

INSTALL DOVETAIL BIT

Depending on the Dovetail Jig purchased, you will have either a dovetail bit (1/2" diameter x 14°) with a 1/4" shank & 5/8" bearing (780), or a 5/8" Guide Bushing (5030), Locknut (5040) and a dovetail bit (1/2" diameter x 14°) with a 1/2" shank (61404). Install the bit (and bushing if applicable) in your router and set the bit depth at 25/32". The depth may need to be adjusted later after making a test cut. *See fig. 14.*

STOCK

This jig is designed for 3/8" to 1-1/8" thick stock. 1/2" stock is the most common thickness used for drawers. The stock used for the fronts & backs can be a different thickness than the stock used for the sides. All stock should be flat and straight.

Stock thinner than 3/8" may be used for the backs and fronts, but the ends of the pins (dovetails) may show. Using thinner stock for the sides will not effect the look of the joint like it will on the fronts and backs.

We recommend a 1/64" overhang on each end of the fronts and backs, so cut the fronts and backs are 1/32" longer than the finished width of the drawer. Cut the sides approximately 9/16" longer (this will depend on the final cutting depth of the router bit and only applies to the standard dovetail template) than the desired inside length of the drawer.

The width of the stock will depend on the height of the drawer opening, desired drawer depth and the dovetail pattern selected.

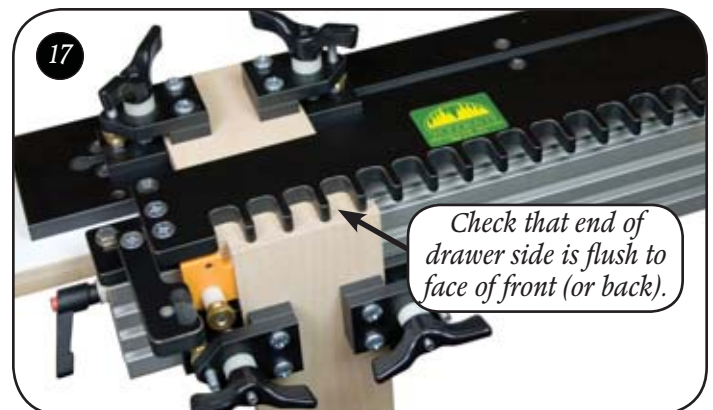
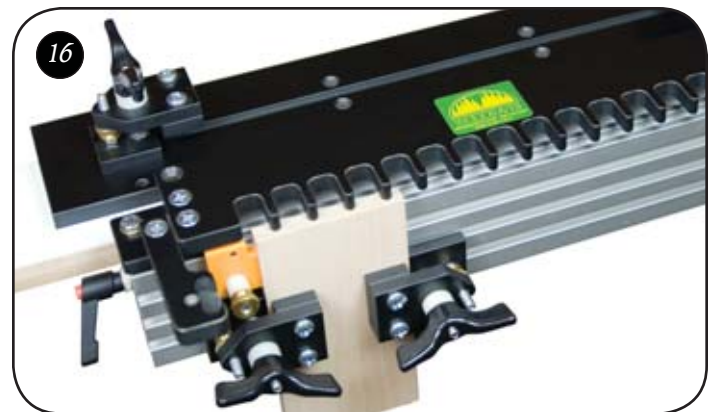
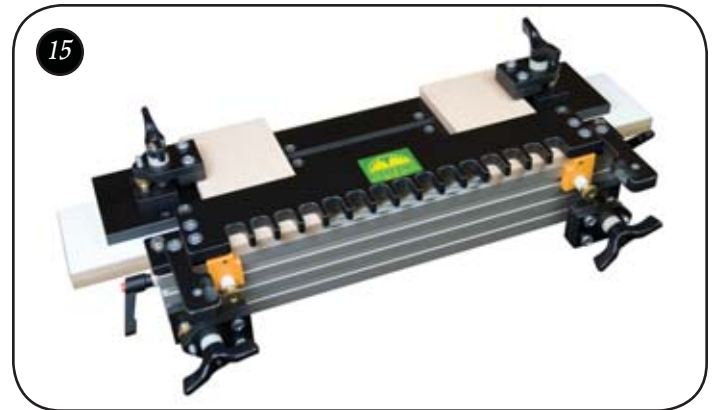
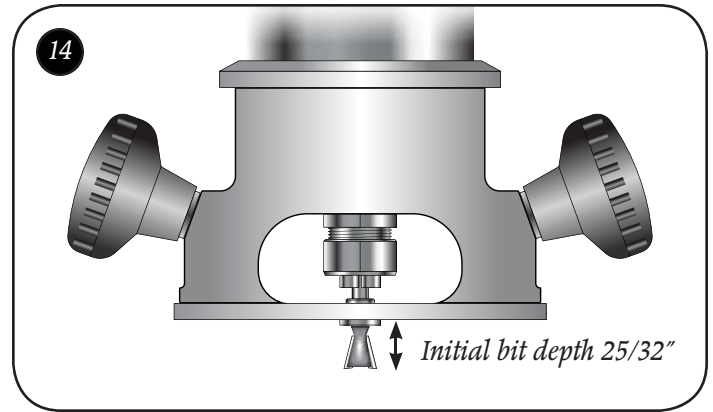
Cut two pieces of stock for a test cut at least 8" long, 4-6" wide and 1/2" thick. Follow the directions below for a standard drawer. After you have mastered making a standard drawer you may want to attempt a rabbeted drawer. See the **RABBETED DRAWER** section for instructions on that process.

