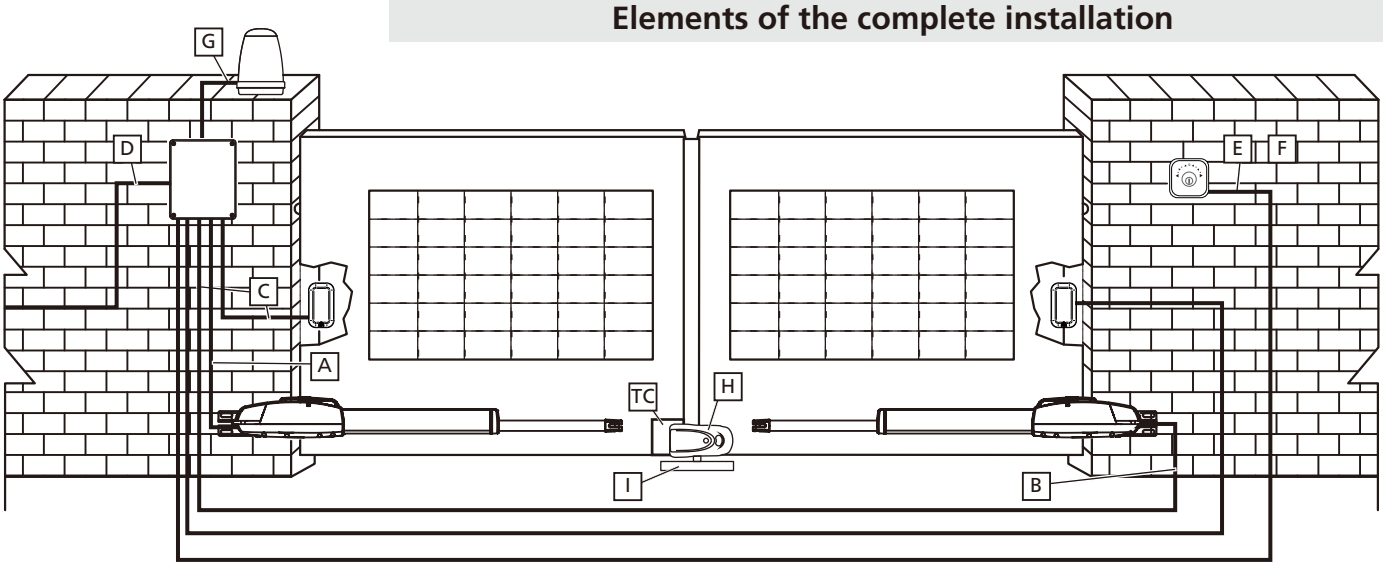
KAIROS

Quick Installation Guide

MSB-027/05

WARNING This quick guide is a summary of the complete installation manual. The manual contains safety warnings and other explanations which must be taken into account. The installation manual can be downloaded by going to the "Downloads" section of Erreka website:
http://www.erreka-automation.com

Elements of the complete installation



Electrical Wiring

A.B: 24v DC Motor(2x1mm²) TA

C: Photocell 2x0.5mm² (max 20m)

D: Control Box (3x1.5mm²)

E: Push Botton 2x0.5mm²(max 25m)

F: Key Selector(2x0.5 mm²)

G: Flash Light (2x0.5mm²)

H.I: Electric Lock (2x1mm²)

