

TRACE ELLIOT

SERVICE MANUAL NO. SM00031

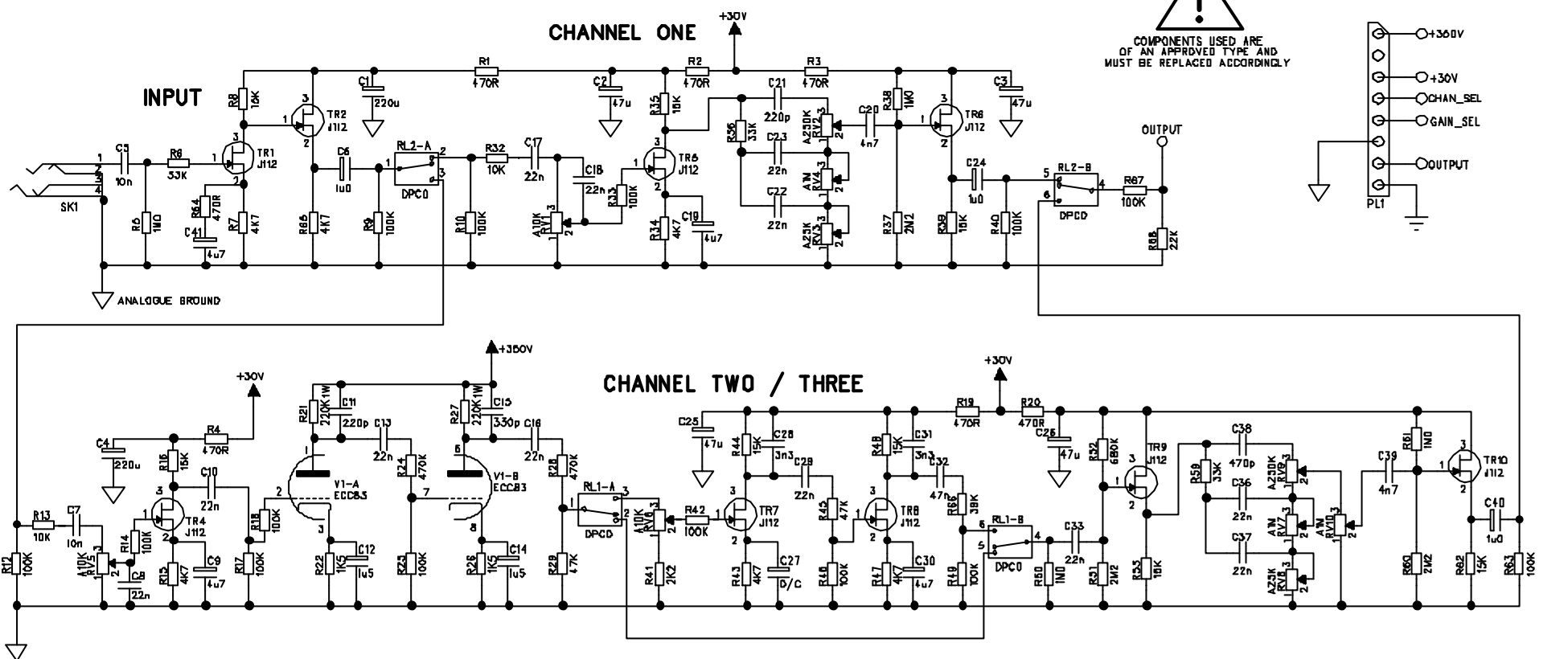
ISSUE 1

Date: February 12, 1997
Product Code : T3416
Model No : Super Tramp Tube Twin
Stereo Quad Chorus
Technical File No : TE00031

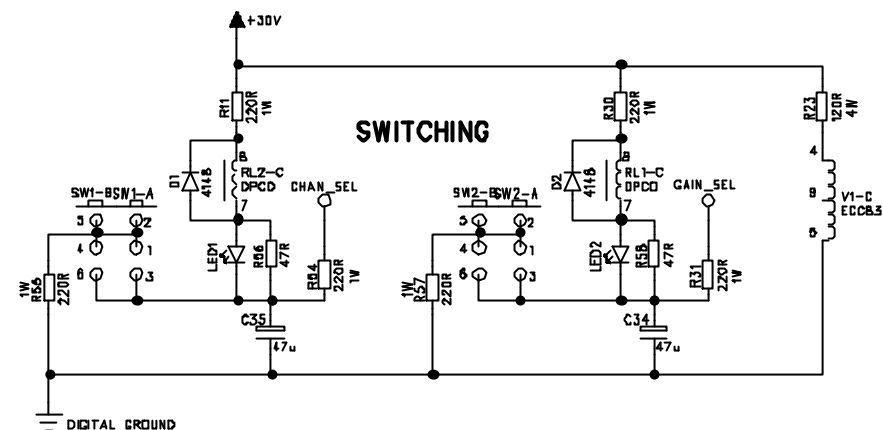
Issued by:

