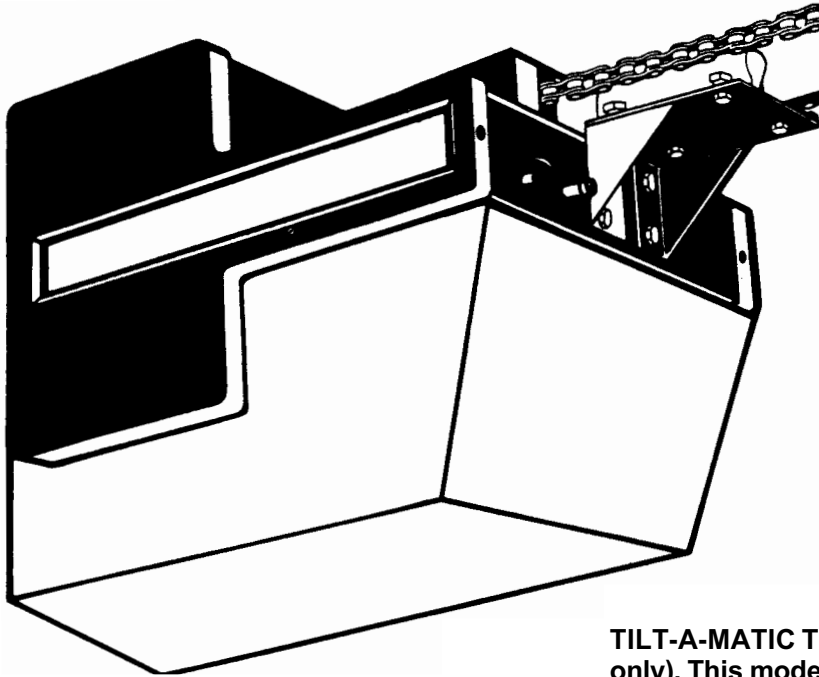




## AUTOMATIC GARAGE DOOR OPENER

# INSTALLATION INSTRUCTIONS TRG-306



**TILT-A-MATIC TRG-306. (Power-head only). This model is supplied complete with one hand transmitter.**

### IMPORTANT

- Do not attempt to install or service the opener with the power connected.
- Do not put hands or tools inside the power head with the power on. All adjustment and installation connections are made externally.
- Stay clear of the opener when it is in motion. Never operate the opener from a step ladder.

#### WORKING OPERATION OF DOOR

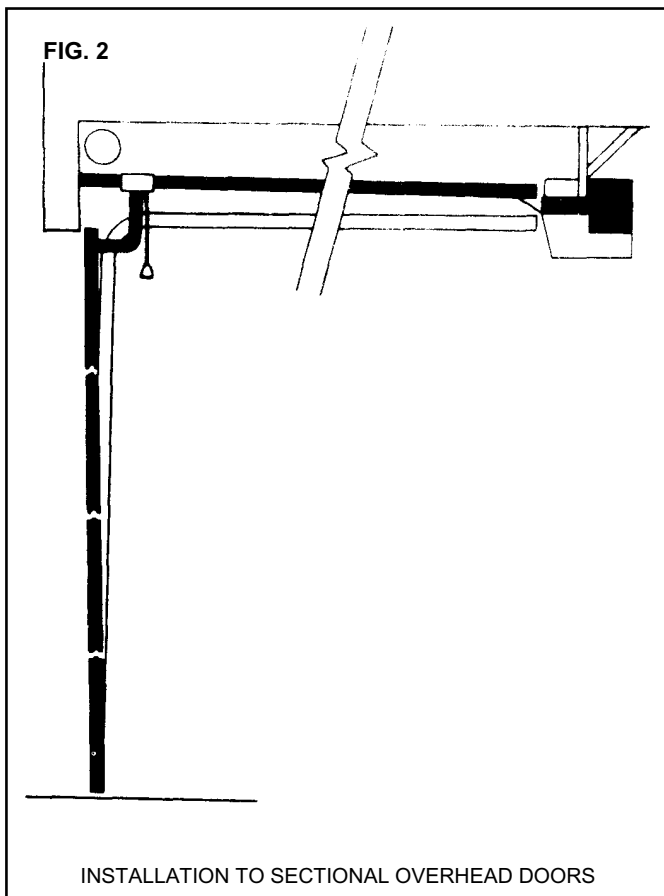
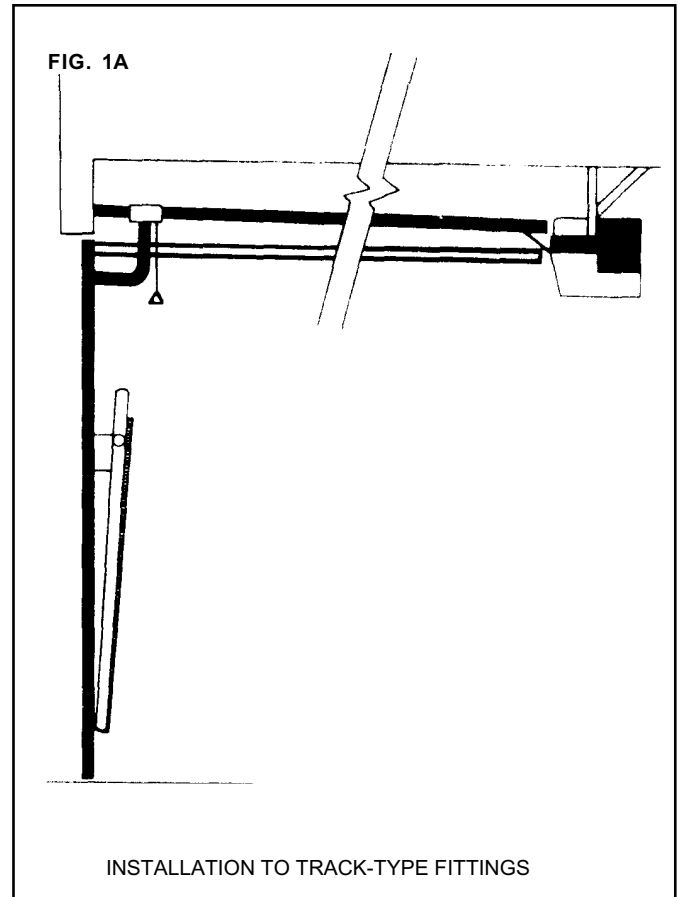
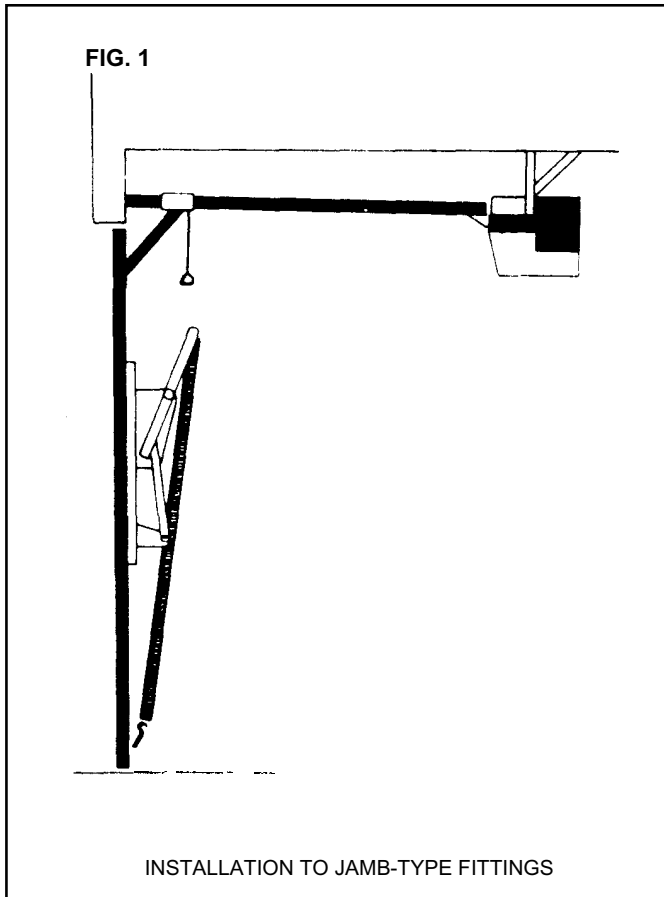
An automatic garage door opener cannot move a garage door that is in poor working condition. The door must operate freely with no binding or obstructions and must be well balanced. Check the spring balance of the door by bringing the door to the half open position and leaving it there. If the door stays in that position, it is well balanced. The door should be far easier to close than it is to open, for the automatic door opener to work correctly.

