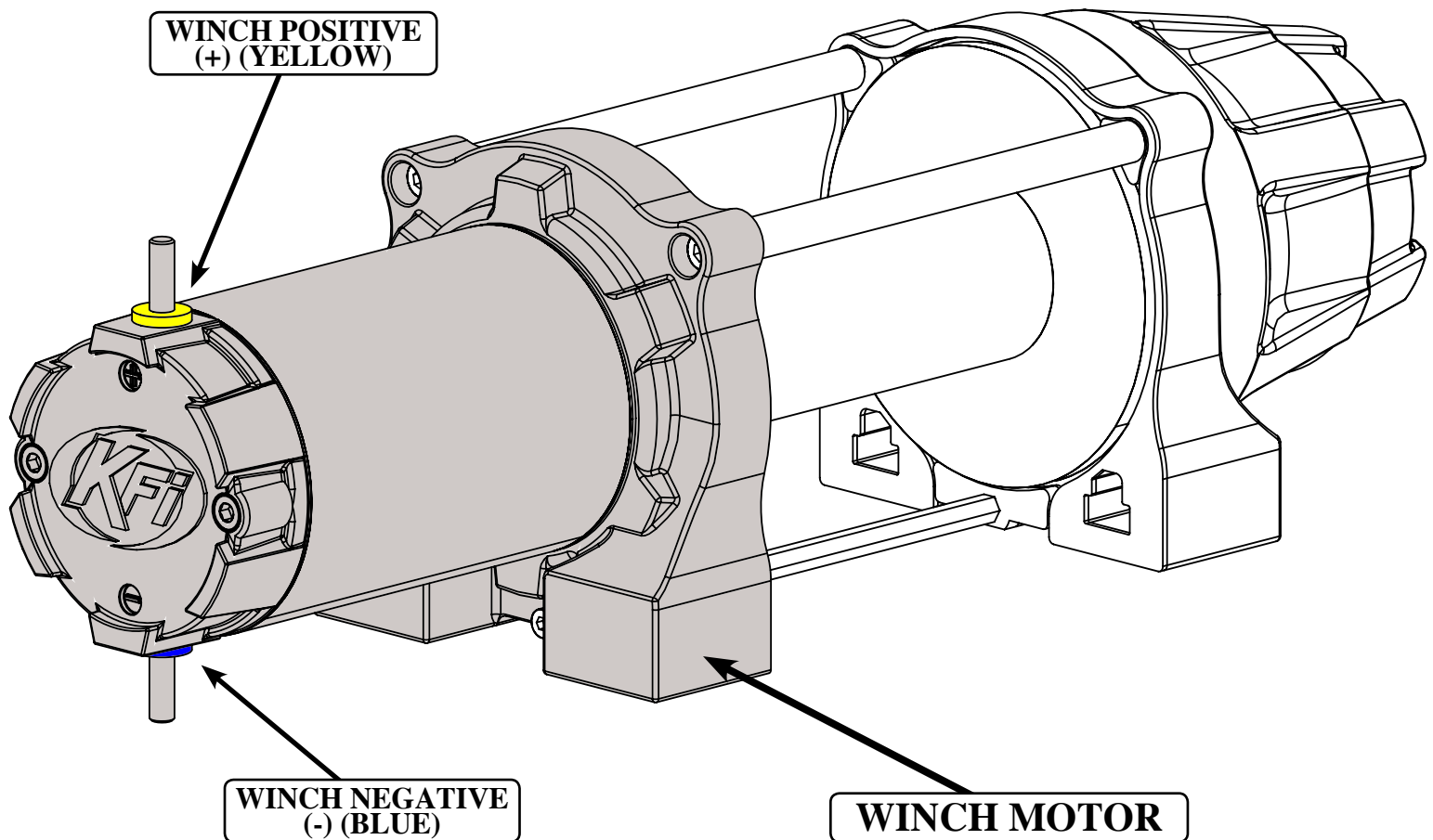




WINCH MOTOR TROUBLESHOOTING GUIDE



THIS STEP BY STEP TROUBLESHOOTING GUIDE WILL HELP YOU TEST YOUR WINCH MOTOR TO SEE IF IT IS FUNCTIONING PROPERLY.

