

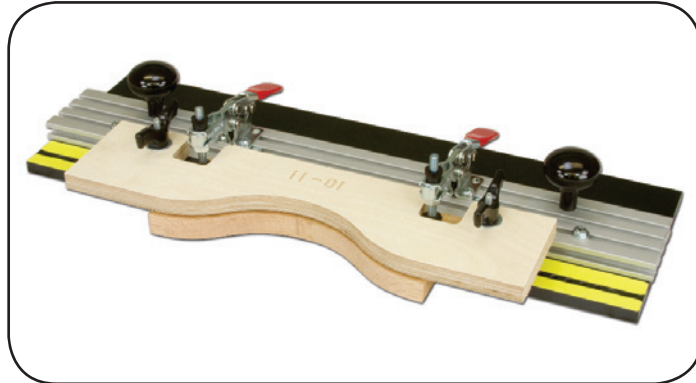
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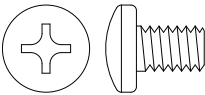
**HD Frame Master,  
For HD Frame Templates  
Use With Router Or Shaper  
Item: HDFM-001**



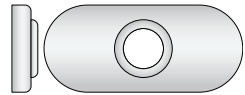
## Additional Hardware:

*Parts listed below are not shown in the hardware drawings. Refer to photos in the instructions:*


| Part  | Desc.         | Qty. |
|-------|---------------|------|
| 5433B | Base          | 1    |
| 5433T | 24" Fence     | 1    |
| 6305  | Toggle Clamps | 2    |



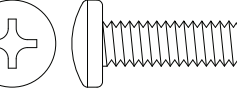
| Part# | Description | Qty. |
|-------|-------------|------|
| MP375 | 3/8" Screw  | 4    |




| Part# | Description | Qty. |
|-------|-------------|------|
| 5760B | Oval Nut    | 3    |



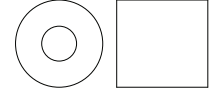
| Part# | Description | Qty. |
|-------|-------------|------|
| 5433C | Stop        | 2    |




| Part# | Description | Qty. |
|-------|-------------|------|
| 5771B | 3/4" Screw  | 2    |



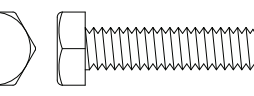
| Part# | Description | Qty. |
|-------|-------------|------|
| 5765B | Offset Nut  | 6    |




| Part#   | Description | Qty. |
|---------|-------------|------|
| BUSH004 | 5/8" Spacer | 2    |



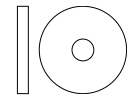
| Part# | Description | Qty. |
|-------|-------------|------|
| 5525  | Knob        | 2    |



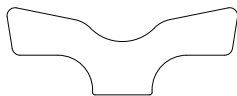
| Part# | Description | Qty. |
|-------|-------------|------|
| HB030 | 1" Bolt     | 2    |



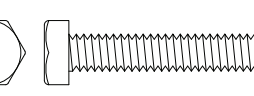
| Part# | Description | Qty. |
|-------|-------------|------|
| WS002 | Washer      | 3    |




| Part#    | Description | Qty. |
|----------|-------------|------|
| BUSH1125 | 1/8" Spacer | 8    |




| Part# | Description | Qty. |
|-------|-------------|------|
| 5560  | Knob        | 2    |



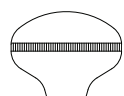
| Part# | Description | Qty. |
|-------|-------------|------|
| HB040 | 1-1/4" Bolt | 3    |




| Part#  | Description | Qty. |
|--------|-------------|------|
| WFN002 | 1" Washer   | 4    |



| Part#    | Description | Qty. |
|----------|-------------|------|
| BUSH1250 | 1/4" Spacer | 8    |



| Part# | Description | Qty. |
|-------|-------------|------|
| 5590  | Knob        | 2    |



| Part# | Description | Qty. |
|-------|-------------|------|
| HB060 | 3" Bolt     | 2    |

## BEFORE BEGINNING

Identify and verify that you have all the parts listed. The HD Frame Master was designed to be used with Woodhaven HD Door Templates. It can also be used with our Standard Door Templates by purchasing the 5431 Hardware Kit. It can be used on a shaper or a router table using the HD Door Templates and on a router table only using the Standard Door Templates. You'll need a #3 Phillips screwdriver and a 7/16" wrench for assembly. Read the instructions carefully at least once before beginning.

