



COUNTER DOORS

INSTALLATION INSTRUCTIONS

AND MAINTENANCE MANUAL

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IMPORTANT* 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.

CONCEALED LOSS OR DAMAGE:

THE TERM "CONCEALED LOSS OR DAMAGE" INDICATES THE LOSS OR DAMAGE WAS DISCOVERED AFTER, AND THE CARRIER RECEIVED A CLEAR DELIVERY RECEIPT WITH NO EXCEPTIONS NOTED.

- REPORTING CONCEALED LOSS OR DAMAGE - IF LOSS OR DAMAGE IS DISCOVERED AFTER YOU HAVE GIVEN THE CARRIER A CLEAR DELIVERY RECEIPT, IMMEDIATELY NOTIFY THE CARRIER IN WRITING, OR IF BY PHONE CONFIRM IN WRITING LATER. HOLD THE PIECES IN THE CONDITION THEY WERE IN WHEN THE DAMAGE WAS DISCOVERED.
- INSPECTION BY THE CARRIER - THE CARRIER WILL INSPECT THE FREIGHT WITHIN FIVE WORKING DAYS, AND WILL GIVE YOU A COPY OF THE INSPECTION REPORT FOR CLAIM SUPPORT. INCLUDE THIS INSPECTION REPORT WHEN FILING YOUR CLAIM.
- FAILURE TO INSPECT - IF THE CARRIER FAILS TO INSPECT THE FREIGHT, YOU MUST MAKE THE INSPECTION AND RECORD ALL RELEVANT FACTS ABOUT THE DAMAGE. THIS INFORMATION MUST BE INCLUDED WHEN YOU FILE A CLAIM.

VISIBLE DAMAGE:

CAREFULLY CHECK ALL PIECES FOR ANY VISIBLE SIGNS OF DAMAGE. IF A PACKAGE IS DAMAGED IT SHOULD BE OPENED IMMEDIATELY WITH THE DRIVER PRESENT. A JOINT INSPECTION OF THE PIECE(S) SHOULD BE MADE BY YOU AND THE DRIVER, AND A FULL/EXACT DESCRIPTION OF THE INSPECTION SHOULD BE WRITTEN ON BOTH THE CARRIER'S AND YOUR COPY OF THE DELIVERY RECEIPT. BE SURE THE DRIVER SIGNS AND DATES YOUR COPY.

WHEN NOTING DAMAGE ON A DELIVERY RECEIPT, IT IS NOT RECOMMENDED THAT YOU ONLY USE THE WORD "DAMAGE". THIS IS A GENERAL TERM THAT DOES NOT PROPERLY SUPPORT YOUR CLAIM. WRITE THE EXACT NATURE (SCRATCHED, BROKEN, BENT OR DENTED) AND THE EXTENT OF DAMAGE ON BOTH COPIES.

INCOMPLETE DELIVERY/SHORTAGES:

CHECK FOR A SHORTAGE AS GOODS ARE BEING OFFLOADED. COUNT THE PIECES, AND MAKE A WRITTEN TALLY WHEN A LARGE NUMBER OF ITEMS ARE BEING RECEIVED. KEEP THE SHIPMENT TOGETHER UNTIL UNLOADING IS COMPLETE IN CASE A RECOUNT IS NECESSARY. IF THERE IS A DISCREPANCY, DESCRIBE IT EXACTLY ON THE CARRIER'S DELIVERY RECEIPT AND YOUR COPY OF THE DELIVERY RECEIPT BEFORE SIGNING FOR THE GOODS. CHECK THE LABELS ON ALL PIECES TO BE CERTAIN THAT THEY ARE YOURS.

MITIGATION OF LOSS:

THE FACT THAT GOODS ARE DAMAGED OR SHORT DOES NOT JUSTIFY YOUR REFUSAL TO ACCEPT THE SHIPMENT, NOR DOES ACCEPTANCE OF DAMAGED OR SHORT DELIVERY RELEASE THE CARRIER FROM COVERING REPLACEMENT MATERIAL COST. WHENEVER PRACTICAL, PRODUCT SHOULD BE ACCEPTED AND ALL NECESSARY STEPS SHOULD BE TAKEN TO MINIMIZE THE LOSS. A CLAIM SHOULD THEN BE FILED FOR THE COST OF REPAIRS AND/OR REPLACEMENT OF MATERIAL SHORT OR DAMAGED BEYOND REPAIR.

TIME LIMIT / WHO MAY FILE CLAIM:

CARRIERS SPECIFY THAT CLAIMS MUST BE FILED AFTER THE DELIVERY HAS BEEN MADE, HOWEVER THE QUICKER THIS IS DONE THE BETTER YOUR CHANCES OF BEING REIMBURSED. EVERY CARRIER HAS THEIR OWN POLICY FOR DURATION AFTER DELIVERY FOR ACCEPTING CLAIMS. CONSULT THE CARRIER FOR THEIR POLICY. A CLAIM MAY BE FILED BY THE SHIPPER, THE CONSIGNEE OR A THIRD PARTY WHO MAY HAVE PAID THE FREIGHT CHARGES.

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

WARNING

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

WARNING

**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.**

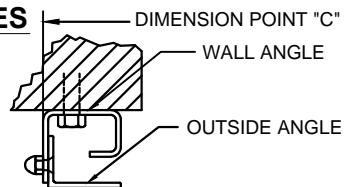
- 1) Make certain that the proper amount of tension has been applied to the torsion springs, in order to properly counterbalance the weight of the curtain.
- 2) Assure yourself that the tension wheel is securely fastened in place.
- 3) Assure yourself that sprockets or gears requiring keys have the correct 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.

FACE MOUNTED GUIDE INSTALLATION

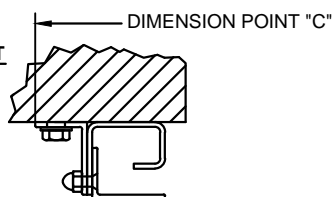
NOTE: PLEASE READ CAREFULLY BEFORE ATTEMPTING ASSEMBLY.

STL/SS GUIDES

TYPE 1 SS/ST

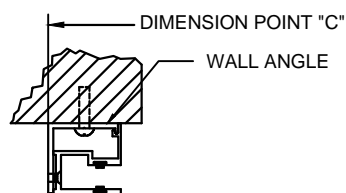


TYPE 3 SS/ST

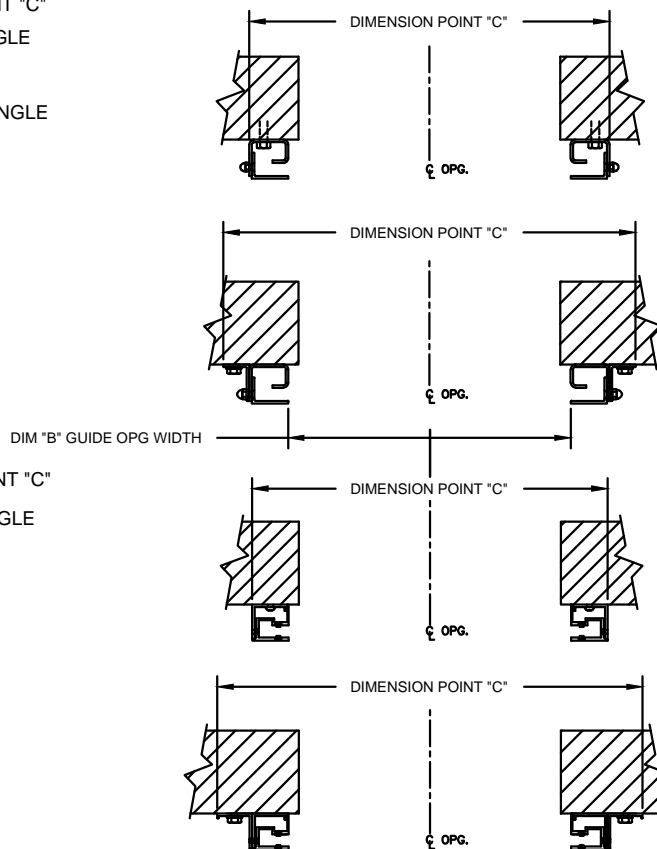
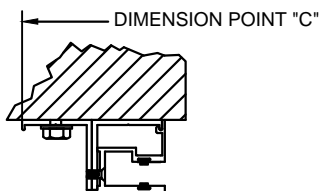


ALUM GUIDES

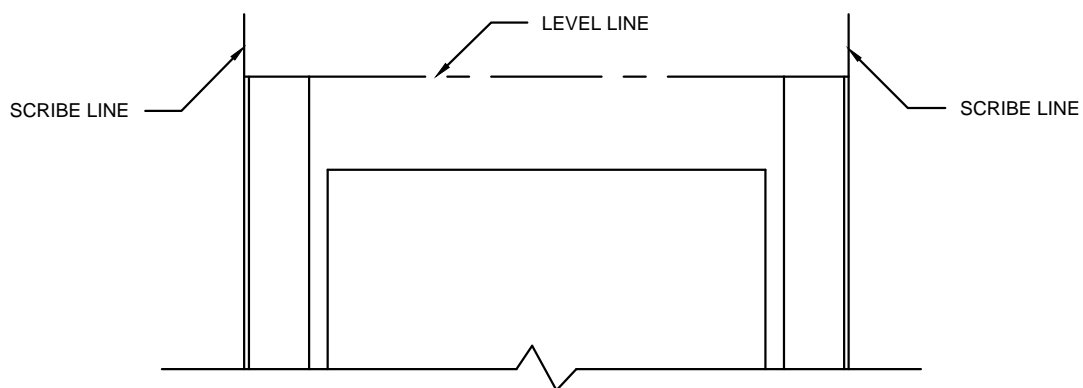
TYPE 1 AL



TYPE 3 AL



A1



A2

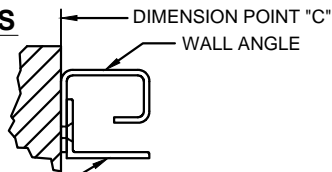
1) Adjust lock block if necessary to ensure proper lock engagement.

BETWEEN JAMB MTD GUIDE INSTALLATION

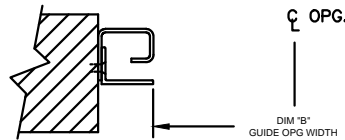
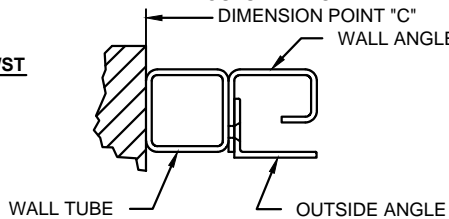
NOTE: PLEASE READ CAREFULLY BEFORE ATTEMPTING ASSEMBLY.

STL/SS GUIDES

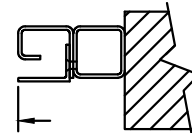
TYPE 2 SS/ST



TYPE 4 SS/ST



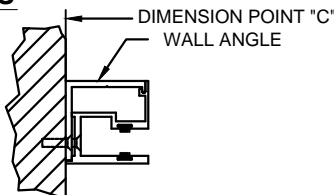
**Push-up Door with
Inside Tension Wheel**



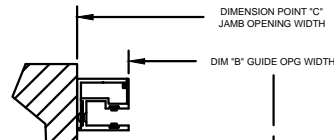
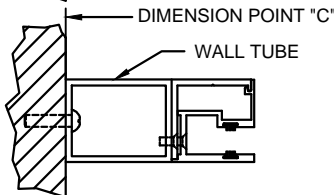
**Push-up Door with
Outside Tension Wheel**

ALUM GUIDES

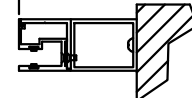
TYPE 2 AL



TYPE 4 AL

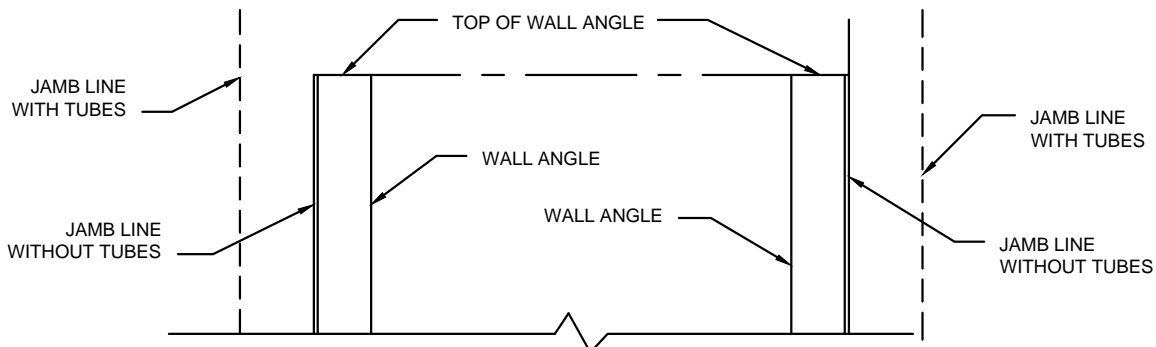


**Push-up Door with
Inside Tension Wheel**



**Crank Oper Door or
Push-up w/Outside Tension Wheel**

A3



A4

- 1) Locate guide dimension point for both left and right jamb. Measurement between dimension points must equal dimension "C".
- 2) For typical installation for Type 1 and 3 (See FIG. A1) guide assemblies, Dimension point "C" is centered around jamb opening - (if side room permits) - if there are questions check job construction drawings (if available).
- 3) Check the Guide opening measurement. Locate a mark on the floor at the tip of each guide and measure. Guide measurement must equal Dim "B". (See FIG 1 & 3) **THIS IS CRITICAL** If guide opening does not equal Dim "B", **STOP** and redo steps 1 and 2.
- 4) Scribe a plumb line on the wall at dimension points.
- 5) Place the guides against the scribed line and with the tops of guides level, mark the location of the mounting holes. NOTE: Guide types 1, 2 & 4 have to be disassembled.
- 6) Drill mounting holes for wall fasteners and mount the guides. (See Table on PG 5 for fastener type) Reassemble guides if necessary.
- 7) Adjust lock block if necessary to ensure proper lock engagement.

