SOLINTEG
INTEGRATE SOLAR INTELLIGENTLY

INTEG M HYBRID INVERTER
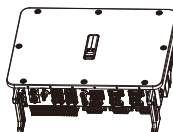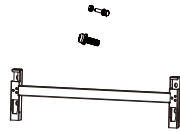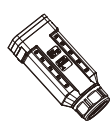
M2HT-25 / 29.9 / 30 / 40 / 50K-150
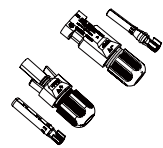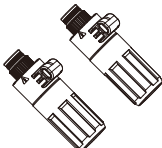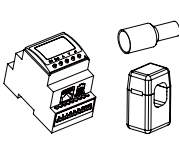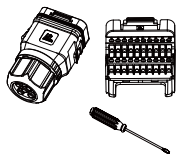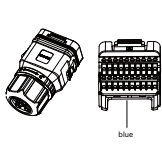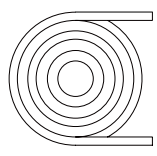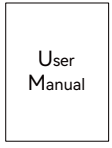
Quick Installation Guide

ENGLISH VERSION

1 Installation

Packing List

1 Inverter (1pcs)	**2** Inverter bracket (1 pcs), M10 Bolt assembly (4 pcs), M6 screws (2 pcs)
3 On-grid AC connector set (1 pcs)	**4** Back-up AC connector set (1 pcs) Generator AC connector set (1 pcs)
5 PV connector (8 pairs)	**6** Battery connector (1 pair)
7 Meter with 3 CTs (1 set)	**8** Communication module (1 pcs)
9 COM2 multi-function connector (1 pcs) (Including flathead screwdriver)	**10** COM3 multi-function connector (1 pcs) blue
11 10m meter communication cable (1 pcs) 3m battery communication cable (1 pcs)	**12** OT Terminal 35-8 （5PCS）
13 OT Terminal 16-8 （3PCS）	**14** User Manual

B **Installation Location**
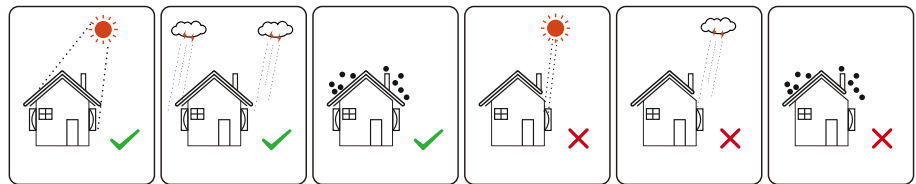
C	Installation Spacing		D	Installation Angle
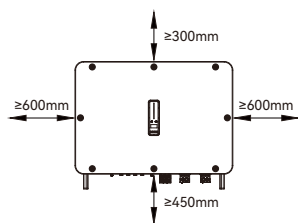
≥300mm
≥600mm ≥600mm
≥450mm
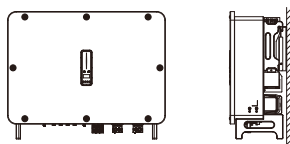
E	Mark the Position and Drill Holes		F	Fix Wall Bracket
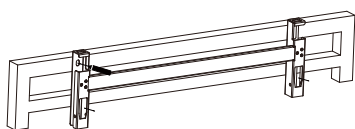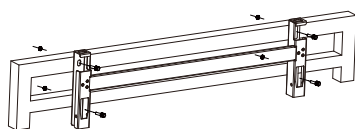
G	Mounting Inverter		H	Grounding Terminal Connection
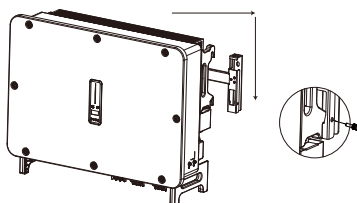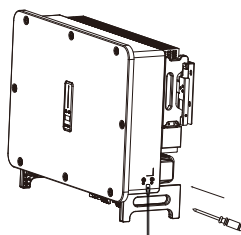
2 Electrical Connection

A Cable Requirements

Cable types	Cable requirements	
	Outer diameter	Conductor cross-section
5-Core AC Cable (On-grid side)	20-37mm	16-50mm^2
3-Core AC Cable (Back-up side)	20-30mm	10-25 mm^2 (Flexible Cords) 10-35 mm^2 (Hard Cords)
PV cable	5.9~8.8mm	4 mm^2 (12AWG) or 6mm^2 (10AWG)
Battery power cable	13±0.5mm	50mm^2

Please use the cable specified in the above table. If the conductor core of the cable is too small, which may cause poor contact between the terminal and cable.

Inverter connects with smart meter.

