

Motorola M990

April 2008

User Guide

HELLOMOTO

Introducing your new M990 GSM wireless phone. Here's a quick anatomy lesson.

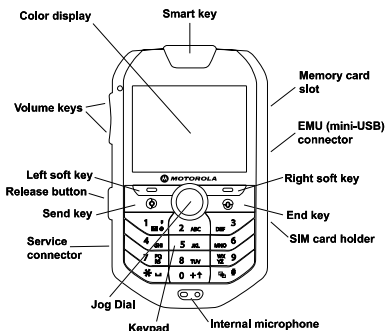


Figure 1: M990 phone (front view).

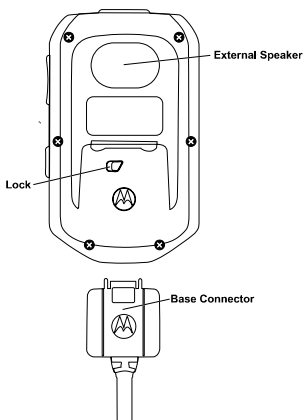


Figure 2: M990 phone & base connector (back view).

Home Screen & Main Menu

Home Screen

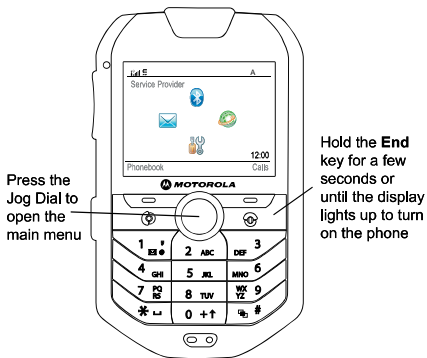


Figure 3: Home screen.

Main Menu

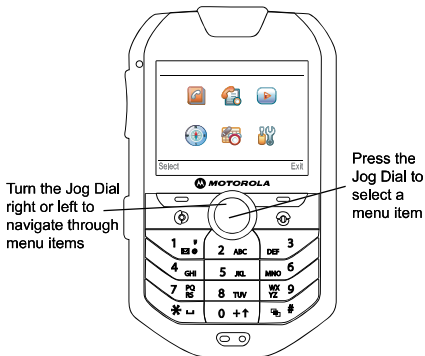


Figure 4: Main menu.

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1-800-331-6456 (United States)

1-888-390-6456 (TTY/TDD United States for hearing
impaired)

1-800-461-4575 (Canada)

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Menu Map

Following is a summary of the M990 menu items. This list represents the standard main menu layout¹.

In order to use the following list to access these features, you must first understand how to operate the phone and the menu system. For details, see Getting Started on page 4.

Tip: Press **End** to exit the current menu, or to exit all menus.

Phonebook²

Recent Calls

Tools

- Messages
 - New Message
 - Message Inbox
 - Voicemail
 - Outbox
 - Drafts
 - Email Msgs
 - Info Services
 - Browser Msgs
 - Hot Messages
 - Templates
- WebAccess
 - Browser
 - Bookmarks
 - Stored Pages

- History
- Go to Page
- Browser Setup
- Web Sessions
- Datebook
- SIM Services
- Dialing Services
 - Fixed Dial
 - Service Dial
 - Quick Dial
- User Profiles
- World Clock
- Notes

Nav & Apps³

Multimedia

- Pictures
- Sounds
- Voice Records

¹ Various phone menus and features are service provider dependent.

² The Phonebook menu items will be displayed for each stored number.

³ The items on this menu may vary, and depend on the installed games and applications.

Settings

- Personalize
 - Home Screen
 - Main Menu
 - Greeting
 - Wallpaper
 - Screen Saver
- Ring Styles
 - Style
 - [Style] Detail
- Connection
 - Bluetooth Link
 - USB Settings
 - MOTOSYNC
- Call Divert
 - Voice Calls
 - Fax Calls
 - Data Calls
 - Cancel All
 - Divert Status
- In-Call Setup
 - In-Call Timer
 - Call Cost Setup
 - My Caller ID
 - Talk and Fax
 - Answer Options
 - Call Waiting
 - Aux Alert
- Initial Setup
 - Time and Date
 - Speed Dial
 - Auto Redial
 - Backlight
 - Scroll
 - Text Marquee
 - Language
 - Brightness
 - DTMF
- Master Reset
- Master Clear
- Phone Status
 - My Tel. Numbers
 - Download Location
 - Storage Devices
 - Other Information
- Car Settings
 - Auto Answer
 - Power-off Delay
- Network
 - New Network
 - Network Setup
 - Available Networks
 - My Network List
 - Service Tone
 - Network Jingle
 - Call Drop Tone
- Security
 - Phone Lock
 - Keypad Lock
 - Lock Application
 - Fixed Dial
 - Restrict Calls
 - Call Barring
 - SIM PIN
 - New Passwords
 - Certificate Mgmt
- Java Settings
 - Java App Loader
 - Java System
 - Delete All Apps
 - App Volume
 - App Priority
- Voice Activation
 - Language
 - Voice Comments
 - Incoming Voice Calls

Use & Care

To care for your Motorola phone, please keep it away from:



Liquids of any kind

Do not expose your phone to water, rain, extreme humidity, sweat, or other moisture.



Extreme heat or cold

Avoid temperatures below $-10^{\circ}\text{C}/14^{\circ}\text{F}$ or above $45^{\circ}\text{C}/113^{\circ}\text{F}$.



Microwaves

Do not try to dry your phone in a microwave oven.



Dust and dirt

Do not expose your phone to dust, dirt, sand, food, or other inappropriate materials.



Cleaning solutions

To clean your phone, use only a dry soft cloth. Do not use alcohol or other cleaning solutions.



The ground



Do not drop your phone.



Essentials

Caution: Before using the phone for the first time, read the Important Safety and Legal Information included in this guide.





Getting Started

Initial Setup


Connect the Main Unit	Insert the main unit into the base connector until it clicks into place.
Disconnect the Main Unit	Press the release button on the left side of the main unit and pull out the device. Attention: Never pull out the device before the phone powered off completely (all lights are turned off).
Inserting your SIM	With your phone powered off, slide the SIM card into the SIM card holder at the right side of the phone until it clicks into place.
Turning On/Off	The phone powers on and off automatically using the car's ignition sensor. For manual operation press and hold the End key until the display panel lights on/off.
Ring Tone Volume	When no call is active, press either of the volume keys on the left side of the phone to set the ring tone volume.
Call Volume	During a call, press either of the volume keys on the left side of the phone to adjust the call volume.
Muting Microphone	During a call, press Mute to disable the microphone. Press Unmute to enable the microphone.
Key Volume	Press  > Settings > Ring Styles > [Style] Detail > Key Volume .
Setting Menu View	Press  > Settings > Personalize > Main Menu > View . Select Icons or List .

Time & Date	To set the time and date, press  > Settings > Initial Setup > Time and Date .
Ring Setting	Press  > Settings > Ring Styles > Ring Detail , and select your favorite tones.

Call Management

Answering a Call	Press Send or Answer , or press the Smart Key .
Ending a Call	Press End , or press the Smart Key .
Making a Call	Enter the number you want to call and press Send .
Call Divert	To divert voice/fax/data calls from your car phone, press  > Settings > Call Divert and follow the instructions.
Recent Calls	To browse your recent calls list, press  > Recent Calls , and select the desired number.
Voice Mail	To dial your voicemail press and hold  .
1-Touch Dial	To call phonebook entries 1 through 9, press and hold the single-digit speed dial number for one second. You can set 1-touch dial to call the entries in your phonebook's memory, SIM card or Fixed Dial list: Press  > Settings > Initial Setup > Speed Dial > Phone Memory or Fixed Dial .
Voice Activated Name Dialing	To activate name dialing, press the Smart Key once and say the entire name clearly after the prompt.
Voice Activated Number Dialing	To activate number dialing, press the Smart Key twice and say the phone number clearly after the prompt.

Additional Features


Speed Dial	Enter speed dial number as was assigned to the phonebook entry, press  and then press Send to dial.
Storing a New Number	Enter the phone number and press Store . Enter the various entry details and press Done to finish.
Advanced Phonebook Search	Access the Phonebook menu, enter character(s) and press Search .

About this Guide



This guide shows how to open a menu feature as follows:

Press  > **Tools** > **Messages** > **New Message**.

This means that, from the home screen:

1. Press the Jog Dial () to open the menu.
2. Turn the Jog Dial right or left to scroll to **Messages**, and press it to select this menu item.
3. Turn the Jog Dial right or left to scroll to **New Message**, and press it to select this menu item.

Symbols

Symbol	Description
	This means a feature is network, SIM card, or subscription dependent and may not be available in all areas. Contact your service provider for more information.
	This means a feature requires an optional accessory.

Connect the Main Unit

Carefully insert the main unit into the base connector until it clicks into place. Do not apply excessive force on the connector.

Disconnect the Main Unit

Press the release button on the left side of the main unit, and pull out the device. Place the main unit inside the carry case provided by Motorola for best protection.

SIM Card

Your *Subscriber Identity Module* (SIM) card contains personal information like your phone number and phonebook entries.

Caution: Do not bend or scratch your SIM card. Keep it away from static electricity, water, and dirt.

Install the SIM Card

To install the SIM card, please do the following:

1. Turn off your phone.
2. Open the protective cap of the SIM card holder, located at the right side of the phone.
3. Make sure that the beveled corner of the SIM card is facing towards the top of the phone, and that the SIM card's metal contacts are facing towards the front of the phone. Slide the SIM card into the SIM card holder until it clicks into place and replace the protective cap.

Turn the Phone On & Off

Caution: Some phones ask for your SIM card PIN code when you turn them on. If you enter an incorrect PIN code three times before the correct code, your SIM card is disabled, and your display shows **SIM Blocked**. Contact your service provider.

To turn on your phone, press and hold **End** for a few seconds or until the keypad or display lights up. If prompted, enter your eight-digit SIM card PIN code and/or four-digit unlock code.

To turn off your phone, press and hold **End** for a few seconds.


Make a Call

To make a call, enter a phone number and press **Send**. To hang up, press **End**.

To use voice commands for calling, see Voice Activation Services on page 10.


Answer a Call

To answer a call when your phone rings, press **Send**. To hang up, press **End**. When the incoming call recognition feature is activated you can answer a call by using a voice command.

Note: Your phone cannot receive data over an EDGE network while it is playing sound files. The EDGE status indicator () appears at the top of your display when you can receive data over an EDGE network.



Store a Phone Number


To store a phone number in your phonebook, press  > **Phonebook** > **Options** > **Create New** > **Phone Contact** or **SIM Contact**.


Note: You can store new contacts in your phone's memory or on your SIM card.

Contacts on the SIM card only have a Name and Number.

1. Enter a name and other details for the phone number. To select a highlighted item, press the Jog Dial.
2. Press **Done** to store the number.


To edit or delete a phonebook entry, see Phonebook on page 51.

To store an email address from the home screen, press  > **Phonebook** > **New Entry**. Enter the new contact's name and email information.

Shortcut: Enter a phone number in the home screen, then press **Store** to create a contact. To choose whether your phone stores these contacts in your phone's memory or on your SIM card, go back to the home screen and press  > **Phonebook**, then press **Options** > **Setup** > **Default Storage** > **Phone** or **SIM Card**.


Call a Stored Phone Number

To call a stored phone number:

1. Press  > **Phonebook**.
2. Scroll to the desired phonebook entry.

Shortcut: In the phonebook, use the keypad to enter the first letters of the desired entry.

3. Press **Send** to call the entry.

Note: You can show contacts stored in your phone's memory or on your SIM card. To choose which contacts you see, press  > **Phonebook** > **Options** > **View**. Select **Phone & SIM Card**, **SIM Card**, or **Phone Contacts**.

To use voice commands for calling, see Voice Activation Services on page 10.

Main Attractions

You can do much more with your phone than make and receive calls!

Smart Key

Your phone incorporates a special **Smart Key**, which lets you do the following easily:

- Activate voice commands and select various menu items by saying their name (see Voice Activation Services on page 10).
- Dial to a name stored on the phonebook by saying the name (see Name Dialing on page 10).
- Dial a phone number by saying the number (see Number Dialing on page 11).
- Create a voice record (see Voice Records on page 55).

Voice Activation Services

You can use voice commands to tell your phone what to do.

Name Dialing

You can easily dial to any name saved on your phonebook by doing the following:

1. Press the **Smart Key** once.
The phone will prompt for the name ("**Say Name**").
2. Say the entire name clearly.
The phone will search the phonebook, and display up to four matches of phone numbers related to the recognized name.
3. The phone will ask which number to dial from the matches found.
4. Guide the phone to the correct number.
5. The phone will repeat your selection and automatically dial the number.

Note: Always say the entire name, as stored in the phonebook. The phone cannot recognize partial names.

