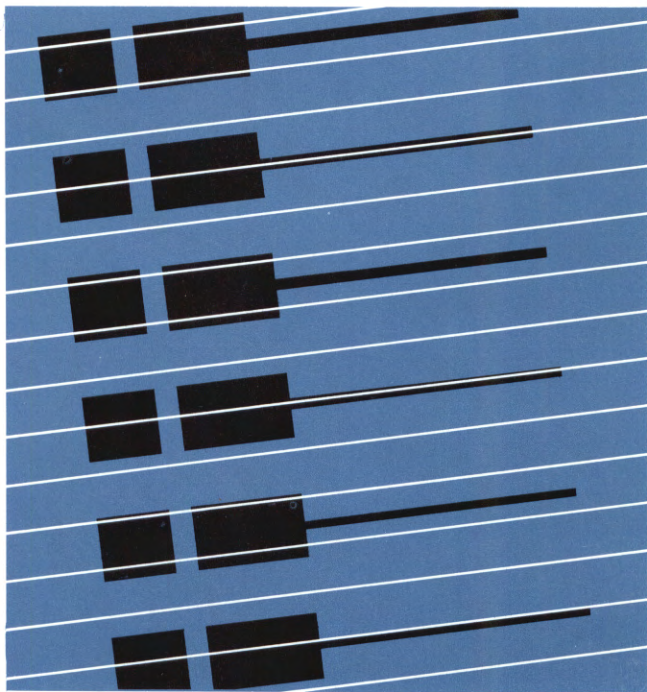
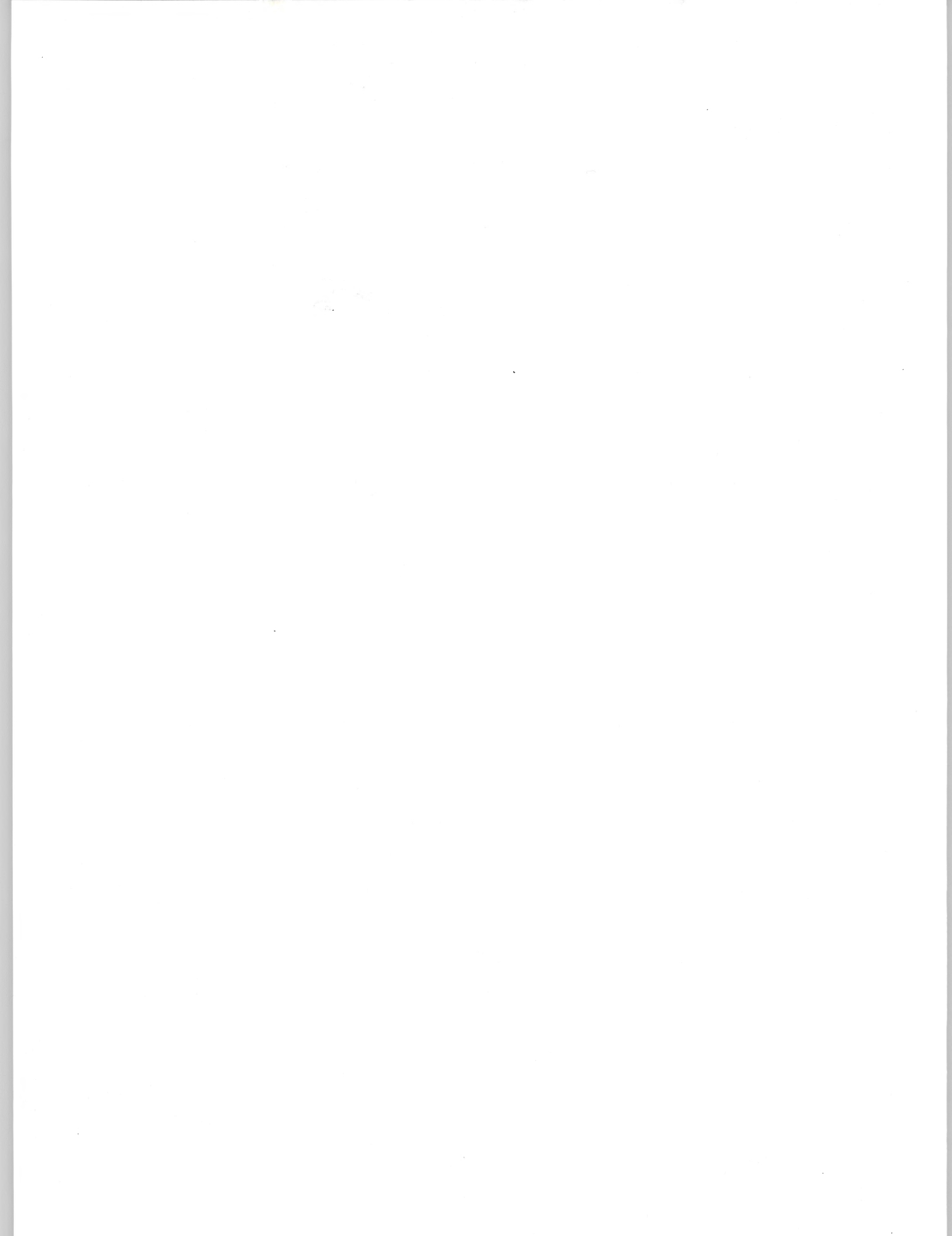


Escort



Test Instruments

1986 Catalog VOL. 2





Precision Test Instruments

With this catalogue we are introducing a new line of Escort Test Instrument. The instrument has been thoroughly designed by a company whose basic promise is to always produce a good product.

As testing standards become increasingly higher we are constantly upgrading our equipment. This is done to provide accuracy and dependency. We've made the circuits to last longer, improved contact points, used more durable materials for switches and outer casings, to make sure that over many years of use that the instrument will always be reliable.

Every instrument that is made by us, and tested before leaving, is made to be the best moderately priced in the market today.

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Digital Multimeters

Introduction

Compact Design Incorporating New Advances

These new meters in the Escort EDM Series with improved design, handle all the basic measurements, DC / AC Volts, DC / AC Amps and Ohms, quicker and more accurately.

10 Amperes DC/AC Current Capability

Measuring up to 10 amperes DC/AC current can be done with these meters without adding special adapters.

Instant Continuity Function

With Escorts new audible instant continuity check by buzzer an analog meter is no longer needed for fast measurements. Checking for circuit shorts and other continuity problems can now be made more quickly than ever before possible with a digital multimeter.

Easy To Read

The large size LCD reads 1999 in the 3½-digit meter, 19999 in the 4½-digit meter. Zero adjustment is automatic, an overload condition is signaled by the highest digit glowing, and a negative input is displayed with (-).

Superior Reliability

The specially designed CMOS, LSI, IC and high precision resistor networks insure exceptionally high instrument reliability. A crystal stable is used for normal mode noise rejection, and outside noise is efficiently shielded out.

Overload Protection

Every meter is triple protected from excessive input by a fuse (2A), a zener diode and a resistor.

Optional Accessories

Extended measurements with all the Escort meters is possible with optional accessories.

General Specifications

Display: 3½ digit LCD reads 1999 maximum.

4½ digit LCD reads 19999 maximum. (EDM-1346A & EDM-2347 only)

Polarity: Automatic, (-) negative polarity indication.

Zero Adjustment: Automatic

Overrange Indication: Highest digit of (1) or (-1) is displayed.

Low Battery Indication: The (Lo Bat) is displayed when the battery voltage drops below the operating voltage.

Measurement Rate: 2.5 measurements per second, nominal.

Operating Temperature: 0°C to +35°C 0-80% RH,
+35°C to +50°C 0-70% RH.

Storage Temperature: -20°C to +65°C 0-90% RH with battery removed.

Accuracy: Accuracy specifications at 23±5°C, less than 75% RH.

Power: Single, standard 9-volt battery, NEDA1604, JIS006P, IEC6F22.
AC 115 or 230 V (±10%), 50/60 Hz; DC 1.5 V × 6pcs "C" cells.
(for bench type only)

Battery Life (Typical): 200 hours (handheld)
2000 hours (bench)

Dimensions: 9.0 cm(W) × 17.4 cm(L) × 3.6 cm(H) for handheld type.
24 cm(W) × 19 cm(L) × 6.4 cm(H) for bench type.

Accessories: Test leads (Pair), Spare fuse, Battery, Operator's manual.

Note:

The general specifications are used for the following models unless otherwise specified. EDM 2347, EDM 2116, EDM 1346A, EDM 1135 EDM 1125, EDM 1118, EDM 1116A, EDM 1105A, EDC 110A, ELC 120, ECT 620.

4½-Digit Multimeter



EDM 2347

FEATURES:

- 4½ Digit
- 0.03% DC accuracy
- 10 Functions: DCV, ACV, DCA, ACA, OHM, Audible Continuity Test, Diode Test, Frequency, dB, Data Hold,
- True-RMS reading for ACV and ACA
- Year-round battery life
- Stacking system for space saving

SPECIFICATIONS:

Display: 4½ Digit LCD reads 19999 maximum.

Polarity: Automatic, "—" negative polarity indication.

Overrange: Highest digit of "1" or "-1" is displayed.

Low Battery: "LO BAT" is displayed when the battery voltage drop below the operating voltage.

Measurement Rate: 2.0 measurements per second.

Operating Temperature: 0°C to +35°C, 0–80% RH.
0°C to +50°C, 0–70% RH.

Storage Temperature: -20°C to +60°C, 0–90% RH with battery removed.

Accuracy: Accuracy specifications at 23°C ± 5°C, 0–70% RH.