Where possible, it is recommended that the door springs be adjusted and the opener be installed by a qualified B&D dealer.

### CAUTION

- The opener is 240 volt and must be installed in accordance with AS.3000 Standard Electrical Code.
- During installation the opener must be properly grounded with the power turned off.
- Use screwdrivers ONLY to adjust limit switches DO NOT USE a spanner or pliers.
- Power should be 'OFF' while main cover is removed or replaced.
- The push button switch as supplied is for internal use only. If situated outside or near the door opening, this switch should be replaced by a weather resistant type, as defined in AS.3000.
- The door should be properly installed and adjusted well maintained and free of all obstructions.
- Install push button in a convenient position but at least one metre from any door fittings, and out of the reach of children.
- Operate only when the door is fully visible. Do not allow children to play with the door controls.

# INSTALLATION OF OPENER TO DOOR



## STEP 1

### BEFORE STARTING INSTALLATION:

Determine which type of garage door you have.

**EACH OF THE DIAGRAMS DESCRIBE AN IDEAL SITUATION, AND ARE DRAWN TO SCALE.**

It is suggested at all times, that installation be carried out by a qualified B&D dealer. This is particularly important in situations of low or no headroom clearance. (Figs 1, 1A, 2)

### SPECIAL NOTE: Installation to Jamb-Type fittings:

- (i) Use straight connector arm. Do not use curved door arm (Also applicable for installation to track-type fittings.)
- (ii) Shorten drive tube to 1860mm. (Length of track from head of door to front of drive unit chassis will be 1760mm.)
- (iii) Where headroom allows, maximum headroom adjustment (Refer Tilt-A-Dor 150J, 175J, 200J installation instruction sheet)

### IMPORTANT

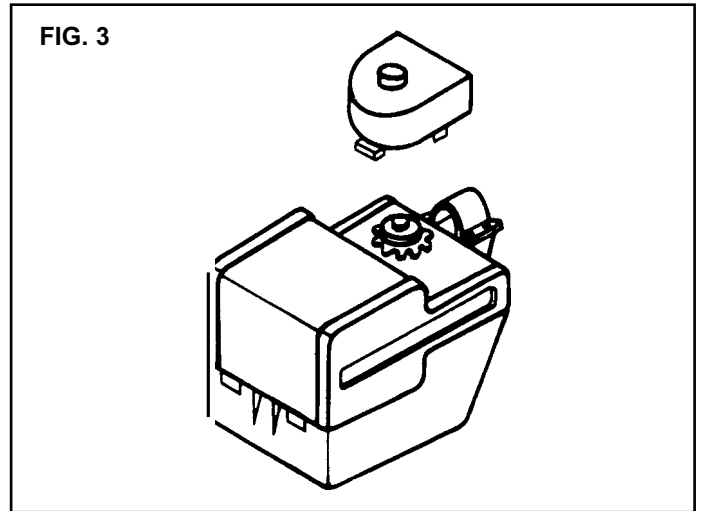
- (iv) Locate the push button at least ONE METRE from the door fittings.

