

Steering Motor Replacement

Parts required for this service:

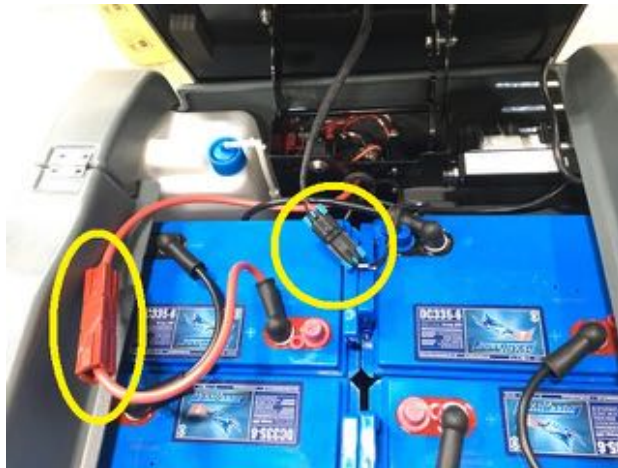
2.5 mm hex

5 mm hex

Replacement U-joint

3 mm hex (optional)

Turn the key to power off the scrubber. Raise the seat and disconnect the red battery coupling.



Make sure the front wheel is oriented straight ahead. This will be our point of reference.

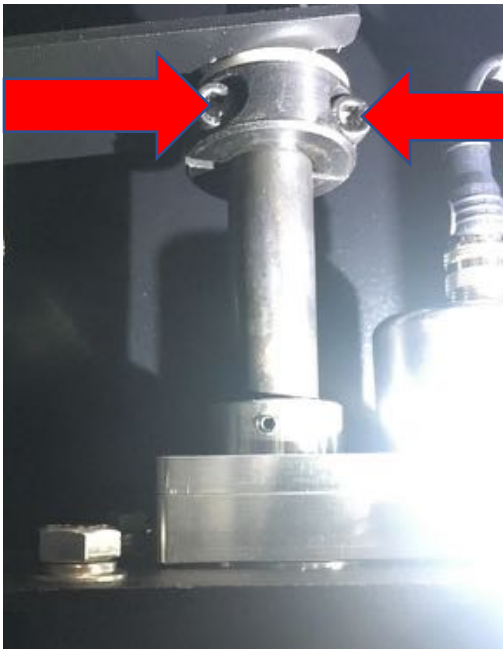
Remove the access panel to access the Steering Column



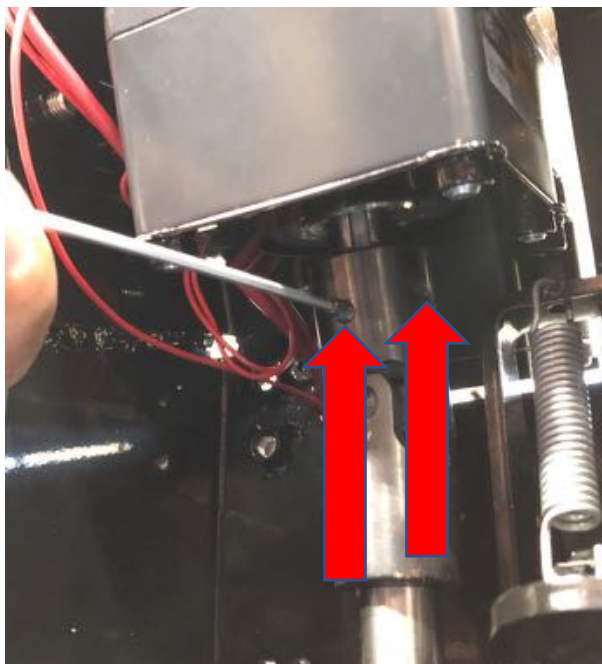
As shown at right, also be sure to remove the six hex screws holding on the main fascia – two on each side, and two at the bottom.

