

SECTION 3 - FLASH CODES

Flash Code #1 - Low Battery Voltage

Symptoms:

There is a steady flash of one battery condition meter LED (red).

Diagnosis:

Voltage at the power module is below 22VDC.

Solution:

Use the following procedure to isolate the source of the flash code:

1. Measure voltage across pin 1 (B+) and pin 2 (B-) of the off-board charger socket (1a). See diagram 2 and figure 23.
 - *If your multimeter indicates less than 22VDC, then go to the next step.*
 - *If your multimeter indicates more than 22VDC, then replace the power module (4) and retest the system.*
2. Remove the seat and the foot platform assembly. Refer to the power base owner's manual.
3. Remove the shroud. **See figure 13.**
4. Measure voltage across connector 11c and connector 10b. **See diagram 2.**
 - *If your multimeter indicates more voltage than measured in step 1 (by at least 0.2VDC), then go to the next step.*
 - *If your multimeter indicates 0VDC, then measure voltage across connector 11b and connector 10c. **See diagram 2.***
 - *If your multimeter indicates the same voltage as measured in step 1 (within at least 0.2VDC), then go to **step 13.***
5. Unfasten the electronics tray from the frame. **See figure 14.**
6. Unplug connector 5a from the power module (4). **See diagram 2.**
7. Measure voltage across pin 1 and pin 2 on connector 5a. **See figure 24.**
 - *If your multimeter indicates the same voltage as measured in step 4, then replace the power module (4) and retest the system.*
 - *If your multimeter indicates a different voltage than measured in step 4, then go to the next step.*
8. Unplug connector 11a from connector 5b and unplug connector 10a from connector 5c. **See diagram 2.**
9. Measure voltage across connector 11b and 11c. **See diagram 2.**
10. Measure voltage across pin 1 and pin 2 on connector 11a. **See figure 25.**
 - *If your multimeter indicates the same voltage, then go to the next step.*
 - *If your multimeter indicates a different voltage (by at least 0.2VDC), then replace the rear battery harness (11) and retest the system.*
11. Measure voltage across connector 10b and connector 10c. **See diagram 2.**
12. Measure voltage across pin 1 and pin 2 on connector 10a. **See figure 26.**
 - *If your multimeter indicates the same voltage, then replace the power interface harness (5) and retest the system.*
 - *If your multimeter indicates a different voltage (by at least 0.2VDC), then replace the front battery harness (10) and retest the system.*

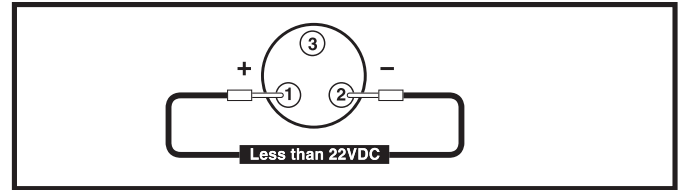


Figure 23. Connector 1a

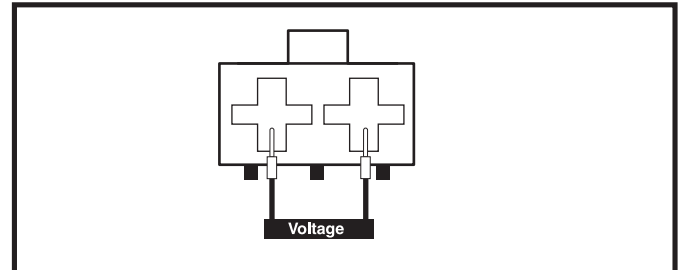


Figure 24. Connector 5a

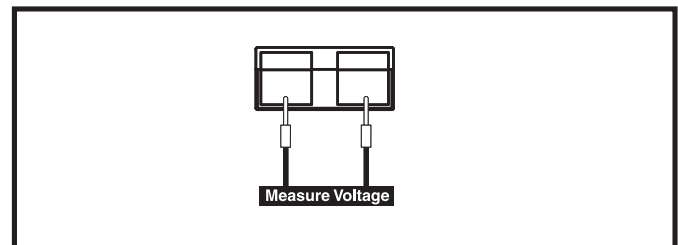


Figure 25. Connector 11a

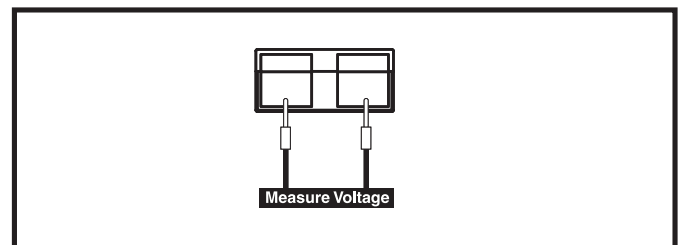


Figure 26. Connector 10a

13. Measure voltage across connector 11b and connector 10c. **See diagram 2.**

— *If your multimeter indicates 0VDC*, then measure voltage across connector 11c and connector 10b.

