

COOLAUTOMATION
THE INTERNET OF CLIMATE

Quick Installation Guide

CLOUDBOX

HVAC Bridge

Warning

Read these **Safety Precautions** carefully to ensure correct installation.

This manual classifies precautions into **WARNING** and **CAUTION**.



Failure to follow WARNING is very likely to result in such grave consequences as death or serious injury

WARNING

- Only qualified personnel must carry out the installation work.
- Ask your dealer or technical representative to install the unit.
- Any deficiency caused by your own installation may result in an electric shock or fire.
- All electrical work must be performed by a licensed technician, according to local regulations and in accordance with the instructions in the installation manual.
- Any lack of electric circuit or any deficiency caused by installation may result in an electric shock or fire.
- Do not relocate or reinstall the **CLOUDBOX** by yourself.
- Any deficiency caused by your own re-installation may result in an electric shock or fire.
- Make sure that all wiring is secured, that specified wires are used and that no external forces act on terminal connections or wires. Improper wiring connections or installation may produce heat and result in fire.
- Before touching electrical parts, turn off the unit.
- To dispose of this product, consult your dealer.

Caution



Failure to follow CAUTION may result in serious injury or property damage, and in certain circumstances, may result in a grave onsequence.

CAUTION

- Do not allow children to play with the **CLOUDBOX** and supervise them not to get access to the appliance.
- **CLOUDBOX** is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Do not disassemble, modify or repair the **CLOUDBOX**.
- Any deficiency caused by your modification or repair may result in an electric shock or fire.
- Never let the **CLOUDBOX** to get wet.
- Water can cause damage to the **CLOUDBOX**, and may cause an electric shock or fire.
- Do not use flammable materials (e.g. hairspray or insecticide) near the **CLOUDBOX**.
- Do not clean the **CLOUDBOX** with organic solvents such as paint thinner. The use of organic solvents may cause cracking, damaging the **CLOUDBOX**, causing electrical shock or fire.
- **Do not apply AC110V or AC220V to the CLOUDBOX. The maximum voltage that can be applied to the unit directly is 24V DC.**
- If damaged **CLOUDBOX** can generate heat and cause a fire.

Caution



Failure to follow CAUTION may result in serious injury or property damage, and in certain circumstances, may result in a grave consequence.

DO NOT INSTALL THE COOLMASTERNET IN THE FOLLOWING LOCATIONS:

- a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off or result in water leakage.
- b) Where corrosive gas, such as sulfurous acid gas, is produced.
- c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the **CLOUDBOX** and cause the unit to malfunction.
- d) Where flammable gas may leak, where there is carbon fiber or ignitable dust suspensions in the air, or where volatile flammable such as thinner or gasoline are handle Operating the **CLOUDBOX** in such conditions can cause a fire.
- e) High temperature area or directly flamed point. Heating and/or fire can occur.
- f) Moist area, where there is exposure to water. If water enters the inside of the **CLOUDBOX**, it may cause electric shock and electrical components may fail.

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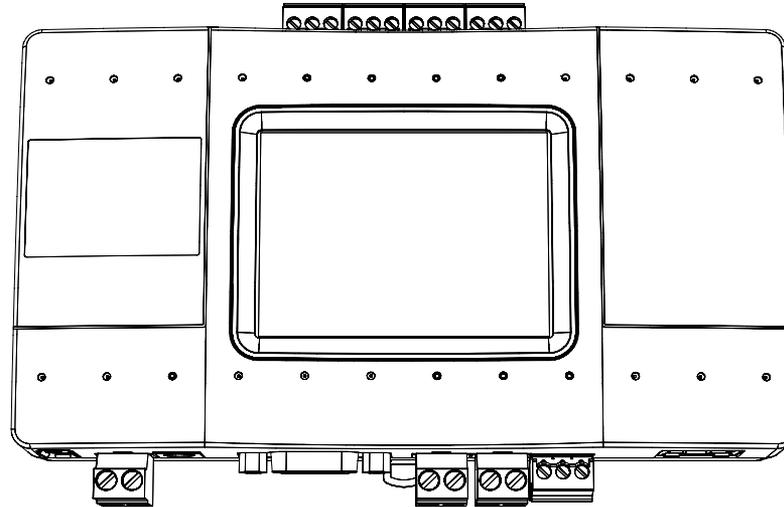
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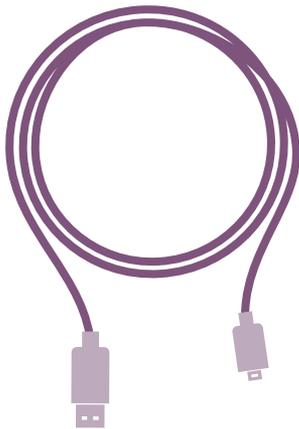
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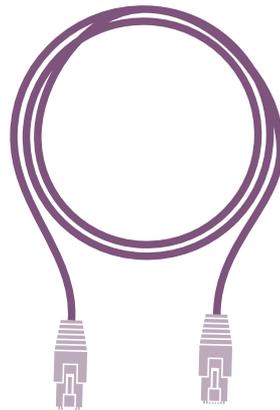
What's in the box



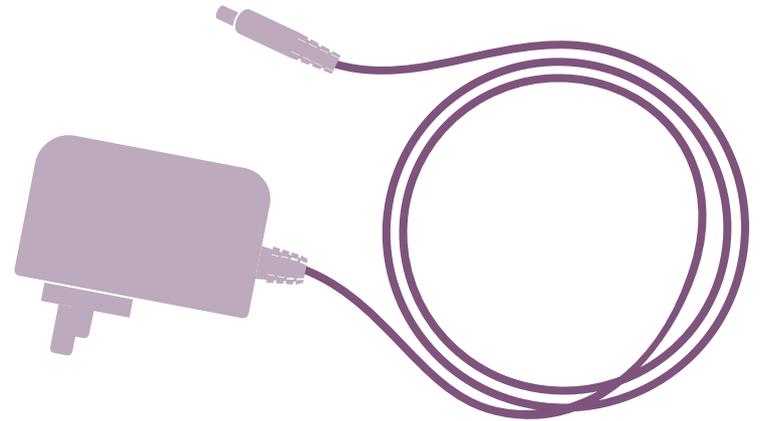
CloudBox



1 USB-Mini USB
cable

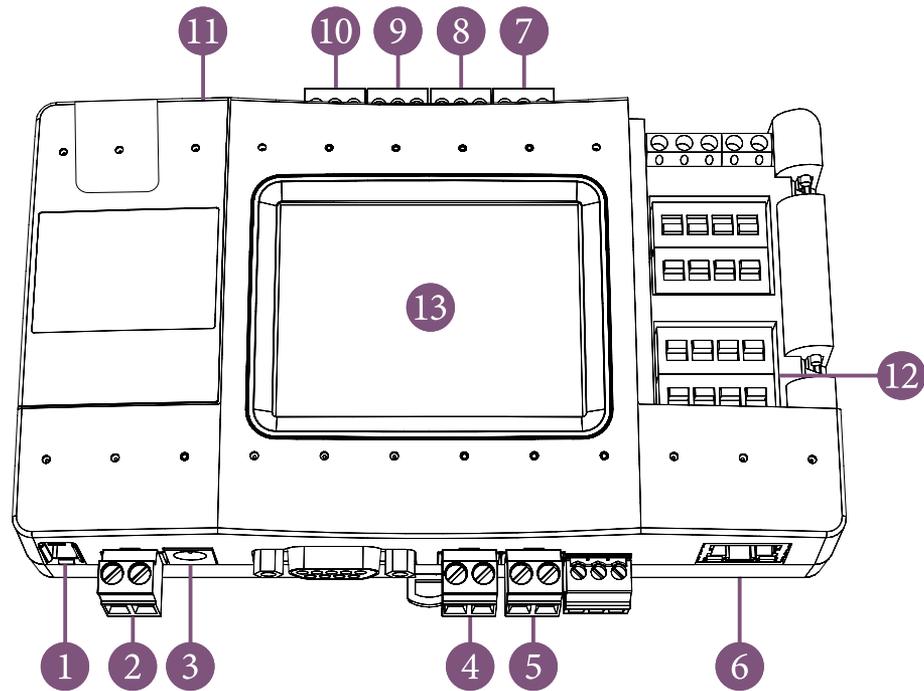


1 Ethernet
cable



AC Power supply adapter
100V-240V 50/60hz to 12V

CloudBox



1 L8 - HVAC Line 8 (USB Host)

2 Power

3 Power **Socket**

4 L1 - HVAC Line 1

5 L2 - HVAC Line 2

6 Ethernet Port

7 L7 - HVAC Line 7

8 L6 - HVAC Line 6

9 L5 - HVAC Line 5

10 L4 - HVAC Line 4

11 USB Device Port

12 DIP Switches P, Q, R, S

13 LCD Touch Screen

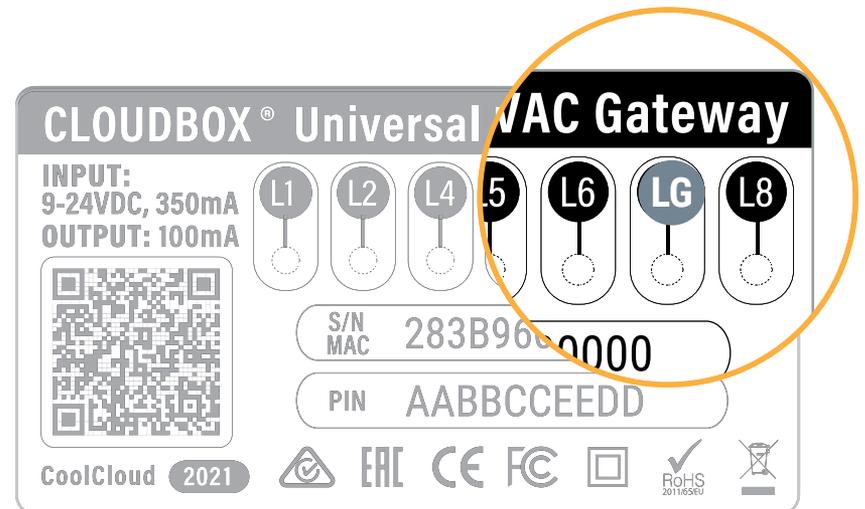
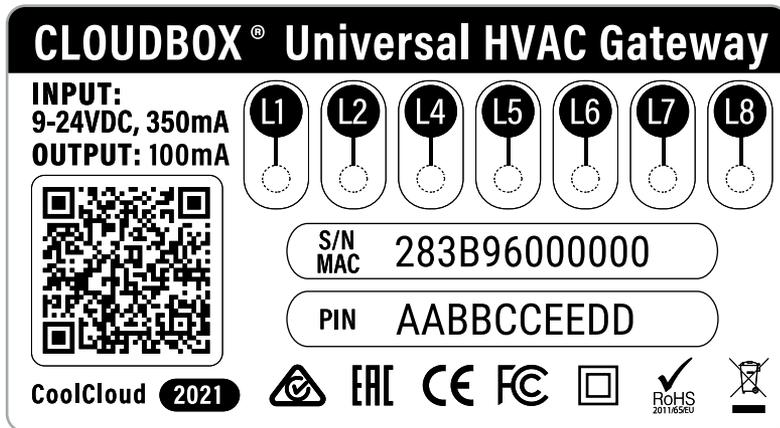
Preconfigured CloudBox

