

## FIRE DOOR

Job Name:	Docket #:	Fire Label #:

**These installation instructions have been prepared to assist you. They are not prepared to alleviate you from complying with local building codes and ordinances and the National Fire Protection Association standards (NFPA).**

**Keep for reference**

# INTRODUCTION

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**Dear Customer,**

*Congratulations on your purchase of the Alpine FIRE-SHUT fire door. 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. Complete the fire door drop test report and return it to the Alpine office.



**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.**

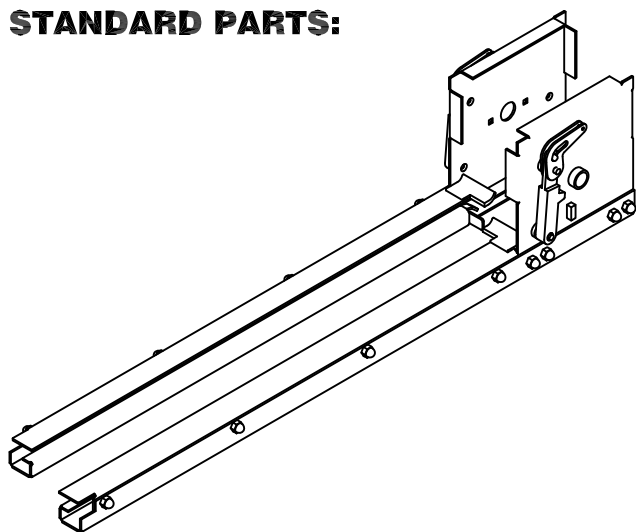
1. Make certain that the proper amount of tension has been applied to the torsion spring assembly, in order to counterbalance the weight of the curtain.
2. Make sure that the tension wheel is securely fastened in place.
3. Make sure that all keys have been installed in any sprockets or gears that require 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.
6. Be sure that the door has been drop tested and reset to its exact position that existed prior to the successful drop test and the drop speed is in accordance with NFPA 80.
7. A successful drop test is characterized by a break in any of the fusible links and the door completely closes without interruptions to its downward travel. (NFPA 80 chapter 6)
8. Do not perform a drop test by any manual methods, for example, physically releasing each drop-arm mechanism at the same time.

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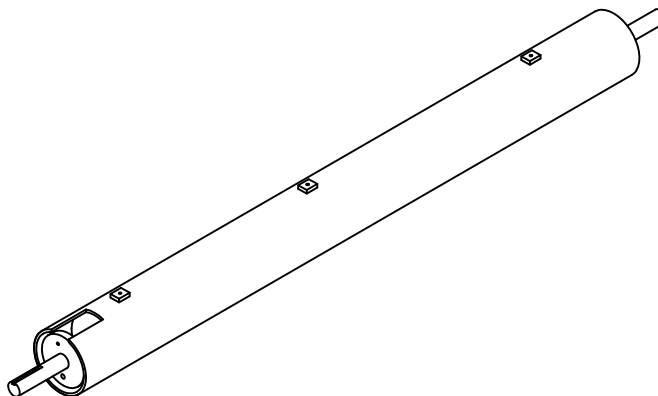
# PREPARATION

## STANDARD PARTS:

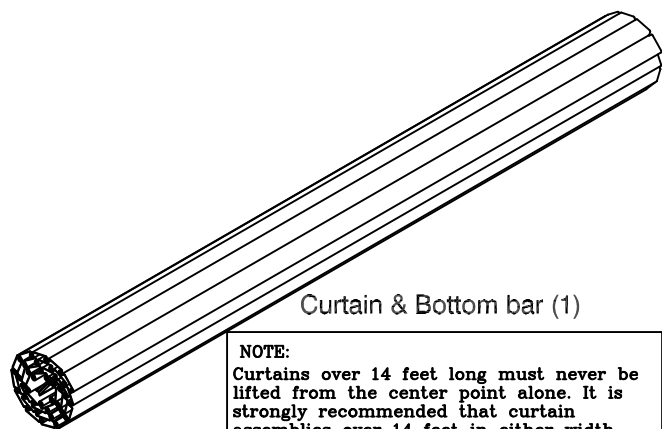


Guides (1 set mounting angles,  
1 set outside angles, 1 set bracket plates)

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.



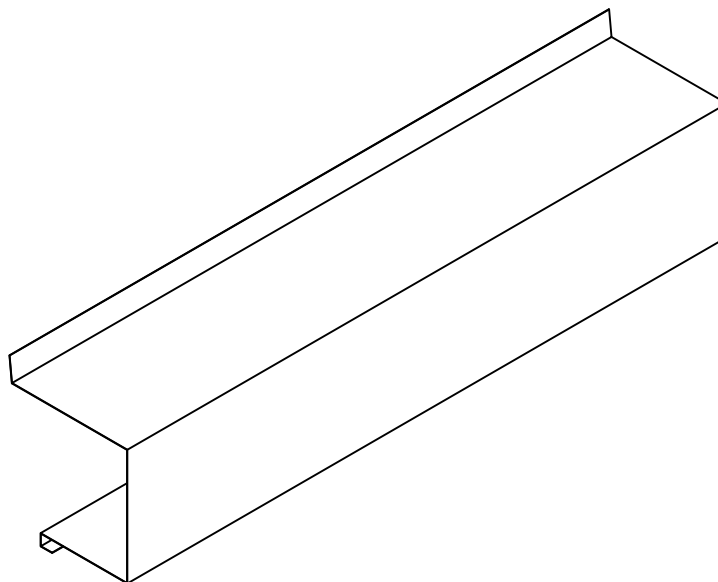
Pipe assembly & automatic starter (1)



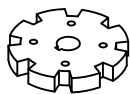
Curtain & Bottom bar (1)

### 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.  $\frac{1}{4}$ " of the distance from center point from both sides of center, utilizing cushioned cradles or minimum 8" wide strap and NO choke slinging. ie: 18 feet divided by 4 equals 4.5 feet. From center of curtain measure out 4- $\frac{1}{2}$  feet in opposite directions and these are the proper lift points for installing the curtain assembly without causing creased and /or dented slats.



Hood (1)



Charge Wheel (1)



Swing Stop (1)  
& Bronze Washers (2)



Star Gear (1)  
(for doors over 4'-0" high)



Locking Bushing

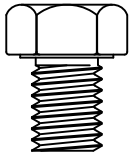


# PREPARATION

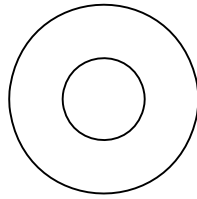
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## STANDARD PARTS:

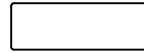
Hardware Package



3/8"x 1/2"  
Hex Head Bolt



3/8" Hot Dipped  
Galvanized, Vinyl or  
Fiber Washer



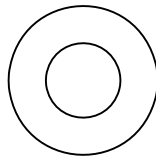
1/4"sq x 3/4" Key



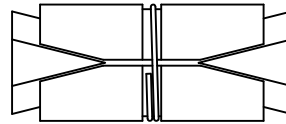
#10 x 3/8"  
Sheet Metal Screw



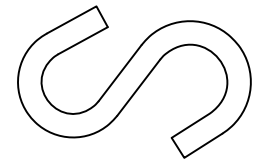
5/16" Nut



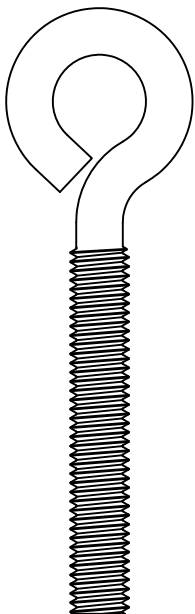
5/16" Hot Dipped  
Galvanized, Vinyl or  
Fiber Washer



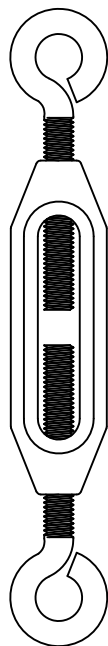
5/16" Expansion Nut



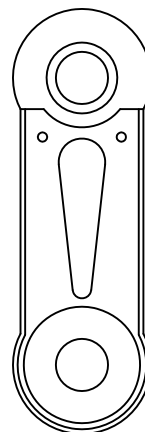
#8-10 Ga S-Hook



5/16" Eye Screw



Turnbuckle



160° F - Fusible Link  
3 pcs for interior mounted  
2 pcs for exterior mounted



Sash Chain

# INSTALLATION

## 1

### Wall / Guide Assembly

Verify the opening size, width and height, and mounting condition of the opening. Your opening must comply with NFPA 80 standards.

