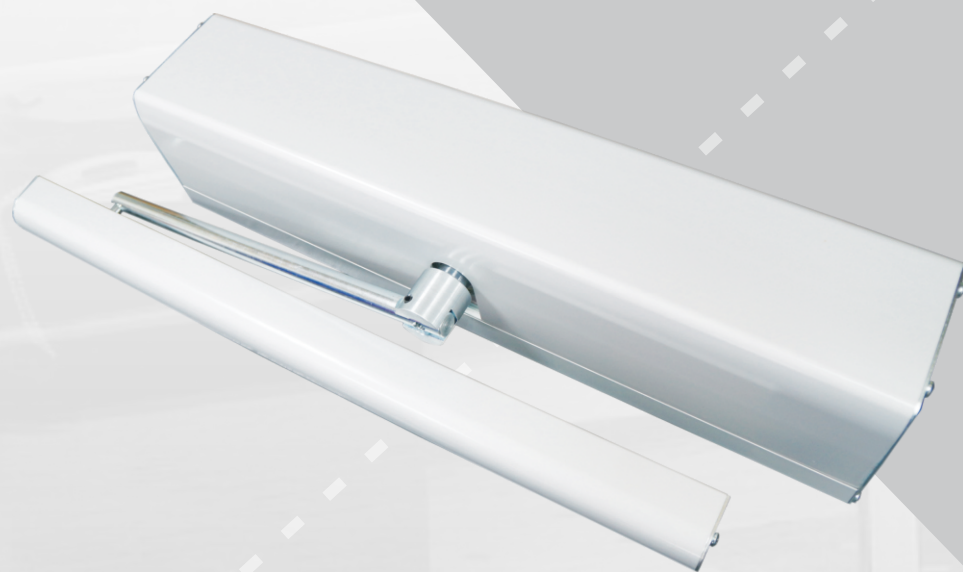
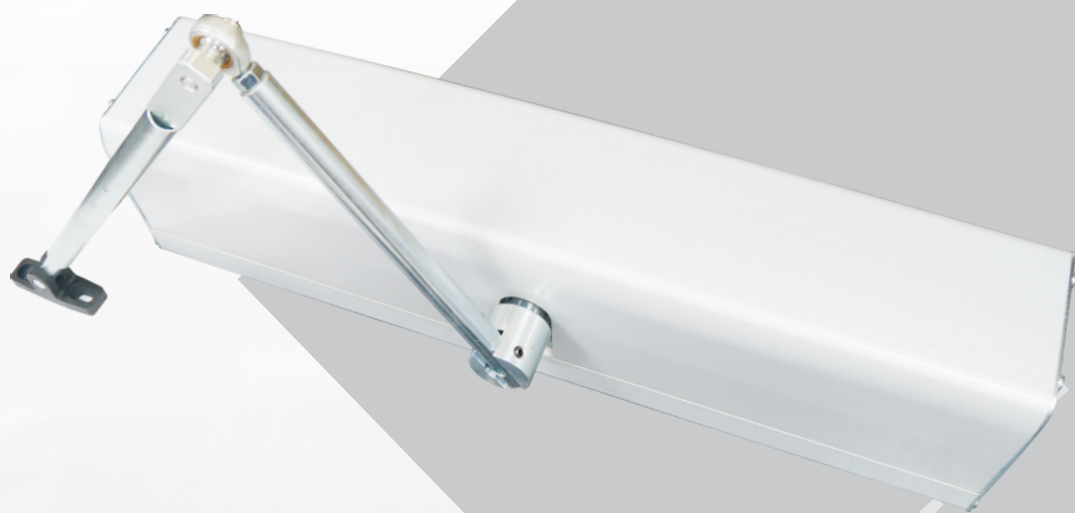


 **KTH SW-2**
AUTOMATIC DOOR SYSTEM



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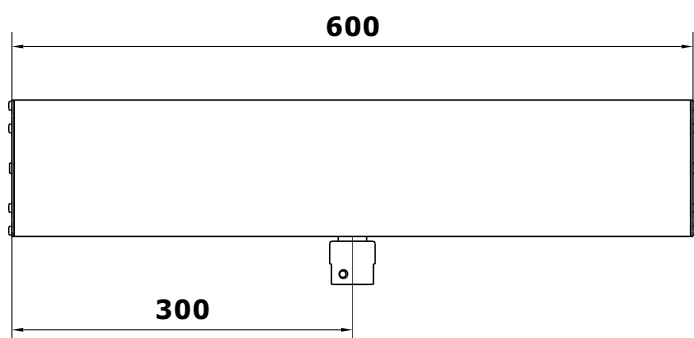
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1 SPECIFICATION

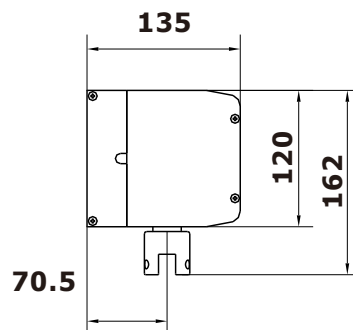
MODEL	SW-2	
TYPE	OUTWARD OPENING	INWARD OPENING
MOTOR	DC24V 120W BRUSHLESS DC MOTOR	
CONTROL	USER-FRIENDLY MICRO-CONTROLLER	
POWER CONSUMPTION	120W	
VOTAGE	AC100V~240V	
ENVIRONMENTAL TEMPERATURE	-20°C~+50°C	
VOLUME	55 decibel(max.)	
SPEED of OPENING 90 DEGREE	3~8 sec. /90° (max.)	
STARTING TIME	0~20 sec. (Regulable)	
TRANSMISSION IMPORTANT CONDITION	PUSH ARM ASSEMBLY	PULL ARM ASSEMBLY
OPENING DOOR RANGE	120°(Max.)/90°(default)	
POWER EFFICIENCY	0.95 (In full load)	
TRACTION FORCE	2.5 kg	

