

NEVE 1073 CHANNEL AMPLIFIER DOCUMENTATION

Operating and Technical Service and Repair Documentation for OBSOLETE NEVE EQUIPMENT manufactured prior to 1980. This documentation is posted here as a service to those who have this equipment and are trying to maintain, service or repair it.

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THIS DOCUMENT CONTAINS...

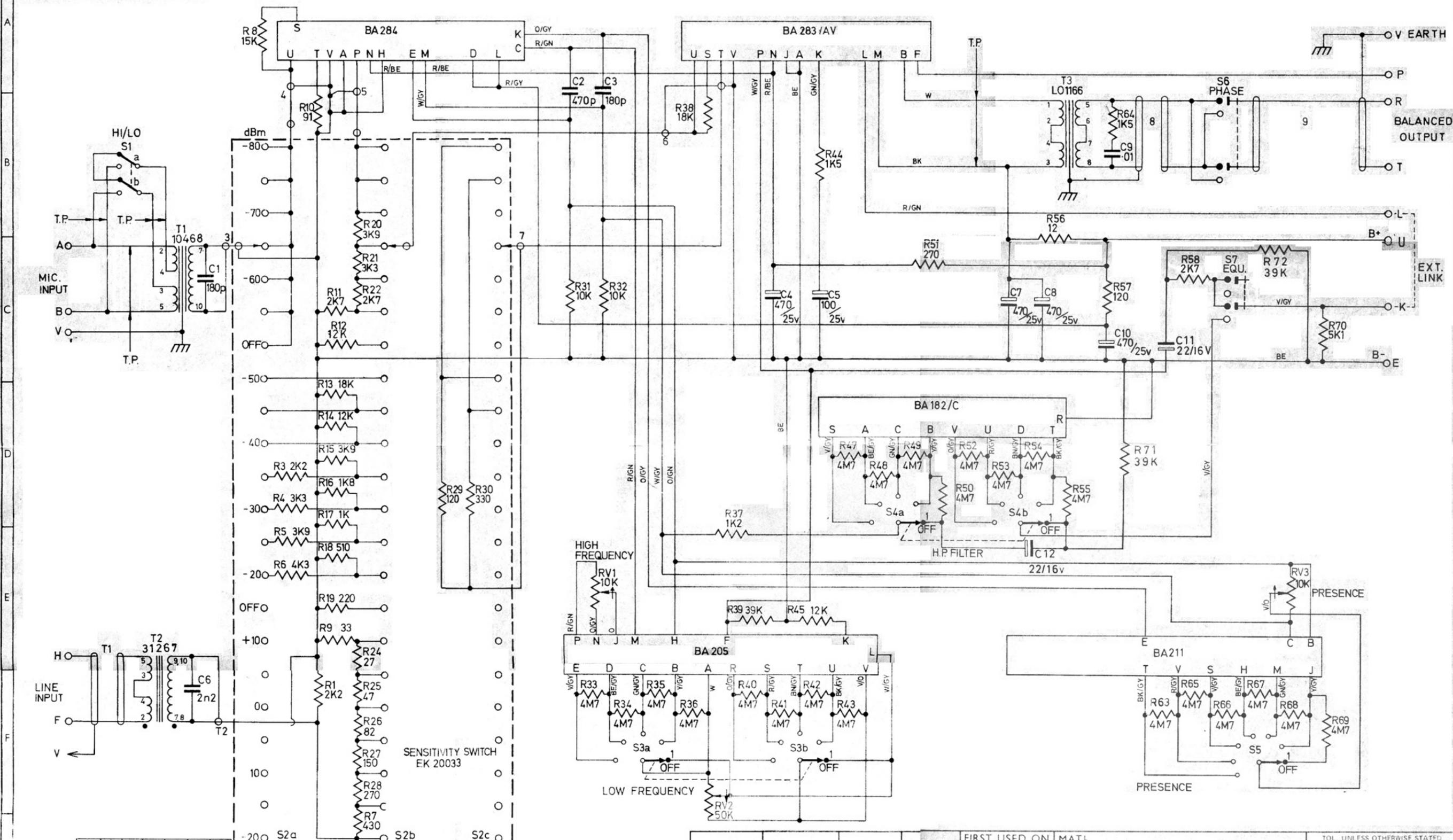
- THIS COVER PAGE (letter size)
- MODULE SCHEMATIC EH10023 - 1 page (tabloid)
- SENSITIVITY SWITCH EK20033 - 1 page (tabloid)
- BA283 AMPLIFIER BOARD all vers - 5 pages (1 letter 4 tabloid) 1073 used BA283AV version
- BA284 AMPLIFIER BOARD - 3 pages (1 letter 2 tabloid)
- B182 HIGH PASS FILTER BOARD version C & D D10019C&D - 1073 used "C" vers (1 tabloid page)
- B205 HI AND LOW FREQUENCY EQ BOARD D10042 (1 tabloid page)
- B211 PRESENCE BAND EQ BOARD D10048 (1 tabloid page)

WHAT I KNOW IS MISSING FROM THIS DOCUMENT

- MODULE DESCRIPTION
- MODULE COMPONENTS LOCATION AND PARTS LIST
- LOW FREQUENCY SWITCH EK20065
- HIGH PASS FILTER SWITCH EK20066
- PRESENCE SWITCH EK20105