TA

TA: Open Stopper

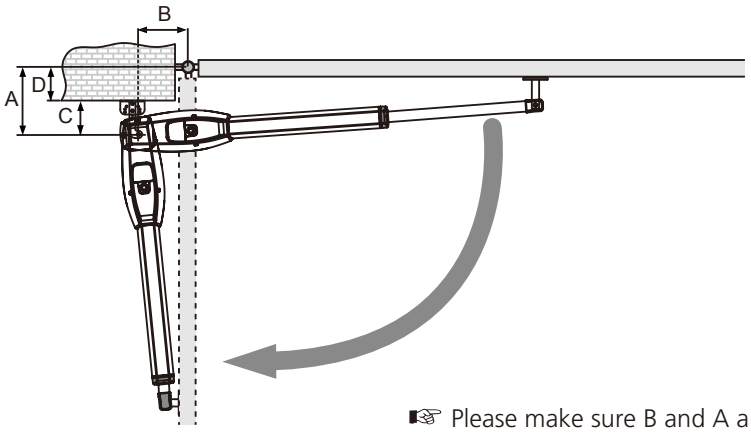
TC: Close Stopper

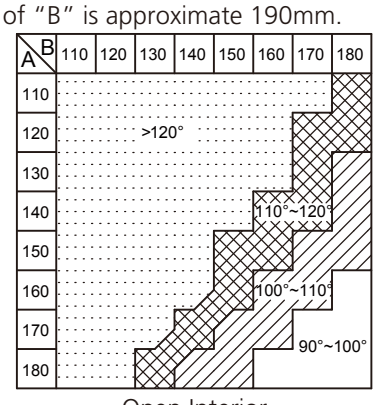
Assembly levels, inward opening

KAIROS It is not applicable to an insecure or lacking rigidity door nor solves the defects due to incorrect installation or maintenance deficient.

Check the following points before starting the installation:

1). Hinges are properly positioned and greased.
2). No obstacles in the moving area and no frictions between two gate leafs or with the ground while moving.
3). "C" value is 139mm.
4). "D" can be measured from the gate easily.
5). "A" = "C" + "D"
6). The value of "B" can be calculated from the value of "A" and the leaves opening angle.
Ex. If "A"=160mm with the leaves opening angle of 100 degrees, then the value of "B" is approximate 190mm.

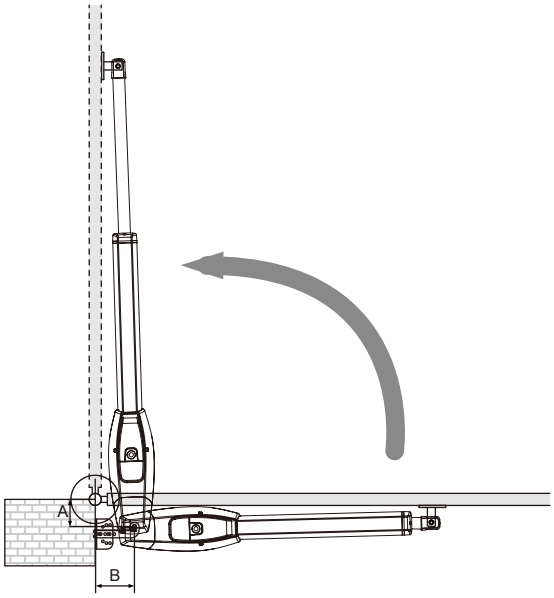


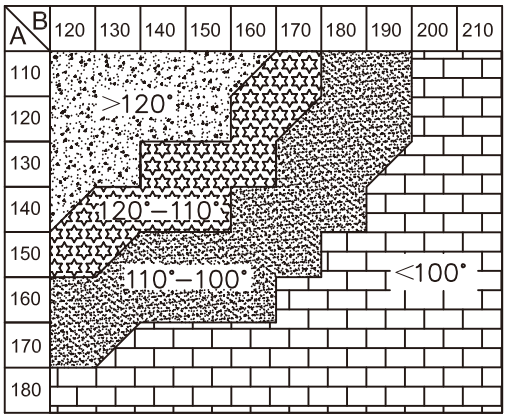


Open Interior

☞ 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.

Assembly levels, outward opening





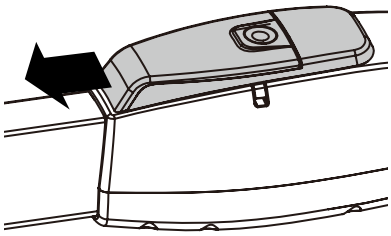
Open Exterior

☞ 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.

