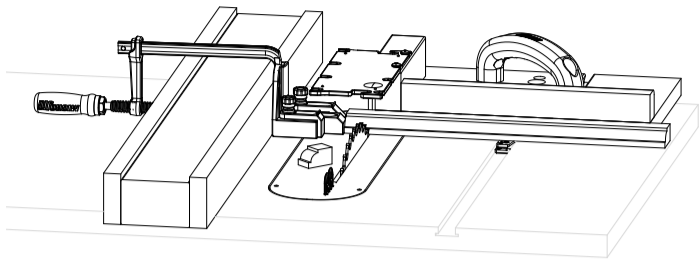


ZeroPlay® Miter Bar Cutoff Sled Plans

For making repeatable 90° cuts on table saws.



WARNING

Always wear safety glasses and hearing protection. Follow all safety precautions and use best practices. Microjig assumes no liability for any products not sold and manufactured by Microjig.

Instructions

The Cutoff Sled built with the ZeroPlay™ Miter Bar provides perfect 90° cuts every time. It features an angled "off-cut pusher" that automatically moves the cutoff part away from the saw blade to prevent kick back.

The Grr-ripper® Handle provides comfort and increased control when using the sled and mounts to the sled base using MatchFit™ Dovetail Nuts. The Deflector/Connector deflects dust and chips flying off the blade. All products are sold separately.

TIP: Before beginning the sled build, make sure your table saw is in good operating condition and properly tuned up.

Step 1 - Square sled and draw center line

- 1.1 Set your rip fence to be 1/8" (3mm) to the right of your saw blade [Fig 1a].
- 1.2 Set your sled base square (90°) to the rip fence [Fig 1b].
- 1.3 Mark the center of the miter slot on the front and back edges of your sled base [Fig 1c].
- 1.4 Draw a straight line connecting these two marks [Fig 1d].

Step 2 - Drill Miter Bar mounting and adjustment holes

- 2.1 Mark two mounting holes along the center line at 1" (25mm) and 5" (126mm) from the back of the sled base. These are M1 and M2.
- 2.2 Mark the two adjustment hole locations 1-11/16" (43mm) and 5-11/16" (144mm) along the same line. These are A1 and A2.
- 2.3 Drill a 3/4" (19mm) diameter through hole at each of the adjustment hole locations, A1 and A2 [Fig 2a].
- 2.4 Drill a 1/2" (12mm) diameter counter bore 5/16" (8mm) deep at the mounting hole locations, M1 and M2.
- 2.5 Drill 1/4" (6mm) through holes in the center of the counter bores, M1 and M2 [Fig 2a].

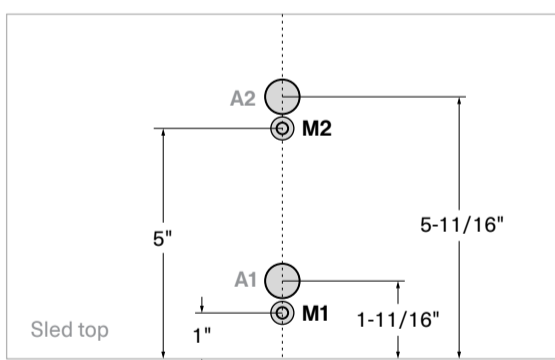


Fig 2a - Miter bar mounting and adjustment holes

Step 3 - Drill fence and off-cut pusher mounting holes

- 3.1 With the bottom of the sled base facing up, mark and drill three pilot holes 3/8" along the front edge of the sled as shown in [Fig 3a]. This is where the fence will be secured.
- 3.2 Drill two more pilot holes 3/4" (20mm) along the right edge of the base. This is where the cutoff block will be secured.
- 3.3 Countersink all pilot holes.

