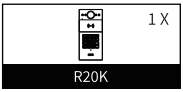
Akuvox Smart Intercom

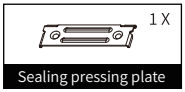
R20K
Wall-mounting Installation Quick Guide

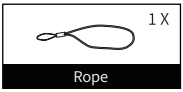
Unpacking

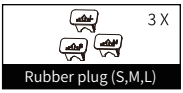
Before using the device, check the device model and ensure that the shipped box includes the following items:

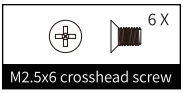


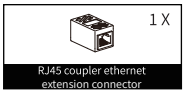


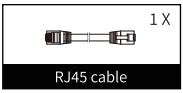


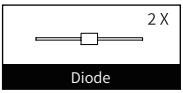




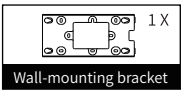


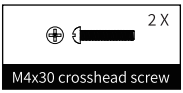


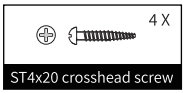




Wall-mounting Accessories:





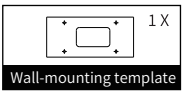




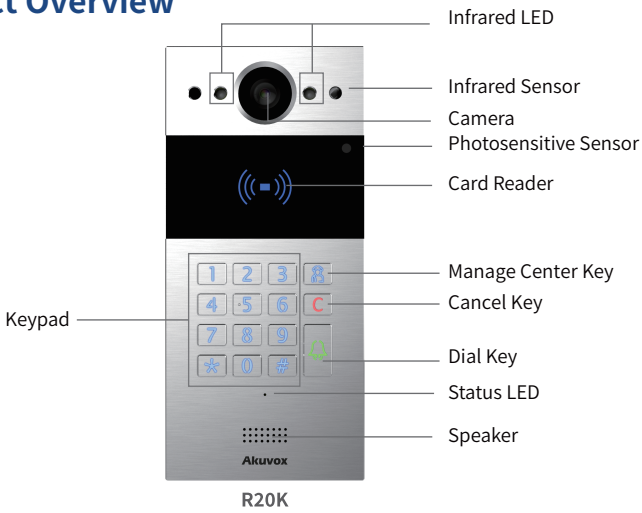








Product Overview



Before You Start

Tools needed

(not included in shipped box)

- Cat Ethernet Cable
- Crosshead Screwdriver
- Electric Drill

Voltage and Current Specifications

- It is suggested that use PoE or 12VDC 1A power adapter to power on device.

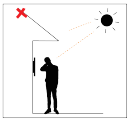
AWG Sizes and Properties Table

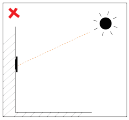
Please follow the properly wire data to install device:

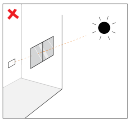
Power Supply	12VDC 1A		
AWG	20	22	24
Resistance(ohm/km)	33.9	48.5	79.6
Cross-sectional Area(mm^2)	0.5189	0.3247	0.2047
Wire Length(m)	⩽50	⩽40	⩽20

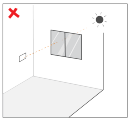
Requirements

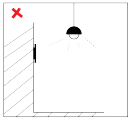
1.Place the device away from sunlight and light sources to prevent potential damage.
2.Do not place the device in the high-temperature, and humid environments or in surroundings impacted by magnetic field.
3.Install the device on the flat surface securely to avoid personal injuries and property loss caused by device' s falling.
4.Do not use or place the device near heating objects.
5.If installing the device indoors, please keep device at least 2 meters away from light, and at least 3 meters away from window and door.


Backlight


Direct sunlight


Direct sun through window


Indirect sunlight through window


Close to light

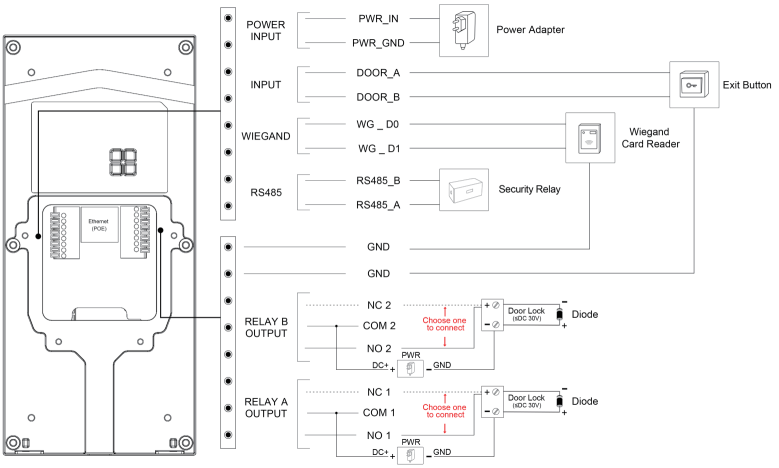
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Wall-mounting Installation Quick Guide