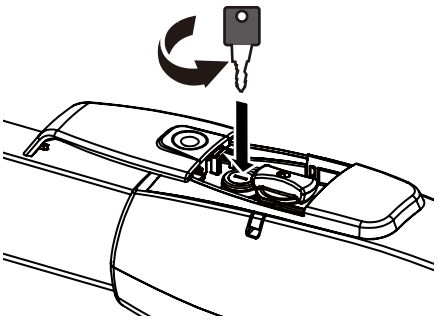
Unlocking

Unlocking for manual operation:

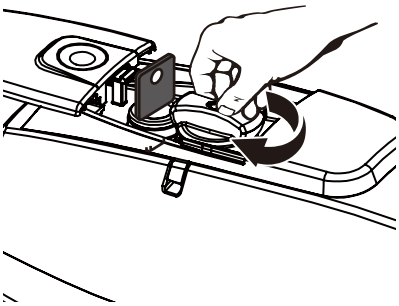
1 Push the lid of release chamber



2 Insert the key and turn counterclockwise to the unlock position

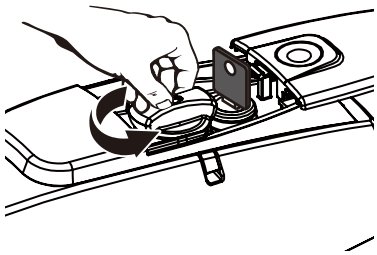


3 Then turn clockwise the knob to release the motor.

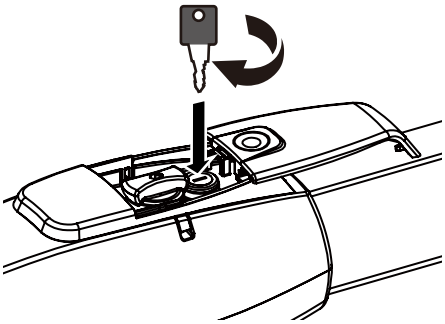


Motorised operation locking:

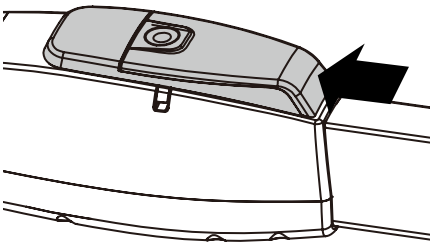
1 Turn counterclockwise the knob.



2 Insert the key and turn clockwise.



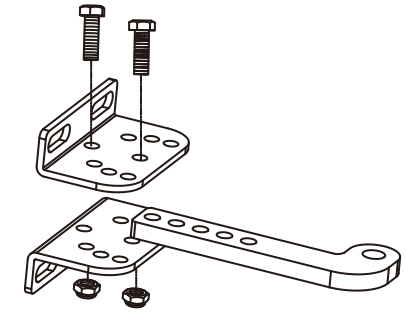
3 Close the lid of release chamber.



Assembly

Assemble the rear bracket and fix it on the pillar. Choose the position according to the table" dimensions and mounting position.

1



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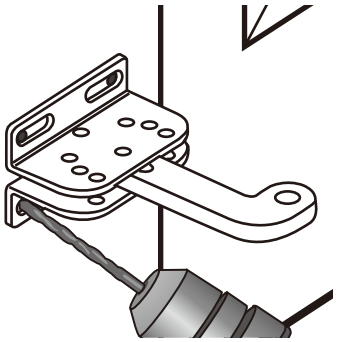
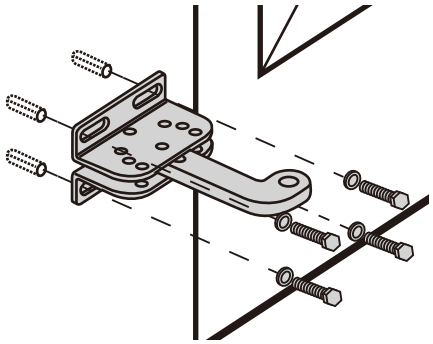
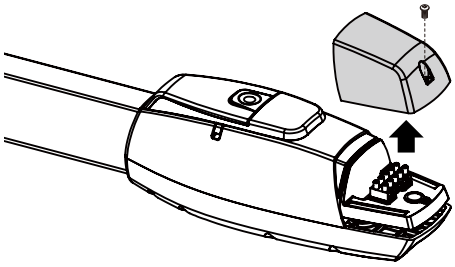


3



Remove the wire cover and fix the rear bracket with the pin. Release the gate opener with the door in closed position. Place the front bracket without fixing it.