Note: Initial recording or training is not required in order to use this feature. The voice recognition is speaker independent.

Note: If you store a phone number with both First and Last Name, you should say both names in order to activate the Voice Name Dialing feature. If you store a phone number with a Nickname only, you should say this Nickname in order to activate Voice Name Dialing. If you associate a phone number with a specific number type (Mobile, Home, Work, Fax, Other), you should say the number type in order to activate Voice Name Dialing efficiently.

Number Dialing

You can easily dial to any number by doing the following:

1. Press the **Smart Key** twice.


The phone will prompt for the number to dial ("**Say Number**").

2. Say the phone number clearly.
3. The phone will repeat the number and automatically dial it.

Note: Initial recording or training is not required in order to use this feature. The voice recognition is speaker independent.

Voice Menus Activation

You can activate various menu items by doing the following:

1. Press , and then press the **Smart Key**. Clearly say the desired menu item to select it.

Your phone says "**Say Shortcut**".


2. Say a voice command from the following list:

- Navigation
- Bluetooth Link
- Browser
- Call Divert
- Car Settings
- Multimedia
- Personalize
- Phonebook
- Recent Calls
- Ring Styles

- Connection
- Datebook
- Dialing Services
- Messages
- Settings
- Sounds
- Tools
- Voice Records

Note: Initial recording or training is not required in order to use this feature. The voice recognition is speaker independent.

Voice Activation Settings

To set voice activation features on your phone, press  > **Tools > Voice Activation** and select from the following:


Language – select one of the available languages under this menu.

Voice Comments – select **On** or **Off** to enable or disable the voice comments generated by the phone for name dialing and number dialing. If you select **Off** the phone will only beep.

Incoming Call Recognition

When receiving an incoming call, the phone will say the name of the caller (if the recognized phone number is stored in the phonebook).

If the recognized number is not stored in the phonebook, the phone will say the number.

To enable or disable the incoming call recognition feature, press  > **Tools > Voice Activation > Incoming Voice Calls > On** or **Off**.

Note: Your service provider's network must support the caller ID function and provide the caller's number in order for this feature to work properly.

Call Answering by Voice Command

When receiving an incoming call, the phone will ask you if you want to answer the call ("**Call from... Accept the call?**"). Press **Yes** to accept the call, or **No** to reject it.

GPS

Your phone incorporates a built-in GPS receiver, which can be used by a compatible Java™ application to help you navigate your way quickly and easily.

What is GPS?

GPS stands for Global Positioning System – a satellite-based radio navigation system which was developed by the U.S. Department of Defense. The system is formed by 24 satellites orbiting the earth and continuously transmitting various signals. A standard GPS receiver can calculate its current latitude, longitude and elevation anywhere on earth, by analyzing these signals and measuring the distance between itself and these satellites.

In optimal conditions, a GPS receiver can calculate its location to an accuracy of a few meters. The accuracy mainly depends on the number of GPS satellites to which the GPS receiver is in a line of sight, but may be subject to other factors too.

Navigation Applications & Services

Using the Global Positioning System maintained by the U.S. Department of Defense is free of charge and no subscription is needed.

However, downloading a navigation application and/or using its navigation system may require a subscription and/or be subject to separate fees. To check the availability and pricing of navigation applications and services, please contact your network operator or service provider. Your network operator or service provider will also give you a link from which to download the navigation application and usage instructions.

Note: The availability of the navigation application and/or service depends on your network operator and/or service provider and may vary by location.

Warnings

1. Operating the navigation application while driving may cause distraction. If you cannot concentrate on driving, pull off the road and park the car.
2. Do not rely on your navigation system solely in times of emergency. Temporary unavailability of this system, poor GPS coverage, outdated or partial cartography, etc. may render it unusable when you need it most.
3. Always exercise discretion when using your navigation system, and do not rely on its guidance solely. The cartography provided by this system may not fully reflect any recent changes to roadways, and the route chosen may not always be the best alternative.

Bluetooth® Wireless Technology

You can connect various audio and data devices to your phone without cables using Bluetooth wireless technology.


What is Bluetooth Wireless Technology?

Bluetooth wireless technology provides a way to connect and exchange information between devices such as mobile phones, computers, printers, digital cameras, etc. over a secure, globally unlicensed short-range radio frequency.

Your phone supports Bluetooth Class 2.0, which allows connections to compatible devices within 10 meters. Since Bluetooth devices use radio frequency to communicate, they do not have to be in line of sight of each other in order to maintain the Bluetooth connection, as long as the received transmission is powerful enough and not obstructed or interfered (e.g., by walls and/or other electronic devices).

Note: The use of wireless phones while driving may cause distraction. Discontinue a call if you cannot concentrate on driving. Additionally, the use of wireless devices and their accessories may be prohibited or restricted in certain areas. Always obey the laws and regulations on the use of these products.

Tip: For maximum Bluetooth security, you should always connect Bluetooth devices in a safe, private environment.

By default, the Bluetooth feature on your phone is always on. To disable the Bluetooth feature, press  > **Settings** > **Connection** > **Bluetooth Link** > **Setup** > **Power** > **Off**.



Connect a Bluetooth Headset


Before you try to connect your phone to a Bluetooth headset, make sure the headset is on and ready in pairing mode (for details about pairing the headset please refer to its user guide). You can connect your phone to only one headset at a time.

Press  > **Settings** > **Connection** > **Bluetooth Link** > **Add Audio Device**.



Your phone lists the devices it finds within range.

1. Scroll to the desired headset and press .
2. Press **Yes** to connect to the headset.
3. If necessary, enter the headset passkey (for example, **0000**) and press .
4. Press **End** to exit to the home screen.


The phone will establish the connection to the Bluetooth headset and return to the home screen. When your phone is connected, the Bluetooth indicator () appears in the home screen.

Shortcut: When your phone's Bluetooth power is on, your phone can automatically connect to a headset you have used before. Just turn on the device, or move it near the phone. If the device does not connect, turn it off and back on.

Use your M990 as a Car Kit

You can connect a compatible Bluetooth mobile device to your M990, and use the M990 as a car kit for handsfree operation. The other mobile device must support the Handsfree Profile for this feature to work.

To connect another Bluetooth mobile device:

1. Press  > **Settings** > **Connection** > **Bluetooth Link** > **[Find Me]**. Your phone will enter discoverable mode for 3 minutes.
2. On the other device, search for Bluetooth devices and select the M990 phone from the list of discovered devices. Enter the Bluetooth PIN **0000** and confirm.
3. On the M990, press **Yes** when the prompt **Bond with other device?** appears.
5. When the prompt **Handsfree voice requested by** appears, Press **Grant**.
6. Press **End** to exit to the home screen.

When your M990 serves as a car kit for the other mobile device, you can:

- Make and receive voice calls.
- Reject an incoming voice call.
- Terminate a voice call.

Note: When working as a car kit, you cannot use a Bluetooth headset with your M990.

Copy Files to Another Device

You can copy a media file, phonebook entry, datebook event, or web shortcut from your phone to a computer or other device.



Note: Some copyrighted objects cannot be copied.

1. On your phone, scroll to the object that you want to copy to the other device.
2. Press **Options**, then select:

- **Manage > Copy** – for media files.
 - **Send Contact** – for phonebook entries.
 - **Send** – for datebook events.
3. Select a recognized device name, or **[Look For Devices]** to search for the device where you want to copy the file.

If your phone could not copy the file to the other device, make sure the device is on and ready in discoverable mode (for details about making the device discoverable please refer to its user guide). Also, make sure the device is not busy with another similar Bluetooth connection.

Note: Once you connect your phone to a Bluetooth device, that device can start similar Bluetooth connections with your phone. Your display shows the Bluetooth indicator (📶) at the top when there is an active Bluetooth connection.

Receive Files from Another Device

1. Place your phone near the device, and send the file from the device.



If your phone and the sending device do not recognize each other, place your phone in discoverable mode so the sending device can locate it by pressing **📶 > Settings > Connection > Bluetooth Link > Find Me.**


2. Press **Accept** on your phone to accept the file from the other device.

Your phone notifies you when file transfer is complete. If necessary, press **Store** to save the file.

Use your M990 as a Bluetooth Modem

You can use your M990 as a Bluetooth modem for a compatible Bluetooth data device (e.g., PC or other hand-held device) and connect it to a dial-up internet access server.

To use your M990 as a Bluetooth modem for a compatible Bluetooth data device:

1. Make sure the other device is on and ready in discoverable mode (for details about making the device discoverable please refer to its user guide).
2. Press  > **Settings** > **Connection** > **Bluetooth Link** > **Find Me**.

If the M990 was already connected to a compatible Bluetooth device in the past, a history list of such devices will be displayed. Scroll to the desired device, press **Select** and skip steps 3 to 4.

If the M990 was not connected to any compatible Bluetooth devices in the past, it will search for available Bluetooth devices that support the Dial-up Networking Profile and display a list of the detected devices. If only one Bluetooth device was found, the M990 will automatically select it and you can skip step 3.

3. Scroll to the mobile device you wish to connect your M990 to and press **Select**.
4. If necessary, enter the other device passkey and press **Ok**.

Note: The phone will put a GPRS call on hold when a voice call enters. When you finish the voice call, the phone will ask if you wish to resume the GPRS call.

Synchronize Phonebook & Datebook with another Bluetooth Device

You can use your M990 to synchronize phonebook and datebook entries with a compatible Bluetooth device.

To synchronize your M990 phonebook and datebook with a compatible Bluetooth device:

1. Make sure the other device is on and ready in discoverable mode (for details about making the device discoverable please refer to its user guide).

2. Press  > **Settings** > **Connection** > **Bluetooth Link** > **Find Me**.

If the M990 was already connected to a compatible Bluetooth device in the past, a history list of such devices will be displayed. Scroll to the desired device, press **Select** and skip steps 3 to 4.

If the M990 was not connected to any compatible Bluetooth devices in the past, it will search for available Bluetooth devices that support the Synchronization Profile and display a list of the detected devices. If only one Bluetooth device was found, the M990 will automatically select it and you can skip step 3.

3. Scroll to the mobile device you wish to connect your M990 to and press **Select**.
4. If necessary, enter the other device passkey and press **Ok**.
5. Initiate the synchronization on the other device.

Note: You can only synchronize phonebook entries stored on the phone memory with this feature. Phonebook entries stored on SIM cards will not be synchronized.

Multiple User Profiles

Your phone supports four user profiles – one default profile, and three customizable profiles. Each profile stores the following information:

- Phonebook entries – 1500 entries for all User Profiles (phone memory only, SIM contacts are excluded).
- Datebook entries.
- Personal data – **Home Screen**, **Main Menu**, **Color Style**, **Greeting**, **Wallpaper**, and **Screen Saver**.
- Ring styles – **Ring Volume**, **Line 1**, **Line 2**, **Messages**, **Voicemail**, **Info Svcs**, **Data Calls**, **Fax Calls**, **Ringer IDs**, **Key Volume**, **Reminders**.

- Voice activation data – **Voice Records, Language.**
- Initial setup data – **Backlight, Contrast, Speed Dial, Language.**

Note: The active user profile will be displayed on the indicators bar of the phone as A, B, C, or D.

Creating a New User Profile

Press **ⓘ** > **Tools** > **User Profiles**. Select **Options** > **New**, and enter the **Profile Name**. The phone will initiate settings and power cycle.

The phone will load the default settings for the new user profile, which you can change later to accommodate your needs.

Managing User Profiles

Press **ⓘ** > **Tools** > **User Profiles**, and select the user profile to manage.

Press **Options**, and select one of the following:

Option	Description
Save As	Save the current active user profile.
Select	Select the current user profile to be activated.
Lock	Lock the selected user profile to secure it from other users. Enter a new password and press ⓘ . You will see a lock icon next to the profile name. To unlock a user profile, select Options > Unlock . When a user profile is locked, turning on the device will display a User Profile menu. You may select the locked profile and enter its password, or select an unlocked profile with no password.
Rename	Assign a new name to the selected user profile.
Delete	Delete the selected user profile. Note: Only inactive profiles may be deleted. If you try to delete an active profile, an error message will be displayed.

Audio Player

To play audio files, press  > **Multimedia** > **Sounds**, and select the file you want to play.

Four controls will appear on the screen (**Play/Pause**, **Go to Next Track**, **Stop & Rewind** and **Go to Previous Track**).

Turn the Jog Dial right or left to highlight the desired control and press to select it.

To download songs to your phone, see Download Objects from a Web Page on page 58. To copy files between your phone and a computer, see Copy Files to Another Device on page 16.

Note: Your phone may not play audio files that have a bit rate higher than 128 kbps. If you try to download or play such files, your phone might show you an error or ask you to delete the file.

Memory Card

You can use a removable memory card (optional) with your phone to store and retrieve multimedia objects, such as pictures and sounds.



