

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

[manuals.plus](#) /

› [EPEVER](#) /

› [EPEVER MT-50 Remote Meter User Manual](#)

EPEVER MT-50

EPEVER MT-50 Remote Meter User Manual

Model: MT-50

1. PRODUCT OVERVIEW

The EPEVER MT-50 is a new-generation remote display unit designed to monitor and program EPEVER solar charge controllers. It provides real-time operational data and working status of connected devices through a large-screen multifunction LCD. The MT-50 allows for browsing and modification of charge/discharge control parameters, device parameters, and load control parameters, as well as restoration of factory defaults. It communicates via RS485, with both data and power supplied through the same lead, eliminating the need for external power.

This remote meter is compatible with EPEVER's LS-B, LS-BP, VS-BN, Tracer-BN, Tracer-A, eTracer, and iTracer series controllers.



Figure 1: EPEVER MT-50 Remote Meter



Figure 2: MT-50 Displaying Real-time Monitoring Data

Remote Meter **MT50**

MT50 is an optional remote meter to monitor and program controller, Compatible with:
LS-B, **LS-BP**, VS-BN, **Tracer-BN**, Tracer-A, **eTracer**, iTracer



Figure 3: MT-50 Compatibility with EPEVER Controllers

2. SETUP AND INSTALLATION

2.1 Package Contents

Before installation, please verify that all components are present in the package:

- MT-50 Remote Meter
- Communication Cable (RS485)
- Plastic Gaskets (x4)
- Large Screws (x4)
- Small Screws (x4)
- User Manual



Figure 4: Included Accessories

2.2 Wiring Diagram

The MT-50 connects to the EPEVER solar charge controller via an RS485 communication cable. This single cable provides both data communication and power to the remote meter.

Wiring



Figure 5: MT-50 Wiring Connection to Solar Charge Controller



Figure 6: Comprehensive System Connection Diagram

2.3 Installation Environment

It is important to install the MT-50 in an environment free from strong electromagnetic interference to ensure optimal performance and accurate readings.



3. OPERATING INSTRUCTIONS

3.1 Display Interface

The MT-50 features a large LCD screen that displays various operational data and status indicators. The interface is designed for intuitive navigation using six function keys.



Figure 8: Monitoring Screen Layout and Icon Meanings

Key indicators and their meanings:

- **Day and Night Icons:** Indicates whether it is daytime (sun icon) or nighttime (moon icon). Daytime is determined when the threshold voltage is above 1V.
- **Charge Current Icon:** Dynamically displayed when there is a charge current flowing.
- **Battery Icon:** Dynamically displays the battery capacity. If the battery is in an over-discharge state, a specific icon (e.g., a battery with an 'X') will be shown.
- **Battery Status Icons:**
 - Normal voltage (smiley face)
 - Under voltage (frowning face)
 - Over discharge (sad face)
- **Load Current Icon:** Dynamically displayed when there is a discharge current flowing.
- **Load Status Icon:** Indicates if the load is ON (light bulb on) or OFF (light bulb off).

3.2 Navigation and Parameter Settings

The MT-50 is operated using six navigation function keys: Esc, four arrow keys (up, down, left, right), and OK. These keys allow users to browse data, modify parameters, and navigate through menus.

- **Esc:** Used to exit the current menu or cancel an operation.
- **Arrow Keys:** Used to navigate through menu options, adjust values, or switch between display screens.
- **OK:** Used to confirm a selection or enter a menu.

Detailed instructions for specific parameter modifications can be found in the comprehensive user manual provided with your EPEVER solar charge controller, as the MT-50 acts as an interface for those settings.

4. MAINTENANCE

The EPEVER MT-50 remote meter requires minimal maintenance. To ensure its longevity and accurate operation:

- Keep the device clean and free from dust and moisture. Use a soft, dry cloth for cleaning.
- Avoid exposing the device to extreme temperatures or direct sunlight for prolonged periods.
- Ensure all cable connections are secure and free from damage.

- Do not attempt to disassemble or repair the unit yourself. Refer to qualified personnel for any servicing needs.

5. TROUBLESHOOTING

If you encounter issues with your MT-50 remote meter, consider the following common troubleshooting steps:

- **No Display/Power:**
 - Check the RS485 communication cable connection between the MT-50 and the solar charge controller. Ensure it is securely plugged in at both ends.
 - Verify that the solar charge controller itself is powered on and functioning correctly.
- **Incorrect Readings:**
 - Ensure the MT-50 is compatible with your specific EPEVER solar charge controller model.
 - Check for any strong electromagnetic interference sources near the MT-50. Relocate the unit if necessary.
 - If readings are consistently inaccurate, consider restoring the MT-50 to factory defaults via the menu options (refer to your controller's manual for specific steps).
- **Communication Error (COM Indicator):**
 - The green COM indicator should be lit when communication is established. If it's off or blinking erratically, re-check the RS485 cable.
 - Ensure the controller's firmware is up to date, if applicable.
- **Warning Indicator:**
 - The red Warning indicator signifies an issue detected by the connected controller. Refer to the controller's display or manual for specific error codes or warnings.

For persistent issues, please contact EPEVER customer support or refer to the detailed troubleshooting section in your solar charge controller's manual.

6. SPECIFICATIONS

The following table outlines the key specifications for the EPEVER MT-50 Remote Meter:

| Feature | Specification |
|--------------------------------|--|
| Model | MT-50 |
| Display Type | LCD |
| Communication Interface | RS485 |
| Product Dimensions (L x W x H) | 4.49 x 4.49 x 4.49 inches (114 x 114 x 114 mm) |
| Item Weight | 12.3 ounces |
| Operating Temperature | Typically -20°C to +70°C |
| Batteries Required | No (powered by controller) |
| UPC | 732376583442 |

Size



Figure 9: MT-50 Dimensions



Figure 10: Detailed Product Feature and Dimension Diagram

7. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your EPEVER solar charge controller or visit the official EPEVER website. You can also contact EPEVER customer service directly for assistance with your MT-50 remote meter.

For frequently asked questions regarding EPEVER products, you may find answers on the brand's official support pages or community forums.



Figure 11: EPEVER Official Logo

© 2024 EPEVER. All rights reserved.