

# AGS Installation and Setup

## 1. Hardware Installation

### A. Installation:

Mount the derailleur/AGS-M4 onto the bicycle frame (Fig. 1).

Install the taillight power supply onto the seat tube (Fig. 2).

**B. Connection:** Connect the power cable (red or blue terminal) of the derailleur/AGS-M4 to the blue terminal of the tail light power unit/BL-8B.

**C. Adjusting the H/L/B screws:** First, loosen screw No. 1, then turn the derailleur body counterclockwise until the **High-limit (H)**, **Low-limit (L)**, and **B-tension (B)** screws can be adjusted. After finishing the adjustment, push the derailleur body back into position and tighten screw No. 1 (see Figure 4).

**D. Install the Speed Sensor:** Mount the speed sensor onto the rear wheel spoke (Fig. 5), positioned close to the outer edge of the derailleur (Fig. 3).

**E. Manual Adjustment Before Power-On:** With the system powered off, rotate the chainring and manually shift the derailleur to the third smallest sprocket.

## 2. Software Setup

**A. Install AGS APP:** Run autogear.apk. The phone must allow installation from unknown sources. After installation, the phone will display a green **AGS** icon.

### B. Bluetooth Pairing:

1. Press the **BL-8B** power button once to turn on power. A battery indicator light will appear (Note 1). If not, charge the **BL-8B** first.
2. Rotate the chainwheel to drive the tension pulley on the derailleur, and check in the hardware window (Figure 2) whether the green and blue indicators appear (Note 2).
3. Enable Bluetooth on the phone and search until a new device **AUTOGEAR** appears.
4. Select **AUTOGEAR** to pair, password: 1234.

**Note 1:** 5 lights = 100% battery, 2 lights = 40% battery

**Note 2:** Red light = Power indicator, Blue light = Bluetooth indicator

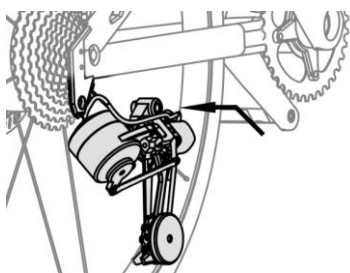


Fig1

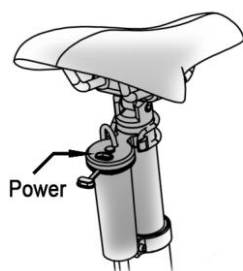


Fig2

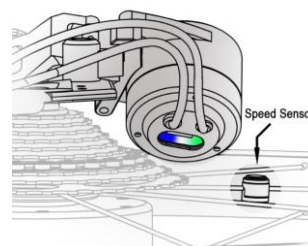


Fig3

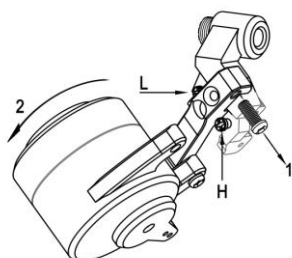


Fig4

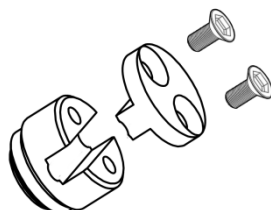
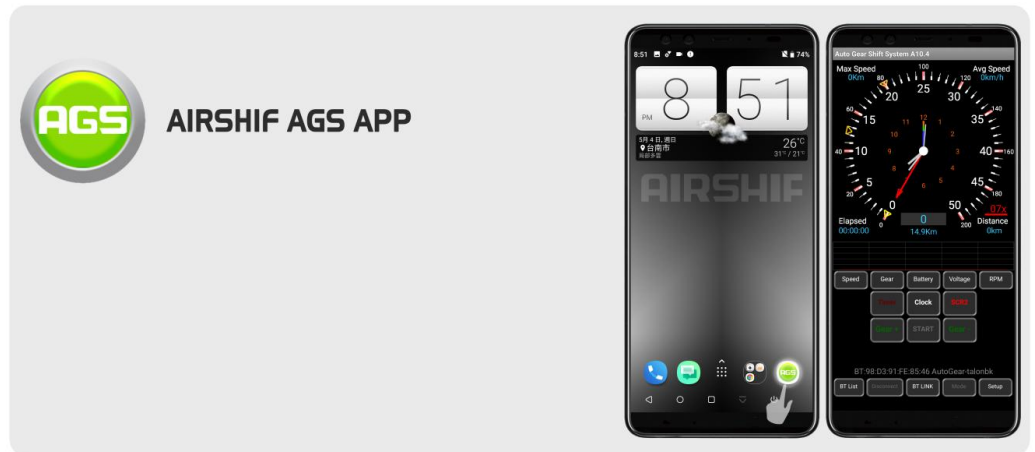


