R5044

REED INSTRUMENTS

Non-Contact Safety Phase Detector

WARRANTY 1 YEAR WARRANTY

Instruction Manual

Table of Contents

Introduction

Thank you for purchasing your REED R5044 Non-Contact Safety Phase Detector. Please read the following instructions carefully before using your instrument. By following the steps outlined in this manual your meter will provide years of reliable service.

Product Quality

This product has been manufactured in an ISO9001 facility and has been calibrated during the manufacturing process to meet the stated product specifications. If a certificate of calibration is required please contact the nearest authorized REED distributor or authorized Service Center. Please note an additional fee for this service will apply.

Safety

Never attempt to repair or modify your instrument. Dismantling your product, other than for the purpose of replacing batteries, may cause damage that will not be covered under the manufacturer's warranty. Servicing should only be provided by an authorized service center.

- This instrument is intended for use in distribution-level and fixed installations, as well as in smaller installations. It is not suitable for use on primary supply lines, overhead power lines, or cable systems.
- Do not exceed the maximum overload limits specified in the manual or those marked on the instrument itself. Never apply more than 600V CAT IV or 1000V CAT III between the test lead and ground/earth.
- Before each use, inspect the meter and test leads for any damage. Do not use the instrument if any components are damaged.
- Avoid grounding yourself while taking measurements, and never touch exposed circuit elements.
- Do not use the instrument in explosive environments.
- Exercise extreme caution when measuring voltages greater than 50V or currents above 10mA.
- Never open the battery compartment while the instrument is in use.
- Operating the instrument in any manner other than as specified may compromise its protective features.
- Measured results are influenced by voltage wires on which twice or more of the measured voltages exist near the point to be clipped. The clip point should be far from such voltage wires

Features

- Non-contact voltage sensing alligator clips promote safety
- Color-coded leads (red, black, blue) adhere to Canadian wire color codes and meet IEC 60446 standards
- LEDs indicate phase orientation (clockwise or counter-clockwise) and whether each phase is live
- Adjustable LED brightness allows for measurement in sunlight and lowly lit environments
- Beeper sounds intermittently when detecting correct phase and continuously for a reversed phase
- Durable housing with magnets frees hands and allows for easy measurement
- Low battery indicator

Includes

- Non-Contact Phase Rotation Tester
- 3 x Color Coded Cables with Alligator Clips
- Battery
- Soft Carrying Case

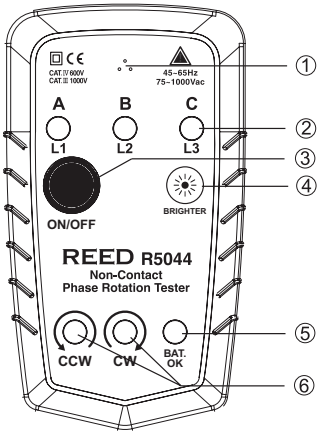
Specifications

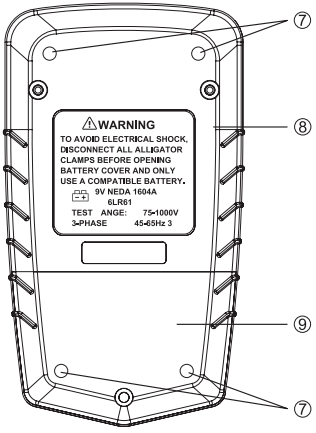
Voltage Detection Method:	Static Induction
Voltage Range:	75 to 1000VAC
Frequency:	45 to 65Hz

General Specifications

Cable Length:	31.5" (800mm)
Cable Color:	Red (L1)/ Black (L2)/ Blue (L3)
Indicators:	Audible (Buzzer)/ Visual (LED)
Adjustable LED Brightness:	Yes
Max. Alligator Clip Jaw Opening:	1.18" (30mm)
Magnetic Mounts:	Yes
Auto Shut Off:	Yes (after 5 minutes without power detection)
Power Supply:	9V battery
Low Battery Indicator:	Yes
Overvoltage Category:	CAT. III 1000V, CAT. IV 600V
Product Certifications:	CE
Operating Temperature:	14 to 122°F (-10 to 50°C)
Storage Temperature:	-4 to 140°F (-20 to 60°C)
Operating Humidity Range:	10 to 80%
Dimensions:	5 x 2.8 x 1.8" (128 x 72 x 46 mm)
Weight:	13.2 oz (375 g)

