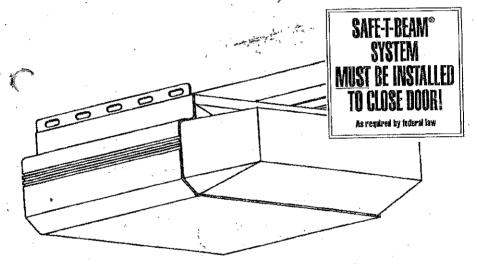
PRO SONLY**

THE CHAIN AND BELT DRIVE OPENERS DEVELOPED FOR PROS ONLY.



Automatic Garage Door Opener System



Complies With UL 325 Effective January 1, 1993

FCC Certified

OWNER'S MANUAL SAVE FOR FUTURE REFERENCE

The Alliance Manufacturing Company

System Highlights

CONVENIENCE FEATURES

A touch of a button controls your garage door operator.

Press the remote control or wall control button.

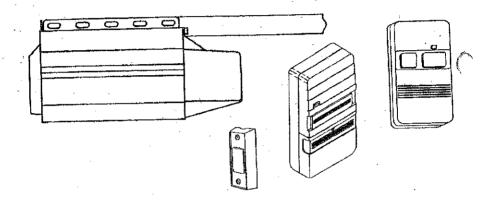
Door will open or close.

Press the button while the door is moving. It stops

Press the button again. The door moves the other way.

Door automatically stops at the end of open or close cycle.

Light comes on when operator starts. It turns off automatically 5 minutes after cycle is complete.



THE T-RAIL

Fully assembled Solid Steel Rail with full chain made of Heavy Duty Steel Construction. Also includes metal drive sprocket and heavy duty plastic idler wheel for quiet operation.

THE CHANNEL

Fully assembled 16 gauge galvanized steel roll formed channel. Includes: full chain or belt with metal drive sprocket and heavy duty plastic idler wheel for quiet operation.

Quick pull carriage release system.

Flush mount to ceiling if needed, 11/2" of head room required.

THE HEAD

42 frame motor with an exclusive bearing design.

Internal limit setting system.

Full gear housing maintains grease inside. Provides strength and stability to the gears.

Lens cover with "living hinge" swings down to replace bulbs.

12 slotted mounting holes for ease of installation.

THE ELECTRONICS

Separate open and close sensitivities.

Shipped complete with our non-contact optical SAFE-T-BEAM® (STB.) Easy to install giving reliable protection.

One button transmitter with light verification and sliding access door for easy coding and 9 volt battery replacement.

Meets U.L. Standard 325, State and Federal safety standards effective January 1, 1993.

SAFETY FEATURES

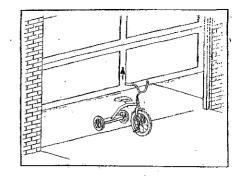
SAFE-T-STOP®

Door reverses if close cycle takes more than 24 seconds. Door stops in the open position.

SAFE-T-REVERSE®

Door stops if it meets on obstacle when closing and automatically reverses to open.

For best sensitivity the open and closing force of the SAFE-T-REVERSE must be adjusted. (See page 18).



DOOR WILL NOT CLOSE WITHOUT SAFE-T-BEAM ATTACHED!

SAFE-T-BEAM® (STB)

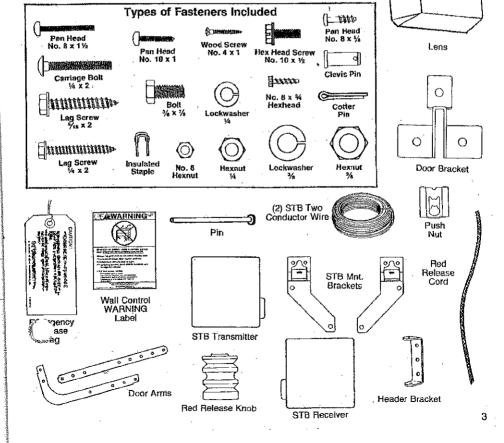
FOR ADDITIONAL SAFETY, AN OPTICAL SENSOR SAFE-T-BEAM (STB) IS INCLUDED.

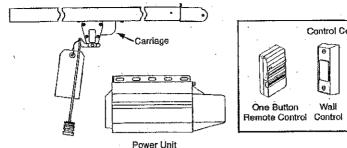
puts an invisible beam across the door opening. If anything breaks the beam when the

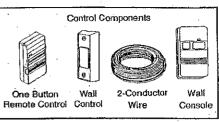
door is closing, the door stops and reverses to full open position.

WE ARE PROUD TO INCLUDE THIS FEATURE. Your door operator is designed so it will not work without this safety feature.

PARTS IDENTIFICATION







IMPORTANT INSTALLATION INSTRUCTIONS WARNING - TO REDUCE THE RISK OF SEVERE INJURY OR DEATH:

- 1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
- Install only on a properly balanced garage door. (See Section 13). An improperly balanced door could cause severe injury or death. Have a qualified service person make repairs to cables, spring assemblies and other hardware before installing opener.
- Remove all ropes and remove or make inoperative all locks connected to the garage door before installing opener.
- 4. If possible, install door opener 7 feet or more above floor. Mount the emergency release 6 feet above the floor.

- 5. Do not connect opener to source of power instructed to do so.
- Locate control button: (a) within sight of door, (b) at a minimum height of 5 feet so small children cannot reach it, and (c) away from all moving parts of the door.
- Install Emergency Release Tag onto the emergency release. Install Wall Control Warning Label next to control button. If label does not adhere, use tacks, staples or other fasteners.
- 8. After installing opener and properly adjusting the opener, the door must reverse when it contacts a 2 by 4 board laid flat on the floor.

CAUTION

TO AVOID DAMAGE DO NOT ATTEMPT TO RUN POWER UNIT OR TO SET LIMITS UNTIL UNIT IS FULLY ASSEMBLED AND ATTACHED TO DOOR.

SECTION 1 - CHANNEL AND POWER UNIT ASSEMBLY

- 1. Place power unit and channel on clean, flat surface (Fig. 1).
- 2. Slide drive end of channel down over "D" shaft on top of power unit.
 - Support header end of channel level with power unit.
 - Slide carriage enough to align "D"-shaft with "D"-hole in sprocket.
 - Slide channel down "D"-shaft flush with power head.

- 3. Fasten channel to power unit.
 - Align mounting holes in front and rear of power unit frame.
 - Insert and securely tighten the four no. 10
 x ½" screws.