**!IMPORTANT!** Determine your mounting configuration to ensure compliance with fig. 3 through fig. 7, for proper mounting conditions, in accordance with NFPA 80 (latest edition)

#### A. Face of wall mounting

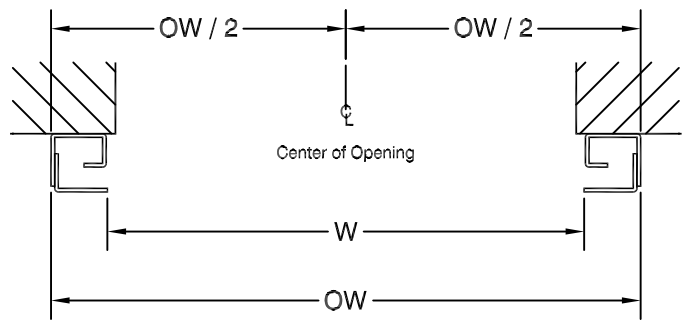
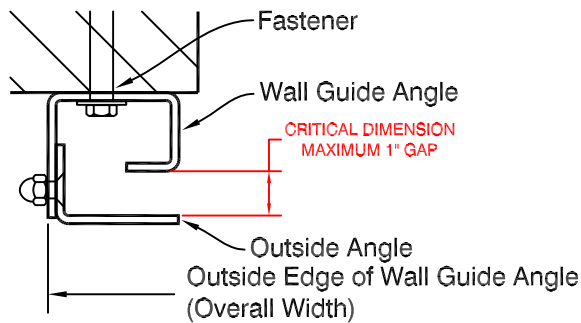


Fig. 1

**1)** Locate and mark the center of the opening ( ). Divide the OW dimension by 2 (OW/2). Measure the OW/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

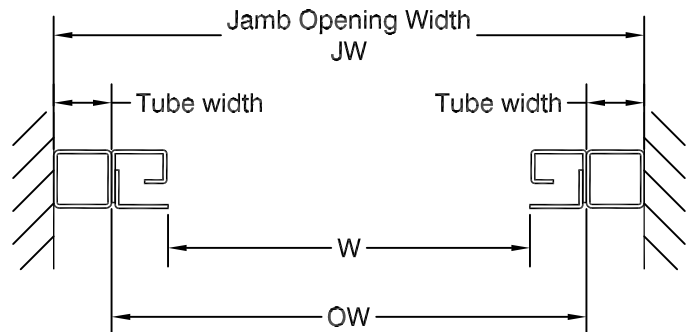
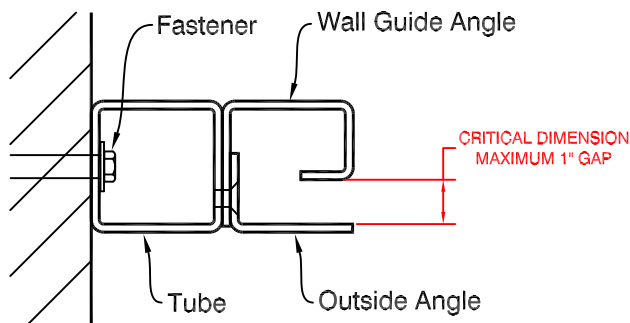


Fig. 2

**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. NOTE: Upon completion, if any gaps or spacing exists between the tube and jamb, an approved method of fire proofing must be applied.

**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

**3) a.** When fastening to masonry (brick, block or concrete) using expansion anchors, anchorage depth is not to be less than 8 times the bolt dia. and not less than 6 times the bolt dia. from the edge of the opening, as shown in Fig. 3. Fasten using a minimum of 3/8" dia. fasteners equal to that specified in the latest edition of NFPA 80 section 6-4.1.3.

**b.** When fastening through a wall to masonry (brick, block or concrete) drill holes completely through the wall with a 1/2" dia. masonry drill. Fasten with a minimum 3/8" dia. threaded rod, as shown in Fig. 4.

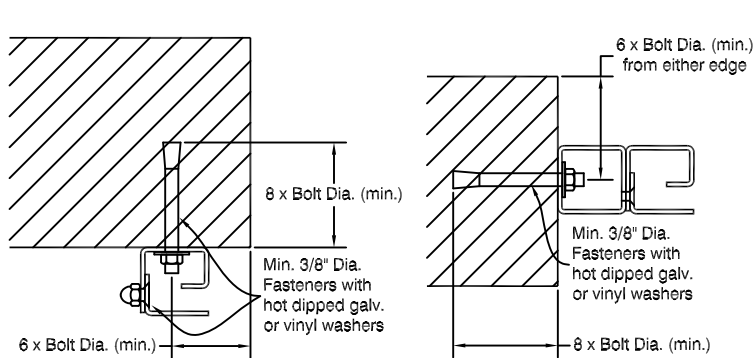


Fig. 3

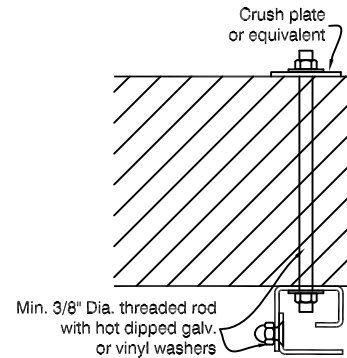


Fig. 4

**c.** 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 equal to that specified in the latest edition of NFPA 80 section 6-4.1.4. Note: Steel frame member must be embedded or secured to the masonry wall prior to the wall / guide assembly to them.

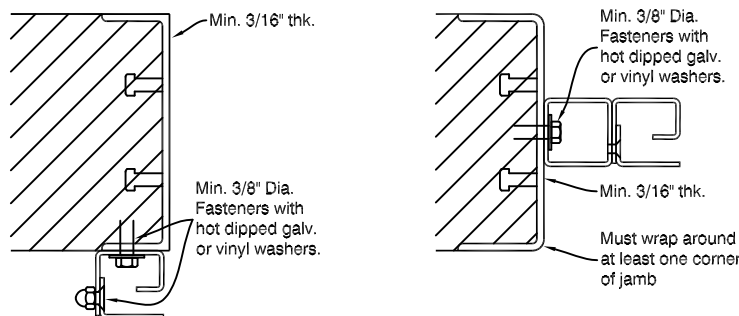


Fig. 5

**d.** 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.

**e.** 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.

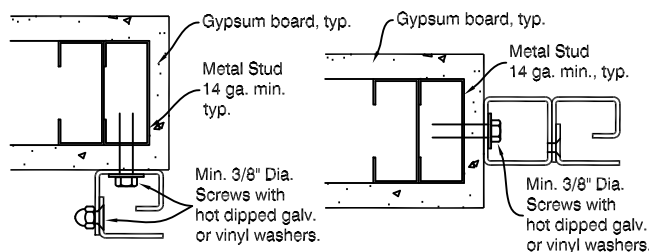


Fig. 6

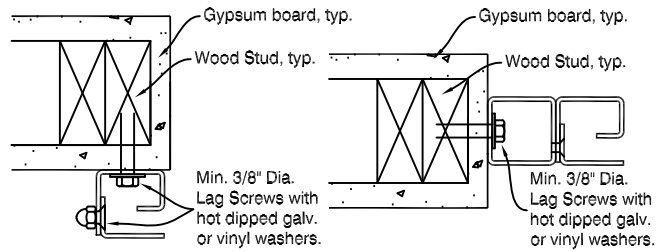


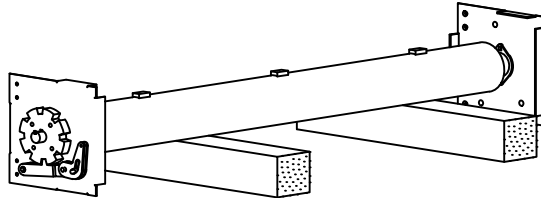
Fig. 7

## 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.

**1) Elevate the pipe assembly off the floor enough to easily slide the brackets on the ends of the shaft.**



#### A. Charge assembly

Assemble the charge side bracket on the charge side shaft of the pipe assembly (charge side is the side with the automatic starter) as shown in Fig. 8. Insert the key stock and lock all set screws in place.

