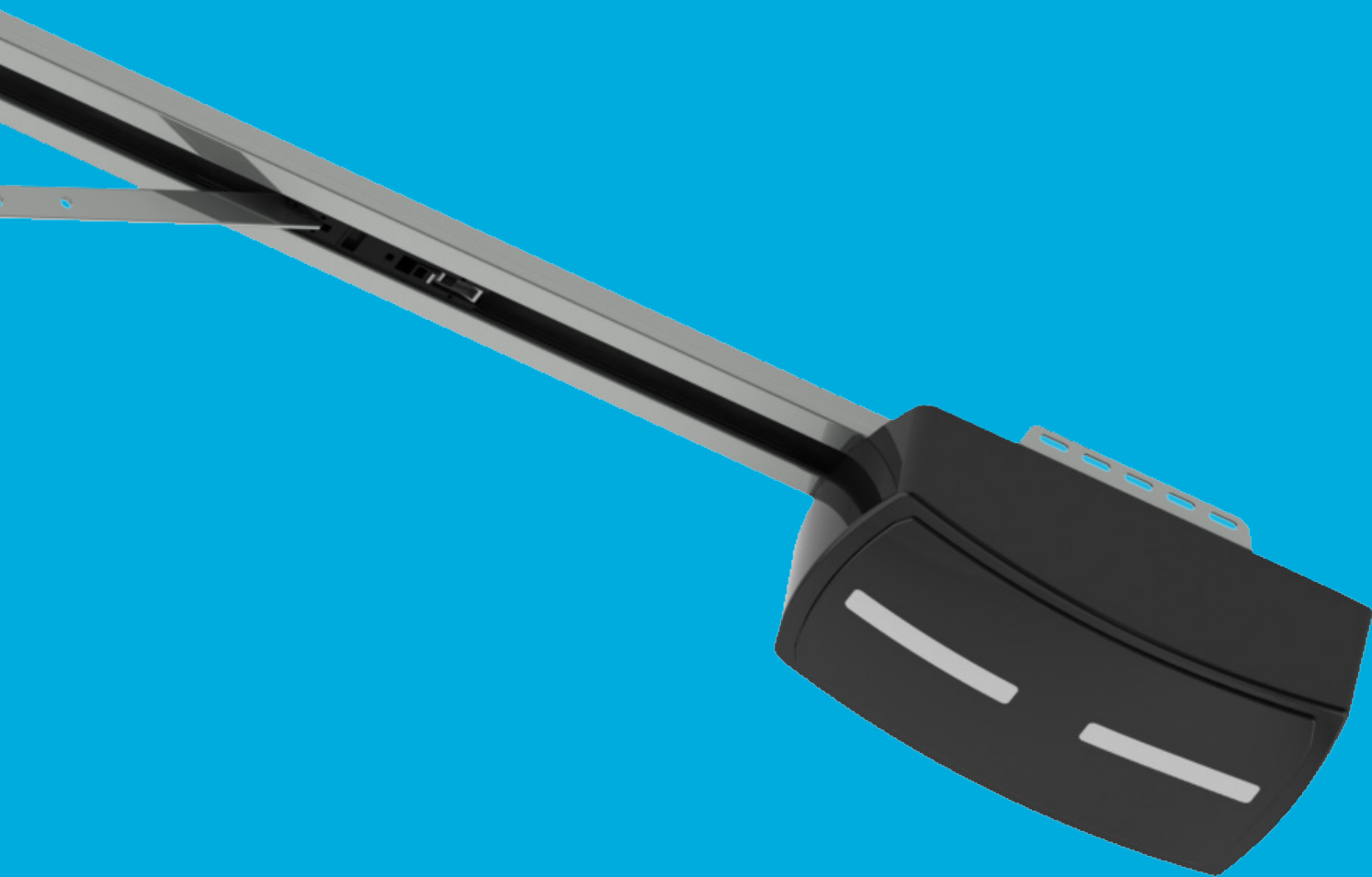


SELECT-LINE

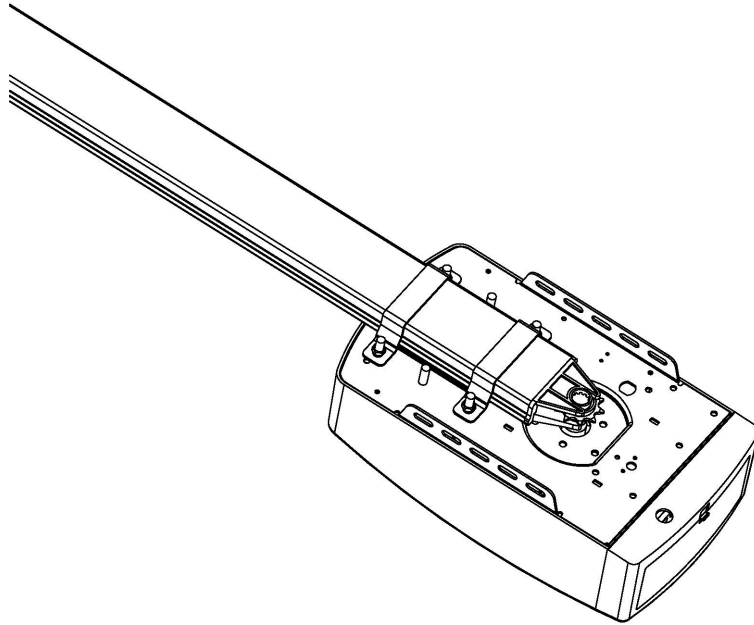
EN

ASSEMBLY MANUAL AND OPERATING INSTRUCTIONS



Sectional and Tilting Door Opener

Installation Instructions and User Guide



FS 600	600N
FS 1000	1000N
FS 1200	1200N

FS 600-Speed	600N
FS 1000-Speed	1000N

S/N	
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WARNING

Please read this manual carefully before installing and using the door opener. Your new door opener must be installed by a technically qualified or licensed person. Attempting to install or repair the door opener without having suitable technical qualifications may result in severe personal injury, death and/or property damage.


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IMPORTANT SAFETY RECOMMENDATIONS

FAILURE TO COMPLY WITH THE FOLLOWING SAFETY RECOMMENDATIONS MAY RESULT IN SERIOUS PERSONAL INJURY, DEATH AND/OR PROPERTY DAMAGE.

PLEASE CAREFULLY READ AND ADHERE TO ALL SAFETY AND INSTALLATION RECOMMENDATIONS.

1. The opener is designed and manufactured to meet local regulations. The installer must be familiar with the local regulations related to installing the door opener.
2. Unqualified personnel or people unfamiliar with the occupational health and safety standards that apply to automatic gates and other doors must never install or implement such systems.
3. People who install or service the equipment without observing all of the applicable safety standards will be held responsible for any damage, injury, cost, expense or claim whatsoever suffered directly or indirectly by any person or organisation resulting from the failure to install the system correctly and in accordance with the relevant safety standards and the installation manual.
4. For additional safety we strongly recommend that a Photo Beam is installed for each installation. Although the door opener incorporates a pressure sensitive Safety Obstruction Force system, the installation of a Photo Beam will greatly enhance the operating safety of an automatic garage door and provide additional peace of mind.
5. Ensure that the garage door is fully open and stationary before driving into or out of the garage.
6. Ensure that the garage door is fully closed and stationary before leaving.
7. Keep hands and loose clothing away from the door opener and garage door at all times.
8. The Safety Obstruction System is designed to work on STATIONARY objects only. Serious personal injury, death and/or property damage may occur if the garage door comes into contact with a moving object
9. This appliance is not intended to be operated by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been supervised and instructed in the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
10.  Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.
11. If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person or organisation in order to avoid a hazard.

WARNING: Important safety instructions. It is important for human safety to follow all of these instructions. Please keep these instructions in a safe place.

- Do not allow children to play with the door controls. Keep remote controls away from children.
- Watch the moving door and keep people away until the door is completely opened or closed.
- Take care when operating the manual release because an open door may fall rapidly down due to weak or broken springs, or because it is out of balance.
- Frequently examine the installation, in particular check cables, springs and mountings for signs of wear, damage or imbalance. Do not use the door if it must be repaired or adjusted because a fault in the installation or an incorrectly balanced door may cause injury.
- Each month check that the door opener reverses when the door contacts a 50 mm high object placed on the floor. Have the door adjusted if necessary and rechecked because an incorrectly adjusted door may pose a danger if it has an entrapment protection system that operates when contact is made with the bottom edge of the door.
- Disconnect the power supply before cleaning or carrying out other maintenance.

PRODUCT DESCRIPTION & FUNCTIONS

1. **Obstruction force adjustment**

A '1' on the display means the minimum force, it can be adjusted upwards. A '5', the maximum force.

2. **Travel speed adjustment**

An '8' on the display means the 80% of the travel speed. An 'A' means the full speed 160mm/s or 200mm/s.

3. **Reversal height adjustment**

A '0' on the display means the door will reverse to the fully open position. A '1 to 9' on the display means the door will reverse a proportion of its entire travel. Where '1' is one tenth of the travel and '9' nine tenths.

4. **Partial open**

A '0' on the display means disable the partial open function. A '1 to 9' on the display means the door will open to the relative position of its entire travel.

5. **Remote control function status**

A '0' on the display means the function status is disabled. A '1' on the display means the function status is enabled.

6. **Number of remote control codes**

An 'A' on the display means the maximum number of codes that can be stored is 50. Press the UP/DOWN button once, to increase or decrease this number. The code memory quantity is set at $(5 \times N)$, where N is the number displayed (1 to 9). (The quantity is the multiple of 5).

7. **Maintenance alarm**

A 'b' on the display and the LED flashing quickly 10 times means the garage door and motor require maintenance.

8. **Automatic safety reverse**

Automatic stop / automatic reverse are controlled by the circuit board software. Every effort is made to promote the safety of humans (including children), pets and property.

9. **Soft start / Soft stop**

Ramping the speed up and down at the start and end of each cycle results in a longer life and quieter operation.

