4.5) HOW TO USE POINTER LOCK & RANGE FINDER SYMBOLS

(1) Slide the pointer lock button to the left. This allows easy readings in dimly lit or crowded cable areas (Fig.8).

(2) For quick and easy identification the dial drum is marked with the symbols as illustrated below (Fig.9).

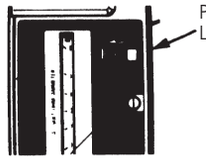


Fig.8

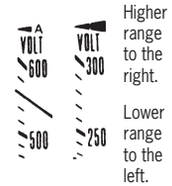


Fig.9

5) BATTERY & FUSE REPLACEMENT

(1) Remove the screw on the back of the case for battery and fuse replacement (Fig.10). Replace only with AWS fuse part F-1 or approved equal. 1/2A, 250V, 1/4"×1-1/4" Fast acting High Current interrupting style fuse.

CAUTION : For continued protection against fire, replace only with fuse of the specified voltage current and rupture speed ratings.

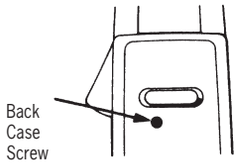


Fig.10

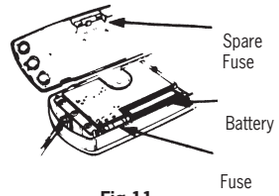


Fig.11

(2) The battery and fuse are installed inside the case (Fig.11).

6) RETURN FOR REPAIR

Before returning your instrument for repair make sure the failure to operate is not caused by:

1) Weak or de-energized battery
2) Fuse blown
3) Broken test leads
4) Pointer lock closed

If all of these conditions are checked to be fine and your instrument still does not operate properly then send it bake freight prepaid to:

Sperry Instruments
2150 Joshua's Path, Suite 302
Hauppauge, NY 11788

Include all accessories and a note explaining what is wrong with the instrument. Should you require an estimate please indicate ESTIMATE ONLY on your note. Be certain to include your return address and day time phone number should we need to contact you.

LIFETIME LIMITED WARRANTY

The attention to detail of this fine snap-around instrument is further enhanced by the application of Sperry's unmatched service and concern for detail and reliability.

These Sperry snap-arounds are internationally accepted by craftsman and servicemen for their unmatched performance. All Sperry's snap-around instruments are unconditionally warranted against defects in material and workmanship under normal conditions of use and service; our obligations under this warranty being limited to repairing or replacing, free of charge, at Sperry's sole option, any such Sperry snap-around instrument that malfunctions under normal operating conditions at rated use. [1]

REPLACEMENT PROCEDURE

Securely wrap the instrument and its accessories in a box or mailing bag and ship prepaid to the address below. Be sure to include your name and address, as well as the name of the distributor, with a copy of your invoice from whom the unit was purchased, clearly identifying the model number and date of purchase.

Sperry Instruments
ATT : Customer Service Dept.
2150 Joshua's Path, Suite 302,
Hauppauge, NY 11788

[1] The warranty is not applicable if the instrument has been misused, abused, subjected to loads in excess of specifications, has had unauthorized repair or has been improperly assembled or used.

SPERRY INSTRUMENTS
The Professional's Choice®

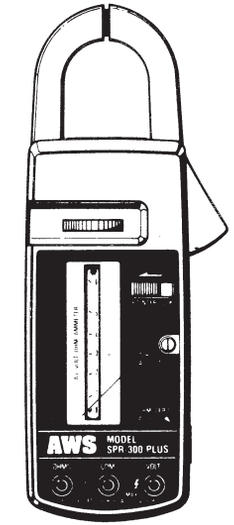
2150 Joshua's Path, Suite 302,
Hauppauge, NY 11788
Phone: 1-800-645-5398 or 631-231-7050
Fax: 631-434-3128
Email: cat@sperryinstruments.com
www.sperryinstruments.com

