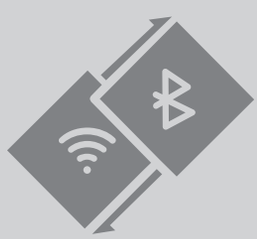
Biitween

Bluetooth / Wi-Fi



For Universal Smartphone Control HUB

POWERTECH

CE

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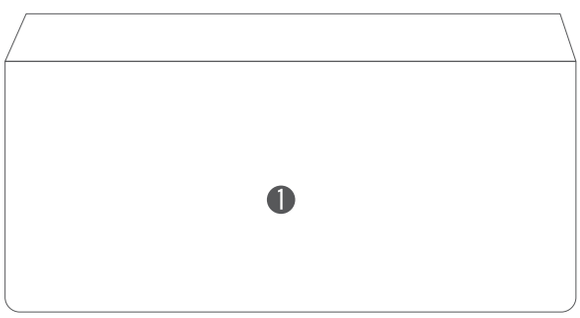
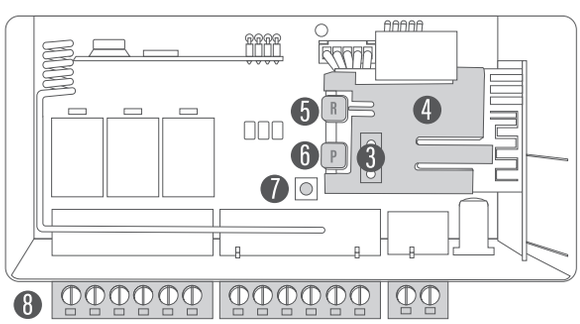
A. INTRODUCTION OF Biitween

This user manual is designed to provide indications of Biitween
and its features and functions.
Biitween is a device can upgrade the existing automation system to become a smartphone control unit through Powertech Eyeopen.
Biitween can intergrade with other Powertech IOT accessories such as Biicam and Biibell on the Eyeopen

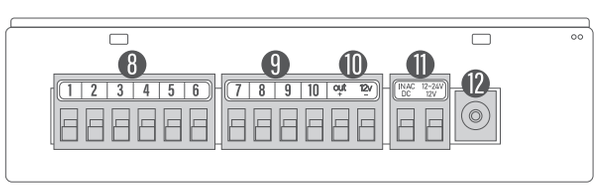
B. PRODUCT OVERVIEW

B1.PRODUCT OVERVIEW





1. Cover
2. LED
3. Wi-Fi receiver board
4. Button R
5. Button P
6. Remote learn button
7. Terminals

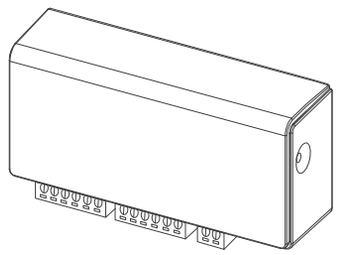


8. 3 Individual output terminals
9. 3 Individual input terminals
10. 12V/1A output
11. 12-24V AC/DC Power input
12. AC Power adaptor

B2.KIT CONTENTS

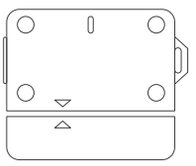
▸ Biitween ◂

1



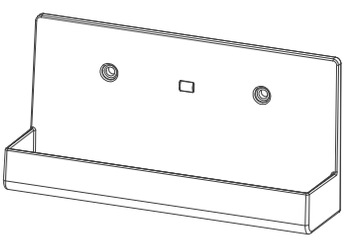
▸ ACCESSOIRES ◂

2



▸ HARDWARE ◂

3



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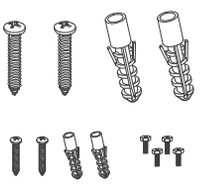

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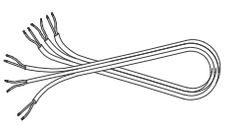

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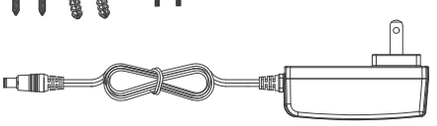


▸ REF.	DESIGNATION	AMOUNT ◂
1.	Biitween	1
2.	Door status sensor	1
3.	Holder	1
4.	Expansion screws	2
5.	Wire	3
6.	Power plug	1

B3. SPECIFICATIONS

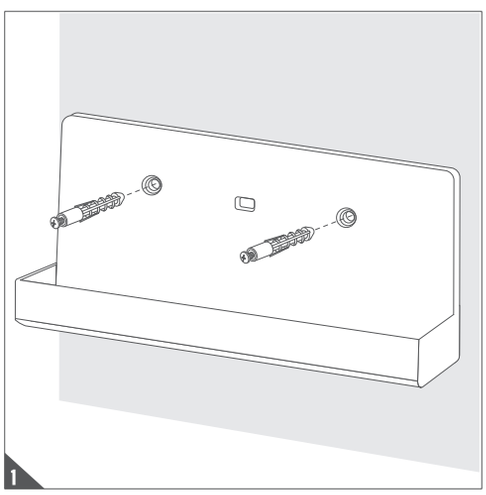
Frequency	Working temperature	Dimensions	Power
433 Mhz and 2.4GHz	-20°C~70°C	56x110x35mm	AC/DC , 12V/24V , 1A

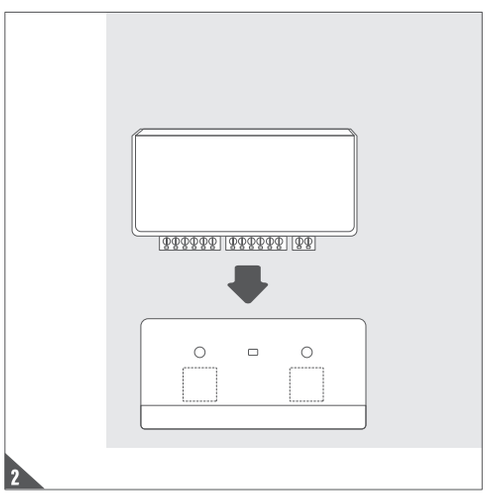
C. INSTALLATION GUIDE

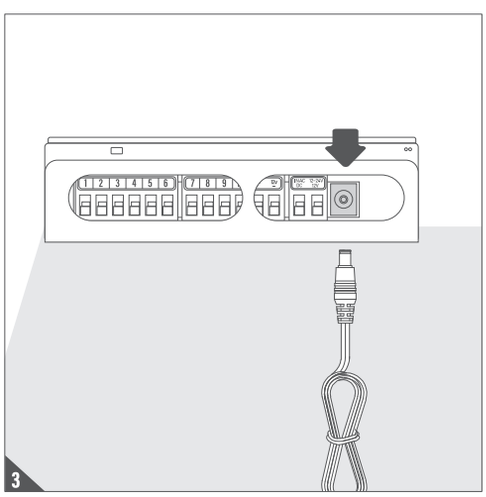
C1.GENERAL INSTALLATION

1. Measure the drilling positions for the expansion screws with the holder.
   Fasten the holder with the expansion screws to the wall.
2. Biitween will magnetically be attached to the holder.
3. Attach the power plug to the Biitween. The blue LED will blink right after it's plug in, and the Biitween will be ready for pairing.

