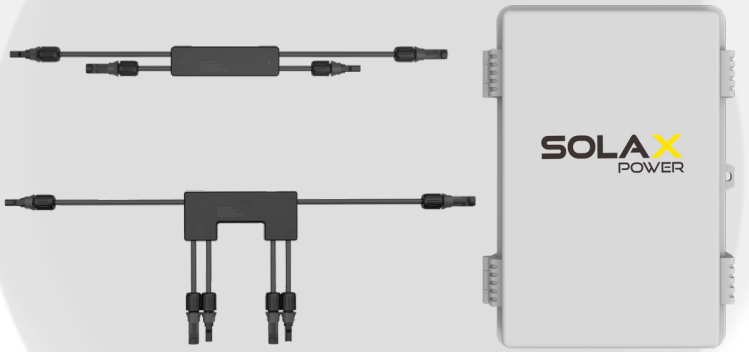

Rapid Shutdown

XRSD-1C/XRSD-2C XRSD-Core Kit

User Manual

Version 2.0

www.solaxpower.com

eManual in the QR code or
at http://kb.solaxpower.com/

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About This Manual

Scope of Validity

This manual is an integral part of the SolaX XRSD-1C/2C and XRSD-Core Kit. It describes the detailed information, installation,and usage of the product. Please read it carefully before operating.

XRSD (SolaX Rapid Shutdown Device)	XRSD-1C*1
	XRSD-2C*1
Transmitter Kit	XRSD-Core Kit*2

Note:

*1 "1C" means one input. "2C" means two inputs.

*2 XRSD-Core Kit includes an outdoor enclosure, an 85~264V power supply, a transmitter, a SolaX module-level monitoring dongle(optional), and one core (two cores are optional).

Target Group

The installation, maintenance and grid-related setting can only be performed by qualified personnel who

- Are licensed and/or satisfy state and local jurisdiction regulations.
- Have good knowledge of this manual and other related documents.

Conventions

The symbols that may be found in this manual are defined as follows.

Symbol	Description
DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION!	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE!	Provides tips for the optimal operation of the product.

Change History

Version 2.0 (2024/09/20)

Update "3.4 XRSD Installation"(Added recommended models of PV module connectors.)
Update "Contact Information"(Modified Australia email address.)

Version 1.0 (2024/07/25)

Update "3.4 XRSD Installation" (Modify the location of serial number label)

Version 0.0 (2024/05/10)

Initial release

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1 Safety

1.1 General Safety

Safety precautions must be strictly observed and followed to reduce the risk of personal injury and ensure a safe installation.

Before installing the device, carefully read, fully understand, and strictly follow the detailed instructions of the user manual, related sections of your inverter manual, and other regulations. And the safety instructions in this document are only supplements to local laws and regulations.

SolaX shall not be liable for any consequences caused by the violation of the storage, transportation, installation, and operation regulations specified in this document, including, but not limited to:

- Product damage due to force majeure, such as an earthquake, flooding, thunderstorm, lighting, fire hazard, volcanic eruption, etc.
- Product damage due to man-made causes
- Product used or operated against any items in local policy
- Failure to follow the operation instructions and safety precautions on the product and in this document
- Not install and operate within the 6 Technical Data (P43) listed in their datasheets.
- Unauthorized modifications to the product or software
- Product damage caused during transportation by the customer
- Installation and commissioning are operated by unauthorized personnel who are not licensed and/or satisfy state and local jurisdiction regulations.

1.2 Safety Instructions

Please read these instructions carefully, and use this product correctly and safely. After reading, please keep these instructions in a safe place

DANGER!

- When exposed to sunlight, high DC voltage will be generated by PV modules. Death or lethal injuries will occur due to electric shock.
- Do not attempt to install in inclement weather.
- The installation, wiring, or maintenance of the XRSD and XRSD-Core Kit can only be performed by qualified and experienced electricians.
- In order to avoid electric shock, do not open the enclosure of the XRSD. And the disassembly or maintenance of this product must be operated by a qualified person.
- Please perform all electrical installations in accordance with local codes.
- Use insulated tools when installing the device. Individual protective tools must be worn during installation, electrical connection, and maintenance.
- Do not touch non-insulated parts or cables.
- Do not install the XRSD in the situation of having been physically damaged or meeting the wiring standards any more.
- Do not use connectors from different manufacturers for risks of burns can be produced due to incompatible connectors.

DANGER!

- Do not connect or disconnect the XRSD while the inverter is running. And turning off the inverter and/or the XRSD products may not reduce this risk. After disconnecting all power sources, internal capacitors within the inverter can remain charged for several minutes.
- If service is required, verify capacitors have discharged by measuring a voltage across inverter terminals before disconnecting wiring.
- After rapid shutdown activation, wait 30 seconds before disconnecting DC cables or turning off DC disconnect switch.
- Do not disconnect the PV module from the XRSD without first disconnecting the AC power of the XRSD-Core Kit.
- Make sure that the emergency stop button is pressed to cut off the AC power during installation.
- The power supply of the XRSD-Core Kit MUST be on the same AC branch circuit as the inverter in order to meet the rapid shutdown requirement.

WARNING!

- Do not touch the XRSD when it is running. Surface high temperature may cause burns or personal injury.
- Do not attempt to repair the device if it is not working properly, please contact the SolaX Customer Support team. Any attempt to repair the XRSD will automatically void the warranty.

CAUTION!

Keep the products away from children.

NOTICE!

All the labels and nameplate on the product shall be maintained clearly visible.

2 Product Overview

2.1 System Description

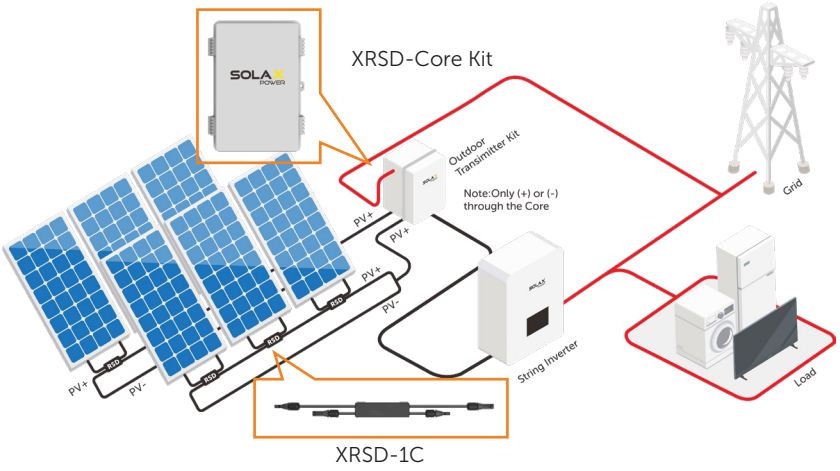


Figure 2-1 Enables rapid shutdown

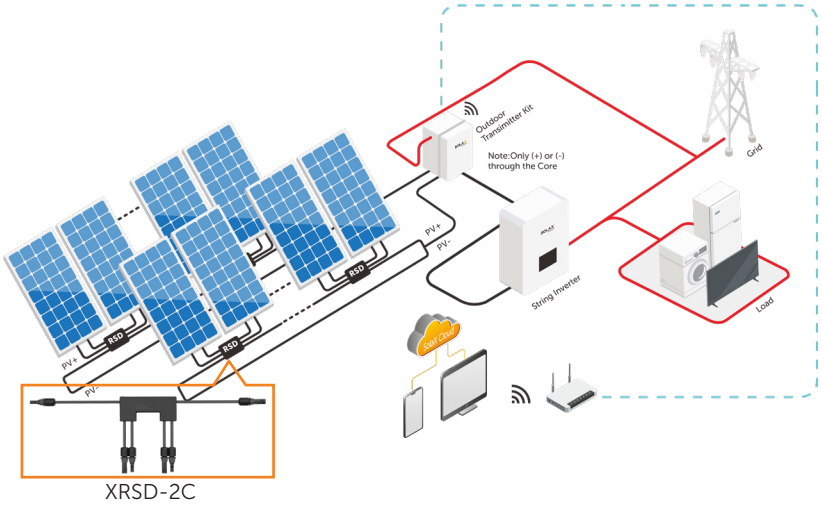


Figure 2-2 Enables rapid shutdown and monitoring
(Be equipped with SolaX Pocket WIFI+LAN)

The XRSD is part of the rapid shutdown solution when paired with the XRSD-Core Kit.

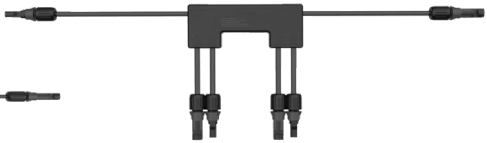
The XRSD-Core Kit is installed in line with a solar PV inverter.It continuously sends a 'keep-alive' signal to the XRSD, ensuring a stable connection between the PV modules and the inverters. When XRSD receive an uninterrupted 'keep-alive' signal from the XRSD-Core Kit, they will operate the PV system as expected.

However, when power to the XRSD-Core Kit having been cut, this signal will cease and send every XRSD into shutdown mode to ensure system safety.

In this way, once the AC power supply of the XRSD-Core Kit is lost, the PV array enters rapid shutdown.

2.2 XRSD

XRSD-1C



XRSD-2C

As part of the SolaX rapid shutdown solution for PV system, XRSD-1C can be connected to one PV module while XRSD-2C can be connected to two.

Highlights

- Meets NEC2017&NEC2020 690.12 requirements
- One or two inputs, Max. PV input current 20A
- PLC communication, rapid shutdown, and module-level monitoring with the SolaX Pocket WiFi+LAN
- Clip installation design, simple and convenient
- Lower power consumption and wider operating voltage range
- IP68 protection, long life cycle
- High security: overvoltage protection, overcurrent protection, overtemperature protection

2.3 XRSD-Core Kit

The XRSD-Core Kit, in tandem with XRSD,forms a crucial segment of the SOLAX rapid shutdown system. It includes an outdoor enclosure, an 85~264V power supply, a transmitter, a SolaX module-level monitoring dongle (optioanl), and one core (two cores are optional).

Highlights

- Meets NEC2017&NEC2020 (690.12)
- Realize rapid shutdown by simply powering off the XRSD-Core Kit or using enclosure external initiator
- Equipped with one or two cores (two cores are optional)
- IP65 protection
- Built in monitoring dongle,use SMART Website & App to access module-level data anywhere (Optional)

2.4 Symbols on the Device

The information on the device includes technical data and serial number of the device. Safety instructions on the label are listed and explained below :

Table 2-1 Description of symbols

Symbol	Description
	Danger of high voltages. Danger to life due to high voltages in the inverter!
	Danger. Risk of electric shock!
	Observe enclosed documentation.
	Double insulation symbol The device does not require a safety connection to electrical earth (ground).
	CE mark. The device complies with the requirementsof the applicable CE guidelines.
	The device can not be disposed together with the household waste. Disposal information can be found in the enclosed documentation.

