



***Time Electronics***  
*Calibration, Test and Measurement*

# User Manual

7088D

## Adjustable AC Power Supply Module

Version 1.1  
May 2021

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Nothing from this manual may be multiplied, or made public in any form or manner, either electronically or hard copy, without prior written consent from Time Electronics Ltd.

This also applies to any schematics, drawings and diagrams contained herein.

This manual provides operating and safety instructions for the Time Electronics product.

To ensure correct operation and safety, please follow the instructions in this manual.

Time Electronics reserves the right to change the contents, specifications and other information contained in this manual without notice.

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# 1 Introduction



## 1.1 Description

The 7088D provides variable 50Hz AC power up to 10A. The output voltage and current is monitored on two digital meters with 4 digit resolution and bar graph display. Output connection is via a front panel mains socket (type selectable when placing order), or via 4mm safety terminals. The output is protected by a 10A circuit breaker. Further protection is provided a front panel fuse. The output voltage is adjustable by turning the front panel control knob. An independent incoming power switch is also provided. The 7088D is not isolated from the mains supply so the highest output voltage is dependent upon the mains line voltage (ie 265V at 240V input, 121V at 110V input).

The 7088D's method of achieving a variable AC supply is by means of using a variable voltage auto-transformer.

This provides a trouble free and an efficient way of varying/controlling AC voltages. Variation of the output voltage is achieved by a brush arm with a carbon tip, which rotates around a silver plated commutator.

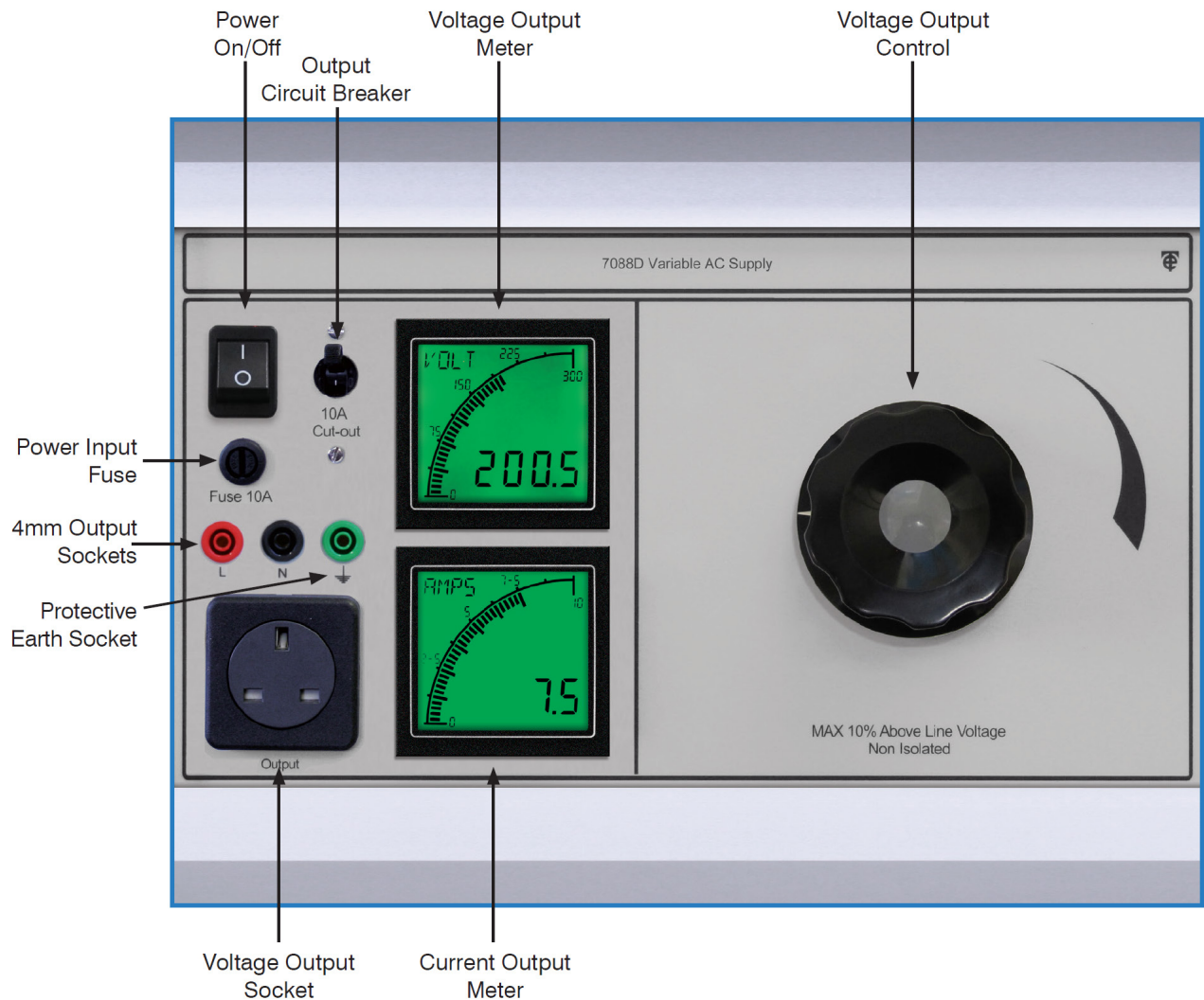
The mains socket type on the 7088D is selected by the user. These include UK 13A, Euro Schuko 16A, US 15A, and Indian Round Pin 15A. The type must be specified on ordering. Additionally the module has 4mm shrouded sockets for use.