The phone supports MicroSD memory cards of up to 2GB.

Note: If you download a copyrighted file and store it on your memory card, you can use the file only while your memory card is inserted in your phone. You cannot send, copy, or change copyrighted files.

Install a Memory Card

To install a memory card, please do the following:

1. Open the protective cap of the memory card holder, located at the right side of the phone.
2. Make sure the memory card's metal contacts are facing towards the back of the phone, and slide the memory card into the memory card holder until it clicks into place. Replace the protective cap.



Remove a Memory Card

To remove the memory card, please do the following:

1. Push the memory card and slide it out of the memory card holder, located at the right side of the phone.
2. Replace the protective cap of the memory card holder.

Warning: Never remove your memory card while your phone is using it or writing files on it.

Manage Files on a Memory Card


To view the files stored on your memory card and on your phone, open a file list, such as **Pictures**. Icons will indicate if a file is stored in your phone memory () or on your memory card ()



To copy or move a file from your phone to your memory card, highlight it in the list and press **Options > Manage > Copy** or **Move > Memory Card**. Some copyrighted files cannot be copied or moved.

To copy files between your memory card and another device, you can use a cable connection (see Cable Connections on page 60) or a Bluetooth connection (see Copy Files to Another Device on page 16 and Receive Files from Another Device on page 17).

To connect your memory card to a computer, see Connect Your Memory Card to a Computer on page 61).

View Memory Card Information

To view your memory card name, the available memory, and other information about the card, press  > **Settings** > **Phone Status** > **Storage Devices**.

1. Press  to scroll to the installed memory card.
2. Press  to see the memory card information. Your phone stores any content that you add, like ring tones or applications, in the user memory. Your service provider may store some content in the user memory before you receive the phone.

Format or Rename a Memory Card

Press **Options** to see the **Storage Device** menu, which lets you format or rename the memory card.

Basics

To view a basic phone diagram, see HELLOMOTO on page i.

Display

The home screen appears when you turn on the phone.

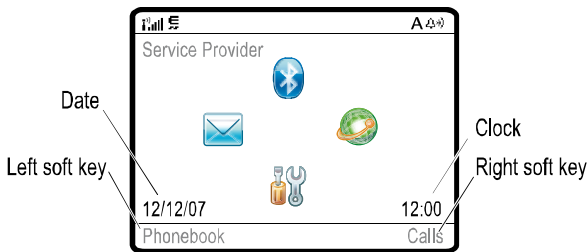




Figure 5: Home screen items.

Note: Your home screen might look different from the one shown, depending on your service provider.

To dial a number from the home screen, enter the number using the number keys and then press **Send**.

Turn the Jog Dial clockwise or anticlockwise to scroll through the four home screen menu icons (**Bluetooth Link**, **WebAccess**, **Settings** and **Messages**). Press  to enter the selected menu.

Press  (when no home screen menu icon is selected) to enter the main menu. Soft key labels show the current soft key functions.

Status indicators can show at the top of the home screen:

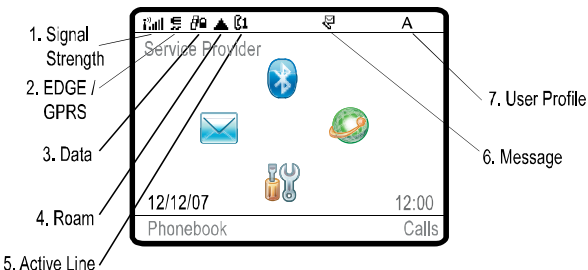














Figure 6: Status indicators on the home screen.

1. **Signal Strength Indicator** – Vertical bars show the strength of the network connection. You cannot make or receive calls when  or  appears.

2. **EDGE/GPRS Indicator** – Shows when your phone is using a high-speed Enhanced Data for GSM Evolution (EDGE) or General Packet Radio Service (GPRS) network connection. Indicators can include:

-  GPRS PDP context
-  EDGE active
-  GPRS packet data available

3. **Data Indicator** – Shows the connection status.

-  Secure packet data transfer
-  Unsecure packet data transfer
-  Secure application connection
-  Unsecure application connection
-  Secure Circuit Switch Data (CSD) call
-  Unsecure CSD call
-  Bluetooth connection is active

4. **Roam Indicator** – Shows ▲ when your phone is seeking or using a network outside your home network.



5. **Active Line Indicator** – Shows ☎️ to indicate an active phone call, or 📞 to indicate when call diverting is on. Indicators for dual-line-enabled SIM cards can include:



- Line 1 active
- Line 1 active, call divert on
- Line 2 active
- Line 2 active, call divert on

6. **Message Indicator** – Shows when you receive a new message. Indicators can include:



- Text message
- Voice message
- Voice & text message

7. **User Profile Indicator** – Shows the current user profile.

8. **Ring Style Indicator** – Shows the ring style setting.

Text Entry

Your phone lets you enter text in various ways.

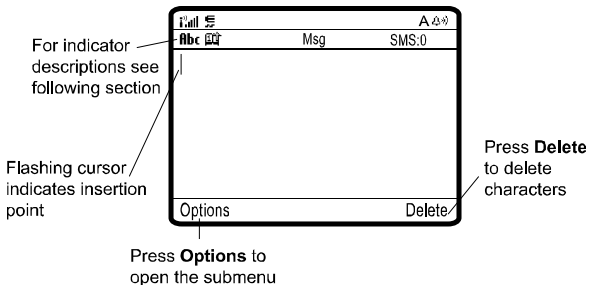







Figure 7: Text entry.




Press  in a text entry view to select an entry mode:

Entry Modes



Mode	Description
 or 1	Your Primary text entry mode can be set to any iTAP®  or tap 1 mode.
 or 2	Your Secondary text entry mode can be set to any iTAP  or tap 2 mode, or set to None if you do not want a secondary entry mode.
123	Numeric mode enters numbers only.
@%	Symbol mode enters symbols only.

To set your primary and secondary text entry modes, press **Options > Text Setup** in a text entry view and then select **Primary Text** or **Secondary Text**.

iTAP® & Tap Mode Tips

- Press  in a text entry view to change text case to all capital letters (**ABC**), no capitals (**abc**), or next letter capital (**Abc**).
- To enter numbers quickly, press and hold a number key to temporarily switch to numeric mode. Press the number keys to enter the numbers you want. Enter a space to change back to iTAP or Tap mode.
- Press  to enter punctuation or other characters.
- Press  to move the flashing cursor to enter or edit message text.
- Press **Delete** to delete the character to the left of the cursor. Hold to delete the word.
- To cancel your message, press **End**.

iTAP® Mode

Press  in a text entry view to switch to iTAP mode. If you do not see  or **I**, press **Options > Text Setup** to set iTAP mode as your primary or secondary text entry mode.

iTAP mode lets you enter words using one key press per letter. The iTAP software combines your key presses into common words and predicts each word as you enter it.

For example, if you press    , your display shows:

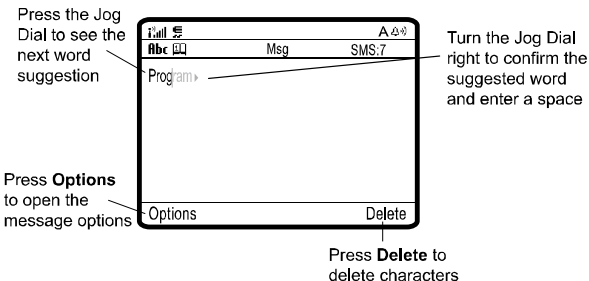




Figure 8: Using iTAP mode.

If you want a different word (such as **Progress**), continue pressing the keypad to enter the remaining letters. If you would like to stop at the middle of a word or navigate between written words, press .

Tip: Do not worry if you forget how iTAP works. In a text entry display, you can press **Options > Text Setup > Text Tutorial** to see an explanation.

Tap & Tap Extended Modes

Press  in a text entry view to switch to tap mode. If you do not see **Abc1** or **Abc2**, press **Options > Text Setup** to set Tap mode as your primary or secondary text entry mode.

To enter text in Tap mode, press a keypad key repeatedly to cycle through the letters and number on the key. Repeat this step to enter each letter. The Tap Extended mode works the same way, but includes more special characters and symbols.

For example, if you press  one time, your display shows:

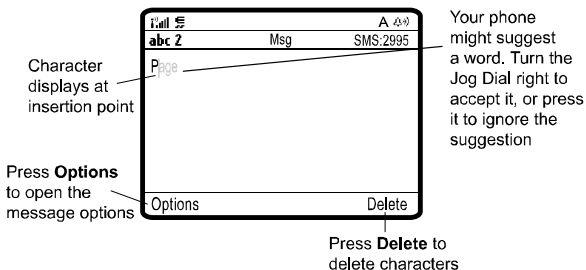




Figure 9: Using Tap & Tap Extended modes.


The first character of every sentence is capitalized. To switch between upper and lower case mode, press .

Numeric Mode

Press  in a text entry view until you see **123**. Press the number keys to enter the numbers you want.

Shortcut: You can press and hold a number key to temporarily switch to numeric mode from iTAP™ or Tap modes. Press the number keys to enter the numbers you want. Enter a space to change back to iTAP mode.

Symbol Mode

Press  in a text entry view until your display shows a list of symbols. Press the respective number key to insert the desired symbol.

Volume

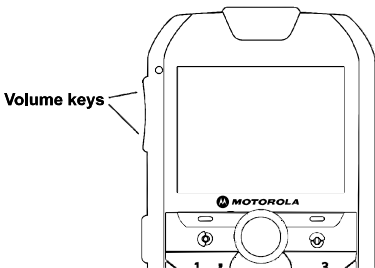




Figure 10: Volume keys.

Press the volume keys to:

- Turn off an incoming call alert.
- Adjust the call volume during calls.
- Adjust the ringer volume from the home screen.



Tip: You can quickly set the ringer to **Silent** mode by holding the volume down key while you are in the home screen. You can also switch to **Silent** mode or back by holding  in the home screen.

Jog Dial

Your phone features a unique Jog Dial () , with which you can scroll easily through menus and select menu items.

How to Use the Jog Dial?

When the phone displays the home screen:

- Turn the Jog Dial clockwise or anticlockwise to scroll through the four home screen menu icons (**Bluetooth Link**, **WebAccess**, **Settings** and **Messages**). Press  to enter the selected menu,
or
- Press  (when no home screen menu icon is selected) to enter the main menu.

Inside a menu:

Turn the Jog Dial clockwise or anticlockwise to scroll through the menu items. Turning the Jog Dial clockwise inside a graphical menu will move the selection right and down.


Turning the Jog Dial anticlockwise inside a graphical menu will move the selection left and up.


When you reach the desired item, press  to select it.


Text Messages

You can use your phone for text messaging.

Send a Text Message

A text message can contain text and pictures, sounds, or other media objects. You can add multiple pages to a message, and put text and media objects on each page. You can send a message to other compatible phones or to email addresses. 


To create a new message, press  > **Tools** > **Messages** > **New Message** > **New Message**.

1. Use the keypad to enter text to the message page (for details about text entry, see Text Entry on page 27).
To insert a picture, sound, or other object on the page, press **Options** > **Insert**. Select the file type and the file.
To insert another page in the message, enter text or objects on the current page and press **Options** > **Insert** > **New Page**. You can enter more text and objects to the new page.
2. Before you send a message, you can press **Options** to choose **Save to Drafts**, **Cancel Message**, or open **Sending Options** (such as message **Subject** or **CC addresses**).
3. When you finish the message, press **Options** > **Send Message To**.
4. Scroll to a recipient and press . Repeat to add other recipients.

To enter a new number or email address, press **Options** and select **Enter Number** or **Enter Email**.

Your phone might tell you that this is a multimedia message, if it has multiple pages or media objects in it. Some other phones or networks do not support multimedia messages. Press **Send** to send the message.

Receive a Text Message

When you receive a message, your phone plays an alert, and the display shows **New Message** with a message indicator, such as . Press **Read** to open the message.



To view all your text messages, press  > **Tools** > **Messages** > **Message Inbox**.

If a multimedia message contains media objects then:

- Pictures and animations are showed as you read the message.
- A sound file plays when its slide shows. Use the volume keys to adjust the sound volume.
- Attached files are added to the end of the message. To open an attachment, scroll to the file indicator/filename and press **View** (image), **Play** (sound), or **Open** (phonebook vCard, datebook vCalendar entry, or unknown file type).

Send Email

Press  > **Tools** > **Messages** > **New Message** > **New Email**.



Send Voice Message

Press  > **Tools** > **Messages** > **New Message** > **New Voice Msg**.










Press **Record** to record the voice message. To stop recording, press **Stop**. Your phone inserts the voice recording into a message and lets you enter email addresses or phone numbers of the recipients.


Read & Manage Messages

Press  > **Tools** > **Messages** > **Message Inbox**.



