SUNGROW
Clean power for all

User Manual

Smart Communication Box

COM100D/COM100E

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About This Manual

The manual mainly contains the product information, as well as guidelines for installation, operation, and maintenance. The manual does not include complete information about the photovoltaic (PV) system. Readers can get additional information at **www.sungrowpower.com** or on the webpage of the respective component manufacturer.

Validity

This manual is valid for the following models:

- COM100D
- COM100E

It will be referred to as "COM100" hereinafter unless otherwise specified.

Type Description

Type	Configuration	Communication Manner
COM100D	Includes the Logger1000A, switch-mode power supply, surge protection device, micro circuit breaker, and lighting device inside	Support of 4G, WLAN and Ethernet communication
COM100E	Includes the Logger1000B, switch-mode power supply, surge protection device, miniature circuit breaker, and lighting device inside	Support of WLAN and Ethernet communication

Target Group

This manual is intended for professional technicians who are responsible for installation, operation, and maintenance of inverters, and users who need to check inverter parameters.

The product must only be installed by professional technicians. The professional technician is required to meet the following requirements:

- Know electronic, electrical wiring and mechanical expertise, and be familiar with electrical and mechanical schematics.
- Have received professional training related to the installation and commissioning of electrical equipment.
- Be able to quickly respond to hazards or emergencies that occur during installation and commissioning.
- Be familiar with local standards and relevant safety regulations of electrical systems.
- Read this manual thoroughly and understand the safety instructions related to operations.

How to Use This Manual

Please read this manual carefully before using the product and keep it properly at a place for easy access.

All contents, pictures, marks, and symbols in this manual are owned by SUNGROW. No part of this document may be reprinted by the non-internal staff of SUNGROW without written authorization.

Contents of this manual may be periodically updated or revised, and the actual product purchased shall prevail. Users can obtain the latest manual from **support.sungrowpower.com** or sales channels.

Security Declaration

For details on the product's network security vulnerability response process and vulnerability disclosure, please visit the following website: https://en.sungrowpower.com/security-vulnerability-management.

Symbols

This manual contains important safety instructions, which are highlighted with the following symbols, to ensure personal and property safety during usage, or to help optimize the product performance in an efficient way.

Please carefully understand the meaning of these warning symbols to better use the manual.

⚠ DANGER

Indicates high-risk potential hazards that, if not avoided, may lead to death or serious injury.

⚠ WARNING

Indicates moderate-risk potential hazards that, if not avoided, may lead to death or serious injury.

⚠ CAUTION

Indicates low-risk potential hazards that, if not avoided, may lead to minor or moderate injury.

NOTICE

Indicates potential risks that, if not avoided, may lead to device malfunctions or financial losses.

"NOTE" indicates additional information, emphasized contents or tips that may be helpful, e.g., to help you solve problems or save time.

Contents

1 Safety Instruction

This chapter mainly introduces safety instructions that need to be respected during the operation of COM100.

The COM100 has been designed and tested strictly according to international safety regulations. As electrical and electronic equipment, the COM100 must be installed, commissioned, operated, and maintained in strict accordance with related safety instructions.

Incorrect operation or work may cause:

- injury or death to the operator or a third party;
- damage to the COM100 and other properties.

Therefore, the following safety instructions must be read and always kept in mind prior to any work. All detailed work-related safety warnings and notes will be specified at the critical points in corresponding chapter.

⚠ WARNING

All operation and electrical work must only be performed by qualified personnel.

Before Installation

NOTICE

After receiving the device, please check if there is damage caused during transport. Contact SUNGROW or the forwarding company once any problem is detected.
The related operators must be familiar with the safety instructions in this manual and other safety regulations about the installation, operation and maintenance of the COM100.
Correct moving, transport, installation, operation and maintenance are important for the long-term operation of the COM100.

During Installation

NOTICE

The COM100 can only be used as described in this manual. Altering the product without authorization or using spare parts not sold or recommended by SUNGROW may lead to fire, electric shock or other damages.

NOTICE

Disconnect all electrical connections and the upstream input switch and make sure the COM100 is voltage-free during installation.

Maintenance and Replacement

⚠ WARNING

The maintenance of the COM100 can only be performed by qualified personnel from service dept. of SUNGROW or other qualified personnel.
User can never maintain or replace the modules and other parts. Serious personal injury or property loss may follow if otherwise.

NOTICE

Never replace the internal components of the COM100 without authorization. SUNGROW shall not be held liable for any possible damage caused by ignorance of this warning.

2 Product Introduction

2.1 Function Description

2.1.1 Brief Introduction

COM100 integrates the hardware and software functions of Logger1000. It applies to grid-connected scenarios below 540V, mainly including industrial, commercial, and residential scenarios. It supports various networking modes and installation methods, and is equipped with protections. It features flexible networking, auxiliary maintenance, and easy operations.

Flexible networking

- Support of RS485, Ethernet and WLAN communication
- Support of access by various environment sensors, Smart Energy Meters, and Meteo Stations
- Support of IV curve online diagnosis with iSolarCloud

Auxiliary maintenance

- Support of batch inverter parameter setting and software upgrading
- Support of remote desktop function
- Support of automatic search and allocation of inverter address
- Support of grid control instruction and power factor control
- Support of local real-time monitoring

