

INTRODUCTION

Dear Customer,

Congratulations on your purchase of the Alpine Counter Shutter. You have selected a product that has been manufactured with the latest and most advanced technology available within the industry. Computer aided design and LASER quality machining have been incorporated into all Alpine products.

SAFETY INSTRUCTIONS

IT IS IMPORTANT TO READ ALL SAFETY INSTRUCTIONS BEFORE BEGINNING INSTALLATION!

UPON ARRIVAL OF THE SHIPMENT TO THE PROJECT LOCATION

1. Check all materials against the packing list. Inspect all materials for any visible or concealed signs of freight damage. Should omissions or freight damage be present, you must file a freight claim.

2. If you have received more than one door, you will notice that all major parts and components of that door are marked with corresponding numbers. A complete door should be composed of all parts bearing the same numbers.

 **IMPORTANT**  **Do not interchange door parts from one door to another!**

3. Before leaving the project site, make certain that you have read and have fully complied with the safety checklist.

 **IMPORTANT**  **INSTALLATION OF THIS DOOR MUST BE PERFORMED BY AN EXPERIENCED INSTALLER!**

NOTE TO THE INSTALLER:

In order to assure your customer that this door has been installed in a safe and efficient manner, Alpine recommends that you thoroughly check the following areas before leaving the project site.

1. Make certain that the proper amount of tension has been applied to the torsion spring assembly, in order to counterbalance the weight of the curtain.

2. Make sure that the inside charge wheel is fastened to end bracket & is securely in place.

3. Make sure that all keys have been installed in any sprockets or gears that require them. Make sure that all set screws have been installed and are properly tightened.

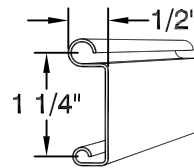
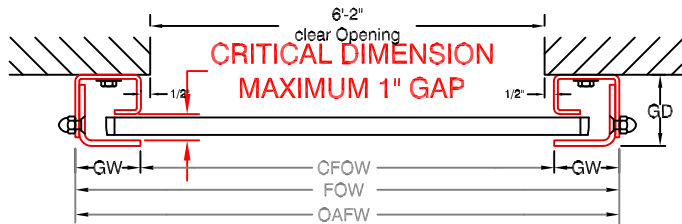
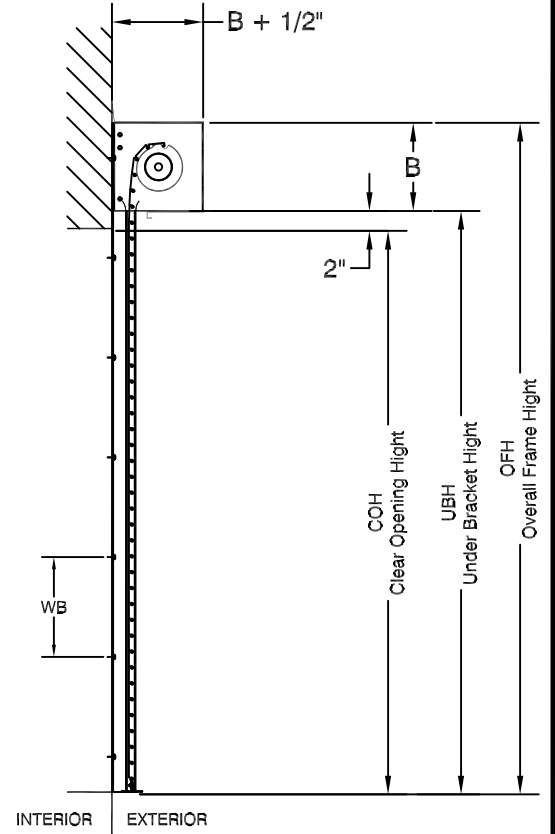
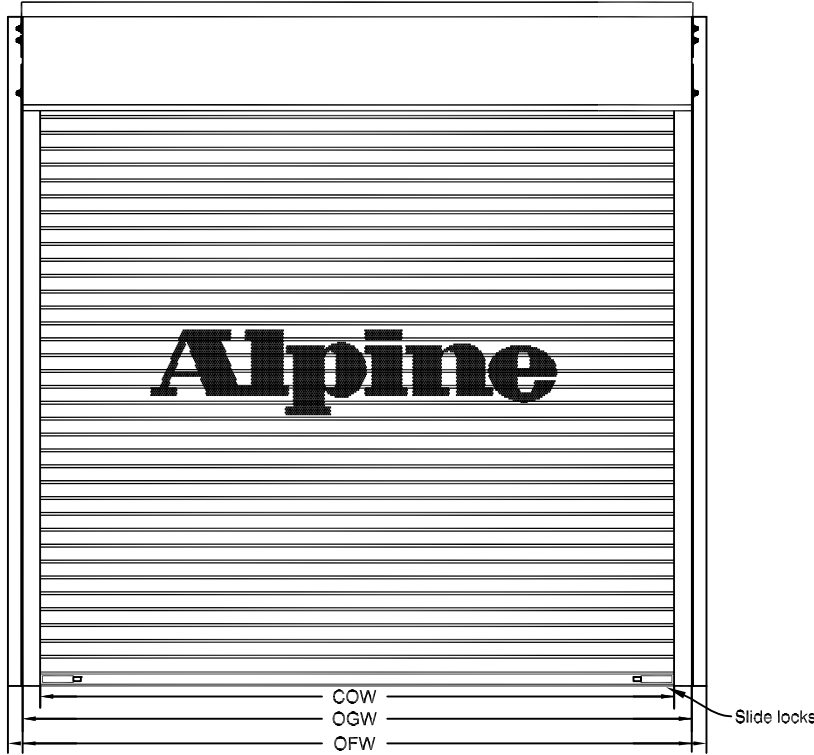
4. Check all fasteners that hold the guides to the building structure.

5. Check all fasteners used in assembling the various door components.

PREPARATION G GUIDE ROLL FORMED

PROJECT PROJECT

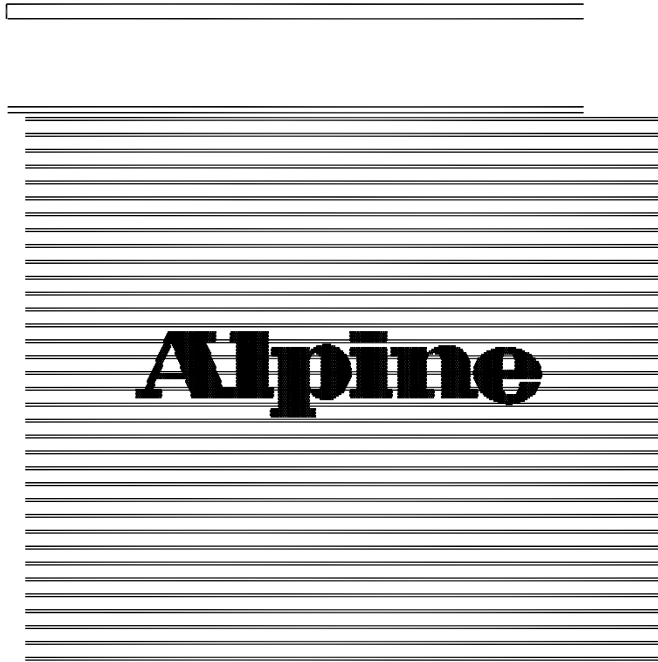
CONTRACT# / P.O.# CONTRACT/P.O.#



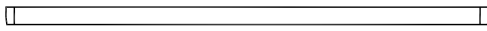
QUANTITY	MARK	CLEAR OPENING		OVERALL GUIDE	UNDER BRACKET	OVERALL FRAME		Bracket	Guide Width	Guide Depth	DRIVE	OPERATION
		COWIDTH	COHEIGHT	OGWIDTH	UBHEIGHT	OFWIDTH	OFHEIGHT					
Q	M	COWIDTH	COHEIGHT	OGWIDTH	UBHEIGHT	OFWIDTH	OFHEIGHT	B	GW	GD	DR	OP

