

Browse more than 1,300 woodworking project plans, DVDs, back-issue collections, videos, tool reviews, books, & more.

Thank You!

Thank you for ordering this WOOD® magazine download. We hope you enjoy being part of our online experience and that you have fun expanding your woodworking skills.

Please remember that this copyrighted material is for your use only. It is unlawful to share this file with someone else or to reprint it in any form.



Dave Campbell
Editorial Content Chief, WOOD magazine



Adobe Acrobat Reader Troubleshooting Guide

If you can read this page, your Acrobat Reader program is working correctly! But you may still have problems or specific issues, such as printing and saving your downloadable file.

My printer won't print the text correctly

Almost all printing problems are due to not enough free system resources memory. The files are very memory intensive because they include graphics, text, and photos. Close all other programs/applications and print directly out of the Acrobat Reader program, not your Web browser.

Patterns are not printing full-size

Make sure your printer is set to print at 100 percent, "print to fit" is not checked and "page scaling" is set to "none". These settings are selected in the printer setup or printer options.

I can't find my file now that it's downloaded

Rather than viewing the plan in your browser, you must save it to your hard drive. Download the file again, except this time try right-clicking on the red download button. A menu window will open. Select "Save target as" or "Save link as" to save the file to your hard drive. Once saved, you can open it up with Adobe Acrobat Reader.

For more details on using Adobe Acrobat Reader please visit our online help section at:

woodmagazine.com/adobe

WOOD Store

Customer Favorites

Shop Tools & Accessories



Indoor Furniture



Outdoor Furniture



Mission Furniture



Visit the WOOD Store at:

WOODStore.net

Well-composed Cutting Board

Blocks of walnut and maple, separated by ebony veneer and enhanced with end-grain "shadows," create the illusion of black keys standing proud of white keys.



Note: Veneer thickness varies from supplier to supplier. But that's okay because the thickness will be consistent throughout the project and will not affect any of the glue-ups.

Laminate the key blanks

- 1 Cut six $1\frac{5}{8}$ "-wide strips of ebony veneer 26" long [Source, Photo A].
- 2 To make key blanks, cut six pieces of walnut and six of maple, each $\frac{3}{4} \times 1\frac{1}{8} \times 26$ ". Glue and clamp a strip of ebony veneer between

pairs of walnut and pairs of maple blanks [Photo B] to make three black-key blanks and three white-key blanks.

- 3 With the glue dry, scrape off squeeze-out and square up the edges of each lamination on the tablesaw [Photo C].

DIMENSIONS
 $16\frac{1}{8}" W \times 8\frac{1}{8}" D \times 1\frac{1}{2}" H$

87

Sliced and diced pieces.

► Purchase a saw like the one shown in Photo A. woodmagazine.com/buyveenesaw



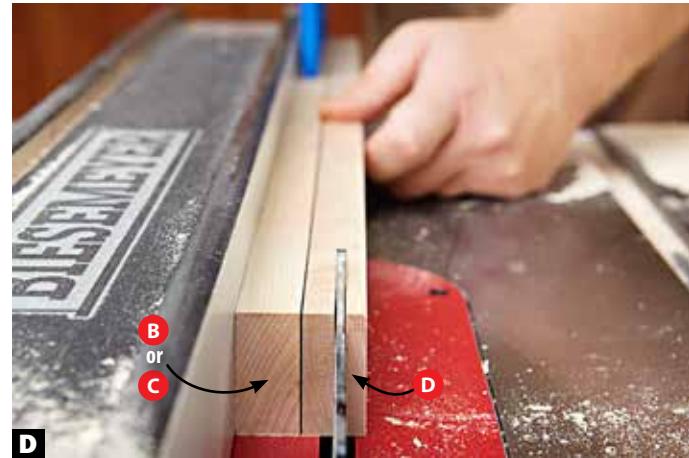
A
Place the veneer on a softwood scrap and cut the strips, using a $1\frac{1}{8}$ "-wide piece of maple as a width gauge and to guide the veneer saw.



