STABILISED POWER SUPPLIERS PS2/57 AND PS2/57A

Introduction

These units both provide the stabilised-voltage outputs listed in the specification. The PS2/57[1] has an air-extracting fan mounted on the front panel and the PS2/57A[2] has a plain front panel; otherwise the two units are identical.

General Specification

Input	200–250 V, 50 Hz	
Main Outputs	+12 V at 1·2A −14 V at 0·5A	less subsidiary output loads
Subsidiary Outputs	+ 9 V at 250 mA +4 V at 100 mA −4 V at 250 mA	
Ripple Voltage	1 mV approx.	
Impedance of Main Outputs	50 milliohms	
Impedance of Subsidiary Outputs	1 ohm	
Ambient Temperature Range	0–40°C	
Weight (PS2/57)	8 lb.	

Circuit Description

The circuit diagram is given in Fig. 1 on page 3.

The two secondary windings of the mains transformer each feed a bridge rectifier circuit and each bridge rectifier supplies power to two or more voltage stabiliser circuits.

Power supplies at ±12 volts are obtained from a stabiliser circuit comprising transistors TR1, TR3, TR4, and TR5. The network (R2, zener diode D9 and R4) connected between the emitter and collector of TR1 provide continuity, at the moment of switching on, between the earth line and the negative junction of the rectifier bridge.

The stabilised +12 volt output line feeds two further stabiliser circuits comprising transistors TR9, TR10 and TR11, TR12 which provide outputs at +9 volts and +4 volts respectively.

The bridge rectifier circuit comprising diodes D5 to D8 supplies power to a stabiliser circuit comprising transistors TR2, TR6, TR7 and TR8 which has an output of −14 volts. The −14 volt output line feeds also a further stabiliser circuit, comprising transistors TR13 and TR14, which provides a −4 volt output.

References to Typical Associated Equipment

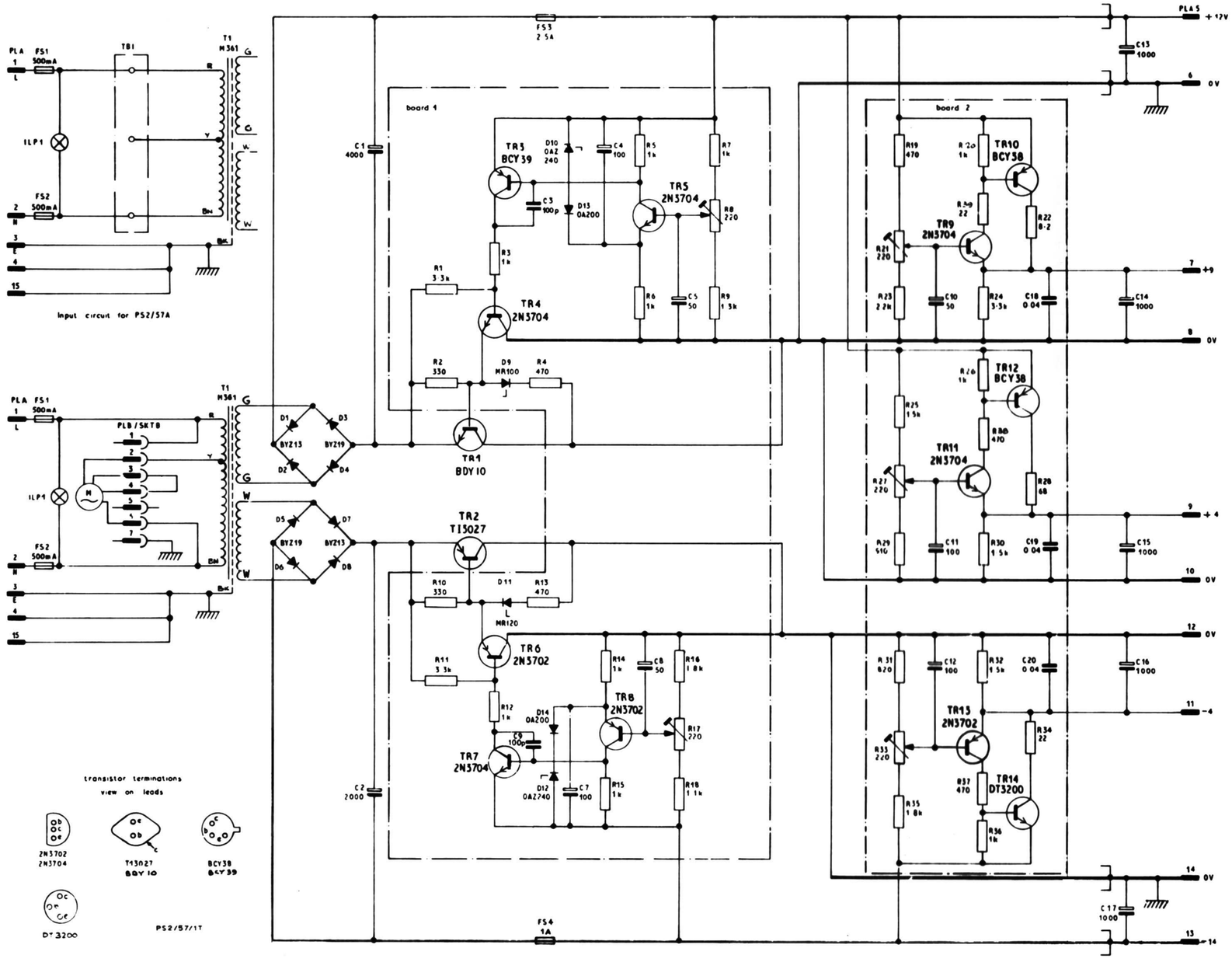
1. Sync Pulse Stabilising Amplifier AM18/503.
2. Sync Pulse Stabilising Amplifier AM18/513.