HAVE FUN KEEP THIS OLD JUNK WORKING FOR THE SAKE OF HUMANITY

VERSION 0.1a



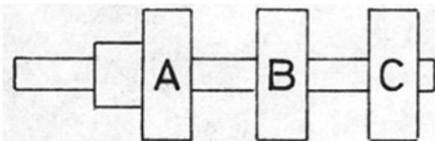
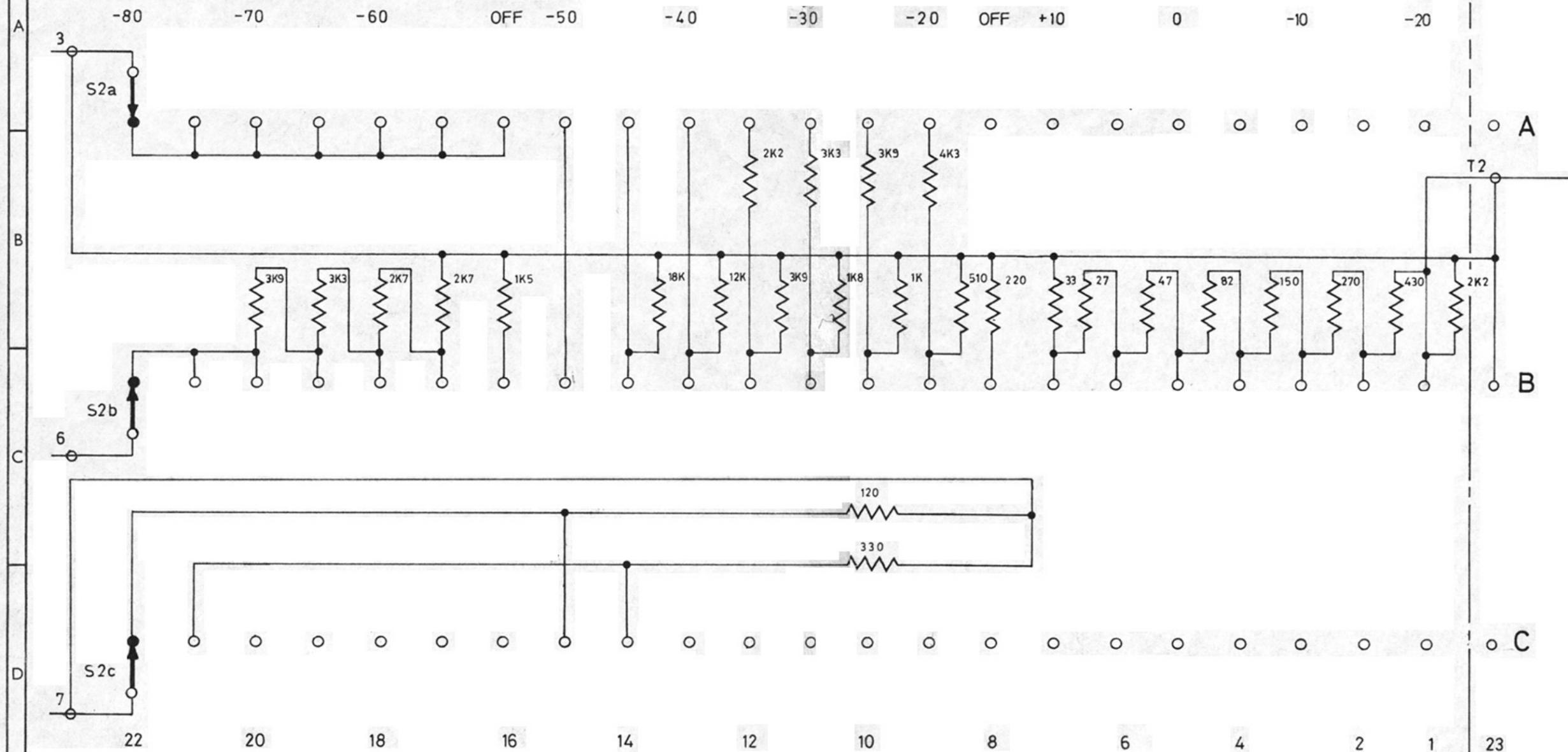
S3	RV2	OFF	35	60	110	220	SEE EK 20065
S4	H.P.F.	OFF	50	80	160	300	SEE EK 20066
S5	RV3	OFF	36	7	16	32 48 72	SEE EK 20105

NOTE: ELECTROLUBE PCB CONNECTORS BEFORE INSERTING BOARDS.

3	2	1	ISSUE	FIRST USED ON	MAT'L	TOL. UNLESS OTHERWISE STATED		
17.5.74.	30.11.73	6/8/73	DATE	DRN. AHL	FINISH	LINEAR	ANGULAR HOLES	
10907	10816		CHANGE NOTE NO	TRACED D.G.J.	TITLE	3RD ANGLE PRJ	DIMS IN	SCALE
			CHECKED	AHL	1073 CHANNEL AMP	DRG. NO	EH 10023	
			CHECKED		Rupert Neve & Company Ltd.	1973	©	A2

DRAWING No
EK 20033

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NB! SWITCH STOPPED DOWN TO 22 WAY

2	1	ISSUE	FIRST USED ON	MAT'L	TOL. UNLESS OTHERWISE STATED		
19-3-74.	19-10-73	DATE	DRN. A.H.L	FINISH	LINEAR +	ANGULAR	HOLES +0.13 -0
10878		CHANGE NOTE No	TRACED GT	TITLE SENSITIVITY SWITCH FOR THE 1073 CHANNEL AMPLIFIER	3RD ANGLE PRJ.	DIMS IN	SCALE
		CHECKED	A.H.L.		DRG. No EK20033		
		CHECKED	Rupert Neve & Company Ltd.			1973	© A3

3 27-6-74 10907

NEVE BA283 AMPLIFIER BOARD INFO SHEET

THIS DOCUMENT IS INTENDED AS AN AID TO SERVICE TECHNICIANS TO MAINTAIN SERVICE AND REPAIR A PRODUCT THAT HAS BEEN OUT OF REGULAR PRODUCTION FOR MORE THAN 15 YEARS.

THE BA283 AMPLIFIER PCB CAME IN A NUMBER OF VERSIONS
DECODE INFO FOR THE VARIOUS VERSIONS

B = Board or PCB assembly

A = Amplifier

283 = the three digit part number designation for the assembly

VERSIONS: note that most version suffixes here have two letters and these happen to indicate the edge card pin numbers of the portion of the circuit board that is "stuffed" and there is a third "A" letter designation added to those versions where the TO-3 output transistor is removed off actual card assembly.

