



ZEBRA TC78 Mobile Computer Owner's Manual

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Product Information

The TC78A1 is a device manufactured and approved by Zebra Technologies Corporation. This device is designed to comply with the rules and regulations of the locations where it is sold. The regulatory markings on the device signify that the radio(s) is/are approved for use. Only Zebra approved and NRTL-certified accessories, battery packs, and battery chargers should be used with this device. The device has a Class 2 laser scanner which uses a low power, visible light diode. Momentary exposure to the laser is not known to be harmful.

Product Usage Instructions

Before using the TC78A1, it is important to ensure that the device is compliant with the rules and regulations in your location. Check the regulatory markings on the device and refer to the Declaration of Conformity (DoC) for details of other country markings. The DOC is available at: www.zebra.com/doc.

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

To access the regulatory marks specific to this device (including FCC and ISSED), go to Settings > Regulatory on the device screen.

When installing the device in a vehicle, ensure that it is installed to avoid driver distractions. Position the device within easy reach so that the user can access it without removing their eyes from the road. Before installing or using, check national and local laws regarding distracted driving.

When using the device on the road, give full attention to driving. Obey the laws and regulations on the use of wireless devices in the areas where you drive. Observe restrictions and obey all signs and instructions on the use of electronic devices in restricted use locations. In hospitals, clinics, healthcare facilities, or on aircraft, wireless devices should be switched off wherever requested to prevent possible interference with sensitive equipment. The device has a Class 2 laser scanner which uses 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. Finally, always follow good ergonomic workplace practices to avoid or minimize the potential risk of ergonomic injury. Consult with your local Health and Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

TC78 Regulatory Guide Form

Regulatory Information

This device is approved under Zebra Technologies Corporation. This guide applies to the following model number: TC78A1 This guide applies to the following product series: TC78A1 This guide applies to the following model numbers:

- TC78A1
- TC78B1
- TC78C1
- TC78J1

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.

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 www.bluetooth.com.

Regulatory Markings

Regulatory markings subject to certification are applied to the device signifying the radio(s) is/are approved for use. Refer to the Declaration of Conformity (DoC) for details of other country markings. The DOC is available at: www.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.

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.

Vehicle Installation

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (including safety systems). Check with the manufacturer or its representative regarding your vehicle. Ensure the equipment is installed to avoid driver distractions. You should also consult the manufacturer about any equipment that has been added to your vehicle. Position the device within easy reach. User should be able to access the device without removing their eyes from the road.

IMPORTANT

Before installing or using, check national and local laws regarding distracted driving.

Safety on the Road

Give your full attention to driving. Obey the laws and regulations on the use of wireless devices in the areas where you drive. The wireless industry reminds you to use your device / phone safely when driving.

Restricted Use Locations

Remember to observe restrictions and obey all signs and instructions on the use of electronic devices in restricted use locations.

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 equipments.

Medical Devices

It is recommended that a minimum separation distance of 20 cm (8 inches) be maintained between a wireless device and a medical devices such as pacemakers, defibrillator, or other implantable devices to avoid potential interference with the medical device. Pacemaker users should keep the device at 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.

RF Exposure Guidelines

Safety Information

Reducing RF Exposure – Use Properly

Only operate the device in accordance with 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 www.zebra.com/doc.

Use only Zebra tested and approved headset, 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 RF exposure and assessment standards section at www.zebra.com/responsibility.

To satisfy RF exposure requirements, this device must operate with a minimum separation distance of 1.5 cm or more from a user's body and nearby persons.

Optical Devices

Laser

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.