JAMB GASKET INSTALLATION

NOTE: PLEASE READ CAREFULLY BEFORE ATTEMPTING ASSEMBLY.

DEPENDING ON YOUR DOOR TYPE YOU HAVE RECEIVED EITHER FACE MOUNTED OR BETWEEN JAMB MOUNTED GUIDES. PLEASE REFER TO THE APPROPRIATE INSTRUCTION.

INSTRUCTIONS FOR MODEL CD8/CD10 FACE MOUNTED GUIDES

- 1) LOCATE CENTER OF OPENING, MARK OFF DISTANCE FROM CENTER OF OPENING TO OUTSIDE EDGE OF EACH WALL ANGLE AS SHOWN IN FIG. A5.

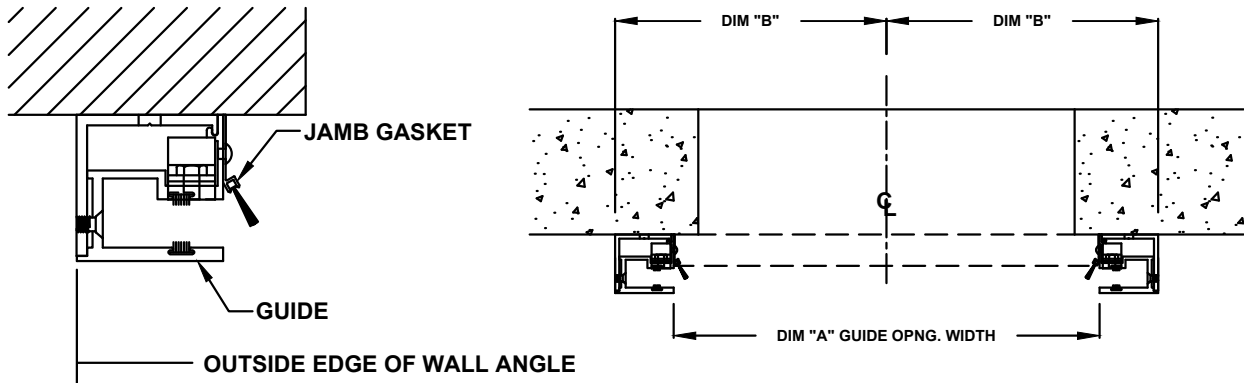


FIGURE A5

- 2) SCRIBE A PLUMB LINE ON EACH JAMB THROUGH THIS POINT. DISASSEMBLE GUIDE AND, WITH THE WALL ANGLE PLACED AGAINST SCRIBED LINE, LOCATE GUIDE MOUNTING HOLES.
IMPORTANT: THE TOPS OF EACH GUIDE MUST LIE IN A LEVEL LINE.
- 3) MOUNT GUIDE.

INSTRUCTIONS FOR MODEL CD8/CD10 BETWEEN JAMB GUIDES

- 1) CHECK OPENING WIDTH TO MEASUREMENT GIVEN ON FRONT PAGE (DIM "B"). THE GUIDES ARE TO BE MOUNTED AS SHOWN IN FIG. A6.

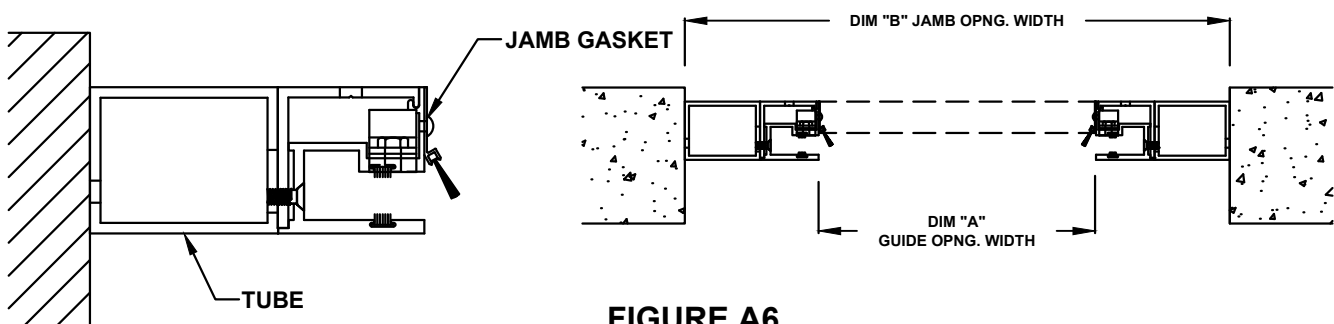
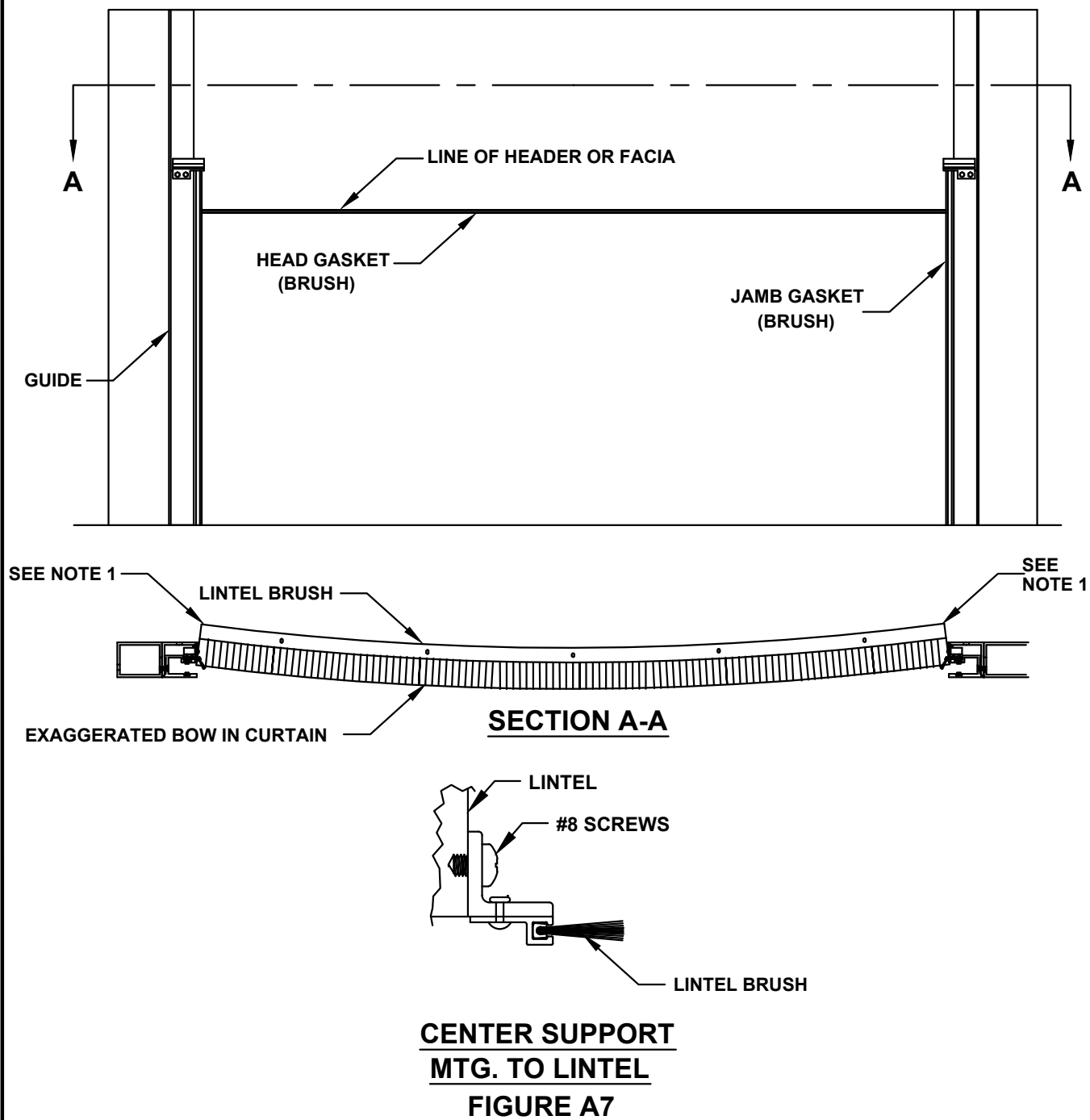


FIGURE A6

- 2) DISASSEMBLE WALL AND OUTSIDE ANGLE FROM TUBE AND PLACE TUBE AGAINST JAMB. LOCATE GUIDE MOUNTING HOLES.
IMPORTANT: THE TOPS OF EACH GUIDE MUST LIE IN A LEVEL LINE.
- 3) MOUNT TUBE & REASSEMBLE GUIDE.

LINTEL GASKET INSTALLATION

NOTE: PLEASE READ CAREFULLY BEFORE ATTEMPTING ASSEMBLY.



NOTE:

1. IF DOOR IS FACE MOUNTED AT THE HEAD (BRACKETS), MOUNT BRUSH TO LINTEL.
TRIM ALUMINUM HOLDER FLANGE TO CLEAR JAMB.
2. BOW CENTER OF BRUSH INWARDS UNTIL IT PASSES ON CURTAIN, (CURTAIN MUST BE IN CLOSED POSITION.)
THEN FASTEN IN BOWED POSITION.

BETWEEN JAMB MTD GUIDE INSTALLATION (CONT)

3) Now drill the holes in the jambs as follows:

FASTENER CHART

STEEL GUIDES:

Wood Jamb:

W/Wall Tube

Pre-drill the holes with a 3/16" diameter drill for mounting the guides to the jamb with 3/8" diameter lag screws.

W/O Wall Tube

Pre-drill the holes with a 1/8" diameter drill for mounting the guides to the jamb with #12 wood screws.

Concrete Jamb:

W/Wall Tube

Drill the concrete with a 3/8" diameter star drill, 1-5/8" deep, and insert 3/8" wedge anchors.

W/O Wall Tube

Drill the concrete with a 5/16" diameter star drill, 1-1/2" deep, and insert #12 plastic shields.

Steel Jamb:

W/Wall Tube

Drill the steel jamb with a 5/16" drill and tap the holes with a 3/8-16 NC tap.

W/O Wall Tube

Drill the steel jamb with a #7 drill and tap the holes with a 1/4-20 NC tap.

Hollow Metal Jamb:

Use 1/4" self-drilling and tapping screws.

Hollow Ceramic Tile Jamb:

Drill 7/16" diameter holes to receive 1/4-20 Type "L" Wall Grip.

ALUMINUM GUIDES:

Wood Jamb:

Pre-drill the holes with a 1/8" diameter drill for mounting the guides to the jamb with #12 wood screws.

Concrete Jamb:

Drill the concrete with a 5/16" diameter star drill, 1-1/2" deep, and insert #12 plastic shields.

Steel Jamb:

Drill the steel jamb with a #7 drill and tap the holes with a 1/4-20 NC tap.

Hollow Metal Jamb:

Use 1/4" self-drilling and tapping screws.

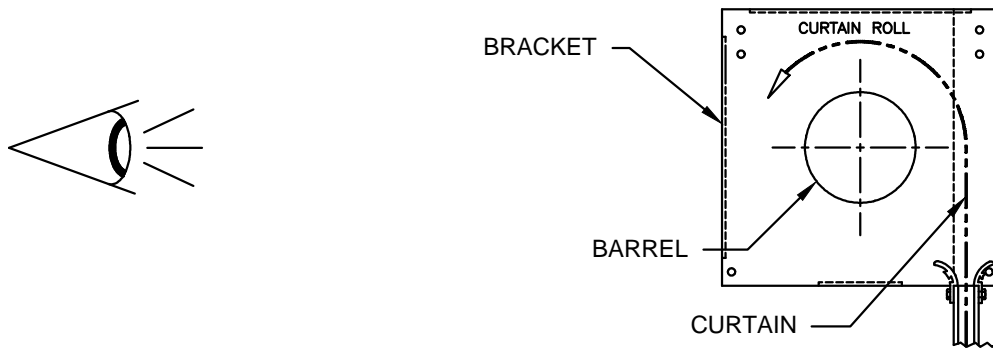
Hollow Ceramic Tile Jamb:

Drill 7/16" diameter holes to receive 1/4-20 Type "L" Wall Grip.

4) Examine the end of the 1" round stationary shaft on the door's barrel. This is called the drive shaft.

