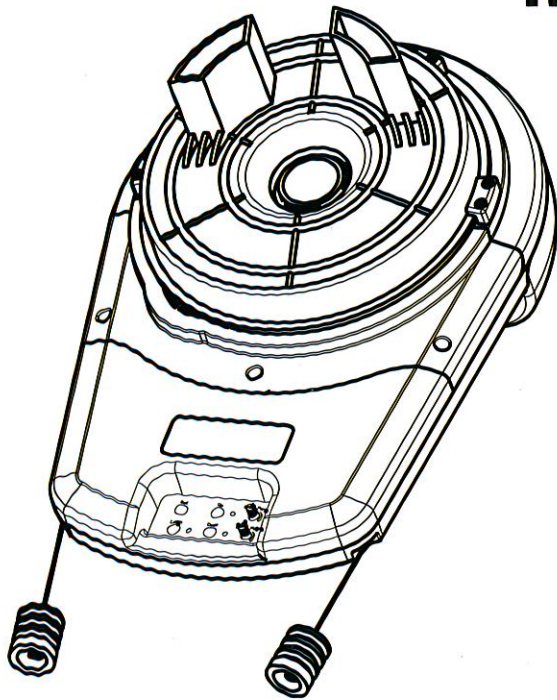


# AUTOMATIC REMOTE ACCESS

## Roller garage Door opener



AUTOMATIC OBSTRUCT

PHOTO ELECTRIC BEAM

SOFT START SOFT STOP

HOPPING CODE

AUTO CLOSE DOOR

## INSTALLATION INSTRUCTION AND RDO OWNERS MANUAL

## IMPORTANT SAFETY INFORMATION



### SAFETY INSTRUCTIONS, PLEASE READ CAREFULLY

- Never let children operate or play with the doors controls.
- Keep the remote control away from children.
- Always keep the moving door in sight and away from people and objects until it is completely closed.
- **NO ONE SHOULD CROSS A MOVING DOOR.**
- Do not disengage the door opener to manual operation with children/persons or any other object including motor vehicles within the doorway.
- The garage door must be well balanced. Sticking or binding doors can falsely trigger the obstruction sensing of the unit.
- All maintenance should be carried out by suitably qualified personnel.
- Test the door opener monthly. The garage door **MUST** reverse on contact with a 5 to 10cm high object on the floor. The amount of force the door should encounter is adjustable. Failure to adjust the opener properly may cause severe injury or death.
- The opener has a patented electronic obstruction system that provides safe and reliable operation. It is however a legal requirement in some countries to also install a Photo-electric sensor across the door way, please check this requirement with your local distributor.

# FEATURES

Your Automatic Rolling Door Opener has many features which you will appreciate. The components and Materials used in this control board are of the latest Technology and highest Quality. Below are listed some of the features.

## OPERATION

To operate the door simply press the hand held transmitter or the wall mounted switch for two seconds and the door will automatically open or close. The door can be stopped during on opening or closing cycle by pressing the wall switch or handheld transmitter. The next actuation will move the door in the opposite direction.

## SAFETY OBSTRUCTION REVERSE

While the door is doing a closing cycle and it should hit an obstacle or be restricted in some manner, it will automatically reverse. The amount of force the door should encounter before reversing is adjustable. The door also if restricted whilst opening will stop. The Safety Obstruction Forces should be checked at least once a month.

## AUTOMATIC COURTESY LIGHT

The Courtesy Light on the Opener comes on automatically whenever the door is activated to do an opening or closing cycle. The light will stay on for approximately three minutes then turns off automatically. The Light can also be switched on and off without operating the door. This is done by pressing the Light button on the Wall Switch or the hand held transmitter. The Light turns off after three minutes.

## MULTIPLE PROTECTION

Over-time protection, low voltage protection, speed fluctuation protection

## SECURITY CODE STORE

The Opener uses Microchip® technology in storing your Rolling Code Transmitter Security Code. Up to 30 different transmitters can be stored in the non-volatile

memory device. To store any code simply press the LEARN button on the Opener and press the transmitter button twice. The codes can be deleted at any time. Security is enhanced because the fixed and encrypted sections combined increase the number of combinations to 4.29 billion. There are no Dip switch on the Opener which can be visually seen and copied.

## MANUAL OPERATION

The opener is equipped with a unique patented manual disengaging device .if the power to the opener is disrupted for any reason the door can be put into manual mode by simply pulling down on the RED string handle (19,page 3),when power is restored ,by pulling down on the GREEN string handle on the other side (20,page 3),the opener is put back into automatic mode.

## IN-BUILT BEEPER

The in-built beeper beeps each time the door is activated.

## SOFT START SOFT STOP

The function can effectively decrease the start and stop induced impact to the door.

