

[Instructions]

■ Precautions for safe use

Please use this device only after carefully reading and completely understanding these instructions. Keep these instructions in the place where you can refer it at any time. The symbols used in these instructions show the following meanings.

Symbol	Meaning of symbol
	Cautions to avoid any serious accidents causing the injured or the death.
	You must not perform these prohibited actions.
	You must perform these required actions.

● How to use

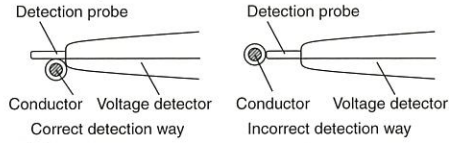
1. Check list before using

- ①(1) Check if there are no external or structural problems (such as cracks, chips or flaws on the case and switch).
- ⚠ Do not use the device if any problem is found.
- ① If the surface of the voltage detector is dirty, wipe it clean with a clean, dry towel before using.
- ⊘ Do not wipe the device with organic solvents such as thinner or benzene.
- ⚠(2) Do not use the device if water or drops of water are present on its surface.
- ①(3) Set the switch to the "試" test function to confirm the normal sound (a repeating "beep beep beep...") and light output operation. Replace the batteries if there is no sound or light, and also if the sound and the light is weak.
- ①(4) Replace dead batteries to avoid battery leakage and the device damages.
- ①(5) Confirm operation on an actual voltage source. (Confirming operation only in the "試" test setting alone is not sufficient.)
- ⚠ If there is no sound or light output when applied to a known voltage source, the voltage detector may be damaged. Never use the device in such a case.

2. How to detect

- ①(1) Set the switch to the proper type of detected conductor. (Set the switch to the "裸" measuring function if the conductor is unshielded and to the "被" measuring function if it is shielded.)

- ①(2) Firmly graspe the clip part of the voltage detector and put the detection probe directly to the conductor. (Put shielded conductors with the detection probe, as the below.)

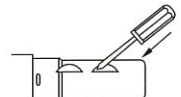


- ③(3) When not using the device, setting the switch to the "裸" unshielded measuring function will minimize unwanted operation.

3. Warnings

- ⚠(1) Do not use this device on circuits for over 600V.
- ②(2) The device may operate if the detection probe touches a ground while the operator's body or the device is receiving other induced voltage. (The device may operate when near high voltage circuits.) Moreover, the device may operate due to induced voltage if it touches ungrounded metal pipes or cases.
- ③(3) The sensitivity of operation may vary due to how the device is held and how it touches a conductor.
- ⚠(4) This device is not waterproof so should not be used in the rain or placed in water.
- ⊘(5) Do not use this device at temperatures outside of the acceptable temperature range (from 0°C to +40°C).

4. Replacing the batteries

- ①(1) This device needs two LR44 (or equivalent 1.5V) alkaline button cell batteries.
 - ①(2) To replace the batteries, remove the clip section and push the batteries out from the behind with a screwdriver.
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- ①(3) Be sure to maintain correct polarity (+/-) when inserting the new batteries.

5. Warnings for storing, maintaining the device

- ⊘(1) Do not place in a car under direct sunlight or in other places which become hot.
- ⊘(2) Do not modify or repair the device by yourself.
- ⊘(3) Do not subject the device to strong impact or vibrations.
- ①(4) This device must be disposed of as industrial waste.
- ①(5) Store in a dry place away from direct sunlight.
- ①(6) When storing for long periods, remove the batteries.

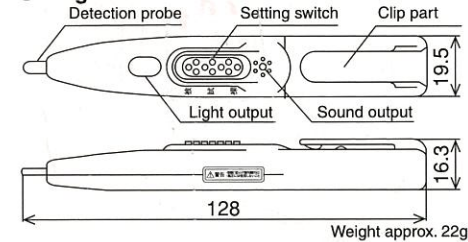
● Specifications

Model name	KD1
Specified voltage range	From 80V to 600V AC at 50/60Hz
Compatible conductors	Shielded and unshielded conductors
Operation check	Check the detection probe and circuit using the "試" (test) function.
Insulation resistance	2,000V AC per minute (between detection probe and clip section)
Operation output	Intermittent buzzer and flashing light
Volume Over 50dB from 50 cm away
Light output Confirms operation with 8000 lx brightness
Batteries	Two LR44 (or equivalent 1.5V) alkaline button cell batteries
Operating temperature range	From 0°C to 40°C

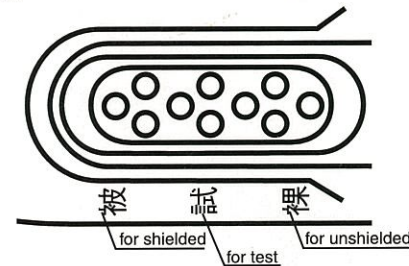
● How to use

Carefully read and use in accordance with the enclosed instructions.

● Diagram



Note: The product specifications are subject to change without notice.



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MADE IN JAPAN

Voltage Detector

sanwa

Easy
operation
voltage
detector

KD1

● Accurately detects voltage with red light and buzzer output.
● Switchable between unshielded and shielded conductor settings.



Check household power sources



Check household power cords

● Safely and accurately check for AC voltage in electrical outlets and power cords.

SANWA ELECTRIC INSTRUMENT CO., LTD.