



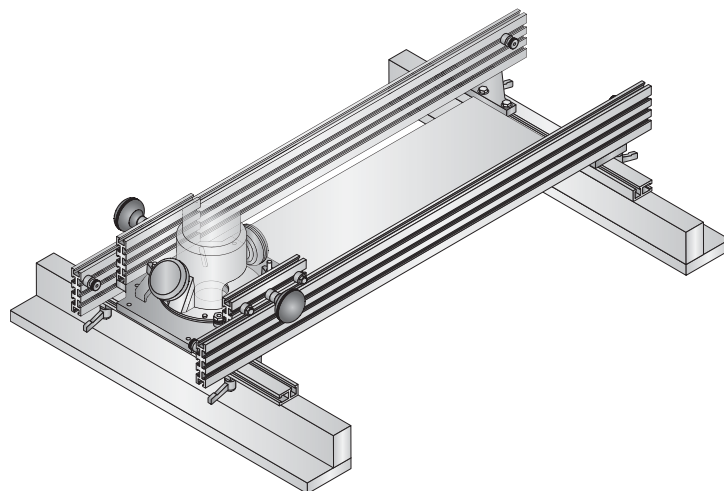
3000, 3002 & 3004 Planing Sled Owners Manual

Please Read Carefully!

Parts List:

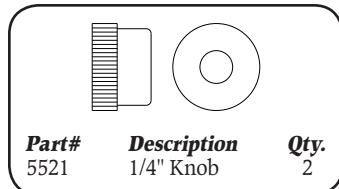
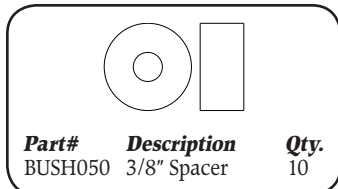
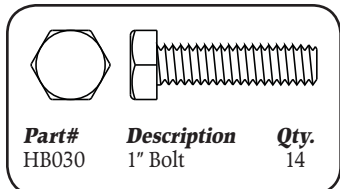
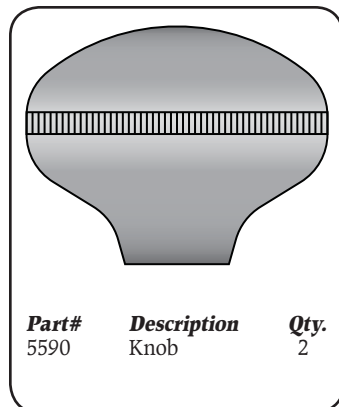
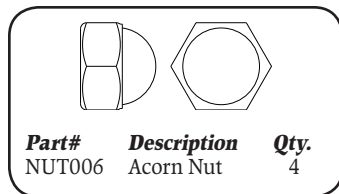
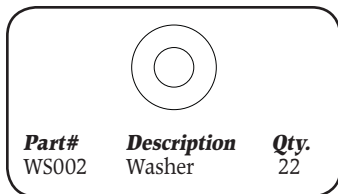
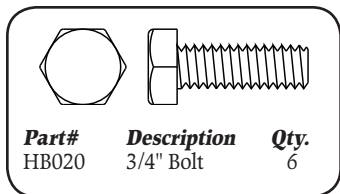
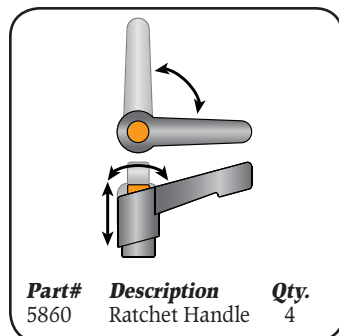
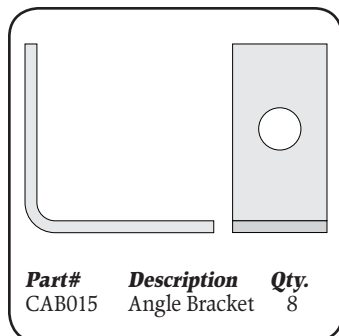
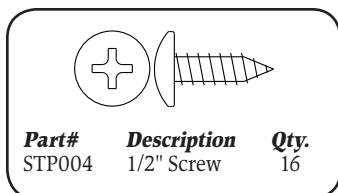
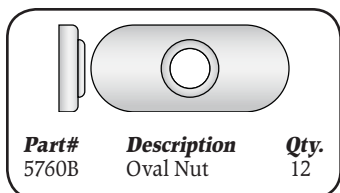
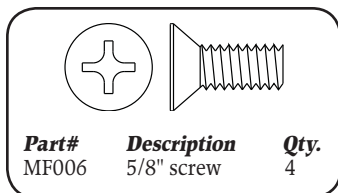
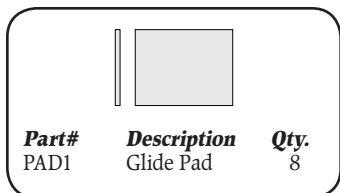
Please identify and verify that you have all of the hardware shown. Please refer to photos in the instructions for the parts listed below:

Part	Description	Quantity
3000B	Brackets, 4 pc. set (2 pairs).....	1
3000P	NoDrill Plate	1
4973	NoDrill Plate Hdw.....	1
4406	6" Ultra Track	2
Model 3000 also includes the parts below:		
4436	36" Ultra Track	2
4016	16" Double Track	2
Model 3002 also includes the parts below:		
4448	48" Ultra Track	2
4024	24" Double Track	2
Model 3004 also includes the parts below:		
4460	60" Ultra Track	2
4032	32" Double Track	2



BEFORE BEGINNING

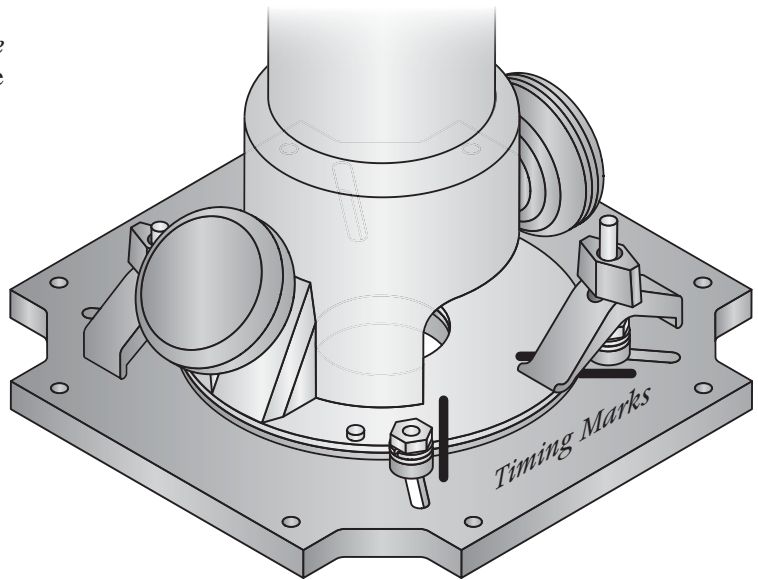
The Planing Sled must be setup and used on a flat surface. Identify and verify that you have all the parts listed. You'll need a 7/16" wrench for assembly. Read the instructions carefully at least once before beginning.