**NOTE:** Brackets are shown as right hand drive; left hand drive is opposite.

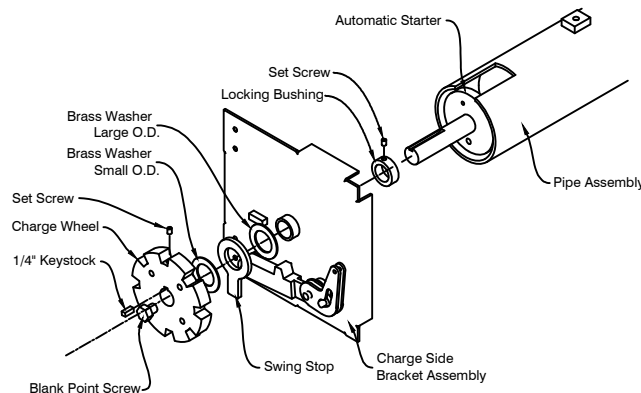


Fig. 8

#### 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. Align the star gear with the governor. 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.**

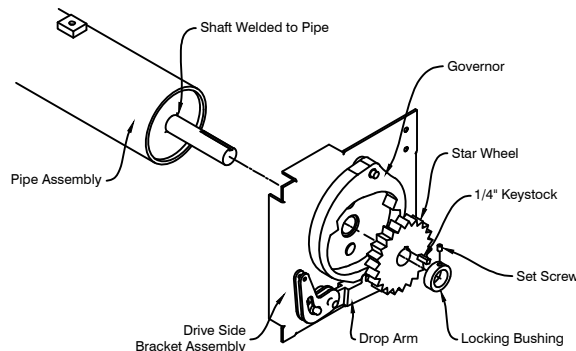


Fig. 9



**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.

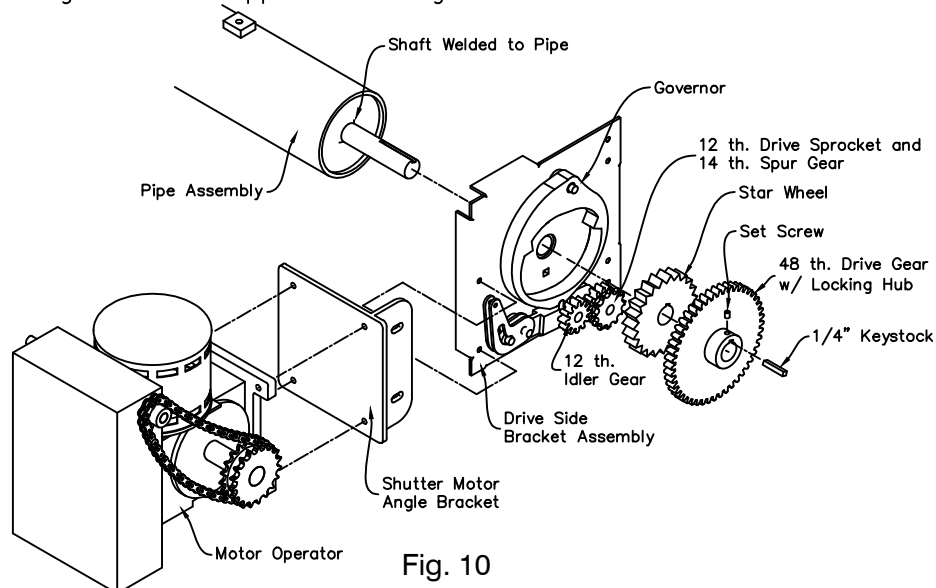


Fig. 10

c) Hand crank operation – Assemble the drive (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. 11. 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.

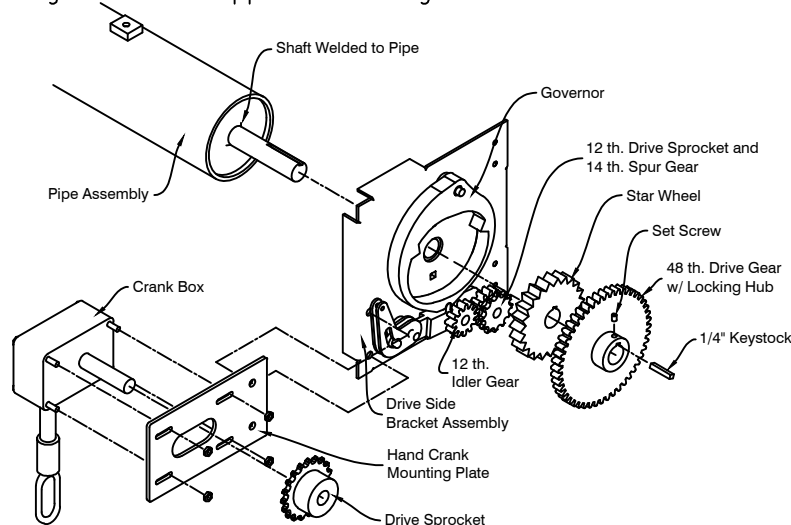


Fig. 11

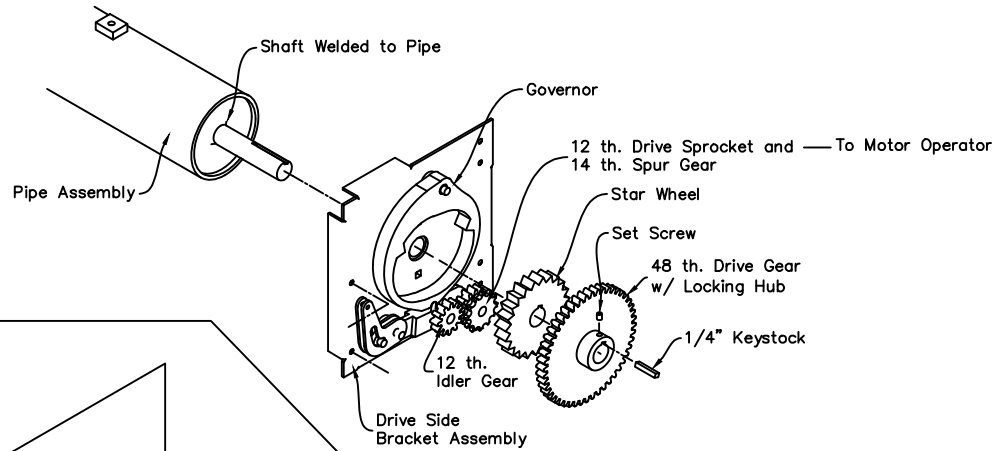


**PIPE AND BRACKETS SHOULD BE ASSEMBLED IN ACCORDANCE WITH THE SAME HAND DRIVE. DAMAGE WILL OCCUR IF ASSEMBLED OTHERWISE.**

# INSTALLATION

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

## Motor Operated Conventional Fire Door with Dropout Gearing



## REDI Reset Motor Operated

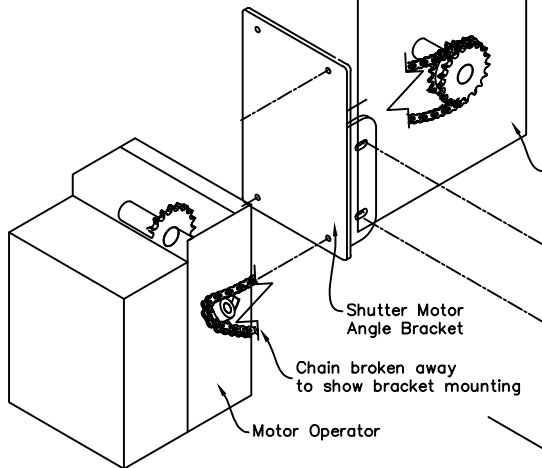


Fig. 11a

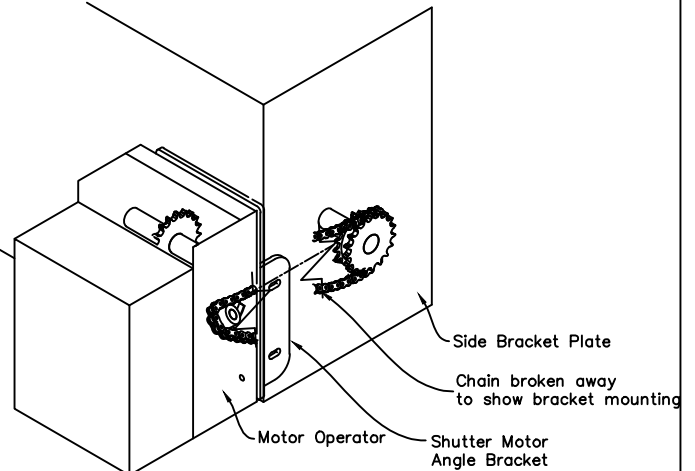


Fig. 11b

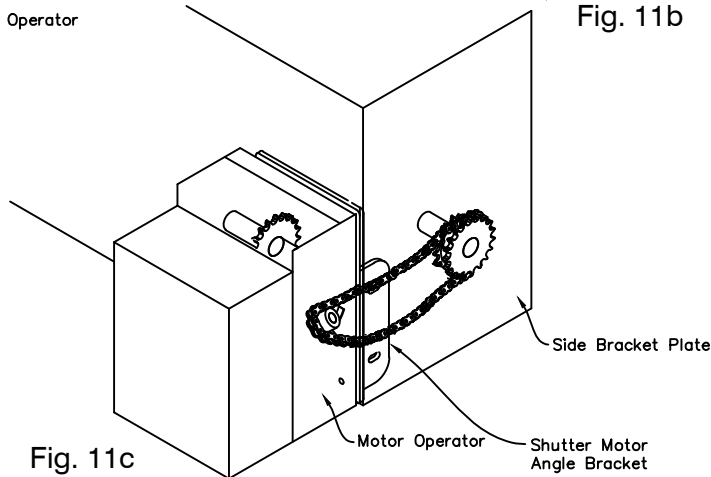


Fig. 11c

# INSTALLATION

## 3

### Bracket Mounting

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

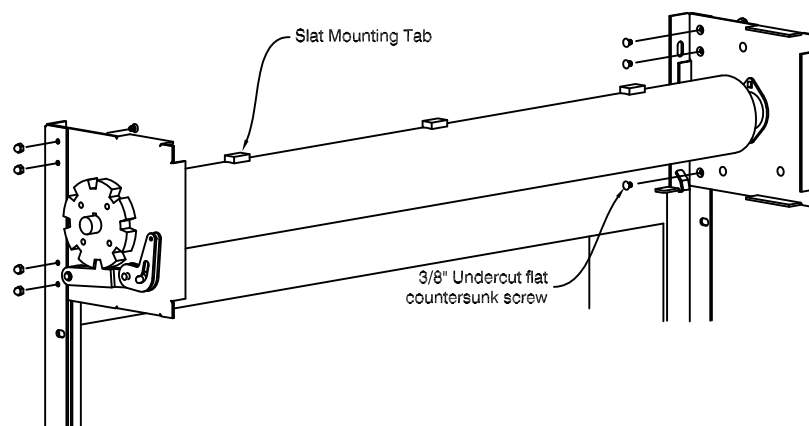


Fig. 12

## 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.

**NOTE:** Be sure that the charge wheel is disengaged during this next step to avoid building tension or reversing (back winding) the springs.

