

GARAGE DOOR INSTALLATION MANUAL

HOMEOWNERS SHOULD RETAIN THIS BOOKLET FOR FUTURE REFERENCE.



INSTALLATION INSTRUCTIONS FOR TRACK ASSEMBLY

ADDITIONAL MATERIAL REQUIRED	TOOLS NEEDED
LIGHT HOUSEHOLD OIL	WISE GRIPS OR C CLAMPS
PUNCHED ANGLE-FOR REAR TRACK HANGERS 1-1/2x1-1/2 ANGLE AT LEAST 13 GA. OR 3/32 THICK (THIS IS NOT PROVIDED DUE TO CEILING HEIGHT DIFFERENCES)	HAMMER
SIX 5/16x1-1/2 LAG SCREWS	WINDING BARS (TORSION ONLY)
EIGHT 3/8x1 BOLTS AND NUTS FOR REAR TRACK HANGER	SCREWDRIVER
TEN 10d 3" NAILS	TAPE MEASURE
STOP MOLDING	LEVEL
	SOCKET WRENCH KIT
	PLIERS
	DRILL BITS (1/4",3/16",3/8", AND 1/2")
	STEP LADDER
	SAW HORSES OR OTHER SUPPORTS FOR PLACING SECTION ON WHILE ASSEMBLING.



WARNING



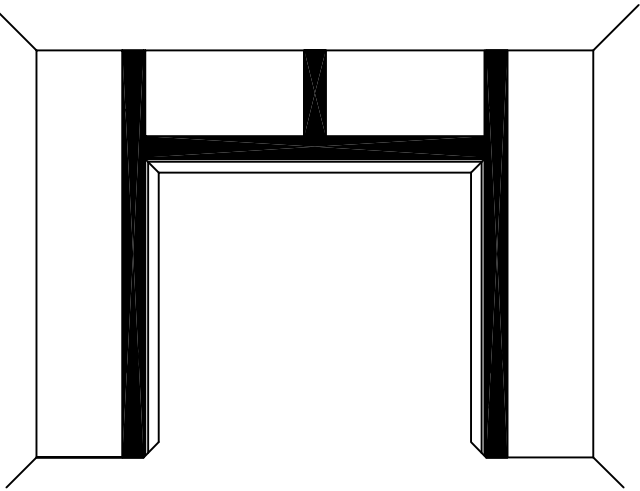
DRYWALL MOUNTING INSTRUCTIONS

SOME CONTRACTORS OR HOMEOWNERS HAVE ASKED GARAGE DOOR INSTALLERS TO MOUNT TRACK BRACKETS, TORSION SPRING BEARING BRACKETS, AND STEEL ANGLES DIRECTLY ONTO DRYWALL, FASTENING WITH LAG SCREWS INTO THE STUDS OR BEAMS BENEATH. WHEN THIS IS ATTEMPTED, THE DRYWALL SURFACE MAY NOT BE STRONG ENOUGH TO WITHSTAND THE COMPRESSION FORCE OF THE LAG SCREWS. BRACKETS OR ANGLES MAY FRACTURE THE SURFACE OF THE DRYWALL, CAUSING THE DRYWALL TO BREAK AND CRUMBLE UNDER PRESSURE. AS THE GARAGE DOOR UNDERGOES CONTINUED USE, VIBRATIONS OF THE TRACK AND SPRING SYSTEM MAY FURTHER LEAD TO THE CRUMBLING OF THE DRYWALL. IN EXTREME CASES, THE DRYWALL MAY BREAK COMPLETELY AWAY LEAVING THE BRACKETS LOOSE AND UNSECURED.

THIS SITUATION IS PARTICULARLY NOTEWORTHY WHEN TORSION SPRING SIDE AND CENTER BEARING BRACKETS ARE INVOLVED. SPRING MOUNTING BRACKETS ARE UNDER GREAT TENSION AND CAN TEND TO TWIST INTO THE DRYWALL, UNDER PRESSURE OF THE TORSION SPRING. OVER TIME, THIS CAN CREATE A HAZARDOUS SITUATION FOR PERSONS IN THE VICINITY OF THESE BRACKETS, IF A SUDDEN RELEASE OF ENERGY WERE TO OCCUR.

RECOMMENDED PROCEDURE #1 - WOOD MOUNTING

- 1). FOLLOW DOOR MANUFACTURER'S RECOMMENDATIONS FOR PREPARING JAMBS, HEADER AND SPRING MOUNTING PAD.
- 2). DRYWALL MAY BE EITHER CUT AWAY OR WOOD MEMBERS MAY BE FASTENED OVER THE DRYWALL, ACCORDING TO THE GARAGE DOOR MANUFACTURER'S INSTRUCTIONS. CAUTION: LONGER FASTENERS MUST BE USED WHEN FASTENING WOOD OVER DRYWALL. (i.e., NAILS OR SCREWS MUST BE 1/2" LONGER WHEN FASTENING THROUGH 1/2" DRYWALL, ETC.)
- 3). SECURELY FASTEN 2x6 (OR LARGER) MEMBER AT EACH JAMB. (SEE DRAWING)
- 4). SECURELY FASTEN 2x6 (OR LARGER) MEMBER AT HEADER, MAKING THE MOUNTING SURFACE FLUSH WITH THE JAMBS. (SEE DRAWING)
- 5). WHERE CENTER-MOUNT TORSION SPRINGS ARE TO BE MOUNTED TO THE WALL, SECURELY FASTEN A VERTICAL PIECE OF 2x6 (OR LARGER) BOARD ABOVE THE CENTER OF THE OPENING, FLUSH WITH THE HEADER AND EXTENDING TO THE CEILING, FOR THE SPRING MOUNTING PAD.



IMPORTANT:

THIS MOUNTING PAD MUST BE OF HIGH QUALITY LUMBER AND MUST BE CAPABLE OF WITHSTANDING FORCES OF TORSION SPRINGS AND MUST BE SECURELY MOUNTED AT TOP AND BOTTOM ACCORDING TO DOOR MANUFACTURER'S INSTRUCTIONS.

- 6). REFER TO DOOR MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FASTENING INFORMATION. PILOT HOLES ARE RECOMMENDED BEFORE FASTENING LAG SCREWS. ALWAYS INSTALL LAG SCREWS PERPENDICULAR TO THE WOOD SURFACE.

RECOMMENDED PROCEDURE #2 - STEEL ANGLE MOUNTING OVER DRYWALL

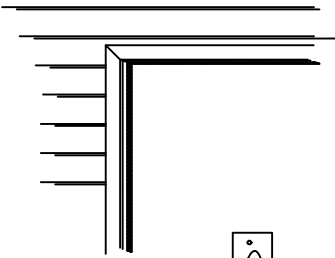
SOME GARAGE DOOR MANUFACTURERS ALLOW STEEL ANGLE MOUNTING OVER DRYWALL. FOR THESE MANUFACTURERS, THE FOLLOWING GUIDELINES ARE GIVEN:

- 1). FOLLOW DOOR MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MOUNTING TRACK SYSTEM USING ANGLE MOUNTING OR REVERSE ANGLE MOUNTING.
- 2). ANGLE IRON MUST BE OF SUFFICIENT WIDTH TO MOUNT TO DRYWALL WITHOUT BREAKING THE SURFACE.
- 3). WHERE SIDE AND CENTER BEARING BRACKETS ARE TO BE MOUNTED TO WALL, BRACKET FOOT MUST BE OF SUFFICIENT AREA TO MOUNT TO DRYWALL WITHOUT BREAKING SURFACE OR BRACKET MUST BE MOUNTED DIRECTLY TO WOOD.
- 4). SECURELY FASTEN BRACKETS AND ANGLES USING LAG SCREWS OF SUFFICIENT LENGTH. (LAG SCREWS MUST BE LONG ENOUGH TO EXTEND THROUGH DRYWALL INTO WOOD STUDS BENEATH. TYPICALLY, ADD 1/2" TO LAG SCREW LENGTH FOR SCREWING THROUGH 1/2" DRYWALL, ETC.)
- 5). REFER TO DOOR MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FASTENING INFORMATION. PILOT HOLES ARE RECOMMENDED BEFORE FASTENING LAG SCREWS. ALWAYS INSTALL LAG SCREWS PERPENDICULAR TO THE DRYWALL SURFACE.

RECOMMENDED PROCEDURE #3 - BRACKET MOUNTING OVER DRYWALL

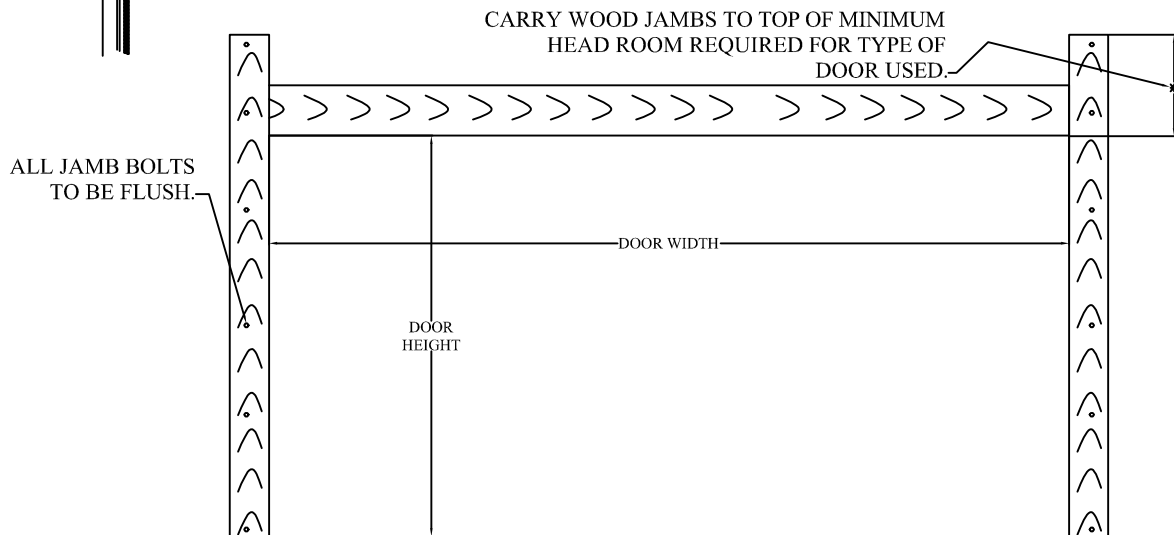
SOME GARAGE DOOR MANUFACTURERS ALLOW TRACK BRACKETS AND CENTER AND SIDE BEARING BRACKETS TO BE MOUNTED OVER DRYWALL. FOR THESE MANUFACTURES, THE FOLLOWING GUIDELINES ARE GIVEN:

- 1). FOLLOW DOOR MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR MOUNTING TRACK BRACKETS AND SIDE AND CENTER BEARING BRACKETS.
- 2). BRACKET FOOT MUST BE OF SUFFICIENT AREA TO MOUNT TO DRYWALL WITHOUT BREAKING SURFACE.
- 3). SECURELY FASTEN BRACKETS USING LAG SCREWS OF SUFFICIENT LENGTH. (LAG SCREWS MUST BE LONG ENOUGH TO EXTEND THROUGH DRYWALL INTO WOOD STUDS BENEATH. TYPICALLY, ADD 1/2" TO LAG SCREW LENGTH FOR SCREWING THROUGH 1/2" DRYWALL, ETC.)
- 4). REFER TO DOOR MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FASTENING INFORMATION. PILOT HOLES ARE RECOMMENDED BEFORE FASTENING LAG SCREWS. ALWAYS INSTALL LAG SCREWS PERPENDICULAR TO THE DRYWALL SURFACE.