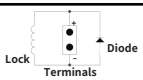
Warning!
1.To ensure safety, avoid touching power cord, power adapter, and device with wet hands, bending or pulling the power cord, damaging any components, and use only qualified power adapter and power cord.
2.Be careful that standing up on the area under the device in case of personal injuries cause by hitting the device.

Caution
1.Do not knock device with hard objects.
2.Do not press down hard on the device screen.
3.Do not expose device to chemical products, such as alcohol, acid liquid, disinfectants, and so on.
4.To prevent the device installation from becoming loose, ensure accurate diameters and depths of screw holes.If the screw holes are too large, use glue to secure the screws.
5.Use wet cloth clean device surface softly, and then wipe the surface with dry cloth for cleaning the device.
6.If there is abnormal situation of the device, including uncommon sound and smell, please power off the device and contact Akuvox Technical Team immediately.

Wiring Interface



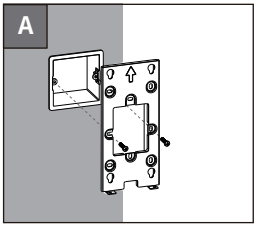
To protect the device from potential damage caused by over-voltage, it is recommended to wire a diode into the circuit. Connect the anode of the diode to the negative cable of the lock, and connect the cathode of the diode to the positive cable of the lock.



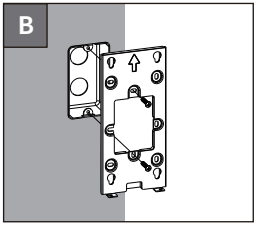
Installation

Step 1: Wall-mounting Bracket Installation

1.With embedded box(86x86 mm or 2x3 inches in size) in the wall.

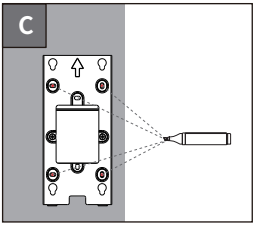


With 86x86 mm junction box.

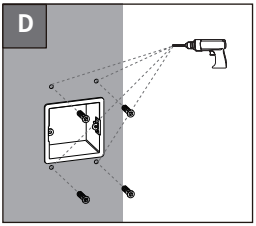


With 2x3 inches junction box.

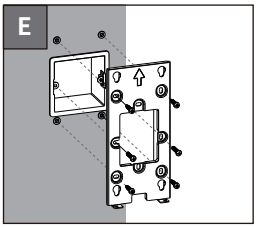
Attach the wall-mounting bracket to the embedded box using two **M4x30 crosshead screws.**



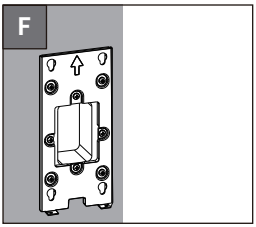
Mark the hole positions at the center of the four holes on the **wall-mounting bracket.**



a. Remove two **M4x30 crosshead screws** and **wall-mounting bracket.**
b. Use a 6 mm hand drill to make the four holes with a depth of 25 mm.
c. Insert four **plastic wal anchors** into the holes.

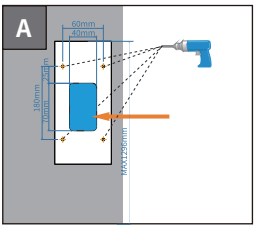


For fasten the wall-mounting bracket, tighten the four **ST4x20 crosshead screws** to **plastic wall anchors** and two **M4x30 crosshead screws.**

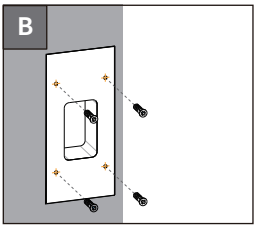


Finish the wall-mounting bracket installation.