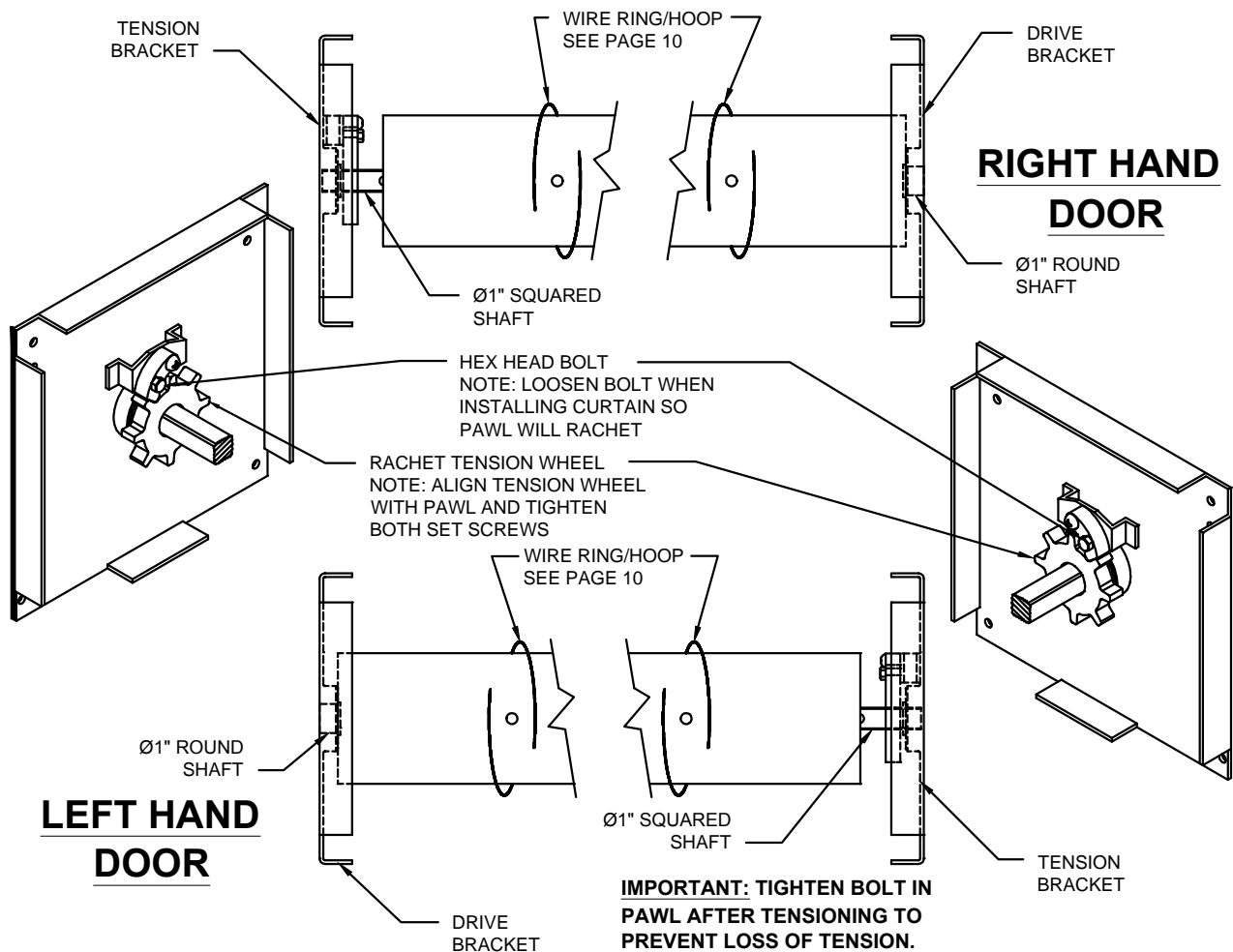
BRACKET INSTALLATION WITH INSIDE TENSION WHEEL

When looking at a completely assembled door from the direction as shown in Fig. A5.....



A8

The barrel and bracket assembly should appear as below in Fig. A9 if an inside tension wheel is supplied. If an outside tension wheel is supplied, see Fig. A10 on Page 9.



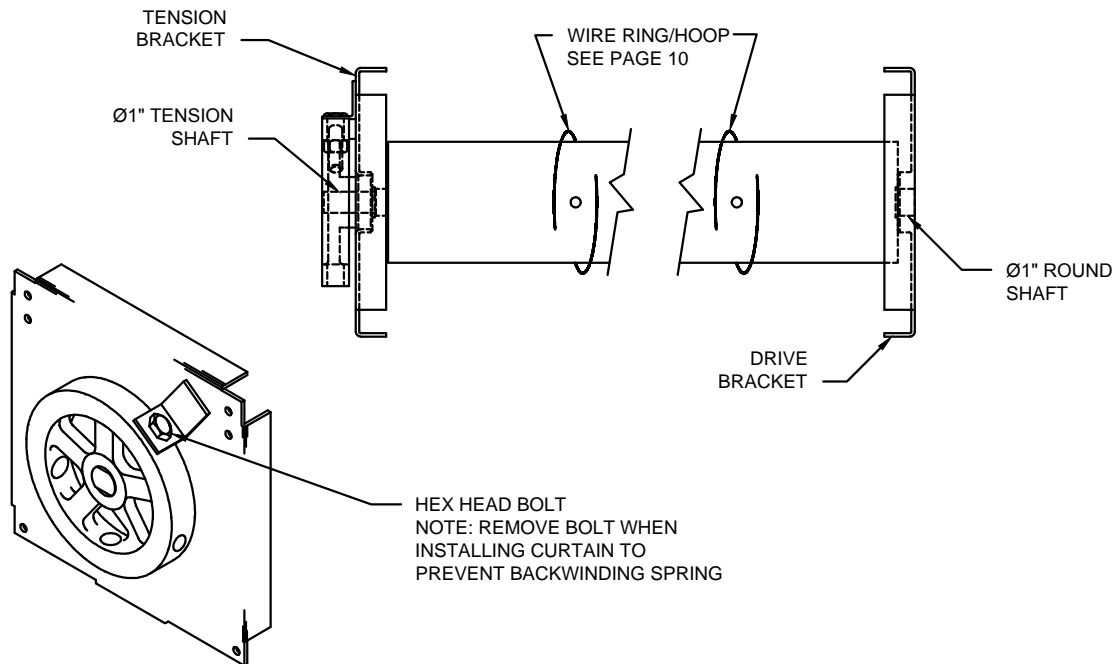
A9

Extended drive shaft has been provided. If wall or an obstruction is in contact with the shaft, cut shaft off flush to outside of bracket plate. Minimum shaft length required is 1-1/8".

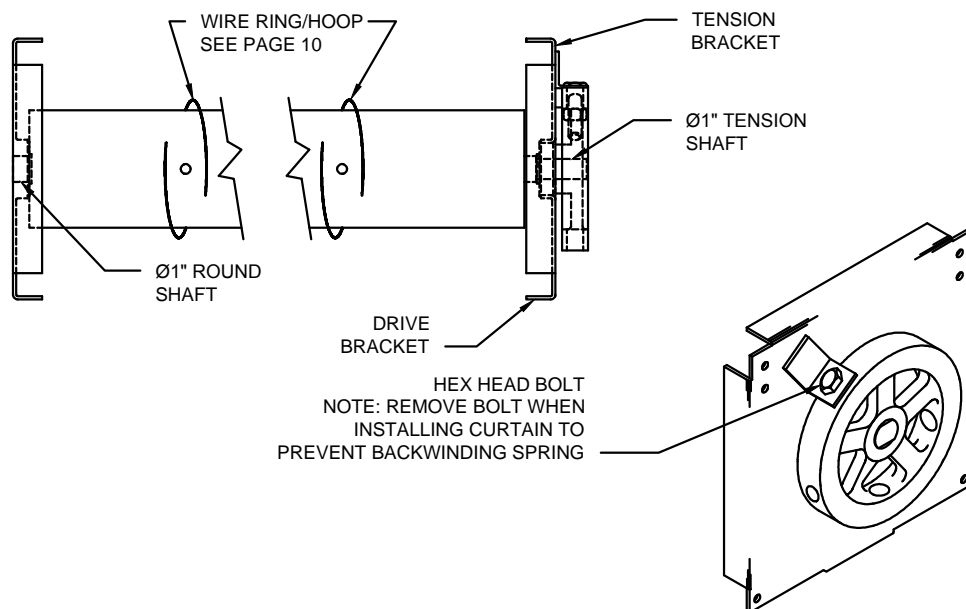
BRACKET INSTALLATION WITH OUTSIDE TENSION WHEEL

When looking at a completely assembled door from the direction as shown in Fig. A8.....
the barrel and bracket assembly should appear as below in Fig. A10.

RIGHT HAND DOOR



LEFT HAND DOOR

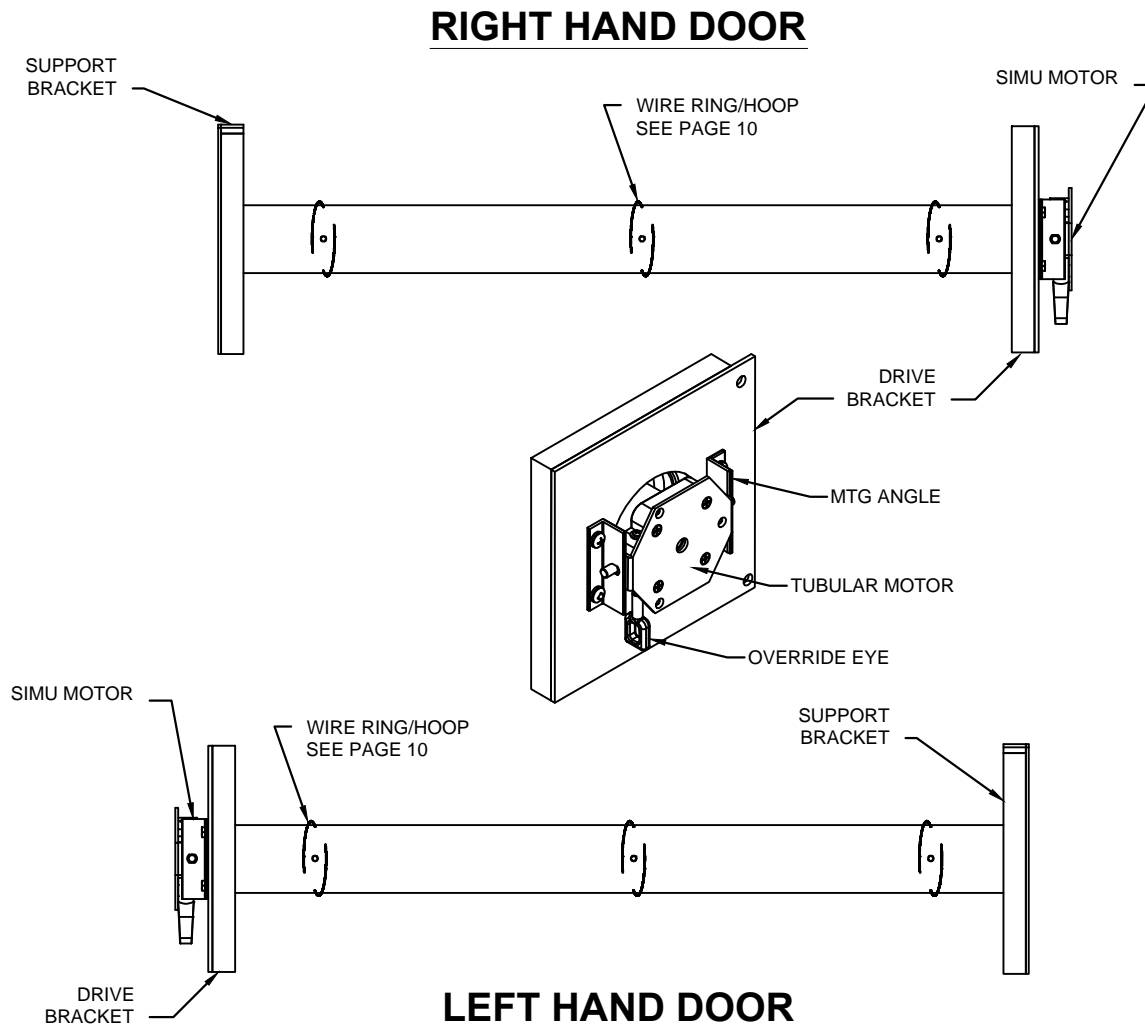


A10

Extended drive shaft has been provided. If wall or an obstruction is in contact with the shaft, cut shaft off flush to outside of bracket plate. Minimum shaft length required is 1-1/8".

BRACKET INSTALLATION FOR TUBULAR MOTOR OPERATED DOORS

When looking at a completely assembled door from the direction as shown in Fig. A8.....
the barrel and bracket assembly should appear as below in Fig. A11.



A11

- 5) To assemble the brackets to the barrel as shown previously, place the barrel on the floor below the opening in the correct position it takes when actually mounted. **MAKE SURE THAT THE WIRE RINGS HAVE BEEN INSTALLED.**

(see page 12)

INSIDE TENSION WHEEL INSTRUCTIONS:

Place the ratchet tension wheel on the tension shaft. Now install both the drive bracket and tension bracket on their respective shafts. Note: the bracket **WITHOUT** the pawl above the hub is to be placed on the end of the barrel that has the 1" round shaft. The assembly should now appear as shown on page 8 (Fig. A9).

OUTSIDE TENSION WHEEL INSTRUCTIONS:

Install both the drive bracket and the tension bracket on their respective shafts. Note: the drive bracket is to be placed on the 1" round shaft without the cope. The assembly should now appear as shown on page 7 (Fig. A10 D).

BRACKET INSTALLATION FOR TUBULAR MOTOR OPERATED DOORS

TUBULAR MOTOR INSTRUCTIONS

Prior to installing the brackets onto the barrel, install the wire rings/hoops. See sheet 10 for instructions. Install the support bracket on the 1" support shaft. On the drive side attach the motor to the drive bracket. The motor should come installed in the barrel. Remove the motor mounting angles attached to the drive bracket. Slide the motor through the hole in the drive bracket. Attach the motor mounting plate to the motor using the (4) screws and nuts provided. Attach the motor mounting angles to the bracket plate. The assembly should now appear as shown on page 10 (Fig. A11).

- 6) Remove the guide stops from the guides. Now raise the complete assembly into position at the head of the opening and bolt the brackets to the wall angles and jambs as shown in Fig A12 below.

CAUTION: EACH ASSEMBLY IS HANDED RIGHT OR LEFT. SEVERE SPRING DAMAGE AND PRODUCT FAILURE MAY OCCUR IF DOORS ARE NOT MOUNTED WITH THE CORRECT HANDING.

