

TRACE ELLIOT

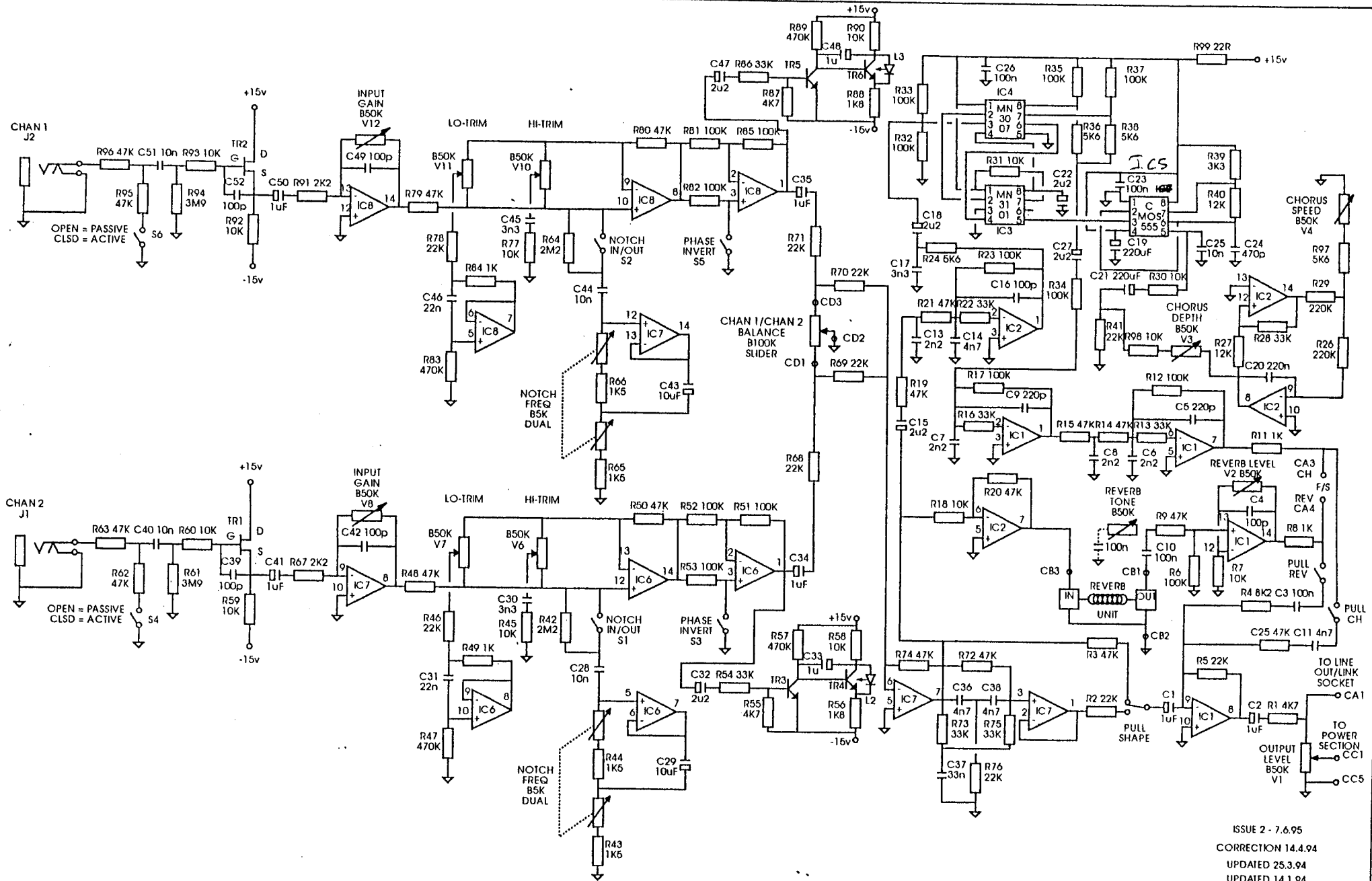
SERVICE MANUAL NO. SM00033

ISSUE 1

Date: February 14, 1997
Product Code : T2141
Model No : TA80 CR
Technical File No : TE00033