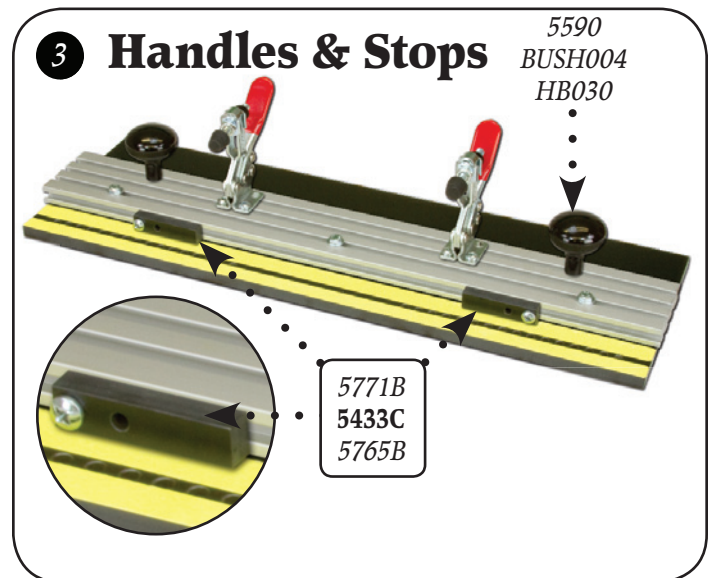
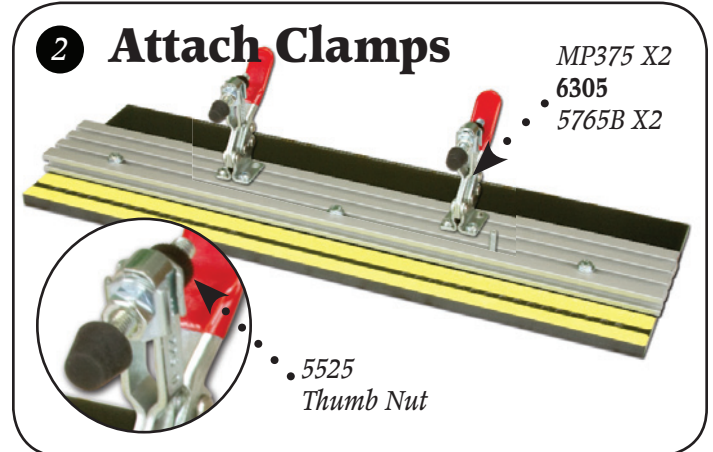
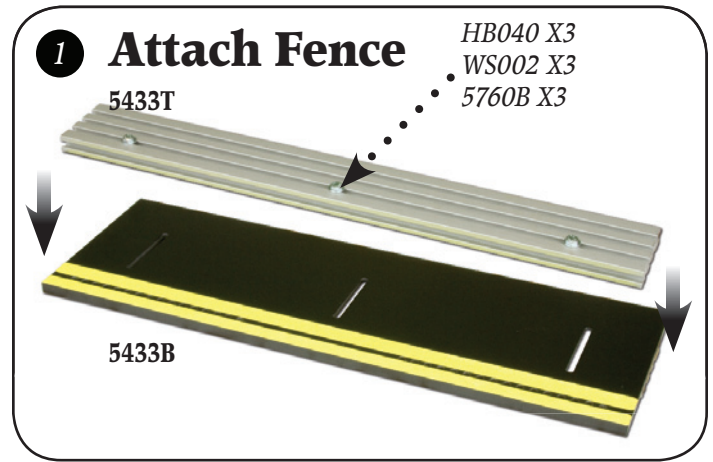
## ASSEMBLY

Install a washer (*WS002*) on each of the 1-1/4" bolts (*HB040*). Place the 24" Ultra Track Fence (*5433T*) on the Base (*5433B*) with the three holes in the Fence aligned with the three slots in the Base. The three holes in the Fence should face towards the front of the Base where the non-skid strips are located. Insert the 1-1/4" bolts thru the holes in the Fence/slots in Base and, from the underside of the Base, start an oval nut (*5760B - smooth side first*), on the end each bolt. Position the front edge of the Fence 1-3/4" back from the front edge of the Base and tighten the bolts. *See fig. 1*

