Some of the contents in this manual may differ from your phone depending on the software of the phone or your service provider.

### SAMSUNG ELECTRONICS



World Wide Web http://www.samsungmobile.com

Printed in Korea Code No.:GH68-26018A English (EU). 09/2009. Rev. 1.0



## using this manual

This user manual has been specially designed to guide you through the functions and features of your mobile phone. To get started quickly, refer to "introducing your mobile phone," "assembling and preparing your mobile phone," and "using basic functions."

#### Instructional icons

Before you start, familiarise yourself with the icons you will see in this manual:



Warning—situations that could cause injury to yourself or others



Caution — situations that could cause damage to your phone or other equipment



Note - notes, usage tips, or additional information

Refer to – pages with related information; for example: ▶ p. 12 (represents "see page 12")

- → Followed by—the order of options or menus you must select to perform a step; for example: In Menu mode, select Messages → Create message (represents Messages, followed by Create message)
- [ ] Square brackets—phone keys; for example: [ ] (represents the Power/ Menu exit key)

#### Copyright information

Rights to all technologies and products that comprise this device are the property of their respective owners:

- Bluetooth® is a registered trademark of the Bluetooth SIG, Inc. worldwide.
  Bluetooth QD ID: B012825
- Java™ is a trademark of Sun Microsystems, Inc.
- Windows Media Player<sup>®</sup> is a registered trademark of Microsoft Corporation.
- Wi-Fi®, the Wi-Fi CERTIFIED logo, and the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance.

### CE0168(1)

## contents

safety and usage information	1
Safety warnings	1
Safety precautions	
Important usage information	6
introducing your mobile phone	12
Unpack	12
Phone layout	13
Keys	14
QWERTY keyboard	15
Icons	16
assembling and preparing your	
mobile phone	
Install the SIM or USIM card and battery	18
Charge the battery	20
Insert a memory card (optional)	21
Attach a hand strap (optional)	22

sing basic functions	23
Turn your phone on and off	23
Use the touch screen	24
Access menus	25
Switch applications	26
Use widgets	
Access help information	27
Use shortcuts in Quick access mode	28
Customise your phone	28
Use basic call functions	32
Send and view messages	33
Add and find contacts	36
Use basic camera functions	
Listen to music	39
Browse the web	41
Use the Google services	
o o	

using advanced functions	44
Use advanced call functions	44
Use advanced phonebook functions	47
Use advanced messaging functions	48
Use advanced camera functions	50
Use advanced music functions	53
using tools and applications	57
Use the Bluetooth wireless feature	57
Activate and connect to a wireless	
LAN (WLAN)	59
Activate and send an SOS message	61
Activate the mobile tracker	62
Make fake calls	62
Record and play voice memos	63
Edit images	64
Print images	

Upload photos and videos to the web	67
Use Java-powered games and	
applications	68
Synchronise data	69
Use RSS feeds	.71
View your current position	.72
Update the GPS functionality	.72
Create and view world clocks	.72
Set and use alarms	.73
Use the calculator	.73
Convert currencies or measurements	.74
Set a countdown timer	.74
Use the stopwatch	74
Create new tasks	.74
Create new memos	.75
Manage your calendar	.75

troubleshooting	
index	

# safety and usage information

Comply with the following precautions to avoid dangerous or illegal situations and ensure peak performance of your mobile phone.



#### Safety warnings

## Keep your phone away from small children and pets

Keep your phone and all accessories out of the reach of small children or animals. Small parts may cause choking or serious injury if swallowed.

#### Protect your hearing



Excessive exposure to sound at high volumes can cause hearing damage. Always turn the volume down before plugging the earphones into an audio source and use only the minimum volume setting necessary to hear your conversation or music.

## Install mobile phones and equipment with caution

Ensure that any mobile phones or related equipment installed in your vehicle are securely mounted. Avoid placing your phone and accessories near or in an air bag deployment area. Improperly installed wireless equipment can cause serious injury when air bags inflate rapidly.

## Handle and dispose of batteries and chargers with care

- Use only Samsung-approved batteries and chargers specifically designed for your phone.
   Incompatible batteries and chargers can cause serious injuries or damage to your phone.
- Never dispose of batteries or phones in a fire.
   Follow all local regulations when disposing of used batteries or phones.

- Never place batteries or phones on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explode when overheated.
- Never crush or puncture the battery. Avoid exposing the battery to high external pressure, which can lead to an internal short circuit and overheating.

#### Avoid interference with pacemakers

Maintain a minimum of 15 cm (6 inches) between mobile phones and pacemakers to avoid potential interference, as recommended by manufacturers and the independent research group, Wireless Technology Research. If you have any reason to suspect that your phone is interfering with a pacemaker or other medical device, turn off the phone immediately and contact the manufacturer of the pacemaker or medical device for guidance.

## Turn off the phone in potentially explosive environments

Do not use your phone at refuelling points (service stations) or near fuels or chemicals. Turn off your phone whenever directed by warning signs or instructions. Your phone could cause explosions or fire in and around fuel or chemical storage and transfer areas or blasting areas. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the phone, its parts, or accessories

## Reduce the risk of repetitive motion injuries

While using your phone, hold the phone with a relaxed grip, press the keys lightly, use special features that reduce the number of keys you have to press (such as templates and predictive text), and take frequent breaks.

### Do not use the phone if the screen is cracked or broken

Broken glass or acrylic could cause injury to your hand and face. Bring the phone to a Samsung service centre to replace the screen. Damage caused by careless handling will void your manufacturer's warranty.



#### Safety precautions

#### Drive safely at all times

Avoid using your phone while driving and obey all regulations that restrict the use of mobile phones while driving. Use hands-free accessories to increase your safety when possible.

## Follow all safety warnings and regulations

Comply with any regulations that restrict the use of a mobile phone in a certain area.

## Use only Samsung-approved accessories

Using incompatible accessories may damage your phone or cause injury.

## Turn off the phone near medical equipment

Your phone can interfere with medical equipment in hospitals or health care facilities. Follow all regulations, posted warnings, and directions from medical personnel.

## Turn off the phone or disable the wireless functions when in an aircraft

Your phone can cause interference with aircraft equipment. Follow all airline regulations and turn off your phone or switch to a mode that disables the wireless functions when directed by airline personnel.

## Protect batteries and chargers from damage

- Avoid exposing batteries to very cold or very hot temperatures (below 0° C/32° F or above 45° C/ 113° F). Extreme temperatures can reduce the charging capacity and life of your batteries.
- Prevent batteries from contacting metal objects, as this can create a connection between the + and - terminals of your batteries and lead to temporary or permanent battery damage.
- Never use a damaged charger or battery.

## Handle your phone carefully and sensibly

- Do not disassemble your phone due to a risk of electric shock
- Do not allow your phone to get wet—liquids can cause serious damage and will change the colour of the label that indicates water damage inside the phone. Do not handle your phone with wet hands. Water damage to your phone can void your manufacturer's warranty.
- Avoid using or storing your phone in dusty, dirty areas to prevent damage to moving parts.
- Your phone is a complex electronic device protect it from impacts and rough handling to avoid serious damage.
- Do not paint your phone, as paint can clog moving parts and prevent proper operation.



- If your phone has a camera flash or light, avoid using it close to the eyes of children or animals.
- Your phone may be damaged by exposure to magnetic fields. Do not use carrying cases or accessories with magnetic closures or allow your phone to come in contact with magnetic fields for extended periods of time.

#### Avoid interference with other electronic devices

Your phone emits radio frequency (RF) signals that may interfere with unshielded or improperly shielded electronic equipment, such as pacemakers, hearing aids, medical devices, and other electronic devices in homes or vehicles. Consult the manufacturers of your electronic devices to solve any interference problems you experience.



#### Important usage information

#### Use your phone in the normal position

Avoid contact with your phone's internal antenna.

#### Allow only qualified personnel to service your phone

Allowing unqualified personnel to service your phone may result in damage to your phone and will void your warranty.

#### Ensure maximum battery and charger life

- · Avoid charging batteries for more than a week, as overcharging may shorten battery life.
- · Over time, unused batteries will discharge and must be recharged before use.

- Disconnect chargers from power sources when not in use.
- Use batteries only for their intended purpose.

## Handle SIM cards and memory cards with care

Do not remove a card while the phone is

- transferring or accessing information, as this could result in loss of data and/or damage to the card or phone.

   Protect cards from strong shocks, static.
- Protect cards from strong shocks, static electricity, and electrical noise from other devices.
- Frequent writing and erasing will shorten the life span of memory cards.
- Do not touch gold-coloured contacts or terminals with your fingers or metal objects. If dirty, wipe the card with a soft cloth

#### Ensure access to emergency services

Emergency calls from your phone may not be possible in some areas or circumstances. Before travelling in remote or undeveloped areas, plan an alternate method of contacting emergency services personnel.

#### Correct disposal of this product

(Waste Electrical & Electronic Equipment)



(Applicable in the European Union and other European countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

This EEE is compliant with RoHS.

## Correct disposal of batteries in this product

X

(Applicable in the European Union and other European countries with separate battery return systems)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life.

Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

#### Disclaimer

Some content and services accessible through this device belong to third parties and are protected by copyright, patent, trademark and/or other intellectual property laws. Such content and services are provided solely for your personal noncommercial use. You may not use any content or services in a manner that has not been authorised by the content owner or service provider. Without limiting the foregoing, unless expressly authorised by the applicable content owner or service provider, you may not modify, copy, republish, upload, post, transmit, translate, sell, create derivative works. exploit, or distribute in any manner or medium any content or services displayed through this device.

"THIRD PARTY CONTENT AND SERVICES ARE PROVIDED "AS IS." SAMSUNG DOES NOT WARRANT CONTENT OR SERVICES SO PROVIDED, EITHER EXPRESSLY OR IMPLIEDLY, FOR ANY PURPOSE, SAMSUNG EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SAMSUNG DOES NOT GUARANTEE THE ACCURACY, VALIDITY. TIMELINESS, LEGALITY, OR COMPLETENESS OF ANY CONTENT OR SERVICE MADE AVAILABLE THROUGH THIS DEVICE AND UNDER NO. CIRCUMSTANCES, INCLUDING NEGLIGENCE. SHALL SAMSUNG BE LIABLE, WHETHER IN CONTRACT OR TORT, FOR ANY DIRECT. INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, ATTORNEY FEES, EXPENSES, OR ANY OTHER DAMAGES ARISING OUT OF, OR IN CONNECTION WITH, ANY INFORMATION CONTAINED IN, OR AS A RESULT OF THE USE OF ANY CONTENT OR SERVICE BY YOU OR ANY THIRD PARTY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.'