DRILLING SCHEDULE FOR MOUNTING BRACKET AND WALL ANGLE

ALUMINUM GUIDES

WOOD: Pre-drill holes with 5/32" drill for #20 RHWS.

MASONRY: Pre-drill holes with 7/16" drill for #20 Shield.

STEEL: Drill W/#F drill and tap with 5/16-18 N.C. Tap.

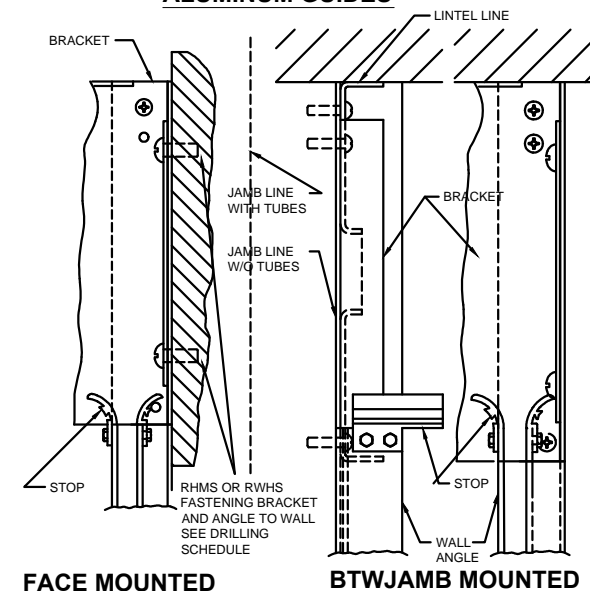
STEEL/SS GUIDES

Pre-drill holes with 5/32" drill for #20 RHWS.

Pre-drill holes with 7/16" drill for #20 Shield.

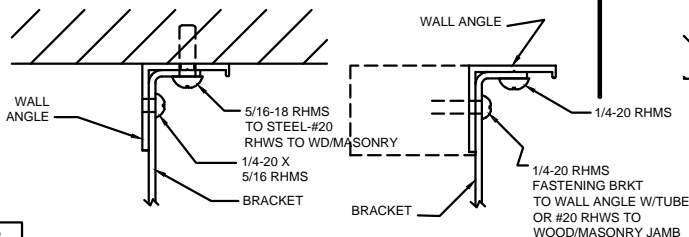
Drill W/5/16 drill and tap with 3/8-16 N.C. Tap.

ALUMINUM GUIDES

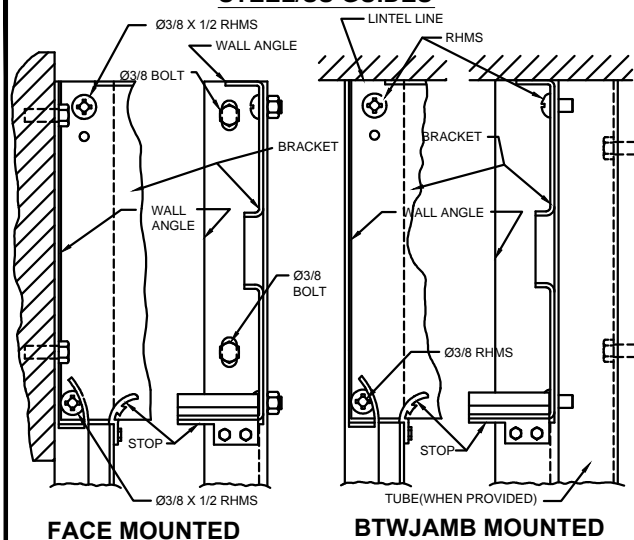


FACE MOUNTED

BTWJAMB MOUNTED

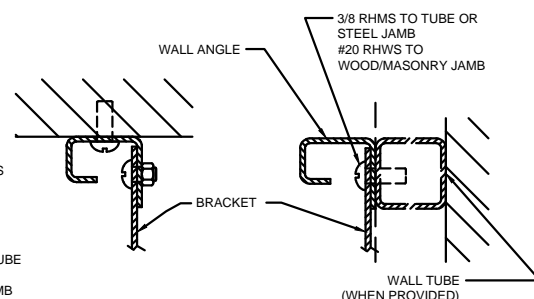


STEEL/SS GUIDES



FACE MOUNTED

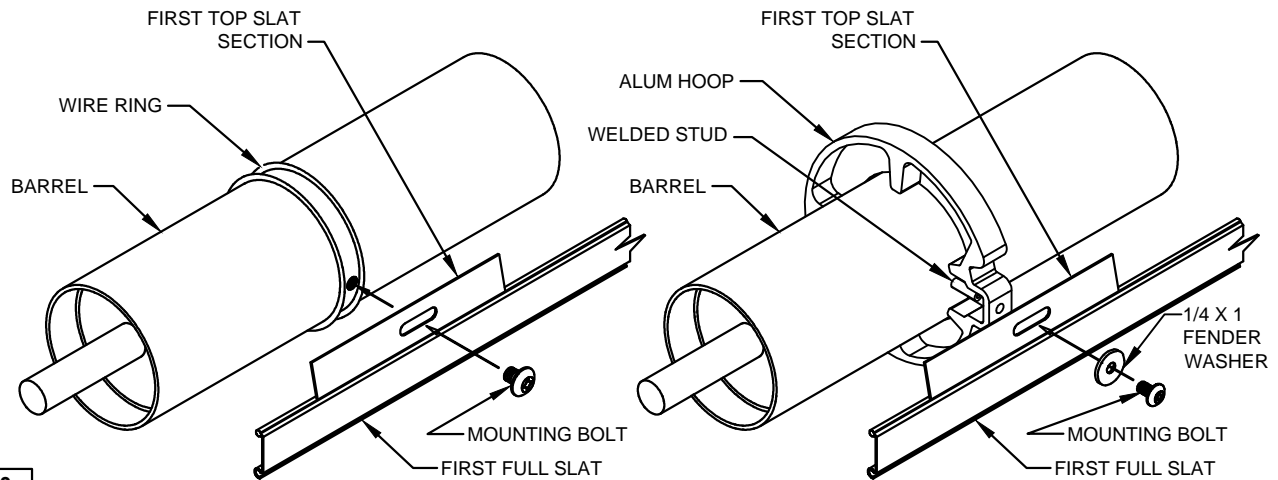
BTWJAMB MOUNTED



WIRE RING / HOOP INSTALLATION AND TOP SLAT MOUNTING INSTRUCTIONS

PRIOR TO INSTALLING THE BRACKETS ONTO THE BARREL....

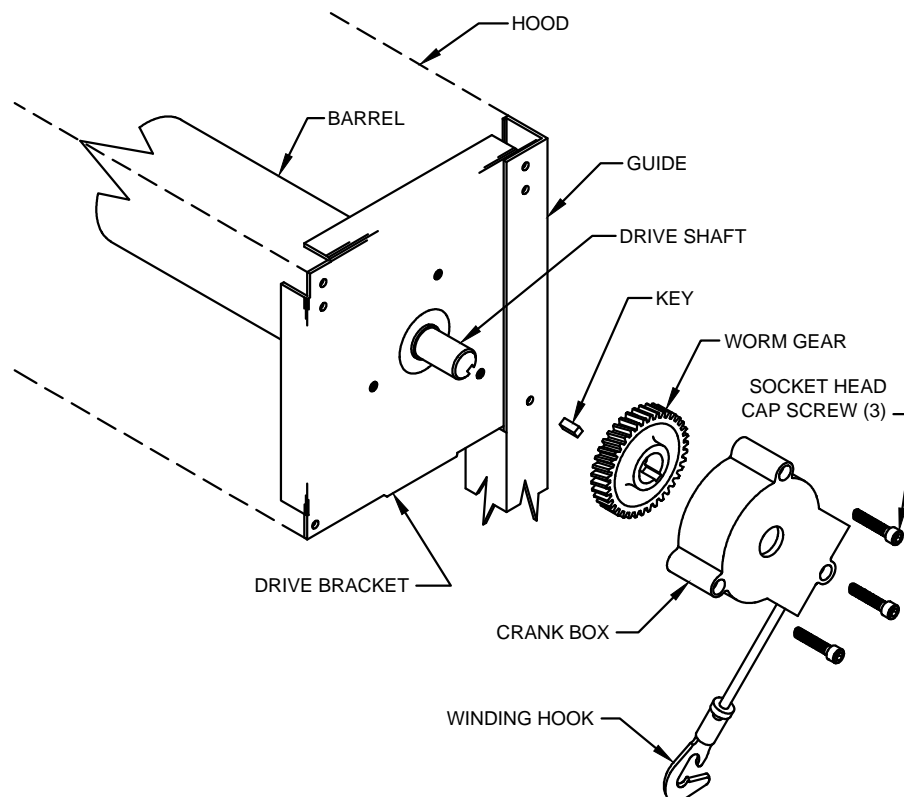
- 1) Slide the wire rings / hoops over the end of the barrel and align them with the slat mounting screw hole or welded stud as shown in Fig. A13 below.
- 2) Install the barrel and the curtain as per their installation instructions.



A13

CRANK GEARBOX ASSEMBLY INSTALLATION INSTRUCTIONS

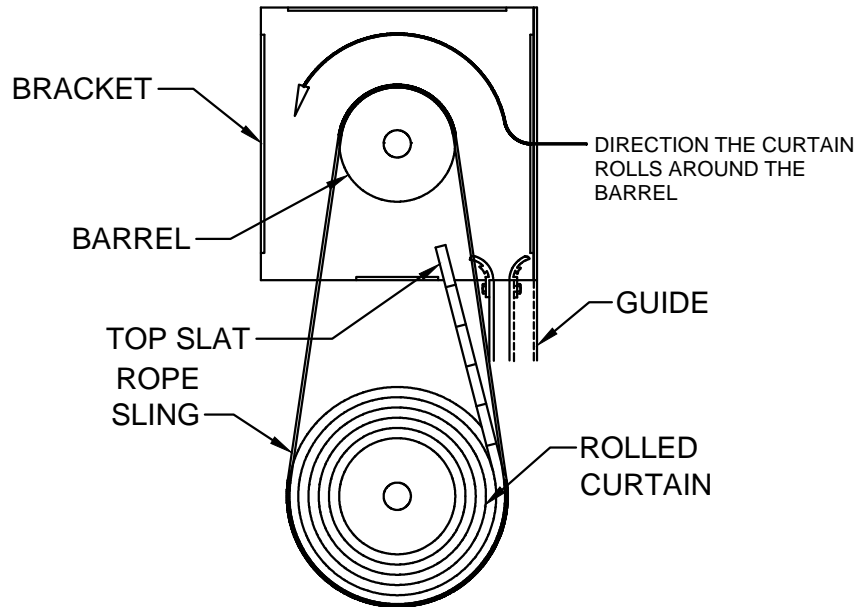
- 1) The worm gear and gear box are shipped already mounted to the bracket.
- 2) Unbolt the gear box and assemble it over the drive shaft as shown below in Fig. A14. On between jamb doors, this is usually done easiest prior to assembling the brackets to the guides.



A14

CURTAIN INSTALLATION INSTRUCTIONS

- 1) With the curtain rolled up (as shipped from the factory) place it in slings below the barrel as shown below in Fig. A15.
The slings may be made from soft cotton clothesline or other material that will not scratch the anodized finish.

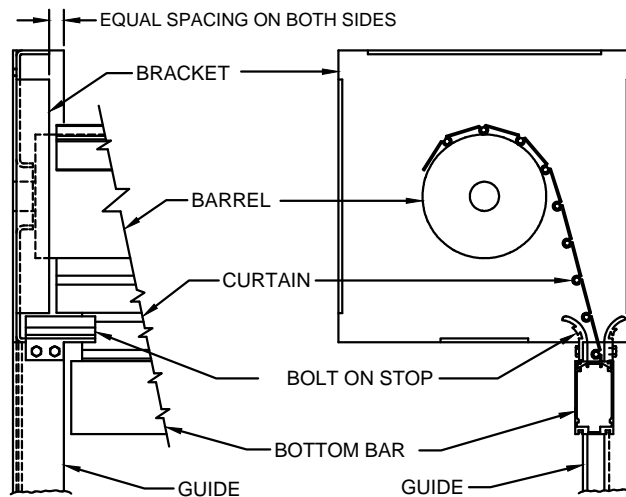


A15

IMPORTANT: ALL TENSION WHEELS MUST BE FREE TO ROTATE DURING THE INSTALLATION OF THE CURTAIN. BACK OUT THE HEX HEAD BOLT ON THE INSIDE TENSION WHEEL PAWL SO THAT THE PAWL WILL RACHET. FAILURE TO DO THIS WILL BACKWIND THE SPRING AND CAUSE DAMAGE. Pull the top slat around the barrel and line up the slots in the slat with the holes in the barrel. The clearance between the end of the curtain and the brackets must be the same on each end. Bolt the curtain to the barrel with the screws provided.

CAUTION: THE USE OF LONGER SCREWS THAN PROVIDED WILL INTERFERE WITH AND DAMAGE THE OPERATION OF THE TORSION SPRING IN THE BARREL (SEE PAGE 12).

- IF HOOPS ARE USED: Line up the hoops according to the punched holes in the top slat, being sure that the edges of the curtain are equidistant from each bracket, and so that the curtain is straight on the bracket. Bolt the curtain to the hoops.
- 2) Now roll the curtain around the barrel with the rope slings in place. When the curtain is completely wrapped around the barrel, feed the bottom bar into the guide grooves. Slowly lower the curtain all the way down so that the opening is now closed and reinstall the stops onto the guides.



