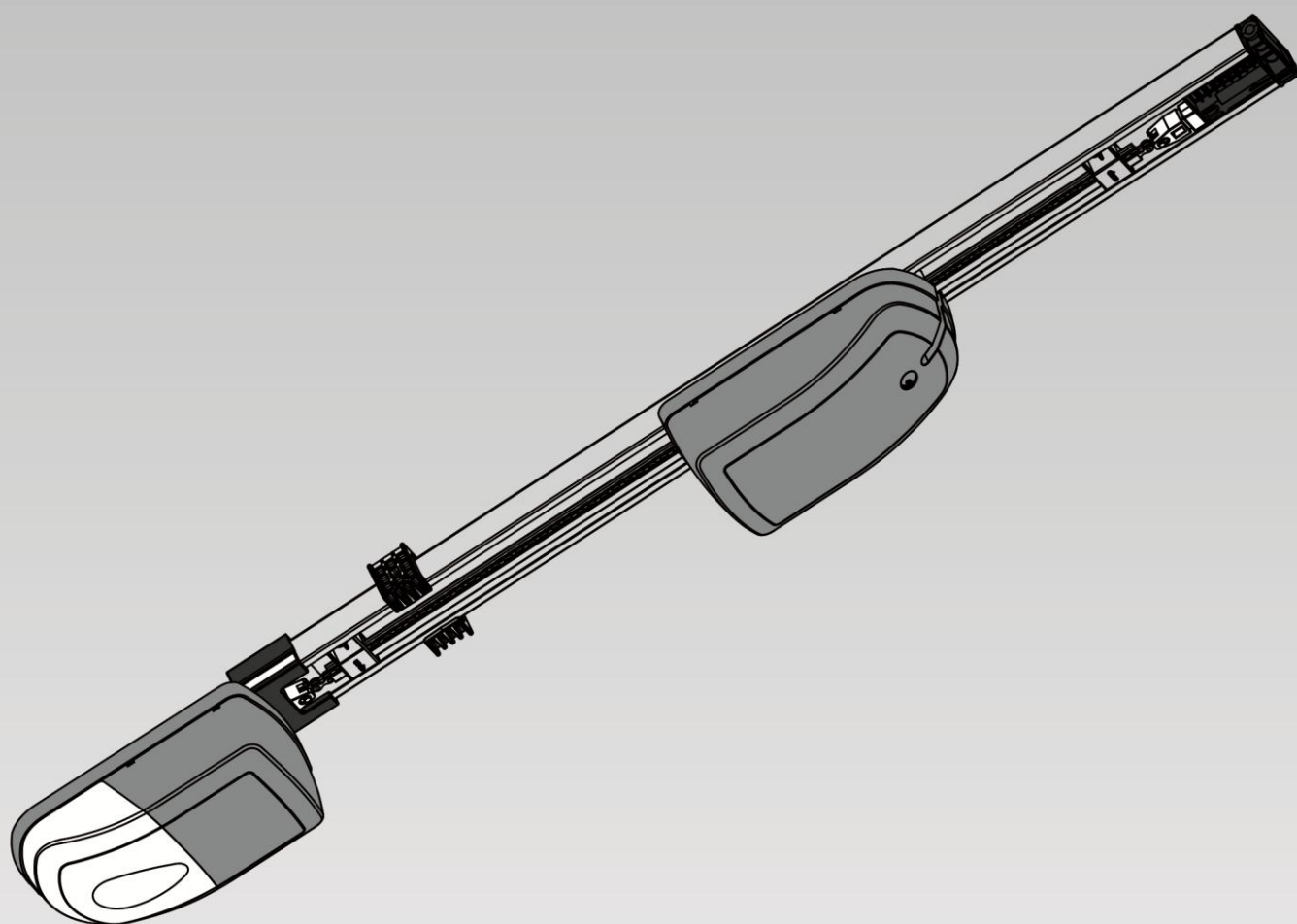




*Installation Instructions
and
User Guide*

WARNING: IMPORTANT SAFETY INSTRUCTIONS

It is important for the safety of persons to follow all instructions. Follow all instructions as incorrect installation can lead to severe injury. Save these instructions.

- Before installing the drive, check that the door is in good mechanical condition, correctly balanced and opens and closes properly.
The door is deemed to be well balanced and aligned if it:
 - a. requires an equivalent amount of applied force to either manually open or close, and
 - b. requires no more than 150N (15kg) of applied force to either manually open or close, and
 - c. does not rise or fall more than 100mm when released at any point between fully open or fully closed positions, and
 - d. does not rub on or incorrectly make contact with any supporting or surrounding structures
 Have a qualified person check and make repairs if required.
- Before installing the drive, remove all unnecessary ropes or chains and disable any equipment, such as locks, not needed for powered operation.
- Install the actuating member for the manual release at a height less than 1.8 meters
- Permanently fix the label concerning the manual release adjacent to its actuating member.
- Install any fixed control at a height of at least 1.5 meters and within sight of the door but away from moving parts.
- Permanently fix the labels warning against entrapment in a prominent place or near any fixed controls.
- After installation, ensure that the mechanism is properly adjusted and that the drive reverses when the door contacts a 50 mm high object placed on the floor, for drives incorporating an entrapment protection system depending on contact with the bottom edge of the door.
- After installation, ensure that the parts of the door do not extend over public footpaths or roads.
- After installation, ensure that the drive prevents or stops the opening movement when the door is loaded with a mass of 20 kg, fixed centrally on the bottom edge of the door (for drives that can be used with doors having openings larger than 50 mm in diameter).
- Never use the Drive unless the garage door is in full view and free from any object which may impede its movement such as cars or persons.
- this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved
- Children shall not play with the appliance
- Cleaning and user maintenance shall not be made by children without supervision
- Do not allow children to play with 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 since an open door may fall rapidly due to weak or broken springs, or being out of balance.
- Frequently examine the installation, in particular check cables, springs and mountings for signs of wear, damage or imbalance. Do not use if repair or adjustment is needed since a fault in the installation or an incorrectly balanced door may cause injury
- Each month check that the drive reverses when the door contacts a 50 mm high object placed on the floor. Adjust if necessary and recheck since an incorrect adjustment may present a hazard;
- Never attempt to open or close the garage door by pulling on the Engage/Disengage Cord.
- Removal of the protective covers must only be performed by a technically qualified person.
- Never attempt to make any repairs or remove covers from the Drive without first disconnecting the power cord from power supply.
- For safety reasons always ensure that the garage door is fully open and stationary before driving into or out of the garage.
- For security reasons always ensure the garage door is fully closed and stationary before moving out of its view.
- Keep hands and loose clothing clear of the Drive and moving garage door at all times.
- In order for the Safety Reverse system to function it must first encounter an obstruction in the form of an object/person on to which some force **must** be exerted. As a result the object/person/garage door may suffer damage and/or injury.
- Adjustments to the Safety Reverse system settings must only be carried out by a technically qualified person.
- The Safety Reverse 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 during an opening or closing movement.
- For additional safety we strongly recommend the inclusion of Safety Beams. Although the Drive incorporates a pressure sensitive Safety Reverse system, the addition of Safety Beams will greatly enhance the safety of an automatic garage door and provide additional peace of mind. In some countries it is a mandate of law to fit Safety Beams. It is the sole responsibility of the owner/installer to fit Safety Beams in those countries that so require.

