



# COMMERCIAL DOOR INSTALLATION INSTRUCTIONS

*These instructions are written for, and are to be used only by, the professional door installer with a general mechanical knowledge of rolling curtain doors.*

IMPORTANT NOTES: BEFORE YOU START, READ AND UNDERSTAND THESE INSTRUCTIONS THOROUGHLY, CONSULT THE FACTORY DIRECTLY IF YOU HAVE ANY QUESTIONS.

**DO NOT CUT THE BANDS WHICH HOLD THE DOOR IN A ROLL. YOU WILL BE TOLD EXACTLY WHEN TO CUT THE BANDS. BE SURE TO HAVE PROPER HEADROOM AND SIDEROOM TO FIT YOUR SPECIFIC DOOR SIZE AND OPERATION.** *(See Last Page of Packet).*

## **STEP 1**

Measure the door opening height and width. Verify that you have the proper door to fit the opening. Check the jambs, header and floor for plumb and level. If the floor is out of level more than a fraction of an inch, you will need to place a permanent spacer shim on the floor under one of the tracks to bring them into level alignment at the top.\*\*\* **Verify that you have substantial structural backing to receive the door support brackets and tracks.**\*\*\*

## **STEP 2**

Make a layout at a position just above the door header to locate the door tracks so that the space between the tracks is equal to the door curtain width less 4 inches taking care that the tracks overlap the door curtain length equally on either side of the door opening *(See Illustration "A" below)*. Check to be sure the tracks are plumb. *(See "Special Instructions for steel buildings" at the end of installation packet.)*

## **STEP 3**

Drill thru the three slots that go thru the door support brackets and tracks and secure them to the wall using: Concrete Anchors 3/8" x 1-7/8", Wood Lag Screws 5/16" x 2-1/2" according to your door jambs. *(For Steel Jambs see "Special Instructions for steel buildings" at the end of installation packet.)*

**Note: Pilot Doors does include these fasteners**

## **STEP 4**

Using a pair of vise-grips, bend the top of the aluminum track to a smooth radius (the inside notched leg) to ensure the curtain will feed smoothly into track. *(See Illustration E)*

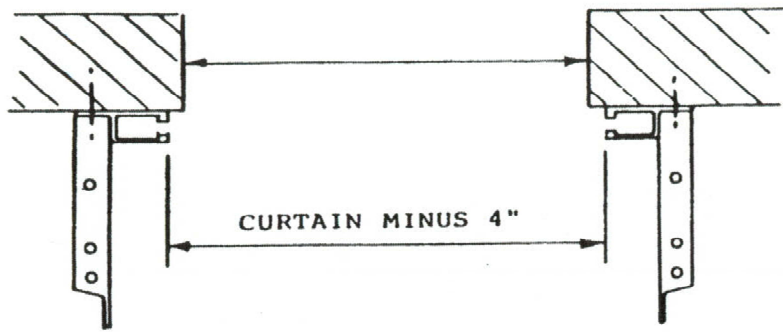


ILLUSTRATION "A"

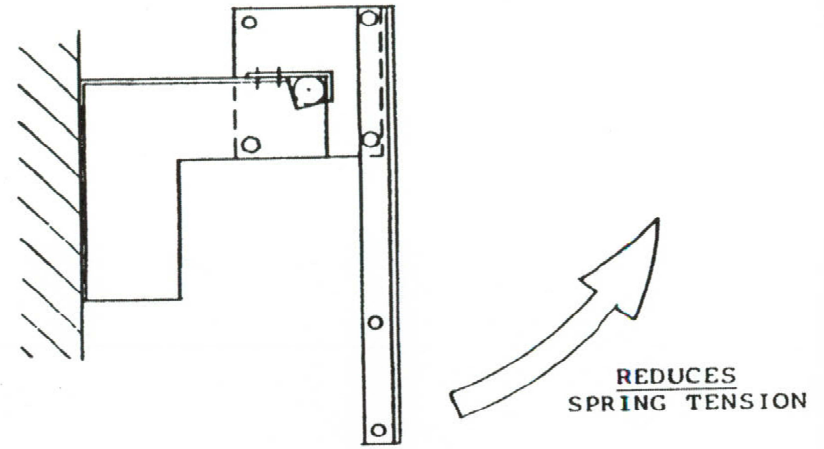


ILLUSTRATION "C"

