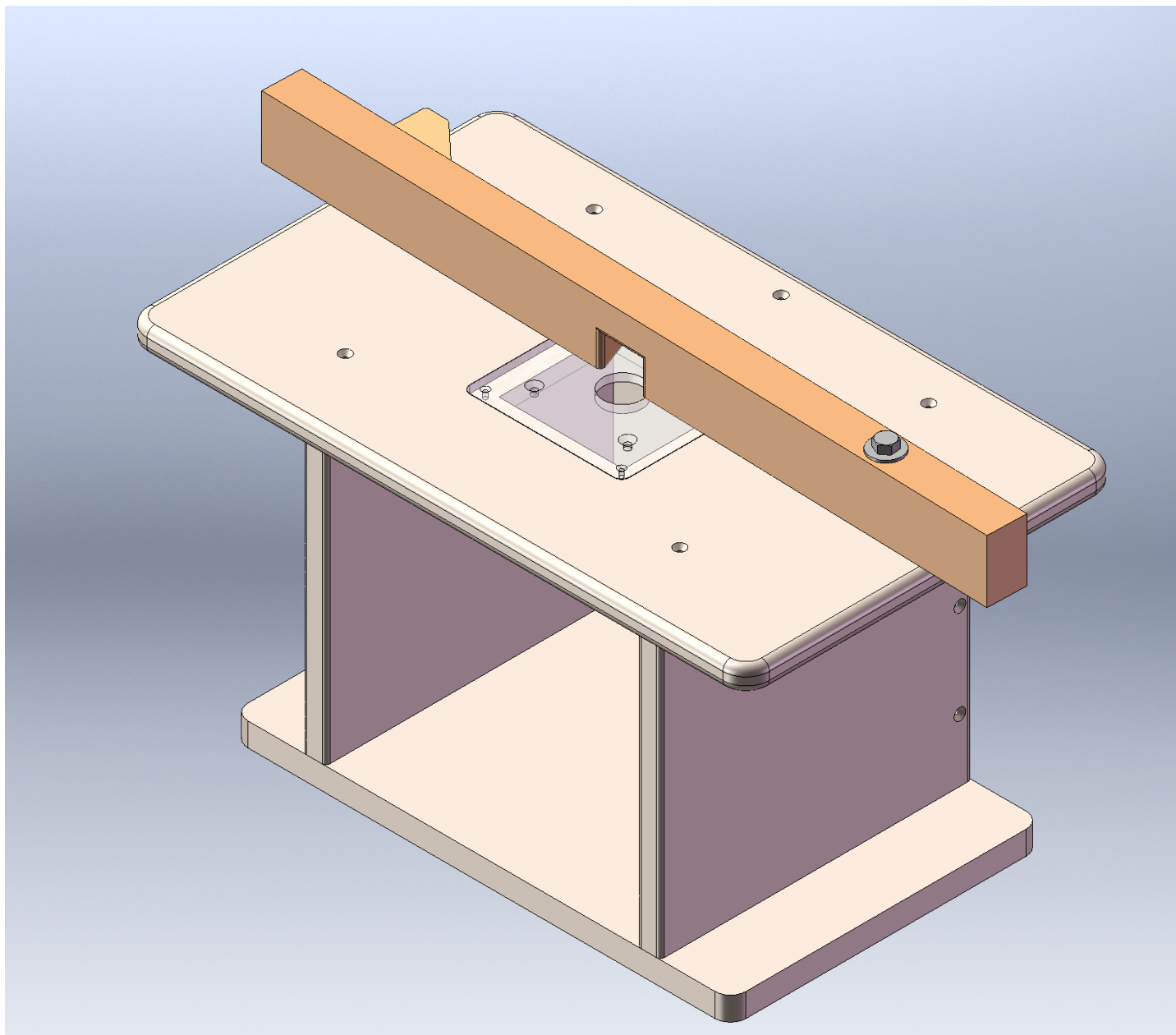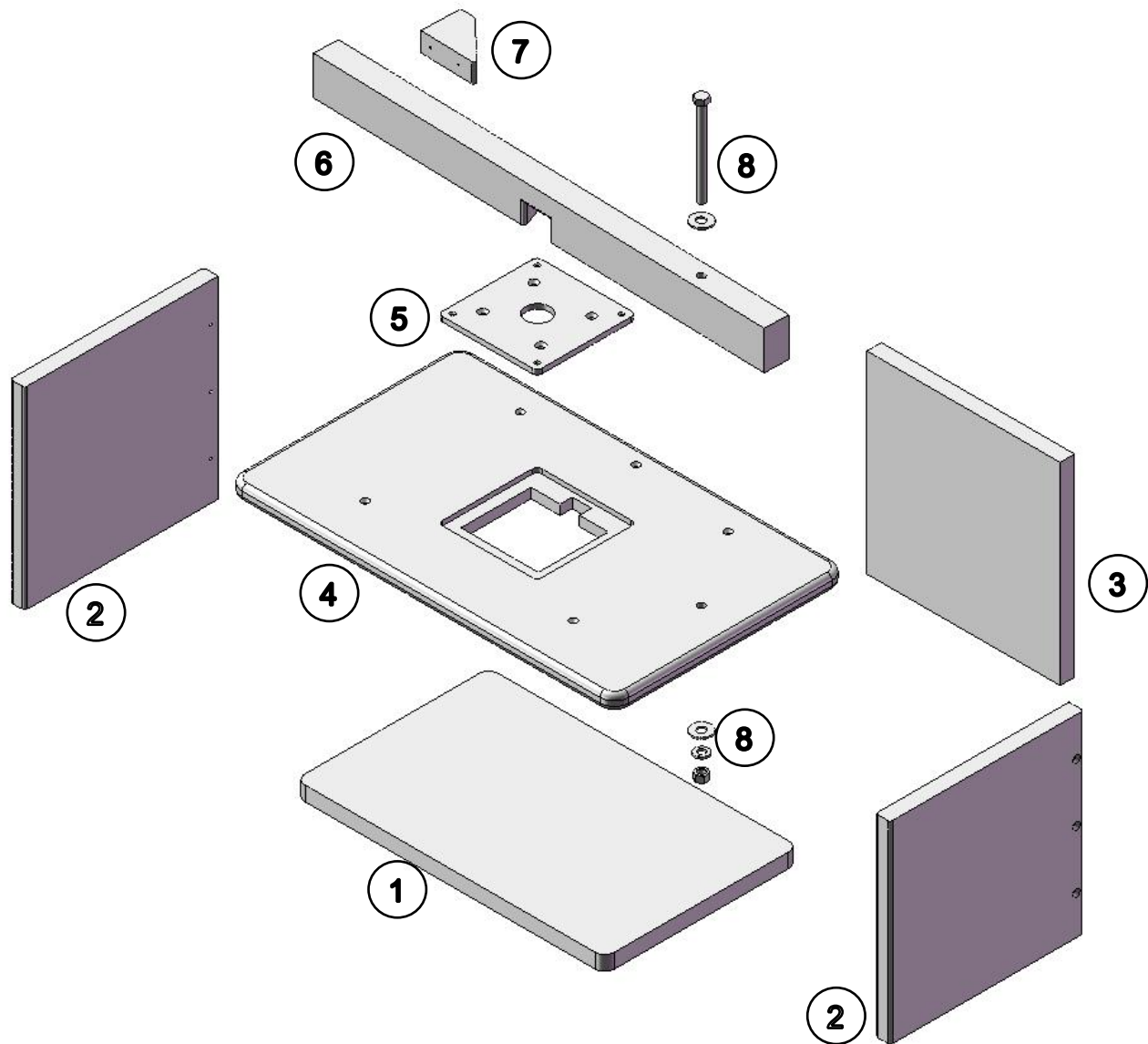# MINI ROUTER TABLE
for Bosch Colt Router

