone company.

1. Setting the Area Code

Default: empty

When you receive a local call from a person with your same home area code, the telephone will not store the area code. This feature will enable you to redial the caller in the future, if desired.

1.1 To Program the Area Code

1. Press **MEM** . The display shows:



A rectangular display box containing the word "Memory" in a monospaced font.

2. Dial ***101** . The display shows:



A rectangular display box containing the text "Memory", "Handheld", and "ID:XX" on three separate lines.

3. Press **▲** or **▼** until the display shows the following:



A rectangular display box containing the text "Memory", "Area Code", and "Empty" on three separate lines.

4. Dial the 3-digit area code. For example, let's use "123" as the area code to be programmed.
-

-
5. Press **MEM** . The display shows:



Memory OK
Area Code
123

1.2 To Erase the Programmed Area Code

1. Press **MEM** . The display shows:





Memory

2. Dial ***TONE** . The display shows:



Memory
Handheld
ID:XX

3. Press  or  until the display shows the following:



Memory
Area Code
123

-
4. Press **FNC** . The display will show:

```
Memory
Area Code
123      F
```

5. Press **END** . The display will show:

```
Memory
Area Code
Delete ?
```

6. Press **MEM** . The display shows:

```
Memory OK
Area Code
Empty
```

2. Receiving a Call

You will need to subscribe to the Caller ID service from your telephone company to receive caller ID information.

When a call is received, the display will show the name and number of the caller, and the date and time the call is received. Some telephone companies send both the name and number of the caller. Other telephone companies may only provide the number of the calling party.

Note: When the CTS-400 system is connected behind a PBX or key system, the caller ID features cannot be used.

2.1 Receiving a Name and Number Call

The display will show:

```
1234567
ABC CO.
      L1
```

Where: 1234567 is the number of the caller
ABC Co. is the name of the caller
L1 is the ringing line number

2.2 Receiving a Number Only Call

The display will show:

```
1234567
      L1
```

2.3 Receiving a Blocked Call

Sometimes a caller will prevent his/her number from being displayed on your telephone:

```
XXXXXXXXXXXXX
Private
      L1
```

2.4 Receiving a Call from Outside the Calling Area

If a caller is outside of your Caller ID area:

```
XXXXXXXXXXXXX
Out Of
Area L1
```

3. Reviewing a Call

3.1 While the Telephone is Idle

1. Press **FNC** .
2. Press **CID** to review the CID information for the most recent call received.
(Allow approximately 2 seconds for the call to be displayed).

```
List # :18
John Smith
```

3. Dial any key or press **MUTE** to review the telephone number, and date and time the call was received. The time is displayed in 24-hour format (i.e. 3 pm is displayed as 15:00).

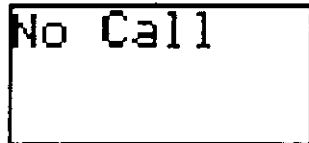
```
5251818
Aug 24
11:35
```

4. Press **▲** to review calls from most recent to oldest call received.

Note: When you reach the end of the caller ID list the display will show:

```
End of
Data Base
```

If there are no calls in the caller ID memory the display will show:



No Call

3.2 While Two Lines are Ringing

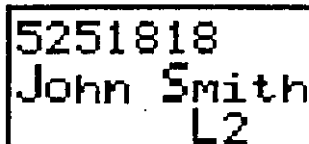
If two lines are ringing simultaneously you may review the caller ID information for each line.

The display will first show the caller ID information for Line 1 (or if you are currently on a line, press **CID** to review the caller information for Line 1):



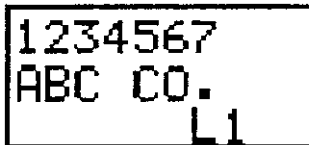
1234567
ABC CO.
L1

1. Press **CID** to review the caller ID information for Line 2:



5251818
John Smith
L2

2. Press **CID** to return to the CO Line Ring mode.
3. Press **CID** to review the caller ID information for Line 1 again:



1234567
ABC CO.
L1

Note: Information for a maximum of forty (40) calls will be maintained. If more than 40 calls are received the newest call received replaces the oldest call in the list.

4. Dialing a Telephone Number

The area code must be programmed to use this feature. Refer to section 1 in the Caller ID Operation section to program the area code.

1. Press **FNC** .
2. Press **CID** to display the most recent call received.
3. Press **▲** until the desired telephone number is displayed.
4. Press a line button.
5. Press **CID** and the handset will automatically dial the telephone number.

Note: If you are dialing a long distance telephone number, dial **1** prior to Step 5.

