Triplett Model 8455 Instruction Manual

SAFETY RULES

Warning

This tester has been designed with your safety in mind. However, no design can completely protect against incorrect use. Electrical circuits can be dangerous and/or lethal when lack of caution or poor safety practices are used.

Read The Manual

Read this Instruction Manual carefully and completely.

Voltages and currents within the capability of this test equipment can be hazardous. Follow the instructions in this manual for every measurement. Read and understand the OPERATING INSTRUCTIONS before attempting to use this tester. Do not exceed the limits of the tester.

Safety Check

Double check the switch setting and lead connections before making measurements. Are you following all of the instructions?

Disconnect the tester or turn off the power before changing switch positions.

Do not connect to circuits with voltage present when switch is in any ohms or current position.

When replacing fuses use only specified type fuses and insert in correct fuse holder.

SAFETY RULES (Continued)

Don't Touch

Don't touch exposed wiring, connections or other "live" parts of an electrical circuit. If in doubt, check the circuit first for voltage before touching it.

Turn off the power to a circuit before connecting test probes to it. Be sure there is no voltage present before you touch the circuit.

Do not use cracked or broken test leads.

High Voltage Is Dangerous

Always start with the power off. Be sure there is no voltage present before making connections to the circuit.

Don't touch the tester, its test leads, or any part of the circuit while it is on.

Before disconnecting the tester, turn the circuit off and wait for the meter to return to "zero."

Distribution Circuits Pack A Punch

In high energy circuits such as distribution transformers and bus bars, dangerous arcs of explosive nature can occur if the circuit is shorted. If the tester is connected across a high energy circuit when set to a low resistance range, a current range, or any other low impedance range, the circuit is virtually shorted.

Special equipment designed for use with these circuits is available. Contact a qualified person for assistance before attempting to make measurements on any high energy circuit.

SAFETY IS NO ACCIDENT

TABLE OF CONTENTS
8455
Tester

GENERAL DESCRIPTION

The Model 8455 is a general purpose tester designed for use in the telephone industry. It can be used to measure both voltage and resistance. Due to its use of batteries, it can be used for field servicing.

RANGES

Points: 0-100

DC Volts: 0-100 at 1,000 ohms per volt, read on the POINTS scale

Ohms:

Direct Reading: 0-2 megohms full scale (100 kilohms center scale)

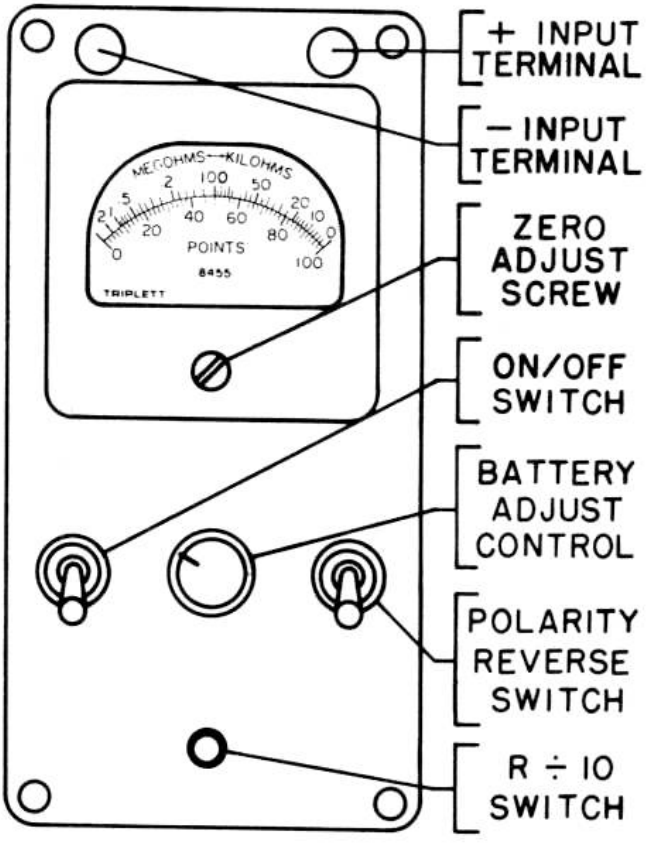
With Pushbutton: 0-200 kilohms full scale (10 kilohms center scale)

ACCURACY

DC Volts Range: 2% of full scale

Ohmmeter Range: 2° of scale arc

OPERATING INSTRUCTIONS



OPERATING INSTRUCTIONS (Continued)

DESCRIPTION OF CONTROLS

On/Off: Used in the ohmmeter circuit only. This control activates the ohmmeter battery and associated components. Therefore, when using the tester as a voltmeter or when the tester is not in use, this control should be set to OFF.

Battery Adjustment: This control is used to zero the meter when using the tester as an ohmmeter or when making ballistic tests.