Plans & Assembly Instructions

by Jim Moss

Bosch Colt Mini Router Table - exploded view

1 - Base (16" x 10" x 3/4")
2 - Sides (10" x 10" x 3/4")
3 - Back (10" x 10" x 3/4")
4 - Table (20" x 12" x 3/4")
Note: parts 1 - 4 are cut from melamine faced MDF but can also be cut from plywood

5 - Mounting plate - Acrylic or similar or brass sheet (5 1/8" x 5 1/8" x 1/4" (or 6mm))
6 - Fence - good quality pine or a hardwood (24" x 2" ht. x 1 1/4" thick)
7 - Fence clamping block - cut from same wood as the fence 3" x 2" x 1" thick
8 - Fence pivot bolt - 4" x 3/8" hex. head plus 2 wide plain flat washers, 1 spring
    lock washer, and one nut (preferably a wing nut)

BASE & TABLE SUPPORT ASSEMBLY

$\frac{3}{4}$"

10"

16"

$2\frac{1}{4}$"

$2\frac{1}{4}$"

10"

$R\frac{1}{2}$"

10"

A

2"

3"

3"

10"

$\frac{3}{4}$"
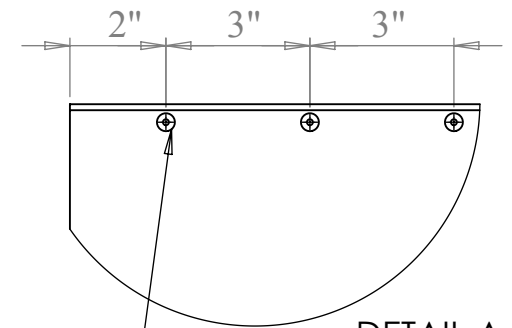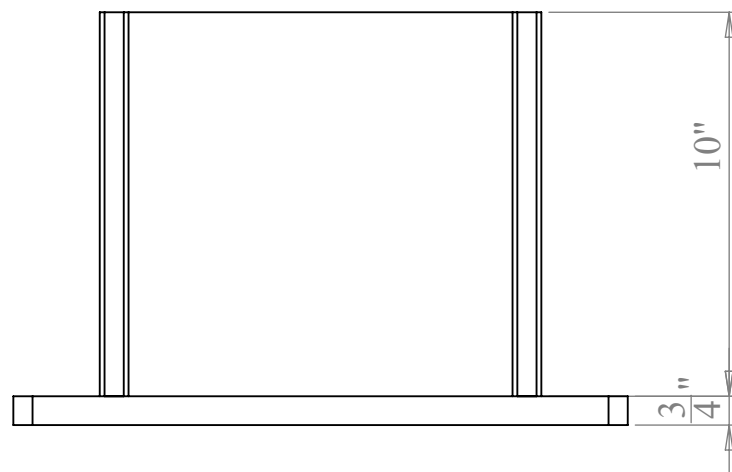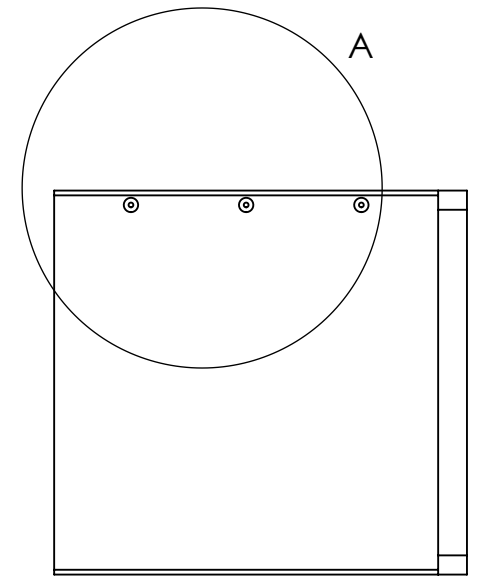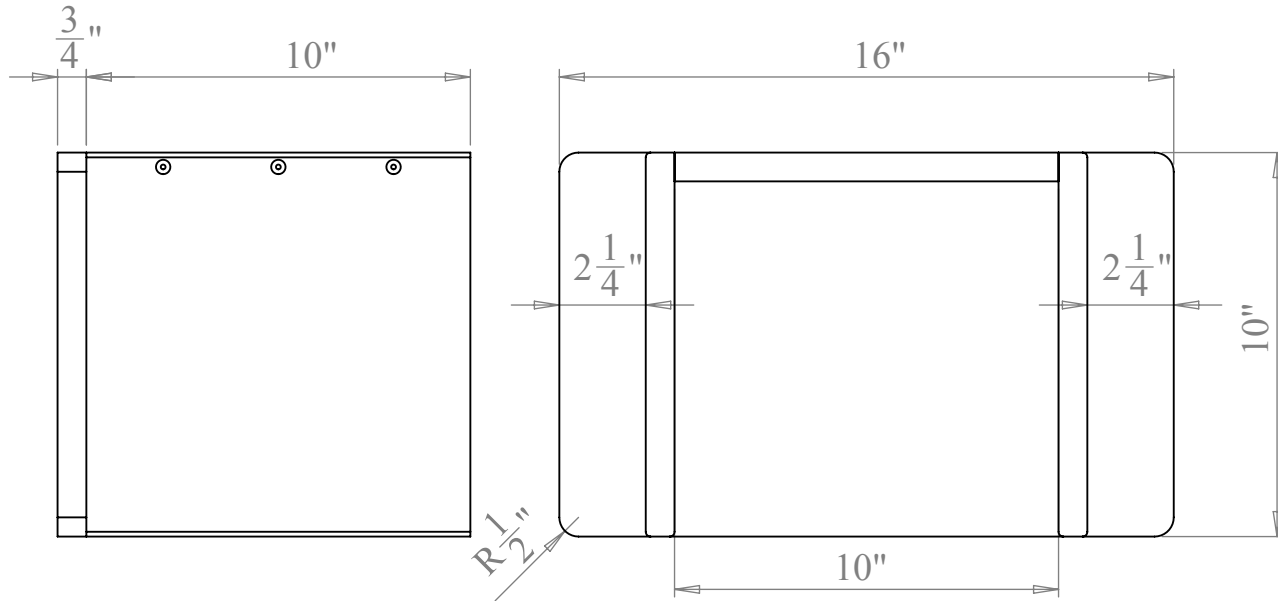
3/32" diam. contersunk through holes set 3/8" in from edge of the side support

