

MOTORISED OPENER FOR ROLL-UP TYPE GARAGE DOORS

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MOTORISED OPENER FOR ROLL-UP TYPE GARAGE DOORS

Section 1: Suitable Applications

This **GEMINI** Motorised Door Opening System is designed for and only compatible with the following type Domestic Garage Door:

***SINGLE OR DOUBLE ROLL-UP
DOORS AS DEPICTED BELOW:***

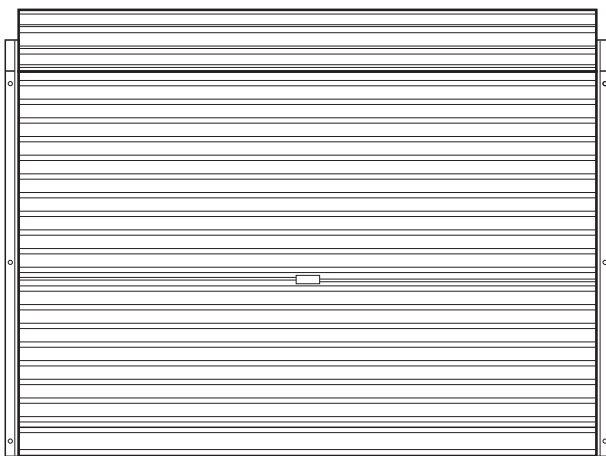


Figure 1

Please Note!

- This **GEMINI** Opener is only to be used with Roll-up Type Garage Doors which Slide and Roll Upwards of the Garage Entrance.
- Carefully read through this entire manual before installing or using this motorised door opener.
- It is important that the door should be in perfect working order. It should be easily opened by hand without presenting undue resistance or friction.
- **Do not try to rectify an unstable or jamming door by fitting a motorized opener. It may result in injury or a broken door.**
- Pay close attention to Section 5: Important Safety Information, as well as all Warnings and Cautions.
- **It is recommended that this GEMINI opener be used in conjunction with a GEMINI Roll-up Stabilizer kit**



MOTORISED OPENER FOR ROLL-UP GARAGE DOORS

Section 2: Introduction

Thank you for choosing GEMINI for your automation requirements. Be assured that your system was driven by safety as the design criteria.

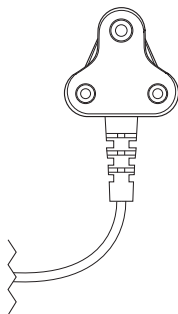
By following the basic principles of installation as explained in this manual, your GEMINI automation system will provide you with many years of trouble free service.

The GEMINI system is of rugged design and manufacture. It is built for reliability and safety. It consists of a single 24V DC motor that drives a maintenance free chain through a worm gear assembly.

The electronic control card enhanced by 'open' and 'closed' obstruction sensitivity adjustment makes provision for several handy features such as remote control and a courtesy light. A wireless push button console incorporating a lock-out function can be located in any convenient location.

WARNING!

Do not cut the electrical plug off as this will terminate the warranty.



WARNING!

This Door Opening system is only suitable for use with Roll-up type doors.



MOTORISED OPENER FOR ROLL-UP GARAGE DOORS

Section 3: Technical Specifications

Motor.....	24V DC
Door speed.....	± 11 meter / minute
Proximity sensors.....	Independent in both directions
Obstruction sensing.....	Electronically force-adjustable in both directions
Activation.....	Remote control and / or Wireless wall console
Motor Weight.....	± 6 kg
Extrusion Weight.....	$\pm 4,7$ kg
Electric current	± 0.5 A
Duty cycle.....	50%
Other features	• Battery Back-up in case of power failure • LED light • Manual Override in case of malfunction • Lock-out function • Remote light On/Off

