

## SECTION 3 - BATTERY CONDITION METER FLASH CODES

### Flash Code #1 - Low Battery Voltage

#### Symptoms:

There is one battery condition meter LED flashing.

#### Diagnosis:

The battery voltage to the VSI controller is low. This is most likely due to batteries that are not getting charged properly or at all.

#### Solution:

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

1. Measure voltage across pin 1 (B+) and pin 2 (B-) on connector 1a. **See figure 15.**
  - If your multimeter indicates more than 22VDC, then replace the VSI controller (1) and retest the system.
  - If your multimeter indicates less than 22VDC, then go to the next step.
2. Remove the seat and the foot platform assembly. Refer to the power base owner's manual.
3. Remove the shroud. **See figure 10.**
4. Measure voltage across connector 6b and connector 7c. (If your multimeter indicates 0VDC, then try measuring voltage connector 6c and connector 7b.)
  - If your multimeter indicates a different voltage from step 1 (by at least 0.2VDC), then go to the next step.
  - If your multimeter indicates about the same voltage (within 0.2VDC), then go to step 14.
5. Unplug connector 1c from connector 2a. **See diagram 2.**
6. Measure voltage across pin 6 (B+) and pin 8 (B-) and across pin 7 (B-) and pin 5 (B+) on connector 2a. **See figure 16.**
  - If your multimeter indicates a different voltage from step 1 (by at least 0.2VDC), then go to the next step.
  - If your multimeter indicates about the same voltage as measured in step 4, then replace the VSI controller (1) and retest the system.
7. Unplug connector 7a from connector 2b and connector 6a from 2c. **See diagram 2.**
8. Measure voltage across connector 6b and connector 6c. **See diagram 2.**
9. Measure voltage across pin 1 and pin 2 on connector 6a. **See figure 5.**
  - If your multimeter indicates the same voltage as measured in step 8, then go to the next step.
  - If your multimeter indicates a different voltage (by at least .2VDC), then replace the rear battery harness (6) and retest the system.
10. Measure voltage across connector 7b and connector 7c. **See diagram 2.**
11. Measure voltage across pin 1 and pin 2 on connector 7a. **See diagram 2.**
  - If your multimeter indicates the same voltage as measured in step 10, then go to the next step.
  - If your multimeter indicates a different voltage (by at least .2VDC), then replace the front battery harness (7) and retest the system.
12. Unscrew the electronics tray assembly from the 1121 frame to gain access to the circuit breaker (2f). **See figure 17.**
13. Measure resistance across the two terminals on the circuit breaker (2f). **See figure 18.**
  - If your multimeter indicates less than 1 ohm, then replace the power interface harness (2) and retest the system.
  - If your multimeter indicates an open, then replace the circuit breaker (2f) and retest the system.

