

SPECIFICATIONS

FINAL UNIT PERFORMANCE:

Inputs:	Unbalanced, True balanced XLR
Input Sensitivity:	1V rms per channel
Power Output:	110W rms per channel into 8Ω @ 1kHz 250W rms bridged
Total Harmonic Distortion:	<0.003% (1kHz)
Residual Output Noise:	<-102dB (unweighted, ref 100W)
Mains Power:	100V, 115V, 230V, AC, 50/60Hz Supplied at correct voltage for country of use

A4A9F13: PA200 Final Unit Test Spec-Issue 1.

Initial checks

- 1) Lead orientation and arrangement. Look for stray ends on shielded pair.
- 2) Check output terminal tags are well clear of any contact.
- 3) Transformer should not be able to be turned by hand. Tighten if necessary. Check leads are not fouled by bracket.
- 4) Has correct voltage been selected on power PCB ?
- 5) Check orientation of diodes & electrolytics.
- 6) Using DVM, check for shorts between fetplates and ground.
- 7) Set both potentiometers fully clockwise.
- 7a) Set switch on rear to 'Stereo'.

Power-up tests

- 8) Set variac to 10Vac*. Plug in & switch on.
- 9) Check supplies: fetplates @ 1.7V and -1.7V, SMD amp modules @ 2V and -2V.
- 10) Set mains to 100V ac*. Bicolour LED and LED on control board will glow dimly.
- 11) Check supplies: 20V, -20V, 25V, -25V.
- 12) Measure bias on each channel. Should be 0 mA before adjustment. Check it can be set to approx 400mA. Turn bias down again.
- 13) Set mains to rated voltage. On power-up, bicolour LED will glow orange then after 10s green, & output relays switch over.
- 14) Set bias on each channel to 320-340mA. Check stable. Switch off & unplug.
- 15) Solder two VSPAD6.35, one on each amp board.
- 16) Load each channel with 8 Ohms.

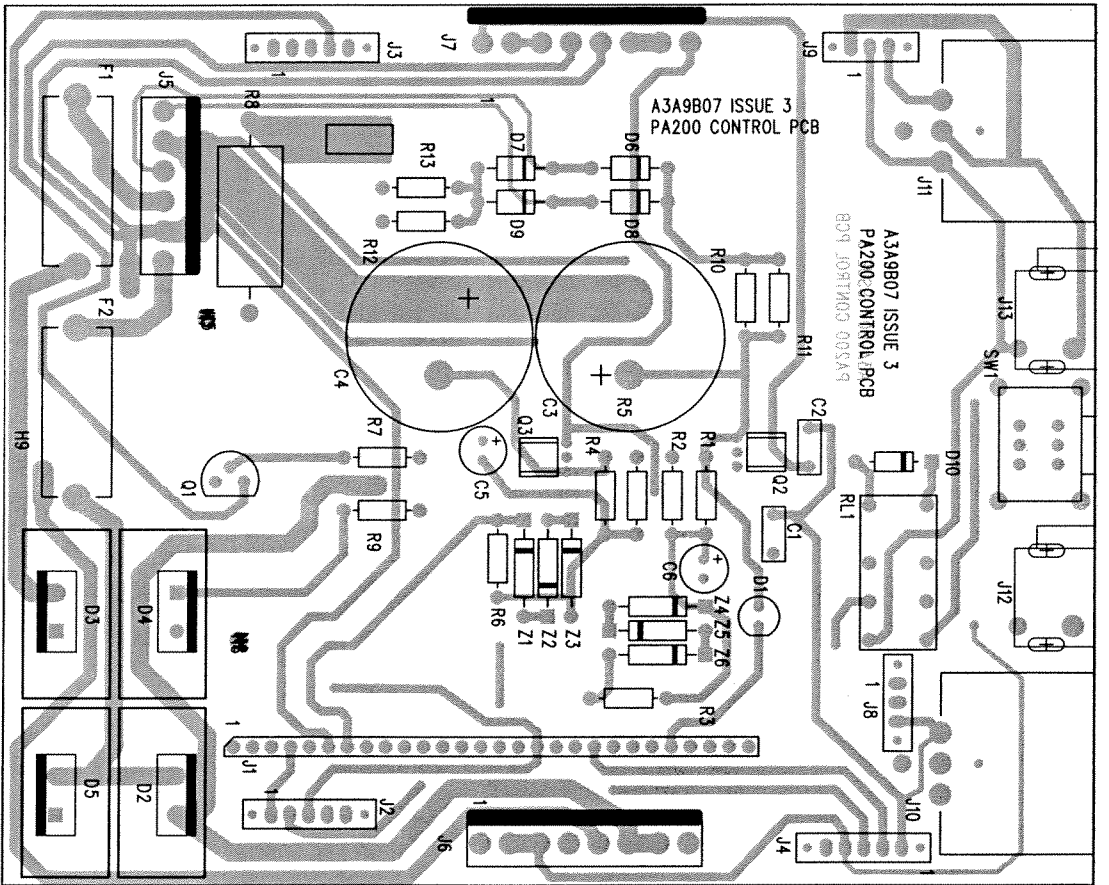
*{ * for 230V unit. Scale down for other units as appropriate }*

