



**Installation Suggestions for:**

## **RLP Flat Track Hardware** **sliding door hardware/ barn door track**

- Read these instructions to end before starting installation or ordering hardware.
- Reclaimed Lumber Products (RLP) warrants this hardware is free of defects and is guaranteed for ten years if installed properly. Customer misusing hardware voids warranty. Hardware must be installed correctly in appropriate application with supplied materials. There must be appropriate structural backing and support to hold lag screws which mount track. Track failure is most likely to happen from incorrect or insufficient attachment of screws to wall. RLP is not liable for any accidents or damage caused by incorrect or insufficient installation. Warranty does not cover normal wear on finish especially where wheel rides on track.
- Track is rated for up to 400 lbs. total hanging on track. Do not allow persons to hang on door and slide on track. All structural support must be solid enough to support load. Attachment only to paneling or wallboard is not sufficient to hold track. Mounting screws must sink into studs or wood headers. A continuous solid wood header is preferred.
- This hardware is not recommended for exterior installation.
- RLP is not liable for any accidents or injury result during the installation of this product. Customer and installer should take proper safety precautions when using hand tools and power tools. It is up to the operator to know how to use tools properly, safely, and effectively.
- RLP takes pride in their products. Please provide pictures and feedback of your finished product. Thank you for choosing RLP.

**Reclaimed Lumber Products**

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## Components List

- Track
- 5" x 3/8" lag screws (1/2" hex head). Here are the recommended numbers of lag screws for each length of track: 6', 5 holes; 7', 6 holes; 8', 7 holes; 10', 8 holes; 12', 10 holes; 13', 10 holes; 14', 11 holes. One stack of 3/8" spacer washers about 1 1/2" tall and one 3/8" fender washer for each lag to work as stand-offs for each mounting hole.
- End stops: two 1 1/4 x 1 1/4" rubber bumpers with 1/4" x 1" socket head bolt and nut.
- Two carrier assemblies. Wheel is mounted to carrier with 2" x 3/8" bolt with spacer washers that can be moved on axle to adjust for thickness of door. Additionally there should be four 3/8" bolts, eight washers, and four acorn nuts to mount hanger plate to door. Use 2 1/4" bolts mounting bolts for 1 3/4" doors and 2 3/4" bolts for 2 1/4" doors. If other door thicknesses are used adjust bolt sizes accordingly.
- 3" long x 1" tall floor guide and two mounting screws.
- Two plywood wide spacer blocks (1 1/4" wide and 1 7/8" wide) for setting carrier assemblies on door to drill for mounting holes in door.