BA283AV = fully populated with both a pre or "gain" amplifier and an output amplifier

BA283AVA = BA283AV with removed TO-3 output transistor TR3

BA283AM = 1/2 populated with only an output amplifier and NO pre or "gain" amplifier

BA283AMA = BA283AM with removed TO-3 output transistor TR3

BA283NV = 1/2 populated with only a pre or "gain" amplifier and NO output amplifier

BA283S = don't see these often but appears nearly identical to BA283AM

The most common version would be BA283AM

all BA283 boards have pads and traces such that they can be fully stuffed and converted to BA283AV

PRINTED CIRCUIT BOARD ASSEMBLY BA283AV AND BA283AVA

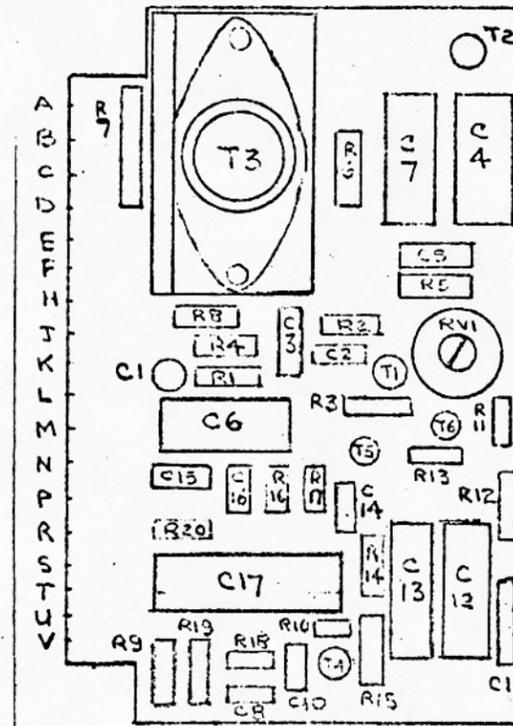
Circuit Diagram EX10283

This printed circuit board assembly BA283AV consists of two stages, each of which is described separately.

1. This is a pre amplifier stage (TR4, 5, 6) wired between pins N and V on the connector and is known as the BA283NV.
2. This is an output stage (TR1, 2, 3) wired between pins A and M on the connector and is known as the BA283AM.

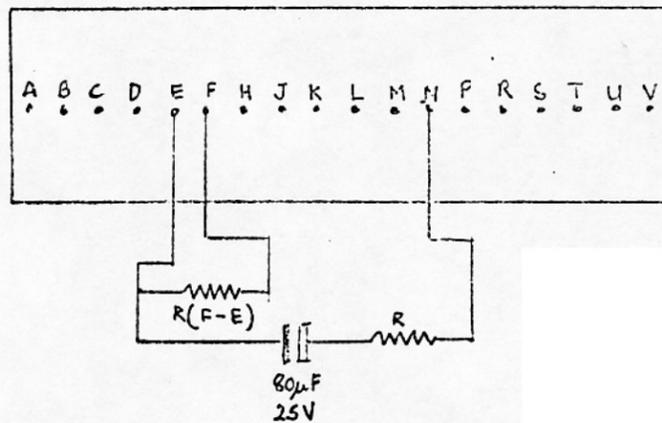
When TR3 on the output stage is operated at high currents provision is made for it to be mounted on an external heat sink. This is indicated by the addition of the suffix A to the board assembly e.g. BA283AMA and AVA.

PRINTED CIRCUIT BOARD BA283AV

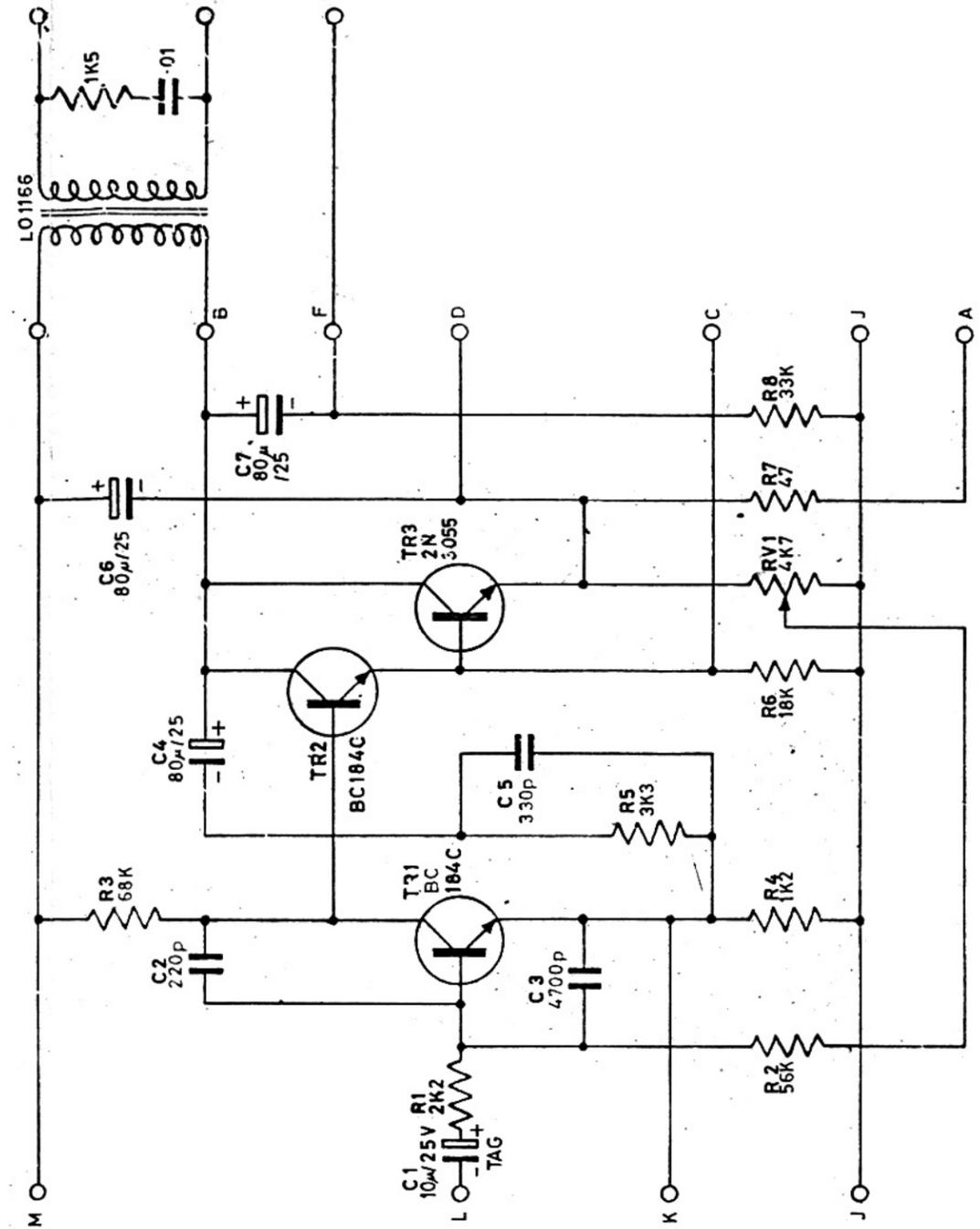
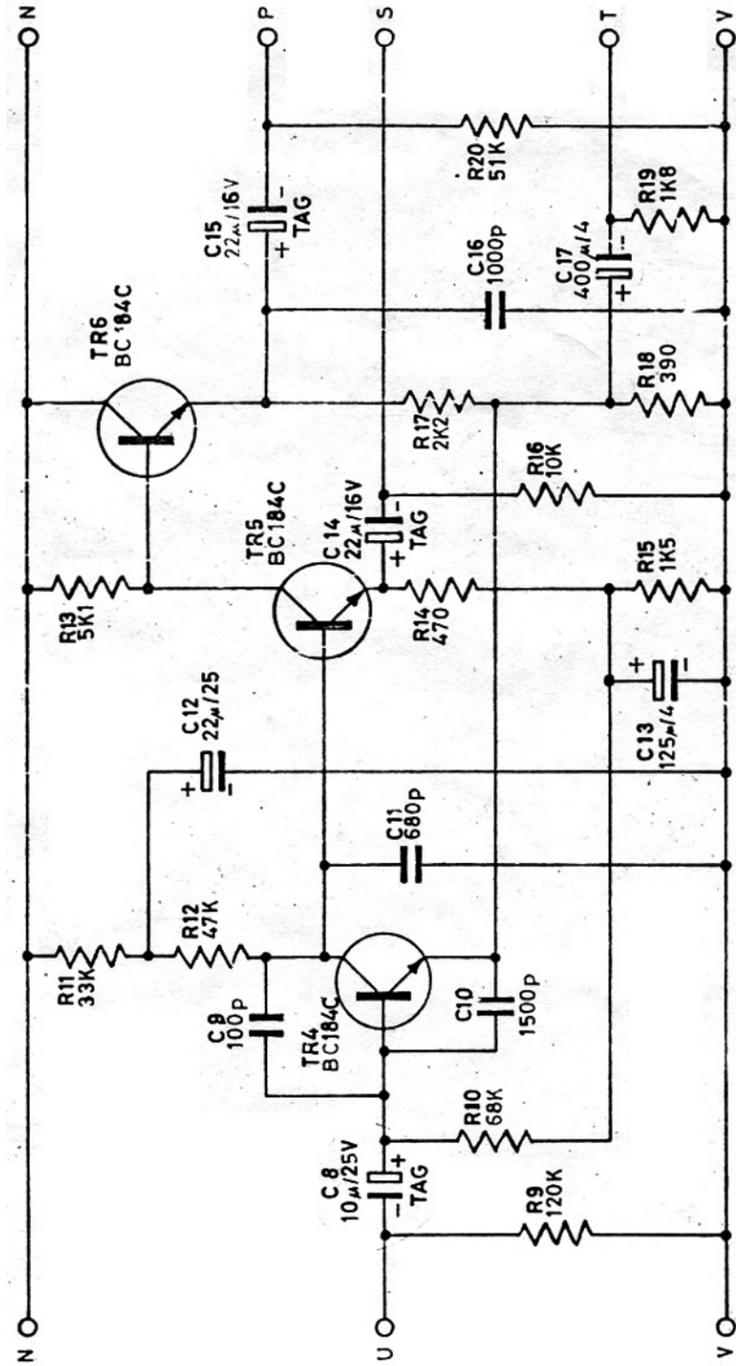


