

EXHIBIT A

[FCC Ref. 2.1033(b)(3)]

"Installation and Operating Instructions
Furnished to the User"



MODEL: IBM-3900

**2.4GHz DIGITAL CALL WAITING
CALLER ID WIRELESS TELEPHONE**

INSTALLATION AND OPERATING GUIDE

IMPORTANT: To receive Caller ID information on incoming telephone calls, you must subscribe to the Caller ID service provided by your local telephone company; there is a fee for this service and it may not be available in all areas.

600-0470201-A

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To order a replacement battery pack for the IBM-3900 cordless telephone, please mail this order form to the IBM licensee for this product.

TT SYSTEMS LLC
7 Odell Plaza
Yonkers, NY 10701

NI-MH Battery Packs are \$16.95 each

Please enclose a check or money order made out to **TT SYSTEM LLC** for the respective amount. Shipping and handling is included in the price.

Please ship order to:

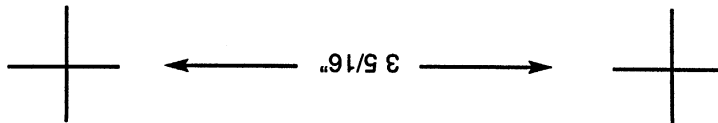
Name: _____
Company: _____
Address: _____
City: _____ State: _____ Zip: _____

From: _____
To: _____

TT SYSTEMS LLC
7 Odell Plaza
Yonkers, NY 10701

(This is your mailing label)

Base Template



Place this template on the wall.

The location of the screws is indicated by the centers of the crossed lines.

Fasten the screws leaving 3/16" of the screw extending from the wall.

Remove This Page to Mark Wall

Screws needed for wall mounting:

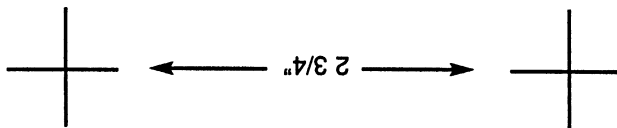


Expansion Anchor



#6 or #8 Pan Head Self Tapping Screw

Charging Cradle Template



! This symbol is to alert you to important operating or servicing instructions that may appear in the user's manual. Always follow basic safety precautions when using this product to reduce the risk of injury, fire or electrical shock.

When using this product, 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. Use only with class 2 power source DC 9V 300mA.
 4. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
 5. Do not use this product near water; for example, near a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
 6. Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
 7. Slots and openings in the cabinet back or bottom are provided for ventilation. To protect it from overheating, these openings must not 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 an enclosed environment unless proper ventilation is provided.
 8. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by animals or persons walking on it.
 9. Do not overload wall outlets and extension cords as this can result in risk of fire or electrical 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 electrical shock. Never spill liquid of any kind on the product.
 11. To reduce the risk of electrical shock, do not disassemble this product. Instead take it to a qualified service person when service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect re-assembly can cause electrical shock when the appliance is subsequently used.
 12. Unplug all cords 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 covered in the operating instructions. Improper adjustment of other controls may result in damage and require work by a qualified technician to restore the product to normal operation.
 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 a telephone to report a gas leak in the vicinity of the leak.
- IF YOUR PRODUCT UTILIZES BATTERIES, THE FOLLOWING ADDITIONAL PRECAUTIONS SHOULD BE OBSERVED:**
1. Use only the type and size of batteries specified in the users manual.
 2. Do not dispose of the batteries in a fire. The cells may explode. Check with local codes for possible special disposal instructions.
 3. Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
 4. Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets and keys. The battery or conductor may overheat and cause burns.
 5. Do not attempt to recharge the batteries provided with or identified for use with this product. The batteries may leak corrosive electrolyte or explode.
 6. Do not attempt to rejuvenate the batteries 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 replacing batteries, all batteries should be replaced at the same time. Mixing fresh and discharged batteries could increase internal cell pressure and rupture the discharged batteries.
 8. When inserting the batteries into this product, the proper polarity or direction must be observed. Reverse insertion of batteries can cause charging, which may result in leakage or explosion.
 9. 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 batteries could leak, damaging the product.
 10. Discard "dead" batteries as soon as possible since they are more likely to leak in a product.
 11. Do not store this product, or the batteries provided with or identified for use with this product, in high temperature areas.
 12. If your product uses a rechargeable battery, charge the battery(ies) only in accordance with the instructions and limitations specified in the User's Manual.

SAVE THESE INSTRUCTIONS

Modifying or tampering with the telephone's internal components can cause a malfunction and might invalidate the telephone's warranty and void your FCC authorization to operate it. If the trouble is harming the telephone lines, the telephone company might ask you to disconnect the telephone until you have resolved the problem.

As it complies with Part 68 of the FCC rules, your unit has been registered with the FCC. The FCC requires us to provide you with the following information:

1. Connection and use with the nationwide telephone network:
The FCC requires that you connect to a nationwide telephone network through a modular telephone outlet which is Part 68 compliant. This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs. Check with your local telephone company.
2. Notification to the telephone company:
FCC rules require that upon request you provide the following information to the phone company:
 - A. The line (telephone number) to which you will connect the telephone equipment, and
 - B. The FCC Registration Number and Ringer Equivalence Number (REN). These numbers are found on the back or bottom of your telephone equipment. 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 telephone number is called. In most, but not all areas, the sum of all RENs should be five or less. To determine the number of devices permitted in your area, contact your local telephone company.
3. Repair instructions:
If it is determined that your telephone equipment is malfunctioning, the FCC requires that it not be used and be unplugged from the modular outlet until the problem has been corrected. Repairs to this telephone equipment can be made only by the manufacturer or its authorized agents, or by others who may be authorized by the FCC. Unauthorized repairs void registration and warranty.
4. Rights of the telephone company:
If your product is causing harm to the telephone network, the telephone company may temporarily discontinue your service. If possible, they will notify you in advance. But if advance notice isn't practical, you will be notified as soon as possible. You will be given the opportunity to correct the problem, and you will be informed of your right to file a complaint with the FCC. Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your telephone equipment. If such changes are planned, you will be notified in advance.

Useful Features and Terms
Calendar/Clock — Visual display of date, day and time.
Caller ID — Enables users to view name and number of callers. Contact your local telephone company to subscribe to Caller ID Service.
Caller ID Log — Stores up to 50 Caller ID entries.
Call Timer — Allows timing of phone conversations.
Data/FAX Port — Allows connection of a PC or FAX machine directly into the phone versus a wall outlet.
Dial from Display — One-button dialing from the Caller ID log.
Display — The Liquid Crystal Display (LCD) shows clock and calendar, number dialed, low battery indicator, Caller ID information and call timer.
Flash — A signal sent by the phone to the local telephone company supporting services such as call waiting.
Hold — Permits user to place a call on hold. Allows access by that user or by any other extension in the system.
Message Waiting Indicator — A visual indicator that there are new messages in your voice mail box. Requires FSK signaling by phone company. Contact your local telephone company to subscribe to Voice Mail Service.
New Calls Indicator — A visual indicator that new calls have been received.
Redial — Performs single button dialing of last number dialed.
Ringer Level Control — Permits adjustment of the ringer volume level.
Speed Dialing — Allows programming of frequently dialed numbers so that they can be dialed with the two touch speed dial button (30 entries).
Tone/Pulse Option — Enables you to switch from pulse (rotary) to tone dialing.
Volume Level Control — Permits volume adjustment of the handset and headset during a conversation.
FSK type Signaling — A signal used to turn on and off the message waiting indicator, can be sent by the telephone company with a ringing signal or without.

