User Manual

External Wi-Fi & Cellular Data Logger for
Remote System Monitoring

Applicable Models:

S1-W4G-ST-4PIN

S1-W4G-ST-USB

Version 3.2 Release Date: 2025/08/05

Important Notes (Read Before Installation)

- This device should only be installed by professional personnel who are qualified to operate Solis equipment.

- This device must be installed away from anything that generates a strong magnetic field such as electrical appliances, large metallic objects, or other communication equipment such as radios or broadcasting devices.

- Product specifications are subject to change without notice. Every attempt has been made to make this document complete, accurate and up-to-date. Individuals reviewing this document and installers or service personnel are cautioned, however, that Solis reserves the right to make changes without notice and shall not be responsible for any damages, including indirect, incidental or consequential damages caused by reliance on the material presented including, but not limited to, omissions, typographical errors, arithmetical errors or listing errors in the material provided in this document.

- Solis accepts no liability for customers' failure to comply with the instructions for correct installation and will not be held responsible for upstream or downstream systems Solis equipment has supplied.

- The customer is fully liable for any modifications made to the system; therefore, any hardware or software modification, manipulation, or alteration not expressly approved by the manufacturer shall result in the immediate cancellation of the warranty.

- Solis will not be held liable for defects or malfunctions arising from:
    - Improper use of the equipment.
    - Deterioration resulting from transportation or particular environmental conditions.
    - Performing maintenance incorrectly or not at all.
    - Tampering or unsafe repairs.
    - Use or installation by unqualified persons.

- This manual is to be used for the S1-W4G-ST data logger only. It should not be used for any other Solis device.

- For additional assistance with SolisCloud, please go to the Solis US website and download the SolisCloud user manual: https://www.solisinverters.com/us

FCC Certification & Warranty Information

This device complies with part 15 of the FCC rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference
(2) This device must accept any interference received, including interference that may cause undesired operation

FCC Warning:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:
This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
(1) reorient or relocate the receiving antenna
(2) increase the separation between the equipment and the receiver
(3) connect the equipment into an outlet on a circuit different from that to which the receiver is connected or
(4) consult the dealer or an experienced radio/TV technician for help

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters (7.87 inches) between the radiator and your body.

Warranty Information

This logger comes with a ***two-year warranty*** that begins once the logger first reports to SolisCloud. The warranty is included in the price of the logger. The warranty is not extendable but does cover all types of logger failures.

If the logger has any issues, please contact the Solis Support team directly by calling **+1(866)438-8408** or sending an email to **usservice@solisinverters.com**
Please give the technician the logger and inverter serial numbers, SolisCloud site ID, and a detailed description of the issue to start a warranty claim.

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1. Introduction

1.1 Data Logger Description

The Solis Wi-Fi/Cellular Data Logger is an external device which plugs directly into the bottom of a Solis inverter. The logger relays information from the inverter to the Solis monitoring platform, called SolisCloud. This logger connects to a local 2.4GHz Wi-Fi network or to one of the following 4G cellular networks: T-Mobile, AT&T, Verizon, Telus, and Rogers. A third-party SIM card can be installed in place of the SIM that comes with the logger. **Please note, this logger does not support 5GHz Wi-Fi networks**. Up to ten Solis inverters can be daisy-chained together with RS485 to communicate through one Solis data logger.

4-Pin Version
Model: S1-W4G-ST-4PIN

USB Version
Model: S1-W4G-ST-USB

Figure 1.1 Logger parts

1.2 Compatible Solis US Inverter Models

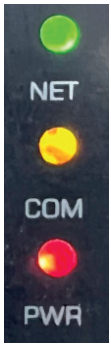
- S6-EH1P(3.8-11.4)K-H-US
- Solis-1P(3.6-10)K-4G-US
- Solis-(25-40)K-US
- Solis-(50-66)K-US
- S5-GC(25-60)K-US
- S5-GC(75-100)K-US
- Solis-(125-255)K-EHV-5G-US
- Solis EPM1-5G
- Solis-EPM3-5G-PRO

Note:
The S6-EH1P(3.8-11.4)K-H-US hybrid inverter series only supports one logger per inverter.

1. Introduction

1.3 LED Indicator Lights

The Solis S1-W4G-ST data logger has three LED indicator lights. These lights depict the status of the logger. There are three lights: NET, COM, and PWR. The chart below explains what the lights mean when they are flashing, solid, or off. If the LED lights are all off when the inverter is getting proper voltages, please contact Solis Support.



Normal Operation:
Once the logger has been configured properly, all three of the LED indicator lights will go solid. NET is green if on Wi-Fi & blue if on 4G.

Every Five Minutes:
The logger will transmit a data package to SolisCloud. When this happens, the COM light will flash for a few seconds. This is normal behavior and should not cause any concern.

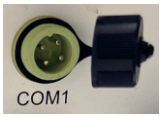
Fault Mode:
If any of the three lights go out then there is a problem. If the NET light flashes for longer than five minutes, it has lost connection to the local router that it was configured to. If the COM light flashes for longer than five minutes, it has lost connection to the inverter.

Figure 1.2 LED indicator lights and normal logger behavior

LED Indicator	Description	LED Status	Meaning
Internet Connection ● NET (Wi-Fi) ● NET (4G)	Connection status between the logger & the Wi-Fi (green) or 4G cellular network (blue)	Flashing	Attempting to connect to the local network
		Solid	Successfully connected to the local network
		Off	Not connected to the local network
Inverter Communication ● COM	Communication status between the logger and the inverter	Flashing	Attempting to communicate with the inverter
		Solid	Communicating with the inverter normally
		Off	Not communicating with the inverter
Logger Power ● PWR	Power from the inverter to the logger	Solid	Data logger is powered up normally
		Off	Data logger is not getting enough power

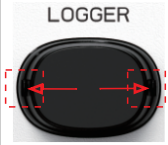
2. Installation

First, locate the COM/Logger port on the bottom of the inverter. This port will be protected by a black plastic cap.



1. Twist the cap counter-clockwise until it comes off.
2. Leave the cap hanging so that it can be replaced if the logger is ever removed.