PARTS LIST BA283AV

GAIN BOOST CONNECTIONS.



Ref	Description	Part No.
C10	1500pF	CO191
C11	680pF	CO045
C12	80µF, 64V	CO029
C13	125µF, 4V	CO024
C14	22µF, 16V	CO199
C15	22µF, 16V	CO199
C16	1000pF	CO193
C17	400µF, 4V	CO025
T1,2	BC184C	TO043
T3	BDY61	TO037
T4	BC184C	TO043
T5	BC184C	TO043
T6	BC184C	TO043
	BA283	



D 23-11-72
10547



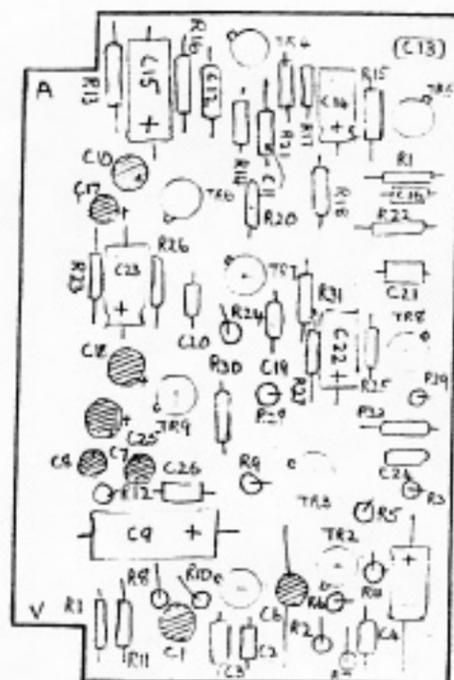
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TITLE BA283 AM & AV

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C	15/11/72	10565	DATE	15/11/71	CN 10361
B	7/6/72	10518	DRAWING	EX/10 283	
A	8-3-72	10473	NUMBER		

