MOTOROLA

DIGITAL WIRELESS
TELEPHONE

User's Guide >

Welcome

Welcome to the world of Motorola digital wireless communications! We are pleased that you have chosen the Motorola V70 wireless phone.

Headset Jack
Insert headset accessory for hands-free use.

Earpiece

Display

Volume Key
Adjust earpiece and ringer volume.

Left Soft Key
Perform functions identified by left display prompt.

Right Soft Key
Perform functions identified by right display prompt.

Menu Key

Send Key
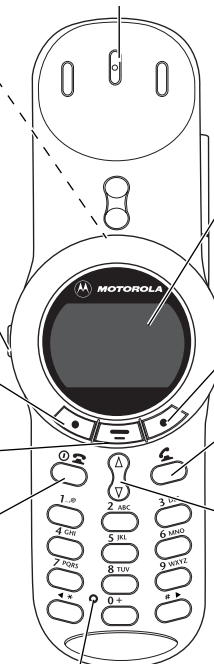Send and answer calls, view recent dialed calls list.

Power/End Key
Press & hold to power phone on & off.

Press & release to end phone calls, exit menu system.

Navigation Keys
Scroll through menus and lists, set feature values.

Microphone

Accessory Connector Port
Insert charger and phone accessories.

Menu Map

Main Menu

- **Recent Calls**
  - Received Calls
  - Dialed Calls
  - Notepad
  - Call Times
  - Call Cost
- **Service Dial**
- **Fixed Dial**
- **Phonebook**
- **Datebook**
- **Quick Dial**
- **Messages**
  - Voicemail
  - Text Msgs
  - Browser Alerts
  - Info Services
  - Quick Notes
  - Outbox
  - Drafts
- **Shortcuts**
- **Voice Dial**
- **SIM Applications**
- **Browser**
- **Calculator**
- **Games**
- **Settings**
  (see next page)

Note: This is the standard phone menu layout. You or your service provider may have changed the menu layout or changed some feature names. Not all features may be available for all users.

Shortcuts
Change display zoom: Press 🔲, then press and hold 🔲
Display my phone number: Press 🔲 (#)
Go to dialed calls list: Press ⭗
Exit menu system: Press ⊙

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Settings Menu

- **Ring/Vibrate**
  - Alert
  - *Alert* Detail
  - My Tones
- **Call Forward**
  - Voice Calls
  - Fax Calls
  - Data Calls
  - Cancel All
  - Forward Status
- **Phone Status**
  - My Tel. Numbers
  - Credit Info/Available
  - Active Line
  - Battery Meter
  - Other Information
- **Browser Setup**
- **In-Call Setup**
  - In-Call Timer
  - Call Cost Setup
  - My Caller ID
  - Talk and Fax
  - Answer Options
  - Call Waiting
- **Security**
  - Phone Lock
  - Lock Application
  - Fixed Dial
  - Call Barring
  - SIM Pin
  - New Passwords

- **Other Settings**
  - Personalize
    - Main Menu
    - Keys
    - Greeting
    - Quick Dial
  - Initial Setup
    - Time and Date
    - 1-Touch Dial
    - Backlight
    - Zoom
    - Scroll
    - Animation
    - Language
    - Battery Save
    - Contrast
    - DTMF
    - Master Reset
    - Master Clear
  - Network
  - Car Settings
  - Headset

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About This Guide

Using Your Phone's Features

This user guide introduces you to the many features in your Motorola V70 phone. A reference guide for your phone is also available that explains the phone's features in more detail. To obtain a copy of the reference guide or another copy of this user guide, see the Motorola Web site at:

http://motorola.com/consumer/manuals (United States)
http://www.motorola.ca/manuals (Canada)

or contact the Motorola Customer Call Center at 1-800-331-6456 in the United States or 1-800-461-4575 in Canada.

Navigating To a Menu Feature

You can access many of your phone's features through the menu system. This guide shows you how to navigate to a specific menu feature as follows:

Find the Feature $\boxed{=}$> Recent Calls
                        > Dialed Calls

The > symbol means that you should scroll to and select the feature. This example shows that you must press $\boxed{=}$, scroll to and select Recent Calls, then scroll to and select Dialed Calls to view the dialed calls list.

Optional Features

Features marked with this label are optional network, SIM card, and/or subscription-dependent features. These features may not be offered by all service providers in all geographical areas. Contact your service provider for information about availability.

Optional Accessories

Features marked with this label require the use of an optional Motorola Original™ accessory.

Safety and General Information

IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION. READ THIS INFORMATION BEFORE USING YOUR PHONE.

RF Operational Characteristics

Your phone contains a transmitter and a receiver. When it is ON, it receives and transmits radio frequency (RF) energy. The phone operates in the frequency range of 1850.2MHz through 1909.8MHz.

When you communicate with your phone, the system handling your call controls the power levels at which your phone transmits. The output power level typically may vary over a range from 0.0 watts to 1.12 watts.

Exposure To Radio Frequency Energy

Your Motorola phone is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy (EME):

- United States Federal Communications Commission, Code of Regulations; 47 CFR part 2 sub-part J

- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992

- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition

- National Council on Radiation Protection and Measurements (NCRP) of the United States, Report 86, 1986

- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

- Ministry of Health (Canada) Safety Code 6. Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999

- Australian Communications Authority Radiocommunications (Electromagnetic Radiation-Human Exposure) Standard 1999

To assure optimal phone performance and make sure human exposure to radio frequency electromagnetic energy is within the guidelines set forth in the above standards, always adhere to the following procedures:

Portable Phone Operation and EME Exposure

Antenna Care

Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the phone and may violate FCC regulations.

Do NOT hold the antenna when the phone is in use. Holding the antenna affects call quality and may cause the phone to operate at a higher power level than needed.

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Phone Operation

When placing or receiving a phone call, hold your phone as you would a wireline telephone. **Speak directly into the microphone.**

Body-Worn Operation

To maintain compliance with FCC/Health Canada RF exposure guidelines, if you wear a phone on your body when transmitting, always place the phone in a **Motorola-supplied or approved clip, holder, holster, case, or body harness for this product.** Use of non-Motorola-approved accessories may exceed FCC/Health Canada RF exposure guidelines. **If you do not use a body-worn accessory, and are not holding the phone in the normal use position at the ear, ensure the phone and its antenna are at least one inch (2.5 centimeters) from your body when transmitting.**

Data Operation

When using any data feature of the phone, with or without an accessory cable, **position the phone and its antenna at least one inch (2.5 centimeters) from your body.**

Approved Accessories

For a list of approved Motorola accessories, visit our website at www.motorola.com.

Electromagnetic Interference/ Compatibility

Note: Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed, or otherwise configured for electromagnetic compatibility.

Facilities

To avoid electromagnetic interference and/or compatibility conflicts, turn off your phone in any facility where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.

Aircraft

When instructed to do so, turn off your phone when on board an aircraft. Any use of a phone must be in accordance with applicable regulations per airline crew instructions.

Medical Devices

Pacemakers

The Advanced Medical Technology Association recommends that a minimum separation of 6 inches (15 centimeters) be maintained between a handheld wireless phone and a pacemaker. These recommendations are consistent with the independent research by, and recommendations of, the United States Food and Drug Administration.

Persons with pacemakers should:

- ALWAYS keep the phone more than six inches (15 centimeters) from your pacemaker when the phone is turned ON.

- NOT carry the phone in the breast pocket.

- use the ear opposite the pacemaker to minimize the potential for interference.

- turn OFF the phone immediately if you have any reason to suspect that interference is taking place.

Hearing Aids

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your hearing aid manufacturer to discuss alternatives.

Other Medical Devices

If you use any other personal medical device, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

Safety and General

Use While Driving

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

When using your phone while driving, please:

- give full attention to driving and to the road.

- use hands-free operation, if available.

- pull off the road and park before making or answering a call if driving conditions so require.

Operational Warnings

For Vehicles With an Air Bag

Do not place a portable phone in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable phone is placed in the air bag deployment area and the air bag inflates, the phone may be propelled with great force and cause serious injury to occupants of the vehicle.

Potentially Explosive Atmospheres

Turn off your phone prior to entering any area with a potentially explosive atmosphere, unless the phone is a model specifically identified as being "Intrinsically Safe." Do not remove, install, or charge batteries in such areas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

Note: The areas with potentially explosive atmospheres referred to above include fueling areas such as below decks on boats, fuel or chemical transfer or storage facilities, areas where the air contains chemicals or particles, such as grain, dust, or metal powders, and any other area where you would normally be advised to turn off your vehicle engine. Areas with potentially explosive atmospheres are often but not always posted.

Blasting Caps and Areas

To avoid possible interference with blasting operations, turn OFF your phone when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio." Obey all signs and instructions.

Operational Cautions

Antennas

Do not use any portable phone that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.

Batteries

All batteries can cause property damage and/or bodily injury such as burns if a conductive material such as jewelry, keys, or beaded chains touches exposed terminals. The conductive material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

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Getting Started

What's in the Box?

Your digital wireless phone typically comes equipped with a battery and a charger. Other accessory options can customize your phone for maximum performance and portability.

To purchase Motorola Original™ accessories, please contact the Motorola Customer Call Center at 1-800-331-6456 in the United States or 1-800-461-4575 in Canada.

Installing the SIM Card and Battery

Before you can use your phone, you need to install and charge the battery.

Your phone is designed to be used only with Motorola Original batteries and accessories. We recommend that you store batteries in their protective cases when not in use.

Your SIM (Subscriber Identity Module) card contains your phone number, service details, and phonebook/message memory. It must be installed in the base of the phone.

Caution: Do not bend or scratch your SIM card. Avoid exposing your SIM card to static electricity, water, or dirt.

Step

1 Remove the back cover of the phone:

   a While pressing the release button at the bottom of the cover, slide the cover downward.
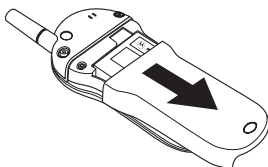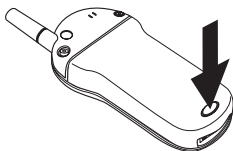
   b Pull the cover away from the base.
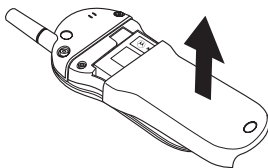
Step

2 Insert the SIM card, with the notch at the upper right and the gold plate downward, into the SIM slot (located above the battery compartment).
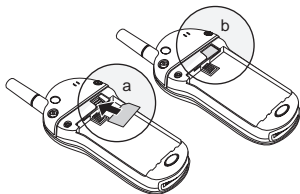
   When the SIM card is properly positioned, the battery compartment terminals are visible.

3 Install the battery by inserting the tabs at the base of the battery into the slots at the bottom of the battery compartment.
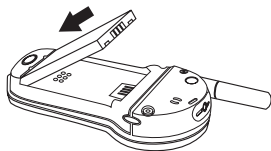
4 Push the battery down and snap it into place.
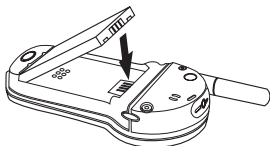
5 Re-install the back cover by aligning the cover about 1/2 inch down on base and fitting the cover onto the base.
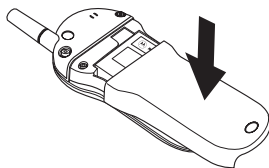
Step

6   Push down on the
cover while sliding it
upward into position.
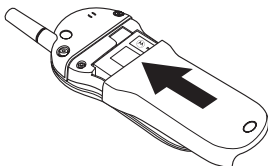
Charging the Battery

New batteries are shipped partially charged. Before you can use
your phone, you need to install and charge the battery, as
indicated by the following instructions. Some batteries perform
best after several full charge/discharge cycles.

Step

1   Plug the travel charger
into the phone with the
release tabs facing up.
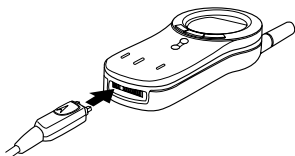
2   Plug the other end of the travel charger into the
appropriate electrical outlet.

3   When your phone indicates that the battery is fully
charged (**Charge Complete**), press the release tab and
remove the travel charger.

Note: When you charge the battery, the battery level indicator in the upper right corner of the display shows how much of the charging process is complete. See the "Battery Level Indicator" item on page 29.

Turning Your Phone On

Step	Result
1 Open your phone	expose the keypad
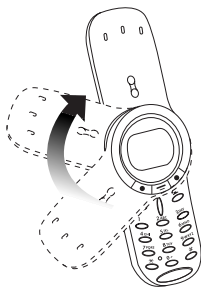
2 Press and hold ⚏ (the End/Power key)	turn on your phone

End/
Power Key

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Step		Result
3	If necessary, enter your SIM card PIN code and press OK ([●])	unlock your SIM card
		Caution: If you enter an incorrect PIN code three times in a row, your SIM card is disabled and your phone displays the message SIM Blocked. (For more information, see "Protecting the SIM Card" on page 158.)
4	If necessary, enter your four-digit unlock code and press OK ([●])	unlock your phone
		The unlock code is originally set to 1234. (For more information, see "Locking and Unlocking Your Phone" on page 155.)

Sending a Call

To call a number, your phone:

- must be rotated completely open to expose the keypad

- must be turned on

- must have a SIM card inserted and unlocked

- must have a network connection with adequate signal strength

Press	To
1 keypad keys	dial the phone number (up to 32 digits)
	Tip: If you make a mistake, press DELETE (`/●`) to delete the last digit, or press and hold DELETE (`/●`) to clear all digits.
2 ☎ (send key)	send the call

Note: You can make an emergency call even when the phone is locked, or when a SIM card is not inserted. See "Dialing an Emergency Number" on page 38.

Ending a Call

Press	To
☎ (end key)	end the call

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Receiving a Call

To receive a call, your phone:

- must be rotated completely open to expose the keypad or have a headset (an optional accessory) plugged in

- must be turned on

- must have a SIM card inserted and unlocked

- must have a network connection with adequate signal strength

If your phone is locked, you must unlock it to answer the call.

Note: Your phone cannot receive calls when your SIM card is locked.

When you receive a call, your phone rings and/or vibrates and displays an incoming call message.

Press	To
⬅ or ANSWER (⬜)	answer the call

Displaying Your Phone Number

From the idle display:

Press	To
▣ ⌗	see your phone number

Note: Your phone number must be programmed on your SIM card in order to use this feature.

About Your Phone

See page 1 for a diagram of your phone that describes basic phone components.

Display

The top section of the display shows phone status indicators. The following illustration shows some of the common indicators that you may see at the top of the display when using your phone.

Messages, phone numbers, and menu options appear in the middle of the display. Text labels at the bottom corners of the display show the current soft key functions. A ≣ (menu) indicator in the bottom center of the display indicates that you can open the main menu or a feature sub-menu to see more options. For more information about the soft key and menu key labels, see "Using the Menu" on page 49.

Some of the phone functions described in this guide must be performed from the idle display. The term *idle display* refers to the standard display that you see when your phone is on and ready to use, when you are *not* on a call or using the menu system.

❷ In Use Indicator

❸ Roam Indicator

❹ Message Waiting Indicator

❶ Signal Strength Indicator

❺ Voice Message Waiting Indicator

❻ Battery Level Indicator

⓫ Alert Setting Indicator

❼ Active line indicator

❿ Clock

❾ Menu Indicator

❽ GPRS Indicators
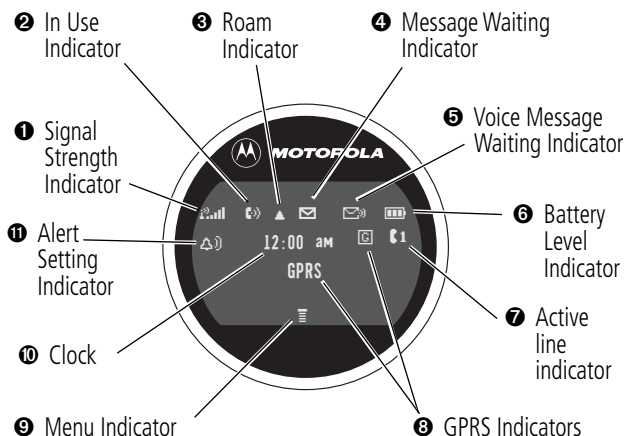
❶ Signal Strength Indicator Shows the strength of your phone's connection with the network.

Strong   ꜟ⣿⣿   ꜟ⣿⣄   ꜟ⣀   ꜟ⡀   ꜟ   ꜟ   No signal

You cannot send or receive calls when the "no signal" indicator is displayed.

❷ In Use Indicator Appears when a call is in progress.

❸ Roam Indicator Appears when your phone uses another network system outside your home network. When you leave your home network area, your phone *roams* or seeks another network.

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❹ Message Waiting Indicator Appears when your phone receives a text message.

❺ Voice Message Waiting Indicator Appears when you receive a voicemail message.

❻ Battery Level Indicator Shows the amount of charge left in your battery. The more segments visible, the greater the charge.

High   ▥   ▣   ▢   ▢   Empty

Recharge your battery as soon as possible when you see the `Low Battery` warning message.

Note: When you charge the battery, the battery level indicator instead shows how much of the charging process is complete. See "Charging the Battery" on page 22.

❼ Active Line Indicator When you use a SIM card that supports dual phone lines, this indicator shows the current active phone line. See the "Active Line" option on page 69.

❽ GPRS Indicators Indicate that a GPRS packet data connection is active. This type of connection may be used by your service provider to allow faster data transfer speeds. The GPRS indicators do not mean that you are in a call; they simply indicates that you are registered on the network via a GPRS connection.

➒ Menu Indicator Indicates that you can press ⊟ to open a menu. See "Using the Menu" on page 49.

➓ Clock Shows the current time.

⓫ Alert Setting Indicator Shows the current selected alert profile. The default alert setting is a ringer.

♫⟩	Loud ring	♫⟫	Soft ring
❉◻❉	Vibrate	♪◻	Ring and vibrate
♫ᶻ	Silent		

Changing the Zoom Setting

You can set your phone's display to show either three lines or two lines of text plus soft key labels. Three lines of text display more information, while two lines increase text size.

Note: By default, your phone uses two lines to display Chinese characters. When your phone is set to display Chinese characters, the zoom setting is not available.

To change the display view, press ⊟ once, then press and hold ⊟ again within two seconds of the first press.

You can also adjust the zoom setting from the menu. See the "Zoom" item on page 75.