TES 11/67

from D19715 A2 iss4
parts list D19716 A4

September 1970

PS2/57, A



PS2/57, A

Fig.1 Circuit of the PS2/57, A

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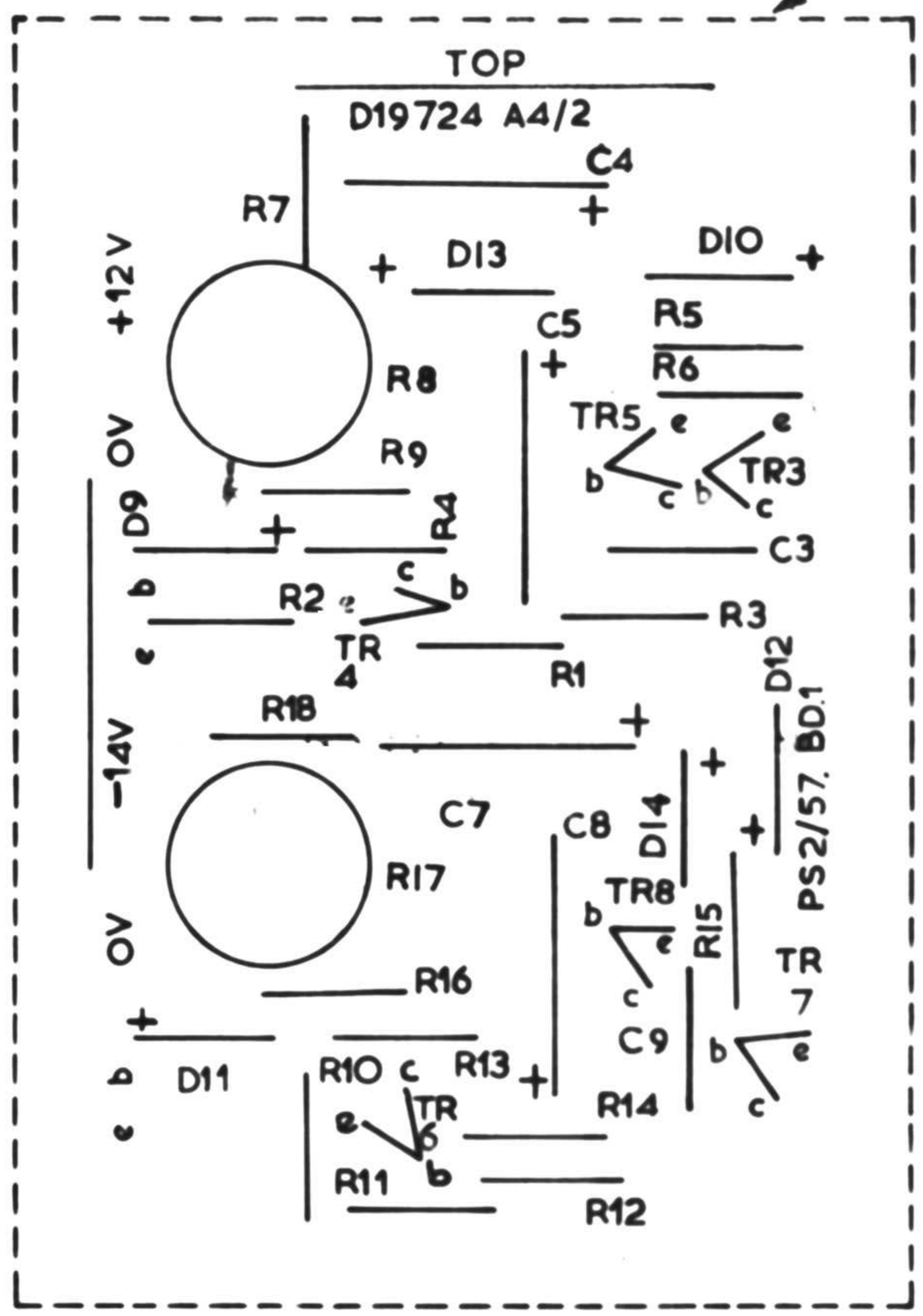
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PS2/57 & PS2/57A PRINTED BC COMP. LOC BOARD 1

D19724 A4

CHANGE	ISS
10-3-67	1
REVISED 9-10-67	2

MINIMUM SIZE TO CUT NEGATIVE



CHARACTERS AND LINES TO BE PRINTED IN WHITE

PRINTED WIRING ON REVERSE SIDE OF BOARD IS D19723 A3

SCALE 1

PS2/57 & PS2/57A PRINTED BOARD COMP. LOC. BOARD 1.

