Wall Instalation Guide

V1.7 03/24

MICA Mini / MICA / MICA Plus / MICA WELL

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General Information

Features

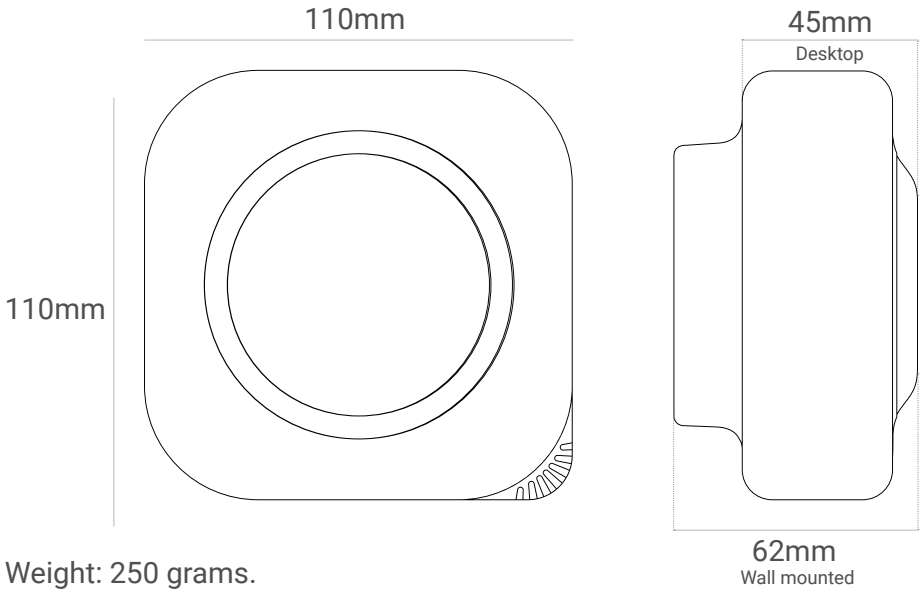
Multifunction touch button.

Status LED light ring.

USB type C connector.

Wi-Fi connection.*

Dimensions and weight



Weight: 250 grams.

Power Supply Options

USB type C cable + 5V USB power adapter (desktop only).

Fast 110 - 240V AC 50-60 Hz 0.2A connector.

Fast 8 - 36V DC 2A 10W connector.

Connectivity Options

LoRaWAN.
Sigfox.
NB-IoT / LTE-M.

Local Communication Options

Modbus RTU (RS-485).
Modbus TCP/IP (wireless) .
API.
MQTT.

*The device can only connect to 2.4 GHz WiFi networks. 5GHz WiFi networks are not supported.
Supported authentication and security protocols: WPA2 (Personal), WPA2 Enterprise, WPA3 (Personal), and WPA3 Enterprise.

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IMPORTANT:

Before you begin

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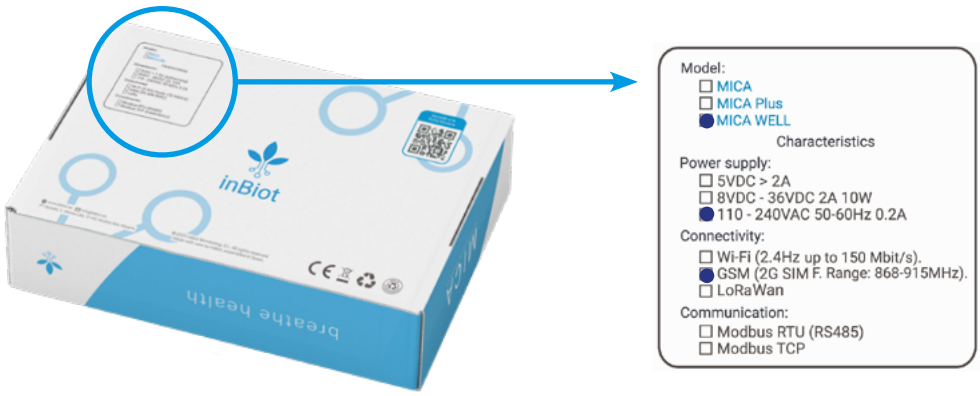
Before you begin, follow these steps:

1. Identify what type of installation you are going to do: on the wall or in an electrical box.

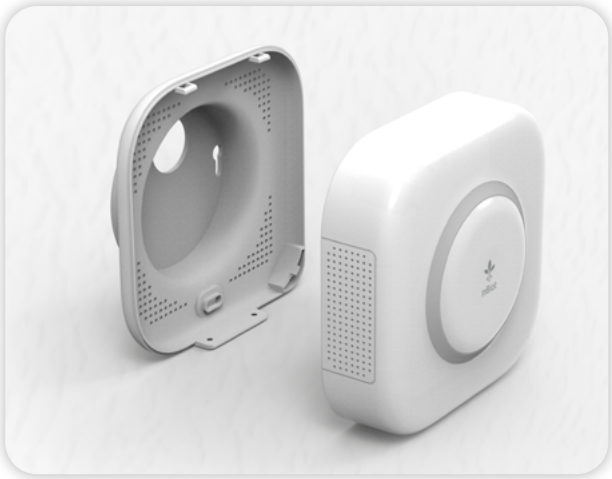
2. Check what communication and connectivity options has your MICA at the bottom of the box.



3. Check that the box contents are correct.

4. Remove the MICA from the box and remove the back cover from the case.

Remove bottom screws (2)



Detach the back cover of the MICA

Recommendations

The recommended height to install the electrical boxes or attach the MICA to the wall is between 120cm and 180cm.

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MICA Models

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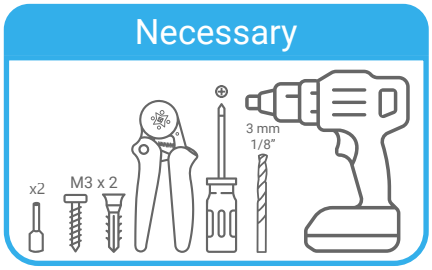
Wi-Fi

Wall Instalation with Gutter

Description

1. Back cover of the case.
2. Power cable input.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female power terminal
7. 1) Assembly guides (x2).
   2) Assembly hooks (x2).
8. Male power terminal.
9. Drilling guide (boxed).

Note: The recommended height for installation is 120 - 180cm.



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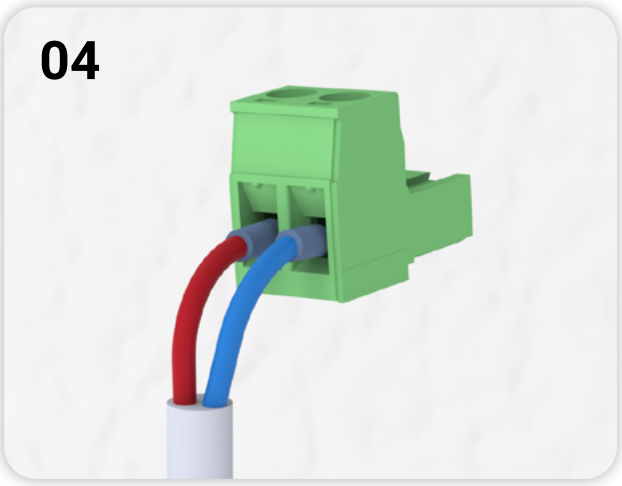
Steps to follow

01

02

03

04



05

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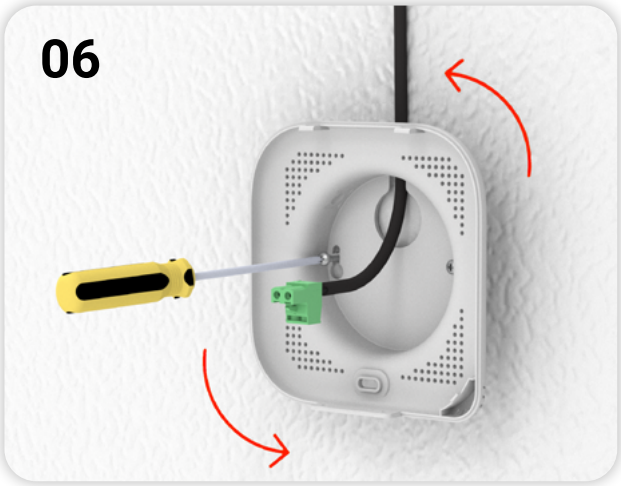

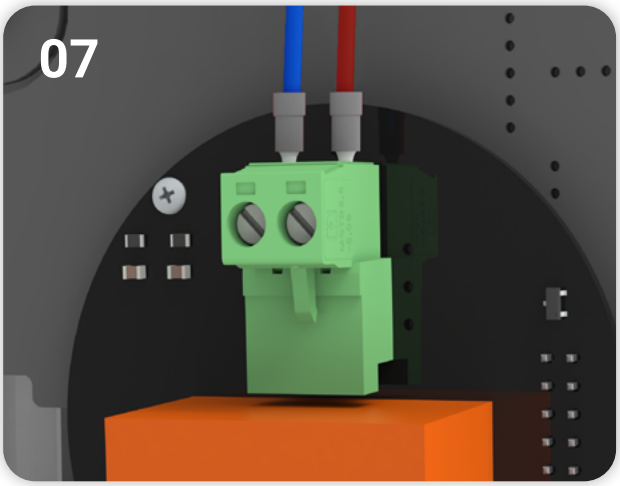

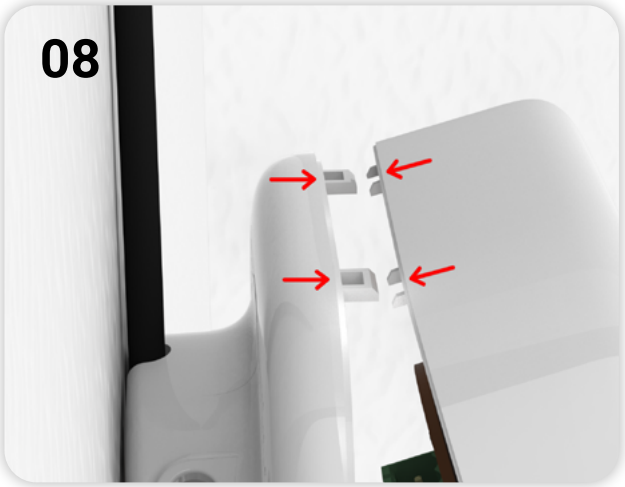

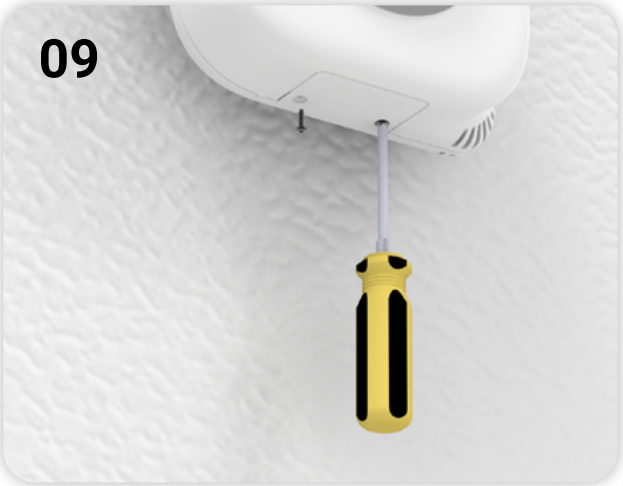

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Description of the steps.