**NOTE:** Tilt-A-Dor and Panelift doors over 2200mm in height will require an extension kit and a longer tube

# INSTALLATION OF CHAIN

## STEP 2

Remove the sprocket cover (Fig.3) and position the trolley on the drive tube as illustrated (Fig.4).



## STEP 3

**NOTE:** if the opener is to be applied to Jamb-Type Tilt-A-Dor fittings, refer instructions before proceeding. (Fig.1)

Roll out the chain assembly carefully to prevent tangling.

Connect the trolley release rod to the connecting link through the drive trolley, but do not tighten. (Fig.5)

Wrap the chain around the idler and drive sprockets on the drive unit ensuring the chain engages the teeth on both sprockets.

Extend the chain along the other side of the tube and around the return sprocket.

Ensure the trolley has not moved from the point as indicated in the diagram. (Fig.4)

Now install the connecting link to the trolley release rod as illustrated. (Fig.6)

**NOTE:** During the assembly the trolley release rod is actually engaged in the trolley. It is shown here removed for the sake of clarity.

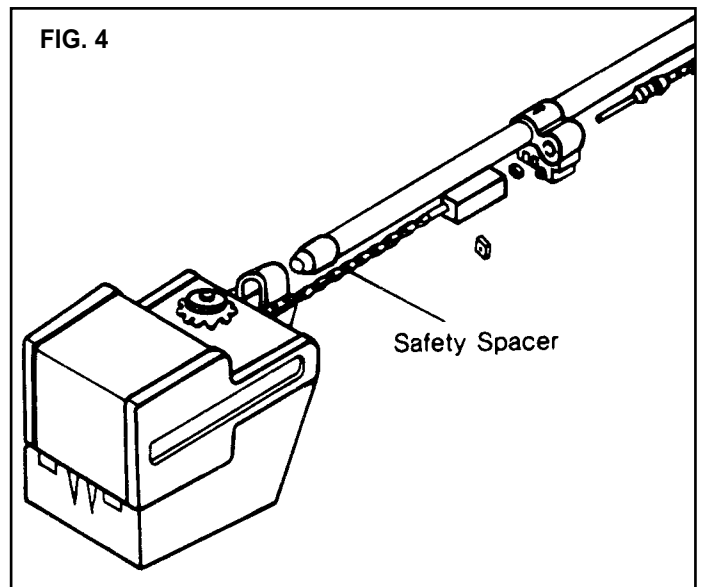
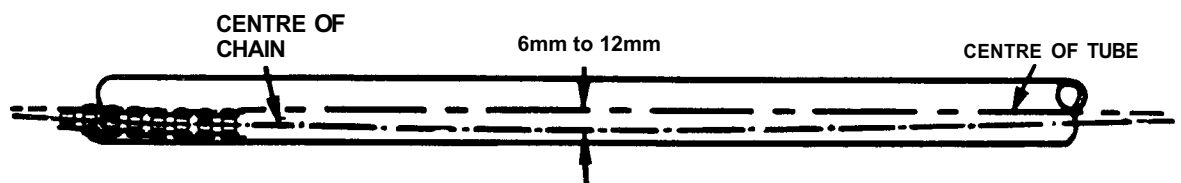


FIG. 5



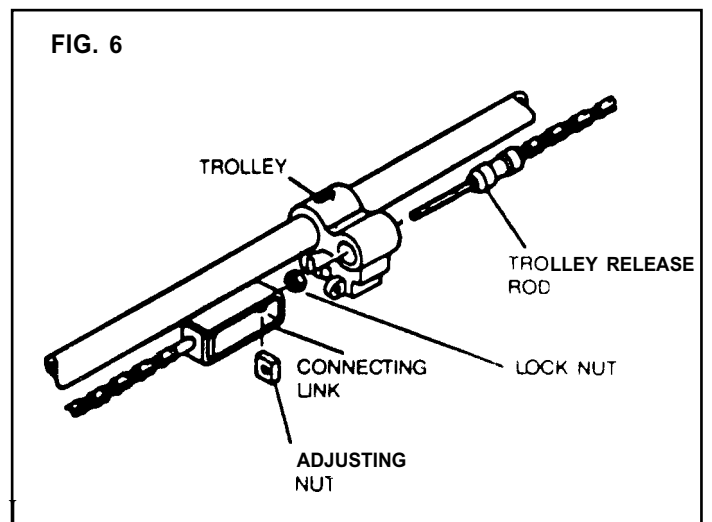
## STEP 4

Tension the chain by turning the adjusting nut. Hold the trolley release rod and the connecting link to prevent from turning. (Fig.6)

The tension should be correct when the chain has a sag of between 6mm and 12mm. (Fig.5)

Tighten locknut against connecting link, to lock adjustment into place. (Fig.6)

**NOTE:** The chain and its supporting equipment may stretch after a period of time. The chain should be retightened after the first three months' use, and thereafter every two years.



# MOUNTING WALL BRACKET AND DRIVE UNIT

## STEP 5

**NOTE:** Most of the force applied by the opener while lifting and lowering the door is concentrated at the header bracket. It must be fixed to a beam or rigid support member

Determine the centre of the door and mark this point on both the head of the opening and the top of the door.

## STEP 6

**NOTE:** Refer to Step 1 to determine make and model of garage door.

Lift the door and find the highest point of travel of the top of the door.

Using a level, transfer this height to the head above the door. (Fig.7)

## STEP 7

Place the bottom of the wall bracket at the height indicated in Step 6 and drill two 6mm pilot holes for the coach screws (Fig 8)

The wall bracket may be mounted higher if required to avoid obstructions or overhead torsion springs.