Third party services may be terminated or interrupted at any time, and Samsung makes no representation or warranty that any content or service will remain available for any period of time. Content and services are transmitted by third parties by means of networks and transmission facilities over which Samsung has no control. Without limiting the generality of this disclaimer, Samsung expressly disclaims any responsibility or liability for any interruption or suspension of any content or service made available through this device.

Samsung is neither responsible nor liable for customer service related to the content and services. Any question or request for service relating to the content or services should be made directly to the respective content and service providers.

## introducing your mobile phone

In this section, learn about your mobile phone's layout, keys, and icons.

#### Unpack

Check your product box for the following items:

- Mobile phone
- Battery
- Travel adapter (charger)
- User manual



- The items supplied with your phone may vary depending on the software and accessories available in your region or offered by your service provider. You can obtain additional accessories from your local Samsung dealer.
- The supplied accessories perform best for your phone.

#### Phone layout

The front and inside of your phone include the following keys and features:



The rear of your phone includes the following keys and features:





You can lock the touch screen and keys to prevent any unwanted phone operations. To lock, press [HOLD]. To unlock, press and hold [HOLD].

#### Kevs

1 toyo		
Key		Function
$\bigcirc$	Dial	Make or answer a call; In Idle mode, retrieve recently dialled, missed, or received numbers
	Menu	In Idle mode, access Menu mode; Return to Menu mode; Shows all active applications (press and hold)
<b>©</b>	Power/ Menu exit	Turn the phone on and off (press and hold); End a call; In Menu mode, return to the main menu or return to Idle mode
B	Volume	Adjust the phone's volume

Key		Function
HOLD	Hold	Lock the touch screen and keys; Unlock the touch screen and keys (press and hold)
	Camera	In Idle mode, turn on the camera; in Camera mode, take a photo or record a video

#### QWERTY keyboard

The composition of the QWERTY keyboard may differ depending on your region.

Key		Function
i.	Alphabet/ Symbol	Enter letters, numbers, and special characters; In Idle mode, press and hold [1] to access voice mails and [0] to enter an international call prefix
٥	Shift	Change case in a text input field
Alt	Alt	Use characters on the upper half of the keys in a text input field
Sym	Symbol	Enter special characters and emoticons
	Message	In Idle mode, open the new message screen; Access the Inbox (press and hold)

14		E 8
Key		Function
	Web browser	In Idle mode, launch the web browser
_ a	Space	In Idle mode, press and hold for the silent profile; Insert a space in a text input field
	4-way navigation	In Menu mode, scroll through menu options
ОК	Confirm	In Idle mode, access Menu mode; in Menu mode, select the highlighted menu option or confirm an input
+	Back/ Delete	In Menu mode, return to the previous level; Delete characters in a text input field
1	Enter	Start a new line in a text input field

#### Icons

Learn about the icons that appear on your display.

Icon	Definition
	Signal strength
G	GPRS network connected
	EDGE network connected
EF	UMTS network connected
35+	HSDPA network connected
P	Voice call in progress
_ €	Video call in progress
*	SOS message feature activated
<b>3</b>	Browsing the web

Icon	Definition
	Connected to secured web page
R	Roaming (outside of normal service area)
	Call diverting activated
	Synchronised with PC
7	Wi-Fi activated
	Bluetooth hands-free car kit or headset connected
**	Bluetooth activated
<b>②</b>	Alarm activated
	Memory card inserted
4	New text message (SMS)

Icon	Definition
	New multimedia message (MMS)
<b>2</b>	New email message
₩	New voice mail message
$\triangleleft \! \! \backslash$	Normal profile activated
Ø	Silent profile activated
(IIIII)	Battery power level
10:00	Current time



# assembling and preparing your mobile phone

Get started by assembling and setting up your mobile phone for its first use.

## Install the SIM or USIM card and battery

When you subscribe to a cellular service, you will receive a Subscriber Identity Module (SIM) card with subscription details, such as your personal identification number (PIN) and optional services. To use UMTS or HSDPA services, you can purchase a Universal Subscriber Identity Module (USIM) card.

To install the SIM or USIM card and battery,

1. Remove the battery cover.





If the phone is on, press and hold [ to turn it off.

2. Insert the SIM or USIM card.





- Place the SIM or USIM card in the phone with the gold-coloured contacts facing down.
- Without inserting a SIM or USIM card, you can use your phone's non-network services and some menus.

3. Insert the battery.



4. Replace the battery cover.



#### Charge the battery

Before using the phone for the first time, you must charge the battery.

- 1. Open the cover to the multifunction jack on the side of the phone.
- 2. Plug the small end of the travel adapter into the multifunction jack.



With the triangle facing up



Improperly connecting the travel adapter can cause serious damage to the phone. Any damages by misuse are not covered by the warranty.

- Plug the large end of the travel adapter into a power outlet.
- When the battery is fully charged (the (iiiii) icon is no longer moving), unplug the travel adapter from the power outlet.
- 5. Unplug the travel adapter from the phone.
- 6. Close the cover to the multifunction jack.



#### About the low battery indicator

When your battery is low, the phone will emit a warning tone and a low battery message. The battery icon will also be empty and blinking. If the battery level becomes too low, the phone will automatically power off. Recharge your battery to continue using your phone.

#### Insert a memory card (optional)

To store additional multimedia files, you must insert a memory card. Your phone accepts microSD™ or microSDHC™ memory cards up to 16 GB (depending on memory card manufacturer and type).



Formatting the memory card on a PC may cause incompatibility with your phone. Format the memory card only on the phone.

1. Remove the battery cover.

2. Insert a memory card with the label side facing up.



- 3. Push the memory card in the memory card slot until it locks in place.
- 4. Replace the battery cover.

To remove the memory card, remove the battery cover, push the memory card gently until it disengages from the phone, and then pull the memory card out of the memory card slot.

#### Attach a hand strap (optional)

- 1. Remove the battery cover.
- 2. Slide a hand strap through the slot and hook it over the small projection.



3. Replace the battery cover.



## using basic functions

Learn how to perform basic operations and use the main features of your mobile phone.

#### Turn your phone on and off

To turn your phone on,

- Press and hold [ ].
- 2. Enter your PIN and select **Confirm** (if necessary). To turn your phone off, repeat step 1 above.

#### Switch to the offline profile

By switching to the offline profile, you can use your phone's non-network services in areas where wireless devices are prohibited, such as aeroplanes and hospitals.

To switch to the offline profile, in Menu mode, select Settings → Phone profiles → Offline.



Follow all posted warnings and directions from official personnel when in areas where wireless devices are prohibited.

#### Use the touch screen

Your phone's touch screen lets you easily select items or perform functions. Learn basic actions to use the touch screen.



For the optimal use of the touch screen, remove the screen protection film before using your phone.

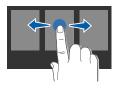
• Touch an icon to open a menu or launch an application.



 Drag your finger up or down to scroll through vertical lists.



 Drag your finger left or right to scroll through horizontal lists.



#### Access menus

To access your phone's menus.

- 1. In Idle mode, select **Menu** or press the Menu key to access Menu mode.
- 2. Scroll left or right to a Menu mode screen.
- 3. Select a menu or option.
- 4. Select **b** to move up one level; Press [7] to return to Idle mode.

#### Customise Menu mode



This feature may be unavailable depending on the software of the phone.

You can organise applications in the Menu mode screen or set titles to each screen to match your preferences and needs.

- 1. In Menu mode, scroll left or right to a Menu mode screen.
- 2. Select I to switch to Edit mode.
- Customise the screens as desired.
  - . To rename the menu screen, enter a title in the text input field at the top of the screen.
  - To rearrange applications, select and drag an application icon to the location you want.
- 4 Select Save



Select Reset to restore the default order of applications.

#### Switch applications

Your phone allows you to multi-task by running multiple applications at the same time.

## Switch from one active application to another

- Press and hold the Menu key to open a list of applications.
- Scroll to an application and select it.To change the view mode, select Grid view.

#### Close applications

To close the current application, press [7].

To close an application that is running in the background,

- Press and hold the Menu key to open a list of applications.
- 2. Scroll to an application and select X.

#### Use widgets

Learn to use widgets on the widget toolbar.



- Some of your widgets connect to web services. Selecting a web-based widget may incur additional charges.
- Available widgets may vary depending on your region or service provider.

#### Open the widget toolbar

In Idle mode, select the arrow at the bottom left of the screen to open the widget toolbar. You can rearrange widgets on the widget toolbar or move them to the idle screen.

#### Move the widgets to the idle screen

- In Idle mode, scroll left or right to one of the idle screens.
- 2. Open the widget toolbar.
- Drag a widget from the widget toolbar to the idle screen. You can position the widget anywhere on the screen.



To move the widgets from the idle screen to the widget toolbar back, select and drag a widget to the widget toolbar.

#### Change the widgets

- 1. Open the widget toolbar.
- 2. Select toolbar.
- 3. Select the widgets you want to include to the widget toolbar and select **Save**.

#### Access help information

Learn to access helpful information about your phone.

- 1. Open the widget toolbar.
- 2. Drag ? to the idle screen and select it.
- Rotate the phone anti-clockwise to landscape view.
- 4. Select a help topic to learn about an application or feature
- 5. Scroll left or right to get more information. To return to the previous level, select .

#### Use shortcuts in Quick access mode

Learn to use some shortcuts in Quick access mode by sliding open the phone.

- In Menu mode, select Settings → Phone settings → Quick access.
- 2. Select one of the following options.

Menu	Description
Messaging/ Social tabs	Access one of the messaging or social menus
Create message	Create a new text or multimedia message
Create email	Create a new email message
Conversations	View messages you have sent and received
Facebook/ MySpace	View photos and videos on the web via websites

Menu	Description
Instant messenger	Chat with your friends instantly

- 3. Select Save.
- 4. Press [ to return to Idle mode.
- Slide open the phone and rotate the phone anticlockwise to landscape view.
   If you selected Messaging/Social tabs, scroll left or right to a menu.

#### Customise your phone

Get more from your phone by customising it to match your preferences.

#### Adjust the volume of the key tones

In Idle mode, press the Volume key up or down and adjust the key tone volume.

## Adjust the vibration intensity on the touch screen

You can adjust the intensity of the vibration when you touch the phone screen.

- 1. In Idle mode, press the Volume key up or down.
- 2. Select **Vibration** and adjust the intensity of the vibration.

#### Switch to or from the silent profile

In Idle mode, select **Keypad** and touch and hold # to silence or unsilence your phone.

#### Calibrate the screen

You can calibrate the screen so that your phone recognises the input better.

In Menu mode, select Settings → Phone settings → Calibration.

- 2. Touch the target on the screen.
- 3. Select OK.

#### Change your ringtone

- In Menu mode, select Settings → Phone profiles.
- 2. Select next to the profile you are using.