DETAIL A
SCALE 1 : 4

TABLE (1) - 3/4" (17.5mm) melamine faced MDF or similar

$5\frac{3}{8}$"

3/32" dia. contersunk through
hole for drywall screws

$1\frac{1}{2}$"

$7\frac{1}{2}$"

$5\frac{1}{8}$"

$3\frac{1}{2}$"

$5\frac{1}{2}$"

$\frac{5}{8}$"

3/8" diam. through
hole for fence pivot
bolt

8"

$5\frac{1}{8}$"

1"

$3\frac{5}{8}$"

4"

12"

$R\frac{1}{4}$"

$3\frac{3}{8}$"

2"

$R\frac{3}{4}$"

20"

$\frac{3}{4}$"

$R\frac{1}{4}$"

$R\frac{1}{4}$"
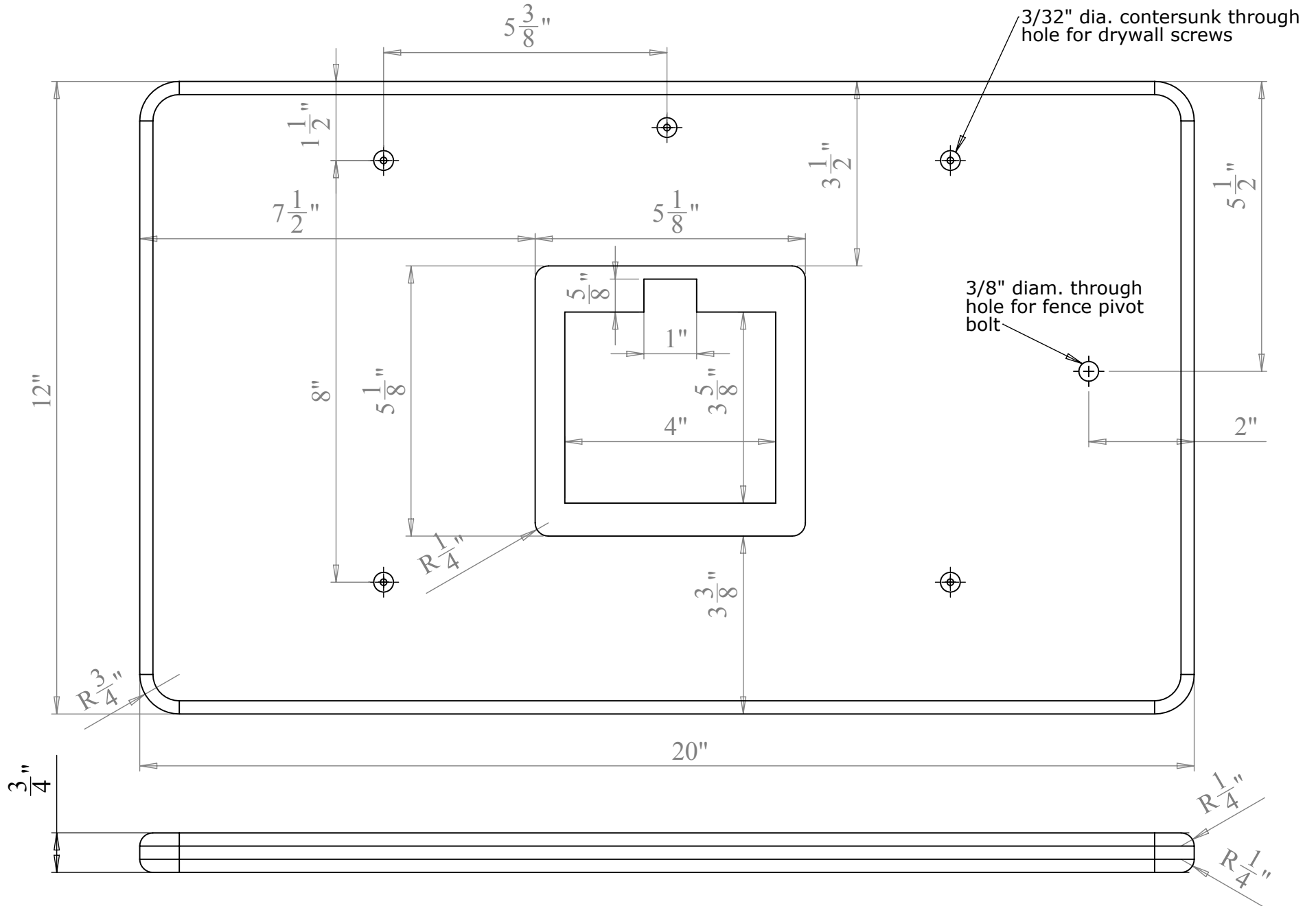
TABLE (2) - showing location of base and side and back supports (dotted lines)

