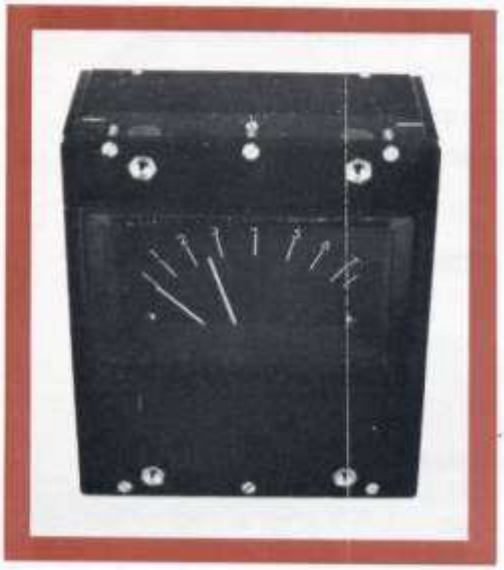
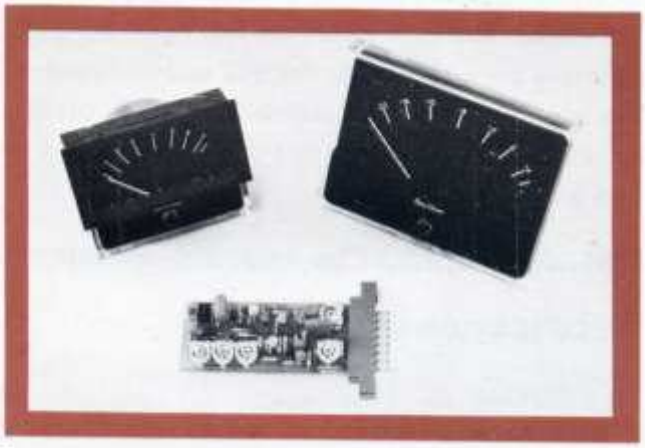
PEAK PROGRAMME METERS

ALSO 200KHz VERSION FOR HIGH SPEED COPYING





▲ **642 meter and flush mounting adaptor with 643 meter and drive circuit**

◀ **Twin movement**

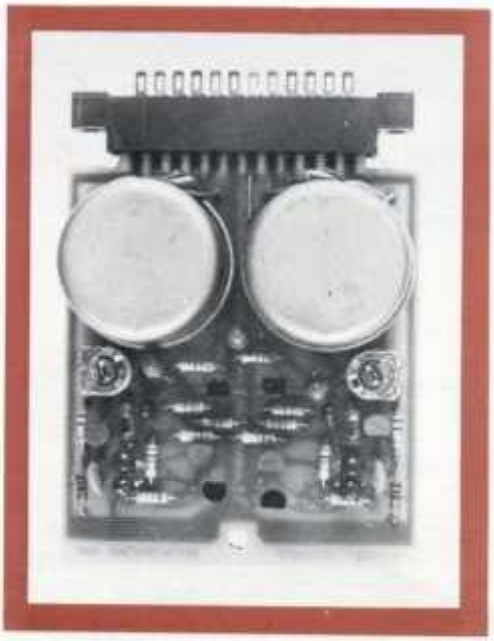
The peak programme meter concept was developed originally by the BBC for checking modulation depths at transmitters, and the modern derivative, to the specification of BS4297, is widely used in the fields of broadcasting and sound recording. The standards define attack and decay times and logarithmic meter scaling with positive and negative peak detection, as some sounds have positive and negative levels differing by up to 8dB.

Drive circuits are available for normal audio, or up to 200KHz for high speed copying purposes. High frequency versions have a suitably altered attack time and low frequency response.

METER SCALINGS AVAILABLE

DECIBEL

BBC



MICROPHONE PRE AMPLIFIER

A small circuit board with two channels to suit microphones between 30 and 600 ohms. Inputs are balanced using high quality transformers and precautions are taken in the amplifier design to minimise radio interference. Crosstalk between the two amplifiers is low enough to allow use on two completely separate signals. Supply voltage is nominally +24 volts but the circuit will adapt to lower voltages with a corresponding reduction in headroom, and to higher voltages by changing the supply link for a resistor.

To display transient signals accurately it is important for the meter movement to have behaviour defined, particularly in respect of rise time and overshoot. Ernest Turner Electrical Instruments Ltd manufacture special ballistics meters of excellent quality fully meeting the specifications of BBC ED 1498/9.

Three types are stocked with both Decibel, −22 to +4, and BBC style, 1 to 7, scaling as illustrated. The twin meter is a flush mounting type, while rear mounting illumination adaptors are available for the 642 and 643 meters. The twin movement type has coaxially mounted green and red pointers for stereo left and right channels respectively. For broadcasting and disc cutting they are also used with white and yellow pointers for stereo sum and difference signals.

PPM DRIVE CIRCUIT for 1mA, 600 ohm left hand zero meters to BBC ED 1498/9

SPECIFICATION to BS4297

Integration time	2.5mS
Decay time PPM7 to PPM1	2.8−3.5S
Detection	Positive and negative peaks within 0.5dB
Accuracy @ +20C	PPM2 to PPM7 within 0.5dB
Temperature stability relative to +20C indications	+5 to +40C, within 0.5dB or 2% of FSD
	−10 to +50C, within 1dB or 3% of FSD
Frequency response	−0.5dB, 20Hz−20KHz; −1dB, 12Hz−30KHz
Sensitivity for reading PPM6	Input −3dB (V.7); 550mV, adjustable
Input impedance	70 Kohms, unbalanced
Supply	+24 to +75 volts @ 20mA, 24V standard
Supply variation stability	±2V, within 0.5dB or 2% of FSD
Edge connector	8-way gold, 3.85mm pitch, supplied
Printed circuit dimensions	35 x 80mm

HIGH FREQUENCY VERSION as above except

Integration		(2.5 ÷ copy speed multiple) mS
Frequency response	L.F.	−0.5dB, (20 x copy speed multiple) Hz
	H.F.	−1dB, 200KHz
Supply		+24 to +50 volts @ 30mA, 24V standard

BRIDGING INPUT TRANSFORMER with electrostatic and mu-metal screens. A high quality transformer useful for any input requirements needing high signal handling with very low distortion.

Maker SOWTER.

Ratio and impedance	10Kohms : 10Kohms
Frequency response	−0.5dB, 20Hz−20KHz
Mu-metal can dimensions	40 x 30mm dia. Wire lead outs. Fixing 2 x 6 BA

MICROPHONE PREAMPLIFIER: SPECIFICATION

Frequency response	Within 0.5dB 20Hz−20KHz
Minimum output load	5Kohm
Supply	+24 volts @ 10mA, adaptable +10 to +50 volts
Edge connector	12-way gold, 3.85 mm pitch, supplied
Dimensions and weight	70 x 90 x 30 mm, 0.2Kg

Gain set to 60dB at 1KHz for 600ohm input. Load 5Kohms:

Crosstalk, (20Hz−20KHz, +10dB (V.7) output	−70dB
Noise (referred to input) 600ohm source	−120dB (V.7) 20Hz−20KHz mean reading meter
Distortion, 1KHz	Output −10dB (V.7) 0.01%, output +10dB (V.7) 0.1%
Clipping, 1KHz, 24V supply	+15dB (V.7)

SURREY ELECTRONICS

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