1. Firstly, drill two holes in the wall (you will need a drill), using the drilling guide ❾ included in the box. **Recommended height: 120 - 180cm.**

2. Next, insert a screw into each of the holes you have just drilled (use wall plugs if necessary), leaving at least 8mm protruding from the wall.

3. Before proceeding, **add ferrules to the power cord.**

4. Connect the power cable to the male power terminal ❽ (2 pins) provided.

5. To continue, insert the power cable through the inlet ❷ located on the back cover of the housing ❶.

6. To mount the device to the wall, first, insert the screws through the holed ❸ in the back cover ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

7. Once the back cover of the case ❶ is fixed on the wall, connect the male power terminal ❽ to the female terminal ❻ located in the MOBO ❺.

8. To close the MICA, first align the assembly guide ❼ with the assembly hooks ❼ (this must be done with the case slightly tilted) and then close the cover.

9. To finish, secure the cover with the two bottom assembly screws ❹.

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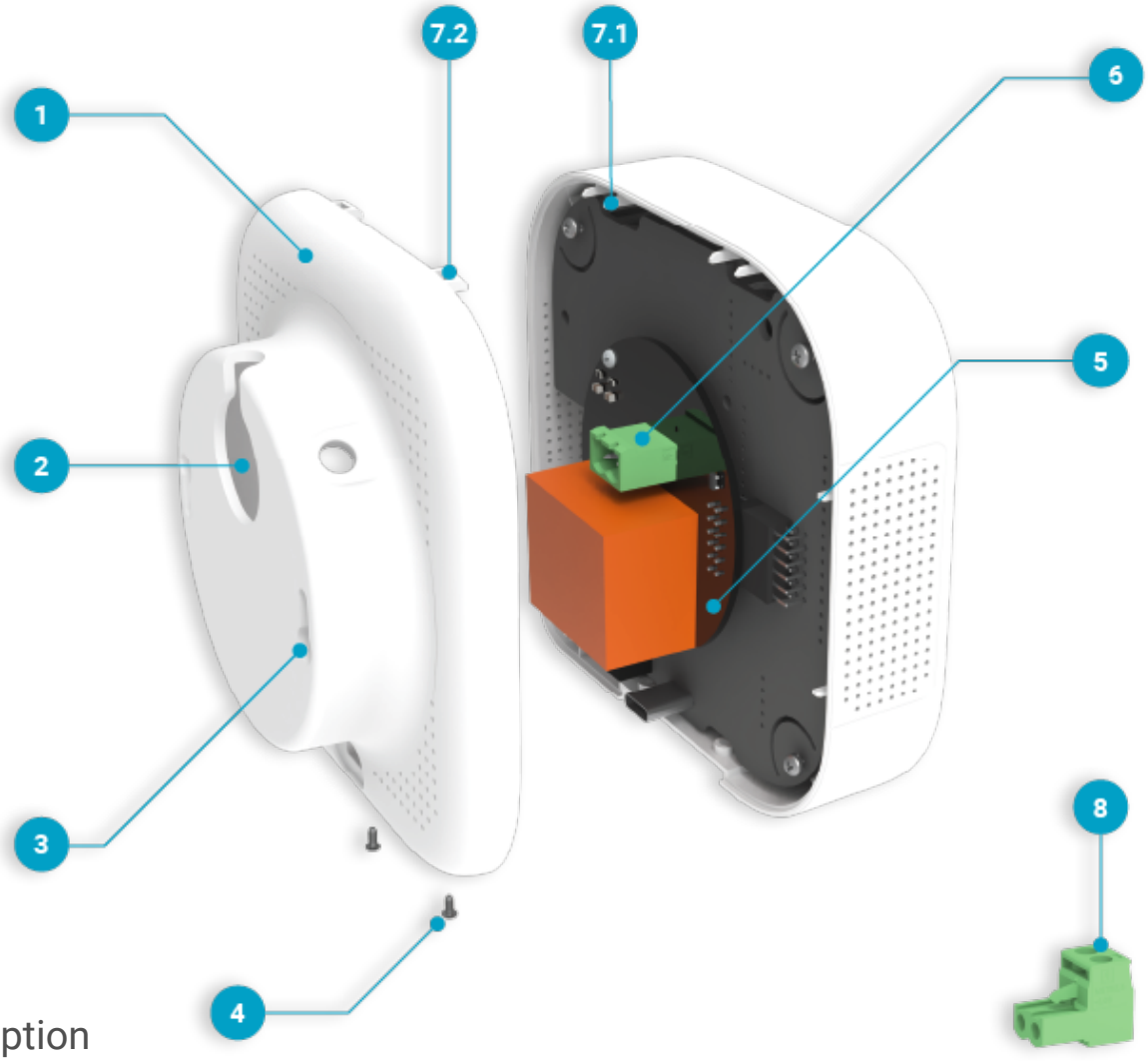
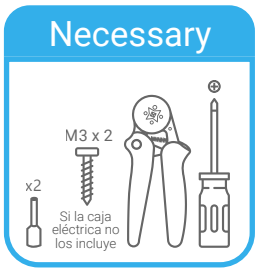
Wi-Fi

Concealed Wall Installation



Description

1. Back cover of the case.
2. Power cable input.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female power terminal
7. 1) Assembly guides (x2).
   2) Assembly hooks (x2).
8. Male power terminal.



Note: The recommended height for installing electrical boxes is 120 - 180cm.

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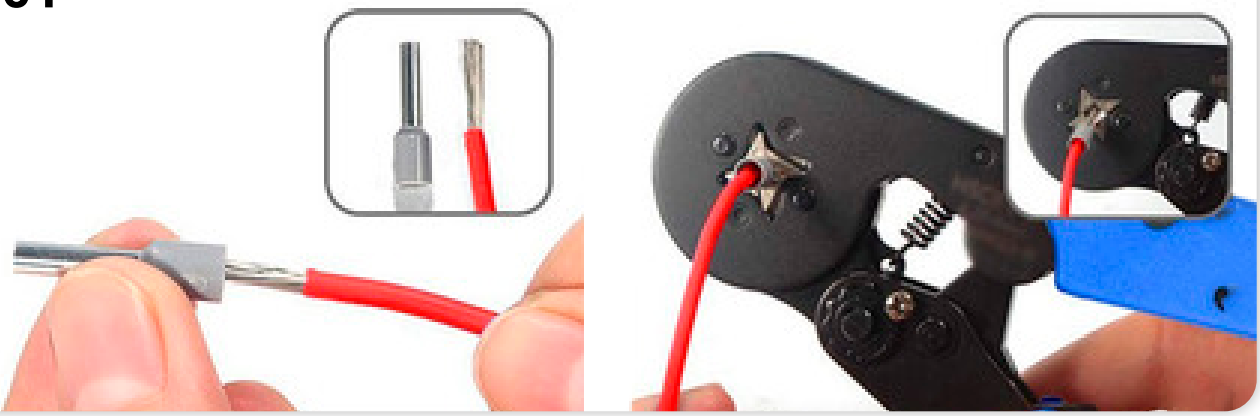
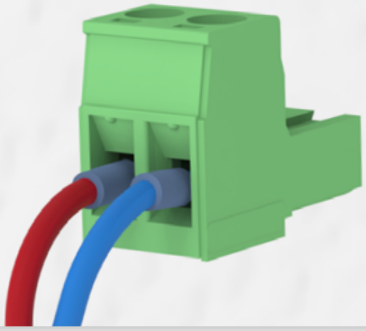
Steps to follow

01



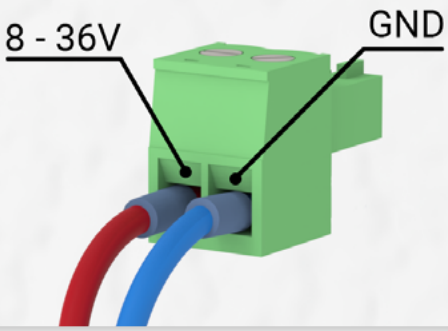
For 110 - 240V AC

02

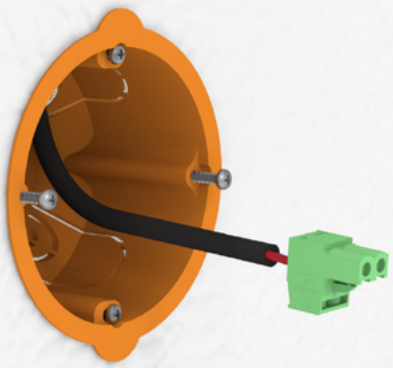


For 8 - 36V DC

02



03



04

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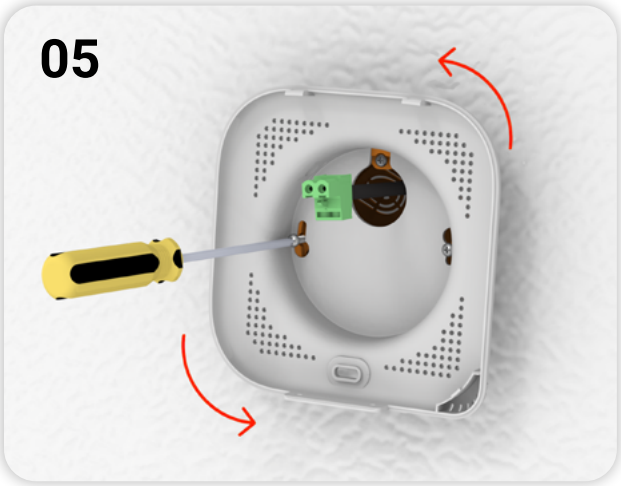

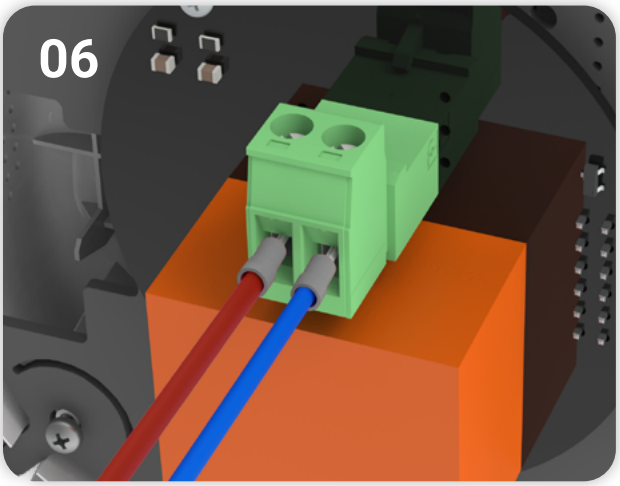

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Description of the steps.

