

# SolarEdge TerraMax™ Inverter AC SPD board replacement - Support kit manual

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

## Revision history

- Version 1.1, March 2024 – Changed name to TerraMax
- Version 1.0, January 2024 – Initial release.

## Kit contents

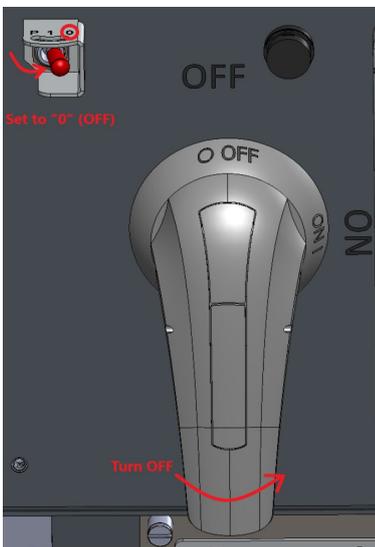
- SolarEdge TerraMax Inverter AC SPD replacement kit PN SE-AC-SPD-OR.

## Required tools

- Torque screwdriver
- 5mm hex bit
- 4mm hex bit
- Voltmeter

## Before you begin

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



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



### DC ON/OFF switch safety padlock

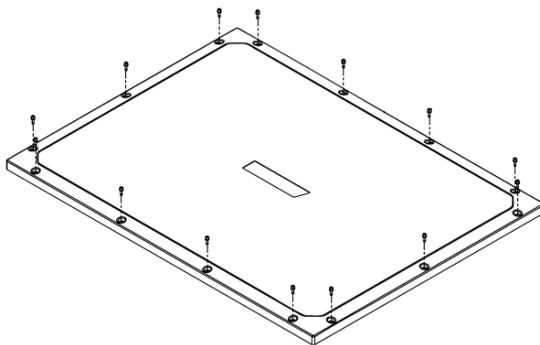
5. Disconnect AC power to the inverter by turning OFF the circuit breaker in the power distribution panel.
6. Wait at least five minutes for the DC Voltage inside the inverter to drop to a safe level.
7. As an additional safety precaution, lock the power distribution panel.

## Remove the cover

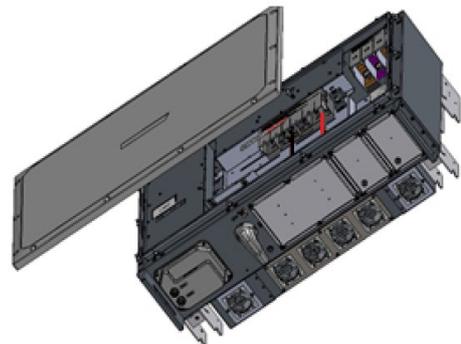
### NOTE

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

To remove the inverter cover, use a screwdriver with a 5mm hex bit to release the screws holding the cover in place.



