



***Rolling Doors***

**GRILLE DOOR**  
**INSTALLATION INSTRUCTIONS**

# GRILLE DOOR INSTALLATION INSTRUCTIONS

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# FREIGHT DAMAGE INSTRUCTIONS

## **\*\*\*IMPORTANT\*\*\***

Immediately upon delivery check condition of materials for visible concealed freight damage incurred in transit.

Under no condition should installation be made without authorization, as neither the carrier nor the Manufacturer will assume responsibility for labor costs involved in replacing damaged material that has been installed.

### **FOLLOW THE DIRECTIONS BELOW:**

#### **CONCEALED DAMAGE:**

- (a) Must be inspected by carrier's representative within 15 days from date of delivery.
- (b) Consignee must obtain copy of Inspection Report.
- (c) Material should not be moved from point of delivery to other premises prior to discovery and/or reporting of damage.
- (d) Container and packing should be retained by consignee until inspection is made.

#### **VISIBLE DAMAGE:**

- (a) Must be inspected by carrier's representative within 15 days from date of delivery.
- (b) Consignee must obtain copy of Inspection Report.
- (c) Material should not be moved from point of delivery to other premises prior to discovery and/or reporting of damage.
- (d) Container and packing should be retained by consignee until inspection is made.

**NOTE: IF DAMAGE IS CERTAIN, GOODS SHOULD NOT BE UNPACKED UNTIL INSPECTION IS MADE. IF DAMAGE IS UNCERTAIN, PACKAGES MAY BE OPENED BUT PACKING MATERIAL MUST BE SAVED UNTIL INSPECTION IS MADE.**

#### **INCOMPLETE DELIVERY:**

- (a) Should be noted on delivery receipt.
- (b) Acknowledged by driver's signature.
- (c) Start tracing immediately.
- (d) Notify shipper.

#### **RETURNING DAMAGED MATERIAL:**

If damaged to the extent that it is necessary to return to the Manufacturer to be repaired, please do as follows:

- (a) Obtain permission to do so from the delivering carrier.
- (b) Route the return shipment via the identical carrier(s) involved in the original shipment.
- (c) Notify the Manufacturer when shipped.

# PRE-INSTALLATION INSTRUCTIONS



**ONLY TRAINED DOOR SYSTEMS TECHNICIANS SHOULD  
DROP TEST, RESET OR PERFORM MAINTENANCE**



**READ AND FOLLOW THESE INSTRUCTIONS THOROUGHLY - THE COOKSON  
COMPANY WILL NOT BE HELD RESPONSIBLE FOR ANY CHARGES INCURRED  
THROUGH MISSING PARTS, OPERATION, OR DAMAGE- DUE TO IMPROPERLY  
INSTALLED DOOR ASSEMBLIES**

- 1) If you have received more than one door, you will find that all major parts and pieces for any one door are marked with corresponding numbers; therefore, a complete door should be composed of parts bearing the same numbers and letters.

**DO NOT INTERCHANGE PARTS FROM ONE DOOR TO ANOTHER!!!**

- 2) Before installing the door see that all component markings agree.
- 3) Before attempting installation of the door and, specifically, before leaving the jobsite make certain you have read and adhered to the attached "Safety Check List".
- 4) Should there be any discrepancies in the job conditions or manufactured materials, contact The Cookson Company in writing or by calling 1-800-294-4358 for Western U.S. and Canada or 1-800-390-8590 for Eastern U.S. and Canada. If door was purchased by a Cookson Distributor and sold to another party they should contact the Distributor for Warranty or Repair parts.

## SAFETY CHECK LIST

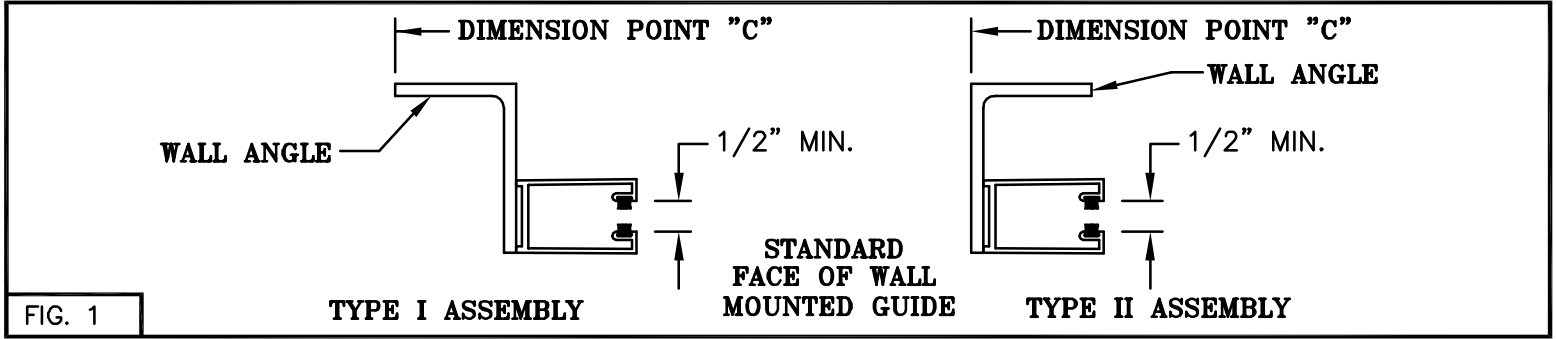
**IN ORDER FOR YOU TO ASSURE YOUR CUSTOMER THAT THIS DOOR HAS BEEN  
INSTALLED PROPERLY AND IN A SAFE MANNER, WE ASK THAT YOU CHECK THE  
FOLLOWING BEFORE LEAVING THE JOBSITE.**

- 1) Make certain that the proper amount of tension has been applied to the torsion springs, in order to properly counterbalance the weight of the curtain.
- 2) Assure yourself that the tension wheel is securely fastened in place.
- 3) Assure yourself that sprockets or gears requiring keys have the correct keys installed and drive shaft sprockets or gears are retained by cotter pins.
- 4) Recheck the setscrews (One over key - the other located at 45° from key) in each sprocket or gear for tightness.
- 5) Check all fasteners holding guides to building structures.
- 6) Check all fasteners used in assembling door components.
- 7) Instruct owner or his/her representative in the proper method of operating this door.

# GRILLE DOORS

## GUIDE TYPE I & II INSTALLATION

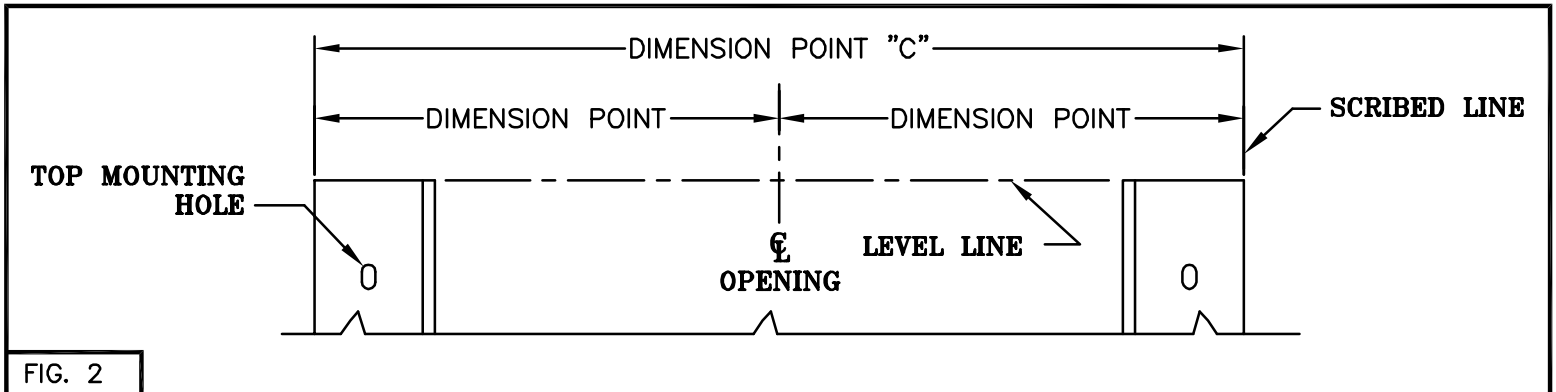
Depending on your specific job conditions, you have received guides that appear as type I or type II



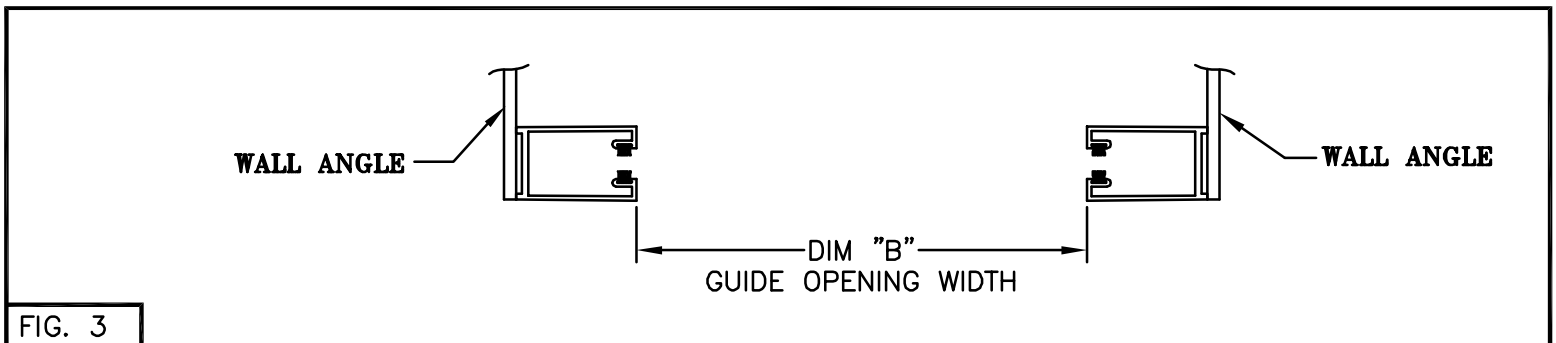
**NOTE: TYPE II GUIDES NORMALLY MUST BE DISASSEMBLED BEFORE INSTALLATION.**

- 1.) In either case, locate the center of the opening. From the centerline locate the edges of each guide by laying off a distance from the center as shown in FIG.2.
- 2.) Through this mark, scribe a plumb line on the wall.
- 3.) Place the guides against the scribed line and with the tops of the guides level, mark the location of the mounting holes.

**IMPORTANT: The bottom of the guides MUST be at the same elevation as the top of the floor at the centerline of the door opening to ensure that the locking device engages the guide latch or interlock.**



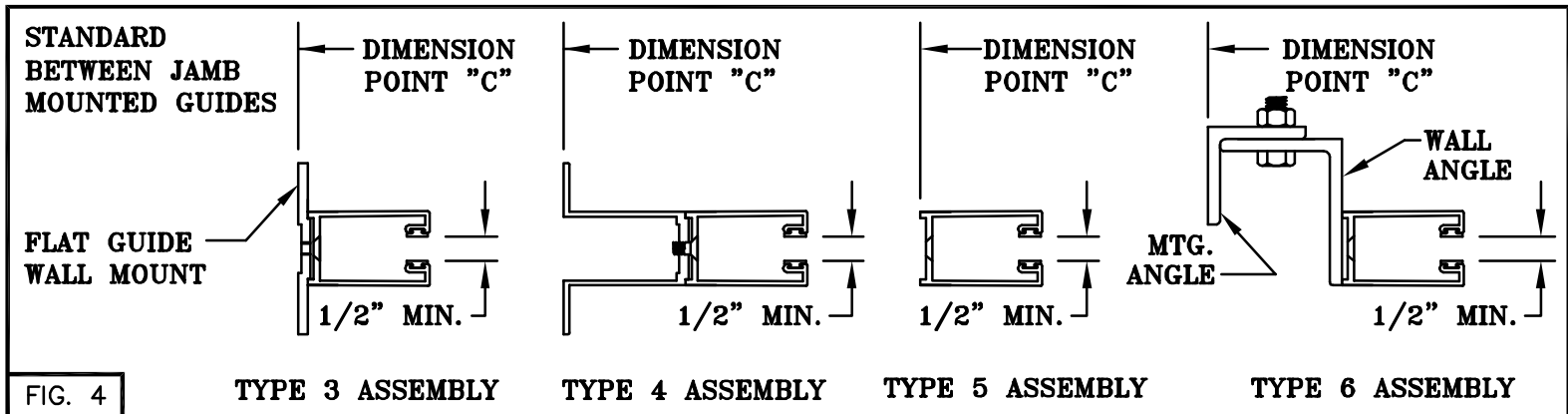
- 4.) Pre-drill mounting holes according to Table 1 on page 10.
- 5.) Tap or install inserts and mount the guides.
- 6.) If guides are Type II and require disassembling, make sure when reassembling, that the width of the guide groove is equal to the measurements shown in FIG. 1.
- 7.) Check guide opening width. See FIG. 3.



# GRILLE DOORS TYPE 3, 4, 5 OR 6

## GUIDE INSTALLATION

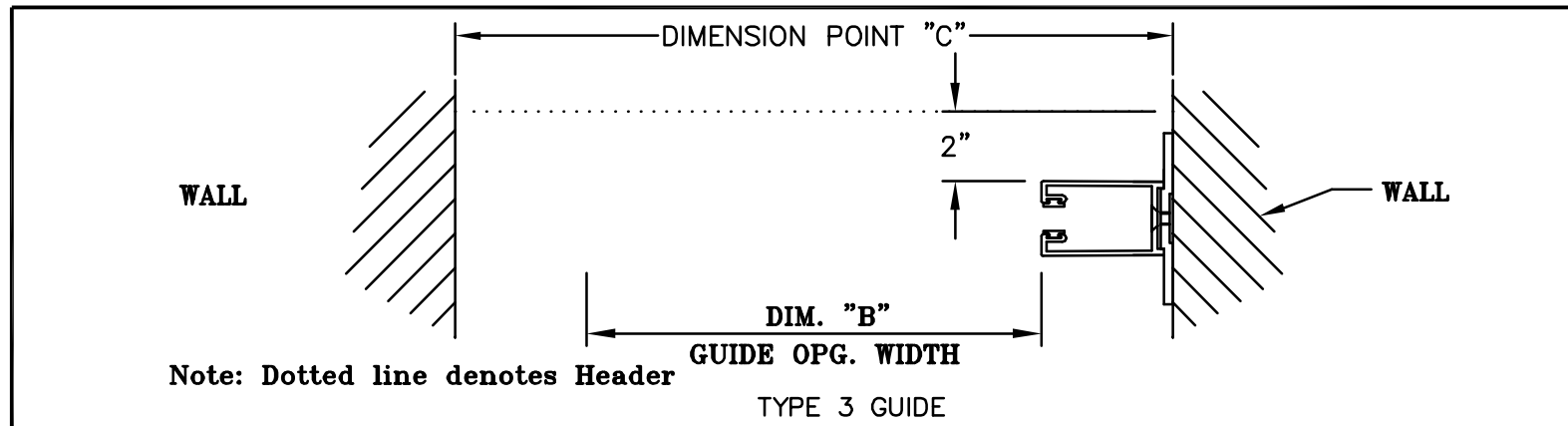
Depending on your specific job conditions, you have received guides that appear as type 3, 4, 5, or 6.



1.) Check Dim. C (jamb opg. width) to insure that it is within plus or minus 1/8" of the given measurements.

2.) With the guides placed against the jambs and positioned per FIG. 5, locate the mounting holes, being sure when doing so that the tops of the guides lie in a level plane as shown in FIG. 6.

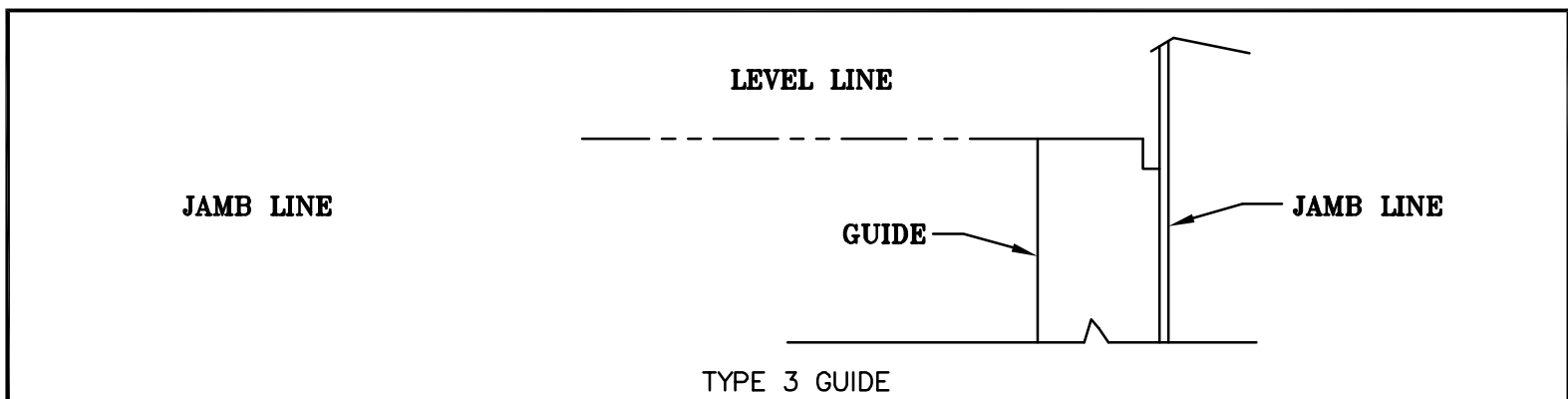
**IMPORTANT:** The bottom of the guides **MUST** be at the same elevation as the top of the floor at the centerline of the door opening to insure that the locking device engages the guide tch or interlock.



3.) Pre-drill mounting holes according to Table 1 on page 10.

4.)

5.) Check guide opening width. See FIG. 5.



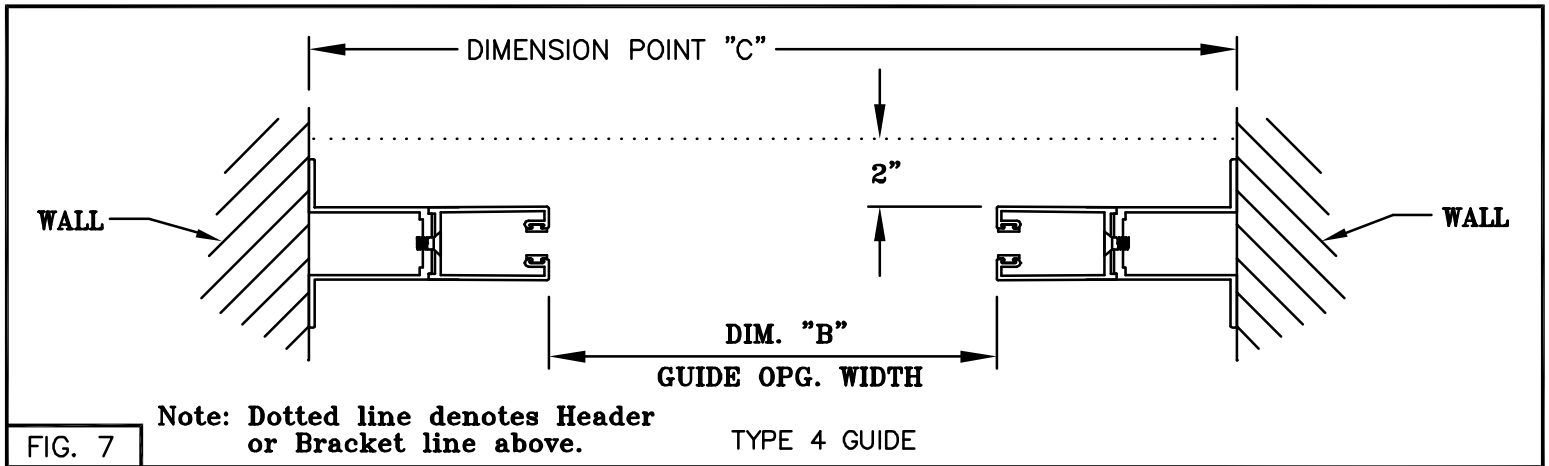
SEE THE FOLLOWING PAGES FOR DETAILS OF TYPES 4, 5, AND 6 GUIDES.

