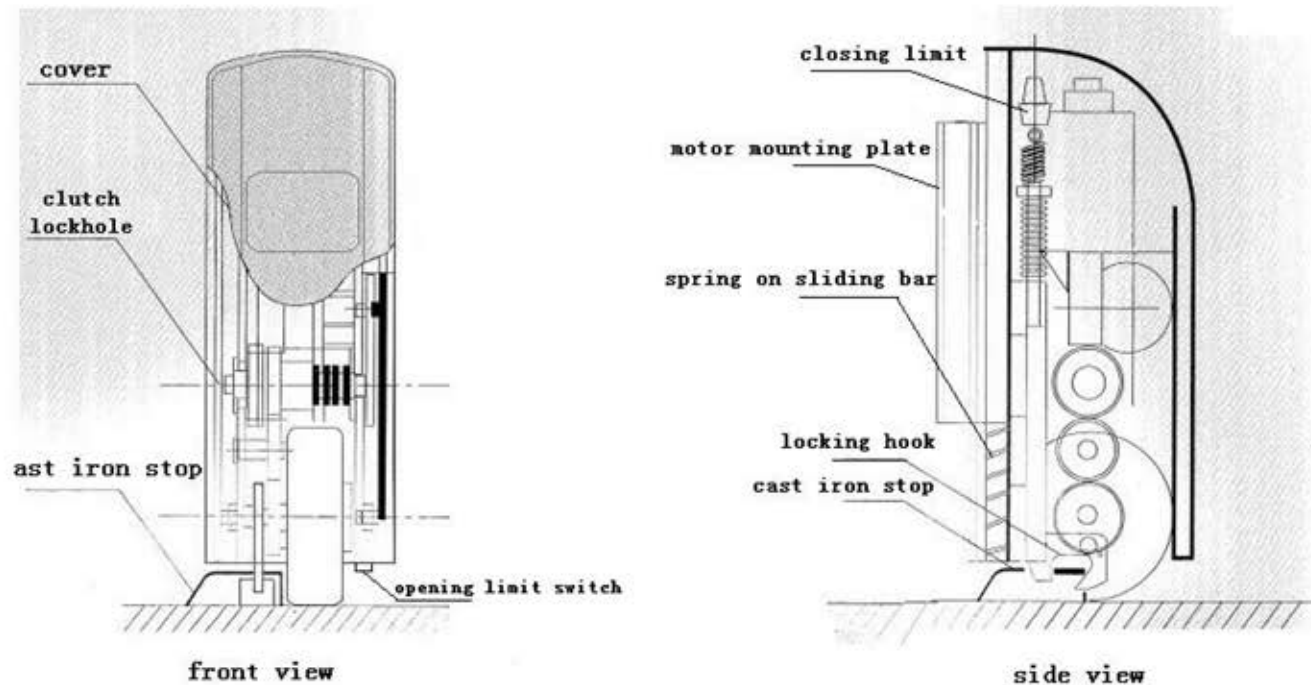


500KG WHEEL INSTALLATION MANUAL AND OWNER'S GUID



I : Basic mechanic of SAINO SN series swing gate opener

Illustration 1: perspective internal structure of roller swing gate opener



II: Methods to use the swing gate opener

A : Being driven by electricity

The swing gate openers can be electrically driven by pressing the buttons on the control panel. Thus the swing gate can be automatically opened, closed or its movement be suspended.

By using the remote controller, the function of automatic opening, closing or movement suspension can also be achieved.