Battery

PV Modules

Back-up Loads

Generator

AC Breaker

AC Breaker

AC Breaker

To Solinteg Meter

AC Breaker

*Solinteg RMM Smart Meter

CT-3
CT-2
CT-1

Utility meter for billing purposes

002456

AC Breaker

Loads

Load

Grid

CT direction

S1(Red)
S2(Yellow)

PE
N
L3
L2
L1

Utility Grid
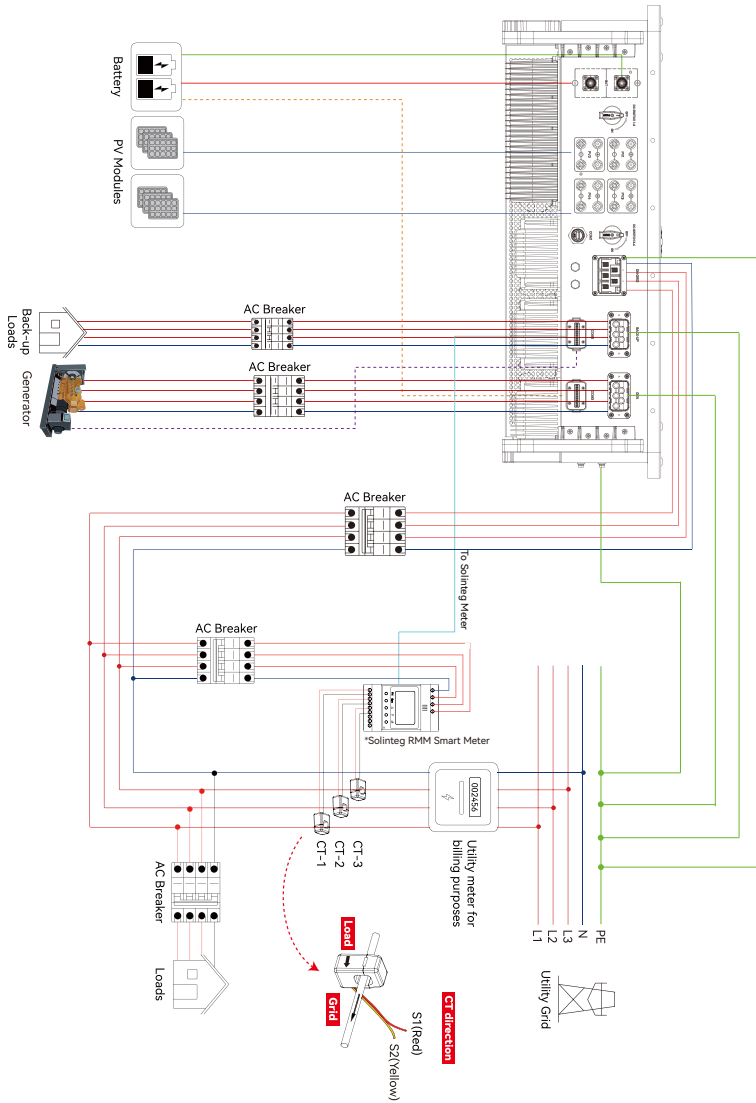
C AC Connection

On-grid AC terminal

①

20-25mm

95-100mm

②

Crimping

③

Allen socket wrench

④ Insulating spacer

Insulating spacer

⑤

Allen socket wrench

⑥
