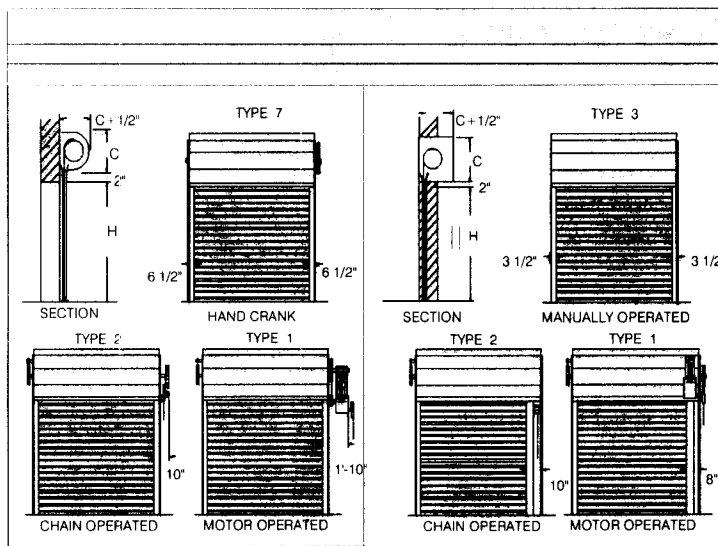


## INSTALLATION INSTRUCTIONS

From the order (or from the drawing, if submitted) determine the drive side of the door - right or left hand operation (eg. Push-up, manual chain, crank or motor), taken when looking at the door from the coil side. A right hand drive will have the operator on the right side of the door with the charge wheel on left. A manual or push up door will have an idle shaft (plain bracket) in lieu of an operator bracket. (left hand drive is opposite)



Door is mounted on the building as indicated by "face of wall or between jamb". The "drive side" refers to the location of the operator, when you are facing the coil. For push-up operation the drive bracket is blank. The spring tension adjustment is ordinarily on the opposite end (called the charge wheel side).

1. Check the opening for proper width and height (see Fig. 1). If not exact, center the wall angles to the opening. "OW" refers to the distance between mounting angles, (See Fig. 1) These should be centered the same distance on each side of the opening and verified. There is a marking on the pipe barrel (OW x OH) = overall width by overall height and (rhd or lhd) = right hand drive or left hand drive for drive side orientation.

2. Remove the inside and outside guides angles from the mounting angles. (if the guide and wall angle came assembled). Place a level mark 4' from floor on both sides of the opening using a water level or laser beam, Mark mounting wall angles 4' from bottom of angle.  
**Note: it is best to use one of the guide or bracket holes for reference.**

3. Place mounting angles against the proper face of the building, at the proper side as shown above. Mounting angle should be vertical and plumb, with level marks matching, making sure that "OW" dimension is maintained between the mounting angles as indicated above for "Z" and "E" mounts.

4. Place marks on the wall through the holes in the mounting angle to indicate where to place the anchoring bolts.

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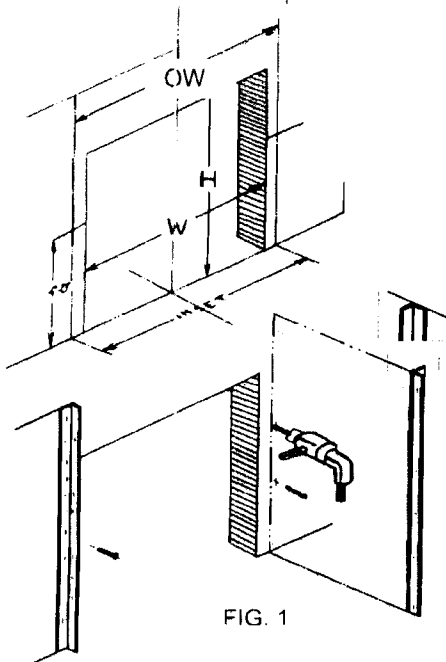
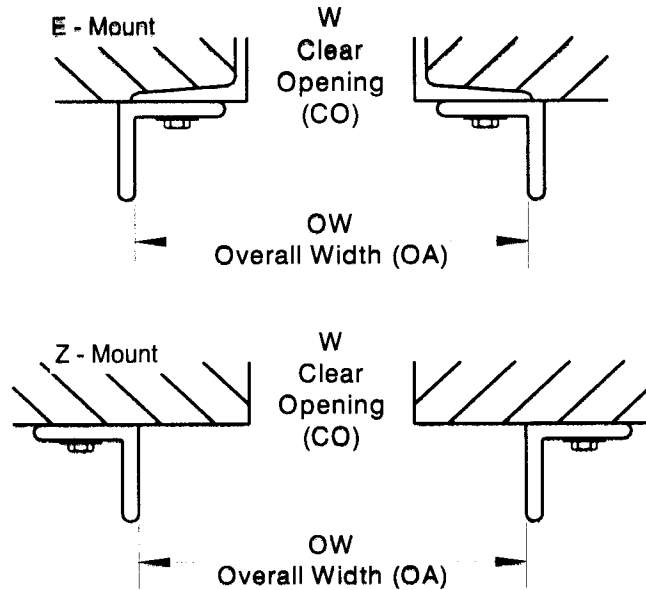


