

NEW!

JERROLD

From the JERROLD Laboratories a PRECISION WIDE BAND SWEEP FREQUENCY TEST INSTRUMENT Model 1707

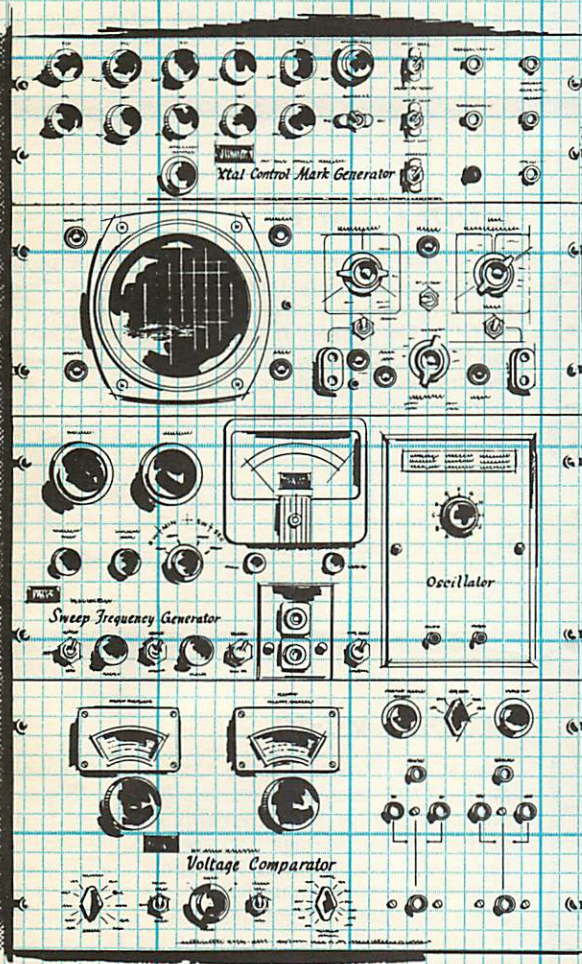


FIGURE 1. MODEL 1707 SWEEP FREQUENCY TEST SET Showing a Typical Oscilloscope (Not Included).

DESCRIPTION

The Jerrold Model 1707 is an RF sweep frequency test instrument of unusual versatility. The instrument permits highly accurate quantitative measurements of gain, loss and VSWR using sweep frequency techniques.

FEATURES

- QUANTITATIVE AND COMPARATIVE MEASUREMENTS IN TERMS OF dbm . . . Power . . . Voltage . . . And db Difference
- SWEEP FREQUENCIES FROM 4 MC TO 225 MC . . . WITH AN OUTPUT FLATNESS OF ± 0.05 db OVER A SINGLE OCTAVE
- TEN CRYSTAL CONTROLLED MARKER SIGNALS THAT MAY BE MIXED AND INDIVIDUALLY CONTROLLED AS DESIRED
- VARIABLE SWEEP REPETITION RATE FOR USE WITH "X-Y" RECORDERS OR OSCILLOSCOPES

NOTE: Illustrated in Figure 1 is a typical five inch oscilloscope that can be used with the Model 1707 Test Set. Any oscilloscope with the following specifications is suitable for this application: DC coupled with a minimum bandwidth of 100 KC; a vertical sensitivity of 10 millivolts/cm and a horizontal sensitivity of 0.1 volt/cm. The Model 1707 is ideally suited for use with X-Y recorders where permanent records are desired. The sweep repetition rate and the sweep width of the instrument are variable so that precise X-Y recordings can be made of narrow band filters, traps, etc.

THE COMPONENTS OF THE MODEL 1707 ARE:

MODEL 707

The Model 707 Sweep Frequency Generator offers the Model 1707, through the use of Plug-In Oscillator Heads, a versatile sweep signal with a total frequency range of from 12 MC to 225 MC or from 4 MC to 112 MC. The total frequency ranges are divided into 11 overlapping bands. The Sweep width in any band position is continuously variable from a minimum of a nominal 1% of the center frequency, to a maximum frequency deviation of approximately 5.1. The last single octave of sweep signal from any oscillator head features an output flatness of ± 0.05 db. The output flatness of any band position, at maximum sweep width, is ± 0.25 db. The sweep signal is adjustable in repetition rate, contains a low order of harmonics, exhibits excellent linearity and has an output level of +20 dbm. The Model 707 Sweep Generator is available on special order for any desired ± 0.05 db octave from 4 MC to 225 MC.