Fig5

### C. AGS Startup Main Screen:

1. Tap the green **AGS icon** to launch the app and enter the main screen. Press the **BTLIST** button at the lower left and select the **AUTOGEAR** device.
2. Once the correct device is selected, the connected Bluetooth device will appear at the bottom of the main screen.
3. Tap the **SCR2** button to switch to landscape display, or tap the right side of the screen to switch back to portrait display.



## D. AGS Basic Setup:

1. From the **AGS** main screen, tap the **SETUP** button on the bottom right function bar to enter Basic Setup.
2. In the **Basic Setup** screen, press the **BTLIST** button on the lower left and select the **AUTOGEAR** device.
3. Once the correct device is selected, the connected Bluetooth device will appear at the bottom of the main screen.
4. While connected, press the **GET DATA** button; after about 1 second, the derailleur information will be retrieved.
5. Adjust bicycle parameters, including gear count, wheel size (200/265/275/295), chainring size, and shift cadence range (high/low).



## E. AGS Gear Setup:

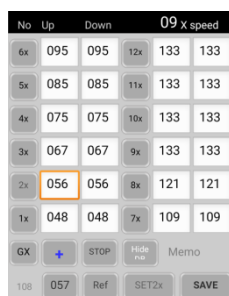
1. From the **AGS** main screen, tap the **SETUP** button on the bottom right function bar to enter **Basic Setup**.
2. From the **Basic Setup** screen, tap the **GEAR SETUP** button on the bottom right to enter **Gear Setup**.
3. In the **Gear Setup** screen, press the **BTLINK** button in the middle, or the **BTLIST** button on the lower left, to select the **AUTOGEAR** device.
4. Once the correct device is selected, the connected Bluetooth device will appear at the bottom of the main screen.
5. While connected, press **GET DATA** to retrieve derailleur gear information.



6. After retrieving gear data, an **orange box** will indicate the current approximate gear position, e.g., **03X** = gear 03.
7. Press the **+** button to change it into a red “-” button. (Fine-tuning buttons: **Blue +** = **shift up**, **Red -** = **shift down**, **STOP** = **stop fine-tuning**)
8. When the button is the red “-”: Rotate the chainring clockwise at **60 RPM** to drive the positioning motor downward. When the chain moves to the **smallest sprocket** (usually 1 to 2 extra turn for best positioning), stop pedaling, press the **1X** button on screen, and select it for storage. The **orange box** will move to the right of **1X**. Then sequentially press (**Position Number / REF / SAVE**) to store. Once the lowest gear is saved, the **orange box** will move to the **2X**, waiting for the next gear setup.



9. If the adjustment button does not turn blue +, press it to turn it blue +.



10. When the button is the **blue “+”**: Rotate the chainring clockwise at **60 RPM** to drive the positioning motor upward. When the chain moves to the **second sprocket** (usually one extra turn for best positioning), stop pedaling. If the **orange box** is not at **2X**, press the **2X** button on screen to select it. Then sequentially press (**Position Number / REF /SAVE**) to store. Once the second gear is saved, the **orange box** will move to the right of **3X**, waiting for the next setup.
11. Continue setting all gears. For any **remaining higher gears**, set them to match the last gear. (Example: For a 9-speed derailleur, **9X/10X/11X/12X** should be the same as gear 9). When completing the 12-speed setup, press the **STOP** button to end fine-tuning.
12. **Test the gear setup**: Rotate the chainring clockwise. Press **GearUp** to shift up; the orange box will move up to the new gear position. Press **SET X** to confirm. Press **GearDn** to shift down, then press

**SET X** to confirm. It is recommended to shift **one gear at a time** and press **SET X** each time, to avoid shifting across multiple sprockets, which may twist or damage the chain.

- Adjustment Limits: The derailleur still requires a mechanical **H/L limit** screw to reduce the risk of chain drop. Stop adjusting the derailleur when it reaches the **H/L limit**. Although the circuitry includes motor stall protection, stalling can cause some damage to the gears.

