

Situation 1

Will not tilt

PG VSI Through Joystick

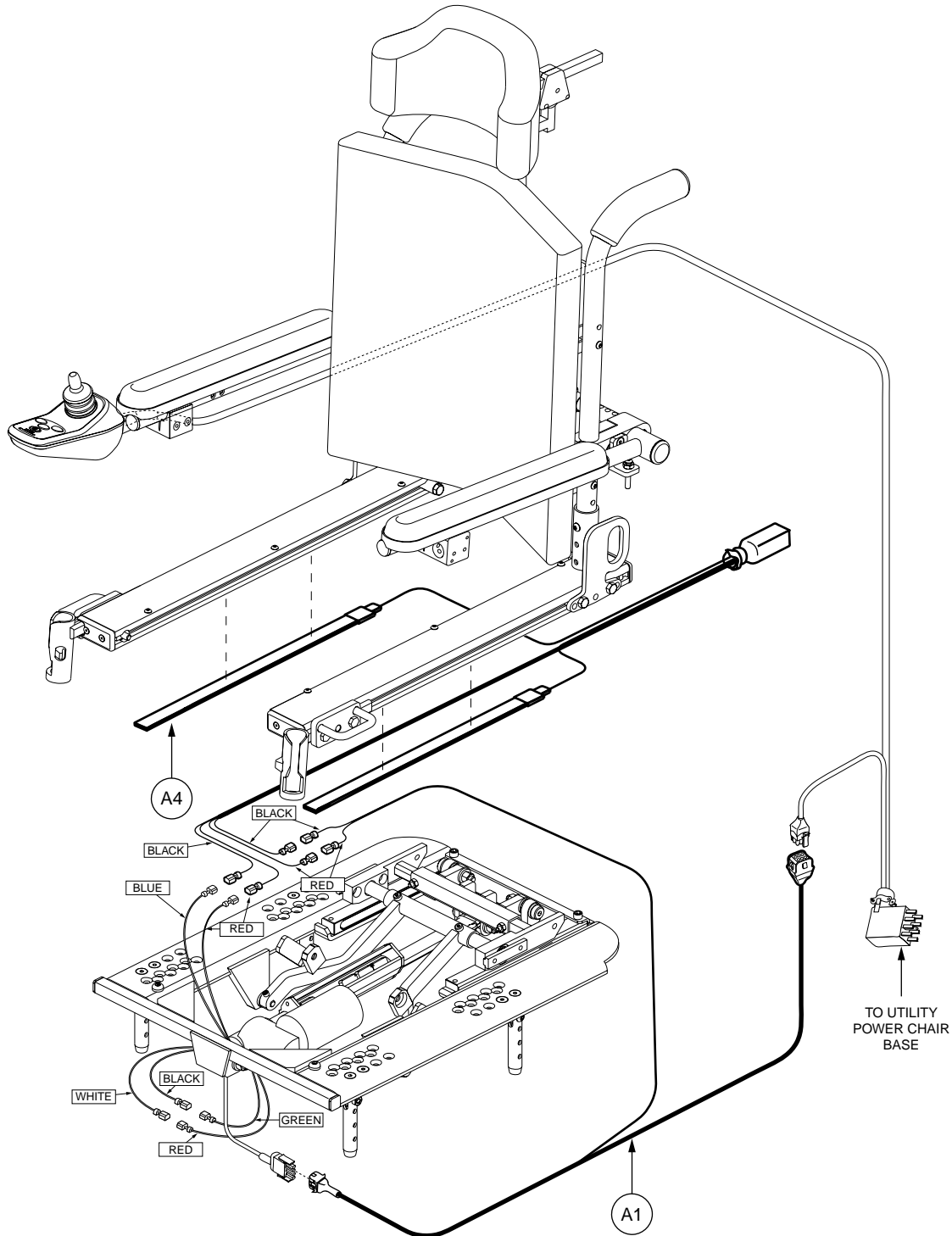


Figure 4.122. Wiring Diagram

Verify that the 6-pin connector from the VSI joystick is connected to the 6-pin connector on the harness (A1). If it is not connected, reconnect and retest the tilt. See figure 4.123.