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

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

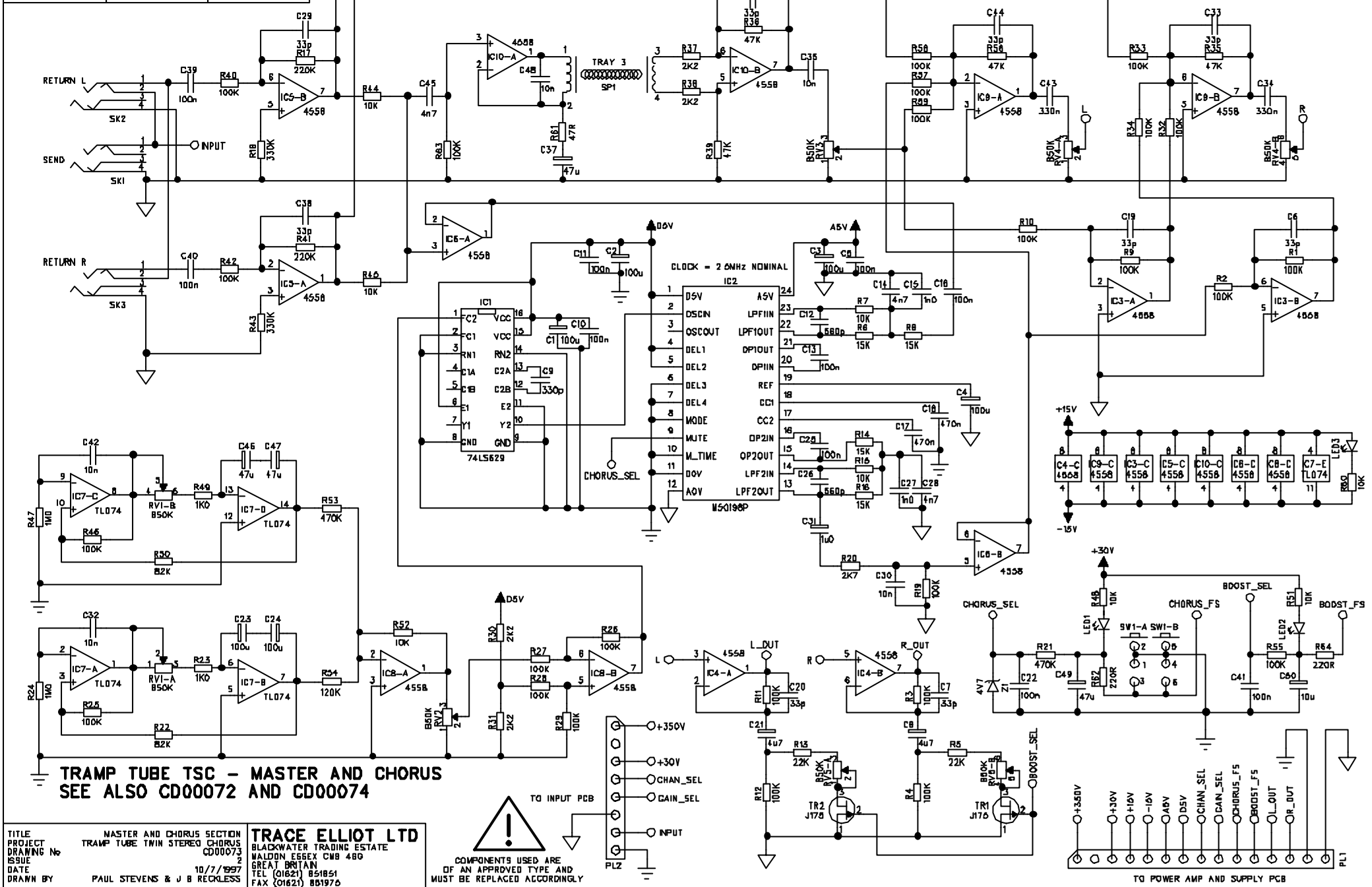


TRAMP TUBE TWIN STEREO CHORUS - INPUT AND CHANNEL
SEE ALSO CD00073 AND CD00074



TITLE	INPUT AND CHANNEL SECTION	TRACE ELLIOT LTD
PROJECT	TRAMP TUBE TWIN STEREO CHORUS	BLACKWATER TRADING ESTATE
DRAWING No	CD00072	WALTON ESSEX CM9 4BG
ISSUE	3	GREAT BRITAIN
DATE	25 MARCH 1998	TEL (01621) 851851
DRAWN BY	G. BUTTON, P. STEVENS & J. RECKLESS	FAX (01621) 861976

