Features

- **Locking door during power failure:** If power failure occurs while the door is operating, the door can be released by pulling the clutch down, allowing manual opening or closing and locking. To reset the door when the power comes back on, press the closing button on the remote, the door can be opened while the clutch moves to closing position. After this, normal operation is resumed.

- **Rolling code:** The integrated circuitry generates unique rolling codes. This high security feature enables pairing with up to 20 remotes.

- **Position memory:** The position limits of the door are retained in the memory of the microcomputer chip. You never need to adjust it, even after power failure.

- **Soft start & stop:** This lessens impact forces on the door, prolonging service life and decreasing operating noise.

- **Resistance adjustment:** The opener continually checks and, where necessary, adjusts its force sensitivity. Manual adjustment is unnecessary.

- **Photocell protector:** This can be connected with the opener to give additional protection. There are three work modes available: forbidden, available, or only available when closing.

- **Auto closing:** If you forget to close the door, it will close automatically after a set time. The time can be set from 1 to 9 minutes. This function is optional.

- **Burglar alarm:** The opener can be connected with your alarm. It will beep if the door is opened abnormally.

- **Fault checking:** The opener can check for faults and show the code on its LED display. This makes for easy adjustment and maintenance.

- **Easy operation:** Settings are shown on the LED display, making operation easy.
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1. Required Tool List

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Specification</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electric drill</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Ladder</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Mobile wrench or socket wrench</td>
<td></td>
<td>1 set</td>
</tr>
<tr>
<td>4</td>
<td>Measuring tape</td>
<td>5m</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Screw driver - Flat</td>
<td>2.5×100mm</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Screw driver - Flat</td>
<td>6×200mm</td>
<td>1</td>
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<tr>
<td>7</td>
<td>Screw driver - Philips</td>
<td>6×200mm</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Pincer</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>Allen key</td>
<td>10#, 12#</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Important Safety Instructions

**WARNING – INCORRECT INSTALLATION CAN LEAD TO SEVERE INJURY – FOLLOW ALL INSTALLATION INSTRUCTIONS IN THIS MANUAL AND ALWAYS Do THE FOLLOWING:**

1) Keep garage doors properly balanced. Have a professional service person make repairs to cables, spring assemblies and other hardware.
2) Watch a moving door until it completely stops moving. Do not cross the path of a door in motion, and never let children play “beat the door”. Do not let children play near a garage door when it is opening or closing.
3) Never put fingers between the sections of a garage door, and teach children to keep their hands and fingers clear of section joints, hinges, tracks, springs and other door parts.
4) Do not let children play with transmitters or remote controls, and place these items out of reach of children.
5) Test the automatic reversal monthly. The garage door MUST reverse on contact with a 40mm high object (or a 50mm by 100mm board laid flat) on the floor. If the garage door does not reverse, adjust either the force or the limit of travel, and re-test the automatic reversal. Be careful when making adjustments because maladjustments can cause serious injury or death.
6) Disconnect the electrical power to the opener before making any repairs or removing the housing cover.
7) If possible, use the emergency release only when the door is closed. Be careful when using the release with the door open because weak or broken springs may allow the door to fall rapidly, which can cause serious injury or death.
8) Do not use the emergency release rope to open or close the door!
9) The Entrapment Warning Label should be pasted in a prominent location.
10) Check the function of the opener on a monthly basis!
11) Please take good care of this manual after installation so you can refer to it for regular safety inspections and maintenance.
3. Installation

3.1. Important Installation Instructions

In order to reduce the risk of serious injuries or death, please read and follow all instructions provided!

1) Install only on a properly balanced door. An improperly balanced door has the potential to inflict severe injury. Have a qualified service person make repairs to cables, spring assemblies, and other hardware before installing the opener!

2) Remove all ropes and remove or make inoperative all locks connected to the garage door before installing opener!