TOOLS NEEDED:

- *12 VOLT POWER SOURCE*
- *JUMPER CABLES*

!!! IMPORTANT !!!

BEFORE ANY TROUBLESHOOTING OCCURS, THE WINCH SHOULD BE IN FREE SPOOL TO PREVENT THE CABLE OR ROPE FROM MOVING.

TROUBLESHOOTING THE WINCH MOTOR

In order to test the winch motor, direct power needs to be sent to the leads on the motor. A 12 Volt power source (battery, jump pack, or charger) will be needed to perform the next few steps.

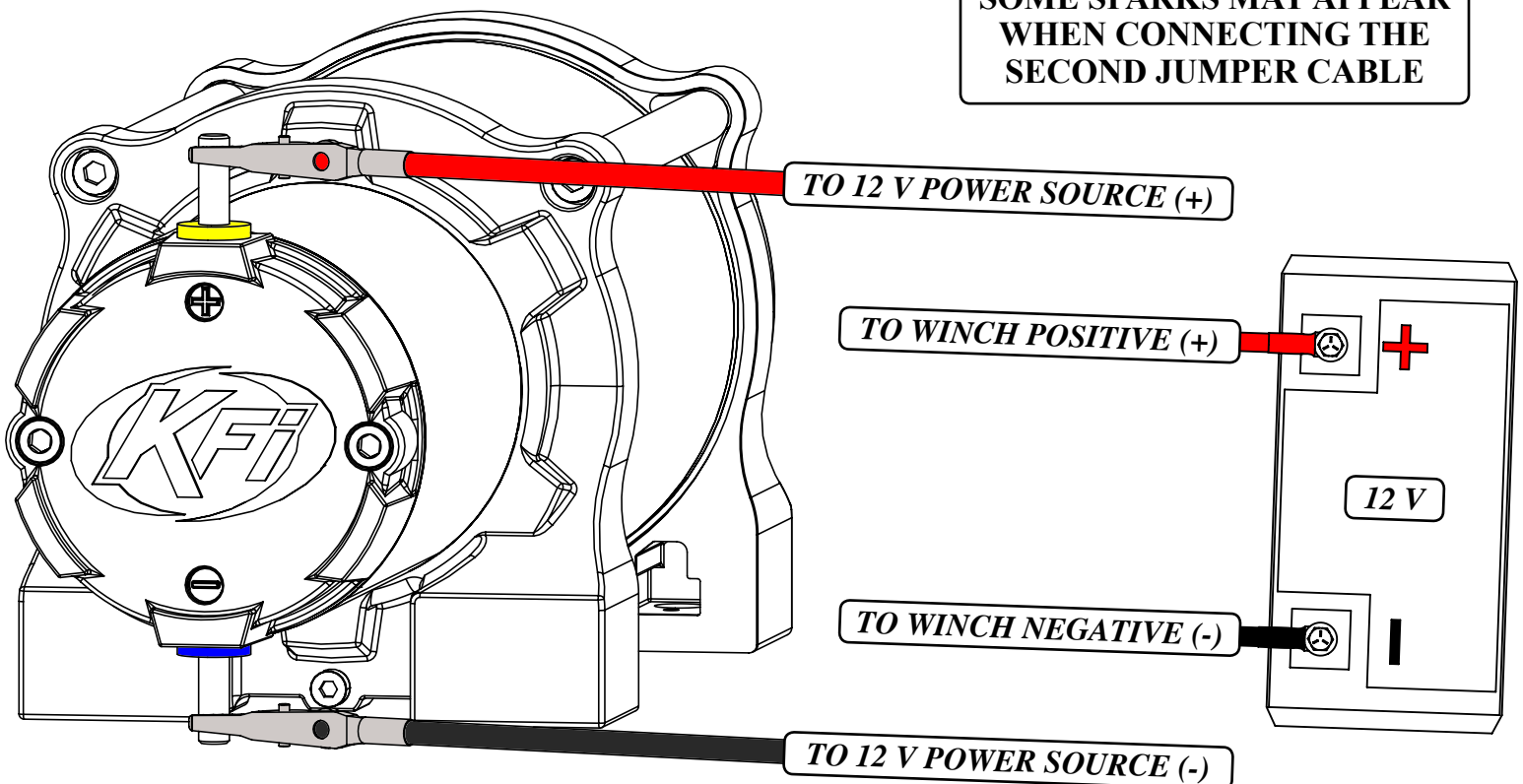
PLEASE READ BEFORE DOING ANY TROUBLESHOOTING

1. *If the winch is installed in the machine, remove cables connected to the yellow and blue terminals on the winch motor. Be sure the winch is in free spool.* Using jumper cables, connect the negative (-) from the 12 V power source to the blue negative (-) lead on the winch motor.