FCC REGULATIONS

5. This product is compatible with inductively coupled hearing aids.
Note: This applies only if this product is equipped with a corded or cordless handset.
6. Programming/testing emergency numbers:
When programming emergency numbers and/or making test calls to emergency numbers:
A. Remain on the line and briefly explain to the dispatcher the reason for the call before hanging up.
B. Perform such activities in the off-peak hours, such as early morning or late evening.

INTERFERENCE INFORMATION: PART 15 OF FCC RULES

Some telephone equipment generates and uses radio frequency energy that, if not properly installed, may cause interference to radio and television reception.

This unit has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications 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 this equipment does cause interference to radio or television reception when it's in use, the user is encouraged to try to correct the interference by one or more of the following measures:

- A. Where it can be done safely, reorient the radio or TV receiving antenna.
- B. To the extent possible, relocate the television, radio or other receiver with respect to the telephone equipment.
- C. If your telephone product runs on AC power, plug your product into an AC outlet that's not on the same circuit as the one used by the radio or television.

Digital Security Coding:

This device has more than 65,000 security codes. The device will select one of more than 65,000 codes randomly whenever the handset is registered with the base.

The device will be pre-programmed at the factory to one of the 65,000 digital security codes.

Statement of limited warranty: TT Systems LLC warrants that for a period of one year from the date of purchase that this product 1) is free from defects in materials and workmanship and 2) conforms to its specifications. If this product does not function as warranted during the warranty period, TT Systems LLC, at its option, will either replace this product with one that is functionally equivalent or will refund your purchase price. These are your exclusive remedies under this warranty. Please call 1-800-955-1009 for warranty service.

This product is distributed and sold by TT Systems LLC, 7 Odell Plaza, Yonkers, New York 10701, the official licensee for this product. IBM, the IBM logo trademarks and the IBM trade dress are owned by International Business Machines Corporation and are used under a license from IBM. IBM does not manufacture this product and provides no warranty or support for this product. Please contact TT Systems LLC at 1-800-955-1009 for all questions/comments and service or support related to this product.

TT Systems LLC warrants that the IBM-3900 sold by TT Systems LLC within the continental limits of the United States, Hawaii and Alaska, are free from defects in materials and workmanship under normal use and service for 1 year. This warranty is applicable only to the original purchaser of the IBM-3900, when accompanied by a sales receipt stating the date of purchase and name of the company from which purchased. This warranty is in lieu of and excludes all other warranties, expressed or implied, including any implied warranty of merchantability or fitness, and of any other obligation on the part of TT Systems LLC.

If the IBM-3900 shall prove to be defective, then TT Systems LLC shall either replace, repair or refund the purchase price of the IBM-3900 at its discretion as follows: at no cost to the original purchaser except shipping charges, within 90 days of the date of purchase.

From 91 days to 365 days, you may return the IBM-3900 to TT Systems LLC at the following address: TT Systems LLC, 4 Executive Plaza, Yonkers, New York 10701. Shipping charges are at the customer's expense. Please include a copy of your sales receipt and a check or money order made out to TT Systems LLC for the amount of \$14.50 to cover shipping and handling.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. There is no informal dispute settlement mechanism available. This warranty will be voided by misuse, improper physical environment, accident, or improper maintenance by you.

THIS WARRANTY REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. IN THAT EVENT, SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD.

Circumstances may arise where, because of a default on TT Systems LLC's part or other liability, you are entitled to recover damages from TT Systems LLC. In each such instance, regardless of the basis on which you are entitled to claim damages from TT Systems LLC (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), TT Systems LLC is only liable for: 1. Damages for bodily injury (including death) and damage to real property and tangible personal property; and 2. The amount of any other actual direct damages or loss, up to the greater of \$500 or the price paid for this product.

UNDER NO CIRCUMSTANCES IS TT SYSTEMS LLC OR IBM LIABLE FOR ANY OF THE FOLLOWING: (1) THIRD-PARTY CLAIMS AGAINST YOU FOR LOSSES OR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); (2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR (3) SPECIAL, INCIDENTAL OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF TT SYSTEMS LLC OR IBM ARE INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

TT Systems LLC reserves the right to make changes in the design of the IBM-3900 and to make additions or improvements to the IBM-3900 without incurring any obligation to modify any IBM-3900 previously sold.

BATTERIES: CAUTION

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

- For the cordless handset, use only 3.6V 600mAh Nickel Metal Hydride (Ni-MH) cordless telephone battery pack IBM-ENB1 (included).
- Do not dispose of the batteries in a fire. The cells may explode. Check with local codes for possible special disposal instructions.
- Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
- Do not attempt to rejuvenate the batteries identified for use with this product by heating them. Sudden release of the battery electrolyte may occur causing burns or irritation to the eyes or skin.
- When inserting batteries into this product, the proper polarity or direction must be observed. Reverse insertion of batteries can cause charging, and that may result in leakage or explosion.
- 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.
- Do not store this product, or the batteries 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 protected from condensation during storage and defrosting.

Batteries should be stabilized at room temperature prior to use after cold storage.



The EPA certified RBRC® Battery Recycling Seal on the nickel-metalhydride (Ni-MH) battery indicates TT Systems LLC is voluntarily participating in an industry program to collect and recycle these batteries at the end of their useful life, when taken out of service in the United States or Canada. The RBRC® program provides a convenient alternative to placing used Ni-MH batteries into the trash or the municipal waste stream, which may be illegal in your area. Please call 1-800-8-BATTERY for information on Ni-MH battery recycling and disposal bans/restrictions in your area. TT Systems LLC's involvement in this program is part of our commitment to preserving our environment and conserving our natural resources.

No dial tone/phone will not dial out.

- Check that you have plugged the AC power adapter into a working AC power outlet.
- Check all telephone cord connections or try another wall jack.
- Make sure the battery is inserted correctly.
- Make sure that the handset and base are registered to each other. When they are not registered together, the handset cannot connect to the phone line to dial out. See the instructions on page 14, "Register the handset to the Base."

Can't hear the ring signal.

- Check the ringer volume controls; at the lowest level the ring may not be heard.

While on a call, you hear another call on the line or experience radio frequency interference.

- Switch channels to a clear channel.
- Check the wiring for bad connections.

The caller's name and/or phone number does not appear on the display.

- Make sure you have subscribed to Caller ID service (from local telephone company).
- Caller ID service may not work when the phone is connected to a Private Branch Exchange (PBX).
- The call is coming from an area not supplying caller ID data. "Out of Area" will appear on the display.
- The caller has requested that their phone number be suppressed from Caller ID service. "Private" or "Unavailable" will appear on the display.
- You answered the call before Caller ID data was displayed, which usually occurs after the second ring.

New Call/Message Waiting Indicator doesn't work properly.

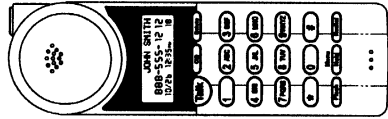
- Make sure you have subscribed to voice mail compatible with "FSK" type signaling (check with your local phone company). If your voice mail product from the local phone company does not support "FSK" signaling, you may use this feature as a New Call Indicator only.