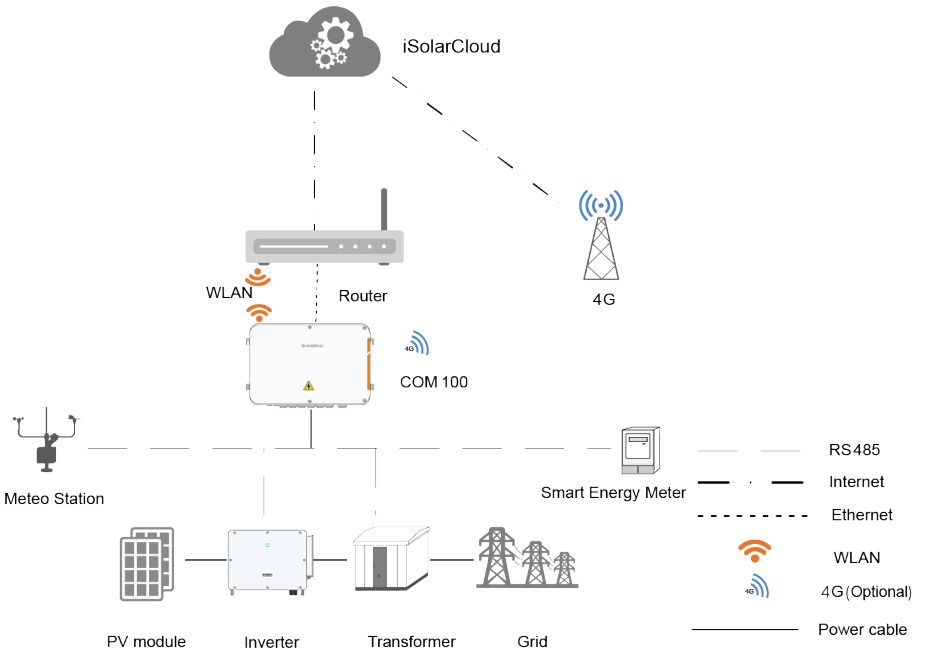
Easy operation

- Equipped with lighting device for ease of night maintenance
- Plastic enclosure, lighter weight and easier installation

2.1.2 Networking Application

The COM100 can monitor running information of the PV system in real time and transfer the information to the background.

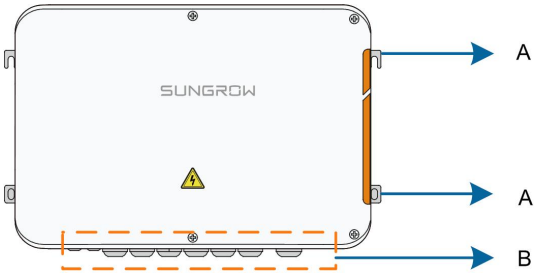
The COM100 can be connected to iSolarCloud via Ethernet, WLAN or 4G network.



⚠ WARNING

The equipment is a professional product.
Non-professionals are strictly prohibited to install and operate this equipment.

2.2 Appearance



Item	Name	Description
A	Mounting ear	4, for ease of installation
B	Waterproof terminal	-

2.3 Dimensions

The dimensions of the COM100 are as follows:

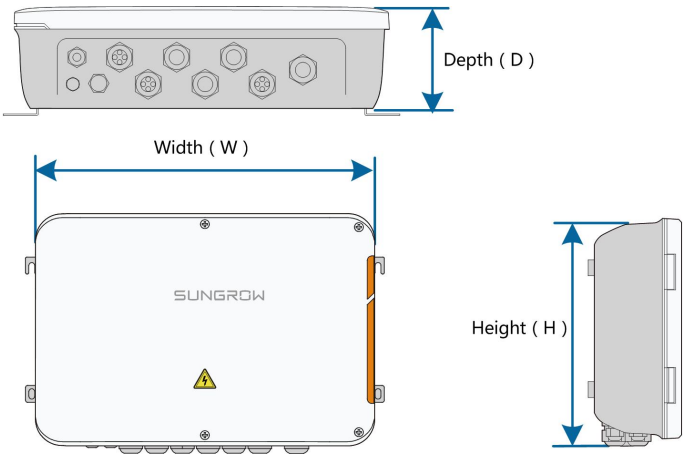


Figure 2-1 COM100 dimensions

Width (W)	Height (H)	Depth (D)
460mm	315mm	126mm

3 Mechanical Installation

3.1 Unpacking and Inspection

Check the scope of delivery for completeness according to the packing list. The following items should be included:

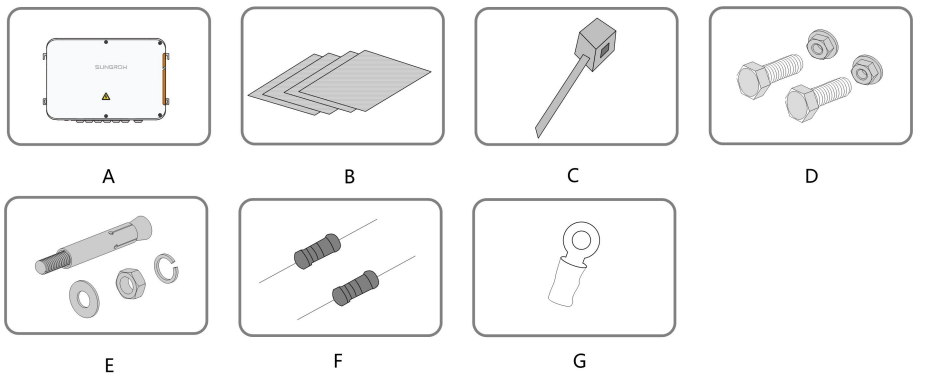


Figure 3-1 Scope of delivery

Item	Name	Description
A	COM100	-
B	Documents	Quick user manual, delivery inspection report, packing list, warranty card, and certificate
C	Cable tie	12, used for binding the cables
D	Hexagon bolt assembly	4, M6 x 45, used for wall-mounting to fasten the device on the metal surface
E	Expansion bolt	4, M6 x 60, used for wall-mounting to fasten the device on the concrete wall
F	Terminal resistor	6x120Ω Note: if there are more than 15 devices connected on the RS485 bus, it is recommended to connect a 120Ω terminal resistor in parallel on the A and B lines at the head (or tail end) of the bus

Item	Name	Description
G	OT terminal	M5x10, used for grounding connection

3.2 Location Requirements

- With the ingress of protection IP66, the COM100 can be installed both indoors and outdoors (more often).
- Ambient temperature: -30℃ to +60℃; and ambient humidity: ≤ 95%. If otherwise, the internal components will be damaged.
- Take anti-moisture and anti-corrosion measures.

3.3 Installation Tools

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

3.4 Installation Method

The COM100 can be installed in wall-mounting manner or pole-mounting manner.