PROJECT PROJECT

CONTRACT# / P.O.#

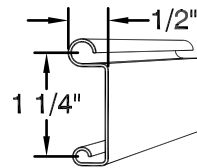
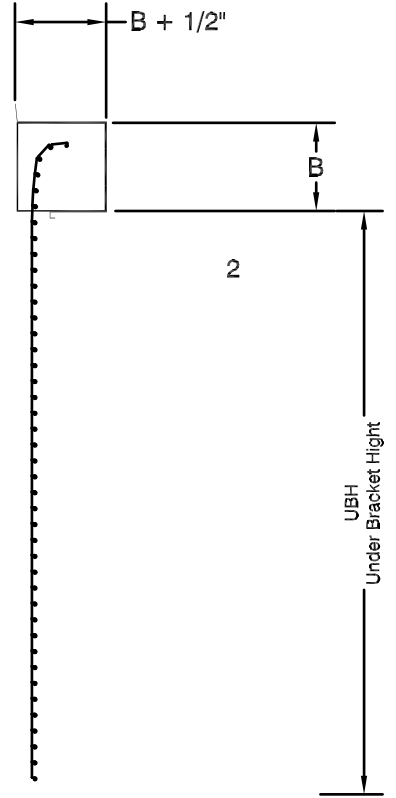


COW _____
 OGW _____
 OFW _____



COW
 ~W

UNDER
 BRACKET



CURTAIN

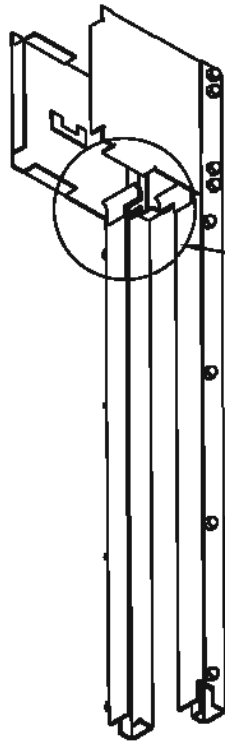
BOTTOM BAR

	Bracket	Guide Width	Guide Depth	DRIVE	OPERATION
OF HEIGHT	B	GW	GD	DR	OP

PREPARATION

STANDARD PARTS:

Thoroughly inspect parts for shipping damage as soon as they are received. You must immediately document and save crating or packaging materials for all freight damage claims.

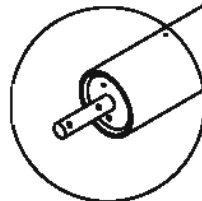


Removable Stops

Guides (2) with removable stops and end brackets, shipped as one assembly.



5/16" Tension Rods (2)

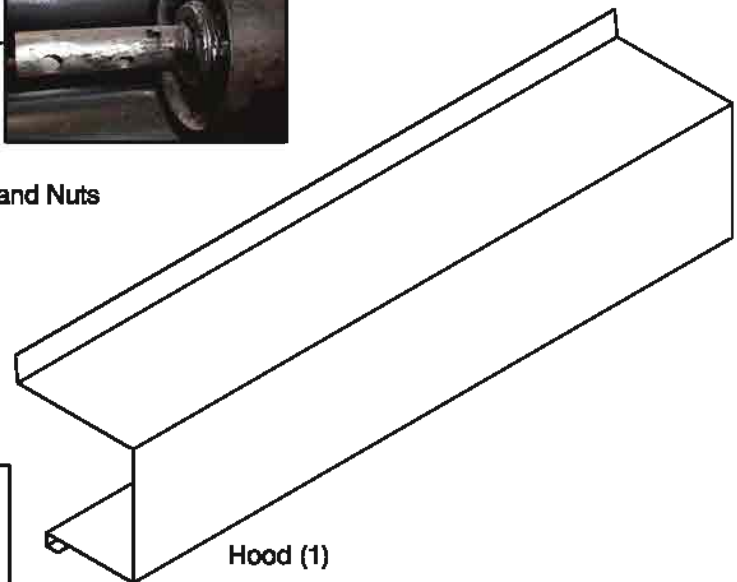
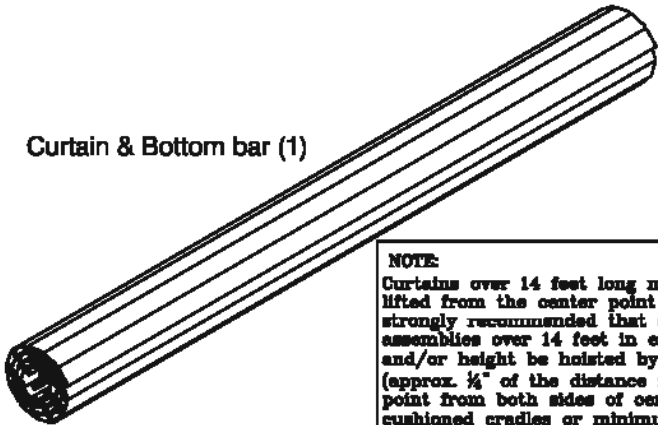


Pipe Assembly (1)



Use 3/8" Bolts with Washers and Nuts

Curtain & Bottom bar (1)

