INSTRUCTION MANUAL

A preliminary draft copy of the Users Manual follows:
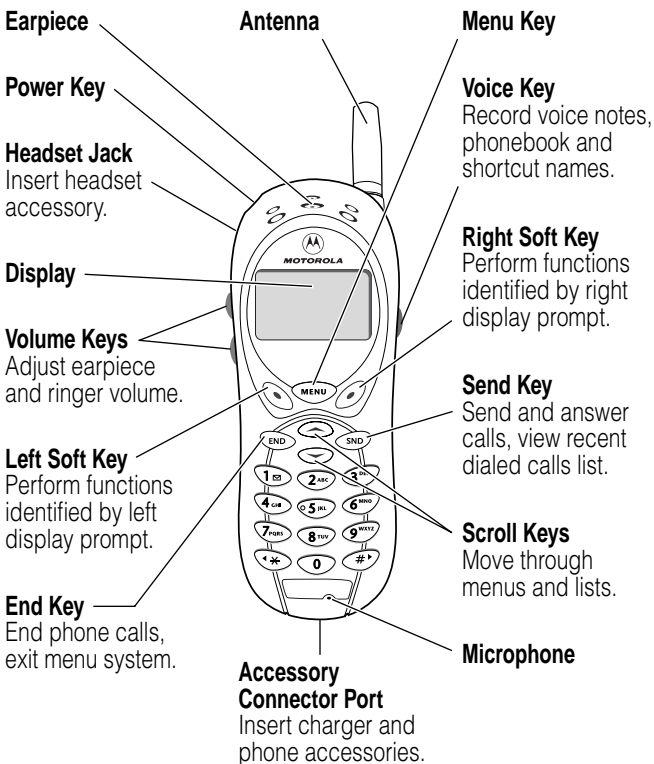
EXHIBIT 8

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 120t wireless phone.

Earpiece

Antenna

Menu Key

Power Key

Voice Key
Record voice notes, phonebook and shortcut names.

Headset Jack
Insert headset accessory.

Right Soft Key
Perform functions identified by right display prompt.

Display

Volume Keys
Adjust earpiece and ringer volume.

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

Left Soft Key
Perform functions identified by left display prompt.

Scroll Keys
Move through menus and lists.

End Key
End phone calls, exit menu system.

Microphone

Accessory Connector Port
Insert charger and phone accessories.

Manual number: 6809438A79-O
Cover number: 8988485L49-O

Menu Map

Main Menu

- **Recent Calls**
  - Received Calls
  - Dialed Calls
  - Notepad
  - Call Times
- **Phonebook**
- **Datebook**
- **Quick Dial**
- **Radio**
- **Messages**
  - Create Msg
  - Voicemail
  - Text Msgs
  - Quick Notes
  - Outbox
  - Drafts
- **Ring Styles**
  - Style
  - *Style* Detail
  - My Tones
- **Shortcuts**
- **Voice Notes**
- **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.

For example, the **Radio** feature on the main menu (left) is displayed only when the optional FM Stereo Radio Headset accessory is plugged into the accessory connector port on your phone (see phone illustration, page 1).

Shortcuts
Change display zoom: Press (MENU), then press and hold (MENU)
Lock/unlock keypad: Press (MENU) (⁕)
Display my phone number: Press (MENU) (#)
Go to dialed calls list: Press (SND)
Exit menu system: Press (END)

Settings Menu

- **Phone Status**
  - My Tel. Number
  - Active Line
  - Battery Meter
  - Other Information
- **Connection**
  - Incoming Call
- **In-Call Setup**
  - In-Call Timer
  - Answer Options
- **Security**
  - Phone Lock
  - Lock Keypad
  - Lock Application
  - Talk Secure
  - Restrict Calls
  - New Passwords

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

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Contents

About This Guide

This user guide introduces you to the many features in your Motorola wireless phone.

Navigating To a Menu Feature

Use the menu system to access your phone's features. This guide shows you how to select a menu feature as follows:

Find the Feature   MENU > Messages
                > Text Msgs

This example shows that you must press MENU, scroll to and select Messages, then scroll to and select Text Msgs.

Optional Features

This label identifies an optional network or subscription-dependent feature that may not be offered by all service providers in all geographical areas. Contact your service provider for more information.

Optional Accessories

This label identifies a feature that requires an optional Motorola Original™ accessory.

Safety and General Information

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

The information provided in this document supersedes the general safety information contained in user guides published prior to July 2000. For information regarding radio use in a hazardous atmosphere please refer to the Factory Mutual (FM) Approval Manual Supplement or Instruction Card, which is included with radio models that offer this capability.

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

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 824 MHz to 849 MHz in analog and digital mode and 1850 MHz to 1910 MHz in digital mode.

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 0.00 watts to 0.35 watts in analog mode and 0.00 watts to 0.56 watts in digital mode.

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:

- 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.

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 one of the Motorola-supplied or approved body-worn accessories, and are not using the phone held in the normal use position, **ensure the phone and its antenna are at least one inch (2.5 centimeters) from your body when transmitting.**

Safety and General Information

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.mot.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.

ITC01-101

Safety and General Information

Getting Started

What's in the Box?

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

Installing the Battery

You must install and charge the battery to use your phone.

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.

Do This

1 Remove the battery from its protective clear
plastic case.

2 If necessary, slide
down the battery
door release latch
and lift the door off
of the phone.

Release
latch

3 Insert the battery,
printed arrows
first, into the top of
the battery
compartment and
push down.

4 Replace the battery door.

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.

Getting Started

Some batteries perform best after several full charge/discharge cycles.

Do This
1 Plug the travel charger into your phone with the release tab 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.

Release tab

Notes:

- 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.

- If the battery charge drops too low, your phone may power off during a call, even when the charger is connected. To avoid this possibility, do not make calls while charging the battery.

Turning Your Phone On

Do This	To
1 Press and hold ⊚	turn on your phone

Power key

| **2** If necessary, enter your four-digit unlock code and press OK (⊘) | unlock your phone |
| | The unlock code is originally set to 1234. Your service provider may change this number before you receive your phone. |

Making a Call

Press	To
1 keypad keys	dial the phone number
	Tip: If you make a mistake, press DELETE (◌) to delete the last digit, or press and hold DELETE (◌) to clear all digits.
2 ⦾	make the call

Ending a Call

Press	To
(END)	end the call

Answering a Call

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

Press	To
(SND) or ANSWER (⊘)	answer the call

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

Seeing Your Phone Number

Press	To
(MENU) (#)	see your phone number

About Your Phone

See page 1 for a basic phone diagram.

Using the Display

- ❸ In Use Indicator
- ❹ Roam Indicator
- ❺ Message Waiting Indicator
- ❻ Voice Message Waiting Indicator
- ❷ Digital/ Analog Signal Indicator
- ❼ Battery Level Indicator
- ❶ Signal Strength Indicator
- ❽ Active line Indicator
- ❿ Ring Style Indicator
- ❾ Menu Indicator
- Clock
- Soft Key Labels

The *idle display* is the standard display that you see when you are *not* on a call or using the menu.

Labels at the bottom corners of the display show the current soft key functions. A ☰ (menu) indicator at the bottom center of the display indicates that you can press `MENU` to enter the main menu.

❶ Signal Strength Indicator Vertical bars show the strength of the network connection. You cannot make or receive calls when the ⁂ (no signal) indicator is displayed.

❷ Digital (◫) or Analog (⊞) Signal Indicator Shows whether you are receiving a digital or analog signal.

❸ In Use Indicator Shows that a call is in progress.

❹ Roam Indicator Shows that your phone is seeking or using another network system outside your home network.

❺ Message Waiting Indicator Appears when you receive a text message.

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

❼ Battery Level Indicator Vertical bars show the battery charge level. Recharge the battery when you see Low Battery and hear the low battery alert.

❽ Active Line Indicator Shows the current active phone line.

❾ Menu Indicator Indicates that you can press ⟨MENU⟩ to enter the main menu or open a feature sub-menu.

❿ **Ring Style Indicator** Shows the ring style setting.

   △⁾ = loud ring   △⁾⁾ = soft ring

   ▒◖▒ = vibrate   ⁾△ = vibrate and ring
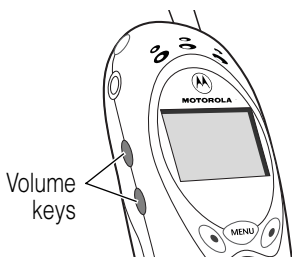
   △ᶻ = silent

Zooming In and Out

Press and release ⟨MENU⟩, then press and hold ⟨MENU⟩ to zoom in and out on the display. Zoom in to increase text size, zoom out to display more information.

You can also zoom in and out from the menu. See page 55.

Adjusting Volume

Press the up and down volume keys to:

- increase and decrease earpiece volume during a call

Volume keys

- increase and decrease the ringer volume setting when the idle display is visible

Battery Use

Battery performance depends on many factors, including your wireless carrier's network configuration; signal strength; the temperature at which you operate your

phone; the features and/or settings you select and use; and your voice, data, and other application usage patterns.

Battery Care

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.

About Your Phone

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.

Extending Battery Life

- **Turn off your display backlight**
  The backlight uses power. To turn it off, see page 55.

- **Minimize keypad-intense functions**
  Activities that require intensive keystroke use (such as playing a game or using messaging) reduce your phone's talk and standby time. Lock the keypad when storing the phone in your purse or pocket to avoid unnecessary keypad and backlight activations. See page 140.

Making and Answering Calls

For basic instructions on how to make a call, end a call, and answer a call, see pages 21–22.

Redialing a Number

If you hear an ordinary busy signal:

Press	To
1 END	hang up
2 SND	redial the busy number

Using Caller ID

Calling line identification (caller ID) displays the phone number for incoming calls.

The phone displays the caller's name when the name is stored in your phonebook, or

Incoming Call when caller ID information is not available.

Using Talk Secure

When *talk secure* is activated, your phone always tries to use a high-security connection to prevent others from intercepting your calls. To activate talk secure, see page 142.

If a high-security connection is not available, your phone uses a standard connection and displays Line Not Secure. This message does not appear when caller ID or other information is displayed.

Returning an Unanswered Call

Your phone keeps a record of your unanswered calls, and displays:

- the 🕻 (missed call) indicator

- X Missed Calls Y Unknown, where X is the total number of missed calls and Y is the number of missed calls with no caller ID information

Press	To
1 VIEW (⊘)	see the received calls list
2 ⬒	select a call to return
3 ⟨SND⟩	make the call

Calling an Emergency Number

Your service provider programs one or more emergency phone numbers, such as 911, that you can call under any circumstances, even when your phone is locked.

Note: Emergency numbers vary by country. Your phone's preprogrammed emergency number(s) may not work in all locations, and sometimes an emergency call cannot be

placed due to network, environmental, or interference issues.