⚠ WARNING

Be aware of the weight of the COM100 throughout the installation process!
Tip over or fall of the device due to inappropriate operation can cause personal injury!

3.4.1 Wall-Mounting

Mount the COM100 onto the concrete wall or metal surface according to onsite conditions.

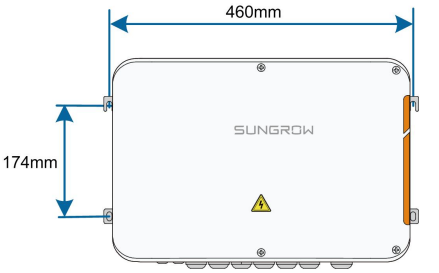
⚠ DANGER

Avoid drilling holes in the utility pipes and/or cables attached to back of the wall!

NOTICE

Operation personnel should wear goggles and dust mask throughout the drilling process to avoid dust inhalation or contact with eyes.

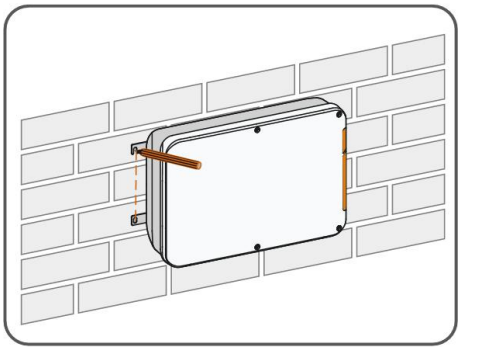
The following figure shows the installation dimensions of the COM100.



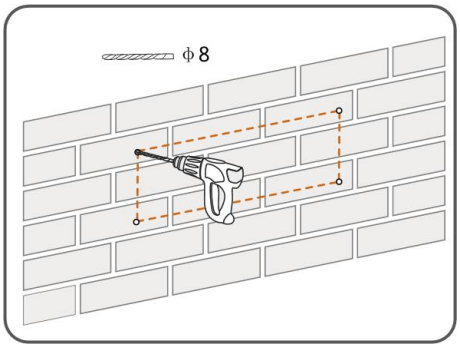
3.4.1.1 Concrete Wall

Step 1 Select an appropriate installation surface.

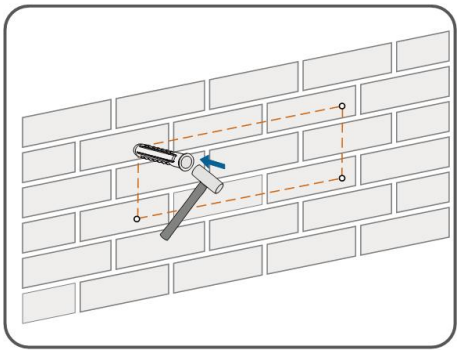
Step 2 Mark positions for drilling holes with a marker.



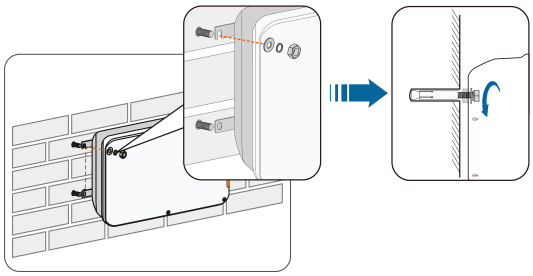
Step 3 Drill the holes with a drill according to the marks made before.



Step 4 Secure all the expansion bolts into the holes with a rubber hammer.



Step 5 Fix the COM100 onto the installation surface with the enclosed fasteners.



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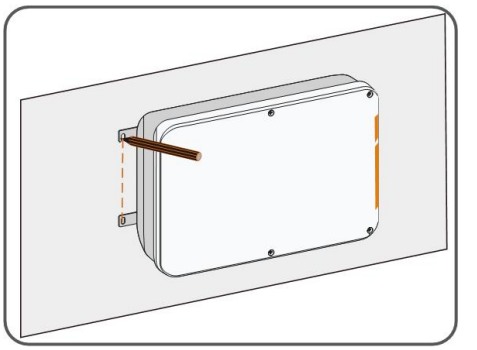
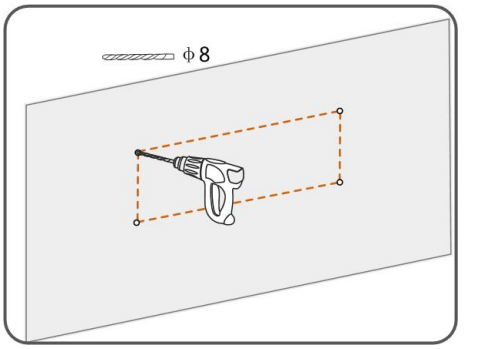
3.4.1.2 Metal Surface

Step 1 Select an appropriate installation surface.

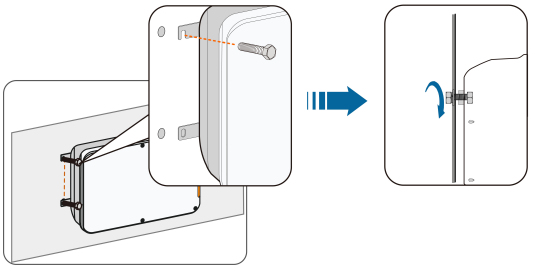
Step 2 Mark positions for drilling holes with a marker.



Step 3 Drill the holes with a drill according to the marks made before.



Step 4 Fix the COM100 onto the installation surface with the enclosed fasteners.



Step 5 Check and ensure that the COM100 is firmly in place.

--End

3.4.2 Pole-Mounting (Optional)

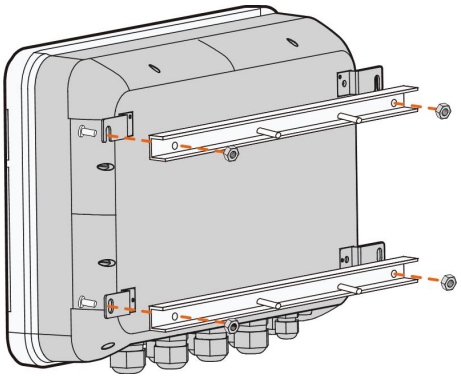
Prerequisite

COM100 can be mounted on a pole. If you need to purchase this scheme, contact SUNGROW who will provide the design drawings.

