



## Troubleshooting the SH-35N (SH-36N) Digital Superheat/ Subcooling Gauge

1. **Complaint:** Gauge reads pressure or inHg when not connected to a system.

**Solution:** Gauge may not be calibrated to zero. Hold the on/off button down until the unit blinks "CAL". Gauge is sensitive enough to respond to changes in atmospheric pressure and altitude changes.

2. **Complaint:** Gauge will not toggle through pressure temperature, superheat and subcooling.

**Solution:** Temperature sensor MUST be plugged in for the gauge to toggle.

3. **Complaint:** Temperature is not reading accurately.

**Solution:** SH-35N and SH-36N is accurate within 1 degree. What are you using as a standard? Thermocouples are +/- 4 degrees in accuracy. Also make sure the temperature sensor is plugged in all of the way.

4. **Complaint:** Gauge is calculating incorrect superheat or subcooling.

**Solution:** Disconnect gauge from system and hold down on/off button until "CAL" is displayed. Make sure that you are wrapping the sensor well, if not wrapped properly the sensor will not last as long.

5. **Complaint:** Want gauge to read PSIA instead of PSIG.

**Solution:** With unit off, press and hold the top button while turning the gauge on. Display will flash "CAL" and then display 13.8-15.1 depending on current conditions.

6. **Complaint:** Tried to calibrate gauge while unit is in use on system, now display reads ERR.

**Solution:** Gauge does not calibrate while in use, if gauge is put into calibration mode and exposed to positive or negative pressure, it will display an error. Unit MUST be calibrated before pressures are applied.

Product Note: When installing a battery, put wires to back of case to prevent pinching in lid.

Check off procedure:

1. Check calibration of unit:  
With unit off and no pressure connected, hold the upper button as you are turning the unit on. Unit will display 14.0-15.0 psi. This verifies that the calibration of the unit has not shifted.
2. Depending on the model of the SH-35N or SH-36N, either hold the bottom button to "zero" the gauge or turn the unit off and back on. Now check the unit a few different pressures.
3. Using the temperature simulator box, check the temperature calibration of the unit.
4. To verify Superheat:  
Make sure unit is selected to R-22  
Have temperature simulator set to 77 degrees  
Apply pressure between 30-100 psi

PSI	Standard Temperature	Actual Temperature
30	70	
60	43	
100	18	

5. To verify Subcooling:  
Check temperature at 77 degrees  
Increase pressure to 150-220 psi

PSI	Standard Temperature	Actual Temperature
150	6	
180	17	
220	31	