

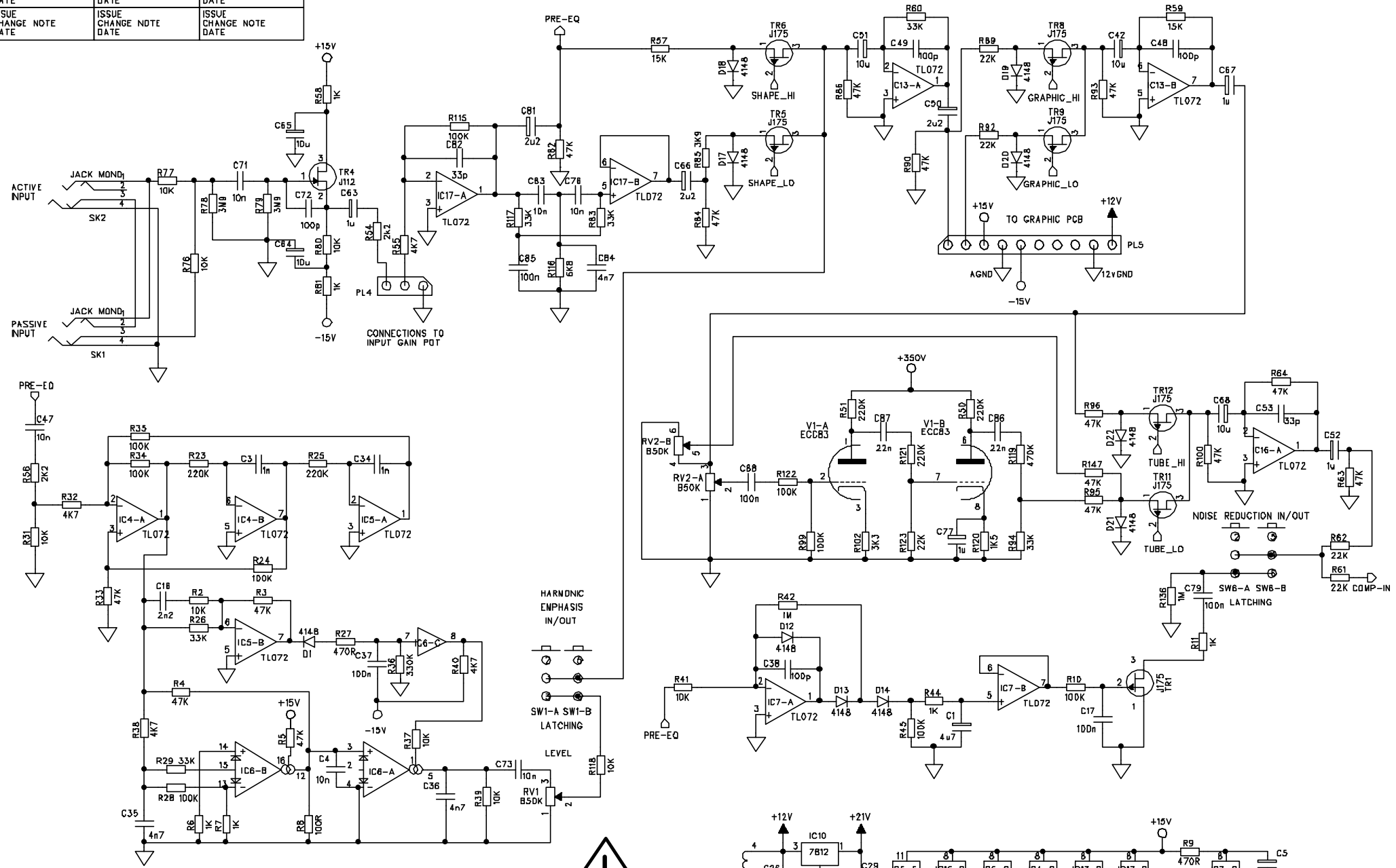
TRACE ELLIOT

SERVICE MANUAL

DATE : December 29, 1999
Product Code: T0627/T0632/T0638/T0647/T0662
Model Number : GP12 300 WATT 12 band series

Issued by:
Trace Elliot Limited
Blackwater Trading Estate
The Causeway
Maldon
Essex
England
CM4 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



PCB = PCD099

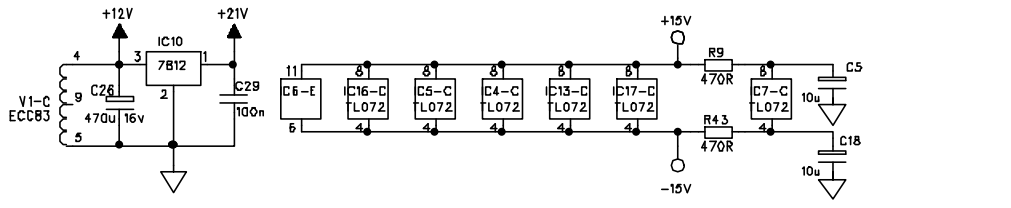
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 PROJECT CP12_98
 DRAWING No CD0098 SHEET 1 of 3
 ISSUE 2
 DATE 15/1/99
 DRAWN BY CLIVE BUTTON

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

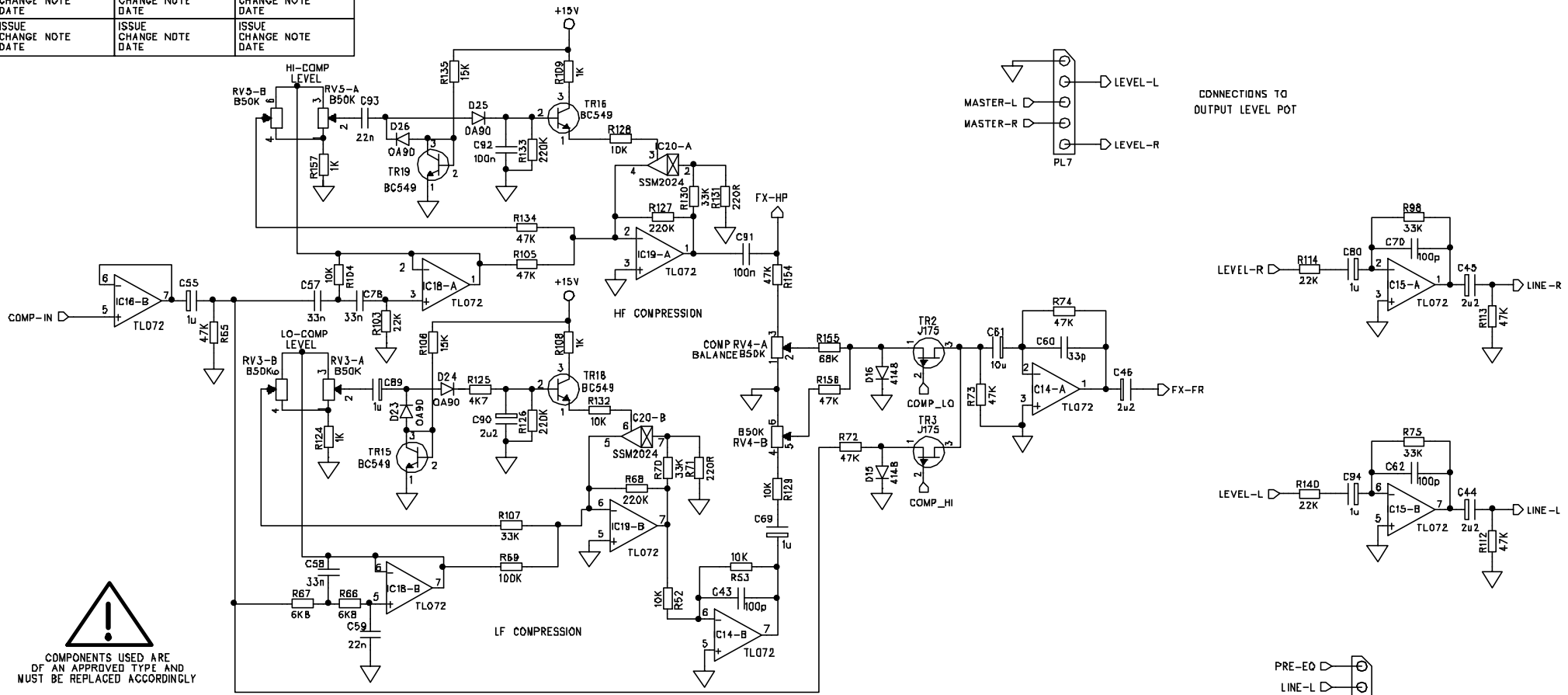
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IC6-D