2 OPERATOR (SECTION)

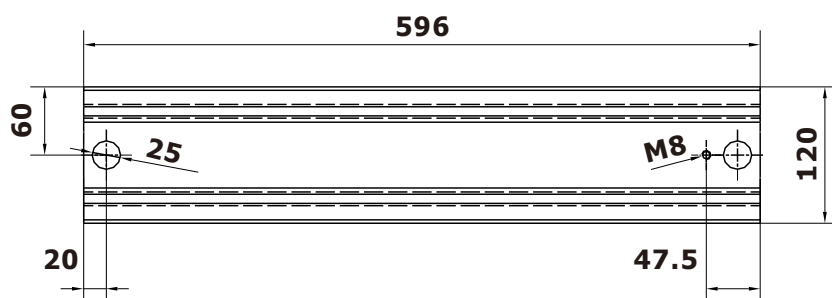
Front View



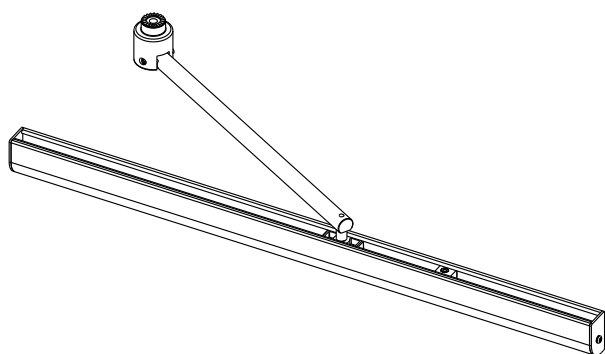
Side View



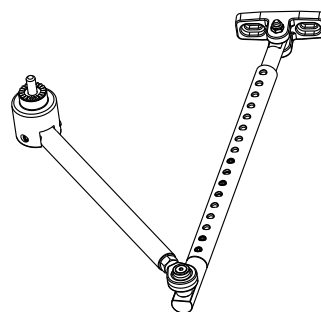
Base Size



Every set of operator can use the Inward / Outward Arm assembly.

