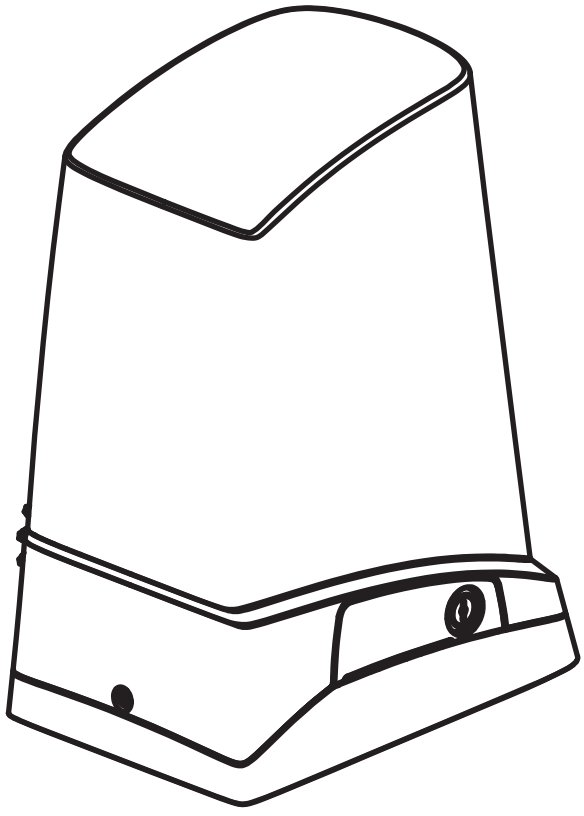
PSA500 / PSA700 / PSA1000

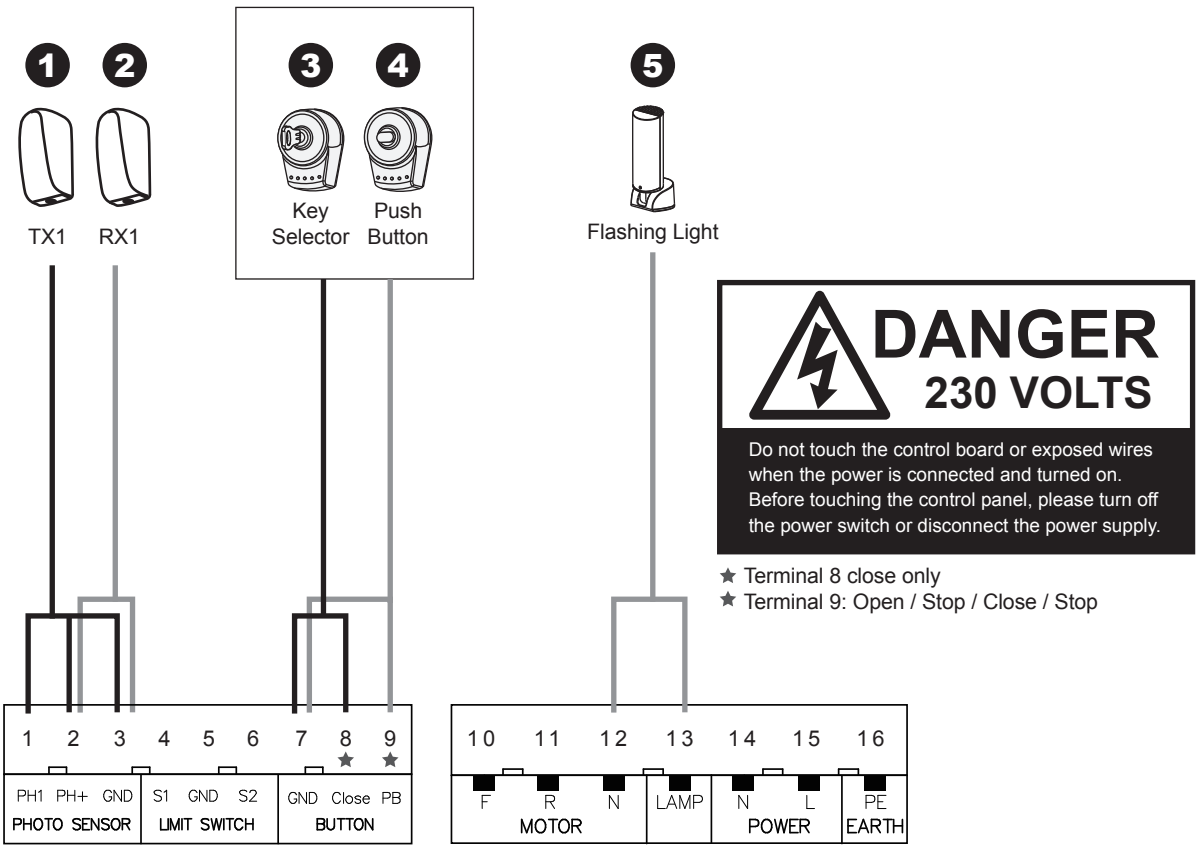
SLIDING GATE OPENERS

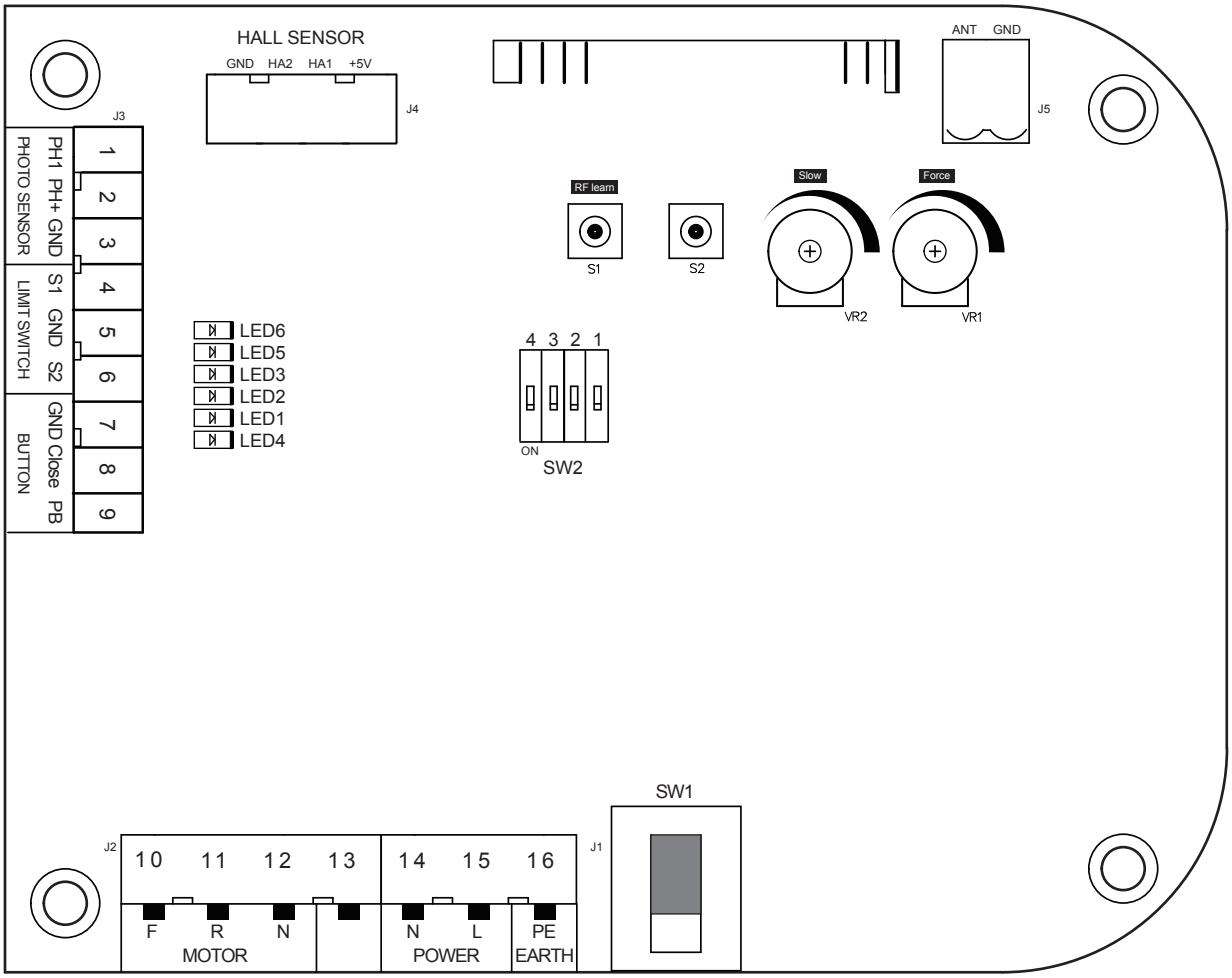
230V AC MOTOR

FOR RESIDENTIAL

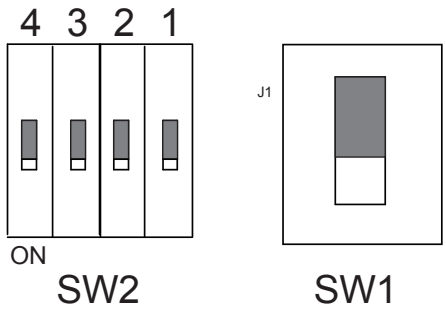
USER MANUAL




1
2
TX1
RX1
3
4
Key Selector
Push Button
5
Flashing Light
DANGER
230 VOLTS
Do not touch the control board or exposed wires when the power is connected and turned on. Before touching the control panel, please turn off the power switch or disconnect the power supply.
★ Terminal 8 close only
★ Terminal 9: Open / Stop / Close / Stop
1 2 3 4 5 6 7 8 9
PH1 PH+ GND S1 GND S2 GND Close PB
PHOTO SENSOR
LIMIT SWITCH
BUTTON
10 11 12 13 14 15 16
F R N LAMP N L PE
MOTOR
POWER
EARTH