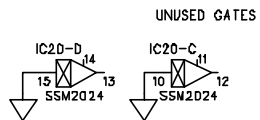
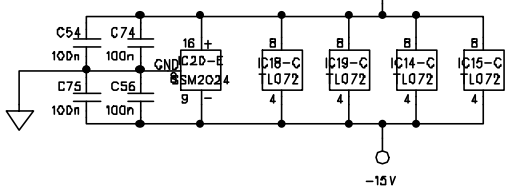
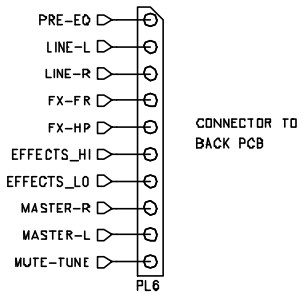
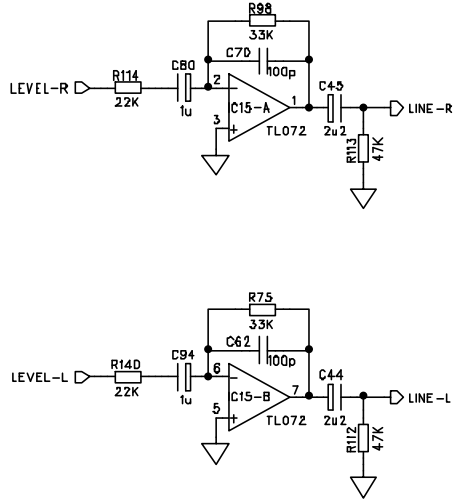
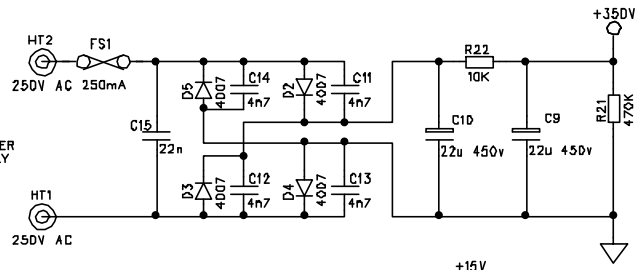
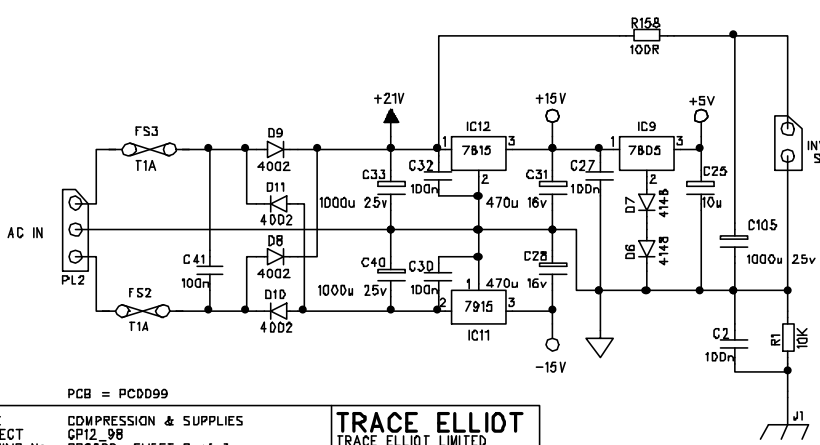
COMPONENTS USED ARE OF AN APPROVED TYPE AND MUST BE REPLACED ACCORDINGLY



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



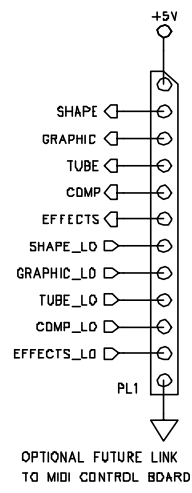
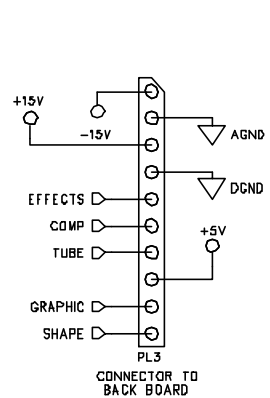
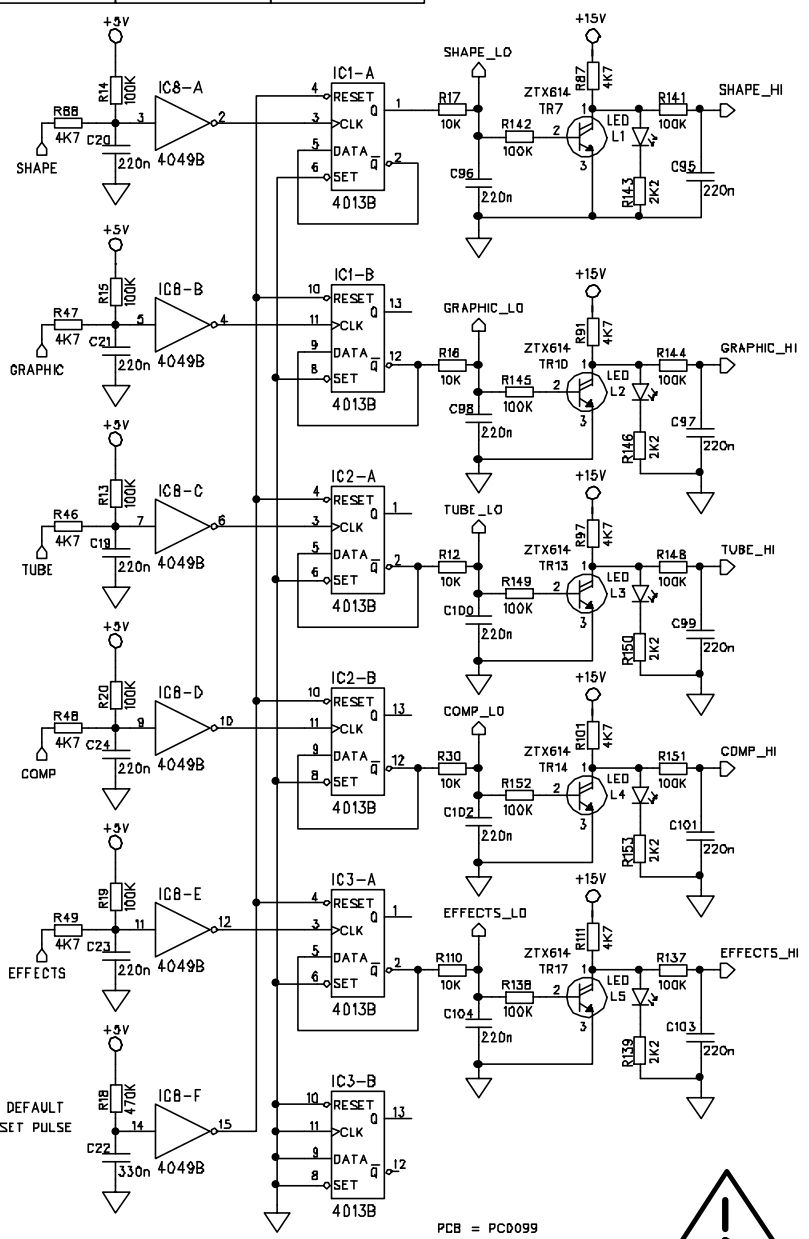
COMPONENTS USED ARE OF AN APPROVED TYPE AND MUST BE REPLACED ACCORDINGLY