The powerhead will also have to be elevated in this cast?

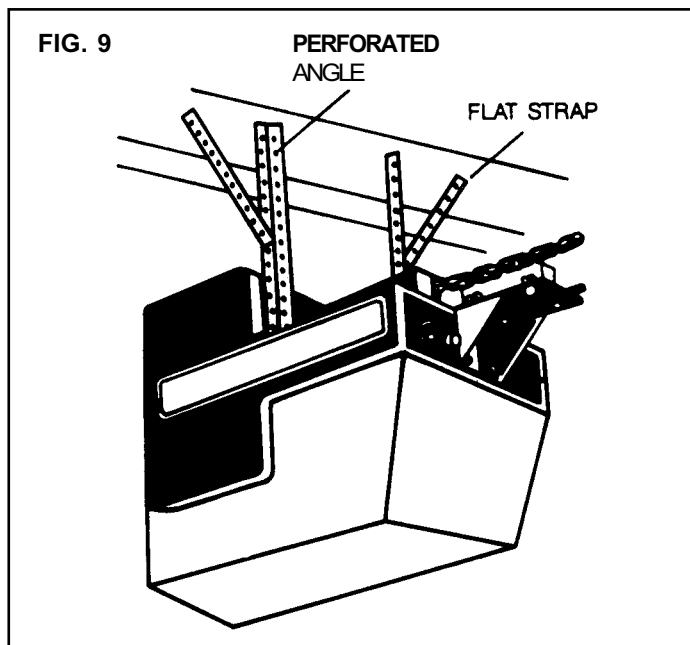
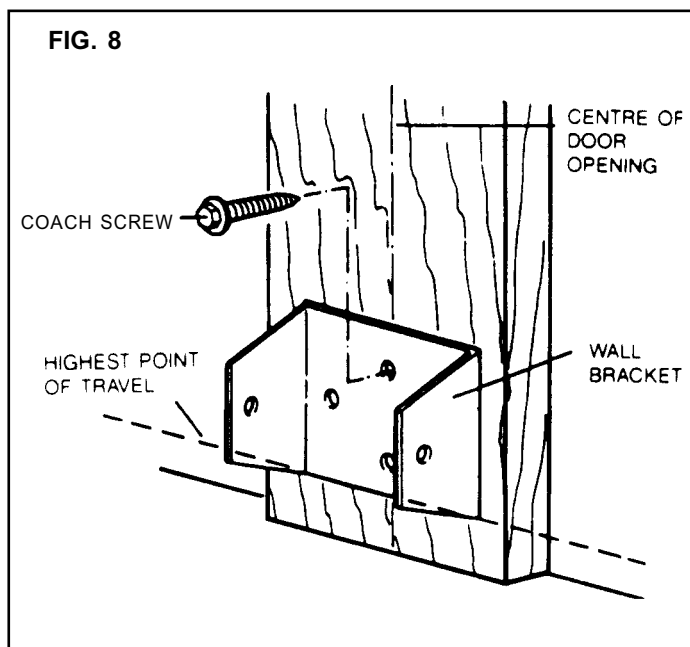
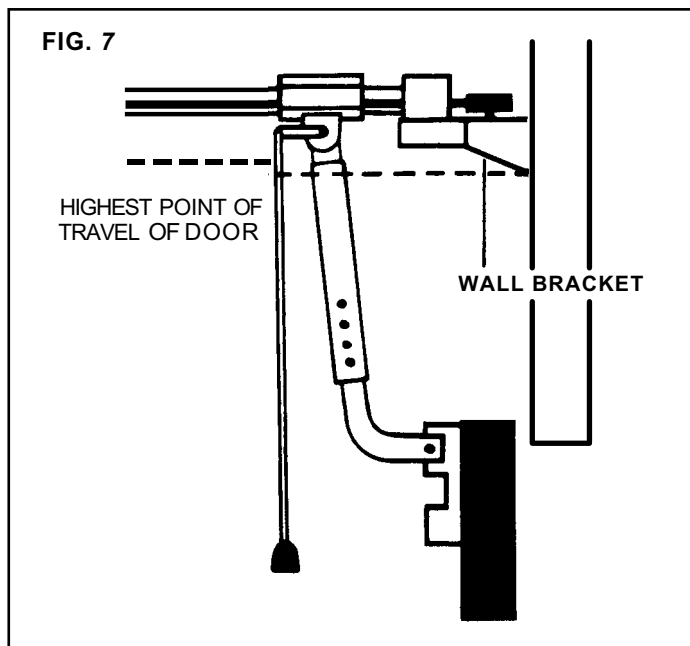
Attach return pulley assembly to wall bracket with 90mm clevis pin and clip.

## STEP 8

Raise the powerhead and support on a step ladder. Raise the door to the open position.

Line the drive tube with the point marked at the top of the door. Exact alignment is essential.