Test each channel using both balanced & unbalanced inputs:

- 17) 100W rms @ $< 0.003\%$ THD+N.
- 18) Increase input level until protection activates (~ 120W). LED goes RED and output relays cut out. Turn input level down.

Bridged operation:

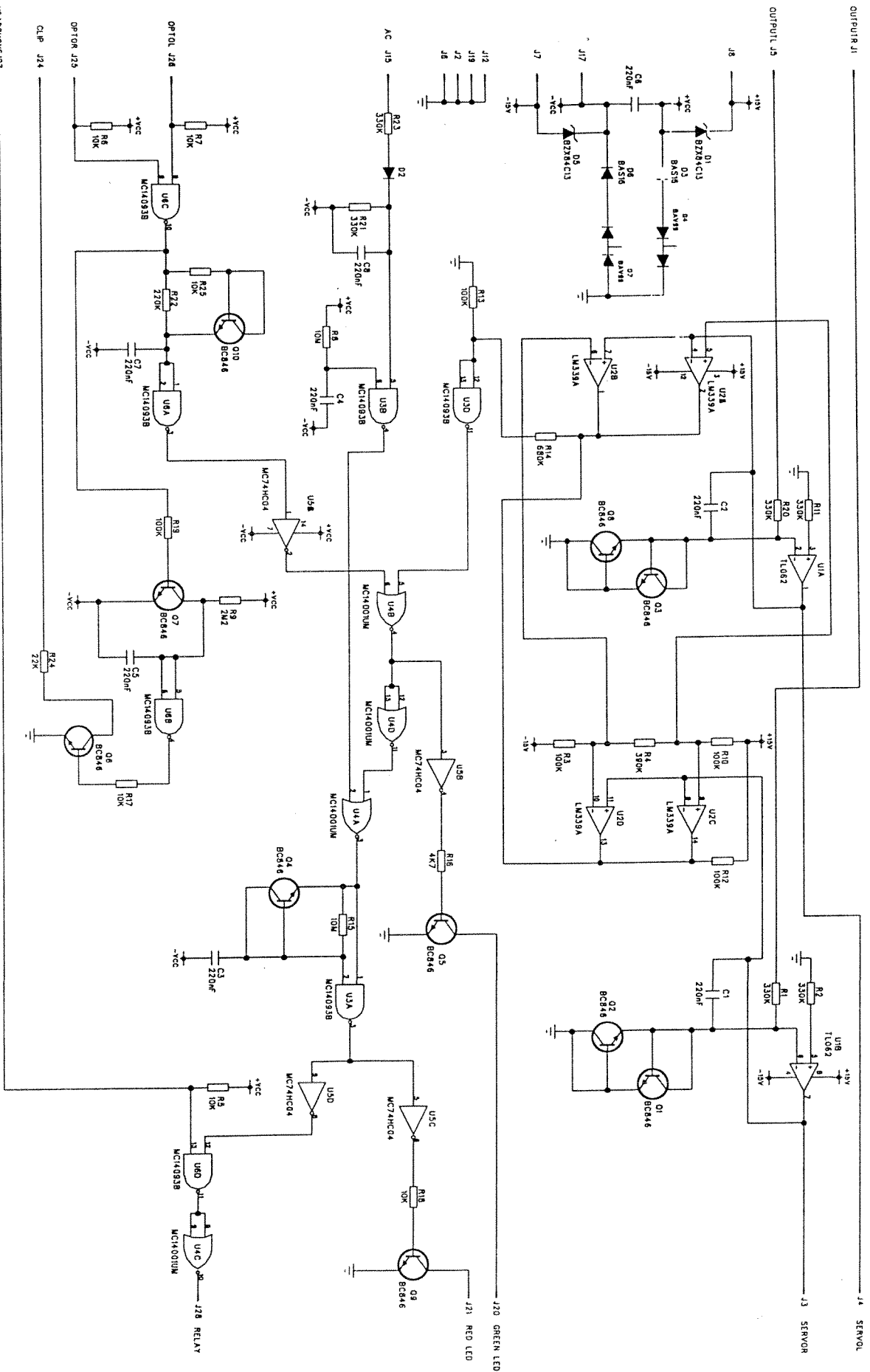
- 19) Switch off. Set switch on rear to 'Bridged'
- 20) Check Blue LED comes on.
- 21) Feed signal to Right XLR input only.
- 22) Protection should activate at ~400W output.
- 23) Switch off and set switch back to 'Stereo'.