*Please **DO NOT** connect power plug and supplying power from the motor at the same time.*



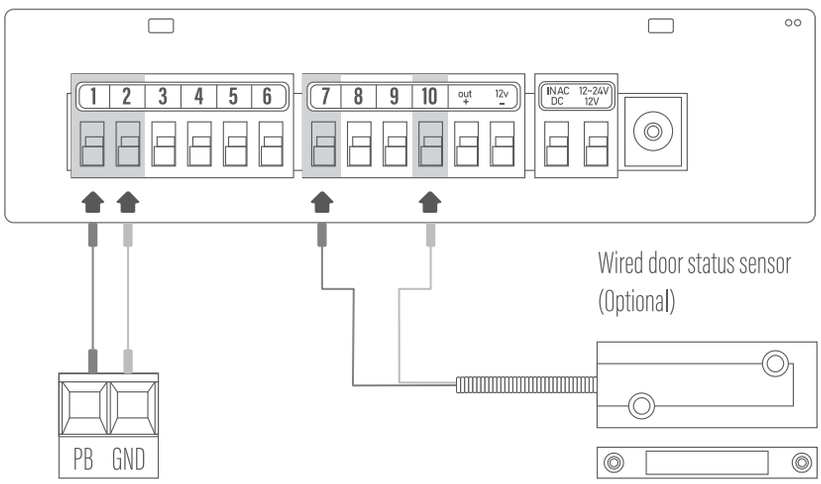




C2. WIRE CONNECTION CYCLE MODE

1. Please connect (1) and (2) terminals to the push button terminal of your gate automation.
(7) is the terminal for a wired limit switch that sends signal to your smart phone when triggered.

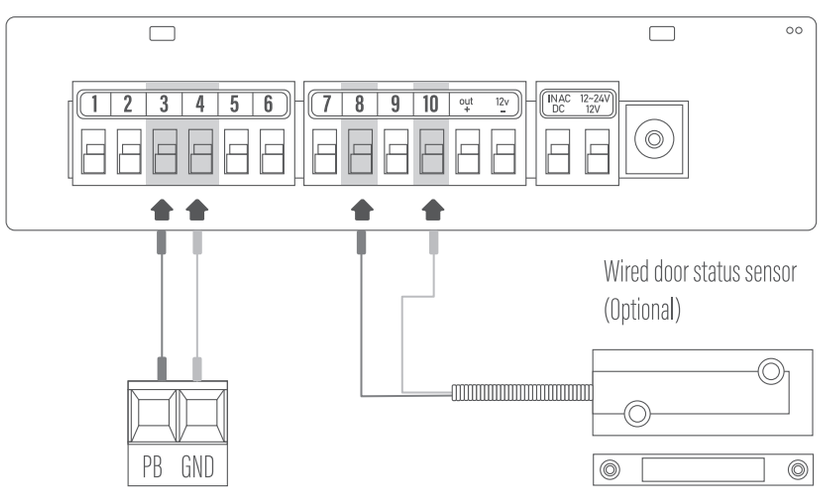
Please refer to the manual of your automation to find the push button terminal.



*Please **DO NOT** connect power plug and supplying power from the motor at the same time.*

2. To control a second device. Please connect (3) and (4) terminals to the push button terminal of your gate automation.
(8) is the terminal for second wired limit switch that sends signal to your smart phone when triggered.

Please refer to the manual of your automation to find the push button terminal.

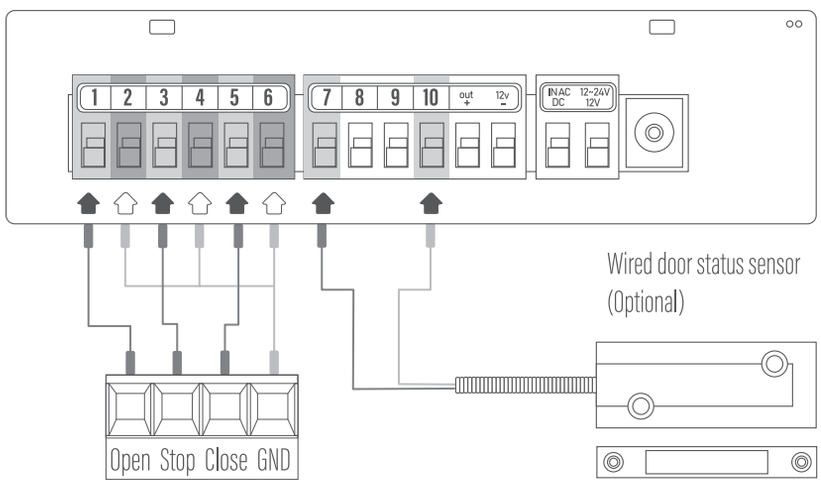


*Please **DO NOT** connect power plug and supplying power from the motor at the same time.*

C3. WIRE CONNECTION OPEN/STOP/CLOSE MODE

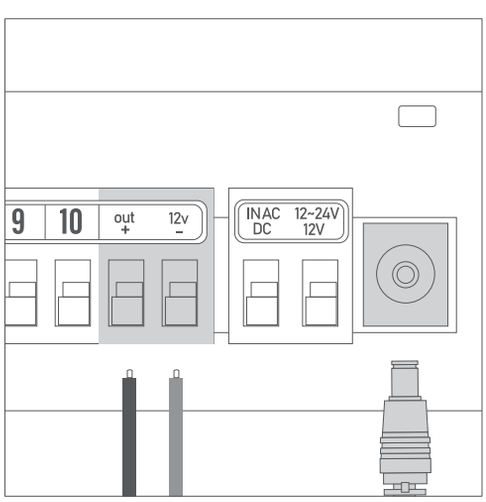
Before connection, please make sure your gate automation system has open/stop/close terminal.
(7) is the terminal for a wired limit switch which sends signal to your smartphone when triggered.