## AUTO CLOSE MODE

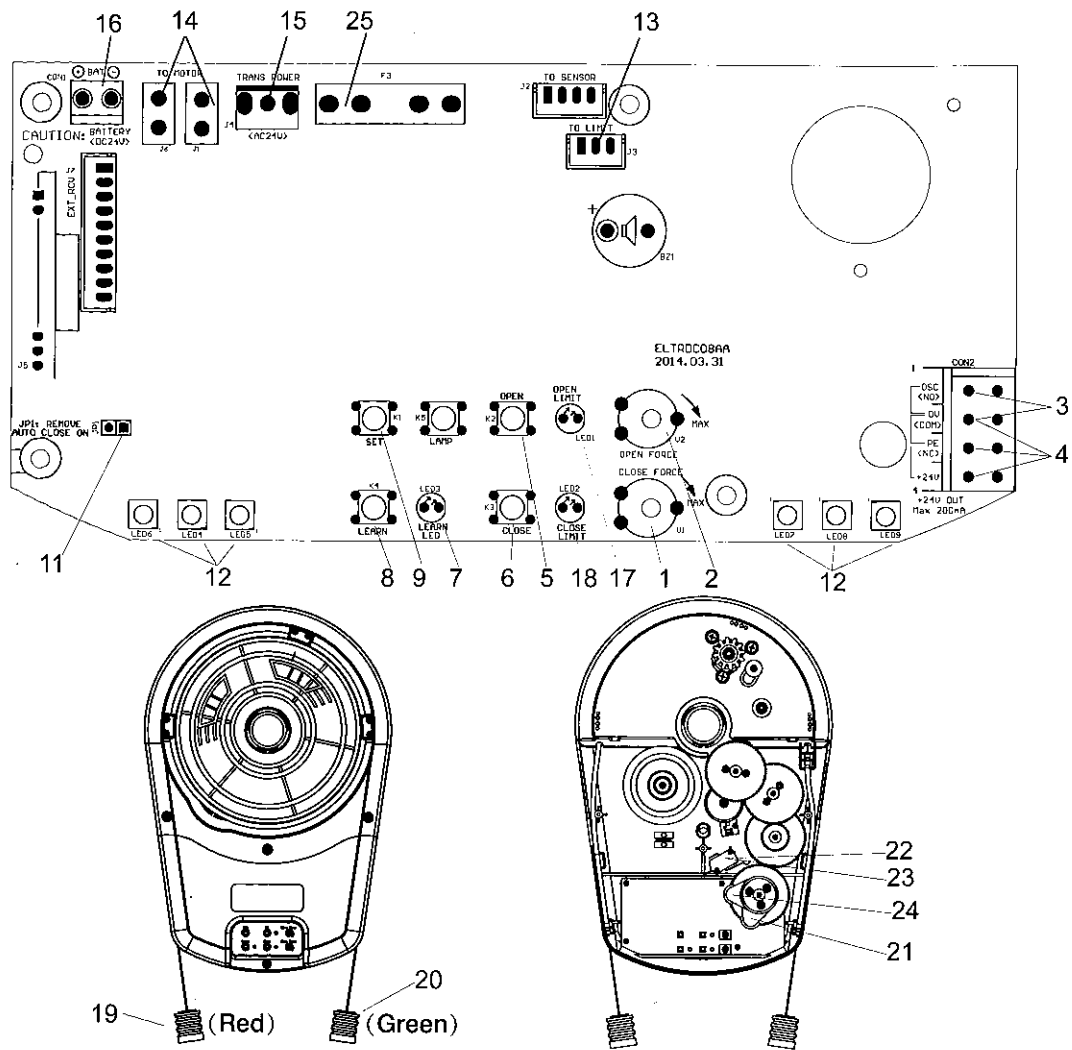
The Opener can be programmed to automatically close approximately thirty seconds after the door has opened. A Photoelectric Beam must be installed if this mode is selected.

## AUTO RUN TIME

The door will automatically stop if the opening cycle doesn't complete within 60 seconds. The door will automatically reverse if the closing cycle doesn't complete within 60 seconds.

## PHOTO ELECTRIC BEAM(Optional)

The Opener has an input for a Photo Electric Beam to be connected for extra safety protection. This Beam must be installed during Auto close Mode



- |                                     |                         |
|-------------------------------------|-------------------------|
| 1.DOOR CLOSE FORCE SET (V1)         | 14.MOTOR POWER OUTPUT   |
| 2.DOOR OPEN FORCE SET(V2)           | 15.POWER INPUT          |
| 3.EXTERNAL WALL BUTTON INPUT (CON2) | 16.BACKUP BATTERY INPUT |
| 4.P.E.INPUT                         | 17.DOOR OPEN LIGHT      |
| 5.OPEN LIMIT                        | 18.DOOR CLOSE LIGHT     |
| 6.CLOSE LIMIT                       | 19.DISENGAGEMENT HANDLE |
| 7.LEARN LED                         | 20.ENGAGE HANDLE        |
| 8. LEARN CODE                       | 21.OPEN LIMIT CAM       |
| 9. SET BUTTON                       | 22.OPEN LIMIT SWITCH    |
| 10.IN-BUILT BEEPER                  | 23.CLOSE LIMIT SWITCH   |
| 11.AUTO CLOSE SHUNT                 | 24.CLOSE LIMIT CAM      |
| 12.AUTOMATIC COURTESY LIGHT         | 25. 24V POWER FUSE      |
| 13.OPEN /CLOSE LIMIT SWITCH INPUT   |                         |