Adjusting Volume

You can adjust your phone's earpiece and ringer volume:

When	You Can Adjust
you are in a call	earpiece speaker volume
the idle display is showing	ringer volume

You can increase or decrease volume in two ways:

- use only the volume key

- use the volume key in combination with the up/down navigation key

Volume Key

Up/Down Navigation Key
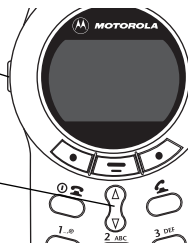
To change keypad volume, see "Customize an Alert Profile" on page 134.

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Using Only the Volume Key

The volume key works in only one direction.

To Increase Volume	To Decrease Volume
Press the volume key repeatedly.	Press and hold the volume key until the volume cycles to and stops at the highest level.
Each press of the volume key raises the volume one level. If you press and hold the volume key, the volume cycles to the highest level and then stops.	Release the volume key, then press again. The volume begins at the lowest level and adjusts upward as you continue to press the key.

Using the Volume Key and the Up/Down Navigation Key

Step		Result
1	Press the volume key once	Your phone displays the volume meter.
2	Press the up-arrow (on the up/down navigation key)	Volume increases.
	or	
	Press the down-arrow (on the up/down navigation key)	Volume decreases.

Battery Use

Caution: To prevent injuries or burns, do not allow metal objects to contact or short-circuit the battery terminals.

To maximize your battery's performance:

- Always use Motorola Original™ batteries and battery chargers. The phone warranty does not cover damage caused from using non-Motorola batteries and/or battery chargers.

- New batteries or batteries that have been stored for long periods of time may require a longer charge time.

- Maintain the battery at or near room temperature when charging.

- Do not expose batteries to temperatures below -10°C (14°F) or above 45°C (113°F). Always take your phone with you when you leave your vehicle.

- When you do not intend to use a battery for a while, store it uncharged in a cool, dark, dry place, such as a refrigerator.

- Over extended periods of time, batteries gradually wear down and require longer charging times. This is normal. If you charge your battery regularly and notice a decrease in talk time or an increase in charging time, then it is probably time to purchase a new battery.

- The more you talk on the phone or use phone features (like sending text messages), the less standby time your battery has.

The rechargeable batteries that power this product must be disposed of properly and may need to be recycled. Refer to your battery's label for battery type. Contact your local recycling center for proper disposal methods. Never dispose of batteries in a fire because they may explode.

Sending and Receiving Calls

This chapter describes features related to sending and receiving calls.

For information about other call-related features, see "Recent Calls" on page 79 and "Data and Fax Calls" on page 148. For basic instructions on how to send, end, and receive a call, see pages 25–26 of the "Getting Started" section.

Note: To send and receive calls, rotate your phone's cover open.

Redialing a Number

You can redial a previously dialed phone number, whether the call was connected or busy. From the idle display:

	Press	To
1	(◄)	go directly to the dialed calls list
2	⑧	scroll to the entry you want to call
3	(◄)	redial the highlighted number

Using Automatic Redial

You must turn on automatic redial to use this feature. See the "Auto Redial" item on page 75 to turn on automatic redial.

If you receive a busy signal, your phone displays Call Failed.

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When automatic redial is turned on, your phone automatically makes a number of redial attempts until the call goes through. When the call goes through, your phone rings or vibrates one time, displays the message **Redial Successful**, and then connects the call.

When automatic redial is turned off, you can manually activate the feature to redial a phone number. When you hear a busy signal and see the **Call Failed** message:

Press	To
N or RETRY ([•\])	activate automatic redial

Caller ID

The *calling line identification* (caller ID) feature lets you see who is calling before you answer.

- If the caller's name is stored in your phonebook, the phone automatically displays the name. Otherwise, the phone displays the caller's phone number.

- If caller ID information is not available, your phone displays the message **Incoming Call**.

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Line Security

If your phone displays **Line Not Secure** while you are on a call, your phone has detected another device monitoring the call. This message does not appear when caller ID, call cost, or other information fills the display.

Returning an Unanswered Call

Your phone keeps a record of your unanswered calls. When you cannot answer a call, your phone displays:

- the $\overline{\mathbb{C}}$ (missed call) indicator

- the message *X* **Missed Calls**, where *X* is the total number of missed calls

Press	To
1 VIEW ($\boxed{\bullet}$\)	see the received calls list, beginning with the most recent call
2 $\stackrel{\circ}{\circ}$	scroll through the list and select a call that you want to return
3 $\textcircled{\textbf{\texttt{<}}}$	send the call

Dialing an Emergency Number

Your service provider programs one or more emergency phone numbers (such as 112 or 911) that you can call under any circumstances. You can dial and call the emergency number even when your phone is locked, when you are prompted to enter a code or password, when the SIM card is not inserted in your phone, or when the SIM card is blocked or disabled.

Note: Emergency numbers vary by country. Your phone's emergency number(s) may not work in all locations.

To call the emergency number at any time:

Press	To
1 keypad keys	dial the emergency number (such as 112)
2 ⓒ	call the emergency number

Entering Numbers in the Notepad

Your phone stores the most recent string of digits entered on the keypad in a temporary memory location called the *notepad*. These digits can be the last phone number that you called, or a phone number that you simply entered but did not call. These digits remain in the notepad even when you turn off the phone.

You can use the notepad to store a phone number that you intend to call later (such as a phone number told to you by the other party during a call). To retrieve these digits, see "Using the Notepad" on page 82.

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Terminating an Incoming Call

While the phone is ringing or vibrating:

Press	To
⊙ or IGNORE (⟋•⟍)	cancel the incoming call

Depending on your phone settings and the type of subscription you have, the call may be forwarded to another number, or the caller may hear a busy signal.

Dialing With Speed Dial

Speed dial lets you dial any phonebook entry with a minimal number of keypresses.

When you store an entry in your phonebook, it is assigned a unique speed dial number. You can then use the speed dial feature to call the entry.

Press		To
1	keypad keys	enter the one-, two-, or three-digit speed dial number for the entry you want to dial
2	(#)	submit the number
3	(⟍)	call the entry

To make an entry in the phonebook or view an existing entry's speed dial number, see "Storing a Phonebook Entry" on page 88.

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Dialing With 1-Touch Dial

You can call phonebook entries 1 through 9 with the push of a single key. Press and hold the one-digit speed dial number for one second. To store entries in locations 1 through 9 in the phonebook, see "Storing a Phonebook Entry" on page 88.

Note: You must specify which phone number list you want to use with this feature: phone memory phonebook, or SIM card phonebook. See "1-Touch Dial Preference" on page 101.

Dialing a Number in a Text Message

If you receive a text message with an embedded phone number, you can dial the number directly.

Note: You must set up the text message inbox before you can receive text messages. See "Setting Up the Text Message Inbox" on page 113.

Find the Feature $\boxed{=}$> **Messages** > **Text Msgs**

Press	To
1 $\begin{array}{c}8\end{array}$	scroll to the message with the number
2 $\boxed{=}$	open the **Text Msg Menu**
3 $\begin{array}{c}8\end{array}$	scroll to **Call Back**
4 **SELECT** ($\boxed{\bullet}$)	dial the number in the message

If the message contains more than one phone number, press $\begin{array}{c}8\end{array}$ to scroll to a number, then press **SELECT** ($\boxed{\bullet}$) to dial.

Additional Dialing Features

In addition to pressing numbers on your keypad, you can insert numbers or characters and send calls in a variety of ways.

To dial the local international access code:

Do This	To
Press ⓪ for two seconds	insert the international access code for the country from which you are dialing

While dialing (with digits visible in the display):

Do This	To
Press 🔲 > Attach Number	attach a number from the phonebook or recent calls list to the end of the digits you entered
Press 🔲 > Hide ID/Show ID	Hide (or show) your caller ID for the next call
Press 🔲 > Send Message	create a text message addressed to the number entered
Press 🔲 > Talk Then Fax	talk and then send a fax to the same phone number within the same call

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Do This	To
Press 🔲 and then scroll to and select one of the following:	insert a special character when making a call that requires you to dial and send additional digits (for example, to make a calling card call, or to retrieve messages from an answering machine):
• **Insert Pause** (to insert a **p**)	• **Pause** tells your phone to wait until the call connects before it automatically sends the next digit(s) in a series.
• **Insert Wait** (to insert a **w**)	• **Wait** tells your phone to wait until the call connects, and then to prompt you for confirmation before it sends the next digit(s).
• **Insert 'n'** (to insert an **n**)	• **'n'** tells your phone to prompt you for a number before dialing the call. The number you enter is inserted into the dialing sequence in place of the **n** character.

You can also call numbers using these features:

Do This	To Call
Press V. Dial (⟋•), and say the entry's name within two seconds	a phone number using the voice dial feature
	See "Recording a Voice Name For a Phonebook Entry" on page 91.
Press ⊟ > Service Dial > *entry to call*	a service dial number programmed on the SIM card
Press ⊟ > Fixed Dial > *entry to call*	a fixed dial number
Press ⊟ > Recent Calls > Received Calls **or** Dialed Calls > *entry to call*	a missed call or a number from a call you recently dialed or received

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Using Features While On a Call

Using Call Waiting

If you subscribe to call waiting, an alert tone sounds while you are on a call to indicate that you have received a second call.

To put the first call on hold and answer the second call:

Press	To
1 $\bigcirc$	answer the new call
2 SWITCH ($\boxed{\bullet}$)	switch back to the first call
	Note: You can press SWITCH ($\boxed{\bullet}$) at any time to switch between calls.
or	
LINK ($\boxed{\bullet}$)	connect the two calls

To end the first call and answer the second call:

Press	To
1 $\bigcirc$	end the current call
	Your phone rings to signal the new call.
2 $\bigcirc$	answer the new call

You must activate call waiting in order to use the feature. See the "Call Waiting" item on page 72 to activate call waiting.

Making a Conference Call

To talk to more than one person on a call, you can make a conference call. Call the first person, call the second person, then link the two calls.

Press		To
1	keypad keys	dial the first person's number
2	C	call the number
3	HOLD (•\) (if available) **or** M > Hold	put the first call on hold Your phone displays a 📞 (flashing phone) indicator next to the call on hold.
4	keypad keys	dial the next person's number
5	C	call the number Your phone displays a 📞 (active call) indicator next to the new active call.
6	LINK (/•)	connect the two calls
7	⊙	end the entire call

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Transferring a Call

While you are on a call, you can transfer the call to another phone by first talking to the person who answers the other phone, or by directly transferring the call.

Announce the Call Transfer

You can talk to the person who answers the other phone before you transfer the call, to tell them whom you are transferring.

Find the Feature $\boxed{=}$ > Hold

	Press	To
1	keypad keys	enter the phone number where you are transferring the call
2	$\textcircled{\scriptsize{\textsf{C}}}$	dial the phone number
		Speak to the person who answers the target phone.
3	$\boxed{=}$	open the menu
4	$\begin{smallmatrix}8\end{smallmatrix}$	scroll to Transfer
5	SELECT ($\boxed{\bullet}$)	select Transfer
6	OK ($\boxed{\bullet}$)	confirm the transfer
		Your phone displays the message Transfer: Complete when the call is transferred. You can hang up the phone when you see this message.

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Do Not Announce the Call Transfer

You can directly transfer a call without talking to the person who answers.

Find the Feature $\boxed{=}$ > Transfer

Press	To
1 keypad keys	enter the phone number where you are transferring the call
2 $\textcircled{\small\textless}$	dial the phone number
	Your phone displays the message Transfer: Complete when the call is transferred. You can hang up the phone when you see this message.

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Additional On-Call Features

While you are on a call, you can perform the following tasks:

Do This	To
Press **HOLD** (`⬤`) (if available) **or** Press `⬜` > **Hold**	put a call on hold Your phone displays a ⛊ (flashing phone) indicator to indicate that the call is on hold.
Press `⬜` > **My Tel. Numbers**	see your phone number
Press `⬜` > **Send Tones**	send a number to the network as DTMF tones, for credit card calling or password entry To activate DTMF tones, see the "DTMF" item on page 76

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Using the Menu

Navigating to a Feature

You can access many of your phone's features by using these keys to move through the menu system:

Volume Key
Adjust earpiece and ringer volume.

Left Soft Key
Perform functions identified by left display prompt.

Menu Key

Power/End Key
Press & hold to power phone on & off.

Press & release to end phone calls, exit menu system.

Right Soft Key
Perform functions identified by right display prompt.

Send Key
Send and answer calls, view recent dialed calls list.

Navigation Keys
Scroll through menus and lists, set feature values.

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

Find the Feature $\boxed{=}$ > Recent Calls
                      > Dialed Calls

The > symbol means that you should scroll to and select the
feature. This example shows that you should press $\boxed{=}$, scroll to
and select Recent Calls, then scroll to and select Dialed Calls
to see the dialed calls list.

Selecting a Feature

Some features require you to select an item from a list:

Press
BACK ($\boxed{\bullet}$)
to return to
the previous
screen.

Highlighted
item

(M) MOTOROLA

Dialed Calls
10) John Smith
9) Mary Smith

BACK   VIEW

Press VIEW ($\boxed{\bullet}$)
to view details
of the highlighted
item. STORE ($\boxed{\bullet}$)
appears if you can
store the item in
your phonebook.

A sub-menu is
available. Press
$\boxed{=}$ to open
the sub-menu.
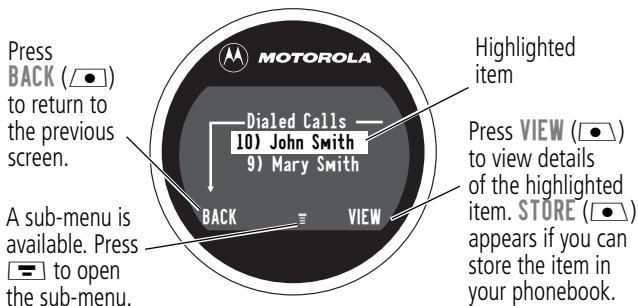
Select an item by highlighting it using one of these approaches:

- Press $\S$ to scroll up or down to the item you want.

- In a numbered list, press a number key to highlight the
  item.

- In an alphabetized list, press a key multiple times to cycle
  through the letters on the key and highlight the closest
  matching list item.

Entering Feature Information

Features such as the phonebook and datebook require you to enter information to fill in an entry's details:

Press 🔓 to scroll down to additional items.

Highlighted item

Press **CANCEL** (／●) to exit without making changes. **DONE** (／●) appears when you enter or edit information. Press **DONE** (／●) to save your changes.

Ⓜ **MOTOROLA**

— Entry Details —
Name: John Smith
No.: 2125551212

CANCEL ≡ CHANGE

Press **CHANGE** (●＼) to edit the selected information.

- Enter numbers or text with the keypad. (See "Entering Text" on page 53.)

- When an item has a list of possible values, press ⊛ to scroll left or ⌗ to scroll right, and select a value.

- When an item has a list of possible numeric values, press a number key to set the value.

- If you enter or edit information and then decide that you do not want to save your changes, press ⊘ to exit without saving.

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The message center lets you compose and send text messages.
(See "Entering Text" on page 53.) A *flashing cursor* shows you
where the text will appear:

Press
BROWSE (●\)
to view and
insert a name,
number, or
message from
previously
stored
information.

*Flashing
cursor*
indicates
insertion
point.

(A) MOTOROLA

Msg:
|_____

_____

CANCEL ≡ BROWSE

Press
CANCEL (/●)
to exit without
making changes.

Press ≡
to open the
sub-menu.
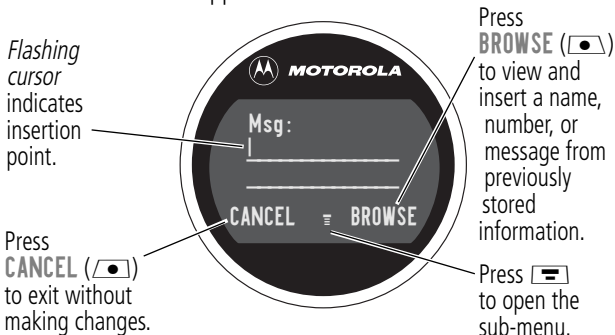
When you enter text, the flashing cursor changes to a *block
cursor*, and the soft key functions change:

*Block
cursor*
indicates
current
highlighted
character.

After two
seconds, the
block
cursor reverts to a
flashing cursor
and moves to the next
position.

(A) MOTOROLA

Msg:
T_____

_____

DELETE ≡ OK

Press OK (●\)
to accept and
store the text.

Press
DELETE (/●)
to delete the
character to the
left of the
insertion point.

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Entering Text
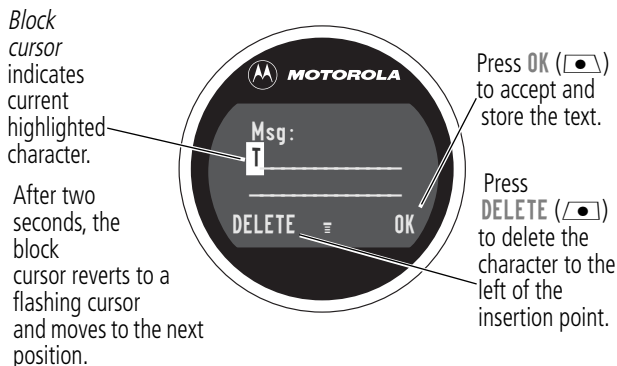
Various text entry methods make it easy for you to enter names, numbers, and text messages on your phone.

You can enter all characters (letters, numbers, and symbols) using the standard tap method. Other text modes let you easily enter numbers and symbols, or insert text already stored on your phone. Finally, a predictive text mode lets you enter text messages with a minimum of keypresses.

Choosing a Text Mode

To activate a text mode, press 🔲 from any text entry screen and select the text mode from the **Entry Method** menu:

iTAP   Let the phone predict each word as you enter it, then choose the word from a list (see "Predictive Text Entry with iTAP™ Software" on page 58).

Tap Method Enter characters one at a time by pressing the key for the letter, number, or symbol (see "Tap Method" on page 54). This is the standard mode for entering text on your phone.

Numeric   Enter only the number that appears on each key.

Symbol   Enter symbols only (see "Symbol Mode" on page 57).

Browse   Browse through your phonebook and recent calls lists to select a name or number to enter.

Note: The text mode you select remains active until you change it by selecting another mode.

Tap Method

Tap method is the default standard mode for entering text on your phone.

To activate tap method from any text entry screen, press ⌨ and select the **Tap Method** menu option.

