



SMALL APERTURE SERIES ROUTER TEMPLATE

QUICKSTART GUIDE

REQUIRED TOOLS AND MATERIALS

- Jigsaw
- Router with 1/8" spiral router bit and 5/16" bushing
- Router with 1/4" spiral down-cutting bit and 7/16" bushing
- Drill with 3/8" drill bit
- Large clamps
- Tape measure
- Double-sided carpet tape
- James Loudspeaker Plexiglass Wood Router Template
- Corner chisel (optional, for fine corner adjustments)
- File (for minor edge adjustments)

BEFORE YOU BEGIN

Once the Small Aperture enclosure and module has been installed and tested, identify the speaker location on the ceiling material. The wood router template is used to precisely mark and cut the opening in tongue and groove wood ceilings.

ATTACHING THE ROUTER TEMPLATE

Method 1 – Clamps

Center the router template's etched cross-hair markings over the target speaker location, then secure using a pair of large clamps.

Method 2 – Double-Sided Carpet Tape

If clamps are not feasible due to location or spacing constraints, apply double-sided carpet tape to the back of the router template to temporarily adhere it to the ceiling material.

CUTTING A SQUARE OPENING

1. Drill one 3/8" starter hole in any corner of the square template area.
2. Using the 1/8" spiral router bit with the 5/16" bushing, carefully follow the square template outline to create a pre-cut groove. Do not cut too close to the edge of the template.
3. Drill the remaining three 3/8" starter holes in each corner, staying within the pre-cut groove.
4. Using a jigsaw, rough-cut the opening. Stay a minimum of 1/4" away from the edge of the router template at all times.
5. Switch to the 1/4" spiral down-cutting bit with the 7/16" bushing and complete the final cut precisely along the template outline.
6. Before removing clamps or tape, gently place the grille into the cut opening to check that all edges are true and aligned.
7. If corner adjustments are needed, use the optional corner chisel. Use a file for minor edge refinements.

8. Remove the router template. Place the grille flush into the material to verify fit.
9. Secure the grille using the provided adhesive foam pads for a press fit.

NOTE: Always rough-cut at least 1/4" inside the template edge before making the final router pass. This protects the template and ensures a clean, precise final cut.

CUTTING A ROUND OPENING

1. Drill a single 3/8" hole in the center of the target area on the ceiling material.
2. Using the 1/8" spiral router bit with the 5/16" bushing, carefully follow the circular template outline to create a guide groove for the jigsaw.
3. Using a jigsaw, rough-cut the circular opening from the guide groove. Stay a minimum of 1/4" away from the edge of the router template.
4. Switch to the 1/4" spiral down-cutting bit with the 7/16" bushing and complete the final cut precisely along the circular template outline.
5. Make any minor adjustments to the material as needed to ensure a precise fit.
6. Secure the grille using the provided adhesive foam pads. Installation is complete.

Scan QR Code to view the Small Aperture Router Template Video.