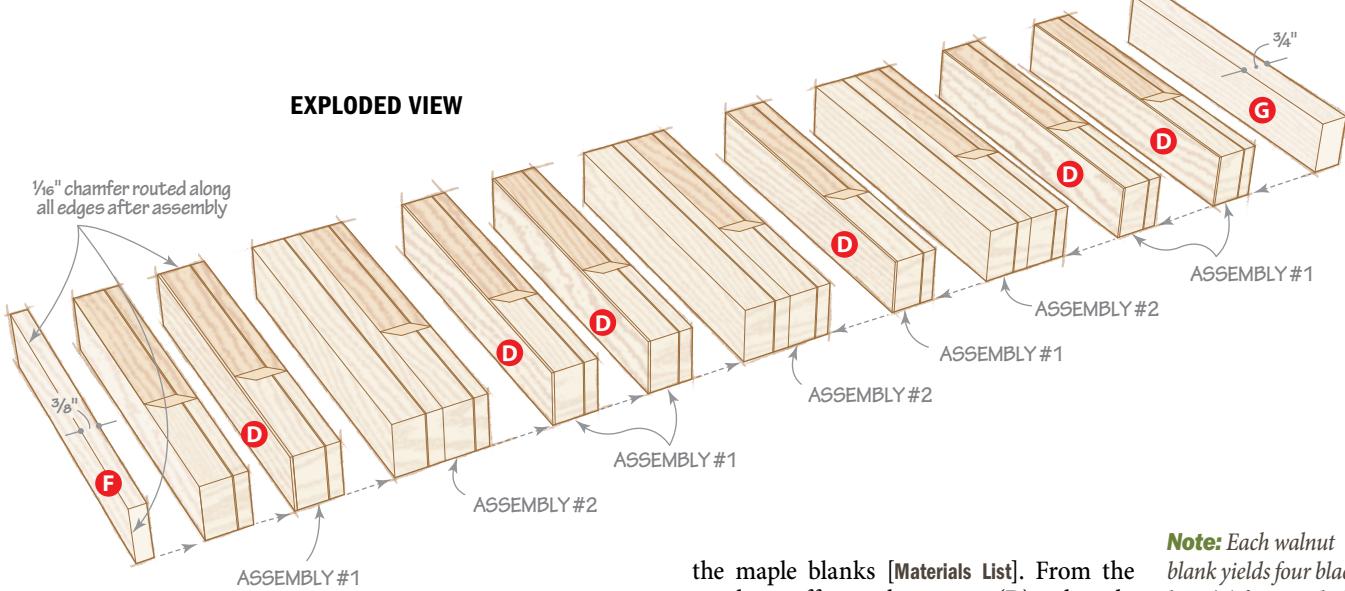
C
Rip $\frac{1}{16}$ " from each face of the key blanks, smoothing the surfaces and bringing them to a finished thickness of $1\frac{1}{2}$ ".



B
To ensure a good glue joint, evenly distribute pressure by clamping each key-blank lamination between cauls.



D
Flip the key blanks upright and rip one edge to bring them to the finished width.



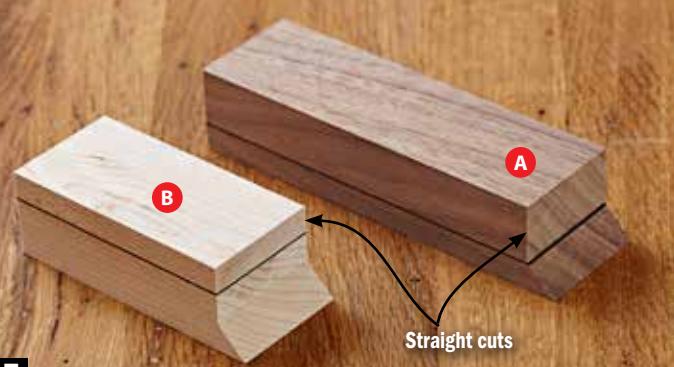
Form the keys

- 1 Rip each key blank to $1\frac{1}{8}$ " wide [Photo D]. Save the maple cutoffs for the spacers (D).
- 2 Cut the black keys (A) to length from the walnut blanks and the short white keys (B) and long white keys (C) to length from