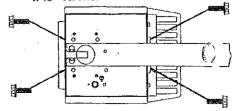
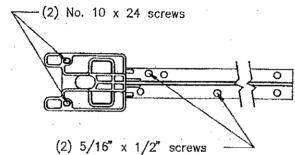


Fig. 1

T-RAIL AND POWER UNIT ASSEMBLY

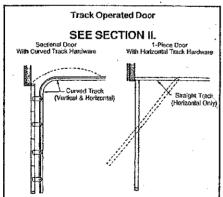
- 1. Place power unit and rail on clean, flat surface.
- 2. Slide drive end of rail down over "D" shaft on top of power unit.
 - Support header end of rail level with power unit.
 - Slide carriage enough to align "D"-shaft with "D"-hole in sprocket.
 - Slide rail down "D"-shaft flush with power head.

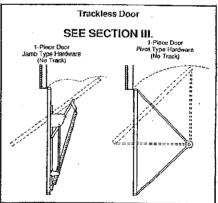
- 3. Fasten rail to power unit.
 - Align mounting holes of sprocket saddle,
 T-Rail and power unit frame.
 - Insert the (2) 5/16" x 1/2" screws first, then
 (2) No. 10 x 24 screws.
 - · Tighten screws.



WHAT TYPE OF DOOR DO YOU HAVE?

Look at the drawings below. They tell you where to find the installation instructions you need.





WARNING

DO NOT TRY TO REPLACE, ADJUST, REPAIR, OR MOVE THE DOOR BALANCING SPRINGS
OR THEIR MOUNTING BRACKETS, THEY ARE INSTALLED UNDER GREAT TENSION AND
CAN CAUSE SEVERE PERSONAL INJURY OR DEATH IF ACCIDENTALLY RELEASED, IF
YOU NEED SPRING REPLACEMENT OR SERVICE, CALL FOR PROFESSIONAL HELP

SECTION 2 - INSTALLATION ON TRACK OPERATED DOORS

WARNING *

GARAGE DOOR SPRINGS ARE POWERFUL

They balance the weight of the door. Sudden release of spring tension can result in deadly force.

NEVER TRY TO WORK ON SPRINGS CALL A PROFESSIONAL FOR SERVICE.

WARNING

HANDLES AND OTHER DOOR PROJECTIONS CAN CATCH CLOTHING.

- · Remove all handles:
- · Remove all ropes.
- · Remove all hooks and hangers.
- Remove all decorative or security items mounted on door.

Keep people and pets away from door when it is moving.

CAUTION

AVOID DAMAGE TO OPERATOR AND VEHICLES.

Be sure emergency release cord doesn't catch on roof carrier or other vehicle parts.

Operator must be mounted 7 feet or more above garage floor.

Emergency release knob must be 6 feet above garage floor.

1. Establish center line of door and header (Fig. 2.)

Close door.

- Measure door width, Mark center.
- Use straight edge to draw vertical line
 - down door about 6"
 - on top of door
 - up header about 6"

2. Establish header bracket position (Fig. 3).

NOTE: Header bracket must be at least 2½" above high point of door travel. It can be installed higher if door spring is in the way.

DO NOT MOVE THE SPRING.

- Watch top edge of door as you raise it.
- Stop door when top edge reaches highest point of travel.
- Measure distance from top edge of door to floor.
- Add 2½" to this measurement.
- Close door.
- Mark header at this height.
- If door spring is in the way, mark header above the spring.
- Draw horizontal line "H" across line "V" at this point (Fig. 3).

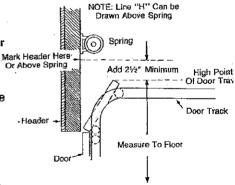


Fig. 3 Header bracket position

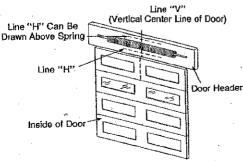


Fig. 2 Establishing center line

3. Install header bracket (Fig. 4).

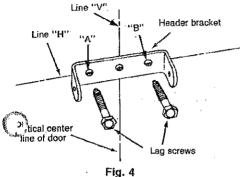
- Place bracket so:
 - · center line is on line "V".
 - all holes are on line "H".
- Mark hole positions "A" and "B".
- Drill 7/₃₂" holes at marked positions.
- Fasten bracket to header with 5/16 x 2" lag screws.

WARNING

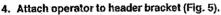
HEADER BRACKET MUST BE FASTENED TO GARAGE FRAMING.

Do not fasten to:

- Dry wall
- Plaster
- Particle board
- · Other such materials







- Fasten header end of the opener rail to the wall bracket with pin.
- · install speed nut.
- Place cardboard packing under power unit.
 Use additional support if needed.

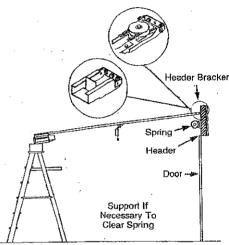


Fig. 5 Attaching Operator to Header Bracket

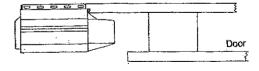
5. Level operator (Fig. 6).

NOTE: The operator should be level if possible. If necessary, power unit may be mounted lower. However mounted, door must not touch rail as it moves.



Raise and support power unit above door tracks.

- Open door.
- Set operator on door.
- · Level operator and support temporarily.
- Be sure operator is on door center line (Line "V").



Support With Cardboard Packing or Wood

Fig. 6

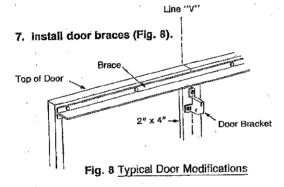
6. Mount power unit (Fig 7). Check illustrations below. Decide which mounting method you will use.

MATERIALS FOR MOUNTING NOT INCLUDED.

ANGLE IRON MOUNTING METHOD (Fig. 7a).

- (3) 3 ft. sections perforated angle iron (approximate length, your needs may vary.)
- (4) 5/16" machine bolds 3/4" long.
- (4) 5/16" lockwashers and nuts
- (2) 5/16 x 2" lag screws (above parts not provided)
 - With power unit supported, measure and cut angle iron to correct length.
 - Secure angle to power unit mounting frame with ⁵/₁₆" machine bolts, nuts, and lockwashers.
 - Secure top angle iron to cross members or ceiling at correct location with 5/16" lag screws.

CONDUIT MOUNTING METHOD (Fig. 7b).
An alternate method. Flatten and drill ends of conduit, as shown. Use fasteners described in previous method.



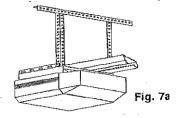
8. Place door bracket (Fig. 9).

