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JVCKENWOOD Corporation

B5A-4460-00



RF ENERGY EXPOSURE AWARENESS AND CONTROL INFORMATION

INFORMATION

Operational Instructions for FCC Occupational Use Requirements

Before using your mobile two-way radio, read this important RF Energy Awareness and Control Information and Operational Instructions to ensure compliance with the FCC's RF exposure guidelines.

Note: *This radio is intended for use in occupational/controlled conditions where users have full knowledge of their exposure and can exercise control over their exposure to meet FCC limits. This radio device is NOT authorized for general population, consumer, or any other use.*

This two-way radio uses electromagnetic energy in the radio frequency (RF) spectrum to provide communications between two or more users over a distance. It uses radio frequency (RF) energy or radio waves to send and receive calls. RF energy is one form of electromagnetic energy. Other forms include, but are not limited to, electric power, sunlight and x-rays. RF energy, however, should not be confused with these other forms of electromagnetic energy, which when used improperly can cause biological damage. Very high levels of x-rays, for example, can damage tissues and genetic material.

Experts in science, engineering, medicine, health and industry work with organizations to develop standards for exposure to RF energy. These standards provide recommended levels of RF exposure for both workers and the general public. These recommended RF exposure levels include substantial margins of protection. All two-way radios marketed in North America are designed, manufactured and tested to ensure they meet government established RF exposure levels. In addition, manufacturers also recommend specific operating instructions to users of two-way radios. These instructions are important because they inform users about RF energy exposure and provide simple procedures on how to control it.

Please refer to the following web sites for more information on what RF energy exposure is and how to control your exposure to assure compliance with established RF exposure limits.

- <https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>
- <https://www.osha.gov/radiofrequency-and-microwave-radiation>

Federal Communications Commission Regulations

The FCC rules require manufacturers to comply with the FCC RF energy exposure limits for mobile two-way radios before they can be marketed in the U.S. When two-way radios are used as a consequence of employment, the FCC requires users to be fully aware of and able to control their exposure to meet occupational requirements. Exposure awareness can be facilitated by the use of a product label directing users to specific user awareness information.

Your VIKING two-way radio has a RF exposure product label. Also, your VIKING user manual, or product manual, or separate safety booklet includes information and operating instructions required to control your RF exposure and to satisfy compliance requirements.

Compliance with RF Exposure Standards

Your VIKING two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) for human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% transmitting and is authorized by the FCC for occupational use only. In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

Your VIKING two-way radio complies with the following RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR §§ 1.1307, 1.1310, 2.1091 and 2.1093
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95.1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits, always adhere to the following procedures.

Guidelines:

- User awareness instructions should accompany the device when it is transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

- Vehicle installation: The antenna can be mounted at the center of a vehicle metal roof or trunk lid
- Use only JVCKENWOOD Corporation approved supplied or replacement antennas and accessories. Use of

non-JVCKENWOOD Corporation Technologies approved antennas and accessories may exceed the FCC RF exposure guidelines.

- For a list of JVCKENWOOD Corporation Technologies approved accessories, see the operating manual or marketing accessory lists or contact JVCKENWOOD Corporation

Usage Compatibility

- Do NOT operate the unit in areas that are sensitive to RF energy such as aircraft, hospitals, blasting sites, and fuel storage sites. Areas with potentially flammable atmospheres are usually, but not always, clearly posted. These may include gas stations, fuel and chemical storage and transfer stations, below deck on boats, and areas where the air contains flammable chemicals or particles such as grain dust or metal powders.

Electromagnetic Interference

This device complies with Part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference. In addition, changes or modification to this equipment not expressly approved by JVCKENWOOD Corporation could void the user's authority to operate this equipment (FCC Rules, 47CFR Part 15.19).

Note: *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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct 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 for technical assistance.

ISED Canada

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

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

This device complies with Health Canada's Safety Code 6 / RSS-102. The installer of this device should ensure that RF radiation is not emitted in excess of the Health Canada's requirement. Information can be obtained at: <https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/occupational-exposure-regulations/safety-code-6-radiofrequency-exposure-guidelines.html#sc6>

The use of 5150-5250 MHz band is restricted to indoor use only in Canada.

