



Adapter Box G2

User Manual

Version 3.0

www.solaxpower.com

Contents

1 Overview of Adapter Box G2	01
1.1 Introduction	01
1.2 Dimension	01
2 Application Scenarios.....	02
2.1 Control through SG Ready Signal.....	02
2.2 Control through Dry Contact Signal.....	03
2.3 Control through Analog signal.....	04
3 Installation	05
3.1 Packing List	05
3.2 Tool Preparation	05
3.3 Wall Mounting	06
4 Electrical Connection	07
4.1 Connection of the RS485_INV Port	08
4.2 Connection of the RS485 Port	16
4.3 Connection of the Power Adapter Port	16
4.4 Connection of the AO Port	17
4.5 Connection of the DO Port	19
5 Configuration of APP	21
5.1 APP Login	21
5.2 Settings for the Adapter Box G2	25
6 Technical Data	31

7 Certification and Safety 32

7.1 Certification mark 32

7.2 Safety..... 32

8 Contact Us 34

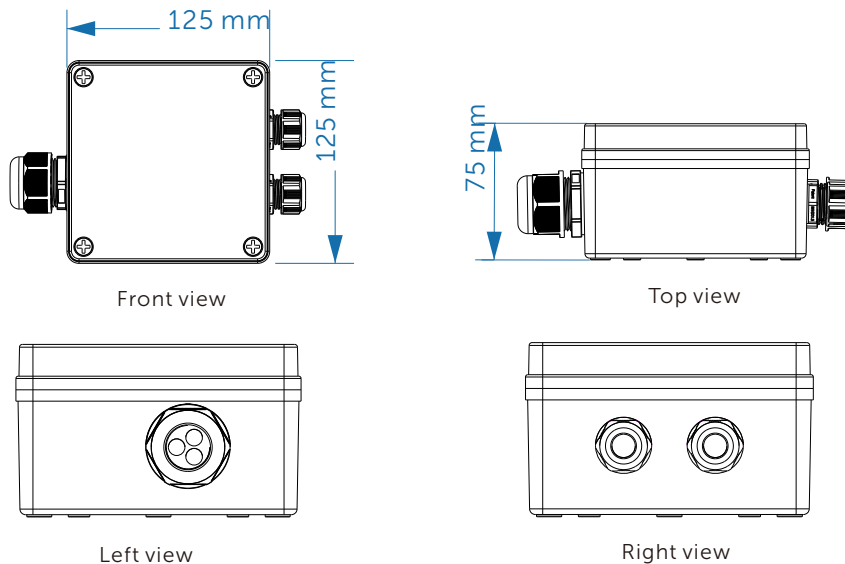
1 Overview of Adapter Box G2

1.1 Introduction

Adapter Box G2, with 4 dry contact and 1 analog signal channels, can control devices that support these types of signals. In the field of photovoltaic system, it controls related devices based on the amount of surplus energy, battery SOC and preset system schedules.

In reality, most heat pumps with Domestic Hot Water (DHW) function adjust their operating power through 3 types of external control signals: SG Ready, dry contact and analog signal. These heat pumps can be connected to the PV energy storage system as controllable load, and convert the surplus PV energy to the thermal energy stored in the water tank.

1.2 Dimension



2 Application Scenarios

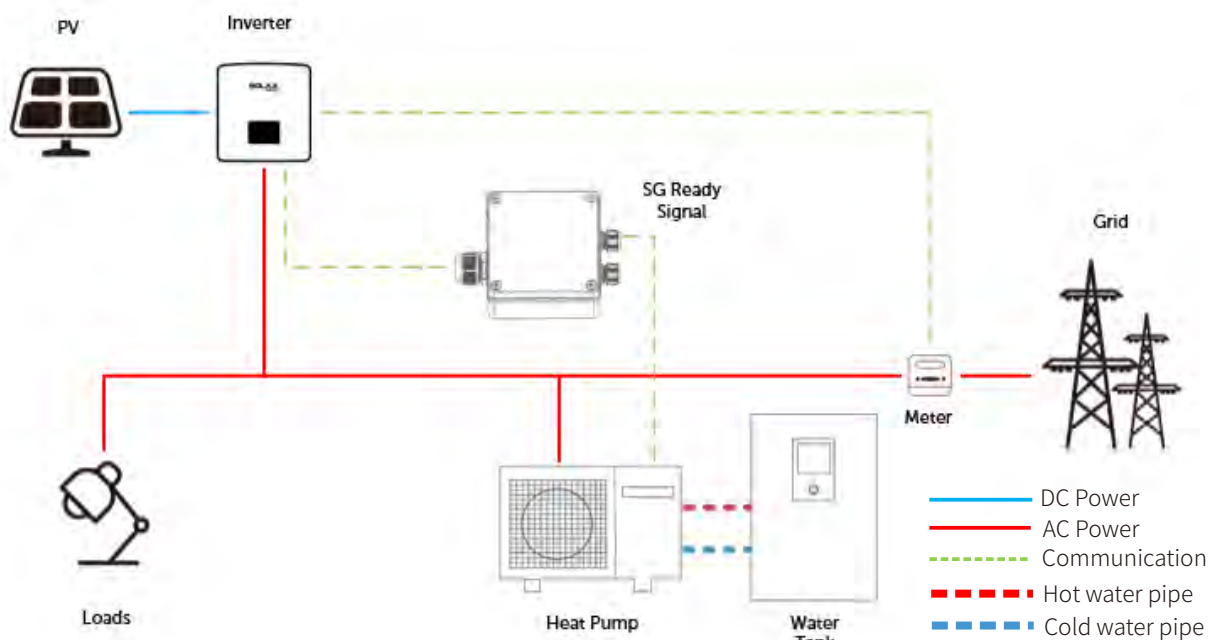
2.1 Control through SG Ready Signal

The heat pump with SG Ready interface controls its operation based on the 4 states represented by different combinations of the 2 external dry contacts. See table 2-1 below for details.

After connected to the Adapter Box G2 through D1 and COM ports, the heat pump will switch its operation mode between the **Normal State** and **Recommended On State**. When D1 dry contact is open-circuited, the heat pump works normally without SG effect; When D1 dry contact is close-circuited, the heat pump works in an enhanced mode with higher power rate to make full use of the surplus energy.

Note!

SG Ready signal does not impact the normal operation of the heat pump. The Adapter Box G2 will trigger the heat pump to switch to **Recommended ON** state only when there are surplus PV energy in the system.



Networking through SG Ready signal

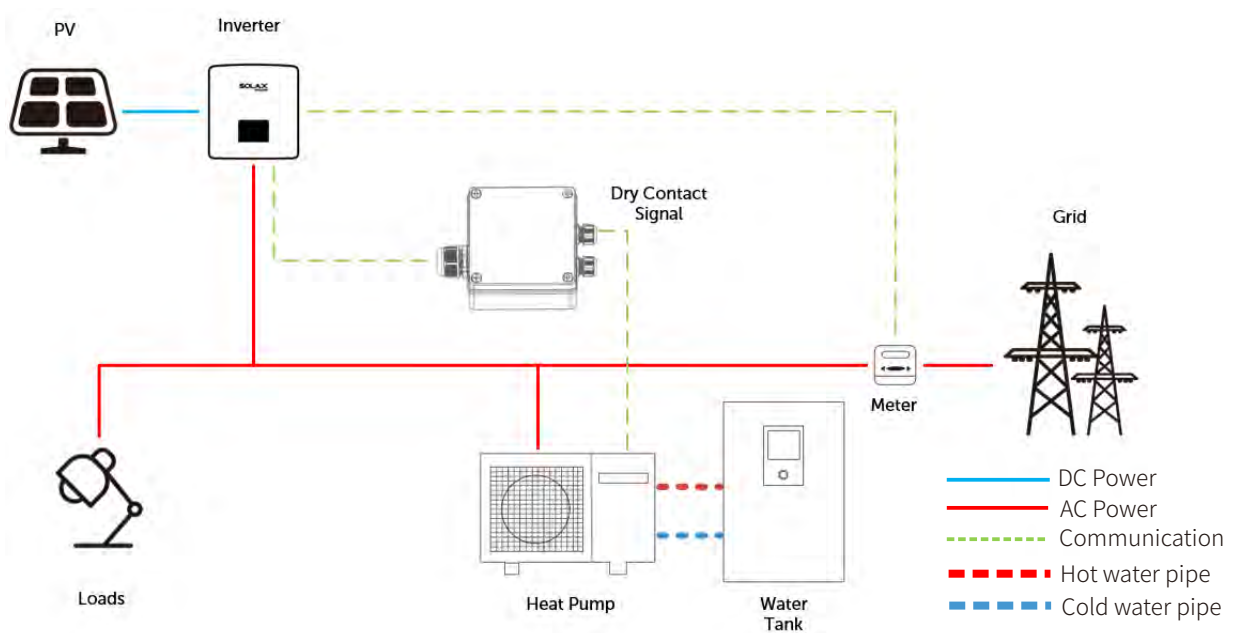
Table 2-1 Dry contact and heat pump working state description

No.	State	Relays Configuration	Terminal Connection	Action
1	OFF	ON/OFF	1:0	HP switched off
2	Normal	OFF/OFF	0:0	HP working in normal mode without SG effect
3	Recommended ON	OFF/ON	0:1	HP working in a recommended enhance mode
4	Forced ON	ON/ON	1:1	HP must switch ON

2.2 Control through Dry Contact Signal

The heat pump with dry contact interface controls its operation step based on the different combinations of the 4 external dry contacts. The specific capacity of the heat pump under each grade varies depending on the heat pump model.

Adapter Box G2 supports 16 states represented by different on/off status combinations of the 4 dry contacts. Users can set the heat pump to work at different steps from 0 to 15 on SolaxCloud, and configure each step based on their needs for control precision. For details on configuration, see 5 Configuration of APP.

