

ATLAS Wheel Balancer Electrical Flow Chart

WARNING: Leave all work to trained and licensed electricians. Attempting repairs yourself is extremely dangerous, with the potential for serious injury and even death. Greg Smith Equipment assumes no responsibility or liability for individuals doing the work as shown.

Helpful Tips: 1) Make sure that the balancer is on its own **dedicated breaker. There should not be any other appliance sharing the same breaker as the balancer. This would include Fans, radios, or any other 110-120 volt appliance.**



2) To protect your investment, it is highly recommended that a **quality** surge protector/battery backup is purchased and installed. Atlas balancers have a computer board in them. The computer board may fail if there is a lightning strike or an electrical power surge.



Check the fuse or breaker in the electrical panel. If it is burnt or tripped replace the fuse or reset the breaker/or replace.



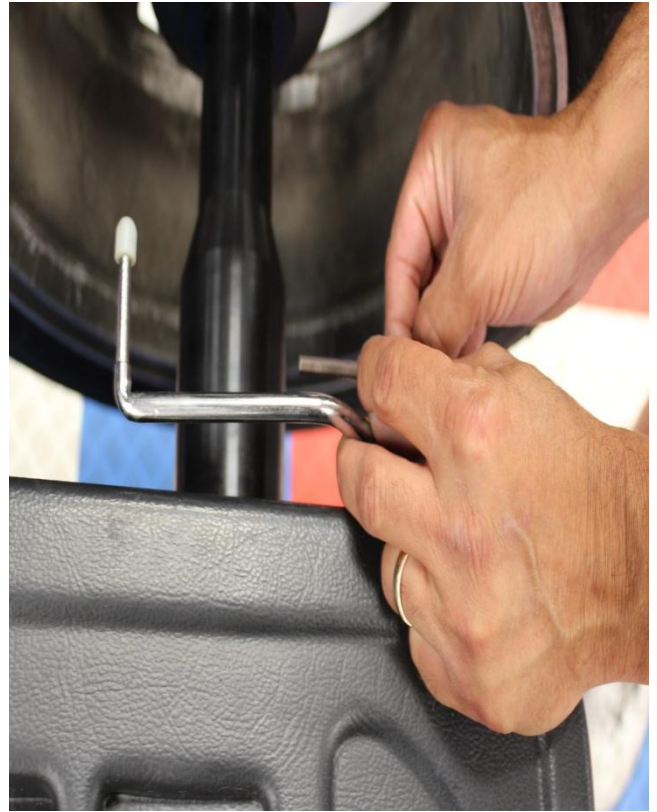
Check Voltage Coming from the Outlet



3) If equipment like air compressors is near the balancer, relocate the balancer or the piece of the equipment that creates vibration through the floor. Atlas balancers are very sensitive which makes them accurate which insures a quality balance every time. Vibration distorts the balancer and gives inaccurate readings. Remember, the only vibration the balancer should be receiving is from the tire and wheel assembly.



Remove the 4 bolts on the wheel balancer weight tray. Next, remove the distance gauge. With care, remove the wheel weight tray and set to the side. Be careful to not let the wheel weight tray fall because of the wiring harness that supplies power to the computer board.

