



Napoleon/LynxTM

Ambass-a-dor[®]

**RESIDENTIAL
GARAGE DOOR OPENER
INSTALLATION MANUAL**



IMPORTANT

PERIODIC CHECKING OF THE DOOR AND OPENER IS NECESSARY TO INSURE PROPER FUNCTIONING OF THE SAFETY MECHANISM. IT IS RECOMMENDED THAT YOUR DEALER BE CALLED FOR SERVICE.

- NOTE -

ATTACH INSTALLATION MANUAL NEAR PUSH BUTTON FOR FUTURE REFERENCE.

Read These Important Safety Rules Before Proceeding



This symbol indicates caution and appears throughout this instruction manual. This garage door opener is designed and tested to offer safe operation if installation is followed in strict accordance with these safety instructions. Failure to comply with these instructions may result in serious personal injury or property damage.

PRELIMINARY INSTRUCTIONS PROCEDURE PRIOR TO INSTALLATION OF OPERATOR BY QUALIFIED PERSONNEL.

BEFORE ATTEMPTING TO INSTALL THE OPERATOR, READ THESE INSTRUCTIONS CAREFULLY AND PROCEED AS FOLLOWS:

1. Unpack the operator and check for the correct model ordered. (The model number is marked on the packing case as well as on the power head serial number.)
2. Remove the inner packet containing all the necessary parts and accessories. Check for correctness and completeness against the "List of Parts and Accessories" for the particular model and specific accessories ordered.

If all items are correct, prepare the garage door as follows:

- a) Strip door of all ropes and non-functioning items which may be safety hazards.
- b) Balance the door by equalizing the tension of the spring. (springs).
- c) Tighten hardware and lubricate rollers, track, etc.
- d) Lubricate jamb trim in contact with door soap or wax.
- e) Make the existing lock inoperative by securing the lockerbars in an open position with a screw through one of the bars.
- f) Operate the door manually and make any adjustments as may be required to assure smooth performance of the door.
- g) If possible, install door opener 7 feet or more above floor. Mount the emergency release handle 6 feet above the floor.
- h) Locate the control button (a) within sight of the door (b) at a minimum height of 5 feet so small children cannot reach and (c) away from all moving parts of the door.
- i) Install Entrapment Warning Label next to control button and Control Adjustment Label in a prominent location, such as the inside of the garage door, or as instructed in the installation instructions. Install Emergency Release Label attached or next to the emergency release.

With these preliminary steps completed, you are now ready to install the Operator. If the unit has been ordered as an "Unassembled Operator", assemble it in accordance with "Assembly Instructions" for the particular Model ordered.

3. After the operator has been properly assembled install it in accordance with the directions given in the "Installation Instructions".



Caution: If your garage has no service entrance door, install outside quick release lock. This accessory allows manual operation of garage door from outside in case of power failure.



WARNING

DO NOT PLUG IN THE OPERATOR UNTIL INSTRUCTED.

**LIST OF PARTS AND ACCESSORIES
MODELS 9000 PC AND 9060 PC
RESIDENTIAL GARAGE DOOR OPERATORS**

ITEM	DESCRIPTION	MODEL 9000 PC		MODEL 9060 PC	
		UNASSEMBLED	ASSEMBLED	UNASSEMBLED	ASSEMBLED
1.	Operator, completely assembled		1		1
2.	Power head – complete	1		1	
3.	Guardian Photo Cell	1	1	1	1
4.	Carriage assembly non-locking	1			
5.	Chain tightener assembly	1			
6.	Carriage assembly locking type			1	
7.	Chain tightener assembly for locking carriage			1	
8.	Stop lock (security)			1	
9.	Front idler assembly	1		1	
10.	Door bracket (sectional door)	1	1		
11.	Door bracket (1 piece door)			1	1
12.	Wall bracket	1	1	1	1
13.	Straight arm 14-3/8 LG.	1	1		
14.	Straight arm 20-3/8 LG.			1	1
15.	Curved arm	1	1	1	1
16.	1/4 20 Hex nut	2		2	
17.	1/4 Split ring lock washer	2		2	
18.	5/16 18 x 3/4 Hex tap bolt	2		2	
19.	5/16 18 Split ring lock washer	2		2	
20.	1/4 20 Hex nut	2	2	2	2
21.	1/4 Split ring lock washer	2	2	2	2
22.	1/4 20 x 2" LG. carriage bolt	2	2	2	2
23.	5/16 x 1 5/8 Hex washer lag bolts	2	2	2	2
24.	5/16 – 18 x 1 1/4 Hex tap bolts	1	1		
25.	5/16 – 18 x 1" LG. Hex tap bolts	2	2	2	2
26.	5/16 – 18 Split ring lock washer	3	3	2	2
27.	5/16 – 18 Hex nut	3	3	2	2
28.	5/16 – 18 Plastic stop nut				
29.	Clevis pin 5/16 x 2 3/4 LG.	1	1	1	1
30.	Hitch pin #213	1	1	1	1
31.	Red rope	1	1	1	1
32.	Red knob	1	1	1	1
33.	Push button	1	1	1	1
34.	Bell wire	1	1	1	1
35.	Tee rail (length as required, see P.O.)	1		1	
36.	#65 Chain (length as required, see P.O.)	1		1	
37.	#65 Connecting link	2		2	

**ASSEMBLY
HARDWARE**

**INSTALLATION
HARDWARE**



WARNING

TO REDUCE THE RISK OF INJURY TO PERSONS,

USE MODEL 9000PC WITH

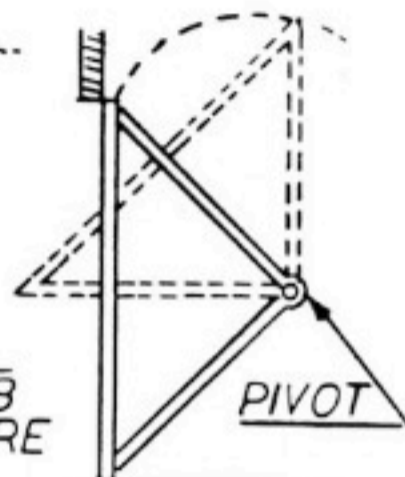
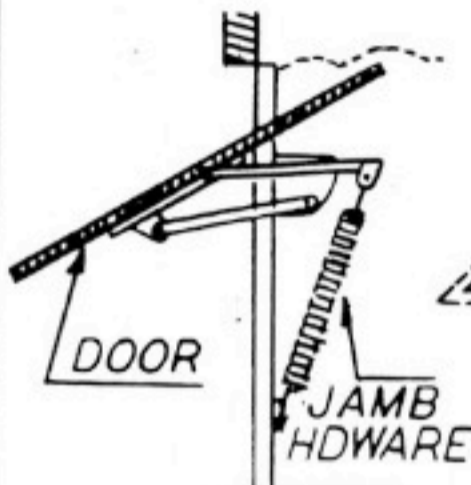
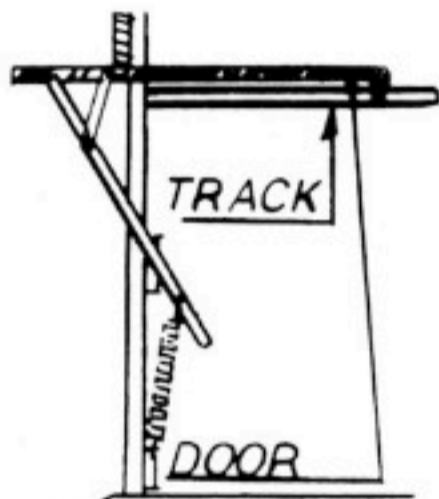
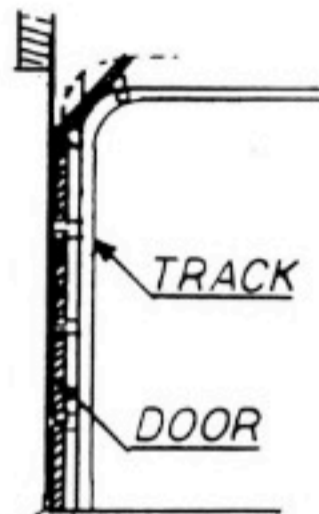
USE MODEL 9060PC WITH

SECTIONAL DOOR WITH CURVED TRACK.

ONE PIECE DOOR HORIZONTAL TRACK, JAMB HARDWARE.

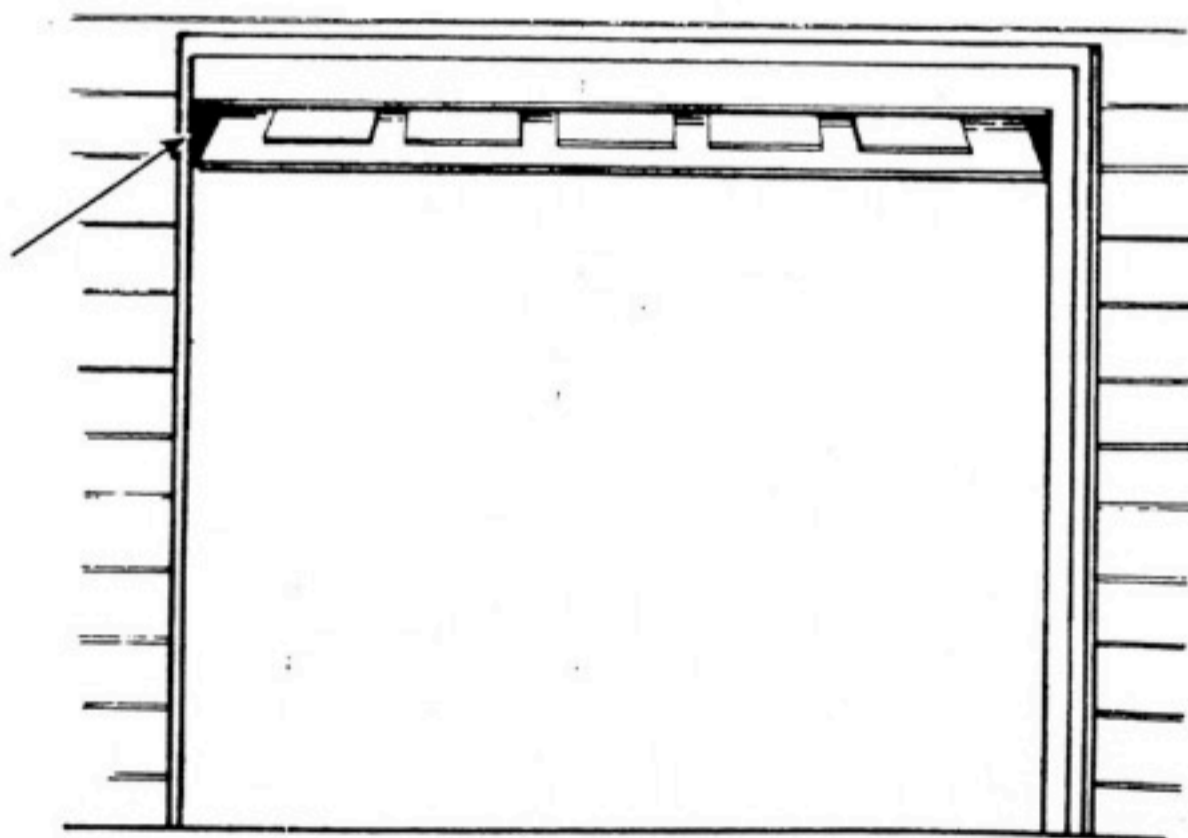
ONE PIECE DOOR. NO TRACK, JAMB HARDWARE.

ONE PIECE DOOR. NO TRACK, PIVOT HARDWARE.