A16

COUNTERBALANCING INSTALLATION

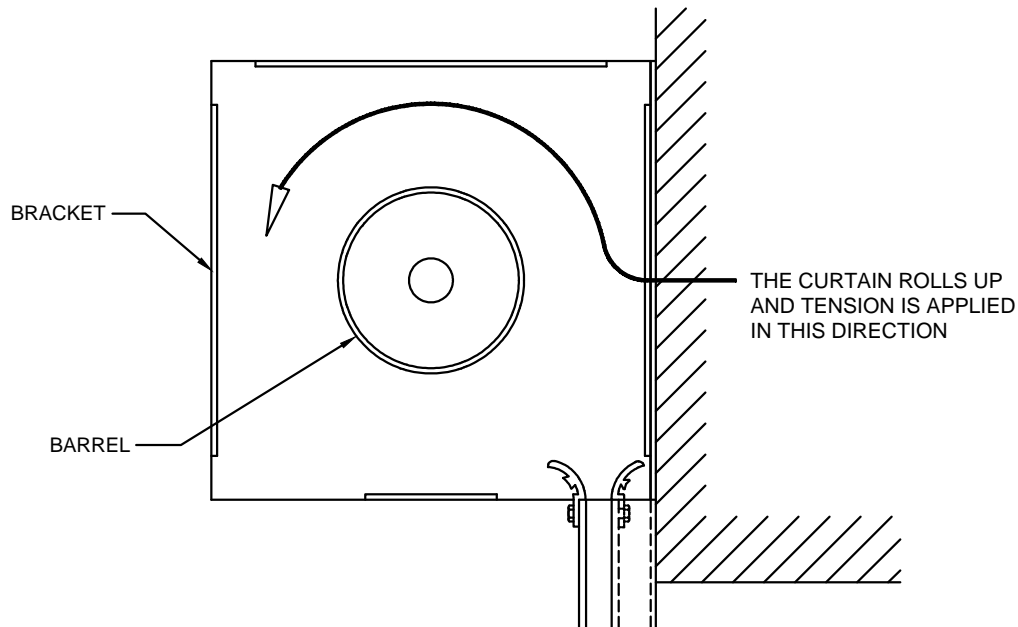
Inside Tension Wheel:

- 1) With the barrel and the curtain set in the proper location, make sure that the tension wheel set screws are tightened to the barrel shaft. Apply tension to the counterbalancing spring with the door in the closed position as follows:
Engage an 8" adjustable wrench onto the squared shaft and rotate the wheel in the direction that the barrel must rotate to roll up the curtain onto the barrel. See the Installation Information Sheet for the range that the tension should be set at. Be sure before removing the wrench each time that the pawl is engaged in the tension wheel. After the tension is properly set, lock down the tension pawl with the hex head machine bolt in the pawl.

Outside Tension Wheel:

- 2) Install the outside tension wheel onto the coped shaft. Apply tension to the counterbalancing spring with the door in the open position as follows:
See the Installation Information Sheet for the proper amount of tension to apply. Apply tension to the counterbalancing spring in the same direction the curtain rolls onto the barrel. Install the locking bolt after the tension has been applied. The operation of the door should be such that the door will stay at the head and at the floor.

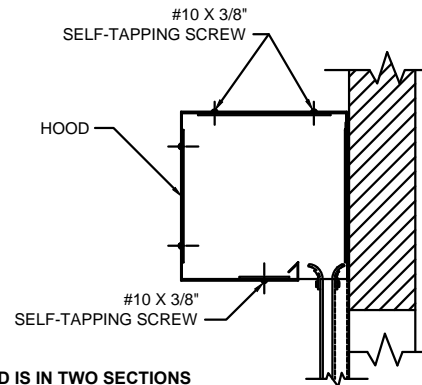
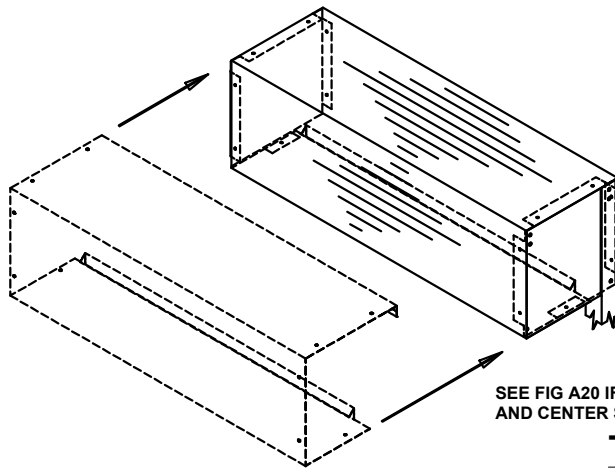
CAUTION: UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE FULL TURN BE ADDED OVER THAT WHICH IS REQUIRED TO HOLD THE CURTAIN'S BOTTOM BAR AT THE GUIDE STOPS.



A17

To assemble the hood, soffit and flashing, see the following page for details.

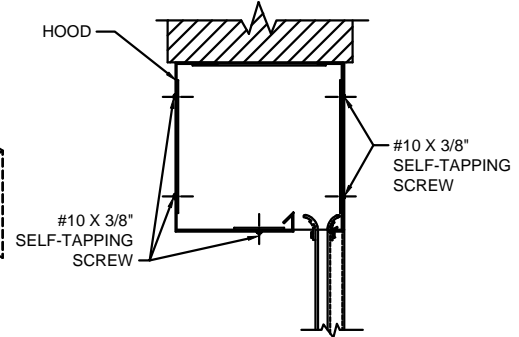
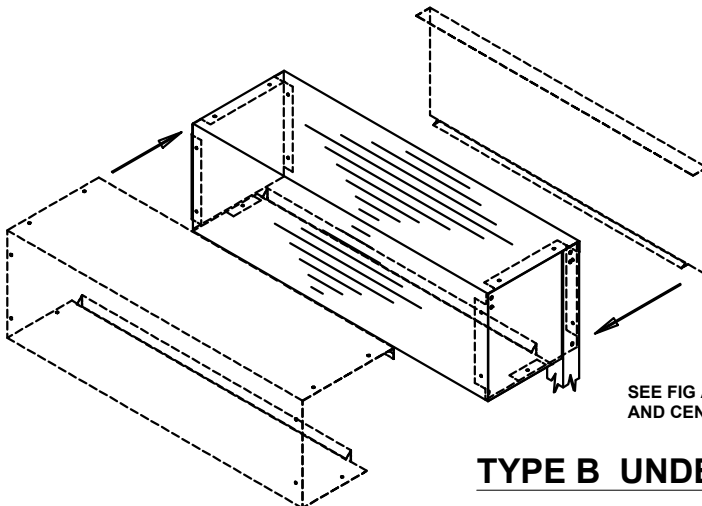
COUNTER DOOR HOOD MOUNTING DETAILS



SEE FIG A20 IF HOOD IS IN TWO SECTIONS
AND CENTER SUPPORT IS REQUIRED

TYPE A FACE MOUNTED HOOD

A18

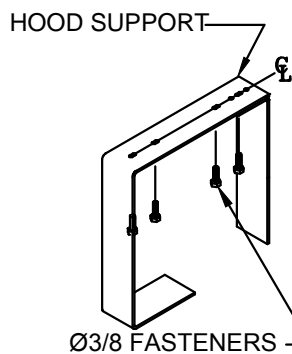


SEE FIG A20 IF HOOD IS IN TWO SECTIONS
AND CENTER SUPPORT IS REQUIRED

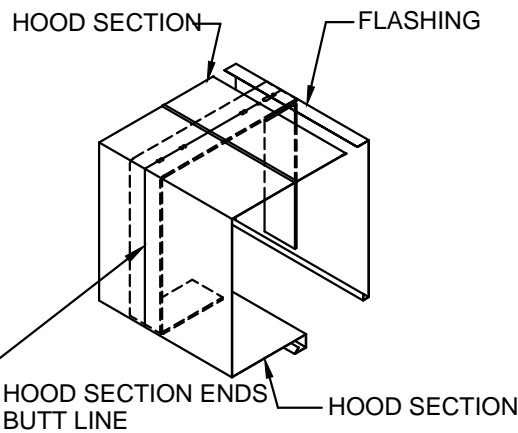
TYPE B UNDER LINTEL MOUNTED HOOD

A19

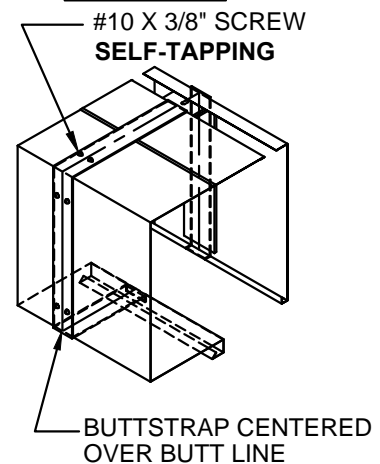
STEP 1



STEP 2



STEP 3

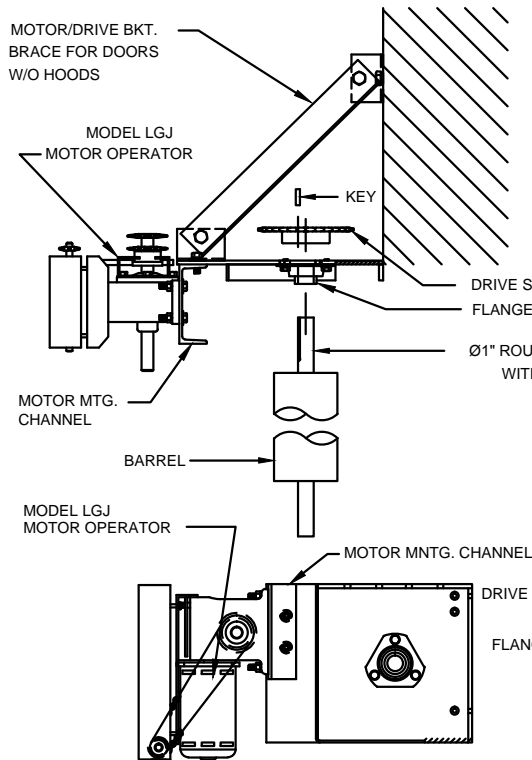


A20

MOTOR OPERATED DRIVE BRACKET DETAIL VERTICAL & TOP MOUNTED MODEL LGJ

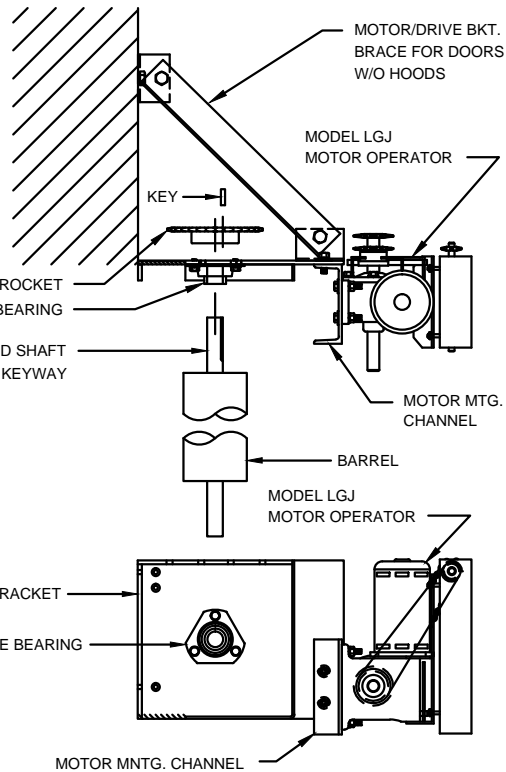
A) ASSEMBLE THE MOTOR OPERATOR ONTO THE DRIVE BRACKET ASSEMBLY, AND THE DRIVE BRACKET/MOTOR OPERATOR ASSEMBLY ONTO THE BARREL SHAFT AS SHOWN BELOW.

LEFT-HAND VERTICAL



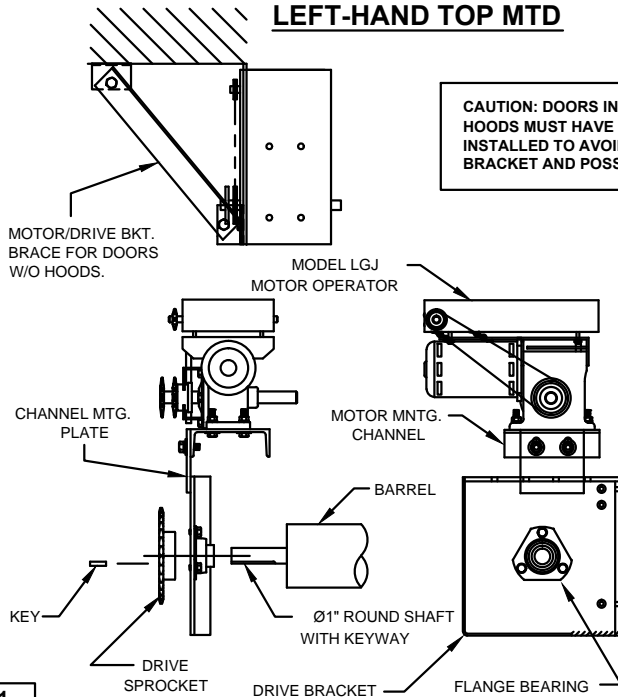
1) AFTER DOOR IS INSTALLED AND BRACKET PLATES ARE PERPENDICULAR TO WALL, ATTACH MOTOR/BKT BRACE TO BRACKET AND WALL AS SHOWN.

