



MOTOROLA SOLUTIONS

en-US

RF Energy Exposure Training and Product Safety Information for Mobile Two-Way Radios installed in Vehicles or as Fixed Site Control Stations

fr-CA

Formation sur l'exposition aux RF et information sur la sécurité du produit pour radios bidirectionnelles mobiles installées dans des véhicules ou comme stations de contrôle à emplacements fixes

es-LA

Capacitación sobre la exposición a energía de radiofrecuencia e información de protección del producto para radios de dos vías móviles instalados en vehículos o como estaciones de control fijas

pt-BR

Treinamento sobre a Exposição à Energia de RF e Informações de Segurança do Produto para Rádios Portáteis Bidirecionais Instalados em Veículos ou como Estações de Controle de Site Fixo

https://learning.motorolasolutions.com/User_Documentation



Caution

Before using this radio, read this booklet which contains important operating instructions.

For information on product details, brochures, user manuals and approved accessories. Please refer to www.motorolasolutions.com.

Compliance with RF Exposure Standards

National and international regulations require manufacturers to comply with the RF energy exposure limits for mobile two-way radios before they can be marketed. Your Motorola Solutions two-way radio is designed, manufactured, and tested to comply with all applicable national and international regulations for human exposure to radio frequency electromagnetic energy. When two-way radios are used as a consequence of employment, applicable regulations may require users to be fully aware of and able to control their exposure to meet occupational requirements.

RF Energy Exposure Awareness and Control Information and Operational Instructions for Occupational Use



Notice: This radio is intended for use in occupational/controlled conditions where users are aware of their exposure and can exercise control over their exposure to meet the requirements in national and international regulations. This radio device is not authorized for general population, consumer use.

For more information on what RF energy exposure is, and how to control your exposure to ensure compliance with established RF exposure limits, consult the following websites:

- <https://www.fcc.gov/>
- <https://www.osha.gov/>
- <https://osha.europa.eu/en>
- <http://www.who.int/peh-emf/project/en/>
- <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11467.html>
- <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html>

For additional user training information on exposure requirements, consult the following websites:

- https://www.motorolasolutions.com/en_us/about/company-overview/corporate-responsibility/governance-and-policies/wireless-communication-and-health-faqs.html
- <http://learning.motorolasolutions.com/>

RF Exposure Compliance and Control Guidelines

To control exposure to yourself and others, and to ensure compliance with the relevant RF exposure limits, always adhere to the following guidelines:

- Do not remove any of the RF Exposure Labels if present from this device or its related accessories.
- Attach these instructions to the device when you transfer it to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions

- Transmit no more than 50% of the time. To transmit (talk), press the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting more than 50% of the time may cause RF exposure compliance requirements to be exceeded.
- Transmit only when people (bystanders) outside the vehicle are at least at the minimum lateral distance (as shown in Tables 1 and 2) away from the vehicle body. This separation will ensure that there is sufficient distance from a properly installed (according to the installation instructions) externally-mounted antenna to satisfy the relevant RF exposure limits.
- To ensure continued compliance with applicable RF exposure limits, use only Motorola Solutions approved, supplied or replacement antennas, batteries, and accessories.
- For a list of Motorola Solutions approved accessories please refer to your user manual or visit www.motorolasolutions.com

Table 1 lists the minimum lateral distance for bystanders from the body of a vehicle (For example, truck, van, car, motorcycle) equipped with an approved, properly installed single-band mobile radio and associated antenna(s). These lateral distances, for single-band radios, depend on the radio rated power.

Table 1: Rated Power of Vehicle-Installed Single-Band Mobile Radio and Minimum Lateral Distance from Vehicle Body

Single-Band Mobile Radio Rated Power (see Notice)	Minimum Lateral Distance of Bystanders from Vehicle Body
Less than 7 W	8 in. (20 cm)
7 to 14 W	1 ft (30 cm)
15 to 39 W	2 ft (60 cm)
40 to 110 W	3 ft (90 cm)



Notice: If you are not sure of the rated power of your single-band radio, contact your Motorola Solutions representative or dealer and supply the radio model number found on the radio model label. If you cannot determine the rated power, then assure 3 ft (90 cm) separation for bystanders from the body of the vehicle.