10. **Auto-Close**

The door closes automatically after the garage has been entered or exited.

11. **Self-learning open and close obstruction force**

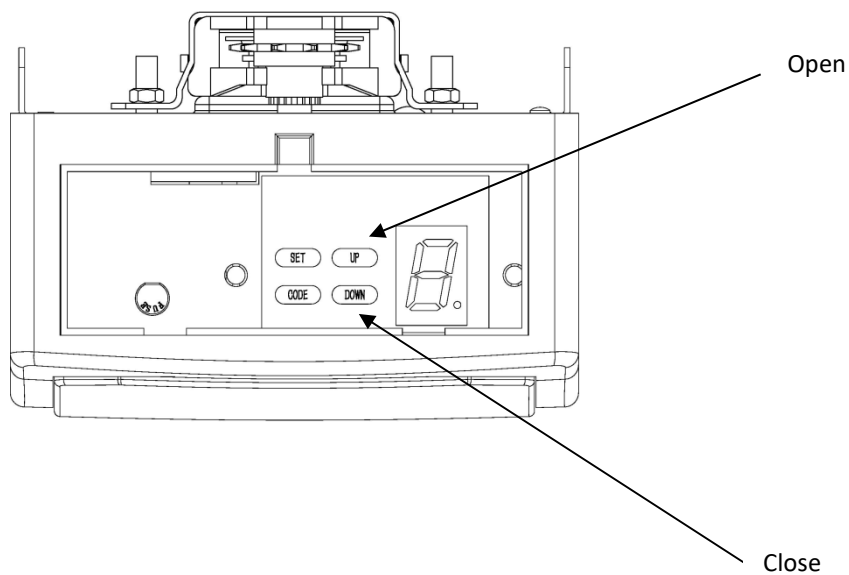
The amount of power used by the door opener during the different stages of the door's travel is learned during setup and is constantly readjusted. The opener force measurement software automatically adjusts the power within the appropriate range.

12. **Adjustment.**

You only need to run the limit setup from the control panel to adjust it exactly. This is a simple and quick process.

13. **Terminal available for a photo beam, extra receivers, a wired or wireless wall switch, a caution light and a pass door protection device.**

- 14. **Energy saving - LED light**
3-minute LED light delay, switching on with each cycle to illuminate your darkened garage.
- 15. **Battery backup available**
The battery backup option supplies power to the opener in the event of a power failure at your home.
- 16. **Self-Locking motors**
The motor will self-lock with its disengagement system.
- 17. **Manual release**
Don't worry about a power failure; the manual release system can be used to operate the door at any time.
- 18. **Remote control technology**
Rolling Code technology (7.38×10^{19} Combinations), 868 MHz frequency and three channels designed to let you control three different doors with one remote control.
- 19. **Metal bottom plate, stronger and secure.**
- 20. **Up / DOWN operating buttons (UP / DOWN)**



PRE-INSTALLATION RECOMMENDATIONS

1. The garage door must be able to be lifted and closed easily by hand without requiring too much effort. A properly installed door must be well balanced.
2. The garage door opener cannot compensate for a badly installed door and should not be used as a solution for a hard-to-open' door.
3. If the unit is being installed on an existing door, make sure that any existing locking devices are removed or the warranty will be void.
4. An approved power point must be installed near to where the opener will be installed.
5. There should be a minimum gap of 10mm between the bottom of the belt drive rail and the top of the garage door at its closest point. (Refer to Fig 1.)

Important note: For additional safety, we strongly recommend that a Photo Electric safety beam is installed for every system.

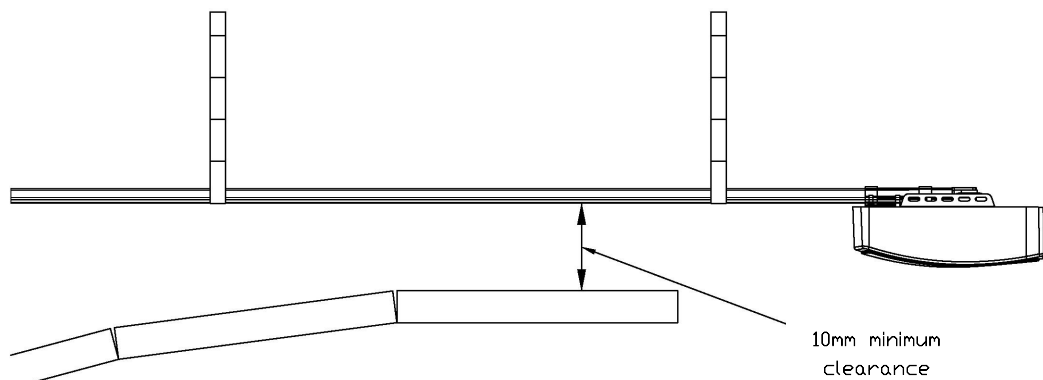
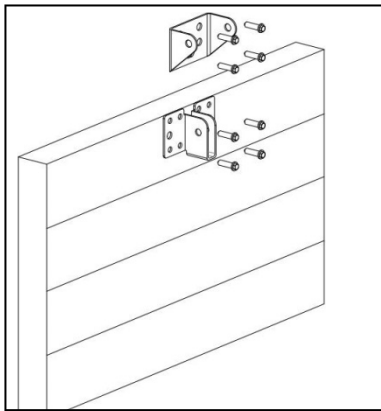


Figure 1

INSTALLATION INSTRUCTIONS

Mount Wall Bracket and Door Bracket (Fig2)



Wall Bracket - Close the garage door, measure its width at the top and mark the centre. Attach the wall bracket (Item 22) 2cm-15cm above the door on the inside wall.

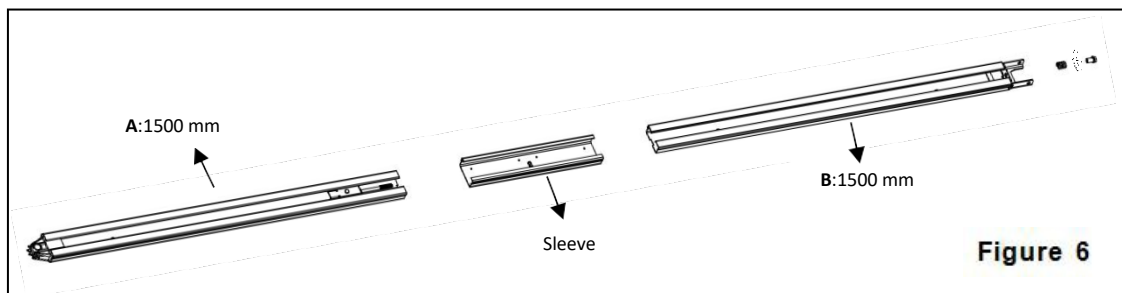
(Depending on the actual installation space).

Door Bracket – Attach the door bracket (Item 21) to a structural part of the door as close to the top edge as possible.

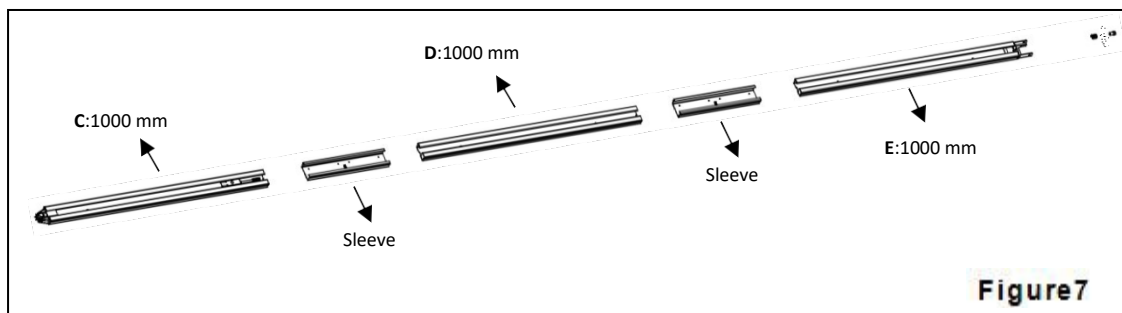
Figure 2

Assembling the Sectional Steel Track

2-Part Steel Track



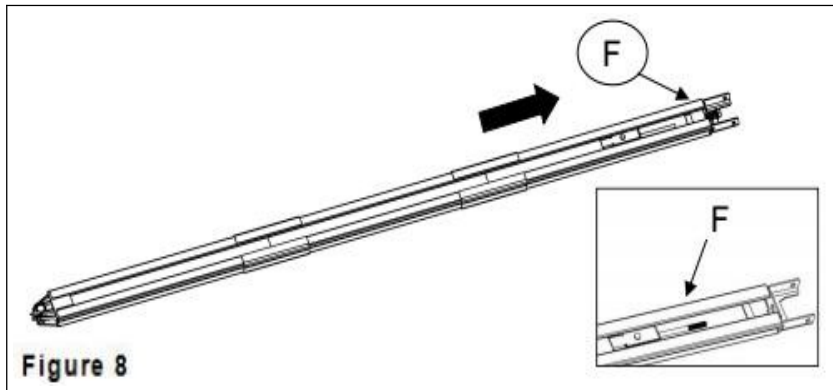
3-Part Steel Track



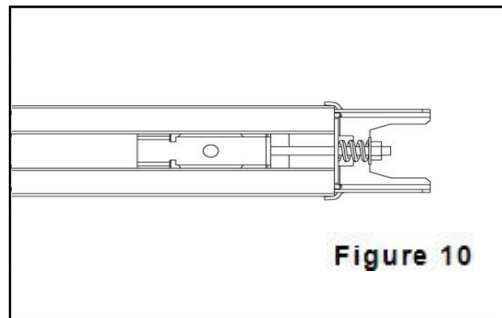
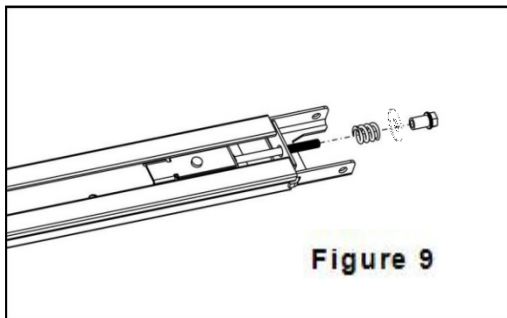
1. Remove the nut and spring from the tension bolt (Figure 9).
2. **2-Part Track:**
As shown in Fig.6, slide Rail A into the sleeve, slide Rail B rail into the sleeve.
3-Part Track:
As shown in Fig.7, slide Rail C and Rail D into the sleeve, then slide the assembly and Rail E rail

into the sleeve.

