



Support kit manual

TerraMax Inverter AC terminal block screw replacement

Version 1.3

December 2024

Overview

This manual describes the procedure for replacing the SolarEdge TerraMax Inverter AC Terminal Block.

Revision history

Version	Date	Description
Version 1.3	December 2024	Updated AC SPD removal procedure
Version 1.2	July 2024	Updated name of DC switch and required tools
Version 1.1	March 2024	Name changed to TerraMax

Kit contents

SolarEdge TerraMax Inverter AC Terminal Block screw replacement kit PN: FLD-3PH-OR-ACTB.

Required tools

- Torque screwdriver
- Torque wrench
- 4mm hex bit
- 30cm extension for torque screwdriver
- 18mm deep socket
- Voltmeter

Before you begin

1. Set the P/1/0 switch to "0" (OFF).
2. Turn the DC Disconnect (DCD) switch to the OFF position.



3. To lock the DCD switch, pull the white tab out away from the blue handle and insert a padlock through one of the holes.
4. Lock the padlock.



DCD switch safety padlock

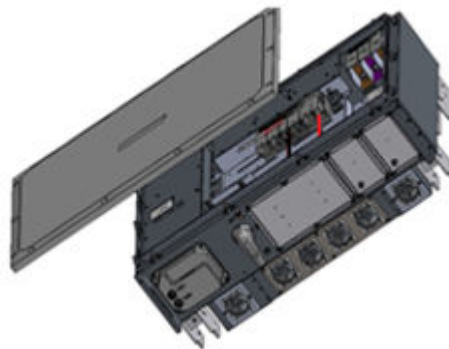
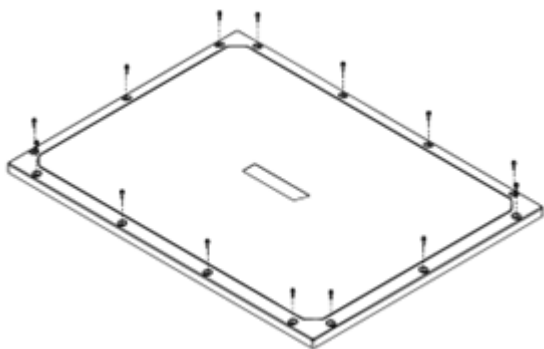
5. Disconnect AC power to the inverter by turning OFF the circuit breaker in the power distribution panel.
6. Wait at least five minutes for the DC Voltage inside the inverter to drop to a safe level.
7. As an additional safety precaution, lock the power distribution panel.

Remove the cover

To remove the inverter cover, use a screwdriver with a 4mm hex bit to release the screws holding the cover in place.

**NOTE**

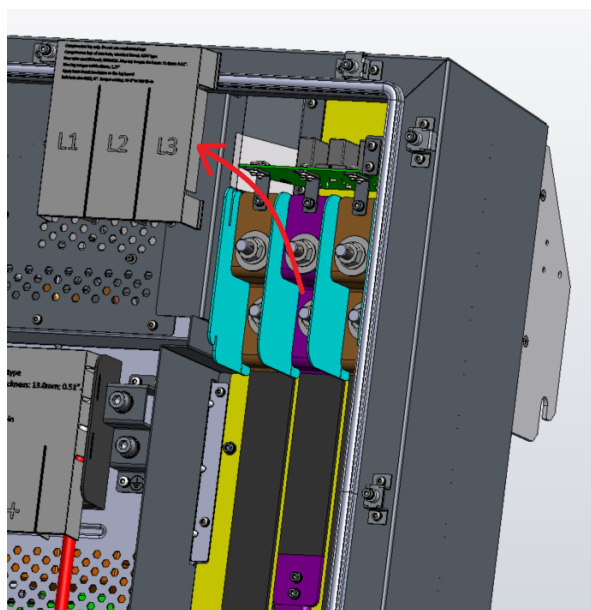
The inverter cover assembly is too big for one person to handle safely. SolarEdge recommends that two people remove and handle the cover assembly.