# GRILLE DOORS

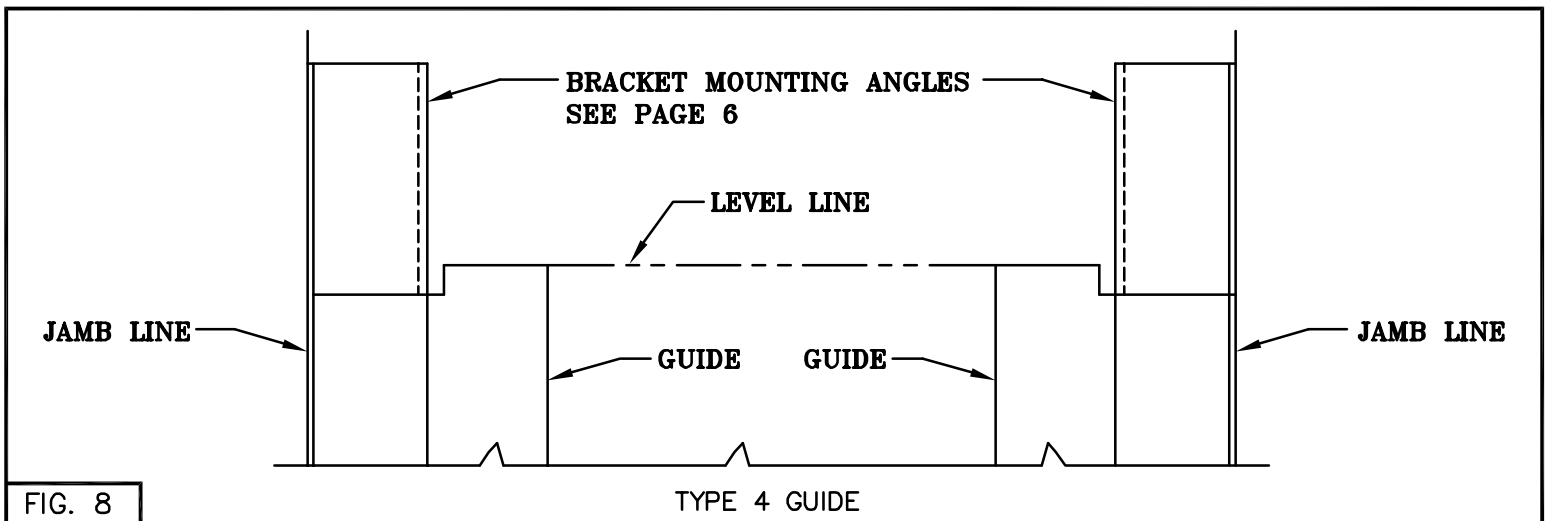
## TYPE 4 GUIDE INSTALLATION

- 1.) Check Dim. C (jamb opg. width) to insure that it is within plus or minus 1/8" of the given measurements.
- 2.) With the guides placed against the jambs and positioned per FIG. 7, locate the mounting holes, being sure when doing so that the tops of the guides lie in a level plane as shown in FIG. 8.

**IMPORTANT:** The bottom of the guides **MUST** be at the same elevation as the top of the floor at the centerline of the door opening to insure that the locking device engages the guide latch or interlock.



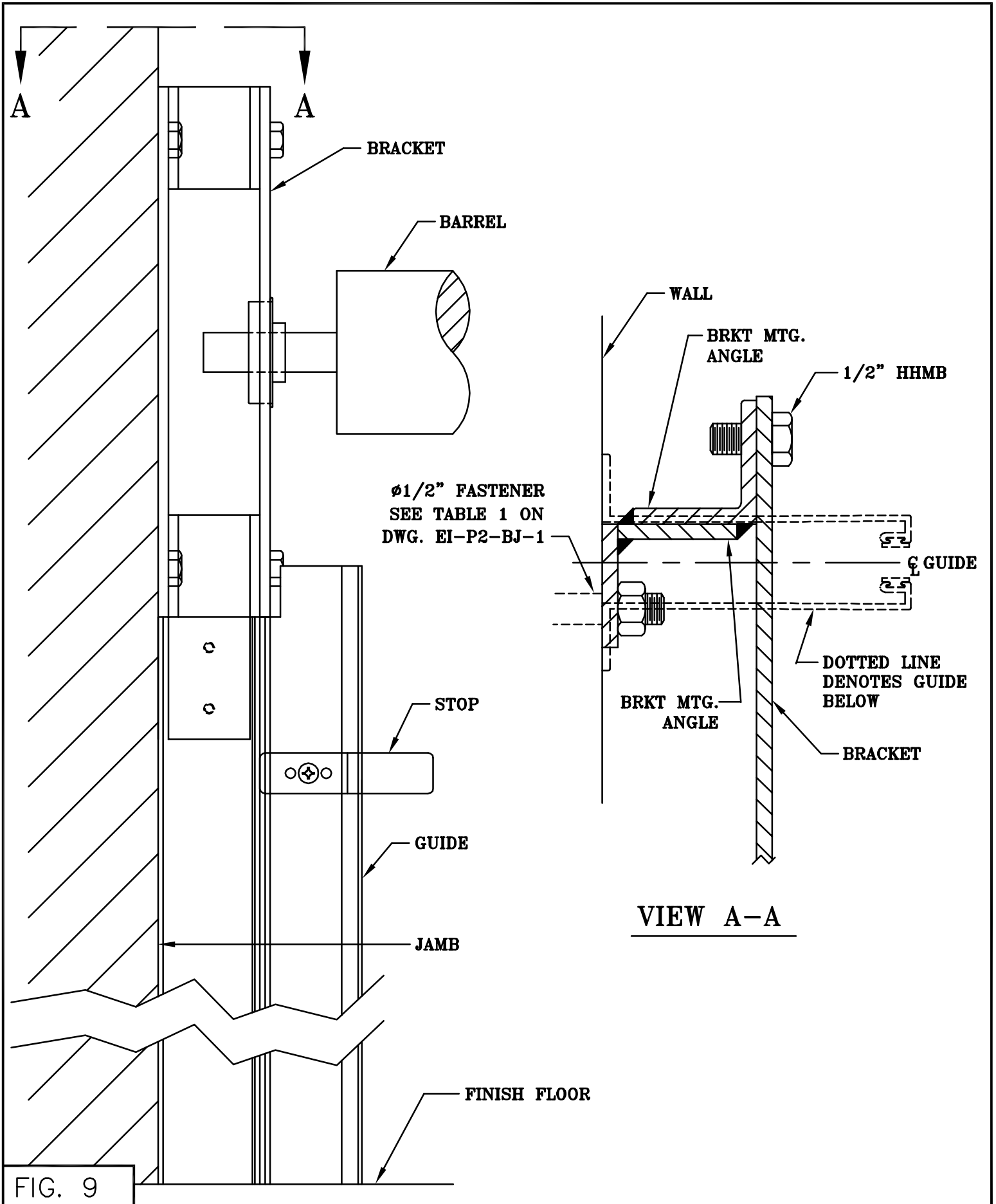
- 3.) Pre-drill mounting holes according to Table 2 on page 10.
- 4.) Tap or install inserts and mount the guides.
- 5.) Check guide opening width (see FIG. 7).



SEE THE FOLLOWING PAGES FOR DETAILS OF TYPES 5 OR 6 GUIDE.

# GRILLE DOORS

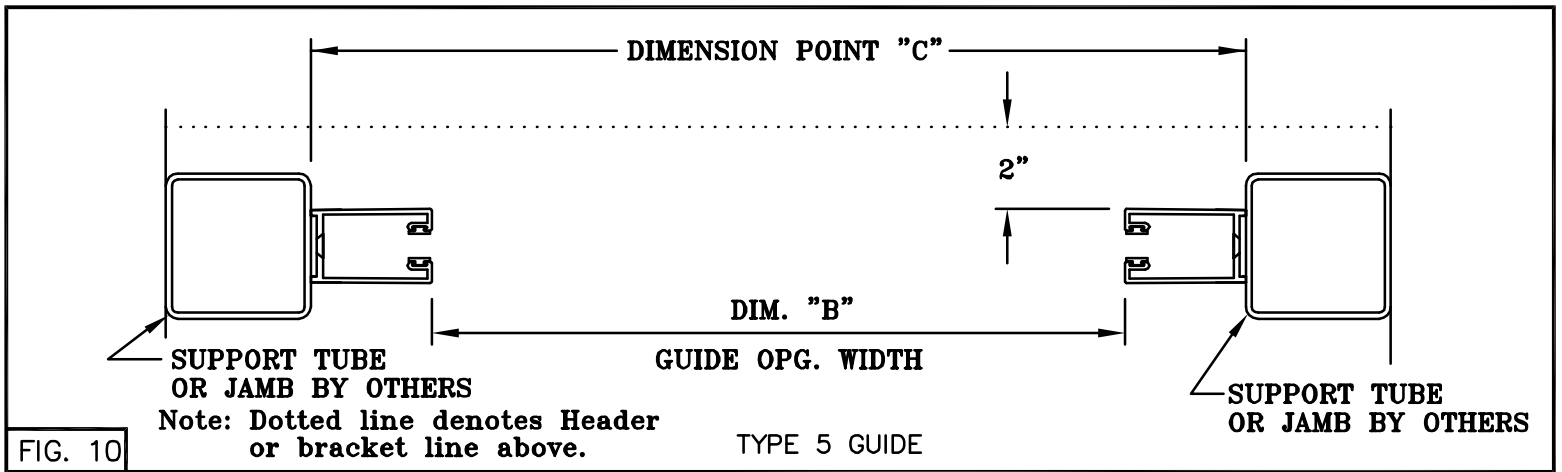
## BRACKET TO WALL ANGLE MOUNTING - TYPE 4 GUIDE



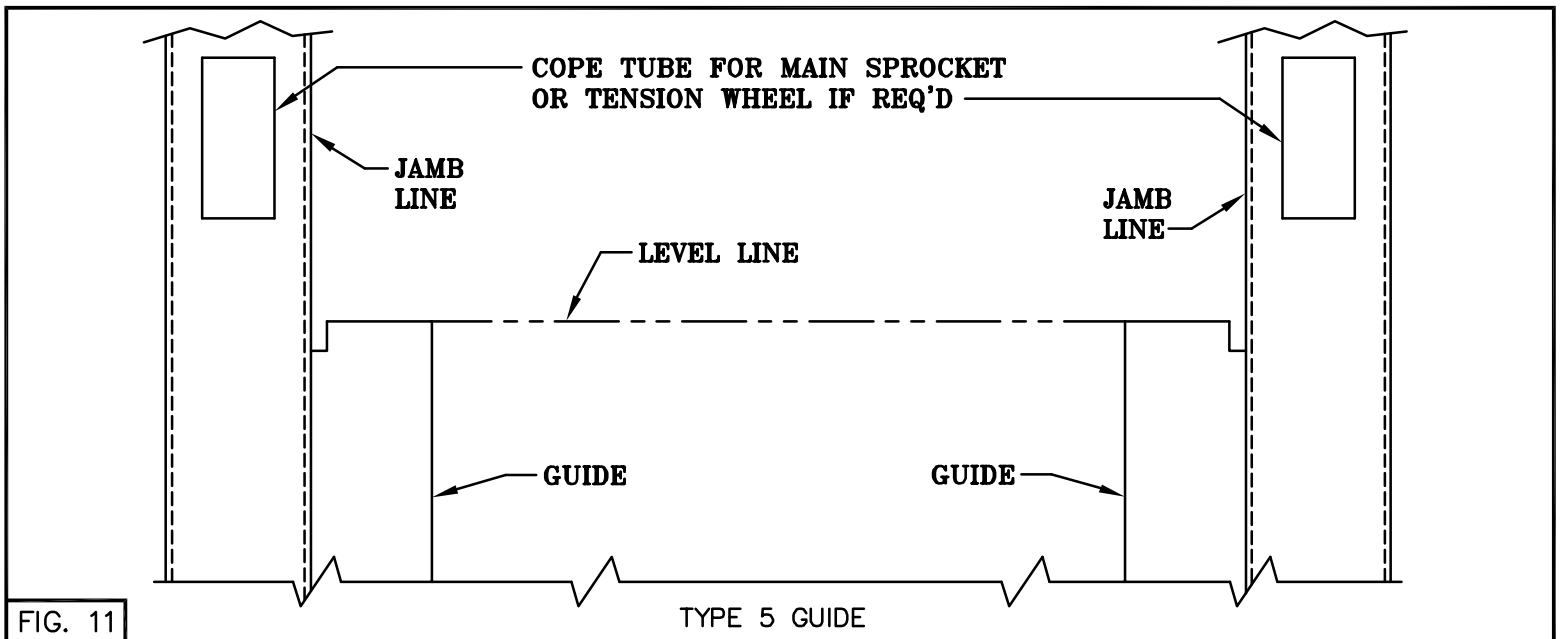
# GRILLE DOORS

## TYPE 5 GUIDE INSTALLATION

- 1.) Check Dim. C (jamb opg. width) to insure that it is within plus or minus 1/8" of the given measurements.
  - 2.) With the guides placed against the jambs and positioned per FIG 10, locate the mounting holes, being sure when doing so that the tops of the guides lie in a level plane as shown in FIG 11
- IMPORTANT:** The bottom of the guides MUST be at the same elevation as the top of the floor at the centerline of the door opening to insure that the locking device engages the guide latch or interlock.



- 3.) Pre-drill mounting holes according to Table 2 on page 10.
- 4.) Tap or install inserts and mount the guides.
- 5.) Check guide opening width (see FIG. 10).

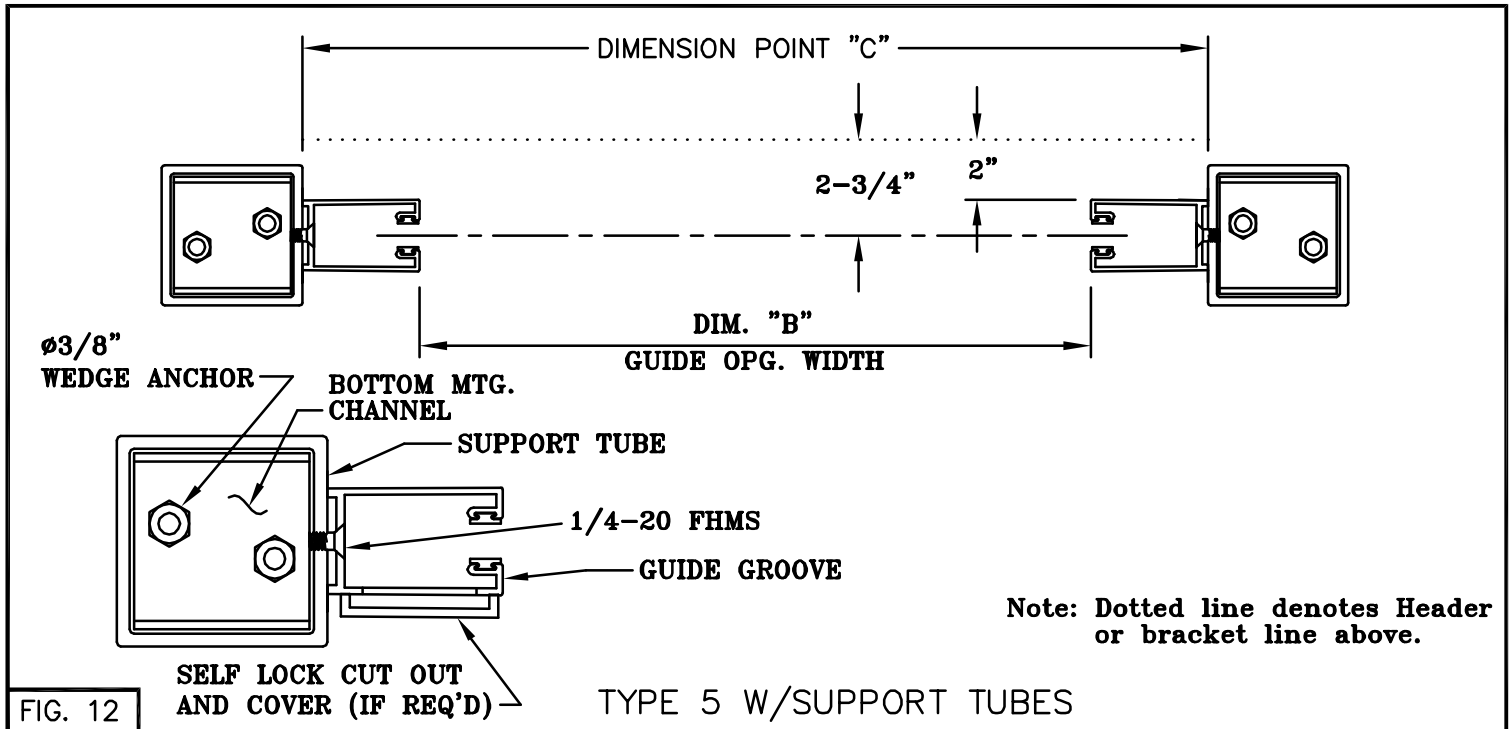


# GRILLE DOORS

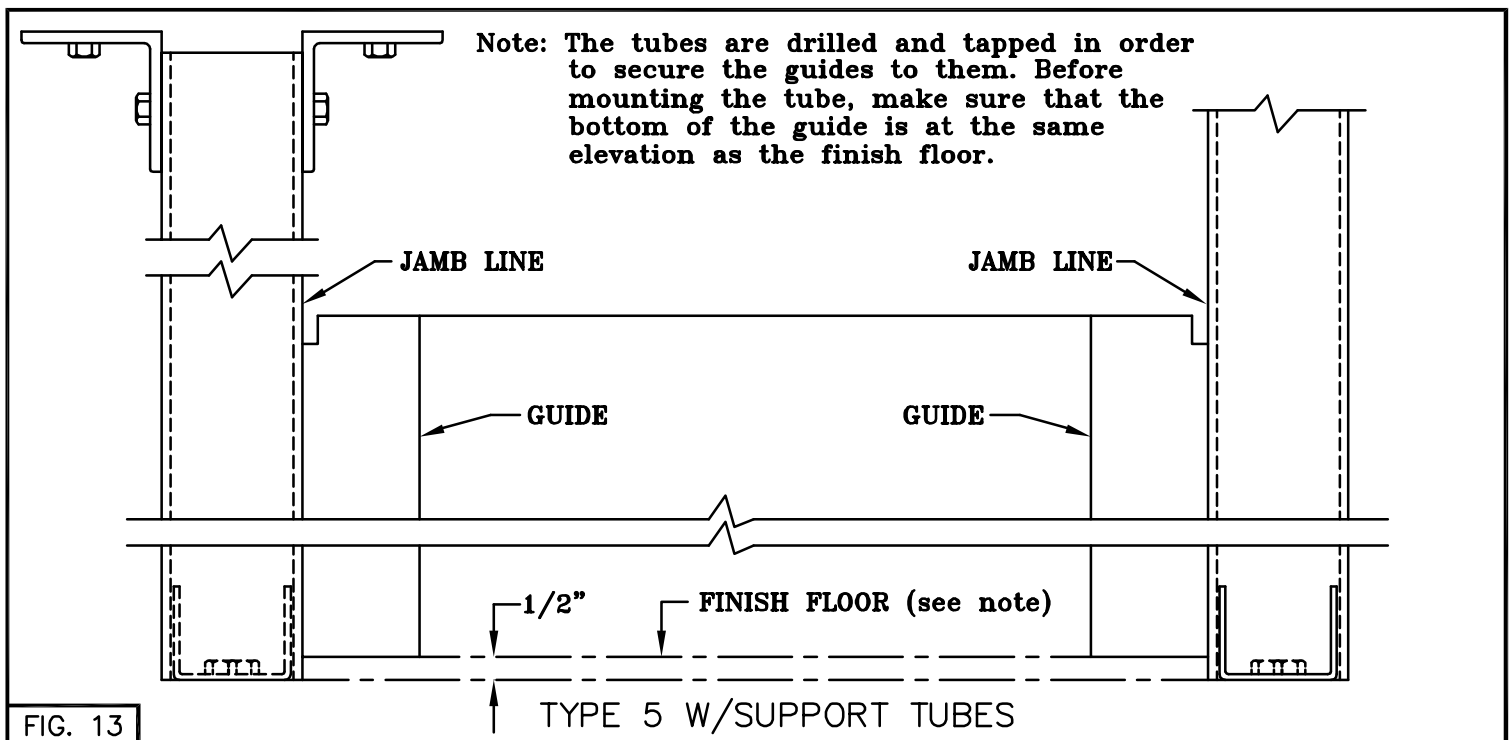
## TYPE 5 GUIDE W/SUPPORT TUBES

- 1.) Check Dim. C (jamb opg. width) to insure that it is within plus or minus 1/8" of the given measurements.
- 2.) With the guides placed against the jambs and positioned per FIG. 12, locate the mounting holes, being sure when doing so that the tops of the guides lie in a level plane as shown in FIG. 13.
- 3.) The self lock cut out and cover (if provided) are to be located on the coil side of the door.

**IMPORTANT:** The bottom of the guides **MUST** be at the same elevation as the top of the floor at the centerline of the door opening to insure that the locking device engages the guide latch or interlock.



- 4.) Check guide opening width (see FIG. 12).

