

DESIGNS DEPARTMENT MANUFACTURING INFORMATION NO. 5.214(71)

Bias Control Unit UN3/540

Introduction

The UN3/540 is a constant current and constant voltage supply for use in UHF translators and active deflectors type EP7/513 and EP7/514 respectively.

It requires inputs of -12V and -24V relative to earth and it produces four constant current outputs for loads connected to -20V or earth together with a constant voltage output of -20V for loads connected to -24 volts.

It is intended that the constant voltage output should be connected to the base of a UHF transistor and one of the constant current outputs should be connected to the emitter of the UHF transistor (its collector being connected to earth).

The constant current outputs can be adjusted by means of potentiometers on the front of the CH1/12A, the constant voltage output is fixed.

General Specification

Power Supply	-12V 1.5A
	-24V 1.5A
Constant Current outputs	
Output CC1	200 - 400mA
Output CC2	200 - 400mA
Output CC3	200 - 400mA
Output CC4	500 - 700mA
Constant voltage output	-20V

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PRODUCTION TEST SCHEDULE

Equipment Required

Two 12 volt power supplies (2 amp)
AVO 8
5.6 ohms MV1A resistor
PS2/74B or equivalent

Check that the unit has been manufactured satisfactorily in accordance with the drawings, in particular check that the collectors of the transistors are not shorted to the heat sink.

Connect pin 3 to earth, pin 9 to -12V and pin 8 to -24V. Check that the voltage between pin 12 and pin 8 is 4 volts. Connect an AVO 8 in series with a 5.6 ohms MV1A resistor between pin 12 and each of the constant current outputs in turn (pins 15, 14, 13 and 7), and check that the current passed can be adjusted over the range shown in the specification.

D29876 A4.

sheet 1 of 3 sheets.

UN3/540 UNIT: CONTROL, BIAS - PARTS LIST

ISS.	CHANGE
1	24 - 11 - 71 EMB. LOAN STARS & SPEC. ADDED, ITEM 1 - BY CONTR. ADDED. ITEM 5 " SILK SC. PRINTED TO " ADDED. ITEMS 18, 19, NO. 91F ADDED. W.W.W. C.F. 10993(1) J.E.R. 24.4.72
2	ITEM 16; QTY. WRS 13 ITEM 18; QTY. WRS 22 ITEM 19; QTY. WRS 2 C.F. 11231-UN3/540(6) & 7866-UN3/540(5) P.H. 18.7.73
3	

ITEM No.	No. OFF	SEE NOTE	DESCRIPTION	C/C'T REF.	BBC REF. OR DRG. No.
DRAWING NUMBERS.					
			Circuit	D29875A3	
			Parts List	D29876A4	
			Assembly & Wiring	D29877A2	
			Details 1-3	D29878A2	
			Detail 4	D29879A3	
			P.B. Wiring	D29880A2	
			P.B. Comp. Loc. 1.	D29881A4	
			P.B. Drilling	D29882A4	
			Heat Sink Comp. Loc. 2	D30376A4	
FURTHER INFORMATION REQUIRED FOR MANUFACTURE.					
			Unit Assembly Information	EA10484	
			" Wiring	EA10139	
			" " "	EA10140	
			SPEC: ED/UN3/540		
1	1	*	Chassis CH1/12A modified BY CONTRACTOR TO:- Escutcheon Front Bracket Rear Bracket		SPEC: ED/CH1/12. D29878A2 Det.1 " " 2 " " 3
2					
3					
4					
5	1		Heat Sink - SILK SCREEN PRINTED TO:-		D29879A3 Det.4 D30376A4.
7	1	*	Printed Board		D29880A2, D29881A4 D29882A4
8	1	*	Plug 15 Way Fixed	PL.A	1-25086-315
9					
10	5		6B.A. Solder Tag S/E		
11	1	*	Nut non-drift Black		1-55362-101
12	1	*	" " White		" 102
13	1	*	" " Red		" 104
14	1	*	" " Blue		" 105
15					
16	21	*	Vero Half pin TP 11034		
17					
18	24	*	Ceramic Spacers		1-58261-030
19	4	*	" "		" 020

