PWA 310 (300/400/600)

SWING GATE OPENERS

AC SWING MOTOR | 120V / 230V | ORIGINAL / SPEEDY ——————

EN

>P POWERTECH

INDEX

A. GENERAL SAFETY WARNINGS AND PRECAUTIONS

⚠ **WARNING!**

Please read this instruction manual carefully before the installation of gate-automated system.

This manual is exclusively for qualified installation personnel.

The manufacturer is not responsible for improper installation and failure to comply with local electrical and building regulations.

Keep all the components of PWA 310 (300 / 400 / 600) system and this manual for further consultation.

In this manual, please pay extra attention to the contents marked by the symbol: ⚠

Be aware of the hazards that may exist in the procedures of installation and operation of the gate-automated system.

Besides, the installation must be carried out in conformity with local standards and regulations.

If the system is correctly installed and used following all the standards and regulations, it will ensure a high degree of safety.

Make sure that the gates works properly before installing the gate-automated system and confirm the gates are appropriate for the application.

Do not let children operate or play with the gate-automated system.

Do not cross the path of the gate-automated system when operating.

Please keep all the control devices and any other pulse generator away from children to avoid the gate-automated system being activated accidentally.

Do not make any modifications to any components except that it is mentioned in this manual.

Do not try to manually open or close the gates before you release the gear motor.

If there is a failure that cannot be solved and is not mentioned in this manual, please contact qualified installation personnel.

Do not use the gate-automated system before all the procedures and instructions have been carried out and thoroughly read.

Test the gate-automated system weekly and have qualified installation personnel to check and maintain the system at least every 6-month.

Install warning signs (if necessary) on the both sides of the gate to warn the people in the area of potential hazards.

B. PRODUCT DESCRIPTION AND INTENDED USE

B1. KIT CONTENT

▶ MOTORS ◀
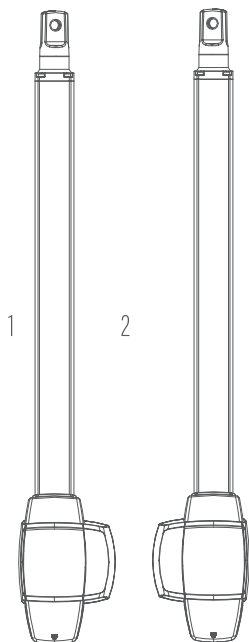
▶ HARDWARE ◀
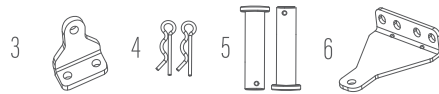
▶ ACCESSORIES ◀
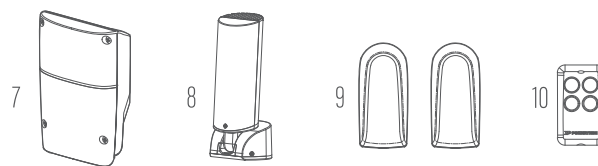
▶ REF	DESCRIPTION	QUANTITY ◀
1.	Motor 1 (Master)	1
2.	Motor 2 (Slave)	1
3.	Front bracket	2
4.	R-type pin	4
5.	Metal plug	4
6.	Rear bracket	2
7.	PCA300U Control box	1
8.	Flashing light (Optional)	1
9.	Photocells (Optional)	2
10.	Remote	2

B2. PRODUCT USAGE LIMITS
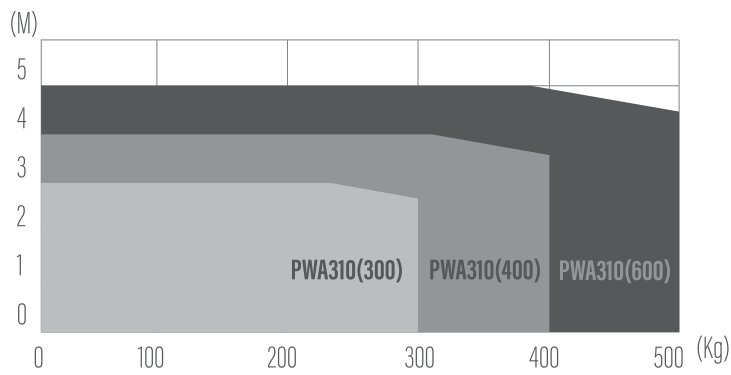
USAGE LIMITS

PWA310(300)
Max gate weight : 300kg
Max gate length : 3Meters

PWA310(400)
Max gate weight : 400kg
Max gate length : 4Meters

PWA310(600)
Max gate weight : 500kg
Max gate length : 5Meters

B3. DIMENSIONS

PWA310(300)

640mm
174mm
114mm

PWA310(400)

740mm
174mm
114mm

PWA310(600)

900mm
174mm
114mm
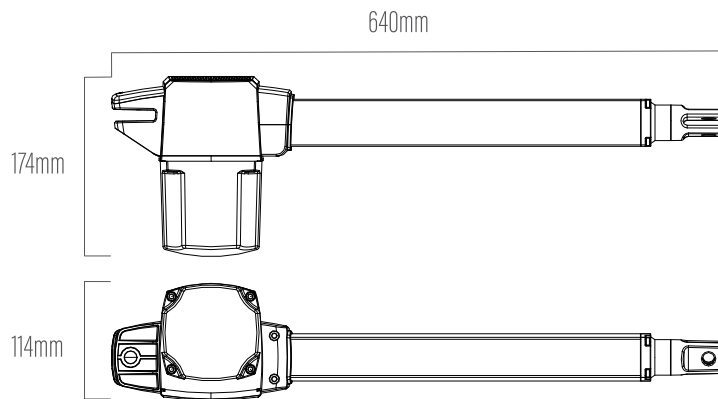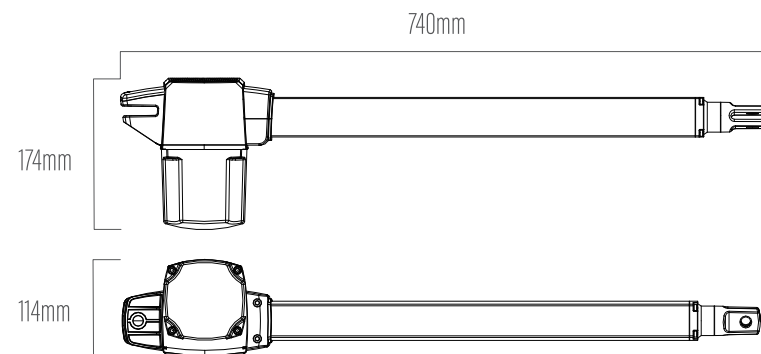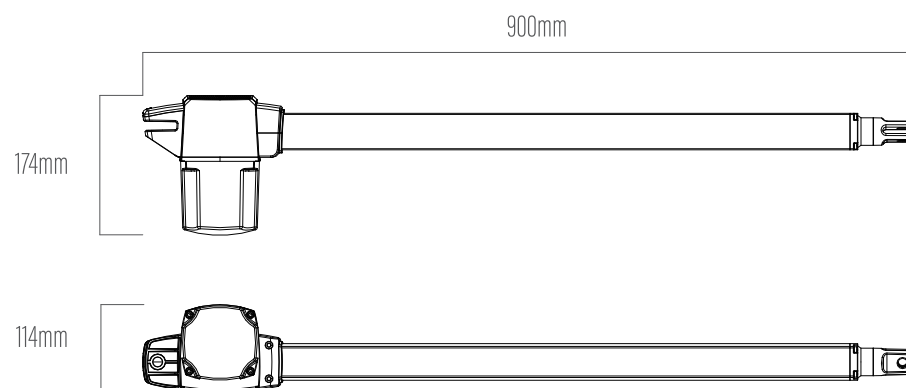
C. INSTALLATION

C1. PRE-INSTALLATION CHECKS

PWA310(300 / 400 / 600) is not applicable to a gate which is inefficient or unsafe, neither to solve the defects due to incorrect installation nor poor maintenance.