14. Plug the onboard battery charger into an electrical outlet and observe the voltage on your multimeter.

— *If the voltage does not change*, then go to the next step.

— *If the voltage increases*, then the batteries are charging. Charge the batteries until the ammeter drops back down to 0VDC and retest the system.

— *If the ammeter did not increase when the chair was plugged into the wall, but the battery voltage increased*, then replace the ammeter (7f) and retest the system.

15. Unfasten the electronics tray from the frame. **See figure 14.**

16. Unplug connector 7b from connector 6a. **See diagram 2.**

17. With the onboard battery charger plugged into an electrical outlet, measure voltage across pin 1 and pin 3 on connector 6a. **See figure 27.**

— *If your multimeter indicates 0VDC or is outside 25—30VDC*, then go to the next step.

— *If your multimeter indicates 25—30VDC*, then go to **step 24**.

18. Unplug connector 12a from connector 6b. **See diagram 2.**

19. Measure AC voltage across pin 1 and pin 3 and across pin 1 and pin 2 on connector 12a. **See figure 28.**

— *If your multimeter does not indicate 120VAC for either test*, then go to the next step.

— *If your multimeter indicates 120VAC for both tests*, then replace the onboard battery charger (6) and retest the system.

20. Unplug the charger power cord from connector 12b.

21. Measure voltage across pin 1 and pin 2 and across pin 1 and pin 3 on the power cord's 3-pin connector. **See figure 29.**

— *If your multimeter does not indicate 120VAC for either test*, then go to the next step.

— *If your multimeter indicates 120VAC for both tests*, then replace the charger power cord interface harness (12) and retest the system.

22. Unplug the charger power cord from the electrical outlet.

23. Measure voltage across pin 2 and pin 3 and across pin 1 and pin 3 on the electrical outlet. **See figure 30.**

— *If your multimeter indicates 120VAC for either test*, then replace the power cord and retest the system.

— *If your multimeter indicates 120VAC for both tests*, then try a different electrical outlet.