4



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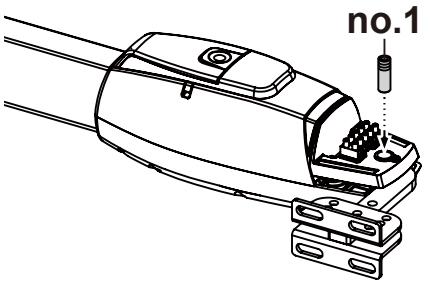

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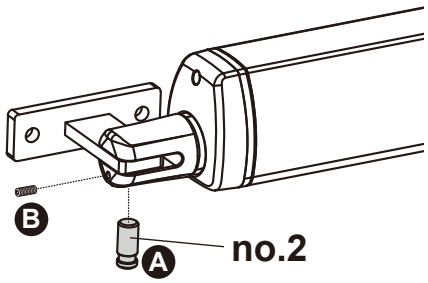
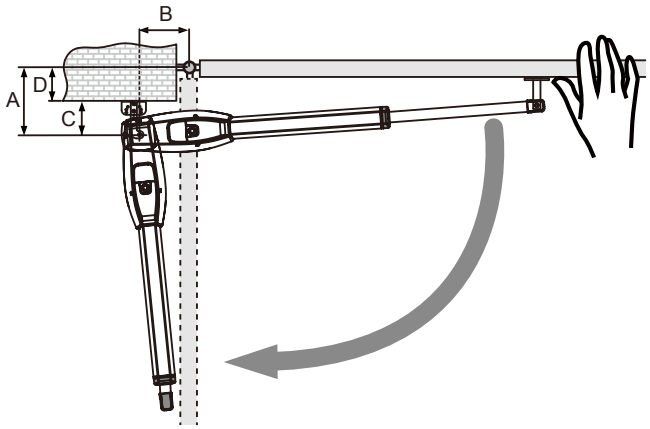
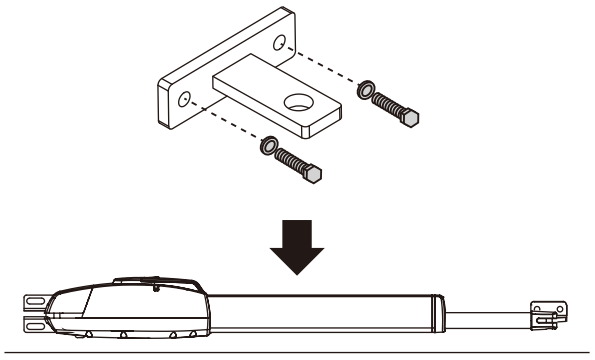