HALL SENSOR
GND HA2 HA1 +5V
J4
ANT GND
J5
J3
PHOTO SENSOR
PH1 PH+ GND
LIMIT SWITCH
S1 GND S2
BUTTON
GND Close PB
1 2 3 4 5 6 7 8 9
RF learn
S1
S2
Slow
Force
VR2
VR1
LED6
LED5
LED3
LED2
LED1
LED4
4 3 2 1
ON
SW2
SW1
J2
10 11 12 13 14 15 16
F R N
MOTOR
N L
POWER
PE
EARTH
J1

3). SETTING OF A CONTROL BOARD



SW1	Power Supply
SW2-1	Photocells Setting
SW2-2	Flashing Light Adjustment
SW2-3	Gate Auto-Closing Adjustment
SW2-4	Direction of closing

3.1 SW1 Dip Switch Setting – Power Supply

ON: Power Supply ON, the control board can be operated.
OFF: Power Supply OFF.

3.2 SW2-1 Photocells Setting

ON: Photocells function ON, and photocells can be triggered.
OFF: Photocells function OFF.

3.3 SW2-2 Flashing Light Adjustment

ON: The flashing light blinks for 3 seconds before the gate moves, and blinks simultaneously during the movement.
OFF: The flashing light blinks and the gate moves simultaneously.

3.4 SW2-3 Gate Auto-Closing Adjustment

ON: When gate opened, gate closes after 20 seconds.
OFF: When gate opened, gate will not close automatically.

3.5 SW2-4 Direction of closing

ON: Outer metal gear goes clockwisely as closing.
OFF: Outer metal gear goes counter-clockwisely as closing.

3.6 VR Adjustable VR Knobs

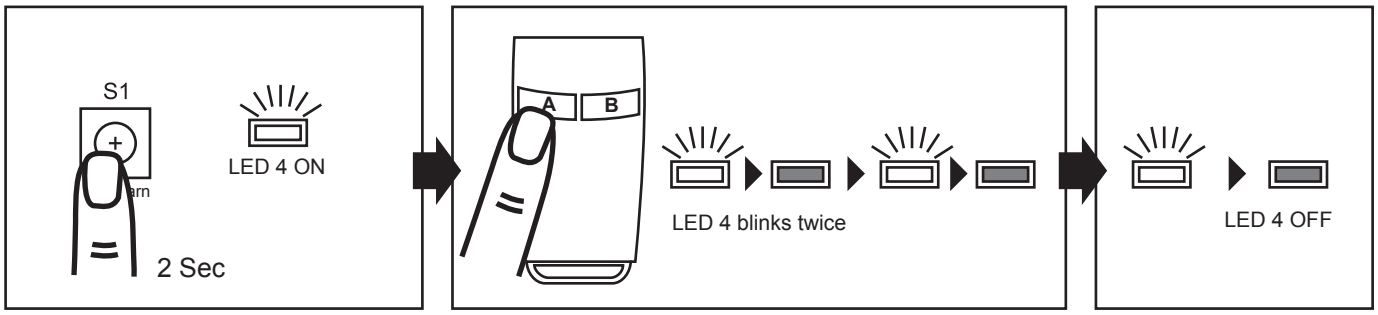
VR1: Over-current adjustment. Turn clockwisely to increase the limit of over-current.
VR2: Torque adjustment. Turn clockwisely to increase the torque.
Step1. Turn VR1, VR2 clockwisely to maximum. The torque is at maximum at this step.
Step2. Torque adjustment: During gate running, turn VR2 counter-clockwisely till the gate can be stopped easily by force but the motor is still running.
Step3. Over-current adjustment: During running, turn VR1 counter-clockwisely till a proper point when the gate is stopped and the motor stops as well.

4). REMOTE SETTING AND SYSTEM LEARNING

4.1 Remote setting

a. Remote learning: Press S1 3 seconds to enter remote learning mode and LED4 is on. Press A button on the remote in 10 seconds and LED4 blinks twice. After LED4 goes off, remote learning completed.

b. Clean the remote memories: Press S1 for 10 seconds. After 10 seconds, LED4 will blink 4 times and the remote memories are removed.