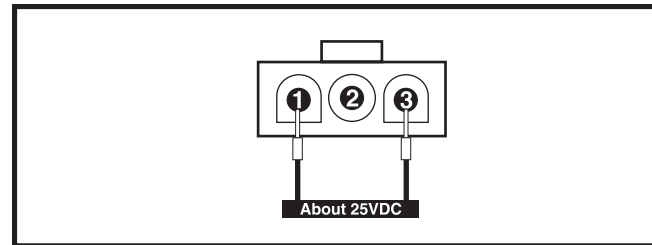


Figure 27. Connector 6a

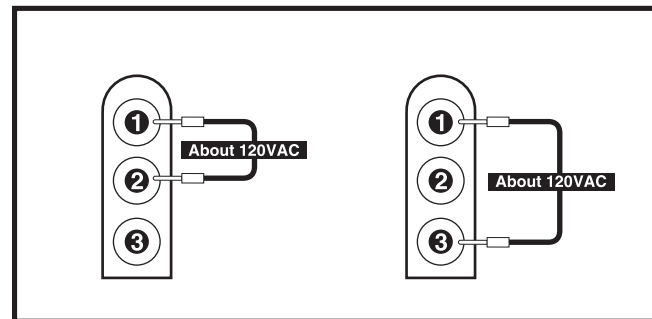


Figure 28. Connector 12a

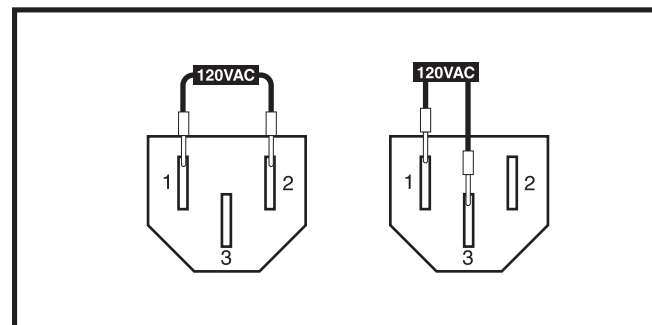


Figure 29. Charger Power Cord 3-pin Connector

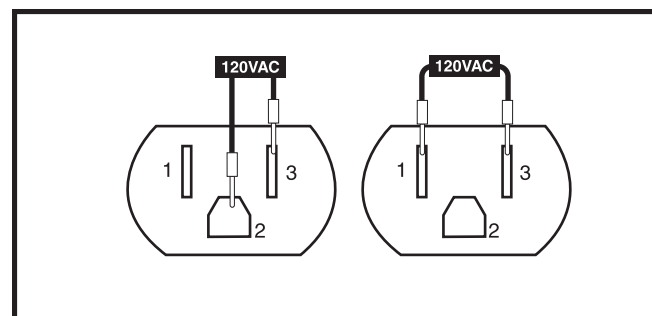


Figure 30. Electrical Outlet

24. Measure voltage across pin 1 and pin 3 on connector 7b. **See figure 31.**

- If your multimeter indicates 0VDC, then go to the next step.
- If your multimeter indicates the same voltage from step 4, then check connector 7b for corrosion, recessed and/or damaged pins and replace as necessary. Retest the system.

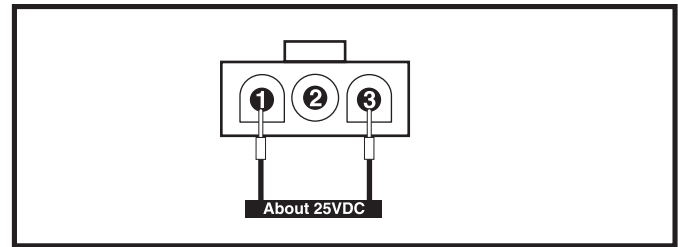


Figure 31. Connector 7b

25. Unplug connector 7a from connector 3b. **See diagram 2.**

26. Measure voltage across pin 1 and pin 3 on connector 3b. **See figure 32.**

- If your multimeter indicates the same voltage from step 4, then go to the next step.
- If your multimeter indicates 0VDC, then replace the charger/joystick interface harness (3) and retest the system.

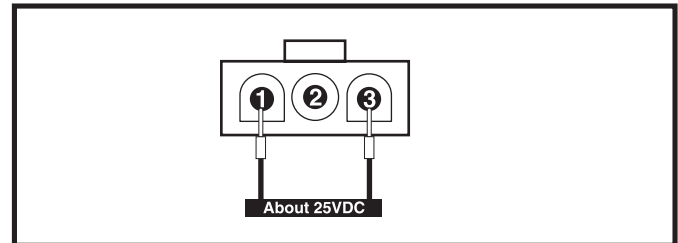


Figure 32. Connector 3b

27. Remove the charger fuse (7c). **See diagram 2.**

NOTE: This is the top fuse. The bottom fuse is a spare.

28. Measure resistance across the two fuse blades. **See figure 33.**

- If your multimeter indicates less than 1 ohm, then reinstall the fuse and go to the next step.
- If your multimeter indicates an open, then replace the fuse (7c) 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 and may result in personal injury.

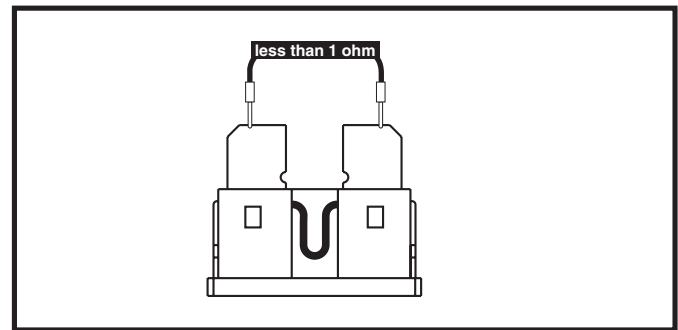


Figure 33. Fuse 7c

29. Verify that the charger interface harness (7) is connected to the fuse (7c) and ammeter (7f) properly.

- If the charger harness is connected properly, then go to the next step.
- If the charger harness is not connected properly, then reconnect and retest the system.

30. Measure resistance across the two terminals on the ammeter (7f). **See diagram 2.**

- If your multimeter indicates less than 1 ohm, then replace the charger interface harness (7) and retest the system.
- If your multimeter indicates an open, then replace the ammeter (7f) and retest the system.