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1. Identify Door Type and Assembly Method

- From the diagrams select the installation combination which best suits the garage door type.
- The Control Box (Fig.1-1) may be mounted as follows;
 - on the end of the Rail (Fig.1-A), or
 - on the ceiling adjacent to the Rail (Fig.1-B), or
 - on a side wall of the garage using an optional cable extension kit (Fig.1-C)

2. Attach Nose Piece

Installation Method 1-A

- Securely attach Socket Piece (Fig.2-1) to the Control Box (Fig.2-2) using the screws (Fig.2-3) provided

Installation Methods 1-B & 1-C

- Do not attach Socket Piece to the Control Box as it must be fixed to the ceiling or side wall

3. Assembly

- Align and insert each Drive Rail Joiner (Fig.3B-1) into a Drive Rail Segment (Fig.3-2) and push them together until they are fully abutted and form one continuous Drive Rail Assembly.
- Slide the Drive Rail Hanger (Fig.3-3) onto the Drive Rail Assembly.
- Slide the Control Box (Fig.3-4) onto the Drive Rail and then insert the Lock Pin (Fig.3-5) into the Chain and Chain Connector.
- Use a 13mm Socket Wrench (Fig.3B-6) to tighten the Chain Tensioner Bolt (Fig.3-7) so that the underside of the Bolt Head aligns with the Indicator Arrow.
- The Drive is now fully assembled and ready for installation

Before commencing the installation ensure that you have carefully read & understood the Safety Recommendations outlined on Page 3 of this manual. Always ensure that the bottom edge of the Drive Rail is located within 50mm of the top edge of the top panel of the garage door at its highest arcing point.

4. Mount Wall Bracket and Towing Bracket

Wall Bracket

- Determine highest arcing point of the Door and mark this as a Horizontal Line (Fig.4-1) on the wall above the door
- Determine the Door center line and mark a Vertical Line (Fig.4-2) on the wall above the door.
- Position the Wall Bracket (Fig.4-3) as depicted and ensure its bottom edge is **no more than 50mm** above the horizontal marked line (fig.4-1)

- Mark the location of the 2 outer most screw holes (Fig4-4)
- Fix the Bracket to the wall using 8mm x 50mm screws.

Towing Bracket

- Using 4 x self drilling screws, or 2 x 6mm screws with nuts fix the Towing Bracket (Fig.4-5) to a structural member of the Garage Door as close to the top edge as possible and on the centerline of the door.

5. Attach Drive Rail to Wall Bracket

- ***Important Note: Avoid scratches and potential damage to the plastic covers by placing the Drive on cardboard.***
- With the Garage Door (Fig.5-1) in the fully closed position - lay the assembled Drive on the floor in line with the centerline of the Garage Door so that the Control Box. (Fig.5-2) is furthest from the Garage Door.
- Raise the Drive Rail (Fig.5-3) up to the Wall Bracket (Fig.5-4) so that the Drive Rail sits in between the ears of the Wall Bracket.
- Align the mounting holes of the Drive Rail and Wall Bracket and fully insert the Long Clevis Pin and secure it with the Spring Clip.

6. Mount Drive to Ceiling

- ***Important Note: Do not lift the Drive by the Control Box or damage may occur. Always lift the Drive by the Drive Rail.***
- Raise the Drive off the floor and rest it on a Support (Fig.6-1) high enough that the Drive Rail (Fig.6-2) runs parallel to the ground.
- Slide the Drive Rail Hanger (Fig.6-3) along the Drive Rail (up to max 600mm from the Control Box) and align it with a structural member of the garage.
- Securely fasten 2 Metal Hangers (Fig.6-4) to the structural member and then attach the Metal Hangers to the Drive Rail Hanger.

7. Attach Towing Arms

- Close the Garage Door and remove the Drive Unit Cover (Fig.7-1)
- Insert the Straight Towing Arm (Fig.7-2) through the slot in the cover.
- Attach the Straight Towing Arm to the Drive Unit (Fig.7-1) using the clevis pin and spring clip provided and then replace the Cover.
- Attach the Bent Towing Arm (Fig.7-3) to the Towing Bracket (Fig.7-4) using the clevis pin and spring pin provided.
- Bring the 2 Arms together and align the 2 sets of holes which are furthest apart from each other.
- Securely fix the Towing Arms together using the 2 x 8mm screws and nuts provided.

