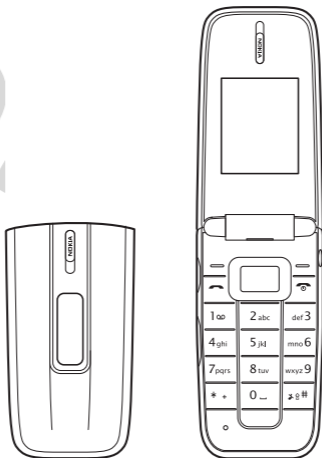


Nokia RH-109 User Guide



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Export controls

This device may contain commodities, technology, or software subject to export laws and regulations from the US and other countries. Diversion contrary to law is prohibited.

FCC NOTICE

Your device may cause TV or radio interference (for example, when using a telephone in close proximity to receiving equipment). The FCC can require you to stop using your telephone if such interference cannot be eliminated. If you require assistance, contact your local service facility. 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. Any changes or modifications not expressly approved by Nokia could void the user's authority to operate this equipment.

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SAFETY

Read these simple guidelines. Not following them may be dangerous or illegal. Read the complete user guide for further information.



SWITCH ON SAFELY

Do not switch the device on when wireless phone use is prohibited or when it may cause interference or danger.



ROAD SAFETY COMES FIRST

Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.



INTERFERENCE

All wireless devices may be susceptible to interference, which could affect performance.



SWITCH OFF IN RESTRICTED AREAS

Follow any restrictions. Switch the device off in aircraft, near medical equipment, fuel, chemicals, or blasting areas.



QUALIFIED SERVICE

Only qualified personnel may install or repair this product.



ENHANCEMENTS AND BATTERIES

Use only approved enhancements and batteries. Do not connect incompatible products.



WATER-RESISTANCE

Your device is not water-resistant. Keep it dry.

DRAFT

■ About your device

The wireless device described in this guide is approved for use on the CDMA 800, 1900, 1700, and 2100 MHz networks. Contact your service provider for more information about networks.

When using the features in this device, obey all laws and respect local customs, privacy and legitimate rights of others, including copyrights.

Copyright protection may prevent some images, music, and other content from being copied, modified, or transferred.



Warning: To use any features in this device, other than the alarm clock, the device must be switched on. Do not switch the device on when wireless device use may cause interference or danger.

Remember to make back-up copies or keep a written record of all important information stored in your device.

When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.

■ Network services

To use the device you must have service from a wireless service provider. Many of the features require special network features. These features are not available on all networks; other networks

may require that you make specific arrangements with your service provider before you can use the network services. Your service provider can give you instructions and explain what charges will apply. Some networks may have limitations that affect how you can use network services. For instance, some networks may not support all language-dependent characters and services.

Your service provider may have requested that certain features be disabled or not activated in your device. If so, these features will not appear on your device menu. Your device may also have a special configuration such as changes in menu names, menu order, and icons. Contact your service provider for more information.

This device supports WAP 2.0 protocols (HTTP and SSL) that run on TCP/IP protocols. Some features of this device, such as sending e-mails, browsing websites, and downloading files require network support for these technologies.

■ Nokia support on the web

Check www.nokia.com/support or your local Nokia web site for the latest guides, additional information, downloads, and services related to your Nokia product.

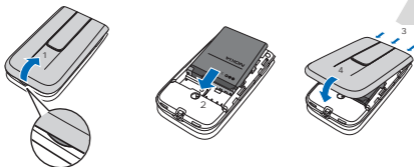
1. Get started

■ Install and remove battery



Note: Always switch the device off and disconnect the charger before removing the battery.

1. Insert your finger into the finger grip (1), and detach the back cover off.
2. Insert the battery into the battery slot (2). Push down on the other end of the battery.
3. Insert your finger into the end of battery and remove the battery from the battery slot (2).
4. Align the back cover with the back of the device (3), and slide it toward the top of the device until you hear a click (4).



■ Charge the battery

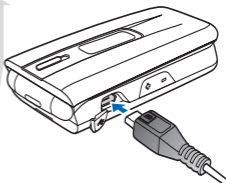


Warning: Use only batteries, chargers, and enhancements approved by Nokia for use with this particular model. The use of any other types may invalidate any approval or warranty, and may be dangerous.

For availability of approved enhancements, please check with your dealer.

When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.