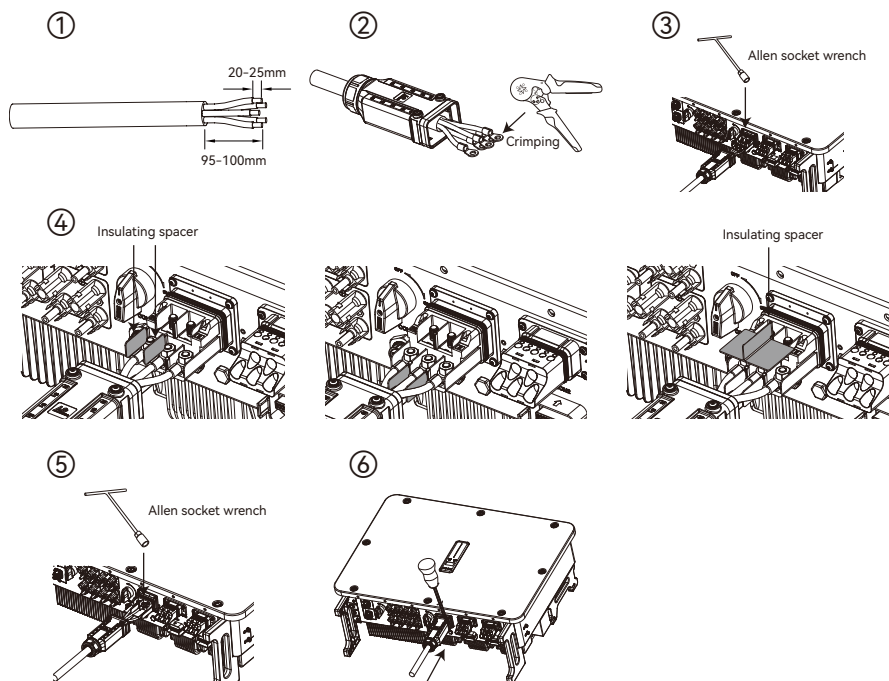
Back-up & Generator AC terminal

① remove

②

Part 2   Part 1

③

15mm

95-100mm

④

⑤

⑥

D PV String Connection

①

+

−

②

Phoenix CRIMPFOX-RC 10

③

Open-end Wrench

④

OFF

ON

950.0

⑤
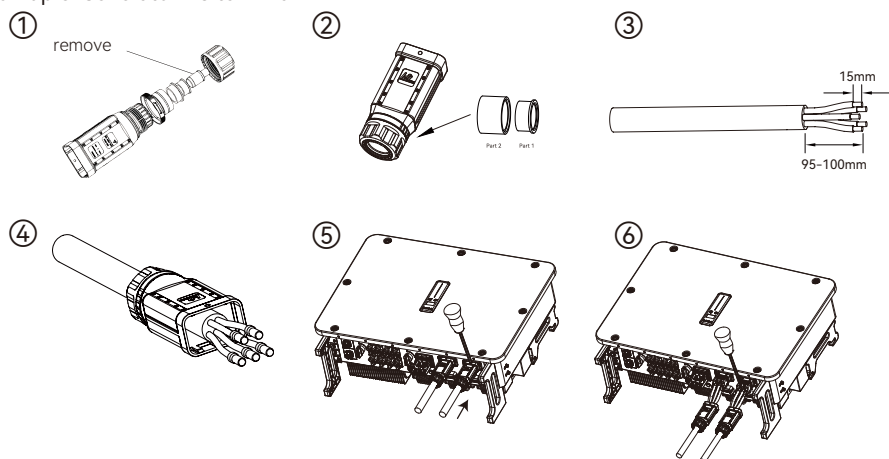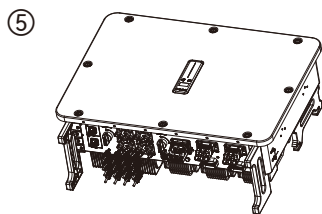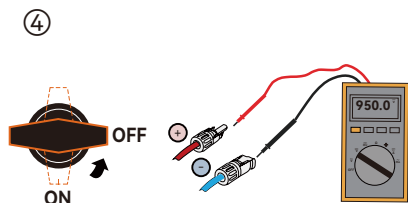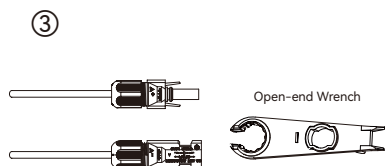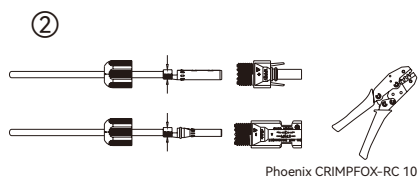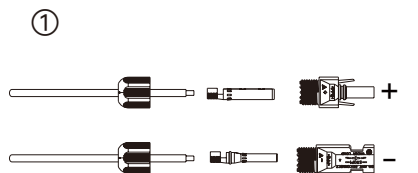
E Power Cable of the Battery Connection

