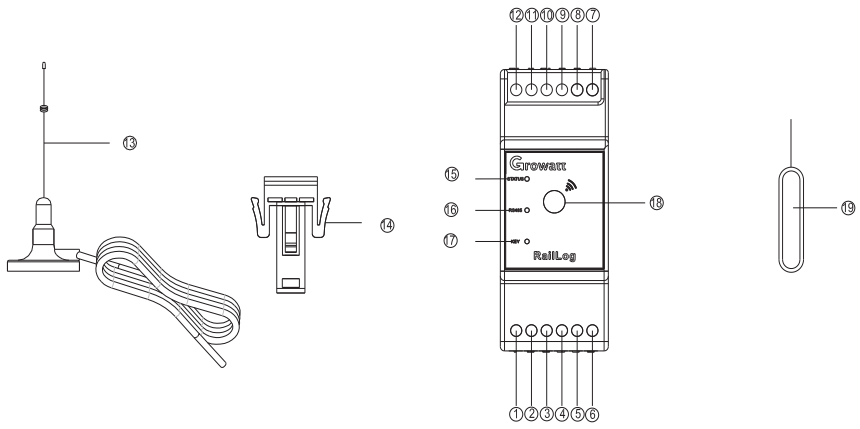
RailLog-RF Quick Installation Guide

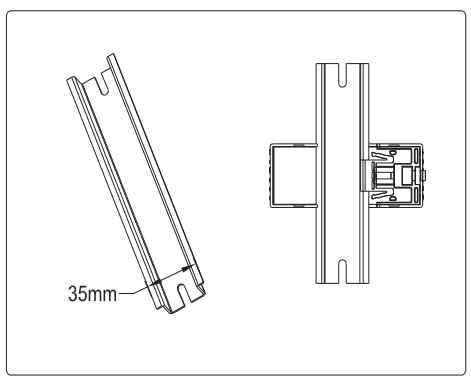
1. Overview

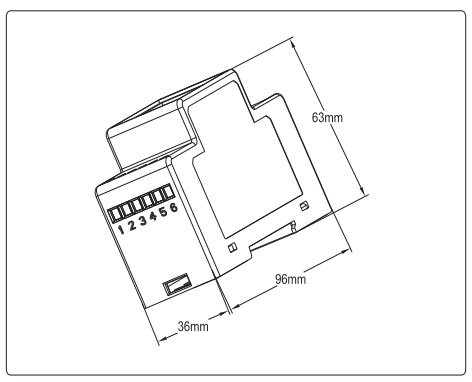


1.NC	2.NC	3.NC	4.RS485B PORT	5.Ground
6.RS485A PORT	7.AC L	8. AC N	9.NC	10.NC
11.NC	12.NC	13. Antenna	14. Buckle	15.STATUS LED
16.RS485 LED	17.KEY	18.Antenna mount	19.Thimble	

2. Installation

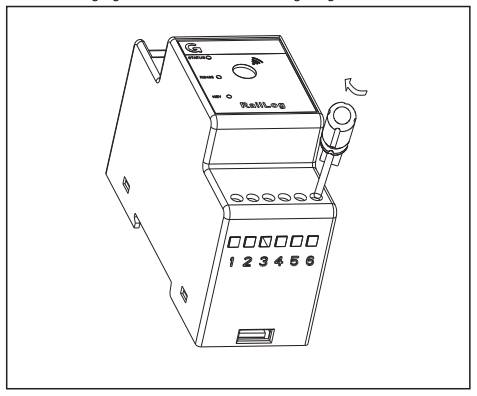
Push the bottom of the RailLog out as shown and grasp the bottom from the end of the metal rail and push it in to secure the RailLog position. Metal rails are screwed to the meter box or wall.

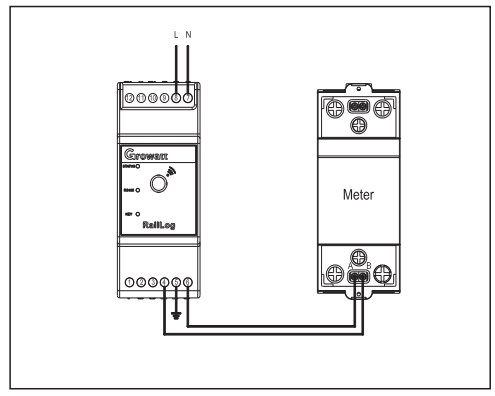




3. Connecting cables

The following figures are the overall wiring diagram





RailLog Wiring follow the steps below：

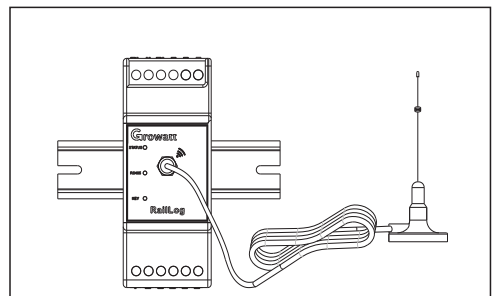
3.1 Wiring RS485 A, B communication cables and ground wire
The 485 communication cable uses shielded twisted pair cable. The ground wire should be used with a core of not less than 1mm copper core wire. If the end of wire is stripped, do not exceed 5mm. Insert the wire into the terminal and use a flat-blade screwdriver to tighten the wire.

3.2 Connect the L, N wire of the RailLog AC side
The L, N wire should use the copper core wire which core not less than 1mm. Strip the wire and make sure that the end of wire does not exceed 5mm. Insert the wire into the terminal and use a flat-blade screwdriver to tighten the wire.