3. Remove the tie wrap; pull the tension bolt along with inner belt to the end rail position (Fig.8).



4. Slide the tension bolt through the hole in the track end bracket then refit the spring and nut, tightening the nut to the position shown in Fig. 10. Remove the tie wrap, etc., the rail assembly is now assembled



Installing the door opener

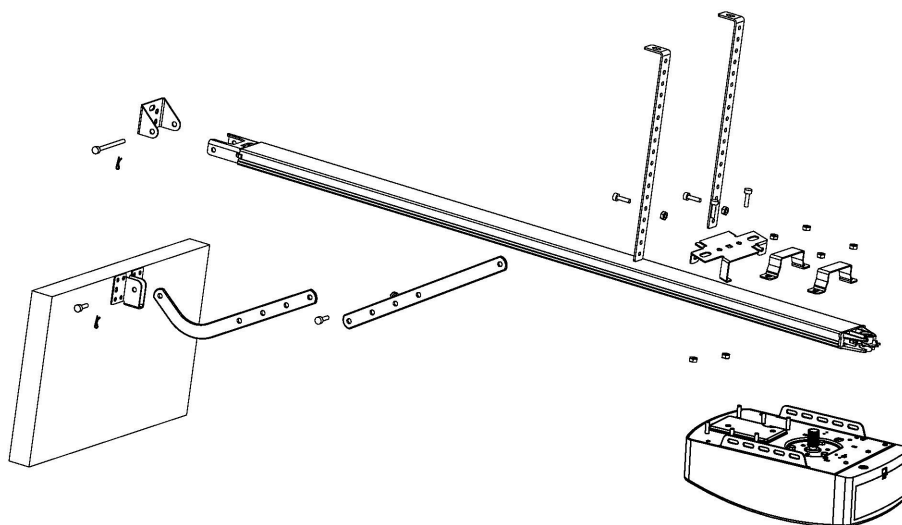


Figure 3

STEP 1 (Fig.3)

Attach the motor unit of the opener to the track using the two U-brackets (Item 29) and the supplied 6mm nuts.

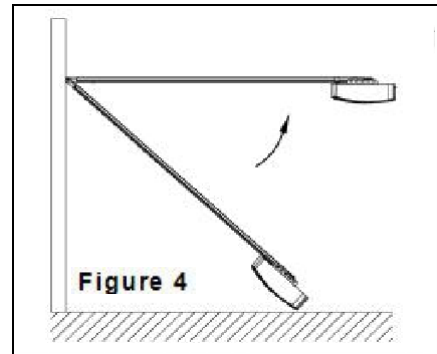
STEP 2 (Fig.3)

Position the assembled track and motor unit on the garage floor in the centre of and perpendicular to the door with the motor unit furthest away from the door. Lift the front of the track up and position it in the wall bracket. Insert the pin and secure it with the split pin.

STEP 3 (Fig.3, Fig.4)

Lift and support the motor unit of the opener (on, for instance, a step ladder) so that it is level and perpendicular to the door. Attach the opener and track to the ceiling using the (2) steel mounting brackets (Item 26).

WARNING: Do not allow children in the vicinity of the door, the door opener or the supporting step ladder. Serious injury and/or damage may result from failing to follow this warning.



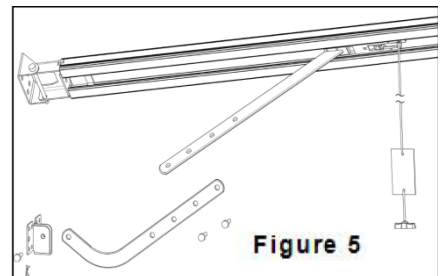
STEP 4 (Fig.3, Fig.5)

Bolt the bent arm (Item 18) to the straight arm (Item 17). Position the arm assembly in the door bracket, insert the pin and secure it with the supplied split pin.

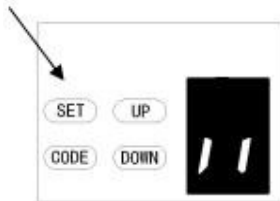
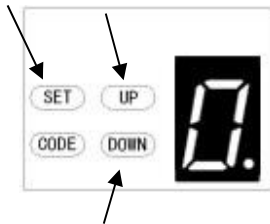
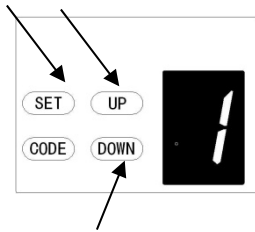
STEP 5

Open the garage door until the trolley locks into the drive belt.

The door opener is now ready to be programmed.



PROGRAMMING INSTRUCTIONS - GENERAL



FUNCTION SETTINGS:

This function is used to set the travel limits of the door.

- a) Press and hold the **SET** button until '1' appears on the display then release the button.
- b) Press the **UP / DOWN** button, a number between '1' '9' or a letter between 'A' and 'E' (corresponding to the function) will appear on the display.
- c) Press the **Set** button to confirm the function you need to set, the menu for setting the details of the selected function will be entered.
- d) The menu will display a number between '0' and '9' or a letter between 'A' and 'E' followed by a flashing dot.
- e) Press the **UP / DOWN** button to select the required setting.
- f) Press the **SET** button to confirm the setting and automatically return to the standby status, '11' will appear on the display.

PROGRAMMING INSTRUCTIONS

Pre-Instruction for programme buttons

1. Press the **SET** button: When in standby mode, this will clear any errors on the alarm display, and return to the normal display.
2. Press the **CODE** button:
 - When in Setting mode, this will exit the current operation and return to the standby mode.
 - When in standby mode, by pressing the **CODE** button a 'dot' will appear in the corner. This enters the learning mode.

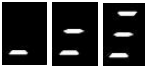
LEARNING THE REMOTE CONTROL:

Enter the learning mode by pressing the **CODE** button.

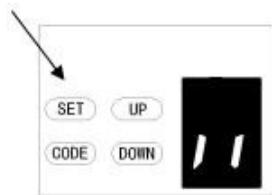
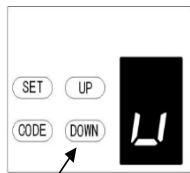
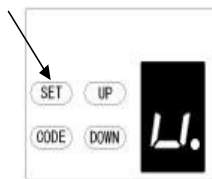
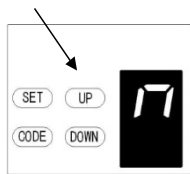
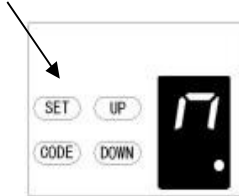
Click the button on the remote control you want to use, the dot will disappear.
Press the same button on the remote control again, the dot will flash.
The code has been learned.

3. Press the **UP** button: The door will open.
4. Press the **DOWN** button: The door will close.

(When the door is opening or closing, pressing any key will cause it to stop moving.)
5. Long press the **SET** button: **The** function setting menu will be entered.
6. Long press the **CODE** button: Press and hold the **CODE** button until a C is displayed on the display. All of the information stored for the remote controls will be deleted.
7. Long press the **UP** button: Increase the power. (Keep pressing the **DOWN** button, after 4 seconds, the display will scroll and display 0, 1 or 2, choose the number you want. 1=increase by 25% 2=increase by 50%)
8. Long press the **DOWN** button: Restore Factory Settings

Keep pressing the **DOWN** button, after 4 seconds, it will scroll to display,  then the garage door opener will restart.

Restart resets all of the settings to the factory settings, all of the learned settings, with the exception of those for the remote controls, must be relearned.



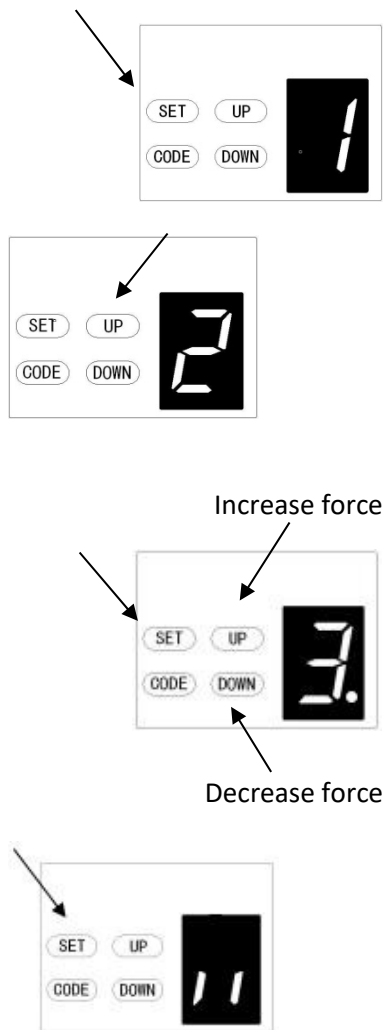
1. (1) OPEN & CLOSE LIMITS

- a) Press and **hold** the **SET** button until '1' appears on the display then release the button.
- b) Press the **SET** button again. The door opener is now in Programming Mode. An 'n' followed by a dot appears on the display.
- c) Press and hold the **UP** button until the door reaches the desired open position, an 'n' without a dot will appear on the display.
- d) Press the **SET** button to confirm the open position, a 'u' and a dot will appear on the display.
- e) Press and hold the **DOWN** button until the door reaches the desired close position, a 'u' without a dot will appear on the display.

