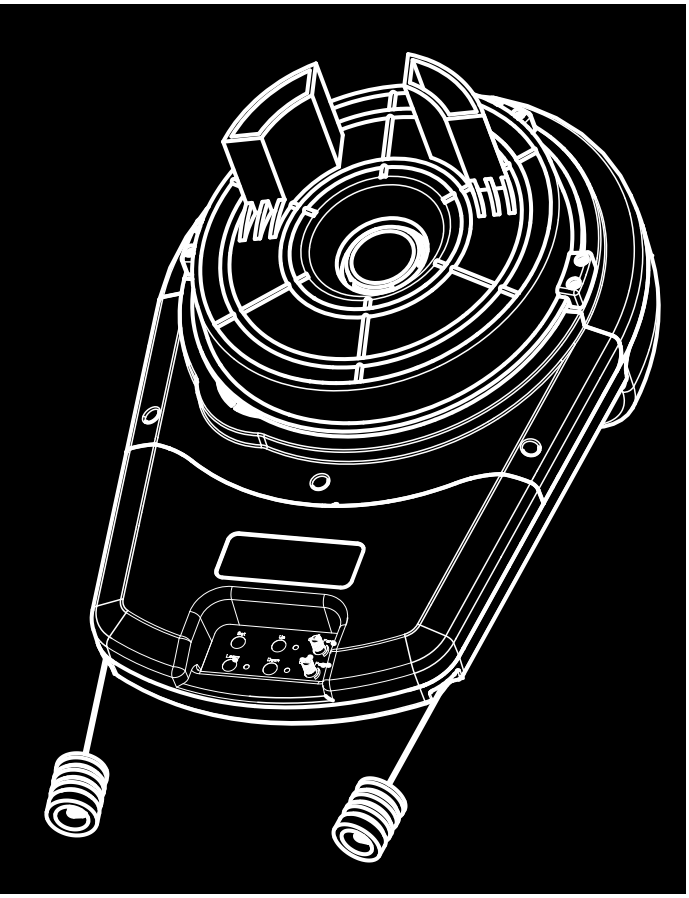
PADORS

GARAGE ROLLER DOOR OPENER

MODEL:PDR-101



- Utilise ATMEL MicroController from USA. More reliable and Stable.
- Powerful and quiet DC Motor, up to Five years warranty
- Slim Design for easy installation
- Automatic reverse on obstruction.
- Electric limit switch. Easy to program
- Sort start/ Soft stop
- Multi-functional options are available; Keypad/Fingerprint access controls, Bluetooth Control, telecontrol and photo-beam

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 reserve 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