Figure 2.1 COM port cap (4-pin version)

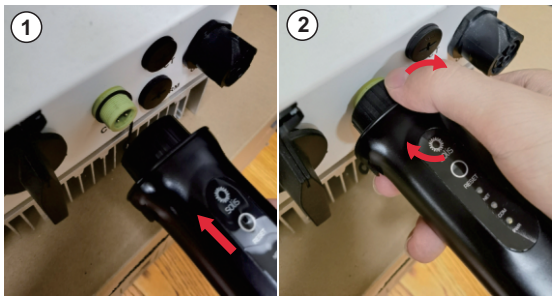


1. Pinch the two tabs on the sides of the black plastic cap
2. Pull down on the cap until it comes off.
3. Store the cap for later.

Figure 2.2 COM port cap (USB version)

2.1 Connecting the 4-Pin Logger to the Inverter

1. Insert the logger into the port - be sure the LED lights are facing forward.
2. Push up on the logger and begin to twist the lock ring clockwise.
3. Continue twisting until the connection feels snug the lock ring cannot twist anymore.
Do not continue tightening the ring if the logger itself starts twisting. Doing this will break the logger.



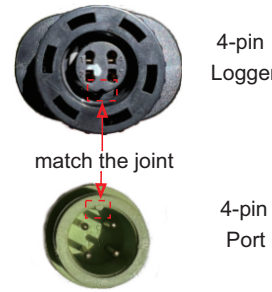


Figure 2.3 Installing the logger (4-pin version)

2.2 Connecting the USB Logger to the Inverter

1. Insert the logger into the port - be sure the LED lights are facing forward.
2. Push up on the logger and align the port tabs so that they fit into the logger slots
Do not twist the data logger like you would with the 4-pin version. Doing this will break the logger.
3. You will feel a click once this happens. To remove the logger, pinch the tabs at the same time and then pull down on the logger until it comes out.

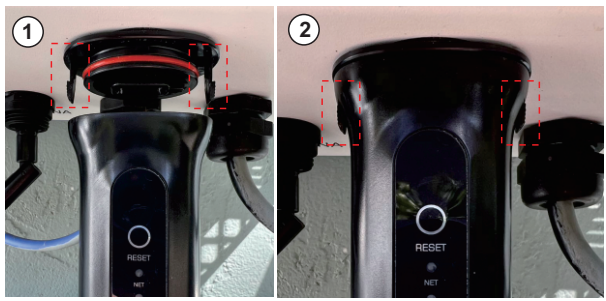
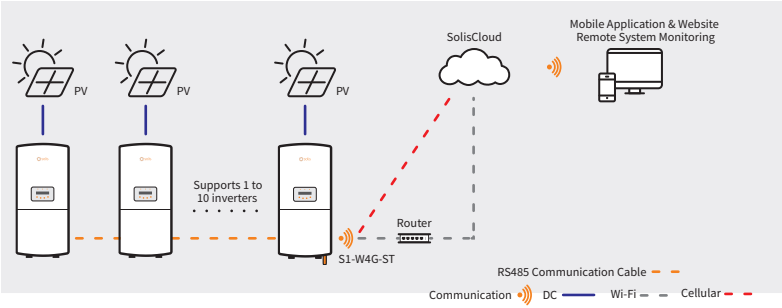


Figure 2.4 Installing the logger (USB version)

2. Installation

2.3 Connecting Multiple Inverters to a Single Logger

First, the inverters must be daisy-chained together with RS485. The logger can support a maximum of ten inverters. If there are more than ten inverters on the same system, then additional loggers must be installed. Please see the inverter manual for instructions on how to complete the daisy chaining.

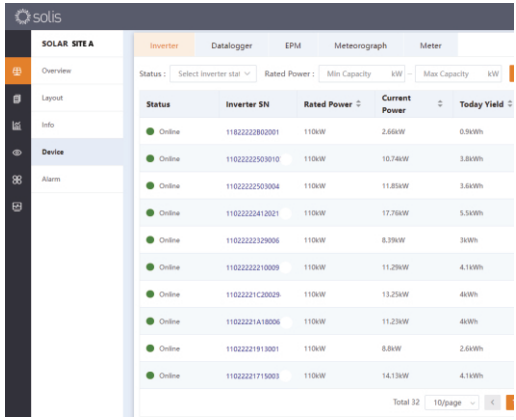


Step 1: Daisy chain the inverters together with an RS485 cable or a Solis EC-5/EC-10 cable.
Step 2: Plug the data logger into the first inverter in the daisy chain, the master inverter.
Step 3: Adjust the address for each inverter.
Note: The first inverter in the chain, which is the one connected to the data logger, must be set to the address of 01. Each of the other inverters in the chain must have their address be set to a number other than 1.To do this,follow the steps:

A. Go to the Settings menu of each inverter and then to the Address submenu.
B. Use the up/down buttons to change the address number
C. Press enter to save the new address of the inverter

For example:
Inverter 2 = address of 2, Inverter 3 = address of 3... Inverter 10 = address of 10
Step 4: Commission the logger like normal. Each inverter in the daisy chain will populate into SolisCloud once the logger transmits the first data packet.

The logger will collect and transmit information from all of the inverters in the daisy chain to SolisCloud. Only the logger gets added to the new plant on SolisCloud. The inverters will automatically populate into the plant once the logger starts to report to SolisCloud.



2.4 Solis Data Plans & Replacing the SIM Card

The Solis cellular logger typically includes a data plan. However, if you prefer to use your own SIM card and data plan then you will need to install your SIM card within the Solis cellular logger. Please keep in mind that you will also have to procure the APN number for your self-provided SIM card from your cellular service provider or SIM card vendor. The steps below explain how to install your own SIM card in both the 4-pin and USB versions of the data logger.

2.4.1 Accessing the SIM Card Slot

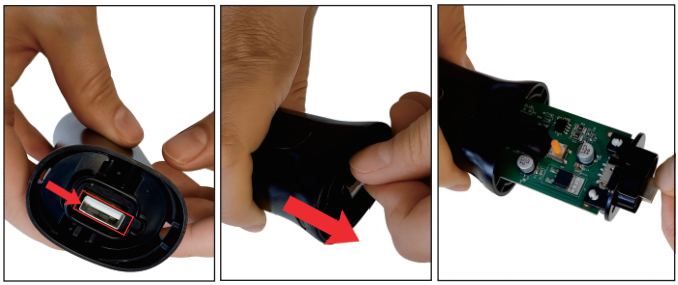
To access the SIM card slot, you will first need to pull the board out from the plastic housing. Be sure to only do this with the logger disconnected from the inverter. The steps below explain how to pull out the board for both 4-pin and USB versions of the logger.

