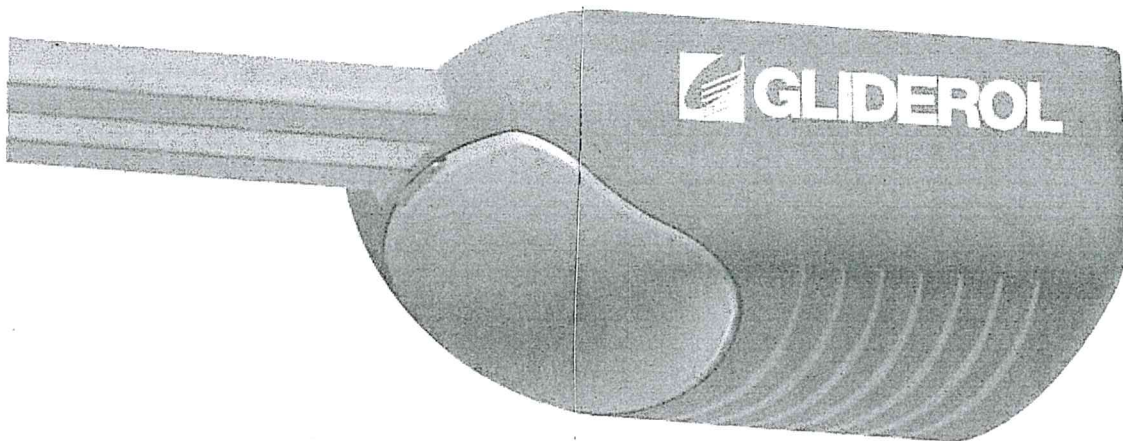


TILT • A • WAY

AUTOMATIC TILT & SECTIONAL DOOR OPERATOR INSTALLATION INSTRUCTIONS





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IMPORTANT SAFETY INFORMATION -PLEASE READ CAREFULLY**SAFETY INSTRUCTIONS****WARNING! : To reduce the risk of severe injury or death**

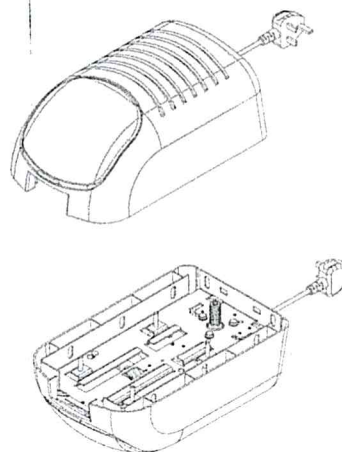
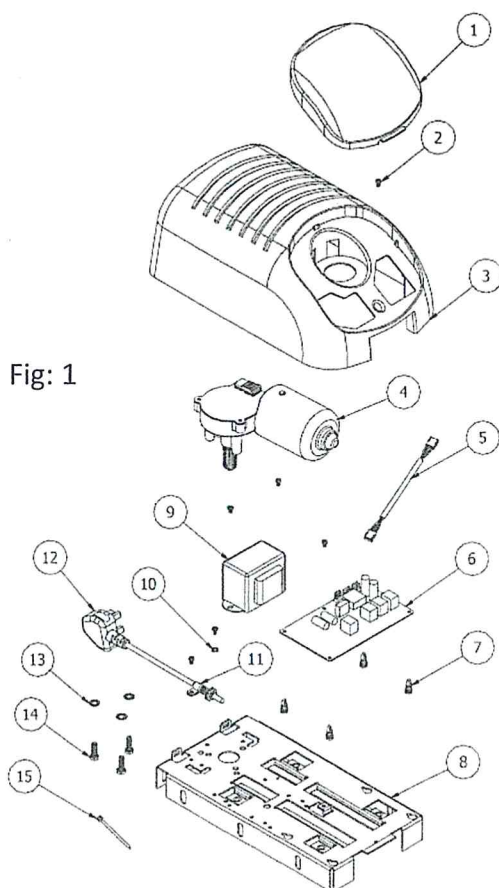
- Never let children operate or play with the doors controls
- Keep the remote control away from children
- Always keep the moving door in sight and away from people and objects until it is completely closed.

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 Tilt.A.Way 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 40mm high rigid 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 Tilt.A.Way Operator has an 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.

TILT • A • WAY Drive Assembly (Exploded View)

Fig: 1



No.	Part Description	No.	Part Description
1	Lens	9	Transformer
2	Screw M4 x 6L	10	Washer
3	Cover	11	Cable Clamp
4	Motor Assembly	12	Power Cable
5	Sensor Cable	13	Washer
6	PCB	14	Bolt M6 x 12L
7	PCB Spacer	15	Cable Tie
8	Chassis		





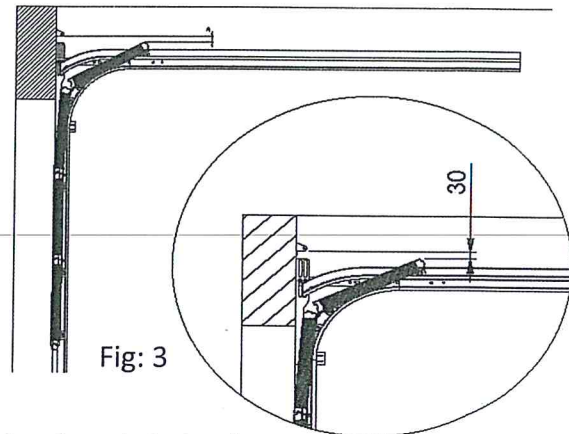
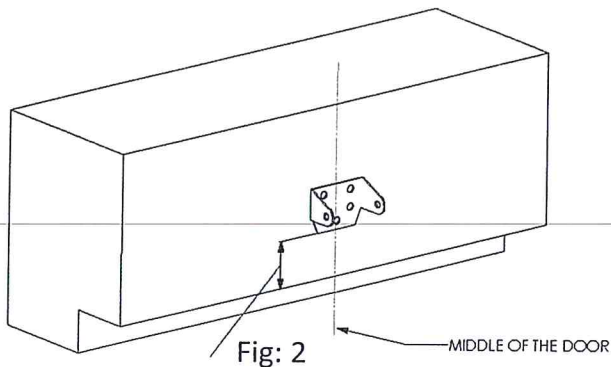
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Stage 1 – Install the Lintel Bracket

It is essential the door header be substantial as nearly all the force generated by the opener is concentrated via the header bracket.

