



## **SHARK 2 HP Spindle kit with speed control**

Installation Manual



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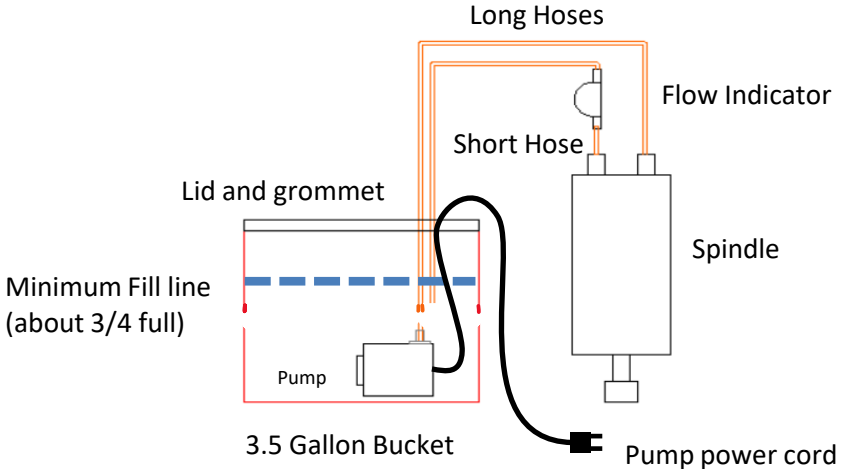
**Please read this manual carefully.** It provides important setup and operational information for your SHARK Water-cooled Spindle. This manual has been written with the assumption that you are experienced with the basic operation of a computer as well as the technical knowledge required to safely operate power tools.

**To use this spindle, you must use VCarve (Desktop or Pro) 10.5 or higher or Aspire 10.5 or higher.**

**To use this spindle, you may need to update the Post Processor in VCarve or Aspire to Next Wave CNC (inch)(\* .tap).** It can be downloaded at:  
[www.nextwavecnc.com/postprocessor](http://www.nextwavecnc.com/postprocessor)

**To use this spindle, you may need to update the firmware on your Control Box and LCD Pendant before using this spindle.** See Page 9 for information on how to identify and update the firmware.

# Parts and Installation Overview



Run the pump's power cord and one hose through the grommet in the lid before attaching the hose to the pump (See step 6 on page 7)

## Installation

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1. Loosen the two bolts on the left side of the mount and then remove your router. Next remove the two bolts on the right side and remove the mount.



2. Loosely attached the spindle mount with the four new mounting bolts. Tighten the two bolts on the right side. Slide the spindle into the mount so it is positioned about midway, or a height that meets your needs. Tighten the two left-hand bolts.



3. Remove hose nuts from the top of the spindle



## Installation

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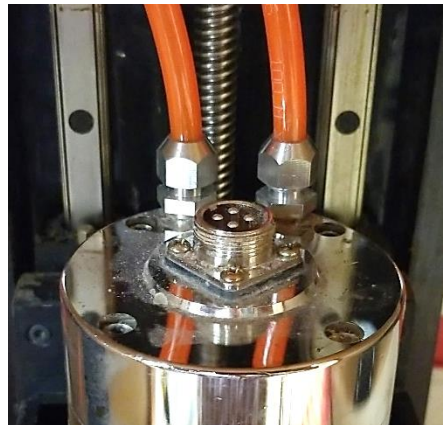


4. Slide one of the hose nuts onto the short section of hose below the flow meter and then onto one of the hose nipples on top of the spindle.

**INSTALLATION TIP: Warming and softening the ends of the hoses with a heat gun makes them easier to install.**

5. Slide the other hose nut onto the other hose. Attach the hose to the open hose nipple and tighten both hose nuts

**NOTE: DO NOT OVER TIGHTEN**



## Installation

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6. First run the pump power cable through the grommet from the bottom side of the lid, then run the hoses through the grommet from the top side of the lid.



7. Screw the plastic hose adapter into the water pump. Attach one of the hoses to the adapter. It does not matter which hose you choose as there is no specific direction the water needs to flow through the spindle.

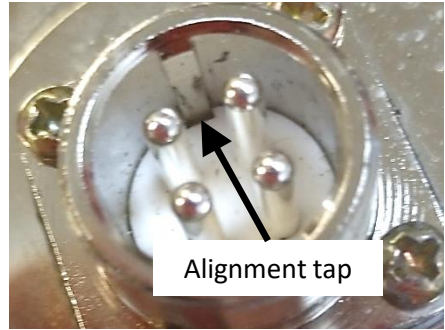
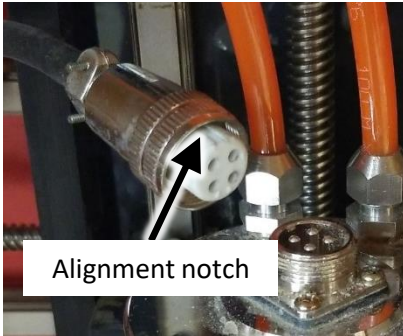


9. Place the water pump in the bucket. Fill the bucket at least 3/4 full of water. Screw on the lid.

**Note:** Place the bucket close enough to your machine so the hoses do not pull out of the bucket when you move the gantry around the table of your machine.