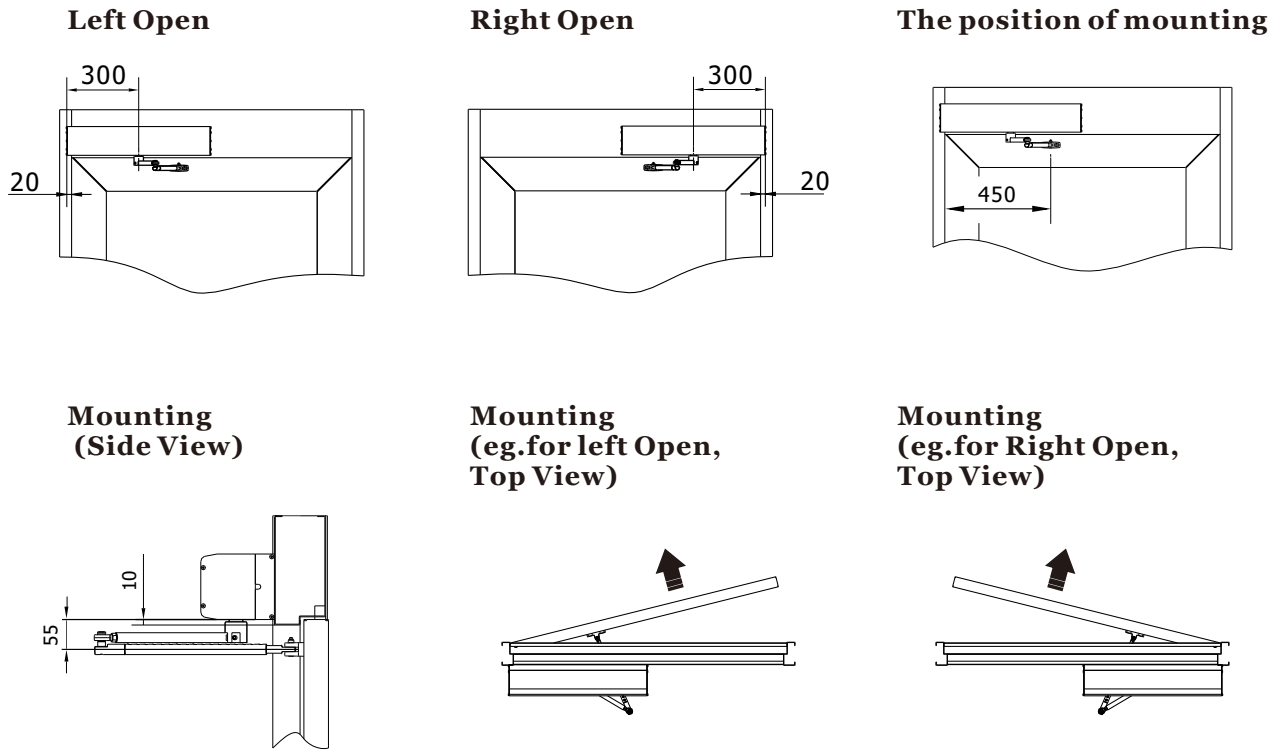


(Inward Opening)
Pull Arm assembly

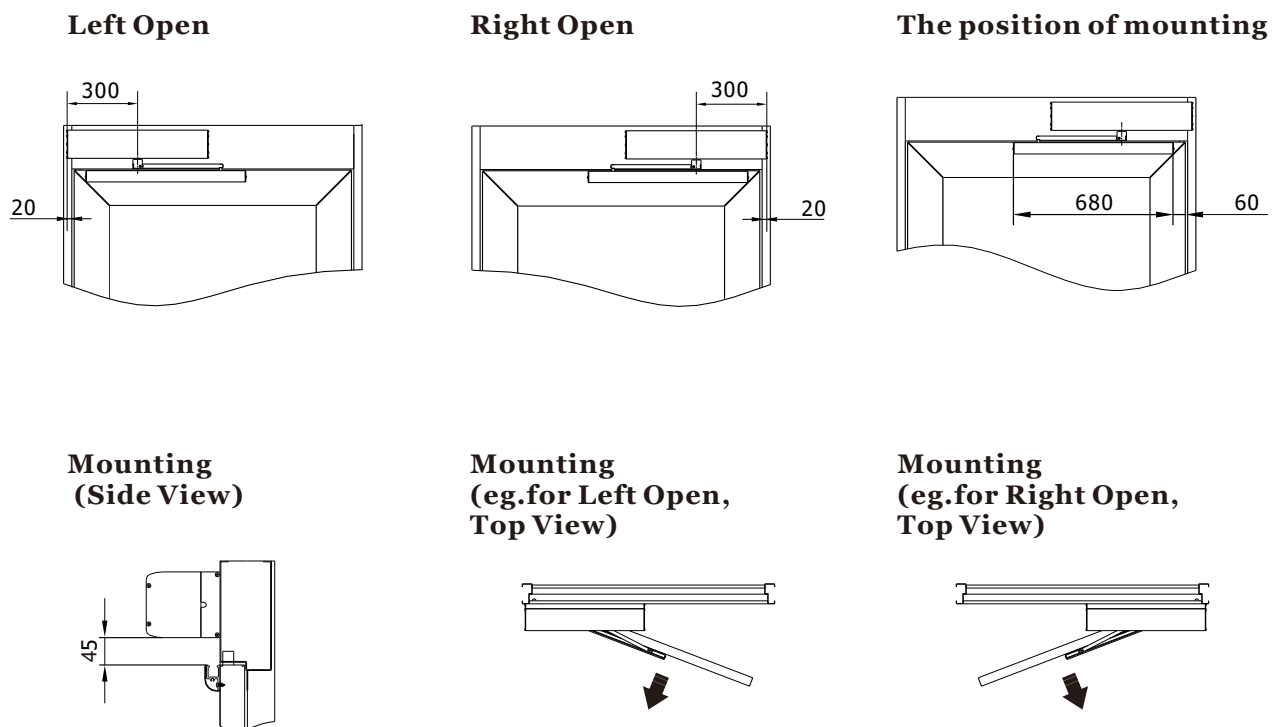


(Outward Opening)
Push Arm assembly

3 (OUTWARD OPENING) PUSH ARM ASSEMBLY MOUNTING

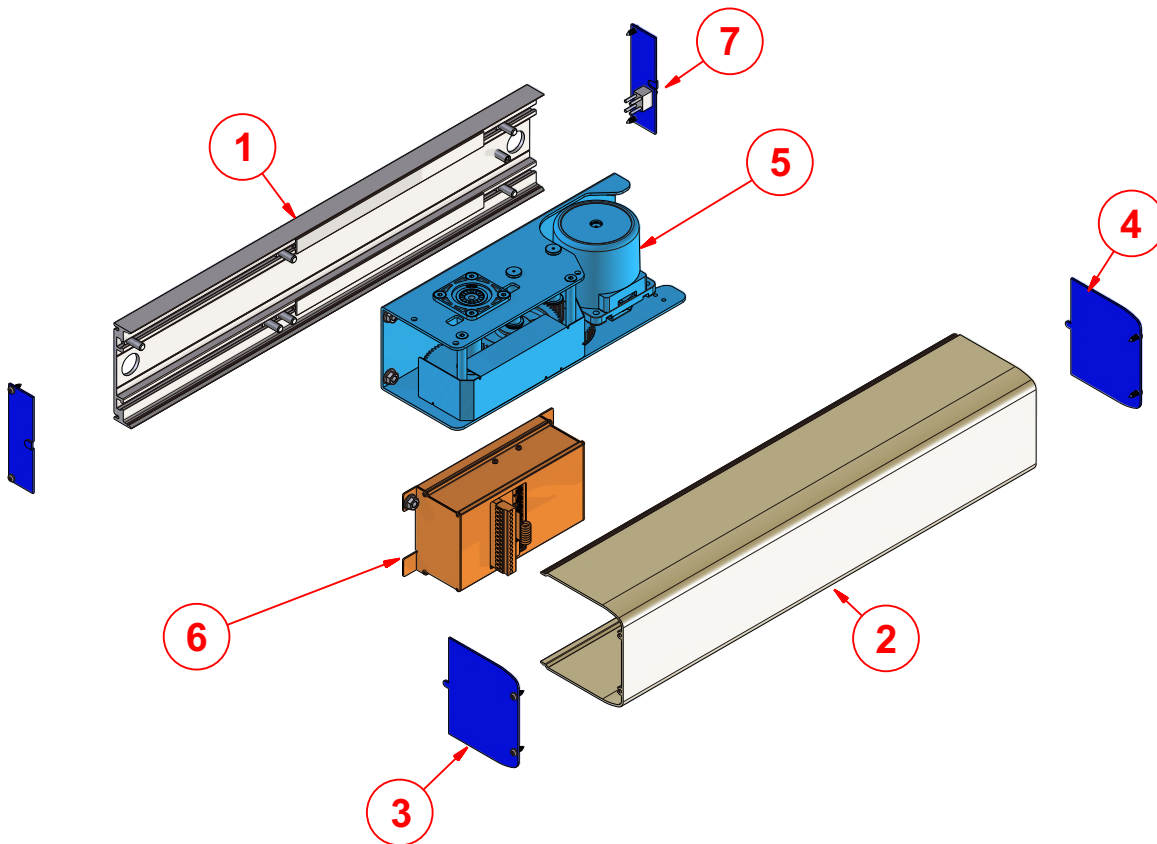


■ (INWARD OPENING) PULL ARM ASSEMBLY MOUNTING




4 LEGEND OF PART DRAWING (NORMAL)

Parts List		
No.	Parts Name	Quantity
1	Case (Base)	1
2	Case (Base)	1
3	Left Side end cap	1
4	Right Side end cap	1
5	Motor	1
6	Controller	1
7	Power switch	1

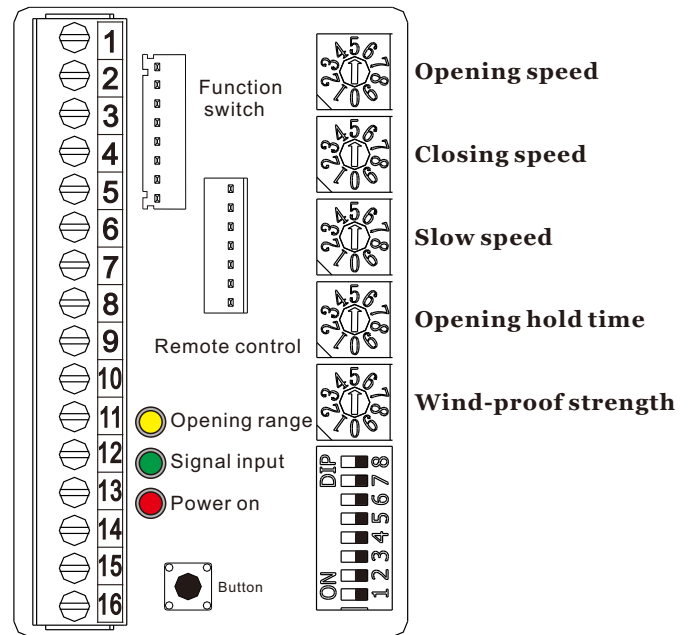


5-1 ADJUST BOARD INSTRUCTION (NORMAL)

Yellow  Setting door opening range:
When light on you can set the door range.