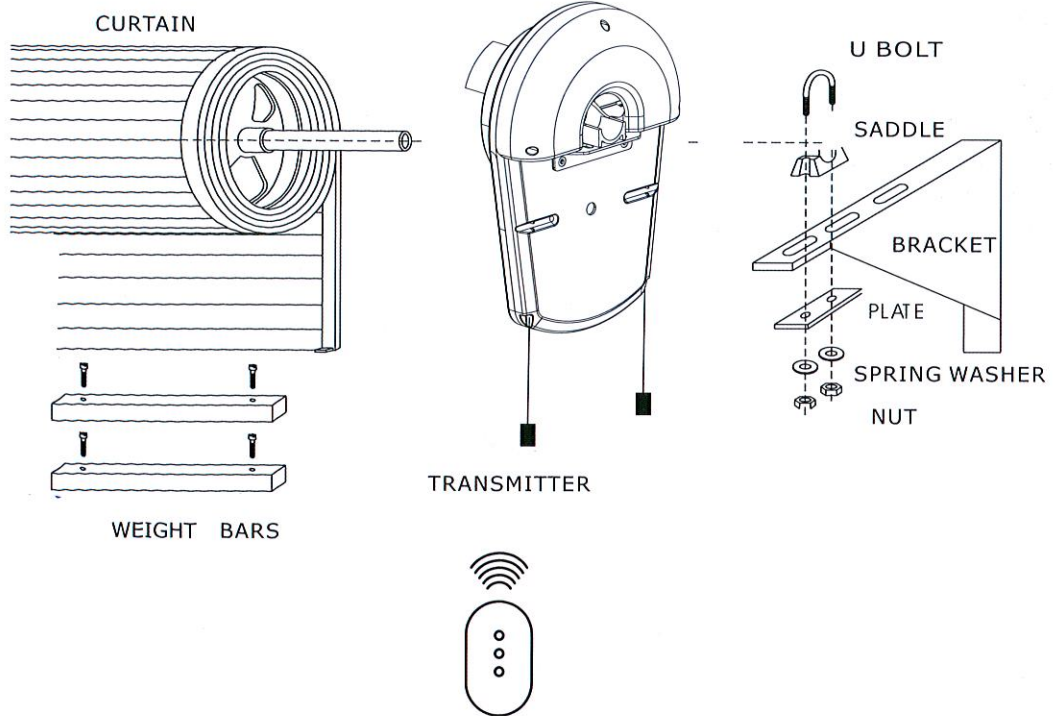
## CONTROL DEFINATIONS

- 1、 Door close force set (V1) is for the force margin adjustment of the door close
- 2、 Door open force set(V2) is for the force margin adjustment for the door open
- 3、 External wall button input (CON2) is for the O/S/C of door opener by wall button control
- 4、 P.E.input is for connection of photo electric beams(optional extra) for extra safety obstruction protection,or compulsory when using with Auto close mode  
note:P.E.shunt must not be removed otherwise the opener will not function correctly,remove only when a P.E.beam is to be connected
- 5、 Open limit button is for the open limit of the opener
- 6、 Close limit button is for the open limit of the opener
- 7、 Learn Led is used for storing or erasing the transmitter button (code),it flashes when receiving the signal from the transmitter
- 8、 LEARN CODE is used for storing or erasing the LEARN CODE button on ,press any button of the transmitter ,then release ,press this button again,the LEARN CODE button flashes then off,it indicates the success of transmitter coding,repeat same procedure for more transmitter coding (max 30 transmitters),to delete the code ,press the LEARN LED button and the LEARN CODE button on ,it will be off 8 seconds,which indicates all the stored codes deleted
- 9、 SET BUTTON is to set the position of soft start and soft stop at the first installation.
- 10、 IN-BUILT beeper the in -built beeps each time the door is activated
- 11、 Auto close shunt is removed for door auto close (open limit)connect the shunt to avert auto close
- 12、 Automatic courtesy light  
Refer to page 2 –AUTOMATIC COURTESY LIGHT
- 13、 Open /close limit switch input is to control open/close limit of door,normally closed contact of the switch is the default set
- 14、 Motor power output is used to connect 24VDC motor ,the door open/close is in compliance with the forward/reversal rotating of the motor
- 15、 Power input is to connect transformer secondary 24VAC input
- 16、 Backup battery input is to connect backup battery
- 17、 Door open light is on when door opens
- 18、 Door close light is to set the close limit ,see details in the installation manual
- 19、 Disengagement handle see page 2 manual operation
- 20、 ENGAGE HANDLE:see page 2 manual operation
- 21、 Open limit cam is used to set the open limit stop position
- 22、 Open limit switch is pressed down to stop the door continue to open when the door reaches open limit
- 23、 Close limit switch is pressed down to stop the door continue to close when the door reaches close limit.
- 24、 Close limit cam is used to set the close limit stop position
25. 24V power fuse 15A

# PACKAGE LIST

ITEM	QUANTITY
OPENER	1 SET
TRANSMITTER	2 SET
U BOLT	1 SET
INSTALLATION INSTRUCTION	1 PCS

# SUBQUENCE OF INSTALLATION



# INSTALLATION

## SIDE ROOM REQUIREMENTS

Fig 1 shows the minimum side room that is required. The distance between the edge of the door curtain and the inside of the bracket is 85mm, and the distance between the edge of the door and the outside of bracket is 135mm.

Fig 2 shows the recommended side room. The distance between the edge of the door curtain and the inside of the bracket should be 110mm minimum, and the distance between the edge of the door and the outside of bracket is 160mm minimum.