RIGHT-HAND VERTICAL



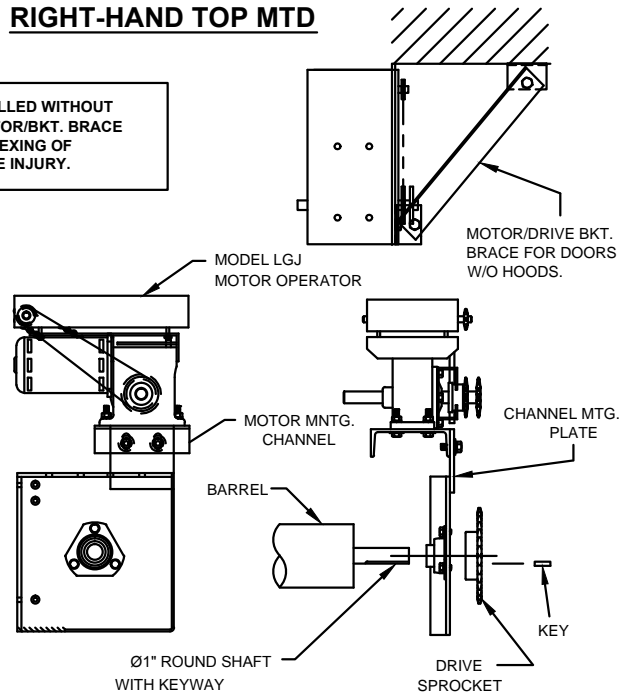
2) MAKE SURE THAT BOLTS ARE TIGHT AND
AND BRACKET PLATE IS PERPENDICULAR TO WALL.

LEFT-HAND TOP MTD



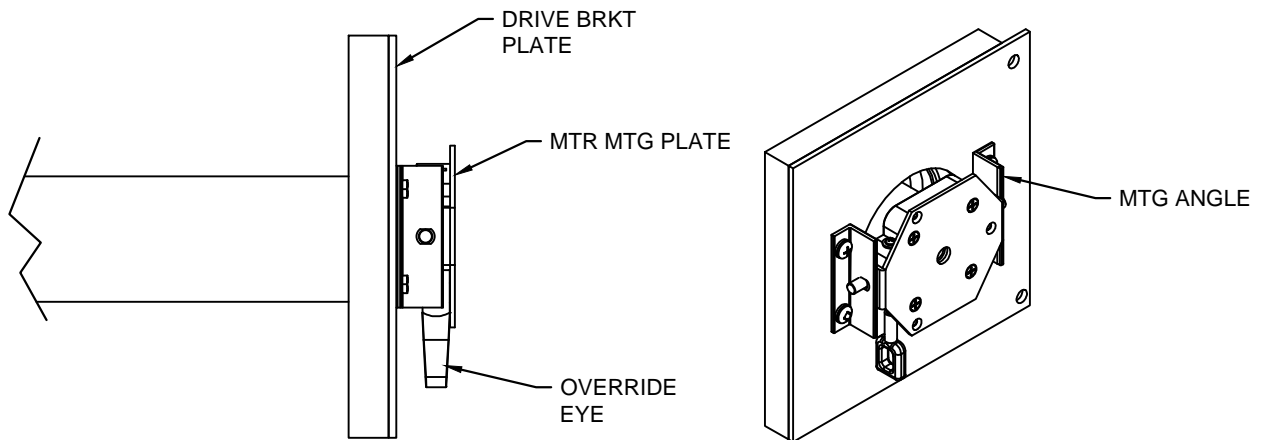
CAUTION: DOORS INSTALLED WITHOUT HOODS MUST HAVE MOTOR/BKT. BRACE INSTALLED TO AVOID FLEXING OF BRACKET AND POSSIBLE INJURY.

RIGHT-HAND TOP MTD

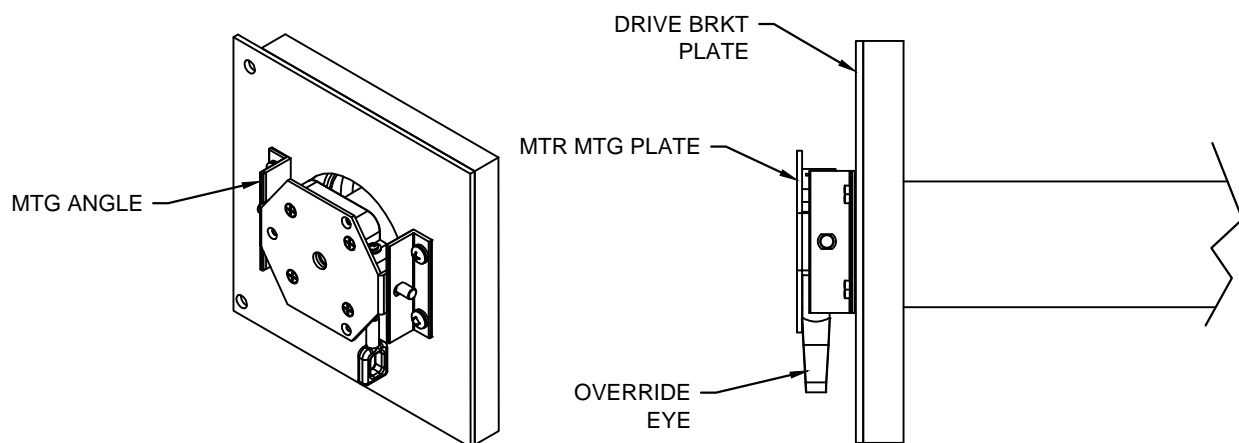


TUBULAR MOTOR OPERATED DRIVE BRACKET DETAIL

RIGHT-HAND MOTOR

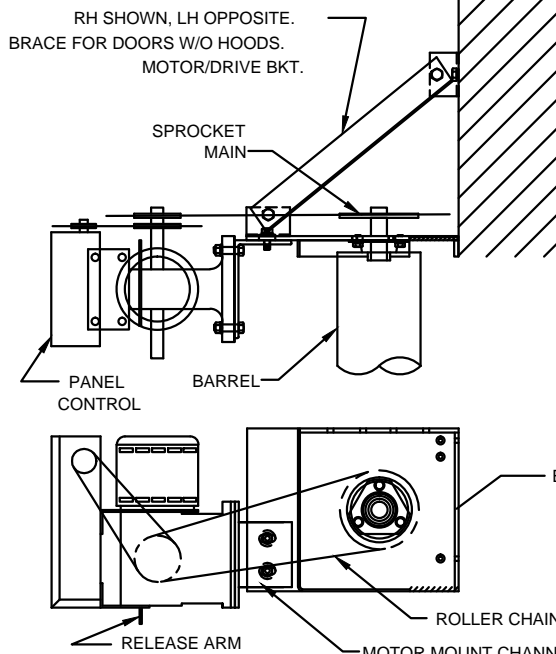


LEFT-HAND MOTOR

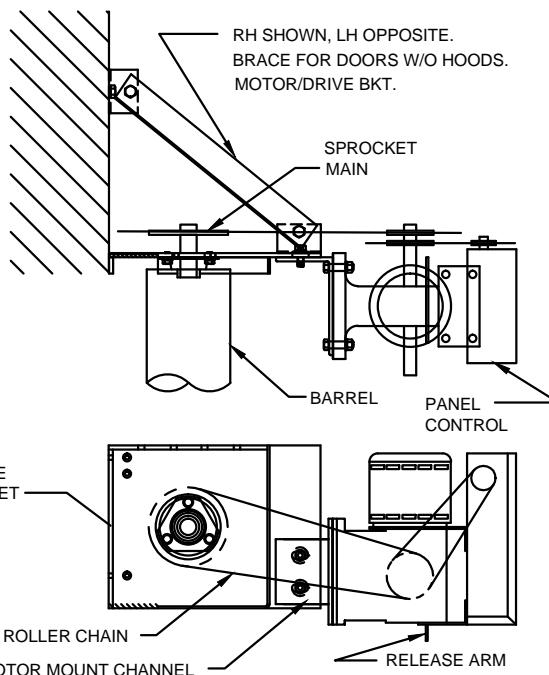


MOTOR OPERATED DRIVE BRACKET DETAIL VERTICAL & TOP MOUNTED MGJ

LEFT-HAND VERTICAL



RIGHT-HAND VERTICAL

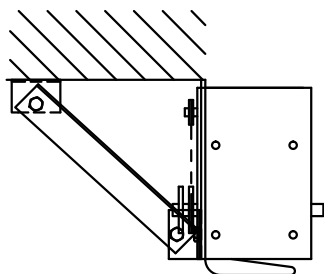


1) AFTER DOOR IS INSTALLED AND BRACKET PLATES ARE PERPENDICULAR TO WALL, ATTACH MOTOR/BKT BRACE TO BRACKET AND WALL AS SHOWN.

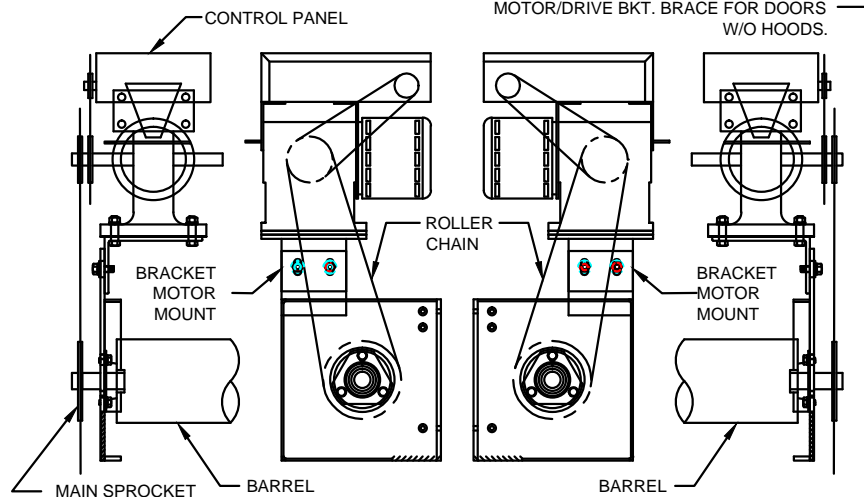
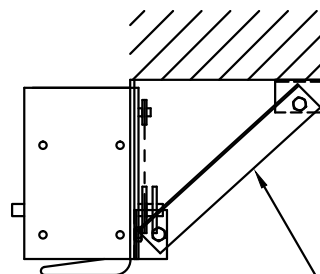
2) MAKE SURE THAT BOLTS ARE TIGHT AND AND BRACKET PLATE IS PERPENDICULAR TO WALL.

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

LEFT-HAND TOP MTD



RIGHT-HAND TOP MTD

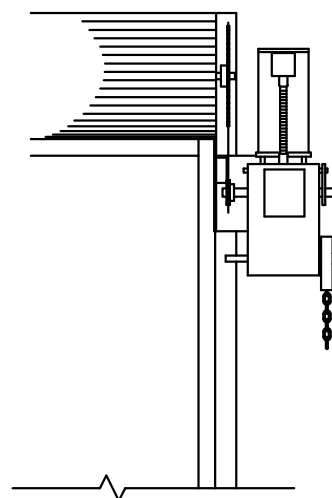
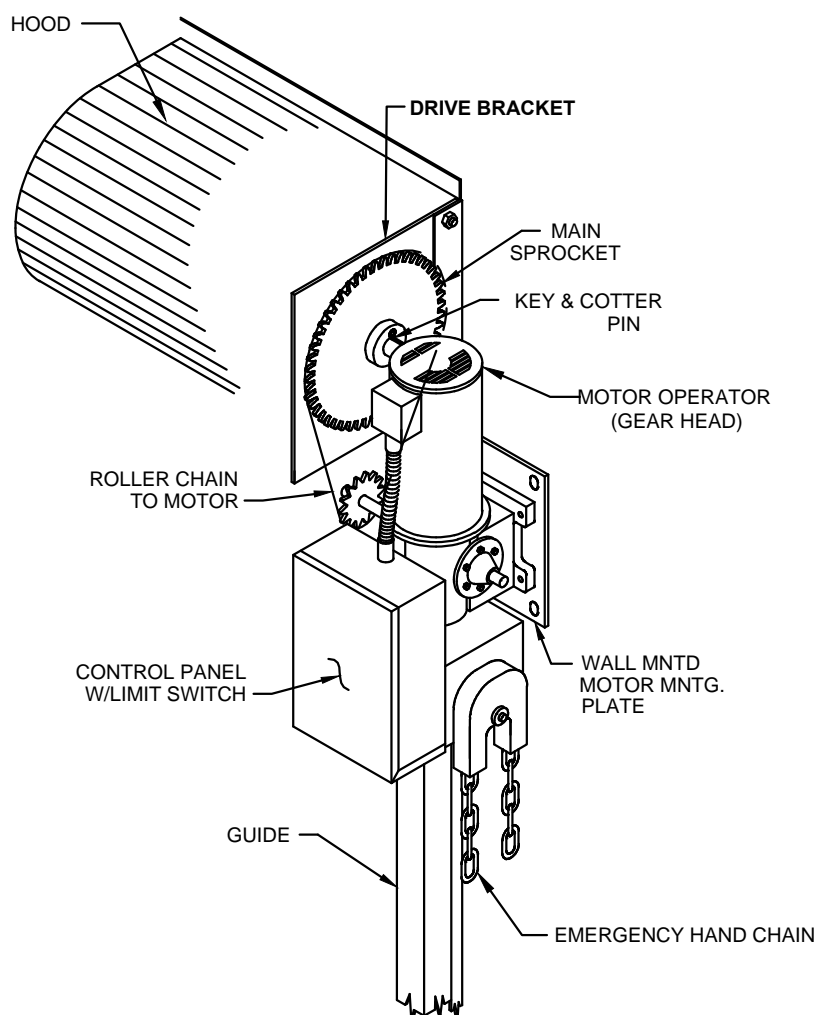


WALL MOUNT MOTOR OPERATOR

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.