Type label

This label uniquely identifies the manufacturer's configuration of CloudBox. Located on the back of the enclosure.

Type label with Configuration sticker

A preconfigured label example:
configured for LG **LG** on L7



HVAC Line configuration

Configuration stickers for HVAC line L1

- DK Daikin
- HT Hitachi
- HA Haier
- ME Mitsubishi Electric
- TO Toshiba

Configuration stickers for HVAC line L8

- FJ Fujitsu
- GR Gree

Configuration stickers for HVAC line L7

- SM Samsung
- MD Midea
- LG LG

HVAC Daikin VRV

1 HVAC Communication Terminals

HVAC outdoor connection



* Polarity is not required on the HVAC communication line.

** Centralized (group) address required.

2 Connecting to the line plug

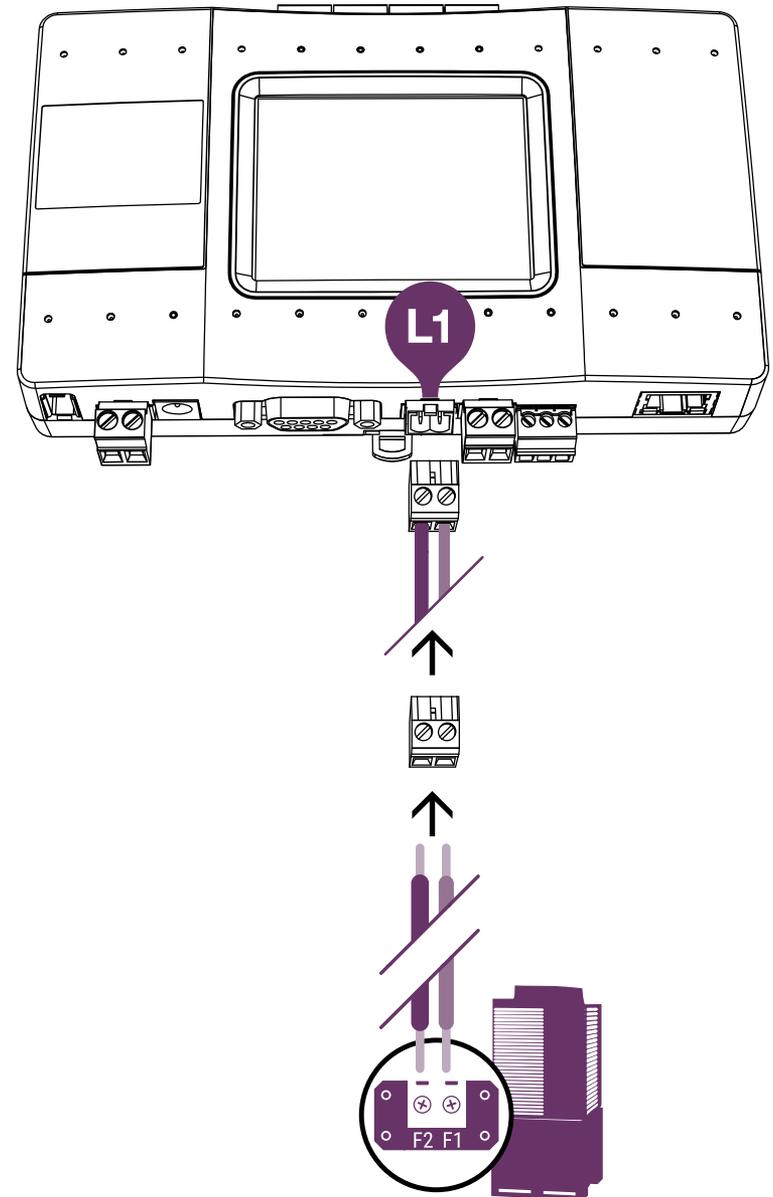
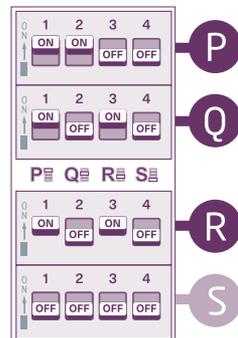
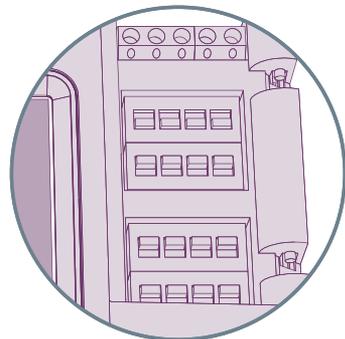
Secure the cables in the L1 line plug.

3 Plugging to the CloudBox

Insert the plug in to the CloudBox L1 socket.

4 Check DIP Switches are set correctly

Dip switches setup for VRV HVAC system on L1.



Daikin HVAC Terminal

HVAC Mitsubishi Electric VRF

① HVAC Communication Terminals

HVAC outdoor connection



* Polarity is not required on the HVAC communication line.

② Connecting to the line plug

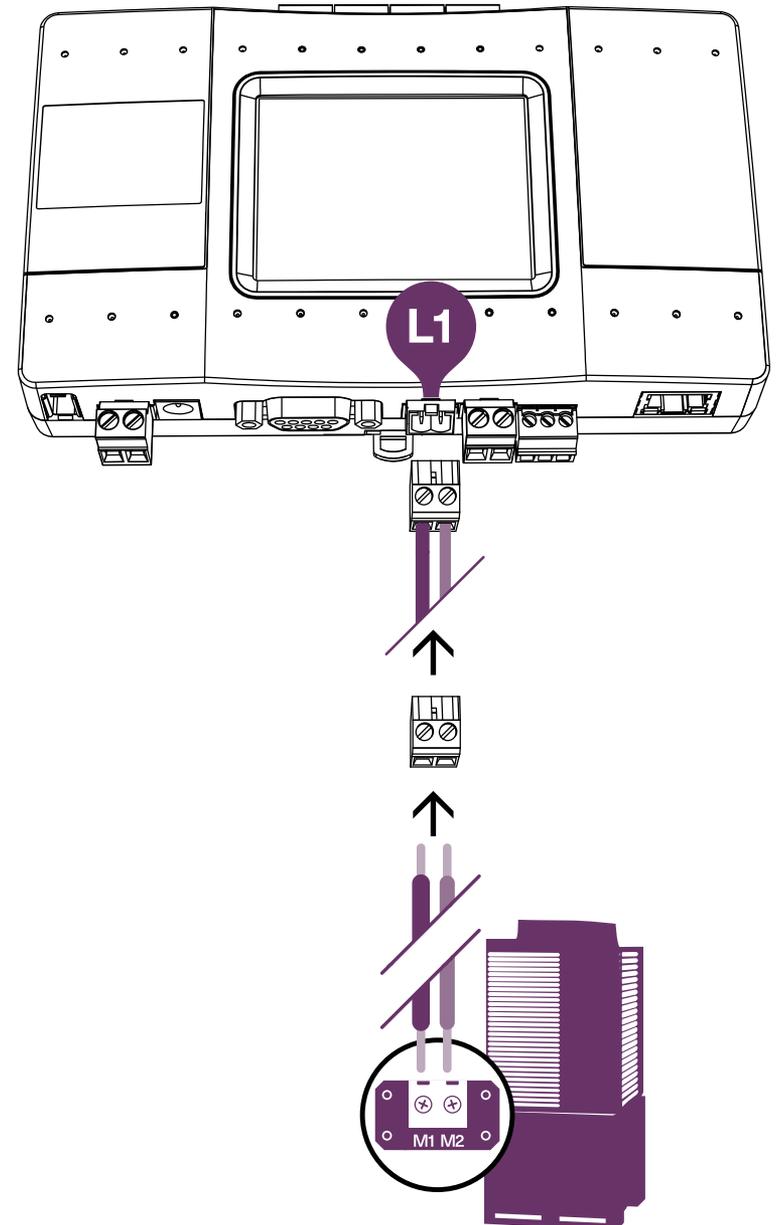
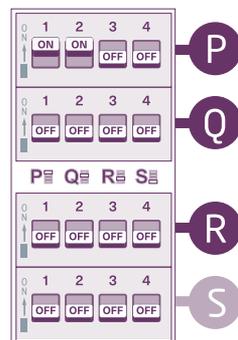
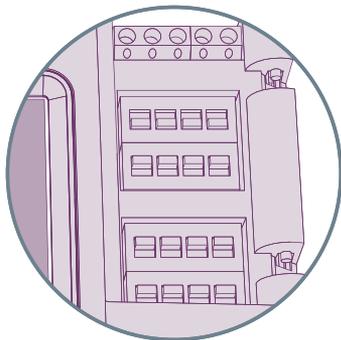
Secure the cables in the L1 line plug.

