

REED

Model R5044

Non-Contact Safety Phase Detector



Instruction Manual

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Safety

Read the following safety information carefully before attempting to operate or service the detector.

1. Use the detector only as specified in this manual. Otherwise, the protection provided by the detector may be impaired.
2. Do not touch the clips during measurements.
3. Do not pull the cable when removing the measurement clips from the measured conductors. It may damage the cable.
4. Do not expose the instrument to direct sunlight, high temperature, humidity, or moisture.
5. Do not use the instrument while it is wet.
6. Never open battery compartment cover while live detecting.
7. Subjecting the detection to shock, vibration, and dropping.....may damage the instrument.

Features

- Non-contact voltage sensing alligator clips promote safety
- Color-coded leads (red, black, blue) 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 3 color coded cables with alligator clips, carrying case and battery

Applications

- Installing and troubleshooting 3-phase motors, pumps and controls

Specifications

Voltage

Detection Method: Static Induction

Voltage Range: 75-1000VAC

Frequency: 45-65Hz

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

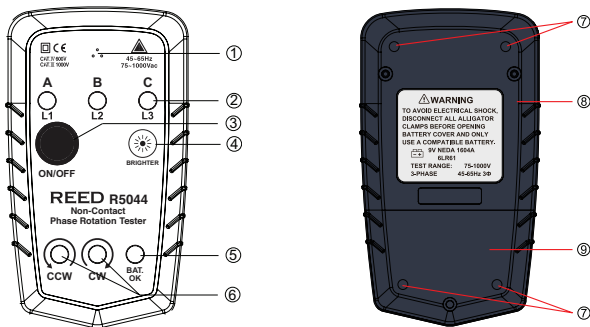
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Auto Shut Off:	Yes (after 5 minutes without power detection)
Power Supply:	9V battery
Low Battery Indicator:	Yes
Overvoltage Category:	CAT. III 1000V, CAT. IV 600V
Product Certifications:	CE
Operating Temperature:	14 to 122°F (-10 to 50°C)
Storage Temperature:	-4 to 140°F (-20 to 60°C)
Operating Humidity Range:	10-80%
Dimensions:	5 x 2.8 x 1.8" (128 x 72 x 46 mm)
Weight:	13.2oz (375g)
Optional Accessories:	Soft Carrying Case (CA-05A)

Instrument Description



1. Buzzer
2. Open Phase Indicator
3. Power Button
4. Brightness Button
5. Battery Indicator LED
6. Phase Sequence LEDs
7. Magnets
8. Warning Label
9. Battery Cover

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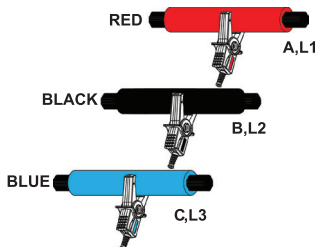
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Operating Instructions

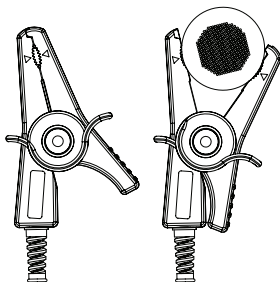
1. Press the power button to turn on the instrument. All of the LEDs will flash during the first 2 seconds. Only the power LED stays illuminated.

Do not use the instrument when any of the LEDs do not work.

2. Apex of “▼” mark on each alligator clip is the center of each measurement conductor. Connect the clips as shown: Red to L1, Phase-A. Black to L2, Phase-B. Blue to L3, Phase-C.



3. Measure a covered AC75V conductor first to confirm each live LED lights up.
4. Presence of live wires and phase sequence are informed by LED indication and beeping buzzer.
5. A, B, C LEDs always lights up while instrument is detecting the live phase.
6. CW LED ON = correct phase sequence.
7. CCW LED ON = incorrect phase sequence.
8. 30mm is the maximum diameter of tested cable.



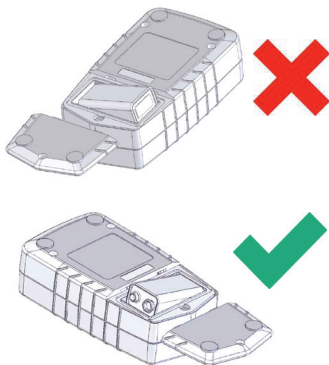
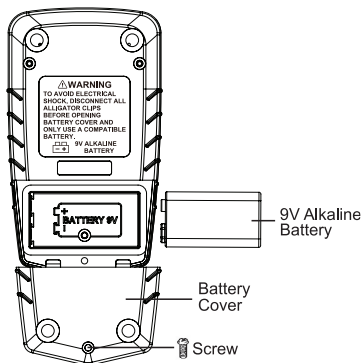
Live Wire Check

State	Indication
Live	Phase with A, B, C ON is live state
Missing line of Earth line	LED does not light up for missing line of earth line
Earth line (Delta connection)	Phase with flashing LED is an earth phase
Positive phase	When the Green CW LED is ON, the circuit is forward under test. The buzzer sounds intermittently.
Negative phase	When the Red CCW LED is ON, the circuit is reverse under test. The buzzer beeps continuously.
Detect Indications	A, B, C LED ON is live phase indication. Open phase which LED is off.
	CW ON = correct phase sequence.
	CCW ON = incorrect phase sequence.

Battery Replacement

When low battery LED flashes, replace with new batteries.

1. Remove all the clips from the conductors and power off the instrument.
2. Loosen the screw that secures the battery compartment cover and open cover.
3. Replace the battery with a new 9.0V $\times$ 1 alkaline battery. Ensure battery is inserted with the correct polarity.
4. Install the battery compartment cover and tighten the screw.



IMPORTANT - When replacing the battery ensure the bottom of the 9V battery is inserted first as shown above. Improper battery insertion may result a loose battery and poor battery connection.

For service on this or any other REED product or information on other REED products, contact REED Instruments at info@reedinstruments.com.

Notes