FIG. 1



5. Remove mounting angles, drill and set shields, drill and tap into steel or drill for through wall bolts (use appropriate mounting for field condition). Install fasteners nuts and washers.

5A. For high wind zones (HVHZ) refer to drawings ALP 1-01/03 or ALP 2-01/03 for proper mounting conditions.  
NOTE: for HVHZ doors over 10' wide, it is recommended that a steel channel frame be provided as an integral part of the building structure to accept an "E" mount configuration.

6. Fasten mounting angles to the wall; use same procedure on opposite side of opening. Make sure the angles are square and plumb to the opening.

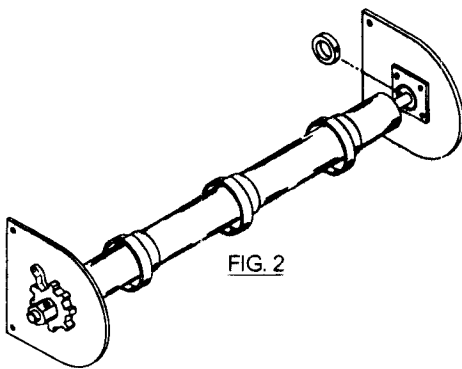
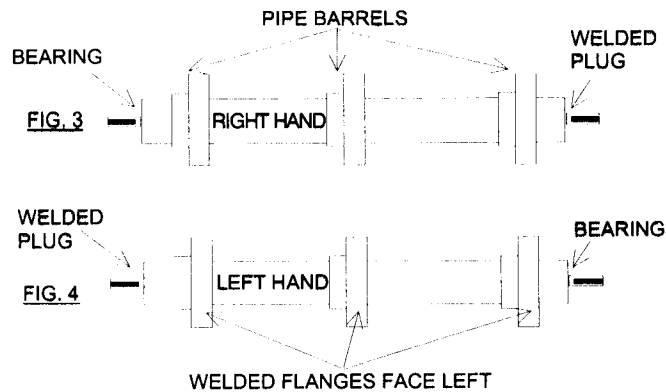


FIG. 2



7. Remove pipe shaft and curtain from package or crate; place on level ground (flat and free of debris), as to "drive side orientation" (right or left as in Fig 3 or 4). Install locking collar on the inner shaft, between the pipe and bracket plate with bearing (unless bearing has locking set screws). Place brackets on shaft with drive side bracket on proper side. Mount the drive gear or sprocket to prevent the bracket from coming off. Install charge side bracket on other end of the shaft, then the charge wheel and key to shaft. **DO NOT PUT A STOP BAR, THRU THE CHANNEL, INTO THE CHARGING WHEEL AT THIS TIME.** Leave it free to turn. Torque set screws to center the barrel according to steps outlined (FIG. 2) above.

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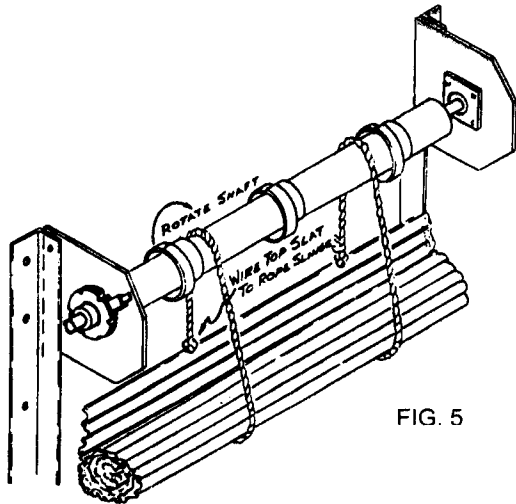


FIG. 5

8. Lift pipe barrel with attached end brackets (Fig. 2) to the top of the mounting angles and bolt end brackets to mounting angles. Set pipe shaft leveled (within 1/16"), this will ensure proper roll-up of the curtain. Once completed, dimensions are verified and all bolts are torqued, proceed with mounting the curtain.