Operate the mode switch on the joystick until the tilt function is activated. The tilt function will be displayed by a red LED illuminated above the actuator buttons. Observe the tilt and listen to the actuator motor. See figure 4.123.

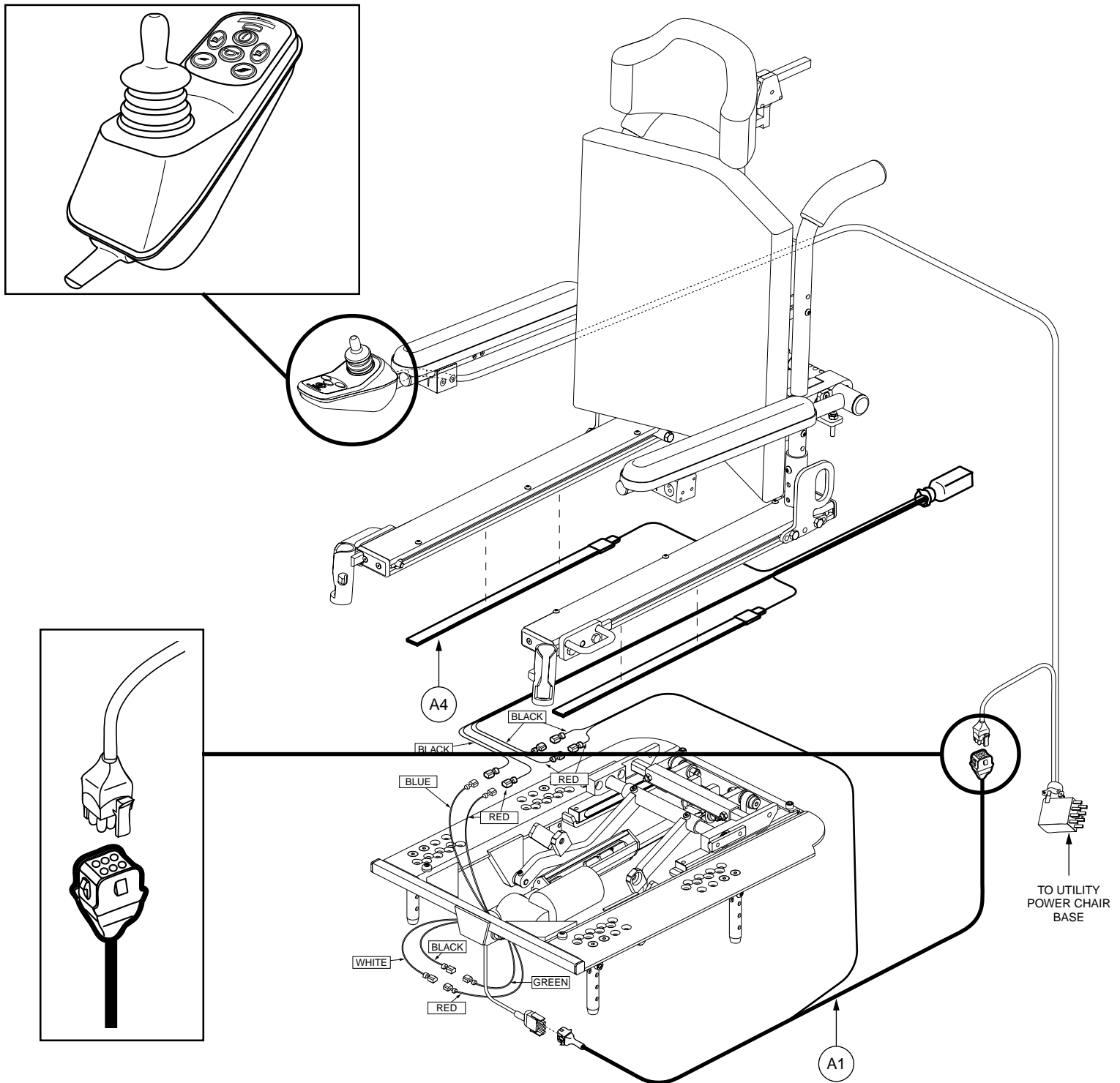


Figure 4.123. 6-Pin Connectors Test (VSI Joystick and Harness)



If the actuator runs but the tilt does not operate, replace the tilt actuator.