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Section 4: Dimensions

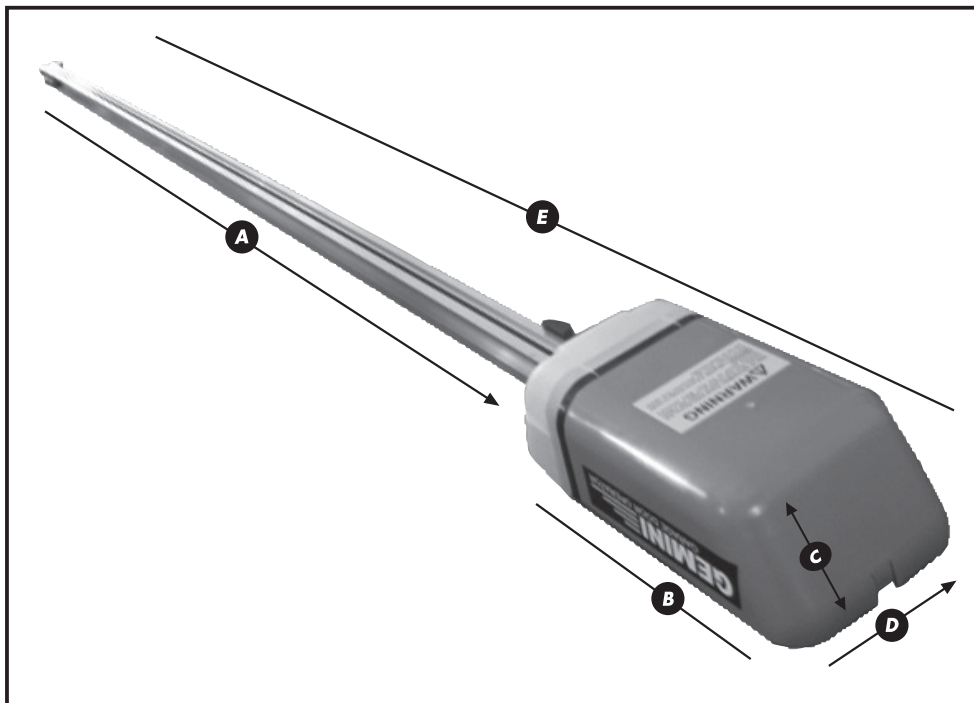


Figure 2

A = 2400mm

B = 330mm

C = 140mm

D = 200mm

E = Varies with application



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Section 5: Important Safety Information

BE SURE TO READ AND HEED THESE INSTRUCTIONS!

When installing or using the GEMINI Opener for Roll-up type garage doors, normal basic safety precautions, including those detailed underneath, should always be followed to reduce the risk of electric shock or injury to persons or animals.

- Do not disassemble the Motor head assembly, or attempt any installation or operating procedures not prescribed in this manual. Refer all servicing to qualified service personnel.
- This equipment must only be connected to a 220V 50/60Hz grounded outlet. Connecting to any other outlet will damage the equipment and invalidate the warranty.
- The power should always be disconnected when working on the system.
- Never allow persons, particularly children, or animals to stand close to the door whilst it is operational. Keep remotes away from children. Never let children play with the door controls.
- Regularly test all operating systems, ***particularly the safety features!***
- If the manual override function was used, re-engage the traveler assembly after closing the garage door. ***The engaged traveler acts as a locking mechanism.***
- Always monitor the door while it is in motion and keep people and animals away until the door is completely open or closed.
- Always use caution when disengaging the traveler. The door may fall back rapidly due to weak or broken springs, or due to imbalance.
- Frequently examine the installation, in particular the springs and mountings for wear, damage or imbalance. Do not use if repair or adjustments are needed since a fault in the installation, or an incorrectly balanced door may cause injury and void the guarantee.
- ***NB: Keep clear of all door parts during closing as well as opening!***

MOTORISED OPENER FOR ROLL-UP GARAGE DOORS

Section 6: Standard Installation Kit

YOUR GEMINI DOOR OPENING KIT IS COMPRISED OF THE FOLLOWING:

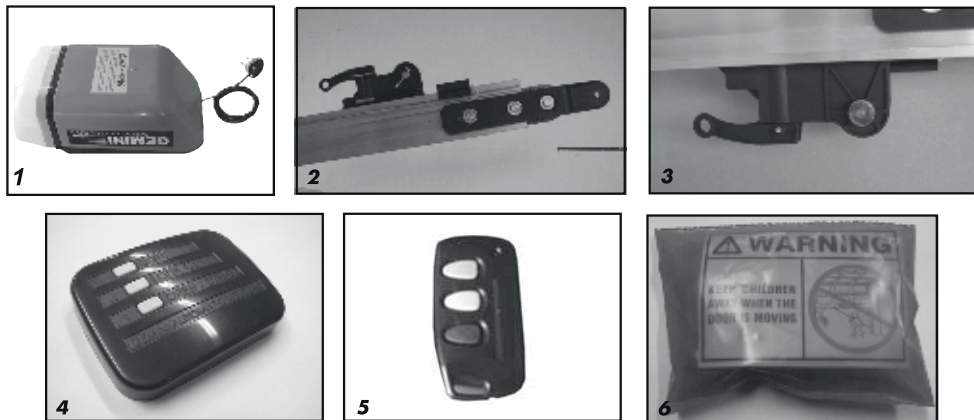


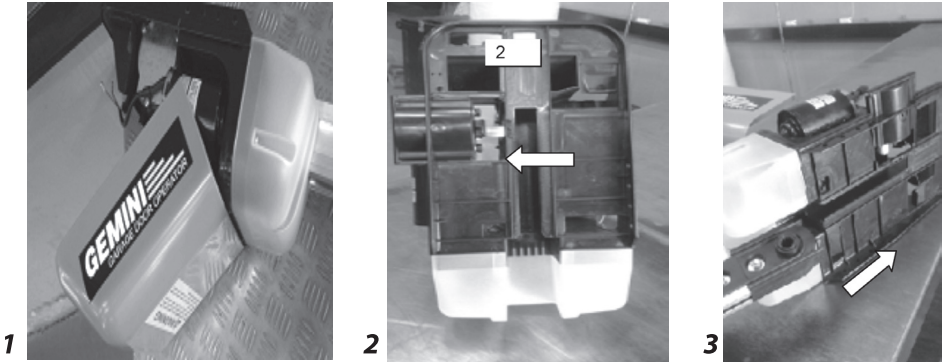
Figure 3

1. Motor head including LED light and attached 15A 3 pin plug.
2. Aluminium Extrusion assembly with magnetic open and close sensors.
3. Traveller assembly with emergency release cord.
4. Wireless wall console. - Optional
5. Code hopping 3 button Transmitter.
6. Red accessories bag with installation accessories.

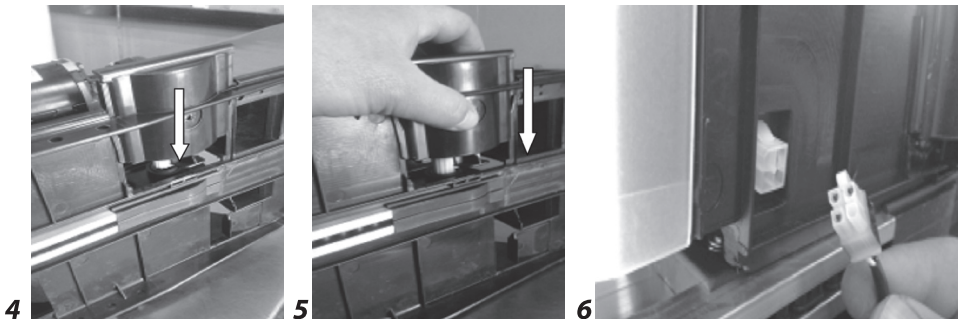
MOTORISED OPENER FOR ROLL-UP GARAGE DOORS

Section 7: Preparation of unit for installation

ASSEMBLY OF MOTOR AND EXTRUSION



1. Open the cover of your Garage Door Opener.
2. Position motor so that the black base faces upwards.
(a) Disengage the motor clip and slide the motor outwards to the left.
3. Insert the extrusion into the slide that the sprocket opening is on the same side as the motor insert.
(a) Insert and slide the extrusion into the frontal cavity as seen in figure 3. Once fully inserted make sure that the motor will engage with the sprocket in the extrusion when the motor slides into its original position.



4. Make sure the motor is properly inserted and that clip engages.
5. Connect the limit switch wiring harness by means of the white plug to the base box.
6. The system is now ready for use and should be tested before installing.



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Section 8: Installation Instructions

The Door Opener is to be mounted with the motor head between the two doors and for single doors, between the door and the side wall. The dimensions of the motor head allow it to fit easily between most double door installations.

8.1 STANDARD DIMENSIONS AND ORIENTATION

- The optimum distance between the ceiling and floor is 3100mm. The length of the aluminium extrusion and operator combination is such that virtually all standard garage door heights can be accommodated.
- The shaft(s) of the rolled-up door(s) must be checked for perfect horizontal orientation. As the operator has to be aligned perfectly vertically, the shafts must be exactly perpendicular to the operator extrusion.

