INSTRUCTION MANUAL

A preliminary draft copy of the Users Manual follows:

EXHIBIT 8

welcome

Congratulations on your purchase of a mobile phone from Motorola, the world leader in wireless technology. Motorola phones are packed with features that put you in control and give you unrivalled power, while remaining discrete.

control

Customizable Quick Access Menu Place nine of your most frequently used features in your own personal menu so they can be accessed with just two key presses.

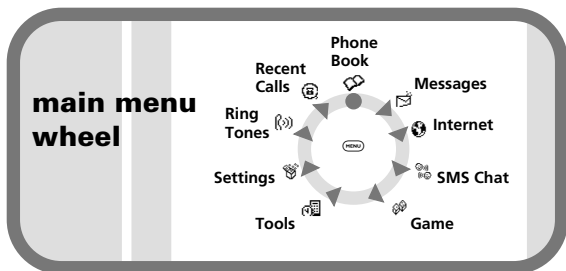**Voice Dialing** Use voice commands to call up Phone Book entries.

discretion

VibraCall™ Alert When you don't want your phone to ring, your phone can vibrate to alert you of a call.

Stop Call Alert Press (▲ ▼) when the phone is ringing or vibrating to stop the alert without answering the call.

power

Superb Battery Performance Your phone is capable of several hours of conversation or several days standby.

main menu wheel

Phone Book
Recent Calls
Messages
Ring Tones
Internet
Settings
SMS Chat
Tools
Game

For details, see "using menus" on page 13 or "menu index" on page 31.

welcome

Software Copyright Notice

contents

1 safety

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 of 1900 MHz and employs digital modulation techniques.

When you communicate with your phone, the system handling your call controls the power level at which your phone transmits. The output power level typically may vary over a range from 1 mW to 2 watts.

Exposure To Radio Frequency Energy

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

- United States Federal Communications Commission, Code of Federal 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
- National Radiological Protection Board of the United Kingdom 1995

- 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 (applicable to wireless phones only)

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 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.** Use of non-Motorola-approved accessories may exceed FCC RF exposure guidelines. **If you do not use a body-worn accessory,** and are not using the phone held in the normal use position at the ear, **ensure the phone and its antenna are at least one inch (2.5 cm) from your body when transmitting**.

Data operation

When using any data feature of the phone, with or without an accessory cable, **position the** phone **and its antenna at least one inch (2.5 cm) from the 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 Health Industry Manufacturers 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, Wireless Technology Research.

Persons with pacemakers should:

- ALWAYS keep the phone more than six inches (15 centimeters) from their 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 the phone OFF 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 radio 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 it is a phone type especially qualified for use in such areas as "Intrinsically Safe" (for example, Factory Mutual, CSA, or UL Approved). 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 touch 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.

2 about your phone

2.1 keys and display

Earpiece

Lanyard notch (on back)

Accepts call, Confirms selection, Voice Dial (see pg.12)

Opens menu, Quick Access (hold)

Charger port

Rejects calls, Cancels selection

Headset port

Scrolls up or down, Adjusts volume

Calls Voicemail (hold)

Scrolls up or down (or left and right), Locks keypad (press both)

Turns phone on/off

Microphone
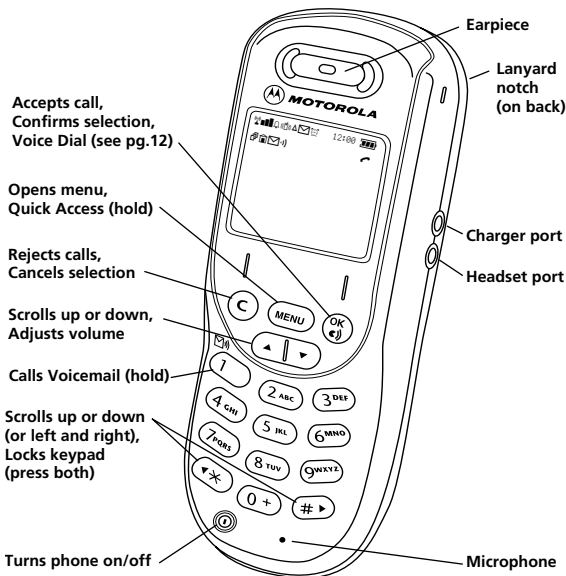
(ᵞ)▪▪▪	**Signal Strength:** *The more segments shown, the stronger the signal.*	▮▮▮▮	**Battery Charge:** *The more segments shown, the greater the charge.*
♫	**Ringer:** *The call ring tone is on.*	⊙	**Alarm:** *A reminder time has arrived.*
⟨ⅰ⟩	**VibraCall Alert:** *Set to on.*	12:00	**Real Time Clock.**
Δ	**Roam:** *The system you are registered on is not your home system.*	⊡ or ⌢	**Service:** *Connection is GPRS (⊡) or CSD (⌢).*
✉	**Message:** *A text message is waiting (this flashes when the storage area is full).*	⌂	**Home Zone:** *You are using your home system.*
		✉·)	**Voicemail:** *A voicemail message is waiting.*

2.2 battery

fitting and removing your battery

Removing the battery erases time settings and chat history.

a **Switch off your phone** before removing the battery.

b Remove the battery compartment cover (see below).
   Fitting: Slide the battery in and push the bottom down.
   Removing: Slide the battery up and lift bottom edge up.

Removing the cover

press release button,
then slide cover
back and lift.
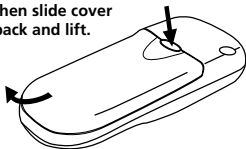
Fitting the battery

Fitting: Slide top edge in
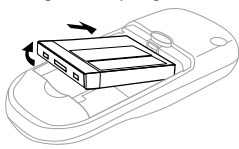
Removing: lift bottom edge up

Make sure the battery is right side up (line up the contact points on the battery and the phone).

charging your battery

To charge your battery, just fit it in your phone and plug the charger into the phone (your phone can be on or off).

New batteries are uncharged, and should be charged for about 14 hours. They perform best after several full charge/discharge cycles.

charger port

earpiece port

Low Battery—Only a few minutes of talk time remain.

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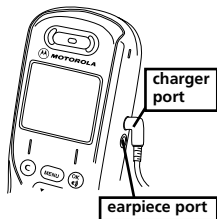
The rechargeable batteries that power this product must be disposed of properly and may need to be recycled. Refer to your battery's label for battery type. Contact your local recycling center for proper disposal methods. Never dispose of batteries in a fire because they may explode.

2.3 your SIM card

Your SIM (Subscriber Identity Module) is a "Smart Card" that holds your phone number, service details, and memory for Phone Book numbers and messages. Use your SIM in any GSM phone and you will be charged for the calls.

⚠ *Protect your SIM from scratches, water, and static electricity.*

SIM card insertion/removal

a **Switch off your phone** by holding the ◎ key.

b Remove the battery cover and battery.

c Slide the SIM card plate away from the card.

d Slide the SIM card into the slot from the left, so the card's right edge fits under the lip of the housing.

e The SIM card stays in the holder with the notch in the upper left corner.

f Slide the SIM card plate closed over the card.

g Replace the battery and battery cover.

h To remove the card, slide the SIM card plate away from the card and gently lift the card out.
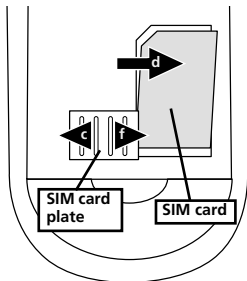
Check Card—Remove the card and re-insert it.

