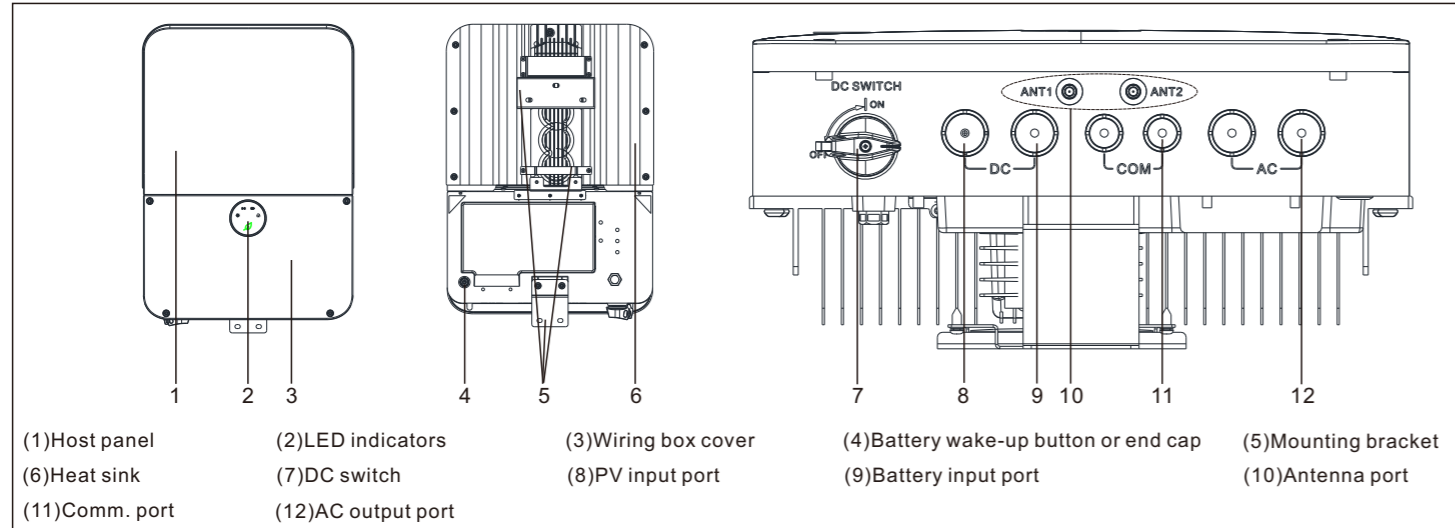


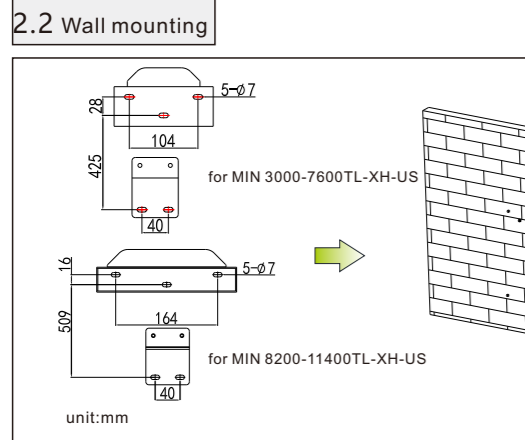
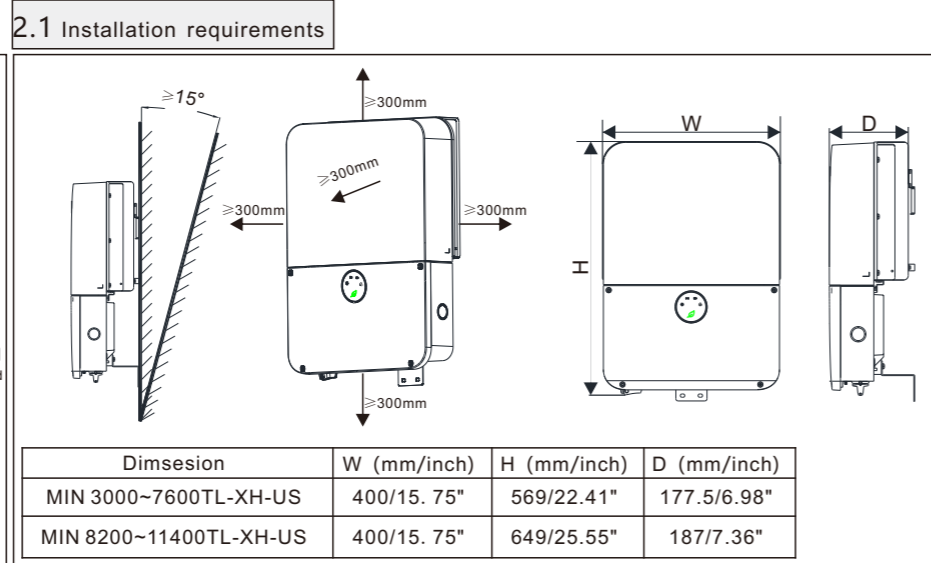
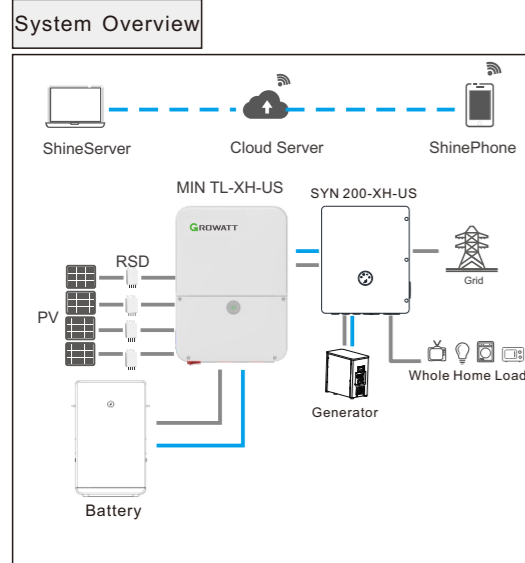
### 1. General information-specification



**Note:**

- Before installing the device, check that the package contents are intact and complete against the packing list. If any damage is found or any component is missing, contact your dealer.
- This file will be updated from time to time due to product upgrades or other reasons. Unless otherwise agreed, this document is intended as a guide only. All information and suggestions do not constitute an express or implied warranty. The final interpretation of the content is at GROWATT.