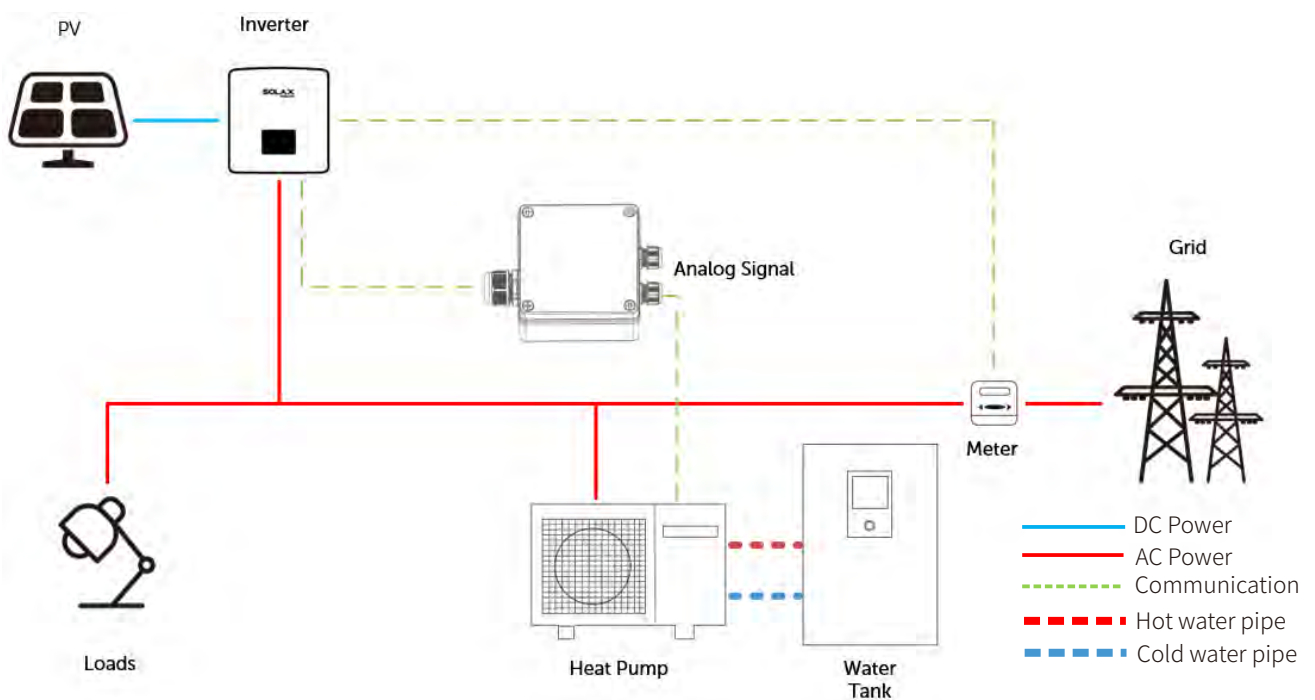


Networking through dry contact signal

2.3 Control through Analog signal

The heat pump with analog signal interface controls its operation step based on the voltage value represented by the external analog signal. The specific operation step that the voltage corresponds to varies depending on the heat pump model.

Adapter Box G2 supports a voltage range of 0 V -10 V. Users can divide the voltage range into 16 operating steps for the heat pump. For details on configuration, see 5 Configuration of APP.

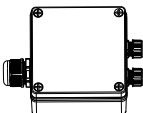


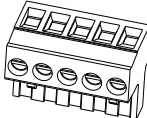

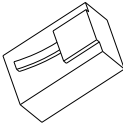

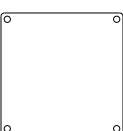

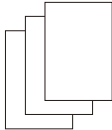


Networking through analog signal

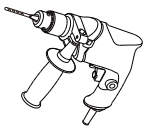
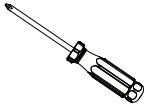
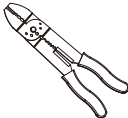
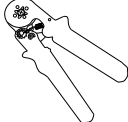
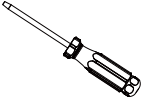
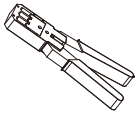
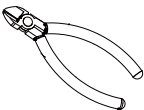
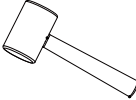

3 Installation

3.1 Packing List

Check if there is any distortion or damage during transportation. If there is any damage or items missing, please contact the dealer.

 Adapter Box G2 × 1	 Self-tapping screws × 4	 Expansion tubes × 4	 5 pin male pluggable terminal block × 1	 2 pin male pluggable terminal block × 1
 RJ45 terminals × 2	 1 mm ² tube pre-insulated terminals × 7	 Marking Cardboard × 1	 Power Adapter × 1 (optional)	 Documents

3.2 Tool Preparation

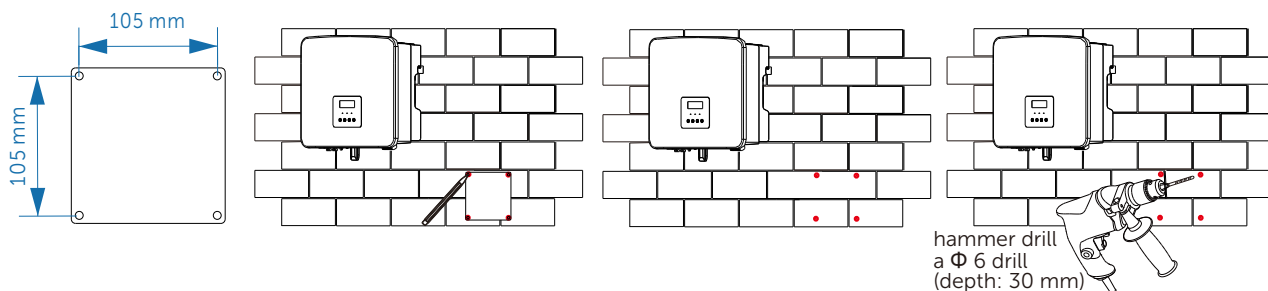
 Drill (Bit Φ 6)	 Cross-shaped screwdriver	 Cable stripper	 Crimping plier	 Flat-shaped screwdriver
 Network cable crimping plier	 Diagonal plier	 Rubber hammer	 Marker	

3.3 Wall Mounting

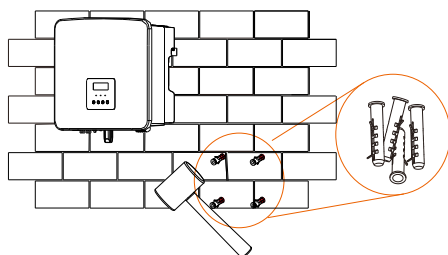
Step1. Use a marking cardboard to locate the holes and drill them on the wall.

Drill holes with a $\Phi 6$ drill.

Depth: at least 30 mm.

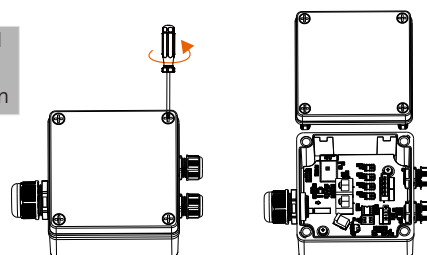


Step2. Put the expansion tubes in the holes and tighten them with a hammer.

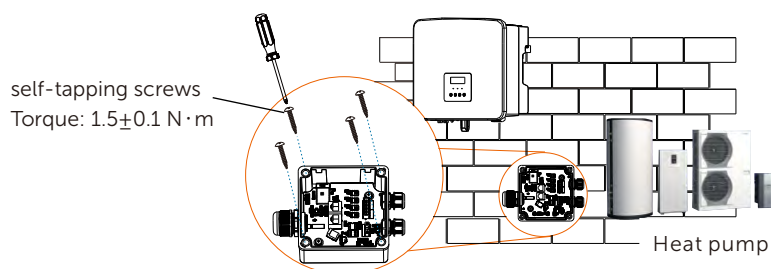


Step3. Dismantle the top cover of the Adapter Box G2.

cross-shaped
screwdriver
torque: 1 N·m



Step4. Pass self-tapping screws through the channels in the four corners of the box and screw them tightly.

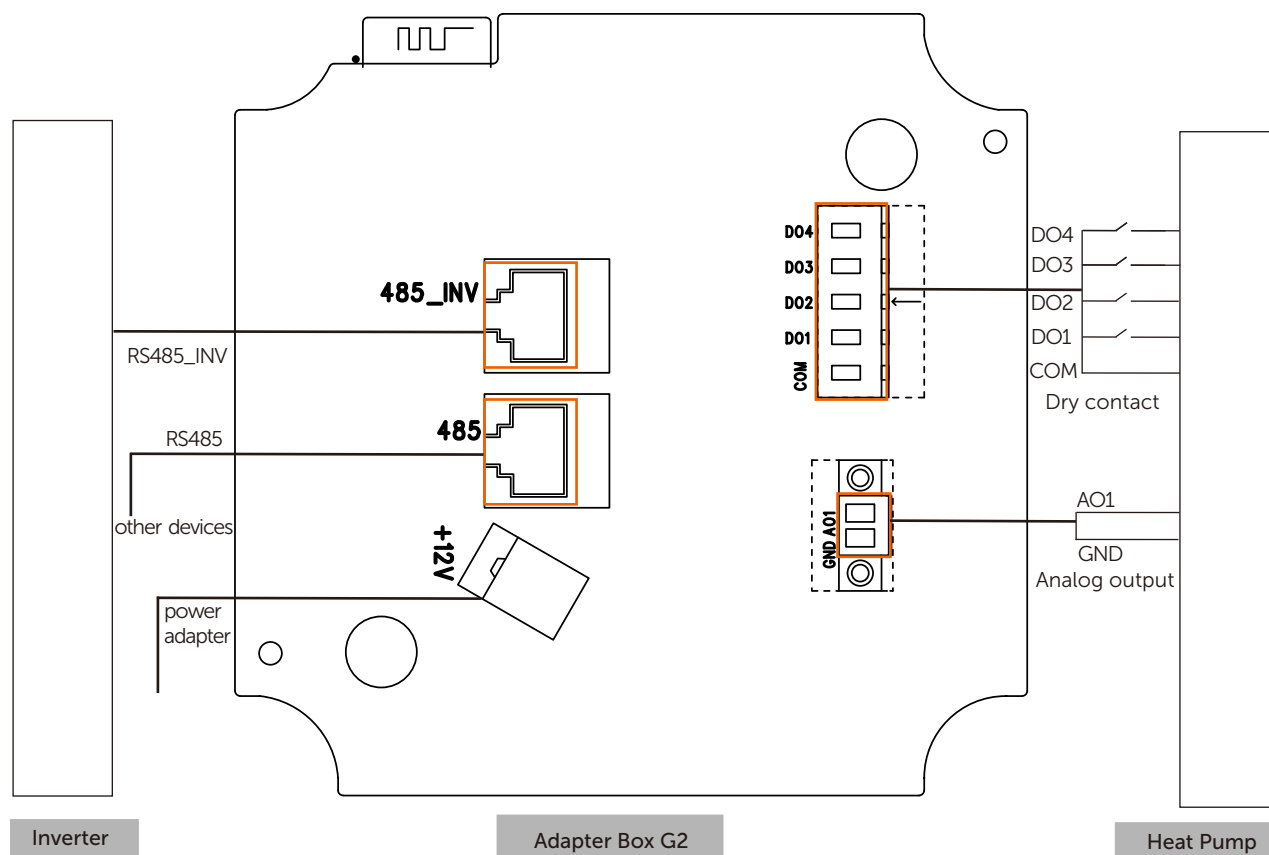


Note!