3) Where possible, install the opener 2.1 meters or more above the floor. For products having an emergency release, mount the emergency release approx. 1.8 meters above the floor!

4) Do not connect the opener to source of power until instructed to do so!

5) Locate the control button:
   - Within sight of door
   - At a minimum height of 1.5 meters so small children are not able to reach it
   - Away from all moving parts of the door

6) Install the Entrapment Warning Label next to the control button in a prominent location. Use a staple gun to secure label to surfaces to which the adhesive will not adhere. Install the Emergency Release Marking. Attach the marking on or next to the emergency release!

7) This opener is to be used only with residential sectional or one-piece doors!

8) To avoid damage to the garage door and opener, disable locks before installing and operating the opener.

9) Prior to installation, check for and avoid any damaging of covered electrical, gas or water lines in the walls or ceilings!

10) The garage ceiling must be designed so that a secure fastening of the opener is guaranteed!

11) The installer must ensure that the opener is firmly attached to the garage structure! Do not attach to gypsum or plaster ceilings!

12) The emergency release rope must be installed at an easy to reach height! Check the emergency release to ensure operation with only moderate force required!

13) Do not use the emergency release rope to open or close the door!

14) Check the function of all safety devices (light beam device, emergency release, and automatic reversal)!

15) After installing the opener, the door must reverse when it contacts a 40mm high object (or a 50mm by 100mm board laid flat) on the floor!

16) The mechanical limitation device should be installed on the end of each horizontal rail in order to avoid the door panels sliding out of the rail.

17) The installation and wiring must comply with regulations.

Work safely! Always wear appropriate safety protection when using any tools! For garages without a second access, an additional emergency release is necessary, which prevents a possible lock out!
3.2. Installation Sketch Map
As figure 1 shows the completed installation:

3.3. Sectional Rail Assembly (Note: Except for integral rail)
3.3.1. Rail Connection
Take out the sectional rails (as shown in Figure 2), put them on a clean and flat floor (as shown in Figure 3) and put them in line. Connect the sectional rails (as shown in Figure 4), finish it as shown in Figure 5.

3.3.2. Fix Chain (belt)
As shown in Figure 6, install front support of rail, adjust chain or belt with modest tension.
3.4. Opener Assembly

3.4.1. Opener Connection
Assemble opener as shown in Figure 7. Fasten four anti-loose screws M8 x 16.

3.4.2. C-type Slide Rail Assembly and Clutch Cord Fixed
As shown in Figure 8, fasten the clutch rod group and back slide rail together with cross-slot small head screw M6x20. Ensure that it is solid and reliable. Tie the rope on the clutch rod.

3.4.3. Lifting Plate Connection
Connect lifting plate as shown in Figure 9. L is about 100mm, keep bolts loose in order to adjust the L length.

3.5. Installing Opener

3.5.1. Install the Front Bracket
As shown in Figure 10, determine the installation location of front bracket, then fix it on the door head with bolts M8.

Note: Check that the front bracket is strong enough for the job.

3.5.2. Install Perforated Bracket
Cut out a 400-450mm matching bracket, determine its installation location as shown in Figure 11, then fix it on the ceiling with bolts M8.

Note: Check that the perforated bracket is strong enough for the job.
3.5.3. Installing Opener
As Fig 12 shows, connect the rail to the front bracket on the wall, please lift motor side of the opener to make the rail level and coincide with the lintel center line of headroom. Adjust the length of L1, and connect the perforated angle with bolts. The length of L2 can be cut according to needs. If door height is higher than 2,7 meters, in order to keep rail stable and rigid, needs to install a bracket in the middle of rail as Fig 1 shows.

3.5.4. Installation of Garage Door Bracket
Close the door, and set down the installing position of door bracket as Fig 13 shows (L2= 30 – 50 mm), then fix it with self-tapping screws.

Note: If there is no corresponding support steel sheets in the door panel’s center, the support board must be added to ensure the installation strength of door bracket.

