



## Instructions

**IPC ELECTRONICS LTD.**

# **MICROPHONE (ELECTRET) IPC-4220-W**

### **IMPORTANT**

Please read these instructions carefully  
before using apparatus

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## **MICROPHONE (ELECTRET) IPC-4220-W**

### **Introduction**

The unit is designed to operate with:-

1. General digital and analogue oscilloscopes.
2. IPC-4885 Signal Generator and Amplifier.
3. IPC-4619-W Loudspeaker Amplifier.

Note:- This unit replaces legacy equipment fitted with a crystal microphone which is now obsolete.

### **General instructions**

The electret microphone can be used to demonstrate voice waveforms by connecting it directly to an oscilloscope and setting the voltage to 5mV/div, timebase to 2.5ms/div, adjusting the coupling and trigger accordingly. Note: we recommend using a screened (coax) cable to achieve the best results.

For Velocity of Sound experiments visit (and download instructions):-

<http://www.ipcel.co.uk/product/velocity-of-sound-kit/>

Power is from a PP3 (6LR61) battery, however the unit may also be powered by an equivalent re-chargeable PP3 battery. The unit is protected against accidental reverse connection of the battery even when the power switch is on. To conserve battery power switch the unit off when not in use, an LED on the front panel indicates that the unit is switched on and has some charge power available.

Two standard 4mm sockets are provided for the audio output which is not polarity sensitive but noise can be reduced if the polarity is followed.

The microphone has internal protection from accidental injection of low DC voltages to the output sockets and is positioned directly below the four holes in the enclosure.

Operating voltage range:	2V to 10Vdc
Current consumption:	20mA (at 9Vdc)
Dimensions:	68 x 120 x 36mm overall
Mass:	0.18kg