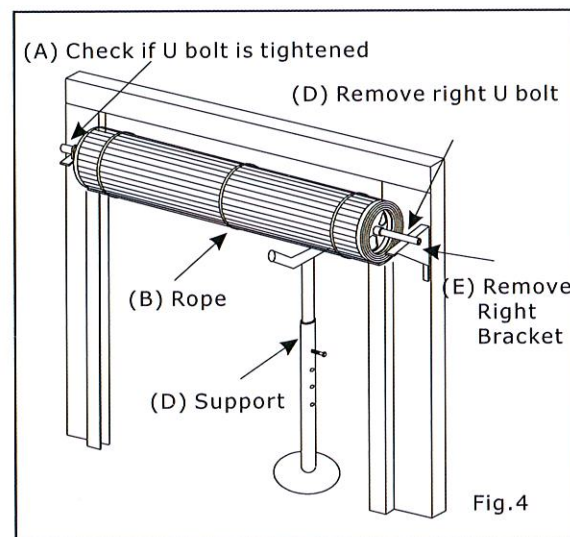
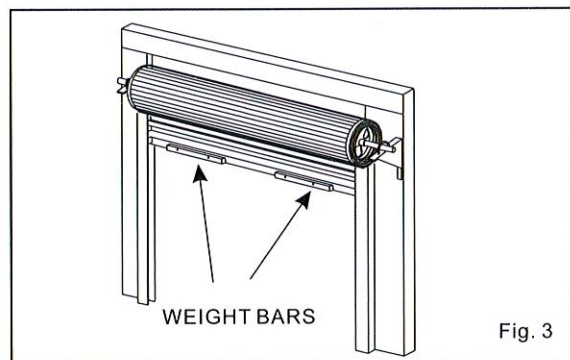
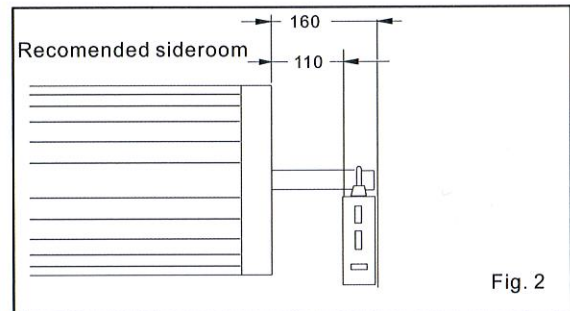
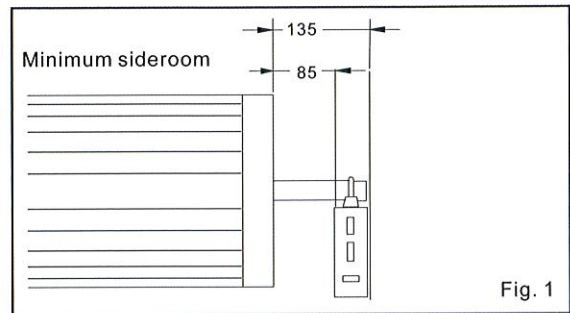
### 1. CHECK OPERATION OF DOOR

BEFORE BEGINNING THE INSTALLATION OF THE EASY ROLLER AUTOMATIC OPENER CHECK THE OPERATION OF THE DOOR.

The door must be well balanced and be in a reasonable operating condition. You should be able to lift the door smoothly and with little resistance. It should stay open around 900mm to 1200mm above the floor. The door should not stick or bind in the guide tracks.

### 2. FIXING THE DOOR WEIGHT BARS

Move the door manually to the mid open position. Place the weight bars equally apart on the bottom rail of the door and secure them with the fasteners provided (see Fig 3). Check the operation of the door again. If the door feels heavy it may require extra tension to be added to the door springs. Refer to the door Installation manual from manufacturer on how to tension the door.



# INSTALLATION cont...

## 3. FIXING DRIVE UNIT TO DOOR

The drive unit can be fixed to the Roll Up Garage Door in a variety of ways. Below we will describe one method of fixing. Make sure there is enough room (135mm from end of door shaft to the wall) to slide drive unit onto shaft.

NOTE: THE INSTRUCTION FOR FIXING OF THE DRIVE UNIT TO THE DOOR IS FOR RIGHT HAND INSTALLATION. FOR LEFT HAND INSTALLATION JUST EXCHANGE THE WIRE CONNECTION OF THE MOTOR.

FIXING DRIVE UNIT TO DOOR (See Fig 5, 6 and 7).

- (a) Check that the door shaft U bolt is securely tightened on the left hand side of the door.
- (b) Raise the door and tie a rope around the centre to secure the roll.
- (c) Support the right hand end of the door with a suitable prop and soft padding to protect door surface.

WARNING: DO NOT ALLOW CHILDREN/PERSONS AROUND THE DOOR WHEN PROPPED. SERIOUS PERSONAL INJURY AND/OR PROPERTY DAMAGE CAN RESULT FROM FAILURE TO FOLLOW THIS WARNING.

- (d) Check that step (a) was completed. Carefully loosen and remove the right hand door shaft U bolt.
- (e) Make sure that the door supporting prop is secure. While the door is supported remove the right hand door mounting bracket from wall.
- (f) Remove the Drive Unit from packaging. Try and rotate the drive gear by pushing on the fork. If the gear does not rotate the manual mode has to be selected. To select pull on the string handle downwards, RED The drive gear should now rotate.
- (g) Slide Drive Unit over the door axle making sure that the fork extends into and over one of the spokes of the door drum wheel.
- (h) Refit the door mounting bracket to the wall. In some cases the bracket may have to be repositioned. Re-tighten the door shaft U bolt.
- (i) Straighten the Drive Unit and position as per Fig 7. Tighten the two locking bolts firmly to secure Drive Unit.
- (j) Check the manual operation of the door by raising and lowering the door. The door should run smoothly and not catch on any part of the Drive Unit.