③ Plugging to the CloudBox

Insert the plug in to the CloudBox L1 socket.

④ Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L1.



Mitsubishi Electric HVAC Terminal

HVAC Toshiba VRF

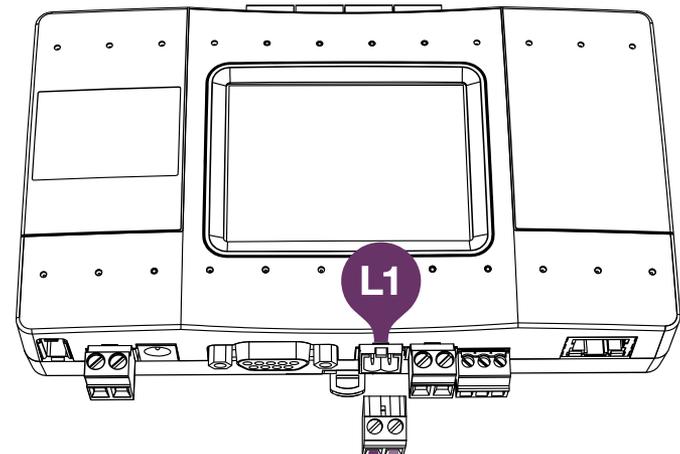
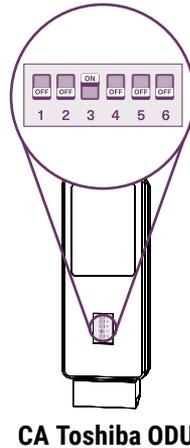
1 HVAC Communication Terminals



Connect **CA Toshiba ODU** (supplied separately by Coolautomation) to connector CN 800-801 on Master ODU PCB of each of the refrigerant systems. Max 8 refrigerant system together.

Connect HVAC 1,2 of adapter to U3, U4. Polarity is not required. Each **CA Toshiba ODU** should be set with a unic address on 1,2,3 dipswitches.

Addr.	1	2	3
0	OFF	OFF	OFF
1	ON	OFF	OFF
2	OFF	ON	OFF
3	ON	ON	OFF
4	OFF	OFF	ON
5	ON	OFF	ON
6	OFF	ON	ON
7	ON	ON	ON



2 Connecting to the line plug

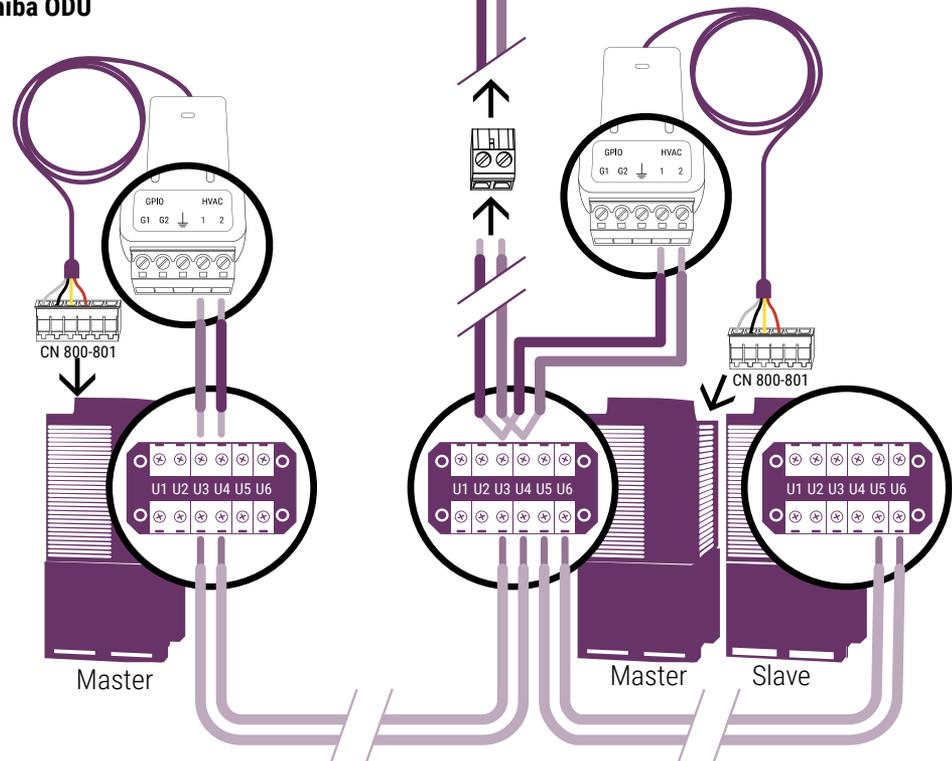
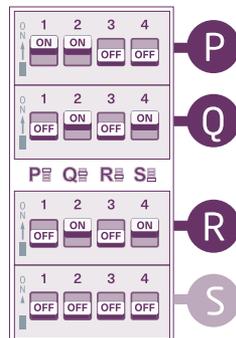
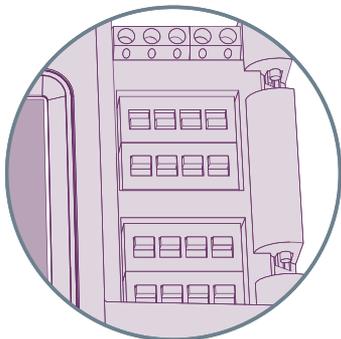
Secure U3, U4 cable in the L1 line plug. Polarity is not required.

3 Plugging to the CloudBox

Insert the plug in to the CloudBox L1 socket.

4 Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L1.



HVAC Hitachi VRF

1 HVAC Communication Terminals

HVAC outdoor connection



* Polarity is not required on the HVAC communication line.

2 Connecting to the line plug

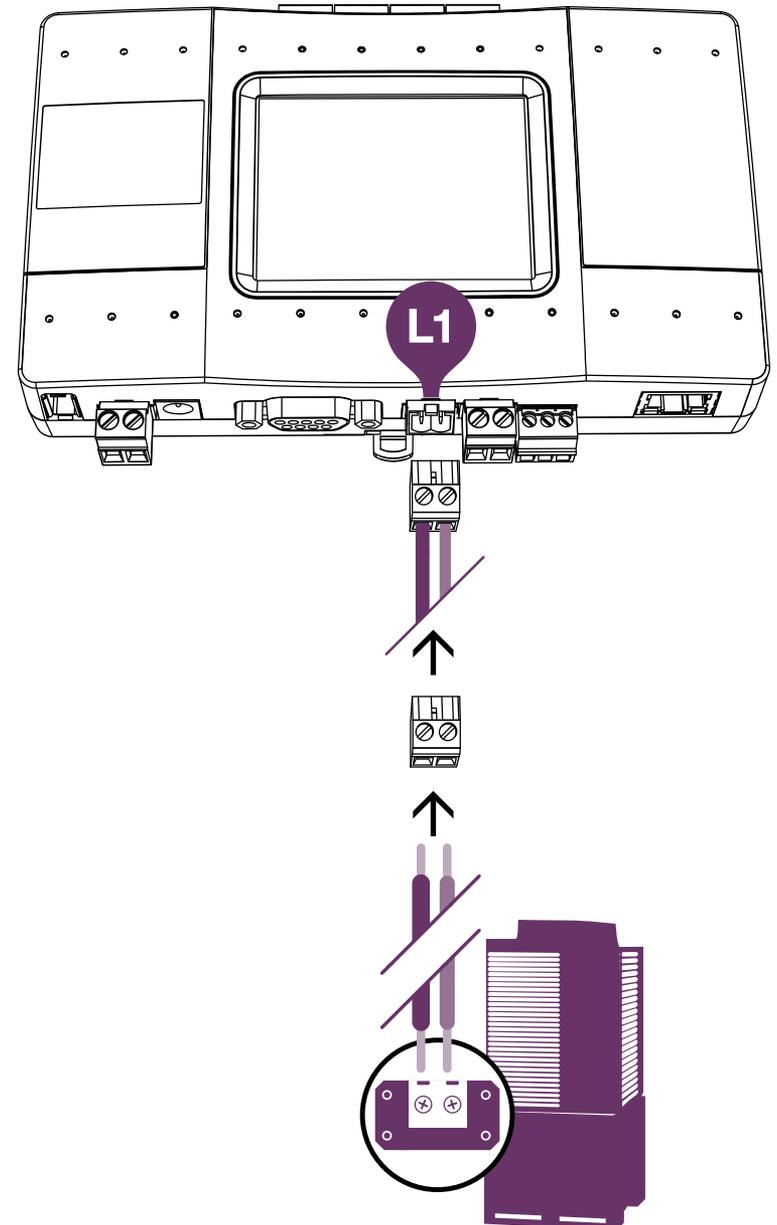
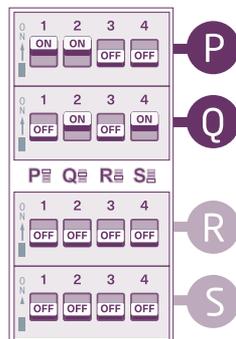
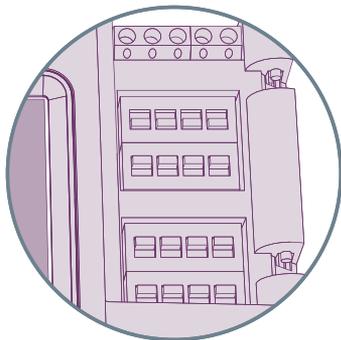
Secure the cables in the L1 line plug.

3 Plugging to the CloudBox

Insert the plug in to the CloudBox L1 socket.

4 Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L1.



Hitachi HVAC Terminal

HVAC Haier VRF

1 HVAC Communication Terminals

Connect CN31/CN32 (Service interface at outdoor) to L7.
Use 20-24 AWG twisted pair.

HVAC indoor and outdoor connection



* Each refrigerant system (CN31/CN32) connected to separate CoolMasterNet's lines (L7, L4). One CoolMasterNet supports up to 2 Haier refrigerant systems.