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

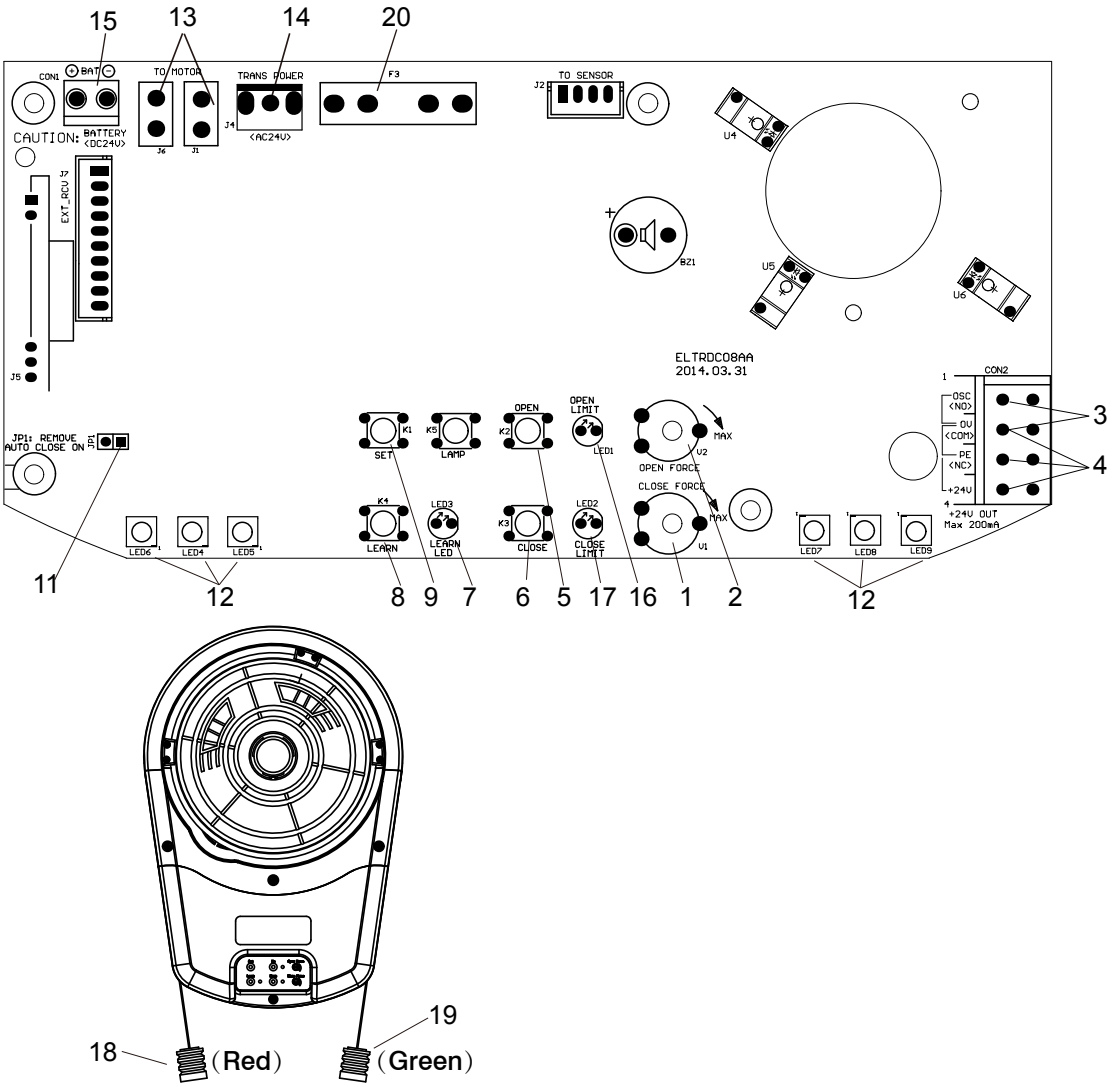
The door will automatically stop if the opening cycle doesn't complete within 60 seconds. The door will automatically reverse if the closing cycle doesn't complete within 60 seconds.

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

CONTROL DEFINATIONS



1.DOOR CLOSE FORCE SET (VI)

2.DOOR OPEN FORCE SET(V2)

3.EXTERNAL WALL BUTTON INPUT (CON2)

4.P.E.INPUT (CON2)

5.OPEN LIMIT

6.CLOSE LIMIT

7.LEARN LED

8.LEARN CODE

9. SET BUTTON

10.IN-BUILT BEEPER

11.AUTO CLOSE SHUNT

12.AUTOMATIC COURTESY LIGHT

13.MOTOR POWER OUTPUT

14.POWER INPUT

15.BACKUP BATTERY INPUT

16.DOOR OPEN LIGHT

17.DOOR CLOSE LIGHT

18.DISENGAGEMENT HANDLE

19.ENGAGE HANDLE

20. 24V POWER FUSE

CONTROL DEFINATIONS

1、 Door close force set (VI) 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 used 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 reasing 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、 Motor power output is used to connect 24VDC motor ,the door open/close is in compliance with the forward/reversal rotating of the motor
14、 Power input is to connect transformer secondary 24VAC input
15、 Backup battery input is to connect backup battery
16、 Door close light is on when door opens
17、 Door close light is to set the close limit ,see details in the installation manual
18、 Disengagement handle see page 2 manual operation
19、 ENGAGE HANDLE:see page 2 manual operation