STANDARD DRAWER

Loosen the two ratchet handles on the two template nuts and raise or lower the dovetail template at each end until the drawer front (or back) just fits between the underside of the dovetail template and the top edge of the Ultra Track, then retighten the handles. Depending on variations in the thickness of your stock, the dovetail template height may have to be adjusted for each part. *See 15.*

Place a drawer side in the jig with the inside facing out, the bottom edge against the stop and the end butted up against the underside of the dovetail template. Slide the clamps as close as possible to the edge of the part and tighten the clamps. *See 16.*

Slide the mating drawer front (or back) in between the underside of the dovetail template and the top edge of the Ultra Track, and slide it forward until it butts up against the drawer side. The bottom edge of the part should be against the pin in the stop and the inside face should be against the template. Slide the clamps as close as possible to the edge of the part and tighten them. The end of the drawer side should be flush to top (inside face) of the drawer front (or back). Check this with your finger between the fingers of the dovetail template. *See Cover & fig. 17.*



MAKE A TEST CUT

Set the router on the template (or, if using portably, the Dovetail Jig on the router table), without the bit touching the work, template or router support. Turn the router on and make a scoring cut from **right to left** (**left to right if using portably**) across the face of the drawer front by skimming across the ends of the fingers. The scoring cut helps prevent chipping and tear out during the finish cut. *See fig. 18A.*

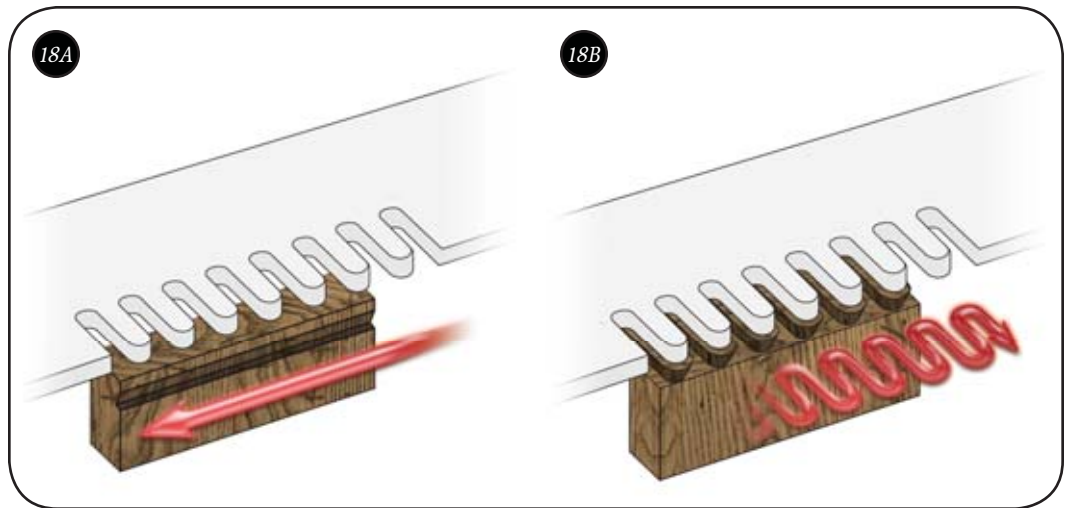
Next, moving from **left to right** (**right to left if using portably**), move the router in and out of each dovetail finger to finish the cut. If you get tear out, go a little deeper into the template openings as you make the scoring cut to insure that you have scored the entire face of the part. *See fig. 18B.*

In portable use you may notice that the thickness of the dovetail template (7600T) and the thickness of the clamp base (7600B1) are slightly different, which may cause the two parts to not sit perfectly flat on a router table. As long as you maintain downward pressure at the dovetail template (and not the clamp base) using the feed handles supplied, this will not make a difference.

