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**ANKROYU ANKROYUu5afzqgr01**

# ANKROYU MT3075 Solar Charger Controller

## USER MANUAL

### Introduction

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The ANKROYU MT3075 MPPT Solar Charger Controller is an advanced device designed to efficiently manage power flow from your solar panels to your battery bank and DC loads. Utilizing Maximum Power Point Tracking (MPPT) technology, it ensures optimal energy harvesting, high conversion efficiency, and reliable system operation. This manual provides essential information for the safe and effective installation, operation, and maintenance of your solar charge controller.



Figure 1: ANKROYU MT3075 Solar Charger Controller and accessories.

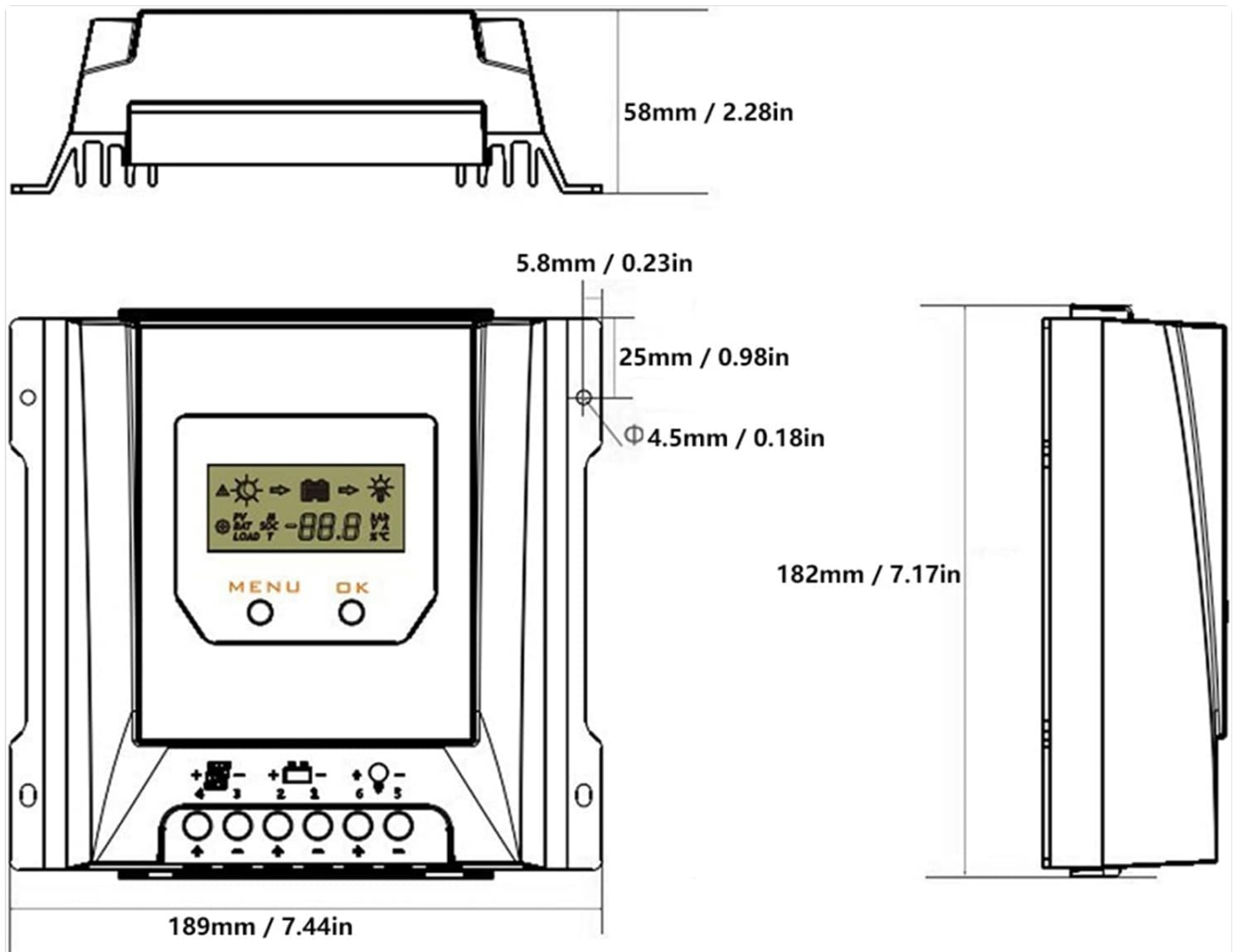
## Key Features

- **High Efficiency:** Maximum Power Point Tracking (MPPT) technology ensures power extraction efficiency exceeding 99.9%.
- **Advanced Control:** Full digital control technology provides a charging conversion efficiency of up to 97%.
- **Informative Display:** An integrated LCD screen displays real-time operating data and system status.
- **Accurate Temperature Compensation:** Equipped with an external temperature sensor for precise temperature-adjusted charging.
- **Versatile Application:** Adaptable to various solar power systems, suitable for residential and off-grid scenarios.
- **Multiple Work Modes:** Supports Standard, D2D (Dusk to Dawn), Street lamp mode (2-9 hours), and Manual operation.

## Specifications

Parameter	Value
Model	MT3075

Parameter	Value
Maximum Charging Current	30A
Maximum Input Power	390W (12V system) / 780W (24V system)
Load Output Current	30A
Work Modes	Standard, D2D, Street lamp mode (2-9 hours), Manual
Maximum Tracking Efficiency	>99.9%
Self-Consumption	7mA
Ambient Temperature	-20°C to +50°C (-4°F to +122°F)
Storage Temperature	-25°C to +80°C (-13°F to +176°F)
Ambient Humidity	0~100%RH
Protection Degree	IP32
Dimensions (L x W x H)	189 x 182 x 58mm / 7.44 x 7.17 x 2.28in
Item Weight	3.28 pounds



## Package Contents

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Please verify that all items listed below are included in your package:

- 1 x MT3075 Solar Charger Controller
- 1 x Temperature Probe
- 6 x Connection Terminals
- 1 x User Manual (this document)

## Safety Precautions

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Please read and understand all safety instructions before installation and operation. Failure to follow these instructions may result in electric shock, fire, or severe injury.

- Ensure all connections are tight and correct polarity is observed to prevent damage to the controller or other components.
- Always disconnect the solar panel and battery power before installing or adjusting the controller.
- Install the controller in a well-ventilated area, away from flammable materials and direct sunlight.
- Do not disassemble or attempt to repair the controller yourself. Contact qualified personnel for service.
- Use appropriate circuit breakers or fuses for all connections to protect against overcurrent.
- Wear appropriate personal protective equipment (PPE), such as insulated gloves and eye protection, during installation.

## Setup and Installation

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Follow these steps carefully to install your MT3075 Solar Charger Controller. The correct connection order is crucial to prevent damage.

1. **Prepare Wiring:** Ensure all wires are of appropriate gauge for the current and length, and that their ends are properly stripped and tinned or fitted with the provided connection terminals.
2. **Connect Battery:** Connect the battery to the controller's battery terminals (+ and -). Ensure correct polarity. The controller will power on once the battery is connected.
3. **Connect Solar Panel:** Connect the solar panel to the controller's solar panel terminals (+ and -). Ensure correct polarity.
4. **Connect DC Load:** Connect your DC loads to the controller's load terminals (+ and -). Ensure correct polarity.
5. **Connect Temperature Sensor:** Plug the external temperature probe into the designated port on the controller. This ensures accurate temperature compensation for battery charging.
6. **Verify Connections:** Double-check all connections for tightness and correct polarity before applying full power.