①

Cable gland

Grommet

End cap

②

Phoenix CRIMPFOX 50R

③

④
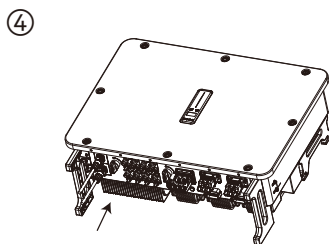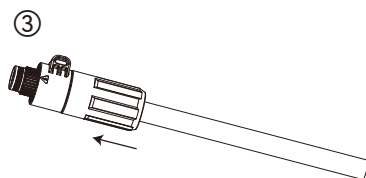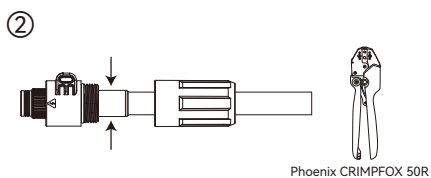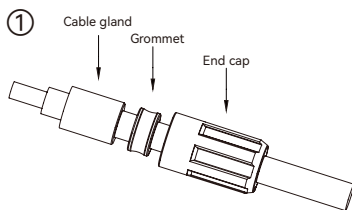
Inverter connects with smart meter and CT
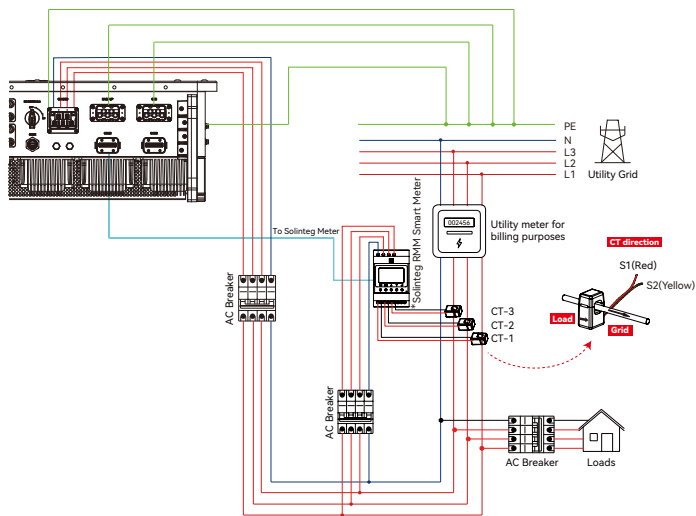
Solinteg RMM smart meter terminals definition

No.	Definition	Function
1	U_{L1}	L1/L2/L3/N connect to grid to detect power grid voltage
2	U_{L2}	
3	U_{L3}	
4	U_N	
5	I_{L1}*–S1	To detect the CT current and direction
6	I_{L1}–S2	
7	I_{L2}*–S1	
8	I_{L2}–S2	
9	I_{L3}*–S1	
10	I_{L3}–S2	
11	PE	Ground connection
RS485	RS485–1	/
	RS485–2	Communicate with hybrid inverter
ANT	/	/
LAN	/	/
Type–C	/	/

G Communication Connection

Port definitions for the COM2 multi-function connector:
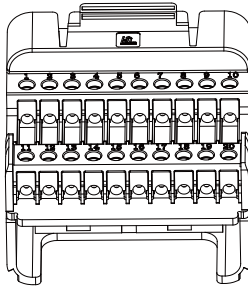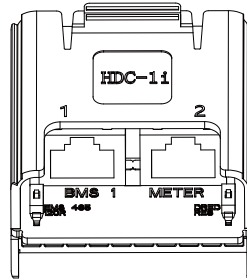
FRONT

BACK

Front Side

NO	Port	Function	NO	Port		Function
1	REF/0	Connect DRED/RCR devices DRED For Australia and New ZealandRCR For Germany and some other European countries	11	DO 1	NO	Digital output port for diesel generator or start-stop smart load control (optional)
2	COM/0		12		COM	
3	D 1/5		13	DO 2	NO	Reserved
4	D 2/6		14		COM	
5	D 3/7		15	EMS. STOP	IN+	Connect the Emergency Stop device. Normally open (NO) and normally closed (NC) status (Optional)
6	D 4/8		16		IN-	
7	DO3 NO	Reserved	17	DI 1	IN+	Digital input from ATS device
8	DO3 COM		18		IN-	
9	BK NC	Contect Back-up box	19	EMS 485	A	Communicate with the EMS device
10	BK Com		20		B	

Back Side

NO	Port	Function
1	BMS 1 (RJ45)	Communicate with battery
2	METER (RJ45)	Communicate with smart meter RMM
/	EMS 485 120R (DIP Switch)	EMS communication termination resistor switch
/	DRED RES (DIP Switch)	DRED detection resistor 10kΩ Deactivate this detection resistor when using the DRED function

Port definitions for the COM3 multi-function connector:

FRONT   BACK
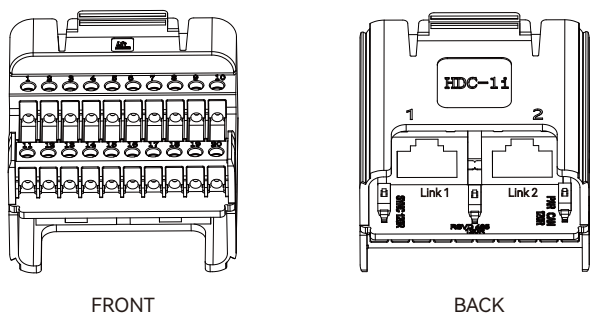
Front Side

NO	Port	Function	NO	Port		Function
1	DI2 IN+	Reserved	11	CT-L1	S1	Reserved
2	DI2 IN-		12		S2	
3	RSVD 485A		13	CT-L2	S1	Reserved
4	RSVD 485B		14		S2	
5	CPS12V+	12V output	15	CT-L3	S1	Reserved
6	CPS12V-		16		S2	
7	12V+	12V output	17	EV 485	A	Communicate with EV charger
8	12V-		18		B	
9	SVD3	Reserved	19	BMS 2	H	Reserved
10	SVD4		20		L	