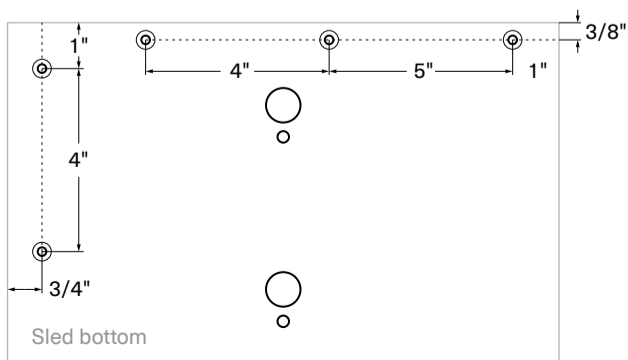


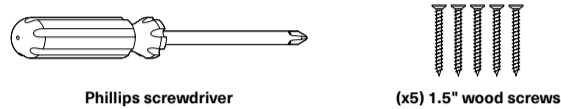
Fig 3a - Fence and off-cut pusher mounting holes

Parts List

| # | Saw Setup Jig Parts |
|---|--|
| A | Sled Base: 12" x 7-1/2" x 3/4" (305mm x 190mm x 19mm) |
| B | Off-Cut Pusher: 6" x 2-1/2" x 1-1/2" (152mm x 64mm x 38mm) |
| C | Fence: 10-7/8" x 1-1/2" x 3/4" (276mm x 38mm x 19mm) |
| D | ZeroPlay® Guide Bar |
| E | MatchFit™ Dovetail Nuts with hardware (Optional) |
| F | Grr-ripper® Handle (Optional) |
| G | Deflector/Connector (Optional) |

*Recommended wood types: void-free plywood (e.g. Baltic birch), standard MDF, or seasoned solid wood.

Required Tools & Materials (Not included)



Phillips screwdriver

(x5) 1.5" wood screws

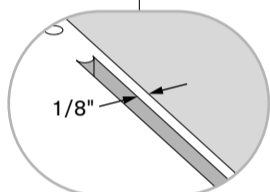
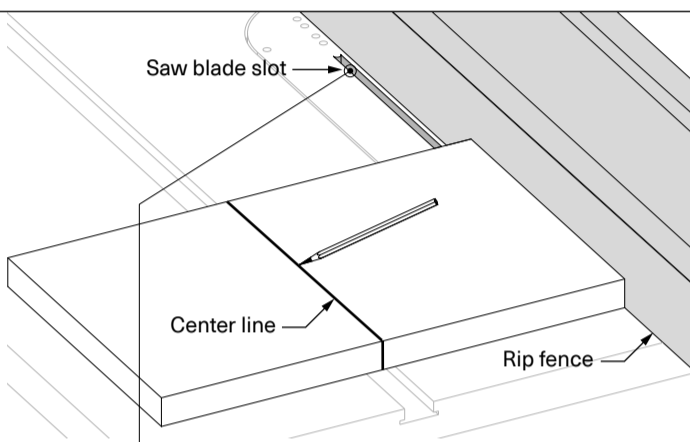
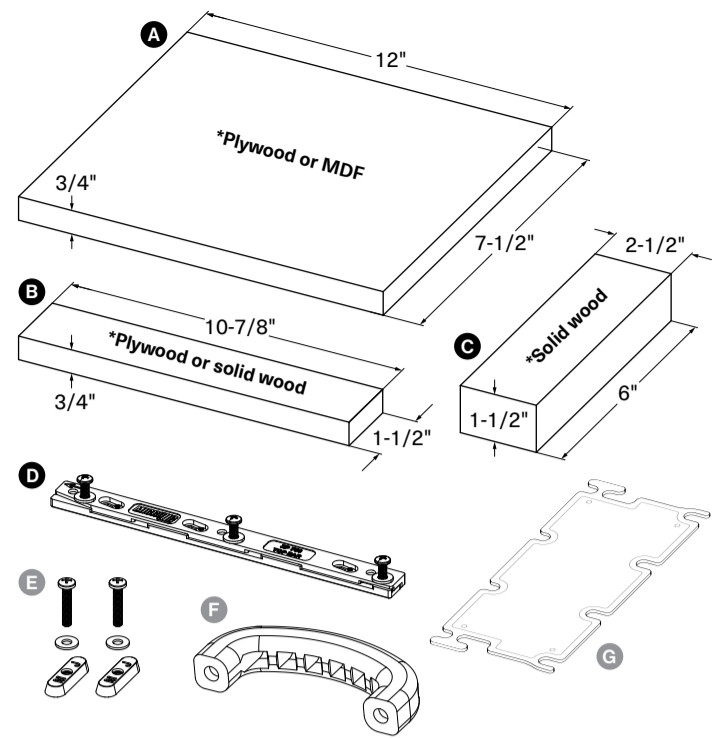