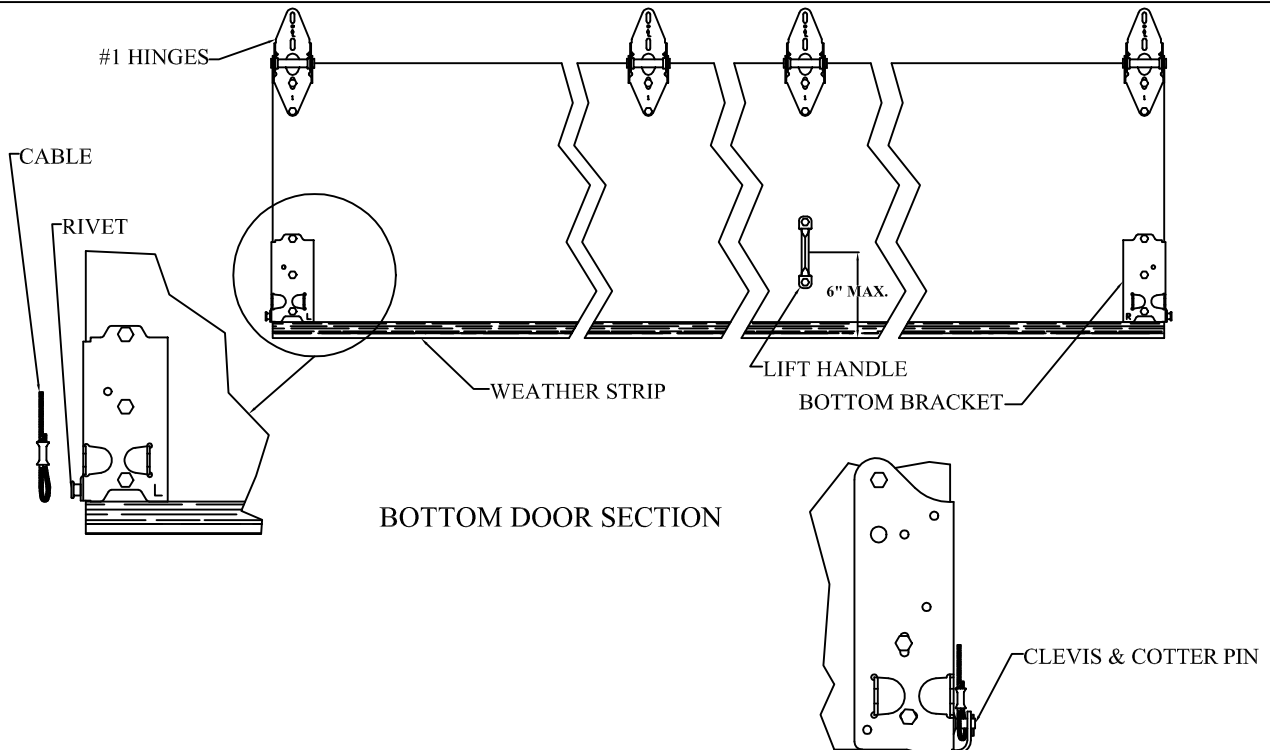
DOOR TRIM & WEATHER STRIP.

* HEADROOM *
13" FOR 12 RADIUS TRACK
16" FOR 15 RADIUS TRACK

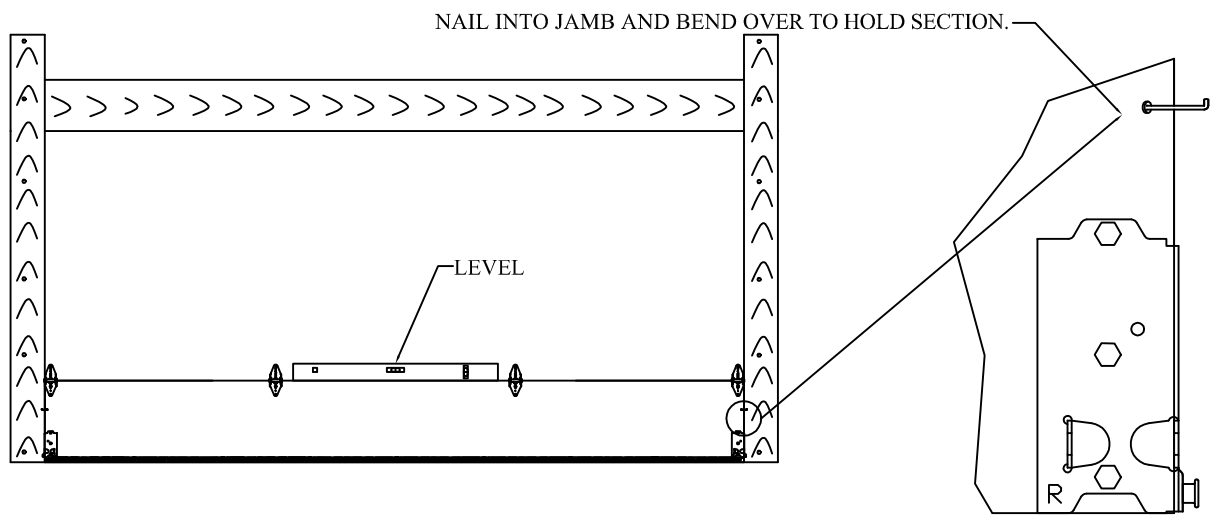


- 1). INSTALL WOOD JAMBS USING 2x6'S IF POSSIBLE, BUT NOT LESS THAN A MINIMUM JAMB OF 3-3/4" WIDE.
- 2). BE SURE JAMBS ARE PLUMB AND SQUARE.
- 3). NAIL MOUNTING STRIPS TEMPORARILY TO JAMBS-FLUSH WITH THE INSIDE. (NOT FURNISHED)

NOTE: RESET MOULDING STRIPS AFTER DOOR IS INSTALLED.

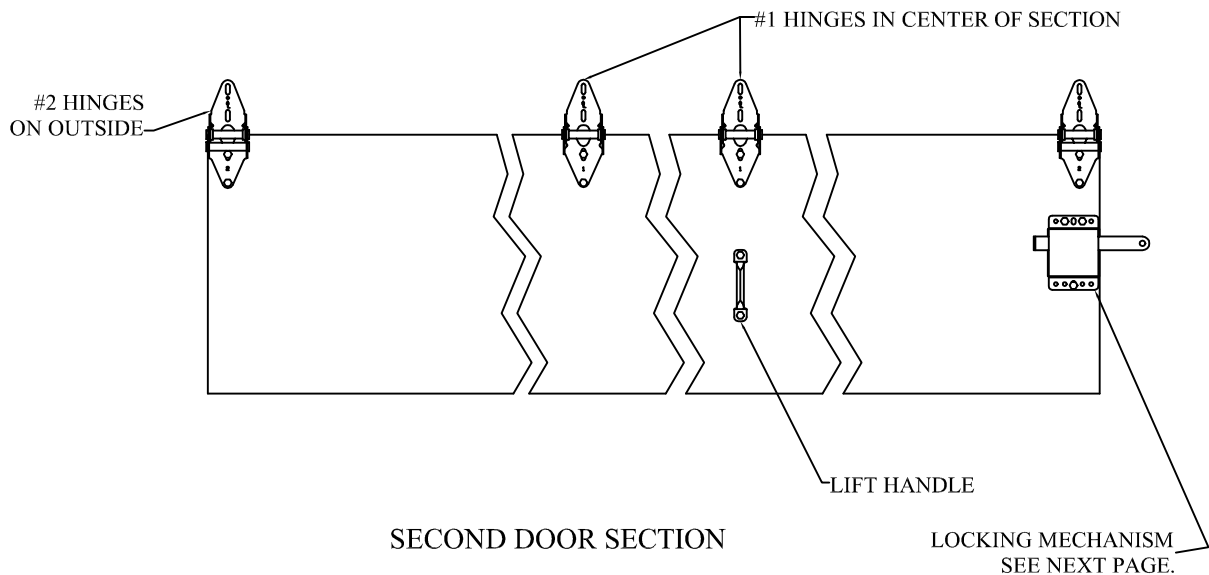


- 1). PLACE BOTTOM DOOR SECTION ACROSS SAW HORSES AND FASTEN WEATHER STRIP.
- 2). PLACE BOTTOM FIXTURES IN POSITION (MAKE SURE THEY ARE LEVEL WITH EACH OTHER). FASTEN INTO PLACE USING (3) 1/4" TEK SCREWS.
- 3). POSITION #1 HINGES ACROSS SECTION AND FASTEN INTO PLACE. SINGLE DOORS TYPICALLY HAVE ONE HINGE IN CENTER, WIDER DOORS WILL HAVE MORE.
- 4). PLACE CABLE ONTO BOTTOM FIXTURE RIVET OR CLEVIS PIN, DEPENDING ON BOTTOM BRACKET USED.
- 5). INSTALL LIFT HANDLE NO MORE THAN 6" FROM BOTTOM IN LINE WITH HINGE.



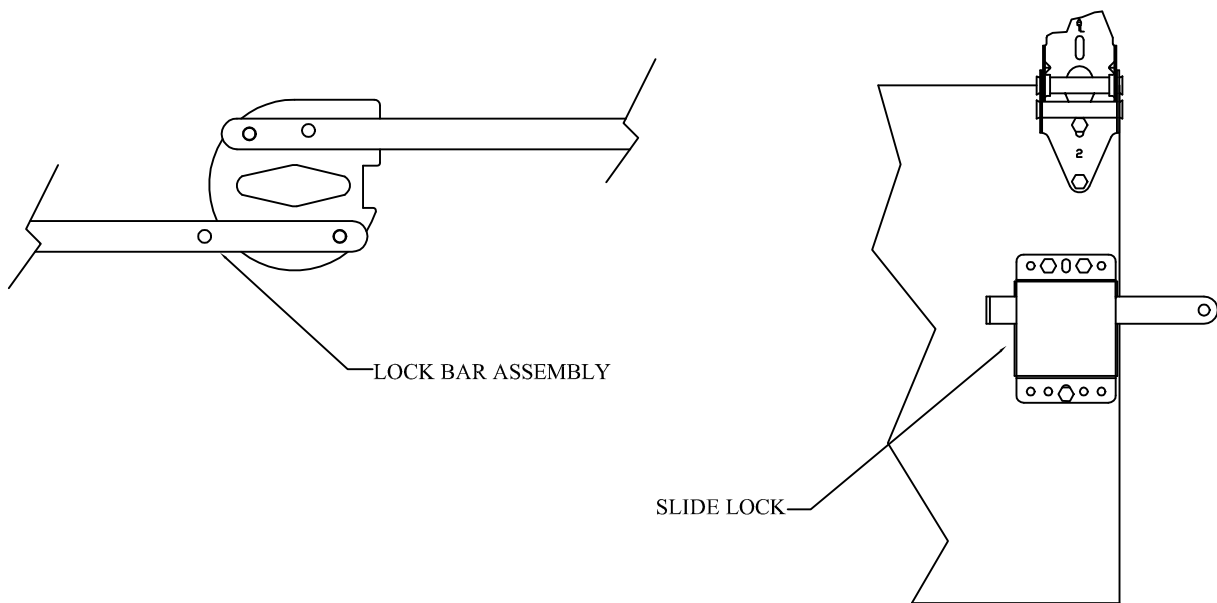
1). PLACE BOTTOM SECTION AGAINST TRIM INSIDE OPENING AND CHECK FOR LEVEL.
IF FLOOR IS NOT LEVEL , YOU WILL NEED TO SHIM THE SECTION SO THAT IT BECOMES LEVEL.

2). ONCE BOTTOM SECTION IS LEVEL AND CENTERED ACROSS OPENING, DRIVE NAIL SLIGHTLY INTO
JAMB ON EACH END AND BEND OVER PANEL TO HOLD IN POSITION WHILE WORKING ON THE
OTHER SECTIONS.