To enter text using the tap method:

	Do This	To
1	Press a number key one or more times	cycle through the characters associated with the key and select the character you want (see the "Character Chart" on page 56).
2	Continue to press number keys	enter the rest of the characters in the text message
3	Press **OK** (⬤)	accept and store the text when you are finished

General Text Entry Rules

Use the keypad to enter letters, numbers, symbols, and other characters with the tap method. Press the same key repeatedly to cycle through available characters. (See the "Character Chart" on page 56.)

Press a number key to enter text at flashing cursor location.

Press a number key as many times as necessary to enter the desired character.

Press and hold a number key to cycle between tap method and numeric text entry mode.

Press **up** or **down** navigation keys to change character in block cursor to uppercase or lowercase.

Press **left** or **right** navigation keys to move flashing cursor to the left or right in text message.

Msg:

CANCEL ≡ BROWSE
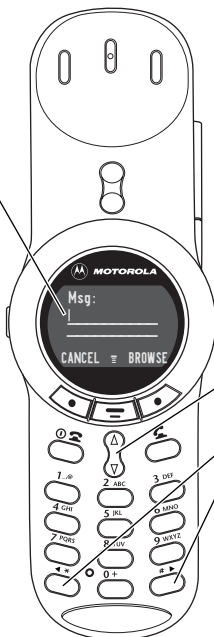
• If you do not press a key for two seconds, the character in the block cursor is accepted, and the cursor moves to the next position.

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- The first character of each sentence is capitalized unless you manually change it. (Press ◊ down to force the character to lowercase while it is highlighted by the block cursor.)

Character Chart

Use this chart as a guide for entering spaces, numbers, letters, symbols, and other characters with the tap method.

①	space . 1 ? ! , @ _ & ~ : ; " - ( ) ' ¿ ¡ % £ $ ¥ ¤ €
②ABC	A B C 2 Ä Å Á À Â Ã α β Ç a b c 2 ä å á à ã α β ç
③DEF	D E F 3 Δ Ë É È Ê φ d e f 3 δ é è ê φ
④GHI	G H I 4 Ï Í Î ¬ g h i 4 ï í î γ
⑤JKL	J K L 5 Λ j k l 5 λ
⑥MNO	M N O 6 Ñ ö Ø ó ò ô õ Ω m n o 6 ñ ö ø ó ò ô õ ω
⑦PQRS	P Q R S 7 Π β Σ p q r s 7 π β σ
⑧TUV	T U V 8 θ Ü Ú Ù Û t u v 8 θ ü ú ù
⑨WXYZ	W X Y Z 9 Ξ ψ w x y z 9 ξ ψ
⓪+	+ - 0 x * / \ [ ] = > < # §

Note: Your phone model may not include all of the characters shown in the above chart.

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Symbol Mode

Your phone provides an alternate way to find and enter symbol characters in a text message. You can view and select from a variety of available symbols.

To activate symbol mode from any text entry screen, press 🔲 and select the **Symbol** menu option.

To enter a symbol in symbol mode:

Do This	To
1 Press a number key one time	display its symbol options (see the "Symbol Chart" on page 58)
	The symbols associated with the key you pressed are shown at the bottom of the display. If necessary, press other keypad keys to find the symbol you want.
2 Press the scroll left ⬅ or the scroll right ➡ key **or** Press the number key multiple times	highlight the symbol you want
3 Press SELECT (🔲)	add the highlighted symbol to the text area at the top of the display

Symbol Chart

Use this chart as a guide for entering symbols in symbol mode.

①	*space* . ? ! , @ _ & : ; " - ( ) ' ¿ ¡ % £ $ ¥ ¤ €
②ABC	@ _ \
③DEF	/ : ;
④GHI	" & '
⑤JKL	( ) [ ] { }
⑥MNO	¿ ¡ ~
⑦PQRS	< > =
⑧TUV	$ £ ¥ ¤ €
⑨WXYZ	# % *
⓪+	+ - x * / = > < # §

Predictive Text Entry with iTAP™ Software

iTAP™ software provides a predictive text entry method that lets you enter the letters of a word using only one keypress per letter.

You must activate iTAP software prior to entering letters. You can do this from any text entry screen by pressing 🔲 to open the **Entry Method** menu and selecting the **iTAP** menu option.

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Enter Words

To enter a word with iTAP software:

Do This	To
1 Press a number key one time	enter the first letter of the word
	The letters associated with the key you pressed are shown at the bottom of the display.
2 Press number keys (one per letter)	enter the rest of the word
	Alternative words and letter combinations are shown at the bottom of the display based on the keys you press. These word choices are updated with each keypress.
3 When you have entered all the letters of the word, press 8	locate and highlight the word you want
4 Press SELECT (□)	add the highlighted word to the text area at the top of the display
	A space is automatically inserted after the word.

For example, to spell the word "act," press ②ᴬᴮᶜ ②ᴬᴮᶜ ⑧ᵀᵁⱽ. The display shows:

Flashing cursor indicates insertion point.

Press ❿ and ⌗ scroll and see additional word choices.

Press **DELETE** (⊘▪) to clear the last letter entered.

Press **SELECT** (▪⟍) to insert the highlighted word at the insertion point.
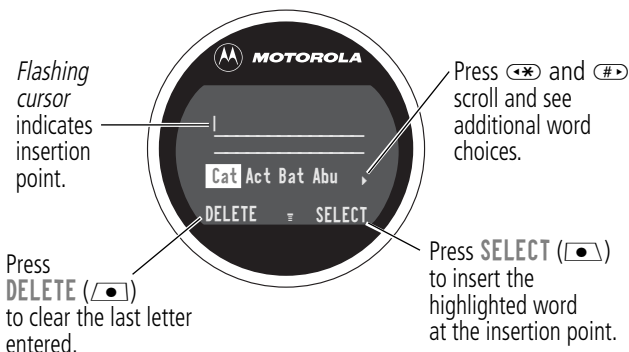
Enter Novel Words

You may enter a word that is not in the iTAP software dictionary. If you enter all the letters of a word but the word is not displayed:

Do This	To
1 Press **DELETE** (⊘▪) one or more times	delete one or more letters until you see a letter combination that matches the start of the word
2 Press the scroll left ❿ or the scroll right ⌗ key	highlight the letter or letter combination

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Do This	**To**
3 Press SELECT ($\boxed{\bullet}$), then press the scroll left $\boxed{\text{*}}$ key	shift the text entry cursor to the left and "lock" the selected portion of the word
4 Continue entering letters and highlighting letter combinations	spell the word

Punctuation

The iTAP software automatically adds a space after each word. When you enter punctuation, this space is removed. To enter punctuation with iTAP software:

Press	**To**
$\boxed{1}$ or $\boxed{0+}$	enter punctuation or other characters as shown in the "Character Chart" on page 56

Capitalization

The first word of a sentence is automatically capitalized, with following words in lowercase. To set or adjust character capitalization with iTAP software:

Press	**To**
$\S$ up or down	change the words to initial character capitalized, all uppercase characters, or all lowercase characters

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Enter Numbers

To enter a number with iTAP software:

Do This	To
1 Enter the first digit and then highlight it	put the iTAP software in number entry mode
2 Press number keys	add digits to the number
3 Press SELECT ([•])	enter the number at the insertion point

Delete Letters and Words

Place the cursor to the right of the text that you want to delete, and then:

Do This	To
Press DELETE ([•])	delete one letter at a time
Continue to hold DELETE ([•])	delete the entire message

Menu Feature Descriptions ≣

This chapter describes all of your phone's features in order of the menu map shown on pages 3–4. Some descriptions also include page numbers where you can find more detailed information.

If you would like to learn more about a specific feature, a reference guide for your phone is also available. To obtain a copy of the reference guide or another copy of this user guide, see the Motorola Web site at:

http://motorola.com/consumer/manuals (United States)
http://www.motorola.ca/manuals (Canada)

or contact the Motorola Customer Call Center at 1-800-331-6456 (United States) or 1-800-461-4575 (Canada).

Main Menu

RECENT CALLS

Received Calls $\boxed{\equiv}$ > Recent Calls
                            > Received Calls

View a list of recently received calls. See "Viewing the Received Calls or Dialed Calls List" on page 79.

Dialed Calls $\boxed{\equiv}$ > Recent Calls
                            > Dialed Calls

View a list of recently dialed calls. See "Viewing the Received Calls or Dialed Calls List" on page 79.

Notepad   M > Recent Calls
                               > Notepad

Call or store the last number entered on the keypad. See
"Entering Numbers in the Notepad" on page 38, and
"Using the Notepad" on page 82.

Call Times   M > Recent Calls
                               > Call Times

View call timers that track time spent on your last call,
dialed calls, received calls, all calls since reset, and all calls
total. See "Viewing and Resetting Call Timers" on page 83.

Call Cost   M > Recent Calls
                               > Call Cost

View call cost information. Your network may
provide current credit information, and can provide cost
information about the amount spent on your last call,
dialed calls, received calls, and all calls total. See "Viewing
and Resetting Call Costs" on page 85.

SERVICE DIAL   M > Service Dial

Dial pre-programmed numbers stored on your SIM
card. Your service provider can program your SIM
card with phone numbers for services such as taxi
companies, restaurants, and hospitals.

FIXED DIAL   M > Fixed Dial

Dial or edit numbers in the fixed dial list.

When you activate the fixed dial feature, users can
only call the numbers in the fixed dial list. To activate fixed
dial, see the "Fixed Dial" item on page 73.

Fixed dial list entries can be any length. If there is a fixed dial entry for the digits 555, users can call any number that starts with 555.

You must enter your SIM PIN2 code to edit fixed dial entries. In the fixed dial list, you can create, edit, delete, and sort entries just like in the phonebook list. Fixed dial list entries are stored on your SIM card and do not have **Type** or **Voice Name** fields.

Note: Employers can use fixed dial to limit employees' phones to a predefined list of numbers, country codes, or other prefixes.

PHONEBOOK   M > **Phonebook**

Store names and numbers as entries in your phonebook, then call numbers by selecting them from the phonebook list. See "Phonebook" on page 87.

DATEBOOK   M > **Datebook**

Use the datebook calendar to schedule and review your appointments. See "Datebook" on page 102.

QUICK DIAL   M > **Quick Dial**

Dial pre-programmed numbers stored on your phone. Your service provider may program your phone with one or more quick dial numbers, such as the customer service number. You can call them by selecting them from the quick dial list.

Note: Your service provider may use a different name for this feature.

MESSAGES M > **Messages**

Adjust message settings, view and manage the various types of messages your phone can receive and/or send:

Voicemail	Listen to your recorded voice messages. See "Messages—Voicemail" on page 111
Text Msgs	Send and receive text messages. See "Messages—Text" on page 113
Browser Alerts	Read alert messages received by your micro-browser
Info Services	Read information services messages (subscription-based broadcast messages, such as stock updates, news, and weather reports) that you have received
Quick Notes	Select and send pre-written messages from the quick notes list.
Outbox	View all outgoing text messages, delivered and undelivered
Drafts	Store and edit text messages that you have written but not sent

SHORTCUTS M > **Shortcuts**

Create keypad shortcuts to menu features. See "Shortcuts" on page 120.

VOICE DIAL M > Voice Dial

Dial a phonebook entry by saying the pre-recorded voice name for that phonebook entry. See "Voice Dial Using the Menu" on page 93.

SIM APPLICATIONS M > SIM Applications

Access information and applications stored on your SIM card.

Your SIM card may contain applications that process your outgoing calls, text messages, and other events. Contact your service provider for details.

BROWSER M > Browser

Access Web pages and run Web-based applications. The micro-browser delivers WAP (Wireless Application Protocol) pages from your service provider directly to your phone. See "Micro-Browser" on page 123.

CALCULATOR M > Calculator

Use your phone as a calculator or currency converter. See "Calculator" on page 125.

GAMES M > Games

Play games on your phone. See "Games" on page 128.

Settings Menu

RING/VIBRATE

Alert　　　　　　　　M > Settings
　　　　　　　　　　> Ring/Vibrate
　　　　　　　　　　> Alert

Select a ring or vibration alert profile for incoming calls and messages. See "Ring/Vibrate" on page 133.

Alert Detail　　　　　M > Settings
　　　　　　　　　　> Ring/Vibrate
　　　　　　　　　　> *Alert* Detail

Change details about the current alert profile. *Alert* represents the name of the alert profile. See "Ring/Vibrate" on page 133.

My Tones　　　　　　M > Settings
　　　　　　　　　　> Ring/Vibrate
　　　　　　　　　　> My Tones

Create custom alert tones for your phone. See "Use the My Tones Feature" on page 135.

CALL FORWARD　　　　M > Settings
　　　　　　　　　　> Call Forward

Network / Subscription Dependent Feature

Set options for forwarding incoming voice, data, and/or fax calls to another phone number. See "Call Forwarding" on page 141.

PHONE STATUS

My Tel. Numbers 　=　> Settings
　　　　　　　　> Phone Status
　　　　　　　　> My Tel. Numbers

View, enter, and edit information about your name
and phone number.

Credit Info 　=　> Settings
　　　　　　　　> Phone Status
　　　　　　　　> Credit Info

View the credit available, its expiration date, and
the date of the last deposit. (This feature is available only if
you subscribe to a prepay option.)

Credit Available 　=　> Settings
　　　　　　　　> Phone Status
　　　　　　　　> Credit Available

View the credit available. (This feature is available
only if you subscribe to the advice-of-charge feature.)

Active Line 　=　> Settings
　　　　　　　　> Phone Status
　　　　　　　　> Active Line

Change the active phone line to send and receive
calls from either of the available numbers. (This feature is
available only for dual-line enabled SIM cards.)

Battery Meter 　=　> Settings
　　　　　　　　> Phone Status
　　　　　　　　> Battery Meter

View a detailed battery charge meter.

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Other Information $\boxed{=} >$ Settings
 $>$ Phone Status
 $>$ Other Information

View your phone's feature specifications (if available from the service provider).

BROWSER SETUP $\boxed{=} >$ Settings
 $>$ Browser Setup

Adjust the micro-browser's network connection settings, or create a new network connection profile.

IN-CALL SETUP

Set the features that are active during a call, such as the in-call timer, call waiting, and call answering options.

In-Call Timer $\boxed{=} >$ Settings
 $>$ In-Call Setup
 $>$ In-Call Timer

Adjust call timer display and beep settings. You can set your timer to beep at a selected interval during your calls. (60 seconds is the default.) You can also turn on or off a display timer during calls as follows:

Time	Display the elapsed time for the current call
Cost	Display the cost of the current call (if you subscribe to a call cost option or advice-of-charge)

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Total Cost Display the cost of all calls since the last time you reset the timer (if you subscribe to a call cost option or advice-of-charge)

Credit Available Display how much credit you have left (if you subscribe to a call cost option or advice-of-charge)

Off No in-call timer display

Call Cost Setup $\boxed{=}$ > Settings
> In-Call Setup
> Call Cost Setup

Adjust call cost settings.

You can assign a credit limit so that your phone displays your remaining credit during calls. Your phone notifies you when you approach your limit, and ends the call when you reach it.

Your phone network expresses cost in the amount of units used, but this feature lets you tell your phone how to translate the units to a currency.

My Caller ID $\boxed{=}$ > Settings
> In-Call Setup
> My Caller ID

Activate and deactivate the display of your phone number as an ID when you call someone.

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Talk and Fax $\boxed{=}$ > Settings
 > In-Call Setup
 > Talk and Fax

Activate and deactivate the talk/fax service.

Use this feature prior to making a call when you want to talk and then send or receive a fax—all to the same phone number and within the same call.

You can also use the talk then fax feature to send a fax during a call. See "Sending a Talk then Fax Call" on page 152.

Answer Options $\boxed{=}$ > Settings
 > In-Call Setup
 > Answer Options

Turn call answering options on or off:

Multi-Key   Answer by pressing any key

Open to Answer Answer by opening the flip

Call Waiting $\boxed{=}$ > Settings
 > In-Call Setup
 > Call Waiting

Activate and deactivate call waiting.

When call waiting is activated and another call arrives while you are on a call, call waiting can play a tone to notify you of the new call. See "Using Call Waiting" on page 44.

SECURITY

Phone Lock   M > Settings > Security
                               > Phone Lock

Lock and unlock your phone. See "Locking and Unlocking
Your Phone" on page 155.

Lock Application   M > Settings > Security
                               > Lock Application

Lock and unlock specific phone applications (such as
phonebook or datebook). When an application is locked,
users must enter the unlock code to use the application.

Fixed Dial   M > Settings
                               > Security
                               > Fixed Dial

Restrict outgoing calls to numbers on the fixed
dial list. See "Fixed Dial" on page 64.

Call Barring   M > Settings > Security
                               > Call Barring

Restrict incoming and outgoing calls. See "Barring Calls"
on page 157.

SIM PIN   M > Settings > Security
                               > SIM PIN

Switch SIM card protection on and off, so users must enter
the SIM card PIN code when they turn on the phone or
insert a SIM card. See "Protecting the SIM Card" on
page 158.

New Passwords $\boxed{\equiv}$ > Settings > Security
> New Passwords

Change your unlock code (originally set to 1234) or your security code (originally set to 000000). See "Assigning a New Code or Password" on page 153.

OTHER SETTINGS

Personalize $\boxed{\equiv}$ > Settings
> Other Settings
> Personalize

Set several personal phone options:

Main Menu	Change the order of the main menu. (See "Reordering Menu Items" on page 143.)
Keys	Change the functions of the soft keys in the idle display. (See "Customizing a Soft Key Function" on page 144.)
Greeting	Change the text displayed when you turn on your phone
Quick Dial	Change quick dial number(s)

Initial Setup $\boxed{\equiv}$ > Settings
> Other Settings
> Initial Setup

Set many basic phone options:

Time and Date	Set the phone's time and date

1-Touch Dial	Assign the 1-touch dial feature to numbers 1 through 9 in your phone memory phonebook or SIM card phonebook. (See "1-Touch Dial Preference" on page 101.)
Auto Redial	Use this option to turn on or turn off the automatic redial feature. When you turn on automatic redial, your phone automatically redials calls that fail due to busy conditions. (See "Using Automatic Redial" on page 35.)
Backlight	Set the amount of time that the display backlight remains on, or turn off the backlight to conserve battery power
Zoom	Switch between three lines (Zoom Out) and two lines (Zoom In) of display text
	Note: By default, your phone uses two lines to display Chinese characters. When your phone is set to display Chinese characters, the zoom setting is not available.