Inverter Cover Assembly

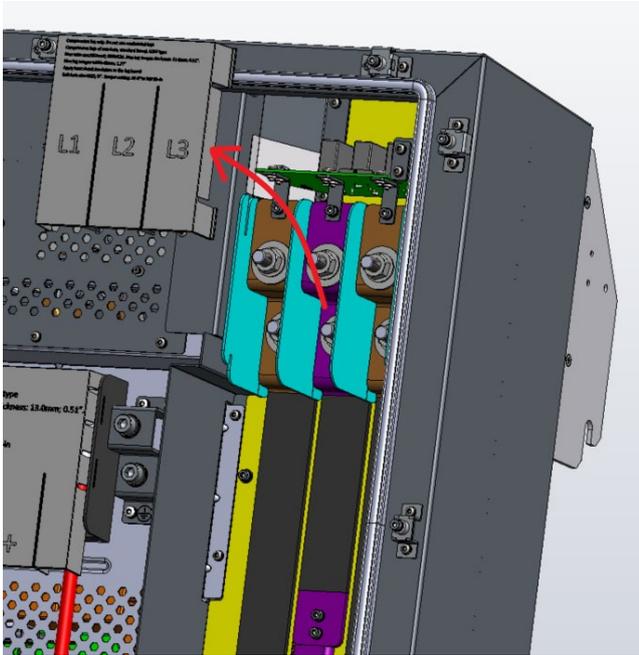


### WARNING!

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

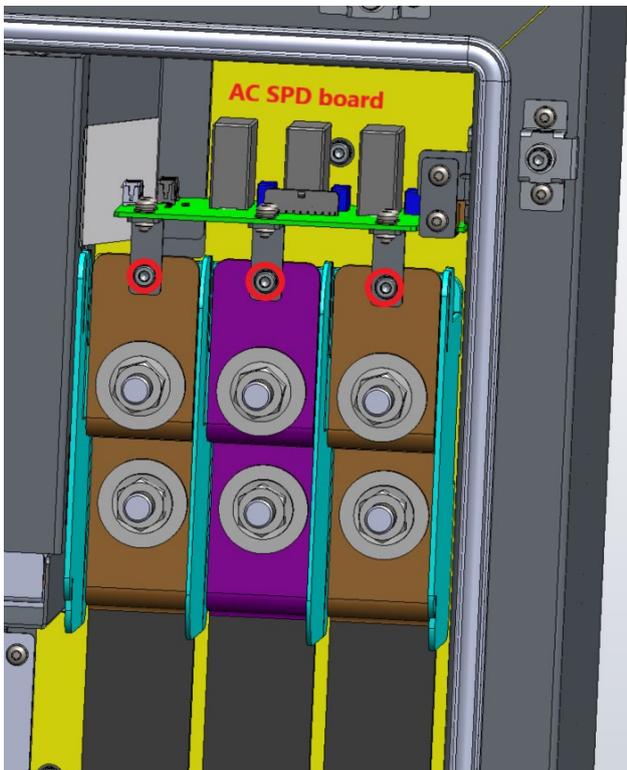
## Remove the damaged AC SPD board

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

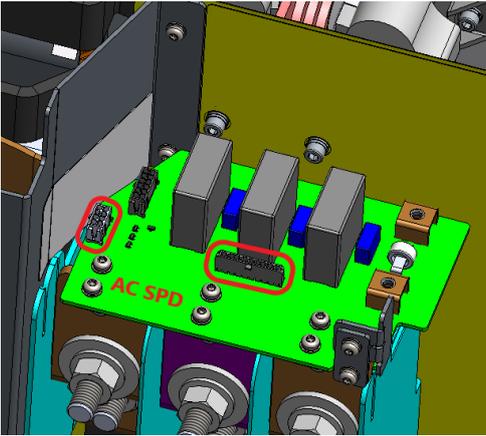


## Remove the AC Terminal blockcover

1. Using a screwdriver with a 4mm hex bit, remove the screws holding the three small brackets that attach the AC SPD board to the AC busbars.



2. Disconnect the AC sense connector and the NTC connector from the SPD board.



3. Remove the AC SPD board.



**CAUTION!**

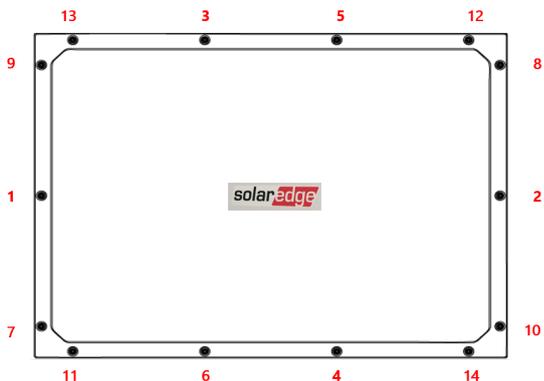
Make sure that no screws, nuts, or washers fall into the inverter. Take special care when removing the screws on the bottom row of the busbars. They can easily fall into the inverter.

### Install the replacement AC SPD board

1. Reconnect the AC sense connector and the NTC connector to the new SPD board.
2. Install the new AC SPD board tightening the screws to a torque of 3.5N·m (31lbf·in).
3. Replace the AC terminal cover into position in the correct orientation.
4. Reattach the internal top cover, making sure that the OPERATION SWITCH is in the ON position.

### Reattach the cover assembly

1. Place the cover assembly in position and, using a torque wrench with a 5mm 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.
2. Remove the padlock and turn the DC Switch ON.
3. Set the P/1/0 switch to "1" (ON).