2" 16" 2"

$\frac{1}{2}$"

$2\frac{1}{4}$" 10" $2\frac{1}{4}$"

10" 12"

20"
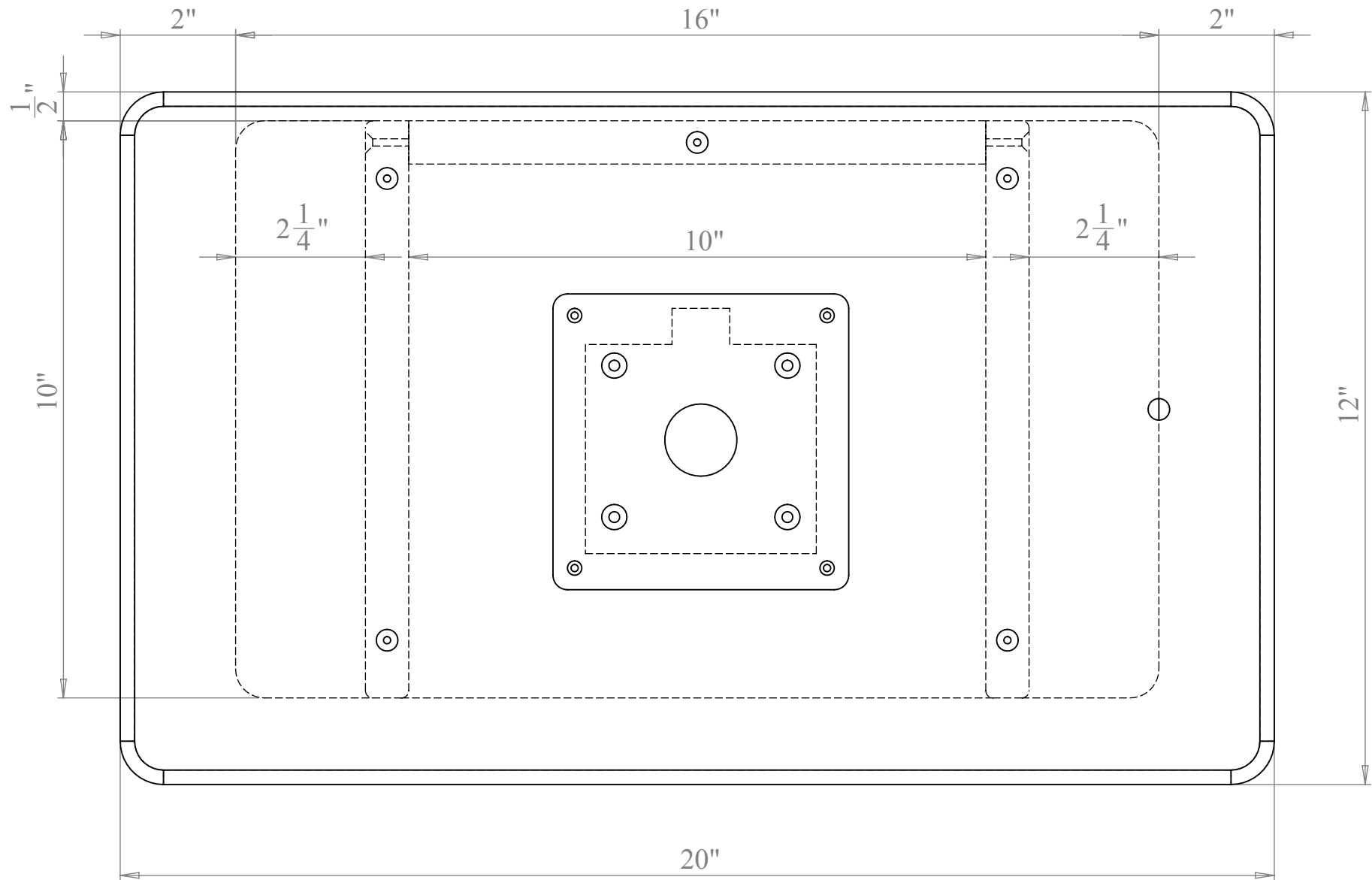
FENCE & CLAMPING BLOCK ASSEMBLY - good quality pine or hardwood