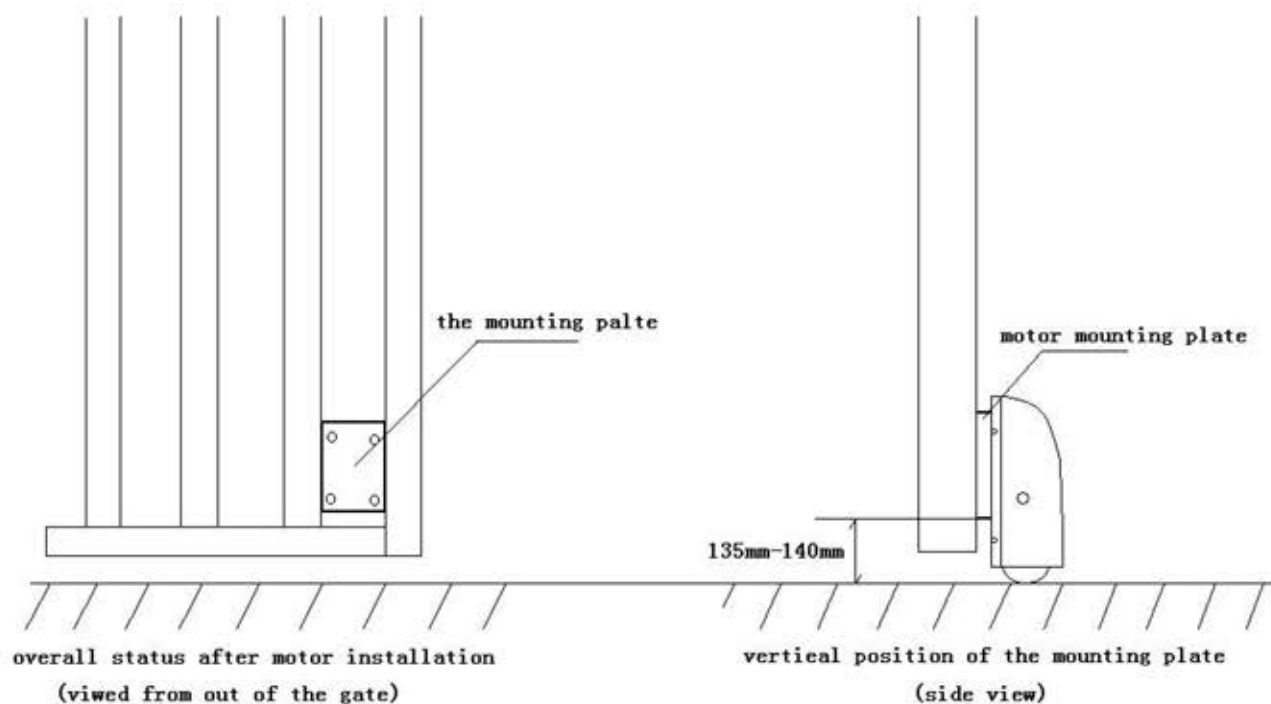
Or linked with and instructed by entry control system.

B : Manual operation

Manual opening: The user should insert the clutch key into the lock-hole and turn it clockwise, the clutch will be disengaged. Then the user can open the gate with hand.

Manual closing: The user firstly move the gate to the position nearing the cast iron stop. Then insert the clutch key into the lock-hole and turn it counterclockwise. As a result the clutch will be reengaged. Then push the gate into the fully-closed position. the clutch will be closed up automatically in the course.

III: Installation (Illustration 2)



A : Installation of the motors

To install the motors, the mounting plates of the opener should first be mounted.

To decide the exact position for mounting the motor plate, we have to study the surface status of the ground on which the gate opener will run for operation. The overall unevenness of the ground surface should be under 8cm or the opener should be specially made. In that case, the tolerance to ground unevenness can be increased to 35cm.

Then find out and drive the gate wing to the point of the ground with the lowest position.