Green  Signal input

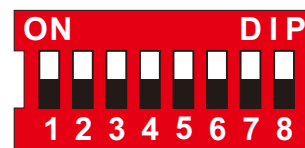
Red  Power on



Fingered switch functions		
8	OFF	Opening range (Max. 120)
	ON	Opening range
7	OFF	Fail-safe (lock, NC.)
	ON	Fail-secure (lock, NO.) ^①
6	OFF	Set to slave-OFF
	ON	Set to slave-ON
5	OFF	Set to Master- OFF
	ON	Set to Master- ON
4	OFF	Directional Function- OFF
	ON	Directional Function- ON
3	OFF	Brake power-Large
	ON	Brake power-Little
2	OFF	Brake power -ON (over 50 KG.)
	ON	Brake power -OFF (under 50 KG.)
1	OFF	Opening direction-Left
	ON	Opening direction-Right

Note: ^① Power to unlock (only continue 5 seconds)

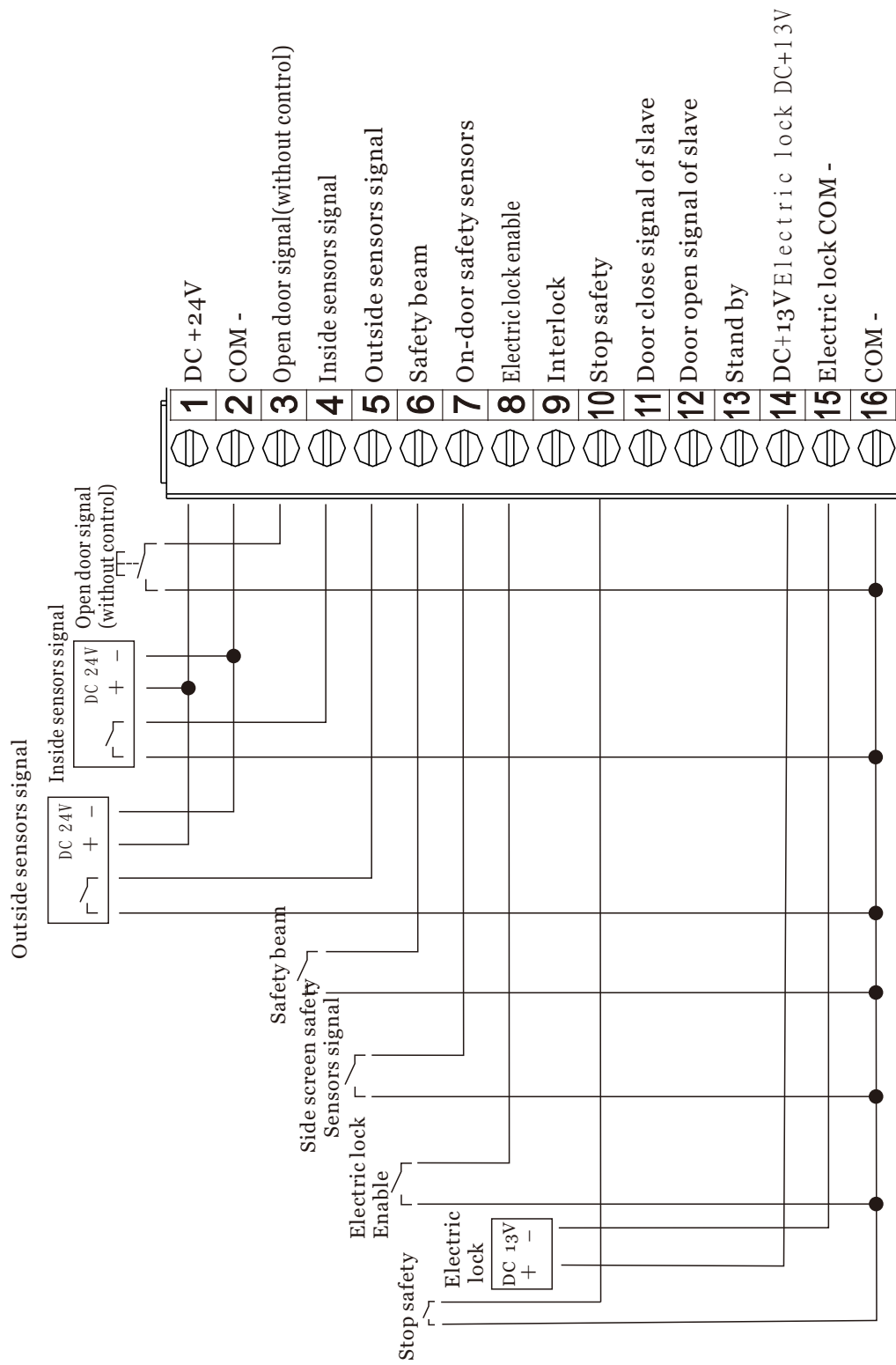
(Fingered switch functions)



* ATTENTION:

When only use 1 unit operator,
the pin 5 and pin 6 must set to off state.

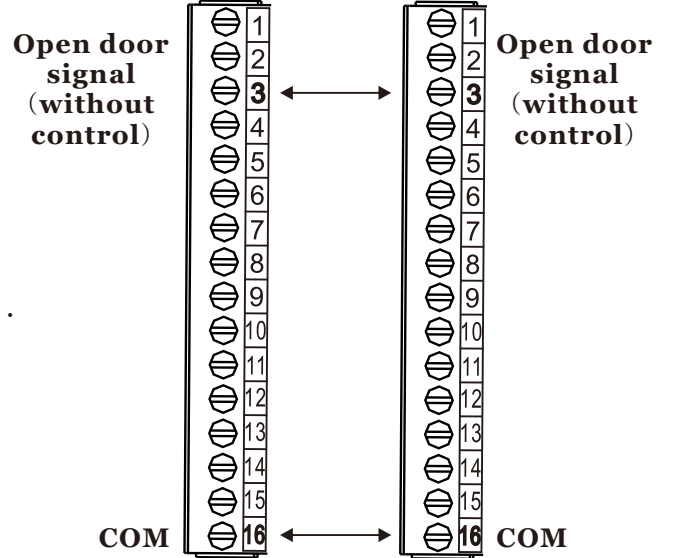
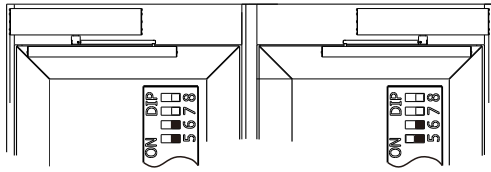
5-2 CONNECTION TO TERMINAL BLOCK (NORMAL)



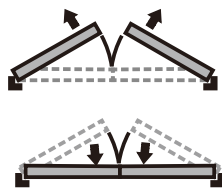
When connect to electronic lock, the reverse switch will be connected too: after power resumes, the Door-leaf closes the door first.