8. Connect to Power Supply

- Connect to a properly earthed power supply using the power cord provided.
- Important Note: Ensure that the power cord does not touch the moving door and that no excess cord hangs below the Drive when it is plugged in.
- The Drive is now installed and ready for adjustment.

9. Manual Release

Safety Warning: Always release the Drive with the door in the fully closed position. If disengaging from any position other than the door fully closed ensure that there are no persons or property near or directly under the path of the door.

To Release

- Pull down on the release handle (Fig.8) until a click is “felt” and then release the handle

To Engage

- Pull down on the release handle (Fig.8) once again until a click is “felt” and then release the handle

10. Transmitters – Learning and Deleting

A. SIMPLE LEARNING

Function

Learns individual Transmitter Buttons

To Enable

- Set Dip 5 to “OFF” position (Fig.11-1)

A1. Run A

Function

Learns Run function only

To Learn

- Momentarily press Learn Button (Fig.9-1)
 - Light paused single blink
- Momentarily press desired Transmitter Button (Fig.9-2)
 - Light extinguish
- Momentarily press same Transmitter Button (Fig.9-2)
 - Light rapid flash then extinguish
 - Learn completed

A2. Run B

Function

Auto Close Disabled – Functions same as Run A

Auto Close Enabled – Door will not Auto Close when opened from this button.

To Learn

- Momentarily press Learn Button (Fig.9-1) 2 times
 - Light paused 2 times blink
- Momentarily press desired Transmitter Button (Fig.9-2)
 - Light extinguish
- Momentarily press same Transmitter Button (Fig.9-2)
 - Light rapid flash then extinguish
 - Learn completed

A3. Courtesy Light On/Off

- Momentarily press desired Transmitter Button (Fig.9-2)
 - Light extinguish
- Momentarily press same Transmitter Button (Fig.9-2)
 - Light rapid flash then extinguish
 - Learn completed

Function

Turns Courtesy Light on/off

To Learn

- Momentarily press Learn Button (Fig.9-1) 3 times
 - Light paused 3 times blink
- Momentarily press desired Transmitter Button (Fig.9-2)
 - Light extinguish
- Momentarily press same Transmitter Button (Fig.9-2)
 - Light rapid flash then extinguish
 - Learn completed

A4. Ventilation Mode

Function

Leaves the garage door open by 40mm

To Learn

- Momentarily press Learn Button (Fig.9-1) 4 times
 - Light paused 4 times blink
- Momentarily press desired Transmitter Button (Fig.9-2)
 - Light extinguish
- Momentarily press same transmitter button (Fig.9-2)
 - Light rapid flash then extinguish
 - Learn complete

B. MASS LEARNING

Function

Learns ALL 4 Transmitter Buttons in the following order; 1-Run, 2-Auto Close Override, 3-Courtesy Light, 4-Ventilation

To Enable

Set Dip 5 to “ON” position (Fig.11-1)

To Learn via Control Panel

- Momentarily press Learn Button (Fig.9-1)
 - Light paused single blink

To Learn via Transmitter

- *Pre Learned transmitter* - Long press button 3
 - Light paused single blink
- *New transmitter* - Momentarily press desired button
 - Light extinguish

- *New transmitter* - Momentarily press same Button
 - Light rapid flash then extinguish
 - Learn completed

C. Wireless Wall Switch

The wireless wall switch can be programmed in the same way as a transmitter.

Select one of the methods outlined in points A or B and Learn accordingly.

D. DELETING TRANSMITTERS

Function

Deletes all previously Learned Transmitters

To Delete

- Momentarily press Learn Button (Fig.9-1)
 - Light paused single blink
- Long press Run button (Fig.9-2)
 - Light rapid flash then extinguish
 - deleting completed

E. BATTERY REPLACEMENT

Follow the procedure outlined in Fig.9A

Replace the battery with one of identical specification

11. Door Travel Adjustment

Open Direction

- Loosen the Limit Prong Lock Screw (Fig.10-1) half a turn
- Slide the Limit Prong (Fig.10-2) towards the front wall of the garage to increase garage door travel and away from the front wall to decrease garage door travel.
- Retighten the Limit Prong Lock Screw once correctly adjusted.

Close Direction

- Loosen the Limit Prong Lock Screw (Fig.10-3) half a turn
- Slide the Limit Prong (Fig.10-4) towards the Control Box to increase garage door travel and away from the Control Box to decrease travel.
- Re-tighten the Limit Prong Lock Screw once correctly adjusted.

12. Safety Reverse

During a closing movement Auto Reverse ensures that the garage door will stop and reverse (Safety Reverse) when it encounters an obstruction thus ensuring the safety of people and property. During an opening movement the garage door will stop (Safety Stop) when it encounters an obstruction. The amount of force required to make the garage door Safety Reverse/Stop can be adjusted. A low force value ensures maximum safety, but requires a very well sprung and installed door in order to avoid ghosting (false safety reversing/stopping). A high force value ensures that even a badly sprung or worn door will work without ghosting. The following details the correct force value set up and adjustment procedure.

A MODE

Description

The most sensitive system best suited for use on new well sprung doors - automatically compensates on each and every cycle for door wear ageing and seasonal temperature change for the lifetime of the door

Function

During a closing movement the Drive will Safety Reverse upon encountering an obstruction

During an opening movement the Drive will Safety Stop upon encountering an obstruction

Enabling

- Switch power off at power outlet
- Remove the Control Box Cover
- Select Dip 1 (Fig.11-1) to "ON" position

Learning

In order to Learn Safety Reverse and Safety Stop values the Drive will be required to complete 6 uninterrupted open and close cycles. During the learning process the Courtesy Light and LED (Fig.9-4) will rapid blink. Courtesy Light and LED will extinguish once learning is complete

Adjustment

Rotate the Green "Offset" Adjust Pin (Fig.9-5) in a clockwise direction (towards "+") to increase the force required to make the garage door Safety Reverse or Stop and in an anti clockwise direction (towards "-") to decrease the force required to make the garage door Safety Reverse or Stop.