4-Pin Logger

1. Pinch the two black tabs boxed in red in simultaneously.
2. Gently pull up on the lock ring holding the plastic housing tight with your other hand.
3. Wiggle as you pull up until 2 inches of the board is exposed.
4. Rotate the logger over to expose the SIM card slot on the back side, boxed in red.

USB Logger

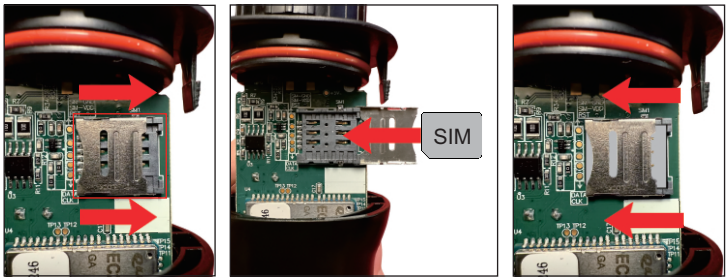
1. Hold the logger with one hand and then pinch the metal USB connector with the other.
2. Gently wiggle while pulling up until the board comes out of the plastic housing.
3. Rotate the logger over to expose the SIM card slot on the back side.



2. Installation

2.4.2 Installing the SIM Card

1. To open the SIM card slot, press on the guard shown below. While pressing down, slide the guard to the right to unlock it. You should be able to flip the guard over to expose the SIM card slot.
2. Insert the SIM card with the metal contacts on the SIM card facing down and the notched corner of the card in the bottom left corner as shown in the image below.
3. Flip the metal guard back into place over the SIM card. While pressing down on the guard, slide it to the left to lock it into place.



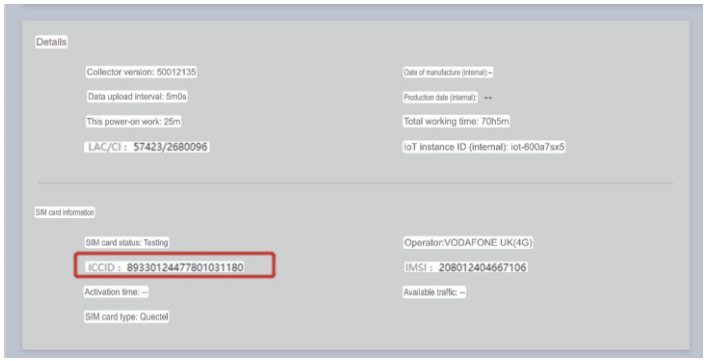
2.4.3 Solis Data Plans

The Solis cellular logger can be purchased with either a 5-year data plan or a 10-year data plan. The plans each include a specific amount of data. The time until expiration, five years or ten years, is based on how much data an inverter uses. If multiple inverters are using a single logger cellular plan, then that plan will expire much quicker since the data pool is being split amongst multiple data consumers. Solis grid-tied inverters consume about 20MB of data per month. Solis hybrid energy storage inverters consume about 40MB of data per month. The number of plan years is based on grid-tied inverters.

Solis Data Plan Duration	Amount of Data
2-Year Plan Extension	480 MB
5-Year Data Plan	1,200 MB
10-Year Data Plan	2,400 MB

2.4.4 Renewing a Solis Data Plan

Once the Solis data plan expires, either a new plan can be purchased directly from Solis or a new SIM will need to be installed with a self-provided data plan. To renew your Solis plan, follow these steps:
1. Go to the plant on SolisCloud that the logger is registered to. Click on the Device tab and then click on the data logger serial number.
2. Identify the ICCID number, shown in the red box below. Write this number down or copy it somehow.
3. Contact your Solis sales representative or Solis equipment distributor. Give them this number and tell them if you want the 2-year or 5-year data plan extension.
4. Pay the PO for the plan renewal. Wait up to 30 days maximum before the logger reports once again.



2.5 Pre-Configuration Steps: WiFi Connection

Prior to installing the S1-W4G-ST logger, the following steps must first be taken to ensure that the logger will function properly once it has been installed:

1. The Solis inverter is completely installed and commissioned

2. The inverter address is 1: Go to Settings, then to Address, verify the number is 1, if the number is not one, use the down button to change it to 1 and then press enter

3. Turn the inverter on with both AC and DC power

4. Ensure the WiFi network is 2.4 GHz, **this logger does not support 5 GHz**

5. Verify that WiFi network password is correct - check it by connecting with your phone

6. Check the signal strength of the WiFi network you plan to connect the logger to by performing a network speed test.

The minimum WiFi signal strength for the logger is -90 dBm (20% RSSI) which equates to approximately **11 Mbps upload speed**. Distance from the router to the logger should be no more than 300 feet with no obstructions. If there are obstructions, this distance is significantly less. Please install a WiFi range extender if the upload speed is under 11 Mbps.

2.6 Pre-Configuration Steps: 4G Cellular Connection

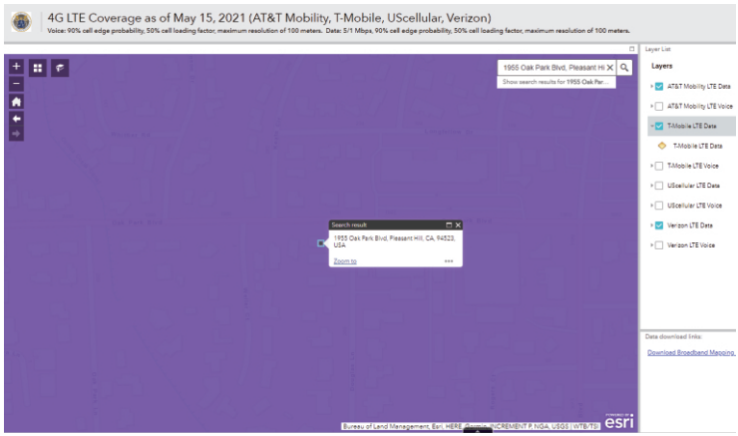
If you plan to use cellular instead **of or in addition to WiFi, please follow the steps below to verify that the cellular function can be used.**

1. Check the cellular signal strength at the address where the logger is to be installed.

2. The website FCC 4G LTE Mobile Coverage Map will show if site address has sufficient coverage by one of the network providers listed below.