1. Connect the charger to a wall socket.
2. Insert the charger output plug into the USB jack at the left side of the device.



If the battery is completely discharged, it may take a few seconds before the charging indicator appears on the display or before any calls can be made.

■ Switch your device on or off

Press and hold the power key for at least three seconds.



■ Normal operating position

Your device has an internal antenna. Use the device only in its normal operating position.



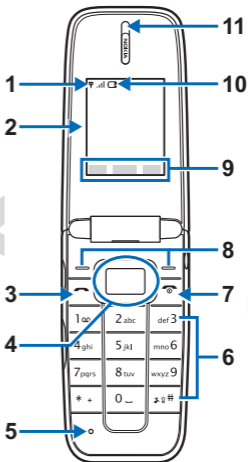
Note: As with any radio transmitting device, avoid touching the antenna area unnecessarily while the antenna is transmitting or receiving. Contact with such an antenna affects the communication quality and may cause the device to operate at a higher power level than otherwise needed and may reduce the battery life.



2. Your device

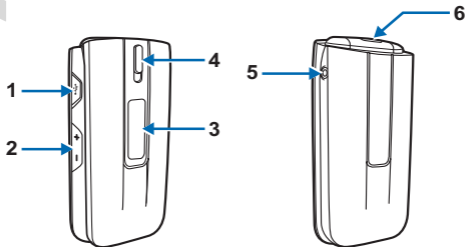
■ Keys and parts (front)

1. Signal strength
2. Main display
3. Send key
4. Navi™ key; hereafter referred to as scroll key
5. Microphone
6. Keypad
7. Power/End key
8. Selection key
9. Selection key functions
10. Battery level
11. Earpiece



■ Keys and parts (Side and Back)

1. Charger port
2. Volume key
3. Mini display
4. Flashlight button
5. Headset port
6. Flashlight



3. Main features

Select **Menu** to access the following features:

Messaging – to create, send, open, and manage messages

Contacts – to save names and phone numbers in the phone memory

Log – to access phone numbers of missed, received, and dialled calls

Settings – to set up various features of your device

Gallery – to save images, music files, tones, and recordings to a folder

Media – to view, play, and download images, audio clips, and animated images files

Organiser – to access alarm clock, calendar, calculator, notes, to-do list, counted timer, and stopwatch

Applications – to download applications to your device

Mobile web – to access various mobile Internet services with your phone browser

Extras – to use games and collections

■ Make and answer a call

To make a call, enter the phone number, including the country code and area code, if necessary, and press the call key. Press the volume key to adjust the volume of the earpiece or headset during the call.

To answer a call, press the call key. To end a call or to reject an incoming call, press the end key.

■ Loudspeaker

To use the loud speaker or the earpiece of the device during a call, select *Loudsp.* or *Handset*.





Warning: Do not hold the device near your ear when the loudspeaker is in use because the volume may be extremely loud.

■ Flashlight

To turn on or off the flashlight, press the flashlight button. The flashlight may be used when the device is switched on or off. It does not work when the fold is open.

■ Write text

You can enter text using traditional  **Abc** or predictive  **Abc** text input. To use traditional text input, press the key repeatedly until the letter appears. To turn on predictive text input when writing, select **Options** > *Prediction on*; to turn it off, select **Options** > *Prediction off*.

When using predictive text input, press each key once for a single letter. If the displayed word is the one you want, press **O**, and start writing the next word. If not, press * repeatedly to view other word options. If ? is displayed after the word, the word is not in the dictionary. To add the word to the dictionary, select **Spell**, enter the word (using traditional text input), and select **Save**.

Tips for writing text: to add a space, press **O**. To change the text input method, press **#** repeatedly, and check the indicator at the top of the display. To add a number, press and hold the relevant number key. To display a list of special characters when using traditional text input, press *; when using predictive text input, press and hold *.

■ Messaging

The message service can only be used when supported by your network or service provider.

To send a text message:

1. Select **Menu** > *Messaging* > *Text messages* > *Create message*.
2. Enter the phone number, or select **Add** to retrieve a number from your contacts.
3. Write the message.
4. Select **Send**.

To delete all messages in a folder, select **Menu** > *Messaging* > *Text messages* > *Delete messages* and the folder.

To send a multimedia message:

1. Select **Menu** > *Messaging* > *multimedia messages* > *Create message*.
2. Select **Insert** to insert a file.
3. Press navi key to select the second and third files.