- 1) Coil the curtain up over the pipe by hand, the slings will rotate and guide the top slat over the pipe assembly.

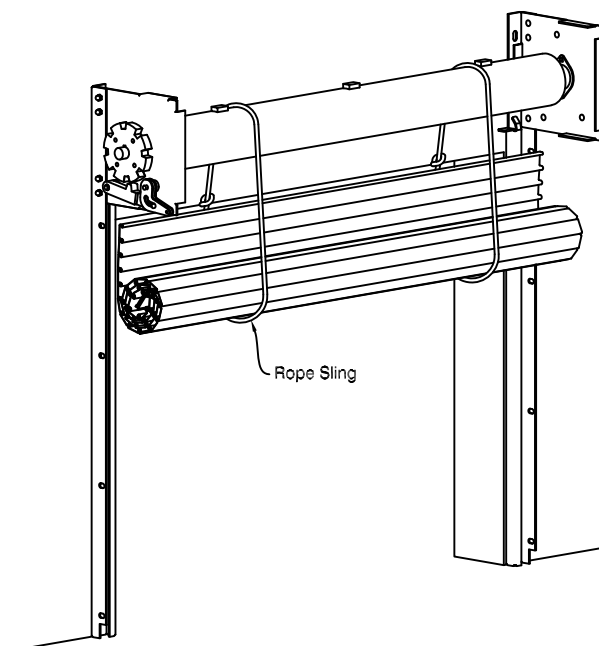


Fig. 13

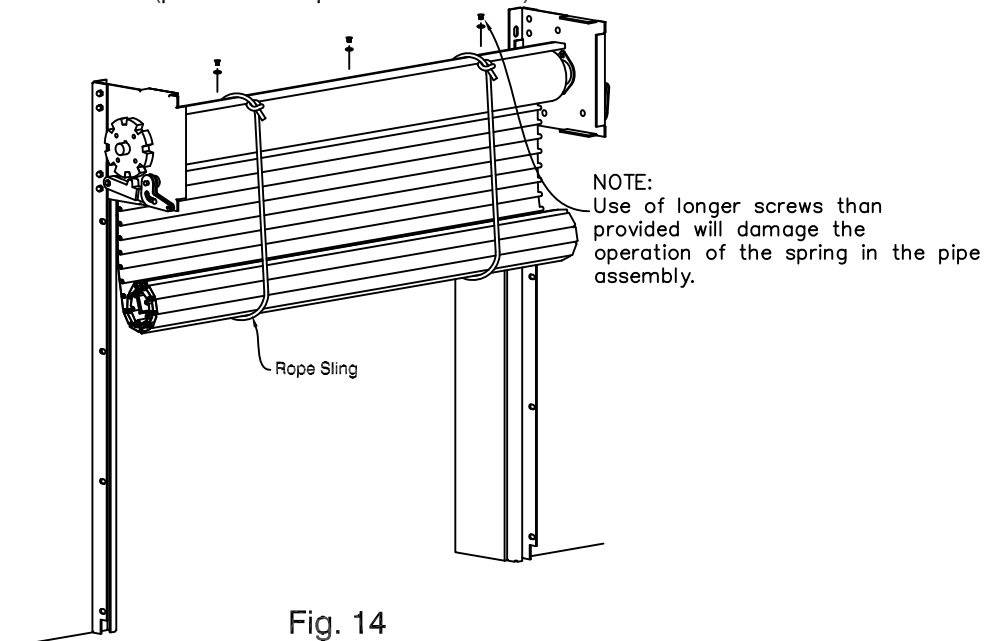


**MAKE SURE TO SECURE THE CURTAIN FROM UNROLLING**



# INSTALLATION

2) Align the top slat with the mounting tabs on the pipe assembly, then bolt them to the pipe assembly. As shown in Fig. 14. NOTE: Be sure that the curtain is bolted level and aligned in the center to the pipe assembly. Alpine places a slight curve on the tabs (preset to compensate deflection)



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.

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

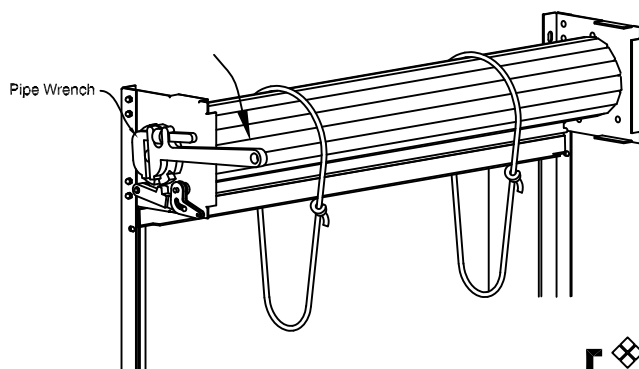


Fig. 15

## ALTERNATE METHODS:

- b. Pull ropes by hand
- c. Lift using hand crank
- d. Powered by motor

## WARNING

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

NOTE: ON b, c & d ABOVE, YOU MUST ENSURE THAT THE CHARGE WHEEL IS DISENGAGED.

**! CAUTION!**

**MAKE SURE TO SECURE THE CURTAIN FROM UNROLLING!**

**! CAUTION!**



# INSTALLATION

## 5

### Outside Guide Installation

Align and bolt the outside angles to the wall guide angle.

