

Adjusting a Shimano Nexus 3-speed hub involves tuning the internal gear hub so that the gears shift smoothly. Here's a step-by-step guide on how to adjust it properly:

Tools You'll Need:

- A wrench or adjustable spanner (for cable tension adjustment)
- A flathead screwdriver (optional)
- A bike stand or a way to lift the rear wheel off the ground

Steps for Adjustment:

1. **Shift to 2nd Gear:**
 - Rotate the shifter on your handlebars to shift into 2nd gear. You must adjust the hub in this gear because the gear indicators are calibrated for the 2nd position.
2. **Check the Cable Tension:**
 - Look at the hub on the rear wheel. You should see a small yellow indicator inside a window near the hub (called the "gear adjustment window").
 - When the bike is in 2nd gear, this yellow line should be perfectly aligned with the two marks on either side of the window.
3. **Adjust the Cable Tension:**
 - If the yellow line is not aligned with the marks, the cable tension needs adjusting.
 - **Loosen** the cable tension by turning the barrel adjuster (typically located where the shifter cable enters the hub or at the shifter itself) clockwise.
 - **Tighten** the cable tension by turning the barrel adjuster counterclockwise.
4. **Check Alignment:**
 - After adjusting the tension, check the yellow indicator in the gear window again. It should align perfectly with the two marks.
 - If it still doesn't align, repeat the adjustment until the yellow line is centered between the marks.
5. **Test the Shifting:**
 - Once the yellow indicator is correctly aligned, shift through the gears (1st, 2nd, and 3rd) to ensure the hub shifts smoothly.
 - If the shifts are not smooth or there is delay/slipping in the gears, you may need to fine-tune the cable tension a little more.
6. **Final Adjustment:**
 - Double-check the alignment after testing the shifting in 2nd gear to ensure it hasn't changed. Fine-tune the cable tension if necessary.

Additional Tips:

- Make sure the cable isn't too loose or too tight, as this can affect gear shifting.
- If the hub hasn't been serviced for a long time, it may be worth considering lubricating the hub or checking for internal wear, which can also affect gear performance.

By following these steps, your Shimano Nexus 3-speed hub should operate smoothly and provide reliable shifting.