3.5.5. Installation of Drawbar
As Fig 14 shows, respectively connect straight drawbar and clutch, bent drawbar and door bracket; then pull down the rope on clutch to release it, move the clutch base to the position as Fig 14 shows, then use bolts to lock straight drawbar and bent drawbar. Adjust the length of clutch rope to make the height from the clutch handle to the ground not less than 1.8 metres.

3.6. Installation of Door Opening Limit Piece
Manually open the door to the normal opening height, then use bolts M6x12 to fix the limit piece at the position as Fig 15 shows and fasten them. If the installing position is not pre-drilled, please drill the holes yourself.
4. Adjustments

Open the cover as Fig16 shows before adjusting.

4.1. Ready Status
After switching on the power, the LED lights will light for 2 seconds and then turns off. Then the opener enters ready status, the LED flashes slowly showing the door position. As Fig17 shows, from left to right, they are representing opening limit position, middle position, and closing limit position.

4.2. Operation
When a remote is programmed as a two-button type, press the open-button to open the door, press the close-button to close the door. If the door is moving, press any button to stop the door. When a remote is programmed as a one-button type, only the button which was used when learning the remote is workable, and it simply cycles between opening and closing. Button “+” on the opener can also control the door movement and it simply cycles between opening and closing. Pressing button “-” can control the lights.

4.3. Adjusting Settings

4.3.1. Enter the Adjustment Mode
In ready mode, press the “P” button until the LED displays as per Fig18, then release the button.

4.3.2. Auto Detecting Door Limits
Press the “P” button until LED shows as Fig18. Press “+”, the lamp begins to flash, the opener goes toward the opening direction automatically, stops at the mechanical open limit position, then goes automatically toward closing direction and stops at the close position. When the lamp stops flashing, the detect procedure is finished, and it exits the setting mode automatically. After the detecting procedure, the garage door can be used normally. During the auto detect, when the door is fully closed, pressing “-” button can stop the opener working and set up present close position as after close position manually.

Notice:
A) Before auto detect, please install and firmly fix the opening mechanical limit equipment on the opener guiding rail (see 3.5).
B) If the photo beam is equipped, please finish installing the photo beam before using Auto Detect. And please don’t shield the photo beam ray during Auto Detect.
C) Ensure the door is unobstructed during Auto Detect.

4.3.3. Close Gap
Press the “P” button until LED shows as Fig19. Pressing “+” and “-” can adjust the close gap where each increase or deduction of value, means the close gap increases or reduces by 5mm. After adjustment, just press “P” to confirm. If you don’t need to change the value, just press “P” to move to the next step.
4.3.4. Opening Force Setting
Press the “P” button until LED displays as per Fig 20. Pressing “+” and “-” will adjust the opening loading force by adjusting the value from 0 to 9 where the bigger the value is, the greater the opening door force is, and consequently less sensitivity against obstacles. After the adjustment, just press “P” to confirm. If you don’t need to change the value, just press “P” to move to the next step.

4.3.5. Closing Force Setting
Press the “P” button until LED displays as per Fig 21. Pressing “+” and “-” will adjust the closing loading force by adjusting the value from 0 to 9 where the bigger the value is, the greater the closing door force is, and consequently less sensitivity against obstacles. After the adjustment, just press “P” to confirm. If you don’t need to change the value, just press “P” to move to the next step.

4.3.6. Photo Beam
Press the “P” button until LED displays as per Fig 22. Pressing “+” and “-” will adjust the photo beam by adjusting the value from 0 to 2 where:

- 0 - No photo beam
- 1 - valid while closing
- 2 - valid while both closing and opening

After the adjustment, just press “P” to confirm. If you don’t need to change the value, just press “P” to move to the next step.

4.3.7. Auto Close
Press the “P” button until LED displays as per Fig 23. Pressing “+” and “-” will adjust the auto-closing time by adjusting the value from 0 to 9 where:

- 0 - prohibit the auto close function
- 1 ~ 9 - Auto close delay time 1min ~ 9min

After the adjustment, just press “P” to confirm. If you don’t need to change the value, just press “P” to move to the next step.