Press	To
1 keypad keys	dial the emergency number
2 $\searrow$	call the emergency number

Turning Off a Call Alert

You can turn off your phone's incoming call alert before answering the call.

Press	To
either volume key	turn off the alert

Canceling an Incoming Call

While the phone is ringing or vibrating:

Press	To
$\textcircled{END}$ or IGNORE ($\searrow$)	cancel the incoming call

Depending on your phone settings and/or service subscription, the call may be forwarded to another number, or the caller may hear a busy signal.

Calling With Speed Dial

Each entry you store in your phonebook is assigned a unique *speed dial* number. To speed dial a phonebook entry:

Press		To
1	keypad keys	enter the speed dial number for the entry you want to call
2	⏺	submit the number
3	⏺	call the entry

Calling With One-Touch Dial

To call phonebook entries 1 through 9, just press and hold the one-digit speed dial number for one second.

We recommend that you reserve phonebook entry 1 (speed dial number 1) for storing and dialing your voicemail number. In many cases, your service provider has already done this for you. If necessary, see page 65 to store your voicemail number for one-touch dial access.

Calling a Number In a Text Message

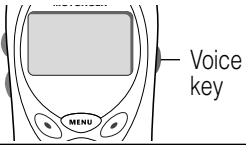To call a phone number embedded in a text message that you receive:

Press	To
1 (MENU)	open the Text Msg Menu
2 $\hat{\leqslant}$	scroll to Call Back
3 SELECT ($\oslash$)	call the number

Additional Calling Features

While dialing (with digits visible in the display), open the Dialing Menu to perform the following tasks:

Press	To
(MENU) > Attach Number	attach a number from the phonebook or recent call lists
(MENU) > Send Message	open a new text message with the number in the To field

You can also call a number using these features:

Do This	To Call
Press and release the voice key, then say a voice name Voice key	a phonebook entry using voice dial To record a voice name, see page 69.
Press (MENU) > Recent Calls > Received Calls or Dialed Calls > *entry to call*	a missed call, or a recent received or dialed call

Using Features While On a Call

Using Call Waiting

When you are on a call, an alert tone sounds to indicate that you have received a second call.

Press		To
1	SND	answer the new call
2	SND	switch back to the first call

Making a Three-Way Call

During a call, you can call and connect a third party for a three-way call. You cannot do this if you already have a call on hold.

Press		To
1	keypad keys	dial the third party's number
2	SND	call the number
3	SND	connect the two calls
4	END	end the entire call

Additional On-Call Features

Press	To
MUTE (⊘) (if available) or MENU > Mute	mute the call
SPEAKER (⊘) (if available) or MENU > Spkrphone On	activate an attached speakerphone during an active call
MENU > My Tel. Number	see your phone number
MENU > Send Tones	send a number to the network as DTMF tones, for credit card or password calls To activate DTMF tones, see the "DTMF" option on page 56.
MENU > Received Calls or Dialed Calls	view recent received or dialed call numbers
MENU > Messages	view or send messages
MENU > Datebook	view datebook entries
MENU > Other Information	view phone specifications

Using the Menu

Navigating to a Feature

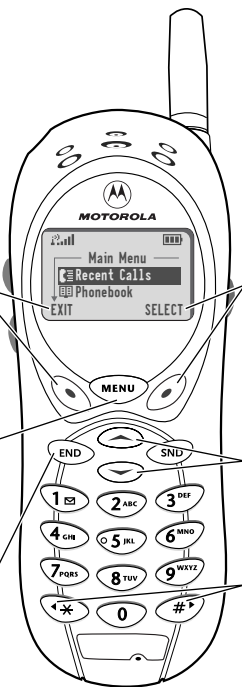Use these keys to move through the menu system:

Left Soft Key
Perform the function shown in the lower left corner of the display (usually EXIT or BACK).

Right Soft Key
Perform the function shown in the lower right corner of the display (usually SELECT the highlighted menu item).

Menu Key
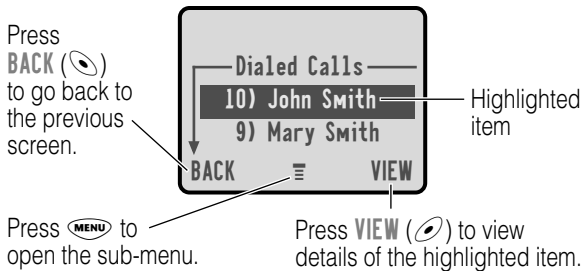Enter the menu system, or open a sub-menu, when ≡ appears in the bottom center of the display.

Scroll Keys
Scroll up or down through menus and lists.

End Key
Exit the menu system without making changes, return to the idle display.

⁎ and #
Cycle through and set the value of the highlighted menu item.

Selecting a Feature Option

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

Press
BACK (👁) to go back to the previous screen.

```
┌──── Dialed Calls ────┐
│ ▶ 10) John Smith        │──── Highlighted
│ 9) Mary Smith           │        item
│ BACK    ☰       VIEW    │
└──────────────────────┘
```

Press MENU to open the sub-menu.

Press VIEW (👁) to view details of the highlighted item.

- Press ⬍ to scroll up or down to highlight 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

Some features require you to enter information:

Press ⬍ to scroll down to additional items.

─── Entry Details ───
Name:John Smith
No. :2125551212
CANCEL   CHANGE

Highlighted item

Press CANCEL (◈) to exit without making changes. DONE (◈) appears when you enter or edit information.

Press CHANGE (⊘) to edit the information.

- Enter numbers or text with the keypad.

- When an item has a list of possible values, press ※ or ⌗ to scroll through 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 do not want to save your changes, press ⓔⓝⓓ to exit without saving.

The message center lets you compose and send text messages. A *flashing cursor* shows where text will appear:

Flashing cursor indicates insertion point.

```
Msg:
|
_____

CANCEL    ☰    BROWSE
```

Press BROWSE (⊘) to view and insert a quick note.

Press CANCEL (◎) to exit without making changes.

Press ⟨MENU⟩ to open the sub-menu.

When you enter text using the standard tap method, the flashing cursor changes to a *block cursor*, and the soft key functions change:

Block cursor indicates current highlighted character.

```
Msg:
T
_____

DELETE    ☰    OK
```

Press OK (⊘) to accept and store the text.

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

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

Entering Text

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

Choosing a Text Mode

Press `MENU` from any text entry screen to select a text mode:

iTAP	Let the phone predict each word as you enter it. See page 44.
Tap Method	Enter letters, numbers, and symbols by pressing a key one or more times. See page 40.
Numeric	Enter numbers only.
Symbol	Enter symbols only. See page 43.
Browse	Browse your phonebook or recent call lists to select a name or number.

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

Using Tap Method

This is the standard mode for entering text on your phone.

Press (MENU) from any text entry screen and select the
Tap Method menu option.

	Do This	To
1	Press a number key one or more times	select a letter, number, or symbol shown in the "Character Chart" on page 42
2	Continue pressing number keys	enter the remaining characters
3	Press OK (⊘)	store the text when you are finished

General Text Entry Rules

Press a number key repeatedly to cycle through its characters. See "Character Chart" on page 42.

Press a number key as many times as necessary to enter the desired character at flashing cursor location.

Change letter in block cursor to uppercase or lowercase.

Press and hold a number key to cycle between text entry modes.

Move flashing cursor to the left or right in text message.

- 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.

- The first character of every sentence is capitalized. (Press $\hat{\bigcirc}$ down to force the character to lowercase while it is highlighted by the block cursor).

- Your phone may support multiple languages. The current language setting determines whether a new message begins on the left or right side of the display.

  You can switch languages within a message. Press MENU to select the text mode and language you want to use.

Character Chart

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

①	space . 1 ? ! , @ _ & ~ : ; " - ( ) ' ¿ ¡ % £ $ ¥ ¤ €
②ABC	a b c 2 á à â ã ç
③DEF	d e f 3 é è ê ë
④GHI	g h i 4 í î ï
⑤JKL	j k l 5
⑥MNO	m n o 6 ñ ó ô õ
⑦PQRS	p q r s 7
⑧TUV	t u v 8 θ ü ú ù û
⑨WXYZ	w x y z 9
⓪	+ - 0 x * / \ [ ] = > < # §

Note: This chart may not reflect the exact character set available on your phone.

Using Symbol Mode

Your phone provides an alternate way to enter symbol characters in a message. Press MENU from any text entry screen and select the **Symbol** menu option.

Do This	To
1 Press a number key one time	display its symbol options at the bottom of the display
	See "Symbol Chart" on page 43.
2 Press ✱ or # **or** Press the number key multiple times	highlight the symbol you want
3 Press SELECT (⊘)	enter the symbol at the flashing cursor location

Symbol Chart

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

1	*space* . ? ! , @ _ & ~ : ; " - ( ) ' ¿ ¡ % £ $ ¥ ¤ €
2	@ _ \ α β
3	/ : ; δ φ
4	" & ' γ

5 JKL	( ) [ ] { } λ
6 MNO	¿ ¡ ~ ω
7 PQRS	< > = π ß σ
8 TUV	$ £ ¥ ¤ € θ
9 WXYZ	# % * ξ ψ
0	+ - x * / = > < # §

Using iTAP™ Software Predictive Text Entry Method

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

Press MENU from any text entry screen and select the iTAP menu option.

Enter Words

	Do This	To
1	Press a number key one time	enter the first letter of the word
		The letters associated with the key 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. The word choices are updated with each keypress.

Do This	To
3 Press 🔆 or 📱	highlight the word you want
4 Press SELECT (◇)	enter the word at the flashing cursor location
	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 🔆 to scroll and see additional word choices.

Act Cat Bat Abu ▶

DELETE   SELECT

Press DELETE (◈) to clear the last letter.

Press SELECT (◇) to insert the highlighted word.

Enter Novel Words

You may enter a word that the iTAP software does not recognize. If the word you want is not displayed:

Do This	To
1 Press DELETE (◈) one or more times	delete letters until you see a letter combination that matches the start of the word

Do This	To
2 Press ⊛ or ⌗	highlight the letter or letter combination
3 Press SELECT (⊘), then press ⊛	shift the text entry cursor to the left and "lock" the selected word portion
4 Continue to enter letters and highlight letter combinations	spell the word

Punctuation

Press	To
⓪ or ①☰	enter punctuation or other characters as shown in the "Character Chart" on page 42

Capitalization

The first word of a sentence is automatically capitalized, with following words in lowercase.

Press	To
⌃ ⌄	change the words to initial character capitalized, all uppercase characters, or all lowercase characters

Enter Numbers

	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 flashing cursor location

Delete Letters and Words

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

Do This	To
Press DELETE (◎)	delete one letter at a time
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.

Main Menu

RECENT CALLS

Received Calls   (MENU) > Recent Calls
                          > Received Calls

View a list of recently received calls. See page 59.

Dialed Calls   (MENU) > Recent Calls
                          > Dialed Calls

View a list of recently dialed calls. See page 59.