If you are using the silent or offline profile, you are not allowed to change the ringtone.

- 3. Select Voice call ringtone or Video call ringtone.
- 4. Select a ringtone from the list and select **Save**.
- Select Save.

To switch to another profile, select it from the list.

## Activate Etiquette pause

You can temporarily mute all phone sounds by placing the phone face down when **Etiquette pause** is activated.

- 1. In Menu mode, select Settings → Motion settings → Etiquette pause → On.
- 2. Select Save.

# Select a wallpaper (Idle mode)

- 1. Scroll left or right to one of the idle screens.
- In Menu mode, select Settings → Display and light → Wallpaper.
- 3. Scroll left or right to an image.
- 4. Select Set.

## Select a skin colour (Menu mode)

- In Menu mode, select Settings → Display and light → My theme.
- 2. Select a colour pattern.
- 3. Select Save.



When you select **Cartoon**, a cartoon-style theme will apply to menu mode and wallpaper screens.

# Set the auto-lock feature for touch screen

You can set your phone to automatically lock the touch screen and keys when the backlight turns off. You can also set the method to unlock the touch screen and keys.

- 1. In Menu mode, select Settings → Touch panel.
- 2. Select On under Auto-lock.

- 3. Select the **Any key** drop-down menu and select an unlock option.
- Select Save.

#### Lock your phone

- 1. In Menu mode, select Settings → Security.
- 2. Select On under Phone lock.
- 3. Enter a new 4- to 8-digit password and select **Confirm**
- 4. Enter the new password again and select **Confirm**



- The first time you access a menu that requires a password, you will be prompted to create and confirm a password.
- Samsung is not responsible for any loss of passwords or private information or other damages caused by illegal software.

# Unlock the touch screen with smart unlock

By drawing a specified character on the locked touch screen, you can unlock the screen only, unlock and then make a call to a speed dial number, or unlock and then launch an application. To set a smart unlock character.

- In Menu mode, select Settings → Smart unlock.
- 2. Select On under Gesture unlock.
- 3. Select an unlock option.
- 4. Select a speed dial number to dial or select an application to launch (if necessary).
- Select a character for the smart unlock feature.
- 6. Select 5.
- 7. Select Save.

## Use basic call functions

Learn to make or answer calls and use basic call functions.



During a call, your phone automatically locks the touch screen to prevent accidental inputs. To unlock, press and hold [HOLD].

#### Make a call

- In Idle mode, select Keypad and enter an area code and a phone number.
- Press [→] to dial the number.
   For a video call, select → Video call.
- 3. To end the call, press [ ].

#### Answer a call

- 1. When a call comes in, press [-].
- For a video call, press [--] and select Show me to allow the caller to see you via the front camera lens.
- 3. To end the call, press [ ].

# Adjust the volume

To adjust the volume during a call, press the Volume key up or down.

# Use the speakerphone feature

- During a call, select Speaker → Yes to activate the speaker.
- 2. To switch back to the earpiece, select Speaker.



In noisy environments, you may have difficulty hearing the calls while using the speakerphone feature. For better audio performance, use the normal phone mode.

#### Use the headset

By plugging the supplied headset into the headset jack, you can make and answer calls:

- To redial the last call, press the headset button twice.
- To answer a call, press the headset button.
- To end a call, press the headset button.

# Send and view messages

Learn to send and view text (SMS), multimedia (MMS), and email messages.

# Send a text or multimedia message

- In Menu mode, select Messages → Create message → Message.
- 2. Select **Tap to add recipient** and enter a recipient number.
- 3. Select **Tap to add text** and enter your message text. ▶ Enter text

For sending as a text message, skip to step 5. For attaching multimedia, continue with step 4.

- 4. Select Add media and add an item.
- 5. Select **Send** to send the message.

#### Send an email

- In Menu mode, select Messages → Create message → Email.
- Select Tap to add recipient and enter an email address.

- 3. Select **Tap to add subject** and enter a subject.
- 4. Select **Tap to add text** and enter your email text.
- 5. Select **Add files** and attach a file (if necessary).
- 6. Select Send to send the message.

## Enter text

Open the phone and enter text as you would use a computer's keyboard. If the phone is closed, use the virtual keypad.

#### Enter text on the virtual keypad

When entering text on the virtual keypad, you can change the text input method. Select the input method indicator ( by default) and select one of the following input methods for entering text:

- Keypad
- Writing box 1
- Writing box 2

#### Enter text using the keypad

- 1. Change the text input method to Keypad.
- 2. Select the appropriate virtual key to enter text.
  - To change case or use numbers or symbols, select Abc.
  - To enter text in T9 mode, select T9 (T9 tums blue).

You can use the following text input modes:

Mode	Function	
ABC	Select an appropriate virtual key until the character you want appears on the display.	
Т9	<ol> <li>Select appropriate virtual keys to enter an entire word.</li> <li>When the word displays correctly, select in to insert a space. If the correct word does not display, select to select an alternate word.</li> </ol>	

Mode	Function	
Number	Select an appropriate virtual key to enter a number.	
Symbol	Select an appropriate virtual key to enter a symbol.	

#### Enter text using the writing box 1

- 1. Change the text input method to Writing box 1.
- Write each character in the writing area.
   Write numbers and symbols in the ?1 box at the bottom right of the writing area.
   To change case, select Abc.

#### Enter text using the writing box 2

- Change the text input method to Writing box 2.
- Write each character in the writing area.To change case or use numbers or symbols, select Abc.

#### Enter text on the QEWRTY keyboard

Open the phone and rotate anti-clockwise to landscape view. You can use the QWERTY keyboard. Enter text as you would when using a computer's keyboard.

When entering text on the QWERTY keyboard, you can use the following functions:

- Press [♠] to change case.
- Press [Alt] to enter characters on the upper half of the keys; press twice quickly to set Number and Symbol lock.
- Press [Sym] to switch to Symbol mode; press twice to open the emoticon list.
- Press [ ] to insert a space.
- Press [←] to delete characters.
- Press [←] to start a new line.

# View text or multimedia messages

- 1. In Menu mode, select **Messages** → **Inbox**.
- 2. Select a text or multimedia message.

#### View an email

- In Menu mode, select Messages → Email inbox.
- 2. Select an account.
- Select Download.
- 4. Select an email or a header.
- 5. If you selected a header, select **Retrieve** to view the body of the email.

## Add and find contacts

Learn the basics of using the phonebook feature.



The memory location to save new contacts may be preset depending on your service provider. To change the memory location, in Menu mode, select Settings → Application settings → Phonebook → Memory in use → Save new contacts to.

#### Add a new contact

- In Menu mode, select **Keypad** and enter a phone number.
- Select → Add to Phonebook → New.
- 3. Select Phone or SIM (if necessary).
- 4. Enter contact information.
- 5. Select Save to add the contact to memory.

#### Find a contact

- 1. In Menu mode, select Phonebook.
- Select Tap to search, enter the first few letters of the name you want to find, and select Done.
   You can also drag to select the first letter of the name.
- 3. Select the contact's name from the search list.



Once you have found a contact, you can:

- ullet call the contact by selecting lacktriangle lacktriangle
- edit the contact information by selecting Edit

## Use basic camera functions

Learn the basics to capture and view photos and videos.

## Capture photos

- In Idle mode, press the Camera key to turn on the camera.
- Rotate the phone anti-clockwise to landscape view.
- 3. Aim the lens at the subject and make any adjustments.
  - To select a time delay, select Q.
  - To set the exposure value, select 2.
  - To zoom in or out, press the Volume key.
- 4. Press the Camera key to take a photo. The photo is saved automatically.

After capturing photos, select to view photos.

## View photos

In Menu mode, select My files  $\rightarrow$  Images  $\rightarrow$  a photo folder  $\rightarrow$  a photo file.

While viewing the photo file,

- Rotate the phone anti-clockwise to landscape view. Tilt the phone to the left or right. Photos will scroll left or right automatically.
- Touch and hold the screen and drag g up or down to zoom in or out. Double-touch the screen to exit the zoom screen.
- Select More → Slide show to view photos as a sideshow.

# Capture videos

- In Idle mode, press the Camera key to turn on the camera.
- Rotate the phone anti-clockwise to landscape view.
- 3. Select on to switch to Recording mode.
- 4. Aim the lens at the subject and make any adjustments.
  - To change the recording mode, select
  - To select a time delay, select Q.
  - To set the exposure value, select <a>\mathbb{\mathbb{Z}}</a>.
  - To zoom in or out, press the Volume key.
- 5. Press the Camera key to start recording.
- 6. Select or press the Camera key to stop recording.

The video is saved automatically.

After capturing videos, select 
to view videos.

#### View videos

In Menu mode, select **My files**  $\rightarrow$  **Videos**  $\rightarrow$  a video folder  $\rightarrow$  a video file.

- Rotate the phone anti-clockwise to landscape view.
- Select 🔳 to change the view mode.

#### Listen to music

Learn how to listen to music via the music player or  $\ensuremath{\mathsf{FM}}$  radio.

#### Listen to the FM radio



While listening to the radio, do not connect the travel adapter or PC data cable to your phone. The adapter or cable may interrupt the headset's function as a radio antenna.

- Plug the supplied headset into the phone's headset jack.
- 2. In Menu mode, select FM radio.
- Select Yes to start automatic tuning.
   The radio scans and saves available stations automatically.



The first time you turn on the FM radio, you will be prompted to start automatic tuning.

4. Control the FM radio using the following icons:

Icon	Function
<< >>	Tune a radio station; Select a saved radio station (touch and hold)
<b>&gt;</b>	Turn on the FM radio
	Turn off the FM radio

Icon	Function	
≡	Open the favourite list ▶ p. 56	
∩/4	Change the sound output	

If you want to get information about the song you hear, select More → Find music. ▶ p. 56

5. To turn off the FM radio, select ■.

#### Listen to music files

Start by transferring files to your phone or memory card:

- Download from the wireless web. ▶ Browse the web
- Download from a PC with the optional Samsung PC Studio. ▶ p. 53
- Receive via Bluetooth. ▶ p. 58

- Copy to your memory card. ▶ p. 53
- Synchronise with Windows Media Player 11.
   ▶ p. 54

After transferring music files to your phone or memory card,

- 1. In Menu mode, select Music player.
- 2. Select a music category → a music file.
- 3. Control playback using the following icons:

control playbach doing are removing roomer		
Icon	Function	
- 11	Pause playback	
<b>&gt;</b>	Play or resume playback	
<b> </b> 44	Skip backward; Scan backward in a file (touch and hold)	
₩	Skip forward; Scan forward in a file (touch and hold)	
<i>5</i> ∕4,	Activate the Shuffle mode (★: on, ★: off)	

Icon	Function
NORM*	Change the sound effect
_A_*	Change the repeat mode ( <u>A</u> ; off, C1⊋: repeat one, CA⊋: repeat all)

<sup>\*</sup> When you touch the screen, the icons will be available.