2. Connect the positive (+) from the 12 V power source to the yellow positive (+) lead on the winch motor. The winch motor should now be running. If no noise comes from the motor or it starts to get hot, disconnect the wires to the winch immediately.

!!! CAUTION !!!

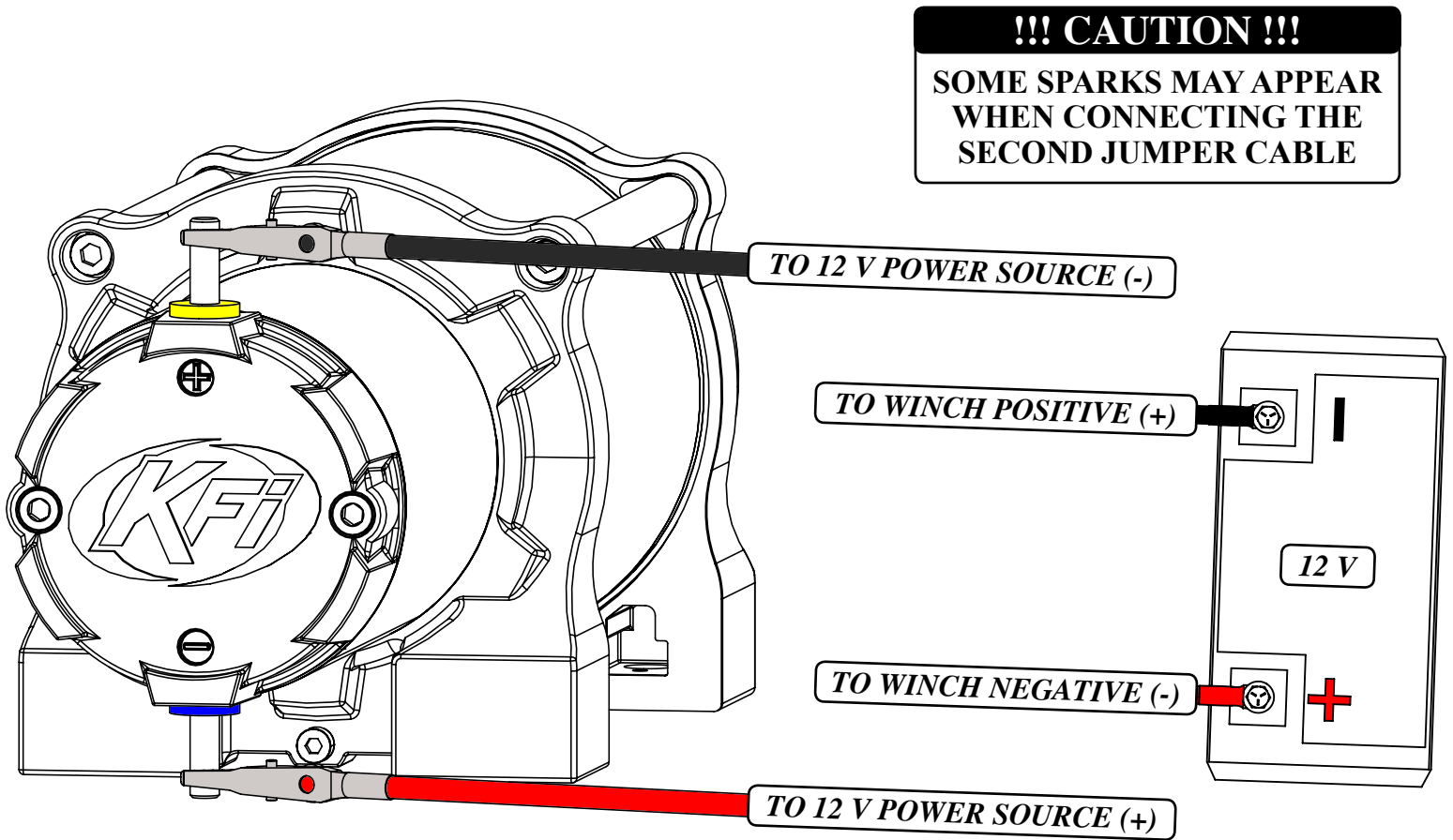
**SOME SPARKS MAY APPEAR
WHEN CONNECTING THE
SECOND JUMPER CABLE**