Notepad   (MENU) > Recent Calls
                          > Notepad

Call or store the last number entered on the keypad. See page 61.

Call Times   (MENU) > 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 page 61.

PHONEBOOK   (MENU) > Phonebook

Store names and numbers as entries in your phonebook, then call numbers by selecting them from the phonebook list. See page 64.

Menu Feature Descriptions

DATEBOOK   MENU > Datebook

Use the datebook calendar to schedule and review your appointments. See page 75.

QUICK DIAL   MENU > Quick Dial

Dial pre-programmed numbers. 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.

RADIO   MENU > Radio

Listen to FM radio stations with the optional Motorola Original™ FM Stereo Radio Headset accessory. This menu feature is displayed only when the FM Stereo Radio Headset is plugged into the accessory connector port on your phone. See page 80.

MESSAGES   MENU > Messages

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

Create Msg	Create new text messages. See page 91.
Voicemail	Listen to your recorded voice messages. See page 83.

Menu Feature Descriptions

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Text Msgs	Read and manage text messages. See page 85.
Quick Notes	Select and send pre-written messages from the quick notes list. See page 93.
Outbox	View all outgoing text messages, delivered and undelivered.
Drafts	Store and edit text messages that you have written but not sent.

RING STYLES

Style   MENU > Ring Styles
> Style

Select the ring style your phone uses to notify you of incoming calls, messages, or other events. See page 95.

Style Detail   MENU > Ring Styles
> *Style* Detail

Change details about the current ring style. *Style* represents the name of the ring style. See page 95.

My Tones   MENU > Ring Styles
> My Tones

Create custom alert tones for your phone. See page 97.

SHORTCUTS   MENU > Shortcuts

Create keypad or voice shortcuts to menu features. See page 105.

VOICE NOTES   MENU > Voice Notes

> Use the voice key to record messages and phone
> calls. See page 108.
>
> **Note:** Recording phone calls is subject to varying
> state and federal laws regarding privacy and
> recording of conversations.

BROWSER   MENU > 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 page 114.

CALCULATOR   MENU > Calculator

> Use your phone as a calculator or currency
> converter. See page 116.

GAMES   MENU > Games

> Play games on your phone. See page 119.

Settings Menu

PHONE STATUS

My Tel. Number   MENU > Settings
                           > Phone Status
                           > My Tel. Number

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

Active Line   (MENU) > Settings
                           > Phone Status
                           > Active Line

Change the active phone line to send and receive calls from either of the available numbers.

Battery Meter   (MENU) > Settings
                           > Phone Status
                           > Battery Meter

View a detailed battery charge meter.

Other Information (MENU) > Settings
                           > Phone Status
                           > Other Information

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

CONNECTION

Connect your phone to a computer or hand-held device to send and receive data calls on the connected device. See page 131.

Incoming Call   (MENU) > Settings
                           > Connection
                           > Incoming Call

Specify the format for the next incoming call. You can select Data In Only or Normal. See page 135.

IN-CALL SETUP

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

Menu Feature Descriptions

In-Call Timer   (MENU) > 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.

Off   No in-call timer display.

Answer Options   (MENU) > Settings
                                  > In-Call Setup
                                  > Answer Options

Turn call answering options on or off:

Multi-Key   Answer by pressing any key.

SECURITY

Phone Lock   (MENU) > Settings > Security
                                  > Phone Lock

Lock and unlock your phone. See page 139.

Lock Keypad   (MENU) > Settings > Security
                                  > Lock Keypad

View instructions on how to lock and unlock your keypad. See page 140.

Lock Application (MENU) > 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.

Talk Secure (MENU) > Settings > Security
 > Talk Secure

Activate a secure connection to prevent others from
intercepting your calls. See pages 28 and 142.

Restrict Calls (MENU) > Settings > Security
 > Restrict Calls

Restrict incoming and outgoing calls. See
page 140.

New Passwords (MENU) > Settings > Security
 > New Passwords

Change your unlock code (originally set to 1234) or
your security code (originally set to 000000). See
page 137.

OTHER SETTINGS

Personalize (MENU) > Settings
 > Other Settings
 > Personalize

Set several personal phone options:

Main Menu   Change the order of the
                main menu. See page 124.

Keys   Change the functions of the
                soft keys in the idle display.
                See page 124.

Greeting   Change the text
                displayed when
                you turn on your
                phone.

| Quick Dial | Change quick dial number(s). | |

Initial Setup   `(MENU) > Settings`
                `> Other Settings`
                `> Initial Setup`

Set many basic phone options:

`Time and Date`	Set the phone's time and date.
`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.
`TTY Setup`	Set your phone to operate in one of three TTY modes, or return to normal `Voice` mode. See page 125.
`Scroll`	Force the cursor to stop or wrap around when it reaches the top or bottom of a list in the display.

Menu Feature Descriptions

Animation	Turn animation off (to conserve battery power) 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 on 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 (MENU) > 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, and activate alerts that indicate when a call is dropped or network registration changes.

Car Settings (MENU) > Settings
> Other Settings
> Car Settings

Adjust hands-free car kit settings.

You can set your phone to route calls directly to the car kit when it detects a connection, and

automatically answer calls after two rings. See page 127.

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 MENU > Settings
> Other Settings
> Headset

Optional Accessory

Set your phone to automatically answer calls after two rings when connected to a headset. See page 127.

Recent Calls

Viewing Received Calls or Dialed Calls

Your phone keeps a list of the 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.

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

Find the Feature   MENU > Recent Calls

Press	To
1 ⌃⌄	scroll to Received Calls or Dialed Calls
2 SELECT (⊘)	select the list
3 ⌃⌄	scroll to an entry
	Note: ✓ means the call connected.

Press	To
4 ⟨SND⟩	call the entry's number
or	
VIEW (⊘)	view entry details
or	
⟨MENU⟩	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 number in the No. field.
Delete	Delete the entry.
Delete All	Delete all entries in the list.
Send Message	Open a new text message with the number in the To field.
Add Digits	Add digits after the number.
Attach Number	Attach a number from the phonebook or recent call lists, after the highlighted number.
Send Tones	Send the number to the network as DTMF tones, for credit card or password calls.

Using the Notepad

Your phone stores the most recent string of digits entered on the keypad in a temporary memory location called the *notepad*. This can be a phone number that you called, or a number that you entered but did not call. To retrieve the number stored in the notepad:

Find the Feature $\overline{\text{MENU}}$ > Recent Calls
                            > Notepad

Press	To
$\overline{\text{SND}}$	call the number
or	
$\overline{\text{MENU}}$	open the Dialing Menu to attach a number or insert a special character
or	
STORE ($\oslash$)	create a phonebook entry with the number in the No. field

Viewing and Resetting Call Timers

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 $\overline{\text{END}}$. This time includes busy signals and ringing.

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

You can view the following network connection times:

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

To view a call timer:

Find the Feature   (MENU) > Recent Calls
                            > Call Times

Press	To
1 $\hat{\smile}$	scroll to the timer you want\
2 SELECT ($\oslash$)	view the recorded time

To reset the call timer:

Press	To
1 RESET ($\oslash$)	reset the time (if available)
2 YES ($\searrow$)	confirm the reset

Phonebook

You can store a list of names and phone numbers or email
addresses in your phone's electronic phonebook.

To see the names in your phonebook, press
 $\textcircled{\tiny{MENU}}$ > Phonebook from the idle display. Scroll to a name
 and press VIEW ($\oslash$) to view details of the phonebook
 entry as shown below.

Viewing Entry Details

Type indicator
identifies
number type:
 📠 Work
 🏠 Home
 📟 Main
 📱 Mobile
 🖨 Fax
 📠 Pager
 ✉ Email

Voice Name indicator
indicates a recorded
voice name

Entry's **Name**

Entry's **phone
number** or
email address

Entry's speed
dial number

```
┌ 📠 🔊 Carlo Emrys ┐
  2154337215
  Speed No.15
BACK        ☰        EDIT
```

Return
to list

Press $\textcircled{\tiny{MENU}}$
to open the
Phonebook
Menu

Edit
entry

Note: When you set a distinctive ringer alert for an entry,
the Ringer ID setting appears below the speed dial number.

Storing a Phonebook Entry

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

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 3 to continue.

Enter Information

Find the Feature   (MENU) > Phonebook
                            (MENU) > New

Press		To
1	〰	scroll to Phone Number or Email Address
2	SELECT (⊘)	select the entry type
3	CHANGE (⊘)	select Name
4	keypad keys	enter a name for the entry
5	OK (⊘)	store the name
6	CHANGE (⊘)	select No. or Email
7	keypad keys	enter the phone number or email address
		Tip: You can store a PIN code with the phone number. See page 67.
8	OK (⊘)	store the phone number or email address

Press	To
9 CHANGE ($\oslash$)	select Type
	Note: This option is not available for email entries.
10 $\overset{\displaystyle\frown}{\smile}$	scroll to the number type
11 SELECT ($\oslash$)	select the number type
12 RECORD ($\oslash$) **or** Go to step 13 if you do not want a voice name	record a voice name for the entry, if desired (see page 69)
13 $\overset{\displaystyle\frown}{\smile}$	scroll to Speed No.
	The next available speed dial number is assigned to a new phonebook entry.
14 CHANGE ($\oslash$)	select Speed No. if you want to change it
15 keypad keys	enter a different speed dial number, if desired
16 OK ($\oslash$)	store the speed dial number
17 CHANGE ($\oslash$)	select Ringer ID if you want to assign a distinctive ringer alert for the phone number
	Your phone uses the alert to notify you when you receive a call from this phone number. See page 96.

Press	To
18 $\overset{\displaystyle\frown}{\underset{\displaystyle\smile}{}}$	scroll to the alert you want
19 SELECT ($\mathscr{O}$)	store the ringer ID alert
20 SELECT ($\mathscr{O}$)	select MORE if you want to create another entry under the same Name
	You must use a different Type identifier for each number.

Complete Phonebook Entry

When you are finished entering information for a phonebook entry:

Press	To
DONE ($\diagdown$)	store the entry

Storing a PIN Code With the Phone Number

You can store a PIN code with the phone number for calls that require additional digits (for example, to make a calling card call, or to retrieve voicemail or answering machine messages). Insert one or more of the following characters

in the dialing sequence to ensure that the number dials and connects properly:

Press	To
(MENU) > Insert Pause	insert a p (pause) character
	Your phone dials the preceding digits, waits for the call to connect, then sends the remaining digit(s).
(MENU) > Insert Wait	insert a w (wait) character
	Your phone dials the preceding digits, waits for the call to connect, then prompts you for confirmation before it sends the remaining digit(s).
(MENU) > Insert 'n'	insert an n (number) character
	Your phone prompts you for a number before dialing the call. The number you enter is inserted into the dialing sequence in place of the n character

Note: You can store a maximum of 32 digits per number. Each character counts as one digit.

