GENERAL PURPOSE TWO-CHANNEL AMPLIFIERS AM5/506 AND AM5/506A

Introduction

These amplifiers both accept two video signals (the faded and unfaded outputs of an associated mixer[1]) and both provide two 1-volt peak-to-peak output signals across 75-ohm loads. The AM5/506 is designed for monochrome working and the AM5/506A for colour working.

The units are mounted on CH1/12A chassis with index-peg positions 3 and 6. Power supplies at +12 volts are required[2].

Circuit Description

AM5/506

The circuit is given in Fig. 1. The unfaded video input signal (Input 1 on the circuit) is applied to an amplifier comprising transistors TR1 to TR4. Negative feedback is applied from the emitter of TR4 to the base of TR2; capacitors C3 and C4 reduce the feedback at high frequencies and so provide h.f. compensation.

The faded video input signal (Input 2 on the circuit) is applied to an amplifier comprising transistors TR5 to TR8. This amplifier is similar to the one described above but has a slightly higher gain because R31 has a lower value than R14. The faded path gain is 14 dB and the unfaded path gain is 13 dB.

AM5/506A

The circuit is given in Fig. 2. The AM4/506A is similar in circuit configuration to the AM4/506, but it uses complementary emitter-follower output stages and includes a number of additional inductors to improve the performance when handling colour signals. Inductors L3 and L6 increase the loop gain at subcarrier frequency and so reduce distortion; inductors L4 and L7 provide h.f. compensation and load equalisation for the modified output stages. The derived bridged-T networks, which are located at the outputs of the two amplifier circuits, provide phase adjustment.

Alignment

See parent unit[3].

References to Typical Associated Equipment

1. O.B. Mixer MX1/501 or MX1/501A (See D.D. T.M. 8.129(62))
2. Stabilised Power Supplier PS2/503A
3. Cut/Fade Amplifier AM1/504

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See overleaf for Fig. 1.

See page 3 for Fig. 2.