PRINTED CIRCUIT BOARD B284

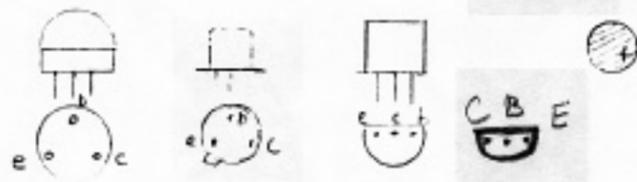


PARTS LIST BA284

Ref	Description	Part No.
R1	120K TR4, ±2%	PA120K0
R2	68K " "	RA068K0
R3	33K " "	RA033K0
R4	47K " "	RA047K0
R5	5K1 " "	RA005K1
R6	470 " "	RA470R0
R7	1K5 " "	RA001K5
R8	10K " "	RA010K0
R9	2K2 " "	RA002K2
R10	390 " "	RA390R0
R11	1K8 " "	RA001K8
R12	51K " "	RA051K0
R13,23	100K " "	RA100K0
R14,24	39K " "	RA039K0
R15,25	27K " "	RA027K0
R16,26	3K3 " "	RA003K3
R17,27	120K " "	RA120K0
R18,28	180K " "	RA180K0
R19,29	180K " "	RA180K0
R20,30	3K6 " "	RA003K6
R21,31	820 ohms TR4, ±2%	RA820R0
R22,32	3K9 " "	RA003K9
C1,10,18	10 µF, 25V	CA60100
C2	100 pF Suflex 10%	CA11000
C3	1500 pF " "	CA20012
C4,13,21	680 pF Suflex 10%	CA16800
C5	22 µF, 25V	CA60220
C6	100 µF, 4V	CA61000
