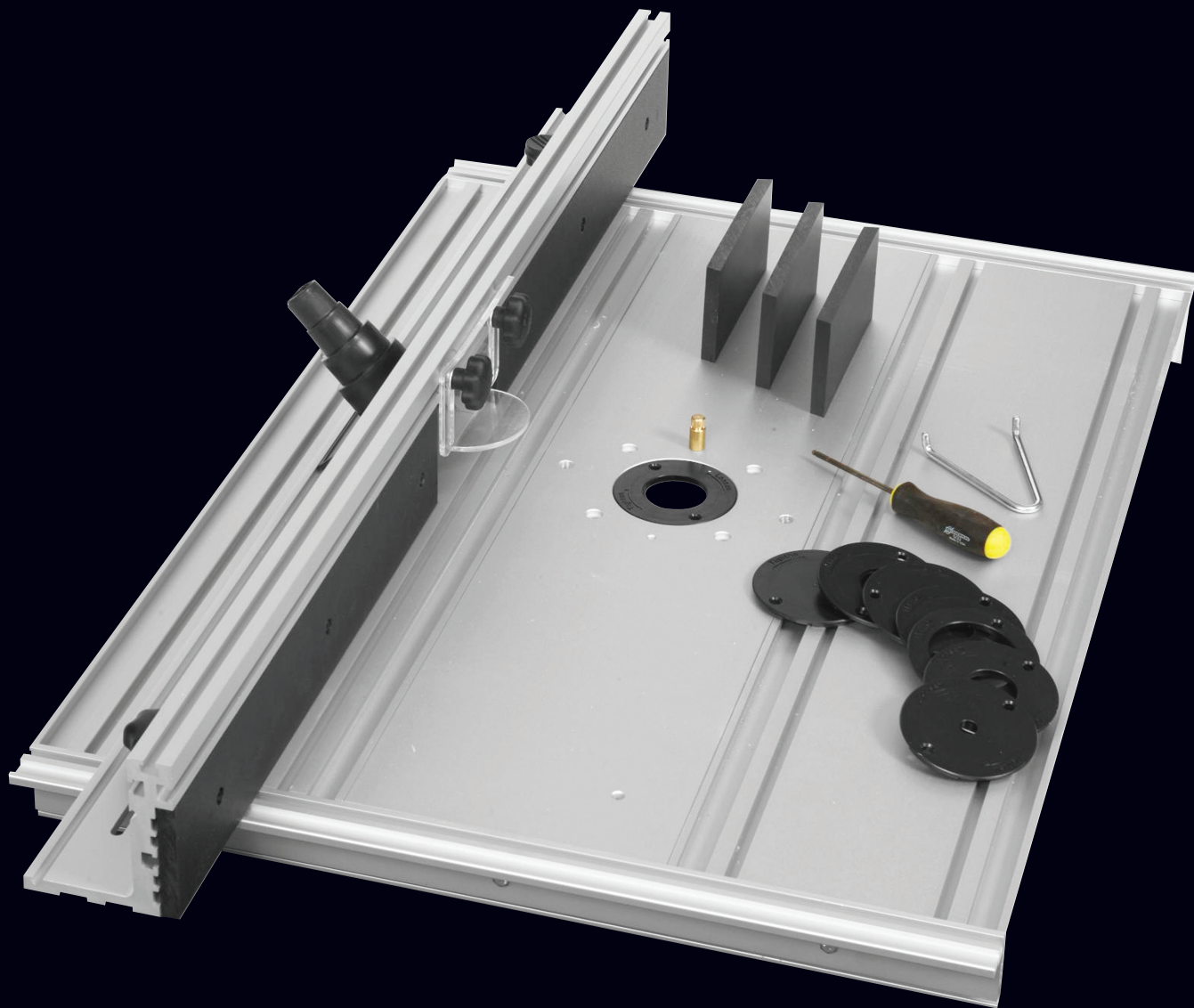


SOMMERFELD'S TOOLS

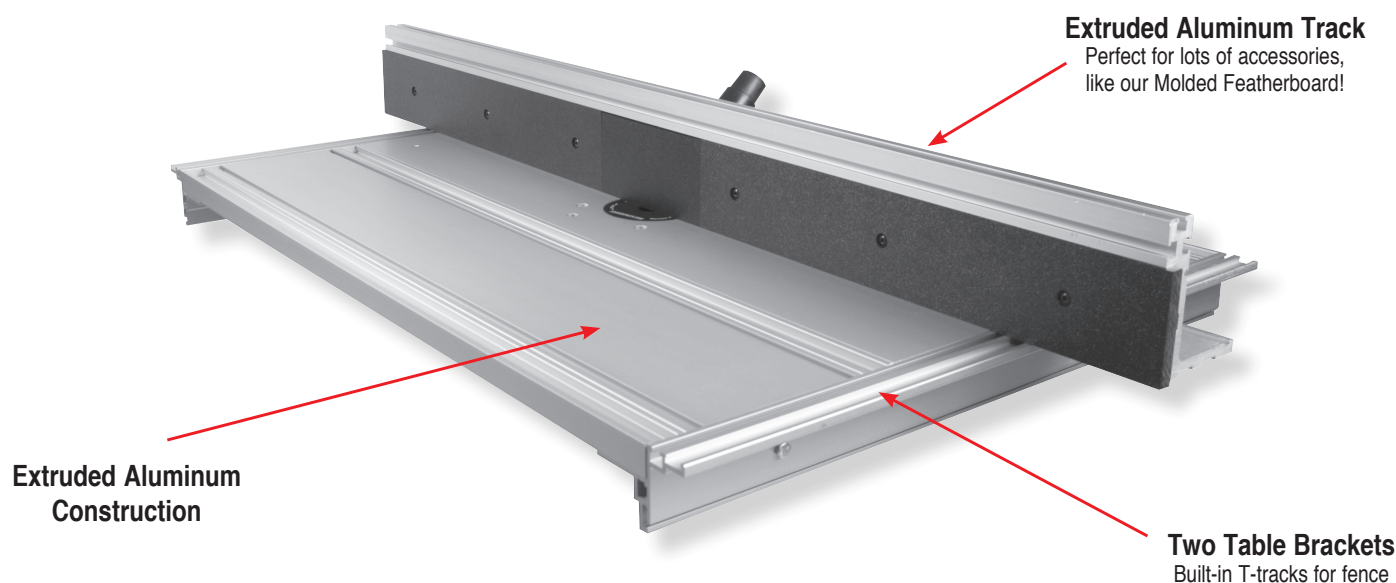
For Wood



SOMMERFELD'S Routing System Instruction Manual Plans for Router Table Cabinet

Order Line: **1-888-228-9268** • Online: www.sommerfeldtools.com

SOMMERFELD's Routing System Assembly and Instruction Manual



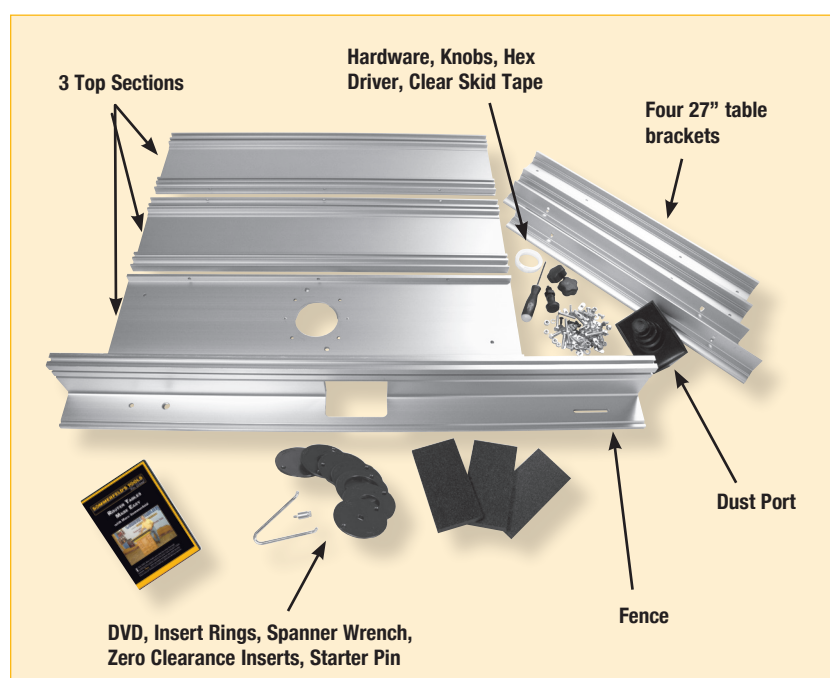
The heart of any routing system is the table. It should be flat to ensure that the depth of all cuts is uniform. We also want that table to stay flat under all types of conditions. Everyone knows that a melamine or MDF table cannot assure that result. Since Sommerfeld's was the first company to introduce a phenolic table over 10 years ago, we have found that even phenolic may not be perfectly flat coming from the manufacturer. So, we decided to make our new table out of extruded aluminum.

With extruded aluminum, we have a table and fence with unprecedented flexibility. With that choice, we decided to make our table and fence longer (table 36" – fence 48"). We also made our table 27" wide to fit most table saws. The top is made up of three 9" sections that are lined up perfectly with tongue and grooves in the extrusion, and then they are bolted together under the table.

Sommerfeld's Tools for Wood router table is a professional-grade router table that was designed for strength and built for performance and ease of use. The system was designed by Marc Sommerfeld, so you know when you purchase this table, it will be suited perfectly for all his other cabinetmaking techniques.

STEP #1

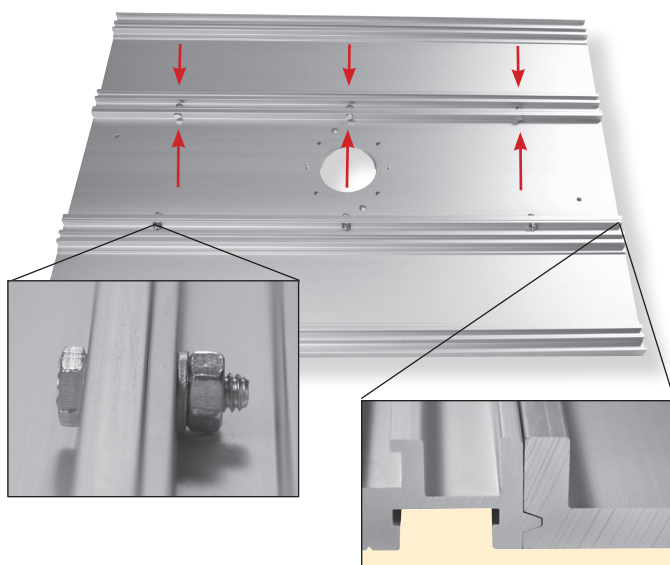
When you receive your shipment from Sommerfeld's, carefully unpack all the components, laying them out for easy reference during the assembly process. Assembly is easy. Simply follow the directions listed in this manual.



STEP #2

Lay the three sections out and place together. Determine which end piece best fits the left or right side of middle.