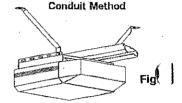
NOTE: Door constructions differ. You may have to modify the basic procedure. You may need additional materials. Parts are supplied for typical wood door only (Fig. 9).

Place door bracket on line "V":

- · on inside of door as shown.
- · position below brace.
- · no lower than top rollers.

Perforated Angle Iron Method





CAUTION

FAILURE TO PROPERLY BRACE DOOR MAY RESULT IN DAMAGE TO DOOR.

Some doors require bracing beformounting an operator. This include doors made of:

- masonite
- fiberglass
- lightweight wood metal (Fig. 8)

Contact door manufacturer or di tributor. Ask for bracing instruction required for an automatic do operator.

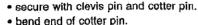
THE MANUFACTURER OF THI AUTOMATIC GARAGE DOOR OPENER SYSTEM IS NOT RESPONSIBLE FOR DOOR DAMAGE DUE TO IMPROPER BRACING.

9. Install door bracket.

- · Mark hole locations.
- Drill 1/4" holes completely through door.
- Fasten bracket to door with 3 carriage bolts 1/4 x 2".
 - · insert bolts from outside.
 - install lock washers and tighten hex nuts securely.

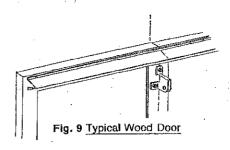
10. Install door arms (Fig. 10).

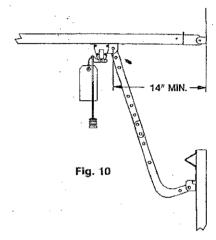
- · Attach straight door arm to carriage.
 - slip arm into slot at bottom of carriage as shown.
 - · secure with clevis pin and cotter pin.
 - bend end of cotter pin.
- Attach short end of curved door arm to door bracket as shown.
 - slip short end into slot in door bracket.



- Pull Emergency Release Knob down to release carriage.
 - · slide carriage towards closed door.
 - stop carriage 14" minimum from door.
- Join arm sections (Fig. 10).
 - use two bolts, (3/8 x 7/8") lockwashers, and hex nuts.
 - use holes as far apart as possible.
 - slide carriage back and forth as needed to align holes.
 - · tighten nuts securely.

Go to SECTION 4, page 13.





SECTION 3 - INSTALLATION ON SINGLE PIECE DOORS

WARNING

GARAGE DOOR SPRINGS ARE POWERFUL

They balance the weight of the door. Sudden release of spring tension can result in deadly force.

NEVER TRY TO WORK ON SPRINGS CALL A PROFESSIONAL FOR SERVICE.

WARNING



- · Remove all handles.
- · Remove all ropes.

- Remove all hooks and hangers.
- Remove all decorative or security items mounted on door.

Keep people and pets away from door when it is moving.

CAUTION

AVOID DAMAGE TO OPERATOR AND VEHICLES.

Be sure emergency release cord doesn't catch on roof carrier or other vehicle parts.

Operator must be mounted 7 feet or more above garage floor.

Ernergency release knob must be 6 feet above garage floor.

Establish centerline of door and header (Fig. 11).

- · Close door.
- · Measure door width. Mark center.
- Use straight edge to draw vertical line "V":
 - down door about 6"
 - on top of door
 - · up header about 20"

2. Establish header bracket position (Fig. 11).

- Measure 15 to 20" up line "V" from top of closed door.
- Draw horizontal line "H" across line "V" at this point.

WARNING

HEADER BRACKET MUST BE FASTENED TO GARAGE FRAMING.

Do not fasten to:

- Dry wall
- Plaster
- Particle board
- · Other such materials

3. Install header bracket (Fig. 12).

- · Place bracket so:
 - center hole is on line "V"
 - all holes are on line "H"
- · Mark hole positions ("A" and "B".)
- Drill 7/32" holes at marked positions.
- Fasten bracket to header with 5/16 x 2" lag screws.

4. Install door braces.

CAUTION

FAILURE TO PROPERLY BRACE DOOR MAY RESULT IN DAMAGE TO DOOR.

Some doors require bracing before mounting an operator. This includes doors made of:

- fiberglass
- metal
- · masonite
- lightweight wood

Contact door manufacturer or distributor. Ask for bracing instructions required for an automatic door operator.

THE MANUFACTURER OF THIS AUTOMATIC GARAGE DOOR OPENER SYSTEM IS NOT RESPONSIBLE FOR DOOR DAMAGE DUE TO IMPROPER BRACING.

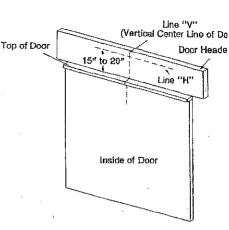


Fig. 11 Establishing Center Line

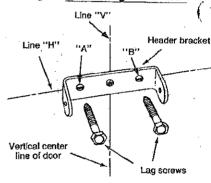
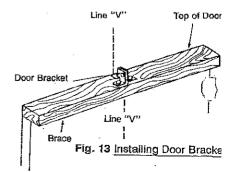


Fig. 12

5. Install door bracket (Fig. 13).

- Place door bracket on line "V" on top door.
- Mark hole locations.
- Drill ⁵/₃₂" pilot holes.
- Fasten bracket to door with 1/4 x 2" It screws.



Attach operator to header bracket. (Fig. 14).

- Fasten header end of the opener rail to the wall bracket with pin.
- · Install speed nut.
- Place cardboard packing under power unit. Use additional support if needed.

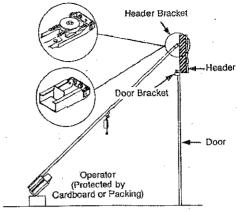
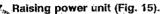


Fig. 14 Attaching Operator to Header Bracket



- Support power unit at least 71/2 feet above floor. Use:
- ladder.
- cardboard packing
- boow •
- Open door carefully.
- Center operator over line "V" on door.

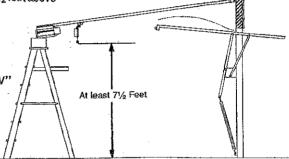


Fig. 15 Raising Power Unit

8. Join door arms (Fig. 16).

- . Overlap arms by two (2) holes.
- Install bolts (¾ x ¾") lockwashers and nuts
- · Tighten nuts securely.