20. 24V power fuse 15A

NOTE:

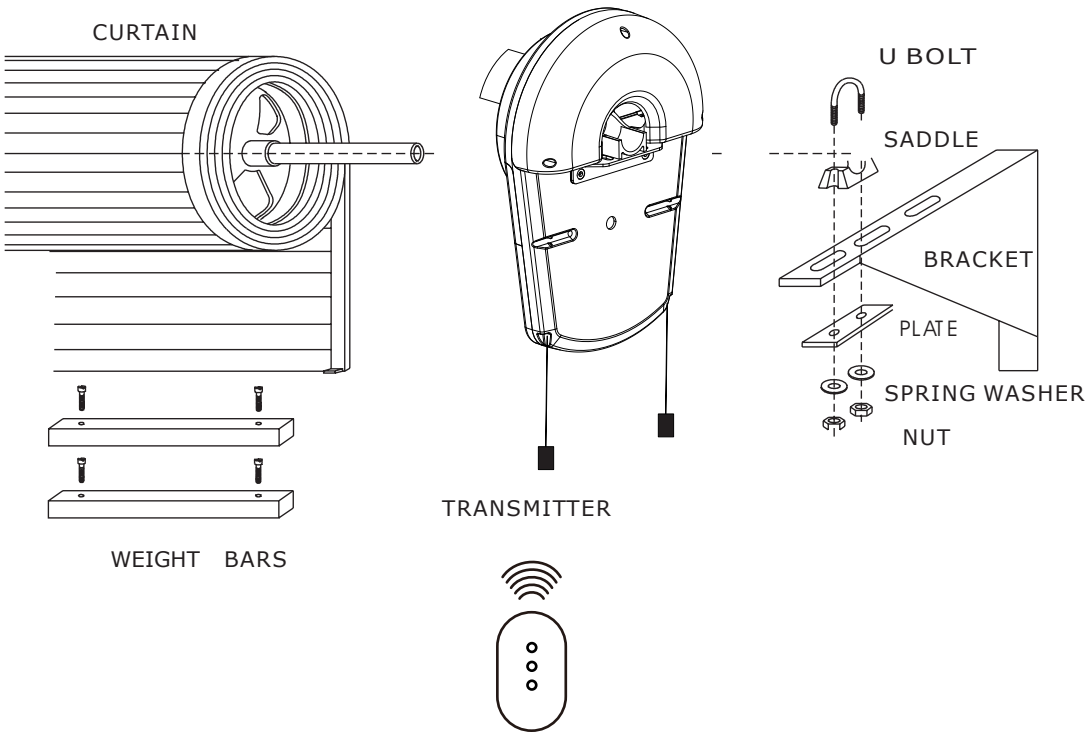
1.When power off and manual mode is applied, OPEN/CLOSE limit should not exceed 20cm of the learnt travel,or wrong action may occur when power is on

2.When door stays close to the limit,press OPEN button(5),the door will not open.when door stays close to the close limit,press close button(6),the door will not close.

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 si 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 BEGINNIN GTHE INSTALLATION OF THE EASY ROLLER AUTOMATIC OPENER CHECK THE OPERA TION 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.