Disconnect the plugs on the actuator motor. Using a multimeter that is set to measure resistance, measure the resistance through the actuator motor at the pigtails. Normal resistance is between .5 to 15 ohms. See figure 4.124.

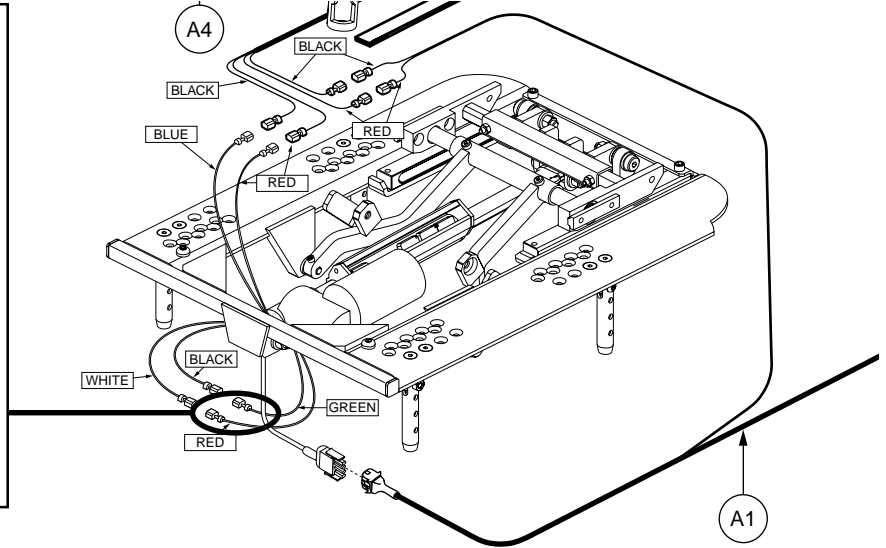
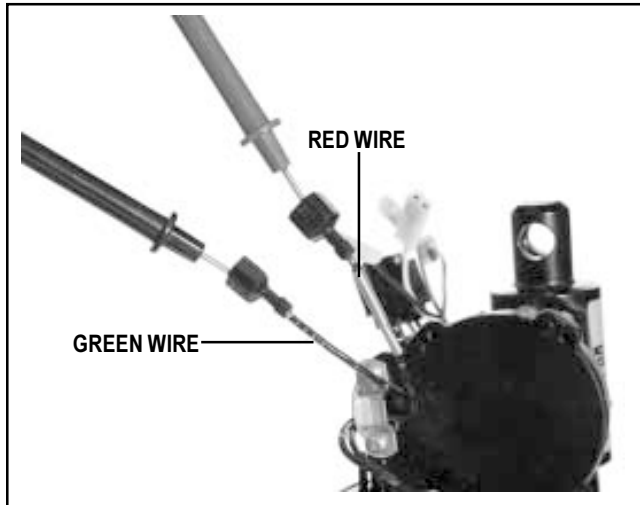


Figure 4.124. Actuator Motor Test

The meter reads _____ ohms



If the meter reads an "open" or a significantly different reading from this, replace the actuator.



A reading of less than .5 ohms could indicate a shorted actuator.

Notes:

If the actuator motor reads normal resistance, disconnect the two wires from the harness (A1) leading to the harness (A4). Set the meter to its lowest resistance scale and check for continuity. Place one of the meter leads in the indicated pin of the 6-pin connector of the harness (A1) and the other meter lead into the red 1/4-inch connector of the same harness. See figure 4.125.