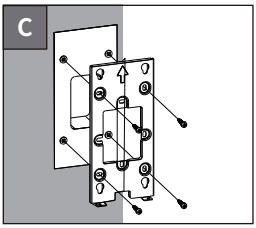
2.Without embedded box in the wall.



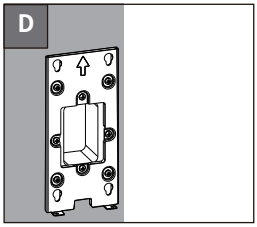
a. Position the **wall-mounting template** closely against the wall, aligning it with the wire' s location.
b. Use a 6mm hand drill to drill four screw holes with a depth of 25mm.
c. Cut a rectangular hole in the wall measuring 40x70mm to accommodate all required cables.



Insert four **plastic wall anchors** into the holes.

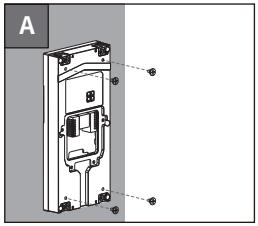


Fix the wall-mounting bracket to the wall by tightening four **ST4x20 crosshead screws** to the **plastic wall anchors.**

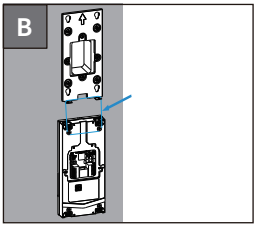


Finish the wall-mounting bracket installation.

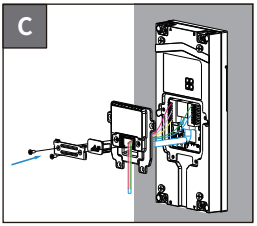
Step 2: Main Unit Installation



Fix four **wall-mounting screws** to the back of the device.

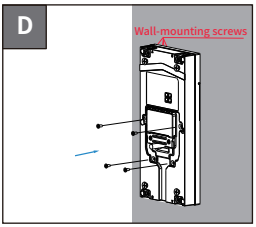


For easier installation, hang the device on the bracket using the **rope.**



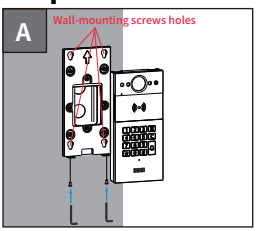
a. Make cables go through the **wiring cover,** connecting to the corresponding interfaces as needed (for details, refer to "Wiring Interface").
b. Select an appropriate **rubber plug** (small, medium, or large) to secure the wires.
c. Fasten **sealing pressing plate** with two **M2.5x6 crosshead screws.**

YS20000053

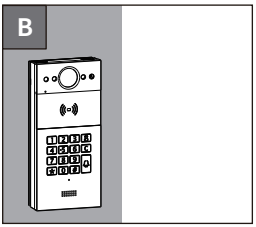


Use four **M2.5x6 crosshead screws** to fix the **wiring cover.**

Step 3: Device Mounting



a. Insert the four **wall-mounting screws** on the device into the corresponding holes on the wall-mounting bracket.
b. Press down to slide the wall-mounting screws into the groove.
c. Use **Allen wrench** to tighten the device with two **M3x6 hex socket screws.**



Installation is completed, please remove the protect film.

LED Status Information

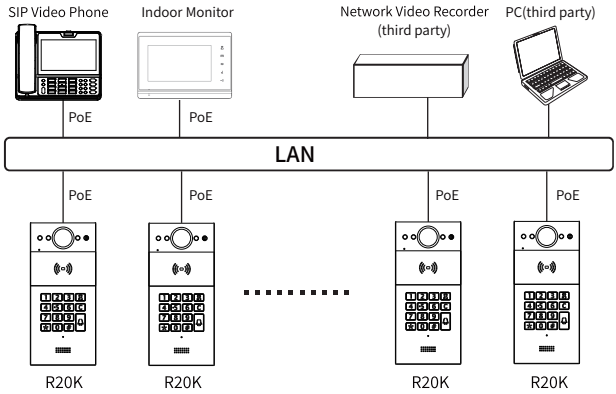
LED Status		Description
Blue	Always on	Normal status
	Flashing	Calling
Green	Always on	Talking
	Flashing	Receiving a call
Red	Flashing	Offline

Note: For more LED settings, please check in **Intercom > LED Setting** of R20K Web UI.