Back Side

NO	Port	Function
1	Solink/Link 1 (RJ45)	For parallel system communication between Solinteg hybrid inverters, or for connecting other Solinteg devices
2	Solink/Link 2 (RJ45)	
/	SYNC 120R (DIP Switch)	Synchronization signal termination resistor for parallel systems. In the parallel system, the termination resistor needs to be activated on the first and last inverters
/	PAR CAN 120R (DIP Switch)	Communication termination resistor for parallel systems. In the parallel system, the termination resistor needs to be activated on the first and last inverters
/	RSVD 485 120R (DIP Switch)	Reserved
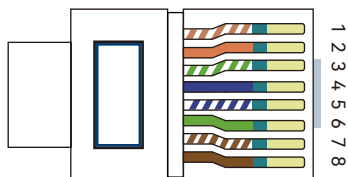
No.	Color	BMS 1	METER	Solink/Link 1	Solink/Link 2
1	Orange & White	/	/	Sync+	Sync+
2	Orange	/	/	Sync-	Sync-
3	Green & White	Encode_B	485 B2	12V-	12V-
4	Blue	CANH_B1_OUT	/	CANH_P	CANH_P
5	Blue & White	CANL_B1_OUT	/	CANL_P	CANL_P
6	Green	Encode_A	485 A2	12V-	12V-
7	Brown & White	CANL_DEBUG	485 B2	12V+	12V+
8	Brown	CANH_DEBUG	485 A2	12V+	12V+

1 2 3 4 5 6 7 8

Assembling the multi-function connector

① COM2

② Press COM2
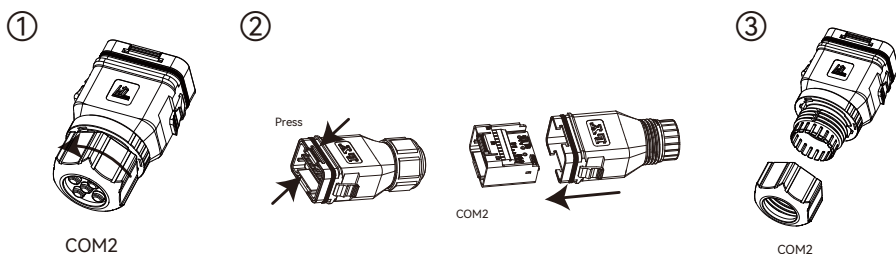
③ COM2

Terminal block wiring steps

① 8mm Cross-sectional Area 0.5~1.5mm² 55mm

② Tighten

③ Click
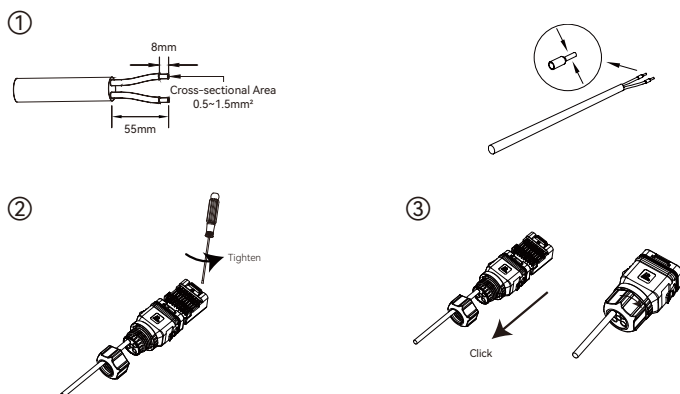
RJ45 port wiring steps

Open side

Click
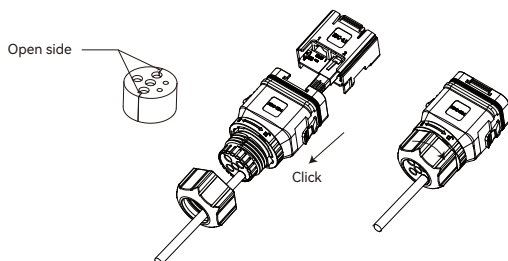
Insert the COM2 and COM3 connectors into the corresponding ports of the inverter.
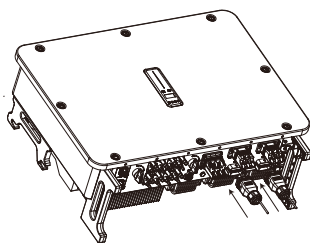
H **Communication Module Installation**

