

# APPA 90 Series Multimeter

- Analog Bar Graph
- True RMS
- Auto Power Off
- Beep Guard™
- Frequency Counter
- Capacitance Ranges
- Continuity/Diode Test
- Logic Test
- Water Resistant
- Drop Proof
- Protective Holster



APPA 93N

3 1/2 digit 0.8" large scale LCD  
0.5% basic DCV accuracy  
1.3% basic ACV accuracy  
1.0% basic DCA accuracy  
1.5% basic ACA accuracy  
0.75% basic OHM accuracy  
1.0% FREQUENCY accuracy  
2.0% CAPACITANCE accuracy  
CONTINUITY and DIODE Test  
600V protection in non-current ranges  
500V dual fuses protection  
Auto Power Shut Off  
5 feet drop proof  
Protective Holster with tilt stand  
IEC 1010-1 standard CAT.II 600V



APPA 97R (True RMS reading)

3200 count digital resolution  
65 segment analog bar graph  
Autoranging and manual selection  
0.3% basic DCV accuracy (97R)  
1.3% basic ACV accuracy  
1.0% basic DCA accuracy  
1.5% basic ACA accuracy  
0.5% basic OHM accuracy (97R)  
TRUE RMS reading in ACV/ACA (97R)  
CONTINUITY and DIODE Test  
500V dual fuses protection  
Auto Power Shut Off  
Beep Guard™ warning system  
Water Resistant rating IP64  
Fast continuity beeper (0.2m sec)  
Data HOLD key  
Unique DELAY HOLD function  
5 feet drop proof  
Protective Holster with tilt stand  
IEC 1010-1 standard CAT. II 100V

## Made Easy With These Feature ...

### BEEP GUARD®

Specially designed Beep Guard™ provides a constant beep warning if the test leads put in the current jacks and select an incorrect function.

Model: 97R

### SHOCKPROOF

Shock mounting and thick-wall design guarantee that these multimeters will keep on working even after a five foot fall to a concrete floor.

### WATER RESISTANT

Model: 97R are designed for harsh environments with water tight gasket at the seams, rotary switch and input terminals to keep out dust, dirt and moisture.

Rating IP 64

### MULTIPURPOSE HOLSTER

Every APPA 90 Series meter is supplied with a protective holster that includes a built-in tilt stand, a nail hook, and convenient test lead storage. This holster provides an extra degree of protection and convenience for your meter.

### COLOR-CODED

Input terminals are color-keyed to the function switch. This helps ensure a correct meter setting and terminal use for the desired measurement.

### DURABLE SWITCH

The unique rotary switch, constructed with durable engineering plastic, beryllium copper contacts, and gold-plated circuit boards, will provide years of use.

## Any More ...

### SAFETY

All models are designed to meet Class II IEC 1010 and UL 3111 standards for the safest operation in all applications.

### AUTO POWER OFF

The meter automatically shuts itself off when not in use to extend battery life.



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APPA 90 SERIES MULTIMETERS

FEATURES:

	APPA 93N	APPA 97R
Digital display	2000 count	3200 count
Analog bar graph display		65 Segment
Range selection	Manual	Auto/Manual
Frequency Counter	.	.
Capacitance measurement	.	.
Audible continuity and Diode test	.	.
Data hold/Peak hold		D-H
Delay hold		.
True RMS measuring		.
Beep Guard™		.
Automatic power shut off	.	.
Shock proof from 5 feet drops	.	.
Standard full-sleeve safety test leads	.	.
Protective holster	.	.
Water resistant and dust proof case		.

SPECIFICATIONS: (All at 23°C ± 5°C, 80% R.H.)

DCV:	Ranges	200mV ~ 600V	320mV ~ 1000V
	Resolution	0.1mV	0.1mV
	Accuracy: 0.5% + 2d	.	0.3% + 2d
	Input Resistance: 10MΩ	.	.
	Overload Protection: 1000Vrms	600V rms	.
ACV:	Ranges	200mV ~ 600V	3.2 ~ 750V
	Resolution	0.1mV	1mV
	Accuracy: 1.3% + 5d at 40z ~ 500Hz	.	.
	Input Impedance: 10MΩ/<100pF	.	.
	Overload Protection: 1100VDC or AC peak	600V rms	.
	Conversion Type: Average sensing RMS indicating		True RMS
DCA:	Ranges: (20A for 30 seconds)	200μA ~ 10A	320μA ~ 20A
	Resolution	0.1μA	0.1μA
	Accuracy: 1% + 2d basic, 2% + 3d at >2A	.	.
	Input Protection: 1A/500V and 13A/500V fuses, HBC 6000A	.	.
ACA:	Ranges: (20A for 30 seconds)	200μA ~ 10A	320μA ~ 20A
	Resolution	0.1μA	0.1μA
	Accuracy: 1.5% + 3d basic, 2.5% + 5d at >2A all at 40Hz ~ 500Hz	.	.
	Input Protection: Same as DCA	.	.
	Conversion Type: Average sensing RMS indicating		True RMS
OHM:	Ranges	200Ω ~ 20MΩ	320Ω ~ 32MΩ
	Resolution	0.1Ω	0.1Ω
	Accuracy: 75% + 4d on 200Ω, 320Ω, 400Ω 75% + 2d on basic ranges 2% + 5d on 20MΩ, 32MΩ, 40MΩ	.	0.5% + 2d basic
	Overload Protection: 500V rms	600V rms	600V rms
CONTINUITY BEEPER:	<50Ω, 2KHz tone buzzer	.	.
DIODE TEST:	Open circuit voltage 3.3V max	.	.
FREQUENCY COUNTER:	Ranges	2KHz ~ 200KHz	.
	Resolution	1Hz	.
	Accuracy: 1% + 3d at 5V rms max	.	.
	Overload Protection: 500V rms	600V rms	.
CAPACITANCE:	Ranges	2nF ~ 200μF	.
	Resolution	1pF	.

GENERAL:

Measuring Rate	2.5T/sec	2T/s digital 12T/S analog
Overrange Indication	"1" or "-1"	"1" or "-1"
Operating Temperature: 0°C ~ 50°C, 80% R.H.	.	.
Storage Temperature: -20°C ~ 60°C	.	.
Temperature Coefficient: 0.15 x (Spec. Acc)/ °C, <18°C or >28°C	.	.
Safety: Designed to IEC 1010 and UL 3111 specifications	.	.
Power Requirement: Single 9V battery (NEDA 1604 or IEC 6F22)	.	.
Battery Life: In hours (Alkaline battery)	150	400
Size: 84mm (W) x 175mm (L) x 31mm (H), without holster	.	.
95mm (W) x 192mm (L) x 50mm (H), with holster	.	.
Weight: 340 grams without holster	.	.
550 grams with holster	.	.
Included with Instrument: Test Leads Protective holster ZnC battery (installed) and manual	.	.

Specifications subject to change without notice.

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