NOTE: To make fine adjustments briefly press the **UP** and **DOWN** buttons.

- f) Now press the **SET** button to confirm the close position, '0' will appear on the display. After confirming the close position, the door will cycle open and close to set the travel limits and adjust the force sensitivity. The door is now configured for normal operation.

CAUTION: After the open and close cycle, a number between '0' and '9' will appear on the display. A '0' means the doors is balanced, the lower the number the better the door balance. It is strongly recommended that the number should be lower than the power force number. (See Function 2 Obstruction Force)



2. (2) OBSTRUCTION FORCE

This function can be used to set the amount of force that the door opener will exert to overcome an obstruction to its travel.

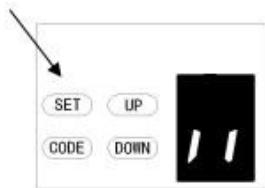
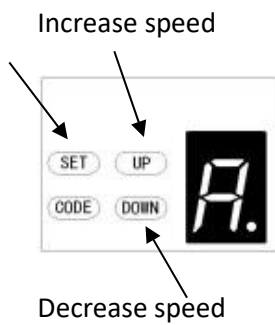
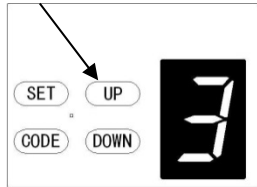
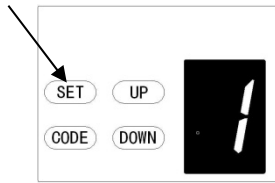
NOTE: The obstruction force is set automatically during programming. Normally no adjustment is necessary.

- a) Press and hold the **SET** button until '1' appears on the display then release the button. Press the **UP** button until '2' appears on the display.
- b) Press the **SET** button again, the unit is now in Obstruction Force adjustment mode. A '3' followed by a flashing dot will appear on the display.
- c) Press the **UP** button to increase the force setting or the **DOWN** button to decrease the setting.

The minimum force is '1', it can be adjusted upwards. The maximum force setting is '5'.

- d) Press **SET** button to confirm the setting and automatically return to standby mode, a '11' will appear on the display.

NOTE: The force is set as standard to '3' in the factory.



3. (3) TRAVEL SPEED

This function is used to set the speed at which the door will move.

CAUTION: Reset the Open & Close limits after adjusting the speed.

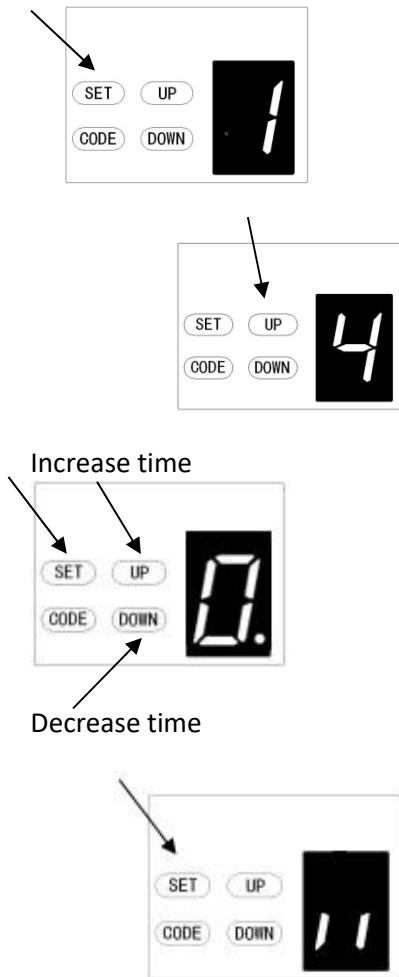
- a) Press and hold the **SET** button until '1' appears on the display, then press the **UP** button until '3' appears on the display.

Press the **SET** button again. The unit is now in speed adjustment mode. A letter "A" with a flashing dot appears on the display.

- b) Press the **UP & DOWN** buttons to select the speed. An '8' means 80% of the travel speed. An 'A' means full speed.
- c) Press the **SET** button to confirm the setting and automatically return to standby mode, '11' will appear on the display.

NOTE:

1. The travel speed is set to 'A' (full speed) as standard in the factory.
2. If you change the speed, the previously set travel limits must be reprogrammed.



4. (4) AUTOMATIC CLOSING & TIME

This function sets the time to wait before the door is automatically closed.

NOTE: We recommend that a Safety Photo Beam be used in any installation where the Auto Close function is enabled.

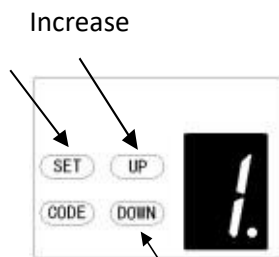
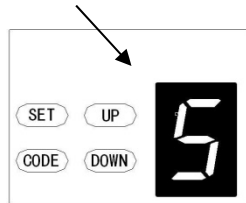
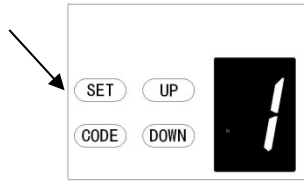
- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until '4' appears on the display.
- b) Press the **SET** button again; the unit is now in automatic close adjustment mode. A '0' followed by a flashing dot will appear on the display.
- c) Press the **UP / DOWN** button to set the auto close time to between '0' and '9'.
- d) Press the **UP** button to increase the time, or the **DOWN** button to decrease the time.

The closing time is 15 seconds x N, where N=0~9. The maximum time is 135s. To disable the Auto Close Function, set the time to zero (0).

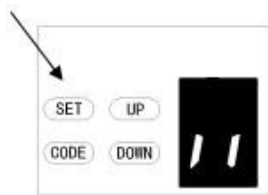
- e) Press **SET** button to confirm the setting and automatically return to standby mode, '11' will appear on the display.

NOTE:

1. The closing time is set as standard to '0' in the factory.
2. If the Photo Cell Function is on, and the light beam is interrupted by an obstruction, the door will stop moving, and the remaining auto close time will be saved. After a while, and when the light beam is no longer interrupted, the automatic closing function will restart using the saved time.



Decrease



5. (5) AUTOMATIC CLOSING CONDITION

This function is used to set whether the door will automatically close from the fully open position only or whether it will automatically close from any position.

- a) Press and hold **SET** Button until '1' appears on the display, then Press the **UP** button until '5' appears on the display.
- b) Press the **SET** button again. The unit is now in automatic closing condition adjustment mode. A '1' followed by a flashing dot appears on the display.
- c) Press the **UP / DOWN** button to select and set the auto close condition. You can select either '1' or '2'.

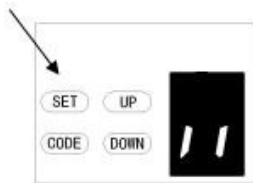
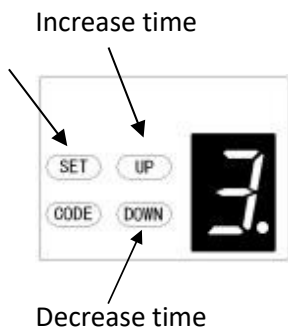
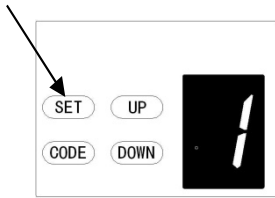
A '1' means that the door will only enter auto close mode from the open limit position.

A '2' means that the door can enter the auto close mode from any position.

- d) Press the **SET** button to confirm the setting and automatically return to standby mode, a '11' will appear on the display.

NOTE:

1. The closing condition is set as standard to '1' in the factory.
2. The door will only automatically close when from the fully open position, but will not automatically close after it stops when closing



6. (6) LED DELAY TIME

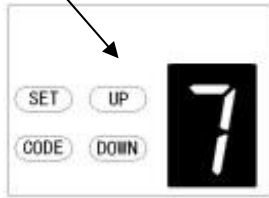
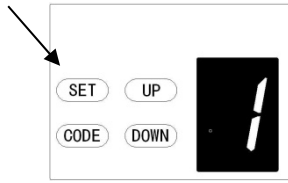
This function is used to set how long the LED will remain on after the door opens or closes.

- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until '6' appears on the display.

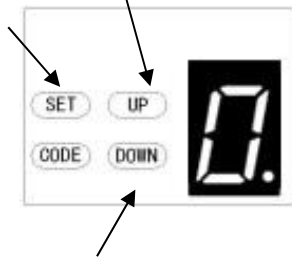
Press the **SET** button again. The unit is now in LED delay time adjustment mode. A '3' followed by a flashing dot will appear on the display.

- b) Press the **UP / DOWN** button to set the LED delay time (1~9).
- c) Press the **UP** button to increase the time, or the **DOWN** button to decrease the time.
The delay time is 1 minute x N, where N=1~9. The maximum delay time is 9 minutes.
- d) Press the **SET** button to confirm the setting and automatically return to standby mode, '11' will appear on the display.

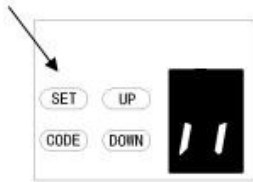
NOTE: The LED delay time is set as standard to '3' in the factory.



Increase height



Decrease height



7. (7) REVERSAL HEIGHT

This function is used to set the position the door will reverse to if it encounters an obstruction when closing.

- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until '7' appears on the display.