5-3 DOUBLE DOOR AND MASTER/SLAVE FUNCTION (NORMAL)

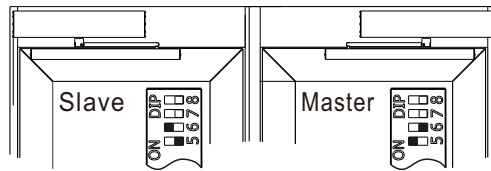
Double Door (I)



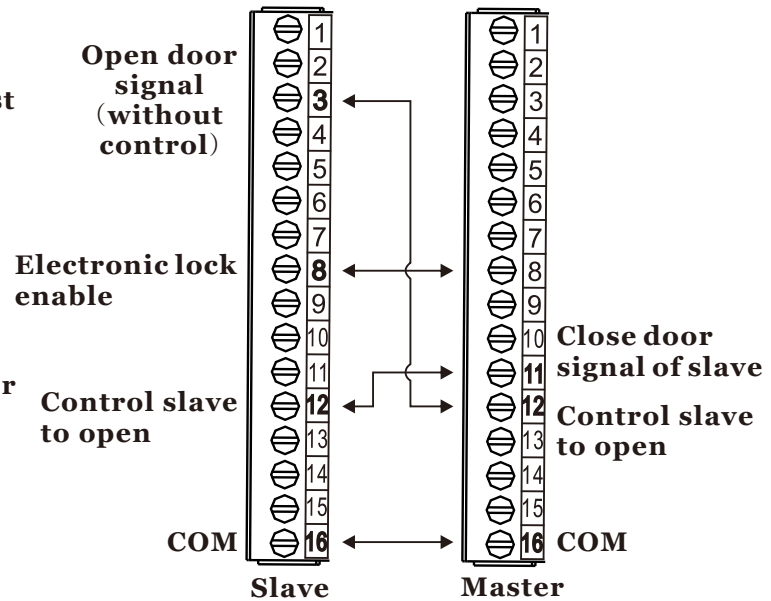
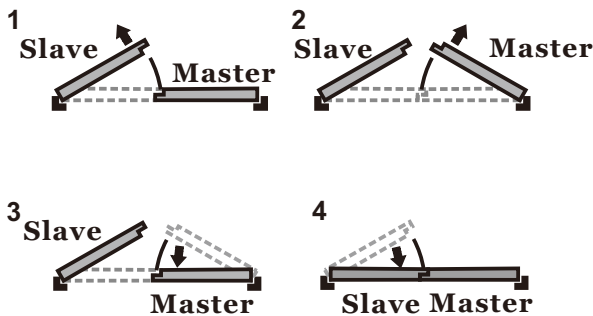
Please set all door (5 Off, 6 Off).



Double Door (II) With Electronic Lock and Master/Slave Function

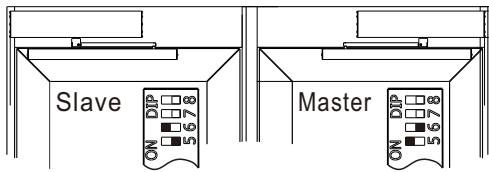


Please set the door which closes first to master (5 on, 6 off) then set the second to close to slave (5 off, 6 on).