1. Firstly, **add ferrules to the power cord.**

2. Next, connect the power cord to the male power terminal ❽ (2 pins) provided. If the power supply is direct current (8 - 36V DC), remember to respect the order of the inputs (V - GND).

3. Place two screws into the electrical box in order to install the device.

4. To mount the cover on the wall, first run the cables through the ❷ input hole located on the back cover of the case ❶.

5. Insert the screws of the electrical box through the mounting holes ❸ on the cover of the case ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

6. Once the back cover of the case ❶ is fixed on the wall, connect the male power terminal ❽ provided to the female terminal ❻ on the MOBO ❺.

7. To close the MICA, first align the assembly guides ❼ with the assembly hooks ❼ (this must be done with the housing slightly tilted) and then close the cover.

8. To finish, secure the cover with the two bottom assembly screws ❹.

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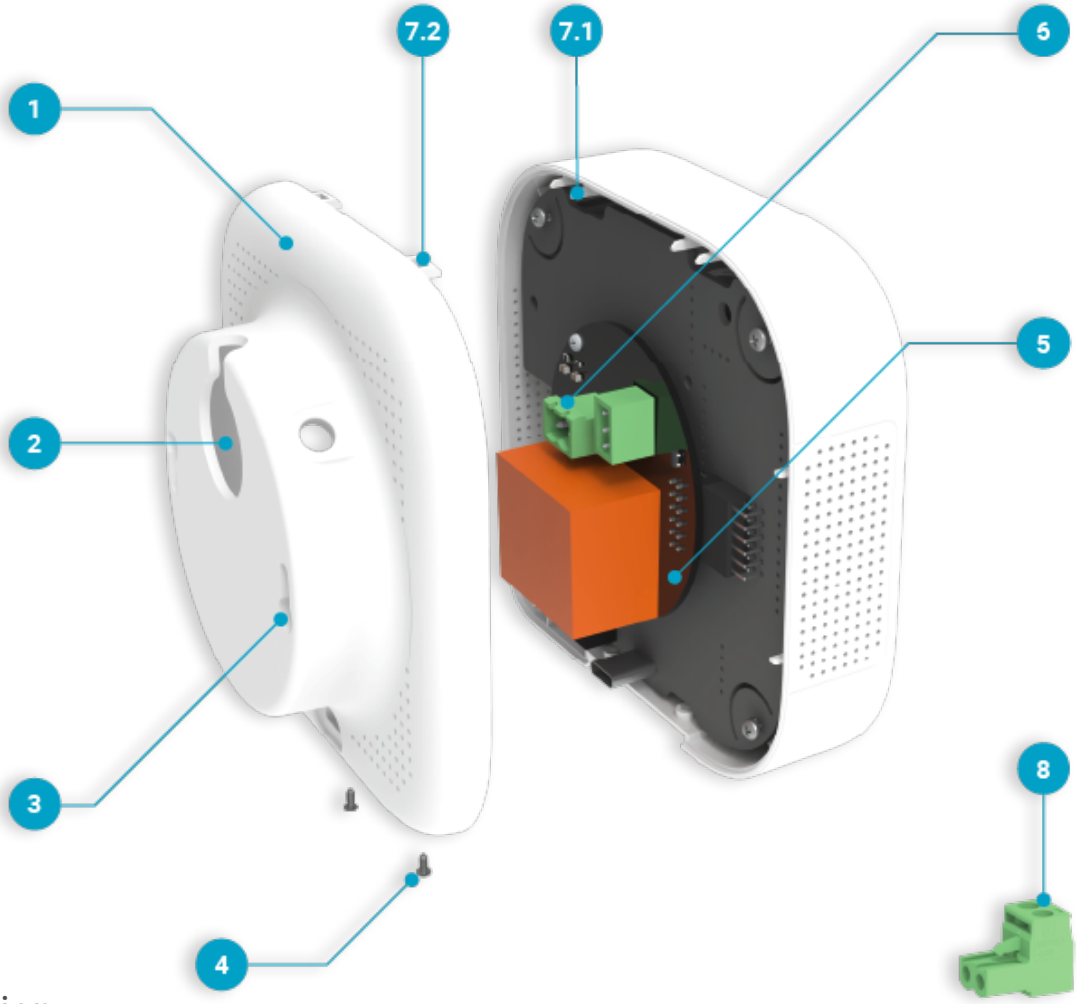
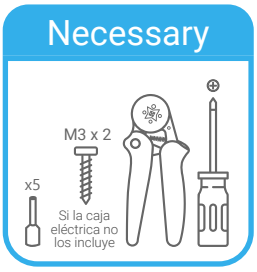
Concealed Wall Installation



Description

1. Back cover of the case.
2. Power cable input.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. Electronic Motherboard (MOBO).
6. Female Modbus RTU terminal.
7. Female power terminal
8. 1) Assembly guides (x2).
   2) Assembly hooks (x2).
9. Male power terminal.
10. Male Modbus RTU terminal.



Note: The recommended height for installing electrical boxes is 120 - 180cm.

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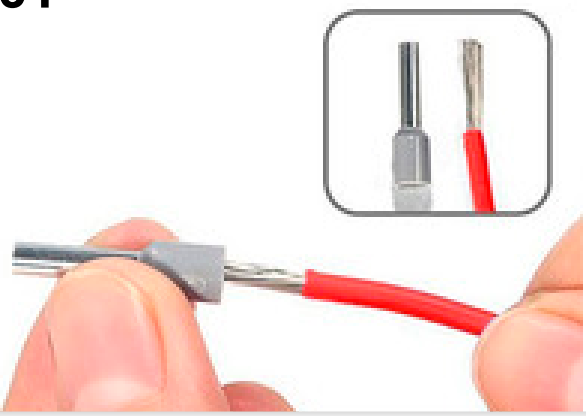
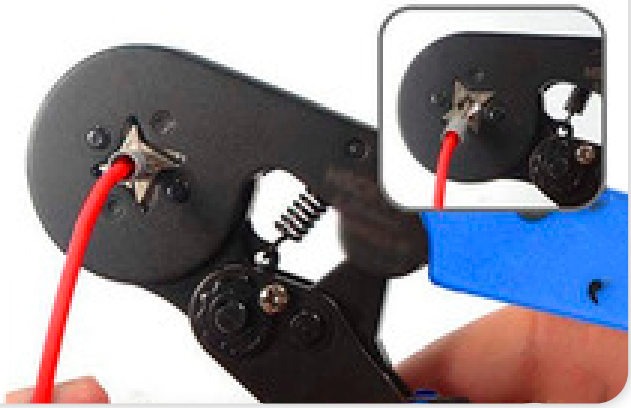
Steps to follow

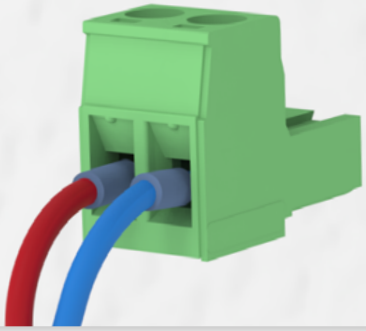
01





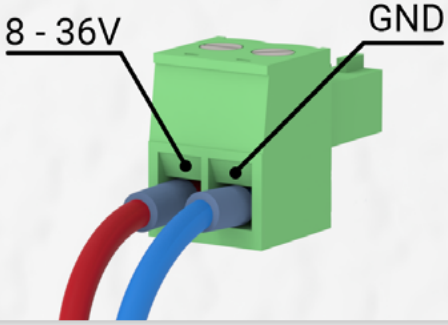
For 110 - 240V AC

02

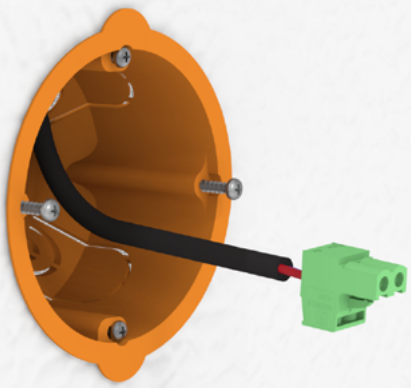


For 8 - 36V DC

02



03



04

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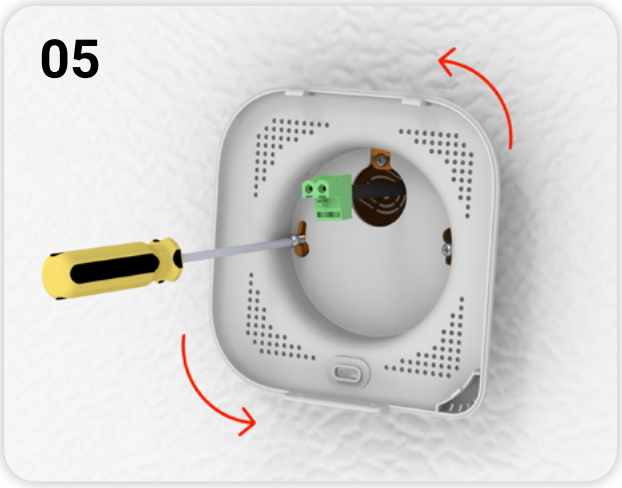

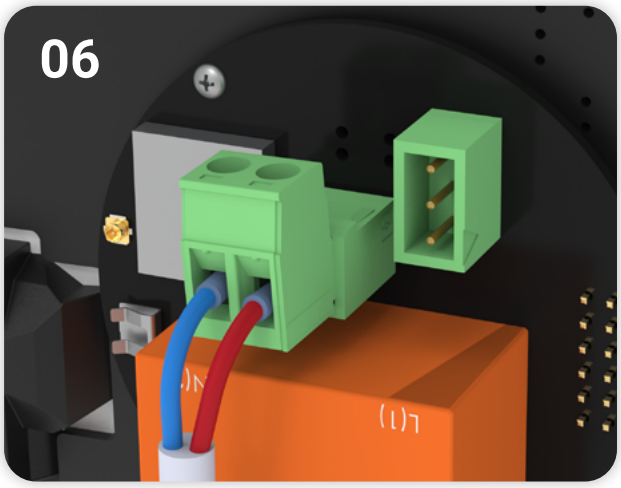

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Description of the steps.

