

FLEET ENGINEERS

INCORPORATED

Roll-Up Door Installation Instructions

Installation Sheet #INS-97005

STEP 1

Check the door parts to make sure you have received all needed items. Note any shortages or damages on delivery receipt as Fleet Engineers cannot be responsible for parts lost or damaged in shipment.

Figure 1

1. Hardware box - fasteners, rollers, cables, hinges, top fixtures.
2. Counterbalance spring assembly with drums, shaft & bracket(s).
3. Pair of horizontal tracks.
4. Pair of vertical track assemblies.
5. Header seal and retainer or head seal on top panel.
6. Two door halves.
7. Side seals - optional on 3/4 door.

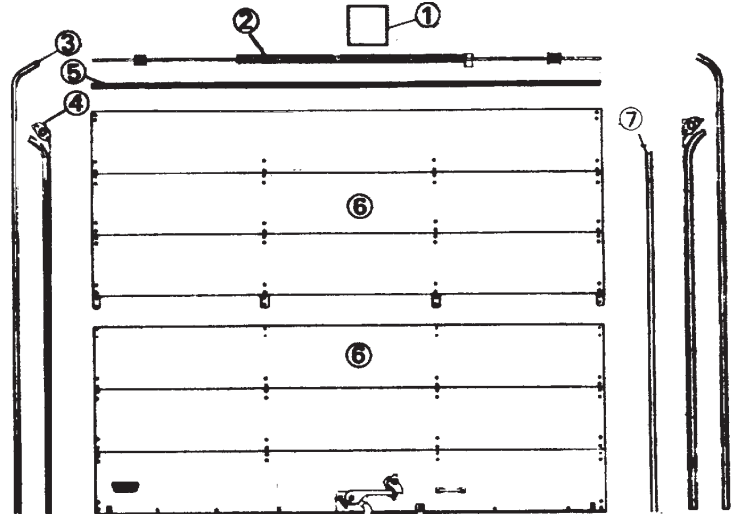


Figure 1

STEP 2:

Headroom Clearance -

Measure headroom to be sure there is sufficient clearance to accept the counterbalance and to allow the door to clear under the roof bows (Figure 2A).

Use the chart in Figure 2B to determine the required headroom for your particular installation. Keep in mind that whatever you add must be flush with the inside of the side post.

Note: Figure 2A shows the counter-balance against roof skin.

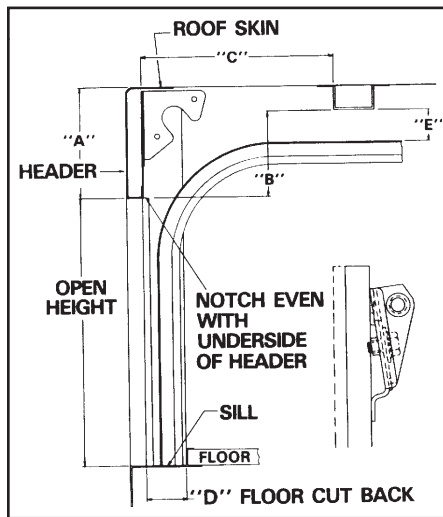


Figure 2A

	A	B	C	D	E
3/4" Doors	7"	5"	18"	2-1/2"	1-1/2"

Figure 2B

STEP 3: Sideroom Clearance

The minimum sideroom clearance is 2-1/2" on each side from the post (opening) to the wall. Figure 3.

In the event it is necessary to add on the corner post, keep the added piece flush with the inside of the header.

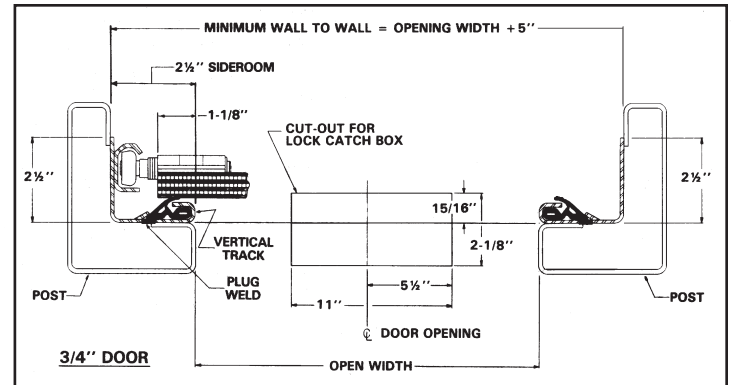


Figure 3

STEP 4: Measuring Door Opening

Because each Fleet Engineers door is custom made, it is necessary to check the opening measurement. These measurements must be finished opening width and height. "Finished" means there must be the header and side room clearance mentioned in previous steps to insure proper installation.