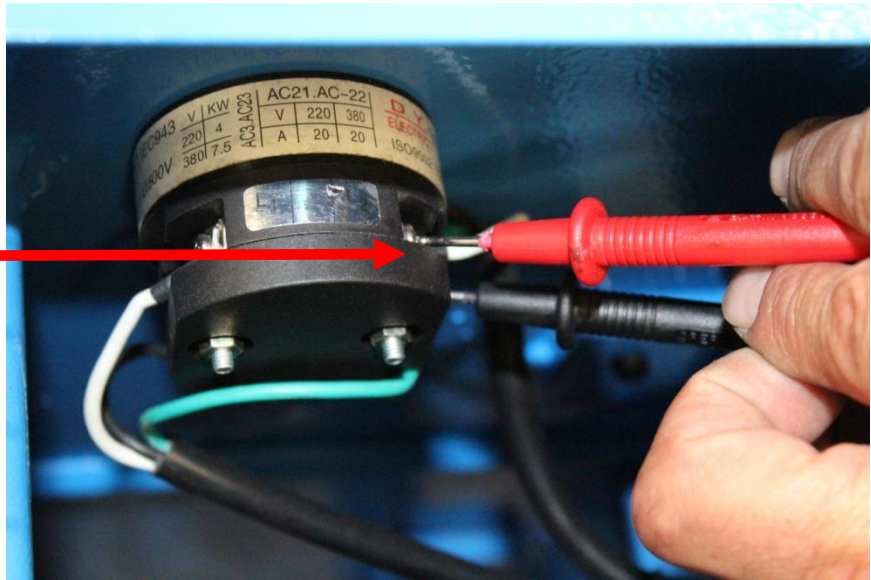


Check the voltage coming into the balancer to the ON/OFF switch.