1. Firstly, **add ferrules to the power cord.**

2. Next, connect the power cord to the male power terminal ❽ (2 pins) provided. If the power supply is direct current (8 - 36V DC), remember to respect the order of the inputs (V - GND).

3. Place two screws into the electrical box in order to install the device.

4. To mount the cover on the wall, first run the cables through the ❷ input hole located on the back cover of the case ❶.

5. Insert the screws of the electrical box through the mounting holes ❸ on the cover of the case ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

6. Once the back cover of the case ❶ is fixed on the wall, connect the male power terminal ❽ provided to the female terminal ❻ on the MOBO ❺.

7. To close the MICA, first align the assembly guides ❼ with the assembly hooks ❼ (this must be done with the housing slightly tilted) and then close the cover.

8. To finish, secure the cover with the two lower assembly screws ❹.

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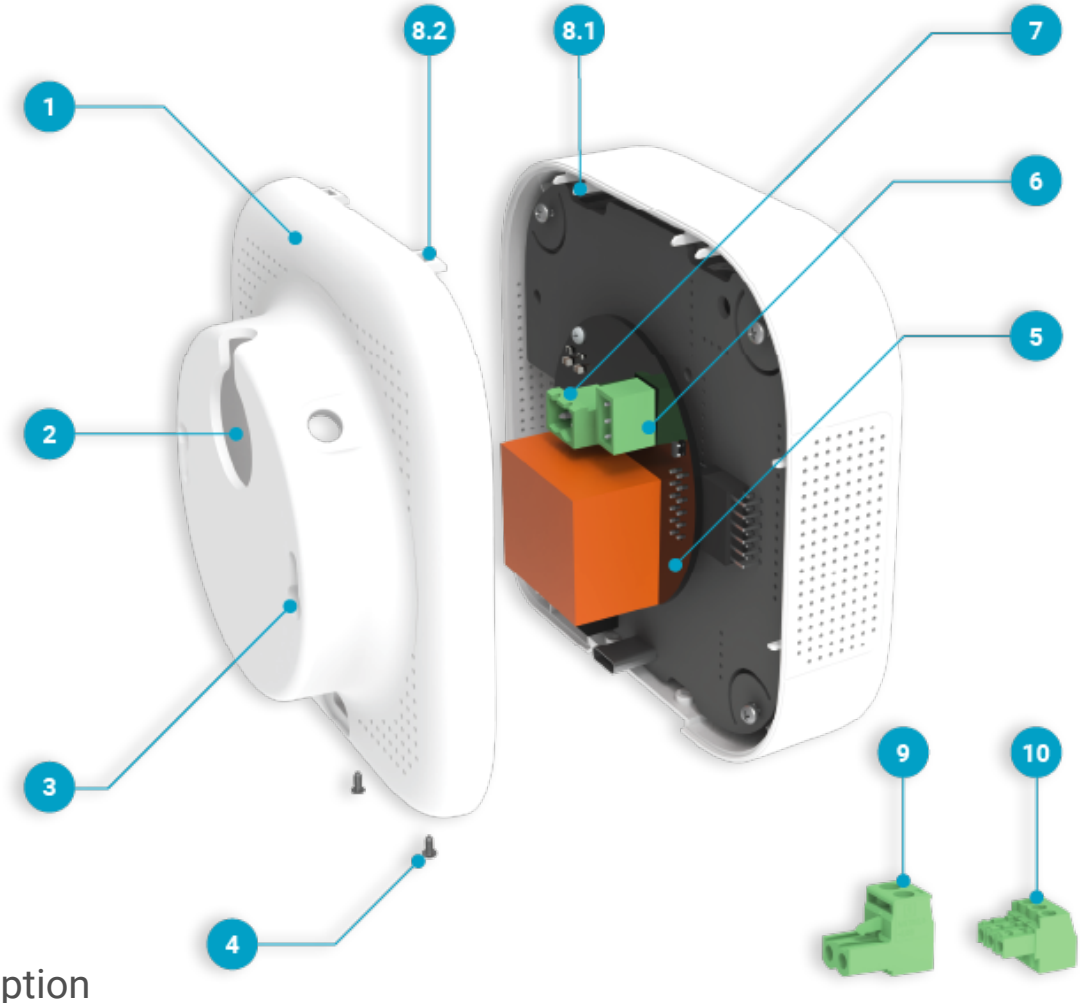
Modbus RTU

Concealed Wall Installation



Description

1. Back cover of the case.
2. Power cable input.
3. Mounting holes (x2).
4. Assembly screws (x2).
5. PCB.
6. Female Modbus RTU terminal.
7. Female power terminal
8. 1) Assembly guides (x2).
   2) Assembly hooks (x2).
9. Male power terminal.
10. Male Modbus RTU terminal.

Note: The recommended height for installing electrical boxes is 120 - 180cm.

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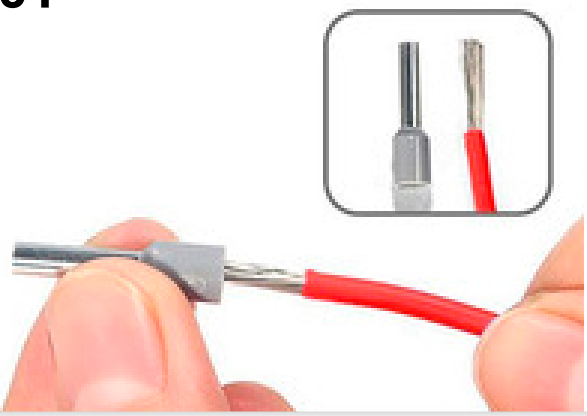
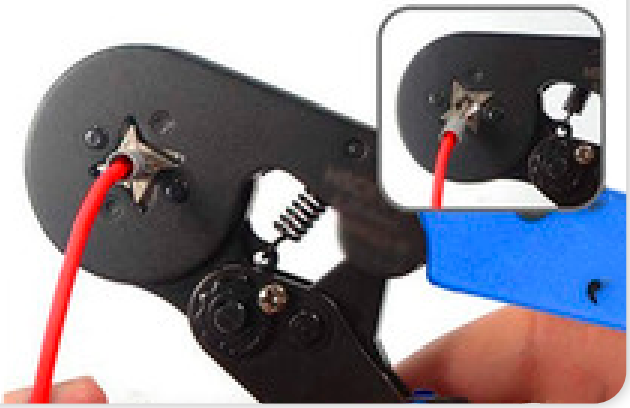
Steps to follow

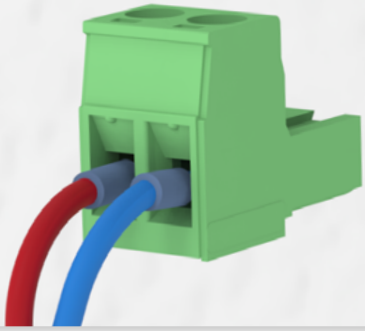
01





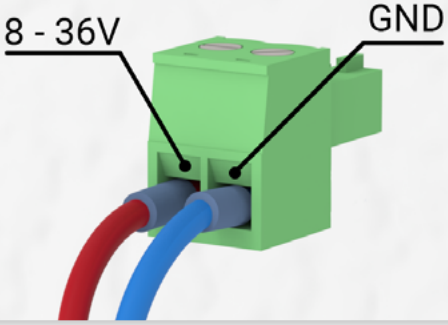
For 110 - 240V AC

02

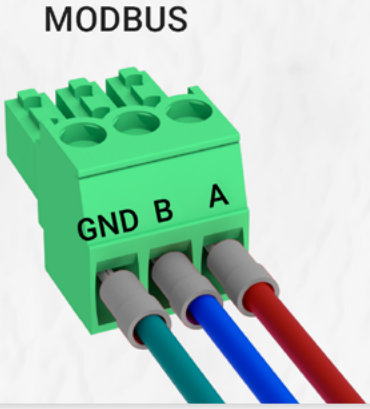


For 8 - 36V DC

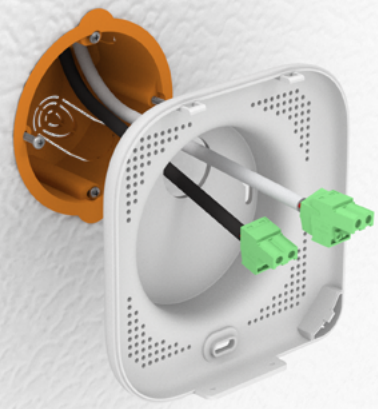
02



03



04



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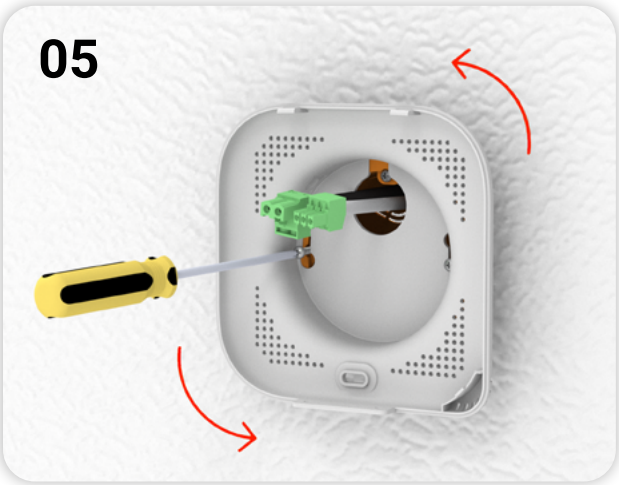

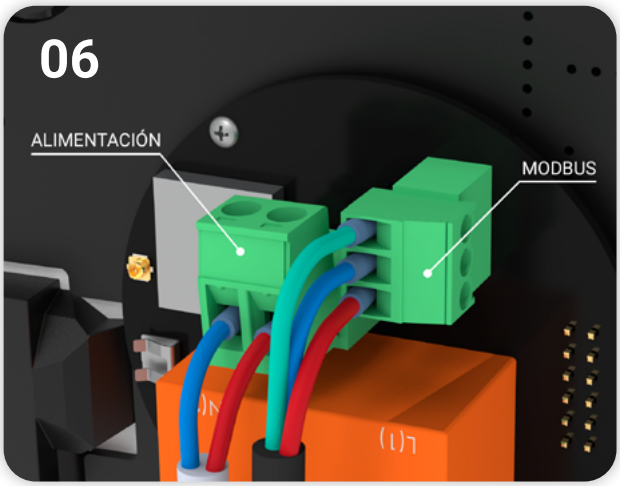

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Description of the steps.

