

PerGar ETCR-1880

PerGar ETCR-1880 High Voltage Detector 1KV-500KV Instruction Manual

1. INTRODUCTION AND SAFETY WARNINGS

This manual provides essential information for the safe and effective use of the PerGar ETCR-1880 High Voltage Detector. Please read all instructions carefully before operation.

Important Safety Information

- The helmet alarm is not a voltage detector and must not be used as a primary voltage detection device.
- High-voltage operations are inherently dangerous. Operators must undergo strict training and obtain appropriate high-voltage operation certifications before using this instrument for on-site testing.
- This alarm is intended solely as a safety aid. Do not overestimate the safety assurance provided by wearing this alarm.
- When near grounded metal structures (e.g., transformers), the alarm's operating distance may not be reduced. Always exercise extreme caution.

2. PRODUCT OVERVIEW

The ETCR-1880 is a non-contact high voltage approach alarm designed to alert users to the presence of high voltage in the range of 1KV to 500KV. It features automatic detection and provides both audible and visual alarms.

Components



Figure 2.1: Labeled components of the ETCR-1880 High Voltage Detector. Key components include the Indicator Light, Buzzer, Test Button, Anti-Slip Rubber Pad, Adhesive, and Elastic Band for secure attachment.

- **Indicator Light:** Provides visual alarm.
- **Buzzer:** Provides audible alarm.
- **Test Button:** Used to verify alarm functionality.
- **Anti-Slip Rubber Pad:** Helps secure the device.
- **Adhesive:** For attachment.
- **Elastic Band:** For wearing on a safety helmet.

3. SPECIFICATIONS

Parameter	Value
Model	ETCR-1880

Parameter	Value
Power Supply	2 x CR1632 button batteries (not included)
Voltage Detection Range	1KV-500KV
Deviation Error	±10 cm (at 23°C, ±1°C, 80% basic conditions)
Operating Frequency	50/60 Hz
Detection Mode	Automatic Trigger, Non-Contact
Continuous Operation Battery Life	Approx. 24 hours (sound and light alarm)
Standby Battery Life	Approx. 12 months
Alarm Mode	LED visibility under 8000LX visible light, Buzzer >60 dB (at 60 cm distance)
Protection Level	IP54
Working Environment	-10°C to 40°C; Humidity <80%
Storage Environment	-10°C to 60°C; Humidity <70%
Manufacturer Model Number	PerGarvpsez2qd83
ASIN	B0CLP9CR4N

Voltage and Alarm Distance

Voltage Level	Alarm Distance
1KV	0.1 m
6.6KV	0.6 m
10KV	0.8 m
35KV	1.4 m
66KV	1.8 m
110KV	2.2 m
220KV	3.0 m
330KV	3.6 m
500KV	4.2 m

4. SETUP

4.1 Battery Installation

The ETCR-1880 requires two CR1632 button batteries. To install or replace batteries:

1. Locate the battery compartment on the device.

2. Open the compartment cover.
3. Insert two CR1632 batteries, observing correct polarity.
4. Close the battery compartment cover securely.

4.2 Attaching to a Safety Helmet

For optimal safety and performance, the alarm should be worn on a safety helmet.

1. Use the elastic band and adhesive pads to securely attach the ETCR-1880 to your safety helmet.
2. Ensure the triangular shield on the device's appearance is visible and the alarm point is directed towards your fingertips. This orientation is crucial for proper detection.



Figure 4.1: The ETCR-1880 device correctly mounted on a safety helmet, showing the elastic band and proper orientation.

5. OPERATING INSTRUCTIONS

The ETCR-1880 operates with an automatic trigger detection mode, simplifying its use and reducing the potential for human error.

5.1 Power On and Self-Test

Upon battery installation, the device automatically powers on. It is recommended to perform a self-test before each use:

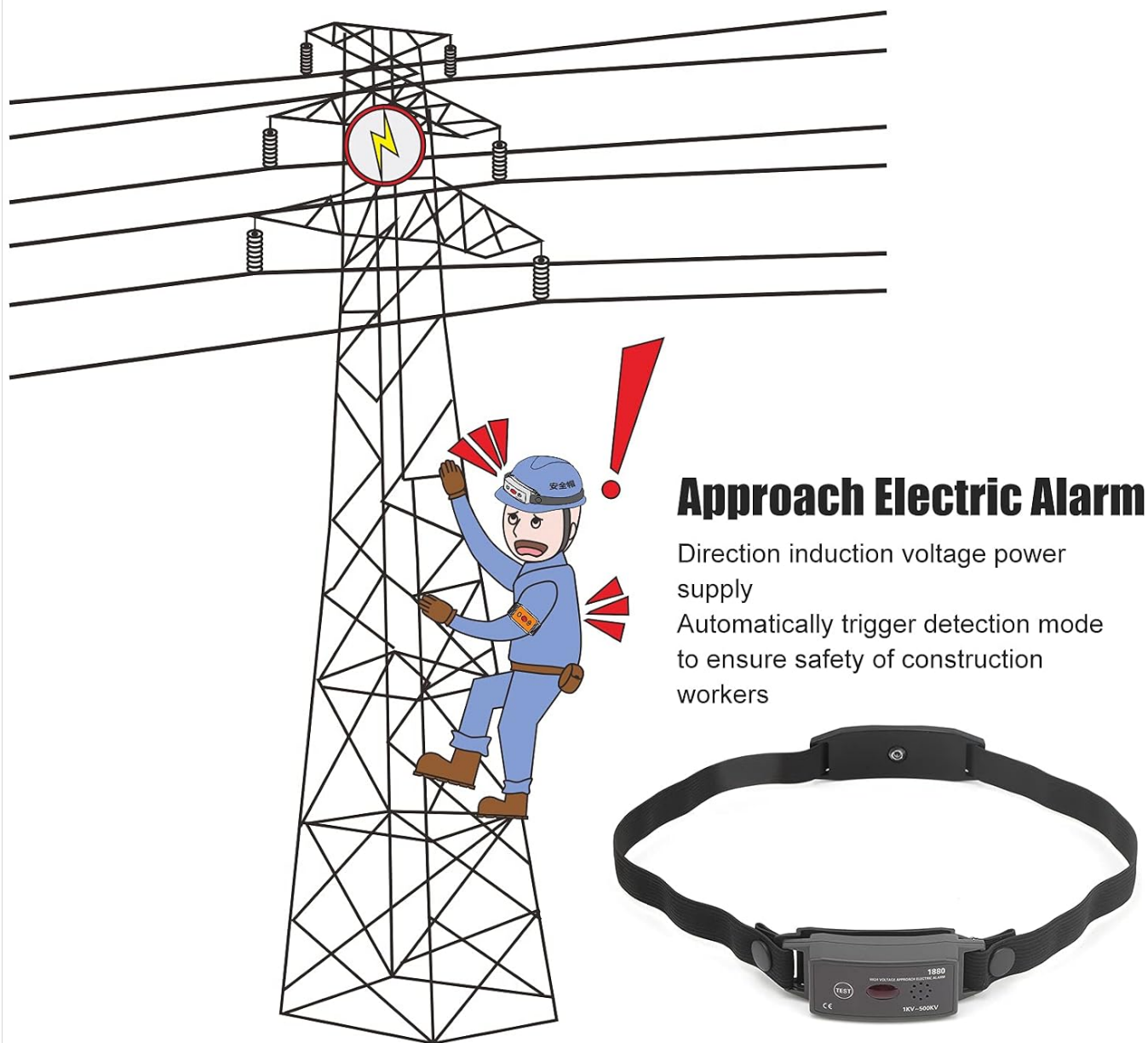
- Press the **Test Button** on the device.
- Verify that the Indicator Light illuminates and the Buzzer emits an audible alarm. This confirms the device is functioning correctly.

5.2 High Voltage Detection

The ETCR-1880 uses non-contact induction technology to detect the presence of high voltage. When the device approaches a high-voltage source within its specified alarm distance, it will activate its alarm:

- The **Indicator Light** will flash.
- The **Buzzer** will emit an audible warning sound.

Refer to the 'Voltage and Alarm Distance' table in the Specifications section for approximate detection distances for various voltage levels.



Approach Electric Alarm

Direction induction voltage power supply
Automatically trigger detection mode to ensure safety of construction workers



Figure 5.1: The ETCR-1880 in operation, alerting a worker to a high voltage source. The device provides an immediate warning through sound and light.

6. MAINTENANCE

6.1 Battery Replacement

Replace the CR1632 batteries when the alarm becomes weak or fails to activate during a self-test. Refer to Section 4.1 for battery installation instructions.

6.2 Cleaning

To clean the device, wipe it with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure the device is dry before storage or next use.

6.3 Storage

Store the ETCR-1880 in a dry environment within the specified storage temperature range of -10°C to 60°C and humidity

less than 70%. Remove batteries if storing for extended periods to prevent leakage.

7. TROUBLESHOOTING

- **Device does not power on or alarm is weak:** Check battery installation and replace with fresh CR1632 batteries if necessary.
- **No alarm when near high voltage:** Ensure the device is correctly positioned on the helmet as described in Section 4.2. Verify the device is functioning by pressing the Test Button. Confirm the voltage source is within the detection range (1KV-500KV).
- **False alarms:** Ensure the device is not near other strong electromagnetic fields or grounded metal structures that might interfere with its operation.

8. ADDITIONAL PRODUCT VIEWS



Figure 8.1: Front and back views of the ETCR-1880.



Figure 8.2: ETCR-1880 with elastic band.



Figure 8.3: Side view of the device.



Figure 8.4: Top view of the device.



Figure 8.5: Angled view of the device.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question