3. Disconnect the wires leading to the winch. Note whether the motor worked or didn't work in the first direction. Follow to step 4 for testing winch motor in the opposite direction.

4. ***Be sure the winch is still in free spool.*** Using jumper cables, connect the negative (-) from the 12 V power source to the yellow positive (+) lead on the winch motor.

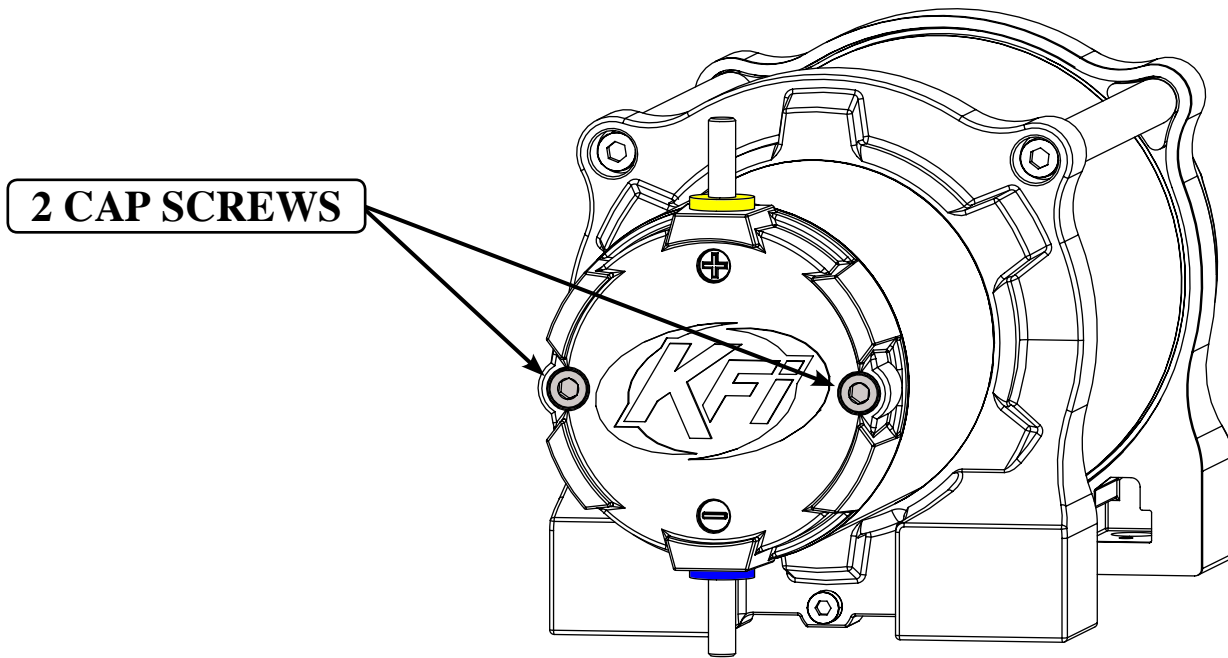
5. Connect the positive (+) from the 12 V power source to the blue negative (-) lead on the winch motor. The winch motor should now be running. If no noise comes from the motor or it starts to get hot, disconnect the wires immediately.



