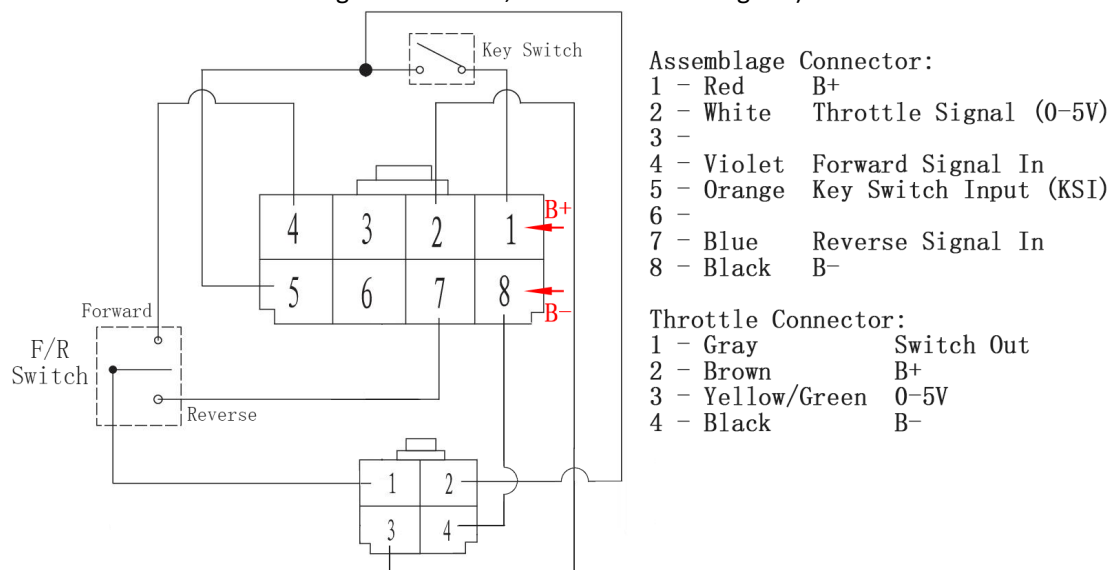


Installation Instruction

1215/1219 DC Series Motor Controller Assemblage

1. Checking the controller assemblage, battery system and motor:
 - a) The whole assemblage status
 - b) Installation kit & mating connectors
 - c) Battery charging status
 - d) Motor status (turning manually 2-3 rounds)
 - e) The cables' length and insulation conditions
2. Preparing the mating connectors (please identify the wire number corresponding to the connectors on assemblage and throttle, as shown in the diagram):



- a) Throttle connector: pay attention not to reverse B+ and B-
 - b) Assemblage connector: pay attention not to reverse B+ and B-
 - c) Try to connect and disconnect the connectors, making sure the all terminals are well contacted.
3. Mounting the assemblage and throttle on board. If there is an Earth line, connect it to the assemblage aluminum plate.
 4. Connecting all cables of battery and motor to the assemblage.
 - a) Do not supply power to the assemblage till confirming the "B+" and "B-" connections are not reversed. The reversed power polarities could cause an immediate controller damage.
 - b) Keep the F / R switch at neutral position, and the throttle at neutral position. Keep the vehicle braked.
 - c) There are labels on the assemblage, indicating the connecting position, "B+", "B-", "D1", "D2", "A1" and "A2".
 - i. We use "D1" and "D2" for motor field studs, while some DC series motor manufacturer use the symbols "F1" and "F2" (or "S1" and "S2").
 - ii. "B+" and "B-" for battery positive and negative poles.

- iii. "A1" and "A2" for motor armatures.
5. Turn on the key switch, to deliver power to the assemblage. Normally there should be a "click" sound of main contactor at the starting moment of power supply.
6. Keep the throttle at neutral position without output. Moving the F / R switch handle (or pushing the Forward / Switch buttons).
7. Release the vehicle brake, put the F / R switch at "forward" position, step down a little the foot pedal (throttle) to start the motor. If the motor start to run, release the throttle pedal, and try the same to reverse the motor.
8. Increasing slowly the motor speed till its max limit, run the vehicle for 5 minutes. Stop the vehicle, turn off the power, check the motor situation (if there is any overheating) and the assemblage (overheating or over-current).
9. By identifying there is no abnormal noise or smell, the system is installed correctly.