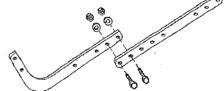


Fig. 16 Joining Door Arms

9. Install assembled door arms (Fig. 17).

- Attach straight end of assembled door arms to door bracket.
 - slip arm into slot in bracket.
 - secure with clevis pin and cotter pin.
 - bend end of cotter pin.
- Pull Emergency Release Cord down to release carriage.
- Slide carriage toward door.
- Attach short end of curved door arm to carriage.
 - · slip arm into slot in bracket.
 - · secure with clevis pin and cotter pin.
 - · bend end of cotter pin.

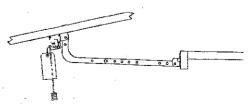
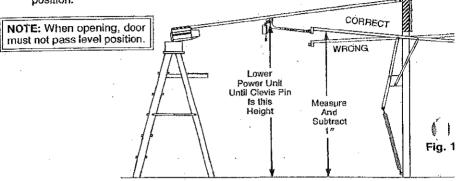


Fig. 17 Installing Assembled Door Arms

10. Establish power unit mounting height (Fig. 18).

- Measure distance from door bracket clevis pin to floor.
- Subtract 1".
- Lower power unit until carriage clevis pin is at this height.
- Temporarily support operator in this position.

NOTE: Door arms supplied may not be long enough for some installations. If you are not able to close the door after completing step 10, it will require a longer door arm. An extension kit can be purchased by calling: 1-800-654-3643.



11. Mount power unit.

Check the illustrations below. Decide which mounting method you will use.

WARNING

Mounting material must be fastened to garage framing.

DO NOT FASTEN TO:

- dry wail
- particle board
- plaster
- · other such materials

MATERIALS FOR MOUNTING NOT INCLUDED.

ANGLE IRON MOUNTING METHOD (Fig. 19a).

- (3) 3 ft. sections perforated angle iron (approximate, your needs may vary.)
- (4) 5/6" machine bolts 3/4" long.
- (4) 5/16" lockwashers and nuts
- (2) 5/15" x 2" lag screws
 - With power unit in supported position measure and cut angle iron to correct length.
 - Secure angle to power unit mounting frame with 5/18" machine bolts, nuts, and lockwashers.
 - Secure top angle iron to cross members or ceiling at correct location with ⁵/₁₆" lag screws.

CONDUIT MOUNTING METHOD (Fig. 19b). An alternative method. Flatten and drill ends of conduit, as shown. Use fasteners described

12 In previous method.

Perforated Angle Iron Method

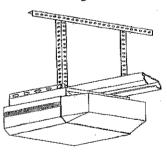


Fig. 19a

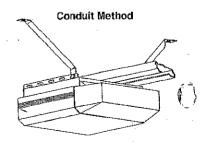


Fig. 19b

SECTION 4 - IF YOU HAVE THIS WALL CONTROL. FOLLOW THESE DIRECTIONS.

WARNING

UNINTENTIONAL **OPERATION POSSIBLE ELECTRICAL** SHOCK HAZARD

Be sure power cord is unplugged before attaching any wires.

Be sure wire ends do not touch each other. Be sure wire ends do not touch other terminals.



MOVING DOORS CAN INJURE PEOPLE OR PETS.

Mount wall control:

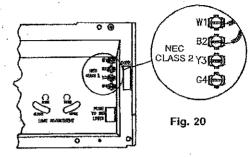
- · At least 6' from garage door opening and any moving parts but where door can be seen.
- At least 5^r above floor and out of reach of children.

FOR MAXIMUM SAFETY:

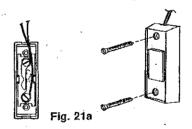
- Show everyone who will use operator how to do it sately.
- · Operate door only when it's fully visible.
- · Do not operate door when anyone is in area.
- . Do not allow anyone to run under moving door.
- Do not allow children or pets to play under door,
- Do not let children plav with controls.
- 1. READ AND OBEY ALL WARNINGS BEFORE INSTALLING.
- 2. Prepare wires for power unit.
 - Strip ½" insulation from each wire.
- 3. Attach wires to power unit (Fig. 20).

Attach white wire to terminal 1. Attach blue striped wire to terminal 2.

Route as shown.



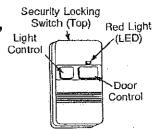
- 4. Select location for the wall control (See Warnings).
 - · Route wire from power unit to wall control location.
 - · Staple wire to ceiling and wall.
 - Drive staples just tight enough to hold
- 5. Prepare wire for wall control.
 - · Strip 1/3" insulation from each wire.
- 6. Attach wire to wall control (Fig. 21a).
 - · Attach white wire under "W" screw head.
 - Attach blue striped wire under "B" screw head.



- 7. Mount wall control with wood screws (Fig. 21a).
- 8. Mount Warning Label near control.
 - · Read the label now.
 - Make certain everyone reads and follows: CAUTIONS.
 - · Use tacks or staples to permanently mount label.

IF YOU HAVE THIS WALL CONSOLE, FOLLOW THESE DIRECTIONS.

Security Locking Switch must be in the unlock position for opener to work.



WARNING

UNINTENTIONAL OPERATION POSSIBLE ELECTRICAL SHOCK HAZARD

Be sure power cord is unplugged before attaching any wires.

Be sure wire ends do not touch each other. Be sure wire ends do not touch other terminals.

WARNING

MOVING DOORS CAN INJURE PEOPLE OR PETS.

Mount wall control:

- At least 6' from garage door opening and any moving parts but where door can be seen.
- At least 5' above floor and out of reach of children.

FOR MAXIMUM SAFETY:

- Show everyone who will use operator how to do it safely.
- Operate door only when it's fully visible.
- Do not operate door when anyone is in area.
- Do not allow anyone to run under moving door.
- Do not allow children or pets to play under door.
- Do not let children play with controls.

1. READ AND OBEY ALL WARNINGS BEFORE INSTALLING.

2. Prepare wires for power unit.

- Strip 2" of jacket from wire.
- Strip ½" insulation from each wire.

3. Attach wires to power unit (Fig. 20).

- · White wire to terminal 1.
- · Black wire to terminal 2.
- · Yellow wire to terminal 3.
- · Green wire to terminal 4.
- · Route as shown.

Select a location for the wall console (See Warnings).

- Route wire from power unit to wall console location.
- · Staple wire to ceiling and wall.
 - Drive staples just tight enough to hold wire.

5. Prepare wire for wall console.

- · Strip 2" of jacket from wire.
- · Strip 1/2" insulation from each wire.

6. Open wall console.

- Squeeze sides of front cover and pull on back case to open.
- · Route wire thru back case.

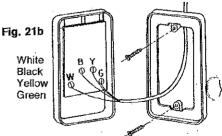
7. Attach wire to wall console (Fig. 21b).