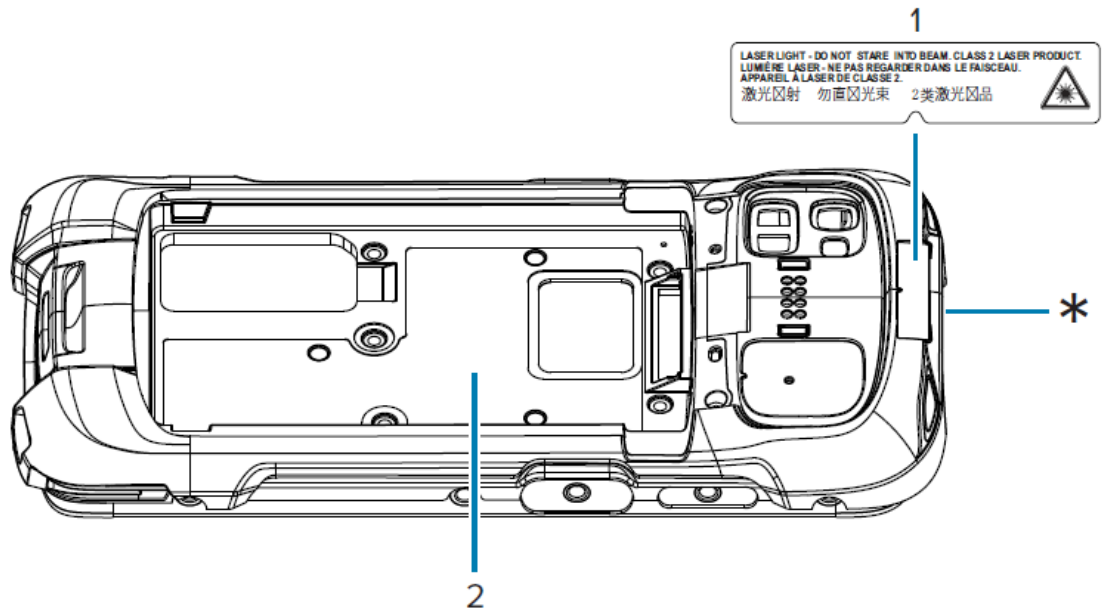
SE5500

Wavelength: 500-570 nm Maximum output: 1 mW Pulse duration: 4 ms Beam divergence: 18 °Repetition rate: 16.7 ms

SE4770

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 beam.
 - Class 2 Laser product. 630-680nm, 1mW (applied to SE4700)
 - Laser Light — do not stare into beam.
 - Class 2 Laser product. 500-570nm, 1mW (applied to SE5500)
2. Complies with 21 CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 56, dated May 08, 2019 and IEC/EN 60825-1:2014.

CAUTION: Laser light emitted from this aperture.

LED

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

- SE4770 Pulse Duration: 17.7 ms or CW Exempt Group (RG0)
- SE5500 Pulse Duration: 17.7 ms or CW Exempt Group (RG0)

Weights & Measures

For devices that incorporate a 'Legal for Trade' weighing or measuring instrument, Weights & Measures

regulations place responsibility of DEVICE OWNER to notify their local Weight & Measures Authority and follow any Placing-in-Trade requirements. These steps must be done prior to using the device to perform measurement based financial transactions. More information can be found at zebra.com/weights-measures.

Power Supply

WARNING ELECTRICAL SHOCK

Use only a Zebra approved, Certified ITE [LPS or SELV] power supply with appropriate electrical ratings. Use of 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 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-000442 (3.85 VDC, 4680 mAh)
- Model BT-000442B (3.85 VDC, 4680 mAh)
- Model BT-000442A (3.85 VDC, 7000 mAh)
- Model BT-000442C (3.85 VDC, 4680 mAh)

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.

- 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: www.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 where 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.
- Batteries subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

To charge the mobile device battery, the battery and charger temperatures must be between 0°C and 40°C (32°F and 104°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 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 re-chargeable batteries.
- Do not dispose of batteries in 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

- Non-radio devices: Zebra hereby declares that this equipment is in compliance with Directives 2014/30/EU, 2014/35/EU and 2011/65/EU.
- Radio enabled devices: Zebra hereby declares that this equipment is in compliance with Directives 2014/53/EU and 2011/65/EU.
- Any radio operation limitations within EEA countries are identified in Appendix A of EU Declaration of Conformity.
- The full text of the EU Declaration of Conformities is available at: www.zebra.com/doc.

Statement of Compliance

Zebra hereby declares that this radio equipment is in compliance with Directives 2014/53/EU and 2011/65/EU.