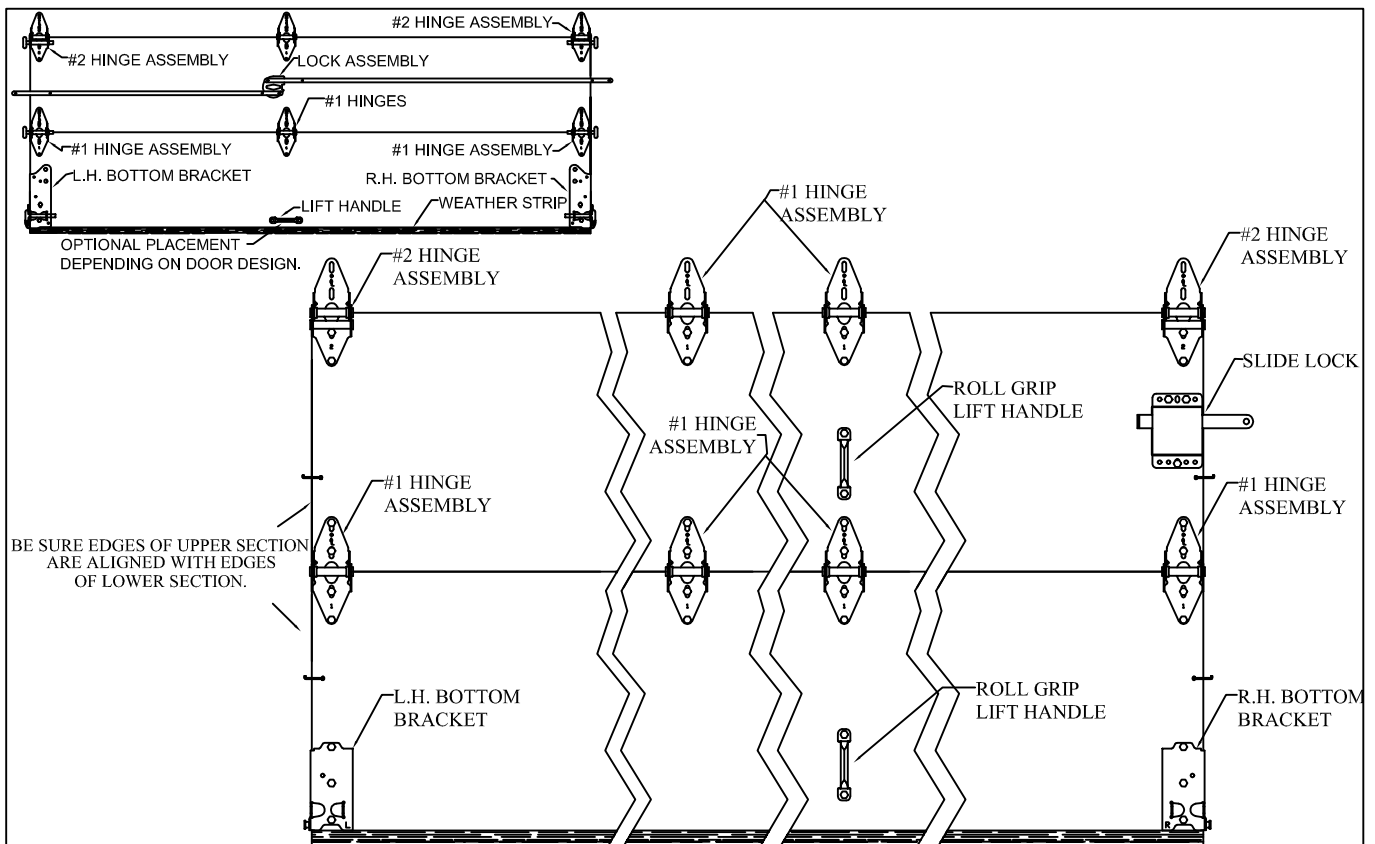


- 1). PLACE SECOND SECTION ON SAW HORSES AND PLACE SECOND SET OF HINGES ON THE TOP
PART OF THE SECTION. USING #2 HINGES ON THE OUTSIDES AND #1 HINGE IN THE CENTER.
- 2). POSITION LIFT HANDLE (IF SUPPLIED) INTO PLACE AND FASTEN ALL ABOVE WITH 1/4 " TEK SCREWS.

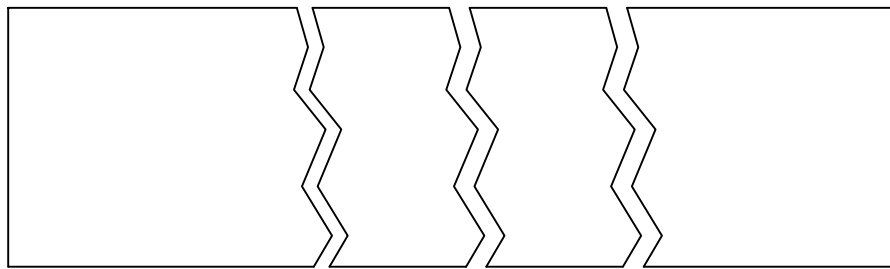
LOCK ASSEMBLY



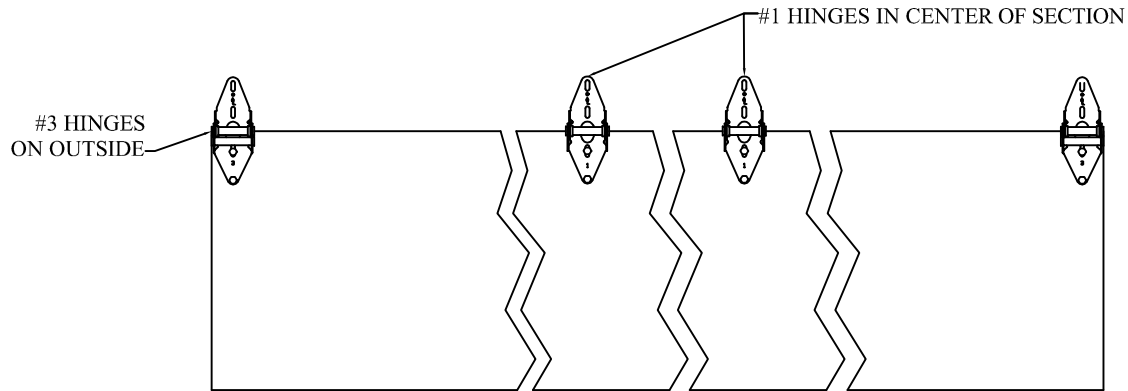
IF A FOUR SECTION DOOR , THE SECOND SECTION IS ALSO THE LOCK SECTION.
ON A FIVE SECTION DOOR THE LOCK GOES ON THE THIRD DOOR SECTION.
FOLLOW SPECIAL INSTRUCTIONS PACKED WITH LOCK.



- 1). SET SECOND SECTION ON BOTTOM SECTION IN DOOR OPENING AND BEND NAIL OVER TO HOLD IN POSITION.
- 2). FASTEN HINGES BOLTING DOOR SECTIONS TOGETHER.

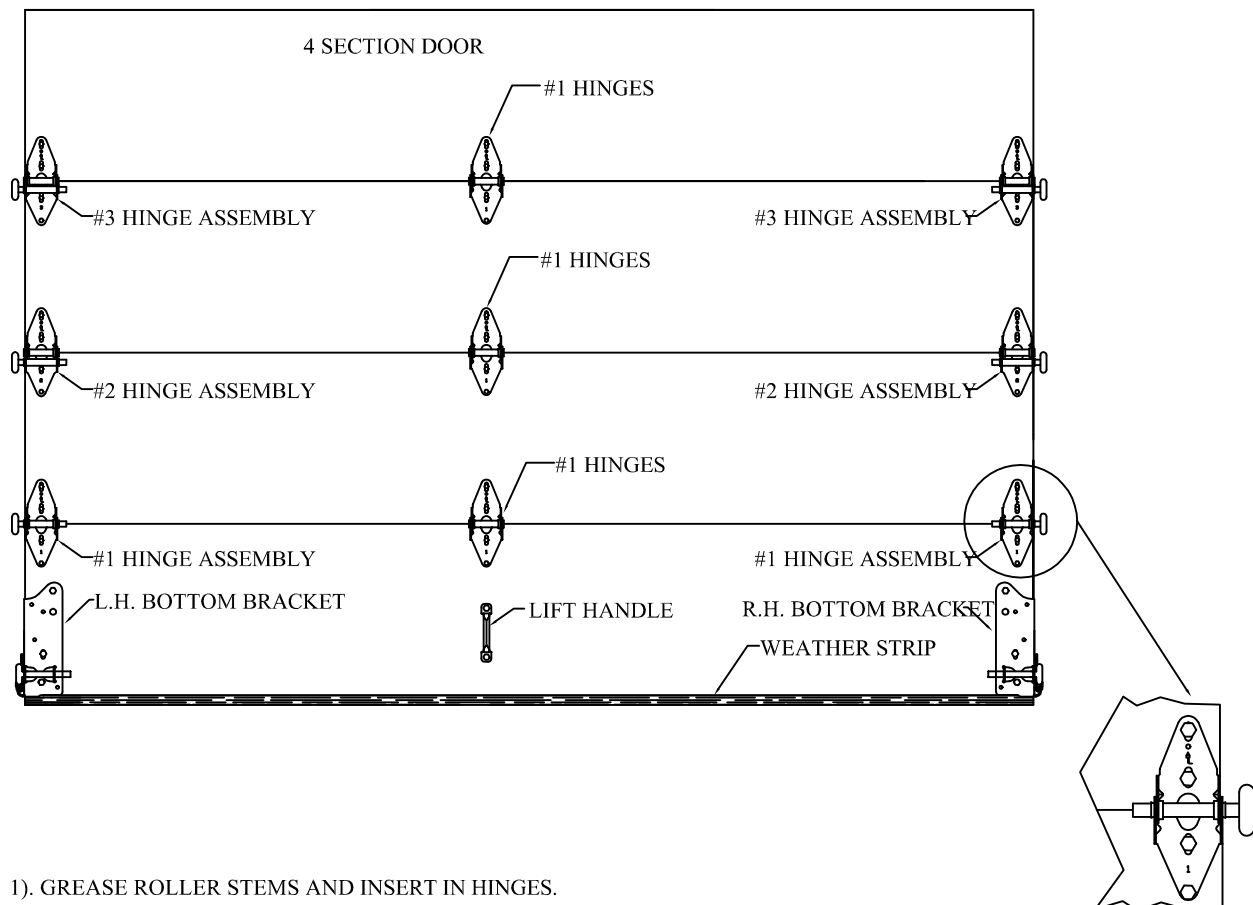


TOP DOOR SECTION



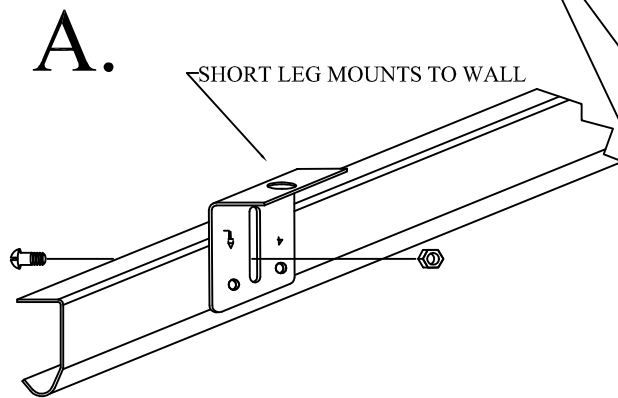
THIRD DOOR SECTION

- 1). PLACE THIRD SECTION ON SAW HORSES AND PLACE THIRD SET OF HINGES ON THE TOP PART OF THE SECTION. USING #3 HINGES ON THE OUTSIDES AND #1 HINGE IN THE CENTER.
- 2). PLACE THIRD SECTION IN DOORWAY ON TOP OF SECOND SECTION AND FASTEN.
- 3). PLACE TOP SECTION ON TOP OF THIRD SECTION. FASTEN HINGES TO SECTION.
- 4). TOP FIXTURES WILL BE INSTALLED AFTER TRACK IS IN PLACE.

