

## DeltaQ 6-Flash Error Troubleshooting Guide

The 6-Flash error is marked as an internal charger fault on the guides that DeltaQ provides.

While sometimes it is a legitimate internal fault, most of the time it is caused by a bad connector somewhere between the charger and the batteries.

Over time the connectors wear down due to age, and the heavy charging current can cause them to burn and start melting. This makes for a bad connector and causes a 6-flash error. This guide is to help you find where it was burnt.

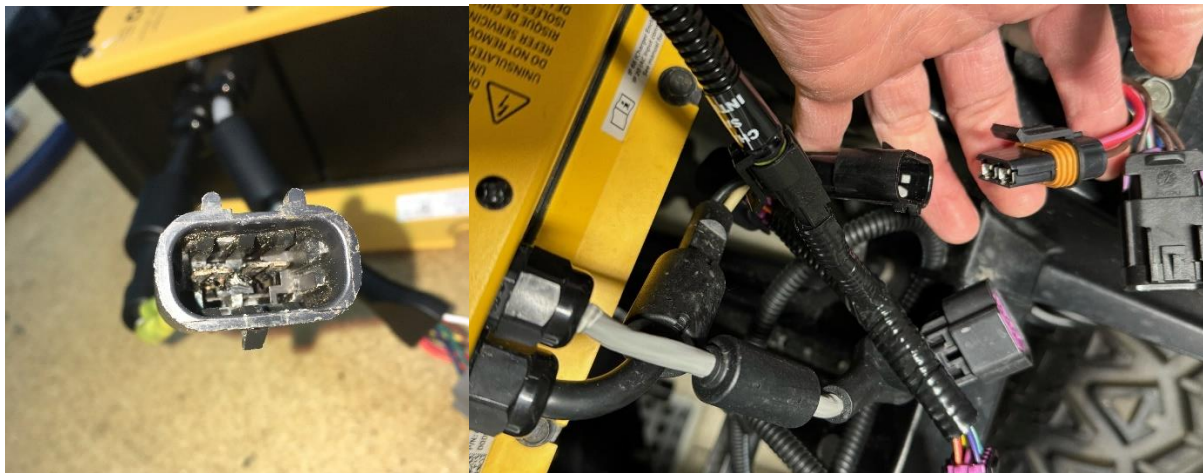
### The Three Locations to Check

#### First: The Charger Output

There are two different charger power output types: the Cable Mount and the Panel Mount.

#### Cable Mount

The cable mount power output is a black wire and a white wire going to a 2-pin connector. Unplug this connector and check for anything that looks burnt or melted. Below on the left is a burnt connector, and on the right is the two halves of the connector unplugged.



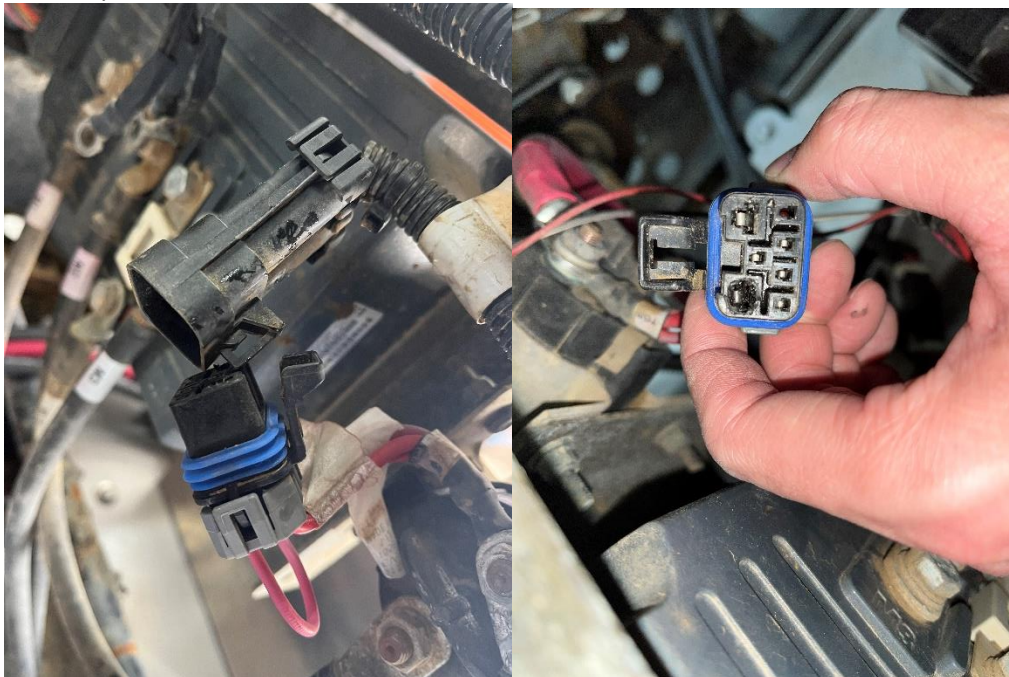
### Panel Mount

The panel mount power output is a plug built on to the face of the charger. It is the 10-pin connector on the left. The actual power output is on the bottom two pins. The bottom pins are burnt as you can see in the pictures below.