Testing Close Direction Force

Ensure that the garage door is resting firmly against the ground. Open the door and place a 40mm thick block of

wood on the ground under the path of the door. Now close the door – if the drive force value is correct the Drive will stop and reverse direction upon encountering the block of wood. If too little or too much force is required to make the Drive reverse direction – turn the Green "Offset" Adjust Pin (Fig.9-5) 5 degrees in the appropriate direction – clockwise (towards "+") to increase the amount of force and anti clockwise (towards "-") to decrease the amount of force and then repeat the test.

Important Note: During Learning - if the door load is excessive Drive will stop and Courtesy Light will double flash

Forced Learn

May be initiated by long press of;

- Learn Button (Fig.9-1) for 3 sec
 - Courtesy Light and LED (Fig.9-4) will rapid blink.
 - Repeatedly cycle the Drive
 - Courtesy Light and LED will extinguish once learning is complete

Automatic Relearn

An Automatic Re Learn will be initiated immediately subsequent to either one of the following 3 occurrences;

- Run time deviation becoming excessive, or
- Safety Reverse occurring on 3 consecutive occasions, or
- Safety Stop occurring on 3 consecutive occasions.

During relearn LED (Fig.9-4) will paused single blink then extinguish once relearn is complete

M MODE

Description

A less sensitive Safety Reverse system more suited for use suited for use on large, heavy or badly worn doors.

Function

Features conventional one time force adjustment – during a closing movement the Drive will stop and commence to Safety Reverse upon encountering an obstruction.

Enabling

- Switch power off at power outlet
- Remove the Control Box Cover
- Select Dip 1 (Fig.11-1) to the “OFF” position

Adjustment

- Open Direction - turn the Green “Open” adjust pin (Fig.9-5) to adjust open direction Safety Stop value – clockwise to increase force, anti-clockwise to decrease force
- Close Direction - turn the Red “Close” adjust pin (Fig.7-D) to adjust close direction Safety Reverse value – clockwise to increase force and anti-clockwise to decrease force
- Momentarily press “Learn” Button to close out the mode

Testing Close Direction Force

- Ensure that the garage door is resting firmly against the ground.
- Open the door and place a 40mm thick block of wood on

the ground under the path of the door.

- Initiate a close movement via transmitter or run button – if the drive force value is correct the Drive will stop and reverse direction upon encountering the block of wood.
- If too little or too much force is required to make the Drive reverse direction – turn the Green Offset Adjust Pin in a clockwise direction (towards “+”) to increase the force required to make the garage door Safety Reverse or Stop and in an anti clockwise direction (towards “-”) to decrease the force required to make the garage door Safety Reverse or Stop – and then repeat the test.

Testing Open Direction Force

- During an open movement apply some firm downward force to the garage door.
- If the Safety Stop value is correct the Drive will stop upon sensing the resistance.
- If too little or too much force is required to make the Drive stop - turn the Green Offset Adjust Pin in a clockwise direction (towards “+”) to increase the force required to make the garage door Safety Reverse or Stop and in an anti clockwise direction (towards “-”) to decrease the force required to make the garage door Safety Reverse or Stop – and then repeat the test

13. Auto Close

Function

Auto Close automatically closes the door;
– either 5 sec after a car has passed through the doorway,
– or after 30 sec if a car did not pass through the doorway.

To Enable

- Select Dips 2 and 3 (Fig.11-1) to the “ON” position.
- Note - Auto Close will only function when Safety Beams have been fitted and enabled

14. Back Jump

Function

Reverses the door to make disengagement easier

To Enable

- Select Dip 4 to the (Fig.11-1) to the “ON” position

15. Courtesy Light

Function

The Courtesy Light;
– provides garage illumination and Drive status indication
– will illuminate automatically each time the Drive is activated and will switch off 90 sec after the last activation
– may be switched on and off via button 3 of a bulk learned transmitter (refer sec.10)

Indication

- Slow blink – Learning Force values
- 2 x blink when transmitter is pressed – Safety Beam malfunction
- 3 x blink during Force learning – door load is excessive
- 4 x blink when transmitter is pressed – Drive has entered Vacation Mode

16. Dip Switch Functions

Dip No.	Function	Reference	Dip	Function	Reference
Dip 1	Auto/Manual Force	Sec.12	Dip 4	Back Jump	Sec.14
Dip 2	Safety Beams	Sec.18	Dip 5	Transmitter Mode	Sec.10
Dip 3	Auto Close	Sec.13	Dip 6 & 7	Ventilation Mode Time	Sec.21

17. LED Indicator

Function

The LED (Fig.9-4) provides Drive status information.

Indication

- Glow Solid – Drive has reached close limit position

- Slow Blink – Drive has reached open limit position
- Rapid Blink – Drive Learning new drive force values
- Intermittent Blink – Sleep Mode

18. Safety Beams

Function

Safety Beams constantly monitor for persons or objects which may cross the path of a moving garage door. The Drive will commence to Safety Reverse when the Safety Beams become momentarily or permanently interrupted during a closing movement. The Drive will support the connection of 2 or 4 wire Safety Beams.

Fault Indication

Courtesy Lights will double blink and the Drive will not move if the Safety Beams are faulty or misaligned.