1. Make sure the weight and dimensions of the gate conform to the operation range of PWA310(300 / 400 / 600) .
   PWA310(300 / 400 / 600) if the gate specifications do not meet the requirements.
2. Make sure the gate structure conform to the criteria of automatic operation and force regulations.
3. Make sure there is no serious friction existing in the opening or closing travel of the gate leaves.
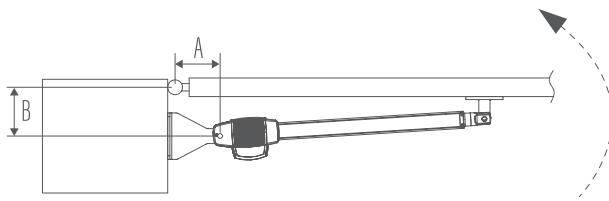4. Make sure the gate is at horizontal level that the gate will not move aside at any position.
5. Make sure the gate can bear the impact of the motor torque when it is installed on any hole of the bracket
   which the surface is sufficiently sturdy.
6. Make sure the photo sensors are installed on flat surfaces to ensure the two ends of receiving and transmitting corresponded
   to each other.
7. Check the dimensions of the motors as below.
8. Make sure to leave enough space when the gate is opening.
9. If the gate is **OPENED OUTWARD**, please leave at least 70mm between the post brackets and the gate.
10. Using the leaf-opening angle as criteria to make sure all criteria .

● OPEN OUTWARD

PWA310(300)

A \ B	100	110	120	130	140	150	160	170
100								
110	β>120°							
120								
130								
140			β°=110°-120°					
150				β=100°-110°				
160					β=90°-100°			
170							β<90°	

PWA310(600)

A \ B	250	260	270	280	290	300	310	320	330	340
250	β>120°									
260										
270			β°=110°-120°							
280				β=100°-110°						
290										
300					β=90°-100°					
310										
320										
330							β<90°			
340										

PWA310(400)

A \ B	150	160	170	180	190	200	210	220
150								
160	β>120°							
170								
180			β°=110°-120°					
190				β=100°-110°				
200					β=90°-100°			
210							β<90°	
220								

● OPEN INWARD

A \ B	100	110	120	130	140	150	160	170
100								
110								
120	β>120°							
130			β°=110°-120°					
140								
150				β=100°-110°				
160						β=90°-100°		
170								β<90°

PWA310(600)

A \ B	230	240	250	260	270	280	290	300	310	320
230										
240	β>120°									
250			β°=110°-120°							
260										
270					β=100°-110°					
280										
290							β=90°-100°			
300										
310										
320									β<90°	

PWA310(400)

A \ B	150	160	170	180	190	200	210	220
150								
160	β>120°							
170			β°=110°-120°					
180								
190				β=100°-110°				
200						β=90°-100°		
210								β<90°
220								

11. "C" value is 139mm.

12. "D" can be measured from the gate easily.

13. "A" = "C" + "D"

14. The value of "B" can be calculated from the value of "A" and the leaves opening angle. Ex. If "A"=180-190mm with the leaves opening angle of 100 degrees, then the value of "B" is approximate 190mm.

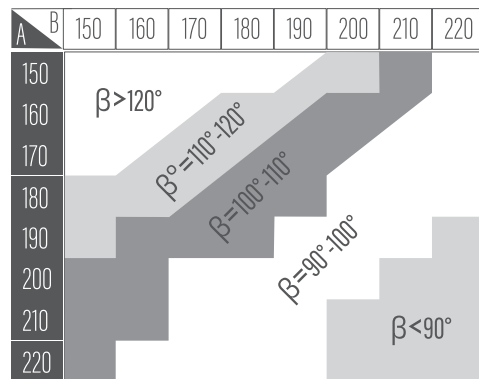***Please make sure "B" and "A" are similar or the same in value that the leaves can be operated smoothly , also to reduce the burden of the motor.***

● RELEASE GEAR

1. Remove the upper cover of the motor.

2. Turn the release axle with a hex key to release the motor.

3. The inner tube can be moved inward or outward.

4. Turn the release axle to engage the gear.
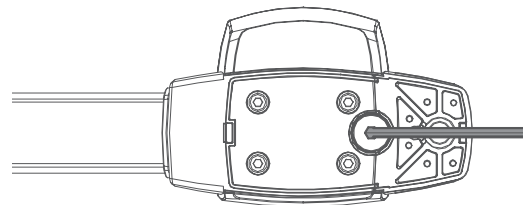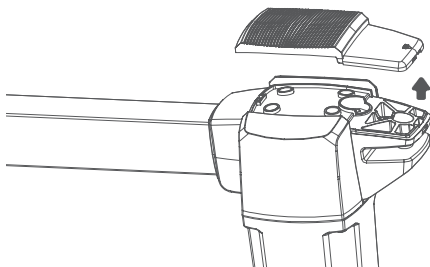
C2.INSTALLATION OF THE GEAR MOTORS

1. Choose the correct dimensions of the motors and position to be installed.

2. Check if the mounting surface the brackets to be installed is smooth, vertical and rigid.

3. Arrange the cable conduit for power supply cable of the motors.

4. Loosen the screw and remove the cover of the motor . (Figure1)

5. Place the leaves in the closed position.

6. Refer to the distance of "B" on page 6 ,place the rear plate in the correct position on the mounting surface.

7. Place 4 post brackets on the surface to be installed and mark the drilling points, then drill minimum diameter of 8mm holes by four on the mounting surface to be installed and fasten up the brackets with screws and washers. (Figure2)

8.Please make sure the front plate is completely installed horizontally.

9. Clamp and fix the motor front plate on the door temporarily.

figure 1

figure 2

figure 3

174mm

640mm
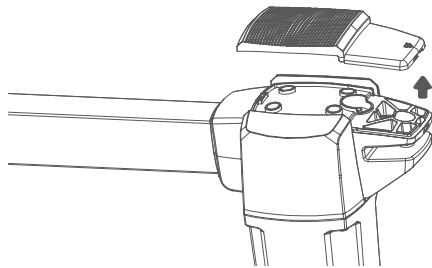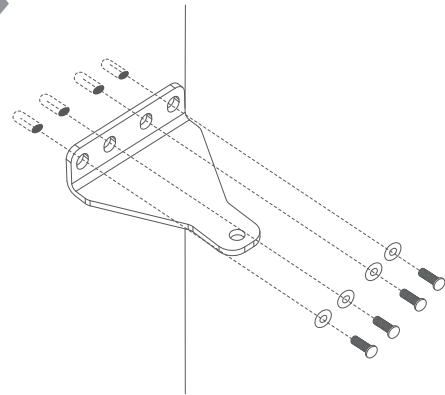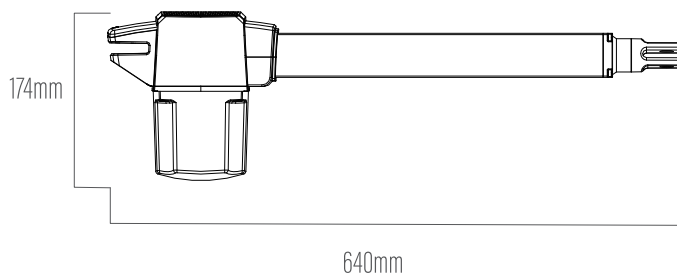
10. Lift up the motor and insert the screws into the front plate.

