Manuals+ — User Manuals Simplified.

ZEBRA WS50, WR50
Android
Wearable
Computer

ZEBRA WS50, WR50 Android Wearable Computer User Guide

Contents

ZEBRA WS50, WR50 Android Wearable Computer

Regulatory Information

- This device is approved under Zebra Technologies Corporation.

This guide applies to the following model numbers:

- WS5001
- WS5002
- WR50

All Zebra devices are designed to be compliant with the rules and regulations in the locations they are sold and will be labeled as required.

- Local language translation **zebra.com/support**

Any changes or modifications to Zebra equipment not expressly approved by Zebra could void the user's authority to operate the equipment. Declared maximum operating temperature: 50°C

CAUTION: Only use Zebra-approved and NRTL-certified accessories, battery packs, and battery chargers. Do NOT attempt to charge damp/wet mobile computers, printers, or batteries. All components must be dry before connecting to an external power source.

Bluetooth® Wireless Technology

This is an approved Bluetooth® product. For more information on the Bluetooth SIG listing, please visit **bluetooth.com**.

Regulatory Markings

Regulatory markings subject to certification are applied to the device signifying the radio(s) are/are approved for

use. Refer to the Declaration of Conformity (DoC) for details of other country markings. The DOC is available at: **zebra.com/doc**. The regulatory marks specific to this device (including FCC and ISED) are available on the screen of the device by following these instructions: Go to Settings > Regulatory.

Health and Safety Recommendations

Ergonomic Recommendations

In order to avoid or minimize the potential risk of ergonomic injury, always follow good ergonomic workplace practices. Consult with your local Health and Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

Safety in Hospitals and Aircraft

Wireless devices transmit radio frequency energy that may affect medical electrical equipment and aircraft's operation. Wireless devices should be switched off wherever you are requested to do so in hospitals, clinics, healthcare facilities, or by airline staff. These requests are designed to prevent possible interference with sensitive equipment

Medical Devices

It is recommended that a minimum separation distance of 20 cm (8 inches) be maintained between a wireless device and a medical device such as pacemakers, defibrillators, or other implantable devices to avoid potential interference with the medical device. Pacemaker users should keep the device on the opposite side of the pacemaker or turn OFF the device if suspected of interference. Please consult your physician or the manufacturer of the medical device to determine if the operation of your wireless product may interfere with the medical device.

WARNING –This wearable accessory uses strong magnets. To avoid potential magnetic field interference with implanted or wearable medical devices, consult with your physician or the manufacturer of the medical device if this product is safe to use. Keep out of the reach of children.

Safety Information

Reducing RF Exposure – Use Properly

Only operate the device by the instructions supplied. The device complies with internationally recognized standards covering human exposure to electromagnetic fields. For information on international human exposure to electromagnetic fields, refer to the Zebra Declaration of Conformity (DoC) at **zebra.com/doc**. Use only Zebra-tested and approved headsets, belt clips, holsters, and similar accessories to ensure RF exposure compliance. If applicable, follow the instructions for use as detailed in the accessory guide. The use of third-party belt clips, holsters, and similar accessories may not comply with RF exposure compliance requirements and should be avoided. For further information on the safety of RF energy from wireless devices, refer to the RF exposure and assessment standards section at **zebra.com/responsibility**.

Handheld or Body-Worn Devices

To satisfy RF exposure requirements, this device must operate with a minimum separation distance of 1 cm or more from a user's body and nearby persons. To satisfy RF exposure requirements, this device must be wrist-worn or body-worn either on a pocket, lapel, or belt using a clip-mount, and where applicable use only with Zebra-tested and approved accessories.
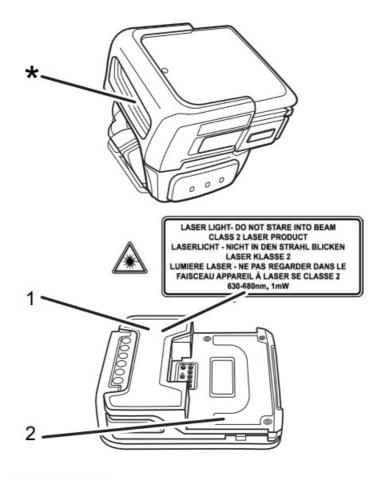
Optical Devices

Laser Devices

Class 2 laser scanners use a low-power, visible light diode. As with any very bright light source such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

CAUTION: Use of controls, adjustments, or the performance of procedures other than those specified in the supplied product documentation may result in hazardous laser light exposure. The WS5001 reflector includes mandatory laser safety warning markings and must always be fitted when in use.

