

MRDCW TravelCool RV Inverter Wired Controller

Technical Specification Sheet & Installation Guide

1. PRODUCT OVERVIEW

The MRDCW TravelCool RV Inverter Wired Controller is a premium remote management interface engineered explicitly for recreational vehicle (RV) off-grid power systems. This controller allows users to easily manage, monitor, and configure system data from a clean, accessible location within the living area, eliminating the need to interface directly with a hidden or bay-mounted inverter system.

2. KEY FEATURES

- **One-Touch Control:** Dedicated physical on/off switch allowing single-press remote power toggling.
- **Dual LCD Display Compatibility:** Interfaces seamlessly with secondary systems to replicate core metrics.
- **Smart Monitoring Compatibility:** Supports integration pathways for RS485, Wi-Fi, and GPRS systems.
- **Battery Compatibility:** Robust monitoring profile compatible with Lithium (LiFePO4) and Lead-Acid variations.
- **Heavy Duty Harnessing:** Shipped with an industry-grade, noise-shielded communication extension cord.

3. CONTROLLER SPECIFICATIONS

Parameter	Specification Value / Details
Product Model	MRDCW-TC-WRC-01
Supported Equipment	TravelCool Series Pure Sine Wave RV Inverters
Nominal Operating Voltage	12V DC (Powered directly via inverter interface)
Interface Communication protocol	RS485 / Serial Bus Interface via RJ45
Display Metrics	Voltage input, AC load capacity, Fault status alerts
Enclosure Mounting Profile	Surface Wall Mount / Flush Panel Recessed Fit
Operating Temperature Envelope	-20°C to +60°C (-4°F to 140°F)

4. INCLUDED WIRE / CABLE HARNESS SPECIFICATIONS

Wire Parameter	Specification Details
Cable Type	Shielded Twisted Pair (STP) Communication Cable
Standard Shipped Length	3 Meters (approx. 10 feet) standard extension
Connector Interface	Dual Molded RJ45 Clip Connectors (8P8C configuration)
Conductor Gauge	24 AWG Multi-strand Pure Copper Cores
Shielding Standard	Aluminum Mylar Foil Shielding with Drain Wire (Anti-EMI / RFI)
Outer Jacket Insulation	Flexible Flame-Retardant PVC Jacket (Black)

5. INSTALLATION BRIEF

- **Pre-Check:** Ensure the main power switch on the physical inverter body is completely flipped to *'Remote'* mode prior to final bracket assembly.
- **Routing Pathway:** Map out a clean, moisture-protected, and highly dry path through walls to route the shielded cable. Avoid routing parallel to high-current AC mains to eliminate signal noise.
- **Wall Clearance:** Always verify the void space inside walls for structural plumbing or high-voltage wiring prior to drilling or cutting apertures for surface flush mounts.
- **Connection Protocol:** Insert the RJ45 termination adapter straight into the inverter accessory port until a distinct physical 'click' maps positive retention. Route the alternative side to the controller interface board.