



Instructions

IPC ELECTRONICS LTD.

AC MAGNETIC FIELD COIL IPC-4924-W

IMPORTANT

Please read these instructions carefully
before using apparatus

IPC Electronics Ltd.
Holker School
Cark in Cartmel
Grange over Sands
Cumbria
LA11 7PQ
Tel. ++44 (0)15395 58555
Web. www.ipcel.co.uk

AC Magnetic Field Coil IPC-4924-W

Introduction

The unit is designed to operate with:-

2V AC Voltage Power Supply capable of supplying up to 8amps for a period of 15 minutes.

High Current leads (x2) with 4mm plugs fitted, rated to a minimum of 8amps.

Hand Held Pick-Up Search Coil.

Digital or Analogue Oscilloscope.

Power Supply Requirements

It is important that the maximum voltage supplied to this unit is 2V AC and the frequency (sinewave) of this voltage ranges from 50Hz to 60Hz. A pair of high current supply leads will also be required which should be rated to a minimum of 8amps.

At 2V AC the approximate current consumption will be 8amps and we recommend our Multitap Transformer power supply (IPC-0484-P) is used, as this has a 2V AC output capable of supplying 8amps.

General instructions

The unit should not be run for longer than 15 minutes at a time due to the supply requirements and allowed 15 minutes intervals between operations, this is to prevent over heating issues.

To demonstrate the effects of electromagnetics power the unit (as detailed above) and place a suitable Hand Held Pick-Up Search Coil, connected directly to an oscilloscope, into the middle of the Field Coil Loop. The oscilloscope once set correctly will display a sinewave at a value, depending on the efficiency of the Search Coil, of between 0.4Vpk-pk to 0.7Vpk-pk.

To demonstrate the relationship of spatial distance involved with electromagnetics now move the Search Coil to one of the corners of the Field Coil Loop, this will now increase the sinewave value to between 0.7Vpk-pk to 1.2Vpk-pk.