Any radio operation limitations within EEA countries are identified in Appendix A of EU Declaration of Conformity. The full text of the EU Declaration of Conformity is available at: www.zebra.com/doc. Zebra hereby declares that this device is in compliance with Directives 2014/30/EU, 2014/35/EU and 2011/65/EU. The full text of the EU Declaration of Conformity is available at: www.zebra.com/doc. Zebra hereby declares that this device is in compliance with Directives 2014/30/EU, 2014/31/EU, 2014/35/EU and 2011/65/EU. The full text of the EU Declaration of Conformity is available at: www.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: www.zebra.com/weee.

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, 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 into 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

Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-003 ([B])/NMB-003([B]) This device complies with Innovation, Science and Economic Development Canada's licence 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.

RF Exposure Requirements – FCC and ISED

The FCC has granted an 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 www.fcc.gov/oet/ea/fccid. To satisfy RF exposure requirements, this device must operate with a minimum separation distance of 1.5 cm or more from a user's body and nearby persons.

Hotspot Mode

To satisfy RF exposure requirements in hotspot mode, this device must operate with a minimum separation distance of 1.0 cm or more from a user's body and nearby persons.

Co-located Statement

To comply with FCC RF exposure compliance requirement, the antenna used for this transmitter must not be co-located (within 20 cm) or operating in conjunction with any other transmitter/antenna except those already approved in this filing.

Hotspot ISED Notice

When operating in hotspot mode, this device is restricted to indoor use when operating in the 5150 – 5350 MHz frequency range.

Use with Hearing Aids – FCC

When some wireless devices are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and wireless devices also vary in the amount of interference they generate. In the event of interference, you may want to consult your hearing aid supplier to discuss solutions. The wireless telephone industry has developed ratings for some of their mobile phones to assist hearing device users in finding phones that may be compatible with their hearing devices. Not all phones have been rated. Zebra terminals that are rated have the rating included on the Declaration of Conformity (DoC) at www.zebra.com/doc.

The ratings are not guarantees. Results will vary depending on the user's hearing device and hearing loss. If your hearing device happens to be vulnerable to interference, you may not be able to use a rated phone successfully. Trying out the phone with your hearing device is the best way to evaluate it for your personal needs.

ANSI C63.19 Rating System

In accordance with FCC hearing aid compatibility rules, certain phones be tested and rated under the American National Standard Institute (ANSI) C63.19 hearing-aid compatibility standard. This standard contains two types of ratings:

- **M-Rating:** For reduced radio-frequency interference to enable acoustic coupling with hearing aids that don't operate in telecoil mode
- **T-rating :** For inductive coupling with hearing aids operating in telecoil mode (t-switch or telephone switch)

These ratings are on a scale from one to four, where four is the most compatible. A phone is considered hearing-aid compatible under the FCC requirements if it's rated M3 or M4 for acoustic coupling and T3 or T4 for inductive coupling. Hearing devices may also be measured for immunity to this type of interference. Your hearing device manufacturer or hearing health professional may help you find results for your hearing device. The more immune your hearing aid is, the less likely you are to experience interference noise from mobile phones.

Hearing Aid Compatibility

This phone has been tested and rated for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations using your hearing aid or cochlear implant to determine if you hear any interfering noise. Consult your service provider or the manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer. This phone has been tested to ANSI C63.19 and rated for use with hearing aids; it received a M4/T3 rating. This device is marked HAC showing compliance with the applicable requirements of the FCC. This device is marked HAC showing compliance with the applicable requirements of FCC Part 68 and ISED CS-03-Part 5.

UL Listed Products with GPS

Underwriters Laboratories Inc. (UL) has not tested the performance or reliability of the Global Positioning System (GPS) hardware, operating software, or other aspects of this product. UL has only tested for fire, shock, or casualties as outlined in UL's Standard(s) for Safety for Information Technology Equipment. UL Certification does not cover the performance or reliability of the GPS hardware and GPS operating software. UL makes no representations, warranties, or certifications whatsoever regarding the performance or reliability of any GPS related functions of this product.

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: www.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/vanityURL.

- 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, software, and view how-to videos at zebra.com/support.
- To request a repair for your product, go to zebra.com/repair.

Documents / Resources

	ZEBRA TC78 Mobile Computer [pdf] Owner's Manual UZ7TC78B1, UZ7TC78B1, TC78, TC78 Mobile Computer, Mobile Computer
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[Manuals+](#)