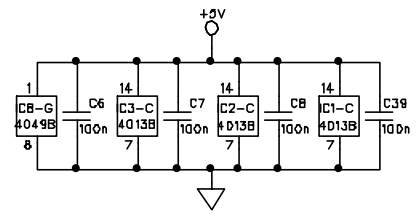
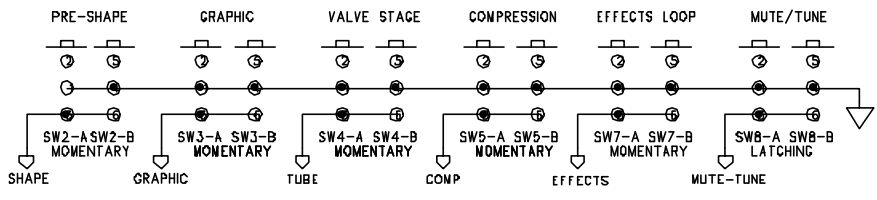
TITLE PROJECT DRAWING No ISSUE DATE DRAWN BY	COMPRESSION & SUPPLIES GP12_98 CD0099 SHEET 2 of 3 2 15/1/99 CLIVE BUTTON	TRACE ELLIOT TRACE ELLIOT LIMITED WALDON ESSEX CM9 7GG ENGLAND TEL (01621) 855266 FAX (01621) 851975
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PCB = PCDD99

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



OPTIONAL FUTURE LINK
TO MIDI CONTRL BOARD



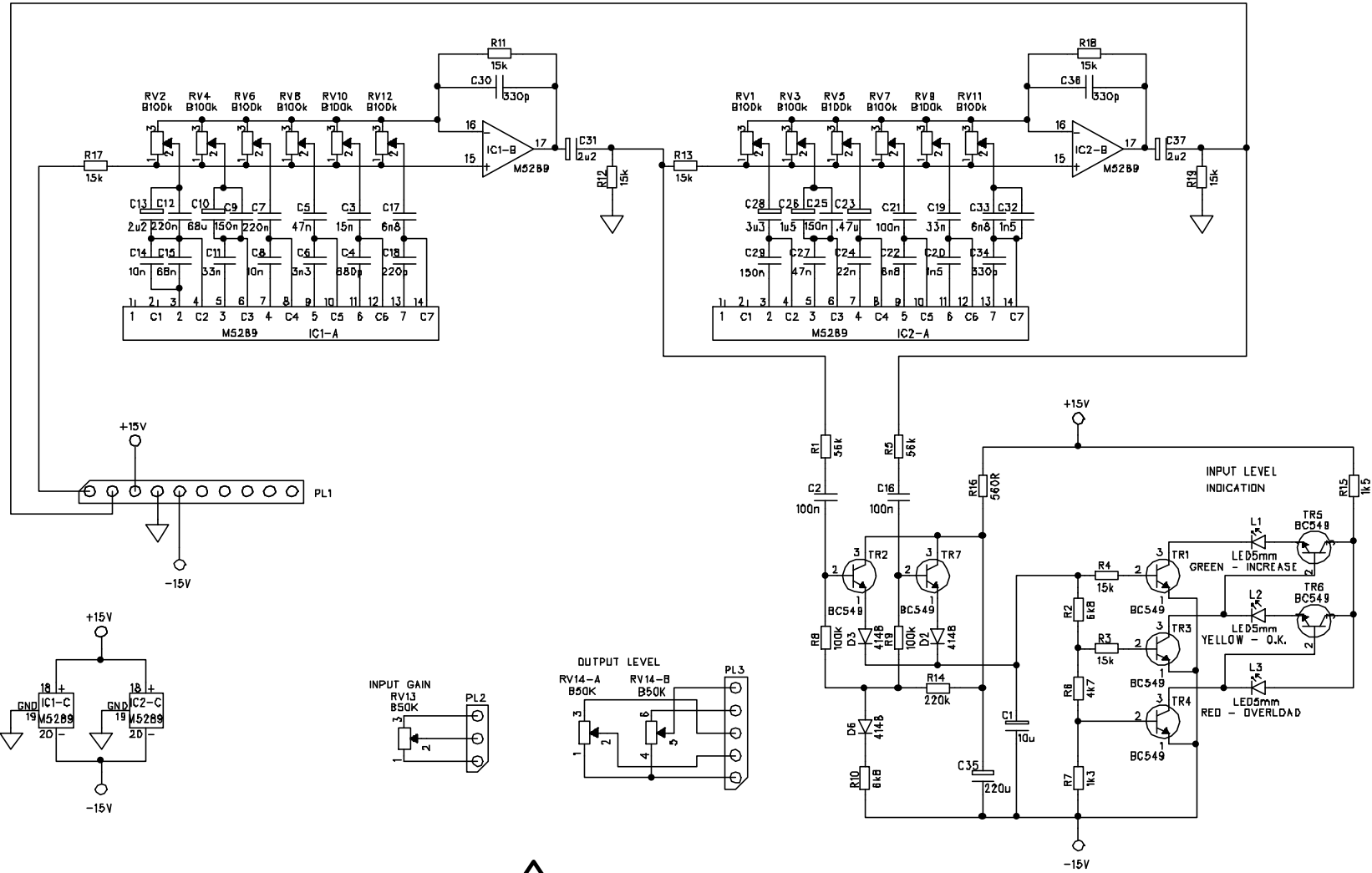
PCB = PCD099



COMPONENTS USED ARE
OF AN APPROVED TYPE AND
MUST BE REPLACED ACCORDINGLY

TITLE	SWITCHING	TRACE ELLIOT TRACE ELLIOT LIMITED WALDON ESSEX CM9 7GG ENGLAND TEL (01621) 855266 FAX (01621) 851975
PROJECT	GP12_98	
DRAWING No	CD00099 SHEET 3 of 3	
ISSUE	2	
DATE	15/1/99	
DRAWN BY	CLIVE BUTTON	