Recording a Voice Name For a Phonebook Entry

You can record a voice name for a new or existing phonebook entry. A voice name lets you call the phonebook entry using voice dial (see page 70).

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

Find the Feature   M > Phonebook

	Do This	To
1	Press ⬆⬇	scroll to the entry
2	Press VIEW (⊘)	view entry details
3	Press EDIT (⊘)	edit the entry
4	Press ⬆⬇	scroll to Voice Name
5	Press RECORD (⊘)	begin recording
6	Press and release the voice key and say the entry's name (in two seconds)	record the voice name
7	Press and release the voice key and repeat the name	confirm the voice name
8	Press DONE (✎)	store the voice name

Dialing a Phonebook Entry

Use one of the following procedures to call a number (or send a text message to an email address) stored in your phonebook.

Phonebook List

Find the Feature   MENU > Phonebook

Press		To
1	keypad key letter	jump to entries that begin with that letter (optional)
2	⌃⌄	scroll to the entry
3	SND	make the call

Voice Dial

Do This	To
Press and release the voice key and say the entry's name (in two seconds).	make the call

To speed dial a phonebook entry, see page 31. To call an entry with one-touch dial, see page 31.

Phonebook

Editing a Phonebook Entry

Find the Feature   MENU > Phonebook

Press		To
1	⬆⬇	scroll to the entry
2	VIEW (⊘)	view entry details
3	EDIT (⊘)	edit the entry

Edit the entry as described on pages 65-67.

Deleting a Phonebook Entry

Find the Feature   MENU > Phonebook

Press		To
1	⬆⬇	scroll to the entry
2	MENU	open the Phonebook Menu
3	⬆⬇	scroll to Delete
4	SELECT (⊘)	select Delete
5	YES (◌)	confirm the deletion

Setting the Primary Number for a Phonebook Entry

When you enter multiple phone numbers for the same name, you can set one as the primary number.

Find the Feature   MENU > Phonebook

Press		To
1	$\stackrel{\frown}{\smile}$	scroll to the entry
2	(MENU)	open the Phonebook Menu
3	$\stackrel{\frown}{\smile}$	scroll to Set Primary
4	SELECT ($\oslash$)	select Set Primary
5	$\stackrel{\frown}{\smile}$	scroll to the number you want to set as the primary number
6	SELECT ($\oslash$)	set the primary number

Depending on how the phonebook list is sorted, the primary number is listed first, or is the only number that appears for a phonebook entry. See page 73.

Checking Phonebook Capacity

You can see how much memory space remains for storing phonebook and datebook entries on your phone.

Find the Feature   (MENU) > Phonebook

Press		To
1	(MENU)	open the Phonebook Menu
2	$\stackrel{\frown}{\smile}$	scroll to Ph Book Capacity
3	SELECT ($\oslash$)	select Ph Book Capacity
		Your phone displays the phone memory meter.

Sorting the Phonebook List

You can sort your phonebook list by speed dial number (the standard), name, email address, or voice name.

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

Find the Feature   MENU > Phonebook

Press		To
1	MENU	open the Phonebook Menu
2	⌃⌄	scroll to Setup
3	SELECT (⌀)	select Setup
4	⌃⌄	scroll to Sort by
5	CHANGE (⌀)	select Sort by
6	⌃⌄	scroll to Name, Speed No., Voice Name, or Email
7	SELECT (⌀)	select the sort order

If you select Speed No., Voice Name, or Email, the procedure is complete.

If you select Name, you must specify whether you want to view all numbers or just the primary number for each name:

Press		To
8	CHANGE (⌀)	change view preference
9	⌃⌄	scroll to Primary Contacts or All Contacts

Press	To
10 SELECT ($\oslash$)	select the view preference
11 DONE ($\searrow$)	set the view preference

To set an entry's primary phone number, see page 71.

Tip: When the phonebook list displays primary numbers only, you can scroll to a name and press $\circledast$ or $\circledast$ to view other numbers associated with the name.

Datebook

The datebook is a calendar that lets you schedule and organize events such as appointments and meetings. You can set the datebook to send a reminder alarm for specific events.

Note: You must set the correct time and date on your phone to use the datebook.

To schedule or review datebook events:

Find the Feature   (MENU) > Datebook

Week View

The datebook initially displays a calendar for the week. Lines or filled boxes indicate scheduled events.

Untimed event

12 hour window

Exit the datebook

Days of week (press (*) or (#) to select)

One-hour event

Go to selected day

Full day (12-hour) event scheduled

Press (MENU) to open the Datebook Menu

15 NOV-21 NOV
S M T W T F S

EXIT   ≡   VIEW

Day View

Select a day and press VIEW (⊘) to see the day's events.

Untimed event

Down scroll arrow

Return to previous screen — BACK

THU 19-NOV — Day of week

• Joe's B-day — Reminder alarm

9:00 ☼ Marie,... — Event

VIEW — Show event details

Press MENU to open the Datebook Menu

Event View

Select an event and press VIEW (⊘) to see event details.

Reminder alarm

Down scroll arrow

Return to previous screen — BACK

☼ THU 9:00am — Day and time

Marie, mtg about — Event details

new product

EDIT — Edit event

Press MENU to open the Datebook Menu

Adding a Datebook Event

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

Note: You must create an event to use the reminder alarm.

Find the Feature
     MENU > Datebook > *day*
     MENU > New

Press	To
1 CHANGE (⊘)	select Title
2 keypad keys	enter a title for the event
3 OK (⊘)	store the event title
4 ⇕	scroll to other fields and enter information as necessary
	You can set start time, duration, date, repeat interval, and reminder alarm.
5 DONE (◌)	store the event

Changing Event Information

Find the Feature
     MENU > Datebook

Press	To
1 ⌖ or ⌗	scroll to the day
2 VIEW (⊘)	display the day view
3 ⇕	scroll to the event
4 VIEW (⊘)	display the event view
5 EDIT (⊘)	edit the event

Press	To
6 ⬆⬇	scroll to the information you want to change
7 CHANGE (⌀)	edit the information
8 keypad keys	enter new information
9 DONE (◐)	store the information

Copying an Event

Find the Feature   MENU > Datebook

Press	To
1 ✳ or #	scroll to the day
2 VIEW (⌀)	display the day view
3 ⬆⬇	scroll to the event
4 MENU	open the Datebook Menu
5 ⬆⬇	scroll to Copy
6 SELECT (⌀)	copy the event
7 YES (◐)	confirm the copy
	Your phone assumes you want to change the date, and displays the Date field.
8 keypad keys	enter date information
9 ▶ (⌀)	move to month, day, and year
10 DONE (◐)	save the copy of the event
11 ⬆⬇	scroll to and edit event information, if necessary

Press	To
12 DONE ($\diagdown$)	store the information

Deleting an Event

Find the Feature $\text{\tiny MENU}$ > Datebook

Press	To
1 $\circledast$ or $\circledast$	scroll to the day
2 VIEW ($\oslash$)	display the day view
3 $\overset{\frown}{\smile}$	scroll to the event
4 $\text{\tiny MENU}$	open the Datebook Menu
5 $\overset{\frown}{\smile}$	scroll to Delete
6 SELECT ($\oslash$)	select Delete
7 YES ($\diagdown$)	confirm the deletion

Radio

You can use your phone to listen to FM radio
stations when the optional Motorola Original™ FM
Stereo Radio Headset accessory is plugged into
the phone's accessory connector port.

Turning the Radio On and Off

Press	To
Radio ($\oslash$)	turn the radio on and off

Alternatively, you can use the following procedure:

	Press	To
1	(MENU)	open the menu
2	$\overset{\displaystyle\frown}{\smile}$	scroll to Radio
3	On ($\oslash$) or Off ($\oslash$)	turn the radio on or off

Note: The Radio menu feature and soft key options
appear only when the FM Stereo Radio Headset is
plugged into the accessory connector port.

Radio

Tuning a Station

Do This	To
Press $\hat{\underset{\smile}{\ominus}}$	scroll to the next frequency
or Press and hold $\hat{\underset{\smile}{\ominus}}$	scroll to the next available stereo station

Storing a Preset

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

Selecting a Preset

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

Sending and Receiving Calls With the Radio On

Your phone rings or vibrates as usual to notify you of an incoming call, message, or other event.

Do This	To
Press IGNORE ($\sear016$)	ignore the call
Press ANSWER ($\oslash$)	answer the call
or	**Note:** You can use the FM Stereo Radio Headset microphone to converse with the other party during a call
Press the button on the FM Stereo Radio Headset microphone	

To end the call and resume the FM broadcast:

Do This	To
Press $\textcircled{\scriptsize END}$	end the call
or	
Press and hold the button on the FM Stereo Radio Headset microphone	

Turn the radio off before dialing outgoing calls from the phone keypad. You do not have to turn off the radio to dial emergency numbers, or numbers selected from your phonebook or recent call lists.

Tip: To dial a recently called number, press $\textcircled{\scriptsize SND}$ or the button on the FM Stereo Radio Headset microphone to go to the dialed calls list. For more information, see page 59.

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.

Storing Your Voicemail Number

Storing your voicemail number on your phone makes it easy for you to listen to new voicemail messages. In many cases, your service provider has already done this for you.

Find the Feature   `MENU > Messages`
                   `MENU > VoiceMail Setup`

Press	**To**
1 keypad keys	enter your voicemail number
	Tip: You can store your PIN code with the voicemail number. See page 67.
2 `OK (⌀)`	store the number

Your service provider additionally may store your voicemail number as phonebook entry number 1, so you can use one-touch dial to listen to your voicemail messages. If necessary, see page 65 to store your voicemail number for one-touch dial access.

Receiving a Voicemail Message

When you receive a voicemail message, your phone displays the ⊠» (voice message waiting) indicator and a New VoiceMail notification.

Press	To
CALL (⊘)	listen to the message

If reminders are turned on, your phone sends a reminder at regular intervals until you close the new message notification, listen to the message, or turn off your phone.

Listening to a Voicemail Message

Find the Feature   (MENU) > Messages > VoiceMail

The phone calls your voicemail number. If no voicemail number is stored, your phone prompts you to store one.

Shortcut: If your voicemail number is also stored as phonebook entry number 1, you can press and hold ①③ to listen to your voicemail message(s).

Messages—Text

Text messages are brief messages that you can send and receive.

Quick notes are pre-written text messages that you can incorporate into a message and send quickly.

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

Setting Up the Text Message Inbox

Note: In many cases, your service provider has already set up the text message inbox for you.