ON/OFF SWITCH →



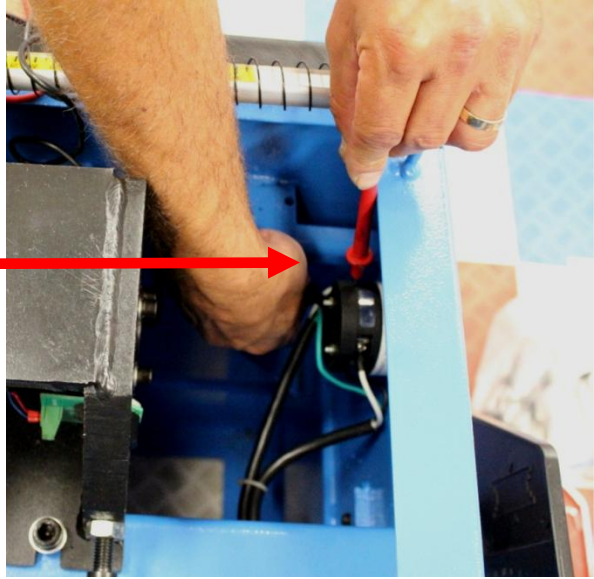
INCOMING POWER TO THE SWITCH →



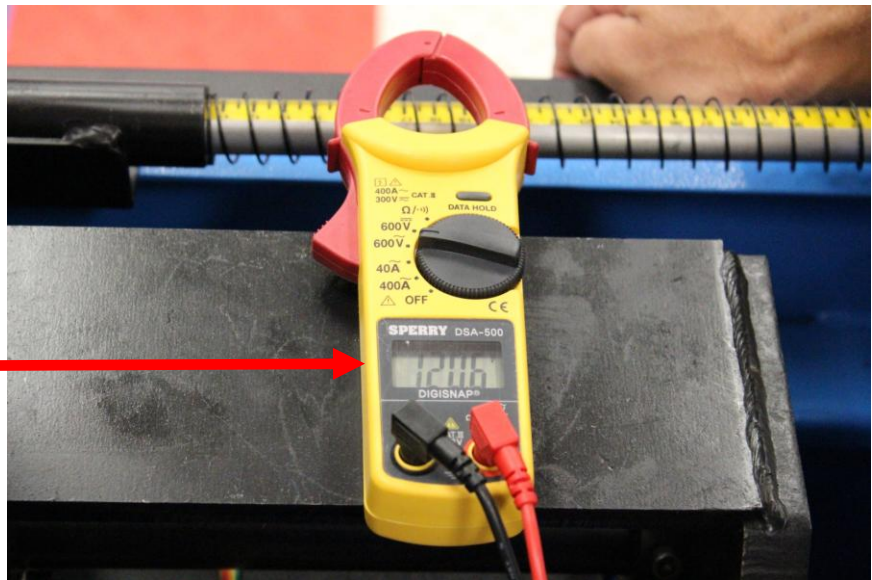
INCOMING POWER TO THE SWITCH →



**OUTGOING POWER
TO THE BALANCER**

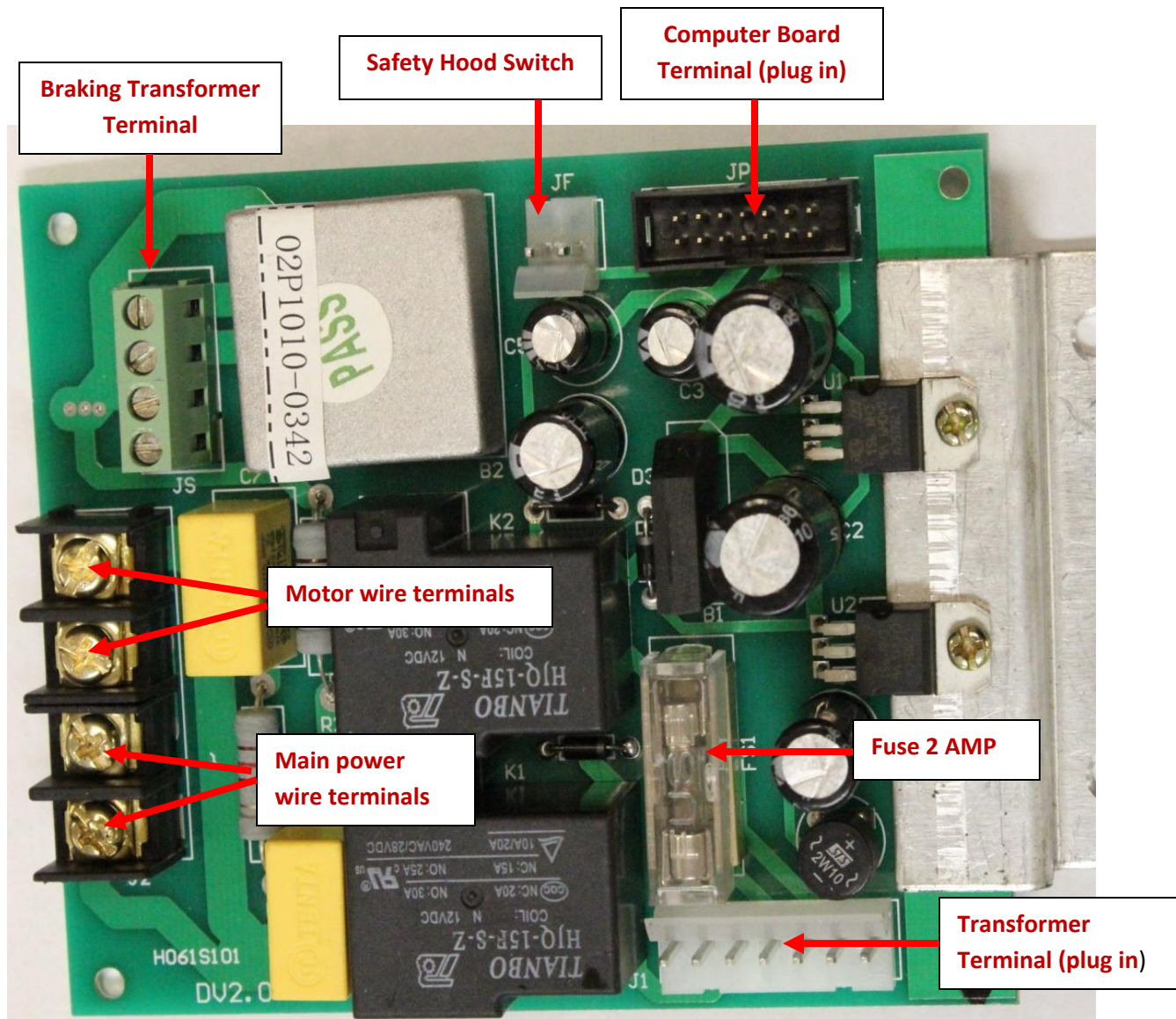


**INCOMING POWER TO
THE SWITCH**



Power Supply Board

The power supply board distributes specified voltage to different components on the balancer. There are a some of terminals on the power supply board that will need to have the voltage checked. These terminals are labeled below.