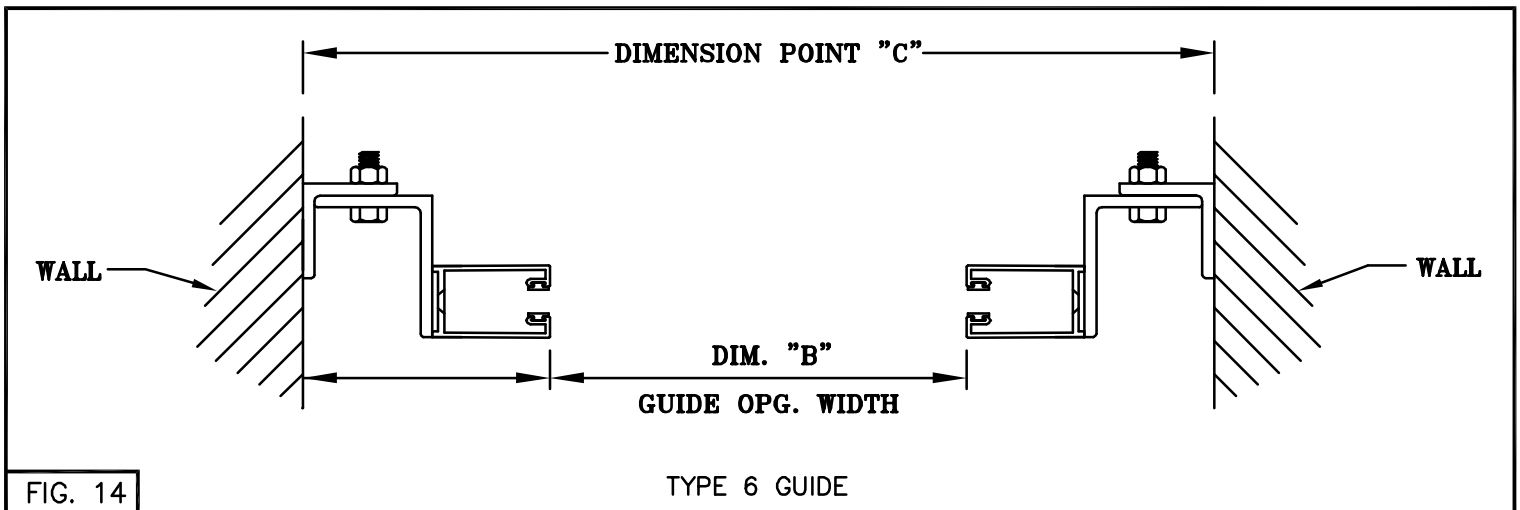


# GRILLE DOORS

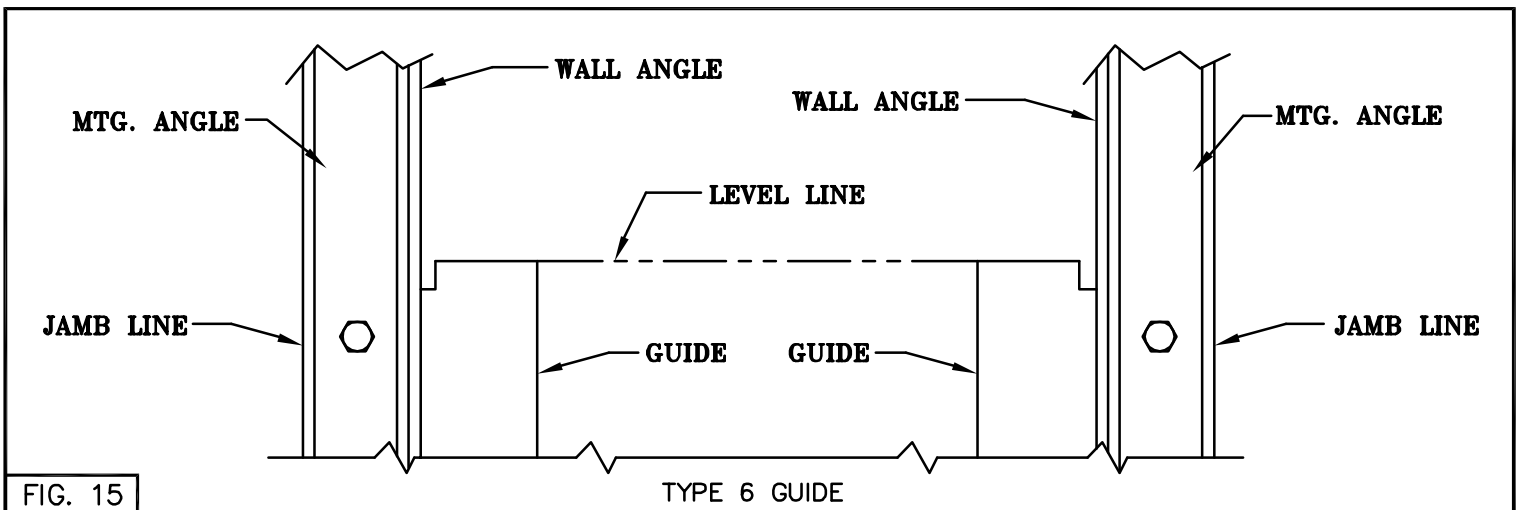
## TYPE 6 GUIDE INSTALLATION

- 1.) The mounting angle must be disassembled from the wall angle before mounting.
- 2.) Check Dim. C (jamb opg. width) to insure that it is within plus or minus 1/8" of the given measurements.
- 3.) Place the disassembled mounting angle against the jamb at the distance from the edge of the opening shown in FIG. 15 and mark the top mounting hole.
- 4.) Remove the mounting angle, and through the mark, scribe a plumb line on the jamb.
- 5.) Place the mounting angle over the line, centering the mounting holes on the line, and level the tops of the right and left hand mounting angles.

**IMPORTANT:** The bottom of the guides **MUST** be at the same elevation as the top of the floor at the centerline of the door opening to insure that the locking device engages the guide latch or interlock.



- 6.) Mark the mounting holes on the wall, and pre-drill them according to Table 1 on page 10.
- 7.) Tap or install inserts, if necessary, and mount the mounting angles.
- 8.) Now mount the guides to the mounting angles.
- 9.) Check the guide opening width (see FIG. 14).



# GRILLE DOORS - FASTENER TABLES

## TABLE 1 - TYPE 1, 2 & 6 GUIDES

TYPE OF CONSTRUCTION TO WHICH FASTENER EMBEDS	TYPE OF FASTENER TO USE	HOLE SIZE (DRILL DIA.)	TAP SIZE (IF REQ'D)	DEPTH OF HOLE
WOOD	ø3/8" X 2" LAG BOLT	ø3/16"	_____	1-1/2" MAX
	ø1/2 X 3" LAG BOLT	ø5/16"	_____	2-1/2" MAX
CONCRETE	ø3/8" X 2-1/8" WEDGE ANCH.	ø3/8" CARBIDE	_____	1-5/8" MIN
	ø1/2" X 2-3/4" WEDGE ANCH.	ø1/2" CARBIDE	_____	2-1/4" MIN
	ø5/8" X 3-1/2" WEDGE ANCH.	ø5/8" CARBIDE	_____	2-7/8" MIN
	ø3/4" X 4-1/4" WEDGE ANCH.	ø3/4" CARBIDE	_____	3-1/2" MIN
MASONRY OR BRICK	ø5/8" X 2-1/4" SLEEVE ANCH. (ø1/2" BOLT)	ø5/8"	_____	2" MIN
	ø3/4" X 2-1/2" SLEEVE ANCH. (ø5/8" BOLT)	ø3/4"	_____	2" MIN
STEEL	ø3/8" BOLT	ø5/16"	3/8"-16UNC	_____
	ø1/2" BOLT	ø27/64"	1/2"-13UNC	_____
	ø5/8" BOLT	ø17/32"	5/8"-11UNC	_____
	ø3/4" BOLT	ø21/32"	3/4"-10UNC	_____

## TABLE 2 - TYPE 3, 4 & 5 GUIDES

TYPE OF CONSTRUCTION TO WHICH FASTENER EMBEDS	TYPE OF FASTENER TO USE	HOLE SIZE (DRILL DIA.)	TAP SIZE (IF REQ'D)	DEPTH OF HOLE
WOOD	#12 X 1-1/2" WOOD SCREW	ø1/8"	_____	1-1/2" MAX
CONCRETE	#12 X 1-1/2" WOOD SCREW W/ #12 PLASTIC SHIELD	ø1/4" CARBIDE	_____	1-1/2" MAX.
STEEL	ø1/4" BOLT	#7	1/4"-20 UNC	_____
HOLLOW METAL	1/4-20 SELF DRILLING AND TAPPING SCREW	ø13/64	_____	_____
HOLLOW CERAMIC TILE	TYPE "L" WALL GRIP W/ 1/4"-20 MACH. SCREW	ø7/16"	_____	_____

## TABLE 3 - BRACKETS

TYPE OF CONSTRUCTION TO WHICH FASTENER EMBEDS	TYPE OF FASTENER TO USE	HOLE SIZE (DRILL DIA.)	TAP SIZE (IF REQ'D)	DEPTH OF HOLE
WOOD		ø5/32"	_____	1-1/2" MAX
	ø3/8" X 2" LAG BOLT	ø3/16"	_____	1-1/2" MAX
	ø1/2 X 3" LAG BOLT	ø5/16"	_____	2-1/2" MAX
CONCRETE	ø3/8" X 2-1/8" WEDGE ANCH.	ø3/8" CARBIDE	_____	1-5/8" MIN
	ø1/2" X 2-3/4" WEDGE ANCH.	ø1/2" CARBIDE	_____	2-1/4" MIN
	ø5/8" X 3-1/2" WEDGE ANCH.	ø5/8" CARBIDE	_____	2-7/8" MIN
	ø1/2" X 3" EXP. SHIELD	ø3/4" CARBIDE	_____	3" MIN
STEEL		ø5/16"	3/8"-16UNC	_____
		ø27/64"	1/2"-13UNC	_____
	5/8" BOLT	ø17/32"	5/8"-11UNC	_____
MASONRY OR BRICK	ø1/2" X 2-1/4" SLEEVE ANCH. (ø3/8" BOLT)	ø1/2"	_____	2" MIN
	ø5/8" X 2-1/4" S (ø1/2" BOLT)	ø5/8"	_____	2" MIN
	(ø5/8" BOLT)	ø3/4"	_____	2" MIN

# GRILLE DOORS

## BARREL AND BRACKET ASSEMBLY

Inspect the barrel. Notice that one shaft is stationary, whereas the other rotates. The stationary shaft is called the drive shaft. The drive bracket is mounted either on your right hand or left hand when viewing the door per FIG. 16. Make sure that the arrow on the tension shaft agrees with the drive and tension bracket assemblies when viewed as follows:

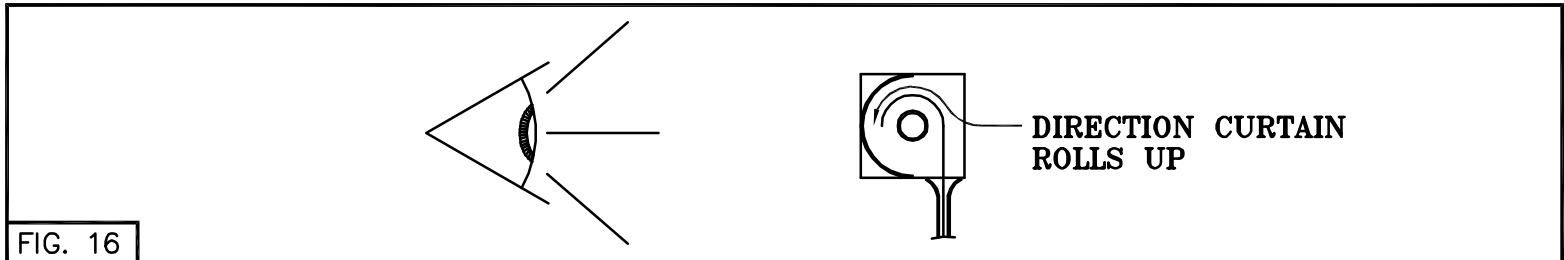


FIG. 16

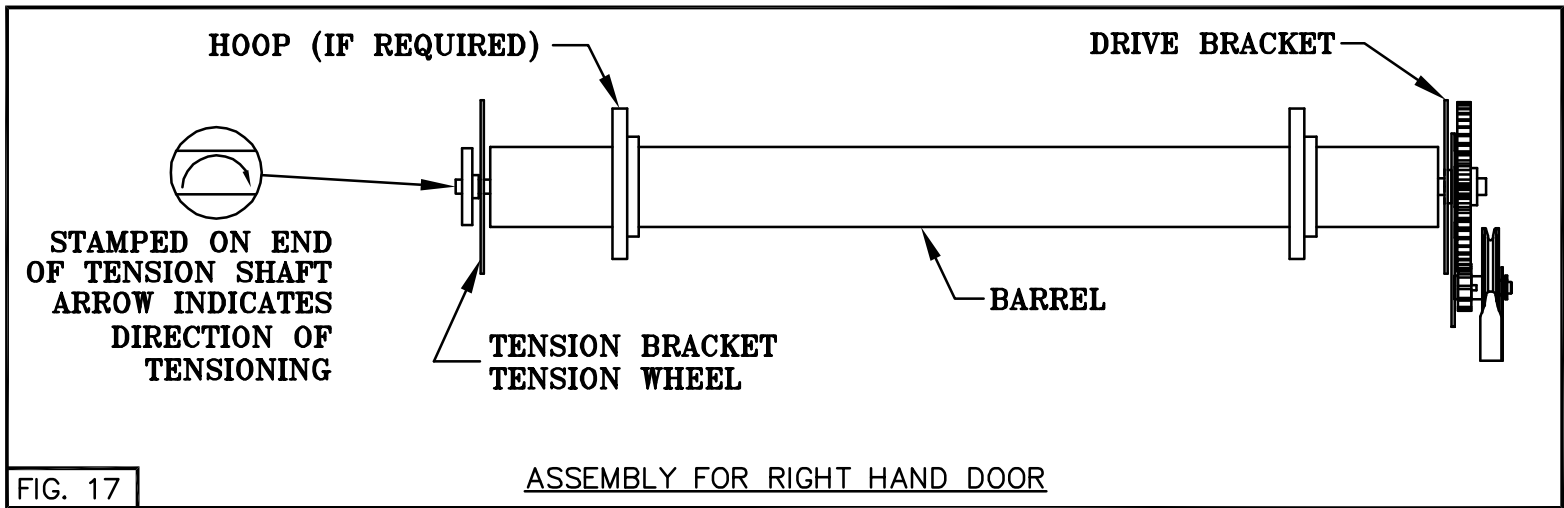


FIG. 17

ASSEMBLY FOR RIGHT HAND DOOR

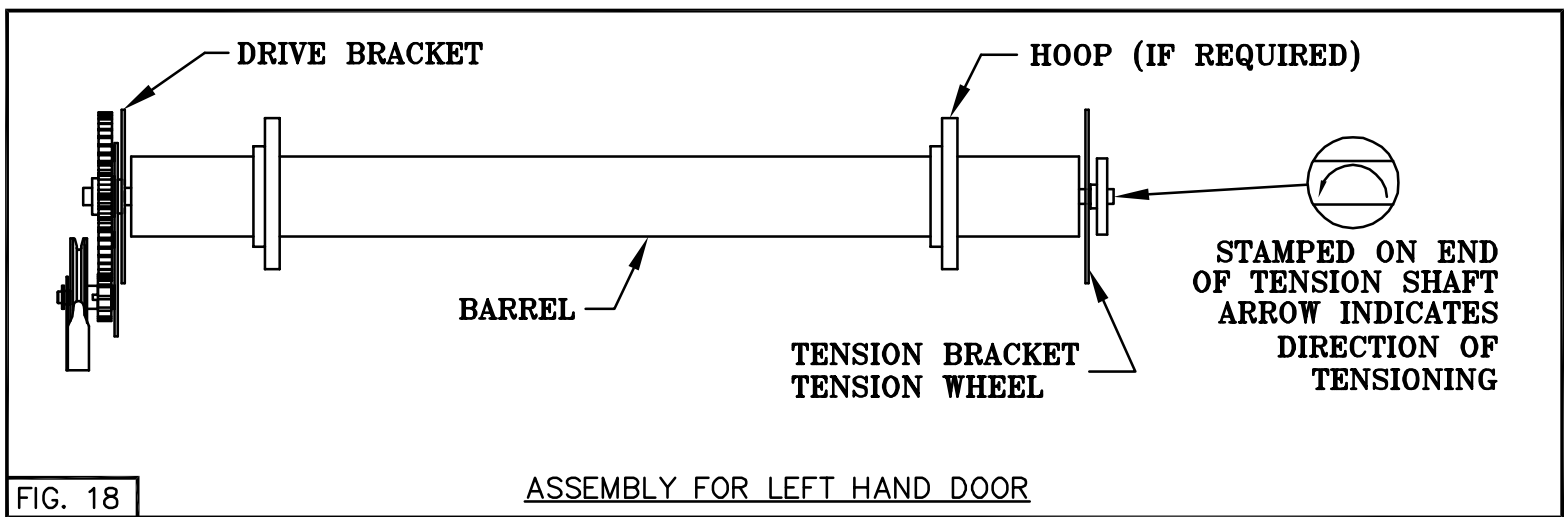


FIG. 18

ASSEMBLY FOR LEFT HAND DOOR

NOTE: CHAIN OPERATED DRIVE BRACKET AND OUTSIDE TENSION WHEEL ARRANGEMENT SHOWN IN FIG. 17 AND FIG. 18 ARE SHOWN FOR CLARITY ONLY.

If the doors you have received are furnished with a tension wheel that mounts between the barrel and the inside face of the tension bracket, the tension wheel will be found wired to the tension bracket.

# GRILLE DOORS

## BARREL AND BRACKET MOUNTING

- 1.) After determining whether you have RH or LH drive, place the barrel on the floor below the opening in the position it takes when actually mounted. If you have hoops, mount them loosely on the barrel as shown in FIG. 19. If wire rings are furnished consult page 14.

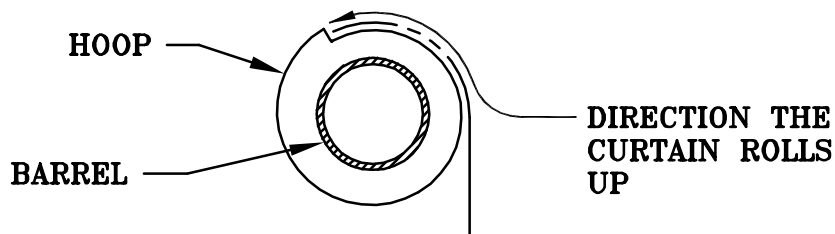


FIG. 19

- 2.) If you have an inside tension assembly, the tension wheel will be attached to the barrel as shown in FIG. 20.

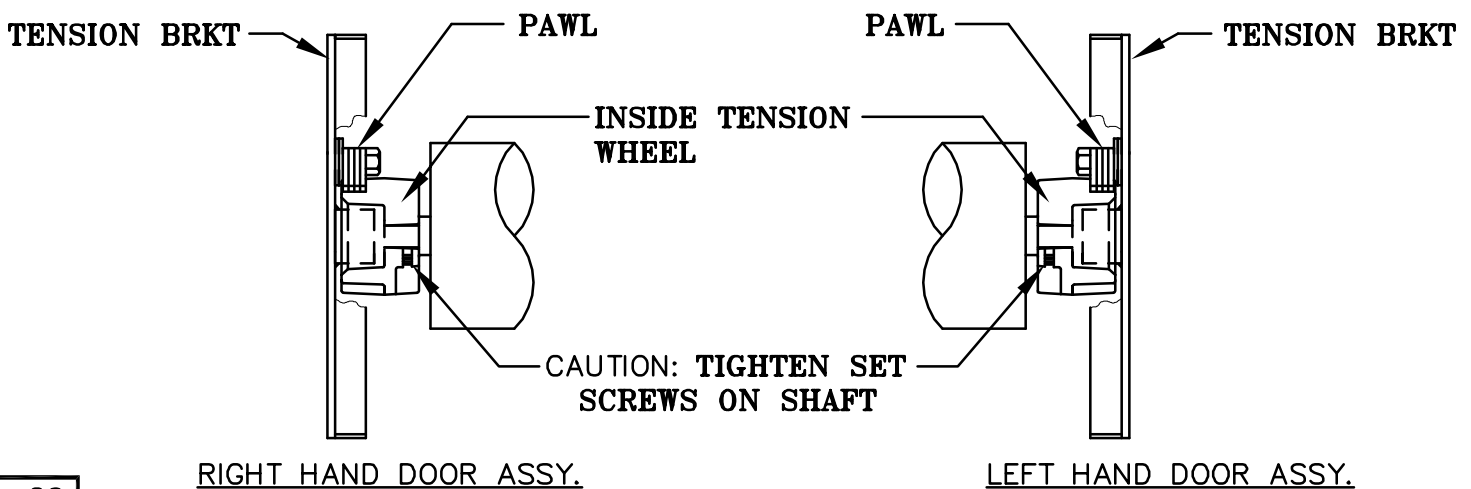


FIG. 20

- 3.) Slide the mounting brackets onto their respective ends of the barrel and raise the entire assembly into position at the head of the opening.
- 4.) Using the carriage bolts as shown in FIG. 21, bolt the brackets to the wall angle.

