



Since 1929
Still made in the USA

HAWK
Woodworking Tools

Bushton Manufacturing, LLC

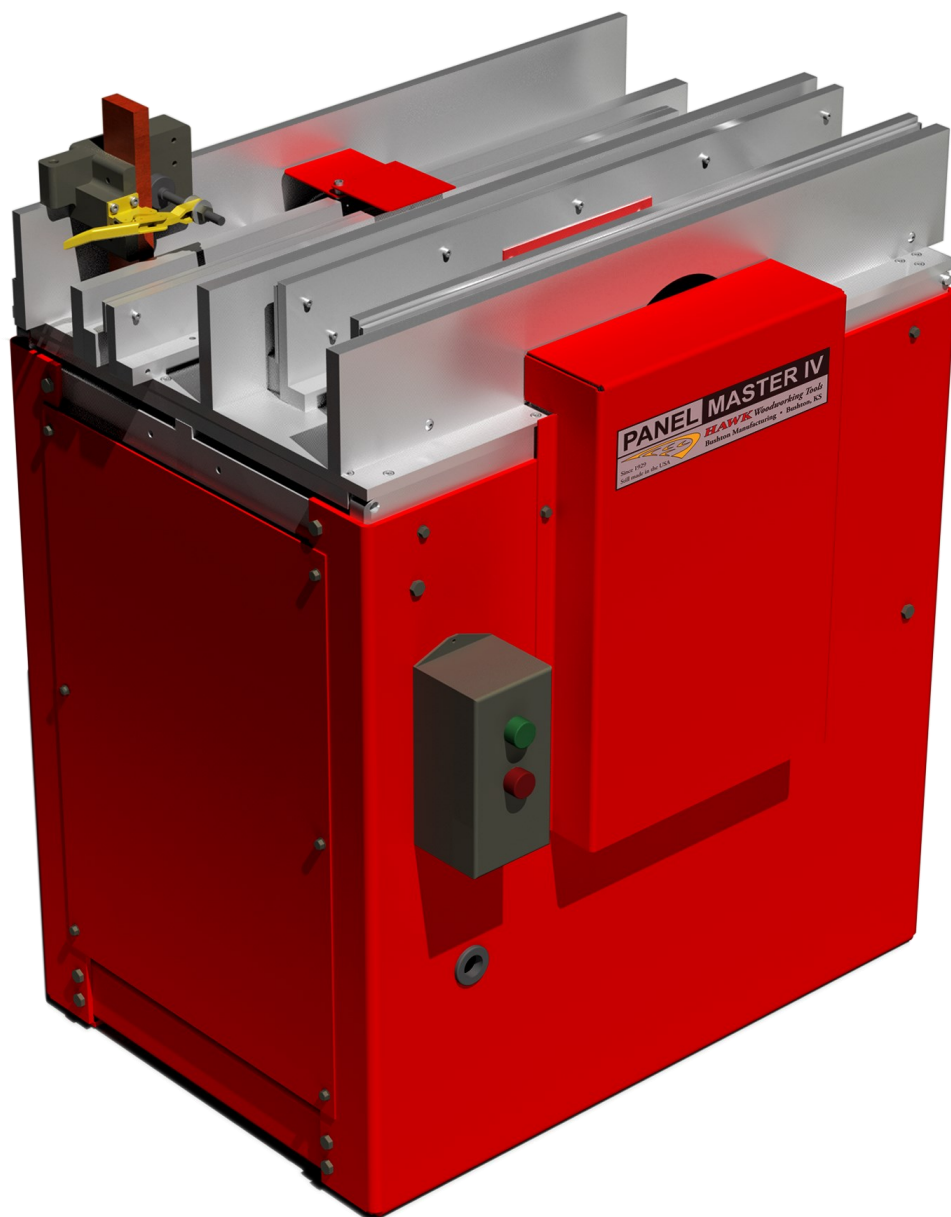
P.O. Box 127, 319 S. Main St.

Bushton, KS 67427

620-562-3557

www.hawkwoodworkingtools.com

PanelMASTER IV CROWN RAIL JIG MANUAL



CROWN DOORS

Crown Rail Jig

The Crown Rail Jig and Templates serve two functions. The first is safety; the jig has two handles that provide excellent control of the jig and stock that is being cut. The second is that the templates provide a profile to mark and saw the crown into the board that the door is made of.

Bushton Manufacturing provides a set of 10 templates to make the rails and panels from widths of 9.5 to 22.5 inches. There is also a set of adjustable width stops. This allows for any width door.

You can also make your own template if you desire a different type of arch than what we provide.

The Hawk templates are made of ABS plastic and run against the rub bearings. For that reason, rub bearings must be used, not solid steel bushings. The rub bearing should also be checked to ensure that they spin freely.