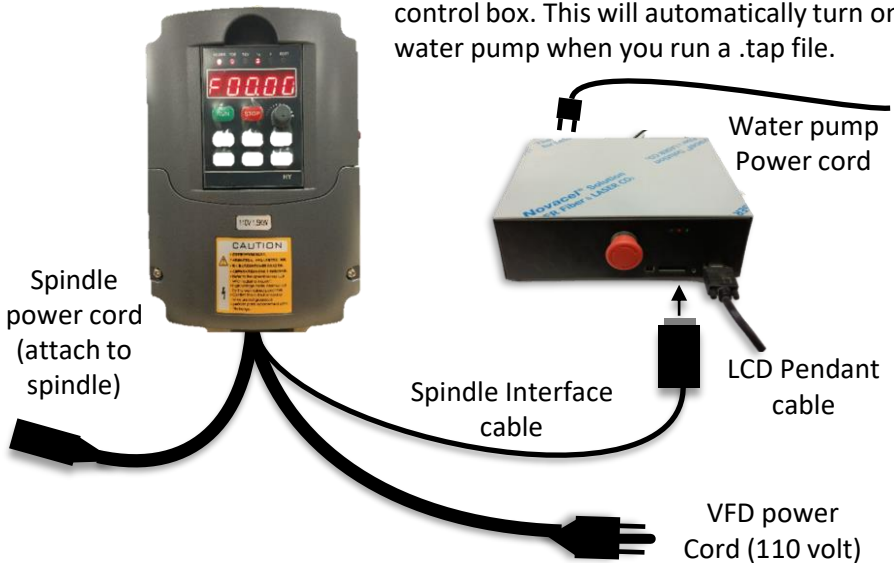


## Installation



10. Attach the spindle power cable to the top of the spindle. Now take the spindle power cord from the inverter (VFD) and plug it into the top of the spindle. There is a groove on the plug that that matches a tab on the spindle socket. Make sure these line up when connecting the parts.

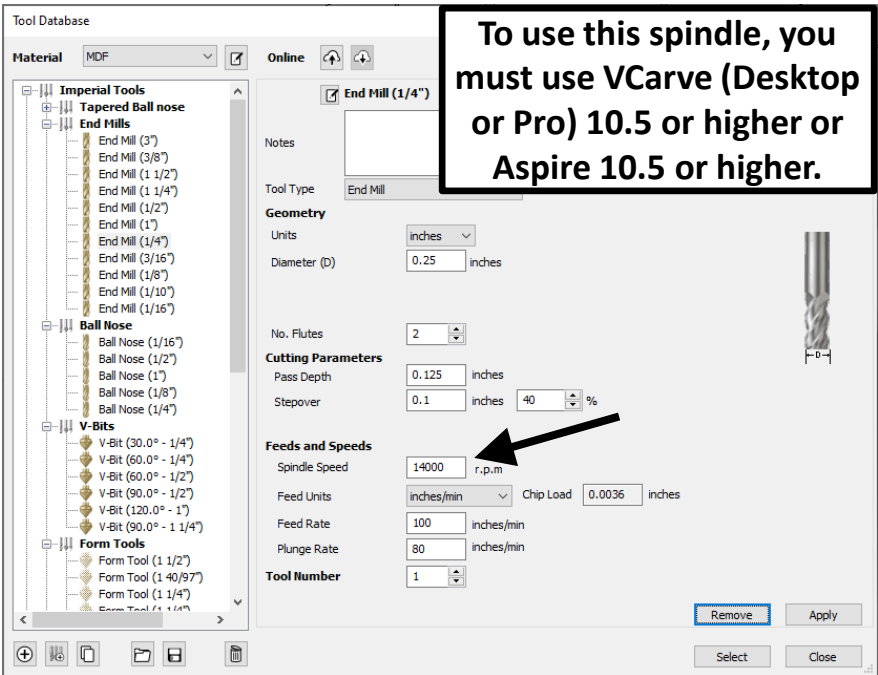
11. Plug water pump into the back of the control box. This will automatically turn on water pump when you run a .tap file.



12. Attach the Spindle Interface cable to the front of the Control Box.

13. Plug the inverter (VFD) power cord into a 110-volt power outlet. **NOTE: DO NOT plug this cord into the back of the control box.** The outlet on the back of the control box is used when connection a standard woodworking router or the water pump.

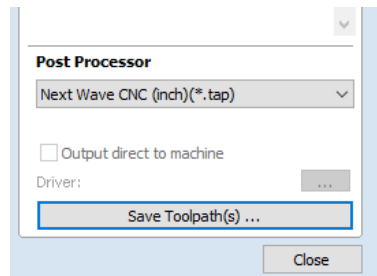




14. Set your desired spindle speed in the tool data base for each bit you use. This speed is saved to your .tap file and is used to automatically turn on the spindle and adjust its speed. A speed between 12,000 and 20,000 works well for most bits, with lower speeds for larger diameter bits and higher speeds for smaller diameter bits.

15. You must save your toolpath using the **Next Wave CNC (inch)(\* .tap)** post processor (shown at the right). If you did not have this post process, it can be downloaded at:

[www.nextwavecnc.com/postprocessor](http://www.nextwavecnc.com/postprocessor).



16. You may need to update the firmware on your Control Box and LCD Pendant before using this spindle. If the spindle turns on when you run a .tap file, then you have the correct firmware. If the spindle fails to turn on, then you should update the firmware. For information on how to update your firmware visit [www.nextwavecnc.com/firmware](http://www.nextwavecnc.com/firmware).



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