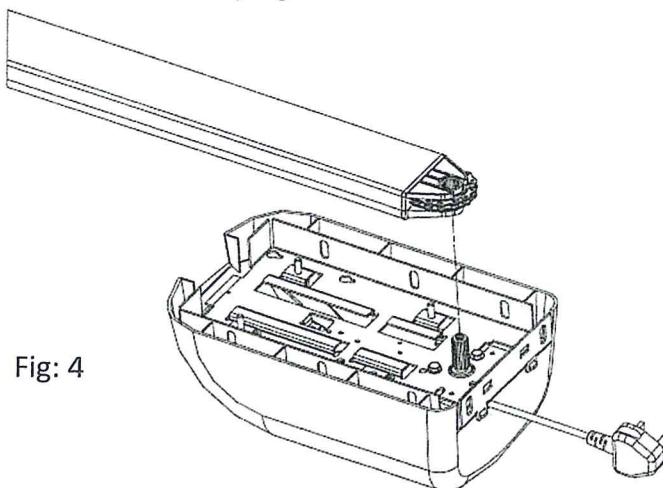


- Determine the centre of the door and continue this vertical line through the header.
- Open the Door and find the highest point to which the top of the door reaches, using an appropriate straight edge and level.
- Transfer this height to the header and lower the door.
- Increase the distance from this height by 30mm if possible.
- Grab the lintel bracket and place the flat bottom of the flanges at the height determined, fixing with screws (not supplied).

Note: Headroom requirements and the need to avoid obstructions sometimes makes it necessary to move the bracket higher.

Stage 2 - Attach Track to Power Unit

- Place the track end over the geared shaft of the power unit and slide down.
- Ensure track and unit are correctly aligned.



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Stage 3 – Lock Track to Power Unit

- Place the 2 x 'U' brackets over the track and slot holes into threaded studs.
- Place and tighten brackets with M6 nuts provided.

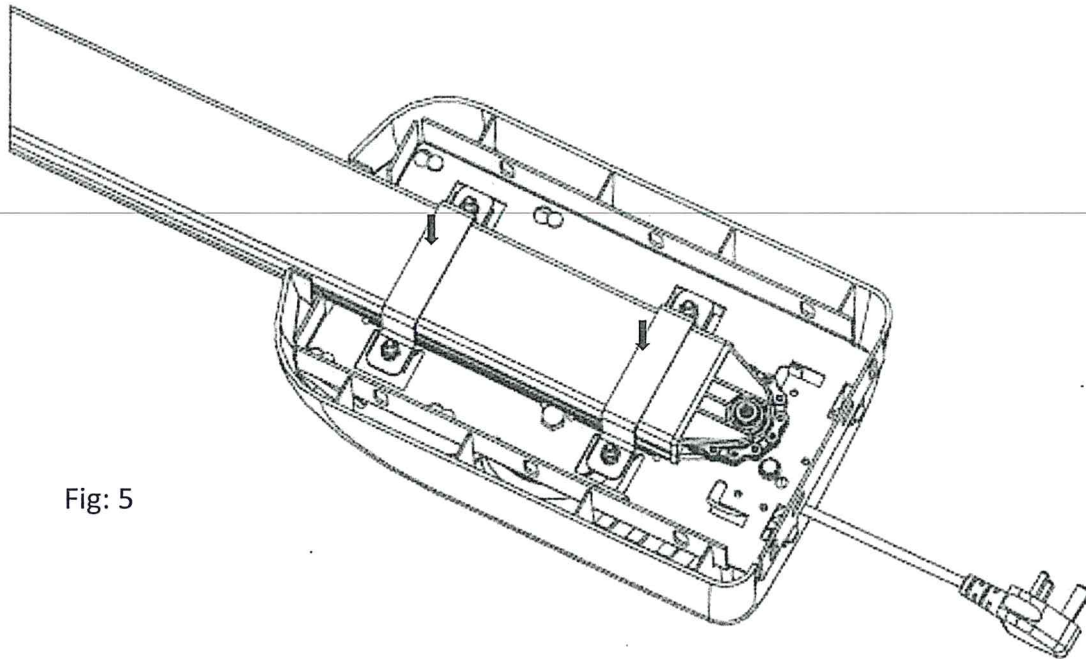


Fig: 5

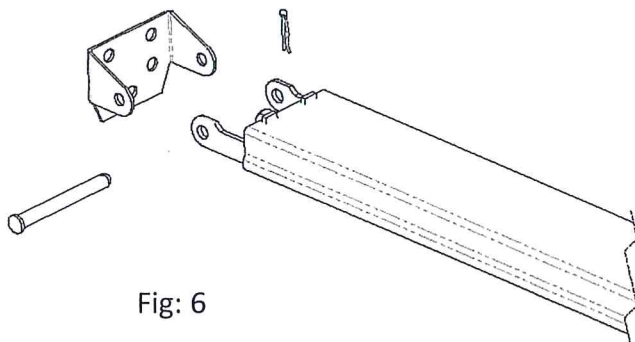
Stage 4 – Attach Track to Lintel Bracket

Fig: 6

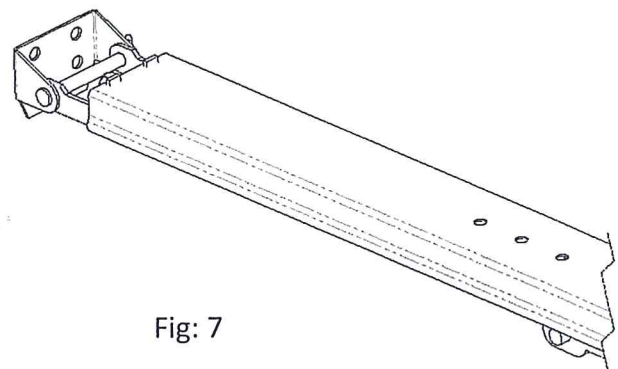


Fig: 7

- Slot the other end of the track between the flanges of the installed lintel bracket.
- Insert large pin provided and lock with 'R' Clip.





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Stage 5 – Attach Bracket and Arms to Carriage

- Assemble components below to the carriage (attached to the track).
- All fasteners provided.