2 Connecting to the line plug

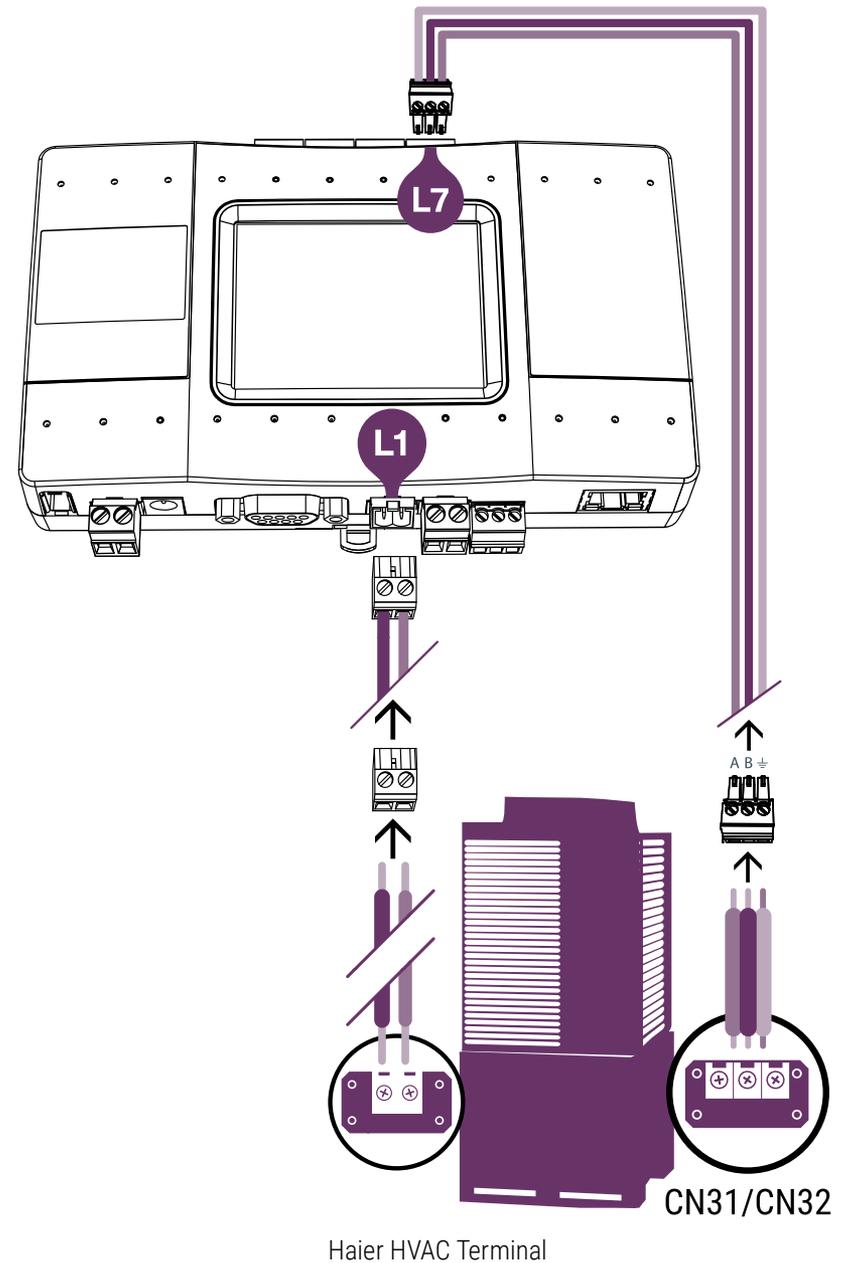
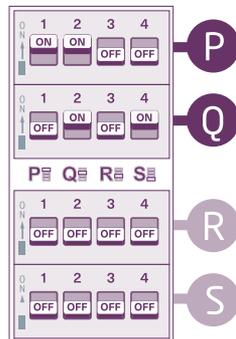
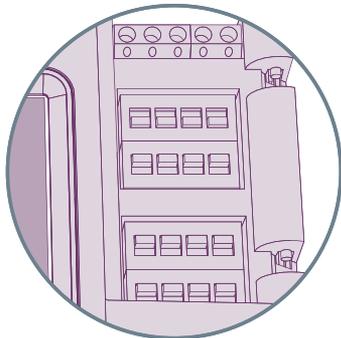
Secure the cables in the L1 line plug.

3 Plugging to the CloudBox

Insert the plug in to the CloudBox L1 socket.

4 Check DIP Switches are set correctly

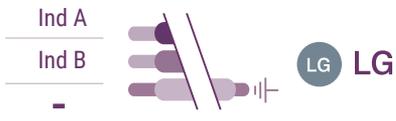
Dip switches setup for VRF HVAC system on L1.



HVAC LG VRF

1 HVAC Communication Terminals

HVAC indoor and outdoor connection



* Each LG refrigerant system should be wired separately, to a different HVAC port on the CloudBox (L4-L7). Up to 4 LG refrigerant systems can be connected to a single CloudBox.

2 Connecting to the line plug

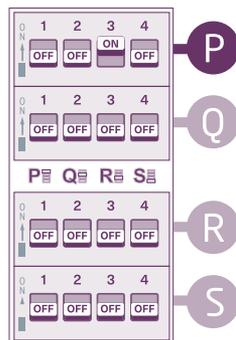
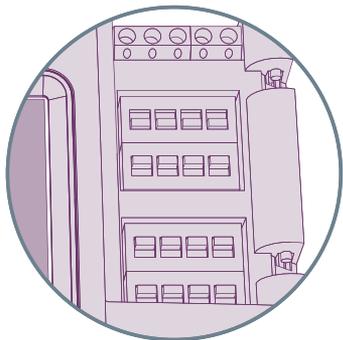
Secure the cables in the L7 line plug.

3 Plugging to the CloudBox

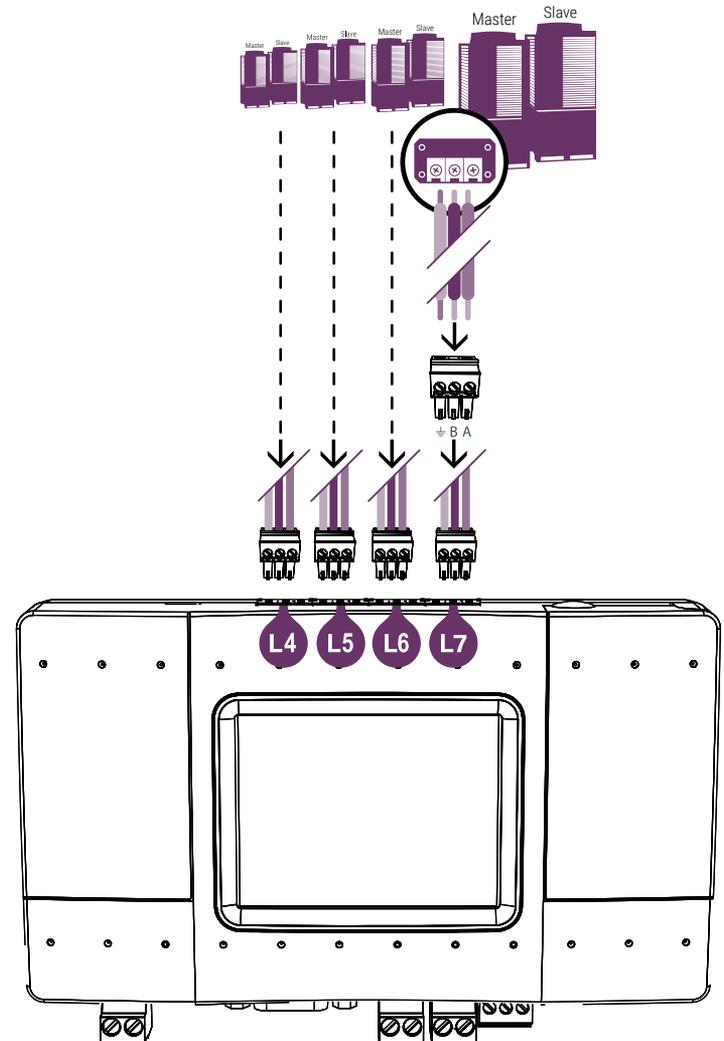
Insert the plug in to the CloudBox L7 socket.

4 Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L7.



LG HVAC Terminal



HVAC Midea VRF (for V6 service only)

① HVAC Communication Terminals

HVAC outdoor connection



② Connecting to the line plug

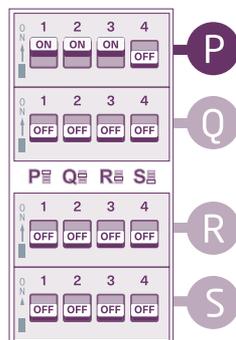
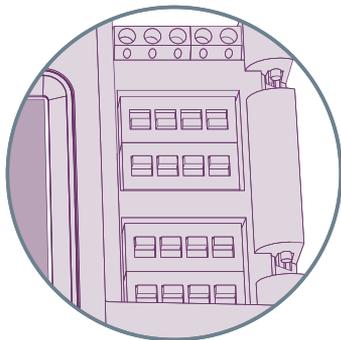
Secure the cables in the L7 line plug.