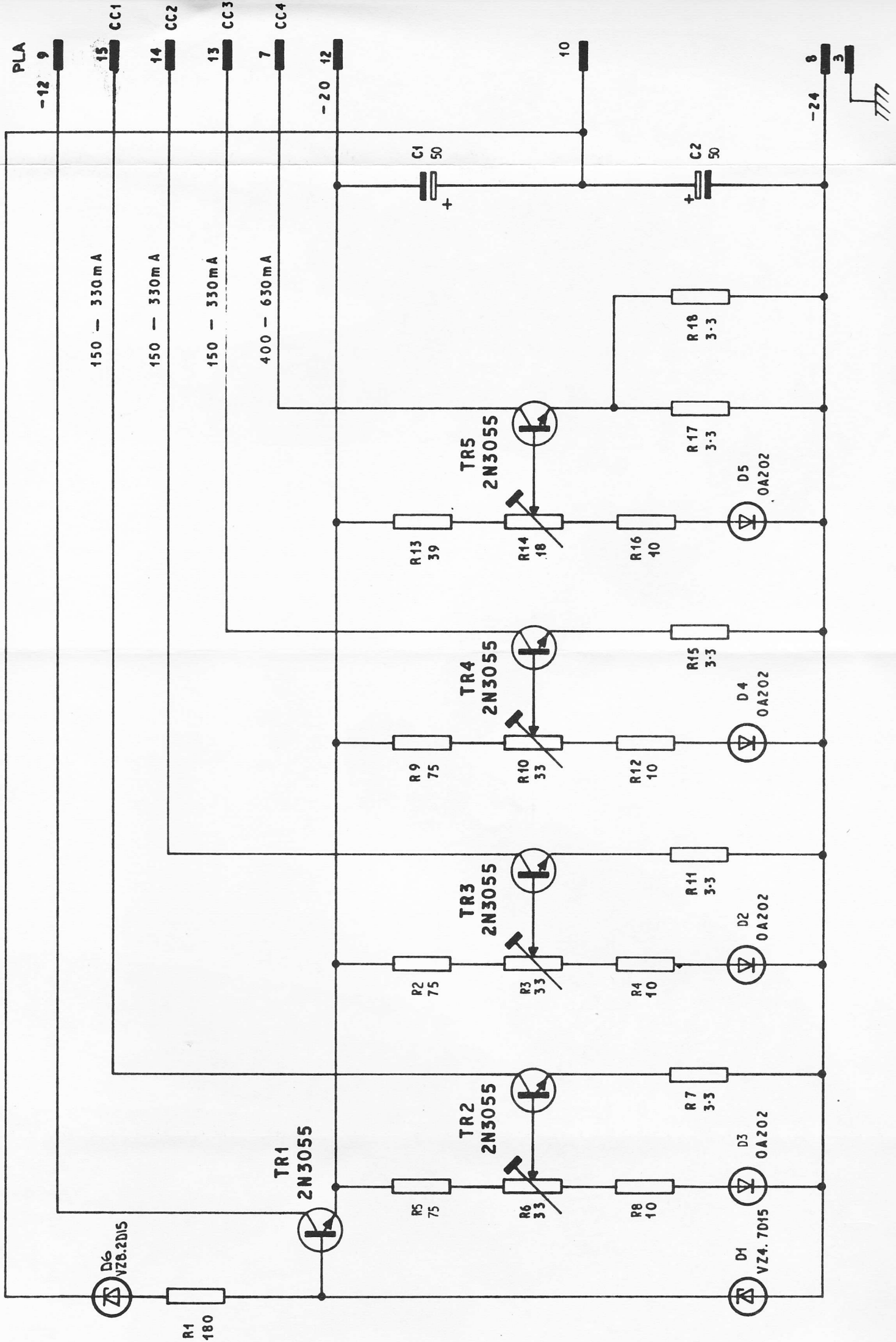
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BBC
DS/PLA4

UN3/540
UNIT: CONTROL, BIAS
PARTS LIST

DRN. T. C. H.
TPD.
CKD.
APPD.

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transistor termination