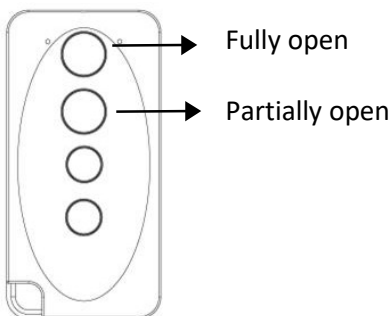
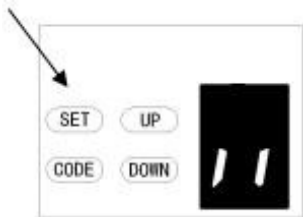
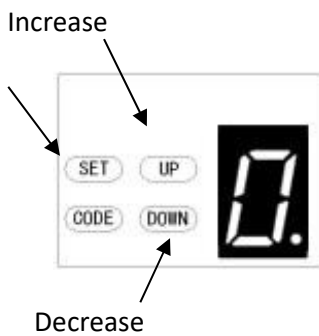
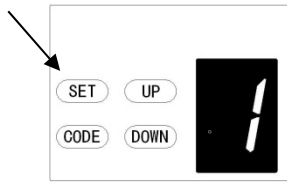
Press the **SET** button again. The unit is now in reversal height adjustment mode. A '0' followed by a flashing dot will appear on the display.

- b) Press the **UP / DOWN** button to set the reversal height while closing (0~9).
- c) Press the **UP** button to increase the height, or the **DOWN** button to decrease the height.

A '0' means the door will return to the open limit position. 1~9 means the door will return to the relative position of the whole travel.

- d) Press the **SET** button to confirm the setting and automatically return to standby mode, '11' will appear on the display.

NOTE: The reversal height is set as standard to '0' in the factory.



8. (8) VENTILATION POSITION FUNCTION

a) Click and hold the SET button until '1' appears on the display, then click the UP button. Release the UP button until '8' appears on the display.

b) Press the SET button again. The unit is now in the ventilation position function menu. Then you will see a number '0' and a flashing dot appears on the display.

c) Press the down/up button once to select, if you want to set the ventilation position (0~C). Press the up button to increase, or the down button to decrease.

'0' ventilation position disabled

'1' ventilation position 1

'2' ventilation position 2

'3' ventilation position 3

'4' ventilation position 4

'5' ventilation position 5

'6' ventilation position 6

'7' ventilation position 7

'8' ventilation position 8

'9' ventilation position 9

'A' ventilation position 10

'B' ventilation position 11

'C' ventilation position 12

The specific travel distance will depend on the door.

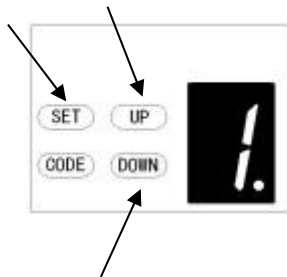
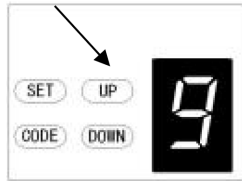
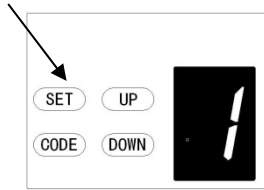
d) Press the SET button to confirm the setting, and automatically return to the standby state and display '11'.

NOTE:

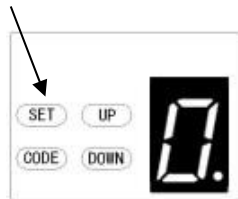
The factory default setting for the Ventilation position function is '0', which means the door will fully open.

The remote control has four buttons. When the first button is successfully coded, press the first button and the door will execute an open-stop-close action cycle.

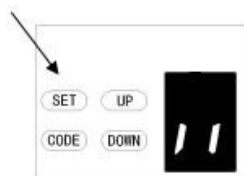
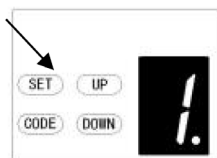
The second key will perform the Ventilation position and Close function. When the second button is pressed, no matter where the door is, the door will be opened to the set Ventilation position or closed.



Buttons recognition function is disabled



Buttons recognition function is enabled



9. (9) REMOTE CONTROL BUTTONS RECOGNITION FUNCTION

This function is used to set which buttons on a remote control can be used to control the door opener. Remote controls can be used to control single or multiple doors.

- a) Press and hold the **SET** button until '1' appears on the display then release the button. Then press the up button until '9' appears on the display. Press the **SET** button again. The unit is now in Buttons Recognition mode. A '1' followed by a flashing dot will appear on the display.
- b) Press the **UP / DOWN** button if you want all of the 3 buttons to operate the door opener, or if only the separately programmed button to operate the door opener.

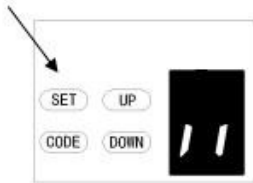
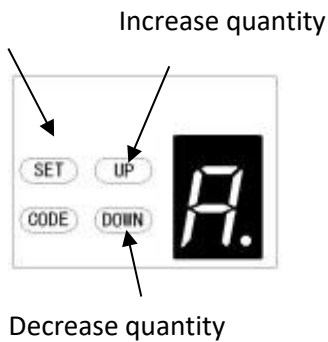
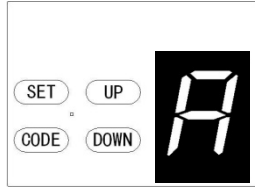
A '0' means that the Buttons Recognition function is disabled. This means that if you programmed one button with 1 opener, then all of the 4 buttons on the remote control can operate the door opener. This is suitable for users who only want to operate one automated door.

A '1' means that the Buttons Recognition function is enabled. If the first button has been programmed for the first opener, then the first button will be the only button on the remote control that can operate the door opener. This is suitable for the users want to operate more than one automated door/gate.

- c) Press the **SET** button to confirm the setting and automatically return to standby mode, a '11' will appear on the display.

NOTE:

1. The Buttons Recognition function is set as standard to '1' in the factory.
2. If the Buttons Recognition function is changed from disabled (setting 0) to enabled (setting 1) only the programmed button can operate the opener.



10. (A) NUMBER OF REMOTE CONTROLS

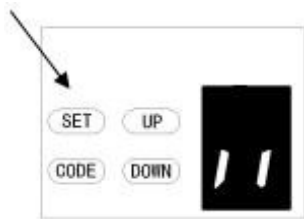
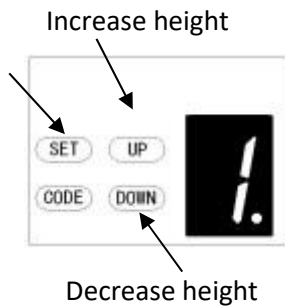
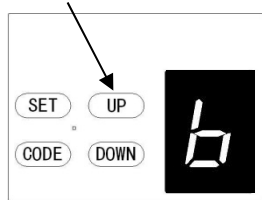
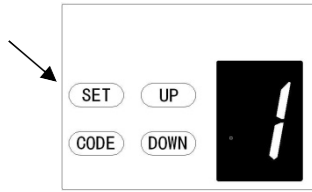
This function is used to specify the maximum number of remote controls that can be programmed to operate the door opener.

- Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until 'A' appears on the display.
- Press the **SET** button again, the unit is now in Remote Quantity adjustment mode. An 'A' followed by a flashing dot will appear on the display.
- Press the **UP / DOWN** button to set the remote quantity. (A or 1~9).
- An 'A' means the maximum number (50). Press the **UP/DOWN** button to increase or decrease the number by 5.

**The remote number is set to $5 \times N$, where $N=1\sim 9$.
(The number is the multiple of 5)**

- Press the **SET** button to confirm the setting and automatically return to standby mode, '11' will appear on the display.

NOTE: The remote quantity is set as standard to 'A' in the factory.



11. (b) NON-REVERSE HEIGHT

This function is used to set the height (in centimetres) above the fully closed position of the door at which the door will not automatically reverse if it encounters an obstruction.

- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until 'b' appears on the display.

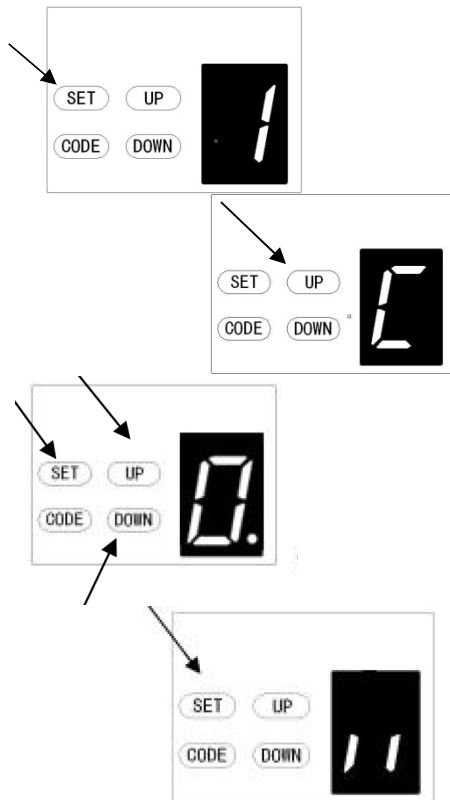
Press the SET button again. The unit is now in non-reverse height adjustment mode. A '1' followed by a flashing dot will appear on the display.

- b) Press the **UP / DOWN** button to set the reversal height ignorance while closing (0~9).
- c) Press the **UP** button to increase, or **DOWN** button to decrease the setting.

A number between 1 and 9 means that when closing, the door will not reverse even if an obstacle is encountered within the selected 1cm to 9cm from the fully closed position. This function is most suitable for use in Northern Europe where snow frequently stops the door closing fully.

- d) Press the **SET** button to confirm the set and automatically return to standby mode, '11' will appear on the display.

NOTE: The reversal height is set as standard to '1' in the factory.



12. (C) PASS DOOR SWITCH

This function is used to set whether a pass door switch is fitted. This switch stops the door from opening if the pass door is open.

- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until 'C' appears on the display.

Press the **SET** button again. The unit is now in the pass door switch type adjustment mode. A '0' followed by a flashing dot will appear on the display.