7 Check the door manually which can be moved easily in entire route.



8 Fix the front bracket. Check the motor is completely leveled.



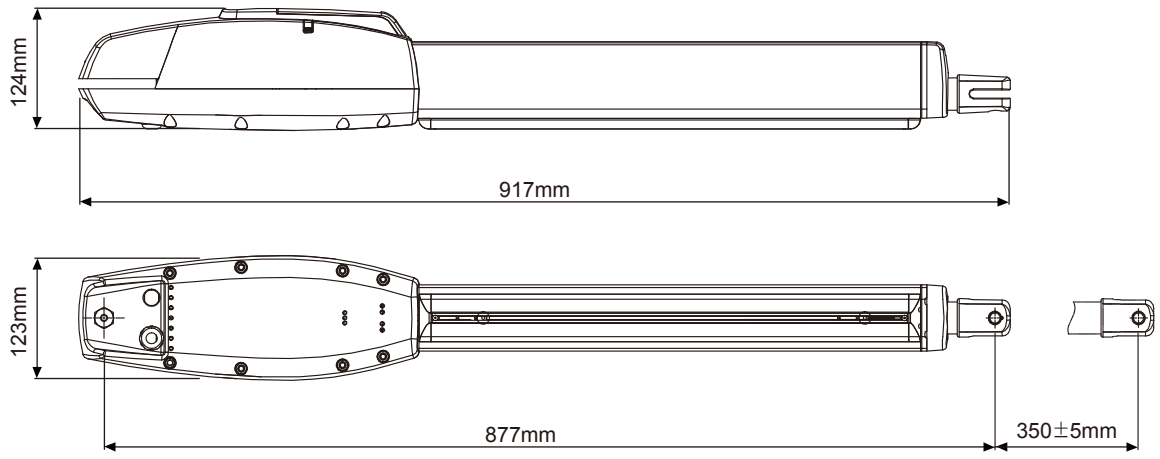
Horizontal 180°

☞ **Block the motor and make the electrical wiring. To connect the cables M1 and M2 correctly. If you only install one gate, connect the wires to the terminal M1.**