The PanelMASTER IV raised panel templates are designed for a 7/8" rise in the crown rail and a board width of 3-5/8".

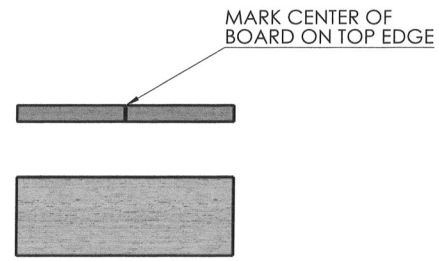
SAFETY

1. Be safety conscious, always follow the safety rules for your PanelMASTER IV as laid out in this manual.
2. Always unplug the machine when servicing or making any adjustments. Turn the machine by hand to be sure that no cutters are hitting any guard or fence before plugging it back in.
3. Be careful when making any adjustments, the cutters are sharp.
4. When making a cut be sure to keep the jig tight against the back fence all the way through the cutter. Even though the wood may be clear of the cutter, the jig might not be.
5. Always make a dry run, with the motor off, after everything is set and before making a cut. Check to see if the toggle clamp pads are hitting the rail fence. If they are, adjust as needed. Check and make sure the board is positioned on the cutter and the template is positioned on the rub bearing.

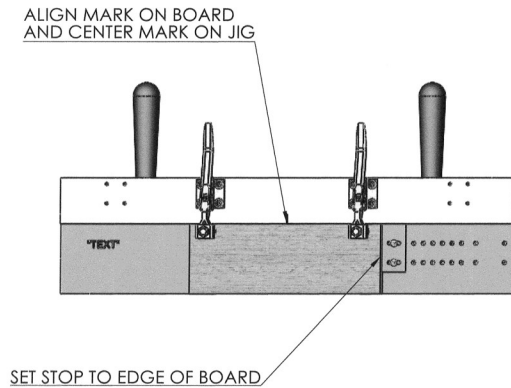
PROCEDURE

1. Select the proper template and install it in the jig. Select the template for the length of the crown rail not the overall width of the door you will be making. If the length of the crown rail falls between two templates, you can select either template. Place the template on the jig, with the countersunk side of the mounting holes up. Fasten the template to the jig with the two flat head screws provided.
2. Mark the center of the board on top.
3. Place the board into the jig. Align the center mark of

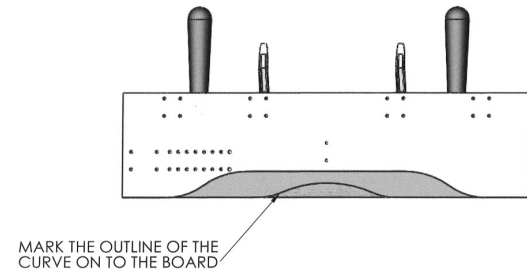
the board with the center mark on the jig.



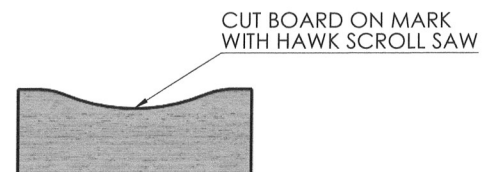
4. Select the proper stop block and install it on the jig against the board.



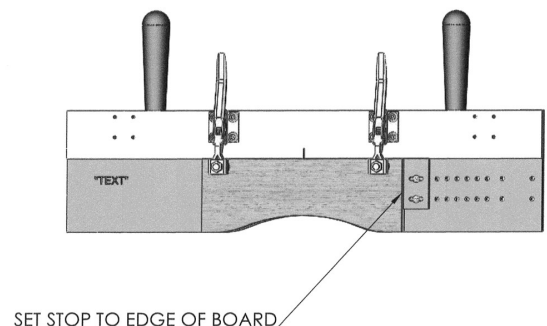
5. Turn the jig over and make the board for trimming.



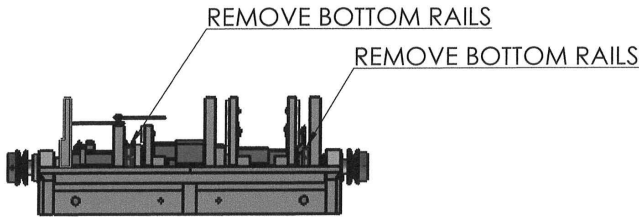
6. Trim the board to size with a HAWK scroll saw or other method. Make a smooth cut as the board will be running on the rub bearing with the template.



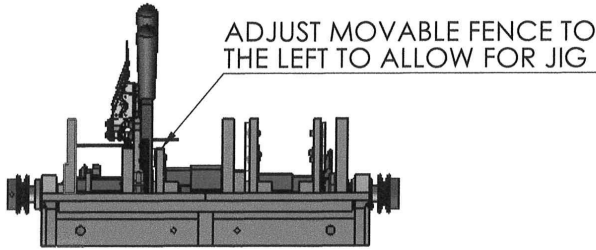
7. Reinstall board onto the crown rail jig.