Please refer to the manual of your automation to find the open/stop/close terminal.



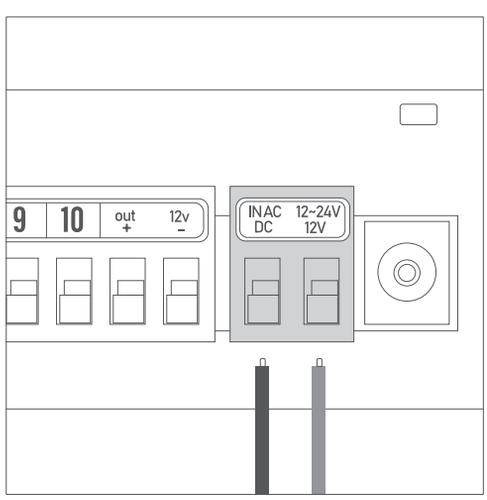
*Please **DO NOT** connect power plug and supplying power from the motor at the same time*

● SCENARIO 1



Terminal (out +) and (12v −) supply 12V/1A when connect to Power plug.

● SCENARIO 2



Terminal (IN AC / DC) and (12~24V / 12V) become 12V/24V input terminals which can take AC or DC power from the motor.

● OUTPUT TERMINALS

3 Outputs	Outputs #1 (APP-Door1)		Outputs #2 (APP-Door2)		Outputs #3 (APP-Door3)	
Biitween terminal	1	2	3	4	5	6
Device terminal	PB / Push button	GND	PB / Push button	GND	PB / Push button	GND
	Default NO circuit		**Default** NO circuit		**Default** NO circuit	
APP parameter setting	Relay 1 mode **NO**		Relay 2 mode **NO**		Relay 3 mode **NO**	
	Relay 1 mode **NC**		Relay 2 mode **NC**		Relay 3 mode **NC**	
	Relay 1 Mode **None**		Relay 2 mode **None**		Relay 3 mode **None**	

● INPUT TERMINALS

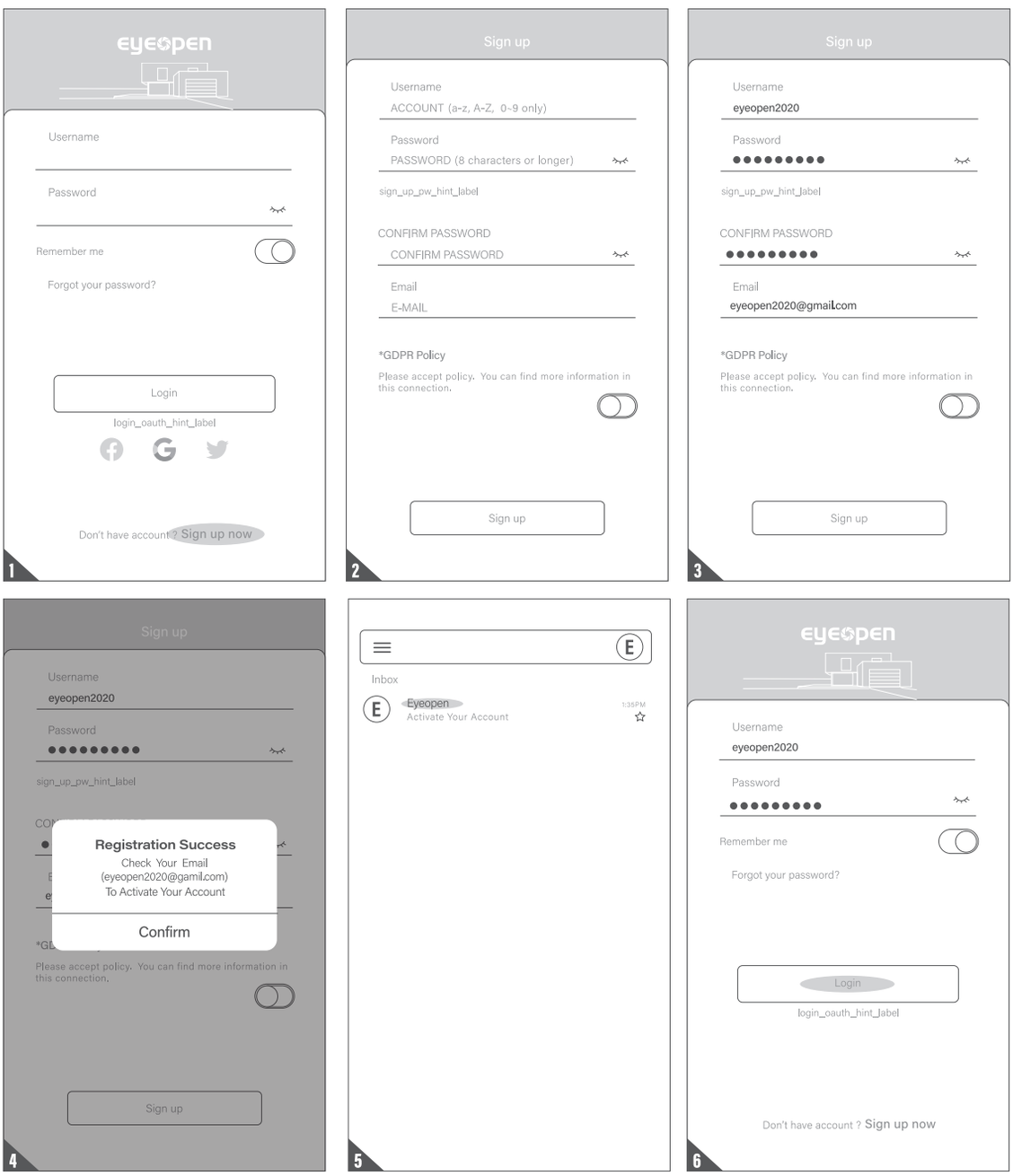
3 Inputs	Inputs #1		Inputs #2		Inputs #3	
Biitween terminals	7	10	8	10	9	10
Wire trigger device	Sensor 1	GND	Sensor 2	GND	Sensor 3	GND
APP parameter setting	Trigger mode 1 (Default) NO circuit NC-NO ➡ OPEN;NC-NO ➡ CLOSE					
	Trigger mode 2 NC circuit NC-NO ➡ OPEN;NC-NO ➡ CLOSE					
	Function OFF					

D. Eyeopen SETUP GUIDE

D1. APPLY FOR A NEW ACCOUNT

1. Please scan the QR code and download Eyeopen.
2. Press sign up icon and press the agree icon to continue
3. Please type the following information for registration:

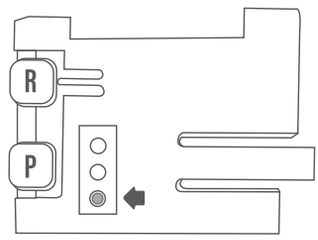
a. Password (enter twice for verification)
b. The password should have at least 1 English character and at least 8 characters/numbers in total.