Bad Card See Supplier—Contact service provider.

Blocked See Supplier—Contact service provider.

2.4 convertible covers

You can replace your phone's cover to give it your own personal appearance:
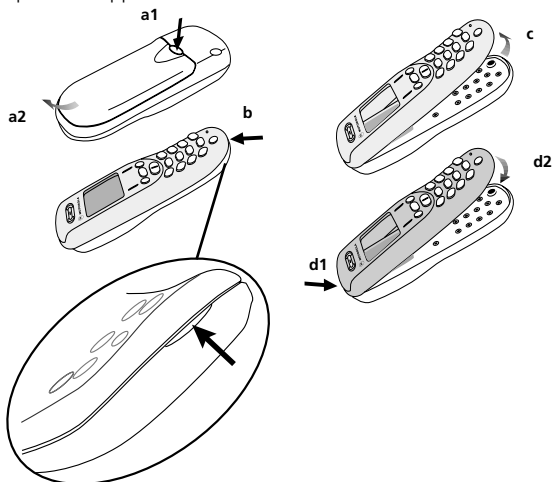
a   Turn off your phone and remove the battery door.

b   Using the indentation at the bottom of the phone, carefully separate the front cover from the phone body.

c   Lift upward on the front cover to release the top edge from the phone body.

d   To install a front cover, hook the top of it onto the phone body and depress the cover bottom until it locks in place.

2.5 using this manual

This manual uses some helpful symbols to guide you along.

Key Presses For example, (MENU) (OK) (C) means you should press the (MENU) key, followed by (OK) and then (C), in sequence.

Prompts and Messages Special "LCD" text (such as Enter PIN) indicates text that appears in your display.

Other Symbols Also note the following characters:

⚠️   This contains safety information.

OK   Indicates *Personality*™ features you can adjust.

⚡   This describes a short-cut key sequence.

(((•)))   This indicates optional features that depend on your network. Contact your network service provider for information about the features available on your network and SIM card.

3 basic tasks

3.1 switching the phone on

hold ◎	enter your pin (if required)	press the 🆗 key

◎   Enter PIN: 🆗

Blocked—If your PIN number is entered incorrectly three times in a row, your phone becomes blocked. See "your PIN or PIN2 is blocked" on page 44 for details.

🆗 Enter Unlock Code—The unlock code is a four-digit number (default is **1234**). To change it, see "Phone Lock" on page 38 or press MENU at this prompt (Security Code required).

3.2 making a phone call

enter the phone number	press the 🆗 key	to end the call, press ©

5551212   Call?   🆗 ···🕒··· ©
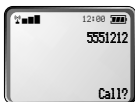
When entering a number, press © to erase.

⚠ **The world-wide GSM emergency number is 112.**

⚡ *From idle, press (phone book location number) #▸ 🆗 to dial a number in your phone book.*

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3.3   receiving a phone call

the call arrives	press the ⟨OK⟩ key to answer	to end the call, press ⟨C⟩

⟨OK⟩ ···(L)··· ⟨C⟩

If you have Caller ID, the caller's number or name appears.

When you receive a call:

- Press ⟨OK⟩ to answer the call.
- Press ⟨C⟩ to send a busy tone or forward the call (if you set "Call Forward" on page 37, in the Settings Menu).
- Hold ⟨C⟩ to reject the call.

3.4   locking the keypad

Press ⟨*⟩⟨#⟩ simultaneously to lock/unlock the keypad. This prevents accidental key presses by deactivating all keys except ⟨O⟩ (power) and ⟨OK⟩ (answers incoming calls).

3.5   checking voicemail

Press and hold ⟨1⟩ to call your phone's voicemail number. To store this number, see "Voicemail Number" on page 34 (in the Message Setting Menu).

3.6   personalizing your phone

See the "Phone Setup Menu" on page 37 to change your:

font size	language	call forwarding	quick access
screen saver	entry method	call waiting	keypad tones
contrast	call timers	battery save	phone line

3.7 using menus

| press (MENU) | press (▲ ▼) to scroll | press (OK) to select | press (C) to close a menu |

Menus give you quick and easy access to phone features:

- **Press** (MENU) to enter the current menu
  (special menus are available during tasks).
  Hold (MENU) when idle to enter the Quick Access menu.
- Press (▲ ▼), (✱), (#), (OK) and (C) in a menu to
  scroll to, select, and cancel menu options.
- **Press** (C) to close a menu. **Hold** (C) to close all menus.

quick access menu

| **Hold** (MENU) in idle display | press (▲ ▼) to scroll | press (OK) to select | press (C) to close a menu |

The standard Quick Access menu options are:

(1)	📇 Find by Name		(6)	«□» Vibrate On/Off
(2)	🌐 Access Internet		(7)	📝 Create Message
(3)	-📼+ Battery Meter		(8)	📵 Forward On/Off
(4)	🔇 Phone Mute		(9)	📑 Reminder
(5)	🔔 Adjust Ringer			

*Some service providers change these options. You can
change them using "Quick Access Setup" on page 37.*

4 phone calls

4.1 making a phone call

To make a phone call, you can:

Use the digit keys Enter the number and press $\circledast$.

enter the phone number	press the $\circledast$ key	to end the call, press $\copyright$

$\circledast \cdots \text{\textcircled{L}} \cdots \copyright$

When entering a number, press $\copyright$ to erase.

Use Automatic Redial After a call attempt fails, your phone displays Redial? for five seconds. Press $\circledast$.

Redial the last number called In idle, press $\circledast\circledast\circledast$.

Recall a recent phone number See "viewing recent calls" on page 29 to use numbers from recent calls.

OK **One Touch Dial** Hold a key from $\boxed{2^{\text{ABC}}}$ to $\boxed{9^{\text{WXYZ}}}$ in idle to dial the phone book entry in that location.

OK **Dial a phone book entry** Press *location number* $\boxed{\#}$ $\circledast$.

Voice dial a Phone Book entry Hold $\circledast$ in idle, then say the entry's voice tag after the tone.

Call a number in a text message See "reading a message" on page 19 for details.

calling tips

International Phone Calls Hold $\boxed{0}$ to automatically enter the international dialing prefix for the country from which you are calling (+ appears in the display).

Pauses Hold $\boxed{*}$ to insert a three-second "pause" in a phone number. (¤ appears in the display.) The first pause in a number begins after the call is answered.

Emergency Calls The world-wide GSM emergency number is **112**. This works regardless of security restrictions and (on some networks) without a SIM.

4.2 receiving a phone call

the call arrives	press the 🔘 key to answer	to end the call, press ⓒ
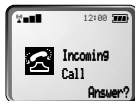
If you have Caller ID, the caller's number or name appears.

When you receive a call:

- Press 🔘 to answer the call.
- Press ⓒ to send a busy tone or forward the call (if set). To **forward calls**, see "Call Forward" on page 37.
- Hold ⓒ to reject the call.

Missed Call—You received a call but did not answer.
    Your Missed Calls list (page 29) stores the call details.
Anonymous—The caller withheld (restricted) their number.
Unavailable—The network cannot identify the caller.

4.3 receiving a second call

If you receive a second call while you are on a call:

the second call arrives	press the 🔘 key to answer	use the (MENU) to switch calls	use ⓒ to end the active call

↑End Current
Switch Calls
↓Conference Call
                Select?
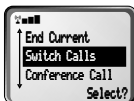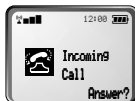
During a call, press (MENU) to open the in-call menu.