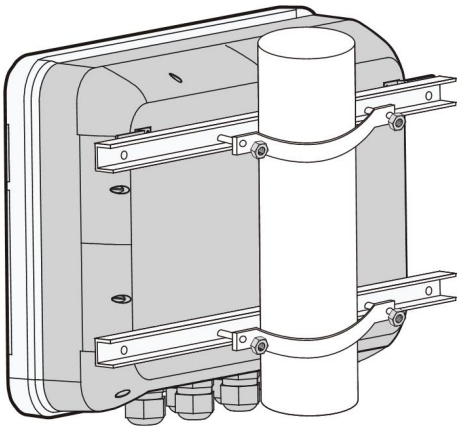
Accessories supplied with the COM100 include matching screw assembly, nuts, brackets, clamps, etc.

The installation procedure is as follows:

Step 1 Anchor the COM100 to the mounting-brackets by using the screw assembly via the mounting ears, as shown in the figure below.



Step 2 Fix the mounting-brackets with the clamps by using the nuts.



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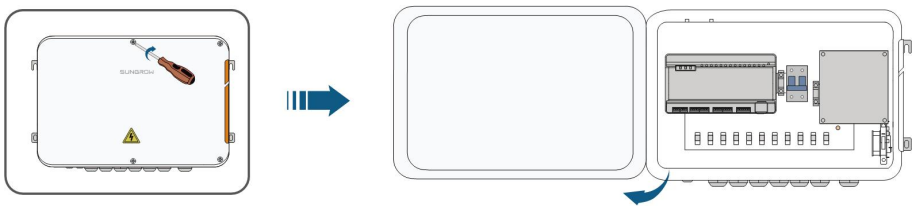
3.5 Magnetic Base Antenna Connection(Optional)

Prerequisite

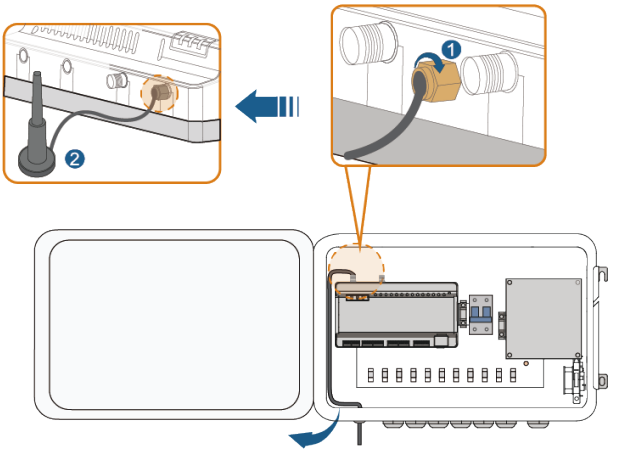
COM100 has a built-in antenna. If COM100 is installed in a container, a magnetic base antenna must be purchased to remove signal shielding.

Step 1 Release the 4 screws on the front side of the COM100 and open the front cover of the cabinet.

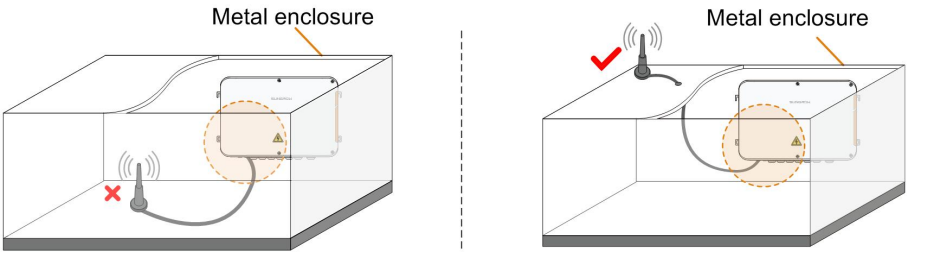


Step 2 Loosen the "RF" waterproof terminal on the bottom of the COM100.

Step 3 Lead the antenna through the "RF" waterproof terminal, and secure clockwise the nut at the end of the antenna to the corresponding terminal on the bottom of the Logger1000.



Step 4 Place the sucker antenna base on a metal surface outside the container.



--End

4 Electrical Connection

4.1 Waterproof Terminal Description

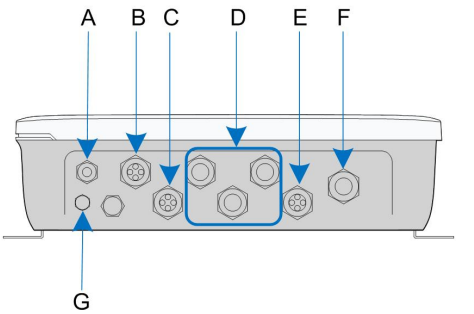


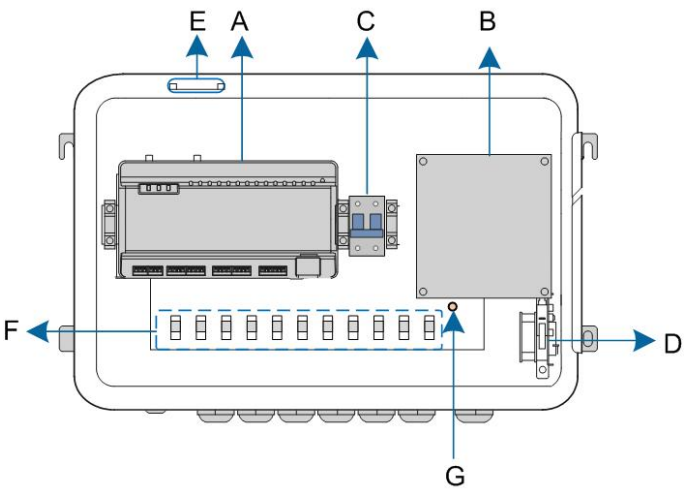
Figure 4-1 Waterproof terminals on the bottom of COM100

Table 4-1 Description of waterproof terminals

Item	Label	Description
A	RF	Reserved, antenna waterproof terminal
B	AI/DI	AI/DI waterproof terminal
C	DI/DRM	DI/DRM waterproof terminal
D	RS485-1, RS485-2, RS485-3	RS485 waterproof terminal
E	ETH	Ethernet waterproof terminal
F	AC (100~277V)	Waterproof terminal for 100Vac~277Vac power supply
G	-	Waterproof and dustproof ventilation valve

4.2 Internal Structure

The internal structure of the COM100 is shown in the following figure.

