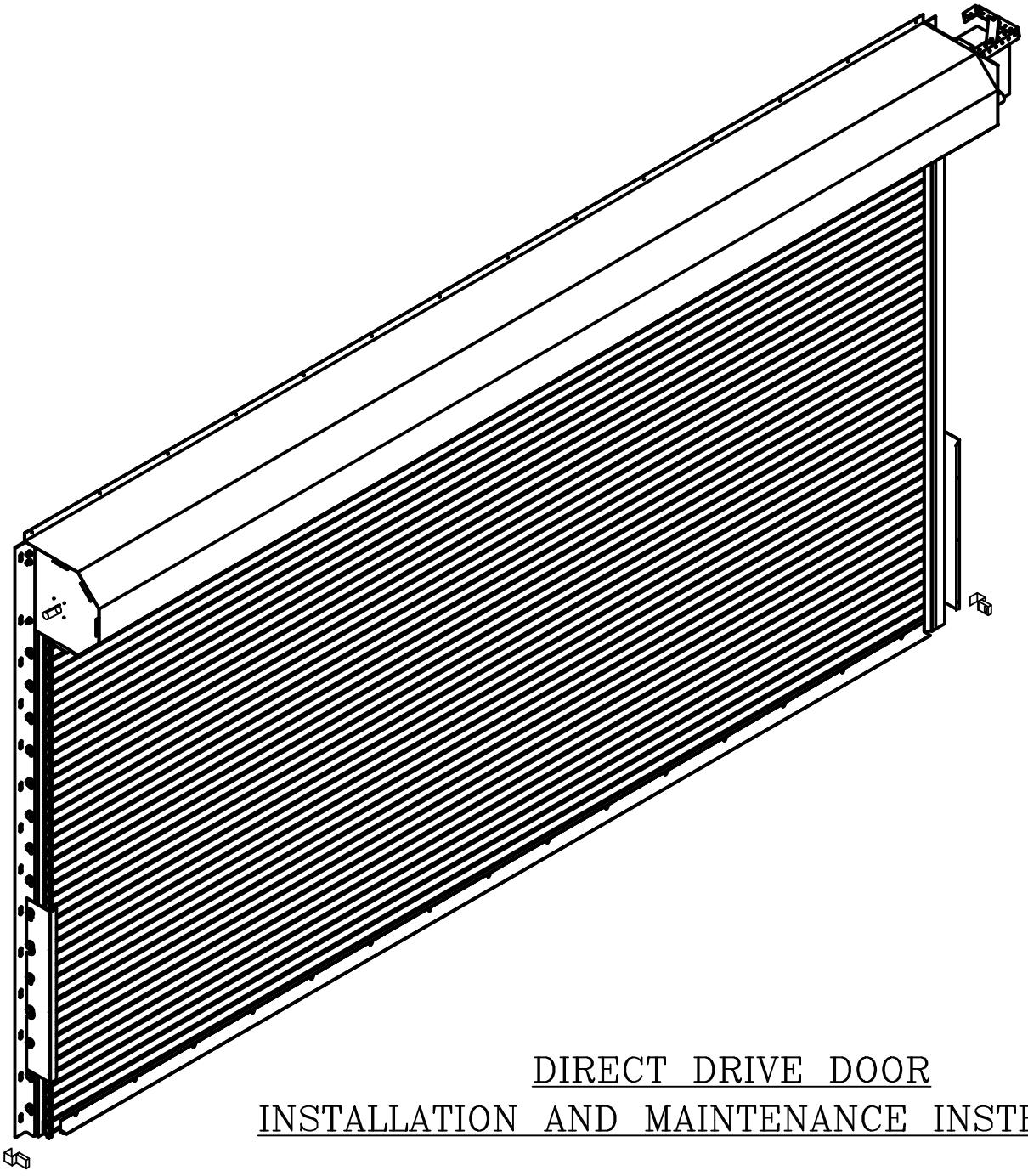
Alpine®
OVERHEAD DOORS, INC.



DIRECT DRIVE DOOR
INSTALLATION AND MAINTENANCE INSTRUCTIONS

Job Name:	Docket #:

These installation instructions have been prepared to assist you. They are not prepared to alleviate you from complying with local building codes and ordinances .

Keep for reference

INTRODUCTION

Dear Customer,

Congratulations on your purchase of the Alpine High Speed 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.

⚠ **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.