11. Lift the motor overhead and push the gate to the end until the screw holes of the motor end matches the holeson the rear plate. Fasten the motor to the rear plate with the bolt .(Figure4)

12. Fasten the nut tightly and loosen it for half round for motor supporting in rotating.

13. Fasten the motor front end to the front plate with the plug ❶ and ❷ pin tightly .

14. Use appropriate release key to release the gear motor.

15. Try to push the released gate and make sure the motor can be manually moved easily.

16. Make sure the motor front plate can be fastened on the gate to be installed permanently.

17. Use the appropriate release key to fasten the gear motor again.

18. Loosen the plastic nut under the power cable of the motor end, and penetrate the power cable through the nut and screw it up.

figure 4
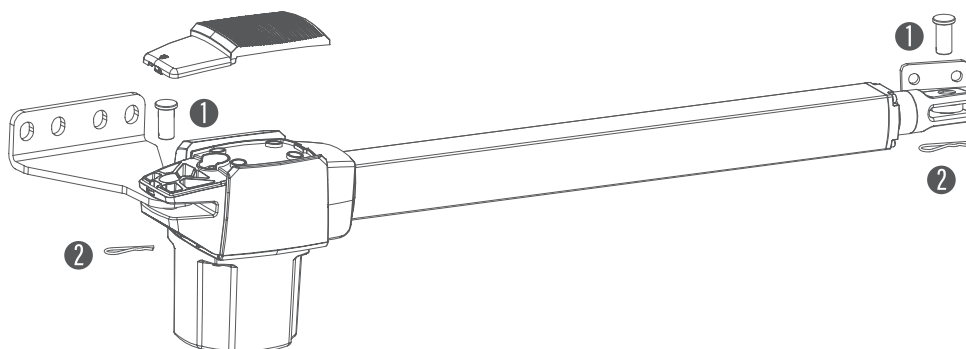
D. COMISSIONING

D1. A300U CONTROL BOARD

PROGRAMMING BUTTON

UP

SET (PROGRAMMING)

DOWN

RF-LEARN TRANSMITTER LEARNING

Antenna

	Terminal		Label
Motor1 black	M1-F		PhVcc
Capacitance 1	C		Ph2
Capacitance 1	C		GND
Motor1 green	M1-R		PhVcc
Motor1 white	COM		Ph1
Motor2 white	COM		GND
Motor2 Green	M2-R		Skey
Capacitance 2	C		Dkey
Capacitance2	C		SE
Motor2 black	M2-F		STOP
230V Courtesy light	LAMP		GND
			GND
230V Flashing light	230V AC		Lmt 4
			Lmt 3
	E		GND
230V power	N		Lmt 2
			Lmt 1
Input	L		GND
			Hall sensor 2
			Hall sensor 1
			5V
			12V AC Latch terminal
			24V AC

LED display

- NC + NO

CO

PhVcc Ph2 GND PhVcc Ph1 GND Skey Dkey SE STOP GND GND Lmt 4 Lmt 3 GND Lmt 2 Lmt 1 GND S2 S1 5V LAT 24V AC

● ELECTRICAL CONNECTION SPECIFICATIONS

TERMINAL	230V SYSTEM	120V SYSTEM
230V	Max250V/Max2A	Max140V/Max4A
LAMP		
M1-F/M1-R/COM		
M2-F/M2-R/COM		
24VAC	Max30V__AC/Max2A	
LAT+/-	Max15V AC//Max3A	
5V	Max5V/Max50mA	
S1/S2	Max5V/Max0.5mA	
LMT 1/2		
LMT 3/4		
STOP	Max5V/Max1mA	
SE		
DKEY		
SKEY		
PH1	Max12V/Max1.2mA	
PHVCC	Max14V/Max0.5A	
PH2	Max12V/Max1.2mA	
PHVCC	Max14V/Max0.5A	

D2. MOTOR WIRING

● TIME MODE

Refer to parameter table-parameter A1-1.

		M1-F
Motor1 black		
Capacitance 1		C
Capacitance 1		C
Motor1 green		M1-R
Motor1 white		COM
Motor2 white		COM
Motor2 Green		M2-R
Capacitance 2		C
Capacitance2		C
Motor2 black		M2-F

M1, M2
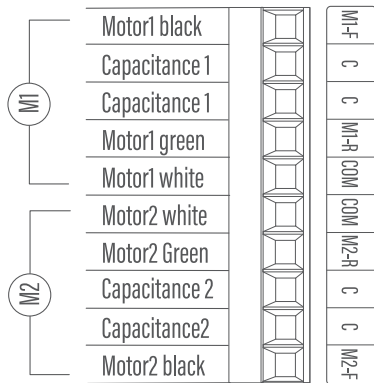
● LIMIT SWITCH MODE

Refer to parameter table-parameter A1-0.

		M1-F			GND
Motor1 black			Lmt 4		GND
Capacitance 1		C	GND		Lmt 4
Capacitance 1		C	Lmt 3		Lmt 3
Motor1 green		M1-R	Lmt 2		GND
Motor1 white		COM	GND		Lmt 2
Motor2 white		COM	Lmt 1		Lmt 1
Motor2 Green		M2-R			GND
Capacitance 2		C	S2		Hall sensor 2
Capacitance 2		C	S1		Hall sensor 1
Motor2 black		M2-F	5V		5V

M1, M2
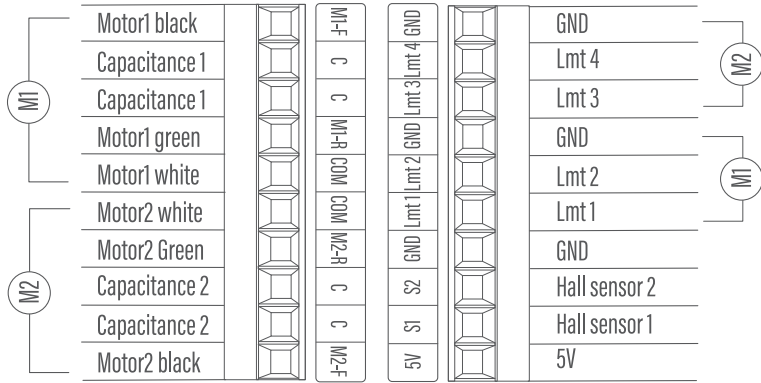
D3. WIRING OF ACCESSORIES

● SAFETY DEVICE 1 WIRING

TX + −   RX + − NO NC COM

GND STOP SE DKey SKey GND Ph1 PhVcc GND Ph2 PhVcc

● SAFETY DEVICE 2 WIRING

TX + −   RX + − NO NC COM

GND STOP SE DKey SKey GND Ph1 PhVcc GND Ph2 PhVcc
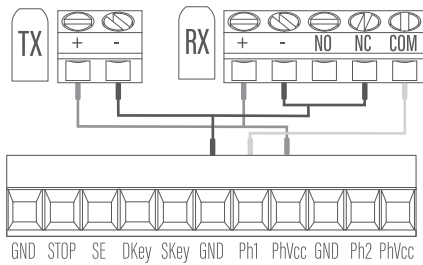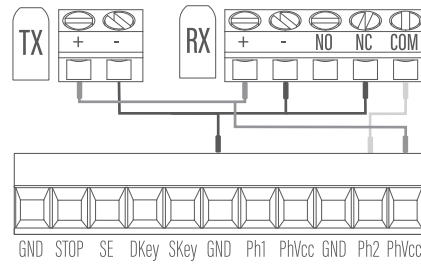
● AUXILIARY DEVICE WIRING

Dkey : Complete open
Skey : Partial open

GND STOP SE DKey SKey GND Ph1 PhVcc GND Ph2 PhVcc
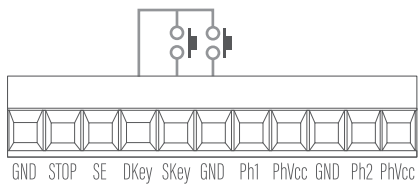
● 12V AVAILABLE TO POWER ACCESSORIES

Safety edge
Wiring

12V

GND STOP SE DKey SKey GND Ph1 PhVcc GND Ph2 PhVcc
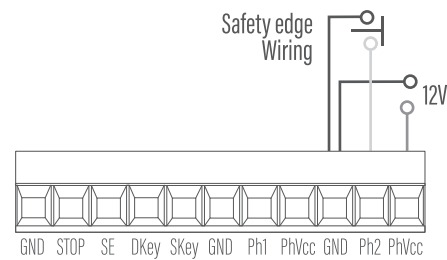
D4. REMOTE LEARNING

● PAIRING REMOTES

Press RF button for 2 seconds and the LED display show ｜ RFL ｜ ,
press any key of the remote control within 10 seconds,
the LED will show remote control code, and flash slowly 3 times.

