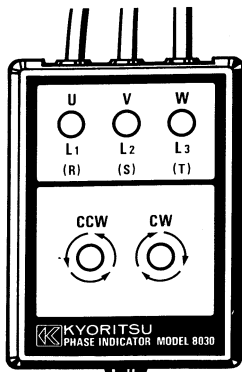


INSTRUCTION MANUAL



WITH OPEN PHASE CHECKER & BUZZER

DIGITAL PHASE INDICATOR
MODEL 8030



**KYORITSU ELECTRICAL
INSTRUMENTS WORKS, LTD.**

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1. Safety Warning

This instrument has been designed and tested according to IEC Publication 61010: Safety Requirements for Electronic Measuring Apparatus. This instruction manual contains warnings and safety rules which must be observed by the user to ensure safe operation of the instrument and retain it in safe condition. Therefore, read through these operating instructions before starting using the instrument.

⚠ WARNING

- Read through and understand instructions contained in this manual before starting using the instrument.
- Save and keep the manual handy to enable quick reference whenever necessary.
- The instrument is to be used only in its intended applications. Understand and follow all the safety instructions contained in the manual.

Failure to follow the instructions may cause injury, instrument damage and/or damage to equipment under test. Kyoritsu is by no means liable for any damage resulting from the instrument in contradiction to this cautionary note.

The symbol **⚠** indicated on the instrument, means that the user must refer to related parts in the manual for safe operation of the instrument. Be sure to carefully read the instructions following each symbol in this manual.

- ⚠ **DANGER** is reserved for conditions and actions that are likely to cause serious or fatal injury.
- ⚠ **WARNING** is reserved for conditions and actions that can cause serious or fatal injury.
- ⚠ **CAUTION** is reserved for conditions and actions that can cause minor injury or instrument damage.

The following symbols are used and marked on the instrument and in the instruction manual. Please carefully check before starting to use the instrument.

- ⚠ **User must refer to the explanation in the instruction manual.**

⚠ DANGER

- Never make measurement on a circuit in which earth potential of 480V or higher exist.
- Do not attempt to make measurement in the presence of flammable gasses, fumes, vapor or dust. Otherwise, the use of the instrument may cause sparking, which can lead to an explosion.
- Never exceed the operational voltage specified as 200V to 480V AC three phase.
- Even if all open phase lamps are not lit on, one phase may be still live circuit. Pay attention to avoid an electric shock.
- Never attempt to use the instrument if its surface or your hand is wet.
- Never open the instrument when making measurements.

⚠ WARNING

- Never attempt to make any measurement, if the instrument has any structural abnormality such as cracked case and exposed metal part.
- Make sure not to exceed the time limit for continuous operation specified as 60 minutes at 200V and 4 minutes at 480V. The maximum time indicated above is measured from the time when more than 2 test leads of the unit are connected to the power supply cords.
- Do not install substitute parts or make any modification to the instrument. Return the instrument to Kyoritsu or your distributor for repair or re-calibration.
- Exceeding the limited continuous testing duration or leaving the instrument connected to the circuit under test may heat the internal circuit and cause burn injuries or fire.
- Stop using the test lead if the outer jacket is damaged and the inner metal or color jacket is exposed.

⚠ CAUTION

- Cannot be used as a voltage detector.
- The surface of the “suction disk” must be cleaned with a soft cloth to remove dust, grease or grime from it before use.
- Do not expose the instrument to the sun, extreme temperature or dew fall.
- Use a damp cloth and detergent for cleaning the instrument. Do not use abrasives or solvents.
- This instrument isn't dust & water proofed. Keep away from dust and water.

2. Features

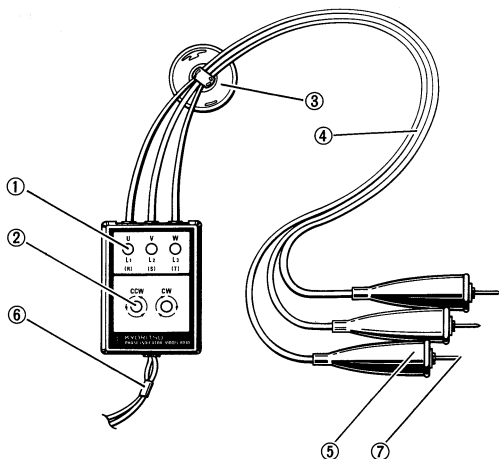
Phase indicator designed to check the presence of open phase and also the phase sequence by LED and buzzer at the same time.

- Audible indicator omits troublesome LCD checking works.
- Sucker hang for fixing the instrument onto the distribution board can increase safety and working efficiency.

3. Specifications

Operational Voltage	200—480V AC three phase
Time Limit for Continuous use	60 minutes max. at 200V AC 4 minutes max. at 480V AC
Operating Frequency Range	20Hz—400Hz
Withstand Voltage	4000V for one minute
Dimensions	80 (L)×59 (W)×23 (D)mm
Weight	Approx. 200g
Test leads	Double insulated cords, approx. 1 meter long, prods for test leads
Accessories	Instruction manual, Carrying case

4. Instrument Layout



- | | |
|------------------------------|--|
| ① Open Phase Check LED's | 3 green LED's |
| ② Phase Sequence Check LED's | Green for Correct phase, Red for Reverse phase |
| ③ Suction Disk | Convenient for fixing the unit at a switchboard, etc. |
| ④ Test leads | Red for L1 (R), White for L2 (S) and blue for L3 (T). |
| ⑤ Alligator Clips | Clip onto a wire or terminal not exceeding approx. 10mm in diameter. |
| ⑥ Hand Strap | Prevents the unit from slipping off the hand. |
| ⑦ Prods | Convenient for using the test leads the same way as those for general purpose multimeters. |

5. Measurement & Check Methods

5-1 Measurement Method

Connect the alligator clips of the unit to the three phase circuit under test. The unit will indicate the presence of open phase and phase sequence by LED and buzzer.

5-2 Check Method

Open Phase Check LED's	Phase Sequence Check LED's	Buzzer
Correct Phase (CW)		
All 3 green LED's are lit	Green LED is lit	Intermittent beep
Reverse Phase (CCW)		
All 3 green LED's are lit	Red LED is lit	Continuous beep
Open Phase (one phase only)		
Green LED for open phase is off.	Both green and red LED's are off.	Continuous beep

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