**NOTE: Never lift with a single support or exceed 4 feet overhang while lifting, loading, unloading or transporting the curtain assembly. This will cause damage.**

9. Lift the rolled up curtain 12"-24" below the mounted shaft, attach rope slings of adequate size around the curtain, using square knots only (max. 4' apart - see FIG. 5). Once the slings are in place, drop the lift below, approximately 1" under the rope slings for safety. Pull slat up between the the top slings and the pipe barrel matching the holes with the pipe barrel. Note: Pipe barrel may have tapped holes, tapped tabs or barrel rings Fasten curtain with hardware provided but do not tighten. Center and level the curtain assembly to the pipe barrel and secure and torque all fasteners. Remove lift so that the curtain weight rests on the slings.

Direction of Charging

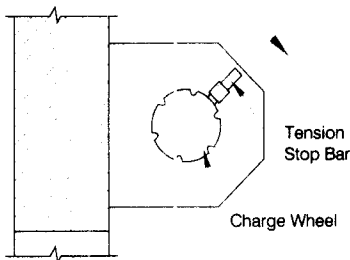


FIG. 6

**10. WARNING! Applying spring tension is dangerous.**

It requires two workers for safety. You will need two 1 x 1/4 flat bars, min. 18" long (not provided) to apply tension to the springs. Slide one of the bars into any of the six slots of the charge wheel. Rotate in the direction the door would roll up (charge wheel on left - clockwise, charge wheel on right - counterclockwise) (see Fig. 5 & 6) Slide the second bar in the slot above, hold and remove the lower bar. Repeat the procedure until the curtain starts to coil around the pipe barrel and stop when the bottom bar becomes visible. Line up the charge wheel slots with the channel stop on the charge bracket and slide the stop bar (1" x 1/4" x 6" flat bar) provided, through the slot on the charge wheel.

**DO NOT REMOVE SLINGS AT THIS TIME FOR SAFETY.**

11. Install all inner and outer guide angles onto the mounting angle, both left and right side. Measure proper guide space to allow curtain to ride freely in the guide rails.

**NOTE: For high wind zones (HVHZ) refer to drawings ALP 1-01/03 or ALP 2-01/03 for proper mounting conditions. Caution: Guide space should not exceed 1" or windlocks may not engage properly. (see Fig. 7)**

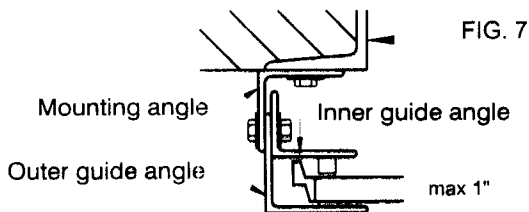


FIG. 7

12. Now that the guide assemblies are fastened and secured, the curtain must be fully rolled up and the bottom bar engaged to the bellmouth stops. (see Fig. 8) Test and adjust for proper balance at the header at this time, with slings still in place to prevent freefall.

13. Attach the chain set, crank or motor operator to the end bracket of the drive side. Be sure that everything is secured properly then remove rope slings. (place "C" clamps in guides to prevent freefall during removal of rope slings)

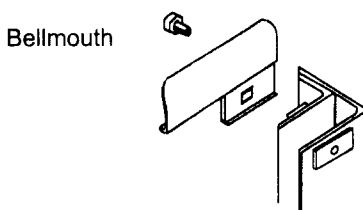


FIG. 8

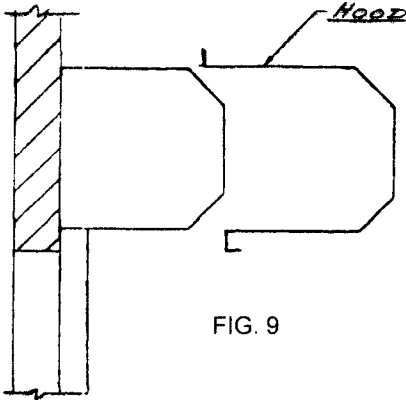
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13A. Install motor operator if furnished. On all motor operated units, set roller chain tension properly. Half links are used for fine adjustment. Motor operators that have excessive vibration must be braced diagonally to wall or adjacent construction. Be certain that the operator is firmly mounted.