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



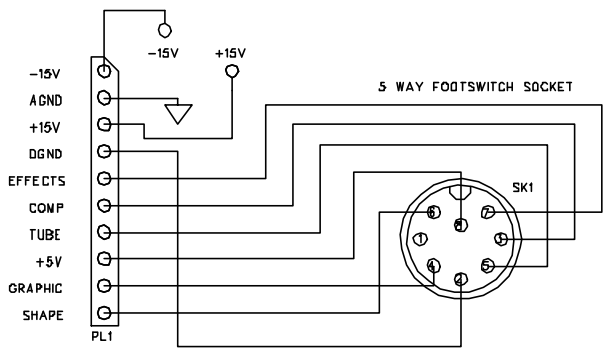
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 PROJECT CP12SMX MK 2
 DRAWING No CD0100
 ISSUE 1
 DATE 15/1/93
 DRAWN BY CLIVE BUTTON

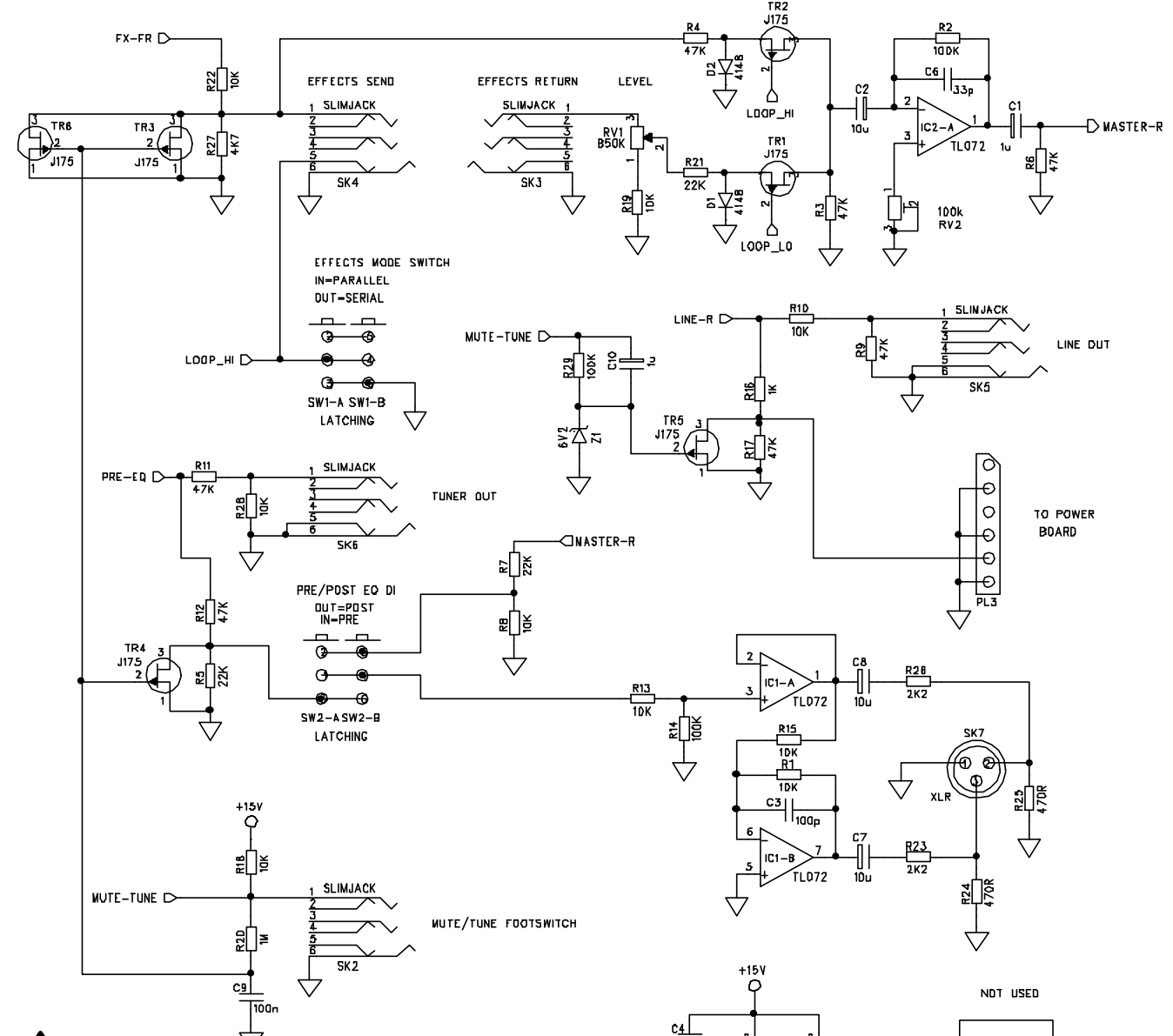
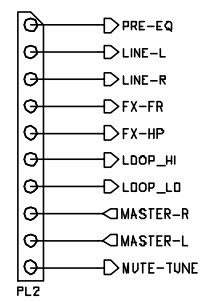
TRACE ELLIOT
 TRACE ELLIOT LIMITED
 WALDDON ESSEX CM9 7GG
 ENGLAND
 TEL (01621) 855266
 FAX (01621) 851975


 COMPONENTS USED ARE
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ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE
ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE	ISSUE CHANGE NOTE DATE



CONNECTORS
FROM PREAMP

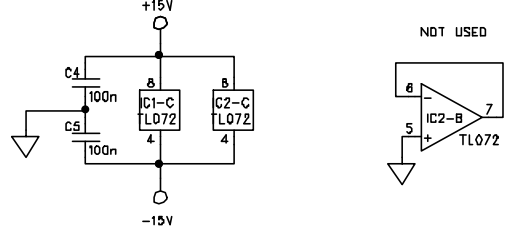


PCB = PC00101

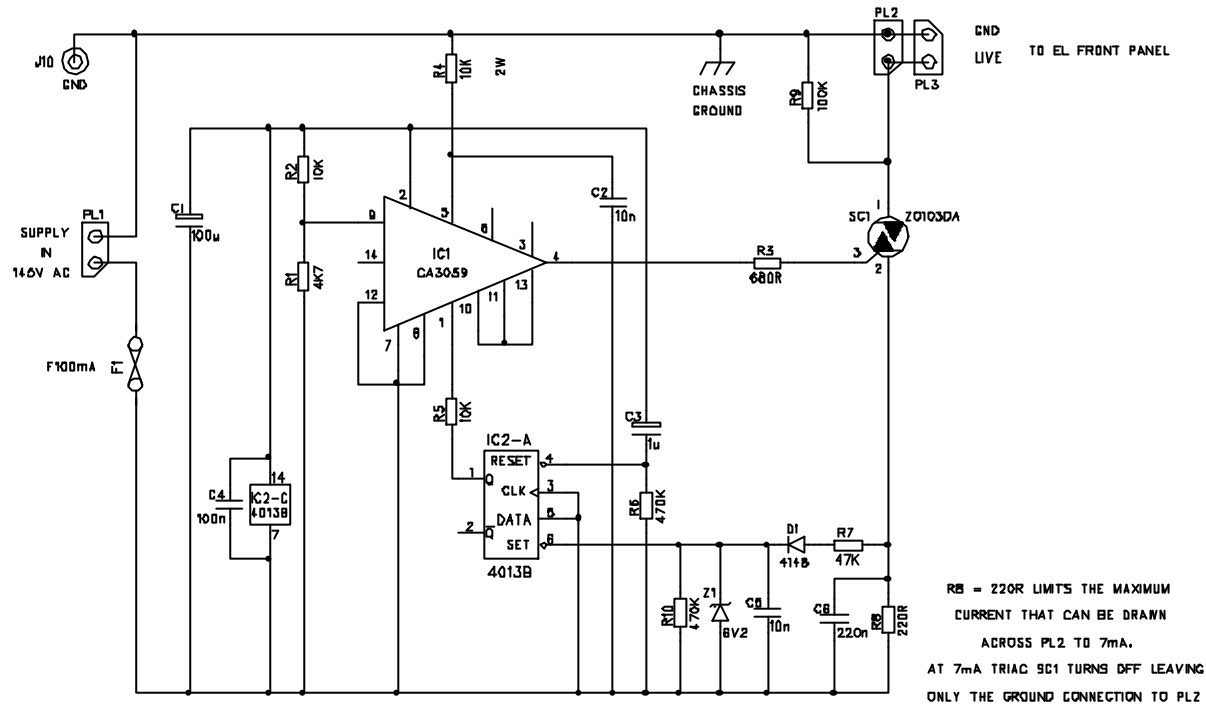
TITLE 300 HEAD & COMBO BACK PCB
 PROJECT CP12 98
 DRAWING No CD0101
 ISSUE 2
 DATE 12/4/99
 DRAWN BY CLIVE BUTTON

