

*DWELL, Tach., ohms, DC/AC, V/A, Temp., Continuity beeper, Diode, Hz, Full line optional accessories*

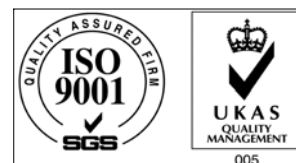
# AUTOMOTIVE TESTER

Model : DM-9030

ISO-9001, CE, IEC1010



**Lutron**



**LUTRON ELECTRONIC**

*The Art of Measurement*

# AUTOMOTIVE TESTER

## Model : DM-9030

### FEATURES

|  |
|--|
| * Multi function measurement. DCV, ACV, DCA, ACA, OHMS, TEMPERATURE, Hz, RPM, DWELL ANGLE, DIODE, CONTINUITY BEEPER.                     |
| * RPM (TACH) measurement by inductive pickup for more convenient & accurate readings of both conventional and distributorless ignitions. |
| * RPM (TACH) used the " Secondary Tach. " measuring method, no matter what cylinder no. is.  |
| * Accurate DCV/ACV, DCA/ACA and resistance measurement, wide range of automotive electronics tests.                                      |
| * Duty cycle (%) with Dwell conversion chart for electronic fuel injection and feedback carburetors.                                     |
| * Diode test quickly measures the forward bias voltage drop of alternator rectifiers and other diodes.                                   |
| * Continuity beeper keeps whenever probes touch a continuous circuit. Helps find shorts and open wires.                                  |
| * 10 Mega ohm impedance protects Mega ohm computer circuit.  |
| * Frequency measurements with adjustable trigger point for testing MAF, MAP & ABS SENSOR.  |
| * Rotary function switch, easy operation.  |
| * Large size LCD display.  |
| * Built-in overload protection for most ranges.  |

### GENERAL SPECIFICATIONS

|                    |   |
|--------------------|---|
| Display            | 18 mm (0.7") LCD, 3 1/2 digits, Max. indication 999.  |
| Measurement        | 36 ranges covering : DCV, ACV, DCA, ACA, OHMS, TEMPERATURE, Hz, RPM, DWELL ANGLE, DIODE, CONTINUITY BEEPER. |
| Polarity           | Automatic Switching, "-" indicates negative polarity.   |
| Zero Adjustment    | Automatic   |
| Over-input         | Display shows "1" or "-1".  |
| Sampling time      | Approx. 0.4 second.   |
| Operating Temp.    | 0 to 50°C (32 to 122°F)   |
| Operating Humidity | Less than 80% RH  |
| Power Consumption  | Approx. DC 3.6 mA.  |
| Dimension          | 185 x 87 x 39 mm(7.3 x 3.4 x 1.5 inch)  |
| Weight             | 322 g/0.71 LB (including battery).  |
| Standard           | Red and Black Test leads..... 1 pair  |
| Accessories        | Instruction Manual ..... 1 PC   |
| Optional           | RPM inductive pick up sensor (IP-07, IP-09)   |
| Accessories        | Temperature probe, carrying case...   |

### ELECTRICAL SPECIFICATIONS

| DC VOLTAGE |              |            |                 |                           |
|------------|--------------|------------|-----------------|---------------------------|
| RANGE      | ACCURACY     | RESOLUTION | INPUT IMPEDANCE | OVERLOAD PROTECTION       |
| 200mV      | ± (0.5%+1d)  | 100µV      | 10M ohm         | 500V DC, 350V AC, 15 sec. |
| 2V         | ± ((0.8%+1d) | 1mV        |                 | DC 600 V                  |
| 20V        |              | 10mV       |                 | AC 600 V                  |
| 200V       |              | 100mV      |                 |                           |
| 600V       |              | 1V         |                 |                           |

| AC VOLTAGE                                  |           |            |                 |                          |
|---|-----------|------------|-----------------|--------------------------|
| * FREQUENCY RESPONSE: 40Hz-500Hz, SINE WAVE |           |            |                 |                          |
| SPEC. TESTED ON 60Hz/50Hz                   |           |            |                 |                          |
| RANGE                                       | ACCURACY  | RESOLUTION | INPUT IMPEDANCE | OVERLOAD PROTECTION      |
| 200mV                                       | ± (1%+2d) | 100µV      | 10M ohm         | 500V DC, 350V AC, 15 sec |
| 2V (0.01V-2V)                               |           | 1mV        |                 | DC 600 V                 |
| 20V   |           | 10mV       |                 | AC 600 V                 |
| 200V  |           | 100mV      |                 |                          |
| 600V  |           | 1V         |                 |                          |