- · Loosen, do not remove screws.
- · White wire under screw head "W".
- · Black wire under screw head "B".
- · Yellow wire under screw head "Y".
- · Green wire under screw head "G".
- · Tighten screws.

8. Mount wall console with wood screws (Fig. 21b).

9. Mount warning label near console.

- · Read the label now.
- Make certain everyone reads and follows CAUTIONS.
- Use tacks or staples if necessary to permanently mount label.



NOTE: Wall Console mounting holes are compatible with standard electric work box.

DOOR WILL NOT CLOSE WITHOUT SAFE-T-BEAM ATTACHED!

SECTION 5 - SAFE-T-BEAM (STB) INSTALLATION

NOTE

- Door operator will not close door without the STB system installed.
- Red receiver light glows with a steady beam when installation is correct.
- A beam obstruction or misalignment will cause the red light to blink.
- The door operator will not run properly until you remove the obstruction or align the beam.

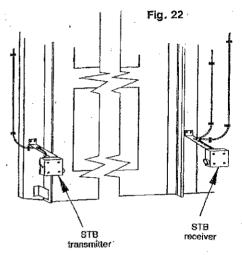
1. Install mounting brackets

- Measure and mark framing so STB eye is no more than 6 in, above floor after final installation (Fig. 22).
- Mount the brackets to solid framing, at the measured height, to the left and right of the door. (No. 10 x 1" panhead screws.)

Adjust brackets to be clear of all moving parts.

2. Install transmitter and receiver to mounting brackets

- Secure transmitter and receiver to brackets with two 8-32 x 1 ½" screws and nuts.
- Mount the receiver on the side of the door that receives the least amount of direct rays of the sun.
- Make sure the transmitter is aimed directly into the lens of the receiver.
- Make sure no part of the door or hardware blocks the path of the transmitted beam.



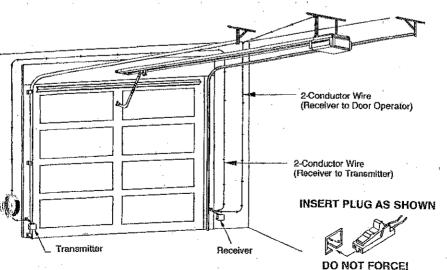


Fig. 23

Fig. 23a

- 3. Run one 2-conductor wire from the receiver to the transmitter (Fig. 23).
 - · Slide wire plug into either receptacle on the receiver (Fig. 23a). DO NOT FORCE!
 - Route and staple the wire around the door frame, clear of all moving parts of the door and door springs.
 - · Drive staples just tight enough to hold
 - · Slide wire plug into the receptacle in the transmitter (Fig. 23a). DO NOT FORCE!
 - · Bundle and secure the excess wire away from any moving parts.

- 4. Run one 2-conductor wire from the receiver to the power unit (Fig. 23).
 - Slide wire plug into the remaining receptacle in the receiver (Fig. 23a).
 - · Route and staple the wire from the receiver to the power unit.
 - Drive staples just tight enough to hold
 - Slide wire plug into STB receptacle located on back left side of power unit.
 - Bundle and secure the excess wire away from any moving parts.

IMPORTANT SAFETY INSTRUCTIONS WARNING - TO REDUCE THE RISK OF SEVERE INJURY OR DEATH:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.
- Never let children operate, or play with door controls. Keep remote control away from children.
- 3. Always keep moving door in sight and away from people and objects until it is completely closed. NO ONE SHOULD CROSS THE PATH OF THE MOVING DOOR.
- 4. Test door opener monthly. The garage door MUST reverse on contact with a 2 by 4 board laid flat on the floor. If adjusting either the force or the limit of travel, retest the door opener. Failure

to adjust the opener properly may cause severe injury or death.

- If possible, use the emergency release only when the door is closed. Use caution when using this release with the door open. Weak or broken springs may cause the door to fall rapidly, causing severe injury or death.
- 6. KEEP GARAGE DOORS PROPERLY BALANCED. (See SECTION 13.) An improperly balanced door could cause severe injury or death. Have a qualified service person make repairs to cables, spring assemblies and other hardware.

7. SAVE THESE INSTRUCTIONS

SECTION 6 - CONNECT OPERATOR TO POWER

WARNING

ELECTRICAL SHOCK HAZARD - HIGH VOLTAGE APPLIED TO OPERATOR.

Improper wiring can result in severe electrical shock or death.

- Attach power cord only to properly grounded outlet.
- Do not remove grounding prong from power cord plug.
- · Do not use an extension cord to supply permanent power to operator.

Have a professional electrician install an approved outlet.

ELECTRICAL OUTLET

 Plug operator power cord into grounded outlet (Fig. 24).

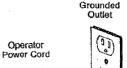






Fig. 24

PERMANENT WIRING (Materials not included)

- 1. Check your local building codes.
 - Some codes require direct wiring to a branch circuit.
 - Have a professional electrician install circuit and wire operator.

WARNING

ELECTRICAL SHOCK : HAZARD.

Disconnect electrical power before working on operator.

- Remove existing power cord from power unit.
 - Remove power unit side panel (right panel by code switch.)

- · Remove four panel screws.
- · Slide cover straight off.
- · Disconnect three power cord wires.
- Pry out strain relief plug.
- · Remove power cord.
- 3. Connect branch circuit to operator.
 - Remove 76" diameter knock-out from power unit.
 - Install suitable entrance bushing.
 - · White wire to silver terminal.
 - · Black wire to brass terminal.
 - · Green wire to green screw by capacitor.
- 4. Replace power unit side cover.
 - Slide side cover straight on.
 - Replace and tighten four screws in side cover.



SECTION 7 - SETTING LIMIT SWITCHES

- 1. Engage the carriage to the chain or belt.
 - Pull down and release the Emergency Release Cord until carriage latch is in the up (ready) position.
 - Raise the door until the carriage engages with the chain or belt bullet.

NOTE: The carriage must be engaged with the chain or belt before you can properly set the open and close limit switches.

- 2. Set OPEN limit switch (Fig. 25).
 - Locate limit set switch on back of power unit.
 - Hold switch down until door moves to the full open position and then release the switch.

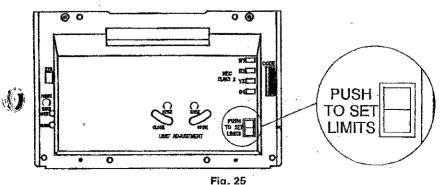
NOTE: If door stops and refuses to move up, adjust opening force (see Force Adjustment section) and then repeat setting limit switch.

· The OPEN (up) limit switch is set.