Icons next to each message indicate if it is read () or unread (). Icons can also indicate if the message has an attachment (), might be spam (), or is locked (), urgent (), or low priority ().

To **Reply**, **Forward**, **Lock**, or **Delete** a message, scroll to the message and press **Options**.


To open a message, press . Then, you can press **Options** to use or store any phone numbers, email addresses, web sites, or files in the message.

Read & Manage Email

Press  > **Tools** > **Messages** > **Email Msgs**.




To **Reply**, **Forward**, **Lock**, or **Delete** a message, scroll to the message and press **Options**.

To open a message, press . Then, you can press **Options** to use or store any phone numbers, email addresses, web sites, or files in the message.

Send a Stored Picture in a Message

Press  > **Tools** > **Messages** > **New Message** > **New Message**, then press **Options** > **Insert** > **Picture**.



1. Scroll to the desired picture and press **Insert**.
2. Enter the message text, and press **Options** > **Send Message To**.
3. Scroll to a recipient and press .

Store Message Objects

Go to a multimedia message page, or scroll to an object in a message and then press **Options** > **Store**.



Print Message over a Bluetooth Connection

You can use a Bluetooth connection to send a message from your phone to a printer.




Press  > **Tools** > **Messages** > **Message Inbox, Email Msgs, Outbox, or Drafts.**

Scroll to the message you want to print and press **Options** > **Print.**

You cannot print message templates. For more about Bluetooth connections, see Bluetooth® Wireless Technology on page 14.

Store Text Messages on your SIM Card

To store incoming text messages on your SIM card, press  > **Tools** > **Messages** > **Options** > **Setup** > **Message Setup** > **Text Msg Setup** > **Default Storage** > **SIM Card.**



Edit Email Settings


You can edit the settings for your Email connections. To use email, you need to store your email User ID and Password.




Press  > **Tools** > **Messages** > **Options** > **Setup** > **Email Msg Setup** > **Account Settings.**

If you have more than one email account, select an account to edit.

Your phone shows a list of email settings. Here is where you store your email User ID and Password.


Note: To create a new account, select **[New Entry]** in the **Account Settings** list. Your display shows a folder for each email account under  > **Tools** > **Messages** > **Email Msgs.**

Browser Messages

To read messages received by your micro-browser, press  > **Tools** > **Messages** > **Browser Msgs.**



Info Services

To read subscription-based information services messages, press  > **Messages** > **Info Services.**



Templates


You can use pre-programmed text and multimedia templates to write messages quickly and easily.



Text Templates


The phone contains the following pre-programmed text templates:


- Please call me back.
- When can we meet?
- Where are you?
- When does the meeting start?
- What is your number?
- See you later.
- I am here.
- Thank you very much!

To create a new text message from an existing template, press  > **Tools** > **Messages** > **Templates** > **Text Templates**, scroll to the desired template and press the Jog Dial to insert the selected text to a new message.


To insert the text of a template to a text message:


On the message editor, put the cursor on the place you would like to add the template and press **Options** > **Insert** > **Template**. Scroll to the desired template and press the Jog Dial to add it.

To create a new text template, press  > **Tools** > **Messages** > **Text Templates** > **New Text Template**. Write the desired text and press **Ok** to save the new template.

To edit or delete existing text templates, press  > **Tools** > **Messages** > **Templates** > **Text Templates** > **Options** and select the desired option from the list.

Multimedia Templates

To create a new multimedia message from an existing template, press  > **Tools** > **Messages** > **Templates** > **Multimedia Templates**, scroll to the desired template and press the Jog Dial to insert the selected template to a new message.


To edit and save an existing multimedia template, press  > **Tools** > **Messages** > **Templates** > **Multimedia Templates**, select the template you would like to edit and press **Options** > **New Message**. Edit the template, and press **Options** > **Save as Template** to save it.


***Voice*mail**

Your network stores the voicemail messages you receive. To listen to your messages, call your voicemail number.




Note: Your service provider may include additional information about using this feature.


When you receive a voicemail message, your phone shows the voicemail message indicator  and **New Voicemail**. Press **Call** to listen to the message.

To check voicemail messages, press  > **Tools** > **Messages** > **Voice**mail.

Your phone may prompt you to store your voicemail phone number. If you do not know your voicemail number, contact your service provider.




Note: You cannot store a **p** (pause), **w** (wait), or **n** (number) character in this number. If you want to store a voicemail number with these characters, create a phonebook entry for it. Then you can use the entry to call your voicemail.


To change your voicemail number or turn off voicemail notification, press  > **Tools** > **Messages** > **Options** > **Setup** > **Voicemail Setup**.

Tip: To quickly dial to your voicemail, press and hold the  key.



Personal Organizer


Add New Datebook Event

Press  > **Tools** > **Datebook**, scroll to the day, press , scroll to **Create New Event** and press .

If you set a reminder for a datebook event,  appears at the top of your screen.

See Datebook Event

To see or edit event details, press  > **Tools** > **Datebook**, scroll to the day, and press .

Scroll to the event and press . To edit the details, press **Options** > **Edit**.

Tip: To see a list of your upcoming events, open the datebook and press **Options** > **View** > **Organized Events**.



Event Reminder

When an event reminder happens:

To see reminder details, press **View**.

To close the reminder, press **Exit**.

Send Datebook Event to Another Device

To send a datebook event to another phone, computer, or device, press  > **Tools** > **Datebook**, scroll to the day, press , scroll to the event, press **Options** > **Send** > **with Bluetooth** or **with MMS**.

Print Datebook Month, Week, or Day over Bluetooth Connection

You can use a Bluetooth connection to send a datebook month, week, or day from your phone to a printer.




Press  > **Tools** > **Datebook**.


Go to the month, week, or day view and press **Options** > **Print**.

For more about Bluetooth connections, see Bluetooth® Wireless Technology on page 14.

Codes & Passwords

Your phone's four-digit unlock code is originally set to **1234**. The six-digit security code is originally set to **000000**. If your service provider did not change these codes, change them by pressing  > **Settings** > **Security** > **New Passwords**.

You can also change your SIM PIN password.


If you forget your unlock code: At the **Enter Unlock Code** prompt, try entering **1234** or the last four digits of your phone number. If that does not work, press  and enter your six-digit security code instead.

If you forget other codes: If you forget your security code, SIM PIN code, PIN2 code, or call barring password, contact your service provider.

Lock & Unlock Phone

You can lock your phone to keep others from using it. To lock or unlock your phone, you need the four-digit unlock code.


To manually lock your phone, press  > **Settings** > **Security** > **Phone Lock** > **Lock Now**.

To automatically lock your phone whenever you turn it off, press  > **Settings** > **Security** > **Phone Lock** > **Automatic Lock** > **On**.

Note: You can make emergency calls on a locked phone (see Emergency Calls on page 50). A locked phone still rings for incoming calls or messages, but you need to unlock it to answer.

Customize

Home Screen

To customize the home screen to your needs, press  > **Settings** > **Personalize** > **Home Screen**.

Select **Home Keys** to do the following:

- Show or hide the four home screen icons.
- Set the four home screen icons to be selected by the Jog Dial.
- Set the right and left soft keys action on the home screen.

Select **Clock** to choose the type of the clock displayed on the home screen (**Digital** or **Analog**).

Select **Layout** to choose the layout of the home screen: **Left Justified** or **Centered**.

Ring Style


The ring style profile uses a different set of sounds for incoming calls and other events.

Change Alerts in a Ring Style

You can change the alerts for incoming calls and other events. Your changes are saved in the current ring style profile.



Press  > **Settings** > **Ring Styles** > **[Style] Detail**.


Note: **[Style]** represents the current ring style. You cannot set an alert for the **Silent** ring style.

1. Scroll to **Calls** (or **Line 1** or **Line 2** for dual-line phones), then press **Change** to change it.
2. Scroll to the desired alert, then press .
3. Press **Back** to save the alert setting.


Time & Date

Your phone can automatically update your time zone, time, and date. It uses the time and date for the datebook.

To synchronize the time zone, time, and date with the network, press  > **Settings** > **Initial Setup** > **Time and Date** > **Autoupdate** > **Time & Time Zone**. If you do not want your phone to automatically update your time zone and date, choose **Time Only** instead. 

To manually set the time zone, time, and date, turn off **Autoupdate**, then press  > **Settings** > **Initial Setup** > **Time and Date** > **Time Zone**, *time* or *date*. To jump to a city in the time zone list, enter the first letter of its name with the keypad.


Wallpaper

To set a picture or animation as a wallpaper (background) image in your home screen, press  > **Settings** > **Personalize** > **Wallpaper**.

Press **Picture** to select the picture for the wallpaper. Turn the Jog Dial right or left to select a picture, or select **None** for no wallpaper.

Press **Layout** to select the wallpaper layout. Select **Center** to center the image on the display, **Tile** to repeat the image across the display, or **Fit-to-screen** to stretch the image across the display.


Screen Saver


The screen saver appears when no activity is detected for a specified time. To set a picture or animation as a screen saver, press  > **Settings** > **Personalize** > **Screen Saver**.

Press **Picture** to select the picture for the screen saver. Turn the Jog Dial right or left to select a picture or animation, or select **None** for no screen saver.

Press **Delay** to enter the desired delay for the screen saver. Select the length of inactivity before the screen saver appears.

Display Appearance


To set your display brightness, press  > **Settings** > **Initial Setup** > **Brightness**.

To set your display backlight, press  > **Settings** > **Initial Setup** > **Backlight**. Then select the backlight **Mode** (**Automatic** or **Manual**) and adjust the backlight **Level** to your needs.

Personalizing

You can use the following options to personalize your phone to your needs.

Language

To set the menu language, press  > **Settings** > **Initial Setup** > **Language**.

Scroll


To set the scroll bar to **Up/Down** or **Wrap Around** in menu lists, press  > **Settings** > **Initial Setup** > **Scroll**.

Text Marquee

To set the speed for scrolling text in your display, press  > **Settings** > **Initial Setup** > **Text Marquee**.



Activate Ringer IDs

To activate ringer IDs assigned to phonebook entries and categories, press  > **Settings** > **Ring Styles** > **[Style] Detail** > **Ringer IDs**.


Ring Volume

Press  > **Settings** > **Ring Styles** > **[Style] Detail** > **Ring Volume**.

Keypad Volume


Press  > **Settings** > **Ring Styles** > **[Style] Detail** > **Key Volume**.

Reminders


To set a reminder for when you have not responded to an incoming call, message, or other event, press  >

Settings > Ring Styles > [Style] Detail > Reminders.


Menu View

To show the main menu as graphic icons or as a text-based list, press  > **Settings > Personalize > Main Menu > View.**

Reorder Main Menu


To reorder your phone's main menu, press  > **Settings > Personalize > Main Menu > Reorder.**

Show/Hide Menu Icons

To show or hide menu feature icons in the home screen, press  > **Settings > Personalize > Home Screen > Home Keys > Icons.**



Master Reset

To reset all options except unlock code, security code, and lifetime timer, press  > **Settings > Initial Setup > Master Reset.**

Master Clear

Caution: Master clear erases all information you have entered (including phonebook and datebook entries) and content you have downloaded (including pictures and sounds) stored in your phone's memory. After you erase the information, you cannot recover it.

Press  > **Settings > Initial Setup > Master Clear.**

Calls

To make and answer calls, see *Make a Call and Answer a Call* on page 8.

Turn off a Call Alert


You can press the volume keys to turn off a call alert before answering the call.

Delay Answering

If you want to answer a call, but are unable to do so for any reason, you can delay answering the call.

When your phone rings, press **Delay**. Your phone stops ringing and plays a brief message for the caller, such as "**Please hold, your call will be answered in a moment.**"

The call remains on hold until you press **Talk**.


To turn Delayed Answer on, or record your Delayed Answer message (up to 10 seconds), press  > **Settings** > **In-Call Setup** > **Answer Options** > **Delayed Answer**.

Recent Calls

Your phone keeps lists of incoming and outgoing calls, even for calls that did not connect. The most recent calls are listed first. The oldest calls are deleted as new calls are added.

From the home screen, press  > **Recent Calls**, then turn the Jog Dial right or left to scroll through your recent calls.

Scroll to a call. A ✓ next to a call means the call is connected.

- To see call details (like time and date), press .
- Press **Options** to choose from the following:

Option	Description
Delete	Delete the entry.
Delete All	Delete all entries in the list.

Option	Description
Show ID	Show your caller ID for the next call.
Hide ID	Hide your caller ID for the next call.
Send Message	Open a new text message with the number in the To field.
Send Voice Msg	Record and send a voice message to the number.
Add Digits	Add digits after the number.
Attach Number	Attach a number from the phonebook or recent calls lists.
Talk then Fax	Talk and then send a fax in the same call (see Talk then Fax on page 56).
Filter by	Select all, dialed, received, or missed calls.
Notepad	Open the number in a text editor.
Call Times	Open your call time information.
Call Cost	Open your call cost information.
Data Times	See how much time you have spent on data transfers.
Data Volumes	See how much data you have transferred.