C7,8	25 µF, 16V	CA60223
C9	400 µF, 4V	CA63300
C10,	10 µF, 25V, TAG	CA60100
C11,19	47 pF	CA10470
C12,20	470 pF	CA14700
C13,21	680 pF	CA16800
C14,22	22 µF, 25V	CA60020
C15,23	100 µF, 4V	CA61000
C16,24	1000 pF	CA20010
C17,25	22 µF, 16V	CA60100
C26	1000 pF	CA20010
TR1-9	BC184C	TR16401
	P.C.B (assembled)	BA284

Note: Replacement of components on this board should be undertaken only by experienced engineers using the special de-soldering equipment (solder sipper) designed for the removal of components without damage.

BC114 BC109 BC184L 184C



Tantalum Bead Capacitor

Components mounted vertically

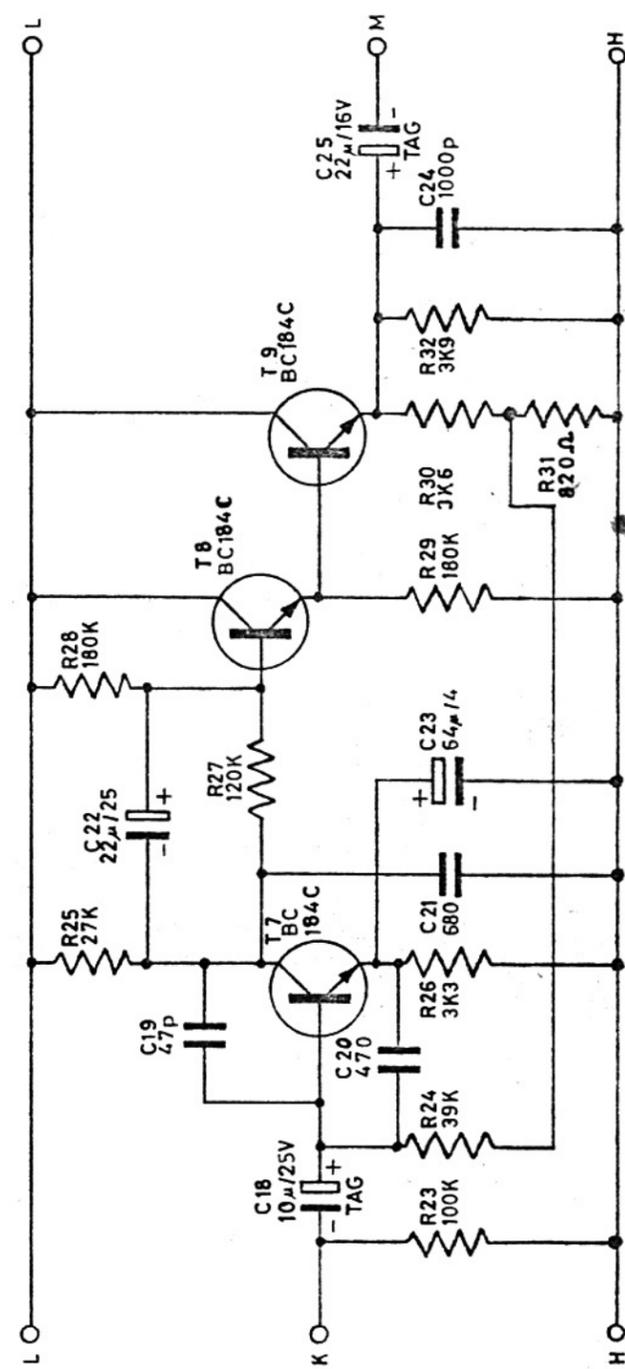
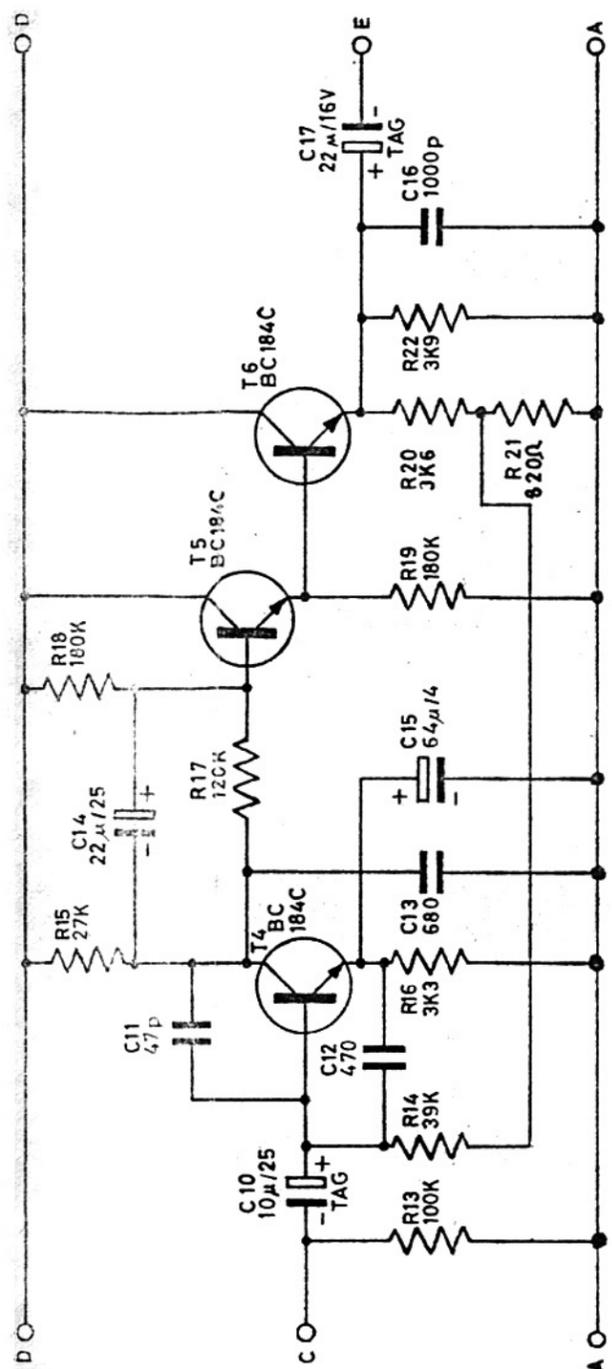
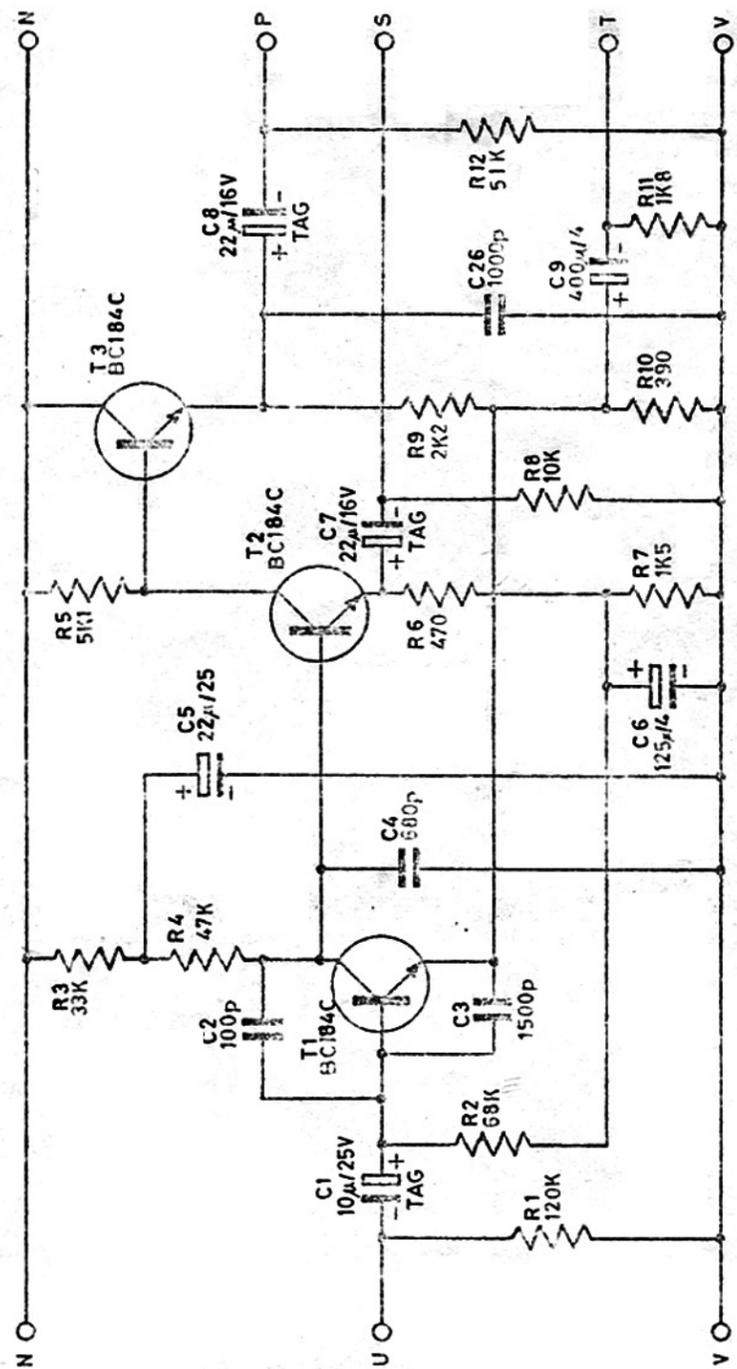
Transistors viewed from underside.