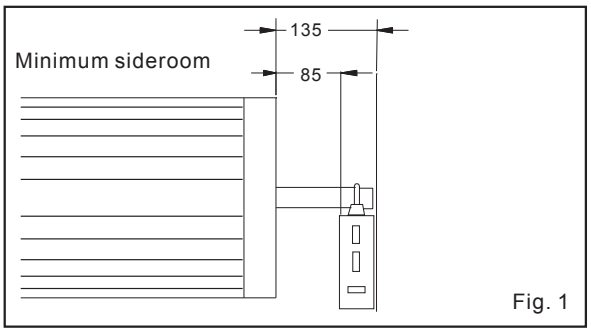


Fig. 1

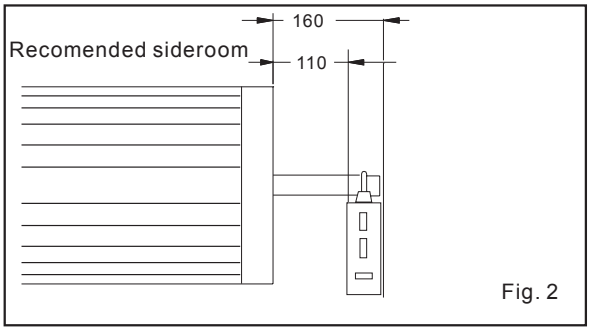


Fig. 2

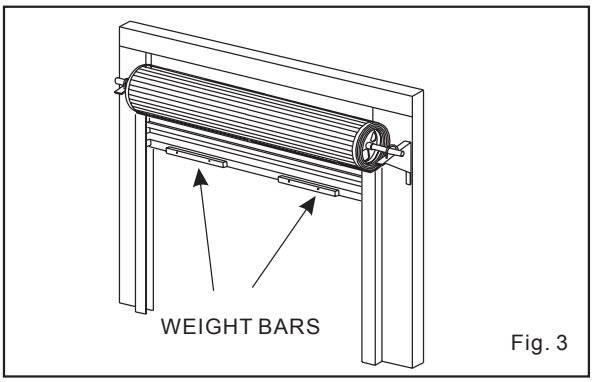


Fig. 3

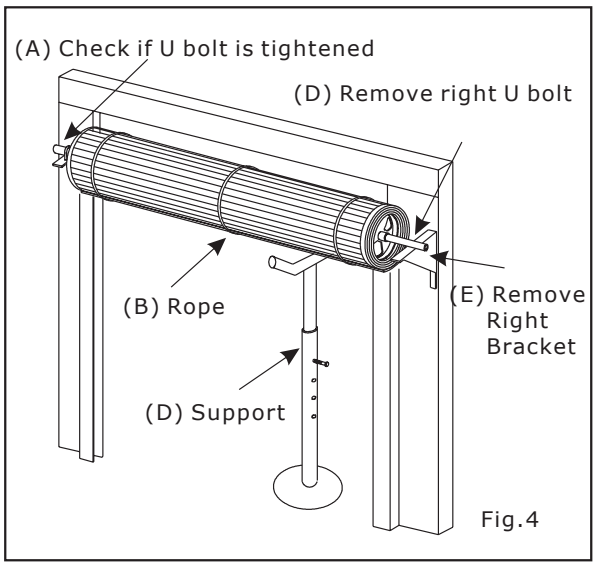


Fig.4

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 INSTALLAION JUST EXCHANGE THE WIRE CONNECTION OF THE MOTRER (Fig 5)

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 INJURE AND/OR PROPERTY DAMAGE CAN RESULT FROM FAILURE TO FOLLOW THIS WARNING.

(d) Check that step (a) was completed. Careful 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 be 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.