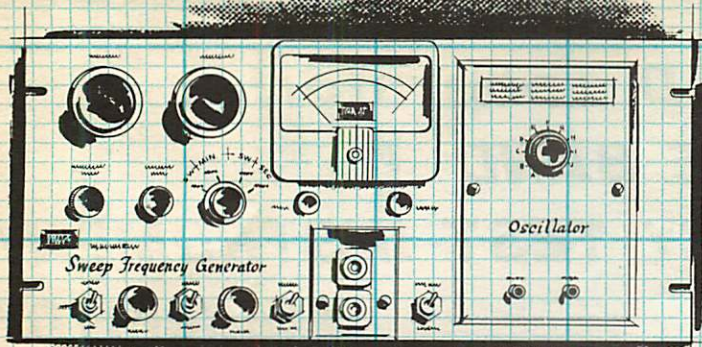


FIGURE 2. MODEL 707

MODEL CM-10

Ten crystal controlled marker signals are provided in the Model CM-10 Crystal Marker. Utilizing a "birdie" bypass amplifier and mixer, the generator is so designed that the Ten marker frequencies can be displayed (as fundamentals) simultaneously, or any combination of the frequencies can be mixed to produce sideband markers. With the proper choice of crystal frequencies it is possible to add a great number of marker frequencies across a wide bandwidth.

A six crystal marker generator similar to the CM-10 is also available as the Model CM-6. Model CM-6 is housed in a portable cabinet.

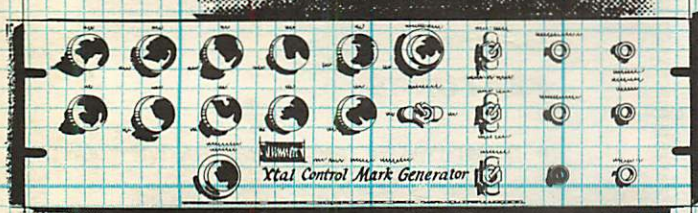


FIGURE 3. MODEL CM-10

MODEL VC-12

The Model VC-12, Voltage Comparator, supplies the Model 1707 accurate voltages to permit quantitative and comparative measurements to be made in terms of dbm, power, voltage and the db difference between two levels. A calibrated 1 MC signal that may be varied from 120 μ v to 12 volts RMS (-68 dbm to $+32$ dbm) and a calibrated DC voltage, either positive or negative in polarity, that may be varied from 120 μ v to 12 volts are available from separately controlled supplies. The calibrated RF signal can be keyed in alternately with the RF output of the device under test to provide voltage calibration independent of inaccuracies caused by detector square law characteristics. This is made possible by utilizing two SPDT mercury wetted, coaxial relays featured in the Model VC-12. The relays feature a VSWR of less than 1.1:1 from DC to 250 MC.

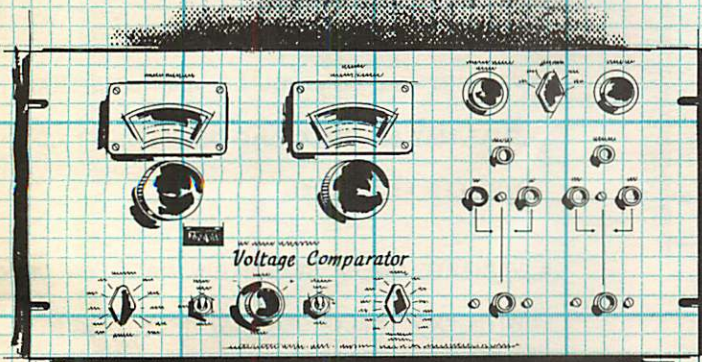


FIGURE 4. MODEL VC-12

Data subject to change without notice.

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