Sealing Ring
Plastic Nut   RJ45 Plug   Ethernet Port(inside)
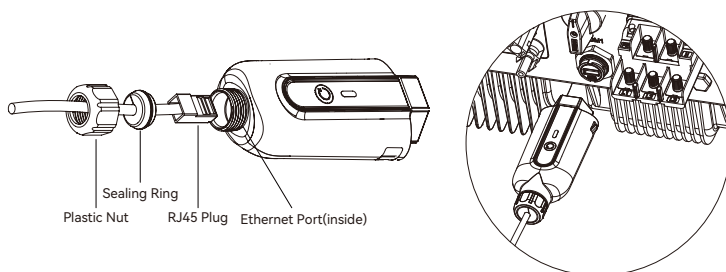
3 Commissioning

A **App Preparation**

① Install the Cloud monitoring App with latest version.

② Register an account on the Cloud monitoring App. If you have got the account and password from the distributor/installer or Solinteg, skip this step.

B Inspection Before Commissioning

Check the following items before starting the inverter:

① All equipment has been reliably installed.

② DC switch and AC circuit breaker are in the "OFF" position.

③ The ground cable is properly and reliably connected.

④ The AC cable is properly and reliably connected.

⑤ The DC cable is properly and reliably connected.

⑥ The communication cable is properly and reliably connected.

⑦ The vacant terminals are sealed.

⑧ No foreign items, such as tools, are left on the top of the machine or in the junction box (if there is).

⑨ The AC circuit breaker is selected in accordance with the requirements of this manual and local standards.

⑩ All warning signs & labels are intact and legible.

C Commissioning Procedure

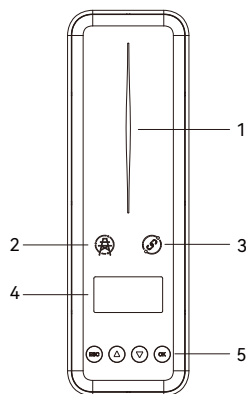If all of the items mentioned above meet the requirements, proceed as follows to start up the inverter for the first time.

① Turn on the AC breaker.

② Turn on the lithium battery switch. Power on the battery pack manually if a battery is equipped.

③ Turn on the DC switch, the DC switch may be integrated in the inverter or installed by the customer. Please wait for 5 minutes.

④ The inverter will operate properly if the PV and the grid meet inverter startup requirements. The time required for the inverter to connect to the grid may take a few minutes or longer, depending on the national/regional safety code selected during the initial setup and the actual grid conditions.

⑤ Observe the LED indicator to ensure that the inverter operates normally.

4 Inverter Indicator

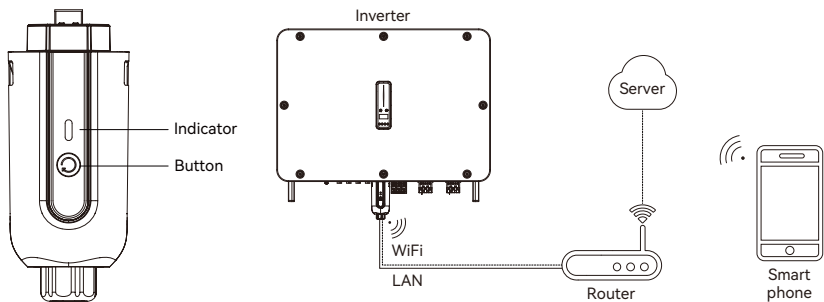| Item	Indicator	Status		Description
1	Power and Alarm Indicator	Off		No power
		Blue	Quick flashing	Inverter entered self-test status
			Slow flashing	Inverter entered waiting status
			Breathe flashing	Inverter works normal
		Orange	Breathe flashing	Low battery warning, the battery power is about to reach the SOC protection value
		Orange	Always on	Firmware upgrade required
		Red	Always on	An alarm or fault is detected, view the fault info on the display
2	Grid Indicator	Off		Grid lost
		Slow flashing		Inverter detected grid but not running in on-grid mode
		Always on		Inverter works in on-grid mode
3	Communication Indicator	Green	Always on	The inverter communication is running normally
			Flashing	The inverter communicates with EMS or Master inverter through RS485 or CAN
		Orange	Always on	The inverter isn't communicating with Solinteg smart meter
		Red	Always on	The inverter isn't communicating with the BMS
4	Display	Display the inverter's operational status, parameter settings, etc. Display off to save power, press the button to wake up the display.		
5	Button	Switch display information and set parameters.		

