

Analog Multimeters

Some applications still require a good old analog meter for instant measurement.



117B

Model 117B Pocket-Sized Multimeter

- Compact size
- Measures DC voltage
- Measures AC voltage
- Measures DC current
- Measures resistance
- Measures decibels
- 9V & 1.5V battery test



114B

Model 114B 20,000 Ohms/Volt Multimeter

- 20,000 ohms/volt DC
- 28 ranges
- 3 1/2" mirrored scale
- Tests batteries under load
- Tests Transistors
- Includes batteries and test leads

Specifications

| | 114B | models 117B |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| DC VOLTS | | |
| Ranges | 0-300mV, 3V, 12V, 30V, 120V, 300V, 1200V | 0-10V, 50V, 250V, 500V |
| Accuracy | ±(3%rdg), full scale | ±(5%rdg), full scale |
| Sensitivity | 20000Ω/V | 2000Ω/V |
| AC VOLTS | | |
| Ranges | 0-6V, 30V, 120V, 300V, 1200V | 0-10V, 50V, 250V, 500V |
| Sensitivity | 8000Ω/V | 2000Ω/V |
| Accuracy | ±(4%rdg), full scale @50/60Hz | ±(5%rdg), full scale |
| Frequency response | (+1dB): 6 V range: 40 Hz to 100 kHz. 30 V range: 40 Hz to 50 kHz. 120 V range: 40 Hz to 10 kHz. 300 V range: 40 Hz to 5 kHz. 1200 V range: 40 Hz to 1 kHz | |
| DC CURRENT | | |
| Ranges | 0.6μA, 3mA, 30mA, 300mA, 12A | 0-0.5mA, 50mA, 250mA |
| Accuracy | ±(3%rdg), full scale | ±(4%rdg), full scale |
| Burden Voltage | Less than 500mV | |
| RESISTANCE | | |
| Ranges | R X 10, 0 to 20 kΩ, mid scale 200Ω R X 1k, 0 to 2 MΩ, mid scale 20 kΩ R X 10k, 0 to 20 MΩ, mid scale 200 kΩ | 0-10kΩ/1MΩ |
| Resolutions | | |
| Maximum Open | | |
| Circuit Voltage | R X 1, X 10, X 1k ranges: 3V, R X 10k range: 12 V | |
| Maximum Short | | |
| Circuit Current | R X 1 range: 150 mA R X 10 range: 15 mA, R X 1k range: 200 μA, R X 10K range: 100 μA | |
| Accuracy | ±3% of scale arc | ±5% arc of scale length |
| Open circuit voltage | approx. 0.3VDC | approx. 0.3VDC |
| Overload protection | 500V DC + AC Peak | 500V DC + AC Peak |
| dB Measurement (dB scale) | | |
| Range | -10 dB to +17 dB on 6 V AC range +4 dB to +31 dB on 30 V AC range +16 dB to 43 dB on 120 V AC range +24 dB to 51 dB on 300 V AC range +36 dB on +63 dB on 1200 V AC range | 4 dB to +56 dB on ACV range |
| 0 dB Reference | 1 mW across 600Ω | 1 mW across 600Ω |
| Battery Test | | |
| good-bad scale | | |
| Range | 1.5 V range for battery test only | 1.5V and 9V |
| Load | 7.5 ohms | |
| Battery Drain | 200 mA | 1.5V: 100mA, 9V:20mA |
| TRANSISTOR LEAKAGE TEST | | |
| Ranges | 0 to 150 μA on RX 1k range 0 to 15 mA on RX 10 range, 0 to 150 mA on RX 1 range | |
| Accuracy | ±5% of scale arc | |
| Maximum Applied Voltage | 3 V, voltage measured on LV scale | |
| TRANSISTOR GAIN MEASUREMENT | | |
| Range | 0 to 1,000 measured on hFE scale with range switch set to R X 10 | |
| Accuracy | +3% of scale arc | |
| Display | Jeweled pivots movement, 60 μA full scale | 3 color mirror scale, 180μA |
| Polarity | + or -, polarity reversal switch | |
| Operating Temperature | 32° to 104°F (0 to 40°C) | |
| Storage Temperature | -4° to 140°F (-20° to + 60°C), <70% R.H., battery removed | |
| Power | Batteries: One 9 V | Two 1.5 V AA |
| Battery Life | 200 hours typical (alkaline) | |
| Dimensions (HxWxD) | 5.79 x 3.9 x 1.38" (147 x 99 x 35 mm) | 3.5 x 2.38 x 1.19" (89 x 60 x 30mm) |
| Weight | 11 oz. (308 g) with batteries | 11 oz.(300 g) |

Accessories

One Year Warranty

SUPPLIED: Batteries, Test leads, 1 red and 1 black, Instruction manual (Model 114B)
1.5V AA Batteries, Test leads, Instruction manual (Model 117B)