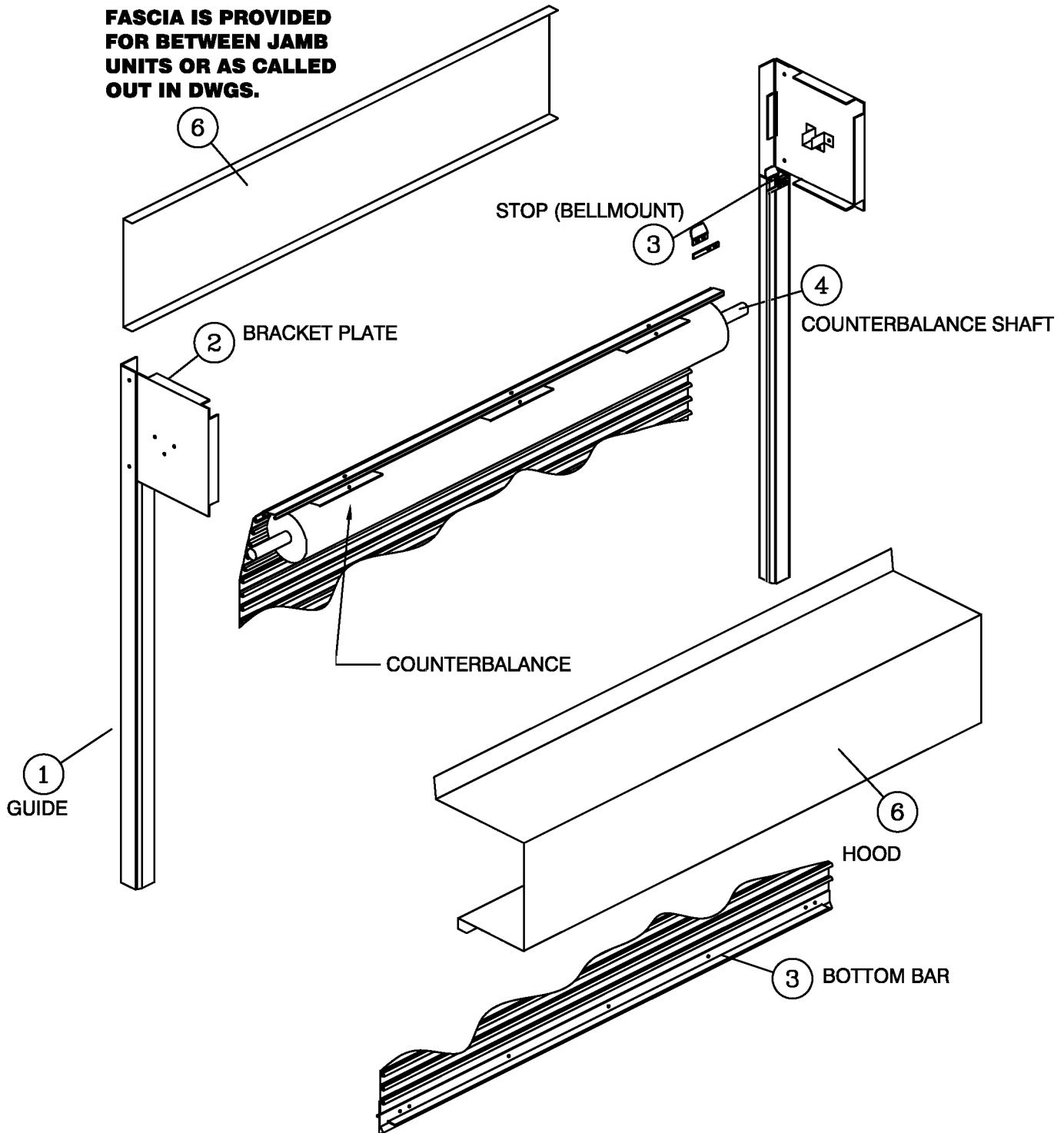


Hood (1)

NOTE:
Curtains over 14 feet long must never be lifted from the center point alone. It is strongly recommended that curtain assemblies over 14 feet in either width and/or height be hoisted by two points (approx. 1/4" of the distance from center point from both sides of center, utilizing cushioned cradles or minimum 8" wide strap and NO choke slinging. i.e. 16 feet divided by 4 equals 4.5 feet. From center of curtain measure out 4-1/2 feet in opposite directions and these are the proper lift points for installing the curtain assembly without causing creased and /or dented slats.

PREPARATION

FASCIA IS PROVIDED FOR BETWEEN JAMB UNITS OR AS CALLED OUT IN DWGS.



INSTALLATION

1 Wall / Guide Assembly

Verify the opening size, width and height, and mounting condition of the opening.

! IMPORTANT ! Determine your mounting configuration to ensure compliance with fig. 3 through fig. 7, for proper mounting conditions.

A. Face of wall mounting

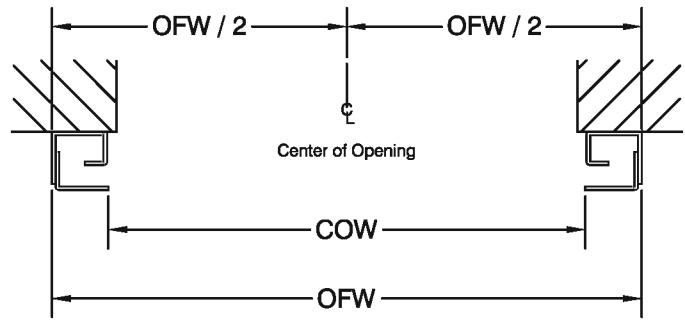
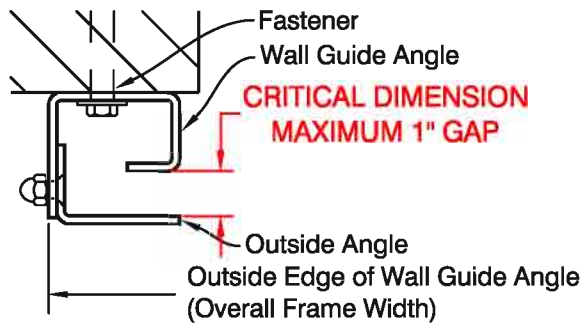


Fig. 1

1) Locate and mark the center of the opening. Divide the OW dimension by 2 (OFW/2). Measure the OFW/2 distance from the center mark to the face of the wall, this is the location of the outside edge of the wall guide angle as shown in Fig.1. Mark a level and plumb line through this point at each jamb.

2) Remove the outside angle from the guide assembly. Place mounting angle against the marked line and locate the mounting holes.

! IMPORTANT ! THE TOP OF EACH WALL/GUIDE ASSEMBLY MUST BE LEVEL AND SQUARE.

B. Between Jamb mounting

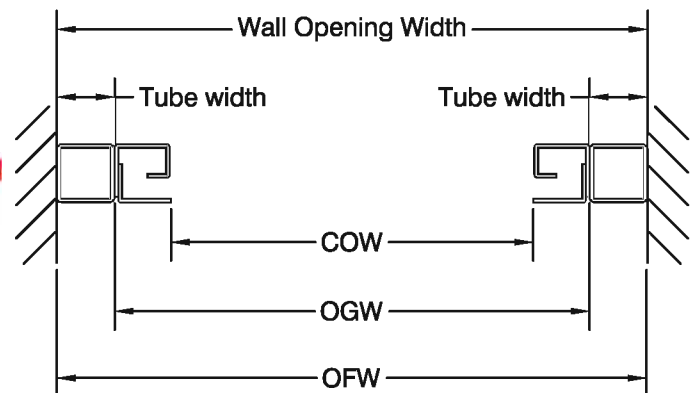
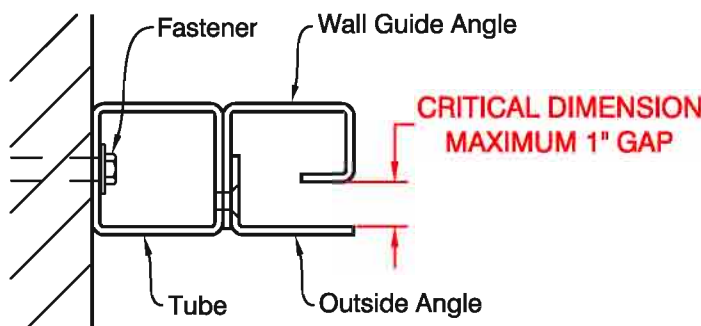


Fig. 2

1) Add the OW dimension plus the width of the tubes and compare it to the jamb opening width, these measurements should be equal. Position the guides as shown in Fig. 2.