4.3.8. Transmitter Learning and Deletion
4.3.8.1. Transmitter Learning
When opener is in standby mode, press “-” until the LED point lights up, then release the button and press the same button on the remote more than twice. The point will blink quickly and turn off in 2 seconds. It means the learning is successful. If it is not successful, the point will turn off without blinking in 2 seconds. Please refer to Fig. 24. The wireless wall switch is also programmed the same as the remotes. Repeating this process can learn more remotes.

4.3.8.2. Transmitter Deletion
When opener is in standby mode, press “-” for around 6 seconds until LED point lights up and then goes off, then release the button. All the remotes and wireless switches are deleted.

Notice: After this process, all transmitters need to learn again.
4.4. Advanced Settings
In ready mode, press the “P” button until the LED displays as per Fig25, then release the button.

4.4.1. Remote Setting
When the LED displays as per Fig 25, pressing “+” or “-“ will set the remote type by adjusting the value between 0 and 2 where:
- “0” stands for two buttons control
- “1” stands for single button (the one learned) control
- “2” stands for opening button controls the door and closing button controls the light
Press “P” to confirm the setting. If you don’t need to change the value, just press “P” to move to the next step.

4.4.2. Auto Closing Setting
When the LED displays as per Fig 26, pressing “+” and “-“ will adjust the auto closing setting between 0 and 1 where:
- “0” stands for auto closing has no relationship with photo beam
- “1” stands for forbidden to use auto closing when photo beam is set as 0
Press “P” to confirm the setting. If you don’t need to change the value, just press “P” to move to the next step.

4.4.3. Reset to Factory Setting
When LED displays as per Fig 27, pressing “+” and “-“ will adjust the factory setting to between 0 and 2 where:
- “0” stands for not Resetting to factory setting
- “1” stands for Reset to factory setting and keep the remotes
- “2” stands for Reset to factory setting and delete the remotes
Press “P” to confirm the setting. If you don’t need to change the value, just press “P” to move to the next step.

4.5. Fault Information
This opener can auto detect any errors during running and display the error information. When an error occurs, the LED will display the error code, the radix point will also flash quickly. After 5 seconds of flashing the error information, it will automatically revert to normal display.
- “1.”: means the journey setting fault
- “2.”: means protection against obstacle during opening
- “3.”: means protection against obstacle during closing
- “4.”: means beam of photocell is shielded or photocell is damaged
- “5.”: means remote error in learning or coding
- “6.”: means the running time exceeds 100 seconds
- “7.”: means speed sensor is damaged
- “8.”: means DC motor is damaged
5. Locking Door Manually

As shown in Fig. 28, if the door is open when the power goes off, you can disconnect the clutch, pull the door to the closed position by hand, and locked in the limitation hole of the rail. When the power comes back on, it is not necessary to open lock by hand, just use the remote or wireless wall switch. When the opener runs to the close position, the clutch will connect automatically and unlock simultaneously, then the door can be used as normal.

Notice: Please be gentle with clutch in case of damage.

6. Accessories

6.1. Photo Beam Installation

Photo beam is an infrared protection system. If any person or obstacle interrupts the infrared beam when the door is closing, the opener will stop working instantly and will move back to full opening position automatically.

6.1.1. Positioning Photo Beam

See Fig. 29. Fix photo beam bracket on the left and right wall outside the vertical tracks with self-drilling or expanding screws. Then install the photo beam inside the brackets with M6×30 screws. Notice: The two photo beam axis should be on the same line. Make them far enough away from the doorway as possible so as to avoid the sun shining on it.