Sometimes it's necessary to make a second pass due to sawdust that may have lodged in the template. Remove the parts and check the joint fit.

JOINT FIT - DRAWER SIDE TO DRAWER FRONT

We recommend that the end of the drawer front (or back) stick out past the drawer side 1/64". This way the end of the drawer front (or back) can be sanded or routed flush to the drawer side after assembly. This also compensates for any variation in the thickness of the drawer sides. You can also adjust the template to cut the parts flush if you prefer. *See fig. 19.*



If the drawer sides stick out past the ends of the drawer front (or back), then the template brackets/template must be moved back, away from the face of the Ultra Track. If the ends of the drawer front (or back) protrude past the drawer sides more than 1/64", then the template brackets/template must be moved forward slightly. *See fig. 19.*

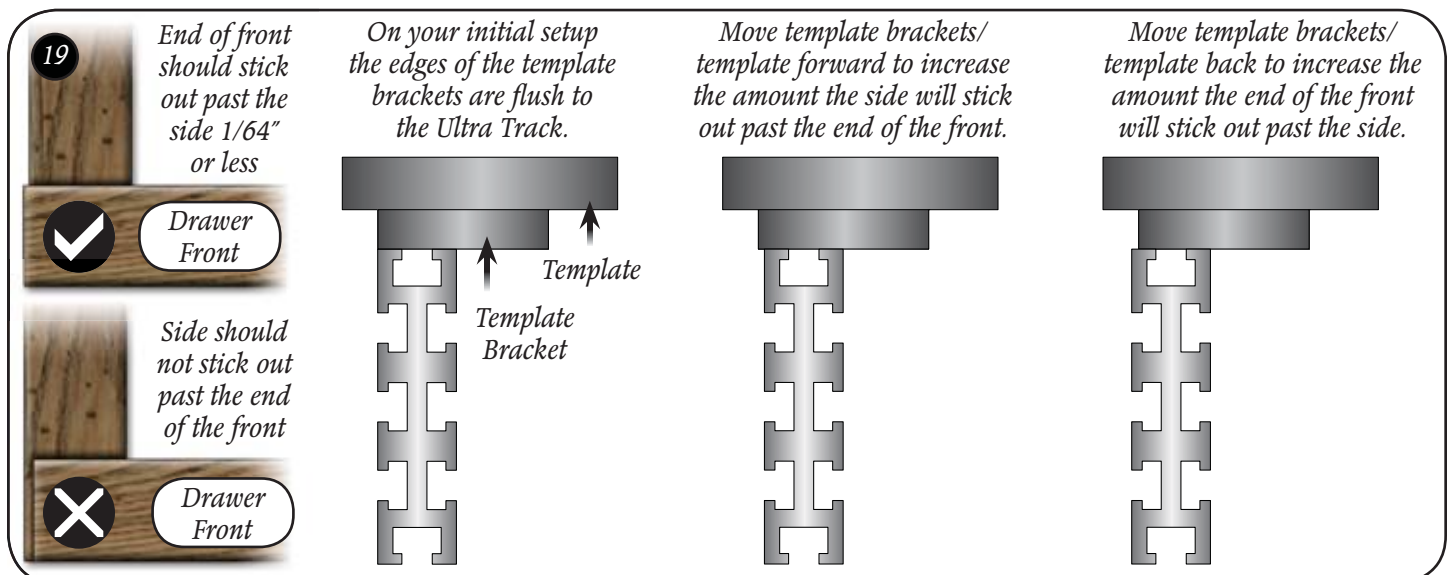
The template brackets/template is adjusted in or out by loosening the two 3/4" bolts holding the template brackets to the template nuts. Make equal adjustments to both template brackets.

JOINT FIT - LOOSEN OR TIGHTEN

The pins (also known as dovetails - cut in the drawer side) should slide into the sockets (cut in the drawer front or back) with light tapping, at most.

If the joint is too loose, then the cutting depth of the router bit is not deep enough. Adjust the bit lower (**more than 25/32"**) so it cuts deeper.

If the joint is too tight, then the cutting depth is too deep and the bit needs to be raised (**less than 25/32"**). **Bit set deeper than 25/32" = tighter joint.** **Bit set shallower than 25/32" = looser joint.**



STOP POSITION

The position of the stop controls the location for the groove for the drawer bottom, which is normally centered in the first dovetail socket from the bottom so it is hidden after assembly. The bottom of the groove is usually between 1/4" (for side mounted drawer glides) to 1/2" (for bottom mounted drawer guides) from the bottom edge of the drawer. If you set the stop for a 1/4" margin, you may cut into the stop slightly, which is OK. Once you've established the stop position needed, cut the drawer stock to a width that will give you a full pin & socket at the top of the drawer. See fig. 20.