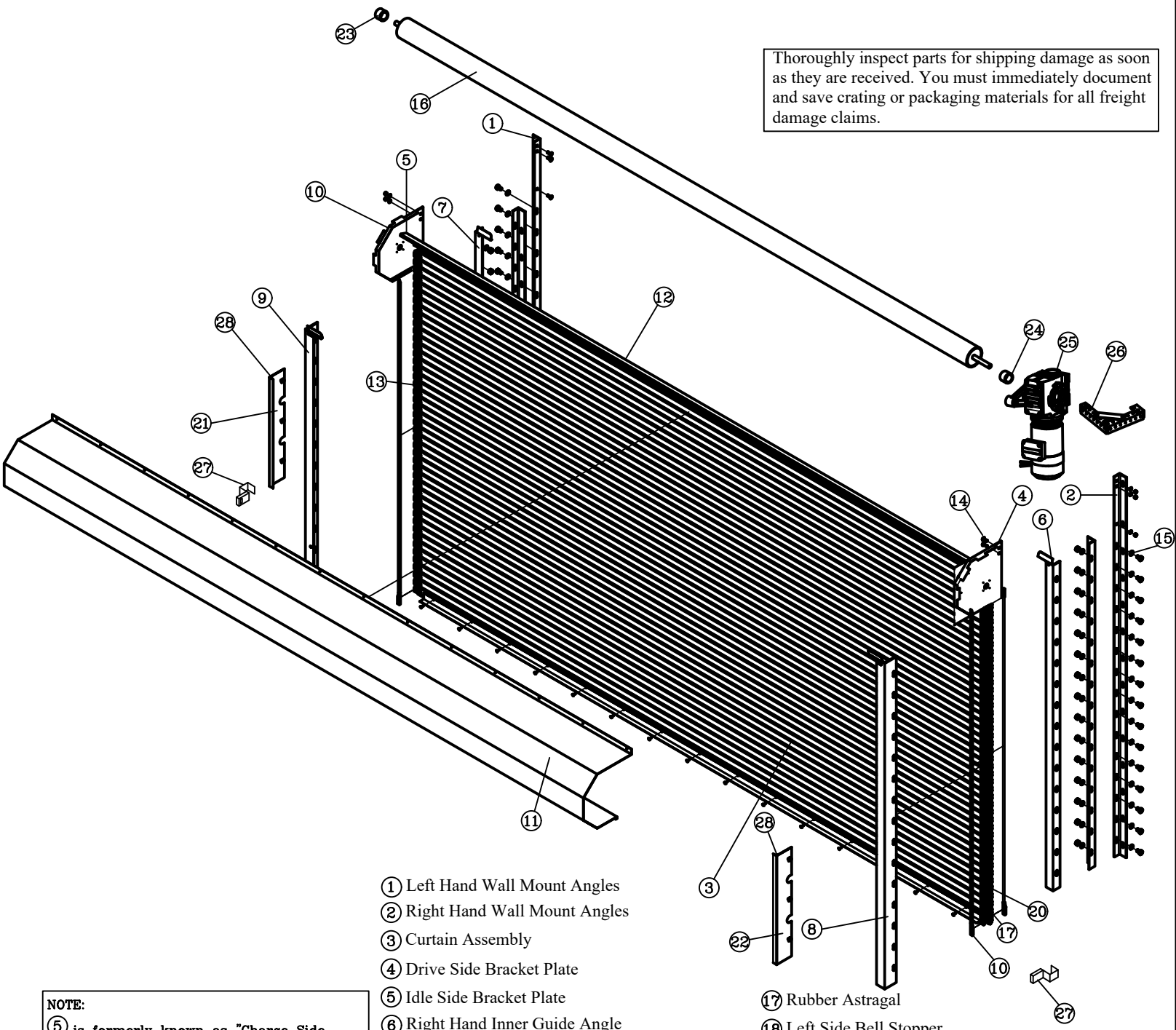
1. Make sure that all keys have been installed in any sprockets or gears that require them. Make sure that all set screws have been installed and are properly tightened as applicable.

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

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

PARTS LIST

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.



1. Left Hand Wall Mount Angles
2. Right Hand Wall Mount Angles
3. Curtain Assembly
4. Drive Side Bracket Plate
5. Idle Side Bracket Plate
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. Wind bar ½" x ½"
11. Hood
12. Starter Slat
13. Rivets
14. ½" Carriage Bolt & Nut
15. Wall Angle Hardware
16. Counterbalance Barrel
17. Rubber Astragal
18. Left Side Bell Stopper
19. Right Side Bell Stopper
20. Cast Iron Wind lock / End lock
21. Left Hand Light Curtain Angle (Option)
22. Right Hand Light Curtain Angle (Option)
23. Left Hand Lock Collar
24. Right Hand Lock Collar
25. High Speed Motor
26. Bracket Support Brace
27. PhotoEyes
28. Light Curtain

NOTE:

(5) is formerly known as "Charge Side Bracket" on standard service doors.

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. ¼" 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 feed divided by 4 equals 4.5 feet. From center of curtain measure out 4–½ feet in opposite directions and these are the proper lift points for installing the curtain assembly without causing creased and /or dented slats.

INSTALLATION

Notes:

1. *Read all instructions carefully, checking shop drawings supplied for any special conditions. Open all crated materials and check for damaged or missing parts prior to installation. If any damaged occurred you must notify your carrier immediately.*
2. *Left hand (LH) or right hand (RH) is taken as you face the door opening from the coil side of the unit. Also, you may have to disassemble the guide assembly and use the wall mounting angles to first mount them on the wall, you have the option to change from the E-mount guide, reverse it for the Z-mount guide.*

Inspection:

Establish opening width and height and check against the opening size shown on the shop drawings. Level the sill surface that the door wall angle or tube will rest on.

