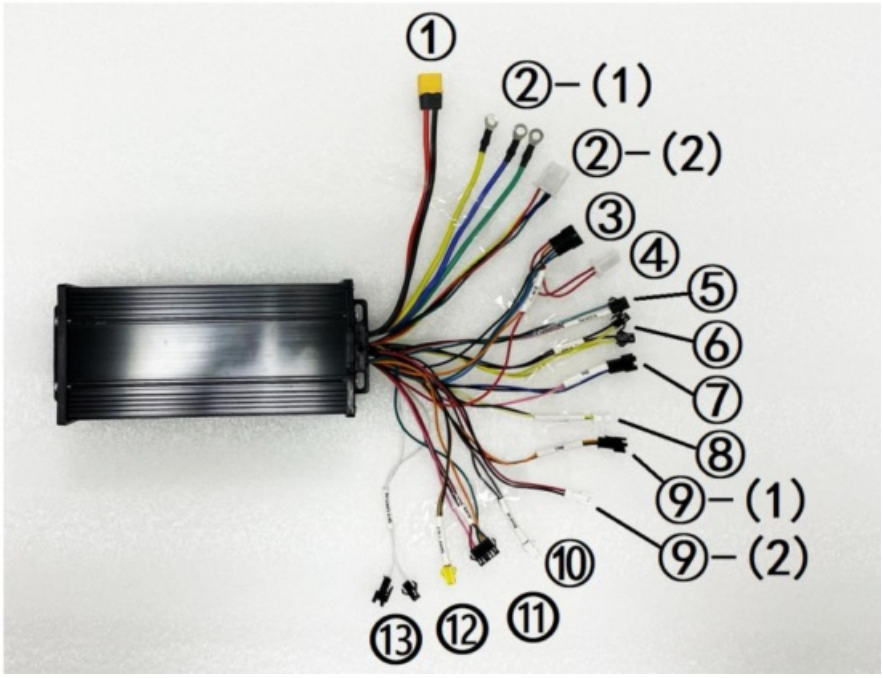
Regen Braking 1638851752 Controller Connection User Manual

Controller Connection Manual



Very Important Notice:
Before you connect the controller with your motor wheel, please disconnect the self-learning plugs (No.13):

How to match controller and motor for first use:

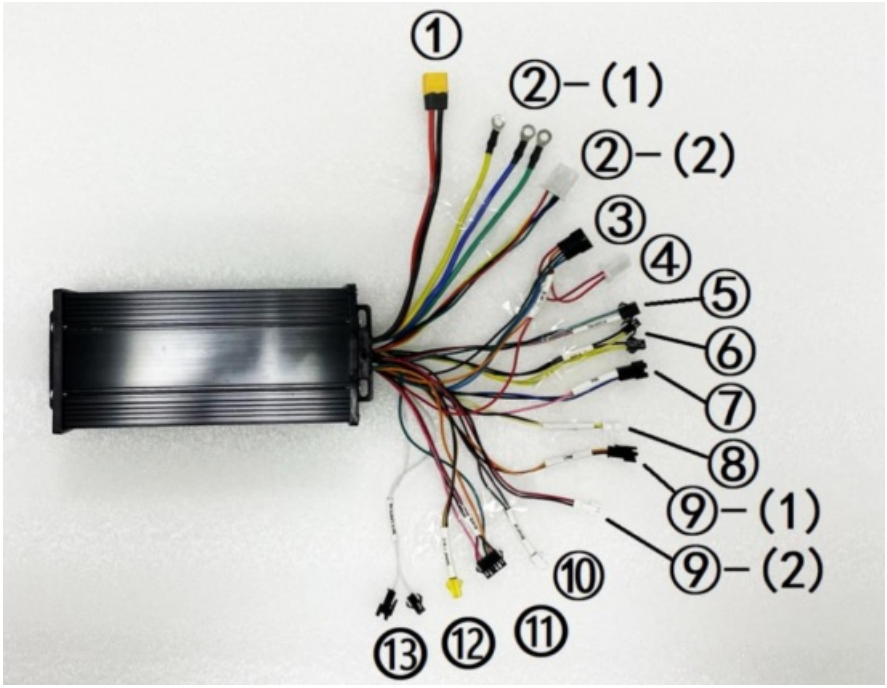
1. Lift your motor wheel off ground (very important)
2. Connect Self-learning plug 6-8 seconds
3. You will see the motor wheel rotate slowly
4. Please check whether the rotation direction is correct
   (1). If correct direction, then keep 6-8 seconds, then disconnect
   (2). If reverse direction, then disconnect and plug again till getting correct rotation direction, then keep 6-8 seconds, then disconnect
5. Motor and Controller Pairing finished!

Why 3-mode Controller?