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

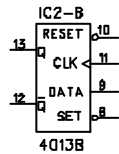

 COMPONENTS USED ARE
 OF AN APPROVED TYPE AND
 MUST BE REPLACED ACCORDINGLY



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



NOT USED



PCB = PC00118

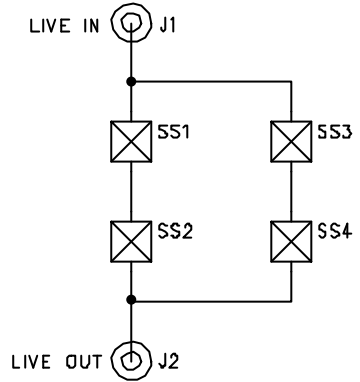
TITLE EL PANEL AC CURRENT TRIP
PROJECT CP7/12 PRODUCT RANGE
DRAWING No C000123
ISSUE 2
DATE 18/11/99
DRAWN BY CLIVE BUTTON

TRACE ELLIOT
TRACE ELLIOT LIMITED
MALDEN ESSEX CM9 7CC
ENGLAND
TEL (01821) 855288
FAX (01821) 851975



COMPONENTS USED ARE
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MUST BE REPLACED ACCORDINGLY

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



FIT SS1 & SS2 FOR THE FOLLOWING--

- AH300 230V 100V & 110V
- AH500 230V 100V & 110V
- AH1000 230V ONLY

FIT ALL 4 X TREHMISTORS SS1 TO SS4 FOR:-

- AH1000 100V & 110V



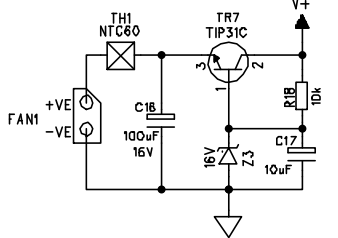
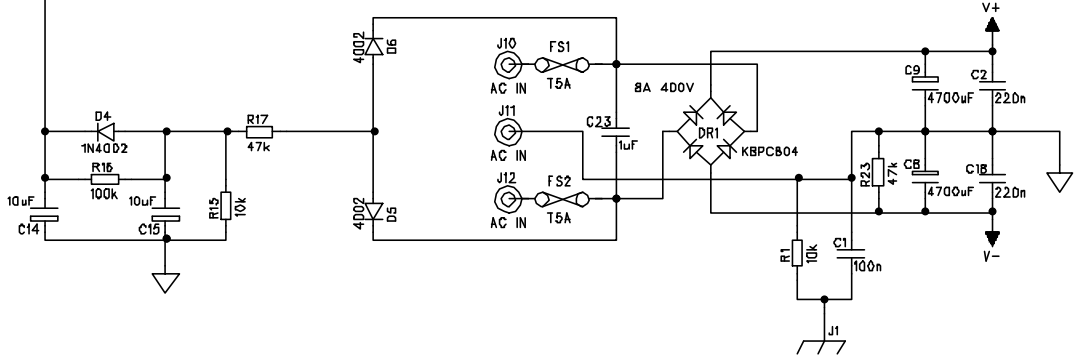
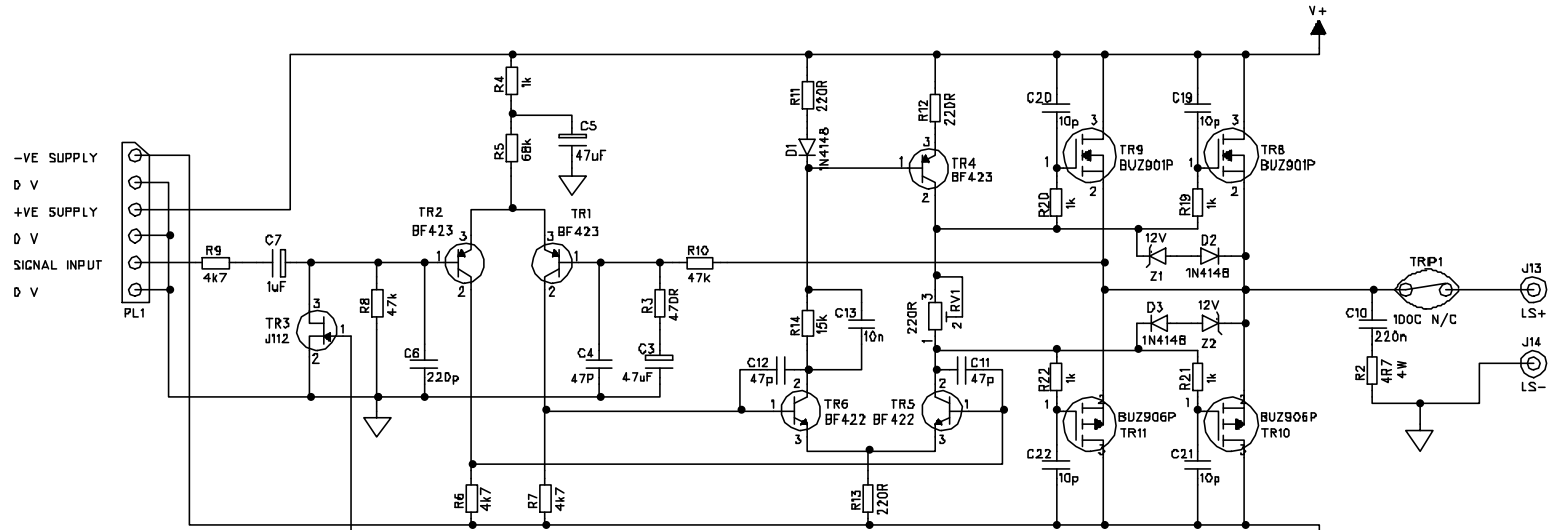
COMPONENTS USED ARE OF AN APPROVED TYPE AND MUST BE REPLACED ACCDRDINGLY

PCB - PC00110

TITLE SOFT START
PROJECT GP12_98
DRAWING No CD00118
ISSUE 1
DATE 15/1/99
DRAWN BY CLIVE BUTTON

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




 COMPONENTS USED ARE
 OF AN APPROVED TYPE AND
 MUST BE REPLACED ACCORDINGLY

PCB - PC0082

TITLE 300 WATT MOSFET OUTPUT
 PROJECT BIPOLAR BEAR REPLACEMENT
 DRAWING No CD0086
 ISSUE 4
 DATE 6/5/99
 DRAWN BY CLIVE BUTTON