Insert two 3/8" screws (*MP375*) thru the two front holes of each Toggle Clamp (*6305*) and start an oval nut (*5765B - raised side first*) on the end of each screw. Slide the Toggle Clamps on the Fence, with the oval nuts engaged in the center T-slot. Position the Toggle Clamps where desired and tighten the screws. For quicker spindle adjustments, replace the top nut on the spindle with the thumb nut (*5525*). *See fig. 2*

Insert a 5/8" spacer (*BUSH004*) on the two 1" bolts (*HB030*) and start a knob (*5590*) on the end of each bolt. Slide the bolt head into the rear or center T-slot of the Fence, positioning the knob where desired for best control, and tighten. *See fig. 3*

Insert a 3/4" screw (*5771B*) thru the outer hole in each stop (*5433C*) and start an oval nut (*5765B - smooth side first*) on the end of each screw. Slide the stop/oval nut on the T-slot in the front edge of the Fence and tighten the screw. The inner hole in the Stop is only used when using the HD Template for 18-20" parts. *See fig. 3*



## SETUP THE HD FRAME MASTER

Select the rail template you wish to use from the HD Door Template set. To determine which template mounting holes in the Base to use, center the template side-to-side on the Base. Select the holes in the Base that line up with the holes in the template. Install two 3" bolts (**HB060**) through the recessed slot in the bottom of the Base in the holes selected. Place four 1/4" spacers (**BUSH1250**) on each bolt. *See fig. 4 & 5*

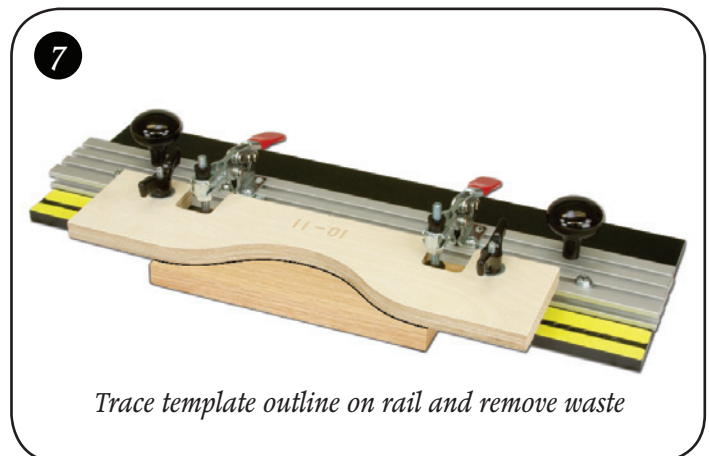
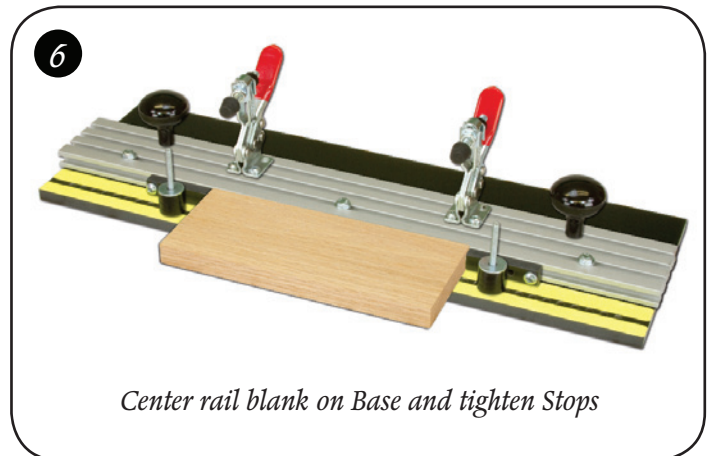
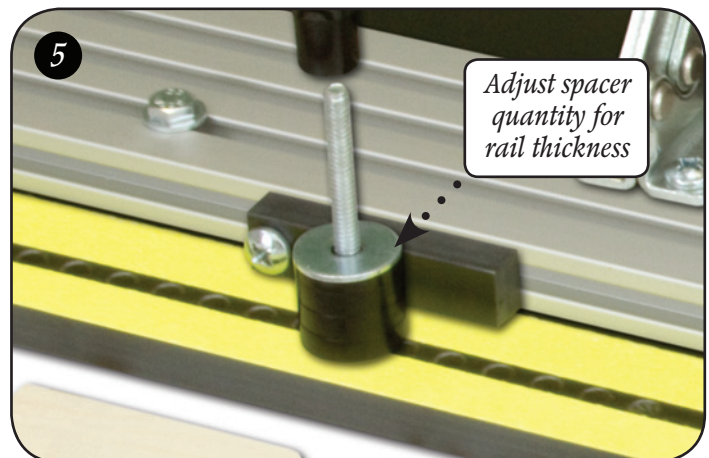
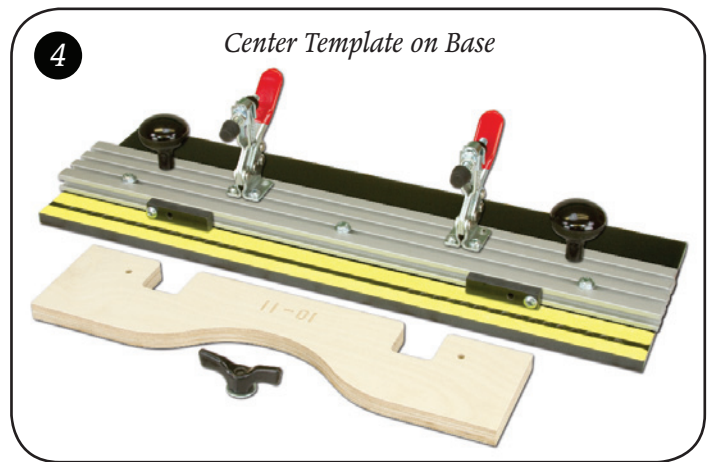
Place a 1" washer (**WFN002**) on each bolt/spacer stack. These will position the template 1" above the Base and this height will usually work for rails between 3/4" and 1" thick. Install the template on the bolts and another 1" washer on each bolt, on top of the template. Place a knob (**5560**) on each bolt and tighten. *See fig. 5, 6 & 7*

