

e-DR Apparatus Advanced Configuration Options Function

e-DR apparatus advanced setup function is only usable to professional technician. Advanced option parameter: P1_motor character parameter, P2_motor velocity signal pulse parameter, P3_Power-aided mode parameter, P4 is the startup mode, P5 is the power monitoring mode.

1. Enter advanced setup interface

A. The advanced setup is not accessible unless firstly enter the general setup menu (such as velocity-limitation parameter, wheel diameter parameter, metric or English unit selection).

B. Press the button SW to stop the three common parameters from flashing.

C. Press the button UP and DOWN synchronously for 2 seconds to enter the advanced option setup interface.

2. Set advanced option parameter P1

P1 is motor character parameter, and equals to reduction ratio multiplied by rotor alnico number. If decimal fraction appears, round off first. After enter the advanced setup interface, it is found that the parameter P1 flashes, you could use the button UP and DOWN to adjust the P1.

Explain: P1 is to set up the the specification of the motor to fit the motor. $P1 = \text{Motor reduction} * \text{motor rotor magnet quantity}$. so you can set up it with your motor specification.

3. Set advanced option parameter P2

P2 is motor velocity signal pulse parameter. After set the P1, short-press the button SW to set the parameter P2. If the wheel rotates one time, the pulse equals one, then P2 is set as one, if the wheel rotates one time, the pulse equals six, then P2 is set as six. If the motor is not equipped with velocity signal outputting function, you could set the PS as 0. **Attention:** if P2 is set as zero, the following defect maybe appear, when the motor stop rotating or the internal rotor rotates slower than the external rotor, the velocity indicated on the apparatus may be incorrect

Explain: P2 is to set up the speed sensor signal from motor: We use the speed sensor with 1 signal when the rim run a cycle (one cycle one signal). if the motor without signal, please set the P2=0

4. Set advanced option parameter P3

The P3 default setting is zero, power-aided mode is five speedy grade. If the P3 is set as one, it indicates that the power-aided mode is five-grade torque drive mode. Parameter should be determined according to the function of the controller, the setting method is as same as described hereinbefore.

Explain: When the bike working with assistance control, P3=0, if you want to use torque control, please adjust P3 to 1, P3=1

5. Set the Advanced Parameters P4 (if the controller with Zero start)

P4 is the startup mode of the switch-handle. P4 equals to 1, indicating a non-zero startup mode of the switch-handle (that is to say the switch-handle can only be effective after the start of the pedal power). When P4 equals to 0, it means the switch-handle is on zero startup mode, (that is to say the switch-handle can start the motor directly).

6. Set the Advanced Parameters P5

P5 is the power monitoring mode. P5 equals to 0, indicating the power monitor is under the mode of "immediate voltage". In other word, it is the method to judge the battery power according to the immediate voltage of the battery. When P5 equals to a specified parameter, the battery monitor is under the mode of "smart power" (the parameter is determined on the basis of the battery characteristics, it is generally between 4-11 for the common 24V lithium, and 5_15 for 36V lithium).

7. Parameter Saving

Press on SW key for long time to save and exit the condition of configuration parameters at the same time after the adjustment of the configuration parameter.

8. Installation Method for Vehicle Speed Sensor

When the e-DR display matches the high-speed motor without signal for speed output (with built-in clutch), it requires an external vehicle speed sensor. The installation method of the external vehicle speed sensor refers to the right picture. Note the relative position relationships of magnet and sensor. When the e-DR display is connected to the external vehicle speed sensor, set the parameter of P2 as 1.