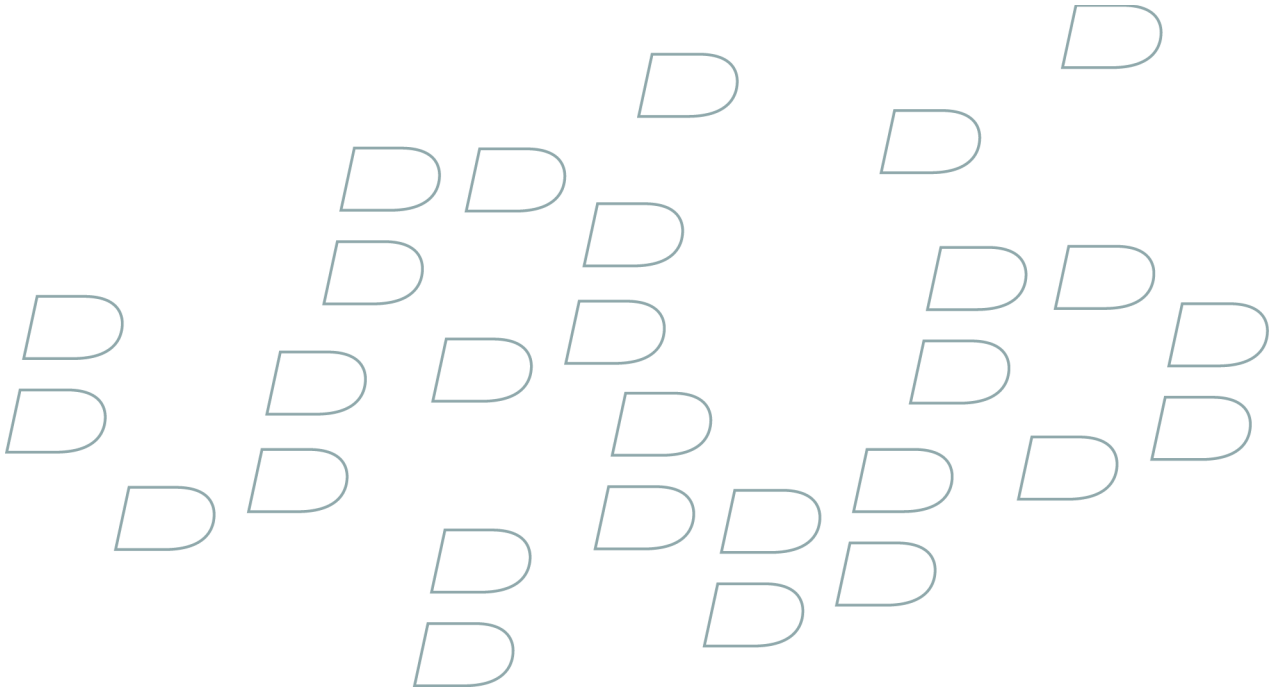

# Safety and Product Information

## BlackBerry 8820 smartphone

# Contents

# Safety and product information

## Safety information

Please read these safety and operation instructions before using the BlackBerry® device or any accessories provided with the device. Retain these instructions for future use.

In some countries there may be restrictions on using Bluetooth® enabled and wireless devices with encryption software. Check with your local authorities.

### Electrical safety

Use the charging accessories provided with the BlackBerry device or any other RIM approved charging accessories only from the type of power source indicated on the marking label. Before using any power supply, verify that the mains voltage is in accordance with the voltage printed on the power supply.

Do not overload power outlets, extension cords, or convenience receptacles as this might result in a risk of fire or electric shock. To reduce the risk of damage to the cord or the plug, pull the plug rather than the cord when you disconnect the charging accessory from the wall outlet or convenience receptacle.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where the power cord connects to the BlackBerry device. Unplug charging accessories during lightning storms or when unused for long periods of time.

Do not use charging accessories outside or in any area exposed to the elements.

For more information about inserting the lithium-ion battery and connecting the power supply, see the documentation that came with the BlackBerry device.

### Battery safety and disposal

The BlackBerry® device contains a removable lithium-ion battery. Do not dispose of either the BlackBerry device or the lithium-ion battery in a fire. Dispose of the lithium-ion battery in accordance with the laws and regulations in your area governing disposal of such cell types.