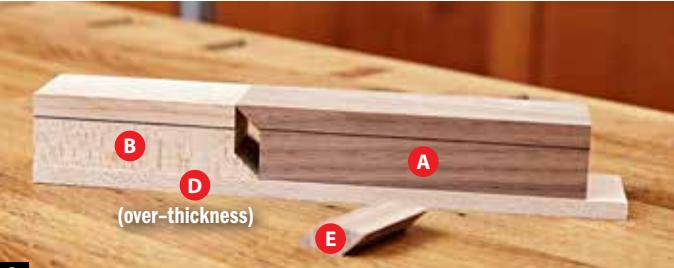
the maple blanks [Materials List]. From the maple cutoffs, cut the spacers (D) to length, leaving them thick for now. Cut the thin end cap (F) and thick end cap (G) to size. Mark the thin end cap to avoid confusing it with the spacers. Set parts F and G aside.

3 To begin forming the ends of the black keys (A) and short white keys (B), make an initial cut on the tablesaw $\frac{3}{4}$ "-deep and $\frac{3}{8}$ " from the end of each key [Drawing 1], making

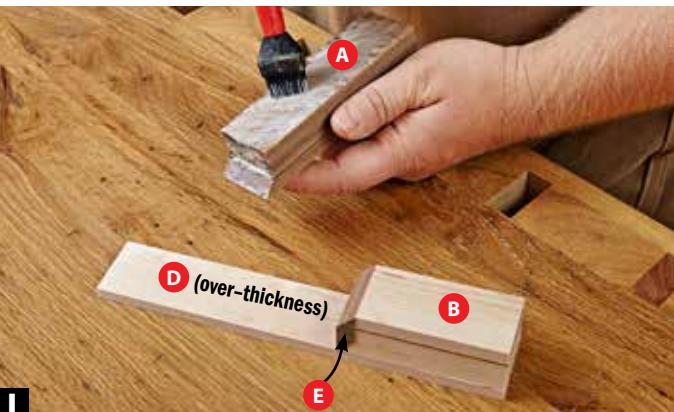
Note: Each walnut blank yields four black keys (A) for a total of 12. Two maple blanks yield 12 short white keys (B) and the remaining maple blank yields three long white keys (C). You have extra parts A and B in case of an error.



E
Make the straight cut in the black key (A) with the thick walnut section face-down on the tablesaw. Make the same cut in the white key (B) with the thin maple section face-down.



G
Check the fit of the end-grain key (E) in the opening between the black key (A) and the short white key/spacer (B/D) before proceeding with the glue-up.



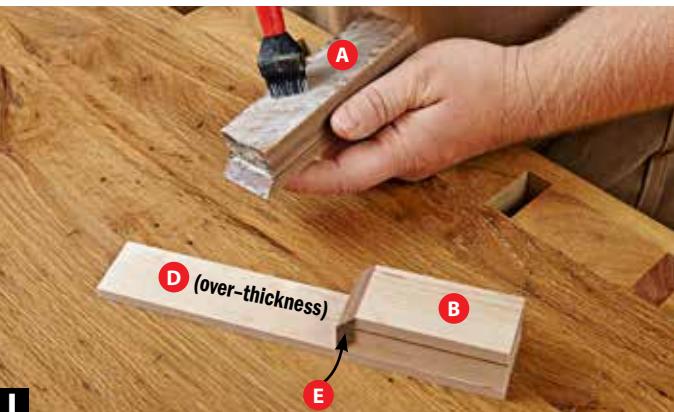
H
Glue and clamp the short white key (B) to the over-thickness spacer (D), keeping the ends and edges flush. Remove excess glue from the bevel area.