③ Plugging to the CloudBox

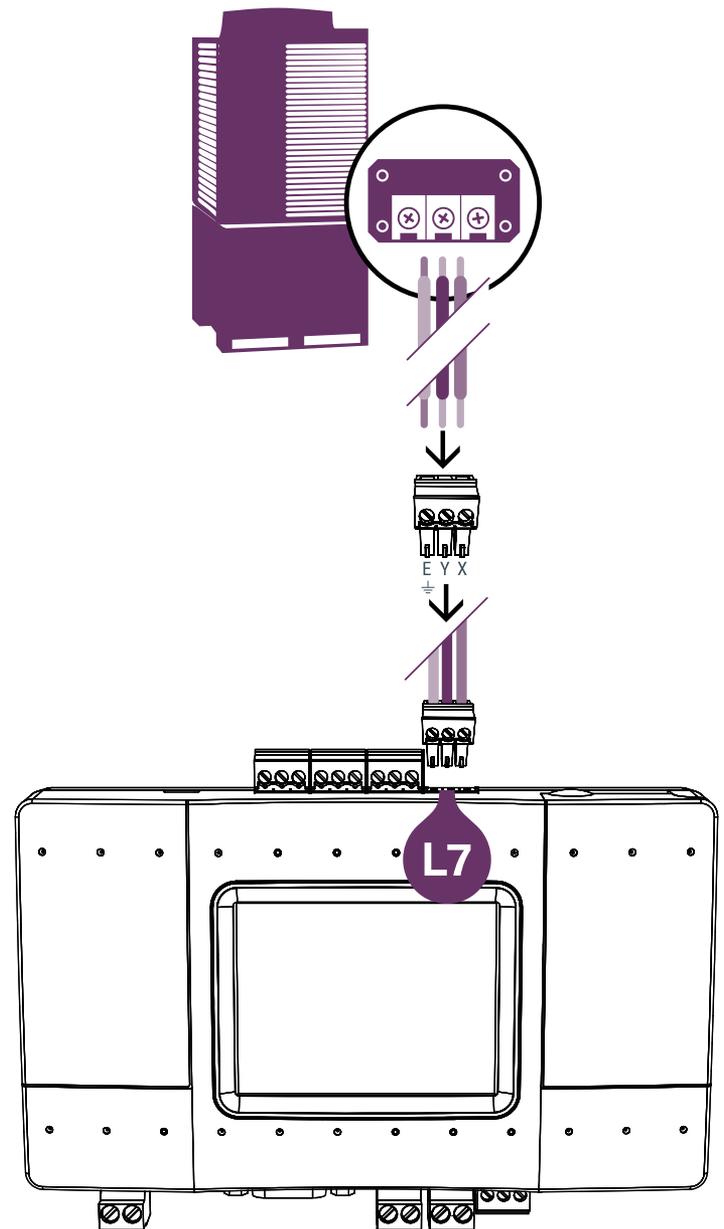
Insert the plug in to the CloudBox L7 socket.

④ Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L7.



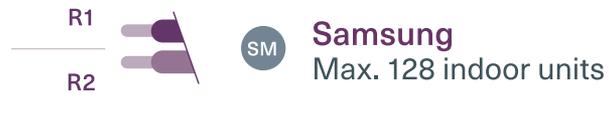
Midea HVAC Terminal



HVAC Samsung VRF

1 HVAC Communication Terminals

HVAC outdoor connection



2 Connecting to the line plug

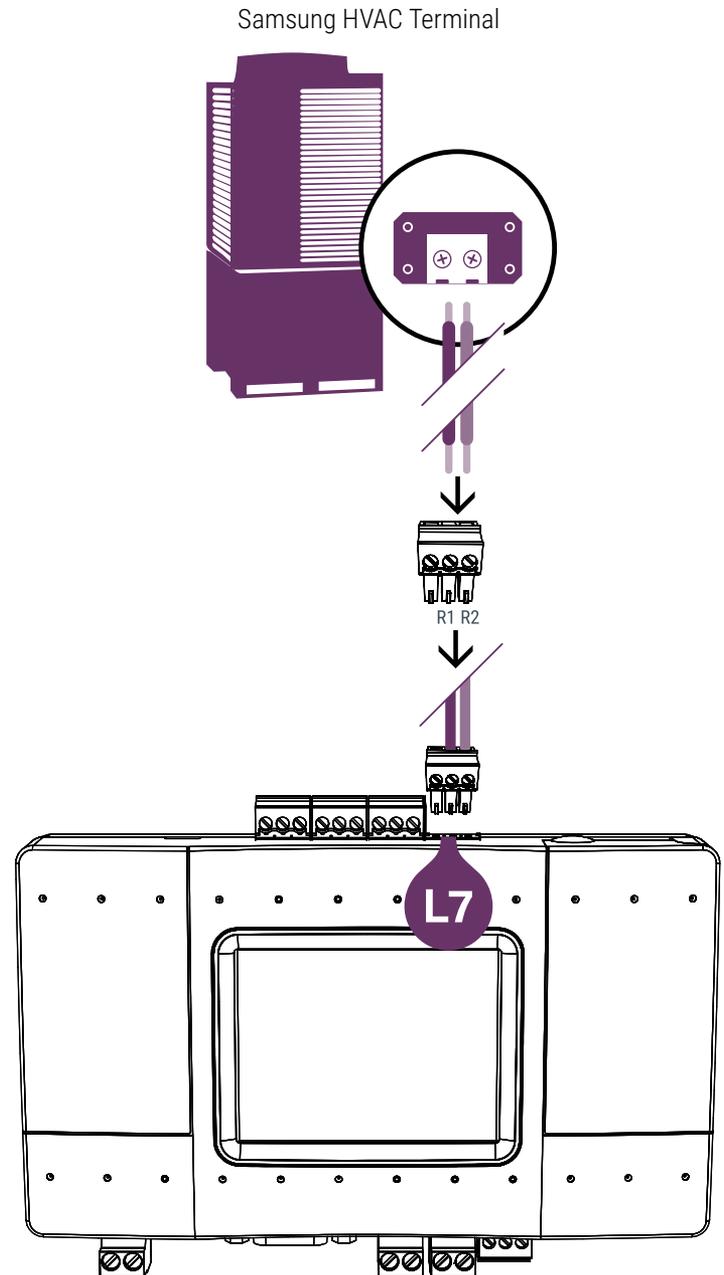
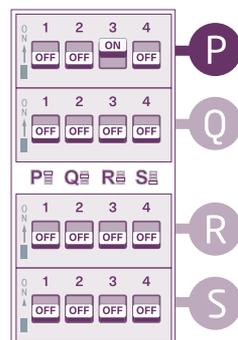
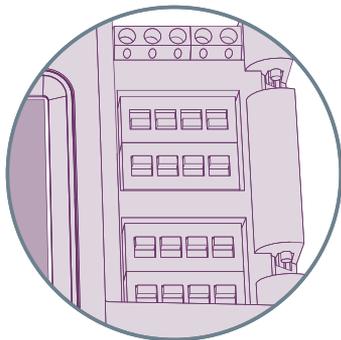
Secure the cables in the L7 line plug.

3 Plugging to the CloudBox

Insert the plug in to the CloudBox L7 socket.

4 Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L7.



HVAC TICA VRF

1 HVAC Communication Terminals

HVAC outdoor connection



2 Connect Outdoor Unit

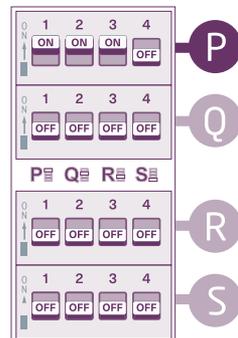
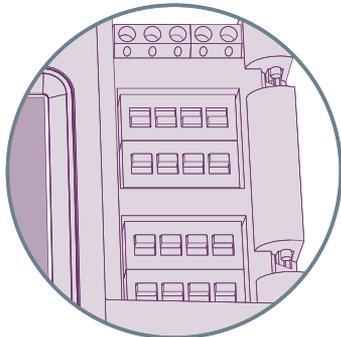
Secure wire in the A2 & B2 terminals on the Outdoor Unit.

3 Connect to CloudBox

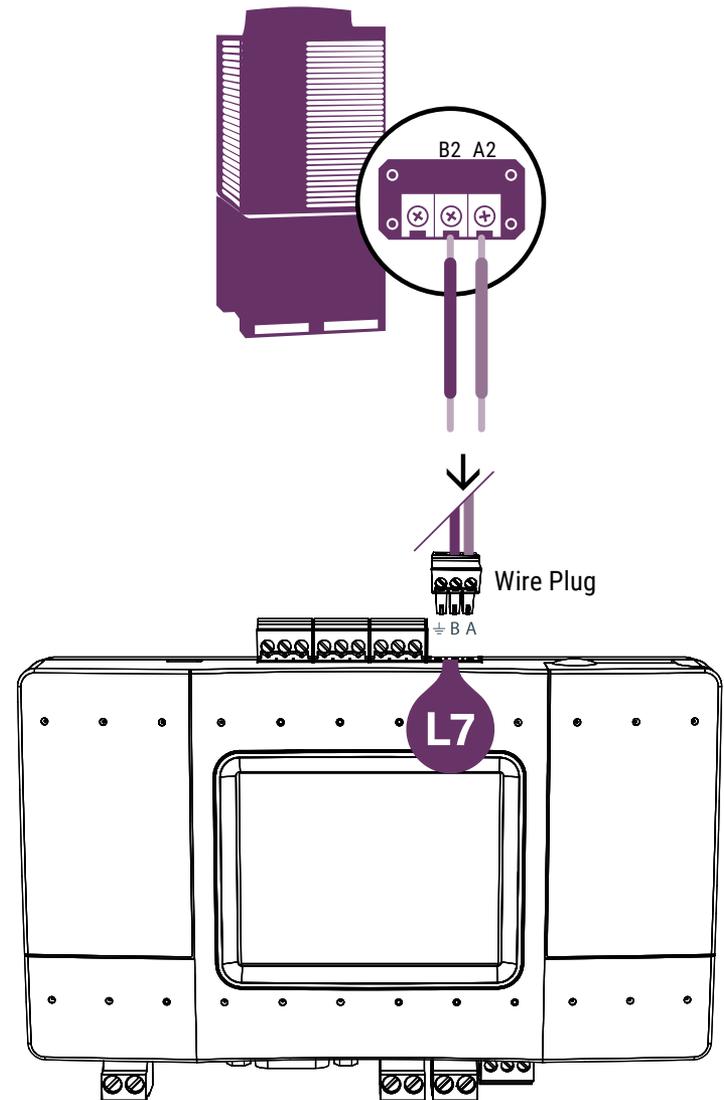
Secure wire from Outdoor unit to the wire plug.
Insert wire plug to CloudBox L7 socket.