3.3 Connect RailLog antenna
The antenna connector is screwed onto the RailLog antenna mount. The antenna part must be exposed outside the cabinet. The bottom suction cup should be fixed on the metal.

Note: RailLog needs to be placed in the distribution box

After installation, the effect is as shown below：



4. Post-installation check

After the wiring is completed, it is necessary to check accordingly to ensure that the equipment will not be damaged due to wrong wiring, otherwise the mistake will endanger personal safety. The following table lists the items to be checked：

Number	Acceptance Criteria	Number	Acceptance Criteria
1	RS485 A, B cable is wire right.	2	Ground wire already safety ground.
3	Check the positive and negative of meter L, N connection and the direction of it.	4	Check if the RailLog & meter is fixed.
5	Check if all parts are working properly after power-on.		

5. Status and Settings

When the RailLog is powered on, the LED status light will indicate the type of the meter when the meter is connected, it will be indicated by the number of times of flashes, as shown in the following Table 5.1：

Meter type indication at startup：
1. The two lights flash at the same time indicating that the meter type is Eastron single-phase meter.
2. The two lights flash 2 times at the same time indicate that the meter type is Estron three-phase meter.
3. The two lights flash 3 times at the same time indicate that the meter type is a Chint single-phase meter.
4. The two lights flash at the same time 4 times indicate that the meter type is connected to the Chint three-phase meter

Table 5.1

When RailLog works normally, it will display the current running status through LED. The specific contents are shown in Table 5.2：

RailLog-RF	Light flashing state	Device working status
STATUS	Constantly bright	Disconnect from the host
	Off	Unpaired
	Slow flashing (1 second on & 1 second off cycle)	Communicate normally with the host
	Fast flashing (0.2 seconds on & 0.2 seconds off cycle)	Pairing
RS485	Constantly bright	Abnormal communication with the meter
	Slow flashing (1 second on & 1 second off cycle)	Communicate normally with the meter

Table 5.2

RailLog can be paired or restored to factory settings by pressing the button, as shown in Table 5.3 below:

Button function definition	
Short press 1 time	Enter pairing mode
Long press for 5 seconds	Restored to factory settings

Table 5.3

Pairing process：
STEP1: Short press the RailLog pairing button as shown in Figure 5.1. The right RailLog status light 6 flashes quickly;

STEP2: Short press the host (ShineLanBox) pairing button, as shown in Figure 5.1 left, the host pairing light 4 flashes quickly, pairing;

STEP3: The RailLog status light 6 flashes slowly, the host pairing light 4 is off, the device light 3 is flashing, and the pairing is successful;

Note: The number of times the ShineLanBox device light 3 flashes each time indicates that the number of devices currently connected to the ShineLanBox.

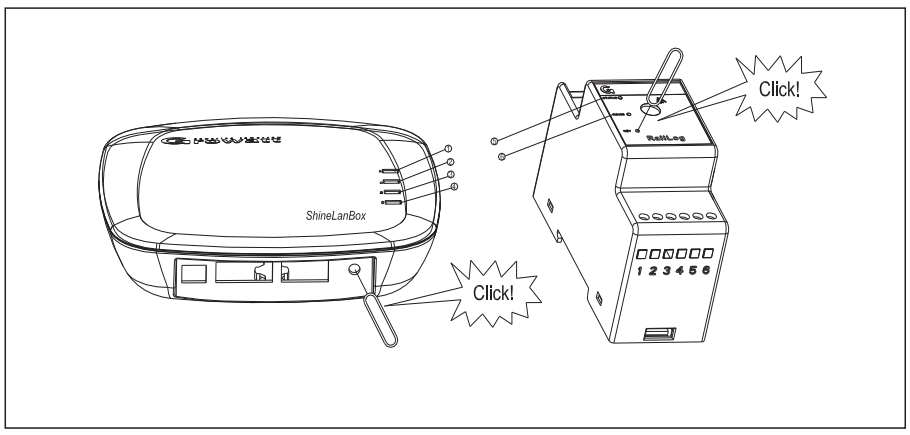


Figure 5.1

6. Device parameters

Datasheet	RailLog-RF
Length * width * height (mm)	90/36/63
weight（g）	107.8
Ambient temperature	-30℃ ~ +65℃
Place of placement	indoor
Input voltage	100-240Vac(±10%) 50-60Hz
Working power consumption	Typical power consumption 1.5W

7. Common problem

A quick way to handle common problems.

7.1 Status light does not flash
(1) Check if the RailLog antenna is connected properly;
(2) If RailLog has been paired with ShineLanbox, try to re-pair;
(3) Check if the distance between RailLog and ShineLanbox is too far or there is wall occlusion. Try to moving the ShineLanbox to a position close to the RailLog;

7.2 RS485 Status light does not flash
(1) Check if the 485 connection is connected, try to replace the 485 cable;
(2) Check whether the parameters of the meter are correct. You can check the relevant parameters according to the instructions of the meter.

Meter model	Address	Protocol	Baud rate
Eastron single-phase electric meter	1	Modbus	9600 8N1
Eastron three-phase electric meter	2	Modbus	9600 8N1
Chint single-phase electric meter	3	Modbus	9600 8N1
Chint three-phase electric meter	4	Modbus	9600 8N1

Download Manual

Growatt New Energy

Shenzhen Growatt New Energy Technology CO.,LTD
No.28 Guangming Road, Shiyan Street, Bao'an District, Shenzhen, P.R.China
T +86 0755 2747 1942
E service@ginverter.com
W www.ginverter.com
ZK-UM-001-B-00