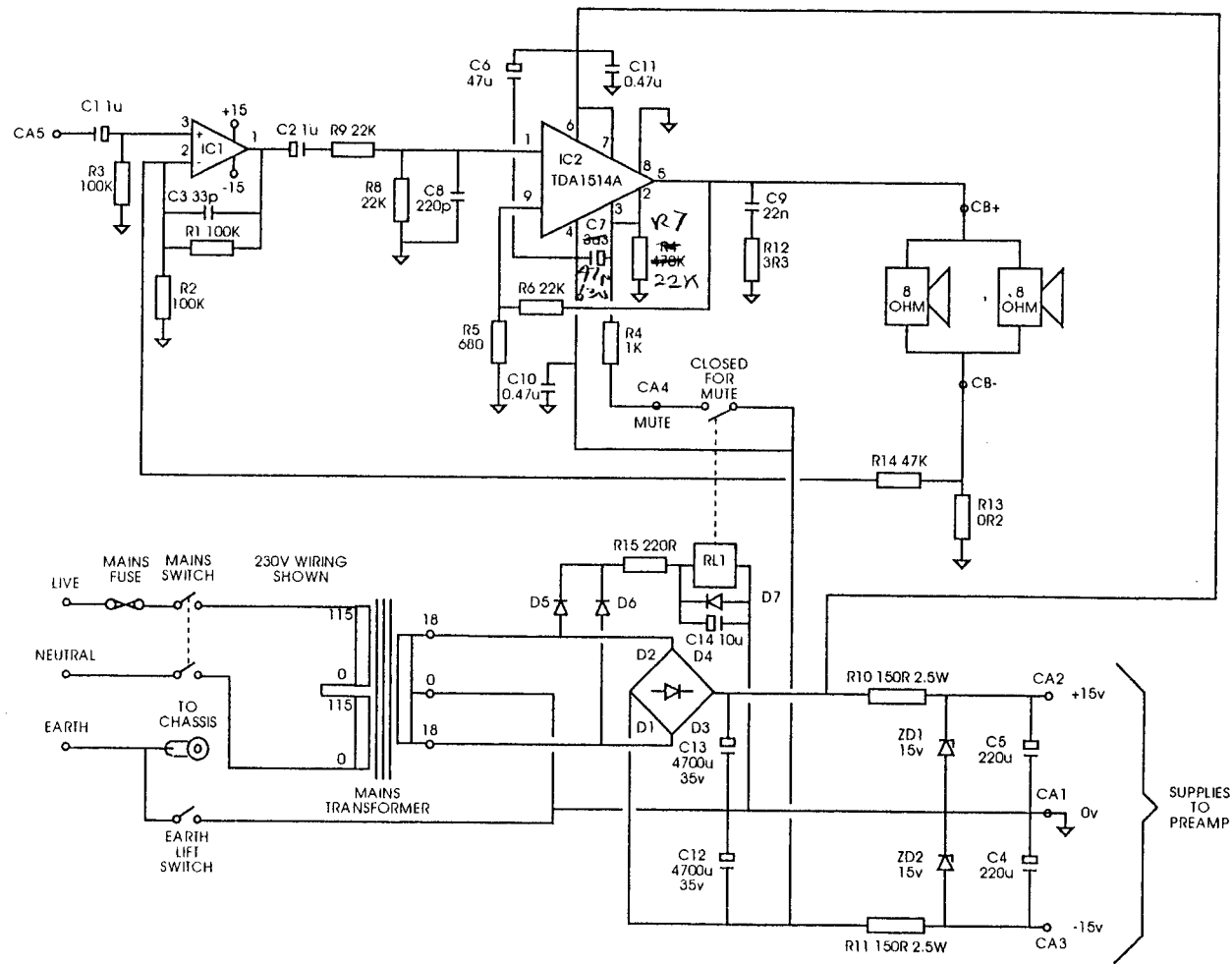
Issued by:

**Trace Elliot Limited.
Blackwater Trading Estate
The Causeway, Maldon
Essex CM9 4GG.**



ISSUE 2 - 7.6.95
 CORRECTION 14.4.94
 UPDATED 25.3.94
 UPDATED 14.1.94

TRACE ELLIOT Ltd GALLIFORD ROAD MALDON, ESSEX, CM9 7XD, ENGLAND	TITLE:- TA35 PREAMP CIRCUIT DIAGRAM	
	DRAWN C. BUTTON	DATE 15.12.93



