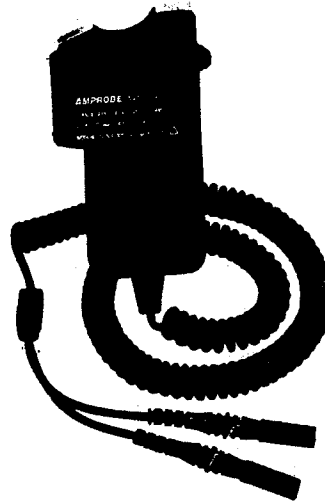


Part No 973762  
5/95.

OPERATING INSTRUCTIONS  
for

**AMPROBE.**  
AC Current Transducer  
Model A400




---

See " PRECAUTIONS FOR PERSONAL AND  
INSTRUMENT PROTECTION" on Pg. 3

---

See " LIMITED WARRANTY" on Pg. 2

---

 **AMPROBE INSTRUMENT**  
**DIVISION OF CORE INDUSTRIES INC.**  
**LYNBROOK NY 11563**

## LIMITED WARRANTY

Congratulations! You are now the owner of an AMPROBE® instrument. It has been crafted according to the highest standards of quality and workmanship. This instrument has been inspected for proper operation of all of its functions. It has been tested by qualified factory technicians according to the long-established standards of AMPROBE INSTRUMENT.

Your AMPROBE instrument has a limited warranty against defective materials and/or workmanship for one year from the date of purchase provided the seal is unbroken or, in the opinion of the factory, the instrument has not been opened, tampered with, or taken apart.

***Should your instrument fail due to defective materials, and/or workmanship during the one year warranty period, return it along with a copy of your dated bill-of-sale which must identify the instrument by model number and serial number.***

**IMPORTANT:** For your protection, please use the instrument as soon as possible. If damaged, or should the need arise to return your instrument, place it in a shipping carton packed with sufficient cushioning material. It must be securely wrapped, Amprobe is not responsible for damage in transit. Be sure to include a packing slip (indicating model and serial number) along with a brief description of the problem. Make certain your name and address appears on the box, as well as packing slip.

Ship prepaid via Air Parcel Post insured or U.P.S. (where available) to:

Service Division  
AMPROBE INSTRUMENT  
630 Merrick Road (use for U.P.S.)  
P.O. Box 329 (use for or Parcel Post)  
Lynbrook, NY 11563-0329

Outside the U.S.A. the local Amprobe representative will assist you. Above limited warranty covers repair and replacement only and no other obligation is stated or implied.

2

## PRECAUTIONS FOR PERSONAL AND INSTRUMENT PROTECTION

- 1) Read these instructions thoroughly and follow them carefully.
- 2) In many instances, you will be working with dangerous levels of voltage and/or current. Therefore, it is important that you avoid direct contact with any uninsulated, current carrying surfaces. Appropriate insulating gloves, clothing and eye protection should be worn.
- 3) To avoid electrical shock to the user and/or damage to the instrument, do not apply any voltage to the output terminals.
- 4) Before applying the instrument to circuit under test, make certain that the A-400 is plugged into proper jacks and switches are set to proper range and function.
- 5) Before using any electrical instruments or tester for actual testing, the unit should be checked on a low energy high impedance source. **Do not use power distribution lines or any other high energy sources.**

**IMPORTANT:** Plug in only one accessory probe or set of test leads at any one time, except as directed.

**IMPORTANT:** Failure to follow these instructions and/or observe the above precautions may result in personal injury and/or damage to the instrument and/or accessories

## SAFETY

This Instruction Manual has warnings and safety precautions which must be followed in order to ensure safe operating conditions.

3

## CAUTION

To avoid damage to the meter:

- 1) Disconnect the A-400 from circuit under test before changing functions.

## INTRODUCTION

Amprobes' Model A400 AC Current Transducer is designed to be used to expand a multimeters capability to read AC Trms Current from 0.1 A to 400 A AC RMS.

### Features Include;

400 amp AC capability, 1.9% basic accuracy, accommodates conductors 1.14" in diameter, Coiled cable, Hand guard design, Carrying case included

### 1-1 Unpacking and Inspection

Upon removing your new current transducer from its' packing, you should have the following items;

1. A400 current transducer with coiled cable output terminals.
2. Instruction Manual
3. Shrouded to banana converter terminal lead. Amprobe p/n: VBAN
4. Carrying case. Amprobe p/n: SV-12

### 1-2 Front View

Refer to Figure 1 and to the following numbered steps to familiarize yourself with the A400.

1. Transformer Jaws - Designed to pick up the AC current flowing through a conductor.
2. Hand Guard - Designed to protect the user.
3. Trigger - Press the lever to open the transformer jaws.