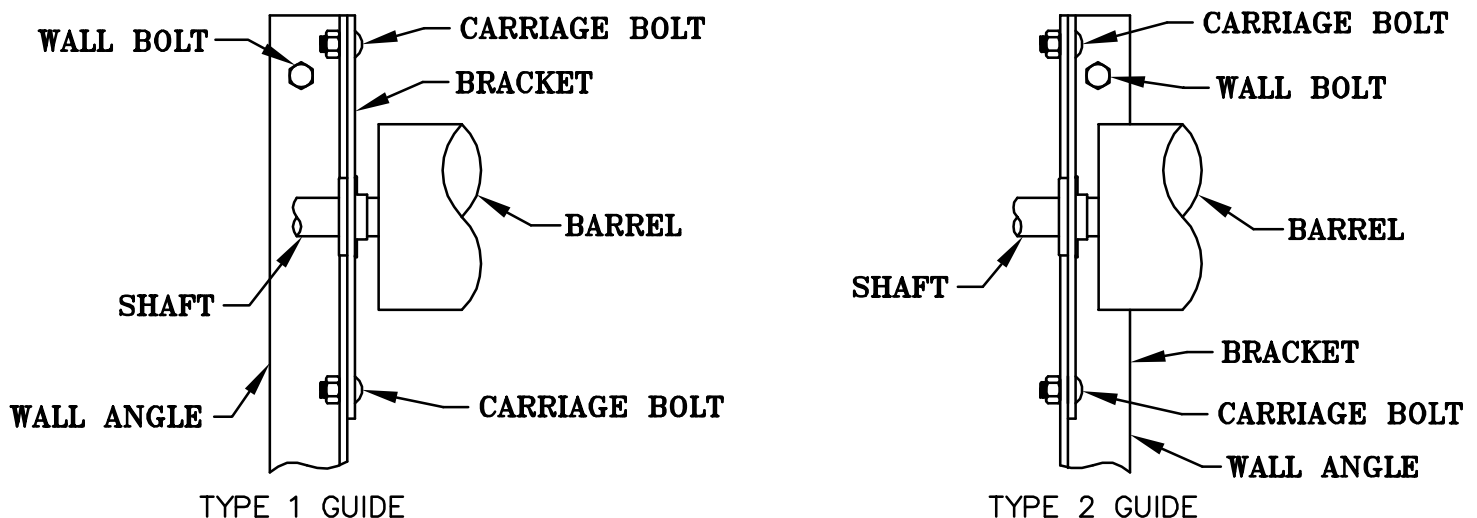


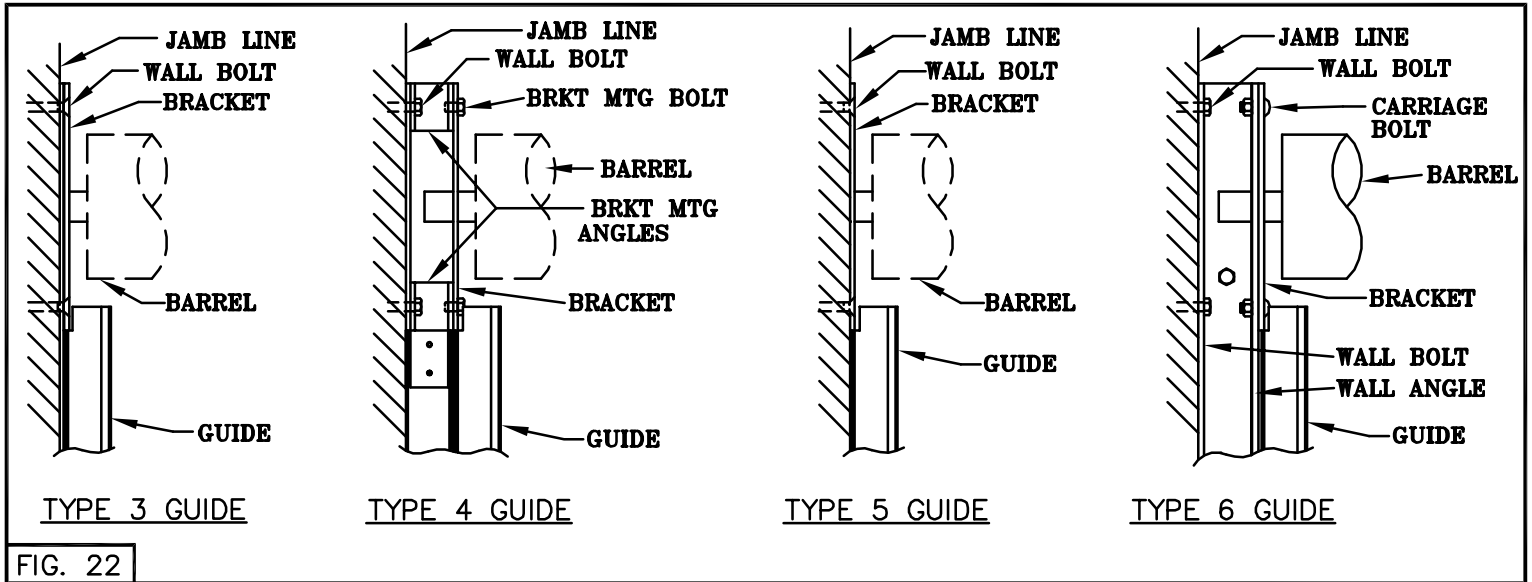
FIG. 21

NOTE: LEFT SIDE SHOWN. RIGHT SIDE OPPOSITE

- 5.) Center the barrel, with an equal distance from ends of pipe, to inside face of both brackets only if outside tension wheel is supplied.

# GRILLE DOORS

## BARREL AND BRACKET MOUNTING (CONT.)

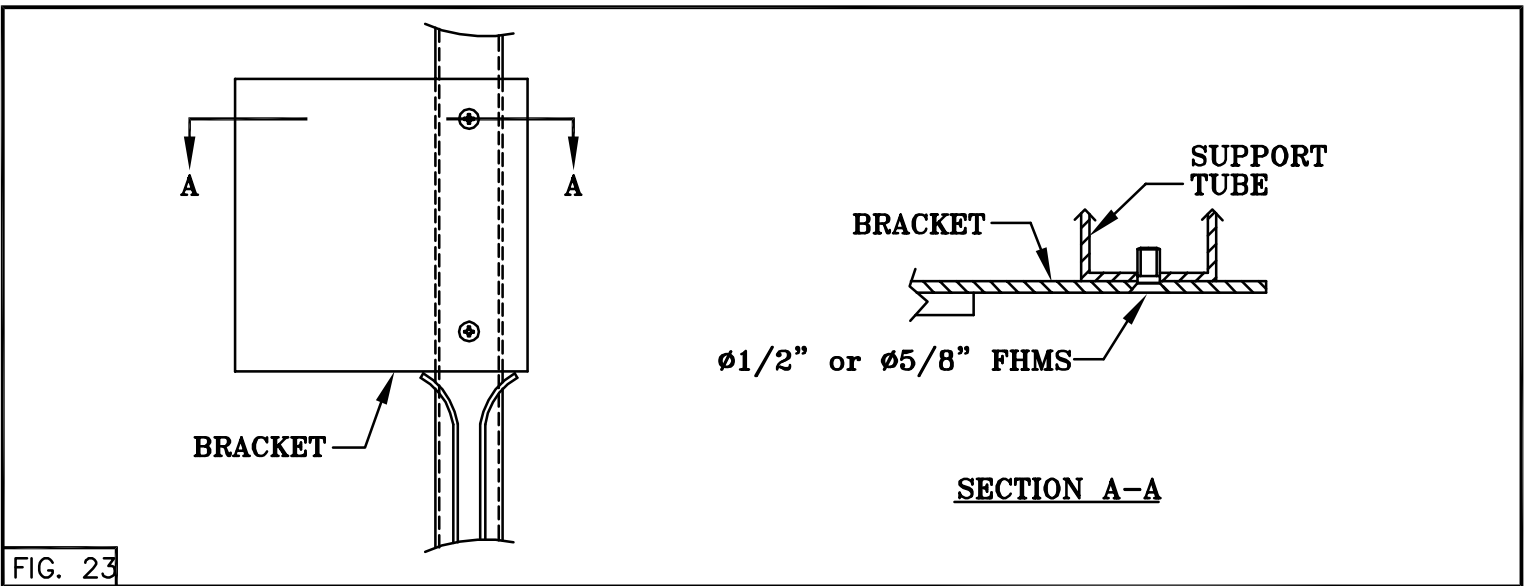


### IMPORTANT

USE BRACKET FASTENERS PROVIDED  
SEE TABLE 3 ON PAGE 10 FOR FASTENER SCHEDULE

### FOR TYPE 5 GUIDES W/SUPPORT TUBES

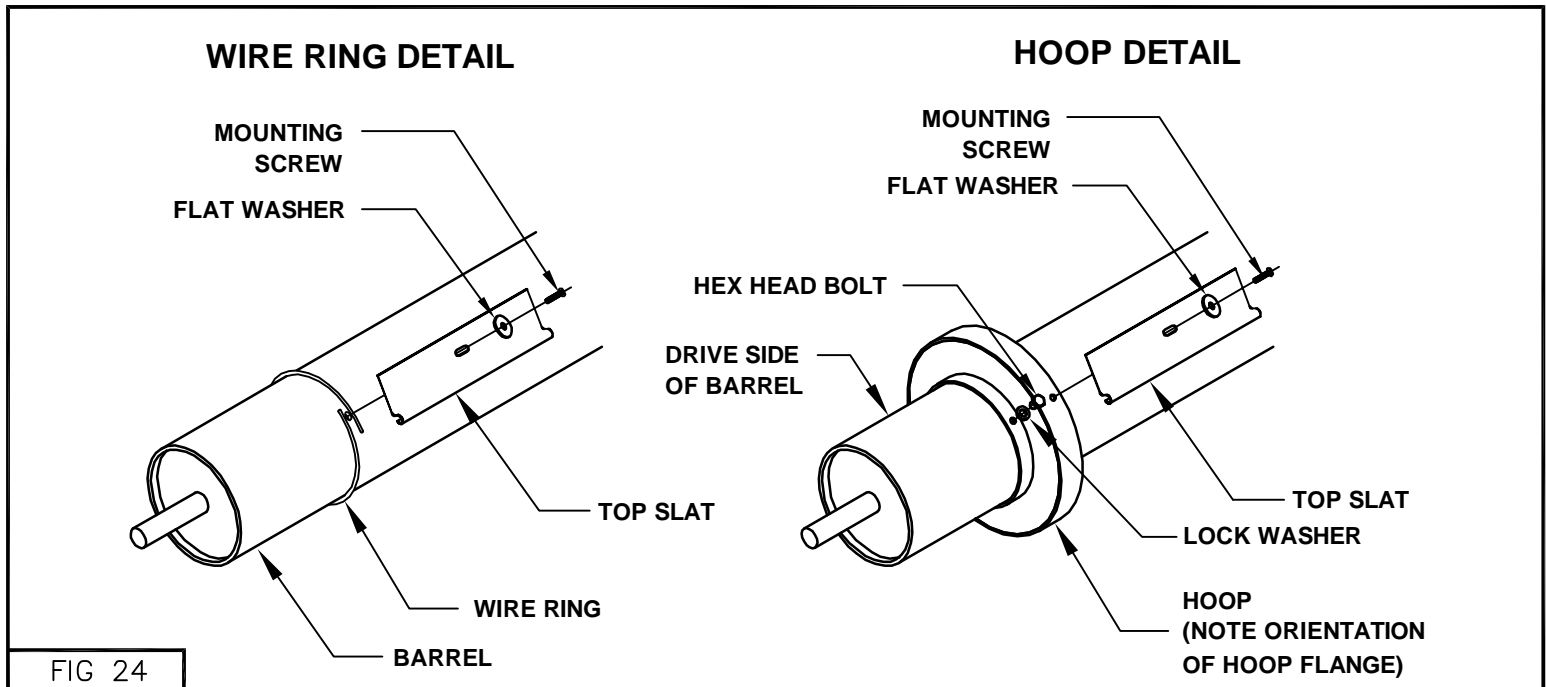
4A.) Using the mounting screws as shown in FIG. 23 attach the brackets to the support tubes.



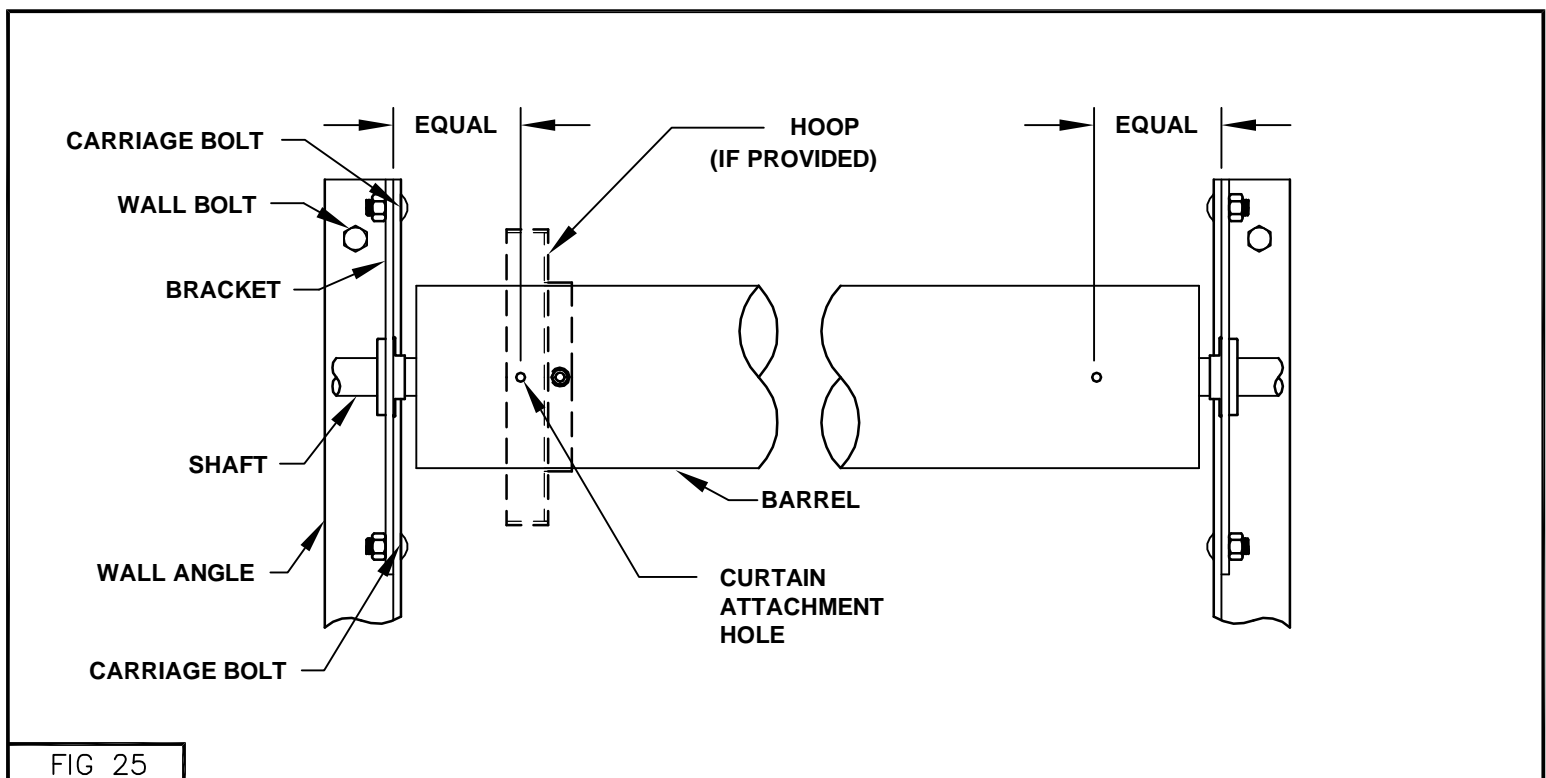
5A.) Center the barrel with an equal distance from the ends of the pipe to the inside face of both brackets.

# BARREL AND BRACKET ASSEMBLY

- 1.) Determine whether you have Right Hand (RH) or Left Hand (LH) drive, place the barrel below the opening in the position it takes when actually mounted. If you have hoops or wire rings consult FIG. 24.



- 2.) Slide the brackets onto their respective ends of the barrel and raise the entire assembly into position at the head of the opening.
- 3.) Using the carriage bolts as shown in FIG. 25, bolt the brackets to the wall angle.



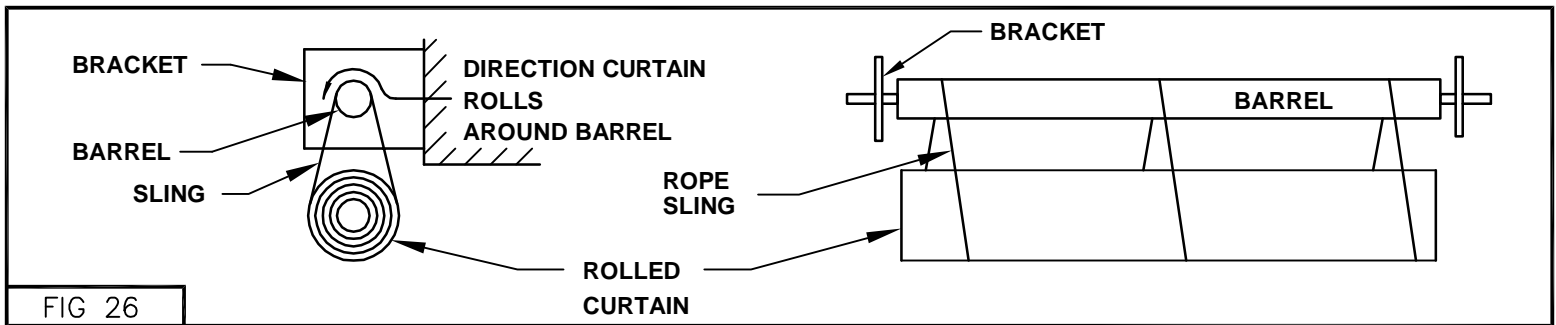
- 4.) Position the barrel, with an equal distance from the first curtain attachment hole, to the inside face of both brackets. See FIG 25.

# GRILLE DOORS

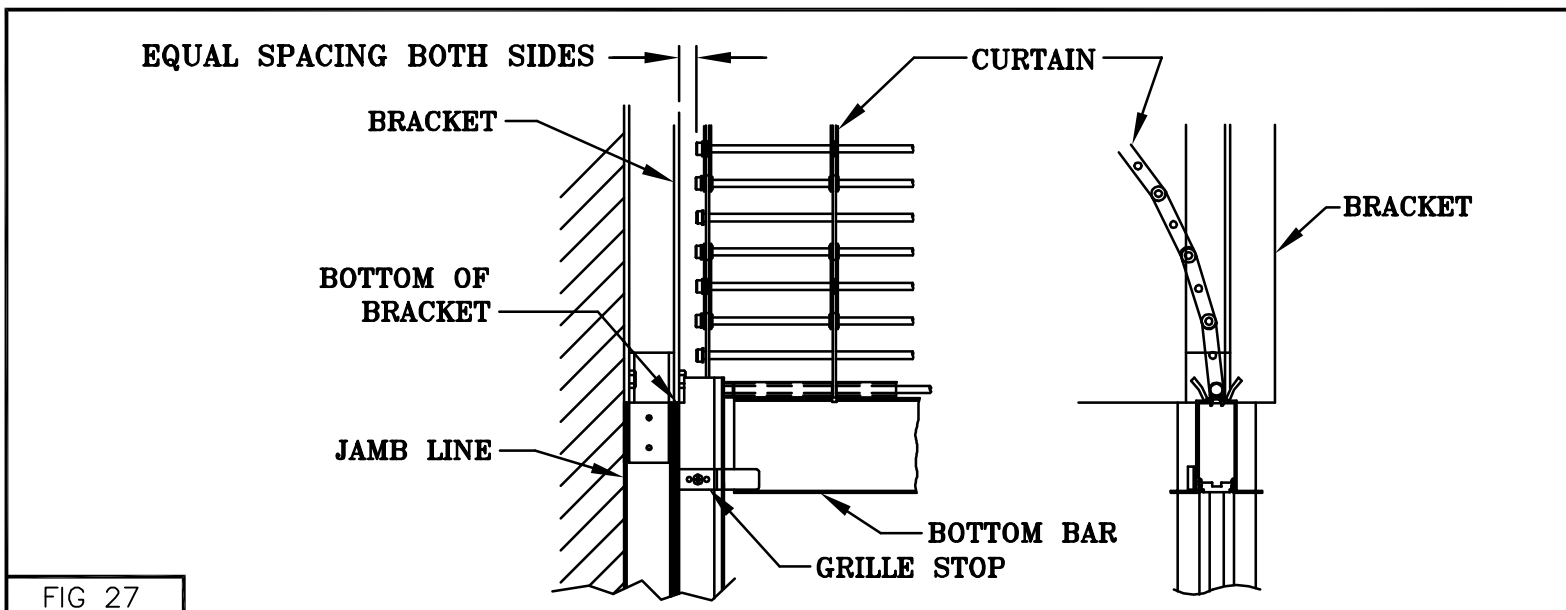
## CURTAIN ASSEMBLY INSTRUCTIONS

**IMPORTANT:** Be sure the tension shaft is free to rotate and that the tension wheel is not restrained such that it prevents rotation of the tension shaft. Do not install outside tension wheel at this time.

- 1) Place the rolled curtain below the Barrel Assembly. Make sure the curtain roll is in the direction the rolls around the barrel. Hoist the curtain approx. 3 Ft. below the barrel and suspend it there by means of two or more slings. Make sure the quantity and capacity of slings are sufficient to safely support the curtain without damaging the curtain.



- 2) Pull the top slat up around the barrel. This can be accomplished by clamping the top slat to the slings and rotating the barrel.
- 3) Attach top slat to barrel with provided fasteners. **IMPORTANT: BE SURE THE ENDS OF THE CURTAINS ARE EQUIDISTANT FROM THE INSIDE FACES OF THE BRACKETS.**
- 4) If your door has a means of manually operating, use it to roll the curtain onto the barrel.
- 5) If you door is the push up type, use a tensioning bar inserted into the tension wheel to rotate the barrel while rolling the curtain onto the barrel. Rotate the tension wheel in the same direction the barrel turns when the curtain coils onto it.
- 6) With the curtain completely rolled onto the barrel, feed the bottom bar into the guides and attach the stops as shown in FIG. 27.



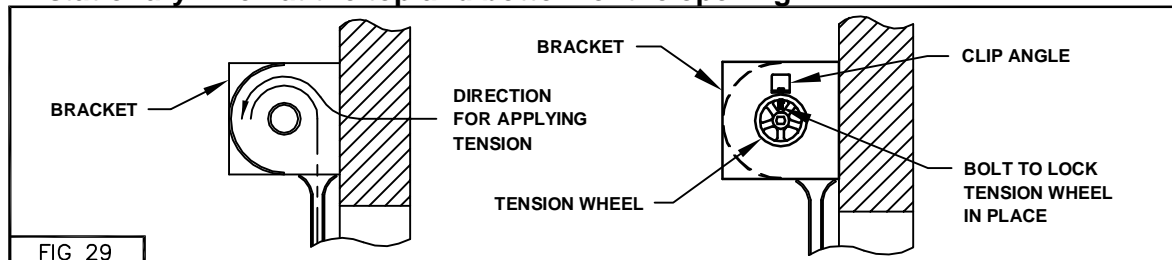
# TENSIONING INSTRUCTIONS STANDARD TENSION WHEEL



**WARNING**

TENSION COMPONENTS UNDER EXTREME SPRING TENSION. CAN CAUSE SERIOUS INJURY OR DEATH. SERIOUS INJURY MAY BE INCURRED IF THE CURTAIN IS NOT FULLY COILED ON THE BARREL WHILE MAKING ADJUSTMENTS TO THE TENSION ASSEMBLY.