## Tools Needed

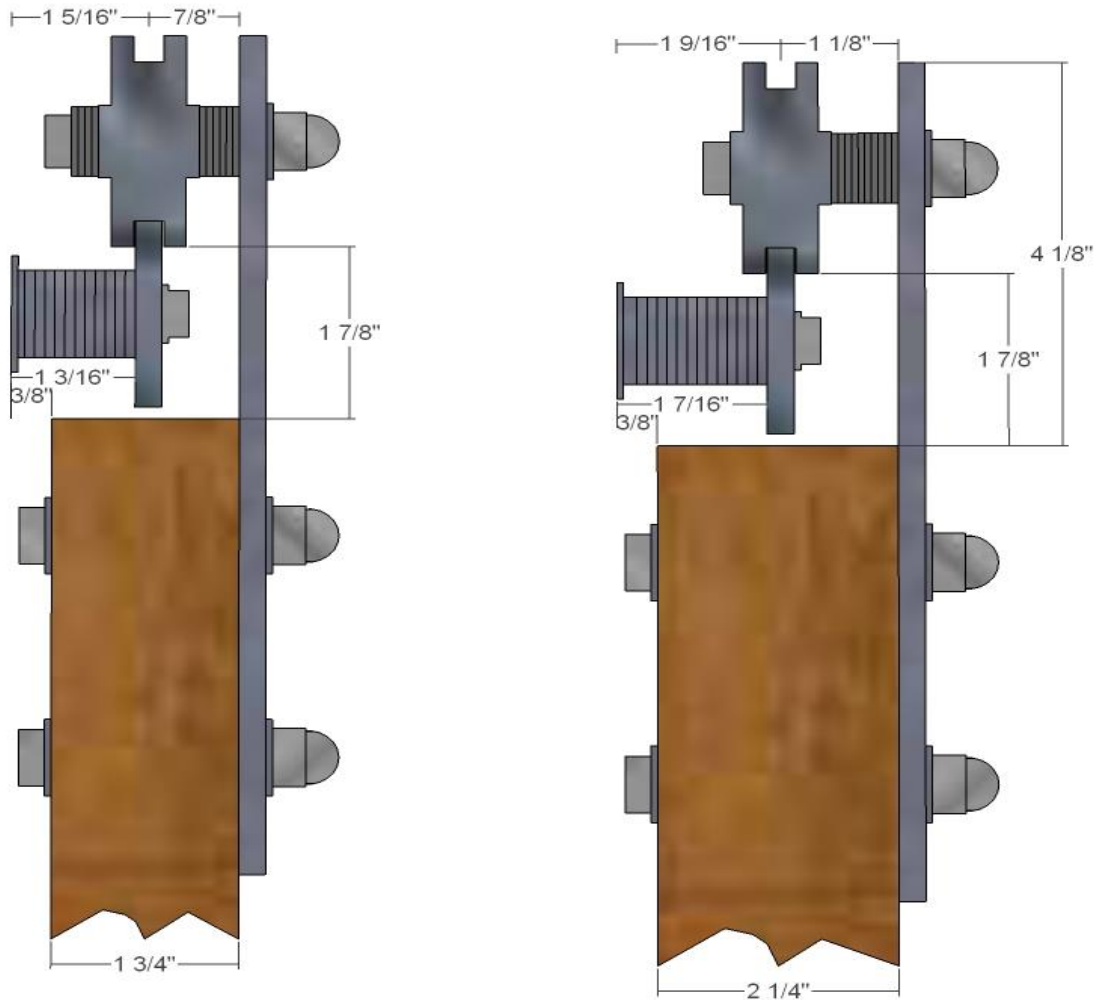
- 3/16" allen wrench
- 7/16", 1/2", 9/16", 5/8" socket or wrench
- 1/2" nut driver for drill or socket for mounting lags
- Drill, punch, 3/8" drill bit if mounting holes need to be drilled in track, 1/8" drill bit to pre-drill for lags and floor screws, 3/8" drill bit for boring holes in door
- Level
- Pencil
- Tape measure
- Stud finder
- Philips screwdriver or bit for drill
- 3/16" slotting cutter and router or circular saw
- Step ladder
- Clamp
- Safety glasses and other proper safety equipment and precautions

## Clearances Needed

- The default setting to centerline of wheel is 7/8" from back of hanger; for doors thicker than 1 3/4" you may want to increase this distance by moving spacers on the axle. One can also adjust how well the door hangs plumb by moving the spacers on the axle, but make sure both wheel assemblies have equal number of washer spacers on both sides of wheel. If door is hanging to where bottom of door is leaning into the wall remove spacers between wheel and hanger.
- There are stacks of thicker washers and fender washers supplied to act as stand-offs that go between track and the wall. The mounting lag goes through the center of this stack. If you use all the supplied spacers the centerline of your track will be about 1 3/4" off wall. Do not use more spacers than enough to make back of track 1 3/4" off wall; greater than this distance is not recommended do to safety concerns with mounting lags. You need to calculate how much clearance you need behind door in relation to any trim or other protrusion in path of sliding door. The mounting bolts supplied to mount hanger to door reduce clearance by about 5/16". If this is a problem, you can countersink bolts into back of door or substitute carriage bolts. If you do not have enough clearance, you can also add a ledger board behind the track as a spacer; make sure this is securely mounted so as to not compromise the attachment of the

track to the wall. You can also add more washers as spacers on axle. Sometimes this changes how the door will hang plumb, though.