Installing wall mounting angles: (refer to figure 2-A , B, C & D)

FIRST: Set Left hand wall mount angle in place according to figure 2-B (OGW) and plumb. Make sure that the OFW (Overall Fame Width) distance, plus drive sprocket and charge wheel have clearance.

SECOND: Mark the hole location on the wall and remove the wall mounting angles.

THIRD: Drill and prepare holes for wall fasteners.

FOURTH: Return the wall mount angle into position and install with wall fasteners, securing angle into place. The galvanized or fiber washers must be installed (refer to the wall fastener washer detail).

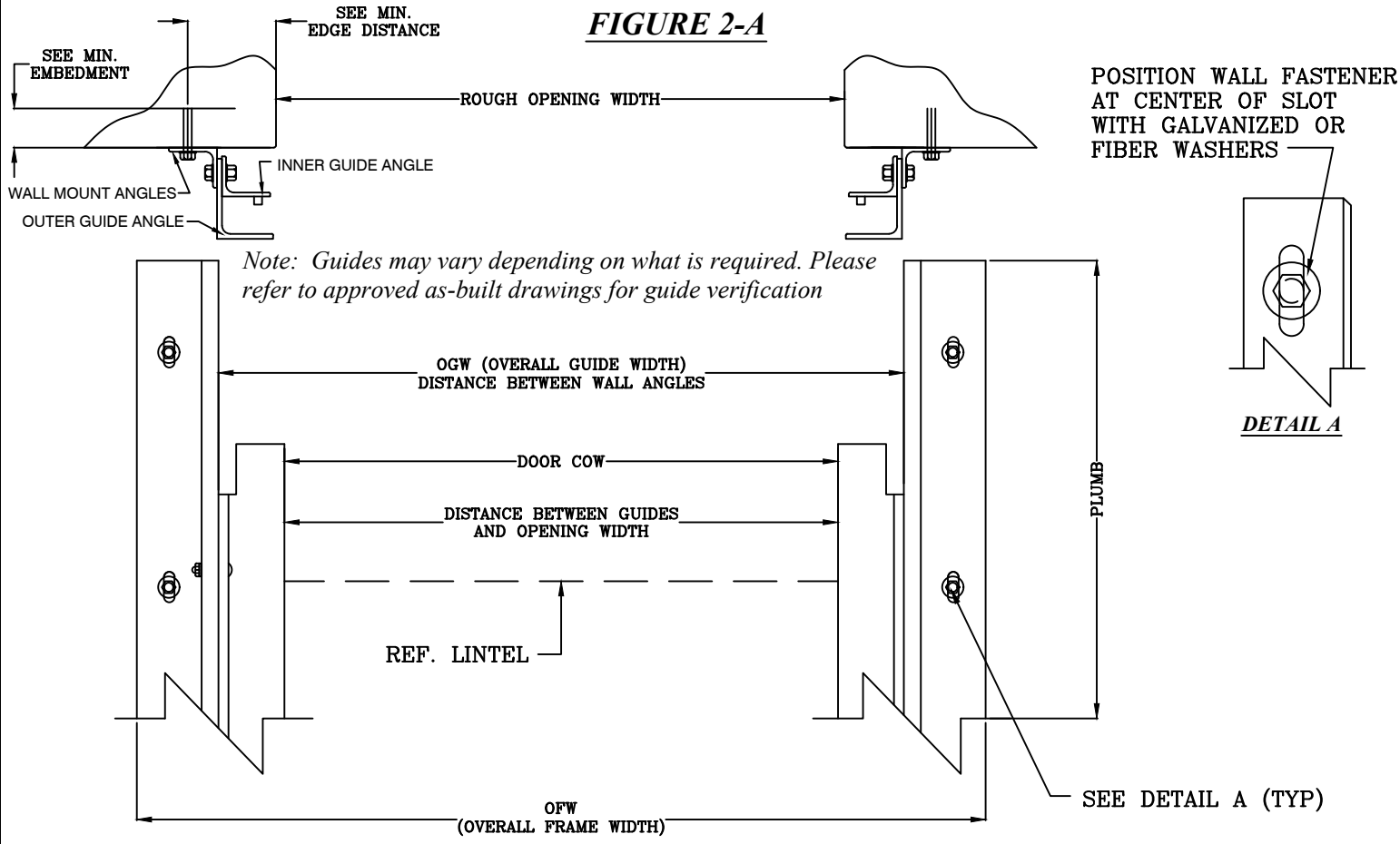
FIFTH: Measure from the LH wall angle the distance between the wall angle and make a reference mark for locating the RH wall angle.

SIXTH: Place the RH guide assembly on the reference mark, plumb and level with respect to the LH guide assembly.