RABBETED DRAWERS

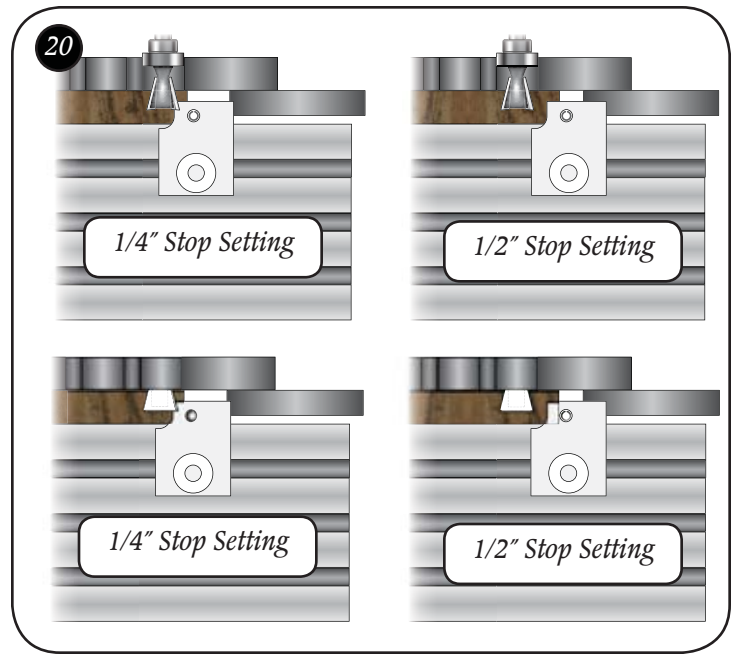
Rabbeted drawers are drawers with a face that overlaps the cabinet face. The other three drawer parts (both sides and the back) are of equal width. For a faster way to make Rabbeted drawers see the **QUICK RABBETED DRAWERS** section.

The width of the rabbeted drawer front, measured between rabbets, should equal the width of the drawer sides and back. The length of the rabbeted drawer front, measured between rabbets, should equal the length of the drawer back. See pg. 10.

A rabbeted drawer front and its adjoining sides must be cut in separate operations, unlike the parts for a Standard drawer. The remaining sides and back parts are cut like a Standard drawer, in pairs. A Rabbeted drawer will require six setups, one setup (x 2) for each rear drawer corner and two setups (x 2) for each front drawer corner.

Route the mating dovetails into the two front ends of the adjoining drawer sides. Clamp a piece of scrap where the drawer front usually goes, against the drawer side, to prevent tear out.

The rabbet in the drawer front should be at least 5/16" deep to clear the dovetail bit. The end of the drawer should be indexed so the shoulder of the rabbet is aligned with the front of the Ultra Track. You'll need to make an indexing block to position the drawer front correctly. Cut a piece of scrap with the same width rabbet as the drawer front and clamp it in the front of the dovetail jig where the side would normally go. Slide the drawer front forward to index its front edge against the rabbeted lip in the indexing block and tighten the top clamps. See fig. 21A. Route both ends of the rabbeted drawer front this way.