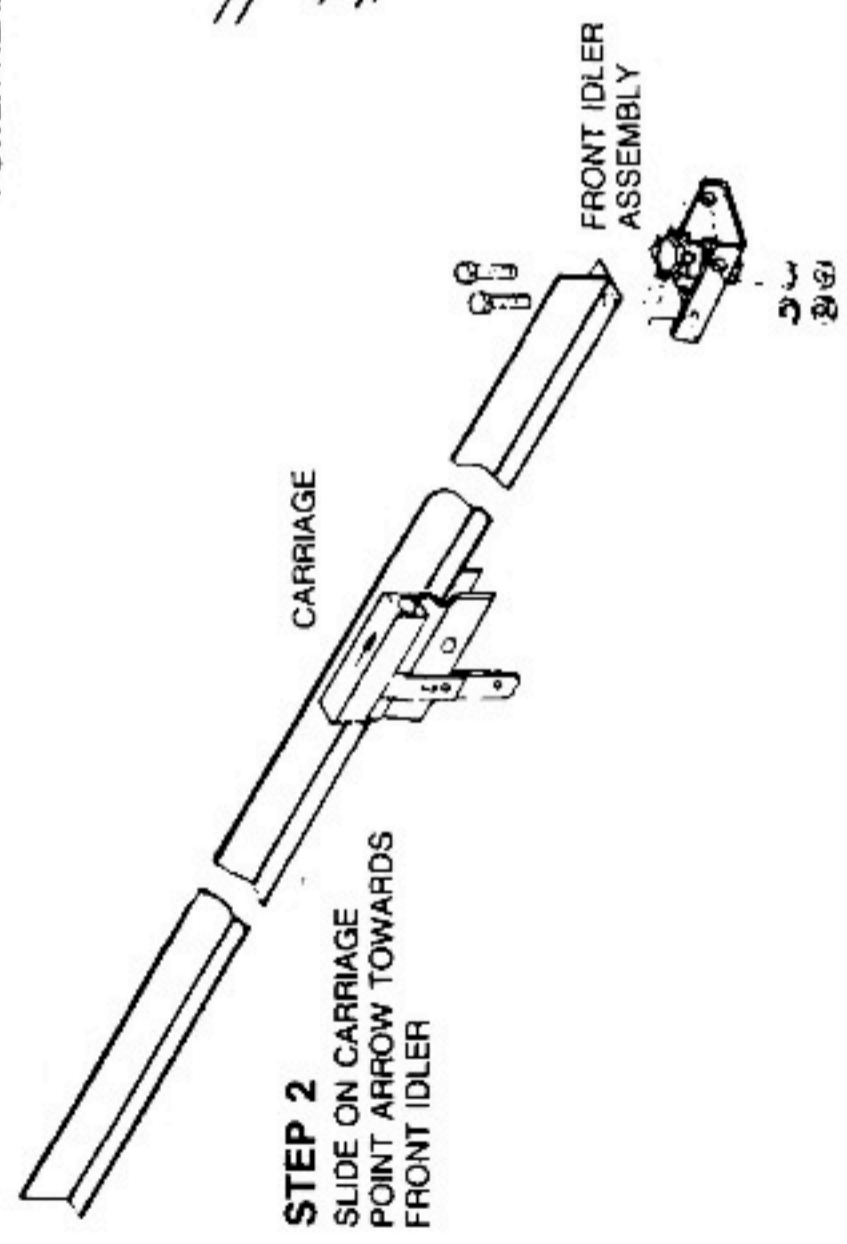
NOTE: When properly installed, a door should remain clear of the opening when allowed to rest at its natural, full open position.

If "door drift" pulls door back into opening or spring tension is not sufficient to pull door totally clear of opening, the door is not properly adjusted. Do not attempt to compensate for an improperly adjusted door by the installation of an opener. This will interfere with the proper operation of the opener mechanism and/or may damage the door. Only a qualified service technician should make repairs to cables, spring assemblies and other hardware before installing opener.



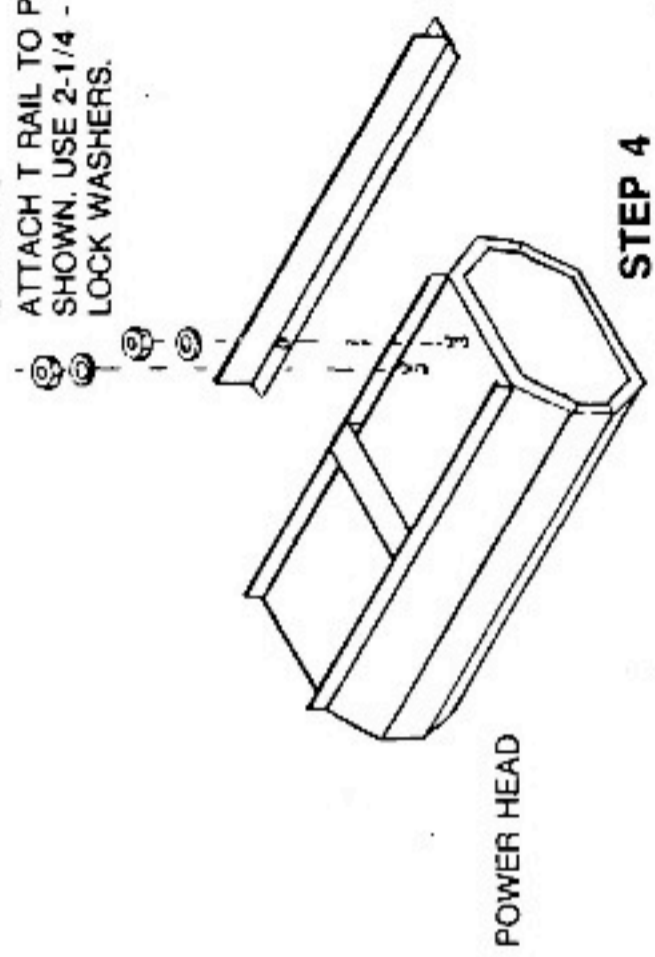
ASSEMBLY T RAIL TO POWER HEAD

STEP 1
ATTACH FRONT IDLER ASSEMBLY WITH 2-5/16 x 3/4 BOLTS, NUTS, & LOCKWASHERS



STEP 2
SLIDE ON CARRIAGE POINT ARROW TOWARDS FRONT IDLER

STEP 3
ATTACH T RAIL TO POWER HEADS AS SHOWN. USE 2-1/4 - 20 HEX NUTS AND LOCK WASHERS.