Check the Fuse

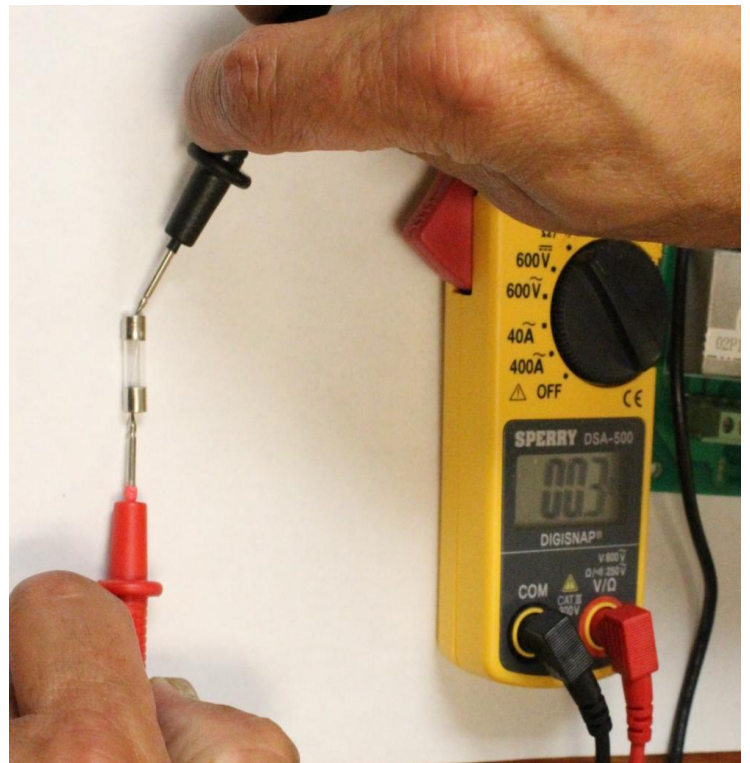
If the fuse is blown the balancer power supply board will not distribute voltage to the appropriate locations. There are 2 ways to check the fuse.

1) Visually inspect the fuse to see if the element is severed.

2) Use a multi meter (digital or analog**) and set turn the knob to **OHMS Ω** . Touch each side of the fuse with the volt meter terminals. See links below on how to check for OHMS Ω .**

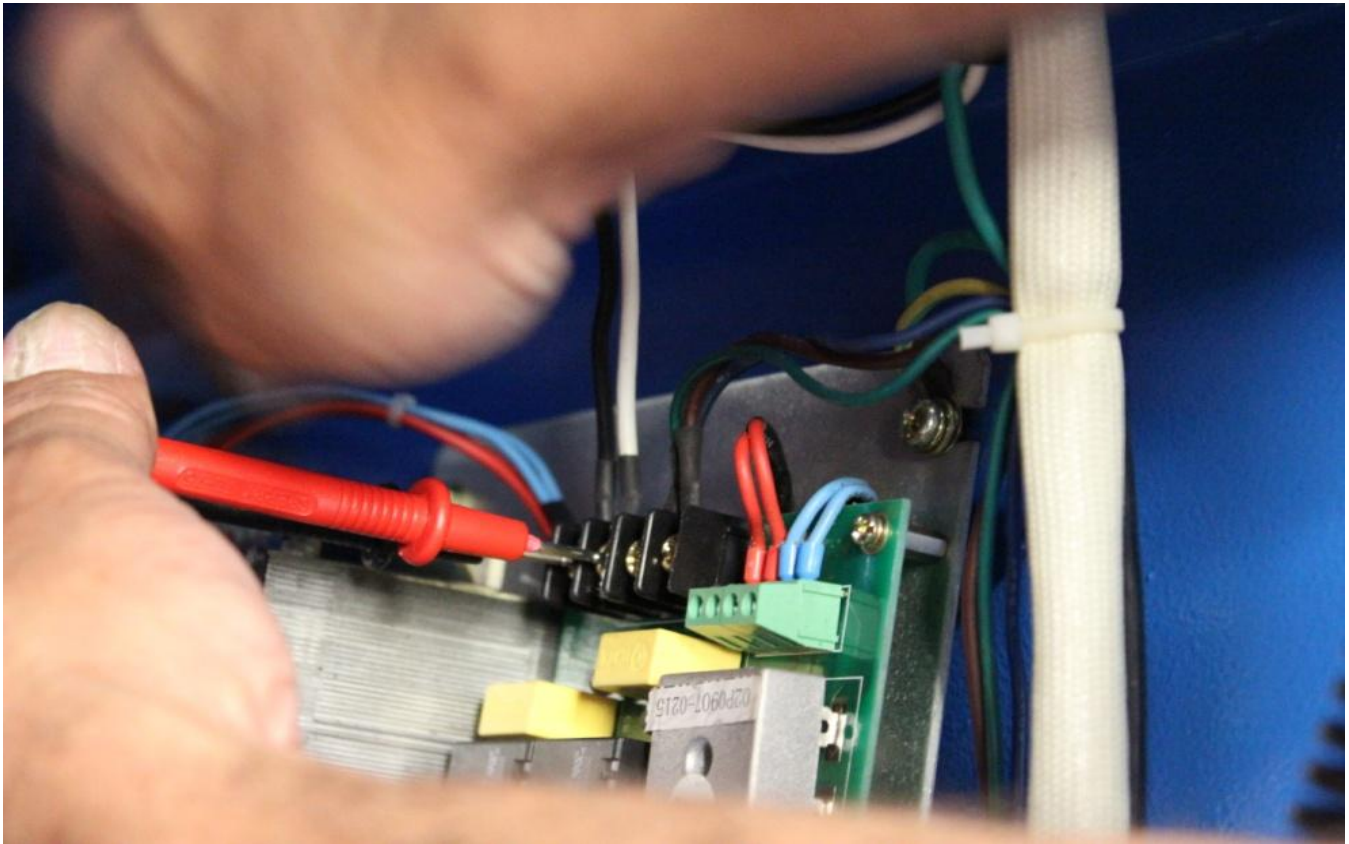
<http://www.doityourself.com/stry/how-to-read-ohms-with-an-analog-multimeter>