4.4 using the in-call menu 〔·〕

Press (MENU) during a call to open an in-call menu:

In-Call Menu

Hold Call
Make New Call
Restrict My Number
End Active Call
End Held Call
End Current and Held Call
Switch Calls
Conference Call
Transfer Call
Split Call
Reject Waiting Call
Reconnect Held Call
Turn Mute On or Off
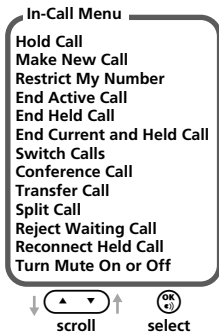
↓ (▲ ▼) ↑   (OK)
scroll   **select**
Note: options and
order vary by call state.

Hold Call Puts the active call on hold.

Make New Call Lets you make another call.

Restrict My Number Lets you send (**Show**) or hide (**Restrict**) your phone number for the next call you make. Set your default in the Security menu (page 38).

End Active Call Ends the active call and activates the call on hold.

End Held Call Ends the held call.

End Current And Held Calls Ends all connected calls.

Switch Calls Switches between the active and held call.

Conference Call Joins the active call with the call on hold.

Transfer Call Transfers the active call to the call on hold, or lets you enter a phone number where you want to transfer the active call (if no call is on hold).

Once a call is transferred, you disconnect automatically.

Split Call Lets you talk privately with one person from a conference call.

Reject Waiting Call Rejects a waiting call.

Reconnect Held Call Activates the call on hold (if you have a call on hold and a call waiting).

Turn Mute On or Off Turns the microphone off and on during a phone call.

Trying—The phone and network are processing a request.
Cannot Hold Second Call—A call is already on hold, and you cannot place two calls on hold at the same time.
Busy Try Later—Your phone is working on a previous command. Briefly wait before repeating the command.

5.1 adding an entry

press (MENU) in idle	select phone book	select personal numbers	select add entry

select the destination	enter the phone number	store the number	complete these details:

Enter Name:
Select Group
Enter Location:
Add Voice Tag

For Call Groups and Voice Dial information, see page 18.

5.2 using an entry

To use a stored entry, open your phone book and select:

Find Entry By Name Search on the entry's Name.

Find Entry By Location Enter the entry's location.

After you find an entry, press 🆗 to see your options:

Switch View Opens the entry's details

Call Number Calls the selected telephone number

Modify Name or Number Edit the entry details

Erase Name and Number Erases the selected entry

Add or Edit Voice Tag Record a voice tag

Delete Voice Tag Deletes the voice tag (if present)

5.3 using voice dial

To **add** a voice tag to a phone book entry, either:

- Press $\binom{OK}{•}$ at a new entry's Add Voicetag prompt
- Find a stored entry and select Add/Edit Voicetag

then press $\binom{OK}{•}$ to record	say the voice tag	repeat tag to confirm it

```
 Ţ▪▪▌        12:00 ▥
 ▣ Press OK
  When Ready
```
```
 Ţ▪▪▌        12:00 ▥
  Say Name
   After
   Tone...
```
$\binom{OK}{•}$

Voice tags are about 2 seconds long.

You can store 10 voice tags. You cannot record Voice Tags for entries on your SIM card, or for any entry if you prevent phone memory access. (See "Prevent Access" on page 32.)

To **use** a voice tag:

a Hold $\binom{OK}{•}$ when the phone is idle.

b Say the voice tag after the tone.

5.4 using a call group

This feature gives you five groups. Each group has a unique ring type, message alert type, vibrate setting for the phone book entries assigned to it.

To **change details for a group**:

press $\binom{MENU}{}$ in idle	select ring tones	select call group	select a group, enter details

```
 Ţ▪▪▌
 ▧
 ◌▷ Ring Tones
 ▣
```
$\binom{OK}{•}$
```
 Ţ▪▪▌
 ↑ Set Ringer Tone 2
  Set Message Alert
  Call Group
        View Options?
```
```
 Ţ▪▪▌
  Ring Type
  SMS Alert
        View Options?
```

The "Default" group stores your standard settings.

To **assign a phone book entry to a group**, find the entry and select Modify Name or Number. (See "using an entry" on page 17.)

6 messages

6.1 reading a message

Your phone supports two GSM message features:

- **SMS Messages**—If someone sends you a message, your phone rings or vibrates and displays Read Now?. Press $\circledcirc$ to open the message now or $\copyright$ to close it.
  Your phone stores these messages and displays the $\boxtimes$.
- **Broadcast Messages**—If your service provider broadcasts a message, it scrolls across your display. Press $\overline{(\quad\blacktriangledown)}$ to pause it, or press $\copyright$ to delete it.
  Your phone does not store these messages.

To view a stored SMS message that you received:

press (MENU) in idle	select messages	select received messages	*Your phone displays the number of messages, then the list of messages from newest to oldest.*

To view a message you created, select Outbox.

When you select a message, press $\circledcirc$ to see your options:

Switch View Displays message text (and closes it).

Chat Opens a chat session with the message author.

Delete Message Deletes the message.

Retrieve Numbers Displays the phone numbers in the message. You can call the numbers or store them.

Reply to Message Creates a reply message.

Return Call Calls the person who sent the message.

Edit Message Lets you edit, send, or store the message.

Go to Next Message Displays the next message.

Delete All Messages Deletes *all* messages.

Delete Oldest Ten Deletes the *ten oldest* messages.

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(((ͷ))) 6.2 creating a message

| press (MENU) in idle | select messages | select create message | use the keys to enter text |
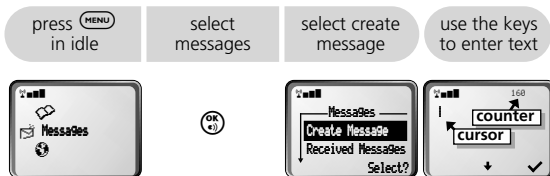
To change your text entry method or to enter a Personal or Canned message, press (MENU) while entering text.

When you finish the message, press (OK) and choose to:
Send Message Enter a phone number and press (OK).
Store Message Store the message in your Outbox.
Store Personal Store as Personal Message to reuse.

6.3 entering text

There are six ways to enter text with keys (0+) to (9wxyz).
To select a text entry method, press (MENU) while entering text.
To set the default, see "Phone Setup Menu" on page 37.

- **Personal Message**: These are pre-written messages that you can create, edit, or send from the message editor.
- **Canned Message**: These are pre-written messages that you can send from the message editor, but cannot edit.
- **iTAP™**: Press a key to enter a character. You see options that begin with the character. Press keys for more characters (press (▲ ▼) and (OK) to select an option).

The iTAP Dynamic Dictionary learns the words you use most frequently. iTAP is not available in all languages.

- **Tap**: Press a key to enter a character.
- **Numeric**: Enters numbers only (such as phone numbers).

- **Smileys**: Enters special icons (select an icon to enter it):

1	:-) **smiley**	**8**	:># **woof**	**15**	o<I **party**
2	;-) **wink**	**9**	8<) **teddy**	**16**	iii **hooray**
3	B-) **cool**	**10**	=:I **magic**	**17**	@>- **flowers**
4	:-P **pfrtt**	**11**	(O) **love**	**18**	>-I **drink**
5	:-(**sad**	**12**	(X) **broken**	**19**	(II **lunch**
6	:-/ **grrr**	**13**	Yo! **yo**		
7	:<* **meow**	**14**	==b **well done**		

Correcting Text Press ⓒ to delete the character before
the cursor, or hold ⓒ to delete all text in the display.

text entry table

This table shows the upper case (top line) and lower case
(lower line) characters assigned to each key. Hold a key to
change between upper and lower case.