2) Remove outside angle and mounting angle from the tube. Place tubes against the jambs and locate mounting holes.

! IMPORTANT ! THE TOP OF EACH WALL/GUIDE ASSEMBLY MUST BE LEVEL AND SQUARE.

INSTALLATION

a. When fastening to masonry (brick, block or concrete) drill holes with a 1/2" dia. masonry drill. Fasten with a minimum 3/8" dia.

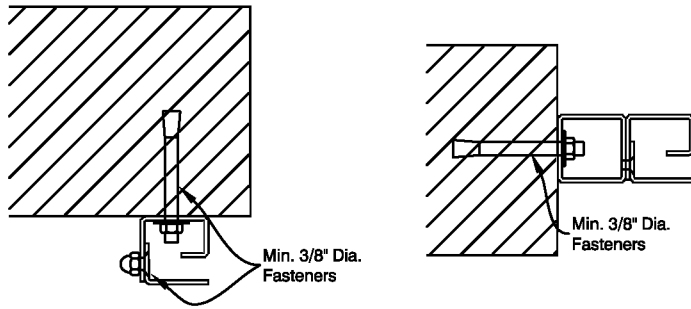


Fig. 3

b. When fastening to a steel frame, drill and tap holes for the appropriate fastener size. Fasten as shown in Fig. 5 with a min. of 3/8" dia. fasteners. Note: Steel frame member must be embedded or secured to the masonry wall prior to the wall / guide assembly to them.

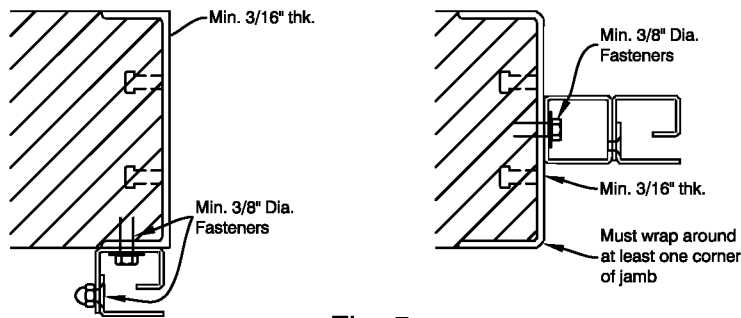


Fig. 5

c. When fastening to a double(2) metal stud jamb, each stud is to be minimum of 14 gauge. Fasten using a min. of 3/8" dia. self-tapping screws, as shown in Fig. 6.

d. When fastening to a double(2) wood stud jamb, each stud is to be a min. 2"x 4". Fasten using a min. of 3/8" dia lag screws, as shown in Fig. 7.

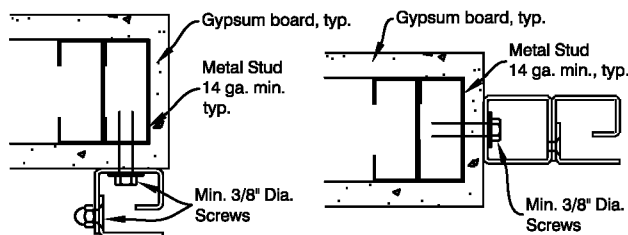


Fig. 6

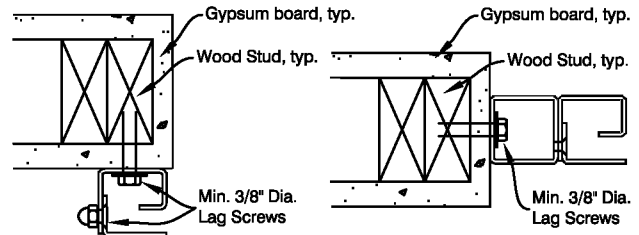


Fig. 7

INSTALLATION

2

Counterbalance Installation

Verify the operational type of pipe assembly you have: push-up, motor or hand crank, check the drive side (left or right hand), as per the markings on the product you received, then refer to the appropriate instructions.

A. Charge assembly

Assemble the charge side bracket on the charge side shaft of the pipe assembly (charge side is the left side) as shown in Fig. 8. Lock all set screws in place. **NOTE:** Brackets are shown as right hand drive; left hand drive is opposite.

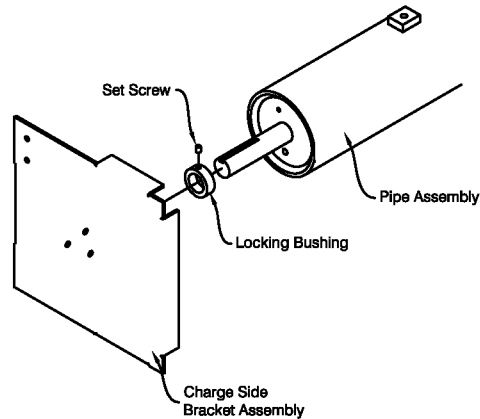


Fig. 8

B. Drive assembly

a) **Push-up operation** - Assemble the drive (governor) bracket on the drive side shaft of the pipe assembly (drive side is the side with the shaft welded to the pipe) as shown in Fig. 9. Lock all set screws in place. **NOTE:** Brackets are shown as right hand drive, left hand drive is opposite. *Doors under 4'-0" high are not supplied with a governor.

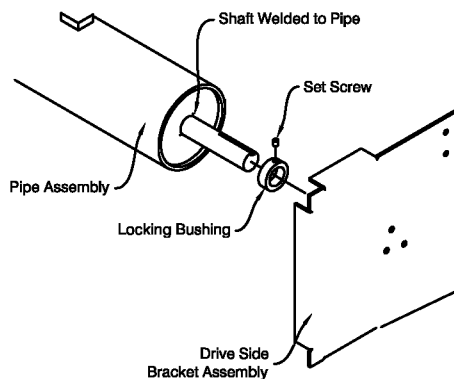


Fig. 9



IMPORTANT

PIPE AND BRACKETS SHOULD BE ASSEMBLED IN ACCORDANCE WITH THE SAME HAND DRIVE. DAMAGE WILL OCCUR IF ASSEMBLED OTHERWISE.

INSTALLATION

b) Motor operation - Assemble the drive (governor) bracket on the drive side shaft of the pipe assembly (drive side is the side with the shaft welded to the pipe) as shown in Fig. 10. Align the star gear with the governor and align the drive gear to mesh with the idler gear. Insert the key stock and lock all set screws in place. NOTE: Brackets are shown as right hand drive, left hand drive is opposite. *Doors under 4'-0" high are not supplied with a governor.