#### Browse the web

Learn to access and bookmark your favourite web pages.



- You may incur additional charges for accessing the web and acknowledging media
- The browser menu may be labelled differently depending on your service provider.
- Available icons may vary depending on your region or service provider.

# Browse web pages

- In Menu mode, select Internet → Home to launch your service provider's homepage.
- 2. Navigate web pages using the following icons:

_	
Icon	Function
< →	Move backward or forward on a web page
×	Stop loading the web page
Φ	Refresh the current web page
Ţ=:(	Change the view mode
*	Open a list of saved bookmarks
<b>†</b> 0	Add the current web page to the bookmark list
	Access a list of browser options

# Bookmark your favourite web pages

- In Menu mode, select Internet → Bookmarks.
- 2. Select Add.
- 3. Enter a page title and a web address (URL).
- 4. Select Save.

#### Download media files



This feature may be unavailable depending on your region or service provider.

- 1. In Menu mode, select Downloads.
- Search for a ringtone or picture and download it to the phone.

# Use the Google services

Learn how to use various Google services.



- This feature may be unavailable depending on your region or service provider.
- The steps you must select to use this feature may differ depending on your region or service provider.

#### Connect to Search

- In Menu mode, select Google → Search.
- 2. Enter a keyword in the search field.

#### Connect to Mail

- 1. In Menu mode, select Google → Mail.
- 2. Set up your Google account and sign in.
- 3. Send or receive emails.

# Connect to Maps

To search the map,

- In Menu mode, select Google → Maps.
- 2. Scroll through the map.
- 3. Zoom in or out on the location you want. To search for a specific location,
- 1. In Menu mode, select Google → Maps.
- Select Menu → Search Map and enter the address or the category of the business.

To get directions to a specific destination,

- In Menu mode, select Google → Maps.
- 2. Select Menu → Get Directions.
- 3. Enter the addresses of the starting location and the ending location.
- Select Show directions to view on the map.
   To enhance the map functionality, download GPS data files. ▶ p. 72

# using advanced functions

Learn how to perform advanced operations and use additional features of your mobile phone.

#### Use advanced call functions

Learn about your phone's additional calling capabilities.

#### View and dial missed calls

Your phone will display calls you have missed on the display.

When you have one missed call, select the call from the event alert widget and select **Voice call** to dial.

When you have two missed calls or more, select the call from the event alert widget and select  $\mathbf{Logs} \rightarrow \mathbf{a}$  missed call.

## Call a recently dialled number

- In Idle mode, press [ ] to display a list of recent numbers.
- 2. Scroll to the number you want and select \(\mathbb{C}\) or press [\(-\mathbb{\cap}\)] to dial.

#### Hold a call or retrieve a held call

Select **Hold** to place a call on hold or select **Retrieve** to retrieve a held call.

#### Dial a second call

If your network supports this function, you can dial another number during a call:

- 1. Select Hold to place the first call on hold.
- Enter the second number to dial and select New call or press [--].
- 3. Select Swap to switch between the two calls.
- To end the call on hold, select On hold → □.
- 5. To end the current call, press [7].

#### Answer a second call

If your network supports this function, you can answer a second incoming call:

- Press [ ] to answer the second call.
   The first call is automatically placed on hold.
- 2. Select Swap to switch between the calls.

# Make a multiparty call (conference call)

- Call the first party you want to add to the multiparty call.
- While connected to the first party, call the second party.

  The first party is automatically placed on hold.
- 3. When connected to the second party, select

- 4. Repeat steps 2 and 3 to add more parties (if necessary).
- 5. To end the multiparty call, press [ ].

#### Call an international number

- In Idle mode, select Keypad and touch and hold 0 to insert the + character.
- Enter the complete number you want to dial (country code, area code, and phone number), and then press [ ] to dial.

## Call a contact from the phonebook

You can call numbers directly from the phonebook using stored contacts. ▶ p. 37

- 1. In Menu mode, select Phonebook.
- 2. Select the contact you want.
- 3. Select 
  next to the number you want to dial →
  (voice call) or (video call).

# Reject a call

To reject an incoming call, press [ ]. The caller will hear a busy tone.

To reject calls from certain numbers automatically, use the auto rejection. To activate the auto rejection and set up the reject list.

- In Menu mode, select Settings → Application settings → Call → All calls → Auto reject.
- 2. Select On under Activation.
- Select Add number.
- 4. Select the number input field.
- 5. Enter a number to reject and select Done.
- 6. Select Save.
- 7. Repeat steps 3-6 to add more numbers.
- 8. Select the check boxes next to the numbers.
- 9. Select Save.

# Use advanced phonebook functions

Learn to create namecards, set favourite numbers, and create groups of contacts.

#### Create a namecard

- In Menu mode, select Phonebook → More → My namecard.
- 2. Enter your personal details.
- 3 Select Save



You can send your namecard by attaching it to a message or email or transferring it via the Bluetooth wireless feature.

#### Set favourite numbers

- 1. In Menu mode, select **Phonebook**.
- 2. Select the **Contacts** drop-down menu and select **Favourites**.

- Select Add.
- Select a contact.
   The contact is saved to the favourite number list.



- You can call this contact by touching and holding the assigned number in the dialling screen.
- The favourite numbers will be assigned to the buddy list ( ) on the widget toolbar. You can make calls or send messages by selecting a contact from the buddy list.

# Create a group of contacts

By creating groups of contacts, you can assign group names, ringtones, caller ID photos, and vibration type to each group or send messages and emails to an entire group. Start by creating a group:

- In Menu mode, select Phonebook.
- 2. Select the **Contacts** drop-down menu and select **Groups**.

- 3. Select Create group.
- 4. Set a group name, the caller ID photo, a group ringtone, and vibration type.
- Select Save.
- Select Yes and add contacts to the group (if necessary).

# Use advanced messaging functions

Learn to create templates, use templates to create new messages, and create message folders.

# Create a text template

- In Menu mode, select Messages → Templates
   → Text templates.
- 2. Select Create to open a new template window.
- 3. Select the text input field and enter you text.
- 4. Select Save.

## Create a multimedia template

- In Menu mode, select Messages → Templates
   → Multimedia templates.
- 2. Select Create to open a new template window.
- Create a multimedia message, with a subject and desired attachments, to use as your template. ▶ p. 33
- 4. Select Save.

# Insert text templates in new messages

- To start a new message, in Menu mode, select Messages → Create message → a message type.
- Select More → Insert → Text template → a template.

# Create a message from a multimedia template

- In Menu mode, select Messages → Templates
   → Multimedia templates.
- Select in next to the template you want.
   Your template opens as a new multimedia message.

# Create a folder to manage messages

- 1. In Menu mode, select Messages → My folders.
- 2. Select Create folder.
- 3. Enter a new folder name and select **Save**. Move messages from a message folder to your folders to manage them as your preferences.

## Use the Palringo messenger



This feature may be unavailable depending on your region or service provider.

- In Menu mode, select IM.
- Select OK from the intro window.



The first time you access **Palringo**, you will be prompted to confirm.

- Select Menu → Sign In.
- 4. Enter your user ID and password, and select **Sign In**.
- 5. Chat with your family or friends instantly.

# Send and view email using Emoze

With this push mail feature, you can send and view email messages from your email account.

In Menu mode, select **Emoze** and set up your email account to send and view email messages.

# Use advanced camera functions

Learn how to capture photos in various modes and customise camera settings.

# Capture photos by using options preset for various scenes

- 1. In Idle mode, press the Camera key to turn on the camera.
- 2. Rotate the phone anti-clockwise to landscape view.

- 3. Select  $(3) \rightarrow a \text{ scene} \rightarrow (6)$
- 4. Make any necessary adjustments.
- 5. Press the Camera key to take a photo.

# Capture photos in Smile shot mode

- In Idle mode, press the Camera key to turn on the camera.
- Rotate the phone anti-clockwise to landscape view.
- 3. Select **S** → Smile shot.
- 4. Make any necessary adjustments.
- 5. Press the Camera key.
- Aim the camera lens at your subject.
   Your phone recognises people in an image and detects their smiles. When the subject smiles, the phone automatically takes a photo.

# Capture a series of photos

- In Idle mode, press the Camera key to turn on the camera
- Rotate the phone anti-clockwise to landscape view.
- 3. Select S → Continuous.
- 4. Make any necessary adjustments.
- Press and hold the Camera key to take a series of photos.

# Capture panoramic photos

- 1. In Idle mode, press the Camera key to turn on the camera.
- Rotate the phone anti-clockwise to landscape view.
- 3. Select **S** → Panorama.
- 4. Make any necessary adjustments.

- 5. Press the Camera key to take the first photo.
- Slowly move the phone to the direction you want. When you align the frame with the centre frame, the phone captures the next photo automatically.
- 7. Repeat step 6 to complete the panoramic photo.

# Use camera options

Before capturing a photo, select (6) to access the following options:

Option	Function
Resolution	Change the resolution option
White balance	Adjust the colour balance
Effects	Apply a special effect
Exposuremeter	Select a type of exposure meter
Image quality	Adjust the quality of your photos

Before capturing a video, select (6) to access the following options:

Option	Function
Resolution	Change the resolution option
White balance	Adjust the colour balance
Effects	Apply a special effect
Video quality	Adjust the quality of your video clips

# Customise camera settings

Before capturing a photo, select  $\{\hat{Q}\} \rightarrow \{\hat{Q}\}\$  to access the following settings:

Setting	Function
Guidelines	Change the preview screen
Review	Set the camera to switch to the review screen after capturing photos

Setting	Function
GPS connection	Set the camera to record GPS information to photos
Shutter sound	Select a sound to accompany the shutter action
Storage	Select a memory location to store new photos
Reset settings	Reset the camera settings
Shortcut info	View the shortcut information
OF IOI LCUL II IIO	view the shortcut information

Before capturing a video, select  $\{\hat{0}\} \rightarrow \{\hat{0}\}$  to access the following settings:

Setting	Function
Guidelines	Change the preview screen
Audio recording	Turn the audio on or off
Storage	Select a memory location to store new video clips

Setting	Function
Reset settings	Reset the camera settings
Shortcut info	View the shortcut information

# Use advanced music functions

Learn to prepare music files, create playlists, and store radio stations.

# Copy music files via Samsung PC Studio

- In Menu mode, select Settings → Phone settings → PC connections → Samsung PC studio or Mass storage → Save.
- 2. Press [ To return to Idle mode.
- 3. Using an optional PC data cable, connect the multifunction jack on your phone to a PC.