To **secure** the opener. IT IS IMPERATIVE THAT THE POWERHEAD BE BRACED IN THE MANNER SHOWN AT RIGHT. (Fig.9)



# ADJUSTMENT LIMITS

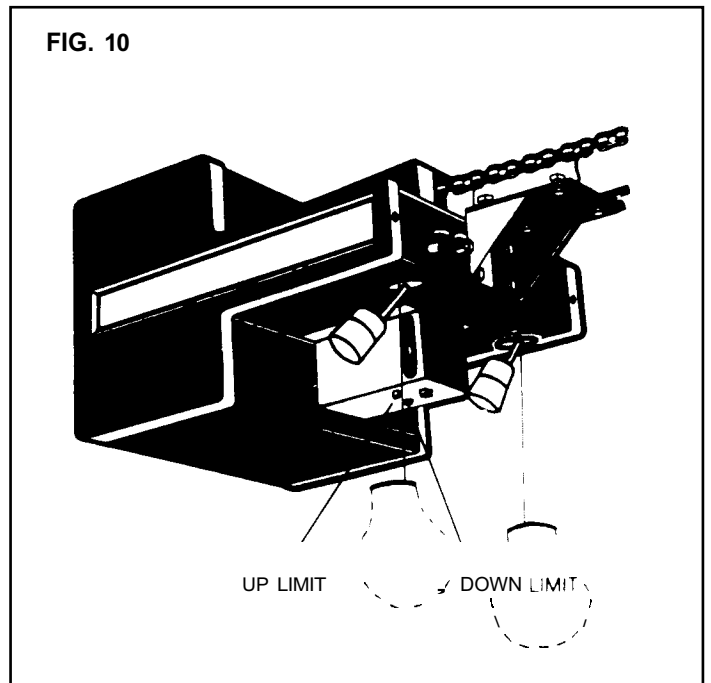
## STEP 9

NOTE: This step is to be completed before light diffuser installed.

Adjust the door travel limits:

Raise the door manually until the trolley passes over the trolley release rod and engages. Now plug the unit into a grounded three prong outlet.

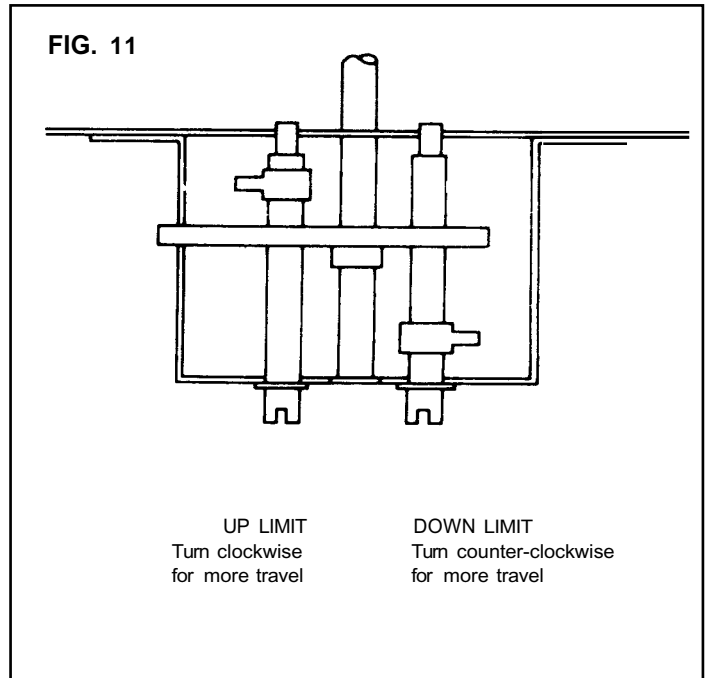
The limit screw adjusts where the door stops after travelling either up or down. The upper screw adjusts how far the door opens and the lower screw adjusts the closed position. (Fig.10)



## STEP 10

Operate the push button to send the unit to the upper limit. Adjust the upper knob to open the door properly. To raise the door, turn the upper screw to the left. One full turn of the screw is about eleven inches of travel at the door. Operate the push button to start the door in motion. The door will start travelling downward so push the button again to stop and once more to send the door up to the new limit setting. Readjust the limit and repeat the procedure as necessary.

The down limit is adjusted the same way as the up limit. Turn the lower screw to the right to lower the closing position of the door. (Fig.11)