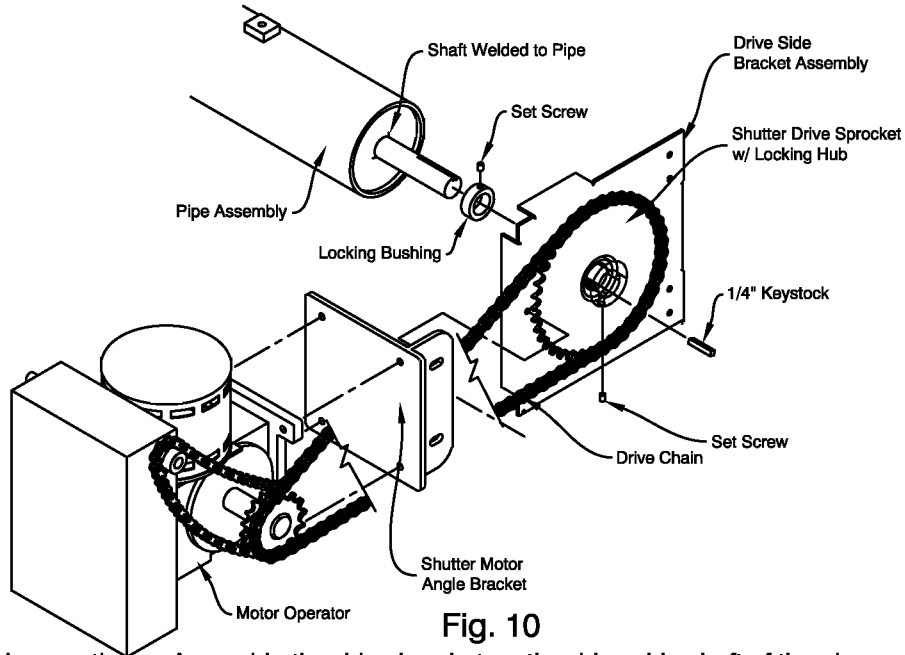


Fig. 10

c) Hand crank operation - Assemble the drive bracket on the drive side shaft of the pipe assembly (drive side is the side with the shaft welded to the pipe) as shown in Fig. 11. Lock all set screws in place. NOTE: Brackets are shown as right hand drive, left hand drive is opposite.

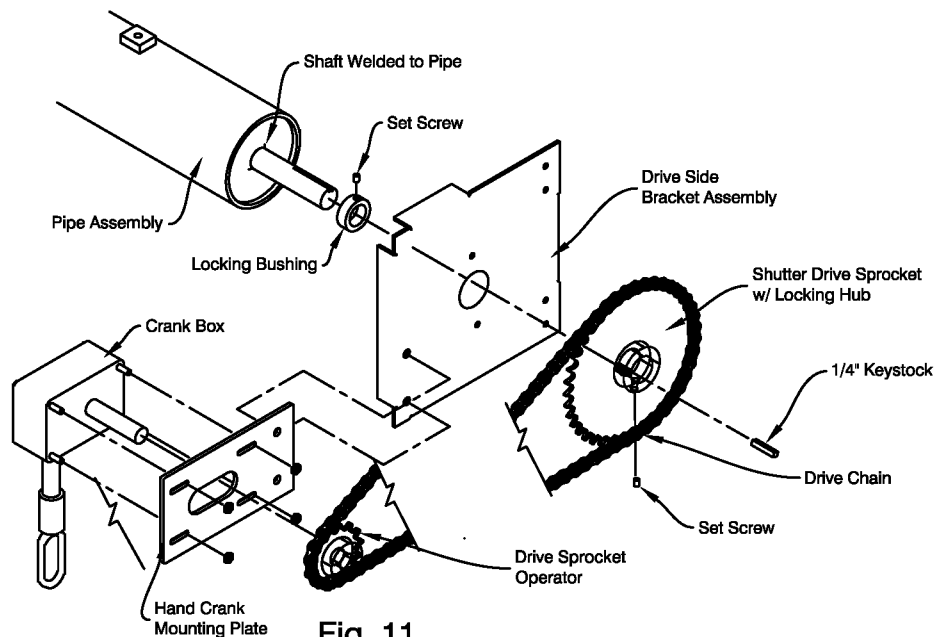


Fig. 11



IMPORTANT



PIPE AND BRACKETS SHOULD BE ASSEMBLED IN ACCORDANCE WITH THE SAME HAND DRIVE. DAMAGE WILL OCCUR IF ASSEMBLED OTHERWISE.

INSTALLATION - SUPPLIMENTAL SHEET

b) Motor operation - Assemble the drive (governor) bracket on the drive side shaft of the pipe assembly (drive side is the side with the shaft welded to the pipe) as shown in Fig. 10. Align the star gear with the governor and align the drive gear to mesh with the idler gear. Insert the key stock and lock all set screws in place. NOTE: Brackets are shown as right hand drive, left hand drive is opposite. *Doors under 4'-0" high are not supplied with a governor.

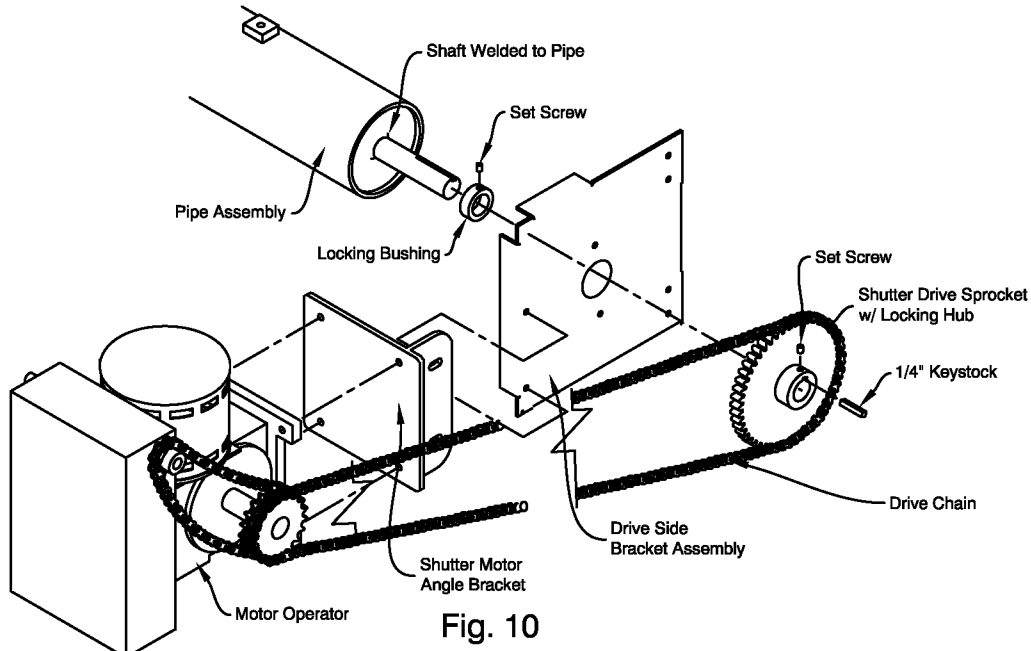


Fig. 10

c) Hand crank operation - Assemble the drive bracket on the drive side shaft of the pipe assembly (drive side is the side with the shaft welded to the pipe) as shown in Fig. 11. Lock all set screws in place. NOTE: Brackets are shown as right hand drive, left hand drive is opposite.