①	Space . 1 ? ! , @ _ & : " ( ) ' ¿ ¡ % £ $
②ᴬᴮᶜ	A B C 2 Ä Å à Æ Þ Ç
	a b c 2 ä å à æ þ ç
③ᴰᴱᶠ	D E F 3 Δ É è ‡
	d e f 3 Δ é è ‡
④ᴳᴴᴵ	G H I 4 Γ ì
	g h i 4 Γ ì
⑤ᴶᴷᴸ	J K L 5 Λ
	j k l 5 Λ
⑥ᴹᴺᴼ	M N O 6 Ñ Ö Ø ò Ω
	m n o 6 ñ ö ø ò Ω
⑦ᴾᑫᴿˢ	P Q R S 7 Π ß Σ
	p q r s 7 Π ß Σ
⑧ᵀᵁⱽ	T U V 8 Θ ü Ω
	t u v 8 Θ ü Ω
⑨ᵂˣʸᶻ	W X Y Z 9 Ξ Ψ
	w x y z 9 Ξ Ψ
⓪	+ - 0 x * / = > < #

Notes

[ ] Identifies the
characters
available in iTAP.

Keys ① and
⓪ have no case
change.

7 internet

Your phone can use your service provider's mobile Internet services (such as news or travel information).

browser by phone.com

a Confirm that **your** SIM card is inserted. (If not, see "Initializing Your SIM for Internet Access" on page 35.)

b Select Internet in the main menu to start an Internet session. Your phone connects and loads your home page.

In Internet pages, you can do the following:

Action	In mobile Internet	In text editor
Press (MENU)	Selects the first soft key.	*See "entering text" on page 20.*
Press (OK)	Selects the second soft key.	
Hold (MENU)	Displays the Internet menu.	
Press (C)	Takes you back to the previous page (ends the session in the home page).	Deletes the character in front of the cursor.
Hold (C)	Takes you back to the Internet home page.	Deletes all the characters.
Press a number key	Selects a menu option in a list ((1) through (9)).	Inserts a character.
Hold a number key	Takes you to a bookmarked page ((1) through (9)).	Changes the case for the letter.
Press (▲ ▼)	Takes you up or down through a list.	Moves the cursor to the left or right.

Internet Service Alerts When you receive these alerts (with or without an Internet session open), your phone emits a tone and displays a notification with alert details.

Press (OK) to display alert contents or press (C) to delete it.

GPRS and CSD For data calls such as Internet access, GPRS (General Packet Radio Service) uses a dedicated data channel and CSD (Circuit Switched Data) use a voice channel. *Usage charges differ,* so *your phone displays an icon to tell you if it is using a GPRS connection ⨅ or a CSD connection ☎.*

8.1 starting a chat session

Any two Motorola phones with the SMS Chat feature can send brief text messages to each other in a chat session. You can only have one chat session open at a time.

To start a chat session:

press (MENU) in idle	select chat	select start chat	enter your nickname

enter your chat message	select phone number entry	enter the phone number	send the message
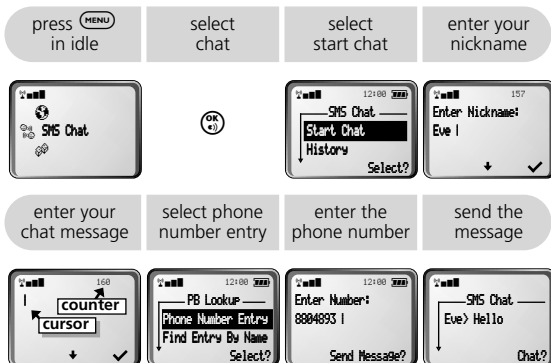
To start a chat session with someone in your phonebook, select Find Entry By Name in the PB Lookup menu.

To start a chat session with someone who sent you a text message, see "reading a message" on page 19.

To change your text entry method, enter smileys, or enter a pre-written message, press (MENU) while entering text. For more about text entry, see "entering text" on page 20.

To suspend a chat session, press (C), then (OK) to confirm. You can re-enter the session at any time by selecting Resume Chat in the SMS Chat menu.

To end a chat session, select End Chat in the SMS Chat menu.

8.2 responding to chat

When you receive a chat message:

press 😊 to accept it	enter your nickname	press 😊 to open the editor	enter text and press 😊
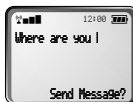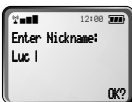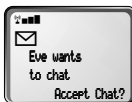
▼▲▪▪	▼▲▪▪ 12:00 ▭▭▭	▼▲▪▪ 12:00 ▭▭▭	▼▲▪▪ 12:00 ▭▭▭
✉ Eve wants to chat **Accept Chat?**	Enter Nickname: Luc I **OK?**	──SMS Chat── Eve> Hello **Chat?**	Where are you I **Send Message?**

To change your text entry method, enter smileys, or enter a pre-written message, press (MENU) while entering text.
For more about text entry, see "entering text" on page 20.

8.3 reviewing a chat session

To see the chat messages from your last session:

press (MENU) in idle	select chat	select history	press (▲ ▼) to scroll

▼▲▪▪		▼▲▪▪ 12:00 ▭▭▭	▼▲▪▪ 12:00 ▭▭▭
🗨 SMS Chat 🗨	(OK)	──SMS Chat── Start Chat **History** **Select?**	Eve> Hello Luc> Where are you **OK?**

To erase the history, select Erase History *from the menu.*
History *is only available when the chat session has ended.*

⚠ *Removing the battery erases your chat history.*

9 game

9.1 bricks

Bricks is a game where you strike a ball with a paddle to bounce it against a wall of bricks. When the ball hits a brick, the brick disappears and you receive points.
If the ball hits the bottom, the game ends.

- top row bricks . . . 30 points
- fourth row . . . . . 25 points
- third row . . . . 20 points
- second row . . . . 15 points
- first row . . . . 10 points

Tip: Set contrast to moderate

New Game This starts a game.

Saved Game This reopens the last game you saved.

Best Score This displays the best score for each game level.

Use the following keys during a game:

(4 GHI) move left (c) end or pause game (press it again
(6 MNO) move right to resume, or (OK) to close/save)

When the game starts, the paddle appears at the bottom of the display, in the middle, with the ball above it. The ball moves in a random direction to start. Thereafter, the ball moves with the trajectory of its bounce.

When the game ends, the screen flashes three times and then displays the results.

When a call or reminder arrives, your phone stops your game and saves it.

Note *To adjust your display contrast or turn off keypad tones, use the options "Adjust Contrast" and "Select Keypad Tones" in the Phone Setup Menu (page 37).*

10 tools

10.1 using a reminder

Your phone can store times and details about events, and you can add an alarm to each event as a reminder.

creating reminders

press (MENU) in idle	select tools	select reminder	select add event
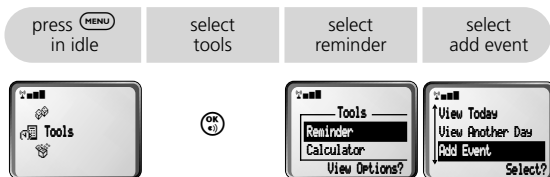
After you open an event, enter the following information:

Details Text about the event

Date The date the event occurs

Time The time the event occurs

Duration The length of the event

an event reminder

Reminder Select whether you want to see a reminder. Reminders appear in your display before the event begins. (See "Set Reminder Period" on page 36.)

viewing reminders

press (MENU) in idle	select tools	select reminder	select view today
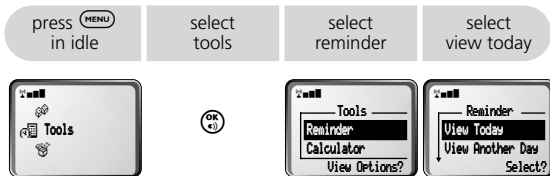
To see events for another day, select View Another Day. Your phone displays the date and number of events. Press (OK) to view the events.