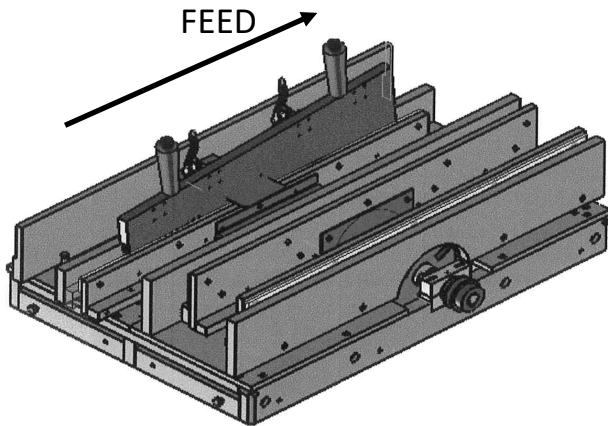
1. Remove bottom guide bars from rail and raised panel cut locations.



2. Adjust movable rail fence to allow for the added thickness of the crown rail jig and template.



3. Make a dry run, with the motor turned off, after everything is set and positioned. Check to see if the toggle clamp pads are going to hit the fence. Make sure the cutters are positioned under the wood and are not going to cut into the template or jig. **If the cutters get into the jig, it will ruin the cutters, template and jig. It will also be a dangerous situation and can result in throwing the jig or parts of it out.**



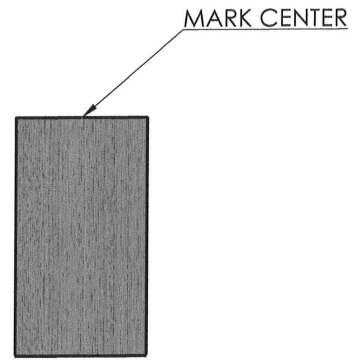
4. Cut the profile. When making a cut be sure and keep the jig tight against the back rail fence all of the way through, the wood may be clear of the cutter but the jig might not be.

Crown Rail Raised Panel

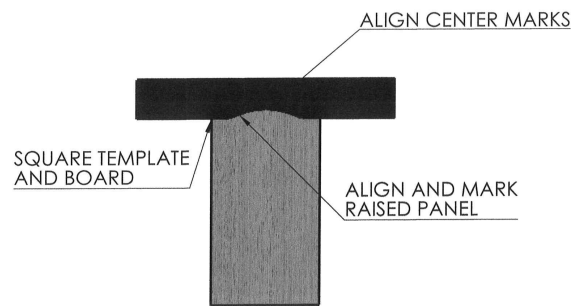
To cut the raised panel of your crown rail door, you will need the template you used to make the rail.

To make the raised panel follow these procedures:

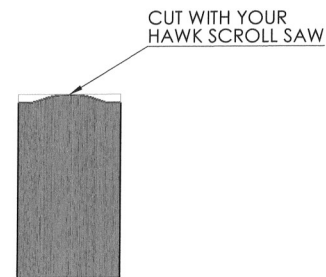
1. Mark the center top of the board.



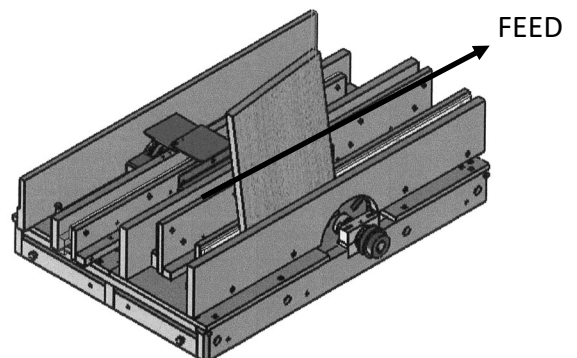
2. Place the template on the board and align the center marks, the to edge of the door and square the template to the door.