SE4770 Scan Engine

- Wavelength: 630-680 nm
- Maximum output: 1 mW
- Pulse duration: 12.5 ms
- Beam divergence: 42.7°
- Repetition rate: 16.9 ms

Scanner Labeling

Labels read:

1. Laser Light — do not stare into the beam Class 2 Laser Product. 630-680 mm, 1 mW (applied to SE4770)
2. Complies with 21 CFR1040.10 and 1040.11 except for deviations under Laser Notice No. 56,\ dated May 08,

2019, and IEC/EN 60825-1:2014.

- **CAUTION**: Laser light emitted from this aperture

LED Devices

Risk Group is classified according to IEC 62471:2006 and EN 62471:2008.

SE4770 Scan Engine

- Risk Group: Exempt (RG0)
- Pulse Duration: 17.7 ms

Camera Flash LED

- Risk Group: Exempt (RG0)
- Pulse Duration: CW

Power Supply

WARNING ELECTRICAL SHOCK: Use only a Zebra-approved, Certified ITE [SELV] power supply with appropriate electrical ratings. The use of an alternative power supply will invalidate any approvals given to this unit and may be dangerous.

Batteries and Power Packs

This information applies to Zebra-approved batteries and power packs containing batteries. Battery Information

CAUTION: Risk of explosion if the battery is replaced by an incorrect type. Dispose of batteries according to instructions.

Use only Zebra-approved batteries. Accessories which have battery charging capability are approved for use with the following battery models:

- Model BT-000446B (3.85 VDC, 1300 mAh)
- Model BT-000446 (3.85 VDC, 800 mAh)
- Model BT-000446A (3.85 VDC, 2400 mAh) For use with RFID WR50.

Zebra-approved rechargeable battery packs are designed and constructed to the highest standards within the industry. However, there are limitations as to how long a battery can operate or be stored before needing replacement. Many factors affect the actual life cycle of a battery pack such as heat, cold, harsh environmental conditions, and severe drops. When batteries are stored over six months, some irreversible deterioration in overall battery quality may occur. Store batteries at half charge in a dry, cool place, removed from the equipment to prevent loss of capacity, rusting of metallic parts, and electrolyte leakage. When storing batteries for one year or longer, the charge level should be verified at least once a year and charged to half charge. Replace the battery when a significant loss of run time is detected.

- The standard warranty period for all Zebra batteries is one year, regardless if the battery was purchased

  separately or included as part of the host device. For more information on Zebra batteries, please visit:

  zebra.com/batterydocumentation and select the Battery Best Practices link.

Battery Safety Guidelines

- **IMPORTANT** – SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS
- **WARNING** – When using this product basic safety precautions should always be followed, including the following:

The area in which the units are charged should be clear of debris and combustible materials or chemicals. Particular care should be taken when the device is charged in a non-commercial environment.

- Read all the instructions before using the product.
- Follow battery usage, storage, and charging guidelines found in the user's guide.
- Improper battery use may result in a fire, explosion, or other hazard.
- To charge the mobile device battery, the battery and charger temperatures must be between 2°C and 46°C (35.6°F and 114.8°F).
- Do not use incompatible batteries and chargers. Use of an incompatible battery or charger may present a risk of fire, explosion, leakage, or other hazard. If you have any questions about the compatibility of a battery or a charger, contact Zebra support.
- Do not disassemble or open, crush, bend or deform, puncture, or shred. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.
- Severe impact from dropping any battery-operated device on a hard surface could cause the battery to overheat.
- Do not short-circuit a battery or allow metallic or conductive objects to contact the battery terminals.
- Do not modify, disassemble, or remanufacture, attempt to insert foreign objects into the battery, immerse or expose to water, rain, snow, or other liquids, or expose to fire, explosion, or other hazard.
- Do not leave or store the equipment in or near areas that might get very hot, such as in a parked vehicle or near a radiator or other heat source. Do not place the battery into a microwave oven or dryer.
- To reduce the risk of injury, close supervision is necessary when used near children.
- Please follow local regulations to promptly dispose of used rechargeable batteries.
- Do not dispose of batteries in a fire. Exposure to temperatures over 100°C (212°F) may cause explosion.
- Seek medical advice immediately if a battery has been swallowed.
- In the event of a battery leak, do not allow the liquid to come in contact with the skin or eyes. If contact\ has been made, wash the affected area with large amounts of water and seek medical advice.
- If you suspect damage to your equipment or battery, contact Zebra support to arrange for inspection.

