

## **A Consideration When Comparing DSI's Ambient Pressure Monitor Readings to Other Barometers and the Weather Service**

***When using DSI pressure transmitters, it is necessary to use an Ambient Pressure Reference. DSI's ambient pressure monitors report the absolute pressure measured in the room where it is placed. However, the ambient pressure monitors do not adjust to changes in altitude. Below are considerations for laboratories with elevations above sea level.***

Some barometers are calibrated to report barometric pressure adjusted to a sea level reading, which is what the weather service reports. This allows the weather service to report and compare barometric pressure differences with no regard to the elevation of the reporting station. DSI's ambient pressure monitors report the absolute pressure measured in the lab, which will vary with elevation of the lab. This reading is lower than that given by the weather service due to the elevation above sea level.

For comparison to weather service and/or sea level adjusted barometers, the differences are summarized in the following table:

<b>Elevation of lab (Feet above sea level)</b>	<b>Difference (Subtract DSI value from barometer value)(mmHg)</b>
0	0
50	1.37
100	2.74
200	5.48
300	8.20
400	10.92
500	13.63
600	16.33
700	19.03
800	21.72
900	24.39
1000	27.07
2000	53.35
3000	78.86
4000	103.62
5000	127.64
6000	150.95
7000	173.56
8000	195.49

9000	216.74
10000	237.35
11000	257.31
12000	276.66