
Attention Service Manager/Parts Department

Bulletin Level: 2*

Specific Warranty Coverage: Standard Warranty Coverage

Subject: 56315124 and 563151204 on-board battery charger failure

Models Affected: The following machines built between serial number 2035781 and 2051351; chargers with date code of DQCTxx073106xxxx.

- Convertamatic (all models)
- 34 RST (all models)
- Warrior (all models)
- Adhancer (all models)
- AquaPlus (all models)
- Adphibian (all models)

Parts List Form Number(s) Affected: 56042451, 56042469, 56042463, 56042485, 56042476

ECO#: N/A

Informational Bulletin: N/A

Issue: Some customers have reported instances of a new on-board charger not initiating the charging sequence after being plugged in, and in some instances not shutting off the machine control panel. This failure appears right away the first time the charger is plugged in to initiate the charge sequence.

Cause: Software corruption due to manufacturing process error.

Corrective Action: Factory: Effective with machine s/n 2051352, a manufacturing process improvement was implemented to prevent this failures.

Field: Chargers exhibiting this failure mode should be re-programmed using the **QuiQ programming kit 56315732** (refer to TSB US2007-979) and a **new set of algorithms** available via email by calling the Tech Service team at 1-800-989-2235. Use the following instructions to reprogram the charger.

Reprogramming Instructions:

1. Copy algorithm set that you have received from Tech Service onto the desktop of your computer into one folder. There should be a total of 10 algorithms.
2. If the QuiQ software is installed on your computer, continue on. If not, follow the installation instructions found in the kit or in **TSB US2007-979**.
3. Connect the QuiQ USB Interface Module to your computer USB port.

* **Technical Service Bulletins Levels:**

Level 1: These Bulletins contain general information and are without specific warranty coverage.

Level 2: These Bulletins describe continuous quality improvements that are made to products. Specific warranty coverage may apply and if so is noted in the Bulletin.

Level 3: These Bulletins describe a quality problem that has been determined to require a mandatory update to the product. Specific warranty coverage is as noted in Bulletin.

4. Make sure the charger AC power cord is unplugged.
5. If your charger is mounted on a machine, lift or remove the appropriate tank or machine panel to access the battery pack. If not, go to step 7.
6. Disconnect the battery pack connector. Make sure the free end of the connector is in a secure position with no chance of arcing or shorting out.
7. **See Figure 1.** Connect the black alligator clip to the negative terminal on the battery pack (or to the charger black ring terminal if not connected to a machine). If charger is not connected, use an insulative sleeve over the connection to prevent shorting to the red terminal.



Figure 1 – Attach black alligator clip to negative battery terminal

8. **See Figure 2.** Connect the red alligator clip to the positive side of the battery pack connector (or to the charger red ring terminal if not connected to a machine). If charger is not connected, use an insulative sleeve over the connection to prevent shorting to the black terminal.

