

## Situation 6 Right Motor Fault: FOUR flashes of status LED

This fault indicates that there is a bad connection in the right motor. Make sure that the M2 harness connection to the power module is good. See Appendix H. Unplug this harness and then plug it back in and see if a fault is still occurring. If it is, unplug this harness and turn the meter to a resistance scale.

Take a resistance reading across the motor positive and motor negative (two larger pins) on the M2 harness. See figure 2.72. If the unit is operating properly, you should read approximately .5 to 1.5 ohms.

The meter reads \_\_\_\_\_ ohms.



Figure 2.72. M2 Harness



**If the reading appears within tolerance, replace the power module. If not, move to the 4-pin harness that connects to the right motor.**

Take a resistance reading from the heavy gauge red and black wires that run to the motor coil. See figure 2.73.



**Some chairs have red and black connectors attached to these wires.**

The reading across the motor coil should read approximately .5 to 1.5 ohms.

The meter reads \_\_\_\_\_ ohms.

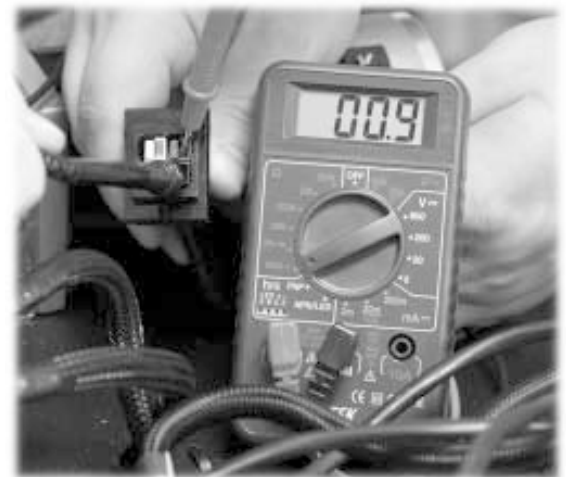


Figure 2.73. Motor Connector



**If the reading appears outside tolerance, check the brushes. If the brushes appear to be good (a good brush should be at least 1/2" in length, with no sign of chips or damage and no sign of overheating), replace the motor. If the reading is within tolerance, replace the M1 harness.**



**Overheating in the brushes can be identified by discoloration of the braided copper wire.**

### Notes:

## Situation 7 Left Brake Fault: FIVE flashes of status LED

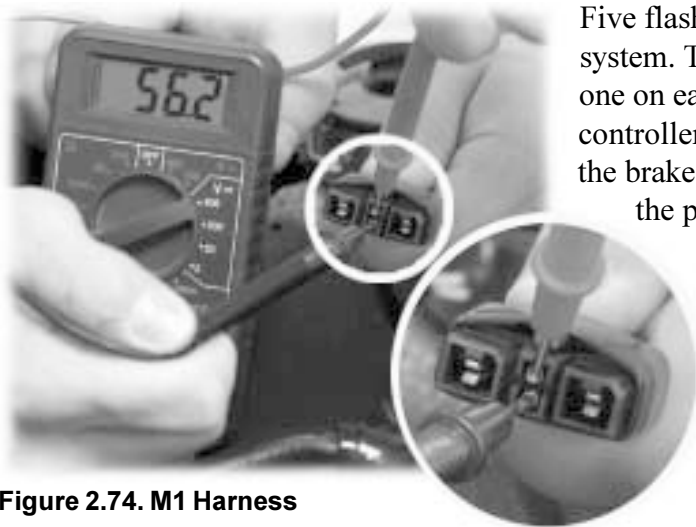


Figure 2.74. M1 Harness

Five flashes indicates a possible problem with the power chair braking system. The power chair is set up with two individual brake assemblies, one on each motor. When the joystick is pushed in any direction, the controller sends total battery voltage to each brake coil. To determine if the brake assembly is operating properly, unplug the M1 harness from the power module. See Appendix H.

Turn the meter to a resistance scale and take a reading from brake positive to brake negative (two small center pins) of the M1 harness. See figure 2.74. A reading of approximately 60 ohms should appear.

The meter reads \_\_\_\_\_ ohms.



**If the reading appears to be within tolerance, replace the power module. If the reading is outside tolerance, move to the motor connector.**

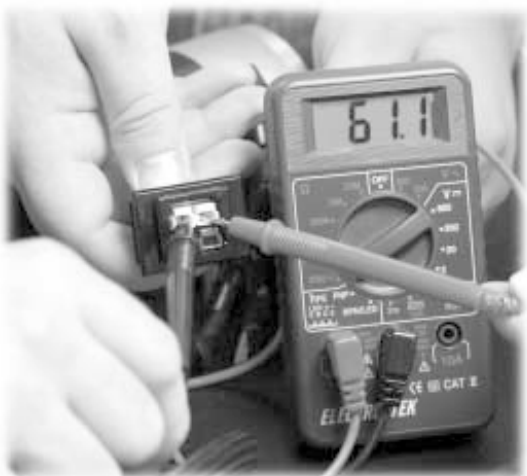


Figure 2.75. Motor Connector

Take a reading from the 4-pin motor connector. Unplug the connector from the M1 harness and take a reading from the thin gauge black wires that run to the brake coil. See figure 2.75.



**Some chairs have white connectors attached to these wires.**

A reading of approximately 60 ohms should appear.

The meter reads \_\_\_\_\_ ohms.



