



Assembling Your HValley Tools Router Table System

Congratulations on your purchase of your HValley Tools Router Table System!

Assembly is straightforward, it just takes some time and a bit of patience and detail orientation. There are individual detailed instructions for each product, and this is intended to be an overall view of the assembly steps.

Here are the recommended steps for assembling your Phenolic / MDF Router Table Package!

1. Assembling your MDF / Phenolic Router Table and Pro Stand

- 1.1. Unbox the router tabletop (large rectangular flat box) and Pro Stand (narrow long rectangular thin heavy box).
- 1.2. Open the Pro Fence box (longer square box)
- 1.3. Start with the router tabletop, and not the stand!
- 1.4. With the router tabletop upside down, you will attach all of the mounting brackets from the Pro Stand and Pro Fence to the underside of the router table top first.
- 1.5. Locating the parts you will need:
 - 1.5.1. From the Pro Stand box, there are four Apron Brackets (these brackets have holes in them and mount to the router tabletop) and the stand will attach to these brackets (later on).
 - 1.5.2. From the Pro Fence box, there are two Undermount Attachment Brackets in a long narrow box. They are long and have four holes inline and a u-shaped track on the outer edge of the bracket.
- 1.6. If you are installing a U-Turn into your Router Table, an important note!
 - 1.6.1. One of the left/right apron brackets has a unique cutout in it. That is the right-hand side apron bracket!
 - 1.6.2. This unique opening is where the U-Turn "K Bushing" is installed (next steps below in the U-Turn section).
- 1.7. Attach the four Pro Stand Apron Brackets with the supplied bolts/screws, do not over tighten. Just nicely snug!
- 1.8. Attach the two Pro Fence Undermount Attachment Brackets so that u-shaped track faces outward or away from the router tabletop and securing tighten. Do not over tighten them!
- 1.9. We are now done on the underside of the router table.
- 1.10. Now, begin assembling the stand with the remaining pieces/parts (instructions are in the box). Do not overtighten yet!
- 1.11. You can either flip the stand onto the router tabletop, or the router top onto the router stand. These items are heavy, be careful!
- 1.12. Complete the attachment of the Pro Stand to the apron brackets with the attachment bolts, but only finger tight.
- 1.13. Square the stand from there, snugging up the bolts, but not final tightness, starting at the top of the leg nearest to the router tabletop.
- 1.14. Then proceed down the legs and square up in all of the directions.
- 1.15. To verify squareness, measure from the outside edge of the table legs, and the stand will be 26" wide (left to right) by 22" deep (front to back).
- 1.16. Once you are satisfied, do a final tighten on all of the stand bolts, sorry, there are a lot of them.



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2. Attaching the Pro Fence Rails and Assembly

- 2.1. Unbox the Pro Fence (large long rectangular square box).
- 2.2. There are only a few components:
 - 2.2.1. Fence Rail Assembly
 - 2.2.2. Hardware and Accessories Box (smaller box)
 - 2.2.3. Fence Undermount Brackets (longer narrow box, you already used these)
- 2.3. Locate the two Pro Fence Side Rail Brackets which are attached to the back of your Pro Fence for shipping purposes. Loosen the three hex nuts so that the brackets can slide outward and be removed.
- 2.4. You will notice there are three square nuts on the Fence Side Rail Brackets that slide into the u-shaped track on the Fence Undermount Brackets (installed in Step 1.7 above).
- 2.5. Align these square nuts and slide the Side Rail Brackets into the track and just snug them up.
- 2.6. Adjust the top of the Side Rail Bracket so that it is flush and level to the router tabletop. Level is critical as sometimes these Side Rail Brackets can tilt up or down. To correct any mislevel, loosen the undermount bolts/screws and shift the undermount bracket outward (away from the router table).
- 2.7. Securely tighten the Side Rail Brackets.
- 2.8. On the underside of the Pro Fence, there are some anti-friction UHMW pads with a very thin plastic covering (like the covering on plastics on a new appliance) Gently peel that thin plastic covering off. Do not peel off the UHMW strips!
- 2.9. Locate the two (2) large hexagonal nuts two (2) long 3-point knobs with spacers.
- 2.10. On the Pro Fence, locate the two machined slider slots that are on the bottom flat section of the Pro Fence "L".
- 2.11. Insert the Star Knob Assembly (Star Knob Stud with Black Spacer) into the slot and attach one of the large hexagonal nuts to the threaded stud. Do not over thread it on.
- 2.12. Do this for both the right and left sides of the Pro Fence.
- 2.13. Place the fence on the back end of your router table and align the hexagonal nuts with the Side Rail Bracket. You may need to rotate the hexagonal nut so that one set of "flats" matches the track and adjust the height so that it slides into the Side Rail Bracket.
- 2.14. Do this for both the right and left sides of the Pro Fence.
- 2.15. There is a small nylon pin for your Pro Fence, that allows for one handed movement. Install it on either the right or left bottom end of the Pro Fence, if you would like this feature. For now, proceed without this installed.
- 2.16. Test your Pro Fence movement. If the fence knobs are too loose, the hexagonal nuts tend to bind, tighten the knob just a bit so that the hexagonal nuts do not bind when moving the Pro Fence.
- 2.17. For more details on the Pro Fence features, please refer to the user guide.

