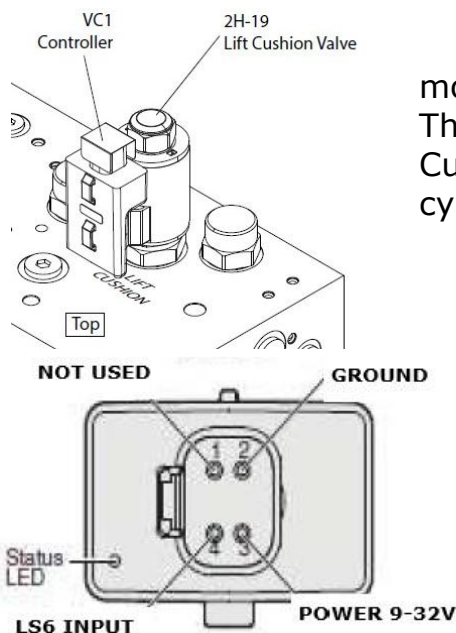


TECH TIP JULY 2026**SJ82T/86T BOOM LIFT CUSHION VALVE**

The Skyjack SJ82T and SJ86T boomlift models use a unique circuit for the main boom lift function. The Lift Cushion Valve is used to slow down the lifting speed just before the main lift cylinder reaches full extension. The Lift Cushion valve is a proportional flow control that reduces oil flow to the lift cylinder to prevent the main boom from reaching full extension at full speed. This prevents the boom from stopping hard and gives the operator a smoother stop at full height.

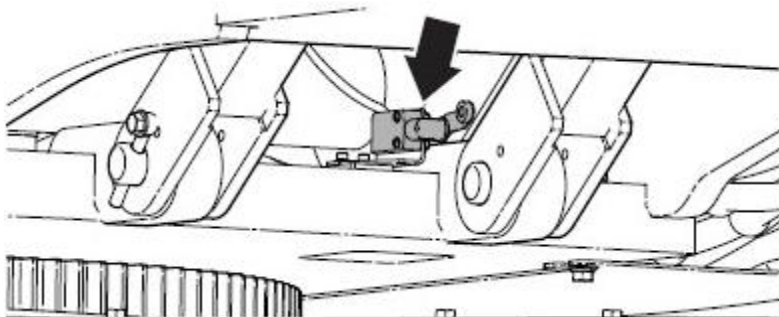


The Lift Cushion valve, coil, and the VC1 controller module are located on the top of the main manifold. The VC1 controller is a logic module that activates the Lift Cushion Valve to a preset flow rate which slows the lift cylinder as it reaches full extension.

The VC1 controller has 3-wires connected to it. At the 4-pin Deutsch connector, Pin 1 is not used. Test between Pin 2/Wire 02 White and Pin 3/Wire 09 Black for 12V input. The minimum allowable voltage is 9VDC.

Pin 4/Wire 19 Green is the 12V input from the limit switch LS6 that turns the VC1 controller ON and OFF. 12V – Normal lift speed.

There is a status led next to the connector port. At power ON or after starting the engine, the led should blink a couple times and remain solid ON. This shows the controller has power and ground and is operating normally.



The VC1 is controlled by the LS6 limit switch located under the turret at the bottom of the main lift cylinder. The switch is normally closed, and as the lift cylinder gets close to full extension the switch is opened and it cuts power to Wire 19 Green to the VC1 controller. The

adjustment procedure for the limit switches is in the service manual in section 5.

Anytime you have a question about your Skyjack product, please contact Skyjack Product Support at 1-800-275-9522 or email service@skyjack.com. You can find manuals and technical information at <https://techpub.skyjack.com/>.