4. Select **Send** to insert the files into the message.
5. Enter the phone number.
6. Enter a subject for the message, and select **Send**.

■ **Contacts**

You can have up to 400 contacts with multiple numbers and text notes for each contact in your device.

To search for a contact, select **Menu** > **Contacts** > **Names**, enter the first character of the name, and scroll to the contact you want. To edit a contact, select **Details**. To add or delete contacts, select **Options**.

■ **Voice recorder**

To start recording, select **Menu** > **Media** > **Voice recorder** > record button . To stop recording, select stop button . The recordings are saved in the **Recordings** folder in Gallery.

■ Connectivity

You can transfer data between your device and a compatible PC by using a CA-101 USB data cable.



Important: To make a call, disconnect the USB data cable from the device.

To ask for the purpose of the connection each time the cable is connected, select **Menu** > *Settings* > *Connectivity* > *USB data cable* > *Ask on connection*.

To transfer phone data and files between your device and PC using Nokia PC Suite.

1. Connect your PC and your device with a CA-101 USB data cable.
2. Select *PC Suite* when asked to select the connection mode.

You can now use PC Suite to connect to your device.

4. Enhancements



For availability of approved enhancements, please check with your dealer. When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.



Warning: Use only batteries, chargers, and enhancements approved by Nokia for use with this particular model. The use of any other types may invalidate any approval or warranty, and may be dangerous.

Power

- Standard 700mAh Li-Ion Battery (BL-4B)
- Travel Charger (AC-6U)
- Car Power Adapter (DC-6)

Audio

- Headset (HS-9)



Warning: When you use the headset, your ability to hear outside sounds may be affected. Do not use the headset where it can endanger your safety.

5. Battery information

■ Charging and discharging

Your device is powered by a rechargeable battery. The battery intended for use with this device is BL-4B. This device is intended for use when supplied with power from the following chargers: AC-6U. The battery can be charged and discharged hundreds of times, but it will eventually wear out. When the talk and standby times are noticeably shorter than normal, replace the battery. Use only Nokia approved batteries, and recharge your battery only with Nokia approved chargers designated for this device. Use of an unapproved battery or charger may present a risk of fire, explosion, leakage, or other hazard.

If a battery is being used for the first time or if the battery has not been used for a prolonged period, it may be necessary to connect the charger, then disconnect and reconnect it to begin charging the battery. If the battery is completely discharged, it may take several minutes before the charging indicator appears on the display or before any calls can be made.

Always switch the device off and disconnect the charger before removing the battery.

Unplug the charger from the electrical plug and the device when not in use. Do not leave a fully charged battery connected to a charger, since overcharging may shorten its lifetime. If left unused, a fully charged battery will lose its charge over time.

Use the battery only for its intended purpose. Never use any charger or battery that is damaged. Keep your battery out of the reach of small children.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the positive (+) and negative (-) terminals of the battery. (These look like metal strips on the battery.) This might happen, for example, when you carry a spare battery in your pocket or purse. Short-circuiting the terminals may damage the battery or the connecting object.

Always try to keep the battery between 15°C and 25°C (59°F and 77°F). Extreme temperatures reduce the capacity and lifetime of the battery. A device with a hot or cold battery may not work temporarily. Battery

performance is particularly limited in temperatures well below freezing.

Do not dispose of batteries in a fire as they may explode. Batteries may also explode if damaged. Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste.

Do not dismantle, cut, open, crush, bend, deform, puncture, or shred cells or batteries. In the event of a battery leak, do not allow the liquid to come in contact with the skin or eyes. In the event of such a leak, flush your skin or eyes immediately with water, and seek medical help.

Do not modify, remanufacture, attempt to insert foreign objects into the battery, or immerse or expose it to water or other liquids.

Improper battery use may result in a fire, explosion, or other hazard. If the device or battery is dropped, especially on a hard surface, and you believe the battery has been damaged, take it to a service centre for inspection before continuing to use it.

■ Nokia battery authentication guidelines

Always use original Nokia batteries for your safety. To check that you are getting an original Nokia battery, purchase it from an authorised Nokia dealer, and inspect the hologram label using the following steps:

Successful completion of the steps is not a total assurance of the authenticity of the battery. If you have any reason to believe that your battery is not an authentic, original Nokia battery, you should refrain from using it, and take it to the nearest authorised Nokia service point or dealer for assistance. Your authorised Nokia service point or dealer will inspect the battery for authenticity. If authenticity cannot be verified, return the battery to the place of purchase.

