

# KEWTECH

## KT1700

Single Pole  
Hazardous Voltage  
and Phase finder

Instruction manual







[kewtechcorp.com](http://kewtechcorp.com)

# 1. Safety

## 1.1 Equipment markings

Marks listed below are used on this instrument.

	Caution - refer to the instruction manual
	Instrument with double or reinforced insulation
	This instrument is subject to WEEE Directive (2002/96/EC). Please contact our dealer near you for disposal.
	Conforms to EU standards
<b>CAT IV</b>	<p>Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation. This part of the installation is expected to have a minimum of one level of over-current protective devices between the transformer and connecting points of the measuring circuit.</p> <p>Due to these high short-circuit currents (above 50kA) which can be followed by a high energy level, measurements made within these locations are extremely dangerous. Great precautions shall be made to avoid any chance of a short circuit.</p> <p>Examples of CAT IV are measurements on devices installed before the main fuse or circuit breaker in the building installation.</p>

## 1.2 Operational safety

The Kewtech KT1700 is designed to be used by skilled persons in accordance with safe methods of work. If the KT1700 is used in a manner not specified by Kewtech, the protection provided by it may be impaired.

Inspect the KT1700 before using. If any damage is visible such as cracks in the casing the unit should not be used.

The intermittent beep and flashing blue LED indicate that the tester is functioning correctly.

The unit will power off automatically after 3 minutes to preserve battery life.

During use, your hand must be behind the instrument safety barrier. Ensure the instrument is gripped firmly.

To maintain safety, check the correct operation of the KT1700, both before and after use, with a true AC output proving unit such as the Kewtech KEWPROVE3 or 4 or a known live source.

The KT1700 has been designed to be used with PPE including insulated gloves, if required.

Never attempt to use the instrument on any circuit where voltage exceeds 600V AC.

Do not change the batteries if the instrument is connected to a live circuit.

### **1.3 Limitations of using the KT1700 to detect hazardous voltages**

The limitation of any single pole voltage testers is that a so called 'ghost voltage' may indicate a voltage present greater than 50 volts.

Ghost voltages that appear to be greater than 50 volts may not be dangerous, however to prove if the voltage indicated is a ghost or dangerous real voltage a quality 2 pole tester (such as a KT1780) should be used to prove the indication obtained from the KT1700.

## 2. Description

### 2.1 Equipment markings

The UK designed KT1700 is a dual function hazardous voltage and live phase finder which will detect whether voltages greater than 50VAC are present in order to protect operatives from dangerous live circuits, leakage situations at electrical cabinets, street lighting columns and wooden, concrete & metal poles carrying live overhead supplies.

#### Identification of live phase conductors

As the KT1700 uses direct contact for measuring (using the safest method known, capacitive coupling). The identification of the live phase is more certain than using non-contact voltage indicators or similar devices.

The KT1700 is extremely safe to use as there is no need to operate touch pads or any other direct contact method to operate the unit correctly.

- Meets international safety standard BSEN61010-1:2010
- Voltage measurement range 50–600 V AC
- Safe live phase detection
- Flashing red front section plus audible warning indicates greater than 50V AC is present
- Slow flashing blue LED with single beep indicates that the KT1700 electronics are working correctly
- KT1700 is fully functional even if wearing full PPE
- Robust construction with IP54 water and dust ingress rating
- Probe tip conforms to HSE recommendations GS38

## 3. Usage

### 3.1 Battery installation and status

The KT1700 uses 2 x LR6 AA alkaline batteries - rotate the battery cover at the base of the unit using a coin or similar, insert the batteries (negative terminal first) and replace cover. After inserting batteries and before use test the unit for correct operation.

To check battery status, with nothing connected switch the KT1700 on. If the blue LED flashes and the front section illuminates, the electronics are working correctly and the batteries are good. If the front section red LED flashes the batteries need replacing. Dispose of batteries as required by local regulations.

## 3.2 Operation



### Important

The tip of the KT1700 should be placed firmly in contact with the pole or metal cabinet or exposed terminals/cables under test. Fault leakage voltage found or live phase conductors above 50V will be indicated by the front section flashing red and by an audible tone.

## 4. Maintenance and Service

If required, clean with a damp cloth and mild detergent. Do not use abrasives or solvents.

There are no user serviceable parts.

## 5. Specification

<b>Operating Voltage Range</b>	50 - 600V AC
<b>Safety Compliance</b>	BE EN 61010-1:2010
<b>IP Rating</b>	IP54
<b>Operating Conditions</b>	-18 to +55°C at 85% RH
<b>Overvoltage Category</b>	CAT IV 300V
<b>Batteries</b>	2 x LR6 AA alkaline batteries (not included)
<b>Battery Life</b>	It is recommended to replace the batteries every two years based on Standard BS EN 61557 duty cycle
<b>Dimensions</b>	200H x 22W x 30D (mm)
<b>Weight</b>	150g