If you are installing a U-Turn / U-Turn2 proceed to Section 3.

If you are installing a PowerLift Pro BT / BT2, skip down to Section 5



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3. Installing the U-Turn / U-Turn2 Router Lift and Router Motor

- 3.1. Unbox the U-Turn / U-Turn2 Lift.
- 3.2. There are only a few components:
 - 3.2.1. U-Turn / U-Turn2 Lift Body
 - 3.2.2. Crank arm assembly (two pieces, drive rod and block, crank handle)
 - 3.2.3. Hardware Bag and Instructions
 - 3.2.4. Offset Y Wrench
- 3.3. Installing the "K-Bushing".
 - 3.3.1. Locate the "K Bushing" in the supplied hardware bag. This bushing is black and has three holes in it (one large, two smaller ones) and is shaped like a kidney bean.
 - 3.3.2. This bushing is installed into the Pro Stand into unique cutout we talked about in Step 1.5 above.
 - 3.3.3. Remove the two screws from the K-Bushing.
 - 3.3.4. Place the K-Bushing into the Pro Stand cutout with the "V" facing down and on the inside of the Pro Stand Apron Bracket.
 - 3.3.5. Thread in the two screws and tighten just enough to allow for the K-Bushing to adjust up and down.
- 3.4. Ensure the U-Turn carriage is in the MAX UP position, which has the carriage closest to the plate (which is how it is shipped to you!).
- 3.5. You have two options for inserting your router motor:
 - 3.5.1. Place your U-Turn / U-Turn2 into your router table opening upside down, or,
 - 3.5.2. On a work surface, place your U-Turn / U-Turn 2 upside down on two large wood blocks, this will provide the clearance for the router armature to protrude.
- 3.6. Slightly open the U-Turn Carriage (the large black bolt on the carriage) with the supplied Allen key.
- 3.7. Gently slide the router motor into the carriage, it is TIGHT, intentionally so. You may need to open the carriage slightly more.
- 3.8. **DO NOT LET THE MOTOR SLAM INTO THE PLATE!**
- 3.9. Allow the Router Motor to rest on the plate.
- 3.10. Reverse the Router Motor (lift it up) and place a 1/8" spacer or about a penny thickness (3/32") under the router motor. This allows for proper clearance of the motor to the router plate.
- 3.11. Ensure the power cord, power and variable speed controls are in a convenient location.
- 3.12. Everything looks good, then tighten the U-Turn Carriage bolt. Tighten till it is firmly snug, then just about a 1/16th additional turn. **DO NOT OVERTIGHTEN! JUST RIGHT!**

4. Install the U-Turn into your freshly assembled Router Table!

- 4.1. Remove the red insert ring out of the U-Turn, it will give you a nice hand hold.
- 4.2. Lift the U-Turn into the opening of the Router Table, it is heavy and clumsy, be careful and it needs a gentle twist and turn to insert it.
- 4.3. Allow the U-Turn to settle into the Router Tabletop.
- 4.4. For the MLCS Plate Size, there are four leveling set screws to get the U-Turn plate level with the Router Tabletop.
- 4.5. For the Other Plate Size, there are four leveling and securing corners that must be adjusted for proper level (installation instructions are supplied with that router tabletop).
- 4.6. Connect the drive block and crank assembly.



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- 4.6.1. You will need to carefully guide the drive rod through the “K Bushing”, loosen it and align it for now, do not tighten it yet.
- 4.6.2. From the underside of the table, align the drive block, the pinion gears will mesh, and there is an alignment pin.
- 4.6.3. There are two bolts that are threaded into the drive block from above.
- 4.6.4. Loosely thread in the securing bolts from the top of the table and do a quick visual check that the drive rod is straight and parallel to the table.
- 4.6.5. Now tighten down the two securing bolts from the top of the table, just snug, do not over tighten!
- 4.7. Now, align the K-Bushing and verify that the drive rod is straight and parallel, then tighten it to the Stand Apron Bracket.
- 4.8. Using the Allen key, loosen the two set screws on the end of the drive rod, do not take them all the way out.
- 4.9. Slide the crank handle into the end of the drive rod, ensure it goes in about 2” or so, sometimes the set screws are not backed off enough to allow for proper insertion.
- 4.10. The crank handle is hexagonal so it will seat nicely, and then tighten the set screws down with the supplied Allen key.
- 4.11. Success, you are now ready to begin routing!



