

## INDICATOR UNIT IN2/502

**Introduction**

The IN2/502 accepts combinations of positive-going field-frequency pulses on its three inputs: its outputs are a set of changeover contacts on each of two relays. The states of the relays are shown by test-line signal level indicator lamps labelled *T.L.S. High* and *T.L.S. Low*. The indicator requires a 12-volt supply for its positive rail, but it includes a power supply circuit for its negative 12-volt rail.

The IN2/502 is constructed on a CH1/12A chassis with index-peg positions 10 and 38.

**Circuit Description**

The circuit diagram of the IN2/502 is given in Fig. 1. The behaviour of the *T.L.S. High* circuit is summarised in Table 1.

TABLE 1

<i>Pin 5</i>	<i>TR5 base</i>	<i>TR6</i>	<i>RLB</i>	<i>ILP1 (T.L.S. High)</i>
no input	0 V	cut off	released	off
pulses	negative	conducting	operated	on

The *T.L.S. Low* circuit has two inputs feeding a bistable multivibrator. The input waveforms produce negative-going field-frequency pulses at the collector of transistor TR4. The behaviour of the remainder of this circuit is summarised in Table 2. Both sets of input pulses must be present to produce pulses at the collector of transistor TR4.

TABLE 2

<i>TR4 Collector</i>	<i>TR7 base</i>	<i>RLA</i>	<i>ILP2 (T.L.S. Low)</i>
pulses present	positive	released	off
pulses absent	negative	operated	on

**Test Procedure**

The IN2/502 is tested as part of its parent unit.

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*See overleaf for Fig. 1.*

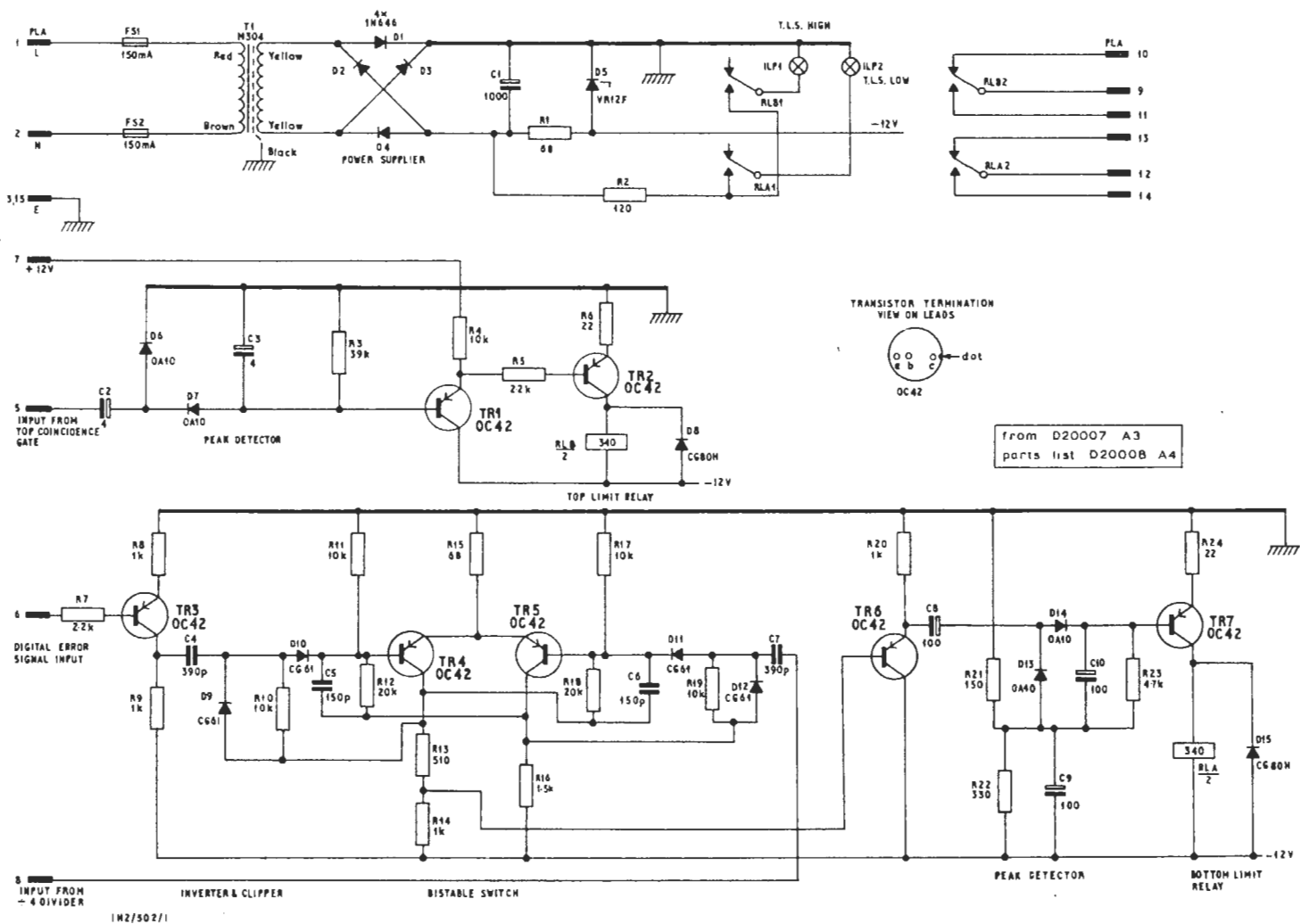


Fig. 1 Circuit of the IN2/502

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