1. Firstly, **add ferrules to the power cord.**

2. Next, connect the power cord to the male power terminal ❾ (2 pins) provided. If the power supply is direct current (8 - 36V DC), remember to respect the order of the inputs (V - GND).

3. Connect the male Modbus terminal ❿ (3 pins) to the Modbus cable following the order of the inputs (GND* - B - A).

4. To mount the cover on the wall, place two screws into the electrical box and run the cables through the ❷ input hole located on the back cover of the case ❶.

5. Insert the screws in the electrical box through the mounting holes ❸ on the cover of the case ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

6. Next, connect both male terminals (❾ & ❿) to their respective female terminals (❼ & ❻) located on the MOBO ❺.

7. 7. To close the MICA, first align the assembly guides ❽ with the assembly hooks ❽ (this must be done with the housing slightly tilted) and then close the cover.

8. To finish, secure the cover with the two lower assembly screws ❹.

[*] GND: From the same device as A and B (master, etc).

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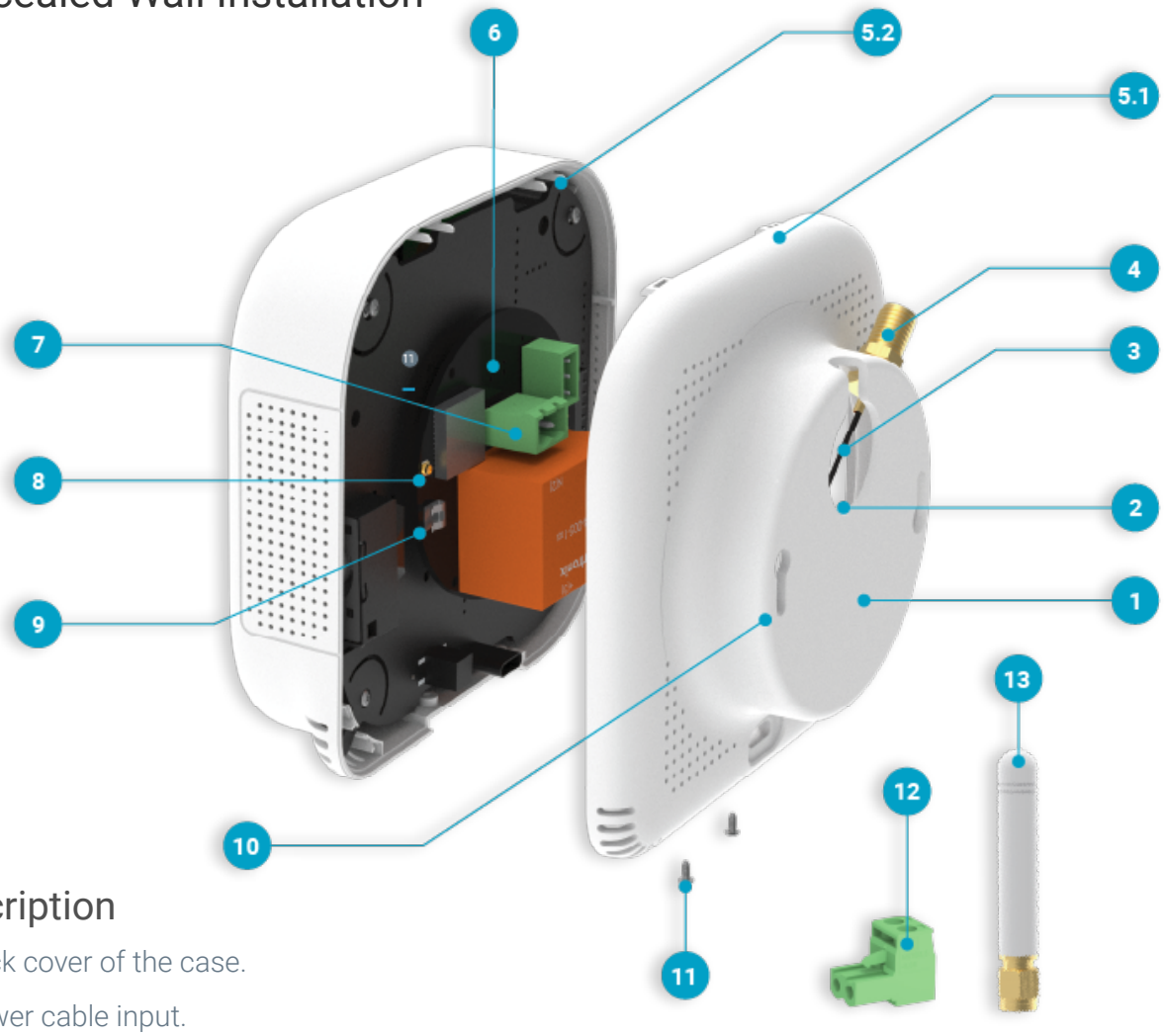
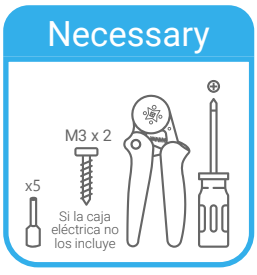
LoRaWAN / Sigfox

Concealed Wall Installation



Description

1. Back cover of the case.
2. Power cable input.
3. Antenna cable.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).
   2) Assembly guides (x2).
6. Electronic Motherboard (MOBO)
7. Female power terminal
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Male power terminal.
13. Antenna (boxed).



Note: The recommended height for installing electrical boxes is 120 - 180cm.

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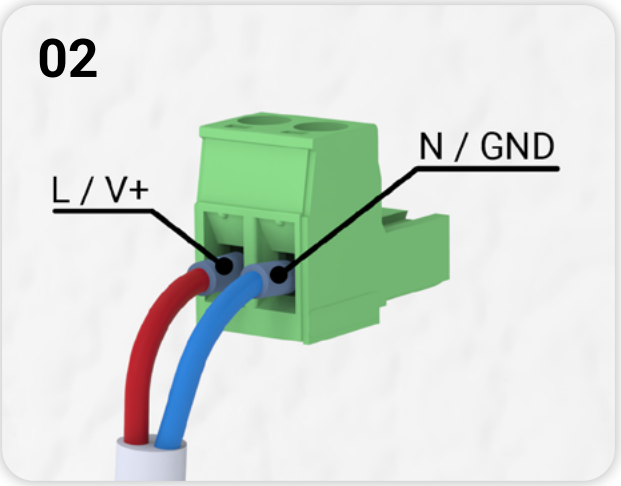
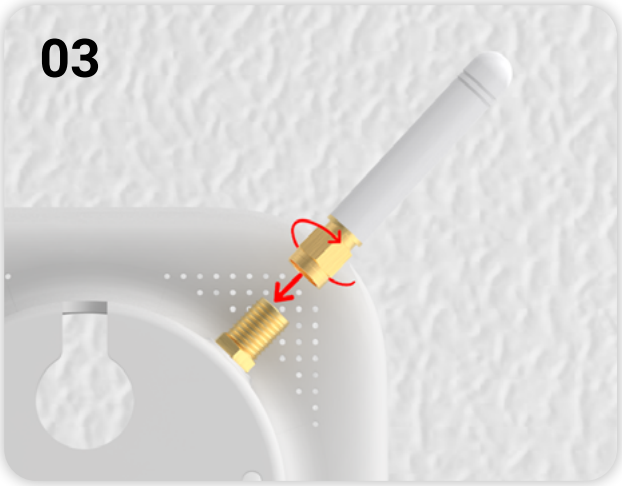
Steps to follow

01

02



03



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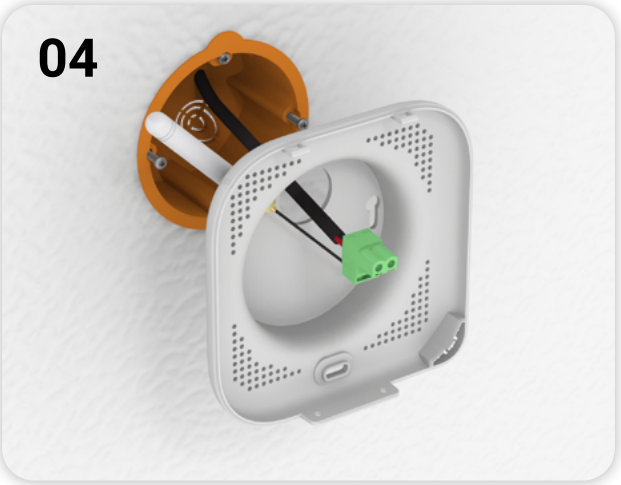

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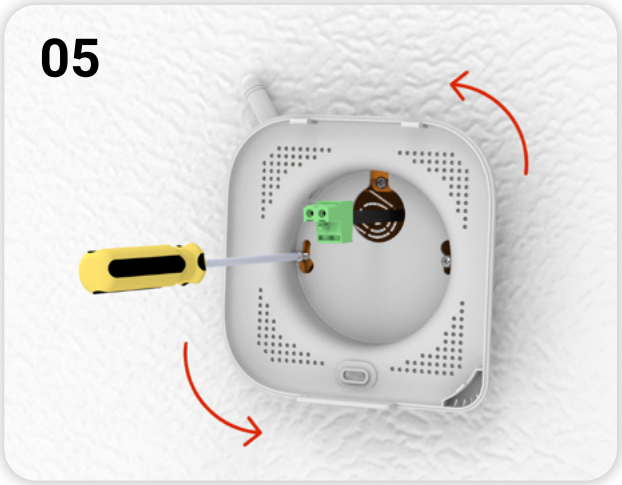

