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SPERRY RTL-600

Sperry Instruments RTL-600 Heavy Duty Comfort Test Leads

Model: RTL-600 | Brand: SPERRY

1. INTRODUCTION

The Sperry Instruments RTL-600 Heavy Duty Comfort Test Leads are designed for use with multimeters and other electrical testing devices. These leads facilitate accurate measurement of voltage, current, and resistance in various electrical systems. Constructed for durability and user comfort, they feature double insulation and protective caps for safe operation.

2. IMPORTANT SAFETY INFORMATION

Always prioritize safety when working with electrical systems. Failure to follow these safety guidelines may result in serious injury or death.

- **CAT III 1000V Rating:** These test leads are rated for Category III installations up to 1000 volts. Ensure your multimeter and the circuit being tested are within this rating.
- **Double Insulation:** The leads feature double insulation for enhanced protection against electrical shock. Inspect leads for any damage before each use. Do not use if insulation is cracked, cut, or otherwise compromised.
- **Protective Caps:** Always use the supplied safety caps to cover the metal tips when the leads are not in use or during storage to prevent accidental contact.
- **Proper Connection:** Ensure test leads are securely connected to the multimeter and the circuit under test. Loose connections can lead to inaccurate readings or hazards.
- **Avoid Influencing Measurements:** The flexible 40-inch cord allows for easy handling without influencing the measurement by becoming part of the electric circuit.
- **Consult Technical Literature:** Before operating any electrical testing tools, consult all relevant technical literature. Always reference the National Electric Code (NEC) or local electrical codes before performing any electrical work.

3. PACKAGE CONTENTS

Your Sperry Instruments RTL-600 package includes:

- 1 x Positive Test Lead (Red)
- 1 x Negative Test Lead (Black)
- 2 x Protective Safety Caps (1 Red, 1 Black)

4. KEY FEATURES

- **CAT III 1000V Rating:** Suitable for a wide range of electrical measurements.
- **40-inch Flexible Cords:** Provides ample reach and ease of use.
- **Double Insulated:** Enhances user safety during electrical testing.
- **Removable Safety Caps:** Protects the metal tips when not in use.
- **Comfort Grip:** Designed for slip-resistant and comfortable handling.
- **Universal Fit:** Compatible with most multimeters, including those from Gardner Bender and Sperry Instruments.
- **Right Angle Connection:** Facilitates ease of use when connecting to meters.

5. SETUP AND CONNECTION

To prepare your RTL-600 test leads for use:

1. **Inspect Leads:** Before each use, visually inspect both test leads for any signs of damage to the insulation, connectors, or probe tips. Do not use damaged leads.
2. **Remove Safety Caps:** Carefully remove the protective safety caps from the metal probe tips.



Figure 1: Sperry Instruments RTL-600 Test Leads with protective caps removed.

3. **Connect to Multimeter:** Insert the right-angle banana plugs of the test leads into the corresponding input jacks on your multimeter. Typically, the red lead connects to the positive (+) or voltage/resistance input, and the black lead connects to the common (COM) or negative (-) input. Refer to your multimeter's manual for specific connection instructions.



Figure 2: Sperry Instruments RTL-600 Test Leads with protective caps in place for safe handling and storage.

6. OPERATING INSTRUCTIONS

Once connected to a compatible multimeter, the RTL-600 test leads are ready for various electrical measurements. Always ensure your multimeter is set to the correct function and range for the measurement you intend to perform.

General Usage:

- **Voltage Measurement:** Connect the test leads in parallel across the component or circuit where you want to measure voltage.
- **Resistance Measurement:** Ensure the circuit is de-energized before measuring resistance. Connect the test leads across the component.
- **Current Measurement:** For current measurement, the test leads must be connected in series with the circuit. This typically involves breaking the circuit and inserting the meter.

For a visual overview of multimeter usage and how test leads are applied for various measurements, please refer to the video below:

Video 1: Overview of Multimeter Testers. This video demonstrates typical functions of a multimeter, including measuring voltage, resistance, and current, using test leads similar to the RTL-600. It also highlights the importance of safety and consulting technical literature.

Always follow the specific operating instructions provided with your multimeter for accurate and safe testing procedures.

7. CARE AND MAINTENANCE

- **Cleaning:** Clean the test leads with a soft, dry cloth. Do not use abrasive cleaners or solvents.

- **Storage:** Store the test leads in a dry, clean environment, away from direct sunlight and extreme temperatures. Always place the protective safety caps over the probe tips before storage.
- **Inspection:** Regularly inspect the leads for any signs of wear, cuts, or damage to the insulation. Replace damaged leads immediately to ensure safety and accurate measurements.

8. SPECIFICATIONS

Feature	Detail
Model Number	RTL-600
Brand	SPERRY
Category Rating	CAT III 1000V
Lead Length	40 inches
Insulation	Double Insulated
Material	Plastic (ABS Construction)
Included Components	1 Positive / 1 Negative Lead, 2 Pk
Product Dimensions	0.44 x 0.44 x 38 inches (approximate, for individual lead)
Item Weight	1.6 ounces (approximate)

9. TROUBLESHOOTING

If you encounter issues while using your test leads, consider the following:

- **No Reading or Erratic Readings:**
 - Ensure leads are securely plugged into the multimeter.
 - Verify the multimeter is set to the correct function (e.g., ACV, DCV, Ohms) and range.
 - Check for continuity in the leads themselves by touching the tips together (multimeter should read near zero ohms in resistance mode).
 - Inspect leads for visible damage.
- **Leads Not Fitting Multimeter:**
 - While designed for universal fit, some older or specialized multimeters may have different input jack sizes. Confirm compatibility with your multimeter's specifications.

10. WARRANTY AND SUPPORT

For warranty information or technical support regarding your Sperry Instruments RTL-600 Test Leads, please refer to the documentation provided with your purchase or visit the official Sperry Instruments website. Keep your proof of purchase for warranty claims.

