



# AM-510 Commercial / Residential Digital Multimeter

## AM-500 Digital Multimeter Series

The Amprobe AM-510 Commercial/Residential Multimeter is designed for light commercial and advanced residential applications. Re-wire electrical panels, install heated floors or new light fixtures, troubleshoot and repair home appliances, electrical sockets and automotive electrical problems with this easy-to-use multimeter. The AM-510 features a built-in flashlight to see wires and fuses in the dark, a rubber tilt stand and probe holder to give you the "third-hand" you need while taking measurements. Also offering safety features including Voltect non-contact voltage detection for quick go/no-go checks without the need for an additional tool. Compact yet tough, this multimeter is built to last through all your electrical projects.

- Voltage up to 600V ac/dc, ac/dc current and resistance
- Frequency, capacitance, duty cycle for troubleshooting applications
- Voltect™ Non-contact voltage detection
- Audible continuity
- Diode test
- Backlit LCD display
- Data hold
- Relative zero mode
- Auto and manual-ranging
- Built-in flashlight
- Built-in test leads storage and "third hand" probe holder
- Auto and manual-ranging
- Auto power off
- Low battery warning
- Safety rated: CAT III 600V

## AM-510 DETAILED SPECIFICATIONS

Specifications	Range	Best Accuracy
AC Voltage	400 mV 4.000 / 40.00 / 400.0 / 600 V	±(1.0% Rdg + 3 LSD) @ 45 Hz to 400 Hz, 4 V to 400V ranges
DC Voltage	400 mV 4.000 / 40.00 / 400.0 / 600 V	±(0.8% Rdg + 1 LSD) @ 4 V to 400 V ranges
Resistance	400.0 Ohms 4.000 / 40.00 / 400.0 kOhms 4.000 / 40.00 MOhms	±(1.0% Rdg + 2 LSD) @ 4 kOhms to 400 kOhms ranges
AC Current	400.0 / 4000 µA 40.00 / 400.0 mA 4.000 / 10.00 A	±(1.2% Rdg + 3 LSD)
DC Current	400.0 / 4000 µA 40.00 / 400.0 mA 4.000 / 10.00 A	±(1.0% Rdg + 2 LSD)
Frequency	10Hz to 10MHz	±(0.1% Rdg + 4 LSD)
Capacitance	40.00 / 400.0 nF 4.000 / 40.00 / 100.0 µF	±(3.0% Rdg + 5 LSD) @ 400 nF to 40 µF ranges
Battery Test	1.5 V, 9 V	±(1.0% Rdg + 3 LSD)
Duty Cycle		0.1% to 99.9%

For more detailed specifications see instruction manual.

## AM-500 SERIES SELECTION GUIDE

			AM-500	AM-510	AM-520	AM-530	AM-540	AM-550
MULTIMETER TYPE			Autoranging	Com / Res	HVAC	Electrical	Adv. HVAC	Industrial
<b>Application:</b>								
<b>Functions</b>	Safety Rating	<b>Safety</b>	CAT III 600V	CAT III 600V	CAT III 600V CAT II 1000V	CAT III 600V CAT II 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V
	Measure voltage in noisy environments	<b>True-rms</b>				■		■
	Electrical panels, AC outlets	<b>AC Voltage (V)</b>	600	600	750	750	1000	1000
	DC systems, auto/marine batteries	<b>DC Voltage (V)</b>	600	600	1000	1000	1000	1000
	AC Current - electrical panels, appliances	<b>AC Current (A)</b>	10	10	10	10	10	10
	DC Current - electronics, DC motors	<b>DC Current (A)</b>	10	10	10	10	10	10
	Specified resistance and continuity	<b>Resistance (MOhms)</b>	20	40	40	40	60	60
	Flame sensors	<b>Micro Amps</b>	■	■	■	■	■	■
	Diodes in ac to dc converters	<b>Diode test</b>	■	■	■	■	■	■
	Fuses, light bulbs, wire connections	<b>Continuity</b>	■	■	■	■	■	■
	Household batteries	<b>Battery test</b>	■	■				
	Motor startup or run capacitors	<b>Capacitance</b>		■	■	■	■	■
	Frequency verification	<b>Frequency</b>		■	■	■	■	■
	VolTect™ Non-contact voltage detection	<b>Non-contact voltage</b>		■	■	■	■	■
	Electrical load-time on vs. time off	<b>Duty cycle</b>		■			■	■
Temp of air vents, fuses, transformers	<b>Temperature inputs</b>			1	1	2	2	
<b>Features</b>	Automatically selects measurement range	<b>Autoranging</b>	■	■	■	■	■	■
	Manually select measurement range	<b>Manual ranging</b>		■	■	■	■	■
	Voltage on variable frequency drives	<b>Low pass filter</b>					■	■
	Detect stray voltages	<b>Low Z</b>						■
	Dimly lit areas	<b>Built-in flashlight</b>		■	■	■	■	■
<b>Display</b>	Meter resolution	<b>LCD Counts</b>	2,000	4,000	4,000	4,000	6,000	6,000
	Dimly lit areas	<b>Backlight</b>		■	■	■	■	■
	Monitoring fast changing signals	<b>Bar graph</b>			■	■	■	■
	Two relative measurements on one screen	<b>Dual display</b>					■	■
<b>Events</b>	Data memory	<b>Data hold</b>	■	■	■	■	■	■
	Difference between two measurements	<b>Relative reading</b>		■	■	■	■	■
	Max/min peak measurement	<b>Max/min hold</b>			■	■	■	■
	Specialized signal measurements	<b>Peak hold (crest)</b>					■	■

## INCLUDED ACCESSORIES

Model	Batteries (Installed)	Test Leads	Temperature Probe	Temperature Adaptor	Velcro Strap	Carrying Case	User's Manual
AM-500	AAA x2	■					■
AM-510	9V (6F22) x1	■					■
AM-520	9V (6F22) x1	■	K-type probe x1		■	■	■
AM-530	9V (6F22) x1	■	K-type probe x1		■	■	■
AM-540	9V (6F22) x1	■	K-type probe x2	■	■	■	■
AM-550	9V (6F22) x1	■	K-type probe x2	■	■	■	■