1. Support Hall Sensor Mode (Sine Wave Mode)
2. Support Non-Hall Mode (If your motor hall sensor burned or does not match, the controller will still work in square wave mode)
3. Self-learning Function: Even the wrong 3-phase combination between motor and controller, doesn’t matter, the above self-learning process can correct it!

Contents

Connection Diagram



1. Power Supply Plug (Power input to Controller): Yellow XT60 Male Plug

   Controller Side Definition

   Yellow XT60 Male Power Input Connector

   Red (Positive) Positive Pole

   Black (Negative) Negative Pole

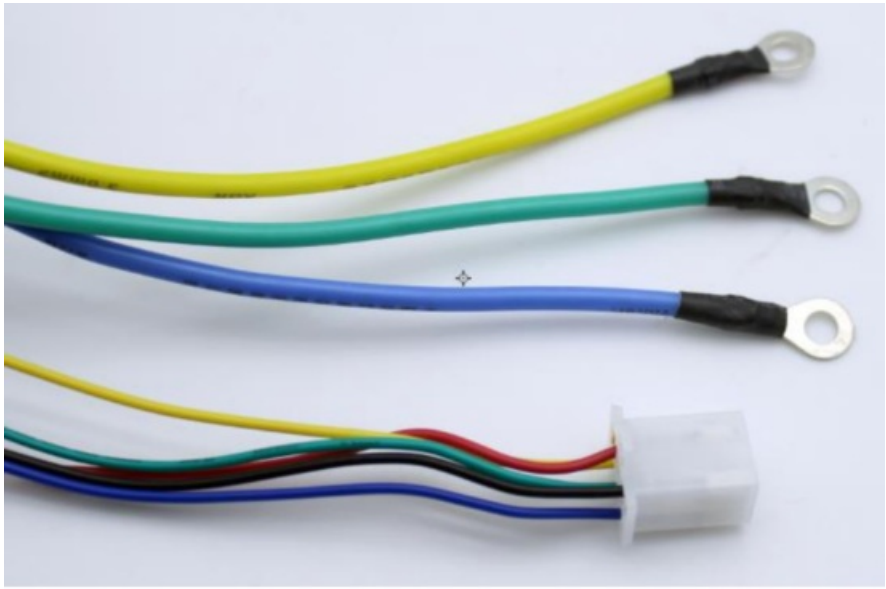
2. Motor Cable Plugs (3-Phase + hall sensor):

   (1). Motor 3-Phase Plug: “O” rings, use yellow “O” ring connection box

Controller Side	Definition
3-“O” Rings?	Motor 3-Phase Connector
Yellow	Motor Phase-A
Green	Motor Phase-B
Blue	Motor Phase-C

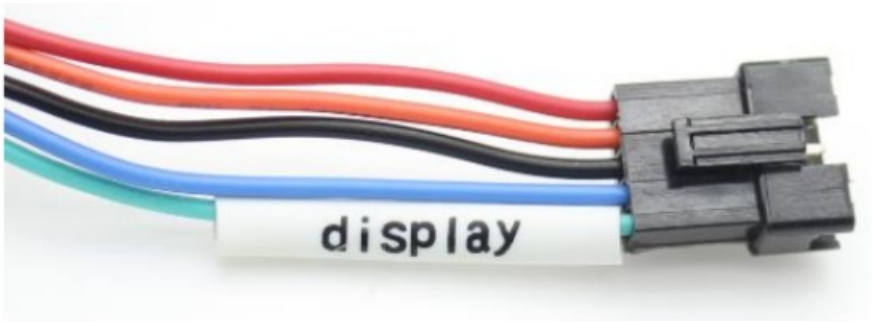
   (2). Motor hall sensor Plug: White DJ7061-2.8-21 Female Plug

Controller Side	Definition
DJ7061-2.8-21 Female	Motor Hall Sensor Connector
Red	5V+ Positive
Black	Negative
Yellow	Hall Sensor Signal
Green	Hall Sensor Signal
Blue	Hall Sensor Signal



3. LCD Display Plug: Black SM-5A Male Plug

Controller Side	Definition
Black SM-5A Male	LCD Display Connector
Red	Power input positive
Pink	Electric Lock
Black	Negative
Blue	TxD
Green	RxD

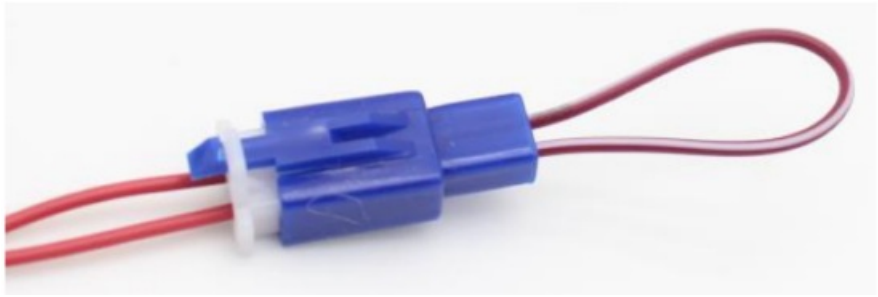


If you don’t want to use (or don’t have) an LCD display, please just plug the jumper into a connector as follow photo (connect red and pink):

