



Dear 6500 Customer,

Support of the 6500 has reached the end of its life cycle. We can and will continue to provide calibration support for the 6500 however, if the unit requires repair, we more than likely will not be able to perform the repair. Many components and parts are no longer available or obsolete. For those units where parts are available, we no longer will provide a guarantee on the repair, as we are finding that typically repairs cause stress or failures on other components soon after.

YOU MAY WANT TO CONSIDER REPLACING OR BUDGETING FOR REPLACEMENT OF THE 6500.

Guildline Instruments is pleased to announce the release of a new Teraohmmeter system, the Model 6520. The 6520 has a significant number of enhancements over the 6500 and the 6500A.

The 6520's unique design greatly improves accuracy specifications and enhances functionality in making high resistance measurements. Convenient Resistance and Current ranges from 100k to 10 Peta ohms and 10^{-2} to 10^{-14} amps are provided. When used as a transfer standard, uncertainties as low as $\pm 0.0025\%$ can be achieved. The 6520 now provides a fully automated method for calibrating both high and ultra-high resistance values and allows for direct Surface and Volume measurements via an optional accessory.

The menu driven firmware provides an easy and intuitive user interface. The front panel can provide direct measured values, environmental conditions and can graphically display on-going measurements. This provides an easy method of determining the settling time and the stability of a resistor measurement. The system can also calculate and display Min, Max, Average and Standard Deviation values and allows analysis of measurements all without the need for a computer!

In manual operation users have control over important test parameters such as Integration Times, Threshold and Test Voltages, and Voltage Reversal Rates. An automatic mode allows the microprocessor to determine appropriate resistance range, integration time and applied voltage. A combination of the automatic mode and manual entry of integration times (5mS to 1000S) and selected test voltages (1V to 1000V) allows the user to measure voltage coefficients for resistivity and resistance measurements.

Another important feature is availability of optional environmental sensors. These sensors log and allow real-time monitoring of temperature, humidity and atmospheric pressure. A change in any of these conditions, which may have affected the measurement, is available as well as the time at which the change occurred.

Another powerful feature, which has been added to the 6520, is the use of profiles. Three (3) standard profiles are provided which establish the system default parameter for local, RS232 and GPIB. Additional Programmable User profiles allow the ability to save and recall any special settings such as selected capacitor, threshold, voltage, soak time, and delay time. This allows for expedient setup times for repetitive measurements and reduces operator training times.

The newly developed software, TeraCal™ provides full SCPI based IEEE-488.2 GPIB control of the Model 6520 with data storage, report/certificate generation and other utilities allowing a variety of other resistance characteristics to be measured. Data can also be easily exported to Microsoft Excel. TeraCal™ calculates uncertainty by either using expanded uncertainties in accordance with ISO/IEC 17025:1999 requirements or alternatively uncertainties can be arithmetically summed.

**For further information within the United States, contact Guildline Instruments Limited -
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