8.2 INSTALLING THE OPERATOR

- Install as per GEMINI Roll-up Stabiliser Kit manual

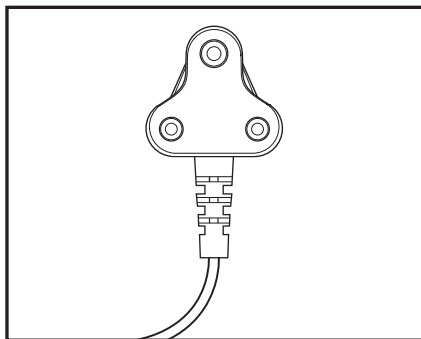


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Section 8: Installation Instructions

8.3 CONNECTING THE 220V ELECTRICAL SUPPLY

Plug into wall socket, within a meter from the Motor head



CAUTION

*Under no circumstances must the Main electrical supply be wired from a primary power source. An ON/OFF switch **MUST** be incorporated into the circuit. Comply with all legal requirements for your area.*



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Section 8: Installation Instructions

8.4 INSTALLING AND PROGRAMMING THE REMOTES AND (WALL CONSOLE - PURCHASED SEPERATELY)

The receiver and transmitters are pre-programmed at the factory. **The wall console can be purchased separately.** A total of 30 transmitters / wall consoles can be programmed onto the on-board receiver. To program additional transmitters and/or wall consoles, follow these steps:

To learn the transmitters (Maximum of 30):

1. Press and hold transmitter (remote) button.
2. Press and release the learn button on the PCB.
3. Receiver LED on PCB will flash twice.
4. Release transmitter button after led flashed twice.
5. Repeat steps 1-3 for additional transmitters

TO CLEAR THE RECEIVER:

- Press and hold the FUNCTION button for 10 seconds or until receiver LED turns off.

8.5 LOCK-OUT FUNCTION

When the lock button is pressed, the LED light will flash once to indicate that the lock-out function has been activated. It is not possible to operate the unit by remote control until the lock-out function has been de-activated on the wall console. To de-activate the lock-out function, press the 'lock' button on the wall console. The LED light will flash twice to indicate that the lock-out function has been de-activated. The garage door operator will now function normally from the remotes and the wall console.

When the lock is active and the opener is triggered, the LED light will flash 3 times in rapid succession to indicate that the opener is locked.

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Section 8: Installation Instructions (Continued)

8.6 ADJUSTING THE 'OPEN' AND 'CLOSE' SENSORS

1. Manually move the door to the fully open position.
2. Referring to Fig. 6A, move the "OPEN" sensor (sensor closest to the motor head) until it aligns with the traveler assembly.
3. Manually move the door to the fully closed position.
4. Move the "CLOSED" sensor (sensor furthest away from the motor head) until it aligns with the traveler assembly. (See Figure 6B)

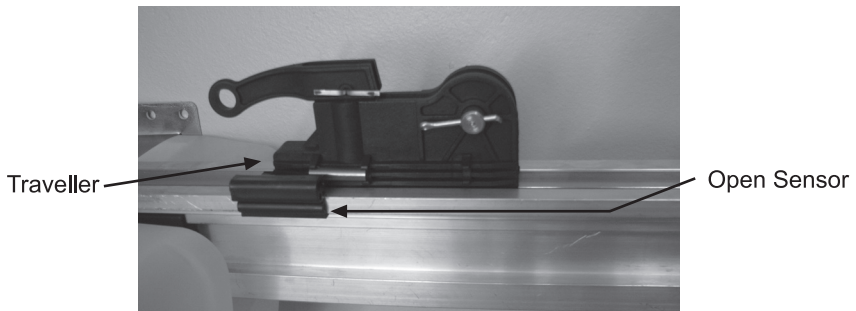


Figure 6A

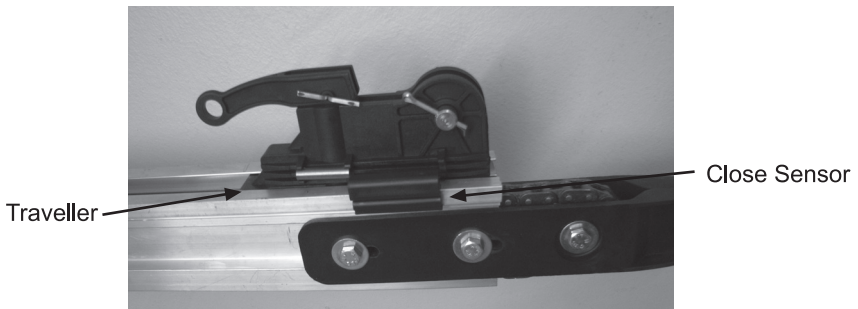


Figure 6B



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Section 8: Installation Instructions (Continued)