10.2 calculating/converting

To open the calculator and currency converter:

press (MENU) in idle	select tools	select calculator	enter numbers or functions
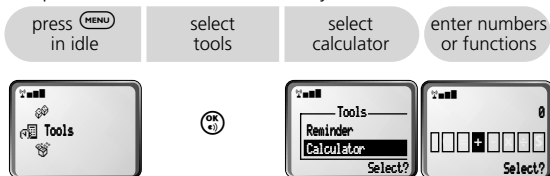
basic mathematical calculations

enter a number	select a function	enter another number	select "equals"

(7)   (#►)(OK)   (2)   (¥)(¥)(OK)
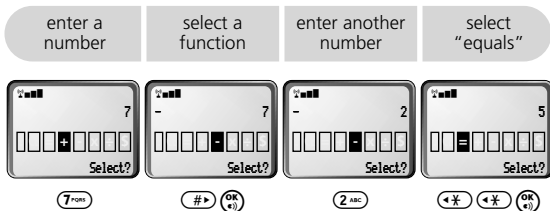
- Press (C) to cancel the latest key pressed.
- Hold (C) or select CE to clear the entire calculation.

currency conversion

To store the exchange rate:

select the currency icon	enter the exchange rate	enter the amount

The phone displays the result (330).

(#►)(#►)(#►)   (1)(#►)   (2)(0)(0)
(#►)(MENU)   (6)(5)(OK)   (OK)
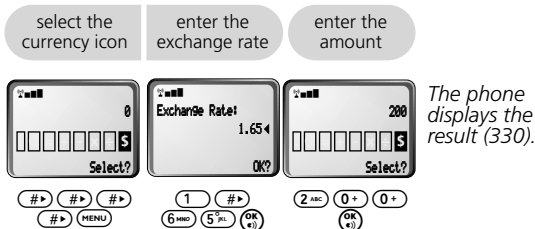
The exchange rate is limited to 10 digits (9 with a decimal).
To convert other amounts with the same exchange rate, just enter the amount and select the **$**. Your phone keeps the exchange rate until you change it.

11 ring tones

11.1 changing your ring

| press (MENU) in idle | select ring tones | select a tone option |

See the option list below.

The phone numbers you assign to Call Groups ring with a special tone (see "using a call group" on page 18).

Ring Tones Menu options include:

Adjust Ring Volume Displays and sets the incoming call ring tone volume. Press (▲ ▼) or (⁕ #) to adjust.

OK **Ring or Vibrate** Your phone's alert for incoming calls

OK **Set Ringer Tone** Ring tone for incoming calls on Line 1.

OK **Set Ringer Tone 2** Ring tone for incoming calls on Line 2.

Set Message Alert Tone Ring tone for new messages.

12 recent calls

12.1 viewing recent calls

press (MENU) in idle	select recentcall	select last ten calls	select a call list
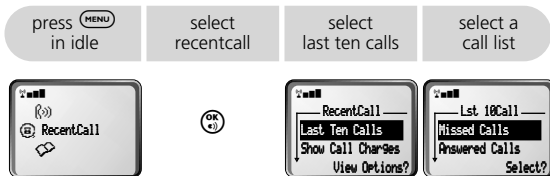
You can view, call, store, or erase items in three call lists:

Missed Calls These are your last ten unanswered calls.

Answered Calls These are your last ten answered calls.

Made Calls These are your last ten calls made.

These lists show each call's time, date, number (if you have Caller ID), and name (if a matching phone book entry exists).

You can choose to **Erase All Numbers** in all three lists.

recent call options

Scroll to a list entry and press (OK) to select the following:

Call Number Calls the phone number.

Switch View Opens/closes entry details.

Add to Phone Creates a phone book entry on your phone.

Add to SIM Creates a phone book entry on your SIM card.

29

📶 12.2 viewing call time/cost

| press (MENU) in idle | select recentcall | show charges or timers | select a time or cost meter |
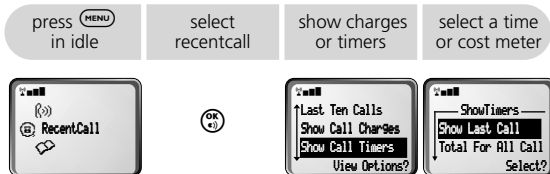
You can select the following time or cost meters:

Show Last Call The cost of your last call (chargeable outgoing calls only).

Total For All Calls The total for all of your outgoing calls since meters were last reset.

Credit Remaining (Show Charges menu only) Subtracts your total call costs from your charge limit. To change settings, see "Call Charge Settings" and "Set Total Charge Limit" on page 42.

Reset All Timers (Show Timers menu only) Sets the resettable timer to zero.

To set up an in-call display of call time or charges, see "Set In-Call Display" on page 42.

13 menu index

Your phone displays menus with options that you can select.
This section explains the options in the menus. To learn how
to use menus, see *"using menus" on page 13*.

Phone Book
- Personal Numbers
- Voice Dialing
- My Phone Number(s)
- Copy Between SIM & Phone
- One-Touch Dial Setting
- Show Services

Messages
- Create Message
- Received Messages
- Outgoing Messages
- Call Voicemail
- Cell Broadcast
- Message Settings

SMS Chat
- Start Chat
- History
- Erase History

Main
- Phone Book
- Messages
- Internet
- SMS Chat
- Game
- Tools
- Settings
- Ring Tones
- Recent Calls

Note: Some service providers add a SIM Tool Kit menu. Contact your provider for details about this menu.

Game
- Bricks

Tools
- Reminder
- Calculator

Settings
- Phone Setup
- Time/Date
- Security
- Network Selection
- Accessory Setup

Recent Calls
- Last Ten Calls
- Show Call Charges
- Show Call Timers
- Set In-Call Display
- Call Charge Settings
- Lifetime Timer

Ring Tones
- Adjust Ring Volume
- Ring or Vibrate
- Set Ringer Tone
- Set Ringer Tone 2
- Set Message Alert Tone
- Call Groups

✏ **Phone Book Menu**

Personal Numbers

Find Entry By Name Search the phone book for a name (enter up to three characters). Select an entry and press 🔘 to see your options.

Find Entry By Location Display an entry matching the location number you enter. Select an entry and press 🔘 to see your options.

Options for 'Find Entry By ...' After you find a phone book entry, press 🔘 to see your options.

Switch View Switches from entry name to details.

Call Number Calls the selected entry.

Modify Name or Number Edit details. (Also see "using a call group" or "using voice dial" on page 18).

Erase Name and Number Erases the selected entry.

Add/Edit Voicetag See "using voice dial" on page 18.

Add Entry Add (store) an entry in the phone book. (See "adding an entry" on page 17.)

If you create an entry to store a phone number prefix, you can quickly dial numbers with this prefix by recalling the entry and finishing the number.

Check Capacity Displays the number of empty entries.

Prevent Access Block access to phone book entries on your SIM card, in the phone, or both.

Voice Dialing

Dial a phone book entry when you speak its voice tag (see "using voice dial" on page 18).