Akuvox Smart Intercom

R20K
Wall-mounting Installation Quick Guide

Application Network Topology



Device Test

Please verify the device status after installation:

1.**Network**: Press ***3258*** on the keypad to obtain IP address, network is working properly if the IP address is obtained.
2.**Intercom**: Enter the IP or SIP number and press **Dial** key to make a call. Or, press APT number to call. The call configuration is correct if the call is successful.
3.**Access Control**: Use pre-configured PiN code and RF card to unlock door.

Warranty

1.Akuvox warranty does not cover intentional mechanical damage or destruction caused by improper installation.
2.Do not attempt to modify, alternate, maintain, or repair device by yourself. Akuvox warranty does not apply to damages caused by anyone who is not representative of Akuvox or an Akuvox authorized service provider. Please contact Akuvox Technical Team if the device need to be repaired.

Get Help

For help or more assistance, contact us at:

https://ticket.akuvox.com/

support@akuvox.com

Scan the QR code to get more videos, guides, and additional product information.

Notice Information

Information contained in this document is believed to be accurate and reliable at the time of printing. This document is subject to change without notice, any update to this document can be viewed on Akuvox' s website: https://www.akuvox.com © Copyright 2025 Akuvox Ltd. All rights reserved.

Akuvox Smart Intercom

R20K/R20B
Flush-mounting Installation Quick Guide

Unpacking

Before you start using the device, please check the version you got and ensure that the following items are included in the shipped box:

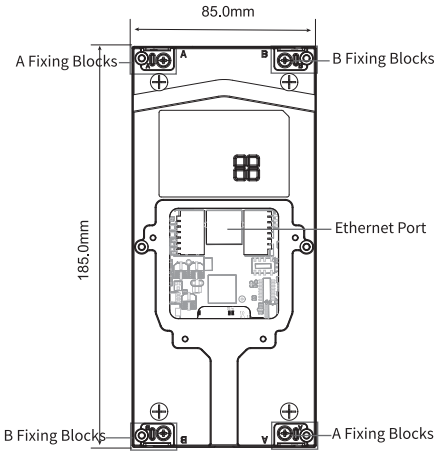
Universal Accessories:

- R20K/R20B x 1
- Wiring cover x 1
- Sealing pressing plate x 1
- Rope x 1
- Rubber Plug x 3 (S,M,L)
- M2.5 x 6 crossheaad screw x 6
- Diode x 2
- RJ45 coupler ethernet extension connector x 1
- Wall-mounting screw x 4
- Name pad x 20(Only for R20B)
- Pry bar x 1(Only for R20B)
- RJ45 cable x 1

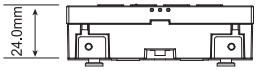
Flush-mounting Accessories:

- Flush-mounting box x 1
- M4x15 torx head screw x 2
- Torx wrench x 1
- Plastic wall anchor x 4
- Flush-mounting bracket x 1
- ST4x20 crosshead screw x 4

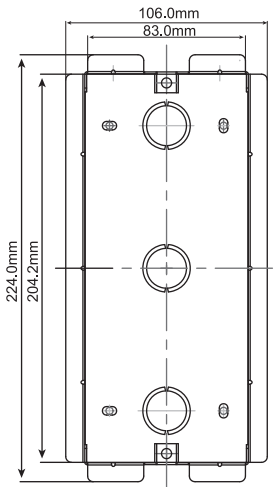
Product Overview



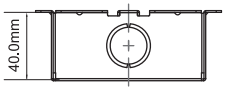
R20K/R20B Back View



R20K/R20B Bottom View



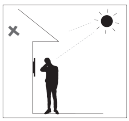
Flush-mounting Box Front View

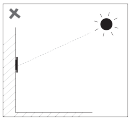


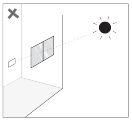
Flush-mounting Box Bottom View

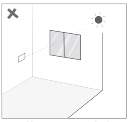
Installation Environment

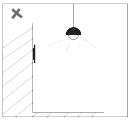
Please do not place device under direct sunlight.
If installing the device indoors, please keep device at least 2 meters away from light, and at least 3 meters away from window and door.