Can't receive or make phone calls.

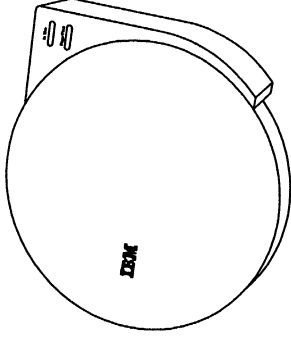
- Check to be sure the phone is set to the correct type of service, either Tone or Pulse.

Your IBM-3900 telephone has been designed to give years of trouble-free service. It is a sensitive electronic instrument. To assure its longevity, please read the following maintenance instructions.

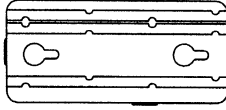
1. Keep the IBM-3900 away from heat as high temperatures can shorten the life of the electrical components and distort or melt its plastic parts.
2. The IBM-3900 should be kept free of dust and moisture. If it gets wet, wipe it dry immediately. Liquids can contain minerals that can corrode electronic circuits.
3. Handle your IBM-3900 gently and carefully. Dropping it can cause serious damage to circuitry, or the plastic case, which may result in malfunction.
4. Do not use any type of chemical or any abrasive powder to clean the cabinet. Use only mild detergents on a soft, damp cloth to clean the IBM-3900 telephone.
5. The IBM-3900 has built-in surge protection circuits that meet or exceed FCC requirements. However, an incident such as a lightning strike at or near the telephone lines could cause serious damage.
6. If the IBM-3900 is installed in an area with frequent or severe electrical storms, it is suggested that the telephone be disconnected during these storms or that additional surge suppression equipment be added to the installation.
7. In the case of trouble with the telephone, do not attempt to repair the telephone yourself. It is the responsibility of users requiring service to report the need for service to our Service Department. They will make the necessary arrangements for repair or replacement.
8. If you should have any questions about the operation of your IBM-3900 telephone, please call our Service Department at **1-800-955-1009** between the hours of **9:00 A.M.** and **9:00 P.M.** Eastern time **Monday - Friday**. Or you may contact TT Systems LLC for technical assistance via our Internet Web site at www.ttsystems.com or e-mail at tech@ttsystems.com.
9. Please register your product online at www.ttsystems.com/CustomerSupport/RegOnline.asp.



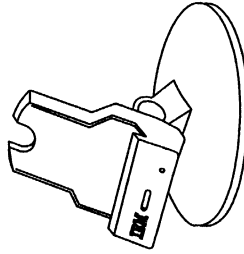
1. Handset



2. Base



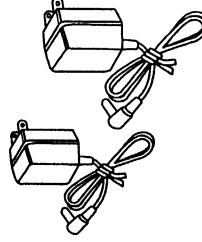
3. Base Wall Mount Plate



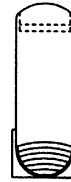
4. Charging Cradle



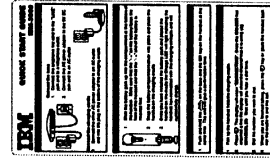
5. 7-foot line cord



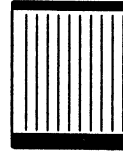
6. (2) AC power adapters



7. Belt-Clip



8. Quick start card

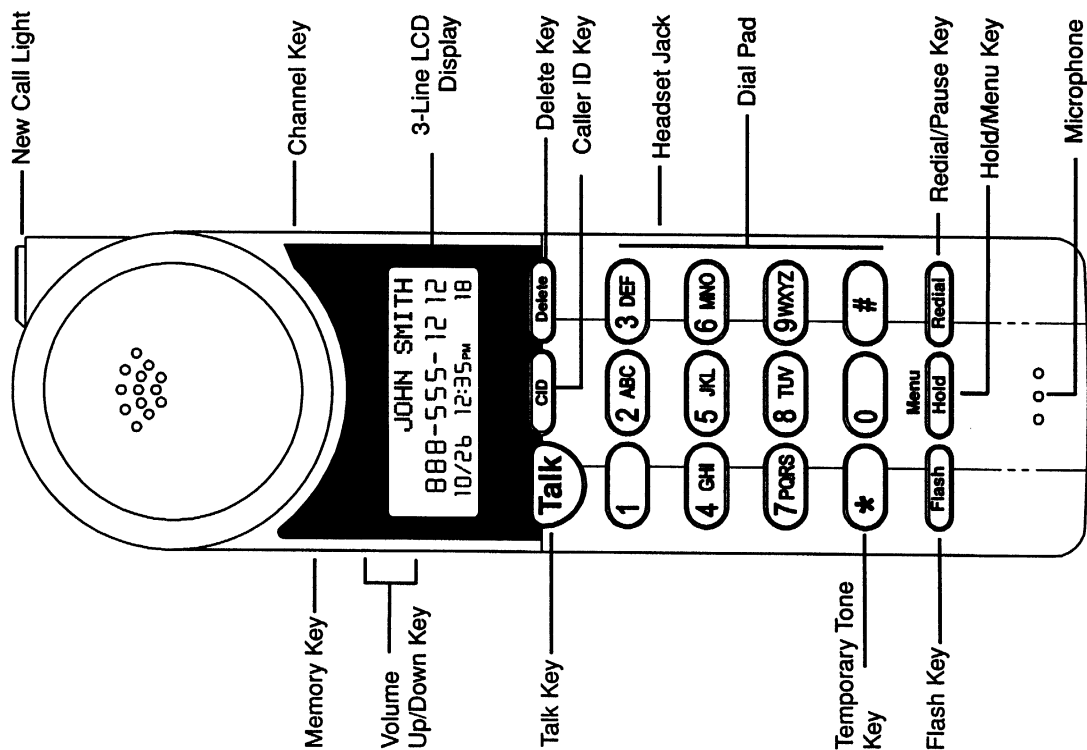


9. Memory Card



10. Ni-MH battery pack

Handset

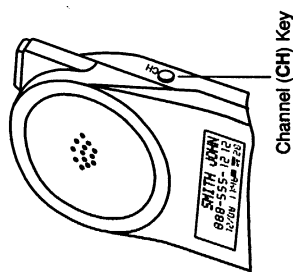


Using the Handset Finder (PAGE)

1. Press **Page** on the base. If the handset is within range, the handset will beep for 30 seconds.
2. Press any key on the handset to stop the page/find feature.

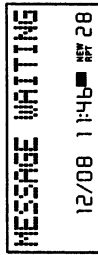
Channel Changing

If you are experiencing interference during a telephone call, press the **CH** key. The IBM-3900 will scan up to 20 channels and select the clearest one to provide the best possible reception.



Message Waiting*

If you subscribe to voice mail from the telephone company and if there are voice messages that have been left in your voice mailbox, the display will show "MESSAGE WAITING."

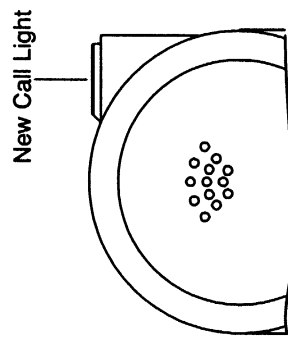


***Note:** This function requires voice mail subscription from the local telephone company. Furthermore, the local phone company must provide a type of voice mail signaling called "FSK" (Frequency Shift Keying). Not all telephone companies have the visual message waiting feature available. Please contact your local telephone company to check if this is available in your area.