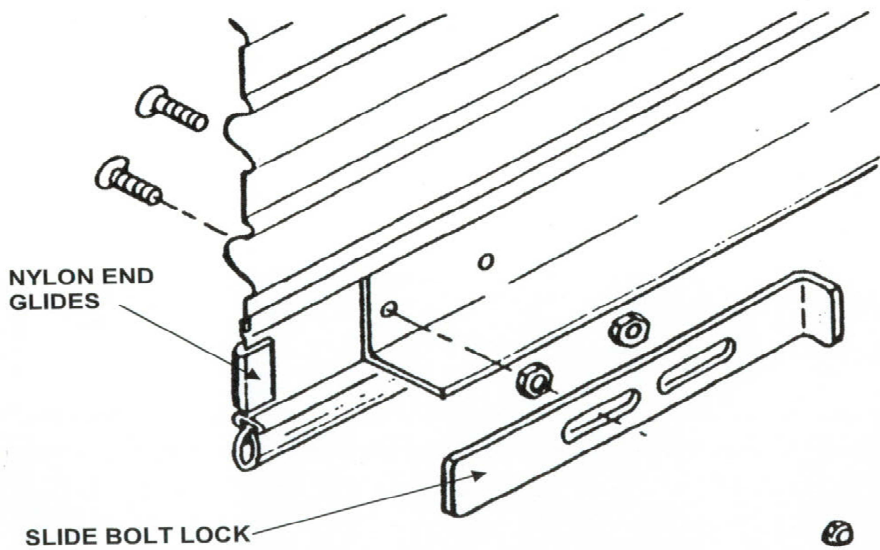
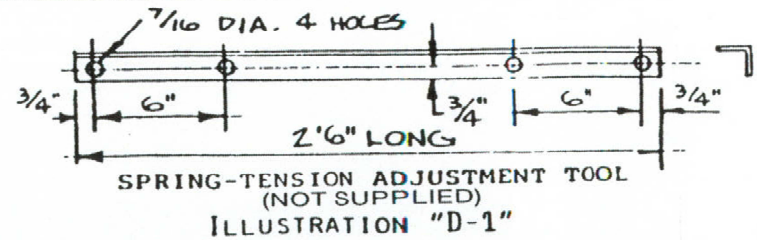
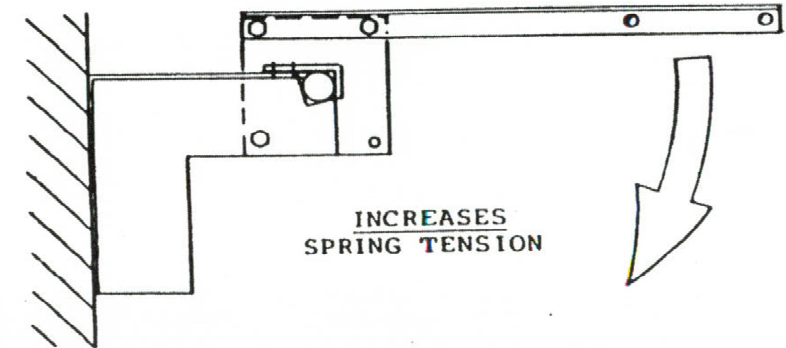


ILLUSTRATION "B"



**STEP 5**

As a general safety precaution do not allow any person to stand near or under the door during any portion of the installation.