BACK VIEW

2"

1"

A

2"

2 5/8"

$\frac{5}{8}$"

4"

$1\frac{1}{4}$"

$1\frac{3}{8}$"

SIDE VIEW

TOP VIEW

$\frac{3}{4}$"

2"

24"

2"

2 3/4"

DETAIL A
SCALE 1 : 2

FRONT VIEW
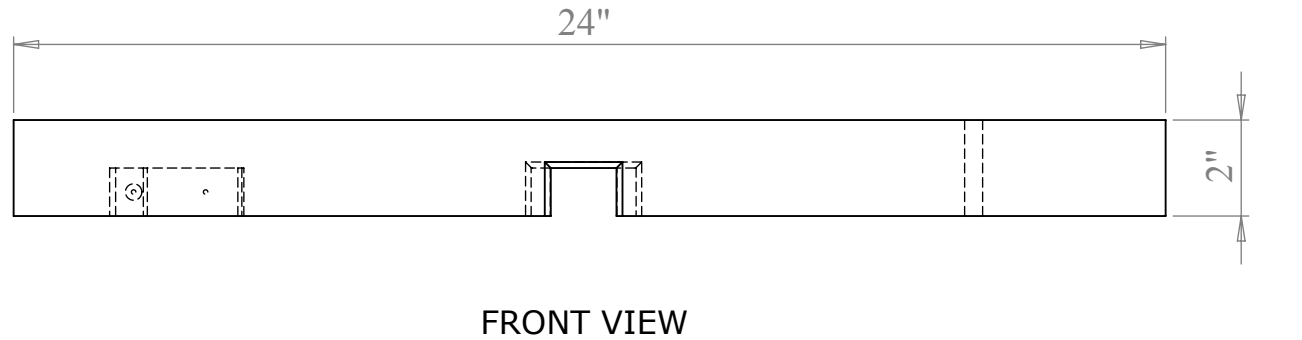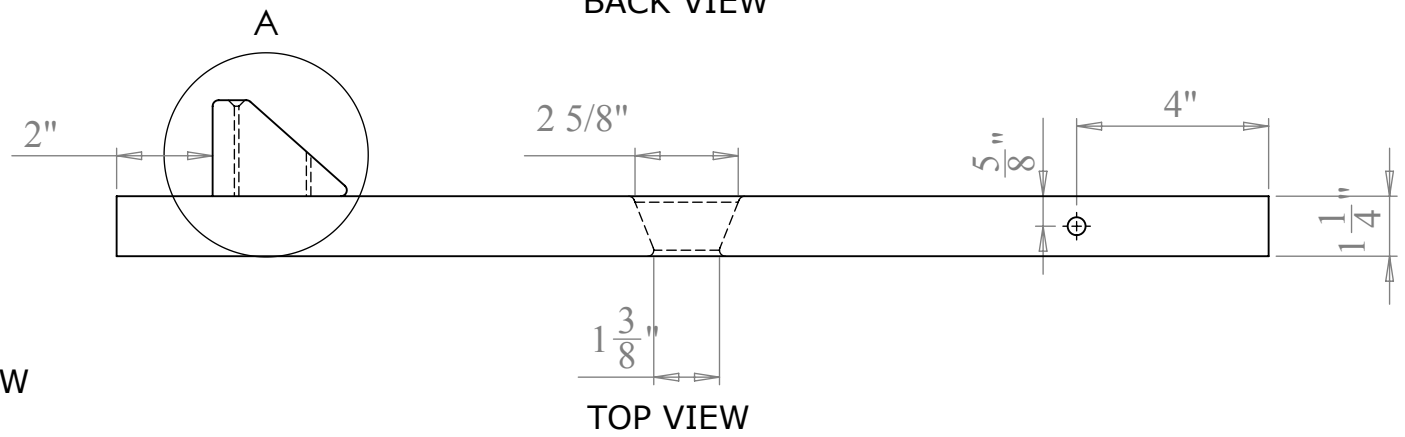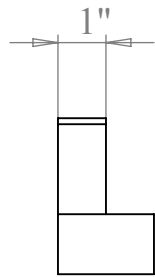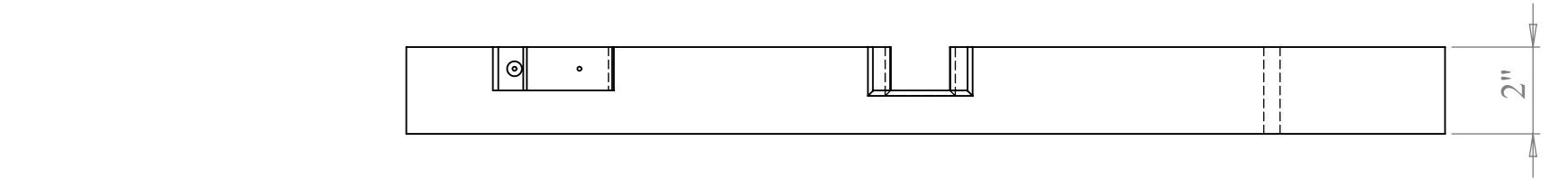
Assembly Instructions