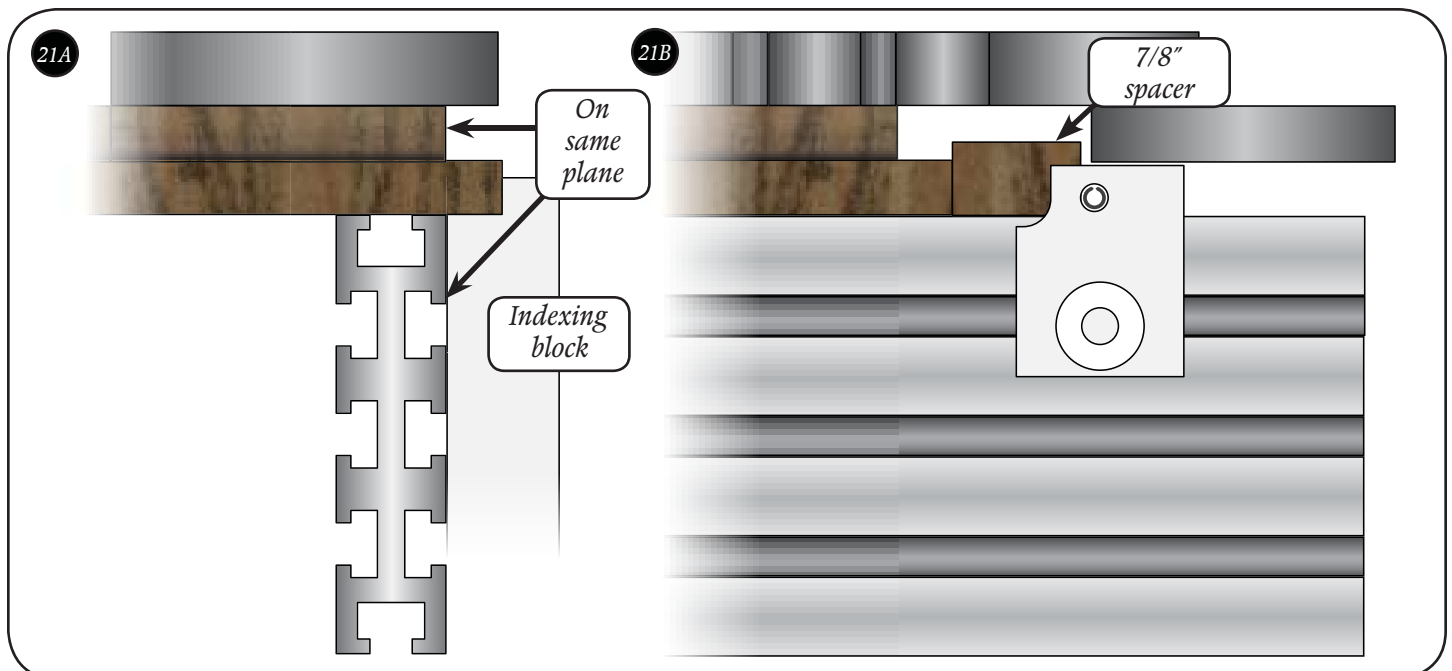


The bottom edge of rabbeted drawer front must be indexed against the stop pin, with an additional spacer placed between the rabbeted edge and the stop pin to offset it correctly. For example, if you have a 3/8" wide rabbet and you're using the standard 7/16" dovetail template, you'll need a 7/8" wide spacer. See fig. 21B.

QUICK RABBETED DRAWERS

Instead of making a Rabbeted drawer, make a Standard drawer with the drawer front made of the same wood species as the desired rabbeted drawer would be. After assembling the drawer glue a larger drawer front to the standard drawer front. This provides the same appearance as a one-piece rabbeted drawer, but is quicker and easier to make.

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7600SC

Standard Clamp

Please Read Carefully!

BEFORE BEGINNING

Identify and verify that you have all the parts listed. Read the instructions at least once, familiarizing yourself with the parts and assembly instructions before beginning. You'll need a #3 Phillips screwdriver and a 7/16" wrench for assembly.

Install a nut (**NUT005**) on each of the four 1-3/4" studs (**SD417**), approximately 1/2" from an end. Thread the 1/2" exposed end of the stud into the threaded hole in each clamp base (**7600D1**) until it's end is flush with the rib on the bottom of the clamp base. Tighten the nut against the clamp base to fix the studs in position and install a brass knob (**5520**) on each of the studs.

See fig. 1.

Insert a 2-1/2" bolt (**HB058**) thru the remaining hole in the clamp base (*from the ribbed side*) and install a 3/8" spacer (**BUSH5038**) and a spring (**SPRING2**) on the bolt. Install the clamp arm (**7600D2**) on both the stud and the bolt in the clamp base. Install a 3/8" spacer (**BUSH050**) and a knob (**5560**) on the end of the bolt. Attach the clamp pad (**7600D3**) to the end of the clamp arm using two 3/4" screws (**5771B**). *See fig. 1*

The standard clamps attach to the clamp base (**7600B1**) and the Ultra Track (**4418**) of the Dovetail Jig. Insert the head on each bolt (*press down on the knob so the bolt head projects far enough out the bottom of the clamp base*) into the T-slot of these parts and slide the clamp to the position needed. The standard clamps are held in position by the tension of the spring, allowing you to slide them in position quickly. *See fig. 15-17.*

The standard clamps must be adjusted to the thickness of the stock you are using. Hold the clamp pad flat against the stock and adjust the brass knob until it just touches the underside of the clamp arm. Make sure the clamp pad is not angled up or down, but flat against the stock when clamped. *See fig. 2.*

As assembled, the standard clamp will hold stock as thin as 1/2". To hold stock as thin as 3/8", install the 1/8" spacers (**BUSH001 - one per screw**) between the clamp arm and the clamp pad.