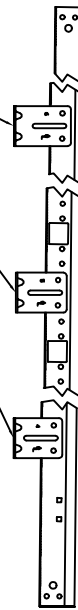


- 1). GREASE ROLLER STEMS AND INSERT IN HINGES.
- 2). PLACE ROLLERS IN ALL OUTSIDE HINGES IN LOWEST HOLES.

START WITH LOWEST NUMBERED JAMB BRKT.
@ BOTTOM OF VERTICAL AND INCREASE IN SIZE AS YOU PROCEED
UPWARDS

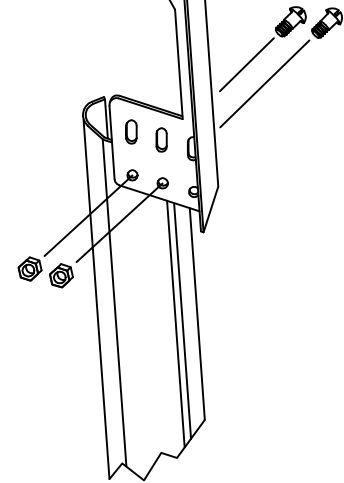


TOP OF
VERTICAL.



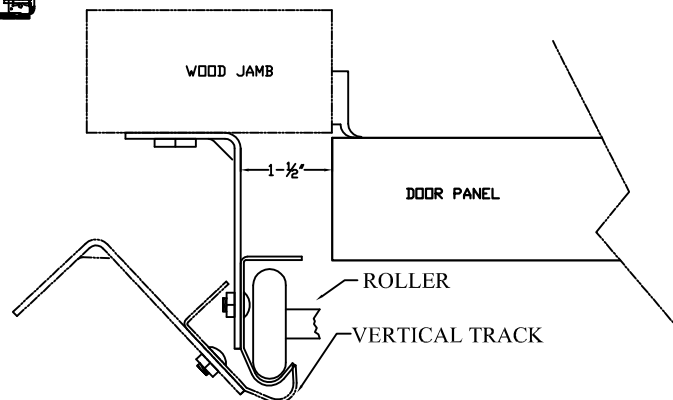
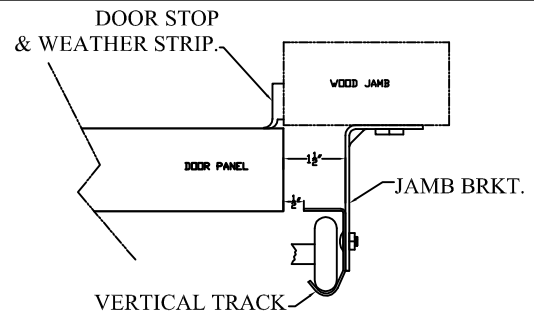
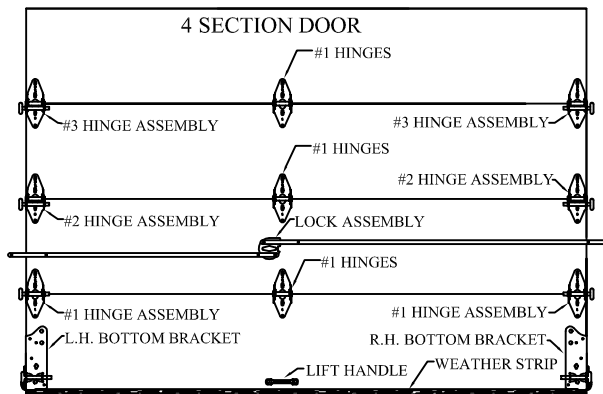
BOTTOM OF
VERTICAL.

B.

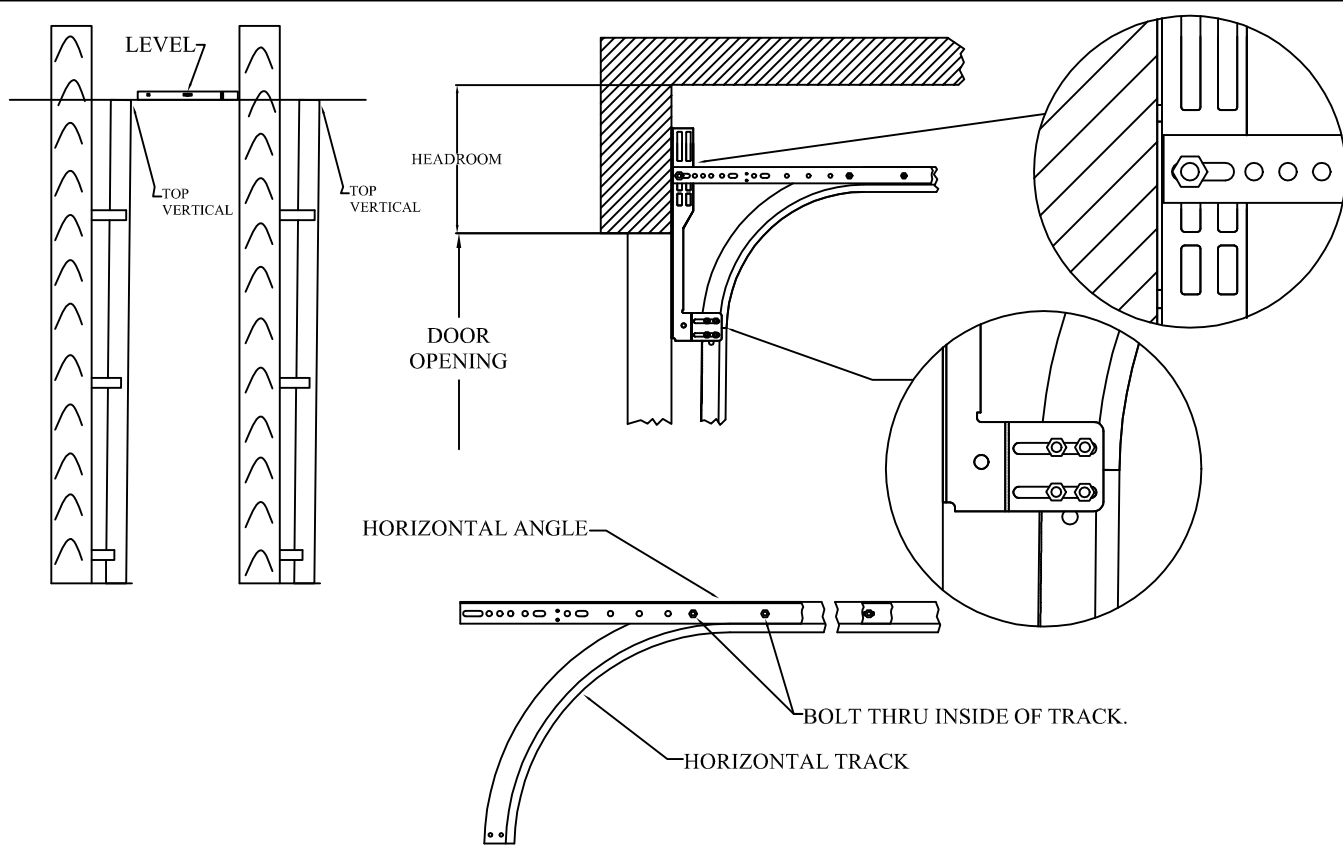


- 1). PUT JAMB BRACKETS IN PLACE ON THE VERTICAL TRACK WITH LONG SIDE OF BRACKET TO TRACK AND FASTEN WITH BOLT THROUGH THE INSIDE OF TRACK. (FIGURE A)
- 2). FASTEN FLAG BRACKET TO VERTICAL TRACK. BOLT THROUGH FROM INSIDE OF TRACK. (FIGURE B)

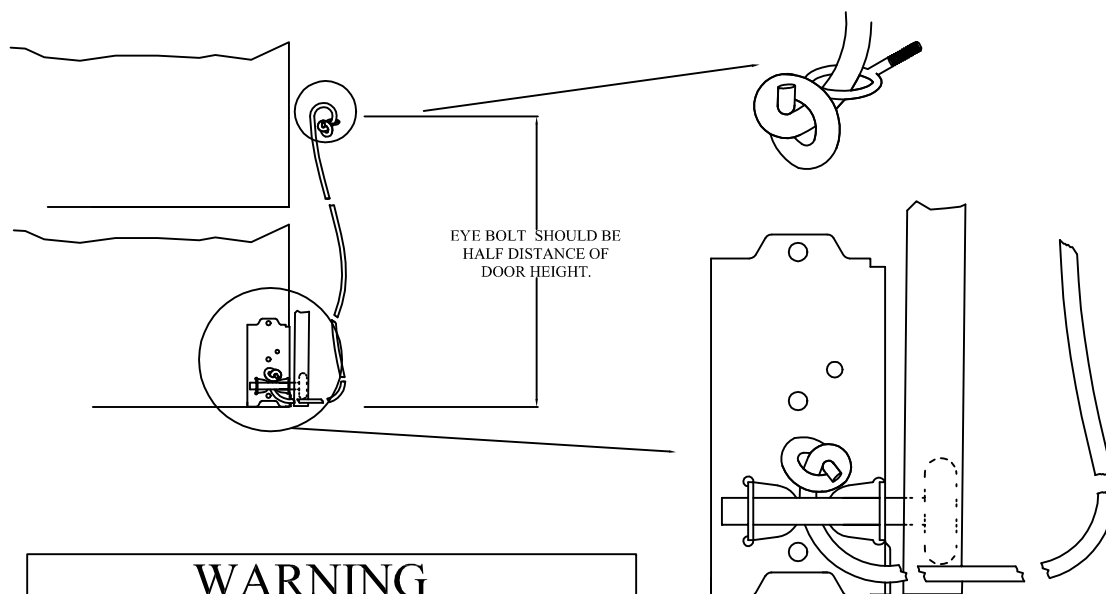
LEAVE BOLTS LOOSE FOR ADJUSTMENTS.



- 1). HOOK AND SWING VERTICAL TRACKS IN POSITION OVER ROLLERS.
- 2). ALLOWING 1/2" BETWEEN DOOR AND EDGE OF TRACKS, SECURE TRACKS IN PLACE BY PLACING LAG BOLTS THRU JAMB BRACKET AND LAGGING INTO JAMB.