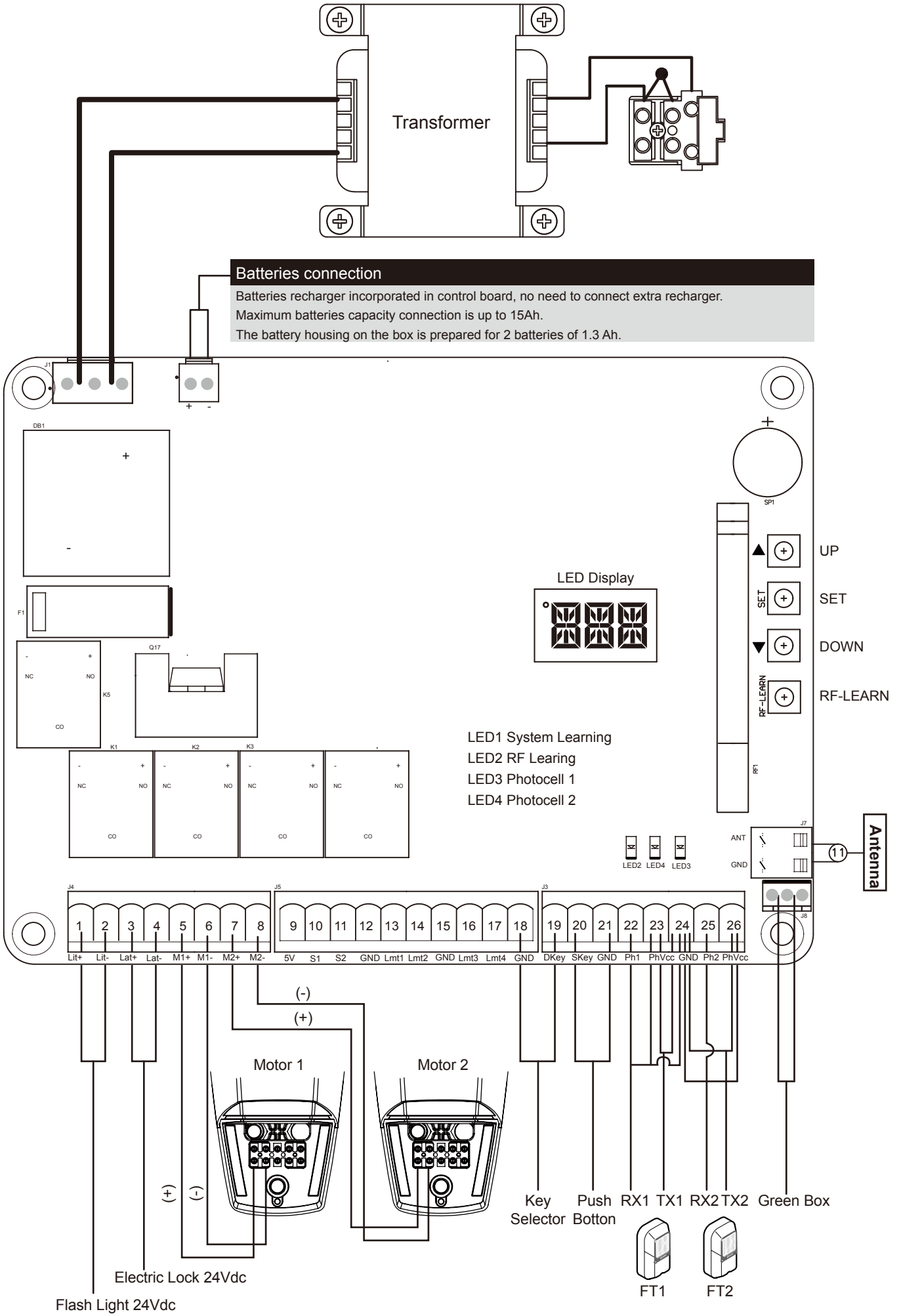
Technical Features

Max gate length	3m
Max gate weight	300kg
Power supply	110V/230VAC (50-60Hz) SMART-D201M / SMART-D201
Motor power supply	24VDC
Gear Type	Worm and worm gear
Peak Thrust	3000N
Normal Thrust	2500N
Operation Stroke	350mm
Piston extention	25.5mm/sec
Opening Time	<14 sec
Duty Cycle	20%
Protection Grade (IP)	IP44
Operation temperature	-20°C~50°C
Absorbed current (A)	5,5 A for a 10 sec. max.
Absorbed Power (W)	144W
Manual Release	key
Dimensions	917mm * 123mm * 124mm

Dimensions



Electrical connections



Display indications

LED Display	Programmable Functions		
	"N-L": The system learning is not done.		"CLN" the memory of the system is all cleaned/deleted. Press "UP+DOWN" for 5 seconds.
	"RUN": The system is in normal performing.		"ME": Motor operation error.
	"LEA": Enter learning mode and then wait for learning instructions. The operation of gate learging: (1). Press "SET" + "DOWN" + "UP" for 3 seconds, and the LED display shows "LEA" +"DG"; and then press the transmitter A botton one time. After 1~3seconds, the LED display shows the current value during learning mode, it shows 10 for 1A		"STP": the motor stop in the middle of the operating process.
			"ARN": The system learning is in progress.

Operation for Function settings

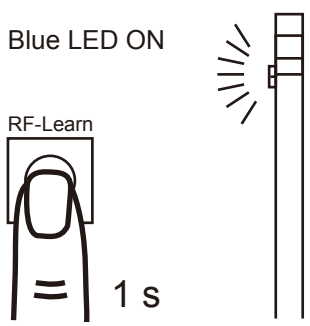
For example: How to set the Function "F1-2"; the steps are following:

Step	Operations	LED Display after the Step
1.	(1) Press the "SET" button for 3seconds, the LED will display F1. (*) To enter "F2" Function or another Functions, press the "UP" button to adjust F2 ~ F8.	
2.	(2) After completing the operation (1) then press the "SET" button again, you will enter the second option. (3) Continually, press "UP" button until you search the Function "2" (**) of F1 as the right hand-side picture. "F1-2" is set completely. (**) If you would like to set one of Function "0 ~ 8" as the second option, please press "UP" or "DOWN" button to adjust it. (4) If you would continue setting up the next Functions, press "SET" to return the first option, like F1, F2, F3.....etc. For example, after complete F1-2 setting. You would continue setting F2-2, please press "SET" to return the formal option. The LED display shows the first two numbers as the first option F1. And then follow the operation (*) and (2) ~ (3) until complete the setting.	  
3.	After setting all Functions you need, then wait for 10 seconds, the LED will display "RUN". And you can use transmitter to operate the gate.	

Radio code programming

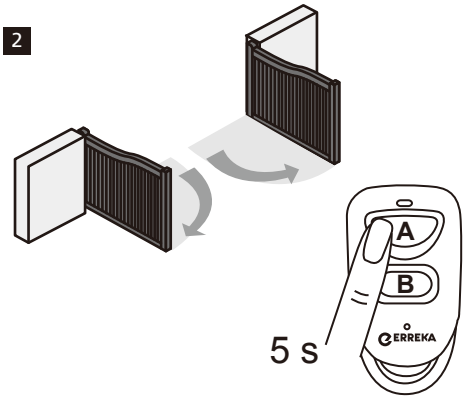
Press and hold the RF-Learn for 1 second, the blue LED on the RF board will be ON.