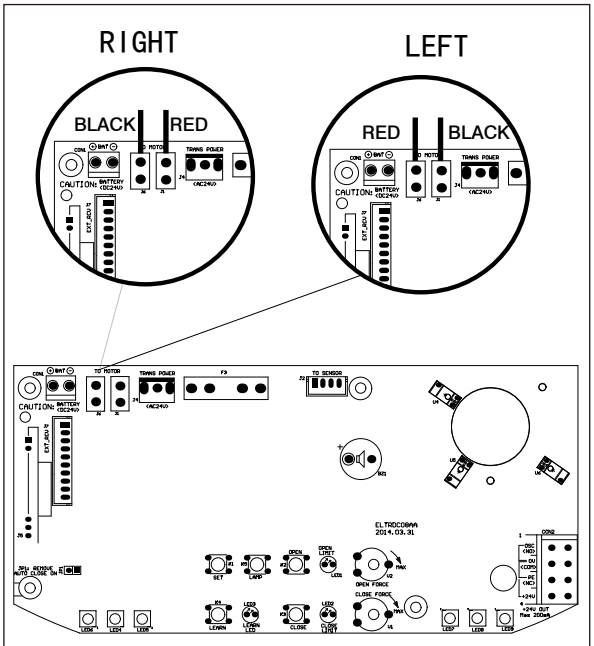


Fig. 5

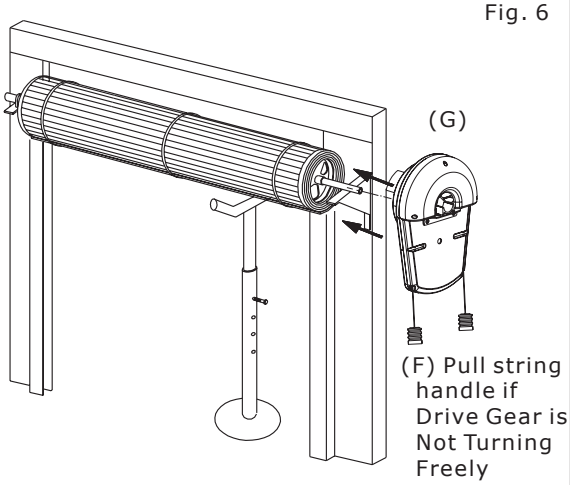


Fig. 6

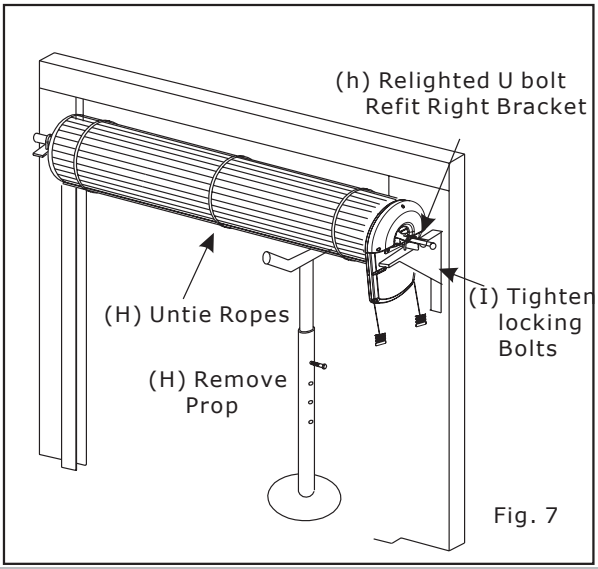


Fig. 7

4.SETTING TRAVEL LIMIT

4.1 SETTING LIMITS FOR RIGHT HAND INSTALLATION

(a) With Drive Unit in automatic mode (pull GREEN HANDEL19) (see Fig. 8)

(b).press SET button(9), CLOSE RED LED(17) flashes 3s later,this LED light keeps on,which means the system enters CLOSE travel

(c).press CLOSE button(6),door close and CLOSE RED LED blinks,when ideal close limits reaches,release CLOSE button, door stop travelling, (repeat this step until the door reaches to the desired position) press SET button,CLOSE RED LED flashed 6 times then off,OPEN GREED LED (16) on,which means close limit setting finished and system enters into open limit travel.

(d).press OPEN button(5),door opens and OPEN GREEN LED blinks, when ideal open limits reaches, release OPEN button, door stop travelling. (repeat this step until the door reaches to the desired position) press SET button, the door automatically close to the limit, CLOSE RED LED blinks then keeps on,all the travel setting are finished.

(e).use OPEN(5) and CLOSE(6) button to check if the door travel limit is correct.(Reset by step (b) to (d) if it is incorrect.)

NOTE:

After setting the close limit ,to set the open limit,in the range of 1m to 3m,If it is not in this range,door automatic close step will not shows,the courtesy light blinks several times,implying resetting is needed since the set travel is not in the normal range.