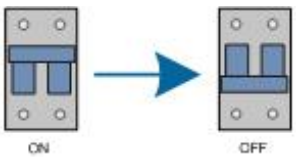


Item	Description
A	Logger1000A or Logger1000B
B	Switch-mode power supply and surge protection device, 24Vdc power supply
C	Micro circuit breaker, used to connect/disconnect the external 220Vac power supply
D	Lighting device, turn on the light before opening the front cover of the cabinet for ease of night maintenance
E	Built-in antenna mounting hole
F	Cable tie buckle, used for binding cables
G	Grounding terminal

4.3 Preparation Before Cable Connection

Step 1 Release the 4 screws on the front side of the COM100 and open the front cover of the cabinet, as shown in the figure below.

Step 2 Turn the internal power switch of the COM100 to the "OFF" position to ensure the COM100 is voltage-free.

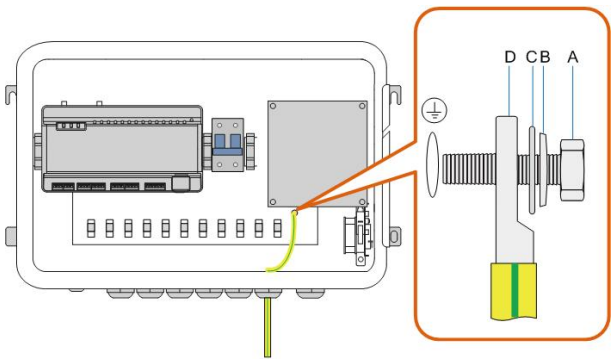


--End

4.4 Grounding

Step 1 Strip the insulation cover of the grounding cable and crimp the stripped cable to the OT terminal.

Step 2 Fasten the grounding cable in the sequence of cross recessed fastener assembly, OT terminal, and grounding hole.



Item	Description
A	M5x10 cross recessed fastener assembly
B	Flat washer
C	Spring washer
D	OT terminal

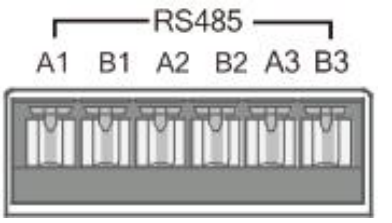
--End

4.5 RS485 Port

4.5.1 Connect to the Device with RS485 Port

Prerequisite

RS485 communication terminals inside the COM100 are located at the bottom of the Logger, including A1B1, A2B2, and A3B3.

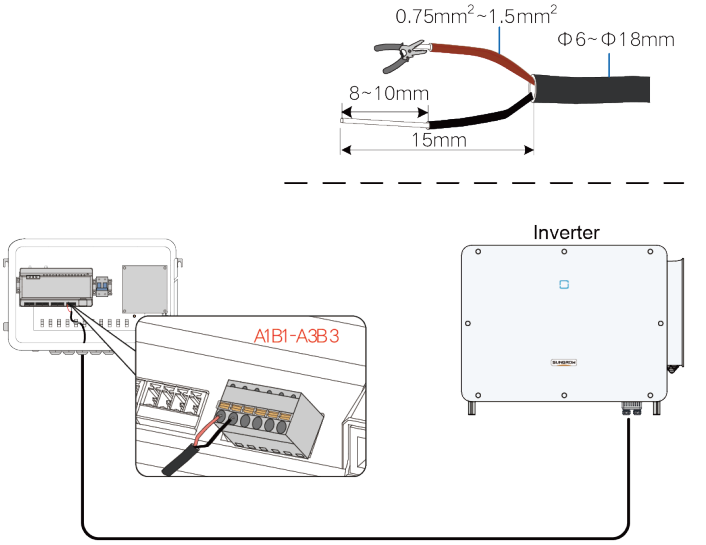


Communication cable specification:

Cable	Type
RS485 cable	Outdoor ultraviolet protection shielded twisted pair (STP)

Step 1 Loosen the "RS485-1/2/3" waterproof terminal on the bottom of the COM100.

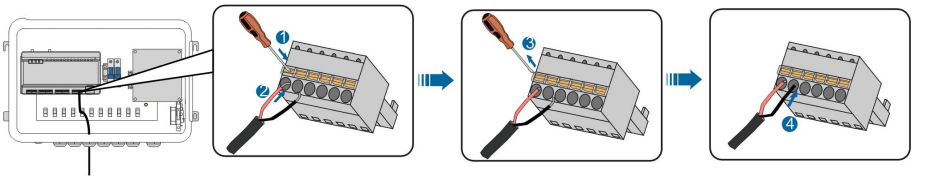
Step 2 Lead the RS485 cable through the "RS485-1/2/3" waterproof terminal. Strip the cable jacket and insulation layer of the communication cable with a wire stripper respectively.



NOTICE

RS485A is connected to port A while RS485B is connected to port B.

Step 3 Connect the stripped cable to the RS485 ports of the Logger1000, as shown in the figure below.



Step 4 Fasten the "RS485-1/2/3" waterproof terminal.