The lithium-ion battery might present a fire or chemical burn hazard if mistreated. Do not disassemble, crush, or puncture the lithium-ion battery. Do not heat the lithium-ion battery above 140°F (60°C). Do not allow metal objects to contact the battery terminals.

Use only the lithium-ion battery that Research In Motion (RIM) specifies for use with your particular BlackBerry device model. Using any other lithium-ion battery might invalidate any warranty provided with the BlackBerry device and might present a risk of fire or explosion.

Battery usage by children should be supervised.

When this icon appears on your BlackBerry device, the lithium-ion battery is not inserted or an invalid lithium-ion battery is inserted. If you have inserted an invalid lithium-ion battery, remove it immediately and insert the lithium-ion battery that RIM specifies for use with your particular BlackBerry device model. If you have inserted the lithium-ion battery that is specified for use with

your particular BlackBerry device model, remove and reinsert the lithium-ion battery. Verify that the battery connectors align with the connectors on your BlackBerry device.

## Device disposal

The BlackBerry® device should not be placed in household waste bins. Please check local regulations for information about the disposal of electronic products in your area.

## Driving safety

Check the laws and regulations regarding the use of wireless devices in the areas where you drive. Always obey them. Also, if using the BlackBerry® device in your car, please use the following minimum guidelines:

- Give your full attention to driving; driving safely is your first responsibility.
- Use hands-free operation if it is available.
- Pull off the road and park before using your BlackBerry device in any way.

Research In Motion (RIM) recommends that you do not use the BlackBerry device while driving. Instead, consider having a passenger in the vehicle use the BlackBerry device for you, or find a safe location to stop your vehicle prior to using the device.

Store the BlackBerry device safely before driving your vehicle. Do not use any charging accessory as a means of storing the BlackBerry device while you are in a vehicle. If your vehicle is equipped with an air bag, do not place the BlackBerry device or other objects above the air bag, or in the air bag deployment area. If in-vehicle wireless equipment is improperly stored or installed, and the air bag inflates, serious injury could result.

Radio frequency (RF) signals might affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. If any equipment has been added to your vehicle, you should also consult the manufacturer of that equipment for information on RF signals.

## Accessories

Use only those accessories approved by Research In Motion (RIM). Using any accessories not approved by RIM for use with this particular BlackBerry® device model might invalidate any approval or warranty applicable to the device, might result in the non-operation of the device, and might be dangerous.

## Antenna care

Use only the supplied integrated antenna. Unauthorized antenna modifications or attachments could damage the BlackBerry® device and might violate U.S. Federal Communications Commission (FCC) regulations.

## Operating and storage temperatures

Situate the BlackBerry® device or device accessories away from heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

If you are not going to use the BlackBerry device for more than two weeks, turn off the device power, remove the battery, and follow the operating and storage temperatures listed in the following table:

| | |
|---|---|
| **Device operating** | 32 to 122°F (0 to 50°C) |
| **Device storage** | 50 to 86°F (10 to 30°C) |
| **Travel charger operating** | 32 to 113°F (0 to 45°C) |
| **Travel charger storage** | -22 to 167°F (-30 to 75°C) |

## Interference with electronic equipment

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment might not be shielded against the RF signals from the BlackBerry® device.

**Pacemakers:** Consult a physician or the manufacturer of your pacemaker if you have any questions regarding the effect of RF signals on your pacemaker. If you have a pacemaker, verify that you are using the BlackBerry device in accordance with the safety requirements associated with your particular pacemaker, which might include the following requirements:

- Always keep the BlackBerry device more than 7 inches (20 cm) from the pacemaker when the device is turned on.
- Do not carry the BlackBerry device in your breast pocket.
- When using the phone on the BlackBerry device, use the ear opposite the pacemaker for making and receiving calls to minimize the potential interference.
- If you have any reason to suspect that interference is taking place, turn off all wireless connections immediately.

**Hearing aids:** Some digital wireless devices may interfere with some hearing aids. In the event of such interference, consult your wireless service provider or contact the manufacturer of your hearing aid to discuss alternatives.

**Other medical devices:** If you use any other personal medical device, consult the manufacturer of your device to determine if the device is adequately shielded from external RF energy. Your physician may be able to assist you in obtaining this information.