Opening height is from the header to the sill, Figure 2A. Opening width is from post to post, Figure 3. On older units, measurements should be taken in at least three different places for opening width and height. Cutting back of the floor on older units may be necessary to permit the door to sit on the sill, below the floor. See "D" dimension and chart in Figure 2B.

STEP 5: Vertical Track Installation

Position vertical tracks on corner posts as shown in Figure 3 and clamp in place. Notch in mounting angle should line up with the bottom of header (Figure 2A). If necessary, the bottom of the vertical track assemblies may be cut off to permit the notch to line up with the underside of the header. Keep both tracks the same length.

CAUTION!

The vertical track assembly may be raised a maximum of 1/2" off the sill. Keep both vertical tracks the same length and same distance off sill.

Mount the vertical track mounting angle flush with the inside edge of the rear corner posts all the way up and down, **Figure 3**.

It is critical that the vertical track is installed square. Check the opening measurements at several points between the vertical tracks, then measure diagonally. If your measurements are equal, the door track is square.

The vertical track is to be welded through the plug weld holes to the post on 12" to 15" centerline. The upper brackets (counterbalance) must be properly secured, welded or bolted, to the header, **Figure 5**.

STEP 6: Horizontal Track Installation -

It is important to maintain the same distance between the horizontal and vertical tracks. If wider than the vertical tracks, shim horizontal track accordingly.

Fasten horizontal tracks securely to provide adequate support for the door and weld the full length of the couplers at the track joints.

CAUTION!

STEP 7: Counterbalance Installation

If door is equipped with a pre-wound counterbalance, special precautions must be exercised when handling this assembly. The spring on this type counterbalance is factory pre-wound and is under tension.

DO NOT loosen any of the spring set screws until final installation of the pre-wound counterbalance detailed in Step 9.

Remove the bearing assembly from the road side vertical track. Slide this bearing onto the right hand cable drum end of the counterbalance shaft. Insert the left end of the counterbalance shaft into the bearing assembly of the curb side vertical track. Remount bearing to road side vertical track assembly.

Position and align the spring anchor bracket on the inside of the header; be sure the shaft is not rubbing on the spring anchor casting. Allow a minimum of 5" for spring growth, **Figure 5**. **FIRMLY SECURE SPRING ANCHOR BRACKET TO WITHSTAND THE STRONG TORQUE OF THE SPRING.**

An additional counterbalance support bracket is required on 102" wide units.

STEP 8: Door Installation

Assemble the door half sections together with the bolts, rivets and/or hinge pins provided, **Figure 4**. Attach cable assembly to cable anchor bracket, secure with anchor & cotter pin.

Assemble the slide part of the adjustable top fixture to the pre-mounted base with washer and bolt. Next, insert the roller shafts into the end hinges, top and bottom fixtures.

IMPORTANT!

ONE TO FOUR SPACER WASHERS SHOULD BE PLACED ON THE LEFT AND RIGHT SIDES OF THE FIRST SECTION JOINT UP FROM THE BOTTOM, AND THE FIRST SECTION JOINT DOWN FROM THE TOP OF THE DOOR. THESE WASHERS WILL HELP HOLD THE DOOR SQUARE WITH THE TRACK.

Before rolling the door into the tracks, bring the cable ends to the top of the door and tape to the inside of top panel, **Figure 4**.

If the unit has no other door, place two small blocks of the same size under each corner of the door so a light may be placed in the unit. The blocks will keep the door even while you wind the cables and counterbalance spring.

Insert door and carefully lower door, supporting door weight onto wood blocks on sill. Install track stop bolt in end of horizontal track.

With the door closed, bring the road side cable up between the drum and the header.

