GROWATT

ShineWiLan-X2

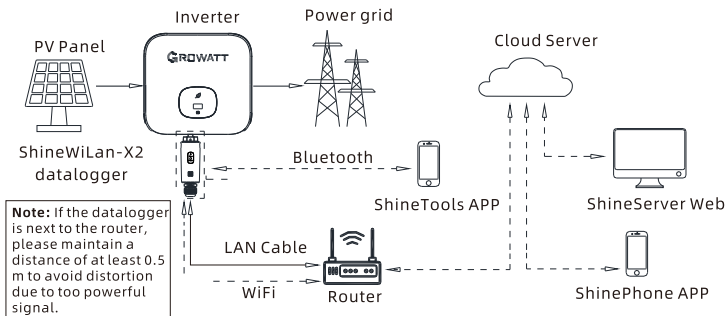## User Manual
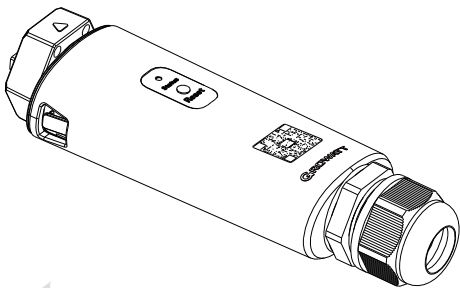
1. Product Overview

ShineWiLan-X2 is compatible with all Growatt PV devices equipped with the USB port, such as the PV inverter and the hybrid inverter, enabling remote monitoring and maintenance of PV systems via the Ethernet cable or WiFi connection.
➢ Supports mobile APP and Server web page monitoring
➢ Supports remote configuration and firmware upgrade
➢ Supports local data saving and break point retransmission
➢ Supports the network configuration of the datalogger in Bluetooth mode

2. Product Appearance

USB Port

Indicator
Button

Waterproof connector

3. System Diagram

PV Panel

Inverter

Power grid

Cloud Server

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ShineWiLan-X2 datalogger

Bluetooth

ShineTools APP

ShineServer Web

Note: If the datalogger is next to the router, please maintain a distance of at least 0.5 m to avoid distortion due to too powerful signal.

LAN Cable

WiFi

Router

ShinePhone APP
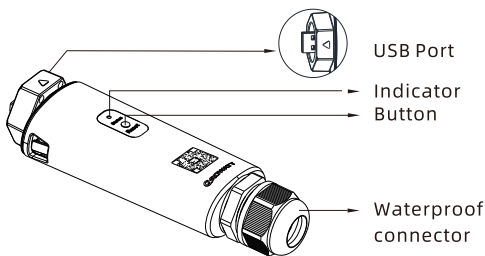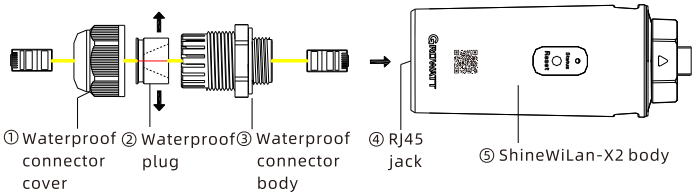
4.1 Installation Instructions

4.1.1 Installing the Ethernet Cable (skip this step if a LAN cable is not to be used for connection)

1. Pass the network cable through the following components ①②③ from left to right;

2. One side of the network cable is connected to the RJ45 port on the ShineWiLan-X2 (ensure that you hear the click sound), and the other side is linked to the router's LAN port;

3. Screw the components ③②① tightly from right to left in sequence.

① Waterproof connector cover ② Waterproof plug ③ Waterproof connector body ④ RJ45 jack ⑤ ShineWiLan-X2 body

4.1.2 Connecting to the PV Device

1. Twist the cover from the USB port on the PV device counterclockwise, then remove it;

2. Rotate the lock on the upper end of the datalogger until the triangle icon is facing upward and centered;

3. Align the datalogger with the USB port on the PV device, ensuring that the triangle icon is facing upward; then press the lock and rotate clockwise until it is securely connected.

Ensure that the triangle icon is facing upwards and centered. Then turn the lock clockwise.
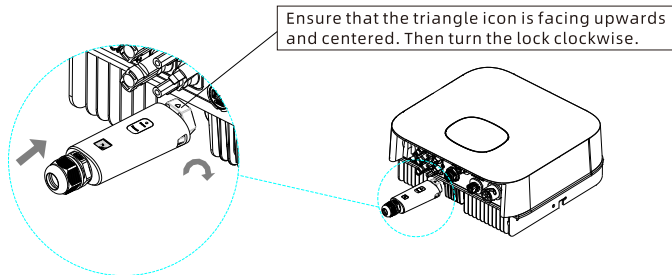
4.2 Turning on the PV Device and Checking the Connection Status

After installing the ShineWiLan-X2, power on the PV device. The datalogger's steady blue light upon initial startup indicates that it is in Bluetooth mode. The LED status description is shown below:

LED status	Operating status
Off	The datalogger failed to communicate with the PV device. (1) Check if the datalogger has been properly connected to the USB port on the PV device; (2) Unplug and then replug the datalogger; (3) Connect the datalogger to the other PV device to check whether the datalogger or the PV device is faulty.
Steady white	The datalogger is initializing. Please wait for about one minute.
Steady blue	The datalogger is in Bluetooth mode. Please continue with the network configuration process. If you do not need to configure the network, you can exit this mode by pressing the button once.

