

AC Surge Protection Device Installation / Replacement in Three Phase Inverters with Synergy Technology P/N: SExxK-xxxxlxxxx

This document describes how to install or replace the AC Surge Protection Device (SPD) in a three phase inverter with Synergy technology.

Kit Contents

- Five AC SPD Boards
- Spare screws

Required Tools

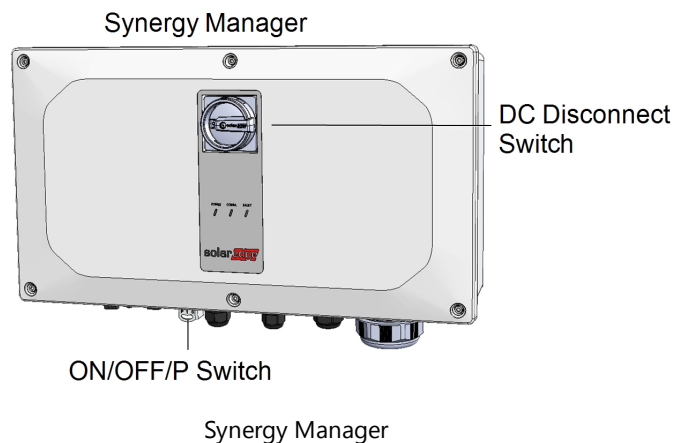
- Torque 4mm hex screwdriver
- Torque Phillips screwdriver
- Torque ratchet wrench screwdriver with Phillips bit set

Removing the Inverter Cover

If the Synergy Manager cover is not already removed, use the following procedure for cover removal.

→ To remove the inverter cover

1. Turn the ON/OFF/P Switch of the Synergy Manager to OFF (0). Wait for five minutes for the DC Voltage inside the inverter to drop to a safe level before proceeding to the next step.



WARNING!



The inverter cover must be opened only after switching the inverter ON/OFF/P switch located at the bottom of the inverter to OFF. This disables the DC Voltage inside the inverter. Wait five minutes before opening the cover. Otherwise, there is a risk of electric shock from energy stored in the capacitors.

AVERTISSEMENT!

Ne pas ouvrir le couvercle de l'onduleur avant d'avoir coupé l'interrupteur situé en dessous de l'onduleur. Cela supprime les tensions CC et CA de l'onduleur. Attendre cinq minutes avant d'ouvrir le couvercle. Sinon, il y a un risque de choc électrique provenant de l'énergie stockée dans le condensateur

2. Turn OFF the DC Disconnect Switch on the Synergy Manager. (This step is only applicable for Synergy Manager with ON/OFF/P Switch)
3. Disconnect AC to the inverter by turning OFF the circuit breakers on the power distribution panel.
4. Release the six Allen screws securing the cover of the DC Disconnect Switch and remove the cover.

CAUTION!

When removing the inverter cover, make sure not to damage the internal components. SolarEdge will not be held responsible for any components damaged as a result of incautious cover removal.



ATTENTION!

Lors du retrait du couvercle, assurez-vous de ne pas endommager les composants internes. SolarEdge ne peut être tenue pour responsable des composants endommagés à la suite d'une imprudence dans le retrait du couvercle.

Replacing the AC SPD

→ To remove the AC SPD Board:

1. Remove the upper terminal block cover (see *Figure 1*).

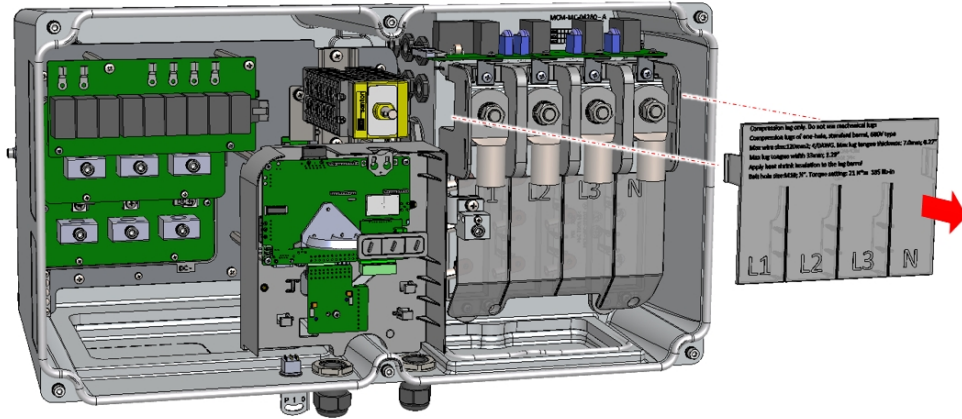


Figure 1: Removing the Upper Terminal Block Cover

2. Disconnect the plug of the communication cable from the AC SPD Board (see *Figure 2*).



NOTE

The SPD board might look differently from the drawings.

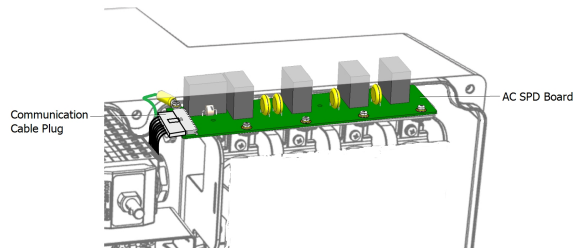


Figure 2: Disconnecting the Plug of the Communication Cable of AC SPD Board

3. Remove the four screws securing the AC SPD Board to the AC bus-bars and slightly pull out the AC SPD Board from within the enclosure (see *Figure 3*).