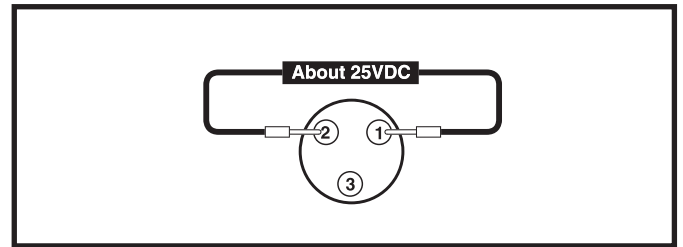


Figure 15. Connector 1a

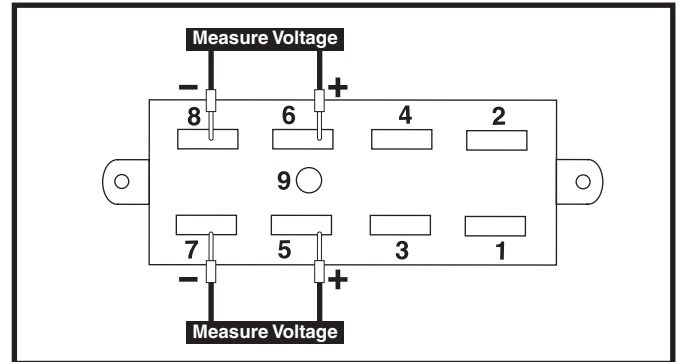
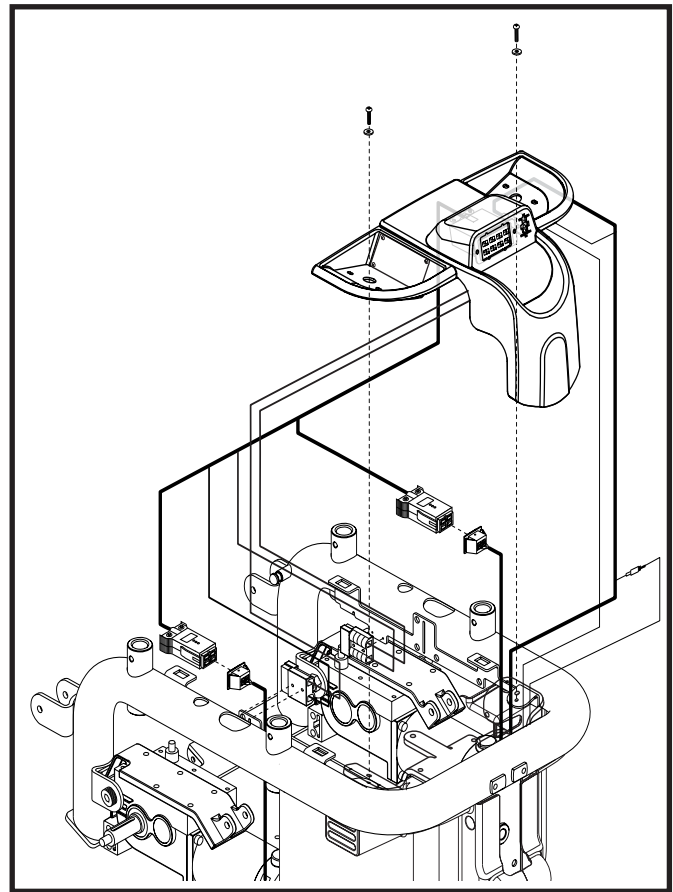
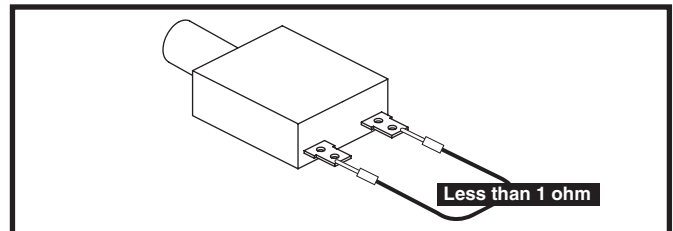


Figure 16. Connector 2a

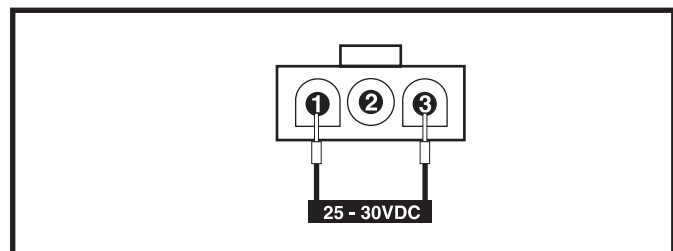
14. Measure voltage across connector 7b and connector 6c. **See diagram 2.** (If your multimeter indicates 0VDC, then measure voltage across connector 6c and connector 7b.)
15. Plug the battery charger into a electrical outlet and observe the battery voltage on your multimeter.
  - If the voltage does not change, then go to the next step.
  - If the voltage increases, the batteries are charging. Charge the batteries until the ammeter drops back down to zero and retest the system.
  - If the ammeter voltage did not increase when the battery charger was plugged into the electrical outlet, but the battery voltage increased on your multimeter, then replace the ammeter (3c) and retest the system.
16. Unplug connector 1b from connector 3a. **See diagram 2.** Make sure that the battery charger is still plugged into the electrical outlet.
17. Measure voltage across pin 1 and pin 3 on connector 3a. **See figure 19.**
  - If your multimeter indicates 0VDC, then go to the next step.
  - If your multimeter indicates 25 — 30VDC, then replace the VSI controller (1) and retest the system.
18. Unplug connector 3b from connector 4b. **See diagram 2.** Make sure that the battery charger is still plugged into the electrical outlet.
19. Measure voltage across pin 1 and pin 3 on connector 4b. **See figure 20.**
  - If your multimeter indicates 0VDC, then go to the next step.
  - If your multimeter indicates 25 — 30VDC, then go to step 26.
20. Unplug connector 5a from connector 4a. **See diagram 2.**
21. Measure AC voltage across pin 1 and pin 3 on connector 5a and across pin 1 and pin 2 on connector 5a. **See figure 21.**
  - If your multimeter does not indicate 120VAC in both tests, then go to the next step.
  - If your multimeter indicates about 120VAC in both tests, then replace the battery charger (4) and retest the system.
22. Unplug the charger power cord from connector 5b. **See diagram 2.**