SEVENTH: Repeat steps 2 through 4 for the RH guide assembly.

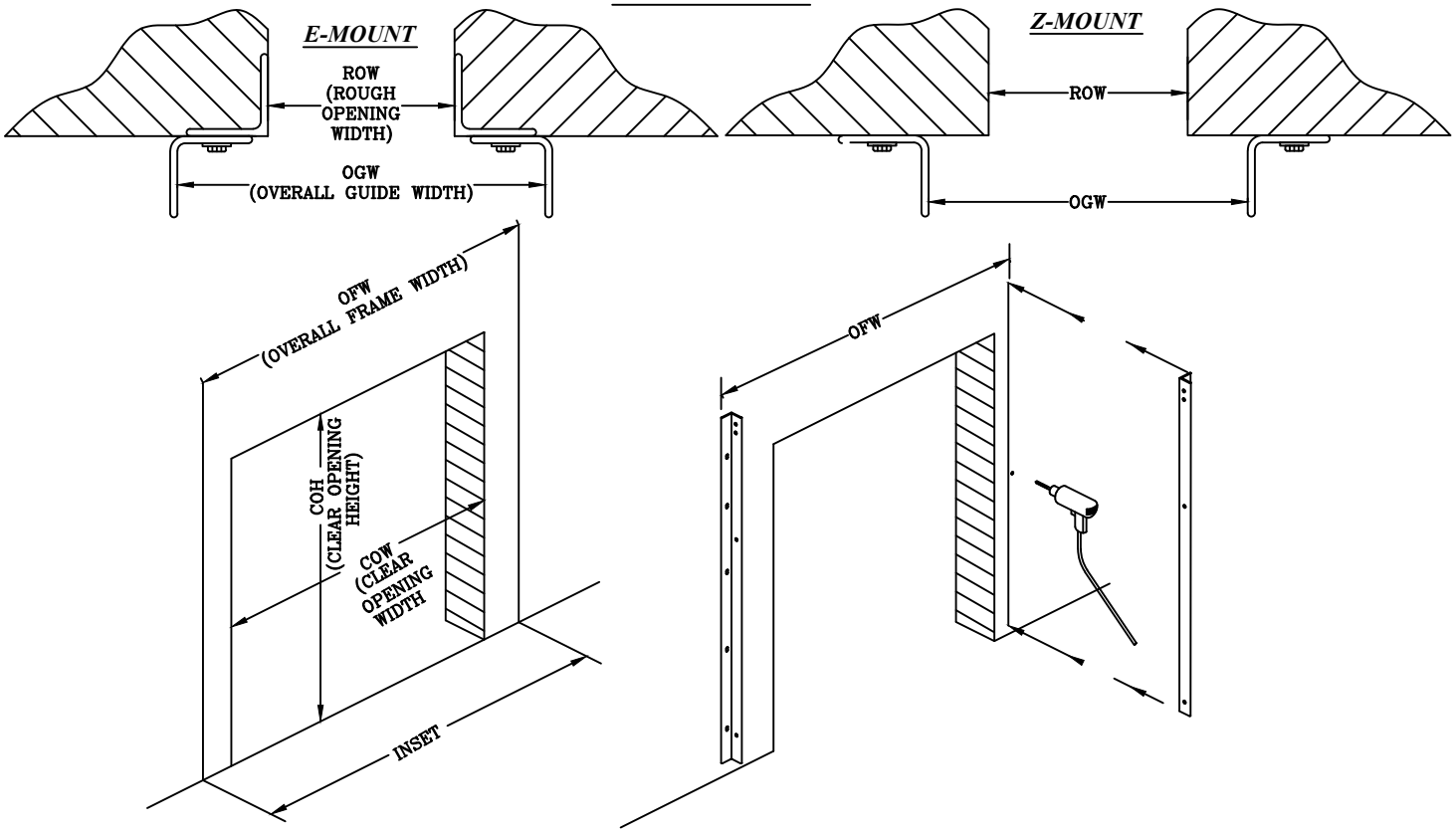
Note: Alpine Overhead doors are manufactured to close tolerances. It is important that the cow guides are positioned at the proper distance between guides, and that both angles are plumb and level.