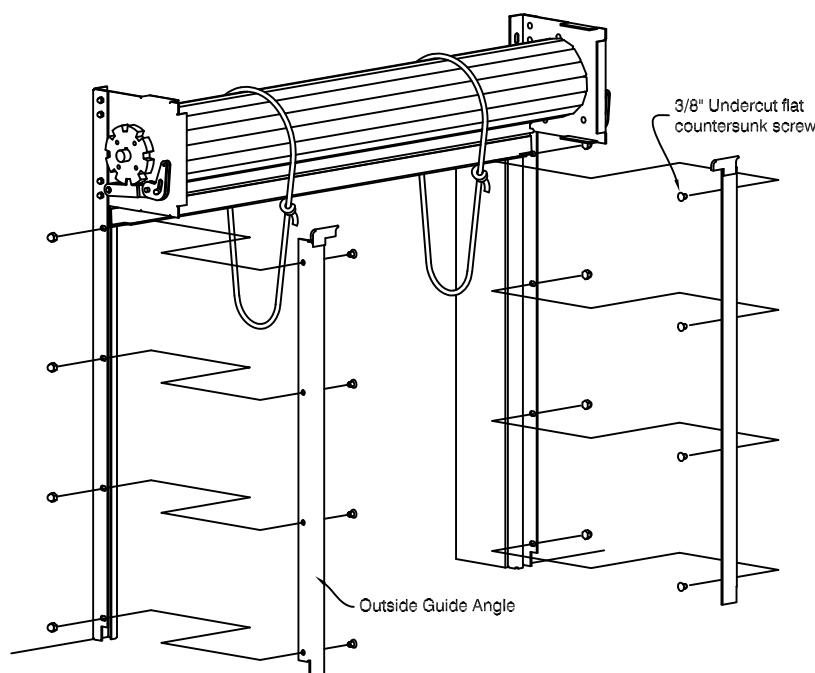


Fig. 16



**CAUTION**

**MAKE SURE TO SECURE THE CURTAIN FROM UNROLLING.**



## 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.

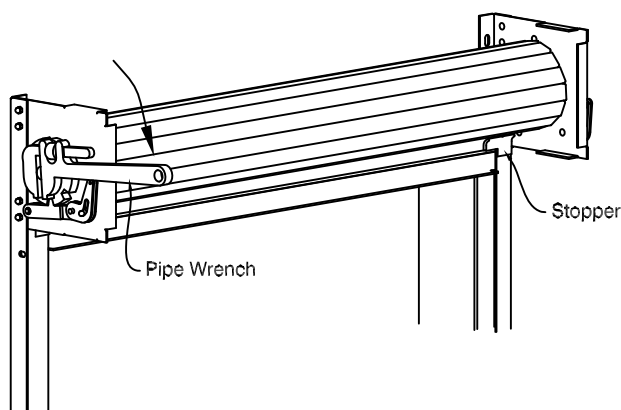


Fig. 17



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



**CAUTION**

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

# INSTALLATION

## 2) Test Door for optimum operation.

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

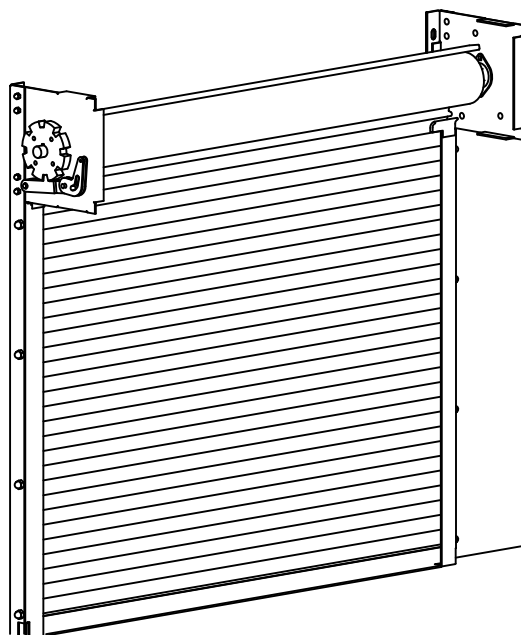


Fig. 18



**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.

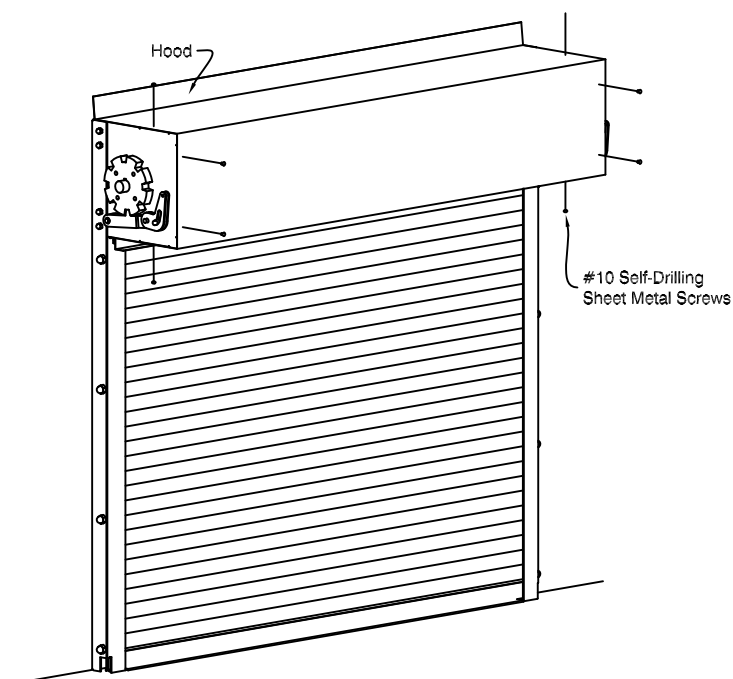


Fig. 19

# INSTALLATION

## 8

### Release Assembly

Routing of the rolling fire door release assembly is a vital part of the door system. If the assembly is installed incorrectly, it may prevent the rolling fire door from closing automatically. The provisions for installation of fusible links are found in the National Fire Protection Association Standard 80 (NFPA 80).

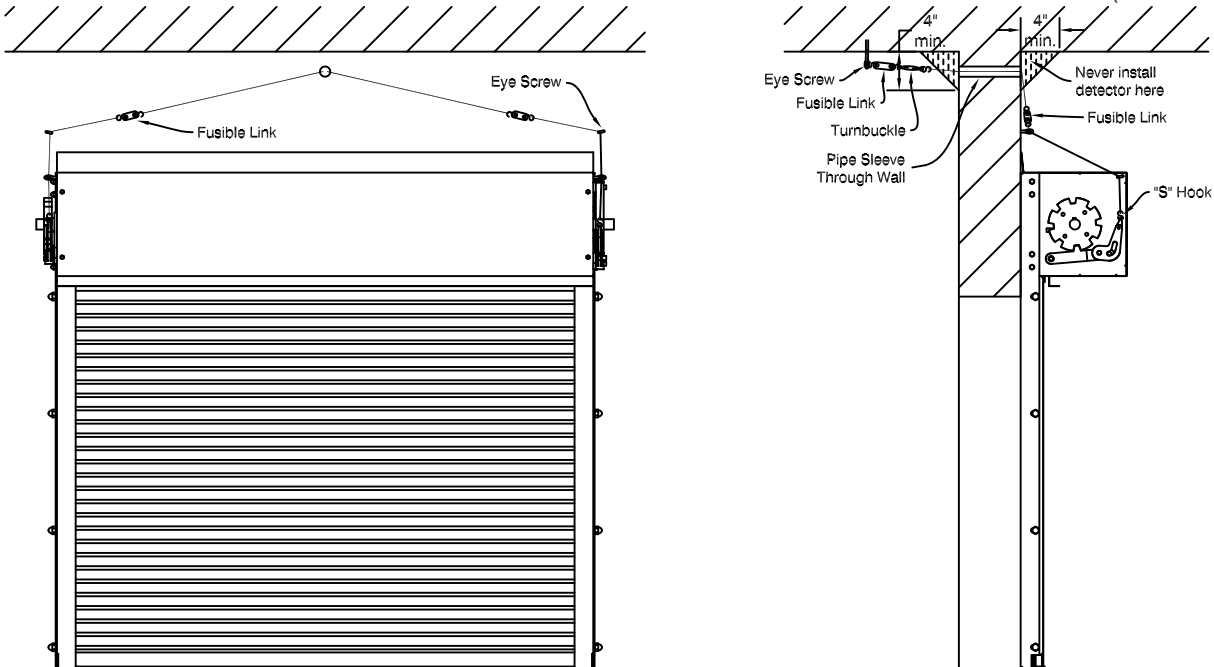


Fig. 20

**1) Locate the first fusible link near one of the bracket plates and allow for sufficient movement of the sash chain to release the drop mechanism.**

2) Locate the second fusible link or detector within 12 inches of the ceiling on the coil side of the wall. Do not install a link or detector within four inches of the intersection of the wall and ceiling as shown in Fig. 20.

3) Locate the third fusible link or detector on the opposite side of the wall at a distance from the wall that will allow sufficient travel of the chain to completely release the fire door. Attach the fusible link near the ceiling straight out from the through wall hole. The detector must be more than four inches from the intersection of the wall and ceiling as shown in Fig. 20.

4) Check with the local authority having jurisdiction regarding the through wall hole. Consider using 1/2 inch EMT.

5) Use S-hooks for attaching fusible links. This will allow ease of installation and adjustments.

6) When routing the sash chain, DO NOT make more than 90 degree bends.

7) Use the turnbuckle to take up the slack in the sash chain.

8) Attach eye screws to the wall to help route the sash chain to a given location.

9) The fusible links should be interconnected such that disconnection of any link will cause the door to close.



**IMPORTANT**

**DO NOT INSTALL ANY DETECTOR WITHIN FOUR INCHES OF THE INTERSECTION OF THE WALL AND CEILING.**

# INSTALLATION

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## 9

### Operational Test

*After the installation is completed, an operational test must be conducted. This test is to determine that the system has been installed and functions as intended. Testing of each fusible link shall be conducted separately to ensure that a successful drop test will be achieved at each fusible link / detector device.*

#### A. Test Drop Procedure

- 1) Release the fusible link by disengaging the "S" hook that is holding the chain to the link.
- 2) Insure that the drop arm mechanisms and sash chain is not obstructed for this will cause incomplete disengagement.
- 3) If the door unit drops too fast, relocate the blank point screw on the charge wheel to a position that relieves less tension. If the door unit drops too slow, with the door in the open position, relocate the blank point screw to a position that relieves more tension. NOTE: Rolling fire doors shall have an average closing speed of not less than 6 in. per second nor more than 24 in. per second. (NFPA 80 - Latest Edition)

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

**NOTE: Each rolling fire door installed must be test dropped and an Alpine fire door drop test report must be filled out (see below). A copy of the report must be forwarded to the Alpine office otherwise the door warranty is considered VOID.**

### FIRE DOOR DROP TEST REPORT

**Job Number:** \_\_\_\_\_ **Door Marks:** \_\_\_\_\_

**Job Name:** \_\_\_\_\_

**Building:** \_\_\_\_\_

**U.L. Label #:** \_\_\_\_\_ **Alpine Serial #:** \_\_\_\_\_

#### **CUSTOMER REPRESENTATIVE WITNESSING THE FIRE TEST**

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

#### **TEST PERFORMED BY:**

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**PLEASE COMPLETE THIS FORM AND SEND A COPY TO THE FOLLOWING ADDRESS.**

**Alpine Overhead Doors, Inc.  
309 Nassau Ave.  
Brooklyn, N.Y. 11222**

**OR FAX: (718) 486-6324**

# INSTALLATION

## 10 Smoke Door Modification (for smoke doors only)

Additional requirements must be added to the fire door to classify the door as a "smoke door".

