

SECTION 2 - BATTERY CONDITION METER DIAGNOSTICS

Battery Condition Meter LEDs Chase Left-to-Right/Steady Display

Symptoms:

Battery Condition Meter LEDs Chase Left-to-Right, followed by a Steady Display.

Diagnosis:

This is an indication that the FLIGHT is in inhibit and/or charging mode. This feature will keep the power chair from driving while the charger is plugged into an electrical outlet. The steady display indicates the current state of charge.

NOTE: This fault is also triggered if an off-board charger or programmer is plugged into the FLIGHT off-board charger socket. If an off-board charger or programmer is plugged into the off-board charger socket, then remove the charger and turn the power off and back on.

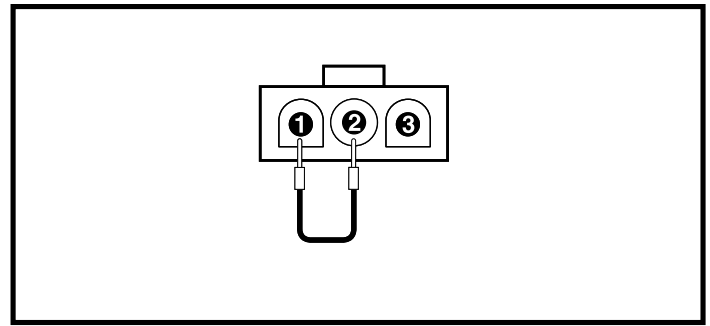


Figure 9. Connector 10a - Jumpered

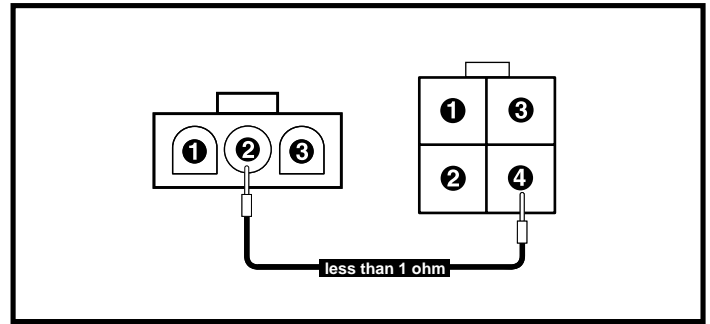


Figure 10. Connectors 10a and 10b

Solution:

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

1. Plug the charger power cord into an electrical outlet and observe the ammeter.
 - If the ammeter moves, then go to the next step.
 - If the ammeter does not move, then go to step 9.



PROHIBITED! Never use an extension cord to plug in your battery charger. Plug the charger directly into a properly wired standard electrical outlet.



PROHIBITED! Removal of the grounding prong can create an electrical hazard. If necessary, properly install an approved 3-prong adapter to an electrical outlet having 2-pronged plug access.

2. Remove the seat. Refer to the power base owner's manual.
3. Remove the rear shroud. See figure 3.
4. Remove the center shroud. See figure 3.
5. Unplug connector 9a from connector 10a. See diagram 3.
6. Place a jumper into pin 1 and pin 2 on connector 10a, then try to operate the power chair. See figure 9.
 - If the power chair runs, then replace the battery charger (9) and retest the system.
 - If the power chair does not run, then go to the next step.
7. Unplug connector 10b from the power module (6). See diagram 3.
8. Measure resistance across pin 2 on connector 10a and pin 4 on connector 10b. See figure 10.
 - If your multimeter indicates less than 1 ohm, then replace the power module (6) and retest the system.
 - If your multimeter indicates an open, then replace the charger/inhibit harness (10) and retest the system.
9. Unplug the charger power cord from the electrical outlet, then immediately try to operate the chair.
 - If the power chair does not run, then go to the next step.
 - If the power chair operates, then go to step 17.

10. Remove the seat. Refer to the power base owner's manual.
11. Remove the rear shroud. See figure 3.
12. Remove the center shroud. See figure 3.
13. Unplug connector 10a from connector 9a. See diagram 3.
14. Measure voltage across pin 1 and pin 3 on connector 10a. See figure 11.
 - If your multimeter indicates 0VDC, then go to the next step.
 - If your multimeter indicates total battery voltage (about 25VDC), then replace the battery charger (9) and retest the system.

