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TECHNICAL SERVICE

The Skyjack SJIII Compact and Conventional model electric scissor lifts with the MC option and all of the SJ12/SJ16 Vertical Mast models utilize a motor controller to control the function speeds. The motor controller controls the rotation speed of the pump motor which, through the pump rotation speed, results in precise control of the function speed.

The motor controller is simple in operation. It has 2 inputs: a control enable input that tells the controller it is OK to operate, and a speed signal input telling the controller how fast to rotate the pump motor. Once the control enable input sees a voltage higher than 12VDC, it allows the controller to monitor the speed input and operate the motor. If the enable input detects a problem (interruption or dropping below 12VDC of the input signal) it will shut down the controller. The speed signal input operates on a voltage between 0 and 5VDC. At 0.2VDC the controller will start applying voltage to the pump motor and increase this voltage until input signal is 3.86VDC which is considered 100 percent. If the speed input exceeds 4.6VDC the controller will shut down.

When troubleshooting, check the connections at the motor controller for loose or corroded terminals. Then check for the enable input, it should be system voltage. Operate the joystick and observe the speed input. It should start at 0VDC and increase as the joystick is moved from neutral staying below 4.6VDC at full joystick travel. If these inputs are correct the problem may be the motor or the controller itself.

More specific information is available in the service manual for the serial number of the unit you are working on. The full manual selection for your Skyjack model is available at www.skyjack.com or using the updateable USB flash drive available from our parts department. Use part number 167847. For technical assistance, please contact Skyjack Product Support at 1-800-275-9522 or email service@skyjack.com.