Power: DC 1.5V "C" cells × 6 pcs or AC adaptor output DC 7.5volt 100mA, with center minus jack.

Battery Life: 2000 hours.

Dimension: 24cm(W) × 19cm(L) × 6.4cm(H).

Accessories: Test leads (pair), Spare 2A fuse, Operator manual.

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 10uV, 100uV, 1mV, 10mV, 100mV
Accuracy	• 200mV – 1000V ± (0.03%rdg + 3dgt)

AC Voltage (True RMS, AC coupled 10% to 100% of range)

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 10uV, 100uV, 1mV, 10mV, 100mV
Accuracy	• 200mV – 200V @45Hz – 10KHz ± (0.5%rdg + 10dgt) @10KHz – 20KHz ± (1.0%rdg + 20dgt) @20KHz – 50KHz ± (5.0%rdg + 30dgt) 1000V @45Hz – 2KHz ± (0.5%rdg + 10dgt)

DC Current

Range	• 200uA, 2mA, 20mA, 200mA, 2A, 20A
Resolution	• 10nA, 100nA, 1uA, 10uA, 100uA, 1mA
Accuracy	• 200uA – 200mA ± (0.3%rdg + 10dgt) 2A, 20A ± (0.75%rdg + 10dgt)

AC Current

Range	• 200uA, 2mA, 20mA, 200mA, 2A, 20A
Resolution	• 10nA, 100nA, 1uA, 10uA, 100uA, 1mA
Accuracy	• 200uA–200mA @45Hz – 10KHz ± (1.0%rdg + 10dgt) @10KHz – 20KHz ± (2.0%rdg + 20dgt) 2A, 20A @45Hz – 2KHz ± (1.0%rdg + 10dgt)

Resistance

Range	• 200Ω, 2KΩ, 20KΩ, 200KΩ, 2MΩ, 20MΩ
Resolution	• 0.01Ω, 0.1Ω, 1Ω, 10Ω, 100Ω, 1KΩ
Accuracy	• 200Ω ± (0.2%rdg + 5dgt + 0.04Ω) 2KΩ – 200KΩ ± (0.1%rdg + 3dgt) 2MΩ ± (0.15%rdg + 3dgt) 20MΩ ± (0.5%rdg + 3dgt)

Frequency

Range	• 20KHz, 200KHz
Resolution	• 1Hz, 10Hz
Accuracy	• ± (0.5%rdg + 3dgt)

dB: 600Ω Reference, (AC coupled 10% to 100% of range)

Range	• 2.45mV – 1000V
Accuracy	• ± 0.6dB – ± 2.0dB

3½-Digit Multimeter



EDM 2116

FEATURES:

- 3½ Digit 0.5" large LCD
- Eight functions: DCV,ACV,DCA,ACA,OHM, Audible Continuity Test, Diode Capacitance Test
- 0.5% DC accuracy
- Year-round battery life
- Stacking system for space saving

SPECIFICATIONS:

Display: 3½ Digit LCD reads 1999 maximum.

Polarity: Automatic, "—" negative polarity indication.

Overrange: Highest digit of "1" or "—1" is displayed.

Low Battery: "LO BAT" is displayed when the battery voltage drop below the operating voltage.

Measurement Rate: 2.5 measurements per second.

Operating Temperature: 0°C to +35°C, 0–80% RH.

0°C to +50°C, 0–70% RH.

Storage Temperature: –20°C to +60°C, 0–90% RH with battery removed.

Accuracy: Accuracy specifications at 23°C ± 5°C, 0–70% RH.

Power: DC 1.5V "C" cells × 6 pcs or AC adaptor output DC 7.5volt 100mA, with center minus jack.

Battery Life: 2000 hours.

Dimension: 24cm(W) × 19cm(L) × 6.4cm(H).

Accessories: Test leads (pair), Spare 2A fuse, Operator manual.

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V ± (0.5%rdg + 1dgt)

AC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V @45Hz – 500Hz ± (1.0%rdg + 4dgt)

DC Current

Range	• 200uA, 2mA, 20mA, 200mA, 2A, 20A
Resolution	• 100nA, 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 200uA – 200mA ± (1.0%rdg + 1dgt) 2A – 20A ± (1.0%rdg + 3dgt)

AC Current

Range	• 200uA, 2mA, 20mA, 200mA, 2A, 20A
Resolution	• 100nA, 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 200uA – 20A @45Hz-500Hz ± (1.5%rdg + 4dgt)

Resistance

Range	• 200 Ω, 2K Ω, 20K Ω, 200K Ω, 2M Ω, 20M Ω
Resolution	• 0.1 Ω, 1 Ω, 10 Ω, 100 Ω, 1K Ω, 10K Ω
Accuracy	• 200 Ω ± (0.75%rdg + 4dgt) 2K Ω – 2M Ω ± (0.75%rdg + 1dgt) 20M Ω ± (1.5%rdg + 5dgt)

Capacitance

Range	• 2nF, 20nF, 200nF, 2uF, 20uF
Resolution	• 1PF, 10PF, 100pF, 1nF, 10nF
Accuracy	• ± (2.0%rdg + 4dgt)

4½-Digit Multimeter



EDM 1346A

- * 4½ digits
- * Nine functions: DCV, ACV, DCA, ACA, OHM, Audible Continuity Testing, Diode Testing, Frequency, Data Hold
- * 0.05% basic DC accuracy, True RMS reading for ACV and ACA

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 10uA, 100uV, 1mV, 10mV, 100mV
Accuracy	• 200mV – 1000V $\pm$ (0.05%rdg + 3dgt)

AC Voltage: (True RMS, AC coupled 10% to 100% of range)

Range	• 200mV, 2V, 20V, 200V, 750V
Resolution	• 10uA, 100uV, 1mV, 10mV, 100mV
Accuracy	• 200mV – 200V @45Hz – 1KHz $\pm$ (0.75%rdg + 10dgt) @1KHz – 2KHz $\pm$ (1.5%rdg + 20dgt) @2KHz – 3KHz $\pm$ (6.0%rdg + 30dgt) (200V @2KHz – 5KHz not specified) 750V @45Hz – 1KHz $\pm$ (1.0%rdg + 10dgt)

DC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 100nA, 1uA, 10uA, 100uA, 1mA
Accuracy	• 2mA – 200mA $\pm$ (0.3%rdg + 3dgt) 2A – 10A $\pm$ (0.75%rdg + 3dgt)

AC Current: (True RMS, AC coupled 10% to 100% of range)

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 100nA, 1uA, 10uA, 100uA, 1mA
Accuracy	• 2mA @45Hz – 400Hz $\pm$ (2.5%rdg + 10dgt) 20mA @45Hz – 400Hz $\pm$ (0.75%rdg + 10dgt) @400Hz – 1KHz $\pm$ (1.25%rdg + 20dgt) 200mA @45Hz – 400Hz $\pm$ (0.75%rdg + 10dgt) @400Hz – 1KHz $\pm$ (0.75%rdg + 20dgt) 2A – 10A @45Hz – 400Hz $\pm$ (1.2%rdg + 10dgt)

Resistance

Range	• 200Ω, 2KΩ, 20KΩ, 200KΩ, 2MΩ, 20MΩ
Resolution	• 0.01Ω, 0.1Ω, 1Ω, 10Ω, 100Ω, 1KΩ
Accuracy	• 200Ω $\pm$ (0.2%rdg + 5dgt + 0.04Ω) 2KΩ – 200KΩ $\pm$ (0.1%rdg + 3dgt) 2MΩ $\pm$ (0.15%rdg + 3dgt) 20MΩ $\pm$ (0.5%rdg + 3dgt)

Frequency

Range	• 20KHz, 200KHz
Resolution	• 1Hz, 10Hz
Accuracy	• $\pm$ (0.5%rdg + 3dgt)

3½-Digit Multimeter



EDM 1135

- * 3½ digits
- * Eight functions: DCV, ACV, DCA, ACA, OHM, Diode Testing, Peak Hold, Audible Continuity Testing
- * 0.1% basic DC accuracy

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V $\pm$ (0.1%rdg + 1dgt)

AC Voltage

Range	• 200mV, 2V, 20V, 200V, 750V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 200V @45Hz – 1KHz $\pm$ (0.75%rdg + 4dgt) @1KHz – 2KHz $\pm$ (1.5%rdg + 5dgt) @2KHz – 5KHz $\pm$ (5.0%rdg + 7dgt) (200V @2KHz – 5KHz not specified) 750V @45Hz – 1KHz $\pm$ (1.0%rdg + 4dgt)

DC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA – 200mA $\pm$ (0.75%rdg + 1dgt) 2A – 10A $\pm$ (1.5%rdg + 3dgt)

AC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA @45Hz – 400Hz $\pm$ (3.0%rdg + 2dgt) 20mA – 200mA @45Hz – 1KHz $\pm$ (1.5%rdg + 2dgt) 2A – 10A @45Hz – 400Hz $\pm$ (2.0%rdg + 4dgt)