Fig 1a - Set rip fence 1/8" from blade

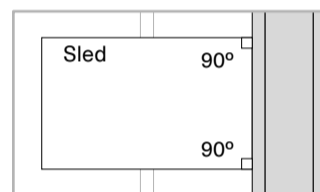


Fig 1b - Square sled 90° to rip fence

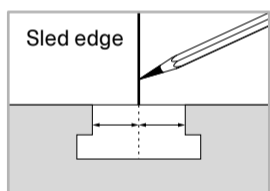


Fig 1c - Mark front & back edges

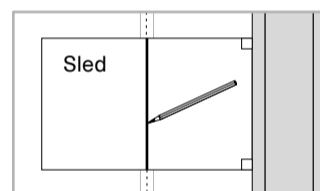


Fig 1d - Connect front & back edge marks

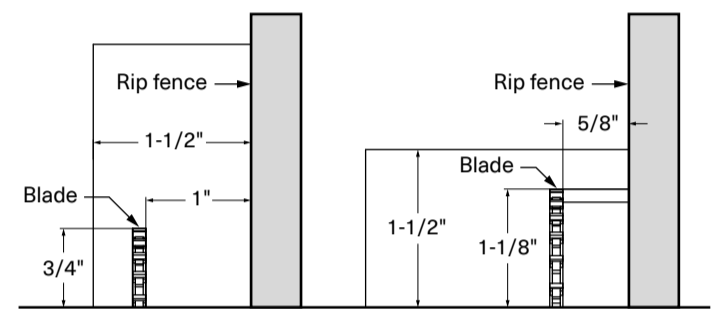


Fig 5a - Off-cut pusher cut #1

Fig 5b - Off-cut pusher cut #2

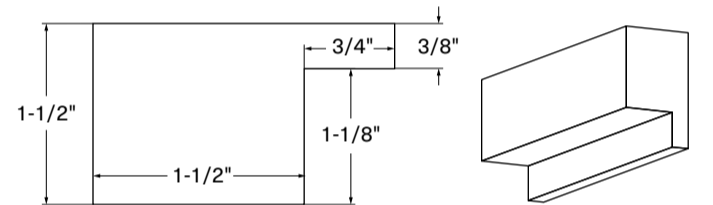


Fig 5c - Off-cut Pusher dimensions

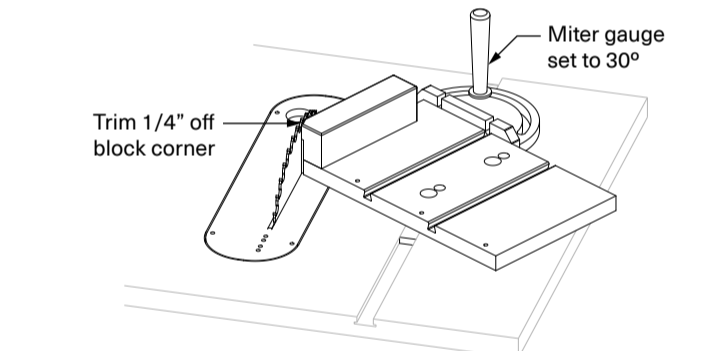


Fig 5d - Cut off-cut pusher corner at 30°

Step 4 - Route Dovetail Tracks

- 4.1 Mark parallel lines 2" (50mm) on each side of the Miter slot center line drawn in Step 1.
- 4.2 Route two MatchFit™ Dovetail Tracks into the top face of your sled where these new lines are located. Follow the instructions that come with the Dovetail Nuts. These Dovetail Tracks are for mounting the Grr-ripper™ handle.