Carefully lift the door curtain roll up onto the door support brackets. The hub of the spring tension plates will rest in the notched corners of the door support brackets. The flat side of the spring tension plates will be flush up against the flat side of the door support brackets. (*See Illustration E.*)

**STEP 6**

Before removing your hoisting system, secure the door to the door support brackets by inserting 3/8 – 16 x 1” Hex Head Bolt with washer through the slot in the side of the door support brackets and into one of the holes on the corners of the spring tension plate. Tighten securely with 3/8” Flange Nut. Now and only now may you carefully remove hoist.

**STEP 7**

Install axle retainers on top of the door support brackets as shown in Illustration E. All pull-rope, chain, and electrically operated doors use axle retainers on each end.

**STEP 8**

Install Chain Guide/Reduced Drive on top of door support bracket using specified bolts and fasteners. (*Instructions in Chain Operator Box.*) Follow instructions for Chain Guide/Reduced Drive for installation to door. Be sure to check for proper clearance as chain wheel rotates.

**STEP 9**

As a safety precaution, secure a clamp in each vertical track to prevent the door curtain from descending in the case springs do not balance properly.

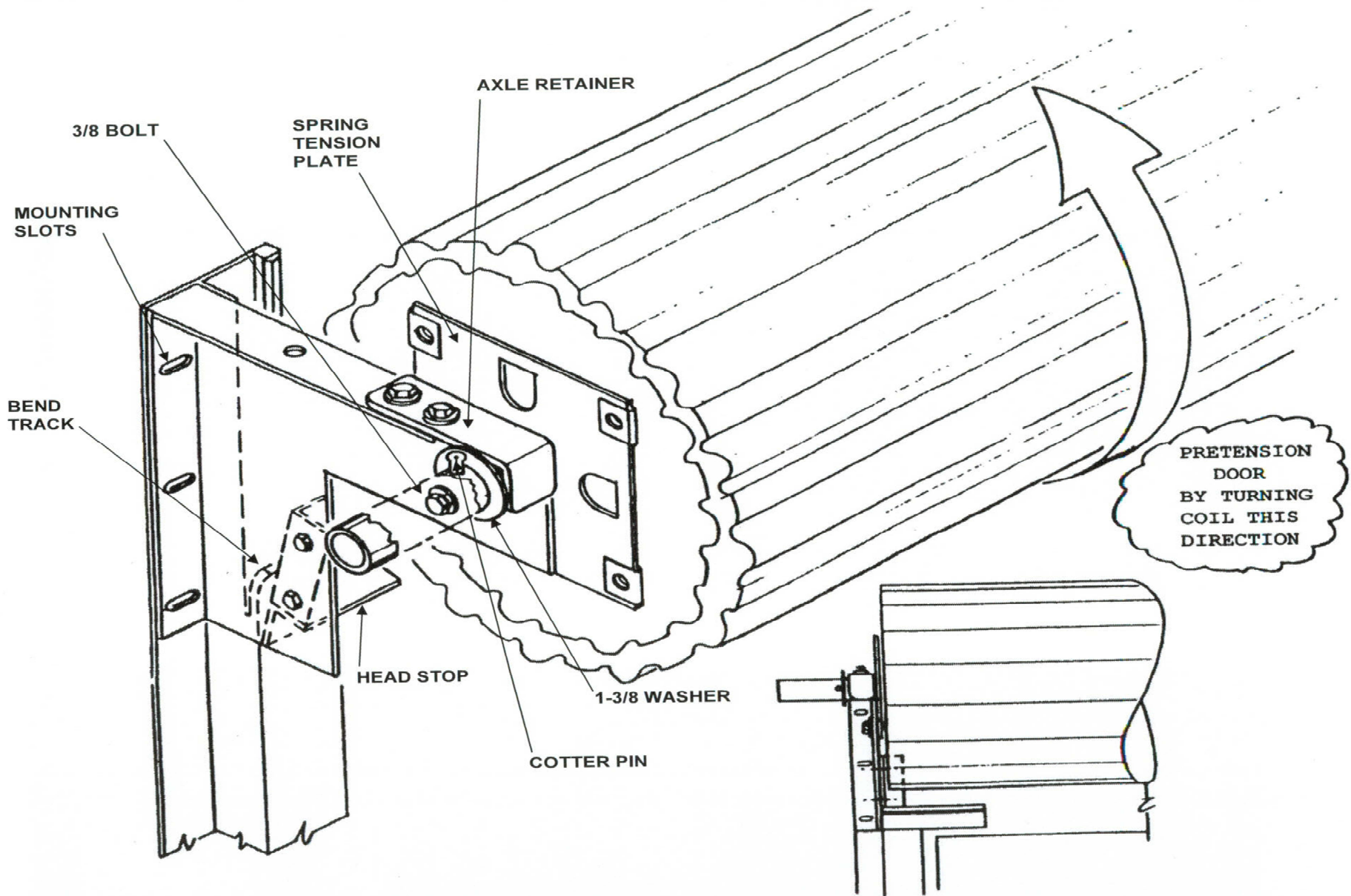


Illustration "E"

**STEP 9 cont.**

Rotate the door curtain roll two to three full turns, depending on size of door, in a forward direction. Doors 12' tall and larger need 3 full turns to tension properly. (See *pretension note on Illustration E*) Be sure that bolt-into-spring plates called for in Step 6 are secured before you pre-torque the springs.

