



## MATCHFIT 360 SYSTEM PROJECT PLANS

### 360 Sled and Fence Plans

## PROJECT OVERVIEW

The ZEROPLAY 360 Sled and accompanying fence combines the ease and accuracy of ZEROPLAY Guide Bars with the versatility of the dovetail grid system. Depending on which grooves the Dovetail Hardware is in, the fence can be positioned at any angle, while the ZEROPLAY Guide Bar keeps the sled parallel to the blade. The same grooves can be used to add stops, and secure material with MATCHFIT Dovetail clamps - allowing you to make cuts with your hands clear of the blade, safely and repeatably.

## TOOLS & MATERIALS

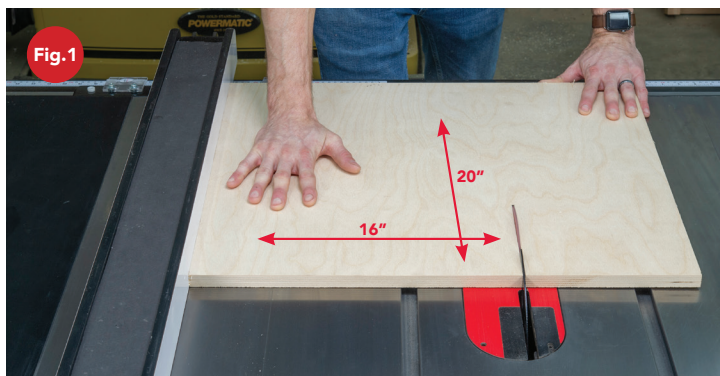
### Tools and Materials

- Table Saw
- Router table
- MATCHFIT Dovetail Router bit, or comparable 14°, 1/2" diameter dovetail router bit
- 1/4" straight router bit (spiral is best)
- 3/4" void-free plywood, 22"x20" (Baltic birch is best)
- Single ZEROPLAY Guide Bar
- 1/2" forstner bit
- 1/4" standard drill bit
- MATCHFIT Dovetail Hardware

## INSTRUCTIONS

### STEP 1 - CUT THE STOCK TO SIZE

To create the body of the 360 sled, cut a piece of void-free 3/4" plywood 22" to 20" on the table saw (Fig.1). Next, in a single cut, cut the piece down to finish at 16" x 20". The off-cut will be used to build the fence.



Make sure all dimensions are accurate and corners are 90 degrees.

## INSTRUCTIONS

### STEP 2 - CUT RELIEF GROOVES

Using a full kerf (1/8") blade set your table saw blade to 11/32", and set your rip fence to 4". Cut your outermost grooves by running each side along the fence, rotating the workpiece 90-degrees after each cut. After all four cuts are made, set rip fence to 3-7/8", and repeat.

Set rip fence to 8", repeat the previous step. After all four sides have been cut, set fence to 7-7/8", and cut the two 16" L grooves again (Fig. 2).

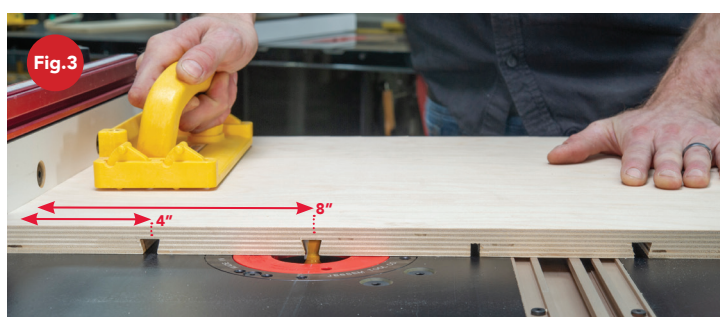


## INSTRUCTIONS

### STEP 3 - ROUTE DOVETAIL GROOVES

Set a 14 degree, 1/2" dovetail router bit to a cutting depth of 3/8". Set your router table fence to 4". Cut your outermost grooves by running each side along the fence, rotating the workpiece 90 degrees after each cut.