05/06 From #174-1

OPERATING INSTRUCTIONS

SPERRY INSTRUMENTS

AC SNAP-AROUND VOLT-OHM-AMMETER
MODEL SPR-300 PLUS & SPR-300 PLUS A



1) FEATURES

- UL Listed
- New range finder symbols give quick and easy locations of all ranges.
- Three functions, nine ranges.
- Large optically clear window gives quick, easy distortion - free readings.
- One AA type battery AWS Part AWS B-1 included.
- Two fuses(one spare), both included. AWS Part #F-1.
- Volt, Ohm and Common terminals are on the front panel.
- Ohm scale on dial drum.
- Industry standard safety shielded banana plugs and recessed input terminals included.
- Pointer lock device to freeze readings.
- 1.5 Ampere range for low current equipment.

2) SPECIFICATIONS

Range :	AC Current	6/20/60/200/600 Aac
	AC Voltage	150/300/600 Vac
	Resistance	0-2K/25 ohm mid scale
Accuracy :	AC Current	±3% of full scale at 50-60Hz
		±6% of full scale except 6A range at 400Hz
		10% of full scale on 6A range at 400Hz
	AC Voltage	±3% of full scale
	Resistance	±3% of arc length

Withstand Voltage : 2,500 V AC for one minute between electrical circuit and housing case or metal section of transformer jaws.

Insulation Protection :	10MΩ min. at 1000 V between electrical circuit and housing or metal section of transformer jaws.
Overload Protection :	AWS Part #F-1,0.5A, 250V, 1/4"×1-1/4" fuse and diode
Frequency Response :	50-400Hz
Conductor Size :	Approx. 1.2"(30mm)
Dimensions :	8.7"(L)×3.3"(W)×1.6"(D) 220mm (L) ×83mm (W) ×40mm (D)
Weight :	Approx. 13.8 oz. (390g) battery included
Power Source :	One 1.5V AA size battery, AWS Part #B-1
Fuse :	1/4"×1-1/4", .5A, 250V FF AWS Part #F-1
Temperature :	5℃ to 40℃ Max RH 80% to 31℃, decreasing linearly to 50% RH at 40℃
Cleaning :	Wipe with a clean dry cloth.
Accessories : (included)	Test Leads Model TL-52 one alligator, one with prod. Banana Plugs are shrouded, Battery B-1, AA type 1.5V. Two 0.5/250V Fuses F-1 (spare fuse included), durable Case C-53.
(optional)	Energizer Model E-1, AG-940, TL-5, TL-5-A1, TL6, TL6-A1, TL-39, TL-42, TL-44, TL-48, TL-49 and C-53A Carrying Case.

Instrument complies with insulation category (Overvoltage Category II). Pollution Degree 2 in accordance with IEC-664. Indoor use.
If the equipment is used in a manner not specified, the protection provided by the equipment may be impaired.

3) SAFETY PRECAUTIONS

The following safety precautions must be observed to insure maximum personal safety during the operation, service and repair of this meter :

1. Read these operating instructions thoroughly and completely before operating your meter. Pay particular attention to **WARNINGS** which will inform you of potentially dangerous procedures. The instruction in these warnings must be followed.
2. Always inspect your meter, test leads and accessories for any sign of damage or abnormality before every use. If any abnormal conditions exist (eg. broken test leads, cracked cases, etc.), do not attempt to take any measurements. Refer to Return for Repair section.
3. Do not expose the instrument to direct sunlight, extreme temperature or moisture.
4. Never ground yourself when taking electrical measurements. Do not touch exposed metal pipes, outlets, fixtures, etc., which might be at ground potential. Keep your body isolated from ground by using dry clothing, rubber shoes, rubber mats, or any approved insulating material.
5. To avoid electric shock use CAUTION when working with Voltages above 40 Vdc or 20 Vac. Such voltages pose a shock hazard.
6. Never exceed the maximum allowable input value of any function when taking a measurement. Refer to the specifications on page 1 for maximum inputs.
7. Never touch exposed wiring, connections or any live circuit when attempting to take measurements.
8. Do not attempt to operate this instrument in an explosive atmosphere (i. e. in the presence of flammable gases or fumes, vapor or dust).
9. When testing for the presence of voltage, make sure the voltage function is operating properly by reading a known voltage in that function before assuming that a zero reading indicates a no-voltage condition. Always test your meter before and after taking measurements on a known live circuit.
10. Calibration and repair of any instrument should only be performed by qualified and trained service technicians.
11. Do not attempt calibration or service unless trained and another person, capable of rendering first-aid and resuscitation, is present.
12. Do not install substitute parts or perform any unauthorized modification of the instrument. Return the instrument to Sperry Instruments, Inc. for service and repair to insure that safety features are maintained.

