

# Single-Channel RS485 Surge Protection Device Plug-in for Three Phase Inverters - Installation Guide

This document describes how to install the Single-Channel RS485 Surge Protection Device in a SolarEdge three-phase inverter.

For more information on the surge protection device, see the datasheet at:

[https://www.solaredge.com/sites/default/files/se\\_spd Plug in for rs485\\_3ph\\_setapp\\_ds.pdf](https://www.solaredge.com/sites/default/files/se_spd Plug in for rs485_3ph_setapp_ds.pdf)



## Kit Contents

Surge protection board with a grounding wire, a 6-pin connector, and a plastic fastener.

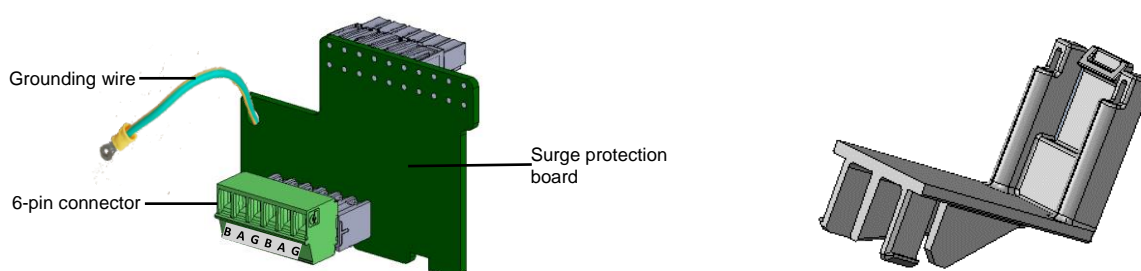


Figure 1: RS485 Surge Protection Board and Plastic Fastener

## Installation Procedure

1. Turn the inverter ON/OFF/P switch to OFF. Wait 5 minutes for the capacitors to discharge.
2. Turn the Safety Switch (if applicable) to OFF.
3. Disconnect the AC to the inverter by turning OFF the circuit breakers on the distribution panel.
4. Open the inverter cover screws and remove the cover.
5. Perform one of the following actions:
  - For a new RS485 connection installation, disconnect the 6-pin connector from the surge protection board, and connect the RS485 wires to the G, A, and B terminals on the left.

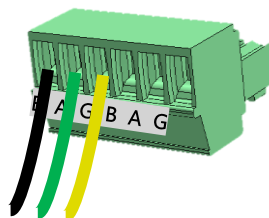


Figure 2: Connecting RS485 Wiring

- If RS485 connection is already installed in the inverter, disconnect the 6-pin connector from the inverter's communication board (leaving the RS485 wires intact).

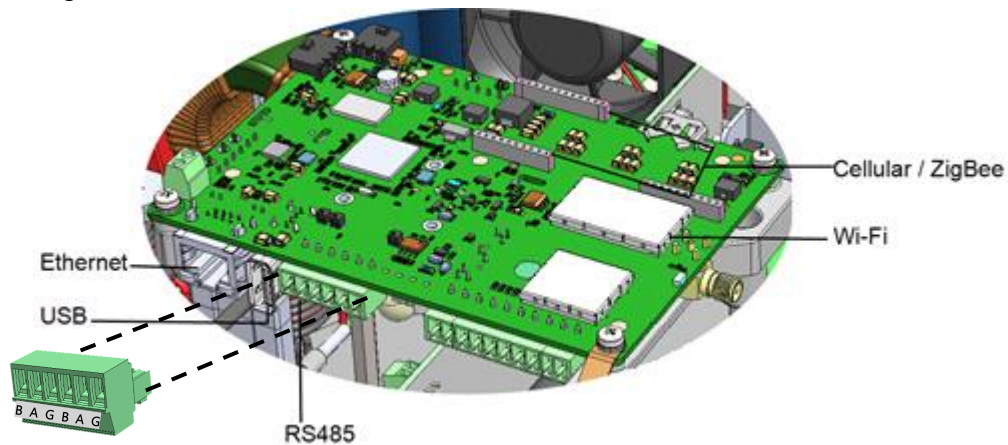


Figure 3: Communication Board and 6-Pin Connector

6. Attach the plastic fastener to the bottom of the communication board by snapping it into place, as shown in the figure below.