4 Check DIP Switches are set correctly

Dip switches setup for VRF HVAC system on L7.



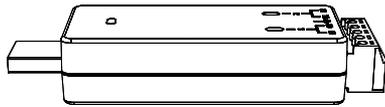
TICA Outdoor Terminals



HVAC Gree GMV5, GMV6 VRF

1 HVAC Communication Terminals

HVAC outdoor connection



2 Connecting to the CMNET-GR-GMV5/6

CoolAutomation USB Network Interface (CMNET-GR-GMV5/6) adapter is required for connecting up to two Gree GMV5/6 VRF lines. (Supplied by CoolAutomation)

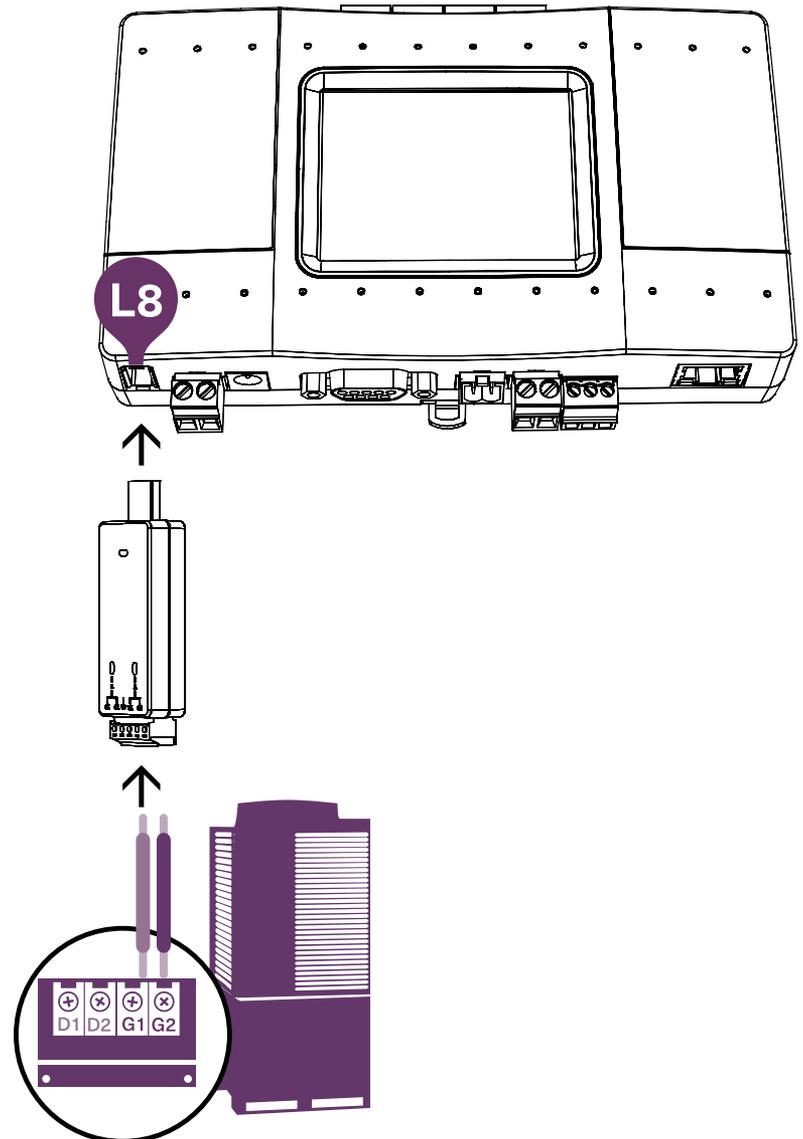
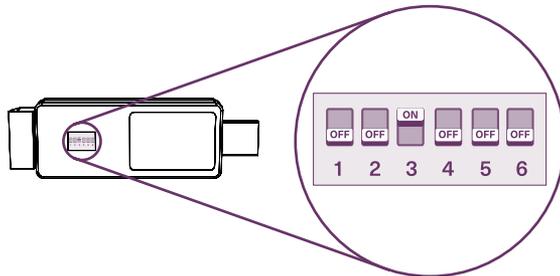
This adapter includes CAN bus 120 Ω resistor.

3 Plugging to the CloudBox

Insert the plug in to the CloudBox L8 (USB).

4 Check DIP Switches are set correctly

Dip switches setup for GMV5/6 VRF HVAC system on L8.



Gree GMV5/6 HVAC Terminal

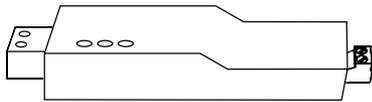
HVAC Fujitsu VRF

1 HVAC Communication Terminals

HVAC outdoor connection



2 Connecting to the Echelon adapter



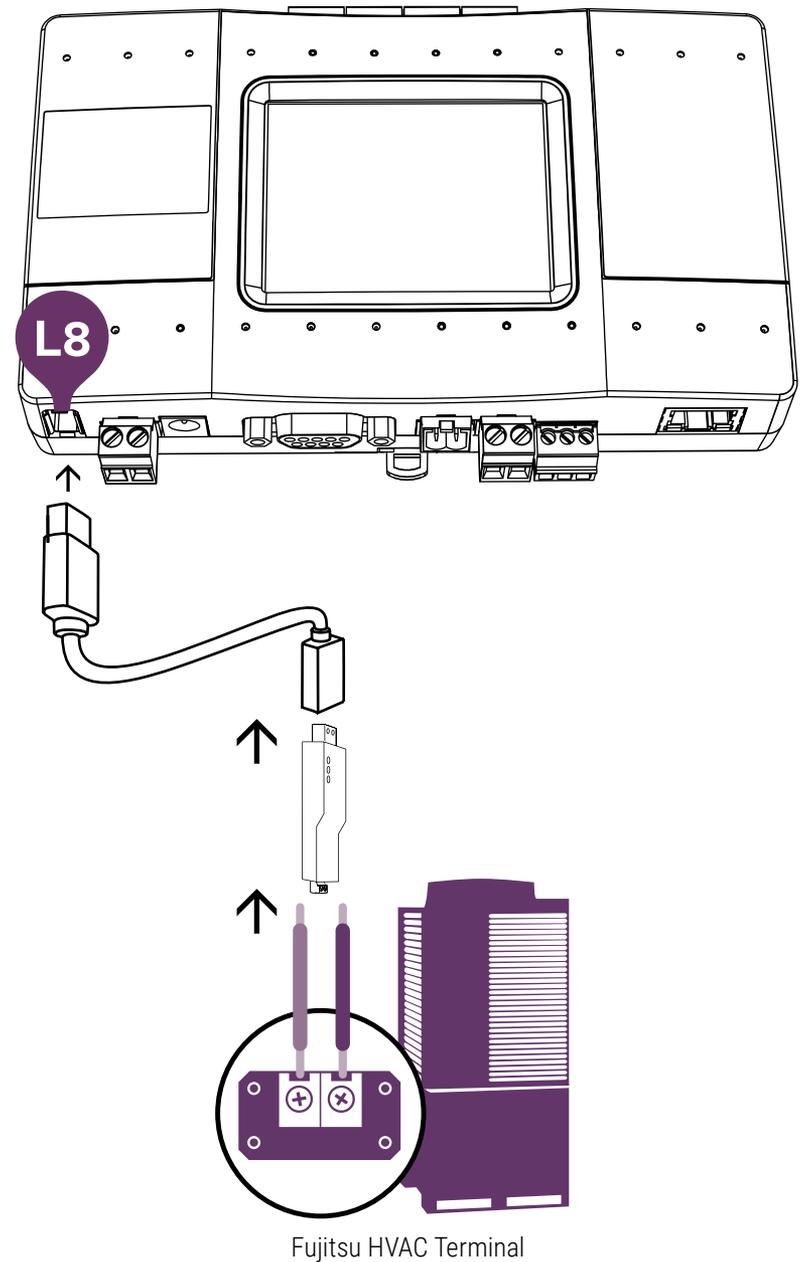
Echelon U10 USB Network Interface (TP/FT-10) adapter is required for connecting to Fujitsu VRF. (Not supplied by CoolAutomation)

3 Connect Echelon via USB Extension cable

Connect the USB Extension cable (A-Male to A-Female) to the Echelon adapter. (Not supplied by CoolAutomation)

4 Plug in to the CloudBox L8

Insert the USB cable in to the L8 USB host.



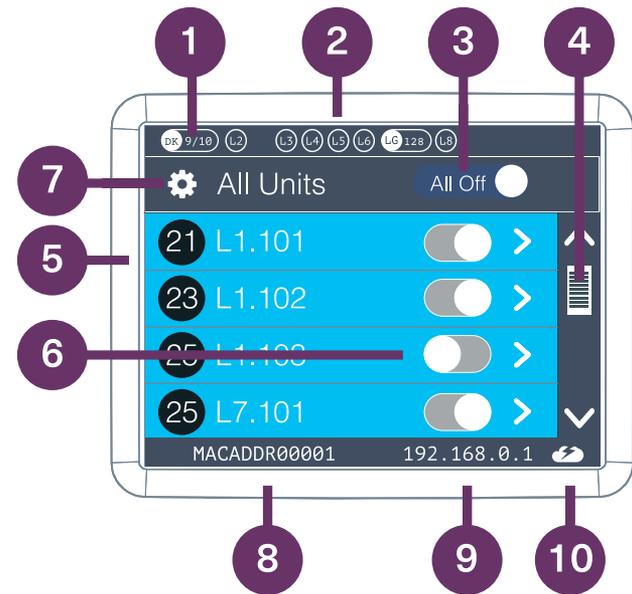
CloudBox installation complete

CloudBox Unit screen

After successful installation, unit's screen will show all the detected indoor units and their statuses.