1. When you look at the hologram on the label, you should see the Nokia connecting hands symbol from one angle and the Nokia Original Enhancements logo when looking from another angle.
2. When you angle the hologram left, right, down and up, you should see 1,2,3 and 4 dots on each side respectively.



What if your battery is not authentic?

If you cannot confirm that your Nokia battery with the hologram on the label is an authentic Nokia battery, please do not use the battery. Take it to the nearest authorised Nokia service point or dealer for assistance. The use of a battery that is not approved by the manufacturer may be dangerous and may result in poor

performance and damage to your device and its enhancements. It may also invalidate any approval or warranty applying to the device. To find out more about original Nokia batteries, visit www.nokia.com/battery.

DRAFT

Care and maintenance

Your device is a product of superior design and craftsmanship and should be treated with care. The following suggestions will help you protect your warranty coverage.

- Keep the device dry. Precipitation, humidity, and all types of liquids or moisture can contain minerals that will corrode electronic circuits. If your device does get wet, remove the battery, and allow the device to dry completely before replacing it.
- Do not use or store the device in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not store the device in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the device in cold areas. When the device returns to its normal temperature, moisture can form inside the device and damage electronic circuit boards.
- Do not attempt to open the device other than as instructed in this guide.
- Do not drop, knock, or shake the device. Rough handling can break internal circuit boards and fine mechanics.

- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the device.
- Do not paint the device. Paint can clog the moving parts and prevent proper operation.
- Use only the supplied or an approved replacement antenna. Unauthorised antennas, modifications, or attachments could damage the device and may violate regulations governing radio devices.
- Use chargers indoors.
- Always create a backup of data you want to keep, such as contacts and calendar notes.
- To reset the device from time to time for optimum performance, power off the device and remove the battery.

These suggestions apply equally to your device, battery, charger, or any enhancement. If any device is not working properly, take it to the nearest authorised service facility for service.

Additional safety information

■ Small children

Your device and its enhancements may contain small parts. Keep them out of the reach of small children.

■ Operating environment

This device meets RF exposure guidelines when used either in the normal use position against the ear or when positioned at least 2.2 centimeters (7/8 inches) away from the body. When a carry case, belt clip, or holder is used for body-worn operation, it should not contain metal and should position the device the above-stated distance from your body.

To transmit data files or messages, this device requires a quality connection to the network. In some cases, transmission of data files or messages may be delayed until such a connection is available. Ensure the above separation distance instructions are followed until the transmission is completed.

Parts of the device are magnetic. Metallic materials may be attracted to the device. Do not place credit cards or other magnetic storage media near the device, because information stored on them may be erased.

■ Medical devices

Operation of any radio transmitting equipment, including wireless devices, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your device 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.

Implanted medical devices

Manufacturers of medical devices recommend that a minimum separation of 15.3 centimeters (6 inches) should be maintained between a wireless device and an implanted medical device, such as a pacemaker or implanted cardioverter defibrillator, to avoid potential interference with the medical device. Persons who have such devices should:

- Always keep the wireless device more than 15.3 centimeters (6 inches) from the medical device when the wireless device is turned on.
- Not carry the wireless device in a breast pocket.
- Hold the wireless device to the ear opposite the medical device to minimise the potential for interference.

- Turn the wireless device off immediately if there is any reason to suspect that interference is taking place.
- Read and follow the directions from the manufacturer of their implanted medical device.

If have any questions about using your wireless device with an implanted medical device, consult your health care provider.

Hearing aids

Some digital wireless devices may interfere with some hearing aids. If interference occurs, consult your service provider.

■ Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles such as electronic fuel injection systems, electronic antiskid (antilock) braking systems, electronic speed control systems, and air bag systems. For more information, check with the manufacturer, or its representative, of your vehicle or any equipment that has been added.

