



# CASTLE USA



## Quick Start Set-Up Guide

TSM-22 Pocket Hole Machine



# Quick Start Set-Up Guide: TSM-22

Thank you for making the Castle TSM-22 Screw Pocket Machine (Toe Screw Mortise) the latest addition to your shop. The Castle model TSM-22 is designed for use on a wide variety of materials. The machine preforms well in hardwoods, softwoods, melamine, particleboard and MDF. The machine will work on materials varying in thickness from 1/2" to 1 3/4".

This Quick Start Set-Up Guide is intended for use by anyone setting up this machine.

[Watch the TSM-22 Pocket Cutter Assembly Video here.](#)

1. Step 1: Inspect shipping carton for signs of freight damage. Pocket machines are all shipped in a white cardboard cover (**Fig 1**), with plastic shrink-wrap underneath to help highlight any potential damage. Remove cardboard covering to further inspect any signs of marring and potential damage.
2. Step 2: Remove wrapping, power cord, foot switch, and accessories from inside the machine (**Fig 2**). Remove 2x4 skids used for shipping purposes, removing bolts on the interior of the base (**Fig 3**).



Fig.1



Fig.2

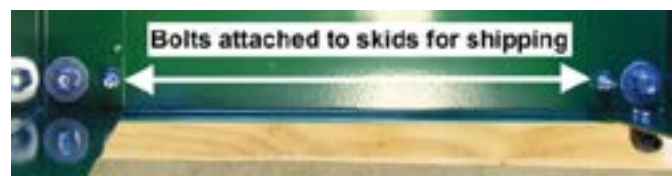


Fig.3

3. Step 3: Remove the swivel elbow from black urethane hose (**Fig 4**) by pushing the floating ring toward the elbow, then pulling on the hose at the same time.
4. Step 4: Thread the elbow into the top of the Clamp Cylinder and tighten. It is pre-primed and self-sealing. Point it toward the rear of the machine and firmly push the hose back into the elbow fitting (**Fig 5**).



**Fig.4**



**Fig.5**

5. Step 5: Open the lid and locate the wrapped Router Stop Plate hanging inside the back of the machine. (Fig 6) Unwrap to begin installation process.

NOTE: The machine will not cycle correctly without the Router Stop Plate in place.

- Remove the nut, washer and carriage bolt loosely attached to the clamp guard. (Fig 7)



Fig.7



Fig.6

- Insert the Router Stop Plate from inside the lid through the slot by the clamp guard. (Fig 8) The white magnetic sensors should face toward the operator when the lid is closed. (Fig 9).



Fig.8



Fig.9

- Insert the carriage bolt with the head inside the machine. (Fig 10)



Fig.10

- Place the washer and nut on the carriage bolt and leave loose. Position the Router Stop Plate between the two pieces of tape and tighten the nut. **(Fig 11)** Remove the tape when done.



**Fig.11**

6. Step 6: Install Gas Spring on Right Case Side and Case Top. Insert the stud on the bottom of the gas spring into the hole on the Case Right as shown. Secure using a 5/16" washer and Nylock Nut on the inside of the case. (**Fig 12**)

- Raise the case top and place the stud located at the top of the gas spring through the hole shown. Secure with a 5/16" washer and Nylock Nut. (**Fig 13**)
- Install work top with the 6 flat head bolts and nylon lock nuts supplied. Install 4 on the outer edges of the top first. The 2 mounting holes closest to router slot will be used in next step. (**Fig 14**)



**Fig.12**



**Fig.13**



**Fig.14**

- Install the dust diverter using the two remaining socket head screws and nuts in the mounting holes that sit closest to the router slot. See proper orientation of dust diverter in (**Fig 15**)



**Fig.15**

7. Step 7: Install Stainless Lid Plate. With the 1/4-20 carriage bolts inserted through the top of the plate, add the 1/4" washers and finger tighten the 1/4-20 Nylock nuts. (**Fig 16**)