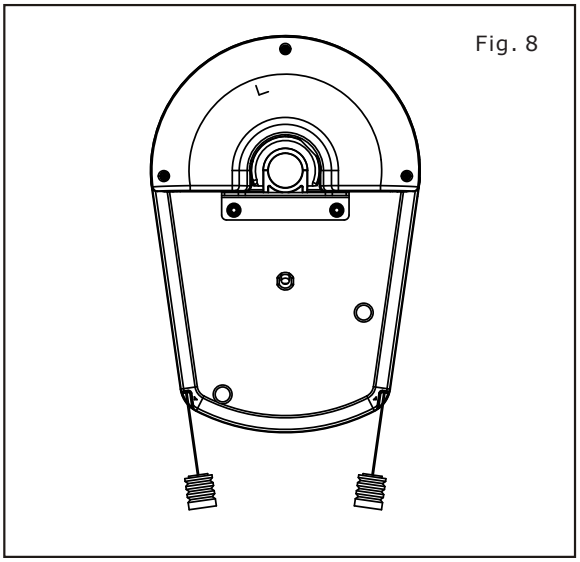


Fig. 8

INSTALLATION cont...

4.2 SETTING LIMITS FOR LEFT HAND INSTALLATION

(a) With Drive Unit in automatic mode (pull GREEN HANDEL19) (see Fig. 8)

(b).press SET button(9), CLOSE RED LED(17) flashes 3s later,this LED light keeps on,which means the system enters CLOSE travel

(c).press CLOSE button(6),door close and CLOSE RED LED blinks,when ideal close limits reaches,release CLOSE button, door stop travelling, (repeat this step until the door reaches to the desired position) press SET button,CLOSE RED LED flashed 6 times then off,OPEN GREED LED (16) on,which means close limit setting finished and system enters into open limit travel.

(d).press OPEN button(5),door opens and OPEN GREEN LED blinks, when ideal open limits reaches, release OPEN button, door stop travelling. (repeat this step until the door reaches to the desired position) press SET button, the door automatically close to the limit, CLOSE RED LED blinks then keeps on,all the travel setting are finished.

(e).use OPEN(5) and CLOSE(6) button to check if the door travel limit is correct.(Reset by step (b) to (d) if it is incorrect.)

NOTE:

After setting the close limit ,to set the open limit,in the range of 1m to 3m,If it is not in this range,door automatic close step will not shows,the courtesy light blinks several times,implying resetting is needed since the set travel is not in the normal range.

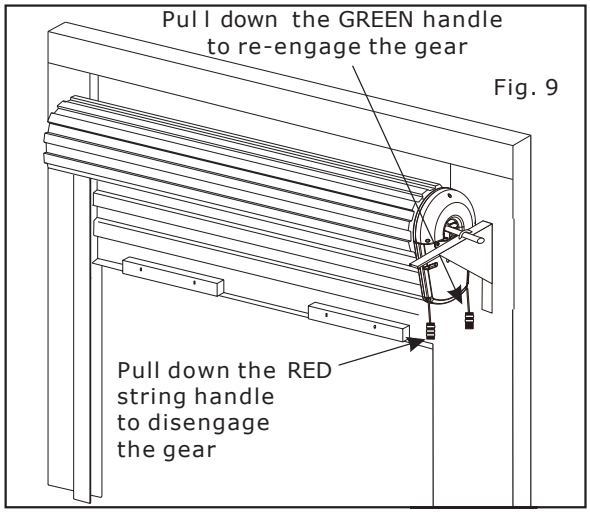


Fig. 9

5.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,10) 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.10.

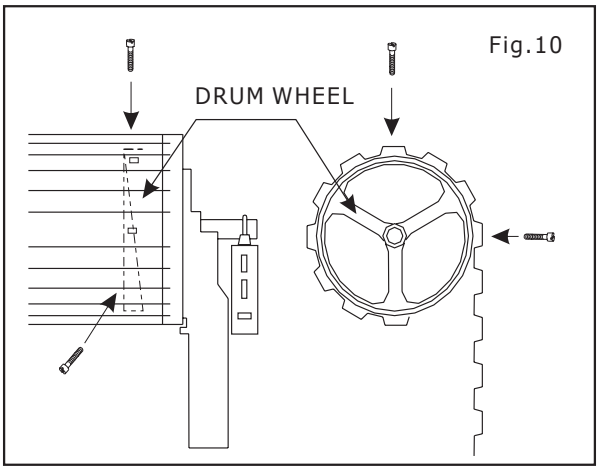


Fig.10

6.SETTING OF CLOSE SAFETY OBSTRUCTION AND OPEN FORCE

IMPORTANT: The setting for the open and close obstruction forces are the most important adjustments are 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.