● DELETE SINGLE REMOTE (BY PRESSING REMOTE BUTTON)

Press the RF button twice and the LED shows ｜ DKY ｜
Press any key of the paired remote and the LED show remote control code and blinks for 3 times .
Wait the code goes OFF .

● DELETE SINGLE REMOTE (by pressing SW4 <SET> on control board)

press RF button 3 times and LED show the remote control code , press SW3 ▲ / SW5 ▼ to select the code you want delete and pressing SW4(SET),
the code Flash slowly 3 times to finish deleting the remote control.

● DELETE ALL REMOTE

Press the RF button for 5 seconds and the LED shows ｜ DAL ｜
Press any key of paired remote and LED shows blinks for 3 times , the control panels deletes all the paired remotes.

● PAIRING REMOTES WITH A PAIRED REMOTE

Press a new remote for 5 seconds and the Flashing light will be **ON.**
Press the paired remote for 3 times and the Flashing light will blink.
Press any key of a new remote to pair.

D5. PHOTOCELLS

TX   RX
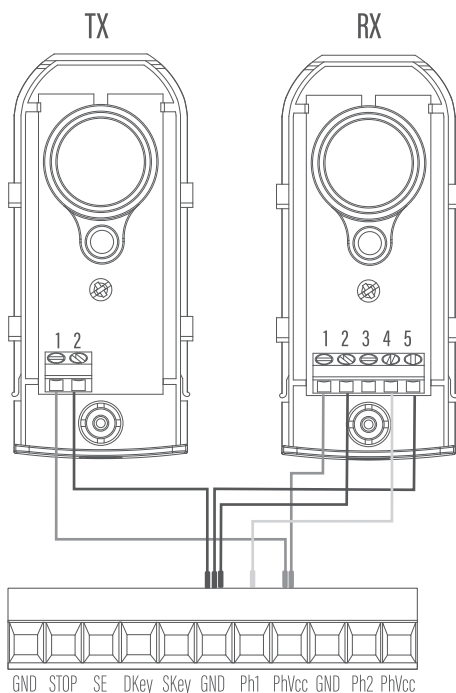
Open the cover and connect wires .
Mounted the receiver and transmitter on the proper position.
Ensure there are no obstacles between receiver and transmitter.
For optimal efficiency, the receiver and transmitter should be properly aligned.
Power-up the photocells and make sure the LED light on receiver and transmitter are ON

GND STOP SE DKey SKey GND Ph1 PhVcc GND Ph2 PhVcc

D6. SAFETY DEVICE LOGIC

● F5 PH1 functions

PARAMETERS	FUNCTION	GATE STATUS	REACTION
F5-0 (Default setting)	PH1 function OFF	No function	No function
F5-1	Photocell-Close	Gate fully close	Not allow to open
		Gate fully open	Fast closing
		Stop during cycle	Not allow to open/close
		Closing phase	Open
		Opening phase	No effect
F5-2	Photocell-Open	Gate fully close	Not allow to open
		Gate fully open	Not allow to close
		Stop during cycle	Not allow to Open/close
		Closing phase	No effect
		Opening phase	Close
F5-3	Safety edge	Gate fully close	Not allow to open
		Gate fully open	Reload auto-closing time
		Stop during cycle	Not allow to Open/close
		Closing phase	Open for 2 seconds
		Opening phase	Close for 2 seconds

● F6 PH2 functions

PARAMETERS	FUNCTION	GATE STATUS	REACTION
F6-0 (Default setting)	PH2 function OFF	No function	No function
F6-1	Photocell-Close	Gate fully close	Not allow to open
		Gate fully open	Fast closing
		Stop during cycle	Not allow to Open/close
		Closing phase	Open
		Opening phase	No effect
F6-2	Photocell-Open	Gate fully close	Not allow to open
		Gate fully open	Not allow to close
		Stop during cycle	Not allow to Open/close
		Closing phase	No effect
		Opening phase	Close
F6-3	Safety edge	Gate fully close	Not allow to open
		Gate fully open	Reload auto-closing time
		Stop during cycle	Not allow to Open/close
		Closing phase	Open for 2 seconds
		Opening phase	Close for 2 seconds

D7. PROGRAMMING

● INDICATIONS ON THE LED DISPLAY
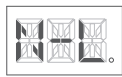
N-L: System learning not been done yet

CLS: Close
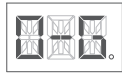
D-G: Double gate

STP: stop

S-G: Single gate
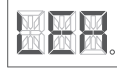
LEA : motor into the system learning mode, do not interrupt during this procedure.

RFL: Remote learning

S01: the panel did not detected the M1+/M1 and M2+/M2 both been connected before the system learning procedure, check for 2 motors' wire connection, for dual gate system
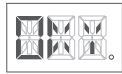
DKY: Delete single remote

DAL: Delete all remotes

OPN: Open

● PARAMETER SETTINGS

Press and hold ▲ / **SET** for 3 seconds
The LED display « A1» parameter setting
Select main setting with ▲ / ▼ then confirm with SET
Display of the sub-setting (ex: parameter A1-subvalue=1)
Modify sub-setting value ▲ / ▼
Validate sub-setting value with **SET**
Press ▲ / ▼ to display and configure other settings

RF-LEARN   ◄   SET   ►

SW1   SW3   SW4   SW5

D8. PARAMETER TABLE

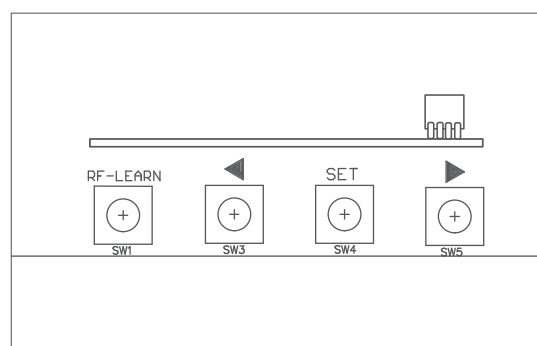| SETTING	FUNCTION	PARAMETERS	DESCRIPTION
A1	Limit mode	A1-0	Limit switch mode
		A1-1	Time mode (default setting)
A2	Operation mode	A2-0	Standard mode (default setting)
		A2-1	Condominium mode
		A2-2	Holiday mode
A3	Double/Single gate	A3-0	Single gate
		A3-1	Double gate (default setting)
A4	LED direction	A4-0	Control box (default setting)
		A4-1	Arm gate opener
A5	Operation direction	A5-0	Open inward (default setting)
		A5-1	Open outward
C1/C2	C1 Slowdown area for opening C2 Slowdown area for closing	C1/C2-0	No slowdown area
		C1/C2-1	5% slowdown area
		C1/C2-2	10% slowdown area
		C1/C2-3	15% slowdown area
		C1/C2-4	20% slowdown area (default setting)
		C1/C2-5	25% slowdown area
		C1/C2-6	30% slowdown area
C3/C4	C3 Delay time for opening C4 Delay time for closing	C3/C4-0	No delay
		C3/C4-1	1 second
		C3/C4-2	2 seconds (C3 default setting)
		C3/C4-3	3 seconds (C4 default setting)
		C3/C4-4	4 seconds
		C3/C4-5	5 seconds
		C3/C4-6	6 seconds
		C3/C4-7	10 seconds
		C3/C4-8	15 seconds
		C3/C4-9	20 seconds
C5/C6	C5 Motor1 running time for opening C6 Motor2 running time for opening	0-90 seconds	Default setting 22 seconds
C7/C8	C7 Motor1 running time for closing C8 Motor2 running time for closing	0-90 seconds	Default setting 24 seconds
E1/E2	E1 over-current reaction while opening E2 over-current reaction while closing	E1/E2-0	Stop (E1 default setting)
		E1/E2-1	Reverse for 1 second
		E1/E2-2	Reverse for 2 seconds (E2 default setting)
		E1/E2-3	Reverse for 3 seconds
		E1/E2-4	Reverse for 4 seconds
		E1/E2-5	Reverse till the end

