



SETTING THE INDUSTRY STANDARD

EDBRO HIGH VOLTAGE ALERT

HVA01

Installation & Operating Instructions

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WARNING!



Before using this product please read and fully understand the instructions provided. This Edbro plc product is to be used for guidance purposes ONLY and must not be relied upon to prevent an accident occurring.

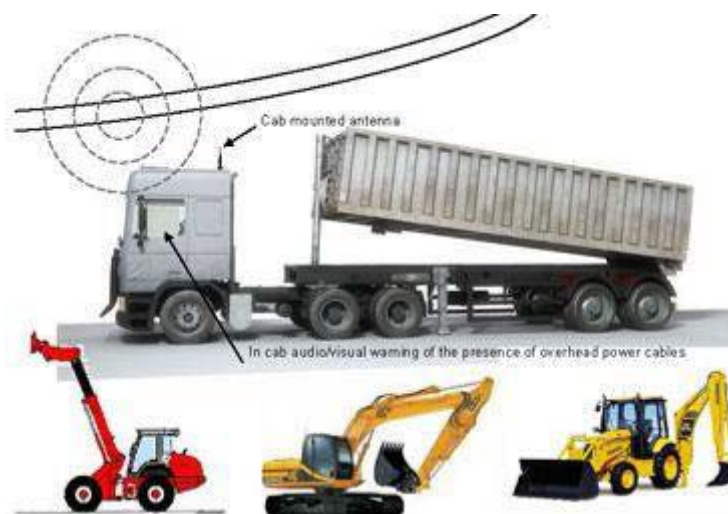
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INTRODUCTION

The Edbro HVA is designed to prevent vehicles and machinery with a variable height from coming into contact with high voltage overhead power lines. The system consists of a cab mounted detection antenna and an in cab audio/visual warning unit operating on (12-24v)

The system can sense the presence of overhead power cables from up to 80 meters away warning the operator of the potential danger.

The equipment is suitable for: Tipper Vehicles, Excavators, Telehandlers, Cranes, Platforms, Agricultural vehicles etc.



SPECIFICATIONS

General

- Operating Voltage: 12-24 V DC
- Nominal Operating Current: < 150mA
- Size: W 130mm x H 65mm x D 25mm
- Weight: 155g
- Nominal Operating Temperature: -5°C to +55 °C
- HV Detection Range: Up to 80 meters*
- Warning Tone: High pitch pulsed buzzer approx. 85db
- Visual Warning: High Intensity red flashing LED
- Power Indicator: High Intensity green LED
- Mute Facility: System can be muted once activated.

When Mute is active a double reminder tone is emitted every 5 seconds.

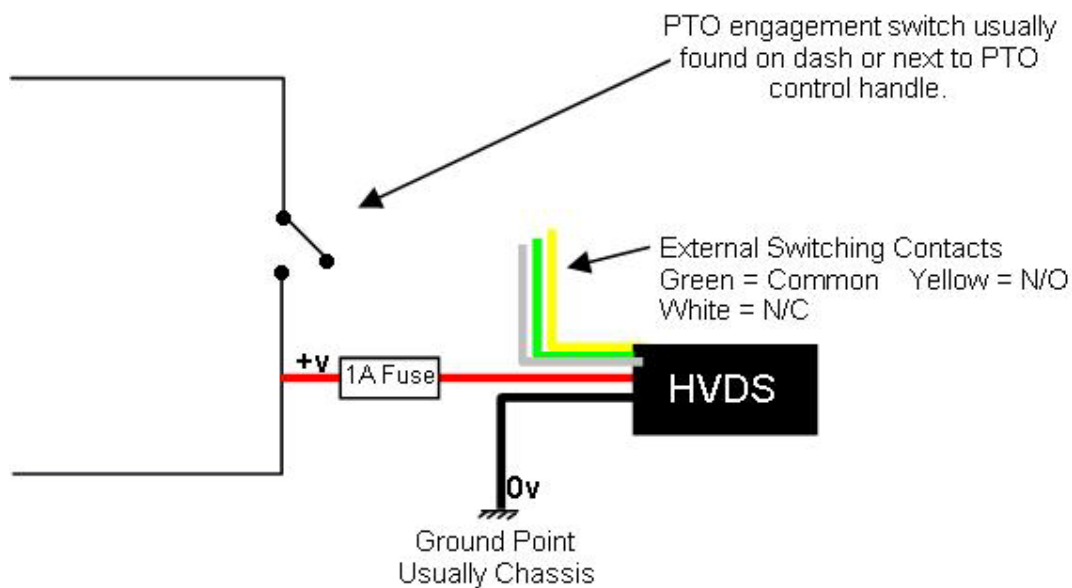
Detection Antenna

- Length: 235mm
- Weight: 60g

Under ideal operating conditions the detection range depends on the voltage being detected generally, the higher the voltage the greater the detection range.

INSTALLATION OF HVA

- The unit can be powered from 12v to 24v DC.
- The power for the HVA should be picked up from the PTO (power take off) switch and a suitable ground point on the vehicle (usually the chassis). This will ensure that the HVA is activated every time the vehicle prepares to tip.
- The detection antenna should be mounted to the roof of the vehicle or as high up as possible. Please ensure that the serrated teeth of the antenna base make contact with a metal surface, i.e. on the underside of the roof. See below.
- Use the 4 self tapping screws to mount the indicating unit to a suitable location inside the cab.
- The detection aerial is connected to the control unit by a twist locking BNC connector.