1) Apply silicone along the full length of the guides along each edge that comes in contact with the jamb. For between jamb mounting, silicone must be applied in between the tube and the wall guide angle as shown in Fig. 21.

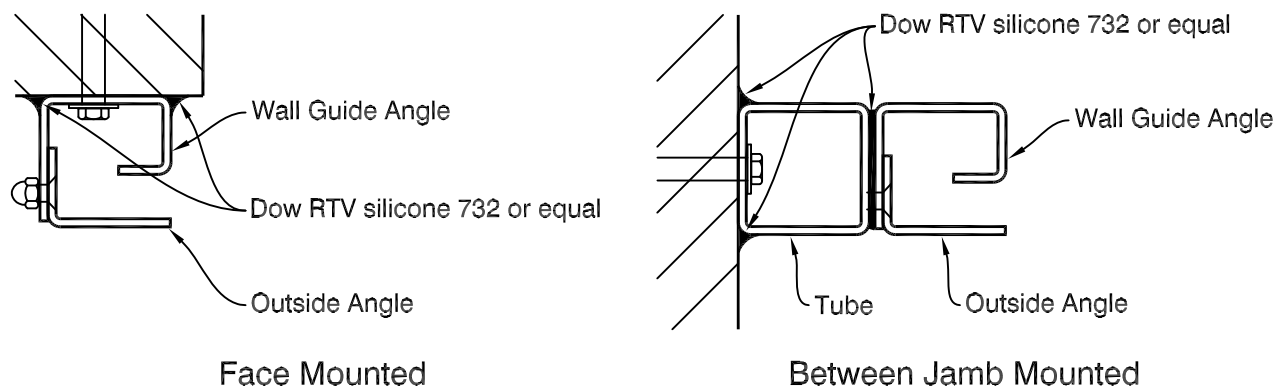


Fig. 21

2) Apply silicone around the entire perimeter of the hood along the edge that comes in contact with the wall. For under header mounting, apply silicone around the entire perimeter of the fascia and tube as shown in Fig. 22.

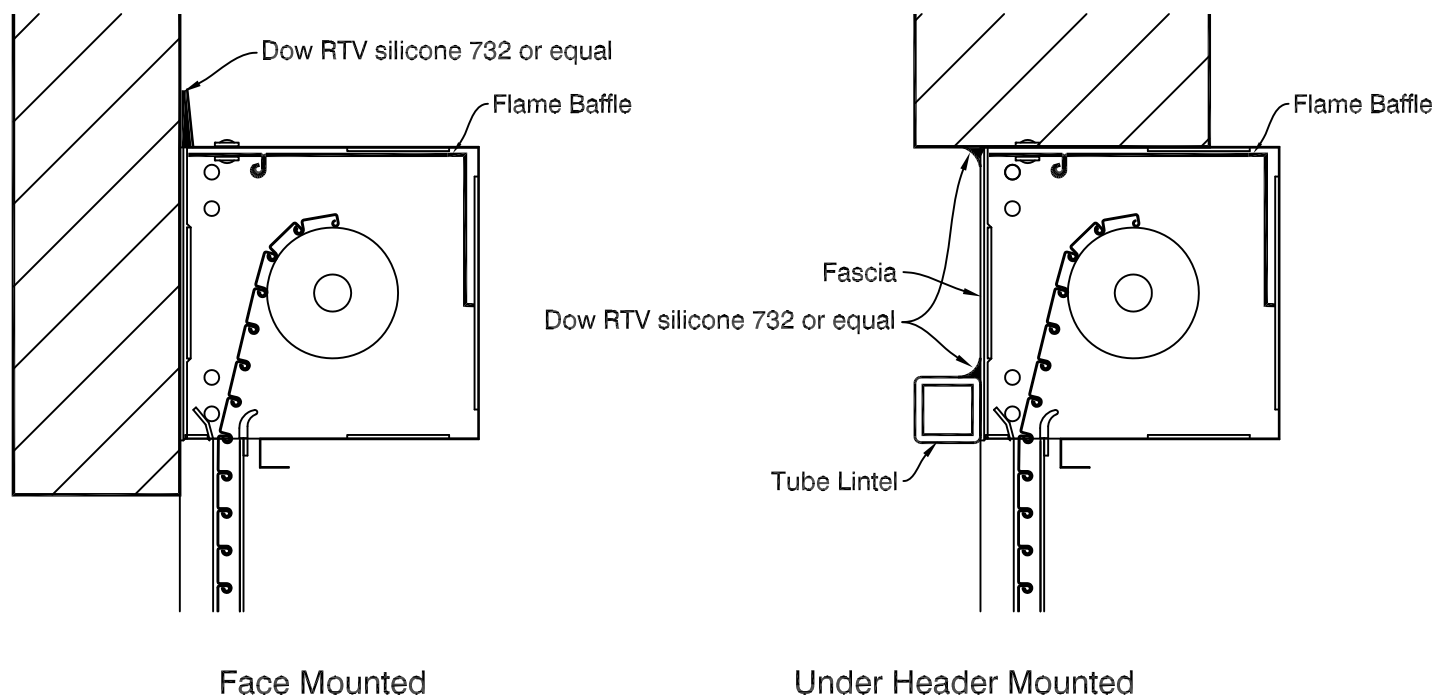


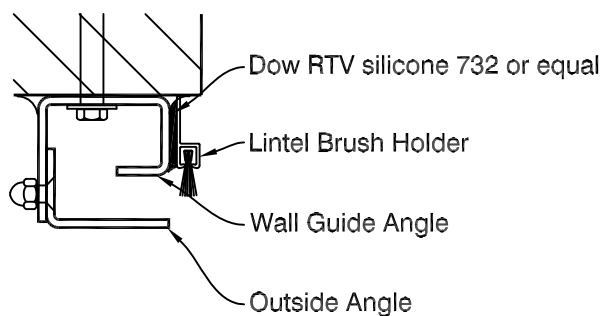
Fig. 22



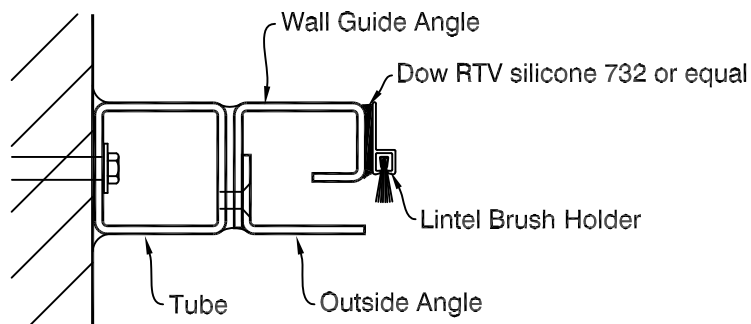
**ALL GAPS, EDGES AND SEAMS MUST BE SEALED AROUND THE FULL PERIMETER OF THE DOOR WITH DOW RTV SILICONE 732 OR EQUAL.**

# INSTALLATION

**3) Mount the guide brush holder to the inside edge of the wall guide angle as shown in Fig. 23 NOTE: apply silicone along the full length between the guide brush holder and the wall guide angle.**



