Stick Logger (GPRS) Quick Guide

Model：LSG-3

Notice:

Please read this manual carefully before using products and keep it in the place where O&M providers can easily find.

Due to product upgrade and other factors, the content of this manual might change from time to time. Please take actual product as standard and get latest manual from www.solarman.cn or sales. Unless otherwise agreed herein, this manual will only be used as guidance. Any statement, information or suggestion in this manual will not take any form of responsibility.

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⚠ **Warning:**
1. Please remove logger after power off.
2. Reset button supports direct press. Do not remove waterproof plug.

Install SIM Card

Notice: If the product you purchased integrated with SIM card, this procedure is not required.

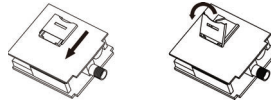**Step 1:**
Remove antenna and bottom cover in order, then pull out circuit board. (Please keep waterproof grommet of antenna and bottom cover well.)
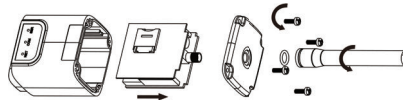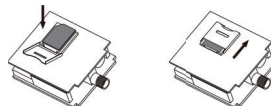
Step 2:
Move upper sheet-metal of SIM card slot about 1mm according to arrow direction, then open it counter-clockwise.
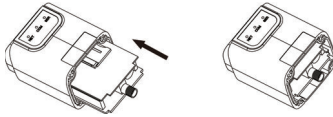
Step 3:
Put SIM card into the slot according to notch orientation, close sheet-metal of SIM card slot clockwise, then move about 1mm according to arrow direction to lock.
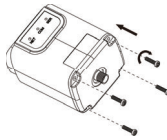
Step 4:
Put circuit board into the enclosure, then push it down along the inner guide. (Please keep SIM card face the indicator light.)
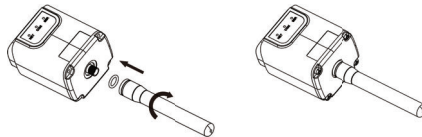
Step 5:
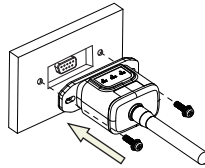Install waterproof grommet of bottom cover properly, then install bottom cover. Tighten screws clockwise.

Step 6:
Install waterproof grommet of antenna on the antenna base, then tighten antenna clockwise.
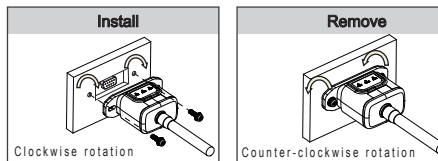
1. Stick Logger Installation
Type 1

Step1: Assemble logger to the inverter communication interface as shown in the diagram.

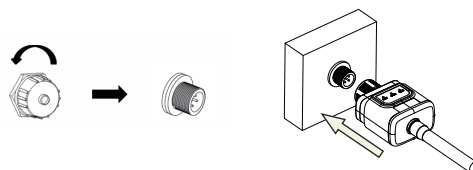According to the arrow direction.

Step2: Install/Remove

Install	Remove
Clockwise rotation	Counter-clockwise rotation

⚠ **Warning:**
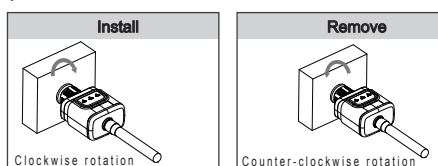Please do not hold the logger body to rotate while install or remove the logger.

Type 2

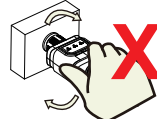**Step1:** Assemble logger to the inverter communication interface as shown in the diagram.

Step2: Install/Remove

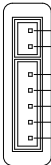| Install	Remove
Clockwise rotation	Counter-clockwise rotation

⚠ **Warning:**
Please do not hold the logger body to rotate while install or remove the logger.

Type 3

Step1: Confirm logger interface definition.

PIN	Name	Type	Wiring instruction
1、2、3	NC		NC
4	DC_VIN	Power	Positive Pole
5	GND	GND	Negative Pole
6	485 B	I/O	RS485_B
7	485 A	I/O	RS485_A

Step 2: Remove waterproof cover plate from inverter interface.
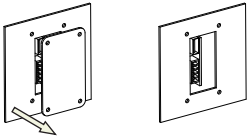
Step 3: Install 485 joint.

Step 4: Install 5pin power connector.

Step 5: Fix stick logger.(Tighten screws clockwise)

Warning:
Please do not hold the logger body to rotate while install or remove the logger.