4. Run Samsung PC Studio and copy files from the PC to the phone.

Refer to the Samsung PC Studio help for more information.

# Copy music files to a memory card

- 1. Insert a memory card.
- In Menu mode, select Settings → Phone settings → PC connections → Mass storage → Save.
- 3. Press [ to return to Idle mode.
- Using an optional PC data cable, connect the multifunction jack on your phone to a PC.
   When connected, a pop-up window will appear on the PC.
- 5. Open the folder to view files.
- 6. Copy files from the PC to the memory card.

# Synchronise your phone with Windows Media Player

- 1. Insert a memory card (if necessary).
- In Menu mode, select Settings → Phone settings → PC connections → Media player → Save.
- 3. Press [ to return to Idle mode.
- Using an optional PC data cable, connect the multifunction jack on your phone to a PC with Windows Media Player installed.
   When connected, a pop-up window will appear on the PC.
- Open Windows Media Player to synchronise music files.
- 6. Edit or enter your phone's name in the pop-up window (if necessary).

- Select and drag the music files you want to the sync list.
- 8. Start synchronisation.

# Create a playlist

- In Menu mode, select Music player → Playlists.
- 2. Select Create.
- Select the text input field.
- Enter a title for your new playlist and select Done.
- To assign an image to the playlist, select Tap to edit and select an image or capture a new photo.
- 6 Select Save
- 7. Select the new playlist.
- Select Add → Tracks.
- Select the files you want to include and select Add.

# Customise your music player settings

- 1. In Menu mode, select Music player.
- 2. Select Settings.
- 3. Adjust the settings to customise your music player:

Option	Function
Background playing	Set whether to play music in the background when you end the music player
Sound effects	Select the default equaliser type
Music menu	Select music categories to display in the music library screen

4. Select Save.

# Record songs from the FM radio

- 1. Plug the supplied headset into the phone's headset jack.
- In Menu mode, select FM radio.
- 3. Select ▶ to start the FM radio.
- Select More → Record to start recording.
- When you are finished recording, select Stop.
   The music file will be saved in Radio clips (in Menu mode, select My files → Sounds).

The recording feature is developed for voice recording only. The quality of the recording will be much lower than digital media.

# Store radio stations automatically

- Plug the supplied headset into the phone's headset jack.
- 2. In Menu mode, select FM radio.
- Select More → Self-tuning.
- Select **Yes** to confirm (if necessary).
   The radio scans and saves available stations automatically.

# Set up your favourite radio station list

- Plug the supplied headset into the phone's headset jack.
- 2. In Menu mode, select **FM radio**.
- Select ➤ to start the FM radio.
- 4. Select a radio station to add to the favourite list.
- Select Add to Favourites.

#### Find information of music

Learn to access an online music service and get information about the songs you hear while on the move.

- In Menu mode, select Find music.
- 2. Select Find music to connect to the server.
- When your phone is successfully registered, select • to record a part of music you want to find.



Some service providers may not support this service and the database may not have information for all songs.

# using tools and applications

Learn how to work with your mobile phone's tools and additional applications

## Use the Bluetooth wireless feature

Learn about your phone's ability to connect to other wireless devices for exchanging data and using hands-free features.

#### Turn on the Bluetooth wireless feature

- 1. In Menu mode, select Bluetooth.
- 2. Select the circle in the centre to turn on the Bluetooth wireless feature.
- To allow other devices to locate your phone, select More → Settings → On under My phone's visibility → a visibility option → Save. If you selected Custom, set duration that your phone is visible.
- Select Save.

#### Find and pair with other Bluetoothenabled devices

- 1. In Menu mode, select Bluetooth → Search.
- 2. Select and drag a device icon into the centre.
- Enter a PIN for the Bluetooth wireless feature or the other device's Bluetooth PIN, if it has one, and select **Done**.

When the owner of the other device enters the same PIN or accepts the connection, pairing is complete.



You may not need to enter a PIN depending on the device.

# Send data using the Bluetooth wireless feature

- Select the file or item from one of your phone's applications that you want to send.
- Select Send via or Send URL via → Bluetooth, or select More → Send namecard via → Bluetooth.

# Receive data using the Bluetooth wireless feature

- Enter the PIN for the Bluetooth wireless feature and select OK (if necessary).
- 2. Select **Yes** to confirm that you are willing to receive data from the device (if necessary).

#### Use Remote SIM mode

In Remote SIM mode, you can make or answer calls only with a connected Bluetooth hands-free car kit via the SIM or USIM card on your phone.

To activate Remote SIM mode,

- In Menu mode, select Bluetooth → More → Settings.
- Select On under Remote SIM mode → Save.
   To use Remote SIM mode, start the Bluetooth connection from a Bluetooth hands-free car kit.

# Activate and connect to a wireless LAN (WLAN)

Learn to activate and connect to a wireless LAN.



Your phone uses non-harmonised frequency and is intended for use in all European countries. The WLAN can be operated in the EU without restriction indoors, but cannot be operated outdoors in France.

#### Activate a WLAN

- 1. In Menu mode, select Wi-Fi.
- Select the circle in the centre to activate a WI AN.



The activated WLAN in the background will consume battery power. To preserve battery power, activate the WLAN only when needed.

#### Search for and connect to a WLAN

- 1. In Menu mode, select Wi-Fi → Search.
- Select a network icon → Add and add a connection profile.



- If the network you want needs an IP address, subnet mask, DNS, or gateway information, select Advanced settings.
- Wi-Fi security should be set as the selected network configuration and 802.1x (EAP-TTLS, PEAP) is supported.
- 3. In Menu mode, select Internet or Communities, or in Idle mode, select a web-based widget.
- Select and drag a network icon into the centre (if necessary).
  - Your phone connects to the network using the connected WLAN profile.



To access the internet via another method, change the connection profile to the desired method.

To connect to a WLAN using a WPS (Wi-Fi Protected Setup) access point,

- In Menu mode, select Wi-Fi → Search.
- Select a WPS icon ( and select Add.
- 3. Select WPS push button or WPS enter PIN depending on the AP device type.
- 4. Select **Start** and press a WPS button on the AP device within 2 minutes.

Or, enter a PIN on the AP device and select  ${\bf Start}$  within 2 minutes.

# Activate and send an SOS message

In case of an emergency, you can send an SOS message asking for help.



This feature may be unavailable depending on your region or service provider.

- In Menu mode, select Messages → SOS messages → Sending options.
   Select On to turn on the SOS messaging
- feature.
- 3. Select the recipient field to open the recipient list.
- 4. Select 🗓 to open your contact list.
- 5. Select the contacts you want and select Add.
- 6. Select a phone number (if necessary).

- When you are finished selecting contacts, select Save to save the recipients.
- 8. Select the **Once** drop-down menu and select the number of times to repeat the SOS message.
- 9. Select Save → Yes.

To send an SOS message, the touch screen and keys must be locked. Press the Volume key four times.



Once you send an SOS message, all phone functions will be suspended until you press and hold [HOLD] or press []. If you press [], phone functions will be available, but the keys will remain locked.

## Activate the mobile tracker

When someone inserts a new SIM or USIM card in your phone, the mobile tracker feature will automatically send the contact number to two recipients to help you locate and recover your phone. To activate the mobile tracker,

- In Menu mode, select Settings → Security → Mobile tracker.
- 2. Enter your password and select Confirm.
- 3. Select On to turn on the mobile tracker.
- 4. Select the recipient field to open the recipient list.
- 5. Select It to open your contact list.
- 6. Select the contacts you want and select Add.
- 7. Select a phone number (if necessary).
- 8. When you are finished selecting contacts, select **Save** to save the recipients.

- 9. Select the sender input field.
- 10. Enter the sender's name and select Done.
- 11. Select **Save** → **Accept**.

# Make fake calls

You can simulate an incoming call when you want to get out of meetings or unwanted conversations. You can also make it appear as if you are talking on the phone by playing back a recorded voice.

#### Activate the fake call feature

- In Menu mode, select Settings → Application settings → Call → Fake call.
- 2. Select On under Activation.

#### Make a fake call

In Idle mode, press and hold the Volume key down.

#### Record a voice

- In Menu mode, select Settings → Application settings → Call → Fake call → Fake call voice.
- 2. Select On under Fake call voice.
- Select Voice recording.
- 4. Select 
  to start recording.
- 5. Speak into the microphone.
- 6. When you are finished speaking, select
- Select to set the recording as a response for the fake call.

# Change the time delay before fake calls

- In Menu mode, select Settings → Application settings → Call → Fake call → Fake call timer.
- Select an option → Save.

# Record and play voice memos

Learn to operate your phone's voice recorder.

#### Record a voice memo

- 1. In Menu mode, select Voice recorder.
- 2. Select 
  to start recording.
- 3. Speak your memo into the microphone.
- 4. When you are finished speaking, select ...
  Your memo is saved automatically.

## Play a voice memo

- In Menu mode, select Voice recorder → My voice clips.
- 2. Select a file.

3. Control the playback using the following icons:

Icon	Function
- 11	Pause playback
•	Play or resume playback
144	Skip backward; Scan backward in a file (touch and hold)
₩	Skip forward; Scan forward in a file (touch and hold)

# Edit images

Learn to edit images and apply fun effects.

# Apply effects to images

- 1. In Menu mode, select Image editor.
- Rotate the phone anti-clockwise to landscape view.

- Select Load an image for editing and select an image.
- Select Effects → an effect option (filter, style, warp, or partial blur).
- Select a variation of the effect to apply and select OK.
   To apply a blur effect to a specific area of an image, draw the rectangle and select OK.
- 6. When you are finished, select File → Save as.
- Select a memory location (if necessary).
- 8. Enter a new file name for the image and select **Done**.

# Adjust an image

 Open an image to be edited. Refer to steps 1-3 in "Apply effects to images."

- Select Adjust → an adjustment option (brightness, contrast, or colour).
   To adjust the image automatically, select Auto level.
- Adjust the image as desired by using the slider and select OK
- 4. Save the edited image with a new file name. Refer to steps 6-8 in "Apply effects to images."

#### Insert a visual feature

- 1. Open an image to be edited. Refer to steps 1-3 in "Apply effects to images."
- Select the arrow at the bottom right of the screen.
- 3. Select **1**, **△**, **②**, or **○**.
- 4. Select a visual feature (image, emoticon, or clip art), or enter text and select **Done**.

- Move or resize the visual feature and select OK.
- 6. Save the edited image with a new file name. Refer to steps 6-8 in "Apply effects to images."

## Transform an image

- Open an image to be edited. Refer to steps 1-3 in "Apply effects to images."
- 2. Select the arrow at the bottom right of the screen
- 3. Select O or 📮.
- Rotate, flip, or resize the image as desired and select OK
- 5. Save the edited image with a new file name. Refer to steps 6-8 in "Apply effects to images."