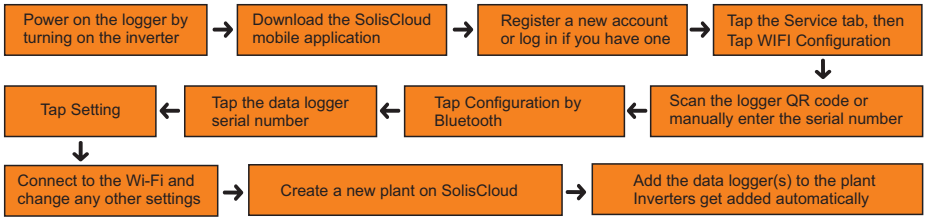
3. The logger SIM card supports: **T-Mobile**, **Verizon**, **AT&T**, **Telus**, and **Rogers**

4. If there is no coverage by one of the above providers, WiFi or LAN will need to be used instead of cellular. You can also swap the included SIM with a third-party SIM card.



3.Configuration

Configuration and commissioning overview



This logger can be configured in three different ways: **(1)** WiFi only **(2)** 4G cellular only and **(3)** WiFi with 4G cellular as backup, which is the default mode.

When configured for option (3), the logger will automatically switch to using the cellular network should something happen to the Wi-Fi network. Once the WiFi network is restored, the logger will switch back to it automatically.

3.1 Download SolisCloud & Register a New Account

Step 1: Energize the inverter either DC or AC voltage, either will suffice

Step 2: Download the SolisCloud mobile application

SolisCloud is the monitoring platform for Solis inverters. SolisCloud can be accessed in two ways. First, there is a mobile application for smart devices such as phones and tablets. Second, there is also a website which can be accessed through a browser on a computer or device. This guide is for the mobile app, since it must be used to do the full commissioning on-site.

Search “SolisCloud” in the app store and download the app. If you search “Solis” many apps will appear, please see figure 3.1 for the correct SolisCloud app.
Website: **www.soliscloud.com/#/homepage**

Figure 3.1 Solis Apps found in the App Store

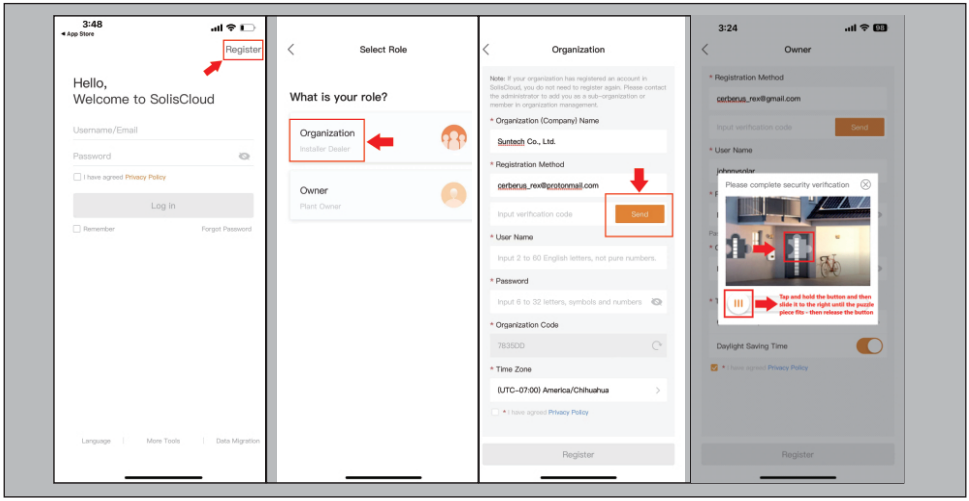
Step 3: Register a new account with SolisCloud

Skip this step if you already have a SolisCloud account. If you do not yet have an account, follow these steps to create one:

1. Tap Register in the top right corner
2. Select Organization if you are an installer, select Owner if you are a homeowner
3. Fill in the Organization Name and email address you want to use
4. Tap Send and then complete the puzzle verification by tapping/holding the button and then sliding it to the right. The puzzle piece should be made to fit exactly in the empty space. Then release the button.

4. Commissioning

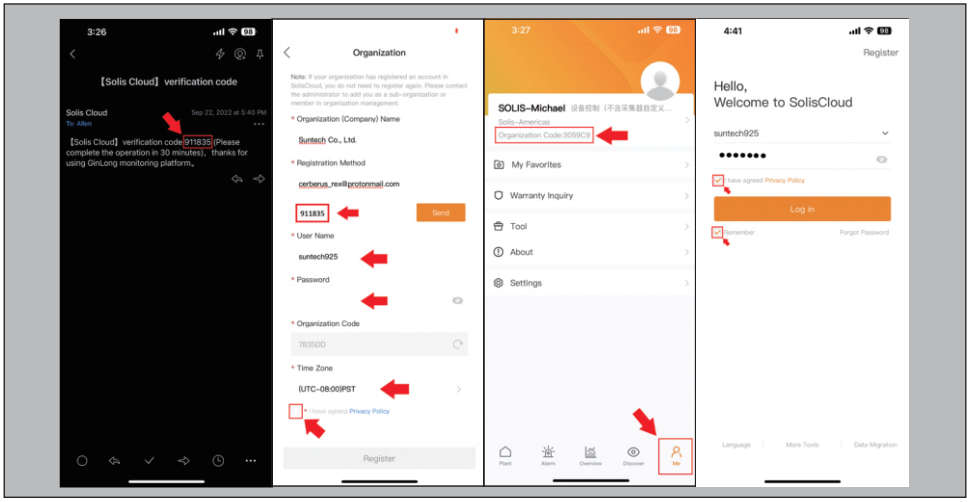
5. Go to your email inbox and look for an email from Solis - check your SPAM folder



6. The email from Solis contains the verification code. Enter this code into the Verification Code field on the app. Then fill in the User Name, Password, Organization Code, and select the correct Time Zone. Make sure to check the little box at the bottom of the page after reading the privacy policy. Tap Register when all required fields are filled out.

7. If you are making a sub account under an existing organization account, have someone in the organization go to Me and then get the organization code from the top of page.