Hold the curtain roll in this position. The bottom edge of the door must be positioned just above the bend in the top of the tracks which you bent in Step 4. Check to be sure that the black nylon end guides are still in position on ends of the aluminum bottom edge. These are very important to insure proper operation. Now, cut the banding that secures the door curtain roll, remove foam and insert bottom edge of curtain into tracks. Carefully feed the curtain down into the tracks until the door is about a foot below the header. (*Down to your clamps.*)

**STEP 10**

Install head stops on inside of door support brackets using 5/16 – 18 x 1" Hex Bolts with Nuts, washers and lock-washers. (See *Illustration E for proper position*).

**STEP 11**

Install Slide-Bolt Locks and lock-clips on each end of bottom edge. (See *Illustration B*).

**STEP 12**

Check door up and down carefully for approximate spring balance before you remove the clamps in the track. If the door seems to be reasonably balanced you may remove clamps and carefully proceed.

**\*\*If door does not balance, carefully review Steps 6 thru 9 and proceed directly to Step 15 if required. Then come back to Steps 12 thru 14.\*\***

Bring the curtain down to about one foot from the floor. Move the tracks in toward the opening and adjust the end clearance from curtain to inside of tracks to allow a total left to right movement of 3/8" to 1/2". Drill and secure the tracks to the wall using a min. of 3/8" dia. Fasteners. Fasteners req. at 24" on center.

**STEP 13 (On rope operated door ONLY)**

Insert pull rope thru holes in lock-clips at each bottom corner. Carefully raise door all the way up. Install rope-clips at about 4 feet from the floor on track mounting flange. (See *Illustration J*).

**STEP 14**

Carefully test/ operate door. Check for proper curtain clearance through full length of operation. Adjust tracks left or right if necessary. Check spring adjustment for proper balance. If door does not balance properly go to Step 15.