- This document is for quick guidance installation only. For details, please refer to the User Manual.
- Machine damage caused by failure to follow the content is not covered by the warranty.

### 2. Installation



### 3. Electronic connection

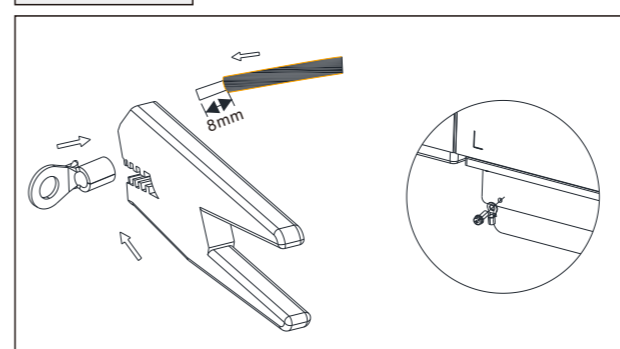
Please prepare the cable before connecting as follows.

No.	Cable name	Type	Recommend model
1	Grounding wire	Single multi-core yellow-green copper wire	AWG10≤Wire diameter≤AWG8
2	AC output wire	Two or three different color multi-core copper wires	AWG8≤Wire diameter≤AWG6
3	PV input wire	Photovoltaic dedicated cable(such as PV1-F)	AWG10≤Wire diameter≤AWG8
4	Battery input wire	Red and black multi-core copper	AWG10≤Wire diameter≤AWG8
5	Other communication	CAT5E suggested	/