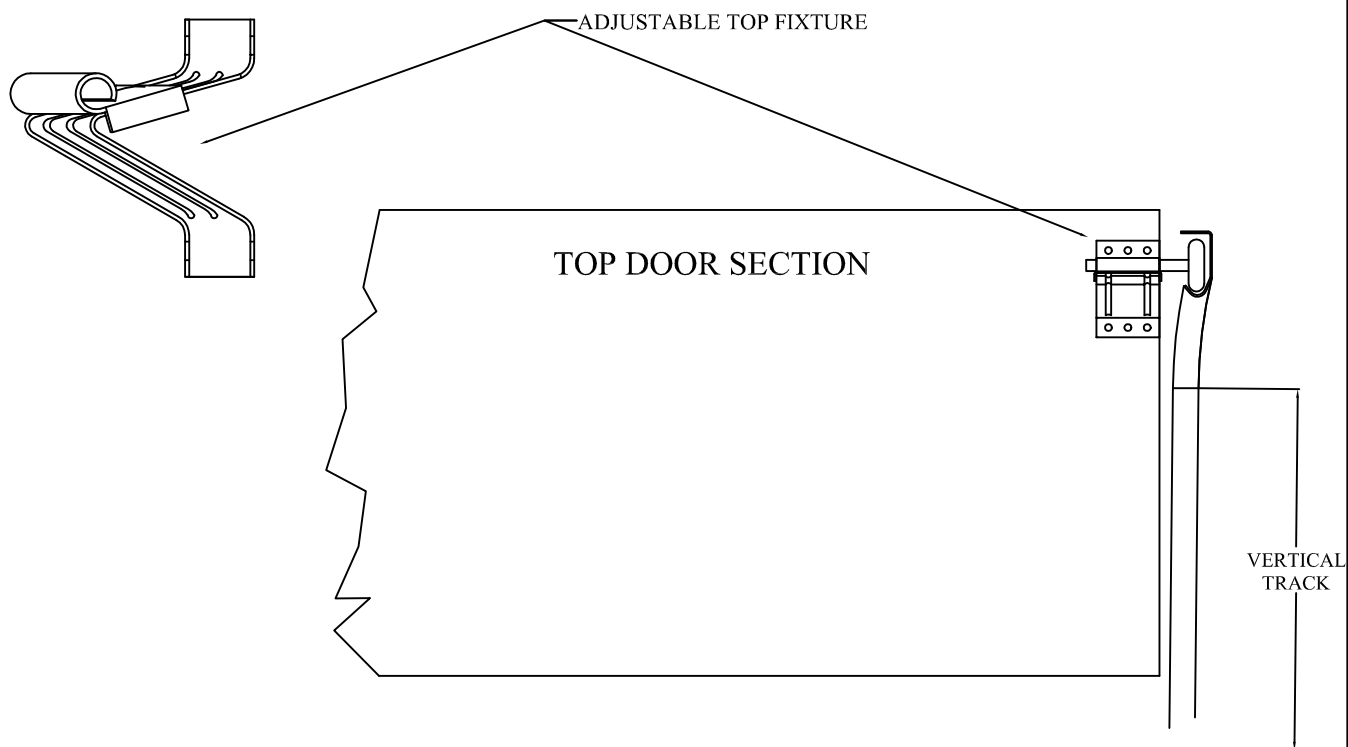
- 1). VERTICAL TRACK SHOULD BE LEVEL AT THE TOP AS SHOWN. IF NEED BE ONE OF THE TRACKS MAY BE CUT.
- 2). FASTEN HORIZONTAL ANGLE TO HORIZONTAL (CURVED) TRACK.
- 3). FASTEN HORIZONTAL TRACK TO FLAG BRACKET AND HORIZONTAL ANGLE TO TOP SECTION OF FLAG BRACKET.



WARNING

TO AVOID RISK OF STRANGULATION OR INJURY TO CHILDREN, YOU MUST REMOVE THE PULL DOWN ROPE WHEN YOU INSTALL AN AUTOMATIC GARAGE DOOR OPENER.

- 1). TIE KNOT IN ROPE, PLACE KNOT BEHIND ROLLER IN BOTTOM FIXTURE AND FASTEN .
- 2). SCREW-EYE BOLT TO JAMB ABOUT HALF THE DISTANCE OF THE DOOR HEIGHT.
- 3). FASTEN THE LOOSE END OF ROPE TO THE EYE BOLT.



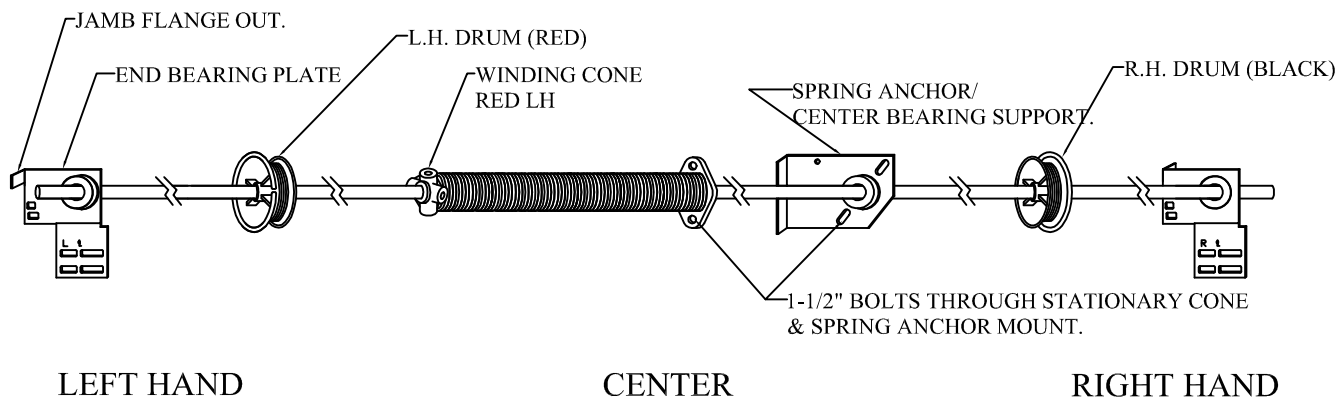
- 1). POSITION TOP FIXTURE, WITH ROLLER IN PLACE, IN TRACK AND ROLL DOWN TO WHERE FIXTURE MEETS DOOR.
- 1). MAKE SURE TOP SECTION IS SNUG AGAINST HEADER. DRILL HOLES, SET BOLTS AND FASTEN FIXTURE IN PLACE.

RED CONE = R.H.W. SPRING./ MOUNTS ON LEFT SIDE.
 BLACK CONE = L.H.W. SPRING./ MOUNTS ON RIGHT SIDE.

(TYPICALLY) SINGLE CAR DOORS=ONE SPRING.
 (TYPICALLY) DOUBLE CAR DOORS=TWO SPRINGS.

TORSION SPRING ASSEMBLY

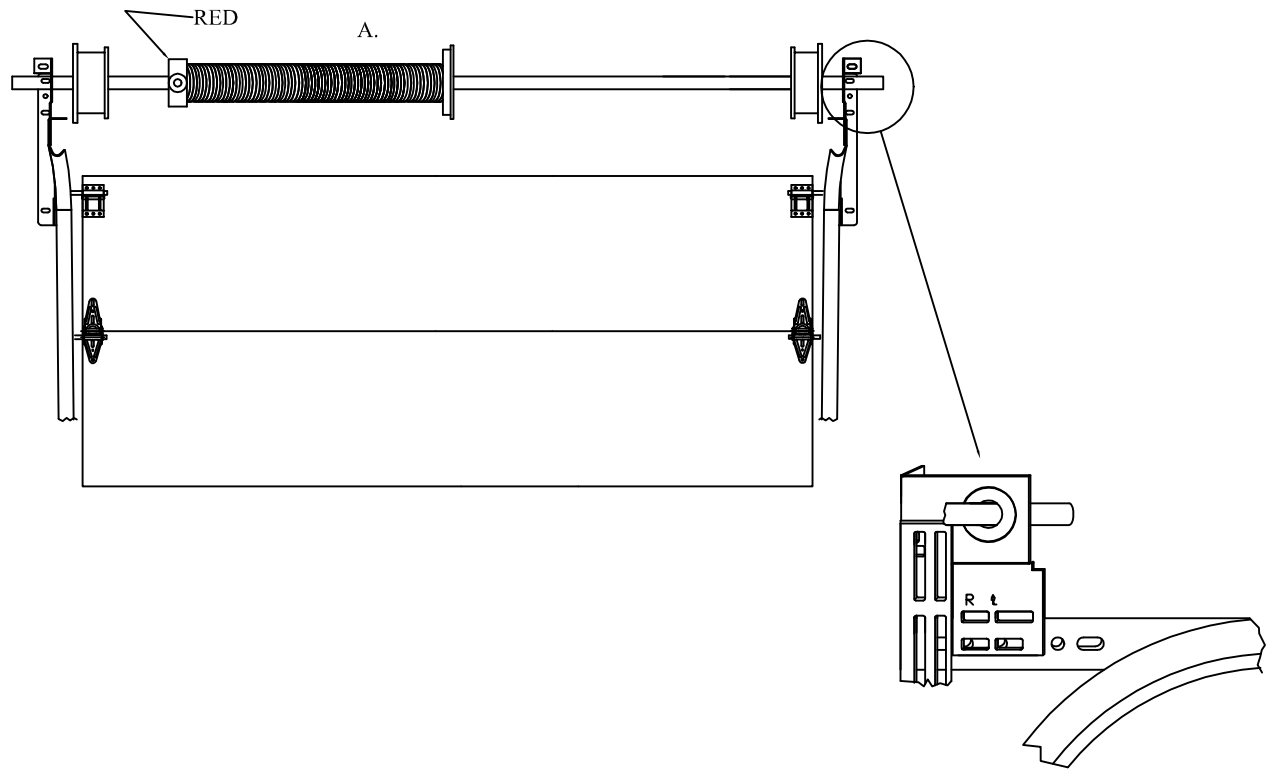
(IF YOU HAVE EXTENSION SPRING'S, GO TO PAGE 10)



- 1). LAY TORSION BAR ACROSS SAW HORSES; SLIP SPRING, DRUMS, SPRING ANCHOR AND END BEARING PLATES ONTO TORSION BAR.
- 2). BEARING GOES INTO RETAINING HOLE IN SPRING, & FITS FLUSH WITH THE SPRING ANCHOR MOUNT.
- 3). BOLT THE SPRING AT THE CENTER MOUNT WITH 1-1/2" BOLTS.

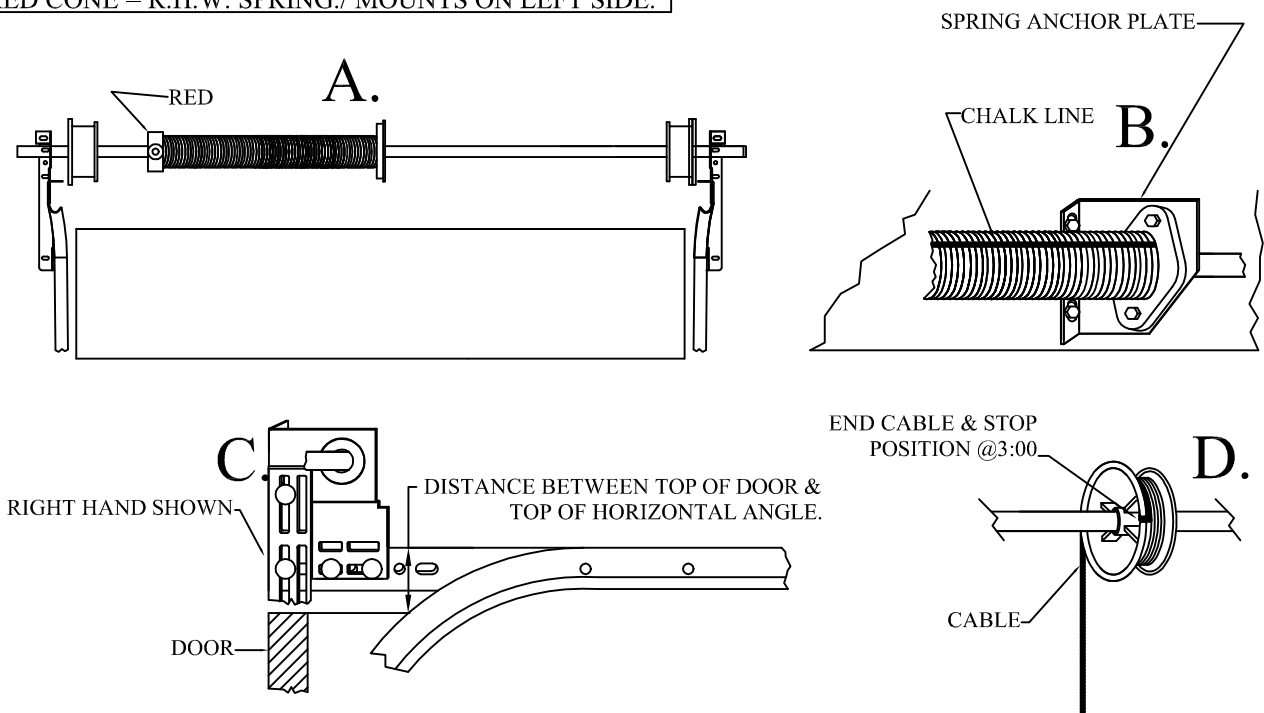
MAKE CERTAIN THAT THE SPRING IS ON THE CORRECT SIDE.

