

SolarEdge TerraMax™ Inverter DC capacitor cooling fan replacement - Support kit manual

This manual describes the procedure for replacing the SolarEdge TerraMax Inverter DC Capacitor cooling fan.

Revision history

- Version 1.2, July 2024 – Updated name of DC switch and required tools
- Version 1.1, January 2024 – Name changed to TerraMax
- Version 1.0, January 2024 – Initial release.

Kit contents

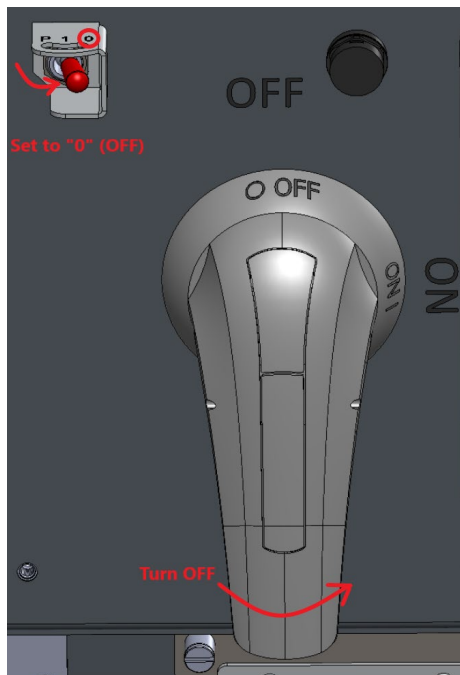
SolarEdge TerraMax DC Capacitor Cooling Fan PN FLD-3PH-OR-FNCP

