

POWER SUPPLY UNIT 3360I

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BA398

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ET10075/A3

3360I 24/48 V DC CONVERTER

The converter is designed to provide 48 V dc suitable for the phantom powering of condenser microphones utilising the standard 24 V dc input supply. The unit will deliver a maximum of 100 mA at a nominal 48 V and the output voltage is floating. The output current is sufficient to power 40 to 100 condenser microphones depending on manufacturer and type.

The diodes D2, D3 provide protection in the event of a temporary short circuit. A long duration short circuit will cause overheating and eventual component failure.

T1 is a saturating ferrite core transformer energised by pulses at supersonic frequency switched by TR1 and TR2.

L1 and L2 ensure that unwanted ripple does not appear on the 24 V B+ or 48 V dc output.

Specification

Input Power

24 V dc at 90 mA quiescent and 300 mA maximum currents.

Output Power

46 to 54 V dc (depending on load) at 0 - 100 mA, floating.

Line Regulation

±5% output voltage change for 4% input voltage change.

Load Regulation

15% output voltage change from no load to full load.

Ripple and Noise

Better than -85 dBm at maximum rated output, measured 20 Hertz to 20k Hertz.

Operating Temperature Range

-10°C to +50°C.

PHANTOM POWER UNIT - SWITCHING

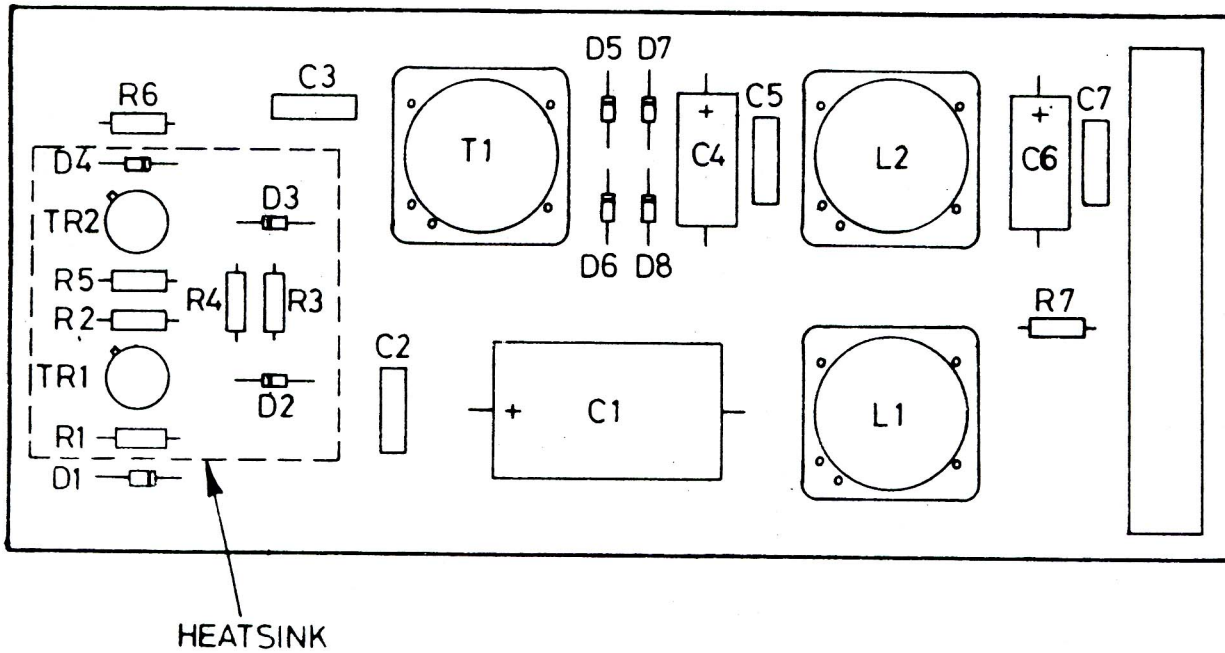
Provision has been made for the use of a Phantom Power Supply Unit feeding all microphone input XLR's (see EC10513, Ref 12J).

Where a Phantom Power Supply Unit has not been provided, it is important that the ON/OFF switch located on the adjacent panel is not closed while the desk is in operation. Closing the switch while the desk is in use causes a degradation in Crosstalk breakthrough between all microphones through the inclusion of the d.c. distribution resistive network.