Refer to the exploded view drawing for the parts description and the following drawings for cutting, shaping and assembly details
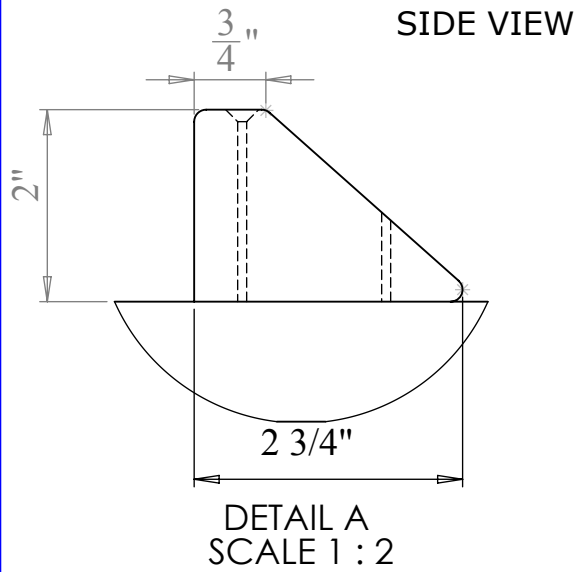
1. Cut the base, sides, back and table from 3/4" (17.5mm) melamine coated MDF. Radius the corners of the base and the table. Round over all edges of the table plus the front vertical edges of the sides. Rounding over of the base edges is optional

   Note: The melamine coated MDF used for all but the table can be substituted by standard non coated MDF or by good quality plywood, however, it is advisable to use either melamine coated MDF or a laminate coated plywood for the table surface to provide a perfectly smooth and level work surface which has good resistance to wear

2. Give all cut and rounded over rounded over faces a coat of wood sealant or varnish and when dry sand them smooth using fine sandpaper. Apply a second coat of sealant or varnish to fully protect the surfaces.