#### Crop an image

- 1. Open an image to be edited. Refer to steps 1-3 in "Apply effects to images."
- 2. Select the arrow at the bottom right of the screen.
- 3. Select 🗹
- 4. Draw a rectangle over the area you want to crop and select  $\mathbf{OK} \to \mathbf{OK}$ .
- Save the edited image with a new file name. Refer to steps 6-8 in "Apply effects to images."

# Print images

Learn to print your image with a USB connection or the Bluetooth wireless feature.

To print an image using a USB connection,

- Connect the multifunction jack on your phone to a compatible printer.
- 2. Open an image. ▶ p. 38
- Select More → Print via → USB.
- 4. Set print options and print the image.

To print an image using the Bluetooth wireless feature,

- 1. Open an image. ▶ p. 38
- 2. Select More → Print via → Bluetooth.
- Select a Bluetooth-enabled printer and pair with the printer. ▶ p. 58
- 4. Set print options and print the image.

# Upload photos and videos to the web

Learn to post your photos and videos to photo sharing websites and blogs.



Communities may be unavailable depending on your region or service provider.

#### Set your favourite destination list

- 1. In Menu mode, select Communities.
- Select Yes to set your favorite destination list (if necessary).
- Select Accept to confirm that you agree to the general disclaimer.



The first time you access **Communities**, you will be prompted to confirm.

4. Select the destinations you want to add and select **Save**.

If you selected **Update lists**, new destination sites are added to the list automatically.

## Upload a file

To upload photos and videos, you must have accounts of photo sharing websites and blogs.

- In Menu mode, select Communities.
- 2. Select Upload to web.
- 3. Select a destination you want to post to.
- 4. Select **Tap to add** → a media file.
- 5. Enter the post details and select Upload.
- 6. Enter the user ID and password of the destination (if necessary).



You can also upload media files from Camera or My files by selecting More → Upload to web.

#### View a file

 In Menu mode, select a website or blog (Facebook or MySpace).



You can access more websites or blogs by selecting **Communities** in Menu mode.

2. Enter the user ID and password of the destination (if necessary).

## Customise the Communities settings

- 1. In Menu mode, select Communities.
- 2. Select Settings.
- 3. Adjust the settings.

Setting	Function
Upload details	View details of your last upload
Preferred lists	Edit favourite destinations
Image resize	Change the image size to upload

Setting	Function
Upload reservation	Set your phone to upload files to a destination automatically at the scheduled time
Account manager	Log in to a website or blog or log out
Communities profiles	Change the connection profile
Disclaimer	View the disclaimer information

# Use Java-powered games and applications

Learn to use games and applications powered by award-winning Java technology.



The download of Java games or Java applications may not be supported depending on the software of the phone.

## Download games or applications

 In Menu mode, select Games and more → More games.

Your phone connects to the website preset by your service provider.

2. Search for a game or application and download it to the phone.

#### Play games

- 1. In Menu mode, select Games and more.
- Select a game from the list and follow the onscreen instructions.



Available games may vary depending on your region or service provider. Game controls and options may vary.

### Launch applications

- In Menu mode, select Games and more → an application.
- 2. Select **More** to access a list of various options and settings for your application.

# Synchronise data

Learn to synchronise the contacts, calendar events, tasks, and memos with the web server you have specified. You can also synchronise the contacts, calendar events, tasks, and emails with a Microsoft Exchange server.

## Synchronise data with a web server

To create a synchronisation profile,

- 1. In Menu mode, select Synchronise.
- 2. Select Add and specify profile parameters.
- 3. When you are finished, select Save.

To start synchronisation.

- 1. In Menu mode, select Synchronise.
- 2. Select a synchronisation profile.
- 3. Select **Continue** to start synchronisation with the web server you have specified.

# Synchronise data with a Microsoft Exchange server



You may only use the Microsoft<sup>®</sup> Exchange ActiveSync<sup>®</sup> feature in this phone with a service that is licensed by Microsoft Corporation to use Microsoft<sup>®</sup> Exchange ActiveSync<sup>®</sup>.

To set a Microsoft Exchange server and synchronisation profile,

- 1. In Menu mode, select Exchange ActiveSync.
- 2. Specify Microsoft Exchange server settings.
- Select Save.
- Select and specify an email connection profile by following the email setup wizard (if necessary).
- Select a synchronisation profile.
   Synchronisation with the Microsoft Exchange server you have specified starts.



You may incur additional charges for accessing the server.

#### To synchronise all items.

- 1. In Menu mode, select Exchange ActiveSync.
- 2. Select Sync.



If you synchronise all items, you may incur charges for updating unnecessary items.

To synchronise emails only,

- In Menu mode, select Exchange ActiveSync.
- 2. Select Email → Inbox → Sync → Email.

#### Use RSS feeds

Learn to use RSS feeds to get the latest news and information from your favourite websites.

#### Add an RSS feed address

- 1. In Menu mode, select Internet → RSS feeds.
- Select Add.

- Select the address input field.
- Enter the address of an RSS feed and select Done → OK.
- Select More → Add RSS feed to add more RSS feeds (step 3).

## Update and read RSS feeds

- 1. In Menu mode, select Internet → RSS feeds.
- 2. Select **Update** → a feed → **Update** → **Yes**.
- Select a feed category → an updated feed.



The auto update feature sets the phone to automatically update the RSS feeds at the specified interval. You can activate the auto update feature by selecting Internet → Settings → RSS update → Auto update.

## View your current position

Learn to determine the latitude, longitude, and altitude of your current position using the global navigation satellite system. You must be in outdoors for using the satellite.

In Menu mode, select Settings → Phone settings → GPS settings → GPS position.

## Update the GPS functionality

Learn to enhance the GPS functionality by downloading GPS data files. You can improve the speed and accuracy of positioning capability and expand your navigation to areas where cellular networks are not accessible.

In Menu mode, select Settings  $\rightarrow$  Phone settings  $\rightarrow$  GPS settings  $\rightarrow$  GPS+ settings  $\rightarrow$  Download data.

## Create and view world clocks

Learn to view the time in another region and set world clocks to appear on your display.

#### Create a world clock

- 1. In Menu mode, select World clock.
- 2. Select Add.
- 3. Select a time zone.
- To set daylight saving time, select \*.
- Select **OK** to create your world clock.The world clock is set as the second clock.
- 6. Select **Add** to add more world clocks (step 3).

## Add a world clock to your display

With the dual clock widget, you can view clocks with two different time zones on your display.

After you have created a world clock,

- 1. In Menu mode, select World clock.
- 2. Select Set as second clock.
- 3. Select the world clock you want to add.
- 4. Select Set.

#### Set and use alarms

Learn to set and control alarms for important events.

#### Set a new alarm

- 1. In Menu mode, select Alarms.
- 2. Select Create alarm.
- 3. Set alarm details.
- 4 Select Save



The auto power-up feature sets the phone to automatically turn on and sound the alarm at the designated time if the phone is turned off.

#### Stop an alarm

When the alarm sounds,

- Drag the slider to Stop to stop the alarm without snooze.
- Drag the slider to Stop to stop the alarm with snooze or drag the slider to Snooze to silence the alarm for the snooze period.

#### Deactivate an alarm

- 1. In Menu mode, select Alarms.
- Select Off next to the alarm you want to deactivate.

#### Use the calculator

- 1. In Menu mode, select Calculator.
- Use the keys that correspond to the calculator display to perform basic mathematical operations.

# Convert currencies or measurements

- In Menu mode, select Convertor → a conversion type.
- 2. Enter the currencies or measurements and units in the appropriate fields.

#### Set a countdown timer

- 1. In Menu mode, select Timer.
- 2. Set the length of time to count down.
- 3. Select **Start** to begin the countdown.
- 4. When the timer expires, drag the slider to **Stop** to stop the alert.

## Use the stopwatch

- 1. In Menu mode, select Stopwatch.
- 2. Select Start to begin the stopwatch.
- 3. Select Lap to record lap times.
- 4. When you are finished, select Stop.
- 5. Select Reset to clear recorded times.

## Create new tasks

- 1. In Menu mode, select Task.
- 2. Select Create task.
- 3. Enter the details of the task and select Save.

#### Create new memos

- In Menu mode, select Memo.
- 2. Select Create memo.
- 3. Enter your memo text and select Done.

# Manage your calendar

Learn to change the calendar view and create events.

#### Change the calendar view

- 1. In Menu mode, select Calendar.
- 2. Select More → View by day or View by week.

#### Create events

- 1. In Menu mode, select Calendar.
- Select Create → an event type.
- 3. Enter the details of the event as required.
- 4. Select Save.

#### View events

To view events of a specific date,

- 1. In Menu mode, select Calendar.
- 2. Select a date on the calendar.
- 3. Select an event to view its details.

To view events by event types,

- 1. In Menu mode, select Calendar.
- 2. Select Event list → an event type.
- 3. Select an event to view its details.

# troubleshooting

If you are having trouble with your mobile phone, try these troubleshooting procedures before contacting a service professional.

When you turn on your phone or while you are using the phone, it prompts you to enter one of the following codes:

Code	Try this to solve the problem:
Password	When the phone lock feature is enabled, you must enter the password you set for the phone.
PIN	When using the phone for the first time or when the PIN requirement is enabled, you must enter the PIN supplied with the SIM or USIM card. You can disable this feature by using the <b>PIN lock</b> menu.

Code	Try this to solve the problem:
PUK	Your SIM or USIM card is blocked, usually as a result of entering your PIN incorrectly several times. You must enter the PUK supplied by your service provider.
PIN2	When you access a menu requiring the PIN2, you must enter the PIN2 supplied with the SIM or USIM card. For details, contact your service provider.

#### The phone prompts you to insert the SIM card.

Ensure that the SIM or USIM card is installed correctly.

# Your phone displays "Service unavailable" or "Network Connection Error."

- When you are in areas with weak signals or poor reception, you may lose reception. Move to another area and try again.
- You cannot access some options without a subscription. Contact your service provider for more details.

#### You enter a number, but the call is not dialled.

- Ensure that you have pressed the Dial key: [-].
- Ensure that you have accessed the right cellular network
- Ensure that you have not set call barring for the phone number.

#### Another caller cannot reach you.

- Ensure that your phone is turned on.
- Ensure that you have accessed the right cellular network.
- Ensure that you have not set call barring for the phone number.

#### Another caller cannot hear you speaking.

- Ensure that you are not covering the built-in microphone.
- Ensure that the microphone is close to your mouth.
- If using a headset, ensure that it is properly connected

#### The phone beeps and the battery icon flashes.

Your battery is low. Recharge or replace the battery to continue using the phone.