- 1.) Raise the curtain to the full open position.
- 2.) Install tension wheel on to tension shaft.
- 3.) Rotate the tension wheel, by means of a bar inserted into the tension wheel. See installation information sheet for number of turns. Rotate in direction the curtain normally winds onto the barrel. See FIG 29.
- 4.) Lock the tension wheel to the bracket with the supplied bolt. The bolt can be found in the angle clip that is welded to the bracket.
- 5.) Test the door for operation. The balance should be such that the door remains stationary when at the top and bottom of the opening.



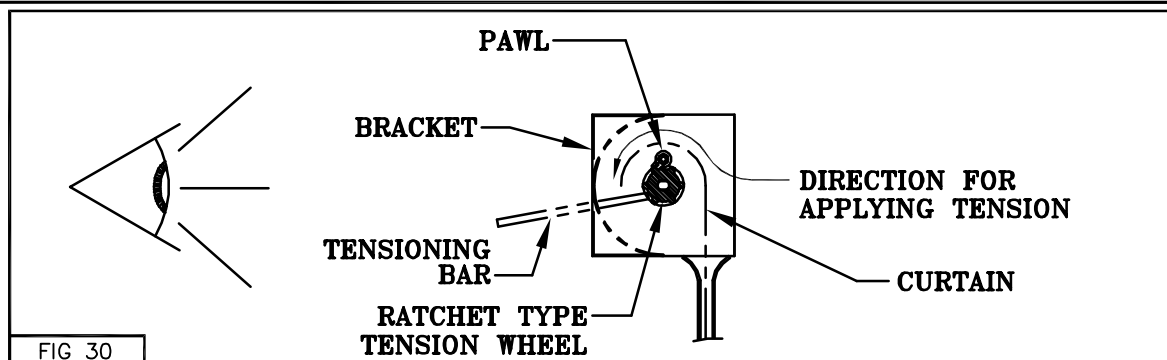
## TENSIONING FOR EMERGENCY EGRESS DEVICE

- 1) Tension door according to Standard Procedure above.
- 2) Install release handle per Motor Manufacturer Instructions.
- 3) Lower door to the closed position thru the motor. Pull emergency opening cable. Door should automatically raise to approximately 3 feet off the floor. If it does not reach this desired level, open the door completely and add tension (notch by notch) until it rises to 3 feet.
- 4) Now bring the door in full open position. Pull emergency opening cable. If door drops, open door completely and add tension (notch by notch). Retest per above instructions until door does not drop.
- 5) Now, retest the auto rise function. Lower door to the closed position thru the motor. Pull emergency opening cable. Door should now rise to an acceptable height to permit emergency egress.

## TENSIONING INSTRUCTIONS FOR DOORS WITH INSIDE TENSION WHEEL

- 1.) For doors with an inside tension wheel, LOWER the curtain all the way down until access to the tension wheel is available. Engage a bar into one of the slots in the tension wheel and rotate it in the direction shown in FIG. 30. SEE INSTALLATION INFORMATION SHEET FOR THE NUMBER OF TURNS NEEDED.

CAUTION: DO NOT REMOVE THE TENSIONING BAR UNLESS THE PAWL IS ENGAGED FULLY IN THE TENSION WHEEL DOGS.



- 2.) Test the door for operation. The balance should be such that the door remains stationary when at the top of the opening.

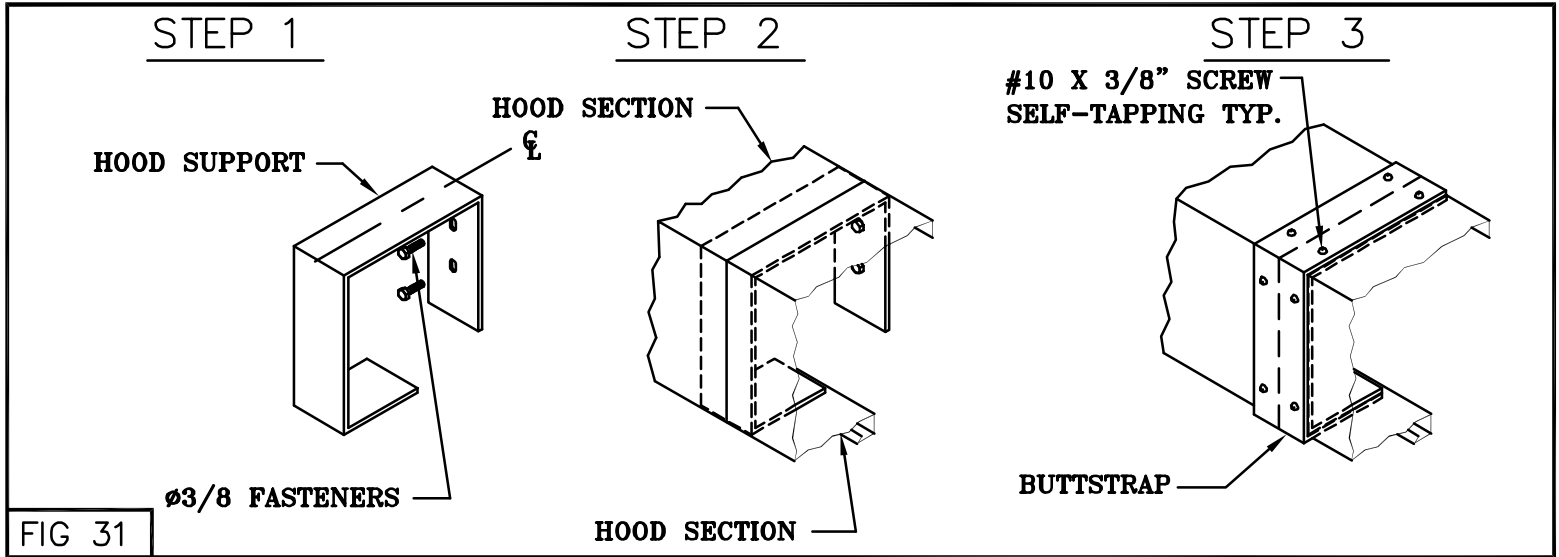
# GRILLE DOORS

## HOOD INSTALLATION - SQUARE HOOD

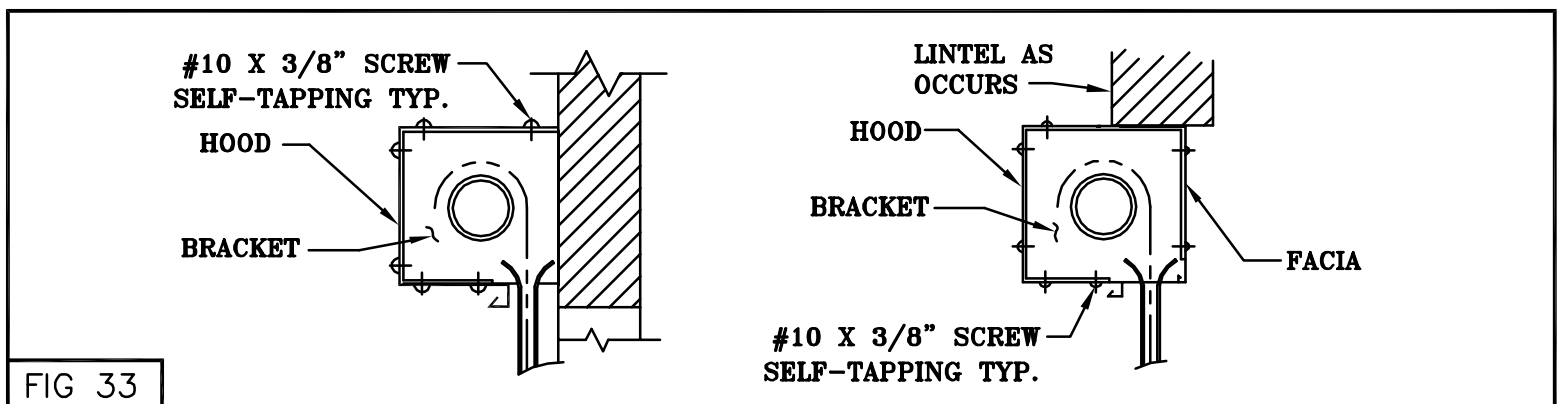
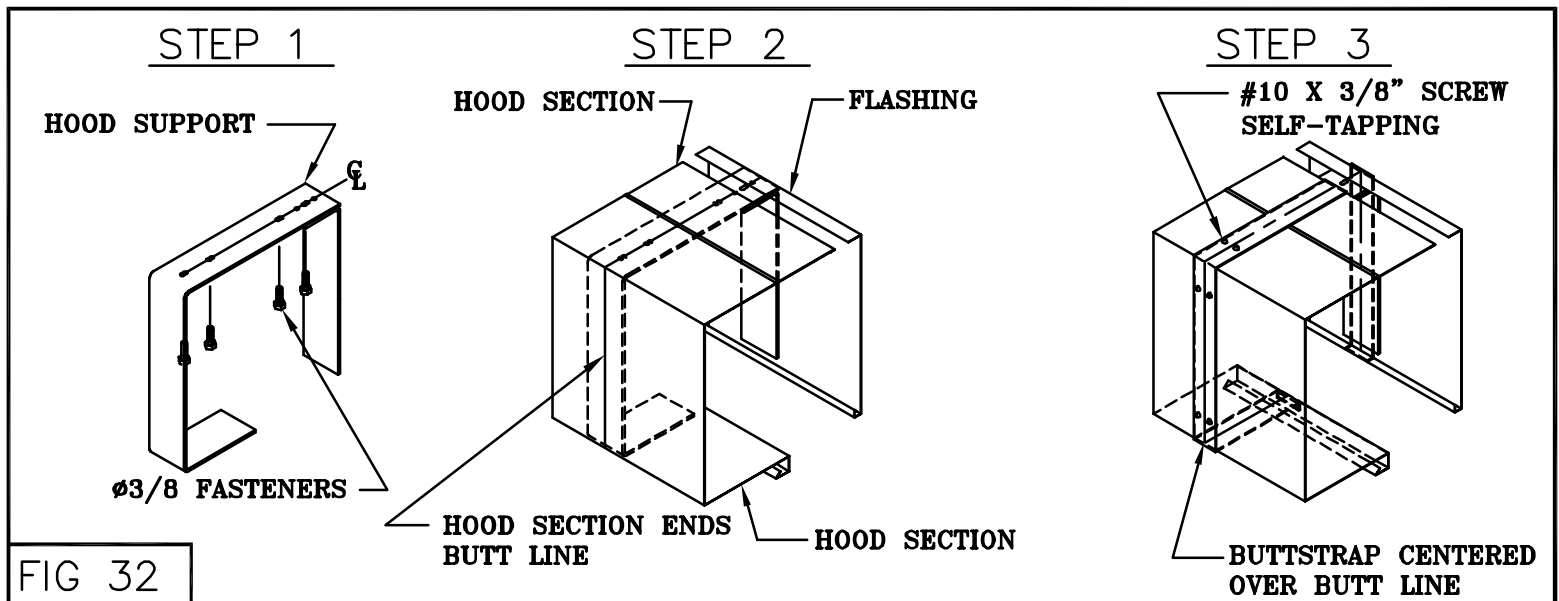
Note: Follow steps 1 thru 3 in Fig. 31 & 32 only if hood support is required.

- 1.) Locate the center line(s) of the hood support(s) and mount to the lintel using  $\phi 3/8$ " bolts.
- 2.) Place the hood section(s) over the hood support(s). If the hood has more than one section, butt the ends of the sections together and center them on the supports.
- 3.) Place the buttstrap(s) over the hood. Drill  $\phi .157$  holes through the butt strap, hood, and support. Fasten the three together with the #10 pan head self-tapping machine screws provided.

FOR TYPE I & II GUIDES



FOR ALL OTHER GUIDES



# HAND CHAIN OPERATOR INSTALLATION

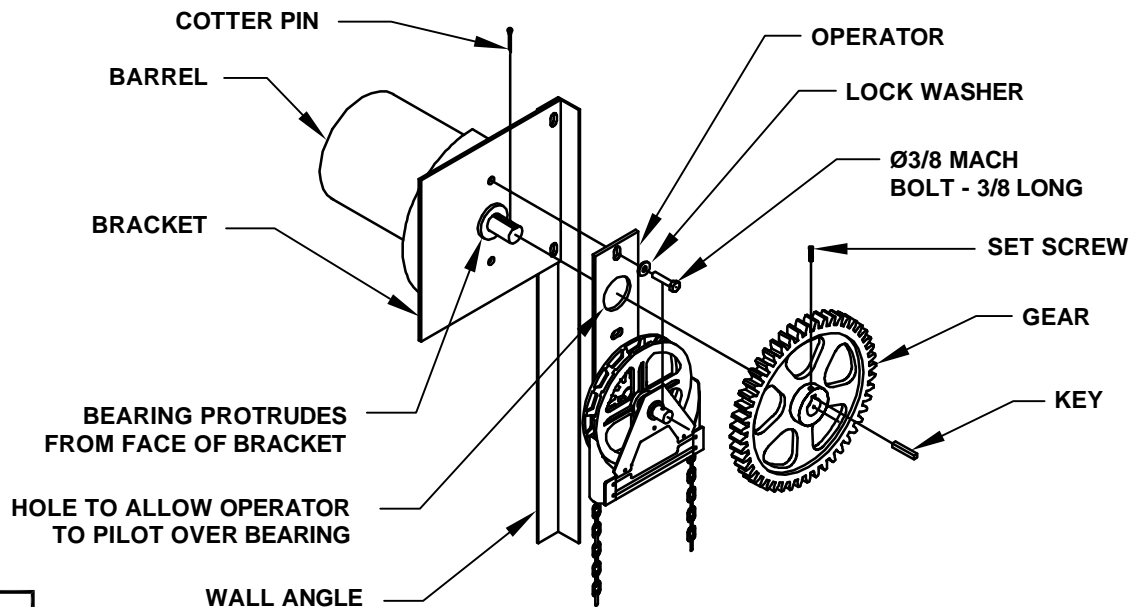


FIG 34

1. Raise brackets and barrel into position and bolt brackets to wall angle.
2. Bolt operator to bracket.
3. Insert key in keyway and tighten set screw.

**NOTE:** Right hand operator shown.  
Left hand operator opposite as shown.

**DOORS WITH SINGLE GEAR SYSTEM:** Preposition gear to mesh with 3" pinion before installing operator on bracket.

**DOORS WITH DOUBLE GEAR SYSTEM:** Remove all gears from operator, install operator on bracket, then reinstall gears.

## CRANK GEARBOX ASSY - WORM GEAR TYPE

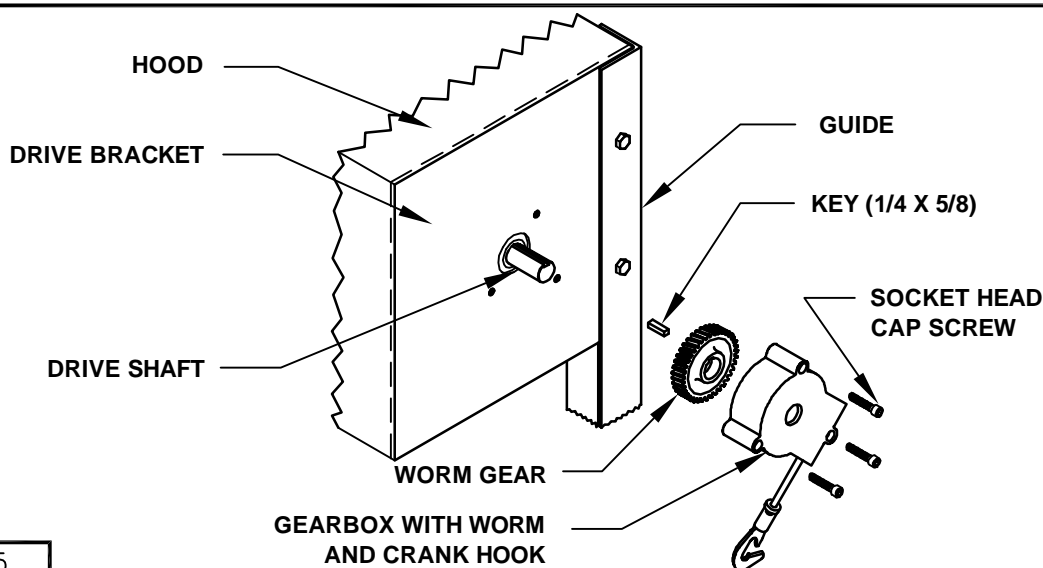


FIG 35

**NOTE:**

1. Worm wheel and gearbox are shipped mounted to bracket.
2. Unbolt gearbox and assemble over drive shaft as shown above.
3. On between jamb doors, this is usually easiest done prior to assembling brackets to guides.