4. Electric Lock Plug: White 2.8B-2 Female Plug

Controller Side	**Definition**
White 2.8B-2 Female	
Red	Electric Lock Connector
Red	

If you use your own throttle and without an electric lock, then please just connect jumper plug as follow photo, otherwise the controller will have no power:



5. Throttle Plug: Black SM-3Y Female Plug

Controller Side	**Definition**
Black SM-3Y Female	Throttle Connector
Dark Red	Positive
Black	Negative
Green(Signal)	Hall Sensor Signal

6. Brake Levers Plugs: 2 x Black SM-2Y Female Plugs

Controller Side	Definition
2x Black SM-2Y Female	Brake Connector
Black	Negative
Yellow	Signal

7. PAS Plug: Black SM-3A Male Plug

Controller Side	Definition
Black SM-3A Male	PAS Connector
Pink	Positive
Black	Negative
Blue(Signal)	Hall Sensor Signal

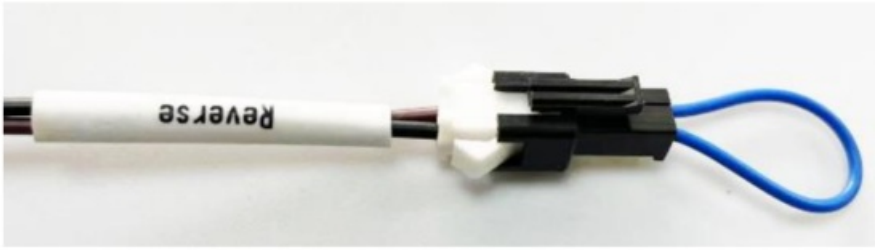
8. Cruise Plug Connection: White SM-2Y Female Plug

Controller Side	Definition
White SM-2Y Female	Cruise Connector
Black	
Yellow	

(1). Without jumper plug/Switch: Without cruise function

(2). With the jumper plug connected: The cruise function is activated (if you keep the throttle at definitely fixed

speed 6 seconds will activate the cruise function)



(3). With switch (Switch on/off):

Switch on: The cruise function is activated (if you keep the throttle at a definitely fixed speed 6 seconds will activate the cruise function)

Switch off: Without the cruise function

9. Head Light Plugs: Black and White SM-2A Male Plugs

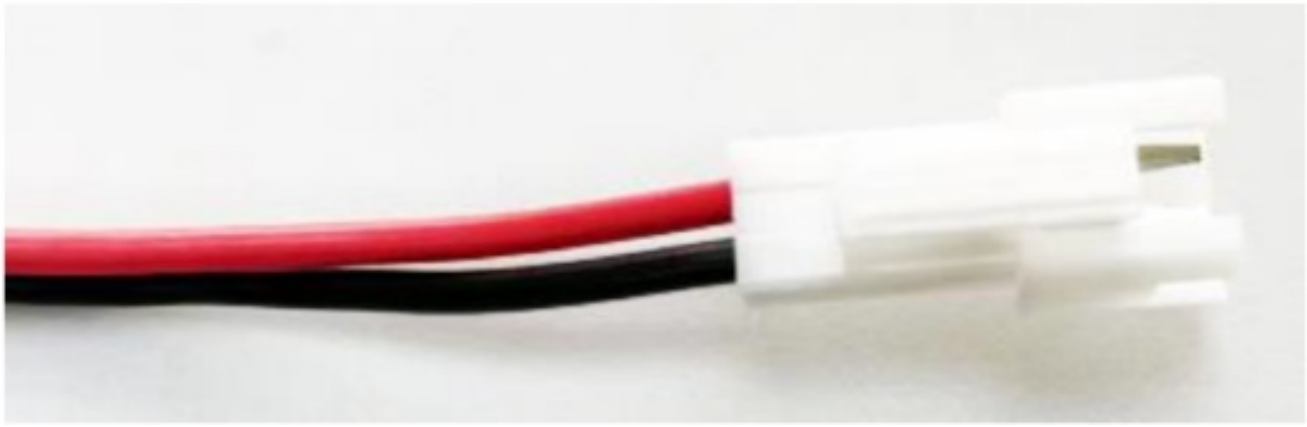
   (1). Black SM-2A Male Plug: headlight will be controlled by LCD Display, 36V or 48V output (according to the battery you use), max current 150mA, max power 7W.

   Otherwise will be burned.