Use the 1/8" spacers (**BUSH1125**) if additional height is needed. Make sure the template clears the shaper cutter and that the shaper cutter bearing is riding on the template. Stack additional spacers as needed, to position the template at the best height for your cutter and bearing.

Our HD Door Templates are designed for rails a minimum of 2-1/4" wide, measured at the narrowest center section, and a minimum 4" or 5" finished width at each end, depending on the template rise you purchased. The Fence adjusts for rails up to 5" wide, measured at the narrowest center section, and a 6-3/4" or 7-3/4" finished width at each end, depending on the template rise you purchased. For narrower rails, set the Fence for the 2-1/4" width (**front edge of the Fence 1-3/4" back from the front edge of the Base**), then rip the rails narrower after all machining is complete.

Adjust the stops to center the rail blank on the Base and tighten. The rail blank should be cut slightly wider than the finished width of the rail (**4-1/8"-5-1/8" for example, depending on template rise purchased**). *See fig. 6*

Clamp the rail blank in the HD Frame Master and trace the outline of the template on the rail blank. Remove the rail and rough cut it to shape, staying 1/8" or less from the line. *See fig. 7*



### FLUSH TRIM RAIL TO SHAPE

Place the rough cut rail blank in the HD Panel Master and clamp in place. Hold the handles and flush trim the rail to shape using a flush trim cutter on your router. The bearing of the flush trim bit will follow the rail template and cut the rail to its finished shape. You can use the HD Panel Master to hold the rail for machining the pattern cut on the edge of the rail just shaped. After pattern cutting, a mating panel tongue will fit into the groove in the rail. *See fig. 8*

### PATTERN CUT WITH A ROUTER

Make sure you have at least 3/4" of the bit shank in the router. If extra bit height is needed, you may need to use a router lift or collet extension.