- | | | |
|--------------------------------------|-----------------------------|---|
| 1 JOYSTICK MODULE | 5 POWER INTERFACE HARNESS | 9 RIGHT MOTOR |
| 2 REDEL CABLE | 6 ONBOARD BATTERY CHARGER | 10 FRONT BATTERY HARNESS |
| 3 CHARGER/JOYSTICK INTERFACE HARNESS | 7 CHARGER INTERFACE HARNESS | 11 BACK BATTERY HARNESS |
| 4 POWER MODULE | 8 LEFT MOTOR | 12 CHARGER POWER CORD INTERFACE HARNESS |
| | | 13 LEFT MOTOR INTERFACE HARNESS |
| | | 14 RIGHT MOTOR INTERFACE HARNESS |

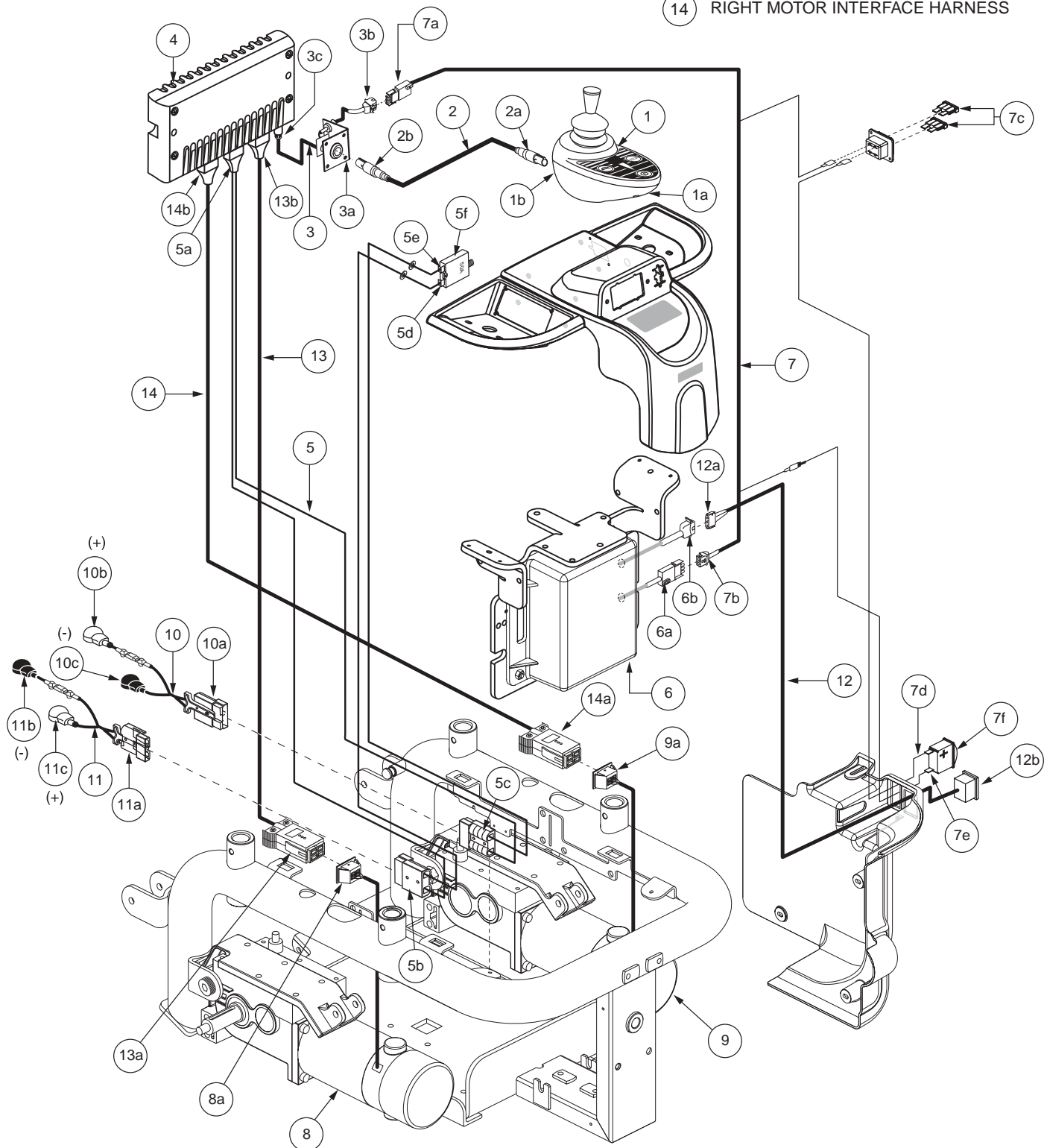


Diagram 2. Jazzy 1121 with Remote Plus Wiring Diagram 3D