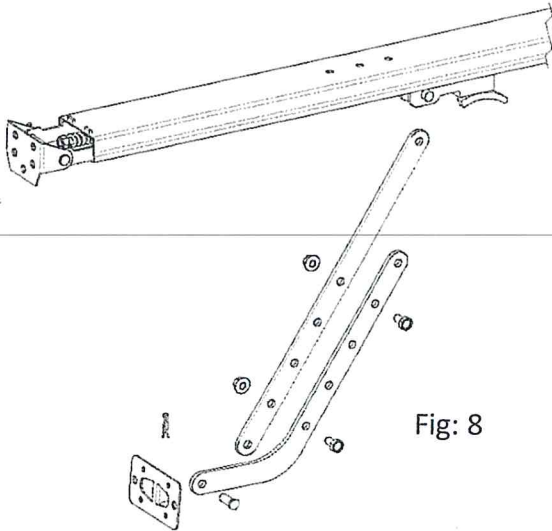


Fig: 8

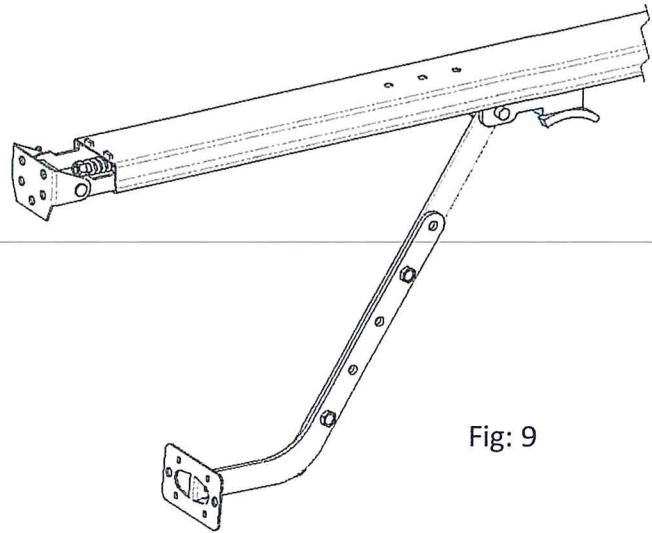


Fig: 9

Stage 6 - Measure Height of Ceiling

- Raise the track and power unit and rest it above the roller tracks.
- Manually slide the carriage back to the power unit.
- Raise the door to the open position.

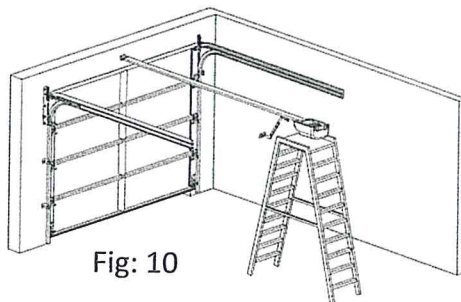


Fig: 10

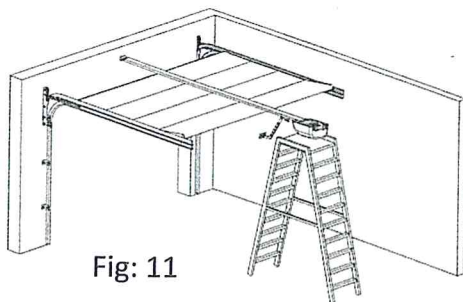


Fig: 11

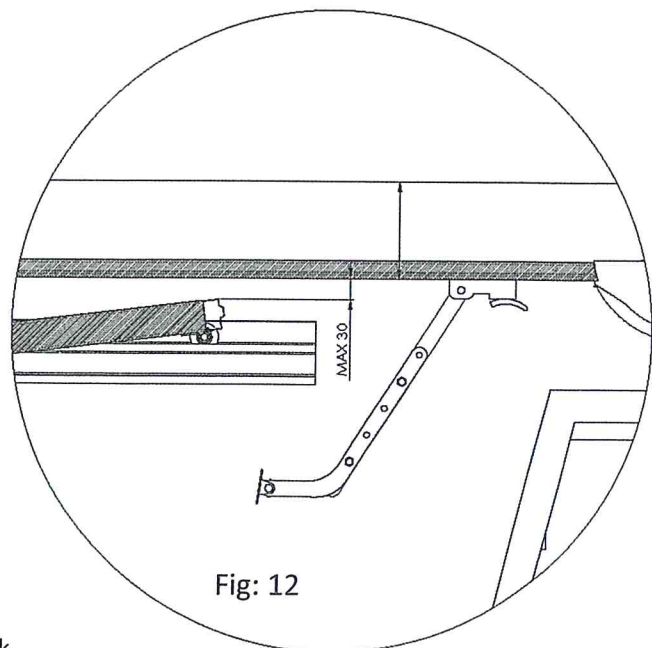


Fig: 12

- Measure height of ceiling to the bottom of the track.
- This distance will be required for the length of the 'L' brackets.





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Stage 7 – Secure the Power Unit

- Cut the 'L' brackets to the measured length (as per stage 6).
- Find secure installation point in ceiling.
- Attach 'L' brackets to power unit with the remaining M8 fasteners supplied.

Fig: 13

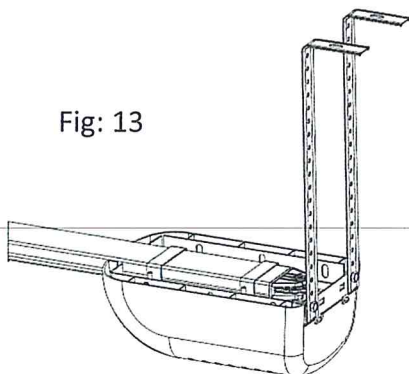
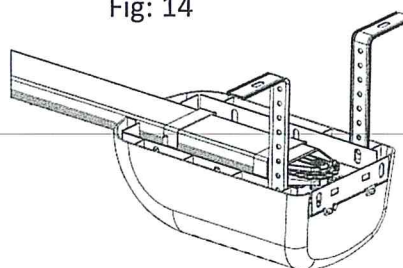


Fig: 14

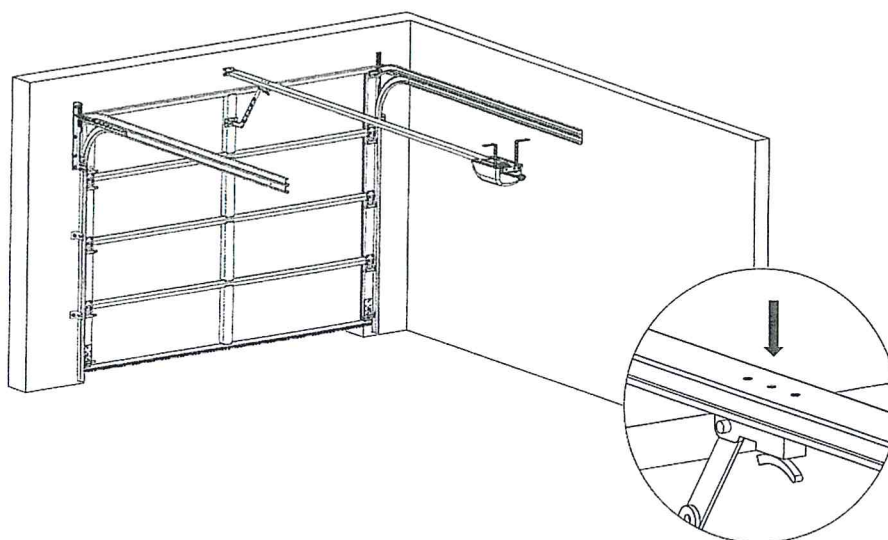


- Install power unit to ceiling. (Fasteners not supplied).