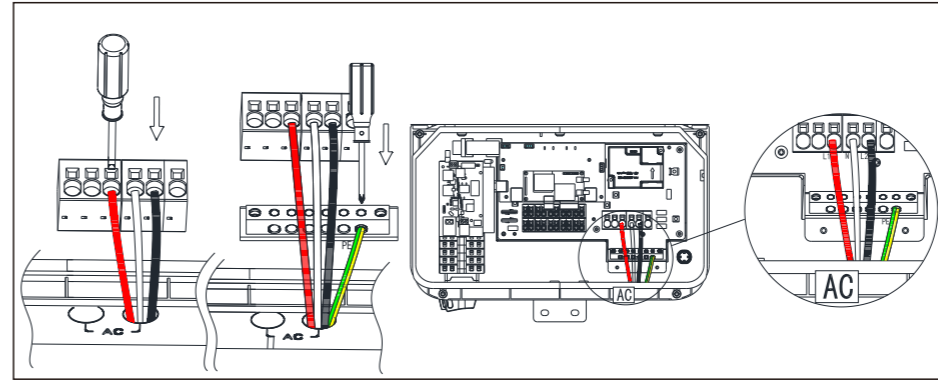
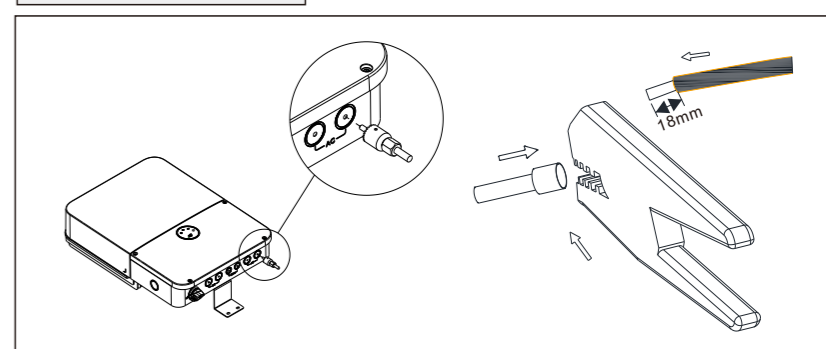
**Note**

- Please make sure all switches are OFF before wiring. For personal safety, please do not operate with electricity.

#### 3.1 Grounding



#### 3.2 AC output connection



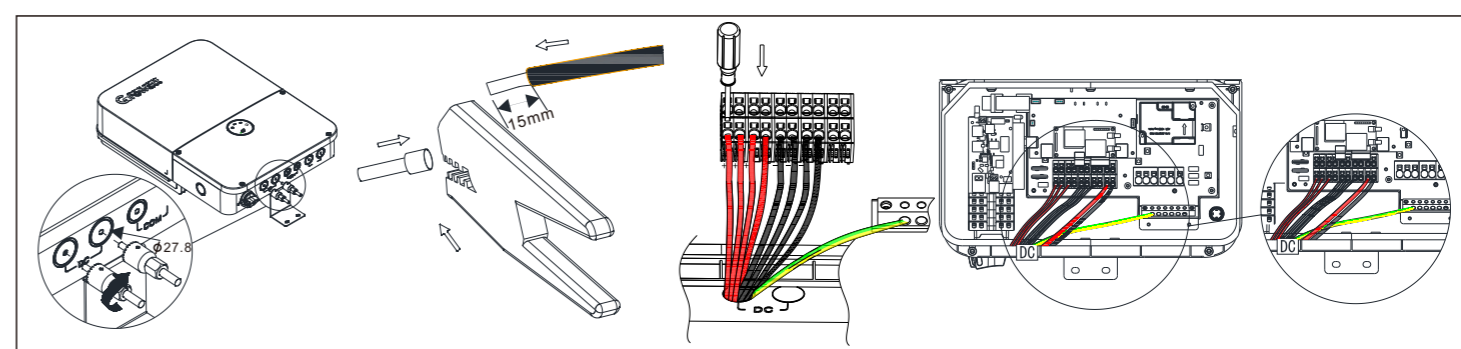
- Strip 0.7 inches (18mm) of the AC cable insulation.
- Insert the AC conduit into the AC-side drill guide that was opened.
- Insert the 0.8\*4.0 mm standard flat-blade screwdriver and press the release mechanism and open the clamp.
- Connect the cable to the appropriate terminal blocks according to the labels on the terminal blocks(L1,N,L2,of AC Grid ).
- Insert the cable into the round opening and remove the screwdriver, then the cable is automatically clamped.
- Connect the PE to the Grounding terminal.

