Unpacking
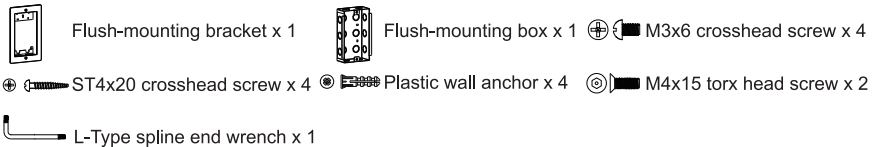
Please make sure the package contains the following items:

Universal Accessories (Please find in device box):

R20A x 1   Wiring cover x 1   M2.5x6 crosshead screw x 6

Diode x 2   Plastic wall anchor x 4   ST4x20 crosshead screw x 4

Allen wrench x 1   Sealing pressing plate x 1   M3x6 hex socket screw x 2

Rope x 1   Wall-mounting bracket x 1   M4x30 crosshead screw x 2

Rubber Plug x 3（S,M,L）   Wall-mounting screw x 4

Flush-mounting Accessories :

Flush-mounting bracket x 1   Flush-mounting box x 1   M3x6 crosshead screw x 4

ST4x20 crosshead screw x 4   Plastic wall anchor x 4   M4x15 torx head screw x 2

L-Type spline end wrench x 1

Product Overview

- Infrared LED
- Infrared Sensor
- Camera
- Mic
- Photosensitive Sensor
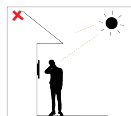- Card Reader
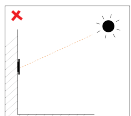- Call Button&Status LED
- Speaker

R20A

Installation Environment

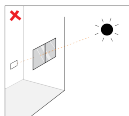Please do not place device under direct sunlight.
If installing the device indoors, please keep device at least 2 meters away from light, and at least 3 meters away from window and door .
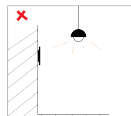

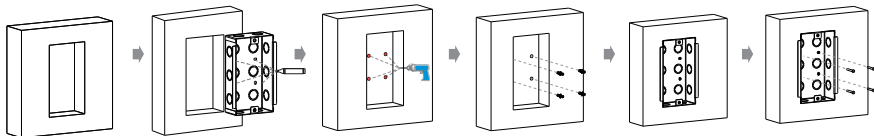| Backlight | Direct sunlight | Direct sun through window | Indirect sunlight through window | Close to light |

Installation

Step 1: Flush-mounting Box Installation

According to the position of the cable, cut a square hole in wall.(height*width*depth=180*101*50 mm).

Note: The size of the hole should be a little larger than recommended value that it can accommodate all needed cables.

Insert the flush-mounting box into the hole and make sure the cables of the device can route through the cable hole then mark the four screw holes of the flush-mounting box on the wall.
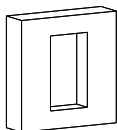
Take down the flush-mounting box then use a 6 mm hand drill to make holes with a depth of 25 mm at the marked positions.

Insert four plastic wall anchor into the holes.

Place the flush-mounting box into the square hole until the edges of which align to the wall and make all cables go through the cable hole.
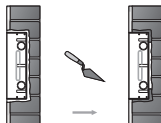
Fix the flush-mounting box with four ST4x20 crosshead screws. Then use cement or non-corrosive structural adhesives to fill the gap between the wall and flush-mounting box.

Or you can choose another simple method without fixing ST4x20 crosshead screw

According to the position of the cable cut a square hole in the wall (height*width*depth=180*101*50 mm).