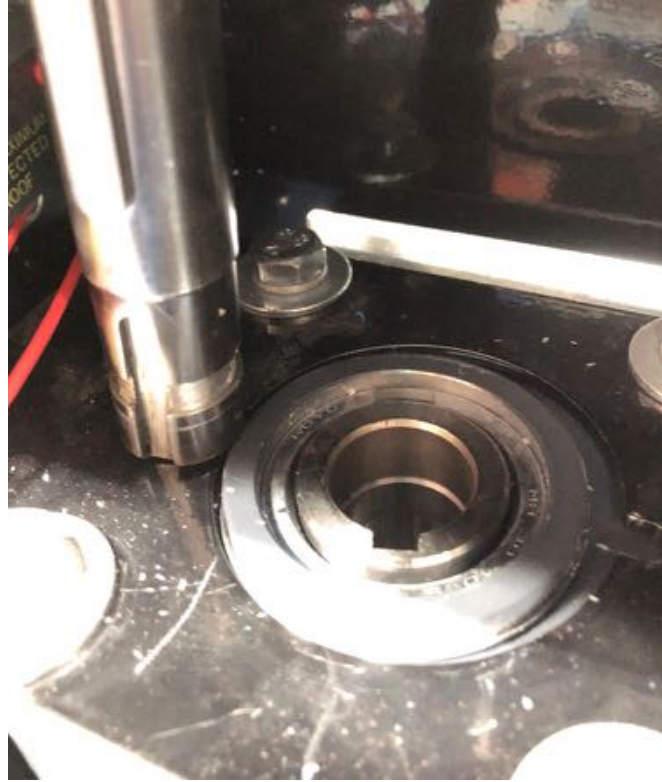


Loosen the collar (2 hex screws) and slide it down

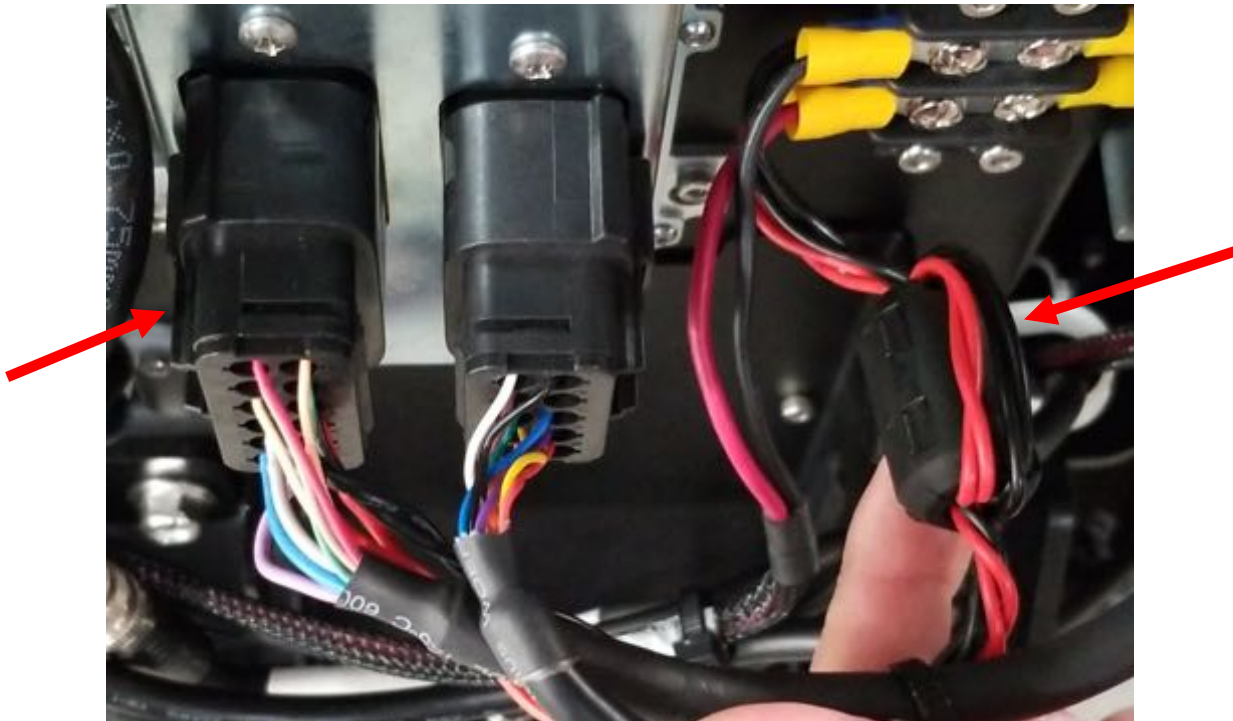


Remove the two set screws indicated below, then pull the steering wheel straight up.



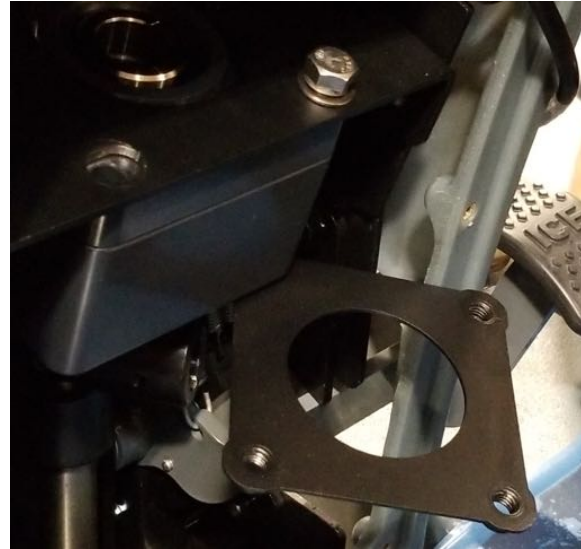


Remove the two set screws indicated below, then pull the steering wheel straight up. Next, unplug the 12-pin connector on the left side of the steering