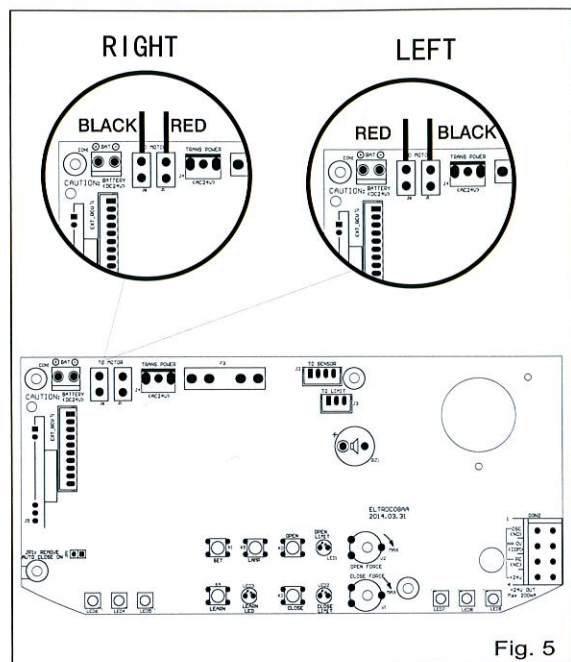


Fig. 5

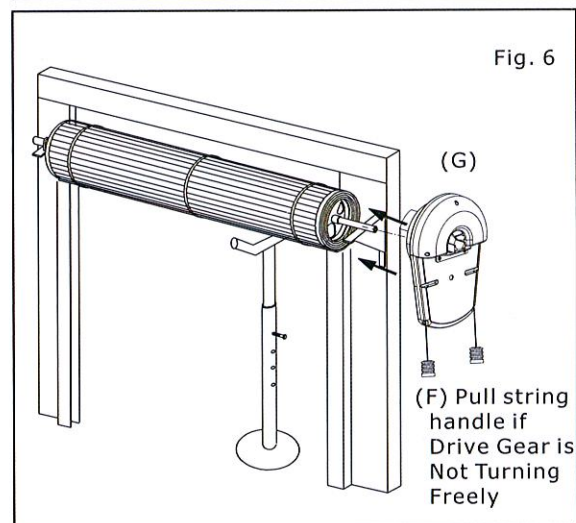


Fig. 6

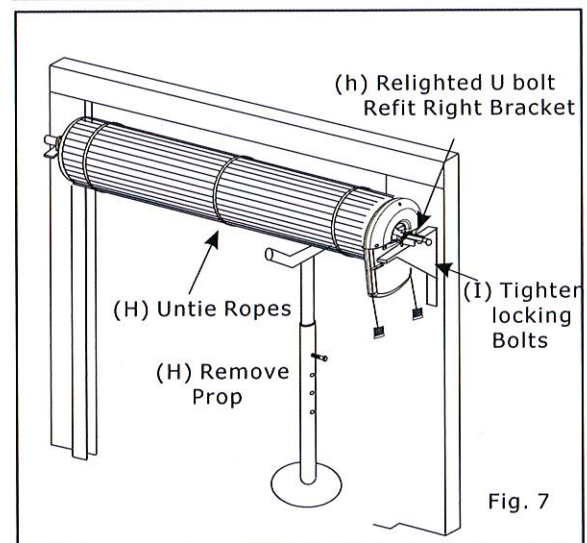


Fig. 7



## 4.SETTING LIMIT SWITCH

### 4.1 SETTING LIMITS FOR RIGHT HAND INSTALLATION

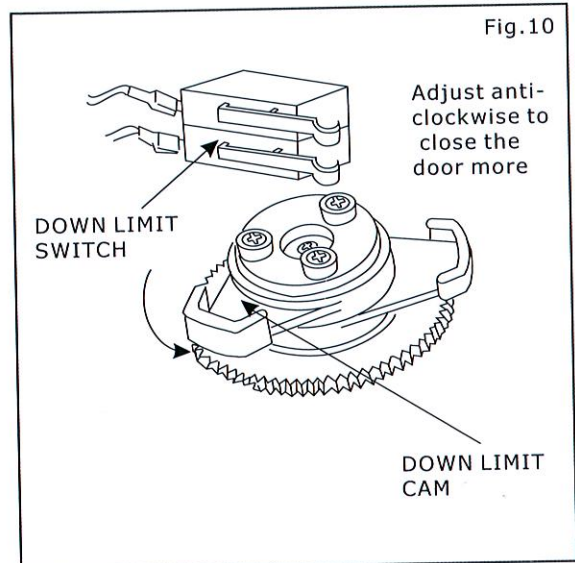
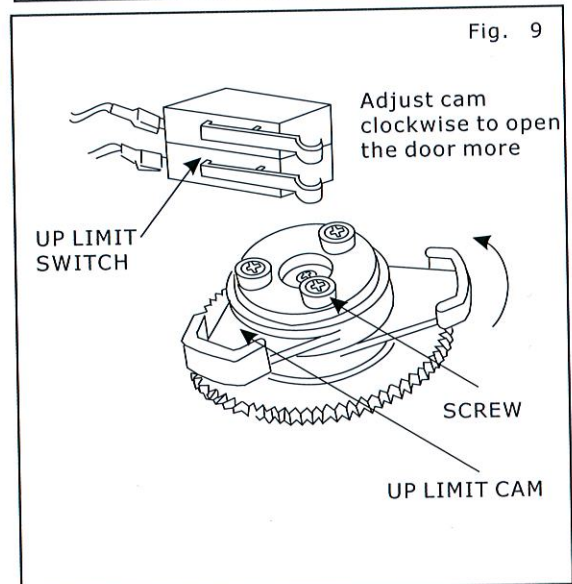
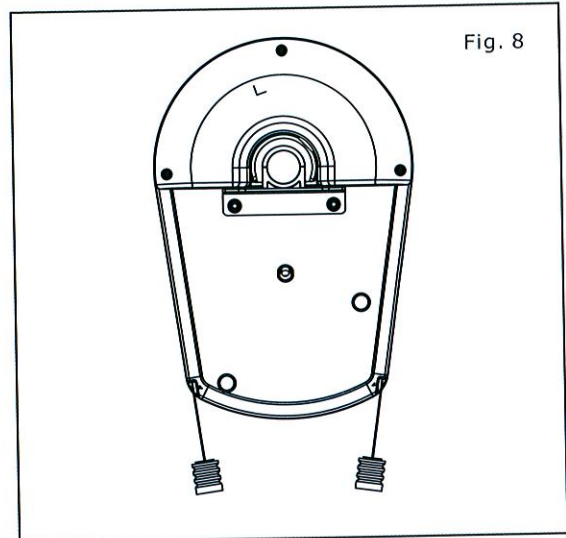
- (a) With Drive Unit in manual mode (disengage, see Fig.11), move the door up by hand to desired position.
- (b) Remove the Switch Cover (see Fig.8). Rotate by hand in an clockwise direction the UP LIMIT CAM until the cam clicks the open limit switch.
- (c) Move the door down by hand to the desired closed position.
- (d) Rotate by hand in a anticlockwise direction the DOWN LIMIT CAM (see Fig10) until the cam clicks the close limit switch.
- (e) Connect power lead from the Drive Unit into a general purpose power outlet installed by a licensed qualified electrical contractor. Turn the Power On.
- (f) Re-engage the drive gear by Pull down the GREEN string handle (see Fig 14).