MATERIAL FINISH

DIMENSIONS IN mm TOLERANCES

0.0	± 0.5	SCALE	USED ON	ISS	AMENDMENT	ECN	DATE	COPYRIGHT © 1996
0.0	± 0.3		3	INITIAL ISSUE			16/4/96	DRAWN DATE
0.00	± 0.1		DO NOT SCALE			PA200		16/4/96
UNLESS OTHERWISE STATED			TITLE		PART NO.		DRG. NO.	
			OVERLAY L2 TRACKSIDE + SILKSCREEN		PA200 CONTROL PCB		A3A9B07-L2	
							ISS (3)	



USED ON

MATERIAL

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DIMENSIONS IN mm

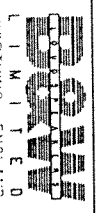
SCALE

FINISH

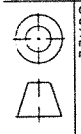
TITLE

DRAWN

DATE



TOLERANCES
 0.5
 0.0 ± 0.3
 0.00 ± 0.1



1 INITIAL ISSUE

VAI150/PA200 SMT PROTECT MODULE

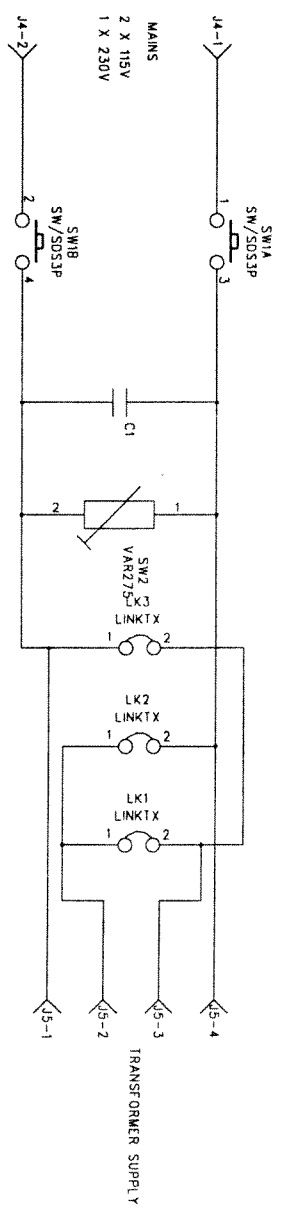
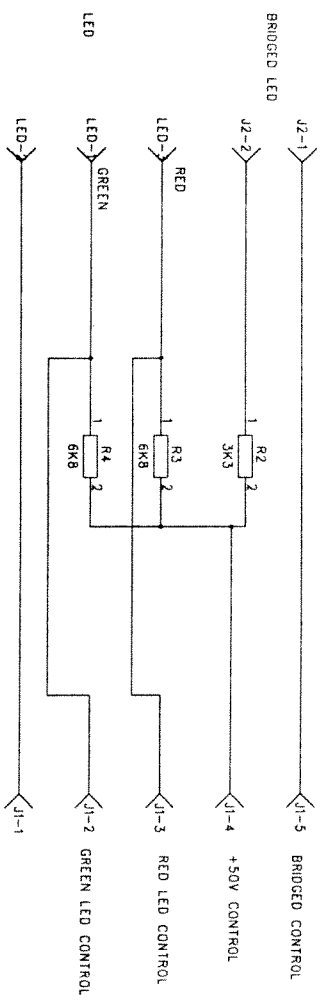
19-3-96

PLB 19-3-96

ISS

PART NO.

DRG. NO. A3A7B38-2Q1



MATERIAL

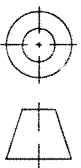
FINISH

DIMENSIONS IN mm

TOLERANCES

0 ± 0.5
 0.0 ± 0.3
 0.00 +_ 0.1

SCALE



USED ON

1 INITIAL ISSUE

AMENDMENTS

ECN

DATE

PART NO.

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DRAWN

DATE

DRG. NO.