- Choose a place where the Adapter Box G2 is not directly exposed to the sun and close to the heat pump.
- The Adapter Box G2 needs to be installed horizontally. Please refer to picture in step 4 for the right installation method of the adapter box.

4 Electrical Connection

The figure below introduces the ports the Adapter Box G2, which shall be connected to the ports of a heat pump and an inverter.



• Port description of the Adapter Box G2

No.	Port	Description
1	485-INV	For connecting to the inverter for communication and power supply
2	485	For connecting to other devices for communication
3	Power	12 VDC power supply
4	Dry Contact (DO)	For connecting to devices that support dry contact signals
5	Analog Output	0-10V analog output

Note!

Pin 3 and pin 6 of RS485_INV port and a power adapter both can supply power for the Adapter Box G2, and users can choose one to get Adapter Box G2 powered.

4.1 Connection of the RS485_INV Port

- Functions of the RS485_INV port:
 - a) communication between the Adapter Box G2 and the inverter.
 - b) power supply from the inverter to the Adapter Box G2.

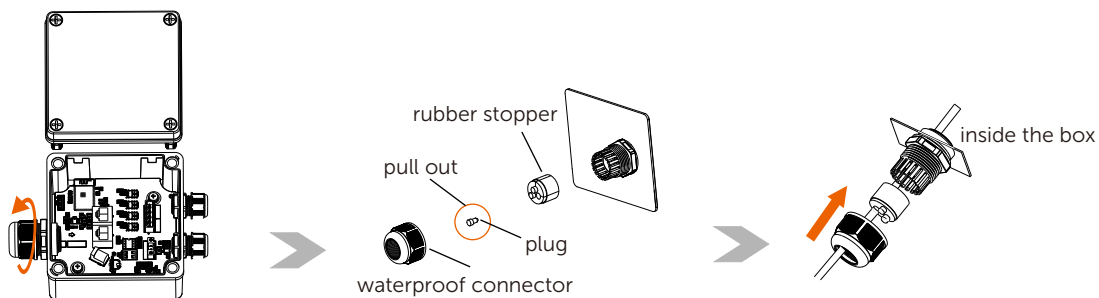
- RS485_INV Pin Definition

	1	2	3	4	5	6	7	8
	X	X	+13V	RS485-A	RS485-B	GND	X	X

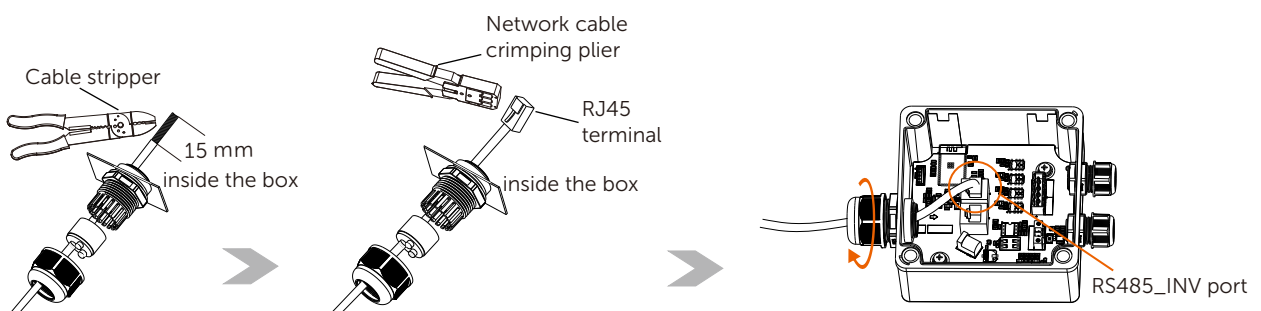
- Cable connection between an inverter and the Adapter Box G2

①. Cable connection of RS485_INV port (Adapter Box G2 side)

Step1. Unscrew the waterproof connector of the box, pull out one plug in the rubber stopper and thread a cable through the waterproof connector, the rubber stopper and insert it into the box.



Step2. Make a cable: strip 15 mm layer off the end of the cable in the box and plug the end into a RJ45 terminal according to the pin definition with a plier crimped. Connect the cable with the terminal to the RS485_INV port in the box, ensure rubber stoppers without cable threading are with plugs and then screw the waterproof cover tightly.



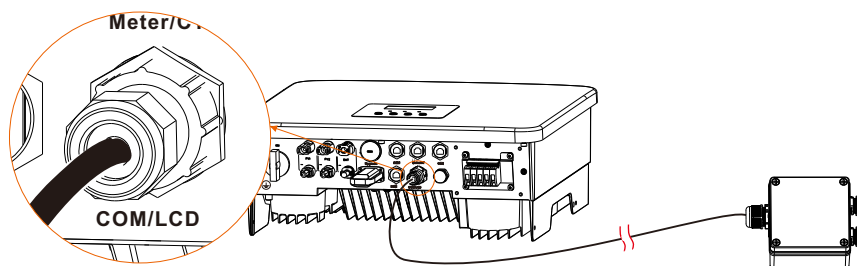
②. Cable connection of the inverter side

The Adapter Box G2 can be connected to multiple inverters for power supply and communication. The following inverter models are proved to be able to supply power for the Adapter Box G2. For further matching questions of other Solax inverters, please contact us for help before installation.

Here is an introduction to the port of inverters supplying power for the Adapter Box G2.

a) X1-Hybrid G4 and X3-Hybrid G4 series inverters

X1-Hybrid G4 and X3-Hybrid G4 series inverters support power for the Adapter Box G2 through COM/LCD port or COM port of the inverter respectively.



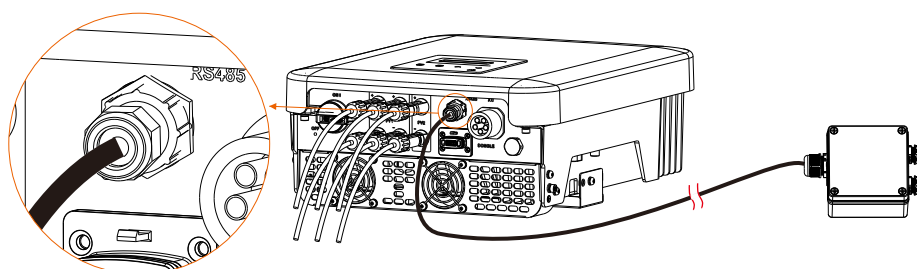
X1-Hybrid G4 inverter for example

• COM Pin Definition of X1/X3-Hybrid G4 series

	1	2	3	4	5	6	7	8
	X	X	+13V	RS485_A	RS485_B	GND	X	X

b) X3-MIC G2 series inverters

X3-MIC G2 series inverters support power for the Adapter Box G2 through RS485 port of the inverter.



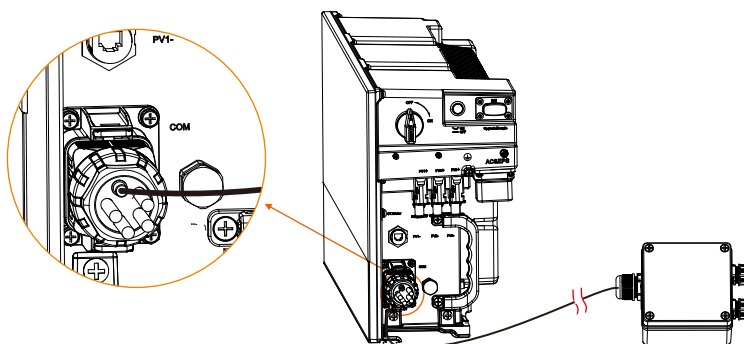
X3-MIC G2 inverter for example

• RS485 Pin Definition of X3-MIC G2 series

	1	2	3	4	5	6	7	8
	X	X	+12V	RS485_A	RS485_B	GND	X	X

c) X1-IES series inverters

X1-IES series inverters provide power for the Adapter Box G2 through the COM port.



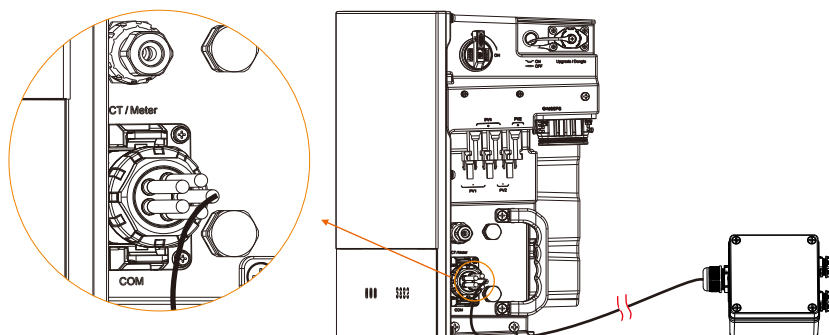
X1-IES inverter for example

- COM Pin Definition of X1-IES series

9 (P4)	7 (P3)	8 (P3)	6 (P3)
ARM_POWER	REMOTE_485A	REMOTE_485B	GND_COM

d) X3-IES series inverters

X3-IES series inverters provide power for the Adapter Box G2 through the COM port.



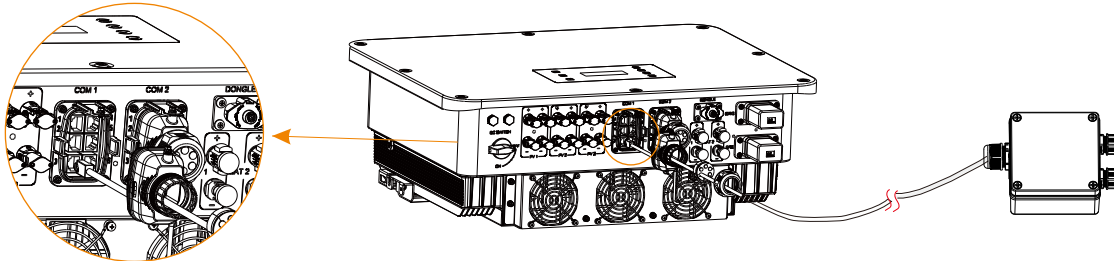
X3-IES inverter for example

- COM Pin Definition of X3-IES series

7 (P3)	8 (P3)	9 (P4)	10 (P4)
remote 485A	remote 485B	12V_COM	GND

e) X3-ULTRA series inverters

X3-ULTRA inverter series communicates with Adapter Box G2 through the RS485 port.



