



Autoshift3

Three Speed Internal-gear Hub

Product introduction and user guide



## Product Introduction

Autoshift3: You've never ridden anything like this before

The Vvolt Autoshift3 unique three-speed internally-geared hub transmission that shifts gears automatically based on your speed.

It's totally silent, utterly smooth, fully mechanical and requires nearly no maintenance.

Your Centauri II with Autoshift3 has been tuned to work as a system. The 3-speed gear hub system, electronic pedal-assist and belt-equipped drivetrain are all tested to provide the best performance for the widest range of riders and conditions.

Like the IP6 waterproof electronics and Gates Carbon Drive Belt system, Autoshift3 is designed to run for thousands of miles with zero maintenance or adjustment.

## Product Introduction

**There's nothing else like the experience of riding Autoshift3.**

The transmission shifts up and down based on your speed, with no input from a shifter or the bike's electronics. The combo of automatic shifting across 3 simple gears plus the BOOST button makes for a singular riding experience, and we expect it will take a few rides for you to learn how to get the most out of Centauri II on your home terrain.





## Product Introduction

### Riding modes and BOOST assist

- Centauri II has four primary pedal-assist modes: **Eco, Tour, Sport** and **Turbo** (all assist to 28mph)
- The unique *Chill* mode provides 66% of total power, and limits assist speed to 12mph
- BOOST assist in all modes is activated by pressing the button by your right thumb

### Expect to get the most use from the four primary modes, Eco, Tour, Sport or Turbo

- These modes all provide pedal assistance to 28mph.
- Motor assist increases in each mode Eco to Turbo
- On flatter terrain to moderate hills, Eco and Tour provide ample motor support
- Sport and Turbo modes are well suited to climbing steeper hills
- Battery range decreases as higher levels of assist are selected

### Chill Mode

- Chill mode is designed to hold the bike in 1st gear on less-steep hills by providing  $\frac{2}{3}$  motor support up to 12mph. It's also perfect for riding on multiuser paths, in campgrounds, or in other places where it's best to "chill" as a rider.

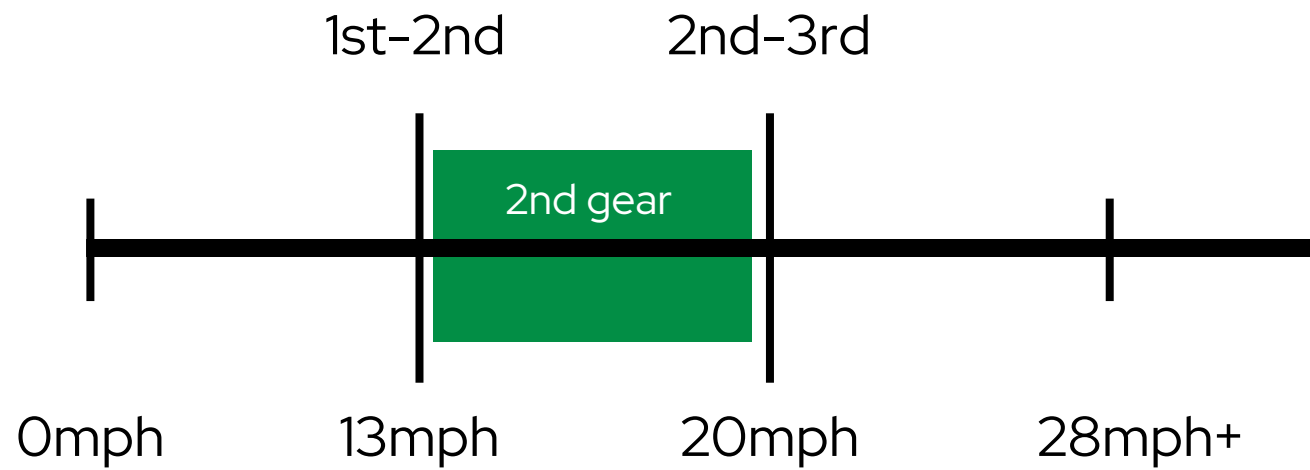


## Product Introduction:

### **BOOST use:**

Press and hold the BOOST button while pedaling between 5-20mph– it overrides your current mode setting to give you 100% motor power for 4 seconds at those speeds. This enables you to ride in Eco or Tour and still get a quick BOOST of power when needed, like accelerating from a stop or turning into an uphill corner.

## Factory-set shift points





## READ THIS BEFORE ADJUSTING HUB SETTINGS

Your Autoshift3 hub has been set by the factory to work with the pre-set assist modes on your Vvolt Centauri II. Please take time to familiarize yourself with the system on several rides before considering changing the shift points.

Find our “best practices” blog here with additional information and riding tips:

<https://vvolt.com/blogs/news/centauri-ii-riding-tips-get-the-most-out-of-your-autoshift3-transmission>

The rear hub-gear transmission shifts gear automatically based on rider speed.

Shift points are set by the factory and occur at roughly 13 and 19mph.

The shifts from 1st-2nd and 2nd-3rd can be adjusted by turning the adjustment screws to change the speeds at which the hub shifts to 2nd and 3rd gear.

Note that it is not possible to change the **bandwidth** of 2nd gear. It will always be approx 6-7mph from the shift into 2nd to the shift into 3rd. The shifts can be adjusted to happen at faster or slower speeds, but the screws must be adjusted the same number of turns; otherwise, the user risks damaging the hub.

## Factory Setting

- The change from 1st gear to 2nd gear is *approximately* **13mph**
- The change from 2nd gear to 3rd gear is *approximately* **19mph**

## Adjustment Preparation

You'll need:

- Hub
- Number 1 or 2 Phillips (cross +) screwdriver





## Adjustment screw location

Find the +/- screws on the left side of the hub shell, on opposite sides of the hub next to the disc rotor



3rd gear adjustment screw  
Adjust first!



2nd gear adjustment screw  
Only adjust after changing 3rd gear!

# FAILURE TO FOLLOW THE PROCEDURE BELOW *WILL* RESULT IN DAMAGE TO YOUR HUB AND *WILL* VOID YOUR WARRANTY

**Adjustment method – change the position of shift into/out of second gear.**

**3** indicates the third gear +/- adjustment, **2** indicates second gear +/- adjustment

Always adjust the screws the same number of turns, and adjust the 3 screw first, followed by 2

- "-" counterclockwise rotation: decreases the speed of the gear shift
- "+" clockwise rotation: increases the speed of the gear shift

1 turn of the screw = approx 1mph faster/slower

## NOTES:

- Always turn the 3rd gear adjuster screw first, and then turn the 2nd gear adjuster screw the exact same number of turns.
- Do not rotate the adjustment screws more than 5 full turns.
- Do not apply more than 1.5nm of torque when turning the adjustment screws.



## Technical Specifications:

Vvolt Autoshift3 Internal Three-Speed Gear Hub

- Gear Ratio: 166%
- Gear Ratio 1: 1
- Gear Ratio 2: 1.29
- Gear Ratio 3: 1.66
- Brake Type: Six-Bolt ISO Disc Brake
- Hub Shell Material: Aluminum, 32 hole
- Spoke Size: #13/#14 (3.2mm diameter)
- O.L.D. (mm): 135
- Axle Length (mm): 184
- Average Weight: 1.64kg / 3.6lbs