



HOW TO MAKE BOX CALLS

Our box call kits are a great way to get started making box calls.

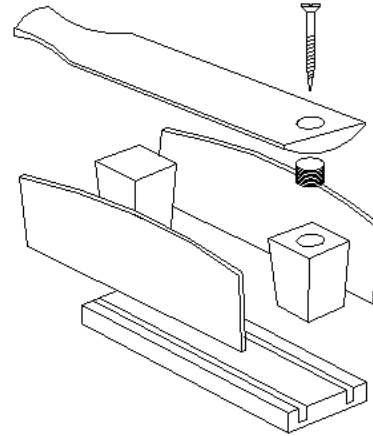
Each kit includes enough material to make four calls.

- 1 – Solid Walnut
- 1 – Solid Cherry
- 1 – Cherry Base & Lid, Walnut End Blocks, Poplar Sides
- 1 – Cherry Base & Lid, Walnut End Blocks, Sassafras Sides

The kits include:

- 4 - pieces of pre-machined base stock
- 4 - pieces of lid stock with pre-machined radius
- 8 - pieces of 1/8" material for sound boards
- 8 - end blocks
- 4 – Springs
- 4 – Brass wood screws

Instructions and full size dimensioned plans for a 6" double sided box call.



SOUND BOARDS

The side panels or sound boards are made from 1/8" thick stock. Copy or trace the full size patterns onto 1/8" thick stock and cut them roughly to shape using a band or scroll saw. Next, sand the sound boards to the final shape. It is very important that the top curved edges be smooth and continuous. If desired, you can groove the side panels using a router table or dado blade. Grooving the sides adds a decorative touch, makes the sides vibrate a little easier and slightly lowers the pitch of the call. Most calls with grooved sides have two grooves that are about 1/16" deep and about 3/8" wide. Cutting grooves in the side panels is not necessary to make a great sounding call.



Pattern traced onto stock



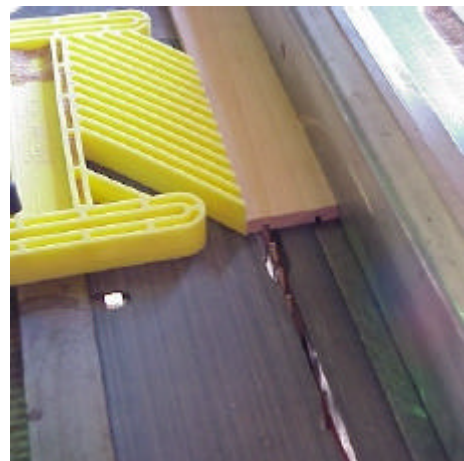
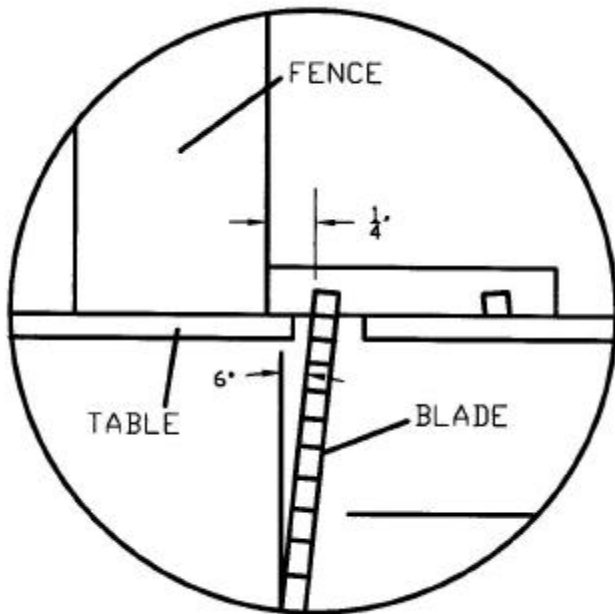
Sanding to final shape



Routing Grooves

BASE

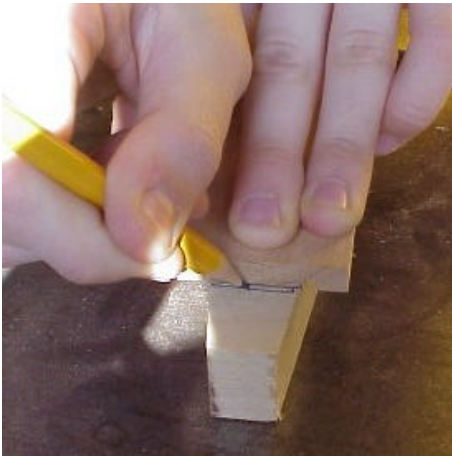
The box call base is made from 1/4" thick stock. Our kits includes pre-machined base stock that only needs to be cut to length. To make your own base stock, rip 1/4" material to approximately 1 1/2" wide. Set your table saw blade at a 6 degree angle with a height of about 1/8". Set the fence so that it is about 1/4" from the blade. Now plow the two slots which will accept the sound boards. You should make a couple of scrap pieces first to get the fence in the right position. You want about 3/4" space between the two slots.