RED CONE = R.H.W. SPRING./ MOUNTS ON LEFT SIDE.

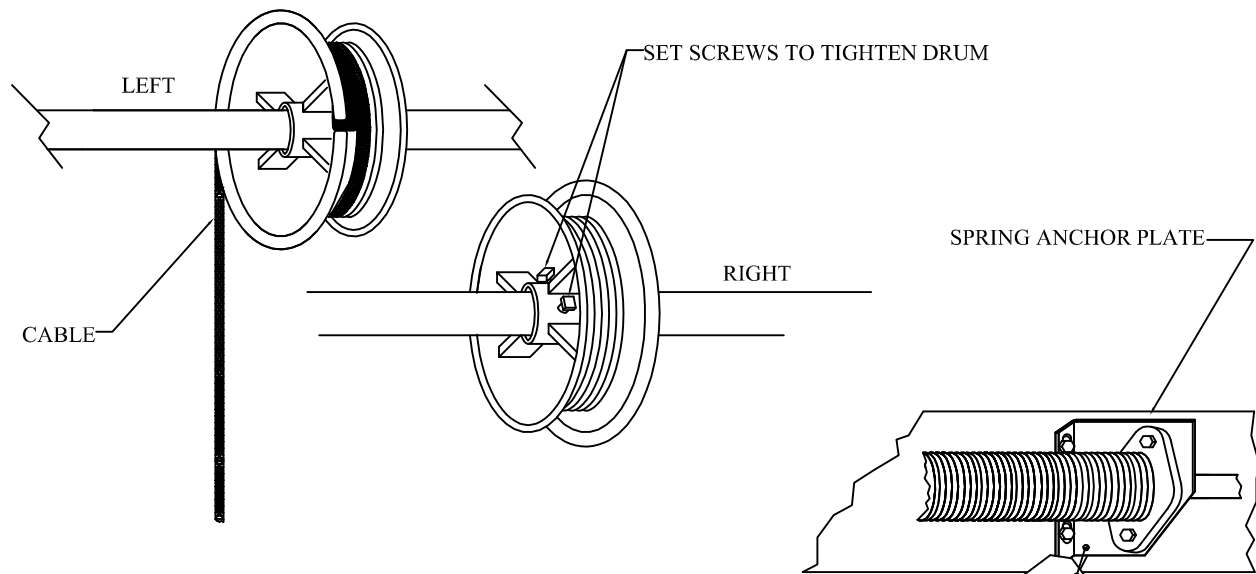


- 1). PLACE TORSION BAR ASSEMBLY ACROSS HORIZONTAL ANGLE AT THE FRONT OF THE TRACK.
TORSION SHAFT SHOULD PROTRUDE EQUALLY THROUGH EACH END BEARING PLATE.

RED CONE = R.H.W. SPRING./ MOUNTS ON LEFT SIDE.



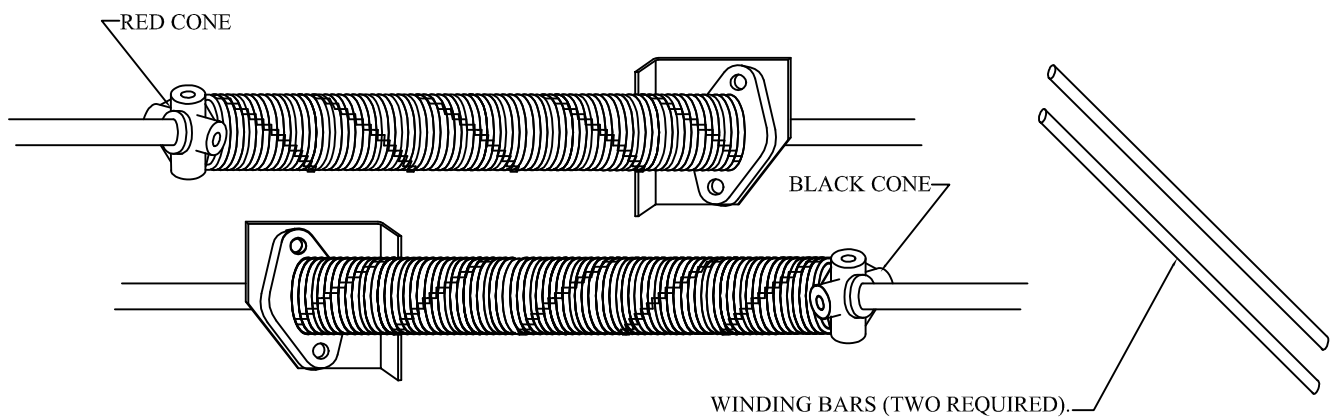
- 1). LIFT THE TORSION BAR ASSEMBLY AT ONE END AND PUSH THE BEARING PLATE FLANGE AGAINST THE WALL.
FASTEN BEARING PLATE TO HORIZONTAL ANGLE AND FLAG BRACKET ON ONE SIDE WITH 3/8" BOLTS.
- 2). GO TO THE OPPOSITE END OF THE TORSION BAR AND REPEAT THE ABOVE PROCEDURE.
- 3). GO TO CENTER OF THE TORSION BAR, RAISE THE BAR AND CENTER BEARING SUPPORT BRACKET AND USING A LEVEL,
FASTEN THE CENTER SUPPORT BRACKET TO THE WALL SO THAT THE TORSION BAR IS LEVEL.
- 4). SLIP CABLE THROUGH SLOT IN SIDE OF DRUM, CABLE STOP SHOULD BECOME SNUG IN THE DRUM SLOT. (FIGURE D.)



LEFT HAND DRUM MUST BE DONE FIRST.

WARNING TAG TO BE ATTACHED TO SPRING ANCHOR PLATE.

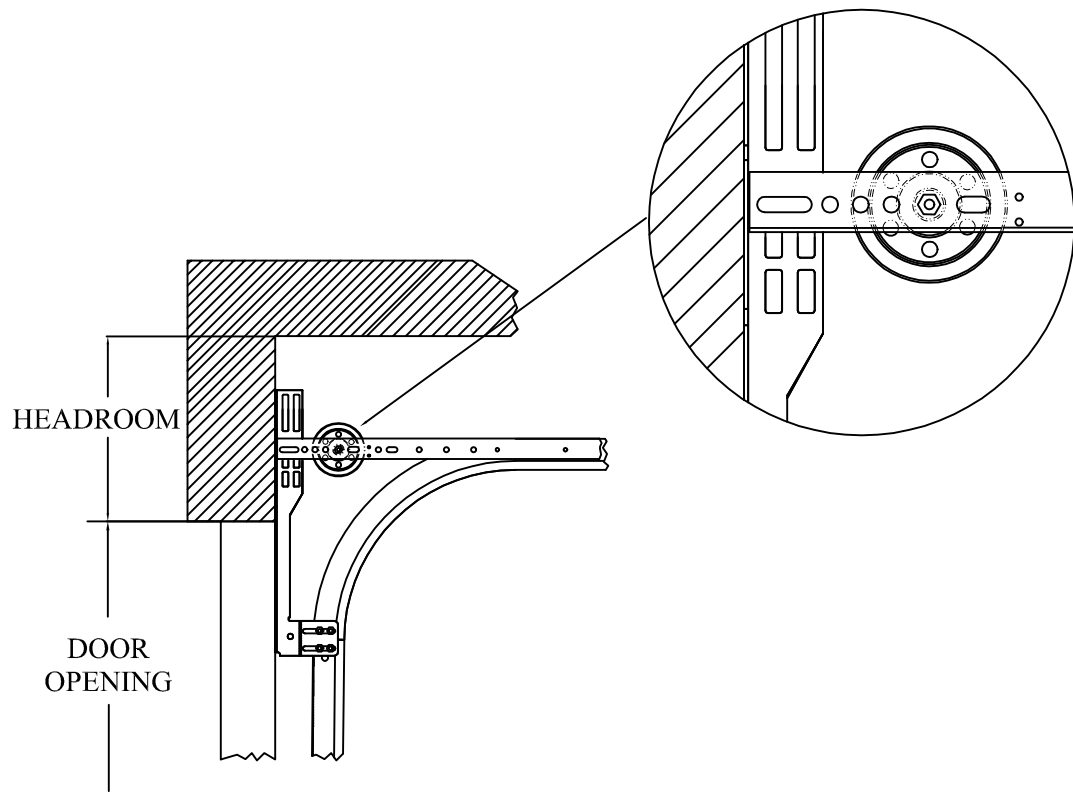
- 1). WIND CABLE ONTO DRUM AND TIGHTEN SET SCREWS WITH DRUM TIGHT AGAINST END BEARING PLATE.
- 2). ATTACH VISE GRIPS TO SHAFT SO CABLE REMAINS TIGHT WHILE DOING THE SAME ON THE RIGHT HAND SIDE. THIS WILL PROVIDE EQUAL TENSION AND BOTH SIDES OF THE DOOR WILL BE LIFTED TOGETHER.



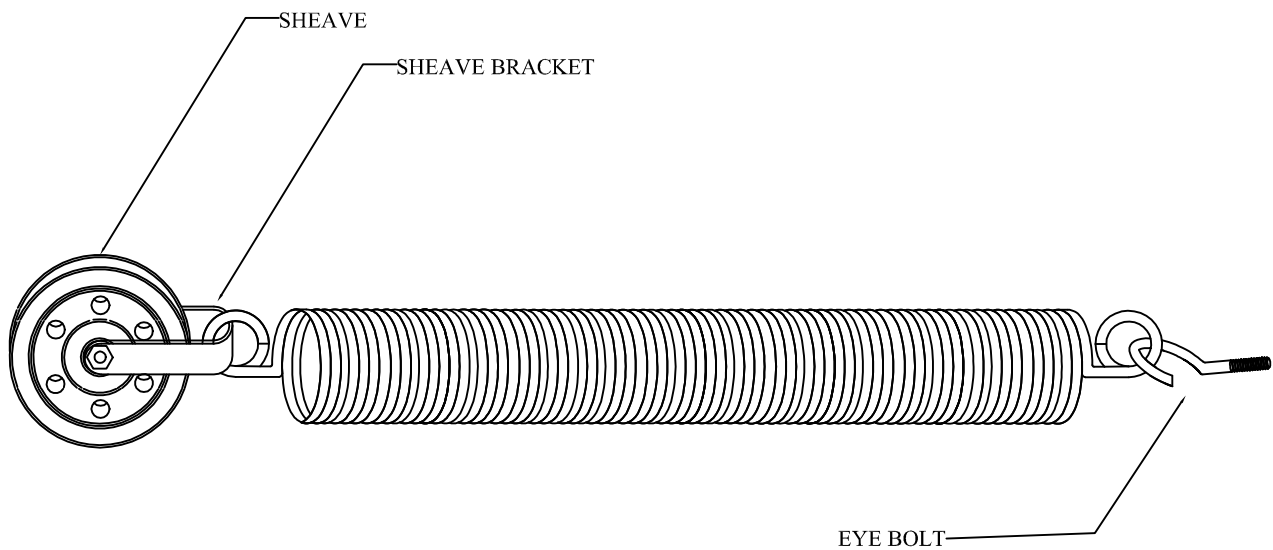
WARNING

NEVER USE SCREWDRIVERS OR OTHER
SUBSTITUTES FOR WINDING BARS!!
STAND TO SIDE OF BARS WHILE WINDING.