Using the six 1/4"-20 x 1" hex head bolts, six 1/4" lock washers, and six 1/4" hex nylon nuts, assemble the 3 sections that make up the table. **IMPORTANT:** Make sure table ends are aligned and finger tightened. This allows for proper alignment of fence track brackets later.



STEP #3

READ THE FOLLOWING CLOSELY: TIGHTENING BOLTS TOO TIGHT UNDERNEATH THE TABLE CAN CAUSE IT TO BECOME BOWED OR NOT FLAT. THE BOLTS NEED TO BE ADJUSTED CAREFULLY.

Turn table right side up. Lay a straight edge across one end of table. The straight edge should be flat like the picture below.



Photo above shows proper alignment of the top and is flat

Start tightening lock nuts. If the top is not flat as seen in the picture below, then stop, and back off the nuts until the table goes flat with straight edge again. Do the same for the other side. Do the middle bolts the same way at this time.



Photo above shows improper alignment of the top and is not flat

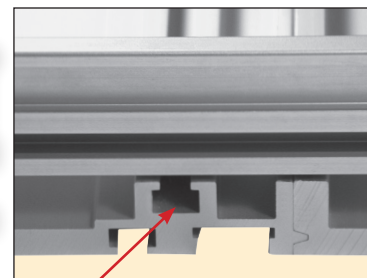
STEP #4

ASSEMBLING TABLE END TRACK BRACKETS

There are a total of 4 table bracket sections, 2 for each end of the table. All 4 measure 27" in length. Before you attach



Thread the 1/4" weld nuts loosely onto the 5/16" x 1-1/2" hex bolts



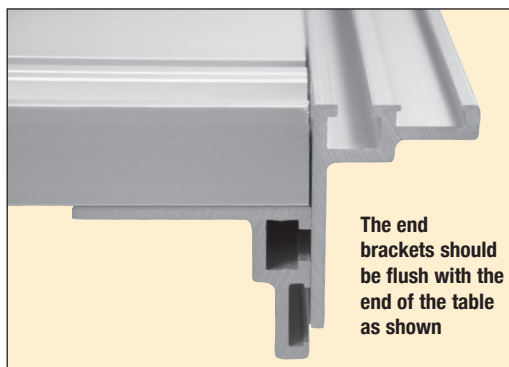
Slide the four weld nuts into the four T-tracks on the underside of the table

table brackets make sure you slide the 4-5/16" x 18 x 1 1/2" Hex Head bolts and the 4-5/16 x 18 x 2 1/2" Hex Head bolts that attach the table to sub base and sub base to cabinet.

Place the bracket with the 4 holes on each end of table and fasten down to the 4 T-tracks on the under side of table. To do this, use eight 1/4"- 20 x 1/2" hex head bolts and eight 1/4" weld nuts.

This is easily done by first inserting the bolts into the 4 holes of the table bracket, and then loosely attaching the 4 weld nuts. Next, slide the weld nuts into the 4 corresponding T-tracks and finger tighten.