PARTS LIST FOR TA35CR PRE-AMP

Description	Part Code	Qty	Where Used
RESISTORS			
ZERO OHM LINK	72-RCZERO	32	
100K ¼ WATT	72-RM100K	16	R6 R12 R17 R20 R23 R32-35 R37 R51-53 R81 R82 R85
10K ¼ WATT	72-RM10K	13	R7 R18 R30 R31 R45 R58-60 R77 R90 R92 R93 R98
12K ¼ WATT	72-RM12K	2	R27 R40
1K ¼ WATT	72-RM1K	5	R1 R8 R11 R49 R84
1K5 ¼ WATT	72-RM1K5	4	R43 R44 R65 R66
1K8 ¼ WATT	72-RM1K8	2	R56 R88
220K ¼ WATT	72-RM220K	2	R26 R29
22K ¼ WATT	72-RM22K	10	R2 R5 R41 R46 R68-71 R76 R78
22R ¼ WATT	72-RM22R	1	R99
2K2 ¼ WATT	72-RM2K2	2	R67 R91
2M2 ¼ WATT	72-RM2M2	2	R42 R64
33K ¼ WATT	72-RM33K	8	R13 R16 R22 R28 R54 R73 R75 R86
3K3 ¼ WATT	72-RM3K3	1	R39
3M9 ¼ WATT	72-RM3M9	2	R61 R94
470K ¼ WATT	72-RM470K	4	R47 R57 R83 R89
47K ¼ WATT	72-RM47K	17	R3 R9 R14 R15 R19 R21 R25 R48 R50 R62 R63 R72 R74 R79 R80 R95 R96
4K7 ¼ WATT	72-RM4K7	3	R10 R55 R87
5K6 ¼ WATT	72-RM5K6	4	R24 R36 R38 R97
8K2 ¼ WATT	72-RM8K2	1	R4
CAPACITORS			
1µF 35V TANT	72-C1-35VT	8	C1 C2 C33 C34 C35 C41 C48 C50
10µF 63V RADIAL	72-C10-63VER	2	C29 C43
100nF 100V POLY BOX	72-C100N-100VP	4	C3 C10 C23 C26
100pF 100V CER/DISC	72-C100P-100VCD2	6	C4 C16 C39 C42 C49 C52
10nF 100V POLY BOX	72-C10N-100VP	5	C25 C28 C40 C44 C51
2.2µF 35V TANT	72-C2.2-35VT	6	C15 C18 C22 C27 C32 C47
220µF 35V RADIAL	72-C220-35VER	2	C19 C21

220nF 100V POLY	72-C220N-100VP	1	C20
220pF 100V CER/DISC	72-C220P-100VCD2	2	C5 C9
22nF 100V POLY	72-C22N-100VP	2	C31 C46
2.2nF 100V POLY	72-C2N2-100VP	4	C6 C7 C8 C13
33nF 100V POLY	72-C33N-100VP	1	C37
3.3nF 100V POLY	72-C3N3-100VP	3	C17 C30 C45
470pF 100V POLYCARB	72-C470P-100VPC	1	C24
4.7nF 100V POLY	72-C4N7-100VP	4	C11 C14 C36 C38
SEMI-CONDUCTORS			
J112 FET	72-FET-J-112	2	TR1-2
555 TIMER IC	72-IC-M7555IPA	1	IC5
MN3007 PANASONIC	72-IC-MN3007	1	IC4
MN3101 CHORUS IC	72-IC-MN3101	1	IC3
TL074 OP-AMP	72-IC-TL074	5	IC1 IC2 IC6 IC7 IC8
5MM LED	72-LED-RED	2	L2 L3
2X5X7MM LED	72-LED-RED-TEG	1	L1
BC549C	72-TBC549C	4	TR3-6
OTHERS			
3 WAY HEADER	72-HEAD-3W-2	1	CD
4 WAY HEADER	72-HEAD-4W	1	CA
5 WAY HEADER	72-HEAD-5W-2	1	CC
STEREO JACK SKT	72-SKT-JCKBBBG	1	BACK PCB
MONO JACK SKT	72-SKT-JCKBNBG	3	J1-2 & BACK PCB
50K POT	73-POT-50KB	7	V4 V6-8 V10-12
50K POT WITH SWITCH	73-POT-50KB-PS	3	V1-3
5K DUAL GANG POT	73-POT-B5K-DG	2	V5 V9
PUSH SWITCH	73-SWT-F2UEE	4	SW3-6
TOGGLE SWITCH	73-SWT-M-TGL-PCB	2	S1 S2
3 WAY TERMINAL	73-TERM-PCB-3WAY	1	CB
4 WAY FLY LEAD	C00-FLY-TA-4WAY	1	CA