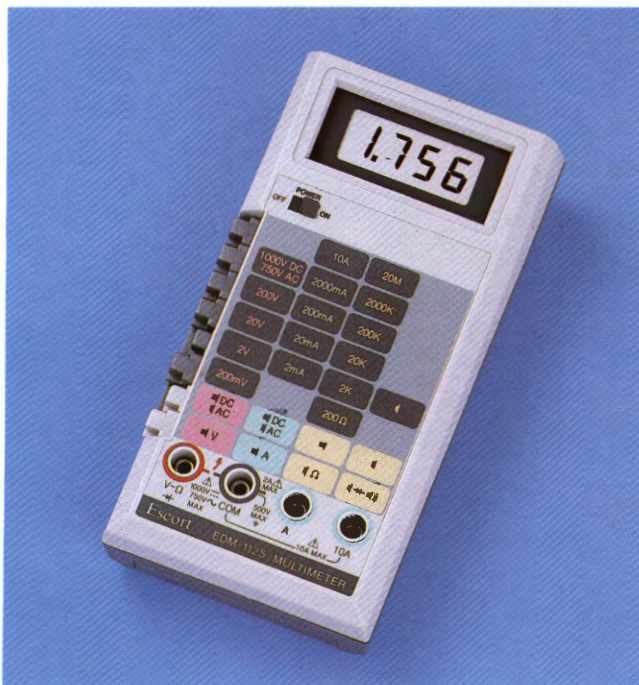
Resistance

Range	• 200Ω, 2KΩ, 20KΩ, 200KΩ, 2MΩ, 20MΩ
Resolution	• 0.1Ω, 1Ω, 10Ω, 100Ω, 1KΩ, 10KΩ
Accuracy	• 200Ω $\pm$ (0.2%rdg + 4dgt) 2KΩ – 2MΩ $\pm$ (0.2%rdg + 1dgt) 20MΩ $\pm$ (1.5%rdg + 5dgt)

Peak hold for measuring Transient Signals

- AC, DC, Volts or Current, All Ranges
- AC Accuracy (48Hz – 450Hz)
 - $\pm$ (3.0%rdg + 12dgt), except 2mA $\pm$ (6.0%rdg + 12dgt). Average sensing, calibrated to read highest rms value of sine wave
- DC Accuracy
 - $\pm$ (3.0%rdg + 10dgt)
- Display Decay Rate
 - < 1 digit/sec.

3½-Digit Multimeters



EDM 1125

- * 3½ digits.
- * Seven functions: DCV, ACV, DCA, ACA, OHM, Diode Testing, Audible Continuity.
- * 0.25% basic DC accuracy.

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V $\pm$ (0.25%rdg + 1dgt)

AC Voltage

Range	• 200mV, 2V, 20V, 200V, 750V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 200V @45Hz – 1KHz $\pm$ (1.0%rdg + 4dgt) 750V @45Hz – 400Hz $\pm$ (1.0%rdg + 4dgt)

DC Current

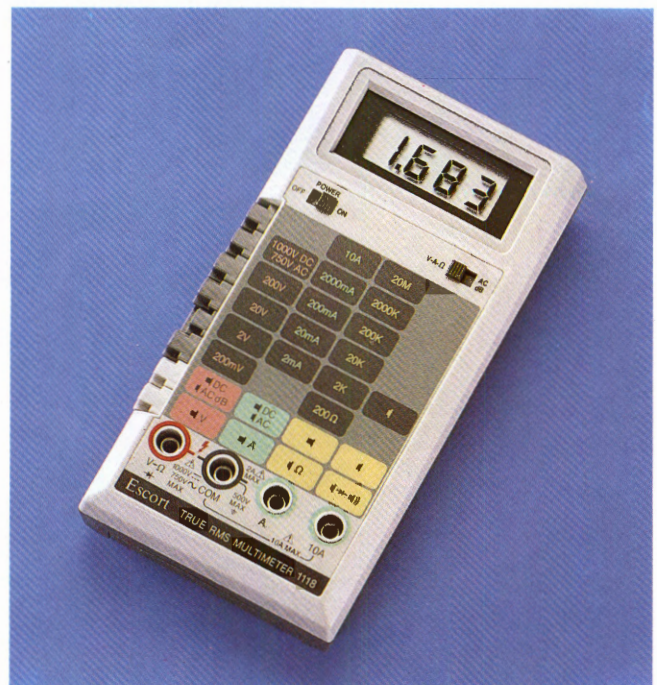
Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA – 200mA $\pm$ (0.75%rdg + 1dgt) 2A – 10A $\pm$ (1.5%rdg + 3dgt)

AC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA @45Hz – 400Hz $\pm$ (3%rdg + 2dgt) 20mA – 200mA @45Hz – 1KHz $\pm$ (1.5%rdg + 2dgt) 2A – 10A @45Hz – 400Hz $\pm$ (2.0%rdg + 4dgt)

Resistance

Range	• 200 Ω , 2K Ω , 20K Ω , 200K Ω , 2M Ω , 20M Ω
Resolution	• 0.1 Ω , 1 Ω , 10 Ω , 100 Ω , 1K Ω , 10K Ω
Accuracy	• 200 Ω $\pm$ (0.5%rdg + 4dgt) 2K Ω – 2M Ω $\pm$ (0.5%rdg + 1dgt) 20M Ω $\pm$ (1.5%rdg + 5dgt)



EDM 1118

- * 3½ digits
- * Eight functions: DCV, ACV, DCA, ACA, OHM, Diode Testing, Audible Continuity Testing, dB Testing
- * 0.5% basic DC accuracy, True RMS reading for ACV and ACA

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V $\pm$ (0.5%rdg + 1dgt)

AC Voltage: (True RMS, AC coupled 10% to 100% of range)

Range	• 200mV, 2V, 20V, 200V, 750V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 200V @45Hz – 1KHz $\pm$ (1.25%rdg + 4dgt) 750V @45Hz – 400Hz $\pm$ (1.25%rdg + 4dgt)

DC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA – 200mA $\pm$ (0.75%rdg + 1dgt) 2A – 10A $\pm$ (1.5%rdg + 3dgt)

AC Current: (True RMS, AC coupled 10% to 100% of range)

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA @45Hz – 400Hz $\pm$ (3.0%rdg + 2dgt) 20mA – 200mA @45Hz – 1KHz $\pm$ (1.5%rdg + 2dgt) 2A – 10A @45Hz – 400Hz $\pm$ (2.0%rdg + 4dgt)

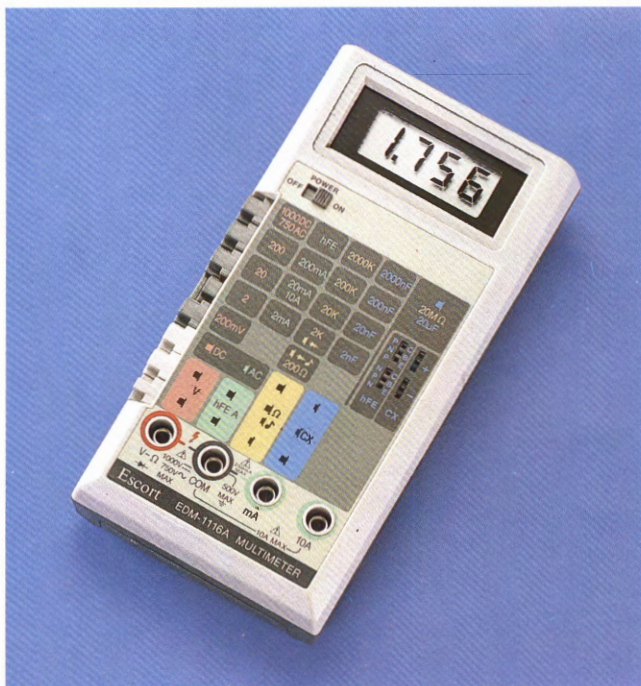
Resistance

Range	• 200 Ω , 2K Ω , 20K Ω , 200K Ω , 2M Ω , 20M Ω
Resolution	• 0.1 Ω , 1 Ω , 10 Ω , 100 Ω , 1K Ω , 10K Ω
Accuracy	• 200 Ω $\pm$ (0.5%rdg + 4dgt) 2K Ω – 2M Ω $\pm$ (0.5%rdg + 1dgt) 20M Ω $\pm$ (1.5%rdg + 5dgt)

dB: 600 Ω Reference, (AC coupled 10% to 100% of range)

Range	• 2.45mV – 750V
Accuracy	• $\pm$ 0.6dB – $\pm$ 2.0dB

3½-Digit Multimeters



EDM 1116A

- * 3½ digits
- * Nine functions: DCV, ACV, DCA, ACA, OHM, Diode Testing, Audible Continuity Testing, Capacitance Testing, hFe
- * 0.5% basic DC accuracy

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V $\pm (0.5\% \text{rdg} + 1 \text{dgt})$

AC Voltage

Range	• 200mV, 2V, 20V, 200V, 750V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 750V @45Hz – 500Hz $\pm (1.0\% \text{rdg} + 4 \text{dgt})$

DC Current

Range	• 2mA, 20mA, 200mA, 10A
Resolution	• 1uA, 10uA, 100uA, 10mA
Accuracy	• 2mA – 200mA $\pm (1.0\% \text{rdg} + 1 \text{dgt})$ 10A $\pm (1.0\% \text{rdg} + 3 \text{dgt})$

AC Current

Range	• 2mA, 20mA, 200mA, 10A
Resolution	• 1uA, 10uA, 100uA, 10mA
Accuracy	• 2mA @45Hz – 500Hz $\pm (3.5\% \text{rdg} + 2 \text{dgt})$ 20mA – 200mA @45Hz – 500Hz $\pm (1.5\% \text{rdg} + 3 \text{dgt})$ 10A @45Hz – 500Hz $\pm (1.5\% \text{rdg} + 4 \text{dgt})$

Resistance

Range	• 200Ω, 2KΩ, 20KΩ, 200KΩ, 2MΩ, 20MΩ
Resolution	• 0.1Ω, 1Ω, 10Ω, 100Ω, 1KΩ, 10KΩ
Accuracy	• 200Ω $\pm (0.75\% \text{rdg} + 4 \text{dgt})$ 2KΩ – 2MΩ $\pm (0.75\% \text{rdg} + 1 \text{dgt})$ 20MΩ $\pm (1.5\% \text{rdg} + 5 \text{dgt})$

Capacitance

Range	• 2nF, 20nF, 200nF, 2000nF, 20uF
Resolution	• 1PF, 10PF, 100PF, 1nF, 10nF
Accuracy	• $\pm (2.0\% \text{rdg} + 4 \text{dgt})$



EDM 1105A

- * 3½ digits
- * Seven functions: DCV, ACV, DCA, ACA, OHM, Diode Testing, hFe
- * 0.7% basic DC accuracy

DC Voltage

Range	• 200mV, 2V, 20V, 200V, 1000V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 1000V $\pm (0.7\% \text{rdg} + 1 \text{dgt})$

AC Voltage

Range	• 200mV, 2V, 20V, 200V, 750V
Resolution	• 100uV, 1mV, 10mV, 100mV, 1V
Accuracy	• 200mV – 750V @45Hz – 500Hz $\pm (1.5\% \text{rdg} + 4 \text{dgt})$

DC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA – 200mA $\pm (1.25\% \text{rdg} + 1 \text{dgt})$ 2A – 10A $\pm (2.5\% \text{rdg} + 3 \text{dgt})$

AC Current

Range	• 2mA, 20mA, 200mA, 2A, 10A
Resolution	• 1uA, 10uA, 100uA, 1mA, 10mA
Accuracy	• 2mA @45Hz – 400Hz $\pm (4.0\% \text{rdg} + 2 \text{dgt})$ 20mA – 200mA @45Hz – 400Hz $\pm (2.0\% \text{rdg} + 3 \text{dgt})$ 2A – 10A @45Hz – 400Hz $\pm (3.0\% \text{rdg} + 4 \text{dgt})$

Resistance

Range	• 200Ω, 2KΩ, 20KΩ, 200KΩ, 2MΩ, 20MΩ
Resolution	• 0.1Ω, 1Ω, 10Ω, 100Ω, 1KΩ, 10KΩ
Accuracy	• 200Ω $\pm (1.0\% \text{rdg} + 4 \text{dgt})$ 2KΩ – 2MΩ $\pm (1.0\% \text{rdg} + 1 \text{dgt})$ 20MΩ $\pm (3.0\% \text{rdg} + 5 \text{dgt})$

3½-Digit Hand Held Capacitance Meter

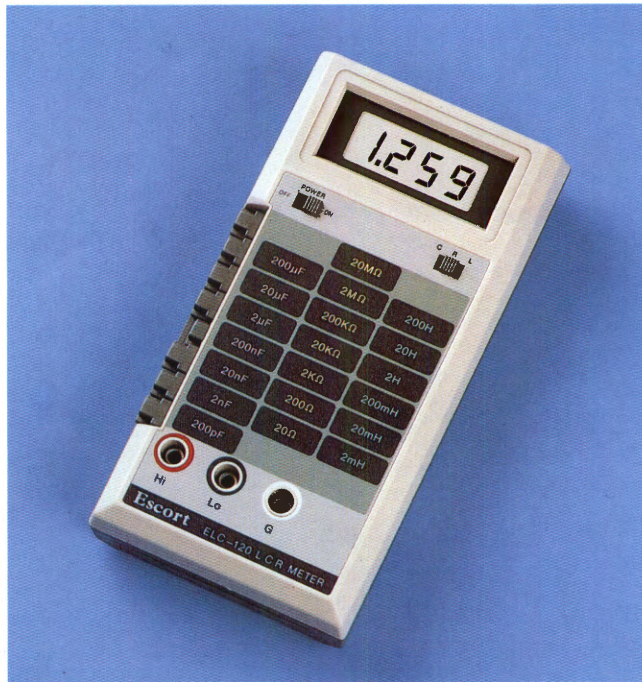


EDC 110A

- * 3 1/2 digits
- * 0.1PF resolution
- * 0.5% basic accuracy
- * Zero control for test lead compensation

Range	• 200PF, 2nF, 20nF, 200nF, 2uF, 20uF, 200uF, 2000uF, 20mF
Resolution	• 0.1PF, 1PF, 10PF, 100PF, 1nF, 10nF, 100nF, 1uF, 10uF
Accuracy	• 200PF – 20uF $\pm (0.5\%rdg + 1dgt + 0.5PF)$ 200uF $\pm (1.0\%rdg + 1dgt)$ 2000uF – 20mF $\pm (2.0\%rdg + 1dgt)$
Excitation Voltage	• 200PF – 20mF 3.2V Max
Power source	• Single standard 9 V battery
Battery Life (Typical)	• 200 hours
Dimensions	• 9.0 cm(W) $\times$ 17.4 cm(L) $\times$ 3.6 cm(H)

3½-Digit Hand Held LCR Meter



ELC 120

- * 3 ½ digits
- * Three function: Capacitance, Resistance & Inductance Measurement
- * Basic accuracy: 1.0%

Capacitance

Range	• 200PF, 2nF, 20nF, 200nF, 2uF, 20uF, 200uF
Resolution	• 0.1PF, 1PF, 10PF, 100PF, 1nF, 10nF, 100nF
Accuracy	• $\leq 0.5 \mu F \pm 2\% \pm 1$ digit > $0.5 \mu F \pm 3\% \pm 1$ digit Zero Error 200pF < 5pF 2nF < 5pF

Inductance

Range	• 2mH, 20mH, 200mH, 2H, 20H, 200H
Resolution	• 1uH, 10uH, 100uH, 1mH, 10mH, 100mH
Accuracy	• 2mH – 2H @ $\pm (3.0\% \text{rdg} + 1 \text{dgt})$ 2H – 200H @ $\pm (5.0\% \text{rdg} + 3 \text{dgt})$
	Zero Error 2mH < 10 μH

Resistance

Range	• 20 Ω , 200 Ω , 2K Ω , 20K Ω , 200K Ω , 2M Ω , 20M Ω
Resolution	• 0.01 Ω , 0.1 Ω , 1 Ω , 10 Ω , 100 Ω , 1K Ω , 10K Ω
Accuracy	• $\leq 1\text{M}\Omega \pm 1\% \pm 1 \text{ digit}$ Zero Error • $> 1\text{M}\Omega \pm 5\% \pm 1 \text{ digit}$ 20 Ω < 100m Ω
Power Source	• Single standard 9V battery
Battery Life (Typical)	• 200 hours
Dimensions	• 9.0cm(W) $\times$ 17.4cm(L) $\times$ 3.6cm(H)

2 MHz Function Generator with Counter



EGC 2230

FEATURES:

- 7 Ranges: 0.02Hz to 2MHz (6 digit counter display)
- 3-in-1 Sweep, Function & Pulse Generator.
- Square, Triangle, Sine wave and TTL, CMOS pulses.
- Duty cycle control.
- Variable/Fixed Attenuators.
- Variable DC offset control.
- Internal/External sweep function.
- Frequency counter internal/External
- Stacking system for space saving

SPECIFICATIONS:

Range: 0.02Hz to 2MHz in 7 ranges.

Accuracy: $\pm 5\%$ of full scale.

Stability: 0.05% (after 15 Min).

Square wave: Rise/fall time $< 100\text{nS}$

TTL pulse: Rise/fall time $< 25\text{nS}$

Sink: 20 TTL

Lever: Amplitude fixed $\geq +3\text{V}$

CMOS Pulse: Rise/Fall time $< 60\text{nS}$

Sink: > 20

Lever: $+5\text{V} - 15\text{V}$ adjustable

Sine wave:

Distortion: $0.02\text{Hz} - 100\text{KHz} < 1\%$

Response: $0.2\text{Hz} - 200\text{KHz} \leq 0.1\text{dB}$

$200\text{KHz} - 2\text{MHz} \leq 0.5\text{dB}$

Triangle wave: Linearity 99% at 100KHz

Sweep Characteristics:

Function: Linear/Log

Rate: $0.2\text{Hz} - 100\text{Hz}$ (5 Sec--10m Sec) adjustable

Sweep width: Variable from 10:1--1000:1

External sweep: Rear panel VCO input provided

Output:

Amplitude: $20\text{V}_{\text{p-p}}$ open circuit $10\text{V}_{\text{p-p}}$ into 50Ω

Impedance: $50\Omega \pm 5\%$

Attenuator: -20 dB & -40 dB

DC offset control: $< -10\text{V}$ to $> +10\text{V}$ (open circuit)
 $< -5\text{V}$ to $> +5\text{V}$ (into 50Ω)

Duty cycle: 1:1 to 40:1 adjustable

V.C.F.: Approx 0 to 10V

input for 1000:1 (3 decades) frequency ratio

input impedance Approx. $10\text{K}\Omega$

Frequency Counter:

INT, EXT switch selector.

Accuracy: Time base accuracy ± 1 count.

Time base: Oscillation frequency 10MHz

Temp. stability $0^\circ - 50^\circ\text{C} \pm 20\text{ppm}$

Counting capacity: 6 digit (0.36" LED display)

Resolution: 10 sec, 1 sec, 0.1 sec, 0.01 sec

Frequency range: $0.1\text{Hz} - 10\text{MHz}$

Sensitivity: $\leq 20\text{mV RMS}$

Max. Input voltage: 150V RMS

Input Impedance: $1\text{M}\Omega$

Operating Temperature: $0^\circ - 50^\circ\text{C}$

Power Source: AC 110 or 230V ($\pm 10\%$) 50/60Hz

Dimensions: 24cm(W) $\times$ 19cm(L) $\times$ 6.4cm(H)

2 MHz Sweep Function Generator



EFG 2210

FEATURES:

- 7 Ranges: 0.02Hz to 2MHz.
- 3-in-1 Sweep, Function & Pulse generator.
- Square, Triangle, Sine wave and TTL pulses.
- Duty cycle control.
- Variable/Fixed attenuators.
- Variable DC offset control.
- Inversion feature
- Internal/External sweep function.
- Low-distortion High-accuracy outputs
- Stacking system for space saving

SPECIFICATIONS:

Waveform: Sine, Square, Triangle, Pulse.

Frequency: 0.02Hz-2MHz 7 ranges.

Scale Error: $\pm 5\%$ of full scale (after 20 minutes warm-up).

Output Impedance: 50 OHM $\pm 10\%$

Output: 5mV_{p-p} (MIN.) to 20V_{p-p} (MAX.) continuously variable, into open circuit.

Attenuator: 0dB, - 20dB

DC Level: + 10V - -10V (open), continuously variable, with zero offset SW.

Duty Cycle: 20% - 80% continuously variable with 50 - 50 calibrated SW.

Distortion: THD from 10Hz to 100kHz. (of sine wave) < 1%.

Rise Time: < 100nS.

Pulse: > 3V_{p-p} (open), Rise/fall time < 25nS. Sink: 20TTL

VCF: 0 - 10V control freq. to 100:1 Sweep.

Sweep Characteristics:

Internal: Linear.

Sweep Rate: 0.5Hz (2 SEC period) to 50Hz (20 mSEC period), continuously variable.

Sweep Width: Variable 100:1.

Operating Temperature: 0°C - 50°C.

Power Source: AC 115 or 230V ($\pm 10\%$), 50/60Hz

Dimensions: 24cm(W) $\times$ 19cm(L) $\times$ 6.4cm(H).

175 MHz Universal Counter



EUC 2200

FEATURES:

- 5Hz to 175MHz range
- Two input channels
- Frequency, Period, Frequency ratio, Time interval, Totalize.
- 8 Digits 0.5" LED display
- 4 Selectable gate times
- 15 LED indicators
- Self-test mode
- Stacking system for space saving

SPECIFICATIONS:

Frequency A

Range: 5Hz to 175 MHz sine wave:

5Hz-10 MHz in kHz mode,
50kHz-175 MHz in MHz mode.

Resolution: 0.1 Hz to 1 kHz, in decade steps.

Accuracy: ± 1 count $\pm$ time base error.

Display: kHz or MHz with decimal point.

Period A

Range: 0.5 μ s to 200,000 μ s.

Freq. range: 5 Hz to 2 MHz sine wave.

Resolution: 100 ps to 100 ns in decade steps.

Accuracy: ± 1 count $\pm$ time base error $\pm$ trigger error

Display: ms or μ s with decimal point.

Minimum Pulse Width: 250 ns.

Average: 1, 10, 100, or 1000 cycles averaged, depending on RESOLUTION setting.

Ratio A/B

Freq. Range A: 5 Hz to 10 MHz sine wave.

Freq. Range B: 5 Hz to 2 MHz sine wave.

Resolution: $\pm \frac{\text{Freq B}}{\text{Freq A} \times N}$ where N = 1, 10, 100, or 1000.

Accuracy: $\pm (\text{Freq B} + \text{Freq A} \times N) \pm \frac{(\text{Freq B} \times \text{Trigger Error})}{N}$

Display: Numerical ratio with decimal point.

Time Interval A to B

Range: 0.5 μ s to 200,000 μ s.

Freq. Range: 5 Hz to 2 MHz, sine wave.

Resolution: 100 ps to 100 ns in decade steps.

Accuracy: ± 1 count $\pm$ time base error $\pm$ trigger error $\pm N$, where N = intervals averaged.

Minimum Pulse Interval (A to B): 250 ns.

Display: msec or μ sec with decimal point.

Average: 1, 10, 100, or 1000 intervals averaged.

Single Event Capability: Pressing RESET primes unit for measurement of "once-only" event.

Totalize A

Range: 5 Hz to 10 MHz sine wave.

Count Capability: 0 to 99,999,999 before OVER flow.

Control: Manual reset and hold from the front panel. Normally enabled, except when signal at back panel START/STOP jack is low.

Self Test

Display: 10 MHz with user-selectable MHz, kHz.

Gate Times: 10 ms, 100 ms, 1 s, or 10 s accumulation times.

Resolution: 0.1 Hz to 100 Hz.

Channel A Input Characteristics

Bandwidth: 5 Hz to 175 MHz, ac coupled.

Sensitivity:

kHz FREQUENCY mode: 20mV rms, 5 Hz to 5 MHz.

MHz FREQUENCY mode: 50mV rms, 5 MHz to 125 MHz.

100mV rms, 125 MHz to 150 MHz.

150mV rms, 150 MHz to 175 MHz.

Impedance: 1M Ω , < 40 pF.

Attenuator: X1, X10 switchable.

Slope: +, - switchable.

Trigger Level: Preset or variable.

Maximum input: 250 V rms.

Channel B Input Characteristics

Bandwidth: 5Hz to 2 MHz, ac coupled.

Sensitivity: 30 mV rms.

Impedance: 1 M Ω , < 40 pF.

Attenuator: X1, X10 switchable.

Slope: +, - switchable.

Maximum input: 125 V rms.

Totalize Start/Stop Input

Logic Levels: Standard TTL levels; low level inhibits totalizing, high level enables it.

Loading: One standard TTL gate.

Time Base Characteristics

Type: Crystal controlled oscillator.

Frequency: 10 MHz.

Stability: ± 0.1 ppm (± 1 Hz).

Line Voltage Stability: Less than ± 1 ppm with $\pm 10\%$ line voltage variation.

Temperature Stability: Less than $\pm 0.01\%$ (± 10 ppm) from 0°C to 50°C ambient.

Maximum aging rate: ± 10 ppm/yr.

Operating Temperature: 0°C - 50°C

Power Source: AC 115 or 230V ($\pm 10\%$), 50/60Hz

Dimensions: 24cm(W) $\times$ 19cm(L) $\times$ 6.4cm(H)

100 MHz Frequency Counter



EFC 2201

FEATURES:

- 5 Hz – 100 MHz range
- 8-Digit 0.5" LED display
- Leading zero blanking
- Automatic MHz decimal point
- Low battery indication
- Overflow indication
- Battery or AC powered
- Stacking system for space saving

SPECIFICATIONS:

Input Characteristics

Impedance: 1.5 Mohm resistance shunted with 10 picofarads.

Connector: BNC

Coupling: AC

Sine Wave Sensitivity: 40mV, 5Hz – 1KHz

30mV, 1KHz – 100KHz

10mV, 100KHz – 10MHz

40mV, 10MHz – 60MHz

120mV, 60MHz – 100MHz

Count Accuracy: Time base accuracy ± 1 count

Overload: Peak AC or DC

5Hz – 30kHz 200Vpk

30kHz – 70 kHz 150Vpk

70kHz – 100kHz 125Vpk

100kHz – 1.0MHz 42Vpk

1MHz – 10MHz 13.8Vpk

10MHz – 60MHz 6.4Vpk

60MHz – 100MHz 5.4Vpk

Time base:

Crystal Osc.: 3.579545MHz

Temp. Stability: 5 – 45°C

.1ppm/°C

Aging Rate: 10ppm/Yr

Accuracy: ± 3 ppm at 25°C

Trimmer Adjustable: ± 40 ppm

Gating Time: 1.0 Sec

Update Time: 1/6 Sec

Operating Temperature: 0°C – 50°C

Power Source: DC 1.5V $\times$ 6 "C" cells

AC 115V or 230V ($\pm 10\%$) 50/60Hz

Dimensions: 24cm(W) $\times$ 19cm(L) $\times$ 6.4cm(H)

3½-Digit 1000A Clamp Meter



ECT 620

- * 3½ digits
- * Eight functions: DCV, ACV, ACA, OHM, Data Hold, Audible Continuity Testing, Diode Testing, Peak Hold
- * 0.5% basic DC accuracy

DC Voltage

Range	• 200V, 1000V
Resolution	• 100mV, 1V
Accuracy	• 200V – 1000V $\pm (0.5\% \text{rdg} + 1 \text{dgt})$

AC Voltage

Range	• 200V, 750V
Resolution	• 100mV, 1V
Accuracy	• 40Hz – 500Hz $\pm (1.2\% \text{rdg} + 4 \text{dgt})$

Resistance

Range	• 200 Ω , 2K Ω
Resolution	• 0.1 Ω , 1 Ω
Accuracy	• $\pm (1.2\% \text{rdg} + 1 \text{dgt})$

AC Current

Range	• 20A, 200A, 1000A
Resolution	• 0.01A, 0.1A, 1A
Accuracy	• 50Hz/60Hz @19.99A $\pm 1.5\%$ of full scale @199.9A & 1000A $\pm 1.5\%$ of full scale @750A – 1000A $\pm 2.5\%$ of full scale (1000A)

Peak Hold

AC, DC, Volts or Current, All ranges	
Accuracy	• ACA (50Hz/60Hz) $\pm (6.0\% \text{rdg} + 12 \text{dgt})$ ACV (50Hz – 500Hz) $\pm (6.0\% \text{rdg} + 12 \text{dgt})$ DCV $\pm (4.0\% \text{rdg} + 10 \text{dgt})$

Display Decay Rate	• < 2dgt/sec
Maximum Conductor Size	52 mm (2")
Power Source	• Single standard 9 V battery
Battery Life	• 200 hours Alkaline (Typical)
Dimensions	• 7.5 cm(W) $\times$ 28.0 cm(L) $\times$ 3.4 cm(H)
• Carrying Case included.	

3½-Digit Pocket Size Clamp Meter



ECT 640

- * High contrast, large 0.5", 3½ digits LCD.
- * Standard single 9V battery.
- * Quick, audible continuity check.
- * Miniature, pocket size.

AC Voltage

Range	• 750V
Resolution	• 1V
Accuracy	• $\pm (0.8\% \text{rdg} + 2 \text{dgt})$ 45Hz – 400Hz

AC Current

Range	• 200A, 300A
Resolution	• 0.1A, 1A
Accuracy	• $\pm (2.0\% \text{rdg} + 5 \text{dgt})$

Resistance

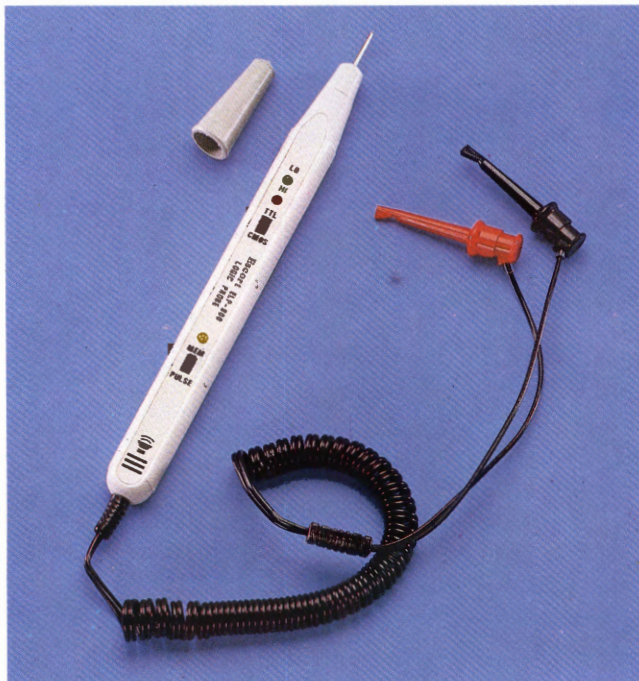
Range	• 2000 Ω
Resolution	• 1 Ω
Accuracy	• $\pm (1.0\% \text{rdg} + 1 \text{dgt})$

- Instant continuity
Built-in Buzzer sounds when resistance is less than 2K Ω
- Data Hold:
Hold display reading for all function and ranges.

SPECIFICATIONS:

Display: 3½ Digit Liquid Crystal Display (LCD) with a maximum reading of 1999.
Polarity: Automatic, (–) negative polarity.
Over range indication: Highest digit of (1) or (–1) is displayed.
Measuring rate: 2.5 Measurements per second, nominal.
Zero adjustment: Automatic.
Low battery indication: The (LO BAT) is displayed when the battery voltage drops below the operating voltage.
Storage temperature: –20°C to +60°C, 0–80% RH with battery removed.
Operating temperature: 0°C to +50°C, 0–70% RH.
Power: Single, standard 9-volt battery (NEDA 1604, JIS 006P IEC, 6F22).
Battery life: High-power alkaline-300 hours.
Max. conductor size: 1.1" (28mm) diameter.
Max. jaw opening: 1.2" (31mm).
Dimension: L: 185mm, W: 62mm, H: 25mm

20MHz Logic Probe



ELP 800

- * Audible beeper in High/Low tones
- * IC clips and flexible spring cord provide versatile using
- * Slim style for easy to hold comfortably

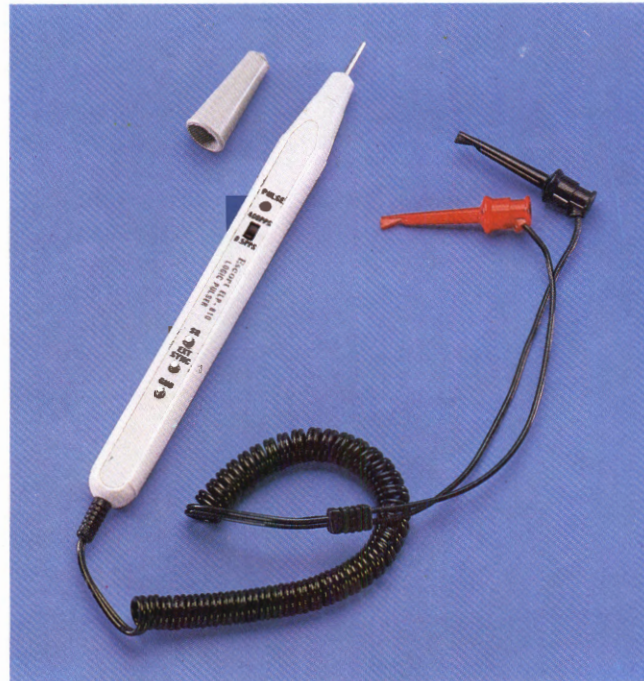
Input:

Probe Tip: Protected to $\pm 50V$ DC, 220V DC/AC 15 seconds
Input Impedance: 1 Megohm
Minimum Detectable Pulse Width: 30ns
Maximum Input Frequency Displayable: 20 MHz

Logic Thresholds

TTL: Low, $0.8V \pm 0.2V$ DC; High, $2.3V \pm 0.2V$
CMOS: Low, 30% of circuit V_{CC} ; High, 70% of circuit V_{CC}
Controls: Threshold select (TTL or CMOS), Pulse/Memory
Pulse LED (Yellow) Flashing Time: 500ms
Power Supply Protection: $\pm 20V$
Operating Temperature: $0^\circ - 50^\circ C$
Operating Supply Voltage Range: 5V - 15V
Dimensions: 1.8 cm(W) $\times$ 1.5 cm(H) $\times$ 18.5 cm(L) (without test probe & cord)

Logic Pulser



ELP 810

- * IC clips and flexible spring cord provide versatile using
- * Slim style for easy to hold comfortably

Maximum Sync Input Voltage: $\pm 120V$ 15 seconds

Sync Input Impedance: 1 Megohm

Pulse Width in Pulser Output at 100mA Load: 10us

Pulse Repetition Rate: 0.5PPS/400PPS

Output Current: (1) Pulse mode: 100mA sink or source maximum

(2) 90% pulse mode: 20mA sink or source maximum

Maximum Allowable Supply Voltage: $\pm 25V$

Maximum Output Allowable Connection Voltage: $\pm 50V$

Operating Supply Voltage Range: 5V - 15V

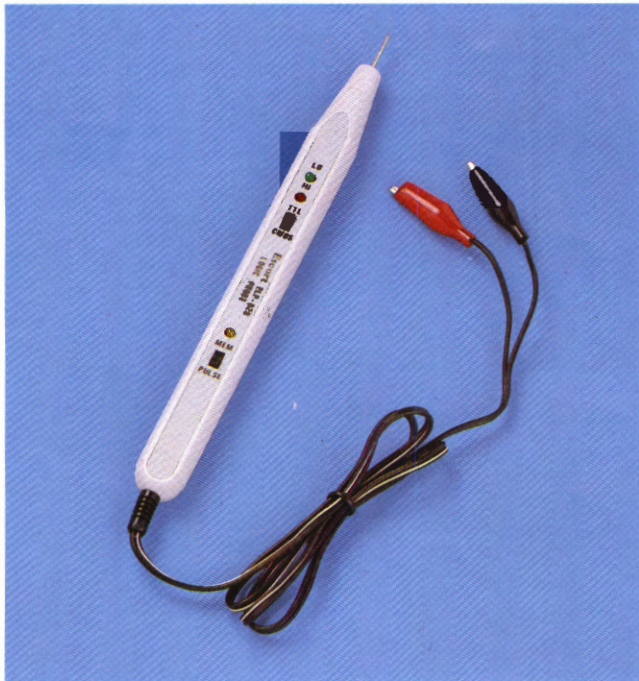
Power Supply Protection: $\pm 25V$ 10 seconds

Output Protection: $\pm 50V$ 1 minute

Operating Temperature: $0^\circ - 50^\circ C$

Dimensions: 1.8 cm(W) $\times$ 1.5 cm(H) $\times$ 18.5 cm(L) (without test probe & cord)

15 MHz Logic Probe



ELP 820

- * Alligator clips
- * Slim style for easy to hold comfortably
- * Economical type

SPECIFICATIONS:

Input Impedance: $1M\Omega$
Min. Detectable Pulse Width: 30nS
Max. Input Frequency Displayable: 15MHz
Logic Threshold: TTL, CMOS
Logic 1 (red LED lights): $2.3V \pm 0.2V$, 70% V_{cc}
Logic 0 (green LED lights): $0.8V \pm 0.2V$, 30% V_{cc}
Input Overvoltage Protection: $\pm 220V$ DC/AC 15 SEC.
Pulse LED (yellow) Flashing Time: 500mS
Power Supply Protection: $\pm 20V$
Operating Supply Voltage Range: TTL(5V) CMOS(5--15V)
Maximum Input Voltage: $\pm 50V$
Free Air Operating Temperature: 0--50°C
Size: 205 × 18 × 16.5mm

Accessories

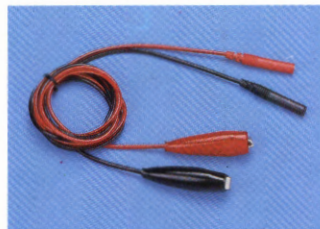
Soft Carrying Case



EC-30

Double-wall, fabric-backed vinyl with zippered closure. Inside pocket holds test leads and operation manual. Carrying strap doubles as belt loop holder. Accommodates Handheld EDM series, EDC-110A and ELC-120.

Heavy-duty Test Lead



TL-24

4-foot test leads feature safety designed banana plugs on one end and 10 Amp insulated alligator tips on the other end. Compatible for all DMMs and EDA-200

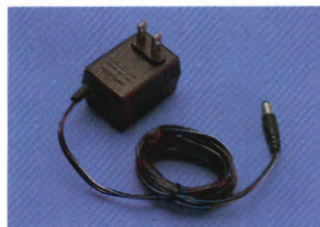
Hard Carrying Case



EC-31

With carrying strap, separate inside compartments hold meter, test leads and manual. Accommodates Handheld EDM series, EDC-110A and ELC-120.

AC-DC Adaptor for Bench DMMs



EA-40

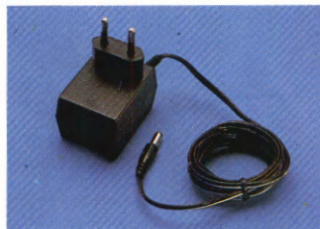
115V input, U.S. plug

Bench Carrying Case



EC-32

Double-wall, Fabric-backed Vinyl with zippered pocket for test leads, cables and manual. Detachable shoulder strap for easy carrying or hands free operation. Accommodates all bench top instruments.



EA-45

230V input, European plug

Test Lead Set



TL-22

4-foot test leads feature safety designed banana plugs on one end and test probes with solid pin tips and finger guards on other end, fire retardant material. Compatible for all DMMs and clamp meters.

3-FT, 50 Ω BNC Coaxial Cables



EB-10

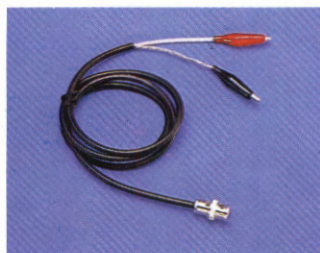
With BNC connectors on each end

Alligator Test Lead



TL-23

One foot test leads feature safety designed banana plugs on one end and alligator clips on the other end. All fire retardant material. Compatible for all DMMs, EDC-110A and ELC-120.



EB-11

With BNC connector on one end and alligator clip on other end

Escort Instruments Corporation

2 Fl., No. 37, Poa Hsin Road, Shin Tien, Taipei, Taiwan, R.O.C.
P.O. Box: 3-20, Mucha Taipei, Taiwan, R.O.C.
Tel: (02) 9131325~9
Telex: 34111 ESCINCO



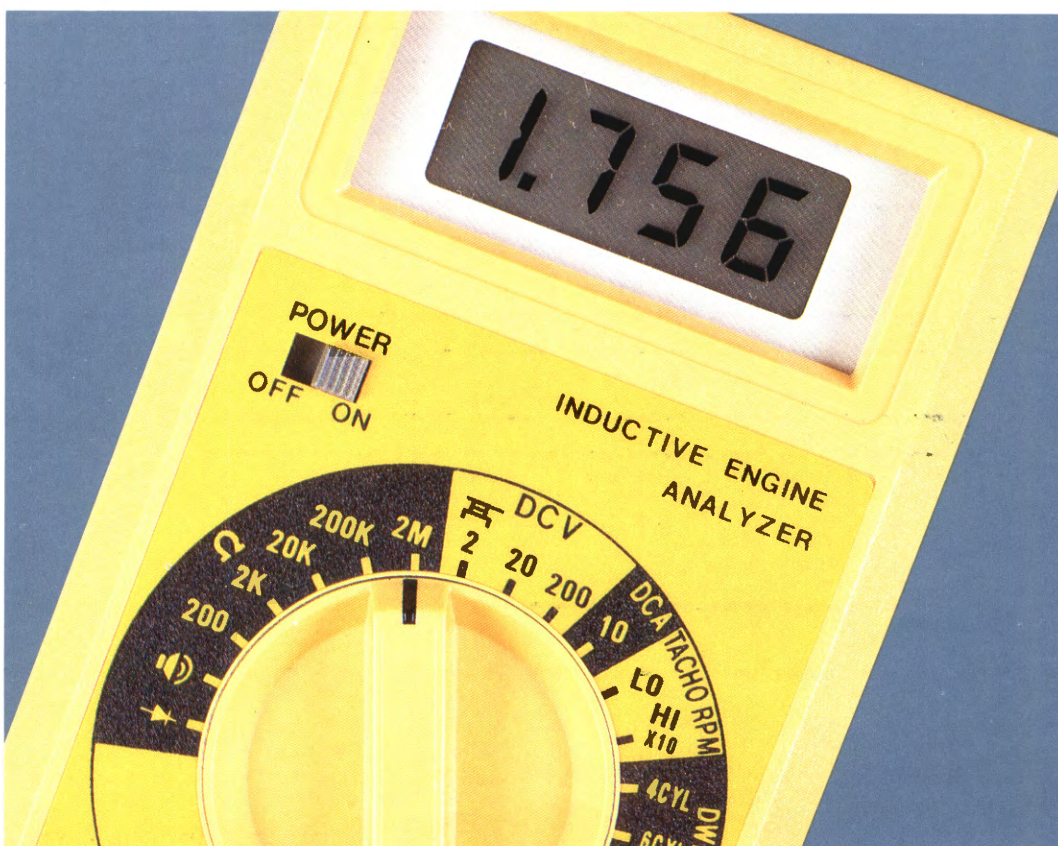
Escort

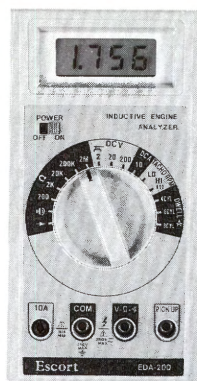
features

- More accurate and easier to read than comparable meters
- Inductive pick up clamps on to engines
- High contrast, large 0.5", 3½-digit, LCD
- Rotary switch selects range and function at one time
- Rugged construction, Hand size
- 200 hours battery life
- Low battery indication
- Quick, audible continuity check
- Comes complete with Test leads, One 9V battery, Instruction manual and Carrying case
- 4 feet drop-proof durability

EDA 200

Digital Engine Analyzer





Escort

EDA 200

Digital Engine Analyzer

specifications

Polarity	Automatic, (-) negative polarity indication
Zero adjustment	Automatic
Low battery indication	LO BAT
Display	Liquid crystal display, reads to 1999
Storage temperature	-20°C to 60°C, 0 to 90% RH
Operating temperature	0°C to 35°C, 0 to 80% RH 35°C to 50°C, 0 to 70% RH
Power	Standard 9 volt battery (NEDA 1604)
Dimensions	L:174mm, W:90mm, H:36mm

Tacho

Range	Resolution	Accuracy
2000 RPM	1 RPM	$\pm (1.5\% \text{ rdg} + 5 \text{ dgt})$
10000 RPM	10 RPM	

Dwell

Range	Resolution	Accuracy
4 cyl 90°	0.1°	$\pm (1.5\% \text{ rdg} + 2 \text{ dgt})$
6 cyl 60°	0.1°	
8 cyl 45°	0.1°	

DC Volt

Range	Resolution	Accuracy
2V	1mV	$\pm (0.7\% \text{ rdg} + 1 \text{ dgt})$
20V	10mV	
200V	100mV	

DC Current

Range	Resolution	Accuracy
10A	10mA	$\pm (2.0\% \text{ rdg} + 3 \text{ dgt})$

Resistance

Range	Resolution	Accuracy
200 Ω	0.1 Ω	$200 \Omega \pm (1.0\% \text{ rdg} + 4 \text{ dgt})$
2K Ω	1 Ω	$2K \Omega - 2M \Omega \pm (1.0\% \text{ rdg} + 1 \text{ dgt})$
20K Ω	10 Ω	
200K Ω	100 Ω	
2M Ω	1K Ω	

Diode test

$\pm (1.5\% \text{ rdg} + 5 \text{ dgt})$

Beeper

100 $\Omega \pm 50 \Omega$

Escort Instruments Corp.

2F No. 37 Pao Hsin Rd. Hsin Tien
Taipei, Taiwan, R.O.C.

Tel (02) 9131325-9

Telex 34111 ESCINCO

Cable "ESCINCO" TAIPEI

Escort

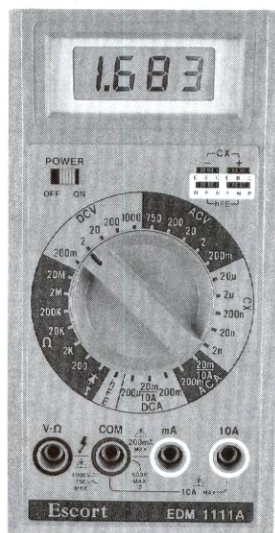
EDM 1111A

Digital Multimeter

features

- High accuracy in measuring
- One rotary range switch allows fast and convenient operation
- Diode check DC/AC, 10A are equipped
- Instant continuity check
- High contrast, large 0.5", 3½ digit LCD
- Rugged construction, Hand size
- Low battery indication
- 200 hrs long battery life
- Overload protection on all ranges
- Capacitance measuring
- Transistor hFE test
- 4 feet drop proof durability





EDM 1111A

Digital Multimeter

s p e c i f i c a t i o n s

Polarity	Automatic, (–) negative polarity indication
Zero adjustment	Automatic
Low battery indication	LO BAT
Display	3½ digit liquid crystal display (LCD) with a maximum 1999
Storage temperature	–20°C to 60°C, 0 to 90% RH
Operating temperature	0°C to +35°C, 0-80% RH +35°C to +50°C, 0-70% RH
Power	Single standard 9V battery, NEDA 1604, JIS006P IEC6F22
Dimensions	174mm(H) × 90mm(W) × 36mm(D)

DC Volts

Range	Resolution	Accuracy	Over Voltage Protection
200mV	100uV	± (0.5%rdg + 1dgt)	DC 500V, AC 350V
2V	1mV	± (0.5%rdg + 1dgt)	DC 1200V, AC 850V
20V	10mV	± (0.5%rdg + 1dgt)	DC 1200V, AC 850V
200V	100mV	± (0.5%rdg + 1dgt)	DC 1200V, AC 850V
1000V	1V	± (0.5%rdg + 1dgt)	DC 1200V, AC 850V

AC Volts

Range	Resolution	Accuracy	Over Voltage Protection	Frequency Range
200mV	100uV	± (1.25%rdg + 4dgt)	DC 500V, AC 350V	40Hz-1KHz
2V	1mV	± (1.25%rdg + 4dgt)	DC 1200V, AC 850V	40Hz-1KHz
20V	10mV	± (1.25%rdg + 4dgt)	DC 1200V, AC 850V	40Hz-1KHz
200V	100mV	± (1.25%rdg + 4dgt)	DC 1200V, AC 850V	40Hz-1KHz
750V	1V	± (1.25%rdg + 4dgt)	DC 1200V, AC 850V	40Hz-400Hz

DC Current

Range	Resolution	Accuracy	Voltage Burden
200uA	0.1uA	± (1.0rdg + 1dgt)	250mV rms Max.
20mA	10uA	± (1.0rdg + 1dgt)	250mV rms Max.
200mA	100uA	± (1.0rdg + 1dgt)	250mV rms Max.
10A	10mA	± (2.0rdg + 3dgt)	700mV rms Max.

AC Current

Range	Resolution	Accuracy	Voltage Burden	Frequency Range
20mA	10uA	± (1.5%rdg + 3dgt)	250mV rms Max.	40Hz-1KHz
200mA	100uA	± (1.5%rdg + 3dgt)	250mV rms Max.	40Hz-1KHz
10A	10mA	± (2.5%rdg + 4dgt)	700mV rms Max.	40Hz-400Hz

Resistance

Range	Resolution	Accuracy	Max. Test Current	Max. Open Circuit Voltage
200Ω	0.1Ω	± (0.75%rdg + 4dgt)	2mA	2.6V
2KΩ	1Ω	± (0.75%rdg + 1dgt)	250uA	1.0V
20KΩ	10Ω	± (0.75%rdg + 1dgt)	50uA	1.0V
200KΩ	100Ω	± (0.75%rdg + 1dgt)	5uA	1.0V
2MΩ	1KΩ	± (0.75%rdg + 1dgt)	500nA	1.0V
20MΩ	10KΩ	± (2.0%rdg + 5dgt)	50nA	1.0V

Diode Check

Range	Resolution	Accuracy	Max. Test Current	Max. Open Circuit Voltage
▶	1mV	± (1.5%rdg + 5dgt)	1.5mA	3.2V

Instant Continuity

Range	Resolution	Accuracy	Max. Test Current	Max. Open Circuit Voltage
▶	1Ω	Built in buzzer sounds when resistance is less than 100Ω	1.5mA	3.2V

Capacitance

Range	Resolution	Accuracy	Test Frequency
2nF	1pF	± (2.0%rdg + 4dgt)	300Hz
20nF	10pF	± (2.0%rdg + 4dgt)	300Hz
200nF	100pF	± (2.0%rdg + 4dgt)	300Hz
2uF	1nF	± (2.0%rdg + 4dgt)	300Hz
20uF	10nF	± (2.0%rdg + 4dgt)	300Hz

hFE Test

on all type, 0-1000 hFE values either NPN or PNP transistor (test condition: Ib = 10uA, Vce = 2.8V)

Note: Specifications are subject to change without notice.

Escort Instruments Corp.
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Telex 34111 ESCINCO
Cable "ESCINCO" TAIPEI

Escort

features

- 3½-digit, Digital Multimeter
- Miniature, pocket size
- 300 hours battery life
- Overload protection on all ranges
- Low battery indication
- High contrast, large 0.5", 3½-digit, LCD
- Battery check
- Quick, audible continuity check (*EDM-70B only*)
- 4 feet drop-proof durability

EDM 70 EDM 70B

Digital Pocket Size Multimeter





Escort

EDM 70, 70B

Digital Pocket Size Multimeter

specifications

Display	3½-Digit Liquid Crystal Display (LCD) with a maximum reading of 1999
Polarity	Automatic, (–) negative polarity
Over range indication	Highest digit of (1) or (– 1) is displayed
Measuring rate	3 Measurements per second, nominal
Zero adjustment	Automatic
Low battery indication	The (LO BAT) is displayed when the battery voltage drops below the operating voltage
Storage temperature	– 20°C to + 60°C, 0-80% RH with battery removed
Operating temperature	0°C to + 50°C, 0-70% RH
Power	Single, standard 9-volt battery (NEDA 1604, JIS 0069, IEC 6F22)
Battery life	High-power alkaline-300 hours Ordinary zinc-carbon-150 hours
Dimensions	L:126mm, W:70mm, H:24mm

DC Voltage

Range	Resolution	Accuracy 1 Year 18° to 28° C *
200mV	0.1mV	± 0.5% of rdg ± 2d
2V	1mV	± 0.5% of rdg ± 2d
20V	10mV	± 0.5% of rdg ± 2d
200V	100mV	± 0.5% of rdg ± 2d
1000V	1V	± 0.5% of rdg ± 2d

DC Current

Range	Resolution	Accuracy *	Maximum full scale voltage drop
200uA	0.1uA	± 0.75% of rdg ± 2d	0.25V
2mA	1uA	± 0.75% of rdg ± 2d	0.25V
20mA	10uA	± 0.75% of rdg ± 2d	0.25V
200mA	100uA	± 0.75% of rdg ± 2d	0.25V
2A	1mA	± 1.2% of rdg ± 2d	0.25V

AC Voltage

Range	Resolution	Accuracy *	Frequency range
200V	100mV	± 1.2% of rdg ± 5d	45Hz – 450Hz
750V	1mV	± 1.2% of rdg ± 5d	45Hz – 450Hz

Resistance

Range	Resolution	Accuracy *
200Ω	0.1 ohm	± 0.75% of rdg ± 2d
2KΩ	1 ohm	± 0.75% of rdg ± 2d
20KΩ	10 ohm	± 0.75% of rdg ± 2d
200KΩ	100 ohm	± 0.75% of rdg ± 2d
2MΩ	1K ohm	± 1% of rdg ± 2d

Diode

Range	Resolution	Accuracy	Max test current	Max open circuit voltage
▶ –	1mV	± (2.0% rdg + 5dgt)	1.5mA	3.2V

Instant Continuity (EDM-70B only)

Range	Resolution	Continuity indication	Max test current	Max open circuit voltage
))	1	Buzzer sounds when resistance is less than 100 ohms	1.5mA	3.2V

Battery Test

Range	Resolution	Approximate load current
□ 1.5V	0.001V	1.5mA DC at 1.5V DC

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Escort

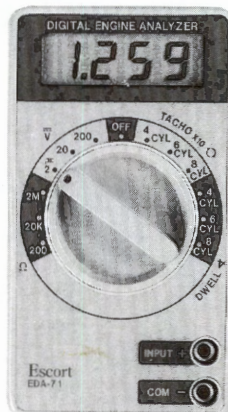
EDA 71

Digital Engine Analyzer

features

- Miniature pocket size
- 300 hours battery life
- Rotary switch selects range and function at one time
- High contrast, large 0.5", 3½-digit, LCD
- More accurate and easier to read than comparable meters
- Overload protection on all ranges
- Comes complete with Test leads and Instruction manual
- 4 feet drop-proof durability





Escort EDA 71

Digital Engine Analyzer

specifications

Polarity	Automatic, (–) negative polarity indication
Zero adjustment	Automatic
Display	Liquid crystal display, reads to 1999
Storage temperature	–20°C to 60°C, 0 to 90% RH
Operating temperature	0°C to 35°C, 0 to 80% RH 35°C to 50°C, 0 to 70% RH
Power	Standard 9 volt battery (NEDA 1604)
Dimensions	L:126mm, W:70mm, H:24mm

Tacho

Range	Resolution	Accuracy
RPM × 10 on 4,6,8 cyl	10 RPM	±(1.5% rdg + 5 dgt)

Dwell

Range	Resolution	Accuracy
4 cyl 90°	0.1°	±(1.5% rdg + 2 dgt)
6 cyl 60°	0.1°	
8 cyl 45°	0.1°	

DC Volt

Range	Resolution	Accuracy
2V ($\overline{\text{H}}$)	1mV	±(0.7% rdg + 1 dgt)
20V	10mV	
200V	100mV	

Resistance

Range	Resolution	Accuracy
200Ω	0.1Ω	200Ω ±(1.0% rdg + 4 dgt)
20KΩ	10Ω	20KΩ to 2MΩ ±(1.0% rdg + 1 dgt)
2MΩ	1KΩ	

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