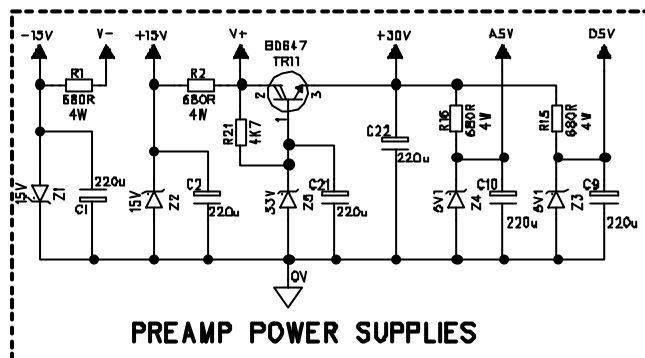
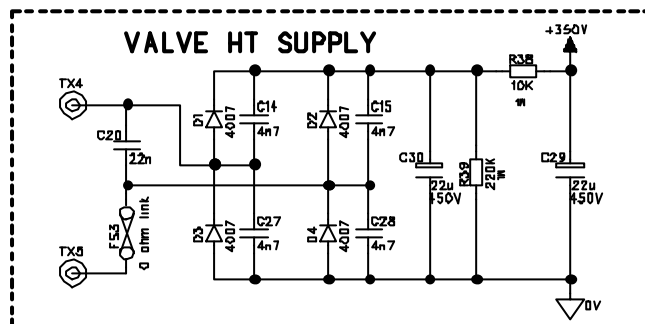
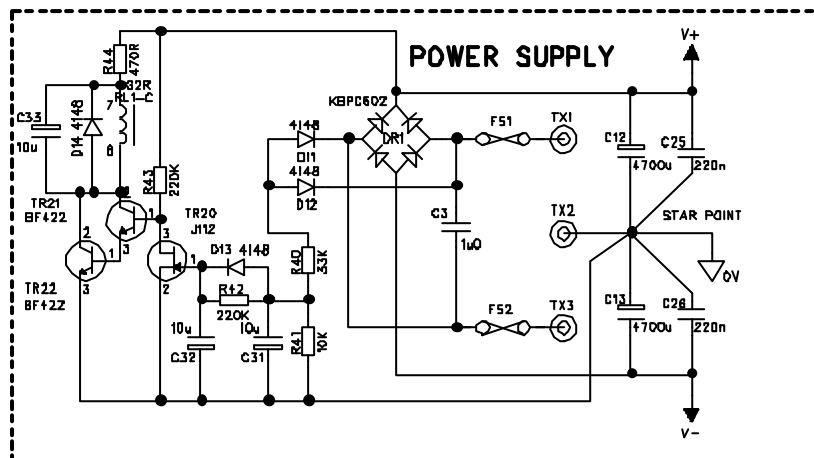
ISSUE	CHANGE	NOTE	DATE	ISSUE	CHANGE	NOTE	DATE	ISSUE	CHANGE	NOTE	DATE
1				2				3			
4				5				6			



TITLE	MASTER AND CHORUS SECTION	TRACE ELLIOT LTD
PROJECT	TRAMP TUBE TWIN STEREO CHORUS	BLACKWATER TRADING ESTATE
DRAWING No	CD00073	WALTON ESSEX CM8 4BG
ISSUE	2	GREAT BRITAIN
DATE	10/7/1997	TEL (01621) 851851
DRAWN BY	PAUL STEVENS & J B RECKLESS	FAX (01621) 851976