5 R2MD Communication Module

The R2MD communication module is available in multiple versions, below is the feature introduction for the WiFi & LAN version.

The WiFi & LAN R2MD module is designed for use with either WiFi or LAN communication, as well as for scenarios where both are connected simultaneously.

When both WiFi and LAN are connected, the system prioritizes LAN communication:

① In the event of LAN communication failure or if the LAN cable is disconnected, the WiFi & LAN R2MD will automatically switch to WiFi communication.

② When LAN communication is restored or the LAN cable is reconnected, the WiFi & LAN R2MD will automatically revert to LAN communication.

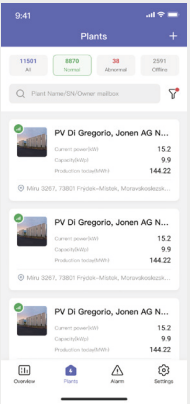| Item	Description		
Button	Press and hold for 5~10 seconds to reset network configuration		
Indicator	Off		Not correctly connected or powered on
	Green	Quick flashing	Connecting to the server
		Slow flashing	No server configuration 1.Server domain name and port not configured or detected 2.Routing information not set up or network cable not connected
		Always on	Communicate with the server normally
	Yellow	Slow flashing	Upgrading the inverter through the R2MD
		Quick flashing	The R2MD isn't communicating with the inverter
	Cyan	Slow flashing	Set the communication module to factory mode
	Blue	Slow flashing	Bluetooth is connected.Bluetooth connection over 60s

6 Device Addition and Network Configuration in IntegHub APP

1

After logging into the APP, follow the on-screen guidance to create a power plant.
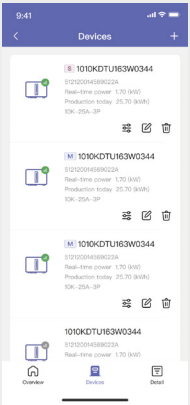
2

On the <Plants> interface, select the plant which you need to add new devices and enter it.
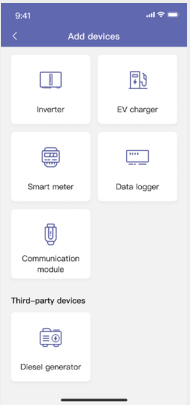
3

After entering the <Plants> section, click on <Devices>, then click the <+> in the upper right corner to add devices.
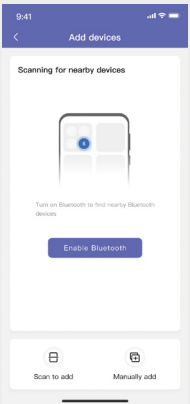
4

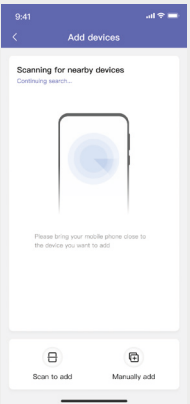Select the type of device you want to add. For inverters, please select <Communication module>.

5

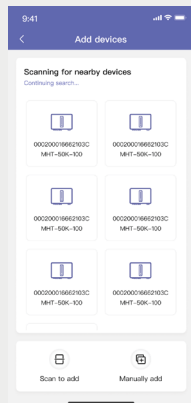Tap <Enable Bluetooth> to activate Bluetooth on your mobile phone.

6

The APP will automatically scan for nearby devices via Bluetooth. You can also tap <Scan to add> to scan the QR code on the R2MD to add the device. Alternatively, tap <Manually add> to add the device manually.
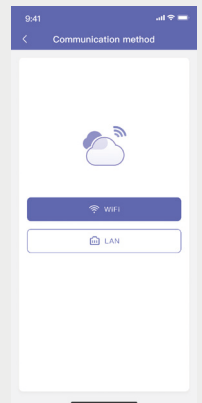
7

Once the scan is complete, the APP will display all available devices for addition. Select the device you want to add.
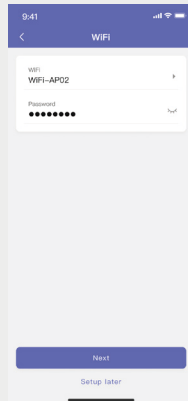

8

Proceed to network configuration. The R2MD communication module has two configuration methods: WiFi and LAN.
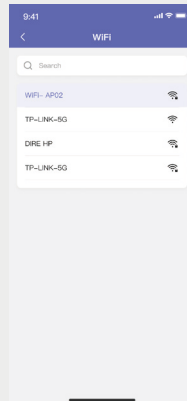

9

Proceed to WiFi setting interface if you choose "WiFi". Select the desired WiFi network and enter the password. Tap <Next> to proceed, or tap <Setup later> to configure at a later time.
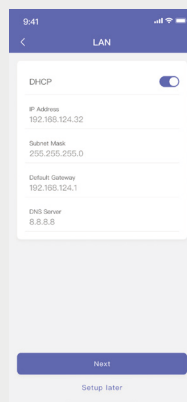

10

Proceed to LAN setting interface if you choose "LAN". The DHCP function is enabled by default. If you disable DHCP, you can then set the IP address, subnet mask, default gateway, and DNS server. Tap <Next> to proceed, or tap <Setup later> to configure at a later time.