Find the Feature `MENU > Messages`
`MENU > Text Msg Setup`

Press	To
1 `CHANGE (⊘)`	change the `Srvce Center No.`
2 keypad keys	enter the phone number for the service that handles your outgoing messages
3 `OK (⊘)`	store the number

	Press	To
4	CHANGE (⊘)	change the Expire After period
5	keypad keys	enter the expiration period— the number of days your network tries to send unreceived messages
6	OK (⊘)	store the expiration period
7	CHANGE (⊘)	change the Cleanup setting
8	⊜ ⊝	scroll to the number of days you want to keep messages in the inbox, or the number of messages you want to keep
9	SELECT (⊘)	select the cleanup setting
10	CHANGE (⊘)	change the SMS Alert setting
11	⊜ ⊝	select whether you want incoming message alerts turned On or Off while you are on a voice call
12	SELECT (⊘)	select the SMS Alert setting
13	DONE (◌)	save the inbox settings

Receiving a Text Message

Note: Your text message inbox must be set up before you can receive text messages. See page 85.

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When you receive a text message, your phone displays the ✉ (message waiting) indicator and a New Message notification, and gives an alert.

Press	To
READ (⊘)	open the message

If reminders are turned on, your phone sends a reminder at regular intervals until you close the new message notification, read the message, or turn off your phone.

When your phone displays Memory is Full!, you must delete some existing messages to receive new messages.

Reading, Locking, or Deleting a Text Message

Messages in the text message inbox are sorted from newest to oldest. The oldest messages are deleted automatically as specified by the inbox cleanup setting (see page 85). If you want to save a message, you should lock it to prevent it from being deleted during cleanup.

Find the Feature   (MENU) > Messages
                                  > Text Msgs

Press	To
1 $\overset{\frown}{\smile}$	scroll to the message
	The following indicators show message status:
	$\boxdot$ = unread
	$\boxed{\uparrow}$ =unread (with attachment)
	$\boxdot!$ = unread and urgent
	$\boxed{\smash{\uparrow}}!$ = unread and urgent (with attachment)
	$\ominus$ = read
	$\boxed{\uparrow}$ = read (with attachment)
	$\ominus!$ = read and urgent
	$\boxed{\blacksquare}$ = read and locked
	$\boxed{\uparrow 0}$ =read and locked (with attachment)
2 READ ($\oslash$)	open the message
3 BACK ($\searrow$)	close the message
or	
DELETE ($\oslash$)	delete the message
or	
MENU	open the Text Msg Menu to perform other procedures as described in the following list

Press	To
4 SAVE ($\searrow$)	close the message
or REPLY ($\oslash$)	compose and send a reply
or $\boxed{\text{MENU}}$	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
Delete	Delete the message.
Call Back	Call the number in the message header or embedded in the message.
Go To	Launch the micro-browser and go to a Web address (URL) embedded in the message.
Forward	Open a copy of the text message, with an empty To field. **Note:** You cannot forward sound files embedded in a text message. Only the text is forwarded.
Store Tone	Store the selected sound file.
Play	Play a sound file in the message.
Lock/Unlock	Lock or unlock the message.

Option	Description
Store Number	Create a phonebook entry, with the embedded number in the No. field.
Delete All	Delete all inbox messages.
Create Message	Open a new text message.
Store Address	Create a phonebook entry, with the embedded email address in the Email field.
Setup	Open the text message inbox setup menu.

Storing Sounds

Text messages that you receive can contain sounds. A sound begins playing when you scroll to or select the ♪ (sound file) indicator in the message.

You can store these embedded sound files on your phone, and use them as alert tones.

Press	To
1 (MENU)	open the Text Msg Menu
2 ⌃⌄	scroll to Store Tone
3 SELECT (⊘)	select the option
	Your phone adds the sound to the My Tones list.

For more information about using sound files, see pages 95 and 97.

Sending a Text Message

You can send a text message to one or more recipients. You can manually enter each recipient's phone number or email address, or select numbers/ addresses from the phonebook or recent call lists.

Note: When you manually enter numbers and/or email addresses, you must insert a space between each entry. Press and hold ①⌑ until the space appears, then enter the next number or email address.

Find the Feature   (MENU) > Messages
                             > Create Message

Press		To
1	CHANGE (⊘)	select To
2	keypad keys	enter one or more phone numbers and/or email addresses
		Tip: Press ①⌑ to insert a space between each number/address that you enter manually.
	or	
	BROWSE (⊘)	select numbers/addresses from the phonebook or recent call lists
3	OK (⊘)	store the numbers/addresses
4	CHANGE (⊘)	select Msg

Press	To
5 keypad keys	enter the message
	Note: Message length is limited.As you near the limit, a display counter shows how many characters are left.
or BROWSE (⊘)	select and insert a quick note message (see page 93)
6 OK (⊘)	store the message
7 CHANGE (⊘)	select Priority
8 ⬍	scroll to the priority you want
9 SELECT (⊘)	set the priority
10 CHANGE (⊘)	select Call
11 keypad keys	enter a number for the recipient to call back
12 OK (⊘)	store the number
13 CHANGE (⊘)	select Receipt
14 ⬍	select whether you want the message status to be updated when the recipient opens the message
	Note: Sent messages are stored in your outbox. See page 94.
15 OK (⊘)	store your receipt preference
16 DONE (◊)	finish the message

Press	To
17 YES ($\searrow$)	send the message
or	
NO ($\oslash$)	cancel the message or save it in the drafts folder

Sending a Quick Note Text Message

Quick notes are pre-written text messages that you can incorporate into a message and send quickly (for example, Meet me at ...). You can also create new quick notes.

Find the Feature   (MENU) > Messages
                                      > Quick Notes

Press	To
1 $\hat{\underset{\smile}{}}$	scroll to the quick note
2 READ ($\oslash$)	read the quick note
or	
(MENU)	open the Quick Note Menu to perform other procedures as described in the following list

The Quick Note Menu includes the following options:

Option	Description
New	Create a new quick note.
Edit	Edit the quick note.

Option	Description
Delete	Delete the quick note.
Send	Open a new message with the quick note in the **Msg** field.

Viewing the Status of Sent Text Messages

Messages that you send are stored in the outbox.

Find the Feature   (MENU) > Messages > Outbox

Messages in the outbox are sorted from newest to oldest. The following indicators show message status:

     » = sending in progress   ✉ = sent

     ✗ = sending failed   △ = read by recipient

Ring Styles

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

    △⟩ = loud ring   △⟫ = soft ring

    ⟨d⟩ = vibrate   ⟩△ = vibrate and ring

    △ᶻ = silent

The ring style indicator in the display shows the current ring style (see page 23).

Each ring style contains settings for specific event alerts, ringer ID, and ringer and keypad volume.

Selecting a Ring Style

Find the Feature   `MENU` > `Ring Styles` > `Style`

Press	To
1 ⬍	scroll to the ring style
2 SELECT (⊘)	select the ring style

Customizing a Ring Style

Change Style Settings

You can change the alerts that notify you of the following events: incoming calls, text messages, voicemail

messages, data calls, fax calls, alarms, and reminders. Any changes you make are saved to the current ring style.

Find the Feature   MENU > Ring Styles
                             > *Style* Detail

Note: *Style* represents the current ring style.

Press	To
1 ⬆⬇	scroll to the event
2 CHANGE (⊘)	select the event
3 ⬆⬇	scroll to the alert you want
4 SELECT (⊘)	select the alert

Activate and Deactivate Ringer IDs

When ringer IDs are turned on, your phone uses distinctive ringer alerts to notify you of incoming calls or messages from specific entries stored in your phonebook. To assign a ringer ID to a phonebook entry, see page 65.

Find the Feature   MENU > Ring Styles
                             > *Style* Detail

Note: *Style* represents the current ring style.

Press	To
1 ⬆⬇	scroll to Ringer IDs
2 CHANGE (⊘)	change the ringer IDs setting
3 ⬆⬇	scroll to On or Off
4 SELECT (⊘)	select the option

Set Ringer or Keypad Volume

Find the Feature   MENU > Ring Styles
                                        > *Style* Detail

Note: *Style* represents the current ring style.

Press		To
1	$\hat{\heartsuit}$	scroll to Ring Volume or Key Volume
2	✳ or #ᵇ	scroll to the desired volume
3	OK (⌀)	confirm the new volume

Creating Alert Tones

You can create and store up to 32 custom alert tones on your phone. The tones appear in the list of available alerts.

Create a Tone

Find the Feature   MENU > Ring Styles
                                        > My Tones

Press		To
1	$\hat{\heartsuit}$	scroll to [New Tone]
2	SELECT (⌀)	select [New Tone]
3	CHANGE (⌀)	select Notes
4	keypad keys	enter notes (see)
5	OK (⌀)	store the notes
6	CHANGE (⌀)	select Name
7	keypad keys	enter a name for the tone

Press		To
8	OK (⊘)	store the name
9	DONE (☜)	store the tone

Enter Notes

To create a new tone, use the keypad keys to enter notes. For each note, you must specify the octave (optional), pitch, length, and a length modifier (optional). Press a key multiple times to cycle through its available options and enter the necessary character as described in the following lists.

Octave

The default setting for a new tone is octave four.

Key	Display	Description
⓪	*	enter * followed by a number (0 to 8) to set the octave

Notes and Rests

Key	Display	Description
⓪	#	sharp
	&	flat
②ᴬᴮᶜ	a	note A
	b	note B
	c	note C

Key	Display	Description
3^{DEF}	d	note D
	e	note E
	f	note F
4^{GHI}	g	note G
7^{PQRS}	r	rest

Lengths and Modifiers

Key	Display	Description
0	0	whole note
1	1	half note
2^{ABC}	2	quarter note
3^{DEF}	3	eighth note
4^{GHI}	4	sixteenth note
5^{JKL}	5	1/32 note
1	.	dotted note
	:	double dotted note
	;	2/3 length note

Volume Control Characters

Key	Display	Description
8^{TUV}	V, +, and -	Set volume level from V1 to V15. Enter V+ or V- to increase or decrease volume one level from current setting.

Ring Styles

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Repeat Characters

Key	Display	Description
9ʷˣʸᶻ	**(,)**, and **@**	Use parentheses to enclose sequence of notes to be repeated. After the sequence, enter **@** followed by digit(s) to set number of repetitions.

Note Entry Sequence

Do This		Action
1	Set the octave (optional)	Set the octave (*0 to *8) *before* selecting the note. The octave applies to the note and all following notes until you change it again.
2	Set the note to a sharp or flat, if necessary	Enter a sharp or flat (# or &) *before* selecting the note.
3	Select the note (required)	Press a keypad key.
4	Set length (required)	Set the length (0 to 5) *after* selecting the note. If you you do not specify a length, a 2 (quarter note) length is appended to the note.
5	Modify length (optional)	Enter a length modifier (. , : , or ;) *after* you set the length.

Ring Styles

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You can perform the following tasks when creating a tone:

| Task	Action
Insert a rest	Enter one or more rests (⌐ characters) as needed in the tone sequence. Set the length of the rest (0 to 5) *after* the rest, just as you would for a note.
Repeat a note sequence	Use (and) to group a sequence of notes. After the sequence, enter @ followed by a number to set the number of repetitions.
Adjust volume	Enter V+ or V- to increase or decrease volume one level at the current location in the note sequence.
Listen to a new tone as you compose it	Press MENU to enter the Compose Menu, and select Play All to play the notes you have entered.