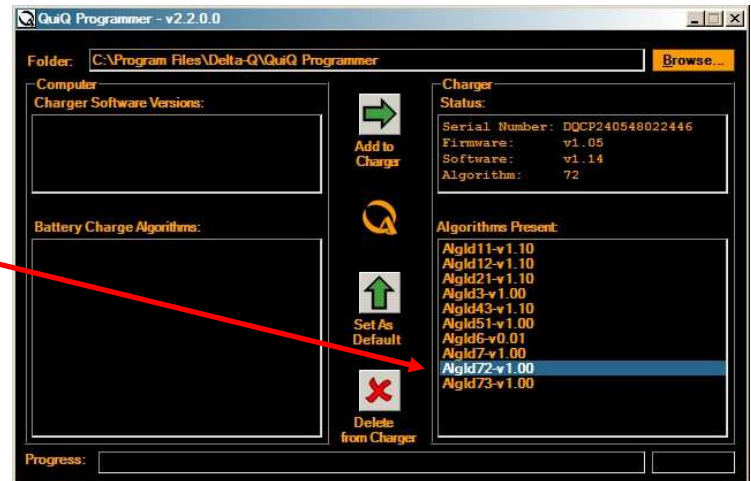


Figure 2 – Attach red alligator clip to positive side of battery pack connector

9. Plug charger into wall outlet.
10. Go to the Start menu in the computer taskbar and select "QuiQ Programmer" to launch the QuiQ application
11. The screen will display the "COM Settings" window that lists the port on the computer to which the QuiQ Interface USB cable is connected. Note that with Windows XP, the system will detect the correct communications port automatically. If this window displays "COM1" it is not seeing the charger and you will need to check your connections and re-launch the application. Click on "OK" to display the "QuiQ Programmer" window.
12. If for some reason you see a "No Charger Detected" message in the "QuiQ Programmer" window, check to make sure all of the connections to the charger, interface module, and laptop are correct and secure, and that the charger is plugged into an AC outlet.
13. Click "OK"
14. Click the "Browse..." button at the top right of the "QuiQ Programmer" window.
15. Go to the folder that you just copied onto your desktop containing the algorithm set.
16. Click OK and verify that this is shown in the "Folder:" field next to the Browse button.

17. Verify that 10 algorithm files are shown on the left side of the QuiQ Programmer window under "Battery Charge Algorithms:"
18. On the right side of the QuiQ Programmer window, Shift-click all files under "Algorithms Present". They should be highlighted in blue when you have finished.
19. Click the red X button "Delete from Charger."
20. Click "OK" at the prompt.
21. On the left side of the QuiQ Programmer window, shift-click all files shown under "Battery Charge Algorithms." They should be highlighted in blue when you have finished.
22. Click the green right-arrow button "Add to Charger"
23. Verify that those files are now shown on the right of the screen under "Algorithms Present"
24. Examine the "Charger Status:" part of the QuiQ window. It will show "Algorithm:" and a number, like "11". This number needs to match your battery set as shown in the chart on the following page. If it doesn't, find the correct algorithm on the chart, and click on the corresponding algorithm file.
25. When it is highlighted blue, click the green up-arrow marked "Set As Default". Verify that "Algorithm:" now shows the number you chose.

For example: if your batteries are 56317154 US Battery US-145XC 251 Ah wet batteries, you would pick 72 and set that as your default as shown here.



26. Close the QuiQ Programmer application.
27. Unplug the charger AC cord.
28. Unplug the USB cable from your laptop.
29. Disconnect the red and black terminals from the USB Interface Module.
30. If applicable, disconnect the red alligator clip from the battery pack connector.
31. If applicable, disconnect the black alligator clip from the negative battery pack terminal.

Domestic Batteries								
Nilfisk-Advance Battery Part Number	Battery Manufacturer	Battery Model Number	Wet/Gel AGM	Volts	Amp-Hour	Rate	Delta Q Algorithm	
							36V Model 56315204	24V Model 56315124
56206078	Trojan	J185...	Wet	12	195	20	3	3
	US Battery	US-185	Wet	12	195	20	11	11
56206079	Trojan	T-125	Wet	6	235	20	3	3
	US Battery	US-125	Wet	6	235	20	11	11
56206117	Trojan	T-605	Wet	6	195	20	3	3
	US Battery	US1800	Wet	6	208	20	11	11
56026200	Trojan	J-250...	Wet	6	250	20	3	3
	US Battery	US250HC	Wet	6	275	20	11	11
56206987	Nilfisk (East Penn / MK Battery)	56206987 (8GGC2 / T881)	Gel	6	180	20	26	26
56315772	Discover	EVGT6A	AGM	6	255	20	43	43
	Discover	EV250A-A	AGM	6	260	20	43	43
56315959	Discover	EV305A-A	AGM	6	312	20	43	43
56317154	US Battery	US-145XC	Wet	6	251	20	72	72
	Discover	EVL16A-A	AGM	6	390	20	43	43
56388582	Trojan	L16...	Wet	6	395	20	Not Recommended	Not Recommended
	US Battery	L16HC	Wet	6	415	20	73	73
56391391	Trojan	J-305G	Wet	6	285	20	7	7
	US Battery	US-305	Wet	6	305	20	72	72
56393912	Discover	EV185A-A	AGM	12	234	20	43	43