Redial

If you hear a busy signal, and you see **Call Failed**, you can press **Send** or **Retry** to redial the number. When the call goes through, your phone rings one time, shows **Redial Successful**, and connects the call.



Return a Call

Your phone keeps a record of your unanswered calls, and shows **X Missed Calls**, where **X** is the number of missed calls.

1. Press **View** to see the received calls list.
2. Scroll to the call you want to return, then press **Send**.

Caller ID

Calling line identification (caller ID) shows the phone number of an incoming call on your display.



Your phone shows the caller's name and picture when they are stored in your phonebook, or **Incoming Call** when caller ID information is not available.

You can set your phone to play a different ringer ID for an entry stored in your phonebook (see Set Ringer ID for a Phonebook Entry on page 52).

To show or hide your phone number from the next person you call, enter the phone number and press **Options > Hide ID/Show ID**.

Advanced Calling

To use voice commands for calling, see Voice Activation Services on page 10.

Attach a Phone Number

Dial an area code or prefix for a phonebook number, then press **Options > Attach Number**.



Notepad

Press  > **Recent Calls > Options > Notepad**.

- To call the number, press **Send**.
- To create a phonebook entry with the number in the **No.** field, press **Options > Store**.

You may also attach a number, insert a special character or hide the ID in the **Options** submenu.

International Calls

If your phone service includes international dialing, press and hold **+1** to insert your local international access code (indicated by +). Then, use the keypad to dial the country code and phone number.



Hold a Call

Press **Options** > **Hold** to put all active calls on hold.

Mute a Call

Press **Mute** (if available) or **Options** > **Mute** to put all active calls on mute.


Call Waiting

When you are on a call, you will hear an alert if you receive a second call.



Press **Send** to answer the new call.

- To switch between calls, press **Switch**.
- To connect the two calls, press **Options** > **Link**.
- To end the call on hold, press **Options** > **End Call On Hold**.

To turn the call waiting feature on or off, press  > **Settings** > **In-Call Setup** > **Call Waiting** > **On** or **Off**.

Conference Call

During a call, dial the next number, then press **Send** > **Options** > **Link**.




Transfer a Call

During a call, press **Options** > **Transfer**, dial transfer number and press **Send**.




Divert a Call

To set up or cancel call diverting, press  > **Settings** > **Call Divert**.



Restrict Calls


To restrict outgoing or incoming calls, press  >

Settings > Security > Restrict Calls.



Tell your phone to allow **All**, **None**, or only the calls from your phonebook.


Call Barring

To restrict outgoing or incoming calls, press  >

Settings > Security > Call Barring.



TTY Calls

To set up your phone for use with an optional TTY device, press  > **Settings > Initial Setup > TTY Setup.**



Change Phone Line


If you have a dual-line-enabled SIM card, you can change your line to make and receive calls from your other phone number.


Press  > **Settings > Phone Status > Active Line.**



Fixed Dial


When you turn on fixed dialing, you can call only numbers stored in the fixed dial list.

To turn fixed dialing on or off, press  > **Settings > Security > Fixed Dial.**

To use the fixed dial list, press  > **Tools > Dialing Services > Fixed Dial.**




Quick Dial

To dial preprogrammed phone numbers, press  > **Tools > Dialing Services > Quick Dial.**




DTMF Tones

To activate DTMF tones, press  > **Settings** > **Initial Setup** > **DTMF**.



To send DTMF tones during a call, just press number keys or scroll to a number in the phonebook or recent calls lists and press **Options** > **Send Tones**.

Answer Options

You can use different ways to answer an incoming call. To select the right answer option, press  > **Settings** > **In-Call Setup** > **Answer Options**.

Option	Description
Multi-Key	Answer by pressing any key.
Delayed Answer	Set up your delayed answering option (see Delay Answering on page 45).

Emergency Calls

Your service provider programs one or more emergency phone numbers, such as 911 or 112 that you can call under any circumstances, even when your phone is locked or the SIM card is not inserted.

Note: Emergency numbers vary by country. Your phone's preprogrammed emergency number(s) may not work in all locations, and sometimes an emergency call cannot be placed due to network, environmental, or interference issues.

1. Use the keypad to dial the emergency number.
2. Press **Send** to call the emergency number.

Other Features


Phonebook

You can use the phonebook to store names, phone numbers and other contact details. You can store phonebook entries on the internal phonebook and on the SIM card.



Note: The internal phonebook can store more data fields than the SIM card.


To store and call phonebook entries, see *Store a Phone Number* and

Call a Stored Phone Number on page 8.

Note: You can show contacts stored in your phone's memory or on your SIM card. To choose which entries you see, press  > **Phonebook**, then press **Options** > **View**. You can select **Phone & SIM Card**, **SIM Card**, or **Phone Contacts**.

Assign a Speed Dial Key to a Phonebook Entry


You can assign the keys  through  to phonebook entries. Then, when you press and hold a key, your phone calls the entry.

Press  > **Phonebook** and scroll to the phonebook entry. Then, press **Options** > **Add to Speed Dial** and pick a speed dial key.


Use the Speed Dial Key for a Phonebook Entry

To use a speed dial key that you assigned to a phonebook entry, just press and hold the key while in your home screen.

Edit Speed Dial Keys

Press  > **Phonebook**, then press **Options** > **Manage Contacts** > **Speed Dial**.


Choose a Speed Dial Key List

To set speed dial to call the entries in your phone memory phonebook or your fixed dial list, press  >




Settings > Initial Setup > Speed Dial > Phone Memory or Fixed Dial.

Edit or Delete a Phonebook Entry


To edit a number stored in the phonebook, press  > **Phonebook**, scroll to the phonebook entry, and press **Options**. You can select **Edit Contact**, **Delete Contact**, or other options.

Shortcut: In the phonebook, use the keypad to enter the first letters of the desired entry. You can also press and see the entries in categories or entries used recently.


Set Ringer ID for a Phonebook Entry

To assign a ring alert (ringer ID) to an entry, press  > **Phonebook > entry**, then press **Options > Edit Contact > Ringer ID > ringer name**.

Note: The **Ringer ID** option is not available for entries stored on the SIM card. To copy an entry from SIM to phone memory, see Copy a Single Phonebook Entry on page 54.


To activate ringer IDs, press  > **Settings > Ring Styles > [Style] Detail > Ringer IDs > On**.

Set Picture ID for a Phonebook Entry


To assign a picture to show when you receive a call from an entry, press  > **Phonebook > entry**, then press **Options > Edit Contact > Picture > picture name**.

Note: The **Picture** option is not available for entries stored on the SIM card. To copy an entry from SIM to phone memory, see Copy a Single Phonebook Entry on page 54.



Set Picture ID View for Phonebook

To show entries as a text list, or with caller ID pictures, press  > **Phonebook**, then press **Options > Setup > View by > view name**.


Set Category for a Phonebook Entry

Press  > **Phonebook** > *entry*, then press **Options** > **Edit Contact** > **Category** > *category name*.



Note: The category option is not available for entries stored on the SIM card. To copy an entry from SIM to phone memory, see Copy a Single Phonebook Entry on page 54.

When you open your phonebook, press  or  to see your categories.


Set Category View for Phonebook

Press  > **Phonebook**, then press **Options** > **Filter by** > **Category** > *category name*.

You can show All entries, entries in a predefined category (**Business**, **Personal**, **General**, **VIPs**), or entries in a category you create.


Shortcut: When you open your phonebook, press  or  to see your categories.

Create a New Category

Press  > **Phonebook**, then press **Options** > **Manage Contacts** > **Edit Categories** > **[New Category]**.

Enter the category name, and select its members from your phonebook entries.


Edit a Category

Press  > **Phonebook**, then press **Options** > **Manage Contacts** > **Edit Categories**.

Scroll to the category name and press **Options** > **Edit Category**.


You can edit the category name, members, ringer ID, or picture. Your phone uses the ringer ID and picture whenever you receive calls from numbers in the category.

Create Group Mailing List


You can put several phonebook entries in a group mailing list, then send a message to the list. To create a list, press  > **Phonebook**, then press **Options** > **Create New** > **Message List**.

Note: A message list cannot include entries stored on the SIM card. To copy an entry from SIM to phone memory, see Copy a Single Phonebook Entry on page 54.


Sort Phonebook List

To set the order in which entries are listed, press  > **Phonebook**, then press **Options** > **Setup** > **Sort by** > **First Name** or **Last Name**.


Copy a Single Phonebook Entry

To copy an entry from the phone to the SIM card, or from the SIM card to the phone, press  > **Phonebook**, scroll to the entry, press **Options** > **Copy to SIM Card** or **Copy to Phone**.

Copy Multiple Phonebook Entries

To copy multiple phonebook entries between the phone and SIM card, press  > **Phonebook**, then press **Options** > Select **Multiple to**, and select **Copy Phone to SIM** or **Copy SIM to Phone**.


Send Phonebook Entry to Another Device

To send a phonebook entry to another phone, computer, or device, press  > **Phonebook**, scroll to the entry, press **Options** > **Send Contact**.

Print Phonebook Entry over Bluetooth Connection

You can use a Bluetooth connection to send a phonebook entry from your phone to a printer.




1. Press  > **Phonebook**.
2. Scroll to the entry you want to print, and press **Options** > **Print**.

You cannot print a mailing list. For more information about Bluetooth connections, see Bluetooth® Wireless Technology on page 14.

Voice Records

To create a voice record (for example, to make a note to yourself), press and hold the **Smart Key**, speak into the phone and release the **Smart Key**.

Note: Recording phone calls is subject to varying state and federal laws regarding privacy and recording of conversations. Always obey the laws and regulations on the use of this feature.


To play back a voice record, press  > **Multimedia** > **Voice Records**, and select the desired voice record.

Call Times & Costs

Network connection time is the elapsed time from the moment you connect to your service provider's network to the moment you end the call by pressing **End**. This time includes busy signals and ringing.

The amount of network connection time you track on your resettable timer may not equal the amount of time for which you are billed by your service provider. For billing information, contact your service provider.

Call Times

To show call timers, press  > **Recent Calls** > **Options** > **Call Times**.




In-Call Timer

To show time or cost information during a call, press  > **Settings** > **In-Call Setup** > **In-Call Timer**.



Call Cost

To show call cost trackers, press  > **Recent Calls** > **Options** > **Call Cost**.



Data & Fax Calls

To connect your phone with a USB cable, see Cable Connections on page 60.

Send Data

Connect your phone to the device, then place the call through the device application.



Receive Data or Fax

Connect your phone to the device, then answer the call through the device application.



Talk then Fax

Connect your phone to the device, enter fax number, press **Options** > **Talk then Fax**, then press **Send** to make the call.



Set Up Exchange ActiveSync

You can use the Internet to synchronize your phone's phonebook and datebook entries with an email account on a Microsoft® Exchange 2003 Server.




You need to know the email account's user name and password, the Microsoft® Exchange server name, and the user domain name. Confirm that the Mobility option is enabled on the email account, and that data service is activated with your phone service provider.

Use Exchange ActiveSync

Once you set up an Exchange ActiveSync partner, you can schedule your phone to synchronize with the account automatically.



To schedule synchronization, press  > **Settings** > **Connection** > **MOTOSYNC** > **Exchange** > **Options** > **Auto Sync Setup**. Enter the time and days you want your phone to synchronize.

Network

Network Settings


To view network information and adjust network settings, press  > **Settings** > **Network**.



Security

SIM PIN


Caution: If you enter an incorrect PIN code three times before the correct code, your SIM card is disabled and your display shows **SIM Blocked**.

To lock or unlock the SIM card, press  > **Settings** > **Security** > **SIM PIN**.

Lock Feature

Press  > **Settings** > **Security** > **Lock Application**.

Manage Certificates


To enable or disable Internet access certificates stored on your phone, press  > **Settings** > **Security** > **Certificate Mgmt**.





Certificates are used to verify the identity and security of web sites when you download files or share information.

Applications

View, Delete, or Manage Pictures

To manage pictures and animations, press  > **Multimedia** > **Pictures**.

To delete a file, scroll to it in the list and press **Options** > **Manage** > **Delete**.



To copy or move a file from your memory card () to your phone memory () , scroll to it in the list and press **Options** > **Manage** > **Copy** or **Move** > **Memory Card**. You cannot copy or move some copyrighted files.



Hear, Delete, or Manage Sounds


To manage ring tones and music that you have downloaded or composed, press  > **Multimedia** > **Sounds**.

To delete a file, scroll to it in the list and press **Options** > **Manage** > **Delete**.