14. Install hood, soffits, special covers and any special hardware furnished (see FIG.9). Install center hood support if supplied. Caulk exterior hoods.

After a few months or a year, the adjustments of the charge wheel and the anchorage to the door components, may require inspection and maintenance. An additional pick up at the top and bottom may be permitted originally to allow for a "break-in" period to minimize additional tension that may be required.

The guides should be treated with a silicone or synthetic based lubricant. (see maintenance instructions for details)

## MAINTENANCE INSTRUCTIONS

### LUBRICATION

The most important single maintenance item on doors of this type is lubrication. This is required only at certain points because all rotating members are equipped with high quality sealed bearings that are lubricated for life.

The curtain guides and the teeth of the gears contained in chain hoist 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:

- 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, or other equivalents

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 or 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. If door is powder coated, touch-up paint can be obtained by a local paint supplier.

### SPRING ADJUSTMENT: **WARNING! Applying spring tension is dangerous. Only experienced door installer should perform adjustments.**

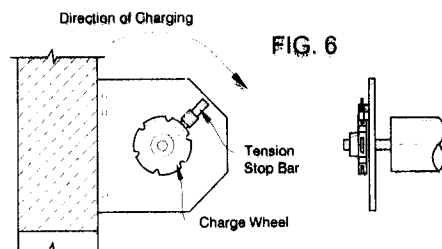
In time, the counter balancing springs may lose some of their initial tension; this condition imposes an extra load on the operator and should be corrected as follows.

a) The door must be raised to the full open position and held open by "C" clamps or vise grips on each guide.  
Note: If electric operator is present, shut off main power supply during adjustment.

b) With a suitable tool (18" or 24" pipe wrench or larger spanner) turn the spring adjusting charge wheel (one notch at a time) Test door between additional notches, until the door is balanced properly. (use caution not to over tension for it will shorten the lifecycle of the spring)

NOTE: To add tension, turn in the direction the door rolls up (charge wheel on left - clockwise, charge wheel on right - counterclockwise) (see Fig. 6).

c) Make sure stop bar is properly engaged in spring adjusting charge wheel at all times.





**SUBJECT : TROUBLESHOOTING MANUAL FOR ROLLING STEEL DOORS.**

**PURPOSE :** The following troubleshooting guidelines have been specifically written to provide a reliable source of information to all customers and users of Alpine Overhead Doors, Inc. This information will provide solutions to the most common problems and establishes a systematic sequence required in repairing a rolling steel door.

If a problem is encountered and it is not covered in this manual, kindly call an Alpine sales representative for they are ready to assist you if you require further technical assistance.

**I. Barrel.**

**Problem :** As the door is in the downward travel it binds.

- Causes**
- a. Curtain binds in guides.
  - b. Bolts used to connect the curtain to the barrel are too long.
  - c. Insufficient initial stretch of the torsion spring or incorrect hand of the spring.
  - d. Incorrect spring assembly for the opening.

- Corrections :**
- a. Increase the guide opening. Curtain must be loose in the guides.
  - b. Replace the bolts with a shorter bolt.
  - c. Consult the factory.
  - d. Check the door mark on the barrel. Locate the correct barrel.

**Problem :** Tension wheel turns freely.

- Causes :**
- a. Spring broken.
  - b. Broken shaft pin.
  - c. Broken barrel pin.

**Corrections :** Items a through c, consult the factory.

**Problem :** Difficult to apply tension in adjusting the charge wheel.

- Causes :**
- a. Incorrect spring connection to the spring holders.
  - b. Incorrect distance between the spring castings.
  - c. Screws connecting the curtain or collar are too long.

**Corrections :** Items a though c, consult the factory.

**Problem :** Drive shaft crooked.

- Causes :**
- a. Broken weld or shipping damage.

**Corrections :** a. Consult factory. Possible End Plug replacement.

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## II. Curtain.

Problem: Curtain rolls up unevenly.

Causes:

- a. Top slat not in line.
- b. Tapped holes in barrel not on centerline.
- c. Barrel not level.
- d. Collar assembly improperly aligned.
- e. Damaged slats in curtain.

Corrections :

- a. Loosen top screws and straighten the curtain.
- b. Drill and tap the barrel with holes on centerline. -
- c. Use hydro level to level the barrel.
- d. Consult the factory.
- e. Replace damaged slats.