3 Installation

3.1 Safety Precautions

- Do not attempt to install in inclement weather.
- Only qualified personnel can perform the mechanical installation.
- Perform all electrical installations in accordance with local codes.
- Be equipped with individual protective tools and insulated tools when installing the XRSD and XRSD-Core Kit.
- Before installing or using XRSD, please read all instructions and warnings in the user manual, on the inverter system, and on the PV array.
- Follow the installation steps sequence to install. Damage caused by improper installation will not covered by warranty.
- Make sure the voltage, current and power specification of PV modules match the XRSD specifications.
- The maximum open circuit voltage of the PV module must not exceed the specified maximum input voltage of the XRSD.
- Never apply an external voltage source to a module or string that is equipped with XRSD.
- Connect XRSD to its respective modules before connecting its outputs in series.
- Install XRSD before powering on the XRSD-Core Kit.
- If parallel string connections are needed, first connect the XRSD to the PV modules, then connect all outputs of XRSD in series, and finally pass one side (+ or -) of the string through the transmitter to turn the system ON.
- Do not touch any live parts in the system, including the PV array, when the system has been connected to the electrical grid.

- After installing XRSD and XRSD-Core Kit, place the rapid shutdown system label within 1m of the emergency stop button or AC disconnect.

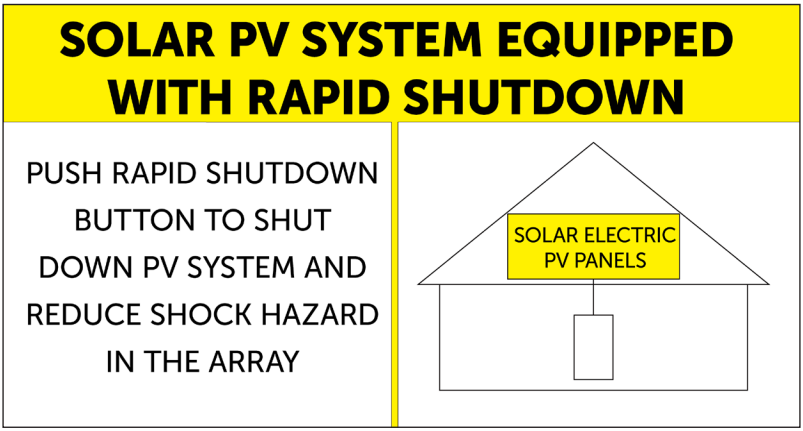
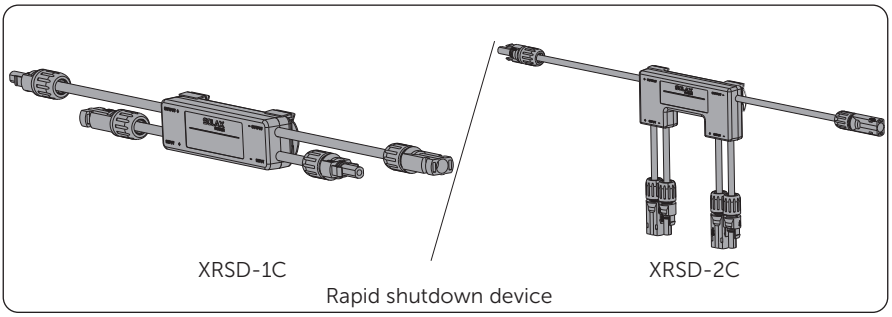


Figure 3-1 Rapid shutdown system label

3.2 Scope of Delivery

XRSD



Rapid shutdown device

* Refer to the actual purchase quantity.

XRSD-Core Kit

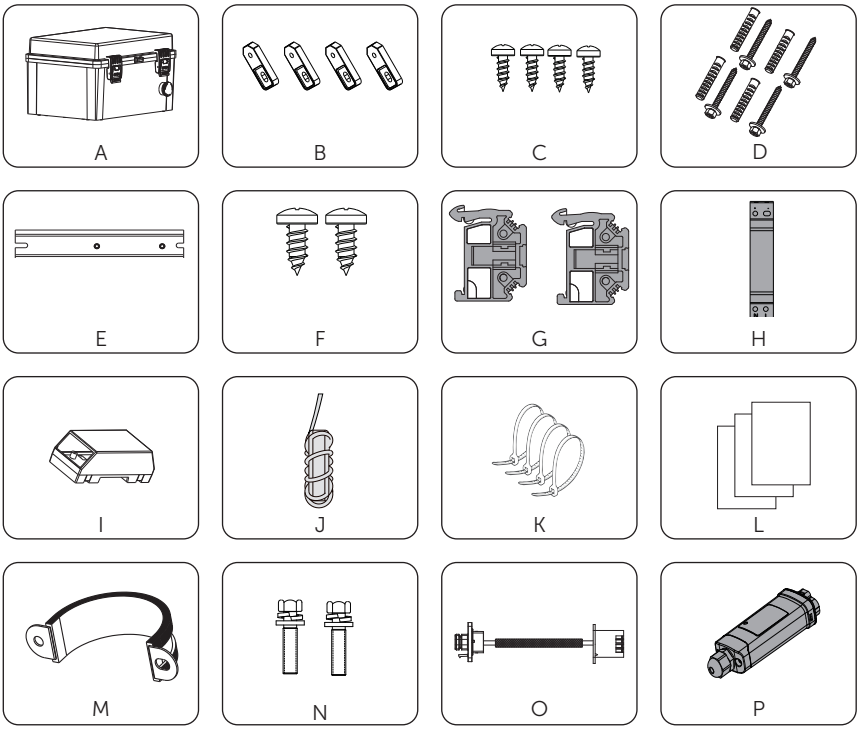


Table 3-1 XRSD-Core Kit Packing list

	Item	Description	Quantity	Remark
	A	Outdoor enclosure	1 pcs	
	B	Mounting lugs	4 pcs	For wall-mounting instalation
	C	Round head screws	4 pcs	
	D	Plastic wall anchor & Self-Tapping screw	4 pairs	
	E	DIN35 rail	1 pcs	
	F	M4.8*L10 screw	2 pcs	For securing DIN35 rail
	G	Clamps	2 pcs	
	H	AC power Supply	1 pcs	
	I	Transmitter	1 pcs	
	J	Core	1/2 pcs(optional)	
	K	Zip ties	4 pcs	
	L	Documents	/	
Optional	M	Pipe strap	1 pcs	For securing SolaX Pocket WiFi+LAN
Optional	N	M4*L16 screw	2 pcs	
Optional	O	Signal cable	1 pcs	For transmitter and SolaX Pocket WiFi+LAN connection
Optional	P	SolaX Pocket WiFi+LAN	1 pcs	

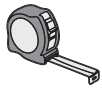
* Refer to the actual delivery for the optional accessories.

3.3 Tools Requirement

Installation tools include but are not limited to the following recommended ones. If necessary, use other auxiliary tools on site.

Torque screwdriver
(Phillips head: PH2)

Step drill bit

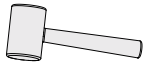

Measuring tape

Utility knife

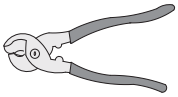
Hammer drill
(drill bit: Ø10 mm)

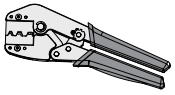
Marker

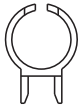
Spirit level


Rubber mallet

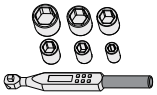
Wire stripper

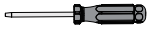

Wire cutter

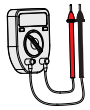

Crimping tool for PV terminals


PV connector disconnect tool

Crimping tool for RJ45


Torque wrench
(Including 16 mm wrench)

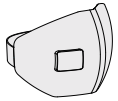

Flat-head screwdriver


Multimeter
(⩾ 1100 V DC)

Safety gloves

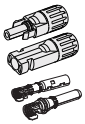
Safety boots

Safety goggles


Anti-dust mask

Additionally Required Materials

Table 3-2 Additionally required wires

No.	Required Material		Type	Quantity
1	PV cable		According to the inverter type	/
2	MC4 PV Connector		match with PV cable of inverter	/
3	Waterproof connectors with corrugated pipe		M12(for power cable port)	1 pcs
			M12(for Ethernet cable port)	1 pcs*1
			M25/ M32*2	2 pcs (single core)
				4 pcs (dual core)
4	power cable of XRSD-Core Kit		2 Core, 0.5 A Conductor diameter:24 AWG Overall diameter:match with waterproof connectors	/

*1 It is only required when the monitoring dongle (optional) is selected and a LAN connection is used. No need to prepare for Wi-Fi connection.

*2 M25: Max. Number of Strings- 2.5
M32: Max. Number of Strings- 5

3.4 XRSD Installation

⚠ WARNING!

- Make sure that the PV system is powered off.
- When installing XRSD, connect the input cables to the PV module before connecting the XRSD output cables in series.
- When disconnect XRSD, disconnect XRSD outpout cables from a string before disconnecting the XRSD input cables from the module junction box.
- Connectors from different manufacturers cannot be mated with each other.

NOTICE!

- Do not place the XRSD (including DC connectors) where exposed to the sun, rain or snow, even gap between modules.
- Allow a minimum of 1.5 cm of space between the roof and the XRSD enclosure in order to ensure ventilation and heat dissipation.
- Recommended model for PV module connectors:
  Dian Wei Electronic Technology (Vaconn Interconnection Solution)
  VP-D4B-CTSF4
  VP-D4B-CTSM4
  We are not responsible for any problems caused by using other models.

XRSD-1C

Figure 3-2 XRSD-1C terminal

Step 1: Remove the serial number label on the machine package and attach it on the corresponding position on the installation map, which is used to model the physical layout of the roof module.

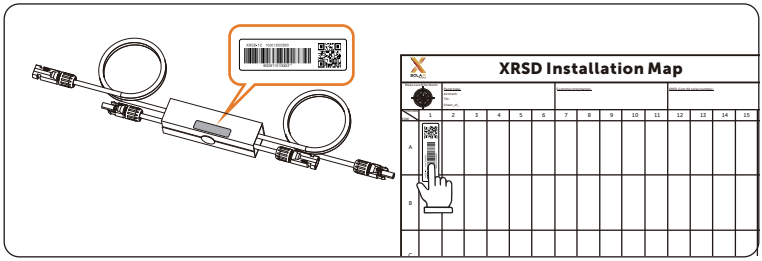


Figure 3-3 Stick the serial number label on the installation map

Step 2: Install XRSD on the frame of the PV module with mounting brackets.