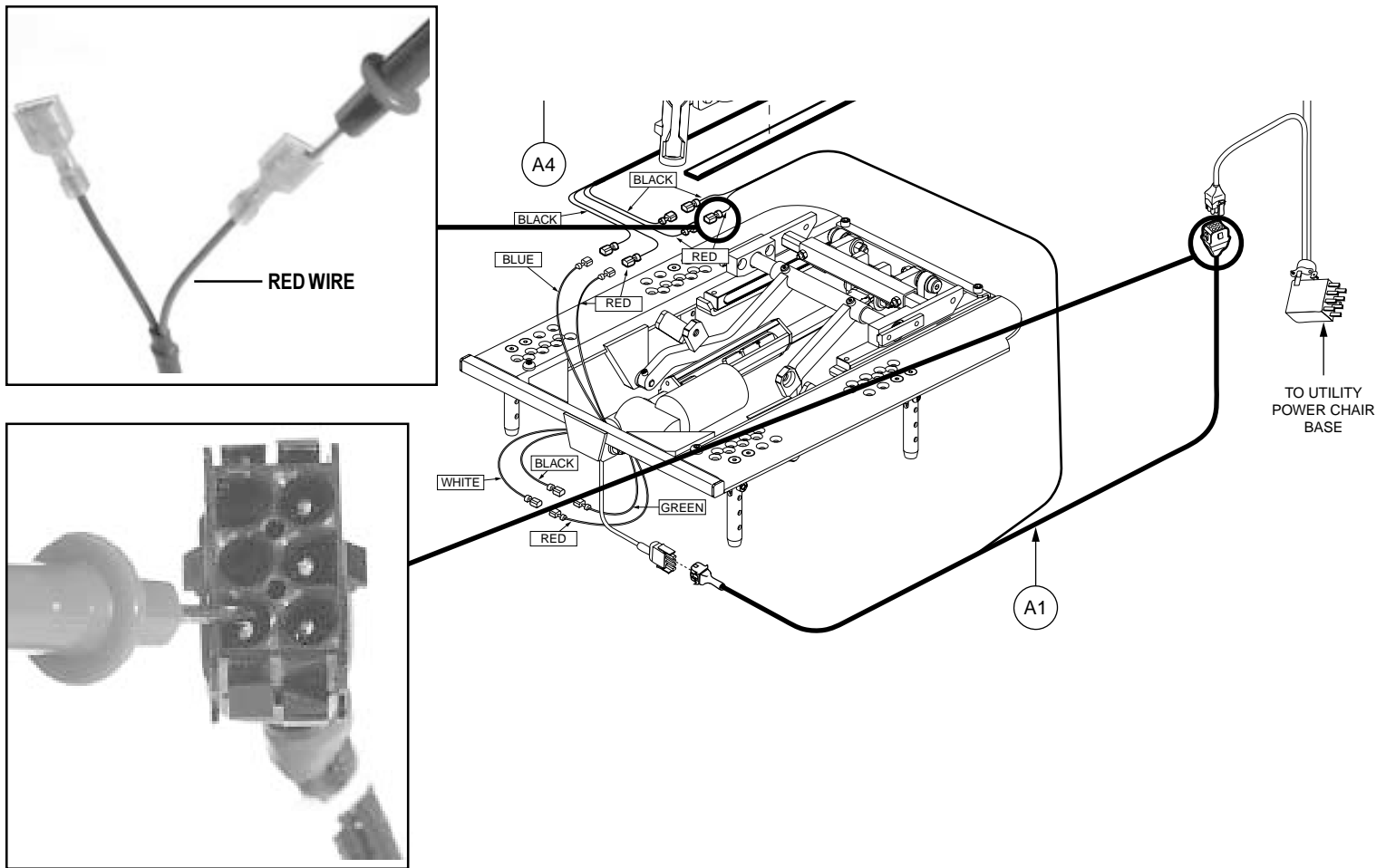


Figure 4.125. Harness Test

The meter reads _____ ohms



If continuity is not present, replace the harness (A1). If continuity is present, proceed to the next step.

Notes:

Check for continuity. Place one meter lead into the other indicated pin of the 6-pin connector of the harness (A1) and the other meter lead to the black 1/4-inch connector. See figure 4.126.

