

## STB ELECTRICAL TEST EQUIPMENT, INC.

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**OPERATING INSTRUCTIONS for  
Model 50105-G-01 – 50105-G-17  
Clamp-on Ammeters  
Ranges: 10-500; 10-1000; 10-2000; 50-2000**

### I. DESCRIPTION

- A. This instrument is designed to conveniently measure currents in AC lines without interrupting service.
- B. It is reliable and easy to use.
- C. To read current, simply open the clamp; place it around one conductor, and then release the trigger.

### II. OPERATING NOTES

- A. Selection on wrong range will not, ordinarily damage the instrument.
  - 1. However, when the approximate value of the current is unknown, it is recommended that the range switch be set to the highest range, switching to lower ranges step by step until the correct switch position and range is obtained.
- B. Be sure clamping jaws encircle only one side of the AC line.

The instrument cannot be used on direct current!

- C. Make sure the clamping jaws are firmly closed when measuring.
  - 1. A gap in the jaws, caused by dirt, grease, etc., will disrupt the magnetic circuit and thereby impair accuracy.
- D. Measurements through non-magnetic materials such as insulation, lead, or brass conduit can be made with the same accuracy as though the conductor were bare.
- E. Measurements in circuits enclosed in conduit of magnetic material such as iron, steel, BX cable, etc., can be made by opening the nearest switch or junction box and placing the clamping jaws around the conductor where it is unshielded by conduit.
  - 1. Place the clamp around one conductor only.

F. This instrument is made for continuous duty up to 500 amperes.

- 1. Instruments with ranges above 500 amperes should be used to periods no longer than indicated below.

Current Amperes	Max. Continuous Duty - Minutes
600	15
1000	5
2000	2

### III. ACCURACY

- A. The greatest accuracy will be obtained in the 50-70hz range.
- B. This instrument can also be used on frequencies above and below these values, but with somewhat impaired accuracy.
- C. For best accuracy, the conductor must be centered at the top of the jaws.
  - 1. Poor positioning may produce a maximum error of  $\pm 4$  divisions.
- D. Temperature changes from 32°F to 110 °F (0 ° - 43 °C) will affect accuracy less than one percent.

### IV. CARE OF INSTRUMENT

- A. Clamping jaw surfaces must be kept clean.
- B. Wipe with a cloth dampened in light oil.

Never use a file or abrasive of any kind.  
Clamping jaws should never be used as prying tools.

Note: Since STB Electrical Test Equipment, Inc. has the policy of continuous product improvement; we reserve the right to change design, specifications and/or prices without notice.

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