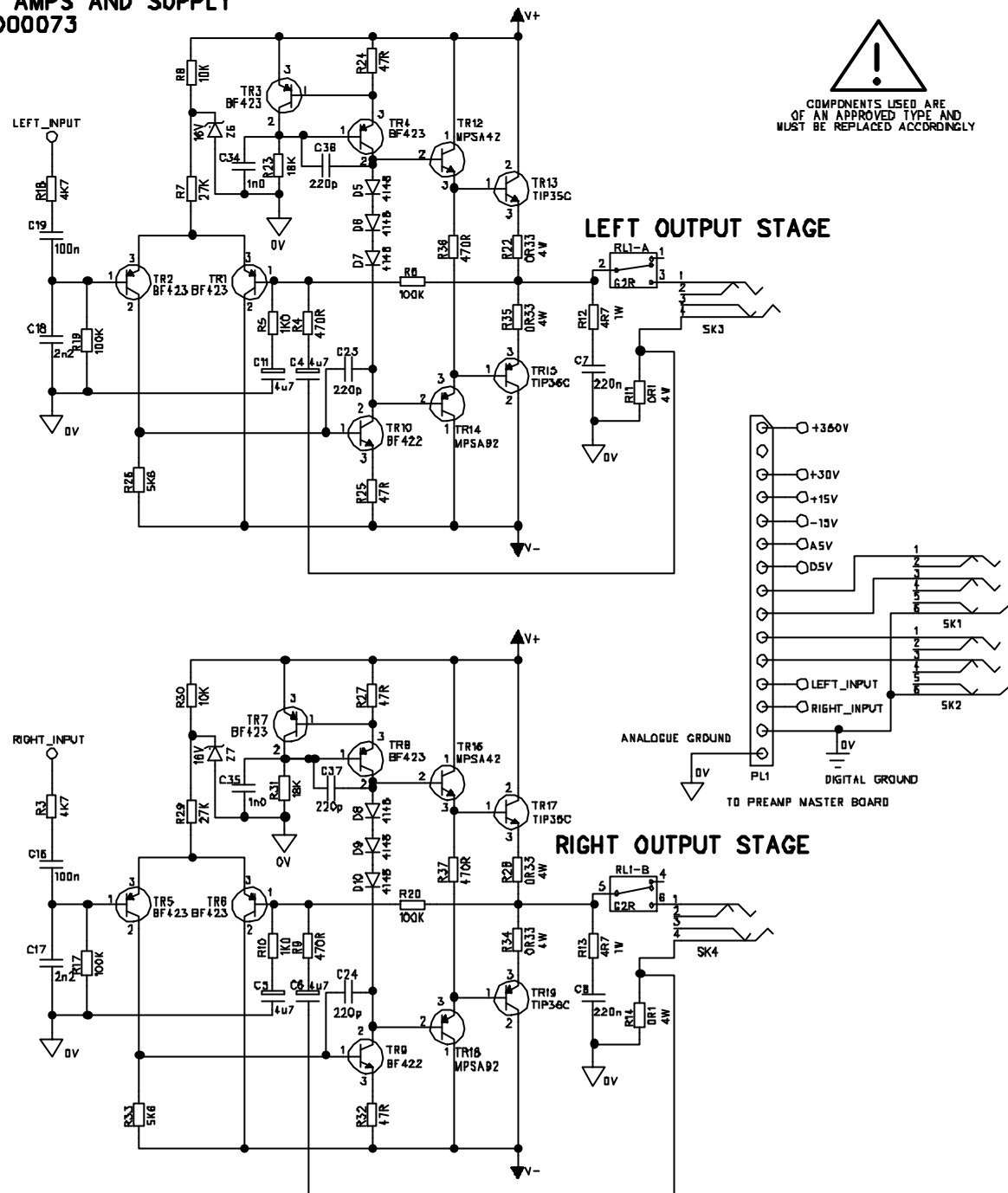
ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE
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TRAMP TUBE TSC – POWER AMPS AND SUPPLY SEE ALSO CD00072 AND CD00073



PLEASE NOTE, C36 & C37 ADDED TO CIRCUIT DIAGRAM, NOT YET ADDED TO PCB

TITLE	POWER AMPS AND SUPPLY	TRACE ELLIOT LTD
PROJECT	TRAMP TUBE TWIN STEREO CHORUS	BLACKWATER TRADING ESTATE
DRAWING No	CD00074	NALDON ESSEX CM8 4BD
ISSUE	1	GREAT BRITAIN
DATE	6/11/1998	TEL (01821) 851851
DRAWN BY	G. BUTTON, P. STEVENS & A. RECKLESS	FAX (01821) 851975



C32-PC00076x6.