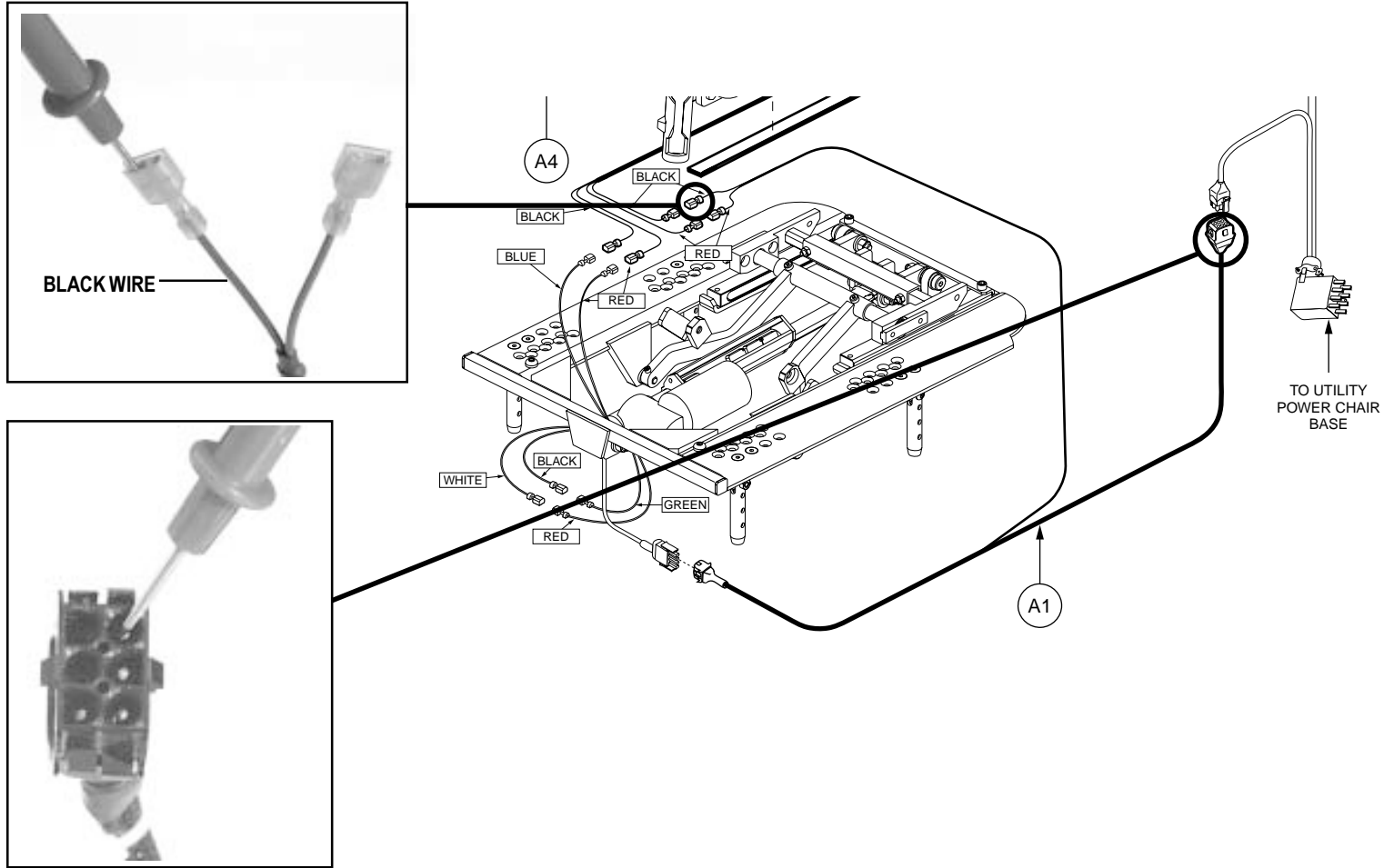


Figure 4.126. Harness Test

The meter reads _____ ohms



If continuity is not present, replace the harness (A1).

Notes:

If continuity is present, reconnect the red and black 1/4-inch connectors (from A1) to the harness (A4). Locate and test the UP limit switch in the actuator by first removing it from the circuit. Locate the green wire painted black from the actuator motor and disconnect it. Locate the black wire from the ribbon switch assembly (A4 harness) with the 1/4-inch female connector and disconnect it. Connect the green wire from the actuator motor to the black wire from the ribbon switch (A4) and test the tilt. See figure 4.127.

