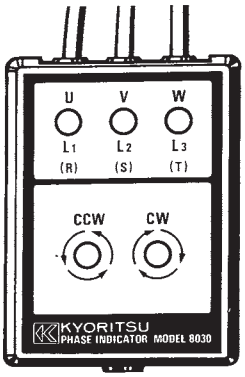
INSTRUCTION MANUAL



WITH OPEN PHASE CHECKER & BUZZER

DIGITAL PHASE INDICATOR

MODEL 8030

KYORITSU ELECTRICAL
INSTRUMENTS WORKS, LTD.

CONTENTS

1. Safety Warning

This instrument is designed, manufactured and tested to meet IEC-348 (Safety requirements for electronic measuring apparatus) safety class II.
This instruction manual contains warnings and safety rules that must be observed by the user to ensure safe operation of the instrument and retain it in safe condition. Therefore, read these operating instructions thoroughly and completely before using the instrument.
The symbol ⚠ on the instrument means that the user must refer to the relevant section of this instruction manual for safe operation of the instrument.
Pay particular attention to all ⚠ WARNINGS and ⚠ CAUTIONS in this instruction manual. ⚠ WARNING indicates warnings to avoid an electric shock and ⚠ CAUTION indicates cautions to avoid damages to the instrument and make accurate measurements.

⚠ WARNING

1. Never open the instrument when making measurements.
2. If the instrument is shown in the following conditions, do not attempt to make measurements and have the instrument checked for inspection or repair.
   a) Instrument is apparently broken in visual check.
   b) Test leads are damaged.
   c) Instrument can not be operated for intended measurements.
   d) Instrument has been stored for a long period of time under improper conditions.
   e) Instrument receives stress by severe transportation.
3. High voltage is loaded onto three phase lines. As it is very dangerous to get an electric shock, pay attention when you perform the work of connecting the instrument to the lines.
4. Even if all open phase lamps are not lit on, one phase may be still live circuit. Pay attention to avoid an electric shock.

⚠ CAUTION

1. Never exceed the operational voltage specified as 200V to 480V AC three phase.
2. 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.

3. **The surface of the "suction disk" must be cleaned with a soft cloth to remove dust, grease or grime from it before use.**
4. **Do not expose the instrument to the direct sun, extreme temperature or dew fall.**
5. **The instrument must be used by a competent, trained person and operated in strict accordance with the instructions. Kyoritsu Electrical Instruments Works Ltd. will not accept liability for any damage or injury caused by misuse or noncompliance with the instructions or safety procedures. It is essential to read and understand the safety rules contained in the instructions. They must be observed when using the instrument.**

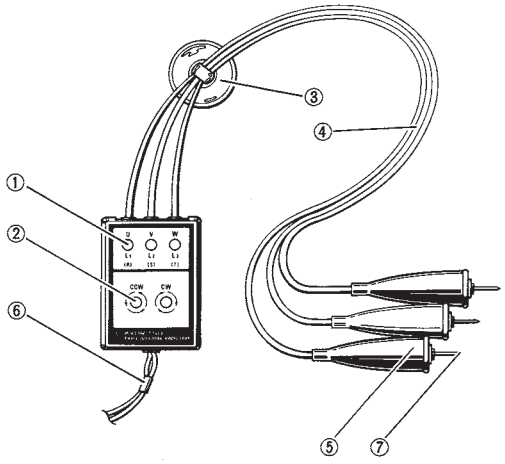
2. Features

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

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, instruction manual, carrying case

4. Instrument Layout



① **Open Phase Check LED's**	3 orange 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 orange LED's are lit	Green LED is lit	Intermittent beep
Reverse Phase (CCW)		
All 3 orange LED's are lit	Red LED is lit	Continuous beep
Open Phase (one phase only)		
Orange LED for open phase is off.	Both green and red LED's are off.	Continuous beep