

Torqueing and photographing the 3 bolts on the positive power distribution and 8 battery bolts / Check the battery charger profile

This document describes the field rework to tighten the three bolts on the positive power distribution, tightening and checking the eight battery terminal bolts, and how to check the battery charger profile number to ensure it is **141**. **This maintenance requires before and after photos to be taken to document the maintenance and verify that torque seal paint (not a sharpie mark) has been properly applied to the bolts.** Any workorder for this repair will be considered open (incomplete) until the before and after photographs are provided to Brain Corporation. The after photos must clearly show torque paint properly applied to all bolts.

Equipment Required

Torque Wrench that can torque to 62 and 65 in-lb.

Torque Seal Paint – preferably orange.

Cross Check torque seal pictured to the right is available at amazon.com and Granger

14 mm Wrench

13 mm Socket

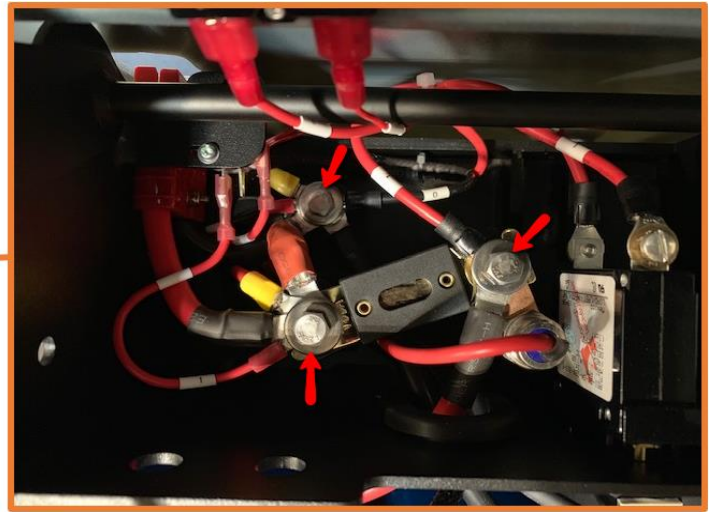
10 mm Socket

Camera or phone with a camera



Procedure for Torqueing the 3 Bolts

1. Disconnect the battery before working on the scrubber to avoid the risk of electric shock while working on a high voltage joint
2. Take a “before” photo of the three bolts on the positive power distribution