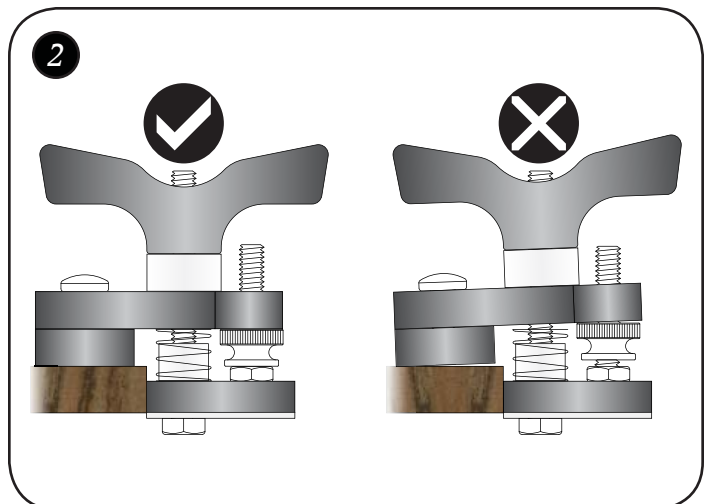
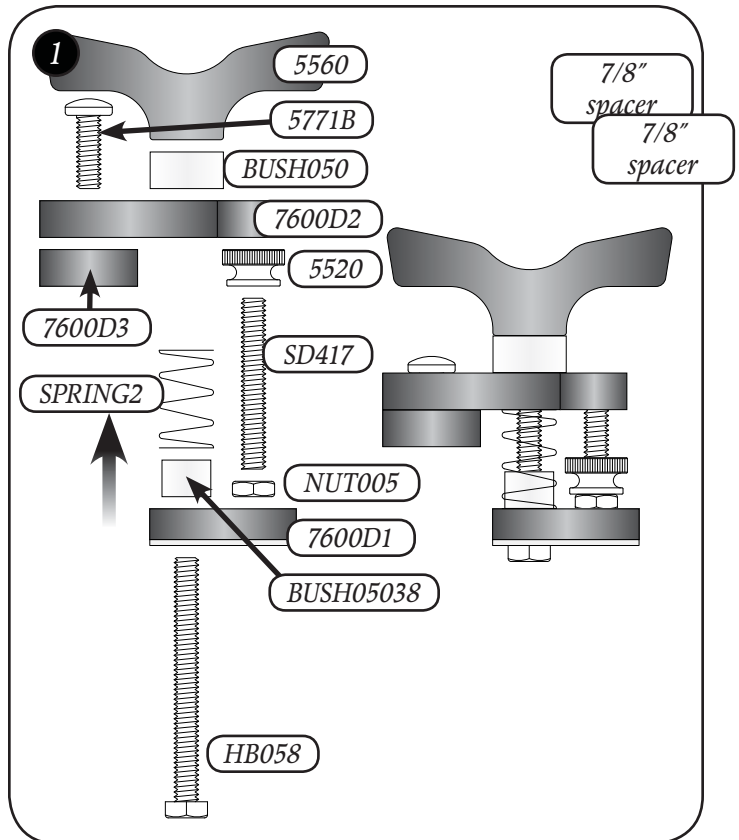
Removing either the 3/8" spacer under the knob, the clamp pad, or both, will allow you to clamp thicker stock.

Do not overtighten the clamp, which is easy to do with the large knobs, or you may cause damage! The clamps do not require much pressure to safely hold parts. If you do notice a part move, it will usually be a horizontal part (*drawer front or back*) clamped to the clamp base (**7600B1**) of the Dovetail Jig. These parts are more susceptible to movement because the cutting forces are greater on these parts. Experiment until you develop a sense of what is adequate clamp pressure.