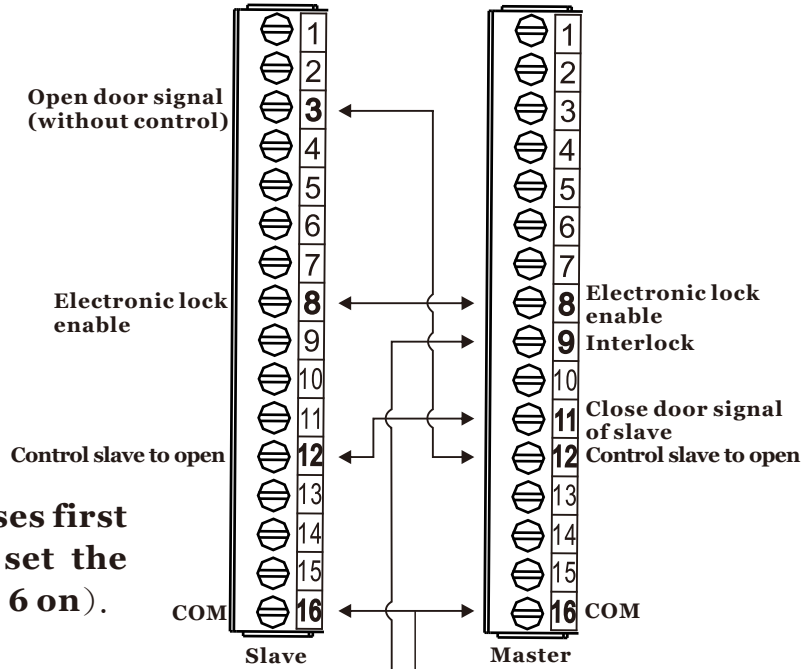


Double Doors with Interlock, Electronic lock, Master/Slave Function

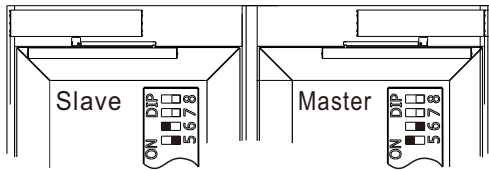
1st of Double Door



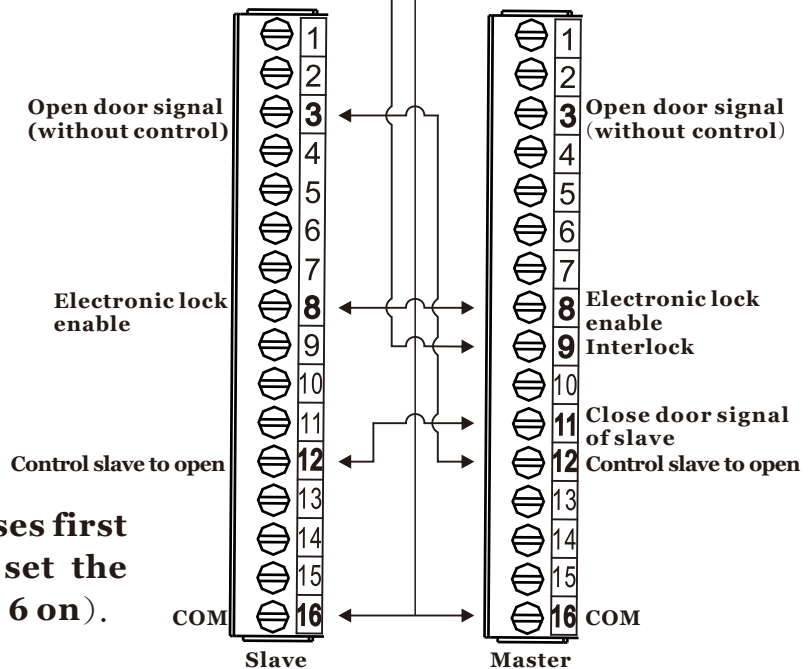
Please set the door which closes first to master(5 on, 6 off) then set the second to close to slave(5 off, 6 on).




2nd of Double Door




Please set the door which closes first to master(5 on, 6 off) then set the second to close to slave(5 off, 6 on).



6-1 ADJUST BOARD INSTRUCTION (EN16005)

- 
K1 The opening speed of the door
 Adjust the OPEN SPEED. Higher number, faster speed.
 CAUTION: please adjust the number one by one from **low to high**.


- 
K2 The closing speed of the door
 Adjust the CLOSED SPEED. Higher number, faster speed.
 CAUTION: please adjust the number one by one from **low to high**.

- 
K3 The Slow speed of the door
 Adjust the Slow speed. Higher number, more range about the slow range at open door position.
 CAUTION: please adjust the number one by one from **low to high**.


- 
K4 The wind-proof strength of the door
 Adjust the Wind-proof strength. Higher number, faster speed.
 CAUTION: please adjust the number one by one from **low to high**.

- 
K5 Opening hold time
 Adjust the HOLD OPEN TIME. Higher number, the hold time is longer.

NUMBER	0	1	2	3	4	5	6	7	8	9
SECOND	0	1	2	3	5	10	15	20	60	120

- 
K6 Sensitivity of Collision Detection
 Adjust the sensitivity of reaction to obstacle during door is working, less number, higher sensitivity.
 CAUTION: please adjust the number one by one from **low to high**.

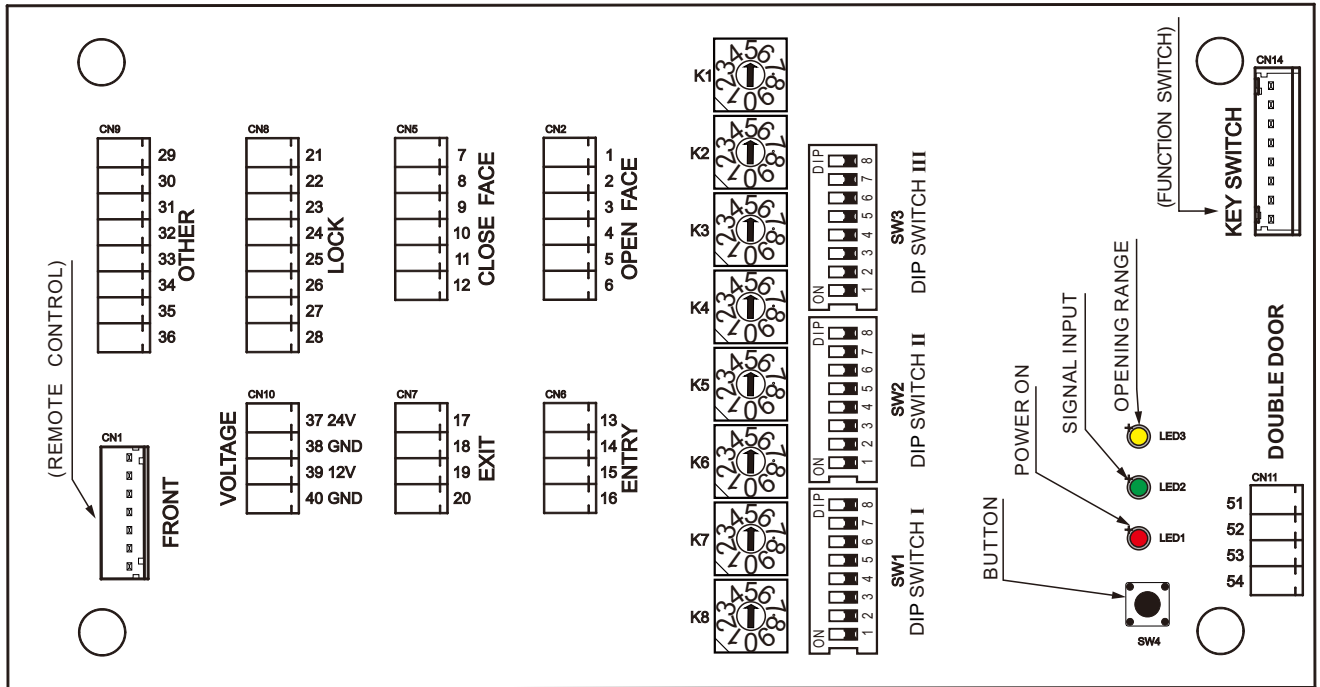
- 
K7 Brake Power
 Adjust Door-Leaf BRAKE POWER. Higher number, more Brake power

- 
K8 Standby

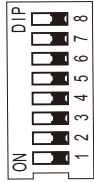
Yellow LED : Setting door opening range.(When light on you can set the door range.)

Green LED : Signal input.

Red LED : Power on.