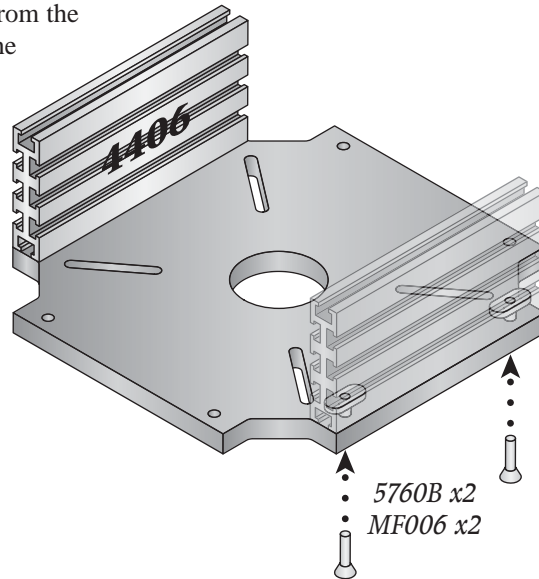
ASSEMBLY - ROUTER SLED

Follow the directions in the **4973 Plate Hardware** and attach your router to the Router Plate (**3000P**). The router does not need to be perfectly centered on the plate. Position your router on the plate so the router handles (if you haven't removed them) are parallel to one of the router plate edges and position the router to take the best advantage of the plates mounting slots and router control locations. Mark the position of the router on the router plate (timing mark) so you can return it to the same location, then temporarily remove the router.

An optional drill style plate (**PN 3000PD**) is available for semi-permanent mounting of your router, but it requires drilling mounting holes in the plate.

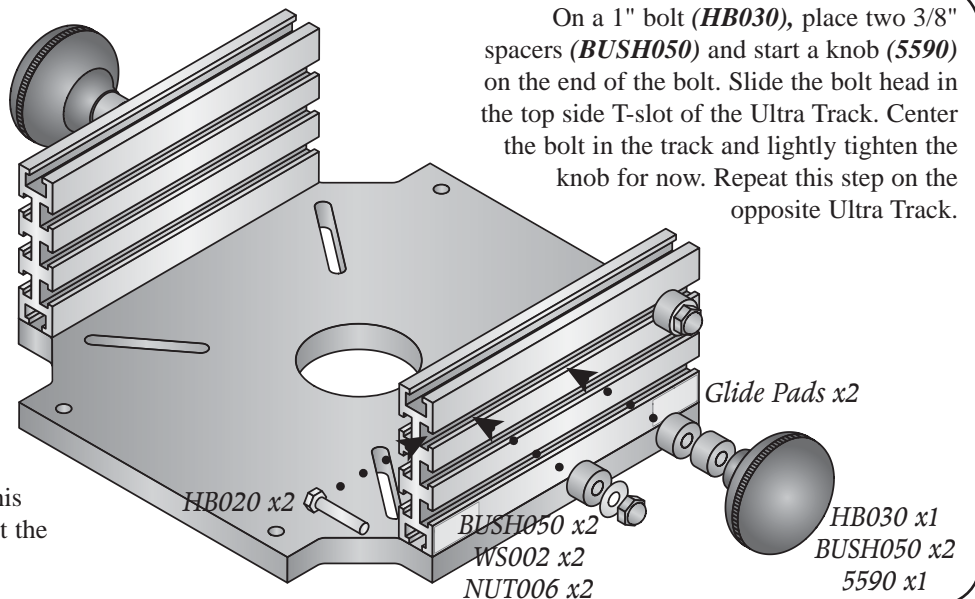


Insert the 5/8" screws (**MF006**) from the underside of the router plate through the countersunk holes. Start an oval nut (**5760B**), flat side first, on the end of each screw. Slide a 6" Ultra Track (**4406**) on to two of the oval nuts, position it even with the plate at its ends and edge, then tighten the screws. Repeat for the second Ultra Track on the opposite side of the router plate.



Remove the paper backing and install the glide pads (**PAD1 - 2 on each track, 4 extras provided**) where shown on the outsides of each Ultra Track, next to where the plate attaches to the track.

On four of the 3/4" bolts (**HB020**), install a 3/8" spacer (**BUSH050**), washer (**WS002**) and acorn nut (**NUT006**). Slide two of the bolt heads in to the top T-slot of the Ultra Track, one on either side of the knob. Position the spacers flush with each end of the Ultra Track and lightly tighten the acorn nuts for now. Repeat this step on the opposite Ultra Track, then set the Router Sled aside for now.

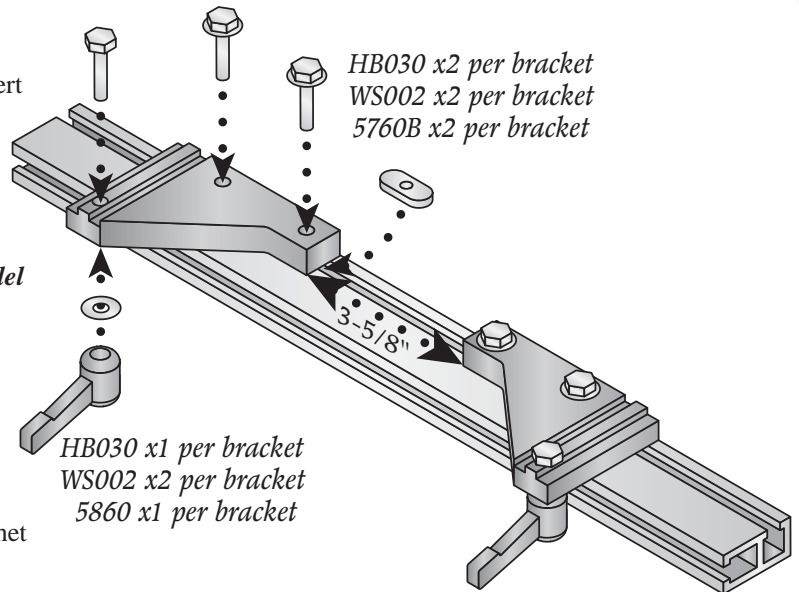


On a 1" bolt (**HB030**), place two 3/8" spacers (**BUSH050**) and start a knob (**5590**) on the end of the bolt. Slide the bolt head in the top side T-slot of the Ultra Track. Center the bolt in the track and lightly tighten the knob for now. Repeat this step on the opposite Ultra Track.