Controller Side	**Definition**
Black SM-2A Male	Headlight Connector
Orange	Your headlight positive wire
Black	Your headlight negative wire

(2). White SM-2A Male Plug: headlight will be controlled by a switch, you can connect the switch to control your light, 36V or 48V output (according to the battery you use), can take 2A current, 100W light.

Controller Side	**Definition**
White SM-2A Male	Power Output Connector
Red	Your switch/headlight positive wir
Black	Your headlight negative wire

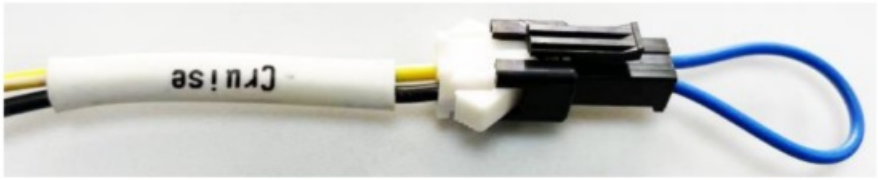


10. Reverse Plug: White SM-2Y Female Plug

Controller Side	
White SM-2Y Female	Definition
Brown	Reverse Jumper/Switch Connector
Black	

(1). Without jumper plug/Switch: Rotate forward

(2). With jumper plug connected: Rotate backward



(3). With Switch (Switch on/off): Switch on Rotate backward

Switch off Rotate forward

11. Alarm Plug: Black SM-6Y Female plug

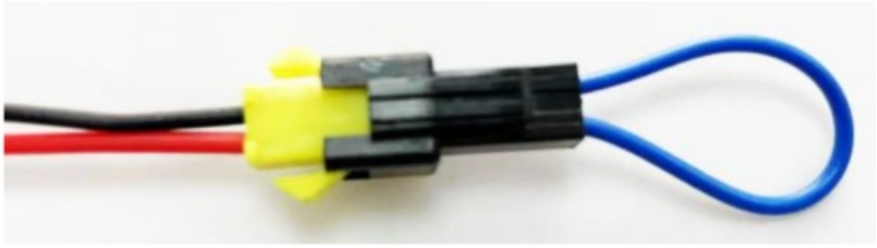
Controller Side	**Definition**
Black SM-6Y Female	Alarm Connector
Red	Power Positive (+)
Pink	Wheel Movement Alarm
Green	Alarm Signal
Orange	Electric Lock
Black	Power Negative (-)

12. Speed Limit Plug: Yellow SM-2Y Female plug

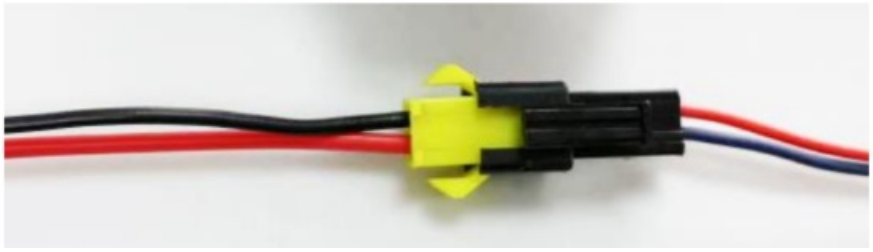
Controller Side	
Yellow SM-2Y Female	**Definition**
Red	Speed Limit Jumper/Switch Connector
Black	

(1). Without jumper plug/Switch: No speed limit

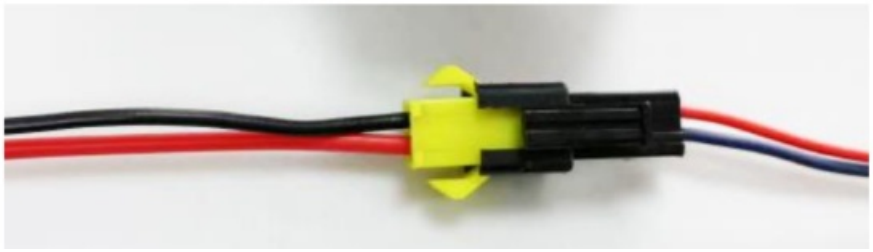
(2). With jumper plug connected: Speed be limited to under 25km/h



(3). With Switch (Switch on/off): Switch on Speed be limited to under 25km/h



Switch off: No speed limit



13. Self-learning Plugs: White SM-2A Male plug and SM-2Y Female plug

Controller Side White SM-2A Male White SM-2Y Female White + White	**Definition** Self-learning Connector

(1). Connected: Active Self-learning
Before using this function, please lift your motor wheel off ground (very important)

(2). Disconnected: Deactive self-learning (After self-learning, please disconnect plugs) Before you connect the motor with the controller, please be sure these two plugs are disconnected

Documents / Resources

	Regen Braking 1638851752 Controller Connection [pdf] User Manual 1638851752 Controller Connection, 1638851752, Controller Connection