

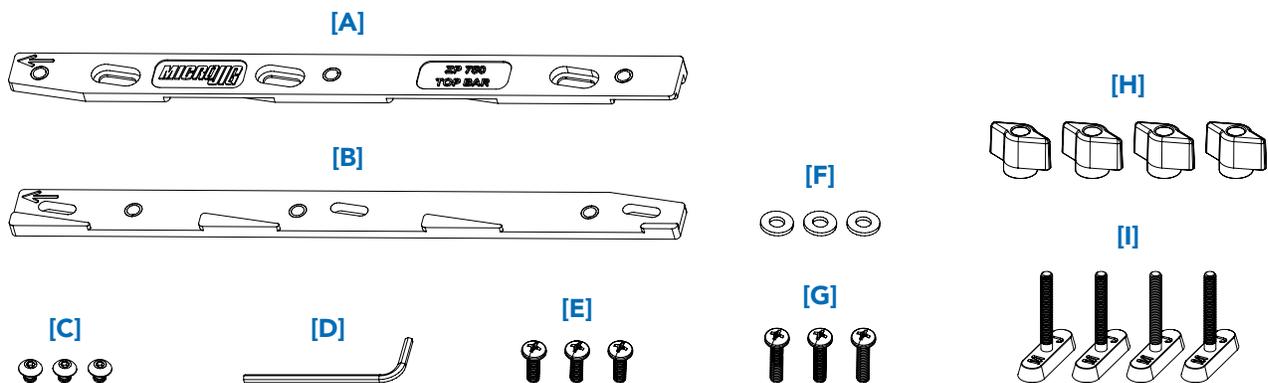
ZEROPLAY[®]

360 SLED KIT PROJECT PLANS



INCLUDED ITEMS

Parts for ZEROPLAY 360 Sled Kit		Qty	Part #
[A]	ZEROPLAY™ Bottom Guide Bar	1	ZP750-P1
[B]	ZEROPLAY™ Top Guide Bar	1	ZP750-P2
[C]	#8-32 x 3/16" button head screw	3	ZP-H1-EH
[D]	3/32 hex wrench	1	ZP-H2-EH
[E]	#8-32 x 1/2" pan head screw	3	ZP-H3-EH
[F]	#10 flat washer	3	ZP-H4-EH
[G]	#8-32 x 3/4" pan head screw	4	GR-H52
[H]	1.5" MATCHFIT™ Track Screws (#10-32)	4	DV-HL5
[I]	#10-32 Wing Knobs	4	GR-H52



PROJECT OVERVIEW

The ZEROPLAY 360 Sled combines the ease of ZEROPLAY Miter Bars with the versatility of the Dovetail Track System. This setup allows you to position the 360 Sled fence at any angle through 360 degrees while keeping the sled parallel to the blade.

The dovetail tracks can also be used to add custom stops and hold downs in addition to securing parts using MATCHFIT Dovetail Clamps—allowing you to make cuts safely and repeatably while your hands are away from the blade.