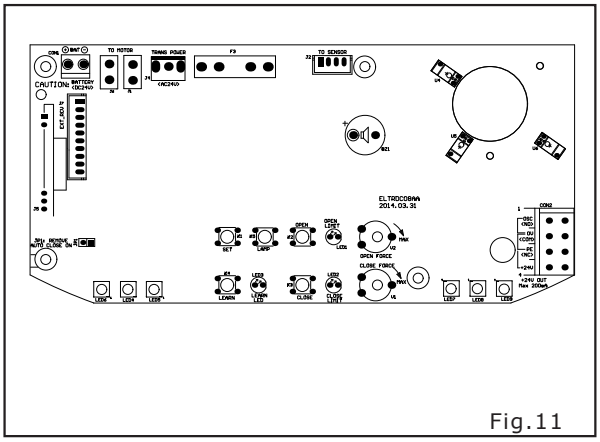


Fig.11

6.1 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 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.

6.2 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. (Fig11)

6. 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 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.

7. SETTING OF TRANSMITTER

7. 1 LEARNING A TRANSMITTER

The transmitter must be LEARNT before use.

(a) Press the LEARN CODE Button for 2 seconds approximately, the LEARN LED Button will turn on (See Fig.12).

(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.

7. 2 DELETE ALL TRANSMITTERS

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

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

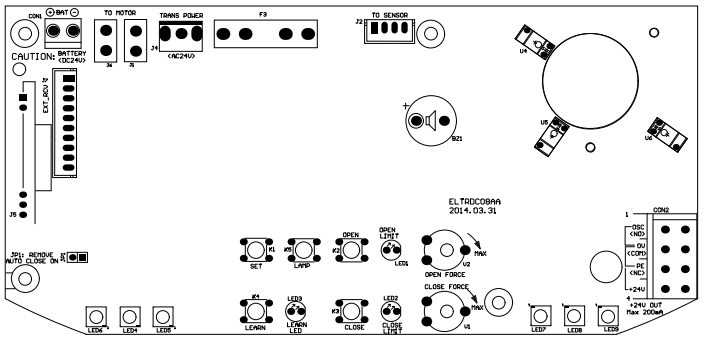
(b) Holding the LEARN CODE Button 8 seconds approximately, the LEARN LED Button will turn off.

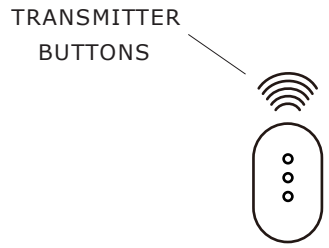
(c) Release the LEARN CODE Button, all the stored transmitter codes will be deleted.

(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.12





8. 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 reopen when obstructed or the P.E beam is blocked during close.
Auto close time is three minute