My Phone Number(s)

Displays your wireless phone numbers, stored on your SIM card (some service providers let you edit these numbers)

Copy Between SIM & Phone

Copy phone book entries between your phone and SIM card.

To copy entries between SIM Cards: Copy entries from a SIM Card to the phone, replace the SIM Card, then copy from the phone to the new SIM Card.

One-Touch Dial Setting

Set which numbers One Touch dial calls. (Also see "One Touch Dial" on page 14.)

To Phone Memory Phone book entries 2 to 9.
To SIM Card Memory Phone book entries 102 to 109.
To Fixed Dial list Fixed Dial list locations 2 to 9.

📶 Show Services

Displays your provider's services (depends on SIM card).

📶 📩 Messages Menu

Create Message

Create a message. (See "creating a message" on page 20.)

📟 Received Messages

Displays the number of received messages and how many are new, then lists the messages (newest first). Select a message and press 😊 for these options:

Switch View Switches from message title to details.
Delete Message Deletes currently viewed message.
Retrieve Numbers Retrieves all numbers embedded in the message. You can call numbers or store them.
Reply to Message Creates a reply message.
Return Call Calls the person who sent the message (if known), or a number quoted ("") in the message.
Edit Message Edit, send, or store the message.
Go to Next Message Displays the next message.
Delete All Messages Deletes *all* messages.
Delete Oldest Ten Deletes *ten oldest* messages.

Outgoing Messages

Displays the number of messages you created and stored, then lists the messages (stored on your SIM card). Select a message and press 😊 for these options:

Switch View Displays or closes the message text.

Send Message Send the message to a phone number:

Enter Number Manually enter the phone number.

Find Entry by Name/Location Search phone book.

Edit Message Edit, send, or store the message.

Delete Message Deletes the message.

Go to Next Message Displays the next message.

⊠ **Call Voicemail**
Calls the voicemail number you stored (to store a number, see Voicemail Number in the Message Setting menu).

　　⚡ Hold ① to call voicemail when your phone is idle.

Cell Broadcast
Subscribe to "channels" that send broadcast messages (weather, news, etc.). Ask your provider for a channel list.

On Turns on messages for the channels you enter.

Off Turns off all broadcast messages.

Channel List Enter or delete broadcast channels.

Channel Index Enter or edit your channel numbers.

Delete All Channels Deletes all channels.

Language List Select a language for broadcast messages. Also see "Language Selection" on page 37.

Message Settings

Message Pop-up Alert Turn on or off the new message notification (so the ⊠ icon is your only message alert).

Voicemail Number Enter the phone number for voicemail service (used by "Call Voicemail" on page 34). Ask your service provider for this number and voicemail features.

Service Centre Enter your Message Service Centre number (supplied by your wireless service provider).

Expiry Period Enter the maximum time (hours) the service centre should keep trying to send a delayed message.

Outgoing Message Type Select a default message type.

((ᵗ)) 🜲 Internet

To open an Internet session, see "internet" on page 22.

Setting Up Mobile Internet Access

Your service provider must data-enable your SIM card, and may set up Internet access for you.

a Select Internet from the main menu.
b Hold (MENU) until the Browser Menu appears. Select Setup.
c Select Edit Profile. You see your list of three profiles.
   Your service provider may enter uneditable profiles.
OK   *To set up a unique* **homepage** *for each profile, select Edit Homepage, select a profile, and enter the URL.*
d Select a profile to edit (press (MENU)). Your phone displays:
   1 WAP Settings (supplied by your **service provider**)
   2 Data Bearer (supplied by your **service provider**)
   3 Profile Name
e Select 1 WAP Settings and enter the Primary IP and Port, Secondary IP and Port, and your Idle Time Out.
f Select 2 Data Bearer. You can set up CSD, GPRS, or both (a GPRS 🔢 or CSD 📞 icon displays when in use).
   • Select 1 GPRS to complete the profile's APN, Username, and Password for GPRS connections.
   • Select 2 CSD to complete the profile's Phone #, Username, Password, Line Type (Modem or ISDN), and Idle Time Out for CSD connections.
g Select 3 Profile Name: and assign the profile's name.

Initializing Your SIM for Internet Access

For security, your phone only lets one SIM card use your Internet access (voice calls are **not** affected). Your phone chooses this card the first time you access the Internet.

To set Internet access to a new SIM card:

a Have your service provider initialize your account.
b Insert the **new** SIM card. (See "SIM card insertion/ removal" on page 8.)
c Select Internet from the main menu.
d Select New key. Your phone processes the new card.

(ᵗ) 🔊 SMS Chat Menu

Start Chat

Start a chat session (when not chatting).

History

View the text from the last session (when not chatting).

Erase History

Erase the text from the last session (when not chatting).

End Chat

End the active chat session (when chatting).

Resume Chat

Resume the active chat session (when chatting).

🎲 Game Menu

See "game" on page 25.

🗃 Tools Menu

Reminder

Enter and manage events with alarms.

View Today Displays your events for the day.

View Another Day Displays events on a specific date.

Add Event Enter an event's description, date, start time, duration, and alarm. You can store up to 100 events.

Set Reminder Period Set how early your alarms occur. For example, a Reminder Period of *15 minutes* means a 10:00 event displays an alarm (😊) from 9:45 to 10:00.

Set Reminder Tone Set a unique tone for alarms. While the phone is charging, reminders always play a tone.

Calculator

See "calculating/converting" on page 27.

✸ Settings Menu

Phone Setup Menu

Font Size Set the display font size (not in all languages).

Screen Saver Set a screen saver for your phone's display.

Adjust Contrast Adjust the display contrast.

Backlight Set the backlight to off, continuous, or normal (on for 15 seconds after each keypress).

OK **Language Selection** Change the language for the display.

Entry Method Selection Set default text entry method.

Show Battery Meter Displays the charge level remaining.

OK **Set Audible Call Timers** Set timers to beep during calls:

Single Alert Beeps ten seconds before the set time.

Repetitive Beeps ten seconds before the set time and at intervals after that.

OK **Call Forward** Forward calls to other numbers. ♔

Forward Voice Calls Select Forward When Unavailable, Forward All Voice Calls, or Detailed Forwarding.

Cancel All Forwarding Clears your forward settings.

OK **Call Waiting** Turn your call waiting notification On or Off. ♔

Battery Saving Mode To save power, this activates Discontinuous Transmission (DTX) and deactivates the backlight for broadcast messages.

Quick Access Setup Change your Quick Access menu (see page 13). Scroll to a feature and hold the key to store it.

Find by Name	Read Messages	Show Services
Find by Location	Outgoing Messages	Forward Voice Call
Add Entry to Phone	Create Message	Adjust Contrast
Add Entry to SIM	Missed Calls	Access Internet
Call Voicemail	Last Call Charge	Reminder
Battery Meter	Last Call Timer	Game
Phone Lock Now	Show Time and Date	Answered Calls
Phone Mute On/Off	Credit Remaining	Made Calls
Ring Volume	Restrict My ID	Calculator
VibraCall Alert On/Off	Find New Network	Font Size*
Switch Memory	Switch Lines	Chat
		* some languages

Internet Setup Set up three Internet profiles and home pages. See "Setting Up Mobile Internet Access" on page 35.

OK Select Keypad Tones Change or disable keypad tones.

Select Phone Line Switch between Line 1 and Line 2.

Phone Status Display or erase phone settings.

    Status Review Displays settings changed from default.