--End

4.5.2 Connect to the Device with RJ45 Port

Prerequisite

Communication cable specification:

Cable	Type
ETH communication cable	Outdoor STP Ethernet cable

Step 1 Loosen the "RS485-1/2/3" waterproof terminal on the bottom of the COM100.

Step 2 Lead the Ethernet cable through the "RS485-1/2/3" waterproof terminal. Strip the insulation layer of the communication cable with an Ethernet wire stripper.

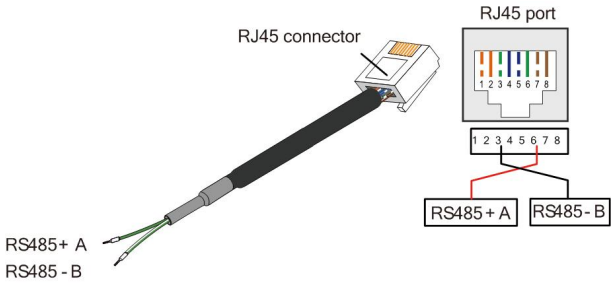
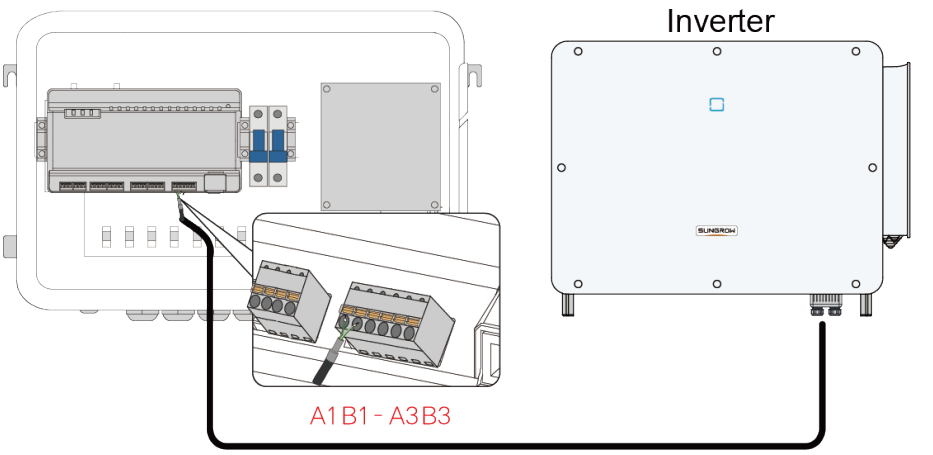


Table 4-2 Correspondence between wire colour and pin of RJ45 connector

Pin	Color	Pin	Color
1	White-and-orange	5	White-and-blue
2	Orange	6	Green
3	White-and-green	7	White-and-brown
4	Blue	8	Brown

Step 3 Insert the stripped communication cable into the RJ45 connector in the correct order, and crimp it with a crimping tool.

Step 4 Insert the RJ45 connector of the Ethernet communication cable into the "ETH" port of the Logger1000.



Step 5 Fasten the "RS485-1/2/3" waterproof terminal.

--End

4.6 Ethernet Port

Prerequisite

The COM100 can be connected to the background of the PV system via the Ethernet port, and the communication protocol is standard Modbus TCP or IEC104.

Step 1 Prepare a suitable length of Ethernet cable.

Step 2 Insert one end of the cable into the port of the Ethernet switch and the other end to the "ETH" port of the Logger1000 inside the COM100.

Step 3 Set IP address of the ETH port to be within the same network segment as that of the background monitoring system.

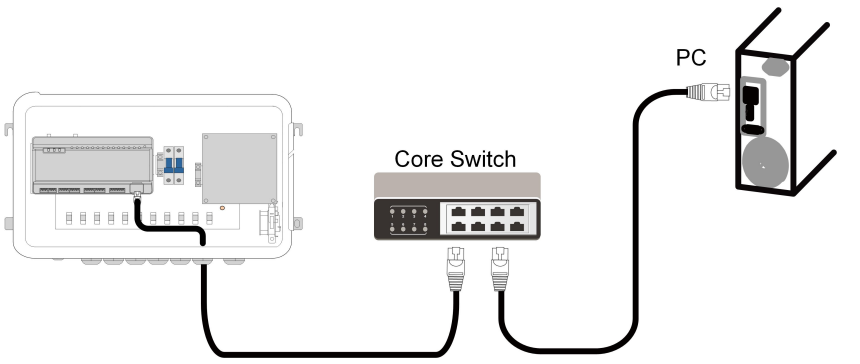


Figure 4-2 Connection to PV background system

NOTICE

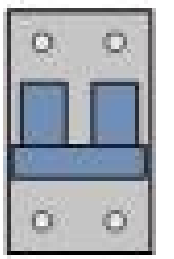
Default IP of the "ETH": IP12.12.12.12.

--End

4.7 External AC Power Supply Cable

Prerequisite

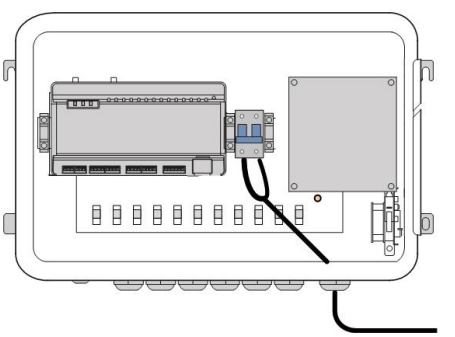
External AC power supply ports are provided on the bottom of external power supply circuit breaker inside the COM100, as shown in the figure below.



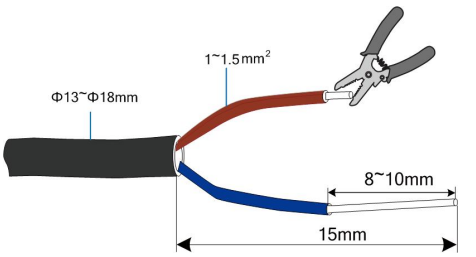
Power cable specification:

Cable	Type
Power cable	Outdoor ultraviolet protection cable

Step 1 Loosen the "AC (100~277V)" waterproof terminal, and insert the external power supply cable through the waterproof terminal into the corresponding terminal of the micro circuit breaker inside the COM100.