motor amp module (MAM). Ensure the replacement steering motor has both the same 12 pin connector and a ferrite core shown.



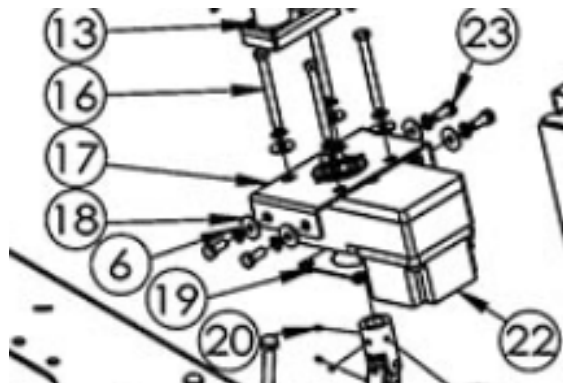
Undo all steering motor bolts.

Take care to retain all washers, bolts and the mounting plate for reassembly

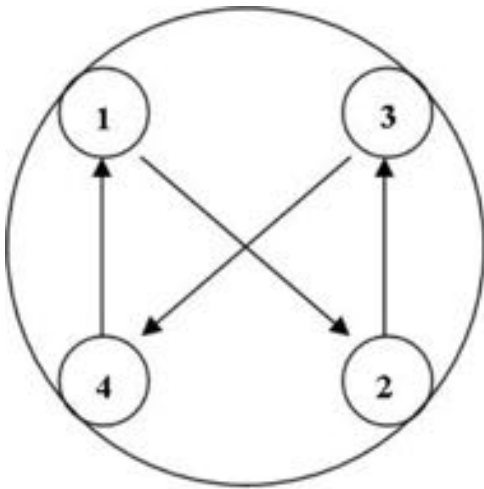


Connect bolts 16 through the replacement drive motor and connect them to mounting plate 19.