Vocoder Patent Notice

The AMBE+2™ voice coding Technology embodied in this product is protected by intellectual property rights including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc. This voice coding Technology is licensed solely for use within this Communications Equipment. The user of this Technology is explicitly prohibited from attempting to extract, remove, decompile, reverse engineer, or disassemble the Object Code, or in any other way convert the Object Code into a human-readable form. U.S. Patent Nos. #8,315,860, #8,595,002, #7,970,606 and #8,359,197.

Software License

Non-open source software used in this product is licensed in accordance with E.F. Johnson Company's ("EF Johnson's") then current software license agreement.

Open Source Software License

Software used in this product includes open source software ("Open Source Software") and is subject to the General Public License ("GPL") provided at <https://info.efjohnson.com/open-source> JVCKENWOOD Corporation notifies you ("Licensee") hereunder that Licensee has the rights to obtain, modify and/or redistribute the source code of such software ("Open Source Software") in accordance with the terms of such GPL. Therefore, if Licensee obtains such Open Source Software, Licensee must strictly adhere to the terms and conditions of the GPL.

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information
Trade name: KENWOOD
Model: VM8000
Responsible party: JVCKENWOOD USA Corporation 1440 Corporate Drive, Irving, TX 75038 USA
Telephone number: 972-819-0700

Contact Information

KENWOOD LMR Support Portal:
<https://lmrsupport.kenwood.com>
Toll-Free: 1-800-328-3911, option 3

MANDATORY SAFETY INSTRUCTIONS TO INSTALLERS AND USERS


- Use only manufacturer or dealer supplied antenna.
- Antenna Minimum Safe Distance: Refer to the values in the table below.
- Antenna Gain: 0 dBd referenced to a dipole.

The Federal Communications Commission has adopted a safety standard for human exposure to RF (Radio Frequency) energy which is below the OSHA (Occupational Safety and Health Act) limits.

- Antenna Mounting: The antenna supplied by the manufacturer or radio dealer must not be mounted at a location such that during radio transmission, any person or persons can come closer than the minimum safe distance indicated in the table below.
- To comply with current FCC RF Exposure limits, the antenna must be installed at or exceeding the minimum safe distance shown above, and in accordance with the requirements of the antenna manufacturer or supplier.
- Vehicle installation: The antenna can be mounted at the center of a vehicle metal roof or trunk lid, if the minimum safe distance is observed.
- Base Station Installation: The antenna should be fixed-mounted on an outdoor permanent structure. RF Exposure compliance must be addressed at the time of installation.


Antenna substitution: Do not substitute any antenna for the one supplied or recommended by the manufacturer or radio dealer.

You may be exposing person or persons to excess radio frequency radiation. You may contact your radio dealer or the manufacturer for further instructions.

**WARNING**

Maintain a separation distance from the antenna to person(s) of at least the distance indicated in the table below.

You, as the qualified end-user of this radio device must control the exposure conditions of bystanders to ensure the minimum separation distance (table below) is maintained between the antenna and nearby persons for satisfying RF Exposure compliance. The operation of this transmitter must satisfy the requirements of Occupational/Controlled Exposure Environment, for work-related use, transmit only when person(s) are at least the minimum distance from the properly installed, externally mounted antenna. Transmit only when people outside the vehicle are at least the recommended minimum lateral distance away from the antenna/vehicle.

**CAUTION**

Do not touch the metal surface of the transceiver while it is in use. Do not mount the transceiver such that the chassis can come in contact with skin. High temperatures may burn your skin.

Antenna Minimum Safe Distance

Frequency Range	Safe Distance	
	Occupational /Controlled	General Population /Uncontrolled
VHF	67 cm (2.2 feet)	161 cm (5.3 feet)
UHF	49 cm (1.6 feet)	138 cm (4.6 feet)
700/800 MHz	34 cm (1.2 feet)	90 cm (3.0 feet)

This transmitter is authorized to operate with a maximum duty factor of 50%, in typical push-to-talk mode, for satisfying FCC RF exposure compliance requirements.