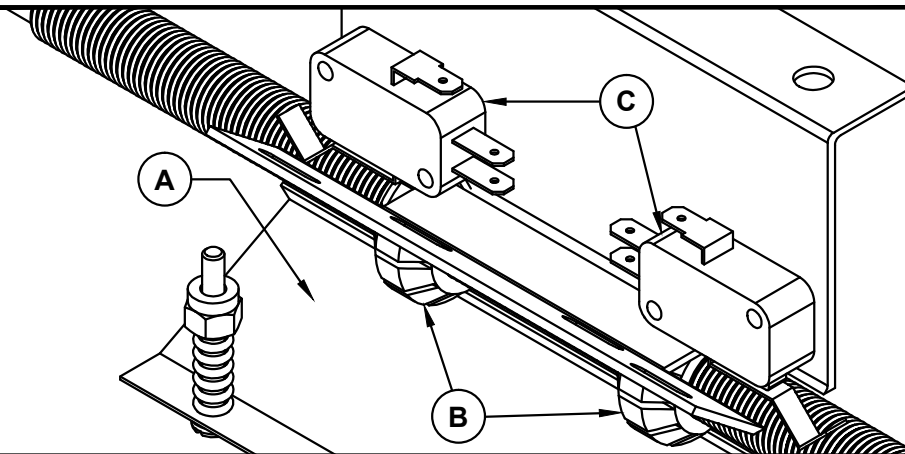
2) MAKE SURE THAT BOLTS ARE TIGHT AND BRACKET PLATE IS PERPENDICULAR TO WALL.



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.



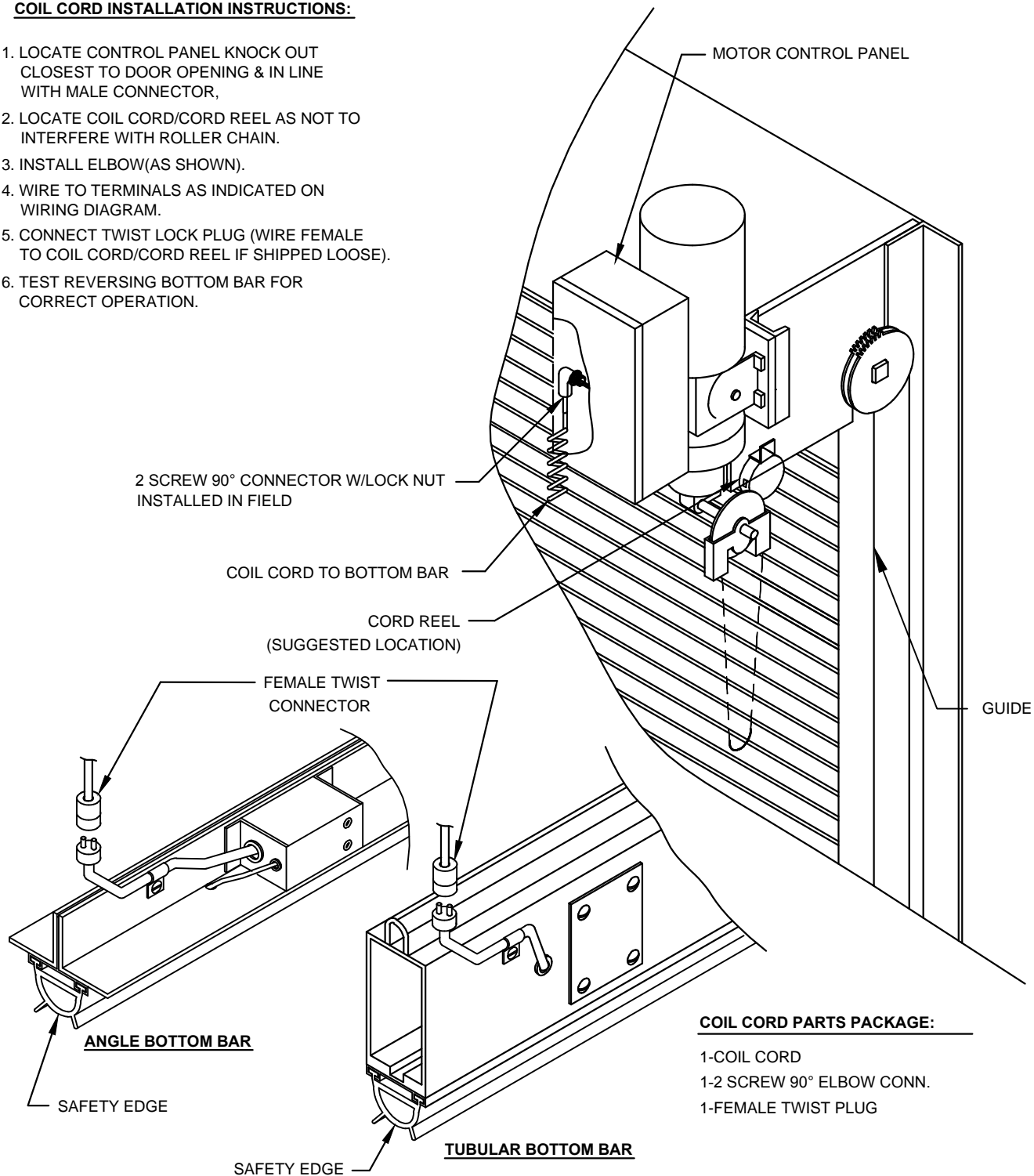
B5

- 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.



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

COIL CORD OPTION:

2 X 4 CONDUIT BOX
SUPPLIED BY COOKSON

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.

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

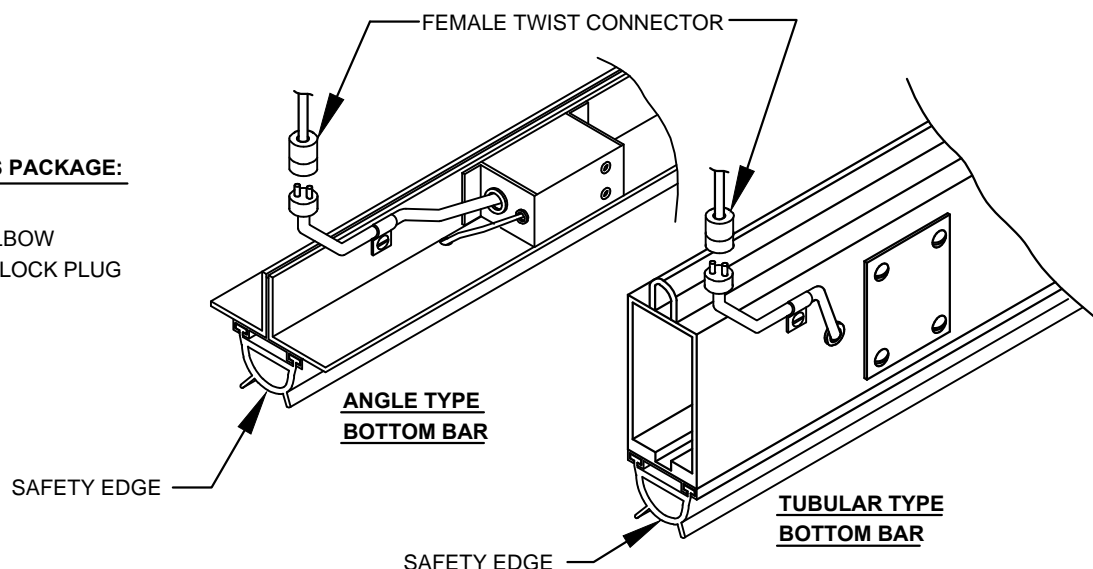
USE (2) #12 PAN HD
SCREW W/SHIELDS FOR
MASONRY MTG.

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

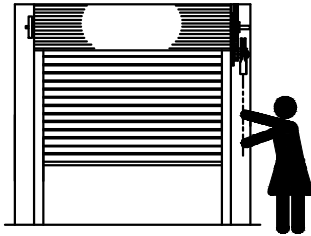


OPERATING INSTRUCTIONS

PUSH-UP - BE SURE THE ROLLING DOOR IS UNLOCKED, GRIP THE CENTER OF THE BOTTOM BAR & SMOOTHLY LIFT IN AN UPWARD MOTION. TO CLOSE, GENTLY PULL THE BOTTOM BAR DOWN TAKING CAUTION NOT TO LET THE DOOR FALL.



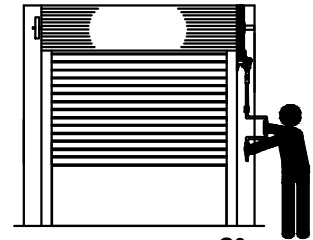
G1



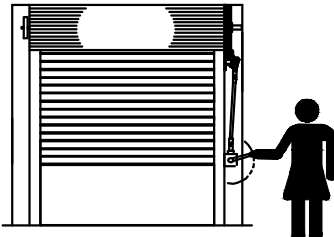
G2

CHAIN - PULL THE OUTERMOST PART OF THE CHAIN LOOP (FARTHEST AWAY FROM THE DOOR) VERTICALLY DOWNWARD TO OPEN. TO CLOSE, PULL THE INNERMOST PART OF THE CHAIN LOOP (CLOSEST TO THE DOOR) VERTICALLY DOWNWARD. DO NOT LET THE DOOR FALL; ALWAYS CHAIN IT DOWN, MAINTAINING CONTROL OF THE CHAIN. USE BOTH HANDS TO CONTROL THE DESCENT OF THE DOOR.

CRANK - INSERT TIP OF WINDING SHAFT INTO THE HOOK LOCATED ON THE DRIVE BRACKET. HOLDING THE LOWER OF THE CRANK ROD SECURE WITH ONE HAND, CRANK THE MIDDLE PIECE CLOCKWISE WITH THE OTHER HAND. REVERSE THIS ACTION TO CLOSE THE DOOR.



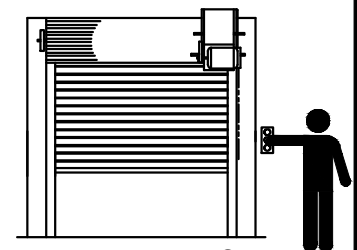
G3



G4

CRANK BOX - WITH A SECURE GRIP ON THE HANDLE, CRANK THE HANDLE IN A CLOCKWISE DIRECTION TO OPEN THE DOOR. CRANK COUNTERCLOCKWISE TO CLOSE THE DOOR.

MOTOR - PRESS THE OPEN BUTTON TO OPEN THE DOOR, PRESS THE STOP BUTTON TO STOP THE MOVEMENT OF THE DOOR, AND PRESS THE CLOSE BUTTON TO CLOSE THE DOOR.



G5

WARNING: WHEN OPERATING A ROLLING DOOR ALWAYS MAKE SURE THERE ARE NO OBSTRUCTIONS BLOCKING THE PATH OF MOVEMENT. KEEP FEET AND OTHER LIMBS AWAY FROM THE DOOR WHILE IT IS IN MOTION. WHEN OPENING A PUSH-UP OPERATED DOOR, USE CAUTION TO LIFT WITH YOUR LEGS AND NOT YOUR BACK. THE MANUFACTURER AND AFFILIATES SHALL NOT BE RESPONSIBLE FOR INJURY OR DAMAGE DUE TO FAILURE TO FOLLOW OPERATING INSTRUCTIONS.

CURTAIN CARE AND TOUCH-UP INSTRUCTIONS

WHILE ROLLING DOOR FINISHES ARE ENGINEERED TO LAST, THE INHERENT DESIGN OF ROLLING DOOR PRODUCTS WILL EVENTUALLY ABRASE VIRTUALLY ANY APPLIED FINISH. CARE SHOULD BE TAKEN ON DIRTY OR DUSTY JOBSITES NOT TO USE THE DOORS UNLESS THEY HAVE BEEN CLEANED, OTHERWISE THE FINISH MAY BE DAMAGED. ROUTINE CARE AND MAINTENANCE WILL FURTHER HELP PROLONG FINISH LIFE BY REDUCING THE AMOUNT OF WEAR CAUSED BY FOREIGN SUBSTANCES ON THE DOOR CURTAIN. FOLLOWING THE CLEANING AND TOUCH-UP INSTRUCTIONS BELOW WILL HELP TO PROTECT AND MAINTAIN THE SURFACE FINISH.

TO FURTHER PROTECT THE DOOR, IT IS ALSO RECOMMENDED THAT IT BE DISABLED IN THE OPEN POSITION UNTIL PROJECT CLOSE OUT. IF THE DOOR IS TO BE UTILIZED BY OTHER TRADES DURING THE CONSTRUCTION PROCESS, THEN THE CONTRACTOR SHOULD ACCEPT OWNERSHIP OF IT AT THE TIME OF INSTALL TO ENSURE THAT THE DOOR IS TURNED OVER TO THE BUILDING OWNER IN ITS ORIGINAL "NEW" CONDITION.

CLEANING INSTRUCTIONS

- 1) CLEAN THE DOOR PRIOR TO USE, AND REGULARLY, USING A DAMP CLOTH OR LIGHT SPRAY WASH. REMOVE ALL DUST, DIRT AND DEBRIS FROM THE CURTAIN SURFACE.
- 2) FOR DOORS WHICH ARE SUBJECTED TO HEAVIER DIRT CONDITIONS, WASH THE DOOR WITH A MIXTURE OF LIGHT DISH SOAP AND WATER. USE 2 OZ OF SOAP FOR EACH GALLON OF WATER, THEN RINSE ALL SOAP FROM THE DOOR AND DRY.

TOUCH-UP INSTRUCTIONS

- 1) CLEAN THOROUGHLY AND ENSURE THAT THE DOOR IS COMPLETELY DRY.
- 2) MIX PAINT FOR ONE FULL MINUTE PRIOR TO USE.
- 3) APPLY MULTIPLE LIGHT COATINGS TO AVOID PAINT RUNS. FOR SPRAY APPLICATIONS, HOLD THE CAN APPROXIMATELY 8" TO 12" FROM THE SURFACE, COVERING ALL WEAR AREAS. FOR BRUSH APPLICATIONS, APPLY EVENLY ACROSS WEAR AREA AND EXTEND OVER COATED AREA.
- 4) LET DRY FOR 24 TO 48 HOURS BEFORE CYCLING THE DOOR.