FIGURE 2-A



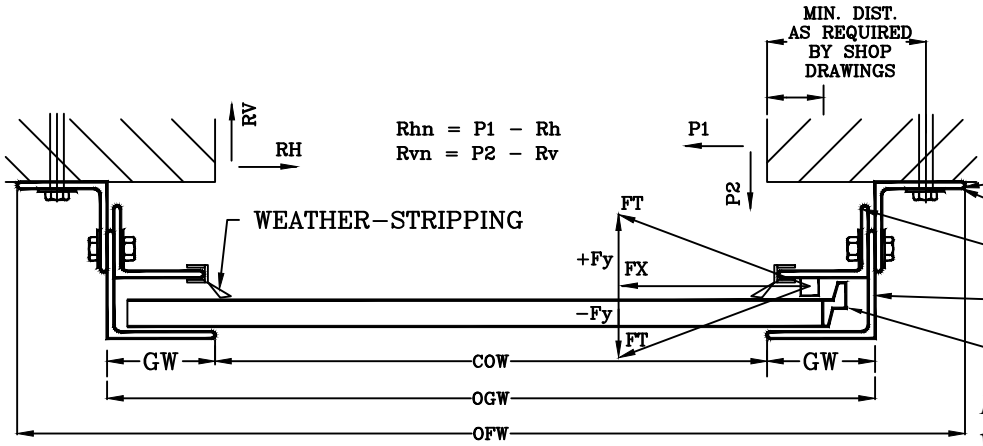
Note: Guides may vary depending on what is required. Please refer to approved as-built drawings for guide verification

FIGURE 2-B



Note: Guides may vary depending on what is required. Please refer to approved as-built drawings for guide verification

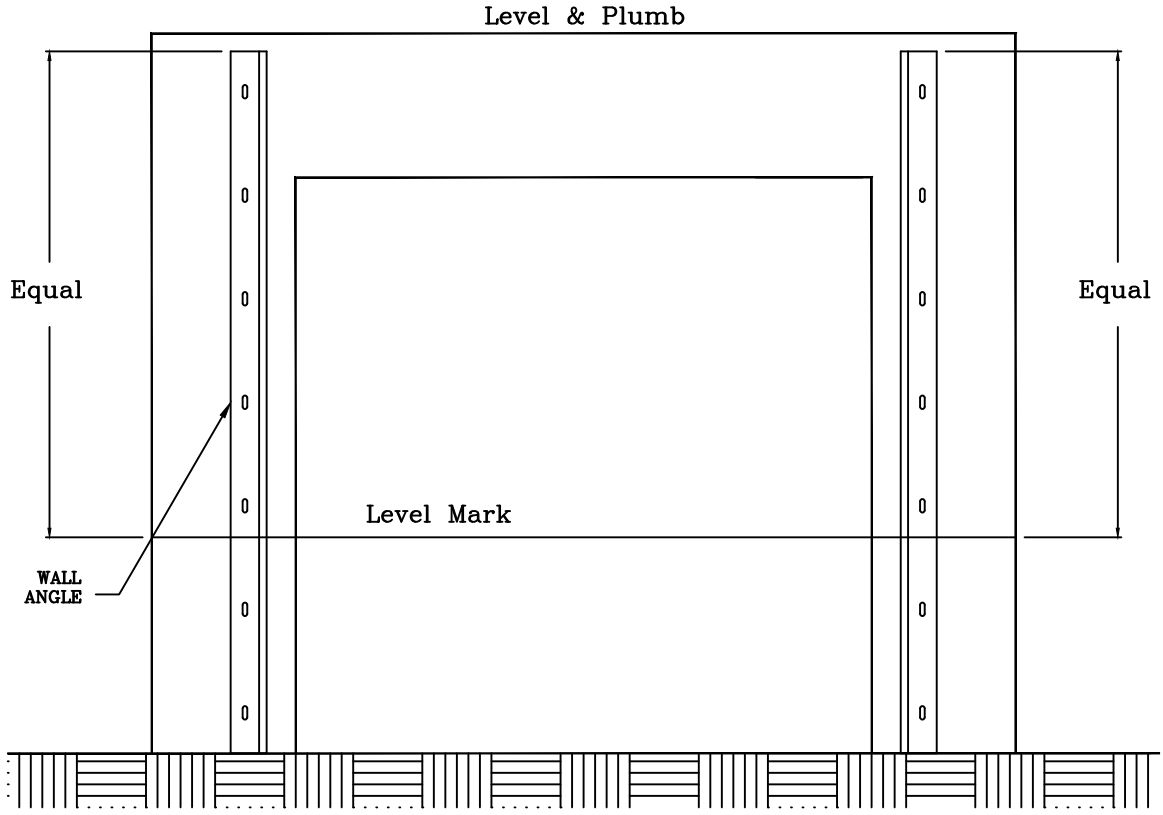
FIGURE 2-C



Note: Guides may vary depending on what is required. Please refer to approved as-built drawings for guide verification

GUIDE SECTION					
CLEAR OPENING		OVERALL GUIDE	UNDER BRACKET	OVERALL FRAME	
C O WIDTH	C O HEIGHT	O G WIDTH	U B HEIGHT	O F WIDTH	O F HEIGHT