X3-ULTRA inverter for example

- RS485 Pin Definition of X3-ULTRA series for connecting Adapter Box G2

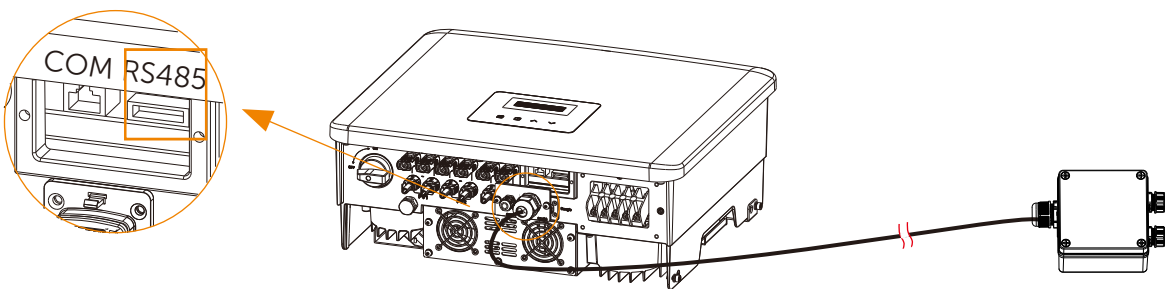
4	5
PARALLEL_485AA	PARALLEL_485BB

Notice!

- Do not use a common 8-core communication cable to connect X3-ULTRA to Adapter Box G2, otherwise, there might be a communication exception in the system. Instead, connect only PIN4 and PIN5 of the RS485 port of the inverter.
- X3-ULTRA cannot provide power supply for Adapter Box G2. When connected to this inverter series, Adapter Box G2 requires external power supply.

f) X3-PRO G2 series inverters

X3- PRO G2 inverter series provide power for the Adapter Box G2 through RS485 port.



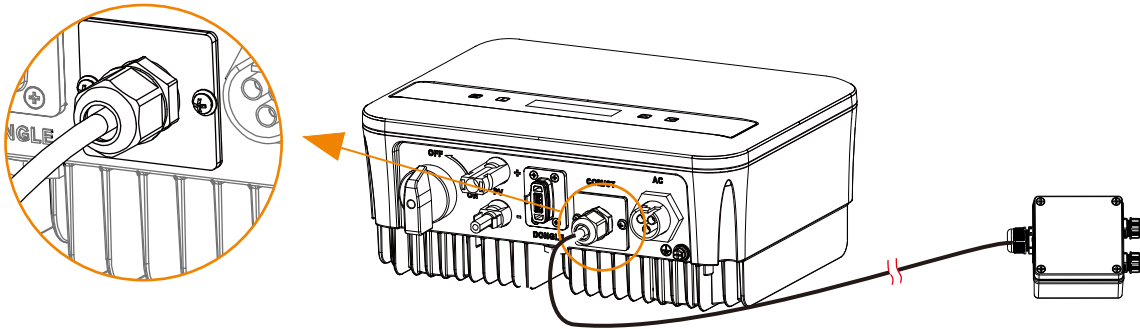
X3-PRO G2 inverter for example

- RS485 Definition of X3-PRO G2 series

1/3	2/4
485A	485B

g) X1-MINI G4 series inverters

X1-MINI G4 inverter series provides power for the Adapter Box G2 through the RS485 port.



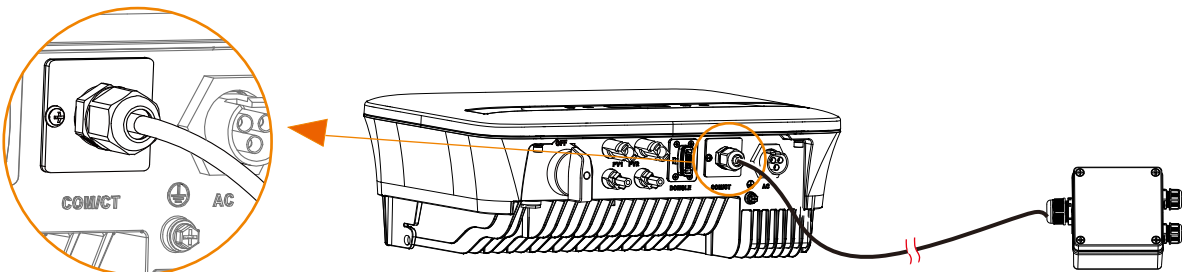
X1-MINI G4 inverter for example

- RS485 Pin Definition of X1-MINI G4 series for connecting Adapter Box G2

4	5
485_A	485_B

h) X1-BOOST G4 series inverters

X1-BOOST G4 inverter series provide power for the Adapter Box G2 through RS485 port.



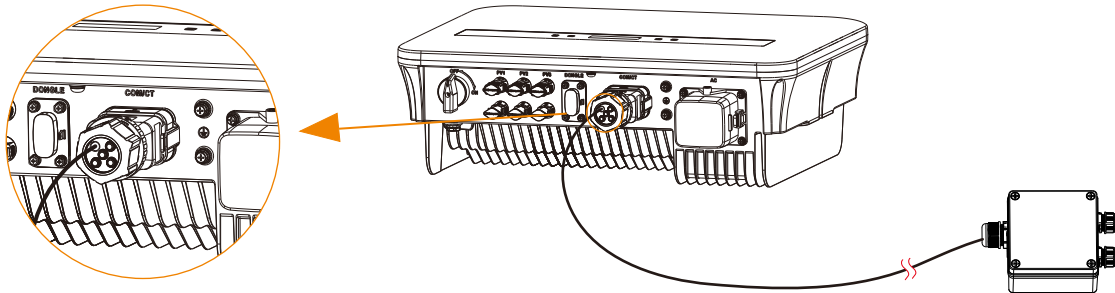
X1-BOOST G4 inverter for example

- COM Pin Definition of X1-BOOST G4 series

4	5
485_A	485_B

i) X1-SMART G2 series inverters

X1-SMART G2 inverter series provides power for the Adapter Box G2 through the RS485 port.



X1-SMART G2 inverter for example

- RS485 Pin Definition of X1-SMART G2 series for connecting Adapter Box G2

13/15	14/16
RS485A	RS485B

When the inverter and the Adapter Box G2 are well connected, users need to enable the RS485 communication with the Adapter Box G2 in the settings of the inverter.

Notice!

A splitter can be used if the communication port of the inverter is occupied.

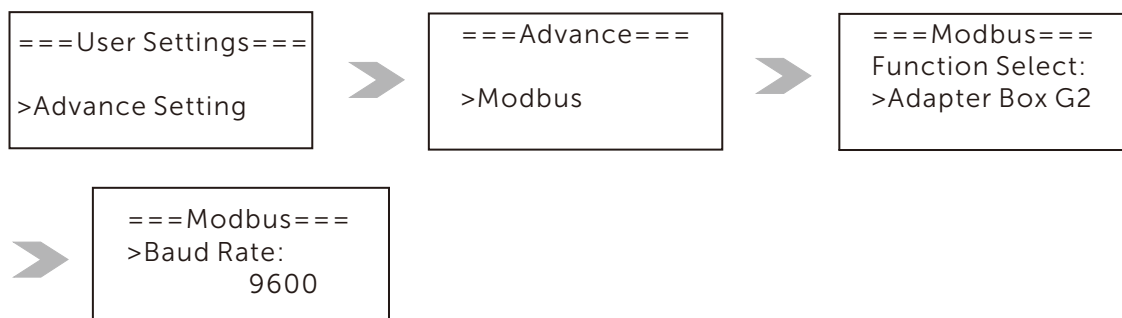
③ LCD setting on the inverter

When the cables are well connected, users need to set the LCD on the inverter to enable the communication between the inverter and the Adapter Box G2.

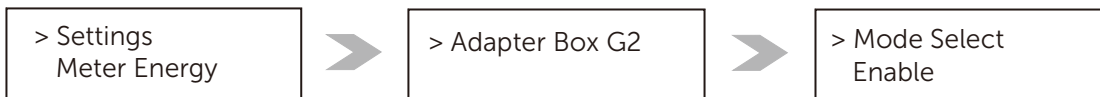
Note!

The images are for reference only. Refer to actual inverter screens for details.

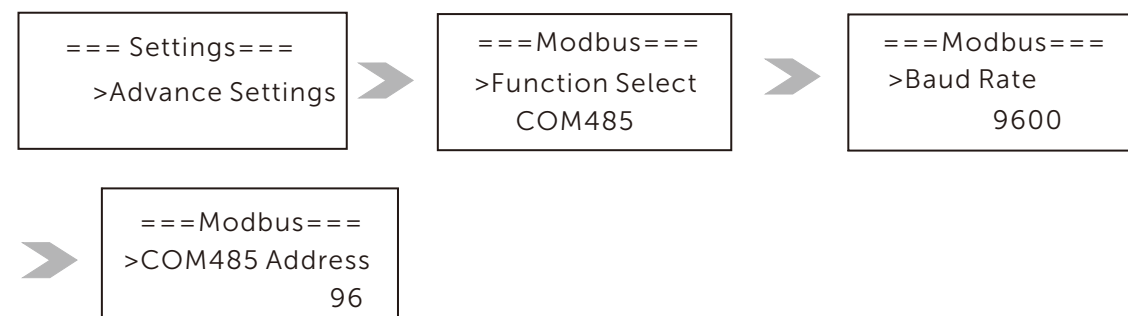
a) Setting steps on X1/X3-Hybrid G4 series inverters



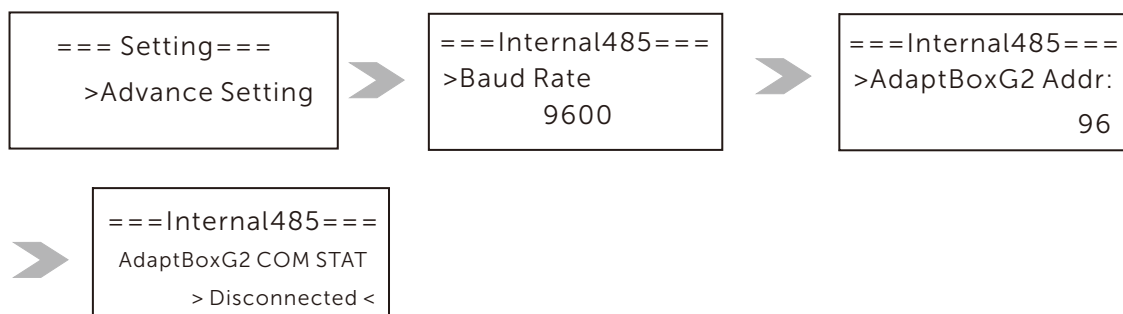
b) Setting steps on X3-MIC G2 series inverters



