

Do It Yourself

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Maple and Walnut CD Cabinet -- Angled Base

From "[Wood Works](#)"

episode WWK-202 -- [More Projects »](#)

The walnut base of the CD cabinet is designed to complement the contemporary style of the piece. The profile of the cutout makes the piece look less blocky and matches the flared angles of the corners (**figure A**). The angled corners are made by cutting a compound miter at the table-saw. The base is made from a piece of walnut stock that's 3-1/2 inches wide by 1-3/4 inches thick.

Materials:

Maple and black-walnut stock

Table saw

Band saw

Biscuit joiner; wood biscuits

Yellow wood-glue

Clamps

Chalk or carpenter's pencil

Safety glasses or goggles

Note: Cut sizes may vary. For exact measurements, please contact David Marks through his Web site -- information below under Resources.

Safety Alert: *Always* wear safety goggles or safety glasses when working with power-tools, saws, drills, routers, etc.

Steps:

1. With the blade on the table saw set to 15 degrees, cuts are made on opposite sides of the stock (**figure B**). A square-toothed ripping blade works best for this process.
2. Next, a miter gauge is used and set to 15 degrees. With the saw blade now set at 45 degrees, the first of two compound angle cuts is made in the stock (**figure C**).



Like the flared trim pieces, the angled walnut base adds visual weight to the tall, elongated CD cabinet.



Figure A



Figure B

3. To make the second compound-angle cut (**figure D**), the setup is moved to the second miter slot and the stock is rotated. Pencil-marks on the wood indicate the proper length, and ensure that the angles are cut accurately for the corners of the base.
4. For the base, center cutouts have been designed that are angled to match the corners. The cutouts are made in successive steps, starting at the table saw. The miter gauge is set at 90 degrees and the table-saw blade is set at 15 degrees. The height of the cutout is set at 7/8 inch, and the saw blade is set accordingly. The layout for the cuts is marked on the base pieces with chalk.
5. The first cut is made with several passes, using the square-toothed ripping blade (**figure E**).
6. The stock is then flipped to notch the other end (**figure F**).
7. The band-saw is used to finish the job of making the cut-outs. The cut-outs are to be parallel with the bottom of the base. Recall that earlier, the stock was cut at a 15-degree angle. To compensate, the bed of the band saw is set at 15 degrees (**figure G**).
8. The cut-out for the first base piece is finished with a straight cut (**figure H**). The process is repeated for all four base pieces.
9. Once cut, the base pieces are joined with biscuit joinery (**figure I**). Since the miter for the base was cut at a 45-degree angle, the fence on the biscuit joiner is set at 45 degrees also (**figure J**).
10.
 - **Important:** As you cut the slots for the biscuits in the mitered corners, it's critical to check during the process to ensure that the slots and biscuits will line up.
11. With the joinery slots cut, gluing up of the base can begin. During glue-up, angled shims are fastened with double-stick tape to the base pieces (**figure K**) to provide squared, flat surfaces for the clamps to hold onto.
12. The glued pieces are assembled (**figure L**) and clamped together



Figure C



Figure D



Figure E



Figure F



Figure G

(**figure M**). With the flat surfaces provided by the angled shims, the clamps can get a good grip, ensuring tight corners.

13. Once the base assembly has dried, it is fastened to the case with glue and biscuits, and clamped in position (**figure N**).
14. The entire assembly is clamped securely with long bar-clamps (**figure O**) while the glue dries.

In the segment that follows, the cabinet top and door are constructed.

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RESOURCES:

Fine Woodworking

A magazine devoted to high-quality craftsmanship in woodworking.

The Taunton Press Inc

Newtown, CT 06470

Phone: 203-426-8171

Fax: 203-426-3434

Email: service@taunton.com

The Small Wood Shop (The Best of Fine Woodworking)

Model: 1561580619

Author: Helen Albert (Editor)

Woodworking Techniques: Best Methods for Building Furniture from Fine Woodworking

Model: 1561583456

Author: Fine Woodworking Magazine

The Taunton Press Inc

Newtown, CT 06470

Phone: 203-426-8171

Fax: 203-426-3434

Email: service@taunton.com

Mastering Woodworking Machines (Fine Woodworking Book)

Model: 0942391985

Author: Mark Duginske



Figure H



Figure I



Figure J



Figure K



Figure L

David Marks Website

David Marks, DIY's *Wood Works* host, is a master woodworker. For more information on cut sizes and project details, please contact him via his Website at www.djmarks.com



Figure M

The Complete Woodworker's Companion

Model: 0823008665

Author: Roger Holmes

(1996)

Watson-Guptill Publications

Lakewood, NJ 08701-9914

Phone: 908-363-5679

Fax: Private



Figure N

The Complete Book of Wood Joinery

Model: 0806999500

Author: Richard J. Descistofofo

(1997)



Figure O

Sterling Publishing Co. Inc.

New York, NY 10016

Phone: 212-532-7160

Fax: 800-542-7567

Advanced Woodworking

Model: 0783539126

Author: Editors of Time Life Books

1998

Time-Life Books Inc.

Alexandria, VA 22314

Phone: 703-838-7000

Fax: 703-518-4124

Popular Woodworking Magazine (F & W Publications, Inc.)

F & W Publications, Inc.

Cincinnati, OH 45207

Phone: 515-280-1721

Website: www.popularwoodworking.com

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