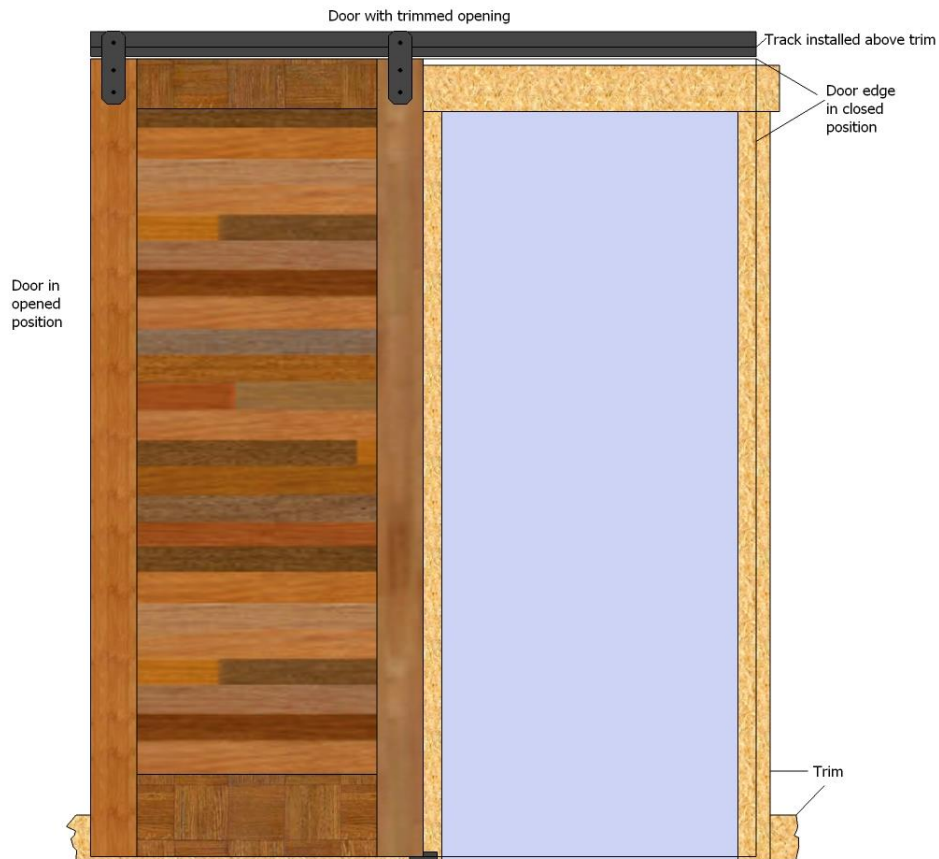
- The adjustable stack of stand-off spacers should be evenly matched in height for each lag. Use as few as possible of these to achieve the desired spacing for track off wall so that the door has only about 3/8" clearance behind door. You can use this formula to calculate the different variables:  $0.375''$  (clearance behind door) + (any obstruction such as door casing, baseboard, switches, etc.) = (distance from centerline of wheel to face of door or back of hanger) – (thickness of door) + (distance from centerline of track to wall). The best variable to adjust is the distance from centerline of track to wall by adjusting the height of your stack of washers that act as standoff spacers; this can be adjusted in 1/16" increments.
- Provide clearance under the door (minimum of 1/4", but recommended 1/2" - 3/4"). Over the top of the door 4 3/8" clearance is needed for wheel to spin freely.