DRN		
TCD	M.C.	
CKD		
APPD		

DESIGNS DEPT

D19724 A4

VM161 A4

BBC

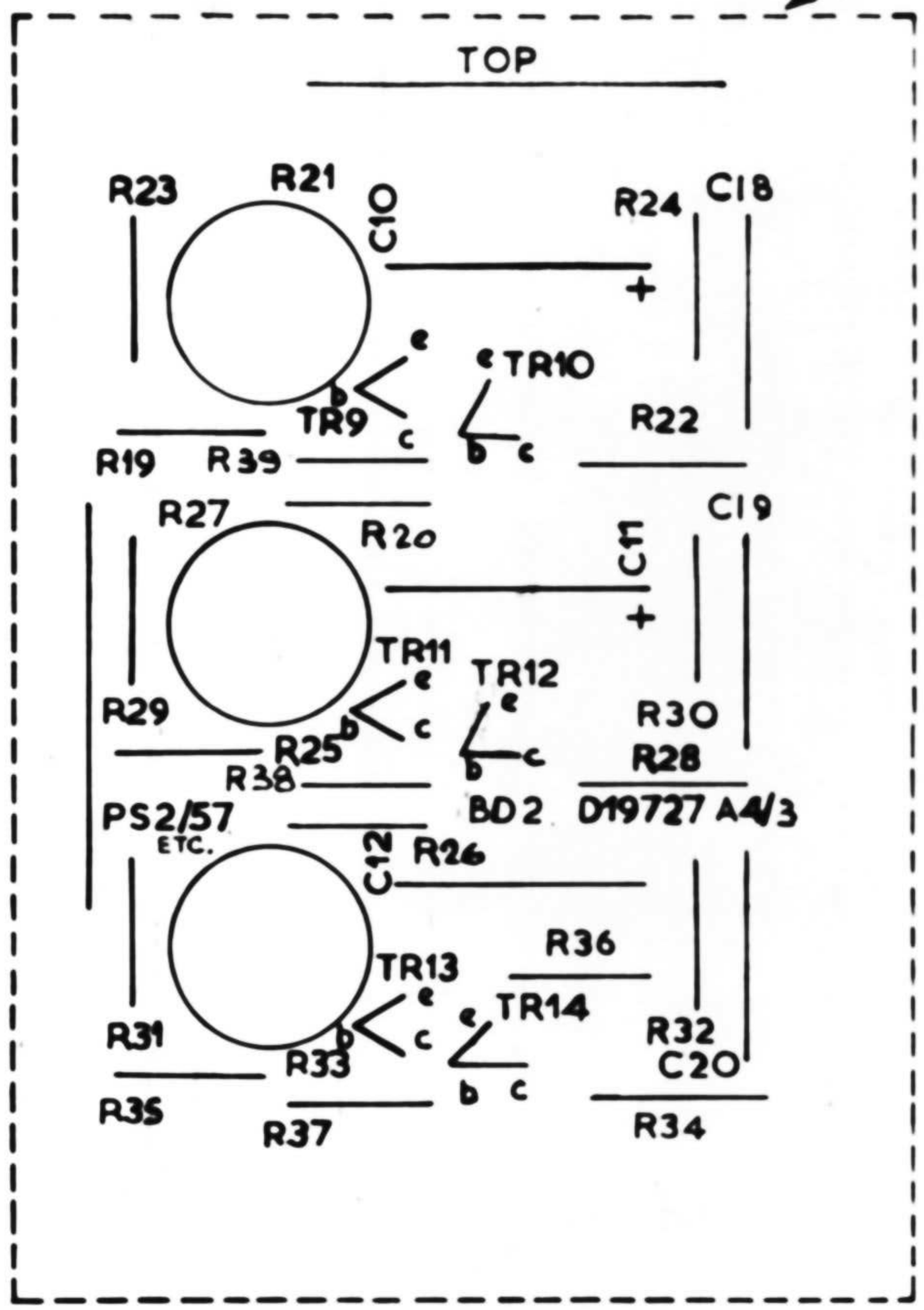
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PS2/57 & PS2/57A, PRINTED BOARD CO > LOC (BOARD 2)

D19727 A4

CHANGE	ISS
10-3-67	1
REVISED 6-10-67	2
R39 WAS R20 R20 " R39 R39 " R26 R26 " R38 Inc. CF 10080 7/11/68	3

MINIMUM SIZE TO CUT NEGATIVE



CHARACTERS AND LINES TO BE PRINTED IN WHITE

PRINTED WIRING ON REVERSE SIDE OF BOARD IS D19726 A3

SCALE 1:1

PS2/57 & PS2/57A, PRINTED BOARD COMPONENT LOCATION (BOARD No.2)

DRN		
TCD	M.C.	
CKD		
APPD	URM	

DESIGNS DEPT

D19727A4