NOTE: Ensure the track is line up centre with the door.

Stage 8 - Install flat Hinge to Door

- Slide door back down to the closed position.
- Manually move the carriage back to the Lintel bracket end and lock into one of the manual lock holes.
- Attach the flat hinge bracket to the door, as per the guide on the next page.



Note: While fixing the Hinge bracket and connecting pusher arm and boomerang arm together, make sure the carriage pin engages to one of the three holes on the shaft whilst the door is in the fully closed position. This gives the option to lock the door in manual operation.



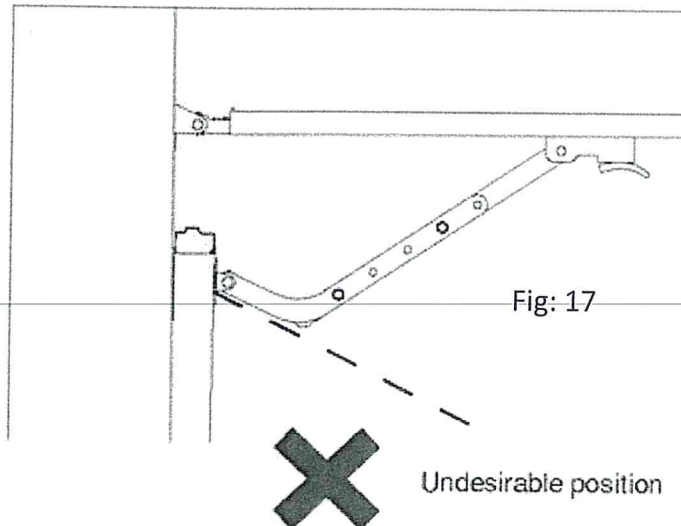
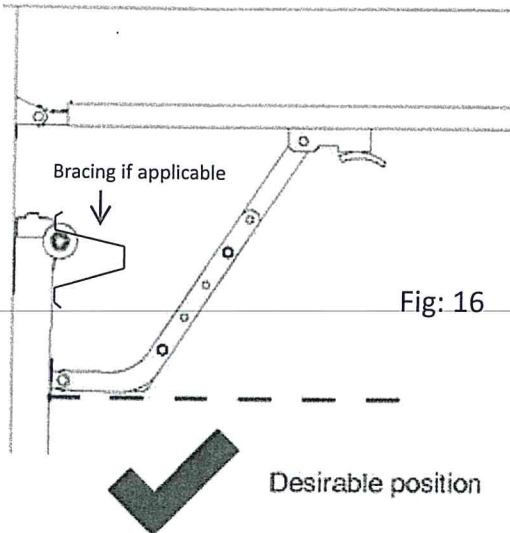


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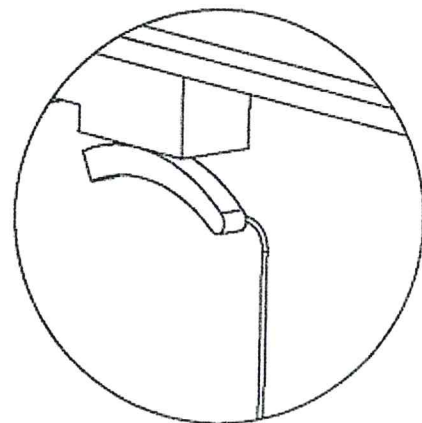
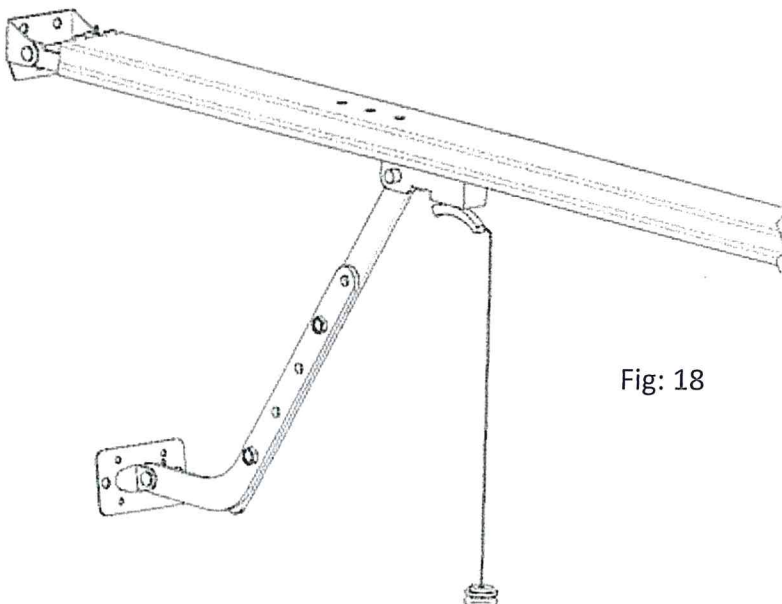
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Stage 8 - Continued



Note: If the bracing is fitted to the top panel where applicable as shown above, make sure the boomerang arm does not touch the bracing during the normal operation of the door, if it does interfere adjust the position of the hinge bracket on the vertical stile to ensure there is no interference.