6.1.2. Wiring

Open the opener cover as per Fig. 30, then connect two wire connecting terminals of photo beam shooting part and receiving part with the two terminals in opener marked with “PHOTO”. These two signal wires can be connected optionally. Notice: Please set photo beam as “1” or “2” in the set up manual, or the photo beam cannot work.

6.2. Wall Button Installation

Please refer to step 4.3.8. for programming of remote wall switch. The wall switch must be installed in a place that can clearly see the operation of the door and must be 1.3m above the ground to prevent children from playing with it. Open the opener cover as per Fig. 31, then connect the two terminals in the back of wall switch with the two terminals in the opener marked “SW-WALL”. Then screw the wall switch on the wall.
6.3. Alarm Installation
The opener can connect with your alarm. If the door is opened manually when the opener is closed, the alarm will keep beeping for 1 min before activating. Pressing the wall switch or remote will cancel the alarm. Connect wires according to Fig.32 and refer to the alarm manual about the detailed alarm installation and adjustment. Notice: Please ensure the alarm switch can be pressed when the door is closed.

6.4. Back-up Battery Installation
The opener can connect with a back-up battery (optional). The battery can be charged via the opener. If there is a power failure, the opener will change to battery power supply automatically. The battery is DC24V maintenance-free lead acid storage battery or two DC12V batteries. Please refer to Fig.33.

7. Maintenance and Repair
Please inspect the automatic reversal and the door balance monthly and adjust it if necessary.

8. Technical Data

   a) Max. output power: 200W (S3) 250W (S4)
   b) Max. lifting force: 600N(S3) 800N(S4)
   c) Opening and closing speed: 160 mm/s
   d) Light: 12V ( high light LED )
   e) Motor: DC24V
   f) Remote control distance: 30 m
   g) Remote frequency: 433.92 MHz
   h) Transmitter amount: 100 pcs
   i) Temperature: -25°C ~ +55°C
   j) Back-up battery: DC24V 3-7Ah maintenance-free lead acid storage battery
9. Troubleshooting

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Reason</th>
<th>Solution</th>
</tr>
</thead>
</table>
| The opener doesn’t work and has no display on LED                      | • Opener is not powered on   
• Fuse on main control board is damaged                                  | • Switch on the power, inspect “POWER” socket                               
• Replace fuse using same type.                                           |
| The opener doesn’t work and the LED displays 1.                        | • Travel adjustment error                                               | • Re-adjust limit position                                               |
| Door stops before it is fully up on opening cycle; LED displays 2 or 3.| • The closing resistance is greater than that system set load activates the barrier protection system | • Inspect and adjust the door balance system                             |
| Door auto-reverses before reaching the ground on closing; LED displays 3.| • The closing resistance is greater than that system set load activates the barrier protection system | • Inspect and adjust the door balance system                             
• Increase door closing load                                               |
| The door won’t run in the closing door direction, LED displays 4.      | • The light of photo beam have been shielded;   
• System started to use photo beam system, but it hasn’t been connected. | • Remove the barrier in the beam road.                                   
• Prohibit using photo beam or connect the photo beam                     |
| Opener stops after a moment of running, LED displays 7.                | • speed sensor wire is loosed   
• speed sensor is broken                                                  | • reconnect the wires                                                    
• change speed sensor                                                     |
| Opener cannot run, LED displays 8.                                     | • DC motor wire is loosed   
• DC motor is broken   
• control board is broken                                                 | • reconnect the wires                                                    
• change DC motor                                                        
• change control board                                                    |
| Wall switch operates normally, but remote won’t.                       | • The transmitter has not learned   
• It has no battery in the transmitter                                    | • Learn transmitter according to the manual                              
• Change the battery of transmitter                                       |
| The remote working distance is less, the brightness of LEDs reduces.   | • The battery power is not enough                                       | • Change the battery                                                    |
| Remote operates normally, but the push button won’t respond.           | • Push button loose or broken circuit                                   | • Inspect push button wiring                                             |

The product appearance and functions may change without notice as development continues. This manual is for reference only.