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

ISSUE 3 INSERTION LIST. DONE ON 4/1/00 (R46-49 & R88 FROM 4K7 TO 1K)

Part Name	Part Code	Qty	Reference
PCB	73-PCB-PC00099	1	ISSUE 2
DIODE 1N4002	72-D-IN4002	4	D8-11
DIODE 1N4007	72-D-IN4007	4	D2-5
DIODE 1N4148	72-D-IN4148	14	D1 D6-7 D12-22
DIODE OA90	72-D-OA90-05	4	D23-26
R1/4W,100K	72-RM100K	25	R10 R13-15 R19-20 R24 R28 R34-35 R45 R69 R99 R115 R122 R137- 138 R141-142 R144-145 R148-149 R151-152
R1/4W,100R	72-RM100R	1	R8
R1/4W,10K	72-RM10K	24	R1-2 R12 R16-17 R22 R30-31 R37 R39 R41 R52-53 R76-77 R80 R104 R110 R114 R118 R128-129 R132 R140
R1/4W,15K	72-RM15K	4	R57 R59 R106 R135
R1/4W,1K	72-RM1K	15	R6-7 R11 R44 R46-R49 R58 R81 R88 R108-109 R124 R157
R1/4W,1K5	72-RM1K5	1	R120
R1/4W,1M	72-RM1M	2	R42 R136
R1/4W,220K	72-RM220K	9	R23 R25 R50-51 R68 R121 R126-127 R133
R1/4W,220R	72-RM220R	2	R71 R131
R1/4W,22K	72-RM22K	6	R61-62 R89 R92 R103 R123
R1/4W,2K2	72-RM2K2	7	R54 R56 R139 R143 R146 R150 R153
R1/4W,330K	72-RM330K	1	R36
R1/4W,33K	72-RM33K	11	R26 R29 R60 R70 R75 R83 R94 R98 R107 R117 R130
R1/4W,3K3	72-RM3K3	1	R102
R1/4W,3K9	72-RM3K9	1	R85
R1/4W,3M9	72-RM3M9	2	R78-79
R1/4W,470K	72-RM470K	3	R18 R21 R119
R1/4W,470R	72-RM470R	3	R9 R27 R43
R1/4W,47K	72-RM47K	25	R3-5 R33 R63-65 R72-74 R82 R84 R86 R90 R93 R95-96 R100 R105 R112-113 R134 R147

			R154 R156
R1/4W,4K7	72-RM4K7	10	R32 R38 R40 R55 R87 R91 R97 R101 R111 R125
R1/4W,68K	72-RM68K	1	R155
R1/4W,6K8	72-RM6K8	3	R66-67 R116
R1W,100R	72-RM100R-1WATT	1	R158
CAPCA,100n	72-C100N-100VCA	21	C2 C6-8 C17 C27 C29- 30 C32 C37 C39 C41 C54 C56 C74-75 C79 C85 C88 C91-92
CAPCA,100p	72-C100P-100VCA	7	C38 C43 C48-49 C62 C70 C72
CAPCA,10n	72-C10N-100VCA	6	C4 C47 C71 C73 C76 C83
CAPCA,1n	72-C1N-100VCA	2	C3 C34
CAPCA,220n	72-C220N-50VCA	15	C19-21 C23-24 C95-104
CAPCA,22n	72-C22N-100VCA	2	C59 C93
CAPCA,2n2	72-C2N2-100VCA	1	C16
CAPCA,330n	72-C330N-50VCA	1	C22
CAPCA,33n	72-C33N-100VCA	3	C57-58 C78
CAPCA,33p	72-C33P-100VCA	3	C53 C60 C82
CAPCA,4n7	72-C4N7-100VCA	3	C35-36 C84
CAPTANT,1u	72-C1-35VT	9	C52 C55 C63 C67 C69 C77 C80 C89 C94
CAPTANT,2u2	72-C2.2-35VT	7	C44-46 C50 C66 C81 C90
CAPCER,4n7	72-C4N7-400VP	4	C11-14
CAPE1,4u7 63V	72-C4.7-63VER	1	C1
CAPE1,10u 63V	72-C10-63VER	9	C5 C18 C25 C42 C51 C61 C64-65 C68
CAPE3,1000u 25v	72-C1000-25VER	3	C33 C40 C105
CAPE3,470u 16v	72-C470-16VER	3	C26 C28 C31
CAPE4,22u 450v	72-C22-450VER	2	C9-10
CAPP4,22n 250V	72-C22N-400VP	3	C15 C86-87
4013B	72-IC-4013B	3	IC1-3
4049B	72-IC-4049B	1	IC8
SSM2024	72-IC-SSM2024	1	IC20
TL072	72-IC-TL072	10	IC4-5 IC7 IC13-16 IC18 IC19
LM13700	72-IC-LM13700	1	IC6
LM833	72-IC-LM833	1	IC17
BC549	72-TBC549C	4	TR15-16 TR18-19
J112	72-FET-J-112	1	TR4
J175	72-FET-J-175	9	TR1-3 TR5-6 TR8-9 TR11-12

ZTX614	72-TZTX614	5	TR7 TR10 TR13-14 TR17
0.1" 2 WAY HEADER	72-HEAD-2W	1	PL8
0.1" 3 WAY HEADER	72-HEAD-3W-2	2	PL2 PL4 N.B. FOR ISSUE 2 PCBs PLEASE FIT PL4 THE WRONG WAY ROUND FOR USE WITH THE SCREENED CABLES FROM NC98
0.1" 5 WAY HEADER	72-HEAD-5W-2	1	PL7
2mm 10 WAY HEADER	72-HEAD-10W-TEG	3	PL3 PL5-6
0.1" 12 WAY HEADER	72-HEAD-12W	1	PL1
LED 3mm ORANGE	72-LED-ORG-3MM	1	L1
LED 3mm YELLOW	72-LED-YEL-3MM	1	L5
LED 3mm GREEN	72-LED-GRN-3MM	1	L2
LED 3mm BLUE	72-LED-BLU-3MM	1	L4
LED 3mm RED	72-LED-RED-3MM	1	L3
7805	72-IC-7805-REG	1	IC9
7812	72-IC-7812-REG	1	IC10
7815	72-IC-7815-REG	1	IC12
7915	72-IC-7915-REG	1	IC11
SMALL HEATSINK	71-HS-TEG	4	IC9-12
M3 X 12 SCREW	71-SCR-M3X12PPB	4	FOR HEATSINKS
M3 NUT	71-NUT-M3ZINC	4	FOR HEATSINKS
M3 SP WASHER	71-WAS-M3INTSP	4	FOR HEATSINKS
B9A VALVE BASE	73-VAL-SOCKET	1	V1
ECC83	73-VAL-ECC83	1	V1
PCBFUSECLIP	72-FUS-HLD-PCB-4	6	FS1-3
20mm T1A FUSE	72-FUS-1A-T-UK	2	FS2-3
20mm T250Ma FUSE	72-FUS-250MA-T	1	FS1
PCB SPADE	72-CRIMP-PCB-TAB	2	HT1-2 N.B. do not fit the GND1 spade.
PUSH SW LATCHING	73-SWT-F2UEE	3	SW1 SW6 SW8
PUSH SW MOMENTARY	73-SWT-F2UEE-MOM	5	SW2-5 SW7
JACKMONO BNBG	72-SKT-JCKBNBG	2	SK1-2
POTDUAL,B50K	73-POT-50K-DG	2	RV2 RV4
POTDUAL,B5K	73-POT-B5K-DG	2	RV3 RV5
POTSINGLE,B50K	73-POT-50KB	1	RV1

LED LEGS BENT AT RT ANGLES 6MM FROM BODY AND MOUNTED OVER
EDGE OF PCB FROM UNDERSIDE.

