

SAR

www.sar-tick.com

This product meets applicable national SAR limits of 2.0 W/kg. The specific maximum SAR values can be found in the SAR information section of this manual.

Mobile Phone

user manual

www.samsung.com

Printed in Korea

GH68-36710A

English (SWA). 01/2013. Rev. 1.2

- Some of the contents in this manual may differ from your phone depending on the software of the phone or your service provider.
 - 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.
 - This product includes certain free/open source software. The exact terms of the licenses, disclaimers, acknowledgements and notices are available on the Samsung's website opensource.samsung.com.
- 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.
 - Use your device to call for help. Dial a local emergency number in the case of fire, traffic accident, or medical emergencies.
 - Use your device to help others in emergencies. If you see an auto accident, a crime in progress, or a serious emergency where lives are in danger, call a local emergency number.
 - Call roadside assistance or a special, non-emergency assistance number when necessary. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured, or a vehicle you know to be stolen, call roadside assistance or another special, non-emergency number.

Proper care and use of your mobile device

- Keep your device dry**

• Humidity and all types of liquids may damage device parts or electronic circuits.

• Do not turn on your device if it is wet. If your device is already on, turn it off and remove the battery immediately (if the device will not turn off or you cannot remove the battery, leave it as-is). Then, dry the device with a towel and take it to a service centre.

• Liquids will change the colour of the label that indicates water damage inside the device. Water damage to your device can void your manufacturer's warranty.
- Do not use or store your device in dusty, dirty areas**

Dust can cause your device to malfunction.
- Do not store your device on slopes**

If your device falls, it can be damaged.
- Do not store your device in hot or cold areas. Use your device at -20 °C to 50 °C**

• Your device can explode if left inside a closed vehicle, as the inside temperature can reach up to 80 °C.

- Do not expose your device to direct sunlight for extended periods of time (such as on the dashboard of a car).
 - Store the battery at 0 °C to 40 °C.
- Do not store your device with such metal objects as coins, keys and necklaces**

• Your device may become deformed or malfunction.

• If the battery terminals are in contact with metal objects, it may cause a fire.

- Do not store your device near magnetic fields**

• Your device may malfunction or the battery may discharge from exposure to magnetic fields.

• Magnetic stripe cards, including credit cards, phone cards, passbooks, and boarding passes, may be damaged by magnetic fields.

• Do not use carrying cases or accessories with magnetic closures or allow your device to come in contact with magnetic fields for extended periods of time.

- Do not store your device near or in heaters, microwaves, hot cooking equipment, or high pressure containers**

• The battery may leak.

• Your device may overheat and cause a fire.

- Do not drop your device or cause impacts to your device**

• The screen of your device may be damaged.

• If bent or deformed, your device may be damaged or parts may malfunction.

- Do not use your device or applications for a while if the device is overheated**

Prolonged exposure of your skin to an overheated device may cause low temperature burn symptoms, such as red spots and pigmentation.

- If your device has a camera flash or light, do not use a flash close to the eyes of people or pets**

Using a flash close to the eyes may cause temporary loss of vision or damage to the eyes.

- Handle and dispose of batteries and chargers with care**

• Use only Samsung-approved batteries and chargers specifically designed for your device. Incompatible batteries and chargers can cause serious injuries or damage to your device.

• Never dispose of batteries or devices in a fire. Follow all local regulations when disposing of used batteries or devices.

• Never place batteries or devices 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.

- Protect the device, batteries, and chargers from damage**

• Avoid exposing your device and batteries to very cold or very hot temperatures.

• Extreme temperatures can cause the deformation of the device and reduce the charging capacity and life of your device and 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.

Caution: Follow all safety warnings and regulations when using your device in restricted areas

- Turn off your device where prohibited**

Comply with all regulations that restrict the use of a mobile device in a particular area.
- Do not use your device near other electronic devices**

Most electronic devices use radio frequency signals. Your device may interfere with other electronic devices.

- Do not use your device near a pacemaker**

• Avoid using your device within a 15 cm range of a pacemaker if possible, as your device can interfere with the pacemaker.

• If you must use your device, keep at least 15 cm away from the pacemaker.

• To minimise the possible interference with a pacemaker, use your device on the opposite side of your body from the pacemaker.