4. The system will send a link to your email when the registration succeeds
5. Please go to your email , and click the link to activate your account.
6. Please log in to your ccount.

D2. CONNECTING Biitween TO EYEOPEN

1. Connect the smartphone to your home Wi-Fi network before you start to setup Biitween.
2. (Log in or sign up for Eyeopen.)Tap the (+) icon to add the device.
3. Tap the (Biitween) icon.



If the blue indication light is not flashing when you first setup, please follow the procedures below to reset the device.

1. Press the **P** *button for 5 seconds*
2. Press the **R** *button once*

Biitween is ONLY compatible with 2.4GHz Wi-Fi network! Biitween will be connected to the Wi-Fi network you choose.

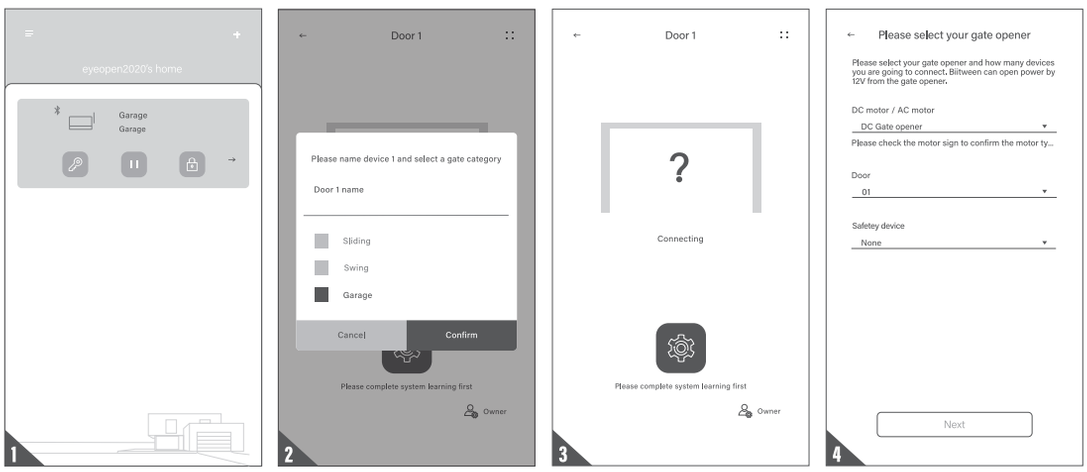
4. Tap the (+) icon to add a new device. Choose your product from the list.
5. Tap the WiFi Bluetooth icon and tap the device you are going to connect.
6. Set a PIN code twice and confirm.
7. Select you're the Wi-Fi you are going to connect and enter the password.
8. The device will start connecting.

The PIN code is required for other users to access to the Biitween.
The PIN code can be reset by pressing (P) and (R) button in the Biitween to default to the factory setting.

Suggest to bring the device close to the home Wi-Fi router as near as possible to receive the best Wi-Fi strength to make a successful connection, and make sure the home Wi-Fi source is 2.4G from the router not 5G, also must enter the correct password for the home Wi-Fi to complete the setup
After the device has been successfully connect to your home Wi-Fi, you may connect the output to your automation system to start to operation.

D3. DC GATE/DOOR OPENER (CYCLE MODE)

1. Tap (Biitween) icon on the main page.
2. Choose a gate/door type when entering the device for the first time.
3. Tap (tool) icon to set the operation mode (Cycle mode).
4. Select your motor type - DC Gate opener. Select the door number you would like to control. (Safety device) select none.



DC roller shutter : 3 Input DC motor
Electrical connection for low voltage for motor with 3 input PCBs (up / down / stop).

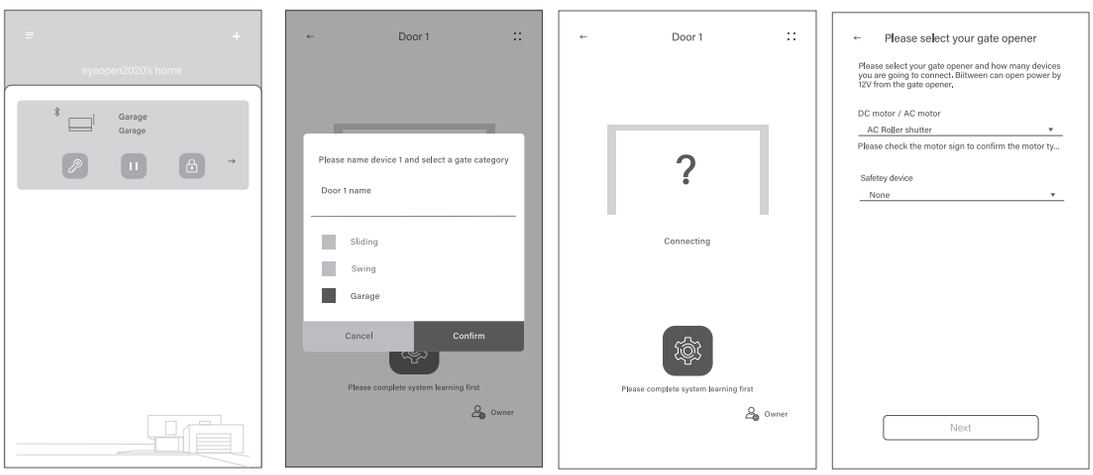
AC roller shutter : 230v motor
Electrical connection for standard 230v roller shutter with (up / down / stop) controls.

DC gate opener: Push button type
Push button control or ON/OFF switch , 3 available reays.