#### OPEN LIMIT ADJUSTMENT

- (g) Press the OPEN Button on the PANEL The door should start opening. If the door stopped and the desired limit position has been reached then the limit adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the UP LIMIT CAM. Loosen the three screws Adjust the cam antilockwise To open the door more. To open the door less adjust the cam clockwise. Tighten the three Screws again.

#### CLOSE LIMIT ADJUSTMENT

- (h) Press the CLOSE Button on the PANEL.again., The door should start closing. If the door stopped and the desired limit position has been reached then the close limit switch adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the DOWN LIMIT CAM. Loosen the three screws. Adjust the cam antilockwise to close the door more. To close the door less adjust the cam clockwise. Tighten the three Screws again.



## INSTALLATION cont...

### 4.2 SETTING LIMITS FOR LEFT HAND INSTALLATION

- (a) With Drive Unit in manual mode (disengage, see fig.11), move the door up by hand to desired position.
- (b) Remove the Switch Cover (see Fig.8). Rotate by hand in an anticlockwise direction the UP LIMIT CAM (see Fig. 9 ) until the cam clicks the open limit switch.
- (c) Move the door down by hand to the desired closed position.
- (d) Rotate by hand in a clockwise direction the DOWN LIMIT CAM (see Fig10) until the cam clicks the close limit switch.
- (e) Connect power lead from the Drive Unit into a general purpose power outlet installed by a licensed qualified electrical contractor. Turn the Power On.
- (f) Re-engage the drive gear by pull down the GREEN string handle (see Fig 11).

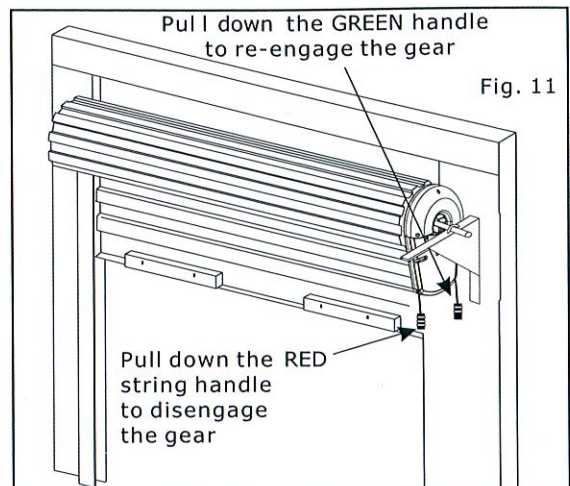


Fig. 11

### OPEN LIMIT ADJUSTMENT

- (g) Press the OPEN Button on the PANEL. The door should start opening. If the door stopped and the desired limit position has been reached then the limit adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the UP LIMIT CAM. Loosen the three screws Adjust the cam clockwise to open the door more. To open the door less adjust the cam clockwise. Tighten the three Screws again.

### CLOSE LIMIT ADJUSTMENT

- (h) Press the CLOSE Button on the PANEL. again., The door should start closing. If the door stopped and the desired limit position has been reached then the close limit switch adjustment is complete. If the door has not reached, or has gone past the desired position, you have to adjust the DOWN LIMIT CAM. Loosen the three screws Adjust the cam clockwise to close the door more. To close the door less adjust the cam anticlockwise. Tighten the three Screws again.

### 5.SOFT START SOFT STOP TIME SET

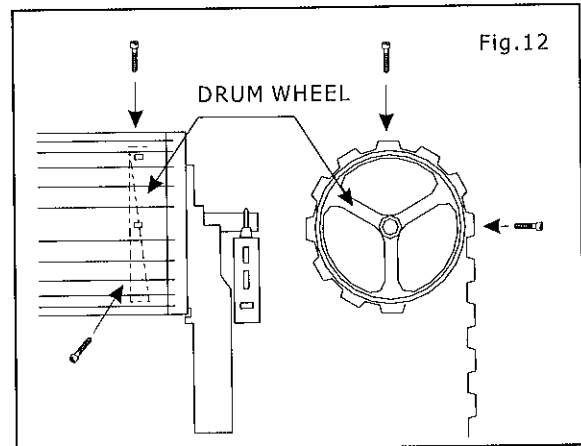
In engage mode, press set button on the PCB board about 4 seconds See( Fig 13) the door has soft start soft stop function after the door close and open one time automatically

newly installed door must have this process, or the soft stop will falsely works

## 6. FIXING THE DOOR CURTAIN TO DRUM WHEEL

The Door Curtain has to be secured to the drum wheel with suitable fasteners.

