

- |   |                                |   |                       |    |                 |
|---|--------------------------------|---|-----------------------|----|-----------------|
| 1 | REMOTE PLUS JOYSTICK           | 5 | BATTERY CABLE         | 9  | LEFT MOTOR      |
| 2 | POWER MODULE                   | 6 | FRONT BATTERY HARNESS | 10 | CIRCUIT BREAKER |
| 3 | REDEL CABLE                    | 7 | REAR BATTERY HARNESS  | 11 | RUN PLUG        |
| 4 | POWER TAKE-OFF/INHIBIT HARNESS | 8 | RIGHT MOTOR           | 12 | REDEL RUN PLUG  |

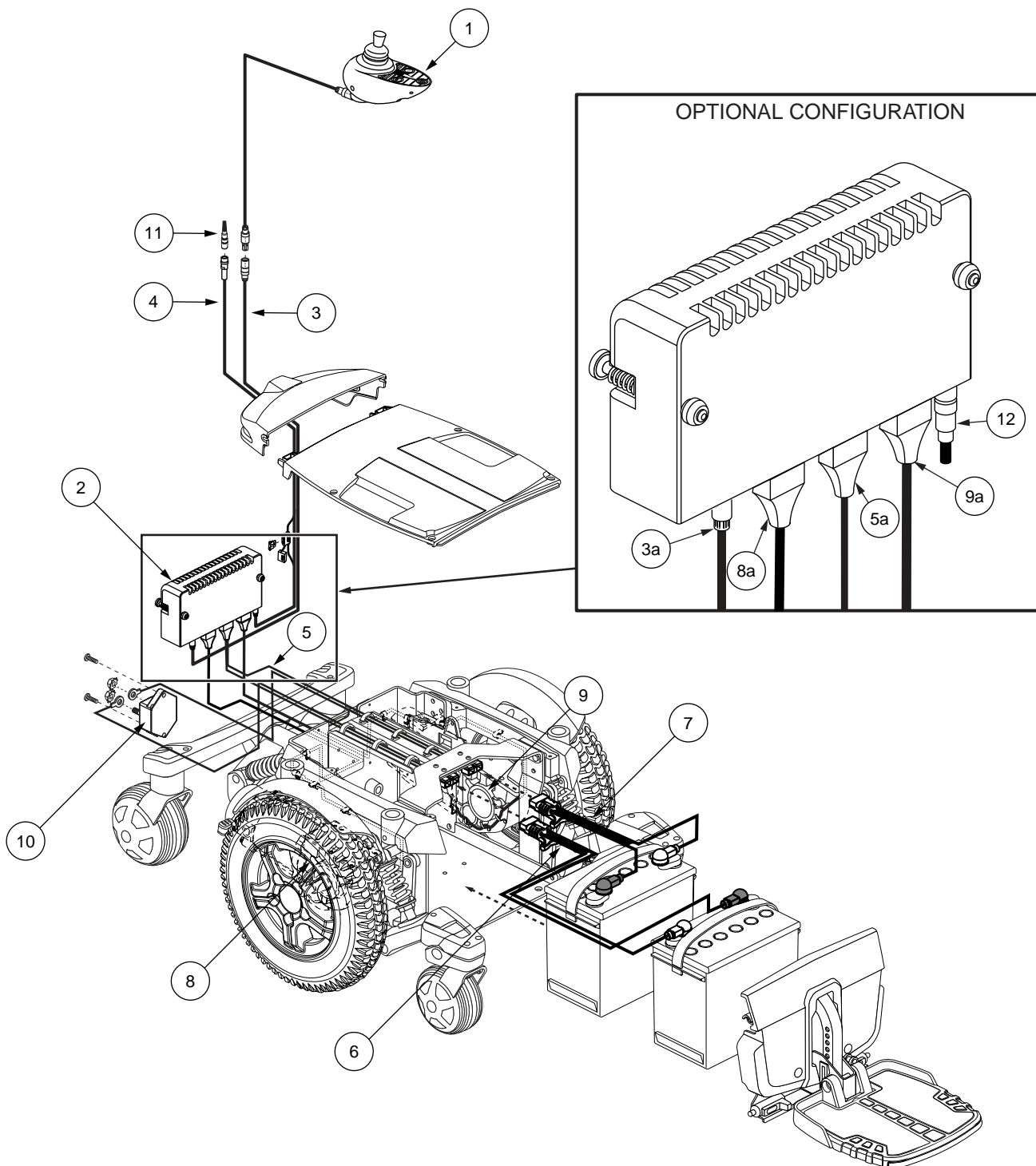


Diagram 1. Quantum 6000 Troubleshooting Key

### From step 12

16. Unplug connector 3a from connector 2a. **See diagram 3.**
17. Measure resistance from pin 1 on connector 2c to pin 1 on connector 2a. **See figure 28.**
18. Measure resistance from pin 2 on connector 2c to pin 2 on connector 2a. **See figure 29.**
  - If your multimeter indicates less than 1 ohm for both tests, then go to the next step.
  - If your multimeter indicates greater than 1 ohm for either test, then replace the power module (2) and retest the system.
19. Measure resistance from pin 1 on connector 3a to pin 1 on connector 3b. **See figure 30.**
20. Measure resistance from pin 2 on connector 3a to pin 2 on connector 3b. **See figure 31.**
  - If your multimeter indicates greater than 1 ohm for either test, then replace the Redel cable (3) and retest the system.
  - If your multimeter indicates less than 1 ohm for both tests, then replace the Remote Plus joystick (1) and retest the system.

### Flash Code #2 - Left Motor Disconnected

#### Symptoms:

There is a steady flash of two battery condition meter LEDs (red).

#### Diagnosis:

There is an open in the left motor (9).

#### Solution:

Use the following procedure to find the source of the problem:

1. Unplug connector 9a from connector 2b. **See diagram 3.**
2. Measure resistance from pin 1 to pin 2 on connector 9a. **See figure 32.**
  - If your multimeter indicates an open, then go to the next step.
  - If your multimeter indicates about 0.5 – 1.5 ohms, then replace the power module (2) and retest the system.