Take the bracket with the 3 slots and insert three 1/4"- 20 x 1/2" hex head bolts, and then screw three 1/4" weld nuts loosely on the bolts. Next, slide the 3 weld nuts into the bottom table bracket already attached to the table and tighten with a 7/16" wrench. Do this on each end of table.



Putting your end brackets on both ends and tightening them down is what keeps the table flat and aligned.

STEP #5

The slots allow you to position the table track bracket up flush with the tabletop or down lower for miter gauge use. **TIP:** We very seldom use a miter gauge, so we keep the rear (right) bracket up flush with table and the front one (the one closest to pivot pin) down for saw dust removal.

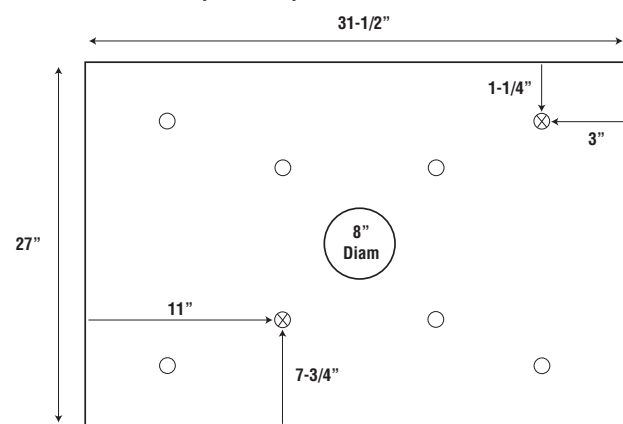


STEP #6

MAKING PLYWOOD SUB BASE

This is optional, but we recommend. The plywood sub base gives you a transition to build a custom router table cabinet to hold your router tabletop. It can also be used to install your router table in the right side of any table saw with a 27" depth.

You need a finished piece of frame 27" x 31 1/2" to fit the router table. The hole pattern to attach your wood frame to the 4-5/16"x18x1 1/2" hex head bolts and the 4-5/16"x18x2 1/2" hex head bolts already under your table is as follows:



All holes are 1/2" diameter. (Use 1/2" Forstner bit) Not drawn to scale.

We Tongue and Groove a 3" wide piece of framework around the 3/4" plywood to give it strength plus this allows easy attachment to table saw or your custom cabinet. Cut 1/4" tongues in 4 sides of plywood and 1/4" grooves into 3" framework.



SOMMERFELD'S Tongue & Groove Cabinetmaking Pro set works well for this operation.
Item 04001





Create Tongue & Groove framework 3" wide to frame the top.
Make two 27" and two 31-1/2" sides.



STEP #7

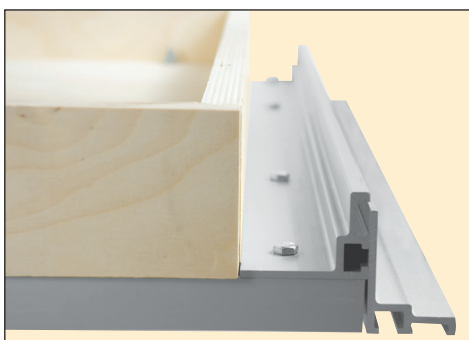
POSITIONING PLYWOOD TO ROUTER TABLE

First, slide all 8 bolts into position to make it easy to drop plywood sub base on. Use eight 5/16" washers and eight 5/16" nuts and tighten base on.



Above: Use four long bolts in position 3, 4, 5, 6. Use four short bolts in position 1, 2, 7, 8.

Right: Position the sub base so that it fits between the left and right brackets.



STEP #8

ATTACHING ROUTER

When attaching router, place router upside down on any worktable. Next, position router table on router making sure holes and lift handle all line up. Use the 4 black 1/4" - 20 x 3/4" cap screws to screw router on. A 5/32" hex driver is included. Keep this driver for positioning infeed & outfeed fences on fence.

STEP #9

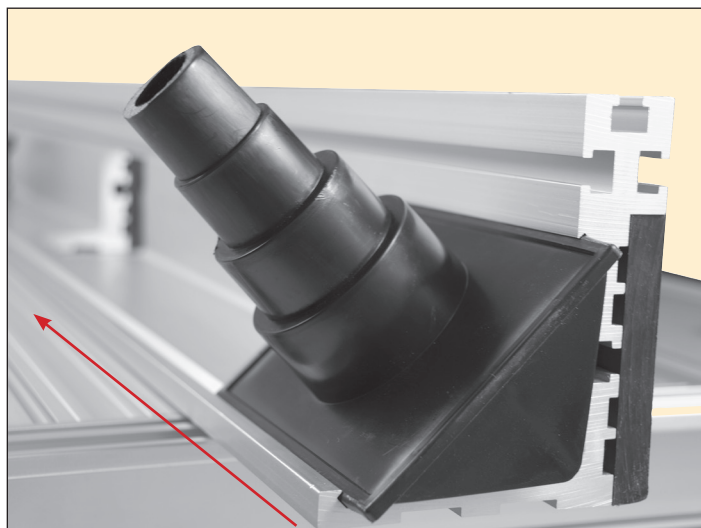
ASSEMBLING THE FENCE

Screw pivot pin in to correct depth, and lock down jam nut to lock pivot pin in place. (Threads should not extend below bottom surface of fence.)



STEP #10

Cut off dust port to correct diameter for your matching dust hose, and slide dust port from end of fence to center of fence.

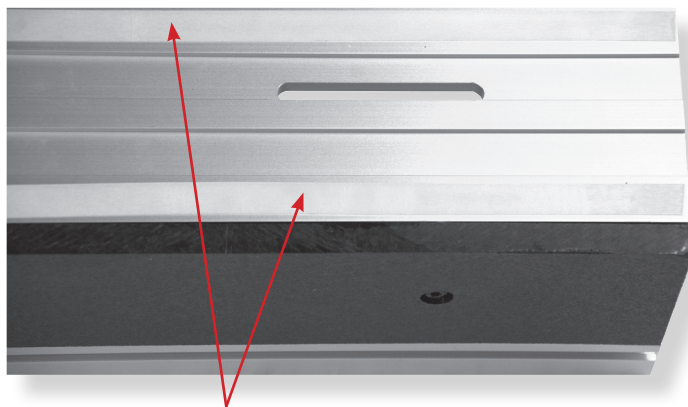


Tap the dust port with a rubber mallet to the center of the table. Cut the dust port off to the proper size of your dust collection system.

STEP #11

Cut the strips of adhesive tape to correct lengths for bottom of fence. Tape should be placed on 2 outside runners on bottom of fence. Peel back off tape and place correctly. (This will prevent fence from scratching tabletop and allow it to glide freely.)

MAINTENANCE TIP: Keep an eye on tape. If it starts to come off, we advise using our 2P10 glue or any similar glue to keep in place.



Cut strips of the adhesive tape and run along the full length of the bottom of the fence as seen above

STEP #12

Place the fence on the table so pivot pin goes in hole. Make sure your lift handle hole is not under the fence. (If using the Triton router). If it is, turn fence and use other pivot pinhole.