**STEP 15 (Spring Adjustment)**

**A SPECIAL TOOL IS REQUIRED FOR THIS ADJUSTMENT. (SEE ILLUSTRATION "D-1")**

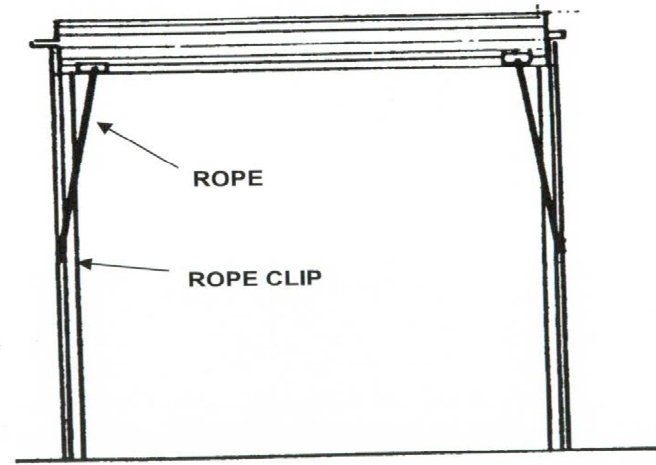
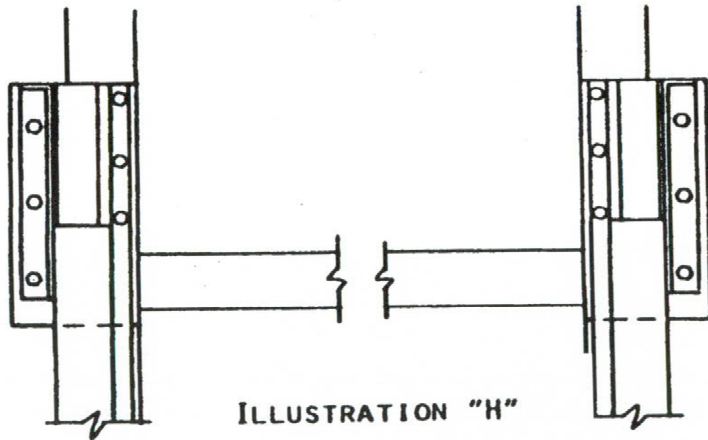
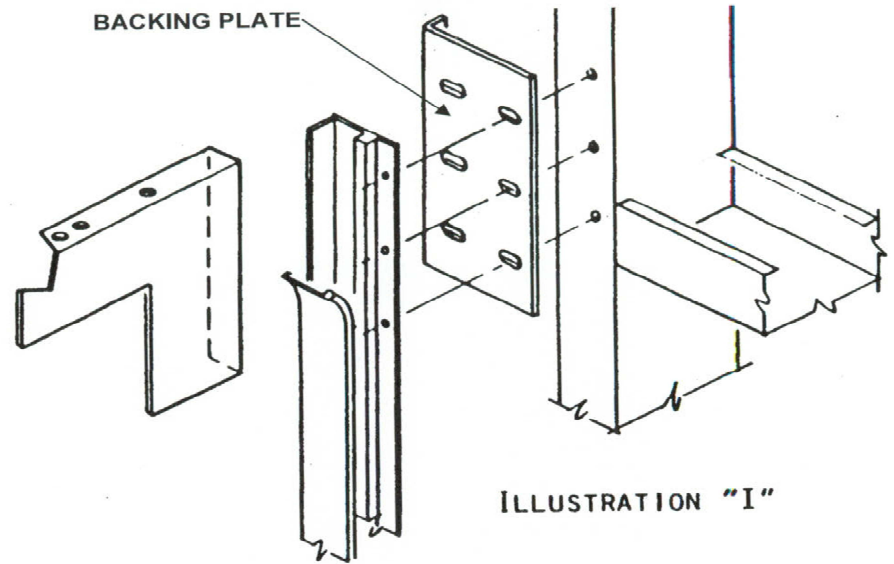
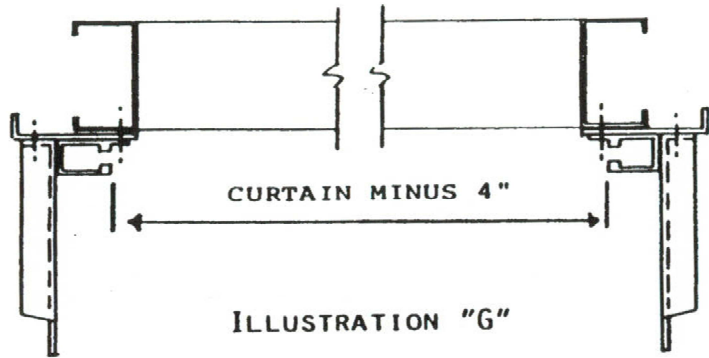
**\*DO NOT EVER ATTEMPT TO ADJUST SPRING UNLESS DOOR IS IN THE FULL UP POSITION!\***