Note: The size of the hole should be a little larger than recommended value that it can accommodate all needed cables.
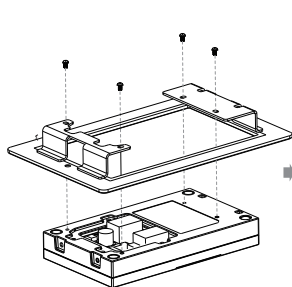
Use cement or non-corrosive structural adhesives to fill the gap between the wall and flush-mounting box. Wait the adhesive material desiccation, go to the next step.
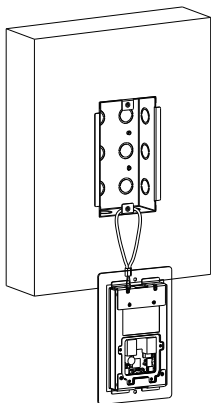
Waterproof Tips:
• For flush mounting installation, it is recommended to fill the gaps around the flush-mounting box for waterproofing (to prevent water from entering the back cover of the door phone from the gap).
• For wall mounting installation, it is recommended to lock the wall-mounted bracket and the wall so that the EVA pasted on the bottom of the wall mounting bracket is close to the wall without a gap (to prevent water from entering the back cover of the door phone from the gap)
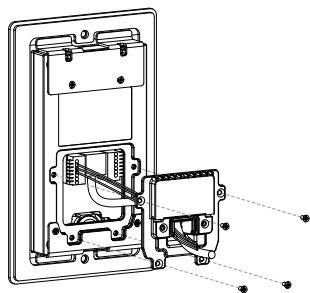• Or it is recommended to use rain cover.

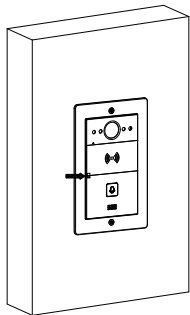## Step 2: Flush-mounting Bracket and Wiring cover Installation

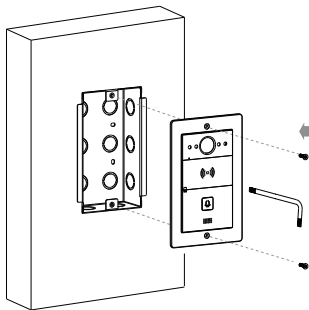Use four M3x6 crosshead screws to fix R20 on the decorative panel.

For convenient wiring, hang R20A on the flush-mounting box with rope.
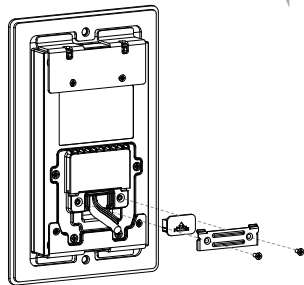
Make cables go through the wiring cover, connecting to the corresponding interfaces of the main board. Fasten the wiring cover with four M2.5x6 crosshead screws.

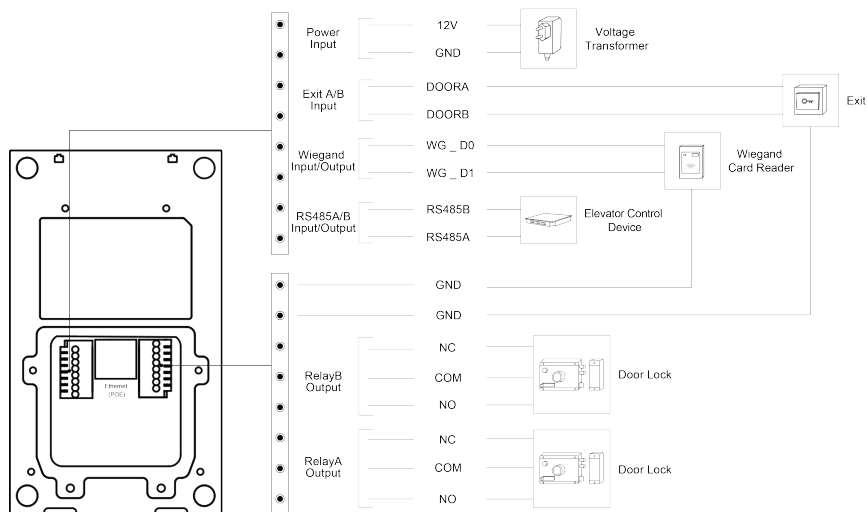After successful installation, check the stability of device. And remove the protective film.