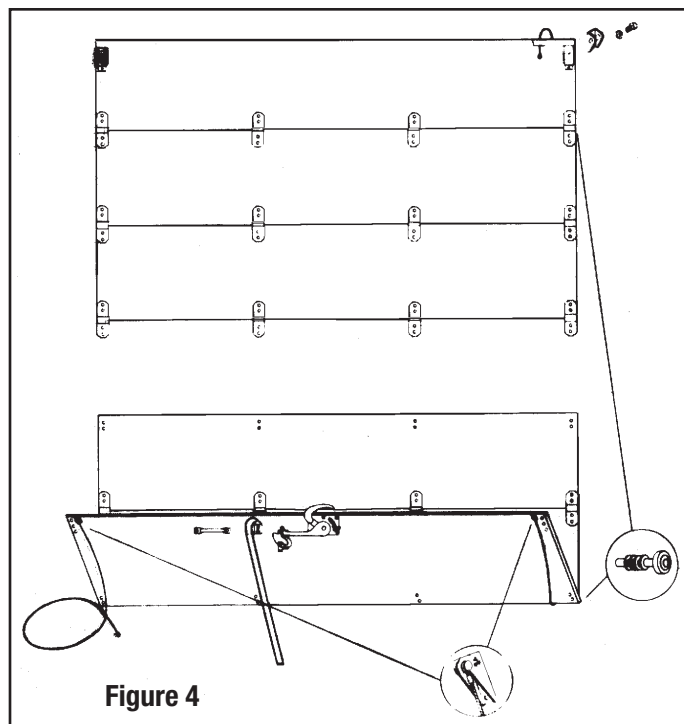


Figure 4

Hook the cable end in the slot in the outer groove of the right cable drum. Starting in first groove, wind the cable on the drum winding drum towards you, make sure it properly tracks in each groove of the cable drum.

Take up the cable slack until snug; push the drum against the bearing and properly tighten both set screws. Now, clamp the counterbalance shaft with vice grips, (handle of grips against the ceiling) to hold the cable taut. **(Figure 5)**

Repeat the procedure with the curb side cable and drum.

IMPORTANT!

1. CABLE DRUMS MUST BE TIGHT AGAINST BEARINGS.
2. CABLE IS PROPERLY TRACKING IN CABLE DRUM GROOVES.
3. CABLES MUST HAVE EQUAL TENSION.
4. SET SCREWS MUST BE TIGHT.

STEP 9: Spring Winding

To determine the amount of winds on the counterbalance spring, divide 10 into the door opening height in inches and add 3 turns.

Example: 75 divided by 10 = 7.5 turns + 3 turns = 10.5 or 10 and one-half turns

Run a chalk mark, **(Figure 5)** the full length of the counterbalance spring. Leave the vice grip clamped to the shaft to keep tension on the cables.

Place a 1/2" dia. x 18" winding bar in the hole in the spring winding plug. Wind the spring by lifting up the bar. While holding the first bar, place a second bar in the next hole and lift in the same manner after removing the first bar. Repeat this until the correct number of complete turns are obtained by counting the chalk marks which show up as stripes as the spring is wound.

Properly tighten both set screws on the spring winding plug and remove the vice grips from the counterbalance shaft.

IMPORTANT!

USE 1/2" DIA. x 18" WINDING BARS ONLY. DO NOT USE SCREWDRIVERS OR TAPERED PUNCHES FOR WINDING.

A properly counterbalanced door should, when stopped, remain at any given location. If the door leaves the floor by itself, the spring is wound too tight and a few quarter-turns should be released. If the door has any tendency to drop when stopped, a few more quarter-turns should be added.