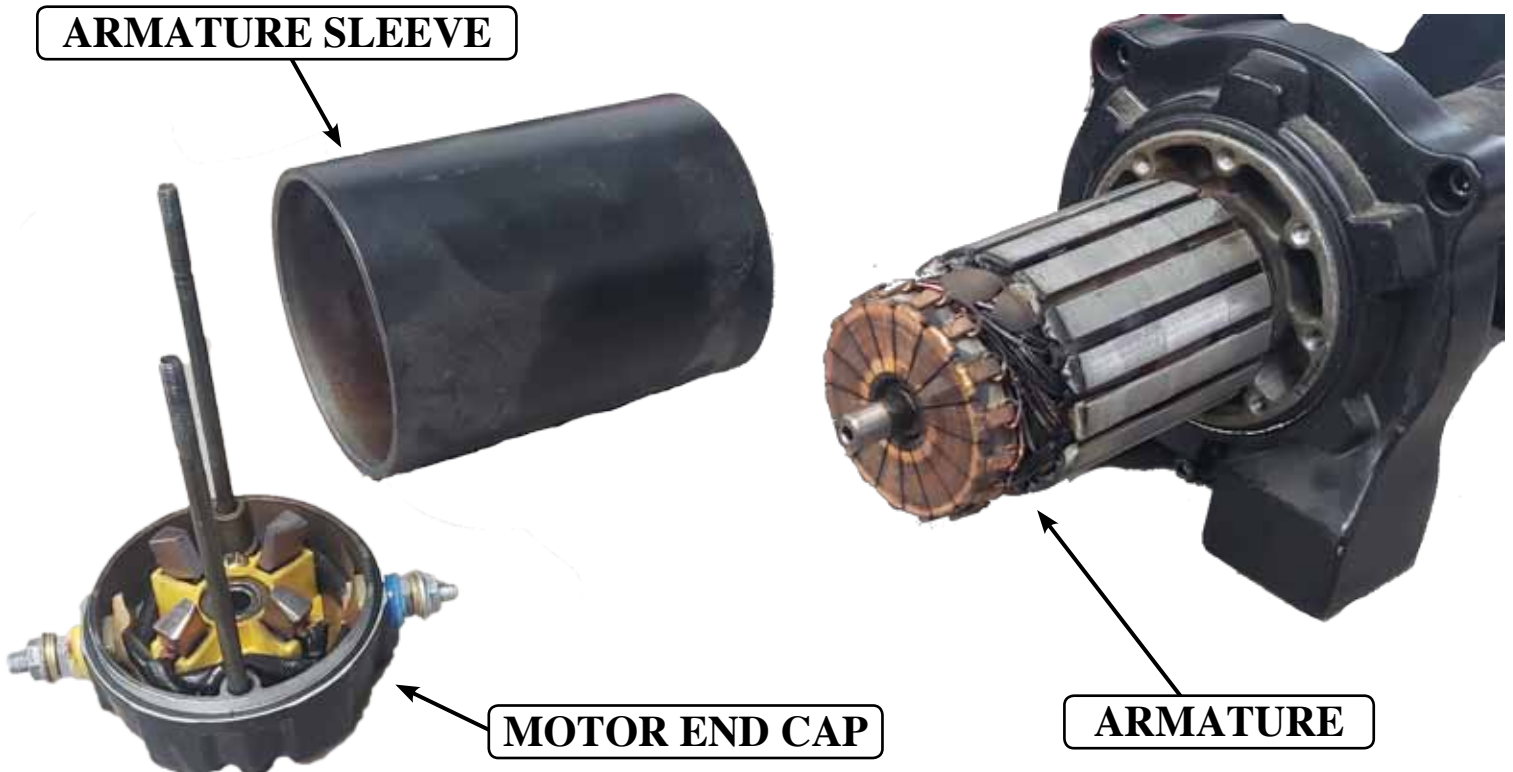
6. Disconnect the wires to the winch and note whether the motor worked or didn't work in the opposite direction.

- If the motor works in both directions, the winch motor is operating as it should be.
- If the winch motor did not work at all, or only worked in one direction, an internal inspection of the winch motor is needed.

7. To check the internal components of the motor, loosen the 2 cap screws that hold the motor end cap to the rest of the winch motor.