SETTING	FUNCTION	PARAMETERS	DESCRIPTION
E3	Reverse Time when reach the close limit	E3-0	No reverse
		E3-1	0.1 second
		E3-2	0.2 second
		E3-3	0.3 second
		E3-4	0.4 second
		E3-5	0.5 second
		E3-6	0.6 second
E4	Ignore over-current time when start	E4-0	FUNCTION OFF
		E4-1	1 second
		E4-2	2 seconds
E5	Over-current sensitivity	E5-0	20%
		E5-1	30%
		E5-2	40%
		E5-3	50%
		E5-4	60%
		E5-5	70%
		E5-6	80% (default setting)
		E5-7	90%
		E5-8	100%
E6	Force	E6-0	20%
		E6-1	30%
		E6-2	40%
		E6-3	50%
		E6-4	60%
		E6-5	70%
		E6-6	80% (default setting)
		E6-7	90%
		E6-8	100%
F1	Auto-closing time	F1-0	No Auto-closing (default setting)
		F1-1	3 seconds
		F1-2	10 seconds
		F1-3	20 seconds
		F1-4	40 seconds
		F1-5	60 seconds
		F1-6	120 seconds
		F1-7	180 seconds
		F1-8	300 seconds
F2	Fast closing (Follow me)	F2-0	0 second
		F2-1	1 second
		F2-2	2 seconds
		F2-3	3 seconds
		F2-4	4 seconds (default setting)
		F2-5	6 seconds
		F2-6	8 seconds
		F2-7	10 seconds

SETTING	FUNCTION	PARAMETERS	DESCRIPTION
F3	Pedestrian mode	F3-0	10%
		F3-1	20%
		F3-2	30%
		F3-3	40%
		F3-4	50%
		F3-5	60%
		F3-6	70%
		F3-7	80%
		F3-8	90%
F4	Flashing light – Pre flashing	F4-0	0 second (default setting)
		F4-1	1 second
		F4-2	2 seconds
		F4-3	3 seconds
		F4-4	4 seconds
		F4-5	6 seconds
		F4-6	8 seconds
		F4-7	10 seconds
F5	Ph1 Photocells mode	Please refer to Safety device logic	
F6	Ph2 Photocells mode	Please refer to Safety device logic	
F7	Buzzer	F7-0	OFF (default setting)
		F7-1	ON
F8	Latch release mode	F8-0	Function OFF (default setting)
		F8-1	Stander gate opening
		F8-2	Release gate tension before opening (Gate reversing for 1s)
F9	Courtesy light	F9-0	OFF (default setting)
		F9-1	5 seconds
		F9-2	10 seconds
		F9-3	20 seconds
		F9-4	30 seconds
		F9-5	40 seconds
		F9-6	60 seconds
		F9-7	80 seconds
		F9-8	100 seconds
		F9-9	120 seconds
H1	A Button	H1-0	Function OFF
		H1-1	Step by step (default setting) Open/Stop/Close/Stop
		H1-2	Open/Stop/Close
		H1-3	Ped mode
		H1-4	Open
		H1-5	Stop
		H1-6	Close
		H1-7	Lamp
		H1-8	Auto-closing switch
		H1-9	Holiday mode switch

SETTING	FUNCTION	PARAMETERS	DESCRIPTION
H2	B Button	H2-0	Function OFF (default setting)
		H2-1	Step by step Open/Stop/Close/Stop
		H2-2	Open/Stop/Close
		H2-3	Ped mode
		H2-4	Open
		H2-5	Stop
		H2-6	Close
		H2-7	Lamp
		H2-8	Auto-closing switch
		H2-9	Holiday mode switch
H3	C Button	H3-0	Function OFF (default setting)
		H3-1	Step by step Open/Stop/Close/Stop
		H3-2	Open/Stop/Close
		H3-3	Ped mode
		H3-4	Open
		H3-5	Stop
		H3-6	Close
		H3-7	Lamp
		H3-8	Auto-closing switch
		H3-9	Holiday mode switch
H4	D Button	H4-0	Function OFF (default setting)
		H4-1	Step by step Open/Stop/Close/Stop
		H4-2	Open/Stop/Close
		H4-3	Ped mode
		H4-4	Open
		H4-5	Stop
		H4-6	Close
		H4-7	Lamp
		H4-8	Auto-closing switch
		H4-9	Holiday mode switch
J1	Skey terminal	J1-0	Function OFF
		J1-1	Double gate Open/Stop/Close/Stop
		J1-2	Single gate (default setting)Open/Stop/Close/Stop
		J1-3	Ped mode
		J1-4	Open
		J1-5	Stop(NO)
		J1-6	Stop(NC)
		J1-7	Close
		J1-8	Lamp
		J1-9	Auto-closing switch
		J1-10	Holiday mode switch

| SETTING	FUNCTION	PARAMETERS	DESCRIPTION
J2	Dkey terminal	J2-0	Function OFF
		J2-1	Double gate (default setting)Open/Stop/Close/Stop
		J2-2	Single gate Open/Stop/Close/Stop
		J2-3	Ped mode
		J2-4	Open
		J2-5	Stop(NO)
		J2-6	Stop(NC)
		J2-7	Close
		J2-8	Lamp
		J2-9	Auto-closing switch
		J2-10	Holiday mode switch
J3	Stop terminal	J3-0	Function OFF
		J3-1	Double gate Open/Stop/Close/Stop
		J3-2	Single gate Open/Stop/Close/Stop
		J3-3	Ped mode
		J3-4	Open
		J3-5	Stop(NO) (default setting)
		J3-6	Stop(NC)
		J3-7	Close
		J3-8	Lamp
		J3-9	Auto-closing switch
		J3-10	Holiday mode switch
J4	SE terminal	J4-0	Function OFF(Default setting)
		J4-1	Movement is stopped , if the safety edge is triggered during closing
		J4-2	Movement is reversed for 2 sec , if the safety edge is triggered during closing
		J4-3	Movement is reversed to the end, if the safety edge is triggered during closing
U1	Return to the default setting (Keep remote pairing & system learning memory)	U1	The parameters return to the default setting
U2	Return to the default setting (Delete all memory)	U2	The parameters return to the default setting Delete all the remote pairing Delete all the system learning memory

CONDOMINIUM MODE				
TRIGGER DEVICE / STATUS OF GATE	Step by step button	Ped button	PH2	PH1
Stop in the middle	Open till fully open and reload auto-closing time	No effect. Auto-closing countdown	When Ph2 is triggered, auto-closing stops untill the obstacle is removed.	When Ph1 is triggered, auto-closing stops untill the obstacle is removed.
Gate fully open	Reload auto-closing time	No effect. Auto-closing countdown	When Ph2 is triggered, auto-closing stops untill the obstacle is removed.	When Ph1 is triggered, auto-closing stops untill the obstacle is removed.
Opening phase	No effect	No effect	No effect	No effect
Gate fully close	Open the gate untill it's fully open and start auto-closing countdown	Open to pedestrian open and start Auto-closing countdown	No allowed to open	No allowed to open
Closing phase	Open the gate untill it's fully open and start auto-closing countdown	No effect	When Ph2 is triggered, reverse to the fully open position. Auto-closing stops untill the obstacle is removed.	When Ph1 is triggered, reverse to the fully open position,auto-closing stops until the obstacle is removed.

D9. OPERATION TIME ADJUSTING

The default setting is A1-1 which is time mode. With the time mode, the system doesn't have to run system learning. The motors operates as set operation time as parameter C5/C6/C7/C8.