**Fig.16**

- Lower the work top and place the 1/4-20 x 1" FH Socket Head Cap screw in the hole in the work top. Start the Cap Screw with included allen wrench in the Lid Plate to position the Lid Plate. (**Fig 17**)

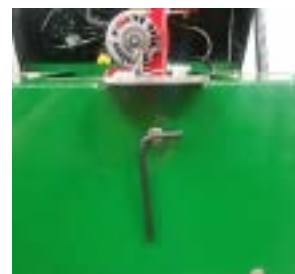


**Fig.17**

- Once the Lid Plate has been positioned, reach up inside the case through the front door opening to secure the Nylock Nuts for the Lid Plate. (**Fig 18**)
- A Rare Earth Magnet has been provided to secure the provided Allen Wrench to the case in a convenient location for easy access when making tooling changes. (**Fig 19**)



**Fig.18**



**Fig.19**



8. Step 8: Install the door by placing the hinges mounted to the door on the opposing hinge pins on the cabinet. Allow the door to completely seat on hinges. **Fig 20** and **Fig 21**



**Fig.20**



**Fig.21**

- Install the door latch by using the included door spring, 1/4-20 bolt, and the T- handle. See proper orientation in **Fig 22** and **Fig 23**. Tighten T-handle.

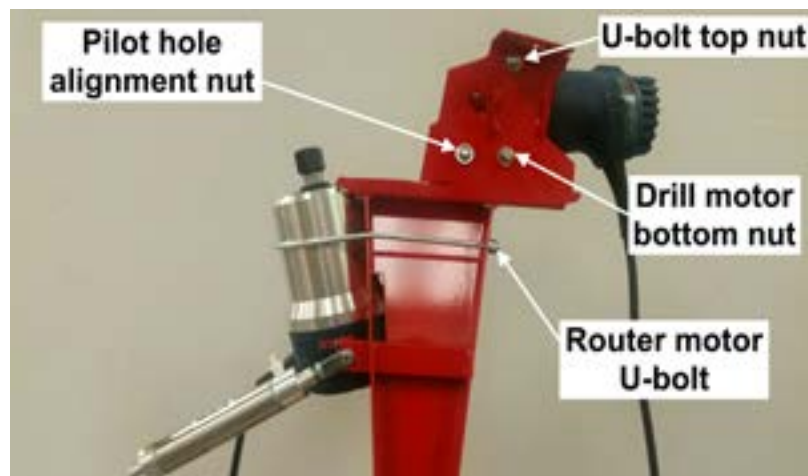


**Fig.22**



**Fig.23**

9. Step 9: Since the routers may have shifted in transit it is important to inspect the U-Bolts on the carriage (**Fig 24**) making sure that the routers are secure and tight.



**Fig.24**

10. Step 10: Using the wrenches located inside the manual pack, make sure the router bit and the drill bit are secure in the respective collets. (**Fig 25**) Once done, lower the Work Top and secure the work top with the 1/4-20 Socket Head Cap Screw. (**Fig 26**)