Stage 9 – Attach the Manual Release Cord



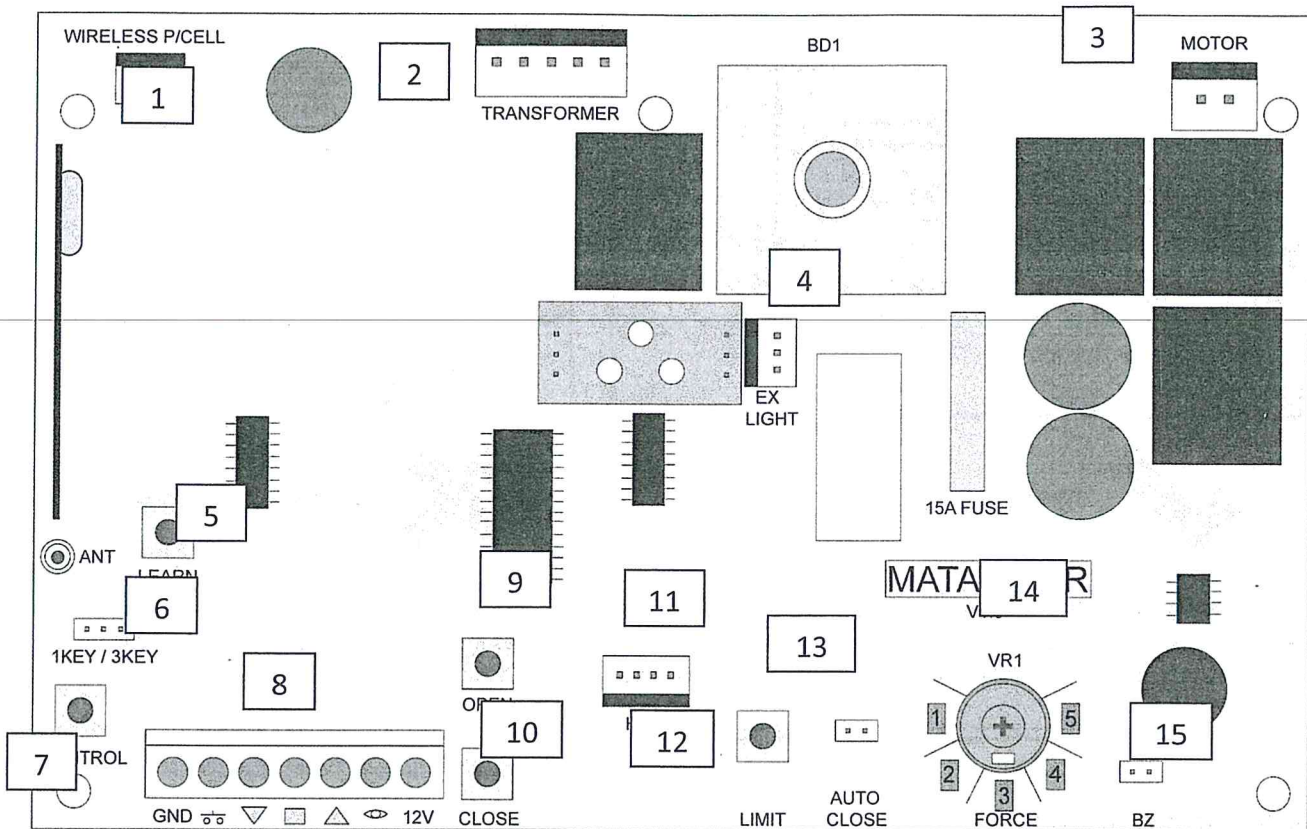


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1	Wireless Photocell Connector	9	On-Board Open
2	Transformer Connector	10	On-Board Close
3	Motor Connector	11	Hall Connector
4	External Light Connector	12	Door Limit Setting
5	Transmitter Learn	13	Auto Close Setting
6	Transmitter Key Setting	14	Force Setting
7	On-Board Control	15	Buzzer Setting
8	External I/O Terminal GND Ground UP, DOWN, STOP Up Direction Stop Down Direction Photocell 12V 12 Volt DC output		



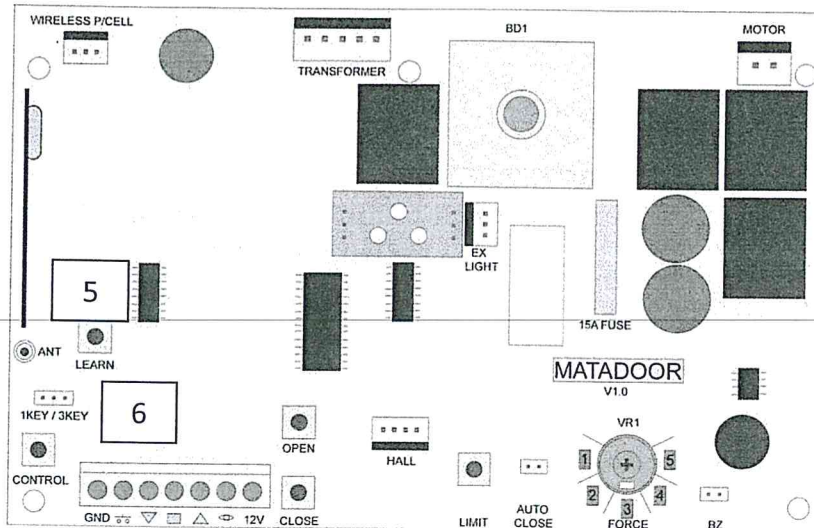


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Transmitter Code Setting



The factory default [6] Transmitter Key Setting is set to 3 KEY to assist with door limit setting.

1. To program the security code from your hand transmitter(s)
2. Press [5] LEARN button once
3. LED indicator will light with 3 beeps
4. Press the hand transmitter key that will operate the door
5. LED will blink with beep to signal successful programming
6. Press the next hand transmitter key
7. LED will diminish after 5 seconds

If an attempt is made to program an existing transmitter in memory, error is signaled by 2 beeps.

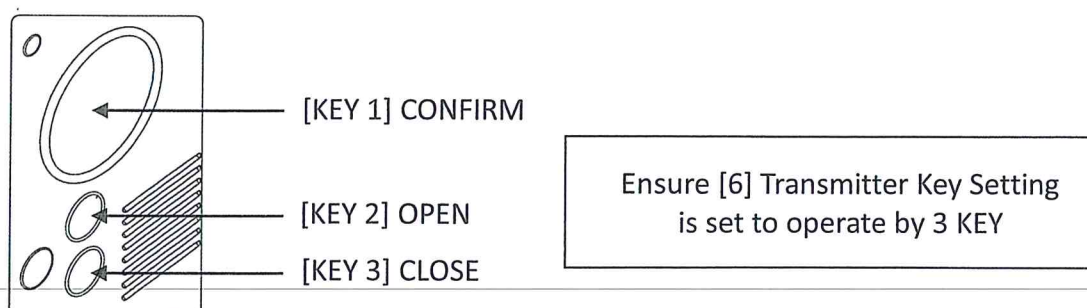
Deleting Transmitter from Memory

Press and hold [5] LEARN button for 10 seconds until LED diminish and 3 beeps are heard.