**WARNING**

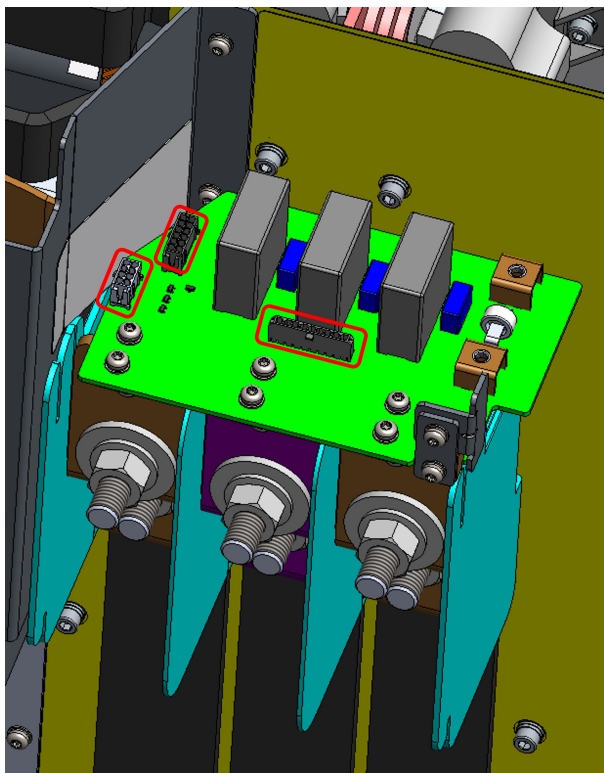
Before doing any maintenance work on the inverter, test for safe AC and DC voltages.

Remove the damaged AC terminal block screws

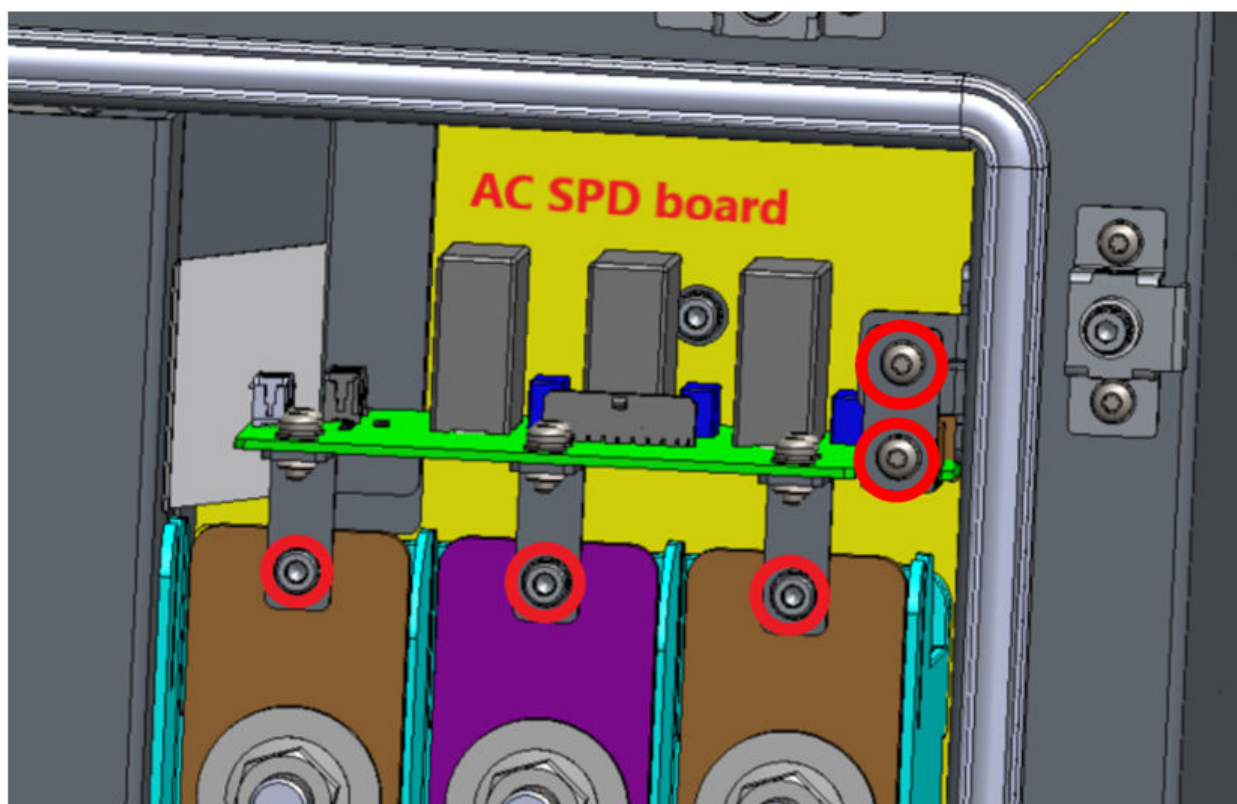
1. Locate the AC terminal block cover.
2. Release the two locking tabs.
3. Remove the AC terminal block cover.