We recommend the **TRITON**
router for your
new table!



Item # TRA001
Triton 3-1/4 HP Router

STEP #13

Slide one 5/16" - 20 x 1½" bolt into opposite fence bracket. Position fence over the bolt and use 5/16" washer and black knob to hold down. Table is ready for operation in pivot mode.

If not using pivot mode, pull pivot pin up and rotate 90° in either direction to make pivot pin unusable.

Slide another 5/16" - 20 x 1½" bolt into opposite fence bracket track and position fence over this bolt and lock down with 5/16" washer and black knob. Table is now ready to use in non-pivot mode.



STEP #14

To cut out zero clearance inserts, select router bit and adjust to correct height. Position fence as close to bit as possible and mark outline of bit on zero clearance insert. Cut insert out on band saw to correct opening.

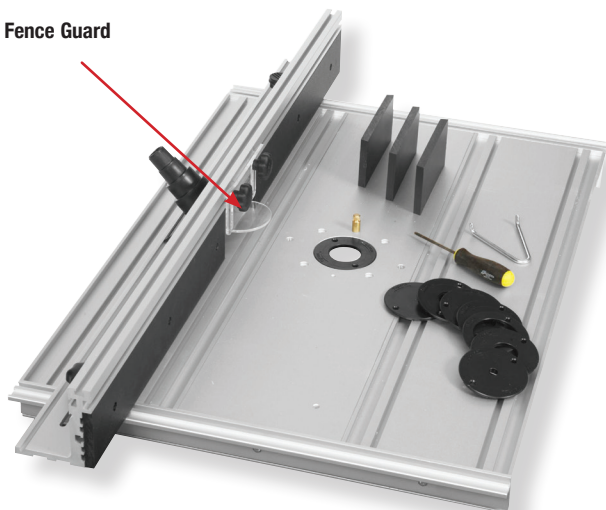
To interchange zero clearance inserts, move pivot pin side of fence out beyond the table and drop insert out of the bottom of fence.



STEP #15

You are now finished and can begin enjoying the benefits of your new router table! On pages 9-15 we have plans on how to build a quality cabinet to hold your router table.

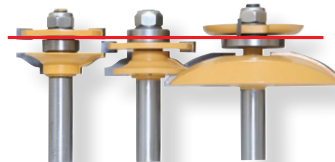
Fence Guard



Why SOMMERFELD'S Router Bit Sets are your best choice

Here's why you'll want our Height-Matched Bit Sets

Every routing expert and book offers the same law of router bit insertion: *Insert the bit until it bottoms-out in the collet seat – then retract it 1/16" to 1/8" before tightening.* Here's why. Although the insides of collets are straight to accept the shanks of your bits, when collet nuts are tightened, it's the tapered outside surface that



causes the collet opening to close tightly around the bit as it's drawn down into the seat. If the bit is already in contact with the collet seat when you tighten the nut, its shank won't allow

the collet to be pulled fully into the seat. Not tight. Perhaps not precisely straight. Certainly not a good thing.

Set-up consistency is the key to your success

It stands to reason that if you're unable to retract every bit the same, identical distance *every* time you insert it, you can't be confident that *every* set-up will be identical. This is especially true with mating bits (i.e. Tongue & Groove – Cope & Stick – etc.)... where you could waste considerable time and scrap on countless trial-and-error set-up attempts.

Router bit sets solve your problems

Stop wasting your valuable time raising and lowering your router, making test cuts to get mating bits in a set to match up.

Set the height for one bit in a matched set and the others are set when you drop them into the collet

Since all bits in each set (as well as some others across sets) are matched, just set your bit height once and all other Sommerfeld Bits that are designed to mate with it will be dead-on aligned the minute you drop them into the collet. Fast. Easy. Foolproof.

A simple rubber grommet provides the solution

Drop a small, 1/2" rubber grommet like the one shown here into the collet before inserting any of the bits in our matched sets.

After considerable research and more than 10 years' experience using this method, we have determined that the shanks of all our matched-length Sommerfeld bits will bottom-out identically in the collet... and allow the collet to be drawn down into its sleeve the same precise distance...every time...without multiple router height adjustments. That's why we include one of these grommets with every Sommerfeld Router Bit Set you purchase from us.



First class quality that lasts

Every Sommerfeld Bit is center-ground and CNC machined to stringent standards from premium quality high speed steel for optimal balance and durability. We then induction braze the carbide cutting edges (made of top quality micro-grain carbide from Ceremetal™ in Luxembourg) to the bit body, grind it to shape and hone it to super-sharp perfection before applying a friction-free Dupont Teflon™ coating.

Parts List - SOMMERFELD'S Fence

Item #	Description	Pieces
87919957	5/16" Flathead Washer	2
87914966	5/16" x 18 x 1-1/2" Hexhead Bolt	2
87914925	5/16" x 18 x 3/4" Hexhead Bolt (For Guard)	2
SOM#9	1-1/2" Fence Knobs	2
SOM#8	1" Guard Knob	2
CPG	Fence Guard	1
SFS	Infeed/Outfeed Sub Fence (Installed)	2
ND/2116	1/4" Weld Nut (Installed)	6
67661082	1/4" x 20 x 5/8" Cap Screw (Installed)	6
SOM#7	Pivot Pin	1
WIP-6060	Jam Nut for Pivot Pin	1
05050109	5/32" Hex Driver	1
ZCI30	Zero Clearance Inserts	3
DP001	Dust Port	1
UHPS-015-R.625	9/16" x 4' Tape	1
UHPS-015-R.75	7/8" x 4' Tape	1

Parts List - SOMMERFELD'S Top Only

Item #	Description	Pieces
52591294	1/4" x 20 Hex Nylon Lock Nut	6
87920336	1/4" Split Lock Washer	6
87914743	1/4" x 20 x 1" Hexhead Bolt	6
87919957	5/16" Flathead Washer	8
87914966	5/16" x 18 x 1 1/2" Hexhead Bolt - (Table to Sub-Base)	4
87915005	5/16" x 18 x 2-1/2" Hexhead Bolt - (Sub-Base to Cabinet)	4
67661082	1/4" x 20 x 5/8" Cap Screw - (Mounting Triton Router)	4
ND/2116	1/4" Weld Nut	14
87914701	1/4" x 20 x 1/2" Hexhead Bolt	14
67471086	5/16" x 18 Nut	8
SPANNER	Spanner Wrench	1
RINGS	Insert Rings	3
STARTER PIN	Starter Pin	1

Building the 10-drawer, Raised Panel Router Table System Cabinet



GETTING STARTED

SOMMERFELD'S products used to build this cabinet:

All of the tools listed below can be found by searching for the item numbers at our on-line catalog (www.sommerfeldtools.com) or our printed catalog. For more information about any of the products listed below...or to receive a copy of our FREE printed catalog...contact us TOLL-FREE at **888-228-9268**.

SOMMERFELD'S PRODUCTS...