Place the device into the flush-mounting box, then use L-type spline end wrench to tighten the device with two M4x15 torx head screws.
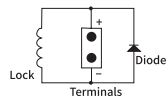
Select a suitable rubber plug to push all cables into to wiring cover. Fix sealing pressing plate on the wiring cover with two M2.5x6 crosshead screws.

Device Wiring

Power Input	12V	Voltage Transformer
	GND	
Exit A/B Input	DOORA	Exit
	DOORB	
Wiegand Input/Output	WG _ D0	Wiegand Card Reader
	WG _ D1	
RS485A/B Input/Output	RS485B	Elevator Control Device
	RS485A	
	GND	
	GND	
RelayB Output	NC	Door Lock
	COM	
	NO	
RelayA Output	NC	Door Lock
	COM	
	NO	

⚠ **Warning**

When you connect a device containing a coil, such as a relay or an electromagnetic lock, it is necessary to protect the intercom against voltage peak while switching off the induction load. For this way of protection we recommend a diode 1 A / 200 V (included in the accessories) connected antiparallet to the device.
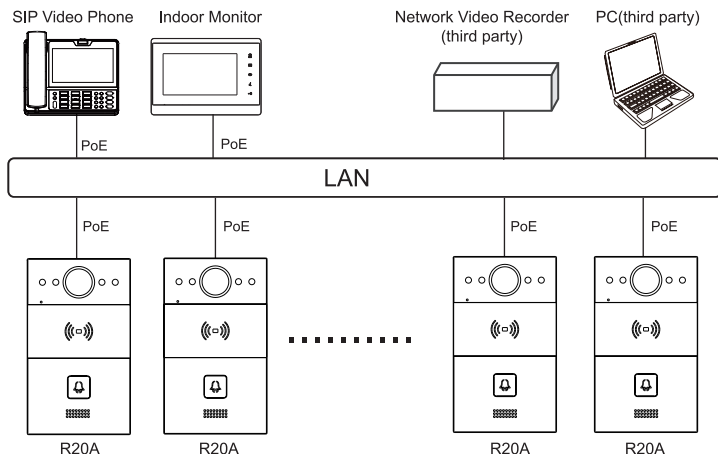
Lock   Diode   Terminals

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	\

Akuvox Smart Intercom

Application Network Topology

SIP Video Phone   Indoor Monitor   Network Video Recorder   PC(third party)
                                              (third party)

PoE   PoE

LAN

PoE   PoE   PoE   PoE

R20A   R20A   R20A   R20A

IP Announcement

1. While R20A starts up normally, hold the **Call button** for several seconds after the Status
   LED turns blue, voice system will enter IP announcement mode.
2. In announcement mode, the IP address will be announced periodically.
3. Press **Call button** again to quit the announcement mode.
4. In announcement mode, phone announces "IP 0.0.0.0" if no IP address is gained.

Configuration

1. Access the Web UI: Input the IP address into web browser to configure the phone.
2. Account Registration: On web UI, go to the path: **Account > Basic** page
   to register account and fill in the account information. *(Please refer to admin guide for
   more information)*
3. Configure the Push Button: On web UI, go to the path: **Intercom > Basic > Push Button**
   to configure the call number.
4. Configure the code to open the relay: On web UI, go to the path: **Intercom > Relay
   > Relay ID/DTMF** and choose the DTMF code number in corresponding area.

Operation

Make a call:
Press the **Call button** to call indoor SIP Phone.

Unlock:
During the talk, called party can press pre-configured DTMF code to unlock the door.

Receive a call:
R20A supports Auto Answer by default. Incoming call will be answered automatically.

Indicators

Light ON   Light OFF

Name	Status		Description
Status indicator	Blue		Normal status
		0.25sec → 0.25sec	Calling
	Red	0.05sec → 0.05sec	Restarting
		0.25sec → 0.25sec	Network is unavailable
	Green		Initialing/Talking on a call
		0.25sec → 0.25sec	Receiving a call
	Red/Blue	0.05sec → 0.05sec	Firmware upgrading

Note: For more LED settings, please refer to R20A webUI: Intercom > LED Setting.

Notice Information

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