Override

- Press and hold the Run Button (Fig.9-3) until the Drive has reached the fully closed position

To Enable

- Select Dip 2 to the "ON" position (Fig.11-1)

Connection

- 2 Wire Beams – Select jumper (Fig.11-3) to "2W" position and connect the wires as per Fig.11-A
- 4 Wire Beams – Select jumper (Fig.11-3) to "4W" position and connect wires as per Fig.11-B

19. Safety Strip

Function

The Door will Safety Reverse when Safety Strip is compressed

Connection

Connect to terminals as per Fig.11-E

20. Terminal Connections

Function

The following accessories may be connected;

- a. 2 Wire Safety Beams (Fig.11A)
- b. N.O. 24V DC 4 wire Safety Beams (Fig.11B)

- c. 24V DC universal receiver (Fig.11C)
- d. N.O. momentary (dry) contact wall switch (Fig.11D)
- e. Rubber Safety Strip (Fig.11E)
- f. Wicket Door Switch (Fig.12)

21. Ventilation Mode

Function

When activated from transmitter button 4 the door will;

- close to the ground, pause and then,
- reopen by a pre set Distance in the range of 50-300mm and then,
- close after a pre determined Close Time

Distance Adjustment

- Turn the Ventilation adjustment pin (Fig.9-6) in a

clockwise direction to increase the distance and in an anti clockwise direction to decrease the distance

Close Time Adjustment

- Close time can be adjusted via dip switches 6 & 7 (Fig.12) according to the following table;

Time (min)	30	60	120	240
Dip 6	OFF	OFF	ON	ON
Dip 7	OFF	ON	OFF	ON

22. Wicket Door Switch

Function

Renders the Drive inoperative whenever the wicket door is open

Connection

Connect as per Fig.12

23. Flashing Light

Function

Flashing light will activate whenever the door is in motion.

Connection

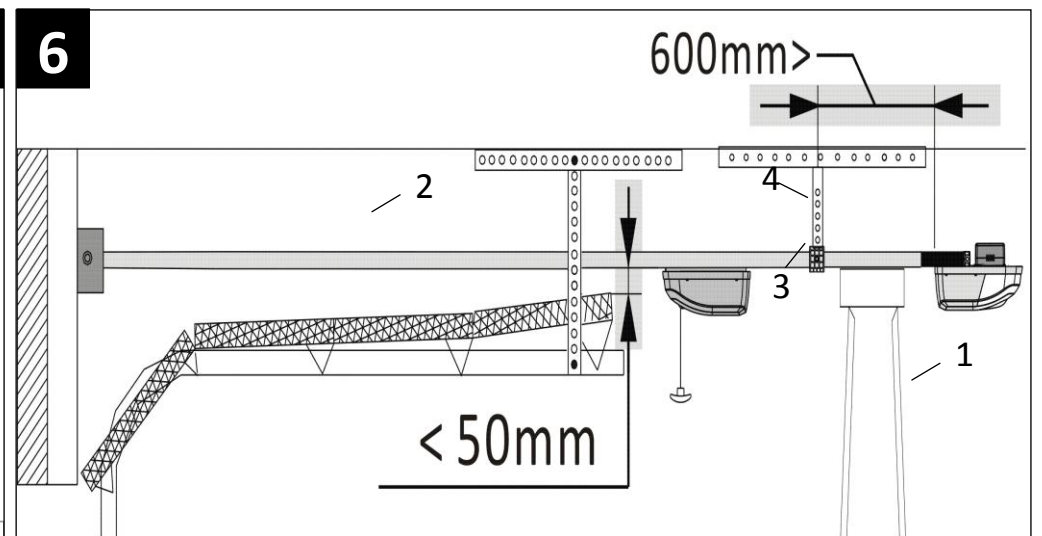
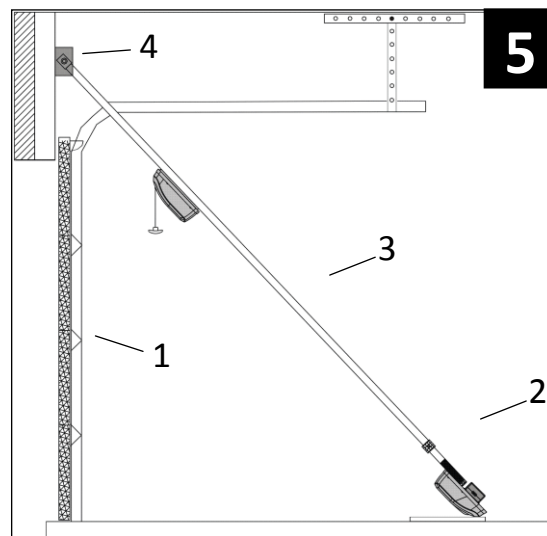
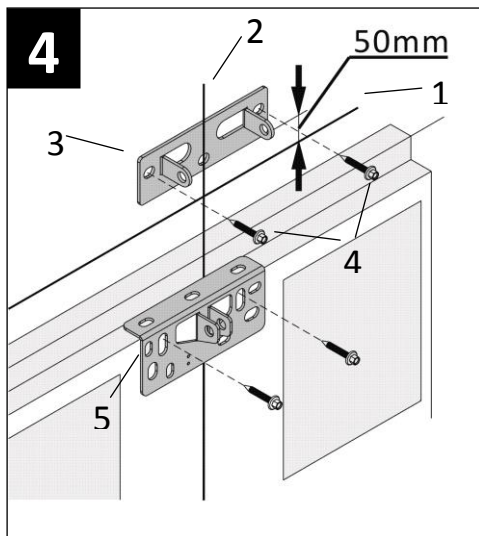
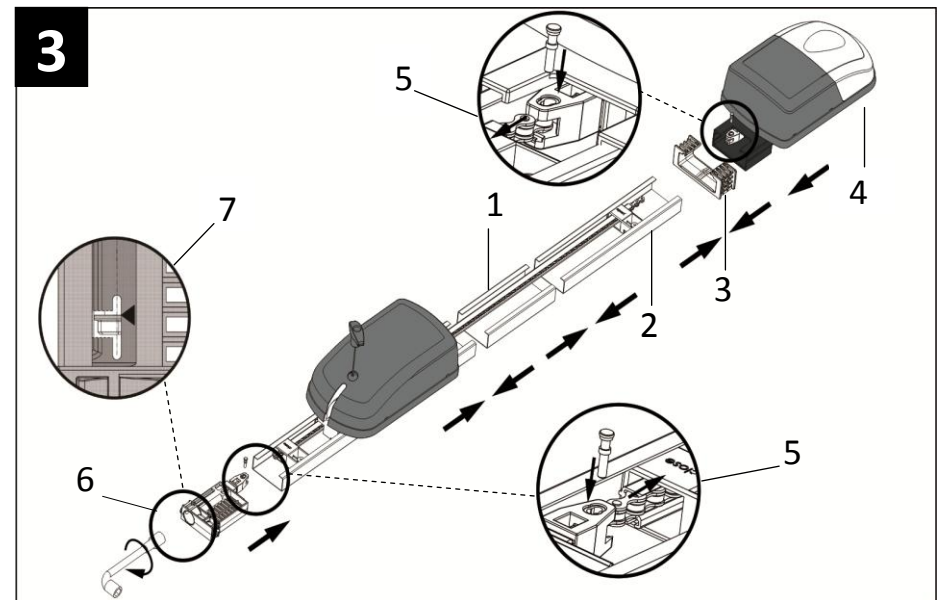
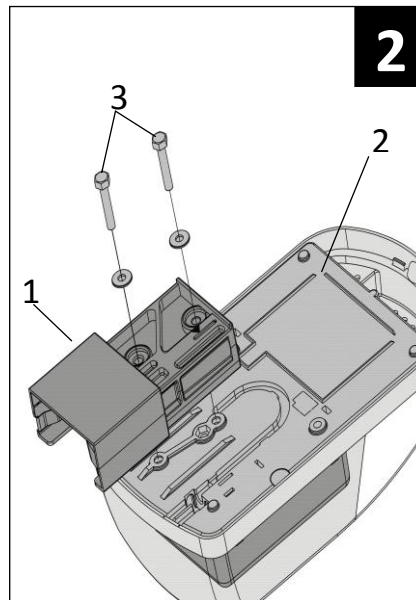
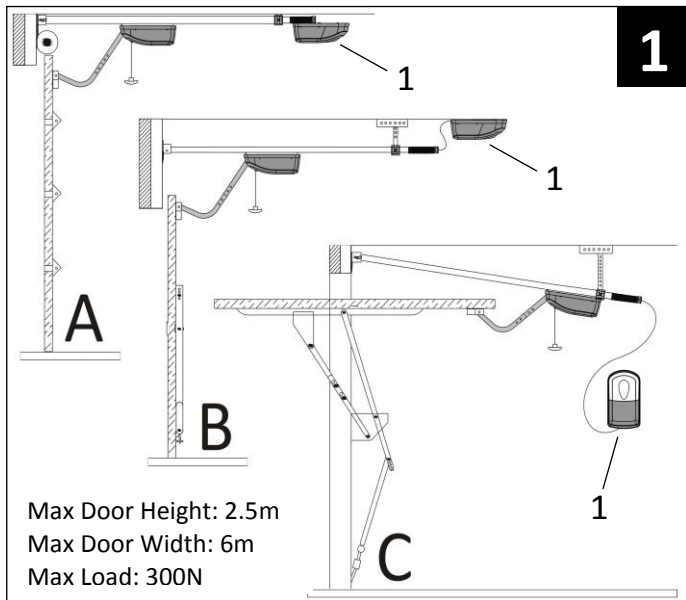
Connect to terminal Fig.11-4