Tip: If you wish to delete the "Message Waiting" message, delete all the Caller ID messages (see "Deleting Caller ID Records" on page 29).

New Call Light

- When you receive a new Caller ID message, the New Call light will flash to indicate that you have a new Caller ID call stored in memory.
- The New Call light will also flash when you have a new voice message waiting.



Talk

The **Talk** key is used to access the telephone line or end a call.

Delete Key

The **Delete** key is used to erase digits on the display, single or multiple entries from the speed dial and Caller ID directories.

Caller ID Key

The **CID** key is used to review Caller ID information stored in memory.

Hold Key

The **Hold** key is used to place a call on hold. This key is also used to access the programmable functions of your phone.

Up/Down Key

The **Up** key lets you scroll through menu options and adjust the handset volume while on a call. Also can be used to access the speed dial directory.

Dial Pad

Numeric keys are used in the conventional manner for dialing.

Flash Key

The **Flash** key is used to access telephone company services like call waiting.

Redial Key

Pressing the **Redial** key will automatically redial the last number dialed. It is also used to program a measured pause into a dialing sequence stored in a memory location.

Memory Key

Use the **MEM** key to program and retrieve the numbers in the speed dial directory.

Channel Key

The **CH** key, when pressed, will scan up to 20 channels and select the clearest one to provide the best possible reception.

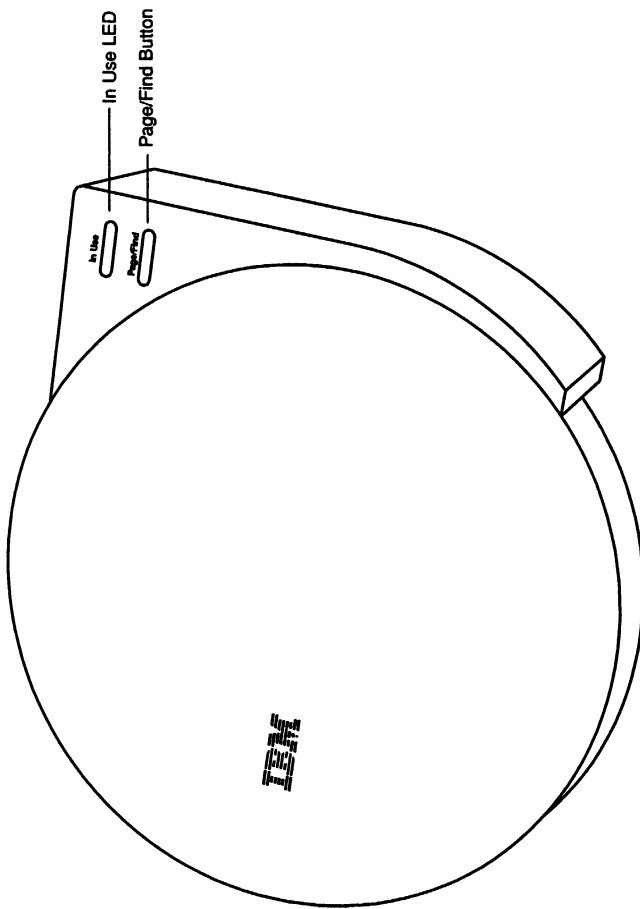
Temporary Tone Key

If the phone is set to pulse dialing in the handset settings, pressing ***** causes subsequent digits to be dialed out using tone until the line is put back on hook.

Headset Jack

Allows using a headset for hands-free convenience.

Base



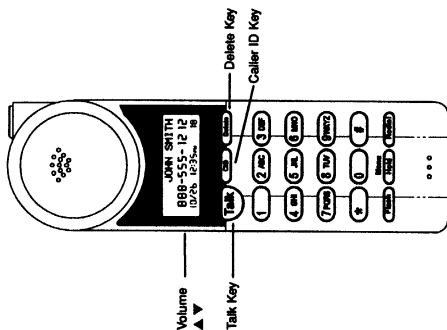
Page/Find Button - Use the  to help find the handset.

In Use LED - Lights green when the handset is being used. Flashes green when the phone is ringing.

Returning Calls from the Caller ID Records

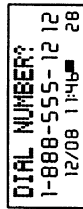
You can return calls by using the Caller ID recall feature.

1. Press .
2. Use the  to scroll to the call record you wish to call back.
3. Press .
4. The display will show "DIAL NUMBER?"
5. Press  to dial out the displayed number.
6. To end the call, press .



If the number displayed is not correct (needing 7, 10, 11 digits), do the following before you dial:

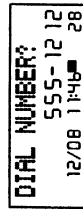
7. Press  to toggle among 7, 10, 11 digit numbers to be dialed out.



8. Press  to dial the number displayed.

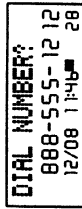
9. Press  to cancel the call you are trying to return before the number is dialed.

Press .

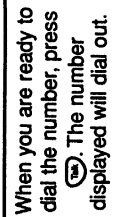


10. When you are finished talking, press the  key or place the handset back into the cradle to end the call.

Press .



Tip: If you set up your home area code and local area codes in the handset setup mode, you will not have to adjust the number between 7, 10 or 11 digit dialing (see handset settings on pages 15-16 for setup information).



Deleting Caller ID Records

When viewing the Caller ID information you can delete a single call record or all the call records.

To Delete a Single Record

1. Press **CID**.
2. Use **▲ ▼** to scroll to the call record you wish to delete.
3. Press **Delete**.
4. The display will show **"REMOVE ITEM?"**
5. To delete the record press **Delete**.
6. Press **CID** to finish.

```

REMOVE ITEM?
888-555-1212
12/08 1:46 28
    
```

To Delete All Records

1. Press **CID**.
2. Press and hold **Delete**.
3. The display will show **"REMOVE ALL?"**
4. To delete all the Caller ID records press **Delete**.
5. The display will show **"NO CALLS."**
6. Press **CID** to finish.

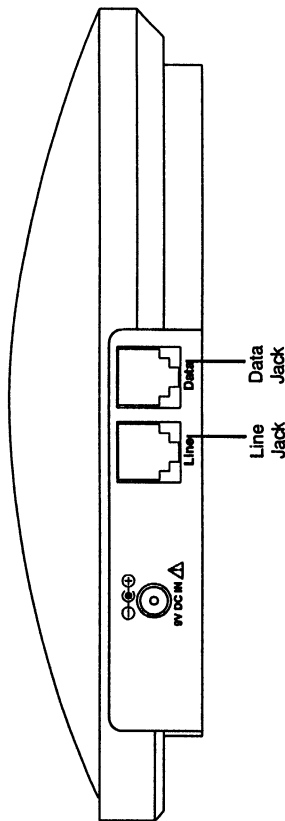
```

REMOVE ALL?
888-555-1212
12/08 1:46 28
    
```

```

NO CALLS
    
```

Base Back View



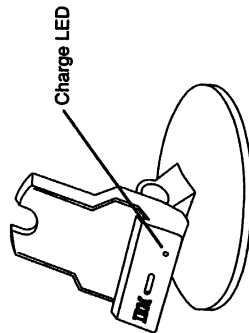
Data Jack

Used to connect a computer or fax machine.

Line Jack

Used to connect the base to the telephone line.