#### 3.3 DC connection

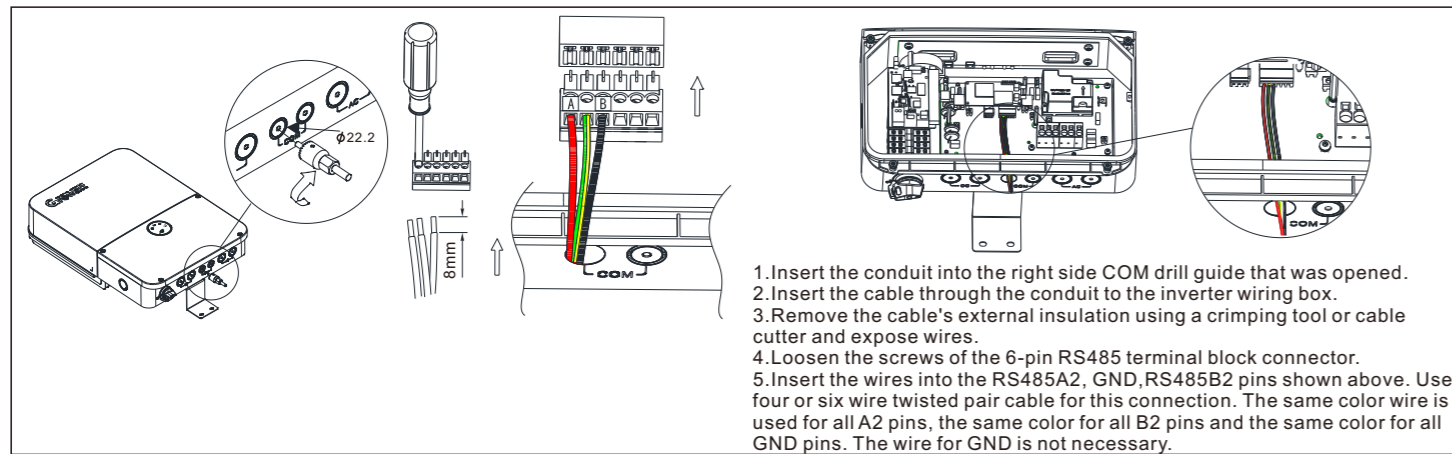
##### 3.3.1 PV and Battery input terminal installation

- Strip 0.59 inches (15mm) of the PV and Battery power cable insulation.
- Insert the conduit into the DC-side drill guide that was opened.
- Insert the 0.6\*3.5 mm standard flat-blade screwdriver and press the release mechanism and open the clamp.
- Connect the cable to the appropriate terminal blocks according to the labels on the terminal blocks(PV+1/2/3/4, PV-1/2/3/4,BAT+,BAT-).
- Insert the cable into the round opening and remove the screwdriver, then the cable is automatically clamped.
- Connect the PE to the Grounding terminal.

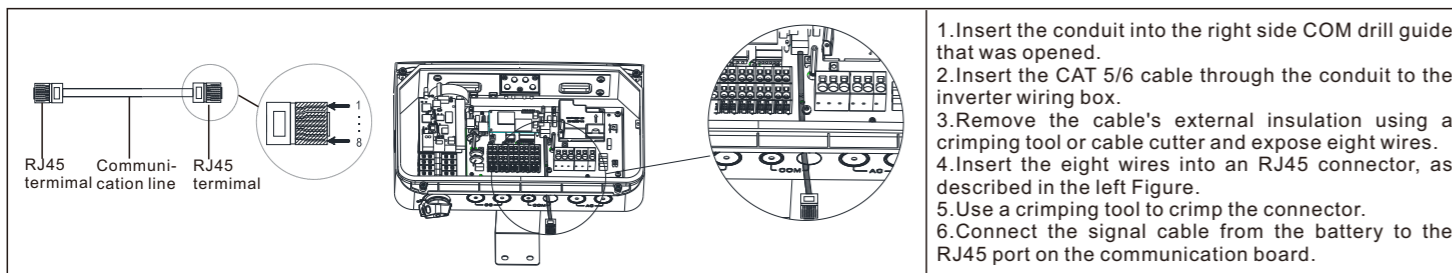
**Note:**Forbidden to reverse the positive and negative poles of the Battery input terminal!



