

PICTURE PHASE SYNCHRONISER UNIT UN17/524

Introduction

The UN17/524 forms part of the Genlock Error Signal Generator GE1M/568. The unit accepts inputs of local and remote picture pulses and local picture half-time pulses. For colour sources it provides a 12.5-Hz output of variable mark-space ratio which is 1:1 when picture pulses are coincident; for monochrome sources the output is at 25 Hz. The output is intended to drive an external meter which displays the relative picture phase of local and remote picture pulses.

The UN17/524 incorporates two bistable units type UN9/528, is constructed on a CH1/12A chassis and uses index pegs 48 and 85. A power input of -12 V at 27 mA is supplied by the parent equipment.

Circuit Description

Fig. 1 gives the circuit diagram of the UN17/524. The bistable CM1 is set by the half-time pulse between local picture pulses and then changes state with coincident half-time and local picture pulses. CM1 output is therefore a squarewave at picture-pulse frequency. The positive edges of this squarewave set CM2 which is reset by remote picture pulses. CM2 thus provides a rectangular wave output with a mark-to-space ratio dependent on the relative phase of local and remote picture pulses.

The bistable elements CM1 and CM2 are described under the code UN9/528.

Maintenance

The UN17/524 is tested as part of its parent equipment. Routine maintenance is not possible

General Specification

Signal Inputs

Local picture pulse	6 V p-p (positive-going at time reference)
Remote picture pulse	6 V p-p (positive-going at time reference)
Local half-time pulses	6 V p-p (alternate positive-going edges in phase with local picture pulse)

Input Rise Times

less than 100 ns

Signal Output

Phase	One edge coincident with remote picture pulse; other edge coincident with half-time pulse between local picture pulses
Frequency	12.5 Hz (colour) or 25 Hz (monochrome)

Power Input

-12 V d.c., 27 mA

Temperature

0°C to 45°C ambient

Weight

0.38 kg (13.5 oz)

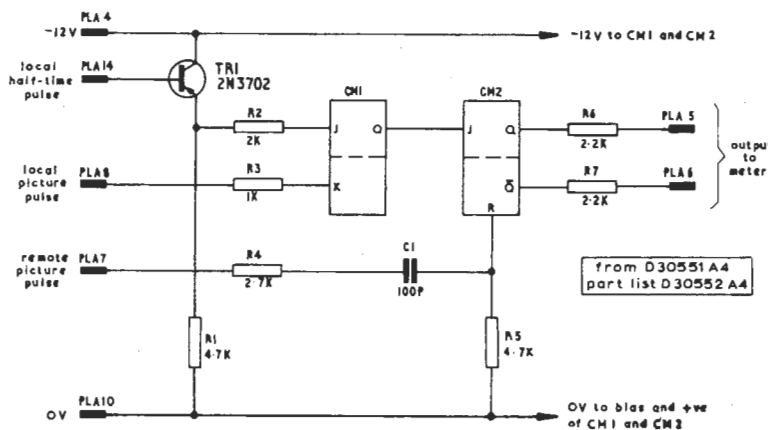
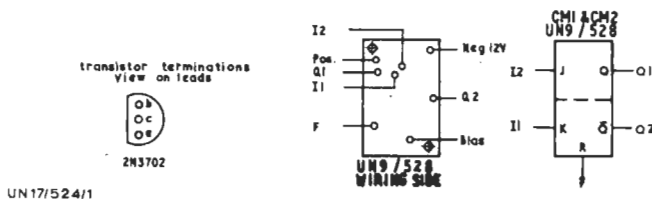


Fig. 1. Circuit Diagram of the UN17/524



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