

## WFM200BC External Battery Charger

### Instructions



### General safety summary

Use the product only as specified. Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it. Carefully read all instructions. Retain these instructions for future reference.

Comply with local and national safety codes.

For correct and safe operation of the product, it is essential that you follow generally accepted safety procedures in addition to the safety precautions specified in this manual.

The product is designed to be used by trained personnel only.

This product is not intended for detection of hazardous voltages.

#### To avoid fire or personal injury

**Use proper power cord.** Use only the power cord specified for this product and certified for the country of use.

**Ground the product.** This product is indirectly grounded through the grounding conductor of the mainframe power cord. To avoid electric shock, the grounding conductor must be connected to earth ground. Before making connections to the input or output terminals of the product, make sure that the product is properly grounded.

Do not disable the power cord grounding connection.

**Power disconnect.** Remove the power cord of the external AC adapter to disconnect mains power from the product. Do not position the charger so that it is difficult to operate the power cord; it must remain accessible to the user at all times to allow for quick disconnection if needed.

**Use proper AC adapter.** Use only the AC adapter specified for this product.

**Use proper battery charger.** Use only the WFM200BC charger or an approved Tektronix instrument to charge the WFM200BA Lithium-Ion battery pack.

**Do not operate without covers.** Do not operate this product with covers or panels removed.

**Do not operate with suspected failures.** If you suspect there is damage to this product, have it inspected by qualified service personnel.

Disable the product if it is damaged. Do not use the product if it is damaged or operates incorrectly. If in doubt about safety of the product, turn it off and disconnect the power cord. Clearly mark the product to prevent its further operation.

Examine the exterior of the product before you use it. Look for cracks or missing pieces.

**Avoid exposed circuitry.** Do not touch exposed connections and components when power is present.


**Recharge batteries properly.** Recharge batteries for the recommended charge cycle only.


**Do not operate in wet/damp conditions.** Be aware that condensation may occur if a unit is moved from a cold to a warm environment.

**Keep product surfaces clean and dry.**

**Do not attempt to service this product.** There are no serviceable components in the WFM200BC battery charger.

#### Safety terms in this manual

 **WARNING.** Warning statements identify conditions or practices that could result in injury or loss of life.

 **CAUTION.** Caution statements identify conditions or practices that could result in damage to this product or other property.

#### Symbols and terms on the product

These terms may appear on the product:

- DANGER indicates an injury hazard immediately accessible as you read the marking.
- WARNING indicates an injury hazard not immediately accessible as you read the marking.
- CAUTION indicates a hazard to property including the product.



CAUTION  
Refer to Manual

### Compliance information

This section lists the EMC (electromagnetic compliance), safety, and environmental standards with which the WFM200BC charger complies. Compliance demonstrated using high quality, shielded interface cables.

#### EMC compliance

##### EC Declaration of Conformity – EMC

Meets the intent of Directive 2004/108/EC for Electromagnetic Compatibility. Compliance was demonstrated to the following specifications as listed in the Official Journal of the European Communities:

**EN 55103-1:2009 Environmental E2.** Product family standard for audio, video, audio-visual. Industrial and light commercial <sup>1</sup>

- Part 1 Emission
  - EN 55022:2006 Class B – Radiated and conducted emissions
  - EN 55103-1:2009 Annex A – Radiated magnetic field emissions
- Part 2 Immunity
  - EN 55103-2:2009 Annex A – Radiated magnetic field immunity
  - IEC 61000-4-11:2004 – Power line voltage dip and interruption immunity
  - IEC 61000-4-2:2000 – Electrostatic discharge immunity
  - IEC 61000-4-3:2007 – RF electromagnetic field immunity
  - IEC 61000-4-4:2004 – Electrical fast transient / burst immunity
  - IEC 61000-4-5:2005 – Power line surge immunity
  - IEC 61000-4-6:2006 – RF conducted immunity

<sup>1</sup> Average half-cycle r.m.s. Inrush current at initial switch on : 2.8 A. Average half-cycle r.m.s. Inrush current after 5 second power interruption: 2.4 A.

**EN 61000-3-2:2006.** AC power line harmonic emissions

**EN 61000-3-3:1995.** Voltage changes, fluctuations, and flicker

**European contact.** Tektronix UK, Ltd.  
Western Peninsula  
Western Road  
Bracknell, RG12 1RF  
United Kingdom

**Australia / New Zealand Declaration of Conformity – EMC**

Complies with the EMC provision of the Australia Radiocommunications Act 1992 per the following standard, in accordance with ACMA:

- EN 55022:2006 Class B – Radiated and conducted emissions, in accordance with EN 55103-1:2009

**Australia / New Zealand contact.**

Baker & McKenzie  
Level 27, AMP Centre  
50 Bridge Street  
Sydney NSW 2000, Australia

**Environmental considerations**

This section provides information about the environmental impact of the product.

