

Installation Instruction

CURTIS 1268 DC SepEx Motor Controller Assemblage

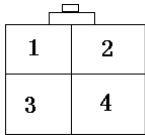
For Electric Vehicle & Boat

1. Before installing the controller assemblage of 1268-5403, please check the status of controller assemblage, battery system and DC motor:
 - a) The whole assemblage status: fuses, wiring, contactor ...
 - b) Installation kit & mating connectors
 - c) Battery charging status
 - d) Motor: turning manually 2-3 rounds
 - e) The length of cables (to battery system and to motor), and insulation conditions
 - f) Throttle: pressing the throttle pedal manually for several times

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:

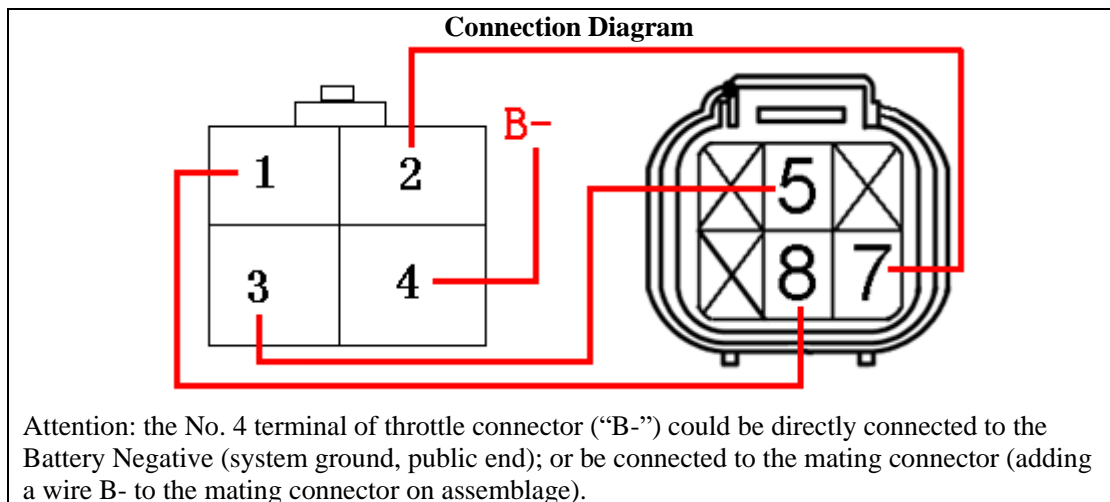
Throttle Connector		
No.	Wire Color	Function
1	Blue	Switch Out
2	Brown	Battery Positive B+
3	Yellow / Green	Speed Signal 0-5V
4	Black	Battery Negative B-



Mating 6-Pin Connector		
No.	Wire Color	Function
5	White	Speed Signal Input (0-5V)
7	Green	Key Switch Out (B+)
8	Blue	Throttle Switch


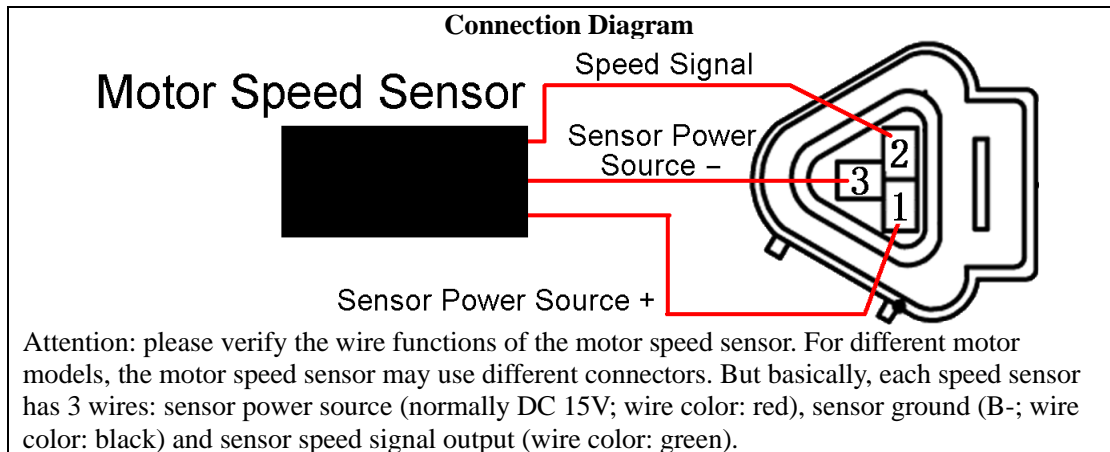
A wire "B-" could be added to the connector, connecting to the No.4 terminal of throttle connector.