OPERATION

- When the vehicle PTO is engaged the HVA will power up and the unit will bleep twice to confirm that the unit is active and ready to detect.
- If an overhead power cable is detected the unit will bleep continuously and the red LED will flash.
- When the unit is in alarm mode, i.e. when an overhead cable is detected, the audible alarm can be muted. However, the unit will emit a double bleep every 5 seconds to remind the operator of potential danger. When in mute mode the red LED will continue to flash.
- Mute is automatically cancelled every time the unit is switched off or when the detected signal is lost.
- Your HVA unit is also fitted with an external switching contact. The two connections are 'COMMON' (Green) and 'N/O' (normally open) (Yellow). When the HVDS detects overhead cables this contact will be CLOSED. (Rated at 1 amp maximum).

Power cable warning indicator
This will flash red when overhead power cables are detected



WARNING!



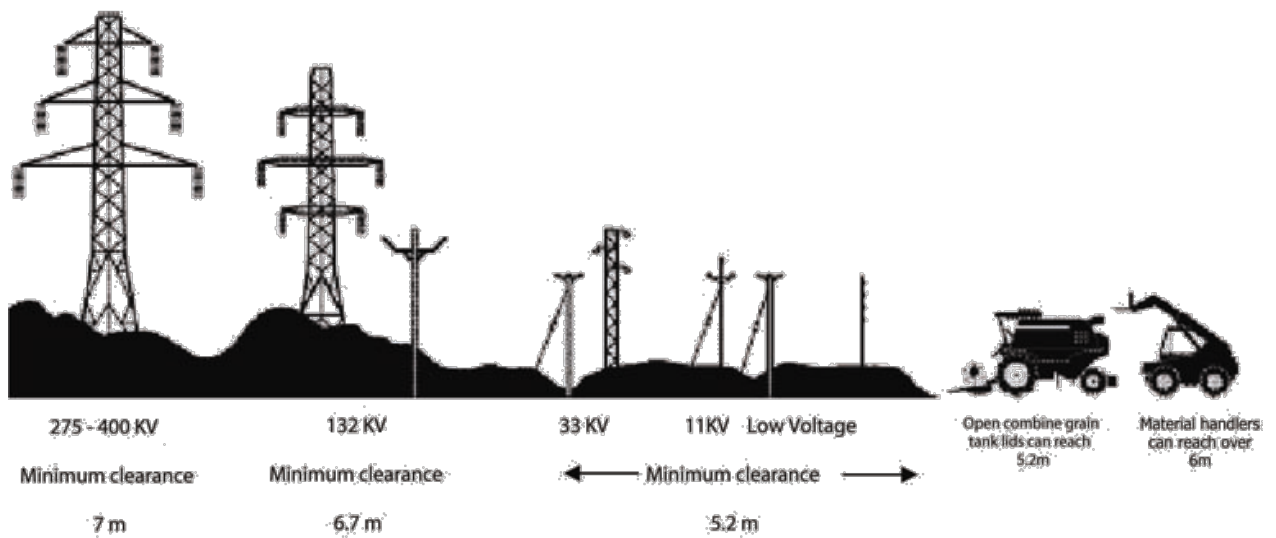
Always be aware of the high of overhead cables and the height of your vehicle.

REMEMBER!

You do not need to make contact with overhead power lines for there to be a potentially FATAL accident.

High Voltage can arc a considerable distance from power lines to your vehicle.

Always be aware of the minimum safe distance between you and an overhead power line.



GUIDANCE

FOR WORKING SAFELY NEAR OVERHEAD POWER LINES

The HVA detects the presence of overhead power lines by sensing the electrical field which they generate. Therefore the HVA will only detect overhead power lines when they are energised. An extremely dangerous situation can occasionally occur when overhead power lines are temporarily switched off as the HVA would not detect the presence the overhead lines which could become re-energised at any time.

When using a vehicle fitted with a HVA the following safe working procedures should be ALWAYS carried out:

- BE PARTICULARLY CAUTIOUS WHEN PASSING THROUGH AREAS WHERE THE HVA HAS PREVIOUSLY DETECTED POWER LINES.
- ALWAYS VISUALLY INSPECT YOUR WORK AREA AND FAMILIARISE YOURSELF WITH THE POSITION OF OVERHEAD CABLES.
- FIND OUT the maximum height and maximum vertical reach of your machines and those used by contractors.
- FIND OUT the routes of ALL overhead lines on your land or near your boundaries. Mark them on a map. The electricity company will give you this information.
- MAKE SURE you have information about all the lines on your land - if not, contact the owners of those lines.
- MAKE SURE you have details of the maximum working heights permitted under each span of overhead line on your land and adjacent to each structure. Mark these on a map.

WHAT TO DO IN AN EMERGENCY

- Never touch an overhead line - even if it has been brought down by machinery, or has fallen. NEVER ASSUME LINES ARE DEAD.
- When a machine is in contact with an overhead line, electrocution is possible if anyone touches both the machine and the ground. Stay in the machine and lower any raised parts in contact or drive the machine out of the lines if you can.
- If you need to summon help or because of fire, jump out as far as you can without touching any wires or the machine - keep upright and away.
- Get the electricity company to disconnect the supply. Even if the lines appear dead, do not touch it - automatic switching may reconnect the power.
- CONTACT THE EMERGENCY SERVICES AND REPORT THE INCIDENT.