4. Disconnect the three connectors from the AC SPD.



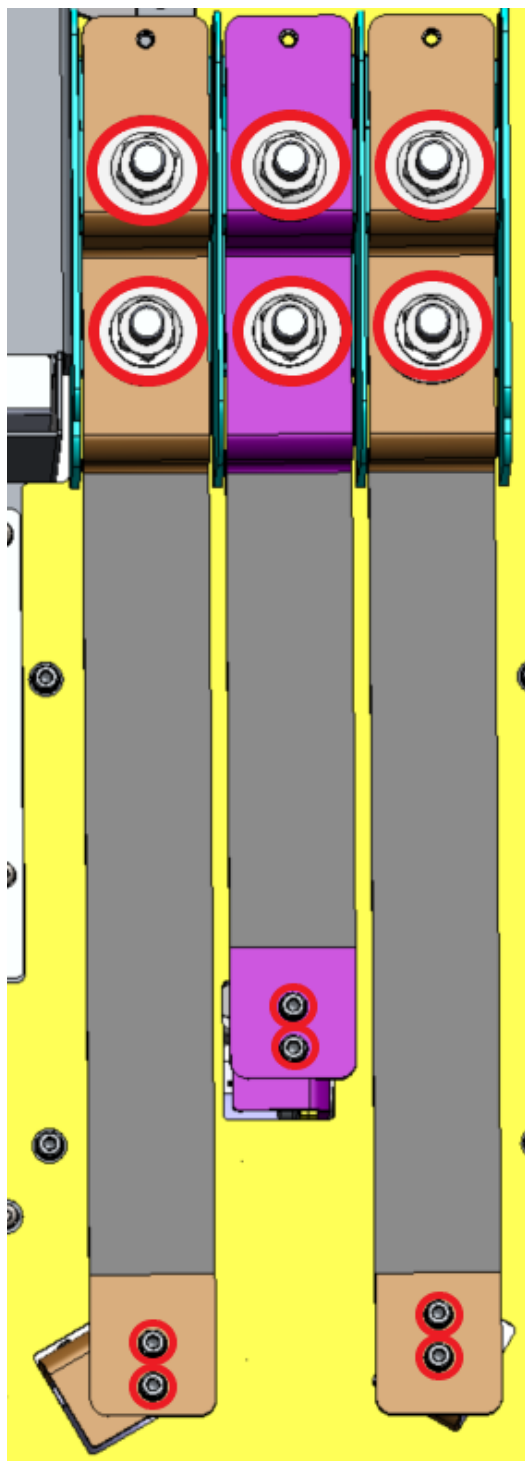
5. Using a 4mm hex bit remove the M5 screws holding the AC SPD in place and remove the AC SPD.



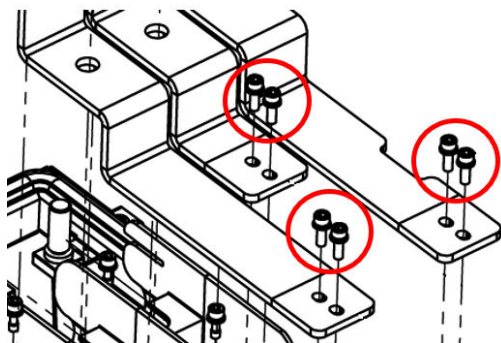
**CAUTION**

Make sure that no screws, nuts, or washers fall into the inverter. Take special care when removing the screws on the bottom row of the busbars. They can easily fall into the inverter.