Motor mode	AC roller shutter	DC gate / door opener (Open / Stop / Close)	DC gate / door opener (Cycle mode)
Operation interface	1 device with Open / Stop / Close button	1 device with Open / Stop / Close button	1 to 3 device with Single button
Motor spec	1 device with 3 inputs Open terminal (NO) Stop terminal (NC) Close terminal (NO)	1 device with 3 inputs Open terminal (NO) Stop terminal (NC) Close terminal (NO)	1 to 3 device with Push button terminal (NO)
Application	AC roller shutter DC gate / door opener	DC roller shutter DC gate / door opener	DC gate / door opener with step by step (Cycle mode) control

D4. SETTING OF Eyeopen OPEN/STOP/CLOSE MODE

1. Tap (Biitween) icon on the main page.
2. Tap (tool) icon to set the operation mode.
3. Select your motor type - DC Gate opener.
   (Safety device) select none.



DC roller shutter : 3 Input DC motor
Electrical connection for low voltage for motor with 3 input PCBs (up / down / stop).

AC roller shutter : 230v motor
Electrical connection for standard 230v roller shutter with (up / down / stop) controls.

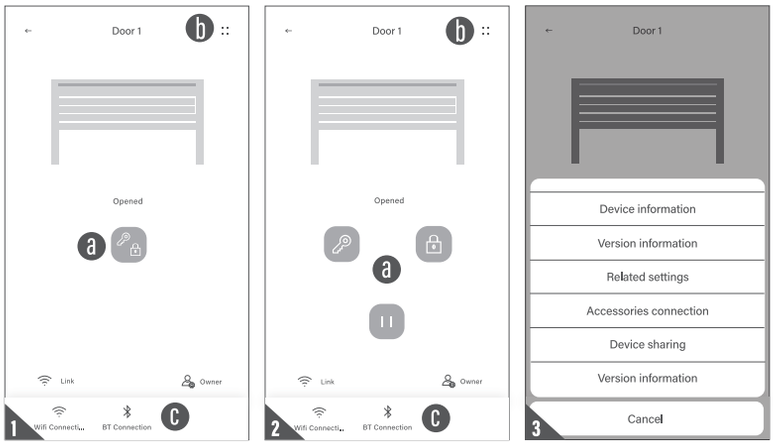
DC gate opener: Push button type
Push button control or ON/OFF switch , 3 available reays.

Motor mode	AC roller shutter	DC gate / door opener (Open / Stop / Close)	DC gate / door opener (Cycle mode)
Operation interface	1 device with Open / Stop / Close button	1 device with Open / Stop / Close button	1 to 3 device with Single button
Motor spec	1 device with 3 inputs Open terminal (NO) Stop terminal (NC) Close terminal (NO)	1 device with 3 inputs Open terminal (NO) Stop terminal (NC) Close terminal (NO)	1 to 3 device with Push button terminal (NO)
Application	AC roller shutter DC gate / door opener	DC roller shutter DC gate / door opener	DC gate / door opener with step by step (Cycle mode) control

D5. OPERATION PAGE

1. Cycle mode
2. OPEN/STOP/CLOSE MODE
3. Setting page

a. Operation page
b. Setting page
c. Wi-Fi / Bluetooth icon
d. Device information
e. Accessories connection
f. Related settings
g. Device sharing
h. Change Owner
i. Version information