● C5/C6 CONTROL THE OPERATION TIME FOR OPENING. PLEASE ADJUST TO FIND A SUITABLE VALUE FOR YOUR GATE.
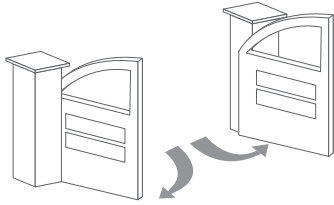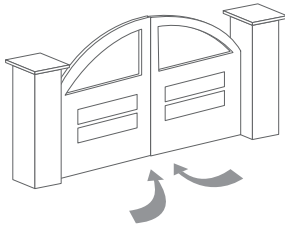
● C5

C5 motor 1 running time for opening
0-90 seconds
Default setting 22 seconds

● C6

C6 motor 2 running time for opening
0-90 seconds
Default setting 22 seconds

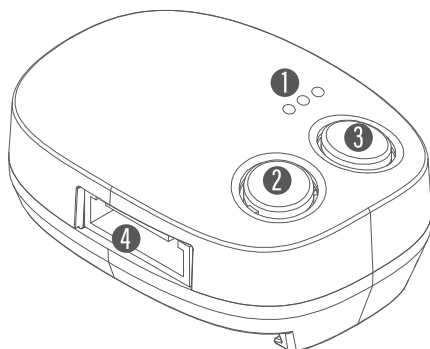● C7/C8 CONTROL THE OPERATION TIME FOR CLOSING. PLEASE ADJUST TO FIND A SUITABLE VALUE FOR YOUR GATE.

● C7

C5 motor 1 running time for closing
0-90 seconds
Default setting 24 seconds

● C8

C6 motor 2 running time for closing
0-90 seconds
Default setting 24 seconds

E. SMARTPHONE CONTROL WITH EYEOPEN MOBILE APPLICATION

E1.Wi-Fi/Bluetooth BOX

① LED display

② R button (press to restart)

③ P button

④ Terminals

● LED INDICATORS

Blue LED

The blue LED is an indicator of connection of Bluetooth.
The blue LED blinking indicates the WB3 is waiting for pairing.
The blue LED is **ON** when WB3 is connected to Bluetooth.

Green LED

The green LED is an indicator of Wi-Fi signal.
The green LED blinking indicates weak Wi-Fi signal.

Red LED

The red LED blinking indicates wrong operations or system errors.
Please refer to FAQ when the red LED is **ON**.

● BUTTON AND FUNCTION

R button: A reset button

P button: A pairing button
To restore the default settings: Press and hold the P button for
5 seconds and press the R button once. The blue LED will flash
to indicate that the reset is complete.

E2.Eyeopen SYSTEM

Eyeopen is the App system on the smartphone provided by Powertech, allows you to operate your Powertech gate
automations remotely through this App.

E3. 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.
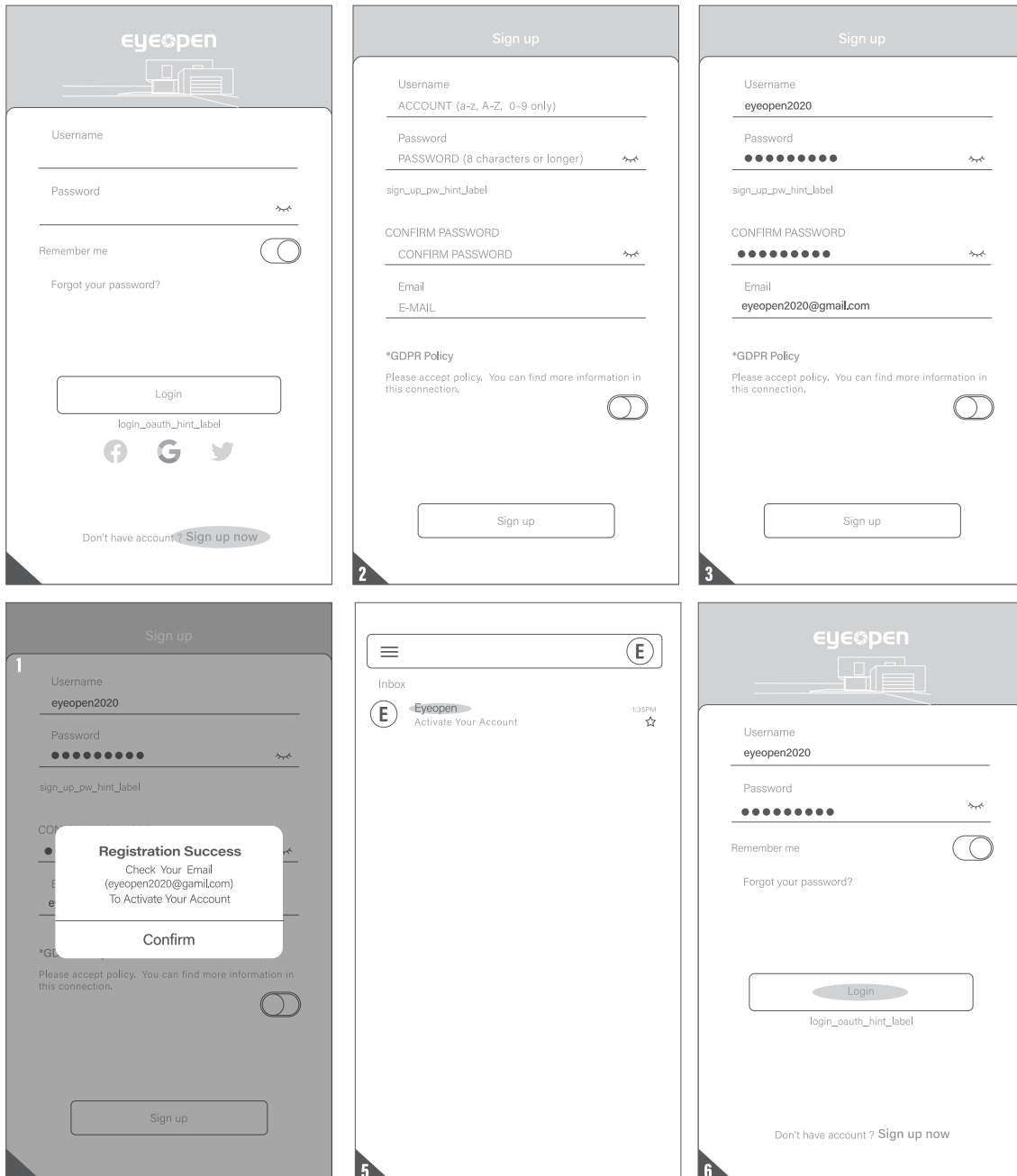
4. The system will send a link to your email when the registration succeeds
5. Please go to your email , and click the link to activate your account.
6. Please log in to your account.

E4. CONNECTING TO Eyeopen

1. Please login your Eyeopen account. (Turn on the Bluetooth function of your smart phone.)
2. Tap the (+) icon to add a new device. Choose your product from the list.
3. Tap the Bluetooth icon and tap the device you are going to connect.
4. Set a PIN code twice and confirm.
5. Choose the device you are going to connect at available Eyeopen interface.
6. The device will start connecting.
7. After countdown, the device will show on the main page.

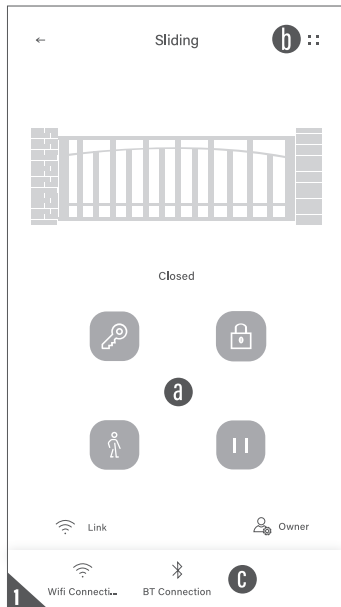

Please keep your PIN code for further usage. PIN code will be used when you
1. Login on the new smart phone / 2. Enter the parameter settings interface. / 3. Return to the factory default.