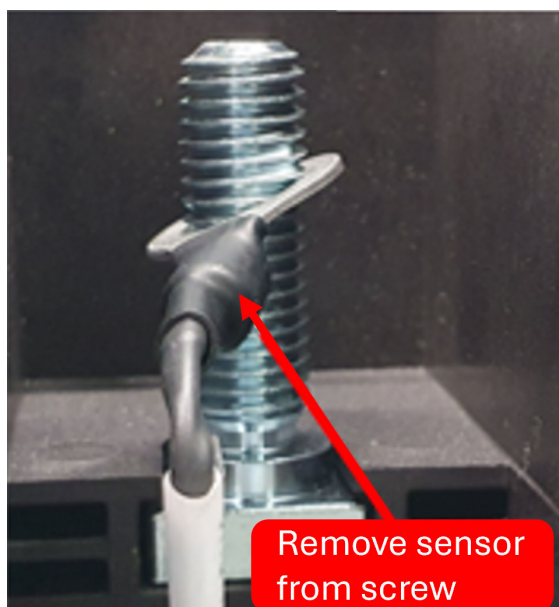
6. Using an 18mm deep socket and wrench, remove the nuts and washers holding the busbars to the AC terminal block.



- Using a screwdriver with a 4mm hex bit, remove the M5 screws holding the other ends of the AC aluminum busbars in place and remove the busbars. Be careful NOT to let any screws fall into the inverter.



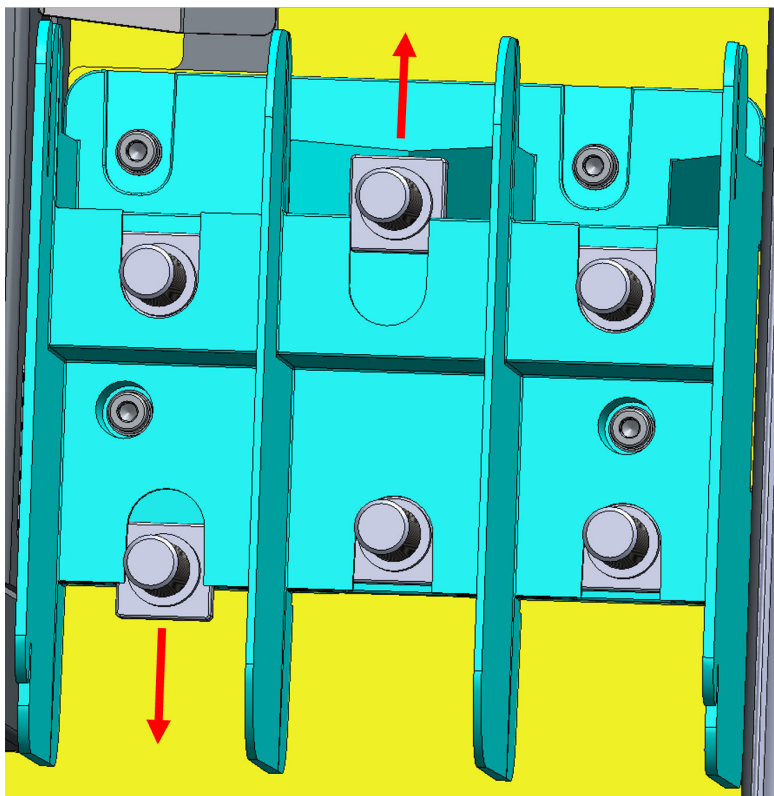
- Carefully remove the NTC sensor from the damaged screw.



- Remove the damaged M12 screw/s from the AC terminal block.