4.2 System learning

After remote learning, press A button to start system learning. The gate closes 10 seconds with full speed and move with decelerated speed till limit-switch triggered.

5). FUNCTIONS

5.1 LED Indications

LED1: Power indicator. LED is blinking indicates there is power supply.
LED2: LED2 is ON indicates the sliding motor meets the OPEN LIMIT.
LED3: LED3 is ON indicates the sliding motor meets the CLOSE LIMIT.
LED4: Remote and System learning indicators
LED5: Blinking while opening
LED6: Blinking while closing

5.2 Photocell logic

Position of Gate	Photocell activated
Gate closed	No action
Gate Opened	Stop moving, waiting for further indications. If auto-closing function is ON, start auto-closing after 20 seconds
Stop in the middle	Stop moving, waiting for further indications. If auto-closing function is ON, start auto-closing after 20 seconds
Gate closing	Gate stops and reverses to opened
Gate Opening	Door stops. If auto-closing function is ON, start auto-closing after 20 seconds

5.3 Deceleration function

The 5% of the final stroke is the deceleration zone. The gate moves with 20% full speed till closed or limit switch is triggered.

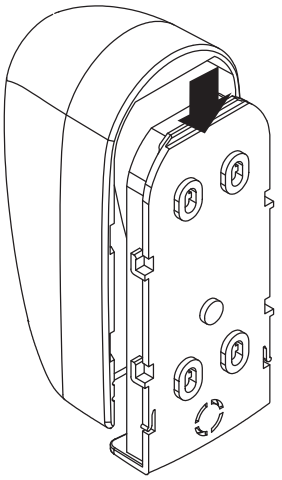
7). PHOTOCELL INSTALLATION GUIDE

The safety photocells are security devices for control automatic gates. Consist of one transmitter and one receiver based in waterproof covers; it is triggered while breaking the path of the beams.

SPECIFICATION:

Detection Method	Through Beam
Sensing Range	25M
Input Voltage	AC/DC 12~24V
Response Time	100MS
Emitting Element	IR LED
Operation Indicator	Red LED(RX): ON(When Beam is Broken), Green(TX):ON
Dimensions	96*45*43mm
Output Method	Relay Output
Current Consumption Max	TX: 35MA/Rx: 38MA (When beam aligned properly); TX: 35MA/ Rx: 20MA (When beam is broken)
Water Proof	IP54

Figure 4(1)



INSTALLATION:

Wire Connection of PH-2 Photocells

TX: Connect terminals 1 and 2 on the transmitter with the terminals PH+ and GND on the control panel.

RX: Connect terminals 1, 2 and 5 on the receiver with the terminals PH+, GND and PH1 on the control panel.

Use an extra wire to connect terminals 2 and 4 on the receiver as a bridge.

Figure 4(2)

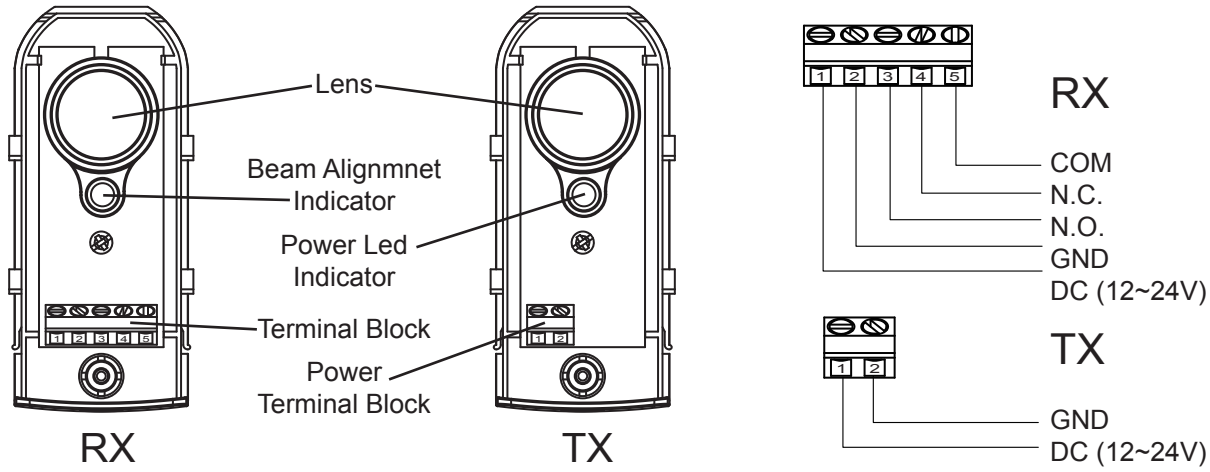


Figure 4(3)