This p.c.b. consists of an input amplifier similar to that on the BA283 board together with two similar operational amplifiers.

The gain of the input amplifier may be changed by the connection of a resistor between contacts T and V which decouples R10 more effectively, thereby, increasing the gain of the amplifier. Gain is increased in 5 dB steps according to the following table:

Gain dB	18	23	28	33	38	43	48
R	-	330	120	56	27	15	8.2

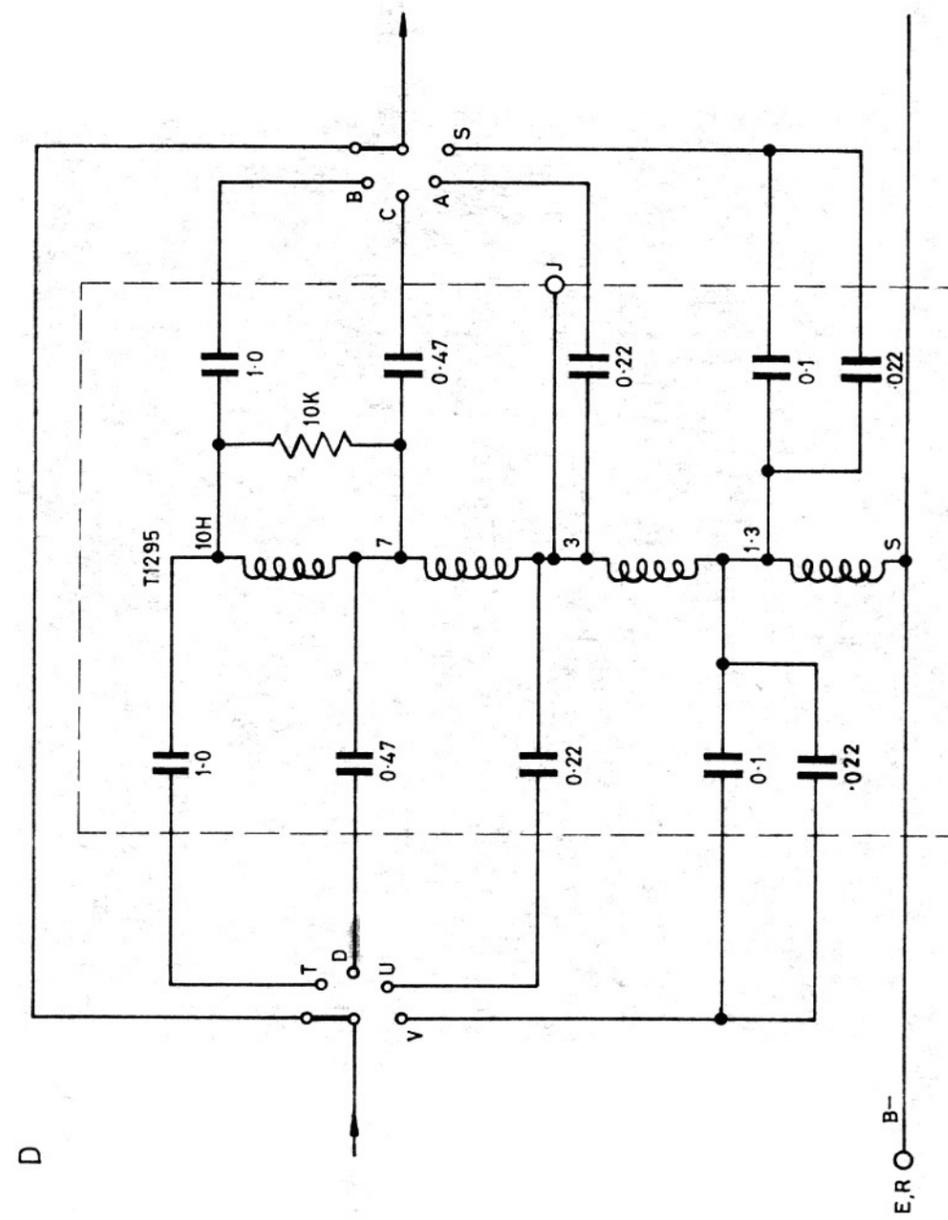
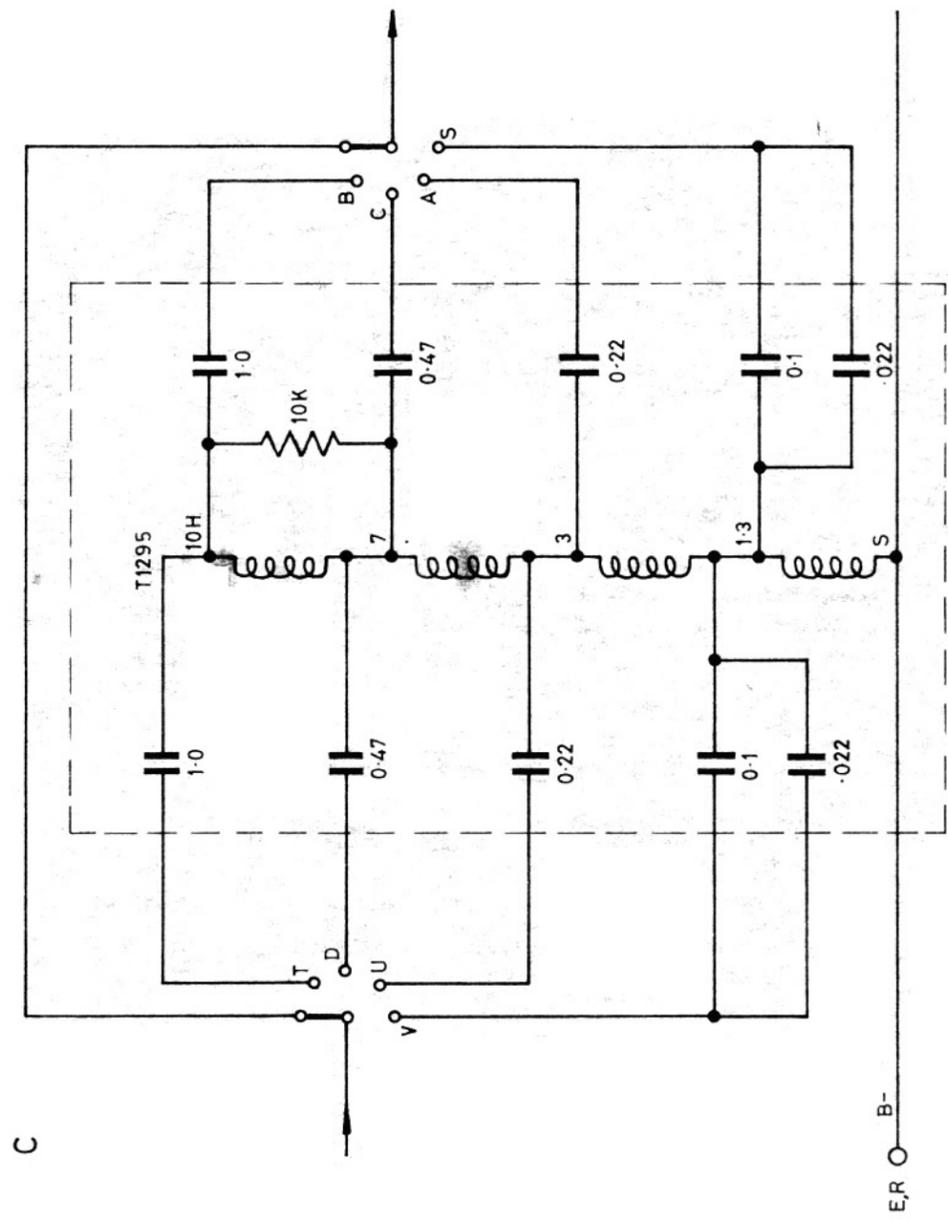
Feedback connections all made externally by connecting resistors between



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 TITLE BA284

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C	15/11/72	10565	DATE	15/11/71	CN 10,362
B	8-3-72	10473	DRAWING		
A	8-12-71	10,402	NUMBER	EX/10,284	