- Router Table System (SORS)
- SOMMERFELD'S version of the Katie Jig Dovetail Joint System (SOKJ)
- 3-Pc Tongue & Groove Cabinetmaking Bit Set (03004)
- 3-Pc Raised Panel Bit Set (03001)
- 6-Pc Cabinetmaking Bit Set (06001)
- Easy-Set Jig (EZSET)
- Easy-Pocket Joinery System (EZP)
- Easy-Bore Hinge Boring Jig (SHB)
- Easy-Mark Hardware Drilling Jig (EZM-001)

OTHER PRODUCTS AVAILABLE FROM SOMMERFELD'S

- Triton Plunge Router (MOF001C or TRC001)

- 6" Digital Dial Calipers (100-333-1G)
- Push Block (PB)
- Face Clamp (#81930 or #81932)
- 21" Blum TANDEM BluMotion Drawer Slides (56221B)
- 1/2" overlay Blum Compact Face Frame Hinges (38N3580.08)
- BluMotion Door Silencer (Z971A9700.A1)
- Panalign rubber raised panel centering strips (PNL1)

About the numbers at the beginning of each step

These boldface numbers (**1:22:45**, etc.) at the beginning of each section (and occasionally within a section) represent the time elapsed since the beginning of the program in hours, minutes and seconds. Windows Media Player and most other players include these counters...use them to help you find and return to the appropriate sections of the enclosed Marc Sommerfeld DVD.

Great tips to ease your work and improve your results

- When cutting project components, always cut an extra same-thickness piece or two for use in making set-ups and practicing certain procedures.
- When working on a router table, remember that for most operations, inverted router bits are meant to be used on workpieces that are fed past the bit with their **GOOD SIDES DOWN** on the router table surface.
- For safety's sake, the larger the diameter of the router bit, the slower the RPM at which it should be run. That's because the surface speed at the outer edge of a 3" diameter bit is triple that of a 1" diameter bit.

Here are the recommended speeds:

Up to 1" diameter up to 24,000 rpm
Up to 2" diameter up to 18,000 rpm
Up to 2-1/2" diameter up to 16,000 rpm
Up to 3-1/2" diameter up to 12,000 rpm

ASSEMBLING THE ROUTER TABLE SYSTEM

- (**0:00 to 16:12**)

BUILDING THE ROUTER TABLE CABINET

• (**16:13 to 17:11** - and - **32:12 to 32:50**) Here are two brief, one-minute discussions of the precision, strength and ease of assembly provided by Marc Sommerfeld's Tongue-and-Groove joinery method.

- (**17:13 - 17:33**) Cut all face frame and side/back panel pieces to size (do not cut internal cabinet panel, cabinet door or drawer pieces at this time. See figure 1, 2 & 3. Use stop blocks on your miter gauge to be certain all pieces that are to be an identical length are so. While you're at it, cut three 4" spacer blocks to use for equally spacing and marking the positions of the drawer rails (D) in the next step, below.

- **(17:34 to 20:02)** Lay out all of the face frame components on your benchtop with their **GOOD SIDES DOWN** and in their respective positions. See figure 1. Slide the center stiles (F) to the left and use a **SHARP** pencil or scribe to mark the positions of all the horizontal rails on the left stile (A). Start by aligning the bottom rail (C) with the bottom of the left stile (A). Draw a line on the stile, at the top of the bottom rail.

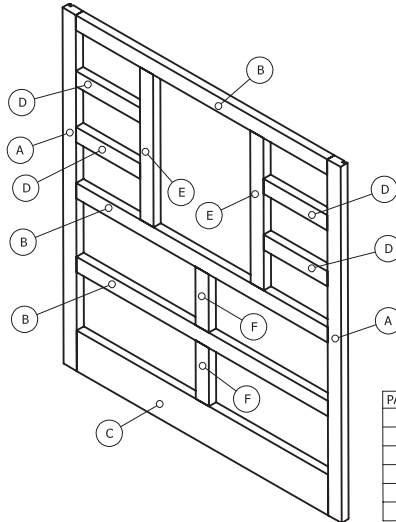


Figure 1

PART	QTY	PART NAME	SIZE
A	2	Main Stile	1-1/2 X 35
B	3	Main Rails	1-1/2 X 28-1/2
C	1	Bottom Rail	4 X 28 1/2
D	4	Drawer Rail	1-1/2 X 7-1/4
E	2	Drawer Stiles	1-1/2 X 15
F	2	Center Stile	1-1/2 X 5-3/4

Next, slide the center stile (F) to the left and draw another line where its top meets the main rail (A). Pull rail (B) into position against top of stile (F) and draw another line on the main stile where the top of the rail meets the stile. **(18:12)**

Repeat this process, working your way up to the top of the stile, using the 4" spacer blocks you cut earlier to mark the positions of all the drawer rails (D). Clamp the two opposing stiles (A) together with a couple of spring clamps and use a square to transfer your markings across both stiles, so the rail and opening positions are identical on both mating pieces **(18:52)**.

Follow this same procedure to mark the stile positions on each of the rails – Then number all mating joints 1/1 – 2/2 etc. for easier assembly.

- **(20:30 to 23:57)** Use a Pocket Hole Jig (EJP) to drill all of the required pocket holes. Be sure to set your drill stop so the tip of your bit is stopped about 1/8" above the "floor" your workpiece is resting on. **DO NOT ASSEMBLE THE COMPONENTS YET.** Before assembly, cut the grooves in the backs of the face frame components that are used for attaching the sides, floors & other pieces.

When it's time to assemble, it's important that all components remain flush while driving the pocket screws. For maximum efficiency during this operation, we offer a special quick-release

Face Clamp (#81930 or #81932) to hold the parts together and flush while you drive the screws into position **(22:03)**.

MARC'S TIPS

1: **(22:20)** For improved bonding, apply a thin coat of glue to all end grain and allow to set for a few minutes. Then apply a second coat and assemble the joint.

2: **(23:23)** When using pocket holes, select fine thread screws for hardwoods – coarse thread screws for soft woods.

- **(24:00 to 33:46)** Cut the grooves in the backs of selected face frame components (A,B,C,E,F) for attaching the sides, floors and dust panels.

MARC'S TIPS

3: **(24:57)** SOMMERFELD'S Tongue & Groove Cabinetmaking Bit Set (03004) makes this task simple because the tongue and groove bits are matched to automatically align when installed in your router without time-consuming trial-and-error adjustments. Go to the DVD for a demonstration of how this system works to save your time and improve your precision...plus tips on installing bits, setting bit heights (using our Easy-Set Jig [EZSET]) and setting-up your router table for operation. You just can't fail with our Routing Systems & bit sets.

4: **(29:34)** View these tips for cutting stopped grooves in workpieces.

- **(33:47 to 34:47)** Assemble the face frame using glue and pocket screws. Use face clamp to ensure that all mating components are flush before driving pocket screws.

- **(34:51 to 35:26)** About the side Panels. Use plain 3/4" plywood panels...or raised panels like our example. If you decide to use plywood, it's best to use cabinet grade material with no voids. See figure 2.