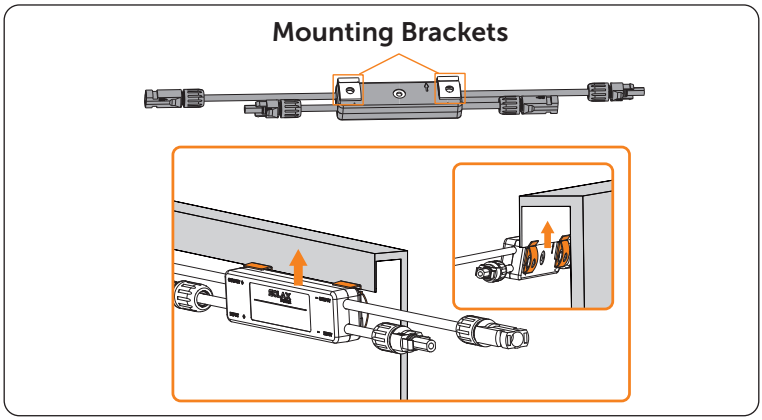


Figure 3-4 Buckle XRSD on the PV module frame

Step 3: Connect PV modules to XRSD inputs. Each XRSD must have a PV module connected to its inputs.
You can use the DC extension cabel if necessary.

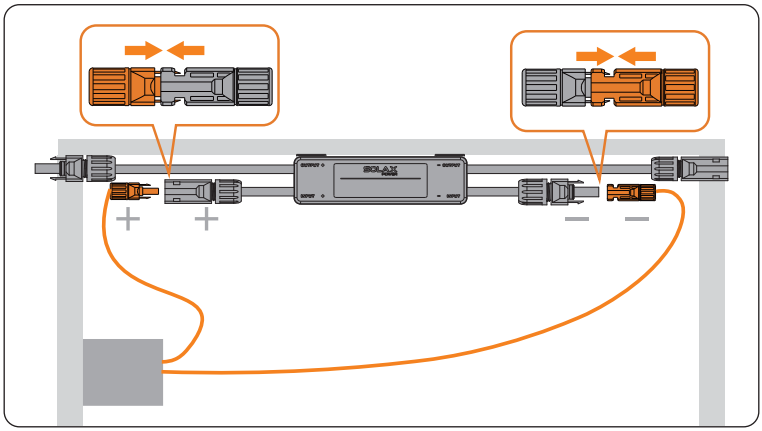


Figure 3-5 Connect PV modules to XRSD inputs

Step 4: Use a multimeter to measure the XRSD-1C output voltage. The output voltage should be 0.2~1.5V.

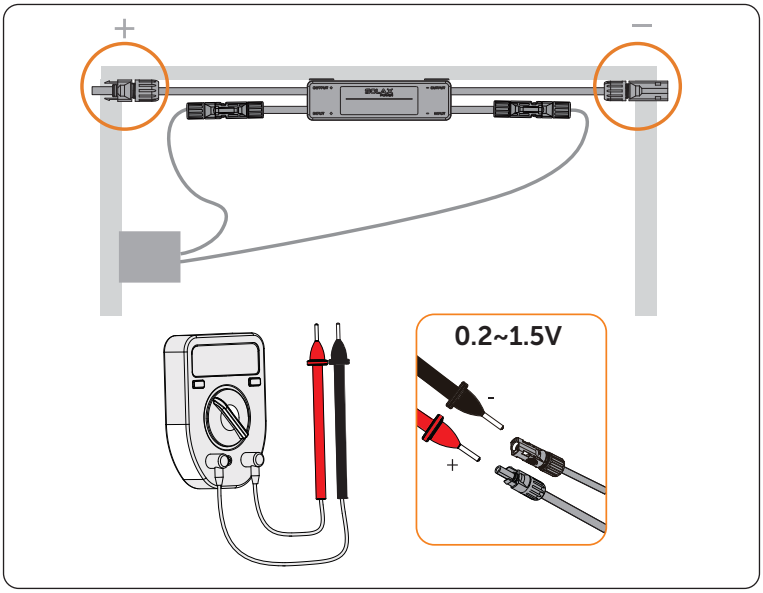


Figure 3-6 Measure the XRSD-1C output positive/negative voltage

Step 5: Connect the output of two adjacent XRSDs together.

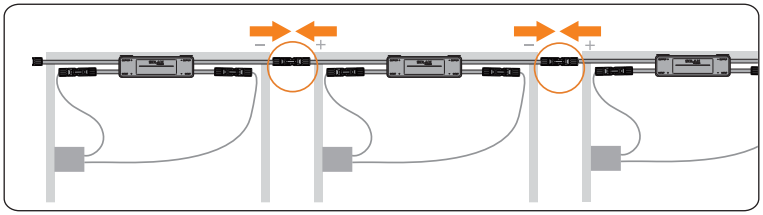


Figure 3-7 Connect XRSD outputs in series

XRSD-2C

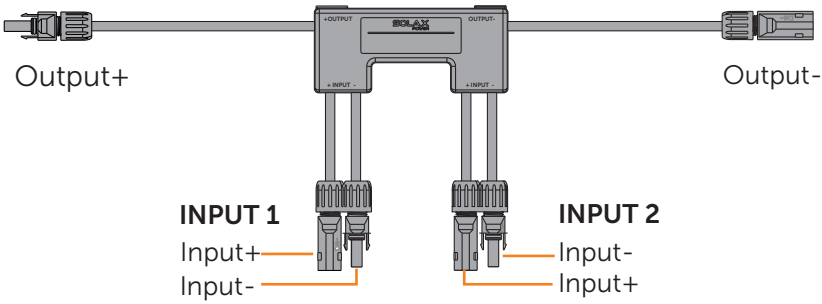


Figure 3-8 XRSD-1C terminal

Step 1: Remove the serial number label on the machine package and attach it on the corresponding position on the installation map, which is used to model the physical layout of the roof module.

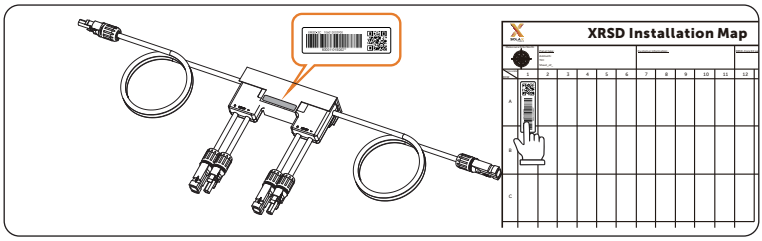


Figure 3-9 Stick the serial number label on the installation map

Step 2: Install XRSD on the frame of the PV module with mounting brackets.

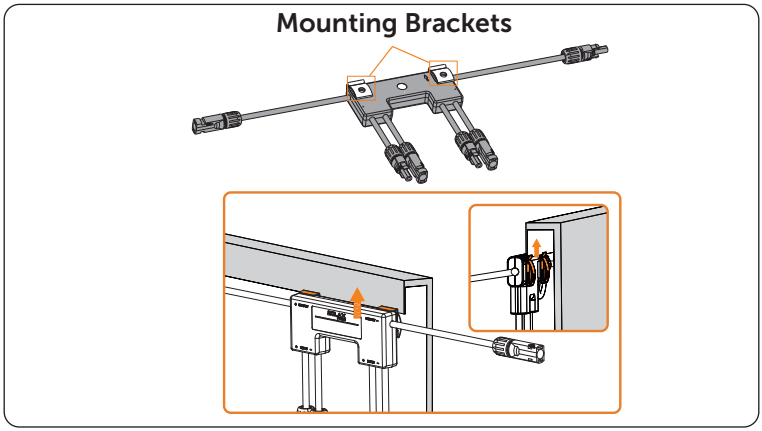


Figure 3-10 Buckle XRSD on the PV module frame

Step 3: Connect modules to XRSD inputs. Each XRSD must have a PV module connected to its inputs.
You can use the DC extension cabel if necessary.

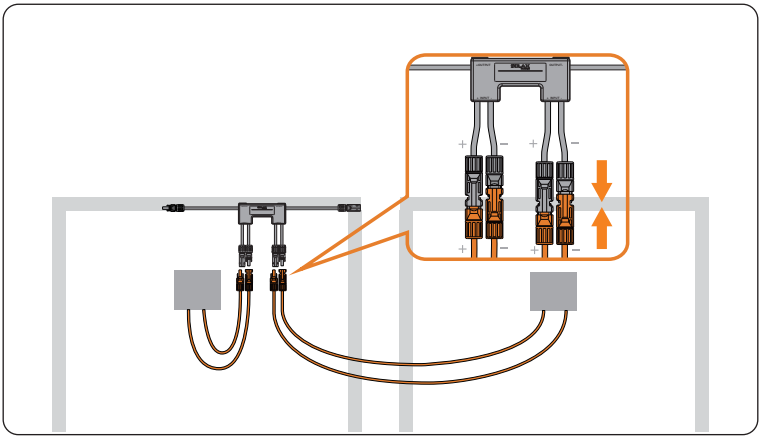


Figure 3-11 Connect PV modules to XRSD inputs

Step 4: Use a multimeter to measure the XRSD-2C output voltage. The output voltage should be 0.2~1.5V.

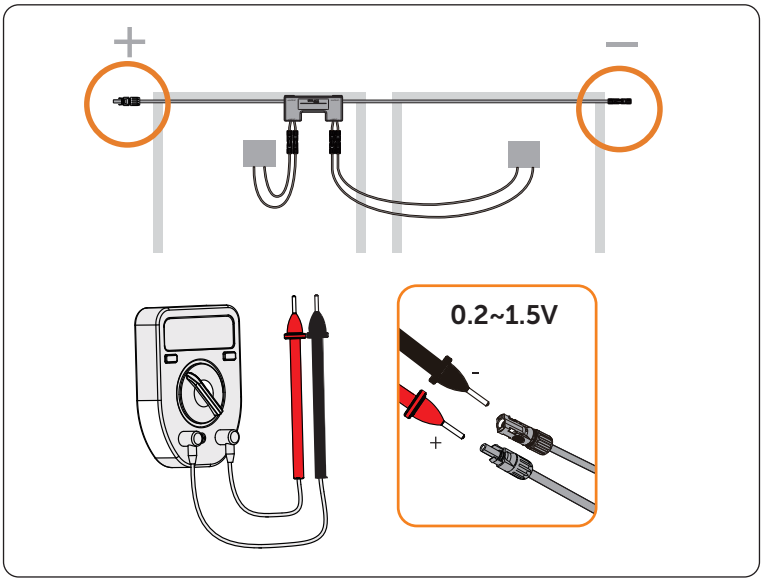


Figure 3-12 Measure the XRSD-2C output positive/negative voltage

Step 5: Connect the output of two adjacent XRSDs together.

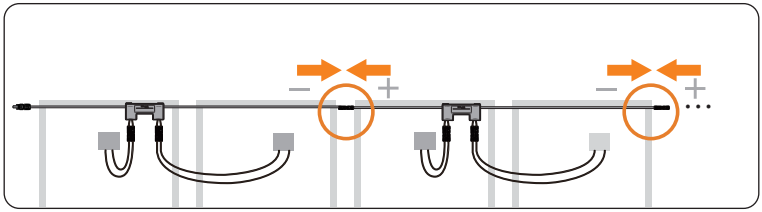


Figure 3-13 Connect XRSD outputs in series

3.5 XRSD-Core Kit Installation

XRSD-Core Kit box drilling

Step 1: Drill holes on the sides of the enclosure by using the drilling template. For detailed size please refer to "3.6 Conduit Drilling Guide"
Remove burrs after drilling holes.