DIP Switch I



1 L/R Switch
 Right Left

2 Brake power switch
 OFF ON

3 SLAVE postpone angle range
 Little Large
 *Please ref. to P16

4 Directional function
 OFF ON
 OFF: Normal mode.
 ON: Push once , open the door.
 Push again, close the door.

5 MASTER/SLAVE setting
 Master Slave

6 Electric lock type setting
 Normal Spring Latch

7 Reset /learn setting
 Reset learn

8 Reverse Switch:
 in order to control opening and closing
 OFF ON
 OFF: Normal mode, after power resumes, the Door-Leaf opens the door first.
 ON: suitable for Security System, after power resumes the Door-Leaf

DIP Switch II



1 Open Face Safety
 N.O N.C

2 Open Face Safety Test
 No Yes

3 Open Face Safety Type
 Stop Slowly

4 Closing Face Safety
 N.O N.C

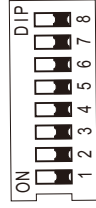
5 Closing Face Safety Test
 No Yes

6 Entry Sensor
 N.O N.C

7 Exit Sensor
 N.O N.C

8 Emergency stop
 N.O N.C

DIP Switch III



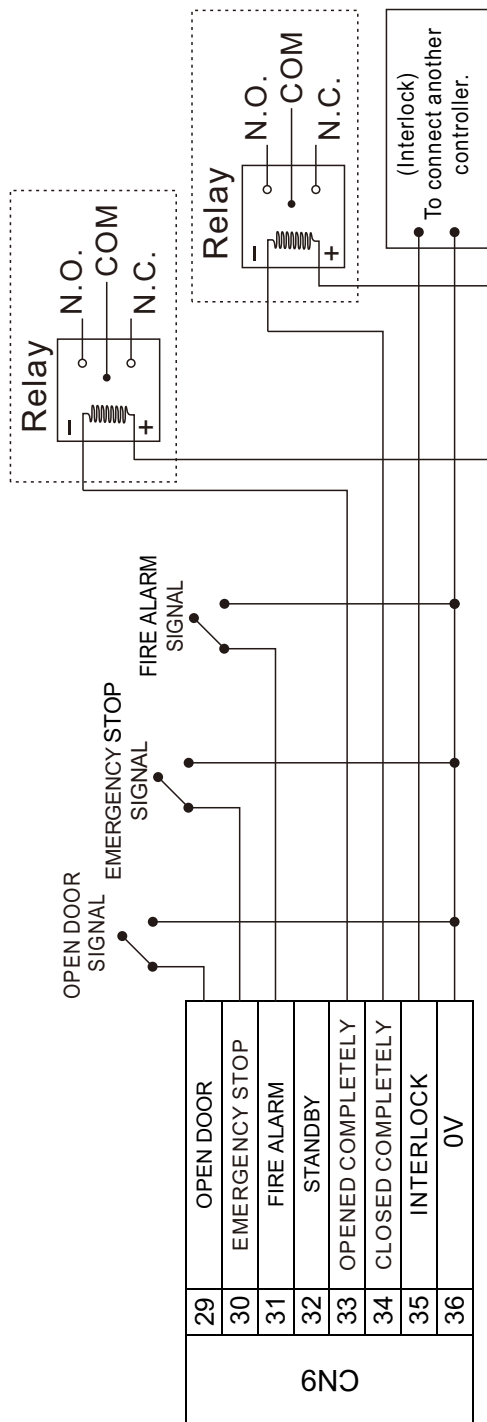
1 Open
 N.O N.C

2 Fire Alarm
 N.O N.C

3 Fire Alarm Type
 Open Close

4 ~ 8 Standby

6-2 CONNATION-ACTIVATION AND LOCKS (EN16005)



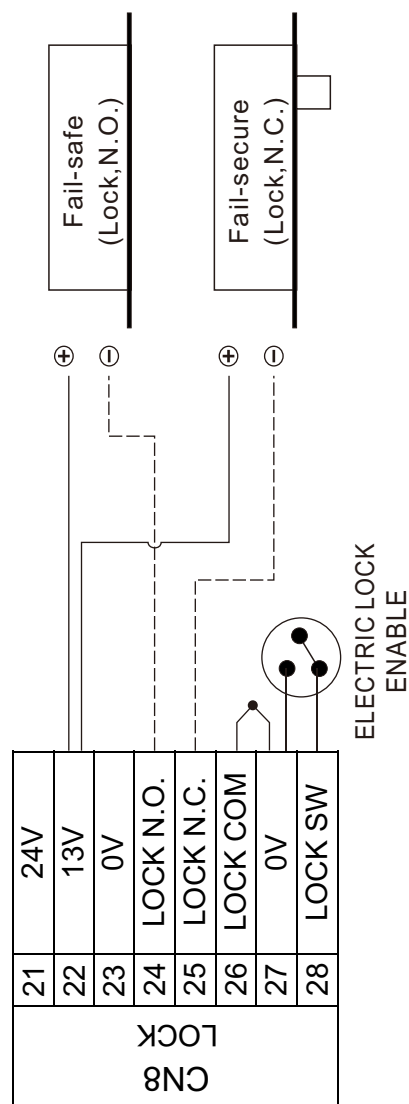
* For Relay(DC24V): connect to No.37 of CN10.

* For Relay(DC13V): connect to No.39 of CN10.

Warning

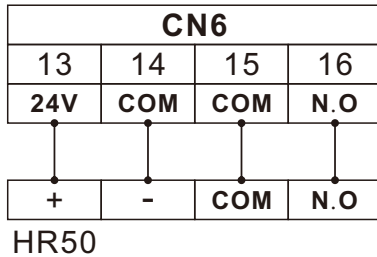
* Relay it should be with built in diode.

* Relay Suggested model: OMRON MY2N-D2-J (it's arranged by customers)

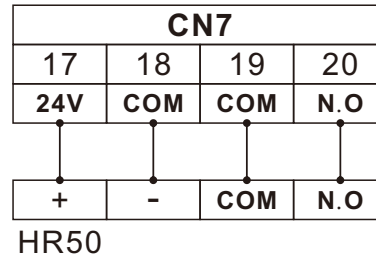


6-3 CONNATION - SAFETY (EN16005)