A3A9B27-20

ISS

1

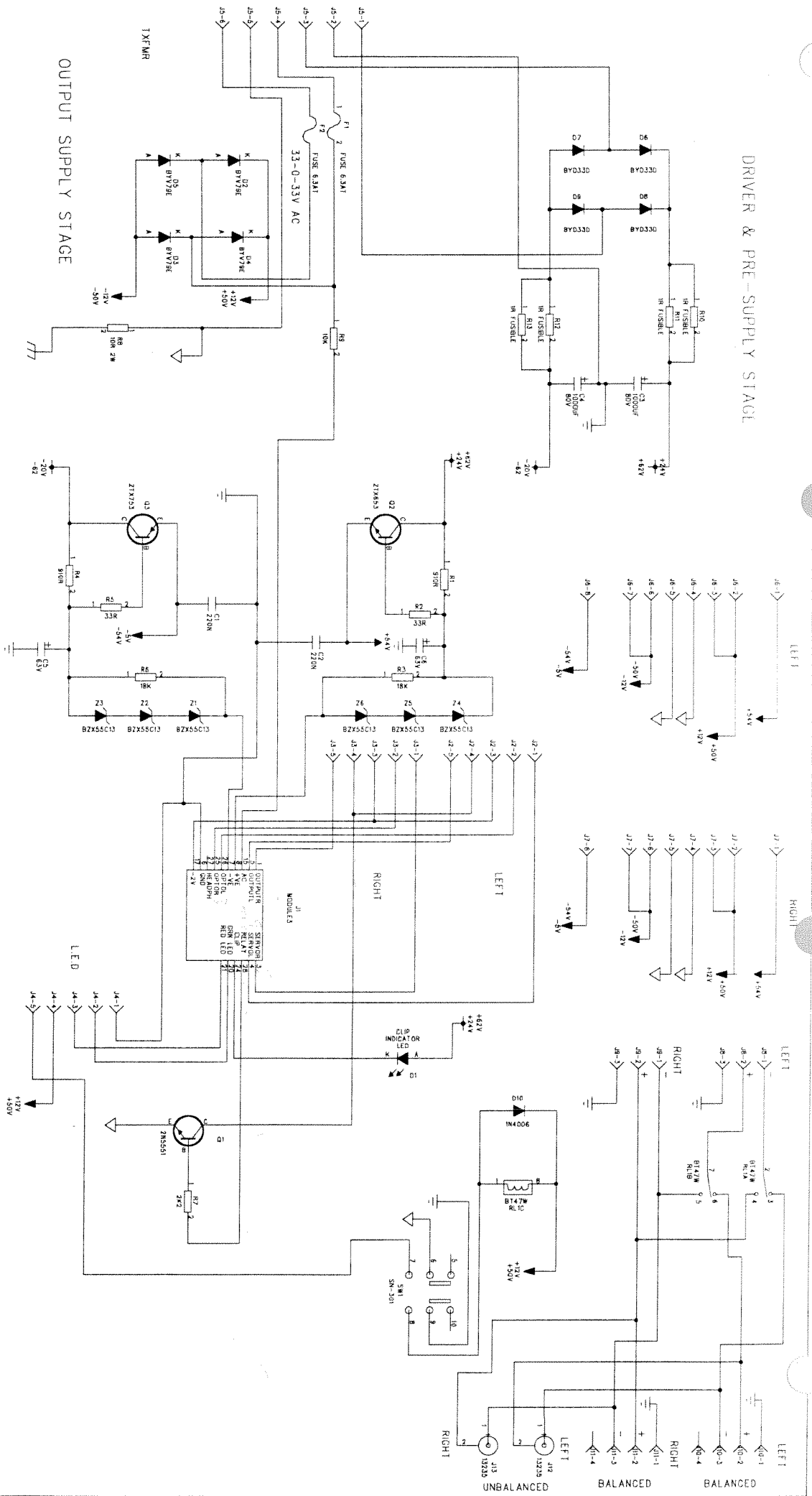


UNLESS OTHERWISE STATED

DO NOT SCALE

PA200 POWER SWITCH PCB SCHEMATIC

DRIVER & PRE-SUPPLY STAGE

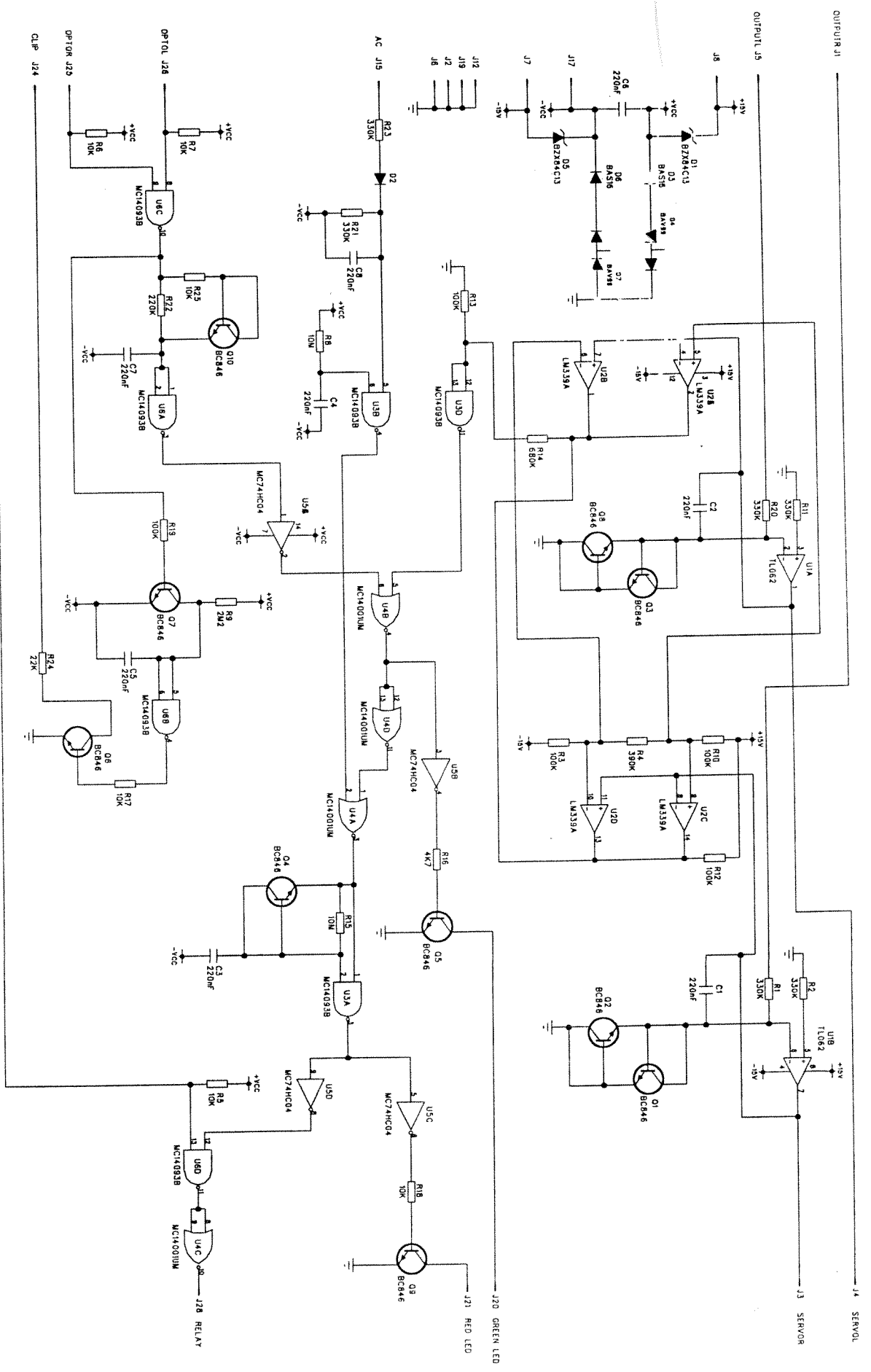


USED ON A3A9B07 MATERIAL

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0.0	± 0.3		
0.00	± 0.1		

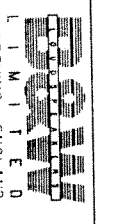
TITLE	PA200 POWER AMPLIFIER
3	ADDED NEW CAPS C5 & C6
2	CHANGED ALL RES TO 100M PITCH
DATE	22-2-96
PART NO.	15-1-96
DRG. NO.	A3A9B07-203
ISS	