- Do not use your device in a hospital or near medical equipment that can be interfered with by radio frequency**

If you personally use any medical equipment, contact the manufacturer of the equipment to ensure the safety of your equipment from radio frequency.
- If you are using a hearing aid, contact the manufacturer for information about radio interference**

Some hearing aids may be interfered with by the radio frequency of your device. Contact the manufacturer to ensure the safety of your hearing aid.

- Turn off the device in potentially explosive environments**

• Turn off your device in potentially explosive environments instead of removing the battery.

• Always comply with regulations, instructions and signs in potentially explosive environments.

• Do not use your device at refuelling points (service stations), near fuels or chemicals, and at blasting areas.

• Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the device, its parts, or accessories.

- Turn off your device when in an aircraft**

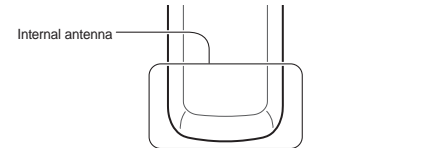
Using your device in an aircraft is illegal. Your device may interfere with the electronic navigation instruments of the aircraft.

- When speaking on the device:**

• Hold the device upright, as you would with a traditional phone.

• Speak directly into the mouthpiece.

• Do not touch the device's internal antenna. Doing so may result in reduced call quality or cause the device to emit unintended levels of radio frequency (RF) energy.



- Protect your hearing and ears when using a headset**

- Excessive exposure to loud sounds can cause hearing damage.
 - Exposure to loud sounds while walking may distract your attention and cause an accident.
 - 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.
 - In dry environments, static electricity can build up in the headset. Avoid using headsets in dry environments or touch a metal object to discharge static electricity before connecting a headset to the device.
 - Do not use a headset while driving or riding. Doing so may distract your attention and cause an accident, or may be illegal depending on your region.

- Use caution when using the device while walking or moving**

Always be aware of your surroundings to avoid injury to yourself or others.

- Electronic devices in a motor vehicle may malfunction due to the radio frequency of your device**

Electronic devices in your car may malfunction due to radio frequency of your device. Contact the manufacturer for more information.

Comply with all safety warnings and regulations regarding mobile device usage while operating a vehicle

- While driving, safely operating the vehicle is your first responsibility. Never use your mobile device while driving, if it is prohibited by law. For your safety and the safety of others, practice good common sense and remember the following tips:
- Use a hands-free device.
 - Get to know your device and its convenience features, such as speed dial and redial. These features help you reduce the time needed to place or receive calls on your mobile device.
 - Position your device within easy reach. Be able to access your wireless device without removing your eyes from the road. If you receive an incoming call at an inconvenient time, let your voice mail answer it for you.
 - Let the person you are speaking with know you are driving. Suspend calls in heavy traffic or hazardous weather conditions. Rain, sleet, snow, ice, and heavy traffic can be hazardous.
 - Do not take notes or look up phone numbers. Jotting down a "to do" list or flipping through your address book takes attention away from your primary responsibility of driving safely.
 - Dial sensibly and assess the traffic. 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, dial only a few numbers, check the road and your mirrors, then continue.

- Do not carry your device in your back pockets or around your waist**

You can be injured or damage the device if you fall.

- Do not disassemble, modify, or repair your device**

• Any changes or modifications to your device can void your manufacturer's warranty. For service, take your device to a Samsung Service Centre.

• Do not disassemble or puncture the battery, as this can cause explosion or fire.

- Do not paint or put stickers on your device**

Paint and stickers can clog moving parts and prevent proper operation. If you are allergic to paint or metal parts of the product, you may experience itching, eczema, or swelling of the skin. When this happens, stop using the product and consult your physician.

- When cleaning your device:**

• Wipe your device or charger with a towel or a rubber.

• Clean the terminals of the battery with a cotton ball or a towel.

• Do not use chemicals or detergents.

- Do not use the device if the screen is cracked or broken**

Broken glass or acrylic could cause injury to your hands and face. Take the device to a Samsung Service Centre to have it repaired.

- Do not use the device for anything other than its intended use**

- Avoid disturbing others when using the device in public**
- Do not allow children to use your device**

Your device is not a toy. Do not allow children to play with it as they could hurt themselves and others, damage the device, or make calls that increase your charges.

- Install mobile devices and equipment with caution**

• Ensure that any mobile devices or related equipment installed in your vehicle are securely mounted.