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Setting Door Travel Limits & Force – By Transmitter

1. Press and hold [KEY 2] and [KEY 3] simultaneously for three seconds until opener beeps 3 times.
2. Raise the door to the open position using press and hold [KEY 2]. To fine adjust this position, using [KEY 2] Open and [KEY 3] Close. (If the door is already in the desired opened position, proceed to step 3.)
3. Press [KEY 1] to confirm this open position. Unit will beep twice to confirm the top position is set.
4. Lower the door to the closed position using press and hold [KEY 3], fine adjust using [KEY 2] Open and [KEY 3] Close.
5. Press [KEY 1] to confirm this closed position. Unit will long beep to confirm the closed position is set.
6. The door will now travel between the limits, and automatically set the optimal force setting.
7. Now test the door on a block of wood 40mm off the ground. In most installations, the door should automatically reverse, without any further adjustments. However, if it doesn't auto reverse, please refer to Page 12 - Door Operation Force Setting instructions to adjust.



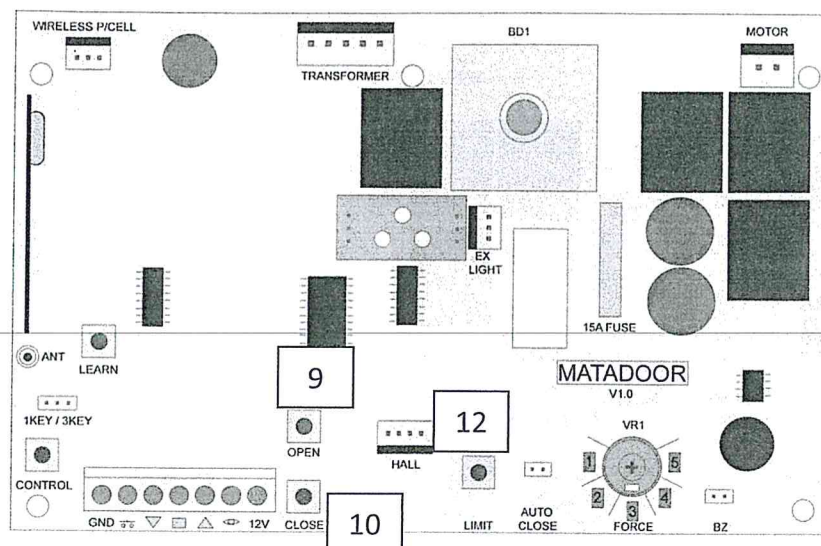


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Setting Door Travel Limits & Force –On Opener



1. Carefully remove the light cover by pulling down on tab at front of unit.
2. Press and hold LIMIT [12] for three seconds until opener beeps 3 times.
3. Raise the door to the open position using press and hold OPEN [9]. To fine adjust this position, using OPEN [9] and CLOSE [10]. (if the door is already in the desired opened position, proceed to step 3).
4. Press LIMIT [12] to confirm this open position. Unit will beep twice to confirm the top position is set.
5. Lower the door to the closed position using press and hold CLOSE [10], fine adjust using OPEN [9] and CLOSE [10].
6. Press LIMIT [12] to confirm this closed position. Unit will long beep to confirm the closed position is set.
7. The door will now travel between the limits, and automatically set the optimal operation force.
8. Now test the door on a block of wood 40mm off the ground. In most installations, the door should automatically reverse, without any further adjustments. However, if it doesn't auto reverse, please refer to Page 12 - Door Operation Force Setting instructions to adjust.
9. Replace light lens cover



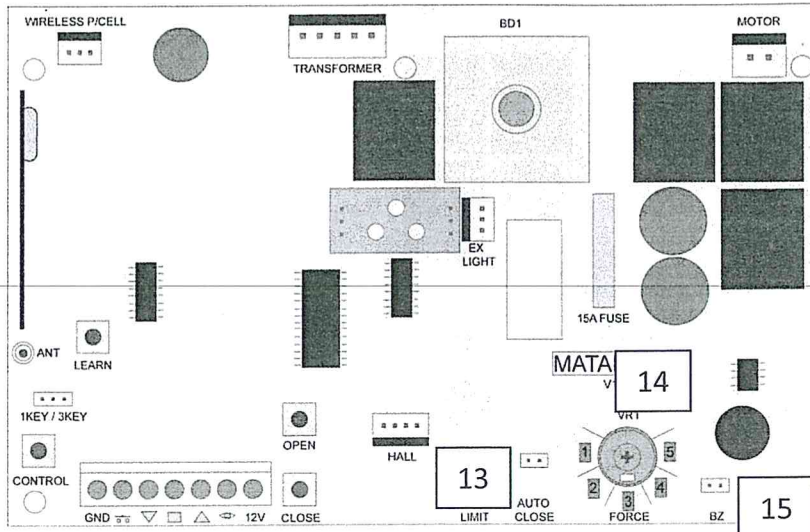


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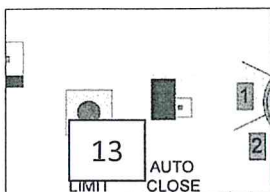
Door Operation Force Setting



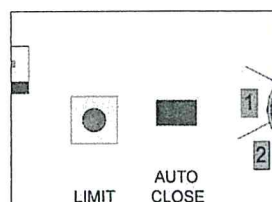
1. Carefully remove the light cover by pulling down on tab at front of unit.
2. FORCE [14] is factory preset at 3.
3. To reduce the door operation force, turn the pot clockwise by one interval, i.e. from Force setting 3 to 2, or Force setting 2 to 1.
4. Now test the door on a block of wood 40mm off the ground. The door should reverse. If it doesn't auto reverse, go to step 3 to further reduce the force setting and retest.
5. Replace light lens cover

Automatic Close Setting

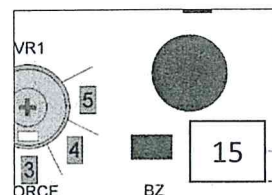
Buzzer Setting



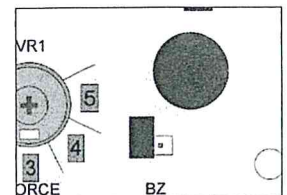
Factory Default - OFF



Replace Jumper
Auto Close 90 seconds



Factory Default - ON



Remove Jumper
to turn Buzzer OFF



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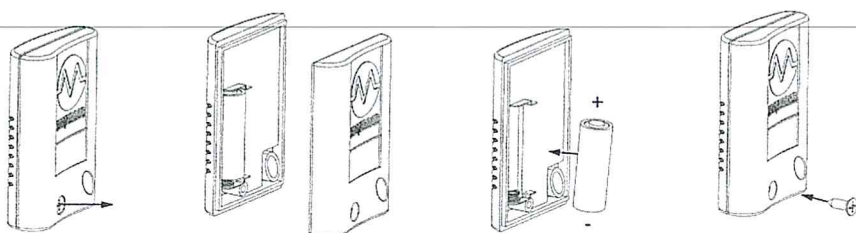
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LED Control

Under 3 Keys transmitter mode, the LED can be switched on and off using the STOP key. This will also output to the on-board EXTLIGHT terminal (*optional relay board required*).