2. Logger Status

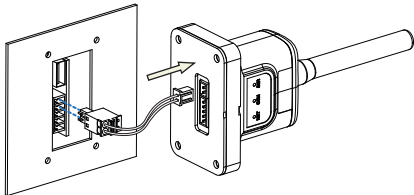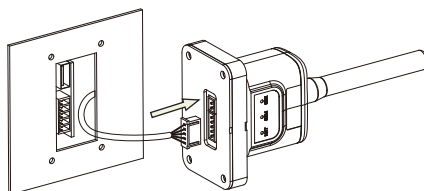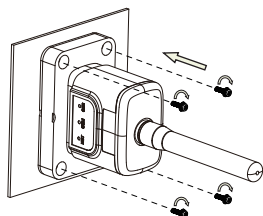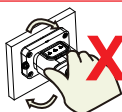### 2.1 Check Indicator light

Lights	Implication	Status Description(All lights are single green lights.)
● NET	Communication status with base station	1.Light on 64ms/Light off 800ms(Fast flash): GPRS module not registered to the network. 2.Light on 64ms/Light off 2000ms(Slow flash): GPRS module registered to the network. 3.Light on 64ms/Light off 600ms(Fast flash): GPRS data transmission. 4.Light off: GPRS module not running.
● COM	Communication status with inverter	1.Light keeps on: Successful connection to the inverter. 2.Light on 400ms/Light off 1600ms(Slow flash): Initialization. 3.Light on 400ms/Light off 400ms(Fast flash): Data transmission with inverter. 4.Light off: Communication with inverter failed.
● SER	Communication status with server	1.Light keeps on: Successful connection to the server. 2.Light on 400ms/Light off 1600ms(Slow flash): Initialization. 3.Light on 400ms/Light off 400ms(Fast flash): Connection with server failed.

The normal operation status of the stick logger with good base station signal:
1. Initialization: COM and SER lights flashes slowly after power-on;
2. Connecting to the base station: NET light flashes fast around 35s;
3. Connection to the base station succeeded: NET light keeps slow flash around 45s;
4. Communication with the inverter succeeded: COM light flashes fast 3 times then keeps on around 50s;
5. **Normal operation: COM and SER lights keep on, NET light flashes slowly around 2mins;**
6. GPRS uploading data: NET light flashes fast, SER light keeps on.

2.2 Check Base Station Signal Strength and Inverter Status via APP

Scan QR code on the right to download Solarman Pro APP.
Check install location signal strength via Scan Tool.

solarman Pro

Step 1: Click Scan Tool

Scan	WiFi	Ticket	All

Step 2: Scan stick logger bar code or enter SN manually

Step 3: Scan Tool will show signal strength and inverter status automatically

⚠ **Please keep stick logger signal strength greater than 3 to ensure stable data transmission.**

✓ 2404862490 📶
Data Update Time 2018/12/01 15:45:19 GMT+8

Online	Offline	Alerts
✓	✗	❗

Unknown Base Station Signal	Weak Base Station Signal		Good Base Station Signal		
🚫	📶	📶	📶	📶	📶

3. Registration and Usage

Download APP according to APP User Manual. Then follow the registration steps.

solarman for end user	solarman Pro for business

4. Bluetooth Tool
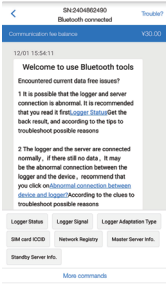
Stick logger supports Bluetooth testing and debugging. Please scan QR code to download Solarman Pro APP. (Only Android System supported for now.)

1. Enter Bluetooth Tool

2. Select device according to SN
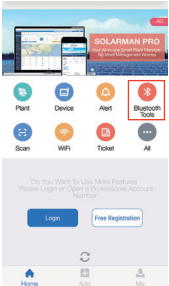
3. Enter Bluetooth debugging interface

5.Abnormal State Processing

If the data on platform is abnormal when the stick logger is running, please check the table below and according to the status of indicator lights to complete a simple troubleshooting. If it still can not be resolved or indicator lights status do not show in the table below, please contact Customer Support.
(Note: Please using the following table query after power-on for 2min at least)

NET	COM	SER	Fault Description	Fault Cause	Solution
● NET	● COM	● SER			
Any state	OFF	Any state	Communication with inverter abnormal	1.Connection between stick logger and inverter loosen 2.Inverter does not match with stick logger's communication rate	1.Check the connection between stick logger and inverter Remove the stick logger and install again 2.Check inverter's communication rate to see if it matches with stick logger's
Flash	On/Flash	Flash	Communication with base station abnormal	1.SIM charge overdue 2.Antenna abnormal 3.GPRS signal is weak	1.Check if the balance is sufficient. 2.Check if the antenna is damaged or loosen 3.If the base station signal strength is good, it is recommended to change sucker antenna
OFF	OFF	OFF	Power supply abnormal	1.Connection between stick logger and inverter loosen or abnormal 2.Inverter power insufficient 3.Stick Logger abnormal	1.Check the joint, insert or extract it again 2.Check inverter power to see if it meets the requirements 3.Contact Customer Service

⚠ **Warning:** Please make sure the stick logger is working properly before you leave the site. If there is anything abnormal, please do not leave the site and contact customer service at the first time.
Customer Hotline: +86 400 181 0512
Support E-mail:customerservice@solarmanpv.com

If you have any technical queries about our products, please contact us and provide the following information:
1. Product model and serial number of stick logger.
2. Product model and serial number of connected inverter.
Thank you for your support and cooperation!