Step 2: Install the waterproof connectors to ensure the safety of the box.

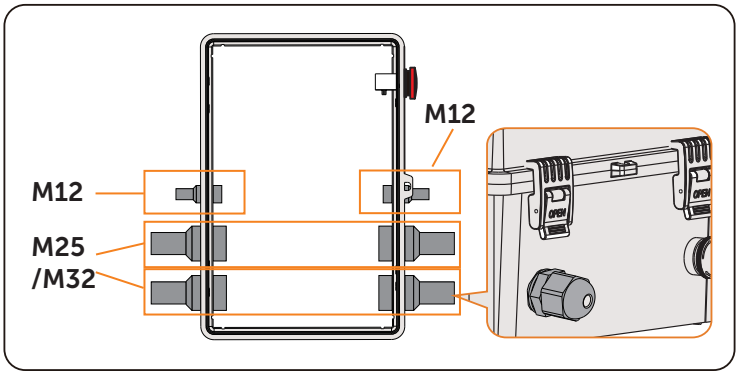


Figure 3-14 Install waterproof connectors

Step 3: Fix the mounting lugs with round head screws at the four corners of the box.

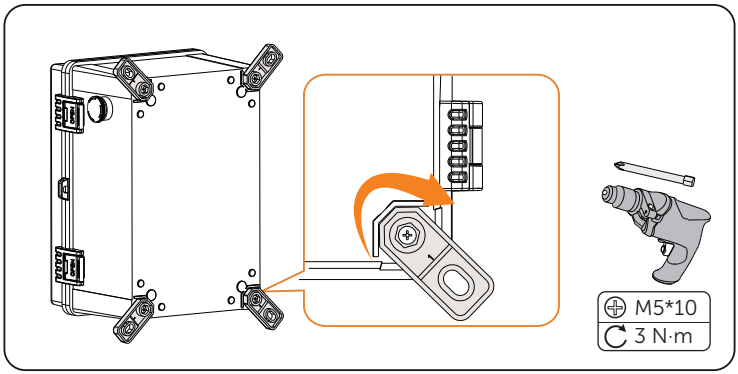
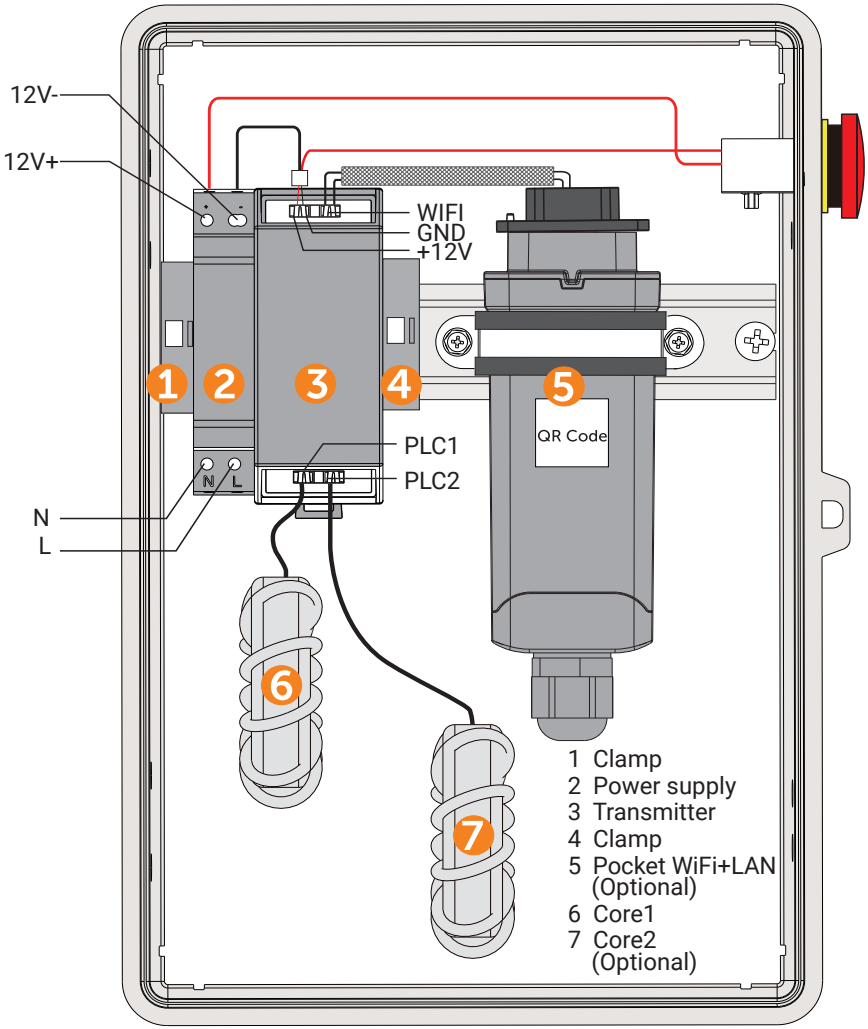


Figure 3-15 Fix mounting lugs with round head screws

Box inside installation



Connection diagram

* The illustrations in this manual all include an optional monitoring dongle.

Step 4: Fix the DIN rail onto **the second row** from the top.

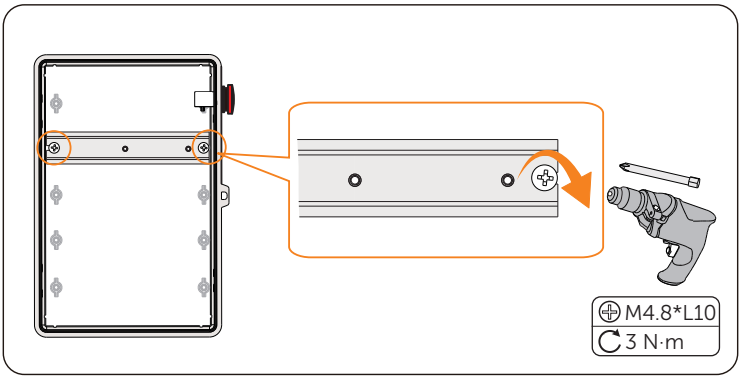


Figure 3-16 Fix DIN rail

Step 5: Mount AC power supply, transmitter, SolaX Pocket WiFi+Lan, and cores on DIN rail in the following order.

1) Fix a clamp at the left ends of the rail, then use a one-screwdriver to cock the edge of the clamp and snap it into the rail slot.

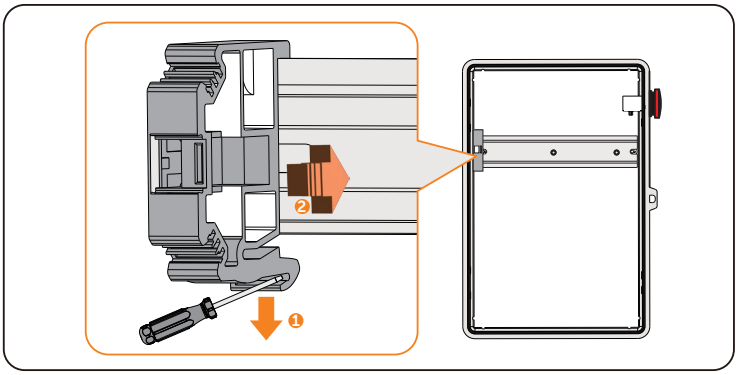


Figure 3-17 Fix clamp

2) Pull down the bottom latch of the power supply.
Attach the power supply to the rail and push the latch back.

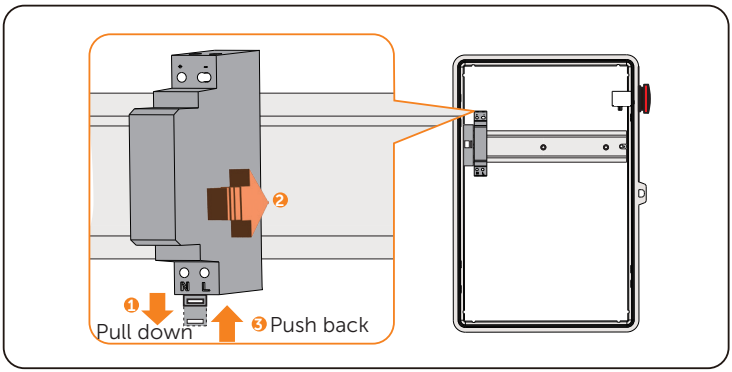


Figure 3-18 Fix power supply

3) Pull down the latch of transmitter.
After fixing the transmitter to the rail, push the latch back.
Install anothor clamp next to the transmitter.

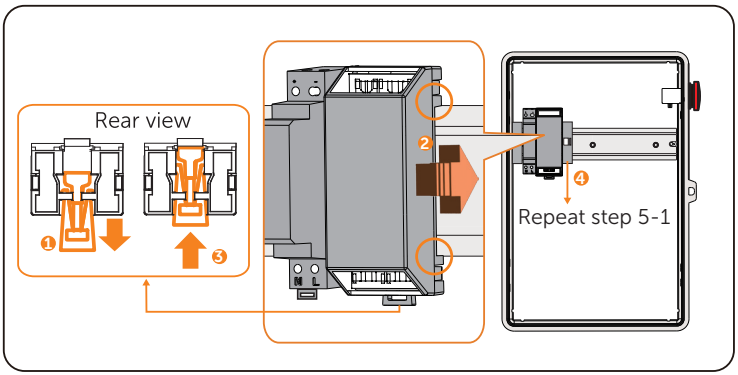


Figure 3-19 Fix transmitter and clamp

4) Assemble the module according to the *SolaX Pocket WiFi+LAN Series Installation Manual*, and then mount it on the Din rail. Insert the M4*L16 screws into the holes on both sides of the pipe strap, then use a cross-screwdriver to fix the screws on the rail.

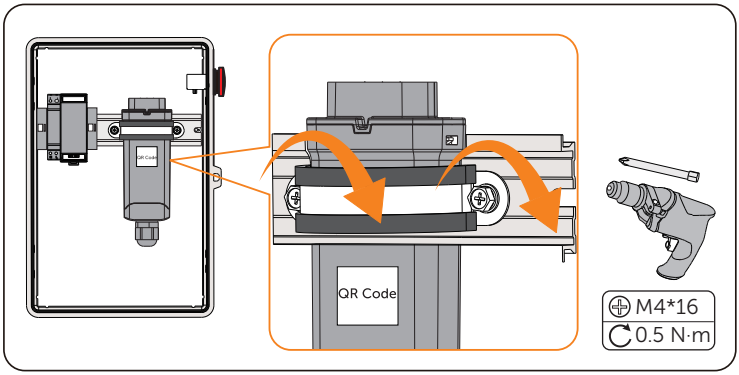


Figure 3-20 Fix monitoring dongle

NOTICE!

- Please display the QR code on the monitoring dongle for easy scanning.
- Make sure to tighten screws twice (or more): temporary tightening and final tightening.

5) Insert the cores into the bottom of the transmitter until you hear a "click". If there is only single core , connect Core 1 to PLC1 first.