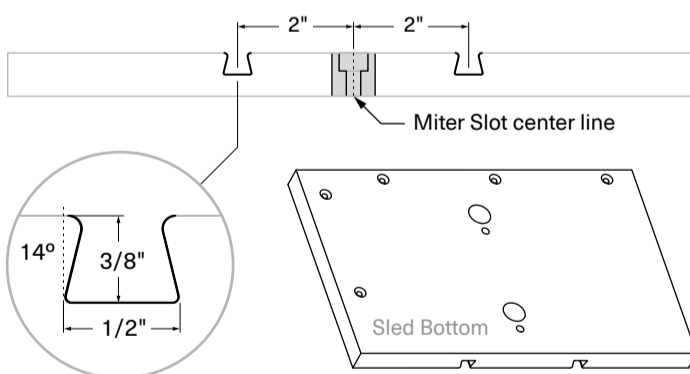


Fig 4a - Dovetail track profile

Fig 4b - Finished sled base

Step 5 - Make the off-cut pusher

- 5.1 To form the "off-cut pusher" block, you need to first cut a rabbet into the bottom. Set your blade to match the plywood base thickness, and the rip fence to 1" (25mm) and rip a groove into the bottom of the block [Fig 5a].
- 5.2 Raise the blade to 1-1/8" (28.5mm) and reset the rip fence to 1-5/8" (41mm). The waste will be on the off side of the blade. This should leave a 3/8" (9mm) thick leg beside the rabbet [Fig 5b].
- 5.3 Screw the block to the edge of your sled base using the wood screws. Make sure front edges are aligned [Fig 5e].
- 5.4 Set your miter gauge to 30 degrees and cut 1/4" (6mm) off of the front corner of the block to form the bevel angle. This is the easy and safe method for making this cut [Fig 5d].
- 5.5 The fence can now be attached using the wood screws. Be sure to set it flush along the front edge of the base [Fig 5e].

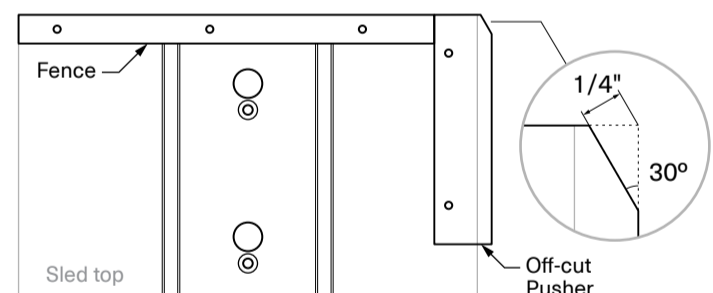
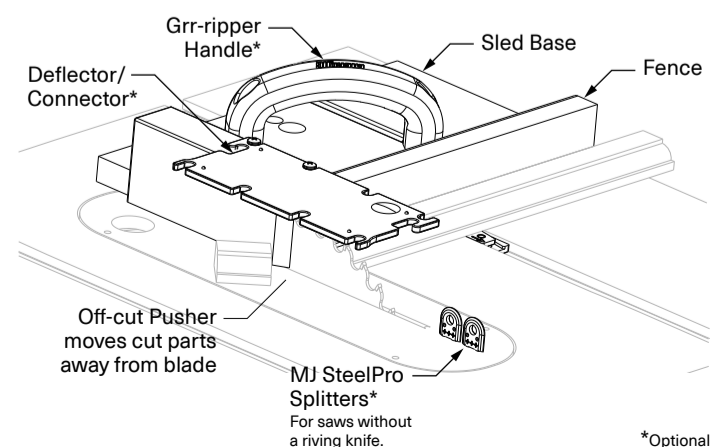


Fig 5e - Finished sled top view

Step 6 - Mount Miter Bar

- 6.1 Assemble and mount the ZeroPlay® Miter Bar to the sled. Make sure to lower the blade completely and set your saw's rip fence to 1/4" (6mm). Refer to Steps 3-4 of the Miter Bar user manual.

NOTE: Your first cut will cut a groove in the sled where the base meets the Off-cut Pusher. This is by design to provide a backer to the crosscut. The front of the Off-Cut Pusher will automatically move cut parts away from the blade to prevent damage and possible kick back.



Off-cut Pusher moves cut parts away from blade

MJ SteelPro Splitters*
For saws without a riving knife.

*Optional