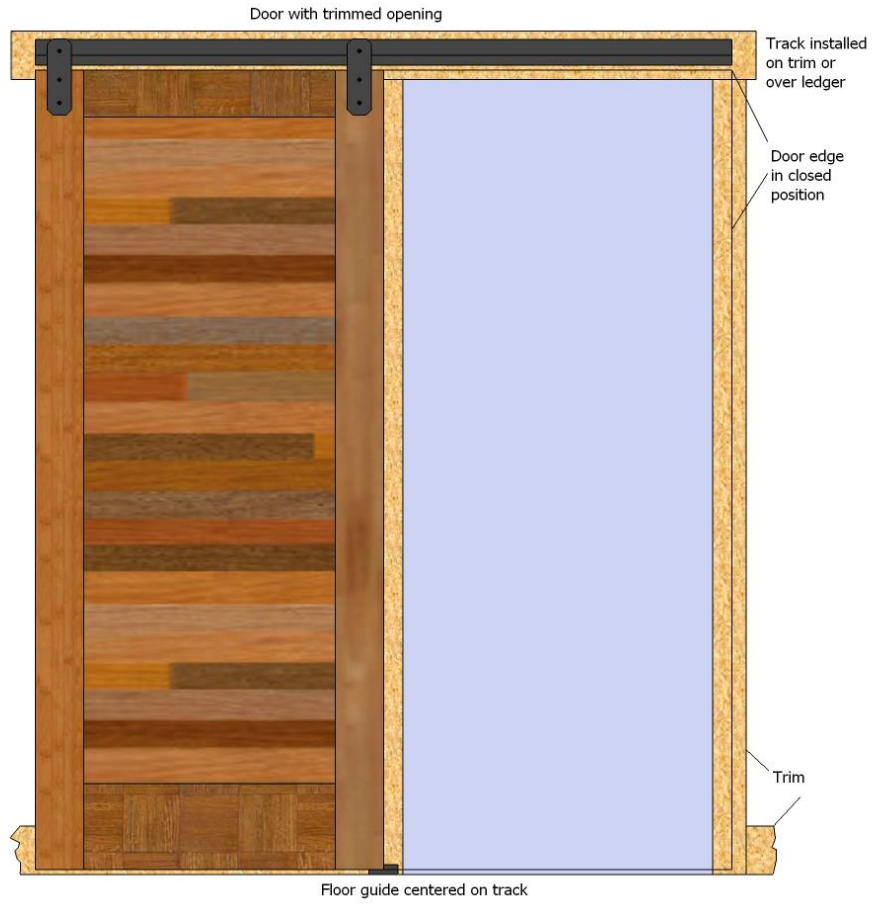


### Sizing Sliding Door Slab to Finished Opening

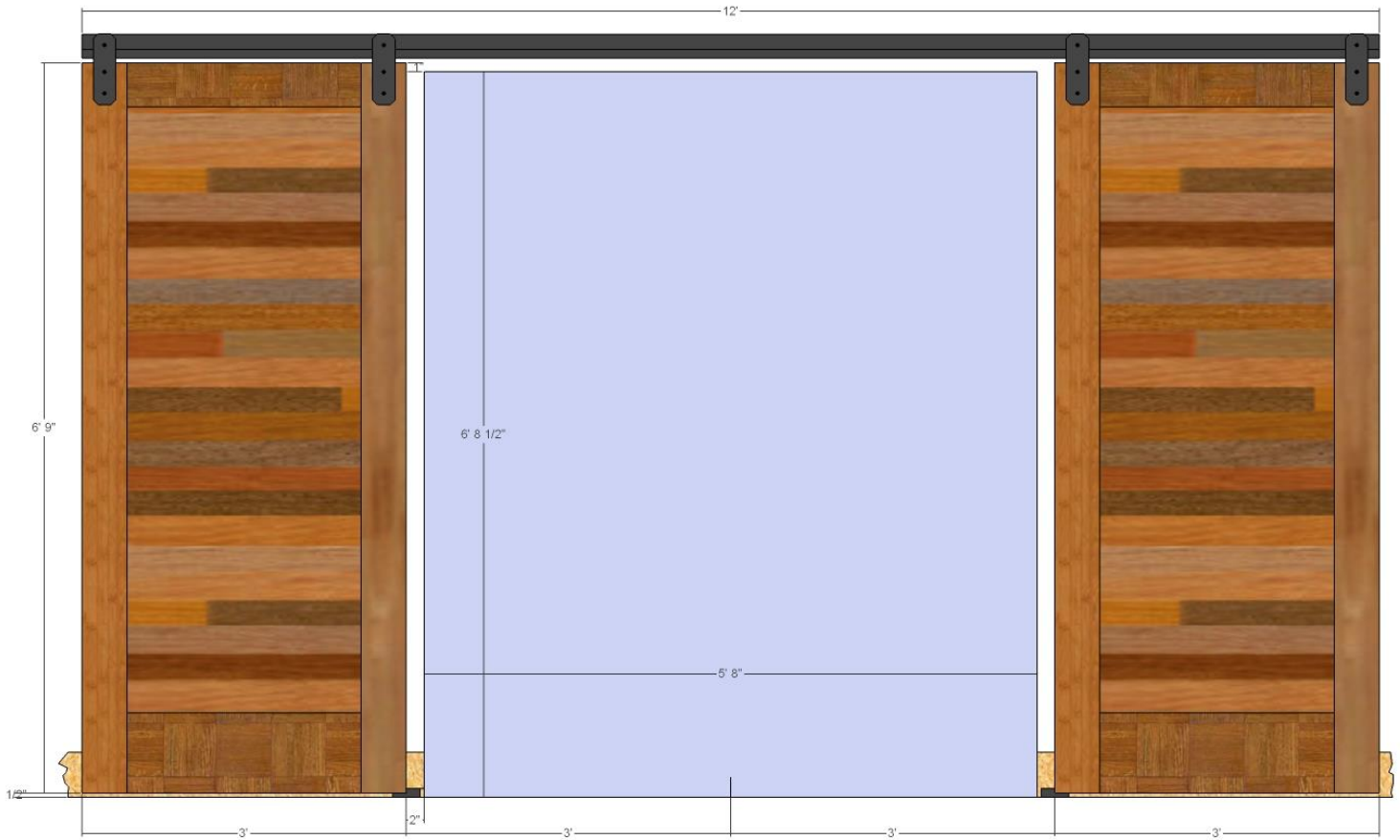
- We recommend a minimum of 1" of overlap on all three sides. These drawings below show 2" on sides, 1" on top, and 1/2" gap under door for demonstration purposes.
- More overlap ensures the door will cover the opening better and not allow as much gap to show around the edges even if not shut fully.
- To calculate door slab width on single door add overlap on side times two plus inside dimension of opening.

