Cellular Plug-in Troubleshooting

Before Installing Cellular

Always verify the site has adequate cellular coverage prior to installing a cellular plug-in. SolarEdge Technical Support cannot assist if a cellular plug-in has been installed in an area with unusable/non-existent cellular signal strength. You can find coverage maps here: Sprint (CDMA and/or SetApp inverters) or Aeris (GSM and/or LCD screen inverters).

⚠️	WARNING!
	These troubleshooting steps require working inside the inverter. Never install a cellular plug-in or any other hardware while AC power is connected to the inverter or damage may occur. Never open the inverter if it is raining or if the inverter will be exposed to moisture. Always follow your company safety protocols when working inside the inverter.

Verify You Are Installing the Correct Type of Plug-in

SetApp inverters will not work with cellular plug-ins intended for inverters with LCD screens and vice versa. SetApp/Synergy compatible cellular plug-ins will have a 'B' in the Part Number. The inverter will not recognize the cellular plug-in if the wrong type of card is used. Unfortunately, SolarEdge Technical Support cannot provide a warranty replacement if the wrong plug-in is used.

Cellular plug-in appearance varies between LCD and SetApp compatible cards as well.

Installation

See the tutorial video available HERE for installation instructions. In most cases registration completes quickly, but please allow up to 90 minutes for the cellular plug-in to register on the cellular network (depending on signal strength and network traffic). Please allow up to 6 hours for the plug-in to upload data to the customer's monitoring portal.
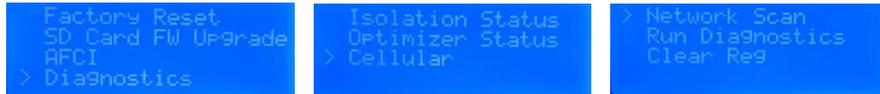
Cellular Troubleshooting

See the steps below to troubleshoot possible cellular communication issues:

- Sig 0 / Not Registered
- TCP Connect Failure
- Modem Not Recognized
- Configuration Error
- S_OK but No Data On Portal
- No S_OK
- Repeated Communication Failures

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Sig 0 / Not Registered

This is normally seen after a cellular plug-in has been installed or if the cellular signal in the area is too low for reliable cellular communications. It is most often seen in areas with poor signal. Update the inverter firmware to the newest 3.25xx CPU. After updating the firmware, perform the 'Cellular Clean Install' outlined below. After the reinstall, set the Server to Cellular and run the **Network Scan and Run Diagnostics** available in the menu → Maintenance → Diagnostics → Cellular. **Get pictures of the results** and contact SolarEdge Technical Support if the issue does not resolve.

```
Factory Reset          Isolation Status       > Network Scan
SD Card FW Upgrade     Optimizer Status         Run Diagnostics
AFCI                   > Cellular               Clear Reg
> Diagnostics
```

TCP Connect Failure

This message usually indicates the Cellular network is under load or maintenance. You can attempt to clear it by setting the Server to LAN, exiting the menu completely, and then re-setting the Server to Cellular. If that fails you can try the Cellular Clean Install as well. In the rare event the issue persists it may indicate a weak cellular signal, follow the Sig 0 / Not Registered steps if that happens.

No Modem Detected / No Cellular Option

Most commonly caused by using a SetApp cellular plug-in in an inverter with LCD screen, or vice versa. Potentially caused by installing the cellular plug-in with the AC power on. May also be caused by old firmware or a communication board that needs to be rebooted or if the modem isn't seated properly. Verify the correct type of modem is in use. Try updating the inverter firmware and then performing the Cellular Clean Install below. If the issue persists, contact SolarEdge Technical Support. Please have the IMSI/ICCID/or MEID of the cellular modem available.

Configuration Error

This message usually indicates a hold or block on the cellular data. Get the IMSI/ICCID/or MEID number from the cellular modem (Menu → Information → Modem Info, then scroll down) and contact SolarEdge Technical Support.

```
Model: SARA-U260
FW Ver.: 23.20
IMEI: 35442107005259
IMSI: 20404339673143
```

S_OK but No Data On Portal

This message may indicate that the wrong inverter serial number has been entered on the customer's Monitoring Portal, or it may indicate incorrect firmware or software parameters. To verify the correct inverter serial number is in use, check the ID# of the inverter on the screen or the Wi-Fi network name of the SetApp inverter (or the SN of the inverter while logged into the SetApp). If the wrong serial number was entered onto the customer's portal, correct it using the logical layout. If the serial number is correct, please contact SolarEdge Technical Support.

```
ID:7317720C 08
DSP1/2:1.0000/2.0000
CPU:3.2510
Country:USA1
```

No S_OK

This can be an indication of weak cellular signal strength, server lag or maintenance, a need to update the firmware, a need to reboot the communication board. To start, set the Server to LAN, exit the menu completely, then re-enter the menu and set the Server back to Cellular. Do that a couple times, if no change in the S_OK status, update the inverter firmware. If that fails, conduct the Sig 0 / Not Registered troubleshooting above and provide the Network Scan and Run Diagnostics results to SolarEdge Technical Support.

Repeated Communication Drops

This message usually indicates sub-standard signal strength on site. Conduct the Sig 0 / Not Registered troubleshooting and provide the Network Scan and Run Diagnostics results to SolarEdge Technical Support.

For SetApp inverters:

Verify the type of modem being used, GSM or CDMA. During installation, verify that the correct Cellular Network is shown. GSM should say T-Mobile. CDMA should say Sprint. If some other option is displayed, the inverter will lose communication. If you are not able to choose those options, it means there is no coverage in the area.

Cellular Clean Installation

- Update the inverter firmware via MicroSD (LCD screen) or SetApp.
- After the firmware update, set the Server to LAN. Exit the menu and shut the inverter down completely.
- Ensure AC power is OFF.
- Wait 60 seconds, then remove the cellular plug-in from the inverter and set it in a safe spot.
- Turn ONLY the AC power – leave on for 60 seconds.
- While waiting, get a picture of the Cellular plug-in, the SIMM card ICCID number (if using GSM) and inspect your antenna connections to verify everything is secure.
- After 60 seconds, shut down the AC again and reinstall the cellular plug-in.
- After everything is reinstalled, turn on the AC power and set the Server back to Cellular.
- Check the Server status screen after a few minutes to verify all is working properly.