The shrouded leads are color coded as noted.

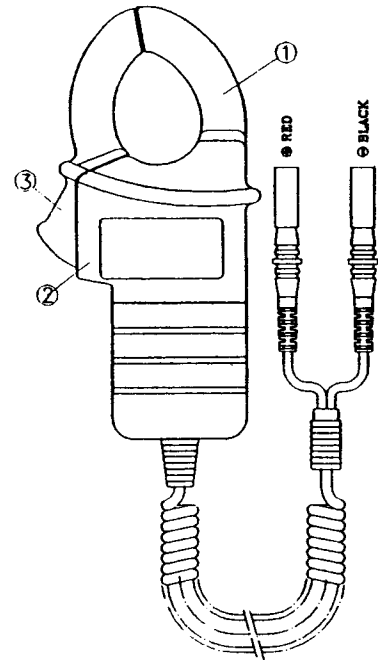


Fig 1.

### 1-3 SPECIFICATIONS

**Current Range:** 0.1 A to 400 A AC RMS  
**Output Voltage:** 1mV AC per 1 Amp Ac  
**Working Voltage:** 600 V Cat II per IEC 1010-1  
**Maximum Altitude:** 2000 meters  
**Operating Temperature:** 0 degree C to 45 Degree C < 75% R.H.  
**Storage Temperature:** -20 degree C to 60 Degree C  
**Temperature Coefficient:** 0.2 x (Spec. Acc'y/ Degree C, < 18 Degree C or > 28 degree C  
**Maximum Output Impedance:** 75 Ohms  
**Maximum Jaw Opening:** 30 mm, 1.18"  
**Maximum Conductor Size:** 29 mm, 1.14" diameter  
**Size:** 72mm (W) x 148mm (L) x 36mm (D), 2.83 (W), 5.83" (L), 1.42" (D) W/O cable  
**Weight:** 250 grams  
**Accessories:** Manual, Carrying Case, Converter Terminal Lead

**Warning: THIS INSTRUMENT MUST NOT BE USED ON UNINSULATED CONDUCTORS AT A VOLTAGE GREATER THAN 250V AC/DC.**

**PRECAUTIONS AND PREPARATIONS FOR MEASUREMENT**

1. Do not apply a voltage to the output terminals/plugs of the A400.
2. Do not use or store this unit in a high temperature, high humidity environment or in direct sunlight.
3. Do not measure current before the unit is connected to a meter.
4. In many instances, you will be working with dangerous levels of voltage and or current. Therefore, it is important that you avoid direct contact with any uninsulated, current carrying surfaces. Appropriate insulating gloves, clothing and eye protection should be worn.

**ELECTRICAL SPECIFICATIONS**

Accuracy is +/-(% reading + number of Amps) at 23 degree C +/- 5 degree C, less than 75% R.H.

RANGE	MEASURE	OUTPUT
400 A	3 Amps	3mV
	30 Amps	30mV
	350 Amps	350mV
	400 Amps	400mv

Accuracy to 350 amps is +/- (1.9% + 0.5A) 50-60 Hz

Accuracy at 400 Amps, +/- (3.2% + 1A) 50-60 Hz

**OPERATION**

**3-1 AC Current Measurement**

1. Set the DMM at ACV function and preferably a millivolt or 2 VAC range.
2. Connect the leads of the A400 into the V and COM inputs.
3. Press the trigger and clamp around a single conductor and observe that the jaw is closed

firmly around the conductor.

4. The output is 1mV AC per 1A AC RMS

5. Observe the reading on the LCD display. For examples of typical readings, see the chart under ELECTRICAL SPECIFICATIONS.

**\*\*NOTE:** If the A400 is used with the Amprobe PMM-1 Pen Multimeter an offset of .004 VAC or less could be present therefore limiting the A400 to 4 Amps through 300 Amps

**MAINTENANCE**

To keep the instrument clean, wipe the case with a damp cloth and detergent, do not use abrasives or solvents.

Any adjustments, maintenance or repair shall be conducted by an authorized Amprobe service center or Amprobe Instrument.

**SERVICE**

If the instrument fails to operate, double check the operating procedure as described in the instruction manual. If the unit is still not working, place it with the packing slip along with a brief description of the problem in sufficient cushioning material in a shipping carton. Be sure to indicate the serial number located on the back of the instrument. amprobe is not responsible for damage in transit. Make certain your name and address also appears on the box as well as the packing slip; ship prepaid via U.P.S. ( where available ) or Air Parcel Post insured to:

Service Division  
Amprobe Instrument  
630 Merrick road ( for U.P.S. )  
P.O. Box 329 ( use for Parcel Post )  
Lynbrook, NY. 11563-0329

Outside the USA, the local amprobe representative will assist you