After all four cuts are made, set router table fence to 8", repeat previous step. Route the middle 20" L groove only once. (Fig.3)



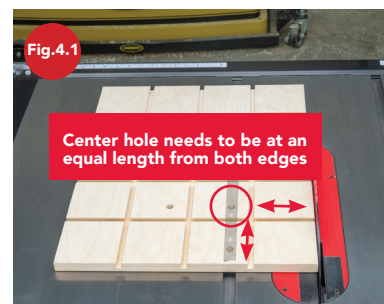
## INSTRUCTIONS

### STEP 4A - INSTALL ZEROPLAY GUIDE BAR

Follow the ZEROPLAY Guide Bar Installation Instructions provided. (Fig.4.1)

### STEP 4B

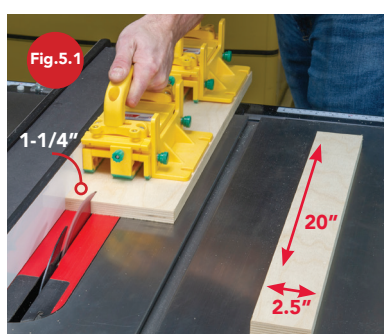
To use the 360 sled both longways and sideways, install the guide bar so that the center mounting hole is the same distance from two perpendicular edges. (Fig.4.2)



## INSTRUCTIONS

### STEP 5A - BUILD 360 FENCE

From the off-cut piece left over from Step 1, rip a 2-1/2" strip, and a 1-1/4" strip. (Fig.5.1) Glue and clamp the edge of the 1-1/4" strip to the face of the 2-1/2" strip, forming a 90-degree L-shape. (Fig.5.2)



## INSTRUCTIONS

### STEP 5B

On the outer side of the 2-1/2" strip, route a dovetail groove down the center. Your router table fence should be set to 1-1/4". (Fig.5.3)

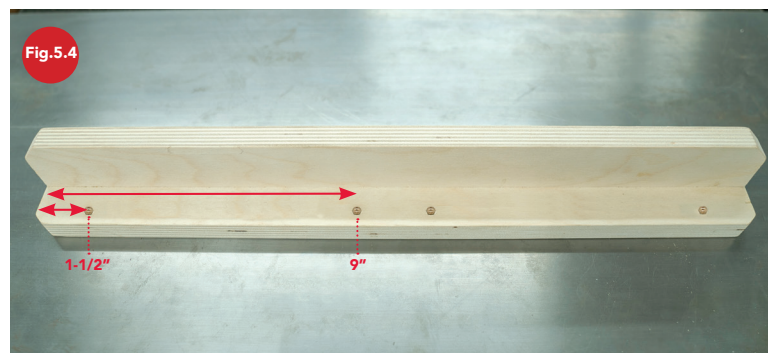


## INSTRUCTIONS

### STEP 5C

Mark lines at 1-1/2" and 9" in from each end, and 1/2" in from the back edge of the fence. These will be the beginning and end points of the dovetail hardware slots.

Drill a 1/4" hole through each of the four endpoints. Using a 1/4" straight router bit, set your router table fence to 1-1/4". (Fig.5.4)

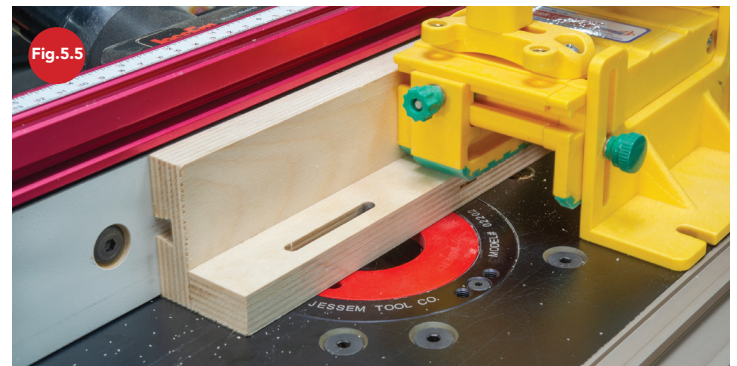


## INSTRUCTIONS

### STEP 5D

Running the face of the 360 fence along the router table fence, begin routing your slots between the pre-drilled endpoints, removing on 1/8" of material per pass. Repeat until slots are all the way through. (Fig.5.5)

Sand and chamfer finished 360 fences to soften edges if desired.