Step 2 Strip and connect the cable to the corresponding terminal inside the COM100.



Step 3 Fasten the "AC (100~277V)" waterproof terminal.

--End

4.8 External DC Power Supply Cable

Prerequisite

The 24Vdc power supply port inside the COM100 is the "24V IN" and "24V OUT" port on the bottom of the Logger. The rated power is 10W and the max. power is 12W.

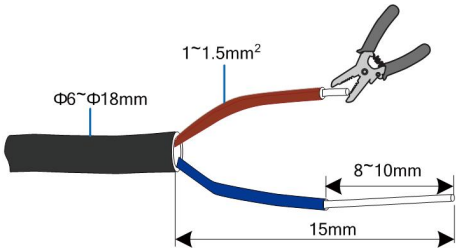
The COM100 can supply the connected external device with 24Vdc power.

DC cable specification:

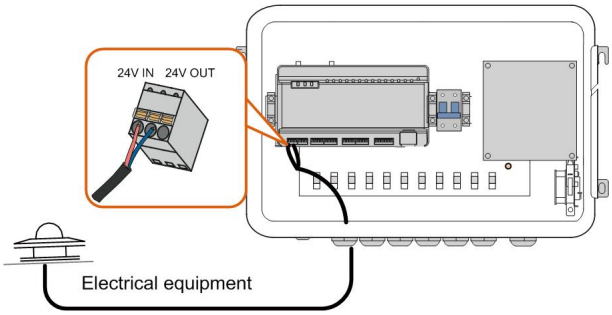
Cable	Type
DC cable	Outdoor ultraviolet protection STP

Step 1 Loosen an unused waterproof terminal on the bottom of the COM100.

Step 2 Lead the DC cable through the waterproof terminal. Strip the cable jacket and insulation layer of the DC cable by appropriate length with a wire stripper.



Step 3 Insert the stripped DC cable into the port "24V IN" and "24V OUT" of the Logger1000.



Step 4 Fasten the waterproof terminal.

--End

4.9 Inspection after Cable Connection

Conduct the following operations after finishing electrical cable connection:

- Check that all cables are correctly connected.
- Gently pull the cables backwards to ensure they are firmly in place.
- Fasten all the waterproof terminals and seal gaps at the bottom of the terminals with fireproofing mud.
- Close the front cover of the COM100 and tighten the screws.

5 Commissioning

5.1 Check before Commissioning

No.	Item	Result
1	All cables are intact, well insulated, and appropriately dimensioned	□
2	All cables are connected correctly and firmly	□
3	The polarity of the power supply cable is correct. The ground cable is reliably grounded	□
4	Seal the gaps at the bottom of the waterproof terminals with fireproof mud	□

5.2 Commissioning Steps

When all the foregoing items meet requirements, commission the COM100 for the first time.

No.	Step	Result
1	Inspection before commissioning	□
2	Turn the micro-circuit breaker inside the COM100 to the ON position.	□
3	Check whether the indicators of Logger1000 inside the COM100 normally flash.	□
4	Connect the debugging PC to the "ETH" port of the Logger1000 via the network cable (default IP address of "ETH": 12.12.12.12). Log in the Web at 12.12.12.12 through the IE or Chrome browser.	□
5	Make sure the communication cable connecting the device and the Logger1000 inside the COM100 is firmly in place, and connect the DC circuit breaker of the inverter to ensure the inverter is supplied with power.	□

No.	Step	Result
6	Configure related parameters referring to the user manual of Logger1000.	□
7	Enable the DHCP service of the router.	□
8	Set the iSolarCloud address if data needs to be uploaded to cloud server. • In mainland Chain, set the site to "Chinese Server". • In Europe, set the site to "European Server". • In Australia, set the site to “Australian Server”. • In other regions, set the site to "International Server".	□
9	Check the data of SUNGROW string inverter for correctness on the real-time information interface.	□
10	Create new plant via the iSolarCloud App and check the iSolarCloud data for correctness.	□

The auto search function is available for SUNGROW residential inverters and string inverters only whose addresses are automatically allocated.
Devices of other types, such as Smart Energy Meter and transformer, can be connected to Logger1000 will the adding device function.
Addresses of the device connected to the same communication port should be different from each other.
Save the settings after operation, and otherwise the settings will not take effect.

Use the iSolarCloud App to create a new plant. Users can directly scan the QR code on the front label of the Logger1000 or manually input the S/N to add communication equipment. For details, refer to the Quick Guidance of iSolarCloud App. Scan the bottom QR Code to view or obtain the Quick Guidance of iSolarCloud App.

6 WEB Interface

6.1 Running Requirements

Item	Parameter
System	WIN7, WIN8, WIN10, or Mac OS
Browser	IE10 or later, Chrome45 or later, Safari11 or later
Min. resolution	1366 x 768
CPU	CPU frequency higher than 2.5GHz

6.2 Configure PC Network Parameters

The COM100 and the PC can communication via the Ethernet or the WLAN. Corresponding configuration of network parameters is as follows:

Communication manner	Configuration	WEB address
(ETH) Ethernet	Set the IP address of the PC and COM100 to the same network segment. The IP address of the COM100 is 12.12.12.12. Therefore, the IP address of the PC may set to 12.12.12.125, and the subnet mask is 255.255.255.0.	12.12.12.12
WLAN	Turn on the wireless network setting of the PC. Search for the wireless network name of the internal Logger1000 and connect to it.	11.11.11.1

Note: Access the WEB page in either of the manners according to actual conditions.

6.3 Login Steps

This section provides a brief overview of the login procedure for the Web UI, specifically using a WLAN connection.

Step 1 On your PC, navigate to the wireless network settings, and connect to Logger1000's network.

The SSID follows the format “SG-[device S/N number]”] (for example, SG-A1234567890). The serial number (S/N) can be found on the Logger1000's front label.
This wireless network does not require a password for connection.