Backlight


Direct sunlight


Direct sun through window


Indirect sunlight through window

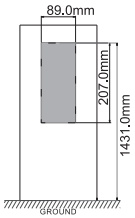

Close to light

Installation

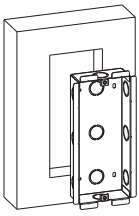
Flush Mounting

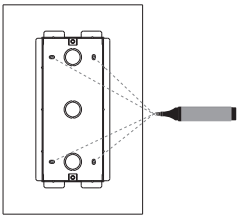
Step1: Bracket/Box Installation

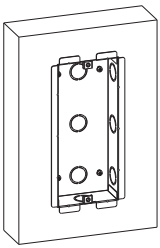
1. Normal Installation

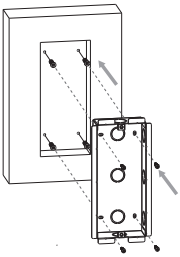


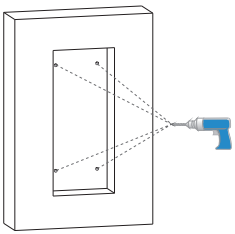
Cut a rectangular hole on the wall (height*wide*depth=207*89*40mm) that can accommodate all the cables.


Insert the flush-mounting box into the hole.

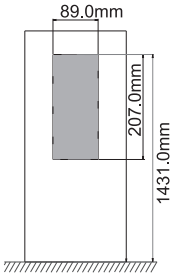

Mark the four holes of the flush-mounting box on the wall.


Flush-mounting box installation is completed.

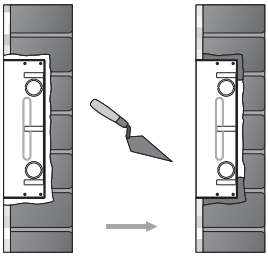

Insert four plastic wall anchors into the holes you drilled before. Fix the flush-mounting box with four ST4x20 crosshead screws.


Take down the flush-mounting box, then drill (6mm drill bit required) the four marked fixing holes on the wall with a depth of 25mm.

2. Or you can choose another simple method without fixing ST4x20 crosshead screws.



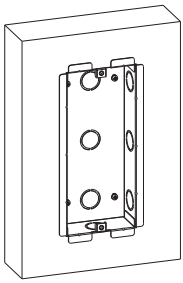
Cut a rectangular hole on the wall (height*wide*depth=207*89*40mm) that can accommodate all the cables.



Use cement or non-corrosive structural adhesives to fill the gap between the wall and flush-mounting box. Wait for the adhesive material to dry, then go to the next step.

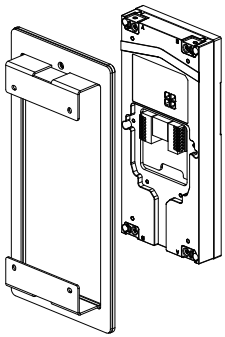
Waterproof Tips:

- For flush mounting installation, it is recommended to fill the gaps around the embedded box for waterproofing (to prevent water from entering the back cover of the door phone from the gap).
- Or it is recommended to use rain cover.

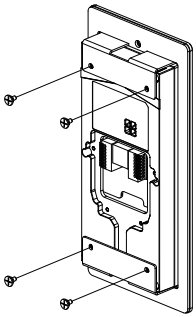


Finish the flush-mounting box installation.

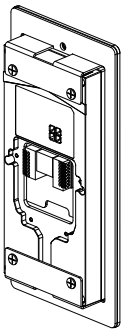
Step2： Flush-mounting Bracket Installation



Combine the device with the flush-mounting bracket according to the direction indicated in the drawing.

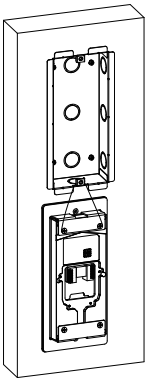


Tighten the device onto the flush-mounting bracket with four wall-mounting screws.

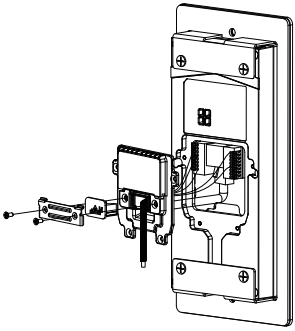


Flush-mounting bracket installation is completed.