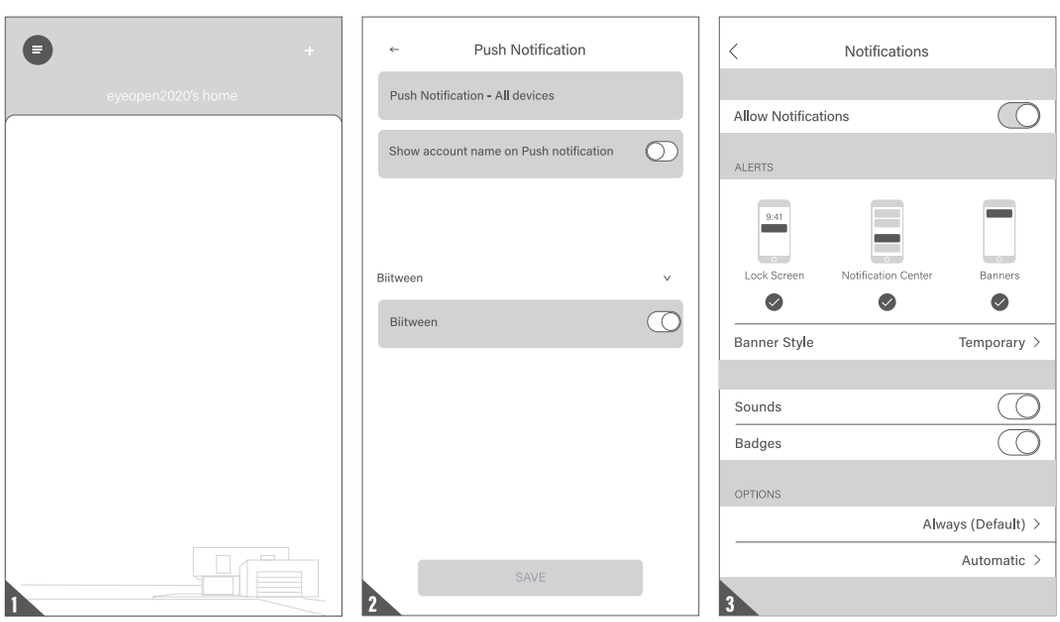


D6. ACCOUNT MANAGEMENT PAGE

- PUSH NOTIFICATION

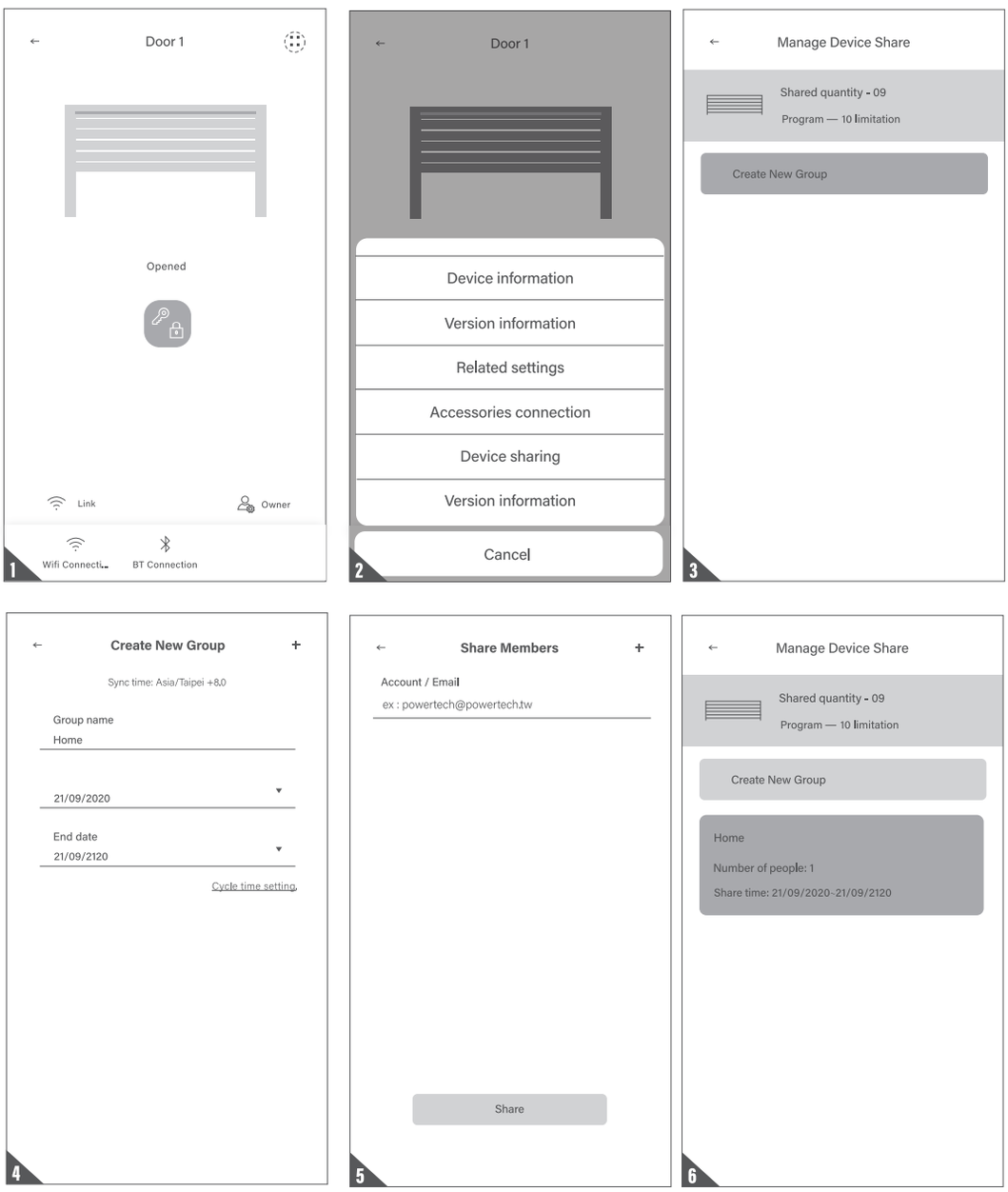
1. Press the icon on the upper left corner to enter the account management page.
2. Tap the push notification setting.
3. Turn **ON** the switches of the notification.

Please go to the settings page of your smartphone. Find Eyeopen and allow the notifications.



● Owner shares device

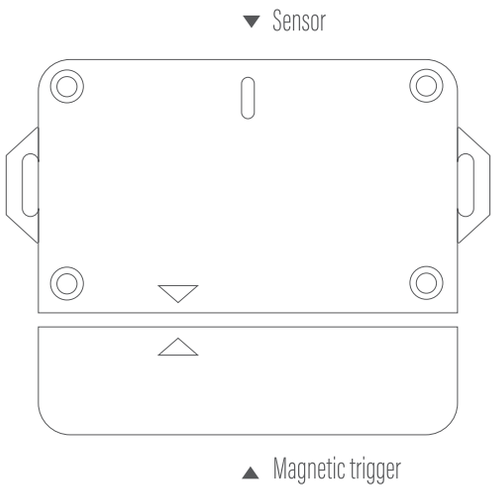
1. Please go to the operation page and tap the setting page icon (⁚⁚)
2. Tap (Device Sharing)
3. Tap (Create New Group) icon
4. Name your group and determine a time period
5. Add users with email
6. The group icon will show at the (Device sharing) page



E. SN1 WIRELESS DOOR SENSOR

● WIRELESS DOOR SENSOR

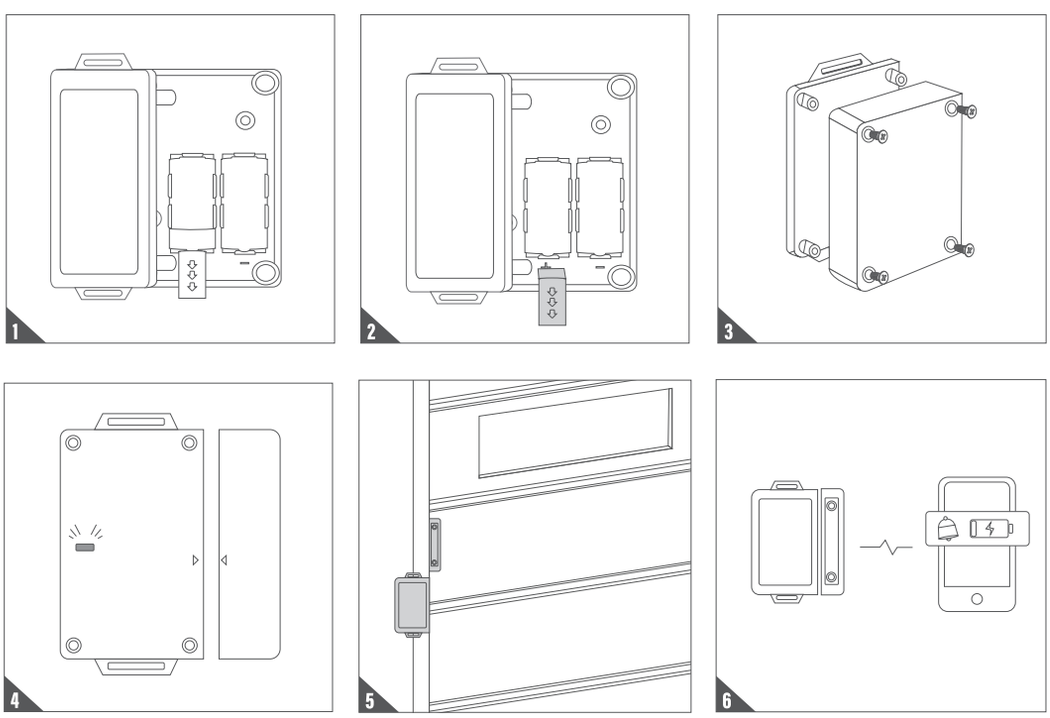
Door sensor consists of a magnetic trigger and a sensor. The door sensor will send a signal when the gate opener reach the closed position.