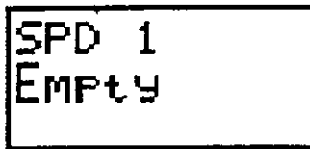
5. Erasing a Call

1. Refer to section 3 of the Caller ID Operation section to display the call that you want to erase.
2. Press **FNC** .
3. Press **END** . The display will show:

```
List # :18
Deleted
```

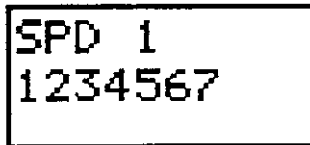
6. Storing a Call in Speed Dial

1. Refer to section 3 of the Caller ID Operation section to display the call that you want to store.
2. Press **MEM**.



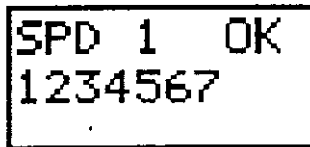
SPD 1
Empty

3. Dial the bin location(0-9) where you wish to store the number.
4. Press **CID**. The display will show the number that you want to store:



SPD 1
1234567

5. Press **CID**. The display will show:



SPD 1 OK
1234567

OTHER SYSTEM FEATURES

CTS-400 EXECUTIVE SPEAKERPHONE OPERATION

You may page a CTS-400 Executive Speakerphone using the cordless handset.

1. Paging

1.1 To Page a CTS-400 Executive Speakerphone Using the Handset

Let's assume that your handset is station 12 and you want to page Executive Speakerphone Station 15:

1. Press **ICM**.
2. Dial the intercom number. You will hear tone ringing.
3. Press **ICM** again to change the intercom ring to a voice paging call.
4. Press **END** to end the page.

Note: If you want to return to intercom ringing, simply press **ICM** again.

1.2 To Voice Page All CTS-400 Executive Speakerphones Using the Handset

1. Press **ICM**.
2. Dial ***1000**. If the intercom path is available, your handset will display:

```
All Page
BS:1 Talk
```

If the intercom path is busy, your handset will display:

```
All Page
BS:1 Busy
```

PRODUCT SPECIFICATIONS

The Brother CTS-400 Digital Cordless Telephone System can be installed behind any PBX, or as a stand alone SOHO (small office home office) application with Brother Executive Speakerphones.

Capacity

System Capacity:

- 2 Digital Cell Units (DCU)
- Up to 12 Cordless Handsets*
- Up to 12 Executive Speakerphones*
- 1 Inter-Cell Intercom Link
- 4 CO/PBX/Centrex Lines

DCU Capacity:

- 2 RF Talk Links
- 4 CO/PBX/Centrex Lines
- 2 Intra-Cell Intercom Links
- 12 Cordless Handsets

Security Codes: 3-7 million

*Only twelve (12) telephones (cordless or speakerphone) total per system.

Coverage

Cell Coverage:

- Indoor up to 30,000 sq.ft.
- Outdoor 300-500 ft.(line of sight)
- Multi-Floor: 1-2 Floors

CTS-400 CORDLESS HANDSET

Physical: Belt clip, external headset option

Power: Nickel-Cadmium Battery, 1200mA/Hr

RF: 902-928MHz TDMA

LCD: 3 x 10 Alpha-Numeric

Headset Jack: 2.5 mm

Function Keys: Side Mount: Push-to-Mute, Volume Up & Down, Flash
Other: Intercom, Function, Memory, CID, Redial, End, Conf,
CO Line 1/2/3/4, Hold/Xfer

Dial Keys: 12 Keys, continuous DTMF

Talk Time: Up to 10 hours (under normal conditions)

Standby Time: 4 days

Dimensions(case): 154 mm tall
57 mm wide
36 mm deep

Weight: 6.1 oz without battery
8.9 oz with battery

*Specifications, features, and availability of
optional accessories are all subject to change without prior notice.*

QUICK PROGRAMMING CARD

<u>To program:</u>	<u>Code Sequence:</u>
■ Speed Dial	MEM, bin, number, MEM
■ Handset ID	MEM, *, ID, MEM
■ Ringing	MEM, *, ▼, key, MEM
■ Ring Tone	MEM, *, ▼, (1-4), MEM
■ Flash Timing	MEM, *, ▼, (0-9), MEM
■ Area Code	MEM, *, ▼, area code, MEM

Remember to continue to press ▼ until the desired programming field is displayed.

<u>To program:</u>	<u>Code Sequence:</u>
■ Erase Memory	FNC, END
■ Review Calls	FNC, CID
■ Backspace	FNC, 1
■ To insert a Pause	FNC, 2
■ DND	FNC, 3
■ Headset Mode	FNC, #



**BATTERY CHARGER WALL MOUNTING
TEMPLATE**



2 Inches





brother®

CTS-400-CH-UM