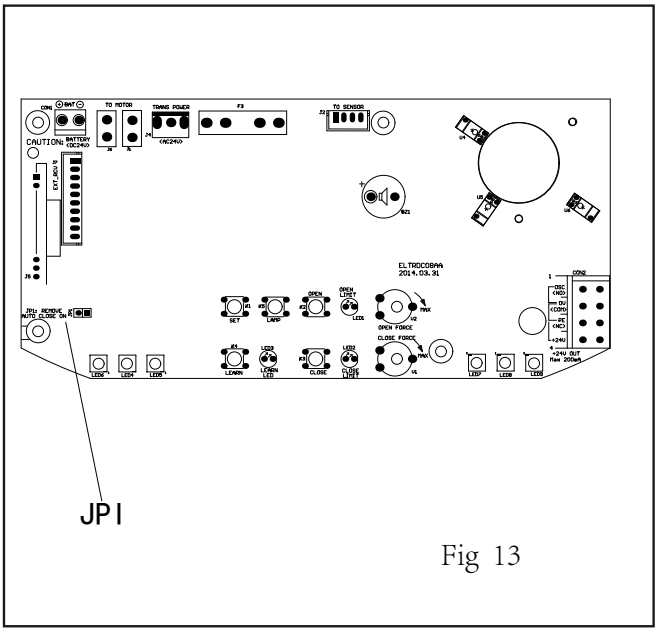


Fig 13

9. COURTESY LIGHT AUTO CLOSE

the Auto close time is 3 minutes

10.PHOTO BEAM (OPTIONAL)

A normal open photo beam is recommended to install at a suitable place beside the door connect the wires to CON2 PCB board.
(see Fig 14)
The connection diagram refers to photo Beam

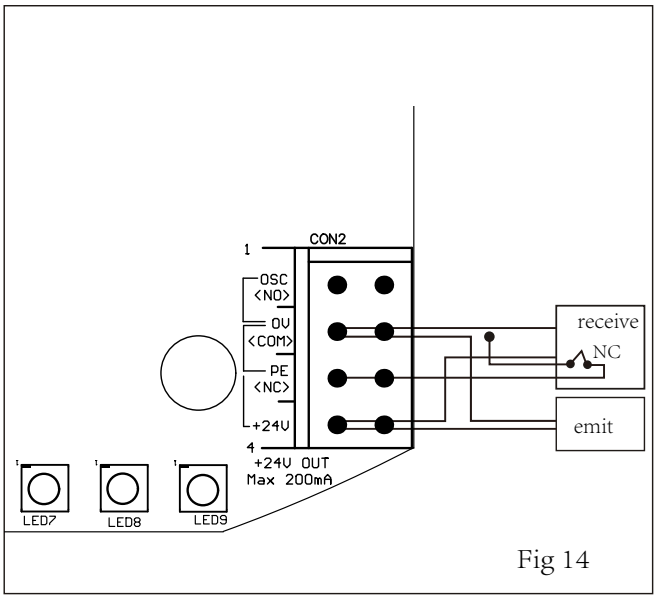


Fig 14

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 /Clsoing limits travel	6 turns of door drum wheel	
Opening /Clsoing run time	60secs	
Receiver type	☐ UHF 433.92MHZ ,AM Receiver ☐ UHF 433.22MHZ ,AM Receiver	
Receiver code storage capacity	30 transmitter codes	
Transmitter	Frequency	☐ 433.92MHZ ☐ 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	

FAULTS AND REMEDIES

SYMPTOMS	POSSIBLE CAUSE	REMEDY
Door will not operate	Main power not turned on	Turn on
	Door is obstructed	Remove obstruction
	Fuse blown	Replace fuse
Door will not operate	Door reversing sensitivity not adjusted properly	Re-adjust reversing sensitivity (Ref installation instruction Step 7.1)
Door moves downwards and reverses itself upward	Door reversing sensitivity not adjusted properly	Re-adjust reversing sensitivity (Ref installation instruction Step 71.)
Door operates from drive unit but not from hand transmitter	Indicator on transmitter not lighting	Battery flat or battery leads broken
	Transmitter has not been learnt	Refer to installation instructions-Step 8.2
	Drive Unit aerial wire not extended	Extent aerial wire
	Battery flat	Replace battery
Door does not close fully	Limit micro switch incorrectly adjusted	Re-adjust limit switch (refer to installation instructions-Step 5)
Door does not open fully	Limit micro switch incorrectly adjusted	Re-adjust limit switch (refer to installation instructions-Step 5)
Door stop automatocally	Opener inspects overload door obstructed or springs lose elasticity	Stop using opener avoid danage
Auto close no react	P.E. Beam falty door is blockes Auto close time unset	Inspect P.E. beam Refer. Instaliation of P.E.beam Re-set Autoclose time
soft stop time too long/short or none	NO setting of soft start soft stop	See step 5 to set