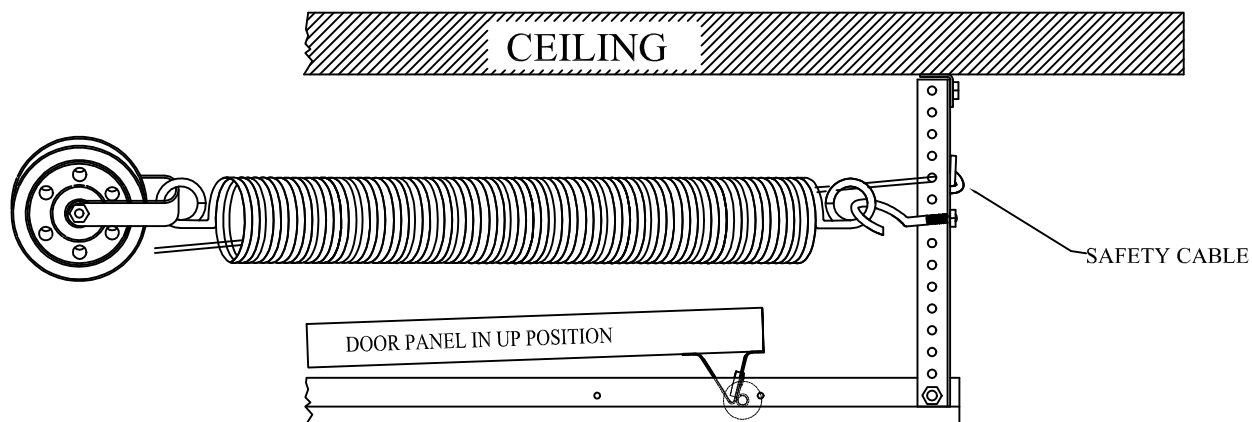
- 1). WITH 1/2" DIAMETER SPRING WINDING BAR MINIMUM 12" LENGTH-WIND SPRING UPWARDS THE PROPER REQUIRED TURNS FOR DOOR HEIGHT AND WEIGHT. PUT BAR IN HOLES AND LIFT.
- 2). FASTEN SET SCREWS SECURELY. BE CAREFUL, KEEP HANDS AWAY FROM COILS AND NUTS AS MUCH AS POSSIBLE WHILE WINDING IN CASE BAR SLIPS. (PROCEED TO PAGE 13)



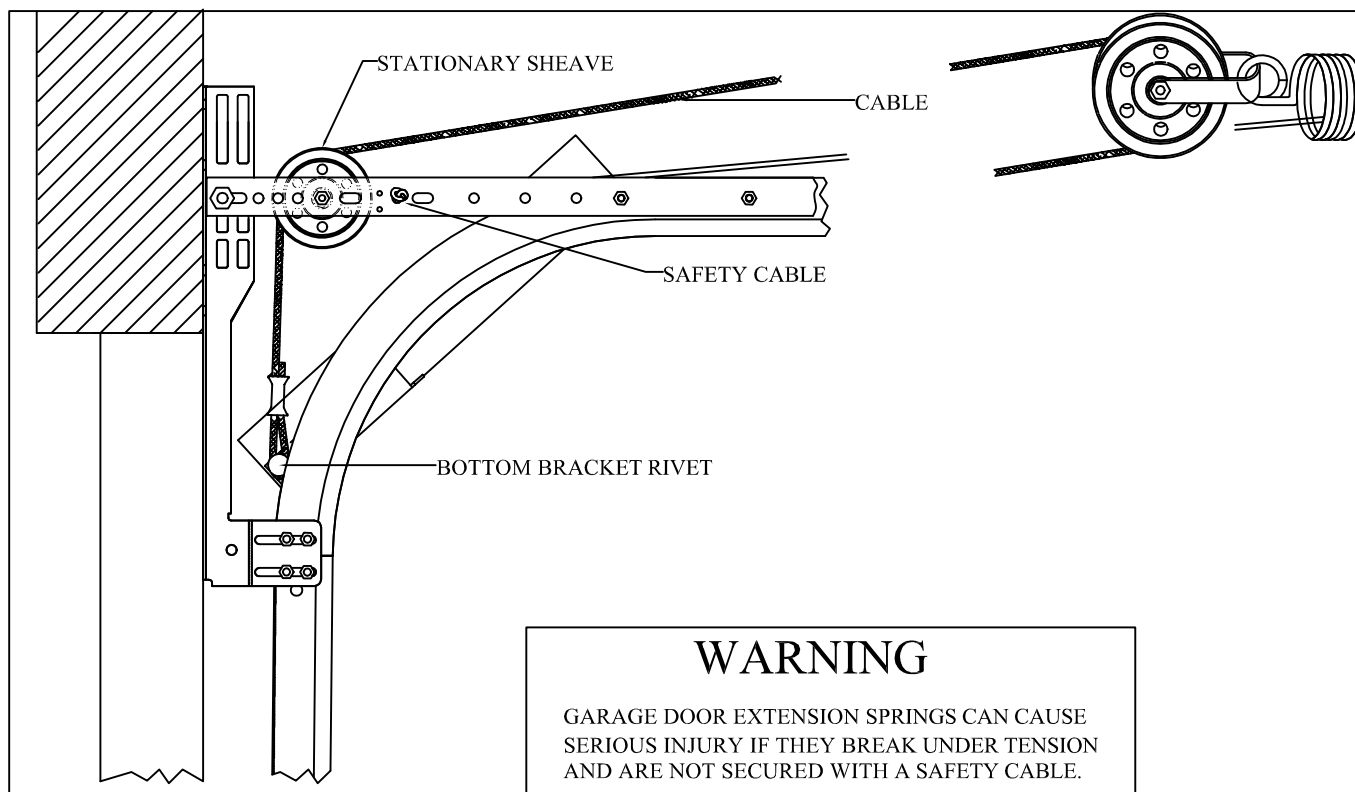
1). FASTEN STATIONARY SHEAVE TO INSIDE ANGLE.



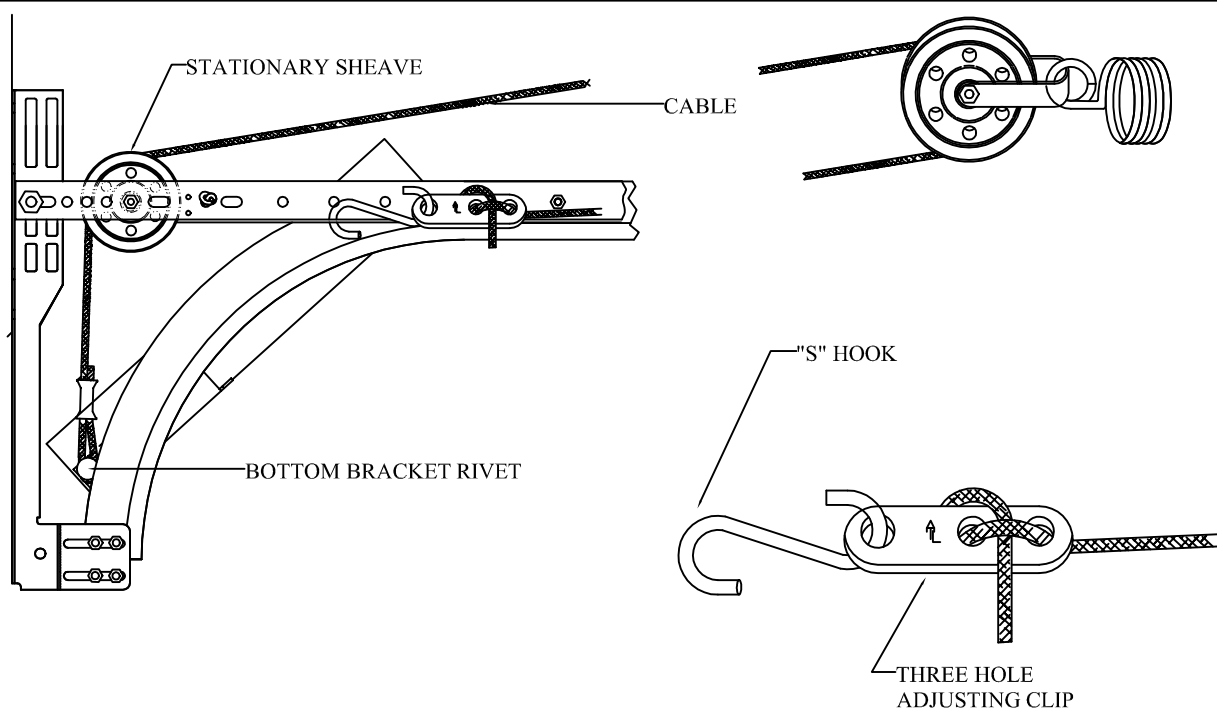
1. FASTEN SPRING SHEAVE TO SPRING.
2. ATTACH SPRING TO EYE BOLT.



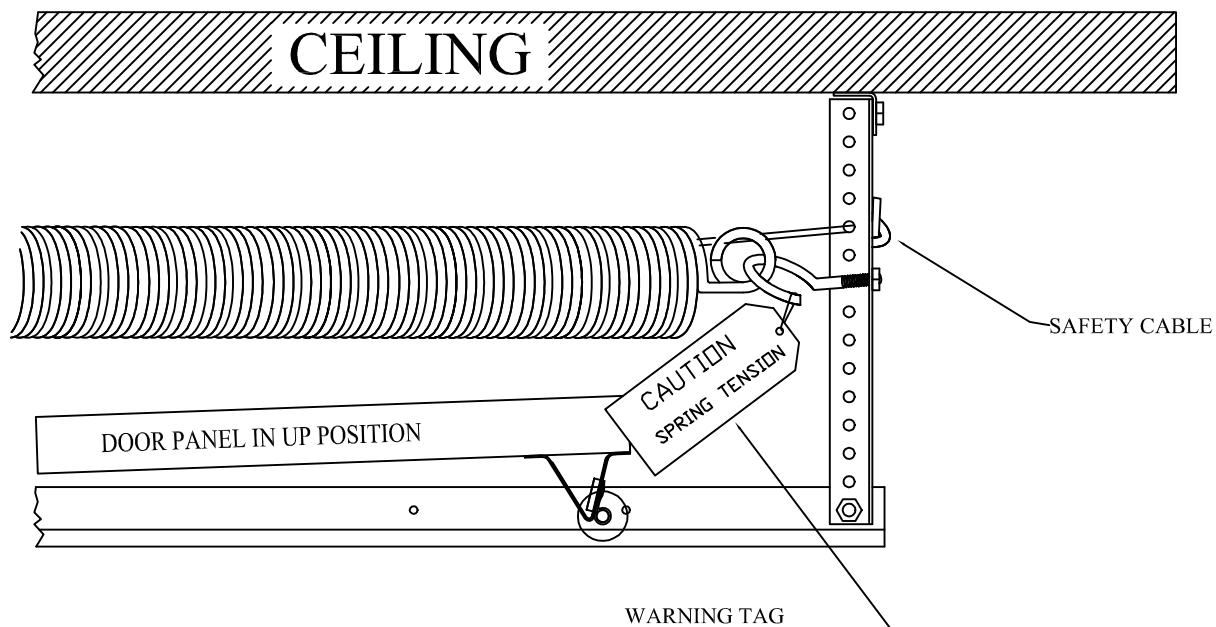
- 1). CAREFULLY RAISE THE DOOR TO FULLY OPEN POSITION. PLACE C-CLAMPS OR VISE GRIPS ON BOTH SIDES OF THE TRACK BELOW THE BOTTOM ROLLERS TO KEEP THE DOOR FROM FALLING CLOSED.
- 2). ATTACH THE EYE BOLT WITH ONE 5/16" NUT ON EACH SIDE OF REAR HANGER. THE EYEBOLTS SHOULD BE ABOUT 12" ABOVE THE TRACK TO KEEP THE SPRING ASSEMBLY FROM DRAGGING ON THE TRACK. THE EYEBOLTS CAN BE AS LOW AS 4" ABOVE THE TRACK IF YOU HAVE SPACE PROBLEMS. TIGHTEN THE EYEBOLT NUTS.
- 3). SAFETY CABLE RUNS THROUGH THE SPRING AND IS CONNECTED AT THE BACK HANGER AND AT THE HORIZONTAL ANGLE IN THE FRONT.



