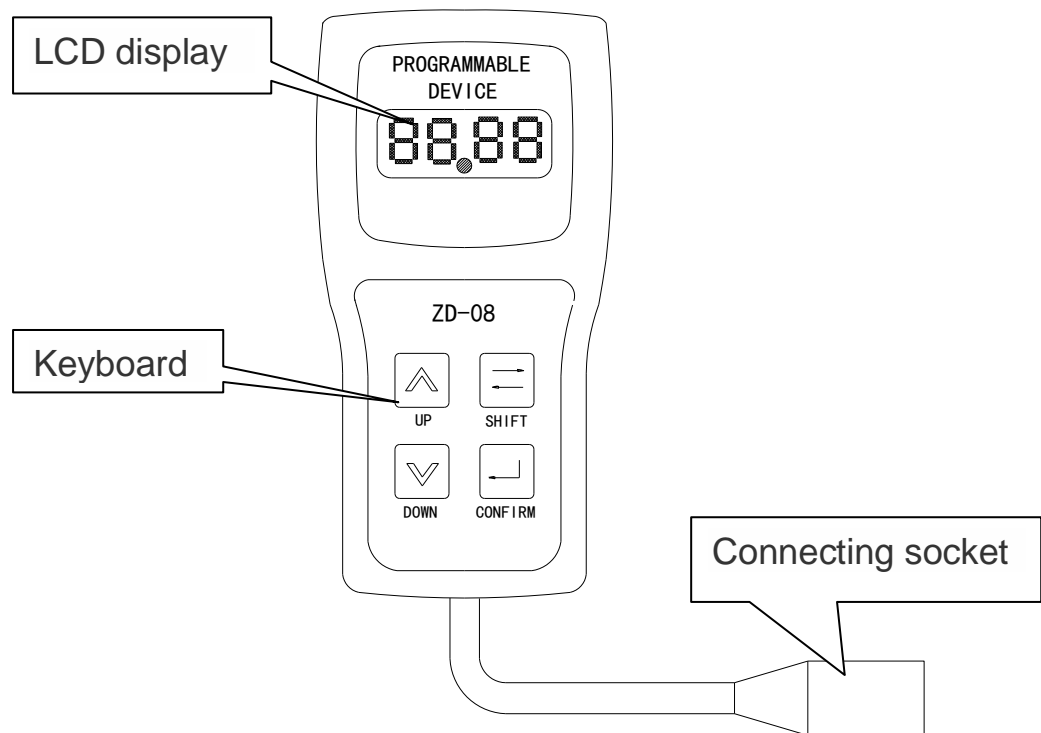






# Setting method for WS-24V controller of brushless electric wheelchair

## Changzhou Electronic Appliance Co., Ltd.

1. The appearance of the setting machine is as follows:



2. There are four buttons on the machine.:

- (1). Up key  , Adjust the numerical value, and press the value plus one.
- (2). Down key  , Adjust the numerical value, and press the value minus one.
- (3). Switch key  , Switch selection.
- (4). Confirm Key  , Save settings.

3.Changing the parameters of brushless electric wheelchair with the settings

Insert the connecting socket to the programming interface (i.e., charger port) of the controller. After 0 to 9 is displayed, the first parameter is showed as “1.1”. The left of the decimal point is a menu item, and the right of the decimal point is parameter item. The menu item is flashing, and the switch button can be used to switch between the menu item and the parameter item. The value of the flashing item can be changed by pressing the up key or down key. If you want to change the value of the parameter and save it, you need to press the confirm key. If you do not want to save the value of the parameter, you can press the switch button to switch to the menu item. Then pull out the connecting cable. The power supply of the controller should be closed after the completion of the setup. Restart.

#### 4. Menu items, total of 21:

No 1: Driving acceleration. Adjust the acceleration of the electric wheelchair driving speed The scope of this parameter is from 1 to 20. The higher the value, the faster the acceleration.

No 2: Driving deceleration. Adjust the deceleration of the electric wheelchair driving speed The scope of this parameter is from 1 to 50. The higher the value, the faster the deceleration.

No 3: Turning acceleration. Adjust the turning acceleration of the electric wheelchair. The scope of this parameter is from 1 to 10. The higher the value, the faster the turning acceleration.

No 4: Turning deceleration. Adjust the turning deceleration of the electric wheelchair. The scope of this parameter is from 1 to 10. The higher the value, the faster the turning deceleration.

No 5: Low voltage protection. Adjust the value for low voltage protection. The scope of this parameter is from 1 to 5, and the interval indicates 2V. The value is higher, the higher the low voltage.

No 6: Maximum back speed. Adjust the maximum speed of the back. The scope of this parameter is from 1 to 10. The higher the value, the faster the back speed.

No 7: Maximum forward speed. Adjust the maximum speed of the forward. The scope of this parameter is from 1 to 20. The higher the value, the faster the forward speed.

No 8: Backing tone setting. 0:Do not setting backing hint sound; 1: Setting backing hint sound.

No 9: Electromagnet brake device setting. 0:Do not setting electromagnet brake device; 1: Setting electromagnet brake device. When this parameter is setting as 1, the electric wheelchair will give an alarm if electromagnet brake device isn't checked.

No 10: The duration for auto shutting off. When the wheelchair is not driving in a period of time, the controller will auto shut off. This parameter is setting for the

duration for auto shutting off. The scope of this parameter is from 1 to 5, and the interval indicates 10 minutes. (For example this parameter is setting as 3, the controller will auto shut down power supply when the wheelchair is not driving for 30 minutes).

No 11: Phase identification of brushless motor (left motor). This parameter is used for the controller identifying the correct phase of the brushless motor. Note: when you set this parameter, the wheels should turn without moving forward. Press the up key, then push control horn. If the direction of wheel turning is the same as control horn and the electricity of the motor is the minimum, the phase of motor is correct. Then confirm this parameter. 6 kinds of phase of motor can be setting.

No 12: Setting of direction of brushless motor( the left motor). 0 for the positive direction rotation, 1 for the opposite direction of rotation.

No 13: Phase identification of brushless motor ( right motor). The operation of the item is exactly the same as the 11 item.

No 14: Setting of direction of brushless motor (right motor). 0 for the positive direction rotation, 1 for the opposite direction of rotation.

No 15: The adjustment of the speed of the left motor.0: the original state, 1-20: gradually slow.

No 16: The adjustment of the speed of the right motor. 0: the original state, 1-20: gradually slow.

No 17: Electromagnet brake release time setting. The scope of this parameter is from 1 to 20, and the interval indicates 0.5 second. (e.g:0:0.5 second, 1: 1 second, 2:1.5 second).

No 18: Electromagnet brake CBL way setting. 1: No CBL; 0: CBL。

No 19: Turning speed setting. The scope of this item is from 1 to 20.

No 20: Characteristics of the battery: 0 - lead acid, 1 - Li battery.

No 21: Speed compensation: The scope of this parameter is from 0 to 20. 0: No compensation. The higher the value, the higher the more of compensation.