Follow along with the full instructional video: microjig.com/360sledvideo

TOOLS & MATERIALS

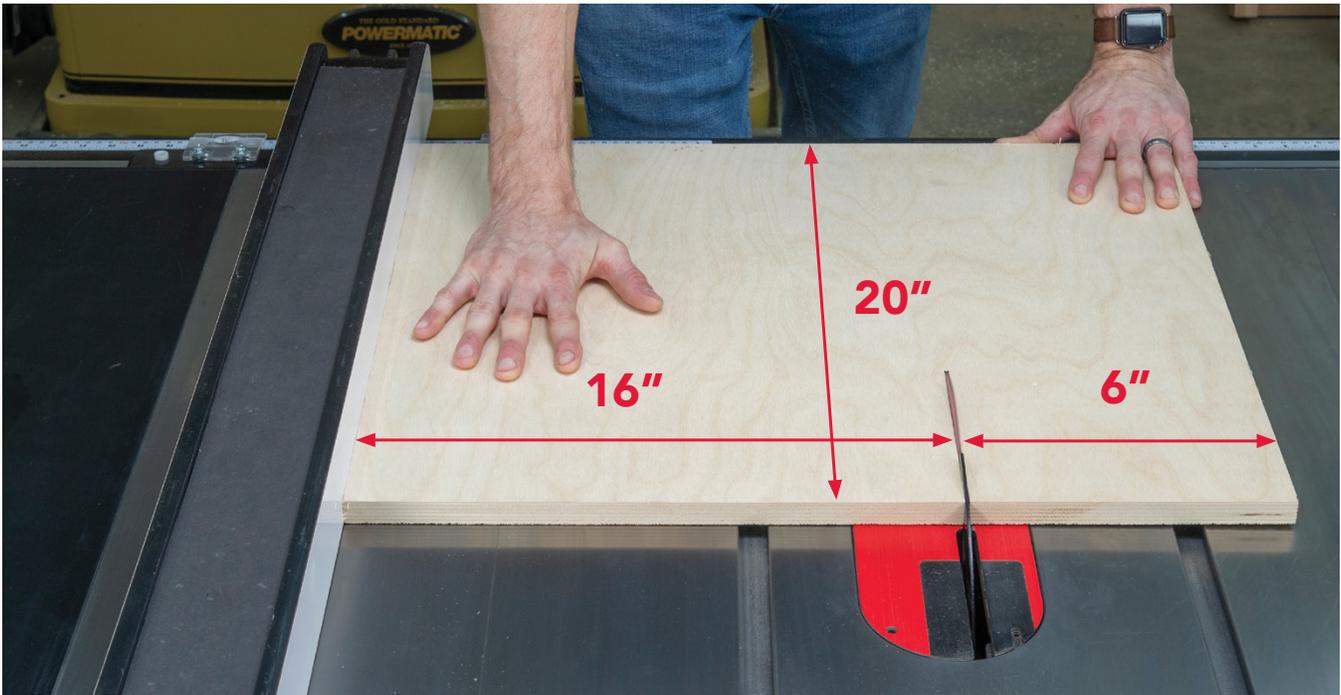
- Table saw
- Router table
- 3/4" (18mm) thick
22" x 20" (550mm x 500mm) wood
Void-free plywood, standard MDF,
or seasoned solid wood (Baltic birch
recommended)
- MATCHFIT Dovetail Router Bit
OR standard 1/2" x 14° dovetail bit
- Adjustable square
- 1/2" forstner bit
- 3/4" forstner bit
- 1/4" standard drill bit
- 5/16" standard drill bit
- Phillips-head screwdriver
- (2) five-cent coins or washers
- 3/4" (18mm) thick small scrap wood
- Pencil or pen

NOTE: *Make sure your table saw's miter slot and rip fence are parallel to the blade before following these instructions.*

STEP 1

CREATE THE BASE OF THE 360 SLED

1. Cut your selected piece of wood to 22" x 20" (550mm x 500mm) using a table saw as needed.
2. Next, cut the piece down to 16" x 20" (406mm x 500mm) in a single cut. The 6" (152mm) off-cut piece will be used to build the fence in **STEP 7**.



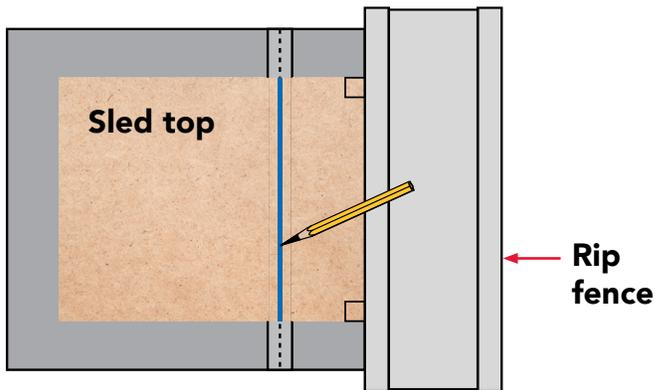
NOTE: Make sure all dimensions are accurate and corners are 90°.

STEP 2

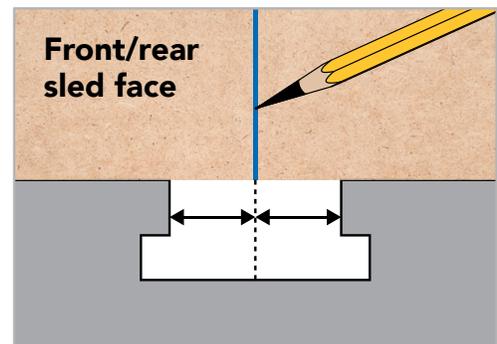
MARK DOVETAIL TRACK AND HOLE LOCATIONS

TIP: Different saws have different miter slot locations. Laying out the ZEROPLAY mounting holes and Dovetail Track locations before drilling or cutting is recommended.

