



ShineRFStick-X2

User Manual

About this document

This document describes the installation, electrical connection, operation, commissioning, maintenance, and troubleshooting of ShineRFStick-X2. Before installing and operating the ShineRFStick-X2 system, please ensure that you are familiar with the product features, functions, and safety considerations provided in this document.

Statement:

Our company will update the content of this manual based on product upgrades and optimizations. The updated information will be reflected in the latest version of this manual and will not be notified to users separately. Users can download and obtain the latest version of the manual information through the official website or by scanning the QR code in the manual. This manual is only for reference and guidance to users, and the actual application is subject to the actual product. Copyright and interpretation rights belong to Shenzhen Guruiwatt New Energy Co., Ltd., and all rights are reserved. Without permission, copying or excerpting the content of the document is prohibited.

Symbol usage:

In order to ensure the personal safety and property safety of users when using the product, and to use the product more efficiently, the following symbols will be highlighted in this manual. Please read carefully to better understand and use the content in this manual.

Mark	Explanation
 DANGER	Used to warn of high-risk situations that, if not avoided, could lead to death or serious personal injury
 WARNING	Used to warn of dangerous situations that, if not avoided, may result in death or serious personal injury
 CAUTION	Used to warn of low-risk situations that, if not avoided, may cause minor or moderate injury
 NOTICE	Used to warn of potential dangerous situations that, if not avoided, may cause equipment to malfunction
 Information	To ensure the optimal operation of the system, you must read and understand the information to effectively help solve problems

Record of Changes

Instructions: Use the table below to record information regarding changes made to the document over time.

Table 1 Record of Changes

Version Number	Date	Author/Owner	Description of Change
<V1.0.0>	.2	Hh	Initial Version

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1 Product Overview

As a new generation of wireless solution for photovoltaic systems, ShineRFStick-X2 adopts an RF wireless slave architecture and establishes an efficient connection with the host through RF radio frequency technology, specifically designed for wireless application scenarios in GROWATT's photovoltaic ecosystem.

1. Compatible with all GROWATT photovoltaic inverters with USB interfaces, it connects to the host via RF to achieve remote monitoring and maintenance of the photovoltaic system.

2. Support RF wireless communication connection
3. Support remote parameter setting and firmware upgrade
4. Support local data saving and continuation

2 Product Appearance

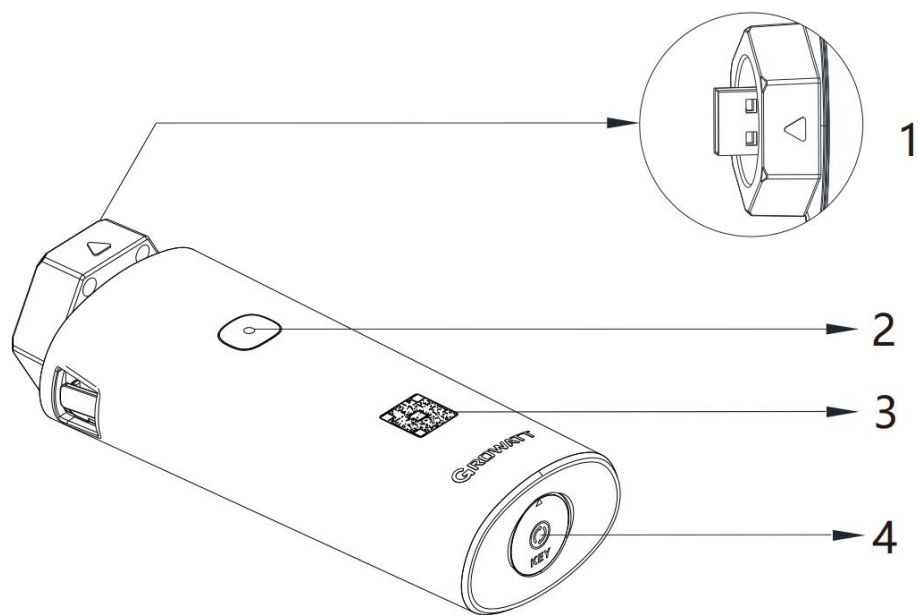


Figure 1 ShineRFStick-X2 Product overview map

Number	Identification	Description
1	USB Port	For connecting GROWATT photovoltaic devices with USB ports
2	Indicator light	Used to display device status and operation
3	Product QR code	Used for adding RF equipment to the host
4	Key	Used to control various functions of the equipment