• Avoid placing your device and accessories near or in an air bag deployment area. Improperly installed wireless equipment can cause serious injury when air bags inflate rapidly.

- Allow only qualified personnel to service your device**

Allowing unqualified personnel to service your device may result in damage to your device and will void your manufacturer's warranty.

- Handle SIM cards or memory cards with care**

- Do not remove a card while the device is transferring or accessing information, as this could result in loss of data and/or damage to the card or device.
- Protect cards from strong shocks, static electricity, and electrical noise from other devices.
- 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 device 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.

- Keep your personal and important data safe**

• While using your device, be sure to back up important data. Samsung is not responsible for data loss.

• When disposing of your device, back up all data and then reset your device to prevent misuse of your personal information.

• Carefully read the permissions screen when downloading applications. Be particularly cautious with applications that have access to many functions or to a significant amount of your personal information.

• Check your accounts regularly for unauthorised or suspicious use. If you find any sign of misuse of your personal information, contact your service provider to delete or change your account information.

• In the event your device is lost or stolen, change the passwords on your accounts to protect your personal information.

• Avoid using applications from unknown sources and lock your device with a pattern, password, or PIN.

- Do not distribute copyright-protected material**

Do not distribute copyright-protected material that you have recorded to others without the permission of the content owners. Doing this may violate copyright laws. The manufacturer is not liable for any legal issues caused by the user's illegal use of copyrighted material.

Specific Absorption Rate (SAR) certification information

THIS DEVICE MEETS INTERNATIONAL GUIDELINES FOR EXPOSURE TO RADIO WAVES

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by an independent scientific organisation (ICNIRP) and include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The radio wave exposure guidelines use a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit for mobile devices is 2.0 W/kg.

Tests for SAR are conducted using standard operating positions with the device transmitting at its highest certified power level in all tested frequency bands. The highest SAR values under the ICNIRP guidelines for this device model are:

Maximum SAR for this model and conditions under which it was recorded	
Head SAR	0.932 W/kg

During use, the actual SAR values for this device are usually well below the values stated above. This is because, for purposes of system efficiency and to minimise interference on the network, the operating power of your mobile device is automatically decreased when full power is not needed for the call. The lower the power output of the device, the lower its SAR value. Organisations such as the World Health Organisation and the US Food and Drug Administration have suggested that if people are concerned and want to reduce their exposure, they could use a hands-free accessory to keep the wireless device away from the head and body during use, or reduce the amount of time spent using the device.

For more information, visit www.samsung.com/sar and search for your device with the model number.

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.

Do not 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.

Correct disposal of batteries in this product

(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.

Phone layout

1

2

3

4

5

6

7

8

9

1

4-way navigation key

In Idle mode, access user-defined menus; In Menu mode, scroll through menu options

Depending on your service provider, pre-defined menus may differ

2

Dial Key

Make or answer a call; In Idle mode, retrieve recently dialled, missed, or received numbers;

3

Voice mail service key

In Idle mode, access voice mails (press and hold)

4

Lock key

In Idle mode, lock or unlock the keypad (press and hold)

5

Softkeys

Perform actions indicated at the bottom of the display

6

Power/End key

Turn the phone on and off (press and hold); End a call; In Menu mode, cancel input and return to Idle mode

7

Confirm key

In Idle mode, access Menu mode; Launch the web browser (press and hold); In Menu mode, select the highlighted menu option or confirm an input

Depending on your service provider or region, the key may perform differently

8

Network switch key

In Idle mode, switch between SIM card networks (press and hold)

9

Alphanumeric keys

C € 0168Downloaded from <http://www.gsmarc.com>

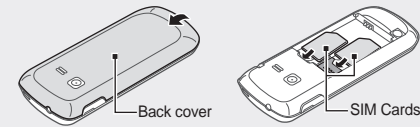
Your phone displays the following status indicators on the top of the screen:

Icon	Description	Icon	Description
	No signal		Music playback in progress
	Signal strength ¹		Music playback paused
	Network searching		New text message (SMS)
	GPRS network connected		New multimedia message (MMS)
	Call in progress		New email message
	Browsing the web		New configuration message
	Connecting to secured web page		New push message
	Roaming (outside of normal service area)		New voice mail message
	Call diverting activated		Normal profile activated
	No SIM card		Silent profile activated
	Bluetooth activated		Battery power level
	Alarm activated		Current time
	Memory card inserted		
	FM radio on		
	FM radio suspended		

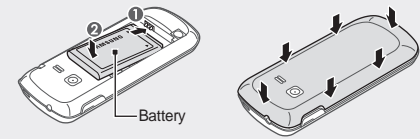
1. This icon may vary depending on your SIM card setting.