Scroll	Force the cursor to stop or wrap around when it reaches the top or bottom of a list in the display
Animation	Turn animation off (to conserve the battery) or on. Animation makes your phone's menus move smoothly as you scroll up and down.
Language	Set the language for phone menus
Battery Save	Adjust the phone's power usage characteristics to conserve power
Contrast	Adjust the contrast setting for your display
DTMF	Your phone can send a number to the network as dual tone multi-frequency (DTMF) tones. DTMF tones are used to communicate with automated systems that require you to enter a number such as a code, password, or credit card number. Use this option to set DTMF tones to be long, short, or off.
Master Reset	Reset all options back to their original factory settings *except* for the unlock code, security code, and lifetime timer

Master Clear   Reset all options back to their original factory settings *except* for the unlock code, security code, and lifetime timer, *and* clear all user settings and entries

> **Note:** This option *erases all user-entered information* stored in your phone's memory, including phonebook and datebook entries. Once you erase the information, it cannot be recovered.

Network   M > **Settings**
> **Other Settings**
> **Network**

View and adjust your phone's network settings.

Your service provider registers your phone to a network. You can view information about the current network, change how your phone searches for a network, specify your preferred networks, and activate alerts that indicate when a call is dropped or network registration changes.

Car Settings   M > **Settings**
> **Other Settings**
> **Car Settings**

Optional Accessory

Adjust hands-free car kit settings.

You can set your phone to route calls directly to the Easy-Install Hands-Free Kit when it detects a connection, and automatically answer calls after two rings. See "Hands-Free Use" on page 144.

Note: 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.

Headset $\boxed{\equiv}$ > **Settings**
                             > **Other Settings**
                             > **Headset**

Set your phone to automatically answer calls after two rings when connected to a headset. See "Hands-Free Use" on page 144.

Recent Calls

You can use the recent calls menu to view received calls or dialed calls, retrieve the last number stored in the notepad, and view or reset call times and costs.

Viewing the Received Calls or Dialed Calls List

Your phone keeps lists of the numbers from calls you recently received and dialed, even if the calls did not connect. The lists are sorted from newest to oldest entries. The oldest entries are deleted as new ones are added. Each entry tells you the person's number (or name, if available) and whether the call connected or not. You can call, store, or delete the numbers on these lists.

Shortcut: Press ⬧ to go directly to the dialed calls list from the idle display.

To open the recent calls menu:

Find the Feature ⬛> Recent Calls

Press	To
1 ⬧	scroll to Received Calls or Dialed Calls
2 SELECT (⬛)	select Received Calls or Dialed Calls
3 ⬧	scroll to an entry you want to call, store, or delete
	Note: ✓ means the call connected.

Press	To
4 c	call the entry's number
	Tip: Press and hold c for two seconds to send the entry number as DTMF tones. To activate DTMF tones, see the "DTMF" item on page 76.
or	
[•]	if View appears above the [•] key— view the entry's details
	if Store appears above the [•] key—store the entry's details in the phonebook
or	
[=]	open the Last Calls Menu to perform other procedures as described in the following list

The Last Calls Menu includes the following options:

Option	Description
Store	Create a phonebook entry with the selected number in the No. field. (This option does not appear if STORE appears above the [•] key, or if the number is already stored as a phonebook entry.)
Delete	Delete the entry. (This option does not appear if DELETE appears above the [•] key.)

Option	Description
Delete All	Delete all entries in the current list.
Hide ID/Show ID	Hide (or show) your caller ID for the next call.
Send Message	Create a new text message, with the selected number in the Tel No. field. See "Sending a Text Message" on page 117.
Add Digits	Add digits to the end of the selected number.
Attach Number	Attach another number from the phonebook or recent calls list to the end of the selected number.
Send Tones	Send the selected number to the network as DTMF tones, for credit card calling or password entry. (This option is available only during an active call.)
	To activate DTMF tones, see the "DTMF" item on page 76.
Talk then Fax	Tell the network you want to call and talk to someone, and then send a fax—all to the same number in the same call. See "Sending a Talk then Fax Call" on page 152.

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Using the Notepad

Your phone uses a notepad to store the most recent string of digits entered—either for a phone number that you called or for a number that you entered but did not call.

To call the number, create a phonebook entry, or perform other operations with the number stored in the notepad:

Find the Feature   M > Recent Calls > Notepad

Press	To
N	call the number
or	
M	open the Dialing Menu (to attach a number or insert a special character)
	See "Additional Dialing Features" on page 41.
or STORE (S)	create a new phonebook entry, with the notepad number copied into the No. field.
	See "Storing a Phonebook Entry" on page 88.

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Viewing and Resetting Call Timers

Your phone tracks and records call times. Use the recent calls menu to view and reset a call timer.

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 ⊙⊠. 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, please contact your service provider directly.

You can view the approximate network connection time elapsed during the following calls:

Timer	Description
Last Call	Time spent on the last call dialed or received. You cannot reset this timer.
Dialed Calls	Total time spent on dialed calls since the last time you reset this timer.
Received Calls	Total time spent on calls received since the last time you reset this timer.
All Calls	Total time spent on dialed and received calls since the last time you reset this timer.
Lifetime	Total time spent on all calls on this phone. You cannot reset this timer.

To view a call timer:

Find the Feature   M > Recent Calls
                           > Call Times

Press	To
1 S	scroll to the timer you want to view
2 SELECT (⬚\)	view the recorded time

To reset the call timer:

Press	To
1 RESET (⬚\)	reset the time (if available)
2 YES (/⬚)	confirm the reset

Viewing and Resetting Call Costs

Your phone network can provide the following cost information:

Cost Tracker	Description
Credit Available	Amount of your credit remaining.
	For GSM advice-of-charge, this is only available if you set a credit limit.
	Note: Your phone receives cost information from the advice-of-charge feature or third-party prepay software.
Expiration Date	Date that the available credit expires (available only with a subscription to a prepay option).
Last Deposit	Amount of the last deposit (available only with a subscription to a prepay option).
Last Call	Amount spent on the last call you dialed or received. You cannot reset this cost tracker.
Dialed Calls	Amount spent on calls you dialed since the last time you reset this cost tracker.
Received Calls	Amount spent on calls you received since the last time you reset this cost tracker.

Cost Tracker	Description
All Calls	Amount spent on all dialed and received calls since the last time you reset this cost tracker.
	You can reset this value separate from Dialed Calls and Received Calls, so Dialed Calls plus Received Calls may not equal All Calls.

To view a cost tracker:

Find the Feature   M > Recent Calls
                       > Call Cost

Press	To
1 S	scroll to the cost tracker you want to view
2 SELECT (□)	view the recorded cost

To reset the cost tracker:

Press	To
1 RESET (□)	reset the cost (if available)
2 OK (□)	enter your PIN2 code to confirm the reset

Phonebook

You can store a list of names and phone numbers in your phone's electronic phonebook. You can view these entries and call them directly from your phone.

To see the list of names stored in your phonebook, press $\boxed{=}$ > **Phonebook** from the idle display. Scroll to a name and press **VIEW** ($\boxed{\bullet}$) to view details of the phonebook entry as shown in the following display.

Fields in a Phonebook Entry Form

Voice Name indicator
indicates a recorded voice name

Entry's Name

Type indicator
identifies
number type:
- 📇 Work
- 🏠 Home
- ☎ Main
- 📱 Mobile
- 📠 Fax
- 📟 Pager

Entry's phone
number

Entry's speed
dial number

Edit
entry

Press $\boxed{=}$ to open
the **Phonebook**
Menu

Return
to list

(A) **MOTOROLA**

📇◉Carlo Emrys
2154337215
Speed No. 15

BACK   ≡   EDIT
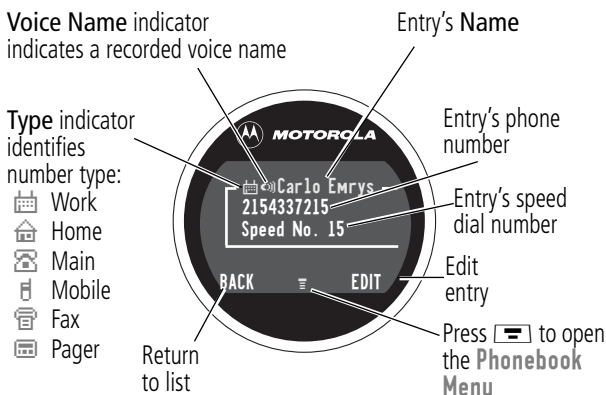
Note: Phonebook entries stored on the SIM card do not have **Type** or **Voice Name** information.

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Storing a Phonebook Entry

A phone number is required for a phonebook entry. All other information is optional.

You can store a phonebook entry on your **phone** or on the **SIM card**. Entries with a speed dial number from 1 to 500 are stored on the phone. To store a phonebook entry on your SIM card, assign a speed dial number of 501 or higher to the entry when you create it. The total number of entries you can store on the SIM card is dependent on your service provider.

Shortcut: Enter a phone number in the idle display, then press **STORE** (⬜) to create a phonebook entry with the number in the **No.** field. Go directly to step 1 in the following procedure to enter additional information and store the entry.

Note: You can also use the following procedure to store a fixed dial entry by scrolling to and selecting **Fixed Dial**.

Enter Information

| **Find the Feature** | ▥ > **Phonebook** |
| | ▥ > **New** |

	Press	**To**
1	**CHANGE** (⬜)	select **Name**
2	keypad keys	enter a name for the phonebook entry (see "Entering Text" on page 53)
3	**OK** (⬜)	store the name
4	**CHANGE** (⬜)	select **No.**

Press		To
5	keypad keys	enter the phone number
6	OK ($\boxed{\bullet}$)	store the phone number
7	CHANGE ($\boxed{\bullet}$)	select **Type**
		Note: This option is not available for entries stored on a SIM card.
8	$\S$	scroll to the type of phone number
9	SELECT ($\boxed{\bullet}$)	select the number type
10	RECORD ($\boxed{\bullet}$)	record a **Voice Name** for the entry, if desired
	or	
	Go to step 11 if you do not want to record a voice name for the entry	See "Recording a Voice Name For a Phonebook Entry" on page 91.
		Note: This option is not available for entries stored on a SIM card.
11	$\S$	scroll to **Speed No.**, the number to *speed dial* the entry
		The next available speed dial number is assigned to a new phonebook number by default.
12	CHANGE ($\boxed{\bullet}$)	select **Speed No.** if you want to change it

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Press	To
13 keypad keys	enter a different speed number, if desired
	Note: Entries with a speed dial number from 1 to 500 are stored on the phone. Entries with a speed dial number of 501 or higher are stored on the SIM card.
14 OK (⬜)	save the modified speed number
	If your chosen speed number is already assigned to another entry, you are asked if you want to replace that entry.
15 SELECT (⬜)	select **MORE** if you want to create another entry with the same **Name**
	Note: You must enter a name and number to use this option.

Complete Phonebook Entry

When you are finished entering information for a phonebook entry:

Press	To
DONE (⬜)	store the entry and return to the phonebook list

Recording a Voice Name For a Phonebook Entry

You can record a voice name when you create a new phonebook entry, or when you edit a previously stored phonebook entry. This lets you use voice dial to call the number without dialing (see "Voice Dial Using a Soft Key" on page 93).

Note: You cannot record a voice name for an entry stored on a SIM card.

Tip: Make your voice recording in a quiet location. Hold the phone about four inches (10 centimeters) from your mouth, and speak directly into the phone's microphone in a normal tone of voice.

Find the Feature $\boxed{=}$ > Phonebook

	Do This	To
1	Press $\S$	scroll to the entry that needs a voice name
2	Press VIEW ($\boxed{\bullet}$)	display the entry's detailed view
3	Press EDIT ($\boxed{\bullet}$)	edit the phonebook entry
4	Press $\S$	scroll to Voice Name
5	Press RECORD ($\boxed{\bullet}$)	begin the recording process
		The phone displays Press RECORD Key then say name.

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Do This	To
6 Press and release RECORD ($\square\bullet$) and say the entry's name (in two seconds)	record the voice name The phone displays Press RECORD Key then REPEAT name.
7 Press the voice key and repeat the name	confirm the voice name The phone displays Trained: Voice Name.

Dialing a Phonebook Entry

You can use the phonebook list, voice dial, speed dial, or 1-touch dial to call a number stored in your phonebook. To use speed dial, see "Dialing With Speed Dial" on page 39. To use 1-touch dial, see "Dialing With 1-Touch Dial" on page 40.

Phonebook List

To call a number in the phonebook list:

Find the Feature $\boxed{=}$ > Phonebook

Press	To
1 $\big\{$	scroll to the entry you want to call
2 $\textcircled{\small\diagdown}$	send the call

Voice Dial Using a Soft Key

To call a number using voice dial via a soft key:

Do This	Result
Press and release $\boxed{\bullet}$ and speak the entry's pre-recorded name (within two seconds).	Your phone goes to the entry in the phonebook list, repeats the voice name, pauses two seconds, then automatically dials the call.

To pre-record a phonebook entry name, see "Recording a Voice Name For a Phonebook Entry" on page 91.

Voice Dial Using the Menu

To call a number using voice dial via the menu:

Find the Feature $\boxed{\equiv} > $ Voice Dial

	Do This	To
1	Press SELECT ($\boxed{\bullet}$)	activate the voice dial mechanism
		the phone displays Say Name Now
2	Say the pre-recorded phonebook entry name	to select the entry to be dialed

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Editing a Phonebook Entry

You can edit a phonebook entry stored on your phone or the SIM card.

Notes:

- If you change an entry's speed dial number, the entry is moved to the new speed dial location and the original entry is deleted. Entries with a speed dial number from 1 to 500 are stored on the phone. Entries with a speed dial number of 501 or higher are stored on the SIM card.

- You can also use the following procedure to edit a fixed dial entry by scrolling to and selecting **Fixed Dial**.

Find the Feature   M > **Phonebook**

Press	To
1 ⦑	scroll to the entry you want to edit
2 **VIEW** (⊡)	display the entry's detailed view
3 **EDIT** (⊡)	edit the phonebook entry

Edit a phonebook entry or fixed dial entry by following the procedures described in "Storing a Phonebook Entry" on page 88.

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Deleting a Phonebook Entry

To delete a phonebook entry:

Find the Feature $\boxed{=}$ > Phonebook

Press	To
1 $\begin{smallmatrix}\\ \circ\\ \circ\end{smallmatrix}$	scroll to the entry you want to delete
2 $\boxed{=}$	open the Phonebook Menu
3 $\begin{smallmatrix}\\ \circ\\ \circ\end{smallmatrix}$	scroll to Delete
4 SELECT ($\boxed{\bullet}$)	select Delete
5 YES ($\boxed{\bullet}$)	confirm the deletion

Copying Phonebook Entries Between the Phone and SIM Card

You can copy one or more phonebook entries from your phone to the SIM card or from the SIM card to your phone.

Notes:

- This procedure copies the original entry to a new location. It does *not* delete the original entry.

- The SIM card cannot store Type and Voice Name data for entries. If you try to copy an entry with a type or voice name to the SIM card, the phone asks you for confirmation before dropping this information and copying the entry.

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Copy a Single Entry

To copy a single phonebook entry from your phone to the SIM card or from the SIM card to your phone:

Find the Feature $\boxed{=}$ > Phonebook

Press	To
1 $\displaystyle\mathop{\updownarrow}$	scroll to the entry you want to copy
	Note: Entries with a speed dial number from 1 to 500 are stored on the phone. Entries with a speed dial number of 501 or higher are stored on the SIM card.
2 $\boxed{=}$	open the Phonebook Menu
3 $\displaystyle\mathop{\updownarrow}$	scroll to Copy Entry
4 SELECT ($\boxed{\bullet}$)	select Copy Entry
	The phone displays the Copy To form, with the next available speed dial number.
5 keypad keys	edit the speed dial number on the Copy To form
6 OK ($\boxed{\bullet}$)	approve the copy to the speed dial number
	The phone displays the Stored message. You can now delete the old phonebook entry, if desired.

Copy Multiple Entries

To copy multiple phonebook entries from your phone to the SIM card or from the SIM card to your phone:

Find the Feature $\boxed{=}$ > Phonebook

Press		To
1	$\boxed{=}$	open the Phonebook Menu
2	$\S$	scroll to Copy Entries
3	SELECT ($\boxed{\bullet}$)	select Copy Entries
		The phone displays the Copy Entries form.
4	$\S$	scroll to From (start)
5	CHANGE ($\boxed{\bullet}$)	select From (start)
6	keypad keys	enter the first (lowest) speed dial number in the range of entries that you want to copy
		Note: Entries with a speed dial number from 1 to 500 are stored on the phone. Entries with a speed dial number of 501 or higher are stored on the SIM card.
7	OK ($\boxed{\bullet}$)	store the number and return to the Copy Entries form
8	$\S$	scroll to From (end)
9	CHANGE ($\boxed{\bullet}$)	select From (end)

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Press		To
10	keypad keys	enter the last (highest) speed dial number in the range of entries that you want to copy
11	OK (⬚)	store the number and return to the **Copy Entries** menu
12	⬚	scroll to **To (start)**
13	CHANGE (⬚)	select **To (start)**
14	keypad keys	enter the first (lowest) new speed dial number for the entries' new location
15	OK (⬚)	store the number and return to the **Copy Entries** menu
16	DONE (⬚)	copy the entries
		The phone displays the **Copied Entries** message. You can now delete the old entries, if desired.

Checking Phonebook Capacity

You can check phonebook capacity to see how much space is left for storing phonebook entries on your phone and on the SIM card. For entries stored on the phone, your phone displays a memory meter that shows how much memory space remains to store phonebook and datebook entries. For the SIM card, your phone lists the number of phonebook entries used and the number available.

Find the Feature $\boxed{=}$ > **Phonebook**

Press	To
1 $\boxed{=}$	open the **Phonebook Menu**
2 $\bigotimes$	scroll to **Phone Capacity**
3 SELECT ($\boxed{\bullet}$)	select **Phone Capacity**
	Your phone displays the phone memory meter, or the number of SIM card phonebook entries available.

Synchronizing with TrueSync Software

You can synchronize phonebook entries between your phone and computer or hand-held device with Starfish TrueSync® software, a Motorola accessory product. See the TrueSync user guide for more information.

Note: TrueSync software is designed to synchronize with basic features of many popular Personal Information Management (PIM) software and hardware products.

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Setting Up the Phonebook

You can specify the sort order for your phonebook entries and the location of your 1-touch dial entries.

Phonebook List Sort Preference

You can set up your phone to sort your phonebook list by speed dial number (the standard), name, or voice dial.