**Product end-of-life handling**

Observe the following guidelines when recycling an instrument or component:

**Equipment recycling.** Production of this equipment required the extraction and use of natural resources. The equipment may contain substances that could be harmful to the environment or human health if improperly handled at the product’s end of life. In order to avoid release of such substances into the environment and to reduce the use of natural resources, we encourage you to recycle this product in an appropriate system that will ensure that most of the materials are reused or recycled appropriately.



This symbol indicates that this product complies with the applicable European Union requirements according to Directives 2012/19/EU and 2006/66/EC on waste electrical and electronic equipment (WEEE) and batteries. For information about recycling options, check the Support/Service section of the Tektronix Web site ([www.tektronix.com/productrecycling](http://www.tektronix.com/productrecycling)).

**Product description**

The Tektronix WFM200BC External Battery Charger is intended for use with only the Tektronix Lithium-Ion WFM200BA Rechargeable Battery Pack.

**NOTE.** Refer to the WFM200BA Rechargeable Battery Pack Instructions (Tektronix part number 075-1041-XX) for information on storage, transportation, and end-of-life recycling or disposal of the Lithium-Ion battery pack.

**International power cords**

Your product was shipped with one of the following power cord options. Power cords for use in North America are UL listed and CSA certified. Cords for use in areas other than North America are approved by at least one authority acceptable in the country to which the product is shipped.

- Opt. A0 – North America power
- Opt. A1 – Universal EUR power
- Opt. A2 – United Kingdom power
- Opt. A3 – Australia power
- Opt. A5 – Switzerland power
- Opt. A6 – Japan power
- Opt. A10 – China power
- Opt. A11 – India power
- Opt. A12 – Brazil power
- Opt. A99<sup>1</sup> – No power cord

<sup>1</sup> When ordering the A99 option, it is the responsibility of the end user to be sure that a certified power cord, for the country or region in which it is installed, is used with this product.

**CAUTION.** To reduce risk of fire and shock, use the certified power cord provided with the product.

**Battery pack charging**

For optimum performance, charge the battery pack completely before using it for the first time or after prolonged storage.

**CAUTION.** To avoid damage to the product or to other battery packs, do not use the WFM200BC external battery charger on any battery pack other than the WFM200BA battery pack.

To avoid damage to the battery pack, use only the WFM200BC charger or an approved Tektronix instrument to charge the battery pack. Do not connect any other voltage source to the battery pack.

To avoid overheating of the batteries during charging, do not exceed the maximum ambient temperature of 40 °C.

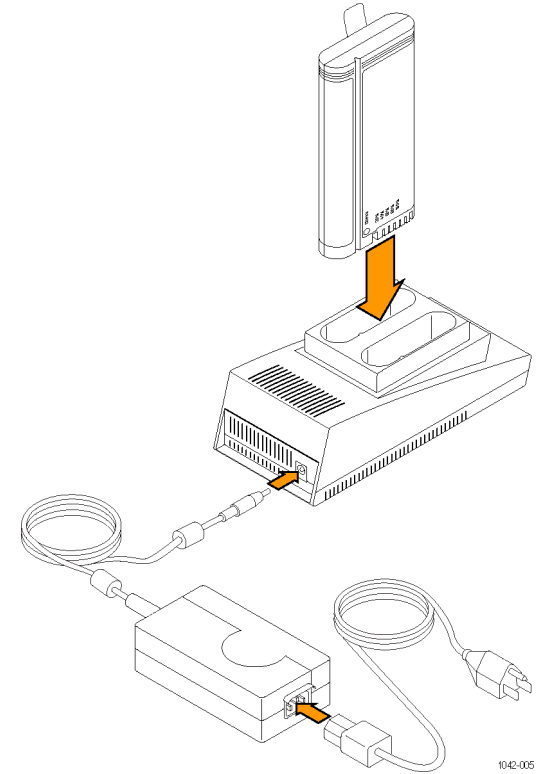
Perform the following steps to charge the WFM200BA battery pack:

1. Connect the AC adapter power supply to a mains outlet and insert the DC plug of the power supply into the WFM200BC External Battery Charger.
2. Align the slots on the battery to the slots in the charger and insert the battery into one of the charger bays.
3. Note the condition of the charger LEDs:

LED condition	Description
Solid green	Power on / Battery fully charged
Flashing green	Battery is charging
Solid red	Battery fault

**Specifications**

Characteristic	Description
Output	16.8 VDC
Charge time	5.5 hrs
Adapter requirements	19 V / 3.16 A typical
DC input voltage range	18–24 V
Operating temperature	10 °C to +40 °C (+50 °F to +104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)



**Warranty information**

For warranty information, go to the [www.tektronix.com](http://www.tektronix.com) Web site, and search for “WFM200BC warranty”.

**Contacting Tektronix**

Tektronix, Inc.  
14200 SW Karl Braun Drive  
P.O. Box 500  
Beaverton, OR 97077  
USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit [www.tektronix.com](http://www.tektronix.com) to find contacts in your area.