Instrument Description

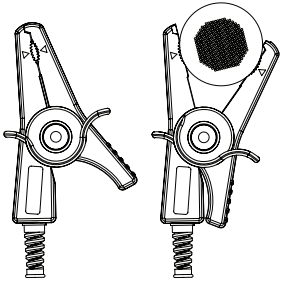




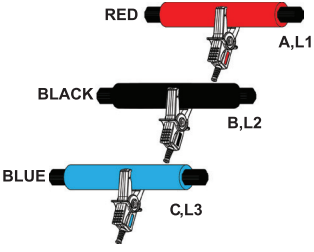
1. Buzzer
2. Live/Open LED phase indicators
3. ON/OFF power button
4. LED brightness button
5. Battery LED (flashes if low)
6. Phase Sequence LEDs
7. Magnets
8. Warning Label
9. Battery Cover

Operating Instructions

1. Press the power button to turn on the instrument. All LEDs will flash for the first two seconds. After the self-test completes, only the Green 'Battery OK' LED will remain on.



2. Position the clamp on each conductor to be measured, ensuring the triangle mark '▼'on each jaw of the measurement clip is aligned with the center of the conductor.
3. Connect the three clips as shown:



4. Measure a live insulated conductor carrying 75VAC or more first to confirm each live LED lights up.

continued…

5. The presence of live wires and the phase sequence is confirmed by both LED indicators and a buzzer, which activate upon successful detection.
6. The A, B, and C LEDs remain illuminated whenever a live phase is detected by the instrument.
7. ABC Green LED ON: Indicates correct phase sequence. BAC Red LED ON: Indicates incorrect phase sequence.
8. The measurement clips can connect to cables with a maximum diameter of 1.18 inches (30mm).

Live Wire Check

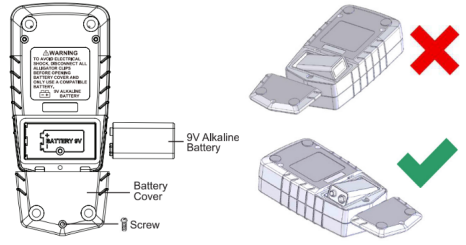
State	Indication
Live	LEDs A, B, and C are illuminated when the corresponding phases are live.
Missing Ground/Earth line	The LED remains OFF if the Ground/Earth line is not connected
Ground/Earth line (Delta Connection)	A flashing LED indicates the Ground/Earth phase.
Positive phase	When the Green ABC LED is ON, it indicates that the circuit under test has the correct phase sequence. A buzzer will sound intermittently to confirm this.
Reversed Phase	The Red BAC LED illuminates if the circuit under test has a reversed phase. A continuous buzzer sound will accompany this warning.
Detection Indicators	A, B, C LEDs ON: Indicate that the corresponding phases are live and energized.
	A, B, C LEDs OFF: Indicate that the phases are open or de-energized.

Battery Replacement

Disconnect the instrument from any electrical source before replacing the battery or cleaning the instrument

When low battery LED flashes, replace with new batteries.

1. Turn off the instrument and disconnect any clips attached to the conductor.
2. Loosen the screw securing the battery compartment cover, then remove the cover.
3. Replace the old battery with a new 9V alkaline battery, ensuring correct polarity.
4. Reattach the battery compartment cover and tighten the screw securely.



When replacing the battery, ensure the bottom of the 9V battery is inserted first, as illustrated above. Improper insertion may cause the battery to become loose and result in a poor connection.

Applications

- Installing and troubleshooting 3-phase motors, pumps and controls
- Ensure Accurate Phase Wiring
- Identify Open or De-energized Phases
- Confirm Correct Wiring for Proper Motor and Pump Rotation

Product Warranty

REED Instruments guarantees this instrument to be free of defects in material or workmanship for a period of one (1) year from date of shipment. During the warranty period, REED Instruments will repair or replace, at no charge, products or parts of a product that proves to be defective because of improper material or workmanship, under normal use and maintenance. REED Instruments total liability is limited to repair or replacement of the product. REED Instruments shall not be liable for damages to goods, property, or persons due to improper use or through attempts to utilize the instrument under conditions which exceed the designed capabilities. In order to begin the warranty service process, please contact us by phone at 1-877-849-2127 or by email at info@REEDInstruments.com to discuss the claim and determine the appropriate steps to process the warranty.

Product Disposal and Recycling

Please follow local laws and regulations when disposing or recycling your instrument. Your product contains electronic components and must be disposed of separately from standard waste products.

Product Support

If you have any questions on your product, please contact your authorized REED distributor or REED Instruments Customer Service by phone at 1-877-849-2127 or by email at info@REEDInstruments.com.

Please visit **www.REEDInstruments.com** for the most up-to-date manuals, datasheets, product guides and software.