CONTROL & DRIFT CALIBRATION



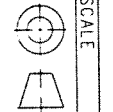
USED ON

HE ADPHONE J27



DIMENSIONS IN mm

TOLERANCES	
0.0	± 0.5
0.0	± 0.3
0.00	± 0.1

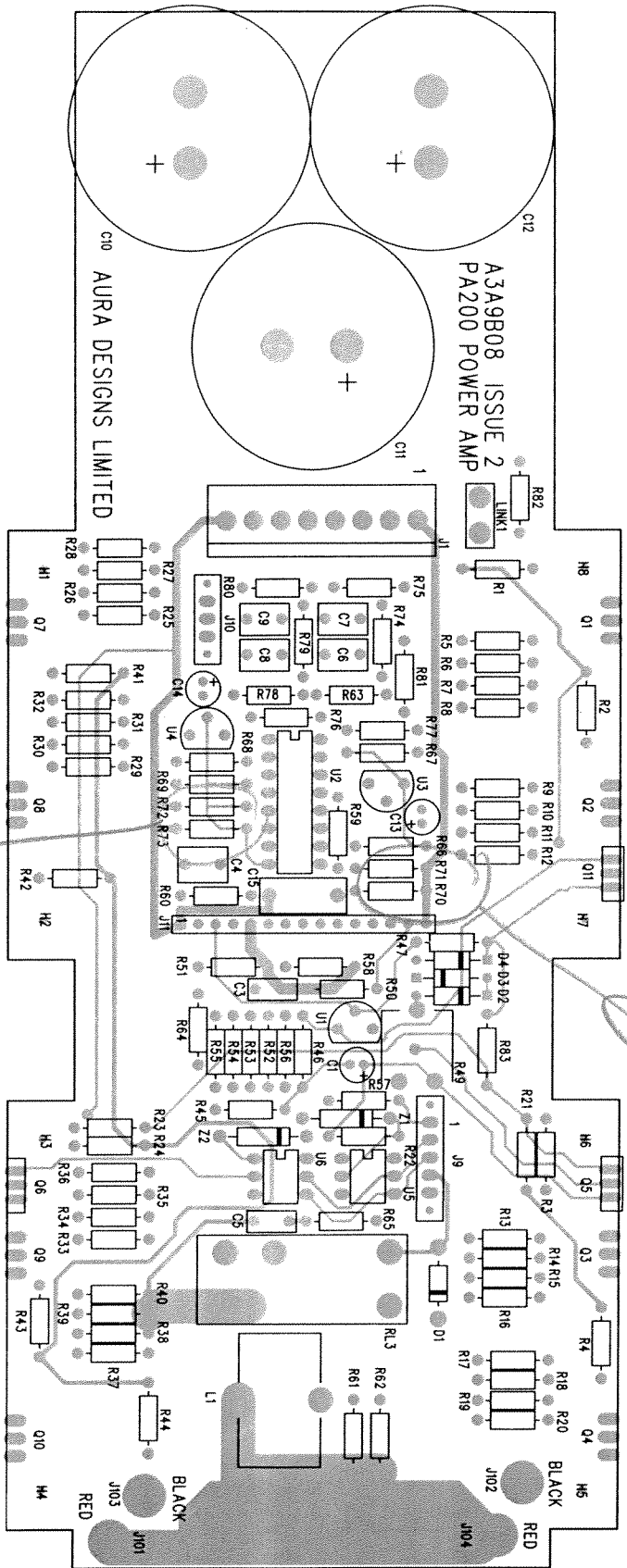


SCALE

FINISH

MATERIAL

TITLE	1 INITIAL ISSUE	DATE	19-3-96
VAI50/PA200 SMT PROTECT MODULE		DRG. NO.	A3A7B38-207
COPYRIGHT © 1996		DATE	19-3-96
DRAWN PLB		PART NO.	



AURA DESIGNS LIMITED

A3A9B08 ISSUE 2
PA200 POWER AMP

STAMP OFF PCB BY 10mm
TW

STAMP OFF PCB BY 10mm

TW

MATERIAL FINISH

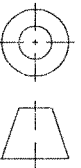
DIMENSIONS IN mm

TOLERANCES

0.5
0.3
0.1

UNLESS OTHERWISE STATED DO NOT SCALE

SCALE



ISS

2 INITIAL ISSUE

AMENDMENT

PA200

ECN

16/4/96

DATE

16/4/96

PART NO.