3. Drill the side and base with 3/32" countersunk pilot holes to locate 2" long drywall screws used, along with wood glue, to assembly the table support. Using wood cramps to hold the back and sides square to one another, glue and screw the parts together

   Note. Always drill pilot holes when screwing into MDF or plywood end faces in order to prevent the faces from splitting open

4. Clamp the sides and back assembly into position onto the base and glue and screw the parts together - see the Base and Table Support Assembly drawing for positioning details

5. Drill the table according to the hole positions and sizes shown in the Table (1) drawing.

   With the aid of a frame jig cut out the mounting plate recess (5 1/8" square) using your Bosch router fitted with a 1/2" diam. standard cutter. If you need help on how to do this then ask in the forum thread. For the mounting plate to sit flush to the table surface when inserted into the recess it is critical here that the depth of the recess for the mounting plate exactly matches the size of the plate itself. If the acrylic or alternative material you source for the mounting plate is not exactly 1/4" thick make sure that you cut the recess out to its thickness

   The inner cutout can be either be cut out with your router or your scroll saw. Check your Bosch router base fits comfortably inside this recess with a little sideward play - 1/16" to 1/8" clearance all around is ok

Note: If you find that producing the recess and cutout is a little too much for your woodworking capabilities then take the drawing and a piece of MDF along to your local carpenter and ask him to cut it out for you.

6. When you have completed the table drilling and recessing work glue and screw the table to the sides and back parts of the table support assembly – see table (2) drawing for positioning details

7. Cut out the mounting plate and drill and countersink the drill holes. The drawing provided is full size and can be used as a pattern to mark out the holes. When countersinking the holes make then very slightly larger in diameter than the bolt or screws heads they will take such that the heads of these sit just below the surface of the mounting place.

   Note: The 1 1/4" diam. centre hole is sized to accommodate large roundover cutters. If your work is mainly going to use smaller roundover cutters then it is advisable to size this hole a little smaller. Check, first the overall diameter of the router cutter you intend to use and add 1/8" to this to allow for 1/16" free space around the revolving cutter. Drill the mounting plate centre hole to this new size. If you are likely to switch frequently between large and smaller diam. cutters then it's advisable to make two mounting plates with differing diam. centres.

8. To mount the router to the mounting plate it will be necessary to take a trip to your local hardware store and purchase 4 x 1" long conical headed bolts which have the same thread as the bolts which hold the standard base plate to your Bosch Colt. Remove one of these bolts and take it to the hardware store with you to make sure the threads on the bolts you purchase are the same - be sure to purchase conical headed bolts and not the flat headed bolts which your router is fitted with.

   Remove the standard black plastic base plate of your Bosch Colt and guard it and it's four mounting bolts in a safe place. Carefully screw the mounting plate to the aluminum base of the router and test it fits perfectly and pulls up flush to the plate without any effort. Be careful here to not force the screws into the aluminum base of the Bosch Colt - these threads strip easily if you are not careful! If the fit seems tight then open up the drill holes a little with a larger drill to allow for a little sideward play. When you are happy that the fit between the router and the mounting plate is fine remove the router and go ahead and screw the mounting plate into its recess

   Check that all countersink holes are sufficiently large such that the bolt or screw heads sit just below the surface of the mounting plate.

9. Make the fence and fence clamping block from two pieces of good quality pine or a hardwood. Drill the fence pivot bolt hole and screw the clamping block in place. The working face of the fence must be perfectly flat and square to the table and also be perfectly smooth. Apply a hard wearing top coat varnish to the fence

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Note: If you are able to produce one, a fence made for a length of 2" box section aluminum channel is also a good option

10. Assembly the dust takeoff accessory from standard PVC drainage pipe fittings and screw this to the fence using 2 x 2 1/2" drywall screws. See the slide show image for details of this assemby

This completes the assembly operation

Safety guards

For rounding over work it is not normally necessary or even practical to use safety guards, particularly when rounding over tall pieces

When rounding over straight items such as box edges use the fence to partially cover the cutter and run the box face along the fence face to produce the round over cut. This way the cutter will not be exposed for the majority of the working stroke. However, be sure when starting and finishing a cut to keep your hands well away from the cutter.

For freehand rounding over of curved forms use a cutter with mounted lower bearing to push against, once again keep your hands away from the cutter. For tall or thick pieces it is impractical to use a cutter guard, however if you are rounding over pieces of uniform thickness of up to 2" thickness it is possible to mount an adjustable height acrylic plate on top of the fence which covers the cutter in such a way that your work piece can slice underneath it to make contact with the cut but your fingers cannot and remain protected.

IMPORTANT!   DO NOT try to round over abnormally small items without some form of mechanical aid to hold them near to the cutter. Do not try to hold them with your finger tips as this is far too dangerous

For general router table safety tips take a look at the links posted in the slide show