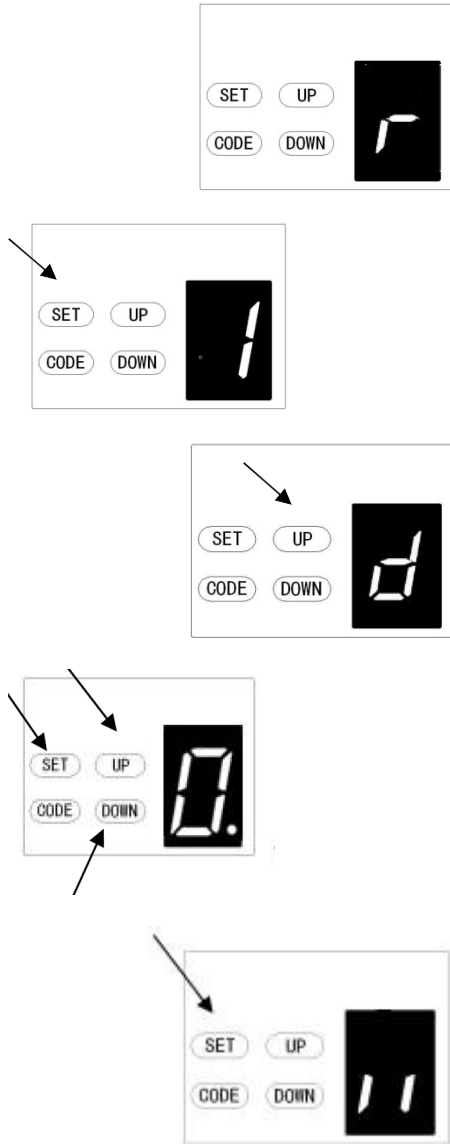
- b) Press **UP / DOWN** button once to set the pass door switch type. You can choose either '0' or '1'.

A '0' means, the pass door function is disabled (NO).

A '1' means the pass door function is enabled (NC).

- c) Press the **SET** button to confirm the setting and automatically return to standby mode, a '11' will appear on the display.

NOTE: The pass door switch is set as standard to '0' in the factory.



13. (d) SAFETY PHOTO CELL

This function is used to set whether a Safety Photo Cell is installed.

NOTE: Make sure the photo cell has been correctly installed using the Normally Closed contacts of the accessory terminals on the door opener

Also note that the photo cell function must be disabled if NO photo beams are fitted, otherwise the door cannot be closed and the LED display will display the letter 'r'.

- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until 'd' appears on the display.

Press the **SET** button again. The unit is now in the photo cell **ON/OFF** mode. A '0' followed by a flashing dot will appear on the display.

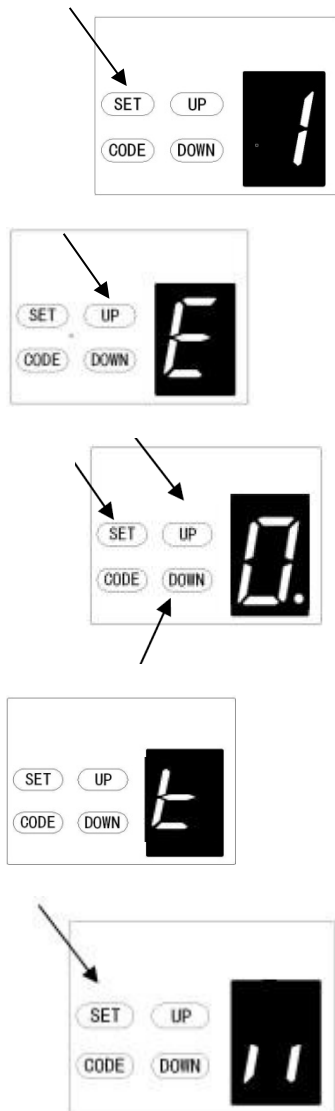
- b) Press the **UP / DOWN** button once to set the photo cell setting to **ON/OFF**. You can select '0' or '1'.

A '0' means the photo cell function is disabled. A '1' means, the photo cell function is enabled.

- c) Press the **SET** button to confirm the setting and automatically return to standby mode, a '11' will be displayed.

NOTE: The photo cell setting is set as standard to '0' in the factory.

The O/S/C function can be used for an external push button switch that can be used to operate the door opener. The switch must have voltage free, normally open contacts.



14. (E) MAINTENANCE ALARM-OPERATION CYCLES COUNT

This function is used to set the number of open/close cycles the door can make before requiring maintenance.

- a) Press and hold the **SET** Button until '1' appears on the display, then Press the **UP** button until 'E' appears on the display to enter this function setting then release the button.

Press the **SET** button again. The unit is now in the maintenance alarm adjustment mode. A '0' followed by a flashing dot will appear on the display.

- b) Press the **UP / DOWN** button, to select the number of operation cycles the door makes before a maintenance alarm occurs. You can select a number from '1' to '5' where a '1' means 1000 cycles, '2' means 2000 cycles, etc.

When the set number of cycles has been reached, the LED light will flash quickly 10 times and a 't' will appear on the display.

- c) Press the **SET** button to confirm the setting and automatically return to standby mode, '11' will appear on the display.

NOTE:

1. The operation cycle count is set as standard to '0' in the factory.
2. If a 'b' appears on the display and the LED light flashes quickly 10 times, the door is no longer balanced, maintenance of the garage door is strongly recommended.
3. Check the status or 'Re-learn' the travel limit. After a maintenance alarm.

15. (F) OPEN / STOP / CLOSE TERMINALS

The O/S/C facility can be used for an external push button switch that can be used to operate the opener. The switch must have voltage free normally open contacts.

Photo beam connection (optional) – Fig.15, Fig.16

Switch control connection (optional) – Fig.15

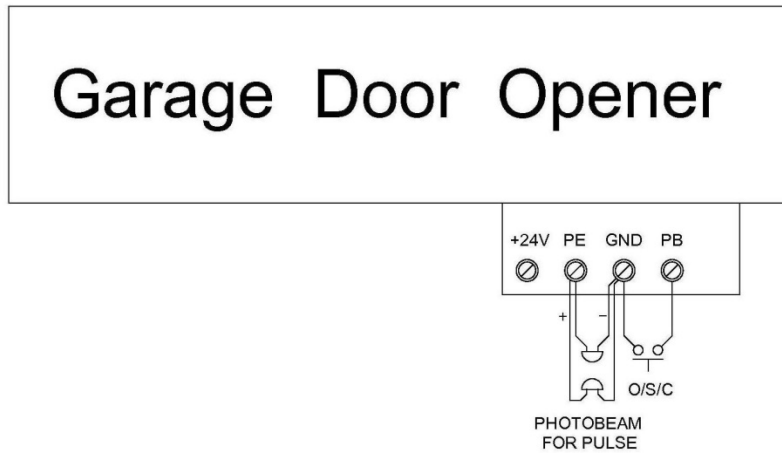
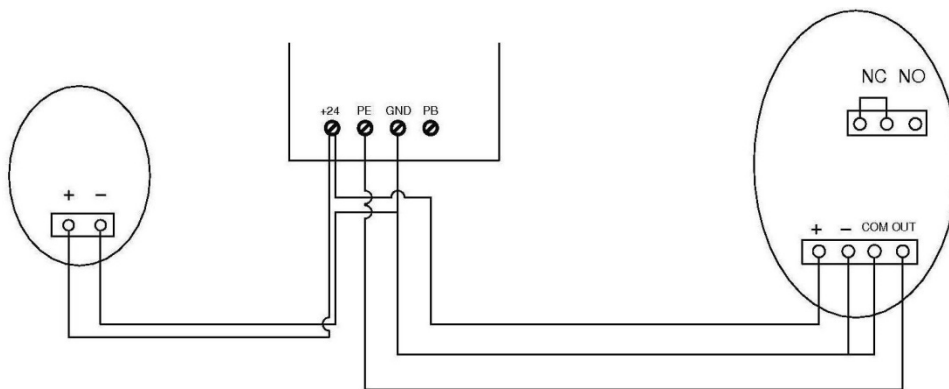


Figure 15



Connection of photo beam/switch control

Figure 16

Other terminals and their use

1. The O/S/C interfaces available. (Fig. 17, Fig. 18)

Add a new O/S/C switch to open or close the door.

2. Flash light function. (Fig. 17, Fig. 18)

There are corresponding interfaces for this function that provide 24v-35v. Connect the light to the DC 24v-28v, $\leq 100\text{mA}$. When using AC 220V lights, please install a suitable adapter and wiring.

3. Pass door (SD) protection (Fig. 17, Fig. 18)

This function ensures that the door cannot be opened unless the small pass door is closed ensuring that the door panel is not damaged.