- 3. Set CLOSE limit switch
 - Hold limit set switch down until door contacts the ground and stops.
 - · Release limit set switch.

NOTE: If door stops and refuses to move down, adjust closing force (see Force Adjustment section) and then repeat setting limit switch.

- · Close (down) limit is set.
- NOTE: DO NOT PUSH THE LIMIT SET SWITCH AGAIN, your limits are set. Slight adjustment may be needed later (see Section 8 for fine adjustment.)

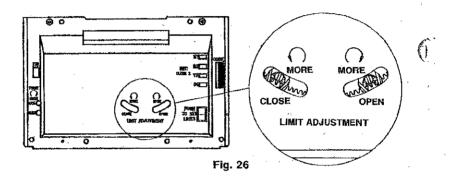


SECTION 8 - FINE ADJUSTING LIMIT SWITCHES

- 1. Adjusting the OPEN limit switch (Fig. 26).
 - Run the door to the open position by pushing the wall button or remote control.
 - Locate the curved "open" limit adjustment slot on the back of the power unit.
 - Look into the slot for the limit cam and pinion screw.
 - Insert a screwdriver and turn pinion screw:
 - · clockwise to open more
 - · counter clockwise to open less

2. Adjust the CLOSE limit switch

- Run the door to the closed position by pushing the wall button or remote control,
- Locate the curved "close" limit adjustment slot on back of the power unit.
- Look into the slot for the limit cam and pinion screw.
- Insert a screwdriver and turn pinion screw
 - clockwise to close less
 - · counter clockwise to close more



SECTION 9 - FORCE ADJUSTMENT

FOR MAXIMUM SAFETY, ADJUST YOUR DOOR OPERATOR SO THE MINIMUM FORCE NEEDED TO OPERATE THE DOOR IS USED.

WARNING: POSITION THE LADDER TO THE REAR OF THE POWER UNIT SO IT IS CLEAR OF ALL MOVING PARTS OF THE OPERATOR AND DOOR SYSTEM.

1. Adjust the closing force.

Note: Use wall button or remote control to run door to the full open position before starting adjustments (Fig. 27).

- Locate screw on back of power unit marked "close force."
- Gently turn screw counter clockwise until it stops.
- Activate door using wall button or remote control.
- If door does not full close, turn "close force" screw clockwise slightly.
- Activate door using wall button or remote control.
- If door does not fully close, repeat adjustment until door will completely close.

2. SAFE-T-REVERSE

- · Open door, use wall control.
- Place a 2 x 4 board in center of doorway.
- . Close door.
- Door must stop and reverse to open position. If it does not, repeat adjustment until the door will reverse to the open position.
- Remove 2 x 4 board and save for monthly testing.

Note: Use the minimum force required to make the door close.

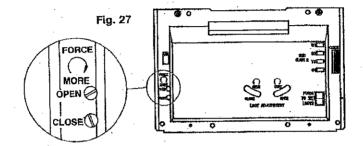
3. Adjust the opening force

Note: Use wall button to run door to the fully closed position before starting force adjustment.

- · Locate screw on back of power unit marked "open force."
- Gently turn screw counter clockwise until it stops.
- · Activate door using wall button or remote control.

- If door does not full open, turn "open force" screw clockwise slightly.
- · Activate door using wall button or remote control.
- If door does not fully open, repeat adjustment until door will completely

Note: Use the minimum force required to make the door open.



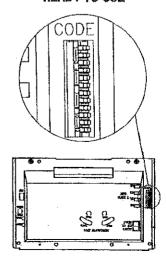
SECTION 10 - SETTING PERSONAL CODE

Note: For maximum security set your personal code (Fig. 28).

- · Do not leave all code switches at factory setting.
- 1. Remove battery cover (lower front cover).
 - · Press firmly below arrow and slide cover
- 2. Slide 3 or more code switches to set your personal code.
 - · Use ball point pen or small screwdriver.
 - · Slide firmly up or down.
- 3. Hold remote control next to power unit code switches (located on back panel, right side).

- 4. Slide power unit code switches to match remote control code switch positions.
- 5. Replace remote control battery cover.
 - · Slide battery cover back in place over battery.
 - Press firmly and slide forward to snap in place.

YOUR REMOTE CONTROL IS READY TO USE



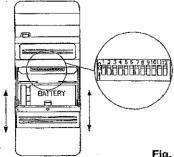
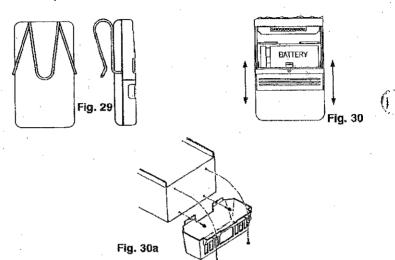




Fig. 28

SECTION 11 - USING YOUR REMOTE CONTROL

- Attach visor clip to remote control (Fig. 29).
 - · Spread wire ends apart.
 - Insert wire ends into holes in sides of remote control.
 - · Clip can be inserted up or down.
 - For maximum range, point remote control at door and press button.
- Battery replacement (your remote control is battery powered) (Fig. 30).
 - Remove battery cover by pressing firmly below arrow and slide cover off.
 - Install new battery in same position.
 - Use Eveready 9V Classic No. 216.
 - · Replace cover.



SECTION 12 - INSTALL LIGHT BULB AND LENS

- 1. Install bulb in light socket.
 - · Insert bulb and gently tighten.
 - Use bulbs rated for:
 - rough service
 - vibration
 - appliances
 - 100 watt maximum
- 2. Install lens on panel with light (Fig. 30a.).
 - Start two No. 8 x ¾" hex head screws in holes at bottom of panel.
- 3. Position lens on cardboard with face down, heat vents and round screw tabs "Up".
 - Locate two tabs at bottom of lens (slotted screw tabs).
 - Bend these two tabs up (this activates the "Living Hinge" for the lens).

- 4. Slide these two tabs (Slot UP) behind the two hex head screws.
 - Tighten the two hex head screws to hold the lens.
- 5. Fold the lens up.
 - Align the two, round, top tabs with the two holes in the top of the panel.
 - Insert a No. 8 x %" pan head screve through each tab and tighten.



SECTION 13 – MAINTENANCE & TROUBLESHOOTING

GARAGE DOOR SPRINGS ARE POWERFUL.

They balance the weight of the door. Sudden release of spring tension can result in deadly force.

WARNING

GARAGE DOORS ARE HEAVY.