Tip: The voice dial sort is identical to the name sort, except that the entries with voice name tags appear first.

Find the Feature $\boxed{=} >$ **Phonebook**

Press		To
1	$\boxed{=}$	open the **Phonebook Menu**
2	$\S$	scroll to **Setup**
3	**SELECT** ($\boxed{\bullet}$)	select **Setup**
4	$\S$	scroll to **Sort by**
5	**CHANGE** ($\boxed{\bullet}$)	select **Sort by**
6	$\S$	scroll to the entry you want
7	**SELECT** ($\boxed{\bullet}$)	select the entry you want

1-Touch Dial Preference

Your phone lets you specify whether your 1-touch dial entries are located on the phone or the SIM card:

Find the Feature   `≡ > Settings > Other Settings > Initial Setup`

Press	To
1 $\S$	scroll to 1-Touch Dial
2 CHANGE (`□`)	select 1-Touch Dial
3 $\S$	scroll to the list you want
4 SELECT (`□`)	select the list you want

Datebook

The datebook is a calendar that lets you schedule and organize events such as appointments and meetings. You can review your schedule of events for the week or by the day, and have the datebook play a reminder alarm for specific events.

Note: You must set the correct time and date in order to use the datebook. Use the `Time and Date` feature (see page 74) to set the time and date.

To schedule or review events in the datebook:

Find the Feature $\boxed{=}$ > Datebook

Week View

When you open the datebook, your phone displays a calendar for the week. Lines or filled boxes under each day indicate scheduled events.

Untimed event

12 hour window

Exit the datebook

Full day (12-hour) event scheduled

Days of week (press ⊛ (left) or (#) (right) to select)

One-hour event

Go to selected day

Press $\boxed{=}$ to open the Datebook Menu
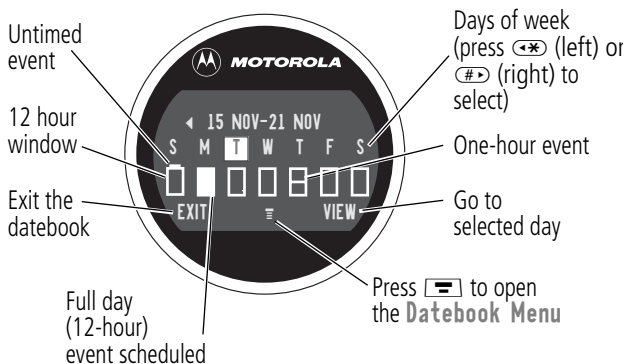
Day View

Select a day in the week view and press VIEW ($\square\bullet$) to see the day's events. You can store, edit, view, copy, and delete any event from the day view.

Untimed event

Down scroll arrow

Return to previous screen

THU 19-NOV

• Joe's B-day

9:00 ♈ Marie,···

BACK ☰ VIEW

Day of week

Alarm

Event

Show event details

Press ☰ to open the Datebook Menu
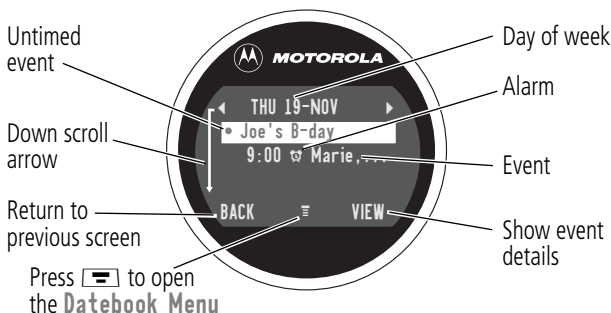
Event View

Select an event in the day view and press VIEW ($\square\bullet$) to open the detailed event view. You can edit, copy, and delete events from the event view.

Alarm

Down scroll arrow

Return to previous screen

♈ THU 9:00 AM

Marie, мtg about new product

BACK ☰ EDIT

Day and time

Event details

Edit event

Press ☰ to open the Datebook Menu

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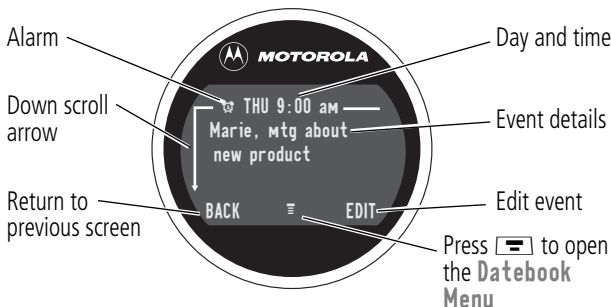
Storing a New Event

A title is required for a datebook event. All other information is optional.

Find the Feature   `[=]` > Datebook > *day*
                        `[=]` > New

See "Selecting a Feature" on page 50 for instructions on scrolling to and selecting options.

Press	To
1 CHANGE (`[•\`)	select Title
2 keypad keys	enter a title for the event (see "Entering Text" on page 53)
3 OK (`[•\`)	store the event title
4 8	scroll to other fields and enter information as necessary
	Other fields let you enter start time, duration, date, repeating events, and reminder alarm.
5 DONE (`/•\`)	store the new event and return to the day view

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Changing Event Information

To change information about an existing event:

Find the Feature $\boxed{=}$ > Datebook

Press	To
1 $\displaystyle\overset{\bigcirc}{\bigcirc}$	scroll to the scheduled event day
2 VIEW ($\boxed{\bullet\setminus}$)	display the day view
3 $\displaystyle\overset{\bigcirc}{\bigcirc}$	scroll to the event you want to change
4 VIEW ($\boxed{\bullet\setminus}$)	display the event view
5 EDIT ($\boxed{\bullet\setminus}$)	edit the event
6 $\displaystyle\overset{\bigcirc}{\bigcirc}$	scroll to the detail you want to change
7 CHANGE ($\boxed{\bullet\setminus}$)	edit the information
8 keypad keys	enter the new information
9 DONE ($\boxed{/\bullet}$)	store the information and return to the day view

Copying an Event

To copy information from a current event to a new event:

Find the Feature $\boxed{=}$ > Datebook

Press	To
1 $\begin{smallmatrix}\Diamond\end{smallmatrix}$	scroll to the scheduled event day
2 VIEW ($\boxed{\bullet}$)	display the day view
3 $\begin{smallmatrix}\Diamond\end{smallmatrix}$	scroll to the event to copy
4 $\boxed{=}$	open the Datebook Menu
5 $\begin{smallmatrix}\Diamond\end{smallmatrix}$	scroll to Copy
6 SELECT ($\boxed{\bullet}$)	copy the event
7 YES ($\boxed{\bullet}$)	confirm the copy
	Your phone assumes that you want to change the date, and displays the Date field.
8 keypad keys	enter the date information
9 ▶ ($\boxed{\bullet}$)	move to the month, day, and year
10 DONE ($\boxed{\bullet}$)	save the copy of the event
11 $\begin{smallmatrix}\Diamond\end{smallmatrix}$	scroll to event details and edit the information as necessary
12 DONE ($\boxed{\bullet}$)	store the new event and return to the day view

Deleting an Event

Find the Feature	$\boxed{=}$ > Datebook

	Press	To
1	$\S$	scroll to the scheduled event day
2	VIEW ($\boxed{\bullet}$)	display the day view
3	$\S$	scroll to the event to delete
4	$\boxed{=}$	open the Datebook Menu
5	$\S$	scroll to Delete
6	SELECT ($\boxed{\bullet}$)	select Delete
		For non-repeating events, go to step 7. For repeating events, the phone displays a delete event menu:
	a $\S$	scroll to This Event Only or Repeat Events
	b SELECT ($\boxed{\bullet}$)	select the event(s) to delete
7	YES ($\boxed{\bullet}$)	confirm the deletion
		The phone briefly displays a Deleted: message and returns you to the day view.

Radio

You can use your phone to tune, store presets, and listen to FM radio stations when you use the optional Motorola Original™ FM Stereo Radio Headset with your phone.

Turning the Radio On and Off

Press	To
Radio (⬛)	turn the radio on and off

Note: The Radio (⬛) soft key option appears only when the FM Stereo Radio Headset is plugged into the accessory connector port.

Tuning a Station

Do This	To
Press ⓧ	scroll up or down to the next frequency
or	
Press and hold ⓧ	scroll up or down to the next available stereo station

Storing a Preset

To store a station to a preset that you can recall later:

Do This	To
Press and hold a number key ($\textcircled{1}$ to $\textcircled{9_{wxyz}}$)	assign its preset number to the tuned station

Selecting a Preset

To select a preset radio station:

Press	To
a number key ($\textcircled{1}$ to $\textcircled{9_{wxyz}}$)	tune the station stored at that preset location

Sending and Receiving Calls With the Radio On

Your phone interrupts the radio signal and rings or vibrates as usual to notify you of an incoming call, message, or other event. When you receive a call:

Do This	To
Press IGNORE ($\boxed{\bullet}$)	ignore the call
Press ANSWER ($\boxed{\bullet}$)	answer the call
or Press the button on the FM Stereo Radio Headset microphone	**Note:** You can use the FM Stereo Radio Headset microphone to converse with the other party during a call

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To end the call and resume the FM broadcast:

Do This	To
Press ⊙	end the call
or	
Press and hold the button on the FM Stereo Radio Headset microphone	

Turn the radio off before dialing outgoing calls. You do not have to turn off the FM radio feature to dial emergency numbers or numbers selected from your phonebook or other lists.

Tip: To dial a recently called number, press ⊂ or the button on the FM Stereo Radio Headset microphone to go to the dialed calls list. For more information, see "Recent Calls" on page 79.

Messages—Voicemail

⊠))

You can listen to your voicemail messages by calling your network voicemail phone number. Voicemail messages are stored on the network—not on your phone. Contact your service provider for more details.

Storing Your Voicemail Number

Store your voicemail number in your phone to make it faster and easier to use voicemail. Your voicemail number is provided by your service provider.

Find the Feature   M > Messages
                        M > VoiceMail Setup

Press		To
1	keypad keys	enter the phone number for your voicemail
2	OK (⬚)	store the number

Receiving a New Voicemail Message

When you receive a voicemail message, your phone displays New VoiceMail ✉). (Some networks only indicate when you have messages, whether they are new or not.) If reminders are turned on, your phone sends a reminder every five minutes until you close the new message notification, listen to the message, or turn off your phone. (See "Reminders" on page 140.)

From the new message notification:

Do This	To
Press **CALL** (⬤)	call your voicemail phone number and listen to the message

Listening to a Voicemail Message

To listen to your voicemail messages at any time:

Find the Feature ⬛ > **Messages** > **VoiceMail**

Your phone calls the voicemail phone number you stored. If you do not have a voicemail number stored, the phone guides you through storing a number.

Messages—Text

Text messages are brief messages that you can send and receive (such as **Where are we meeting?**). Received messages appear on your phone display or in your text message inbox.

You must set up the text message inbox *before* you can send and receive these messages. The total number of messages the inbox can hold depends on the length of the messages, and the number of other messages and drafts stored in your phone.

Note: Your service provider may have already programmed the text message inbox settings for you.

Setting Up the Text Message Inbox

Find the Feature $\boxed{\equiv}$ > **Messages**
$\boxed{\equiv}$ > **Text Msg Setup**

Press		To
1	$\S$	scroll to **Srvce Center No.**
2	CHANGE ($\boxed{\bullet}$)	change the **Srvce Center No.** which is provided by your service provider
3	keypad keys	enter the phone number for the service center that handles your outgoing messages
4	OK ($\boxed{\bullet}$)	store your service center number
5	CHANGE ($\boxed{\bullet}$)	change the **Expire After** period

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Press		To
6	keypad keys	enter the expiration period—the number of days your network tries to send unreceived messages
7	OK (`□•\`)	store the expiration period
8	CHANGE (`□•\`)	change the **Reply Type**
9	☊	scroll to the default type of replies you want to send—text messages, or other formats
10	OK (`□•\`)	store the reply type
11	CHANGE (`□•\`)	change the **Cleanup** setting
12	☊	scroll to the period of time that messages stay in your inbox
13	SELECT (`□•\`)	select the cleanup period
		If you select **Custom**, continue. Otherwise, the procedure is complete.
14	☊	change the entry for the number or label
15	☊	switch between the number and the label
16	DONE (`/•\`)	store the custom cleanup period after you finish entering all information

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Receiving a Text Message

Note: You must set up the text message inbox before you can receive text messages. See "Setting Up the Text Message Inbox" on page 113.

When you receive a new message, your phone displays **New Message** ✉ and gives an alert. If reminders are turned on, your phone sends a reminder every five minutes until you close the new message notification, read the message, or turn off your phone. (See "Reminders" on page 140.)

When your inbox is full, any new message replaces the oldest unlocked message.

From the new message notification:

Press	To
READ (⬤)	open the message (or your text message inbox if there are multiple messages)

## *Reading, Locking, or Deleting a Text Message*

You can open your text message inbox to read, lock, or delete messages at any time.

Messages in the text message inbox are sorted from newest to oldest. The oldest messages are deleted as new ones are added. If you want to save a message, you should lock it to prevent it from being overwritten as new messages are received.

Find the Feature $\boxed{=}$ > Messages > Text Msgs

Press		To
1	$\text{\^{}}$	scroll to the message you want ($\boxminus!$ = unread and urgent, $\triangle$ = read, $\mathbf{8}$ = read and locked)
2	READ ($\boxed{\bullet}$)	open the message
3	SAVE ($\boxed{\bullet}$—right)	close the message without changes
	or	
	DELETE ($\boxed{\bullet}$—left)	delete the message
	or	
	$\boxed{=}$	open the Text Msg Menu to perform other procedures as described in the following list

The Text Msg Menu includes the following options:

Option	Description
Call Back	Call the number in the message header or the message text.
Go To	Go to a Web address (URL) in the message.
Reply	Open a new text message, with the message's Reply To number in the To field.
Forward	Open a copy of the text message, with an empty To field.

Option	Description
Lock/Unlock	Lock or unlock the message.
Store Number	Open a new phonebook entry with the message's embedded number in the No. field.
Delete	Delete the message or all inbox messages.
or	Press Yes ($\boxed{\bullet}$) to confirm the deletion.
Delete All	
Create Message	Open a new text message form.
Setup	Open the inbox setup menu.

Sending a Text Message

You can create and send a text message to one or more recipients. The text message feature lets you manually enter each recipient's phone number, or select one or more numbers from the phonebook or recent calls lists.

Note: When you manually enter multiple phone numbers in the To field, you must insert a space between each number. Press and hold $\boxed{1}$ to insert a space as needed.

Find the Feature $\boxed{\equiv}$ > Messages
$\boxed{\equiv}$ > Create Message

Press	To
1 CHANGE ($\boxed{\bullet}$)	select To

Press		To
2	keypad keys	enter one or more phone numbers where you want to send the message
		Tip: Remember to press and hold ⬤ to add a space between numbers that you enter manually.
	or	
	BROWSE (⬤)	select one or more phone numbers from the phonebook or recent calls lists
3	OK (⬤)	store the number(s)
4	CHANGE (⬤)	select **Msg**
5	keypad keys	enter the text message (see "Entering Text" on page 53)
		Note: Message length is limited. When 40 or fewer characters remain, a two-digit counter at the top of the display shows how many are left.
6	OK (⬤)	store the text message
7	DONE (⬤)	finish the message
		Your phone displays **Send Message Now?**

Press	To
8 YES ($\boxed{\bullet}$)	send the message
or	
NO ($\boxed{\bullet}$)	cancel the message or save it as a draft
	A saved message is stored in the drafts folder, where you can edit it and send it at a later time.

Viewing the Status of Sent Text Messages

Text messages that you send are stored in the outbox. To view the contents of your outbox:

Find the Feature $\boxed{=}$ > **Messages** > **Outbox**

Messages are sorted from newest to oldest.

The following icons indicate message status:

$\gg$ = sending in progress $\boxdot$ = delivered

$\times$ = sending failed

Shortcuts

Your phone includes several pre-programmed shortcuts. You can create additional shortcuts, if you like, to mark frequently used menu items.

Standard Shortcuts

The following shortcuts are pre-programmed in your phone. You cannot edit or delete these shortcuts.

| Do This	To
Press $\boxed{=}$, then press and hold $\boxed{=}$ (within two seconds)	zoom in/out your phone's display view
	(See "Changing the Zoom Setting" on page 30.)
Press $\boxed{=}$ $\boxed{\#}$	display your phone number
Press $\boxed{\textbf{C}}$	go to the dialed calls list
	(See "Recent Calls" on page 79.)
Press $\boxed{\textcircled{\tiny{=}}}$	exit the menu system, return to the idle display

User-Settable Shortcuts

You can create shortcuts to many menu features and applications. A shortcut takes you directly to the menu item, or performs the menu action (if applicable).

Creating a Shortcut

To assign a keypad shortcut:

Do This	To
1 Press $\boxed{\equiv}$	enter the menu system
2 Scroll to the item to which you want to assign a shortcut	highlight the menu item
3 Press and hold $\boxed{\equiv}$	open the shortcut editor
	The phone displays:
	Assign Shortcut for: "*Item*"?
	where *Item* is the name of the item you selected.
4 Press YES ($\boxed{\bullet}$)	view shortcut options
5 Press CHANGE ($\boxed{\bullet}$)	change the keypad shortcut number, if necessary
or	
Press DONE ($\boxed{\bullet}$)	select the default keypad shortcut number and close the shortcut editor

Using Shortcuts

You can use a shortcut from the idle display, while on a call, or while scrolling through a menu.

Use a Keypad Shortcut

If you know the shortcut number:

Press	To
1 ▢	open the menu
2 the shortcut's number	go to the menu item, or perform the menu action

Select a Shortcut From the List

To select a shortcut from the shortcut list:

Find the Feature ▢ > Shortcuts
> *the shortcut you want*

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Micro-Browser

The micro-browser lets you access Web pages and Web-based applications (such as on-line banking, shopping, and games) on your phone. Contact your service provider to set up access, if necessary.

Note: Your phone may be configured to use a high-speed GPRS (General Packet Radio Service) network connection. This type of connection can be identified by a GPRS indicator in the idle display that disappears when you start a micro-browser session. If a ζ (connected call) indicator is displayed when you start a micro-browser session, your phone is using a standard voice channel connection. Your network connection charges may vary depending on the type of connection used.

Starting a Micro-Browser Session

To open the micro-browser:

Find the Feature $\boxed{=}$ > Browser

The micro-browser displays the home page set up by your service provider.