8.7 TESTING THE SENSORS

1. Disengage the traveller assembly and ensure that the door is in the fully closed position.
2. Activate the door opener as if to open. (Without the door)
3. Now manually open the door until the open sensor switches off the opener operation. Ensure the door is fully open.
4. Re – adjust the “open” sensor if necessary.
5. Activate the door opener as if to close. (Without the door)
6. Now manually close the door until the sensor switches off the opener operation. Ensure the door is fully closed. Re-adjust the “closed” sensor if necessary.

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Section 8: Installation Instructions (Continued)

8.8 CHECKING THE DOOR OBSTRUCTION FORCE

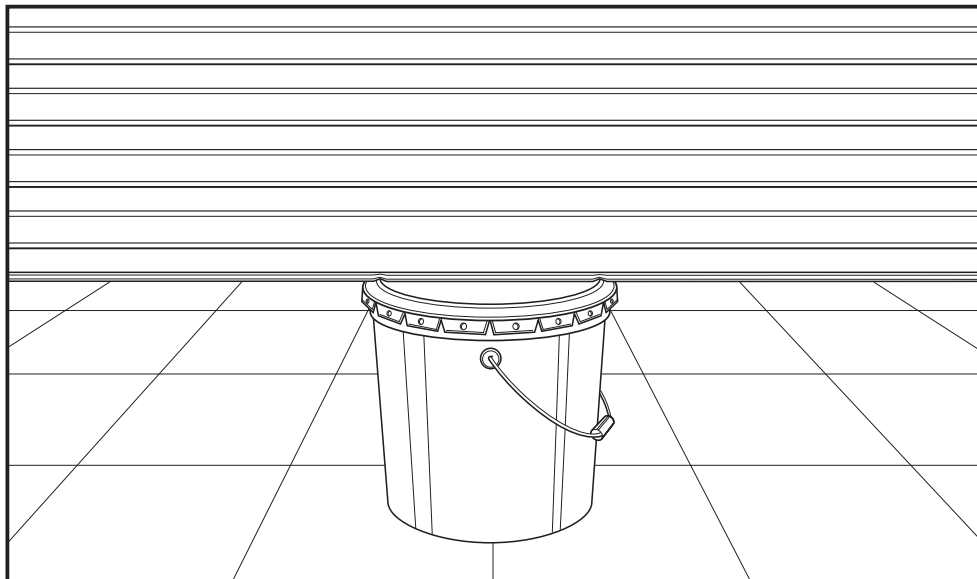


Figure 7

1. Open the door fully. Place a 400mm high solid object under the door, where the edge of the door will touch it squarely.
2. Stand clear of the door and activate the door in closing mode.
3. The electric motor should stop its operation and return the door to its starting position once a resisting force of 5 – 10 Kg is reached after touching the obstruction.

A standard bathroom scale can be used on top of the bin to measure this force.

MOTORISED OPENER FOR ROLL-UP GARAGE DOORS

Section 8: Installation Instructions (Continued)

8.9 ADJUSTING THE 'OPEN' AND 'CLOSE' SENSITIVITY ON THE PCB

- Obstruction sensing should be set so that the door will stop and reverse on impact while closing. The obstruction sensitivity is set at the factory, but adjustment will be required to suit the mass of the door.
- Impact sensitivity is set by adjusting the sensitivity potentiometer on the (PCB) Control card.

