



## Quantum 4Front Motor Replacement Instructions

### Motor Replacement on Quantum 4Front

#### Tools needed:

- Metric socket set
- Ratchet
- Phillips screwdriver
- Metric hex key set
- Impact tool (recommended)
- Wire cutters

#### To remove the motor:

1. Turn off the power to the controller
2. Set the power chair up on blocks or use wheelchair jack.

**NOTE: Work on one side at a time if you are replacing both motors.**

3. Remove the drive wheel fender. Then place the fender on the power base or seating to keep it out of the work area. Position fender lights out of the way.
4. Loosen the two (2) yellow thumbscrews on each side of the rear door shroud.
5. Lift up on the rear door then pull the top side out toward you.
6. Unplug the motor connection (**see figure 1**) from the power module. Cut any tie-wraps as necessary and note their locations for later replacement.
7. Remove front battery cover. Push batteries forward approximately 1.5 inches
8. Remove the light module bracket. It needs to be removed to slip the motor connector past when changing motor.
9. Remove the screw from the pin cap (arrow) and remove the pin cap from the front of the suspension spring. Push the backside of the pivot pin then pull out. **See figure 2.**

**NOTE: You may have to pull up on the motor weldment or anti-tip wheel to release tension for easier removal.**

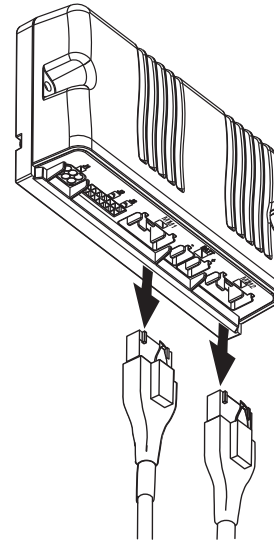


Figure 1. Power module with motor/brake harness

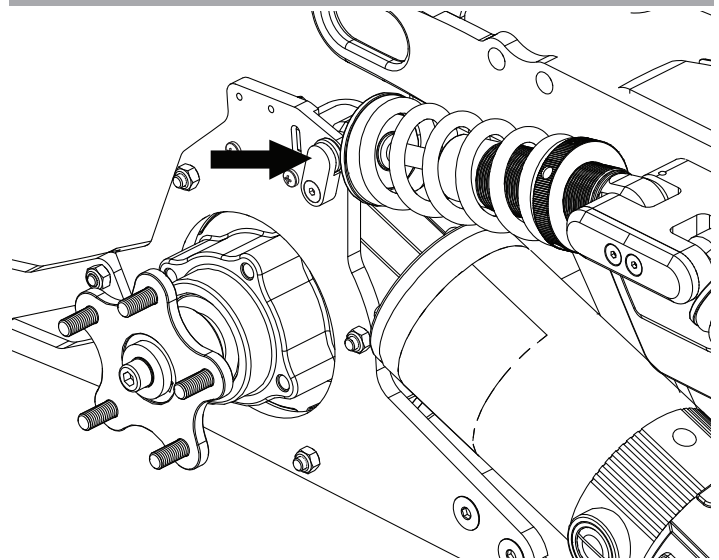


Figure 2. Pin cap shown on outer motor mount assembly

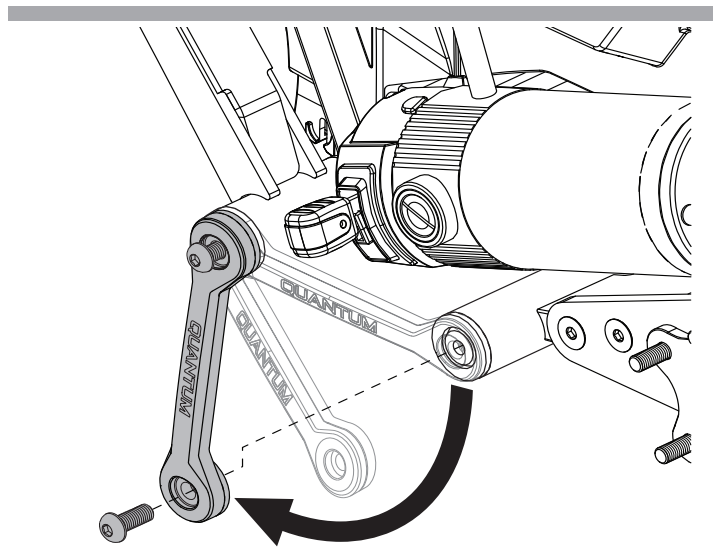