Step3： Wiring Cover Installation

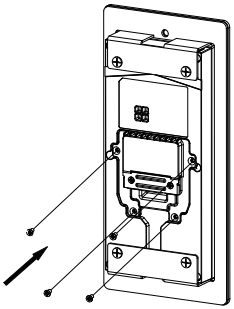


For convenient wiring, hang R20K/R20B on the flush-mounting box with rope.

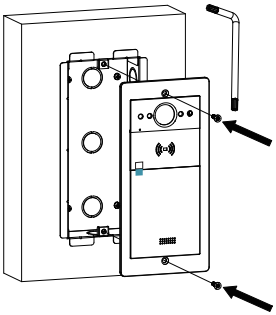


Make cables go through the wiring cover, connecting to the corresponding interfaces of the main board. Select a suitable size rubber plug to push all the cables into the wiring cover. Fix sealing pressing plate to the wiring cover with two M2.5x6 crosshead screws.

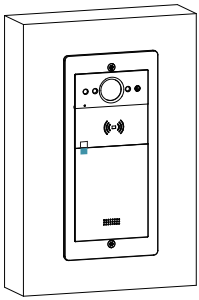
Note: In the case of one network cable or less than 6 signal cables, use S-size rubber plugs. In the case of 7 to 10 signal cables, use M-size rubber plugs. When there are more than 11 signal cables, please use L-size wiring rubber plug.



Fasten the wiring cover with four M2.5x6 screws.



Install the device on the flush-mounting bracket using two M4x15 torx head screws.



Installation completed, please remove the protective film.

Wire Length & AWG Table

Please follow the properly measured wire gauge/length to install device:

	20 AWG	22 AWG	24 AWG	26 AWG
12V 1A Adapter	≤50m	≤40m	≤20m	\

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Akuvox Smart Intercom

R20K

Adjustable Angle Wall-mounting Installation
Quick Guide

Unpacking

Before you begin using the device, please check the version you got and ensure that the following items are included in the shipped box:

Mainframe Accessories (Please find in device box) :


R20K x 1


Back cover x 1


Rope x 1


Cable locking plate x 1


M2.5x6 screw x 6


Rubber Plug x 3 （S,M,L）


Wall-mounting template x 1

Adjustable Angle Wall-mounting Accessories :


Adjustable angle bracket x 1


M4x30 screw x 2

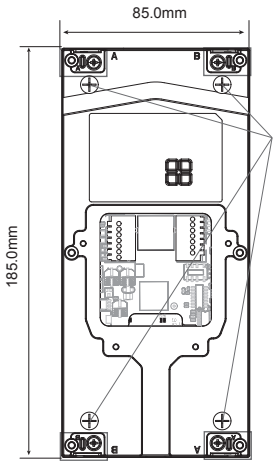

ST4x20 screw x 4


Torx Wrench x 1

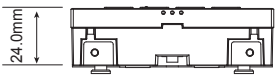

Screw fixing seat x 4


M3x6 Torx screw x 2

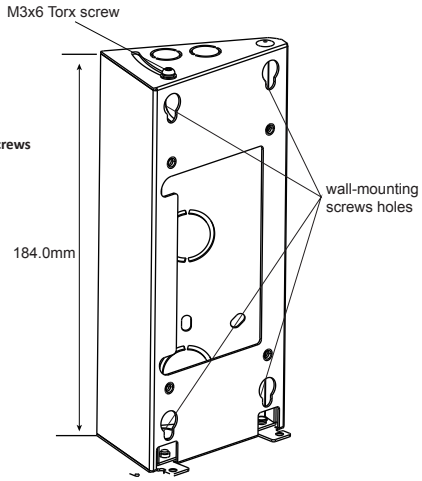
Product Overview



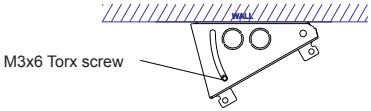
R20K BACK VIEW



R20K BOTTOM VIEW



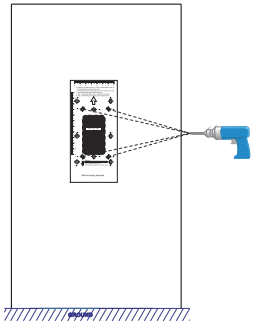
ADJUSTABLE ANGLE BRACKET LEFT SIDE VIEW



ADJUSTABLE ANGLE BRACKET BOTTOM VIEW

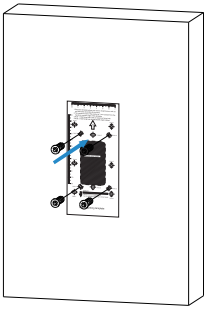
Step1: Adjustable angle bracket Installation