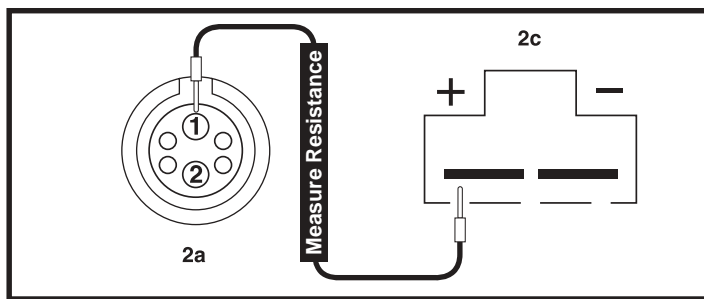


Figure 28. Connectors 2a and 2c

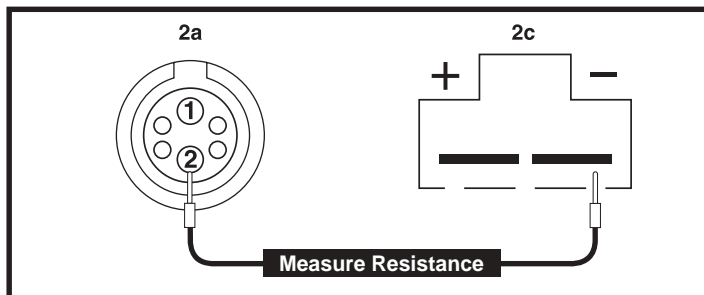


Figure 29. Connectors 2a and 2c

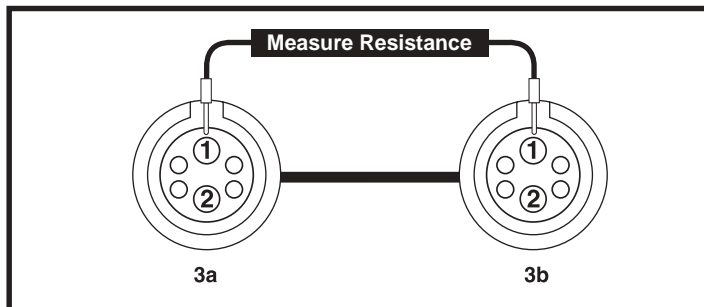


Figure 30. Connectors 3a and 3b

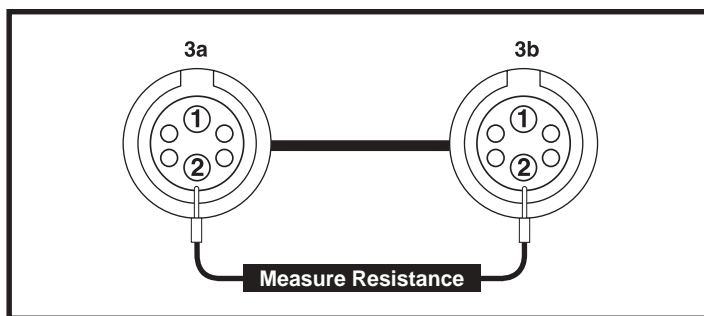


Figure 31. Connectors 3a and 3b

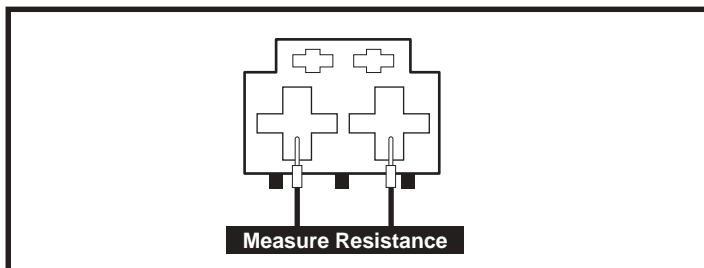


Figure 32. Connector 9a

3. Remove the motor brushes from the left motor and inspect them for wear or damage. **See figure 33.**
  - *If the motor brushes are worn below 0.25 in. or they are physically damaged, then replace the brushes and retest the system.*
  - *If the motor brushes are not worn below 0.25 in. and are not physically damaged, then replace the left motor (9) and retest the system.*

### Flash Code #3 - Left Motor Wiring Fault

#### Symptoms:

There is a steady flash of three battery condition meter LEDs (red).

#### Diagnosis:

There is a wiring fault between the left motor (9) and the brake.

#### Solution:

Use the following procedure to find the source of the problem:

1. Unplug connector 9a from connector 2b. **See diagram 3.**