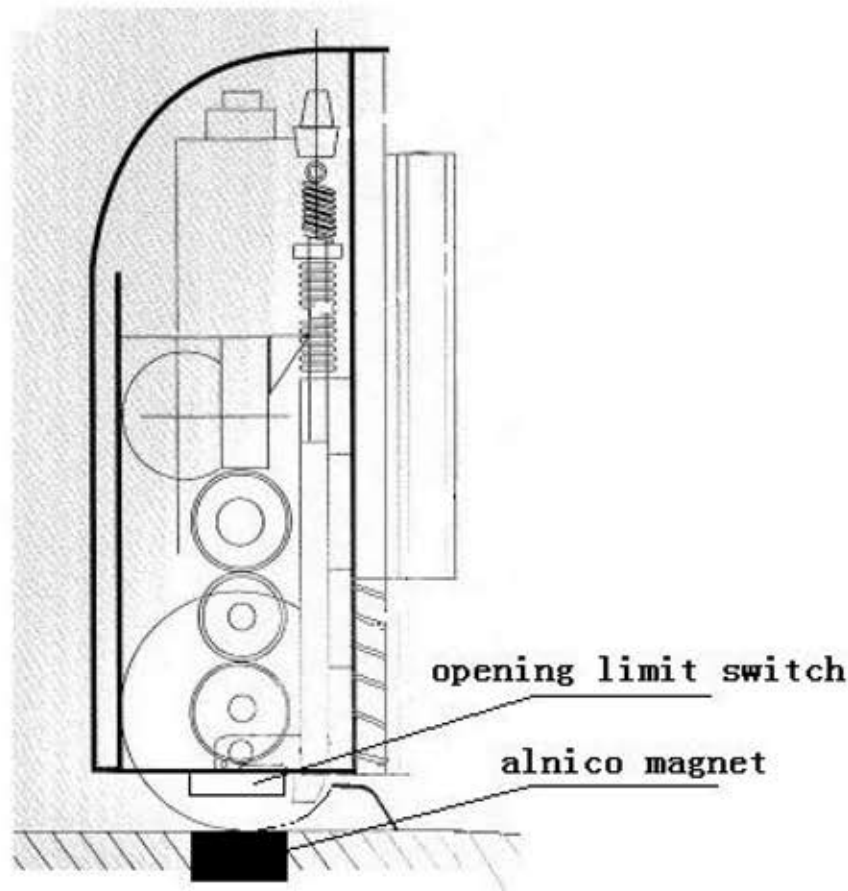
Put the motor plate in the position where the bottom edge of the plate is 135-140mm above the mentioned lowest point of the ground. And then fasten the plate to the gate with the bolts provided or by welding. After the mounting plates are fixed, then the motors can be mounted on the plates.

B : Installation of the cast iron stops

Move the gate to its fully-closed position, find out the position on the ground that is exactly vertically under the motor. Fasten the cast iron stop in this position.

Small tips:

1. There must be a clearance of 5-10mm between the stop and motor roller. Make sure of this by testing the gate opening and closing.
 2. The two cast iron stops should not be put exactly side by side. Instead one piece should be 5-10mm in front of the other. The purpose is to avoid the gate wings from bumping each other during the course of closing up.
- C The burial of alnico magnet



Move the gate wings to your desired opened-up position.

Then locate the opening limit switch at bottom of the motor.