- 1). THREAD THE CABLE UP OVER THE STATIONARY SHEAVE. CONTINUE THE CABLE OVER AND AROUND THE SHEAVE ON THE SPRING.



- 1). TIE THE CABLE TO THE THREE HOLE ADJUSTING CABLE CLIP AS SHOWN.
- 2). HOOK THE CABLE TO THE HORIZONTAL ANGLE WITH THE "S" HOOK. ADJUST THE KNOT AT THE THREE HOLE ADJUSTING CLIP. ADJUST SO THAT ALL SPRING TENSION IS RELIEVED AND THE CABLE HOLDS THE SPRINGS ABOVE THE HORIZONTAL TRACK. THE SPRINGS SHOULD BE STRETCHED THE SAME ON BOTH SIDES OF THE DOOR.
- 3). MAKE ALL ADJUSTMENTS OF SPRING TENSION BY LENGTHENING OR SHORTENING CABLE. BOTH SPRINGS MUST BE ADJUSTED FOR EQUAL PULL SO DOOR WILL NOT BIND.



IMPORTANT: ATTACH THE WARNING TAG WITH ORANGE PRINT TO THE SPRING ASSEMBLY.
(THIS TAG MAY ALREADY BE ATTACHED).

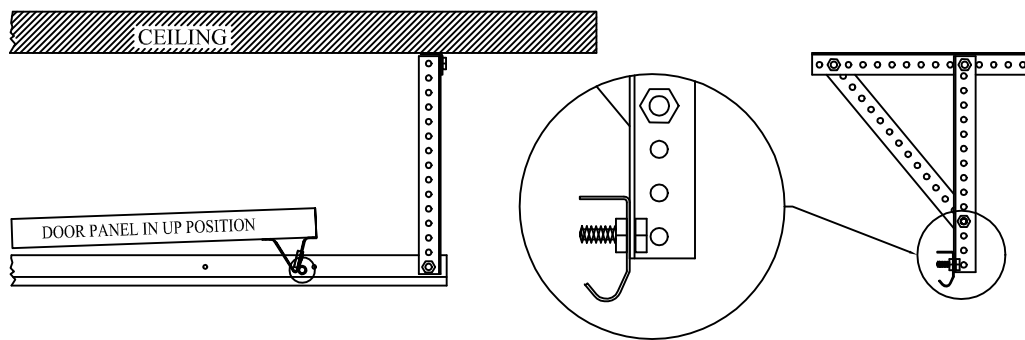
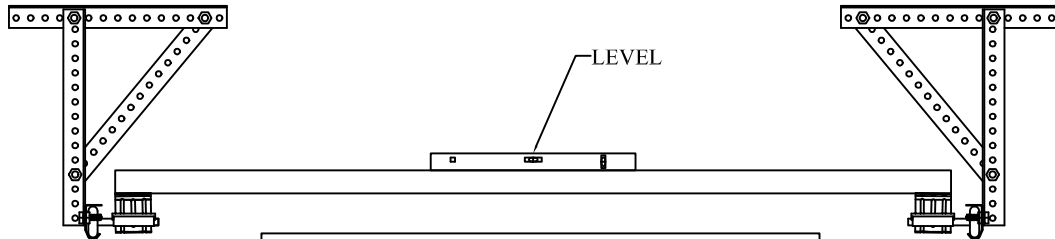


FIGURE "A"

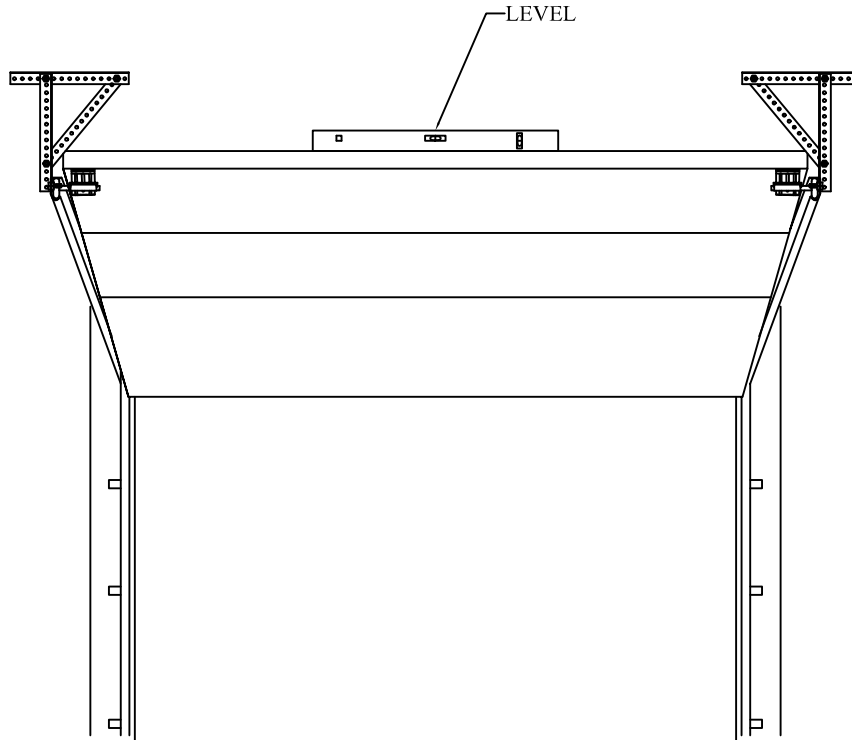


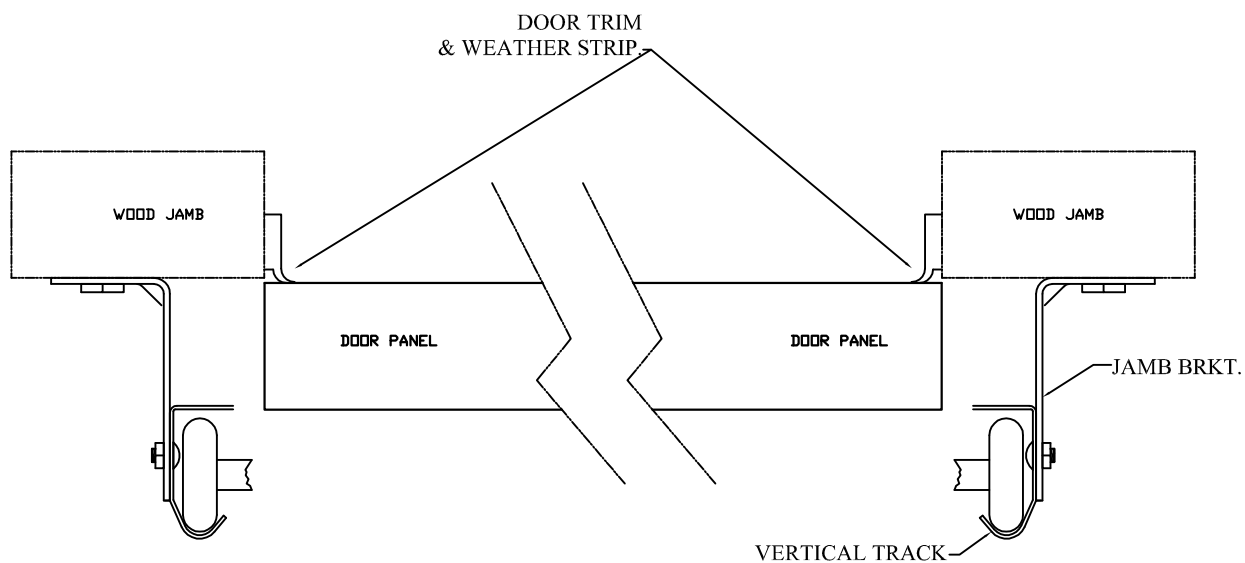
WARNING

IF THE TRACKS ARE NOT CORRECTLY ALIGNED
OR THE BACK HANGERS ARE NOT STRONG
ENOUGH, THE DOOR MAY FALL.

- 1). FASTEN BACK HANGER TO TRACK WITH 3/8"x1" BOLTS AS SHOWN IN FIGURE "A".
- 2). TRACK MUST BE SECURE AND LEVEL.

BACK HANGER TO BE FURNISHED BY ~~THE INSTALLER~~. (PURCHASE FROM LOCAL BUILDING SUPPLY CO.)

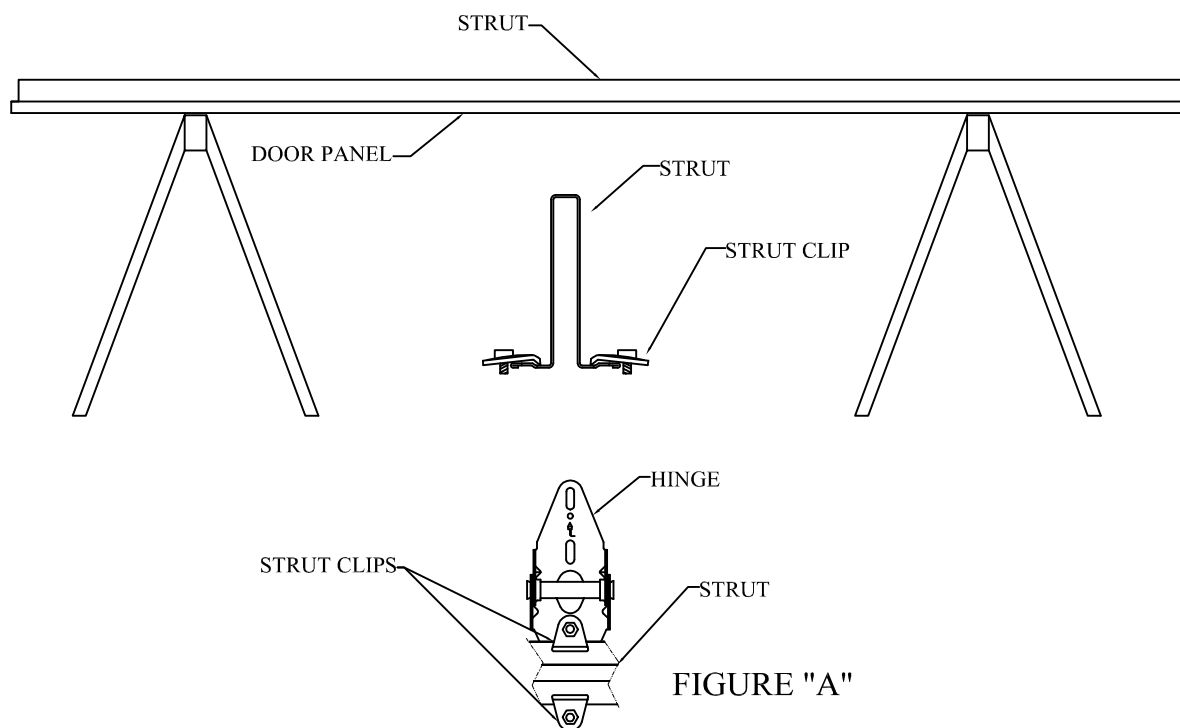




SET TRIM SECURELY SO IT IS SNUG AGAINST DOOR AT ALL POINTS.

APPLICATION

TOP STRUT IS BOLTED TO RAIL. INTERMEDIATE STRUTS ARE ATTACHED TO LOWER LEAF OF HINGES WITH STRUT CLIPS AS SHOWN IN FIGURE A. STRUTS ARE THEN ATTACHED STARTING FROM EACH END AND WORKING TOWARD THE CENTER.



STRUTS FOR LARGER DOORS.

STRUTS ARE FURNISHED FOR LARGER DOORS AS FOLLOWS:

RESIDENTIAL DOORS 14'-16' THREE STRUTS-TOP, BOTTOM AND CENTER

COMMERCIAL DOORS 12'6" AND OVER. TOP, BOTTOM AND EACH INTERMEDIATE SECTION.