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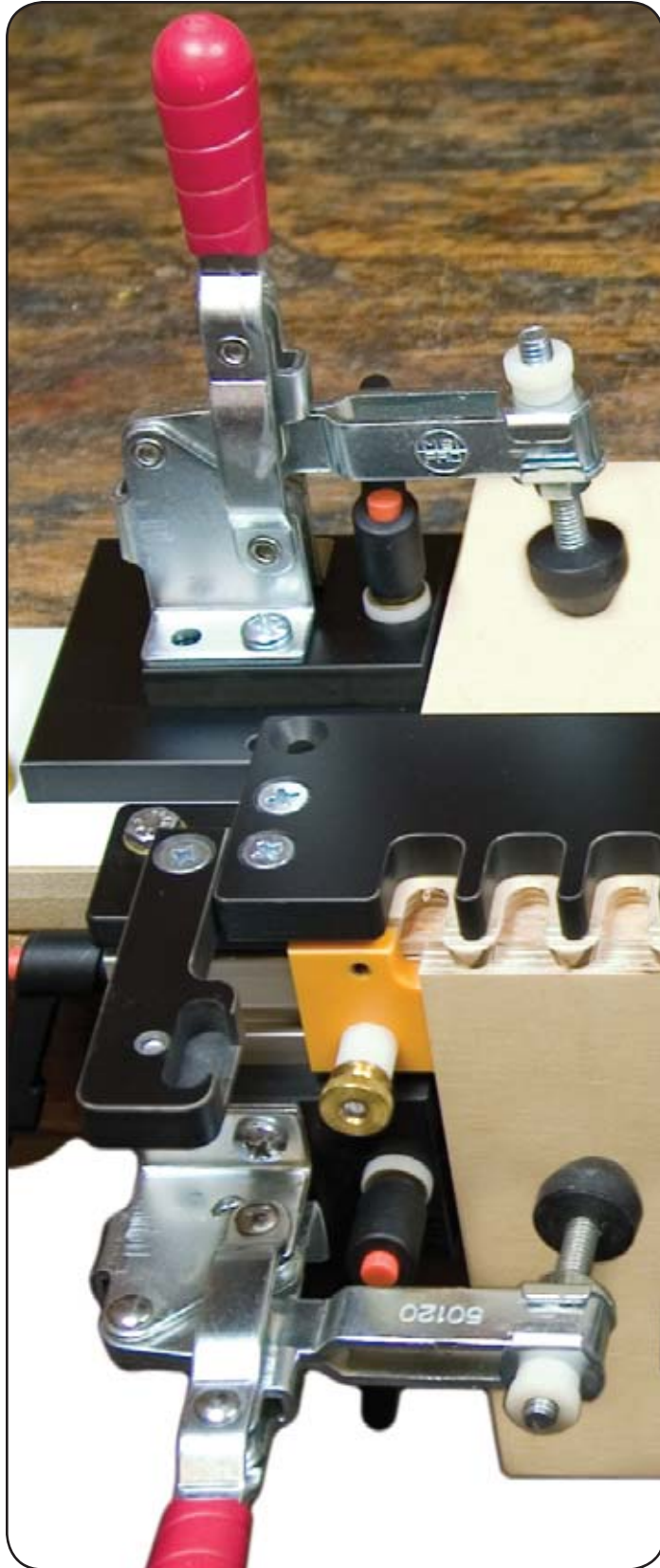
7600SC Parts List:

Part	Description	Quantity
7600D1	Clamp Base	4
7600D2	Clamp Arm	4
7600D3	Clamp Pad	4
HB058	2-1/2" bolt.	4
SD417	1-3/4" stud	4
NUT005	Nut.	4
SPRING2	Spring	4
BUSH5038	3/8" long spacer, 1/2" dia.	4
BUSH050	3/8" long spacer, 3/4" dia.	4
5771B	3/4" screw.	8
5520	Brass knob	4
5560	Knob	4
BUSH001	1/8" spacer (may not be needed).	8



7600TC Toggle Clamps

Please Read Carefully!



7600TC Parts List:

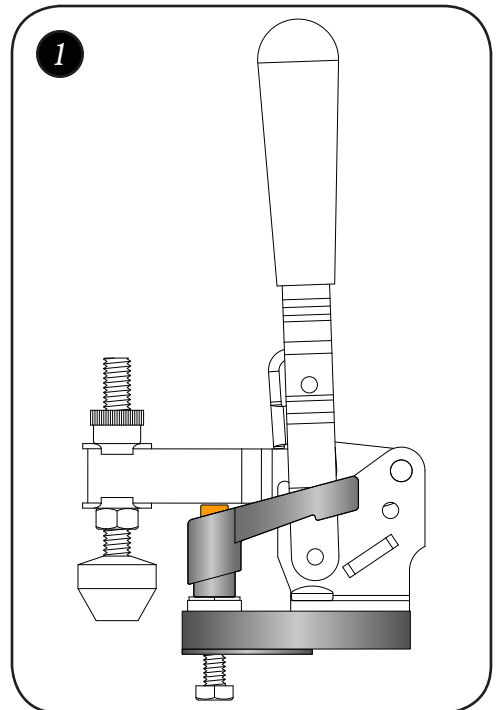
Part	Description	Quantity
6324	Toggle Clamp	4
6324C	Clamp Base	4
5770B	1/2" screw.....	8
5525	Thumb nut.....	4
HB030	1" bolt	2
HB040	1-1/4" bolt.....	2
BUSH001	1/8" spacer.....	4
WB002	Washer	4
5860	Ratchet handle	4
5433S	Anti-slip tape.....	1

BEFORE BEGINNING

Identify and verify that you have all the parts listed. Read the instructions at least once, familiarizing yourself with the parts and assembly instructions before beginning. You'll need a #3 Phillips screwdriver for assembly.