Cutting slots in the base

END BLOCKS

Our kits include end blocks that are pre-cut at 6 degrees on each side. This matches the 6 degree angle on the slot cut in the base. The end blocks should be cut longer than the finished dimension and slightly narrower at the bottom (less than 3/4" wide). Hold the end blocks against the end of the base at the point where the end block is just as wide as the distance between the slots in the base. Make a pencil mark where the end block should be cut off, using the base as a guide. Cut the bottom of the end block off about 1/16" from the mark. Fit the sound boards into the base. You may need to sand the 1/8" sides slightly to get them to fit into the base slots. Now test fit the end block between the sound boards. It should fit loosely. Gradually sand the bottom of the end block away until a perfect fit between the end blocks, base, and sound boards is achieved. Now cut the top of the end blocks off making them the final height specified on the blueprints. Wait until the call is assembled to drill the end blocks.



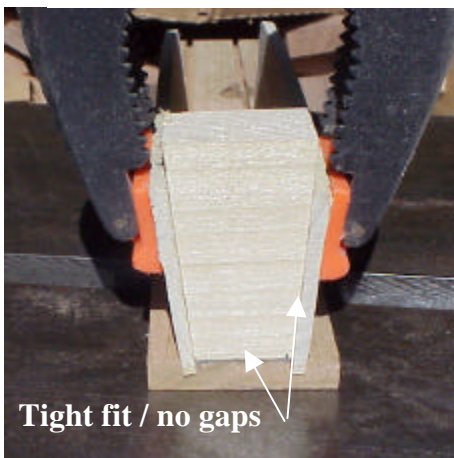
Marking the end blocks



Trimming bottom of blocks



Test fitting the end blocks



Final fit of the end blocks



Cutting the blocks to length



Gluing Clamp Up

GLUE UP

Before gluing up the box, it is a good idea to sand all of the individual parts. First apply a thin coating of wood glue to the inside of the base grooves. You will need a small brush or the corner of a paper towel will work. Insert the sides into the base slots. Some glue should squeeze out. Remove this glue with a damp paper towel. If allowed to harden it will require sanding to remove. Next apply a thin coat to the end blocks and place them in position. Clamp the end blocks firmly to the base and then clamp the sides into the end blocks. It may be necessary to use a small scrap of wood between the end block and the spring clamp if the clamp jaws will not fit between the sound boards (See the above photo). Again, remove any excess glue with a damp paper towel. Allow the glue to dry completely before removing the clamps.

DRILL END BLOCKS

After the glue has dried, remove the clamps and mark one of the end blocks for drilling according to the blueprint. Using a drill press if available, drill the countersink for the spring then the 3/32" screw hole.



Drilling End Blocks



Finished Lid



Assembled Call

MAKING THE LID

This kit includes pre-machined lid stock. You can make your own lid stock using a power sander or file to form the radius on the bottom. With the pre-machined lid stock, you only need to trace one of the provided full size patterns onto the lid stock and cut it to shape using a scroll or band saw. Sand the entire lid smooth. Finish the bottom, rounded part of the lid with 120 grit sand paper. Mark the location for the screw. Drill the counter sink and then the small through hole.

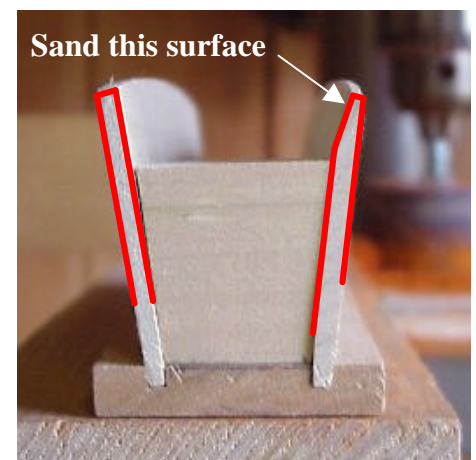
ASSEMBLY AND TUNING

Attach the lid to the box using the brass screw provided, with the spring between the paddle and the lid. The handle end of the lid should be slightly lower than the spring end. Apply greaseless chalk to the paddle and the top edge of the sound boards and try operating the call. If you do not get a good two-tone yelp, dropping from high to lower pitch, try loosening the adjustment screw slightly. If the call does not want to vibrate smoothly and easily, or requires pressure to get a sound, sand the inside upper edge of the sound boards, too thin the area that comes into contact with the lid. As shown in the the photo below.

Occasionally you will get a call that just doesn't sound right. This is probably due to variations in the wood, including variations in hardness, grain pattern, and growth characteristics. Usually trying a different lid will solve the problem.

Building turkey calls is more art than science. The information provided here should get you started with a few working calls. From there you can customize them to suit your preferences. In general, heavier more dense woods produce higher pitches. Larger boxes produce lower pitches, but more volume.

I hope you enjoy building and using your calls. Should you require more or different turkey call making materials, please keep us in mind.



Thinning the top edge of the sound boards

K. Shiplery