Rev.: This control is used to reverse the polarity of the meter. It can be used when the tester is used as a voltmeter or when making ballistic tests.

R ÷ 10: This control is used as a multiplier when the tester is used as an ohmmeter.

Zero Adjust: This control is used to mechanically zero the meter.

OPERATING INSTRUCTIONS (Continued)

OHMMETER OPERATION

Note: Do not apply a voltage to the test leads when attempting to measure resistance. Incorrect resistance readings could result.

1. Set ON/OFF switch to ON.

2. Short test leads together.

3. Set BATTERY ADJUSTMENT control until tester reads full scale.

4. Connect tester to resistance to be measured.

5. Without pressing the ÷ 10 control, the tester will indicate the resistance being measured directly.

6. Pressing the ÷ 10 control will cause the tester to indicate 10 times the actual resistance as long as the ÷ 10 control is pressed.

OPERATING INSTRUCTIONS (Continued)

VOLTMETER OPERATION

1. Set the ON/OFF control to OFF.

2. Set the REV. control to forward (opposite the REV. setting).

3. Connect the test leads across the voltage to be measured. The positive terminal is on the right side of the tester. If the polarity is reversed, the REV. switch could be set to the REV. position.

4. The voltage is read on the POINTS scale.

OPERATING INSTRUCTIONS (Continued)

BALLISTICS TESTS

To preform ballistic tests, the following procedure should be followed.

1. Prepare the tester as outlined in the ohmmeter operation section.

2. Make the proper connections to the lines under test.

3. Switch the REV. control back and forth slowly enough so that the pointer is allowed to return to zero on the points scale. This gives an indication if the lines are open or if there is excessive capacitance in the lines.

MAINTENANCE

NOTE: DISCONNECT TEST LEADS FROM ANY EXTERNAL CIRCUITS BEFORE SERVICING TESTER.

GENERAL MAINTENANCE

1. Check the test leads periodically. Leads that are worn or have damaged insulation should be replaced.

2. The outside of the tester can be cleaned with a mild soap and water solution. Do not allow the soap and water to get inside the tester.

3. Occasionally adjust the mechanical zero of the tester. With nothing connected to the test leads and the tester setting in the normal operating position, use a screwdriver to set the zero adjust for a zero indication on the meter. Next, while keeping the pointer on zero, reverse the rotation of the screw slightly to disengage it from the movement mechanism. This will reduce the affect of pointer shift do to mechanical shock.

MAINTENANCE
(Continued)

BATTERY REPLACEMENT

When you are unable to zero the tester with the BATTERY ADJUSTMENT control the battery should be replaced as shown below.

1. Remove the four screws in each corner of the front panel of the tester.

2. Carefully remove the front panel and tester circuitry.

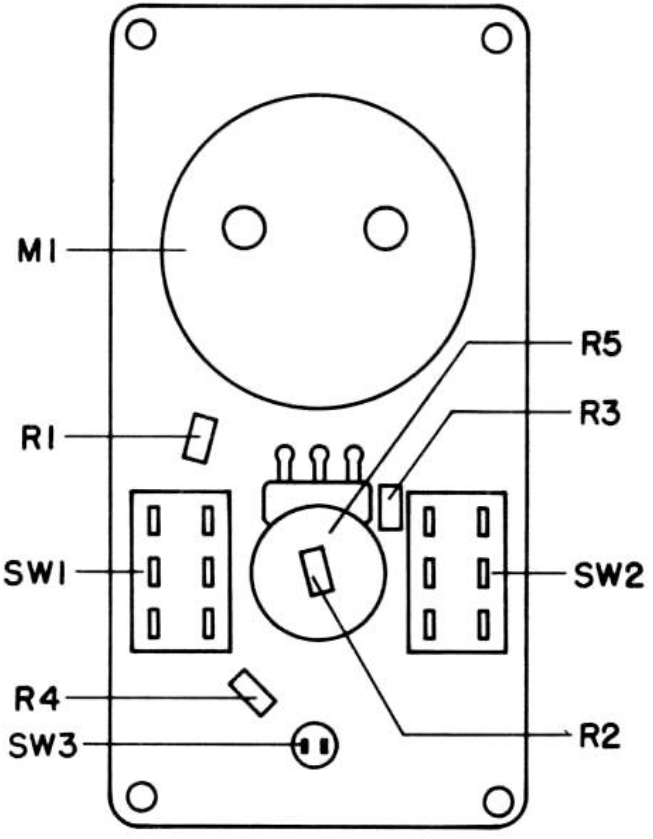
3. Remove the battery from the tester back.