FIGURE 2-D



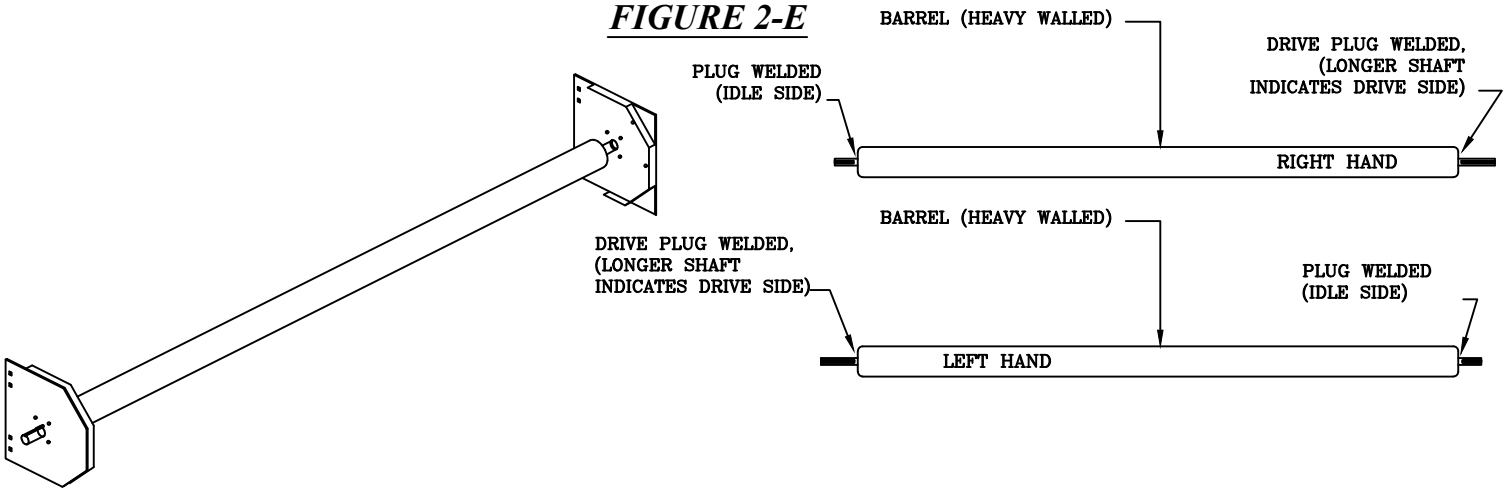
Note: The drive assembly is not balanced when lifting. Use caution, as the tension side will be much heavier than the drive side.

Installing barrel and head plates:

FIRST: 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 figure 2-E. Slide shaft sleeve onto left and right hand side shafts.

SECOND: Place brackets on shaft with drive side bracket on proper side. (see Figure 2-E) [Refer to as-build drawings for handing]

FIGURE 2-E



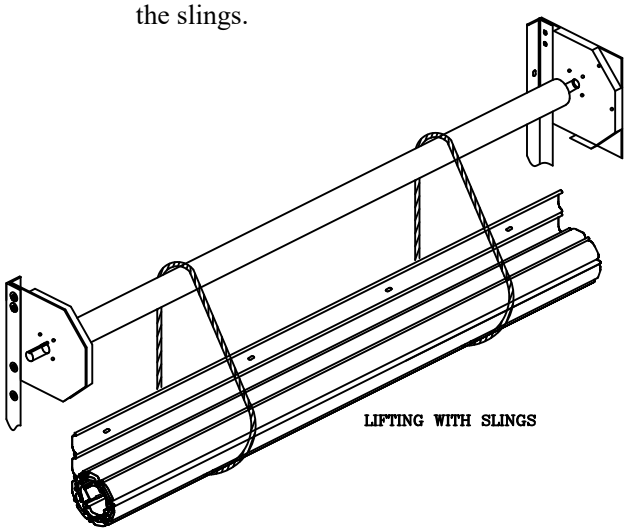
THIRD: Lift pipe barrel with attached end brackets (figure 2-E) to the top of the wall mounting angles and bolt end brackets to mounting angles. Set pipe shaft level (within 1/16"). This is to ensure proper roll-up of the curtain. Once completed, dimensions are verified and all bolts are torque, Proceed to mounting the curtain.

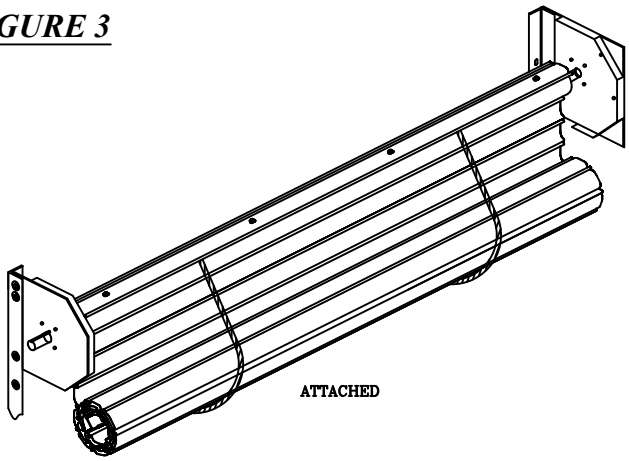
Note: Never lift with a single support or exceed 4 feet overhang while lifting, loading, unloading or transporting the curtain assembly. This will cause damage (DO NOT lift with fork lift, without sling or pads under forks.