http://www.ehow.com/how_5597753_read-digital-multimeter-ohm-scale.html



Check the Main Power Wire Terminals

Refer to **Page 8** for main power wire terminal location.



Check the voltage going in and out of the Transformer

Transformer: A device for changing electrical energy: a device that transfers electrical energy from one alternating circuit to another with a change in voltage, current, phase, or impedance.

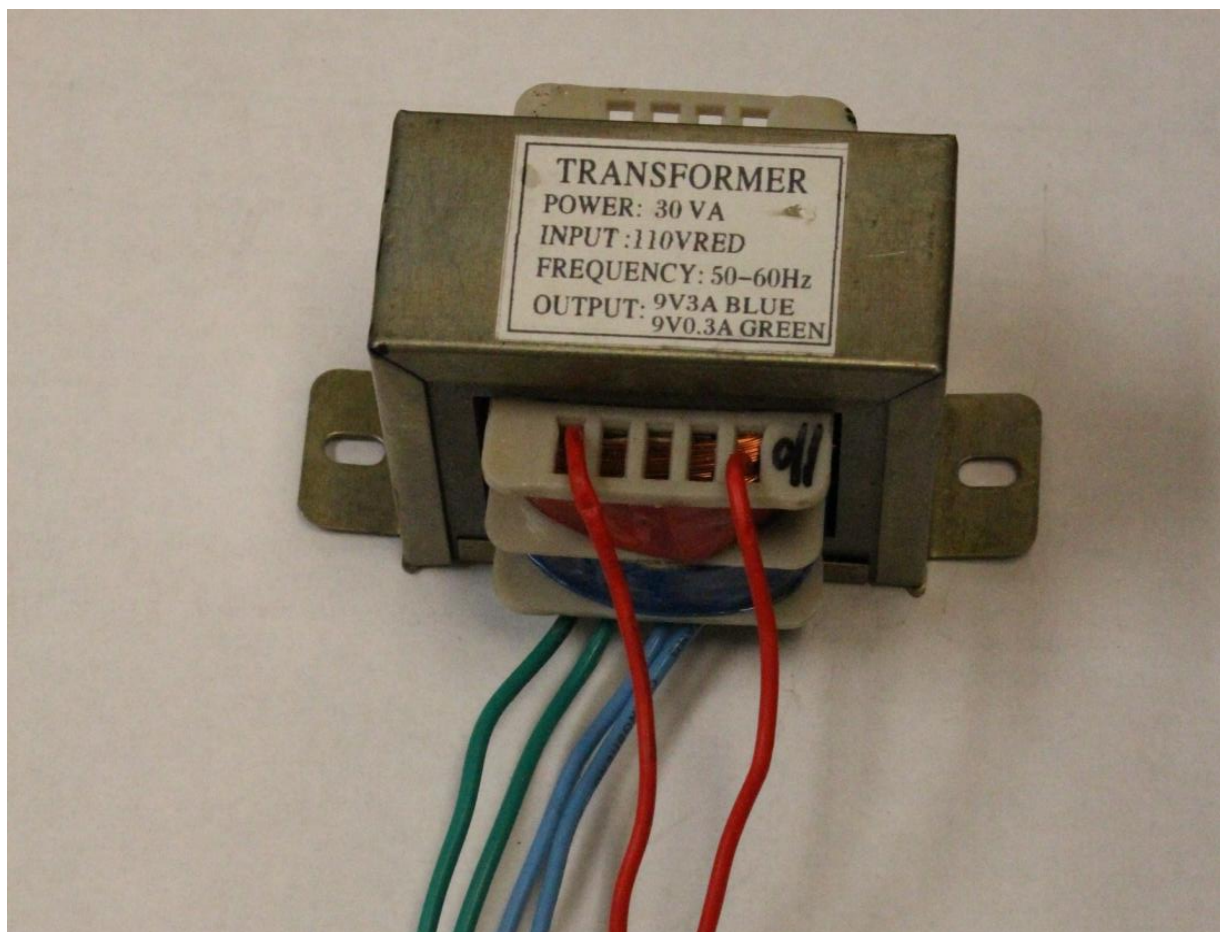
Note: Make sure the balancer power is on while testing the transformer