To copy or move a file from your memory card () to your phone memory () , scroll to it in the list and press **Options** > **Manage** > **Copy** or **Move** > **Memory Card**. You cannot copy or move some copyrighted files.



Start Micro-Browser


To start the Micro-Browser, press  > **Tools** > **WebAccess** > **Browser**.



Download Objects from a Web Page

To download a picture, sound, or other object from a web page, start the Micro-Browser, go to the page that links to the file, scroll to the link, and select it.



To activate downloaded copyrighted files, press  > **Tools** > **Activation List** > **file type** > **file**. You can see file's **Status**, **Type**, **Activation**, and **Counts Remaining**.


Store Downloaded Files in Phone or Memory Card

You can choose to store downloaded files on the phone memory or on the memory card.

Press  > **Settings** > **Phone Status** > **Download Location** > **Memory Card** or **Phone**.


To see how much memory is available on your phone or memory card, see View Memory Card Information on page 23.

Web Sessions

A web session stores settings that your phone uses to access the Internet. To select or create a web session, press  > **Tools** > **WebAccess** > **Web Sessions**.



Clear Micro-Browser History

To clear the micro-browser's history, cache, or cookies, press  > **Tools** > **WebAccess** > **Browser Setup** > **Clear History**, **Reset Cache**, or **Clear Cookies**.





Download a Game or Application

You can download a Java™ game or application the same way you download pictures or other objects.




Start the Micro-Browser, go to the page that links to the file, scroll to the link, and select it.

Start a Game or Application

To start a Java™ game or application, press  > **Nav & Apps**, scroll to the game or application and press .




Note: To install and run applications stored on your memory card, press  > **Nav & Apps** > **[Install New]**.

Auxiliary Alert

This feature enables the M990 to signal you on an incoming call when you are out of the car, but the phone is still turned on.

Depending on whether the power cable is connected to the lights or to the horn, the car lights will flash or the horn will sound.

To activate the feature, car ignition should be off, phone should be powered on, and you should turn on the feature by pressing  > **Settings** > **In-Call Setup** > **Aux Alert (on)**.

Entertainment Mute

This feature automatically mutes the volume of the car entertainment system during any of the following situations:

- During a call.
- When an incoming call arrives.
- When initiating a call.
- Voice Activation Dialing (VAD).
- When a key is pressed for longer than 3 seconds.
- When using voice activation features.

The car radio must have a dedicated port in order for this feature to be installed.

Once installed, the feature is always activated.

Cable Connections

You can connect your phone to a computer or other hand-held devices to easily transfer data.

EMU Connector

Your phone incorporates an EMU (Enhanced mini-USB) connector. The EMU connector supports the USB Version 2.0 Full Speed standard, which can be used to transfer data to and from various devices (e.g., a computer).



The EMU connector can also be used to transmit stereo and mono audio to compatible headsets equipped with an EMU jack (see Corded Audio on page 63).


Note: Motorola Original USB data cables and supporting software are sold separately. Check your computer or hand-held device to determine the type of cable you need. To transfer data between your phone and a computer, you might need to install the software included with the Motorola Original data kit first. For more information, see the data kit user's guide. To make data and fax calls through a connected computer, see Data & Fax Calls on page 56.

Connect Your Memory Card to a Computer

You can use a cable connection to access your phone's memory card with a PC.

Note: When your phone is connected to a computer, you can only access the memory card through the computer.

On your phone:

Disconnect the cable from your phone, if it is connected, then press  > **Settings** > **Connection** > **USB Settings** > **Default Connection** > **Memory Card**.


This directs the USB connection to your memory card.

Connect the cable to your phone and to an available USB port on your computer. Then follow these steps:

On your computer:


1. Double-click the **My Computer** icon on your computer's desktop. Your phone's memory card appears in the **My Computer** window as a **Removable Disk** icon.
2. Click on the **Removable Disk** icon to access the files on your phone's memory card.
3. To store the desired files onto the memory card, drag and drop them as follows:
Audio files: > mobile > audio
Screen savers: > mobile > picture
Wallpapers: > mobile > picture
4. When finished, disconnect your phone by selecting the **Safely Remove Hardware** icon in the system tray at the bottom of your computer screen. Then disconnect the **USB Mass Storage Device**.
5. Disconnect the cable from your phone and computer.

On your phone:

To return to Data as your USB default connection, press  > **Settings** > **Connection** > **USB Settings** > **Default Connection** > **Data Connection**.

Your Phone Number

Want to see your phone number while you are on a call?
Press **Options** > **My Tel. Number**.

You can edit the name and phone number stored on your SIM card. From the home screen, press  > **Settings** > **Phone Status** > **My Tel. Numbers**, select an entry, press **View**, press **Options**, and select **Edit**. If you do not know your phone number, contact your service provider.



Phone Updates

Sometimes we think of ways to make your phone's software faster or more efficient after you have purchased your phone. You can find out if your phone can be updated at <http://hellomoto.com/update>.



Note: Software updates do not affect your phonebook entries or other personal entries.

Accessories

Bluetooth Devices

You can connect various audio and data Bluetooth devices (optional) to your phone and use them without cables.

You can find more information about compatible Bluetooth devices and purchase them from Motorola's web site at <http://www.motorola.com>.

For more information about Bluetooth wireless technology, see Bluetooth® Wireless Technology on page 14.

Corded Audio

You can connect a stereo corded headset to the EMU connector of your phone (optional). This way, you can listen to music and receive calls at the same time.

You can find more information about Motorola corded headsets and purchase them from Motorola's web site at <http://www.motorola.com>.

Memory Cards

You can use a removable memory card (optional) with your phone to store and retrieve data.

You can find more information about memory cards and purchase them from Motorola's web site at <http://www.motorola.com>.

For more information about memory cards, see Memory Card on page 21.

USB Data Cables

You can use a USB data cable (optional) to connect your phone to other devices in order to transfer data.

You can find more information about Motorola Original USB data cables and purchase them from Motorola's web site at <http://www.motorola.com>.

For more information about cable connections, see Cable Connections on page 60.

Synchronization (Mobile Phone Tools)

You can connect your new M990 Car Phone to a compatible PC computer with the optional USB data cable, and enjoy the benefits of the Motorola Mobile Phone Tools software:

- **Synchronization** – never lose your data if you lose your phone. Transfer and store all your phone numbers on your computer. Synchronize all your phone contacts and datebook with just one click. Choose from Microsoft Outlook, Outlook Express, Lotus Notes or the in-built Motorola Phone Tools phonebook and datebook client. The intuitive synchronization wizard will guide you through the process of updating your datebook and phonebook and help you store a backup on your computer.
- **Personalization** – personalize your phone by creating your own ring tones and adding personal pictures.
- **Messaging** – send text messages from your computer keyboard for greater speed and simplicity.
- **Modem connection**⁴ – look up important information on the go when you need it the most. Connect your laptop to the Internet using your mobile phone as a modem virtually anytime, anywhere (even at the airport, while you wait in your car).

⁴ Network, subscription and SIM card or service provider dependent. Some features may be disabled by your wireless service provider.

System Requirements

- A compatible PC with a Pentium® II 233 MHz processor and one available USB port.
- Windows® 2000, Millennium, or XP operating system.
- 256 Color VGA or SVGA display.
- CD-ROM drive.
- Mouse or other pointing device.
- Local hard drive with at least 120MB free space.
- Free memory: 32MB of RAM under Windows® 98 and Millennium, 64MB of RAM under Windows® 2000 and XP.
- Data/fax option included in the subscription contract with your cell phone operator (to allow fax and e-mails transmission and reception).
- High-speed data networks (GPRS and EDGE) options included in the subscription contract with your mobile phone operator (for high speed e-mail and Internet use on the mobile phone network); data service is a network and subscription dependent feature that may not be available in all areas. Please contact your wireless service provider for details.

Purchase Motorola Mobile Phone Tools

You can find more information about Motorola Phone Tools and purchase the latest version from the following link:

http://direct.motorola.com/ens/MPT/MPT_Feature.asp

Carry Case

The M990 sales package includes a leather-like high quality carry case, which lets you carry it safely and conveniently out of the car (see Figure 11 below). For best protection, always keep the main unit inside its carry case when it is disconnected from the base connector.



Figure 11: Carry case.

Installation Guide

Product Parts

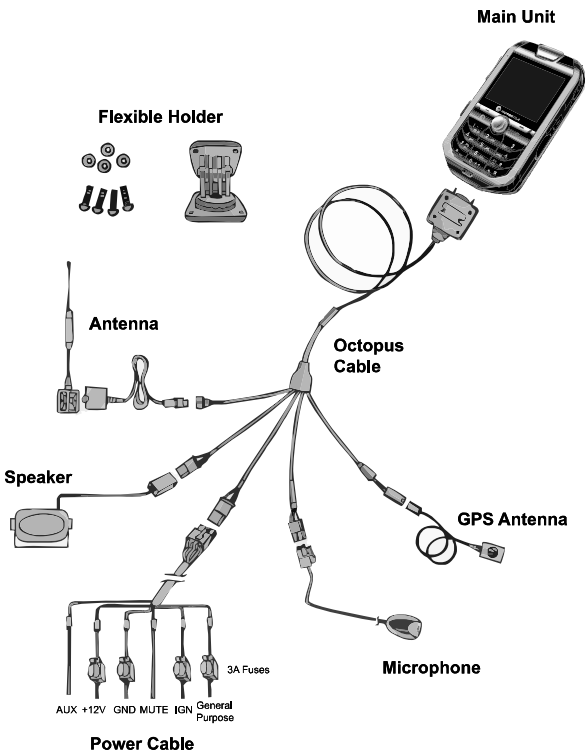


Figure 12: M990 – product parts.

Main Unit



Figure 13: Main unit installation.

When installing the in-vehicle phone avoid positioning the main unit where it may disrupt the proper operation of the vehicle and/or its components, such as car stereo, air bags, cubbyhole, glove compartment, ashtray, lighter, gear stick, hand brake, etc.

Attach the base connector to a stationary surface of the car using the 4 screws and 4 washers. Make sure the main unit is attached in a way that is both safe and convenient for the driver or passengers to use. You may use the flexible bracket to achieve optimal positioning of the main unit.

Warning: Do not position the main unit in front of an air bag, or where it may impair the air bag performance, as the air bag might inflate in an accident and cause damage.

Verify that the control unit does not face the sun or any source of humidity, such as air conditioner vents.

When the phone is powered off, insert the SIM card into the socket at the right side of the phone.

Speaker

Install the speaker on the side of the central console, ideally alongside the legs of the passenger sitting beside the driver, as far as possible from the microphone.

Thread the speaker cable under the carpet along the floor of the vehicle.

Plug the speaker cable into the compatible connection in the octopus control cable.

Verify that the cable does not interfere with the proper operation of the vehicle and/or its components.

Do not conceal the speaker behind any obstacle such as dashboard, glove compartment, carpet or any other barrier which will result in bad audio quality.

Attention! The speaker and microphone (which is fitted on the sun visor above the driver) should be pointed towards **opposite directions** to avoid echo. Speaker slots should be pointed towards passenger door.

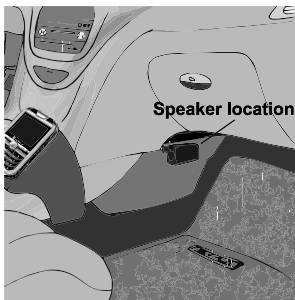


Figure 14: Speaker installation.

Microphone

Install the microphone at a distance of no more than 30 cm (12 inches) away from the driver's mouth, ideally on the upper right hand side of the sun visor and away from any noise source such as windscreens, window, fan/air conditioner, car stereo etc.

Make sure the microphone is at a distance of at least 1.5m (4.9 ft) from the speaker and is not directed towards the speaker.

Make sure that the microphone is positioned properly (see Figure 15).

Do not thread the microphone cable close to antenna cable, to avoid audio interference.

Plug the microphone cable into the compatible connection in the octopus control cable.

Important: Make sure that the microphone cable does not come in contact and does not interfere with the steering wheel and/or the pedals of the vehicle.

Attention! The speaker and microphone (which is fitted on the sun visor above the driver) should be pointed towards **opposite directions** to avoid echo.

RF Antenna

Various RF antenna models can be installed for the Motorola in-vehicle product line. The antenna type (glass, roof mount, marine or RV antenna types) should best match the customer's application.

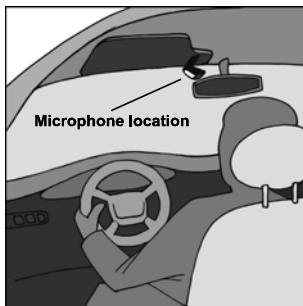


Figure 15: Microphone installation.