Install the SIM cards and battery

- Remove the back cover and insert the SIM cards.

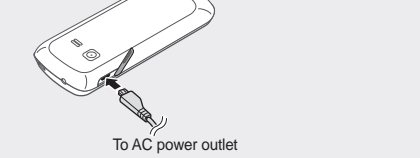


- Insert the battery and replace the back cover.



Charge the battery

- Plug a travel adapter into the multifunction jack.
- When charging is finished, unplug the travel adapter.



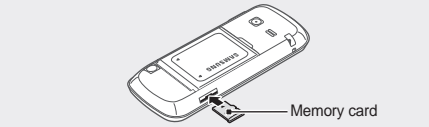
- Do not remove the battery from the phone before unplugging the travel adapter first. Otherwise, the phone may be damaged.
- To save energy, unplug the travel adapter when not in use. The travel adapter does not have a power switch, so you must unplug the travel adapter from the outlet when not in use to avoid wasting power. The travel adapter should remain close to the socket when in use.

Insert a memory card (optional)

Your phone accepts microSD™ or microSDHC™ memory cards up to 32 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.
- Frequent writing and erasing of data will shorten the life span of memory cards.

- Remove the back cover.
- Insert a memory card with the gold-coloured contacts facing down.



- Push the memory card in the memory card slot until it locks in place.
- Replace the back cover.

Manage your SIM cards

Your phone supports Dual SIM mode that enables you to use two SIM cards at the same time without changing them. Learn to activate SIM cards and change the card settings.

To activate SIM cards

- In Menu mode, select **Settings** → **SIM cards management**.
- Select **Network** and scroll left or right to a SIM card.
- Press **<Change>** to activate the card.

To switch SIM cards automatically

- In Menu mode, select **Settings** → **SIM cards management**.
- Select **SIM auto switch**.
- Press **<Change>** to activate the auto switch feature.
- Select a SIM card and set the starting and ending time to switch to the SIM card.
- Press **<Save>**.
- Repeat steps 4-5 for other SIM card.

To change the names and icons of the SIM cards

- In Menu mode, select **Settings** → **SIM cards management**.
- Select **Register card**.
- Select a SIM card.
- Change the name and the icon of the card.
- Press **<Save>**.

Make a call

- In Idle mode, enter an area code and a phone number.
- Press [**↵**] to dial the number.
- To end the call, press [**⏏**].

Answer a call

- When a call comes in, press [**↵**].
- To end the call, press [**⏏**].

Call a recently dialled number

- In Idle mode, press [**↵**] to display a list of recent numbers.
- Scroll left or right to select a call type.
- Scroll up or down to select a number or name.
- Press the Confirm key to view details of the call or [**↵**] to dial the number.

Adjust the volume

To adjust the volume of the ringtone

- In Menu mode, select **Settings** → **Sound profiles**.
- Scroll to the profile you are using.

- If you are using the silent profile, you are not allowed to adjust the volume of the ringtone.

- Press **<Edit>** and select a SIM card.
- Select **Volume** → **Call alert**.
- Scroll left or right to adjust the volume level and press **<Save>**.

To adjust the volume of voice during a call

While a call is in progress, press the Navigation key up or down to adjust the volume.

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

Change your ringtone

- In Menu mode, select **Settings** → **Sound profiles**.
- Scroll to the profile you are using.

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

- Press **<Edit>** and select a SIM card.
- Select **Voice call ringtone**.

Instructional icons

	Note: notes, usage tips, or additional information
	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/End key)
	Angled brackets: softkeys that control different functions at each screen; for example: <OK> (represents the OK softkey)

Turn your phone on or off

To turn your phone on,

- Press and hold [**⏏**].
- Enter your PIN and press **<Confirm>** (if necessary).

- If the battery remains fully discharged or removed from the device, the time and date will be reset.

To turn your phone off, repeat step 1 above.