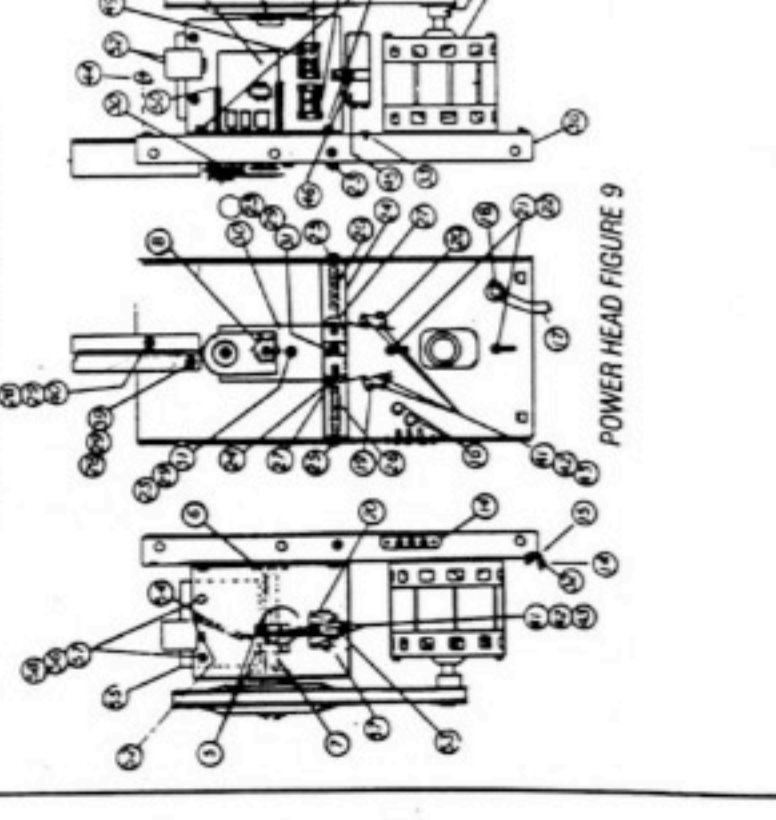
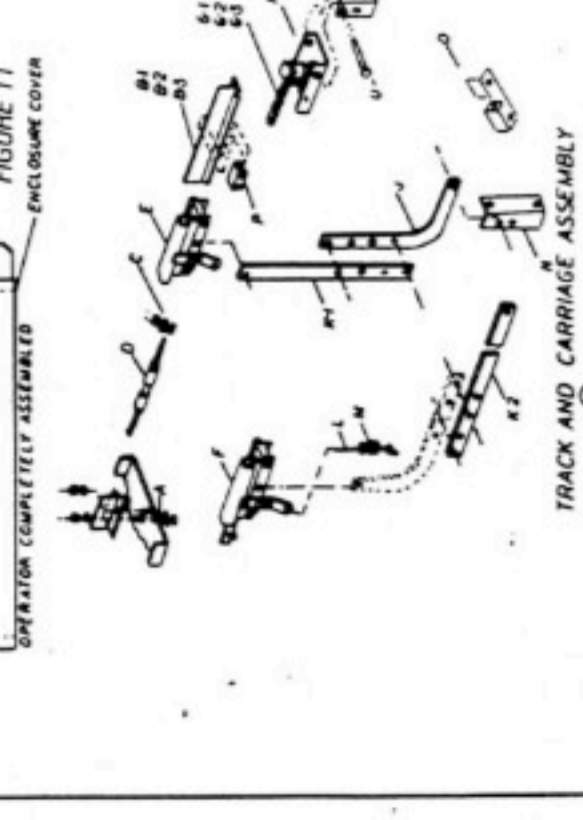
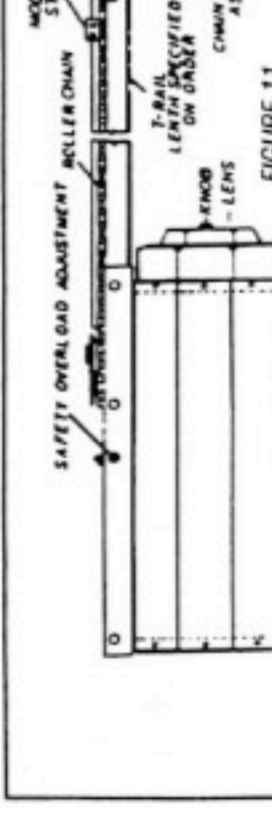
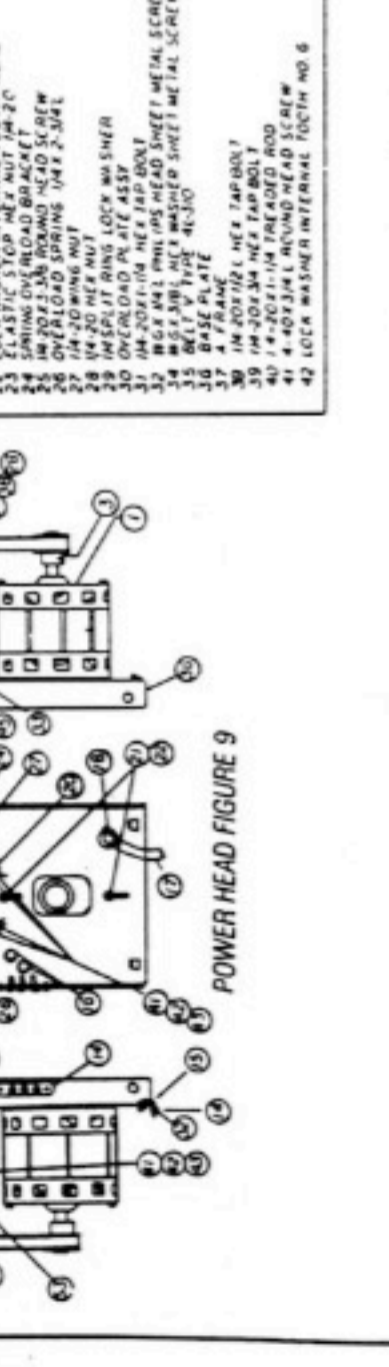
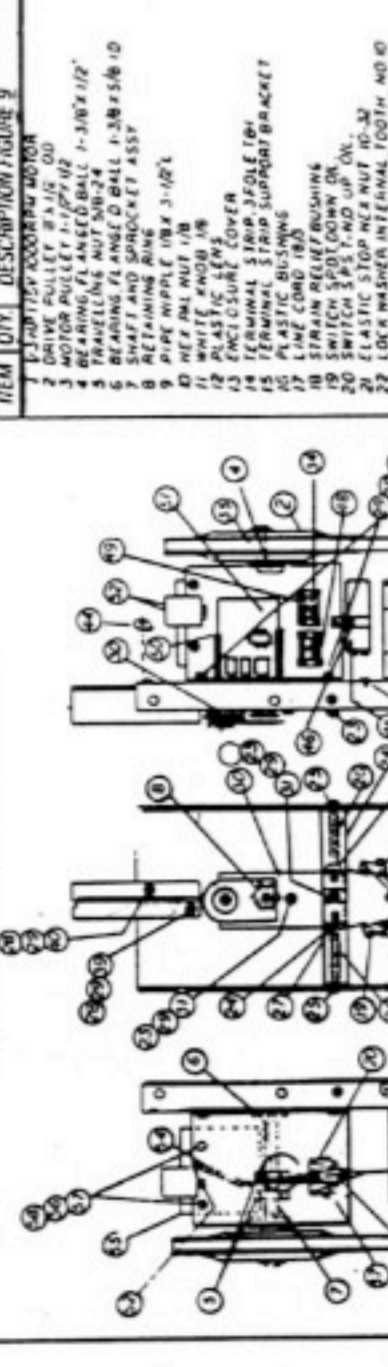
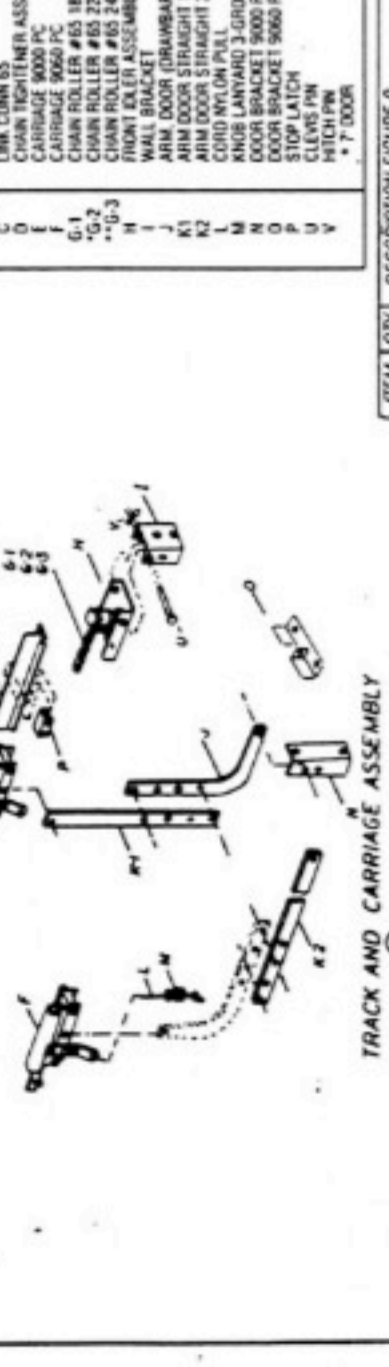
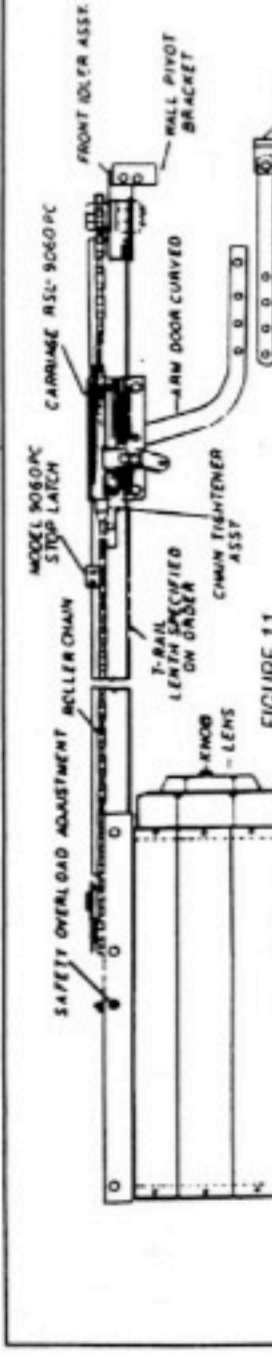
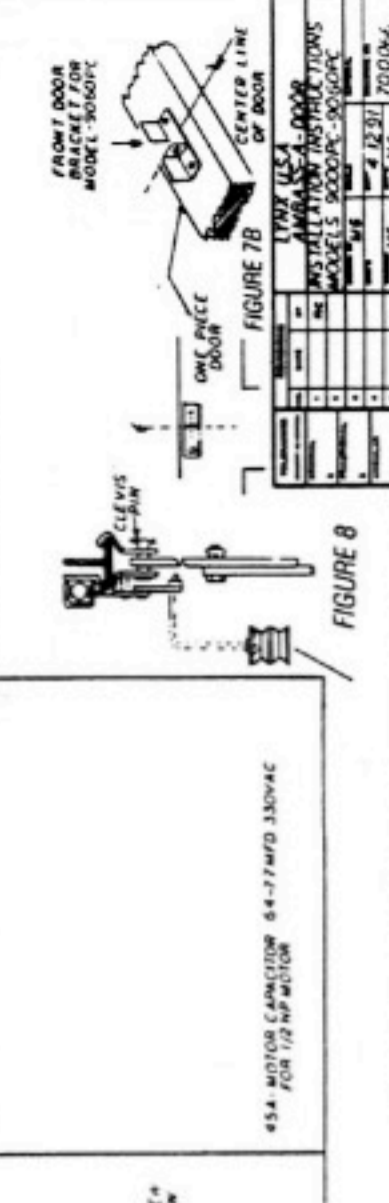
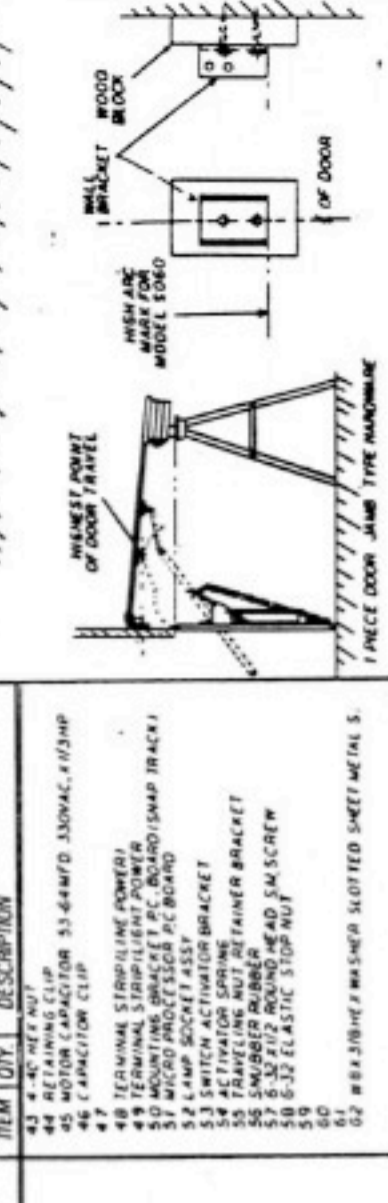
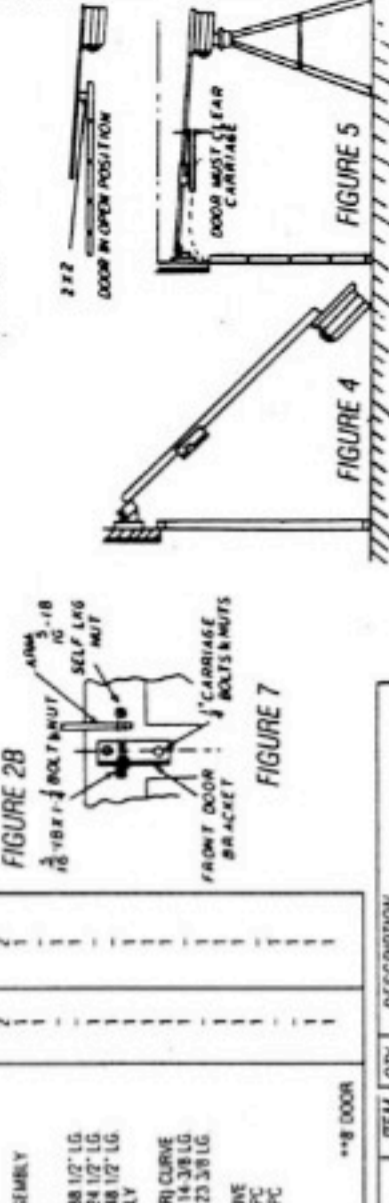
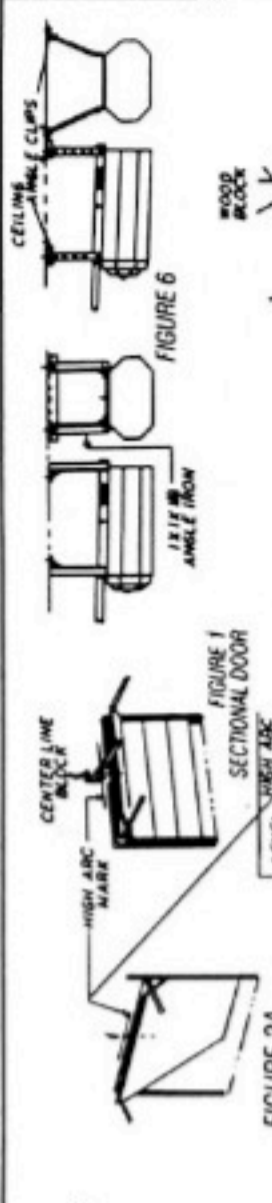
STEP 4

INSERT CHAIN TIGHTENER INTO 5/8 HOLE IN CARRIAGE. POSITION CARRIAGE 5" FROM FRONT END OF T RAIL. CONNECT ONE END OF CHAIN TO CHAIN TIGHTENER, USE CONNECTING LINK. LOOP CHAIN AROUND FRONT IDLER THEN BACK TOWARDS POWER HEAD AND AROUND DRIVE SPROCKET THEN BACK TO CARRIAGE ASSEMBLY. FASTEN END OF CHAIN TO CHAIN TIGHTENER WITH CONNECTING LINK.



STEP 5

TO TIGHTEN CHAIN, RELEASE CARRIAGE FROM CHAIN TIGHTENER AND SLIDE CARRIAGE BACK TOWARDS POWER HEAD. ROTATE CHAIN TIGHTENER UNTIL CHAIN HAS APPROX. 1/4" SAG AT MID POINT. LOCK CHAIN TIGHTENER BY TURNING CONICAL NUT TIGHT AGAINST PLASTIC LOCK WASHER.