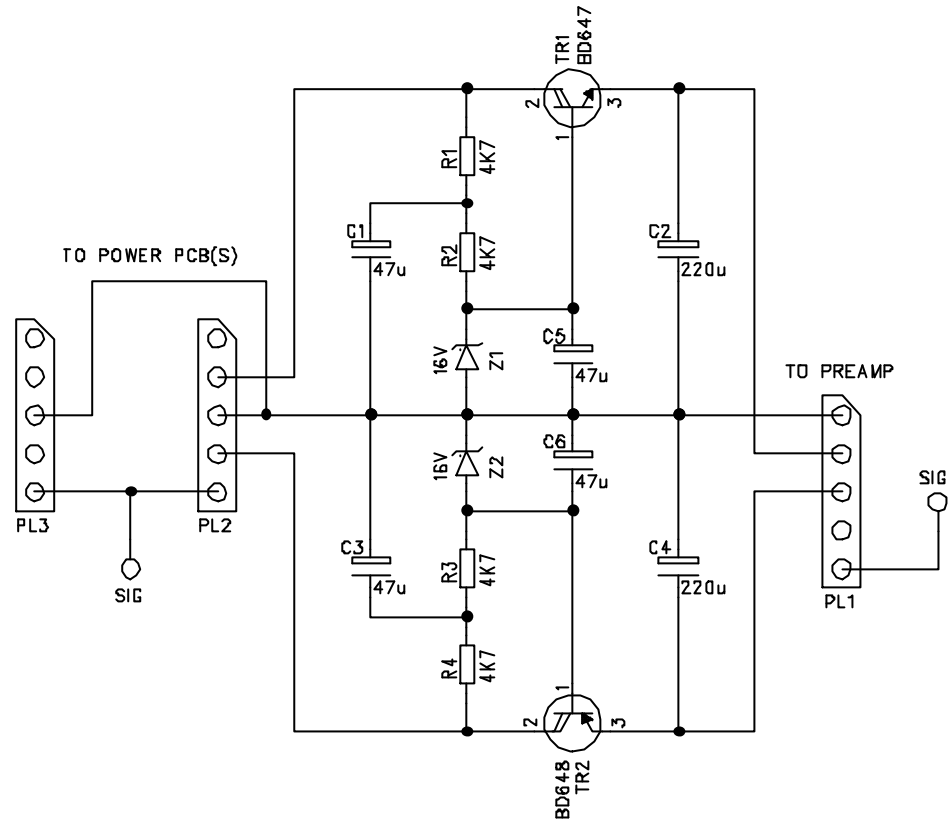
Rik Daniels
March 14, 1997

PARTS LIST FOR TA35 POWER MODULE

Description	Part Code	Qty	Where Used
RESISTORS			
ZERO OHM LINK	72-RCZERO	9	
100K ¼ WATT	72-RM100K	3	R1 R2 R3
100R ¼ WATT	72-RM100R	1	R15
1K ¼ WATT	72-RM1K	1	R4
22K ¼ WATT	72-RM22K	4	R6-9
47K ¼ WATT	72-RM47K	1	R14
680R ¼ WATT	72-RM680R	1	R5
0.2R 2.5 WATT	72-RWW0R2-2.5W	1	R13
150R 2.5 WATT	72-RWW150R-2.5W	2	R10 R11
3.3R 2.5 WATT	72-RWW3R3-2.5W	1	R12
CAPACITORS			
1µF 35V TANT	72-C1-35VT	2	C1 C2
10µF 63V RADIAL	72-C10-63VER	1	C14
220µF 35V TANT	72-C220-35VER	2	C4 C5
220pF 100V CER/DISC	72-C220P-100VCD2	1	C8
22nF 100V POLY	72-C22N-100VP	1	C9
33pF 100V CER/DISC	72-C33P-100VCD	1	C3
47µF 63V RADIAL	72-C47-63VER	2	C6 C7
470nF 100V POLY	72-C470N-100VP	2	C10 C11
4700µF 35V RADIAL	72-CAP-470035V	2	C12 C13
SEMI-CONDUCTORS			
15V ZENER DIODE	72-D-BZX85C15	2	ZD1 ZD2
IN4148 DIODE	72-D-IN4148	3	D5-7
IN5402 DIODE	72-D-IN5402	4	D1-4
TDA1514A POWER CHIP	72-IC-TDA1514A	1	IC2
TL072 OP-AMP	72-IC-TL072	1	IC1
OTHERS			
½" SPACER	71-SPA-1/2"	2	IC1
3 WAY HEADER	72-HEAD-3W-2	1	CC
12V RELAY	73-RELAY-47W	1	RL1
2 PIN TERMINAL	73-TERM-PIN-2	1	CB
5 WAY FLY LEAD	C00-FLY-TAOP-5W	1	CA1