4. Remove the battery from the battery clip.

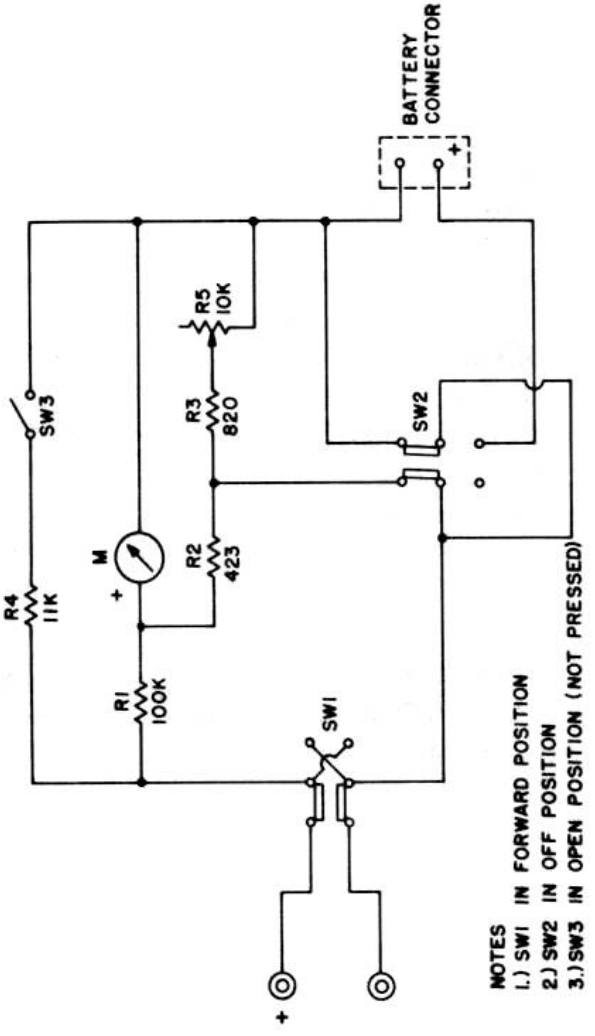
5. Remove the battery with an Eveready #455 45-volt battery or equivalent.

6. To reassemble the tester, reverse steps 1 through 3.

PARTS LOCATION



WIRING DIAGRAM



REPLACEABLE PARTS

Ref.	Description	Part No.
	Test Lead, Red	79-618
	Test Lead, Black	79-619
	Carrying Case	10-1792
	Panel, Machined	28-1318
	Label, Front Panel	58-913
	Terminal, Solder	32-553
R1	Resister, 100K, 1%, ½W	15K-1003TC5
R2	Resister, 423, 1%, 1W	15-5879
R3	Resistor, 820, 5%, ¼W	15R-821JB
R4	Resistor, 11K, 1%, ½W	15K-1102TC5
R5	Resistor, 10K Variable	16-363
SW1	Switch, Toggle, DPDT	22-792
SW2	Switch, Toggle, DPDT	22-792
SW3	Switch, PB, SPST, No.	22-793
	Foam Pad	123-148
	Knob, Batt. Adj.	34-190
	Battery Connector	92-35
	Case Back	10-3200
M1	Meter, 0-300 μA, 1Kohm	52-8403
	Instruction Manual	84-458

LIMITED WARRANTY

The Triplett Corporation warrants instruments and test equipment manufactured by it to be free from defective material or factory workmanship and agrees to repair or replace such products which, under normal use and service, disclose the defect to be the fault of our manufacturing, with no charge for parts and service. If we are unable to repair or replace the product, we will make a refund of the purchase price. Consult the Instruction Manual for instructions regarding the proper use and servicing of instruments and test equipment. Our obligation under this warranty is limited to repairing, replacing or making refund of any instrument or test equipment which proves to be defective within one year from the date of original purchase.

This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence or accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries, not of our manufacture used with this product are not covered by this warranty.

To register a claim under the provisions of this warranty, return the instrument or test equipment to Triplett Corporation, Bluffton, Ohio 45817, transportation prepaid. Upon our inspection of the product, we will advise you as to the disposition of your claim.

ALL WARRANTIES IMPLIED BY LAW ARE HEREBY LIMITED TO A PERIOD OF ONE YEAR, AND THE PROVISIONS OF THE WARRANTY ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES EXPRESSED OR IMPLIED.

The purchaser agrees to assume all liability for any damages and bodily injury which may result from the use or misuse of the product by the purchaser, his employees, or others, and the remedies provided for in this warranty are expressly in lieu of any other liability Triplett Corporation may have, including incidental or consequential damages.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. No representative of Triplett Corporation or any other person is authorized to extend the liability of Triplett Corporation in connection with the sale of its products beyond the terms hereof.

Triplett Corporation reserves the right to discontinue models at any time, or change specifications, price or design, without notice and without incurring any obligation.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

TRIPLETT CORPORATION
Bluffton, Ohio 45817

Printed in U.S.A. **84-458**