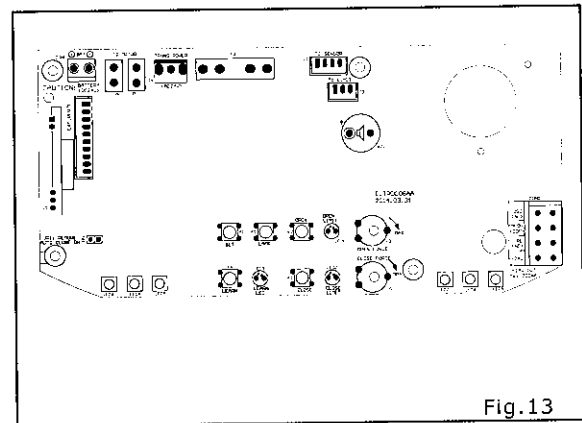
- (a) With the door in the fully closed position mark the curtain (as per Fig.12) on both ends of the door.
- (b) Open door slightly to have access to the marked positions. Secure the curtain to drum wheel using self drilling screws (two on each end) . The screws should be at least 90 degrees apart as per Fig.12.



## 7. SETTING OF CLOSE SAFETY OBSTRUCTION AND OPEN FORCE

**IMPORTANT:** The setting for the open and close obstruction forces are the most important adjustments made in the whole installation procedure. Make sure that the force (load) is adjusted correctly as per the installation instructions. Failure to adjust these settings correctly could result in serious personal and/or property damage. The end user must be informed that they must test at regular intervals (once a month is recommended) these settings and the necessary adjustments made if required.

Notes: The Open and Close Obstruction Force adjustments procedure are the same for Left or Right Hand installation.



### 7.1 CLOSE SAFETY OBSTRUCTION FORCE ADJUSTMENT

- (a) Fully open the door by pressing the OPEN Button. The door will stop automatically when the open limit position is reached.
- (b) Turn the CLOSE FORCE shaft fully clockwise . Press the CLOSE Button again, the door should start closing. As the door is closing, turn the CLOSE FORCE shaft slowly anticlockwise until the door stops momentarily then reverses to the open position.
- (c) Turn the CLOSE FORCE shaft 10 degrees clockwise. Press the CLOSE Button again to close the door. If the door reverses by itself, readjust the CLOSE FORCE shaft a further 5 degrees clockwise. Keep adjusting in this manner until the door can complete the full closing cycle.

### 7.2 OPEN OBSTRUCTION FORCE ADJUSTMENT

- (a) Fully close the door by pressing the CLOSE Button. The door will stop automatically when the close limit position is reached.
- (b) Turn the OPEN FORCE shaft fully clockwise. Press the OPEN Button again, the door should start opening. As the door is opening, turn the OPEN FORCE shaft slowly anticlockwise until the door stops.
- (c) Turn the OPEN FORCE shaft 10 degrees clockwise. Press the CLOSE Button again to close the door. If the door stops by itself, readjust the OPEN FORCE shaft a further 5 degrees clockwise. Keep adjusting in this manner until the door can complete the full opening cycle. (Fig13)

## INSTALLATION cont...

### 7. 3 CLOSE SAFETY OBSTRUCTION TEST

The door now has to be tested for response to an obstruction while it is opening and closing. Press the CLOSE Button with the door in the open position, the door should start closing. When the door reaches half the closing distances (see Fig.14) holding the bottom of the door with your hands. If the door does not reverse open readily the force may be excessive and need adjusting.

**IMPORTANT:** If the door is unable to reverse when obstructed discontinue use. Do not use a door with faulty obstruction setting. Repair fault and retest before using.

### 8. SETTING OF TRANSMITTER

#### 8. 1 LEARNING A TRANSMITTER

The transmitter must be **LEARNT** before use.

(a) Press the **LEARN CODE** Button for 2 seconds approximately, the **Light code** Button will turn on (See Fig.15).

(b) Press any button on the transmitter 2 seconds the **LEARN LED** Button will flash about 8 times and then turn off.

(c) Then the transmitter has been learnt and the security code stored in the memory on board. Press the transmitter to see if it operates the door.

(d) Repeat the step (a)-(c) to learn another transmitter.

(e) Up to 30 transmitters can be learnt. If more than 30 transmitters are learnt, the FIFO (First In First Out) system applies the first code learnt will be deleted and replaced by the latest code learnt.

#### 8. 2 DELETE ALL TRANSMITTERS

If you want to delete all the stored transmitter codes, step as follow:

(a) Press and hold the **LEARN BUTTON** the **LEARN CODE** Button will turn on.

(b) Holding the **LEARN BUTTON** 8 seconds approximately, the **LEARN LED** Button will turn off.

(c) Release the **LEARN BUTTON**, all the stored transmitter codes will be deleted.

(d) Confirm this by trying to operate the door by pressing one of the deleted transmitters.

**IMPORTANT:** It is strongly recommend deleting all transmitters and re-learning the transmitters when one of the learnt transmitters lost.

