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# Lead Screw Cover Installation

These instructions cover two products:

- 5201 Telescoping Lead Screw Cover, 7x10, 7x12
- 5202 Telescoping Lead Screw Cover, 7x14, 7x16



These instructions describe the installation process using optional the tool set:

• 5203 Tools, Telescoping Lead Screw Cover Installation



**Chris' Tip:** You don't have to buy the installation tools. You can make your own following the drawings at the end of this document. Or you can simply hold the brackets in position as you mark the holes. The location is not very critical. That said, if you value your time at all, the tools are worth the price.

Installing the lead screw covers requires that you drill and tap a few holes. Use a hand-held power drill to drill the holes.

# **Before You Begin**

Be sure you have the necessary tools and familiarize yourself with the kit parts.

## **Tools Required**

- Set of metric hex (Allen) wrenches
- *#*2 Phillips screwdriver
- #28 drill bit
- M4x0.70 tap
- Transfer punch set
- Power drill
- 5203 installation tools (optional, but recommended) •

## Part Identification









Left bracket Left center bracket Right center bracket

Right bracket

# **Procedure**

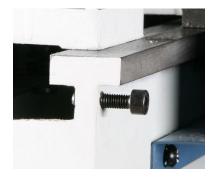
The following sections describe in detail how to install the lead screw covers.

### Remove the Tailstock

- 1. If your lathe has a tailstock retaining socket head cap screw on the back of the bed on the right side, remove it.
- 2. Remove the tailstock by sliding it off the end of the ways.

## **Remove the Carriage**

- 1. Remove the right lead screw bracket by removing two socket head cap screws.
- 2. Move the carriage all the way to the right and slide it off the bed ways.



## Install Brackets on the Bed Way

- 1. With the mounting holes at the bottom, slide the left bracket and the large installation tool over the leadscrew until the left bracket meets the control box.
- 2. Mark the hole locations with a transfer punch.
- 3. Remove the left bracket and installation tool.
- 4. Slide the installation tool and the right bracket (again: mounting holes at the bottom) onto the lead screw.
- 5. Reinstall the right lead screw bracket temporarily.
- 6. Move the installation tool and right bracket to the right until they meet the right lead screw bracket.
- 7. Mark the hole locations with a transfer punch.
- 8. Remove the right lead screw bracket, right bracket, and installation tool.
- Drill the four holes on the bed with the #28 drill at least 0.3" (8 mm) deep. (You might need to remove the control box to gain clearance for the power drill.)
- 10. Tap the holes with the M4 tap.
- 11. Slide the left bracket over the lead screw and install it with two M4 screws.

### Install Brackets on the Carriage

- 1. With the carriage on your bench, remove the two screws and washers that hold the half nut gib retainer and remove the gib retainer.
- Replace the gib retainer with the right center bracket which has the cutout for the threading dial. Reinstall the two screws and washers.
- 3. Adjust the gib retainer to your liking by moving the half nut lever and adjusting the screws accordingly.







4. Clamp the small end of the small installation tool into the half nuts.

- 5. Slide the left center bracket over the larger end of the tool so that it meets with the half nut.
- 6. Mark the holes for the bracket with a transfer punch.
- 7. Remove the left center bracket and installation tool.
- 8. Drill and tap for the M4 screws.
- 9. Install the left center bracket using two M4 screws.

# Reassemble the Lead Screw

With three of the four brackets now screwed into position, you can begin putting everything back together.

- 1. Slide one of the telescoping lead screw covers all the way over to the left side of the lead screw. The smaller end should point to the right.
- 2. Slide the carriage back on to the machine and crank the carriage over to the left.
- 3. Once the carriage is on the machine, remove the metal clip that holds the telescoping lead screw cover closed.
- 4. Slide the second telescoping lead screw cover over the leadscrew. The smaller end should point to the left.









- 5. Slide the right bracket over the leadscrew and mount it with two M4 screws.
- 6. Reinstall the right lead screw bracket.
- 7. Remove the metal clip that holds the telescoping lead screw cover closed.

#### **Reinstall the Tailstock**

- 1. Slide the tailstock back onto the ways.
- 2. Install the retaining socket head cap screw if your lathe has one.

# Installation Tools



The following page is a drawing of the installation tools if you want to make them. Note that aluminum works just as well as the steel specified on the drawing and is a lot easier to work with.