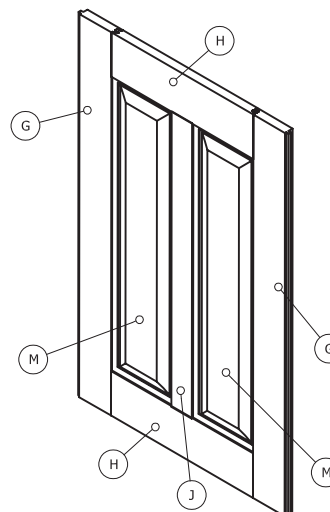


Figure 2

PART NO	QTY	PART NAME	SIZE
G	2	Stile	4-1/2 X 35
H	2	Rail	4-1/2 X 15
J	1	Center Stile	3 X 27
M	2	Panel	6-1/4 X 26-3/4

For step-by-step instructions on building raised-panels, see Marc's raised panel DVD "Arched Raised Panels Made Easy" (DVD1).

MARC'S TIPS

5: (35:24) If you decide to make raised panel sides and would prefer to cut the side panel tongues that will mate with your face frame rails before you assemble the panels, you'll need to make



four short scraps with grooves in them for use as cauls during clamp-down.

Slip these cauls over the tongues on your side panels during glue-up to keep them from getting smashed by your clamps.

- (37:20 to 40:39) Cut the horizontal grooves near the tops of the side panels for the reinforcing corner blocks.

MARC'S TIPS

6: (38:40) Here's a great tip about using the climb-cut technique to prevent tear-out when cutting across grain – especially on plywood.

- (40:45 to 41:30) About the back panel. Again, use plain 3/4" plywood panels...or raised panels like our example. See figure 3.

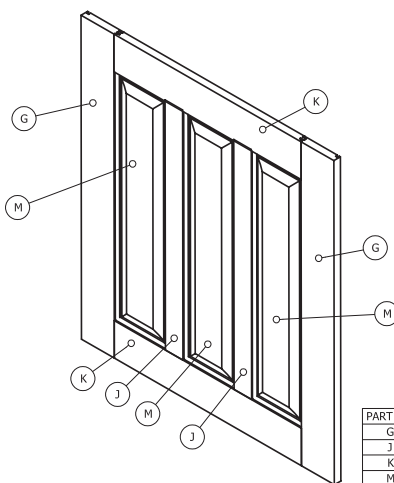


Figure 3

PART NO.	QTY	PART NAME	SIZE
G	2	Rear Panel Stile	4-1/2 x 35
J	2	Rear Panel Center Stile	3 x 27
K	2	Rear Panel Rail	4-1/2 x 23-1/2
M	3	End Panel	6-1/4 x 26-3/4

If you choose raised panels, be sure to cut the vertical grooves in your back panel stiles that will engage the tongues in your side panels before you assemble the panel. This way, you won't have to wrestle with the large, cumbersome panel on your router table.

- (42:00 to 42:50) Determining "floor" & dust panel

measurements. Although these measurements are provided in the Bill of Materials, it's always best to double-check everything to ensue the optimum fit. See figure 7.

- (42:59 to 45:50) Cutting tongues on the "front" edges of all internal cabinet panels (N, P & Q). Since these panels are designed to anchor to the face frame...and since our face frame components are secured to one another with glue and screw pockets...the ends of the tongues on each panel will have to be trimmed off before they'll fit.

MARC'S TIPS

7: (43:57) Here's how to use a Flush Trim bit to quickly remove ends where the grooves on mating pieces stop.

- (46:00 to 46:45) In this step, we'll use our Pocket Hole Jig (EZP) to cut a series of pocket holes in the undersides of our floor panels to provide support.

MARC'S TIPS

8: (45:39) When positioning your pocket holes, be certain **NOT** to screw these components to the floating panels in the sides and back. Screw **ONLY** to the stiles, as the panels must be free to move, once assembled.

- (47:00 to 54:14) In this step, we'll dry test/clamp the cabinet components together. Use a square to be certain everything fits properly. Once you're satisfied with the fit, start by installing the lower floor. Glue only the tongued edge of the panel, as the screws will hold the other edges quite nicely without glue.

Note that portions of the tongue on the lower center dust panel (Q) will have to be flush-trimmed so the tongue fits properly into the two center stiles (F).

Be sure to cut a groove at the inside top of each of the upper dust panels (P) to accept a 1" x 2" anchoring strip for the Router Table top.

- (54:15 to 57:40) Cut four corner braces (about 1-1/2" wide x 5" or so long with 45o angled ends). Once cut, use your Tongue cutter to form a tongue on each end for anchoring into the grooves at the top of the face frame, sides and back.

Once you're satisfied that everything fits properly, take the components apart, then glue and screw everything together and sand.

BUILDING THE DRAWERS AND DOOR

- (58:07 to 59:50) Begin by cutting all of the drawer components to size, according to the Bill of Materials. See figure 4 & 6.

Figure 4

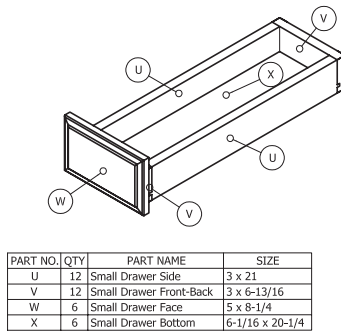


Figure 5

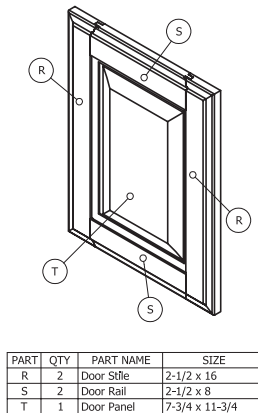
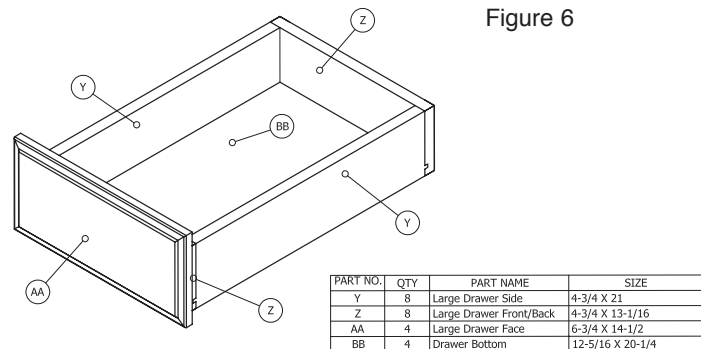


Figure 6



MARC'S TIPS

9: (58:21) Here's Marc's great tip for determining the size of your drawers...based on the size of your drawer openings and the slides you plan to use. **NOTE:** You should have your slides in-hand before making any size determinations.

• (59:52 to 1:06:59) Determine the desired spacing for the through dovetails and set your dovetail jig accordingly. We used SOMMERFELD'S version of the famous **Katie Jig Dovetail Joint System**. [SOKG].