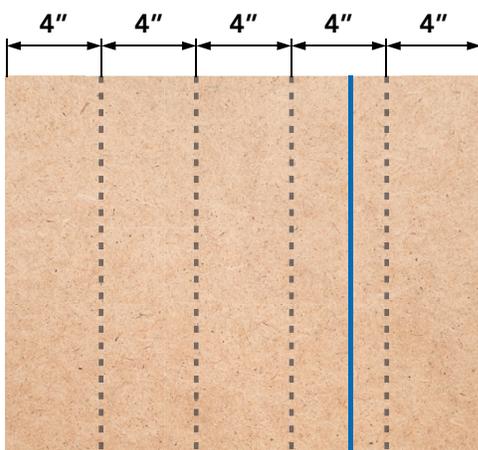
1. Set the rip fence so that it just covers the blade slot, and set your sled base square (90°) to the rip fence. Mark the center of the miter slot on the front and back edges of your sled base. Draw a **center line** connecting these two marks— this is where the Miter Bar will mount to your sled. **(Fig 2.1 – Fig 2.2)**
2. Measure the sled base side to side in 4" (101.6mm) increments to lay out the vertical Dovetail Tracks. Shift all track lines left or right if a track line is closer than 1-1/2" to the **center line**. Move all lines together keeping them 4" apart. **(Fig 2.3)**
3. Measure the sled base front to back in 4" increments to lay out the horizontal Dovetail Tracks. The ZEROPLAY mounting holes are dimensioned out to work with this spacing. **(Fig 2.4)**



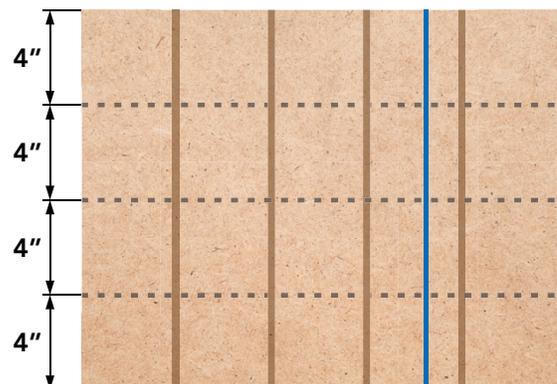
(Fig 2.1)



(Fig 2.2)



(Fig 2.3)