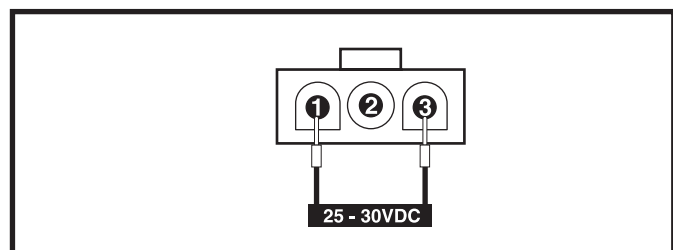
**Figure 17. Jazzy 1121 Electronics Tray Assembly/Disassembly**



**Figure 18. Circuit Breaker (2f)**



**Figure 19. Connector 3a**



**Figure 20. Connector 4b**

23. Measure AC voltage across pin 1 and pin 2 and across pin 1 and pin 3 of the charger power cord 3-pin connector. **See figure 22.**

- *If your multimeter does not indicate 120VAC in both tests, then go to the next step.*
- *If your multimeter indicates about 120VAC in both tests, replace the charger power interface harness (5) and retest the system.*

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

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

- *If your multimeter indicates about 120VAC for both tests, then replace the charger power cord and retest the system.*
- *If your multimeter does not indicate about 120VAC for both tests, then try a different electrical outlet and retest the system.*

26. Verify that the charger/inhibit harness (3) is connected to the fuse and ammeter (3c) properly. **See diagram 2.**

- *If they are connected properly, then go to the next step.*
- *If they are not connected properly, then reconnect them and retest the system*

27. Measure resistance across the two pins on the ammeter (3c).

- *If your multimeter indicates less than 1 ohm, then go to the next step.*
- *If your multimeter indicates an open, then replace the ammeter (3c) and retest the system.*

28. Remove the charger/inhibit harness fuse (3d). **See diagram 2.**

29. Measure resistance across the two blades of the fuse. **See figure 24.**

- *If your multimeter indicates less than 1 ohm, then replace the charger/inhibit harness (3) and retest the system.*
- *If your multimeter indicates an open, then replace the fuse (3d) 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.