REF	DESCRIPTION FIGURE 10	9000 PC QTY	9060 PC QTY
A	POWER HEAD (REF. ONLY)	1	1
B1	T RAIL 79"	1	1
B2	T RAIL 93"	1	1
B3	T RAIL 103"	2	2
C	LINK COUPLER 65	2	2
D	CHAIN TIGHTENER ASSEMBLY	1	1
E	CARRIAGE 9000 PC	1	1
F	CARRIAGE 9060 PC	1	1
G-1	CHAIN ROLLER #65 188 1/2" LG.	1	1
G-2	CHAIN ROLLER #65 224 1/2" LG.	1	1
G-3	CHAIN ROLLER #65 348 1/2" LG.	1	1
H	FRONT ROLLER ASSEMBLY	1	1
I	WALL BRACKET	1	1
J	ARM DOOR (DRAINBAR) CURVE	1	1
K1	ARM DOOR STRAIGHT 14-3/8 LG.	1	1
K2	ARM DOOR STRAIGHT 23-3/8 LG.	1	1
L	CORD NYLON PULL	1	1
M	KNOB LANYARD 3-GROOVE	1	1
N	DOOR BRACKET 9000 PC	1	1
O	DOOR BRACKET 9060 PC	1	1
P	STOP LATCH	1	1
Q	CLEVIS PIN	1	1
U	HITCH PIN	1	1
V	1/2" DOOR	1	1

ITEM QTY	DESCRIPTION FIGURE 9
1	1/4" MOTOR HOOD
2	DRIVE PULLEY 1-1/2" ID
3	MOTOR PULLEY 1-1/2" ID
4	BEARING FLANGED BALL 1-3/8" x 1/2"
5	BEARING FLANGED BALL 1-3/8" x 5/8" ID
6	BEARING FLANGED BALL 1-3/8" x 5/8" ID
7	BEARING FLANGED BALL 1-3/8" x 5/8" ID
8	RETAINING RING
9	PIPE WIPPLE 1/2" x 3-1/2"
10	HEX NUT 1/8"
11	WHITE KNOB 1/8"
12	PLASTIC LENS
13	ENCLOSURE COVER
14	TERMINAL STRIP 3-FOLE 1/8"
15	TERMINAL STRIP SUPPORT BRACKET
16	PLASTIC BUSING
17	LINE CORD 18'
18	STRAIN RELIEF BUSHING
19	SWITCH SPOTDOWN ON
20	SWITCH 3/8" x 1/2" ON
21	ELASTIC STOP NUT 10-32
22	LOCK WASHER INTERNAL TOOTH NO 10
23	ELASTIC STOP NUT 1/4-20
24	SPRING OVERLOAD BRACKET
25	1/4-20 x 1-1/2" ROUND HEAD SCREW
26	OVERLOAD SPRING 1/4" x 2-3/4"
27	1/4-20 WING NUT
28	1/4-20 HEX NUT
29	1/4-20 RING LOCK WASHER
30	OVERLOAD PLATE ASSY
31	1/4-20 x 1-1/2" HEX TAP BOLT
32	1/4-20 x 3/4" HEX TAP BOLT
33	1/4-20 x 1-1/2" PHILIPS HEAD SHEET METAL SCREW
34	1/4-20 x 1-1/2" PHILIPS HEAD SHEET METAL SCREW
35	1/4-20 x 1-1/2" PHILIPS HEAD SHEET METAL SCREW
36	BASE PLATE
37	4 FRAME
38	1/4-20 x 1-1/2" HEX TAP BOLT
39	1/4-20 x 3/4" HEX TAP BOLT
40	1/4-20 x 1-1/2" TREADED ROD
41	1/4-20 x 1-1/2" ROUND HEAD SCREW
42	LOCK WASHER INTERNAL TOOTH NO 6

ITEM QTY	DESCRIPTION
43	4-40 HEX NUT
44	RETAINING CLIP
45	MOTOR CAPACITOR 55-60MFD 350VAC, 450HP
46	CAPACITOR CLIP
47	47
48	TERMINAL STRIPLINE POWER
49	TERMINAL STRIPLINE POWER
50	MOUNTING BRACKET PC BOARD/SNAP TRACK
51	MICRO PROCESSOR PC BOARD
52	LAMP SOCKET ASSY
53	SWITCH ACTIVATOR BRACKET
54	ACTIVATOR SPRING
55	TRAVELING NUT RETAINER BRACKET
56	SMALLER RUBBER
57	6-32 x 1/2 ROUND HEAD S4 SCREW
58	6-32 ELASTIC STOP NUT
59	59
60	60
61	61
62	1/4-20 x 1-1/2" WASHER SLOTTED SHEET METAL 5

ITEM QTY	DESCRIPTION
454	MOTOR CAPACITOR 55-60MFD 350VAC FOR 1/2 HP MOTOR

INSTALLATION INSTRUCTIONS MODELS 9000PC AND 9060 PC RESIDENTIAL GARAGE DOOR OPERATORS.



CAUTION

EACH DOOR OPERATOR IS INTENDED TO
MOUNTED SEVEN FEET OR MORE ABOVE THE FLOOR.

Figure numbers refer to Installation Instructions Drawing 700066 page 4.

After the "Preliminary Instructions" have been completed, proceed as follows:

1. Determine center line of door and mark a line on the wall over the door and the top edge of the door. See figure 1.
2. Provide a suitable support to mount the front wall bracket. Use a 2 x 4 or 2 x 6 wood block and span studs if necessary. The front wall bracket may also be fastened directly to the header. Figure 3.
3. Determine the highest point of door travel with a carpenter's level and transfer the point to the wood block, wall or header. See figure 2A, 2B.
4. Locate the front wall bracket as shown in figure 3. Mount using 5/16 x 1- 5/8 or 5/16 x 2 lag bolts (not furnished with operator).
5. Close the door and set the power head on a flattened packing box or any other clean material on the garage floor. See fig.4
6. Raise the T-Rail and nest the idler assembly bracket inside the front wall bracket. Align the side holes and insert the 5/16 x 2-3/4 Clevis pin. Secure with Hitch pin. See fig. 4.
7. Raise the operator with an "Automatic Assistant" high enough to permit the carriage assembly to travel down hill. If an "Automatic Assistant" is not available, set the power head on a step ladder or raise the door until it is in a fully opened position. Place a wooden 2 x 4 on edge of the door and rest the T-Rail on it. Make certain that the T-Rail remains in the center of the door. (The power head should be lower than the front wall bracket mounted over the door) See figure 5.
8. Secure the power head to the ceiling by any of the methods shown in figure 6 or by any method that conditions require.
9. Attach the front door bracket. See figure 7A for Model 9000 PC and figure 7B for Model 9060 PC using 1/4 carriage bolt and nuts.
10. Remove the 5/16 pin from the carriage assembly, insert the proper door arm and replace the pin. (See figure 8).

NOTE: On Model 9000 PC the 14-3/8 long straight door arm is inserted into the carriage assembly with the four holes towards the downward position. (See figure 8).

On Model 9060 PC the curved door arm is inserted into the carriage assembly with the four holes towards the downward position. (See figure 8).
11. Align holes in lower and upper door arms and secure with two 5/16 x 1-1/4 bolts lock washers and nuts.
12. On Model 9000 PC add bolt and nut to front door bracket in either the upper or lower hole whichever is best to engage lower door arm and secure with 5/16-18 self locking nut. (See figure 7A). Pivot point on door bracket should be opposite top roller on door.
13. On Model 9060 PC, insert the lower door arm into the front door bracket and secure with 5/16-18 x 1-1/4 lag bolt lockwasher, and nut. (See figure 7B).
14. Tie the red cord with the attached red plastic grip to the carriage assembly with a square knot. (See figure 8)

15. Pull red cord toward door to disengage the carriage assembly from the drive chain and manually operate the door. To re-engage carriage to drive mechanism pull red cord toward opener. The door will automatically engage with or without the power on when the carriage moves into the engaging position of the chain tightener.
16. The mechanical installation of the Model 9000 PC Operator is complete. For Model 9060 PC continue as follows:
17. Adjust the location of the security stop latch on the T-Rail so that the latch will clear when door is being raised with electric power. The stop should be approximately 1/4" away from the edge of the security latch on the carriage assembly. This completes the mechanical installation of the Model 9060 PC operator. See figure 11 drawing 700066, page 4.



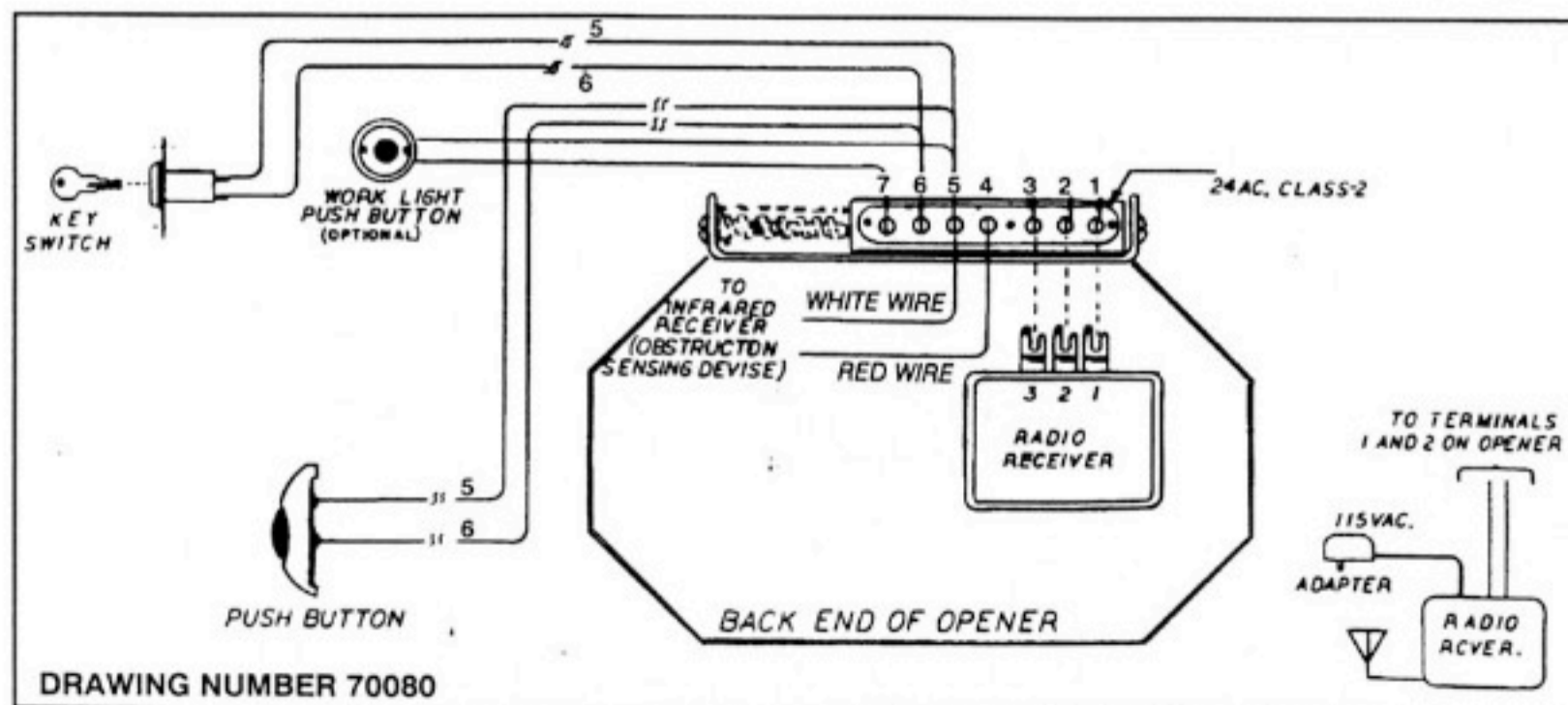
CAUTION

ALWAYS DISCONNECT ELECTRIC POWER BEFORE
MAKING ANY ADJUSTMENTS INSIDE THE POWER HEAD BOX..

INSTRUCTIONS FOR MAKING ELECTRICAL CONNECTIONS MODELS 9000 PC AND 9060 PC RESIDENTIAL GARAGE DOOR OPERATORS.

These instructions supplement the "Installation instructions" for these operators. Drawing "Connection Diagrams" forms part of these instructions.

- NOTE:**
- After the Operator has been hung, complete the installation by connecting the Key Switch, Push Button(s), Radio Receiver, Guardian Obstruction Sensor Device and Operator in accordance with the diagram shown on drawing 700080.
 - The Radio Receiver is to be mounted in accordance with the directions given by the manufacturer for the type receiver ordered.
 - Make certain the "Antenna" is pointing downward and in full view from the garage door.
 - The wires from the Radio Receiver must be attached to the 1,2 and 3 terminals on the Terminal Strip of the Operator.
 - When attaching wires to the screw terminals on the RCVR or the Terminal Strip on the Operator make certain the connections are secure.
 - Do not use non-insulated staples or tacks to hold wires to walls and the ceiling.



