

# MK500/4000

## Quick Reference Guide



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### Warranty

For the complete Zebra hardware product warranty statement, go to: <http://www.zebra.com/warranty>.



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## Health and Safety Recommendations

### Ergonomic Recommendations

**Caution:** In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

### Regulatory Information

This guide applies to the following Model Numbers: MK4900, MK4000, MK590, MK500

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

Local language translations are available at the following website:  
<http://www.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.

Only use Zebra approved and UL Listed accessories.

All components must be dry before connecting to an external power source.

Maximum operating temperature: 104° F / 40° C

### Radio Modules

The device contains approved radio module(s). These module(s) are identified below.


Zebra SDIO Radio module with 802.11a/b/g Wireless LAN,  
Type(s): 21-92955

### Wireless Device Country Approvals

Regulatory markings, subject to certification, are applied to the device signifying the radio(s) is/are approved for use in the following countries: United States, Canada, Japan, China, S. Korea, Australia, and Europe 1,2.

Please refer to the Zebra Declaration of Conformity (DoC) for details of other country markings. This is available at <http://www.zebra.com/doc>

Note 1: For 2.4GHz or 5GHz Products: Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

 Operation of the device without regulatory approval is illegal.

#### Country Roaming - Note for Client / Mobile devices

This device incorporates the International Roaming feature (IEEE802.11d) which will ensure the product operates on the correct channels for the particular country of use.

#### Ad-Hoc Operation - 802.11a Terminal Devices and Radio Modules only

Ad-Hoc operation is limited to Channels 36-48 (5150-5250 MHz). Use of this band is restricted to Indoor Use Only, any other use will make the operation of this device illegal.

#### Frequency of Operation - FCC and IC

The use in the UNII (Unlicensed National Information Infrastructure) band 1 5150-5250 MHz band is restricted to Indoor Use Only; any other use will make the operation of this device illegal.

The available channels for 802.11 b/g operation in the US are Channels 1 to 11. The range of channels is limited by firmware.

 **Warnings for Use of Wireless Devices**

Please observe all warning notices with regard to the usage of wireless devices.

#### Potentially Hazardous Atmospheres - Fixed Installations

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders).

 Safety in Hospitals

Wireless devices transmit radio frequency energy and may affect medical electrical equipment.

Wireless devices should be switched off wherever you are requested to do so in hospitals, clinics or healthcare facilities. These requests are designed to prevent possible interference with sensitive medical equipment.

Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, it is advised to verify that the adjacent equipment is not adversely affected.

#### Pacemakers

Pacemaker manufacturers recommended that a minimum of 15cm (6 inches) be maintained between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with independent research and recommendations by Wireless Technology Research.

Persons with pacemakers:

- Should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON.
- Should not carry the device in a breast pocket.
- Should use the ear furthest from the pacemaker to minimize the potential for interference.
- If you have any reason to suspect that interference is taking place, turn OFF your device.

#### Other Medical Devices

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.

This device is not HAC compliant during Voice-Over-IP (VOIP) calls.

### RF Exposure Guidelines

#### Safety Information

##### Reducing RF Exposure - Use Properly

Only operate the device in accordance with the instructions supplied.

#### International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on "International" human exposure to electromagnetic fields refer to the Zebra Declaration of Conformity (DoC) at <http://www.zebra.com/doc>.

#### EU

##### Remote and Standalone Antenna Configurations

To comply with EU RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop of similar configurations must operate with a minimum separation distance of 20 cm from all persons.

#### US and Canada


##### Co-located statement

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

##### Remote and Standalone Antenna Configurations

To satisfy FCC RF exposure requirements, a mobile transmitting device must operate with a minimum separation distance of 20 cm or more from a person's body.

#### Laser Devices

 Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007 and EN60825-1:2007 and IEC 60825-1(ED.2).

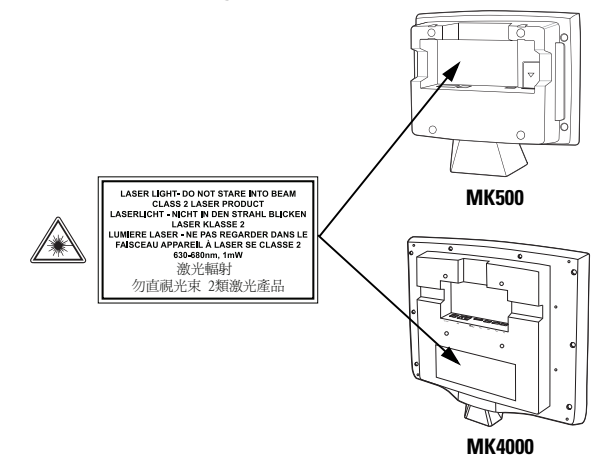
The laser classification is marked on one of the labels on the device.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

Caution: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

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.

## Scanner Labeling



### Power Supply

MK500: Use ONLY a LISTED, Type no. 50-14000 (24Vdc/ 625mA minimum), or PWRS-14000 (24Vdc/ 625mA minimum), Direct Plug-In Power supply, marked Class 2 or LPS (IEC60950-1, SELV). Use of alternative Power Supply will invalidate any approvals given to this unit and may be dangerous.

MK4000: Use ONLY a LISTED, Type no. 50-14000 (24Vdc/ 1.5A minimum), or PWRS-14000 (24Vdc/ 1.5A minimum), Direct Plug-In Power supply, marked Class 2 or LPS (IEC60950-1, SELV). Use of alternative Power Supply will invalidate any approvals given to this unit and may be dangerous.

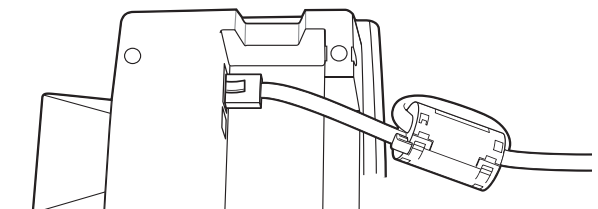
#### Power-over-Ethernet (PoE)

MK500: Use only with approved limited power source 48 VDC, 312.5 mA.

MK4000: Use only with approved limited power source 48 VDC, 0.625A.

MK500: When using PoE, you must place a ferrite core (p/n 34.10P16.001) on the Ethernet cable as follows:

1. Open the ferrite core and place it on the cable.
2. Route the cable outside the ferrite core once and then close the ferrite core.



### Radio Frequency Interference Requirements-FCC



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 Transmitters (Part 15)

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.

### Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### Radio Transmitters

For RLAN Devices:

The use of 5 GHz RLAN's, for use in Canada, have the following restrictions:

- Restricted Band 5.60 - 5.65 GHz
- This device complies with RSS 210 of Industry & Science Canada. 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.