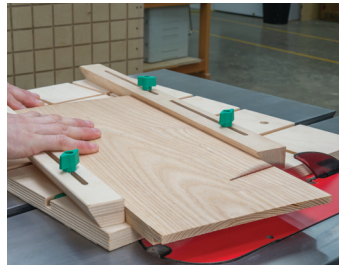
## BONUS INSTRUCTIONS

The 360 Hold-down Fence is a great addition to the 360 Sled. One side acts as a stand-alone fence, with dimensions that allow the MATCHFIT Dovetail Clamps to secure material from behind. This is ideal when your workpiece is large and covers the dovetail grooves in front of the fence. The other side has a 30-degree ramp, which is used in conjunction with another fence, to hold the material down onto the sled.

### TOOLS & MATERIALS

#### Tools and Materials

- Table Saw
- Router table
- 1/4" straight router bit (spiral is best)
- 1" thick hardwood or void-free plywood.
- 1/4" standard drill bit
- MATCHFIT Dovetail Hardware



## BONUS INSTRUCTIONS

### STEP B1 - CUT THE STOCK TO SIZE

Rip the 1" thick stock to 1-1/2" wide on the table saw. Length should be 20".



## BONUS INSTRUCTIONS

### STEP B2

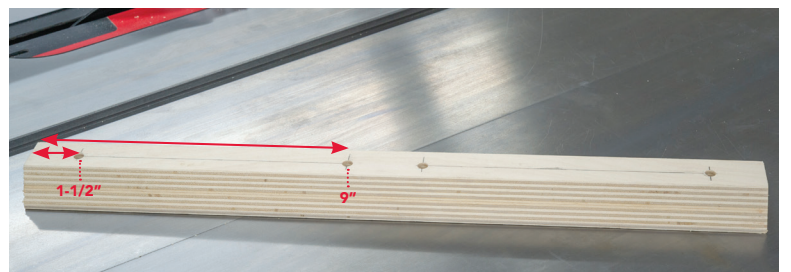
Tilt the table saw blade 30-degrees, set rip fence to 1". Then cut the 30-degree ramp with a GRR-RIPPER for safety.



## BONUS INSTRUCTIONS

### STEP B3

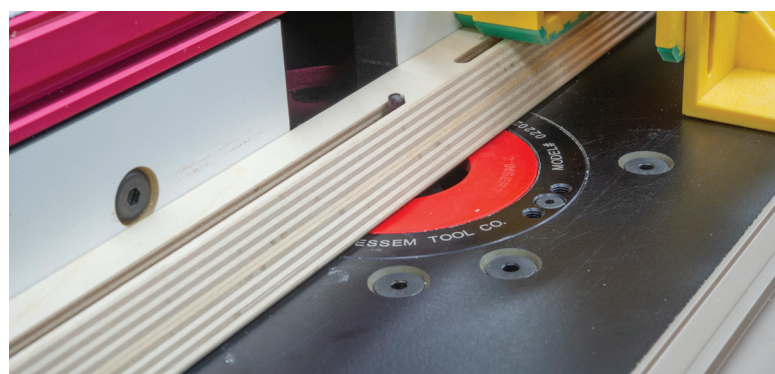
- Mark lines at 1-1/2" and 9" in from each end, and 9/16" from the flat fence edge. These will be the beginning and end points of the 1/4" slots for dovetail hardware.
- Drill a 1/4" hole through each of the four endpoints. Route slots using the same method outlined in STEP 5D.



## BONUS INSTRUCTIONS

### STEP B4

- Running the flat face of the 360 hold-down fence along the router table fence, begin routing your slots between the pre-drilled endpoints, removing on 1/8" of material per pass. Repeat until slots are all the way through.
- Sand and chamfer finished hold down the fence to soften edges if desired.



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