Ring Styles

Example

Press the following keys to create 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	0 0 3DEF 3DEF 3DEF 3DEF	set octave three	*3
2	2ABC 2ABC 2ABC	enter note **C**	c

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Press		To	Display
3	2ABC 2ABC 2ABC 2ABC	set length to quarter note	2
4	0 0 0 0	enter flat symbol	&
5	3DEF 3DEF	enter note **E flat**	e
6	2ABC 2ABC 2ABC 2ABC	set length to quarter note	2
7	7PQRS	enter **rest**	⌐
8	1	set length to half rest	1
9	4GHI	enter note **G**	g
10	0	set length to whole note	0

Ring Styles

Play a Tone

Find the Feature MENU > Ring Styles
  > My Tones

Press		To
1	⌃⌄	scroll to the tone
2	MENU	open the My Tones Menu
3	⌃⌄	scroll to Play
4	SELECT (⊘)	select Play

Press	To
5 PLAY ($\oslash$)	play the tone again
or	
CANCEL ($\searrow$)	return to my tones list

Edit a Tone

You cannot edit the predefined alert tones included with your phone. To edit a custom alert tone:

Find the Feature   (MENU) > Ring Styles
                           > My Tones

Press	To
1 $\overset{\frown}{\underset{\smile}{}}$	scroll to the tone
2 EDIT ($\oslash$)	open the tone details
3 $\overset{\frown}{\underset{\smile}{}}$	scroll to the item you want to edit (Name or Notes)
4 CHANGE ($\oslash$)	select the item
5 keypad keys	enter new text or notes
6 OK ($\oslash$)	store the new text or notes
7 DONE ($\searrow$)	save your changes

Delete a Tone

You cannot delete the predefined alert tones included with your phone. To delete a custom alert tone:

Find the Feature   (MENU) > Ring Styles
                           > My Tones

Ring Styles

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Press		To
1	$\hat{\smile}$ $\hat{\smile}$	scroll to the tone
2	(MENU)	open the My Tones Menu
3	$\hat{\smile}$ $\hat{\smile}$	scroll to Delete
4	SELECT ($\oslash$)	select Delete
5	YES ($\searrow$)	confirm the deletion

Ring Styles

Download a Tone

You can download custom alert tones from a text message. See page 90.

Setting Reminders

A reminder is an alert that rings or vibrates at regular intervals to notify you about a voicemail or text message that you have received.

Find the Feature   (MENU) > Ring Styles
 > *Style* Detail
 > Reminders

Note: *Style* represents the current ring style.

Press		To
1	$\hat{\smile}$ $\hat{\smile}$	scroll to Beep or Vibrate to set the reminder alert type, or Off to turn off all reminders
2	SELECT ($\oslash$)	select the reminder alert

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Shortcuts

Your phone includes several standard shortcuts. You can create additional shortcuts to 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 ⦿MENU, then press and hold ⦿MENU (within two seconds)	zoom in/out on your phone display
Press ⦿MENU ⦿✱	lock/unlock your keypad
Press ⦿MENU ⦿#️	see your phone number
Press ⦿SND	go to the dialed calls list
Press ⦿END	exit the menu system

Creating a Shortcut

You can create a keypad shortcut *plus* an optional voice shortcut to a menu item. A voice shortcut takes you directly to the menu item when you say the shortcut name.

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

Do This	To
1 Press ⦿MENU	enter the menu system

	Do This	To
2	Press $\overset{\frown}{\underset{\smile}{}}$	scroll to the menu item
3	Press and hold MENU	open the shortcut editor
4	Press YES ($\searrow$)	view shortcut options
5	Press CHANGE ($\oslash$)	change the keypad shortcut number
	or	
	Press DONE ($\searrow$)	select the default keypad shortcut number
	or	
	Press $\overset{\frown}{\underset{\smile}{}}$	scroll to Voice to assign a voice shortcut
6	Press RECORD ($\oslash$)	begin recording
7	Press and release the voice key and say the shortcut's name (in two seconds)	record the shortcut name
8	Press and release the voice key and repeat the name	confirm the shortcut name
9	Press DONE ($\searrow$)	store the shortcut name

Using Shortcuts

Use a Keypad Shortcut

Press	To
1 $\quad$ (MENU)	open the menu
2 *the keypad shortcut number*	go to the menu item or perform the menu action

Select a Shortcut From the List

Find the Feature $\quad$ (MENU) > Shortcuts
> *the shortcut you want*

Use a Voice Shortcut

Do This	To
1 Press (MENU)	open the menu
2 Press and release the voice key and say the shortcut's name (in two seconds)	go to the menu item or perform the menu action

Voice Notes

You can use the voice note feature to record personal messages and phone calls on your phone.

Recording a Voice Note

Use this procedure to record a voice note from the idle display, or to record a phone call in progress. Your phone plays an alert tone to notify the other party that the call is being recorded.

Note: Recording phone calls is subject to varying state and federal laws regarding privacy and recording of conversations.

Tip: Make your recording in a quiet location. Hold the phone about four inches (10 centimeters) from your mouth, and speak directly into the phone in a normal tone of voice.
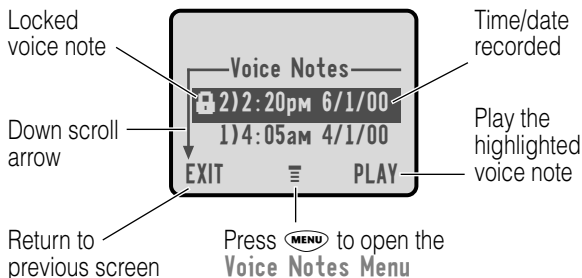
	Do This	Result
1	Press and hold the voice key for the duration of the recording.	The phone sounds an alert tone and begins recording.
2	Speak your voice note.	The phone records the voice note.
3	Release the voice key to stop recording.	The phone displays the voice note number and total recording time.

Viewing the Voice Notes List

Find the Feature   (MENU) > Voice Notes

Locked voice note

Down scroll arrow

Return to previous screen

―――Voice Notes―――
2)2:20pm 6/1/00
1)4:05am 4/1/00
EXIT   ≣   PLAY

Time/date recorded

Play the highlighted voice note

Press (MENU) to open the Voice Notes Menu

Playing a Voice Note

Find the Feature   MENU > Voice Notes

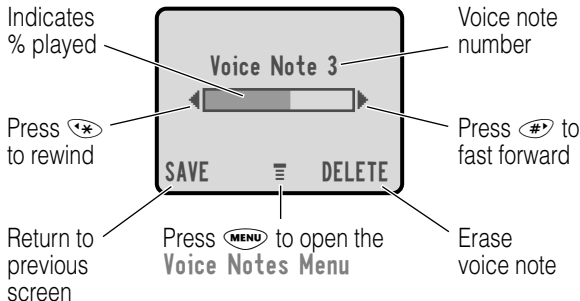| Press	To
1 〈⌃〉 〈⌄〉	scroll to the voice note
2 PLAY (✐)	play the voice note

When you connect an optional Motorola Original™
headset or FM Stereo Radio Headset accessory to your
phone, playback is automatically routed to the headset.

Tip: You can play a voice note while taking a call. It will not
be transmitted to the other party.

Playback Screen

The playback screen is displayed as the voice note plays.

Indicates
% played ——— Voice Note 3 ——— Voice note number

Press ⁎
to rewind

SAVE ≡ DELETE

Press ⁂ to
fast forward

Return to
previous
screen

Press MENU to open the
Voice Notes Menu

Erase
voice note

Voice Notes

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Voice Note Controls

Stop playback and go to **Voice Notes Menu**.

Raise or lower playback volume of voice note.

Stop playback and return to voice notes list.

Stop playback and scroll up/down to next voice note.

Rewind three seconds, resume playing.

Press and hold to rewind to the beginning.

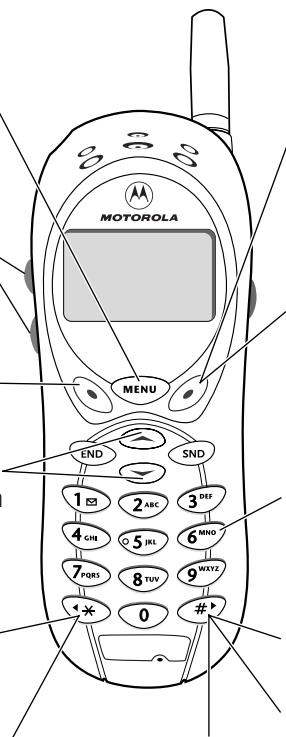When playback is complete, press to restart.

If voice note is unlocked, stop playback and display **Delete Voice Note?**

If voice note is locked, stop playback and unlock voice note.

Press any number to alternately stop and start playback.

Fast forward three seconds, resume playing.

Press and hold to fast forward to end.

Locking and Unlocking a Voice Note

Lock a voice note to prevent it from being deleted. You must unlock a voice note to delete it.

Find the Feature   MENU > Voice Notes

Press	To
1 ⌄ ⌃	scroll to the voice note
2 MENU	open the Voice Notes Menu
3 ⌄ ⌃	scroll to Lock or Unlock
4 SELECT (⊘)	lock or unlock the voice note

To lock or unlock a voice note during playback:

Press	To
1 MENU	open the Voice Notes Menu
2 ⌄ ⌃	scroll to Lock or Unlock
3 SELECT (⊘)	lock or unlock the voice note

Playback stops when you lock or unlock a voice note. Press any number key to resume playback.

Voice Notes

Deleting a Voice Note

Find the Feature   `MENU` > Voice Notes

Press	To
1 ⌃⌄	scroll to the voice note you want to delete
2 `MENU`	open the Voice Notes Menu
3 ⌃⌄	scroll to Delete or Delete All
4 SELECT (⊘)	select the highlighted option
5 YES (↘)	confirm the deletion
or	
NO (⊘)	cancel deletion

Notes:

• You cannot delete a locked voice note.

• You cannot recover a delete voice note.

Micro-Browser

The micro-browser lets you access Web pages and Web-based applications on your phone. Contact your service provider to set up access, if necessary.