Installing curtain:

FIRST: Lift the rolled up curtain 12"-24" below the mounted shaft, attach rope slings of adequate size around the curtain, (figure 3). Once the slings are in place, drop the lift below, approximately 1" under the rope slings for safety. Pull slat up between 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 the hardware provided but do not tighten yet. 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.

FIGURE 3



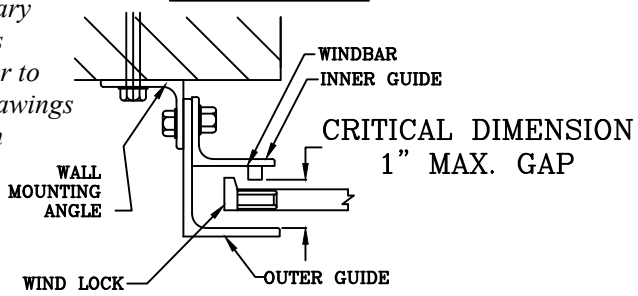


Installing inner and outer guide angles:

FIRST: Leave slings in place and install all inner and outer guide angles onto the wall mounting angles, both left and right side. Measure proper guide space to allow curtain to ride freely in the guide rails.

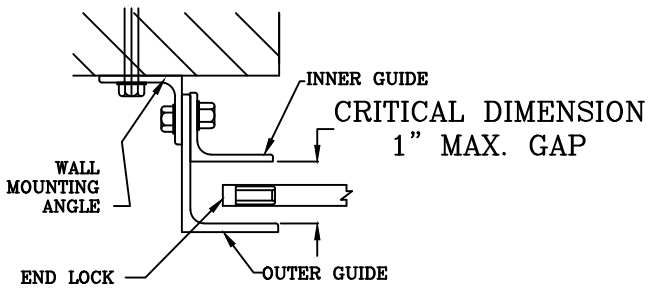
Note: Guides may vary depending on what is required. Please refer to approved as-built drawings for guide verification

FIGURE 5-A



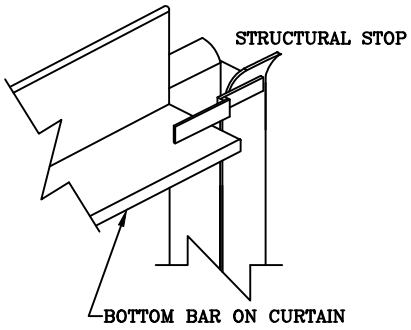
WITH WINDBAR

FIGURE 5-B



WITHOUT WINDBAR

FIGURE 6



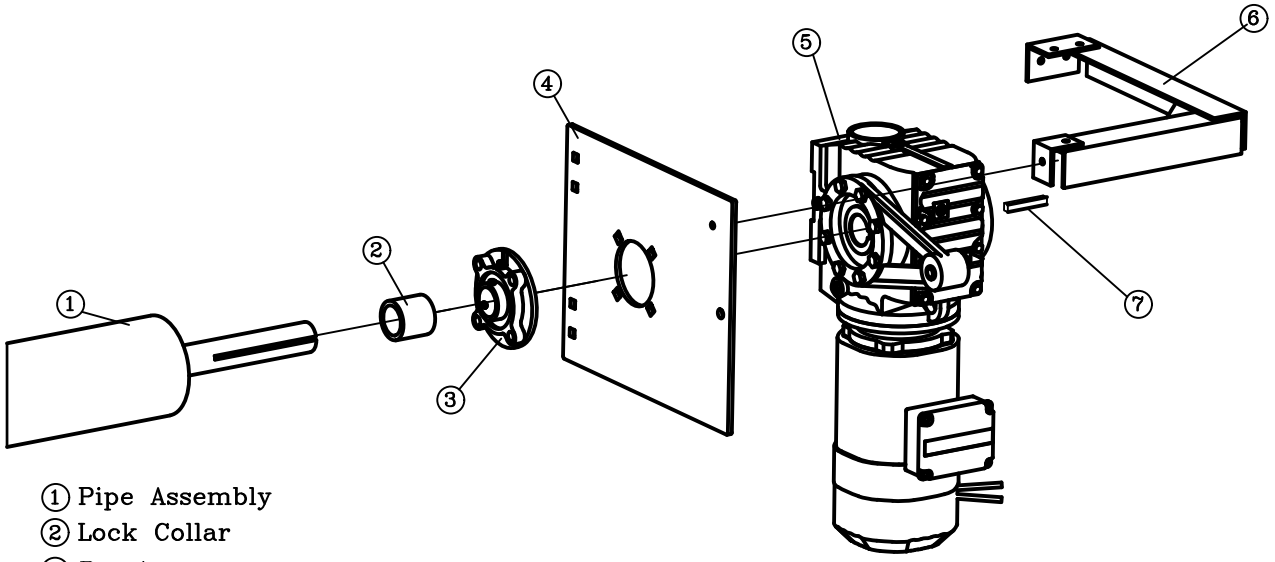
Note: For high wind zones (HVHZ) refer to approved shop drawings for proper mounting conditions.