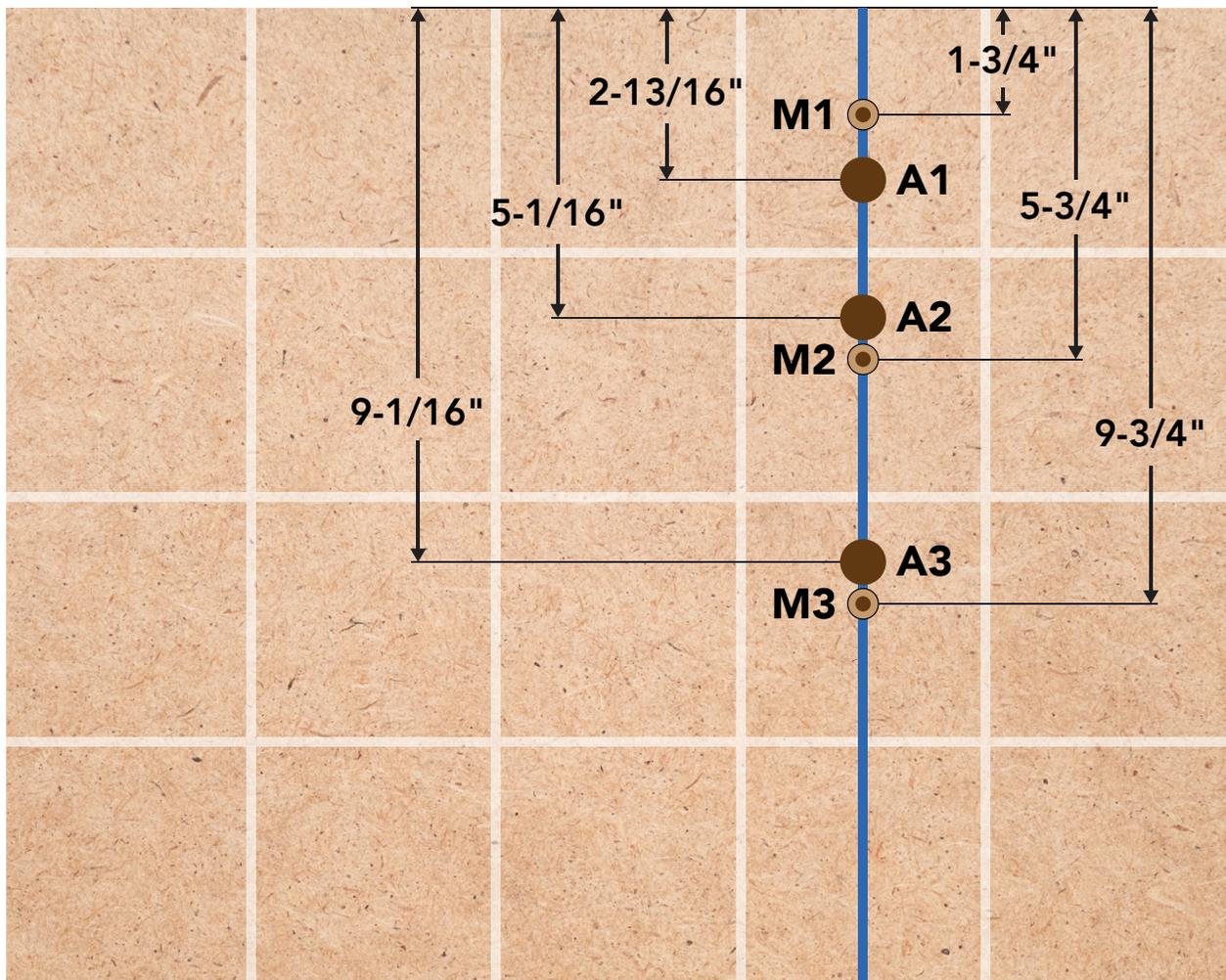


(Fig 2.4)

STEP 3

DRILL MITER BAR MOUNTING HOLES

1. Measure along the center line drawn in Step 2 and mark it at $1\text{-}\frac{3}{4}\text{'}$ (44mm) back from the front edge of the sled. Label it M1. This is the location of the first mounting hole.
2. Mark two more mounting holes at $5\text{-}\frac{3}{4}\text{'}$ (146mm) and $9\text{-}\frac{3}{4}\text{'}$ (248mm) and label them M2 and M3, respectively.
3. Mark three adjustment hole locations at $2\text{-}\frac{13}{16}\text{'}$ (71mm), $5\text{-}\frac{1}{16}\text{'}$ (129mm), and $9\text{-}\frac{1}{16}\text{'}$ (230mm). Label them as A1, A2, and A3.



This layout is ideal, but some saws may require the Dovetail Tracks to be shifted to one side to clear the ZP750 mounting holes.

STEP 3 (Continued)

DRILL MITER BAR MOUNTING HOLES

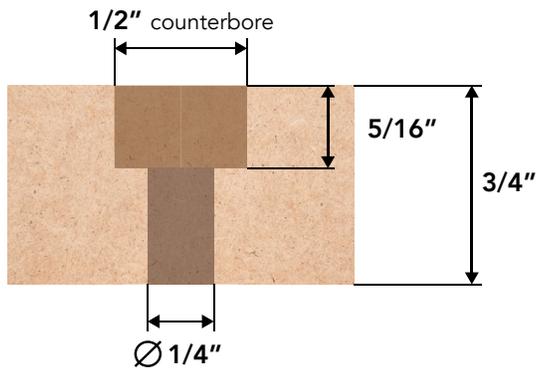
4. Drill 1/2" (12mm) diameter counterbores 5/16" (8mm) deep at M1, M2, and M3 using a 1/2" (12mm) forstner bit. Then drill 1/4" (6mm) through holes at each mounting hole (M1, M2, M3) through the center of the counter bore. (Fig 3.1 – Fig 3.4)
5. Drill 3/4" (19mm) through holes at A1, A2 and A3.



(Fig 3.1)



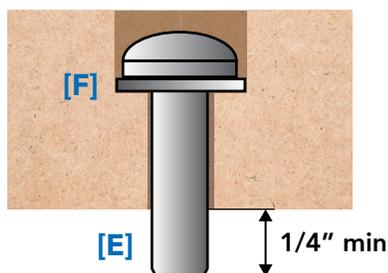
(Fig 3.2)



(Fig 3.3)



(Fig 3.5)