### 3.4 RS485 communication cables installation

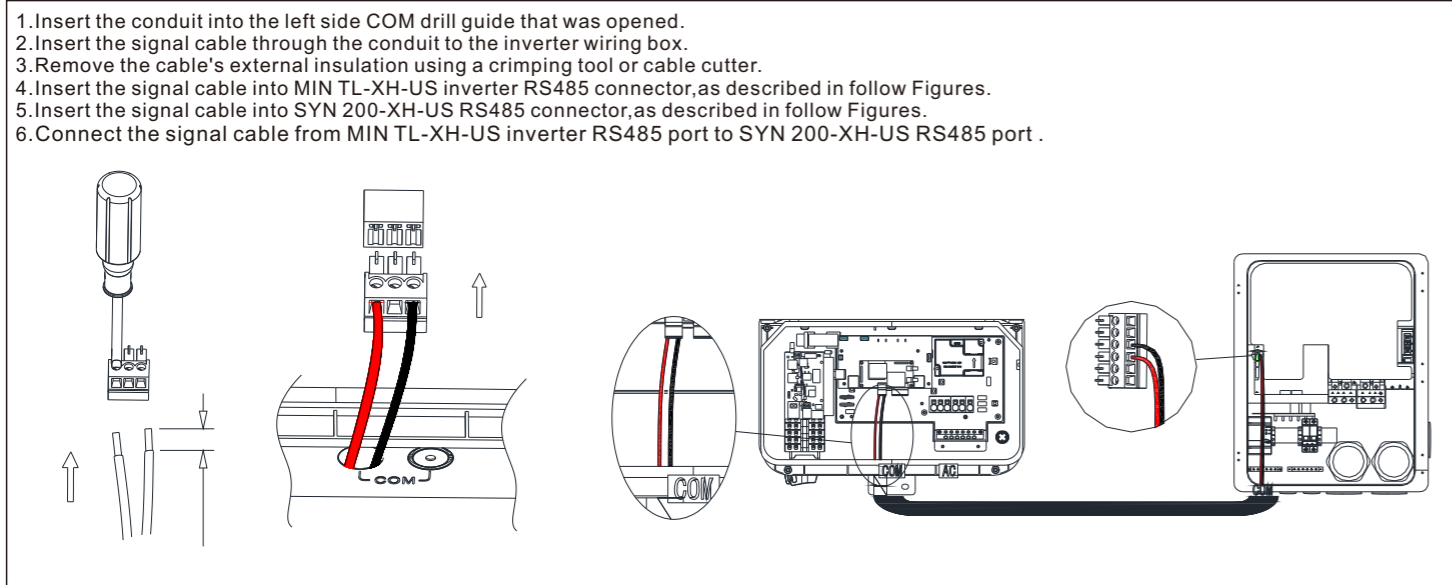


### 3.5 Battery communication cables installation

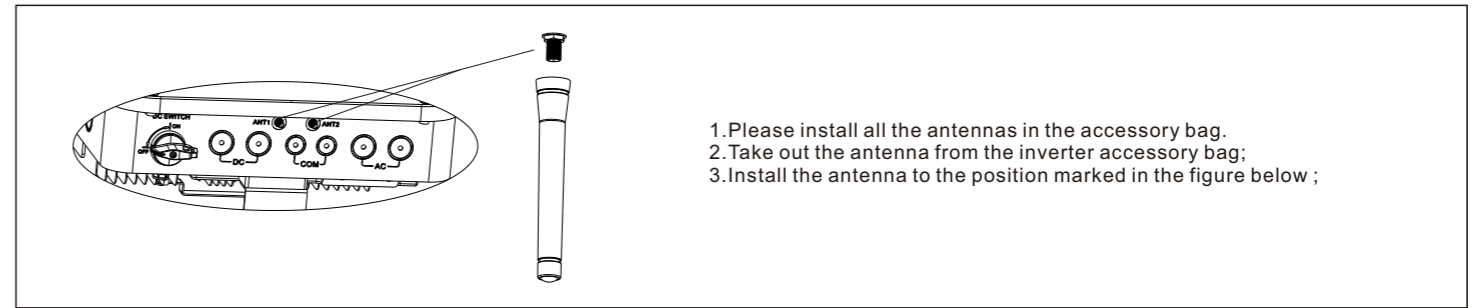


RJ45 Pin #	Wire Color		Signal definition	Fuction	RJ45 Pin #	Wire Color		Signal definition	Fuction
	T568B	T568A				T568B	T568A		
1	White/Orange	White/Green	Enable-	Battery wake-up signal	5	White/Blue	White/Blue	GND	GND
2	Orange	Green	Enable+		6	Green	Orange	Received-	NC
3	White/Green	White/Orange	CANL	Battery CAN communication	7	White/Brown	White/Brown	RS485B	Battery RS485 communication
4	Blue	Blue	CANH		8	Brown	Brown	RS485A	

### 3.6 Communication cables installation between MIN TL-XH-US inverter and SYN 200-XH-US



### 3.7 Installing the Antenna



### 4. Checking before power on

No.	Check Item	Acceptance Criteria	No.	Check Item	Acceptance Criteria
1	Inverter installation	The inverter is installed correctly, securely, and reliably.	6	Cable connections	The AC output power cable, DC input power cable, battery cable, and signal cable are connected correctly, securely, and reliably.
2	Cable layout	Cables are routed properly as required by the customer.	7	Unused terminals and ports	Unused terminals and ports are fitted with waterproofing bolts or watertight caps or drill guide unopened.
3	Cable tie	Cable ties are secured evenly, with no sharp protrusions.	8	Cable routing pipe sealing	All cable routing pipes at the bottom of the enclosure are sealed.
4	Grounding	The ground cable is connected correctly, securely, and reliably.	9	Cleanliness in the maintenance compartment	The maintenance compartment interior is clean and tidy.
5	Switches	The DC switch and all the switches connecting to the MIN TL-XH US are in the OFF position.	10	Installation environment	An appropriate installation space has been chosen, and the installation environment is clean and tidy.

