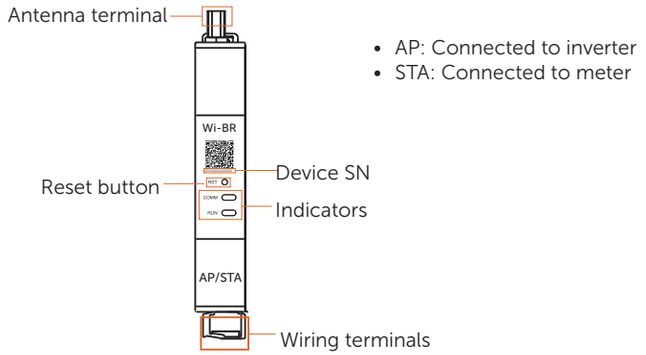
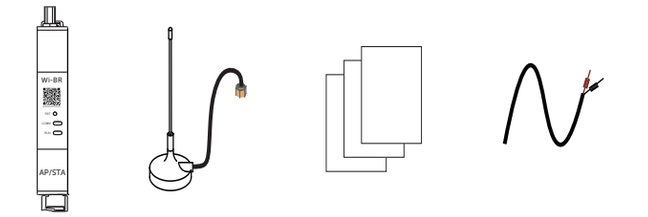
1 Product Introduction



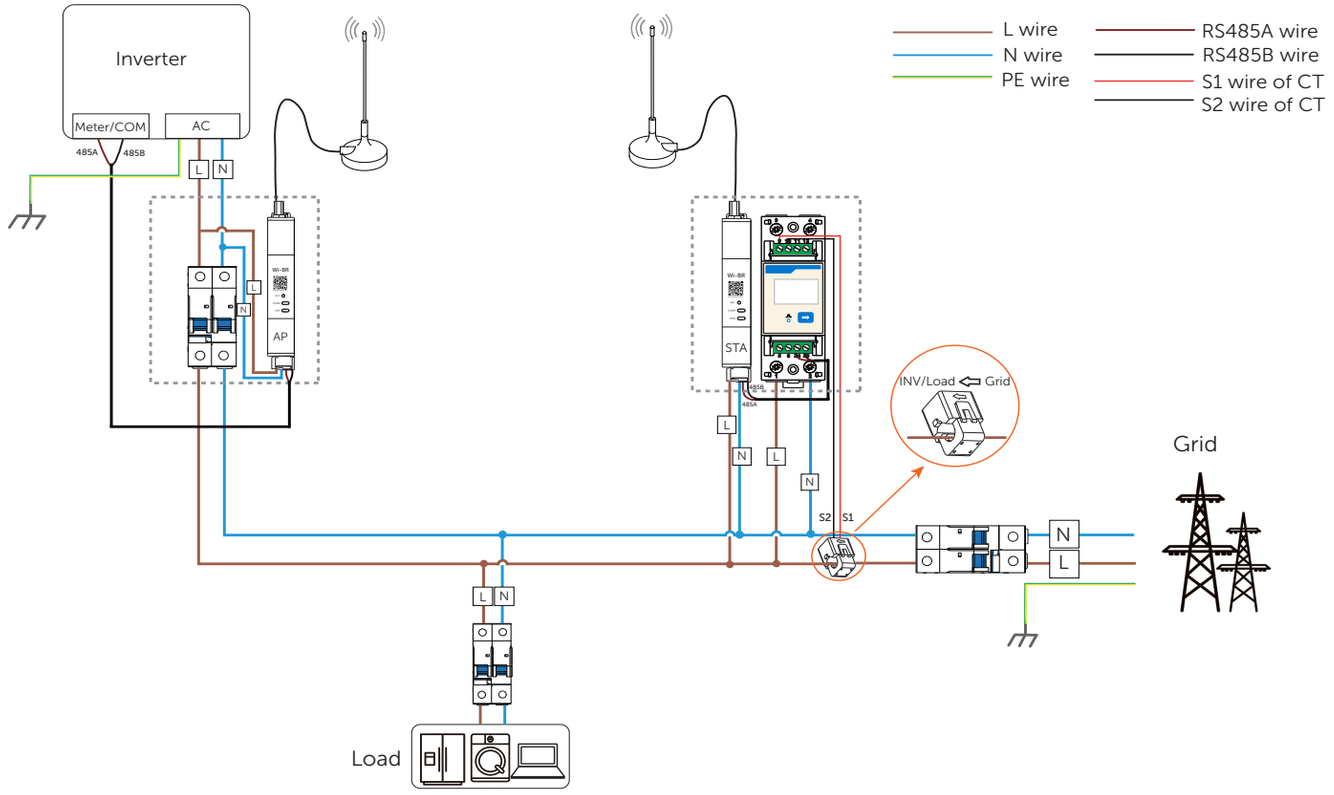
- AP: Connected to inverter
- STA: Connected to meter

2 Scope of Delivery



Wi-BR * 2 | 1m Antenna * 2 | Document * 1 | 2m RS485 cable * 1

3 Typical System Wiring



*Wi-BR can work with both single-phase and three-phase meters. Here uses the connection to single-phase meter and European TN-S for example.
*Wi-BR is not waterproof. During installation, take proper waterproof measures, or place it in the power distribution cabinet or other waterproof box.

4 Mounting

Step 1: Connect the cables based on the system wiring diagram, and then mount the Wi-BRs and meter to the 35 mm DIN rails.