4) OPERATION

BEFORE PROCEEDING WITH ANY MEASUREMENT, READ THE SAFETY PRECAUTIONS SECTION 3.

4.1) PREPARATION

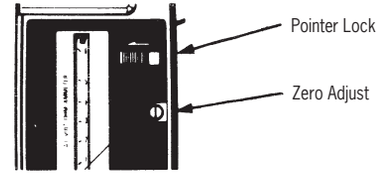


Fig.1

(1) To ensure greatest accuracy, the pointer should be set exactly to the zero position by rotating the zero adjust screw (Fig 1).
(2) Make certain that the pointer lock button is in the open position (Fig. 1).

4.2) AC CURRENT MEASUREMENTS

WARNING !

This instrument is designed to take current readings on circuits with a maximum voltage above ground not exceeding 600 Vac. Using it on circuits above 600 Vac poses a shock hazard to the user.

(1) Set the range switch to the highest 150 Aac range position.
(2) Press the trigger to open the transformer jaws and clamp onto one conductor only (Fig. 2). Read the current directly on the scale. It is recommended that the conductor be placed at the center of the closed jaws for maximum accuracy.

Fig.2

(3) When the reading is less than one third of the scale set the range switch to the next lower range position. For maximum accuracy, select the lowest range possible without overranging the meter.

4.3) AC VOLTAGE MEASUREMENTS

WARNING !

This instrument is designed to take voltage readings up to a maximum of 600 Vac. The "COM"terminal voltage should not exceed 500 V measured to ground potential. Do not exceed these maximums.

(1) Insert the red test lead into the "VOLT"terminal of the instrument and the black test lead into the "COM" terminal (Fig.3).

Fig.3

(2) Set the range switch to the highest Vac range position.
(3) Connect the test leads to the circuit under test (Fig.4) and read the voltage directly on the scale.

Fig.4

(4) When the reading is less than one half of the scale set the range switch to the next lower range position. For maximum accuracy, select the lowest range possible without overranging the meter.

4.4) RESISTANCE MEASUREMENTS

WARNING !

Attempting resistance measurements on live circuits can cause electrical shock, damage to the instrument and damage to the equipment under test. Resistance measurements must be made on de-energized (DEAD) circuits only for maximum personal safety. The fuse protection installed in this instrument will reduce the possibility of damage to the instrument but not necessarily avoid all damage or shock hazard.

Never jump out the protective fuse. Replace the fuse with AWS Part #F-1 or approved equal. Only use fuses that are quick acting and have high current interrupting capacities.
(1) Teat the circuit to make sure it is de-energized. Refer to section 4.3 on how to test for voltage.
(2) Set the range switch to the ohm range position. Insert the red test lead into the "OHM" terminal and black test lead into the "COM" terminal (Fig.5).

Fig.5

(3) With the test leads open set the pointer over the "∞"(infinity)mark at the left end of the ohm scale, using the zero adjust screw.
(4) With the test leads shorted set the pointer over the "0"mark at the right end of the ohm scale, using the ohm zero adjust knob (Fig.6).

Note : When this adjustment does not bring the pointer over the "0"mark replace the battery.

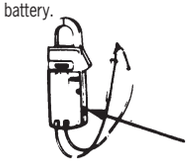


Fig.6

Fig.7

(5) Connect the test leads to the circuit under test (Fig.7) and read the resistance directly on the scale.