- To calculate door slab width on pair of doors take half of inside dimension width and add one side of overlap dimension for each door slab.
- To calculate door slab height take inside opening height subtract desired gap under door and add desired overlap on top. This could place the track over any trim that is over the top of the opening. Either the door slab needs to be adjusted in height so track can go above trim or trim needs to be flat and fully extend for full width under track.
- Note all these dimension are easier to calculate if opening is just a sheetrock opening with no trim. You need to consider what the trim will look like with door in open and closed position. How much of the trim do you want showing if any at all?
- For door height be sure to consider where the mounting bolts need to go for the track. They will be centered about 1 1/8" over top of door slab. Be sure there is proper backing and load support for lags to attach to at these points.





Double Doors with sheetrock wrapped opening and only baseboards

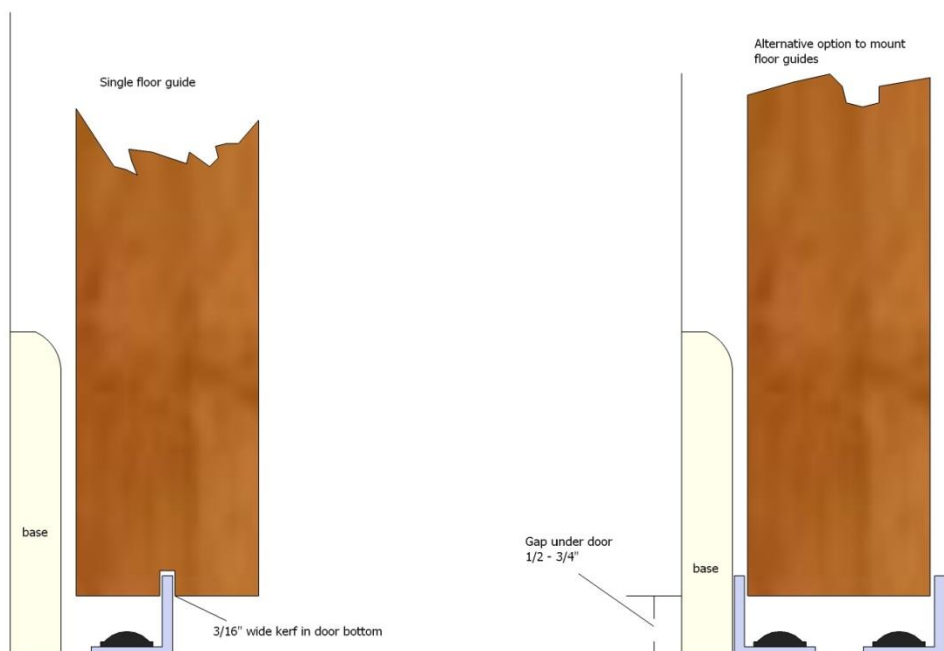


## Installation Steps

1. Decide how you want the floor guide to be installed. *If you want the alternative option shown in picture below with double guides, be sure to order an extra floor guide.* Otherwise cut a 3/16" wide kerf centered in bottom of door. To determine depth of kerf cut, subtract desired gap under door from 1" and add 1/8", so for a 1/2" gap under door you would have a 3/16" wide and 5/8" deep slot/ kerf. This is easiest to do with a router and a slot cutter. If you do not have that, then a circular saw will work. To make the saw work, well clamp a board as a guide to the base of the saw; make sure to measure properly from the edge of your guide to both edges of blade to be sure the cut will be centered in door. Set the depth of the cut to your desired depth of slot. You may have to make two or three cuts to get the 3/16" width; just be sure it is centered on the door slab.