MARC'S TIPS

10: (1:00:43) Here's how to set your router bit height with the Katie Jig. Position a piece of same-thickness stock on top of the jig "comb". Move the jig up next to your dovetail router bit and set its height just a bit "proud" of the top surface of your scrap. This will cause the dovetail pins to protrude a bit beyond the surface of the tails. Once assembled, use your belt sander or random orbit sander to sand everything flush.

• (1:00:40 to 1:01:34) Use your dovetail jig to cut all dovetail pins and tails according to the directions that came with the jig. Once cut, test fit to be certain everything is **OK** before proceeding to the next step.

MARC'S TIPS

11: (1:04:41) To prevent chip-outs when cutting the tails with a pattern bit, always go to the very outside of each end of your workpiece first and clean that out before cutting the insides.

• (1:07:00 to 1:07:35) Next, cut the grooves for the drawer bottoms. Use the groove cutter with your **Tongue & Groove Cabinetmaking Set** (03004) to perform this task. Set your cutter so the bottom of the 1/4" wide x 1/4" deep grooves are positioned 1/2" up from drawer bottom.

Remove 3/4" from the bottoms of all drawer backs to allow the bottoms to slide in once they're assembled.

• Assemble and glue the drawer boxes together then flush sand the protruding dovetail pins.

• (1:08:00 to 1:15:23) Install the drawer slides. As you recall, one side of each drawer opening (the inside) has a dust panel that's flush with the drawer stiles (E)...allowing the installation of the slides on this side without any modifications. However, the other side of each opening must be built-out so it's flush as well. Measure this distance, cut these wood "fillers" to the correct size and install them as shown in the DVD.

• (1:15:39 – 1:29:40) Cut & assemble the cabinet door. See figure 5. First, set-up and make the cope cuts on the ends of both door rails. Then replace the cope bit with the pattern bit and make the pattern cuts on the inside edges of the door rails and stiles. Finally, change bits again to the Panel Raiser and cut the edges of your door panel.

MARC'S TIPS

12: (1:23:20) Since the Panel Raiser is a very large bit, your results will be smoother if you cut your door edges in two passes and slow your router's speed down. 13: (1:24:03) Make a push block to help prevent tear-outs and provide support. 14: For best results, rotate your stock in a counter-clockwise direction as you make your four cuts...cross-grain first, followed by a with-grain cut, followed by another cross-grain cut, etc.

• (1:25:46 to 1:29:38) Assemble the door. Use small, 1/4" x 1/4" x 1" long rubber Panalign strips (PNL1) to hold the panel in position while allowing it to expand and contract without fear of splitting.

MARC'S TIPS

13: (1:27:00) When gluing-up raised panel doors, keep the glue well away from any inside edges where the cope and pattern cuts meet, as it's very difficult to remove excess glue from these areas once assembled. If you do get squeeze-out, before the glue dries, try one of these methods for removing it: 1): Use a 50/50 solution of white vinegar and water to wipe the joint...or 2): Pick up a handful of sawdust and rub it across the joint to soak-up the glue.

- (1:29:42 to 1:31:26) To make the drawer fronts, replace the Panel Raising Bit with a Drawer Front Bit and repeat the process you followed when cutting the raised panel for the door. Start with a cross-grain cut and rotate the workpiece counter-clockwise through all four sides of the drawer front.

- (1:31:33 to 1:33:25) Next, change to an Ogee Bit and cut the door edge detail, following the same rotational plan as with the raised panel and drawer fronts.

- (1:33:26 to 1:38:24) Install the drawer fronts. Start by drilling all of the drawer handle mounting holes.

MARC'S TIPS

14: (1:33:45) SOMMERFELD'S Easy Mark Hardware Drilling Jig (EZM-001) makes easy work of centering handles and other hardware identically on several matching components.

Once the handle holes are drilled, begin the drawer front installation process by determining the overlay of the drawers and door. In our case, this overlay is 1/2".

MARC'S TIPS

15: (1:35:14) Tilt the cabinet backwards so it's leaning on a 5-gallon paint bucket or other object of that approximate height. This way, gravity will be working **WITH** you, holding the pieces in place as you work. 16: (1:35:24) Start with lower-most component and work your way up. In our case, we started with the lower drawers.

Use properly sized spacing strips cut from scrap wood to ensure that all components are evenly spaced. Once positioned, temporarily screw the fronts to the drawers through the hardware mounting holes.

When they're secured, install screws from the inside of the drawer into the drawer front...then remove the temporary screws you installed through the handle holes. Repeat this process for all drawer fronts.

- (1:38:25 to 1:41:42) Attach the hinges to the door stile. We mounted the doors to our cabinet using Blum 35mm, European style concealed hinges. These hinges require three holes: a 35mm, flat-bottomed hinge cup hole, flanked by two 8mm holes for the nylon locking inserts.

The best way to position these holes properly is to use Sommerfeld's EASY-BORE Hinge Boring Jig (Item: #SHB). It features an offset-adjustable, clamp-on frame with spring-loaded bits (two 8mm & one 35mm), pre-set for the proper spacing.



MARC'S TIPS

17: (1:39:45) Use shallow (7/16") cup concealed hinges on all 3/4" doors with detailed edges to avoid the possibility of the hinge cup hole coming through your detail cut. Use practice pieces of door stiles to check these hole depths and

positions and avoid ruining a finished door.

To attach the Blum hinges to the stile, insert them into their holes and strike the two small screw heads with a hammer, driving the locking inserts into their 8mm holes.

- (1:41:44 to 1:43:06) Attach the door to the face frame. Use a scrap block, clamped to the bottom of the cabinet rail (B) to support the door at the proper 1/2" overlay while you install the two screws that attach the hinges to the drawer stile (E).

- (1:43:20 to 1:44:15) Install the **BLUMOTION** Door Silencer.

- (1:44:18 to 1:49:48) Make the plywood sub-base for the Router Table System. Drawings and step-by-step directions for making this sub-base are included with every SOMMERFELD'S Router Table System.

- (1:49:50 to 1:52:16) Attach your Router Table System to the cabinet. Step number 6 on page 4.

- (1:52:17 to 1:54:00) Tips on attaching your Router Table System to a table saw.

Master cabinetmaker Marc Sommerfeld's DVDs, tips & tools will help you build projects just like the Pros!