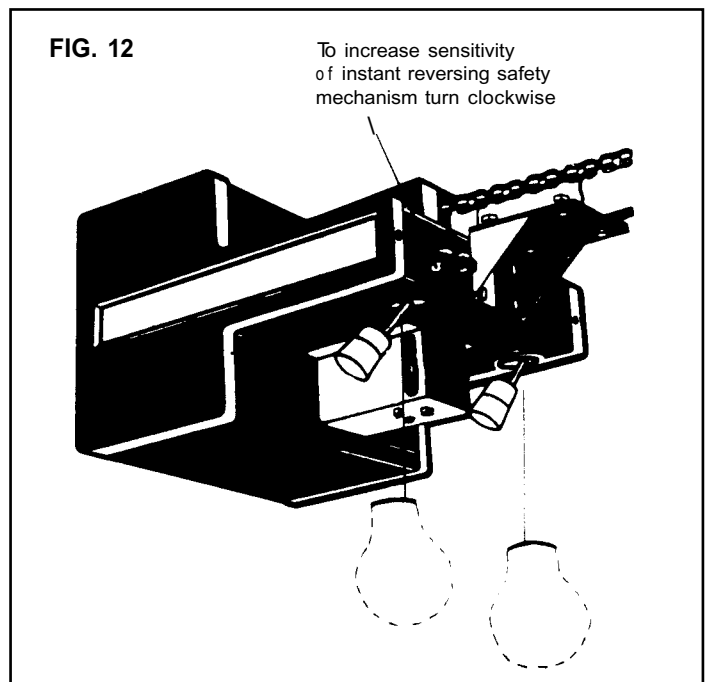
# SAFETY SYSTEM

## STEP 11

### Safety system:

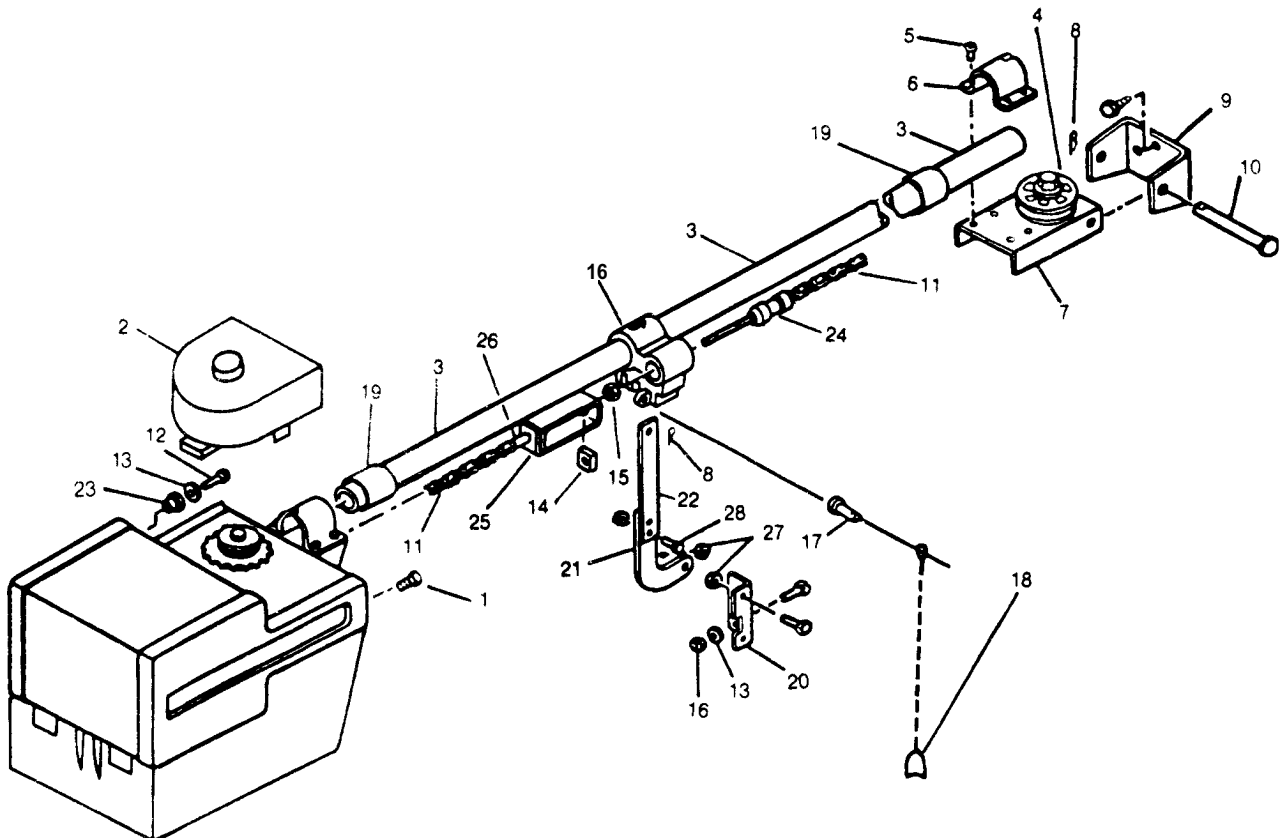
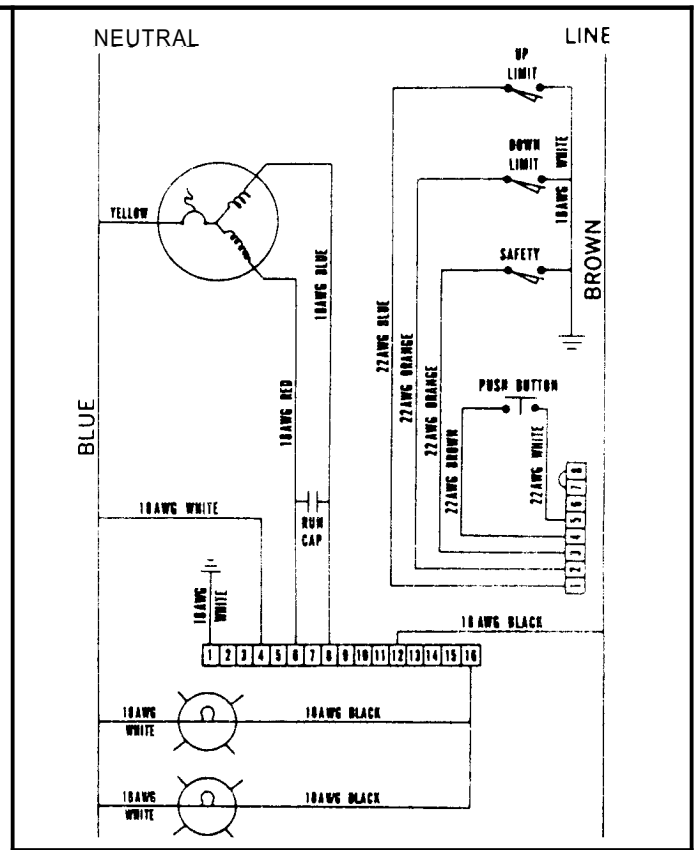
The opener is equipped with an instant-reversing safety mechanism. Should the door contact an obstruction in its downward travel, it will automatically reverse direction and travel to the open position. The amount of force required to make the door reverse in its down direction is adjustable by turning the screw on the front of the opener. (Fig.12)

Check the safety system by manually holding the door back about midway in its downward travel. With only moderate pressure, the door should reverse. Turn the adjusting screw clockwise a turn at a time to decrease the force until the reversing action is correct. If the safety is set too sensitively, the door may not complete its downward travel. If the door starts down and reverses by itself, turn the adjustment screw counter clockwise to reduce sensitivity.