# SD/FD/GRILLE GUIDE MOUNTED CRANK OPERATED INSTALLATION INSTRUCTION

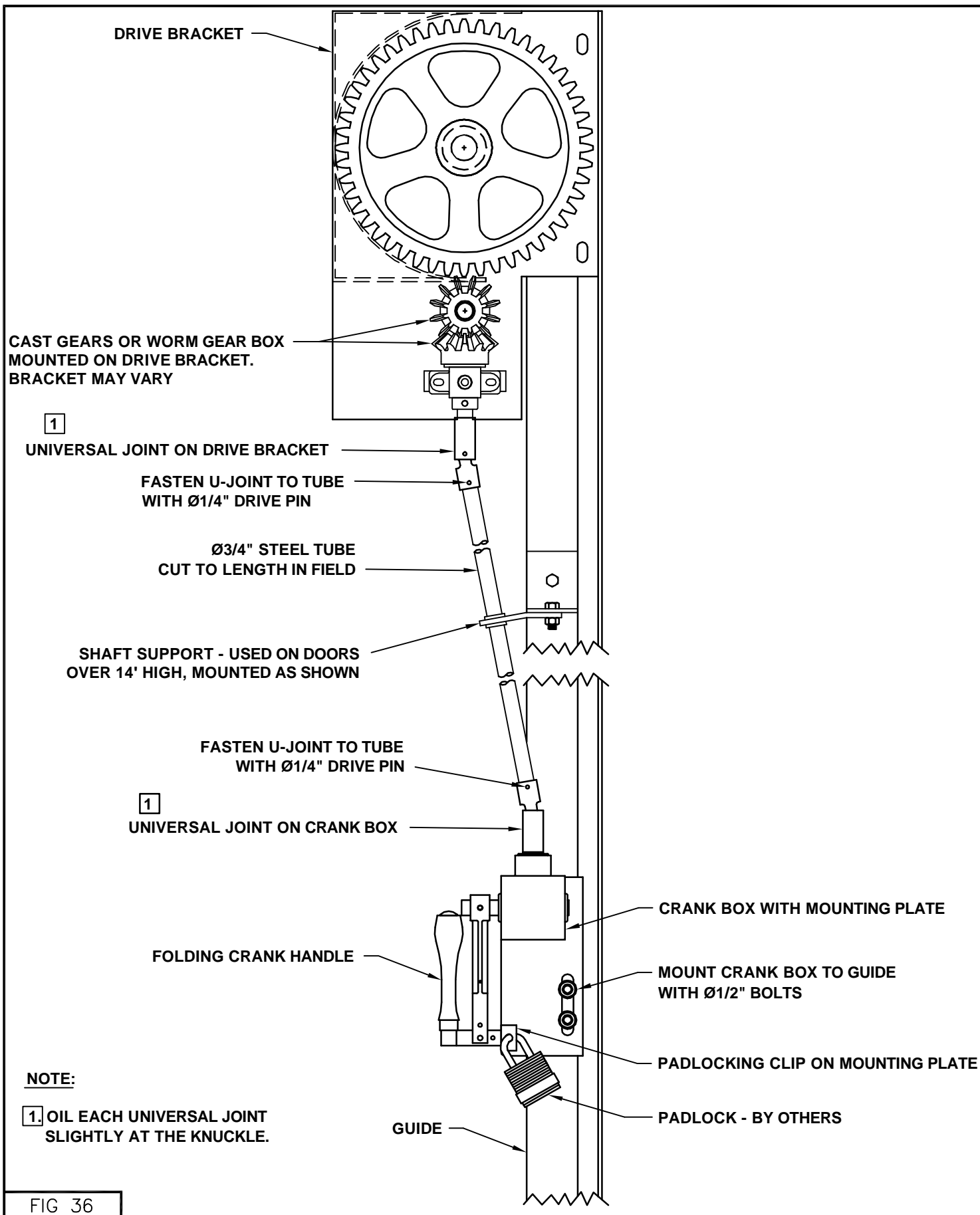


FIG 36

# SD/FD/GRILLE GUIDE MOUNTED THRU-WALL CRANK OPERATED INSTALLATION INSTRUCTION

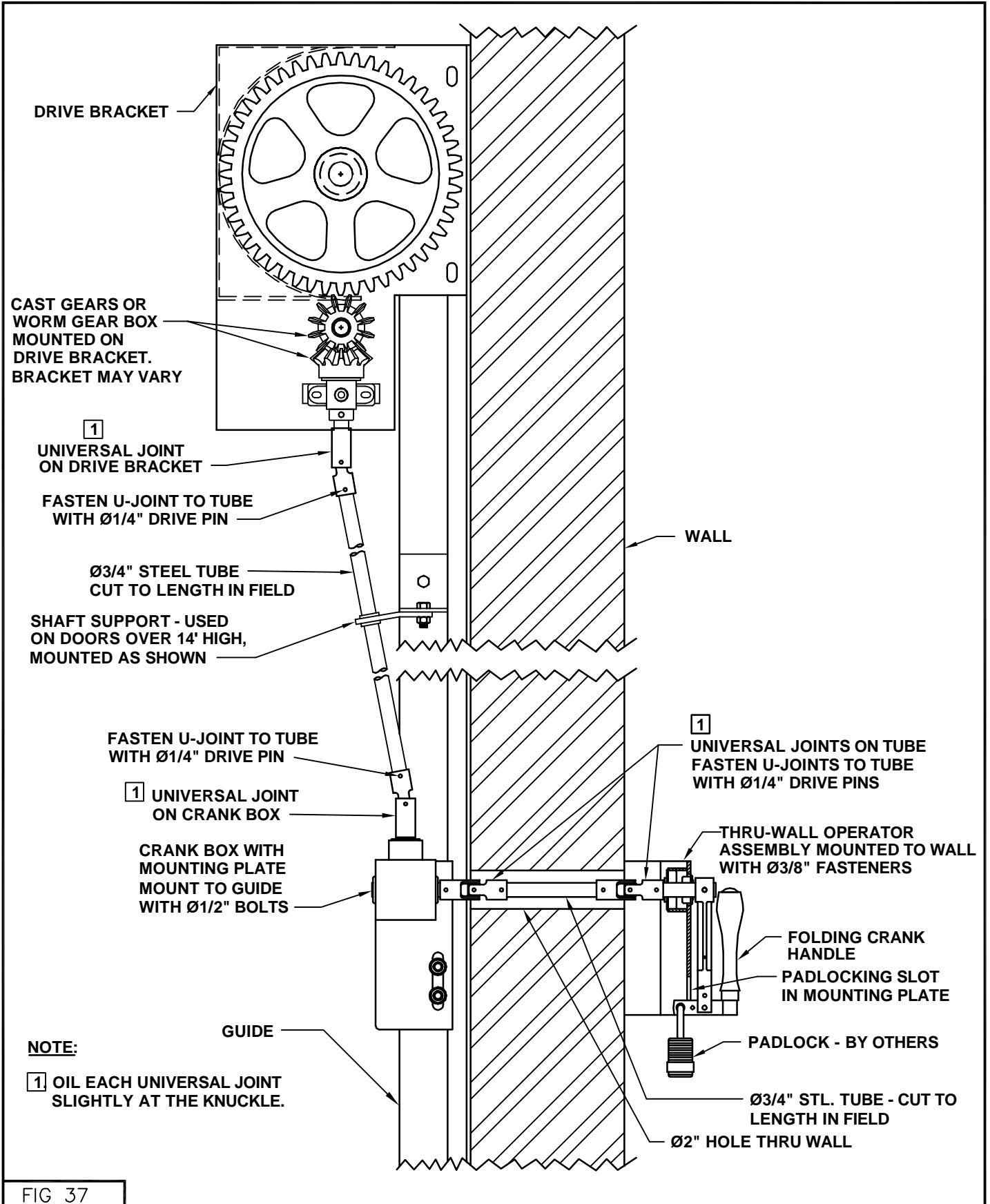
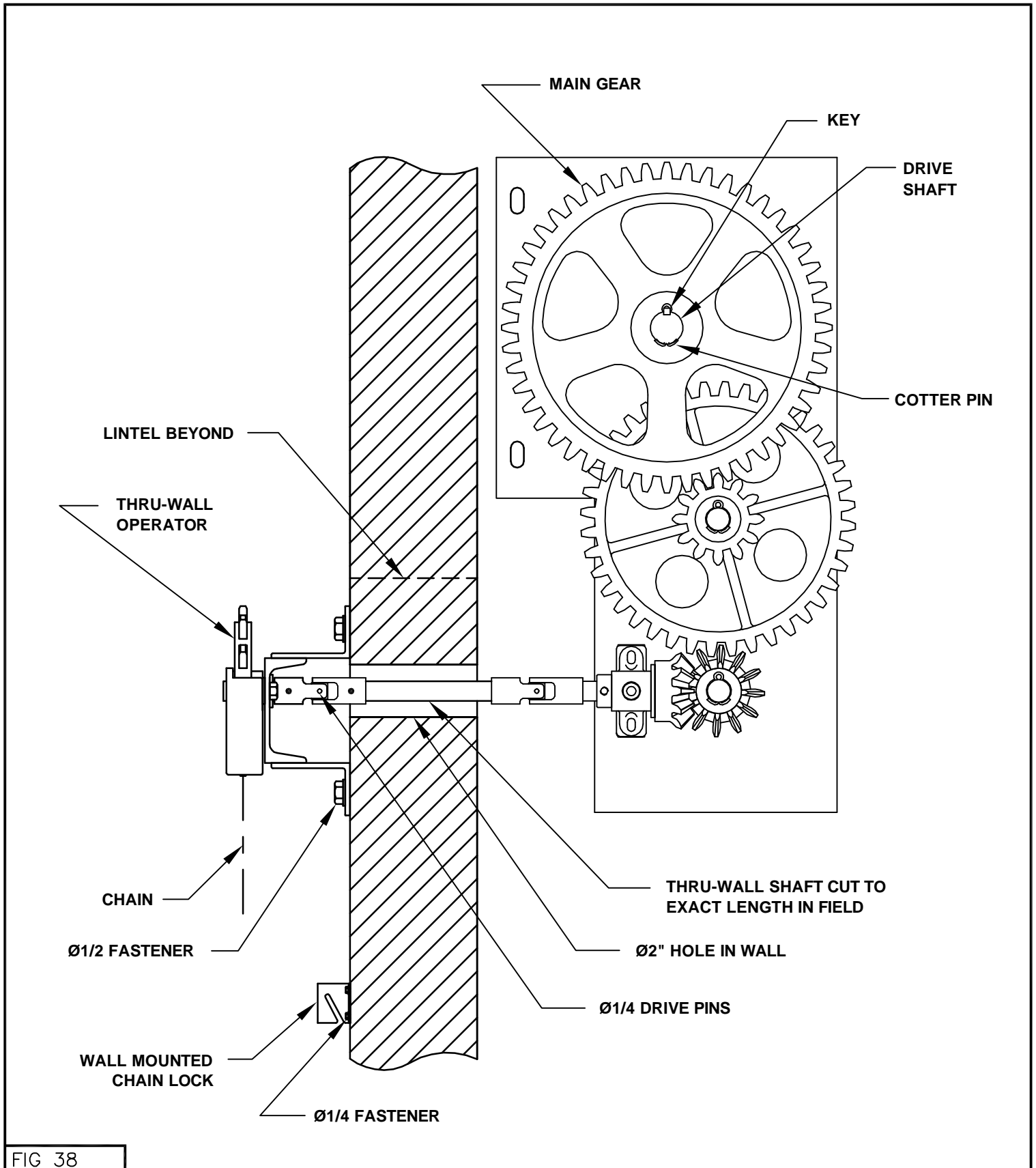


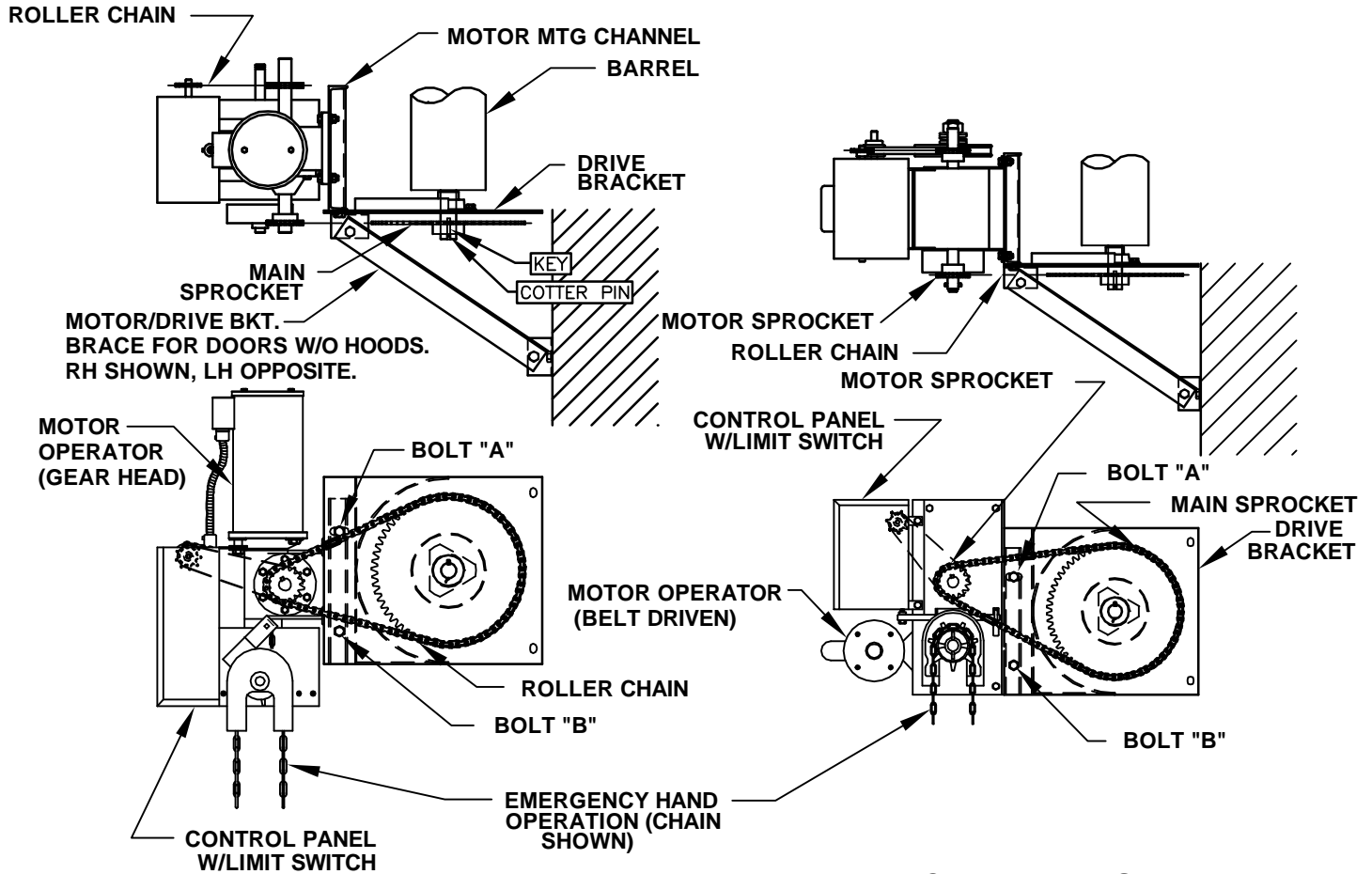
FIG 37

# THRU-WALL CHAIN OPERATED ASSEMBLY



# VERTICALLY MOUNTED MOTOR OPERATOR

**RIGHT HAND IS SHOWN - LEFT HAND IS OPPOSITE**



## ROLLER CHAIN ADJUSTMENT

1. LOOSEN BOLT "A".
2. TIGHTEN CHAIN BY PIVOTING MOTOR MTG. CHANNEL ABOUT BOLT "B".
3. RETIGHTEN BOLT "A".

**CAUTION: DOORS INSTALLED WITHOUT HOODS MUST HAVE MOTOR/BKT. BRACE INSTALLED TO AVOID FLEXING OF BRACKET AND POSSIBLE INJURY.**

**1) AFTER DOOR IS INSTALLED AND BRACKET PLATES ARE PERPENDICULAR TO WALL, ATTACH MOTOR/BKT BRACE TO BRACKET AND WALL AS SHOWN.**

**2) MAKE SURE THAT BOLTS ARE TIGHT AND BRACKET PLATE IS PERPENDICULAR TO WALL.**

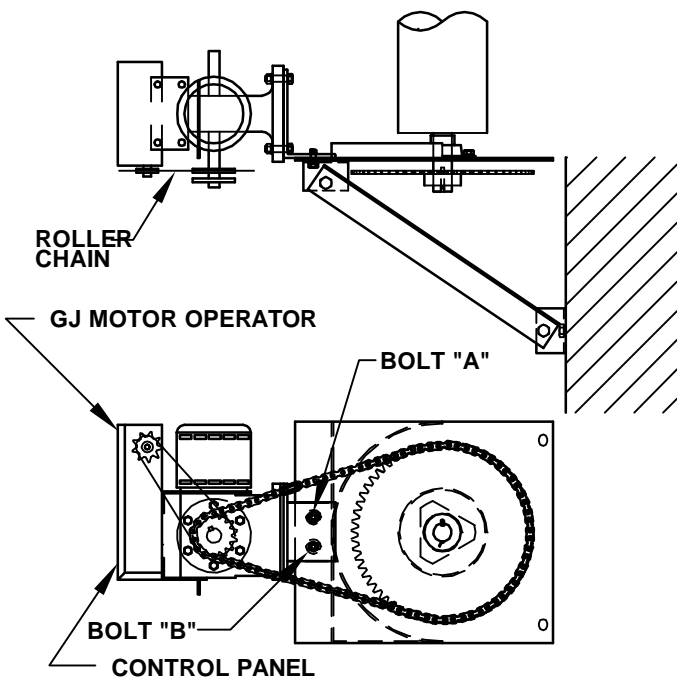


FIG 39

# HORIZONTALLY MOUNTED GH MOTOR OPERATOR

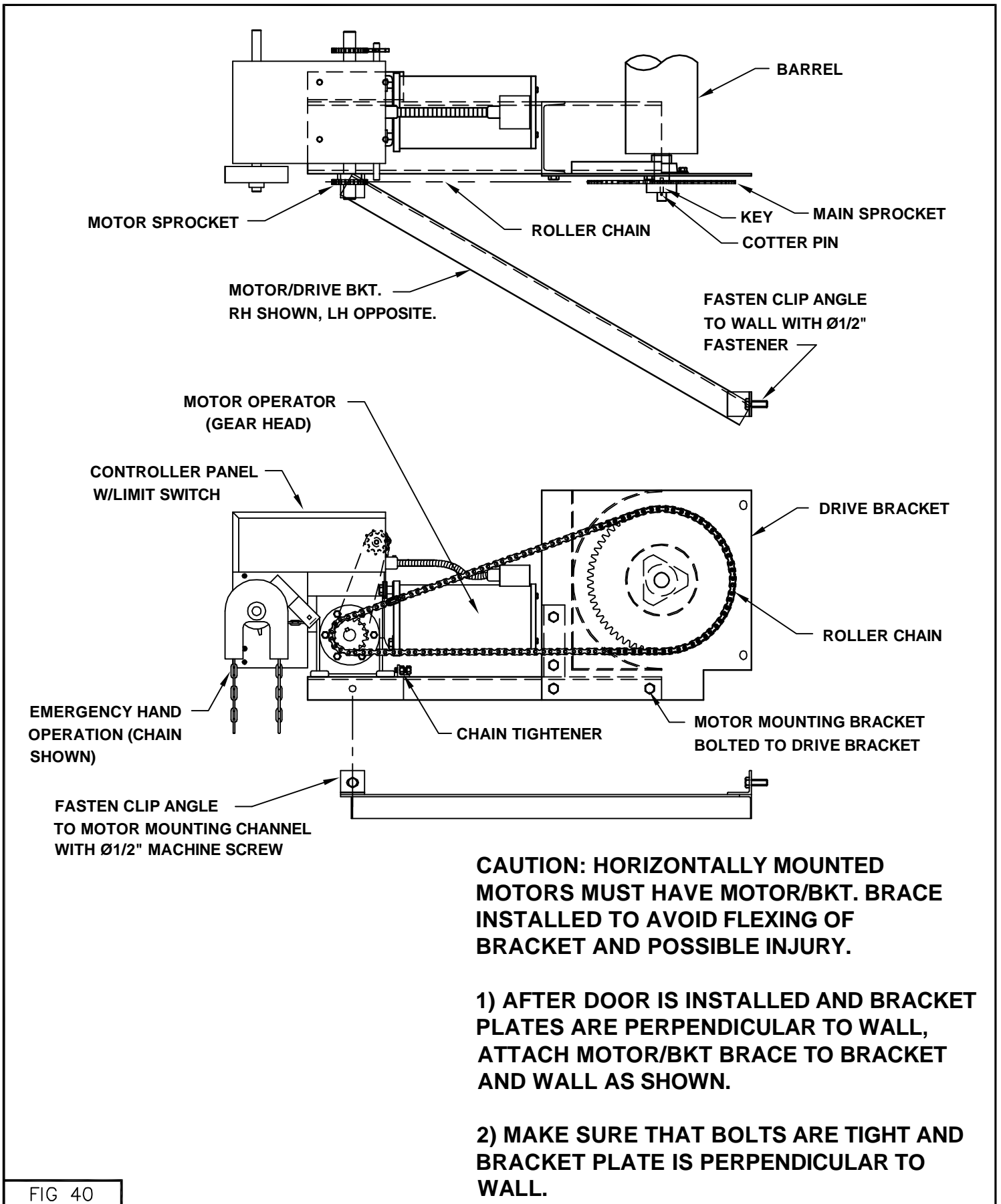


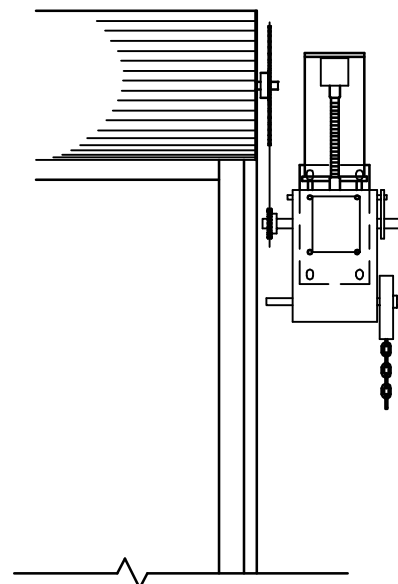
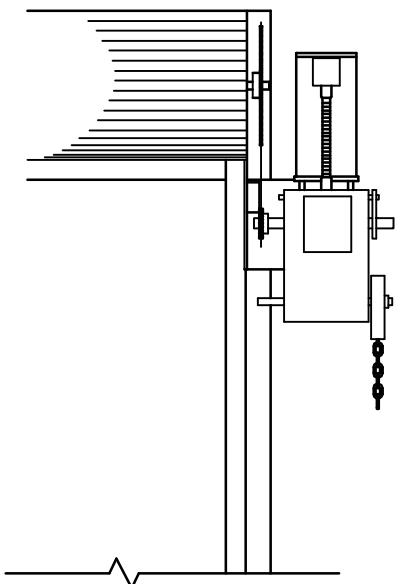
FIG 40

# SIDE MOUNT/WALL MOUNT GH MOTOR OPERATOR

**CAUTION: DOORS INSTALLED WITHOUT HOODS MUST HAVE MOTOR/BRK. BRACE INSTALLED TO AVOID FLEXING OF BRACKET AND POSSIBLE INJURY.**

**1) AFTER DOOR IS INSTALLED AND BRACKET PLATES ARE PERPENDICULAR TO WALL, ATTACH MOTOR/BKT BRACE TO BRACKET AND WALL AS SHOWN.**