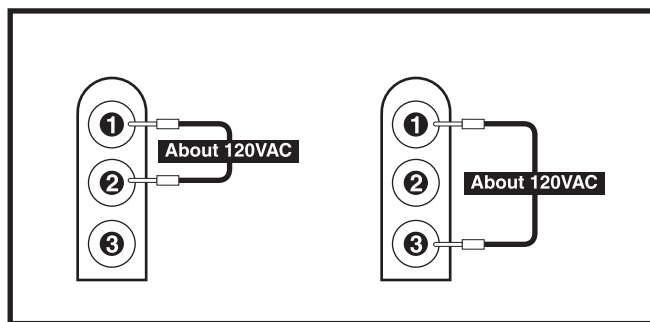


Figure 21. Connector 5a

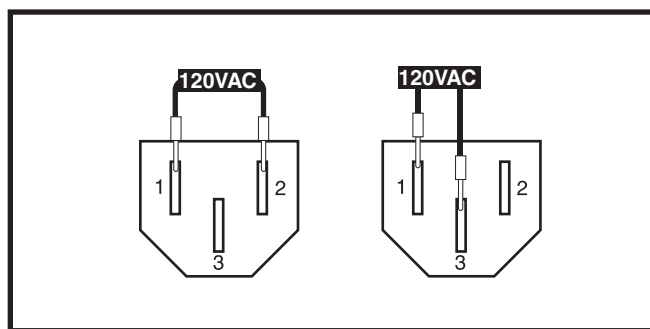


Figure 22. Charger Power Cord 3-pin Connector

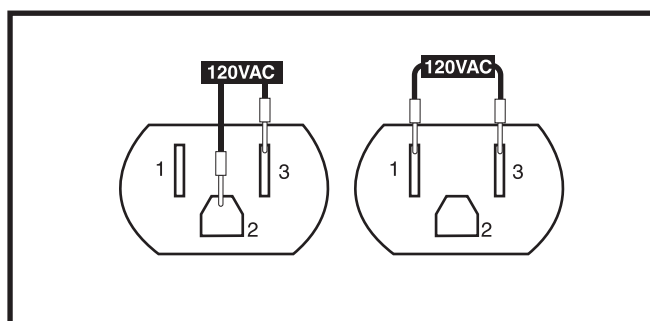


Figure 23. Electrical outlet

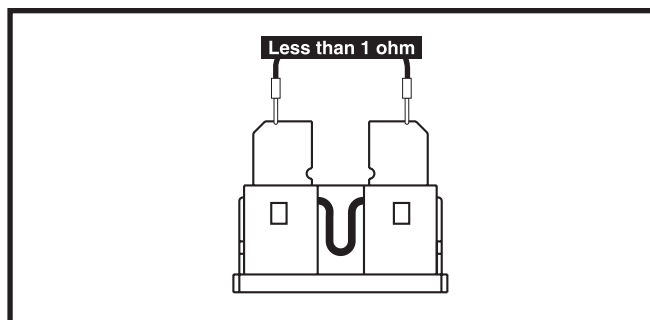


Figure 24. Fuse 3d

- 1 VSI CONTROLLER
- 2 POWER INTERFACE HARNESS
- 3 CHARGER/INHIBIT HARNESS
- 4 BATTERY CHARGER
- 5 CHARGER POWER INTERFACE HARNESS
- 6 BACK BATTERY HARNESS
- 7 FRONT BATTERY HARNESS
- 8 LEFT MOTOR
- 9 RIGHT MOTOR

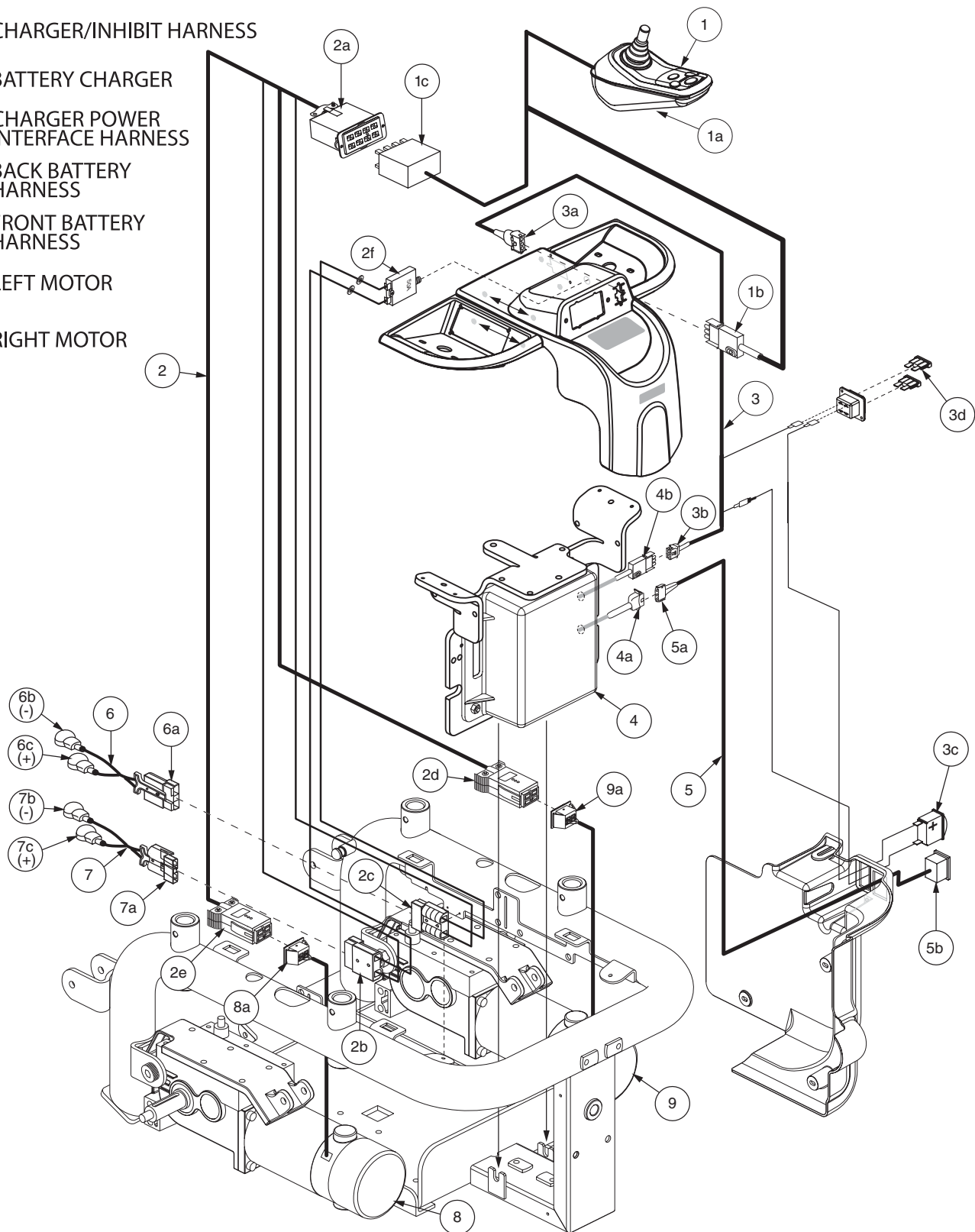


Diagram 2. Jazzy 1121 VSI Wiring Diagram - 3D