- · Stay out from under raised doors.
- Do not allow children to play under raised doors.
- · Do not stand under moving doors.
- . Do not run under moving doors.
- Do not try to operate a door with a broken spring.
- Do not try to operate a door with worn or damaged hardware.

NEVER TRY TO WORK ON SPRINGS. CALL A PROFESSIONAL FOR SERVICE. KEEP YOUR DOOR IN GOOD REPAIR. CALL A PROFESSIONAL FOR SERVICE



MONTHLY MAINTENANCE

DOOR SPRINGS

 Do not operate garage door automatically or manually if springs are broken.
 CONTACT A PROFESSIONAL FOR SERVICE.

DOOR BALANCE

- · Close door.
- Pull red Emergency Release Cord to release door from opener.
- Raise door manually approximately 3 feet. Door should stay in that position.
- If door moves. HAVE DOOR SERVICED BY A PROFESSIONAL.
- Close door, Pull red Emergency Release Cord to reattach door to opener.

DOOR HARDWARE

 Oil door rollers, bearings, and hinges monthly. Use silicone lubricant or light oil.

SAFETY CONTROL

- Close door on a 2 x 4 board laid flat on the floor in the center of garage doorway.
- Close door by using wall button or remote control.
- If door fails to reverse on contact with the board, adjust the closing force (see Section 9).
- If opener still fails, replace opener or HAVE THE DOOR SERVICED BY A PROFESSIONAL.

WARNING:

FAILURE TO ADJUST THE OPENER PROPERLY MAY CAUSE SEVERE INJURY OR DEATH.



TROUBLESHOOTING GUIDE

PROBLEM

Operator does not run from wall control.

Operator runs

remote control.

Door starts for

no reason.

Door starts

down, then stops before it's closed. Door closes

only when wall button is held

from wall

not from

control, but

SOLUTIONS

- · Check the power source. Plug a lamp into outlet used for operator. If lamp works, power source is OK. If not, check fuse or circuit breaker. If nower is OK:
 - Check connections at operator terminals.
 - · Check connections at wall control.
 - Motor protector may beopen. Wait about 20 minutes for automatic reset.
- · Check code settings on remote control and power unit. They must be identical. (See page 19.)
- If one remote control works and another doesn't, check battery, code setting and frequency of nonworking unit.
- Check staples on wire from power unit to wall control. If they cut into insulation, they can short wires. If wire is cut, replace it.
- · Someone nearby may have selected the same personal code. Change your code. (See page 19.)
- · Check "CLOSE" limit switch setting. (See page 17.)
- Check STB. (See page 15.)

PROBLEM

Door starts down than stops and goes back up.

Remote control has less than 25 feet operatina range.

Door starts up. but stops before its completely open.

Operator runs, but door does not move.

Door will only run open.

Noisy operation.

SOLUTIONS

- Check "CLOSE FORCE"
- adjustment. (See page 18.)
 Check STB for light beam obstruction.
- Relocate remote control inside car.
- Point remote control at door.
- Replace battery. Use EVEREADY brand batteries.
- Do not attempt to retune radio controls.
- Be sure door is in good repair, properly lubricated and balanced.
- Check "OPEN" limit switch setting. (See page 17.)
- Check "OPEN FORCE" justment. (See page 15)
- Make sure carriage is engaged.
- Be sure STB plug is in place on back of power unit. (See page 16.) Check "CLOSING FORCE" adjustment. (See page 18.)
- Be sure all fasteners are tight.
- Be sure door is in good repair, properly lubricated and balanced.

down. POSE. om. LEAST SKLIGH) ø Ò Ó 25000 WIRING DIAGRAM SOTTON COVER ON MODELS THAT HAVE ONLY ONE LIGHT, THE WHITE WIRE FROM POSITION #3, THE BLUE WIRE FROM POSITION #11, AND THE

LIGHT SOCKET ITSELF WILL BE OMITTED.

THE ALLIANCE MANUFACTURING COMPANY LIMITED WARRANTY

What is covered: Any defect in material and workmanship from personal, normal household use in accordance with the Owner's Manual.

For how long:

The state of the s

Series 85 - Motor - 5 years, and all other parts 2 years Series 75 - Motor - 3 years, and all other parts 1 year

"To obtain a Pro-Tech® Extended Warranty on the PMX75 and PMX85 Series, please complete and return the Warranty Registration Sheet (which you will find in the Owner's Manual).

Who gets the warranty: This warranty is limited to the consumer who originally purchased the product.

Geographic scope: This warranty applies only to The Alliance Manufacturing Company products purchased in the United States or Canada.

What we will do: If your Alliance Manufacturing Company product is defective, we will repair it or, our option, replace it at no charge to you. If we air your Alliance Manufacturing Company product, we may use new or reconditioned replacement parts. If we choose to replace your Alliance Manufacturing Company product, we may replace it with a new or reconditioned one of the same or similar design.

Limitations: IMPLIED WARRANTIES, INCLUDING THOSE OF FITNESS FOR A PAR-TICULAR PURPOSE AND MERCHANTABILITY (AN UNWRITTEN WARRANTY THAT THE PROD-UCT IS FIT FOR ORDINARY USE), ARE LIMITED TO ONE YEAR FROM THE DATE OF PUR-CHASE, THE ALLIANCE MANUFACTURING COMPANY WILL NOT PAY FOR: LOSS OF TIME: INCONVENIENCE: LOSS OF USE OF YOUR ALLIANCE MANUFACTURING COMPANY PRODUCT OR PROPERTY DAMAGE CAUSED BY YOUR ALLIANCE MANUFACTURING COM-PANY PRODUCT OR ITS FAILURE TO WORK; INCIDENTAL OR CON-ANY SPECIAL. SEQUENTIAL DAMAGES; OR ANY DAMAGES RESULTING FROM MISUSE OR MODIFICATION OF YOUR ALLIANCE MANUFACTURING COM-PANY PRODUCT.

Some states and provinces do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages. so the above exclusions may not apply to you.

How to obtain warranty service: To obtain warranty service for your Alliance Manufacturing Company product, you must provide proof of the date and place of purchase of the product.

1. Do-It-Yourself-Service. Call the Consumer Connection toll free at 1-800-654-3643. Trained Alliance Manufacturing Company representatives will assist you in diagnosing the problem and will arrange to supply you with the required a parts for do-it-yourself repairs. Trained service representatives are available Monday-Friday, 8:00 a.m.-8:00 p.m., Eastern Time, and on Saturday, 12:00 p.m. to 5:00 p.m., Eastern Time (subject to holidays).