Access menus

To access your phone's menus,

- In Idle mode, press **<Menu>** to access Menu mode.

- You may need to press the Confirm key to access Menu mode depending on your region or service provider.

- Use the Navigation key to scroll to a menu or option.
- Press **<Select>** or the Confirm key to confirm the highlighted option.
- Press **<Back>** to move up one level; Press [**⏏**] to return to Idle mode.

- When you access a menu requiring the PIN2, you must enter the PIN2 supplied by the SIM cards. For details, contact your service provider.
- Samsung is not responsible for any loss of passwords or private information or other damages caused by illegal software.

To access the smart home items

Press the Navigation key to scroll through the items on the smart home screen and press the Confirm key to select an item.

Enter text

To change the text input mode

- Press and hold [**#**] to switch between T9 and ABC modes. Depending on your country, you may be able to access an input mode for your specific language.
- Press [**#**] to change case or switch to Number mode.
- Press [*****] to switch to Symbol mode.
- Press and hold [*****] to select an input mode or change the input language.

T9 mode

- Press the appropriate alphanumeric keys to enter an entire word.
- When the word displays correctly, press [**0**] to insert a space. If the correct word does not display, press the Navigation key up or down to select an alternate word.

ABC mode

Press an appropriate alphanumeric key until the character you want appears on the display.

Number mode

Press an appropriate alphanumeric key to enter a number.

Symbol mode

Press an appropriate alphanumeric key to enter a symbol.

To use other features for text input

- To move the cursor, press the Navigation key.
- To delete characters one by one, press **<Clear>**. To delete all of the characters, press and hold **<Clear>**.
- To insert a space between characters, press [**0**].
- To enter punctuation marks, press [**1**].

Add a new contact

- The memory location to save new contacts may be preset depending on your service provider. To change the memory location, in Menu mode, select **Contacts** → **<Options>** → **Settings** → **Save new contacts to** → a memory location.

- In Idle mode, enter a phone number and press **<Options>**.
- Select **Add to Contacts** → **Create contact** → a memory location (if necessary).

Activate and send an SOS message

In an emergency, you can send SOS messages to your family or friends for help.

To activate the SOS message

- In Menu mode, select **Messages** → **Settings** → **SOS messages** → **Sending options**.
- Press **<Change>** to select **On**.
- Select **Recipients**. You can also enter a recipient number. Skip to step 6.
- Press **<Search>** to open the contacts list. To select multiple recipients, press **<Options>** → **Multiple**.
- Select contacts → **<Add>**.
- When you are finished setting the recipients, press the Confirm key to save the recipients.
- Select **Repeats**, set the number of times to repeat the SOS message.
- Press **<Back>** → **<Yes>**.

To send an SOS message

- With the keys locked, press [**↵**] four times to send an SOS message to preset numbers. The phone switches to SOS mode and sends the preset SOS message.
- To exit SOS mode, press [**⏏**].

Make fake calls

You can simulate an incoming call when you want to get out of meetings or unwanted conversations.

To activate the fake call feature

In Menu mode, select **Settings** → **Call** → **Fake call** → **Fake call hot key** → **On**.

To make a fake call

- In Idle mode, press and hold the Navigation key down.
- When the keys are locked, press the Navigation key down four times.

Activate the torch light

The torch light on your phone helps you see in dark places by turning the flashlight on. To turn on the torch light, In Idle mode, press and hold the Navigation key up in Idle mode. You can also select **Applications** → **Torch light** → **<On>**.

To turn off the torch light, press and hold the Navigation key up again in Idle mode.

Use the camera

To capture photos

- In Menu mode, select **Camera** to turn on the camera.
- Rotate the phone anti-clockwise to landscape view.
- Aim the lens at the subject and make any adjustments.
- Press the Confirm key to take a photo. The photo is saved automatically.

To view photos

In Menu mode, select **My files** → **Images** → a photo file.

To capture videos

- In Menu mode, select **Camera** to turn on the camera.
- Rotate the phone anti-clockwise to landscape view.
- Press [**1**] to switch to the camcorder. Aim the lens at the subject and make any adjustments.
- Press the Confirm key to start recording.
- Press the Confirm key or **<Stop>** to stop recording. The video is saved automatically.

To view videos

In Menu mode, select **My files** → **Videos** → a video file.