

# ELMDENE

Protecting People & Property

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## Model E20 Limpet Set

The model E20 Limpet Set comprises one limpet and one keep, complete with magnet.

### FEATURES

- Piezo Vibration Detector
- Thermal Sensor
- Safe Proximity Sensor
- External Magnet Detector
- Supply Detection

This unit meets the essential requirements of the following EU Directives:

EN50131-1:2006 +A1:2009  
Security Grade 3  
Environmental Class II

These events are signalled by the opening of a pair of normally closed relay contacts.

The device is maintenance free.

### APPLICATIONS

The limpet sets are designed for the protection of safes, filing cabinets, fruit machines, etc., and may be fitted to any article or piece of equipment that has a ferrous exterior. The selective vibration detector is designed to trigger an alarm if any attempt is made to gain access to the protected equipment by hammering, drilling, chiselling, etc. The heat detector contact opens at a nominal temperature of 60° and gives protection against attacks by thermal cutting techniques. The keep reed switch, which is held in the closed circuit position by the keep magnet, becomes open circuit when the limpet is removed from the keep, and thus can trigger the alarm if any attempt is made to remove the limpet from the keep. In this sense it acts as a proximity switch. The second reed switch is opened by the presence of an external magnet. This eliminates the possibility of an external magnet being used to override the keep magnet reed switch.

## SPECIFICATION

Approximate Dimensions:

	Height	Width	Depth	Weight
<b>Limpet</b>	120mm	95mm	35mm	356 grams
<b>Keep</b>	130mm	105mm	30mm	136 grams

Input Voltage Range: 10.5Vdc to 14.0V

## INSTALLATION

The model E20 Limpet Set (1 Limpet and 1 Keep) should be installed by adopting the following procedure:-

1. Fix the keep to the surface of the equipment to be protected, using a contact adhesive and/or three 2BA countersunk screws of suitable length. The keep can be mounted in any attitude.
2. Remove the cover from the limpet, by unscrewing the four 4BA x head screws.
3. Thread the wires of the alarm loops through the grommet provided in the cover, and make the necessary connections to the terminal block. The connections should be made as shown on the PCB, ensuring that the power supply leads are connected the correct way round. The reset can be either positive or negative triggered and should be connected to the appropriate positive or negative reset point.

## SYSTEM OPERATION

The limpet will enter its alarm condition when either of the conditions below are met:

- Any of the reed or tamper switches are opened.
- The internal temperature rises above 60°
- An impact or vibration triggers the vibration detector.

The alarm signal has a minimum length of 1 second. However, if the tamper lasts for more than a second, the alarm signal will last as long as the tamper. The LED illuminating indicates alarm detection. The LED remains on until a reset signal is received. The LED will initialise **off** at power on, and the remote alarm **will activate** for more than **1 second**, as a confidence feature. The unit will trigger an alarm even when the LED is illuminated.

The vibration detector sensitivity adjustment is provided by means of the pre-set potentiometer R1 (top right hand of PCB). Turn anticlockwise for maximum sensitivity.

## MAINTENANCE

This unit is intended for use by Service Personnel only. There are NO USER SERVICEABLE parts inside.

There is no regular maintenance required of the unit other than periodic testing.

**DISPOSAL OF PRODUCT AT END OF LIFE**

This product falls within the scope of EU Directives 2012/19/EU Waste Electrical and Electronic Equipment (WEEE) and 2013/56/EU (Battery). At the end of life, the product must be separated from the domestic waste stream and disposed via an appropriate approved WEEE disposal route in accordance with all national and local regulations.

Before disposal of the product, any batteries must be removed, and disposed separately via an appropriate approved battery disposal route in accordance with all national and local regulations. Package used batteries safely for onward transport to your supplier, collection point or disposal facility.

**Caution: Risk of fire or explosion  
if bare battery wires are allowed to touch.**

See Specification for battery type information. The battery is marked with the crossed out wheelie bin symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg).

For more information see: [www.recyclethis.info](http://www.recyclethis.info)

*The packaging supplied with this product may be recycled.  
Please dispose of packaging accordingly.*

**Explanation of symbols: (Not all may apply)**

Fault Indication



Shock Risk - isolate before attempting access



Mains Present



Certification Level



Protective Earth



Do not dispose of in unsorted waste

Specifications subject to change without notice