Press	To
1 $\S$	scroll to a bookmark or service, service, or application
2 SELECT ($\boxed{\bullet}$)	select the service

Shortcut: If you open a text message with a Web address (URL) in it, you can go directly to the URL by selecting $\boxed{=}$ > Go To.

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If you are unable to establish a network connection with the micro-browser, contact your service provider.

Interacting With Web Pages

You can perform the following operations on a Web page:

Do This	To
Press $\S$	scroll through a text message
Press $\S$ and then SELECT ($\boxed{\bullet}$)	scroll through and select items in a list
Press keypad keys and then OK ($\boxed{\bullet}$)	enter requested information
	Tip: Press $\fbox{$\twoheadleftarrow$}$ to delete one letter at a time if you make a mistake.
Press $\S$ to scroll to a phone number on a Web page, then press $\textcircled{\small\scalebox{0.8}{$\bigtriangledown$}}$	call the number from the micro-browser
Press $\fbox{$\twoheadleftarrow$}$ and $\fbox{$\#$}$	go back to the previous Web page
Press $\fbox{$\equiv$}$	open the Browser Menu

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Calculator

You can use your phone as a convenient calculator and currency converter.

Calculating Numbers

Find the Feature   `≡` > Calculator

Press		**To**
1	number keys	enter a number in the calculator
2	`⟨*⟩` (left) or `⟨#⟩` (right)	highlight a calculator function
3	SELECT (`•`)	perform the highlighted function

Selected function appears here

Press `⟨*⟩` (left) or `⟨#⟩` (right) to highlight a function and to view unseen functions by scrolling left/right

Exit the calculator

Entered number

Press `⟨*⟩` (left) or `⟨#⟩` (right) to scroll to other functions

(M) MOTOROLA

Calculator   0

. C = + - X ÷

EXIT   ≡   SELECT

Perform the highlighted function

Press `≡` to open the Calculator Menu
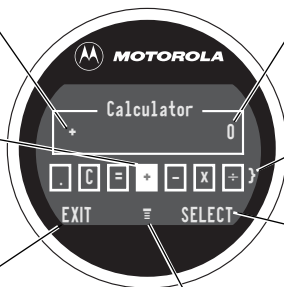
The calculator can perform the following functions:

Function	Description
.	Insert a decimal point
C	Clear the calculation
CE	Clear entry (replaces the C function when you enter subsequent values in a calculation)
+	Add
–	Subtract
x	Multiply
÷	Divide
%	Divide the displayed value by 100
$	Calculate the exchange rate
+–	Change the entry's sign (positive/negative)
MR	Recall the value stored in memory
MS	Store the displayed number in memory
MC	Clear memory

Converting Currency

The currency converter works just like the calculator, but uses the **$** (currency) function:

Find the Feature $\boxed{\equiv}$ > Calculator
$\boxed{\equiv}$ > Exchange Rate

Press		To
1	number keys	enter the exchange rate
2	OK ($\boxed{\bullet}$)	store the exchange rate
3	number keys	enter the amount to convert (amount to multiply by the exchange rate)
4	$\boxed{*}$ (left) or $\boxed{\#}$ (right)	highlight the **$** function
5	SELECT ($\boxed{\bullet}$)	perform the conversion

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Games

Your phone contains three games that you can play between phone calls. If you get an incoming call, message, alarm, or alert, the game ends automatically.

Selecting and Starting a New Game

Find the Feature $\boxed{\equiv}$ > Games

Press	To
1 $\stackrel{\circ}{\circ}$	scroll to the game of your choice
2 SELECT ($\boxed{\bullet}$)	start the game

When the game is over, you can play another session of the same game or return to the games menu.

Press	To
BACK ($\boxed{\bullet}$—left)	return to the games menu
or	
NO ($\boxed{\bullet}$—left)	
NEW ($\boxed{\bullet}$—right)	start another session of the game you just played
or	
YES ($\boxed{\bullet}$—right)	

Ending a Game

You can end a game at any time.

Press	To
BACK ($\boxed{\bullet}$)	end the game session and return to
or	the games menu
$\textcircled{\tiny{\textbf{O}}}$	

Playing a Game

Blackjack

In this classic Las Vegas card game, you play against the dealer to see who can get closer to 21 points without going over.

Rules of the game

- With each new hand, the first card is dealt to the dealer. The dealer's cards are shown at the top of the display, and your cards are shown at the bottom.

- All face cards count as 10 points.

- All number cards count as the points shown on their face.

- An Ace counts as 11 points, unless that would put you over 21 points. Otherwise, an Ace is counted as 1 point. An Ace that was originally counted as 11 may later be counted as 1 point if it will bring your points under or equal to 21 points.

- An initial deal of an Ace and a card with a face value of 10 points counts as exactly 21 points or Blackjack.

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- Blackjack automatically wins against any other hand that totals 21 points.

- If you score more than 21 points, you go "bust" or lose.

- If you get five cards without going bust, you win.

- If you and the dealer have the same score, the dealer wins.

- You can ask for a "hit" or another card as long as you do not go bust.

- As long as the dealer's total is less than 17 points, the dealer must continue to take a hit.

How to Play

When the game begins, you are dealt two cards. Based on their total face value, you can:

Press	To
STAY (⬚)	see the results of the hand
HIT ME (⬚)	request another card

Mindblaster

Your goal is to guess a secret four-symbol code. You play by entering symbols into four spaces and then submitting a guess.

Rules of the Game

- Your score is the number of guesses it takes to reveal the secret code.

- When you submit a guess, you are given clues that indicate how many symbols you have identified correctly and how many are in the correct position. The position of the clues does *not* correspond to the location of the symbols.

   ■ = correct symbol in correct position

    ▣ = correct symbol in wrong position

    □ = wrong symbol in wrong position

- You can see a history of your last 10 guesses.

- Once you enter a symbol into a blank space, you can change the symbol but you cannot make the space blank again.

- When you correctly guess the four-symbol code, the display shows your score and the level of your next game.

- After you win one game, you progress from level 1 to level 2.

- After you win two more games, you progress from level 2 to level 3.

- When you exit the game or turn off the phone, you begin again at level 1.

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How to Play

When the game begins, you see four blank spaces. To play the game:

Do This	To
Press ⊡ (left) or ⊞ (right)	move from space to space
Press ⑧	place a symbol in a space
Press **GUESS** (⑧)	submit a guess (when all four spaces contain symbols)
Select ⬦ and then press ⑧	scroll through and view a history of your last 10 guesses

Paddleball

In this test of endurance, your mission is move your paddle to strike a bouncing ball. The more you succeed, the smaller your paddle gets.

Rules of the game

- Your score is the number of times your paddle hits the ball.

- You lose when the paddle misses the ball.

How to play

Press	To
⑧	move your paddle so that it hits the bouncing ball

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Adjusting Your Settings

You can adjust a wide variety of phone settings to suit your needs.

Ring/Vibrate

Your phone rings or vibrates to notify you of an incoming call, message, or other event. This ring or vibration is called an *alert*. You can select one of five different alert profiles:

△)	Loud ring	△»	Soft ring
░d░	Vibrate	░△	Ring and vibrate
△ᶻ	Silent		

The alert setting indicator in your display shows the current alert profile (see illustration on page 28).

Each alert profile contains settings for ringer and keypad volume. It also includes alert tone settings for different events: incoming calls, text messages, voicemail messages, data calls, fax calls, alarms, and reminders. You can modify the settings in each profile.

Select an Alert Profile

Find the Feature $\boxed{=}$ > Settings > Ring/Vibrate
                > Alert

Press	To
1 $\big\lozenge$	scroll to the alert profile you want to use

Press	To
2 SELECT (⬜)	select the alert profile
	The phone displays the **Changed: Alert** message.

Customize an Alert Profile

You can customize a profile by changing the alerts used for specific events (such as incoming calls, text messages, etc.). Your phone includes a variety of preset alert tones and vibrations. Any changes you make are saved to the current alert profile.

Tip: This feature also lets you set the profile's ringer volume and keypad volume.

Find the Feature   M > **Settings** > **Ring/Vibrate** > *Alert* **Detail**

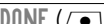| Press	To
1 ⑧	scroll to the event for which you want to set a new alert
2 CHANGE (⬜)	select the event
	The phone displays the list of available alerts.
3 ⑧	scroll to the alert you want for the event
4 SELECT (⬜)	select the alert
	The phone displays the **Changed:** *Event Alert* message.

Use the My Tones Feature

The my tones feature lets you create up to 32 custom alert tones for your phone. The tones you create appear in the list of available alerts (see "Customize an Alert Profile" on page 134).

Creating a Tone

Find the Feature $\boxed{=}$ > Settings > Ring/Vibrate
                         > My Tones

Press	To
1 $\bigvee$	scroll to [New Tone]
2 SELECT ($\boxed{\bullet}$)	select [New Tone]
3 CHANGE ($\boxed{\bullet}$)	select Notes
4 keypad keys	enter notes for the tone (see "Entering Notes" on page 136)
5 OK ($\boxed{\bullet}$)	store the notes
6 CHANGE ($\boxed{\bullet}$)	select Name
7 keypad keys	enter the name for the tone
8 OK ($\boxed{\bullet}$)	store the name
9 DONE ($\boxed{\bullet}$)	store the tone

Entering Notes

To create a new tone, use the keypad keys to enter each note. Press a key multiple times to cycle through its available notes or options (pitch, octave, or length). The default setting for a new tone is a quarter note in octave two.

Key	Display	Description
1	1	set octave one
	2	set octave two
	3	set octave three
2 ABC	A	note A
	B	note B
	C	note C
	2	set octave two
3 DEF	D	note D
	E	note E
	F	note F
	3	set octave three
4 GHI	G	note G
	R	rest
7 PQRS	#	sharp
	b	flat
0 +	q	quarter note or quarter rest
	h	half note or half rest
	w	whole note or whole rest
*		move cursor left
#		move cursor right

Enter a note as follows:

Task	Action
Change the octave	Set the new octave (**1**, **2**, or **3**) *before* selecting the note. The new octave applies to the note and all following notes until you change it again.
Select the note (required)	Press a keypad key to enter a note.
Change a note to a sharp or flat	Enter a sharp or flat (**#** or **b**) *after* selecting the note.
	Some sharps and flats are played as standard notes. For example, **B#** is the same as **C**. Press ⑄ to scroll to valid notes when entering a new note.
Change a note's length	Set the new length (**h**, **w**, or **q**) *after* selecting the note. The new length applies to the note and all following notes until you change it again.
Add a rest	Enter one or more rests (**R** characters) as needed in the tone sequence. You can set the length of the rest by entering an **h**, **w**, or **q** character *after* the rest, just as you can for a note.
Listen to a new tone as you compose it	Press ▭ to enter the **Compose Menu**, and select **Play All** to play the notes you have entered.

Example

Press these keys to play this sequence of notes and rests in octave three: C (quarter note), E flat (quarter note), half rest, and G (whole note):

Press		To	Display
1	① ① ①	set octave three	3
2	②ᴬᴮᶜ ②ᴬᴮᶜ ②ᴬᴮᶜ	enter a quarter note C	C
3	③ᴰᴱᶠ ③ᴰᴱᶠ ⑦ᴾꟴᴿˢ ⑦ᴾꟴᴿˢ	enter a quarter note E flat	Eb
4	④ᴳᴴᴵ ④ᴳᴴᴵ ⓪⁺ ⓪⁺	enter a half rest	Rh
5	④ᴳᴴᴵ ⓪⁺ ⓪⁺ ⓪⁺	enter a whole note G	Gw

Playing a Tone

Find the Feature   ≡ > Settings > Ring/Vibrate
                         > My Tones

Press		To
1	Ⓢ	scroll to the tone you want to play
2	≡	open the My Tones Menu
3	Ⓢ	scroll to Play
4	SELECT (▢\)	select Play
		The phone displays the playback meter and plays the tone.

Press	To
5 PLAY (⬤\)	play the tone again
or	
CANCEL (/⬤)	return to the my tones list

Editing a Tone

You cannot edit the standard alert tones included with your phone. To edit a custom tone that you created:

Find the Feature   ⊡ > **Settings** > **Ring/Vibrate**
                 > **My Tones**

Press	To
1 ⭙	scroll to the tone you want to edit
2 EDIT (⬤\)	open the tone details
3 ⭙	scroll to the details you want to edit (**Name** or **Notes**)
4 CHANGE (⬤\)	select the details you want to edit
5 keypad keys	enter new text or notes (see "Entering Notes" on page 136)
6 OK (⬤\)	store the details

Deleting a Tone

You cannot delete the standard alert tones included with your phone. To delete a custom tone that you created:

Find the Feature   ⊡ > **Settings** > **Ring/Vibrate**
                 > **My Tones**

Press	To
1 〇	scroll to the tone you want to delete
2 ▤	open the My Tones Menu
3 〇	scroll to Delete
4 SELECT (⦿)	select Delete
5 YES (⦿)	confirm the deletion

Reminders

Reminders are alerts that ring or vibrate to notify you about a voicemail or text message you have received, or a datebook event you have scheduled.

To set or turn off reminders:

Find the Feature　▤ > Settings > Ring/Vibrate
　　　　　　　　　　> *Alert* Detail > Reminders

Press	To
1 〇	scroll to the reminder alert you want: Beep, Vibrate, or Off
	Beep or Vibrate sets the corresponding reminder alert type. Off turns off all reminders.
2 SELECT (⦿)	select the reminder alert

Call Forwarding

Call forwarding sends your phone's incoming voice, fax, and/or data calls directly to another phone number. Use call forwarding options to specify which calls your phone should forward. When you are ready to accept calls on your phone again, you can turn off call forwarding.

Set Up or Cancel Call Forwarding

The call forwarding options for voice, fax, or data calls are:

All Calls	forwards all calls
If Unavailable	forwards calls if your phone is unavailable
Detailed	uses different forwarding numbers if you are out of range, unable to answer, or busy (*voice calls only*)
Off	does not forward calls

Find the Feature $\boxed{=} >$ Settings > Call Forward

Press	To
1 $\begin{smallmatrix}\circ\\\circ\end{smallmatrix}$	scroll to the type of calls you want to forward
	(Cancel All cancels all call forwarding and ends the procedure.)
2 SELECT ($\boxed{\bullet}$)	open the call forward details for that call type

Press		To
3	$\S$	scroll to **Forward**
4	CHANGE ($\boxed{\bullet}$)	change the **Forward** option
5	$\S$	scroll to the call forward option you want
6	SELECT ($\boxed{\bullet}$)	store the option
7	$\S$	scroll to **To** (same for **If Busy**, **If No Answer**, or **If Unreachable**)
8	CHANGE ($\boxed{\bullet}$)	change the phone number
9	keypad keys	enter the forwarding phone number
	or	
	BROWSE ($\boxed{\bullet}$)	browse through your phonebook or other lists for the forwarding phone number
10	OK ($\boxed{\bullet}$)	store the forwarding phone number

Note: You can repeat this procedure to enter forwarding information for other call types.

Check Call Forwarding Status

Your network may store call forwarding status for you. If you change your phone's call forward settings (see "Set Up or Cancel Call Forwarding" on page 141), then you should confirm that the network call forward status matches your preferences.

Find the Feature $\boxed{=}$ > Settings > Call Forward > Forward Status

Press	To
1 $\mathcal{Q}$	scroll to **Voice**, **Fax**, or **Data** calls
2 View ($\sqrt{\bullet}$)	confirm that the network settings are correct

Reordering Menu Items

You can customize the order of the items in your phone's main menu, depending upon your usage.

Find the Feature $\boxed{\equiv}$ > **Settings** > **Other Settings**
                        > **Personalize** > **Main Menu**

Press	To
1 $\mathcal{Q}$	scroll to the menu item you want to move
2 GRAB ($\sqrt{\bullet}$)	grab the menu item you want to move
3 $\mathcal{Q}$	move the item up or down the menu
4 INSERT ($\sqrt{\bullet}$)	insert the item in the new location

Customizing a Soft Key Function

You can relabel the soft keys (left $\boxed{\bullet}$ and right $\boxed{\bullet}$) to access different main menu items from the idle display.

Find the Feature $\boxed{\equiv}$ > Settings > Other Settings
                       > Personalize > Keys

Press	To
1 $\begin{smallmatrix}\circ\\\circ\end{smallmatrix}$	scroll to Left or Right
2 CHANGE ($\boxed{\bullet}$)	open the key editor
3 $\begin{smallmatrix}\circ\\\circ\end{smallmatrix}$	scroll to the new key function
4 SELECT ($\boxed{\bullet}$)	confirm the new function
	The key will have the new function whenever the phone is idle.

Hands-Free Use

You can user your phone without using your hands by using the phone headset. Be sure that your phone is rotated open.

You can also purchase an optional Motorola Original™ Easy-Install Hands-Free Kit for your car. This accessory provides an alternative way for you to use your phone without using your handset.

Note: 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.

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Automatic Answer

When you activate automatic answer and connect your phone to the Easy-Install Hands-Free Kit or phone headset, your phone automatically answers calls after two rings.

Find the Feature $\boxed{\equiv}$ > Settings > Other Settings

Press	To
1 $\mathcal{8}$	scroll to Car Settings or Headset
2 SELECT ($\boxed{\bullet}$)	select the feature
3 $\mathcal{8}$	scroll to Auto Answer
4 SELECT ($\boxed{\bullet}$)	select Auto Answer
5 $\mathcal{8}$	scroll to On or Off
6 SELECT ($\boxed{\bullet}$)	confirm the setting

Automatic Hands-Free

You can set up your phone to automatically route calls to the Easy-Install Hands-Free Kit when it detects a connection.

Find the Feature $\boxed{\equiv}$ > Settings > Other Settings
                                          > Car Settings
                                          > Auto Handsfree

Press	To
1 $\mathcal{8}$	scroll to On or Off
2 SELECT ($\boxed{\bullet}$)	confirm the setting

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Power-Off Delay

When your phone is connected to the Easy-Install Hands-Free Kit, you can set it to stay on for a specified time period after you switch off the ignition. This keeps your phone from draining your vehicle battery by staying on indefinitely, but leaves your phone on long enough that you do not have to re-enter your unlock code when you make short stops.

Find the Feature $\boxed{=}$ > Settings > Other Settings
                      > Car Settings
                      > Power-Off Delay

Press	To
1 〖	scroll to the time delay option you want
2 SELECT (⬤)	confirm your selection

Caution: If you select Continuous, the phone does not power off when you turn off the ignition. Be careful not to accidentally drain your vehicle battery if you select this option.