TRAMP TUBE TWIN STEREO CHORUS MAIN PREAMP.

CB 22/11/1997 UP-ISSUED PINK J112'S ANDY EWEN 21/5/98

UP-ISSUED R41 from 1K to 2K2 ANDY EWEN 3/6/9 R45 (470K to 47K) C27

REMOVED.ISSUE 5 25/11/98 PL1 TO 8W-2. ISSUE 6 PS 31/8/99 (GOLD JACK)

REMOVED: ISSUE 3 23/11/95 FET TO 0W 2: ISSUE 4 10/10/95 (GOLD BACK)

Type	Qty	Part Code	Value	Reference				
Axial Capacitors								
1	2	72-C10N-100VCA	10n	C5	C7			
1	1	72-C220P-100VCA	220p	C21				
1	10	72-C22N-100VCA	22n	C8	C10	C17	C18	C22
				C23	C29	C33	C36	C37
1	2	72-C3N3-100VCA	3n3	C28	C31			
1	1	72-C470P-100VCA	470p	C38				
1	1	72-C47N-100VCA	47n	C32				
1	2	72-C4N7-100VCA	4n7	C20	C39			
Axial Diodes								
1	2	72-D-1N4148	4148	D1	D2			
Zero Ohm Links								
1	75	72-RCZERO	0W	AS SHOWN ON PCB				
Axial Resistors								
1	14	72-RM100K	100K	R9	R10	R12	R14	R17
				R33	R40	R42	R46	R49
				R18	R25	R63	R67	
1	2	72-RM10K	10K	R13	R32			
1	8	72-RM15K	15K	R8	R16	R35	R39	R44
				R48	R53	R62		
1	1	72-RM2K2	2K2	R41				
1	2	72-RM1K5	1K5	R22	R26			
1	4	72-RM1M	1M0	R5	R38	R50	R61	
1	2	72-RM220K-1WATT	220K	R21	R27			
1	6	72-RM220R-1WATT	220R	R11	R30	R31	R54	R55
				R57				
1	3	72-RM2M2	2M2	R37	R51	R60		
1	1	72-RM22K	22K	R68				
1	3	72-RM33K	33K	R6	R36	R59		
1	1	72-RM39K	39K	R66				
1	2	72-RM47R	47R	R56	R58			
1	2	72-RM470K	470K	R24	R28			
1	7	72-RM470R	470R	R1	R2	R3	R4	R19
				R64				R20
1	2	72-RM47K	47K	R29	R45			
1	6	72-RM4K7	4K7	R7	R15	R34	R43	R47
				R65				
1	1	72-RM680K	680K	R52				
Non Axial Components								
2	2	72-C1.5-35VT	1u5	C12	C14			
2	3	72-C1-35VT	1u0	C6	C24	C40		
2	2	72-C220-35VER	220u	C1	C4			
2	1	72-C220P-1KVCD	220p	C11				
2	2	72-C22N-400VP	22n	C13	C16			
2	1	72-C330P-1KVCD	330p	C15				
2	4	72-C4.7-35VT	4u7	C9	C19	C30	C41	
2	6	72-C47-63VER	47u	C2	C3	C25	C26	C34
				C35				
2	9	72-FET-J-112P	J112	TR1	T R2	TR4	TR5	TR6

				TR7	TR8	TR9	TR10
2	1	72-HEAD-8W-2		PL1			
2	2	72-LED-RED-3MM		LED1	LED2		
2	2	72-RELAY-47W	47W	RL1	RL2		
2	1	72-RWW120R-6W	120R	R23 Please raise off PCB with kink in legs.			
2	2	73-SWT-F2UEE		SW1	SW2		
Second Stage Components							
3	1	72-SKT-JCKBNBG		SK1			
3	3	73-POT-A10K	A10K	RV1	RV5	RV6	
3	3	73-POT-A1M	A1M	RV4	RV7	RV10	
3	2	73-POT-A250K	A250K	RV2	RV9		
3	2	73-POT-A25K	A25K	RV3	RV8		
3	1	73-VAL-SOCKET	ECC83	V1			

ALL J112'S TO BE PINK.

73-PCB-PC00076x1

C32-PC00077x5.