Vacation Mode

Transmitter signal can be locked out by pressing STOP & CLOSE keys simultaneously and holding it for 3 seconds on the transmitter. To deactivate, press the same keys again and hold it for 3 seconds.

Key Ring Transmitter

Battery Type 12V (A23 ALKALINE BATTERY)

The battery should be replaced every 12 months.

To reassemble:

1. Holding the front cover of the remote in one hand, remove the screw on the back case using philip head screw driver.
2. Replace the old battery with new 12 Volts (A23 Alkaline), battery negative towards the screw
3. Locate the back case and secure with screw



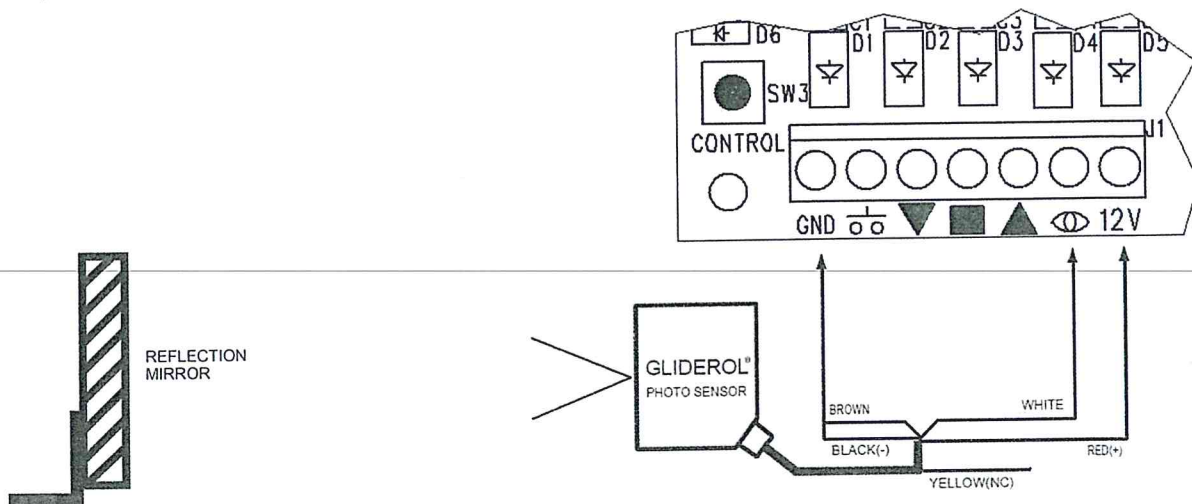


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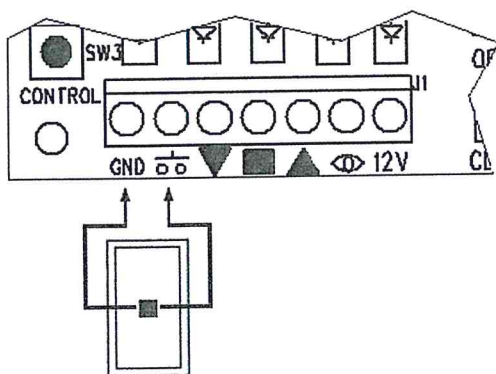
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Photo Sensor Connection Diagram

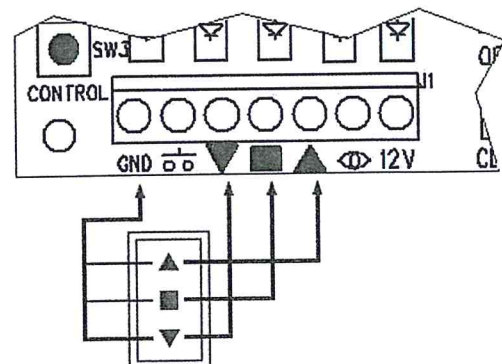


External Wall Switch Connection Diagram

One Button Switch

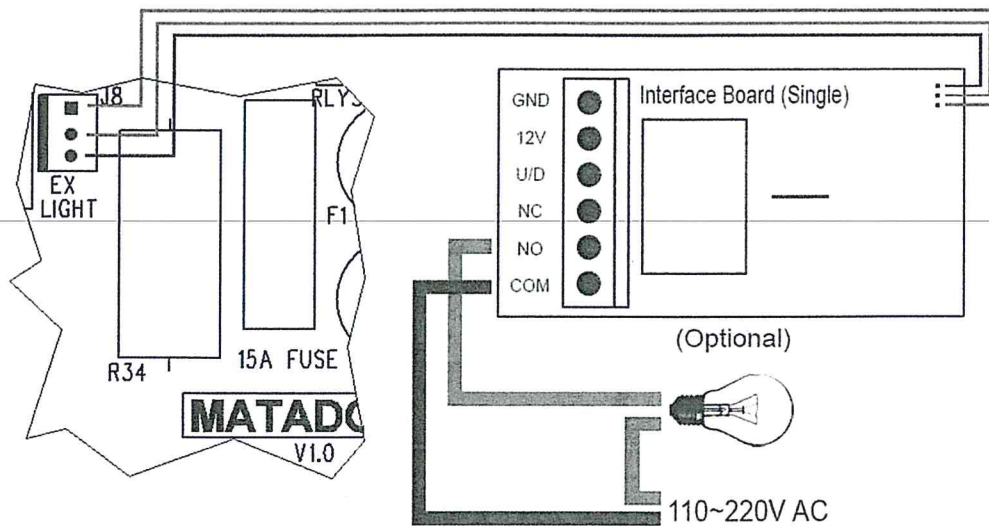


Three Button Switch



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External Light Connection Diagram (Optional Interface Board Required)



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Owner's Manual for the TILT • A • WAY Automatic Tilt & Sectional Door Operator

CONGRATULATIONS! On the purchase of your Tilt. A.Way Automatic Tilt & Sectional Door Opener

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Rolling Code Security	16		
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Door Operation

A door equipped with a TILT.A.WAY opener may be operated by any of the following three methods:-

- By using the handheld Transmitter
- By pressing the test button on the PCB. (Refer to PCB Index on page-3.)
- By an alternative bell press button, remotely hard wired or Wireless wall button mounted (optional).

