Safety terms in this manual

CAUTION. These statements identify conditions or practices that could result in damage to the equipment or other property.

Safety symbols and terms 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.

Compliance information
The WFM200BA battery, including all battery options, meets the following requirements unless otherwise noted. Compliance demonstrated using high quality, shielded interface cables.

European Union
EMC Directive 2004/108/EC.
- EN 55022:2006 Class B – Radiated and conducted emissions
- EN 55103-1:2009 Annex A – Radiated magnetic field emissions
- 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
- EN 61000-3-2:2006 – AC Power Line Harmonic Emissions
- EN61000-3-3:1995 – Voltage Changes, Flicker, and Flicker

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

Australia / New Zealand
Australia Radiocommunications Act 1992
- 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

Battery recycling
This WFM200BA Lithium-Ion rechargeable battery pack must be recycled or disposed of properly.

- Lithium-Ion batteries are subject to disposal and recycling regulations that vary by country and region. Always check and follow your applicable regulations before disposing of any battery. Contact Rechargeable Battery Recycling Corporation (www.rbrc.org) for U.S.A. and Canada, or your local battery recycling organization.
- Many countries prohibit the disposal of waste electronic equipment in standard waste receptacles.
- Place only discharged batteries in a battery collection container. Use electrical tape or other approved covering over the battery connection points to prevent short circuits.

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 Tektronix Web site (www.tektronix.com/batteries/recovering).

Lithium-ion battery transportation
The capacity of the WFM200BA lithium ion battery pack is under 100 Wh. The battery meets the applicable requirements of UN Manual of Tests and Criteria Part III Section 38.3. As shipped from Tektronix, the battery quantity is under the limit for shipment according to Section II of the relevant Packing Instructions from the IATA Dangerous Goods Regulations. Consult your air carrier for applicability and determination of any special lithium battery transportation requirements.
- Always check all applicable local, national, and international regulations before transporting a Lithium-Ion battery.
- Transporting an end-of-life, damaged, or recalled battery may, in certain cases, be specifically limited or prohibited.
- The battery pack must be adequately protected against short-circuit or damage during transport.

Description
The WFM200BA rechargeable battery pack is intended for use with specific Tektronix products. The battery consists of an array of Lithion cells and an internal battery pack controller device, including internal fault protection. Refer to your instrument's documentation to ensure this is the proper battery for your instrument.

When the battery is not installed in an instrument, you can check the battery charge level by pressing the Check button on the back of the battery pack. LEDs illuminate to indicate the amount of charge in increments of approximately 20%.

Battery maintenance guidelines
The WFM200BA Lithium-Ion rechargeable battery pack requires routine maintenance and care in its use and handling. Be sure to use the following guidelines to safely use the WFM200BA Lithium-Ion batteries and achieve the maximum battery life span.

Battery pack considerations
Do not leave a battery unused for an extended period of time, either in the product or in storage. When a battery has been unused for six months, check the charge status, and charge or discharge the battery as appropriate. See Charging the battery pack and Battery recycling.

The typical estimated life of a Lithium-Ion battery is about two to three years, or 300 to 500 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged, to fully discharged, and fully recharged again. You should not expect a two to three year life expectancy for batteries that do not run through complete charge cycles.

A rechargeable Lithium-Ion battery has a limited life and will gradually lose its capacity to hold a charge. This loss of capacity (aging) is irreversible. As the battery loses capacity, the length of time it will power the product (run time) decreases. A Lithium-Ion battery continues to slowly discharge (self-discharge) when not in use or while in storage. You need to routinely check the charge status of the battery.

Use the WFM200BA battery pack only in approved Tektronix instruments.

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
Do not operate with suspected failures. If you suspect there is damage to the battery, charger, or power supply, have it inspected by qualified service personnel.
Disable 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.

Recharge battery pack properly. Recharge the battery pack only for the recommended charge cycle at the recommended temperature.

Replace battery pack properly. Replace the battery pack only with the specified type and rating.
Use proper battery charger. Use only the WFM200BC battery charger or approved Tektronix instrument to charge the WFM200BA battery pack.

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.

Do not operate in an explosive atmosphere. Keep product surfaces clean and dry.
Do not attempt to service this product. There are no serviceable components in the WFM200BA battery.
The battery pack shuts down and disconnects itself from the instrument before use. If you plan to store battery packs, read this section for information on how to store battery packs. Do not attempt to recharge the battery. Remove the battery pack from the instrument. Do not replace the battery pack with a new one if it is not required for use. If you do not follow these instructions, you may damage the instrument or the battery pack.

To prolong the life of the battery pack and to prevent premature aging and premature failure, observe and note the run time that a new fully-charged battery provides for powering your product. You can use this new battery run time as a basis to compare run times at normal room temperature, 20 °C ±5 °C (68 °F ±9 °F). The battery pack is fully discharged. When possible remove the battery pack from the instrument for storage before use. If you do not follow these instructions, you may damage the instrument or the battery pack.

Do not disassemble, crush, drop, or puncture the battery. Avoid exposing the battery to excessive shock or vibration. Do not use a damaged battery or charger. Do not attempt to recharge the battery. Remove it with a new battery.

Battery pack charging
The battery pack charges automatically when installed in an approved Tektronix instrument that is connected to an external power supply. You can also charge the battery pack with the Tektronix WFM200BC External Battery Charger. Remove the battery pack from the WFM200BC charger when charging is complete.

A Lithium-ion battery pack will self discharge during non-use. To achieve the longest operating time, charge your battery pack before use. If you plan to store battery packs, read the instructions in the Battery pack storage section of this document.

Configuration

<table>
<thead>
<tr>
<th>Charging method</th>
<th>Technical charge time</th>
</tr>
</thead>
<tbody>
<tr>
<td>One fully discharged battery pack charging in the instrument</td>
<td>5.5 hours</td>
</tr>
<tr>
<td>One or two fully discharged battery packs charging in the WFM200BC external battery charger</td>
<td>15 minutes</td>
</tr>
</tbody>
</table>

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

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

To discharge the battery pack completely, continue to run the instrument on the battery pack until automatic shutdown occurs. After the instrument shuts down, either recharge the battery pack promptly or remove it from the instrument until you are ready to recharge the battery pack.

NOTE: To prolong the life of the battery pack and to prevent shutdown, do not operate or charge the battery pack at high temperatures. For best results, allow the battery pack to cool to room temperature before use or charging the battery pack.

The battery pack shutdowns and disconnects itself from the instrument when the following conditions:

- The battery pack is fully charged.
- The internal temperature of the battery pack exceeds the safe charging threshold.
- A fault condition occurs.

The battery pack shutdowns and disconnects itself from the instrument when the following conditions:

- The battery pack is fully discharged.
- The internal temperature of the battery pack exceeds the safe discharging threshold.
- A fault condition occurs.

Battery pack handling
- Do not disassemble, crush, drop, or puncture the battery.
- Do not disconnect from the instrument during use.
- Do not expose to water.
- Do not expose to direct sunlight.

Battery pack recycling
See the Recycling section for information on disposal and recycling.