- 1 Active HVAC line (DK 9/10) (Groups/Units)
- 2 Inactive HVAC line
- 3 All ON/OFF operation button
- 4 Scrollbar
- 5 Connected indoor unit with it's address and Set-Point temperature indication.
- 6 Indoor unit operation button (on/off)
- 7 Service settings button
- 8 CloudBox MAC address
- 9 CloudBox IP address
- 10 CoolAutomation Cloud connectivity status

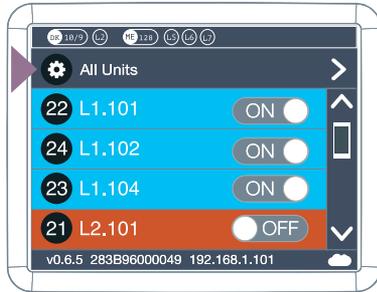
-  Connected - Communicating
-  Connected - Idle
-  Disconnected - with error code



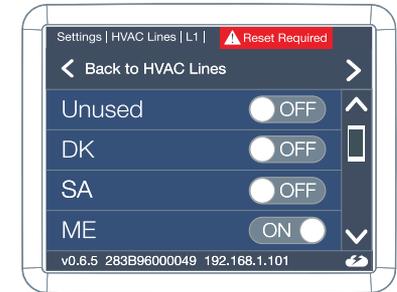
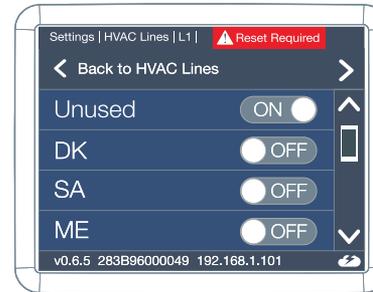
How to change the brand of a specific line

In order to change the HVAC brand type on a specific line, please follow the below procedure on CoolMasterNet screen:

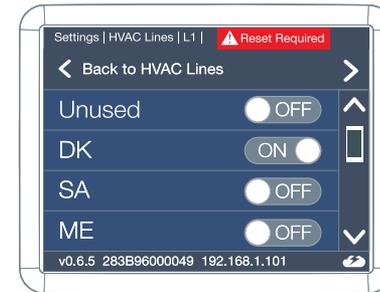
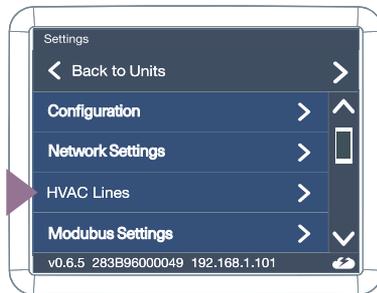
1 Go to Settings (gearbox in a left upper corner)



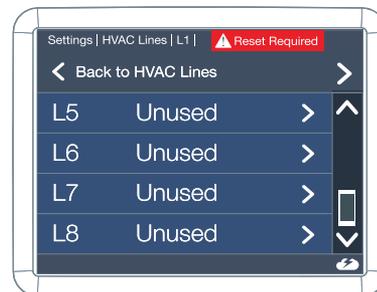
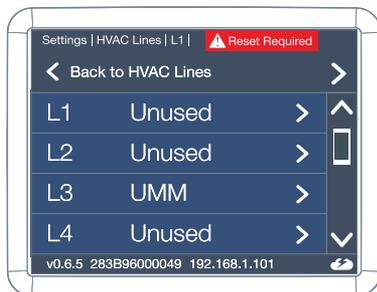
4 Configure the HVAC line type (Ex. L1)



2 Go to HVAC Line



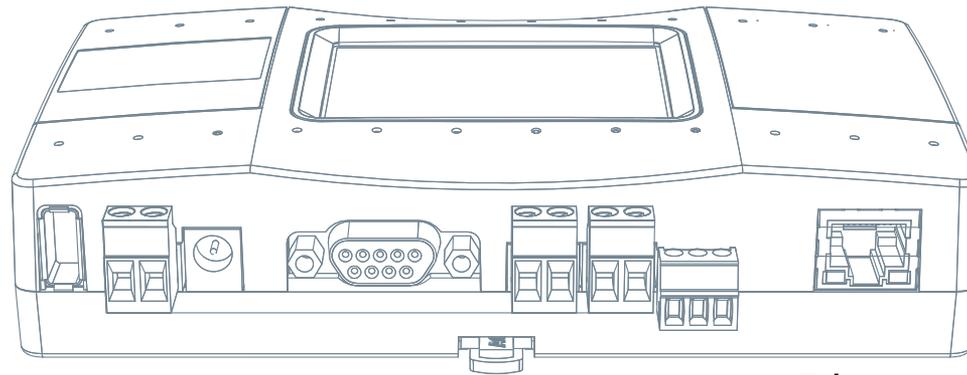
3 Select the HVAC Line you want to configure (Ex. L1)



5 Make sure the DIP switches are set properly for the brand (according to the details in the brand relevant section above)

6 Reset is required to make change effective

Connection to the CoolRemote Cloud using local network



Ethernet



Cloud Apps



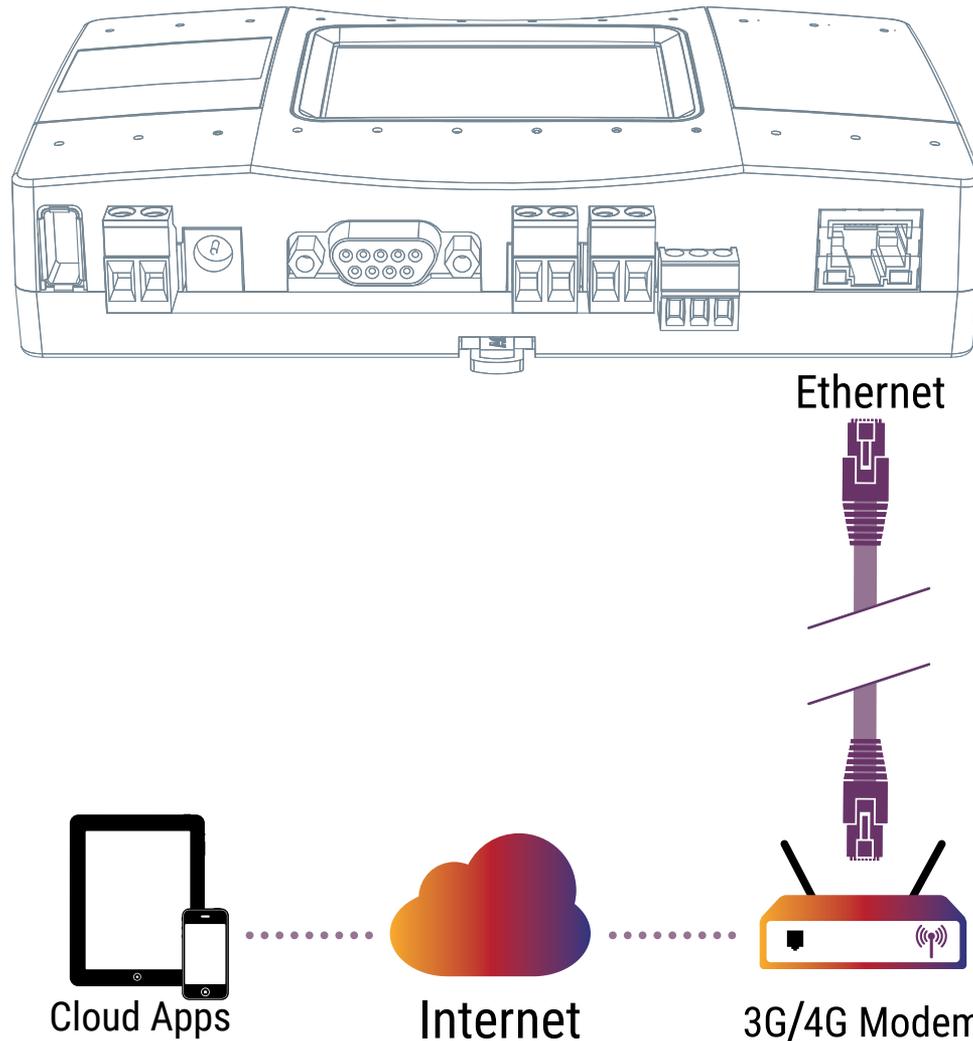
Internet



Router



Connection to the CoolRemote Cloud using 3G/4G router

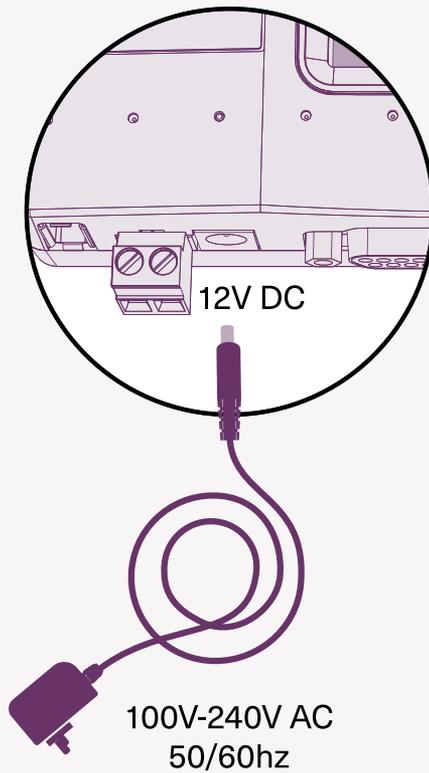


3G/4G router can be supplied separately by Coolautomation or purchased locally.
Local Data SIM card is required.