If you forgot your PIN code, please follow the indications in FAQ - Question 7 - Return to the factory setting

E5. OPERATION PAGE

1. Open / Stop / Close / Pedestrian
2. Settings page
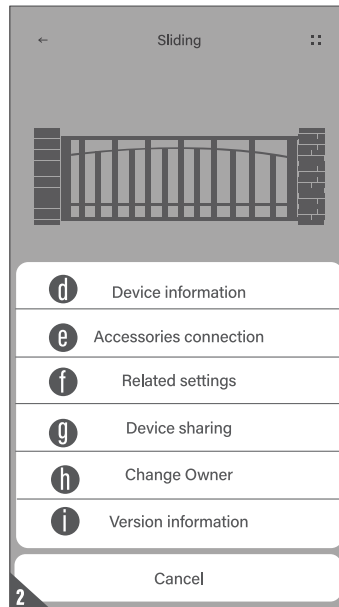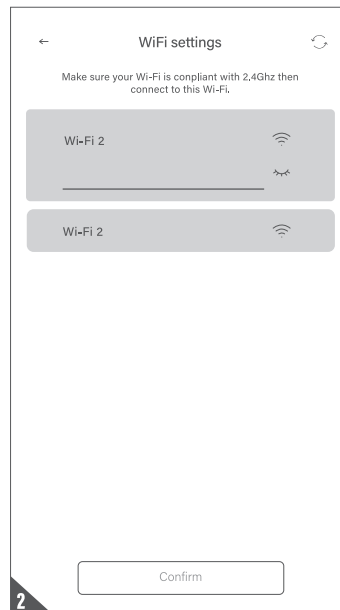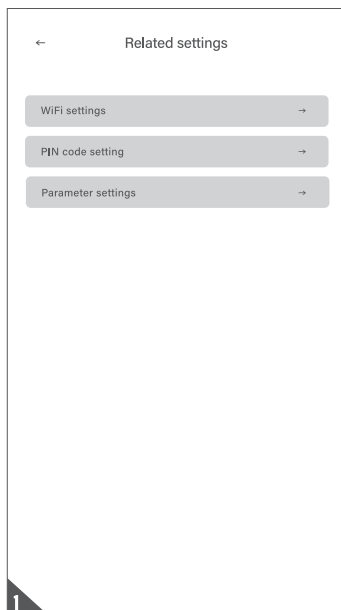

a. Operation button
b. Setting page
c. Wifi / Bluetooth icon
d. Device information
e. Accessories connection
f. Related settings
g. Device sharing
h. Change Owner
i. Version information
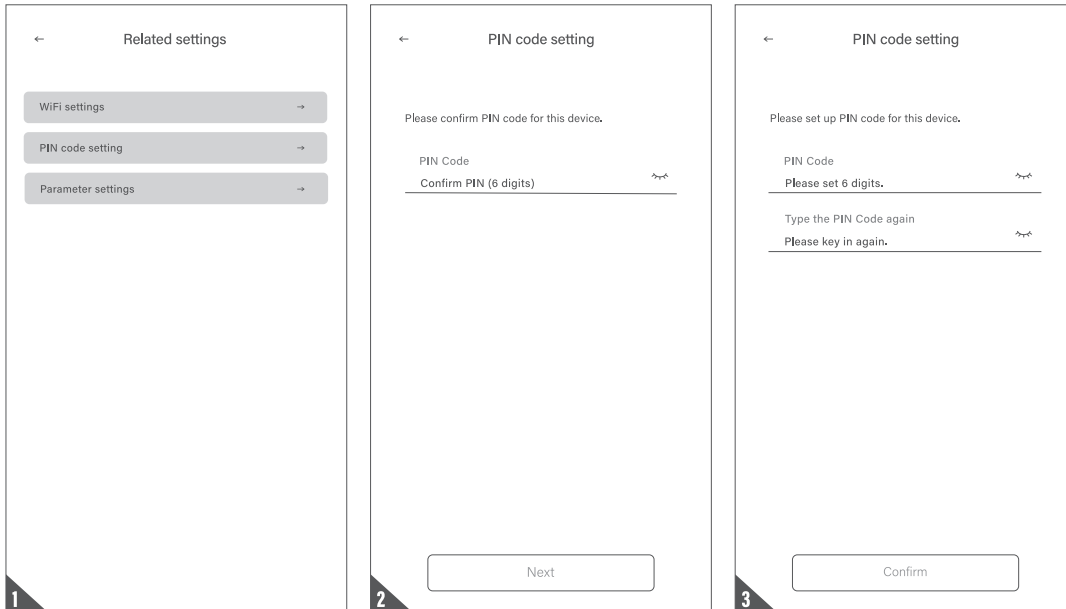
E6. RELATED SETTINGS – Wi-Fi SETTINGS

1. Tap the Wi-Fi setting page to enter.
2. Select a new Wi-Fi . Tap confirm to start connection.

Please make sure the password is correct .

E7. RELATED SETTINGS - PIN CODE SETTING

1. Tap the PIN code setting to enter.
2. Enter current PIN code
2. Set a new PIN code and confirm.

← Related settings	← PIN code setting	← PIN code setting
WiFi settings →	Please confirm PIN code for this device.	Please set up PIN code for this device.
PIN code setting →	PIN Code	PIN Code
Parameter settings →	Confirm PIN (6 digits)	Please set 6 digits.
		Type the PIN Code again
		Please key in again.
1	Next **2**	Confirm **3**

E8. RELATED SETTINGS - PARAMETER SETTINGS

1. Tap the Parameter settings to enter.
2. Key in the PIN code
3. Change the parameter and save your changes.
4. Start the system learning via Eyeopen.

← Parameter settings

Please confirm your internet connection status

Function OFF 🔒

Photocell 2 activation

Function OFF 🔒

Stop terminal function

Function OFF 🔒

Operation mode

Open/Stop/Close/Stop 🔒

SYSTEM LEARNING

Factory default

SAVE
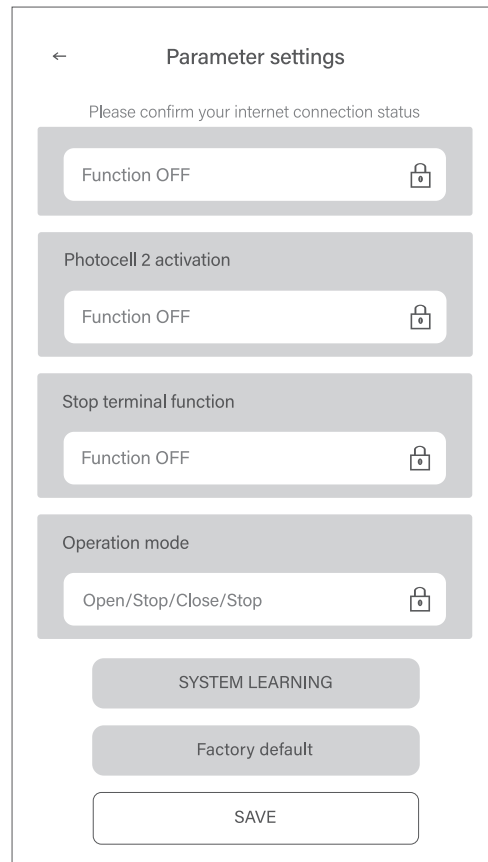
E9. OWNER SHARE DEVICE TO USERS

1. Tap the device on you main interface and enter the operation page.
   Tap the (::) icon to enter the setting page.
2. Tap the device sharing.
3. Tap the create new group.
4. Name your group and set a duration for this group.
5. Invite users by an Eyeopen account and tap share.
6. The group icon will show at the (Device sharing) page

Sliding

Closed

Link   Owner

Wifi Connecti...   BT Connection

1

Sliding

Device information

Accessories connection

Related settings

Device sharing

Change Owner

Version information

Cancel

2

Manage Device Share

Shared quantity - 09
Program — 10 limitation

Create New Group

3

Create New Group   +

Sync time: Asia/Taipei +8.0

Group name
Home

21/09/2020   ▼

End date
21/09/2120   ▼

Cycle time setting.