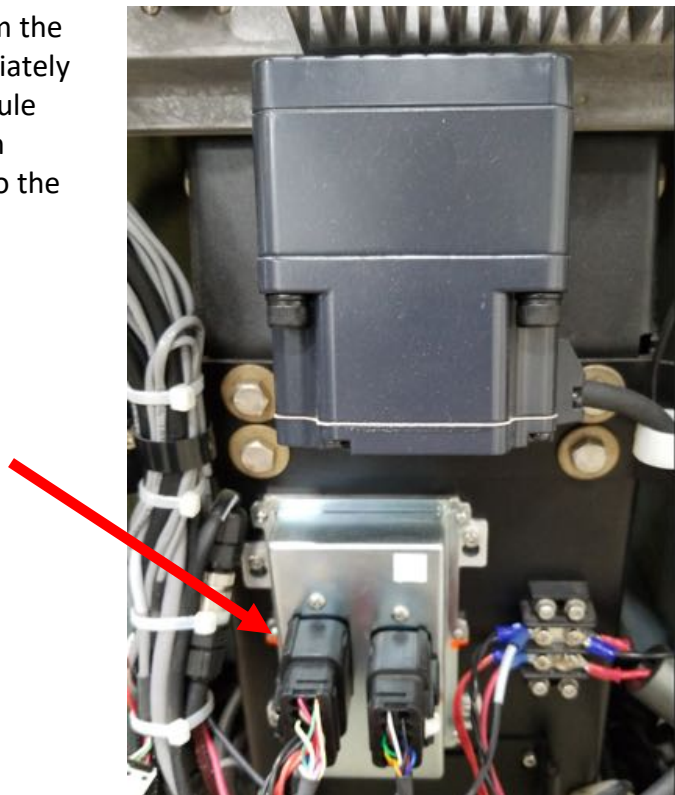
Note, bolts 6 and 23 may not be present in the Gen2 scrubber.



When re-tightening the four steering motor bolts, follow a star pattern similar to when changing a tire on a four-bolt car wheel.

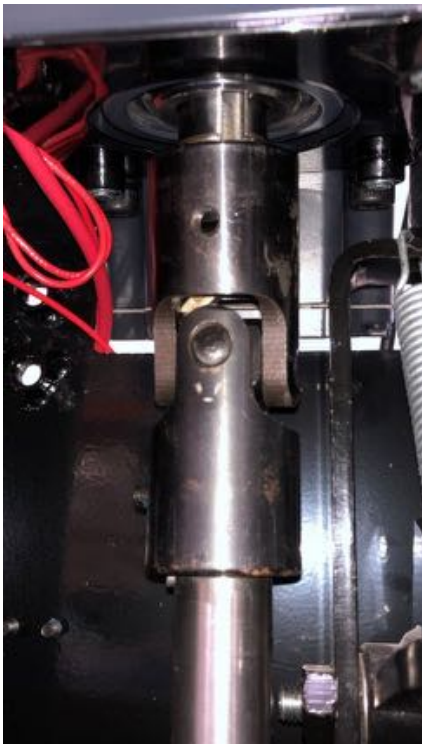


Installed steering motor as viewed from the front of the scrubber, with BCM immediately above, and steering motor amp module (MAM) located below. Note 12-pin connector from the steering motor into the MAM.





Push the steering wheel down to move the shaft into place. It should move through the steering motor and lock into the U joint below. Make sure the keys all line up and the wheel is pushed all the way down before re-securing the four set screws. Raise the collar back up and tighten the hex screws.



Verify that the wheel is straight and the logo on the steering wheel lines up properly. If the wheel is straight and the steering wheel logo is misaligned, the steering wheel may be removed and repositioned.



To do this, use a 3 mm hex to remove the three screws that reside on the underside of the steering wheel.

DO NOT remove the phillips screws.



Use a 7/8 socket wrench to remove the nylon nut and washer that secures the steering wheel. Wiggle the steering wheel back and forth and pull up to remove. Once freed, realign and reassemble.



Reconnect the red battery coupling. Turn the key to power on the unit to ensure proper start up and system operation.

A steering calibration must be completed after replacing the steering motor.