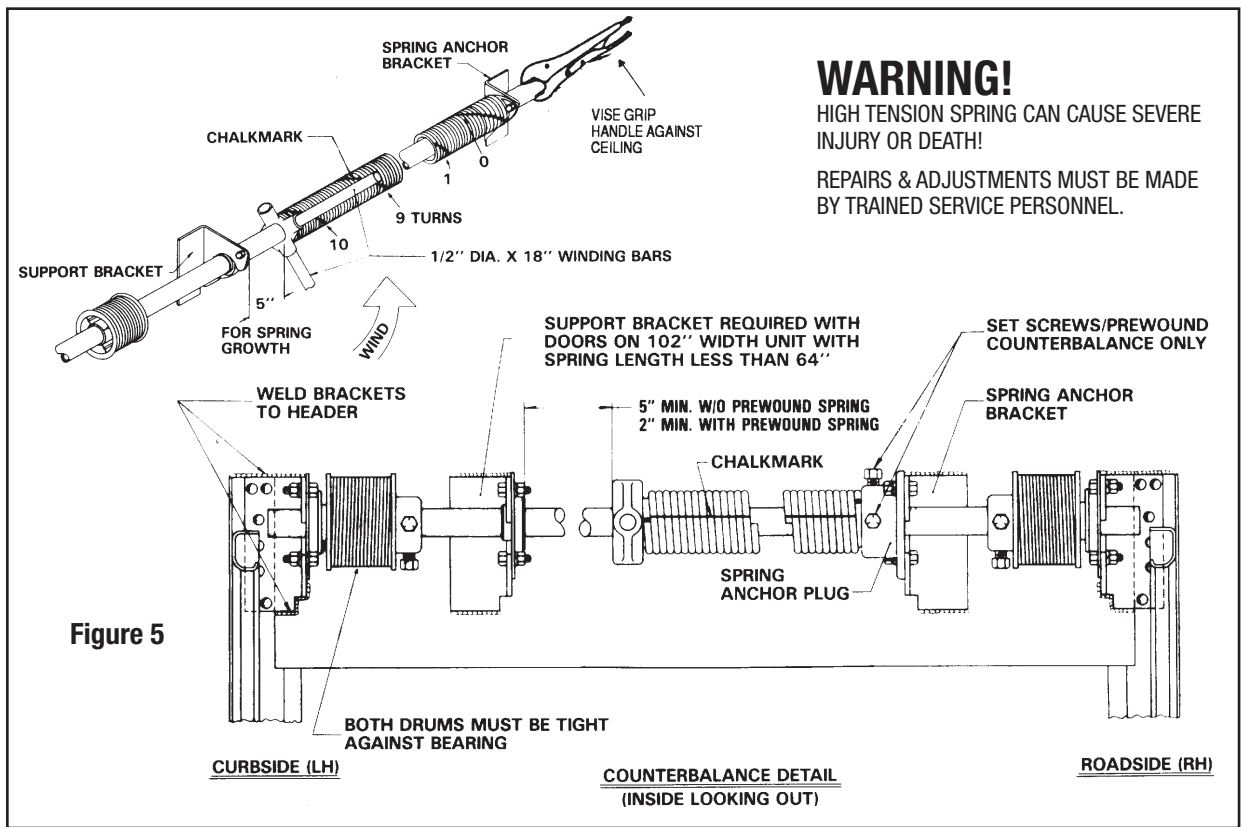
PRE-WOUND COUNTERBALANCE: If door is equipped with a pre-wound counterbalance, disregard above instructions and release spring tension as follows:

CAUTION!

Make sure cables are attached to door and cable drums, that cables are properly tensioned, and cable drums are properly secured to shaft as noted in Step 8.

Clamp vice grips above roller to track, clamping door in down position.

Loosen and remove the two (2) set screws found in the spring anchor plug, **Figure 5**. This plug is found on the right hand end, (inside looking outside) of the spring. Spring tension has now been transferred to the cables. Remove vice grips and check door operation.



STEP 10: Top Fixture

Standing inside the unit with the door closed against the sill (remove blocks, light cords, etc.), adjust the top fixture slides until the top panel is in the same plane as the rest of the door sections and tighten bolts.

STEP 11: Lock Catch Installation

Cut hole in sill for lock catch box, **Figure 3**. Position catch box on hole, locate the catch box mark directly below the lock backplate mark and weld catch box to sill. (Center rivet in lock backplate should line up with lock catch pin.)

STEP 12: Header Seal Installation

Cut the header seal to length to fit in between the vertical mounting angles and install onto top panel with rubber facing outward. Drill 1/8 inch dia. holes and secure with drive rivets or bolts.

STEP 13: Side Seal Installation

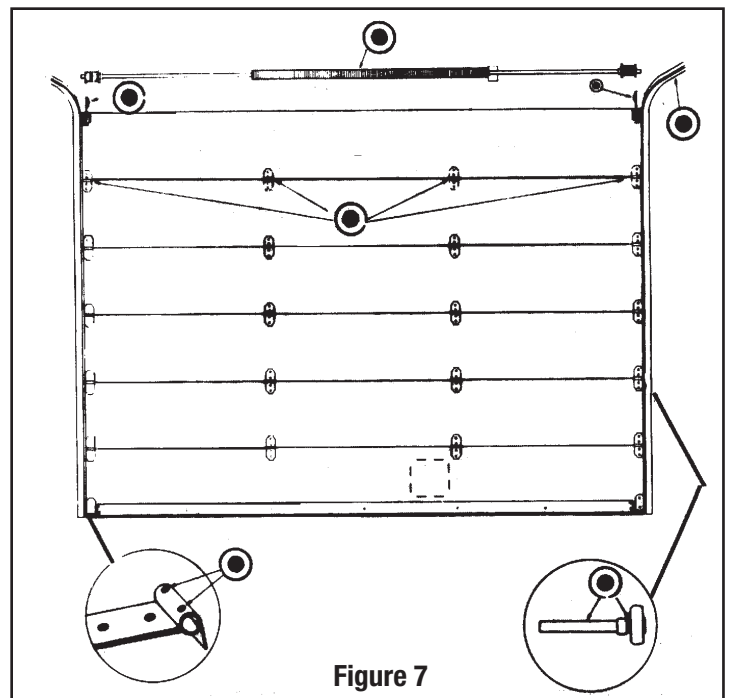
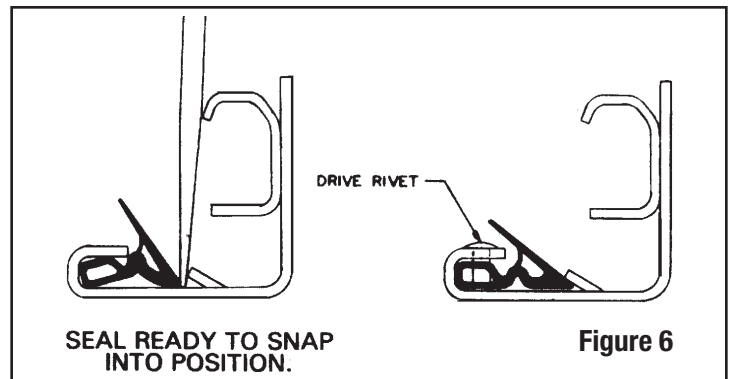
With the door raised, insert the optional seal in retaining lip the full length of the angle, **Figure 6**.

Insert seal at bottom lance & install drive rivet in lower hole. Stretch seal 1, insert in top lance and install drive rivet in upper hole. Snap seal into all remaining lances. Trim off excess seal. (Drive rivets not provided)

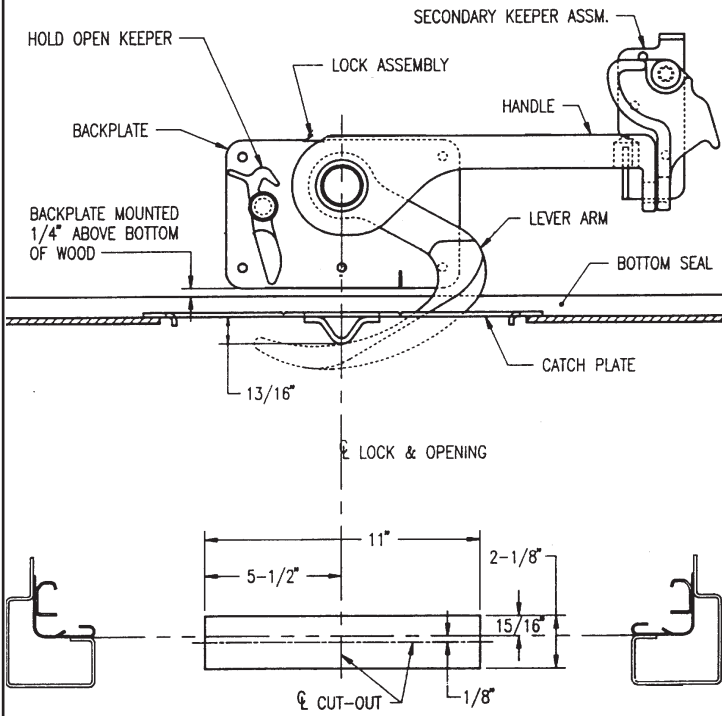
STEP 14: Maintenance & Lubrication -

Lubricate the C/B spring, tracks, bearings, rollers, and hinges liberally with "WD" Lubricant, **Fig.7** (designated by O). Do not use grease.

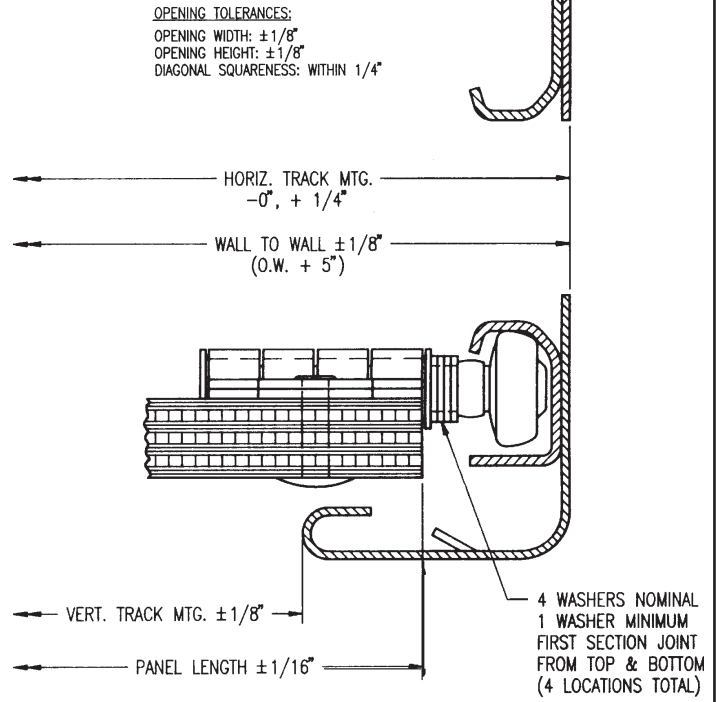
NOTE: DOOR MAINTENANCE AND LUBRICATION FREQUENTLY WILL VARY WITH USE OF THE DOOR, CLIMATE CONDITIONS AND CLEANING PROCEDURES.



MAXIMUM SECURITY LOCK

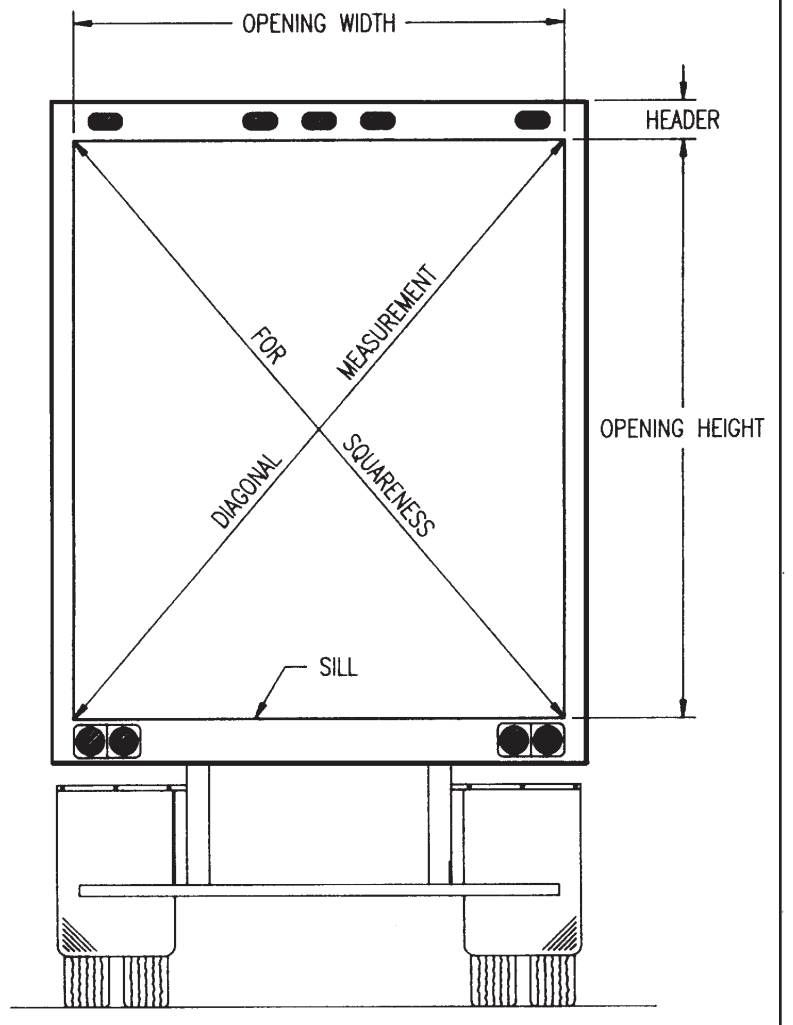


DOOR INSTALLATION TOLERANCES

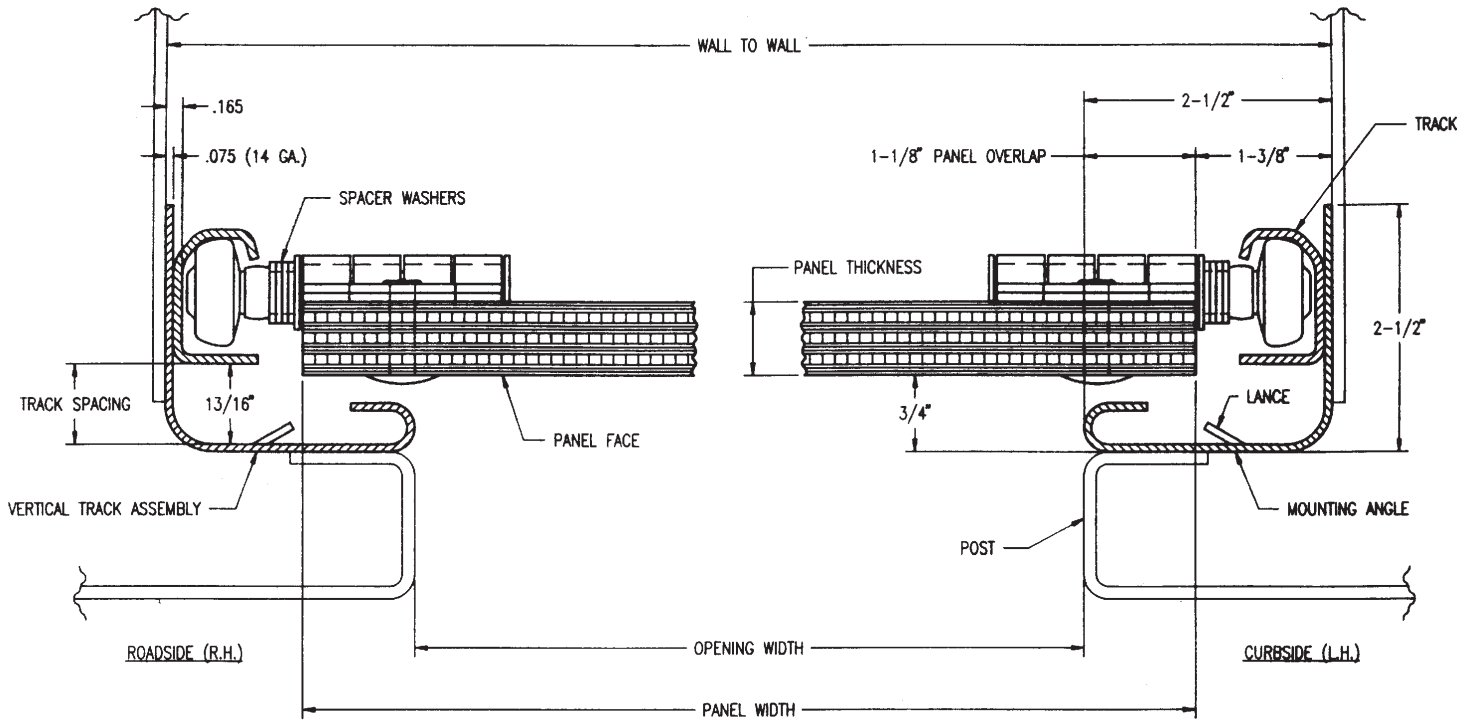


DOOR OPENING MEASUREMENTS

NOTE: Measure opening width & height at two different locations for comparison



WALL-TO-WALL STANDARD REFERENCES



NOTE:
STANDARD INSTALLATION SHOWN (3/4" DOOR), DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

HEADROOM CLEARANCE

