

5.11 Blanking

When the switch S2 is in either of two positions and S6 (operated through the base of the case) closed, high-tension is applied to V1b. Low mains voltage from B is applied to the grid of this valve, but only the negative half-cycle is effective, because the positive half-cycle is short-circuited (clamped) to earth by rectifier RT2. The negative pulse on the grid results in a large positive pulse on the anode of V1b. In V1a, the grid is held negative by grid oscillatory current integrated by C7, so that RT1 is ineffective until a pulse passes to C8. The impulse passed on to the grid of V1a makes it so negative that the valve ceases to maintain oscillation. On alternate half cycles there is therefore no output of the oscillator, and therefore a horizontal line is displayed on a C.R.O. It follows that closing the blanking switch S6 permits oscillation only during alternate half cycles of the mains supply; there is correspondingly no deflection vertically on the cathode-ray oscilloscope display but a horizontal *zero or reference line*, to which the vertical deflection, effective during the alternate half cycles, can be referred. See Figs. 7.1 and 7.2.

5.12 Meter

This has a red calibration mark and is for setting a reference level to be applied to the attenuator. The rectifier RT3 and integrating capacitor C43 are in shunt with the meter.

5.13 Attenuator

This is in two parts, a potentiometer VR5 and a number of fixed pads switched by S5.

The potentiometer is continuously variable by the front panel knob, which reduces the datum maximum of ten down to nearly zero in unit steps. The pads diminish the datum maximum in the ratio of 10 (20 dB) through each step, as clearly marked on the scale.

5.14 Output cable

The attenuator is connected to a coaxial socket (R.F. OUT) on the front panel for a plug at the end of a flexible cable. At the end of this is a terminating unit from which a balanced or unbalanced output can be obtained, the impedance level being 75 ohms.