GUARDIAN PHOTOCELL INSTALLATION INSTRUCTIONS

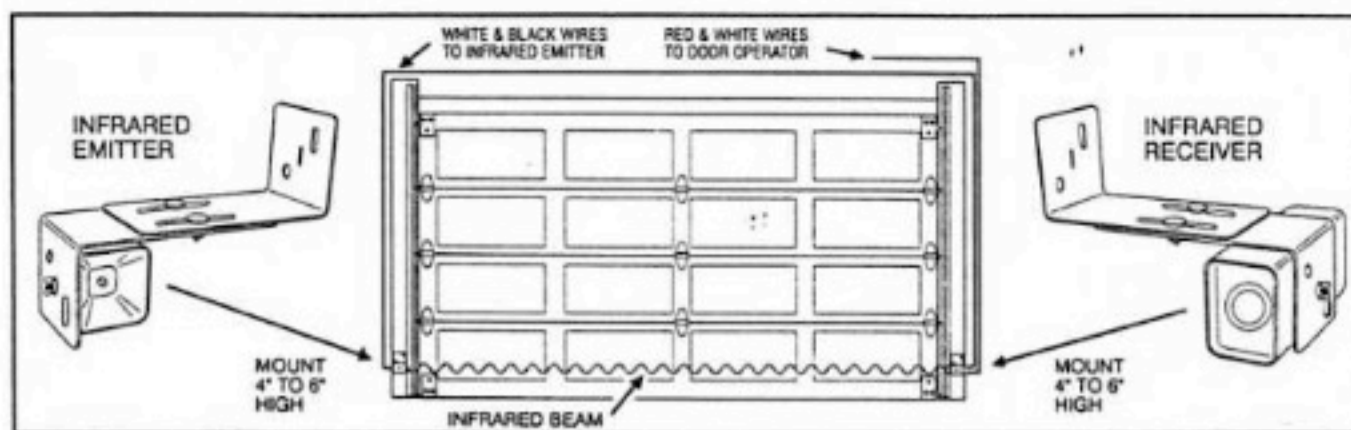


FIGURE 1

External Obstruction-Sensing Devices

The following information is to be used when connecting the external obstruction-sensing device such as a photorelay to an "X" series operator for which terminals are provided to receive such an input.

WARNING

FAILURE TO TEST AND ADJUST THE SAFETY REVERSE SYSTEM MAY RESULT IN SERIOUS INJURY OR DEATH FROM A CLOSING GARAGE. REPEAT THIS TEST ONCE A MONTH AND ADJUST AS NEEDED.

Install the object sensor, The "GUARDIAN" after the garage door opener installation has been completed.



THIS SYMBOL MEANS WARNING - PERSONAL SAFETY OR PROPERTY DAMAGE INSTRUCTION. READ INSTRUCTIONS CAREFULLY.

The "GUARDIAN" object sensor must be installed and operated in strict accordance with the following safety instructions.

Failure to comply with the following instructions may result in personal injury or property damage.

Before installing the "GUARDIAN", be sure to complete all garage door opener installation instructions as provided in your owners manual.

Disconnect power to garage door opener before installing the object sensor.

WARNING

TO PROTECT SMALL CHILDREN, INSTALL OBSTRUCTION SENSOR NO HIGHER THAN 4 TO 6 INCHES ABOVE FLOOR.

Step A: The "GUARDIAN" must be installed so the path of the light beam is not obstructed by the garage door, door tracks, springs, hinges, rollers or any other part of the door mechanism. It may be necessary to add a piece of wood to the wall at mounting locations to insure proper clearance (or to install sensors on masonry wall construction).

Step B: Install emitter and detector inside garage on each side of garage door. Sensors must be positioned at the same height (approximately 4" to 6" above the floor). Directional arrows on the sensor labels must point toward each other and be horizontal to the floor. (See Figures 1 and 2).

NOTE: Detector should be installed on the "Shade" side of the garage, away from the sun's direct rays.

Step C: For each bracket assembly, drill two 3/16" pilot holes into the wall centered in each slot. Fasten brackets to walls with two lag screws through slotted holes. Position bracket to be square with the floor. Tighten both lag screws. For each bracket assembly, attach mating bracket using the carriage bolts and nuts, as in Figure 1. Do not completely tighten nuts yet. Position emitter in bracket as shown in Figure 2. Fasten emitter to bracket with wing nut on stud. Do the same with receiver.

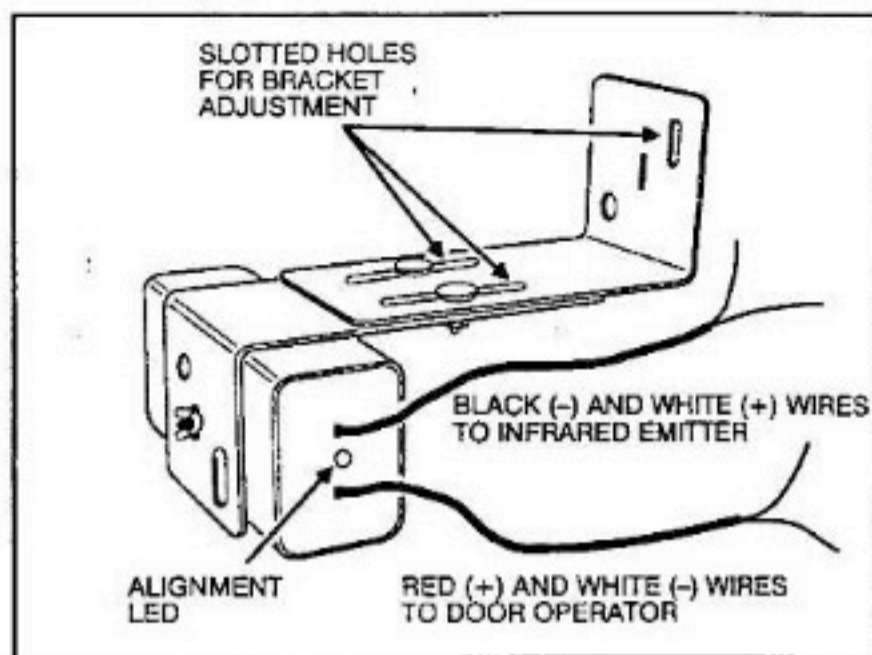


FIGURE 2

Slide bracket unit out from wall an equal distance until beam is completely clear of garage door, door hinges, tracks, springs, rollers, or any other part of door mechanisms. Tighten carriage bolts and nuts.

Step D: Run the white and black wires attached to the detector up and over the door to the terminals on the emitter. Attach wires to emitter terminals by color as shown on label. (See Figure 1) Use insulated staples to fasten wires to walls surrounding garage door.

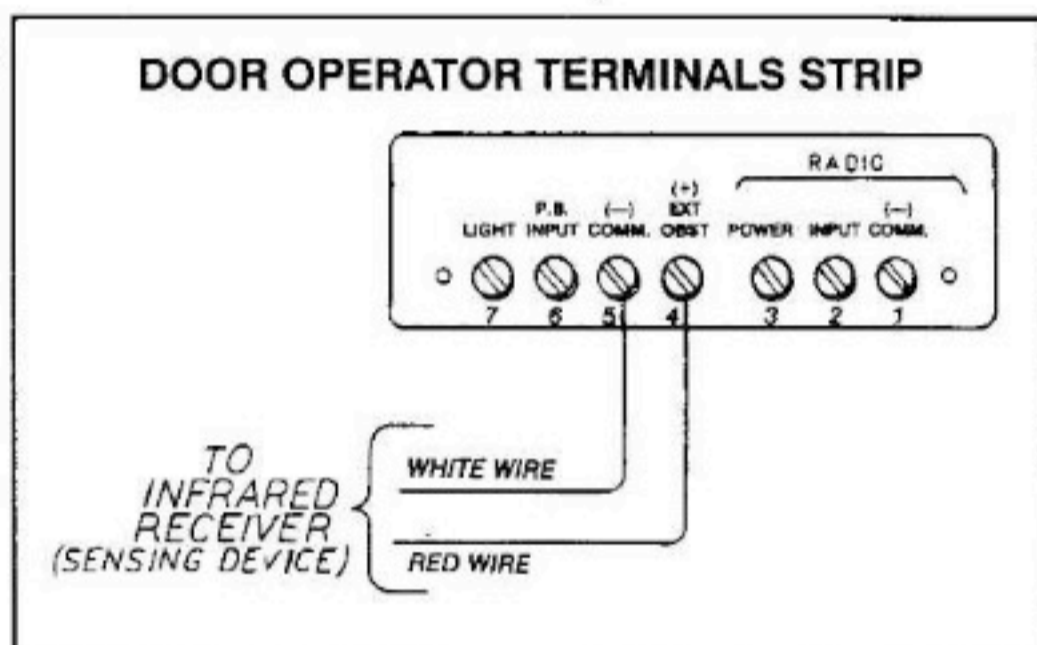


FIGURE 3

Step E: Run the red and white 2-conductor wires attached to the detector up the wall and across the ceiling to opener terminals. Connect wires to terminals by color as shown on the label.

Step F: Plug garage door operator power cord in receptacle. Small red lamp in detector should glow. If red lamp flashes after installation, check bracket position (See Step (C)). Arrows should be horizontal to the floor. If brackets are installed correctly, position of detector within mounting bracket may require adjustment. Loosen detector case mounting screw and rotate detector. If red lamp glows, retighten mounting screw. Alignment is correct. If light continues flashing after adjustment, check the following:

1. Dirt on the detector lens or sunlight shining directly into the receiver lens causing interference.
2. Short in white/black wires. These can occur under staples or at screw terminals.
3. Incorrect wiring of detector to emitter.

Step G: Test the object sensor. Place an object in the path of the invisible-light beam between the detector and emitter as the garage door is closing. The door must reverse and return to a full open position. The garage door operator will not respond to a CLOSE command from the transmitter if the red light in the detector is flashing. The garage door can be closed manually by pulling down the red emergency release handle connected to the trolley or by constant pressure on the wall button.

INSTRUCTIONS FOR ADJUSTING DOOR TRAVEL MODELS 9000 PC AND 9060 PC RESIDENTIAL GARAGE DOOR OPERATOR.

These instructions apply to the field adjustment of Travel(ing) Nuts which control the amount of door travel. As shown on drawing 700064.

1. To adjust the door travel, remove the cover, if not already removed, by first removing the lens of the cover. Twist the small plastic white knob to the left until it comes off the threaded nipple, with two hands, pull the lens off the nipple and set aside.
2. Loosen the washer nut holding the lip of the cover to the baseplate and set aside.
3. Pull the cover downward and toward the door. Remove and set aside.



CAUTION

**DISCONNECT POWER BEFORE MAKING ADJUSTMENT TO LIMIT SWITCHES
ONCE ADJUSTMENT IS MADE, RECONNECT POWER AND TEST.**

HOW TO ACTIVATE THE OPENER

Use any of the following devices:

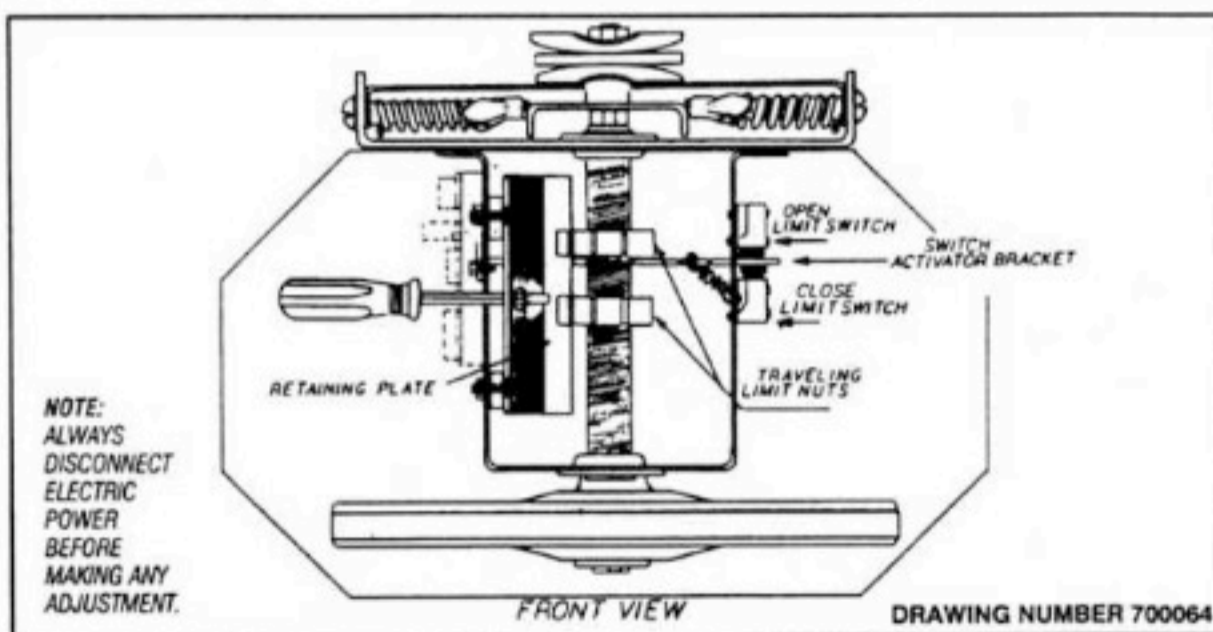
1. The Remote Control Transmitter. Hold the push button down until the door starts to move, then release button.
2. The Door Control Button. Hold the button down until the door starts to move.