● INSTALLATION

1. Open the sensor part.
2. Remove the isolation sheet.
3. Close the sensor part with 4 screws.
4. The LED will turn ON when the sensor is activated.
5. The sensor is installed at the fix part of the gate. The trigger part is installed at the moving part of the gate.
6. Signal will be sent when the sensor is activated

a. The gap of the sensor part and the trigger part at the close position should be less that 30 mm.
b. The door sensor will send notification when the battery is low.

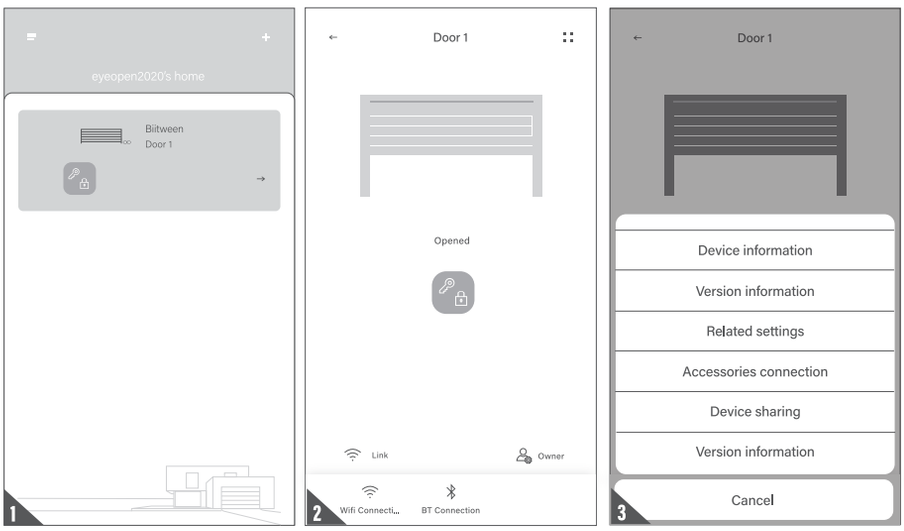


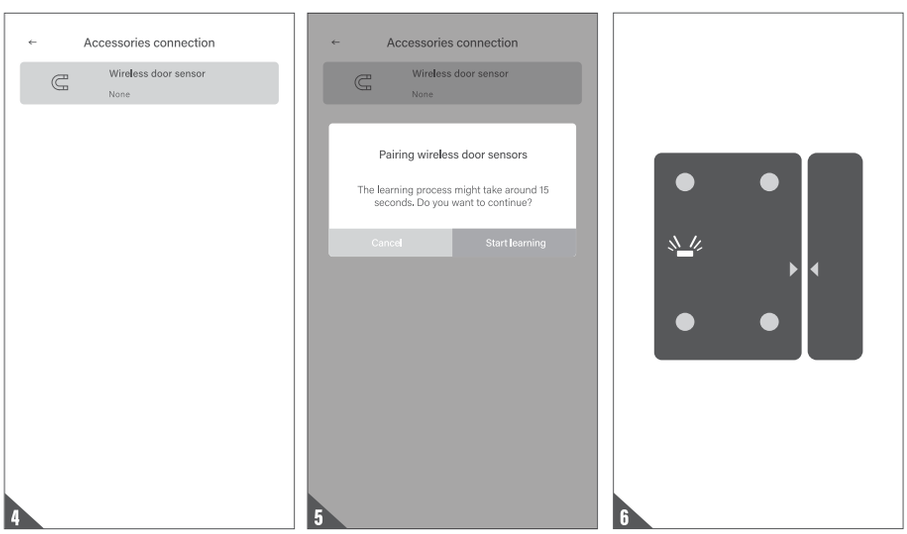
Frequency	Coding	Battery	Dimension	Temperature
433.92Mhz	Rolling code	LR1 Battery (2pcs)	6.5x66.5x22mm	-20℃ ~ 50℃

E1. CONNECT THE DOOR SENSOR TO Eyeopen

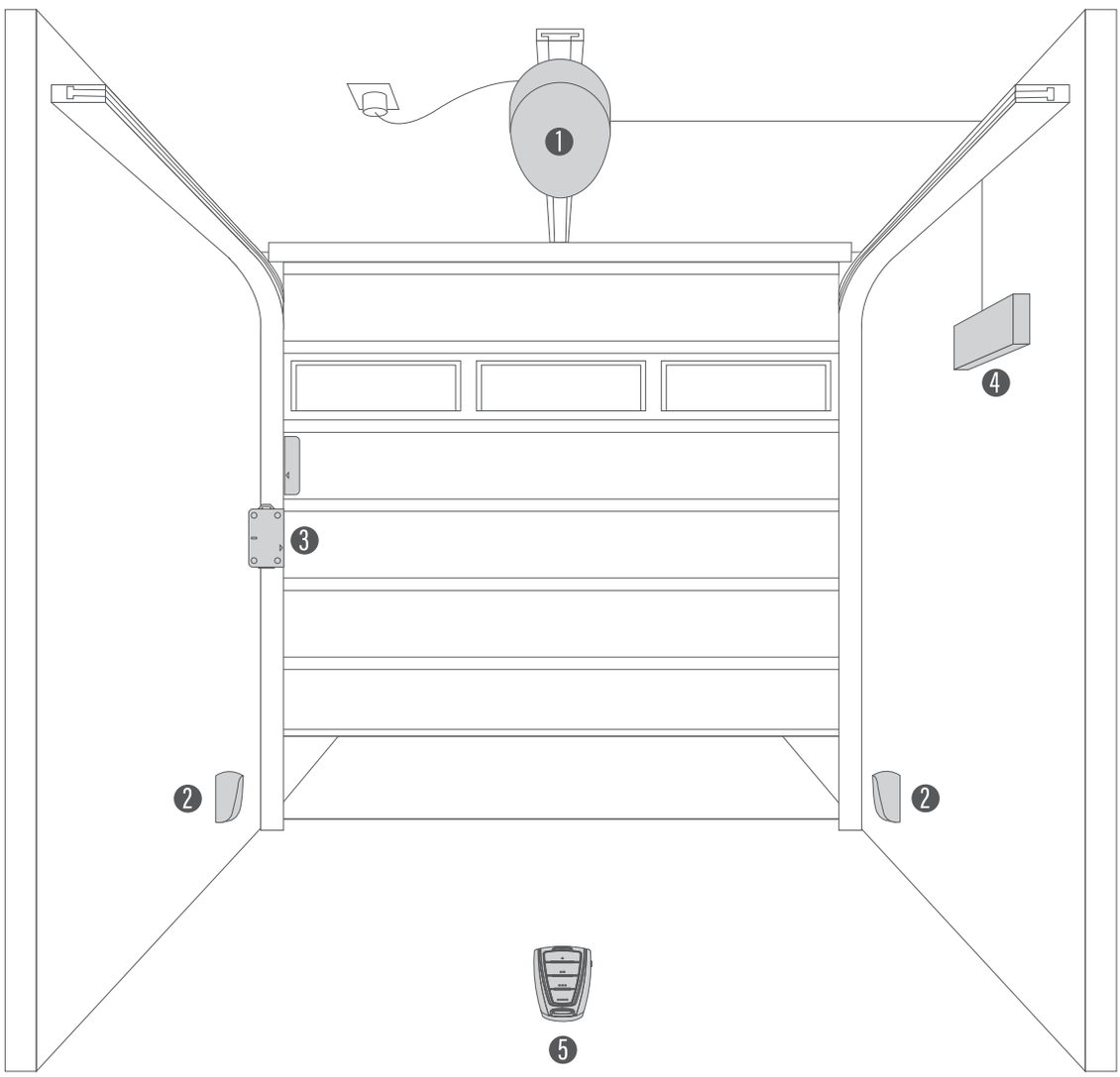
1. Tap the Biitween icon on the main page
2. Entering the setting page
3. Tap (Accessories connection)
4. Tap (Wireless door sensor)
5. Tap star learning
6. Align the trigger and sensor till the LED on the door sensor is **ON**.
7. The App shows (Learn Successfully).