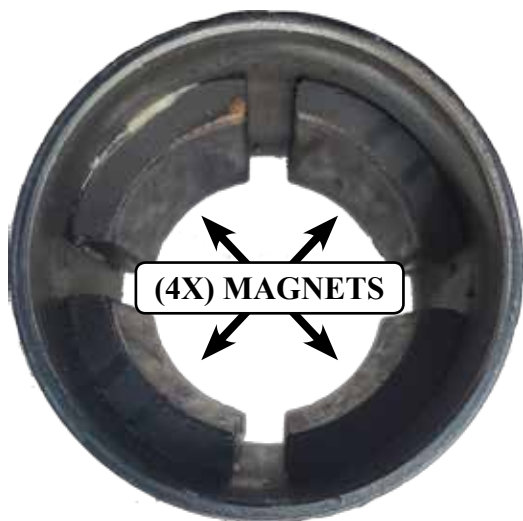
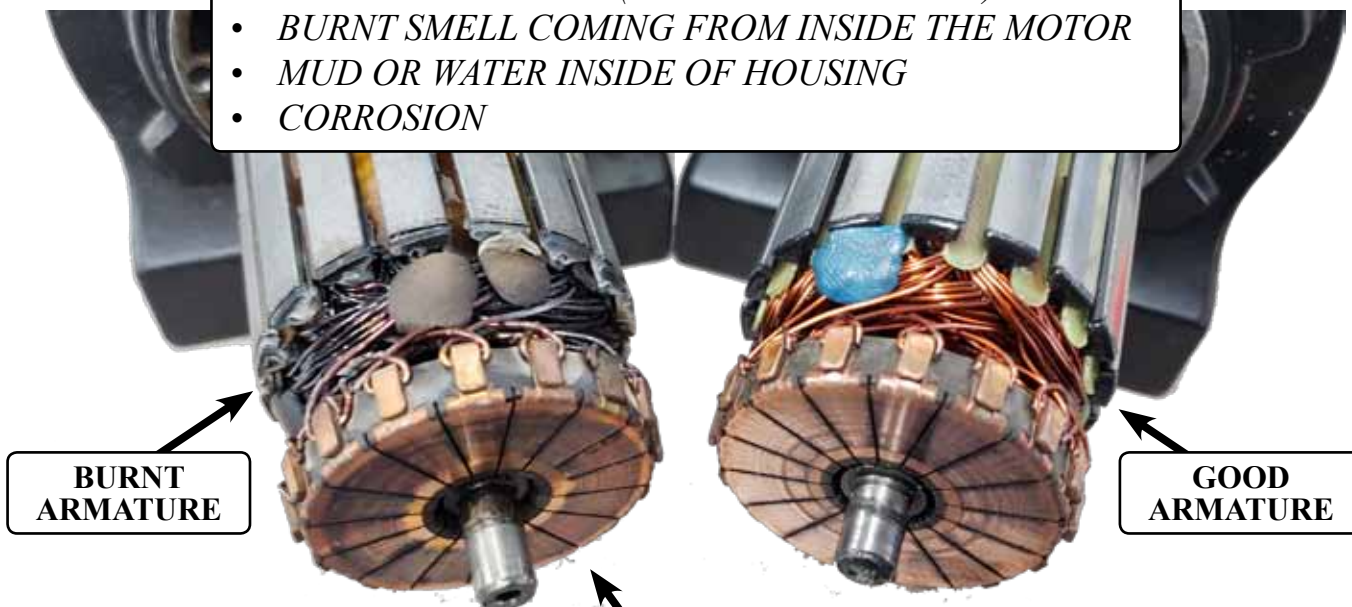
8. Once the screws are loosened, remove the motor end cap and the armature sleeve will be able to be pulled off. Be sure not to lose or tear the rubber seals while removing the cap.



9. Refer to the images below on what to look for while performing the inspection of the armature, armature sleeve and end cap.