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DRAWN DATE

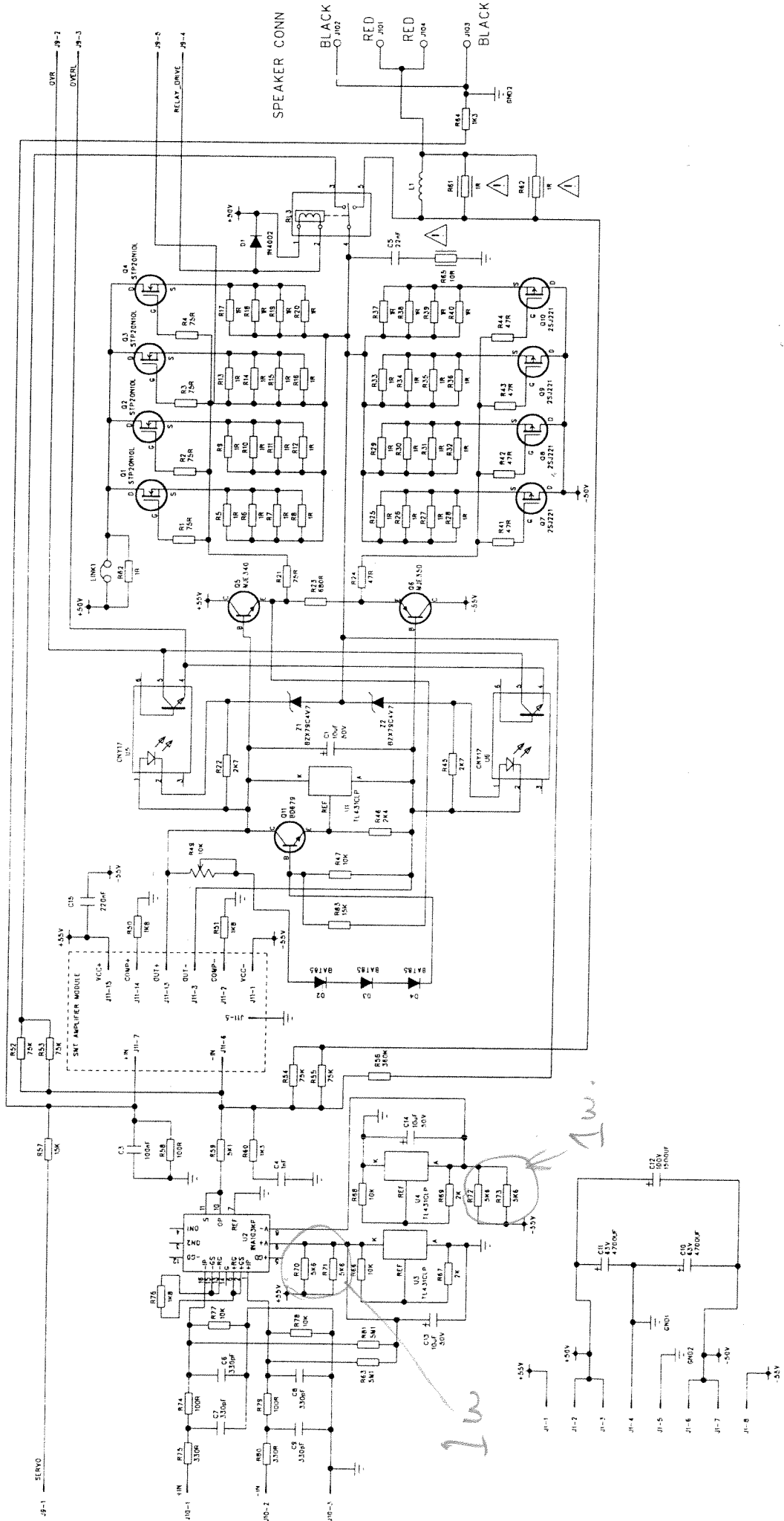
APT 16/4/96

DRG. NO.

