

Application Note AN004

Afore RS485 Wiring Guide

Connecting the Levelise Hub to the Afore ASL Series All-In-One battery using RS485

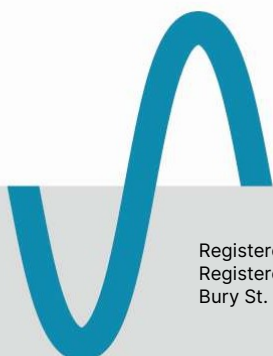
Overview

The Afore ASL Series uses a different RS485 pinout to the RS485 cable included in the box with Hub 1.5, requiring a custom cable configuration.

This note explains how to simply prepare and install a compatible cable by modifying any standard Cat5e Ethernet patch cable.

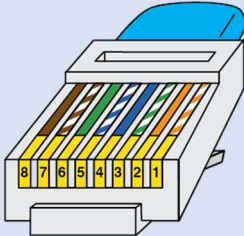
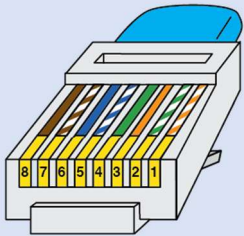
What You'll Need

- A TIA/EIA-568-B compliant Cat5e Ethernet patch cable of the required length
- 1x RJ45 connector
- RJ45 crimping tool
- Wire strippers
- Screwdrivers
- Cable tester



Quick Summary for Experienced Users

If you're confident with RJ45 terminations, use the following pinout reference table to rewire one end of a standard ethernet patch cable:

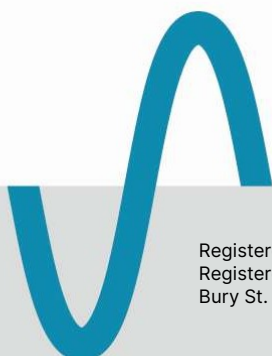
RJ45 Pin	Hub End (Standard)	ASL Series End (Custom)
		
1	White/Orange	White/Orange
2	Orange (RS485 A+)	White/Green
3	White/Green	Orange (RS485 A+)
4	Blue (RS485 B-)	Green
5	White/Blue	White/Blue
6	Green	Blue (RS485 B-)
7	White/Brown	White/Brown
8	Brown	Brown

Tip: The Hub end of the cable uses a standard Ethernet configuration and does not need modification.

Detailed Steps-by-Step Guide

1. Prepare the Cable

- Cut off one RJ45 connector from the ethernet patch cable using wire cutters.
- Strip ~25mm of the outer sheath from the cut end.
- Untwist and straighten the wire pairs.



2. Rearrange the Wires

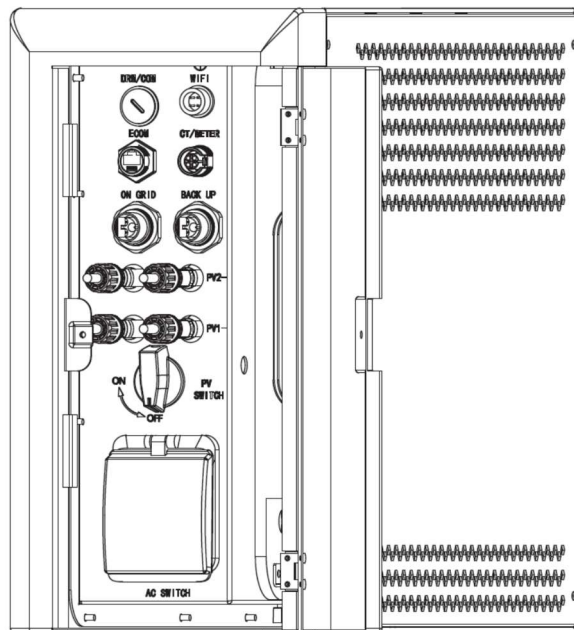
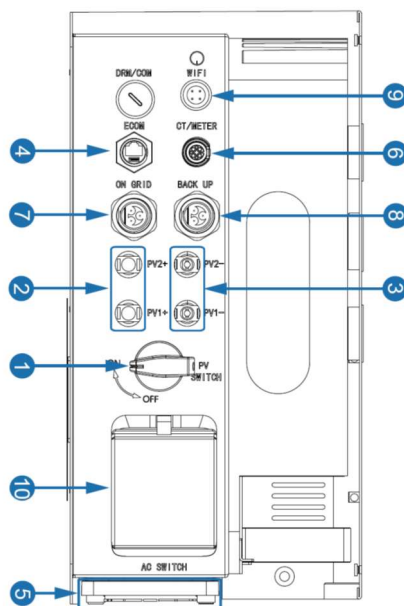
- Align wires from left to right according to the ASL Series pinout table above.
- Ensure:
 - **Orange wire (RS485 A+)** is in **position 3**
 - **Blue wire (RS485 B-)** is in **position 6**

3. Terminate the Cable

- Trim wires evenly, leaving ~12mm exposed.
- Insert wires into the RJ45 plug, ensuring full insertion and correct alignment as shown below.
- Important:** Ensure the cable sheath also enters the plug slightly for strain relief.
- Crimp the connector securely.
- Use a cable tester to verify continuity and pinout (Recommended).

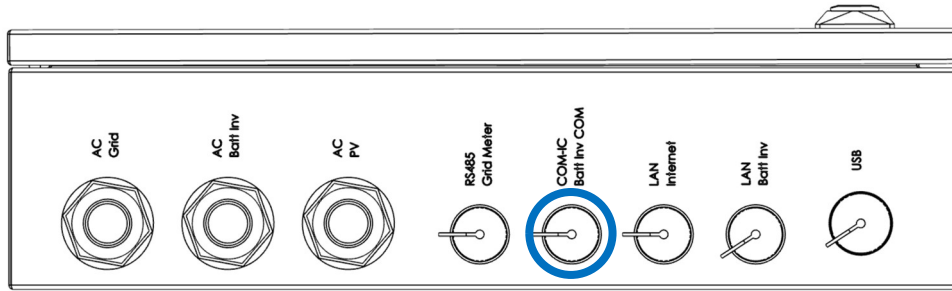
4. Connect the Cable

- Plug the modified Rj45 end into the ECOM port (4) in the cabinet on the ASL inverter's right hand side*.



* IMPORTANT: Where these steps differ from or conflict with the manufacturer instructions, the manufacturer's instructions take precedence

- Plug the unmodified RJ45 end into 'COM-IC Batt Inv Com' port on Hub.



- For outdoor use, ensure all cable glands are properly sealed.

Additional Resources

For more details on the Afore ASL Series, refer to Afore documentation at <https://www.aforeenergy.com/>