**Health care facilities:** Turn off all wireless connections 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.

**Aircraft:** Federal Aviation Administration (FAA) and Federal Communications Commission (FCC) regulations prohibit using the radio of wireless devices while in the air. Turn off all wireless connections before boarding an aircraft. The effect of using the BlackBerry device with wireless connections turned on in an aircraft is unknown. Such use might affect aircraft instrumentation, communication, and performance, might disrupt the network, might otherwise be dangerous to the operation of the aircraft, and might be illegal. With all wireless connections turned off, only use non-radio based device applications in accordance with airline regulations for electronic devices.

**Co-channel mobile satellite systems:** Turn off all wireless connections while you are outdoors to reduce the potential for harmful interference with co-channel mobile satellite systems.

**CAUTION:** High power radars are the primary users of the transmitting and receiving frequencies of the BlackBerry device. These radars might cause interference with or damage to license-exempt local area network (LE-LAN) devices.

## Dangerous areas

**Potentially explosive atmospheres:** Turn off all wireless connections 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.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fueling areas such as gasoline or petrol stations; below deck on boats; fuel or 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.

Do not use the phone on the BlackBerry® device to report a gas leak in the vicinity of the leak. Leave the area and, if the phone is available and active on the BlackBerry device, make the call from a safe location.

**Blasting areas:** To avoid interfering with blasting operations, turn off all wireless connections when in a "blasting area" or in areas posted: "Turn off two-way radio". Obey all signs and instructions.

## Service

Only qualified service personnel should perform repairs to the BlackBerry® device. Disconnect the power supply cables from the computer or electrical outlet and refer the BlackBerry device or charging accessory for service to qualified service personnel if any of the following situations occur:

- the power supply cord, plug, or connector is damaged
- liquid has been spilled or objects have fallen into the BlackBerry device or charging accessory
- the BlackBerry device or charging accessory has been exposed to rain or water
- the BlackBerry device or charging accessory becomes very hot to the touch
- the BlackBerry device or charging accessory has been dropped or damaged in any way
- the BlackBerry device or charging accessory does not operate normally by following the instructions in the user documentation
- the BlackBerry device or charging accessory exhibits a distinct change in performance

Do not attempt to disassemble the BlackBerry device or any charging accessory.

To reduce the risk of fire or electric shock, adjust only those controls that are covered in the user documentation for the BlackBerry device. An improper adjustment of other controls might cause damage and will often require extensive work by a qualified technician to restore the BlackBerry device, charging accessory, or any other accessory to normal operation.

Failure to observe all safety instructions contained in the user documentation for the BlackBerry device will void the Limited Warranty and might lead to suspension or denial of services to the offender, legal action, or both.

## Additional safety guidelines

**Speakerphone:** The BlackBerry® device is equipped with a speakerphone that can generate audio levels loud enough for phone call operation while holding the device at an arm's length from your head. When using your BlackBerry device speakerphone, never hold the device to your ear. Serious and permanent hearing damage could occur.

**Audio files:** The BlackBerry device has the capability to play audio files. When listening to audio files using headphones, permanent hearing loss might occur if headphones are used at a high volume. Avoid increasing the volume of your headphones to block out noisy surroundings. If you experience ringing in your ears or muffled speech, consult a physician to have your hearing checked.

**Liquids and foreign objects:** Never push objects of any kind into the BlackBerry device or device accessories through openings as this action might cause a short circuit, a fire, or electric shock. Do not use the BlackBerry device or device accessories near water (for example, near a bathtub or a sink, in a wet basement, or near a swimming pool). Never spill liquid of any kind on the BlackBerry device or device accessories.

**Stability:** Do not place the BlackBerry device or device accessory on any unstable surface. It could fall, thereby potentially causing serious injury to a person and serious damage to the BlackBerry device or device accessory. Take care when using the BlackBerry device with any charging accessories to route the power cord in a way that reduces the risk of injury to others, such as by tripping or choking.

**Cleaning:** Do not use liquid, aerosol cleaners, or solvents on or near the BlackBerry device or device accessory. Clean only with a soft dry cloth. Disconnect any cables from the computer and unplug any charging accessories from the electrical outlet before cleaning either the BlackBerry device or the charging accessory.

**Repetitive strain:** When using the BlackBerry device, take frequent breaks. If you experience any discomfort in your neck, shoulders, arms, wrists, hands (including thumbs and fingers), or other parts of the body when using the BlackBerry device, cease use immediately. If discomfort persists, consult a physician.