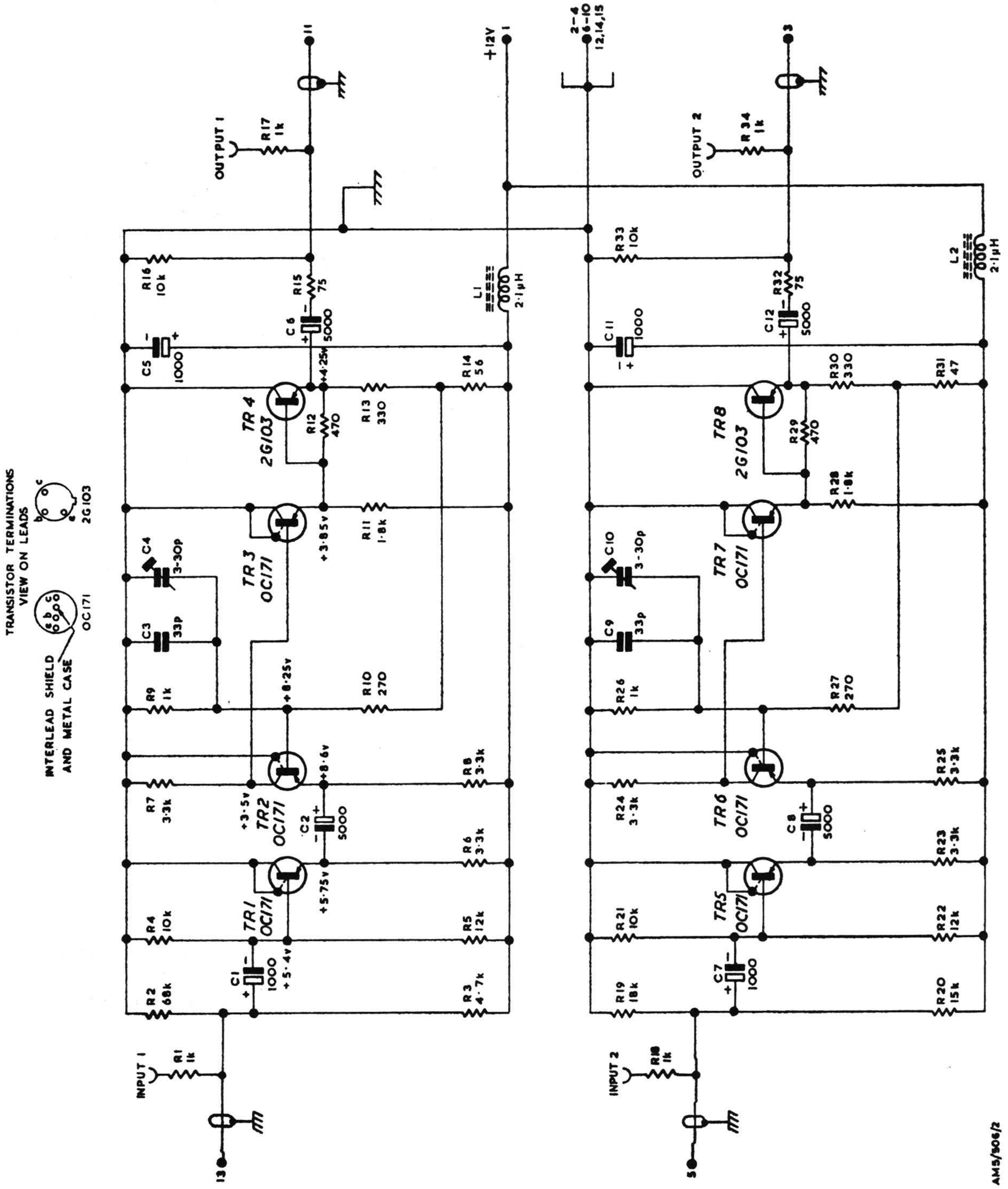


Fig. 1 Circuit of the AM5/506

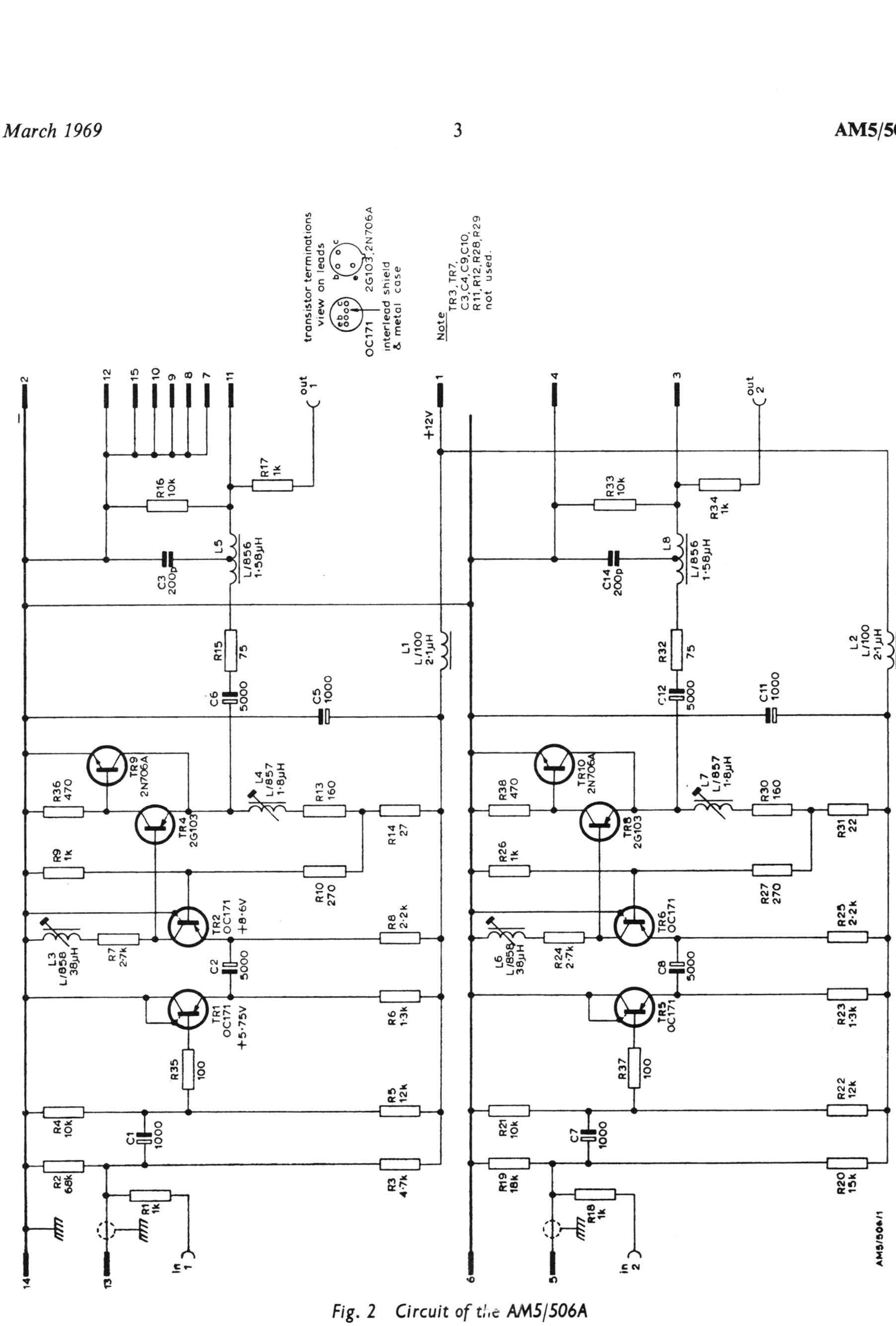
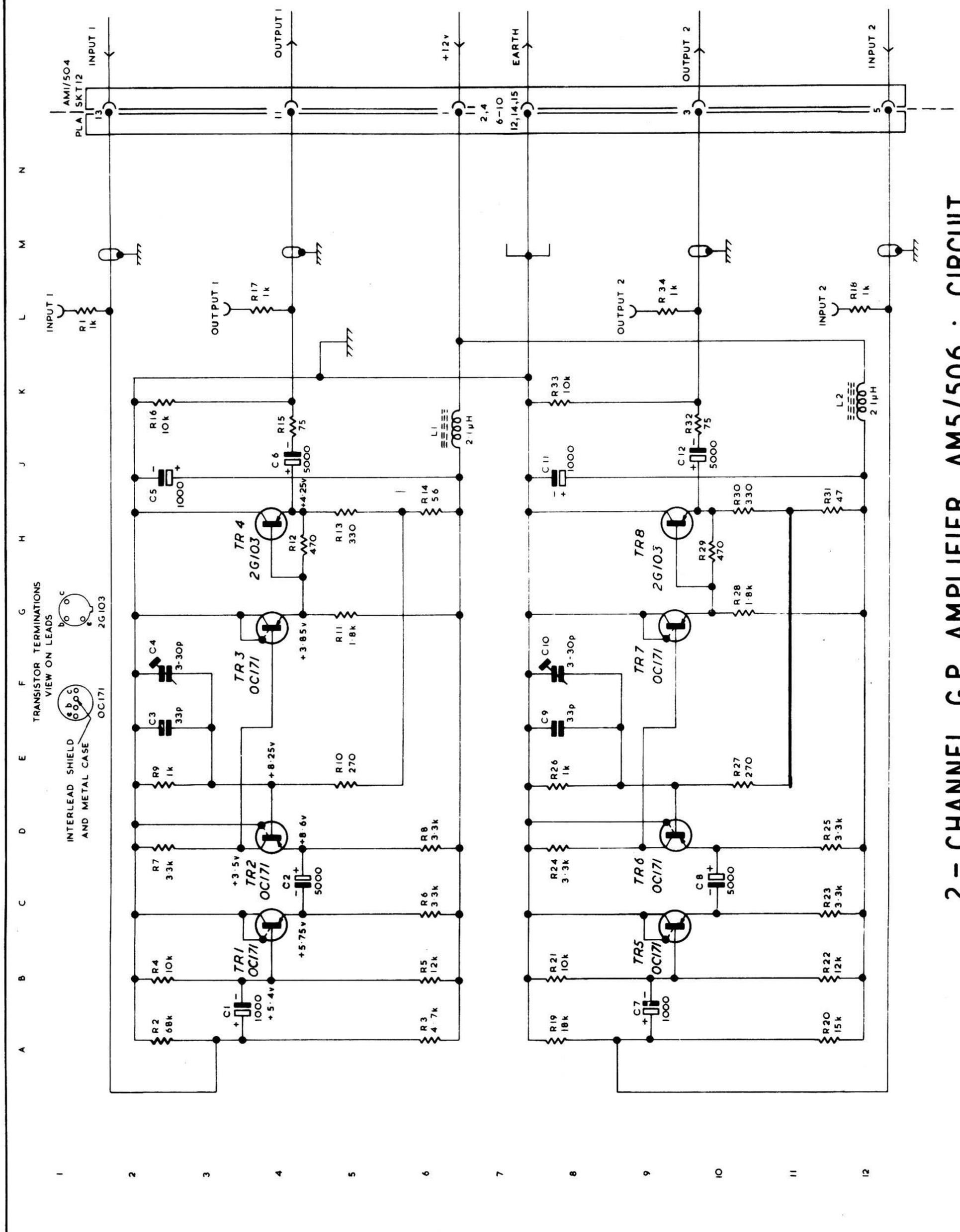


Fig. 2 Circuit of the AM5/506A

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SECTION 1

FIG. 20



2 – CHANNEL G.P. AMPLIFIER AM5/506 : CIRCUIT

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