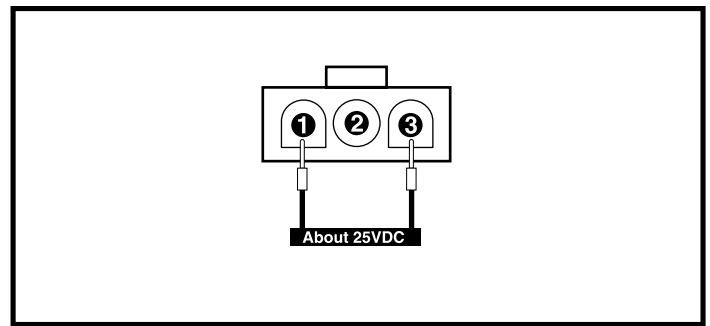


Figure 11. Connector 10a

15. Unplug connector 10b from the power module (6). See diagram 3.
16. Measure voltage across pin 1 (+) and pin 4 (-) on connector 6b. See figure 12.
 - If your multimeter indicates total battery voltage (about 25VDC), then replace the charger/inhibit harness (10) and retest the system.
 - If your multimeter indicates 0VDC, then replace the power module (6) and retest the system.

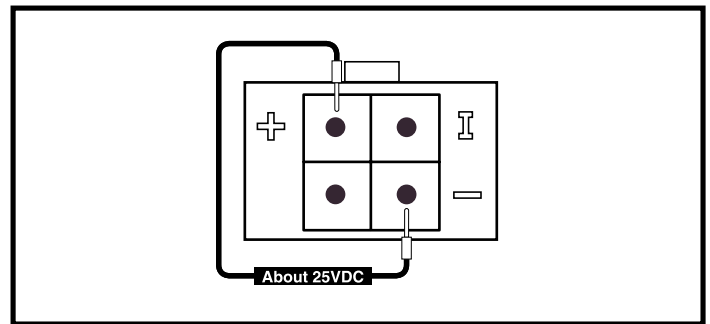


Figure 12. Connector 6b

17. Remove the seat. Refer to the power base owner's manual.
18. Remove the rear shroud. See figure 3.
19. Remove the center shroud. See figure 3.
20. Unplug connector 9a from connector 10a. See diagram 3.
21. Measure voltage across pin 1 and pin 3 of connector 10a. See figure 13.
 - If your multimeter indicates total battery voltage (about 25VDC), then replace the battery charger (9) and retest the system.
 - If your multimeter indicates 0VDC, then go to the next step.

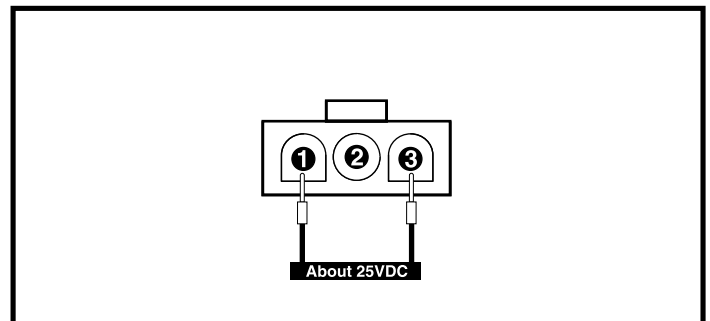


Figure 13. Connector 10a

22. Remove fuse 10c. See diagram 3.
23. Measure resistance across the two fuse blades. See figure 14.
 - If your multimeter indicates less than 1 ohm, then go to the next step.
 - If your multimeter indicates an open, then replace the fuse (10c) and retest the system.



WARNING! The replacement fuse must exactly match the rating of the old fuse. Failure to use properly rated fuses may cause damage to the electrical system.

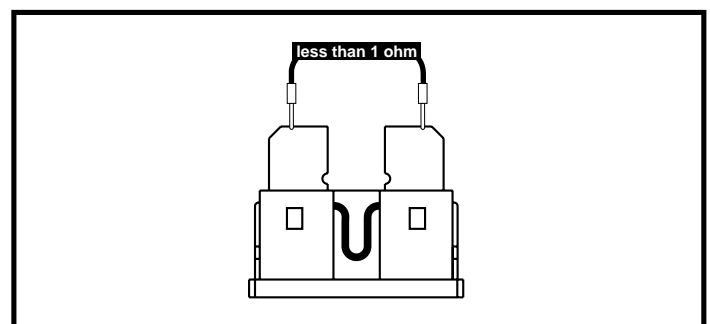


Figure 14. Fuse 10c

24. Unplug the ammeter (10f) from 10e and 10d. See diagram 3.
25. Measure resistance across the two terminals on the ammeter (10f).
 - If your multimeter indicates less than 1 ohm, then replace the charger/inhibit harness (10) and retest the system.
 - If your multimeter indicates an open, then replace the ammeter (10f) and retest the system.