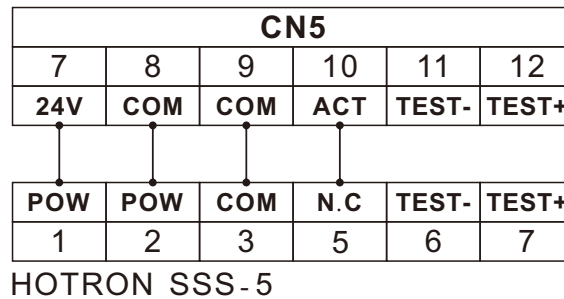
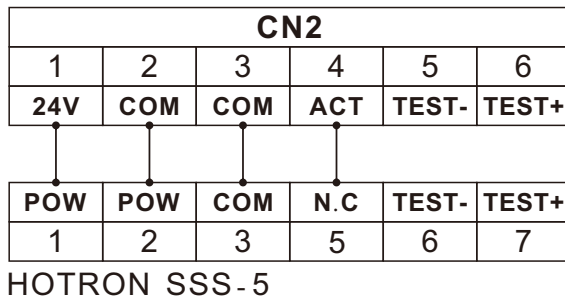
ENTRY SENSOR ACTIVATION



EXIT SENSOR ACTIVATION



PREMIER SWING ONDOOR SAFETY (NOT MONITORED)



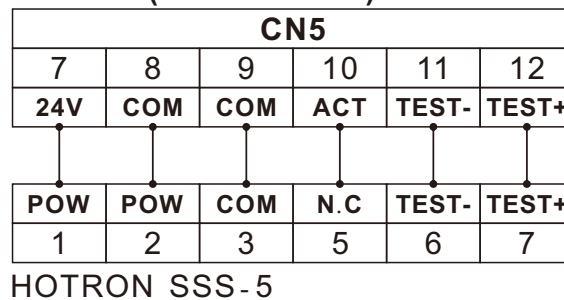
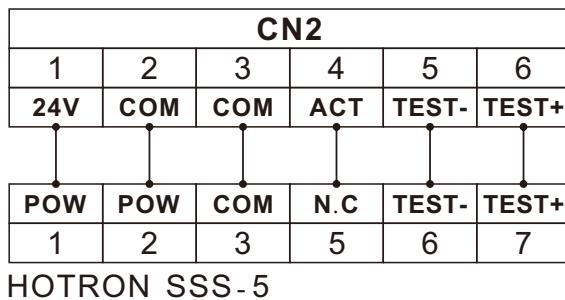
OPEN FACE SAFETY (TOPSCAN)

CONTROLLER PANEL
 DIP Switch II No.1 → "ON"
 SSS-5
 DIP Switch No.1 → "B"
 No.3 → "N.C"

CLOSE FACE SAFETY (TOPSCAN)

CONTROLLER PANEL
 DIP Switch II No.4 → "ON"
 SSS-5
 DIP Switch No.1 → "B"
 No.3 → "N.C"

PREMIER SWING ONDOOR SAFETY (MONITORED)



OPEN FACE SAFETY (TOPSCAN)

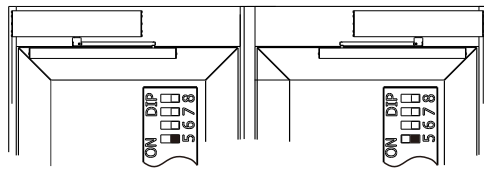
CONTROLLER PANEL
 DIP Switch II No.1 → "ON"
 No.2 → "ON"
 SSS-5
 DIP Switch No.1 → "A"
 No.3 → "N.C"

CLOSE FACE SAFETY (TOPSCAN)

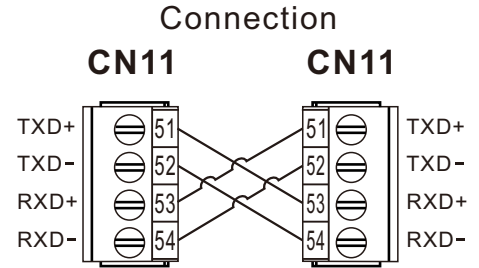
CONTROLLER PANEL
 DIP Switch II No.4 → "ON"
 No.5 → "ON"
 SSS-5
 DIP Switch No.1 → "A"
 No.3 → "N.C"

6-4 DOUBLE DOOR AND MASTER/SLAVE FUNCTION (EN16005)

A. Double Door



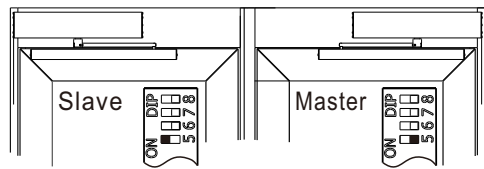
Please set all door DIP Switch I No.5 Off.



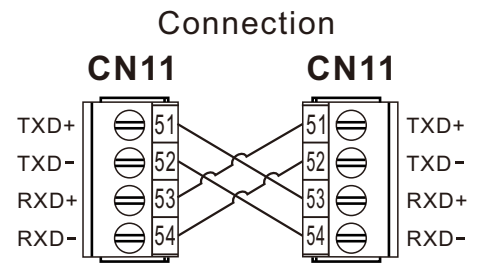
After connecting to terminals, yellow LED flashes to indicate connecting properly. The door leaves will open and close at the same time.

B. Double Door

M/S

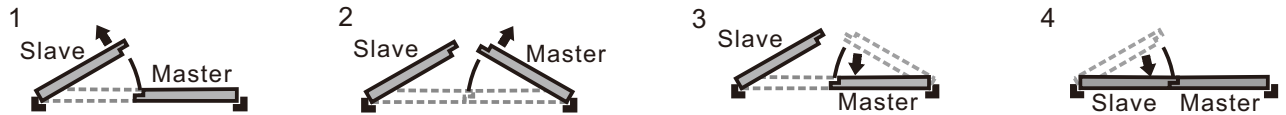


Please set the door which closes first to master (DIP Switch I → No.5 Off), then set the second to close to slave (DIP Switch I → No.5 On).



Slave Master

After connecting to terminals, yellow LED flashes to indicate connecting properly.



⊗ Before turn on the power, please inspect the relative positions of the door leaves to avoid error occurs. Please turn on “Master” and “Slaver” at the same time to avoid the time different causes the error.

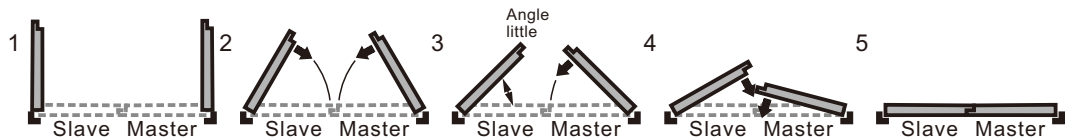


DIP Switch I

SLAVE postpone angle range

When MASTER door is closing in order to avoid the SLAVE door hit it, installer can set the range to postpone the position to SLAVE.

Setting Little



Setting Large