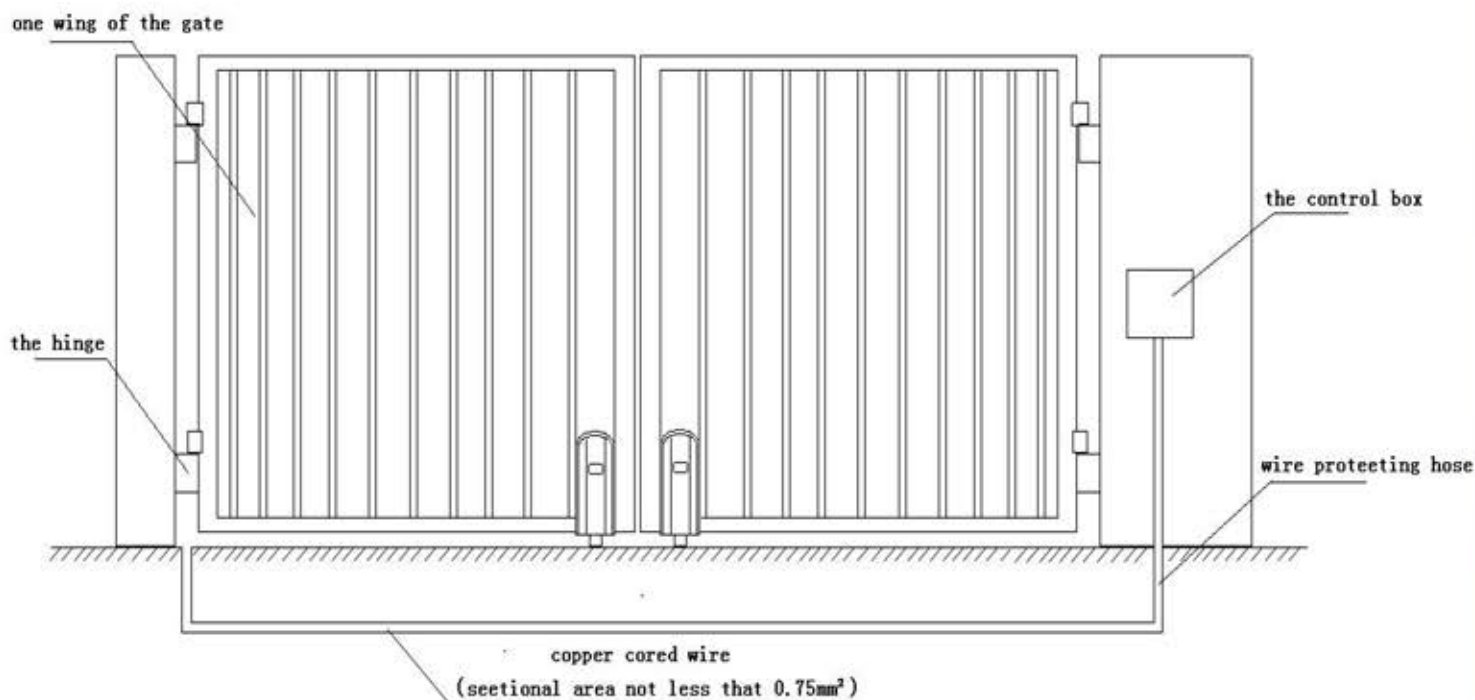
Determine the point on the ground that is exactly vertically under the opening limit switch.

Then in this position of the ground bury the alnico magnet, with its upper side leveled with the ground surface.

D Wiring

Please refer to the Illustration 4 for overall wiring.

For more wiring details concerning the control box, please refer to the Control Box Circuit Diagram.



Manual for Control Panel:

1. Technical Parameters:

1. Control Panel Voltage Input: 220VAC
2. Motor's Voltage: 12VDC/24VDC
3. Encoder For transmitter: Customized rolling code.
4. Support remote control: Max. 20PCS remote transmitters
5. Range of application: Suited for all double arms swing gate opener