ASSEMBLY - BRACKETS & RAILS

Install a washer (*WS002*) on eight of the 1" bolts (*HB030*). From the ribbed side of the Sled Bracket, insert the bolts through the holes in the Sled Brackets (*3000B - 4 brackets - 2 pairs*) and start an oval nut (*5760B*), flat side first, on the end of each bolt. Sliding the oval nuts into the T-slot of the Double Track, mount a pair of Sled Brackets to both Double Tracks (*4016, 4024 or 4032, depending on model purchased*).

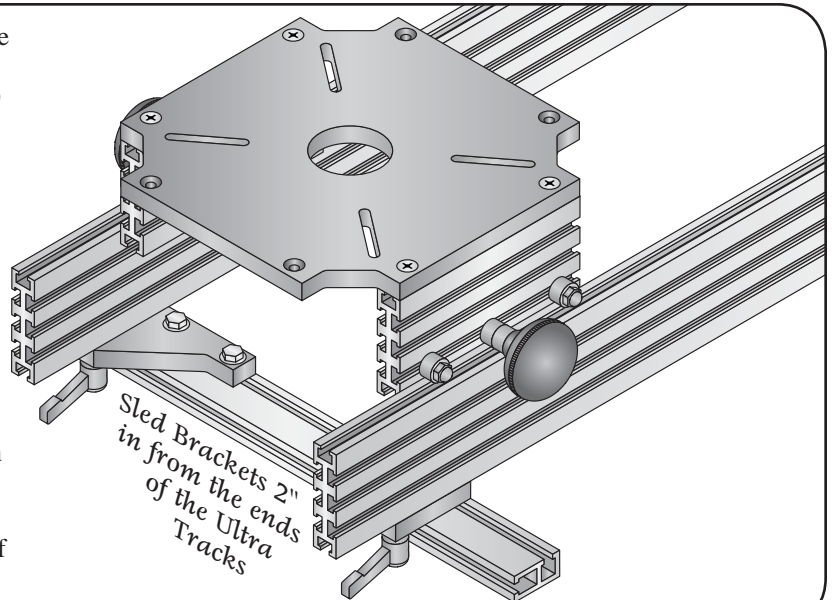
Position the pair of brackets so they are 3-5/8" apart (measured from the inside ends - this gap will be adjusted later), flush with the edge of the Double Track and centered on it, then tighten the bolts. Insert a 1" bolt (*HB030*) through the hole in the rib on each Sled Bracket and install two washers (*WS002*) and ratchet handle (*5860*) on the end of each bolt.



Set the Ultra Tracks on a flat surface, making sure they are on the same plane. Install the Sled Brackets/ Double Track on the Ultra Tracks (*4436, 4448 or 4460 depending on model purchased*) by sliding the bolt head/rib of the bracket into the T-slot of each Ultra Track.

For now, position the Sled Brackets so they are 2" from the ends of the Ultra Tracks and tighten the ratchet handles.

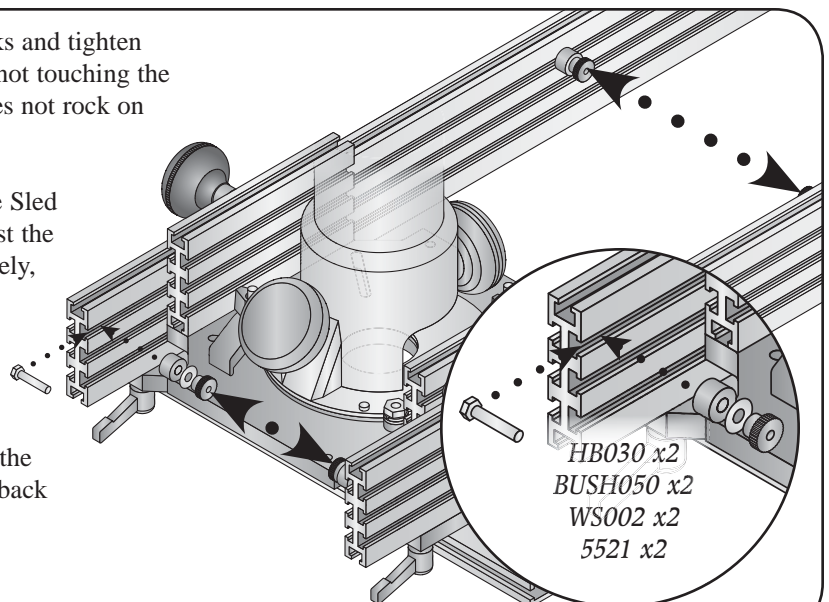
Take the Router Sled (*router should not be installed yet*) and place it as shown on the top of the two Ultra Track rails. Loosen the knobs and four acorn nuts, dropping the Router Sled slightly downward between the Ultra Tracks, then tighten the acorn nuts. This adjustment should allow the four spacers/glides of the Router Sled to sit evenly on the Ultra Track rails.



Flip the Router Sled over between the Ultra Tracks and tighten the two knobs on the Router Sled so those spacers are not touching the Ultra Track rail. Double check that the Router Sled does not rock on the Ultra Track rails.

Loosen one of the Ultra Track rails by loosening the Sled Brackets where they attach to the Double Tracks. Adjust the Ultra Track rail against the Router Sled so it moves freely, but with very little side-to-side slop between the Ultra Track rails, then retighten the Sled Brackets.

Install a spacer (*BUSH050*), washer (*WS002*) and knob (*5521*) on a 3/4" bolt (*HB020*) and insert the head of each bolt in the upper side T-slot of one of the Ultra Tracks. These act as stops to control the front-to-back movement of the Router Sled on the Ultra Track rails.