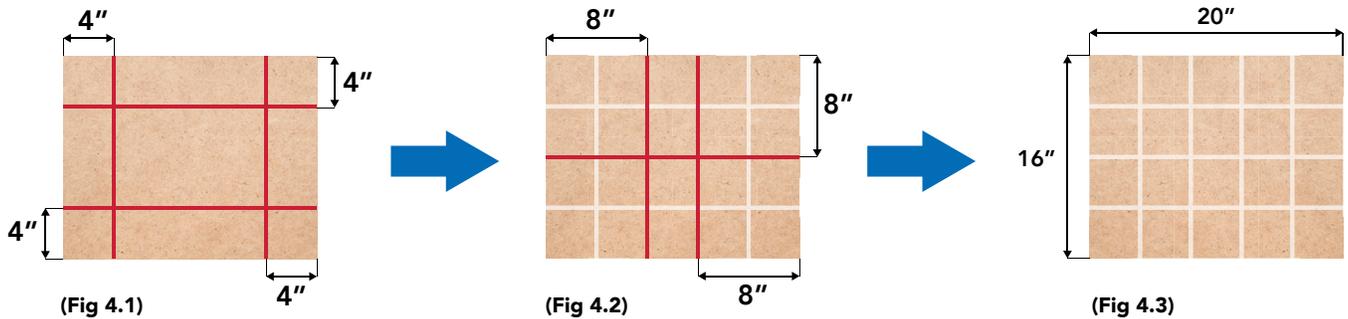
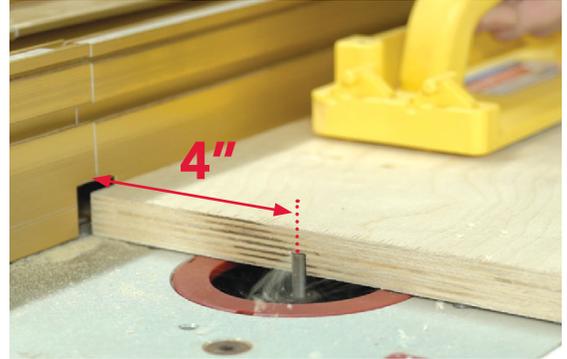
(Fig 3.4)

STEP 4

CUT RELIEF GROOVES

Dovetail tracks are 4" apart on center. All measurements are from the center of the bit.

1. On your router table, set the 1/4" (6mm) straight bit to a cutting depth of 11/32" (8.5mm).
2. Set the router table fence to 4" (100mm) and cut the four outside grooves by running each side along the fence. Rotate the workpiece 90° after each cut. (**Fig 4.1**)
3. After all four cuts are made, set fence to 8" (200mm), and repeat previous step. Only a single cut is needed along the 20" (500mm) side. (**Fig. 4.2**)

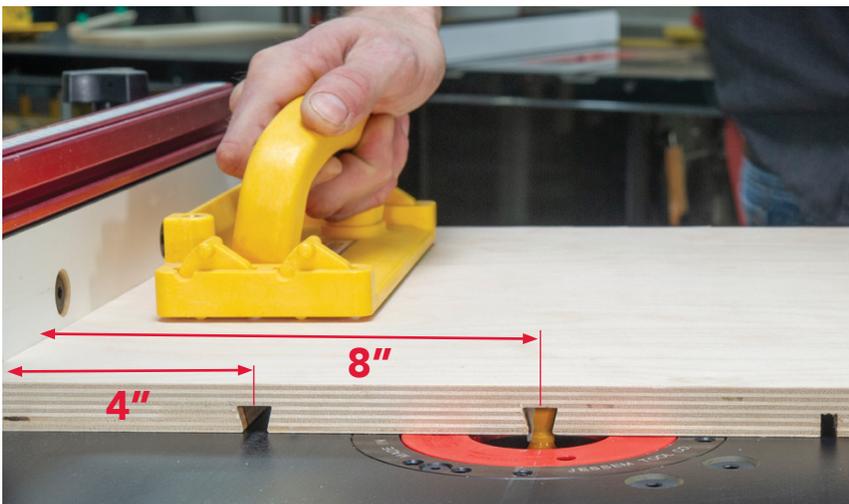


NOTE: An auxiliary fence is required if your router table fence can't be positioned 4" (100mm) to 8" (200mm) away. Learn how at: microjig.com/routertablefence

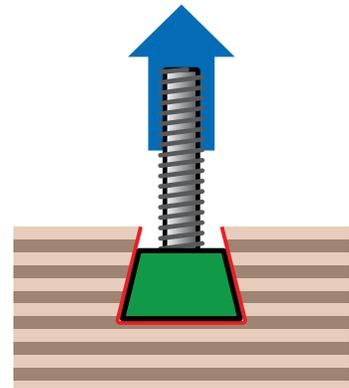
STEP 5

ROUTE DOVETAIL TRACKS

1. Using a 1/2" x 14° dovetail router bit, set to a cutting depth of 3/8" (9.5mm).
2. Test route a piece of scrap wood, and use the Dovetail Hardware to ensure that the dovetail bit profile and cutting depth are correct.
3. Confirm that the Dovetail Hardware remains inside the Dovetail Tracks and below the material surface when pulled up. **(Fig. 5.1)**
4. Proceed to route Dovetail Tracks in all relief grooves.