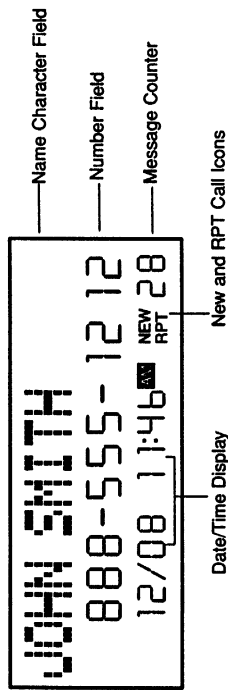
Charging Cradle



Charge LED

Lights green when the handset is properly making contact with the charge terminals.

LCD Display



Name Character Field

Displays caller's name and operational menus.

Number Field

The number field will display numbers when dialing, viewing Caller ID, and when viewing the phonebook.

Date/Time Display

Shows the date and time of Caller ID calls or current date & time when idle.

NEW and RPT Icons

The **NEW** call icon will flash slowly when a new Caller ID call has been received. The **RPT** icon shows that the same Caller ID number has called more than one time.

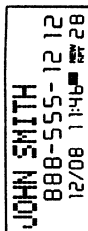
Message Counter

The Message Counter will show the total number of Caller ID messages received.

Caller ID with Call Waiting Service

In order to use the "Call Waiting Caller ID" service you must subscribe to a telephone company that offers Caller ID service combined with "call waiting" service.

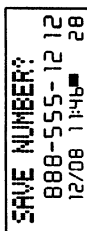
When a new call comes in while you are talking, you will hear a notification beep from the handset and the volume is momentarily muted. The new caller's name and phone number, if available, appear on the display.



1. When you receive a "call waiting" call and you want to connect the call, press **Flash**. The active call will be placed on hold and the new call will be active.
2. Press **Flash** to alternate between calls.
3. To end the call, press **End** or place the handset back on the cradle.

Storing Caller ID Records to the Speed Dial Directory

1. Press **CID**.
2. Use the **▲ ▼** to scroll to the call record you wish to store.
3. Press **MEM**.
4. The display will show "SAVE NUMBER?"
5. To save the record press **MEM**.
6. The display will show "ENTER LOCATION?" with the next available location blinking.
7. Change the location if desired by entering two digits (01-30) and press **MEM** to store the number.
8. The display will show "STORED."
9. Press **CID** to finish.



Caller ID Displays

JOHN SMITH
888-555-1212
12/08 1:46 PM 28

Display shows name and number, time and date of the call.

888-555-1212
12/08 1:46 PM 28

Display shows number-only service.

UNAVAILABLE
12/08 1:46 PM 28

"UNAVAILABLE" will be displayed when Caller ID information is not available. This call was made from a telephone company that does not offer Caller ID services (including international calls).

PRIVATE
12/08 1:46 PM 28

"PRIVATE" will be shown when a call is received from a blocked number. For privacy reasons, some states allow callers the option to prevent their telephone data from being displayed on the other party's Caller ID display.

ERROR

Display shows when the Caller ID information was received incorrectly or only part of the data was received.

Note: When an error is received, none of the data from this call is saved in memory.

MESSAGE WAITING

Display shows when a voice mail message has been received and is stored by message waiting service provided by the phone company.

END OF LIST

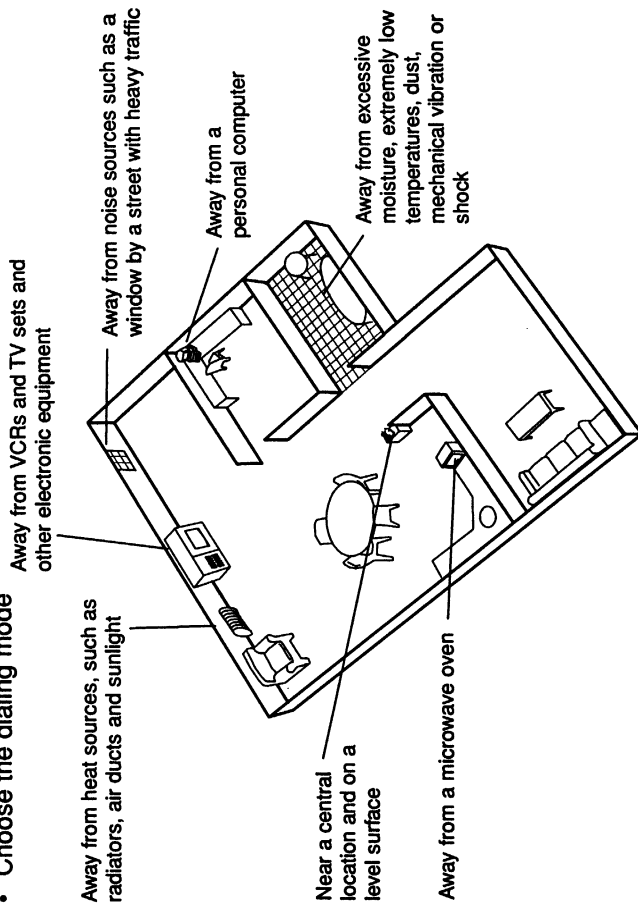
This is shown between the first and last call when viewing the Caller ID list.

NO CALLS

This is displayed when is pressed and there is no Caller ID data stored.

Do the following:

- Choose the best location
- Connect the phone
- Choose the dialing mode



Where you place the phone affects the reception quality of the handset:

- Away from another cordless telephone;
- Place the base near an AC electrical outlet and near telephone line jack;
- Place the base away from metal walls and metal file cabinets;

CAUTION: The cordless telephone operates at a frequency that may cause interference to nearby TVs and VCRs; the base 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.

Battery Installation

To install the cordless handset Ni-MH battery pack:

1. Slide the battery pack up into the compartment at the bottom of the handset. Make sure that the "+" on the battery faces the front of the handset and that the "-" end of the battery is inserted first. The battery is inserted correctly if you follow the directions on the label and the illustration shown here.
2. Snap the battery compartment cover into place.
3. Place the handset on the charging cradle.
4. Once you have installed the battery pack and placed the handset on the cradle the **Charge LED** on the charging cradle will light indicating that the handset has connected with the charging contacts and will successfully charge.
5. **IMPORTANT:** Charge the battery pack for at least 12 hours before using the handset for the first time.

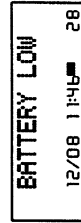
Battery Duration

A fully charged battery lasts for approximately:

- 6 hours when you use the handset continuously (talk time).
- 5 days when the handset is not in use (standby).

When the Battery Needs Charging

- The phone will beep.
- The display will show "BATTERY LOW."



When to Purchase a New Battery Pack

If the battery lasts only a few minutes even after a full charge, the usable life of the battery has expired and needs to be replaced. Contact TT Systems LLC customer support center at 1-800-955-1009 or on the Internet at www.ttsystems.com.

Caller ID allows the caller's name and phone number to be shown on the display before you answer the call. In order to use this feature you must first subscribe to Caller ID name and number service with your telephone company.

When You Receive a Call

1. When the telephone rings, the caller's name and phone number appear on the display.
2. The new Caller ID record includes the name and number of the caller and the time and date the record is received. The New Call light will flash to indicate that you have a new Caller ID call stored in memory.