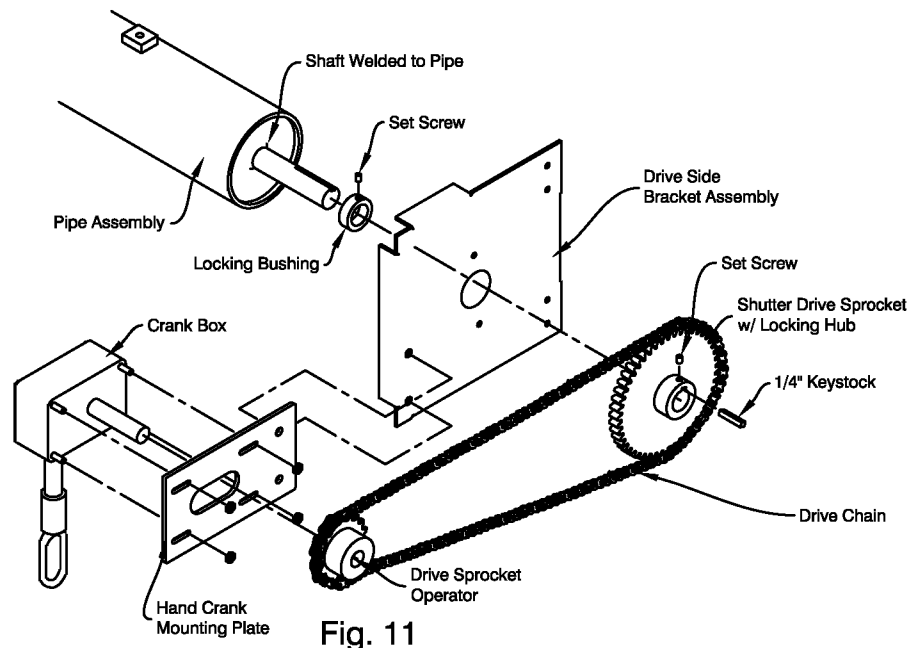


Fig. 11



PIPE AND BRACKETS SHOULD BE ASSEMBLED IN ACCORDANCE WITH THE SAME HAND DRIVE. DAMAGE WILL OCCUR IF ASSEMBLED OTHERWISE.

INSTALLATION

NOTE: For Drive Sprocket located on opposite side.
Drive Sprocket must be moved to the same side as the limit.

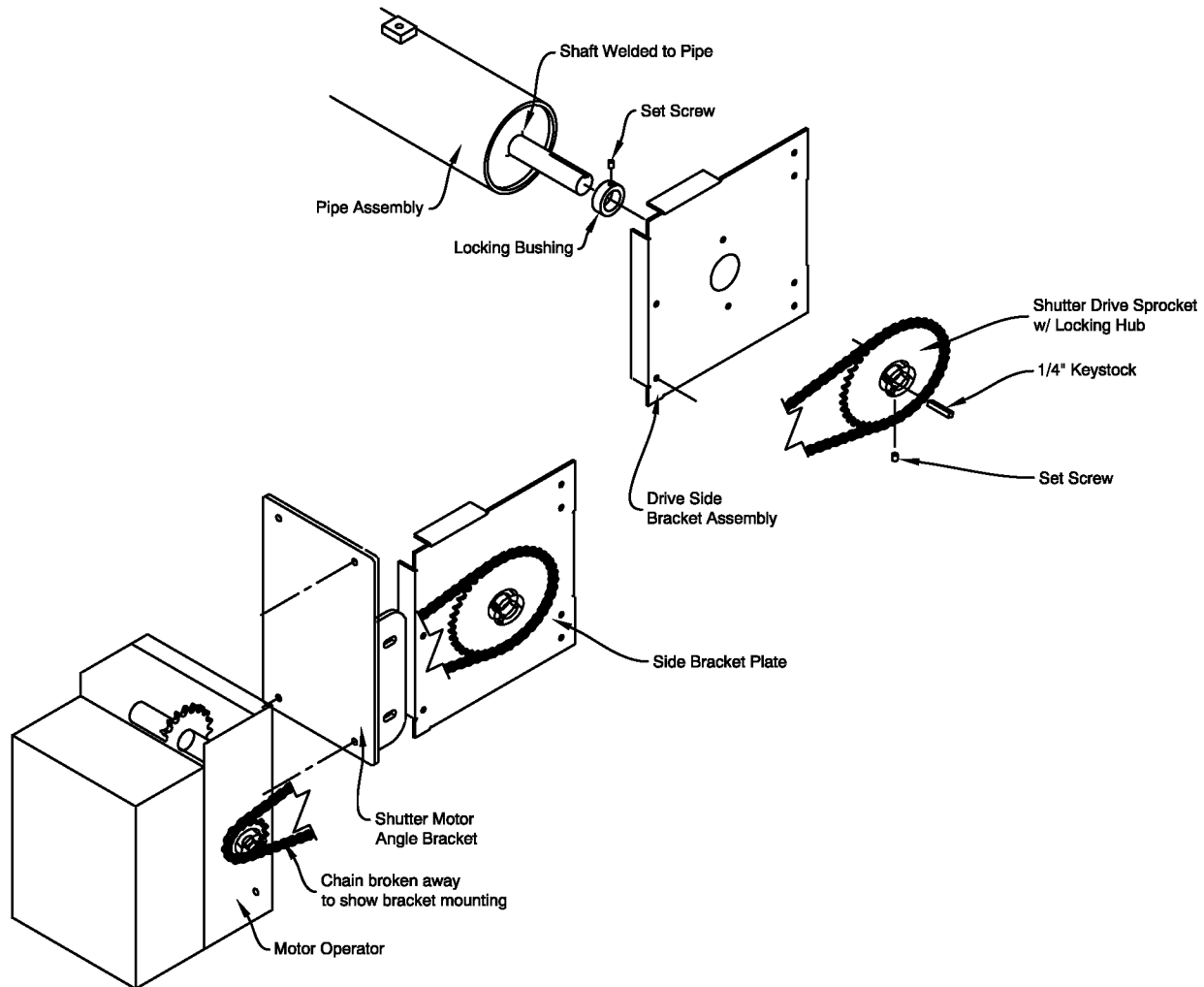


Fig. 11a

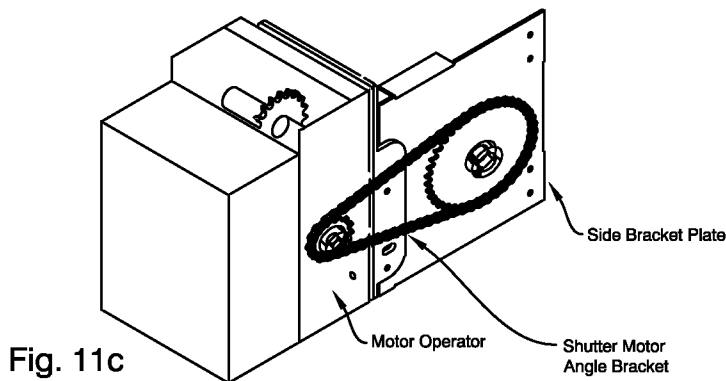


Fig. 11c

INSTALLATION

3 Bracket Mounting

Raise the entire assembly into position and bolt the brackets to the guides as shown in Fig.12.