**Holster:** The BlackBerry device might not come equipped with a holster. If you wear the BlackBerry device on your body, always put the device in a holder, holster, or carrying case approved by Research In Motion (RIM). If you do not use a body-worn accessory supplied or approved by RIM when carrying the BlackBerry device, keep the device at least 0.98 inches (25 mm) from your body when the BlackBerry device is connected to a wireless network. When using any data feature of the BlackBerry device, with or without an accessory cable, position the device at least 0.98 inches (25 mm) from your body. Using accessories not supplied or approved by RIM might cause your BlackBerry device to exceed radio frequency (RF) exposure guidelines.

**Carrying solutions:** Most BlackBerry® carrying solutions for BlackBerry devices, for example holsters, totes, and pouches, incorporate a magnet into the physical structure of the carrying solution. Do not place items containing magnetic strip components such as debit cards, credit cards, hotel key cards, phone cards, or similar items near BlackBerry carrying solutions which incorporate a magnet into the physical structure of the carrying solution as the magnet might damage or erase the data stored on the magnetic strip.

# Compliance information

## Exposure to radio frequency signals

The BlackBerry® device radio is a low power radio transmitter and receiver. When the BlackBerry device radio is turned on, it receives and also sends out radio frequency (RF) signals. The BlackBerry device is designed to comply with Federal Communications Commission (FCC)

and Industry Canada (IC) guidelines respecting safety levels of RF exposure for wireless devices, which in turn are consistent with the following safety standards previously set by Canadian, U.S., and international standards bodies:

- ANSI/IEEE C95.1, 1999, American National Standards Institute/Institute of Electrical and Electronics Engineers Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
- National Council on Radiation Protection and Measurements (NCRP) Report 86, 1986, Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields
- Health Canada, Safety Code 6, 1999, Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
- EN 50360, 2001, Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz to 3 GHz)
- International Commission on Non-Ionizing Radiation Protection (ICNIRP), 1998, Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic fields (up to 300 GHz)
- Official Journal of the European Union (OJEU), 1999, Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)

To maintain compliance with FCC, IC, and EU RF exposure guidelines when carrying the BlackBerry device on your body, use only accessories that are supplied or approved by Research In Motion (RIM). Use of accessories that are not expressly approved by RIM might violate FCC, IC, and EU RF exposure guidelines and might void any warranty applicable to the BlackBerry device. If you do not use a body-worn accessory supplied or approved by RIM when carrying the BlackBerry device, keep the BlackBerry device at least 0.98 inches (25 mm) from your body when the device is connected to a wireless network. When using any data feature of the BlackBerry device, with or without an accessory cable, position the device at least 0.98 inches (25 mm) from your body.

## Specific absorption rate data

THIS WIRELESS DEVICE MODEL MEETS GOVERNMENT REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

The BlackBerry® device is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government, Industry Canada of the Canadian Government (IC), and recommended by The Council of the European Union. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC/IC is 1.6W/kg*. The SAR limit recommended by The Council of the European Union is 2.0W/kg**. Tests for SAR are conducted using standard operating positions specified by the FCC/IC with the device 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 device while operating can be well below the maximum value. This is because the device 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 wireless device model is available for sale to the public, it must be tested and certified to the FCC, IC, and The Council of the European Union that it does not exceed the limit established by the government-adopted requirement for safe exposure under the recommendations of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC, IC, and The Council of the European Union for each model.

The highest SAR value for each device model when tested for use at the ear is outlined below:

| Device | 1 g / 10 g SAR (W/kg) |
|---|---|
| BlackBerry® 8820™ smartphone | 1.27/1.00 |

The highest SAR value for the BlackBerry device model when worn on the body, in a RIM approved holder, holster, or carrying case, is outlined below:

| Device | 1 g / 10 g SAR (W/kg) |
|---|---|
| BlackBerry 8820 smartphone | 1.53/0.80 |

Body-worn measurements differ among wireless device and phone models, depending upon available accessories and FCC, IC, and The Council of the European Union requirements.

The FCC has granted an Equipment Authorization for this wireless device model with all reported SAR levels evaluated as in compliance with the FCC RF emission guidelines. SAR information on this wireless device model is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID L6ARBG40GW. Additional information on Specific Absorption Rates (SAR) can be found on the CTIA - The Wireless Association® web-site at http://www.ctia.org.