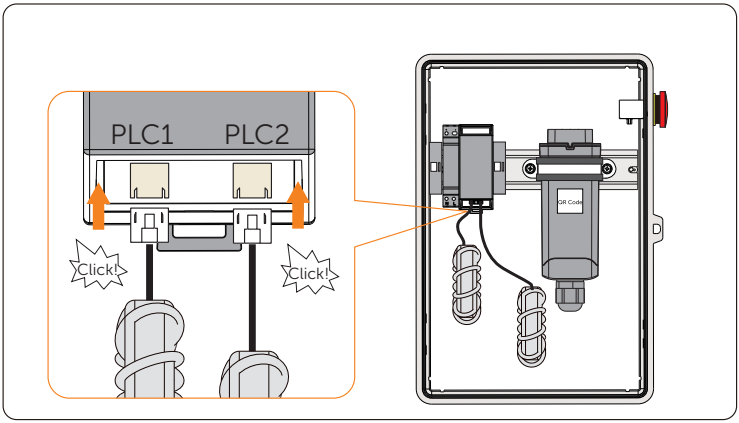


Figure 3-21 Insert the cores

Step 6: Connect the emergency stop switch wire to the power supply and fix it to the rail. Then secure the wires with a flat-head screwdriver.
red/black wire — Power supply "+"/"-" port
plastic terminal — Transmitter "+12V-GND" port（Align the red wire with the "+12V" port and the black wire with the "GND" port.）

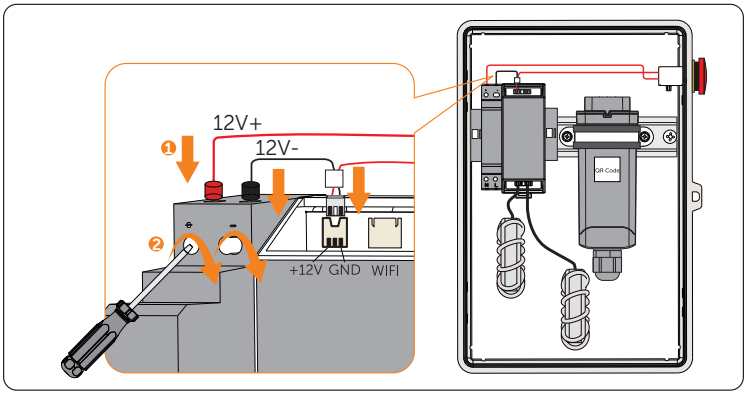


Figure 3-22 Connect emergency stop switch wire

Step 7: Use the signal cable to connect the transmitter's "Wi-Fi" port and the SolaX Pocket WiFi+LAN.

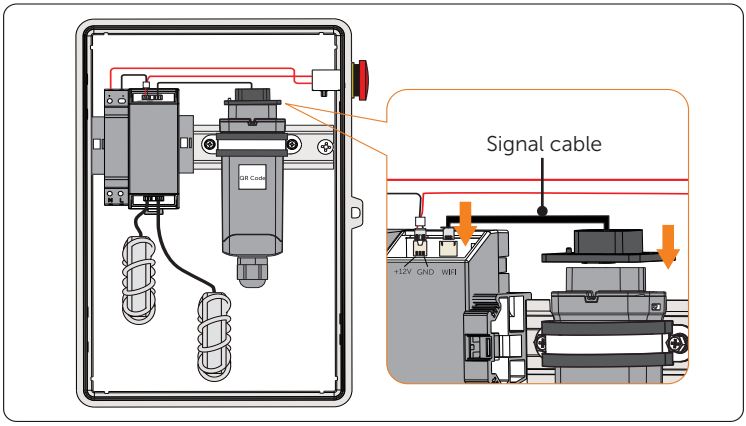


Figure 3-23 Connect transmitter and monitoring dongle

Wall mounting

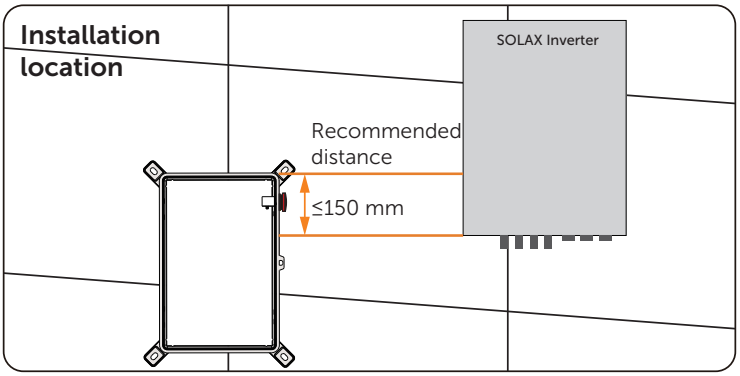
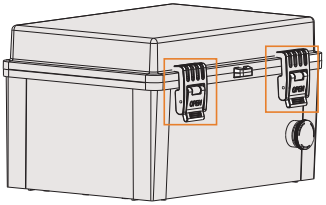


Figure 3-24 Recommended installation distance

Step 8: Lock the XRSD-Core Kit box.
Align the enclosure horizontally on the wall with spirit level: adjust the enclosure until the bubble stays in the middle.
Mark the position of the drill holes.



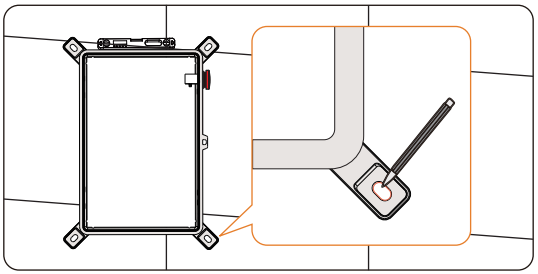


Figure 3-25 Mark the holes of XRSD-Core Kit box

Step 9: Set the enclosure aside and drill holes.(Drill bit:Ø10; Depth:60-80mm) Insert the expansion bolt into holes by using a rubber mallet.

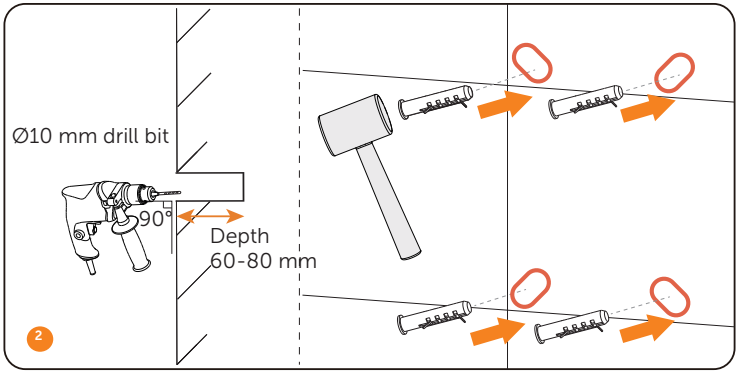


Figure 3-26 Drill the holes

Step 10: Use a torque wrench to secure the enclosure to the wall with expansion bolts.

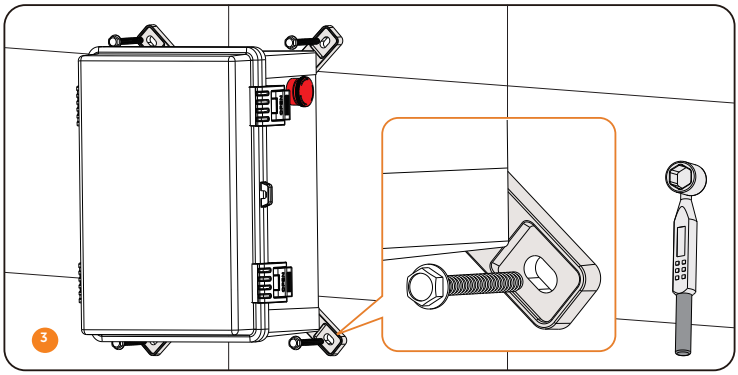
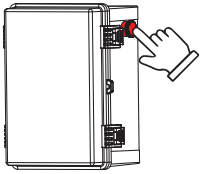


Figure 3-27 Secure the expansion bolts

Wire connection



DANGER!

Press the emergency stop button to cut off the AC power before wire connection.

Step 11: Pull the PV cable through a corrugated pipe into the box.

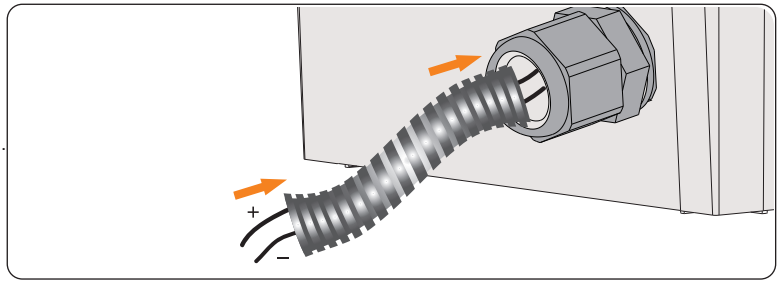


Figure 3-28 Pull the PV cable through corrugated pipe

Step 12: Connect wires to N,L port of power supply from grid or inverter. Pass the same positive PV cable(+) **or** the same negative PV cable(-) through cores. Then run the PV cables through the box to the inverter.

NOTICE!

For SolaX Energy storage inverter, connect AC wires from **EPS terminal**.

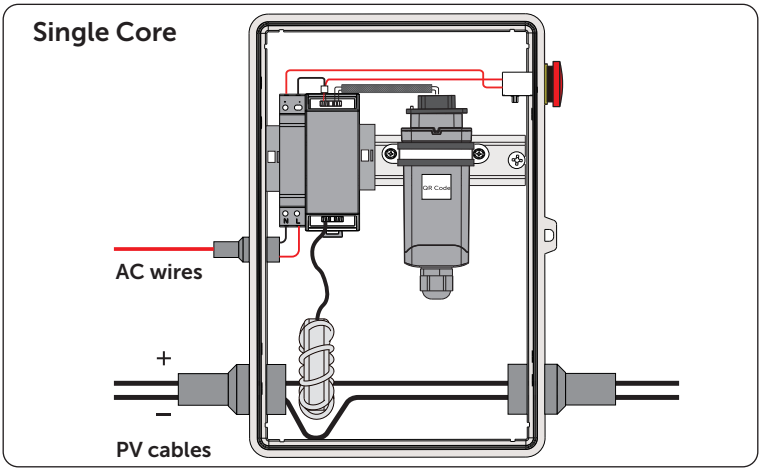


Figure 3-29 ingle Core-cable connect

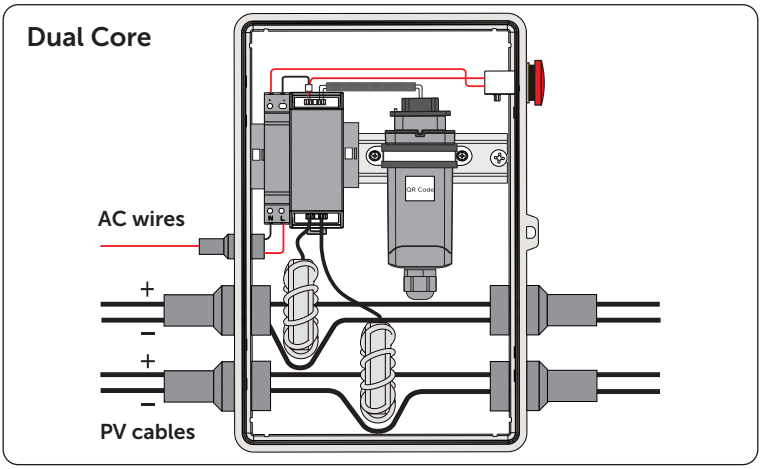


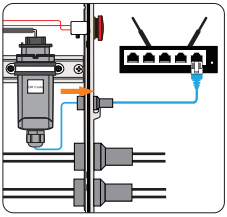
Figure 3-30 Dual cores-cable connect

NOTICE!