CAUTION: ***WITH WINDBAR GUIDE SPACE SHOULD NOT EXCEED 1" BETWEEN WINDBAR AND OUTSIDE ANGLE OR WIND LOCKS MAY NOT ENGAGE PROPERLY. (SEE FIGURE 5-A). WITHOUT WINDBAR GUIDE SPACE SHOULD NOT EXCEED 1" BETWEEN INSIDE AND OUTSIDE ANGLES. (SEE FIGURE 5-B)***

SECOND: Now that the guide assemblies are fastened and secured, the curtain must be fully rolled up and the bottom bar engaged to bell mount stops (figure 6).

THIRD: Attach motor operator to the end bracket of the drive side. (Refer to Operator Installation Instructions). Install key for motor operator. For the motor operator torque arm, fasten the nut with a washer to the bolt on the bracket plate. Be sure that everything is secured properly then remove rope slings (place "C" clamps in guides to prevent curtain from falling during removal of rope slings).

Direct Drive Motor Assembly:



① Pipe Assembly
② Lock Collar
③ Bearing
④ Bracket Plate
⑤ Direct Drive Motor
⑥ Bracket Support Brace
⑦ Key

Installing motor connections: (Refer to Operator Installation Instructions)

FIRST: Connect power supply to motor according to the wiring diagram.

SECOND: Connect the central alarm (if applicable) to the operator according to the wiring diagram.

THIRD: Adjust the motor travel limit switched as described in the motor installation instructions.

FOURTH: After all connections are complete and the limits are set, operate the unit to the open position.

FIFTH: Motor operators that have excessive vibration must be braced against to wall or adjacent construction. Be certain that the operator is firmly mounted.

SIXTH: Install hood, soffits, special covers and any special hardware furnished (see figure 7-A) Install center hood support if supplied. Caulk exterior hoods.

FIGURE 7

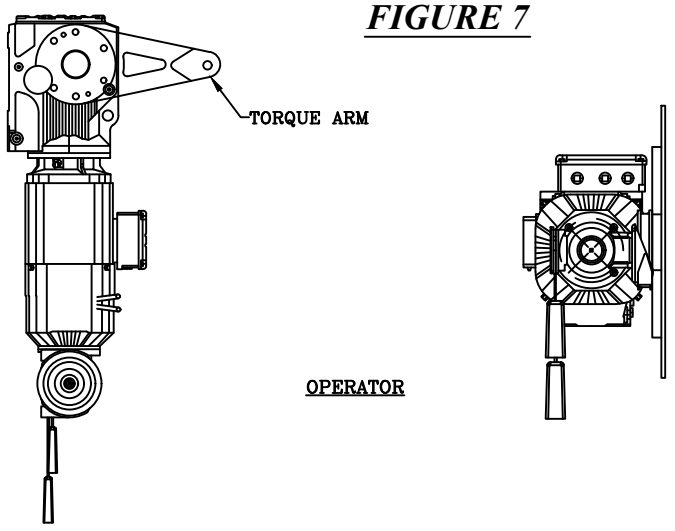
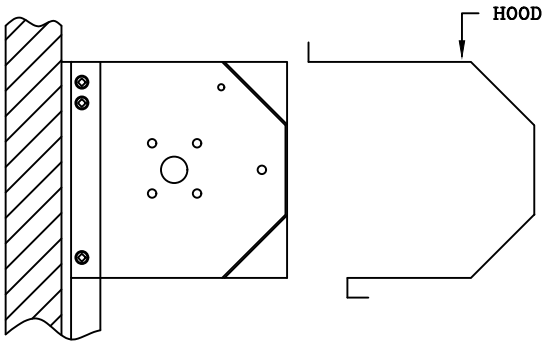


FIGURE 7-A



⚠ CAUTION ⚠

ONLY EXPERIENCED PERSONNEL SHOULD PERFORM MAINTENANCE

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 the chain hoist or hand crank mechanism (if supplied) should be lubricated at least twice a year (more often if the door works very frequently) with one of the following greases:

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

If door is electrically operated, check the oil level in the warm 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 based paint. If the door is powder coated, touchup paint can be obtained by a local paint supplier.

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. rolling steel doors. 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 Alpine sales representatives, for they are ready to assist you if you require further technical assistance.

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 tension 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: Drive shaft crooked.

Causes: a. Broken weld or shipping damage.

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

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.

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, 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.

Bottom Bar:

Problem: Bottom bar interferes with the vinyl flap weatherstripping.

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 by disconnecting wiring at the bottom bar and insert a continuity tester.
b. Open circuit in coil cord or cord reel. Confirm 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.

Hood:

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

Causes:
a. Incorrect hood size.

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

Bracket:

Problem: Brackets not perpendicular to the barrel.

Causes:
a. Wall mount angle not square.

Corrections:
a. Brace bracket into position and square.