_____

* In the United States and Canada, the SAR limit for mobile devices used by the public is 1.6 watts/kg (W/kg) averaged over 1 gram of tissue for the body or head (4.0 W/kg averaged over 10 grams of tissue for the extremities - hands, wrists, ankles and feet). The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

** In Europe, the SAR limit for mobile devices used by the public is 2.0 watts/kg (W/kg) averaged over 10 grams of tissue for the body or head (4.0 W/kg averaged over 10 grams of tissue for the extremities - hands, wrists, ankles and feet). The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.

The long-term characteristics or the possible physiological effects of Radio Frequency Electromagnetic fields have not been evaluated by Underwriters Laboratories Inc. (UL).

## FCC compliance statement (United States)

*FCC Class B Part 15*

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

**CAUTION:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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, if not installed and used in accordance with the manufacturer's instructions, may cause interference harmful to radio communications.

There is no guarantee, however, 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 the interference 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 to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

## Industry Canada certification

This BlackBerry® device complies with Industry Canada RSS 132, RSS 133, and RSS 210, under certification number 2503A-RBG40GW.

The maximum antenna gain for this BlackBerry device complies with the effective isotropic radiated power (EIRP) limit restrictions as outlined by Industry Canada RSS 210.

## Class B compliance

This BlackBerry® device complies with the Class B limits for radio noise emissions as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of Industry Canada.

## EU regulatory conformance

Research In Motion Limited hereby declares that this BlackBerry® device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

CE 0168

The Declaration of Conformity made under Directive 1999/5/EC is available for viewing at the following location in the EU community:

Research In Motion UK Limited

36 Station Road, Egham, Surrey

TW20 9LF

United Kingdom

## Additional regulatory conformance

Specific details about compliance to the following standards and regulatory bodies may be obtained from Research In Motion:

- PCS Type Certification Review Board (PTCRB)
- Underwriters Laboratories UL 60950-1 requirements for Canada and the United States
- Radio and Telecommunications Terminal Equipment (R&TTE) Directive 1999/5/EC
- Global Certification Forum Certification Criteria (GCF CC) requirements

# Product information

## Product information

**Mechanical properties**

| | |
|---|---|
| weight | approximately 4.73 oz. (134 g) including lithium-ion battery |
| size (L x W x H) | 4.49 x 2.6 x 0.55 in. (114 x 66 x 14 mm) |
| memory | 64-MB flash memory, 16-MB SRAM |

**Power**

| | |
|---|---|
| battery | removable, rechargeable lithium-ion cell |
| SIM interface | supports 3V SIM cards |
| port | USB-compatible port for data synchronization and charging |

**Device radio specifications**

**Table1. Mobile network radio**

| | |
|---|---|
| quad-band support | GSM® 850, GSM 900, DCS 1800, PCS 1900 MHz |
| power class | Class 1 (DCS 1800, PCS 1900), Class 4 (GSM 850) as defined in GSM 5.05, Class 4 (GSM 900) as defined in GSM 02.06, Class E2 (GSM 850, GSM 900, DCS 1800, PCS 1900) |
| transmitting frequency | GSM 824 to 849 MHz, GSM 880 to 915 MHz, DCS 1710 to 1785 MHz, PCS 1850 to 1910 MHz |
| receiving frequency | GSM 869 to 894 MHz, GSM 925 to 960 MHz, DCS 1805 to 1880 MHz, PCS 1930 to 1990 MHz |

**Table2. Wi-Fi network radio**

| | |
|---|---|
| wireless LAN standard | IEEE® 802.11a, IEEE 802.11b, IEEE 802.11g |

| | |
|---|---|
| transmitting and receiving frequency | 2.412 to 2.472 GHz, 5.18 to 5.32 GHz, 5.5 to 5.7GHz, 5.745 to 5.805 GHz |

**Bluetooth® radio specifications**

| | |
|---|---|
| single-band support | ISM 2.4 GHz |
| power class | Bluetooth® Class 2 |
| transmitting and receiving frequency | 2402 to 2480 MHz |

# Legal notice



BlackBerry® 8820 Model Number: RBG41GW

Research In Motion Limited
295 Phillip Street
Waterloo, ON N2L 3W8
Canada

Research In Motion UK Limited
200 Bath Road
Slough, Berkshire SL1 3XE
United Kingdom
Published in Canada