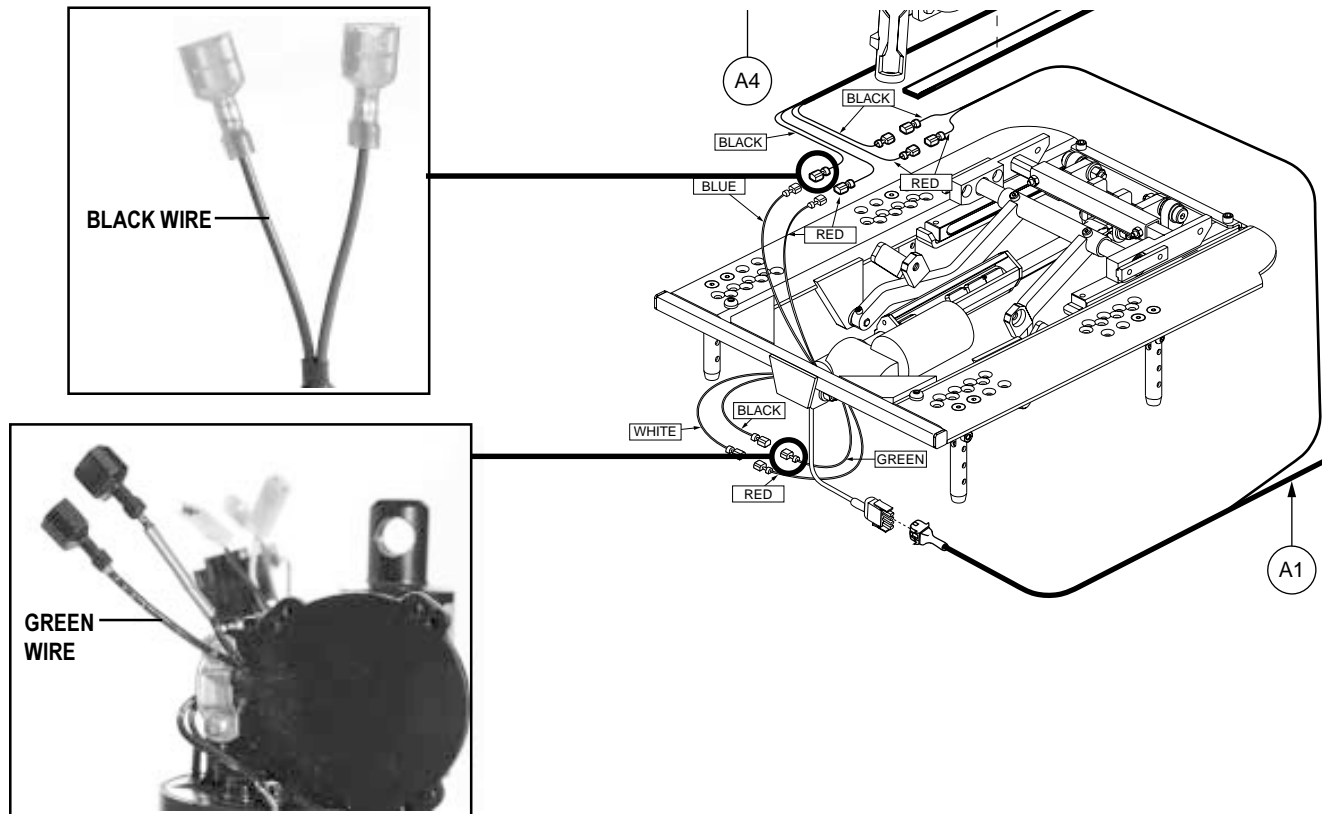


Figure 4.127. UP Limit Switch Test



If the tilt operates, the UP limit is defective. Replace the actuator assembly. If the tilt still does not operate, reconnect the wires and proceed to the next step.

Notes:

Test the DOWN limit switch in the actuator by first removing the switch from the circuit. Locate the red wire painted black from the actuator and disconnect it. Locate the red wire from the ribbon switch assembly harness (A4) with the ¼-inch female connector and disconnect it. Connect the red wire from the actuator motor to the red wire from the ribbon switch (A4) and test the tilt. See figure 4.128.