4

Share Members   +

Account / Email
ex : powertech@powertech.tw

Share

5

Manage device

Shared quantity : 1
Scenario — 10 users

Create New Group

Default

Number of users: 1
Authority: User

Group

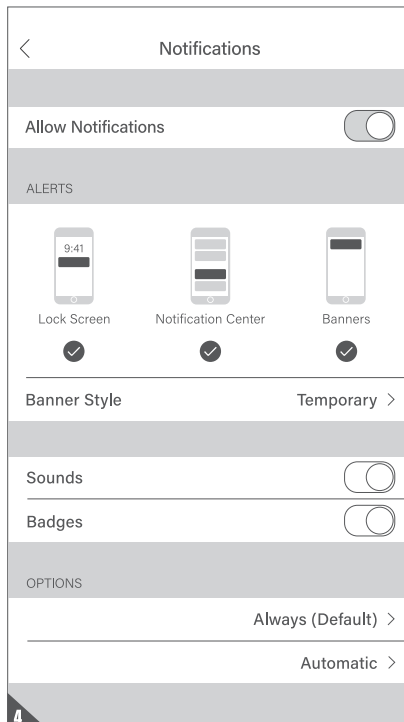Number of users: 0
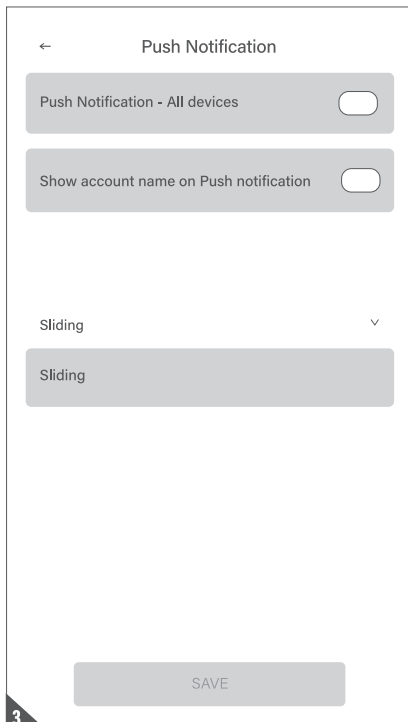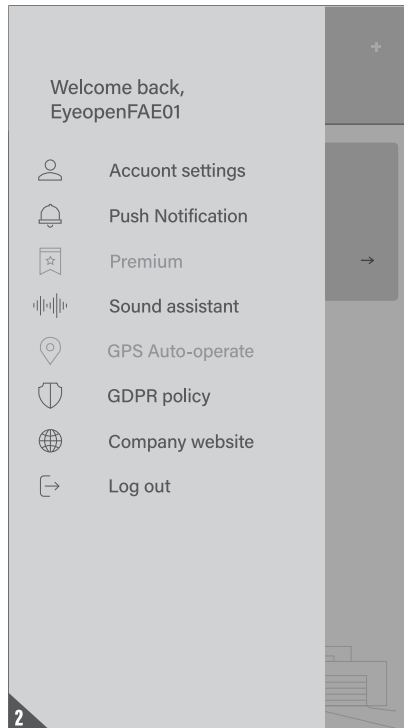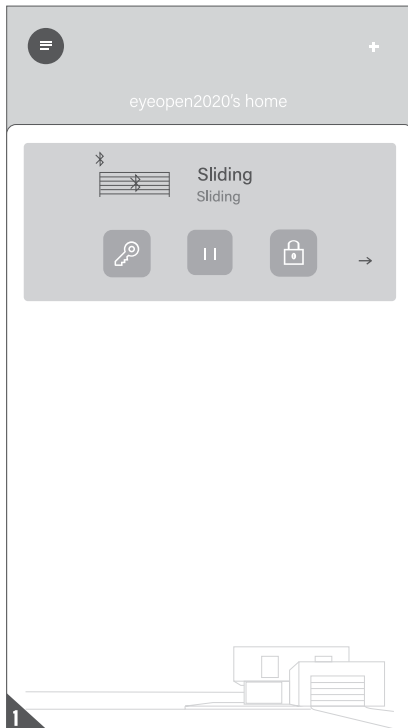Shared period:
28/08/2022-28/08/2122
Authority: Manager

6

E10. 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.

1

eyeopen2020's home

Sliding
Sliding

2

Welcome back,
EyeopenFAE01

Accuont settings

Push Notification

Premium

Sound assistant

GPS Auto-operate

GDPR policy

Company website

Log out

3

← Push Notification

Push Notification - All devices

Show account name on Push notification

Sliding ⌄

Sliding

SAVE

4

‹ Notifications

Allow Notifications

ALERTS

9:41

Lock Screen   Notification Center   Banners

Banner Style   Temporary ›

Sounds

Badges

OPTIONS

Always (Default) ›

Automatic ›

E11. FAQ

Question 1

The blue LED is **NOT** blinking when pairing.

Answer 1

Press the **P** button of the Wi-Fi box.

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

The Eyeopen cannot get a IP from the router. Please disconnect other device.

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 Wi-Fi box or adding an Wi-Fi amplifier to enhance Wi-Fi signal.

Question 6

Red LED on.

Answer 6

Red LED on indicates a system error. Please return to the factory setting as mentioned below.

Question 7

Return to the factory setting.

Answer 7

Return to the factory setting is used when you lose your PIN code for sharing the device.
After return to the factory setting, please follow the previous indications to reconnect Eyeopen.
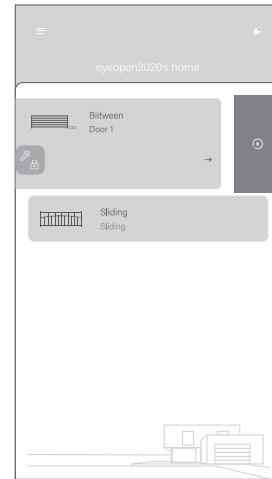Slide the device icon on the main page and tap the (delete) icon.
Open the cover of your motor and get to the Wi-Fi box.
Press the [P] button for 5 seconds and press the [R] button once.
The blue LED of the Wi-Fi box is blinking which indicates the device has returned to the factory default.

Please refer to page 5 "C1 connecting to Eyeopen"

Question 8

How should I change my PIN code.

Answer 8

Enter the operation page of the device in EyeOpen ➡ Click the (Device Parameters) in the setting page ➡ Tap (Reset PIN).

F. TECHNICAL SPECIFICATIONS

● 230V

Model Name	PWA310(300)	PWA310(400)	PWA(310)600
Max gate length	3 meters	4 meters	5 meters
Max gate weight	300 kilos	400 kilos	500 kilos
Voltage	230VAC	230VAC	230VAC
Motor Speed (RPM)	1450	1450	1450
Stroke Length (mm)	300	400	600
Duty cycle	50%	50%	50%
No-load Speed (mm/s)	16	16	16
No-load Current	≦1A	≦1A	≦1A
Rated Current	≦2A	≦2A	≦2A
Noise	≦55db	≦55db	≦55db
Operating Temperature	-20℃+50℃	-20℃+50℃	-20℃+50℃
Waterproof	IP44	IP44	IP44

● 120V

Model Name	PWA310(300)	PWA310(400)	PWA310(600)
Max gate length	3 meters	4 meters	5 meters
Max gate weight	300 kilos	400 kilos	500 kilos
Voltage	120VAC	120VAC	120VAC
Motor Speed (RPM)	1750	1750	1750
Stroke Length (mm)	300	400	600
Duty cycle	50%	50%	50%
No-load Speed (mm/s)	16	16	16
No-load Current	≦1.5A	≦1.5A	≦1.5A
Rated Current	≦3A	≦3A	≦3A
Noise	≦55db	≦55db	≦55db
Operating Temperature	-20℃+50℃	-20℃+50℃	-20℃+50℃
Waterproof	IP44	IP44	IP44