

# Megger<sup>®</sup>

## **MPU690 Proving Unit**

**User Guide**

## Introduction

The MPU690 Proving Unit safely generates high voltages to energise 2 pole voltage testers thus allowing verification of their correct operation. The unit will also test voltage testers that use a pygmy lamp.

Features include automatic power on when voltage tester probes are inserted into the output terminals, 50Hz test voltage to simulate AC mains supply and a magnetic back to the case.

## Instructions

To activate the MPU690 firstly insert the voltage tester flying lead probe into the right hand terminal followed by the voltage tester fixed probe into the left hand terminal.

Gently apply and maintain pressure to the left hand probe to activate the internal power switch. The test voltage is transmitted to the voltage tester.

The test voltage LEDs will automatically ramp up to 690 volts and then slowly ramp back down 690 V - 400 V - 230 V - 100 V - 50 V - OFF (to re-test slightly lift the left-hand probe and re-apply the pressure).

### The advantages of the auto test function are:

1. Individual voltages are applied at five key voltage test points with significant battery savings as power is automatically switched off when the test is completed.
2. Once the voltage tester has been proved to be correctly functioning you may carry out testing circuits.

It is recommended that a voltage tester be verified regularly.

## Safety Warnings – Risk of electric shock

Safety Warnings must be read and understood before instrument is used. As this unit generates voltages up to 690 volts caution should be exercised, hands should remain behind guards of applied voltage detectors.

- Never connect to installation wiring.
- Only voltage testers should be connected to the proving unit.
- Never insert wire, nails or screwdrivers into either terminal.
- Do not force objects into the left hand terminal to enable permanent operation.
- Ensure the unit is free from moisture, grease and dust; clean unit with a soft dry cloth only.
- Do not use if there is any damage to the MPU690.
- The battery cover must be in place whilst conducting tests.

**Note: This instrument must only be used by suitably trained and competent persons.**

## Safety Warnings cont.

- CATIV** Measurement category IV: Equipment connected between the origin of the low-voltage mains supply outside the building and the consumer unit.
- CATIII** Measurement category III: Equipment connected between the consumer unit and the electrical outlets.
- CATII** Measurement category II: Equipment connected between the electrical outlets and the user's equipment.

## End of life disposal

### WEEE Directive



The crossed out wheeled bin symbol on the instrument and on the batteries is a reminder not to dispose of them with general waste at the end of their life.

Megger is registered in the UK as a Producer of Electrical and Electronic equipment. The registration no is; WEE/DJ2235XR.

Users of Megger products in the UK may dispose of them at the end of their useful life by contacting B2B Compliance at [www.b2bcompliance.org.uk](http://www.b2bcompliance.org.uk) or by telephone on 01691 676124.

Users of Megger products in other parts of the EU should contact their local Megger company or distributor.

## Battery Disposal

Batteries in this product are classified as Portable Batteries under the Batteries Directive. Please contact Megger Ltd for instructions on the safe disposal of these batteries.

For disposal of batteries in other parts of the EU contact your local distributor.

Megger is registered in the UK as a producer of batteries. The registration number is BPRN01235. For Further information see [www.megger.com](http://www.megger.com)

## Specification

<b>Output Voltage:</b>	50 – 690 volts in five steps
<b>Power Supply:</b>	6 x AA / LR06 alkaline batteries
<b>Operating Conditions:</b>	-10 to +40°C, 70% RH EN61010 pollution degree 2
<b>Number of tests:</b>	Approximately 550

**N.B. A voltage tester that uses a pygmy lamp will reduce the number of tests available due to the drain on the batteries.**

# Megger<sup>®</sup>

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**This instrument is manufactured in China**  
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**Part No. MPU690\_UG\_en\_V03 06/14**

# MPU690

## Proving Unit



- 5 stepped nominal output voltages
- Automatic operation
- High output power suitable for test lamps
- Extended battery life
- Magnetic base
- Rugged case

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### DESCRIPTION

Two pole voltage testers generally have a self testing function to check the unit is working and does not have exhausted batteries. This test does not necessarily indicate the instrument will safely show a voltage measurement, particularly voltages in excess of 50 volts. Two pole voltage testers are recommended to be tested with a known live voltage source prior to making a voltage measurement on a circuit.

The Megger MPU690 proving unit provides an alternative portable battery operated voltage source that can verify the correct functioning of a voltage tester.

The device safely generates a range of voltages from 50 to 690 volts in five steps. At switch on, the unit initially generates 690 volts then after a short period, slowly ramps down through each voltage step until the device switches off.

The individual voltage steps are indicated by an LED with a power indicator LED that also indicates an exhausted battery.

The MPU690 features automatic power on when voltage tester probes are inserted into the output terminals, generating a 50 Hz output voltage which simulates the AC mains supply.

### APPLICATION

The generous output power rating and the spacing of the output terminals allows the MPU690 to verify the correct operation of voltage indicators that utilise a lamp for operation. Although the unit has a high output the unit has exceptionally good battery life.

The rugged case of the MPU690 features a magnetic base for convenient use.

N.B. The MPU690 is not recommended for use with multi-meters.

**SPECIFICATIONS**

<b>Output voltage</b>	50 - 690 volts in five stages: 50 V, 100 V, 230 V, 400, 690 V
<b>Power output</b>	10 W max.
<b>Power On / Off</b>	Automatic on when probes are inserted into output terminals / auto off
<b>Indicators</b>	5 LEDs for output voltages plus power LED
<b>Power supply</b>	6 x AA / LR06 alkaline batteries
<b>Environmental</b>	
<b>Operating temperature</b>	-10°C - +40°C
<b>Humidity</b>	70% Rh

**Dimensions**

130 mm (W) x 68 mm (H) x 48 mm (D)

**Weight**

346 g

**ORDERING INFORMATION**

<b>Item (Qty)</b>	<b>Cat. No.</b>
MPU690 Proving unit	1001-561

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**CERTIFICATION ISO**  
Registered to ISO 9001:2008 Cert. no. Q 09250  
Registered to ISO 14001:2004 Cert. no. EMS 61597

**MPU690\_DS\_en\_V01**  
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