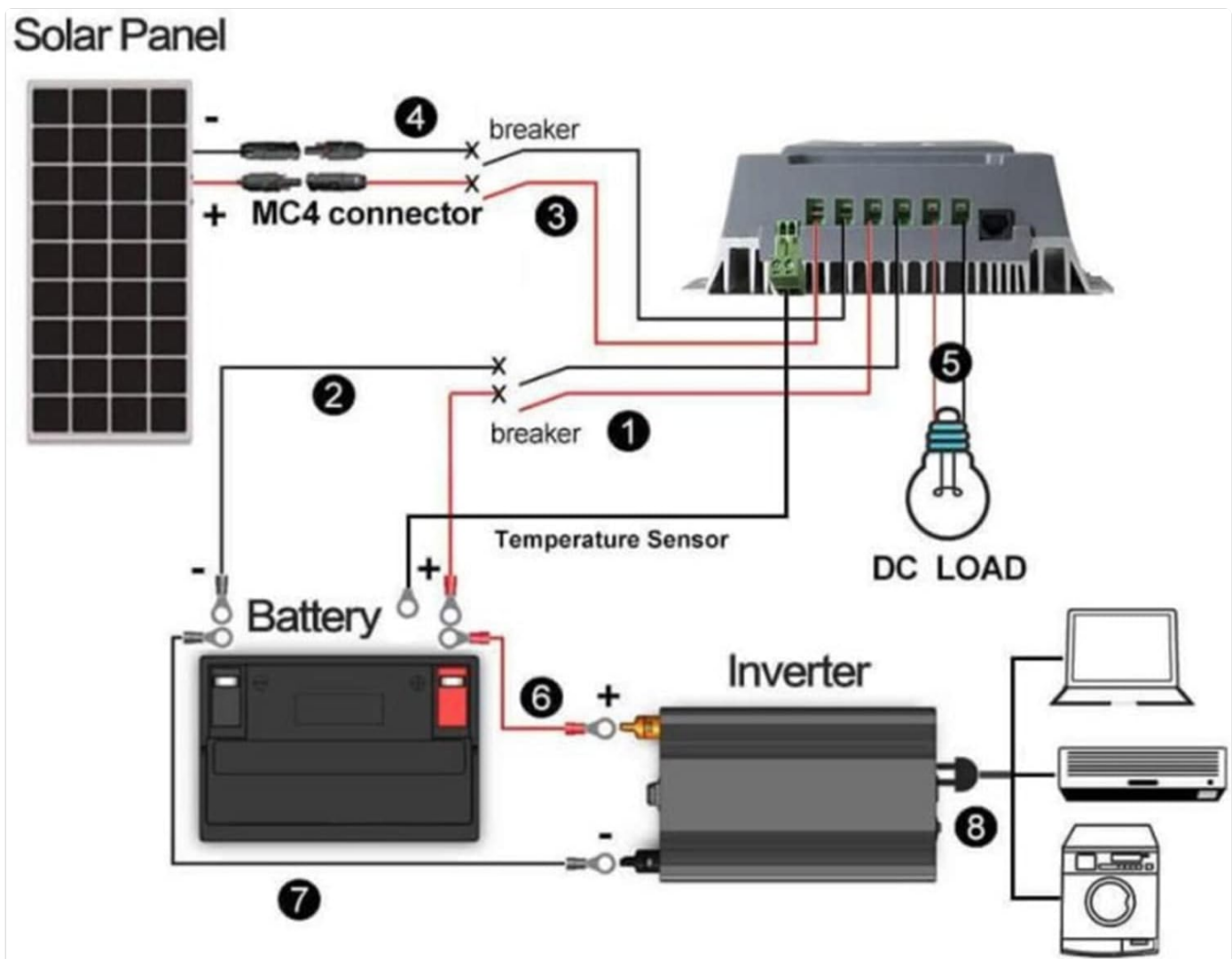


Figure 3: Wiring diagram illustrating the connection sequence for the solar panel, battery, and DC load to the controller. Note the recommended use of breakers for safety.