Only qualified personnel should service the device or install the device in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty that may apply to the device. Check regularly that all wireless device 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 device, its parts, or enhancements. For vehicles equipped with an air bag, remember that air bags inflate with great force. Do not place objects, including installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Using your device while flying in aircraft is prohibited. Switch off your device before boarding an aircraft. The use of wireless teledevices in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

■ Potentially explosive environments

Switch off your device when in any area with a potentially explosive atmosphere, and obey all signs and instructions. Potentially explosive atmospheres include areas where you would normally be advised to turn off your vehicle engine. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Switch off the device at refuelling points such as near gas pumps at service stations. Observe restrictions on the use of radio equipment in fuel depots, 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 and areas where the air contains chemicals or particles such as grain, dust, or metal powders. You should check with the manufacturers of vehicles using liquefied petroleum gas (such as propane or butane) to determine if this device can be safely used in their vicinity.

■ Emergency calls



Important: This device operates using radio signals, wireless networks, landline networks, and user-programmed functions. Connections in all conditions cannot be guaranteed. You should never rely solely on any wireless device for essential communications like medical emergencies.

To make an emergency call:

1. If the device is not on, switch it on. Check for adequate signal strength. Depending on your device, you may also need to complete the following:
 - Remove certain call restrictions you have activated in your device.
2. Press the end key as many times as needed to clear the display and ready the device for calls.

3. Enter the official emergency number for your present location. Emergency numbers vary by location.
4. Press the call key.

When making an emergency call, give all the necessary information as accurately as possible. Your wireless device may be the only means of communication at the scene of an accident. Do not end the call until given permission to do so.

■ Certification information (SAR)

This mobile device meets 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 recommended by international guidelines. These guidelines were developed by the independent scientific organization ICNIRP and include safety margins designed to assure the protection of all persons, regardless of age and health.

The exposure guidelines for mobile devices employ a unit of measurement known as the Specific Absorption Rate or SAR. The SAR limit stated in the ICNIRP guidelines is 2.0 watts/kilogram (W/kg) averaged over 10 grams of tissue. 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 actual SAR level of an operating device can be below the maximum value because the device is designed to

use only the power required to reach the network. That amount changes depending on a number of factors such as how close you are to a network base station. The highest SAR value under the ICNIRP guidelines for use of the device at the ear is 0.97 W/kg.

Use of device accessories and enhancements may result in different SAR values. SAR values may vary depending on national reporting and testing requirements and the network band.

Additional SAR information may be provided under product information at www.nokia.com.

Your mobile device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA) and Industry Canada. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use at the ear is 1.38 W/kg and when properly worn on the body is 0.41W/kg.

Hearing aid compatibility

Your mobile device model complies with FCC rules governing hearing aid compatibility. These rules require an M3 microphone or higher value. The M-value, shown on the device box, refers to lower radio frequency (RF) emissions. A higher M-value generally indicates that a device model has a lower RF emissions level, which may improve the likelihood that the device will operate with certain hearing aids. Some hearing aids are more immune

than others to interference. Please consult your hearing health professional to determine the M-rating of your hearing aid and whether your hearing aid will work with this device. More information on accessibility can be found at www.nokiaaccessibility.com.

■ Technical information

Feature	Specification
Dimensions	Width 45 mm Length 184 mm Depth 16.5 mm
Weight	78 g with BL-4B Li-ion battery
Wireless networks	CDMA 800, 1700, and 1900 and 2100
Volume	73 cc
PCS Frequency range (Tx)	1851.25~1908.75 MHz
PCS Frequency range (Rx)	1931.25~1988.75 MHz
Cell Frequency range (Tx)	824.70~848.31 MHz
Cell Frequency range (Rx)	869.70~893.31 MHz
AWS Frequency range (Tx)	1711.25~1753.75 MHz
AWS Frequency range (Rx)	2111.25~2153.75 MHz

Feature	Specification
GPS Frequency	1575 MHz

■ Battery information

This section provides information about battery charging times with the travel charger (AC-6U), and talk and standby times. The information in this section is subject to change. For more information, contact your service provider.



Important: Battery talk and standby times are estimates only and depend on signal strength, network conditions, features used, battery age and condition, temperatures to which battery is exposed, use in digital mode, and many other factors. The amount of time a device is used for calls will affect its standby time. Likewise, the amount of time that the device is turned on and in the standby mode will affect its talk time.

Charging times

The following charging times are approximate:

Charger	AC-6U
BL-4B 700 mAh Li-ion battery	Up to 3 hours

Talk and standby times

Operation times are estimates only and depend on signal strength, phone use, network conditions, features used, battery age and condition (including charging habits), temperatures to which the battery is exposed, and many other factors.

Function	Digital
Talk time	Up to 3.5 hours
Standby time	Up to 11 days