Pull up to test
Dovetail Track

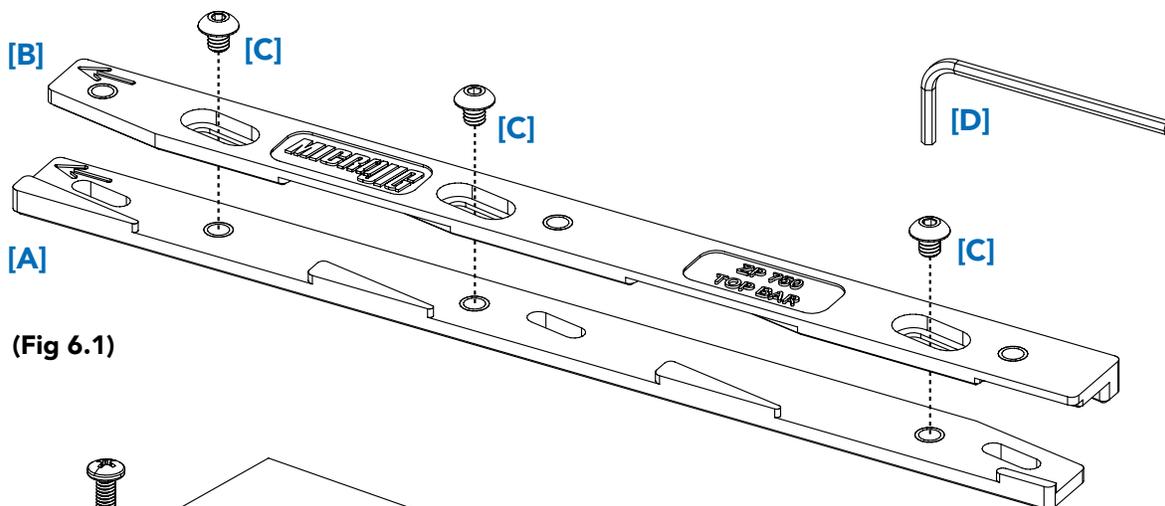


(Fig 5.1)

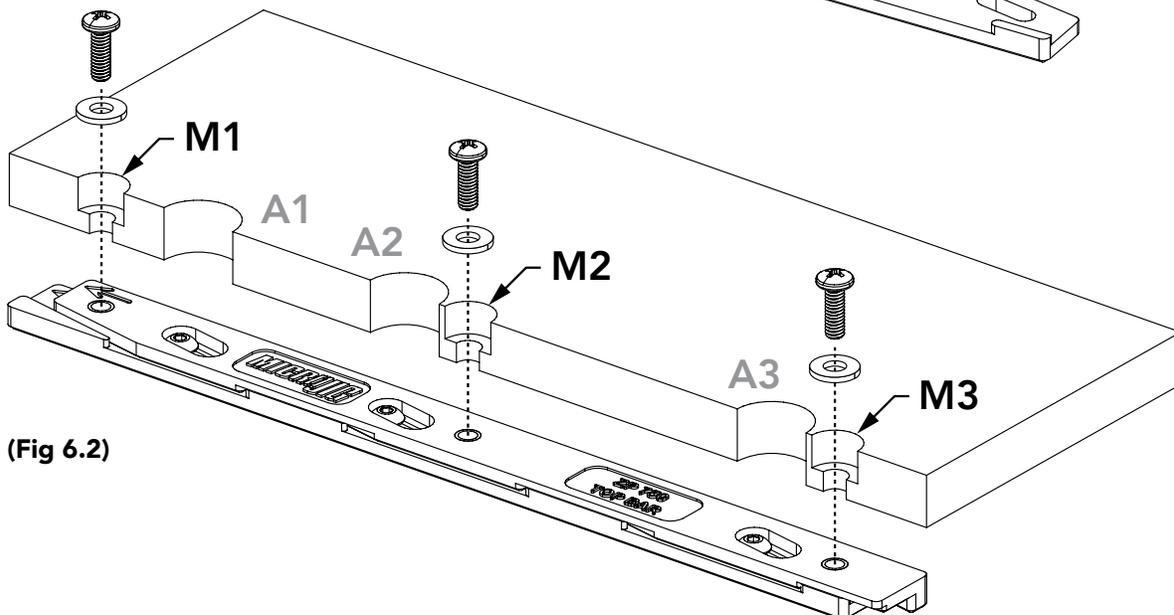
STEP 6

INSTALL MITER BAR

1. Stack the Top Bar [B] on top of the Bottom Bar [A] with the arrows upwards and in the same direction. Insert (3x) button head screws [C] through the counterbored slots in the Top Bar and lightly secure both bars together using the hex key [D]. (Fig 6.1)
2. Adjust the bars to the narrowest setting and lightly tighten the screws.
3. Using a philips screwdriver, attach the Miter Bar to the bottom of the sled using (3x) 3/4" pan head screws [G] and (3x) flat washers [F]. Insert the screws with with washers through each mounting hole (M1, M2, M3) and tighten. (Fig 6.2)
4. Each adjustment slot should be visible through the adjustment holes (A1, A2, A3) drilled in Step 4.5.



