PD240 PROVING UNIT

INSTRUCTION MANUAL



MARTINDALE
ELECTRIC
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GENERAL SAFETY INFORMATION: Always read before proceeding.

Warning
These instructions contain both information and warnings that are necessary for the safe operation and maintenance of this product. It is recommended that you read the instructions carefully and ensure that the contents are fully understood. Failure to understand and to comply with the warnings and instructions can result in serious injury, damage or even death.

In order to avoid the danger of electrical shock, it is important that proper safety measures are taken when working with voltages exceeding 33V AC RMS, 46V AC peak or 70V DC.

This product must only be used by a competent person capable of interpreting the results under the conditions and for the purposes for which it has been constructed. Particular attention should be paid to the Warnings, Precautions and Technical Specifications. Always check the unit is in good working order before use and that there are no signs of damage to it. Do not use if damaged.

Where applicable other safety measures such as use of protective gloves, goggles etc. should be employed.

Please keep these instructions for future reference. Updated instructions and product information are available at: www.martindale-electric.co.uk/instruct

REMEMBER: SAFETY IS NO ACCIDENT

MEANING OF SYMBOLS:

CE **Equipment complies with relevant EU Directives**

Caution - risk of danger & refer to instructions

Caution - risk of electric shock

End of life disposal of this equipment should be in accordance with relevant EU Directives

Thank you for buying one of our products. For safety and full understanding of its benefits please read this manual before use. Technical support is available from 01923 441717 and support@martindale-electric.co.uk.

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1. INTRODUCTION

1.1 Inspection

Examine the shipping carton for any sign of damage. Inspect the unit and any accessories for damage. If there is any damage then consult your distributor immediately.

1.2 Description

To install or replace the battery refer to section 3.1

The PD240 is a convenient pocket-sized, battery powered proving unit that produces a 240VDC output.

Any device used for voltage detection and for proving dead should be tested before and after use to ensure the safety of the operative.

The PD240 is current limited to 2mA and is suitable for use with multimeters and other voltage detectors that have an input impedance greater than 120kΩ.

The unit is actuated by microswitch when probes of a voltage detector are inserted into the probe apertures on front face.

2. PRODUCT SPECIFIC SAFETY INFORMATION

2.1 Precautions

This product has been designed with your safety in mind, but please pay attention to the following warnings and cautions before use.

Warning

Before use check the unit for cracks or any other damage. Make sure the unit is free from dust, grease and moisture. Do not use if damaged.

Warning

Do not use the PD240 if the battery cover is not fitted.

Warning

Avoid severe mechanical shock or vibration and extreme temperature.

Warning

Remove the battery when not in use for an extended period to avoid corrosion from leaking batteries.

3. OPERATION

3.1 Installing or Replacing Battery

Remove the rear battery cover by unscrewing the large plated screw at the end of the cover. The screw is captive but once it is loose the battery cover can be lifted clear.
Fit 1 new 6LR61 (MN1604, PP3) 9V alkaline battery.
Replace the battery cover by repositioning it onto the rear casing then tighten the captive screw. Do not over-tighten.

3.2 How it Works

Always make sure the precautions applicable to the unit being tested are observed.

Place the Hi probe of the unit under test into the left hand (+) socket until it makes contact with the terminal. Place the Lo probe of the unit under test into the right hand (-) terminal and press down firmly until the PD240 POWER indicator illuminates and the probe makes contact with the terminal.

Observe that the required indicators on the unit under test are illuminated, then withdraw the probe from the right hand terminal, then the left.

If the PD240 power on indicator fails to illuminate, then consult the unit under test (UUT) literature, to check the loading effect of the UUT upon the PD240 output voltage (see figure 1).

If the unit under test should have no adverse effect upon the PD240 output voltage then check the condition of the battery and replace if required.

4. MAINTENANCE

4.1 Calibration

To maintain the integrity of tests made using your instrument, Martindale Electric recommends that it is returned once a year to an approved Calibration Laboratory for recalibration and certification.

Martindale Electric is pleased to offer you a competitive calibration service. Please contact our Service Department for details.
Email: service@martindale-electric.co.uk
Telephone: 01923 650660

4.2 Cleaning

The unit may be cleaned using a soft dry cloth. Do not use moisture, abrasives, solvents, or detergents, which can be conductive.

4.3 Repair & Service

There are no user serviceable parts in this unit other than those that may be described in section 3. Return to Martindale Electric if faulty. Our service department will quote promptly to repair any fault that occurs outside the guarantee period.

Before the unit is returned, please ensure that you have checked the:
- unit
- battery

4.4 Storage Conditions

The instrument should be kept in warm dry conditions away from direct sources of heat or sunlight, and in such a manner as to preserve the working life of the unit. It is strongly advised that the unit is not kept in a tool box where other tools may damage it.

5. WARRANTY AND LIMITATION OF LIABILITY

This Martindale product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is 2 years and begins on the date of receipt by the end user. This warranty extends only to the original buyer or end-user customer, and does not apply to fuses, disposable batteries, test leads or to any product which, in Martindale's opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation, handling or storage.

Martindale authorised resellers shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of Martindale.

Martindale's warranty obligation is limited, at Martindale's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to Martindale within the warranty period.

This warranty is the buyer's sole and exclusive remedy and is in lieu of all other warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose. Martindale shall not be liable for any special, indirect, incidental or consequential damages or losses, including loss of data, arising from any cause or theory.

Since some jurisdictions do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any part of any provision of this warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity

or enforceability of any other provision or other part of that provision.

Nothing in this statement reduces your statutory rights.

USER NOTES

MARTINDALE ELECTRIC Specification
PD240 Proving Unit



Output voltage: 240V ± 4% DC at 2mA

Output loading: See figure 1

LED power indicator threshold: 180V ± 4% DC output

Battery: 1 x 6LR61 (MN1604, PP3) 9V Alkaline battery or equivalent

Minimum operating battery level: 5V

Operating temperature range: -10 to 40C at max. 70% RH

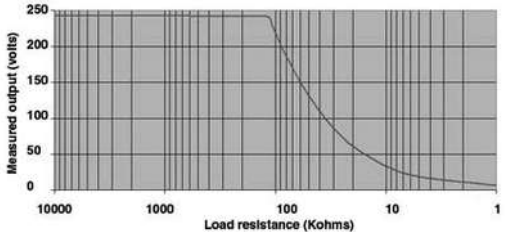
Dimensions: 144 x 63 x 31mm

Weight: Approx 180g (including battery)

Safety: Complies with BS-EN61010-1 2001

Beltclip: on rear face

Figure 1. PD240 Output Voltage vs Load Resistance



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Trusted by Professionals

Martindale Electric Company Limited
Metrohm House, Penfold Trading Estate, Imperial Way, Watford WD24 4YY, UK
Tel: +44(0)1923 441717 Fax: +44 (0)1923 446900
E-mail: sales@martindale-electric.co.uk
Website: www.martindale-electric.co.uk

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