Table 2 ShineRFStick-X2 User interaction module identification description

3 System Diagram

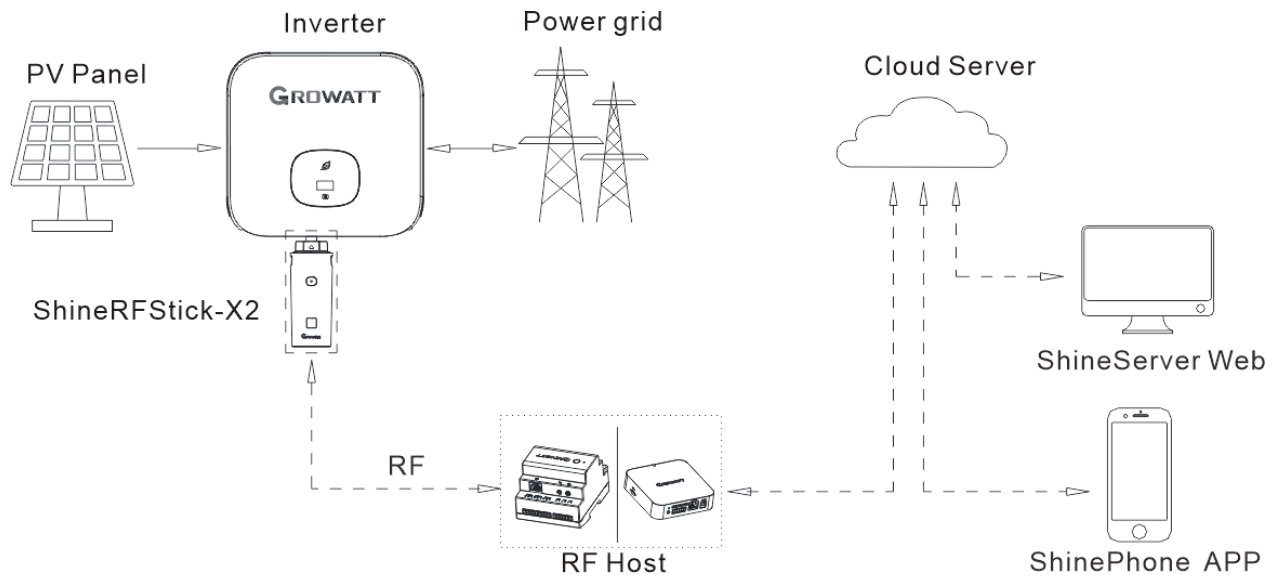


Figure 2 ShineRFStick-X2 System Diagram

4 Installation and Configuration

4.1 Installation instructions

1. Rotate and twist the USB interface cover of the photovoltaic device counterclockwise.
2. Rotate the lock at the top of the collector to ensure that the triangle mark is on the front and centered.
3. Connect the interface of the collector to the USB interface of the photovoltaic device, ensure that the triangle mark is on the front, press the lock and rotate clockwise until the lock is tightened.

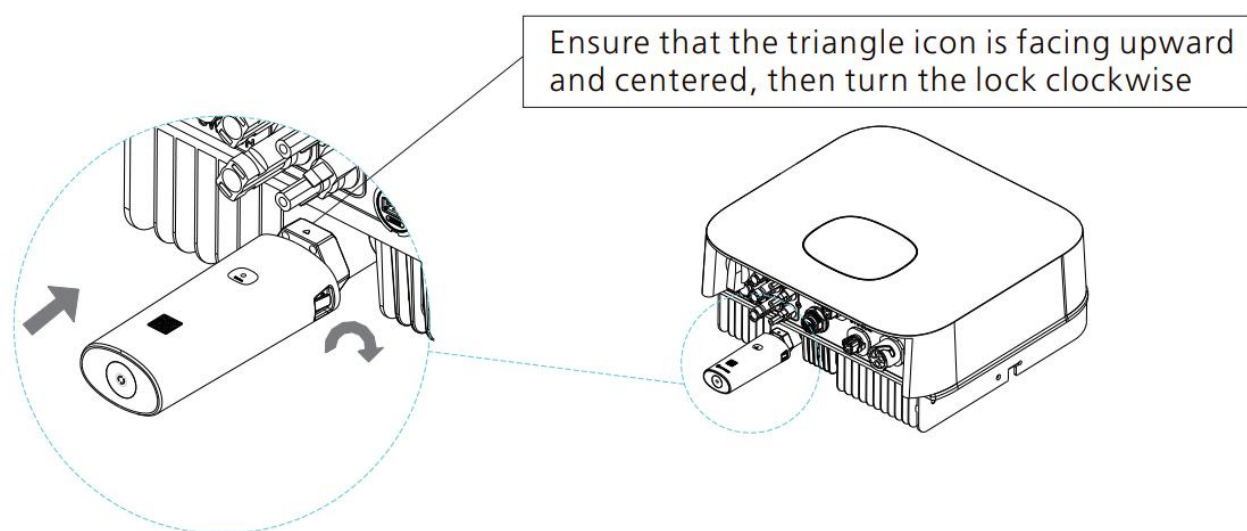


Figure 3 ShineRFStick-X2 slave mounting



CAUTION

1. This product can only be powered by the Growatt inverter USB interface. Do not connect other USB interfaces or adapters.
2. It is prohibited to use this device in places where wireless devices are not allowed.
3. Do not attempt to repair or modify the equipment. If you need service, please contact us.
4. When the inverter error panel displays low insulation impedance, the inverter casing may have a problem with grounding. Please do not perform the operation of plugging and unplugging the collector at this time to avoid danger.