1. Without embedded junction box in the wall

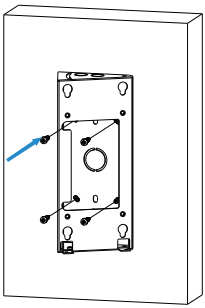


According to the baseline on the mounting template, stick the mounting template on the wall or other surface.

Use a drill with 5mm diameter bit to make four holes in the “Hole 3” positions.

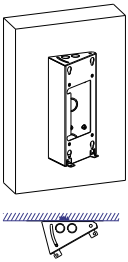


Insert four screw fixing seats into the holes.

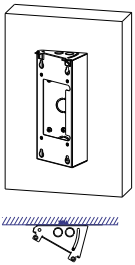


Select the suitable holes on the adjustable angle bracket to make sure the cables can route through it. Fixing the bracket with four ST4x20 screws.

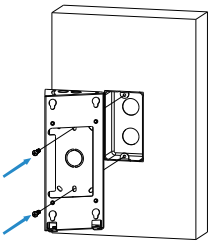
Installed on the left side of the door



Installed on the right side of the door



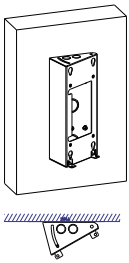
2. With embedded one-gang junction(2x3 inches) in the wall.



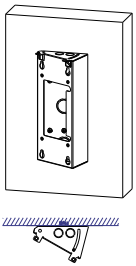
Select the suitable holes on the adjustable angle bracket to make sure the cables can route through it.

Fixing the adjustable angle bracket and junction box with two M4x30 screws.

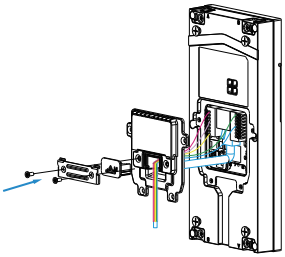
Installed on the left side of the door



Installed on the right side of the door

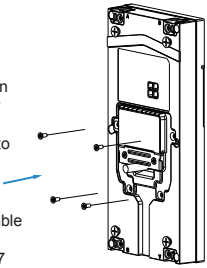


Step2： Back Cover Installation



Make cables go through the back cover, connecting to the corresponding interfaces of the main board. Select a suitable size rubber plug to push all the cables into the back cover. Fix cable locking plate to the back cover with two M2.5x6 screws.

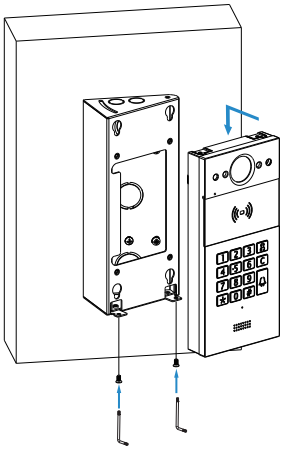
Note: In the case of one network cable or less than 6 signal cables, use S-size rubber plugs. In the case of 7 to 10 signal cables, use M-size rubber plugs. When there are more than 11 signal cables Please use L-size wiring rubber plug.



Fasten the back cover with four M2.5x6 screws.

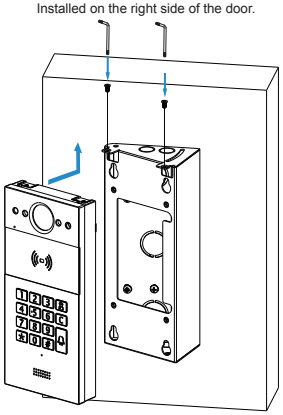
Step3： Device Installation

Installed on the left side of the door.

