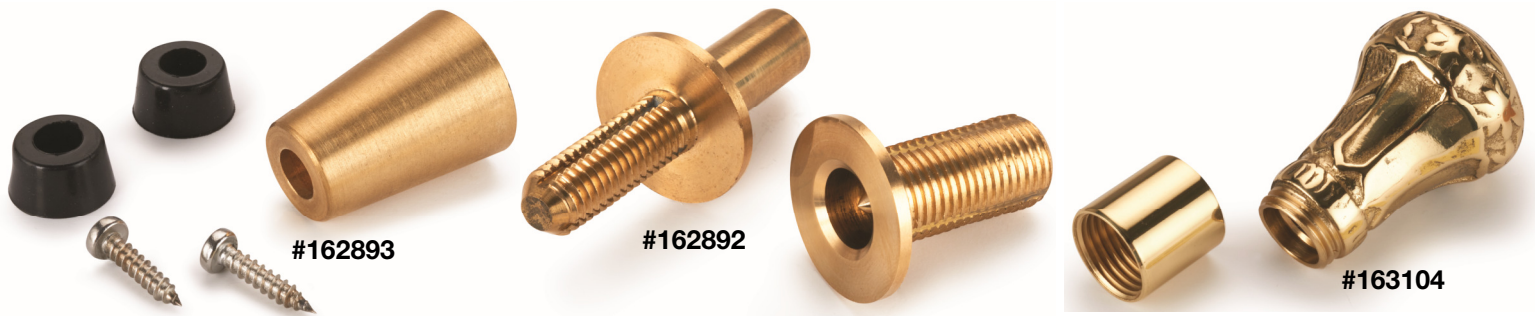


## WoodRiver Cane Hardware Turning Kit

Product: #163104, #163105, #163106, #163107, 8/25/2017

#162892, #162893



### From Setup To Sanding:

These are the supplies we suggest you have on hand to complete this tuning kit:

- 14mm Brad Point Bit (Upper Section)
- 10mm Brad Point Bit (Lower Section)
- 2" x 2" x 18" Turning Block (x2)
- Drill Press or Lathe Drill Chuck
- Calipers
- 5-Minute Epoxy
- Sandpaper/Finish
- Eye & Ear Protection
- Dust Mask

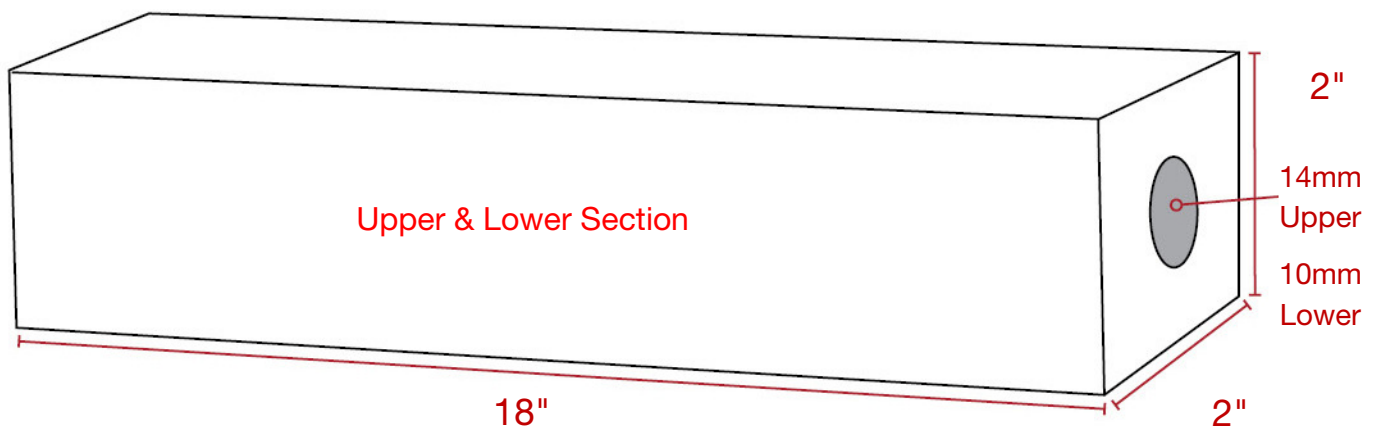
### Cutting, Squaring, & Drilling Blanks:

Dimension turning stock to the measurements shown below. To determine the proper length for your cane rest your arm at your side. Measure up from the floor to the crease between your thumb and index finger. This measurement will need to be the finished length of your cane. It will be necessary to

subtract  $\frac{1}{4}$ " for the rubber tip height. You will also need to subtract the height of the cane handle not including the coupling. Once the overall length has been determined you can now decide how to divide the sections of the cane. You can make one portion longer than the other or make them even lengths, choice is yours. Ensure that the ends of the turning stock are flat and square. Mark centers on both ends of the blanks. Using an 14mm diameter Brad-Point Bit bore a  $\frac{15}{16}$ " deep hole in one end of the upper section. Next, using an 10mm diameter Brad-Point Bit bore a  $\frac{1}{4}$ " deep hole in one end of the lower section.

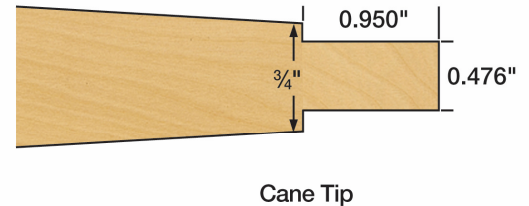
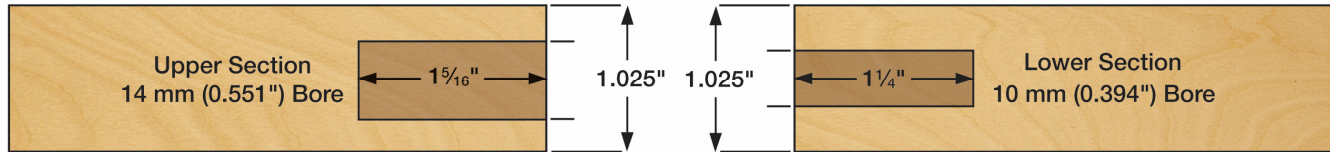
### Mandrel Preparation:

Mount the turning block on the lathe using either a 4-jaw scroll chuck or spur drive in conjunction with a 60 degree live center. Preferred method is a combination of all three. Begin with a spur drive and 60 degree live center then re-chuck using a 4-jaw scroll chuck and 60 degree live center, gripping on the tenon once it has been created.



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### Turning & Finishing the Blanks:

Bring the live center up to the bored hole in one of the turning blanks, centering it on the lathe, and lock into place. Notice that a tenon will need to be created for the handle ferrule and cane tip to rest on. See above diagram for dimensions. During this process stop periodically to check the fit of the handle ferrule on the tenon and cane tip as they will need to be a snug fit. Turn the blank to your desired profile, paying close attention to the finished dimensions at the cane handle, threaded center connector, and cane tip.

With the lathe spinning, begin sanding with 120-grit paper progressing through the finer grits, finishing at 320-grit. Once finished with sanding, apply a finish of your choice.

### Assembly:

- Remove the turned block from the lathe.
- Unthread the cane hardware and set the two pieces to the side. Next unthread the handle for the threaded coupling and set the two pieces to the side. Using a 5-minute epoxy, apply adhesive to the handle tenon and install the threaded coupling, non beveled end first. Paying close attention not to

get epoxy in the upper threaded portion as it will interfere with the handle attaching properly later during assembly. Next apply epoxy to both 14mm interior bore and the large diameter post of the cane hardware. Insert the threaded post into the hole, cleaning off any excess epoxy that may squeeze out. It may be necessary at this time to use a clamp to apply light pressure to secure these pieces. Once completed repeat the same steps again for installing the small diameter post of the cane hardware and cane tip. It may be necessary at this time to use a clamp to apply light pressure to secure these pieces.

Once the epoxy has fully cured per manufactures instructions you may thread the two halve together followed by threading the cane handle into the threaded coupling.