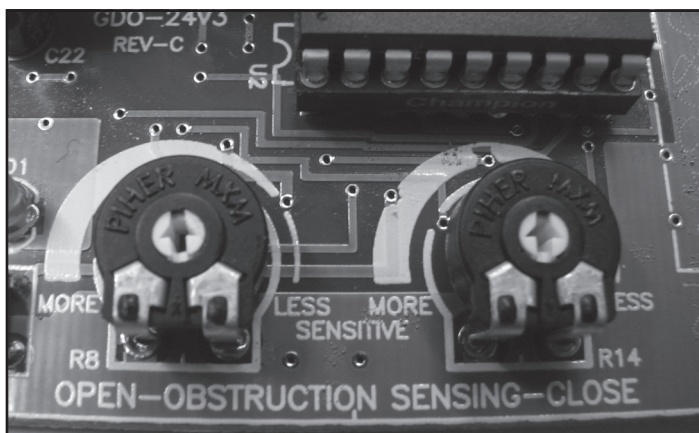


Figure 8

If adjustment is required, insert a small flat tip instrument type screwdriver into the potentiometers adjusting slot. Turning the adjuster clockwise will decrease the sensitivity and turning it counter - clockwise will increase the sensitivity. Adjust as necessary.

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Section 9

A) INITIAL TESTING PROCEDURES AFTER INSTALLATION

1. Disengage the traveller assembly and move the door to its halfway position. Re – engage the traveller assembly. Press remote control button. The door must open to its full extent and stop. If necessary adjust the 'Door Open' limit sensor. (Closest to motor)
2. Press the remote control button. The door must move to the fully closed position and stop. If necessary adjust the "Door Closed' sensor.(Furthest away from the Motor head)
3. Perform an obstruction sensing test. If necessary, refer to '**ADJUSTING THE OPEN & CLOSE SENSITIVITY**' and re – adjust the obstruction sensitivity. Test the operation of the door and courtesy light from the inside of the garage by using the remote wall console or the remote control. The courtesy light must come on for 2 minutes.
4. Once everything has been tested, replace the light and back cover.

B) DAILY OPERATION

The remote or remote wall console can now be utilized for the door. Pressing either one in the event of operation will lead to the following:

- *If door was closing – Door will stop and open.*
- *If door was opening – Door will stop and await next command.*

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Section 9

9.1 EMERGENCY MANUAL OVER-RIDE

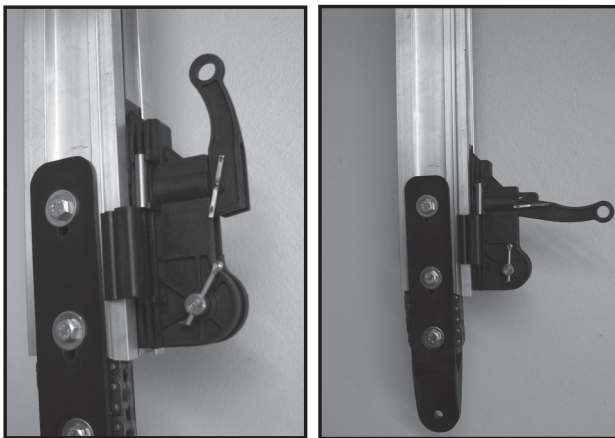


Figure 9

In the unlikely event of a failure or breakdown, the opener will be inoperative but the garage door can be opened manually from inside the garage by disengaging the traveller mechanism.

An easy to reach emergency release cord is attached to the traveller lever. Under normal operating conditions, the traveller lever will be in the horizontal (engaged) position, pointing towards the light cover on the motor. To disengage the traveller, switch OFF the electrical power, and pull the emergency release cord downwards. The traveller will disengage as the release clip moves into a vertical position. The door can now be opened and closed in the conventional way.

9.2 HOW TO RE – ENGAGE THE TRAVELLER

Ensure that the opener is in the midway position. Pull the emergency cord towards the Opener head.

The traveller lever will be re-engaged as it moves into the horizontal position.

9.3 DOOR LOCKING MECHANISM

The engaged traveller assists as the door locking mechanism for normal operation. Alternative security and/or locking measures should be implemented if the situation requires so.



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Section 10

GENERAL

- The **GEMINI** domestic Roll-up door opening system is a maintenance free unit and needs very little attention other than checking the door tracks for obstructions (excessive dirt, sand, etc.)
- On a 6-monthly basis, it is advisable to remove the protection lid and blow of all accumulated dust and dirt from the Motor head interior with low pressure compressed air.