The corner of the second (angled) cut in each key meets precisely at the corner of the first (straight) cut.



J
Clamp the assembly (A, B/D, E) along the length and across the width, checking for flush edges as you work.



I
Apply glue and position the end-grain key (E) against the short white key (B). Apply glue and add the black key (A).

sure you orient the pieces correctly [Photo E]. Tilt the blade to 45° and make the second cut in each key [Photo F].

4 Dry-assemble one Assembly #1 and measure the dimensions for the end-grain key (E) [Drawing 2]. Cut an 18"-long key blank to the measured thickness and width. Bevel the blank edges on the router table with a 45° chamfer bit. Check the fit [Photo G].

Glue the subassemblies

1 Using six each of the short white keys (B), over-thickness spacers (D), end-grain keys (E), and black keys (A), form six of Assembly #1 [Drawing 2, Photos H, I, J, and K].

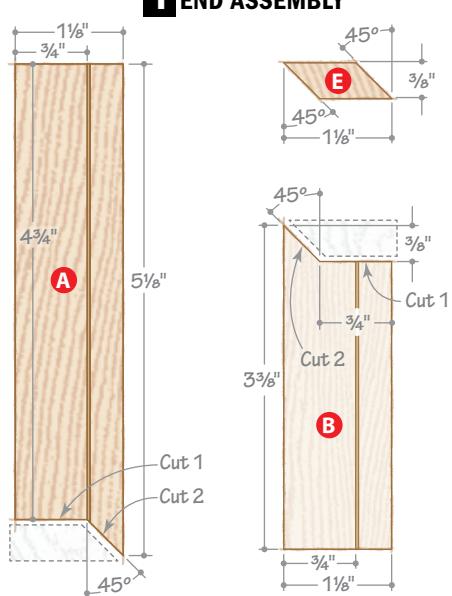
2 Glue and clamp three short white keys (B) to three long white keys (C), keeping

the ends and edges flush [Drawing 3]. Remove excess glue from the bevel area. Using these three assemblies and three each of the end-grain keys (E) and black keys (A), form three of Assembly #2 [Drawing 3, Photos L and M].

3 To make the key assembly at the left end of the cutting board, retrieve the thin end cap (F). Glue and clamp one each of the short white key (B), end-grain key (E), and black key (A) to the thin end cap [Exploded View].

All together now

1 Edge-glue the subassemblies [Exploded View, Photo N]. Make sure the key with the thin end cap (F) attached is at the left end of the keyboard. Add the thick end cap (G) to the right end.





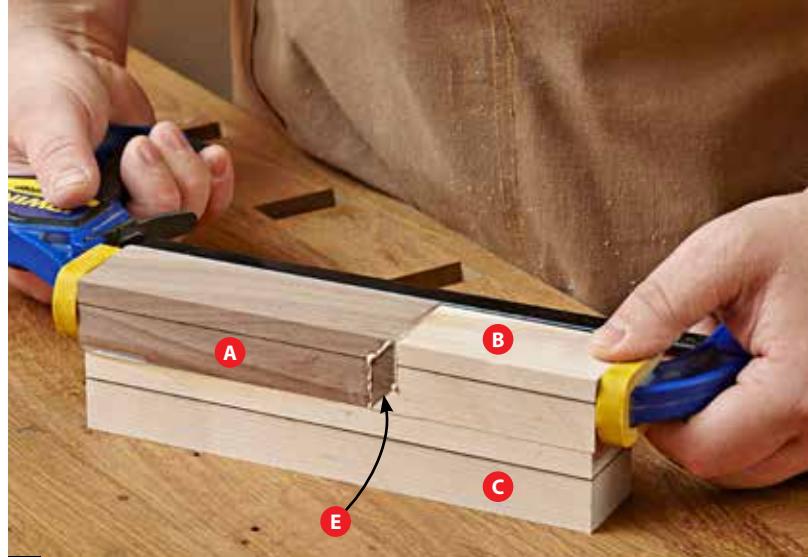
K

Rip the six Assembly #1s to $1\frac{1}{16}$ " wide after scraping away excess glue. Rip only the spacers (D).