Use your multi meter to check the incoming voltage to the transformer. Place the red multi meter probe on 1 of the **red** wires. Place the black multi meter probe on the remaining **red** wire.

The red wires on the transformer should produce minimum a voltage of **110V**.

Follow the same steps with the multi meter for the **blue** and **green** wires.

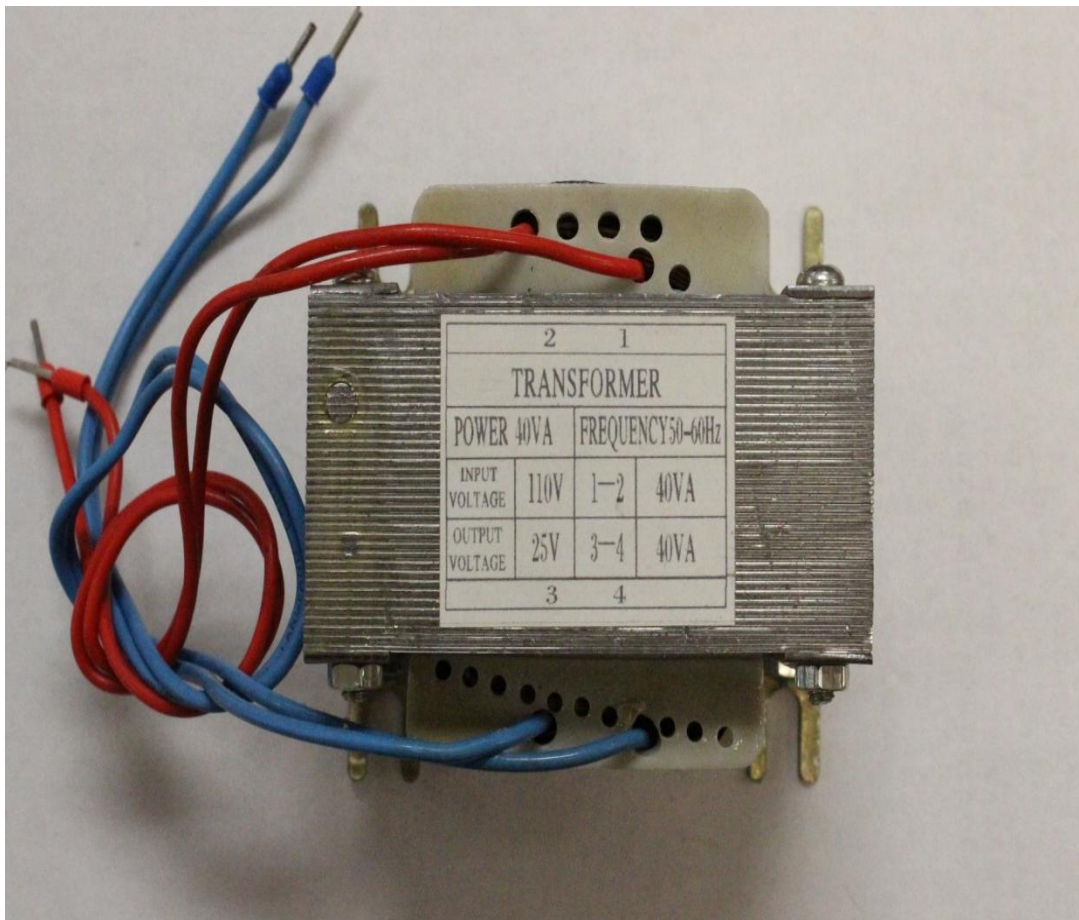
The **blue** and **green** wires should produce a minimum voltage of **9V**.