### 5. Power on/off the inverter

Before power on, please make sure all of the voltage and current are in the range of specification of the inverter. Otherwise it will be damage to the inverter.

The steps of turn on the inverter as follow:

1. Turn on the switch between battery and the inverter.
2. Turn on the PV switch.
3. Turn on the Battery switch.
4. Turn on the switch between Grid and the inverter.
5. If need to setup the inverter, please turn to user manual of the inverter for detail description.
6. The shutdown steps are opposite to the above order.

### 6. Status of the inverter

MIN TL-XH-US inverters come with four LED indicators. From the front cover left to right, it shows the indicator of Power, Comm, Battery status, and Error.

Fuction	Color	Status	Action	Description	Fuction	Color	Status	Action	Description
POWER	Green	ON	Steady	Feed in grid	COMM	Green	ON	Steady	4G/WiFi, local WiFi ok
	Green	Blink	3s on/1s off	DC ON/AC OFF		Green	Blink	0.5s on/0.5s off	Local WiFi connecting
	Green	Blink	1s on/3s off	DC OFF/AC ON		Green	Blink	1s on/1s off	WiFi/ 4G fail, Local WiFi ok
	Green	Blink	0.5s on/0.5s off	Checking		Green	Blink	1s on/3s off	Local WiFi fail, 4G/WiFi ok
	Green	Blink	2s on/2s off	Standby mode		Blank	ON	Steady	Comm. Fail
BAT	Green	ON	Steady	BAT is in normal operation	FAULT	Red	ON	Steady	Arc Fault(with the buzzer on)
	Green	Blink	1s on/3s off	BAT is in low power		Red	Blink	1s on/1s off	Warning
	Green	Blink	0.5s on/0.5s off	BAT is in fault mode		Red	ON	Steady	Fault

**Note:** For more detailed instructions, please refer to the user manual.

### 7. Service and contact

Growatt USA, Inc  
9227 Reseda Blvd, #435 Northridge, CA 91324, USA.

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E usaservice@ginverter.com  
W www.growatt-america.com



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