2. Wiring diagram for control panel:

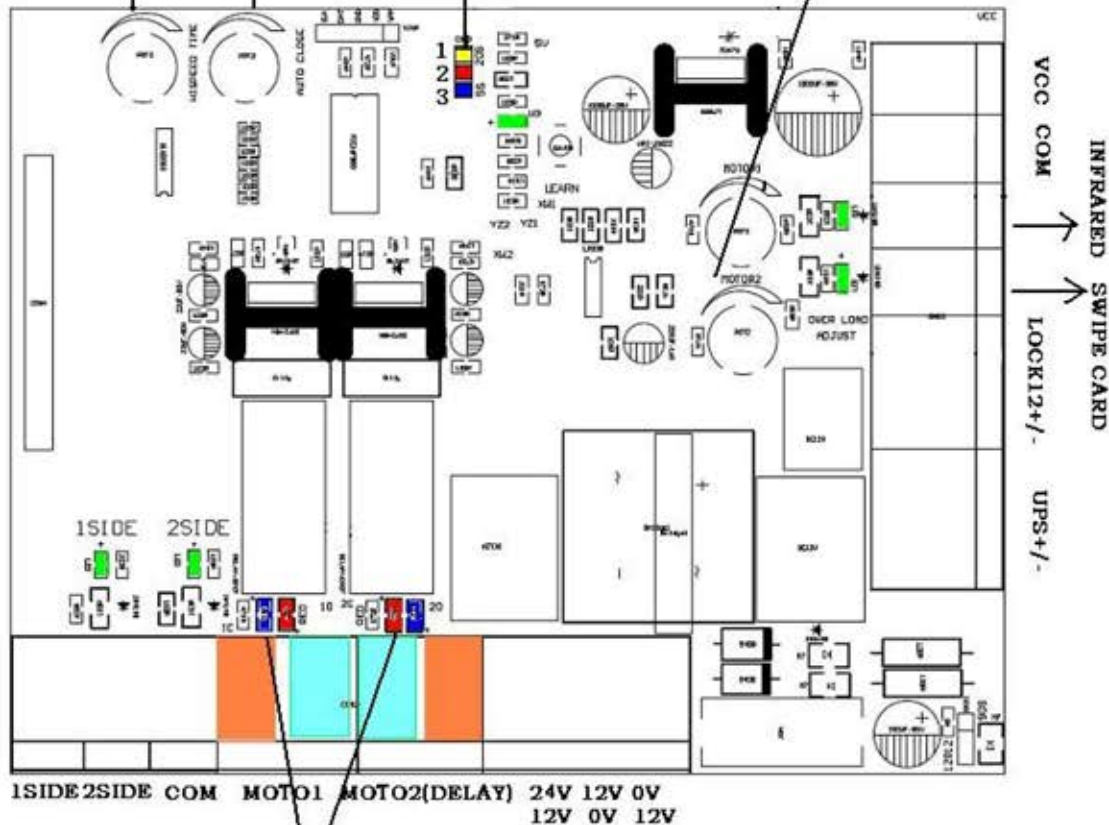
b. Press any button of the remote transmitter. On the control board, when LED flashes twice, the code has been successfully saved. Note: If there is no signals received within 5seconds, the LED will light and exit the code-learning state .

4. Code-removing for remote transmitter: On the control board, press and hold the learning button until LED lights up again.

5, Instructions for all terminals:

2 SIDE	This terminal is same as “double-leaves button” of transmitter. It controls the dual doors as Open-Stop-Close-Stop-Open cyclically
1 SIDE	This terminal is same as “Single-leaf button” of transmitter. It controls the single door as Open-Stop-Close-Stop-Open cyclically
COM	Common terminal for connecting ground
MOTO 1	Wiring of motor1: should connect wires of the motor which opens first. Or connecting the wires of motor installed at the side of door with thrust plate.
MOTO2(DELAY)	Wiring of motor2: should connect wires of the motor which you could use single-leaf button to control.
24V/12V-12V/0V-0V/12V	Supply AC 12V*2 (switch high-speed running to low-speed running)Supply DC 12V (Motor only runs in low-speed, Need to adjust HSPEED TIME trimmer to the minimum position) Supply DC 24V &12V together (switch high-speed running to low-speed running)
UPS+/-	External 12V storage battery, the storage battery can be charged. When there is no power supply, the UPS will start working automatically. The standby current of UPS when it is working is 20mA, the current is around 1.5A when the motor is

High-speed delay time
run time setting of open
adjusting or close door
auto closing
time adjustment
Moto1&2
sensitivity
adjusting



