## Crystal )

If adjustment is required, we recommend returning the m1 gauge to the factory. Factory service offers benefits you won't find anywhere else. We have the facilities to test your gauge at a variety of temperatures utilizing NIST traceable standards, resulting in calibration certificates that provide performance data over temperature. Furthermore, updates may be available to add or enhance operating features. We designed the product to last, and we support it so that you can get the most from your investment.

Under normal operating conditions, we recommend the m1 be calibrated every two years. Your quality system may require more or less frequent calibration, or your experience with the gauge or operating environment may require longer or shorter intervals.

Although we prefer that you return the m1 to Crystal Engineering for calibration, ordinary recertification and/or adjustment may be performed by any qualified personnel with appropriate training and equipment. The following instructions are ONLY intended for such qualified personnel with appropriate test equipment. We recommend that the calibration standards used have a minimum rated accuracy of 0.05% of reading, or equivalent in terms of percent of full scale. This level of accuracy requires the use of a Crystal Engineering Model 30 Series Pressure Calibrator, piston (deadweight) gauges, or very high performance pressure controllers.

There are no internal potentiometers. The m1 contains a "span" factor or multiplier, set to approximately 1 (as shipped from the factory). As components age this may need to be changed to a value slightly higher or lower, to slightly increase or decrease all readings.

"Zero" the m1, then record the displayed pressure for two or more pressure points. Determine if the m1 would benefit from an overall increase or decrease of the indicated pressures.

- ► To Change the Span Factor from the Keypad
- 1 Turn off the m1, then press the (power) and (enter) buttons simultaneously.

The firmware version will be displayed.



How-To Guide m1 Calibration Reference

AN-002.B

2 Press the (setup) button once to move to Calibration Mode.



**3** Press the (next) button to display the actual span factor value.



4 Adjust the span factor by pressing the (next) button to increase the value, or the (power) button to decrease the value. The value changes will be in 0.0001 increments



Span value increased by two increments.

- 5 Press the (enter) button to store the new value in memory.
- 6 Press the (setup) button to cancel the change.



If you cancel, you will return to the firmware version display (see step 1).

7 If at any time you would like to return to normal gauge operation, simply press the (enter) button.