#### The audio quality of the call is poor.

- Ensure that you are not blocking the phone's internal antenna.
- When you are in areas with weak signals or poor reception, you may lose reception. Move to another area and try again.

# You select a contact to call, but the call is not dialled.

- Ensure that the correct number is stored in the contact list.
- · Re-enter and save the number, if necessary.

# The battery does not charge properly or sometimes the phone turns itself off.

- The battery terminals may be dirty. Wipe both gold-coloured contacts with a clean, soft cloth and try charging the battery again.
- If the battery will no longer charge completely, dispose of the old battery properly and replace it with a new battery.

#### Your phone is hot to the touch.

When you use applications that require more power, your phone may heat up.

This is normal and should not affect your phone's lifespan or performance.

# index

#### alarms

creating, 73 deactivating, 73 stopping, 73

#### battery

charging, 20 installing, 18 low battery indicator, 20

#### Bluetooth

activating, 57 receiving data, 58 remote SIM mode, 59 sending data, 58

#### browser see web

calculator see tools, calculator

## calendar

see tools, calendar

#### calls

advanced functions, 44 answering additional calls, 45 answering, 32 basic functions, 32 dialling additional calls, 45 dialling missed calls, 44 from the phonebook, 46 international numbers, 46 making fake calls, 62 making, 32 multiparty, 45 placing on hold, 45 recently dialled, 44 rejecting, 46 retrieving held calls, 45 viewing missed, 44

#### clock

see world clock

# Communities

see tool, mobile blog

conference calls see calls, multiparty

contacts

adding, 36 creating groups, 47 finding, 37

converter see tools, convertor

countdown timer see tools, countdown timer

Emoze 50

fake calls see calls, making fake calls

FM radio listening to. 39 recording songs, 55 storing stations, 56

Google services 42

headset 33

IM

see messages, sending instant

images

adjusting, 64 applying effects, 64 cropping, 66 inserting visual features, 65 printing, 66 transforming, 65

internet see web browser

Java accessing applications, 69 downloading, 69 launching games, 69

key tones 28

lock see phone lock

memo see text or voice memos

memory card 21

messages sending email, 33 sending instant, 49 sending multimedia, 33 sending text, 33 viewing email, 36 viewing multimedia, 36 viewing text, 36

Microsoft Exchange synchronisation 70

mobile tracker 62

multimedia see messages

music finding 56

music player creating playlists, 54 customising, 55 listening to music, 40 synchronising, 54

namecards 47 offline profile 23

phone lock 31

photos advanced capturing, 50 basic capturing, 37 editing, 64 viewing, 38

radio see FM radio

ringtone 29
RSS feeds
see tools, RSS feeds

Samsung PC Studio 53 silent profile 29 SIM card 18 SOS message 61 stopwatch see tools, stopwatch

synchronisation creating a profile, 69 starting, 70

task see tools, task

templates inserting, 48 multimedia, 48 text, 48

text entering, 34 memo, 75 messages, 33

#### timer

see tools, countdown timer

#### tools

alarm, 73
calculator, 73
calendar, 75
convertor, 74
countdown timer, 74
image editor, 64
mobile blog, 67
RSS feeds, 71
stopwatch, 74
task, 74

#### videos

basic capturing, 38 viewing, 39

#### voice memos

playing, 63 recording, 63

#### volume

call volume, 32 key tone volume, 28

#### wallpaper 30

## web browser

adding bookmarks, 42 downloading multimedia, 42 launching homepage, 41

## widgets 26

Wi-Fi 59

Windows Media Player 54

#### world clock creating

creating, 72 setting dual display, 72

# Health and safety

# Exposure to Radio Frequency (RF) Signals

## **Certification Information (SAR)**

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the exposure limits for radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. government. These FCC exposure limits are derived from the recommendations of two expert organizations, the National Counsel on Radiation Protection and Measurement (NCRP) and the Institute of Electrical and Electronics Engineers (IEEE). In both cases,

the recommendations were developed by scientific and engineering experts drawn from industry, government, and academia after extensive reviews of the scientific literature related to the biological effects of RF energy.

The exposure limit set by the FCC for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate (SAR), The SAR is a measure of the rate of absorption of RF energy by the human body expressed in units of watts per kilogram (W/kg). The FCC requires wireless phones to comply with a safety limit of 1.6 watts per kilogram (1.6 W/kg). The FCC exposure limit incorporates a substantial margin of safety to give additional protection to the public and to account for any variations in measurements. SAR tests are conducted using standard operating positions accepted by the FCC 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 new model phone is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC.

positions and locations (e.g. at the ear and worn on the body) as required by the FCC. The highest SAR values for this model phone

Tests for each model phone are performed in

as reported to the FCC are: For body worn operations, this model phone has been testde and meets the FCC exposure guidelines when used with a Samsung accessory designated for this product or when used with an accessroy that contains no metal and that positons the handset a minimum 1.5 cm from the body.

Non-compliance with the above restrictions

may result in violation of FCC RF exposure guidelines.

SAR information on this and other model phones can be viewed on-line at

www.fcc.gov/oet/fccid. This site uses the phone FCC ID number A3LGTB5310L. Sometimes it may be necessary to remove the battery pack to find the number. Once you have the FCC ID number for a particular phone, follow the instructions on the website and it should provide values for typical or maximum SAR for a particular phone. Additional product specific SAR information can also be obtained at www.fcc.gov/cgb/sar.

# Consumer Information on Wireless Phones

The U.S. Food and Drug Administration (FDA) has published a series of Questions and Answers for consumers relating to radio frequency (RF) exposure from wireless phones. The FDA publication includes the following information:

# What kinds of phones are the subject of this update?

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called "cell," "mobile," or "PCS" phones. These types of wireless phones can expose the user to measurable radio frequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety quidelines that were developed with

the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called "cordless phones," which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures well within the FCC's compliance limits.

# Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radio frequency energy (RF) in the microwave range while being used. They

also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in

determining the reasons for inconsistent

results.

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

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radio frequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following:

hazard no longer exists.

- "Support needed research into possible biological effects of RF of the type emitted by wireless phones:
- "Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- "Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- "National Institute for Occupational Safety and Health
- "Environmental Protection Agency

- "Federal Communications Commission
- "Occupational Safety and Health Administration
- "National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones.

FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power

than do the wireless phones themselves, the RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the primary subject of the safety questions discussed in this document.

# What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radio frequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have

suggested that low levels of RF could

accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be predisposed to develop cancer in absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors

of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phones RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

# What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable

proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but ten or more years' followup may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

What is FDA doing to find out more about the possible health effects of wireless phone RF?

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radio frequency energy (RF).

FDA has been a leading participant in the World Health Organization international Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and Cellular Telecommunications & Internet Association (CTIA) have a formal

Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment. of additional research needs in the context of the latest research developments around the world.

# What steps can I take to reduce my exposure to radio frequency energy from my wireless phone?

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 you are concerned about avoiding even potential risks, you can take a few simple steps to minimize your exposure to radio frequency energy (RF). Since time is a key factor in how much exposure a person receives, reducing the amount of time spent using a wireless phone will reduce RF exposure.

 "If you must conduct extended conversations by wireless phone every day, you could place more distance between your body and the source of the RF, since the exposure level drops off dramatically with distance. For example, you could use a headset and carry the wireless phone away from your body or use a wireless phone connected to a remote antenna.

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you

are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use.

# What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radio frequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure.

Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the

United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any

health hazard exists.

# Do hands-free kits for wireless phones reduce risks from exposure to RF emissions?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that hands-free kits reduce risks. Hands-free kits can be used with wireless phones for convenience and comfort. These systems reduce the absorption of RF energy in the head because the phone, which is the source

of the RF emissions, will not be placed against the head. On the other hand, if the phone is mounted against the waist or other part of the body during use, then that part of the body will absorb more RF energy. Wireless phones marketed in the U.S. are required to meet safety requirements regardless of whether they are used against the head or against the body. Either configuration should result in compliance with the safety limit.

# Do wireless phone accessories that claim to shield the head from RF radiation work?

Since there are no known risks from exposure to RF emissions from wireless phones, there is no reason to believe that accessories that claim to shield the head from those emissions reduce risks. Some products that claim to shield the user from

RF absorption use special phone cases, while others involve nothing more than a metallic accessory attached to the phone. Studies have shown that these products generally do not work as advertised. Unlike "hand-free" kits, these so-called "shields" may interfere with proper operation of the phone. The phone may be forced to boost its power to compensate, leading to an increase in RF absorption. In February 2002, the Federal trade Commission (FTC) charged two companies that sold devices that claimed to protect wireless phone users from radiation with making false and unsubstantiated claims. According to FTC, these defendants lacked a reasonable basis to substantiate their claim.

What about wireless phone interference with medical equipment?

Radio frequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance

requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a

compatible hearing aid at the same time. This standard was approved by the IEEE in 2000.

medical devices. Should harmful

interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

FDA continues to monitor the use of wireless.

phones for possible interactions with other

Additional information on the safety of RF exposures from various sources can be obtained from the following organizations:

http://www.fcc.gov/oet/rfsafety/ Environmental Protection Agency (EPA):

http://www.epa.gov/radiation/

FCC RF Safety Program:

Occupational Safety and Health Administration's (OSHA): http://www.osha.gov/SLTC/ radiofrequencyradiation/index.html

National institute for Occupational Safety and Health (NIOSH): http://www.cdc.gov/niosh/emfpg.html

World health Organization (WHO): http://www.who.int/peh-emf/ International Commission on Non-

Ionizing Radiation Protection:

http://www.icnirp.de National Radiation Protection Board (UK):

Updated 4/3/2002: US food and Drug Administration http://www.fda.gov/cellphones

http://www.nrpb.org.uk

## Road Safety

Your wireless phone gives you the powerful ability to communicate by voice, almost anywhere, anytime. 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. When using your wireless phone behind the wheel of a car, practice good common sense and remember the following tips:

- Get to know your 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 and safety to your wireless phone with one of the many 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 get an incoming call at an inconvenient time, let your voice mail answer it for you.
- 4. Let the person you are speaking with know you are driving; if necessary,
- suspend the call in heavy traffic or hazardous weather conditions. Rain, sleet, snow, ice and even heavy traffic can be hazardous.
- 5. Do not take notes or look up phone numbers while driving. Jotting down a "to do" list or flipping 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.

- Do not engage in stressful or emotional conversations that may be distracting. Make people you are talking with aware you are driving and suspend conversations that have the potential to divert your attention 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. Remember, it is a free call on your wireless phone!
- 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 nonemergency wireless assistance number when necessary. If you see a brokendown 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 nonemergency number.

