HOW TO INSTALL FUSE AND BATTERY

UNSCREW BASE OF OHMETER BATTERY/FUSE ATTACHMENT. INSERT FUSE (USE LITTLE FUSE TYPE BAG-360x023, 1 AMP fast blow) AND AAA BATTERY (CAT. No. 912, NOT SUPPLIED) INTO PROBE END AS SHOWN IN FIGURE. SCREW BASE ON TO PROBE.

NOTE: If you fail to get an ohmmeter indication or the indication is intermittent, before replacing the battery or fuse, lightly sand the base of the battery with fine sandpaper. This will remove any oxidation that could be causing poor or intermittent contact.

HOW TO USE AS AN OHMETER

NOTE: See testing on cover page for models that have ohmmeter range.

IMPORTANT: Read "Precautions for Personal and Instrument Safety" before using instrument.

CAUTION: Make certain no voltage is present in circuit before connecting ohmmeter to circuit. The ohmmeter is used to help protect against the dissipation of voltage due to the ohmmeter being connected to the circuit under test conditions. It is still possible to damage the meter and/or obtain incorrect readings.

1. Insert either the Red or Black Voltage Lead into the Left Voltage Receptacle at bottom of instrument case (Fig. 14).

2. Insert ohmmeter battery/fuse attachment into the jack on the right side of the instrument just below the ohmmeter Zero Adjust Knob. Seat plug to bottom for good connection (Fig. 18).

3. Set Range Selector so that the 150 volt red scale appears in window.

4. Ohm/Scale Adjustment with Test Leads Open—Pointer should line up with division marked “∞” on OHM SCALE. Turn Pointer Zero Adjust Screw if necessary (Fig. 18).

5. With Test Leads Shorted—Line up pointer with “0” mark on ohms scale by turning Small Black Knob on right side of instrument (Fig. 17).

NOTE: If ohmmeter zero adjust knob does not line pointer up on zero mark, replace battery with a new one. Oxidation on base of battery can cause poor contact. Sand lightly to assure good contact.

6. To Measure Resistance Between any two points on a device, simply apply the clip lead and the ohmmeter attachment probe tip and read pointer.

CAUTION: Make certain that circuit is disconnected from line before taking any resistance measurements.

HOW TO READ OHMETER SCALE

The ohmometer scale is located on the flat plate along the right hand edge of the window. The zero mark (beginning) is on top of the scale while the infinity mark “∞” ends the scale.

USING RS-7 AND RS-7A TO RECORD VOLTAGE OR CURRENT

The RS-7 Recording Module is an optional accessory. It is not supplied with the RS-7/7A.

1. See the instruction label on the lid of the RS-7/7A. Follow steps 1 to 4.

2. Plug RS-7/7A meter line cord into the jack located on the lower left hand side of the RS-7.

3. If RS-7/7A combination will be recording a current, see “How to Take Current Readings” on page 1 of this instruction manual for instructions about connecting the RS-7 for current measurements.

4. Voltage, see “How to Take Voltage Readings” on page 3 of this instruction manual for instructions about connecting the RS-7 for voltage measurements.

5. Follow remaining steps 7 to 10 of instruction label on lid of RS-7/7A.

IMPORTANT: The RS-7 will not show any reading when it is connected to the RS-7A. Do not assume circuit is dead.

EXTENDED LEADS FOR FASTER AND EASIER VOLTAGE TESTING

EXTENDED LEADS have 5 inch long insulated probes for a man-sized grip. One probe clamps between instrument jaws. Optional alligator clip adapter (Cat. No. MDC-320) converts probe so it can be fastened to test point. Probe tips are replaceable (Cat. No. VPR). Extends Lead Cat. No. VPL-411R for 120, 250, 300 ampere RS models; Cat. No. VPL-103R for 1000 ampere RS models. Fig. 19-20.

FACTORY SERVICE

For factory service, package instrument and packing slip with sufficient cushioning material in a shipping carton. Make certain your name and address appear on box and packing slip. Ship prepaid via U.S. (where available) or Air Parcel Post insured to Service Division, AMPROBE INSTRUMENT, 630 Merrick Rd., Lynbrook, N.Y. 11563.