8. Log in to SolisCloud using the email/user name and password that you just created.

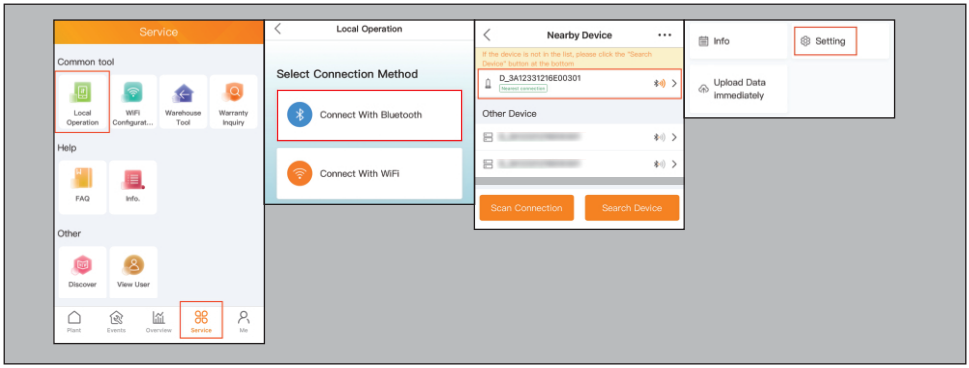


3.Configuration

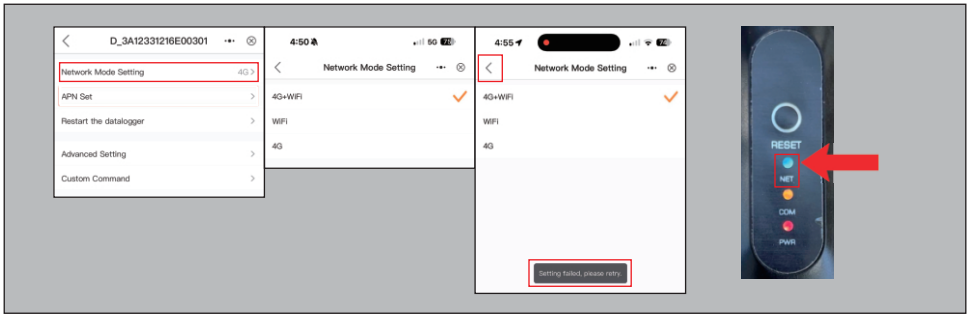
3.2 Configure the Logger Operating Mode

The first step after logging in to SolisCloud is to configure the logger operating mode, or primary method of communication. The options are (1) Wi-Fi only, (2) 4G cellular only, and (3) Wi-Fi with 4G cellular as backup in case the Wi-Fi fails or the signal is lost.

1. From the main Plant Overview tab, tap Service at the bottom. Then tap Local Operation.
2. Tap Connect with Bluetooth, make sure your phone Bluetooth is turned on.
3. Tap the device that shows as “D_serial number of the logger” no password should be required.
4. Scroll down and then tap Setting.



5. Tap Network Mode Setting
6. Select the operating mode: 4G+WiFi, WiFi, or 4G. Then tap Save at the bottom.
7. You may get a message saying “Setting failed, please retry.” If this message occurs it is likely that the logger has an expired data plan or no SIM card. Follow the steps on the previous page to check if there is a SIM card. If there is a SIM card, the plan is probably expired. Contact your Solis sales representative or Solis technical support for assistance with renewing your data plan.
8. Tap the back arrow in the top left corner. Go all the way back to the page where you originally tapped Local Operation.
9. Check the NET light on the logger. If you selected 4G then the light should be flashing blue. If you selected WiFi or 4G + WiFi then the light should be flashing green.



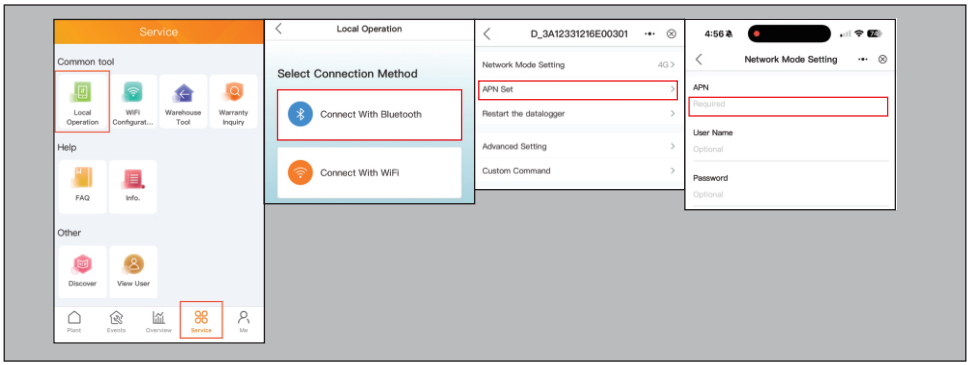
4G Cellular Only: If you selected 4G and plan to only use cellular data, skip ahead to Section 4. There are no other steps you need to take to get the logger online. The flashing blue light should go solid after about 5-10 minutes. If it continues to flash, please check the cellular signal strength in the area for AT&T, Verizon, T-Mobile, Telus, or Rogers only. The logger does NOT support any other providers. If the signal strength is verified, contact Solis technical support. If you are using your own SIM card, the next section explains how to set the APN number so that the logger can communicate.

WiFi and 4G + WiFi: The next step is to connect the logger to the local WiFi network. Ensure that the WiFi signal strength is adequate, that you have the right password for it, and that it is a 2.4GHz and not a 5 GHz network. The logger only supports 2.4GHz networks.

3.Configuration

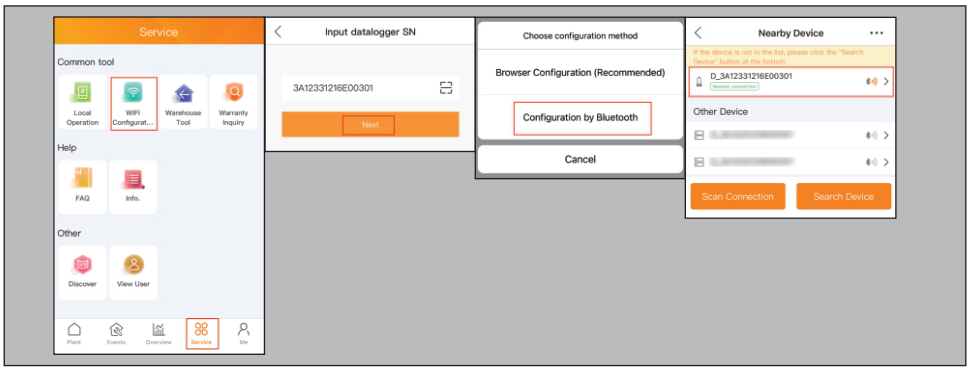
3.3 Set the APN Number of the SIM Card

These instructions are only relevant to those using their own SIM card and data plan and not the one included with the Solis cellular logger. Please ensure the SIM card has been installed before following these steps. If you are using the Solis SIM card and plan, skip ahead to the next relevant section.
1. From the Service tab tap Local Operation, Connect With Bluetooth, the serial number of the logger, and then tap Setting.
2. From the Setting page of the logger tap APN Set.
3. Enter the APN number of the SIM card provided the SIM card vendor/supplier.
4. If you were given a User Name and Password, enter that as well.
5. Tap Save at the bottom of the page. Then exit back to the Service tab of SolisCloud.