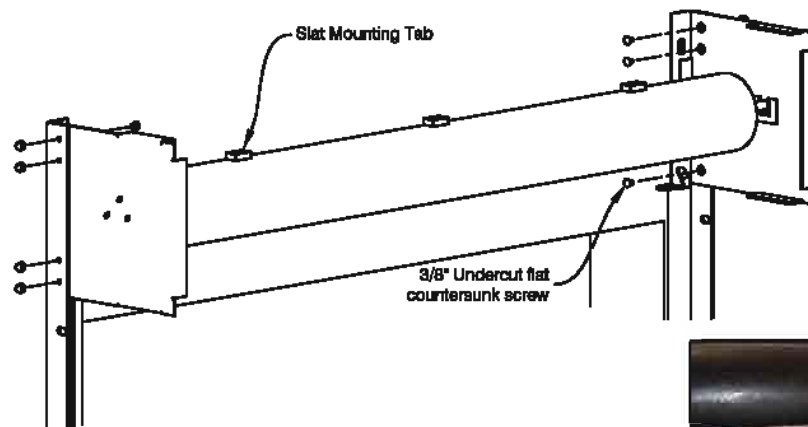


Fig. 12



4 Curtain Mounting

Hoist the coiled curtain approximately one (1) foot below the pipe shaft assembly and suspend it using rope slings. See Fig. 13. NOTE: Two or more rope slings is strongly recommended.

- 1) With curtain in closed position, (lock slide locks or you may need to clamp the curtain closed) turn the pipe assembly 5-6 rotations, reattach pin, and put curtain in the guides.

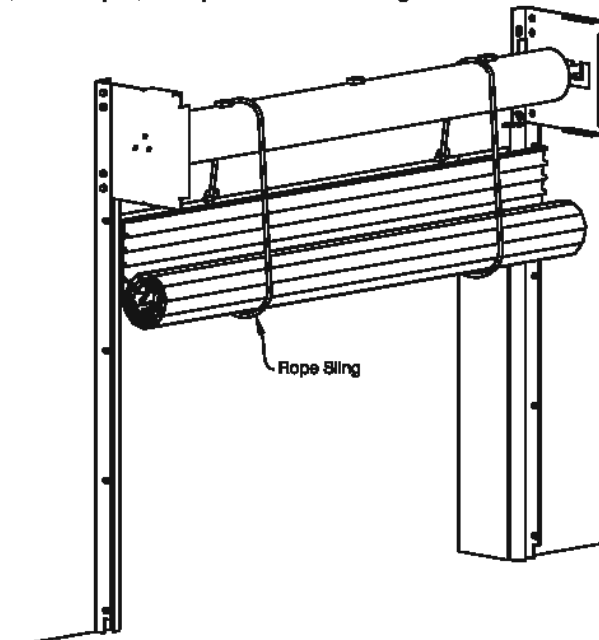


Fig. 13



MAKE SURE TO SECURE THE CURTAIN FROM UNROLLING.



INSTALLATION

CAUTION **ON SMALLER DOORS ESPECIALLY, THE TORSION SPRING IS VERY EASY TO OVER TENSION. IF YOU OVER TENSION THE SPRING, THE SPRING WILL COLLAPSE INTERNALLY, RESULTING IN IMPROPER OPERATION OF THE DOOR.**

5

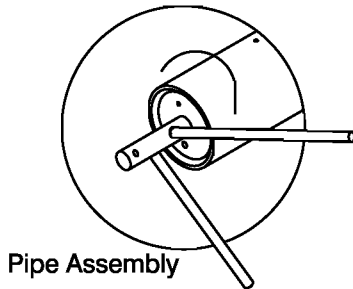
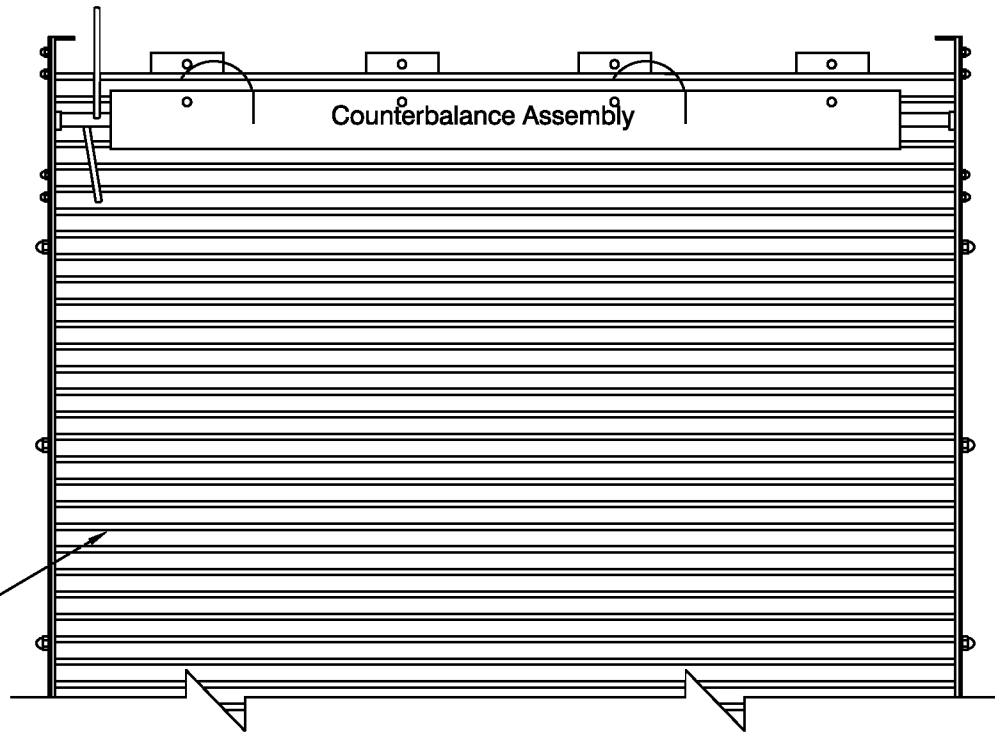


Fig. 15

Curtain in closed position



3) The size, weight or operational type of the door, will determine which method to wrap the curtain around the pipe assembly:

- a. When using a pipe wrench, begin to give tension, one or two turns will begin to roll the curtain onto the pipe assembly. NOTE: As the curtain rolls on the pipe, tension is being released, repeat giving tension until the bottom bar of the curtain reaches approximately one (1) foot from the bottom of the brackets. As shown in Fig. 15. NOTE: Lift the drop arm in the engaged position, to lock the charge wheel, in between turns.