**YOU MUST SECURE DOOR IN FULL UP POSITION BY TYING A ROPE AROUND THE DOOR CURTAIN ROLL OR PLACING A SUBSTANTIAL CLAMP ON THE DOOR TRACK TO PREVENT THE CURTAIN FROM DESCENDING IN CASE OF A LOSS OF ANY SPRING TENSION DURING ADJUSTMENT.**

**ENSURE THAT AXLE RETAINERS ARE SECURED IN PROPER POSITION BEFORE ADUSMENT.**

Place spring adjustment tool in position shown on Illustration C & D and secure with two 3/8 -16 x 1" Hex Bolts with washers.

To increase lift or reduce lift (See *Illustration C & D*) remove spring tension plate locking bolt and reposition spring tension plate as required. Be absolutely sure that you adjust BOTH SPRING PLATES.



## SPECIAL INSTRUCTIONS FOR STEEL BUILDINGS

*Doors to be mounted on prefabricated metal buildings install in the identical manner to conventional buildings with the exception of the mounting of the door support brackets and tracks to the building jambs.*

*Vertical tracks with mounting flanges to suit narrow jambs and backing plates to receive door support brackets are to be used on metal buildings. Refer to Illustrations G, H, & I for proper placement of these parts.*

*Please note that the top of the track, the top of the support bracket, and the top of the backing plate are all at the same level. It is **MANDATORY** on light gauge metal buildings that you provide additional support to the backing plates to prevent twisting of the jambs and to provide secure support of the door curtain roll. The plates to prevent twisting of the jambs and to provide secure support of the door curtain roll. The backing plates alone are **NOT** sufficient to properly support the door.*



“A” Package used for Chain-Operated Doors.  
 “B” Package used for all other door operations.

Description	Where Used	QTY Supp.	
		A	B
3/8"-16 x 1" Hex Head Bolts	<b>Step 6</b> – To secure spring tension plates to door support brackets.	2	2
3/8" Flat Washer		2	2
5/16"-18 x 1" Hex Head Bolts	<b>Step 8 &amp; 10</b> – To fasten axle retainer(s), chain chain guide, & headstops to door support brackets.	8	8
5/16" Flat Washers		16	16
5/16" Lock Washers		8	8
5/16" Hex Nuts		12	12
1/4"-20 x 1" Carriage Bolt	<b>Step 11</b> – To attach slide bolt locks.	4	4
1/4"-20 Nylon Insert Lock-Nuts		4	4
1-3/8" I.D. Washer(s)	<b>Step 7</b> – On end of axle <u>without</u> chain operator.	1	2
Cotter Pin(s)		1	2
Axle Retainer(s)		2	2

### Side Room and Head Room Requirement

Door Size	Head Room Minimum	Side Room – Pull Rope & Non-Drive Side	Side Room – Chain/ Reduced Drive/ Operator
10'-0" – 12'-0" High	19"	10" Minimum	13" Minimum
12'-0" – 14'-0" High	21"		
14'-0" – 16'-0" High	23"		

Side and Head Room requirements are given according to door opening widths and heights, manufacturer will not be liable if improper measurements have been given by customer. Proper assembly is also required. Manufacturer not liable for any post-manufacture adjustments.



For Questions: Visit our website at [www.pilotdoorsystems.com](http://www.pilotdoorsystems.com)

We appreciate you and hope to continue earning your business through providing a superior product and customer service.

Thank you,

Pilot Door Systems, Inc. Team