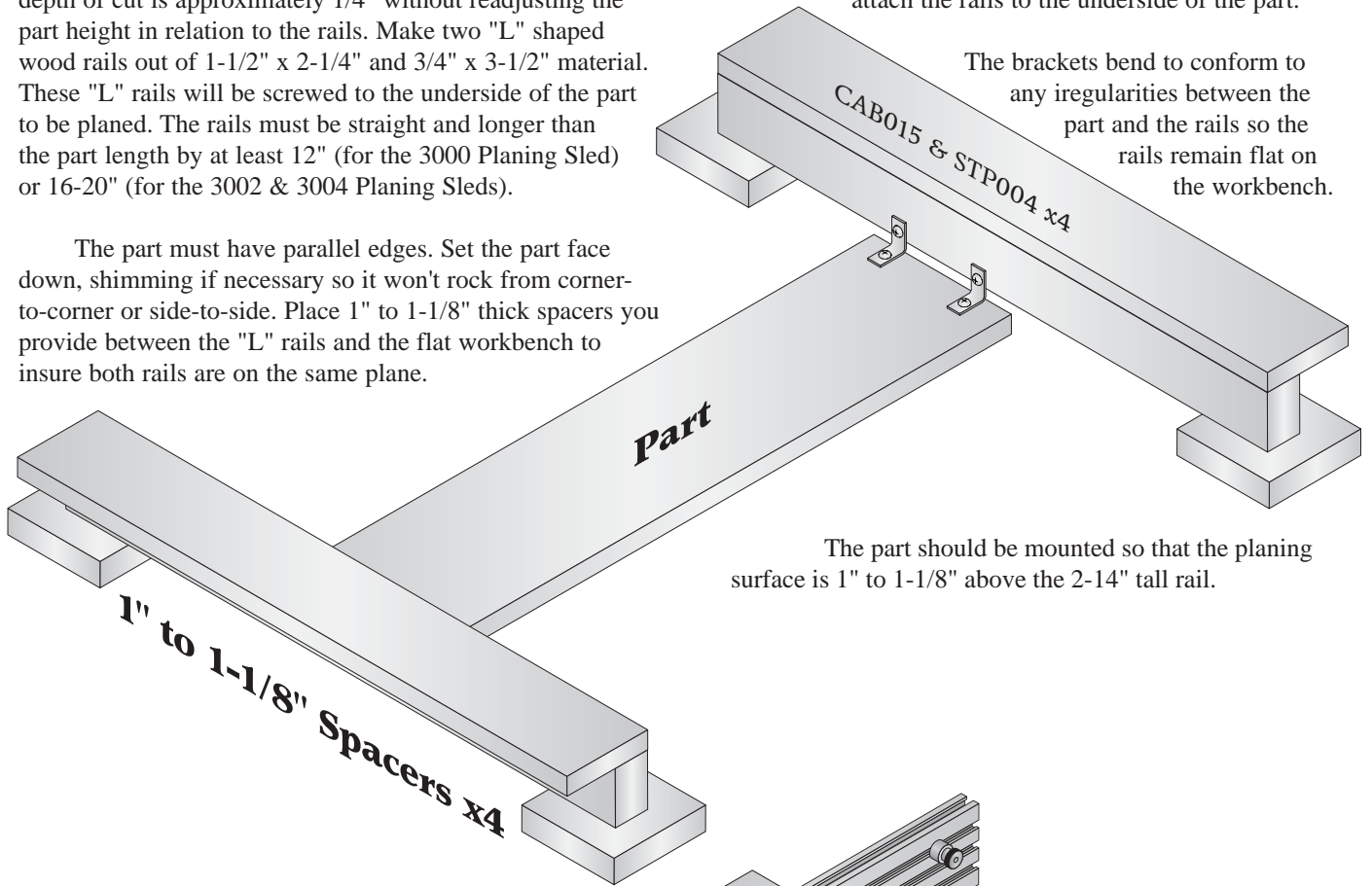
OPTION "A" - PART THINNER THAN 3" WITH PARALLEL EDGES

This option is designed for best portability. Maximum depth of cut is approximately 1/4" without readjusting the part height in relation to the rails. Make two "L" shaped wood rails out of 1-1/2" x 2-1/4" and 3/4" x 3-1/2" material. These "L" rails will be screwed to the underside of the part to be planed. The rails must be straight and longer than the part length by at least 12" (for the 3000 Planing Sled) or 16-20" (for the 3002 & 3004 Planing Sleds).

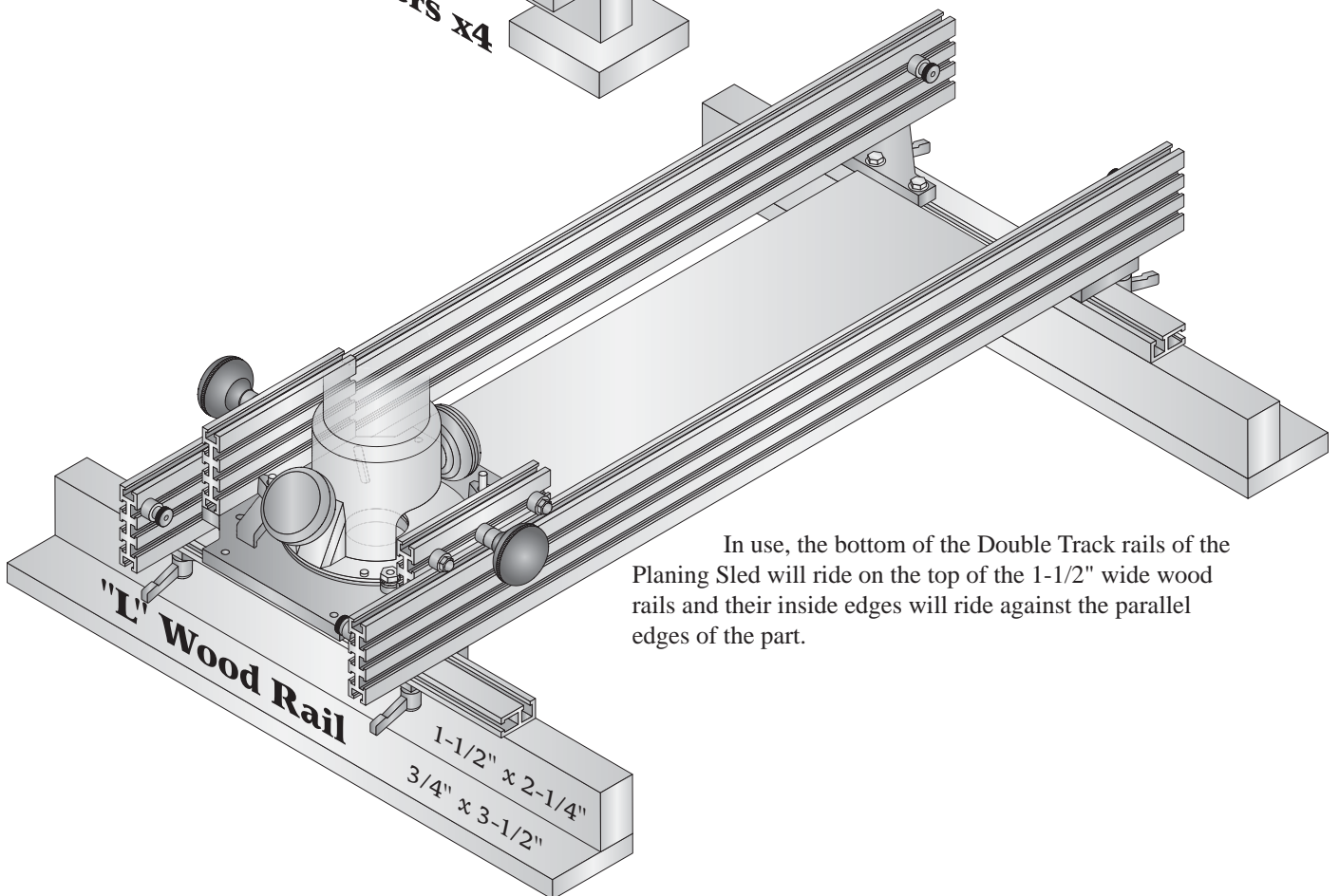
The part must have parallel edges. Set the part face down, shimming if necessary so it won't rock from corner-to-corner or side-to-side. Place 1" to 1-1/8" thick spacers you provide between the "L" rails and the flat workbench to insure both rails are on the same plane.

