Troubleshooting RDA/RDS/RMS/RSA Heater Control System & Circuitry.

Instrument does not respond to commanded temperature

1.a ? Is there any warning or error condition displayed on monitor
1.b ? Is the system controller turned on
1.c ? What is the temperature displayed on monitor
1.d ? Is there sufficient air pressure at the regulator – this should be set to 40 PSI
1.e ? Is the oven door closed
1.f ? Are the proximity (inductive) switches located to the left and right sides of the station in position
1.g ? Is the PRT/test float window found in parameters/indicators active. If the PRT circuit has failed or is open, this will shut down the system controller
1.h To activate the PRT/Test float window – click on **Utilities** - scroll to **Service** click on **check instrument address - set instrument address to A00b** and click OK. This will display the PRT/Test float temperature window at the bottom left of the monitor. If the test float temperature data is good, procede to the following step #2.a

2.a ? Is the heater element blown or open circuit
2.b Warning before attempting the following procedure ensure the 240VAC power to the RDA/RDS/RMS/RSA cabinet/electronics and test station is disconnected
2.c To check this it is necessary to gain access to the rear of the test station and access to a multimeter/dvm set to **ohms**. Remove the two spade connectors running from the heater element, usually covered with green heat resistant sleeving. Take your multimeter leads and measure across the two terminals. The multimeter should read approx **20 ohms** for an operational element, if the multimeter reads **open circuit** this indicates the heater element is blown and needs replacing. If this procedure checks out OK, procede to step# 2.d

2.d The **phasefire board** provides power to heat gun element. The board contains five fuses which are necesssary for temperature control. On the RDA this board is located on the lower right hand side, below the stainless steel cover and can be accessed as follows.

2.d Warning before attempting the following procedure ensure the 240VAC power to the RDA/RDS/RMS/RSA cabinet/electronics and test station is disconnected
2.e On the test station. Remove the circular plate covering the motor by removing the four pan head allen key screws

2.f Open the main black hinged cover to the test station and remove the two thumb Screws from the underside of rectangular stainless steel cover. Remove the four pan head allen screws located on the upper left and right rear edge of that cover and **carefully remove**

2.g If you look directly at the right hand-side of the exposed test station you will see the motor control box which has a clear plexiglass cover. The phasefire board is located directly to the left of the motor control box in an upright position, and is held in position by two push grip fasteners. Release the fasteners by pulling to the right, this will expose the five fuses on the underside. F1= 3A 250V, F2=3A 250V, F3=1/16A 250V, F4=3A 250V ceramic & F5=3A 250V ceramic. Inspect/Test and replace if necessary.

2.h **Carefully replace** phasefire board and reassemble in reverse order.