



USER MANUAL

CATALOG

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Safety Warnings

- Danger! Users of this equipment must be trained, certified/ licensed, and evaluated by accredited organizations.
 - Do not operate this equipment until you are sure that you are completely familiar with
 - the safe operation of the equipment, all accessories, and safety equipment.
- Improper use can lead to severe injury. This manual defines the proper use of this equipment. Before
- using this equipment for any other use, please consult Eaglotest. Contact Eaglotest if you do not understand any procedure or operation concerning this equipment or this manual.
 - Please be aware of the warning messages and labels.
 - Before use, make sure that the instrument and accessories are in good condition, and that the insulation layer of the instrument and test leads are not damaged, exposed, or broken.
 - When conducting tests, do not let any part of the body be in contact with any exposed conductor.
 - When replacing batteries, please be aware of the polarity and do not replace the

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batteries when the clamps are still clamped onto the conductor.

- Do not use or store the instrument in places with high temperature, humidity, condensation, or under direct sunlight.
- Disassemble and periodic maintenance of this instrument must be operated by authorized personnel.
- If any part of the instrument is broken, exposed, or damaged, please stop using the instrument immediately.
- .Stop using the instrument immediately in case of any danger caused by continued usage of it. Please safely seal the equipment and hand it to an authorized organization to
- dispose of it.

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S323N
3ph PSI <42mm
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Introduction

The S323N 3ph PSI series is a lightweight, easy-to-use instrument, used to determine the phase sequence or rotation of a three-phase system. It will also detect and identify an open phase. This series is a breakthrough in phase sequence indicators. Unlike traditional PSI, which requires the instrument to be in direct contact with bare wires/conductors to detect the phase sequence, this instrument can detect the phases through the non-contact method, which does not require the user to remove the insulation of the live wires. Simply clamp the three highly inductive and insulated clamps to the insulated hot wires, and the instrument will instantly indicate with sound and LED light to suggest whether it is a positive or negative phase sequence. It protects the users from being exposed to bare wires, which is a much safer and more convenient alternative. The equipment is also installed with four magnets on the back, which can directly stick on a metal surface for hands- free operation.

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Electrical Symbols

Symbols	Descriptions
	Extremely dangerous! The operator must strictly abide by the safety rules there is a risk of electric shock, and it can cause serious injuries or even death if it is not handled carefully.
	Extremely dangerous! The operator must strictly abide by the safety rules or it can cause serious injuries or damage to the instrument.
	Double insulation
	AC
	DC

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Specifications

Functions	Phase inspection (positive or negative phase sequence and open phase), voltage test, simple power inspections, fault detection/identification
Power	DC3V 2 AA alkaline dry batteries (LR6)
Hot Wire Range	AC 60 - 1000V, 45 - 65Hz (Sine wave)
LED Lights	[Positive Phase Sequence] The 4 LED indicators will flash in a clockwise direction. [Negative Phase Sequence] The 4 LED indicators will flash in a counter-clockwise direction. [Voltage Test] Within the measurement range, the corresponding L1, L2, or L3 indicator will light up [Open Phase] L1 or L2 or L3 indicator will not light up [Open Circuit] L1 or L2 or L3 indicator will not light up
Prompt Sound	[Positive Phase Sequence] The instrument emits intermittent short beeps [Negative Phase Sequence] The instrument emits a continuous long beep
Battery Level Indication	The POWER indicator will light up when the instrument is turned on; the LOW BATTERY indicator will light up when the battery is low.
Magnets	The instrument has 4 magnets attached to the back; it can be used to stick on an electrical box for hands-free operation. It can hold up

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	to 800g of weight.
Automatic Shut Down	After 5 minutes of standby, the instrument will automatically shut down.
Clamp Wire Length	0.6m
Weight	315g (with batteries)
Ideal Working Conditions	-10°C – 55°C; below 80%RH
Ideal Storage Conditions	-20°C – 60°C; below 90%RH
Dielectric Strength	Between the clamp and the housing>500MΩ
Safety Standards	EN61010-1: 2001, EN61010-031:2002, Pollution Class II, CAT III 1000V

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Structure



- | | |
|-------------------------|--------------------|
| 1.L1 Clamp | 7.L2 LED Light |
| 2.L2 Clamp | 8.L3 LED Light |
| 3.L3 Clamp | 9.Sequence Light |
| 4.Low Battery Indicator | 10.Power Indicator |
| 5.POWER OFF Button | 11.POWER ON button |
| 6.L1 LED Light | 12.Lanyard |

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Operation



Danger! High Voltage! Please be careful when testing.