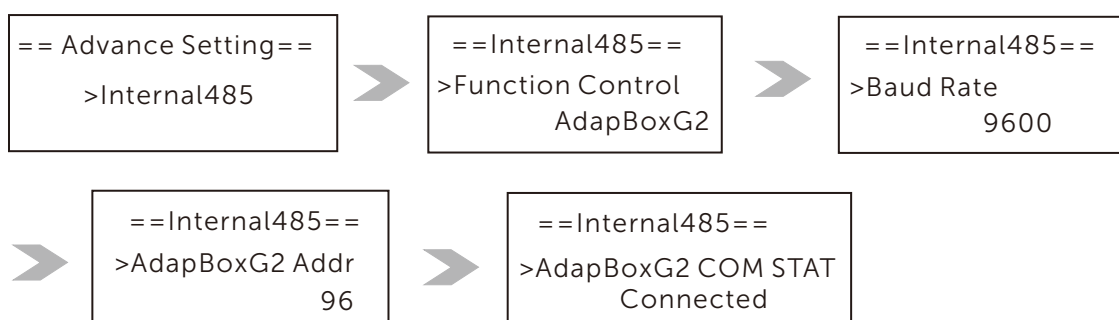
c) Setting steps on X1-IES series inverters



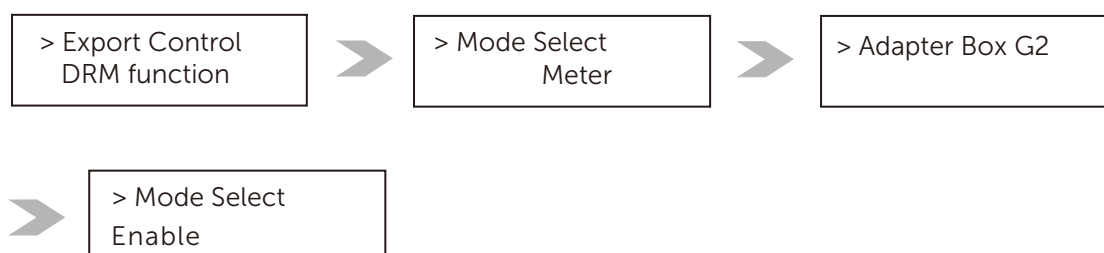
d) Setting steps on X3-IES series inverters



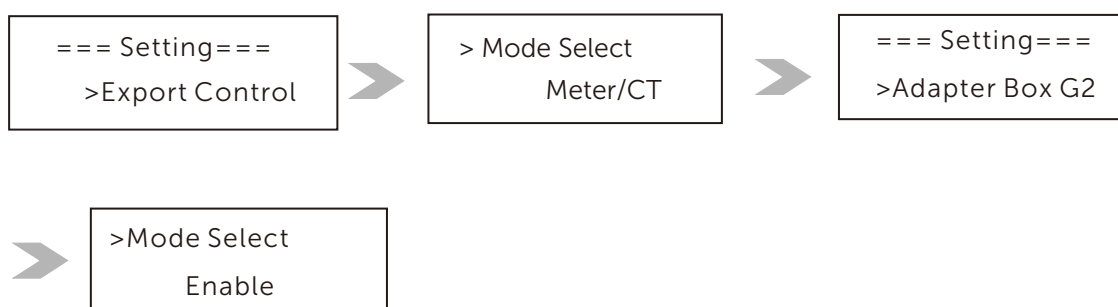
e) Setting steps on X3-ULTRA series inverters



f) Setting steps on X3-MIC G2 series inverters



h) Setting steps on X1-MINI G4/XI-BOOST G4/X1-SMART G2 series inverters



4.2 Connection of the RS485 Port

- Function of the RS485 port:
a branch port of RS485_INV port for RS485 communication with other devices.
- RS485 Pin Definition

	1	2	3	4	5	6	7	8
1	X	X	X	485-A	485-B	X	X	X
8								

Notice: Refer to the communication cable connection method of the RS485_INV port.

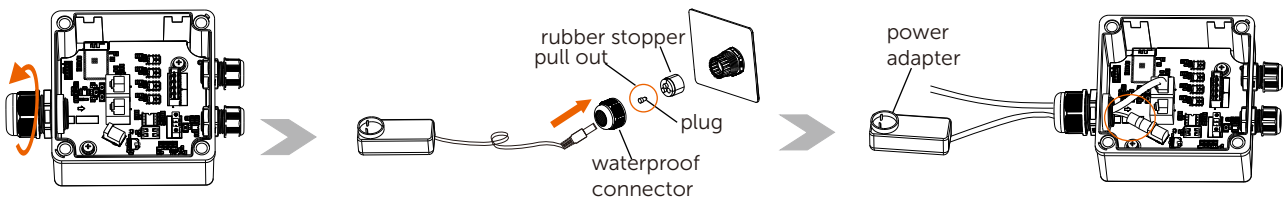
4.3 Connection of the Power Adapter Port (Optional)

- Function of a power adapter

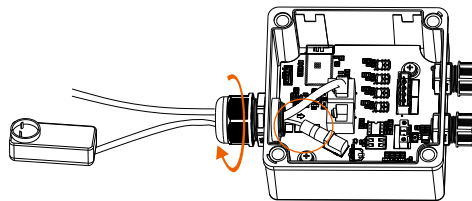
A power adapter is optional for the power supply of the Adapter Box G2. If the inverter matched cannot supply power for the Adapter Box G2, a power adapter is needed.

- Cable connection of a power adapter

Step1. Pull out one plug in the rubber stopper, thread the cable of the power adapter through the waterproof connector, the rubber stopper and then insert the cable into the power adapter port.



Step2. Check the rubber stopper without cable threading through are with plugs and then screw the waterproof connector tightly.



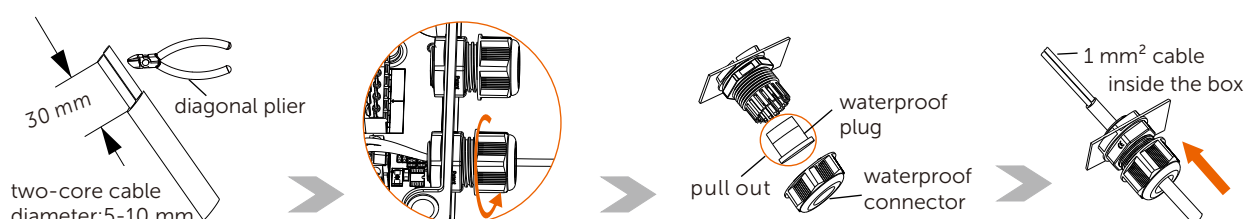
4.4 Connection of the AO Port

- AO Port Pin Definition

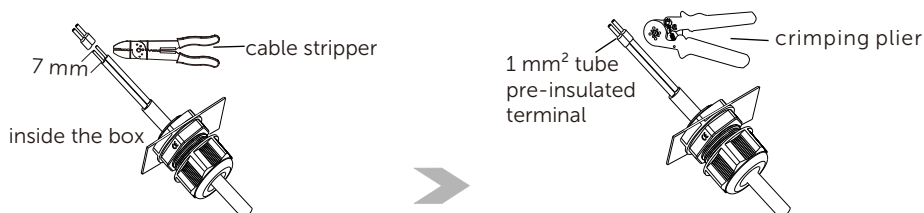
1	2
GND	AO1 (0 V-10 V)

Note: open ports without cable threading through must be plugged to prevent water. And reserve a proper length of all connected cables in the box to reduce its pulling force for connected terminals.

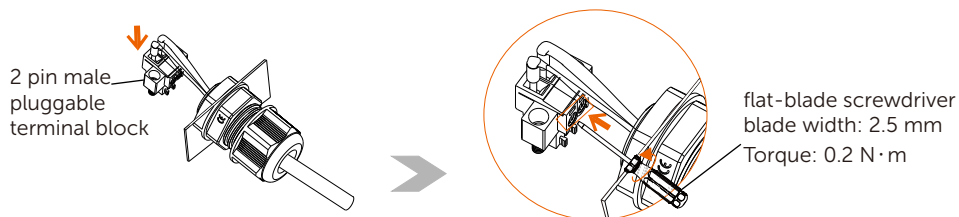
Step1. Prepare a two-core cable, remove 30 mm layer off from one end, pull the waterproof plug out and thread the cable through the waterproof connector into the box.



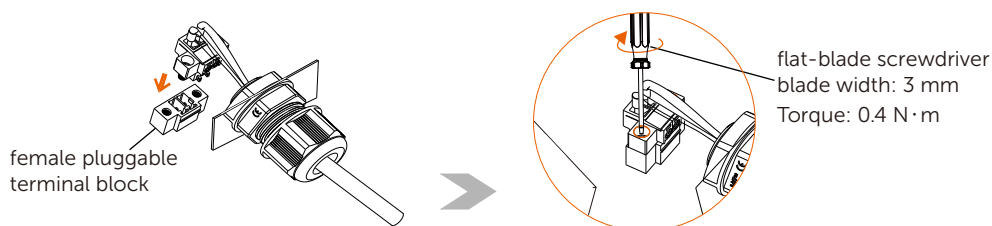
Step2. Strip 7 mm layer off the peeled cables and insert them into 1 mm² tube pre-insulated terminal and crimp them tightly.



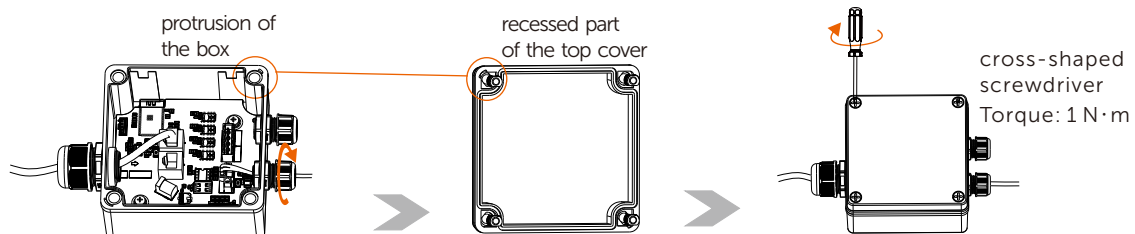
Step3. Insert the cables with terminals into the male pluggable terminal block and screw them tightly.



Step4. Plug the male pluggable terminal block with cables into the female pluggable terminal block fixed in the Adapter Box G2 and screw them tightly.



Step5. Screw the waterproof connector tightly, align the recessed part of the top cover with the protrusion of the box and lock the top cover.



Please refer to the manual of a heat pump for how the other end of the cable is connected to the heat pump.