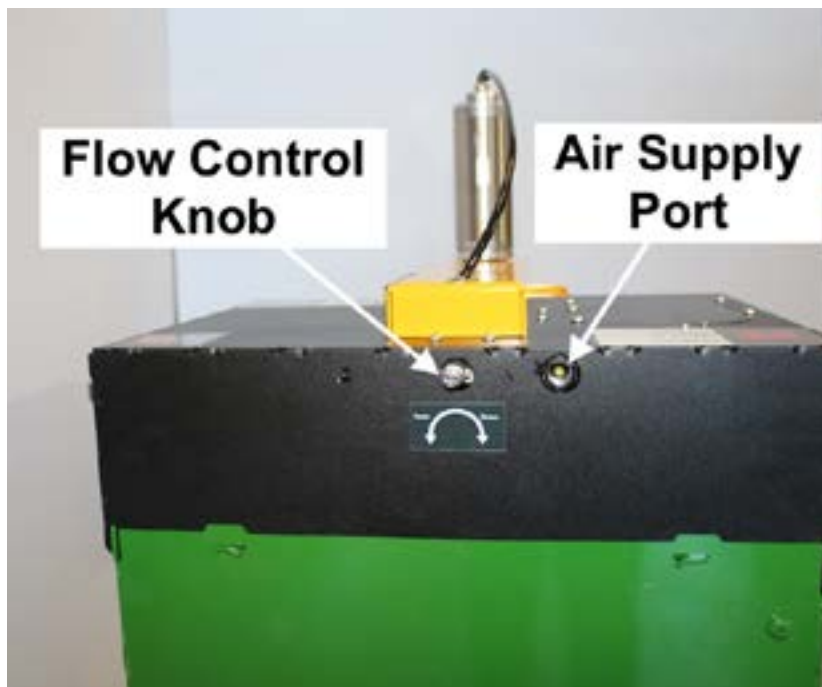


**Fig.25**



**Fig.26**

11. Step 11: Connect a clean, dry air supply to the back side of the machine (**Fig 27**) (1/4" pipe thread) with a minimum supply of 80 PSI.



**Fig.27**

12. Step 12: Plug in the machine, turn on the Power Switch (**Fig 28**). Place a piece of scrap against the faceplate while depressing the Safety Buttons (**Fig 29**), Be sure to keep your hands clear of the clamp, and step on the Foot Pedal to start the cycle. A full cycle should take 1 1/2 - 2 seconds.



**Fig.28**



**Fig.29**

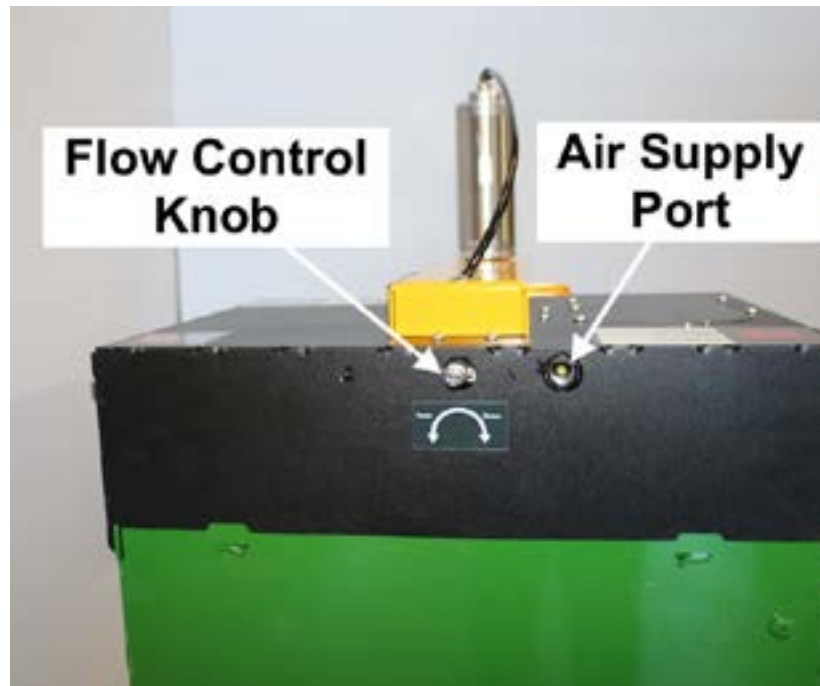
13. Step 13: Inspect the pocket. If the drilled hole is off center (**Fig 30**), it can be centered using the adjusting nut just below the drill motor. (See “**Fig.24**” on page 10). Tightening the nut moves the drill tip left relative to the operator. Adjust accordingly.

**CAUTION! DO NOT** overtighten the adjustment nut. Overtightening may cause an uneven bias to the pilot hole position.

14. Step 14: The Router Feed Rate is adjusted using the flow control knob (**Fig 31**) next to the Air Supply Port. Turning it clockwise will slow the feed rate, counter-clockwise will speed it up. If the Feed Rate is too slow it may burn bits and cause them to become prematurely dull.



**Fig.30**



**Fig.31**

**For assistance, please call 800-282-8338**