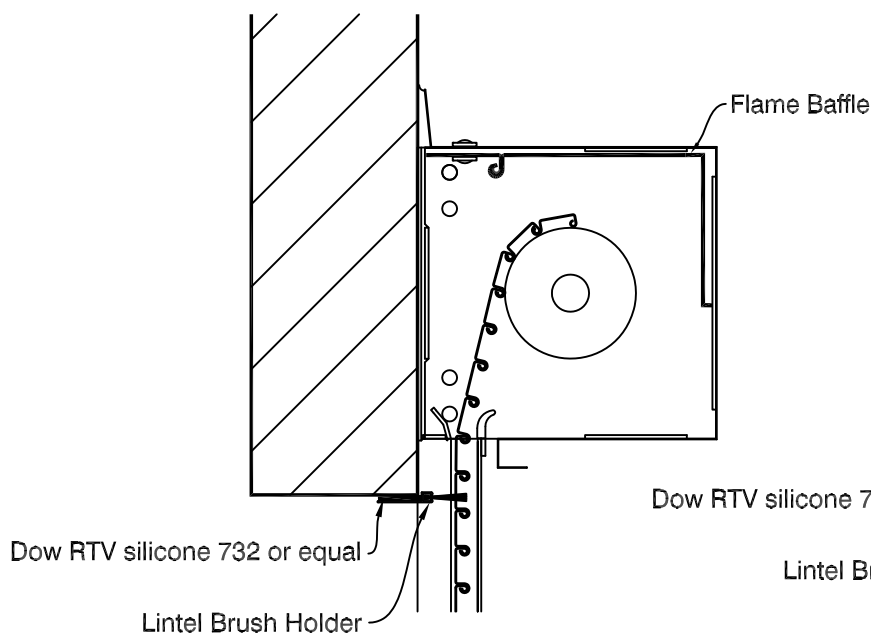
Face Mounted



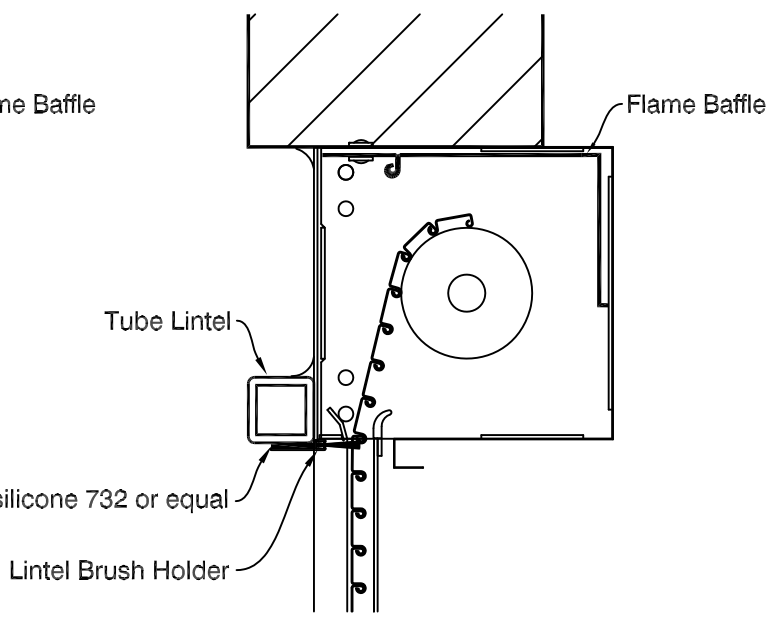
Between Jamb Mounted

Fig. 23

**4) Mount the lintel brush holder to the lintel as shown in Fig 24. For under header mounting, mount the lintel brush holder to the tube lintel. NOTE: Apply silicone along the length between the lintel brush holder and the lintel.**



Face Mounted



Under Header Mounted

Fig. 24



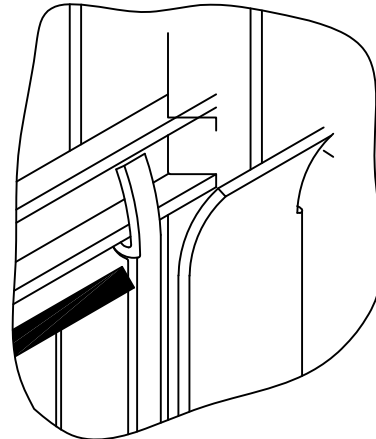
**ALL GAPS, EDGES AND SEAMS MUST BE SEALED AROUND THE FULL PERIMETER OF THE DOOR WITH DOW RTV SILICONE 732 OR EQUAL.**

# INSTALLATION

**5) Sealing compound must be placed at the bottom of each guide where the guide comes in contact with the floor or counter. Any other area where air leakage may occur, must be sealed with the sealing compound.**

Figure 25 shows the location of the support channel for mounting the lintel brush. This mounting is the similar for both face of wall and between jambs units.

Fig. 25



Figures 26 & 27 show where the sealing compound must be applied to a face of wall unit.

Fig. 26

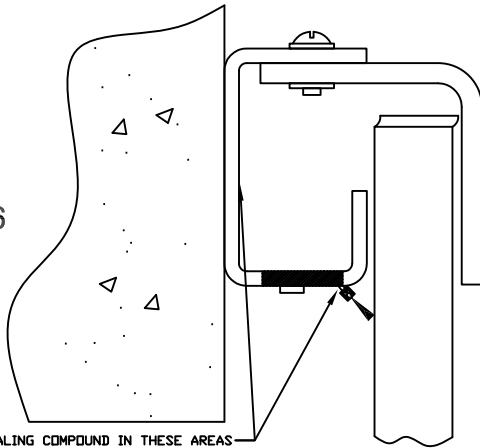
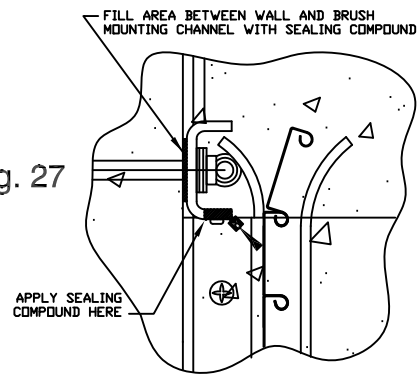


Fig. 27



Figures 28 & 29 show where the sealing compound must be applied to a between the jambs unit, the entire perimeter of the fascia must be sealed with a bead of the sealing compound.

Fig. 28

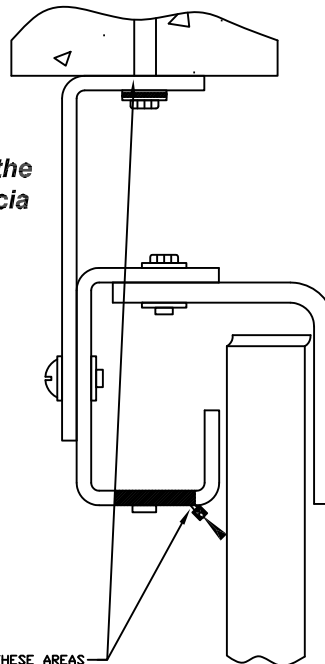
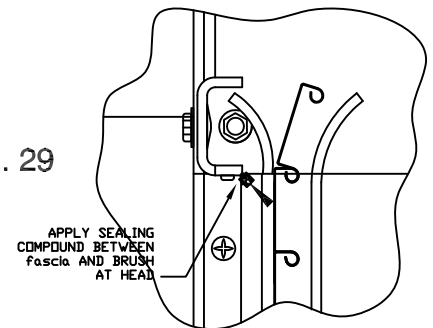


Fig. 29



**ALL GAPS, EDGES AND SEAMS MUST BE SEALED AROUND THE FULL PERIMETER OF THE DOOR WITH DOW RTV SILICONE 723 OR EQUAL.**

## 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).

### DROP TEST

After spring adjustment is made, the door must be drop tested to assure the normal function of the ALPINE fire door.

**CAUTION: ONLY EXPERIENCED PERSONNEL SHOULD TEST AND RESET FIRE DOORS.**





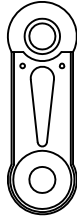
OVERHEAD DOORS, INC.

8 HULSE ROAD, EAST SETAUKET, NY 11733  
TEL (631) 473-9300 FAX (631) 642-0800

## FUSIBLE LINK INSTALLATION

### PARTS:

Fusible Link

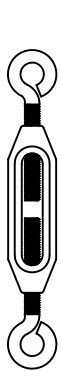


"S" Hook

Place "S" Hooks on ends of chains (both sides)  
close (clamp down) "S" Hook end, so it will not  
fall off chain



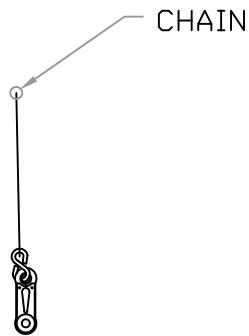
"S" Hook closed  
(clamped down)



Turnbuckle  
closed



Turnbuckle  
opened



IMPORTANT



DO NOT INSTALL ANY DETECTOR WITHIN FOUR INCHES OF THE INTERSECTION OF  
THE WALL AND CEILING.