**2) MAKE SURE THAT BOLTS ARE TIGHT AND BRACKET PLATE IS PERPENDICULAR TO WALL.**



**WALL MOUNTED GH OPERATOR**

**SIDE MOUNTED GH OPERATOR**

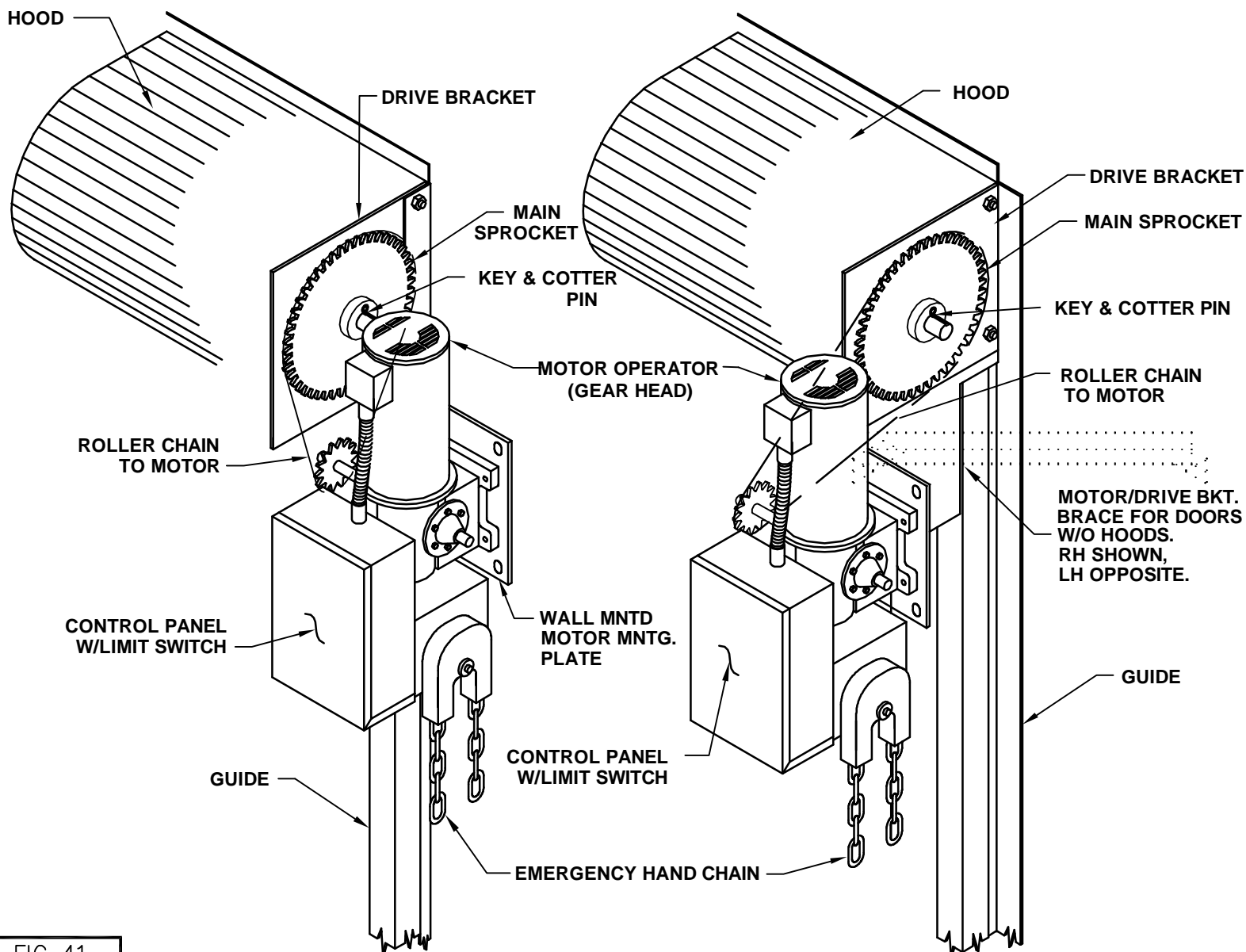


FIG 41

# THRU WALL GH MOTOR OPERATOR

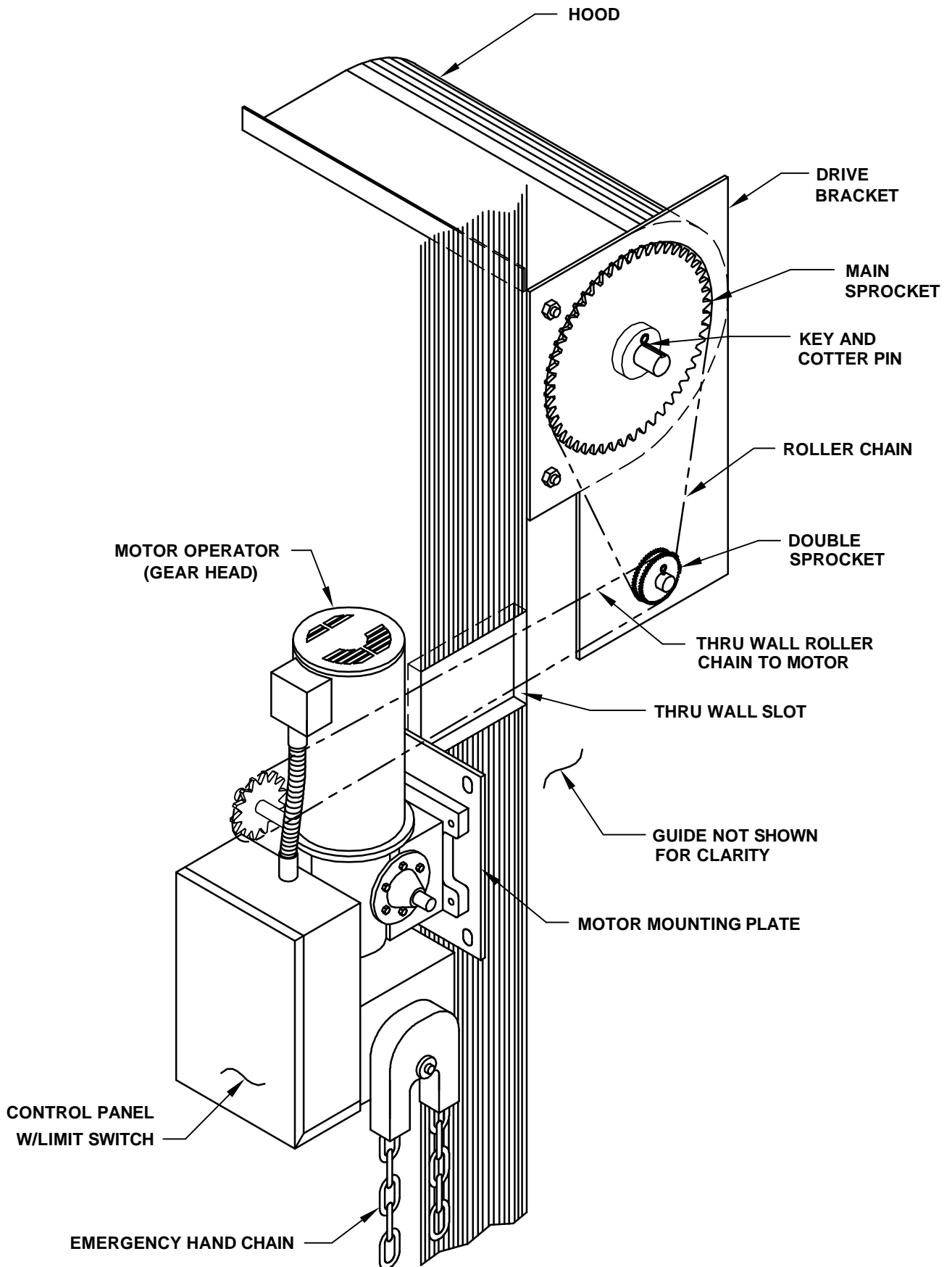
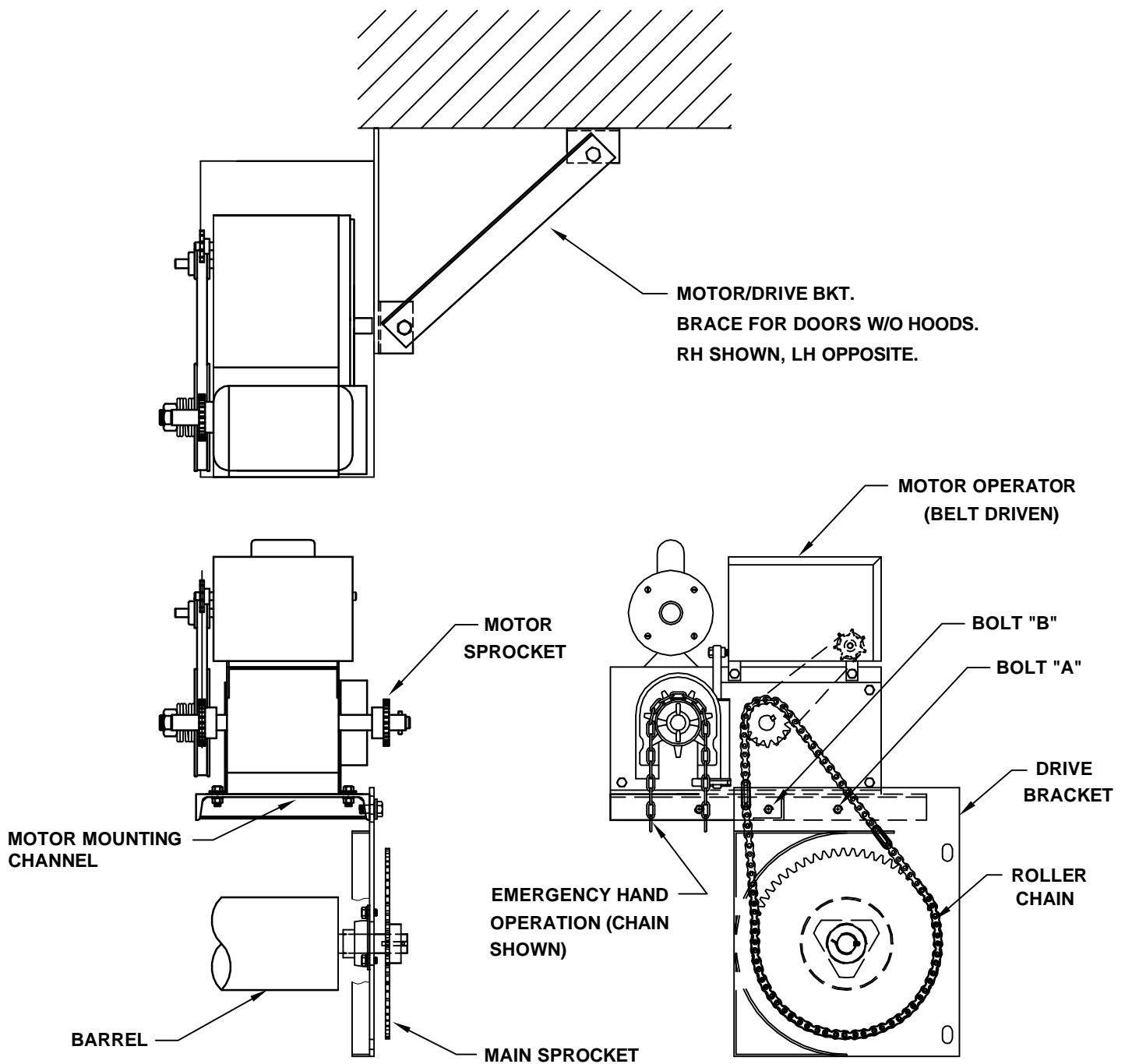


FIG 42

# BELT DRIVE MOTOR BRACKET ASSY- TOP MOUNT



**RIGHT HAND SHOWN - LEFT HAND IS OPPOSITE**

**CAUTION: DOORS INSTALLED WITHOUT HOODS MUST HAVE MOTOR/BKT. BRACE INSTALLED TO AVOID FLEXING OF BRACKET AND POSSIBLE INJURY.**

## ROLLER CHAIN ADJUSTMENT

1. LOOSEN BOLT "A".
2. TIGHTEN CHAIN BY PIVOTING MOTOR MTG. CHANNEL ABOUT BOLT "B".
3. RETIGHTEN BOLT "A".

1) AFTER DOOR IS INSTALLED AND BRACKET PLATES ARE PERPENDICULAR TO WALL, ATTACH MOTOR/BKT BRACE TO BRACKET AND WALL AS SHOWN.

2) MAKE SURE THAT BOLTS ARE TIGHT AND BRACKET PLATE IS PERPENDICULAR TO WALL.

FIG 43

# INSTRUCTIONS FOR SETTING ROTARY LIMIT SWITCH

**CAUTION: ONLY ADJUST THE ROTARY LIMIT SWITCH WITH THE POWER "OFF".  
ONLY TRAINED PERSONNEL SHOULD SET OR ADJUST THE LIMIT SWITCH.**

- 1) Using the manual operator, lower or raise the curtain to the midpoint of the opening.
- 2) Open the limit switch box and identify all parts. (A) DETENT PLATE (B) CAM NUT  
(C) BASIC SWITCHES
- 3) Depress the spring loaded detent plate and rotate each cam nut approximately 1/8" from the basic switches as shown below.

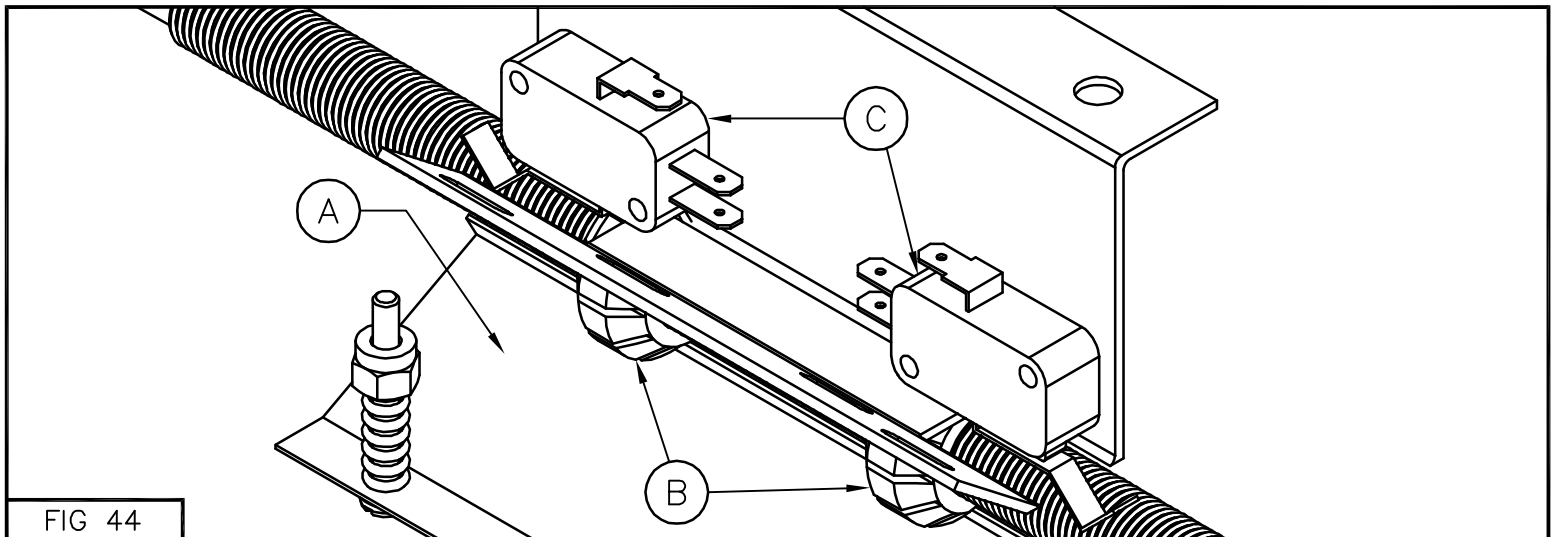


FIG 44

- 4) Apply power to the motor and test the operation of the door. As the door is opening the "open" cam nut should be traveling towards the "open" basic switch. As the door is closing the "close" cam nut should be traveling towards the "close" basic switch. The cam nuts are designed to activate the basic switches and terminate the travel of the door.
- 5) **IMPORTANT:** Check that the motor is correctly wired in regards to rotation and direction. Operate the open and close functions. If the mode of operation is incorrect (when the "open" functions of the control station makes the door close or the "close" functions of the control station makes the door open) or the rotation direction of the cam nut is incorrect (cam nut travels toward the "open" basic switch when closing and the "close" basic switch when opening) discontinue operation of the door and check the wiring. All wiring must be correct before proceeding.
- 6) Once the correct rotation and orientation of the control functions and basic switches has been determined, proceed with the finalized setting of the rotary limit switch.
- 7) Turn power off. With the manual operator lower the door to the fully closed position. Rotate the "close" cam nut toward the "close" basic switch until the switch clicks. The "close" basic switch is now set. Raise the door to the fully open position. Rotate the "open" cam nut toward the "open" basic switch until the switch clicks. The open basic switch is now set.
- 8) Make sure that the detent plate is fully engaged in the slots of each cam nut, replace the cover on the limit switch and apply power to the motor operator to test the operation of the door. If further fine tuning adjustments are required make sure that the power is off before adjustments are made.

# SAFETY EDGE COIL CORD/ CORD REEL INSTALLATION INSIDE DOOR WITH MOTOR MOUNTED CONTROLLER

## COIL CORD INSTALLATION INSTRUCTIONS:

1. LOCATE CONTROL PANEL KNOCK OUT CLOSEST TO DOOR OPENING & IN LINE WITH MALE CONNECTOR,
2. LOCATE COIL CORD/CORD REEL AS NOT TO INTERFERE WITH ROLLER CHAIN.
3. INSTALL ELBOW (AS SHOWN).
4. WIRE TO TERMINALS AS INDICATED ON WIRING DIAGRAM.
5. CONNECT TWIST LOCK PLUG (WIRE FEMALE TO COIL CORD/CORD REEL IF SHIPPED LOOSE).
6. TEST REVERSING BOTTOM BAR FOR CORRECT OPERATION.
7. ADJUST FEATHEREDGE SWITCH AS REQ'D. (SEE INSTRUCTIONS ON PAGE 31)

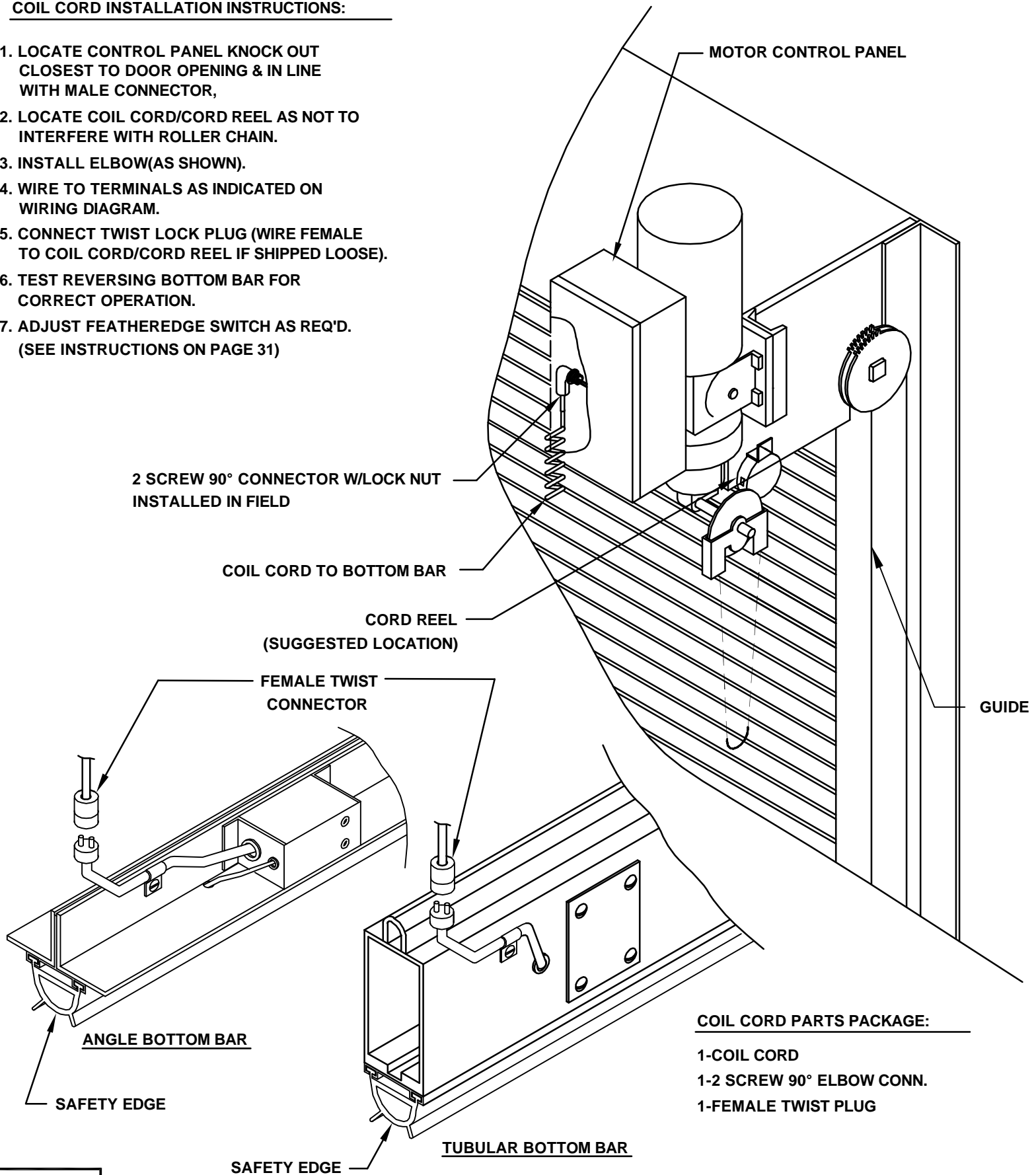


FIG 45

# SAFETY EDGE COIL CORD/ CORD REEL INSTALLATION OUTSIDE AND ABOVE MOUNTED DOORS

MOTOR SHOWN RECTANGULAR & DOTTED FOR CLARITY  
THE CONDUIT FROM THE CONDUIT BOX TO THE  
CONTROLLER IS TO BE DONE IN FIELD

COIL CORD OPTION:  
2 X 4 CONDUIT BOX

CORD REEL OPTION:  
CONDUIT BOX W/2 PRG  
OUTLET TO BE SUPPLIED  
BY OTHERS.

COIL CORD/CORD REEL INSTALLATION:

1. FASTEN CONDUIT BOX W/MTG PLATE TO WALL AS SHOWN USING Ø1/4 FASTENERS.
2. INSTALL 2 SCREW 90° ELBOW AS SHOWN IF USING COIL CORD.
3. WIRE COIL CORD/CORD REEL AS INDICATED ON WIRING DIAGRAM.
4. CONNECT TWIST LOCK PLUG (WIRE FEMALE TO COIL CORD/CORD REEL IF SHIPPED LOOSE).
5. TEST REVERSING BOTTOM BAR FOR CORRECT OPERATION.
6. ADJUST FEATHEREDGE SWITCH AS REQ'D (SEE INST. ON PAGE 31)

USE (2) #12 PAN HD  
SCREW W/SHIELDS FOR  
MASONRY MTG.