LED indicating
moto1&2 direction

3. Functions and testing:

3.1 LED light indicator:

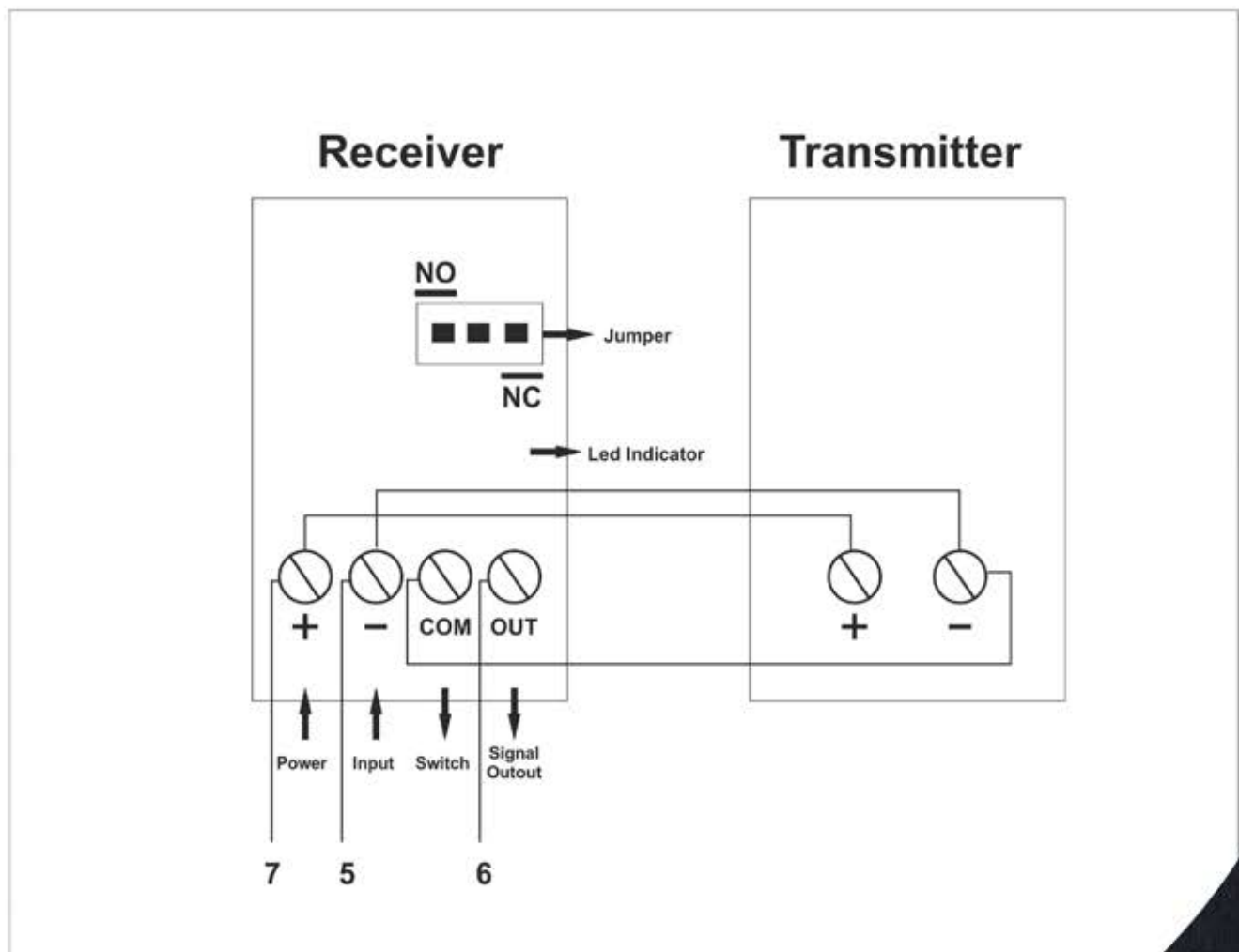
- LED is Steady on when system is electrified.
- LED flashes every 1 second when “auto-close” is engaged.
- LED turns off when it enters into the learning (program) code state or removing code state;
- LED flashes twice after learning code or removing code is successful.

2. Wireless Transmitter : Button 1 controls opening and closing of MOTOR2, button 2 simultaneously controls opening and closing of MOTOR1 & MOTOR2. The control panel can program to recognize 20 transmitters.

3. Code-learning for remote transmitter:

- Press and hold learning button for 1second then release, wait for LED to turns off.

	running.(specific current depends on the actual usage)
LOCK12+/-	Terminal for Electric lock.
SWIPE CARD	Swipe card to open two gates, active low, auto-closing is enabled after the door opened.
INFRARED (OUT)	Terminal for photocells, active low, when the obstacle sensed by photocell while the door is closing, the door will stop and then rebound to open.
COM (-)	Common terminal for connecting ground
VCC (+)	12-28V output voltage; supply the power for photocells or other safety devices; current $\leq 200\text{mA}$.



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