Required tools

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

Before you begin

1. Set the P1/O 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.

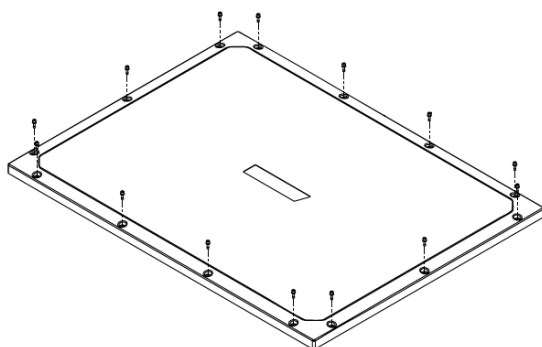
Remove the cover



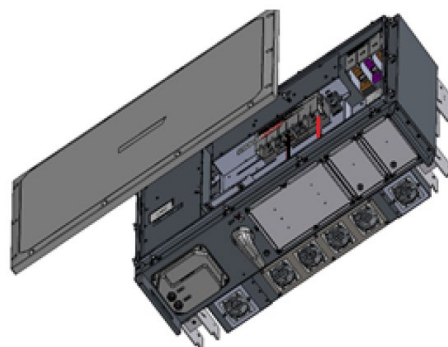
NOTE

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



Inverter Cover Assembly

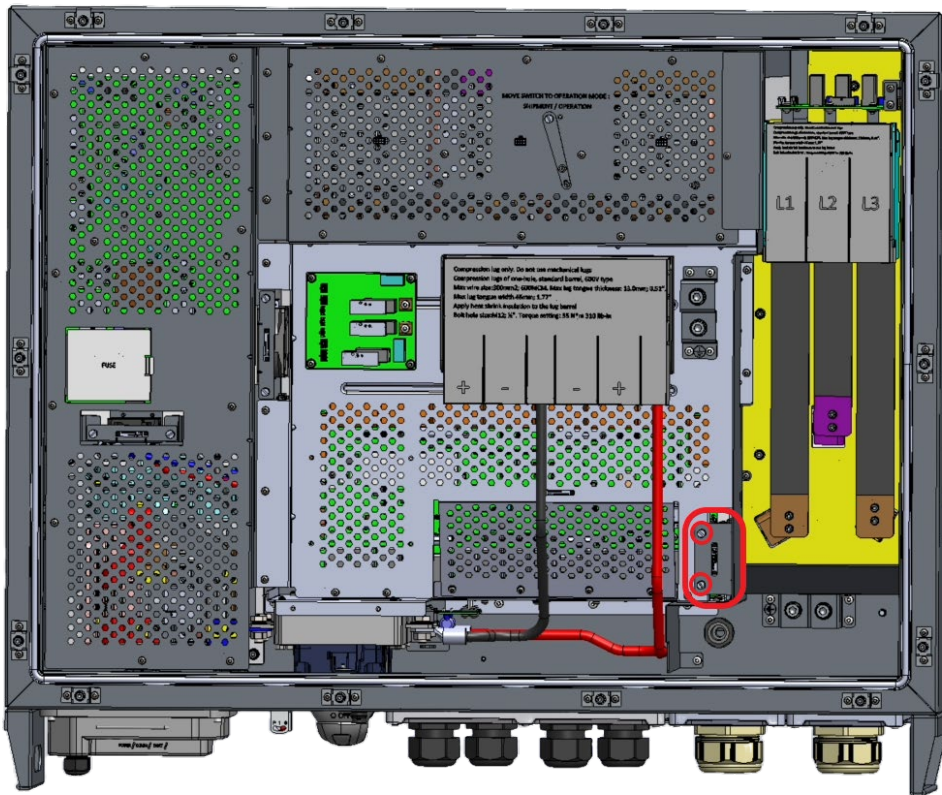


WARNING!

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

Remove the faulty DC capacitor cooling fan

1. Locate the DC Capacitor Cooling Fan.



DC Capacitor Cooling Fan

2. Using a flat screwdriver, loosen the two (2) captive screws holding the DC Capacitor cooling fan unit in position.
3. Remove the complete DC Capacitor cooling fan unit from the inverter.
4. Disconnect the fan power cable connector from its socket.

NOTE

The cable connectors are fitted with locking mechanisms. To disconnect the connectors, release the locking tabs on the connectors. Never grip the wires to remove the connector from the socket.

Install the replacement DC capacitor cooling fan

1. Connect the fan power cable connector to its socket. Pull the cable gently to make sure that it is properly connected.
2. Insert the new DC Capacitor Cooling Fan into position.

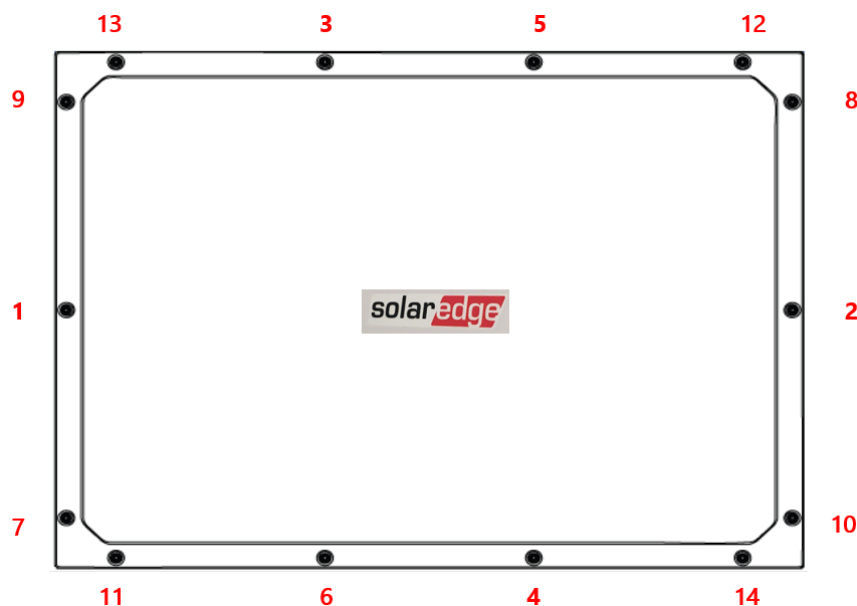
IMPORTANT NOTE

When inserting the fan into position, make sure that the fan's cable cannot touch the fan's blades.

3. Using a flat screwdriver, tighten the two (2) screws to a torque of 2.4N·m (21.2lbf·in).

Reattach the cover assembly

1. Place the cover in position and insert the screws.
2. Using a torque screwdriver with a 4mm hex bit, tighten the screws to a torque of 3.9N·m (34lbf·in).
3. 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/s.
2. Remove the padlock and turn the DCD switch ON.
3. Set the P/1/0 switch to "1" (ON).