Door Stops Too Soon Before Reaching Floor:

1. Raise edge of Retaining Plate out of notches in Travel(ing) Nuts. (A screw driver inserted in the round hole of the Plate and used as a lever will be helpful in holding the Plate up).
2. Rotate the upper Travel(ing) Nut to the right and away from the actuating arms.
3. Release the Retaining Plate and engage the notches in the Traveling Nut.
4. Restore electric power, activate the unit and observe stopping position of the door.
5. Repeat Steps, 1 through 4 until desired stop position is reached. Disconnect electric power each time before making the adjustment. Note that each notch on the Traveling Nut represents 1/2 inch of door travel. Rotate the Travel(ing) Nut for as many notches as required to overcome the space between the edge of the door and the ground.

Door Hits the Ground Too Hard:

1. Follow same procedure as before except rotate the upper Travel(ing) Nut to the left and towards the actuation arms of the lower Limit Switches.
2. Repeat adjustment until the door stops at the ground with the desired force.



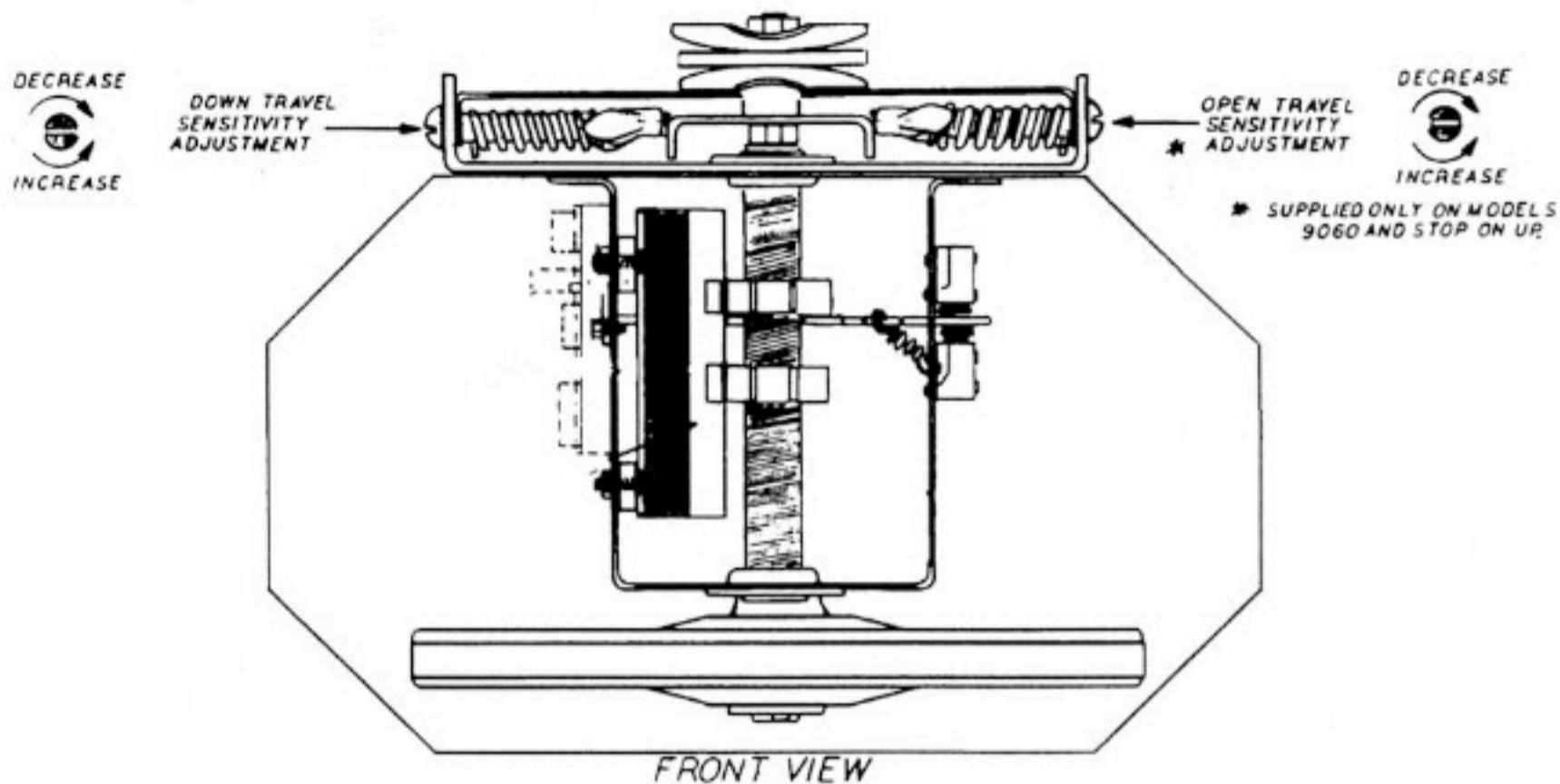
Door Does Not Go Up High Enough:

1. Follow same procedure as before except rotate the lower Travel(ing) Nut to the left and away from the actuation arms of the upper Limit Switches.
2. Repeat adjustment until the door stops at the desired open position.

OBSTRUCTION SWITCH SAFETY SENSITIVITY ADJUSTMENT

EXCEPT FOR THE FIRST TWELVE INCHES OF DOOR'S DOWNWARD TRAVEL, THE OBSTRUCTION SENSITIVITY MECHANISM WILL CAUSE THE DOOR TO REVERSE IF IT MEETS AN OBSTRUCTION. DOOR WILL STOP ON UP TRAVEL IF IT MEETS AN OBSTRUCTION*.

ADJUSTMENT SCREWS ARE LOCATED AT MIDDLE OF THE UPPER CHASSIS (SEE DRAWING BELOW) DOWN TRAVEL SENSITIVITY SCREW IS ON THE LEFT (INSIDE LOOKING IN), OPEN TRAVEL SENSITIVITY SCREW IS ON THE RIGHT.



NOTE: ALWAYS DISCONNECT ELECTRIC POWER BEFORE MAKING ANY ADJUSTMENT.

*SUPPLIED ONLY ON MODELS 9060 PC STOP ON UP

DRAWING 700064

Turning the screw clockwise will require more force to reverse or stop the door. Adjust the screw so that the door will close without reversing under normal operating conditions but will reverse if it meets an obstruction.

NOTE: On the open cycle the door should stop when it meets an obstruction.

Press button to close the door. When door is approximately halfway down, try stopping it by holding with both hands. Door should reverse easily.



THE GARAGE DOOR MUST REVERSE ON CONTACT WITH A ONE INCH OBSTACLE PLACED UNDER THE DOOR. IF IT DOES NOT, IT WILL BE NECESSARY TO ADJUST THE DOWN FORCE. SEE FIG. (A), PAGE 11.

ADJUSTMENT, OR THE ANGLE OF THE DOOR ARM. THE DOOR ARM SHOULD BE ON AN ANGLE TOWARD THE POWER HEAD. SEE FIG. (B), PAGE 11 TO INCREASE THE ANGLE, MAKE THE ARM LONGER BY USING THE APPROPRIATE HOLES IN ARMS.