The door sensor is recommended to be installed at the closed position of the gate or garage door.





Please set stopper at the open limit position of the rack and after the setup is completed , then garage door opener can start the system learning process.

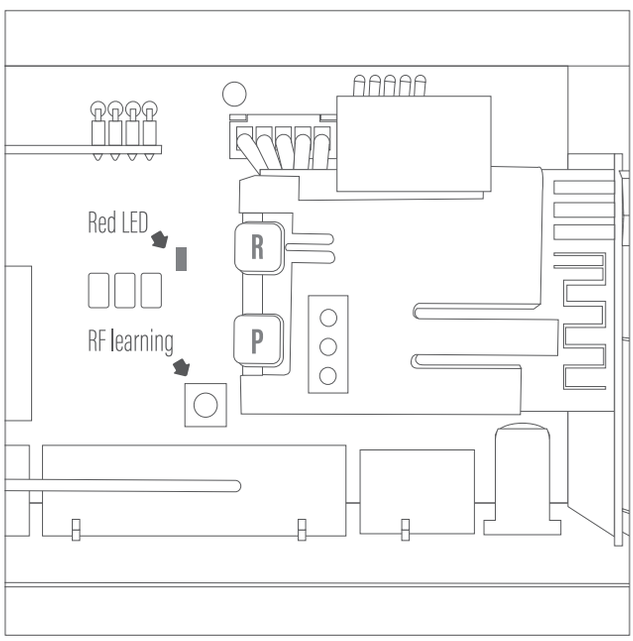


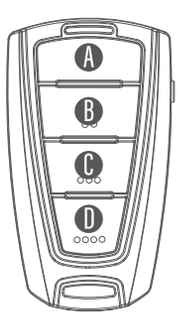
1. Garage Door Opener
2. Photocells (Optional accessories)
3. Door status sensor
4. Biitween
5. Transmitter

F. REMOTE SETUP GUIDE

F1. PAIRING REMOTES WITH Biitween

1. Press the RF learning button for 3 second the red LED will turn **ON**.
2. Press any button of a remote and the red LED will blink.
3. After 10 seconds, the red LED will turn **OFF** and end the remote learning mode.





A button: Trigger terminal ❶ ❷
B button: Trigger terminal ❸ ❹
C button: Trigger terminal ❺ ❻

G. FAQ

Question 1

The blue LED is **NOT** blinking when the Biitween connects to the power plug.

Answer 1

Press the P button and the blue LED will blink.

Question 2

Blue and green LED blinks alternatively when connecting to Eyeopen by the first user.

Answer 2

Entering a wrong password to your Wi-fi network.

Question 3

Red LED blinks when connecting to Eyeopen by the first user.

Answer 3

Biitween cannot identify the IP from the router.
Please turn off the router, turn on, and then reconnect again. Or please connect to other router.

Question 4

Red LED blinks when Enter the PIN code.

Answer 4

Entering the wrong PIN code. Please confirm the correct PIN code with the first user.

Question 5

Green LED blinks.

Answer 5

The Wi-Fi signal is weak. Please adjust the antenna of the Biitween or adding an Wi-Fi amplifier to enhance the Wi-Fi signal.

Question 6

Red LED stays ON.

Answer 6

Red LED stays ON indicates a system error. Please press the R button .

Question 7

Default to factory setting.

Answer 7

Default to factory setting will be applied when you lose your PIN code for sharing the device.
After defaulting, please follow the previous indications to reconnect the Biitween to
Wi-Fi network.

1. Tap the Biitween icon on the main page for 3 seconds and delete the Biitween.
2. Open the Biitween, press P button for 5 seconds and release it. The Green LED will blink once.
3. Press R button. When the Blue LED blinks, it means the Biitween is successfully defaulted.

Question 8

Change the PIN code.

Answer 8

Enter the operation page of the device in Eyeopen ➡ Tap the (Related settings) in the setting page (⁚⁚)
➡ Tap (PIN Code Setting) to set a new PIN code

Question 9

Change to another Wi-Fi network.

Answer 9

Enter the operation page of the device in Eyeopen ➡ Tap the (Related settings) in the setting page(⁚⁚)
➡ Tap the (Wi-Fi Setting) to change to another Wi-Fi network

Question 10

Change the gate/door icon on the operation interface.

Answer 10

Main interface ➡ Operation interface ➡ Device information ➡ Door icon & name ➡ Change the gate/door icon