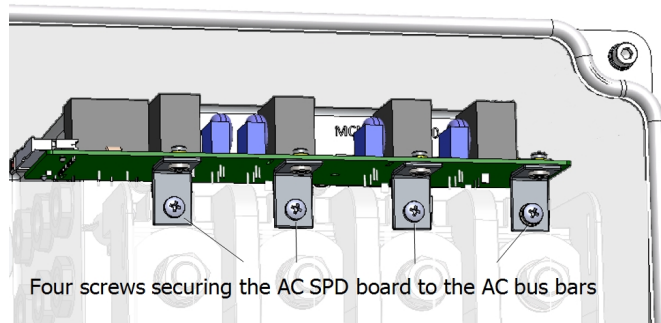


Figure 3: Disconnecting the AC SPD Board from the AC Conductors

4. Remove the screw securing the lug of the ground wire to the AC SPD Board and remove the board (see *Figure 4*).

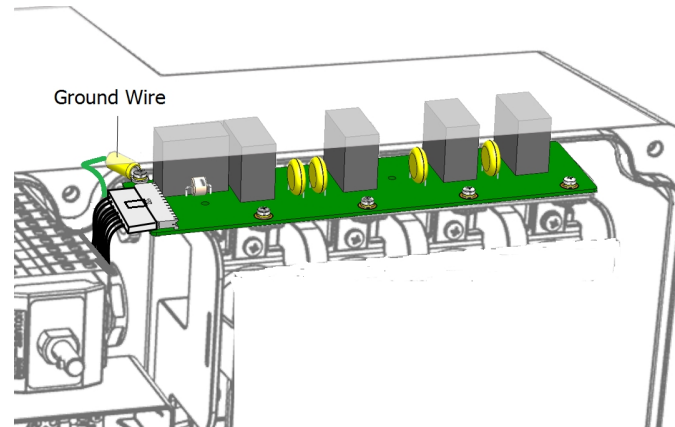


Figure 4: AC SPD Board Removal

→ To Install the provided AC SPD Board:

1. Release the screws connecting the 4 brackets and transfer the brackets to the replacement AC SPD board (see *Figure 5*). Fasten the screws with a torque of 2.6 N*m (1.91 lb*ft).

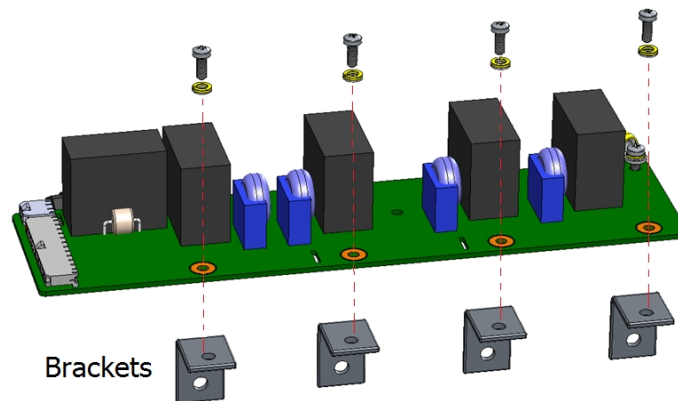


Figure 5: AC SPD Board Brackets Removal

2. Connect the ground wire to the provided AC SPD Board and fasten the lug screw with a torque of 2.6 N*m (1.91 lb*ft). (see *Figure 4*).
3. Position the provided AC SPD Board on the AC conductors and fasten the four screws with a torque of 2.6 N*m (1.91 lb*ft). (see *Figure 3*)
4. Connect the plug of the communication cable to the AC SPD Board (see *Figure 2*).
5. Install the upper terminal block cover (see *Figure 1*).
6. Close the Synergy Manager cover and fasten the six Allen screws with a torque of 3.5 N*m (2.6 lb*ft).

Configuring the AC SPD on the Inverter

→ To configure the AC SPD on the Inverter

1. Turn ON the DC Disconnect Switch of the Synergy Manager (if applicable).
2. Connect AC to the inverter by turning ON the circuit breakers on the distribution panel.
3. Start the SetApp application on your mobile device and follow the on-screen instructions.
4. From the **Commissioning** screen of the SetApp application select: **Maintenance** → **Surge Protection Device (SPD)** → **AC SPD** → **Enable**.

Support Contact Information

If you have technical problem concerning SolarEdge product, please contact us at:

<https://www.solaredge.com/service/support>

<https://www.solaredge.com/us/service/support>

Before contacting, make sure to have the following information at hand:

- Model and serial number of the product in question.
- The error indicated on the product SetApp mobile application, LCD screen, indication LEDs or in the monitoring platform (if available).
- System configuration information, including the type and number of modules connected and the number and length of strings.
- The communication method to the SolarEdge server (if available).
- The product's software version as it appears in the ID status screen of the LCD or SetApp mobile application.