1.0 GENERAL DESCRIPTION

The Model 3650 Peak-Read Indicator is a portable, battery-powered instrument which adds quasi-dynamic capability to any static strain gage indicator, transducer indicator, or signal-conditioning system. While intended primarily for use with the Measurements Group line of instrumentation, it can be used equally well with any instrument which provides a suitable analog output.

Principal features of the Model 3650 are:

- Both the maximum and minimum values of a dynamic input signal are captured and simultaneously displayed.
- Maximum and/or minimum display can be independently or simultaneously reset by manual push buttons, externally generated reset pulse, or periodic automatic internal reset;
- Selectable four-pole Bessel low-pass filter to discriminate against undesirable high-frequency interference;
- Color-coded push-button controls for ease of operation and minimum operator training.

The Model 3650 operates from an internal battery pack consisting of six replaceable alkaline "C" cells. Battery life is approximately 200-250 hours. An AC-powered adapter is available for situations in which the unit is in continuous laboratory use.

CAUTION: The Model 3650 Peak-Read Indicator is designed to capture and display fast-changing signals. Therefore, it will respond to transients and noise voltages which may appear at the input. See Section 4.0.

2.0 SPECIFICATIONS

Range and Display:	Dual direct-reading liquid crystal display. ±19 999 counts full scale.
Overload Indication:	All-zero display with two flashing columnar indicators.
Sensitivity:	±1.0 to ±11V nominal for full-scale indication (±19 999 counts).
Resolution:	1 count; 50 to 550 μV.
Input Circuits:	Isolated; input impedance > 20 kΩ; either side may be connected to system ground without effect.
Accuracy:	
Step Input:	±0.1% ±4 counts for step input of > 4 milliseconds duration.
Repetitive Step Input:	±0.2% ±4 counts for repetitive step inputs of > 200 microseconds duration. Number of steps required $\geq \frac{\text{4 milliseconds.}}{\text{Pulse Duration}}$
Repetitive Sine Wave Input:	±5% ±4 counts for repetitive sine wave input of frequency < 1/2 filter cutoff frequency.
	±0.5% ±4 counts for repetitive sine wave input of frequency < 1/5 filter cutoff frequency.
Hold Stability:	4 counts/minute maximum at +75°F *(+24°C)*, averaged over 5-minute period.
Reset Capability:	Independent manual reset of maximum and minimum; automatic timed reset of maximum, minimum, or both; reset of maximum, minimum, or both by external contact closure or low TTL level.

CAUTION: When it becomes necessary to clean the Model 3650, do not use solvents on the front panel.