⚠ **Warning**	• This product can only be powered by the USB port of Growatt inverters. Do not connect it to other USB ports or adapters. • If the inverter displays a low insulation resistance alarm, it indicates that a ground fault might have occurred in the chassis. Do not connect the data logger to the inverter or perform other operations to avoid personal injury. • Do not use this product in places where the use of wireless devices is not allowed. • Do not try to repair or modify the equipment by yourself. If you need any support, please contact us.

4.3 Datalogger Configuration

1. Scan the QR code below to download ShinePhone, or you can search for ShinePhone in Apple Store or Google Play, then download and install the latest version of the APP.

2. Once the APP is installed, you can configure the datalogger and add the PV plant as prompted. For details about configuring the datalogger, please refer to ShineWiLan-X2 Configuration Guide, which can be obtained by scanning the QR code below.

【ShinePhone APP】

【ShineWiLan-X2
Configuration Guide】

4.4 ShineWiLan-X2 Button Description

Operation	Description
When ShineWiLan-X2 is working normally, short press the button (the indicator will turn steady blue)	Enter Bluetooth mode
When ShineWiLan-X2 is in Bluetooth mode, short press the button (the indicator will stop being steady blue)	Exit Bluetooth mode
Press and hold the button for 6s until it turns white	Restore ShineWiLan-X2 to factory settings (using dynamic IP by default)

4.5 Troubleshooting

LED status	Operating status	Troubleshooting
Flashing blue	Communicate with the PV device, router and server normally	Operating normally

LED status	Operating status	Troubleshooting
Steady blue	In Bluetooth mode	Network configuration in Bluetooth mode. Please continue with the network configuration process. If not needed, you can exit the mode by pressing the button once
Steady green	ShineWiLan-X2 failed to connect to the router	1. Connected via wireless WiFi (1) Check if you have entered the correct name and password of the router during configuration (2) Check the router a) The router's name should be a combination of English letters and numbers; special symbols are not allowed: (¨¨¨…·€¥) b) For security reasons, please use the encrypted wireless network c) It does not support public network that uses secondary authentication 2. Connected via the LAN cable (1) Check if the Ethernet cable has been connected (2) Reboot the router (3) If static IP is used, please check if the IP addresses of the datalogger and the router are on the same network segment
Flashing green	Successfully connected to the router, but failed to connect to the server	(1) Check if the router has access to the Internet (2) Check if the router firewall is blocking Port 7006
Off	Failed to connect to the PV device	Check if the datalogger has been properly connected to the PV device's USB port

5. Specification

Type	Item	Parameter
General parameters	Dimensions (L/W/H)	152mm/47mm/32mm
	Weight	92g
	Protection degree	lP65
	Certificates	CE, UKCA, SAA, RoHS
Electrical parameters	Connection port	USB
	Operating voltage	5V (+/-5%)
	Rated current	500mA
	Typical power consumption	2.5W (MAX: 4W)
	Operating temperature	-30℃ ~ +65℃
	Storage temperature	-40℃ ~ +70℃
Application parameters	Supported server	ShineServer
	Communication with the inverter	Modbus RTU
	Communication with the server	MQTT
	Supported networks	2.4GHz WiFi, Bluetooth 4.2
	Theoretical communication distance	LAN: 100m (Cat5e) WiFi: 50m (empty space without obstruction)
	Data transmission interval	5 Min
	Default server IP address	mqtt.growatt.com
Wireless parameters	Supported standards	WiFi:802.11b/g/n, BLE: 4.2
	Supported frequency	2.4GHz

Type	Item	Parameter
Wireless parameters	Receiver sensitivity	CCK, 1 Mbps : -97±2dBm CCK, 11 Mbps: -88±2dBm 6 Mbps (1/2 BPSK): -92±2dBm 54 Mbps (3/4 64-QAM): -75±2dBm Ht20 (MCS0): -92±2dBm Ht20 (MCS7): -72±2dBm Ht40 (MCS0): -89±2dBm Ht40 (MCS7): -69±2dBm BLE:-93±2dBm (@1M,30.8%PER)
	Transmit power	802.11b: 19.5±2 dBm (@11Mbps) 802.11g: 14±2 dBm (@54Mbps) 802.11n: 18±2 dBm (@HT20, MCS0) 802.11n: 13±2 dBm (@HT20, MCS7) BLE: 0±2 dBm (@1Mbps)

6. Declaration of conformity

This product complies with the following regulations and requirements:
- Electromagnetic Compatibility Directive: 2014/30/EU (EMC)
- Radio Equipment Directive: 2014/53/EU (RED)
- Electrical Equipment (Safety) Regulations 2016: 2014/35/EU(LVD)
- Restriction of Hazardous Substances Directive: 2011/65/EU (EU) and 2015/863 (RoHS)

You can download the Declaration of Compliance at https://en.growatt.com

7. Contact

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For local customer support, please visit https://en.growatt.com/support/contact

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