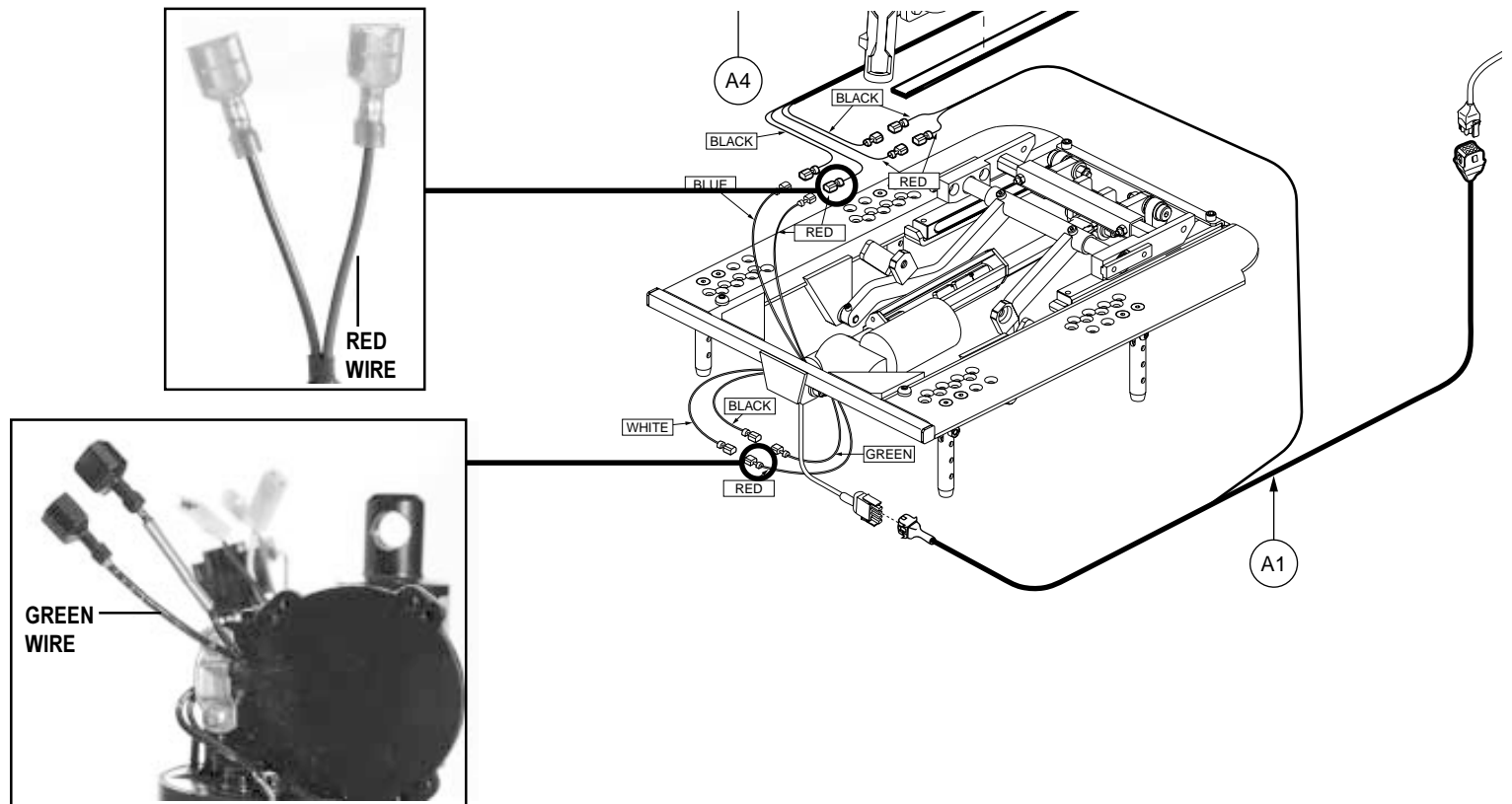


Figure 4.128. DOWN Limit Switch Test



If the tilt operates, the DOWN limit is defective. Replace the actuator assembly. If the tilt still does not operate, reconnect the wires and proceed to the next step.

Notes:

Test the ribbon switches by first removing them from the circuit. Locate the front of the actuator and note the white and black wires leading to the actuator. Disconnect these wires.

Connect the red wire from the harness (A1) to the red wire painted black leading to the actuator. Connect the black wire from the harness (A1) to the green wire painted black leading to the actuator. See figure 4.129.