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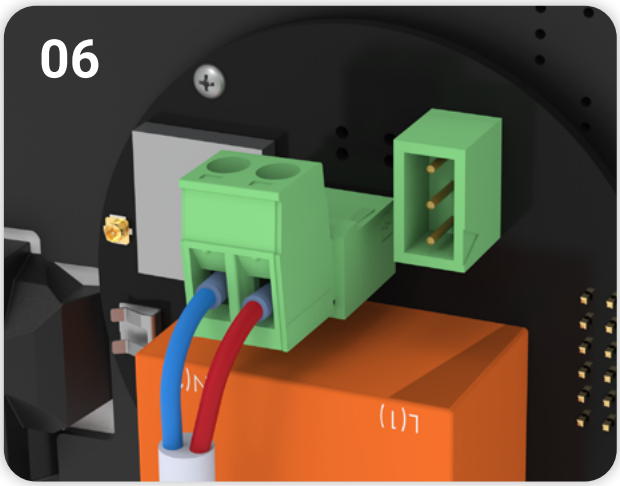

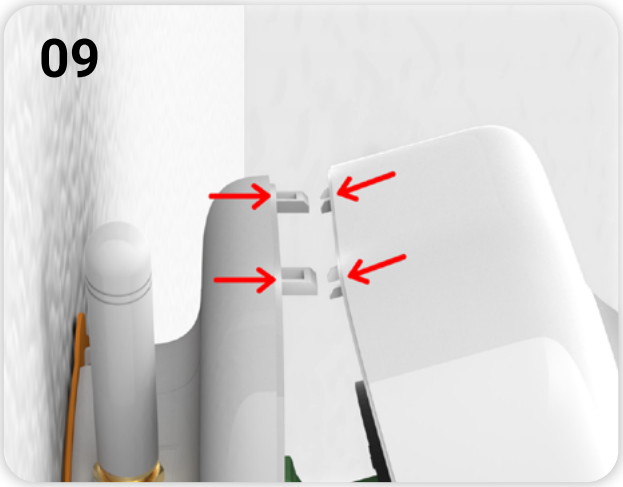

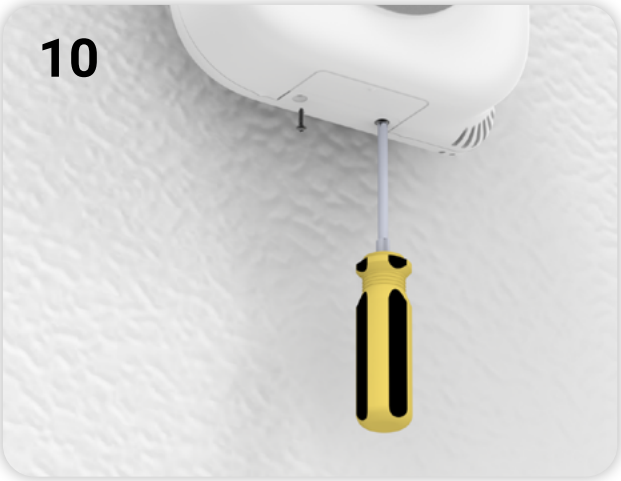

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Description of the steps.

1. Firstly, **add ferrules to the power cord.**

2. Next, connect the power cord to the male power terminal ⓬ (2 pins) provided. If the power supply is direct current (8 - 36V DC), remember to respect the order of the inputs (V - GND).

3. Next, secure the provided antenna ⓭ to the thread ❹ fixed on the back cover ❶.

4. To mount the cover on the wall, place two screws into the electrical box and run the cables through the input hole ❷ located on the back cover of the case ❶.

5. Insert the screws in the electrical box through the mounting holes ❿ on the cover of the case ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

6. Once the back cover of the case ❶ is fixed on the wall, connect the male power terminal ⓬ provided to the female terminal ❼ located in the MOBO ❻.

7. Connect the antenna cable ❸ to its connector ❽.

8. Before closing the MICA, hook the antenna cable onto the hook ❾ located on the MOBO ❻.

9. To close the MICA, first align the assembly guides ❺ with the assembly hooks ❺ (this must be done with the housing slightly tilted) and then close the cover.

10. To finish, secure the cover with the two lower assembly screws ⓫.

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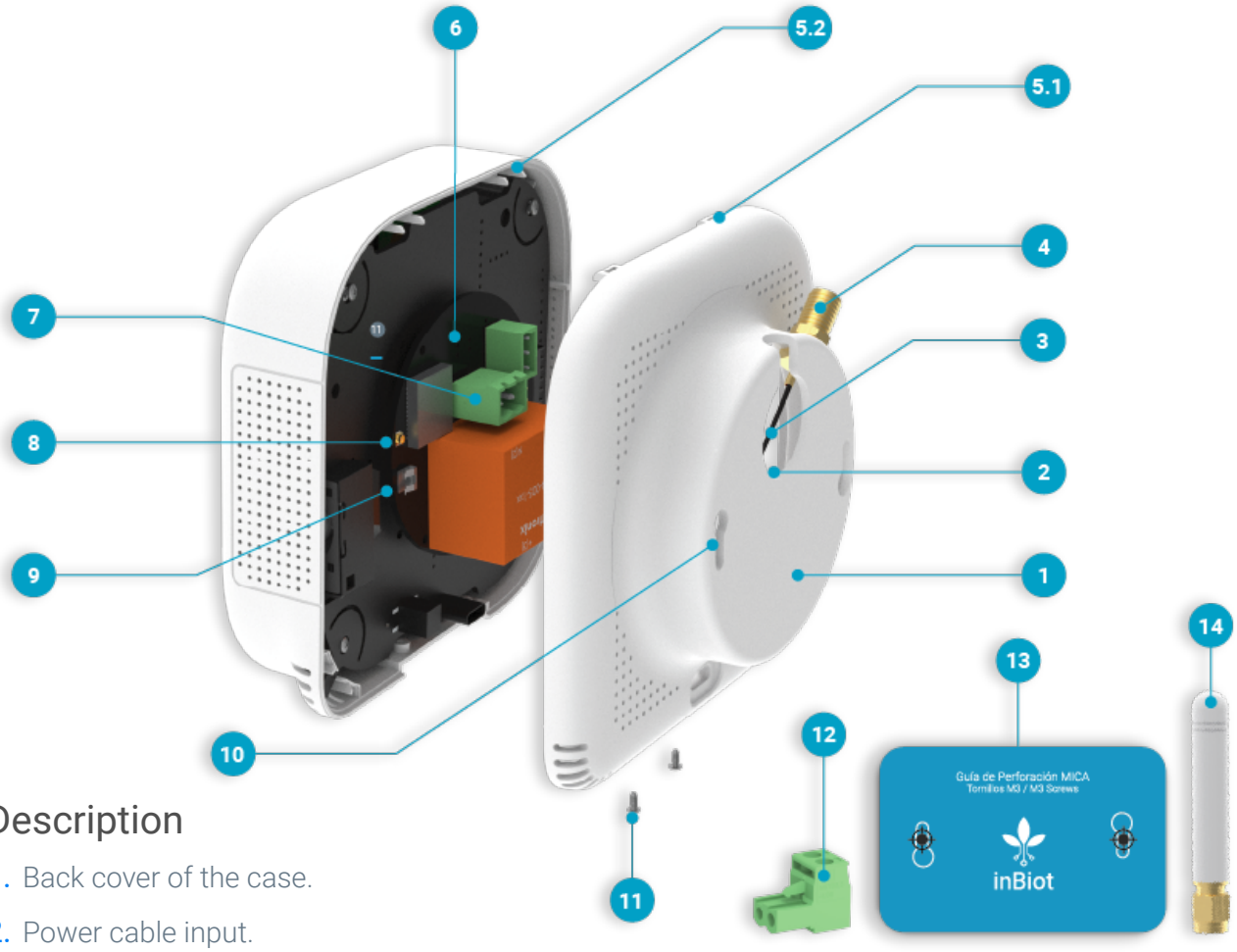
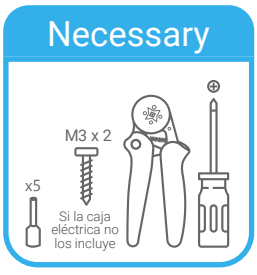
LoRaWAN / Sigfox

Wall Instalation with Gutter



Description

1. Back cover of the case.
2. Power cable input.
3. Antenna cable.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).
   2) Assembly guides (x2).
6. Electronic Motherboard (MOBO)
7. Female power terminal
8. Antenna connector.
9. Antenna hook.
10. Mounting holes (x2).
11. Assembly screws (x2).
12. Male power terminal.
13. Drilling guide (boxed).
14. Antenna (boxed).



Note: The recommended height for installing electrical boxes is 120 - 180cm.

