

## Model 8112 Instruction Manual

Model 8112 clamp adaptor is designed to be an AC current / voltage conversion probe capable of measuring

AC current from 0.1mA to 120A in conjunction with high sensitivity AC voltmeters.

It is especially useful for digital multimeters.

Simple to operate, the unit has range switch position at 200mA, 2A and 20A.

### Specifications:

Range Switch Position	Input	Output	Accuracy	Frequency Range
200mA / 200mV (1mA / mV)	AC 0~500mA	0 – 500mV AC	$\pm 1.5\% \text{rdg} \pm 0.2 \text{mA}$	50Hz–1kHz
	AC 0~1000mA	0 – 1000mV AC	$\pm 3.0\% \text{rdg} \pm 0.4 \text{mA}$	40Hz–10kHz
2A / 200mV (10mA / mV)	AC 0~20A	0 – 2000mV AC	$\pm 1.0\% \text{rdg} \pm 1 \text{mA}$	40Hz–1kHz
			$\pm 1.5\% \text{rdg} \pm 2 \text{mA}$	1kHz–10kHz
20A / 200mV (100mA / mV)	AC 0~20A	0 – 200mV AC	$\pm 1.0\% \text{rdg} \pm 0.01 \text{A}$	40Hz–1kHz
	AC 20~60A	200mV – 600mV AC	$\pm 2.5\% \text{rdg}$	50Hz–10kHz
	AC 60~120A	600mV – 1200mV AC	$\pm 2.5\% \text{rdg}$	100Hz–10kHz

Output Impedance – 2k ohms

Frequency Characteristics – Within  $\pm 3\text{dB}$  at 30Hz to 100kHz

Maximum Voltage of Circuit under test – CAT. II 100V

Output Cord – Insulated, approx. 1.5m long, 3.9mm diameter and terminated with banana plug with barrier.

### Operating Instructions:

After connecting Model 8112 to the voltmeter pull the jaw lever down to open the transformer jaws and clamp onto a current carrying conductor.

The voltmeter reads the current measured.

Change the range switch position on Model 8112 or the voltmeter according to the current being measured.

### Read the current as follows:

Model 8112 set at	AC Voltmeter set at	How to read
200mA	200mV (e.g.)	Read directly (in milliamps)
2A	200mV (e.g.)	Divide reading by 100 (read in amps)
20A	200mV (e.g.)	Divide reading by 10 (read in amps)

To give further examples of how to take readings:

- (1) When 100mA is measured with range switch (Model 8112) set to 200mA the voltmeter reads 100.0mV at 200mV range or 0.100V at 2V range.
- (2) When 1A is measured with range switch set to 2A the voltmeter reads 100.0mV at 200mV range or 0.100V at 2V range.
- (3) When 10A is measured with range switch set to 20A the voltmeter reads 100.0mV at 200mV range or 0.100V at 2V range.

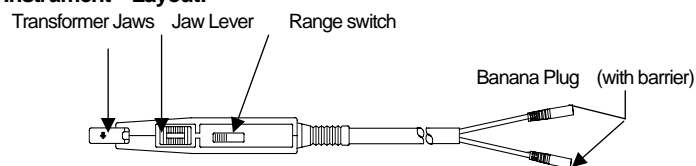
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### Instrument Layout:



### Notes:

Although the maximum voltage of the circuit under test is specified as CAT. II 100V when the transformer jaws are closed, exercise caution not to bring the metallic section (jaw dovetail) of the jaws in contact with a bare conductor under test.

A reading error may develop when the jaws are not fully closed.

A strong external magnetic field in proximity to the clamp adaptor will affect the current reading.

Try to minimize this effect by changing the position or orientation of the clamp adaptor.

Arrow mark on the jaw indicates the polarity of output relative to the current flowing through the conductor.

Output is positive (+) when the current flows into the arrowed direction.