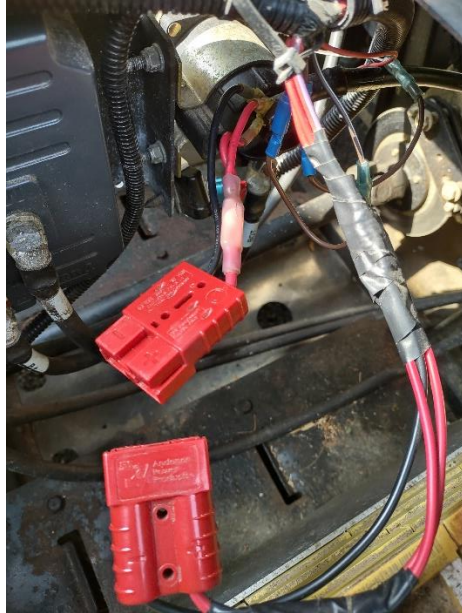
### Second: The Main 48v Power Connector

Check the main power connector coming off your contactor solenoid under the seat right behind the motor controller. It is usually a black multi-wire plug with red wires going in and out of it. It can either be a 5 pin circular plug or a 7 pin rectangular plug like the pictures. Unplug it and look for anything burnt or melted like in the picture below.



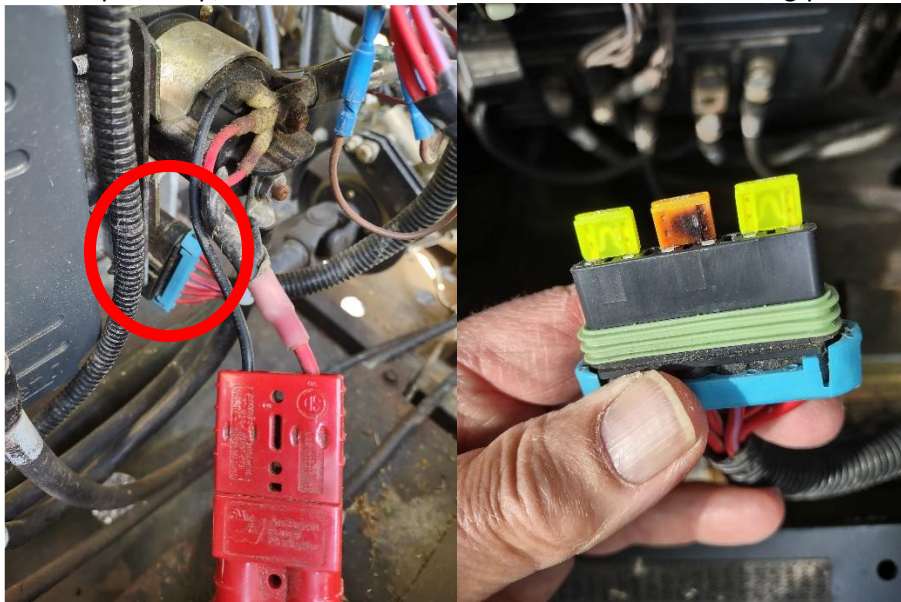


Those two pictures are the standard main power connector that comes with the Polaris Ranger EV. Some years of the ranger have a different connector, or if you purchased the ranger from another owner, they may have replaced the main power connector with a stronger one. It could be any connector with red cables coming from the solenoid, just like the picture below.