Line up the inside of the rails so they're in line with the edges of the part and parallel to one another. Using four to eight angle brackets (**CAB015**) and 1/2" screws (**STP004**), attach the rails to the underside of the part.

The brackets bend to conform to any irregularities between the part and the rails so the rails remain flat on the workbench.



The part should be mounted so that the planing surface is 1" to 1-1/8" above the 2-14" tall rail.



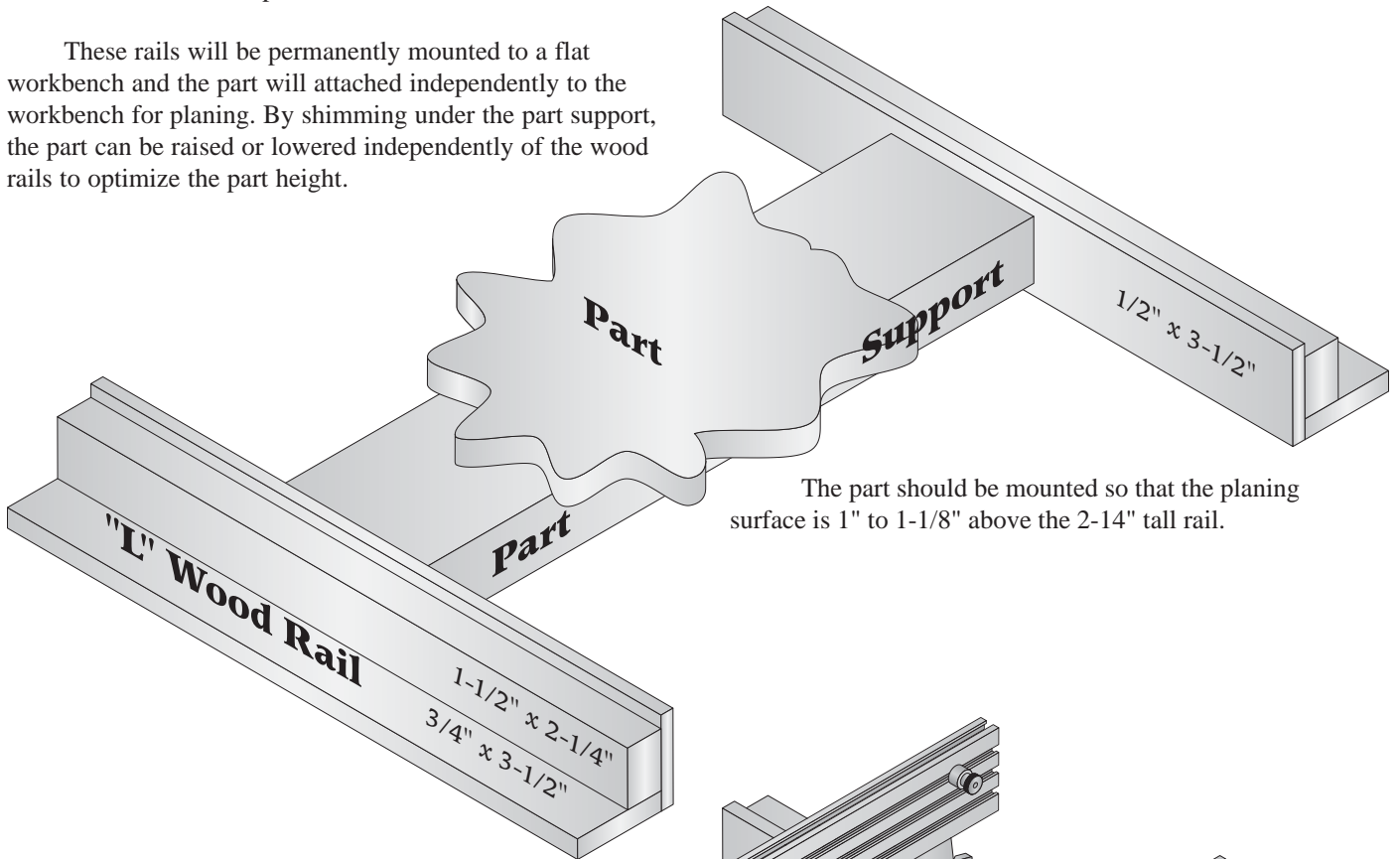
In use, the bottom of the Double Track rails of the Planing Sled will ride on the top of the 1-1/2" wide wood rails and their inside edges will ride against the parallel edges of the part.