BROWSER BY

OPENWAVE™

Starting a Micro-Browser Session

Find the Feature (MENU) > Browser

Press	To
1 ⬆⬇	scroll to a bookmark, service, or application
2 SELECT (⊘)	select the item

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

Interacting With Web Pages

Press	To
🔼 🔽	scroll through text, or highlight a selectable item
SELECT (⟋)	select the highlighted item
SND	call the highlighted phone number from the micro-browser
keypad keys, followed by OK (⟋)	enter information
	Press ⁕ to delete one letter at a time if you make a mistake.
⁕	go back to the previous page
MENU	open the Browser Menu

Calculator

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

Calculating Numbers

Press		To
1	number keys	enter a number
2	⊛ or ⌗	highlight a calculator function
3	SELECT (⊘)	perform the function

Selected function appears here

Entered number

Press ⊛ or ⌗ to highlight a function

Press ⊛ or ⌗ to scroll to other functions

── Calculator ──
+   0

Exit the calculator

EXIT   ≡   SELECT

Press **MENU** to open the `Calculator Menu`

Perform the highlighted function

The calculator can perform the following functions:

Function	Description
.	Insert a decimal point
C	Clear the calculation
CE	Clear entry (replaces C when you enter subsequent values in a calculation)
=	Calculate the result
+	Add
−	Subtract
X	Multiply
÷	Divide
%	Divide the displayed value by 100
±	Change the entry's sign (positive/negative)
$	Calculate the exchange rate
MS	Store the value in memory (overwrites current stored value)
MC	Clear the value stored in memory
MR	Replace the displayed value with the value stored in memory

Calculator

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Converting Currency

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

Find the Feature (MENU) > Calculator
(MENU) > Exchange Rate

	Press	To
1	number keys	enter the exchange rate
2	OK (⊘)	store the exchange rate
3	number keys	enter the amount to convert (amount to multiply by the exchange rate)
4	⊛ or ⌗	highlight the $ function
5	SELECT (⊘)	perform the conversion

Games

You can play games on your phone between phone calls. An incoming call, message, alarm, or alert automatically ends the game.

Playing a Game

Find the Feature $\text{\tiny{MENU}}$ > Games

Press	To
1 $\hat{\underset{\smile}{\smile}}$	scroll to a game
2 SELECT ($\mathscr{O}$)	start the game

When the game is over:

Press	To
NEW ($\mathscr{O}$) or YES ($\mathscr{O}$)	start another session of the same game
BACK ($\searrow$) or NO ($\searrow$)	end the game session

Game Options

Press MENU to select the following options during a game.

Note: Some options may not be available for all games.

Option	Description
Game Sounds	Switch game sounds on/off.
New Game	Start a new game session.
Help	Review the goal of the game.

Blackjack

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

Rules of the Game

- 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.

- Face cards count as 10 points. 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 is originally counted as 11 may later be counted as 1 if it will bring your total 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.

- 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.

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

Falling Numbers

Score points by pressing the corresponding number key for numbers as they "fall" down the display.

Rules of the Game

- If a number reaches the bottom of the display or if you press an incorrect number key, you score one miss.

- The game is over when you score three misses.

- The game has five levels. When you complete a level, play continues automatically at the next level.

- You earn a bonus if you finish a level without a miss.

How to Play

When the game begins, numbers start falling from the upper portion of the display. Press the corresponding number key to eliminate a falling number before it reaches the bottom of the display.

Press ◁MENU▷ to select the following options:

Option	Description
Level	Choose the starting level of play.
Top Scores	View the top five scores.

Video Poker

Turn 100 credits into 9,999-plus credits by making the best possible poker hands.

Rules of the Game

- You start a new game with 100 credits. You must bet from 1-10 credits for each hand you play.

- You are dealt five cards face up, and have one opportunity to trade in cards (zero to five) for new ones.

- A winning hand earns credits as listed in the Awards Table.

- Your credit total is saved when you exit the game. The next time you play, you start with the number of credits that remain from the previous session.

- The game is over when you lose all of your credits.

How to Play

Place your initial bet or change your bet (from 1-10 credits) and then:

Press	To
DEAL ($\oslash$)	start a new hand
$4^{_{GHI}}$	select the card to the left
$6^{_{MNO}}$	select the card to the right
$5^{_{JKL}}$ or	discard selected card
$5^{_{JKL}}$ or	undo discard (replaces previous option after discard)
DONE ($\oslash$)	remove discarded cards and deal replacements

Press MENU to select the following options:

Option	Description
Change Bet	Change bet amount (not available while hand is in play).
Choose Deck	Choose the deck image.
Awards Table	View the list of odds/payouts for each winning hand.

Games

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Adjusting Your Settings

Reordering Menu Items

You can reorder the items in your phone's main menu.

Find the Feature   (MENU) > Settings
                        > Other Settings
                        > Personalize
                        > Main Menu

Press	To
1 ☺ ☻	scroll to a menu item
2 GRAB (⊘)	grab the menu item
3 ☺ ☻	move the item to a new location in the menu
4 INSERT (⊘)	insert the menu item

Customizing a Soft Key Function

You can relabel the soft keys (◌ and ⊘) to access different menu items from the idle display.

Find the Feature   (MENU) > Settings
                        > Other Settings
                        > Personalize > Keys

Press		To
1	⬆⬇	scroll to Left or Right
2	CHANGE (⊘)	select the key
3	⬆⬇	scroll to the new key function
4	CHANGE (⊘)	confirm the new function

TTY Operation

You can use an optional TTY device with your phone to send and receive calls. You must plug the TTY device into the phone's headset jack and set the phone to operate in one of three TTY modes.

Notes:

- Use a TSB-121 compliant cable (provided by the TTY manufacturer) to connect the TTY device to your phone.

- Set the phone volume to level 4 (middle setting) for proper operation. If you experience a high number of incorrect characters, adjust the volume as necessary to minimize the error rate.

- For optimal performance, your phone should be at least 12 inches (30 centimeters) away from the TTY device. Placing the phone too close to the TTY device may cause high error rates.

Adjusting Your Settings

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Set TTY Mode

When you set your phone to a TTY mode, it operates in that mode whenever the TTY device is connected.

Find the Feature
　　　　　　　　　　　　MENU > Settings
　　　　　　　　　　　　　　> Other Settings
　　　　　　　　　　　　　　> Initial Setup
　　　　　　　　　　　　　　> TTY Setup

Press		To
1	⬡	scroll to TTY Setup
2	CHANGE (⟠)	change the TTY mode
3	⬡	scroll to the TTY mode
4	SELECT (⟠)	select the TTY mode

The TTY Setup menu includes the following options:

Option	Description
TTY	Transmit and receive TTY characters
VCO	Receive TTY characters but transmit by speaking into the microphone
HCO	Transmit TTY characters but receive by listening to the earpiece
Voice	Return to normal voice mode

When your phone is in a TTY mode, the international TTY symbol and the mode setting are shown in the display. You can press TTYMODE (◈) to change the mode setting.

Adjusting Your Settings

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Switch to TTY Mode During a Voice Call

Press	To
1 (MENU)	open the `Call` menu
2 ⌃⌄	scroll to `TTY Setup`
3 `SELECT` (⊘)	display the `TTY Setup` menu
4 ⌃⌄	scroll to the TTY mode
5 `SELECT` (⊘)	select the TTY mode

Return to Voice Mode

To return to normal voice mode, select `Voice` from the `TTY Setup` menu as described on page 126.

Hands-Free Use

You can purchase an optional Motorola Original™ hands-free car kit or headset for your phone. These accessories provide alternative ways for you to use your phone without using your hands.

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.

Adjusting Your Settings

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Automatic Answer

You can set your phone to automatically answer calls after two rings (four seconds) when connected to a car kit or headset.

Find the Feature $\overset{\text{MENU}}{}$ > Settings
> Other Settings

	Press	To
1	$\overset{\frown}{\smile}$	scroll to Car Settings or Headset
2	SELECT ($\oslash$)	select the feature
3	$\overset{\frown}{\smile}$	scroll to Auto Answer
4	CHANGE ($\oslash$)	select Auto Answer
5	$\overset{\frown}{\smile}$	scroll to On or Off
6	SELECT ($\oslash$)	confirm the setting

Automatic Hands-Free

You can set your phone to automatically route calls to a car kit when it detects a connection.

Find the Feature $\overset{\text{MENU}}{}$ > Settings
> Other Settings
> Car Settings
> Auto Handsfree

	Press	To
1	$\overset{\frown}{\smile}$	scroll to On or Off
2	SELECT ($\oslash$)	confirm the setting

Power-Off Delay

When your phone is connected to a car kit, you can set it to stay on for a period of time after you switch off the ignition. This prevents the phone from draining your vehicle battery, but leaves the phone on long enough that you do not have to re-enter your unlock code when making short stops.

Note: This feature may not work with all car ignition switches.

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

Find the Feature   `MENU` > Settings
                                        > Other Settings
                                        > Car Settings
                                        > Power-Off Delay

Press	**To**
1 $\hat{\smile}$	scroll to the time delay
2 SELECT ($\oslash$)	confirm your selection

Charger Time

When your phone is connected to a car 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.

Note: This feature may not work with all car ignition switches.

Find the Feature
     (MENU) > Settings
             > Other Settings
             > Car Settings
             > Charger Time

Press	To
1 ⌇	scroll to the charge time
2 SELECT (⌀)	confirm your selection

Data Calls

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

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

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

Connecting Your Phone to an External Device

Connect your phone to 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 the 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.

Data Calls

Attaching a USB Cable

Do This

4 Plug the end of the
cable with the
Motorola logo into the
phone's accessory
connector port. Make
sure that the logo and
the phone are both
facing you.

5 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 Call

Use this procedure to send data from a connected device, and to synchronize phonebook and datebook information between your phone, computer, and/or hand-held device.

Connect your phone to the device as described on page 131 and do the following:

Do This	To
1 Check the phone	make sure that the phone is connected and powered on
2 Open the application on your computer	place the call through the application (such as dial-up-networking)
	Note: You cannot dial data numbers through your phone's keypad. You must dial them through your computer.
3 End the call from the connected device	close the call and connection when the transfer is complete

Receiving a Data Call

Use this procedure to transfer data to your computer or hand-held device.

Set Up Your Phone

Find the Feature   (MENU) > Settings
                              > Connection
                              > Incoming Call

Do This	To
1 Press CHANGE (⌀)	select Next Call
2 Press ⇕	scroll to Data In Only
3 Press SELECT (⌀)	set the call format
4 Connect your phone to the device	enable the data transfer

Note: You cannot answer incoming voice calls when your phone is in data mode. Any voice calls you receive are treated as unanswered calls. To return a voice call, reset your phone to voice mode as described on page 136.

Transfer the Data

Your phone notifies you when the data call arrives, and transfers the call to the connected device. Use the application running on the device to answer the call.

End the Data Connection

When the data transfer is complete:

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

Reset Normal Voice Operation

After making a data call, you must reset your phone to resume normal voice operations. You cannot receive voice calls when your phone is in data mode.

Find the Feature   MENU > Settings
                                      > Connection
                                      > Incoming Call

Do This	To
1 Press CHANGE (⊘)	select Next Call
2 Press ⊜	scroll to Normal
3 Press SELECT (⊘)	reset your phone

Your phone also reverts to normal voice operations when you turn it off and then turn it back on.