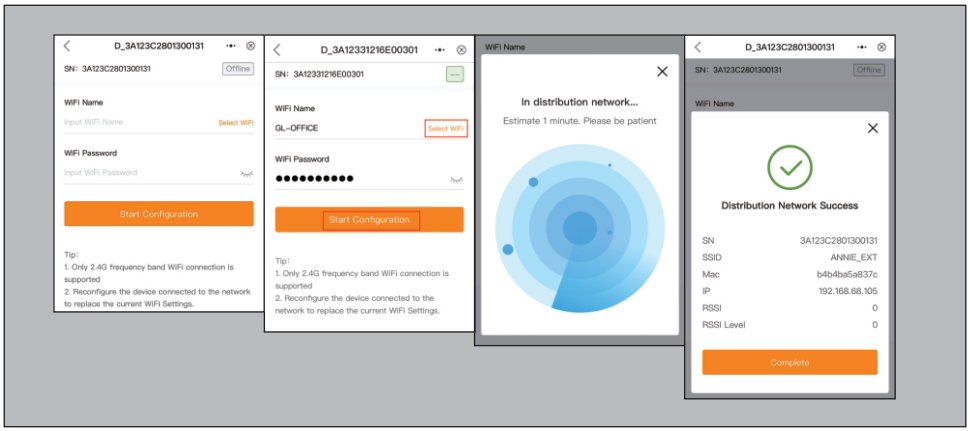
3.4 Connect the Logger to the WiFi Network

After configuring the logger operating mode in the previous section, you can now set up the logger on the local WiFi network. Be sure the network signal strength is strong at the location of the logger. Triple check that you have the correct WiFi password, even try it with your phone first. Make certain that the WiFi network is 2.4GHz and not 5GHz as this logger does not support 5GHz networks.
1. From the main Plant Overview page tap Service at the bottom.
2. Tap WIFI Configuration (not Local Operation).
3. Enter the logger serial number manually or use the scan tool to scan the QR code on the logger.
Note: The easiest method is to take a photo of the QR code and then upload it into the scan tool.
4. Tap Configuration by Bluetootht when it asks you to choose the configuration method.
Note: Browser Configuration is no longer supported, do not use that method.
5. Tap the device that appears as “D_serial number of the logger” no password should be required.



3.Configuration

6. Next, tap Select WIFI. This will take you to your phone settings page. Go to your WiFi settings and make sure your phone is connected to the same local network that you plan to connect the logger to.
7. Go back to SolisCloud. The WiFi network name should automatically populate in the WiFi Name field.
8. Enter the local network password in the WiFi Password field. Then tap Start Configuration.
9. Wait about 1-2 minutes for the logger to connect.
10. The message “Distribution Network Success” should appear with a green check mark.
11. Watch the logger NET light. It should go from flashing green to solid green after about 5 minutes.
Note: If you got a failure message and red X instead of the green check mark, it could be that either you entered the password incorrectly, the network is 5GHz, or the signal strength is too weak.



If you are still having issues connecting the logger, please contact Solis Technical Support.

How WiFi with Cellular 4G Backup Works

When the Wi-Fi network that the logger is configured to is lost or loses connection to the network provider, the logger will switch to cellular. This process is automatic and happens once the logger loses network connection through Wi-Fi for more than five minutes. Once the WiFi network returns to normal the logger will switch back to using it instead of the cellular network. In order to enable this function, the 4G + WiFi operating mode must be enabled.

Solis Technical Support

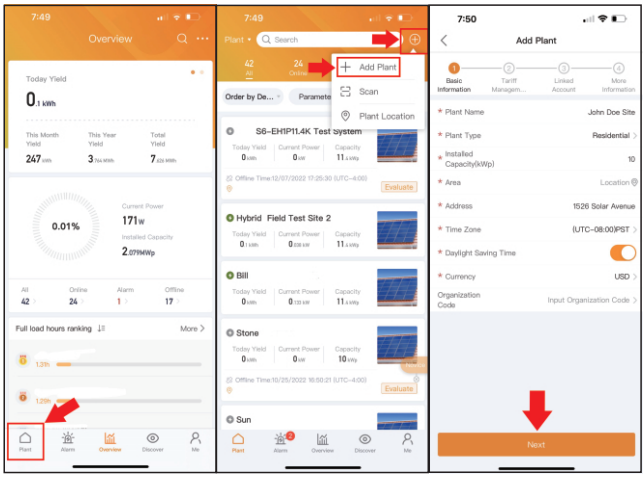
If the logger has any issues, please contact the Solis Support team directly by calling **+1(866)438-8408** or sending an email to **usservice@solisinverters.com**. Please give the technician the logger and inverter serial number, SolisCloud site ID, and a detailed description of the issue to start a warranty claim.

You can try holding the Reset button down on the logger for more than 10 seconds and then trying the configuration process again.

4. Commissioning

4.1 Create New Plant for the System

Once you are logged in you will need to create a new plant for your system. After that, you will be able to add the data logger to the plant. The inverter will automatically populate into the plant as soon as the logger reports to SolisCloud.