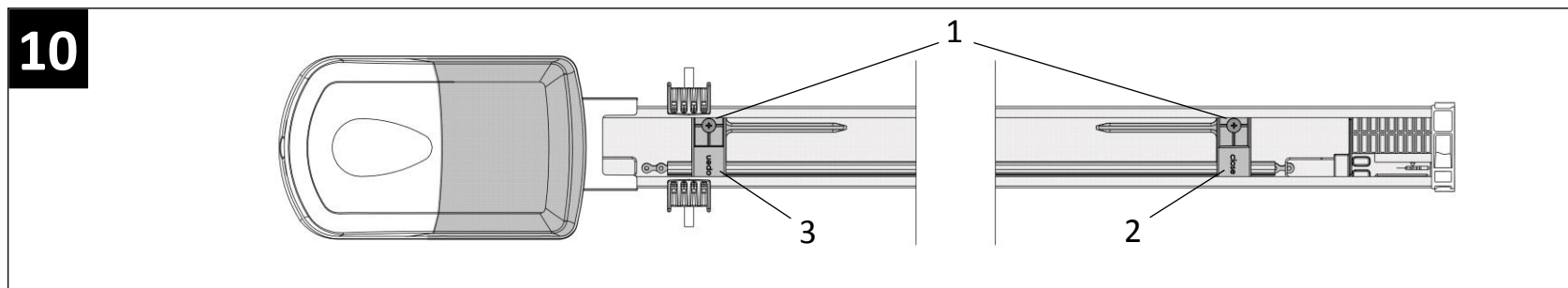
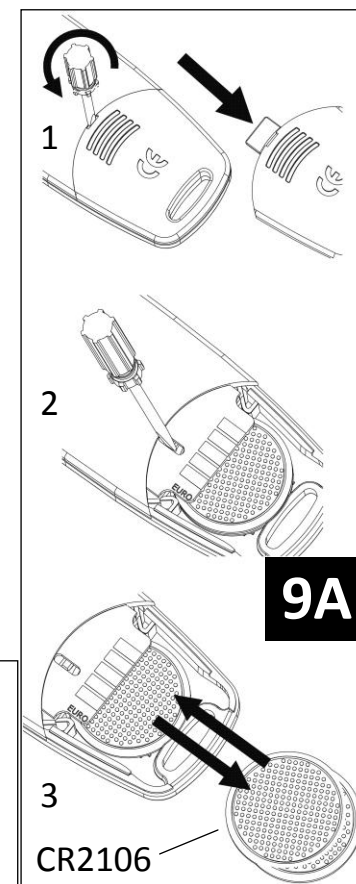
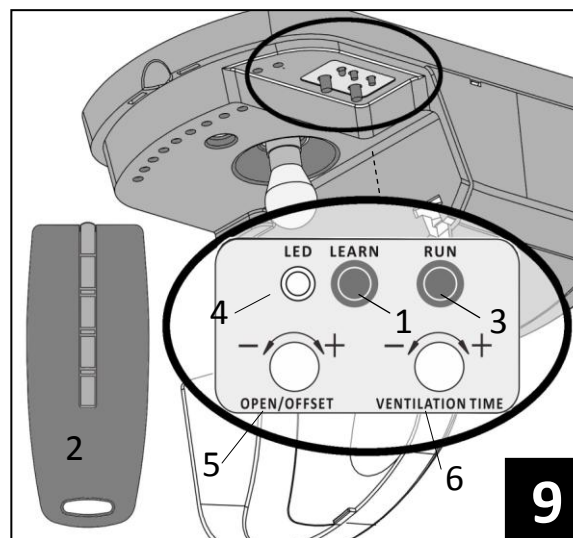
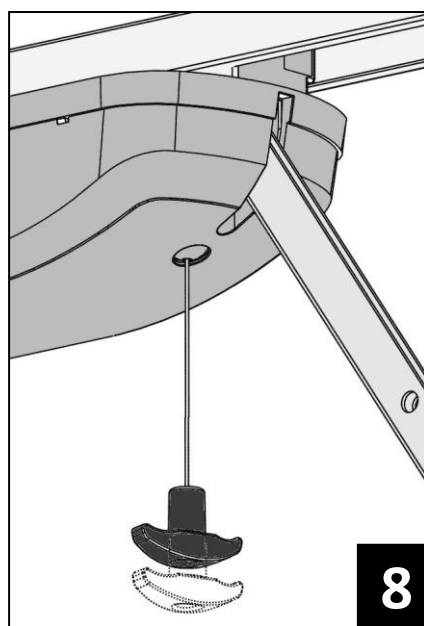
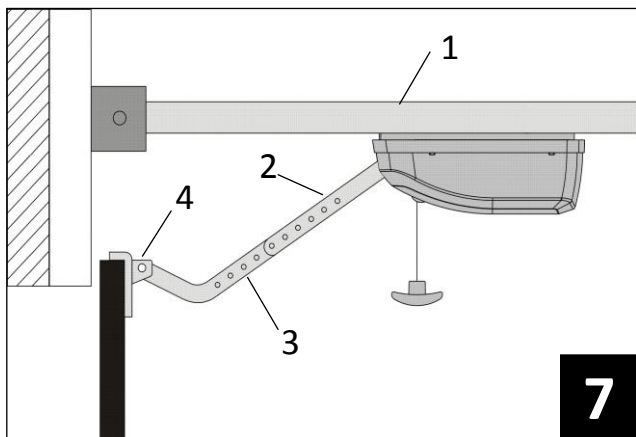
Note: Must be LED light with max current of 300mA