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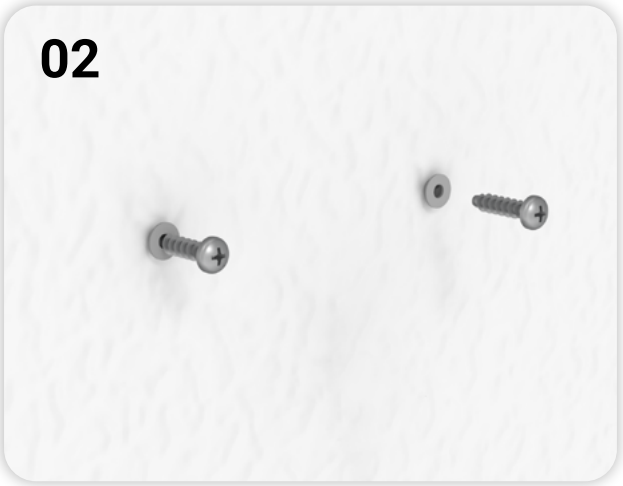
Steps to follow

01

02



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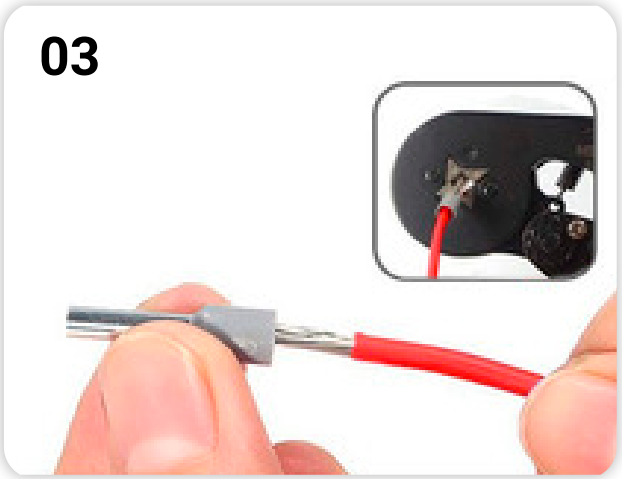

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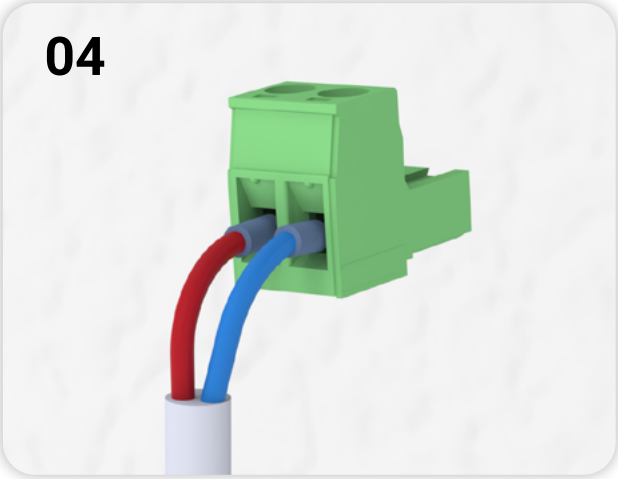

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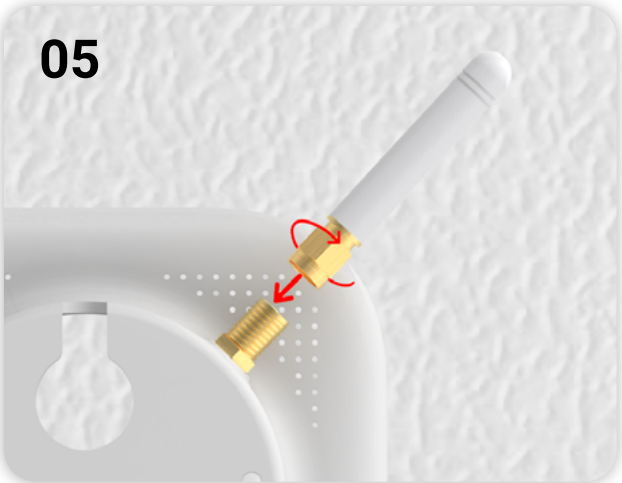

05

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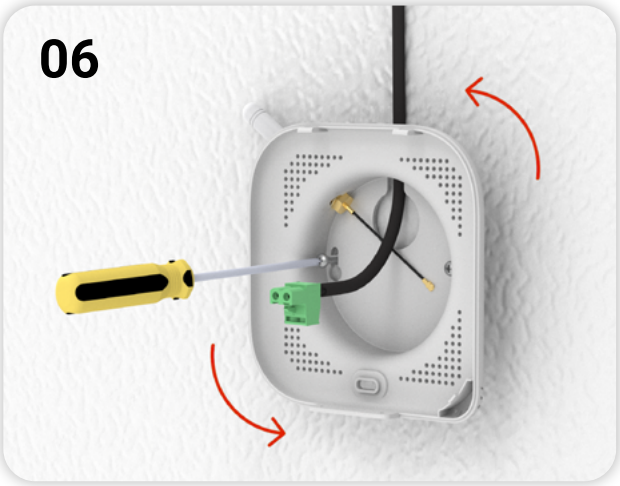

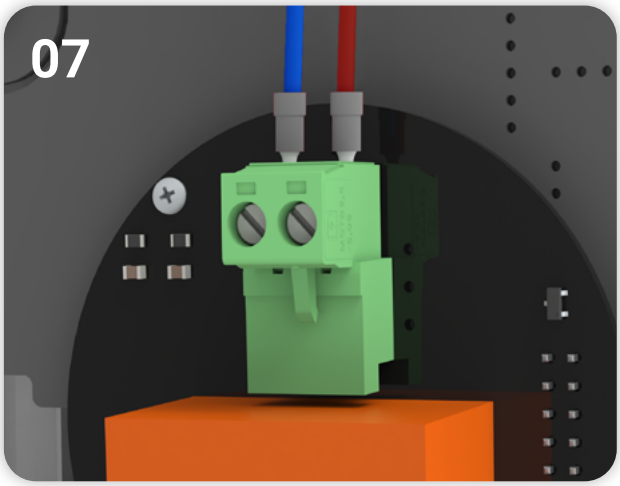

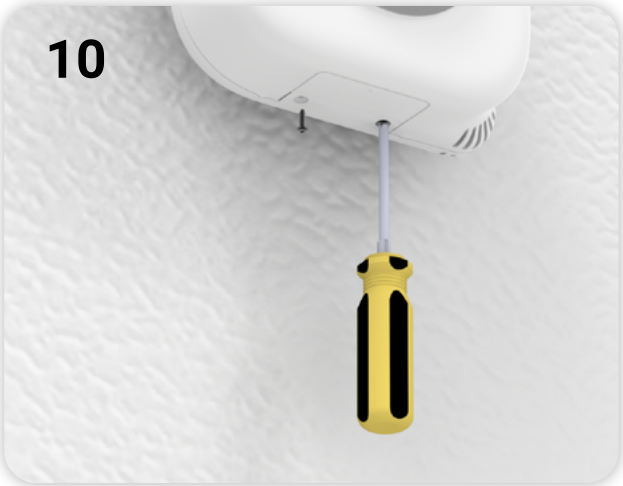

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Description of the steps.

1. Firstly, drill two holes in the wall (you will need a drill), using the drilling guide ⓭ included in the box. **Recommended height: 120 - 180cm.**

2. Next, insert a screw into each of the holes you have just drilled (use wall plugs if necessary), leaving at least 8mm protruding from the wall.

3. Before proceeding, **add ferrules to the power cord.**

4. Connect the power cable to the male power terminal ⓬ (2 pins) provided.

5. Next, secure the provided antenna ⓮ to the thread ❹ fixed on the back cover ❶.

6. Run the power cable through the inlet ❷ located on the rear cover of the enclosure ❶.

7. Insert the screws in the wall through the mounting holes ⓾ on the cover of the case ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

8. Once the back cover of the case ❶ is fixed on the wall, connect the male power terminal ⓬ provided to the female terminal ❼ on the MOBO ❻.

9. Connect the antenna cable ❸ to its connector ❽ located on the MOBO ❻.

10. Before closing the MICA, hook the antenna cable ❸ onto the antenna hook ❾ located on the MOBO ❻.

11. To close the MICA, first align the assembly guides ❺ with the assembly hooks ❺ (this must be done with the housing slightly tilted) and then close the cover.

12. To finish, secure the cover with the two lower assembly screws ⓫.

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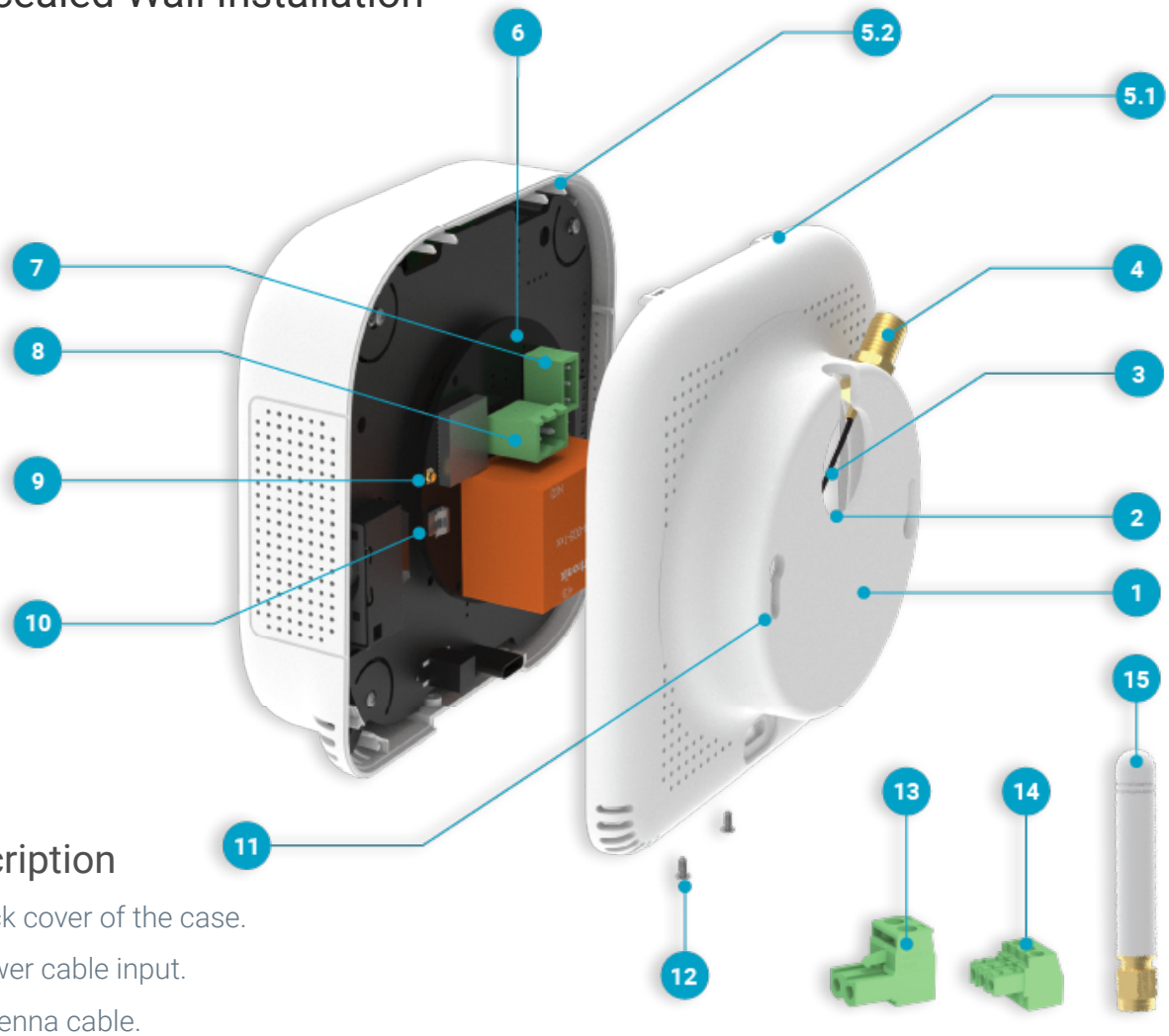
LoRaWAN / Sigfox + Modbus RTU

Concealed Wall Installation



Description

1. Back cover of the case.
2. Power cable input.
3. Antenna cable.
4. Antenna connection thread.
5. 1) Assembly hooks (x2).
   2) Assembly guides (x2).
6. Electronic Motherboard (MOBO)
7. Female Modbus RTU terminal.
8. Female power terminal
9. Antenna connector.
10. Antenna hook.
11. Mounting holes (x2).
12. Assembly screws (x2).
13. Male power terminal.
14. Male Modbus RTU terminal.
15. Antenna (boxed).