If there are two clamp spindles included with the toggle clamp (6324), remove the shorter spindle and replace it with the longer one. For quicker spindle adjustments, replace the top nut on the spindle with the nylon thumb nut (5525).

Attach the toggle clamps to the clamp bases (6324C) using the 1/2" screws (5770B). Insert a bolt (HB030 or HB040) thru the hole in each clamp base (starting from the ribbed side). Install a 1/8" spacer (BUSH001), a washer (WB002) and a ratchet handle (5860) on the end of each bolt. See fig. 1 & 2.



The two toggle clamps with the 1-1/4" bolts attach to the clamp base (7600B1 - shown in photo) of the Dovetail Jig and the two toggle clamps with the 1" bolts attach to the Ultra Track (4418) of the Dovetail Jig. Insert the head on each bolt into the T-slot of the appropriate part, position it where needed and tighten the ratchet handle. See fig. 2.

Due to "give" in the rubber pads of the toggle clamps, part movement may occur on the horizontal parts (drawer front or back) clamped to the clamp base (7600B1) of the Dovetail Jig. If the part moves, either increase the clamp pressure, or install the anti-slip tape (5433S - cut it to length) on the top of the clamp base along its back edge, just behind the toggle clamp bases.

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**Drawer Back:
Inside Face**

*Cut 1/32" longer than
desired finished length.*



**Part Marking
Suggestion:**

*Mark mating ends with
numbers so you know
which parts need to
be done as pairs.*

**Drawer Side:
Inside Face**



**Drawer Side:
Inside Face**



**Assembled
Drawer
Components**

*Side should be inset 1/64"
or less from end of Face.*



Drawer Front: Inside Face

Cut 1/32" longer than desired finished length.



**Rabbeted Drawer
Front: Inside Face**



Dovetail Jig Accessories

GET EVEN MORE OUT OF YOUR DOVETAIL JIG WITH THESE GREAT ACCESSORIES

- The Small Dovetail Kits (7610 & 7611) include the template (1/2" thick CNC machined phenolic), a set of stops, a 5/16" bushing & locknut and a 1/4" carbide dovetail bit with a 1/4" shank. Choose from the 1/4" model (7610) or the 3/8" model (7611).
- The Wide Dovetail Template (7615) is a unique 3/4" (1-1/2" on center) half-blind pattern for a hand cut look. Includes the template (1/2" thick CNC machined phenolic) and a set of stops. Works with the standard 1/2" x 14° dovetail bit included with each dovetail jig, so no extra bit is required for this template.
- The 7620 Large Dovetail Kit is a unique 5/8" (1-1/4" on center) half-blind dovetail pattern for 9/16" or thicker stock. Includes the template (1/2" thick CNC machined phenolic), a 7/8" bushing & locknut and a 3/4" x 14°, 1/2" shank carbide tipped dovetail bit.
- The 1/2" & 3/4" Box Joint Kits work on stock up to 3/4" thick. The 7625 & 7630 include the template (1/2" thick CNC machined phenolic), a 1/2" diameter x 1/4" shank carbide tipped bit with a 5/8" guide bearing. The 7626 & 7631 include the template (1/2" thick CNC machined phenolic), a 1/2" diameter x 1/2" shank carbide tipped bit and a 5/8" bushing & locknut. Either bit style will work great. You choose the bit option you prefer!
- The 7640 Keller Dovetail Kit cuts through dovetails with 1-1/8" spacing. Includes two templates (1/2" thick CNC machined phenolic), one for tails and one for pins. Works with stock 1/8" to 3/4" thick and up to 12" wide. Also includes two 1/4" shank bearing guided carbide tipped router bits; a 7° dovetail bit for the tails and a flush cutting bit for the pins.
- Get the NoDrill Bushing Plate (8300K) if your router won't accept Porter Cable style bushings. This universal plate will accept any router and includes a centering pin to aid in setup.



Dovetail Jig Accessories available online @ www.woodhaven.com

- | | |
|-------|---|
| 7610 | 1/4" Small Dovetail Kit
Template, Stops, bit & bushing |
| 7611 | 3/8" Small Dovetail Kit
Template, Stops, bit & bushing |
| 7615 | Wide Dovetail Template & stops |
| 7620 | Large Dovetail Kit - Template,
stops, dovetail bit & bushing |
| 7625 | 1/2" Box Joint Kit
Template & bearing bit |
| 7626 | 1/2" Box Joint Kit
Template, bit & bushing |
| 7630 | 3/4" Box Joint Kit
Template & bearing bit |
| 7631 | 3/4" Box Joint Kit
Template, bit & bushing |
| 7640 | Keller Through Dovetail Kit
Two Templates and two bits |
| 8300K | Bushing Plate & Centering Pin |