| AC/DC CURRENT                               |                                      |            |                              |                     |
|---|--------------------------------------|------------|------------------------------|---------------------|
| * FREQUENCY RESPONSE: 40Hz-500Hz, SINE WAVE |                                      |            |                              |                     |
| SPEC. TESTED ON 60Hz/50Hz                   |                                      |            |                              |                     |
| RANGE                                       | ACCURACY                             | RESOLUTION | VOLTAGE DROP                 | OVERLOAD PROTECTION |
| 10A   | DCA: ± (1.5%+2d)<br>ACA: ± (1.5%+3d) | 10mA       | ACA: AC200mV<br>DCA: DC200mV | 10A (UN FUSED)      |

| RESISTANCE |             |            |                    |                            |
|------------|-------------|------------|--------------------|----------------------------|
| RANGE      | ACCURACY    | RESOLUTION | OPEN CKT. VOLTAGE  | OVERLOAD PROTECTION        |
| 200 ohm    | ± (1%+3d)   | 0.1 ohm    | 3 V Max.           | AC 500V (Protected by PTC) |
| 2K         |             | 1 ohm      |                    |                            |
| 20K        |             | 10 ohm     |                    |                            |
| 200K       | ± (0.8%+1d) | 100 ohm    | APPROX. 0.3 V Max. |                            |
| 2000K      |             | 1K ohm     |                    |                            |
| 20M        | ± (2%+2d)   | 10K ohm    |                    |                            |

| DWELL      |             |            |             |                                |
|------------|-------------|------------|-------------|--------------------------------|
| CYLINDER   | RANGE       | RESOLUTION | ACCURACY    | OVERLOAD PROTECTION            |
| 3 CYL      | 0 - 120     | 0.1 degree | ± (1.2%+1d) | 200V DC/AC RMS (within 15 sec) |
| 4 CYL      | 0 - 90      |            |             |                                |
| 5 CYL      | 0 - 72      |            |             |                                |
| 6 CYL      | 0 - 60      |            |             |                                |
| 8 CYL      | 0 - 45      |            |             |                                |
| DUTY CYCLE | 0 - 100.0 % | 0.1 %      |             |                                |

| TACH (Secondary tach., no matter what cyl. no. is) |            |             |                               |  |
|--|------------|-------------|-------------------------------|--|
| RANGE  | RESOLUTION | ACCURACY    | OVERLOAD PROTECTION           |  |
| 500 - 10,000 RPM                                   | 10 RPM     | ± (1.2%+1d) | 24V DC/AC RMS (within 1 min.) |  |

| TEMPERATURE    |            |   |
|----------------|------------|---|
| RANGE          | RESOLUTION | ACCURACY  |
| -20°C to 750°C | 1°C        | ± (1% + 2d) : 0 to 300 °C<br>± (3 % + 2d) : Over 300 °C |
| 0°F to 1400°F  | 1°F        | ± (1% + 3d) : 0 to 550 °F<br>± (3 % + 3d) : Over 550 °F |

| FREQUENCY (Hz) |                 |           |            |                   |
|----------------|-----------------|-----------|------------|-------------------|
| RANGE          | MEASURING RANGE | ACCURACY  | RESOLUTION | INPUT SENSITIVITY |
| 200Hz          | 9-199.9 Hz      | ± (1%+2d) | 0.1 Hz     | 35mV RMS          |
| 2 KHz          | 9-1999 Hz       |           | 1Hz        |                   |
| 20KHz          | 0.9-19.99 kHz   |           | 10Hz       |                   |

\* Max. input voltage is 500 V DC/AC.

| CONTINUITY BEEPER   |  |
|---|--|
| A continuity test beeper is standard. When make the circuits checking for shorts or opens, it not necessary to look at the meter, the beeper sounds if continuity is present. |  |

| DIODE TEST                                 |  |
|--|--|
| Open circuit voltage is approx. DC 3V max. |  |

| OPTIONAL ADAPTER (OP ADPT.) |                       |                  |               |
|-----------------------------|-----------------------|------------------|---------------|
| RANGE                       | MAX. DISPLAY CAPACITY | PER DIGIT EQUAL: | ACCURACY      |
| EXT ADPT                    | 2000 x 1              | 0.1 mV DC        | ± (1.2% + 2d) |
| 200 A                       | 200.0 x 0.1           | 0.1 mV DC        |               |
| 2000 A                      | 2000 x 1              | 1 mV DC          |               |
| BATT TEST                   | 200.0 x 0.1           | 0.1 V DC         |               |

### OPTIONAL TEMPERATURE PROBE & OTHER ACCESSORIES

|  |
|--|
| Full line adapters :   |
| 1000 A, 2000 A ACA/DAC current adapter, Tachometer adapter, IR adapter, Humidity adapter, Pressure adapter, Light adapter, EMF adapter, Sound adapter, High voltage probe... |
| Temp. probe : Type K, TP-01, TP-02A, TP-03, TP-04.   |
| RPM inductive pick up sensor : IP-07, IP09   |
| Carrying case :  |
| Soft carrying case. Size : 190 x 90 x 55 mm..... CA-03   |
| Soft carrying case with sash. Size : 260 x 110 x 55 mm..... CA-05A   |