CORD REEL

CORD REEL (SUGGESTED LOCATION)  
SEE ABOVE DETAIL

COIL CORD PARTS PACKAGE:

- 1 - COIL CORD
- 2 - 2 SCREW 90° ELBOW
- 3 - FEMALE TWIST LOCK PLUG

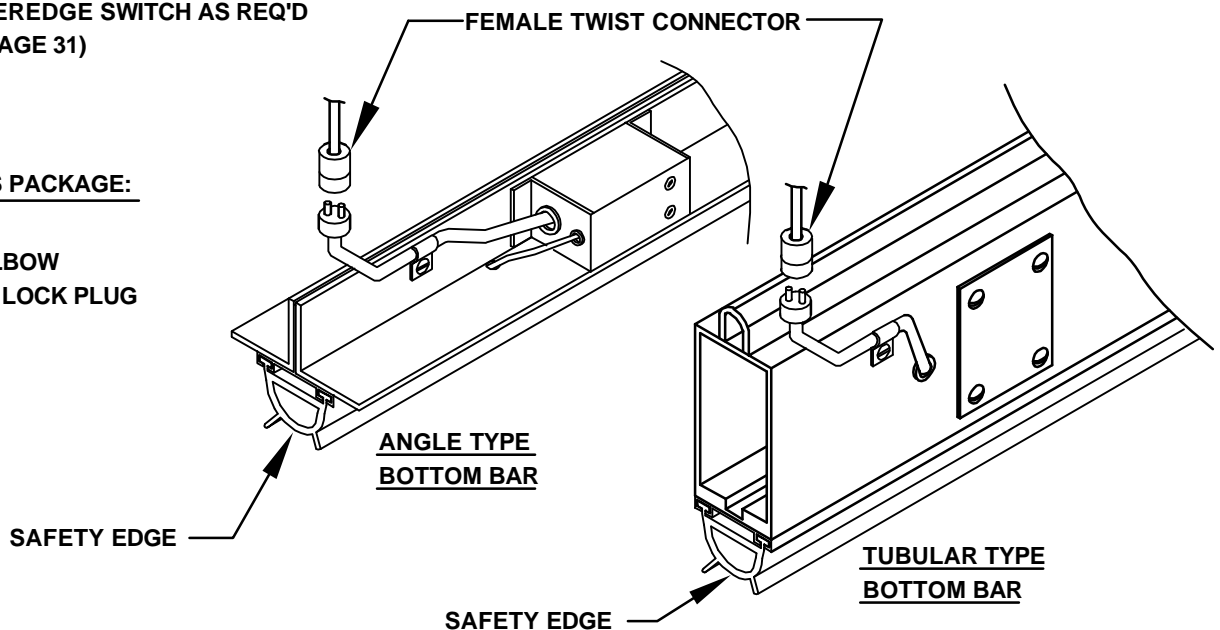


FIG 46

# FAILSAFE SAFETY EDGE INSTALLATION INSTRUCTIONS

## FAILSAFE INSTRUCTIONS:

**NOTE:** DIODE IS PROVIDED PREWIRED INSIDE OF BOTTOM BAR. IF MOTOR MANUFACTURER HAS PROVIDED A DIODE SAVE AS A SPARE.

1. LOCATE CONTROL PANEL KNOCK OUT CLOSEST TO DOOR OPENING & IN LINE WITH MALE CONNECTOR.
2. LOCATE COIL CORD/CORD REEL AS NOT TO INTERFERE WITH ROLLER CHAIN.
3. WIRE TO TERMINALS AS INDICATED ON WIRING DIAGRAM. (NOTE: DIODE CONNECTION IS PREWIRED)
4. CONNECT TWIST LOCK PLUG. (WIRE FEMALE TO COIL CORD/CORD REEL IF SHIPPED LOOSE)
5. TEST REVERSING BOTTOM BAR FOR CORRECT OPERATION.
6. IF MOTOR DOES NOT OPERATE OR FAILSAFE RELAY SHOWS A FAULT CONDITION REVERSE POLARITY OF WIRES IN CONTROLLER. DO NOT MODIFY DIODE CONNECTION ON BOTTOM BAR.

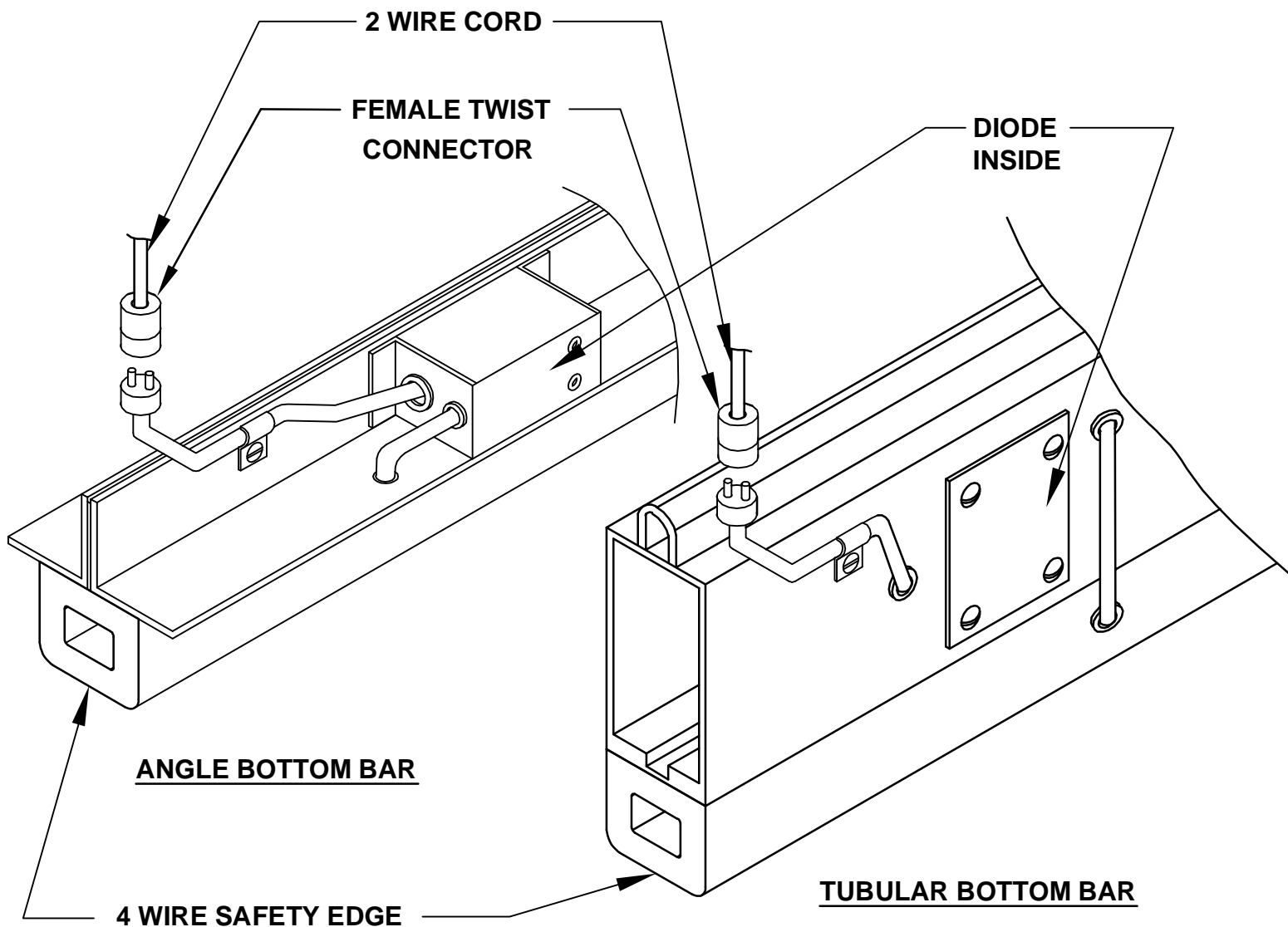


FIG 47

# SETTING INSTRUCTIONS FOR FEATHEREDGE SWITCH

The Featheredge switch has been factory preset for normal operation from the supplier. The factory preset setting is 0.3mm to 0.4mm contact opening. Adjustment of the switch is not necessary unless operation will be under extremely unusual circumstances.

## ALTERATION OF THE FACTORY PRESET SWITCH

- 1) Connect a multimeter/continuity tester (Ohm range) to the contact connectors on the switch.
- 2) Turn contact screw in a clockwise direction until contact is achieved. (Contact opening = 0.0mm)
- 3) Turn the contact screw in a counter clockwise direction until the desired contact distance is reached. Scale division on the switch is: 1 Sub marking = 0.1mm of contact opening (Factory = 0.3mm to 0.4mm). The closer the setting is to 0.0mm, the more sensitive the switch becomes.

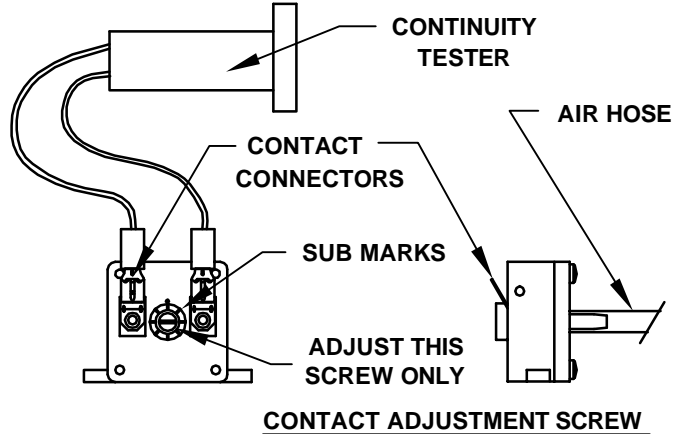


FIG 48

## TOP SAFETY LIMIT SWITCH INSTALLATION

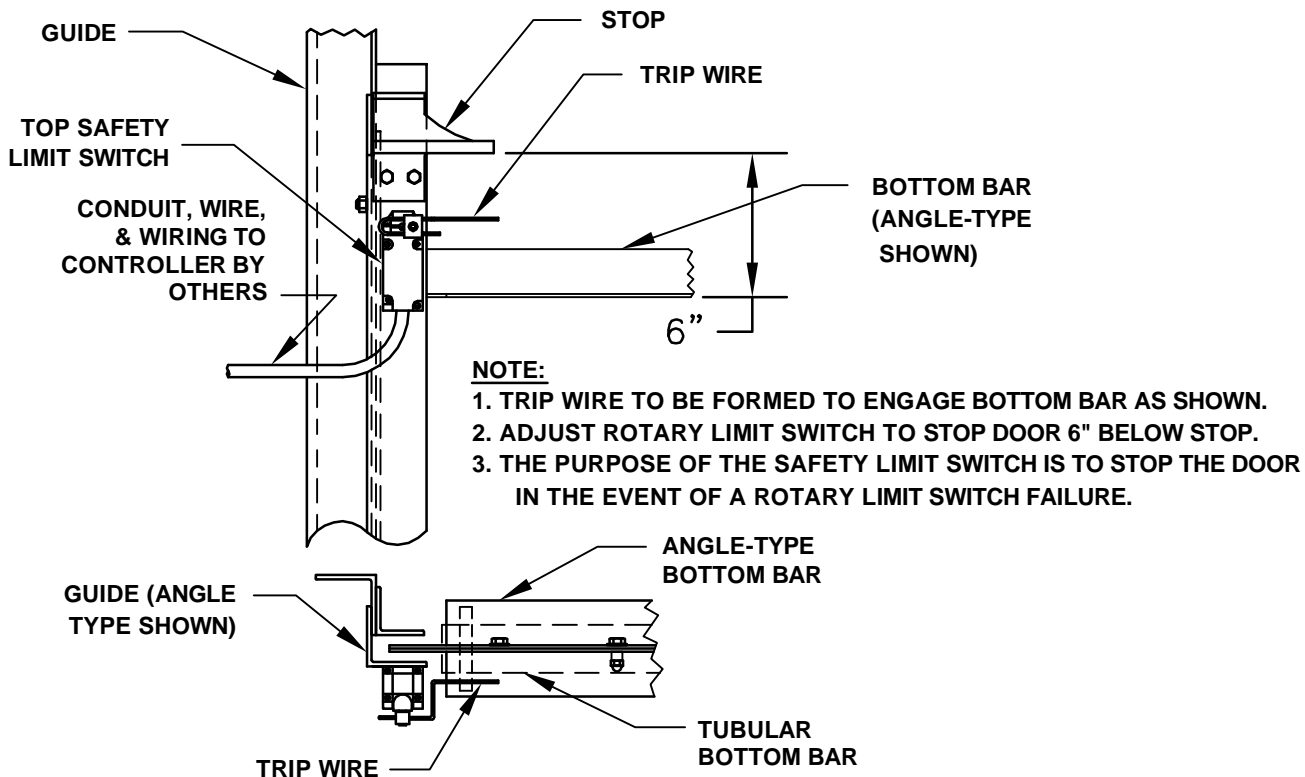
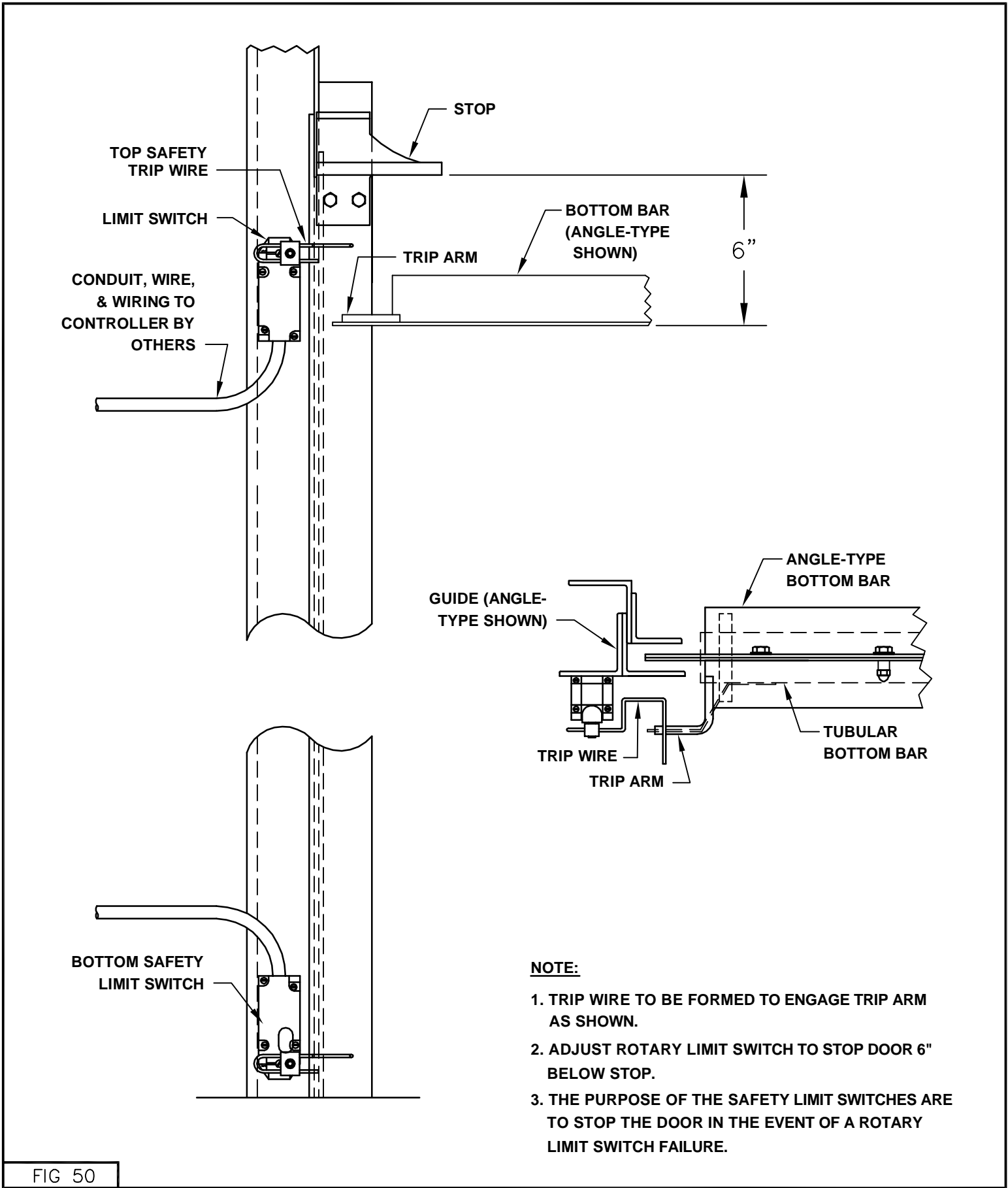


FIG 49

# TOP AND BOTTOM SAFETY LIMIT SWITCH INSTALLATION

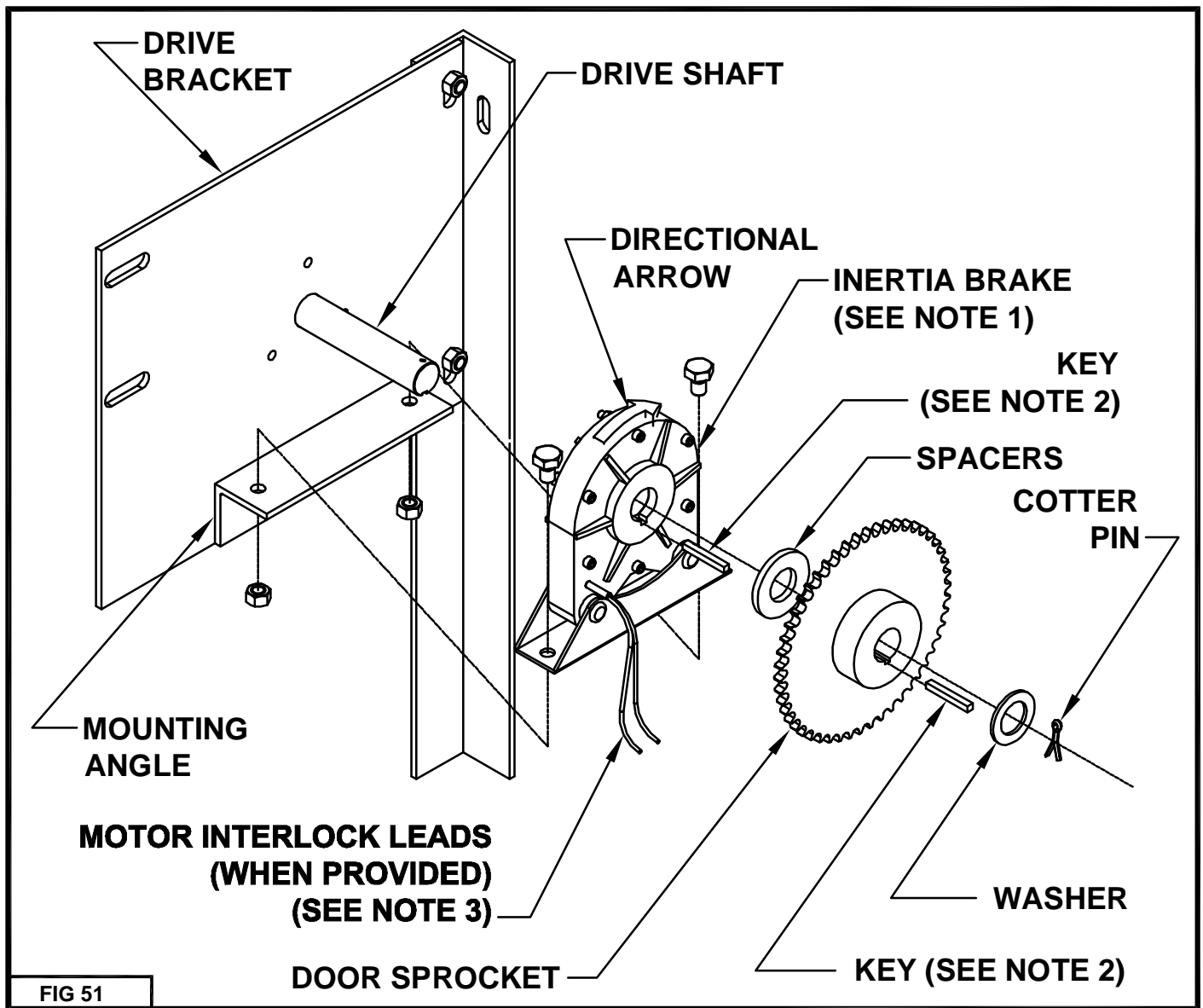


**NOTE:**

1. TRIP WIRE TO BE FORMED TO ENGAGE TRIP ARM AS SHOWN.
2. ADJUST ROTARY LIMIT SWITCH TO STOP DOOR 6" BELOW STOP.
3. THE PURPOSE OF THE SAFETY LIMIT SWITCHES ARE TO STOP THE DOOR IN THE EVENT OF A ROTARY LIMIT SWITCH FAILURE.

FIG 50

# INERTIA BRAKE INSTALLATION INSTRUCTIONS



## INSTRUCTIONS:

- 1) Remove Brake from Drive Bracket prior to mounting Barrel/Bracket Assy to Guides.
- 2) Slide Brake over end of Drive Shaft, align keyways and insert Key. **IMPORTANT:** Arrow on Brake must point in the direction the Barrel rotates when the door is closing.
- 3) Bolt Brake to Mounting Angle w/provided fasteners.
- 4) Install provided Spacers, Door Sprocket and Key as shown.
- 5) Align Sprocket with Motor Sprocket, tighten Sprocket Set Screws and install Washer & Cotter Pin to end of Drive Shaft.

## NOTES:

- 1) Directional arrow on Brake must point in the direction the Barrel rotates when the Door is closing. (Towards the wall)
- 2) Key length must be at least as long as Hub.
- 3) Wire Interlock to Motor Control Circuit.