**If the reading is outside tolerance, replace the motor brake assembly. If the reading is within tolerance, replace the M1 harness.**

### Notes:

## Situation 8 Right Brake Fault: SIX flashes of status LED



Figure 2.76. M2 Harness

Six flashes indicates that the system has detected a fault in the right motor brake. The power chair system is set up with two individual brake assemblies. One on each motor. When the joystick is pushed in any direction, the controller sends total battery voltage to each brake coil.

To determine if the right brake assembly is operating properly, unplug the M2 harness from the power module. See Appendix H.

Turn the meter to a resistance scale and take a reading from brake positive to brake negative (two small center pins) of the M2 harness. See figure 2.76. A reading of approximately 60 ohms should appear.

The meter reads \_\_\_\_\_ ohms.



**If the reading appears to be within tolerance, replace the power module. If the reading is outside tolerance, move to the motor connector.**

Take a reading at the 4-pin motor connector. Unplug it from the M2 harness and take a reading from the thin gauge black wires that run to the brake coil. See figure 2.77.



**Some chairs have white connectors attached to these wires.**

If the brake coils are intact, you should read approximately 60 ohms across the brake coil.

The meter reads \_\_\_\_\_ ohms.



Figure 2.77. 4-pin Motor Connector



**If the reading is outside tolerance, replace the motor brake assembly. If the reading is within tolerance, replace the M2 harness.**

### Notes:

## Situation 9 Low Battery Fault: SEVEN flashes of the status LED

If you encounter a power chair with seven flashes, the batteries are nearly discharged. The battery either needs charging or there is a bad connection to the battery.



**Always assume that the batteries need to be recharged.**

Plug the power chair into a standard wall outlet. Allow the batteries to charge 8 - 14 hours. The battery indicator should return to a full charge and the power chair should work properly. If this is not the case, the total battery voltage is less than 18 volts.

Perform a standard battery load test on each battery. If they check good under a load, test the battery charging system. Use tests from Situation 1 and replace the appropriate component.

## Situation 10 High Battery Voltage Fault: EIGHT flashes of the status LED

Eight flashes indicate high battery voltage. This only appears if the output of the battery charger is over 32 volts. In order for the controller to interpret a high battery voltage, the batteries must read in excess of 16 volts each.

In order to test the voltage output, unplug the white 3-pin connector of the battery charger from the black 3-pin connector of the charger harness and take a voltage reading from the two outside pins of the white 3-pin connector. See figure 2.78.

If the charger is operating properly, you should read approximately 25 to 30 volts.



**When taking the output voltage from the charger, allow the reading to normalize before documenting the reading.**

The meter reads \_\_\_\_\_ volts DC.



Figure 2.78. Charger Output Harness



**If charger output exceeds 30 volts, replace the charger.**

## Situation 11 CANL Fault: NINE flashes of the status LED

Nine flashes indicates that the system has detected an invalid voltage on the DXBUS CANL line.

To check for this fault, perform a continuity test of the DXBUS harness.



**If the harness has continuity on all four pins of the harness the problem could lie in the power module. In this case you will need to replace the power module.**

## Situation 12 CANH Fault: TEN flashes of the status LED

Ten flashes of the status LED indicates that the system has detected an invalid voltage on the DXBUS CANH line. When this occurs communication is not possible between the RemG80 and the power module.

Check for continuity from the four pins located on one end of the DXBUS harness to the four pins located in the opposite end of the DXBUS harness.



**If you do not have continuity, replace the harness, if you do it could be a problem with the power module. If this is the case you will need to replace the power module.**

Another cause of this fault would be if the hazard lights were turned on when the Dynamic system was turned on. If this is the case, turn the hazard lights off and cycle the power off and then on again and see if the fault is still occurring.

## Situation 13 Stall Timeout Fault: ELEVEN flashes of the status LED

Eleven flashes of the status LED occurs when the motor current has been at, or is close to the current limit for longer than the Stall Timeout Parameter value. The Dynamic system has a feature called a Stall Timeout Parameter, which in turn means that the controller has a time limit in which current from the motors is allowed before the controller faults to protect the motors and control system.

To test if this fault is caused by the wheels binding up, place the power chair in freewheel and see if it rolls freely with no drag from the wheels. If there is a drag the resistance could be caused by an internal gear problem with the motors, or something is binding the wheels. If this is the case replace the component which is binding up and causing the drag.

Another possibility is that the chair is binding up while driving.

This can be caused by operating the power chair while it is bound by an obstacle. The Dynamic controller is designed to protect the motors and electronics by stalling out the chair.



**Stall out is when the controller disables the drive functions and displays an error on the status LED.**

This can be reset by correcting the source of the fault and cycling the power off and on again.

## Situation 14 Module Mismatch: TWELVE flashes of the status LED

Twelve flashes of the status LED occur when the data held by the RemG80 is incorrectly programmed for the power chair it is being used on.

Try having the RemG80 joystick reprogrammed for the specific model of power chair and the accessories that go with the chair.

Another problem could be compatibility between the Dynamic modules in the system. If this happens, the power chair will be disabled by the electronics. If this happens, assure that the programming is correct for the chair and the accessories on the chair.



**In this case, contact Pride Power Chair Technical Service at 1-877-800-1248.**

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### Notes:

## Adjusting the Programming

All power chair models are programmable power base chairs. This means that the internal programming of the electronics can be adjusted to accommodate the needs of an individual patient. Adjusting the pre-programmed factory settings requires the use of a HHP programmer. This programmer will allow you to adjust the internal performance settings of the power chair and will also help in some areas of troubleshooting and maintenance. See Appendix G.

The HHP is used exclusively with the Dynamic control system and the DL-50 system.

**Notes:**

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