SOLARMAN
Monitored Analyzed Networked

Stick Logger (WiFi)

Product Model:
LSW-5

Contact

IGEN Tech Co., Ltd.

Add: Block F4, China IoT International Innovation Park, No. 200, Linghu Avenue, Wuxi, Jiangsu, P. R. China

Sales Inquiries: info@solarmanpv.com

After-sales Inquiries: customerservice@solarmanpv.com

Website: www.solarmanpv.com

Introduction

By collecting operating data and power generation status of inverter, stick logger (WiFi) can run a long-term and efficient monitoring of PV system. Meanwhile, remote monitoring cloud platform (SOLARMAN Portal) provides powerful data support for the logger. Logger sends the data to the monitoring platform via WiFi. The real-time status and historical data can be displayed with graphs, enabling intuitive and clear understanding of PV system. Furthermore, customized alerts can notify users of any malfunction or defect immediately via SMS and E-mail, which realizes the management of PV system at anytime and anywhere, also simplifies the maintenance significantly.

The WiFi module is integrated inside the logger, which enables to transmit data through the WiFi network.

Product Parameter

Catalog	Parameter	Value
Wireless Parameter	Working Frequency	2.412GHz~2.472GHz
	Transmit Power	802.11b: +17 dBm±1.5dBm(@11Mbps)
		802.11g: +15 dBm±1.5dBm (@54Mbps)
		802.11n: +14 dBm±1.5dBm (@HT20, MCS7)
	Antenna Option	Embedded PCB antenna
Bluetooth	Wireless Standard	BLE5.0
	Frequency Range	2.402GHz-2.480GHz
	Transmit Power	MAX15dBm
Hardware Parameter	Data Interface	RS485
	Working Voltage	DC5V ~DC12V
	Working Power	1.5W
	Indicator Light	One connected to inverter
		One connected to router
		One connected to heartbeat

Hardware Parameter	Data Storage	Default: 8 MBYTE FLASH
	Working Temperature	-30℃~+70℃
	Working Humidity	10%-90%, no condensation
	Storage Temperature	-45℃~+90℃
	Storage Humidity	<40%
	External Interface	USB
Software Parameter	No. of Connections	One
	Serial Communication Rate	Default: 9600bps(1200-115200bps optional)
	Data Transmission Interval	Default: 5 mins(1-15 mins optional)
	Configuration	AT+Instruction set
		Local web configuration
		Remote server
		Bluetooth
	Firmware Upgrade	Local web upgrade
		Remote update
	Data Transmission	SOLARMAN 3.0
	Others	Real-time Control, Data resuming

Module Interface Identification

Pin	Description	Network Name	Type	Detail
1	Receiving Data Power VCC	VCC	POWER	External Power: DC 5V~12V
2	Data Transmission	D-		Data-
3	Data Transmission	D+		Data+
4	Power GND	GND	Power	External Power: GND

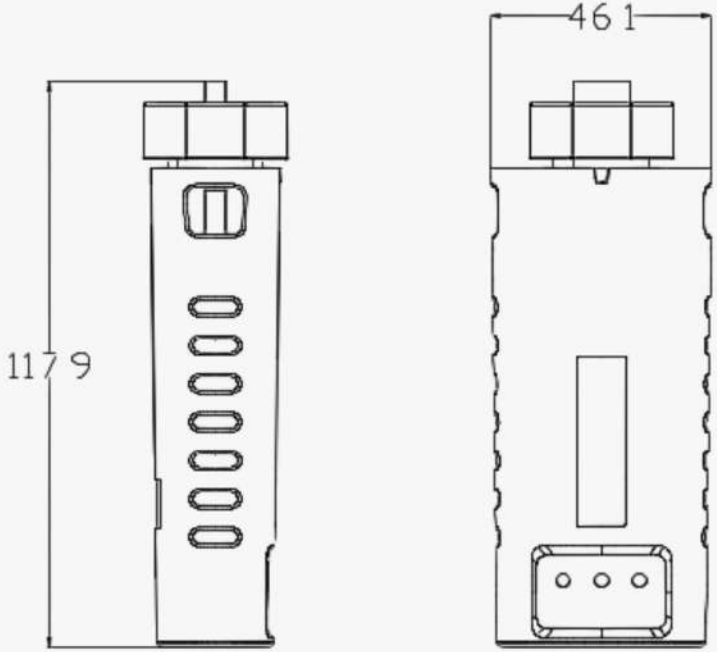
Product Pictures

Front View

Back View

Side View

Logger Size (Unit: mm/Accuracy: ±2%)



LED Indicator Lights Instruction

After logger connected to the device, check the status of NET light, COM light, READY light and whether there are data on the platform.
(There is only one light for each NET, COM and READY light.)

The normal operation status after the stick logger powered on:

1、Successful connection to the server: NET light keeps on.

2、Logger runs normally: READY light flashes.

3、Successful connection to the inverter: COM light keeps on.

Light	Implication	Instruction
	Communicate with base station	1.Light off: Connection to the router failed. 2.On 1s/Off 1s (Slow flash) : Connection to the router succeeded. 3.Light on: Connection to the server succeeded. 4.On 100ms/Off 100ms (Fast flash) :Fast networking.
	Communicate with inverter	1.Light on: Logger connected to the inverter. 2.Light off: Connection to the inverter failed. 3.On 1s/Off 1s (Slow flash) : Logger communicating with inverter.
	Logger Running Status	1.Light off: Logger runs abnormally. 2.On 1s/Off 1s (Slow flash) : Logger runs normally. 3.On 100ms/Off 100ms (Fast flash) :Restore factory settings.

Abnormal Status Processing

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

NET	COM	READY	Fault Description	Fault Cause	Solution
					
Any status	OFF	Slow flash	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	Slow flash	Communicate with router abnormal	1.Stick logger does n ot have a network. 2.Antenna abnormal 3.Router WiFi signal strength weak.	1.Check if the wireless network configured. 2.Enhance WiFi signal strength.
Slow flash	ON	Slow flash	Connection to router normally, connection to server abnormally	1.Router network ab normal. 2.Server point has b een modified. 3.Network limited.	1.Check if the router has network. 2.Check router settings. 3.Contact Customer Service.
OFF	OFF	OFF	Power supply abnormal	1.Connection betwe en stick logger and i nverter loosen or abnormal. 2.Inverter power insufficient. 3.Stick Logger abnormal.	1.Check the connection, remove the stick logger and install again. 2.Check inverter output power. 3.Contact Customer Service.
Fast flash	Any status	Any status	Bluetooth network distribution	Normal	1.Exit after 5min. 2.5s long press for rebooting. 3.10s long press for restoring.
Any status	Any status	Fast flash	Restore factory setting	Normal	1.Exit after 1min. 2.5s long press for rebooting. 3.10s long press for restoring.