

MIXER AND OSCILLATOR UNIT UN1/40

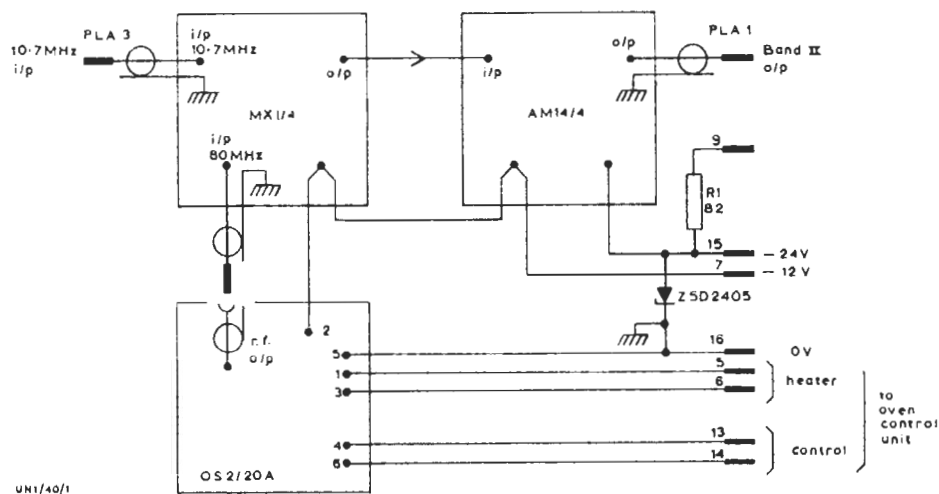


Fig. 1 Interconnection Diagram of the UN1/40

The UN1/40 accepts a 10.7-MHz f.m. signal, at a level not exceeding 10 mV, and mixes it with the output of an internal oscillator to produce a signal in Band II. This signal is amplified to give about 1 watt output into an external 50-ohms load. The input and output impedances are both 50 ohms.

The three component sub-units are:

- Oscillator OS2/20A,
- Mixer and Amplifier MX1/4
- R.F. Amplifier AM14/4

These are mounted on a modified CH1/27 chassis with index peg positions 1 and 4. The chassis modification comprises a protrusion on the front panel to accommodate the oscillator crystal-

oven. Interconnection of the sub-units is shown in Fig. 1.

A dropping-resistor and zener-diode stabilising circuit is included to feed the AM14/4 at the correct 24-volts d.c. This is because the UN1/40 is commonly used in parent equipment^{1,2} which has a 32-volt supply available and cannot provide a direct 24-volts feed. A separate 12-volt d.c. supply is used by all three sub-units.

References to Typical Associated Equipment

1. V.I.F.M. Drive Equipments EP7/4 and EP7/7
2. F.M. Translator EP7/5

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