4.5 Connection of the DO port

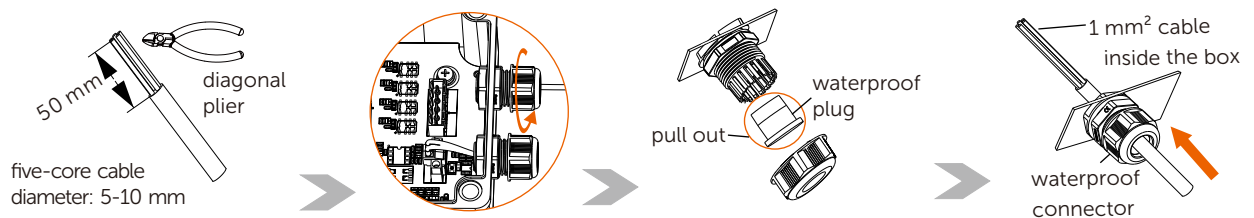
- DO Port Pin Definition

1	2	3	4	5
COM	D1	D2	D3	D4

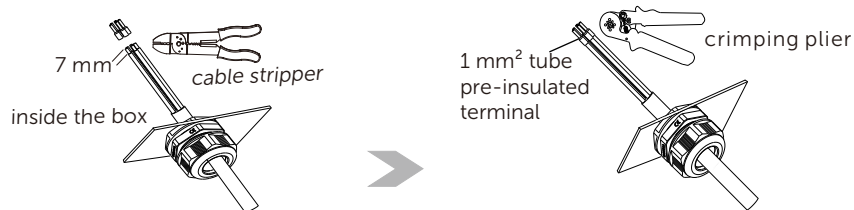
Note: open ports without cable threading through must be plugged to prevent water. And reserve a proper length of all connected cables in the box to reduce its pulling force for connected terminals.

a) DO port connection under the control of dry contact

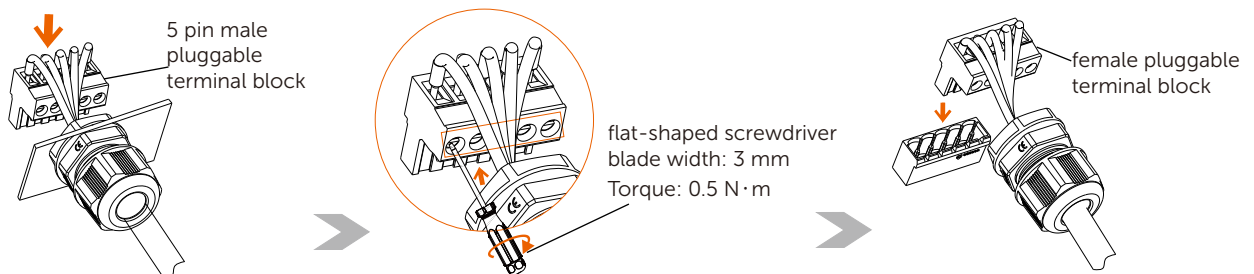
Step1. Prepare a five-core cable, remove 50 mm layer off from one end, pull the waterproof plug out and thread the cable through the waterproof connector.



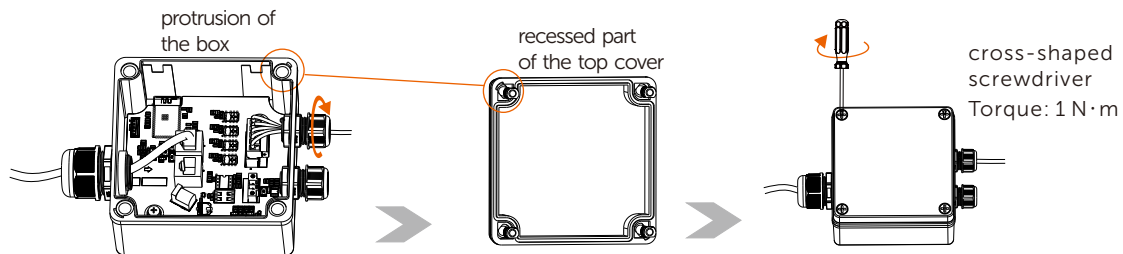
Step2. Strip 7 mm off the peeled cables and insert them into 1 mm² tube pre-insulated terminal.



Step3. Insert the cables with terminals into the male pluggable terminal block, screw them tightly. Insert the male pluggable terminal block with cables into the female pluggable terminal block fixed in the Adapter Box G2.



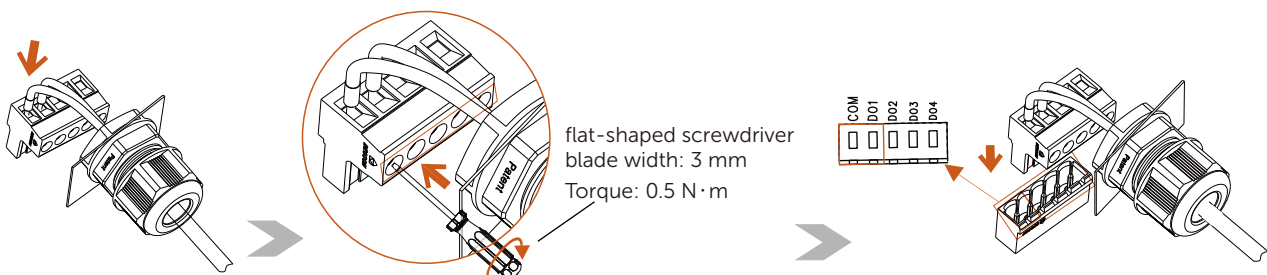
Step4. Screw the waterproof connector tightly, align the recessed part of the top cover with the protrusion of the box and lock the top cover.



b) DO port connection under the control of SG Ready

Step1. Prepare a two-core cable, then strip, crimp and threading the cable through connectors and then make the cable as the way you have been done in a).

Step2. Insert the cables with terminals into the male pluggable terminal block, screw them tightly. Insert the male pluggable terminal block with cables into the DO1 and COM port if the female pluggable terminal block fixed in the Adapter Box G2.



Step3. After step 2 is finished, screw tight the waterproof connector and lock the top cover as the method in a).

Please refer to the manual of a heat pump for how the other end of the cable is connected to the heat pump.

5 Configuration of APP

The APP "SolaxCloud" is used to control the Adapter Box G2.

The screen shots here are for reference only and the actual interfaces may differ. Users can update their APP as needed.

Check before APP operation:

- Make sure the Adapter Box G2 and the inverter are properly connected.
- There is normal power supply for the Adapter Box G2, either from the power adapter or inverter.
- The heat pump has been correctly set based on its external control mode.

5.1 APP Login

➤ APP account login

- If you don't have the app or monitoring cloud's account yet, you can operate as below:

➤ Monitoring Cloud Registration

Step 1: Use your smart phone to scan below QR code or search for the keyword "SolaXCloud" in Appstore to download the Monitoring App.



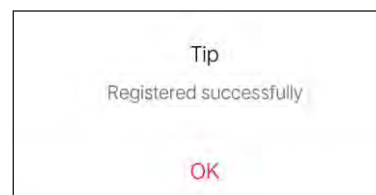
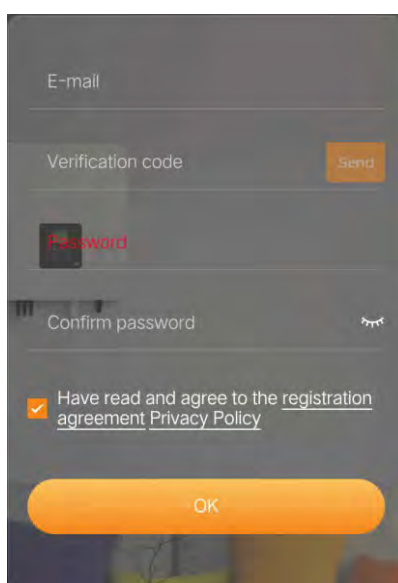
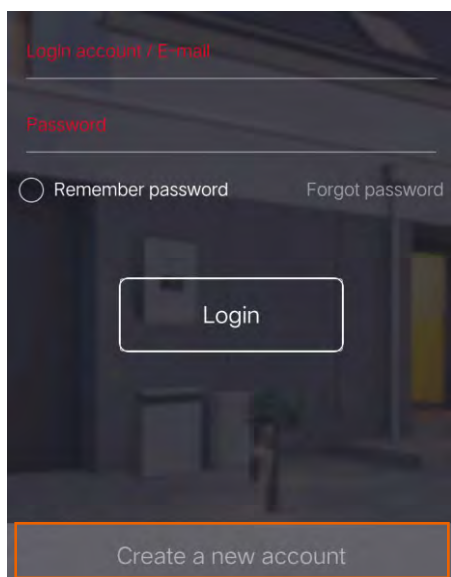
IOS



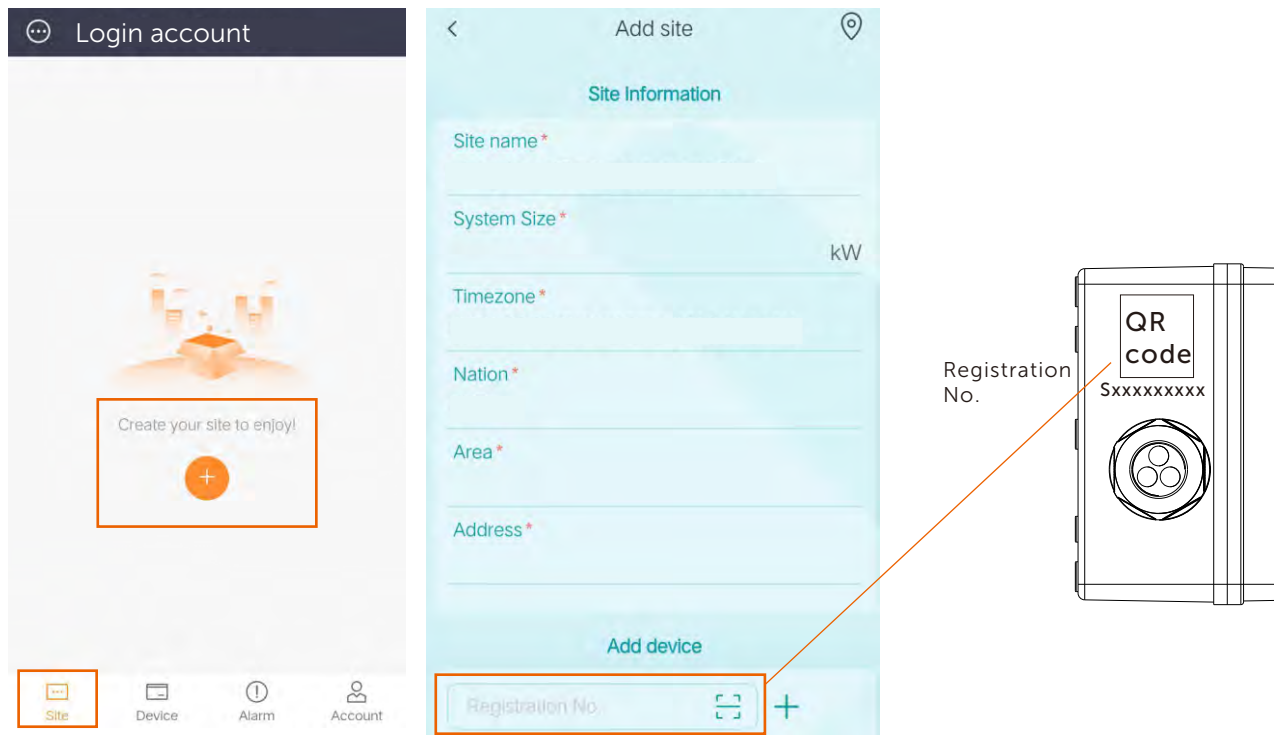
Google

Step 2: Touch the setting button at the upper left corner of the Monitoring App to choose language.