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Charger Time

When your phone is connected to the Easy-Install Hands-Free Kit, you can set it to charge itself for a specified time period after you switch off the ignition. This helps ensure that the phone battery gets fully charged while the vehicle is parked.

Find the Feature $\boxed{=}$ > Settings > Other Settings
                       > Car Settings
                       > Charger Time

Press	To
1 $\int$	scroll to the charge time option you want
2 SELECT ($\boxed{\bullet}$)	confirm your selection

Data and Fax Calls

A Motorola Original™ data kit lets you transfer data between your phone and a computer or other external device. You can:

Optional Accessory

- synchronize data between your phone and an external device with Starfish TrueSync® software, a Motorola accessory product. See the TrueSync user guide for more information.

  Note: TrueSync software is designed to synchronize with basic features of many popular Personal Information Management (PIM) software and hardware products.

- use your phone as a modem to connect to the Internet

  Note: 56K modems are capable of receiving 56Kbps from a compatible service provider. Receiving is currently limited in the U.S. and Canada to 53 Kbps, and transmitting to 33.6 Kbps. Actual speeds will vary depending on line conditions.

- use your phone to send and receive data and fax calls on your computer or hand-held device.

For more information about Motorola Original data kits, see the Motorola Web site at:

http://www.motorola.com/dataaccessories (United States)
http://www.motorola.ca/dataaccessories (Canada)

Connecting Your Phone to an External Device

Connect your phone to an external device (such as a computer or hand-held device) using a serial cable or a USB cable.

Note: Not all devices are compatible with serial cable or USB cable connections. Check your external device for specifications.

Set Up a Cable Connection

Attach a serial cable or Motorola Original USB cable to the phone and external device as follows.

Note: Check your computer or hand-held device to determine the type of cable you need.

Attaching a Serial Cable

Use the interchangeable head on the Motorola Multi-Connect Serial Cable to connect a computer, Palm III device, or Palm V device to your phone.

Do This
1 Plug the serial cable into the detachable head. Make sure that the Motorola logo on the detachable head and the metal shielding on the serial cable plug are both facing you.
2 With the Motorola logo and the phone both facing you, plug the detachable head into your phone's accessory connector port.
3 Plug the other end of the cable into the serial interface connection on the external device and tighten the screws.

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Attaching a USB Cable

Do This
1 Plug the end of the cable with the Motorola logo into your phone's accessory connector port. Make sure that the logo and the phone are both facing you.
2 Plug the other end—the USB connection—into the USB port on the external device.

Install the Software

Install the software from the CD-ROM that comes with your Motorola Original data kit. See the data kit's user guide for more information.

Sending a Data or Fax Call

You can connect your phone to a computer or hand-held device to send data or a fax from the connected device.

Use this feature to transfer data from your computer onto another device, and to synchronize phonebook and datebook information between your phone, computer, and/or hand-held device.

Connect your phone (see "Connecting Your Phone to an External Device" on page 149) and do the following:

Do This	To
1 Check the phone	make sure that the phone is connected and powered on

Do This	**To**
2 Open the application on your computer	place the call through the application (such as dial-up-networking or fax)
	Note: You cannot dial data or fax numbers through your phone's keypad. You must dial them through your computer.
3 End the transfer on your computer	close the call and connection when the transfer is complete

Receiving a Data or Fax Call

You can connect your phone to a computer or hand-held device to receive data or a fax.

Use this feature to transfer data to your computer from another device.

Transfer the Data or Fax

Connect your phone (see "Connecting Your Phone to an External Device" on page 149).

Your phone notifies you when the data or fax call arrives, and transfers the call to the connected device. You must use the application running on the connected device to answer the call.

End the Data/Fax Connection

When the data or fax transfer is complete:

Do This	To
End the call from the connected device	close the connection

Sending a Talk then Fax Call

You can place a call where you talk and then send a fax to the same phone number within the same call.

Connect to the device that will send the fax (see "Connecting Your Phone to an External Device" on page 149) and do the following:

	Press	To
1	keypad keys	enter the phone number for the call
2	$\boxed{=}$	open the Dialing Menu
3	$\S$	scroll to Talk Then Fax
4	SELECT ($\boxed{\bullet}$)	select Talk Then Fax (for the next call only)
5	$\textcircled{\scriptsize{\textbf{C}}}$	dial the call
		Speak and, when ready, initiate the fax transfer on the connected device.
		When transfer is complete, end the call from the connected device.

Security

Assigning a New Code or Password

Your phone's four-digit unlock code is originally set to 1234, and the six-digit security code is originally set to 000000 at the factory. Your service provider may reset these numbers before you receive your phone.

If your service provider has *not* reset these numbers, we recommend that you change them to prevent other users from accessing your personal information or modifying your phone settings. The unlock code must contain four digits, and the security code must contain six digits. Be sure to make a note of the new numbers.

Notes:

- Your service provider may retain your phone's security code for customer service purposes. In this case, you will not be able to use phone features that require you to enter the security code (such as master clear, master reset, and the unlock code bypass feature).

- If the only password you can change is the unlock code, the **New Passwords** menu is unavailable and the **Unlock Code** option appears on the **Phone Lock** menu. In this case, open the unlock code editor by selecting: M > **Settings** > **Security** > **Phone Lock** > **Unlock Code**.

To change a code or password:

Find the Feature $\boxed{\equiv} >$ Settings $>$ Security
                        $>$ New Passwords

	Press	To
1	$\aleph$	scroll to the code or password you want to change
2	CHANGE ($\boxed{\bullet}$)	select the code or password
3	keypad keys	enter your old code
		If you do not know your code, see "If You Forget a Code or Password" on page 155.
4	OK ($\boxed{\bullet}$)	submit your old code
5	keypad keys	enter the new code
6	OK ($\boxed{\bullet}$)	assign the new code
7	keypad keys	re-enter the new code
8	OK ($\boxed{\bullet}$)	confirm the new code

If You Forget a Code or Password

If you forget your security code (originally set to 000000), SIM PIN, SIM PIN2, or call barring password, contact your service provider.

If you forget your unlock code, try entering 1234 or the last four digits of your phone number. If that does not work, do the following when you see the **Enter Unlock Code** message:

Press	To
1 ▭	go to the unlock code bypass screen
2 keypad keys	enter your security code
3 OK (▭)	submit your security code

Locking and Unlocking Your Phone

You can lock your phone manually or set your phone to lock automatically whenever you turn it off.

When you try to use a locked phone, it asks you to enter the unlock code. A locked phone still rings or vibrates for incoming calls or messages, *but you must unlock it to answer.*

You can make emergency calls on your phone even when it is locked. See "Dialing an Emergency Number" on page 38.

Lock Your Phone Manually

Find the Feature $\boxed{=}$ > Settings > Security
> Phone Lock > Lock Now

Press	To
1 keypad keys	enter your four-digit unlock code
2 OK ($\boxed{\bullet}$)	lock the phone

Set Your Phone to Lock Automatically

You can set your phone to lock every time you turn it off:

Find the Feature $\boxed{=}$ > Settings > Security
> Phone Lock > Automatic Lock
> On

Press	To
1 keypad keys	enter your four-digit unlock code
2 OK ($\boxed{\bullet}$)	set the phone to lock automatically

Unlock Your Phone

At the Enter Unlock Code prompt:

Press	To
1 keypad keys	enter your four-digit unlock code
	The unlock code is originally set to 1234. If necessary, see "If You Forget a Code or Password" on page 155.
2 OK ($\boxed{\bullet}$)	unlock your phone

Barring Calls

Call barring lets you restrict outgoing or incoming calls. You can restrict all calls, calls to international numbers, or calls while roaming.

Find the Feature   M > Settings > Security
                            > Call Barring

Press	To
1	8	scroll to Outgoing or Incoming calls
2	CHANGE (⬚)	select barring for Outgoing or Incoming calls
3	8	scroll to a restriction for the barred calls
4	SELECT (⬚)	select the restriction for the barred calls
5	keypad keys	enter your call barring password
6	OK (⬚)	submit your password

Protecting the SIM Card

Your PIN (Personal Identification Number) code protects the information stored on your SIM card. When the SIM PIN feature is activated, you must enter your SIM card PIN code each time you turn on the phone or insert a SIM card. Your SIM card PIN code is given to you by your service provider.

Find the Feature $\equiv$ > Settings > Security
> SIM PIN

Press	To
1 $\S$	scroll to On or Off
2 SELECT ($\boxed{\bullet}$)	switch protection on or off
3 keypad keys	enter your SIM card PIN code
4 OK ($\boxed{\bullet}$)	submit your code

Unblock the SIM Card PIN Code

If you enter an incorrect SIM card PIN code three times in a row, your SIM card is disabled and your phone displays the message SIM Blocked. You need to enter a PIN unblocking key (PUK) code, which you can obtain from your service provider.

Note: In the following key sequence, each key press must occur within two seconds of the previous keypress.

Caution: If the unblocking attempt is tried unsuccessfully 10 times, the SIM card is permanently disabled and your phone displays the message SIM Disabled.

	Press	To
1	(#►) (#►) (0+) (5 JKL) (◄*)	open the PIN unblocking editor
		Your phone prompts you to enter the PIN1 Unblock Sequence:.
2	keypad keys	enter the PUK code
3	OK (⬛)	submit the PUK code
		Your phone prompts you to Enter New SIM PIN:.
4	keypad keys	enter a new SIM card PIN code
		Note: The SIM PIN code must be between four and eight digits in length.
5	OK (⬛)	assign the new SIM PIN code
		Your phone prompts you to Re-enter New SIM PIN:.
6	keypad keys	re-enter your SIM card PIN code
7	OK (⬛)	confirm the new SIM PIN code and unblock the SIM card

Troubleshooting

Check these questions first if you have problems with your phone:

Question	Answer
Is your battery charged? Do you see ▱ in the display?	The battery level indicator should have at least one segment showing (▱). If it does not, recharge your battery. (See "Charging the Battery" on page 22 and "Battery Use" on page 33.)
Is the phone set to the proper frequency for your geographical region?	Phones in different regions of the world use different frequencies to establish a network connection. If necessary, use the Network feature (see page 77) to reset your phone's frequency to 900/1800 MHz when you travel to a new location.
Do you have a valid SIM card inserted in your phone?	If necessary, turn off your phone and make sure that you have inserted a valid SIM card. (See "Installing the SIM Card and Battery" on page 19).
Does the handset have a signal? Do you see 𝕚 in the display?	The signal strength indicator should have at least one segment showing (𝕚). If it does not, move to an area with a stronger signal to use your phone.
Is the earpiece volume too low?	While on a call, press the volume key on the side of your phone.

Question	Answer
Is the other party unable to hear you?	Your phone may be muted. Press UNMUTE ([●]) if necessary to unmute the phone.
	Also, make sure that your phone's microphone is not blocked by its carrying case or a sticker.
Has the phone been damaged, dropped, or gotten wet?	Dropping your phone, getting it wet, or using a non-Motorola battery or battery charger can damage the phone. The phone's limited warranty does not cover liquid damage or damage caused from using non-Motorola accessories.
Was a non-Motorola battery or battery charger used?	

The following refer to specific problems:

Problem	Solution
My phone was stolen. To whom should I report this?	Report a stolen phone to the police and to your service provider (the company that sends you your monthly wireless service bill).
I forgot my password.	See "If You Forget a Code or Password" on page 155.

Problem	Solution
I pressed the End/Power key, but nothing happened.	Be sure to press and hold ⊚☎ (the End/Power key) until the display appears and you hear an audible alert (this could take a couple of seconds). If nothing happens, check that a charged battery is installed. (See "Charging the Battery" on page 22.)
The display says: Insert SIM Card **or** Check SIM Card **even though I have inserted my SIM card in the phone.**	The SIM card may be incorrectly inserted. Check the SIM card to make sure that it is inserted properly. See "Installing the SIM Card and Battery" on page 19. **Note:** Be sure to turn your phone off and then back on after you re-insert the SIM card.
The display says: SIM Blocked. **How do I unblock my SIM card?**	Call your service provider (the company that sends you your monthly wireless service bill) to obtain the PIN unblocking key (PUK) code. See "Unblock the SIM Card PIN Code" on page 158.
The display says: Enter Unlock Code. **How do I unlock my phone?**	Enter the factory-preset unlock code (1234), or the last four digits of your phone number. (See "Locking and Unlocking Your Phone" on page 155.) If this fails, call your service provider (the company that sends you your monthly wireless service bill).

Problem	Solution
My phone asks for an unlock code when I try to open a feature.	The application you want is locked. If you own the phone but do not know the unlock code, see "If You Forget a Code or Password" on page 155.
My phone does not ring.	If you see $\triangle^{\ast}_{\ast}$ or $\%\Pi\%$ in the display, then the ringer is turned off. See "Ring/Vibrate" on page 133. Also, the ringer may be set to **Silent** even though your phone is set to a ring alert profile. See "Customize an Alert Profile" on page 134.
My phone rings even though I selected the Silent (or Vibrate) alert profile.	The ringer may be set to play a tone even though your phone is set to a silent alert profile. See "Customize an Alert Profile" on page 134.
I tried to place a call and heard an alternating high/low tone.	Your call did not reach the wireless system. You may have dialed the number too soon after turning the phone on. Wait until the display shows the name of your service provider before making a call.

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Problem	Solution
I cannot send/ receive calls.	Make sure that you have a phone signal (see the "Signal Strength Indicator" item on page 28). Avoid electrical or radio interference, and obstructions such as bridges, parking garages, or tall buildings.
	Your phone also may have the **Call Barring** feature turned on. If you know the unlock code, you can change this setting in the security menu (☰ > **Settings** > **Security**). Also, check to be sure your SIM card is installed and working
My phone has poor reception and drops calls.	Make sure that your antenna is not bent or damaged.
	Also, make sure you have a phone signal (see the "Signal Strength Indicator" item on page 28). Stay clear of any obstructions such as bridges, parking garages, or tall buildings.
I cannot hear others on my phone.	While on a call, press the volume key on the left side of your phone. Your phone display should show the volume increasing.
	Also, make sure that your phone's earpiece is not blocked by its carrying case.

Problem	Solution
I cannot open my inbox.	Before you can use text or information services messages, you must set up the appropriate inbox. See "Setting Up the Text Message Inbox" on page 113.
How do I see the calls I sent or received?	To see the most recent calls you dialed or received, open the "Recent Calls" lists: M > Recent Calls > Received Calls **or** Dialed Calls
My phone will not send voicemail commands, passwords, or other codes.	Your phone sends commands and passwords as DTMF tones. You can set your phone's DTMF tones to be **Long**, **Short**, or **Off**. If you have trouble sending numbers, check your DTMF setting.
	1 From the idle display, press: M > Settings > Other Settings > Initial Setup > DTMF
	2 Press $\S$ to scroll to **Long** or **Short**.
	3 Press SELECT ([•]) to select it.

Problem	Solution
My phone's display is too light.	You can use the `Contrast Setting` feature (see page 76) to change the level of contrast in your phone display.
	You can also use the `Backlight` feature (see page 75) to change the length of time that your phone's display backlight stays on, or to change the display's backlight color.
My battery didn't last as long as I expected. What can I do to extend battery life?	Your battery's performance is affected by charge time, feature use, temperature changes, and other factors. For tips on extending your battery life, see "Battery Use" on page 33.
I plugged the data cable into my phone but my phone did not beep. How do I know if the data cable is ready to go?	The beep indicates that you are set up correctly. If you did not hear a beep, make sure that both ends of the data cable are connected—the smaller end to your phone and the larger end to your computer.
	Finally, your computer may have deactivated the port to save power. Try opening an application that uses the port, like a fax or dial-up application, and your computer will automatically activate the port.

Problem	Solution
My phone beeped when I attached the data cable, but my fax and data applications don't work.	Some wireless networks may not support data or fax transmission. If you are roaming on an unfamiliar network, this may be the case.
	Also, remember that data and fax transmission usually requires a subscription. Call your service provider for more information.
When sending data with the data cable, why does the computer show a connection rate of 19200 Kbps?	19200 Kbps is the data transfer rate of the connection between your computer and the phone in a standard CSD (Circuit Switch Data) connection. The rate of the connection between your phone and the network is displayed on your phone, and will be either 14400 or 9600 Kbps.
	Note: A GPRS connection may have a higher data transfer rate.
I can't end my data call by closing the application on my computer. What can I do?	Try pressing ⓞ⊃ on your phone. Also try disconnecting the cable or turning off the phone. If possible, always close the connection through your computer. These alternative methods may disrupt the application on your computer.

Problem	Solution
I launched the micro-browser but the display says: Service Not Available.	You may be in an area without service, or you may be connected to a network that does not support Internet access.
I launched the micro-browser but the display says: Data Server Unavailable.	Try again in a few minutes. The servers may be temporarily busy.

Product Registration

Online Product Registration:
http://www.motorola.com/warranty

Product registration is an important step toward enjoying your new Motorola phone. Registering helps us facilitate warranty service, and permits us to contact you should your phone require an update or other service. Registration 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.

Specific Absorption Rate Data

THE SELECTED PRODUCT V.70 FOR THE AMERICAS MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government and by Health Canada for Canada. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age or health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC and by Health Canada is 1.6W/kg.* Tests for SAR are conducted using standard operating positions accepted by the FCC and by Industry Canada with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network.

In general, the closer you are to a wireless base station, the lower the power output.

Before a phone model is available for sale to the public in the U.S. and Canada, it must be tested and certified to the FCC and Industry Canada that it does not exceed the limit established by each government for safe exposure. The tests are performed in positions and locations (e.g., at the ear and worn on the body) reported to the FCC and available for review by Industry Canada. The highest SAR value for this model phone when tested for use at the ear is 1.54 W/kg and when worn on the body, as described in this user guide, is 0.43 W/kg. (Body-worn measurements differ among phone models, depending upon available accessories and regulatory requirements.)

While there may be differences between the SAR levels of various phones and at various positions, they all meet the governmental requirements for safe exposure.

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications Industry Association (CTIA) web-site at **http://phonefacts.net** or the Canadian Wireless Telecommunications Association (CWTA) website, **http://www.cwta.ca**.

* *In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kg (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.*

† *The SAR information includes the Motorola testing protocol, assessment procedure, and measurement uncertainty range for this product.*

The U.S. Food and Drug Administration's Center for Devices and Radiological Health Consumer Update on Mobile Phones

FDA has been receiving inquiries about the safety of mobile phones, including cellular phones and PCS phones. The following summarizes what is known—and what remains unknown—about whether these products can pose a hazard to health, and what can be done to minimize any potential risk. This information may be used to respond to questions.

