



**Zebra**<sup>®</sup> Smart Charger 2 (SC2)  
for Mobile Printers

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# User Guide



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- FCC part 15 Class B
- Canadian STD ICES-003 Class B
- EN55022 Class B
- EN55024 European Immunity Standard
- GB4943 Safety
- GB9254
- GB17625.1
- UL 60950
- IEC60950
- NOM(Mexico)
- SAA (Australia/New Zealand)
- C-Tick (Australia/New Zealand)
- CE (EU/EFTA)
- PSE (Japan)
- SABS (South Africa)
- S mark (Argentina)
- GOST-R (Russia)
- KC (Korea)
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## Document Conventions

The following conventions are used throughout this document to convey certain information:



Caution • Warns you of the potential for electrostatic discharge.



Caution • Warns you of a potential electric shock situation.



Caution • Warns you of a situation where excessive heat could cause a burn



Caution • Advises you that failure to take or avoid a specific action could result in physical harm to you.



Caution • Advises you that failure to take or avoid a specific action could result in physical harm to the hardware.



Important • Advises you of information that is essential to complete a task.



Note • Indicates neutral or positive information that emphasizes or supplements important points of the main text.

## Charger Safety

The following notices emphasize certain information specific to the Smart Charger 2.



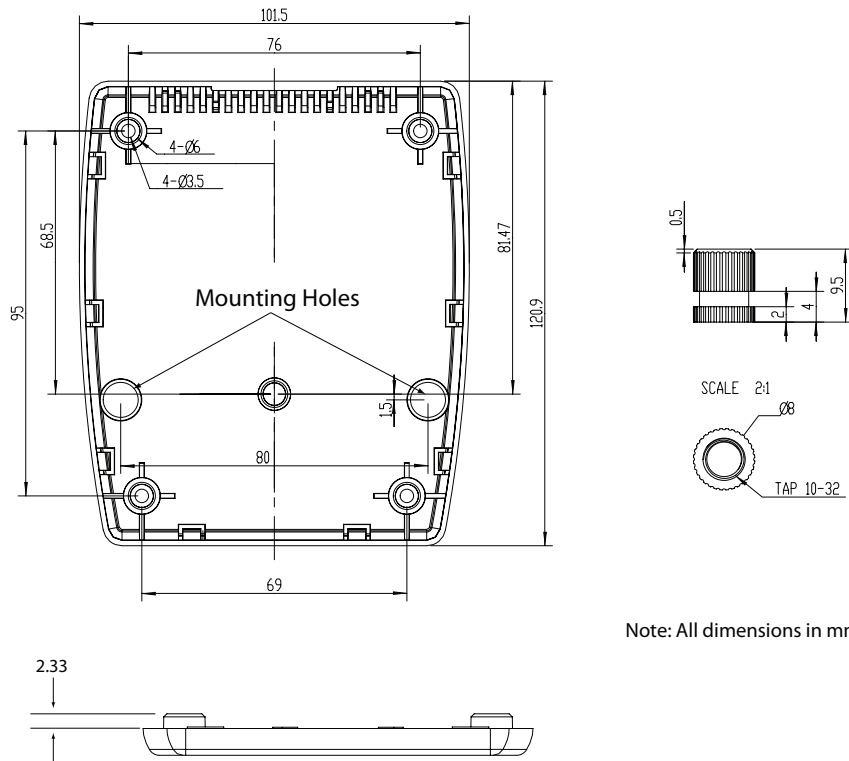
Do not place a charger in locations where liquids or metallic objects may be dropped on the charger or into the charging bays.



Use care in locating the SC2. Do not block the ventilating slots on the bottom covers. Ensure that the charger is plugged into a power source which won't accidentally be turned off if you will be charging batteries overnight.