Momentary activation of either of the above methods will activate the door to open or close.

The door can be stopped at any point during travel by a second activation of (a, b, or c). The following activation will move the door in the opposite direction.

Manual Operation

In the case of a power failure the TILT.A.WAY operator has an easily accessible manual release chord. Pulling the manual release chord once will set the door for manual operation and pulling it again will set the door for electric operation.(Refer to Figure 18 on page 7)

Obstruction Detection

During an open cycle if an obstruction is detected, the door will stop. During a closing cycle if an obstruction is detected, the door will reverse to the open position. The sensitivity or the amount force required to cause obstruction detection is fully adjustable (refer to Force setting on page-12) for force adjustment.

Manual Lock

During a power failure if the door is half way or fully opened it can be manually locked by pulling the manual release cord (Page 7 Figure 18) and moving the door to the close position. The carriage will engage into one of the three holes in the shaft.

Upon power recovery to put it back to electric operation the manual release cord must be pulled and the door moved to the original position to engage the carriage in to chain/belt joiner.

Courtesy Light

An internal courtesy LED light is housed within the control box enclosure. This is activated during an open or close cycle and will stay illuminated for approximately 60 seconds.

Audible Buzzer

The TILT.A.WAY has an internal Piezo Siren that will beep momentarily each time the door is activated by factory default it will be enabled.

This function can be disabled if required. To disable change jumper setting by referring to Buzzer on page-12.

Rolling Code Security

The transmitter and receiver incorporate the latest state of the art encryption technology.

This allows the coded transmission to change after each operation with literally billions of unique combinations.



**TILT • A • WAY****Instruction Manual****Issue 01 – July 2015****Vacation Mode**

When the door is not used for a long time or during vacation it can be set to vacation mode for security purposes. To activate & deactivate vacation mode refer to page-13.

Automatic Closing

The TILT.A.WAY opener can be programmed to automatically close 90 seconds after the door has been opened (refer to Automatic close on page-12) to activate and deactivate Auto- Close function.

Remote Switch

An optional simple Bell Press type momentary switch can be hard wired directly to the control board.

Wireless wall Button Switch

An optional wireless wall button, single or three buttons can be mounted on the wall to operate the door.

External Light

With the installation of a small accessory board, the TILT.A.WAY Controller can switch the mains light ON this option will allow the connection of auxiliary lighting, i.e. drive way lighting, internal garage lights etc. The external light will be ON for the same amount of time as the courtesy LED light which is approximately 60 seconds. (Refer to page 14 for wiring diagram)

NB: Max. Load 100W

! WARNING - All mains lighting must be fitted by a qualified Electrician / Personnel.

Each TILT.A.WAY opener has the facility to store up to 15 individual handsets.

Key Ring Handset

The hand transmitter is manufactured using the latest surface mount technology and incorporates 3 functional buttons. This enables the user to remotely control up to 3 separate operators from the one handset or configure each button to operate OPEN / CLOSE / STOP functions.

Photo-electric sensor

The TILT.A.WAY roller door operator includes an interface for the connection of a photo-beam sensor. When fitted, during door closing if the photo sensor has been triggered the door will auto reverse with continuous beep sound. The Photo-beam sensor can be supplied as an accessory option. (Refer to page 14 for wiring diagram)

! WARNING - In some countries it is a legal requirement to fit Photo-cell sensors. Please check with your local distributor

OPERATING CONTROLS

The door can be operated by pressing the (7) Control button on the PCB. Refer to PCB Index on page 8. Pressing this button will open, close or stop the door.

External Connections: Refer to the PCB index on page 8 for various external connections available in the TILT.A.WAY circuit board.





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Trouble Shooting

Before you call your local Gliderol agent please check the following Fault Table

SYMPTOM	ACTION
1. Door does not operate.	⇒ Check electrical supply to unit. ⇒ Press handset and/or bell press button again.
2. Drive motor operates but door does not move.	⇒ Manual release may be engaged, pull the manual release chord once to put the drive unit back to electric operation
3. Door auto-reverses after closing fully.	⇒ The door should not stop by striking the ground; reset the door travel limits by limit learning (page 11).
4. Door stalls at fully open position and continues to try to open the door if button is pressed again.	⇒ The door has lost its limits, it should not stop by striking the top guide stop; reset the door travel limits by limit learning (page 11).
5. Door open and closed positions incorrect (Stop short)	⇒ The door has lost its limits (top limit and bottom limit). Reset the door travel limits by limit learning (page 11).
6. Courtesy light comes on but door does not move	⇒ Manual release may be engaged, pull the manual release chord once to put the drive unit back to electric operation
7. Handset range diminishes.	⇒ Replace handset battery after 12 months. ⇒ Check position of antenna on unit to ensure it is relatively straight and not adjacent to the power cord.
8. Handset does not open the door.	⇒ Replace handset battery after 6-12 months. ⇒ Check position of antenna on unit to ensure it is relatively straight and not adjacent to the power cord. ⇒ Check that the handset has been programmed to the door (page 9)
9. Door auto-reverses before it is closed.	⇒ Check the force sensitivity setting and readjust (page 12). Check the door is not jammed in tracks.
10. Door stops during opening.	⇒ Check the force sensitivity setting and readjust (page 12). Check the door is not jammed in tracks.
11. Door does not operate and the courtesy lamp is not on.	⇒ Check power is switched on. ⇒ Check the fuse on circuit board and replace. ⇒ Check the door is not jammed in tracks.





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Technical Specifications

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Input Voltage		216	240	264	VAC
System Power Dissipation			100		W
Transformer Power			100		VA
Standby Power Consumption			5.8		W
Transformer Output Voltage	TR	21.6	24	26.4	VAC
Work Voltage of Motor	MOTOR	18	24	34	VDC
Noise of Motor	MOTOR			55	dBA
Lamp Power	LED3~LED5			0.24	W
Buzzer Voltage	BZ1		12		VDC
Fuse	FUSE		15		A
Carrier Frequency Range	Handset	314.9	315	315.1	MHz
Modulation	Handset		AM		
Deviation	Handset	100		100	KHz
RF Output Power	Handset			500	uW
Transmitter Battery	Handset		12		VDC
Demodulation Mode	RF1		AM		
Receiver Sensitivity	RF1	-90		-100	dB
Data Rate	RF1		1K		Hz
Operation Temperature		-20	25	85	°C
Output Voltage in circuit board terminal (0.5 amps Max)			12		V