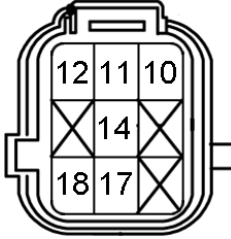
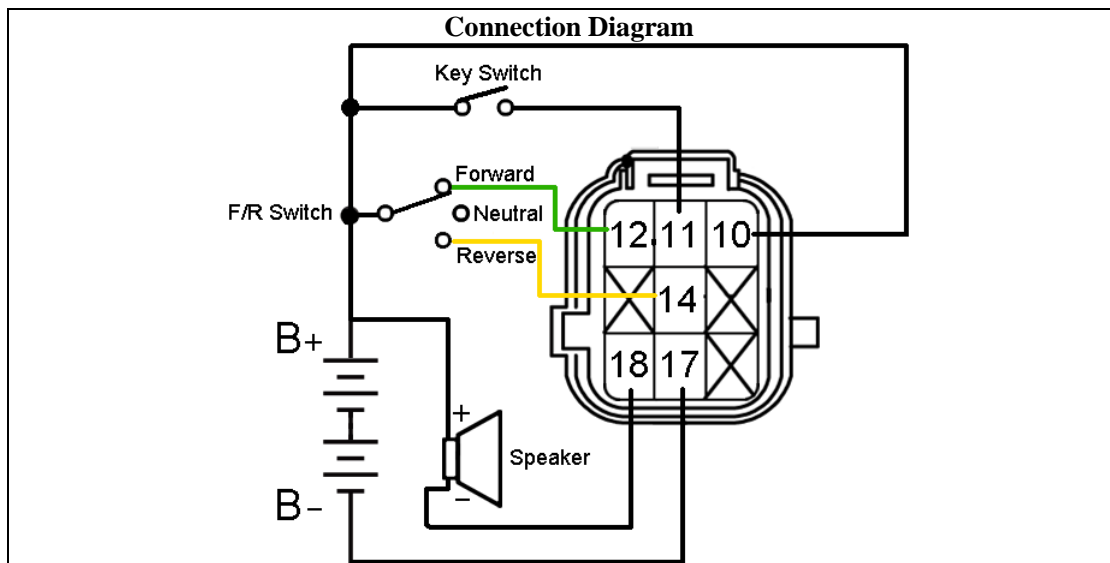
b) DC motor speed sensor connector:

Motor Speed Sensor Connector		
No.	Wire Color	Function
1	Pink	Speed Sensor Power Source
2	Green / White	Speed Sensor Signal
3	Yellow	Speed Sensor Ground

c) 9-Pin connector:

9-Pin Connector		
No.	Wire Color	Function
10	Red	Battery Positive (B+)
11	Green	Key Switch Out
12	Brown	Input From Forward Switch
14	Violet	Input From Reverse Switch
17	Black	Battery Negative (B-)
18	White / Brown	Reverse Alarm (alarm low-side driver output)

3. Mounting the assemblage and throttle on board of vehicle. If there is an earth line, connect it to the assemblage aluminum plate.
4. Connecting all cables (from battery system and motor) to the assemblage.
 - a) Before connecting the cables, cut off the power supply to the assemblage.
 - b) Keep the F / R switch at neutral position, and the throttle at low end without output. 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.
 - d) Attention: assuring the poles “B+” and “B-” are not reversed. The reversed power poles’ connection could cause an immediate system damage.



Figure: Installation Position Labels

5. Supply the DC power (battery) to the assemblage (normally there should be a “click” sound of main contactor at the moment of switched-on of DC power).
6. Turn on the key switch, and keep the throttle at neutral position without output. Repeatedly changing the F / R switch handle (or pushing the Forward / Switch buttons) to “Forward” and “Reverse” positions for several times, check if the F / R contactor works by hearing the “click” sounds.
7. Release the vehicle brakes, put the F / R switch at “forward” position, step down a little the foot pedal (throttle) to start the motor. If the motor works, stop the motor, 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 (if there is any overheating or abnormal smell).
9. By identifying there is no abnormal noise or smell, the system is installed correctly.