Note: When the Caller ID information is received, it is stored in memory so that this information can be recalled for later use. Up to 50 Caller ID calls can be stored.

Viewing the Caller ID List

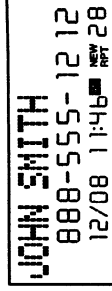
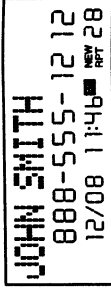
This phone automatically stores the last 50 calls received.

Tip: The IBM-3900 keeps track of all Caller ID calls received, even if they were not answered, depending on how the handset was set up (see handset settings on pages 15-16).

1. With the handset idle press **cid**.
2. The most recent call will be displayed. The information on the call will be displayed with the name, number, date and time that the call was received.

3. To scroll to the next call, press **▲**. The **▼** will go through the calls from the last call received to the first. The **▲** will allow you to view the calls from the first call received to the last. Between the first and last call the display will show "END OF LIST."

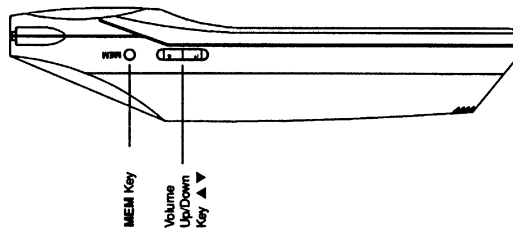
4. Press **cid** to finish.



Chain Dialing

While the phone is off-hook, it is easy to dial numbers stored in memory. This not only allows for ease of use, but also allows you to dial multiple stored numbers in a row, such as when you might be dialing a long string of digits when dealing with automated telephone systems.

1. While the phone is off-hook (after **MEM** is pressed and the line is connected), press **MEM**.
2. Locate the number you wish to dial using **▲ ▼**.
3. Push **MEM**. The number displayed is then dialed.
4. When you wish to dial another stored number, repeat the procedure.



Name Matching

If you have stored names and numbers in the speed dial directory and you receive a Caller ID call with a number that matches a number in the speed dial directory, the name that is stored will be displayed with the Caller ID number.

Deleting a Stored Number

1. Press **MEM**, or press **▲ ▼** while the phone is idle.
2. Locate the number you wish to delete using **▲ ▼**.
3. Press **Delete**. The display will show "REMOVE ITEM?"
4. Press **Delete** to delete the speed dial memory.
5. When you are finished press **MEM**.

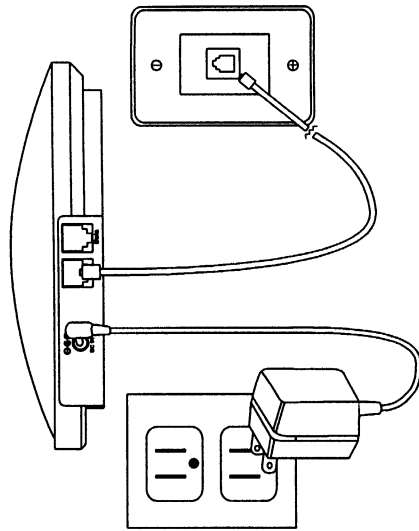
REMOVE ITEM?
888-555-1212

Connect the base

1. Connect the telephone line cord to the "LINE" jack and to a telephone outlet.

2. Connect the larger of the two supplied AC power adapters to the 9V DC jack on the back of the base. Connect the other end to a wall outlet.

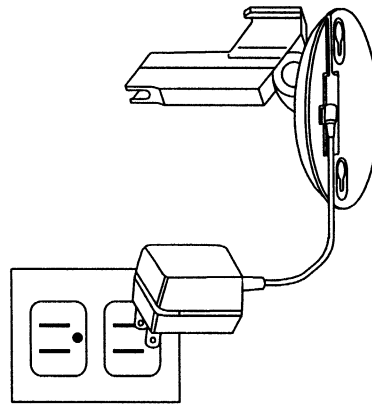
Tip: If your telephone outlet is not modular, contact your telephone company for assistance.



Connect the charging cradle

1. Connect the remaining AC power adapter to an AC outlet and into the plug in the bottom of the charging cradle.

Note: Use only the supplied AC power adapters. Do not use any other AC power adapters. Connect the AC power adapters to a continuous power supply. Place both the base and charging cradle close to the AC outlet so that you can plug in their AC power adapters easily.



Register the handset to the base

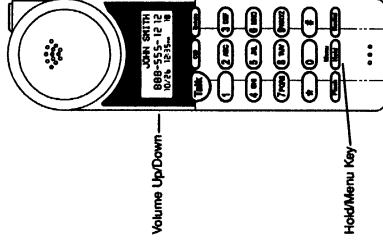
1. Make sure power is supplied to the base, the battery is installed in the handset, and the base is connected to the phone line.
2. Push and hold the **Register** key on the base and the **CH** key on the handset, at the same time, until the unit gives a confirmation tone, the IN USE LED on the base flashes green, and the handset LED displays "REGISTERED."

Changing the Handset Settings

You can change the setting on the handset in the options menu.

In the menu options the settings that can be changed are:

- **Ringer Level** Change the volume of the ringer, either High, Low, or Off.
- **Ringer Tone** Change the way the ringer sounds on the handset.
- **Time and Date Setting** Change the time and date.
- **Home Area Code** Setting your home area code for Caller ID dial back.
- **Local Area Codes** You can set your local area codes if you have 10-digit dialing for Caller ID callback. You can have as many as eight local area codes.



Tip: If within your local area you are required to dial 10-digits (XXX-XXX-XXXX) to dial a local number, use the "LOCAL AREA CODE" programming. In this case do not use the "HOME AREA CODE" when setting up for Caller ID call back.

- **Call History** Will allow you to select the Caller ID storing options: Save "ALL CALLS," save "UNANS CALLS" (unanswered calls), or save "NO CALLS."
- **Repeat Calls** Will allow you to select the way repeat Caller ID calls are stored: "SEPARATE" will store the repeat calls as separate entries, "COMBINED" will store the repeat calls as one entry, and the "RPT" icon will display for these calls.
- **Call List Order** Will allow you to program how you view the calls: "BY TIME" shows the last call received to the first call received, or "NEW CALLS" shows the new Caller ID calls first, then the old calls.
- **Tone/Pulse Setting** Will allow you to select the dialing mode, either Tone or Pulse.

Tip: If you are unsure of the proper dialing mode, make a trial call with the dial mode setting to TONE MODE. If the call connects, leave the setting as is (TONE MODE); otherwise, set to PULSE MODE.

- **Contrast** Will allow you to adjust the display contrast (three levels).

Letter Table

1	Space	1	Space	1	Space	1
2	A	B	C	2	A	B
3	D	E	F	3	D	E
4	G	H	I	4	G	H
5	J	K	L	5	J	K
6	M	N	O	6	M	N
7	P	Q	R	7	P	Q
8	T	U	V	8	T	U
9	W	X	Y	9	W	X
0	0	.	,	0	0	.
*	*	/	(	*	*	/
#	#	\$	%	#	#	\$

Note: If there are no memory locations left in the speed dial directory the IBM-3900 will display "MEMORY FULL." You can continue with memory programming and select the location that you want to replace. If you make a mistake, push **Delete**. Each time you press **Delete**, the last letter or number will be erased.