Step 2 Open your web browser and enter 11.11.11.1 in the address bar and press **[Enter]** to navigate to Logger1000's Web UI.

Step 3 Log in as a O&M user.

To enhance account security, the Logger1000 web interface defaults to a login page starting from firmware version P035 onwards. O&M users are required to enter their username to log in. The default username for O&M user is “maintain”, and the default password remains unchanged.

Enter your login credentials based on the page displayed.

If...	Then...
The Web UI navigates to the login page.	**a.** Enter the username: maintain. **b.** Enter the default password: pw1111. **c.** Click **Login**.
The Web UI displays the page **General Information**.	**a.** In the upper right of the page, click **Login** to open the dialog box. **b.** Enter the default password: pw1111. **c.** Click **Login**.

After logging in, the Web UI defaults to the interface with O&M user permissions.

--End

It is recommended to change the password after initial login. To change your password, on the Web UI, click **O&M User > Modify Password**.
Not changing the default password can lead to unauthorized access, and continued use of the initial password increases the risk of theft and hacking. Additionally, loss of the password can prevent access to the device, potentially causing losses to the power station. In these cases, SUNGROW shall not be liable for any losses incurred due to non-compliance with the recommended security practices.

6.4 Interface Introduction

Users may perform the following operations after entering the WEB interface.

Operation	Path	Manual and website
Create new plant	1. Click "About" on the WEB interface to obtain the QR code. 2. Scan the QR code with the iSolarCloud App and create new plants according to the prompt information.	Quick guidance of the iSolarCloud App
Logger configuration	-	Logger1000 User Manual

7 Appendix

7.1 Technical Parameters

Parameter	COM100D	COM100E
Configuration		
Max. number of devices	30	
RS485 interface	3	
Ehthernet	1×RJ45, 10/100 Mbps	
Digital input	5, Max. 24V dc	
Analog input	4, support 4 ~ 20 mA or 0□10 V dc	
Wireless communication		
Operator	Support of China Mobile/China Unicom/China Telecom, 4G / 3G / 2G	-
4G communication	LTE(FDD): B1, B3, B5, B8 LTE(TDD): B38, B39, B40, B41 TD-SCDMA: B34, B39 CDMA: BC0 GSM: 900 MHz /1800 MHz WCDMA: B1, B8	-
WLAN communication	802.11 b/ g / n / ac HT20 / 40/ 80 MHz 2.4 GHz / 5 GHz	
Power supply		
AC input	100 V ac - 300 V ac, 50 Hz / 60 Hz	
Power consumption	Typ. 20 W, Max. 30 W	

Parameter	COM100D	COM100E
Night light for maintenance	< 1 W	
Ambient conditions		
Operating Temperature	-30 ℃ ~ +60 ℃	
Storage Temperature	-40 ℃ ~ +70 ℃	
Relative air humidity	≤95 % (non-condensing)	
Elevation	≤ 4000m	
Protection class	IP66	
Mechanical parameters		
Dimensions (W x H x D)	460 mm x 315 mm x 126 mm	
Weight	6 kg	
Mounting type	Wall mounted,Bracket mounted,Pole mounted, outdoor and indoor	
Box material	PC	
Cable specification	AC 220 V: outdoor UV protection cable of 1-1.5 mm^2, outside diameter 13~18mm RS485: outdoor UV protection shielded twisted pair (STP) of 0.75-1.5 mm^2, outside diameter 6~18mm Ethernet: CAT5 cable, outdoor UV protection shielded, outside diameter 6~18mm AI and DI: outdoor UV protection cable of 0.75 mm^2, outside diameter 4.5~6mm	
General Parameter		
Support for software updates	2 years	

7.2 Dry Contact Wiring Cable

The wiring cable used for each COM100 dry contact needs to meet the requirements in the following table。

Dry contacts	Specification requirements
RS485	Use outdoor UV rated twisted pair with a shielding layer. The recommended cable diameter is 0.75~1.5mm^2. The maximum wiring distance should be less than 1000m.
AI	The recommended cable diameter is 0.75mm^2. The recommended maximum wiring distance is 10m.
DI	The recommended cable diameter is 0.75mm^2. The recommended maximum wiring distance is 10m.
Ethernet	Use cat5e or higher specification network cable. Communication distance should be less than 100m.

7.3 Quality Guarantee

When product faults occur during the warranty period, SUNGROW will provide free service or replace the product with a new one.

Evidence

During the warranty period, the customer shall provide the product purchase invoice and date. In addition, the trademark on the product shall be undamaged and legible. Otherwise, SUNGROW has the right to refuse to honor the quality guarantee.

Conditions

- After replacement, unqualified products shall be processed by SUNGROW.
- The customer shall give SUNGROW a reasonable period to repair the faulty device.

Exclusion of Liability

In the following circumstances, SUNGROW has the right to refuse to honor the quality guarantee:

- The free warranty period for the whole machine/components has expired.
- The device is damaged during transport.
- The device is incorrectly installed, refitted, or used.
- The device operates in harsh environment, as described in this manual.
- The fault or damage is caused by installation, repairs, modification, or disassembly performed by a service provider or personnel not from SUNGROW.

- The fault or damage is caused by the use of non-standard or non-SUNGROW components or software.
- The installation and use range are beyond stipulations of relevant international standards.
- The damage is caused by unexpected natural factors.

For faulty products in any of above cases, if the customer requests maintenance, paid maintenance service may be provided based on the judgment of SUNGROW.

Software licenses

- It is prohibited to use data contained in firmware or software developed by SUNGROW, in part or in full, for commercial purposes by any means.
- It is prohibited to perform reverse engineering, cracking, or any other operations that compromise the original program design of the software developed by SUNGROW.

7.4 Contact Information

In case of questions about this product, please contact us.

We need the following information to provide you the best assistance:

- Model of the device
- Serial number of the device
- Fault code/name
- Brief description of the problem

For detailed contact information, please visit: **https://en.sungrowpower.com/contactUS**.

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Sungrow Power Supply Co., Ltd.

www.sungrowpower.com

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