Note: The recommended height for installing electrical boxes is 120 - 180cm.

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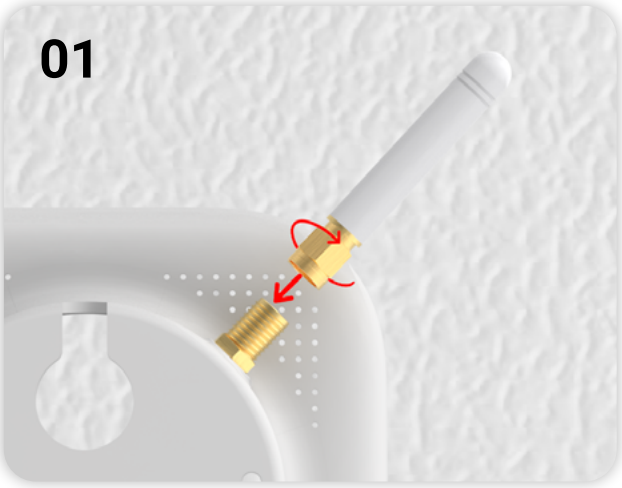
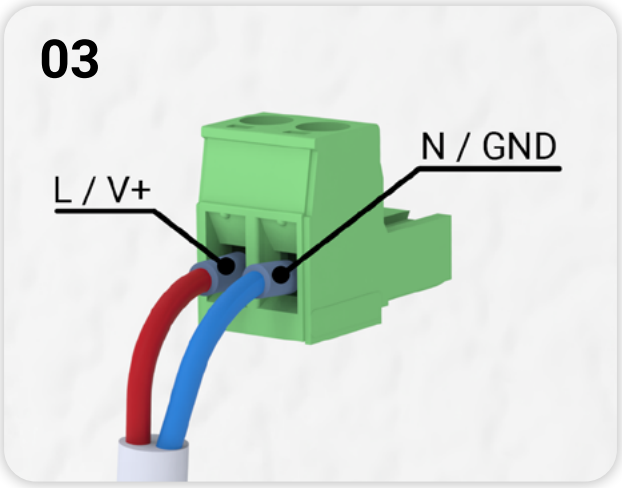
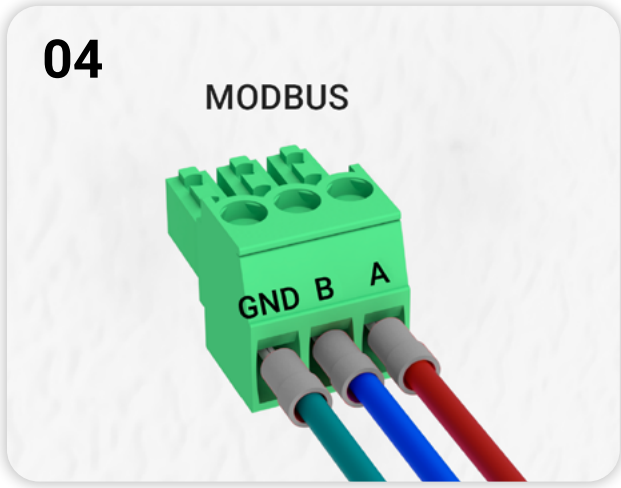
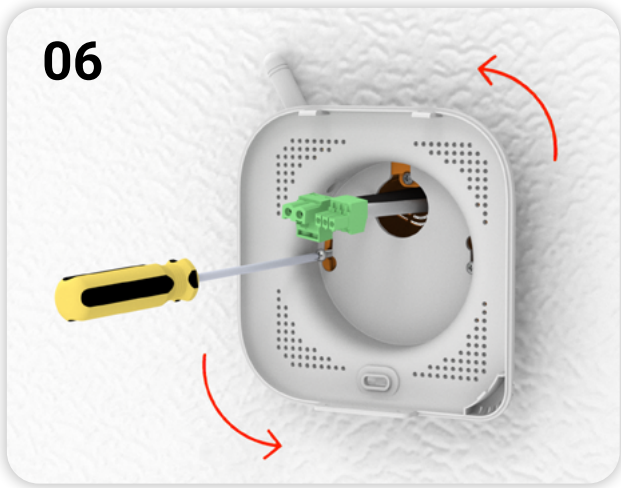
Steps to follow









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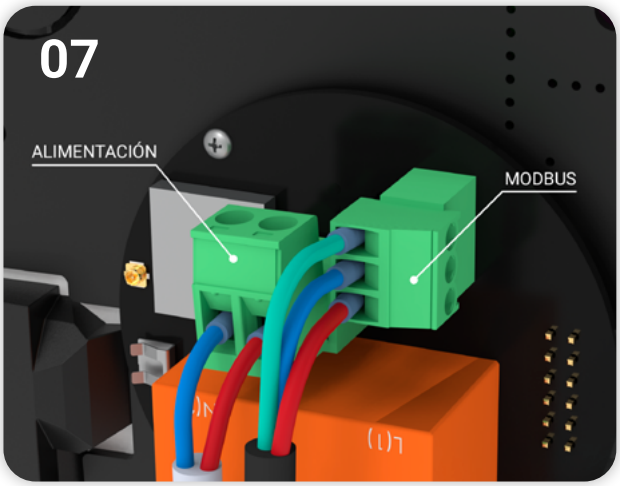

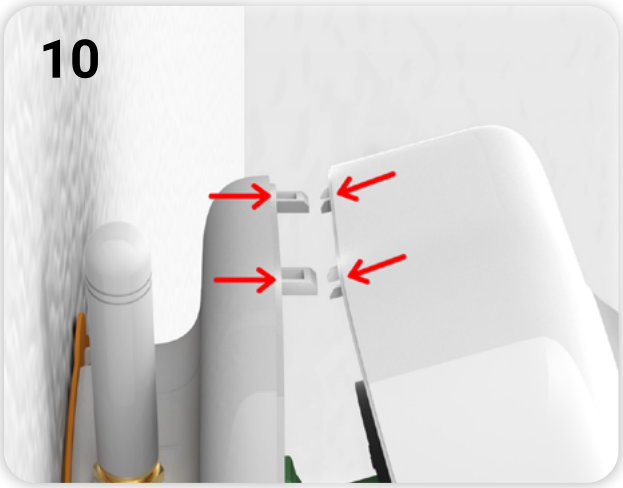

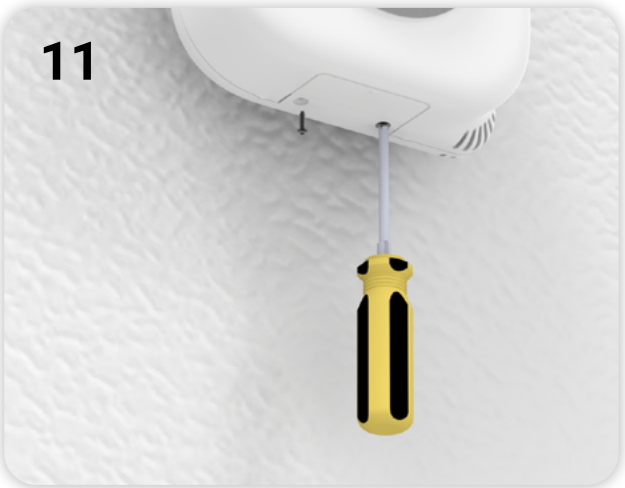

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Description of the steps.

1. To begin, secure the provided antenna ⓯ to the thread ❹ fixed on the rear cover ❶.

2. Before proceeding, **add ferrules to the power cord**.

3. Next, connect the power cord to the male power terminal ⓭ (2 pins) provided. If the power supply is direct current (8 - 36V DC), remember to respect the order of the inputs (V - GND).

4. Connect the male Modbus terminal ⓮ (3 pins) to the Modbus cable following the order of the inputs (GND* - B - A).

5. To mount the cover on the wall, place two screws into the electrical box and run the cables through the ❷ input hole located on the back cover of the case ❶.

6. Insert the screws in the electrical box through the mounting holes ⓫ on the cover of the case ❶. Next, rotate the housing so that it is straight and tighten the screws to secure the position.

7. Next, connect both male terminals (⓮ & ⓭) to their respective female terminals (❼ & ❽) located on the MOBO ❻.

8. Connect the antenna cable ❸ to its connector ⓾.

9. Before closing the MICA, hook the antenna cable onto the hook ⓾ located on the MOBO ❻.

10. To close the MICA, first align the assembly guides ❺ with the assembly hooks ❺ (this must be done with the housing slightly tilted) and then close the cover.

11. To finish, secure the cover with the two lower assembly screws ⓬.

[*] GND: From the same device as A and B (master, etc).

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Usage notes

1. Verify that no electric current is flowing during the installation or maintenance of wall-mounted equipment (for both concealed and non-concealed wall installations).

2. To reduce risks, always entrust the installation and maintenance of the equipment to qualified personnel.

3. Download the “inBiot Setup“ mobile application to configure your MICA.

4. For any inquiries, contact the support team through the form on our support page.

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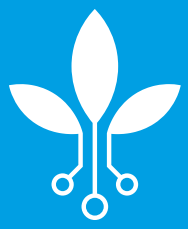

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