Electrical Requirements

Motorola mandates that the antenna meet the following specifications:

VSWR \leq 2:1

Gain: 5dBi @ 806-960MHz

5dBi @ 1850-1990MHz

Antenna Connector:

- North American models use SMA Male antenna connector.
- European models use FME antenna connector.
- The required connector in other regions depends on the specific model and may be either FME or SMA Male.

Material & Environmental Information

The mechanical configuration should meet outdoor conditions with appropriate temperature range for customer applications.

Motorola recommends the following characteristics:

- RF Cable: RG58U, PVC coated/polyethylene dielectric cable;
- Operating temperature: -30°C to +85°C;
- Heat and UV stabilized;
- Flammability UL94V0;
- For on-glass antenna, use adhesive pad with temperature range of -40°C to +90°C and bond not affected by moisture.

Motorola recommends the following antenna suppliers:

PCTEL Antenna Specialists, www.antenna.com.

For 850/1900MHz on-glass antenna with SMA male connector use P/N APDM928S.

Panorama Antennas, www.panorama-antennas.com.

For 900/1800MHz on-glass antenna with FME connector, use P/N GDE-5F.

For 900/1800MHz on-glass antenna with SMA Male connector, use P/N GDE-5S.

RF Antenna Installation

Attention! Ensure the antenna is located at least 20 cm (8 inches) away from all vehicle occupants.

Attention! To avoid audio interference, do not thread the antenna cable close to the microphone cable.

Use original antenna plug and clamping tools only. Test antenna and cable performance using a VSWR meter.

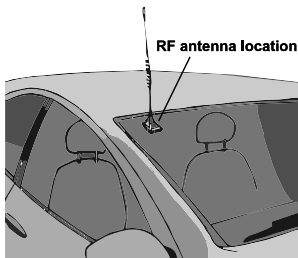


Figure 16: RF antenna installation.

The preferred position for on-glass antenna is either on the upper right side or upper left side of the windshield, opposite from the driver's seat. Should another cellular device already be installed in the vehicle, the antennas should be located at a distance of at least 30 cm (12 inches) from the other.

Note: Certain car models incorporate a 'heat reflective' or 'comfort' windshield. In this case, please attach the antenna to the side or rear windshield only.

GPS Antenna

The GPS antenna should meet the following requirements:

Electrical Requirements

Impedance: 50 Ω

GPS Module Noise Figure: 2dB max

Overall Gain: 26dB (GPS Antenna Element Gain: 0dBi min)

Polarization: Right Hand Circular

Operating Voltage: 3V

Current (Typical): 14mA

VSWR<2.0:1 @ 1575.4MHz +/- 2MHz

Material & Environmental Information

GPS Antenna Connector: SMA Male

GPS Cable: RG174U, PVC coated / polyethylene dielectric cable, length 5M / 16ft

Operating Temperature: -30°C / -22°F to +85°C / +185°F
Heat & UV stabilized

All parts meet Flammability UL94 V0 grade

Adhesive Pads Operating Temperature: -40°C / -40°F to +90°C / +194°F (bond not effected by moisture)

Motorola recommends the following antenna supplier:

Company Name: Amphenol

Website: <http://www.amphenol-saa.com>

Antenna Type: GPS Active Antenna

Manufacturer P/N: SAAWGPS00003

GPS Antenna Installation

Roof Mount Installation

Install the antenna on top of the vehicle metal roof.

Dashboard Installation

Clean the installation surface with the supplied alcohol pad, and attach the antenna using the supplied adhesive pad. Secure the GPS cable under the dashboard with cable ties. Make sure the GPS cable does not interfere with airbags or other controls.

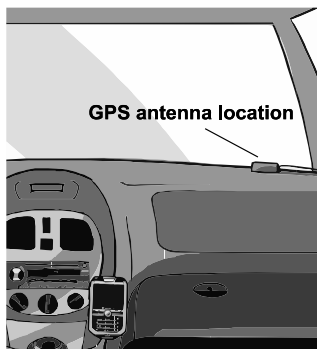


Figure 17: GPS antenna installation.

If the vehicle incorporates a 'heat reflective' or 'comfort' windscreen, it is recommended that the antenna be installed elsewhere in the vehicle, e.g., the rear windshield.

In order to maximize the GPS antenna performance, please obey the following guidelines:

1. Make sure the antenna location is well exposed to the open sky.
2. For best performance, the antenna should be attached to a metal ground plane.
3. Keep distance from any nearby metal object which may obstruct the transmission – windscreen coating (French cars), metal stickers, etc.
4. Keep distance of at least 30 cm (12 inches) from any other transmitting antenna.
5. In case of a vertical angle window, it is not recommended to mount the GPS antenna to the dashboard facing upwards. This may affect its exposure to the open sky.

Note: In certain French car models (such as the Renault Megane and the Renault Kangoo), a radiation filter is fitted in the windscreen; In this case, install the GPS antenna on the vehicle metal roof.

Cable Connections

Power

Connect the **RED** wire to a positive (+) 12V/24V pole for steady power supply. Ensure the use of a 3A/58V fuse.

Ground

Connect the **BLACK** wire to a negative pole (–) In the vehicle body. Ensure the use of a 3A/58V fuse.

Ignition

Connect the **GREEN** wire to car IGN voltage and check the appropriate voltage using voltmeter. This connection switches the phone on when turning the ignition on and it switches the phone off when turning the ignition off. Ensure the use of a 3A/58V fuse.

Entertainment Mute*

Connect the **ORANGE** wire to the car stereo system entertainment mute connection to mute the stereo system when receiving or dialing a call.

Auxiliary alert*

Connect the **WHITE** wire to the car's horn and/or to the car's light connection to turn on the lights and/or to activate the horn when receiving a call.

* Optional feature.

Connections Summary

Wire color	Function	Connect to...	Ensure...
RED	To supply steady (+) power source.	12V/24V steady power. An additional fuse is supplied that must be connected to the positive (+) pole.	The use of a 3A/58V fuse.
BLACK	To supply steady (-) power source.	Vehicle body	That the contact point is only connected to the vehicle body.
GREEN	To switch the phone on when the car ignition is turned on, and off when the car ignition is turned off.	IGN voltage	The appropriate voltage using voltmeter. Ensure the use of a 3A/58V fuse.
ORANGE	To mute the car stereo system when receiving or dialing a call.	Car stereo system entertainment mute connection (optional)	That the connection between the in-vehicle phone and car stereo system is performed by an authorized installer only. Sink should be up to 150mA.
WHITE	To operate car lights/horn to indicate incoming call.	Car lights/horn connections (optional).	That the connection between the in-vehicle phone and the car lights/horn is performed by an authorized installer only. Sink should be up to 300mA.

Entertainment Mute & Auxiliary Alert – Open Collector Connections

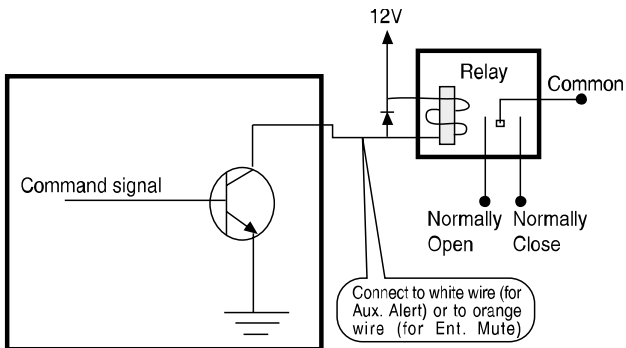


Figure 18: Entertainment mute & auxiliary alert – open collector connections.

Automatic Voltage Detection & Switching

The M990 supports both 12V and 24V power supply installations. The phone will automatically detect the supplied voltage and switch accordingly.

Service & Repairs

If you have questions or need assistance, we are here to help.

Go to <http://www.motorola.com/consumer/support> where you can select from a number of customer care options. You can also contact the Motorola Customer Support Center at 1-800-972-1837 (United States), 1-888-390-6456 (TTY/TDD United States for hearing impaired), or 1-800-461-4575 (Canada).

Important Safety & Legal Information⁶

This section contains important information on the safe and efficient operation of your mobile device. Read this information before using your mobile device⁷.

Exposure to Radio Frequency (RF) Energy

Your mobile device contains a transmitter and receiver. When it is ON, it receives and transmits RF energy through the external antenna. When you communicate with your mobile device, the system handling your call controls the power level at which your mobile device transmits.

Your Motorola mobile device is designed to comply with local regulatory requirements in your country concerning exposure of human beings to RF energy.

Operational Precautions

For optimal mobile device performance and to be sure that human exposure to RF energy does not exceed the guidelines set forth in the relevant standards, always follow these instructions and precautions.

External Antenna Care

If your mobile device has an external antenna, use only a Motorola-supplied or approved replacement antenna. Use of unauthorized antennas, modifications, or attachments could damage the mobile device and/or may result in your device not complying with local regulatory requirements in your country.

⁶ Applies to relevant regions only.

⁷ The information provided in this document supersedes the general safety information in user's guides published prior to May 1, 2007.

DO NOT hold the external antenna when the mobile device is IN USE. Holding the external antenna affects call quality and may cause the mobile device to operate at a higher power level than needed. Do not operate your mobile telephone when a person is within 20 cm (8 inch) of the vehicle antenna. A person or object within 20 cm (8 inch) of the antenna could impair call quality and may cause the phone to operate at a higher power level than necessary and expose that person to RF energy in excess of that established by the FCC RF Exposure Guidelines.

RF Energy Interference/Compatibility

Nearly every electronic device is subject to RF energy interference from external sources if inadequately shielded, designed, or otherwise configured for RF energy compatibility. In some circumstances your mobile device may cause interference with other devices. Using accessories not supplied or approved by Motorola may cause your mobile device to exceed RF energy exposure guidelines. For a list of Motorola-supplied or approved accessories, visit our web site at <http://www.motorola.com>.

Follow Instructions to Avoid Interference Problems

Turn off your mobile device in any location where posted notices instruct you to do so.

Implantable Medical Devices

If you have an implantable medical device, such as a pacemaker or defibrillator, consult your physician before using this mobile device.

Persons with implantable medical devices should observe the following precautions:

- ALWAYS keep the mobile device more than 20 cm (8 inches) from the implantable medical device when the mobile device is turned ON.
- DO NOT carry the mobile device in the breast pocket.

- Use the ear opposite the implantable medical device to minimize the potential for interference.
- Turn OFF the mobile device immediately if you have any reason to suspect that interference is taking place.

Read and follow the directions from the manufacturer of your implantable medical device. If you have any questions about using your mobile device with your implantable medical device, consult your health care provider.

Driving Precautions

Check the laws and regulations on the use of mobile devices in the area where you drive. Always obey them.

When using your mobile device while driving, please:

- Give full attention to driving and to the road. Using a mobile device may be distracting. Discontinue use if you cannot concentrate on driving.
- Use handsfree operation, if available.
- Pull off the road and park before making or answering a call if driving conditions so require.
- Do not place a mobile device in the airbag deployment area.

Responsible driving practices can be found in the "Smart Practices While Driving" section in this user's guide and/or at the Motorola web site: <http://www.motorola.com/callsmart>.

Note: The use of wireless phones while driving may cause distraction. Discontinue a call if you cannot concentrate on driving. Additionally, the use of wireless devices and their accessories may be prohibited or restricted in certain areas. Always obey the laws and regulations on the use of these products.

Operational Warnings

Obey all posted signs when using mobile devices in public areas.








Potentially Explosive Atmospheres

Areas with potentially explosive atmospheres are often but not always posted and can include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, or areas where the air contains chemicals or particles, such as grain dust, or metal powders.

When you are in such an area, turn off your mobile device, and do not remove, install, or charge batteries. In such areas, sparks can occur and cause an explosion or fire.

Symbol Key

Your battery, charger, or mobile device may contain symbols, defined as follows:

Symbol	Definition
	Important safety information follows.
	Do not dispose of your battery or mobile device in a fire.
	Your battery or mobile device may require recycling in accordance with local laws. Contact your local regulatory authorities for more information.
	Do not throw your battery or mobile device in the trash.
	Your mobile device contains an internal lithium ion battery.
	Do not let your battery, charger, or mobile device get wet.
	Listening at full volume to music or voice through a headset may damage your hearing.

Batteries & Chargers

Caution: Improper treatment or use of batteries may present a danger of fire, explosion, leakage, or other hazard.

Choking Hazards

Your mobile device or its accessories may include detachable parts, which may present a choking hazard to small children. Keep your mobile device and its accessories away from small children.

Glass Parts

Some parts of your mobile device may be made of glass. This glass could break if the product is dropped on a hard surface or receives a substantial impact. If glass breaks, do not touch or attempt to remove. Stop using your mobile device until the glass is replaced by a qualified service center.

Seizures/Blackouts

Some people may be susceptible to epileptic seizures or blackouts when exposed to flashing lights, such as when playing video games. These may occur even if a person has never had a previous seizure or blackout.