So there is no confusion, this is a "BRAKING TRANSFORMER".

Braking Transformer: The braking transformer is used to reduce the speed of the electrical motor.

This device will not be voltage tested in this electrical flow chart.



Inspect the Ribbon Cable

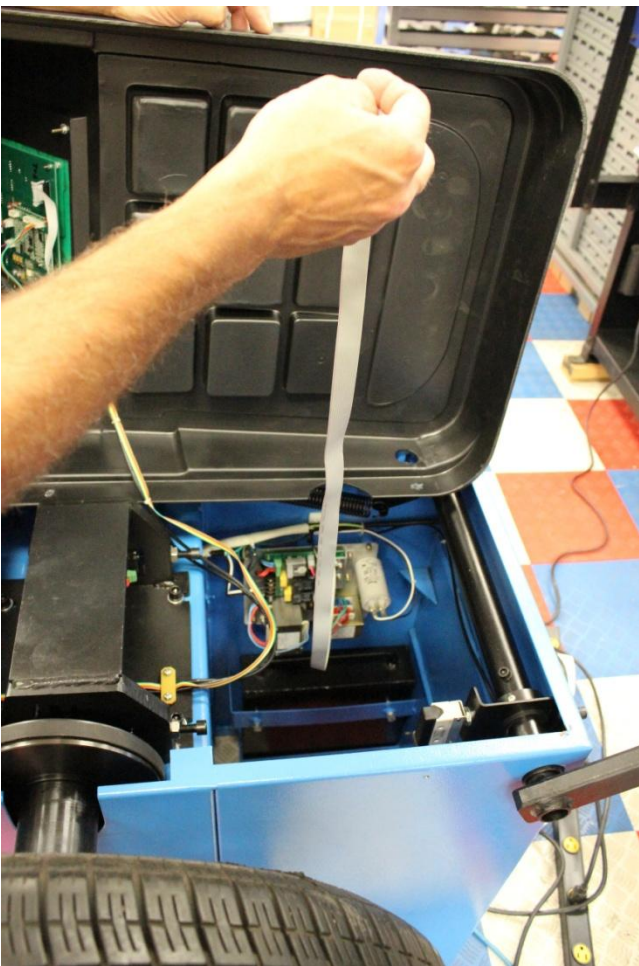
The ribbon cable is located on the power supply board and runs to the main computer board on the back of the LED display screen.

1) Turn the power off to the balancer.

2) Disconnect the ribbon cable from the power supply board and the main computer board.

3) Inspect the ribbon cable carefully. Look for tears in the ribbon; faulty connections.

4) An **OHMS Ω** can be performed on the ribbon cable (refer to page 10 for **OHMS Ω** setting).



Inspect the Ribbon Cable (cont)

The purpose of this test (**OHMS Ω**) is to check for a short in 1 of the wire strands on the ribbon cable. This will take a little time and patience because each wire strand needs to be tested. See below.