11

After setting the WiFi or LAN information, the APP will go through three steps for network configuration. If any step fails, the reason for the failure will be displayed.
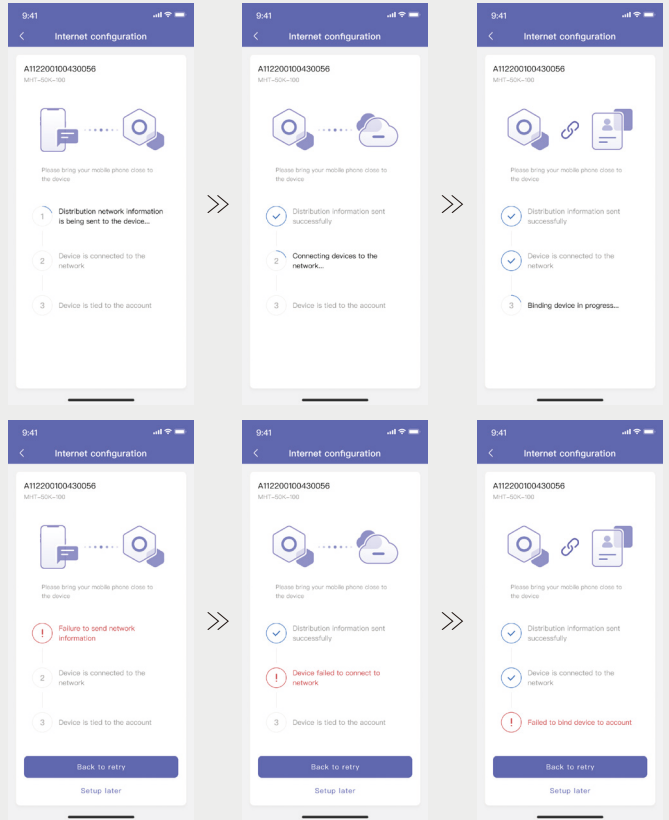
12

Once the configuration is complete, tap <Complete> to finish the network setup.

13

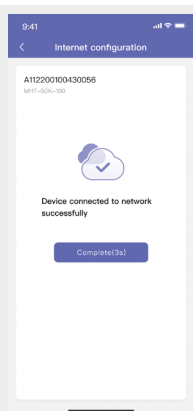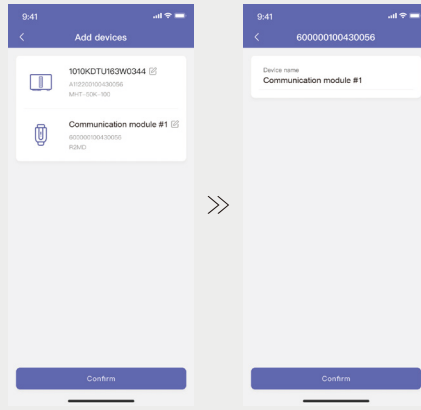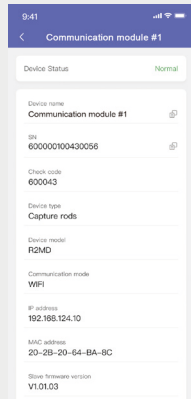After successful configuration, you can add devices. Tap the edit button to rename, then tap <Confirm> to complete the addition of devices.

9:41	⏺ ⬆ ▬
<	Add devices

1010KDTU163W0344 ✎
A111200100430056
MHT-10K-100

Communication module #1 ✎
600000100430056
R2MD

Confirm

≫

9:41	⏺ ⬆ ▬
<	600000100430056

Device name
Communication module #1

Confirm

14

Entering the device details interface, you can view the device name, SN, device type, device model, communication mode (WiFi or LAN), IP address, MAC address, firmware version, and connection date.

9:41	⏺ ⬆ ▬
<	Communication module #1

Device Status — Normal

Device name
Communication module #1

SN
600000100430056

Check code
600043

Device type
Capture rods

Device model
R2MD

Communication mode
WIFI

IP address
192.168.124.10

MAC address
20-2B-20-64-BA-8C

Slave firmware version
V1.01.03

7 About

Contact Information

Should you have any question 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
• Date of the device
• Fault code/name
• Brief description of the problem

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