

# LECTROMAX

## MAGNETIC PARTICLE INSPECTION EQUIPMENT

### *LECTROMAX 2000* HAND HELD CRACK DETECTOR



**LECTROMAX 2000** Crack Detector is a high performance yoke type magnetiser, ideally suited to detecting surface and subsurface cracks on all types of ferrous parts as used in the foundry, railroad, automotive and general industries.

The **LECTROMAX 2000** finds cracks in engine blocks and heads during reconditioning and in welds and critical areas of frames, supports, scrapers, shovels and booms on off road equipment. Other important applications include steel and grey iron casting inspection, in-plant testing of structures, batch testing of parts during production, as well as a wide variety of on site inspections.

The **LECTROMAX 2000** is available in 3 versions to suit a variety of inspection conditions requirements requiring AC or DC magnetising fields, plus a demagnetising facility.

The **LECTROMAX 2000** complies with Military Specifications MIL-1-6868D, ASTM E1444-01, British Standard BS6072, and AS3100 for electrical safety, including IP64 International rating ensuring electrical protection from the effects of metallic dust, oil, and water.

The handle incorporates a momentary operating press button and is fitted with a 4 metre oil resistant power cord and 3 pin plug. The power cord can be easily replaced, if damaged.

The magnetic circuit is constructed of Laminar iron and provides maximum efficiency with minimum weight. The detector weighs 3.2kg and is ruggedly constructed and moulded in oil proof, impact resistant urethane to meet the demands for industrial use.

The detector operates from a nominal 240V 50 Hz power point, alternatively, for remote or 'in situ' applications where mains supply is not available, the detector can be operated from a 12 volt battery of suitable capacity. Maximum current is 2 amps.

**NOTE -** Units are available to operate from other voltages, including 110V 50 & 60 Hz.

**Quality at an Affordable Price**

**by LECTROMAX AUSTRALIA**

**P.T.O.**

# **LECTROMAX 2000**

## **HAND HELD CRACK DETECTOR**

### **VERSIONS**

- The **LECTROMAX 2000-01** is the standard version fitted with double jointed (hinged) legs for use on curved, angled, or irregular surfaces. The legs can be adjusted to span from 0 to 270mm.
- The **LECTROMAX 2000-03** is an extremely versatile multi purpose detector and combines in one unit, the selection of either an AC or high intensity pulsed DC magnetising field for surface or subsurface inspection, as well as AC demagnetising.
- The **LECTROMAX 2000-04** is a high efficiency fixed leg version, which spans 170mm and is ideal for use on flat surfaces, e.g. engine cylinder heads.

### **EASY TO USE**

The unit induces a magnetic field which flows from pole to pole and covers an effective inspection area approx. 160cm<sup>2</sup> (25in<sup>2</sup>). Cracks running at right angles, and up to 45° between the poles will be detected.

Place the legs on the parts to be tested, energise by operating the press switch and apply the inspection medium. Particles will quickly form to show outline of crack.

To assist inspection, white background lacquer can be first sprayed onto the area to provide an improved contrast to show up fine detail.

Parts can be demagnetised by passing the AC energised unit over the part.

The above is the basic method. Comprehensive instructions are supplied with the unit.

### **OPTIONAL ACCESSORIES**

#### **OPTION 01**

#### **CARRYING CASE**

Accommodates the crack detector and a quantity of inspection materials and accessories - (Also Refer **OPTION 08**).

#### **OPTION 02**

#### **DRY INSPECTION MATERIAL KIT** consisting of:

1kg BLACK magnetic powder  
350g Aerosol WHITE background lacquer  
1 high quality powder applicator

#### **OPTION 03**

#### **WET INSPECTION MATERIAL KIT** consisting of:

350g Aerosol BLACK magnetic inspection fluid  
350g Aerosol WHITE background lacquer

#### **OPTION 04**

#### **BLACKLIGHT UNIT 125 WATT HIGH INTENSITY UNIT**

Used in conjunction with a fluorescent inspection fluid when testing for very fine defects, particularly in cavities, blind holes and difficult to see areas.

#### **OPTION 05**

#### **300g AEROSOL FLUORESCENT INSPECTION FLUID**

#### **OPTION 06**

#### **SPECIMEN TEST BAR - PART NO. 1557**

A convenient means of demonstrating the effectiveness of the **LECTROMAX 2000** to locate a surface and immediate subsurface crack in a ferrous metal bar, when using an AC magnetising field.

#### **OPTION 07**

#### **SPECIMEN TEST BAR - PART NO. 1558**

Similar to above, but with 7 increasing depths of artificial defects to demonstrate the difference between locating immediate subsurface defects with AC magnetising field and greater depths with a DC magnetising field.

#### **OPTION 08**

#### **SAFETY SWITCH ASSEMBLY**

Safety switch assembly fitted to **OPTION 01** carry case.

Residual Current Device provides protection against electrical shock in the event of a faulty earth continuity, e.g. broken earth lead in an extension cord.

Recommended when operating in hazardous environments.

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