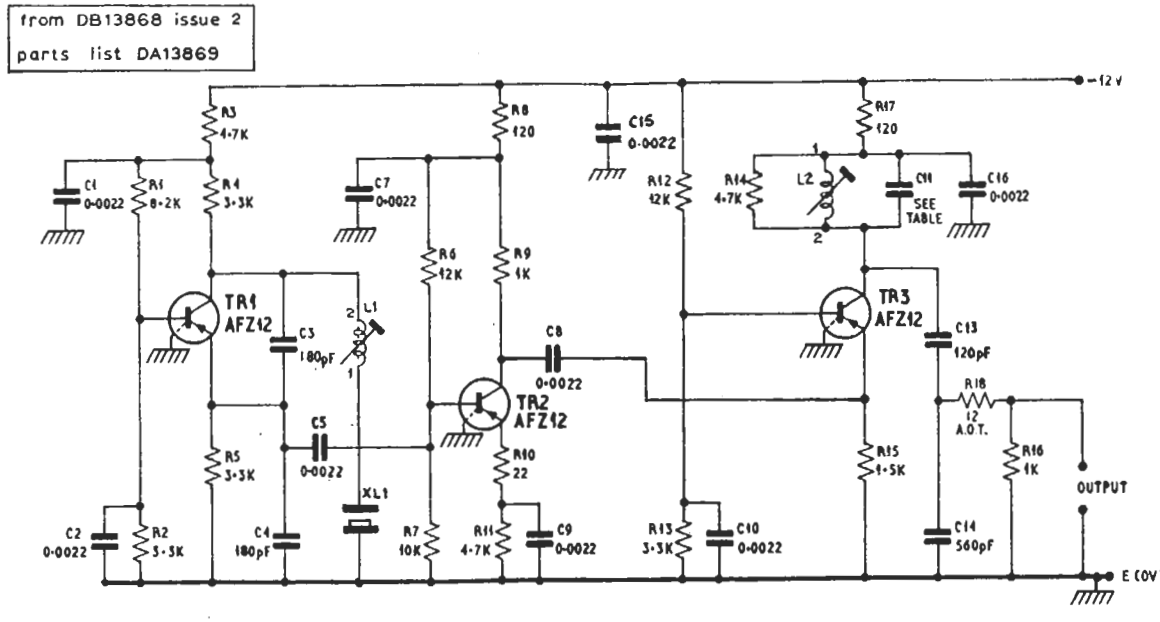
CRYSTAL CONTROLLED OSCILLATOR OS2/18A

The OS2/18A oscillator, which is the sole representative of the type, provides a sine-wave output at a fixed frequency in the range 8·5 MHz to 20 MHz. The output is at least 150 mV r.m.s. when terminated in a 75-ohms load, and the frequency is determined by a series-resonant crystal (S.T.C. Type 4046-AT-H). The stability is 20 p.p.m. over an ambient temperature range of 10-30 degrees C. The oscillator is constructed on a printed card and is mounted in a copper screening box BX1/4. An external 12-volts d.c. supply at about 5 mA is required.

The above-mentioned range is covered in four bands, the individual oscillator having its coverage marked near the code and serial numbers. The nominal frequency limits and component values for the four variants are given in a table with the circuit diagram in Fig. 1.

Inductor L1, in series with the crystal, provides a means for fine adjustment of oscillator frequency. L2 is tuned to give maximum output. The output impedance of 75 ohms is effected by on-test adjustment of R18.



TRANSISTOR TERMINATIONS
VIEW ON LEADS

OS2/18/1

VALUES OF COMPONENTS FOR VARIOUS FREQUENCIES					
FREQ Mc/s	L2 (OUTPUT)		L1 (PULLING)		C11
	COIL	µH	COIL	µH	VALUE IN pF
18—20	L/252	0·55—1·2	L/252	0·55—1·2	ZERO
15—18	L/253	0·7—1·6	L/254	0·9—2·1	ZERO
11·5—15	L/253	0·7—1·6	L/255	0·9—2·7	47
8·5—11·5	L/254	0·9—2·1	L/256	1·8—4·3	100

Fig. 1 Circuit of the OS2/18A

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