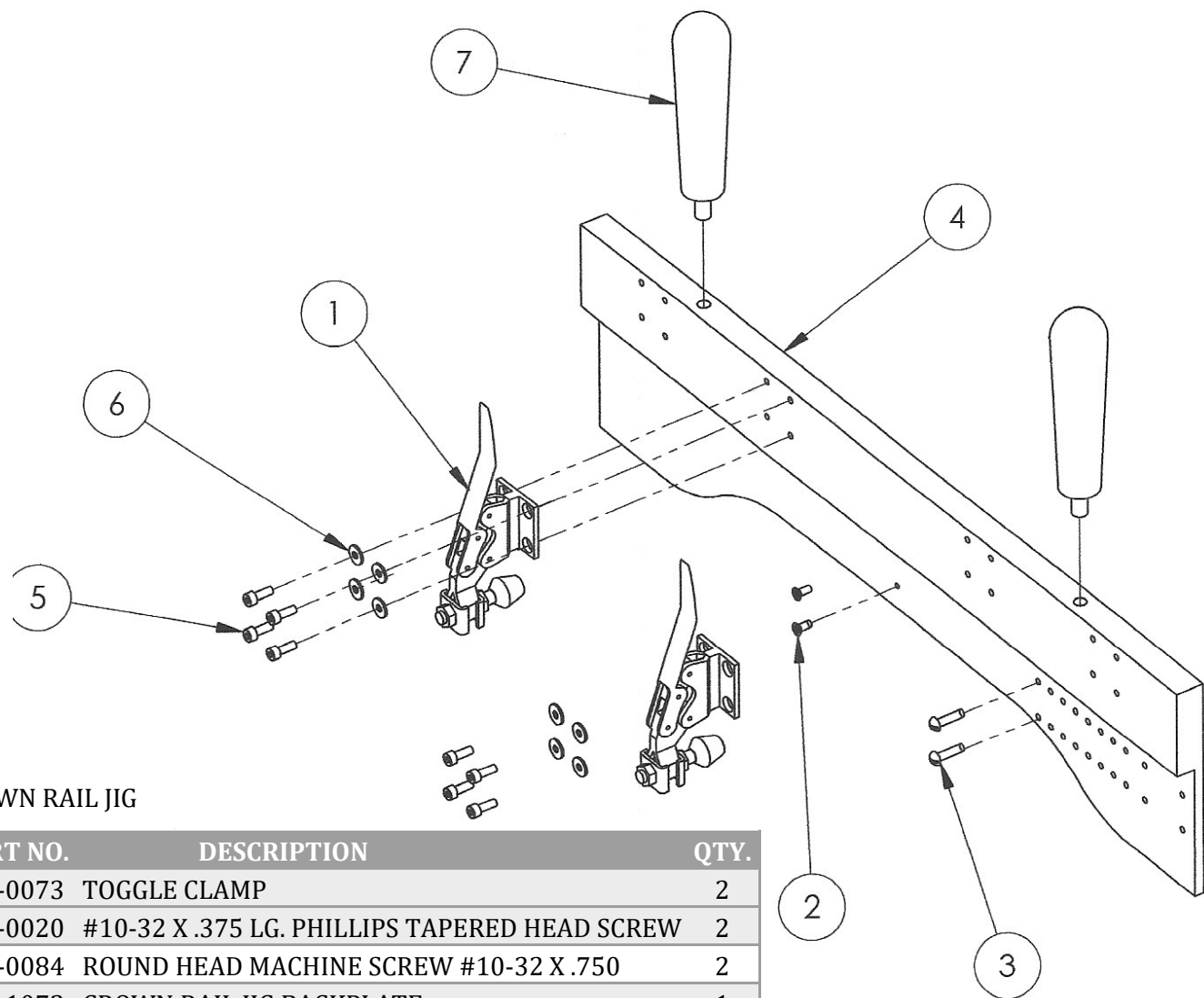
3. Cut the raised panel board to shape using your HAWK Scroll Saw or other similar method.
4. Carefully cut the top of the panel with the bottom rail removed.



5. The other 3 sides are cut with the bottom rail in place.



Crown Rail Jig Parts Break Down



910-0100 CROWN RAIL JIG

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	690-0073	TOGGLE CLAMP	2
2	755-0020	#10-32 X .375 LG. PHILLIPS TAPERED HEAD SCREW	2
3	705-0084	ROUND HEAD MACHINE SCREW #10-32 X .750	2
4	690-1072	CROWN RAIL JIG BACKPLATE	1
5	715-0255	#10-32 X .500 SHCS	8
6	755-0045	10 SAE FLAT WASHER ST Z1	8
7	745-1149	JIG HANDLE	2

910-0200 CROWN RAIL TEMPALTE SET

PART NO	DESCRIPTION	QTY
690-1062	TEMPLATE 9-1/2 TO 10-1/2	1
690-1063	TEMPLATE 10-1/2 TO 11-1/2	1
690-1064	TEMPLATE 11-1/2 TO 12-1/2	1
690-1065	TEMPLATE 12-1/2 TO 13-1/2	1
690-1066	TEMPLATE 13-1/2 TO 14-1/2	1
690-1067	TEMPLATE 14-1/2 TO 15-1/2	1
690-1068	TEMPLATE 15-1/2 TO 16-1/2	1
690-1069	TEMPLATE 16-1/2 TO 17-1/2	1
690-1070	TEMPLATE 17-1/2 TO 19	1
690-1071	TEMPLATE 19 TO 22	1
690-0076	STOP	1