THINGS TO LOOK FOR INSIDE MOTOR HOUSING:

- *DAMAGE TO ARMATURE*
- *MAGNETS NO LONGER ATTACHED TO THE ARMATURE SLEEVE (FLOATING MAGNETS)*
- *BURNT SMELL COMING FROM INSIDE THE MOTOR*
- *MUD OR WATER INSIDE OF HOUSING*
- *CORROSION*



**DOES IT LOOK OR SMELL BURNT?
WATER OR DIRT INSIDE HOUSING?
FLOATING MAGNETS IN SLEEVE?**

THINGS TO LOOK FOR ON MOTOR END CAP:

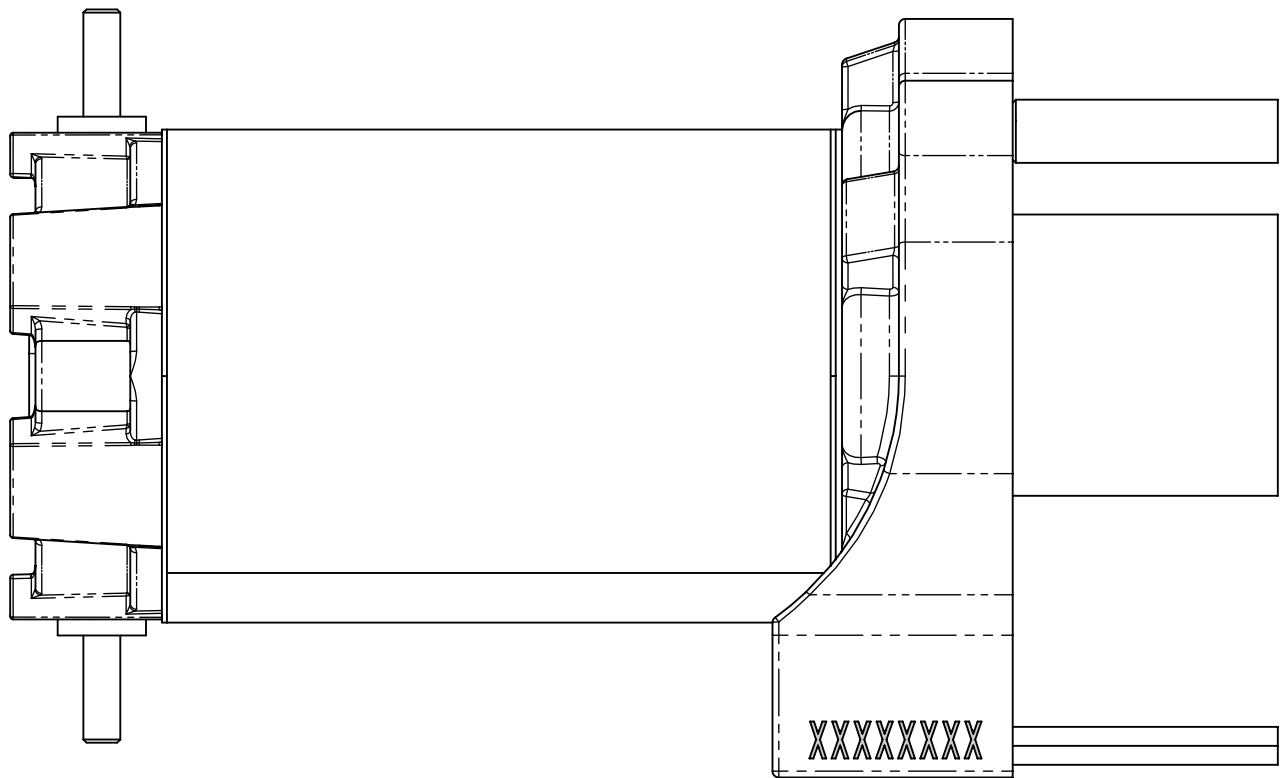
- *BURN SPOTS OR WEAR ON THE BRUSHES*
- *TWISTED LEADS*
- *LOOSE WIRES*



10. If the winch motor shows any of the signs listed from the previous step, the winch motor will likely need to be replaced. If the motor does not show these signs, call or email KFI tech support for further help troubleshooting the issue.

Tech Support #: 1-877-346-2050 OPT. 2
Tech EMAIL: Tech@KFIproducts.com

11. Technical support may ask for the serial number from the motor, pictures of the winch, along with a proof of purchase. The serial number can be found on the leg of the winch motor. View image below for reference.



**SERIAL NUMBER
CAN BE FOUND ON
THE LEG OF THE
WINCH MOTOR**