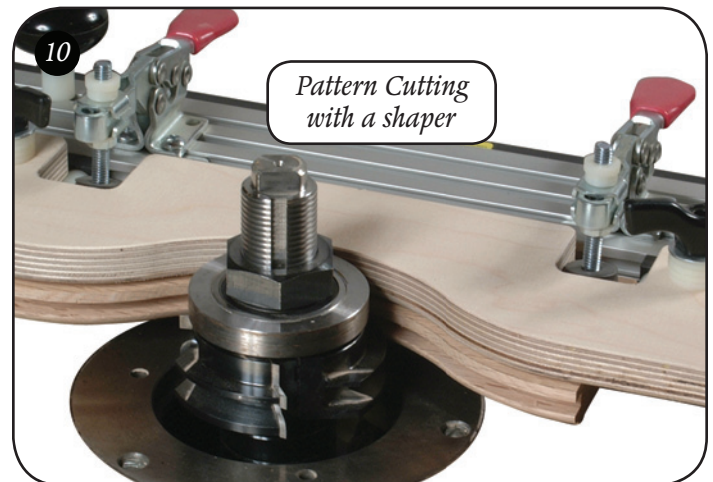
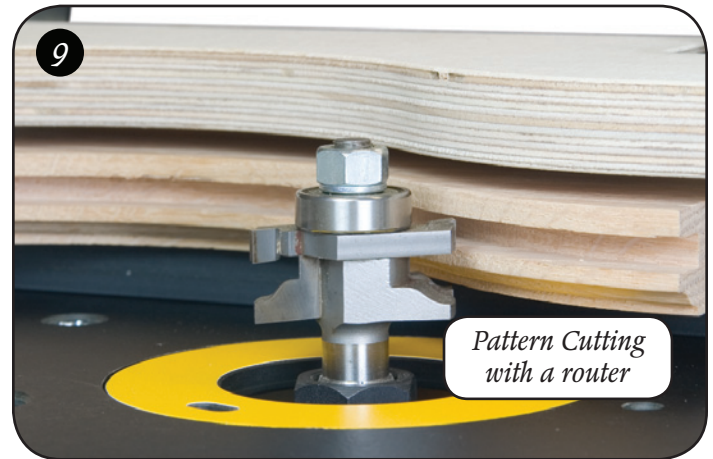
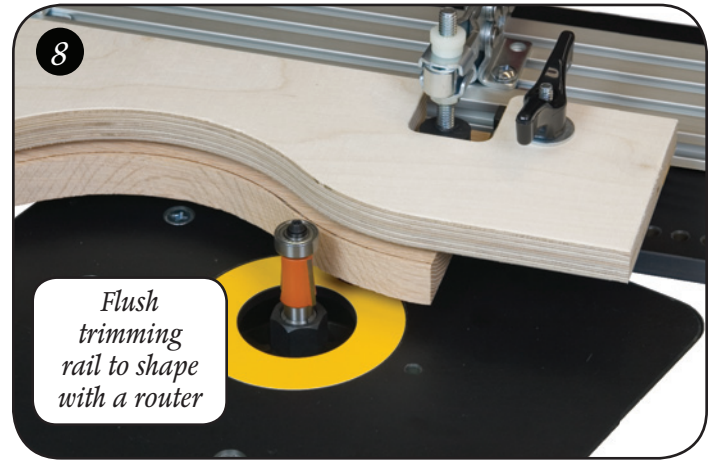
In the pattern cutting operation, the bearing will usually (*not always - depends on bit*) follow the rail, not the template, so the template can be removed (*not mandatory*) if desired. Clamp the rail in the HD Frame Master with the toggle clamps, hold the handles and make the pattern cut in the rail. *See fig. 9*

### PATTERN CUT WITH A SHAPER

Most pattern cutters cut the full thickness of the rail and do not require a separate flush trim operation. If your cutter is different, then perform the flush trim operation separately. If your pattern cutter cuts 1/2" to 5/8" deep it may remove a small portion of the edge of the Base. This will not affect the function of the HD Frame Master but, before any machining, you may want to remove a portion of the front non-skid tape so it won't dull your cutter. *See fig. 1*

The HD Door Templates have cutouts so the toggle clamps can apply pressure directly on the rail. The templates are extra long so the bearing can make contact with the template before the cutter makes contact with the rail. This provides greater control and increases the margin of safety.

Make sure the template is in line with the cutter bearing. Clamp the rail in the HD Frame Master with the toggle clamps, hold the handles and cut the rail to shape using the pattern cutter on your shaper. *See fig. 10*



### Infinity Cutting Tools

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