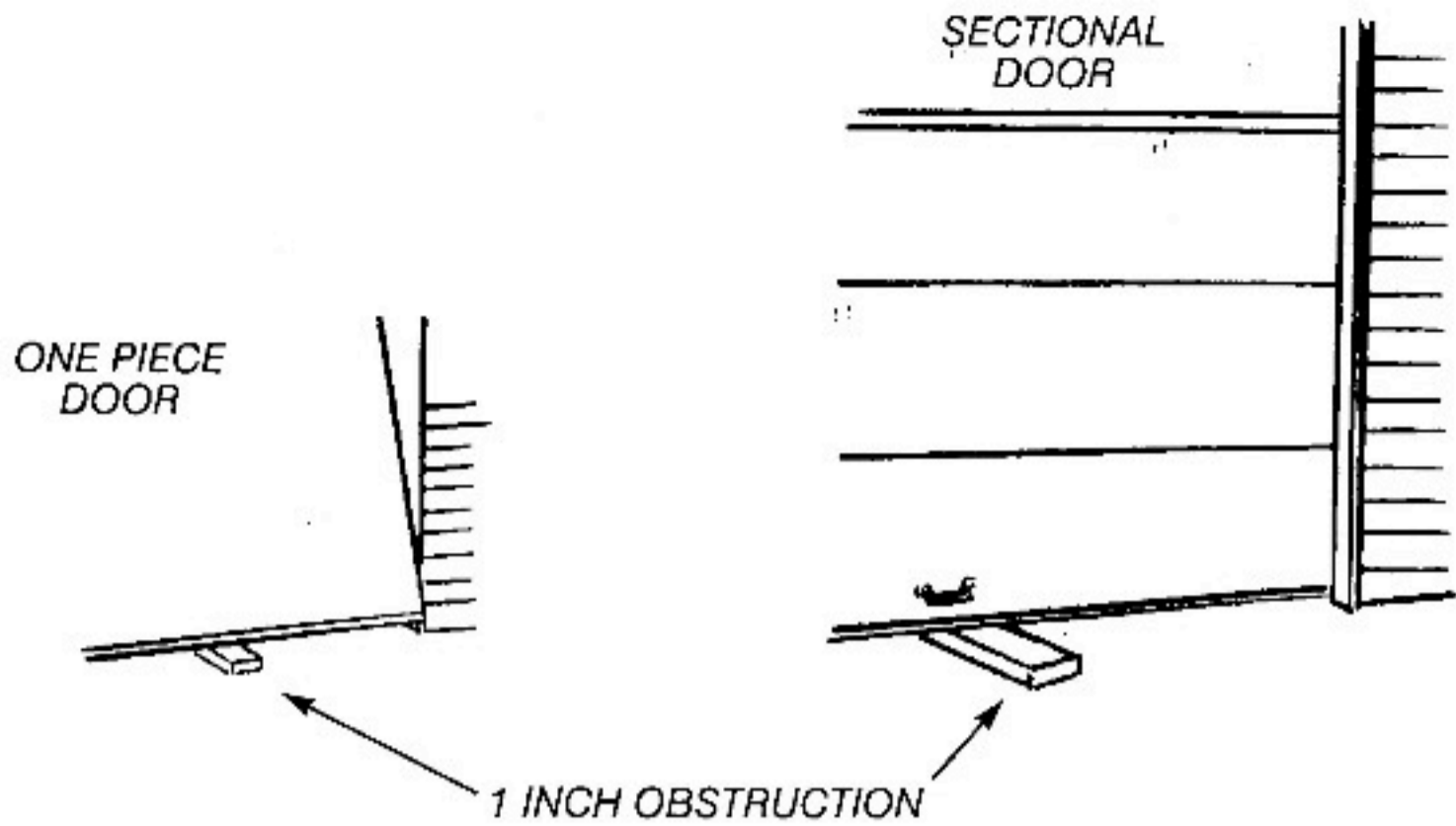


FIGURE A

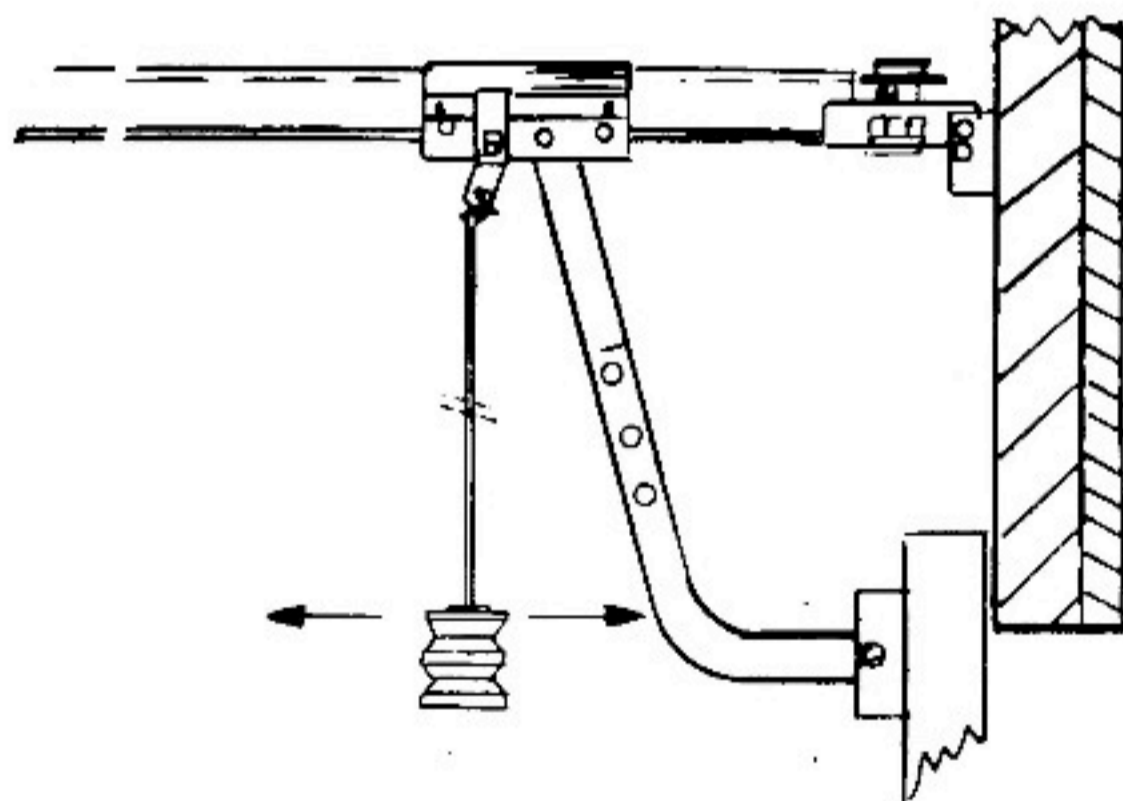


FIGURE B

INSTRUCTIONS FOR OPERATING MODELS 9000PC, 9060 PC RESIDENTIAL GARAGE DOOR OPERATORS.

CAUTION



- A). Read the operating instructions on this page carefully.
- B). Do not permit children to play in area of door.
- C). Operate only when operator is properly adjusted fully visible and free of obstruction.
- D). The safety reverse system is important the garage door must reverse on contact with a one-inch obstacle placed on the floor. Failure to properly adjust opener may result in serious personal injury from a closing garage door REPEAT the test at least once a year and make needed adjustments.

ELECTRICAL OPERATION INSIDE AND OUTSIDE OF GARAGE:

WITH A PUSH BUTTON: A momentary touch of the button will open or close the door. When door is opening or closing, pressing the push button will stop the door. The next touch of the button, the door will reverse its direction of travel until either fully open or closed.

WITH RADIO CONTROL IN THE CAR: Same as for push button.

WITH A KEY SWITCH: Same as for push button except twist of key.

SAFETY SYSTEM: When door is closing, if an obstruction is encountered, the door will reverse after a momentary delay and return to the full open position. When door is opening, if an obstruction is encountered the door will stop. (only on 9060 PC and 9000 PC stop on up models) next touch of button, door will close.

SAFETY SHUTOFF: If door is closed, and the limit switch or obstruction switch is not activated within twenty five (25) seconds, the operator will stop then reverse direction to open position. If door is opening, and the limit switch or obstruction switch is not activated within twenty five (25) seconds, the motor will shutoff.

LIGHT DELAY: When operator is activated, lights will turn on, and will remain on for approximately five (5) minutes and then turn off automatically.

TO TEST OBJECT SENSING DEVICE: Place an object in the path of the invisible-light beam between detector and emitter as the garage door is closing. The door must reverse and return to a full open position. The garage door operator will not respond to a CLOSE command from the transmitter if the red light in the detector is flashing. The garage door can be closed manually by pulling down on the red emergency release handle connected to the trolley or by constant pressure on the wall button. An additional wall switch can be installed to operate the light independently. To do this, install wall switch using a two-conductor wire and attach to the terminals marked "light" and "24V" on the back of the operator.

NOTE:

The label shown at right must be mounted in a visible place near the wall switch. If label will not adhere to surface, staple to wall.



WARNING



Child can be pinned under automatic garage door. **Death or serious injury can result.**

- Never let child walk or run under moving door.
- Never let child use door opener controls.
- Always keep moving door in sight.
- If person is pinned, push control button or use emergency release.
- Test door opener monthly:
 - Refer to your owner's manual.
 - Place one-inch object (or 2x4 laid flat) on floor.
 - If door fails to reverse on contact, adjust opener.
 - If opener still fails to reverse door, repair or replace opener.

Do not remove or paint over this label.
Mount wall control out of child's reach
(at least 5 feet above floor).

Place next to wall control. ©1991 The Industry Coalition For Automatic Garage Door Opener Safety

INSTRUCTIONS FOR SERVICING AND CORRECTING TROUBLE AFTER INSTALLATION 9000 PC AND 9060 PC. RESIDENTIAL GARAGE DOOR OPERATORS.

These instructions are intended to guide qualified service personnel in locating and correcting troubles after the Operator has been installed. (Please note the Warranty statements on the back of the Installation Manual) Refer to proper – Wiring Diagram

Models 9000 PC and 9060 PC.

1. **TROUBLE** – Unit runs from radio control but not from Push button.
Check connections at push button and operator terminals. Wire may be broken under staples or at terminals.
Place a momentary jumper across terminals 1 and 2 on the 3 position terminal strip if the operator runs, the push button is defective.
2. **TROUBLE** – Unit does not operate from wall button(s), key switch or from radio transmitter in car.
Possible causes:
(A) Line cord not plugged in outlet.
(B) No electric power to operator.
 (1) Tripped breaker.
(C) Defective control board.
Correction:
(A) Push in on plug attached to line cord.
(B) Check service entrance for power.
 (1) Reset breaker.
(C) Replace control board.
3. **TROUBLE** – Unit does not operate from radio control, but works from wall button(s) and key switch.
Possible causes:
(A) Faulty radio receiver.
(B) Faulty transmitter.
 (1) Weak batteries.
 (2) Loose connection(s).
Corrections:
(A) Repair or replace receiver.
(B) Repair or replace transmitter.
 (1) Check batteries and replace if old.
 (2) Check connections for tightness and corrosion.
4. **TROUBLE** – Humming noise is heard but motor does not open or close door.
Possible causes:
(A) Faulty starting motor capacitor.
(B) Faulty motor.
(C) Door jambed, or hard moving door.
Correction:
(A) Check for loose connections. If connections are all right and motor still does not work, replace the capacitor.
(B) If a defective motor is suspected – replace it with an equivalent motor.
(C) Disconnect door from operator and check door for correct balance and operating conditions.

5. **TROUBLE** – Motor runs but operator cannot move the door.
Possible causes:
 (A) Loose motor pulley.
 (B) Loose belt.
Corrections:
 (A) Tighten motor set screw in pulley.
 (B) Loosen motor mounting nuts, pull motor back putting the proper tension on belt and retighten the motor mounting nuts.
6. **TROUBLE** – Motor runs only one way.
Possible causes:
 (A) One wire off a connection. (from control board).
 (B) Motor wires are reversed.
Corrections:
 (A) Reconnect motor – check for bad connections and open splices.
 (B) Reverse motor wires.
7. **TROUBLE** – Light will not go on when opener door is activated.
Possible causes:
 (A) Defective light bulb.
 (B) Defective control board.
Corrections:
 (A) Check light bulb and replace if burned out.
 (B) Replace – microprocessor control board.
8. **TROUBLE** – Lights do not go off.
 Press wall button, radio control to reactivate timer, wait 10 to 15 minutes before initiating another signal, light should go off. Replace micro processor control board.
9. **TROUBLE** – Door operates by itself (FHANTON OPERATIONS).
Possible causes:
 (A) Intermittent short circuit in wall button or wiring from button to operator.
 (B) Neighboring installation on same code.
 (C) Defective radio control.
Correction:
 (A) Inspect button(s), key switch and check for shorts under staples, remove and repair.
 (B) Have code changed by competent radio authorized service dealer.
 (C) Have radio control receiver replaced if burned out.
10. **TROUBLE** – Door reverses before reaching ground.
Possible causes:
 (A) Door in binding.
 (B) Force screw is set too lightly.
 (C) Object obstructing infrared sensor.
 (D) Infrared sensor out of alignment or defective.
Correction:
 (A) Eliminate binding – reset door trim or lubricate with soap or wax.
 (B) Increase force with adjusting screw on side of operator.
 (See page 10 Obstruction switch safety sensitivity adjustment).
 (C) Clear path of infrared sensor.
 (D) Infrared sensor alignment should be checked per instructions. Check wiring between infrared sensor and opener.
11. **TROUBLE** – Door stops before reaching ground.
Possible Causes:
 (A) Down limit switch is set wrong.
 (B) Door binds – throws chain off sprocket.
Correction:
 (A) Reset the limit switch. See Instruction Manual section on "Adjusting Door Travel", page 9.
 (B) Free door, operate manually, eliminate binding, reset chain.