If the number of PV strings exceeds 10, do not pass PV cable (-) through the box, connect it to the inverter from outside the box.

NOTICE!

If you select the optional monitoring dongle and a LAN connection is used, pull another side of the network cable out of the box, crimp RJ45 connector and connect to router.



Step 13: Strip the 7mm insulation of the PV cables and insert the stripped cable into the PV pin contact. Crimp it with crimping tool for PV terminal.

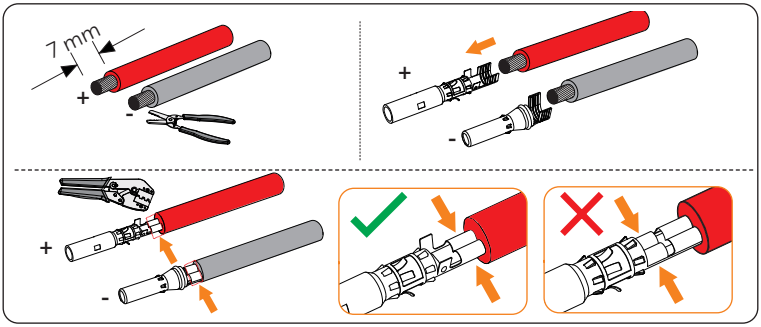
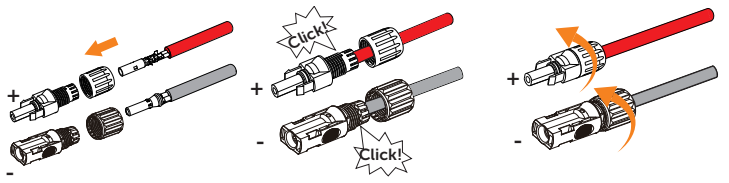


Figure 3-31 Stripping the PV cable and insert to PV pin contact

Step 14: Make the MC4 connector for PV cables.



Thread the PV cable through swivel nut and insert into the PV connector.
A "Click" will be heard if it is connected correctly.
Gently pull the cable backwardto ensure firm connection.
Tighten the swivel nut clockwise.

Figure 3-32 Making MC4 connectors

CAUTION!

Make sure the the PV cable and PV pin contact are of the same polarity.

Step 15: Connect the serially connected outputs of XRSD to the inverter with the assembled connectors until there is an audible "Click".

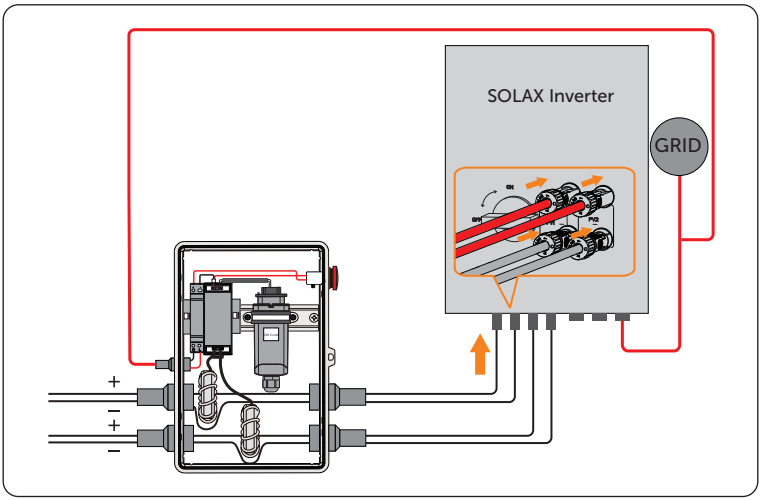


Figure 3-33 Connect outputs of XRSD to the inverter

NOTICE!

Max cable length from inverter(+) to inverter(-) : 200m

Commissioning

Step 1: Release the emergency stop button to turn on the AC power.

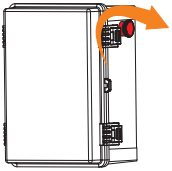


Figure 3-34 Twist emergency stop button

Step 2: Turn the DC switch of the inverter to ON positon.

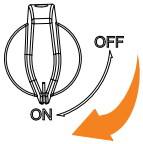
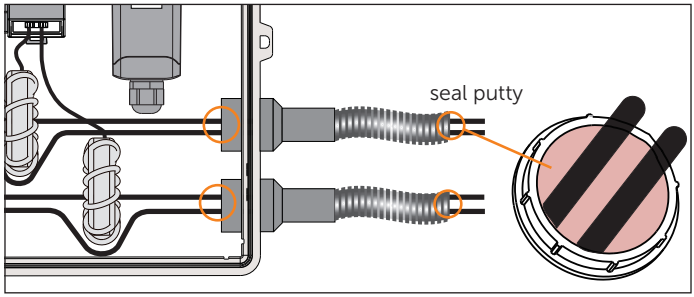


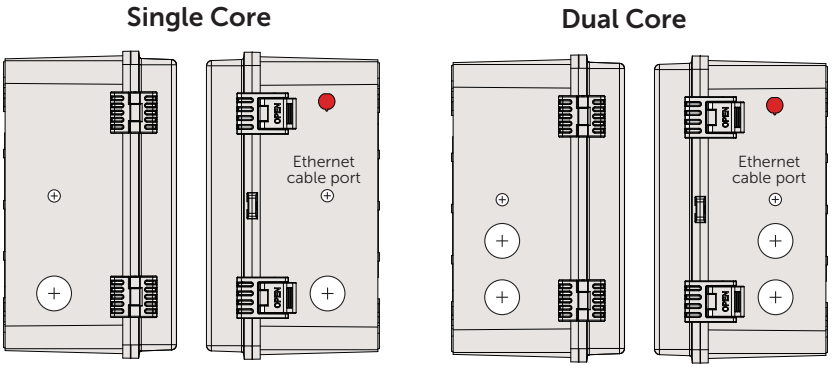
Figure 3-35 Turning on the DC switch

Step 3: After waiting for about 1 minute, please check the voltage of the series circuit displayed on the inverter. The voltage should be module open circuit voltage* the number of modules.

NOTICE!
After installing XRSD and XRSD-Core Kit, fill gaps around pipes both outside and inside with seal putty.



3.6 Conduit Drilling Guide



NOTICE!

Ethernet cable port is only required when the monitoring dongle (optional) is selected and a LAN connection is used.

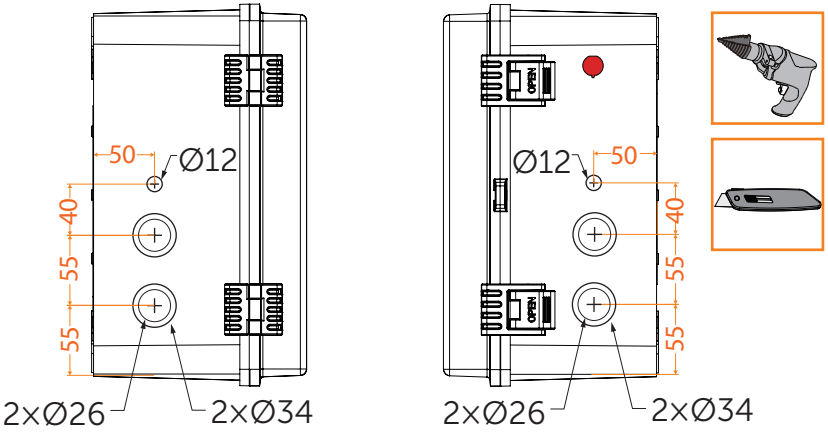


Figure 3-36 Drilling Guide for 1"and .75'' Conduit

4 Remote monitoring

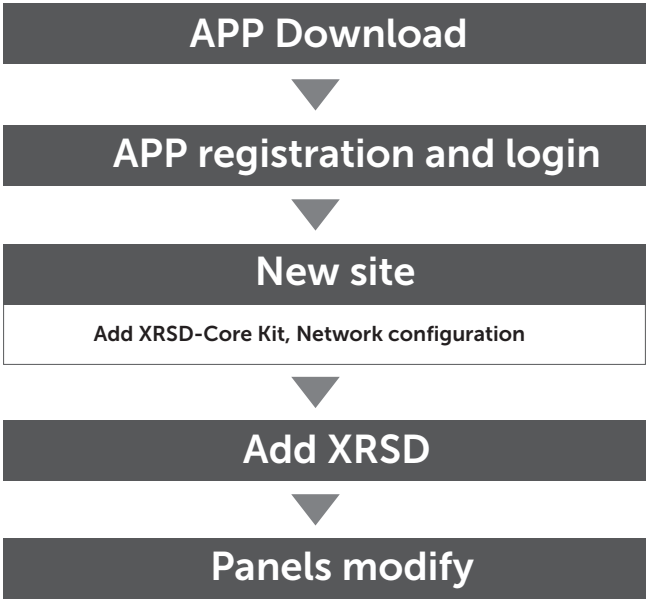
* The following content applies to the XRSD-Core Kit with monitoring dongle.

SolaxCloud is an intelligent management platform for home energy, which integrates energy efficiency monitoring, device management, data security communication and other integrated capabilities.

The XRSD-Core Kit, equipped with Pocket WiFi+LAN, can upload operation data to the SolaX Cloud through a WiFi or LAN network connection. You can log in to your user account to view real-time monitoring data or historical data, and perform remote settings as needed.

CAUTION!
The Pocket WiFi+LAN in XRSD-Core Kit and the module dongle on the SOLAX inverter have similar appearances. Do not mix them.

Operation flowchart:



* The instructions and screenshots in this manual are taken only as examples, which may be slightly different from the actual display.

4.1 Downloading and installing SolaX Cloud App

Select and scan the QR code below to download SolaX Cloud APP. You can also find the QR codes at the top left of the login page of www.solaxcloud.com. In addition, you can search with the key word SolaxCloud in Apple Store or Google Play to download it.

Figure 4-1 QR code

4.2 App Registration and Login

Run the App and touch **Sign up** at the bottom. Fill in your registration Email, verification code, and password to create a account. Log in the App after registration finished.