Why the concern?

Mobile phones emit low levels of radio frequency energy (i.e., radio frequency radiation) in the microwave range while being used. They also emit very low levels of radio frequency energy (RF), considered non-significant, when in the stand-by mode. It is well known that high levels of RF can produce biological damage through heating effects (this is how your microwave oven is able to cook food). However, it is not known whether, to what extent, or through what mechanism, lower levels of RF might cause adverse health effects as well. Although some research has been done to address these questions, no clear picture of the biological effects of this type of radiation has emerged to date. Thus, the available science does not allow us to conclude that mobile phones are absolutely safe, or that they are unsafe. However, the available scientific evidence does not demonstrate any adverse health effects associated with the use of mobile phones.

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What kinds of phones are in question?

Questions have been raised about hand-held mobile phones, the kind that have a built-in antenna that is positioned close to the user's head during normal telephone conversation. These types of mobile phones are of concern because of the short distance between the phone's antenna—the primary source of the RF—and the person's head. The exposure to RF from mobile phones in which the antenna is located at greater distances from the user (on the outside of a car, for example) is drastically lower than that from hand-held phones, because a person's RF exposure decreases rapidly with distance from the source. The safety of so-called "cordless phones," which have a base unit connected to the telephone wiring in a house and which operate at far lower power levels and frequencies, has not been questioned.

How much evidence is there that hand-held mobile phones might be harmful?

Briefly, there is not enough evidence to know for sure, either way; however, research efforts are on-going. The existing scientific evidence is conflicting and many of the studies that have been done to date have suffered from flaws in their research methods. Animal experiments investigating the effects of RF exposures characteristic of mobile phones have yielded conflicting results. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. In one study, mice genetically altered to be predisposed to developing one type of cancer developed more than twice as many such cancers when they were exposed to RF energy compared to controls. There is much uncertainty among scientists about whether results obtained from animal studies apply to the use of mobile phones.

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First, it is uncertain how to apply the results obtained in rats and mice to humans. Second, many of the studies that showed increased tumor development used animals that had already been treated with cancer-causing chemicals, and other studies exposed the animals to the RF virtually continuously—up to 22 hours per day.

For the past five years in the United States, the mobile phone industry has supported research into the safety of mobile phones. This research has resulted in two findings in particular that merit additional study:

1 In a hospital-based, case-control study, researchers looked for an association between mobile phone use and either glioma (a type of brain cancer) or acoustic neuroma (a benign tumor of the nerve sheath). No statistically significant association was found between mobile phone use and acoustic neuroma. There was also no association between mobile phone use and gliomas when all types of types of gliomas were considered together. It should be noted that the average length of mobile phone exposure in this study was less than three years.

   When 20 types of glioma were considered separately, however, an association was found between mobile phone use and one rare type of glioma, neuroepithelliomatous tumors. It is possible with multiple comparisons of the same sample that this association occurred by chance. Moreover, the risk did not increase with how often the mobile phone was used, or the length of the calls. In fact, the risk actually decreased with cumulative hours of mobile phone use. Most cancer causing agents increase risk with increased exposure. An ongoing study of brain cancers by the

National Cancer Institute is expected to bear on the accuracy and repeatability of these results.[1]

2 Researchers conducted a large battery of laboratory tests to assess the effects of exposure to mobile phone RF on genetic material. These included tests for several kinds of abnormalities, including mutations, chromosomal aberrations, DNA strand breaks, and structural changes in the genetic material of blood cells called lymphocytes. None of the tests showed any effect of the RF except for the micronucleus assay, which detects structural effects on the genetic material. The cells in this assay showed changes after exposure to simulated cell phone radiation, but only after 24 hours of exposure. It is possible that exposing the test cells to radiation for this long resulted in heating. Since this assay is known to be sensitive to heating, heat alone could have caused the abnormalities to occur. The data already in the literature on the response of the micronucleus assay to RF are conflicting. Thus, follow-up research is necessary.[2]

FDA is currently working with government, industry, and academic groups to ensure the proper follow-up to these industry-funded research findings. Collaboration with the Cellular Telecommunications Industry Association (CTIA) in particular is expected to lead to FDA providing research recommendations and scientific oversight of new CTIA-funded research based on such recommendations.

Two other studies of interest have been reported recently in the literature:

1 Two groups of 18 people were exposed to simulated mobile phone signals under laboratory conditions while they

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performed cognitive function tests. There were no changes in the subjects' ability to recall words, numbers, or pictures, or in their spatial memory, but they were able to make choices more quickly in one visual test when they were exposed to simulated mobile phone signals. This was the only change noted among more than 20 variables compared.[3]

2 In a study of 209 brain tumor cases and 425 matched controls, there was no increased risk of brain tumors associated with mobile phone use. When tumors did exist in certain locations, however, they were more likely to be on the side of the head where the mobile phone was used.

Because this occurred in only a small number of cases, the increased likelihood was too small to be statistically significant.[4]

In summary, we do not have enough information at this point to assure the public that there are, or are not, any low incident health problems associated with use of mobile phones. FDA continues to work with all parties, including other federal agencies and industry, to assure that research is undertaken to provide the necessary answers to the outstanding questions about the safety of mobile phones.

What is known about cases of human cancer that have been reported in users of hand-held mobile phones?

Some people who have used mobile phones have been diagnosed with brain cancer. But it is important to understand that this type of cancer also occurs among people who have not used mobile phones. In fact, brain cancer occurs in the U.S. population at a rate of about 6 new cases per 100,000 people

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each year. At that rate, assuming 80 million users of mobile phones (a number increasing at a rate of about 1 million per month), about 4800 cases of brain cancer would be expected each year among those 80 million people, whether or not they used their phones. Thus it is not possible to tell whether any individual's cancer arose because of the phone, or whether it would have happened anyway. A key question is whether the risk of getting a particular form of cancer is greater among people who use mobile phones than among the rest of the population. One way to answer that question is to compare the usage of mobile phones among people with brain cancer with the use of mobile phones among appropriately matched people without brain cancer. This is called a case-control study. The current case-control study of brain cancers by the National Cancer Institute, as well as the follow-up research to be sponsored by industry, will begin to generate this type of information.

What is FDA's role concerning the safety of mobile phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as mobile phones before marketing, as it does with new drugs or medical devices. However, the agency has authority to take action if mobile phones are shown to emit radiation at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of mobile phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions at this time, FDA has urged the mobile phone

industry to take a number of steps to assure public safety. The agency has recommended that the industry:

- support needed research into possible biological effects of RF of the type emitted by mobile phones

- design mobile phones in a way that minimizes any RF exposure to the user that is not necessary for device function

- cooperate in providing mobile phone users with the best possible information on what is known about possible effects of mobile phone use on human health

At the same time, FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of mobile phone safety to ensure a coordinated effort at the federal level. These agencies are:

- National Institute for Occupational Safety and Health

- Environmental Protection Agency

- Federal Communications Commission

- Occupational Health and Safety Administration

- National Telecommunications and Information Administration

The National Institutes of Health also participates in this group.

In the absence of conclusive information about any possible risk, what can concerned individuals do?

If there is a risk from these products—and at this point we do not know that there is—it is probably very small. But if people are concerned about avoiding even potential risks, there are simple steps they can take to do so. For example, time is a key

factor in how much exposure a person receives. Those persons who spend long periods of time on their hand-held mobile phones could consider holding lengthy conversations on conventional phones and reserving the hand-held models for shorter conversations or for situations when other types of phones are not available.

People who must conduct extended conversations in their cars every day could switch to a type of mobile phone that places more distance between their bodies and the source of the RF, since the exposure level drops off dramatically with distance. For example, they could switch to:

- a mobile phone in which the antenna is located outside the vehicle

- a hand-held phone with a built-in antenna connected to a different antenna mounted on the outside of the car or built into a separate package

- a headset with a remote antenna to a mobile phone carried at the waist

Again, the scientific data do not demonstrate that mobile phones are harmful. But if people are concerned about the radio frequency energy from these products, taking the simple precautions outlined above can reduce any possible risk.

Where can I find additional information?

For additional information, see the following Web sites:

Federal Communications Commission (FCC) RF Safety Program (select "Information on Human Exposure to RF Fields from Cellular and PCS Radio Transmitters"):
http://www.fcc.gov/oet/rfsafety

World Health Organization (WHO) International Commission on Non-Ionizing Radiation Protection (select Qs & As): http://www.who.int/emf

United Kingdom, National Radiological Protection Board: http://www.nrpb.org.uk

Cellular Telecommunications Industry Association (CTIA): http://www.wow-com.com

U.S. Food and Drug Administration (FDA) Center for Devices and Radiological Health: http://www.fda.gov/cdrh/consumer/

1. Muscat et al. Epidemiological Study of Cellular Telephone Use and Malignant Brain Tumors. In: State of the Science Symposium;1999 June 20; Long Beach, California.

2. Tice et al. Tests of mobile phone signals for activity in genotoxicity and other laboratory assays. In: Annual Meeting of the Environmental Mutagen Society; March 29, 1999, Washington, D.C.; and personal communication, unpublished results.

3. Preece, AW, Iwi, G, Davies-Smith, A, Wesnes, K, Butler, S, Lim, E, and Varey, A. Effect of a 915-MHz simulated mobile phone signal on cognitive function in man. Int. J. Radiat. Biol., April 8, 1999.

4. Hardell, L, Nasman, A, Pahlson, A, Hallquist, A and Mild, KH. Use of cellular telephones and the risk for brain tumors: a case-control study. Int. J. Oncol., 15: 113-116, 1999.

ITC00-010

Warranty

Limited Warranty for Motorola Personal Communications Products and Accessories Purchased in the United States and Canada

I. What This Warranty Covers

Defects in materials and workmanship in the following new **"Products"** manufactured, sold or certified by Motorola, with which this limited warranty is included in/on the package: (a) wireless cellular telephones, pagers and two-way radios that operate via "Personal Radio Service" (such as Family Radio Service and General Mobile Radio Service), together with software imbedded in any of these products, and (b) subject to the following exceptions, accessories or software sold for use with these products.

- <u>Battery Exception</u>. This limited warranty extends only to batteries in which the fully-charged capacity falls below 80% of rated capacity and batteries that leak;

- <u>Software Exceptions</u>. This limited warranty extends only to physical defects in the media (such as CD-ROM) that tangibly embodies each copy of any software sold and/or certified by Motorola for use with Products. Software that is not tangibly embodied in media and that is purchased separately from Products (such as software that is downloaded from the internet) comes **"as is" and without warranty**.

II. What the Period of Coverage Is

Subject to the following exceptions, one year from the date the Products are purchased by the first end-user:

- 90-Day Warranty Exception. The warranty is for 90 days for: (a) any software tangibly embodied in media or (b) any accessories for two-way radios that are covered by this warranty, as described in Section I, above.

- Limited Lifetime Warranty Exception. The warranty is a limited lifetime warranty for the lifetime of ownership by the first end-user of the following products, **only**: (a) decorative covers, including bezel, PhoneWrap™ or case (any model); and (b) ear buds and boom headsets that transmit mono sound through a wire connection (this does **not** include ear buds or boom headsets that either transmit stereo sound or that are wireless, or both).

- Repair/Replacement Exception. The warranty is for the balance of the original warranty or for 90 days from the date returned and delivered to the first end-user, whichever is longer.

III. Who is Covered

This warranty extends to you only if you are the first end-user purchaser.

IV. What We Will Do to Correct Warranty Problems

At no charge to you, we have the option to repair or replace the Products that do not conform to the warranty, or to refund the Products' purchase price. We may use functionally equivalent

reconditioned/refurbished/pre-owned or new Products or parts. No software updates are provided.

V. How to Get Warranty Service

PLEASE CALL US — DO NOT SHIP:

USA	Canada
Cellular 1-800-331-6456	**All Products**
Paging 1-800-548-9954	**1-800-461-4575**
FRS Radios 1-800-353-2729	**TTY (Text Telephone)**
TTY (Text Telephone)	**1-888-390-6456**
1-888-390-6456	

Accessories and software—call the number designated for the product with which they are used.

You will receive instructions on how to ship the Products to Motorola or our designated resource. If instructed to ship the Products, you must ship them with freight, duties and insurance prepaid. Regardless of where you are instructed to return the Products, 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 this Product requires subscription service); (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number. If requested, you must also return all detachable parts such as antennas, batteries and chargers. RETAIN YOUR ORIGINAL PROOF OF PURCHASE.

For Products we ask you ship to us, we will ship repaired or replacement Products at our expense for the freight and insurance, but at your expense for any duties. If additional

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information is needed, please contact us at the telephone number listed above.

VI. What This Warranty Does Not Cover

- **Products that are operated in combination with ancillary or peripheral equipment or software not furnished or otherwise certified by Motorola for use with the Products ("ancillary equipment"), or any damage to the Products or ancillary equipment as a result of such use. Among other things, "ancillary equipment" includes batteries, chargers, adaptors, and power supplies not manufactured or supplied by Motorola. Any of these voids the warranty.**

- Someone other than Motorola (or its authorized service centers) tests, adjusts, installs, maintains, alters, modifies or services the Products in any way. Any of these voids the warranty.

- Rechargeable batteries that: (a) are charged by other than the Motorola-approved battery charger specified for charging such batteries; (b) have any broken seals or show evidence of tampering; (c) are used in equipment other than the Product for which they are specified; or (d) are charged and stored at temperatures greater than 60 degrees centigrade. Any of these voids the warranty.

- Products that have: (a) serial numbers or date tags that have been removed, altered or obliterated; (b) board serial numbers that do not match each other, or board serial numbers that do not match the housing; or

(c) nonconforming or non-Motorola housings or parts. Any of these voids the warranty.

- Defects or damage that result from: (a) use of the Products in a manner that is not normal or customary; (b) improper operation or misuse; (c) accident or neglect such as dropping the Products onto hard surfaces; (d) contact with water, rain, extreme humidity or heavy perspiration; (e) contact with sand, dirt or the like; or (f) contact with extreme heat, or spills of food or liquid.

- Physical damage to the surface of the Products, including scratches, cracks or other damage to a display screen, lens or other externally exposed parts.

- Failure of Products that is due primarily to any communication service or signal you may subscribe to or use with the Products.

- Coil cords that are stretched or that have any broken modular tabs.

- Leased Products.

Flat-rate repair rates may apply to Products not covered by this warranty. To obtain information about Products needing repairs that are not covered by this warranty, please call the telephone number previously listed. We will provide information on repair availability, rates, methods of payment, where to send the Products, etc.

VII. Some Other Limitations

This is Motorola's complete warranty for the Products, and states your exclusive remedies. This warranty is

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given in lieu of all other express warranties. Implied warranties, including without limitation, the implied warranties of merchantability and fitness for a particular purpose, are given only if specifically required by applicable law. Otherwise, they are specifically excluded.

No warranty is made as to coverage, availability, or grade of service provided by the Products, whether through a service provider or otherwise.

No warranty is made that the software will meet your requirements or will work in combination with any hardware or applications software products 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.

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, 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, or other financial loss arising out of or in connection with the ability or inability to use the Products, to the full extent these damages may be disclaimed by law.

VIII. Patent and Software Provisions

At Motorola's expense, we will defend you, and pay costs and damages that may be finally awarded against you, to the extent that a lawsuit is based on a claim that the Products directly

infringe a United States patent. Our obligation is conditioned on: (a) you notifying us promptly in writing when you receive notice of the claim; (b) you giving us sole control of the defense of the suit and all negotiations for its settlement or compromise; and (c) should the Products become, or in Motorola's opinion be likely to become, the subject of a claim of infringement of a United States patent, you permit us, at our option and expense, either to: procure for you the right to continue using the Products; replace or modify them so that they become non-infringing; or grant you a credit for such Products, as depreciated, and accept their return. The depreciation will be an equal amount per year over the lifetime of the Products, as established by Motorola.

Motorola will have no liability to you with respect to any claim of patent infringement that is based upon the combination of the Products or parts furnished under this limited warranty with ancillary equipment, as defined in VI., above.

This is Motorola's entire liability with respect to infringement of patents by the Products.

IX. State Law and Other Jurisdiction Rights

Some states and other jurisdictions do not allow the exclusion or limitation 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, which vary from jurisdiction to jurisdiction.

To obtain information on Motorola Personal Communications Products, including warranty service, accessories and optional Extended Warranties on selected Products, please call:

USA
Cellular 1-800-331-6456
Paging 1-800-548-9954
FRS Radios 1-800-353-2729
TTY (Text Telephone)
1-888-390-6456

Canada
All Products
1-800-461-4575
TTY (Text Telephone)
1-888-390-6456

Accessories and software—call the telephone number designated above for the product with which they are used.

DO NOT SHIP PRODUCTS TO THESE ADDRESSES — INSTEAD PLEASE CALL.

To correspond with Motorola about Products, please write us at http://www.motorola.com or at:

In the USA:
Motorola, Inc.
600 North U.S. Highway 45
Libertyville, IL 60048

In Canada:
Motorola Canada Limited
5875 Whittle Road
Mississauga, ON L4Z 2H4

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(M) **MOTOROLA**

Wireless Phone Safety Tips

"Safety is your most important call!"

Your Motorola wireless telephone gives you the powerful ability to communicate by voice—almost anywhere, anytime, wherever wireless phone service is available and safe conditions allow. But an important responsibility accompanies the benefits of wireless phones, one that every user must uphold.

When driving a car, driving is your first responsibility. If you find it necessary to use your wireless phone while behind the wheel of a car, practice good common sense and remember the following tips:

1 **Get to know your Motorola wireless phone 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 hands-free device.** If possible, add an additional layer of convenience to your wireless phone with one of the many Motorola Original™ hands-free accessories available today.

3 **Position your wireless phone within easy reach.** Be able to access your wireless phone 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 **If you receive an incoming call at an inconvenient time do not take notes or look up phone numbers while driving.**

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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 you are not moving or before pulling into traffic.** Try to plan calls when your car will be stationary. If you need to 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 which have the potential to divert your attention away from the road.

8 **Use your wireless phone to call for help.** Dial 9-1-1 or other local emergency number in the case of fire, traffic accident or medical emergencies.*

9 **Use your wireless phone to help others in emergencies.** If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 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.*

Check the laws and regulations on the use of wireless telephones 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.

* Wherever wireless phone service is available.

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