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5. Installing the PowerLift Pro BT/BT2

- 5.1. Unbox the PowerLift Pro BT/BT2
- 5.2. There are only a few components:
 - 5.2.1. PowerLift Pro BT/BT2 Lift Body
 - 5.2.2. PowerLift Command Box (PLCB)
 - 5.2.3. Foot Pedal
 - 5.2.4. Hardware Bag
 - 5.2.5. Control Harness
 - 5.2.6. Power Supply
 - 5.2.7. Android Tablet (if purchased)
 - 5.2.8. Offset Y Wrench
- 5.3. Place the PowerLift onto a workbench upside down.
- 5.4. Connect the Control Harness to the PLCB it is a five pin DIN connector.
- 5.5. Connect the Control Harness to the PowerLift Pro BT Lift Body, there are two white MOLEX connectors.
- 5.6. Connect the Foot Pedal, it is a three pin DIN connector.
- 5.7. Ensure the PLCB is in the Power Off switch position.
- 5.8. Connect the A/C Adapter.
- 5.9. Switch the Power Switch on the PLCB to the ON position.
- 5.10. The Foot Pedal will now operate (remember, the PowerLift is already in the MAX UP position, so pressing UP will do nothing!)
- 5.11. Press the DOWN side of the Foot Pedal.
- 5.12. The PowerLift will operate, but SLOWLY. The default speed before the tablet connects is 50% of maximum speed.
- 5.13. Power on the Android Tablet and wait patiently while it boots up.
- 5.14. The Android Tablet is already Bluetooth paired to your PowerLift Pro BT / BT2.
- 5.15. Tap on the PowerLift icon and wait till the app connect to the PowerLift via Bluetooth (it is a blue swirling circle).
- 5.16. You now have the ability to use all of the features and functions of the PowerLift!

6. Ready to install the router motor into the PowerLift PRO BT/BT2

- 6.1. Ensure the PowerLift carriage is in the MAX UP position, press the MAX UP button on the tablet (these are under the "Presets" section on the app).
- 6.2. Place PowerLift Pro BT / BT2 Lift Body onto two large wood blocks (we will need the clearance).
- 6.3. Slightly open the PowerLift Carriage (the large black hex head bolt on the carriage).
- 6.4. Gently slide the #9564 Router Motor into the carriage, it is TIGHT, intentionally so. You may need to open the carriage slightly more.
- 6.5. DO NOT LET THE MOTOR SLAM INTO THE PLATE! NOOOOO!
- 6.6. Allow the Router Motor to rest on the plate.
- 6.7. Reverse the Router Motor (lift it up) and place a 1/8" spacer or several pennies (3/32") under the router motor. This allows for proper clearance of the motor to the plate and avoids collision.
- 6.8. Ensure the power cord exits the open end of the horseshoe shaped tie-plate on the bottom of the PowerLift Pro BT/BT2 assembly.



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6.9. Everything looks good, then tighten the PowerLift Carriage bolt. Tighten till it is snug, then just about a 1/16th additional turn. DO NOT OVERTIGHTEN! JUST RIGHT!

7. Install the PowerLift into your freshly assembled Router Table!

- 7.1. Turn the power off on the PLCB.
- 7.2. Disconnect the PowerLift Control Harness at the WHITE MOLEX connectors.
- 7.3. Take the red insert ring out of the PowerLift plate, this will give you a nice hand hold.
- 7.4. Lift the PowerLift into the opening of the Router Table, it is heavy and clumsy, be careful and it needs a gentle twist and turn to insert it.
- 7.5. For the MLCS Plate Size, there are four leveling set screws to get the PowerLift PRO BT/BT2 plate level with the Router Tabletop.
- 7.6. For the Other Plate Size, there are four leveling and securing corners that must be adjusted for proper level (installation instructions are supplied with that tabletop).
- 7.7. Reconnect the PowerLift Control Harness. You can mount the PLCB can sit upside down the right-hand side of the rear lower stringer.
- 7.8. Alternatively, adhesive Velcro mounting strips are available for mounting the PLCB to your stand.

If there are any questions, please feel free to contact us! We prefer that you ask rather than make mistakes or get frustrated.