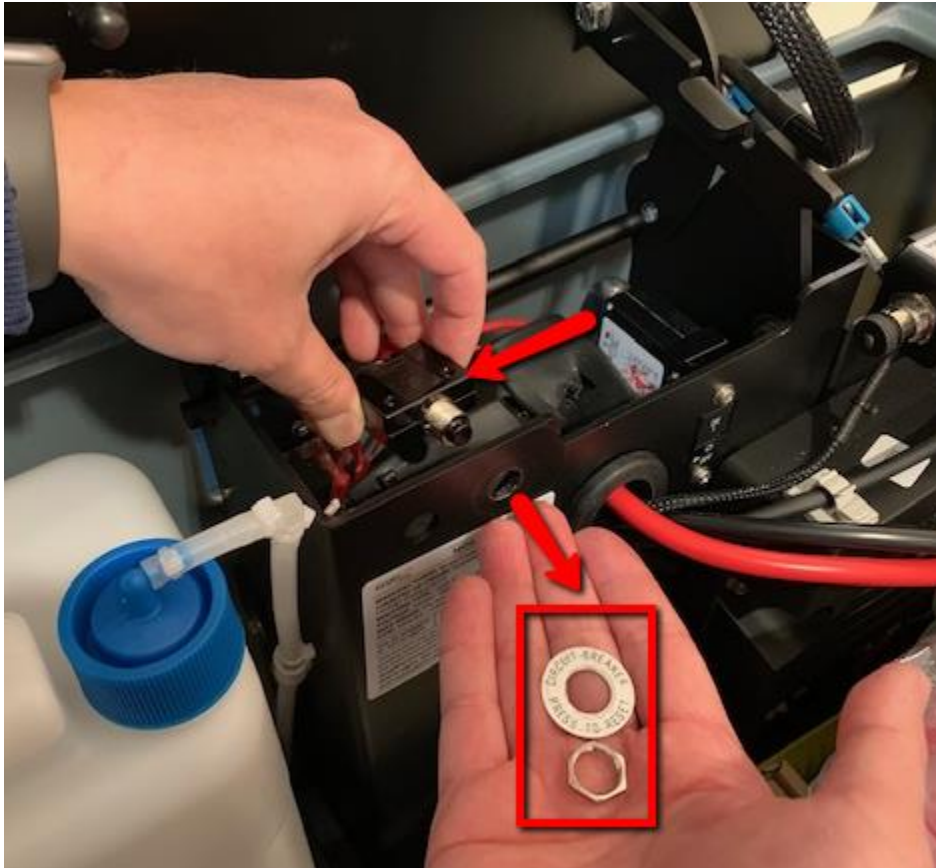


3. Inspect the 3 bolt power distribution and wiring. If any of the HV joints/wires/wiring insulation appears to be charred, burnt, or melted, DO NOT MANIPULATE THE JOINT. Take photos and call Brain Technical Services for further direction.



4. Inspect the three bolts and determine whether they are loose. **Report any loose bolts to Brain Corporation.**

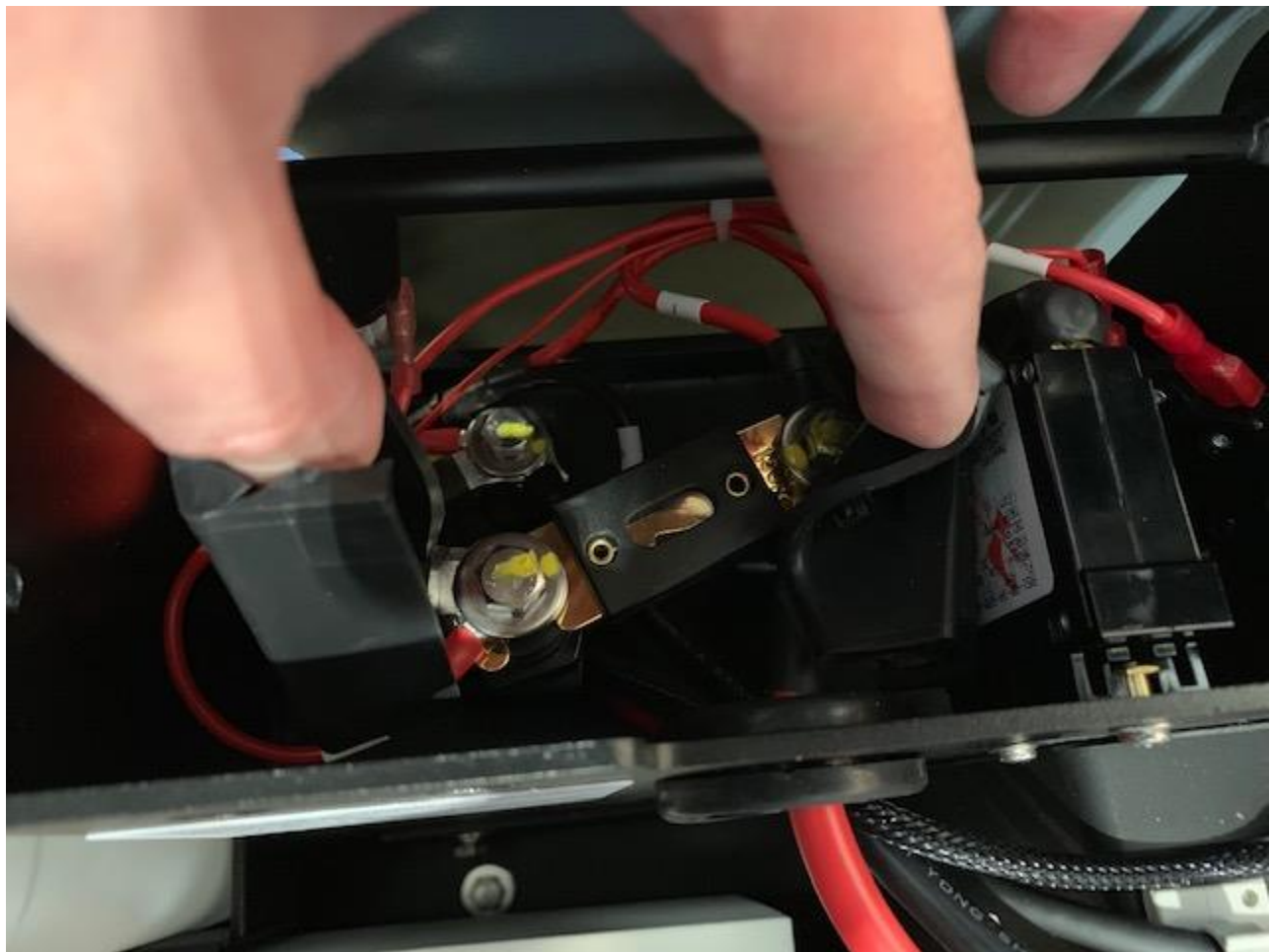
5. Using a 14 mm wrench, remove the circuit breaker from the frame



6. Using a 10mm socket and torque wrench, tighten the three High Voltage (HV) joints to **7 Nm (62 in-lb)**. Apply **torque paint** to each joint after tightening.