    Master Reset Use with caution. Restores original settings for Automatic Answer, Audible Call Timers, In-Call Display Meter, Battery Save (DTX), Automatic Lock, Cell Broadcast, Language, Entry Method, Keypad Tones, Ringer Tones, SMS Alert Tones, Volume, Network Search frequency, and Band of operation.

    Master Clear Use with extreme caution. Clears same settings as Master Reset, plus the phone's Phone Book (not SIM's), Last 10 Calls lists, Message Editor, Resettable Call Timers, and Recorded Voice Tags.

OK Time/Date Menu

Show Time and Date Displays the time/date.

Set Time and Date Set the time/date (24-hour format).

⚠ *Removing the phone battery erases time settings.*

Set Time Format Set the clock to 12 or 24-hour format.

Security Menu

OK Phone Lock Set and change the phone lock (default **1234**).

    Auto Lock Locks the phone each time you switch it off.

    Lock Now Immediately locks your phone.

    Change Unlock Code Change the 4-digit code.

Require SIM Card PIN Require a PIN to turn on the phone.

⚠ *If you enter the incorrect PIN or PIN 2 three times, see "your PIN or PIN2 is blocked" on page 44.*

Change SIM PIN Code Change the 4 to 8-digit PIN.

Change SIM PIN2 Code Change the 4 to 8-digit PIN2.

OK New Security Code Change the 6-digit access code for security menu options (default **000000**).

OK Call Barring Set your call barring service (network feature). Your service provider provides an initial barring password.

Bar Outgoing Calls Bar all calls (except emergency), International Calls, or International Calls Except Home.

Bar Incoming Calls Bar calls When Roaming or always.

Cancel All Barring Sets all Call Barring options to Off.

Change Bar Password Change this 4-digit password.

Fixed Dialing When this is on, your phone can only call numbers in the fixed dial list (also limits text messages and Internet access). If you try to call numbers not in the list, Restricted appears. The list stores 40 entries on your SIM card. *Does not restrict emergency numbers.*

View Fixed Dial List Displays the Fixed Dial list.

Setup Fixed Dialing Switch Fixed Dialing on or off and edit the Fixed Dial list (requires PIN2 security code). *Call Barring can affect Fixed Dial (see "Call Barring").*

📶 **Restrict My Phone Number** Hide or show your phone number to phones with Caller ID (network feature). To set for a single call, use the In-Call menu (see page 16).

Network Selection

Your phone automatically registers with networks in this order of preference: the home network, networks from a preferred list, and all other networks above a certain signal strength.

Available Networks Finds and lists available networks. Select one to:

Register Now Tries to register with the network.

Make Preferred Copy the network to the preferred list.

Network Search Set how your phone finds networks.

Registration Preferences Tell your phone to try to register on networks automatically (Automatic) or display a list of networks to select for registration (Manual).

Frequency of Search Set how often your phone searches for networks when it is waiting to register.

⚠ *Repeated searches may use significant power.*

OK **Preferred Networks** Display and edit your list of preferred networks.

Add Network to List Select ChooseNtwk to choose from available networks, ChooseKnwn to choose from a preset list, or Add New Network Code to enter codes directly.

Show List of Networks Select PrefNtwk to add a selected network to the list, Delete Selection to remove it, or Switch View to see its name, ID, and priority.

Find New Network Tries to register with any network other than the current one.

Accessory Setup

Your phone is designed for headset and car kit accessories.

Automatic Answer Your phone automatically answers calls after the second ring when connected to a headset or car kit. If you unplug the headset or car kit or turn this option off, you can answer calls as normal.

(») Ring Tones Menu

Adjust Ring Volume

Displays your ring volume. Press $\overline{(\cdot\ \cdot)}$ to adjust it.

🆗 Ring or Vibrate

Set your phone's standard alert for incoming calls:
Ring Only Rings with the tone set in Set Ringer Tone.
Vibrate Only Vibrates using VibraCall™ Alert.
Vibrate Then Ring Vibrates twice, then rings.
No Ring or Vibrate Only displays the Call message.

🆗 Set Ringer Tone

Set your ring tone for incoming calls on Line 1.

🆗 Set Ringer Tone 2

Set your ring tone for incoming calls on Line 2.

Set Message Alert Tone

Set your ring tone for incoming messages.

Call Groups

This feature gives you five groups (profiles). Each group has a unique ring tone for the phone book entries assigned to it.

To assign phone book entries to a call group, see "using an entry" on page 17.

Ring Volume Set the ring volume for incoming calls (same setting as Adjust Ring Volume).

Default Profile Set the alerts for phone numbers without a group assigned (same settings as "Set Ringer Tone" on page 40 and "Set Message Alert Tone" on page 40).

Profiles Edit the ring type, message alert type, and name for each call group ("using a call group" on page 18).

ⓐ Recent Calls Menu

Last Ten Calls

Display, call, store, or erase items in three lists:

Missed Calls Your last ten *unanswered* calls.

Answered Calls Your last ten *answered* calls.

Made Calls Your last ten *dialed* calls.

Select a list entry and press ⓞ to:

  Call Number Calls the phone number.

  Switch View Opens/closes entry details.

  Add to Phone/SIM Create a phone book entry.

Erase All Numbers Erases the numbers in all three lists.

🎤 Show Call Charges

Displays call costs. (See "Set Charge Type" on page 42.)

Show Last Call Cost of your last (chargeable) call.

Total For All Calls Cost of all your calls since meters were last reset. (See "Reset Call Charges" on page 42.)

Credit Remaining Subtracts your total call costs from your charge limit. (See "Set Total Charge Limit" on page 42.)

Show Call Timers

Display and reset timers for outgoing calls.

The amount of network connection time you track on your 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.

Show Last Call Duration of your last (outgoing) call.
Total For All Calls Duration of calls since timers were reset.
Reset All Timers Set the resettable timer to zero.

Set In-Call Display

Set a time or cost meter to display during calls (if you set a total charge limit, Remaining Credit displays during calls).
Show Time Per Call Displays a time meter during calls.
Show Charge Per Call, Total Call Charges Displays call charges during calls. (Also see "Set Charge Type.")
No In-Call Display Turns off in-call charge/time display.

Call Charge Settings

Customize your Advice of Charge settings (PIN2 required).
Reset Call Charges Resets your charge meters to zero.
Set Total Charge Limit Set the limit for call charges (beyond which the network refuses chargeable calls). Once you set a limit, the in-call display shows your remaining credit. When you reach your last two minutes, the warning message Approaching Charge Limit appears.
Set Charge Type Set units or currency for charge displays.
 Units Sets the charge displays to show phone units.
 Currency Sets the charge displays to show a currency.
 Currency Name—3-character notation (such as GBP for the UK or DEM for Germany)
 Charge Per Unit—Currency value per phone unit.

Lifetime Timer

Displays the total time of all outgoing calls from your phone. This cannot be reset (not affected by Reset All Timers, Master Reset, or Master Clear).

14 accessories

The following accessories have been designed to work with your phone. Additional accessories may be available and a packaged separately. Please refer to your local service provider or retail outlet for more information.

The use of wireless devices and their accessories ("devices") may be prohibited or restricted in certain areas. Always obey the laws and regulations on the use of these devices.

Please ensure that when using any external connector with your phone that you are certain that it is fully inserted.

Convertible Covers

Convertible Covers let you change your phone's appearance.

Travel Charger

The power adapter (charger) connects to the phone. When connected properly to the phone, it charges the battery.

Vehicular Power Adapter

The Vehicle Power Adapter connects to your phone and allows you to charge your phone's battery while driving.