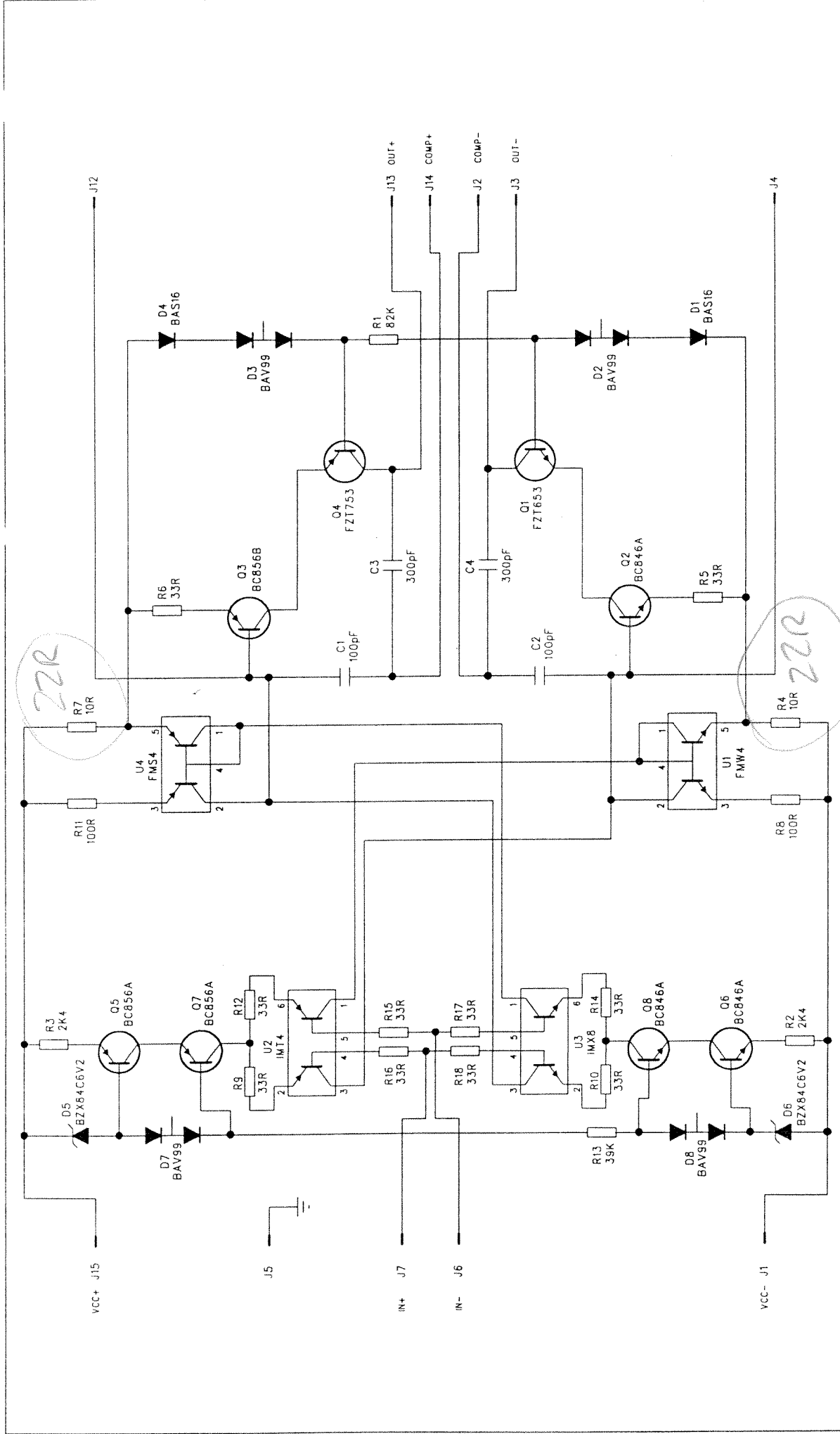
A3A9B08-L1 2

PA200 POWER AMP PCB

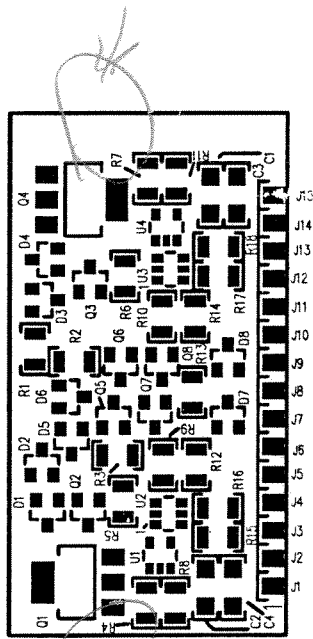
OVERLAY L1 TRACKSIDE + SILKSCREEN





COPYRIGHT © 1995		DRAWN DATE	
10-12-95		23-2-95	
10-12-95		PART NO.	
2		CHANGED R4R TO R2,3,4 & ADDED CONN J9-5 TO R13	
TITLE		PA200 POWER AMPLIFIER SCHEMATIC	
DRG. NO		ISS	
A3A9R08-200			
MATERIAL		FINISH	
PA200		SCALE	
DIMENSIONS IN mm		TOLERANCES	
0.0		± 0.5	
0.0		± 0.3	
0.00		± 0.1	
USED ON		L I M I T E D	



MATERIAL	FINISH		SCALE	DIMENSIONS IN mm TOLERANCES 0. ± 0.5 0.0 ± 0.3 0.00 ± 0.1		ISS USED ON TITLE	AMENDMENT	ISS	DATE	COPYRIGHT	
	1	INITIAL ISSUE						19-3-96	DATE		19-3-96
VA150/PA200 SMT AMPLIFIER MODULE								PART NO.		DRAWN APT	
VA150/PA200 SMT AMPLIFIER MODULE								PART NO.			DATE
VA150/PA200 SMT AMPLIFIER MODULE								DRG. NO.		ISS	
VA150/PA200 SMT AMPLIFIER MODULE								A3A7B39-20		(1)	



AURA DESIGNS LTD
 VA150/PA200 AMPLIFIER MODULE
 PLB 24-1-95
 A3A7B39-40 ISSUE LAYER 1 SILK SCREEN

MATERIAL	FINISH		COPYRIGHT © 1996	
			DRAWN APT	DATE 19/3/96
		ISS 1	ECN	DATE 19/3/96
		USED ON	AMENDMENT VA150/PA200	
		TITLE	AMPLIFIER MODULE PCB SILK SCREEN	
DIMENSIONS IN mm		SCALE	PART NO.	
TOLERANCES		 	DRG. NO. A3A7B39-40	
0. ± 0.5			ISS 1	
0.0 ± 0.3			1	
0.00 ± 0.1		UNLESS OTHERWISE STATED DO NOT SCALE		