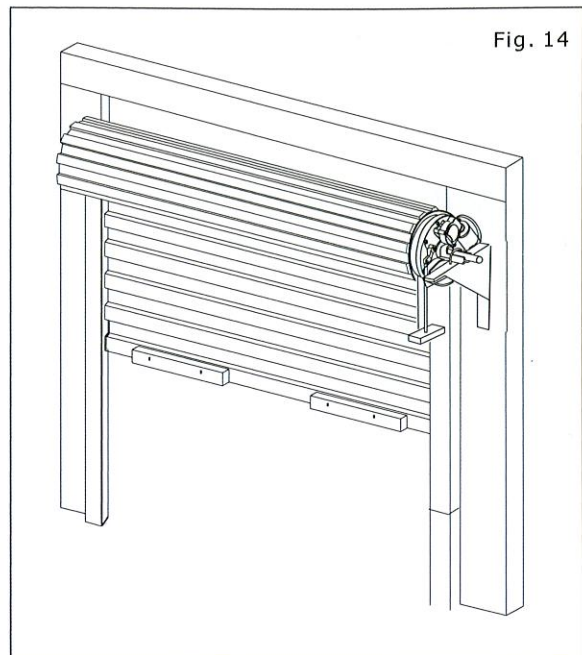


Fig. 14

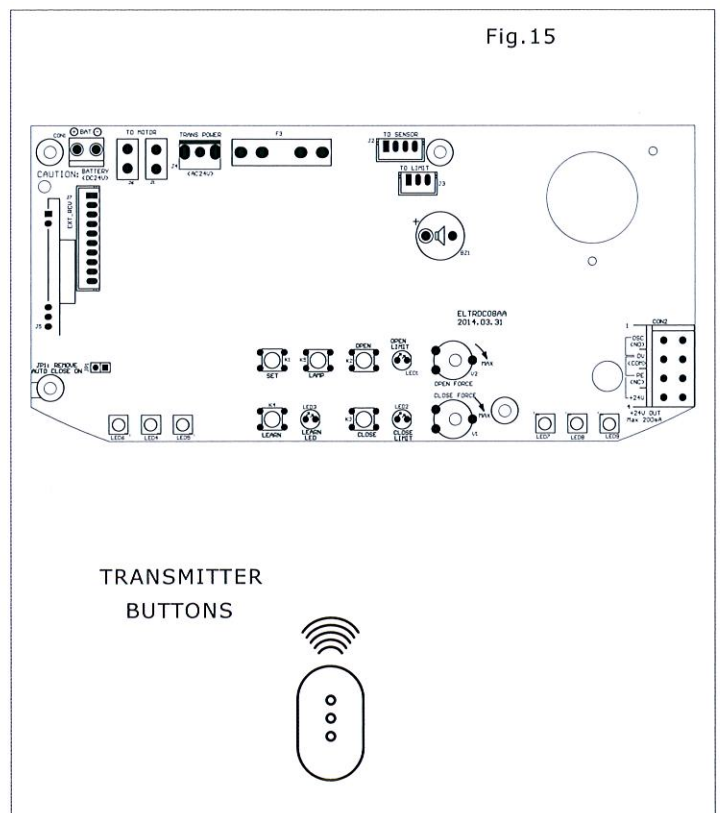


Fig.15

## 9. AUTO CLOSE SET

Caution: If Auto Close is set, a P.E. beam must be applied, remove the JP1 wire to implement Auto Close function (fig 16). Only when the door open to the limit and Auto Close time is set, the Auto Close timer begins counting. If P.E. beam is blocked, the door will keep status of open. The door reopens when obstructed or the P.E. beam is blocked during close. Auto close time is 3 minute

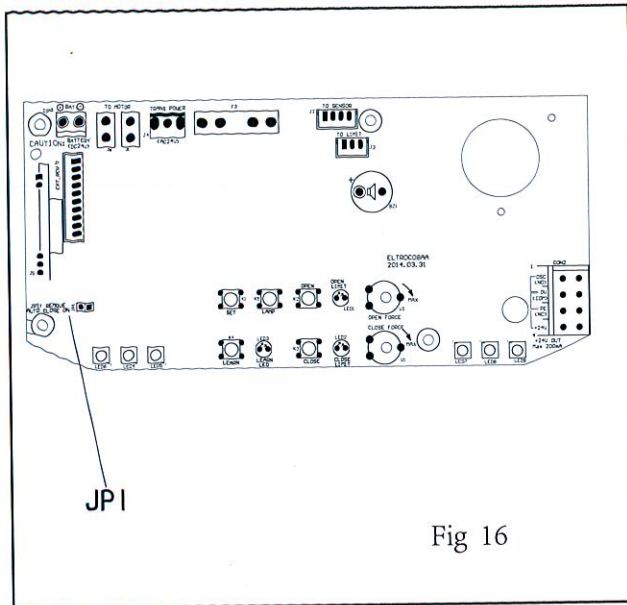


Fig 16

## TECHNICAL SPECIFICATIONS

INPUT VOLTAGE	220-240VAC 50HZ	
TRANSFORMER	PRIMARY VOLTAGE	220V/240V AC
	SECONDARY VOLTAGE	24V AC 100VA
	CONTROLLER VOLTAGE	24VDC
RATED LOAD	800N	
Opening /closing limits travel	6 turns of door drum wheel	
Opening /closing run time	60secs	
Receiver type	UHF 433.22MHZ ,AM Receiver	
Receiver code storage capacity	30 transmitter codes	
Transmitter	Frequency	433.22MHZ
	Coding Type	Code Hopping
	NO of code combinations	over 4.29 billion random code
	Code generation	Non-linear encryption algorithm
	Battery voltage	12V
Motor type	Permanent magnet Direct current	24VDC
Globe	LED Lighting	