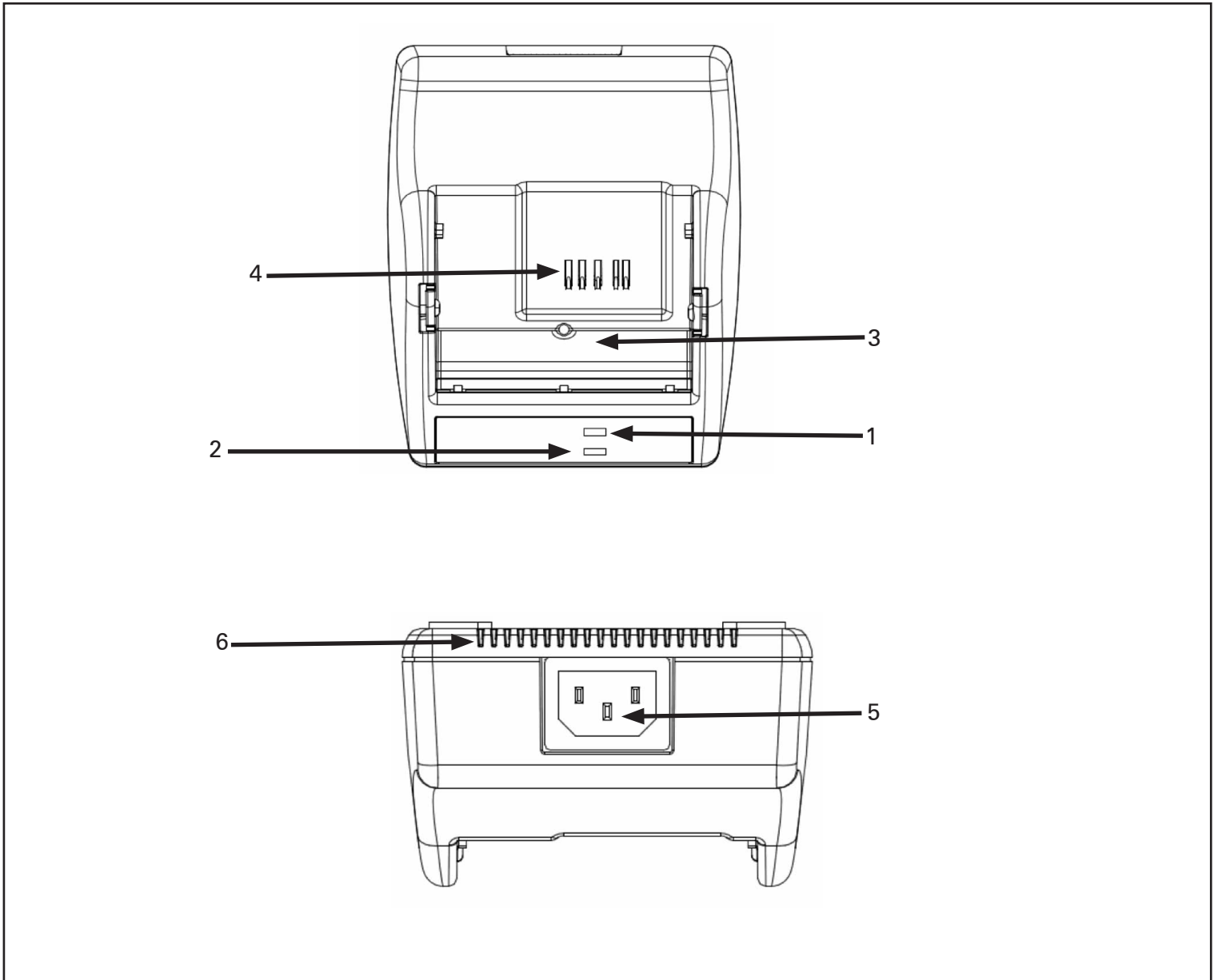
## Installation

The SC2 is intended to rest on a flat surface such as a table or shelf. It may be attached using the mounting holes shown in the diagram below.



Note: All dimensions in mm

## Indicator and Parts Descriptions



### Descriptions

1. Battery Charging Indicator
2. Battery Health Indicator
3. Charging Bay
4. Battery Contact
5. AC Jack
6. Ventilating Slots

## Charger Operation

The following table lists the batteries approved for use with the Smart Charger 2.