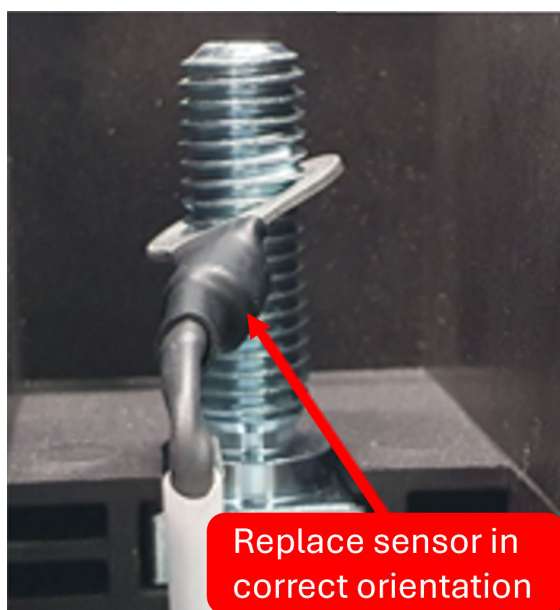
**IMPORTANT**

Be aware that the screws can easily slide out and drop into the inverter. Remove them carefully!



Install the replacement AC terminal block screws

1. Fit the new M12 screw/s for the AC terminal block in position.
2. Carefully replace the NTC sensor onto the new screw, taking note of the correct orientation for the sensor.

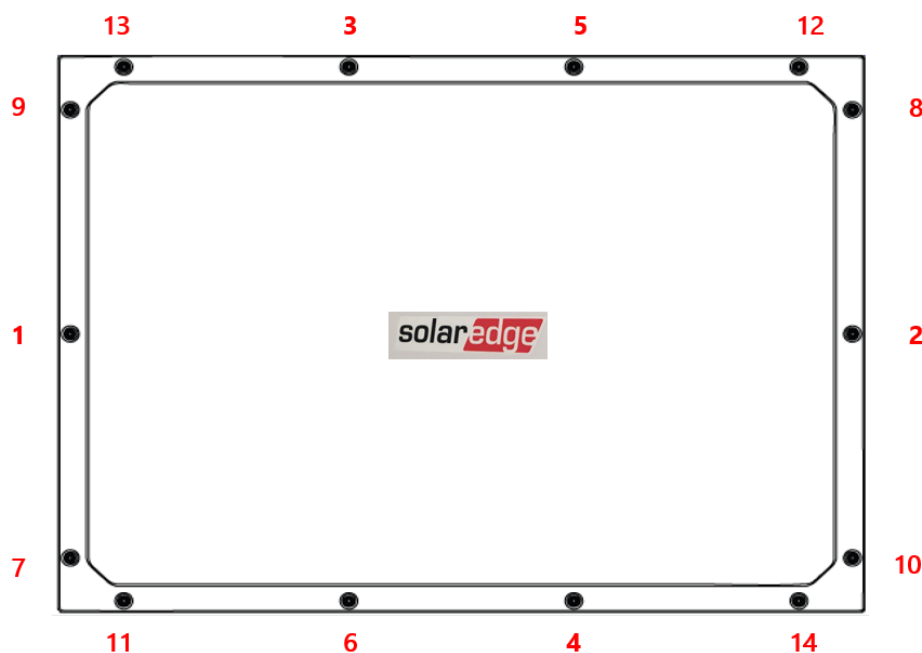


3. Place the three AC aluminum busbars into position.

4. Fit the M12 nuts and washers and tighten by hand.
5. Insert the M5 screws and, using a 4mm hex bit, tighten the screws to a torque of 4.7N·m (41.6 lbf·in).
6. Using an 18mm deep A/F socket and a wrench, tighten the M12 nuts to a torque of 35N·m (310lbf·in).
7. Using the five 4mm screws, reinstall the AC SPD board. Tighten the screws to a torque of 3.5N·m (31 lbf·in).
8. Reconnect the connectors to the SPD board.
9. Place the AC terminal cover into position in the correct orientation.
- 10 Press the cover down making sure that the locking tabs engage.
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Reattach the cover assembly

1. Place the cover assembly in position and, using a torque wrench with a 4mm hex bit, tighten the screws to a torque of 3.9N·m (34.5lbf·in).
2. Tighten the screws in the following sequence:



Turn on the power

1. Unlock the power distribution panel and turn ON the AC circuit breaker/s.
2. Remove the padlock and turn the DCD switch ON.
3. Set the P/I/O switch to "1" (ON).