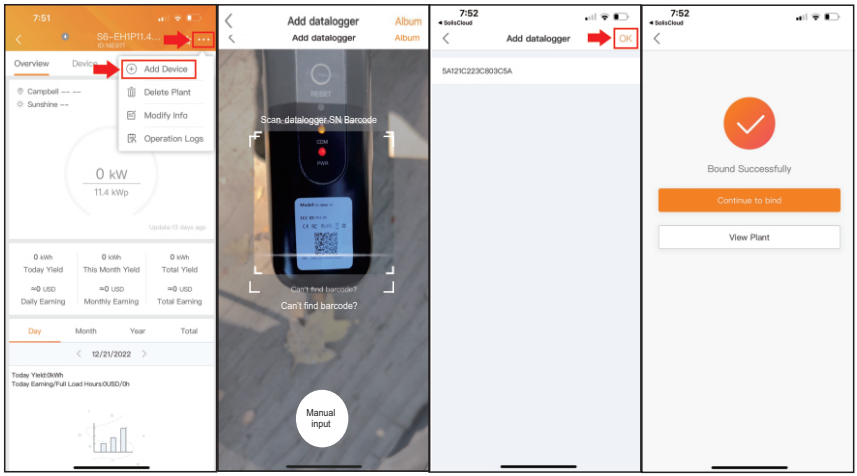


1. Tap Plant in the bottom left corner
2. Tap the + symbol in the top right corner
3. Tap Add Plant
4. Enter in the plant info
5. Set the location
6. Set the time zone
7. Fill in the Organization Code if the site belongs to another SolisCloud user
8. Tap Next at the bottom once you have finished

For Tariff Management, enter in the average rate at which the utility charges for power. Linked Accounts allows you to add guests to the plant so they can view it. This is when you would add in the homeowner's email address.

4.2 Add the Logger to the Plant

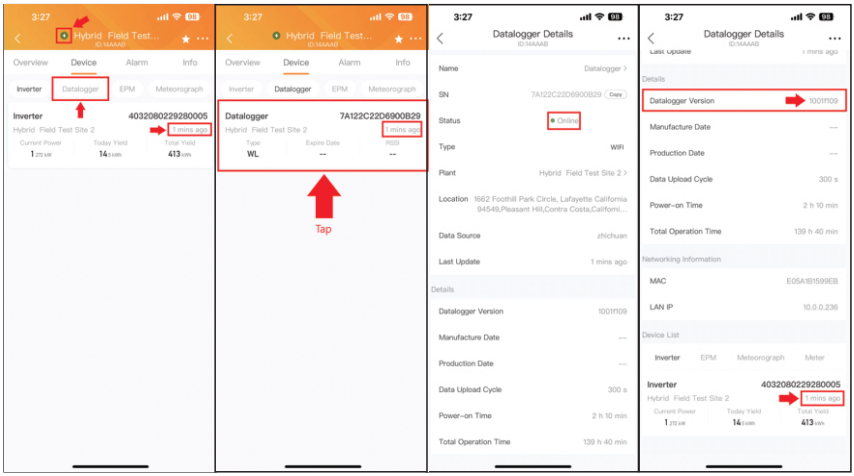
At the new plant main page, tap the three dots in the top right corner. Then tap Add Device to bring up the scanner. You can either scan the bar code on the logger or tap Manual Input to manually enter the logger serial number. Placing a hand behind the logger makes the scanning process easier. Once the serial number has been entered, tap OK in the top right corner. You will given the message "Bound Successfully", tap View Plant to go back to the plant main page. ***The inverter(s) will auto-populate into the plant after a few minutes.***



4. Commissioning

4.3 Verify that the System is Communicating

1. Give the system about five minutes to first report to SolisCloud
2. Tap Device and then Datalogger - the inverter and logger should both say “xx mins ago” under the serial numbers, showing the last time the device reported to SolisCloud
3. Tap the Datalogger to see the logger details - look for the Status, it should be “Online” with a green dot.
4. Scroll down to view the logger software version and at the very bottom it will show the status of the inverter communication.
5. Go back to Overview to see the system generation values - this updates every 5 minutes

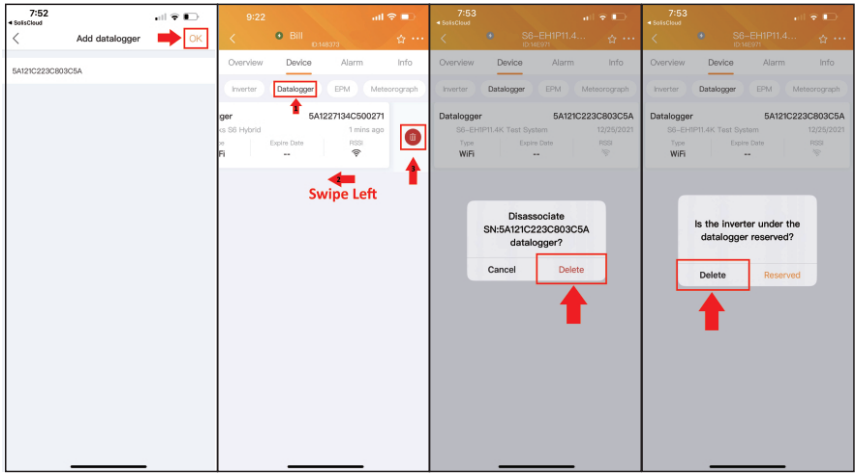


5. Decommissioning

Decommissioning of the logger must be done if one of the following situations occur:
1. The logger is being replaced under RMA or being swapped for another reason
2. The inverter is being replaced or upgraded
3. The logger is being relocated to another inverter
4. The logger is being removed altogether

Step 1: Remove the logger from the plant on SolisCloud

First, the logger must be disassociated from the plant on SolisCloud. From the plant main screen, tap Device, then tap Datalogger. Swipe left on the logger that you wish to unpair from the system. A small trash can icon will appear on the right side of the screen, tap this. When the message “Disassociate SN:XXXXXXXXX datalogger” appears, tap Delete. Finally, tap Delete again and not Reserved, this will remove the logger from the plant.



Step 2: Remove the logger from the inverter

Once the logger has been disassociated, you can physically remove it from the inverter. Do this by pinching the two lock tabs in and then pulling down on the logger until it comes out of the COM port. Replace the black plastic cover cap over the COM port.

Step 3: Store or ship the logger

Now that the logger has been removed, it can now be installed on another inverter or shipped back to Solis in case of an RMA.

To pair the logger with a different inverter, please follow the same steps that have been outlined in this manual. If the logger will not be immediately reinstalled or shipped, please store the logger in a moisture-proof environment. It is recommended to keep a desiccant packet stored with the logger to ensure the internal components of the logger are not exposed to moisture.

What to do if there is a new Wi-Fi network or Wi-Fi password

You will need to reconfigure the data logger. First press and hold the Reset button located on the back of the data logger for 15 seconds. Doing this will reset the logger and enable the logger access point.

Follow the steps outlined in Section 3.4 starting on page 14 of this manual to connect the logger to the new Wi-Fi network or enter the new password. The process is the same either way.