Power Supply

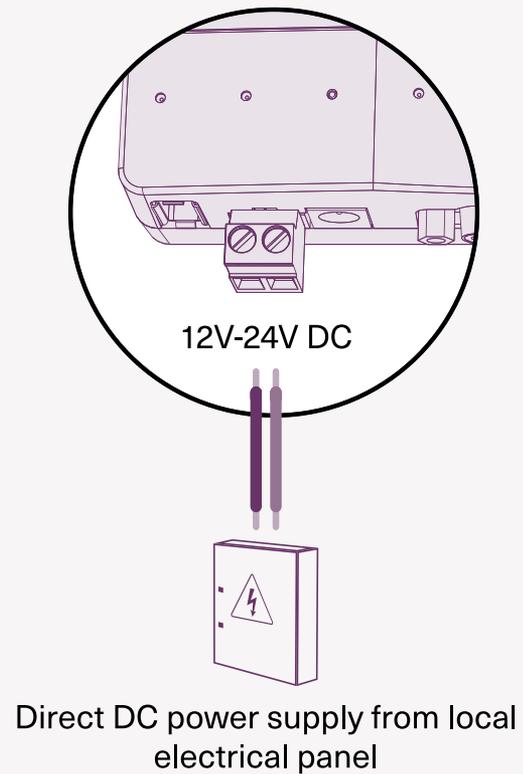
Option A

AC Power supply adapter
(Included in the Box)

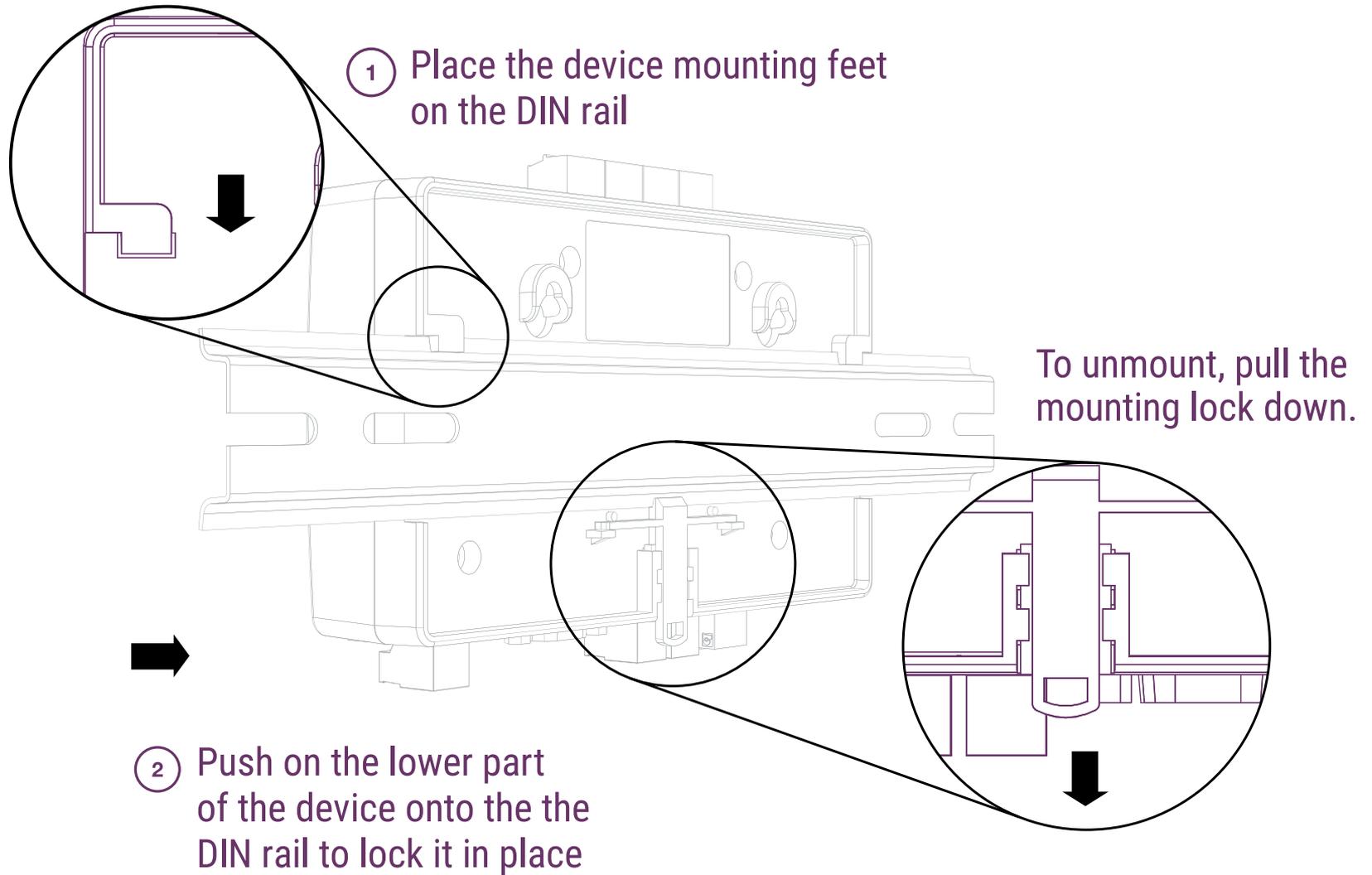


Option B

Direct DC power supply

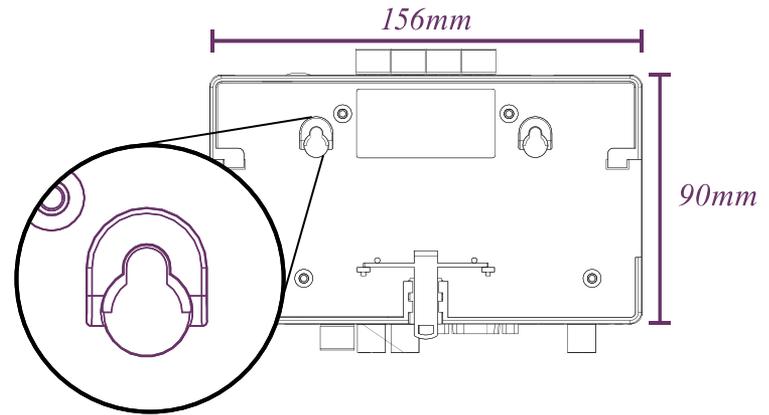


Mounting on a DIN rail

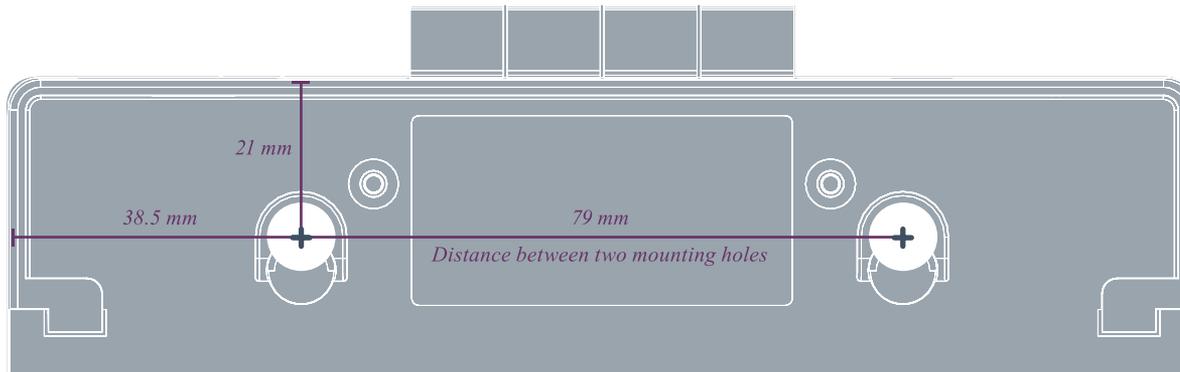


Mounting on a wall

For mounting the CoolMasterNet with wall screws, please see attached template with 1:1 dimensions.



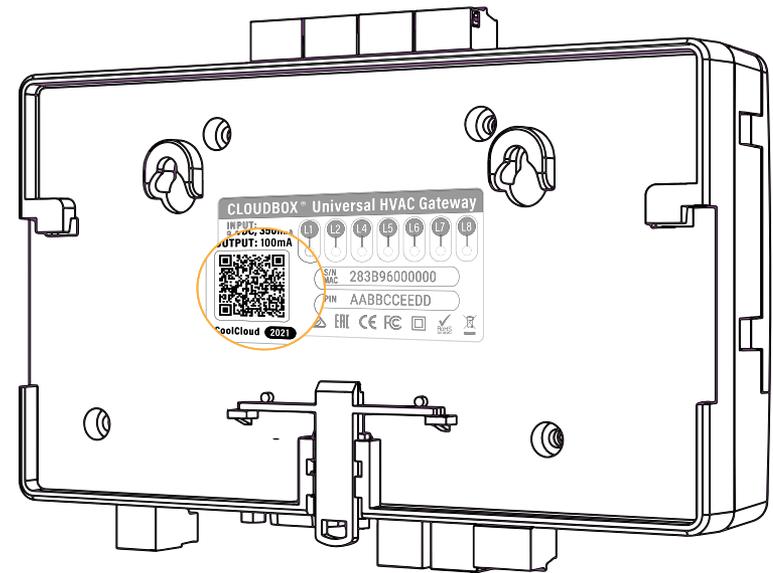
1:1 SCALE MOUNTING TEMPLATE FOR WALL SCREWS



Online Documentation and Support

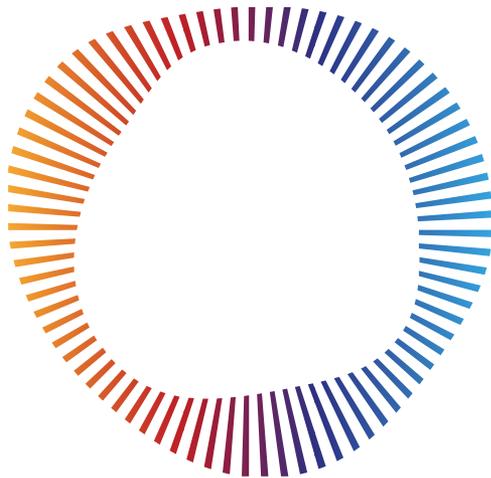
Scan the QR code (on the box or back of the device) to get to:

- Online Documentation
- Registration to the CoolAutomation Cloud Apps
- Support



Need more help?

Visit us at: <https://coolautomation.com/support/#products>



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