4.2 Turning on the PV Device and Checking the Connection Status

After installing the ShineRFStick-X2 datalogger, turn on the inverter. If the indicator is steady blue, it indicates that the communication between the inverter and ShineRFStick-X2 is normal. The LED status meanings are shown below:

Indicator light status	Working state
Steady White	1.Initializing, please wait patiently for 30S. 2.Restore factory default settings (long press button 6S to take effect)
Steady Red	If the RF host is not connected and the photovoltaic device is not connected, please continue to follow the APP instructions of the RF host to add the device
Steady Green	If the photovoltaic equipment is not connected, please check whether the collector and inverter are connected normally. If the phenomenon persists after repeated plugging and unplugging, please contact Growatt customer service
Steady Blue	If no RF host is configured, perform RF pairing according to the host RF pairing process

Table 3 ShineRFStick-X2 Indicator light working status description

4.3 Datalogger configuration

ShineRFStick-X2 serves as an RF wireless slave. For the detailed RF pairing process, please refer to the corresponding RF host manual. Double-click the bottom button of ShineRFStick-X2, and the yellow indicator light will flash slowly to activate the RF pairing mode.

4.4 ShineRFStick-X2 Button Description

Button interaction behavior	Working state
Click	Enter Bluetooth mode, please follow the APP instructions to set up the process, if you do not need to set, please click the button to exit this mode
Double click	Enter RF pairing mode, please follow the instructions of the RF host APP to add devices
Long press	Long press 6S until the indicator light white light is always on, restore the factory default settings

Table 4 ShineRFStick-X2 Button working status description

4.5 Troubleshooting

LED status	Indication	Troubleshooting
Steady White	Initialized or in the state of restoring factory default settings	Wait for 30S initialization to complete
Steady Yellow	In Bluetooth mode	Please click the button to exit this mode
Yellow Flashing Slowly	RF pairing mode	Please follow the APP instructions of the RF host to add the device, no pairing is required, double-click the bottom button to exit pairing mode
Yellow Flashing	It is in upgrade mode.	Please wait patiently for the upgrade to complete.

Steady Red	If the RF host is not connected and the photovoltaic device is not connected	Please continue to follow the APP instructions of the RF host to add the device
Steady Green	If the photovoltaic equipment is not connected	please check whether the collector and inverter are connected normally. If the phenomenon persists after repeated plugging and unplugging, please contact Growatt customer service
Steady Blue	No RF host is configured	Perform RF pairing according to the host RF pairing process
Blue Flashing	Unable to connect to RF host, connected photovoltaic equipment/RF equipment	1. Please check if the host is powered on/online 2. Please check whether the leader/follower is within the recommended distance range 3. Please check whether the host antenna is damaged 4. If it appears repeatedly, please contact Growatt customer service
Blue Flashing Slowly	Connected to RF host, connected to photovoltaic equipment/RF equipment	In normal working mode
Attention: Slow flash frequency 1S, flash frequency 0.5S		

Table 5 ShineRFStick-X2 Troubleshooting based on the indicator statu

5 Specification

Type	Item		Parameter
Common parameters	Appearance (length/width/height)		122mm/47mm/32mm
	Weight		65g
	User manual language		English
	Protection level		IP65
	Installation		USB straight plug
	Certification		CE/ROHS
Electrical parameters	Working voltage		5V(+/-5%)
	Working current		500mA
	Average power consumption (MAX)		2W(2.5W)
	Elevation		≤3000m
	Working environment	Working temperature	-30~60°C
		Working humidity	< 85% RH (No condensation)
		Storage temperature	-40~70°C
Common parameters	RF		1. Frequency range: 860~ 930MHz (868/915MHz RF) 2. Maximum transmit power: 868MHz 14dBm/915MHz 17dBm 3. Maximum transmission distance: 120m (depending on the installation

		environment)
	User configuration interface	APP configuration
	Data upload cycle	5Min
	Communication protocol with photovoltaic equipment	ModBus RTU

Table 6 ShineRFStick-X2 Product specifications

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 en.growatt.com

7 Contact



Shenzhen Growatt New Energy Co., Ltd.

4-13/F, Building A, Sino-German (Europe) Industrial Park,
Hangcheng Ave, Bao'an District, Shenzhen, China

E-mail: service@growatt.com

Website: en.growatt.com

For local customer support, please visit

<https://en.growatt.com/support/contact>



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