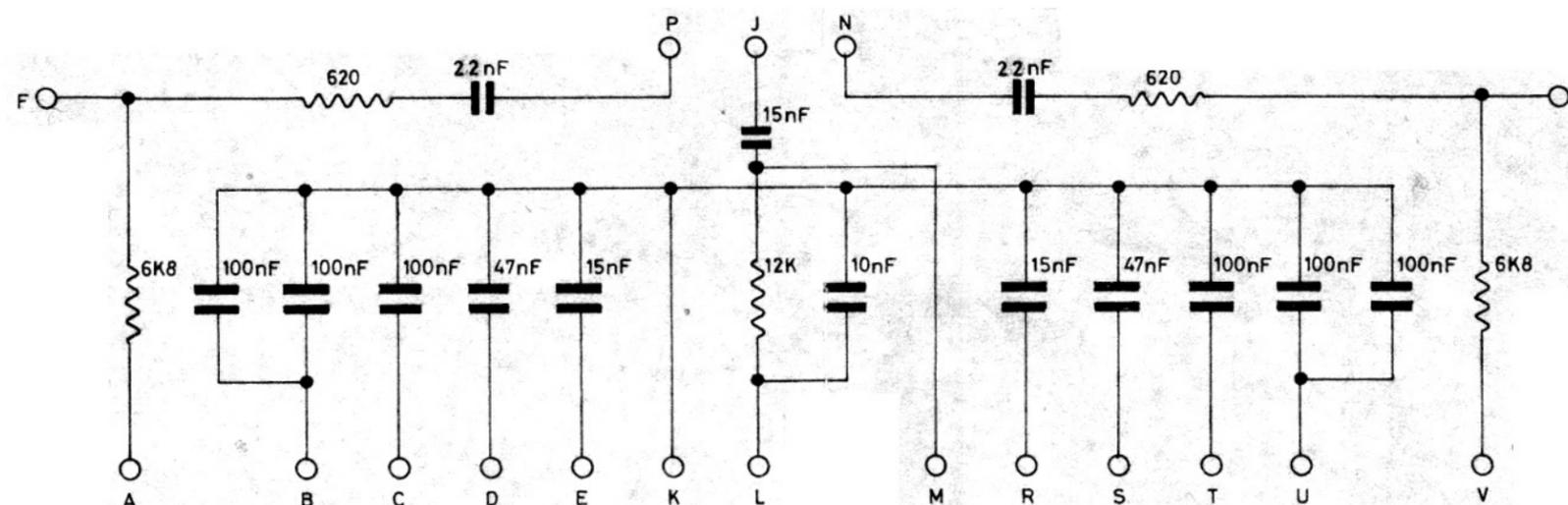


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 TITLE B182 c&d

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A	19/7/71	10,299,08
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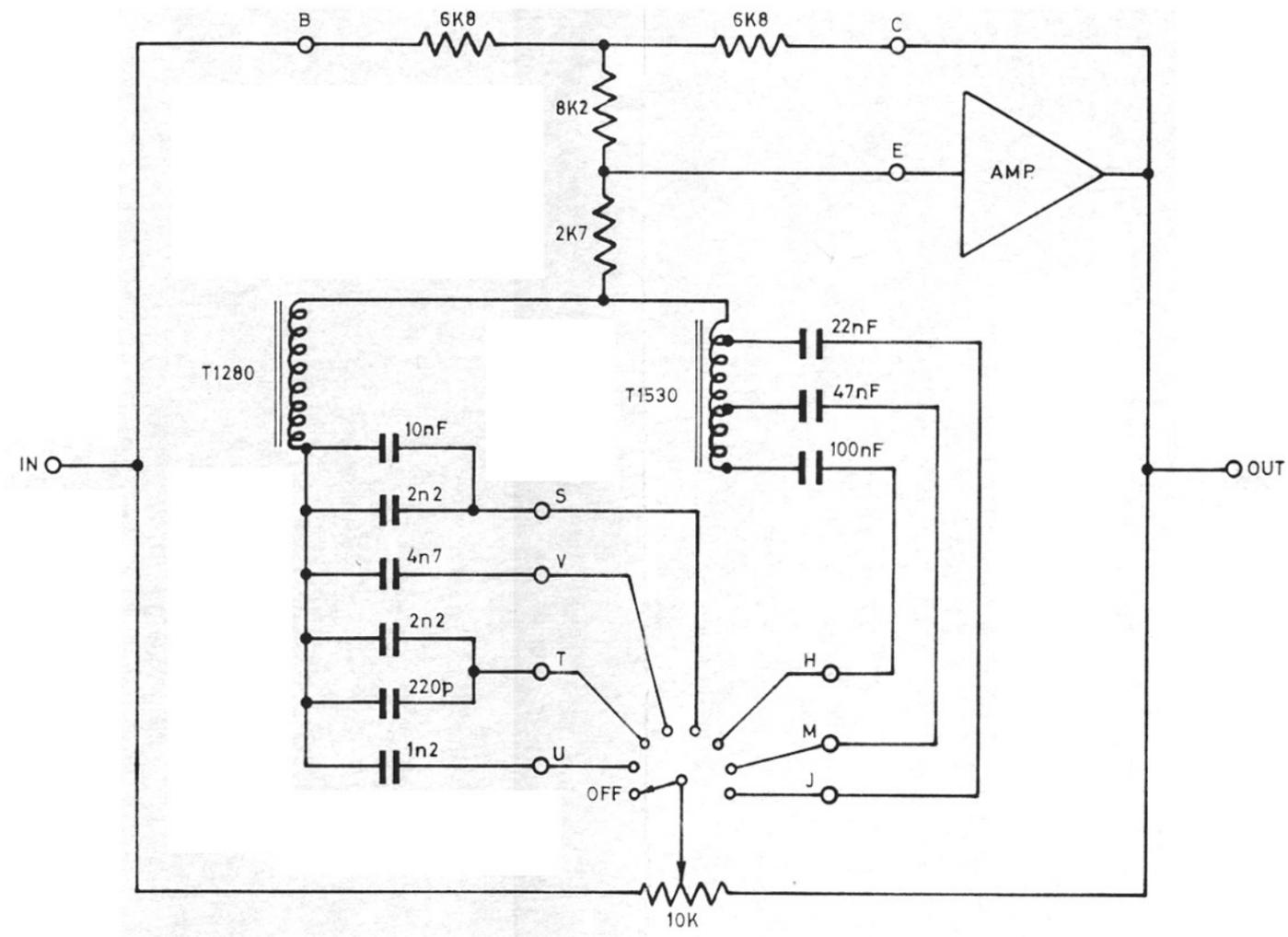
DATE 21/10/70
 DRAWING NUMBER D/10,019 c&d



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 TITLE B 205 CIRCUIT DIAGRAM

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		DATE 24 FEB 71
A	12/2/71	10,241
		DRAWING NUMBER D/10,042



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B211

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DATE 21/12/70



DRAWING NUMBER D/10,048