(Fig 6.1)



(Fig 6.2)

STEP 6

5. Place the sled base on top of your table saw surface so the Miter Bar is set into one of the miter slots. Push the sled to the right so the Miter Bar is firmly against the inner wall of the miter slot.
6. Using the hex key (D), loosen the three button head screws in the Miter Bar through the adjustment holes.
7. Use the hex key to gently slide one of the button head screws downwards so the Miter Bar expands to completely fill the miter slot. Then, tighten each button head screw. **(Fig 6.3)**
8. Test the Miter Bar fit by sliding the sled along the miter slot. It should slide freely with no side-to-side play. Repeat the previous steps if the fit is too tight or too loose.
9. When the fit is correct, loosen the mounting screws (M) and gently slide the rip fence to the right edge of the sled base until they meet. Lock the rip fence and secure the Mounting Screws.

Your 360 Sled base is ready for the fence.

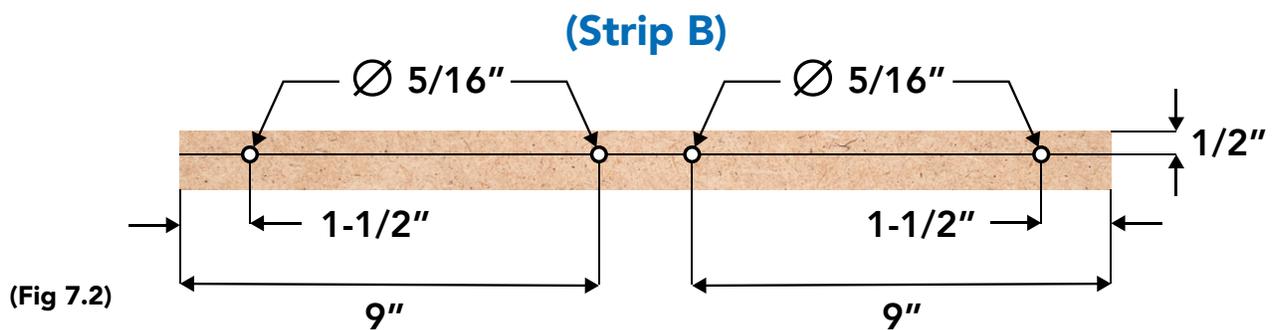
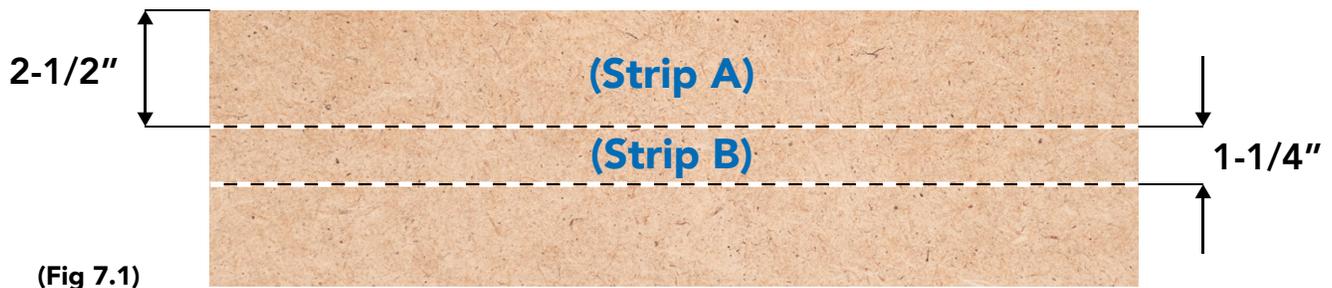


(Fig 6.3)