6.1 Phase Sequence Testing

- Please use the 3 clamps to clamp onto the conductors (Figure 1).
- The conductor should be positioned at the middle of the clamp (Figure 2).

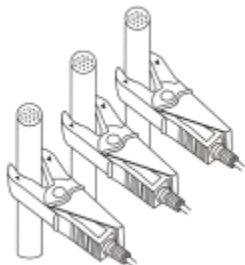


Figure 1

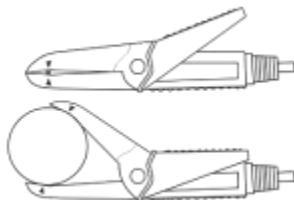


Figure 2

- Press the red "ON" power button and the power indicator light above will light up. If the power indicator does not turn on, please check the batteries and the instrument.
- After the instrument has been turned on if the 4 phase sequence indicators light up in a clockwise direction and the instrument emits intermittent short beeps, this suggests that the clamped wires are arranged in a positive phase sequence

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order L1-L2-L3 (ie UVW)(Figure 3); whereas if the 4 phase sequence indicators light up in a counter-clockwise direction and the instrument emits a continuous long beep, then the clamped wires are arranged in a negative phase sequence order L3-L2-L1 (ie WVU) (Figure 4).

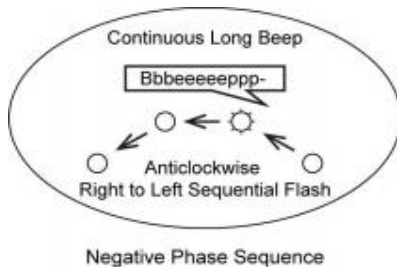


Figure 3

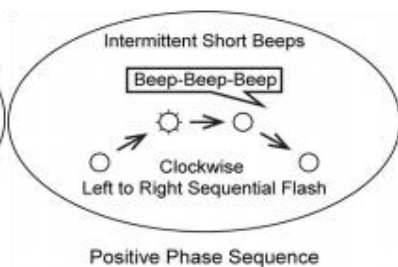


Figure 4

- Press the green "OFF " button to power off, the instrument will also automatically shut down after idling for 5 minutes to reduce power consumption.

6.2 Voltage Test

- Use any of the clamps to clamp onto the conductor, if the conductor is hot and within the range of AC 60-1000V, then the respective LED indicator will light up.
- The test clamp and its corresponding LED indicator.

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6.3 Open Phase, Fault Detection/Isolation, Or Open Circuit

- Use any of the clamps to clamp on the conductor, if it is an open phase then the corresponding indicator will not light up.
- Use any of the clamps to measure along the line being inspected. If the indicator turns off at the clamp point L1, L2, or L3 location, then the line is disconnected/open from this point onward. By narrowing down clamp point location, it can accurately find the break point location, and it is very convenient and safe for line inspection and maintenance.

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Battery Management

Before replacing the battery, the clamp must be removed from the conductor.

Do not replace the battery during the test. Do not conduct tests when the battery cover is not properly secured. It can be dangerous.

- Please ensure that the instrument is powered down before replacing the batteries. First, loosen the screws then remove the cover to replace the
- batteries. Please be aware of the battery polarity or it can damage the
- instrument. Once the battery is replaced, place the cover back in place and tighten the screws.
- If the instrument cannot be turned on after the batteries have been replaced, please repeat step 1.
- If the battery cannot be replaced, please contact Eaglotest.

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Frequently Asked Questions

Malfunctions	Possible Explanations	Solutions
Unable to power on (no any type of LED indications)	Batteries not installed	Install the appropriate batteries.
	Batteries specification does not match	Replace the batteries that fit the specification requirement.
	Low battery	Replace with new batteries.
	The battery's polarity is reversed.	Place the battery in the instrument with the polarity on the correct end.
	Poor battery contact	Reposition the battery.
	The battery cover is not properly secured	Properly fit the cover onto the housing.
	Circuit board components malfunction	Repair or replace the circuit board.

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LED indicators are dim	Low battery	Replace with a new battery.
Can be turned on, but cannot detect phases	There is no electricity on the 3 phase line	Not an instrument malfunction.
	The clamp did not clamp on the line	Please clamp again according to the instructions.
	The clamp lead is broken/exposed/open	Replace the test lead.
	Circuit board component malfunction	Repair or replace the circuit board.

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Packing List

Instrument	1
Packaging	1
Bag	1
Manual	1
Certificate of Conformity and Warranty Card	1

Note:

- We are not responsible for other damages caused by the use of this product.
- The contents of this user manual do not justify the use of the product for special purpose.
- The company reserves the right to modify the contents of the user manual. In the case of modification, no further notice will be given.

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