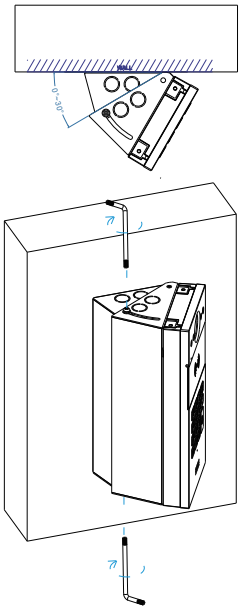


Insert the wall-mounting screws on the device into the corresponding holes on the adjustable angle bracket, and then press down to slide the wall-mounting screws into the groove. Then use the Allen wrench to tighten the device with two M3x6 screws.

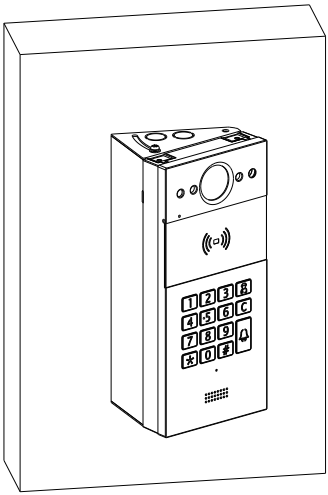
Installed on the right side of the door.



Insert the wall-mounting screws on the device into the corresponding holes on the adjustable angle bracket, and then pull up to slide the wall-mounting screws into the groove. Then use the Allen wrench to tighten the device with two M3x6 screws.



Adjust to an appropriate angle(30 ° ~ 60 °) and use the Torx wrench to tighten one M3x6 Torx screw on the upper and lower ends of the adjustable angle bracket.



Completed.

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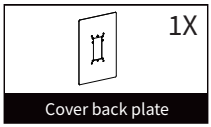
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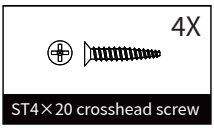
R20 Quick Guide

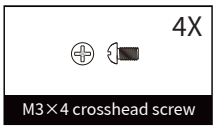
Unpacking

Before using the device, check the device model and ensure that the shipped box includes the following items:

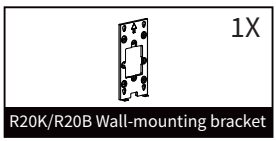


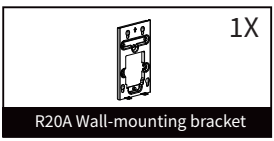




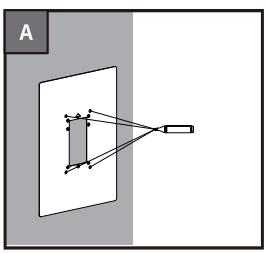


Please take out the wall-mounting bracket from the R20 Series device accessory kit:

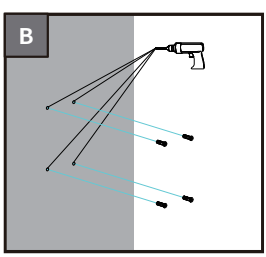




Installation

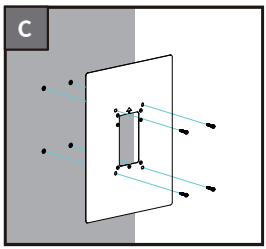


Mark the centers of the four outermost holes according to the required installation position of the **cover back plate**.



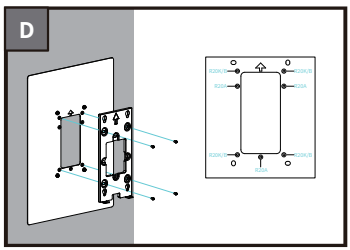
a. Remove the plate and use a 6mm diameter drill to make four holes with a depth of 25mm at the market positions.
b. Insert four **plastic wall anchors** into the holes.

C



Use four **ST4×20 crosshead screws** to fix the cover back plate on the wall.

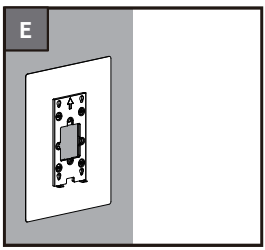
D



a. For R20K and R20B:
Use four **M3×4 crosshead screws** to fix the R20 series wall-mounting barcket on the cover back plate.
b.For R20A:
Use three **M3×4 crosshead screws** to fix the wall-mounting bracket on the cover back plate.

Note: Please refer to the figure for the specific screw positions on the cover back plate.

E



The installation of cover back plate and wall-mounting barcket is done.

Note: Please refer to the **R20A/R20B/R20K Quick Guide on-wall Mounting** for the remaining installation steps.

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