STEP 7

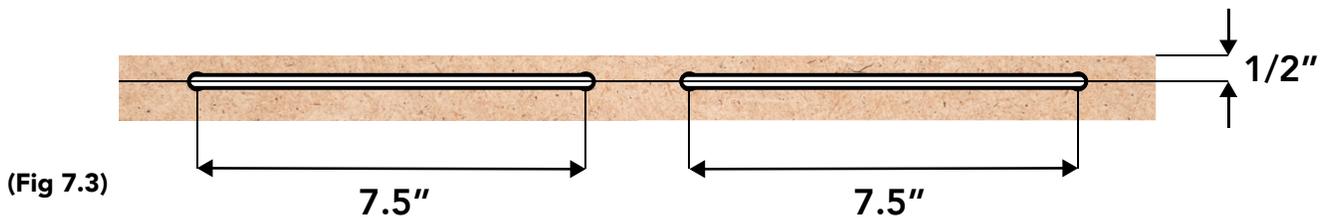
BUILD 360 FENCE

1. From the off-cut piece left over from **STEP 1**, cut a 2-1/2" (64mm) strip (**Strip A**), and a 1-1/4" (32mm) strip (**Strip B**) using your table saw. (**Fig 6.1**)
2. On (**Strip B**), mark lines at 1-1/2" (38mm) and 9" (228mm) in from each end, and a line down the length of the strip 1/2" (12mm) in from an edge. Drill 5/16" (8mm) diameter thru holes where these lines intersect. These holes will be the beginning and end points of the dovetail hardware slots.

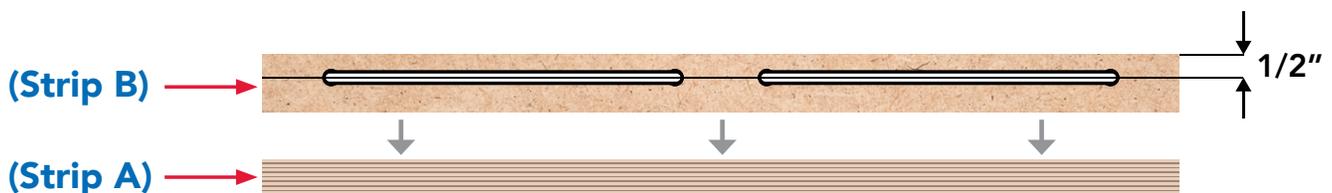


STEP 7 (Continued)

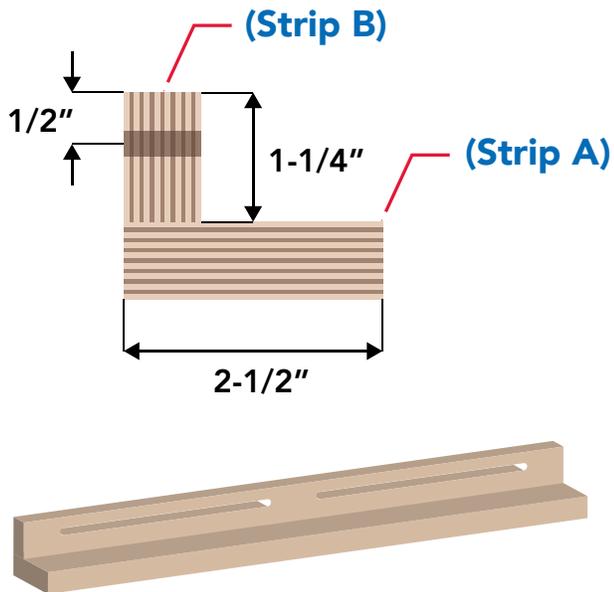
3. On your router table, set the 1/4" (6mm) straight bit to a cutting depth of 1/4" (6mm), and set the fence to 1/2" (12mm).
4. Route between the 5/16" (8mm) pre-drilled endpoints, and raise the cutting depth to 11/32" (9mm) to make a second pass.
5. Flip the workpiece end-over-end, and repeat until both 7.5" (190mm) slots are routed all the way through (Strip B).



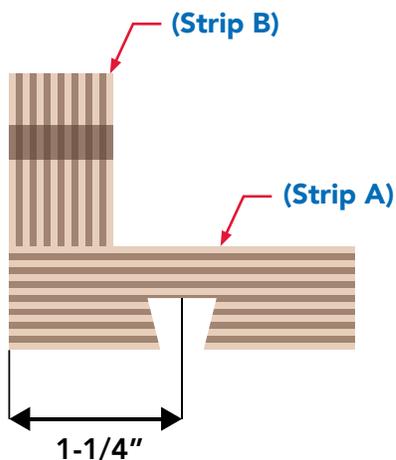
6. Glue and clamp the edge of the **(Strip B)** (closest to the slots) to the top face of the **(Strip A)** to form a 90° L-shape.



STEP 7 (Continued)



7. On your router table, set the fence to 1-1/4" (32mm). Route a relief groove with the 1/4" (8mm) straight bit set to a cutting depth of 11/32" (9mm).
8. Set the dovetail bit to a cutting depth of 3/8" (9.5mm), and route a 3/8" (9.5mm) deep dovetail track down the center of **(Strip A)**.
9. Sand and chamfer finished 360 fence to soften edges, if desired.
10. Attach the fence to the 360 Sled by putting the Dovetail Hardware through the slots, and enjoy the most versatile sled in your shop!



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