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DIODES

Diodes are used extensively in the electrical circuits of every Skyjack aerial work platform and telehandler. We use them primarily to separate common circuits from each other. For example, the SJIII electric powered scissor lifts use diodes to allow multiple circuits to power the pump motor solenoid but each separate function valve will remain unpowered; only the specific function valve that is asked for will be powered. The diode acts like an electrical check valve allowing power to flow through it in one direction only.

The diodes we use have a round body with a lead extending from each end. One lead is the cathode the other is the anode. Figure 1 shows a diode schematic symbol and diode.

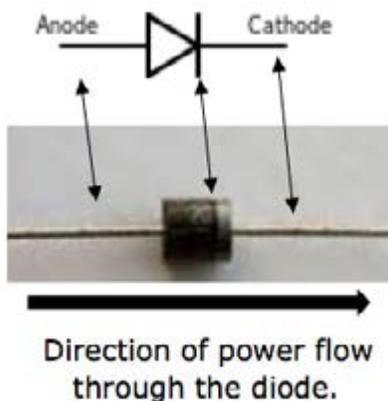


Figure 1

Any power coming into the anode will flow through the diode. Any power at the cathode side will be blocked from passing through the diode.

The silver band on the diode body marks the cathode or blocking side of the diode.

This is critical when installing a new diode. The direction of the silver stripe must be placed correctly in the circuit for the diode to perform its function.

The best way to test a diode is with voltage. The diode check feature on most multimeters will not accurately test these diodes. To check the diode, use a battery and your multimeter; attach the black (ground) meter lead to the battery negative post. Connect the red (positive) meter lead to the cathode side of the diode and touch the anode lead to the battery positive post. You should read

the battery voltage on the meter. Then flip the diode around - connect the red meter lead to the anode side of the diode and there should be no voltage reading on the meter when you touch the cathode to the battery positive post. This is the most accurate method to test a diode on your Skyjack equipment.

When replacing a diode, please use the correct part number or diode specification that was originally used. For more information about diodes or if you have any questions regarding your Skyjack product, please contact Skyjack Product Support at 1-800-275-9522 or email service@skyjack.com