OPTION "B" - ANY SHAPE PART THINNER THAN 3"

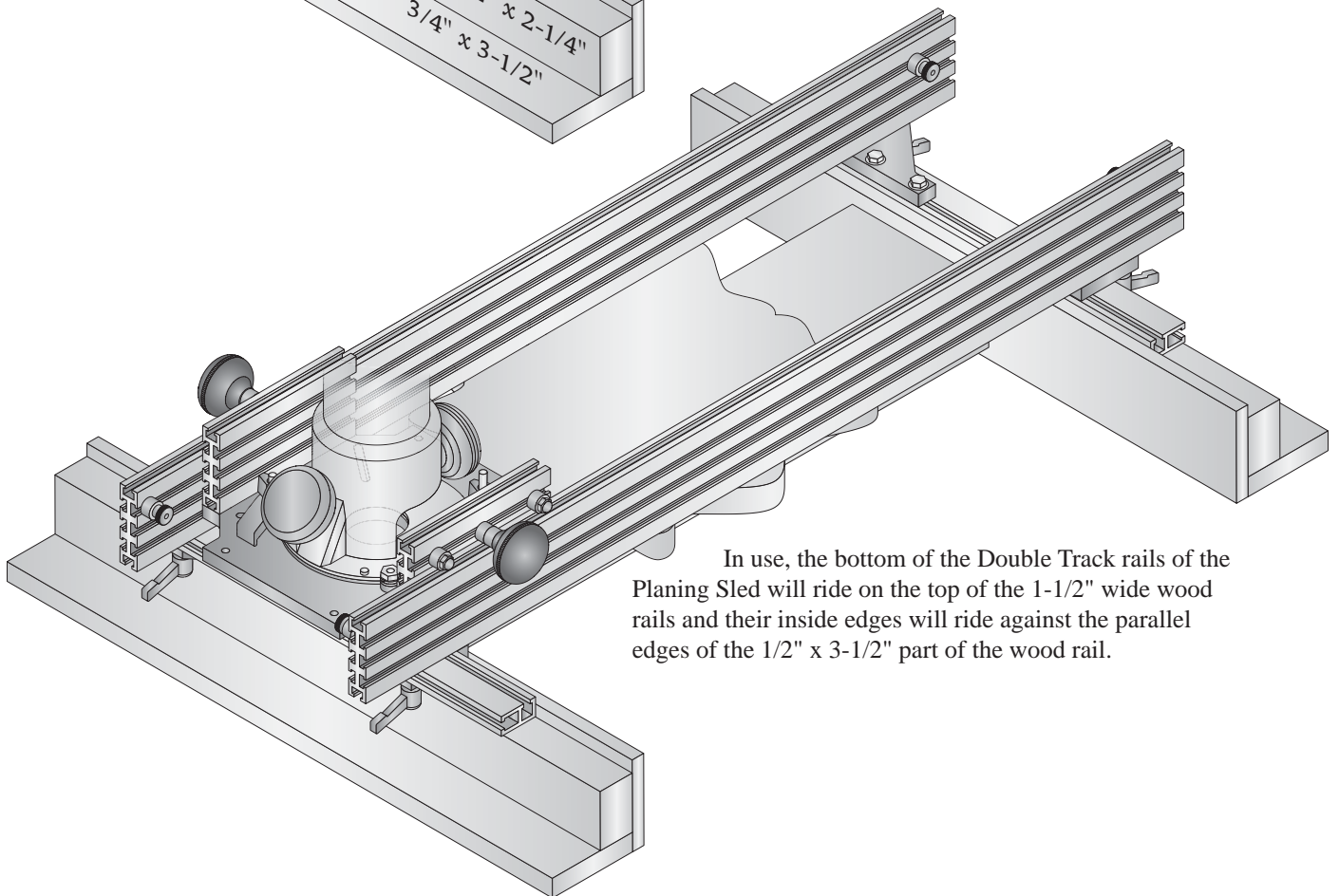
This option is designed to be semi-permanent setup and functions as a planing workbench in your shop. This setup is a good choice for odd shaped parts that do not have parallel sides. Maximum depth of cut without repositioning the part is approximately 1/4". It may require more part mounting hardware than what we provide.

These rails will be permanently mounted to a flat workbench and the part will attached independently to the workbench for planing. By shimming under the part support, the part can be raised or lowered independently of the wood rails to optimize the part height.

Make two "L" shaped wood rails out of 1-1/2" x 2-1/4", 3/4" x 3-1/2" and 1/2" x 3-1/2" material. The rails must be straight and longer than the part length by at least 12" (for the 3000 Planing Sled) or 16-20" (for the 3002 & 3004 Planing Sleds).



The part should be mounted so that the planing surface is 1" to 1-1/8" above the 2-14" tall rail.