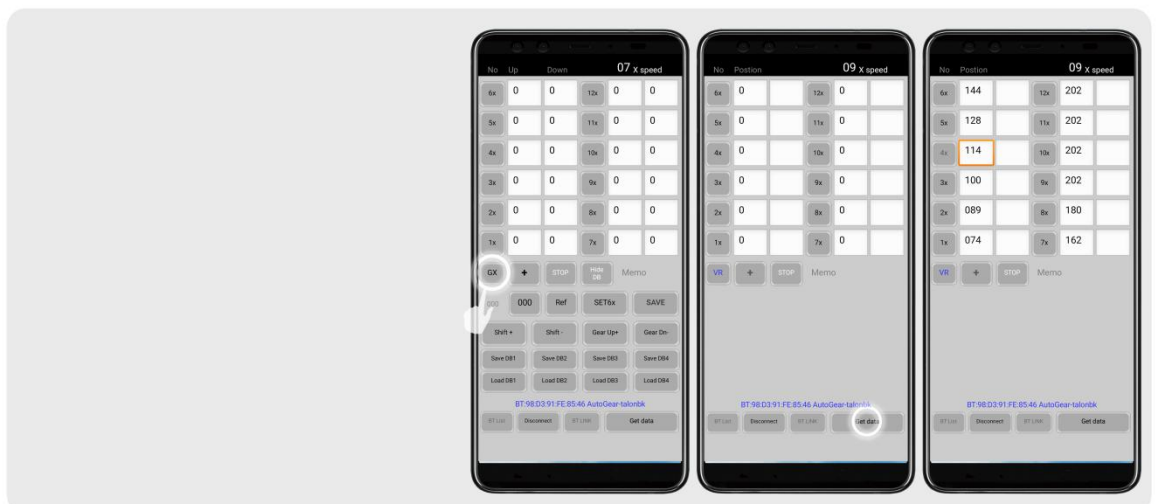
## F. Cassette Sprocket Teeth Setting:

- Set the Cassette:** Press the three-stage cycle button to change the **GX** button to the red **GR** button to enter the sprocket size setting. If there is any difference, adjust directly or use **Gear+** or **Gear-** to increase or decrease. Finally, press **SAVE** to store. The default values are **11/13/15/17/19/21/24/28/32/36/40/46**.
- Example:** To change the 11th gear sprocket from 40T to 42T, first select **Gear 11X**. At this point, the **orange** correction frame will move next to **11X**. Press **Gear+** or **Gear-** to adjust the number, then press **SAVE** to store. Next, press the **GET DATA** button on the bottom function bar to check whether the new setting for **11X** has taken effect.



## G. Gear Position Setting Check:

- Press the **GX** button to switch it to the blue **VR** button, then press the **GET DATA** button on the bottom function bar to retrieve the gear position value table. Check that the values are arranged sequentially from small to large, with a range between **30 and 250**.
- If the values are not in sequential order, please reset the gear positions.



## H. Advanced Settings:

1. From the **Basic Setup** screen, enter **Advanced Setup** directly via the **Advanced Setup** button on the left side of the bottom function bar.
2. On the bottom function bar, press the middle **BT LINK** button, or press the lower-left **BT LIST** button to select the **AUTOGEAR** device.
3. In the field next to **DeviceName**, enter a custom Bluetooth name (must be more than 5 characters). After entering, press the **SET** button to save. The derailleur will then restart.
4. **Password Setting:** The default value is **1234**. (If password recovery is required, the system must be reinstalled.)



### ● Other Important Notes:

1. **MODE X:** Manual Mode:0/Speed Mode:1/Comfort Mode:2/Cadence Mode:3
2. When the derailleur enters the setup state, shifting cannot be performed. To exit the setup state, restart the system or return to the main screen and reconnect to the derailleur. Once the setup state is cleared, the derailleur will enter working mode.
3. The physical shift button has four buttons: Upshift +, Downshift -, Auto/Manual switch M, and Reserved . Upshifts and downshifts are available at any time. In automatic mode, upshifts and downshifts can be held for 10 seconds each time. After 10 seconds, the system automatically reverts to automatic shifting.
4. When the derailleur is turned off, the shift mode is saved and restored upon restart.