Outside of the U.S.A., your local AMPROBE representative will assist you.

RANGE-EXPANDING ACCESSORIES

Model | Ratio | Maximum Range Capability
--- | --- | ---
A50-1 | 10 to 1 | 1.200 amperes*
CT-50-1 | 50 to 1 | 6.000 amperes*
CT-50-2 | 50 to 3 | 3.000 amperes*
*Intermittent duty
All of the above are clamp-on type transformers. Models CT-50-1 (six link) and CT-50-2 (four link) are flexible link construction. Request Cat. No. A4038

SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RANGES</th>
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<tbody>
<tr>
<td>Amps, AC</td>
<td>Volts, AC (See Note)</td>
</tr>
<tr>
<td>RS-1 &amp; RS-1A</td>
<td>0-6/15/40/100</td>
</tr>
<tr>
<td>RS-18 &amp; RS-18A</td>
<td>0-6/15/40/100</td>
</tr>
<tr>
<td>RS-2 &amp; RS-2A</td>
<td>0-6/15/40/100</td>
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<tr>
<td>RS-5 &amp; RS-5A*</td>
<td>0-10/40/100/300</td>
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<tr>
<td>RS-7 &amp; RS-7A</td>
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<td>RS-300 &amp; RS-300A</td>
<td>0-6/15/40/100/300</td>
</tr>
<tr>
<td>RS-1000/R-1000SE</td>
<td>0-15/40/100/300/1000</td>
</tr>
<tr>
<td>RS-1007/R-1007SE</td>
<td>0-15/40/100/300/1000</td>
</tr>
</tbody>
</table>

Accuracy (volts & amps) — within ±3% of Full Scale, based on sinusoidal wave form, Ohms — ±1.5% of scale. Case Voltage Breakdown Test — 3000 volts AC (except ohmmeter Models 2200VAC)
MEASURING MOTOR STARTING CURRENTS WITH MODELS THAT HAVE SURGE INDICATION CAPABILITY

NOTE: Pointer lock must be in "off" position.

1. If the starting current (locked rotor) is not shown on motor nameplate, you can estimate the current as it is generally 5-8 times full load current.
2. Set instrument to appropriate current range and adjust Pointer to zero using Zero Adjust Screw. If necessary.
3. Turn Surge Adjustment Screw counter-clockwise. See Fig. 1 to move Pointer up scale. Set to a value approximately 5% (1/20) below estimated current. Do not try to set Pointer above 95% of full scale value of range Fig. 100 Amps range, do not set above 95 amps.
4. Turn off motor.
5. Clamp instrument jaws around motor lead. Observe Pointer and turn on the motor.
6a. Adjustment is correct when Pointer shows only a slight movement (less than one division) up scale. Read current value that Pointer moves to above one division.
6b. If Pointer moves up scale more than one division or does not move at all readjust pointer accordingly up scale or down scale
7. After measurement is completed, return Pointer to zero using Surge Adjustment Screw. Recheck zero setting using Zero Adjust Screw.

See page 5 for instructions for using Model RS-7 and IRS-7R Recording Module to record current.

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HOW TO TAKE Volt READINGS

(All voltage ranges are printed red)

1. Insert bayonet type voltage test leads into Voltage Recepiekt at bottom of instrument. Push against receptacle spring and twist to lock (Fig. 8).
2. Turn Rotary Scale Selector to highest voltage range— 600 volts— appears in window (Fig. 8).
3. Connect one Alligator Clip to one side of line. Then with Meter in one hand, touch the other side of the line with the Alligator Clip. If voltage does not exceed 600 volts (using Model RS-11), attach second Alligator Clip and read voltage on Red Scale marked 600 volts. Using Model RS-2, if voltage does not exceed 300 volts, attach second Alligator Clip and read voltage on Red Scale marked 300 volts (Fig. 9).
4. If voltage is below 150, rotate Scale Selector until the 150 volt range appears in window. Read on this scale.

See page 5 for instructions for using Model RS-7 and IRS-7R Recording Module to record voltage.

HOW TO READ THE SCALE

Let us assume the pointer is at the position indicated in the illustration. The reading will be as follows, depending on the setting of the range selector—