- ✓ **Arched Raised Panels Made Easy**
- ✓ **Glass Panel Doors Made Easy**
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Item # DVD11PK
The Complete Made Easy DVD Series

Large Diagram of **SOMMERFELD'S** 10-Drawer, Raised Panel Router Table System Cabinet

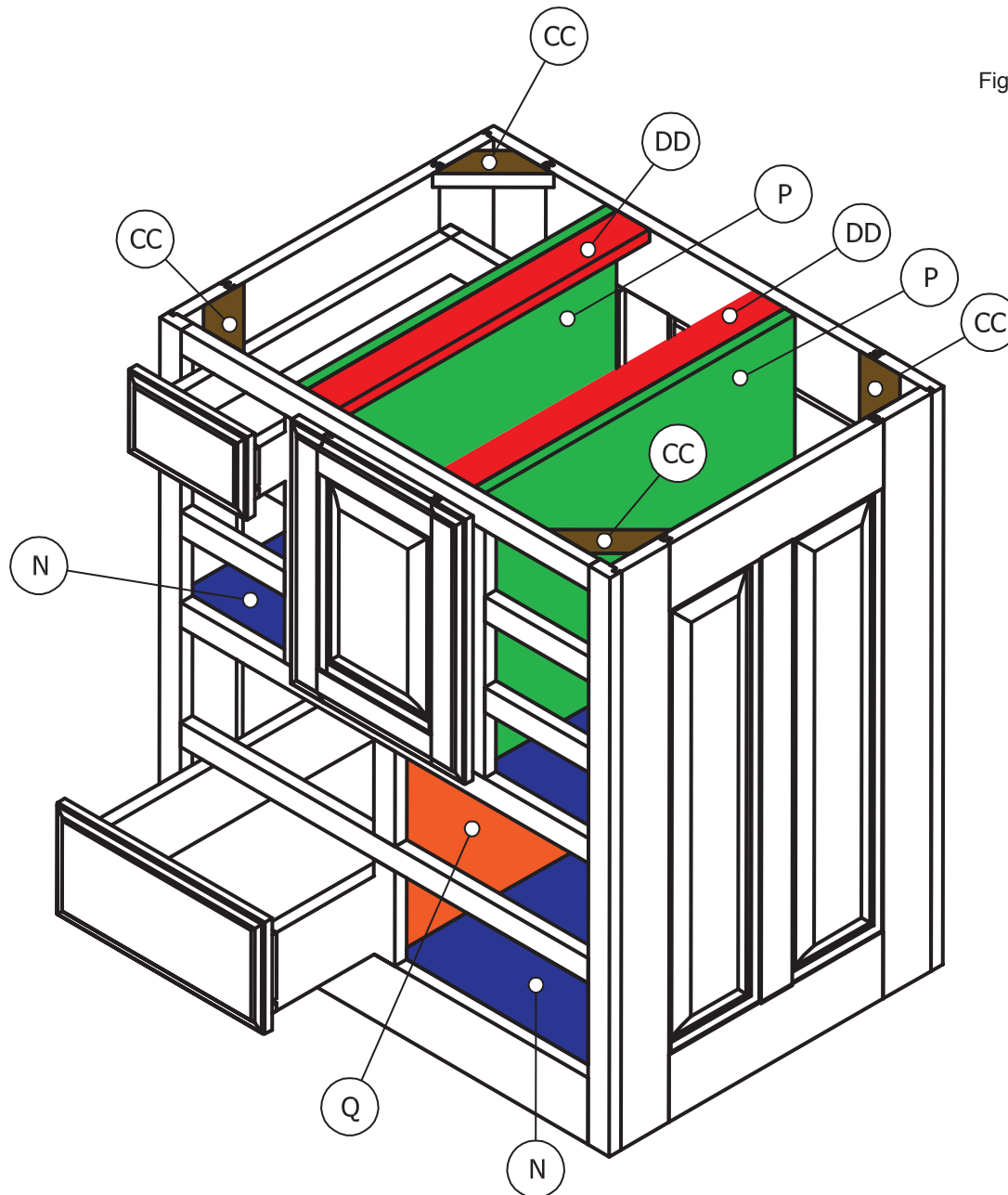


Figure 7

PART	QTY	PART NAME	SIZE
N	2	Upper & Lower Floors	22-3/4 x 29-7/8
P	2	Upper Dust Panel	22-3/4 x 16-1/2
Q	1	Lower Center Dust Panel	22-3/4 x 13-3/4
CC	4	Corner Block	2 x 6
DD	2	Tabletop Support Rail	2-1/2 x 22-1/2

SOMMERFELD'S 10-Drawer Router Table Parts List

BILL OF MATERIALS:

NOTE: Hardwood stock is 13/16" thick, except drawer components which are made from 5/8" stock. Dimensions are in inches.

In reading dimensions, remember that the width of a board is always measured across the grain.

FACE FRAME

- A Main Stiles (2)1-1/2 x 35
- B Rails (3)1-1/2 x 28-1/2
- C Bottom Rail4 x 28-1/2
- D Drawer Rails (4)1-1/2 x 7-1/4
- E Drawer Stiles (2)1-1/2 x 15
- F Center Stiles (2)1-1/2 x 5-3/4

ENDS (2)

- G Main Stiles (2)*4-1/2 x 35
- H Rails (2)4-1/2 x 15
- J Center Stile (1)**3 x 27
- L Panels (2)6-1/4 x 26-3/4

BACK

- G Main Stiles (2)*4-1/2 x 35
- J Center Stiles (2)**3 x 27
- K Rails (2)4-1/2 x 23-1/2
- M Panels6-1/4 x 26-3/4

INTERNAL CABINET PANELS - (3/4" PLYWOOD)

- N Upper & Lower Floors (2)22-3/4 x 29-7/8
(30" if using 3/4" hardwood)
- P Upper Dust Panels (2)22-3/4 x 16-1/2
- Q Lower Center Dust Panel22-3/4 x 13-3/4

CABINET DOOR

- R Door Stiles (2)2-1/2 x 16
- S Door Rails (2)2-1/2 x 8
- T Door Panel7-3/4 x 11-3/4

DRAWERS

(5/8" thick frames – 1/4" plywood bottoms)

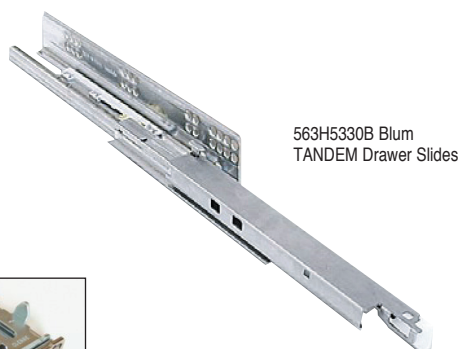
Dimensions if using Blumotion slides:

SMALL DRAWERS

- U Small Drawer Sides (12)3 x 21
- V Small Drawer Fronts/Backs (12)3 x 6-13/16
- W Small Drawer Faces (6)5 x 8-1/4
- X Small Drawer Bottoms (6)6-1/16 x 20-1/4

LARGE DRAWERS

- Y Large Drawer Sides (8)4-3/4 x 21
- Z Large Drawer Fronts/Backs (8)4-3/4 x 13-1/16
- AA Large Drawer Faces (4)6-3/4 x 14-1/2
- BB Large Drawer Bottoms (4)12-5/16 x 20-1/4



563H5330B Blum
TANDEM Drawer Slides



38N358B.08
Soft Close Blum Compact
Face Frame Hinges

SOMMERFELD'S Router Table Hardware Package

ITEM	Description	Sale
56221B	(10 pair) 21" Blum TANDEM BluMotion Drawer Slides	\$399.00
38N358B.08	(1 pair) 1/2" overlay Soft Close Blum Compact Face Frame Hinges	\$7.80
	TOTAL RETAIL VALUE	\$406.80
SHP	Sommerfeld's Hardware Package	\$349.00
		YOU SAVE
		\$57.80



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