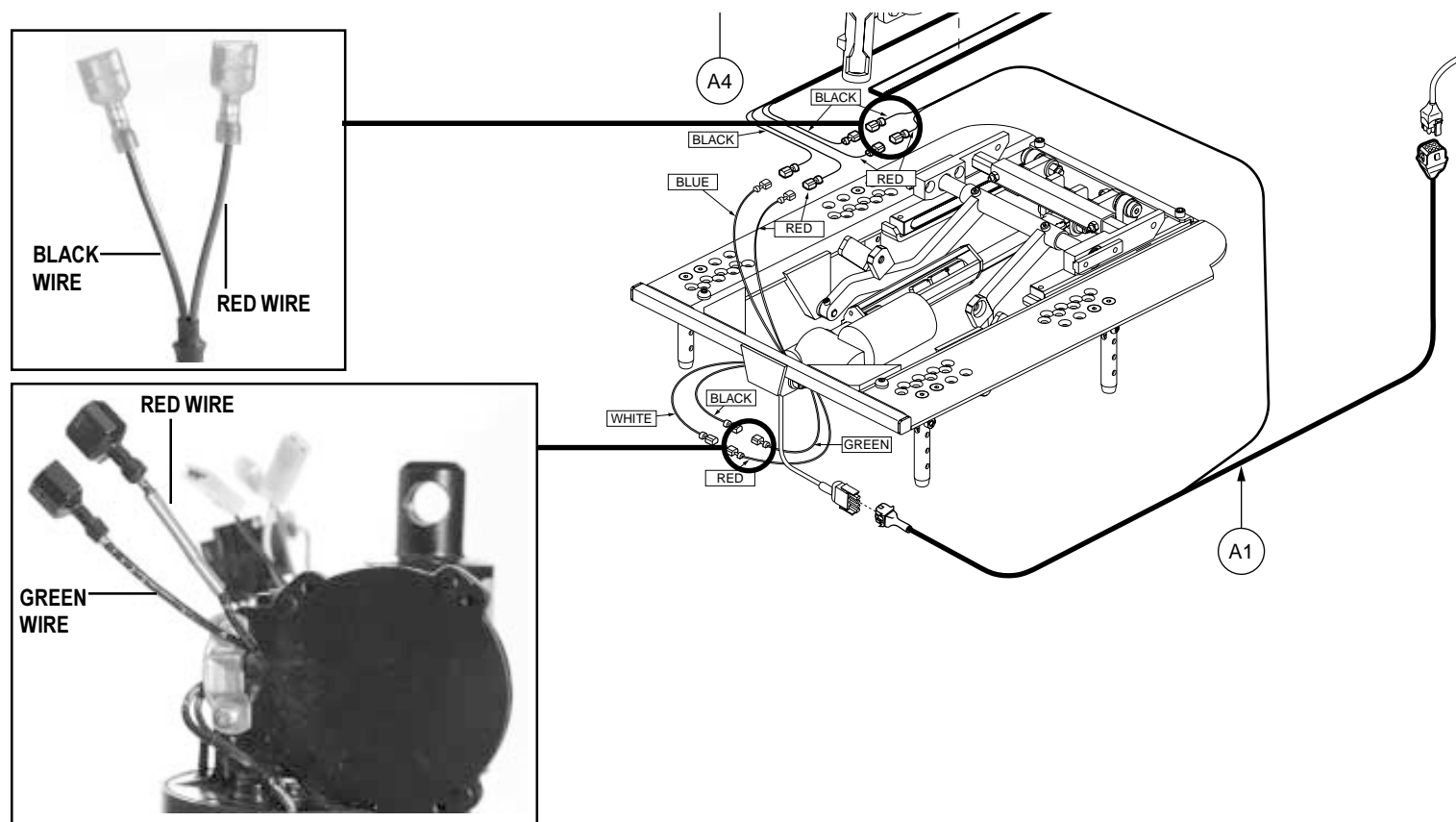


Figure 4.129. Ribbon Switch Test



Test the tilt. If the chair tilts in both the up and down directions, replace the ribbon switch assembly (harness A4).

If the tests above do not indicate a fault, replace the VSI.

Notes: