

WHITING Door Manufacturing Ltd.

# **INSTALLATION INSTRUCTIONS**

For Dry Freight & Insulated Door Models

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**WHITING**, the original manufacturer of Roll-Up Doors for the Transportation Industry began operations in 1953. Since that time, we have concentrated on designing doors that are easy to install, operate and maintain.

The information presented here will help you to provide a quality door installation. This guide is to be used with the understanding that the work should proceed in a safe, conscientious manner. Tools, equipment, etc should be of a grade suited for this purpose.

When installing WHITING Doors please keep in mind that the door and all of its related parts & components fit together and into your unit in an easy, straightforward and logical way. If you find that the parts do not seem correct, must be modified or forced, please stop and investigate as it may be that something is wrong and needs to be corrected before you continue.

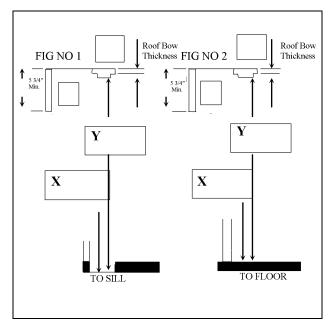
A door is only as good as the installation and it is through our mutual cooperation that a superior product can be provided to the end user. Before a quality door can be installed, communication between our Sales Department and you, the customer, is critical.

There are only a few measurements that are necessary, but each of these is extremely important, and we all need to be thinking along the same lines.

We request that you use the fax when ordering doors or parts. This will help to simplify the process and avoid misunderstandings.

You can also order parts in the 'Store' section of our website.

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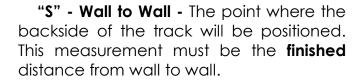


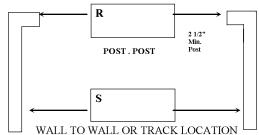
"X" - Sill to Header - Distance from where the door sits on the sill to the bottom of the header. It might also be called "Opening Height"

"Y" - Sill to Ceiling - Distance from the Sill to the <u>bottom of the lowest obstruction</u> - either a roof bow or the finished ceiling itself.

**Header** must be a minimum of 5-3/4" for a standard 3/4" DryFREIGHT<sup>TM</sup> door, or 7" for a 1-1/2" TempGUARD<sup>TM</sup> door, or 7-1/2" for a ColdSAVER<sup>TM</sup> insulated door.

"R" - Post to Post - The distance between the posts at the narrowest point. Also called "Opening Width". The posts cannot bow or taper.





#### The frame must be square.

The wall to wall dimension should not vary. If walls do vary, use the narrowest point. It may be necessary to shim the tracks to fit.

The **Posts** should be measured. Posts of 2 1/2" minimum are necessary, as standard, on each side.

If you have additional information, we certainly would consider it, but we usually can design a quality well fitted door from the information above.

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#### STANDARD MATERIALS LIST

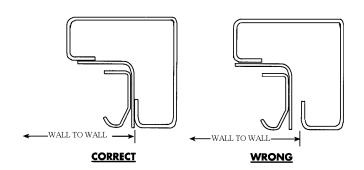
- (1) DOOR, GENERALLY SHIPPED IN TWO HALVES
- (2) VERTICAL TRACKS WITH MOUNTING ANGLES ATTACHED
- (2) HORIZONTAL TRACKS
- (1) BALANCER ASSEMBLY
- (1) PARTS BOX CONTAINING THE FOLLOWING:
  - (1) LATCH PLATE
  - (1) ROADSIDE BALANCER BRACKET
  - (1) CURBSIDE BALANCER BRACKET
  - (1) CENTRE BALANCER BRACKET
  - (1) CENTRE CLAMP BRACKET
  - (?) ROLLERS = PANELS X (2) PLUS 2 FOR PLYWOOD DOORS = PANELS X (2) PLUS 4 FOR INSULATED DOORS
  - (2) TOP CLOSURE SLIDES
    (IN A SEPARATE BOX FOR INSULATED DOORS)
  - (1) PLASTIC PARTS BAG CONTAINING:
    - (16) ROLLER SPACER WASHERS
    - (4) KNURLED HINGE PINS TO JOIN DOOR HALF HINGES (subject to number of rows of hinges specified for door)
    - (2) 5/16" NUTS FOR BALANCER BRACKET
    - (2) COTTER PINS FOR BALANCER SHAFT
    - (2) TRACK STOP BUMPERS
    - (2) TRACK STOP BOLTS
    - (2) KEPS NUTS FOR TRACK STOP BOLTS
- (2) SIDE SEALS (OPTIONAL ON DRY FREIGHT)

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#### **VERTICAL TRACKS**

These can be provided with a variety of mounting angles, or without any, depending on your design. Whatever the case, they are installed against the finished side walls which were measured when the order was placed.

Important: Do not automatically position at the opening edge of post.



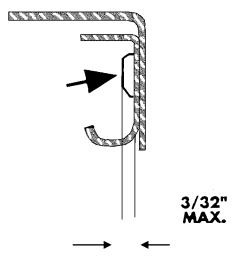
Locate the assemblies squarely against the wall and post.

Do not force. There are different mounting angles to accommodate various frame designs.

After the tracks have been properly positioned, they can be attached either by rivets, bolts, or weld.

A word of caution: Be very careful when putting anything inside the tracks. Fasteners should have a low head profile. They must be inserted squarely-never at an angle.

A protruding head will interfere with roller travel and cause the door to work "hard" as well as develop maintenance problems later on.

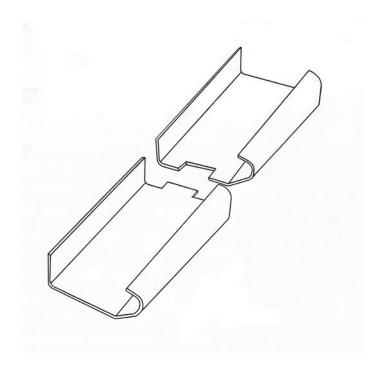


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#### **HORIZONTAL TRACK**

Be sure that the tab in the vertical track is aligned in the notch of the horizontal and not overlapped. This positions the tracks and provides a smooth transition for the rollers; the backside of the tracks should be in line. Plug weld holes are provided to secure the horizontal tracks to the mounting angles.

The top of the horizontal track should be parallel to and below the ceiling of the unit, by a minimum of 2" for a 3/4" DryFREIGHT<sup>™</sup> door, 3" for the 1 1/2" TempGUARD<sup>™</sup>, and 3 1/2" for the 2 1/8" ColdSAVER<sup>™</sup>.



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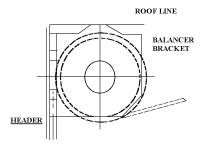
#### **BALANCER BRACKETS**

The shaft length of the Balancer has a relationship to the bracket location as shown.

L"	Χ"	Y"
SHAFT	SHAFT	1/2 "X"
LENGTH	- 1 1/4"	DIMENSION
93	91 3/4	45 7/8
90	88 3/4	44 3/8
87	85 3/4	42 7/8
84	82 3/4	41 3/8
82	80 3/4	40 3/8
80	78 3/4	39 3/8
78	76 3/4	38 3/8
72	70 3/4	35 3/8
66	64 3/4	32 3/8
61	59 3/4	29 3/8

The brackets are properly positioned and securely attached to the header. It is important to note that each bracket has a self-locating tab on the top edge. **The brackets must be placed so that this tab touches the ceiling**. This is necessary for Balancer/door clearance purposes.

In some installations it may be possible to accommodate very narrow headers, these installations can only be accomplished using special brackets. Please contact the factory for details.



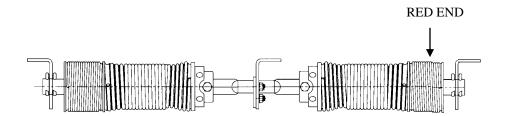
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#### **BALANCER**

Install a cotter pin in the end of the Balancer shaft, through the hole closest to the cable drum painted **RED**. Insert the opposite end of the shaft into the **CURBSIDE** Balancer bracket.

Move the red end of the balancer so that the squared portion of the shaft fits into the center bracket.

Mount this **RED** end into the **ROADSIDE** bracket and install the second cotter pin in the hole on the outside edge of the bracket. The two cotter pins will prevent the Balancer from shifting from side to side.



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#### **DOOR UNIT**

Place two clamps **securely** in the horizontal track, about 16" or so from the header. This will keep the door from closing, once it has been rolled into the tracks.

There are various techniques for installing the door. Since the door is shipped in two pieces, it can be put in one half at a time and joined together once installed. Another method would be to join the door beforehand and install it in one piece. The choice is yours and depends upon your operation and personal preferences.

Insert rollers into the end hinges. At the top and bottom **JOINT**, slide three or four spacer washers (a total of 12 or 16) onto the roller shafts before installation. These washers are important as they centre the door and keep it from rubbing along the track.

The door halves are joined using half hinges. Install each section and use the supplied knurled hinge pins to join the hinge halves. In order to prevent the inside of the door skins from being marred by hammer blows, use a scrap piece of metal as a shield to protect the door.

Install the rubber track stop bumpers at the ends of the tracks and fasten in place, with the hardware provided.

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#### **BALANCER WINDING**

The most important Balancer information to keep in mind is that the dual cable, twin spring Balancer is wound with the door **open** and generally requires about **2-1/2 turns (10 quarter turns) of "prewind"**. This greatly increases safety and reduces installation time.

All doors already have cables attached to them. There are two basic methods, either to wind each spring individually, or both springs at once. In either case, the cables are to be wound onto the cable drum first, without skipping grooves or crossing over cables.

For the individual spring method, install centre Balancer clamp and tighten nuts. Loosen the two set screws on winding cone and rotate spring assembly until cable is tight. Place a 3/8" diameter round bar in winding cone and pull down. Using the two bars, continue to turn the cone until 4 1/2 turns are on the spring. Move the cable drum so that it is about 1/4" away from end bracket and tighten both screws. Repeat with opposite side.

To wind both springs at the same time, do not loosen set screws and do not clamp the shaft in the centre until later. Wind both cables onto both drums. Rotate the entire Balancer (shaft and all) until cables are tight. Use two 13/16" open-end wrenches on the centre section of the shaft or two 3/8" bars in the winding cones. Turn the shaft by pulling down until 4 1/2 turns are wound onto the spring. While holding the light tension, place the centre clamp on square portion of shaft and secure with two nuts

Carefully remove the clamps from the track and test the door for proper tension. With the door nearly closed, release it and allow the door to open. A properly adjusted Balancer will cause the door to open slowly, neither flying open nor dropping shut. If further adjusting is necessary, follow the above procedures. Remember that a new spring will lose a small amount of tension once it is used for a while.

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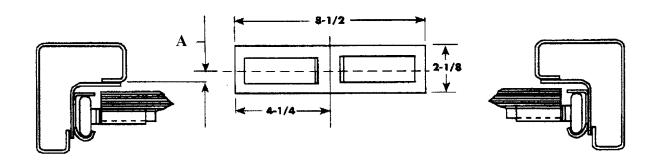
### **TOP PANEL ADJUSTMENT**

Close the door. Loosen the top closure slide and adjust the location so that the top panel seals against both the header and side seals. In order to do this, the panel should be nearly straight, up and down. As the roller bracket is moved down the top panel will get closer and closer to the Balancer when the door opens. The top seal can be notched for cables at this time.

#### LATCH PLATE

The latch plate is attached to the sill, usually by welding. Latch plates vary in type, style, material, size and location, depending on the lock. **Not all Latch Plates are located on the centre of the sill.** 

Mark the sill and cut it out using the latch plate as a template. With the door open, weld the latch plate **flush to the top of the sill**. Allow the sill to cool and close the door.



STANDARD # 77 LOCK #2804 LATCH PLATE FOR "5/16" TRACK SPACING A = "1/2" FOR "1/2" TRACK SPACING A = "5/16"

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#### **PAINT**

All doors leave the factory with at least a coat of off-white waterborne, environmentally friendly, primer. Doors may also be ordered with a standard white or custom colour topcoat.

#### **ACCESSORIES**

Side seals should be installed as a finishing operation, after the door and rear frame are painted and thoroughly dry. Side seals can be supplied in many different types, the most popular style is the friction fit.

After cutting to length (sill to header distance), place the seal into the space between the track and mounting angle, tapping into position with a hammer. Use a piece of flat stock and, starting at the floor, work up to the top. Do not use a screwdriver or chisel, as the seals will be broken from impact. Work the seal in a little at a time.

Insulated door side seals are engineered to snap into the vertical track assemblies. Position the soft edge of their base against the mounting angle tabs. Strike with a hammer and piece of flat stock at the opposite edge.

If brush seals are used, they also should be installed after the unit has been painted and allowed to dry. Brushes should be cut to length with bolt cutters, or side cutters to crimp the retainer. Do not use a bandsaw or a hacksaw.

Any seals applied to the edge of the **post** must be properly positioned. Remember, the door moves front to back in the tracks on the road. Locate these seals so that they are in contact with the door at all times.

As a point of safety, seals must never rub against, or otherwise interfere with, cable movement.

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### **FINAL CHECK LIST**

LOCK OPERATION

BALANCER ADJUSTMENT

TOP PANEL ADJUSTMENT

DOOR CENTRED IN OPENING

DOOR OPERATES FREELY

COSMETICS