

**VIDEO SWITCH AND DELAY UNIT UN1/640**

**Introduction**

The UN1/640 is used in O.B. video mixers which have been modified for colour-separation-overlay working. The unit accepts six (B - Y) keying waveforms<sup>1</sup>, selects one by means of externally-controlled relay circuits, and routes the selected waveform to an associated split-screen unit<sup>2</sup> via an adjustable delay line. The delay line compensates for the delay introduced by other paths through the mixer. The circuit diagram is given in Fig. 1.

**General Specification**

<i>Construction</i>	CH1/12A chassis
<i>Inputs</i>	6 (B - Y) keying waveforms at 1.3 V p-p max.
<i>Input Impedance</i>	75 ohms (non-selected inputs are terminated in 75 ohms)
<i>Output</i>	(B - Y) keying waveform at 1.3 V p-p max.
<i>Output Impedance</i>	75 ohms
<i>Relay Power Supply</i>	25 mA at -24 V

**Maintenance**

*Equipment Required*

- Oscilloscope
- Test Waveform (any composite video signal)
- 24-V Power Supply

*Procedure*

1. Connect the negative terminal of the power supply to PLA 8 and the positive terminal to PLA 3.
2. Apply the test waveform to Input 1 (PLA 2). Connect the oscilloscope to the output (PLA 15) and terminate it in 75 ohms.
3. Switch on the power supply and check that the test waveform appears at the output.
4. Check that the other five routes through the unit are functioning correctly by applying the test waveform and the positive terminal of the power supply to the connections shown below. In each instance check that the waveform appears at the output.

Waveform to Input 2 (PLA 4); positive supply terminal to PLA 5.

Waveform to Input 3 (PLA 6); positive supply terminal to PLA 7.

Waveform to Input 4 (PLA 9); positive supply terminal to PLA 10.

Waveform to Input 5 (PLA 11); positive supply terminal to PLA 12.

Waveform to Input 6 (PLA 13); positive supply terminal to PLA 14.

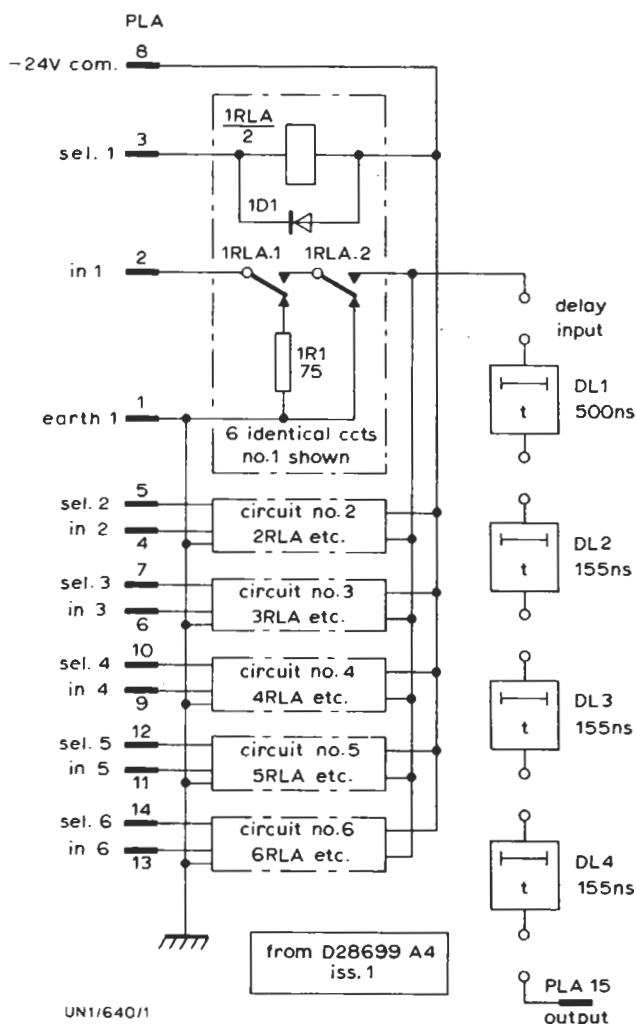


Fig.1 UN1/640: Circuit Diagram

**References to Typical Associated Equipment**

1. E.M.I. Camera Overlay Matrix AM23/507
2. Split Screen Effects Unit UN4/501A

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