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Section 11 : Trouble Shooting Guide

Electrical Motor does not activate	• Is the main power switched on?	• Switch the power ON
Electrical Motor turns but the door does not move	• Is the traveller engaged?	• Engage the traveller
Power is ON (LED indicating) but the motor does not react.	• Wiring to PC Board not properly connected	• Check and rectify as necessary
Motor operates when pressing the Remote wall console but not with the remote control.	• Remote Control not properly coded • Remote Control battery flat • Remote Control defective	• Refer to section 8.4 • Replace battery • Replace Remote Control
Motor opens door for a short travel only	• Door mass too heavy for unit • Obstruction in track • Obstruction sensitivity too high	• Discuss problem with your local GEMINI agent • Check and rectify as necessary • Adjust obstruction sensitivity to suit

MOTORISED OPENER FOR ROLL-UP GARAGE DOORS

Section 11: Trouble Shooting Guide (Continued)

Motor makes a clicking sound but does not switch on	- Proximity sensors incorrectly set. - Control Board has to be reset.	- Adjust proximity sensors - Turn OFF mains power and turn ON again
Door opens and closes by itself	- Faulty Push-button wiring (If utilised) - Faulty Remote Control Receiver	- Check all wiring - Replace the Remote Control receiver
Receiver reception insufficient	- Transmitter Battery flat - Receiver reception is obstructed	- Replace Remote Control Battery - Reposition Receiver in different position
Courtesy light flashes when operator is triggered	Lockout has been activated	Deactivate lockout using remote wall console



MOTORISED OPENER FOR GARAGE DOORS

STANDARD GUARANTEE

GEMINI AUTOMATION SYSTEMS supplied by DMI Engineering are warranted against defects in material and faulty workmanship for 24 months from the date of purchase. Industrial DC systems have only 12 months guarantee.

This warranty applies only to products purchased new from DMI Engineering or its authorized dealers. This warranty does not apply to products which have been subjected to lightning, flood damage or any other freak occurrence of nature, abused, modified, or repaired by someone other than DMI Engineering or its authorized dealers.

- A) No batteries are included in the warranty.
- B) Electronic components have a 12 month warranty.

If a GEMINI automation product proves defective in material or workmanship within the warranty period, please return it to any authorized dealer or DMI Engineering, transportation to and from DMI Engineering prepaid, enclosing your name and address, adequate proof of date of purchase and a short description of the defect. DMI Engineering, at its discretion will repair or replace the defective product free of charge. Repairs or replacements are warranted as described above for the remainder of the original warranty period. DMI Engineering's sole liability and your exclusive remedy under this warranty is limited to repair or replacement of the defective product.

The foregoing warranty is exclusive and in lieu of all other warranties or condition, written or oral, expressed or implied all of which are hereby disclaimed. There shall be no liability, for incidental, consequential or special damages, or any other damages, costs or expenses, excepting only the cost or expense of the replacement or repair.

Use only authorized parts and/or accessories. Any damage or malfunction caused by the use of unauthorized parts is not covered by the warranty.

No warranty is applicable on products not registered with DMI Engineering within the prescribed time and on the correct form.



MOTORISED OPENER FOR GARAGE DOORS

DATA SHEETS

FOR YOUR RECORDS

GEMINI MODEL 24V DC SYSTEM

Installation Date:.....Dealer Name:.....

Tel No: ().....Installer's Name.....

Unit Serial No:.....

Door Size: Height.....mm, Width:.....mm, Mass: $\pm$kg

Remote Control Type:.....

UNIT SERVICE RECORD

Date	Fault	Parts Required	Invoice No.	Serviced By	Job No.



MOTORISED OPENER FOR GARAGE DOORS

WARRANTY REGISTRATION FORM

Form can also be completed online @ www.geminigates.co.za

GEMINI MODEL 24V DC SYSTEM FOR GARAGE DOORS

Name of User:.....

Date:.....

Postal Address:.....

..... Code.....

Telephone No: ().....

Fax No: ().....

Date of Installation:.....Serial No. of Unit.....

Are you satisfied with the service provided by your Dealer/Installer: YES / NO

Comments:.....

.....

For Office Use Only

Date Received:.....

File No:.....

Please cut out and
forward this Warranty
Registration to:
sales@geminigates.co.za



Scan QR Code to fill in the electronic form on our website.
<https://geminigates.co.za/warranty-registration/>