Making Calls With Speed Dialing One-Touch Dialing

1. To make a call using one-touch dialing, with the handset in idle press and hold the number location that the number is stored under. The display will show the number and begin scanning for a clear channel. Then the IBM-3900 will dial the number displayed.
2. When you are finished talking, press the **End** key or place the handset back into the cradle to end the call.

Note: Be sure to check that the line is not in use by another extension.

Dialing from Directory

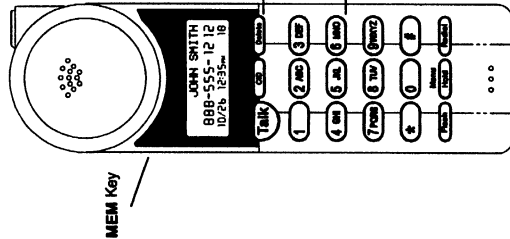
1. To access the speed dial directory, press the **MEM** or **▲** key while the phone is idle.
2. Locate the number you wish to dial using **▲** **▼**.
3. Push **End**. The display will show the number, and begin scanning for a clear channel. The number displayed is then dialed.
4. When you are finished talking, press the **End** key or place the handset back into the cradle to end the call.

Speed Dialing

The IBM-3900 will store up to 30 speed dial numbers, up to 10 of which can be programmed for one-touch dialing.

Storing Phone Numbers

1. With the handset in the idle state, press the memory key (MEM) located above the $\blacktriangle$ key on the left side of the phone.
2. Dial the number you wish to store (up to 15 digits) and press MEM. To add a pause, press the Redial key.
3. Enter the name you wish to store using the dial pad to enter the letters. See the letter table for how to program the letters using the number pad. When entering letters, if you pause for more than a second, the letter fields will move to the next letter to enter. To add a space between words push space .



Example: For JOHN SMITH dial this sequence:

5	6	6	6	4	4	6	6	1	7	7	7	6	4	4	4	8	4	4
J	O	H	N	S	M	I	T	H										

4. Press MEM when finished.
5. The next available memory location will automatically be displayed. To accept this, press MEM or enter a number for a different location. If there is a memory stored in the location selected the IBM-3900 will ask if you would like to erase the original memory stored. Press the MEM to accept or any other key to reject.
6. When you are finished, press MEM.

Tip: The first 10 memory locations that are stored can be used with the one-touch dialing feature of your IBM-3900.

Press and hold the Hold /MENU key until the display shows "RING LEVEL: HI." You are now in the options menu. Press and release the Hold button to advance to the next setting. Press and hold the Hold button to exit the menu.

Handset Settings

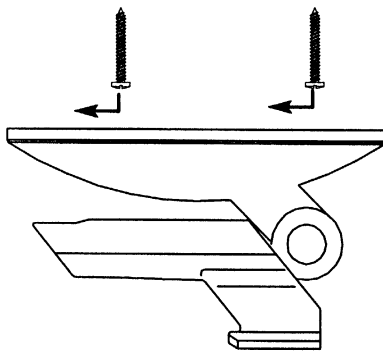
Display Shows		To Change Setting		Settings		To Select	
"RING LEVEL: HI"		Push the $\blacktriangle$ $\blacktriangledown$	to change the setting.	HI, LOW, and OFF		Push MEM briefly	
"RING TONE: A"		Push the $\blacktriangle$ $\blacktriangledown$	to change the setting. Note: The ringer will ring to allow you to choose the ring tone that you desire.	A, B, C, D, and E		Push MEM briefly	
"SET TIME?"		Use the number pad to change the date and time. 1. Enter the date as month/day (mm/dd) as you enter each digit, the next digit will flash. Enter the month first then enter the day. Example: For February 25 enter 0 2 2 5 2. Next enter the time. Use military time to enter the time correctly. Example: For 1:31PM enter 1 3 1 Note: If you have Caller ID the time will update automatically and you do not need to change this setting.	Date and Time			Push MEM briefly	
"HOME AREA CODE"	-- --	Use the number pad to add or change the home area code.	Home Area Code			Push MEM briefly	
"LOCAL AREA CODE"		Use $\blacktriangle$ $\blacktriangledown$ up or down to go to the first local area code.	Local Area Code			Push MEM briefly	
"1ST LOCL CODE"	-- --	1. Use the number pad to add or change the local area code.					
"2ND LOCL CODE"	-- --	2. Go to the next local area code by pressing $\blacktriangle$ $\blacktriangledown$ up or down.					
		3. Enter the local area code the same as previously and continue to add up to 8 local area codes. Note: If you do not have 10-digit dialing in your area do not use this feature.					
"CALL HISTORY"		Push the $\blacktriangle$ $\blacktriangledown$ to change the setting.	"ALL CALLS," "NO CALLS," or "UNANS CALLS"			Push MEM briefly	
"REPEAT CALLS"		Push the $\blacktriangle$ $\blacktriangledown$ to change the setting.	"SEPARATE" or "COMBINED"			Push MEM briefly	
"CALL LIST ORDER"		Push the $\blacktriangle$ $\blacktriangledown$ to change the setting.	"BY TIME" or "NEW CALLS"			Push MEM briefly	
DIALING MODE		Push the $\blacktriangle$ $\blacktriangledown$ to change the setting.	"TONE MODE" or "PULSE MODE"			Push MEM briefly	
"CONTRAST"		Push the $\blacktriangle$ $\blacktriangledown$ to change the setting.	"0," "1," "2," or "3"			Push MEM briefly	

Wall Mounting

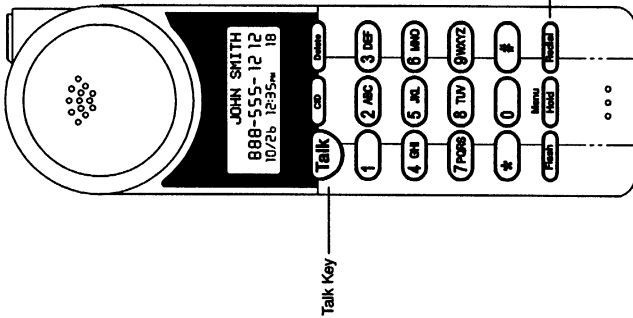
The base and charging cradle of the IBM-3900 telephone may be installed onto two screws (one set included) fastened into the wall. When installing screws into plasterboard walls, use wall anchors (not included) to ensure that the screws remain secure. Insert the screws into the wall, leaving 3/16" of each screw extending out from the wall. See the wall mount templates on page 37 to properly space the screws in the wall for mounting. The IBM-3900 is not compatible with mounting on a standard wall mount telephone jack.

Handset/Cradle Wall Mounting Instructions:

1. Remove the handset from the charging cradle.
2. Adjust the charging cradle to the wall mount position.
3. Plug the smaller AC adapter into the jack in base of the cradle and run the cable down through the cable channel.
4. Slip the cradle onto the wall, lining up the wall mounting holes over the screws. Slide the cradle down so it is firmly in place.
5. Return the handset to the charging cradle.
6. Plug the other end of the AC adapter into the AC outlet.



Receiving Calls



When you hear the phone ring:

1. If the handset is in the cradle, lift the handset from the cradle. The handset will turn on. There is no need to push the **Talk** key if the unit is in the cradle when the call comes in.
2. If the handset is off the cradle the display will show **"RINGING."** Push **Talk**.
3. When you are finished talking, push the **Talk** key or place the handset back into the cradle to end the call.