# "The wireless industry reminds you to use your phone safely when driving."

For more information, please call 1-888-901-SAFE, or visit our web-site www.wowcom.com

Provided by the Cellular Telecommunications & Internet Association

## **Operating Environment**

Remember to follow any special regulations in force in any area and always switch your phone off whenever it is forbidden to use it, or when it may cause interference or danger. When connecting the phone or any accessory to another device, read its user's guide for detailed safety instructions. Do not connect incompatible products.

As with other mobile radio transmitting equipment, users are advised that for the satisfactory operation of the equipment and for the safety of personnel, it is recommended that the equipment should only be used in the normal operating position (held to your ear with the antenna pointing over your shoulder).

#### Using Your Phone Near Other Electronic Devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone. Consult the manufacturer to discuss alternatives.

#### **Pacemakers**

Pacemaker manufacturers recommend that a minimum distance of 15 cm (6 inches) be maintained between a wireless phone and a pacemaker to avoid potential interference with the pacemaker.

These recommendations are consistent with the independent research and recommendations of Wireless Technology Research.

#### Persons with pacemakers:

- should always keep the phone more than 15 cm (6 inches) from their pacemaker when the phone is switched on.
- should not carry the phone in a breast pocket.
- should use the ear opposite the pacemaker to minimize potential interference.

If you have any reason to suspect that interference is taking place, switch your phone off immediately.

## **Hearing Aids**

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

#### Other Medical Devices

If you use any other personal medical devices, consult the manufacturer of your device to determine if it is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information. Switch your phone off in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

#### Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

#### **Posted Facilities**

Switch your phone off in any facility where posted notices require you to do so.

# **Potentially Explosive Environments**

Switch your phone off when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such

areas could cause an explosion or fire resulting in bodily injury or even death.

Users are advised to switch the phone off while at a refueling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), 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.

## **Emergency Calls**

This phone, like any wireless phone, operates using radio signals, wireless and landline networks as well as user programmed functions, which cannot guarantee connection in all conditions. Therefore, you should never rely solely on any wireless phone for essential communications (medical emergencies, for example).

Remember, to make or receive any calls the phone must be switched on and in a service area with adequate signal strength. Emergency calls may not be possible on all wireless phone networks or when certain

network services and/or phone features are in use. Check with local service providers.

To make an emergency call:

- 1. If the phone is not on, switch it on.
- Key in the emergency number for your present location (for example, 911 or other official emergency number). Emergency numbers vary by location.
- 3. Press

If certain features are in use (call barring, for example), you may first need to deactivate those features before you can make an emergency call. Consult this document and your local cellular service provider.

When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your phone may be the only means of communication at the scene of an accident; do not cut off the call until given permission to do so.

# Restricting Children's access to your Phone

Your phone is not a toy. Children should not be allowed to play with it because they could hurt themselves and others, damage the phone or make calls that increase your phone bill.

#### **FCC Notice and Cautions**

#### **FCC Notice**

- 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.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and,f not installed and used in accordance with the instructions, may cause harmful interference to radio communications

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct theinterference by one or more of the following measures:-Reorient or relocate the receiving antenna. -Increase the separation between the equipment and receiver.-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. -Consult the dealer or an experienced radio/TV technician for help.

The phone may cause TV or radio interference if used in close proximity to receiving equipment. The FCC can require you to stop using the phone if such interference cannot be eliminated.

Vehicles using liquefied petroleum gas (such as propane or butane) must comply with the National Fire Protection Standard (NFPA-58). For a copy of this standard, contact the National Fire Protection Association, One Battery march Park, Quincy, MA 02269, Attn: Publication Sales Division.

#### Cautions

Changes or modifications made in the radio phone, not expressly approved by Samsung, will void the user's authority to operate the equipment.

Only use approved batteries, antennas and chargers. The use of any unauthorized accessories may be dangerous and void the phone warranty if said accessories cause damage or a defect to the phone.

Although your phone is quite sturdy, it is a complex piece of equipment and can be broken. Avoid dropping, hitting, bending or sitting on it.

# Other Important Safety Information

- Only qualified personnel should service the phone or install the phone in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty applicable to the device.
- Check regularly that all wireless phone equipment in your vehicle is mounted and operating properly.
- Do not store or carry flammable liquids, gases or explosive materials in the same compartment as the phone, its parts or accessories.
- For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed or portable

- wireless equipment in the area over the air bag or in the air bag deployment area. If wireless equipment is improperly installed and the air bag inflates, serious injury could result.
- Switch your phone off before boarding an aircraft. The use of wireless phone in aircraft is illegal and may be dangerous to the aircraft's operation.
- Failure to observe these instructions may lead to the suspension or denial of telephone services to the offender, or legal action, or both.

#### **Product Performance**

# Getting the Most Out of Your Signal Reception

The quality of each call you make or receive depends on the signal strength in your area. Your phone informs you of the current signal strength by displaying a number of bars next to the signal strength icon. The more bars displayed, the stronger the signal.

If you're inside a building, being near a window may give you better reception.

#### Understanding the Power Save Feature

If your phone is unable to find a signal after 15 minutes of searching, a Power Save feature is automatically activated. If your phone is active, it periodically rechecks

service availability or you can check it yourself by pressing any key.

Anytime the Power Save feature is activated, a message displays on the screen. When a signal is found, your phone returns to standby mode.

# Maintaining Your Phone's Peak Performance

For the best care of your phone, only authorized personnel should service your phone and accessories. Faulty service may void the warranty.

There are several simple guidelines to operating your phone properly and maintaining safe, satisfactory service.

Hold the phone with the antenna raised, fully-extended and over your shoulder.

- Try not to hold, bend or twist the phone's antenna.
  Don't use the phone if the antenna is
- damaged.

   Speak directly into the phone's receiver.
- Avoid exposing your phone and accessories to rain or liquid spills. If your phone does get wet, immediately turn the power off and remove the battery. If it is inoperable, call Customer Care for service.

## Availability of Various Features/ Ring Tones

Many services and features are network dependent and may require additional subscription and/or usage charges. Not all features are available for purchase or use in all areas. Downloadable Ring Tones may be available at an additional cost. Other conditions and restrictions may apply. See your service provider for additional information.

## **Battery Standby and Talk Time**

Standby and talk times will vary depending on phone usage patterns and conditions. Battery power consumption depends on factors such as network configuration, signal strength, operating temperature, features selected, frequency of calls, and voice, data, and other application usage patterns.

# **Battery Precautions**

- Never use any charger or battery that is damaged in any way.
- Use the battery only for its intended purpose.
- If you use the phone near the network's base station, it uses less power; talk and standby time are greatly affected by the signal strength on the cellular network

- and the parameters set by the network operator.
- Battery charging time depends on the remaining battery charge and the type of battery and charger used. The battery can be charged and discharged hundreds of times, but it will gradually wear out. When the operation time (talk time and standby time) is noticeably shorter than normal, it is time to buy a new battery.
- If left unused, a fully charged battery will discharge itself over time.
- Use only Samsung-approved batteries and recharge your battery only with Samsung-approved chargers. When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for more

- than a week, since overcharging may shorten its life.
- Extreme temperatures will affect the charging capacity of your battery: it may require cooling or warming first.

Do not leave the battery in hot or cold

places, such as in a car in summer or

capacity and lifetime of the battery.

winter conditions, as you will reduce the

Always try to keep the battery at room

temperature. A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Li-ion batteries are particularly affected by temperatures below 0 °C (32 °F).

• Do not short-circuit the battery. Accidental short- circuiting can occur when a metallic object (coin, clip or pen)

causes a direct connection between the

- + and terminals of the battery (metal strips on the battery), for example when you carry a spare battery in a pocket or bag. Short-circuiting the terminals may damage the battery or the object causing the short-circuiting.
- Dispose of used batteries in accordance with local regulations. In some areas, the disposal of batteries in household or business trash may be prohibited. For safe disposal options for Li-Ion batteries, contact your nearest Samsung authorized service center. Always recycle. Do not dispose of batteries in a fire.

### **Care and Maintenance**

Your phone is a product of superior design and craftsmanship and should be treated

with care. The suggestions below will help you fulfill any warranty obligations and allow you to enjoy this product for many years.

- Keep the phone and all its parts and accessories out of the reach of small children.
- Keep the phone dry. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.
- Do not use the phone with a wet hand.
   Doing so may cause an electric shock to you or damage to the phone.
- Do not use or store the phone in dusty, dirty areas, as its moving parts may be damaged.
- Do not store the phone in hot areas.
   High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.

- Do not store the phone in cold areas.
   When the phone warms up to its normal
   operating temperature, moisture can
   form inside the phone, which may
   damage the phone's electronic circuit
   boards.
  - Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.
- Do not use harsh chemicals, cleaning solvents or strong detergents to clean the phone. Wipe it with a soft cloth slightly dampened in a mild soap-andwater solution.
- Do not paint the phone. Paint can clog the device's moving parts and prevent proper operation.
- Do not put the phone in or on heating devices, such as a microwave oven, a

stove or a radiator. The phone may explode when overheated.

- When the phone or battery gets wet, the label indicating water damage inside the phone changes color. In this case, phone repairs are no longer guaranteed by the manufacturer's warranty, even if the
- If your phone has a flash or light, do not use it too close to the eyes of people or animals. This may cause damage to their eyes.

warranty for your phone has not expired.

- Use only the supplied or an approved replacement antenna. Unauthorized antennas or modified accessories may damage the phone and violate regulations governing radio devices.
- If the phone, battery, charger or any accessory is not working properly, take it

to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

- When the phone or battery gets wet, the label indicating water damage inside the phone changes colour. In this case, phone repairs are no longer guaranteed by the manufacturer's warranty, even if the warranty for your phone has not expired.
- If your phone has a flash or light, do not use it too close to the eyes of people or animals. This may cause damage to their eyes.
- Use only the supplied or an approved replacement antenna. Unauthorised antennas or modified accessories may damage the phone and violate regulations governing radio devices.
  - and violate regulations governing radio devices. If the phone, battery, charger, or any accessory is not working properly, take it to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

- When the phone or battery gets wet, the label indicating water damage inside the phone changes colour. In this case, phone repairs are no longer guaranteed by the manufacturer's warranty, even if the warranty for your phone has not expired.
- If your phone has a flash or light, do not use it too close to the eyes of people or animals. This may cause damage to their eyes.
- Use only the supplied or an approved replacement antenna. Unauthorised antennas or modified accessories may damage the phone and violate regulations governing radio devices.
- If the phone, battery, charger, or any accessory is not working properly, take it to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

#### Correct disposal of this product

(Waste Electrical & Electronic Equipment)



(Applicable in the European Union and other European countries with separate collection systems)



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the

end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.