

SolarEdge TerraMax™ Inverter DC SPD replacement - Support kit manual

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

Revision history

- Version 1.2, July 2024 – Updated required tools and procedures
- Version 1.1, March 2024 – Changed name to TerraMax
- Version 1.0, January 2024 – Initial release

Kit contents

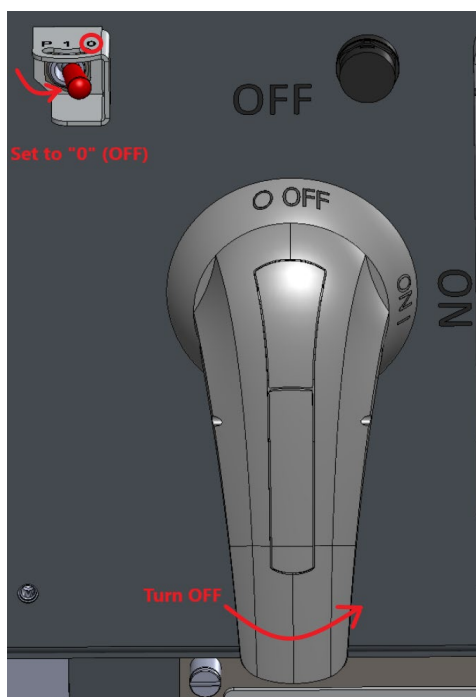
- SolarEdge TerraMax Inverter DC SPD kit PN: SE-DC-SPD-OR

Required tools

- Torque screwdriver
- 4mm hex bit
- 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

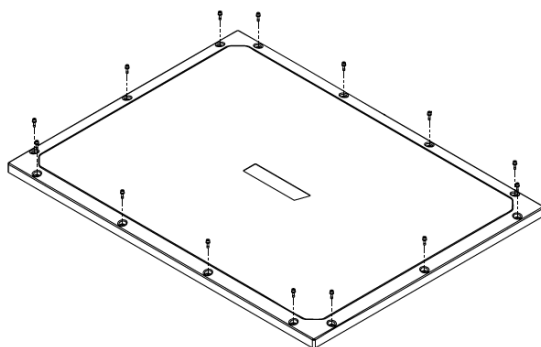
5. Disconnect AC power to the inverter by turning OFF the circuit breaker in the power distribution panel.
6. Wait at least five minutes for the DC Voltage inside the inverter to drop to a safe level.
7. As an additional safety precaution, lock the power distribution panel.

Remove the cover

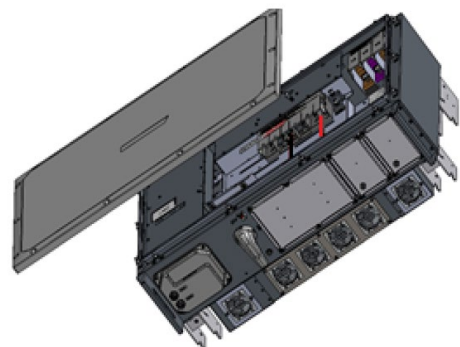
To remove the inverter cover, use a screwdriver with a 4mm hex bit to release the screws holding the cover in place.

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.



Inverter Cover Assembly



WARNING!

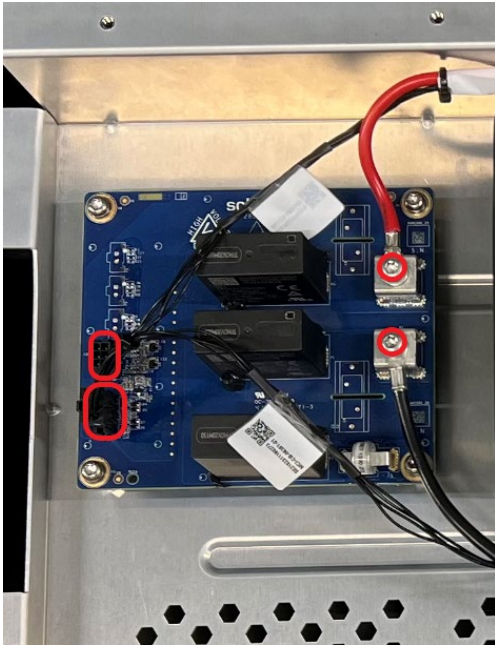
Before doing any maintenance work on the inverter, test for safe AC and DC voltages.

Remove the damaged DC SPD

NOTE

Before disconnecting any cables or connectors, make a note of their exact connection points so that they can be connected back in their correct places.

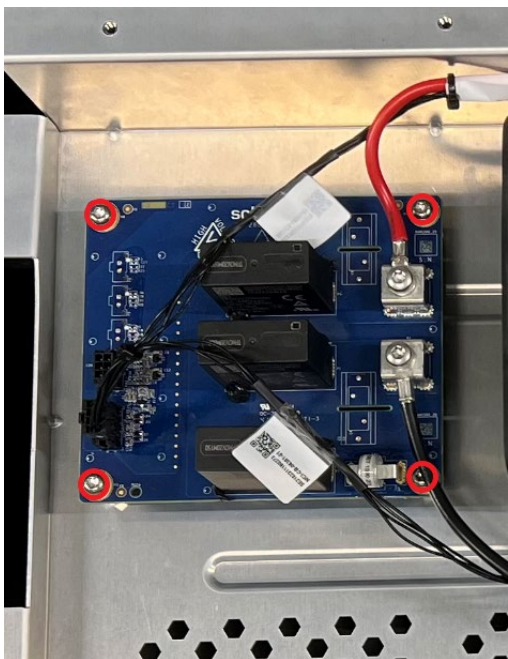
1. Using a 4mm hex bit, disconnect the cables connected to the DC SPD board.



IMPORTANT NOTE

Be careful not to allow any of the screws to fall into the inverter or onto the floor.

2. Disconnect the connectors connected to the board.
3. Using a 4mm hex bit, remove the four (4) screws holding the DC SPD board in place.

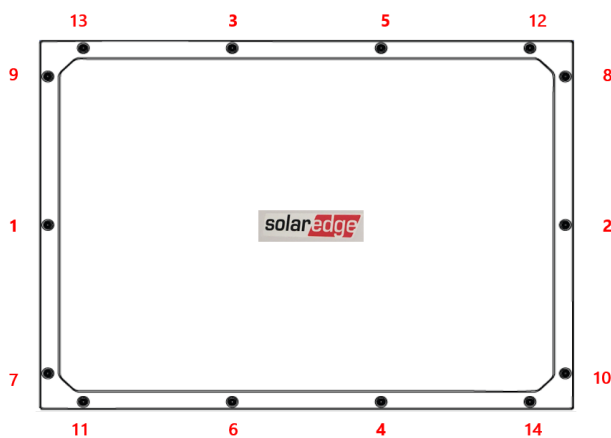


Install the replacement DC SPD

1. Place the new DC SPD into position.
2. Using a 4mm hex bit and a torque wrench, tighten the SPD screws to a torque of 2.4N·m (12.2lbf·in).
3. Reconnect the connectors to the SPD board.
4. Reattach the cables to the board and, using a 4mm hex bit tighten the screws to a torque of 2.4N·m (12.2lbf·in).

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:



Screw tightening 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 DCD switch ON.
3. Set the P/1/0 switch to "1" (ON).