Note: If you have Caller ID, the display will show the Caller ID information while the phone is ringing.

Redialing

1. Press **Talk**. The display will show **"CONNECTING."** Once the IBM-3900 has acquired a line the display will show the channel that it is using (eg. **CHANNEL 20**). Wait until you hear a dial tone.
2. Press **Redial** to redial the last number dialed.

Note: You can press **Redial** first to display the number and then press **Talk** to dial the number displayed.

Remote Hold Release

When a line is placed on hold, any other phone on that line can be used to access the call and hold will be broken from the IBM-3900.

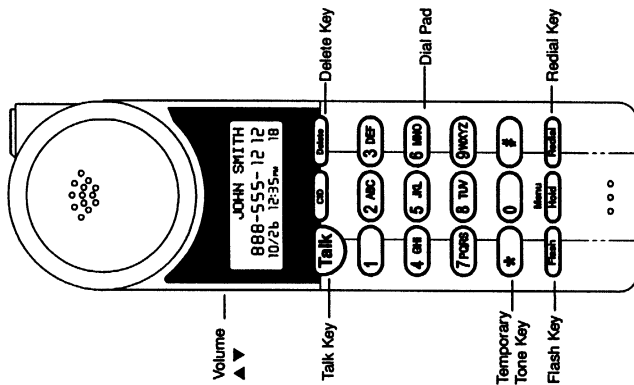
Making Calls

1. Pick up the handset from the cradle.
2. Press **[Talk]**. The display will show "CONNECTING." Once the IBM-3900 has acquired a line the display will show the channel that it is using (eg. **CHANNEL 20**). Wait until you hear a dial tone.
3. Dial the number you wish to dial.

Note: You can pre-dial the number before you press the **[Talk]** key. The number displayed will be dialed once **[Talk]** is pressed.

4. After 15 seconds of the line being active the display will show the call timer.
5. When you are finished talking, press the **[Talk]** key or place the handset back into the cradle to end the call. The call timer will display for a short time after the call has finished.

Note: The **IN USE** light on the base will illuminate when the line is active.

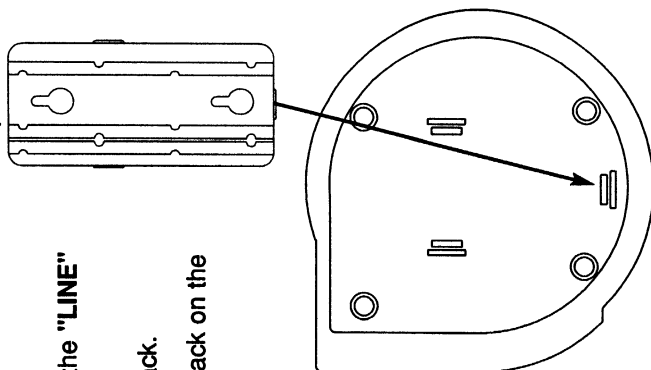


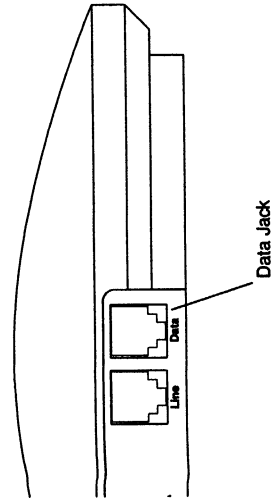
Additional Options

Adjust the volume in the earpiece	Press [Volume Up] during a call until the desired volume level is reached. A double beep will sound when the minimum or maximum volume has been reached.
Switch to temporary tone dialing	Press the [Flash] key after the phone is in use. The phone will remain in tone dialing mode for the duration of the call.
Delete a pre-dialed number or digit	Press [Delete] , wait 10 seconds or place the handset back on the base.
Receive a call waiting call	Press [Flash] to go to the new caller. Press [Flash] again to go back to the original caller.
Place a call on hold	Press the [Hold] key. Press [Flash] to pick up the line on hold.

Base Wall Mounting Instructions:

1. Insert the bottom mounting tab on the end of the base wall mounting plate into the lower attaching bracket on the back of the base. Lock the plate in place with the side brackets.
2. Plug the supplied 7-foot telephone cord into the "LINE" jack on the telephone.
3. Connect the telephone line cord to the wall jack.
4. Insert the larger AC adapter into the 9V DC jack on the back of the base.
5. Slip the telephone base onto the wall, lining up the wall mounting holes over the screws. Slide the telephone base down so it is firmly in place.
6. Plug the other end of the AC adapter into the AC outlet.





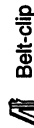
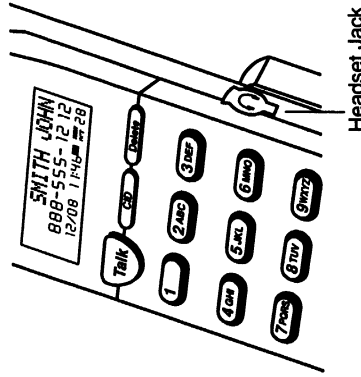
The Data Jack

The jack located on the back of the base labeled "DATA" is a convenience jack. It is useful for connecting a fax machine or modem when there is no telephone jack available for that device.

The Headset Jack

The headset jack is located on the right side of the handset and is a standard 2.5mm plug. Simply plug the headset into the jack and the headset will be active.

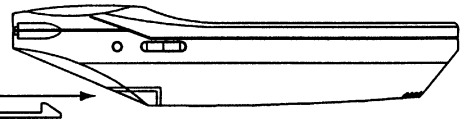
Note: When the headset is plugged into the telephone, the microphone and earpiece on the handset are not active.



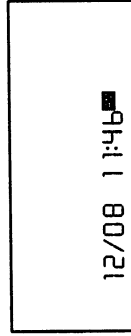
Belt-Clip

Be sure to remove the belt-clip filler cap prior to installing the belt-clip. Install the belt-clip as shown.

To remove the belt-clip, squeeze the release at the top of the clip where it attaches to the phone, and gently pull the clip up and out of the handset.



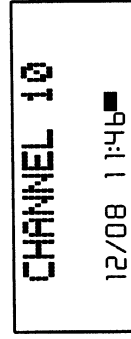
Handset Idle



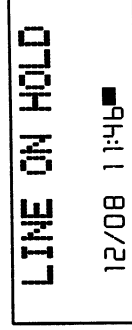
Connecting



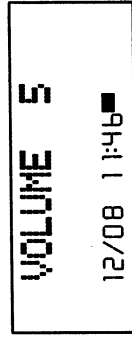
Channel



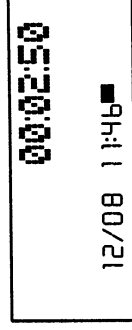
Line on Hold



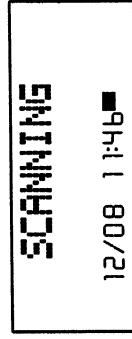
Volume Control



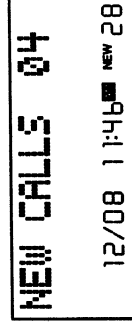
Call Timer



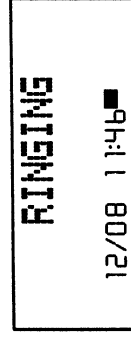
Channel Changing



New CID Received



Line Ringing



Message Waiting