## 1.2 Specifications

Power.....	Dependant on the mains supply to the bench (not isolated)
Output Voltage.....	Variable 0 to 110% above line input.
Example Voltage Inputs/Outputs:	0 to 265V 50Hz, 10A at 240V input. 0 to 121V 50Hz, 10A at 110V input.
Output Current.....	0 to 10A maximum
Input Fuse.....	10A slow blow
Output Circuit Breaker.....	10A (medium response time)
Accuracy.....	1%
Displays.....	2 digital displays for V & I, W57 x H53mm each, high contrast anti-glare LCD screen, 4 digit reading and bar graph display, green backlight colour.
Display Resolution.....	Display: 4 digits for V & I Voltage Resolution: 0.1V Current Resolution: 0.01A
Switches.....	Mains power on/off and an independent incoming power switch
Output Socket.....	Specified on ordering, UK, Euro, US, other types available
Additional Output Sockets.....	4mm shrouded sockets (safety terminals)
Earthing.....	A PE socket is provided for wrist bands, mats, etc
Output Voltage Control.....	Front panel analogue deviation control
Module Width.....	350mm (typically fitted in the left corner of the primary console)

## 2 Operation

### 2.1 7088D Front Panel



### 2.2 Operating Precautions

#### **Safety**

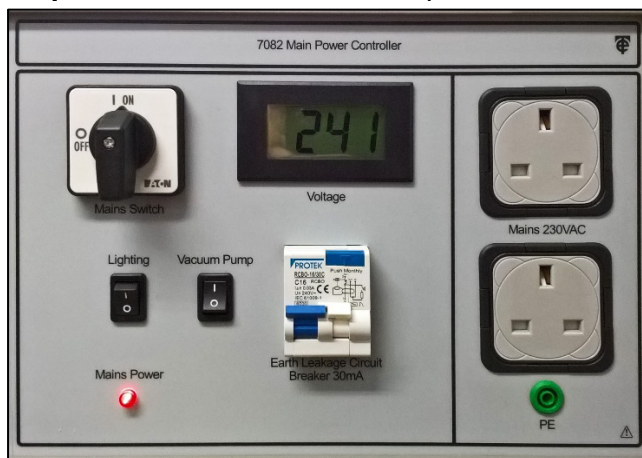
AC power supplies are sources of high voltage. Improper or careless use could result in fatal electrical shock. Observe common sense safety precautions when using this and other electronic devices.

#### **Maximum Output Voltage**

The output voltage of the AC power supply is adjustable. The voltage setting of this module should not exceed the device (UUT) manufacturer ratings as potential damage could occur.

## 2.3 Typical Operating Procedure

**Step 1:** Ensure the CalBench is powered on, using the 7082 mains controller module.



Note that the 7088D module is not isolated from the mains supply.

**Step 2:** Turn on the 7088D via the on/off switch.



**Step 3:** Wind the output voltage control knob counter clockwise to zero the output.





**Step 4:** Connect the device under test via the voltage output socket or 4mm shrouded sockets.



**Step 5:** Adjust the output voltage control knob clockwise to increase the AC voltage to the device.





## 3 Warranty and Servicing

### Warranty

Time Electronics products carry a one-year manufacturer's warranty as standard.

Time Electronics products are designed and manufactured to the highest standards and specifications to assure the quality and performance required by all sectors of industry. Time Electronics products are fully guaranteed against faulty materials and workmanship.

Should this product be found to be defective, please contact us using the below details. Inform us of the product type, serial number, and details of any fault and/or the service required. Please retain the supplier invoice as proof of purchase.

This warranty does not apply to defects resulting from action of the user such as misuse, operation outside of specification, improper maintenance or repair, or unauthorized modification. Time Electronics' total liability is limited to repair or replacement of the product. Note that if Time Electronics determine that the fault on a returned product has been caused by the user, we will contact the customer before proceeding with any repair.

### Calibration and Repair Services

Time Electronics offers repair and calibration services for all the products we make and sell. Routine maintenance by the manufacturer ensures optimal performance and condition of the product. Periodic traceable or accredited calibration is available.

### Contacting Time Electronics

#### Online:

Please visit **[www.timeelectronics.com](http://www.timeelectronics.com)** and select Technical Support from the Contact links. From this page you will be able to send information to the Time Electronics service team who will help and support you.

#### By phone:

+44 (0) 1732 355993

#### By email:

[mail@timeelectronics.co.uk](mailto:mail@timeelectronics.co.uk)

## Returning Instruments

Prior to returning your product please contact Time Electronics. We will issue a return merchandise authorization (RMA) number that is to accompany the goods returning. Further instructions will also be issued prior to shipment. When returning instruments, please ensure that they have been adequately packed, preferably in the original packing supplied. **Time Electronics Ltd will not accept responsibility for units returned damaged.** Please ensure that all units have details of the service required and all relevant paperwork.

Send the instrument, shipping charges paid to:

### **Time Electronics Ltd**

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Tel: +44(0)1732 355993

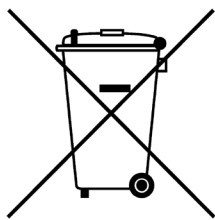
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## Disposal of your old equipment



1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or return to Time Electronics.