C12-PC00100x2. GP12_98 FRONT PCB - PC0100x1
CLIVE BUTTON – 18/2/99

VERSION 2 (LED SPACERS)

Description	Part Code	Qty	Where Used
IN4148	72-D-IN4148	3	D2-3 D6
R1/4W,100k	72-RM100K	2	R8-9
R1/4W,15k	72-RM15K	8	R3-4 R11-13 R17-19
R1/4W,1k3	72-RM1K3	1	R7
R1/4W,1k5	72-RM1K5	1	R15
R1/4W,220k	72-RM220K	1	R14
R1/4W,4k7	72-RM4K7	1	R6
R1/4W,560R	72-RM560R	1	R16
R1/4W,56k	72-RM56K	2	R1 R5
R1/4W,6k8	72-RM6K8	2	R2 R10
CAPCA,100n	72-C100N-100VCA	3	C2 C16 C21
CAPCA,10n	72-C10N-100VCA	2	C8 C14
CAPCA,150n	72-C150N-100VCA	3	C9 C25 C29
CAPCA,15n	72-C15N-100VCA	1	C3
CAPCA,1n5	72-C1N5-100VCA	2	C20 C32
CAPCA,220n	72-C220N-50VCA	2	C7 C12
CAPCA,220p	72-C220P-100VCA	1	C18
CAPCA,22n	72-C22N-100VCA	1	C24
CAPCA,330p	72-C330P-100VCA	3	C30 C34 C36
CAPCA,33n	72-C33N-100VCA	2	C11 C19
CAPCA,3n3	72-C3N3-100VCA	1	C6
CAPCA,47n	72-47N-100VCA	2	C5 C27
CAPCA,680p	72-680P-100VCA	1	C4 NEW PART
CAPCA,68n	72-68N-100VCA	1	C15 NEW PART
CAPCA,6n8	72-6N8-100VCA	3	C17 C22 C33
CAPE2,10u	72-C10-35VEA	1	C1
CAPE3,220u	72-C220-35VEA	1	C35
CAPTANT,.47u	72-C0.47-35VT	1	C23
CAPTANT,.68u	72-C0.68-35VT	1	C10
CAPTANT,1u5	72-C1.5-35VT	1	C26
CAPTANT,2u2	72-C2.2-35VT	3	C13 C31 C37
CAPTANT,3u3	72-C3.3-35VT	1	C28
M5289P	72-IC-M5289P	2	IC1-2
BC549	72-TBC549C	7	TR1-7
150mm 10WAY JUMPER LINK	72-LK-10W150TEG	1	PL1 FIT TO BACK OF PCB
LED SPACERS	71-SPA-PCB-3.2MM	3	FOR L1-L3
LED5mm RED	72-LED-RED	1	L3 FIT WITH 3mm

C12- PC00101-Cx1.

GP12_98 COMBO BACK PCB - PC0101x1

ANDY EWEN – 15/4/99

Description	Part Code	Qty	Where Used
DIODE 1N4148	72-D-IN4148	2	D1-2
ZENER 6V2	72-D-BZX55C6V2	1	Z1
R1/4W,100K	72-RM100K	3	R2 R14 R29
R1/4W,10K	72-RM10K	9	R1 R8 R10 R13
			R15 R18-19 R22 R28
R1/4W,1K	72-RM1K	1	R16
R1/4W,1M	72-RM1M	1	R20
R1/4W,22K	72-RM22K	3	R5 R7 R21
R1/4W,2K2	72-RM2K2	2	R23 R26
R1/4W,470R	72-RM470R	2	R24-25
R1/4W,47K	72-RM47K	7	R3-4 R6 R9 R11-12 R17
R1/4W,4K7	72-RM4K7	1	R27
CAPCA,100n	72-C100N-100VCA	3	C4-5 C9
CAPCA,100p	72-C100P-100VCA	1	C3
CAPCA,33p	72-C33P-100VCA	1	C6
CAPTANT,1u	72-C1-35VT	1	C1
CAPE2,10u	72-C10-63VER	3	C2 C7-8
CAPE2,1u	72-C1-63VER	1	C10
TL072	72-IC-TL072	2	IC1-2
TRANSISTOR J175	72-FET-J-175	6	TR1-6
PCB SPADE	72-CRIMP-PCB-TAB	2	GND1 GND2
6 WAY 0.1" HEADER	72-HEAD-6W-2	1	PL3
10 WAY 2mm HEADER	72-LK-10W300TEG	2	PL1-2
DIN SOCKET 8PIN	72-SKT-DIN-8PIN	1	SK1
SLIMJACK	72-SKT-JCKBBB-SM	5	SK2-6
POTSINGLE,B50K	73-POT-50KB	1	RV1
XLR PCB MALE	73-XLR-PCB-M	1	SK7
PUSH SW LATCHING	73-SWT-F2UEE	2	SW1-2 FIT ON UNDERSIDE OF PCB

C12- PC00101-Hx1.

GP12_98 AH300 BACK PCB - PC0101x2

ANDY EWEN – 15/4/99

Description	Part Code	Qty	Where Used
DIODE 1N4148	72-D-IN4148	2	D1-2
ZENER 6V2	72-D-BZX55C6V2	1	Z1
R1/4W,100K	72-RM100K	3	R2 R14 R29
R1/4W,10K	72-RM10K	9	R1 R8 R10 R13
			R15 R18-19 R22 R28
R1/4W,1K	72-RM1K	1	R16
R1/4W,1M	72-RM1M	1	R20
R1/4W,22K	72-RM22K	3	R5 R7 R21
R1/4W,2K2	72-RM2K2	2	R23 R26
R1/4W,470R	72-RM470R	2	R24-25
R1/4W,47K	72-RM47K	7	R3-4 R6 R9 R11-12 R17
R1/4W,4K7	72-RM4K7	1	R27
CAPCA,100n	72-C100N-100VCA	3	C4-5 C9
CAPCA,100p	72-C100P-100VCA	1	C3
CAPCA,33p	72-C33P-100VCA	1	C6
CAPTANT,1u	72-C1-35VT	1	C1
CAPE2,10u	72-C10-63VER	3	C2 C7-8
CAPE2,1u	72-C1-63VER	1	C10
TL072	72-IC-TL072	2	IC1-2
TRANSISTOR J175	72-FET-J-175	6	TR1-6
100K PRESET 10MM	72-PRESET-100K	1	RV2
PCB SPADE	72-CRIMP-PCB-TAB	2	GND1 GND2
6 WAY 0.1" HEADER	72-HEAD-6W-2	1	PL3
10 WAY 2mm LINK 400	72-LK-10W-400	1	PL1
10 WAY 2mm LINK 300	72-LK-10W300TEG	1	PL2
DIN SOCKET 8PIN	72-SKT-DIN-8PIN	1	SK1
SLIMJACK	72-SKT-JCKBBB-SM	5	SK2-6
POTSINGLE,B50K	73-POT-50KB	1	RV1
XLR PCB MALE	73-XLR-PCB-M	1	SK7
PUSH SW LATCHING	73-SWT-F2UEE	2	SW1-2 FIT ON UNDERSIDE OF PCB

C11-MOD-K300Bx4.