Have vertical part of floor guide center in the same plane as the door for setting distance off wall. Be sure to reference off same point on the wall plane that track is mounted on; do not reference off face of baseboard. The points need to be aligned or door will not hang plumb. Center of door and center of vertical part on floor guide need to align. To find that vertical center point of door measure from back of door to wall and add half the thickness of the door. If floor guide's screws are going into material other than wood such as concrete in the floor, you will need to use different and appropriate fasteners.

On a single door the guide is centered on the track from left to right. In any case, the door needs to cover half the floor guide whether it is in the full open or fully closed position. Install the floor guide to the floor. If the door properly overlaps the opening, then the floor guide should not protrude into the opening.



2. If you mount outside edge of carriers 1 1/4" in from edge of door, this will have edge of door stop flush at end of track based on predrilled stop holes in track. The bolt hole rubber bumper stop is drilled 5/8" in from end of track to center of hole; the rubber bumper is 1 1/4" in diameter. Utilizing our predetermined pattern plywood spacer block with edges of carrier 1 1/4" from edge of door (bolt holes 2 1/2" from edge of door is center of carrier) will allow for a track to work that



is exactly twice the dimension of the door slab. This pattern will also center the carrier on a 5" wide stile. **Here is a formula you can plug in different values if you like to calculate track length: (Door Width) + (Distance From End Of Track To Center Of Stop Bolt Hole) - (Distance From Edge Of Door To Edge of Carrier) + 5/8" = Track Length / 2** For double doors on a single piece of track just don't divide the formula by 2 at the end.

*You can plug different scenarios into the above formula to calculate all different options to make the track work for your door size. The 1/4" stop hole can be re-drilled in another spot if you would like to change mounting points or have door stop in different spot on track. For example you could drill 1/4" holes 1 5/8" in from end of track and still mount carriers 1 1/4" in from edge of door; this would allow you to use a 47" door with an 8' track ( $47 + 1.625 - 1.25 + 0.625 = 96 / 2$ ). Alternatively in this scenario you could cut the track shorter, too.*

*Also you could mount the carriers 4" in from edge of door (or 5.25" to center of carrier) and utilize an 8' track for a 50 3/4" wide door without changing stop holes ( $50.75 + 0.625 - 4 + 0.625 = 96 / 2$ ). Note with this scenario your door will stick past the end of the track by 2 3/4". Make sure to consider how the carriers will look in relation to frame on the door regardless of where you choose to mount them.*

*On double doors with a single track you can also add stops in center of track to make sure doors stop in the middle. Double doors that always stop in the middle can also just as easily be done with two different sets of track.*

*Make sure complete carrier/hanger assembly is assembled with wheel, spacers and hanger. Normally the distance from back of hanger to center of wheel is approximately half the thickness of the door. Refer to the cross section drawing on page #3. Be sure to have the bolt that is the wheel axle in the appropriate hole. This hole is the one furthest from the other two on the hanger. The two holes for attaching to the door are the pair closer to each other on the hanger's bracket. The washer that goes under the 3/8" acorn nut on the front of the hanger is a different size washer than the spacer washers on the axle; it is the same size as the washer supplied with the two pair of mounting bolts used to mount the hangers to the door.*

Using supplied plywood guides flush narrow 1 1/4" wide piece up against edge of door (only works with rectangular shaped hanger) and the other 1 7/8" wide piece on edge against top of door. Then hold carrier tight to edge of piece on face of door and wheel tight to piece on top of door. The dimension from bottom of wheel to top of door is critical that it stays this recommend gap of 1 7/8" (the height of one of the plywood spacer blocks). This is a safety and proper functioning issue. This gap makes sure that the door and carrier assembly fit on track properly, slide smoothly, and do not "jump off" track. Holding these three pieces secure, temporarily clamp carrier/ hanger assembly to door making sure to leave two bolt holes clear. Make sure to have wheel side of carrier facing to center of door and verify that carrier's metal strap is square to door.