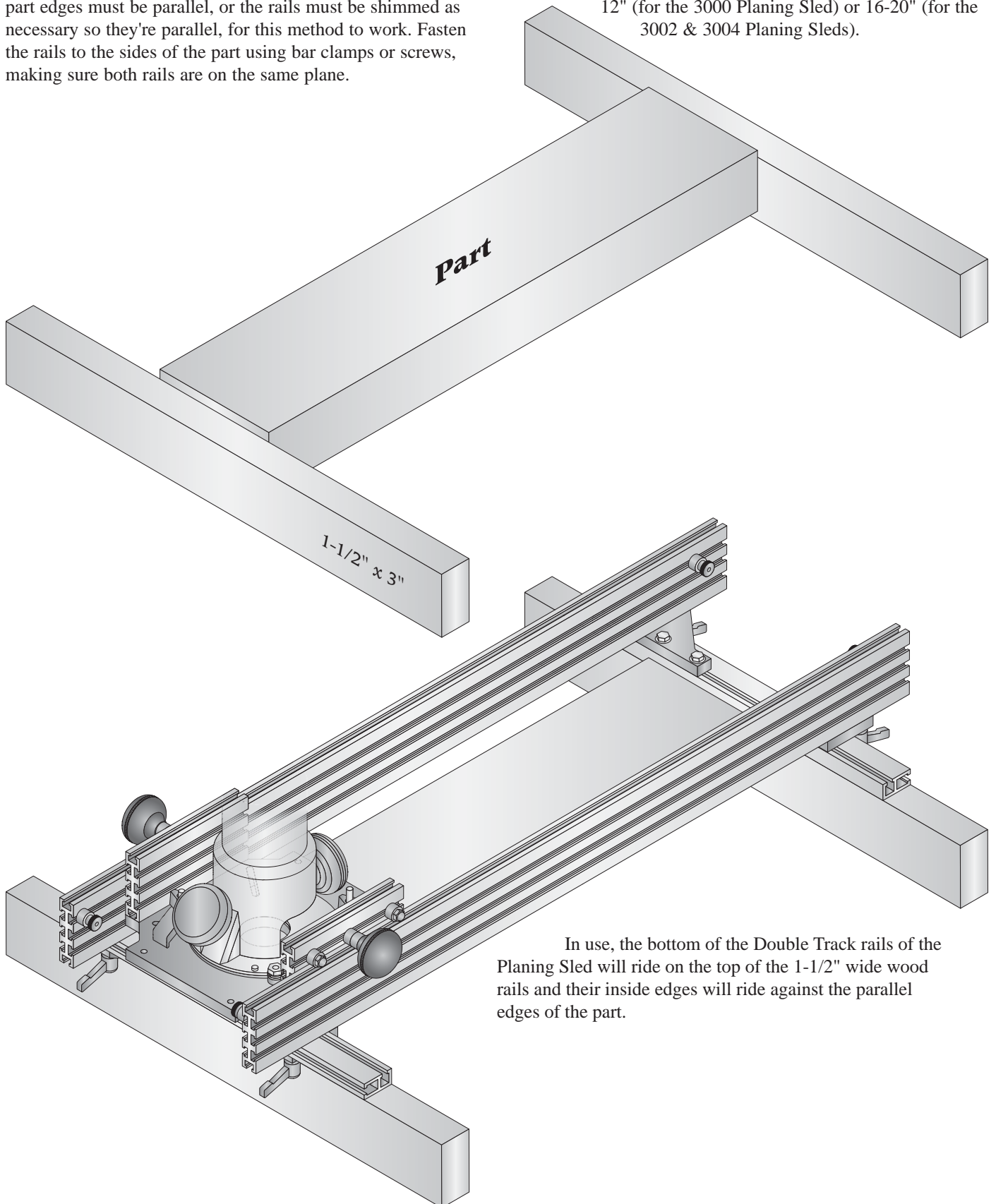


In use, the bottom of the Double Track rails of the Planing Sled will ride on the top of the 1-1/2" wide wood rails and their inside edges will ride against the parallel edges of the 1/2" x 3-1/2" part of the wood rail.

OPTION "C" - PARTS 3" OR THICKER

This method (*not shown*) works well for resurfacing butcher blocks, thick workbenches and more. Maximum depth of cut without repositioning the rails is approximately 1/4". Make two rectangular rails out of 1-1/2" x 3" material. The part edges must be parallel, or the rails must be shimmed as necessary so they're parallel, for this method to work. Fasten the rails to the sides of the part using bar clamps or screws, making sure both rails are on the same plane.

The rails should be positioned approximately 1" to 1-1/8" below the surface of the part. Or you may want to measure up from the bottom of the part, especially if it's surface is uneven, to insure the part will be an even thickness. The rails must be straight and longer than the part length by at least 12" (for the 3000 Planing Sled) or 16-20" (for the 3002 & 3004 Planing Sleds).



In use, the bottom of the Double Track rails of the Planing Sled will ride on the top of the 1-1/2" wide wood rails and their inside edges will ride against the parallel edges of the part.

PLANING

Here we describe how to plane a part using *Option A* described earlier. Make adjustments as necessary if using *Option B*, or *Option C*. Loosen the two rear ratchet handles and adjust the rear Double Track so the part is sandwiched between (with a small gap) the front and rear Double Tracks.

Before using, make sure the Planing Sled moves freely from side-to-side on the wood rails and the Router Sled moves freely (but without excessive slop) between the Ultra Tracks from front-to-back.

Never allow the center of the Router Sled to go past the center of the wood rails or the Planing Sled could tip off the wood rails.

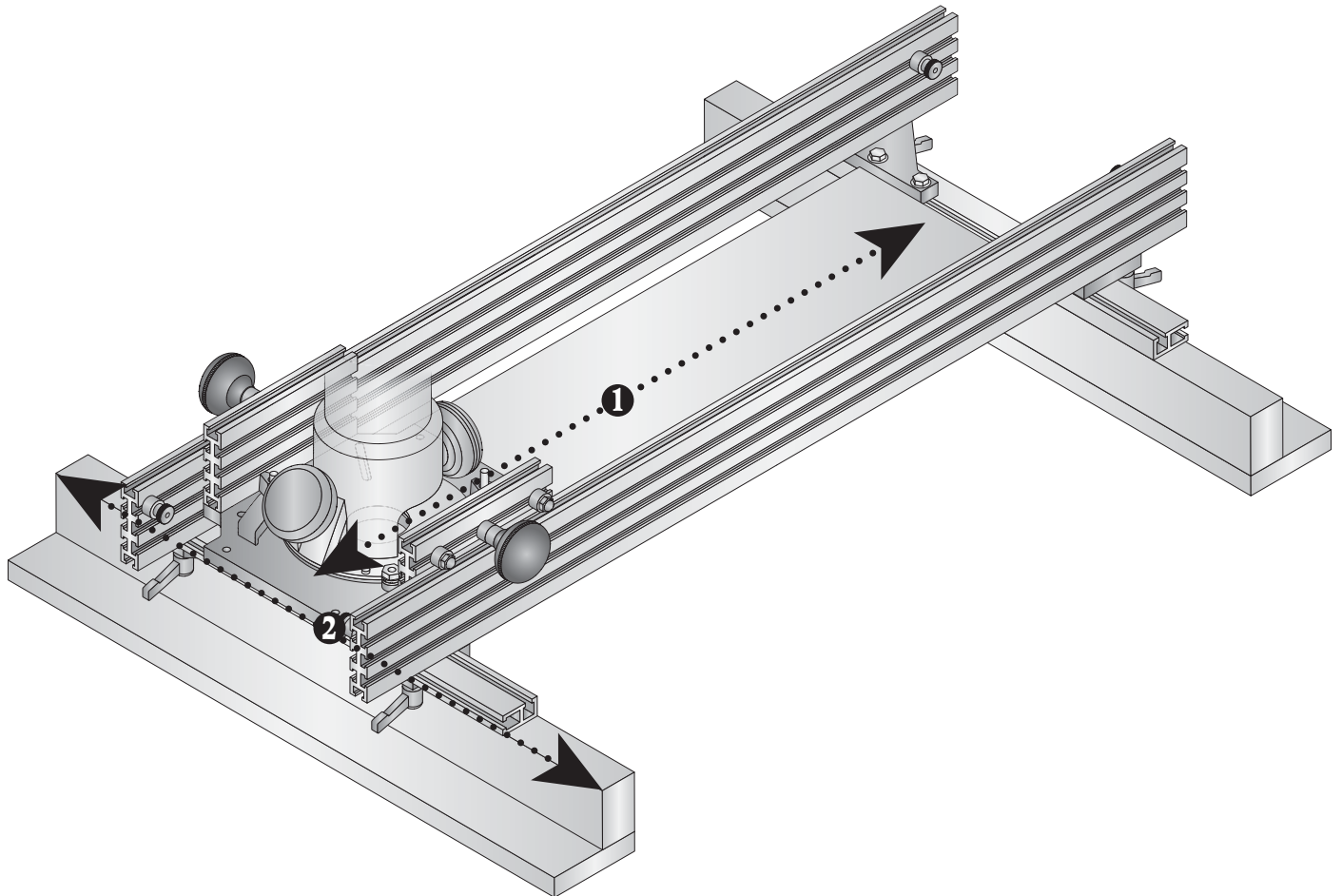
When planing narrow parts, verify that the weight of the overhanging Ultra Track rails will not tip the Planing Sled off the wood rails. If necessary, you may need to make an additional wood rail to support the outer ends of the Ultra Track rails.