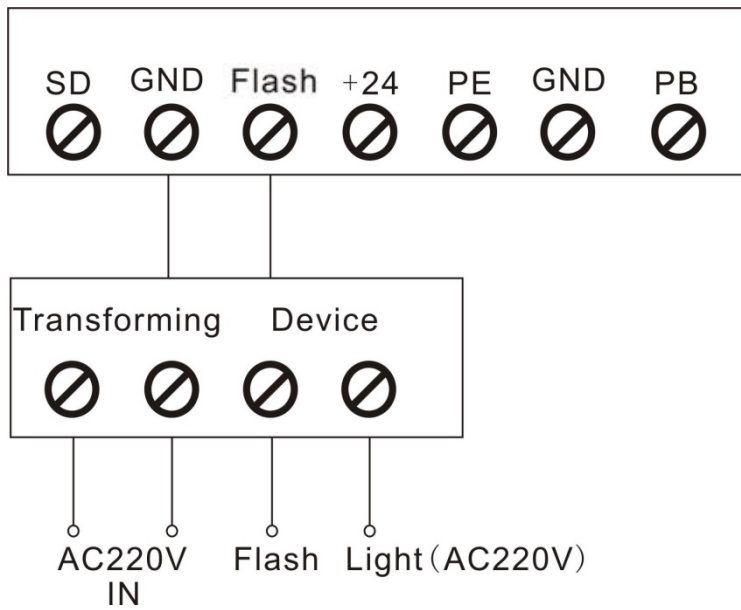


Figure 17

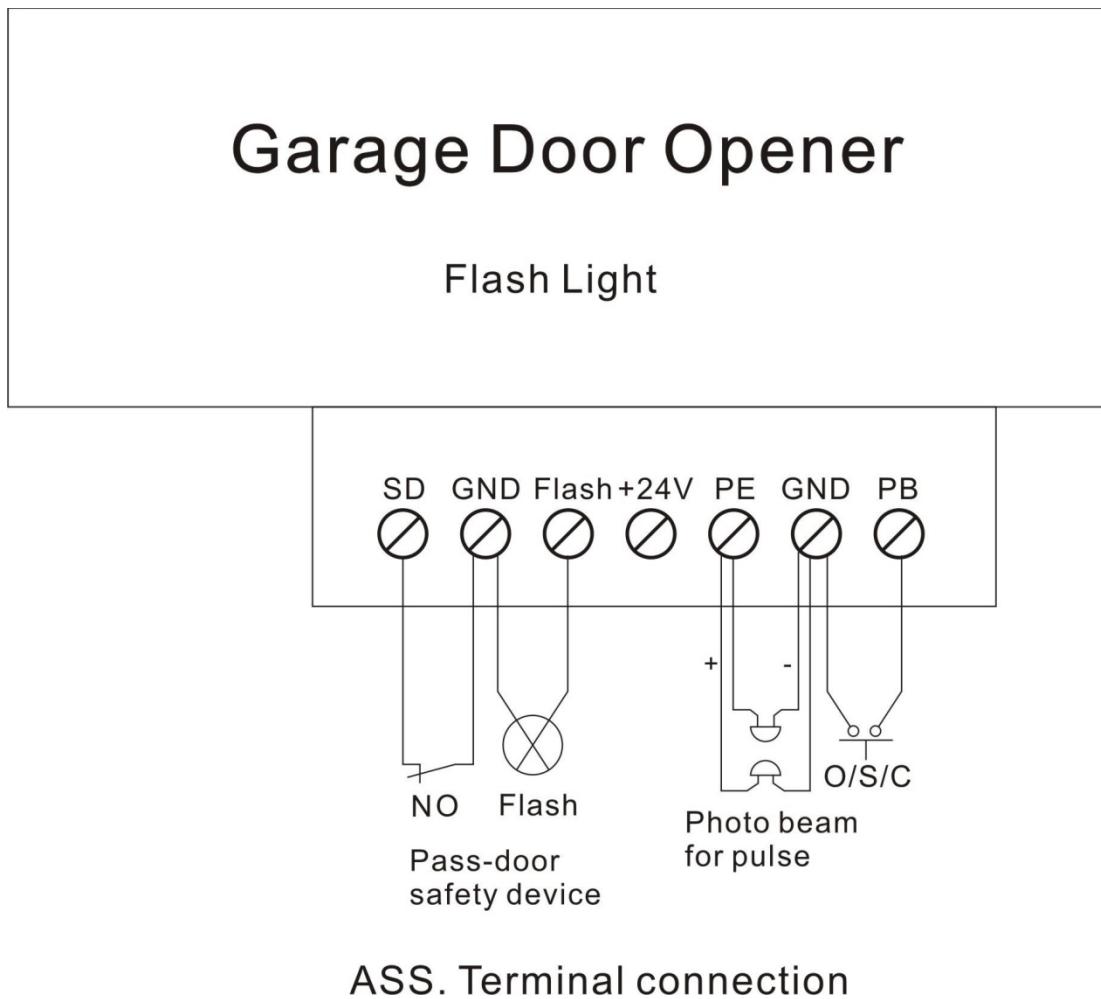


Figure 18

MANUAL DISENGAGEMENT

The door opener is equipped with a manual release to disengage the trolley and allow the door to be moved by hand (Fig 19). Pull the handle to disengage the trolley. To re-engage the door, simply operate the door opener in automatic mode or move door by hand until the trolley engages in the belt.

In some situations when a pass door is not installed, it is recommended to install an external release mechanism (Fig 20).

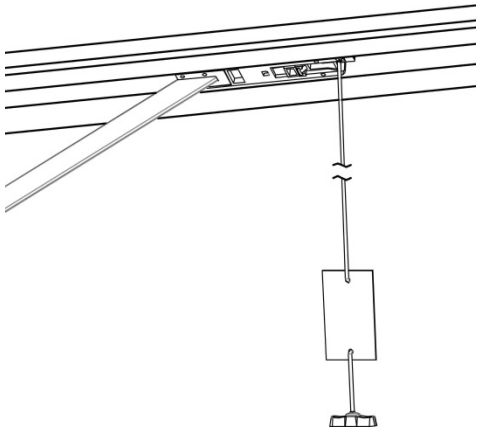


Figure 19

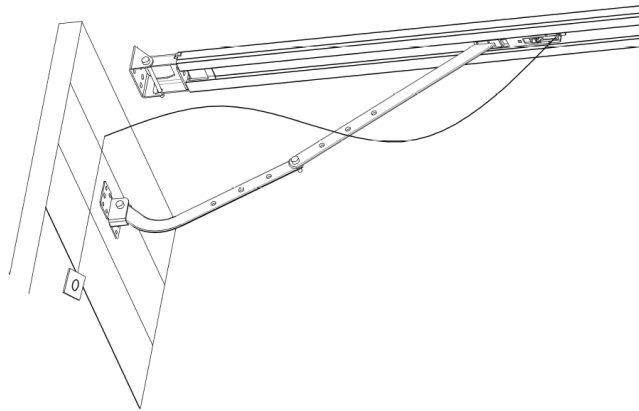


Figure 20

MAINTENANCE

1. No particular maintenance is required for the logic circuit board.

Check the door at least twice a year to ensure that it is correctly balanced and that all working parts are in good working order.

Check the reversing sensitivity at least twice a year, and adjust if necessary. Ensure that the safety devices are working effectively (photo beams, etc.)

2. Replacing the LED:

NOTE: Ensure that the power has been removed from the door opener before replacing the LED bulb. Ensure that the LED is suitable for the local voltage and does not draw more than 25 Watts.

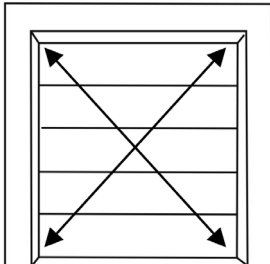
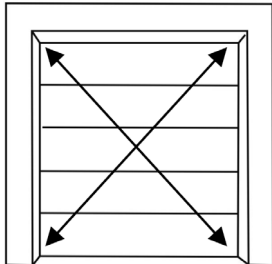
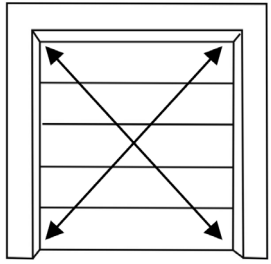
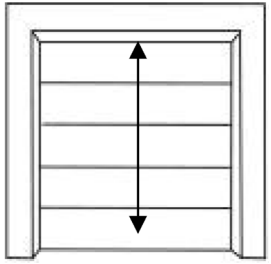
Remove the screws from the LED cover. Remove the LED cover then unscrew the old LED anti-clockwise. Fit the new LED and reinstall the cover.

3. Before installing a caution light, ensure that it does not draw more than 5 Watts.
4. With respect to the maintenance alarm function; if the LED flashes quickly 10 times the door is no longer balanced, maintenance of the door is strongly recommended. "Check" the status, or "Re-learn" the travel limit after a maintenance alarm.

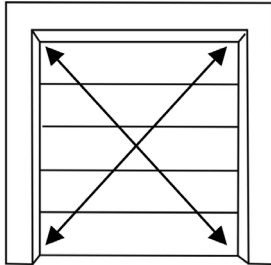
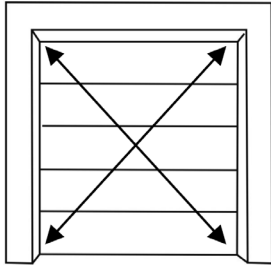
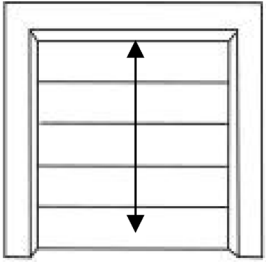
Notice: A poorly operating door can load the door opener excessively and reduce its life and void the warranty.