Rik Daniels
March 18, 1997

ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE
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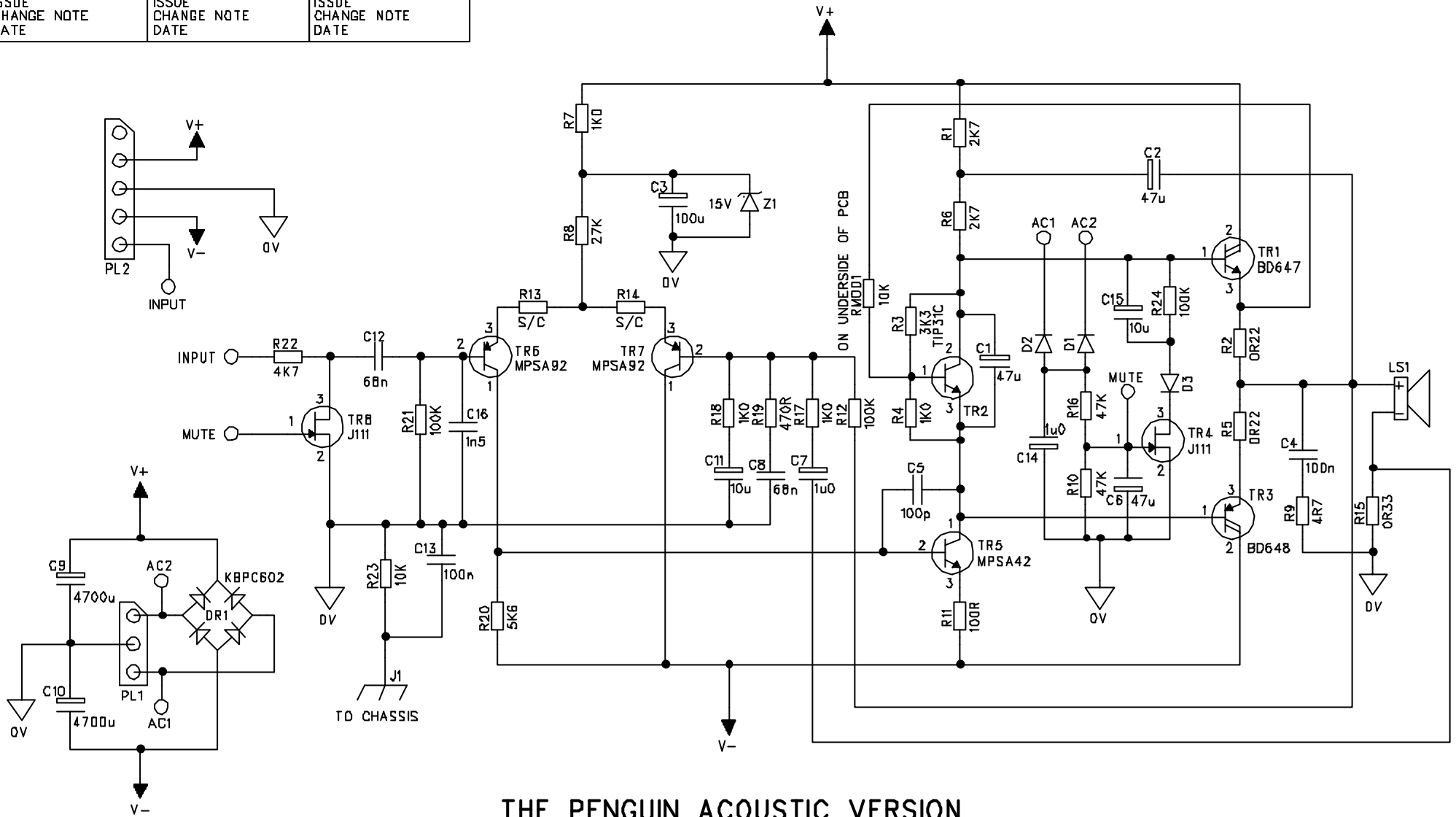


