CAMPDEN INSTRUMENTS LIMITED

INSTRUCTION MANUAL

FOR

521C CONSTANT CURRENT SHOCK SOURCE

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January 1997

The information provided in this document is intended to be a guide on how to use the 521C Constant Current Shock Source safely and effectively and is subject to change without notice. Campden Instruments does not accept liability for any damages arising from this document or the information contained in it. Campden Instruments will not accept liability for damages arising out of misuse of this instrument.

Read and understand this instruction book before using the equipment. Only competent and capable personnel should use the equipment.

This document should be retained for future reference as it contains the name and address of the manufacturer within the EC.

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INTRODUCTION.

The Campden Instruments 521C Constant Current Shock Source was designed for standard 6" power rod mounting. It will function satisfactorily over a DC range of 22 - 30 volts from a reasonably well regulated DC Power Supply. It is compatible with all 24 - 28 volt DC Ground Operating Systems. A 220/240 Vac 50 Hz supply is also required.

To avoid the possibility of electrical shock do not touch the instrument with wet or damp hands.
All electrical instruments and equipment should be periodically tested to ensure they remain safe to use. In some countries this may be a statutory requirement. Your local Health and Safety Executive (or equivalent) will be able to advise on this matter.

The unit contains no user-serviceable parts. Contact your dealer or Campden Instruments if you require assistance.

OPERATION

The Shock Source has a four position range selector for the current output:
1: 0-0.5 mA Fixed
2: 0-0.5 mA Variable
3: 0-5 mA Fixed
4: 0-5 mA Variable

Note that when the unit is set to the 0.5 mA ranges a meter reading of 50 indicates 0.5 mA and when the unit is set to the 5 mA ranges a meter reading of 50 indicates 5.0 mA.

Operation of Fixed Ranges
For these settings calibration is not necessary; when the 100% socket is connected to the ground stud the output will be 0.5 mA or 5 mA depending upon which range has been selected. Grounding of the other percentage sockets will give an appropriate output, e.g. for the 5 mA range if the 30% socket is grounded, the output will be 5 x 30% = 1.5 mA.

Operation of Variable Ranges
For these settings calibration is required. To calibrate the unit proceed as follows:
Connect the 100% socket to the ground stud and press (and hold) the Calibrate button. Rotate the Set Current knob until the required current is displayed on the meter.
During calibration the meter will display the *peak* output current, whilst in actual operation it will display the *average* current.
Once the current has been adjusted, it can be decreased in 10% steps as for the Fixed ranges.

Note that one of the percentage sockets must be connected to the ground stud otherwise the unit will not give an output. Grounding of more than one percentage socket will not harm the unit but the output shock level will be meaningless.

SPECIFICATIONS

Power Requirements:	22 - 30 V DC 220/240 Vac 50 Hz
Power Rating:	15 W