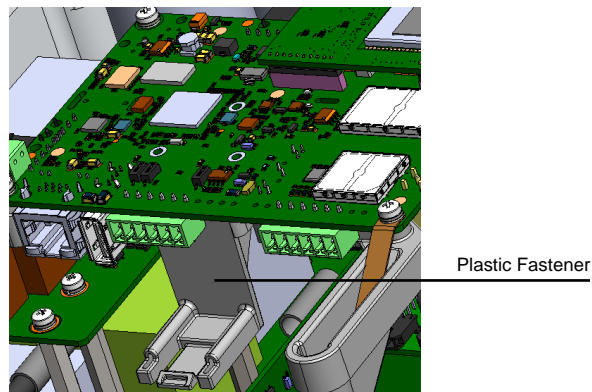


Figure 4: Communication Board and Plastic Fastener

7. Insert the 6-pin connector with the RS485 wires into the communication input socket of the surge protection board.
8. Insert the surge protection board's connectors into the communication board socket, applying light pressure. The grooves at the lower edge of the card should straddle the tongues of the fastener. Make sure the connectors are firmly inserted.

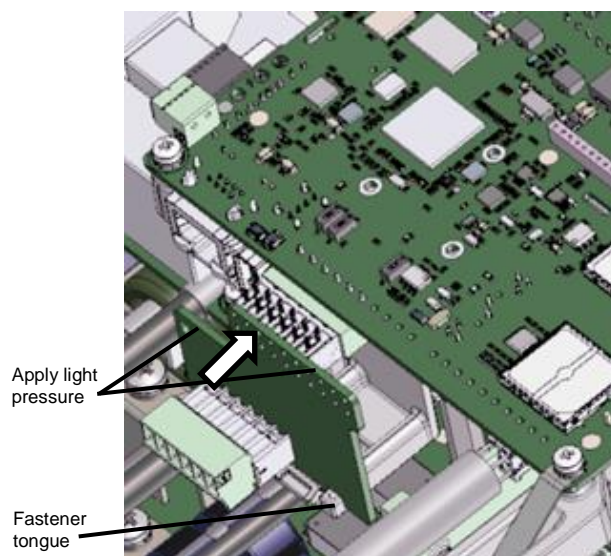
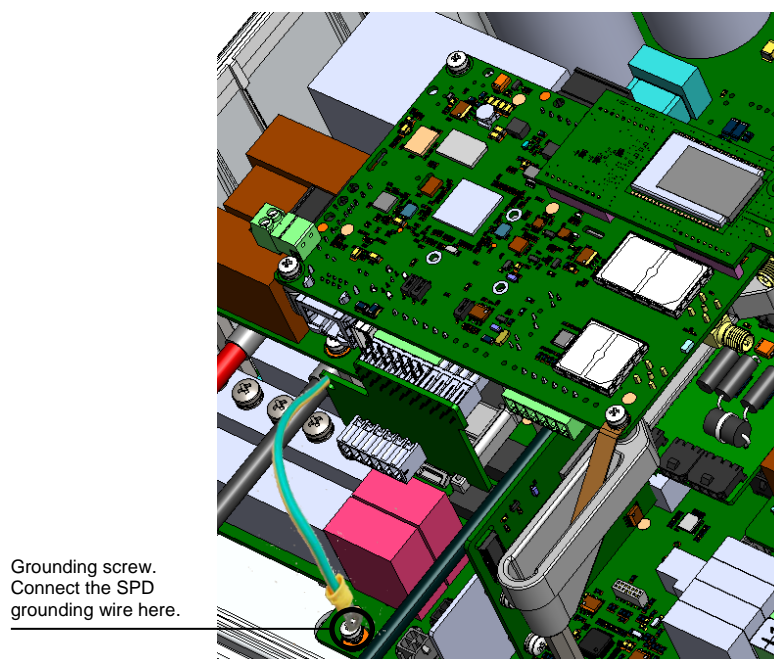


Figure 5: Attaching the Surge Protection Board to the Inverter Communication Board

9. Remove the communication board grounding screw (see *Figure 6*). Position the ring terminal of the surge protection board in its place, and tighten the screw (torque 1.1 N\*m/ 0.8 lb\*ft).



**Figure 6: Grounding Screw**

10. Close the inverter cover.
11. Turn ON the AC to the inverter.
12. Turn the Safety Switch (if applicable) to ON.
13. Turn the inverter ON/OFF/P switch to ON.