9. Remove the front screw from the axle brace assembly. Loosen the rear screw and swing the axle brace away from the motor. **See figure 3.**
10. Remove the motor weldment assembly from the frame of the power chair. **See figure 4.**
11. Remove the nuts from the four bolts. Two bolts are removable, while two are fixed and, therefore, will not move. Remove two screws. **See figure 5.**
12. Separate the motor from the outside and inside motor weldments. The anti-tip wheel does not need to be removed from outside weldment. **See figure 5.**

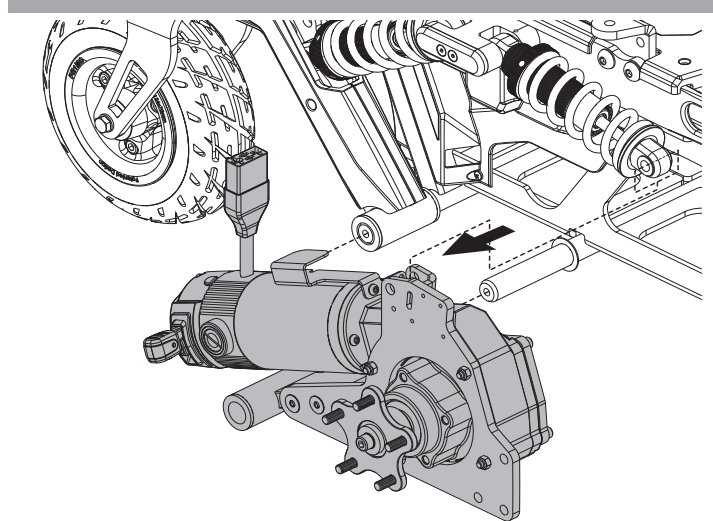
**NOTE:** *Anti-tip Wheel is not shown in figure 5.*

#### To install the motor:

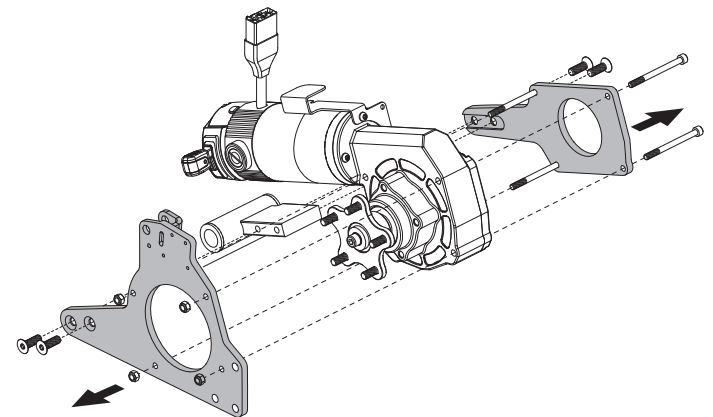
1. Place the motor between the outside and inside weldments. Reinstall the hardware.
2. Slide the motor assembly onto the frame of the power chair.
3. Route the motor connectors back to the power module.
4. Reinstall the axle brace assembly.
5. Lift up on the motor weldment or anti-tip wheel to line up the front of the suspension spring and install pivot pin.
6. Replace the pin cap and the screw.
7. Plug the motor connectors into the power module.
8. Reinstall the fender. Replace any tie-wraps.
9. Reinstall the drive wheel.
10. Repeat steps for other side.
11. Push batteries back.
12. Reinstall front battery door.
13. Reinstall the light module bracket.
14. Reinstall rear shroud with thumb screws.
15. Remove the power chair from the blocks or wheel chair jack.
16. Test all power chair systems.



**Figure 3. Axle brace assembly**



**Figure 4. Drive motor and motor mount assemblies**



**Figure 5. Drive motor assembly between motor mount assembly**