Table 2 lists the minimum lateral distance for bystanders from the body of a vehicle (For example, truck, van, car, motorcycle) equipped with an approved, properly installed multi-band mobile radio and associated antenna(s). These lateral distances, for multi-band radios, depend on whether the radio is installed on a motorcycle, or on other kinds of vehicles.

Table 2: Rated Power of Vehicle-Installed Multi-Band Mobile Radio and Minimum Lateral Distance from Vehicle Body

Type of Vehicle	Minimum Lateral Distance of Bystanders from Vehicle Body
Motorcycle	2 ft (60 cm)
Other vehicles	3 ft (90 cm)

Mobile Antenna Installation Guidelines

- Make sure to follow the antenna installation guidelines that are provided in this mobile radio installation manual.
- Use only Motorola Solutions approved supplied antenna, or a Motorola Solutions approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the radio and may result in non-compliance with RF Safety Standards.

Guidelines and Operating Instructions for Mobile Two-Way Radios Installed as Fixed Site Control Stations

If mobile radio equipment is installed and operated at a fixed location, the antenna installation must comply with the following requirements in order to ensure optimal performance and compliance with applicable RF exposure limits.

- The antenna should be mounted outside the building on the roof or a tower if at all possible.
- As with all fixed site antenna installations, it is the responsibility of the licensee to manage the site in accordance with applicable regulatory requirements. Actions such as site survey measurements, signage, and site access restrictions may be required in order to ensure compliance with RF exposure limits.

Vehicles

To avoid possible interference between the radio transmitter and any vehicle electronic control modules, such as ABS, engine, or transmission control modules, your mobile radio should be installed only by an experienced installer, using the following precautions when installing the radio:

- 1 Refer to the manufacturer instructions or other technical bulletins for recommendations on radio installation.
- 2 Before installing the radio, determine the location of the vehicle electronic control modules and their harnesses within the vehicle.
- 3 Route all radio wiring, including the antenna cable, as far away as possible from the electronic control units and associated harnesses.

Notice to Users (FCC)

This device complies with Part 15 of the FCC rules per the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications made to this device, not expressly approved by Motorola Solutions, could void the authority of the user to operate this equipment.

Operational Warnings

The following explains the operational warnings:

For Vehicle With Air Bags



Warning:

- Refer to vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with air bag wiring.
- DO NOT mount or place a mobile radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle.

Potentially Explosive Atmospheres



Warning:

- Use of a radio that is not intrinsically safe in a potentially explosive atmosphere could result in a serious injury or death. You should only

use a certified Intrinsically Safe radio in potentially explosive atmospheres.

- Explosive atmospheres refer to hazard classified locations that may contain hazardous gas, vapors, dusts, such as fueling areas below decks on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles such as grain, dust or metal powders. Areas with potentially explosive atmospheres are often, but not always, posted.
- Turn off your radio prior to entering any area with a potentially explosive atmosphere unless it is a radio type specifically certified for use in hazardous location areas.
- DO NOT remove, install, or charge batteries in such areas, or remove or install antennas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death.

Blasting Caps and Blasting Areas



Warning: To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio." Obey all signs and instructions.

Batteries

If your mobile radio is equipped with a primary or backup battery, you must follow these instructions:

- Charge your battery using the approved Motorola Solutions charger.
- Use the battery in accordance with its water and/or dust Ingress Protection (IP) rating.
- Do not discard your battery into a fire.
- Do not replace the battery in any area labeled "Hazardous Atmosphere".
- Do not disassemble, crush, puncture, shred, or otherwise attempt to change the form of your battery.
- Do not dry a wet or damp battery with an appliance or heat source, such as a hair dryer or microwave oven.
- Do not allow conductive material such as jewelry, keys, or beaded chains to touch exposed battery terminals.
- Do not dispose of batteries with household waste.

European Union (EU) Waste of Electrical and Electronic Equipment (WEEE) Directive



■ The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trash bin label on the product (or the package in some cases). As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste. Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country.



■ For Brazil, information for disposal and recycling of electronic waste, batteries, and packaging, please call: 0800168272.

Notes

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