Note: The insulators may need to be lifted to get access to the joints (photographed below)



Note: A torque mark may already exist, which means we've already torqued the joint. It may be yellow (photographed above) or orange (photographed below). If present, visually confirm and photograph that the bolt (or any items in the stack-up) have not loosened. If loose, re-torque joint.



7. Reinstall circuit breaker
8. Take an “after” photograph clearly showing the three bolts with the torque paint applied.

Procedure for torquing and checking the battery terminal bolts

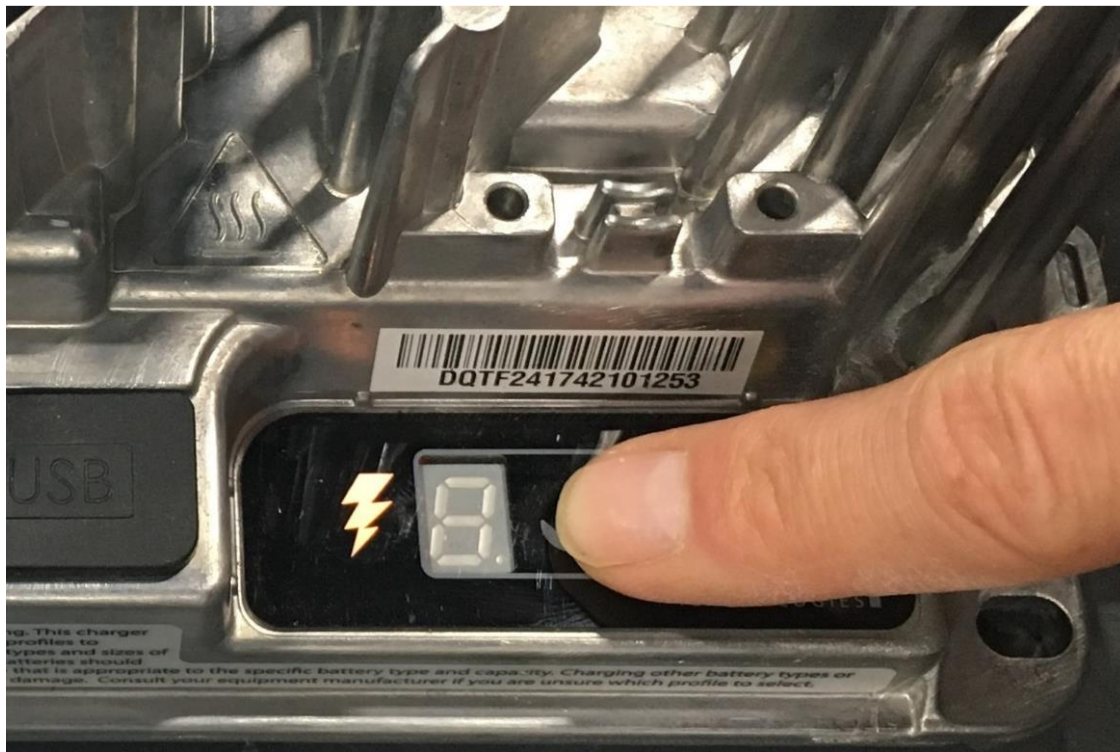
1. Take a “before” photo of the 8 battery terminal bolts.
2. Inspect the 8 battery terminal bolts and wiring. If any of the joints/wires/wiring insulation appears to be charred, burnt, or melted, DO NOT MANIPULATE THE JOINT. Take photos and call Brain Technical Services for further direction. Ensure the proper hardware is installed. If there is torque paint and it is not broken, stop.



3. Torque the 8 bolts to 65 in-lbs and apply torque paint as shown
4. Photograph the 8 bolts showing the torque paint applied

Procedure for checking the battery charger profile number

1. With the charger plugged in to AC wall power, push the wrench icon on the front screen to view the current charging profile – It should be 141



2. The current charge profile will blink. It should be P141 as shown in the photos below



3. If the profile is NOT 141, contact Brain corporation immediately.

End of Procedure