Step 3: Touch "Create a new account" at the bottom of Monitoring App and fill in the information to create the account.



Step 4: For the first login, click "+" to create site. Fill in site information and type in or scan the Registration No. and follow the instructions to complete the site creation and WiFi connection.



- If you already have the account, you can operate as below:

➤ Add Device

Step 1: Login your account and turn to "Device" page in the app.

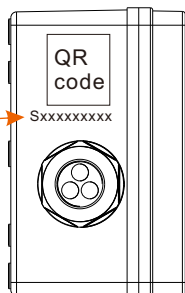
Step 2: Touch the "+" icon on the upper right corner and fill in the information to add the Adapter Box G2.

Site*
Default site
Registration No.*

OK

QR code

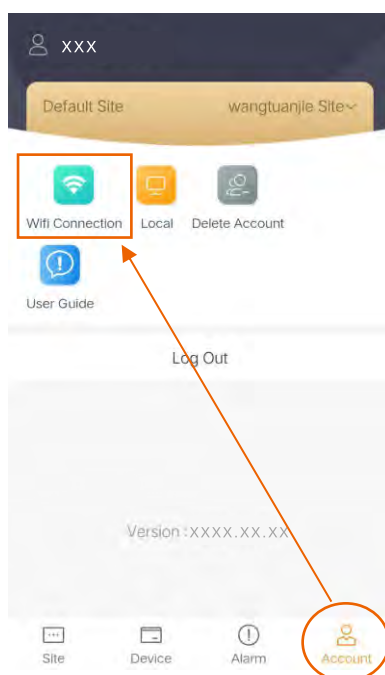
Sxxxxxxxx



➤ Wi-Fi Connection

Step 1: Login your account and turn to "Account" page in the app.

Step 2: Click "Wifi Connection".



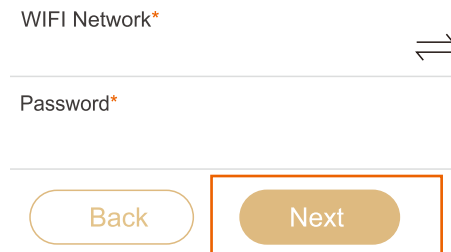
Step 3: Type in or scan the Registration No. of the Adapter Box G2. Then touch "Next" and agree to join the network of the Adapter Box G2.

Registration No.

Next

Step 4: Type in or choose your home Wi-Fi SSID and password, then touch "Next".

*Only 2.4GHz Wi-Fi is available.



WIFI Network*

Password*

Back Next

Step 5: Follow the instructions to complete Wi-Fi setting, there will be a note when the setting successes.

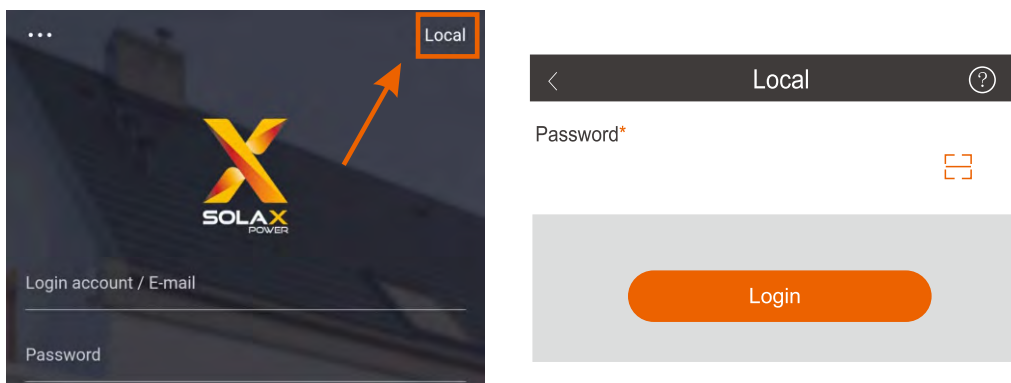
*Check more Wi-Fi setting information on www.solaxcloud.com/wifiSetting/

➤ Local Mode

Use your smart phone to connect the SolaX Wi-Fi signal (Wifi_Sxxxxxxx).

Then touch Local and type in password (initially same as the Registration No.) to access the Local Mode in the Monitoring App.

*Visit the local password setting instruction on www.solaxcloud.com/wifiSetting/



* Users can visit the IP address <http://192.168.10.10/> in a browser to configure WiFi if necessary. (The password is the Registration No.)

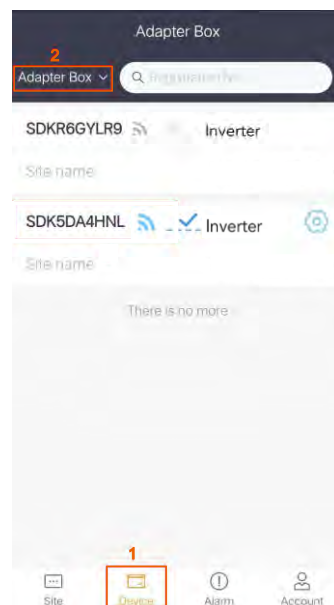
5.2 Settings for the Adapter Box G2

Besides settings on the inverter and Adapter Box G2, you will also need to set configurations for the heat pump. For specific wiring and settings of the heat pump, see the user manual of the heat pump.

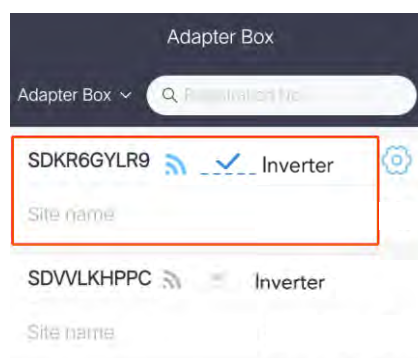
➤ Monitoring interface

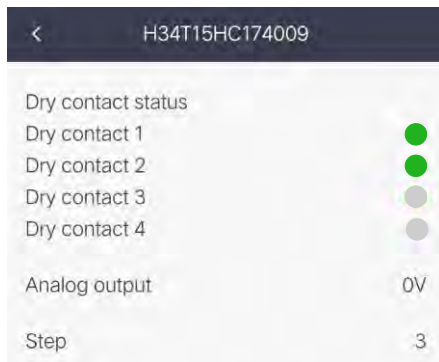
Step 1. Click "Device" at the bottom of the interface. Select "Adapter Box" from the drop-down list on the top left corner to enter the monitoring interface.

All Adapter Box G2 devices bound to the station will be displayed here with their connection status to the inverter and the network. If the page indicates that the adapter box G2 fails to connect the inverter or network, check their wiring and settings.



Step2. Choose the user's online device. The status, analog output and the present step of dry contact are as below.





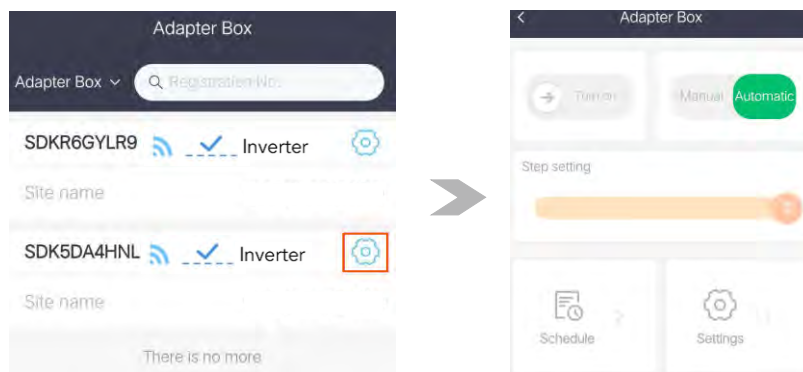
* Green points indicate the dry contact relay is closed and grey points mean the relay is open.

* "Analog output" indicates the analog output voltage which is at the range of 0 ~ 10 V.

* "Step" indicates the present step of the Adapter Box.

➤ Setting interface

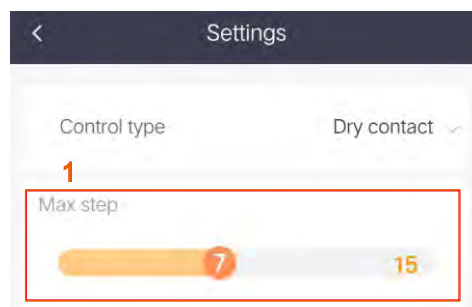
Click the icon below to enter the setting interface.



Users choose "Automatic" and can control a heat pump with the following methods (selecting in the drop-down list of "Control type") in accordance with the actual cable connection.

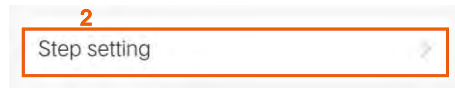
①. Dry Contact

Step1. The Adapter Box G2 offers 15 steps. Users set the "Max step" as needed according to the max step of the heat pump connected. Also, the step range of "Step setting" in the setting interface shall change with the parameter of the "Max step" users set.