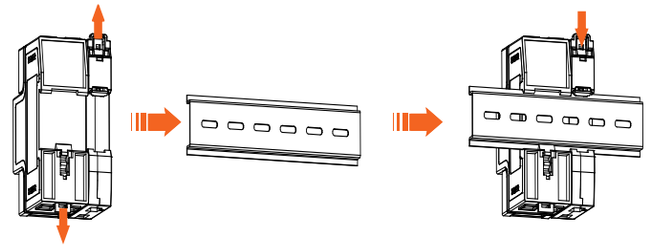


Figure 4-1 Mounting Wi-BR

Step 2: Connect the antenna to the Wi-BR through the antenna terminal.

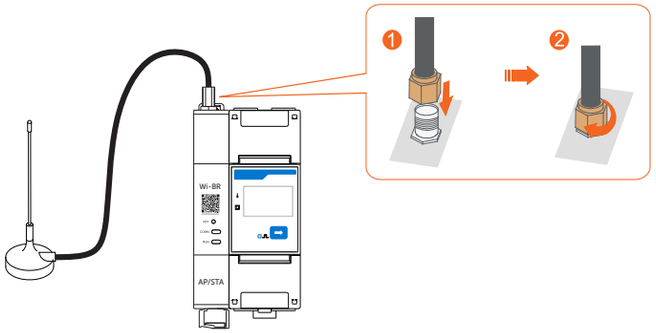


Figure 4-2 Installing the antenna

Step 3: Fix the antenna outside the power distribution cabinet.

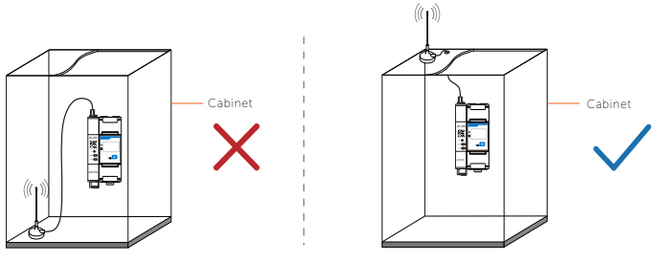


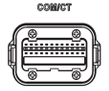
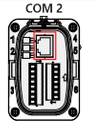
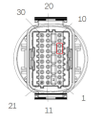
Figure 4-3 Fixing the antenna

NOTICE!

Please fix the antenna on the top of the cabinet. Otherwise, it may interfere in the signal transmission inside the cabinet.

5 Compatible Inverters and Pin Definition

Table 5-1 Inverter model and Pin definition

Inverter series	Terminal type	Pin No.	Pin definition
X1-HYB LV		4	485A
		5	485B
X1-AC		7	485A
		8	485B
• X1-HYB G4 • X1-FIT G4 • X1-IES • X3-HYB G4 • X3-FIT G4 • X3-IES		4	485A
		5	485B
• X1-MINI G4 • X1-BOOST G4		4	485A
		5	485B
X1-SMART G2		4 / 11	485A
		5 / 12	485B
X3-ULTRA		4	485A
		5	485B
X3-MIC G2		4	485A
		5	485B
X3-PRO G2		5	485A
		6	485B
• X3-MEGA G2 • X3-FORTH		7	485A
		8	485B

Note: Two terminals of different types are available for Wi-BR on X1-Smart G2, and the pins in the same box are a pair.

6 Configuration

NOTICE!

Before connecting the cables for the Wi-BR, make sure that you have cut off the power supply in the circuit.

Step 1: Connect the Wi-BRs, inverter, meter and CT based on the system wiring diagram.

Step 2: Power on the Wi-BRs.

Step 3: Check if the RUN and COMM indicator lights of both the AP and STA models are solid green. If not, see 8 Troubleshooting for solution.

Step 4: (Optional) To replace or add a STA model, press the Reset button on the AP and new STA model at the same time for 3 seconds to pair them.

7 Indicator Description

NOTICE!

The Wi-BRs are already paired before delivery. The AP model enters the pairing mode after you press the Reset button for 3 seconds, and then exit pairing after 1 minute if no STA is detected.

Table 7-1 Indicator status and description

Indicator	Color	Status	Description
RUN		Solid green	Normal power supply, RS485 cable connection and antenna connection
		Flashing green	Abnormal RS485 cable connection between AP and inverter, or between STA and meter
		Off	No power supply
COMM		Solid green	AP and STA paired successfully.
		Flashing green	Transmitting data between AP and STA
		Flashing red	Pairing AP and STA
		Solid red	AP and STA failed to pair.

8 Troubleshooting

Table 8-1 Possible problems and suggestions

Problem	Reason	Solution
No indicator lights up after powered on.	Abnormal power supply	Check and reconnect the power cables.
The RUN indicator flashes green.	Connection between the Wi-BR and the inverter or meter failed.	Check if the RS485 cables are normal. If yes, reconnect them; if not, change the cables and then reconnect them.
The COMM indicator is solid red.	AP and STA failed to pair.	Press the Reset button on the AP model and STA model for 3 seconds in sequence to pair them again.

9 Labels and Technical Data

Table 9-1 Label description

Label	Description
CE	Conformity to EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU
	Conformity to 2012/19/EU (WEEE directive)
RF Exposure Information	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.

Table 9-2 Specification

Model	Wi-BR
Working method	AP / STA
Communication Terminal	RS485 * 1 (for each model)
Protocol	IEEE 802.11ah
Phase voltage	85 Vac-277 Vac
Max. power consumption	2 W
Operating temperature	-25°C to +55°C
Radio frequency	863-868 MHz: 13.709 dBm (Max EIRP)
Dimensions	18 mm × 98 mm × 66 mm
Mounting type	DIN rail
Ingress protection rating	IP20
Altitude	≤2000 m

*External wireless interference might impact the device transmission distance and overall performance. Please be advised.