Andy Ewen 20/5/1998 (R35&56 to 100K).26/10/98 IC holders removed
 ISSUE 4 PARTS LIST. ISSUE 1 PCB.
 ISSUE 5 PS 31/8/99 (GOLD JACKS)

Qty	Part Code	Value	Reference							
Axial Capacitors										
10	72-C100N-100VCA	100n	C5 C39	C10 C40	C11 C41	C13	C16	C22	C25	
5	72-C10N-100VCA	10n	C30	C32	C35	C42	C48			
2	72-C1N-100VCA	1n0	C27	C15						
2	72-C330N-50VCA	330n	C43	C34						
1	72-C330P-100VCA	330p	C9							
9	72-C33P-100VCA	33p	C6 C38	C19 C44	C20	C7	C29	C33	C36	
3	72-C4N7-100VCA	4n7	C14	C28	C45					
2	72-C560P-100VCA	560p	C12	C26						
Axial Diodes										
1	72-D-BZX85C4V7	4V7	Z1							
Axial Resistors										
27	72-RM100K	100K	R1 R12 R32 R55	R2 R19 R33 R56	R3 R25 R34 R57	R4 R26 R35 R58	R9 R27 R40 R59	R10 R28 R42 R63	R11 R29 R46	
8	72-RM10K	10K	R7 R60	R15	R44	R45	R48	R51	R52	
1	72-RM120K	120K	R54							
4	72-RM15K	15K	R16	R6	R8	R14				
2	72-RM1K	1K0	R23	R49						
3	72-RM1M	1M0	R21	R24	R47					
2	72-RM220R	220R	R62	R64						
4	72-RM2K2	2K2	R30	R31	R37	R38				
2	72-RM22K	22K	R5	R13						
2	72-RM-220K	220K	R17	R41						
1	72-RM2K7	2K7	R20							
2	72-RM330K	330K	R18	R43						
1	72-RM47R	47R	R61							
1	72-RM470K	470K	R53							
2	72-RM47K	47K	R36	R39						
2	72-RM82K	82K	R22	R50						
Non Axial Components										
6	72-C100-16VER	100u	C1	C2	C3	C4	C23	C24		
1	72-C1-35VT	1u0	C31							
1	72-C10-63VER	10u	C50							
2	72-C4.7-35VT	4u7	C8	C21						
2	72-C470N-63VP	470n	C17	C18						
4	72-C47-63VER	47u	C37	C46	C47	C49				
2	72-FET-J-175	J175	TR1	TR2						
1	72-HEAD-15W		PL1							
1	72-HEAD-8W-2		PL2							
7	72-IC-RC4558P	RC4558P	IC3	IC4	IC5	IC6	IC8	IC9	IC10	
1	72-IC-74LS629N	74LS629	IC1							
1	72-IC-M50198P	M50198P	IC2							
1	72-IC-TL074	TL074	IC7							

3	72-LED-RED-3MM		LED1 LED2 LED3 (FIT OVER EDGE OF PCB)
Second Stage Components			
1	SEE DRAWING	REVERB	SP1 (1.5m LEADS, SOLDERED INTO PCB)
3	72-SKT-JCKBNBG		SK1 SK2 SK3
3	73-POT-50K-DG	B50K	RV1 RV4 RV5
2	73-POT-50KB	B50K	RV2 RV3
1	73-SWT-F2UEE	DPCO	SW1 (FIT UNDERNEATH PCB)
1	73-PCB-PC00077x1		

C32-PC00078x8.

TRAMP TUBE STEREO CHORUS OUTPUT BOARD.

AE 5/11/98

ISSUE 8 LIST. ISSUE 2 PCB.

ISSUE 1 LIST: ISSUE 21 PCB:

Type	Qty	Part Code	Value	Reference					
Axial Capacitors									
1	2	72-C100N-100VCA	100n	C16	C19				
1	2	72-C220N-50VCA	220n	C7	C8				
1	2	72-C220P-100VCA	220p	C23	C24				
1	2	72-C2N2-100VCA	2n2	C18	C17				
Axial Diodes									
1	4	72-D-1N4007	4007	D1	D2	D3	D4		
1	10	72-D-1N4148	4148	D5	D6	D7	D8	D9	D10
				D11	D12	D13	D14		
1	2	72-D-BZX55C15V	15V	Z1	Z2				
1	2	72-D-BZX55C16V	16V	Z6	Z7				
1	1	72-D-BZX55C33V	33V	Z5					
1	2	72-D-BZX55C5V1	5V1	Z3	Z4				
Zero ohm links									
1	53	72-RCZERO	0W	FS3 and as shown on pcb legend					
Axial Resistors									
1	4	72-RM100K	100K	R6	R17	R19	R20		
1	3	72-RM10K	10K	R8	R30	R41			
1	1	72-RM10K-1WATT	10K	R38					
1	2	72-RM18K	18K	R31	R23				
1	2	72-C1000P-1KVCD	1000pF	One across R31 and one across R23 See Tramp mods memo issue1 5/11/98					
1	2	72-RM1K	1K0	R10	R5				
1	2	72-RM220K	220K	R42	R43				
1	1	72-RM220K-1WATT	220K	R39					
1	3	72-RM27K	27K	R29	R7	R40			
1	5	72-RM470R	470R	R4	R9	R37	R36	R44	
1	4	72-RM47R	47R	R24	R25	R27	R32		
1	3	72-RM4K7	4K7	R3	R18	R21			
1	2	72-RM4R7-1WATT	4R7	R12	R13				
1	2	72-RM5K6	5K6	R33	R26				
Non Axial Components									
2	1	72-HEAD-15W		PL1					
2	1	72-BRIDGE-2	KBPC602	DR1					
2	1	72-C1-250VP	1u0	C3					
2	3	72-C10-63VER	10u	C31	C32	C33			
2	4	72-C220-25VER	220u	C1	C2	C9	C10		
2	2	72-C220-35VER	220u	C21	C22				
2	2	72-C220N-250VP	220n	C25	C26				
2	2	72-C220P-100VCD2	220pF	Fit between R23 & link and R31 and link. See Tramp mods issue 1 for more details.					
2	2	72-C22-450VER	22u/450V	C29	C30				
2	1	72-C22N-400VP	22n	C20					
2	4	72-C4.7-35VT	4u7	C4	C5	C6	C11		
2	4	72-C4700P-1KVCD	4n7	C14	C15	C27	C28		
2	5	72-CRIMP-PCB-TAB		TX1	TX2	TX3	TX4		
				TX5					

2	1	72-CRIMP-PCB-TAB		GND1
2	4	PCB FUSE CLIP	T5A	FS1 FS2
2	2	72-RWW0R1-4W	0R1	R11 R14
2	4	72-RWW0R33-4W	0R33	R22 R28 R34 R35
2	4	72-RWW680R-4W	680R	R1 R2 R15 R16
2	1	72-FET-J-112	J112	TR20
2	4	72-TBF422	BF422	TR9 TR10 TR21 TR22
2	8	72-TBF423	BF423	TR1 TR2 TR3 TR4 TR5 TR6 TR7 TR8
2	2	72-TMPSA42	MPSA42	TR12 TR16
2	2	72-TMPSA92	MPSA92	TR14 TR18
Second Stage Components				
3	2	72-CAP-470063V	4700u	C12 C13
3	2	72-SKT-JCKBBBS		SK1 SK2
3	2	72-SKT-JCKBNBS		SK3 SK4
3	1	72-TBD647	BD647	TR11
3	2	72-TIP35C	TIP35C	TR13 TR17
3	2	72-TIP36C	TIP36C	TR15 TR19
3	3	73-TERM-SCREW-M3		J1 J2 J3
3	4	72-MOS-PAD-TO3P2		FOR OUTPUT DEVICES
3	1	72-MOS-PAD-TO220		FOR BD647
3	1	G13-HS-ST-TSC		IN-HOUSE MADE HEATSINK
3	8	71-SCR-M3X12PPB		O/P Devices, Heatsink & BD647
3	5	71-NUT-M3ZINC		O/P Devices & BD647
3	5	71-WAS-M3INTSP		O/P Devices & BD647
3	1	73-REL-QUAD-CHOR	RELAY 48v DPCO G2R	RL1

73-PCB-PC00078 issue 2

USE GREEN 24/0.2mm WIRE TO LINK J8 TO J9 ON PCB.

SCREENED CABLE TO 'CHORUS' PCB

Connect 'Left Input' to TX6 on PCB (L_IN)

Connect 'Right Input' to TX7 on PCB (R_IN)

Connect 'Screen' to TX8 on PCB (A0V)

N.B. ISSUE 7 change is removal of the zero ohm link on the left of TR5 &TR6. Changenote ID00205.

N.B.2 Please see Tramp mods memo issue 1 for details of where the capacitors are fitted to suppress radiated emissions.