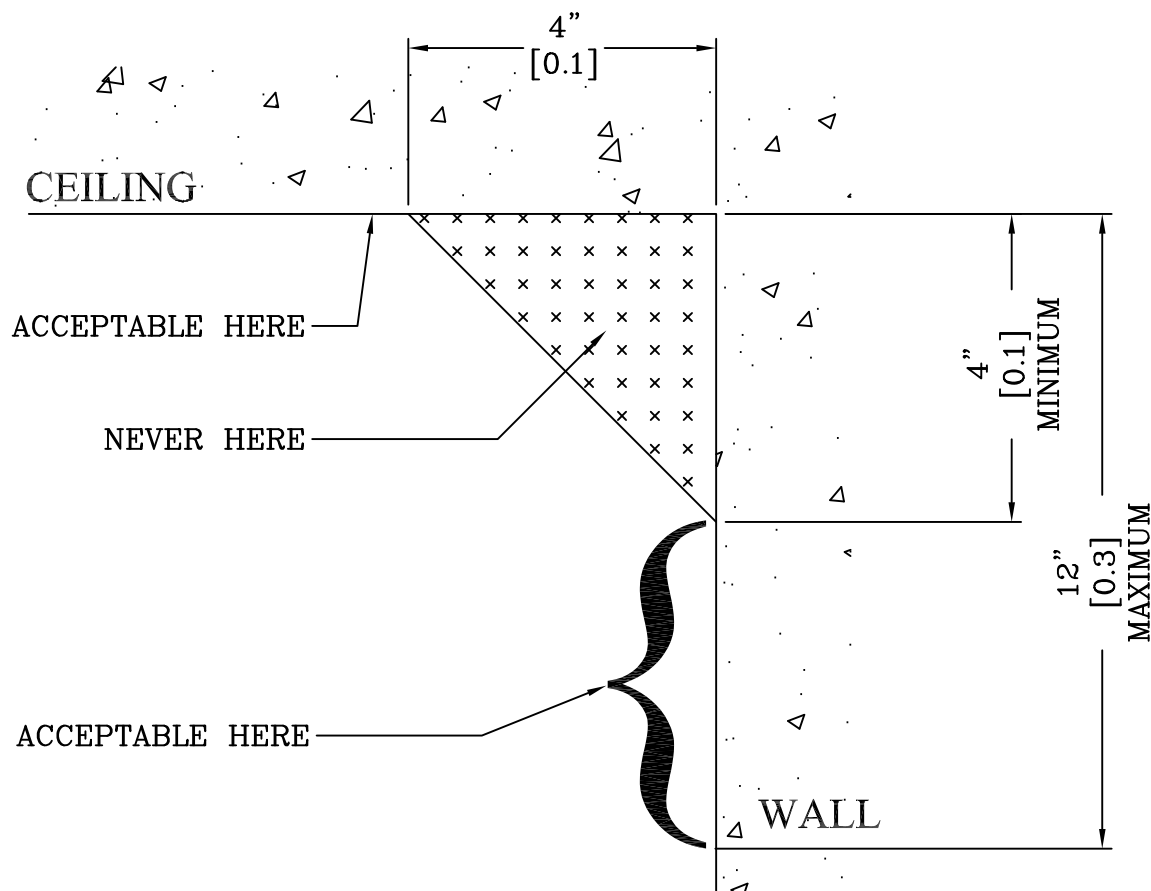
# FUSIBLE LINK INSTALLATION

## Placing links:

Fusible links will always be installed according to NFPA 80 Standards for Fire Doors.

Fusible links shall not be placed in the so-called dead air space developed at the intersection of the wall and ceiling directly above the fire door. See figures below:

Fusible links are acceptable to be part of an overall fire system, such as a fire alarm, water flow alarm, or carbon dioxide release system, that release the doors.



## Operational Test:

After installation of a fire door or shutter is completed, an operational test shall be conducted. These tests shall be adequate to determine that the system has been installed and functions as intended.

**! IMPORTANT !** DO NOT INSTALL ANY DETECTOR WITHIN FOUR INCHES OF THE INTERSECTION OF THE WALL AND CEILING.

# INSTALLATION

## Release Assembly

Routing of the rolling fire door release assembly is a vital part of the door system. If the assembly is installed incorrectly, it may prevent the rolling fire door from closing automatically. The provisions for installation of fusible links are found in the National Fire Protection Association Standard 80 (NFPA 80).

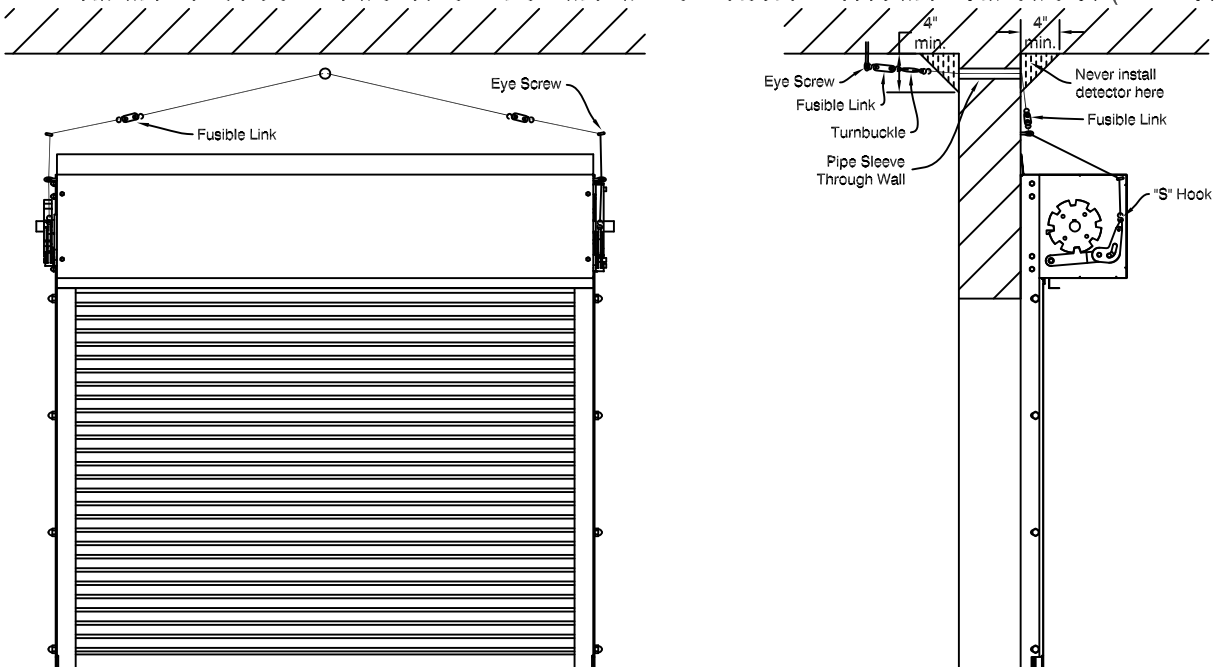


Fig. 20

**1) Locate the first fusible link near one of the bracket plates and allow for sufficient movement of the sash chain to release the drop mechanism.**

2) Locate the second fusible link or detector within 12 inches of the ceiling on the coil side of the wall. Do not install a link or detector within four inches of the intersection of the wall and ceiling as shown in Fig. 20.

3) Locate the third fusible link or detector on the opposite side of the wall at a distance from the wall that will allow sufficient travel of the chain to completely release the fire door. Attach the fusible link near the ceiling straight out from the through wall hole. The detector must be more than four inches from the intersection of the wall and ceiling as shown in Fig. 20.

4) Check with the local authority having jurisdiction regarding the through wall hole. Consider using 1/2 inch EMT.

5) Use S-hooks for attaching fusible links. This will allow ease of installation and adjustments.

6) When routing the sash chain, DO NOT make more than 90 degree bends.

7) Use the turnbuckle to take up the slack in the sash chain.

8) Attach eye screws to the wall to help route the sash chain to a given location.

9) The fusible links should be interconnected such that disconnection of any link will cause the door to close.



**IMPORTANT**

**DO NOT INSTALL ANY DETECTOR WITHIN FOUR INCHES OF THE INTERSECTION OF THE WALL AND CEILING.**

# FIRE DOOR OPERATIONAL TEST

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## Operational Test

*After the installation is completed, an operational test must be conducted. This test is to determine that the system has been installed and functions as intended. Testing of each fusible link shall be conducted separately to ensure that a successful drop test will be achieved at each fusible link / detector device.*

### A. Test Drop Procedure

- 1) Release the fusible link by disengaging the "S" hook that is holding the chain to the link.
- 2) Insure that the drop arm mechanisms and sash chain is not obstructed for this will cause incomplete disengagement.
- 3) If the door unit drops too fast, relocate the blank point screw on the charge wheel to a position that relieves less tension. If the door unit drops too slow, with the door in the open position, relocate the blank point screw to a position that relieves more tension. NOTE: Rolling fire doors shall have an average closing speed of not less than 6 in. per second nor more than 24 in. per second. (NFPA 80 - Latest Edition)

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

**NOTE: Each rolling fire door installed must be test dropped and an Alpine fire door drop test report must be filled out (see below). A copy of the report must be forwarded to the Alpine office otherwise the door warranty is considered VOID.**

## FIRE DOOR DROP TEST REPORT

**Job Number:** \_\_\_\_\_ **Door Marks:** \_\_\_\_\_

**Job Name:** \_\_\_\_\_

**Building:** \_\_\_\_\_

**U.L. Label #:** \_\_\_\_\_ **Alpine Serial #:** \_\_\_\_\_

### **CUSTOMER REPRESENTATIVE WITNESSING THE FIRE TEST**

**Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### **TEST PERFORMED BY:**

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**PLEASE COMPLETE THIS FORM AND SEND A COPY TO THE FOLLOWING ADDRESS.**

**Alpine Overhead Doors, Inc.  
309 Nassau Ave.  
Brooklyn, N.Y. 11222**

**OR FAX: (718) 486-6324**