NOTE: Make sure the connectors match the polarity as indicated on the ammeter.

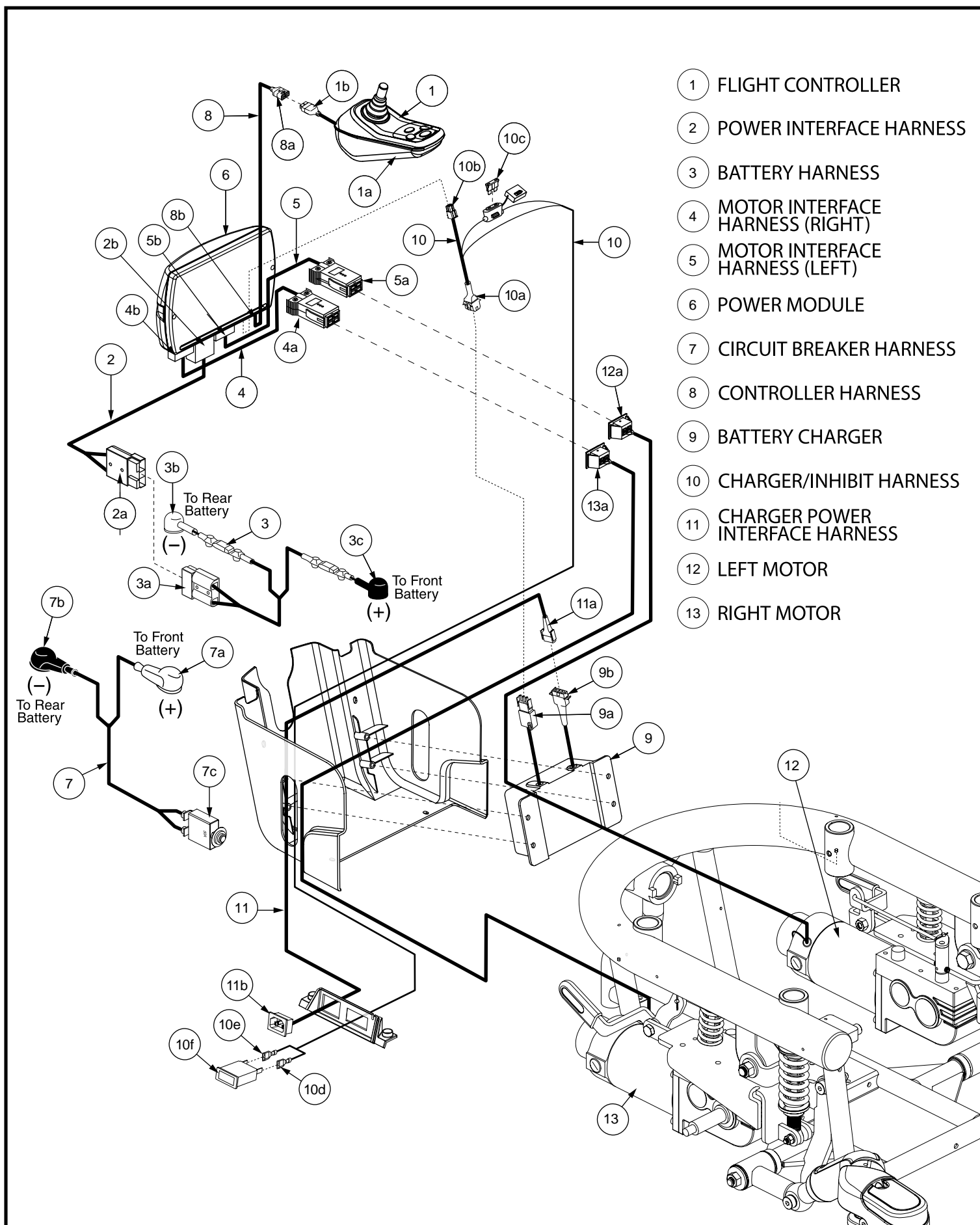


Diagram 2.