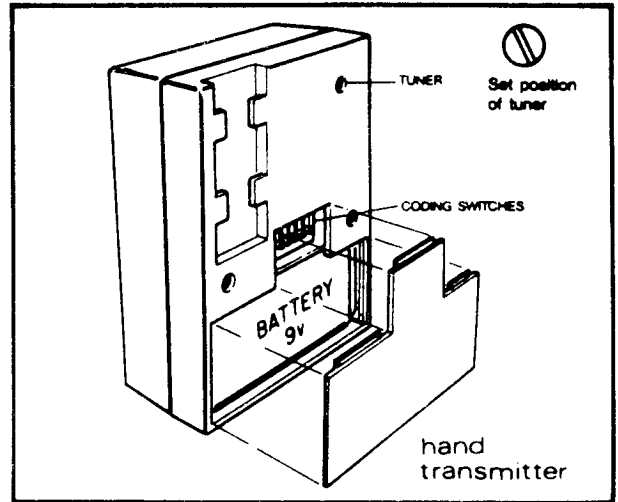
# PARTS LIST — DRIVE UNIT ASSEMBLY

ITEM	PART NO.	DESCRIPTION
1	N1002	SCREW
2	P2008	SPROCKET COVER
3		TUBE DRIVE STD 2-755
4	P2014	PULLEY WHEEL
5	N7022	RIVET SEMI-TUBULAR
6	S1014	TUBE BRACKET
7	S1026	RETURN BRACKET
8	N0047	CLEVIS PIN CLIP
9	S1001	HEADER BRACKET
10	N0046	CLEVIS PIN
11	A4007	CHAIN449 LINK
12	N0036	MACHINE SCREW
13	N0043	WASHER
14	N0041	SQUARE NUT
15	N0039	HEX NUT
16	P4015	TROLLEY ASSEMBLY
17	N0045	CLEVIS PIN
18	P0035	DISENGAGE PULL KNOB
19	P2005	TROLLEY STOP
20	S1003	DOOR BRACKET
21	S1008	L ARM
22	S1007	DOOR ARM
23	A0027	WELL NUT
24	P3032	TROLLEY RELEASE ROD
25	S3009	CHAIN CONNECTOR
26	S1028	ROD CHAIN CONNECTOR