**Important:** Always connect the battery first, then the solar panel, and finally the load. Disconnect in the reverse order: load first, then solar panel, then battery.

## Operating Instructions

The MT3075 controller features an intuitive LCD display and two control buttons: **MENU** and **OK**.

- **LCD Display:** The LCD screen provides real-time information on system status, including battery voltage, charging current, load current, and various operating parameters.
- **MENU Button:** Press the MENU button to cycle through different display screens and access various settings menus.
- **OK Button:** Use the OK button to confirm selections or enter sub-menus. In some modes, it may also be used to adjust values.
- **Work Mode Selection:**
  - **Standard Mode:** Continuous power output to the load when battery voltage is sufficient.
  - **D2D (Dusk to Dawn) Mode:** Load output activates automatically at dusk and deactivates at dawn.
  - **Street Lamp Mode:** Load output activates at dusk and remains on for a user-defined duration (2-9 hours).
  - **Manual Mode:** Load output can be manually turned on or off via the controller interface.
- Refer to the on-screen prompts and the detailed user interface guide (if available in a separate document) for specific navigation and setting adjustments.

## Maintenance

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Regular maintenance ensures the longevity and optimal performance of your solar charge controller.

- **Cleanliness:** Keep the controller clean and free from dust and debris. Use a dry cloth for cleaning.
- **Connections:** Periodically check all wiring connections for tightness. Loose connections can cause overheating and damage.
- **Ventilation:** Ensure the installation area remains well-ventilated to prevent overheating of the controller.
- **Visual Inspection:** Inspect the controller and wiring for any signs of damage, corrosion, or wear.
- **Battery Health:** Monitor your battery's health and ensure it is properly maintained according to its manufacturer's guidelines.

## Troubleshooting

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If you encounter issues with your MT3075 Solar Charger Controller, refer to the following common problems and solutions:

Problem	Possible Cause & Solution
Controller not powering on / LCD off	<ul style="list-style-type: none"><li>◦ Battery not connected or reverse polarity: Check battery connections and polarity.</li><li>◦ Battery voltage too low: Charge the battery using an alternative source if possible.</li><li>◦ Loose wiring: Ensure all battery connections are secure.</li></ul>
No charging from solar panel	<ul style="list-style-type: none"><li>◦ Solar panel not connected or reverse polarity: Check solar panel connections and polarity.</li><li>◦ Insufficient sunlight: Ensure panels are in direct sunlight.</li><li>◦ Damaged solar panel or wiring: Inspect panels and wiring for damage.</li><li>◦ Controller fault: If all else fails, contact support.</li></ul>
Load not working	<ul style="list-style-type: none"><li>◦ Load not connected or reverse polarity: Check load connections and polarity.</li><li>◦ Battery voltage too low: The controller may cut off load to protect the battery.</li><li>◦ Overload: The load current exceeds the controller's maximum output. Reduce load.</li><li>◦ Load output disabled: Check controller settings to ensure load output is enabled.</li></ul>
Controller overheating	<ul style="list-style-type: none"><li>◦ Poor ventilation: Ensure adequate airflow around the controller.</li><li>◦ Overload: Reduce the connected load or solar input if consistently high.</li><li>◦ Ambient temperature too high: Relocate the controller to a cooler environment if possible.</li></ul>

If the problem persists after attempting these solutions, please contact customer support.

## Warranty Information

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ANKROYU products are manufactured to high-quality standards. Specific warranty terms and conditions for your MT3075

Solar Charger Controller are typically provided with your purchase documentation or can be found on the official ANKROYU website. Please retain your proof of purchase for warranty claims.

## Customer Support

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For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact ANKROYU customer support. Contact details can usually be found on the product packaging, the official ANKROYU website, or through your point of purchase.

**Website:** [Visit the ANKROYU Store on Amazon](#)

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