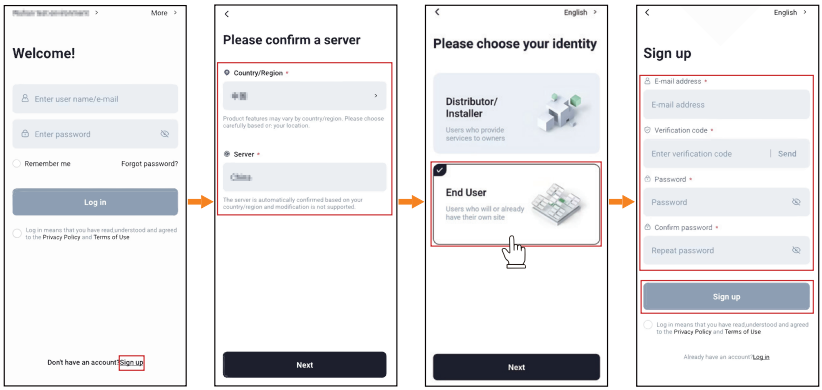


Figure 4-2 Create a new account and log in

4.3 Site creation and Wi-Fi configuration

a. Creat Site
Tap **+** to create your site.Allow SolaxCloud to access your system location, fill in site name (self-defined), system size (For the system size, please check the information with the installer), choose the following settings according to actual situations.Tap **Next** to add device.

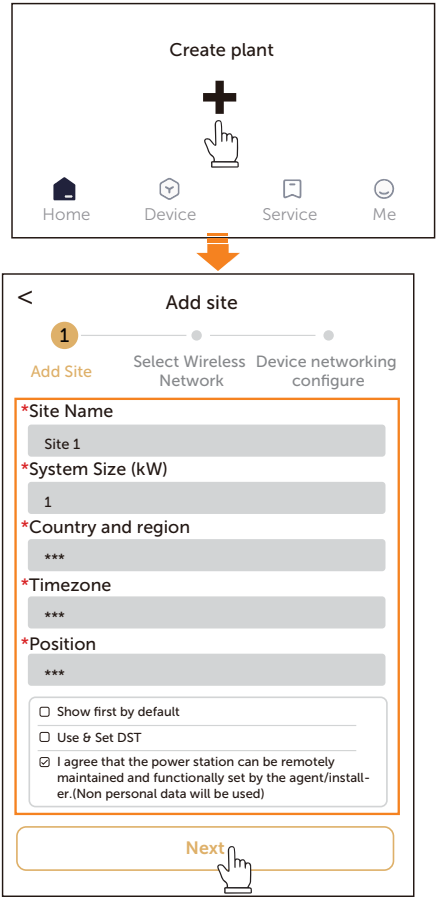


Figure 4-3 Creating the site

NOTICE!
Select **Use&Set DST** if your country has summer time and winter time.

b. Add XRSD-Core Kit
Scan or enter the QR code on Pocket WiFi+LAN, tap **Next**.

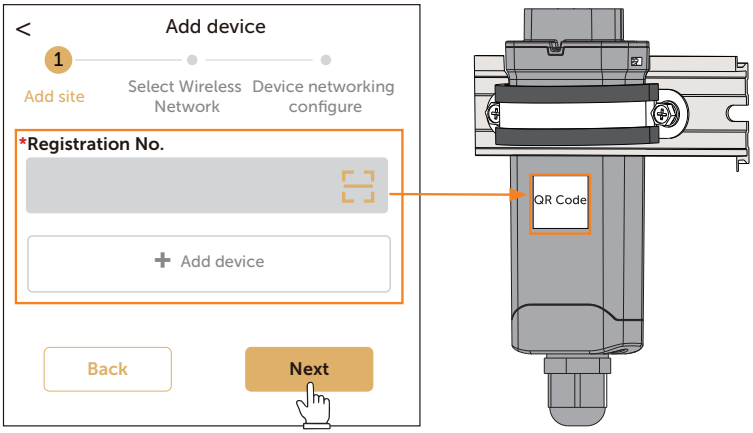


Figure 4-4 Add XRSD Core Kit

c. Connect via Wi-Fi
Tap arrow to select your local network from the list. Enter the network password and tap **Next**. After configuration ended, tap **OK**.

* If an Ethernet connectione is used, skip this step.
* DHCP is enabled by default to distribute IP address automatically.
* 5GHz network is not supported.

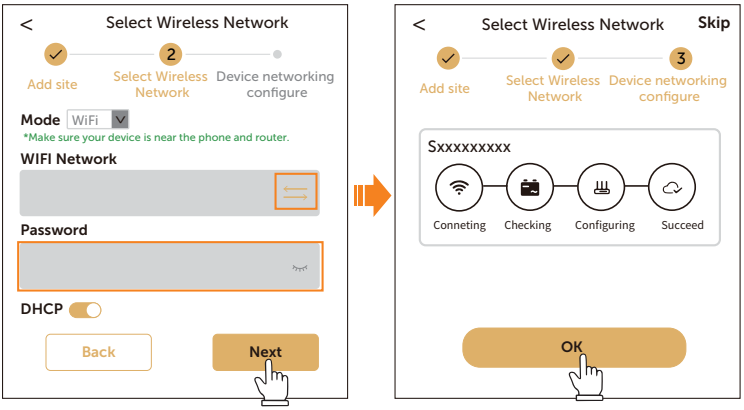
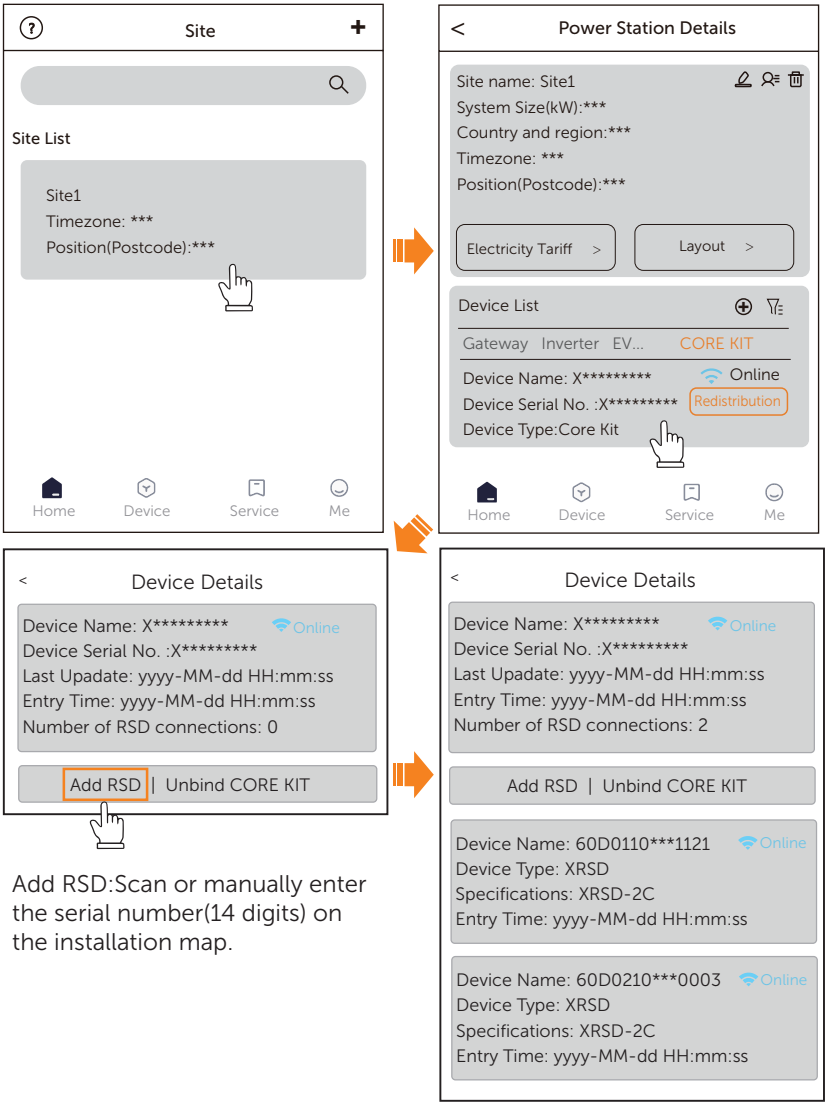


Figure 4-5 Wi-Fi configuration

4.4 Add XRSD

To view an existing site, select one of the systems in the list. To add XRSD, tap the added Core Kit > **Auto find**|**Add RSD**



Add RSD:Scan or manually enter the serial number(14 digits) on the installation map.

Figure 4-6 Add XRSD

Enter each XRSD page, you can see the device details and PV panel's current, volatage, power, temperature.

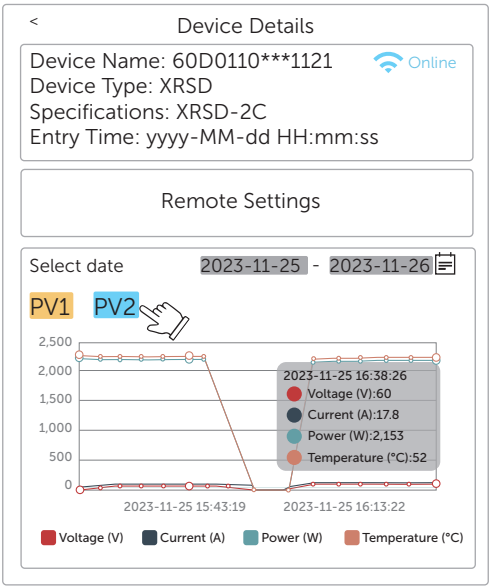
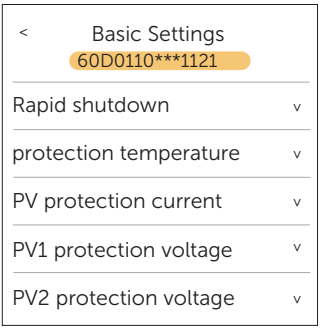


Figure 4-7 XRSD details

Remote setting

Enter XRSD device details page and select **Remote Setting** to monitor PV panels. You can remotely shutdown XRSD and set the conditions for shutdown automatically (over temperature, over current, over voltage).
After setting, select **save**, and the screen will display **Setup successful**.



Meanning	Options	Initial value
XRSD shutdown remotely	Disable/Enable	Disable
XRSD automatic shut down conditions	range: -100 - 100	85
	range: 0 - 25.5	21.5
	range: 0 - 255	80

Figure 4-8 XRSD remote setting

4.5 Layout Settings

Place the modules according to the physical layout: an exact map will help you understand the positon of XRSD and each PV panel's power. In addition, this will facilitate future maintenance work.

a. Set PV array rules

1) Enter power station page, select **Layout**>**Edit now**>**Array rules**.