Use 3/8" drill bit to drill both mounting holes in door slab using the steel carrier plate as a guide. Be sure to drill straight and perpendicular to door face. Now repeat procedure for the other side.

**NOTE:** *The above step for using the plywood guide on the face of the door will not work as well with the arrow, horseshoe, or any custom shaped carriers; with these just measure from edge of door 1 1/4" to edge of hanger that will come into contact with the rubber bumper on the track or substitute the measurement from the above equation. You must still use the plywood spacer to set wheel height above door, though.*

*NOTE: You can order track that is any length you want even though the rule of thumb is twice the door width. If you don't have room for this, and you have made all the adjustments you can by moving carriers and end stops then the door just won't fully open from closed position. Alternatively you can order track longer than you need if it helps with finding better attachment points for mounting lags; the end stops can be reinstalled to stop the door short of where it normally has the door edge flush with end of track. If the track is ordered and installed too long between stops, then the floor guide won't function properly. In this case you may want to order and install multiple floor guides so the door slab does not jump off a floor guide in the situation where the travel distance for the door is greater than twice the door's width.*

3. At this point you may want to consider painting, staining, or finishing your door slab if necessary. Allow proper curing before handling door.
4. Determine distance from floor to bottom of track by adding gap under door + height of door slab + 1/8" (reference drawing at beginning of instructions) and top of track is 2" higher. Mark these measurements on wall on each end of track location. Verify and adjust if need be with a level. Mark where end of track will be.

*If you did not order predrilled track, locate all mounting points within full length of track on wall. Use stud finder if need be and mark each point on wall that is going to be a mounting point. With extra set of hands hold track up against wall and transfer mounting hole marks to track. If you cannot hold track up against wall, measure from one constant end to each hole. We recommend a minimum of five lags per section of track and spacing of around 16". Drill your holes from backside of track so you do not mar the finish. It is best to start hole with a steel punch for ease of starting drill bit. Center holes 1" down from top of track (reference drawing at beginning of instructions). Minimum hole diameter is 3/8" when finished. You can start smaller and work your way up.*

Determine which side of track looks best. Some tracks have imperfection in the finish and metal. Orientate the best edge up and the best face out.

Remember all mounting holes need to be in structural support. With drilled track verify it matches mounting points mark on wall. Reference beginning of instructions on clearance issues. Determine how tall you want your stack of standoff spacers; you do not necessarily have to use all the washers supplied. Make even stacks for each mounting hole. It is critical that all spacers are the same height! Make sure there is one larger fender washer per stack; this washer is the one that goes closest to wall. Push one lag through each end of the track, and put one stack of washers on each. Go ahead and sink both lags into permanent positions. Check that everything is still level now that track is mounted on wall with a lag in each end.

Now you can predrill with 1/8" bit all holes in center of track using track mounted on wall as a guide. Note this takes a long drill bit. If you do not have a long enough drill bit to do this make sure to mark and predrill these holes before installing track on wall. Install all lag screws with spacers.

Install rubber stop at one end of track. Leave most accessible side of track open.

5. Bolt carrier with 3/8" bolts to door. Use acorn nuts on front, carrier side of the door. If you have clearance issues in back this when you need to substitute 3/8x16 thread carriage bolts or countersink existing bolts. If countersinking or removing washers you may need to cut bolts shorter or substitute so they work with acorn nuts.



6. Now for the fun! Slide door onto track on free end of track without stop. Install other stop. Do not slide or operate door without both stops installed in each end of track.

*Note for tracks installed in tight spaces with no space at open end of track you may need to take wheels off of carrier. Alternatively you could also mount one complete hanger and bolt the second one to the face of the door after everything is in place on the track. Prop door vertically with shim blocks under door accounting for gap under door. Now set wheel into track and bolt wheel and axle assembly back onto carrier. This method is not preferred or as simple as installing complete carrier assembly on door slab before sliding slab and wheels onto track.*

7. Congratulations; you did it! Enjoy. It will last a long time.