TECHNICAL SPECIFICATIONS

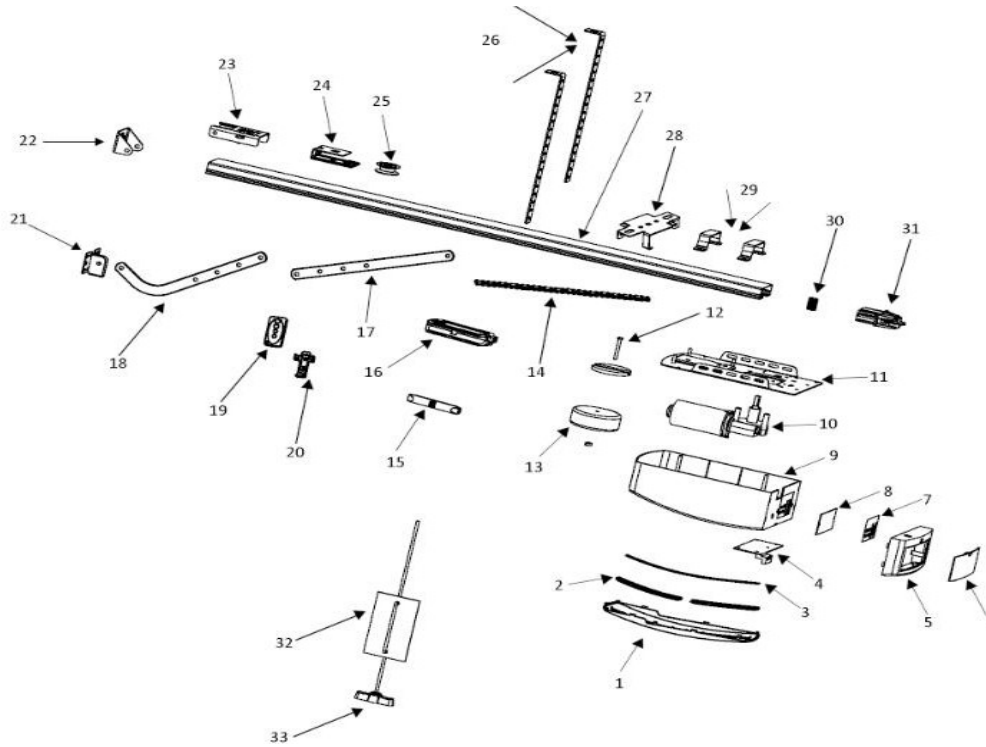
	FS 600	FS 1000	FS 1200
Max. pull force	600 N	1000 N	1200 N
Max. door area	10.0 m ²	15.0 m ²	18.0 m ²
Max. door weight (Balanced)	80 kg	100 kg	130kg
Max. door height	2400 - 3500mm	2400 - 3500mm	2400 - 3500mm
Input voltage	220 - 240V, 50–60 Hz		
Power consumption in operation	300W	350W	380W
Power consumption in standby	< 5W	< 5W	< 5W
LED	24V / 15 LEDs		
Radio frequency	868 MHz	868 MHz	868 MHz
Drive	Belt	Belt	Belt
Opening / Closing Speed	160mm / Second	160mm / Second	140mm / Second
Drive mechanism	Belt	Belt	Belt
Limit setting	Electronic	Electronic	Electronic
Transformer	Overload protection technology		
Code Format	Rolling code (7.38 x 10 ¹⁹ Combinations)		
Status display remote control	2 X	2 X	2 X
Code Storage Capacity	50 different codes		
Caution light terminal	Included	Included	Included
Working temperature	-40°C - +50°C	-40°C - +50°C	-40°C - +50°C
Safety Protection	Soft start & Soft stop, photo cell option, caution light option		
Protection level	IP20	IP20	IP20

FS 600	FS 1000	FS 1200	
			
Rated door area ≤ 10.0 m ²	Rated door area: ≤ 15.0 m ²	Rated door area: ≤ 18.0 m ²	Door height Standard: 2400mm Maximum: 3500mm

	FS 600-Speed	FS 1000-Speed
Max. pull force	600 N	1000 N
Max. door area	10.0 m ²	15.0 m ²
Max. door weight (Balanced)	80 kg	100 kg
Max. door height	2400 - 3500mm	2400 - 3500mm
Input voltage	220 - 240V, 50-60 Hz	
Power consumption in operation	300W	350W
Power consumption in standby	< 5W	< 5W
LED	24V / 15pcs LED bulbs	
Radio frequency	868 MHz	868 MHz
Drive	Belt	Belt
Opening / Closing Speed	200mm / Second	200mm / Second
Drive mechanism	Belt	Belt
Limit setting	Electronic	Electronic
Transformer	Overload protection technology	
Coding Format	Rolling code (7.38 x 10 ¹⁹ Combinations)	
Standard remote control	2 X	2 X
Code Storage Capacity	20 different codes	
Caution light terminal	Included	Included
Working temperature	-40°C - +50°C	-40°C - +50°C
Safety Protection	Soft start & Soft stop, photo cell option, caution light option	
Protection level	IP20	IP20










FS 600 Speed	FS 1000 Speed	
		
Rated door area ≤ 10.0 m ²	Rated door area: ≤ 15.0 m ²	Standard door height: 2400mm Maximum door height : 3500mm




PARTS LIST



Item	Qty	Description	Item	Qty	Description	Item	Qty	Description
1	1	Top cover	13	1	Transformer	25	1	Belt pulley
2	1	LED cover	14	1	Belt rail	26	2	Mounting bracket
3	1	LED light	15	1	Belt connection	27	1	C rail- steel
4	1	PCB-1	16	1	Trolley assy.	28	1	Click bracket
5	1	Control panel cover-2	17	1	Straight arm	29	2	U-bracket
6	1	Control panel cover-1	18	1	Bent arm	30	1	Motor shaft bush
7	1	Panel label	19	1	Remote control	31	1	Belt drive assy.
8	1	PCB-2	20	1	Remote control bracket	32	1	Caution card
9	1	Main cover	21	1	Door bracket	33	1	Release handle
10	1	DC motor	22	1	Wall bracket			
11	1	Steel bottom base	23	1	Track ending bracket			
12	1	Transformer plate	24	1	Wheel bracket			

COMMON FAULTS & SOLUTIONS

Fault description	Fault cause	Solutions
The opener does not work, the LCD screen is not illuminated	<ol style="list-style-type: none"> 1. Power supply 2. Loose wiring 	<ol style="list-style-type: none"> 1. Check whether there is power to the motor 2. Check whether the fuse is blown 3. Check whether the low-voltage wire from the transformer is connected to the power board 4. Check whether the ribbon cable is plugged in 5. Check whether there is 26v AC on the low-voltage side of the transformer, if there is, replace the PCB if not, replace the transformer
Open/closed limits lost	System error	Re-set the travel limit
While learning, the digital display displays 	Travel less than 30cm or more than 9m	Re-set the travel limit
Digital display  Opener does not work or stops working	Voltage too low	Check the power supply
Digital display  LED light will flash quickly 10 times	The garage door is in poor condition and needs maintenance	The garage door and motor need total maintenance
Digital display 	The motor does not self-lock correctly	Replace the motor
Opener is not working Digital display 	Failure to learn the up and down limit setting. The up and down limit setting has been improperly learned	Relearn the 'UP' and 'DOWN' limit travel using the manual
LED is always on	The control panel or the power supply board is faulty	Replace the control board or power board.
When remotely operating the door, the opener stops automatically after running 10cm Digital display 	Hall sensor wire is loose or damaged	Open the cover, check the Hall sensor wire, plug it in again or replace it.
Opener does not work. The relay makes a 'kaka' sound Digital display 	The wire between motor and the board is loose	Open the cover and check the wire between motor and the board.
Opener stops automatically after moving 10cm Digital display 	The wire between the motor and the board is plugged in the wrong way round	First remove the power, then open the cover and plug in the wire running between motor and board in the reverse way. Re-set the limit travel.
Door only moves upwards. The door does not move downwards Digital display 	Photo cell function is enabled however no photo cell device is connected.	Disable the photo cell function if no photo cell device is connected. (Refer to the instruction manual) Check if the photo cell is connected correctly, or if the light to the photo cell is obstructed.
The door is fully open, it automatically close after some time LED flashes four times	Automatic closing function is enabled	Set the automatic closing time, or disable the automatic closing function. (Refer to the instruction manual)

Fault description	Fault cause	Solutions
When the door stops, the caution light is always on	The power board is broken	Replace the power board
LEDs do not work	<ol style="list-style-type: none"> 1. The LED wire is not plugged in 2. The LED is broken 3. The circuit board is faulty 	<ol style="list-style-type: none"> 1. Check the LED wire 2. Replace the LED 3. Replace the circuit board
The door automatically reverses to the upper limit before the door has closed completely	<p>The automatic reverse function is enabled</p> <p>The door is installed incorrectly</p> <p>Something is blocking the door's movement</p>	<ol style="list-style-type: none"> 1. Check the position where the door stops and re-set the limit travel 2. Increase the automatic reverse force number
Door automatically stops when opening	<p>Automatic protect function is enabled and an obstruction is detected</p> <p>The door is installed incorrectly</p> <p>Something is blocking the door's movement</p>	<ol style="list-style-type: none"> 1. Check the position where the door stops and re-set the limit travel 2. Increase the automatic reverse force number
The remote control does not work or its range is too short	<ol style="list-style-type: none"> 1. Flat battery 2. Antenna is loose or not extended correctly 3. Local interference 	<ol style="list-style-type: none"> 1. Replace the remote control battery 2. Extend the antenna on the opener 3. Resolve the interference
Cannot program new remotes	New remote control is incompatible with the door opener	Only use our remote controls
Digital display 	Remote control memory is full	Delete all stored codes (Refer to the instruction manual)
Standby, Digital display 	Pass door function enabled	Check the pass door switch
The door opener runs, however, the door does not move	Motor shaft bush worn	Replace the motor shaft bush
The battery does not supply power	<ol style="list-style-type: none"> 1. Flat battery 2. The battery wire is plugged in in the reverse direction 3. The battery wire is broken 	<ol style="list-style-type: none"> 1. Charge the battery 2. Open the cover, check the polarity of the battery 3. Replace the battery wire
Other abnormal issues	External device is incompatible with the door opener	Remove all of the external devices. If the abnormal issues still exist, replace the circuit board
Digital display 	The garage door system needs maintenance	The garage door and motor need total maintenance



EU Declaration of Conformity

According to 2006-42-EC Machinery Directive

Declaration for a partly completed machine

Garage door opener

Operator Select-Line (C9779)

Satisfies all the relevant requirements of the:

2006/42/EC

Machinery directive

2014/35/EU

Low voltage directive

2014/30/EU

Electromagnetic compatibility directive

2014/53/EU

Radio equipment directive

The following standards have been applied :

EN 55014-1

EN 55014-2

EN 60204-1

EN 60335-1

EN 60335-2

EN 61000-3-2

EN 61000-3-3

EN 62233

EN 62479

EN-ISO 12100

In order to make a complete machine in accordance with Machinery Directive 2006/42/EC it must not be put into use, in such cases that it is integrated or becomes part of composite of components, as long as the complete composition does not comply with the required regulations.

Jevons Liang
Managing Director
China, January 2018

C9779-0518ENr0

Notes