Install the necessary bit (*must have at least a 2-1/2" overall length*) in your router and attach the router to the Router Sled. Set the depth of cut to 1/8" or less. Set the stops on the Ultra Track rail to control the front-to-back movement of the Router Sled.

Wide parts may require you to complete one side of the part before doing the opposite side. Never try to reach beyond a comfortable and safe distance. Always work against the rotation of the bit - never climb cut! Always take appropriate safety precautions.

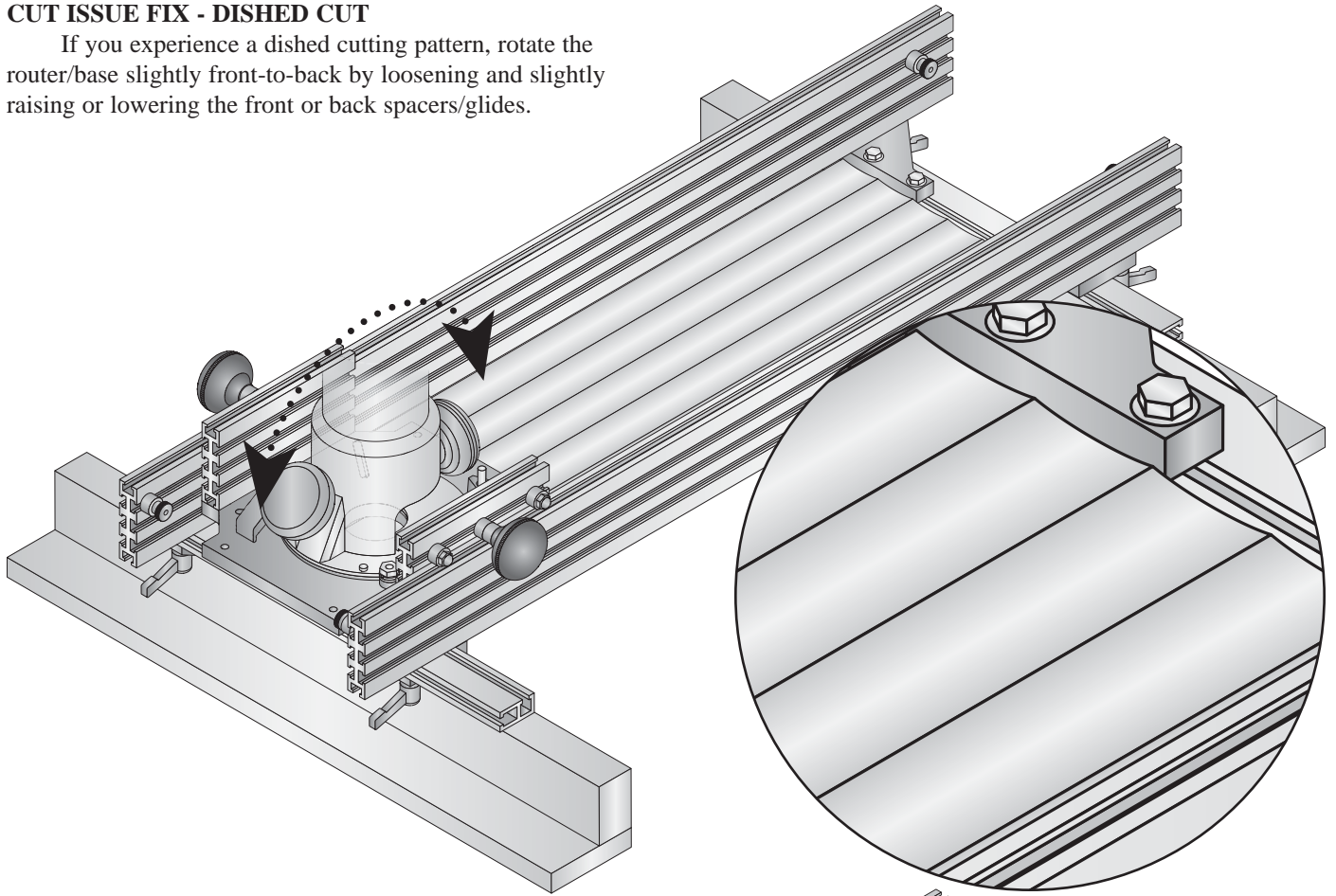
Make a pass (*Step 1*) moving the router front-to-back or back-to-front (*as needed so as not to climb cut*) and turn the router off. Slide the Planing Sled to the left or right (*Step 2*) approximately 1/8" less than the cutting diameter of the bit you're using and repeat Step 1.

If you don't frequently adjust the Brackets/Double Track for varying part widths, you can substitute the 5860 Ratchet Handles with 1/4-20 nuts, not provided.



CUT ISSUE FIX - DISHED CUT

If you experience a dished cutting pattern, rotate the router/base slightly front-to-back by loosening and slightly raising or lowering the front or back spacers/glides.



CUT ISSUE FIX - STEPPED CUT

If you experience a stepped cutting pattern, rotate the router/base slightly left-to-right by loosening and slightly raising or lowering the left or right side spacers/glides.

