

## **ACR 3 CALIBRATION VERIFICATION PROCEDURE Rev 1**

Calibration verification is recommended on an annual basis.

### **Equipment needed**

1. Calibrated millivolt source & Icebath or a calibrated internally compensated thermocouple reference
2. Calibrated vacuum gage
3. Calibration record card
4. Calibration sticker

### **Temperature Verification**

1. Place ACR 3 and test instrument on a flat surface.
2. Connect units to appropriate power source.
3. Turn on power to each unit and allow 30 minutes for warming.
4. Connect the test instrument to the controller.
5. If using a millivolt source, input appropriate mV levels from table 1, otherwise input the temperatures from table 1 one at a time. A minimum of three temperature points should be tested.
6. Record and compare the temperature values.

### **Vacuum Verification**

7. Establish stable vacuum level.
8. Compare level with calibrated standard.
9. Repeat at 3 point's minimum across the scale of the gage.
10. Record and compare the vacuum levels.

### **Evaluation**

11. Determine if the controller meets required accuracy (*see notes 1&2*).
12. If controller does not meet accuracy requirements, please contact the factory.
13. If controller does meet accuracy requirements, complete and attach a calibration sticker.
14. File record of calibration.
15. Return controller to service.

**Table 1.**

Millivolt	Temp. F	Temp. C
0.52	50°F	10°C
1.942	100°F	37°C
4.906	200°F	93°C
7.947	300°F	149°C
11.023	400°F	204°C
14.108	500°F	260°C
17.186	600°F	315°C
20.253	700°F	371°C
23.317	800°F	426°C
26.396	900°F	482°C
29.484	999°F	537°C

NOTE 1: ACR 3 accuracy is +/-3°F.

NOTE 2: Vacuum gage accuracy is +/- 2% full scale.