**PARTS LIST FOR 300 WATT MOSFET BASS POWER STAGE
PC00082x3-C BUTTON-21/7/97 UP-ISSUED-8/1/98 A EWEN.
UP-ISSUE 5/2/98 R18 TO 1WATT. ISSUE 4 REFERENCE TO CD0086X4**

Description	Part Code	Qty	Where Used
ZENER1, 12V	72-D-BZX55C12V	2	Z1-2
ZENER1, 16V	72-D-BZX55C16V	1	Z3
DIODE1, 1N4002	72-D-1N4002	3	D4-6
DIODE1, 1N4148	72-D-1N4148	3	D1-3
R-1watt 10K	72-RM10K-1WATT	1	R18
R1/4W, 100k	72-RM100K	1	R16
R1/4W, 10k	72-RM10K	3	R1 R15
R1/4W, 15k	72-RM15K	1	R14
R1/4W, 1k	72-RM1K	5	R4 R19-22
R1/4W, 220R	72-RM220R	3	R11-13
R1/4W, 470R	72-RM470R	1	R3
R1/4W, 47k	72-RM47K	3	R8 R10 R17
R1/4W, 4k7	72-RM4K7	3	R6-7 R9
R1/4W, 68k	72-RM68K	1	R5
R4W, 4R7	72-RWW4R7-4W	1	R2
	There is no R23 on the PCB		R23
PRESET, 220R	72-PRESET-220R	1	RV1
ZERO OHM LINK	72-RCZERO	19	
CAPCER, 10p	72-C10P-500VCD	4	C19-22
CAPCER, 47p	72-C47P-100VCD2	3	C4 C11-12
CAPCER, 220p	72-C220P-100VCD	1	C6
CAPP1, 10n	72-C10N-100VP	1	C13
CAPP1, 100n	72-C100N-100VP	1	C1
BF422	72-TBF422	2	TR5-6
BF423	72-TBF423	3	TR1-2 TR4
J112	72-FET-J-112	1	TR3
CAPE2, 1uF	72-C1-63VER	1	C7
CAPE2, 10uF	72-C10-63VER	3	C15 C17 C14
CAPE2, 47uF	72-C47-63VER	2	C3 C5
CAPE2, 100uF	72-C100-16VER	1	C16
CAPP5, 220n	72-C220N-250VP	3	C2 C10 C18
CAPP6, 1uF	72-C1-250VP	1	C23
PCB TERMINAL 2 WAY	73-TERM-PCB-2WAY	1	FAN1
HEADER 2 WAY 0.2"	72-HEAD-2W-2	1	LS1

HEADER 3 WAY 0.2"	72-HEAD-3W-3	1	PL2
HEADER 6 WAY 0.1"	72-HEAD-6W-2	1	PL1
PCBFUSECLIP, 20MM FUSE T5A	72-FUS-HLD-PCB-4 72-FUS-5AT	4 1	FS1-2 FS1-2
CAPE6,4700uF 80V	72-CAP-470080V	2	C8-9
SB104	72-BRIDGE-4	1	DR1
BUZ901P	72-MOS-BUZ901P	2	TR8-9
BUZ906P	72-MOS-BUZ906P	2	TR10-11
TRANSISTOR CLIP	71-HS-KR70-CLIP1	4	fit to output devices
THERMISTOR	72-THERMISTER-4 Mount against heatsink with plenty of thermal compound between the thermistor and the heatsink.	1	TH1
TIP31C	72-TIP31C (or 72-TSM2178)	1	TR7
SMALL HEATSINK	71-HS-CLO5-45	1	FIT TO TR7 WITH THERMAL COMPOUND
BRIDGE HEATSINK	71-HS-TEG	1	FOR BRIDGE RECT
LARGE HEATSINK	71-HS-KR180	1	FOR OUTPUT DEVICES
TRIP,100C N/C	73-SWT-THERM-2	1	FIT TO HEATSINK WIRE TO TRIP1
FIXINGS	71-SCR-M3X8PP/TT	7	FOR HEATSINK & TRIP

C12-PC00110x2. PC00110x1

GP12_98 SOFT START BOARD

CLIVE BUTTON 15/1/99

ANDY EWEN 19/10/99 (AH500-100V)

VERSION 1

Part Name	Part Code	Qty	Reference
THERMISTOR	72-THERMISTER-2	2	SS1 SS2
THERMISTOR	72-THERMISTER-2	2	SS3 SS4 FIT ONLY FOR AH1000 – 100V & 110V UNITS AND RAH/AH500 100V
PCB SPADE TAGS	72-CRIMP-PCB-TAB	2	J1 & J2
PC00110x1		1	

**N.B. THIS BOARD IS USED ON ALL GP12 PRODUCTS EXCEPT THE GP12X
RACK PRE-AMP.**

C12-PC00117x2. PC0117x1 GP12_98 INVERTER PCB
CLIVE BUTTON – 3/3/99

ISSUE 2 INSERTION LIST (R1 CHANGED TO 22K)

Part Name	Part Code	Qty	Reference
R1/4W,47K	72-RM22K	1	R1
			R2 NOT FITTED
CAPE1,10u 63V	72-C10-63VER	1	C1
CAPE1,1u 63V	72-C1-63VER	1	C2
0.1" 2 WAY HEADER	72-HEAD-2W-2	1	PL2
	Screened cable 300mm long hard wired to PCB	1	PL1 Screen to go to bottom pin on overlay to reduce hum
2 X 7/02 WIRES TO 2 WAY IDC SOCKET	72-SKT-IDC-2W	1	PL3 Length = 150mm
3 PIN INVERTER 600Hz 100V	73-INVERTER-12V	1	EL1
ZTX614	72-TZTX614	1	TR1
PCB PC00117x1	73-PC00117	1	

GP12

C12-PC00118x5.

PARTS INSERTION LIST FOR PC00118 ISSUE 2 GP12 EL PANEL AC SUPPLY CURRENT LIMITER PCB

Part Name	Part Code	Qty	Reference
DIODE 1N4148	72-D-IN4148	1	D1
ZENER1,6V2	72-D-BZX55C6V2	1	Z1
R1/4W,100K	72-RM100K	1	R9
R1/4W,10K	72-RM10K	2	R2 R5
R1/4W,680R	72-RM680R	1	R3
R1/4W,220R	72-RM220R	1	R8
R1/4W,470K	72-RM470K	2	R6 R10
R1/4W,47K	72-RM47K	1	R7
R1/4W,4K7	72-RM4K7	1	R1
R2.5W,10K	72-RWW10K-2.5W	1	R4
4013B	72-IC-4013B	1	IC2
CA3059	72-IC-CA3059	1	IC1
TRIAC,Z0103DA	72-TRIAC-Z0103DA	1	SC1
CAPP1,100n 100V	72-C100N-100VP	1	C4
CAPP1,10n 100V	72-C10N-100VP	2	C2 C5
CAPP1,220n 100V	72-C220N-100VP	1	C6
CAPTANT,1u 35V	72-C1-35VT	1	C3
0.1" 2 WAY HEADER	72-HEAD-2W	1	PL1
CONNECTION TO FRONT PANEL FOR GP12	Screened cable 300mm long hard wired to PCB with 72-HEAD-2W on other end.	1	PL2
PCBFUSECLIP	72-FUS-HLD-PCB-4	2	F1
20MM FUSE F100mA	72-FUS-100MA-SW	1	F1
CAPE2,100u 16V	72-C100-16VER	1	C1
	NOT USED		PL3