2. Measure resistance from pin 1 to pin 3, then pin 1 to pin 4 on connector 9a. **See figure 34.**
  - *If your multimeter indicates an open for both tests, then replace the power module (2) and retest the system.*
  - *If your multimeter indicates less than 1 ohm for either test, then replace the left motor (9) and retest the system.*

### Flash Code #4 - Right Motor Disconnected

#### Symptoms:

There is a steady flash of four battery condition meter LEDs (three red, one yellow).

#### Diagnosis:

There is an open in the right motor (8).

#### Solution:

Use the following procedure to find the source of the problem:

1. Unplug connector 8a from connector 2d. **See diagram 3.**
2. Measure resistance from pin 1 to pin 2 on connector 8a. **See figure 35.**
  - *If your multimeter indicates an open, then go to the next step.*
  - *If your multimeter indicates about 0.5 – 1.5 ohms, then replace the power module (2) and retest the system.*

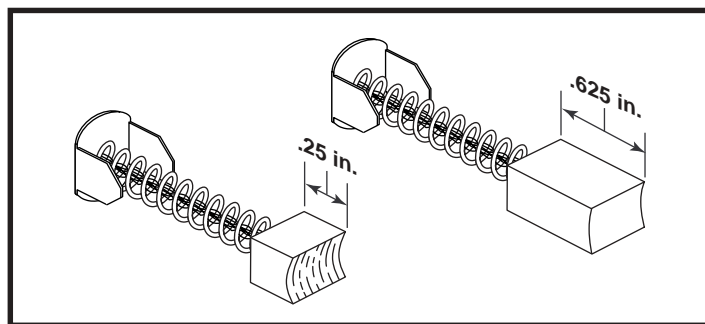


Figure 33. Motor Brushes

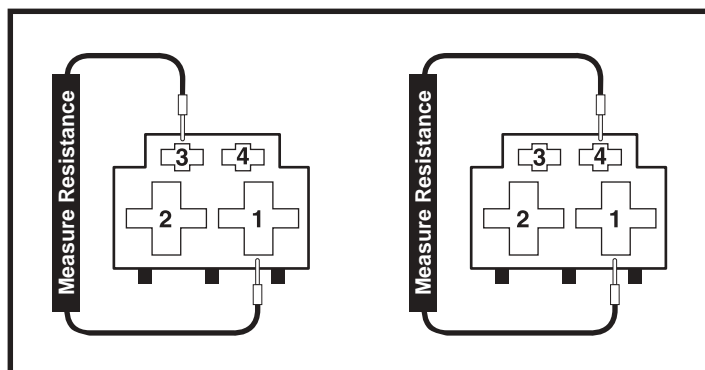


Figure 34. Connector 9a

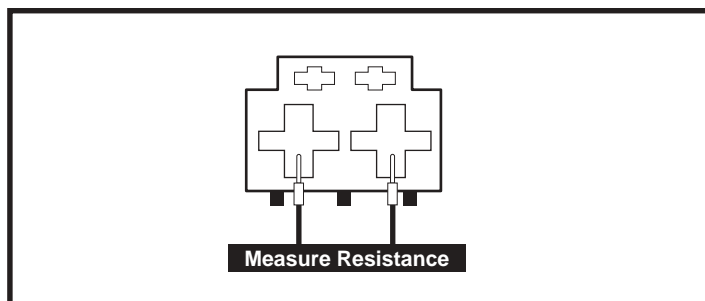


Figure 35. Connector 8a