REPLACEMENT PARTS LIST

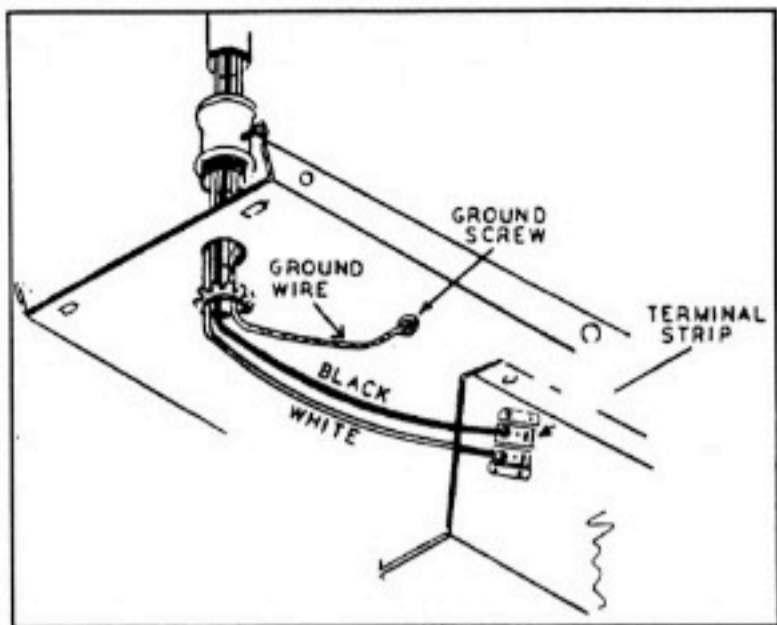
9000 PC & 9060 PC POWER HEAD

Ref. No.	Description	QUANTITY	
		9000 PC.	9060 PC.
1.	1/3 H.P. 115V. - 1000 R.P.M. Motor	1	
	1/3 H.P. 115V. - 450 R.P.M. Motor slow speed.		1
	1/2 H.P. 115V. - 1000 R.P.M. Motor.	1	
2.	Drive Pulley 8" x 1/2".	1	1
3.	Motor Pulley 1-1/2" x 1/2".	1	1
4.	Bearing, Flanged ball 1 3/8 O.D x 1/2" I.D.	1	1
5.	Travelling nuts 5/8- 24	2	2
6.	Bearing, Flanged ball 1 3/8 O.D x 5/8" I.D.	1	1
7.	Shaft and sprocket assy.	1	1
8.	Retaining ring	1	1
9.	Pipe nipple 1/8" x 3-1/2".	1	1
10.	1/8" Hex pal nut	2	2
11.	White knob 1/8".	1	1
12.	Plastic lens.	1	1
13.	Enclosure cover.	1	1
14.	Terminal strip 7 Pole TB-1C.	1	1
15.	Terminal strip support bracket.	1	1
16.	Plastic bushing.	1	1
17.	Line cord SJT 18/3	1	1
18.	Bushing, strain relief.	1	1
19.	Switch S.P.D.T. Down O/L.	1	1
20.	Switch S.P.S.T. N.O.	3	4
21.	Elastic stop hex nut 10- 32.	2	2
22.	Lock washer internal tooth #10.	2	2
23.	Elastic stop hex nut 1/4" 20.	2	2
24.	Spring overload bracket.	1	2
25.	1/4- 20 x 3- 3/8 Round head screw.	1	2
26.	Overload spring 1/4 x 2- 3/4.	1	1
27.	1/4" -20 Wing nut.	1	2
28.	1/4" -20 Hex nut .	6	6
29.	1/4" Split ring, lock washer	5	5
30.	Overload plate assy.	1	1
31.	1/4 20 x 1 1/4 Hex tap bolt.	1	1
32.	#6 x 1/4 Philip head sheet metal screw.	2	2
33.	#8 x 3/8 Hex washer sheet metal screw green.	1	1
34.	#6 x 3/8 Hex washer sheet metal screw.	4	4
35.	Belt V Type 4L 310.	1	1
36.	Base plate.	1	1
37.	A Frame.	1	1
38.	1/4 20 x 1/2 H.T. Bolt.	4	4
39.	1/4 20 x 3/4 Hex tap bolt.	1	1
40.	1/4 20 x 1 1/4 Threaded rod.	1	1
41.	4/40" x 3/4 Screw R.H.M.	6	8
42.	Internal lock washer # 4.	6	8
43.	4/40 " Hex nut .	6	8
44.	Retaining clip.	1	1
45.	Motor capacitor 54- 63 MFD 330 VAC.	1	1
45A.	Motor capacitor 64- 77 MFD 330 VAC. for 1/2 H.P. Motor.	1	-
46.	Capacitor clip.	1	1
47.			
48.	Terminal strip (Line power)	1	1
49.	Terminal strip (Light power)	1	1
50.	Mounting bracket P.C. Board.(snap track).	1	1
51.	Microprocessor P.C. Board.	1	1
52.	Lamp socket assy.	2	2
53.	Switch activator bracket.	1	1
54.	Activator spring.	1	1
55.	Travelling nut, retainer bracket	1	1
56.	Snubber rubber.	2	2
57.	6/32" x 1/2" Screw R.H.M.	2	2
58.	Elastic stop nut 6/32.	2	2
59.			
60.			
61.			
62.	#8 x 3/8" Hex washer slotted sheet metal screw.	2	2

CONVERSION FOR PERMANENT WIRING.

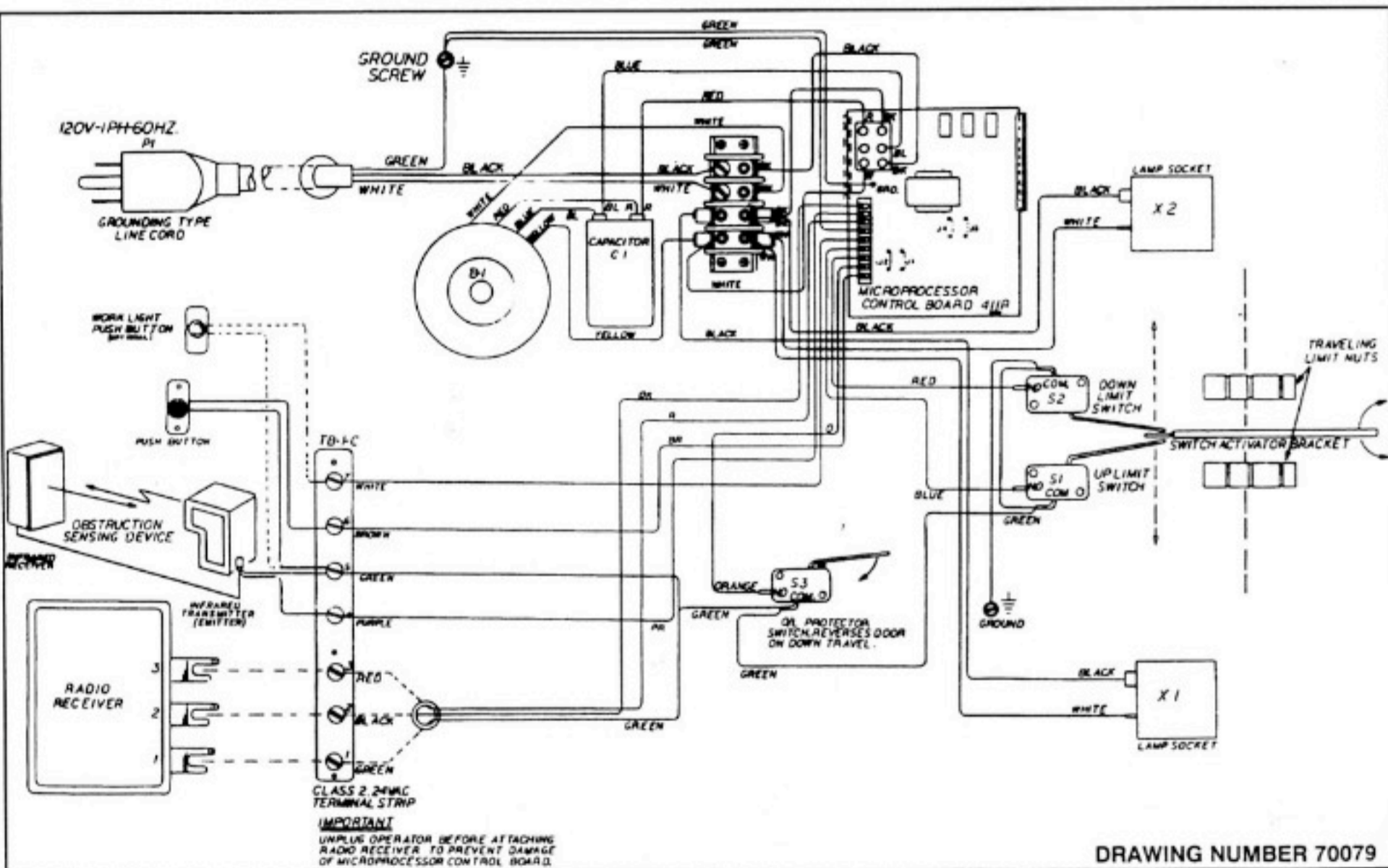
If local electrical codes do not require permanent wiring: Insert the 3 prong plug into 3 hole receptacle: UNIT MUST BE GROUNDED DO NOT USE A2- WIRE ADAPTER.

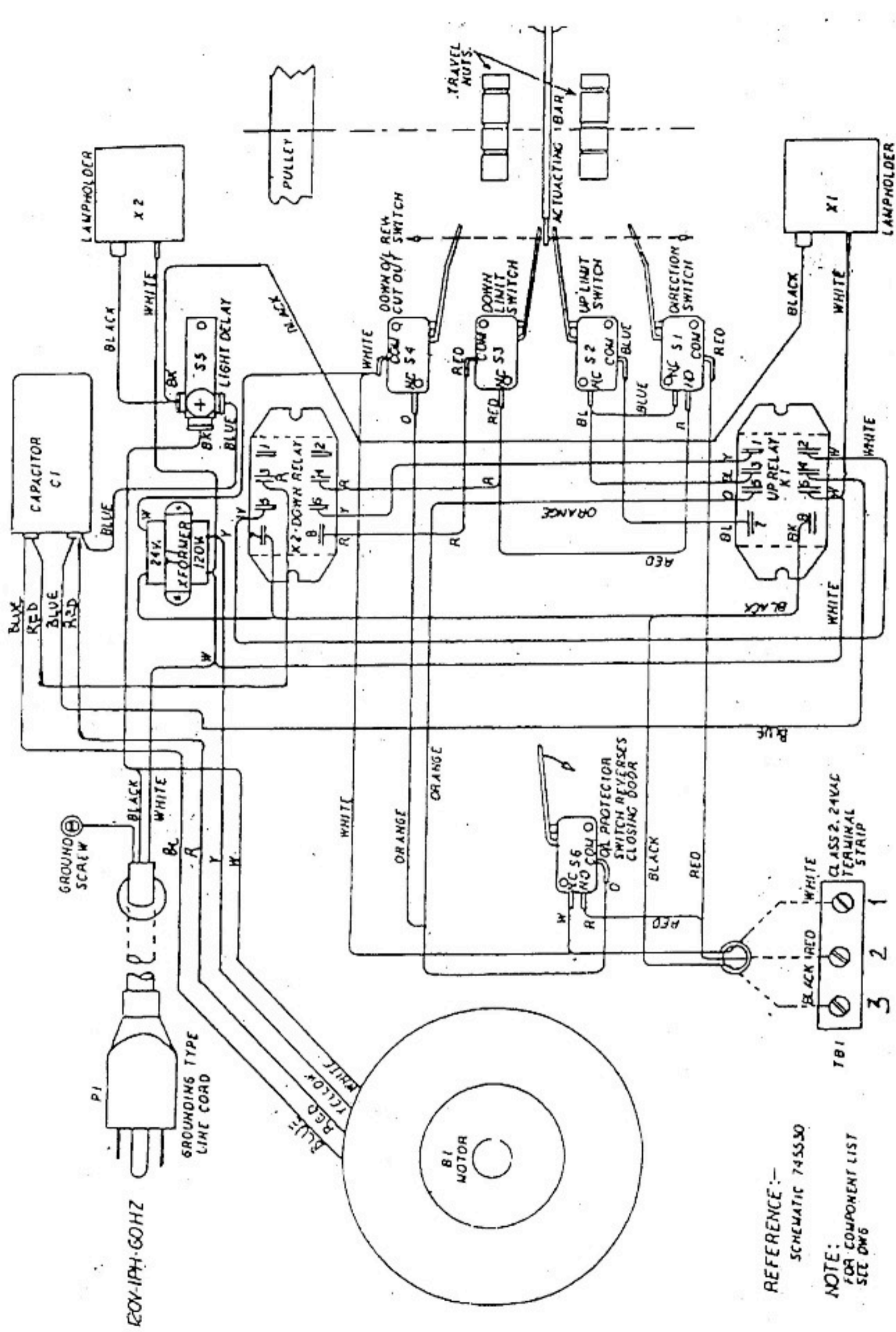
If local codes require permanent wiring ref. to illustration.



PROCEDURE: Make connection through 7/8 inch diameter hole in top of opener chassis.

1. Remove opener cover.
2. Remove attached 3- prong cord.
3. Connect black wire (line) on terminal strip; white wire (neutral) to white terminal green wire (ground) to green ground.





REFERENCE:-
SCHEMATIC 745530
NOTE:
FOR COMPONENT LIST
SEE DWG

SYMBOLS	SYMBOLS	SYMBOLS	SYMBOLS
REVISIONS	REVISIONS	REVISIONS	REVISIONS
DATE	DATE	DATE	DATE
BY	BY	BY	BY
CHECKED	CHECKED	CHECKED	CHECKED
APPROVED	APPROVED	APPROVED	APPROVED

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