Marking and European Economic Area (EEA)

Statement of Compliance

Zebra hereby declares that this radio equipment complies with Directives 2014/53/EU and 2011/65/EU. Any radio operation limitations within EEA countries are identified in Appendix A of the EU Declaration of Conformity. The full text of the EU Declaration of Conformity is available at: **zebra.com/doc**.

- EU Importer: Zebra Technologies B.V
- Address: Mercurius 12, 8448 GX Heerenveen, Netherlands

Waste Electrical and Electronic Equipment (WEEE)

- For EU and UK Customers: For products at the end of their life, please refer to recycling/disposal advice at: **zebra.com/weee**.

FCC

United States and Canada Regulatory

Radio Frequency Interference Notices

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 by 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 the 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/TV technician for help.

Radio Frequency Interference Requirements – Canada

This device complies with Innovation, Science, and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device. This device is restricted to indoor use when operating in the 5150 to 5350 MHz frequency range This radio transmitter [109AN-WR50] has been approved by Innovation, Science, and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list and having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

- Antenna ID: RFID03N-N0-01
- Patch: 1.65 dBi, 50 ohms

RF Exposure Requirements – FCC and ISED

The FCC has granted Equipment Authorization for this device with all reported SAR levels evaluated in compliance with the FCC RF emission guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of **fcc.gov/oet/ea/fccid**. To satisfy RF exposure requirements, this device must operate with a minimum separation distance of 1 cm or more from a user's body and nearby persons.

To satisfy RF exposure requirements, this device must be wrist-worn or body-worn either on a pocket, lapel, or belt

using a clip-mount and where applicable use only with Zebra tested and approved accessories.

United Kingdom

Statement of Compliance

Zebra hereby declares that this radio equipment is in compliance with the Radio Equipment Regulations 2017 and the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012. Any radio operation limitations within UK are identified in Appendix A of UK Declaration of Conformity. The full text of the UK Declaration of Conformity is available at: **zebra.com/doc**.

- UK Importer: Zebra Technologies Europe Limited
- Address: Dukes Meadow, Millboard Rd, Bourne End, Buckinghamshire, SL8 5XF

Warranty

For the complete Zebra hardware product warranty statement, go to: **zebra.com/warranty**.

Service Information

Before you use the unit, it must be configured to operate in your facility's network and run your applications. If you have a problem running your unit or using your equipment, contact your facility's Technical or System Support. If there is a problem with the equipment, they will contact Zebra support at **zebra.com/support**.

For the latest version of the guide go to: **zebra.com/support**.

Software Support

Zebra wants to ensure that customers have the latest entitled software at the time of device purchase in order to keep the device operating at peak performance levels. To confirm that your Zebra device has the latest entitled software available at the time of purchase, go to **zebra.com/support**. Check for the latest software from Support > Products, or search for the device and select Support > Software Downloads.
If your device does not have the latest entitled software as of your device purchase date, e-mail Zebra at **entitlementservices@zebra.com** and ensure you include the following essential device information:

- Model number
- Serial number
- Proof of purchase
- Title of the software download you are requesting.

If it is determined by Zebra that your device is entitled to the latest version of software, as of the date you purchased your device, you will receive an e-mail containing a link directing you to a Zebra Web site to download the appropriate software.

Product Support Information

- For information on using this product, see the User Guide at **zebra.com/ws50-info**.
- To find quick answers to known product behaviors, access our knowledge articles at **supportcommunity.zebra.com/s/knowledge-base**.

- Ask your questions in our Support community at **supportcommunity.zebra.com**.
- Download product manuals, drivers, and software, and view how-to videos at **zebra.com/support**.
- To request a repair for your product, go to **zebra.com/repair**.

Patent Information

- To view Zebra patents, go to **zebra.com/patents**.

Documents / Resources

	ZEBRA WS50, WR50 Android Wearable Computer [pdf] User Guide WS5002, UZ7WS5002, UZ7WS5002 ws5002, WS50 WR50 Android Wearable Computer, WS50 WR50, Android Wearable Computer, Wearable Computer, Computer

References

- **FCC ID Search | Federal Communications Commission**
- **Zebra Support Community**
- **Zebra Support Community**
- **FCC ID Search | Federal Communications Commission**
- **User Manual**