Data Calls

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Security

Assigning a New Code or Password

Your phone's unlock code is originally set to 1234, and the security code is originally set to 000000. 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. The unlock code must contain four digits, and the security code must contain six digits.

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.

- If the unlock code is the only code you can change, the New Passwords menu is not available. In this case, change the unlock code by selecting: MENU > Settings > Security > Phone Lock > Unlock Code.

To change a code or password:

Find the Feature   MENU > Settings > Security > New Passwords

Security

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Press	To
1 $\underset{\ominus}{\overset{\ominus}{\ominus}}$	scroll to the code or password
2 CHANGE ($\oslash$)	select the code or password
3 keypad keys	enter your old code
4 OK ($\oslash$)	submit your old code
5 keypad keys	enter the new code
6 OK ($\oslash$)	assign the new code
7 keypad keys	re-enter the new code
8 OK ($\oslash$)	confirm the new code

If You Forget a Code or Password

If you forget your security code, 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 at the Enter Unlock Code prompt:

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

Locking and Unlocking Your Phone

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

To use a locked phone, you must 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. For more information, see page 29.

Lock Your Phone Manually

Find the Feature   (MENU) > **Settings** > **Security**
                                > **Phone Lock**
                                > **Lock Now**

Press	To
1 keypad keys	enter your unlock code
2 OK ($\oslash$)	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   (MENU) > **Settings** > **Security**
                                > **Phone Lock**
                                > **Automatic Lock** > **On**

Press	To
1 keypad keys	enter your unlock code
2 OK ($\oslash$)	activate automatic lock

Unlock Your Phone

At the Enter Unlock Code prompt:

Press	To
1 keypad keys	enter your unlock code
2 OK (⊘)	unlock your phone

Locking and Unlocking Your Keypad

You can lock your phone keypad to prevent accidental keypresses (for example, when carrying your phone in a purse or pocket).

Press	To
MENU (⁕)	lock or unlock your keypad

Note: Incoming calls and messages unlock the keypad.

Restricting Calls

You can stop all incoming and/or outgoing calls, or you can restrict them to the numbers stored in your phonebook.

Notes:

- You can make emergency calls when outgoing calls are restricted.

- Your phone still receives incoming text messages when incoming calls are restricted.

• When you restrict incoming calls to numbers stored in the phonebook, a valid incoming call may be restricted if caller ID information for the call is not available from the network.

Find the Feature   `<MENU> > Settings > Security > Restrict Calls`

	Press	To
1	keypad keys	enter your unlock code
2	OK (⊘)	open the restrict calls menu
3	⊜	scroll to Outgoing Calls or Incoming Calls
4	CHANGE (⊘)	select the option
5	CHANGE (⊘)	change the Allow setting
6	⊜	scroll to All, None, or Phonebook
7	SELECT (⊘)	select the allowed calls

Tip: The phonebook is not locked when you restrict outgoing calls to numbers stored in the phonebook. To prevent a user from adding (and then calling) a new phonebook entry, you may want to lock the phonebook. See the "Lock Application" item on page 53.

Security

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Activating Talk Secure

Your phone can attempt to send your calls using a high-security connection, to prevent others from intercepting them. For more information, see page 28.

Find the Feature   `(MENU)` > `Settings` > `Security`
                                  > `Talk Secure`

	Press	To
1	$\Leftrightarrow$	scroll to `Preferred` or `Off`
2	`SELECT` ($\oslash$)	switch talk secure on or off

Troubleshooting

Check these questions first if you have problems with your phone. If you need additional help, contact the Motorola Customer Call Center at 1-800-331-6456 (United States) or 1-800-461-4575 (Canada).

Question	Answer
Is your phone set up correctly?	Press MENU #. If you do not see your phone number, contact your service provider.
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 page 19.
Does the handset have a signal? Do you see 📶 in the display?	The signal strength indicator should have at least one segment showing (📶). 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 upper 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 ($\oslash$) 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 page 138.

Problem	Solution
I pressed the power key, but nothing happened.	Be sure to press and hold $\odot$ (the power key) until the display appears and you hear an alert. This could take several seconds. If nothing happens, check that a charged battery is installed. See page 18.
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. If this fails, call your service provider (the company that sends you your monthly wireless service bill).
My phone asks for an unlock code when I try to open a feature.	The application you want is locked. If you do not know the unlock code, see page 138.
My phone does not ring.	If you see 𝄐 or ⊗⫶⊗ in the display, then the ringer is turned off. See page 95. Also, the ringer may be set to Silent even though your phone is set to an audible ring style. See page 95.

Problem	Solution
My phone rings even though I selected the Silent **(or** Vibrate**) ring style.**	The ringer may be set to play a tone even though your phone is set to a silent ring style. See page 95.
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 you see the idle display before making a call.
I cannot send/ receive calls.	Make sure that you have a phone signal (see the "Signal Strength Indicator" item on page 24). Avoid electrical or radio interference, and obstructions such as bridges, parking garages, or tall buildings.
	Your phone also may have the Restrict Calls feature turned on. If you know the unlock code, you can change this setting in the security menu (MENU > Settings > Security).

Problem	Solution
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 24). 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 upper volume key. The display should show the volume increasing.
	Also, make sure that your phone's earpiece is not blocked by its carrying case.
I cannot open my message inbox.	Before you can use text messages, you must set up the message inbox. See page 85.
How do I see the calls I sent or received?	To see the most recent calls you dialed or received:
	(MENU) > Recent Calls > Received Calls **or** Dialed Calls

Troubleshooting

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Problem	Solution
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 On or Off. If you have trouble sending numbers, check your DTMF setting.
	1 From the idle display, press: (MENU) > Settings > Other Settings > Initial Setup > DTMF **2** Press $\hat{\smile}$ to scroll to On. **3** Press SELECT ($\oslash$) to select it.
My phone's display is too dark.	Use the Contrast feature to change the level of contrast in your display. See page 56. You can also use the Backlight feature to change the length of time that the display backlight stays on. See page 55.
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, backlight use, and other factors. For tips on extending your battery life, see page 25.

Problem	Solution
I am unable to record a voice note, voice name, or voice shortcut.	Try moving to a quieter location to make your voice recording. Hold the phone about four inches (10 centimeters) from your mouth, and speak directly into the phone in a normal tone of voice.
My TTY device doesn't work with my phone.	Your phone must be set to a TTY mode for the phone to detect your TTY device. See page 125.
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.

Also, 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, to automatically activate the port. |

Problem	Solution
My phone beeped when I attached the data cable, but my data applications don't work.	You must be in an area with digital coverage. Check your phone's display for the digital signal indicator ($\boxed{D}$).

Some wireless networks may not support data transmission. If you see the digital indicator, but you are roaming on an unfamiliar network, this may be the case.

Also, remember that data 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. The rate of the connection between your phone and the network is displayed on your phone, and will be either 14400 or 9600 Kbps. |
| **I can't end my data call by closing the application on my computer. What can I do?** | Try pressing $\textcircled{\tiny END}$ on your phone. Or try disconnecting the cable or turning off the phone. If possible, always close the connection through your computer, as these alternative methods may disrupt the application on your computer. |

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Problem	Solution
I launched the micro-browser but the display says: Service Not Available.	You may be in an area without service. If you have wireless service, look in the display for the digital signal indicator (▯). If you do not see the indicator, you may be in an area that has only analog service or no service at all. If you see the digital signal indicator, you may be connected to a digital 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.

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Programming Instructions

Follow this procedure if you need to program your phone's phone number(s).

Note: Programming is normally done by a trained technician at the site of purchase. Users should not make changes other than ones in the following procedure.

Before programming, ask your service provider for your:

- Carrier System ID (a one- to five-digit number)
- 10-digit MIN (Mobile Identification Number)

	Press	To
1	⌗, the Carrier System ID number, ⌗, ✶, ⌁	enter programming mode
2	⓪, ⓪, ⓪, ⓪, ⓪, ⓪	enter the security code
	(This is the security code that is in the phone when it is shipped from the factory.)	
3	OK (⌀)	submit the security code
4	⌃	scroll to MIN
5	CHANGE (⌀)	open the MIN display

Press		To
6	keypad keys for the 10-digit MIN	enter the new MIN
7	OK ($\oslash$)	store the new MIN
8	DONE ($\searrow$)	exit programming mode

Specific Absorption Rate Data

This model phone 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 U.S. Federal Communications Commission for the United States 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 1.6 W/kg.[1] 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 antenna, 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 1.46 W/kg[2], and when worn on the body, as described in this user guide, is 0.69 W/kg.[2] (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.

The FCC and Industry Canada have granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as being in compliance with the FCC and Health Canada RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of:

`http://www.fcc.gov/oet/fccid`

after searching on FCC ID IHDT56CA2. You may also refer to Motorola's Web site:

`http://www.motorola.com/rfhealth`

Additional information on Specific Absorption Rates (SAR) can be found on the Cellular Telecommunications & Internet Association (CTIA) Web site:

`http://phonefacts.net`

or the Canadian Wireless Telecommunications Association (CWTA) Web site:

`http://www.cwta.ca`

1. 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.

2. Additional related information includes the Motorola testing protocol, assessment procedure, and measurement uncertainty range for this product.

ITC01-064

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.

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. 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 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 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/

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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

MOTOROLA LIMITED WARRANTY FOR PERSONAL COMMUNICATION PRODUCTS, ACCESSORIES AND SOFTWARE PURCHASED IN THE UNITED STATES OR CANADA

What Does this Warranty Cover?

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

Products and Accessories

Products Covered	Length of Coverage
Products and Accessories as defined above, unless otherwise provided for below.	**One (1) year** from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.
Decorative Accessories and Cases. Decorative covers, bezels, PhoneWrap™ covers and cases.	**Limited lifetime warranty** for the lifetime of ownership by the first consumer purchaser of the product.
Monaural Headsets. Ear buds and boom headsets that transmit mono sound through a wired connection.	**Limited lifetime warranty** for the lifetime of ownership by the first consumer purchaser of the product.
Consumer Two-Way Radio Accessories.	**Ninety (90) days** from the date of purchase by the first consumer purchaser of the product.
Products and Accessories that are Repaired or Replaced.	**The balance of the original warranty or for ninety (90) days** from the date returned to the consumer, whichever is longer.

Warranty

Exclusions

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

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

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

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

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

Altered Products. Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or

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(d) nonconforming or non-Motorola housings, or parts, are excluded form coverage.

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

Software

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

Exclusions

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

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

Who is Covered?

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

What Will Motorola Do?

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

How to Obtain Warranty Service or Other Information?

To obtain service or information, please call:

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

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

What Other Limitations Are There?

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

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

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Warranty

Product Registration

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

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

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

Thank you for choosing a Motorola product.

Export Law Assurances

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

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(A) **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. 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.*

* Wherever wireless phone service is available.

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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.

For more information,
please call
1-888-901-SAFE
or visit the
CTIA Web site at
www.wow-com.com™

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