If you have experienced seizures or blackouts, or if you have a family history of such occurrences, please consult with your physician before playing video games or enabling a flashing-lights feature (if available) on your mobile device.

Discontinue use and consult a physician if any of the following symptoms occur: convulsion, eye or muscle twitching, loss of awareness, involuntary movements, or disorientation. It is always a good idea to hold the screen away from your eyes, leave the lights on in the room, take a 15-minute break every hour, and stop use if you are very tired.

Caution about High Volume Usage



Listening at full volume to music or voice through a headset may damage your hearing.

Repetitive Motion

When you repetitively perform actions such as pressing keys or entering finger-written characters, you may experience occasional discomfort in your hands, arms, shoulders, neck, or other parts of your body. If you continue to have discomfort during or after such use, stop use and see a physician.

Industry Canada Notice to Users⁸

Operation is subject to the following two conditions: (1) This device may not cause interference and (2) This device must accept any interference, including interference that may cause undesired operation of the device. See RSS-GEN 7.1.5.

This device has been designed to operate with the antennas listed below, and having a maximum gain of 3 dB. Antennas not included in this list or having a gain (including cable loss) greater than 3.8 dBi @ 850 MHz and 3.5 dBi @ 1900 MHz are strictly prohibited for use with this device. The required antenna impedance is [50] ohms.

Motorola recommends the following antenna suppliers:

PCTEL Antenna Specialists, www.antenna.com.

P/N APDM928S - 850/1900MHz on-glass antenna with SMA male connector

Gain: 3 dBd @ 806-960MHz / 3 dBd @ 1850-1990MHz

Nominal Impedance: 50 Ohms VSWR: <1.9:1

Coax Cable: 15 ft Pro-Flex (TM) PLUS

⁸ Applies to relevant regions only.

FCC Notice to Users⁹

The following statement applies to all products that have received FCC approval. Applicable products bear the FCC logo, and/or and FCC ID in the format FCC-ID:xxxxxx on the product label.

Motorola has not approved any changes or modifications to this device by the user. Any changes or modifications could void the user's authority to operate the equipment. See 47 CFR Sec. 15.21.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. See 47 CFR Sec. 15.19(3).

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

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

⁹ Applies to relevant regions only.

Motorola Limited Warranty for the United States & Canada

What Does this Warranty Cover?

Subject to the exclusions contained below, Motorola, Inc. warrants its telephones, pagers, messaging devices, and consumer and professional two-way radios (excluding commercial, government or industrial radios) that operate via Family Radio Service or General Mobile Radio Service, Motorola-branded or certified accessories sold for use with these Products ("Accessories") and Motorola software contained on CD-ROMs or other tangible media and sold for use with these Products ("Software") to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined below. This limited warranty is a consumer's exclusive remedy, and applies as follows to new Motorola Products, Accessories and Software purchased by consumers in the United States or Canada, which are accompanied by this written warranty:

Products & Accessories

Products Covered	Length of Coverage
Products and Accessories as defined above, unless otherwise provided for below.	One (1) year from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.
Decorative Accessories and Cases. Decorative covers, bezels, PhoneWrap™ covers and cases.	Limited lifetime warranty for the lifetime of ownership by the first consumer purchaser of the product.
Monaural Headsets. Ear buds and boom headsets that transmit mono sound through a wired connection.	Limited lifetime warranty for the lifetime of ownership by the first consumer purchaser of the product.

Products Covered	Length of Coverage
Consumer and Professional Two-Way Radio Accessories.	Ninety (90) days from the date of purchase by the first consumer purchaser of the product.
Products and Accessories that are Repaired or Replaced.	The balance of the original warranty or for ninety (90) days from the date returned to the consumer, whichever is longer.

Exclusions

Normal Wear and Tear. Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage.

Batteries. Only batteries whose fully charged capacity falls below 80% of their rated capacity and batteries that leak are covered by this limited warranty.

Abuse & Misuse. Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Motorola, are excluded from coverage.

Use of Non-Motorola Products and Accessories. Defects or damage that result from the use of Non-Motorola branded or certified Products, Accessories, Software or other peripheral equipment are excluded from coverage.

Unauthorized Service or Modification. Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by someone other than Motorola, or its authorized service centers, are excluded from coverage.

Altered Products. Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Motorola housings, or parts, are excluded from coverage.

Communication Services. Defects, damages, or the failure of Products, Accessories or Software due to any communication service or signal you may subscribe to or use with the Products Accessories or Software is excluded from coverage.

Software

Products Covered	Length of Coverage
Software. Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).	Ninety (90) days from the date of purchase.

Exclusions

Software Embodied in Physical Media. No warranty is made that the software will meet your requirements or will work in combination with any hardware or software applications provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected.

Software NOT Embodied in Physical Media. Software that is not embodied in physical media (e.g. software that is downloaded from the internet), is provided "as is" and without warranty.

Who Is Covered?

This warranty extends only to the first consumer purchaser, and is not transferable.

What Will Motorola Do?

Motorola, at its option, will at no charge repair, replace or refund the purchase price of any Products, Accessories or Software that does not conform to this warranty. We may use functionally equivalent reconditioned/refurbished/pre-owned or new Products, Accessories or parts. No data, software or applications added to your Product, Accessory or Software, including but not limited to personal contacts, games and ringer tones, will be reinstalled. To avoid losing such data, software and applications please create a back up prior to requesting service.

How to Obtain Warranty Service or Other Information

USA	Phones 1-800-331-6456 Pagers 1-800-548-9954 Two-Way Radios and Messaging Devices 1-800-353-2729
Canada	All Products 1-800-461-4575
TTY	1-888-390-6456
For Accessories and Software , please call the telephone number designated above for the product with which they are used.	

You will receive instructions on how to ship the Products, Accessories or Software, at your expense, to a Motorola Authorized Repair Center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; (c) the name of your service provider, if applicable; (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number.

What Other Limitations Are There?

ANY IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY, OTHERWISE THE REPAIR, REPLACEMENT, OR REFUND AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER, AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. IN NO EVENT SHALL MOTOROLA BE LIABLE, WHETHER IN CONTRACT OR TORT (INCLUDING NEGLIGENCE) FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, ACCESSORY OR SOFTWARE, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA, SOFTWARE OR APPLICATIONS OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE ABILITY OR INABILITY TO USE THE PRODUCTS, ACCESSORIES OR SOFTWARE TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

Some states and jurisdictions do not allow the limitation or exclusion of incidental or consequential damages, or limitation on the length of an implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or from one jurisdiction to another.

Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted Motorola software such as the exclusive rights to reproduce and distribute copies of the Motorola software. Motorola software may only be copied into, used in, and redistributed with, the Products associated with such Motorola software. No other use, including without limitation disassembly of such Motorola software or exercise of the exclusive rights reserved for Motorola, is permitted.

Hearing Aid Compatibility with Mobile Phones

Some Motorola phones are measured for compatibility with hearing aids. If the box for your particular model has "Rated for Hearing Aids" printed on it, the following explanation applies.

When some mobile phones are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and phones also vary in the amount of interference they generate.

The wireless telephone industry has developed ratings for some of their mobile phones, to assist hearing device users in finding phones that may be compatible with their hearing devices. Not all phones have been rated. Phones that are rated have the rating on their box or a label on the box.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

T-Ratings: Phones rated T3 or T4 meet FCC requirements and are likely to be more usable with a hearing device's telecoil ("T Switch" or "Telephone Switch") than unrated phones. T4 is the better/higher of the two ratings. (Note that not all hearing devices have telecoils in them.)

Hearing devices may also be measured for immunity to this type of interference. Your hearing device manufacturer or hearing health professional may help you find results for your hearing device. The more immune your hearing aid is, the less likely you are to experience interference noise from mobile phones.

World Health Organization

Present scientific information does not indicate the need for any special precautions for the use of mobile phones. If you are concerned, you may want to limit your own or your children's RF exposure by limiting the length of calls or by using handsfree devices to keep mobile phones away from your head and body.

Source: **WHO Fact Sheet 193**

Further information: **<http://www.who.int/peh-emf>**

Product Registration

Online Product Registration:

direct.motorola.com/hellomoto/Motosupport/source/registration.asp

Product registration is an important step toward enjoying your new Motorola product. Registering helps us facilitate warranty service, and permits us to contact you should your product require an update or other service. Registration is for U.S. residents only and is not required for warranty coverage.

Please retain your original dated sales receipt for your records. For warranty service of your Motorola Personal Communications Product you will need to provide a copy of your dated sales receipt to confirm warranty status.

Thank you for choosing a Motorola product.

Export Law Assurances

This product is controlled under the export regulations of the United States of America and Canada. The Governments of the United States of America and Canada may restrict the exportation or re-exportation of this product to certain destinations. For further information contact the U.S. Department of Commerce or the Canadian Department of Foreign Affairs and International Trade.

Caring for the Environment by Recycling



This symbol on a Motorola product means the product should not be disposed of with household waste.

Disposal of your Mobile Device & Accessories

Please do not dispose of mobile devices or electrical accessories (such as chargers, headsets, or batteries) with your household waste. These items should be disposed of in accordance with the national collection and recycling schemes operated by your local or regional authority. Alternatively, you may return unwanted mobile devices and electrical accessories to any Motorola Approved Service Center in your region. Details of Motorola approved national recycling schemes, and further information on Motorola recycling activities can be found at <http://www.motorola.com/recycling>.

Disposal of your Mobile Device Packaging and User's Guide

Product packaging and user's guides should only be disposed of in accordance with national collection and recycling requirements. Please contact your regional authorities for more details.

Privacy & Data Security

Motorola understands that privacy and data security are important to everyone. Because some features of your mobile device may affect your privacy or data security, please follow these recommendations to enhance protection of your information:

- **Monitor access** – Keep your mobile device with you and do not leave it where others may have unmonitored access. Lock your device's keypad where this feature is available.
- **Keep software up to date** – If Motorola or a software/application vendor releases a patch or software fix for your mobile device which updates the device's security, install it as soon as possible.
- **Erase before recycling** – Delete personal information or data from your mobile device prior to disposing of it or turning it in for recycling. For step-by-step instructions on how to delete all personal information from your device, see the section entitled "master clear" or "delete data" in this user's guide.

Note: For information on backing up your mobile device data before erasing it, go to <http://www.motorola.com> and then navigate to the "downloads" section of the consumer web page for "Motorola Backup" or "Motorola Phone Tools".

- **Understanding AGPS** – In order to comply with emergency caller location requirements of the FCC, certain Motorola mobile devices incorporate *Assisted Global Positioning System* (AGPS) technology. AGPS technology also can be used in non-emergency applications to track and monitor a user's location – for example, to provide driving directions. Users who prefer not to permit such tracking and monitoring should avoid using such applications.

If you have further questions regarding how use of your mobile device may impact your privacy or data security, please contact Motorola at privacy@motorola.com or contact your service provider.

Smart Practices While Driving

Drive Safe, Call SmartSM

Check the laws and regulations on the use of mobile devices and their accessories in the areas where you drive. Always obey them. The use of these devices may be prohibited or restricted in certain areas. Go to <http://www.motorola.com/callsmart> for more information.

Your mobile device lets you communicate by voice and data – almost anywhere, anytime, wherever wireless service is available and safe conditions allow. When driving a car, driving is your first responsibility. If you choose to use your mobile device while driving, remember the following tips:

1. **Get to know your Motorola mobile device and its features such as speed dial and redial.** If available, these features help you to place your call without taking your attention off the road.
2. **When available, use a handsfree device.** If possible, add an additional layer of convenience to your mobile device with one of the many Motorola Original handsfree accessories available today.  TM
3. **Position your mobile device within easy reach.** Be able to access your mobile device without removing your eyes from the road. If you receive an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.
4. **Let the person you are speaking with know you are driving; if necessary, suspend the call in heavy traffic or hazardous weather conditions.** Rain, sleet, snow, ice, and even heavy traffic can be hazardous.
5. **Do not take notes or look up phone numbers while driving.** Jotting down a "to do" list or going through your address book takes attention away from your primary responsibility – driving safely.

6. **Dial sensibly and assess the traffic; if possible, place calls when your car is not moving or before pulling into traffic.** If you must make a call while moving, dial only a few numbers, check the road and your mirrors, then continue.
7. **Do not engage in stressful or emotional conversations that may be distracting.** Make people you are talking with aware you are driving and suspend conversations that can divert your attention away from the road.
8. **Use your mobile device to call for help.** Dial 911 or other local emergency number in the case of fire, traffic accident, or medical emergencies*.
9. **Use your mobile device to help others in emergencies.** If you see an auto accident, crime in progress, or other serious emergency where lives are in danger, call 911 or other local emergency number, as you would want others to do for you*.
10. **Call roadside assistance or a special non-emergency wireless assistance number when necessary.** If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured, or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number*.

* Wherever wireless phone service is available.

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