6. Frequently Asked Questions

Q1: Which Solis inverters and products does this logger work with?
A1:This logger works with the all Solis North American inverter models. The logger comes in two versions, a a USB version for hybrid inverter models, and a 4-pin for all other inverter grid-tie inverter models.

Q2: What is the warranty for this logger? Who do I contact to start a warranty claim?
A2:The logger comes with a 2-year warranty. Please contact Solis Support at +1(866)438-8408.

Q3: How do I access the data from the logger and inverter? Will I need to create an account?
A3: To see the system data, you will need to use the Solis monitoring portal, SolisCloud. This can be done with the mobile application or the website. An account will need to be created to use the portal.

Q4: Which cellular network providers does this logger work with? Can I use my own SIM card?
A4: The SIM card that the logger comes with supports: T-Mobile, AT&T, Verizon, Telus, and Rogers. You can use your own SIM card if you like, just fill in the APN information during the configuration.

Q5: Is there a fee for using SolisCloud? Do I need a Solis logger in order to use SolisCloud?
A5: SolisCloud is a free service that is included in the cost of the Solis logger. There are no fees or charges for using SolisCloud. You can use SolisCloud without a logger but you will only be able to view other systems that you have been added to as a guest. If you have an inverter and want to see it on SolisCloud, then you will need a Solis logger for it.

Q6: What do I do if my Wi-Fi password changes or if I switch network providers?
A6:Someone will need to reconfigure the logger to enter the new Wi-Fi password or select the new Wi-Fi network once it is available. This must be performed locally and cannot be done remotely.

Q7: If my Wi-Fi network goes down does the logger or the inverter store data to upload once the Wi-Fi network is back up?
A8:The logger can be configured to automatically switch from Wi-Fi to cellular if the Wi-Fi network has any problems. When the Wi-Fi is restored, the logger will switch back to it. Because of this feature, there should be little to no loss of data. If some data is lost, please contact Solis Support.

Q8: What is the maximum distance that the logger can be away from the Wi-Fi router?
A9: It is not about the distance so much as the network strength at the logger's installation location. With no obstructions, the distance is about 300 feet. However, any obstacle (especially concrete or metal walls) will reduce that distance significantly. Please see page 12 on checking the network strength. If the strength is not great enough, a range extender or booster will be required. You can alternatively install an S1-W4G-ST (cellular/Wi-Fi) logger to use a cellular network instead.

Q9: Can the logger work with all types of Wi-Fi networks and Wi-Fi range extenders?
A10: The logger works with 2.4 Ghz networks but not 5 Ghz networks. Many modern Wi-Fi networks generate two Wi-Fi networks, one that is 2.4 Ghz and one that is 5 Ghz. Therefore, it is important to pay close attention during the configuration process. The logger works with all types of Wi-Fi range extenders and boosters.

Q10: Is it one logger per inverter or how many inverters can this logger support?
A11: The logger can support a maximum of ten inverters. This is done by first daisy-chaining the inverters together with RS 485 and setting the addresses. When the logger gets added to the plant on SolisCloud, it will automatically populate all of the inverters in the daisy-chain

Q11: If my inverter is replaced, can I use the same logger? What happens to the production data?
A12: If the inverter is replaced, you can use the same logger. You will need to remove the old inverter from the plant on SolisCloud. The production data will remain part of the plant history and is not lost. Once you connect the logger to the new inverter, the new serial number will show up in SolisCloud.

Q12: Am I able to move the logger from one inverter to another inverter?
A13: Yes, you can do that. On SolisCloud you will have to disassociate the logger from the plant and inverter before removing it. Then you can plug it into a different inverter and scan it into another plant.

Q13: Where are the SolisCloud servers located?
A14: SolisCloud uses Amazon Web Services (AWS) and the server is located in Europe.

6. Frequently Asked Questions

Q15: Can I use my own SIM card and data plan instead of the one Solis provides?
A15: Yes, you can install your own SIM card inside of the Solis logger. You will just need to determine the APN number of the SIM card from the SIM card provider. There are instructions in section 2.4 explaining how to install the SIM card.

Q16: Once my Solis data plan expires, am I able to renew or extend the plan somehow?
A16: Yes, you can request to purchase either a 2-year or 5-year data plan from your Solis distributor. Solis will extend your data plan no more than 30 days after the purchase order (PO) for the plan renewal is received.

Q17: Am I able to check how much data I have left in my cellular data plan before it expires?
A17:Unfortunately there is no way to check this as of now. In the future, this ability may be added however.

7.Technical Specifications

	S1-W4G-ST (4 Pin)	S1-W4G-ST (USB)
Communication		
Supported device type	All Solis models except for S6-EH1P(3.8-11.4)K-H-US models	Only S6-EH1P(3.8-11.4)K-H-US models
Number of connected inverters [1]	≤ 10	
Data collection intervals	5 minutes	
Status indicator	3 LED Indicator Lights	
Inverter connection interface	External 4-Pin Port	External USB Port
Wireless communication	WiFi: 802.11b/g/n (2.4G) [2] Verizon, AT&T, T-Mobile, Rogers, & Telus 4G cellular networks (included SIM card) [3]	
Near end communication	BLE4.2	
Configuration method	Mobile Application and Website	
Electrical		
Operating voltage	DC 5 V (+ / -5%)	
Operating power consumption	≤ 5 W	
Environment		
Operating ambient temperature range	-22°F to 149°F (-30 to 65°C)	
Operating humidity	5% - 95%, Relative humidity, non-condensing	
Storage temperature	-40°F to 158°F (-40 to 70°C)	
Storage humidity	< 40%	
Max. operation altitude	13,123 ft (4,000 m)	
Protection degree	NEMA 4X	
Mechanical		
Dimensions (L × W × H)	5 × 2 × 1.3 in (128 × 50 × 34 mm)	4.4 × 2 × 1.3 in (113 × 50 × 34 mm)
Installation method	Externally Insert + Twist Lock	Externally Insert + Tab Lock
Weight	0.18 lb (80 g)	0.14 lb (65 g)
Others		
Certification	CE, FCC	

(1) Inverters must first be daisy-chained with RS485. (2) 5 GHz Wi-Fi networks are not supported. (3) A third-party SIM card can be used instead.

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If you encounter any problems with the logger, please take note of the logger serial number and then contact us using the phone number or email listed above.