Easy Install Hands Free Kit

The Easy Install Hands Free Kit provides hands-free operation, allowing you to operate your phone while driving.

Headset

The convenient headset provides both an earphone and microphone for simple hands free and private telephone conversations. The headset plugs directly into the jack on the right side of the phone, below the mains power socket, so that you can wear your phone and move freely.

Pouch

The Pouch holds the phone while being worn on your belt. The Pouch has been designed for your convenience and is not meant to secure the phone under all circumstances.

15 what to do if...

you can't switch your phone on

Check the battery. Is it charged, properly fitted and are the contacts clean and dry? See "battery" on page 7.

you can't make or receive calls (or access the Internet)

Check the signal strength meter (📶). If the signal is weak, move to an open space or closer to a window.

Check the Network Selection settings. Try Manual Selection, or try another network. See "Network Search" on page 39.

Check your Operator coverage map.

Check settings for Call Barring (page 38), Call Forward (page 37), and Fixed Dial (page 39).

Has the call charge limit been reached? Reset it or contact your Service Provider ("Set Total Charge Limit" on page 42).

Have you inserted a new SIM card? Check for restrictions.

Check the Ringer and VibraCall™ Alert settings. If both are off, there is no alert. See "Ring or Vibrate" on page 28.

your phone won't unlock

Have you inserted a new SIM card? Enter the new PIN code. See "SIM card insertion/removal" on page 8.

Do you have a replacement phone? Enter **1234** (default).

Have you forgotten the unlock code? Press (MENU) to change the unlock code (you need your security code).

your PIN or PIN2 is blocked

Your service provider supplies the 8-digit PIN (and PIN2) unblock code. Enter this sequence to unblock a feature:

(✱) (✱) (0+) (5ᵏˡ) (✱) **Unblock Code** (OK) **New PIN Code** (OK) **New PIN Code** (OK) (use PIN2 code for PIN2 features)

⚠ *If you perform this operation incorrectly 10 times in a row, your SIM card will be permanently blocked.*

your SIM card won't work

Is it inserted the right side up? See "SIM card insertion/ removal" on page 8.

Is it visibly damaged? Return it to your service provider.

Are the SIM contacts dirty? Clean with an antistatic cloth.

the battery won't charge or the icon is missing

Check the charger. Is it properly connected? Are its contacts clean and dry? See "battery" on page 7.

Check the battery contacts. Are they clean and dry?

Check the battery temperature. If it is warm, let it cool first.

Is the battery several years old? Replace the battery.

Are you using a Motorola original battery? Your charger may not recognize your battery. See "battery" on page 7.

the battery drains faster than normal

Are you in an area of weak coverage? This uses more power.

Is it a new battery? See "charging your battery" on page 7.

Is the battery several years old? Replace the battery.

Has the battery been completely discharged? Let it discharge fully (until the phone turns itself off), then charge overnight.

Turn on battery save ("Battery Saving Mode" on page 37) and select a slow search frequency ("Frequency of Search" on page 39).

Are you using your phone in extreme temperatures? Battery life is reduced at extreme hot or cold temperatures.

you can't cancel Call Forwarding or Barring

Try again in an area with better network coverage.

the ✉ symbol is flashing

Your message memory is full. Delete some text messages.

you can't make international calls

Does your service provider bar international calls?

Did you dial correctly? See "International Phone Calls" on page 14.

Check settings for Call Barring, Call Forward, and Fixed Dial.

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:

a 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]

b 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:

a 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]

b 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/

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

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

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

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

FDA020400

17 warranty

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

I. What This Warranty Covers

- Products. Defects in materials and workmanship in wireless cellular telephones, pagers, and/or two-way radios, and certain accessories that are sold with them, such as the battery, battery charger and holster manufactured and/or sold by Motorola (Products).
- Batteries. Defects in materials and workmanship in batteries that are manufactured by Motorola and/or sold with Products are covered by this warranty only if the fully-charged capacity falls below 80% of rated capacity or they leak.
- Software. Physical defects in the media that tangibly embodies each copy of any software supplied with the Products.

II. What the Period of Coverage Is

From the date the Products are purchased by the first end-user:

- Products. The warranty is for one year. Exception: The warranty for Spirit GT series and Talkabout series two-way radio accessories is for 90 days.
- Software. The warranty is for 90 days.
- Repairs/Replacements. The warranty is for the balance of the original warranty or for 90 days from the date you receive it, whichever is longer.

III. Who is Covered

This warranty extends to the first end-user purchaser, only.

IV. What We Will Do to Correct Warranty Problems

At no charge to you, we have the option to repair or replace the Products or software that do not conform to the warranty, or to refund the Products' purchase price. We may use functionally equivalent reconditioned/refurbished/pre-owned or new Products or parts. No software updates are provided.

V. How to Get Warranty Service

Please call:

USA

Cellular	1-800-331-6456
Paging	1-800-548-9954
Two-Way	1-800-353-2729
TTY (Text Telephone)	1-888-390-6456

Canada

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

You will receive instructions on how to ship the Products to Motorola. You must ship the Products to us with freight, duties and insurance prepaid. Along with the Products you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; (c) the name of your service provider (if this Product requires subscription service); (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number. If requested, you must also return all detachable parts such as antennas, batteries and chargers. RETAIN YOUR ORIGINAL PROOF OF PURCHASE.

We will ship repaired or replacement Products at our expense for the freight and insurance, but at your expense for any duties. If additional information is needed, please contact us at the telephone number listed above.

VI. What This Warranty Does Not Cover

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

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

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

• Products that have: (a) serial numbers or date tags that have been removed, altered or obliterated; (b) board serial numbers that do not match each other, or board serial numbers that do not match the housing; or (c) nonconforming or non-Motorola housings or parts. Any of these voids the warranty.

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

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

• Failure of Products that is due primarily to any

communication service or signal you may subscribe to or use with the Products.

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

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

VII. Some Other Limitations

This is Motorola's complete warranty for the Products, and states your exclusive remedies. This warranty is given in lieu of all other express warranties. Implied warranties, including without limitation, the implied warranties of merchantability and fitness for a particular purpose, are given only if specifically required by applicable law. Otherwise, they are specifically excluded.

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

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

In no event shall Motorola be liable, whether in contract or tort (including negligence) for damages in excess of the purchase price of the Product, or for any indirect, incidental, special or consequential damages of any kind, or loss of revenue or profits, loss of business, loss of information or data, or other financial

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

VIII. Patent and Software Provisions

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

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

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

Laws in the United States and other countries preserve for Motorola and other third party software providers certain exclusive rights for copyrighted software, such as the exclusive rights to reproduce in copies and distribute copies of such software. The software may be copied into, used in and redistributed with only those Products that are associated with such software. No other use, including

without limitation, disassembly or reverse engineering of such software or exercise of exclusive rights in such software is permitted.

IX. State Law and Other Jurisdiction Rights

Some states and other jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or limitation on the length of an implied warranty, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from jurisdiction to jurisdiction.

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

USA

Cellular	1-800-331-6456
Paging	1-800-548-9954
Two-Way	1-800-353-2729
TTY (Text Telephone)	1-888-390-6456

Canada

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

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

USA	Canada
Motorola, Inc.	Motorola Canada Limited
600 North U.S. Highway 45	5875 Whittle Road
Libertyville, IL 60048	Mississauga, ON L4Z 2H4

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.

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.

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™

Safety–
Your most
important call

Motorola Reminds You
To Use Your Phone
Safely When Driving