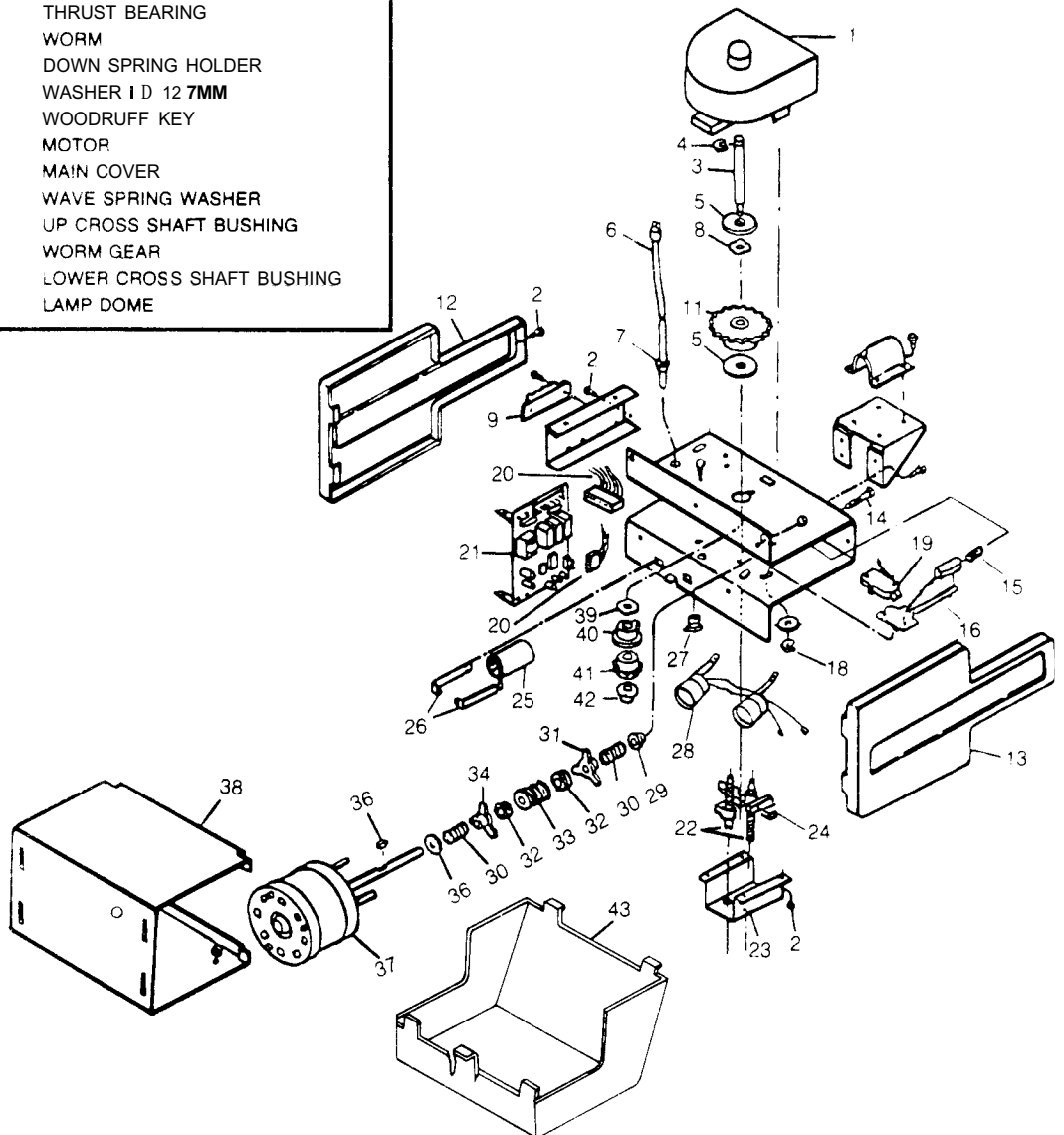


# PARTS LIST — POWERHEAD

ITEM	PART NO.	DESCRIPTION
1	P2008	SPROCKET COVER
2	N1002	SCREW
3	C2002	SHAFT - CROSS
4	N6010	SNAP RING
5	N5011	WASHER I.D 19MM
6	W1001	POWER CORD
7	P1004	STRAIN RELIEF BUSHING
8	N5006	WAVE SPRING WASHER
9	E2006	TERMINAL BLOCK
10	P1061	BUSHING
11	C1001	SPROCKET
12	S2011	SIDE COVER LH
13	S2011	SIDE COVER RH
14	N3001	ADJUSTING SCREW
15	A5002	SAFETY SPRING
16	P2003	DOWN SAFETY SWITH MOUNT
18	N6017	E RING
19	E3003	SAFETY WITCH
20	W2003	WIRING HARNESS
21	E4004	ONE PIECE PC BOARD
22	N9016	LIMIT ADJUSTING SCREW
23	S1012	COVER FOR LIMIT SWITCH
24	P3013	LIMIT SWITCH
25	E1001	CAPACITOR
26	S1004	CAPACITOR CLIP
27	P1062	SNAP BUSHING
28	E2002	LIGHT SOCKET
29	A2003	MOTOR SHAFT BUSHING
30	A5008	MOTOR SHAFT SPRING
31	P2011	SPRING HOLDER
32	N8014	THRUST BEARING
33	C1004	WORM
34	P2012	DOWN SPRING HOLDER
35	N5020	WASHER I D 12 7MM
36	A1009	WOODRUFF KEY
37	M1001	MOTOR
38	S3006	MAIN COVER
39	N5007	WAVE SPRING WASHER
40	A2004	UP CROSS SHAFT BUSHING
41	P2010	WORM GEAR
42	A2005	LOWER CROSS SHAFT BUSHING
43	P2009	LAMP DOME



T 8310 TAM TX 303 SINGLE CHANNEL  
T 8311 TAM TX 303 TWO CHANNEL



# TROUBLESHOOTING

## Motor hums. but does not start

- 1 Defective capacitor (capacitor must be replaced)
- 2 Check manual operation of door

## Relay clicks but motor does not start

Motor has overheated, if the unit has been operated repeatedly its own thermal motor protector may shut it off. Wait 15-20 minutes and try the push button or transmitter again.

## Opener completely dead

- 1 No line voltage to opener (check to see if there is power at the outlet)
- 2 Defective board (Replace)
- 3 Open circuit (Printed circuit)
- 4 Defective capacitor (Replace)

## Light does not work

- 1 Bulb burned out (Replace)
- 2 Defective printed circuit board (Replace)

## Door reverses on down travel

- 1 Safety set too light (Readjust)
- 2 Garage door springs need adjustment
- 3 Door is obstructed (Manually operate door to locate obstructions)

- 4 Door closes too hard against door opening or jambs (Adjust down limit)

## Door stops on way up

- 1 Garage door springs need adjustment (Door may be too heavy)
- 2 Door binding in track (Manually operate door to locate binding)

## Opener responds to push button but not hand transmitter

- 1 Check for defective hand transmitter battery (Check light on transmitter)
- 2 Relocate hand transmitter in car
- 3 Press hand transmitter within 3 metres of door. If this works check the antenna
- 4 The range of the signal can be adjusted with the screw located at the back of the hand transmitter casing. Care must be taken as the tuning is very sensitive. The screwdriver must be removed from the slot while checking the range.

## Opener responds to hand transmitter but not push button

- 1 Check push button wire for break or open circuit

# STANDARD ACCESSORIES

## FAILSAFE CIRCUIT

As an additional safety precaution a FAILSAFE CIRCUIT has been incorporated into the main circuit. If for any reason the safety reverse system fails the FAILSAFE CIRCUIT will assume control and within 30 seconds automatically reverse the door.

## COURTESY LIGHTS

Courtesy lights will be activated whenever the door is operated, and will remain alight for approximately 4½ minutes before automatically switching off.

## OPTIONAL ACCESSORIES

Domino lock, Key switch, Two position hand transmitter, Emergency key release.

Drive Tube Extension kit comprise's 305mm-380mm tube, 610mm-760mm chain and master link (Lifts door height up to 2500mm when applied)

## IMPORTANT

Always locate the push button at least ONE METRE from the door fittings.



### NEW SOUTH WALES

**B & D Doors**  
34-36 Marigold Street.  
Revesby 2212  
Phone (02) 771 5566

### WESTERN AUSTRALIA

**Osborne Metal Industries P/L**  
225 Balcatta Road  
Balcatta 6021  
Phone 1091 344 3333  
(For Controll-A-Door)

### VICTORIA

**B & D Doors**  
Canlerbury Road  
Kilsyth 3137  
Phone (03) 728 1566

### WESTERN AUSTRALIA

**G.K. Cameron & Co P/L**  
246 Churchill Avenue  
Subiaco 6008  
Phone (09) 381 3800  
(For Tilt-A-Matic)

### QUEENSLAND

**B & D Doors**  
37 47 Cobalt Street  
Carole Park 4300  
Phone (07) 27 2500

### TASMANIA

**Tom Moore & Son**  
86 Bass Highway  
Cooee 7320  
Phone (004) 31 4388  
(For Controll-A-Door)

### SOUTH AUSTRALIA

**B & D Doors**  
5 Peekarra Street  
Regency Park 5010  
Phone (08) 340 3411

### TASMANIA

**Tasman Door Centre**  
209 Invermay Road  
Launceston 7250  
Phone (003) 26 1301  
(For



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