6

Spring Adjusting

Secure the curtain from unrolling and engage the drop arm for the charge wheel.

- 1)** Attach a pipe wrench to the charge side shaft, rotate the charge wheel until the bottom bar raises up to the bottom of the stoppers in the guide and remains in that position as shown in Fig. 17.

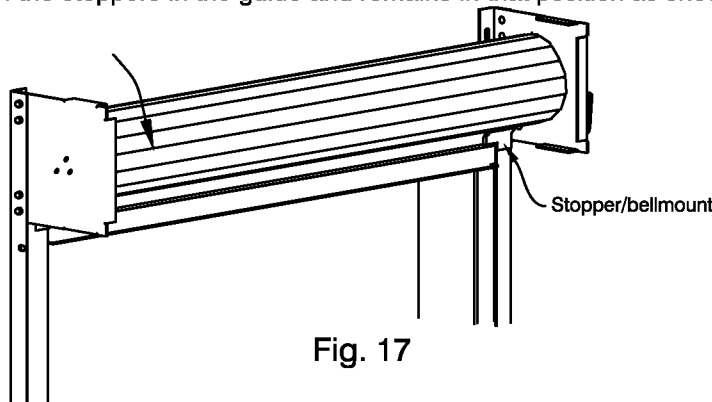


Fig. 17

WARNING

USE EXTREME CAUTION WHEN GIVING TENSION TO THE CHARGE WHEEL, SERIOUS INJURY OR DEATH MAY OCCUR.

CAUTION

MAKE SURE TO SECURE THE CURTAIN FROM UNROLLING.

INSTALLATION

2) Test Door for optimum operation.

For optimum operation, you may find additional turns are required. In some cases, less turns are required.

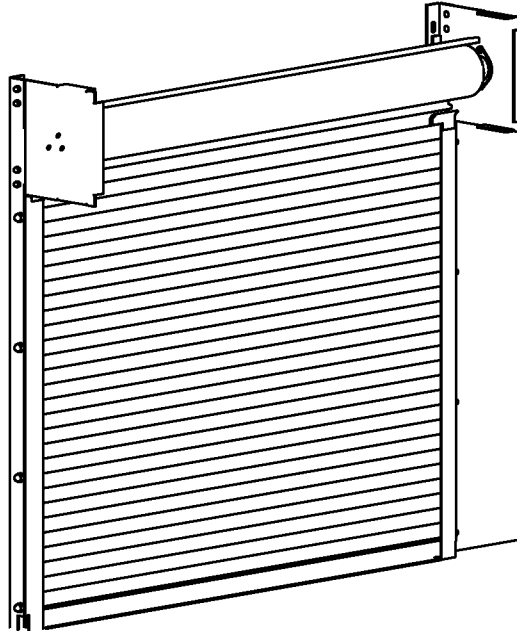


Fig. 18

! IMPORTANT ! UNDER NO CIRCUMSTANCES SHOULD TENSION BE APPLIED WHEN THE DOOR IS IN THE CLOSED POSITION.

7

Mount Hood

Install the hood to the flanges on the brackets by using #10 self-drilling sheet metal screws.

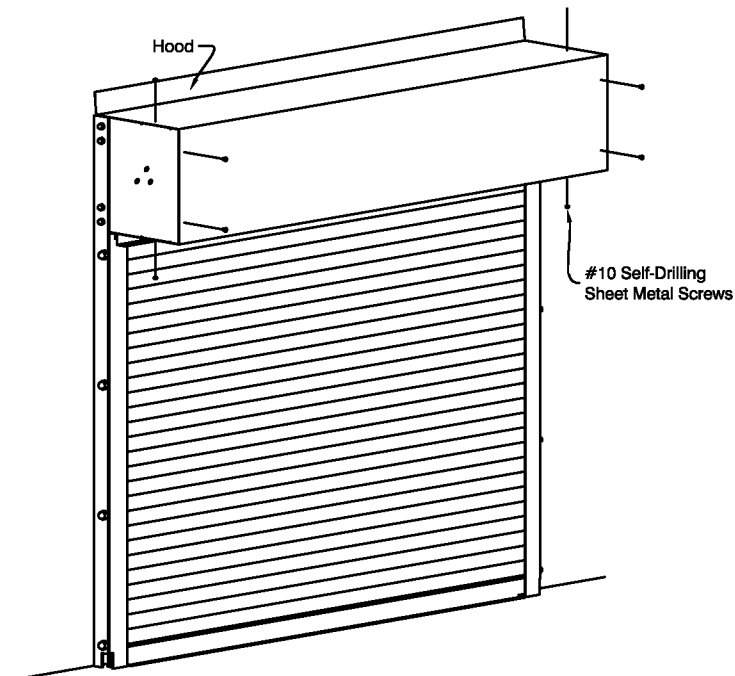


Fig. 19

MAINTENANCE INSTRUCTIONS



ONLY EXPERIENCED PERSONNEL SHOULD PERFORM MAINTENANCE

LUBRICATION

The most important maintenance item on doors of this type is lubrication.

The curtain, guides and teeth of the gears contained in motor or hand crank mechanism (if supplied) should be lubricated at least twice a year (more often if door works very frequently) with one of the following greases, or equivalent:

- Dixon's #2 Graphite Cup Grease (#1 for summer weather)
- Alemite MP Lithium Grease (#1 for winter weather, #2 for normal)
- Texaco #904 Graphite Grease

If door is electrically operated, check the oil level in the worm gear speed reducer every six months and replenish if necessary with S.A.E 140 gear oil, for normally heated buildings, thinner grades for outside installations exposed to low temperatures.

PAINT

All non-lubricated steel surfaces should be painted annually (more often if required in corrosive atmospheres) with a good grade of rust inhibiting metallic base paint.

SPRING ADJUSTMENT

In time, the counter balancing springs may lose some of their initial tension; this condition imposes an extra load on the operator and should be corrected as follows:

- 1a) Manually operated doors should be opened fully by hand and held open by "C" clamps or Vice grip pliers on each guide.
- 1b) Mechanically operated doors should be opened fully and the crank or hand chain should be locked to hold the door open.
- 1c) Electrically operated doors should be open fully by pushing the UP or OPEN button (motor brake will hold the door open) shut off power supply to the motor during adjustment.
- 2) With suitable tool (18" or 24" pipe wrench or larger spanner) turn the spring adjusting wheel (1/8 turn at a time) until the door is balanced properly. Make sure pawl is properly engaged in spring adjusting wheel.

NOTE: For door with adjusting wheel on left hand side, wind spring clockwise (downward), for door with adjusting wheel on right hand side, wind spring counter clockwise (downward).