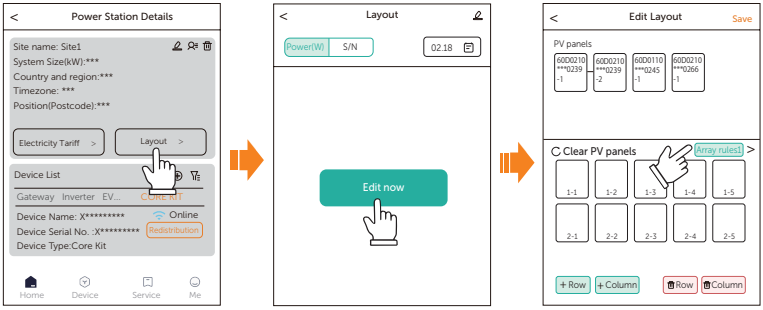


Figure 4-9 Edit Layout page

2) There are 3 display rules by default. Select one and set layout method(Vertical on Horizontal), Azimuth(0°~360°),Tilt(0°~90°), tap **Save**.

3) Mared the select array rule, tap **Save**.

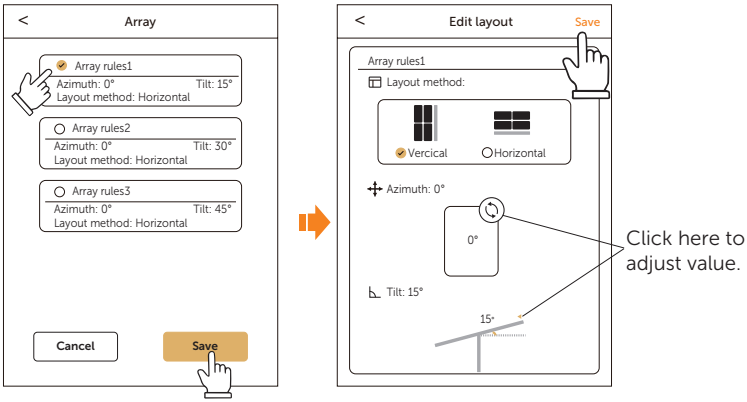


Figure 4-10 Set array rules

b. Edit layout

1) Enter Edit layout page, select Clear PV panels

2) The bottom coner modify the PV layout.
You can tap + Row + Column to add row/coumn,
tap Row Column to delete row/column.

3) To place the XRSD
Tap to select apper XRSD, tap the specific potion of PV panel.

To delete a XRSD
Tap twice to select a PV panel. Or tap the above XRSD.

4) After layout setting finished, Tap **Save** in the upper right coner.**Saved successfully** will pop up.

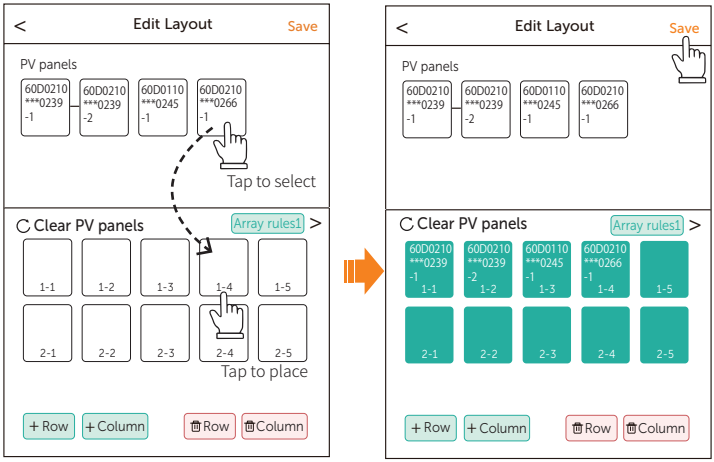


Figure 4-11 place XRSD

c. Click < in the upper left corner to return to the layout interface.

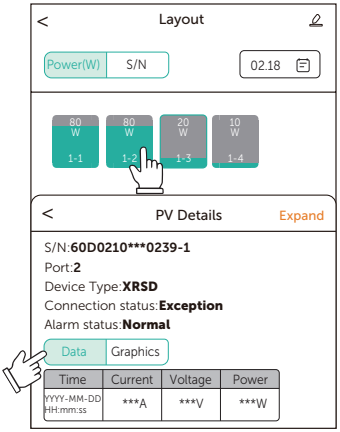
Tap Power(W) S/N to check serials number of XRSD.

Tap Power(W) S/N to check the total PV power of the current day or history.

Select a PV to check the PV details, which include:

S/N	the serials number
port	1 represent XRSD-1C,2 represent XRSD-2C
Device type	XRSD
Connection status	Network status Normal/Exception
Alarm status	Normal/Exception(i.e over current)

Data Current, voltage, and power values at now
Graphics Current, voltage, and power trend charts so far



Hint:
The PV array rules (horizontal/vertical, tilt angle) will affect the display of PV here.
The legend represents that the PV display is **vertical** and the tilt angle is **0**.

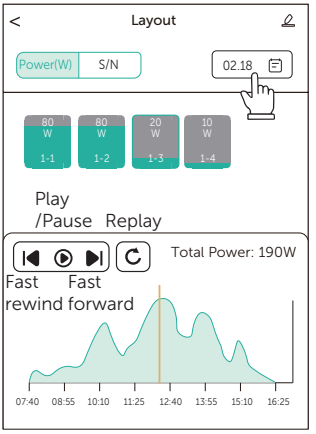
Hint:
Tap Expand to confirm more data.

Figure 4-12 PV Details

Total power At the bottom is the dynamic power curve of the day.

Drag the yellow line left or right to quickly locate any point in time.
Tap ▶| (forward) or |◀(backward) to fine-tune the time.
⏵ Indicates starting play or pause from the positioned time point.
↻ Indicates that it will start playing at 0 o'clock that day.

You can also click on the date above to select a historical date.



Tap to select a different date.

Figure 4-13 Dynamic power curve

5 Rapid Shutdown methods

XRSD can be shutdown automatically or manually. For modify the automatic shutdown setting value, please refer to Remote setting (P38).

5.1 Automatic shutdown

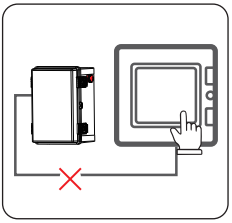
Automatic shutdown will occur if any of the following conditions are met:

- Over temperature
  When the temperature sensor on the XRSD detects ambient temperature is over the set value (Default: **85°C**)
- Over voltage
  When a single PV module voltage exceeds the set value (Default: **80V**)
- Over current
  When a single PV module current exceeds the set value (Default: **20A**)

5.2 Manual shutdown

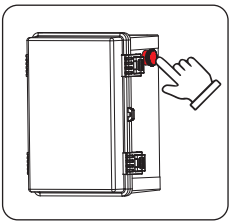
AC Supply Cut-Off

Shut down solar panel by disconnecting the external AC supply.



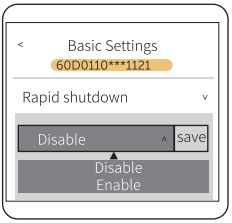
Activate an external initiator

Activate an external initiator when there is an emergency, then the PV system will enter module-level rapid shutdown within the time specified by the safety regulations.
The Emergency Switch can be conveniently located at ground level for easy access, and multiple switches can be installed in different multi-level building zones.



APP/WEB Remote Control

you can operate individual panel shutdown from a long distance through the SolaX Cloud.
Enter XRSD page, tap **Remote setting** > **Rapid Shutdown** > **Disable** > **save.**
(Disable: Enter rapid shutdown mode
Enable: Eixt rapid shutdown mode)

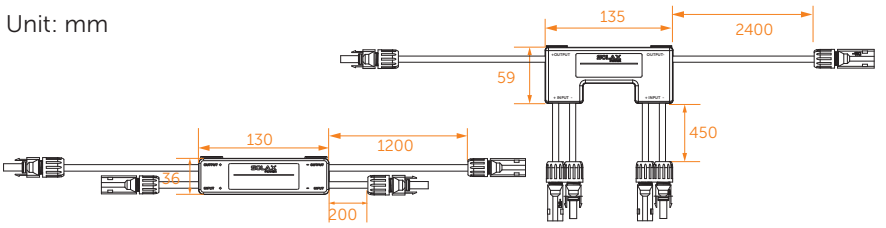


6 Technical Data

- XRSD

Model	XRSD-1C	XRSD-2C
Electrical Data		
Input voltage range	8-80V	8-80V / 8-80V
Output voltage range	8-80V	16-160V
Max. PV input current	20A	20A
Max. short circuit current	26A	26A
Recommended fuse rating	30A	30A
Maximum system voltage	1500V	1500V
Mechanical		
Dimensions(W x D x H) (Without cables and connectors)	130 x 21 x 36mm	135 x 20 x 59mm
Weight(Including Cables)	400g	720g
Input cable length	0.2m	0.45m
Output cable length	1.2m	2.4m
Input / Output connectors	MC4 (standard)	
Communication type	PLC	
Environment limit		
Altitude	0-3000m	
Pollution degree	3	
Protection class	IP68	
Operating temperature range	-40°C to +85°C	
Humidity	4% - 100%	
Over voltage category	II	
Compliance		
Safety	IEC/EN62109-1, EN IEC 61000-6-1/2/3/4	

Unit: mm



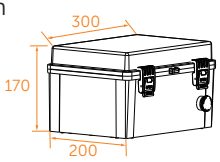
XRSD-1C XRSD-2C

- XRSD-Core Kit

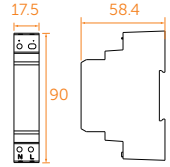
Model	XRSD-Core Kit
Electrical Data	
Power Supply Input Voltage	85-264Vac
Transmitter Input Voltage	12Vdc (±2%)
Transmitter Input Current	1A
Core	
Max. Number of Configure Core	2
Max. Current per Core	150A
Max. String Voltage	1500Vdc
Diameter	~31 (inner) /52mm (outer)
Max. Number of Strings per Core*	11
Mechanical	
Dimensions(W x D x H)	200 x 170 x 300mm
Environment limit	
Altitude	0-3000m
Pollution degree	3
Protection class	IP65
Operating temperature range	-40°C to +75°C
Humidity	4 - 100%
Over voltage category	III
Compliance	
Safety	IEC/EN62109-1, EN IEC 61000-6-1/2/3/4

* This data refers to a cable diameter of Ø6 mm.If cable diameter is more than Ø6 mm,Strings Per Core will be reduced. Extra precaution must be taken to avoid exceeding the permissible current limit.

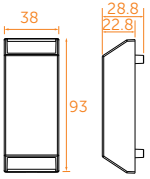
Unit: mm



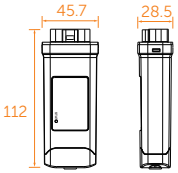
XRSD-Core Kit box



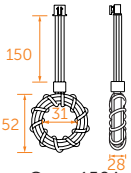
Power Supply



Transmitter



monitoring dongle
(Optional)



Core-150A
(Optional:2pcs)

XRSD Installation Map

Make sure N for North	Panel type: Azimuth: Tilt: Sheet_of_	Customer information:	XRSD-Core Kit series number:

COLUMN / ROW	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A																
B																
C																
D																

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