BUILDING A BOOT ROUTER BOARD





Following are the instructions on how to build a Ski Boot Router Board used to modified and return DIN heights of toe and heels to the needed ISO standard 5355 after sole planning or lifter installation. Using the Boot Router Bit will change the original DIN dimension of the boot as it was intend from the manufacture, which currently complies with ISO standard 5355. After sole planning, or installing lifters to a boot it is the responsibility of the installer/boot technician to make modifications to the DIN height, so it complies with ISO standard 5355. This compliance to the standard is important for the boot/binding system to function as intended. Do not use the Boot Router Bit if you do not have the proper protective gear, tools and the skills necessary to complete the modification procedure.

As with any modification to the toe and heel DIN surfaces, boot sole, mounting system or binding adjustment, you must complete a system inspection with a mechanical testing device.

Materials Needed



1 – Router of your choice (recommend ½ inch shank with lower horsepower) Remember when choosing a router it will hang up side down, so choose a router where the controls make the most sense for your work space

1 – Melamine shelving board 16' x 24' x $\frac{1}{2}$ ' or other suitable sized board

3 or 4 – bolts (pan head works best) that match the threads on your plunge router. You will have to measure what works best for your brand of router. Don't forget to add shelf thickness. The screws should extend ½ inch past the end of where it protrudes out of the router base.

- 3 or 4 nylon lock nuts that match your bolts threads
- 1 2" hole saw
- 1 Drill bit that matches the thickness of your bolts
- 1 Countersink drill bit

Instructions

- 1. Make sure to wear and use the proper safety equipment such as eye protection and ear protection.
- 2. Remove the extra base if your router has one. Loosen the height adjustment and allow the machine to full extend.
- 3. Determine what holes will work best on your brand of router. They normally have 3 or 4 threaded holes that work best.
- 4. Lay the machine on its base on the melamine shelving towards the end of the long side of the board. Set the edge of the router roughly 1 inch from the edge of the board and center the router's shaft from side to side.

5. Trace the base of the router on the shelf. Holding the router still, mark the screw holes you plan to use with a long punch or nail through the machine's screw holes.







6. Drill <u>marked screw holes with bit that matches the thickness of your screws</u>.



7. Flip the shelf over to the non marked side. Counter sink the screw holes. Make sure you counter sink on the non traced side and ensure that you drill deep enough. Test the counter sink with one of your screws. You need to make it is flush with or below the self surface. Remember that when you screw them into the router later they will pull in a bit deeper.





8. Thread screws through drilled holes and screw into threaded router holes. And lightly secure the router to the board.



9. Place shelf face down. Push router down swiftly to make a mark with the shank. This will help you locate the center of the router shaft.





10. Unscrew the router. Drill the center of the mark made by the shaft with 2 inch hole saw.



11. Re-attach router to screws careful not to over tighten into the wood. Add nylon lock nuts to end of screws on the back side of router and secure these tightly.



12. You are ready to use your router boot board. Make sure you attach it to your bench or workspace securely so it does not move. To make it portable or allow you to remove it for space saving reasons you can attach to your bench with quick clamps or C-clamps. Make sure to also secure the far side of the board with a clamp or screws directly into your bench if there is no space for a clamp.



Use of your Boot Router Table

- Use proper eye wear and ear protection. Follow your router's safety guidelines.
- Make absolute sure you have the router table securely attached to your work bench. Making sure that is can not move side to side and can support downward weight on the overhanging side by the cutter.
- Install the Boot Router Bit in the ½ inch router per the router instructions. Ensure it is tightened properly. See you router instructions for proper bit installation.
- Loosen plunge router height adjustment. Use a DIN Gauge Block and set the height to be cut per the ISO standard 5355. Lower shelf of DIN Gauge Block is toe height and taller height is the heel measurement. Lower plunge router until the Boot Router Bit's cutter just touches the DIN Gauge Block. Then tighten the router height adjustment tightly.



- Use a low speed setting. You will have to experiment with the speed setting as all routers differ in their speed settings. You do not need a very fast speed. Typically with 1½ horsepower router a setting of "2" is sufficient.
- Hold the boot with both hands opposite from the side you are cutting.
- IMPORTANT Run the boot against the rotation of the cutter. Rotation of the cutter should be counterclockwise on all routers...but it is always a good idea to double check.
 - If you run the **router placement in between you and the boot** you run the boot from left to right.



- If you run the **boot in between you and the router placement** – you run the boot from right to left.



Note - Failing to run the boot against the rotation of the cutter will result in a sudden impact and can shoot the boot from your hands possibly causing personal injury and/or damage to the boot.

- Run the boot from the side of the boots radius in a round motion until the end of the radius on the other side. If you are removing a lot of the boot's original DIN surface, it is better to do it in two steps, with the final step ensuring that you are at the correct ISO standard 5355 height.
- Measure the boot toe and heel heights and ensure that they comply with the ISO standard 5355. It is absolutely imperative that you check that the boot's toe and heel are back to the DIN height standards of the ISO standard 5355.