PARTS LIST BA398

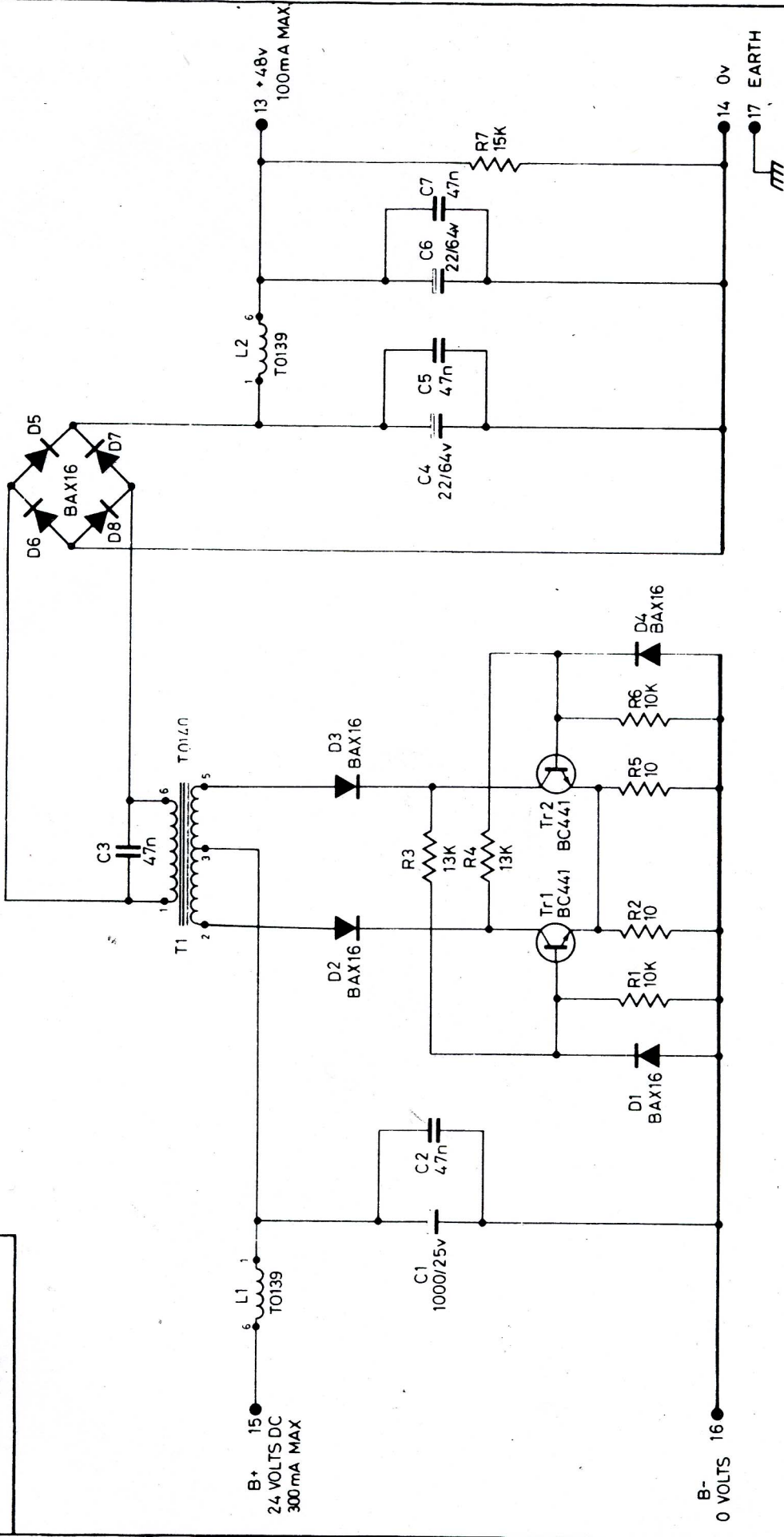
Ref	Description	Part No.
R1,6	Resistor TR4 5% 10K ohms	RA010KO
R2,5	Resistor " " 10 ohms	RA010RO
R3,4	Resistor " " 13K ohms	RA013KO
R7	Resistor " " 15K ohms	RA015KO
C1	Capacitor Electro. 1000 μ F, 25V	CA71004
C2,3,5,7	Capacitor C280AE/P47K 47 pF	CA20470
C4,6	Capacitor Electro. 22 μ F, 63V	CA60221
D1-8	Diode BAX 16	DD10001
TR1,2	Transistor BC441-6	TR16201
L1,L2	Transistor pad, large	SA10200
T1	Inductor T0139	IN10303
	Transformer T0140	TF16000
	Printed Circuit Board BA398	EV10398

COMPONENT LAYOUT



DRAWING N^o ET 10075

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NOTE
 1. B+ AND B- LEADS SHOULD BE RETURNED INDIVIDUALLY TO THE POWER SUPPLY'S DISTRIBUTION POINT AND NOT BE LOOMED WITH ANY LOW SIGNAL LEVEL AUDIO WIRING

1		2		3		4		5		6	
1		ISSUE 1		FIRST USED ON MAT.		TOL UNLESS OTHERWISE STATED		LINEAR ANGULAR HOLES		3RD ANGLE PROJ DIMS IN SCALE	
17.9.74.		DATE		DRN. D J S		FINISH		DRG. N ^o		ET 10075	
1		CHANGE NOTE N ^o		TRACED C K		TITLE 3601 24V/48V d.c. CONVERTER INCORPORATING BA398		DRG. N ^o		ET 10075	
1		CHECKED		CHECKED		Rupert Neve & Company Ltd.		1974.		© A3	