1



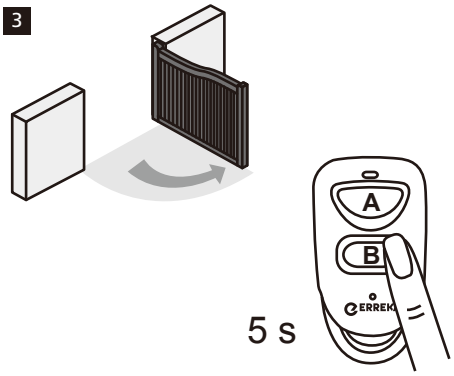
Press A button for 5 seconds for double leaf gate Radio code programming installation.

2

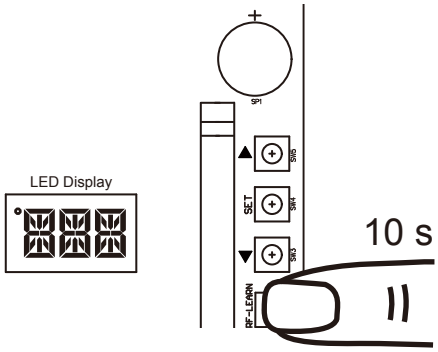


Press B button for 5 seconds for single-gate installation.

3



Radio code deleting



Press and hold the RF-Learn button on the PCB for 10 seconds until blue LED off.

Open/close programming

Step1: Set the Function F2-1 for double leaf gate learn; or set the Function F2-2 for single leaf gate learning.
Step2: Press and hold the “UP+SET+DOWN” for 3 seconds. LED show “LEA D-G”.
Step3: Press A button on the transmitter for double leaf gate system learning or B button for single gate.
In system learning mode, the gates will proceed with the following procedures:
(A) Double Leave Gate (D-G): M2 Close→ M1 Close→ M1 Open→ M2 Open→ M2 Close→ M1 Close.
(B) Single Leaf Gate (S-G): M1 Close→ M1 Open→ M1 Close.
Advise: If change the configuration of F2, you should program the system learning again.

The completion of system learning:
(A) For Double leaf gate (D-G) installation: Show RUN on LED display
(B) For Single leaf gate (S-G) installation: Show RUN on LED display.

Notes:
(A) System learning fails and needs to be learned again when an unpredictable interruption occurs. In this case, please make sure the Function F3 is in F3-1.
(B) Once the system learning is completed, there is no need to proceed with the learning process again when there is a power failure.
(C) M2 opens 3 seconds after M1 opens and M1 closes 3 seconds after M2 closes.

Gate-moving Logic

(A) In gate-opening phase: the gates stop if the transmitter/push button/key selector is activated, and close when you press the button again.
(B) In gate-closing phase: the gates stop if the transmitter/push button/key selector is activated, and open when you press the button again.
(C) In gate-opening or gate-closing phase: For safety purpose, the gates stop if encountering obstacles.

Complete programming chart (1)