M

Carefully flip the assembly and clamp the black key (A) to the long white key (C).



L

Make three Assembly #2s by gluing and clamping an end-grain key (E) and black key (A) to the end of the short white key (B).



N

To keep things manageable and make it easier to keep all surfaces flush, glue and clamp the subassemblies two at a time.

2 With the glue dry, scrape away any excess. Sand the cutting board to 320 grit. Rout $\frac{1}{16}$ " chamfers along all edges. Apply coats of mineral oil, saturating all parts of the cutting board. 

Produced by Craig Ruegsegger with John Olson and Jan Svec

Project design: John Olson

Illustrations: Roxanne LeMoine, Lorna Johnson

Materials List

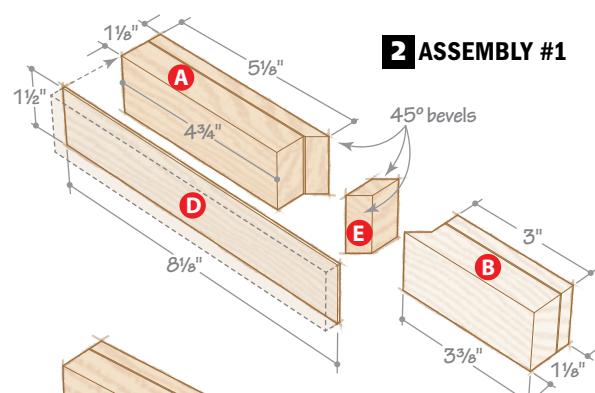
Part	FINISHED SIZE				Matl.	Qty.
	T	W	L			
A* black keys	$1\frac{1}{2}$ "	$1\frac{1}{8}$ "	$5\frac{1}{8}$ "	LWE	10	
B* short white keys	$1\frac{1}{2}$ "	$1\frac{1}{8}$ "	$3\frac{3}{8}$ "	LME	10	
C* long white keys	$1\frac{1}{2}$ "	$1\frac{1}{8}$ "	$8\frac{1}{8}$ "	LME	3	
D* spacers	$\frac{1}{16}$ "	$1\frac{1}{2}$ "	$8\frac{1}{8}$ "	M	6	
E* end-grain keys	$\frac{3}{8}$ "	$1\frac{1}{8}$ "	$1\frac{1}{2}$ "	W	10	
F thin end cap	$\frac{3}{8}$ "	$1\frac{1}{2}$ "	$8\frac{1}{8}$ "	M	1	
G thick end cap	$\frac{3}{4}$ "	$1\frac{1}{2}$ "	$8\frac{1}{8}$ "	M	1	

*Parts initially cut oversize. See the instructions.

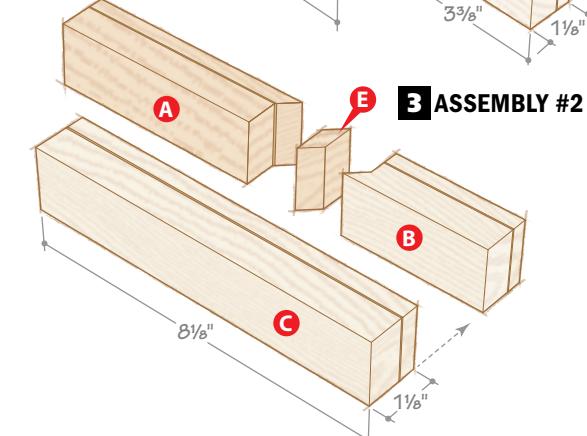
Materials key: LWE-laminated walnut and ebony, LME-laminated maple and ebony, M-maple, W-walnut.

Blade and bits: 45° chamfer router bit.

Source: Ebony veneer, 3 sq. ft. pack, no. 48303, Rockler, 800-279-4441, rockler.com.



2 ASSEMBLY #1



3 ASSEMBLY #2