### Third: The Fuse Box

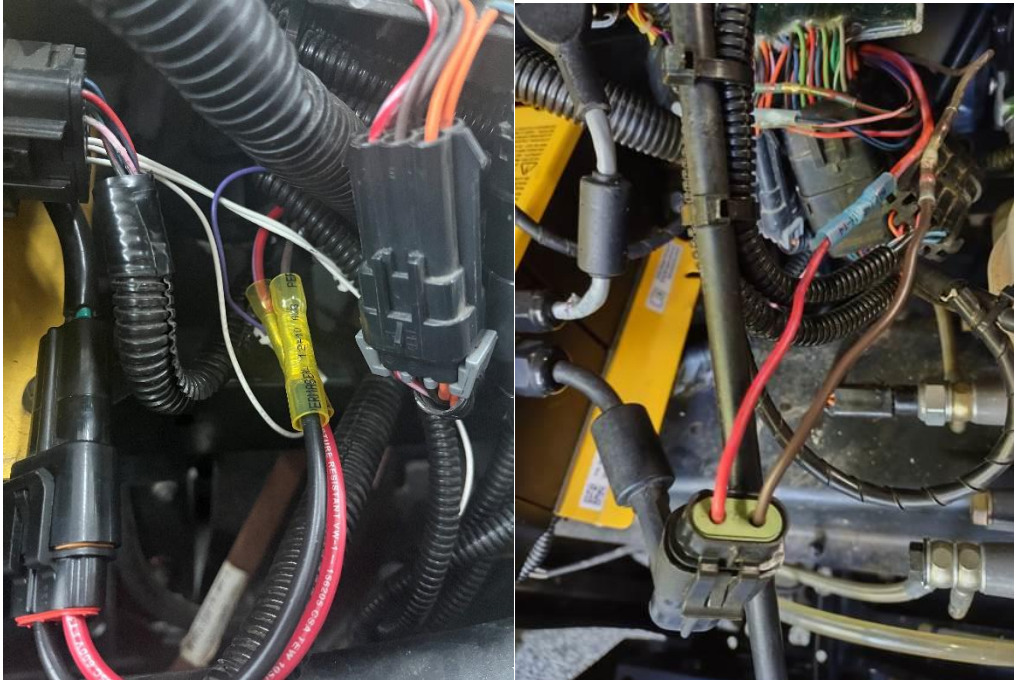
Check the fuse box underneath the contactor solenoid. It's a small black and blue box at the end of a wire harness. It should be tied to the frame right against the motor controller. It will have three fuses in it once you take off the lid. Check these fuses to see if any look burnt, blown, or melted. The last picture is the fuse box up close and opened up, with a burnt fuse inside. That's the kind of thing you are looking for.



## How to Resolve

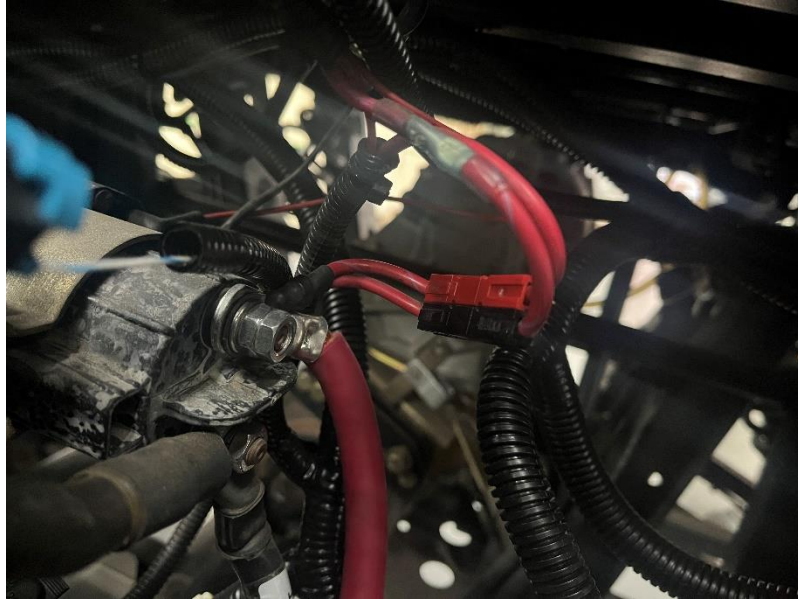
### Charger Power Output:

- If you have a panel mount connector, a lot of ranger owners modify their charger to bypass the connector output. We do not recommend this, and instead recommend that you purchase a new charger that is a cable mount connector.
- If you have a cable mount connector, then the connector plug will have to be replaced. You can source your own connectors or contact us to purchase replacements. Alternatively, you can also just use butt-splices to connect the wires together. This is a strong solution, but it becomes rather permanent and you cannot remove the charger without cutting the wires. Here are two examples of this solution below:



**Main Power Connector:**

- If you have the standard main power connector as shown in the pictures above, then you can contact us to purchase an exact replacement, or source your own stronger connector. We recommend you source a stronger replacement. Here is an example of a red and black 45A Anderson plug replacement that we have used:



**The Fuse Box:**

- The fuse in the center of the fuse box is for the charging. If it is burned, then you can purchase a replacement 30A fuse at any automotive store. Make sure you take a wire brush or contact cleaner to the fuse box itself before replacing the fuse to make sure the new fuse has a good connection.
- If the fuse box itself is burnt or melted then it may also have to be replaced, along with the 20A fuse and the other 30A fuse on either side of the center 30A fuse.