TITLE
PROJECT
DRAWING No
ISSUE
DATE
DRAWN BY

PREAMP POWER SUPPLY
TA35/60/70CR USING PENGUIN
CD00042
2
8/3/1996
J B RECKLESS

TRACE ELLIOT
TRACE ELLIOT LIMITED
MALDON ESSEX CM9 7GG
ENGLAND
TEL (01621) 855266
FAX (01621) 851975

ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE
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TITLE
PROJECT
DRAWING No
ISSUE
DATE
DRAWN BY

NEW POWER OUTPUT STAGE
TRACE ACOUSTIC
CD00044
3
25/9/1996
J B RECKLESS

TRACE ELLIOT
TRACE ELLIOT LIMITED
MALDON ESSEX CM9 7GG
ENGLAND
TEL (01621) 855266
FAX (01621) 851975

C21-MOD-PEN-ACOUx2.
TRACE ACOUSTIC PENGUIN OUTPUT STAGE
USING PC00031 ISSUE 3

(22/5/1998) UP-ISSUED 30/6/98. R7 to 1WATT

<u>Description</u>	<u>Part Code</u>	<u>Qty</u>	<u>Where Used</u>
PCB 'The Penguin'	73-PCB-PC00031 X3	1	
diode 1N4148	72-D-1N4148	3	D1 D2 D3
Zener diode 15V	72-D-BZY88C15	1	Z1
Res 1/4w 0R	72-RCZERO	2	R13 R14
Res 1/4w 0R	72-RCZERO	9	LINKS
Res 1/4w 100R	72-RM100R	1	R11
Res 1/4w 470R	72-RM470R	1	R19
Res 1/4w 5K6	72-RM5K6	1	R20
Res 1/4w 1K0	72-RM1K	3	R4 R17 R18
Res 1/4w 3K3	72-RM3K3	1	R3
Res 1/4w 2K7	72-RM2K7	2	R1 R6
Res 1/4w 27K	72-RM27K	1	R8
Res 1/4w 4K7	72-RM4K7	1	R22
Res 1/4w 10K	72-RM10K	1	R23
Res 1/4w 47K	72-RM47K	2	R10 R16
Res 1/4w 100K	72-RM100K	3	R12 R21 R24
Res 1WATT 1K	72-RM1K-1WATT	1	R7
Res 1WATT 4R7	72-RM4R7-1WATT	1	R9
Cap ceramic 100p 0.2"	72-C100P-100VCD	1	C5
Cap box poly 1n5 0.2"	72-C1N5-100VP	1	C16
Cap box poly 68n 0.2"	72-C68N-100VP	2	C8 C12
Cap box poly 100n 0.2"	72-C100N-100VP	2	C4 C13
Cap radial elec 1u0 63V	72-C1-63VER	2	C7 C14
Cap radial elec 10u 16V	72-C10-16VER	2	C11 C15
Cap radial elec 47u 16V	72-C47-16VER	3	C1 C2 C6
Cap radial elec 100u 16V	72-C100-16VER	1	C3
Transistor JFET J111	72-FET-J-111	2	TR4 TR8
Transistor MPSA42	72-TMPSA42	1	TR5
Transistor MPSA92	72-TMPSA92	2	TR6 TR7
Header 3 way 0.1"	72-HEAD-3W-2	1	PL1
Header 5 way 0.1"	72-HEAD-5W-2	1	PL2
Res 2.5w 0R22	72-RWW0R2-2.5W	2	R2 R5
Res 2.5w 0R33	72-RWW0R33-2.5W	1	R15
Loudspeaker cable	72-WIR-LSP-4	0.5m	solder into LS1 and crimp
Bridge rectifier KBPC602	73-BRIDGE-2	1	DR1
Cap snap in 4700u 35V	73-CAP-470035V	2	C9 C10
Transistor BD647	72-TBD647	1	TR1 (on heatsink)
Transistor BD648	72-TBD648	1	TR3 (on heatsink)
Transistor TIP31C	72-TIP31C-ST	1	TR2 (on heatsink)
PCB mounting bracket	73-TERM-SCREW-M3	2	solder into PCB
Heatsink for The Penguin	E12-HS-PENGUIN	1	fixed to TR1 -- TR3 with:
M3 X 12mm pozi pan head	71-SCR-M3X12PP	5	
M3 shakeproof washers	71-WAS-M3INTSP	5	
M3 hex nuts	71-NUT-M3ZINC	3	
Insulating kits	73-MOS-PAD-TO3P2	3	

