# VALVE TESTER

## MODEL TVT

This fine instrument is the latest in valve testers and can be used as a portable or counter type valve tester. Operates from A.C. mains and tests TV tubes as well as radio tubes. All valve elements are controlled by individual lever switches thus minimising the tester becoming out of date and a full range of twenty different filament voltages can be selected. Incorporates the University W4 polystyrene meter and is supplied with instruction book and all necessary data. Attractive in appearance and easy and speedy to use. Finished in grey hammertone with attractive black anodised label. Size: 14" x 11" x 6".



# **RADIO & TV TEST INSTRUMENTS**

by



# VALVE AND CIRCUIT TESTER - TST/2

This is the latest model of the famous TST and is designed for radio, TV and industrial use. The valve testing section is the same as TVT with full flexible ranges and easy and quick to use. In addition to testing valves it incorporates the following Multi-meter ranges:

D.C. Volts	G/10	0/50	0/250	0/1000
A.C. Volts	0/10	0/50	0/250	0/1000
<b>Output Meter</b>	0/10	0/50	0/250	0/1000
D.C. m.a.	0/1	0/10	0/50	0/250
Ohms	0/1000	0/10,000	0/100,000	0/10 Megohm
Cinins	0/1000	-/	-/	-,

Supplied with comprehensive instruction book. Finished in grey hammertone with black anodised label. Size: 14" x 11" x 6".



ACOULACOOR AL

THE COST

#### OSCILLOSCOPE 3 inch — TVR/C3

This Oscilloscope for bench or portable use is ideal for TV, radio and industrial use and embodies all the features of larger instruments. The vertical amplifier has a response of 15 c.p.s. to 1 Megacycle within plus or minus 1 db. The time base is a Miller phantastron circuit with a frequency range of 15 c.p.s. to 25 Kc in 5 steps with fine control. Complete with graticule and instruction manual. Size:  $4\frac{1}{2}$ " x  $8\frac{1}{2}$ " x  $11\frac{1}{2}$ ". Weight: 14 lbs.

# UNIVERSITY GRAHAM INSTRUMENTS PTY. LTD. 5 NORTH YORK ST., SYDNEY



# ELECTRONIC VOLTOHMETER - TVR/EV

This smartly styled Electronic Voltohmeter is suitable for TV and radio servicing and employs a large 8 inch illuminated meter. It will measure negative D.C. voltage, positive D.C. voltage and A.C. voltage in steps of 1, 3, 10, 30 and 100, 300 and 1,000 self contained. Peak-to-peak A.C. voltages may be measured up to 2,800 volts. There are seven ranges of resistance up to 1,000 megohms and the D.C. voltages can be extended to 30,000 volts by use of the external probe Model TV30. Crystal probe and valve probe enable RF voltages up to 1,000 to be checked and the wide frequency response makes it entirely suitable for TV servicing and other applications.

#### SWEEP & MARKER GENERATOR - TVR-SM

The ideal signal source for alignment of TV and FM receivers comprises two signals sources—a Sweep Oscillator and a Marker Generator. Sweep Oscillator ranges are from 4.5 Mc to 220 Mc all on fundamentals. Variable sweep width. Marker Generator has two separate markers. One is crystal controlled fixed frequency at 5.5 Mc but capable of operating at other frequencies by plugging in external crystals. The variable frequency covers from 20 to 60 Mc on fundamentals and in the interests of precision and stability switching is avoided. Thus ranges up to 240 Mc are in harmonics and the dial is directly calibrated. Power supply is voltage regulated. Blanking is included and a phasing control is provided. Size: 13" x  $9\frac{1}{2}$ " x 7".

#### MULTIMETER MVA/2 (below)

The basic multimeter for Radio, TV and Industrial use. Sensitivity 1000 o.p.v. Ranges:— 10, 50, 250 and 1000 Volts A.C., D.C. and output. 1, 10, 50, 250 m.a. and 10 Amps D.C. Also I m.a. A.C. Ohms 0-1000-10,000, 100,000 and I Megohm. Four output ranges from —6db + 40db. With leads and instructions. Size 8" x 6" x 3".





ATKINS (W.A.) LTD. 804 HAY STREET PERTH, W.A.

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# INDUSTRIAL MULTIMETER (at right)

A heavy duty instrument only 8 x 6 x 3 inches entirely self contained with the following ranges:—AC Volts—0/10, 0/50, 0/250, 0/1000. DC Volts—0/10, 0/50, 0/250, 0/1000. AC Amps—0/0.25, 0/1, 0/2.5, 0/10, 0/25, 0/100. DC Amps—0/0.25, 0/1, 0/2.5, 0/10, 0/25, 0/100. Ohms— 0/500, 0/50,000.



### MULTIMETER TVR-MM (beiow)

Sensitivity 20,000 o.p.v. Voltage ranges, 3, 10, 30, 100, 300 and 1000 A.C., D.C. and Output. Six D.C. current ranges of 100 microamps, 1, 10, 100 m.a., 1 and 10 amps. Five ohms ranges 2000; 20,000; 200,000 ohms; 2 Meg. and 20 Megohms. With leads and instructions. Size 10" x  $6\frac{1}{2}$ " x  $5\frac{1}{2}$ ".



ACOULATOR YOA (-+ Ioff)



#### OSCILLATOR TOA (at lett)

A quick instrument for radio service. Vernier or fast dial. Spot tuning feature. Five overlapping ranges from 150 KC to 30 Mc. Can be used modulated or unmodulated. Dummy aerial and instruction book supplied. 240V. A.C. operated.

# UNIVERSITY



# MEGOHMETER —

DIOD

Operates from AC mains and is ideal for checking resistance values, leakage paths, condensers, insulating materials, etc. Two ranges of 0-100 Megohms and 0-1000 Megohms at a test potential of 1000 volts. The available energy is less than I joule and is therefore not dangerous or lethal. Special terminals allow the use of test leads or components can be connected directly.

# OHMETER

# EXT/2

Readily portable and light in weight this ohmeter has three ranges of 0-20 (2 ohms centre), 0-500 (20 ohms centre) 0-5000 (200 ohms centre) Hard moulded rubber case with protecting flap over the meter. Self contained. Size:  $6\frac{1}{2} \times 4\frac{3}{4} \times 3$  inches.