Dry contact setting page

Step2. Click "Step setting" to set the rate of each step of the Adapter Box in accordance with the rate of the heat pump connected.



a. Heat pump settings for example

TB142 10-11 (COM-IN5)	TB142 10-12 (COM-IN6)	TB142 10-13 (COM-IN7)	TB142 10-14 (COM-IN8)	Step for capacity setting	
OFF	OFF	OFF	OFF	[OFF]	OFF 0%
ON	OFF	OFF	OFF	[ON]	Step1 10%
OFF	ON	OFF	OFF		Step2 20%
ON	ON	OFF	OFF		Step3 30%
OFF	OFF	ON	OFF		Step4 50%
ON	OFF	ON	OFF		Step5 70%
OFF	ON	ON	OFF		Step6 80%
ON	ON	ON	OFF		Step7 100%
OFF	OFF	OFF	ON		Auto step



b. Adapter Box G2 settings for example

Step setting						Save
D1	D2	D3	D4	Step	Rate (%)	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	10	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	20	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	30	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	50	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5	70	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6	80	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	100	

 Note!

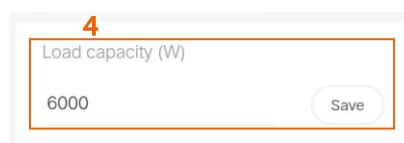
For example, if the power rate of the heap pump is divided into 8 operation steps from OFF to Step7 through the 4 dry contacts, you can set corresponding step values for Adapter Box G2.

Step3. Set the "Fallback step" as needed.

This is to prevent the heat pump from working at the preset step after Adapter Box G2 is disconnected from the inverter, which might cause extra usage of the grid power.



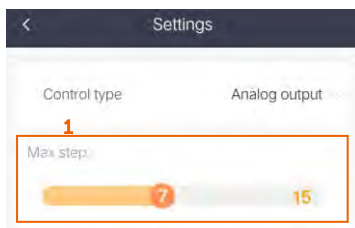
Step4. Set the "Load capacity" in accordance with the rated power of the heat pump connected to finish settings under dry contact.



Step5. Set effective time periods on the "Schedule" setting page to enable the settings of the Adapter Box.

②. Analog output

Step1. Set the "Max step" to adjust the power accuracy of the step in accordance with the power of the heat pump.



a. Heat pump settings for example

0-10V	Step for capacity setting	
0~0.63V	OFF	0%
1.88V	Step1	10%
3.13V	Step2	20%
4.38V	Step3	30%
5.63V	Step4	50%
6.88V	Step5	70%
8.13V	Step6	80%
9.38~10V	Step7	100%



b. Adapter Box G2 settings for example

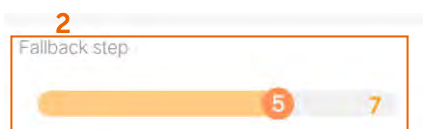
Step	Analog output
OFF	0~0.63 V
Step 1	1.88 V
Step 2	3.13 V
Step 3	4.38 V
Step 4	5.63 V
Step 5	6.88 V
Step 6	8.13 V
Step 7	9.38~10 V

Note!

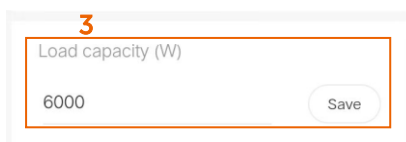
For example, if the operating voltage of the heap pump (0-10 V) is divided into 8 operation steps from OFF to Step7, you can set the maximum step of analog output to 7 for Adapter Box G2. The system will then equally divide 10 V into 8 parts, and the voltage value of each part is the value of each step of the heat pump.

Step2. Set the "Fallback step" as needed.

This is to prevent the heat pump from remaining working at the preset step after Adapter Box G2 is disconnected from the inverter, which might cause extra usage of the grid power.



Step3. Set the "Load capacity" in accordance with the rated power of the heat pump connected to finish settings under dry contact.



Step4. Set effective time periods on the "Schedule" setting page to enable the settings of the Adapter Box.

③. SG Ready

Under "SG Ready" mode, the dry contact only control the default relay DO1. The relay is closed when "Signal ON condition" is met and the relay is open when "Signal OFF condition" is met.

Under automatic mode, users select "Automatic", click "Settings" to select "SG Ready" and set the parameters below.

Step1. Set parameters under the "Signal ON condition" and the "Signal OFF condition" as needed. The "Threshold of battery" shall be set at the range of 10%~100%. The parameters under "Limitation of Signal ON" do not need to be set.



Note: The difference between "Threshold on Feed in power" and "Threshold of consumption" must be greater than the power of the heat pump.

Step2. Select "And" / "Or" under different situations under "Automatic" mode.

Scenario	Situation	"And/ Or" to select	the Result relating to "And/ Or" selection
Battery connected	No 0kW export control	Realtime power going to grid > the power putting on "threshold on feed in power"	"Or" -when either condition is met;
		Realtime battery SOC > the SOC putting on "threshold of battery SOC"	"And" -when both conditions are met
		Realtime power taking from grid > the power putting on "threshold of consumption"	"Or" -when either condition is met;
		Realtime battery SOC < the SOC putting on "threshold of battery SOC"	"And" -when both conditions are met
	Export control set 0kW in system	Realtime battery SOC > the SOC putting on "threshold of battery SOC"	to select "Or"
		Realtime power taking from grid > the power putting on "threshold of consumption"	"Or" -when either condition is met;
		Realtime battery SOC < the SOC putting on "threshold of battery SOC"	"And" -when both conditions are met
No battery connected	No 0kW export control	Realtime power going to grid > the power putting on "threshold on feed in power"	either "And" or "Or"
		Realtime power taking from grid > the power putting on "threshold of consumption"	either "And" or "Or"
	Export control set 0kW in system	This function cannot be supported.	

Notice: Signal off takes the priority when both "Signal ON condition" and "Signal OFF condition" are met.

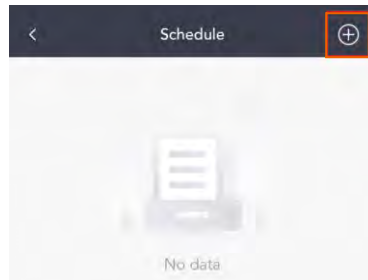
* The "Minimum per ON signal" indicates the relay shall be closed for at least 5 minutes when it meets the "Signal ON condition".

* The "Maximum ON per day" indicates the relay shall be open when the heat pump is controlled by the Adapter Box for more than 1200 minutes within a natural day.

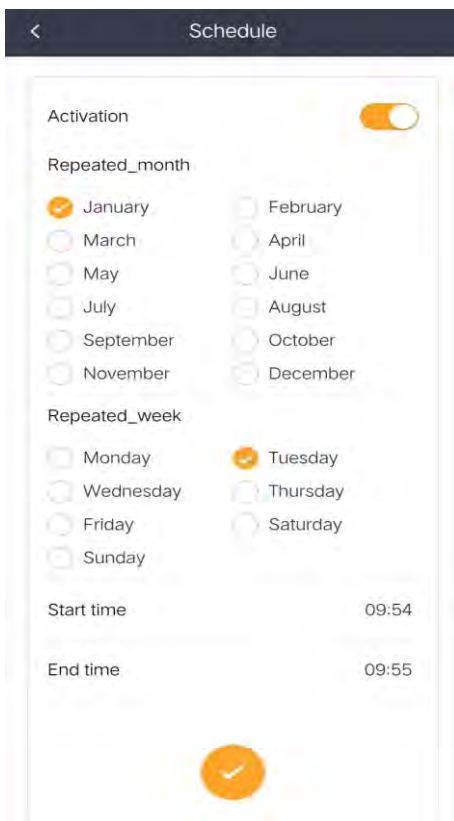
Step3. Set effective time periods on the "Schedule" setting page to enable the settings of the Adapter Box.

How to set schedules

Step1. Click "Schedule" in the setting interface to enter the scheduling page. Then touch the icon "+" on the top right corner to set new time periods.



Step2. Set new time periods.



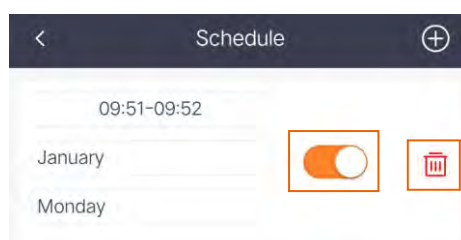
* "Activation" makes the schedule users set valid.

* "Repeated_month", "Repeated_week", "Start time" and "End time" specify the valid time periods.

* The range of "Start time" and "End time" should be at 00:00-23:59 and the "End time" must be later than the "Start time".

*Click "Save" when users complete all the settings.

Note: Users can set up to 6 time periods. The enabling switch (the "Activation" switch) and the "delete" icon are used to adjust the schedules.



6 Technical Data

Product Name	Adapter Box G2
Model	Adapter Box G2
Max. Dry Contact	2 A 30 V d.c./ 0.5 A 230V a.c. *4
Analog Output	0-10 Vdc
Rated Input Voltage	9-14 Vdc
Idle Power	0.5 W
Rated Power	2 W
EIRP Power	17.46 dBm (Measured Max. Average)
Frequency	2.412~2.472GHz
Antenna Type	PCB antenna
Interface	RS485
Degree of Protection	IP65
Operating Temperature	-40~60 °C
Wireless Mode	802.11 b/g/n
Dimension (mm)	125 * 125 * 75
Net Weight (kg)	0.4

7 Certification and Safety

7.1 Certification mark



7.2 Safety

The Adapter Box G2 produced by SolaX Power Network Technology (Zhejiang) Co., Ltd. has been designed and tested strictly in accordance with relevant safety regulations. The safety instructions must be followed when installing and maintaining the electrical and electronic equipment. Improper operation will cause personal injury and property damage to the operator and the third party.

- Before installation, ensure all power of the adapter box has been cut off.
- Do not dismantle or scrap by force.
- Strictly follow the installation guide to connect cables and the enclosure must be well locked before the adapter box is electrified.
- Unauthorized opening and cable connection will void the warranty and cause lethal danger or serious injury due to electric shock.
- Refer to the corresponding installation guide for related safety requirements when it is connected to other devices.
- Anti-static measures should be taken to decrease the damage of static electricity to electronic components.
- Keep away from flammable, explosive materials.
- All the product labels and nameplate on the inverter shall be maintained clearly visible.



Indicates that the product must not be processed with household waste. It must be brought to an electric and electronic waste collection point for recycling and disposal. By ensuring the appropriate disposal of this product you also help in preventing potentially negative consequences for the environment and human health. The recycling of materials helps preserve our natural resources. For further information regarding the recycling of this product, please contact your municipality, local waste disposal center or the store

where the products was purchased.



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may

cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in

a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

8 Contact Us

If you have any question or any technical question about Adapter Box G2, please contact us through the following methods.

SolaX Power Network Technology (Zhejiang) Co., Ltd.

ADD.: No. 278, Shizhu Road, Chengnan Sub-district, Tonglu County, Hangzhou, Zhejiang, China

E-mail: info@solaxpower.com

www.solaxpower.com