24. Maintenance

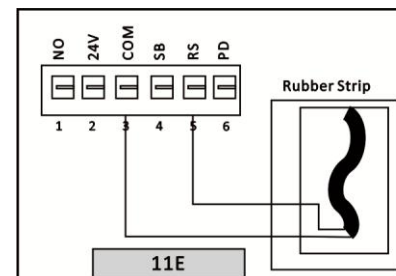
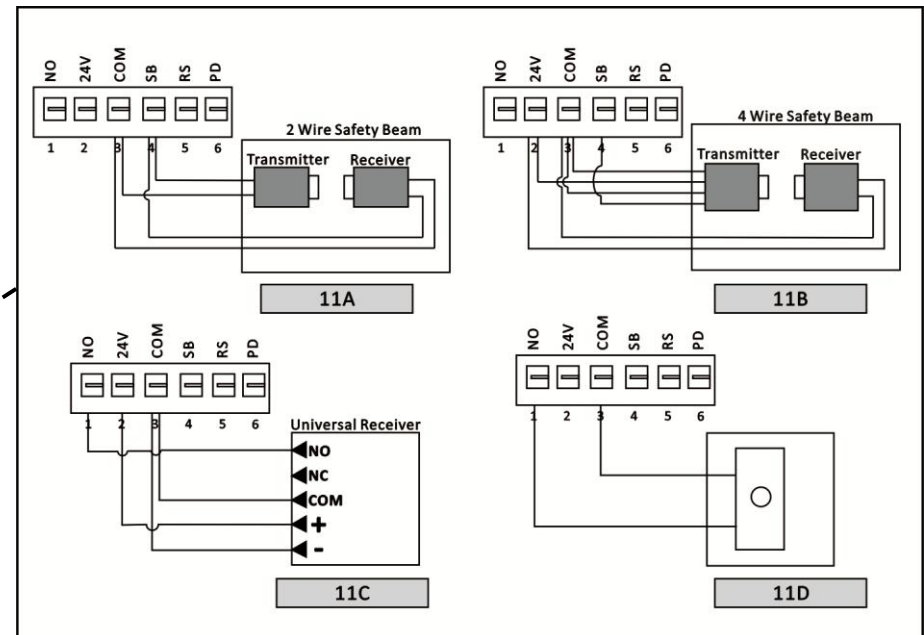
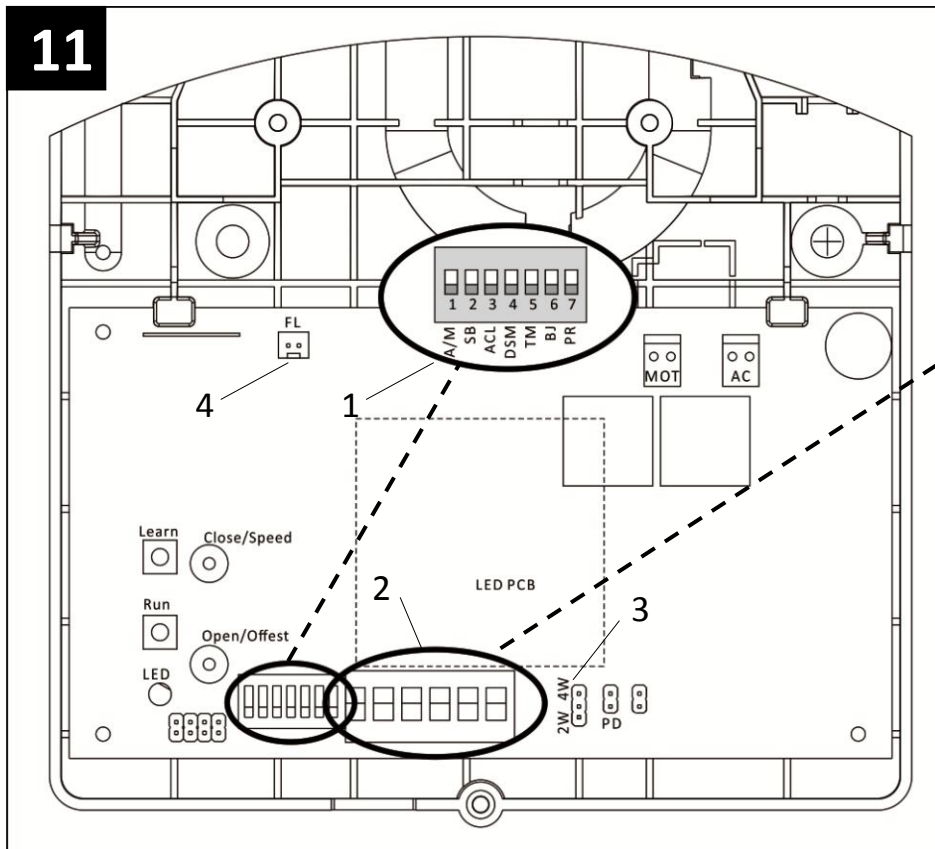
Once every 12 months lubricate the inside vertical faces of the Drive Rail with Ballistol liquid lubricant. No other maintenance operations should be carried out by the user.

WARNING: Applying grease to the inside of the Drive Rail will cause the Drive to malfunction

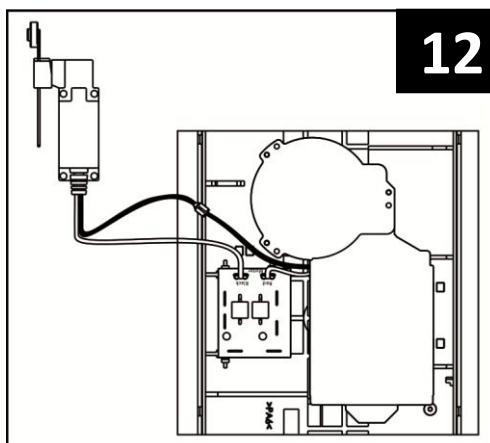


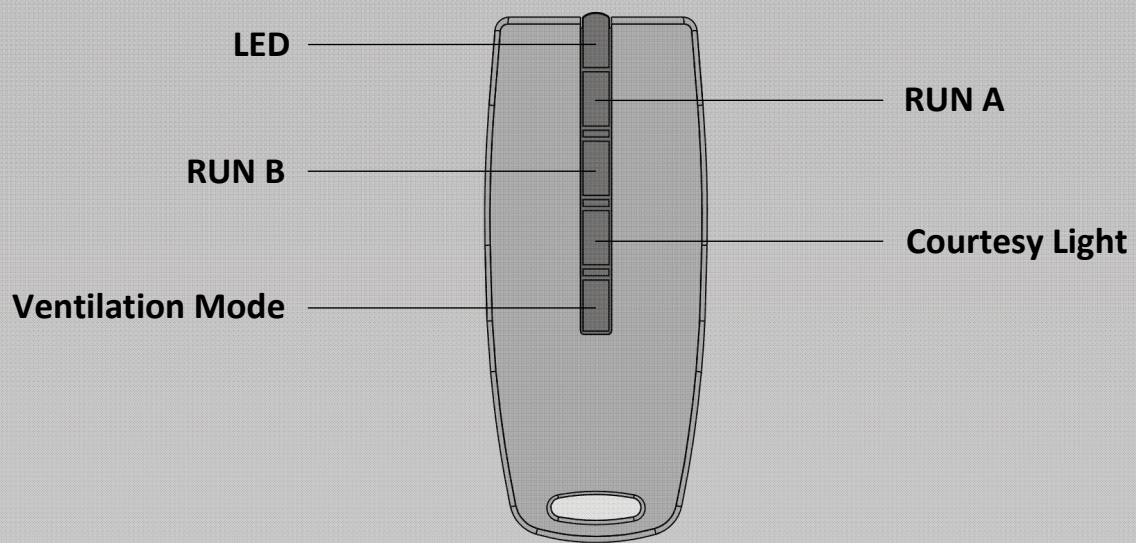


11



12





Run A	Refer Sec.10	Ventilation Mode	Refer Sec.10
Run B	Refer Sec.10	Battery Replacement	Refer Sec.10
Courtesy Light	Refer Sec.10	Transmitter Learning and Deleting	Refer Sec.10