LED Display	Definition	Parameter	Mode	Description
F1	Encoder/ Limit switch	F1-1	Motor only	1. The factory setting is "F1-1".
		F1-2	Motor with limit switch	
		F1-3	Motor with encoder	
F2	Number of operators	F2-1	Two Operators	1. The factory setting is "F2-1".
		F2-2	One Operator	
F3	Maximum trapping force	F3-1	2A	1. The factory setting is "F3-1". 2. Please make sure that the parameter F3 is always in F3-1 in case of system learning process.
		F3-2	3A	
		F3-3	4A	
		F3-4	5A	
F4	Gate speed	F4-1	100% Full Speed	1. The factory setting is "F4-1".
		F4-2	80% Full Speed	
F5	Slowdown	F5-1	Function ON	1. The factory setting is "F5-1".
		F5-2	Function OFF	
F6	Soft stop speed	F6-1	70% Full Speed	1. The factory setting is "F6-2".
		F6-2	50% Full Speed	
		F6-3	35% Full Speed	
		F6-4	25% Full Speed	
F7	Lapse between leaves in opening and closing	F7-1	2 sec.	1. The factory setting is "F7-1".
		F7-2	3 sec.	
		F7-3	4 sec.	
		F7-4	5 sec.	
		F7-5	6 sec.	
		F7-6	7 sec.	
		F7-7	8 sec.	
		F7-8	9 sec.	
		F7-9	10 sec.	
F8	Semi-automatic or automatic operation mode and stand-by time (in seconds) in automatic mode	F8-0	OFF	1. The factory setting is "F8-0".
		F8-1	3 sec.	
		F8-2	10 sec.	
		F8-3	20 sec.	
		F8-4	40 sec.	
		F8-5	60 sec.	
		F8-6	120 sec.	
		F8-7	180 sec.	
		F8-8	300 sec.	
F9	Photocell Function mode (Open-close, interior-exterior)	F9-1	Mode 1	1. The factory setting is "F9-1". Mode 1: Photocell Exterior FT1- Photocell Interior FT2 Mode 2: Photocell Exterior FT1- Safety Belt FT2 Mode3: Photocell Exterior FT1- Open Device FT2 Mode 4: Photocell Interlock FT1- Fotocélula Interior FT2
		F9-2	Mode 2	
		F9-3	Mode 3	
		F9-4	Mode 4	
FA	Pedestrian opening	FA-0	OFF	1. When Function on and push B key in the transmitter, one gate will open partically. 2. The factory setting is "FA-0".
		FA-1	ON	
FB	Flashing light pre-warning	FB-0	OFF	1. When Function ON, the light will flash before the gate operate 3 seconds. If set OFF, the flash light will operate with motor in the same time. 2. The factory setting is "FB-0".
		FB-1	On	

¡ ATTENTION ! The 24Vdc flash light output is not fixed output but flashing. To connect a fixed or a fixed mode flash light for the proper Function.

NOTE (Parameter F9)
Exterior Photocell: Only be activated in case of door closing.
Interior Photocell: Can be activated in door opening and door closing..

Complete programming chart (2)

LED Display	Definition	Parameter	Mode	Description
FC	Photocell1	FC-0	OFF	1. The factory setting is "FC-0".
		FC-1	ON	
FD	Photocell2	FD-0	OFF	1. The factory setting is "FD-0".
		FD-1	ON	
FE	Buzzer Function	FE-0	OFF	1. The factory setting is "FE-0".
		FE-1	ON	
FF	Reverse Impulse for Electric Lock	FF-0	OFF	1. if the Function is on, the gate will move forward a little before the gate operate for releasing the Latch 2. The factory setting is "FF-1".
		FF-1	ON	
FG	Open/Stop/Close/Stop Function key	FG-1	A key	1. The factory setting is "FG-1".
		FG-2	B key	
		FG-3	C key	
		FG-4	D key	
FH	Pedestrian Mode Function key	FH-0	OFF	1. The factory setting is "FH-2".
		FH-1	A key	
		FH-2	B key	
		FH-3	C key	
		FH-4	D key	
FI	Auto-Close Function key	FI-0	OFF	1. The key is to turn on or off the Auto-Close Function. 2. The factory setting is "FI-0". 3. When the flasher and buzzer is running, the auto closed button has no Function till flasher and buzzer finish running.
		FI-1	A key	
		FI-2	B key	
		FI-3	C key	
		FI-4	D key	

Note (Parameter F3)

Please set F3 Function after system learning. The LED display 10 to indicate all of the recorded values will increase 1 ampere as the over current value. In other words, the LED shows 20 to indicate all the recorded values will increase 2 ampere as the over current value. The value can be adjusted by pressing button UP and DOWN. The maximum value is 40(4.0A) and the minimum value is 05 (0.5A)