MAINTENANCE INSTRUCTIONS

REGULAR SCHEDULED MAINTENANCE:

ALL ROLLING DOORS SHOULD BE INSPECTED ON A REGULAR BASIS TO ENSURE PROPER AND SAFE OPERATION. THE FREQUENCY OF THE INSPECTION IS DEPENDANT ON THE USAGE OF THE DOOR BUT ALL DOORS SHOULD BE INSPECTED AT LEAST ONCE A MONTH. THE INSPECTION SHOULD CONSIST OF THE FOLLOWING:

A. VISUAL INSPECTION

- 1) BENT BOTTOM BARS
- 2) DAMAGED SLATS
- 3) PINCHED GUIDES
- 4) DENTED OR MISSING HOOD

B. CHECK ALL FASTENERS

- 1) WALL ATTACHMENT BOLTS
- 2) GUIDE ASSEMBLY BOLTS
- 3) BRACKET ATTACHMENT BOLTS
- 4) SET SCREWS ON GEARS AND SPROCKETS
- 5) TENSION WHEEL SECURE
- 6) KEYS SECURE

C. CHECK OPERATING ASSEMBLIES

- 1) OPERATING ASSEMBLY
- 2) GOVERNOR ASSEMBLY
- 3) BARREL ASSEMBLY

D. LUBRICATE

- 1) ALL PIVOT JOINTS
- 2) SHAFTS
- 3) ROLLER CHAIN

E. CHECK NORMAL OPERATION

- 1) OPERATION
- 2) SPRING TENSION
- 3) BALANCE

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

BARREL

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
DOOR STARTS DOWN THEN BINDS	1) CURTAIN BINDS IN GUIDES. 2) SCREWS CONNECTING CURTAIN TO BARREL TOO LONG AND INTERFERING WITH TORSION SPRING. 3) INCORRECT BARREL FOR OPENING. 4) INTERNAL INTERFERENCE INSIDE BARREL.	1) INCREASE GUIDE GROOVE OPENING. CURTAIN MUST BE LOOSE IN GUIDES. 2) REPLACE MACHINE SCREWS WITH SHORTER LENGTH. THEY MUST NOT PROTRUDE PAST BARREL WALL. 3) CHECK DOOR MARK. LOCATE CORRECT BARREL. 4) CONSULT DISTRIBUTOR.
TENSION WHEEL TURNS FREELY	1) SPRING BROKEN. 2) BROKEN SHAFT TIE. 3) BROKEN BARREL TIE.	1) CONSULT DISTRIBUTOR. 2) CONSULT DISTRIBUTOR. 3) CONSULT DISTRIBUTOR.
TENSION SHAFT SLIPPED INTO BARREL.	1) DRIVE PIN FAILURE - SHIPPING DAMAGE. 2) BEARING FAILURE - SHIPPING DAMAGE.	1) CONSULT DISTRIBUTOR. 2) CONSULT DISTRIBUTOR.
DOOR LOSES TENSION (SPRUNG DOORS ONLY)	1) PAWL SLIPPING ON INTERNAL TENSION WHEEL BECAUSE PAWL IS BINDING ON ATTACHING RIVET. 2) DOOR DAMAGED CAUSING INCREASED DRAG. 3) HOOPS SLIPPING.	1) LOOSEN PAWL PIVOT POINT. 2) CONSULT DISTRIBUTOR. 3) TIGHTEN HOOPS.
DRIVE SHAFT CROOKED	1) BROKEN WELD OR SHIPPING DAMAGE.	1) CONSULT DISTRIBUTOR FOR DETERMINATION IF FIELD REPAIR IS POSSIBLE.

CURTAIN

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
CURTAIN ROLLS UP UNEVENLY	1) TOP SLAT NOT IN LINE. 2) BARREL NOT LEVEL.	1) LOOSEN TOP SCREWS AND STRAIGHTEN CURTAIN. 2) USE BUBBLE LEVEL TO LEVEL BARREL.
DOOR CURTAIN SEPARATES	1) FREIGHT DAMAGE.	1) CONSULT DISTRIBUTOR.
CURTAIN SEPARATES FROM BARREL	1) MACHINE SCREWS PULLED THRU TOP SLAT. 2) INTERLOCKS NOT INSTALLED ON MOTOR OPERATED DOOR.	1) INSTALL WASHER UNDER HEAD OF SCREWS. 1) INSTALL INTERLOCKS TO PREVENT MOTOR OPERATION WHEN DOOR IS LOCKED.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

CURTAIN (CONT)

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
FINISH PROBLEMS	1) DOOR CORRODES DUE TO ENVIRONMENTAL CONDITIONS.	1) CLEAN DOOR PERIODICALLY.
CURTAIN APPEARS TO SAG AT CENTER	2) CENTER OF CURTAIN IS AGAINST BARREL AND EDGE OF CURTAIN IS PULLED TOWARD LINTEL AS IT ENTERS GUIDES. 3) BARREL DEFLECTION OF WIDE DOORS. SHOULD NOT EXCEED .03 INCHES PER FOOT OF OPERATING WIDTH.	2) CURVATURE OF CURTAIN MAKES IT APPEAR TO BE SAGGING WHILE IT IS ACTUALLY LEVEL. CHECK WITH CARPENTER'S LEVEL. 3) CONSULT DISTRIBUTOR. 1) CONSULT DISTRIBUTOR.

BOTTOM BAR

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
SAFETY EDGE NOT WORKING	1) OPEN CIRCUIT IN BOTTOM BAR. CONFIRM THIS BY DISCONNECTING PLUG AT BOTTOM BAR AND INSERTING CONTINUITY CHECKER. IF PRESSING UP ON SAFETY EDGE DOES NOT CLOSE CIRCUIT, PROBLEM IS OPEN CIRCUIT IN BOTTOM BAR. 2) OPEN CIRCUIT IN COIL CORD OR CORD REEL. CONFIRM THIS BY INSERTING VOLTMETER INTO PLUG. READING SHOULD BE 24VAC. 3) DOOR LOCATED IN EXTREMELY WET OR FLOOD ENVIRONMENT.	1) DEFECTIVE SWITCH OR CONNECTION AT SWITCH TO PLUG. CHECK TO MAKE SURE ALL WIRES ARE SECURELY FASTENED. REPLACE SWITCH IF NECESSARY. 2) REPLACE COIL CORD OR CORD REEL. 3) ELIMINATE WATER. REPLACE SAFETY EDGE OR SAFETY EDGE SWITCH.
LOCKS INOPERATIVE	1) CAM OF CYLINDER NOT IN CORRECT POSITION. 2) DAMAGE TO INTERNAL COMPONENTS	1) REPOSITION CYLINDER AND FIRMLY SECURE WITH SMALL SCREW LOCATED BELOW CYLINDER. 2) REMOVE BOTTOM BAR FROM GUIDE. REPLACE LOCK MECHANISM.
ELECTRICAL INTER-LOCKS INOPERATIVE	1) LOCK BOLT DOES NOT LINE UP WITH SWITCH ON GUIDE. 2) INTERLOCK DOES NOT PREVENT MOTOR FROM OPERATING.	1) ADJUST SWITCH LOCATION WHERE IT IS MOUNTED ON GUIDES. 2) DEFECTIVE SWITCH. CHECK ELECTRICAL CONNECTION AND REPLACE IF NECESSARY.

TROUBLESHOOTING GUIDE

NOTE: FOR MAINTENANCE OR REPAIR OF THIS PRODUCT, PLEASE CONSULT YOUR LOCAL AUTHORIZED DISTRIBUTOR

BRACKET

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
BRACKETS NOT PERPENDICULAR TO BARREL	1) WALL ANGLE FLANGE NOT SQUARE.	1) BRACE BRACKET INTO POSITION.
DRIVE CHAIN TENSION	1) SPROCKET POSITION OUT OF ADJUSTMENT.	1) TIGHTEN CHAIN BY SLIDING OPERATOR OR REMOVE LINK FROM CHAIN.
BINDING IN BEVEL GEAR BOX	1) LACK OF LUBRICATION.	1) LUBRICATE GEAR BOX.

GUIDES

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
CURTAIN BINDS IN GUIDE GROOVE	1) INCORRECT GUIDE GROOVE OPENING. 2) INCORRECT TIP-TO-TIP DIMENSION OF GUIDES.	1) REFER TO INSTALLATION INSTRUCTIONS AND ADJUST GUIDE GROOVE OPENING. 2) REFER TO INSTALLATION INSTRUCTIONS FOR TIP-TO-TIP DIMENSION AND ADJUST GUIDE SPACING.

HOODS

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
INCORRECT DIMENSIONS, MATERIAL OR END COVERS	1) ORDERING PROCESSING PROBLEM. OPENING.	1) GET ALL DIMENSIONS OF MATERIAL SUPPLIED AND CONSULT DISTRIBUTOR.

MOTOR OPERATOR

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
EMERGENCY HAND CHAIN OR CRANK FAILS OR IS DIFFICULT TO OPERATE DOOR. (THIS IS NORMAL ON UN-SPRUNG DOORS)	1) DOOR MAY BE JAMMED OR OBSTRUCTED. 2) INCORRECT TENSION IN SPRING. 3) DOOR MAY BE LOCKED. 4) PROBLEM IN GEARBOX HOUSING.	1) REMOVE OBSTRUCTION. 2) MAKE SURE THAT SPRING HAS CORRECT TENSION. 3) CHECK TO SEE IF LOCK IS DISENGAGED. 4) CONSULT DISTRIBUTOR.
EMERGENCY HAND OR CRANK TURNS BUT DOES NOT TURN THE OUTPUT SHAFT OF GEAR BOX	1) KEYS FIXING GEARS TO SHAFTS ARE SHEARED.	1) CHECK KEYS AND KEYWAYS.

TROUBLESHOOTING GUIDE

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MOTOR OPERATOR (CONT)

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
FINISH PROBLEMS	1) DOOR CORRODES DUE TO ENVIRONMENTAL CONDITIONS.	1) CLEAN DOOR PERIODICALLY.
CURTAIN APPEARS TO SAG AT CENTER	2) CENTER OF CURTAIN IS AGAINST BARREL AND EDGE OF CURTAIN IS PULLED TOWARD LINTEL AS IT ENTERS GUIDES. 3) BARREL DEFLECTION OF WIDE DOORS. SHOULD NOT EXCEED .03 INCHES PER FOOT OF OPERATING WIDTH.	2) CURVATURE OF CURTAIN MAKES IT APPEAR TO BE SAGGING WHILE IT IS ACTUALLY LEVEL. CHECK WITH CARPENTER'S LEVEL. 3) CONSULT DISTRIBUTOR. 1) CONSULT DISTRIBUTOR.
MOTOR FAILS TO RUN OR CONTROL CIRCUIT FAILS TO ENERGIZE	1) FUSES BLOWN OR CIRCUIT BREAKER TRIPPED. 2) OPERATORS ARE PROTECTED FROM RUNNING IN OVERLOAD CONDITION BY THERMAL OVERLOAD DEVICES OF THE AUTOMATIC RESET TYPE. 3) IF CONTACTS FOR MOTOR CONTROLLER ENERGIZE BUT MOTOR STILL FAILS TO OPERATE. 4) PUSHBUTTONS ENERGIZE ON ONLY ONE SIDE OF THE CONTROL CONTACTS.	1) CHECK FUSE OR CIRCUIT BREAKER BOX. 2) CONSULT DISTRIBUTOR. 3) CONSULT DISTRIBUTOR. 4) CHECK ALL ELECTRICAL CONNECTIONS FOR BROKEN OR LOOSE WIRES, ETC. CHECK ELECTRICAL CONNECTIONS FOR ANY OPTIONAL EQUIPMENT: CARD KEY, CYLINDER KEY SWITCH, PHOTO CELL, REVERSING BOTTOM BAR OR SPECIAL INTERLOCKS.
MOVEMENT OF THE DOOR IS IN AGREEMENT WITH PUSHBUTTON STATION, BUT THE LIMIT SWITCH DOES NOT STOP DOOR	1) ELECTRICAL CONNECTIONS ARE SWITCHED.	1) CHECK ELECTRICAL CONNECTIONS AND JUMPER WIRE LEAD BETWEEN THE MICRO SWITCHES. CONSULT DISTRIBUTOR.
LIMIT SWITCH DOES NOT HOLD ITS SETTING.	1) SPROCKET SHAFT END PLAY TOO LARGE. 2) DRIVE CHAIN LOOSE. 3) LIMIT SWITCH DETENT PLATE LOOSE.	1) END PLAY SHOULD NOT EXCEED 1/32". 2) CHECK DRIVE CHAIN. 3) THE PLATE MUST ENGAGE BOTH TRAVELING CAMS.
ELECTRICAL CONTROL CIRCUIT ENERGIZES BUT THE MOTOR DOES NOT RUN OR MOTOR OVERLOADS TRIP.	1) INCORRECT WIRING.	1) CONSULT DISTRIBUTOR.

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MOTOR OPERATOR (CONT)

<u>PROBLEM</u>	<u>CAUSE</u>	<u>CORRECTION</u>
LOW VOLTAGE TO MOTOR.	1) INCORRECT ELECTRICAL POWER TO MOTOR.	1) CHECK VOLTAGE AGAINST THE CORRECT VOLTAGE STAMPED ON THE MOTOR. IF THE VOLTAGE IS 10% BELOW THE RATING, THERE IS NOT SUFFICIENT VOLTAGE TO RUN THE MOTOR.
MOTOR IS BURNED OUT.	1) INCORRECT WIRING.	1) CONSULT DISTRIBUTOR.