Use of chargers not approved by Zebra specifically for use with the Zebra series of printers will void the warranty and could cause damage to the printer or the battery pack. Zebra is not responsible for any damage to equipment caused by the improper use of unauthorized equipment.

Description of Batteries Supported	Part Number
Smart Battery for QLn220/320	P1031365-025
Smart Battery for P4T, RW4-PS	AK18913-001
Battery for QL 220/QL 320/QL 220 Plus/QL 320 Plus	AT16004-1
Battery for QL 420/QL 420 Plus	AT16293-1
Battery for RW 220	AK18026-002
Battery for RW 420	AK17463-005



Consult your Zebra sales representative or the factory for the appropriate full part number.

## The SC2 Smart Charger

The Smart Charger 2 is an AC fast charger with a universal 100 to 240, 50-60 Hz. VAC input. This charger is intended for charging the Lithium Ion (Li-ion) batteries pack that to be used in the Zebra mobile printers.

The Smart charger will charge a battery pack as fast as its charge level will allow, and then switch over to a maintenance charge to keep the charge at its maximum.

### Charging Status Indicators

Plug the SC2 into the AC wall receptacle using the supplied power cable, and then insert the battery into the charging bay. The Battery Charging Indicator LED will report the charge status as per the following table.

DC Power Input	Indicator	Battery Status
Present	Green	Battery Not Present
Present	Green	Battery Present & Fully Charged
Present	Yellow	Charging
Present	Amber	Fault
Present	Off	Present and Battery Health = POOR



## Battery Health Indicators

The SC2 features a tri-color (Yellow/Green/Amber) LED to indicate the health of the battery pack. An evaluation of the battery health begins upon insertion of the battery in the charger and results in the appropriate LED being illuminated as shown below.

Battery	Indicator	Health Status
None or non-smart	Off	BATTERY/POWER NOT PRESENT
Smart battery present	Green	GOOD
Smart battery present	Yellow	REPLACE
Smart battery present	Flashing yellow	REPLACE (NEAR END OF USEFUL LIFE)
Smart battery present	Amber	POOR (NO LONGER USABLE)



Ensure that the charger has been installed properly per the charger instruction manual.



Ensure that the SC2 is plugged into the appropriate AC wall receptacle.



Remove any protective shrink-wrap and labels from all battery packs prior to first use.



Snap the battery pack into the charging bay until it stops.



The battery health indicator will be Amber if the battery is improperly inserted.



The battery must be fully charged before being installed in the printer.

## Preventive Maintenance

### Extending Battery Life

- Avoid exposing the battery to direct sunlight or temperatures over 104 °F (40 °C).
- Always use a Zebra charger designed specifically for Lithium-Ion batteries. Use of any other kind of charger may damage the battery.
- Use the correct media for your printing requirements. An authorized Zebra re-seller can help you determine the optimal media for your application.
- If you print the same text or graphic on every label, consider using a preprinted label.
- Choose the correct print darkness and print speed for your media.
- Use the LCD display backlight only when necessary. Turn it off whenever it is not needed.
- Remove the battery from the printer if it won't be used for a day or more and you're not performing a maintenance charge.
- Consider purchasing an extra battery.
- Remember that any rechargeable battery will lose its ability to maintain a charge over time and can be recharged only a finite number of times before it must be replaced.



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Always dispose of used batteries properly.

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## Appendix A: Technical Specifications

### Physical

- Height: 2.5 in (63.4 mm)
- Length: 4.8 in (121 mm)
- Width: 4.0 in (101.5 mm)
- Weight (charger only): 0.55 lbs (0.25 kg)
- Weight (cradle and line cord): 0.90 lbs (0.41 kg)

### Environmental

- Operating Temp: 32°F (0°C) to 104°F (40°C)
- Storage Temp: -13°F (-25°C) to 158°F (65°C)
- Humidity: 10% to 90% non-condensing
- Drop: 3 ft (0.9M) to concrete (with battery)
- Vibration: Per Mil-Std-810

### Power:

- AC Input: 100 – 240 VAC, 50 – 60 Hz, 0.8A
- DC Output: 8.4 VDC, 1.5A max
- 2011 Energy Star Compliant



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