Service From Authorized Dealers. You also may obtain warranty service from authorized dealers listed in the enclosed directory. Please note that this listing is subject to change without notice; we recommend that you verify the dealer's status by calling the Consumer Connection at 1-800-654-3643 before reaching any agreement on service. If warranty service is provided by an authorized dealer, The Alliance Manufacturing Company will provide all required parts under warranty at no charge to you, but the dealers are independent business people and may render a bench or service call charge for their services. The Alliance Manufacturing Company will not reimburse you or otherwise be responsible for those charges.

3. Return to The Alliance Manufacturing Company. You also may obtain warranty service by returning the product, postage prepaid to:

The Alliance Manufacturing Company Service Department 22790 Lake Park Boulevard Alliance, Ohlo 44601

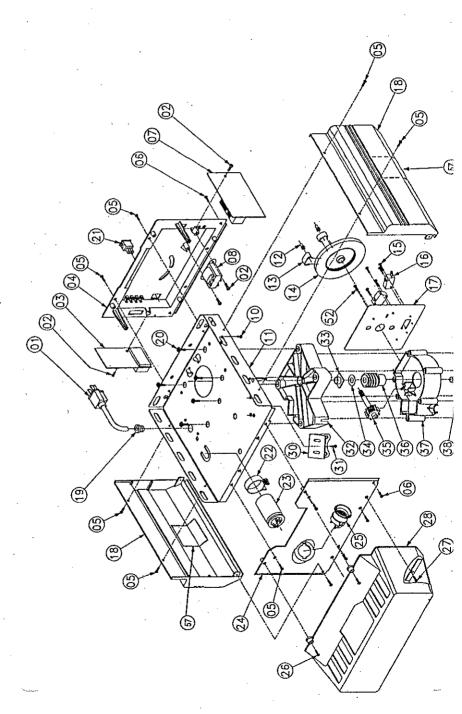
We suggest that you retain your original packing material in the event you need to ship your Alliance Manufacturing Company product, Be sure to include your name, address, telephone number, proof of date and place of purchase and a description of the operating problem. After repairing or, at our option, replacing, your Alliance Manufacturing Company product, we will ship it to your home at no cost to you for parts and labor, but you will have to pay a minimum of \$5.00 for shipping and handling charges.

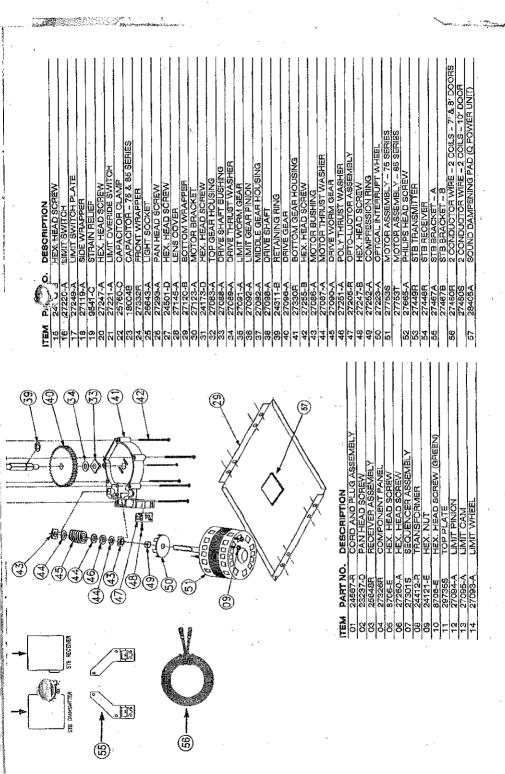
Your choice of any one of the above-described service options is your exclusive remedy under this warranty.

What this warranty does not cover: This warranty does not cover batteries (which are considered replaceable parts), installation, commercial use, defects resulting from accidents, damage while in transit to our service location or damage resulting from alterations, misuse or abuse, lack of proper maintenance, unauthorized repair or modification of the product, affixing of any attachment not provided with the product, lire, flood, or acts of God, or other failure to follow the Owner's Manual.

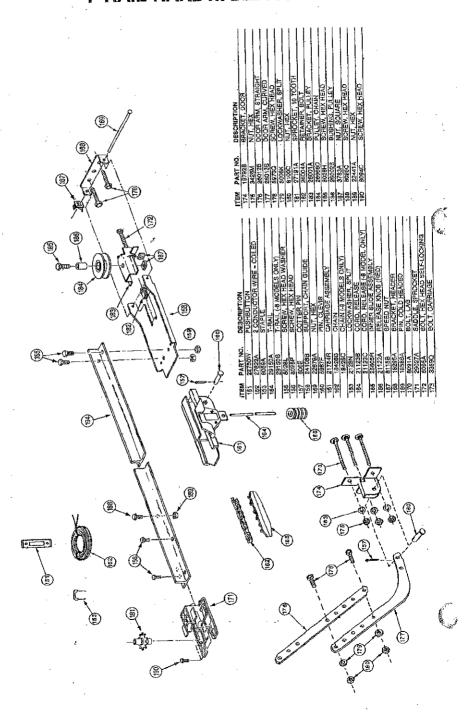
This warranty is the only one we will give on your Alliance Manufacturing Company product, and it sets forth all our responsibilities regarding your Alliance Manufacturing Company product. There are no other express warranties. State and province rights: This warranty gives you specific legal rights, and you may also have

other rights which vary from state to state and province to province.

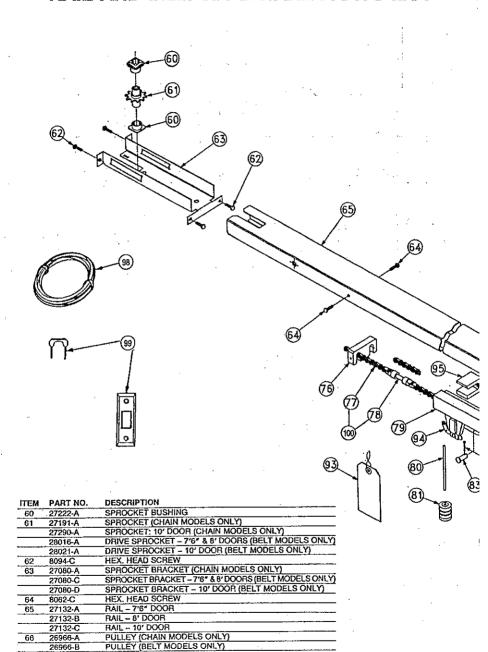




T-RAIL HARDWARE PARTS LIST



RAIL AND BELT HARDWARE PARTS LIST



27254-A

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CARRIAGE BOLT