Problem : Curtain slats separate.

Causes: a. Freight damages.

Corrections: a. Replace the curtain.

R Problem : Curtain separates from the barrel.

Causes

- a. Curtain does not have 1/2 wrap on the barrel when in the closed position.
- b. Bolts pulled through the top slat.
- c. Interlocks not installed on the motor operated door.

Corrections:

- a. Insert additional slats in the curtain of the door.
- b. Install washers under the head of the bolts.
- c. Install interlocks to prevent motor operation when the door is locked.

Problem : Curtain appears to sag at the center.

Causes

- a. Center of the curtain is against the barrel and the edge of the curtain is pulled toward the lintel as it enters the guides.
- b. Barrel deflection on wide doors.
- c. Starter slats improperly aligned to the barrel.

Corrections:

- a. Curvature of the curtain makes it appear to be sagging while it is actually level.
- b. Consult the factory.
- c. Remove the starter slat and allow for camber, then tighten.

## III. BOTTOM BAR.

Problem : Bottom bar interferes with the vinyl flap weatherstripping.

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**Bottom Bar (Continued)**

Causes: a. Incorrect guide opening.  
b. Incorrect cope on bottom bar angle.

Corrections: a. Increase guide openings.  
b. Increase cope to clear the weatherstripping.

Problem : Safety Edge not working.

Causes : a. Open circuit in the bottom bar. Confirm this by disconnecting wiring at the bottom bar and inserting a continuity tester.  
b. Open circuit in the coil cord or cord reel. Confirm this by inserting a voltmeter into the plug. Reading should be 24 VAC.  
c. Door located in extremely wet or flooded environment.

Corrections: a. Replace the Safety Edge.  
b. Replace the coil cord or cord reel.  
c. Eliminate the water and replace the Safety Edge.

Problem : Locks Inoperative.

Causes a. Key slot of cylinder must be in the horizontal position.  
b. Damaged internal components.

Corrections: a. Reposition the cylinder and firmly secure with small screws into the bottom bar.  
b. Remove the bottom bar from the guide. Replace the locking mechanism.

Problem : Electrical interlocks inoperative.

Causes : a. Magnet on lock bolt does not line up with proximity switch on the guide.

Corrections: a. Adjust the proximity switch location where it is mounted to the guides.

**IV. HOOD.**

Problem : Hood bends do not align with the end bracket.

Causes : a. Incorrect hood size.

Corrections: a. Accurately check all dimensions of material supplied and consult with the factory.

**V. BRACKET.**

Problem : Brackets not perpendicular to the barrel.

Causes : a. Wall angle flange not square.

Corrections: a. Brace bracket into position and square.

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# PARTS LIST

PART#	DESCRIPTION
1.	Left Hand Mounting Angle
2.	Right Hand Mounting Angle
3.	Bottom Bar
4.	Drive Side Bracket Plate (min. 3/16" thk)
5.	Charge Wheel Side Bracket Plate (min. 3/16" thk)
6.	Right Hand Inner Guide Angle
7.	Left Hand Inner Guide Angle
8.	Right Hand Outer Guide Angle
9.	Left Hand Outer Guide Angle
10.	Windbar 1/2" x 1/2" (Windlocked Doors Only)
11.	Charge Wheel w/ 1/4" Keyway & Setscrew
12.	Charge Wheel Tension Retainer Bar
13.	1/4" Keyway Stock
14.	Starter Slat
15.	Door Curtain
16.	Counterbalance Barrel
17.	Rubber Astragal (Optional, Weatherstripped doors)
18.	Left Side Bellmount
19.	Right Side Bellmount
20.	1 1/2" x 1 1/4" x 5/16" Threaded Tab
21.	Bearing
22.	Endlock, (Optional, Windlock/Endlock)
23.	24 Ga. Hood
24.	3/8" x 1/2" Hex Head Bolt w/ Washer
25.	Rivets
26.	1/2" Carriage Bolt w/ Washer & Nut
27.	Mounting Bolt w/ Washer & Nut
28.	Collar (for 4" Barrel Only)
29.	#10 Screw
30.	Drive Gear or Sprocket
31.	Motor Operator (Optional)
32.	Roller Chain (Optional, For Use w/ Motor Doors)
33.	Chain Guide (Optional, For Use w/ Chain Doors)
34.	Hand Chain (Optional)

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NOTES:

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PARTS LIST

