

RESISTANCE/DISSIPATION TEST KIT

Model 2004

Includes all instrumentation required to measure resistance and the static dissipation characteristics of conductive and static dissipative components including automotive fuel systems as specified in SAE J1645.

Features:

- ❑ Resistance Meter measures:
 - $10^3 - 10^5 \Omega @ 10V$
 - $10^6 - >10^{12} \Omega @ 100V$
- ❑ Charge Plate Analyzer measures:
 - Dissipation from 1000-100V
 - Decay Time from <math><0.1</math> to 6 sec
 - Static charge
- ❑ Specified Clamp Electrodes have
0.25"x0.25" (6x6mm) & 0.25"x0.125" (6x3mm)
conductive rubber contact pads
- ❑ Humidity/Temperature/Dew Point Meter
- ❑ Accessories include:
 - Tripod, Insulated Test Surface, Grounding Module
 - Carrying case,
 - Operating Manual



Description:

SAE J1645 specifies the measurement of component and assembly resistance plus static dissipation of assemblies using defined test voltages, electrodes and procedures to evaluate the electrostatic characteristics of automotive fuel systems. This procedure may also be used to evaluate other conductive or static dissipative material or objects.

The ETS Model 2004 Resistance/Dissipation Test Kit provides all necessary instrumentation plus test procedures for meeting SAE J1645 and other measurement requirements. The ETS Model 880 Resistance Indicator performs resistance measurements at 10 or 100V while the Model 204-6 measures 1000-100V dissipation time from <math><0.1</math> to 6.0 sec. The Model 832 Resistance/Dissipation Electrodes provide the required contact to the test part. Completing the Kit is the precision Model 5646 Humidity/Temperature/Dew Point Indicator plus all required accessories housed in a sturdy ABS carrying case.



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Description:

Model 880 Autoranging Resistance Indicator: A CE compliant, easy to use precision instrument featuring a twelve (12) LED display to indicate the Conductive (Green), Static Dissipative (Yellow) and Insulative (Red) ranges in one (1) decade steps from $<10^3$ to $>10^{12}$ Ohms. Accuracy is $\pm 10\%$ of the mean value, with changeover points of $\frac{1}{2}$ decade on a logarithmic scale. Measurements in the Conductive range ($<5 \times 10^5$ Ohms) are made at 10 Volts. All remaining measurements are made at 100 Volts.

Standard electrodes are chrome-plated parallel bars 2.5" (6.25 cm) long, spaced 1.56" (40mm) apart. When auxiliary electrodes are plugged into the banana jack input the bar electrodes are disconnected. Instrument operates from a single 9V alkaline battery with low battery indication.

Model 204-6 Charged Plate Analyzer: A fully functional charged plate monitor that combines a static meter, $\pm 1200V$ (approximate) charging source, timing circuit and a removable charged plate detector.

The precision electrostatic field meter features a chopper-stabilized sensor for long-term, accurate measurements, and when used as a field meter only (Charged Plate Detector removed), measures from 0 - ± 20 kV at a meter-to-object distance of 1 inch (2.5 cm).

The internal ± 1200 Volt power supply charges the isolated 1"x3" (25.4x76mm) detector plate when either the + or - CHARGE button is depressed. The charging function automatically activates the timing mode. As the applied voltage on the detector plate decays, the timer starts when the measured voltage drops to 1000V and stops when it decays to 100V. Decay times from 0.3 to 6 sec in 0.3 sec. increments can be measured.

The 3½-digit LCD meter displays the voltage (1 Volt resolution), polarity, low battery warning plus dissipation time when the decay function of the Analyzer is used. The unit operates from a single 9V alkaline battery.

A recorder output (200mv full scale) enables visual or hard copy record of the measurement. The instrument can be mounted onto a tripod (included) using the ¼-20 threaded insert.

Model 832 Clamping Resistance Electrodes: Defined electrode contact for both resistance and static dissipation testing. Electrode assembly consists of a 0.25" (6mm) square and a 0.25x0.125" (6x3mm) rectangular conductive silicon rubber pads with volume resistivity of 0.01 Ohm-cm and Shore-A hardness of 65 durometer. The pads are mounted to stainless steel electrodes with an insertion length of 1" (25mm) installed onto a spring-loaded clamp exerting approximately 10 pounds (4.5kg) of force. Cables, 24" (61cm) long, terminated with standard 0.161" (4mm) banana plugs plus a grounding module to discharge the sample during the dissipation test are included.

Model 5646 Humidity/Temperature/Dew Point Indicator: Accurately measures the relative humidity over the range of 5-95 $\pm 3\%$ RH and temperature in either °F or °C from 32-122°F (0-50°C) with 0.1%RH or 0.1°F or °C resolution plus calculates dew point. Each successive push of the ON button displays Relative Humidity, Temperature. and calculates Dew Point. A 3V (CR2032) button cell with low battery indication provides a typical operating life of 100 hours.

Specifications:

Refer to the individual data sheets for additional information and specifications.

Warranty: One (1) year

Specifications subject to change without notice.

12/07