

SPECIFICATIONS

FINAL UNIT PERFORMANCE:

Inputs:	Unbalanced, True balanced XLR
Input Sensitivity:	1V rms per channel
Power Output:	110W rms per channel into 8 Ω @ 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.

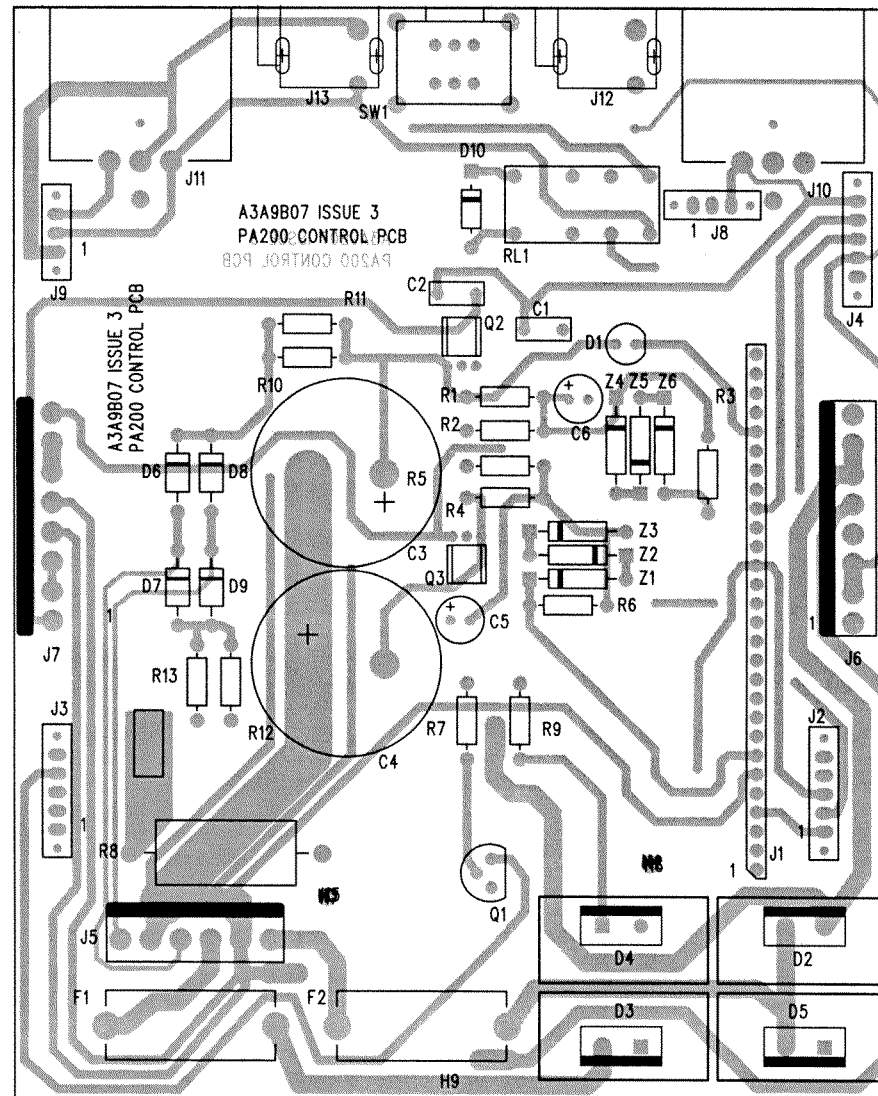
*{ * for 230V unit. Scale down for other units as appropriate }*

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'.

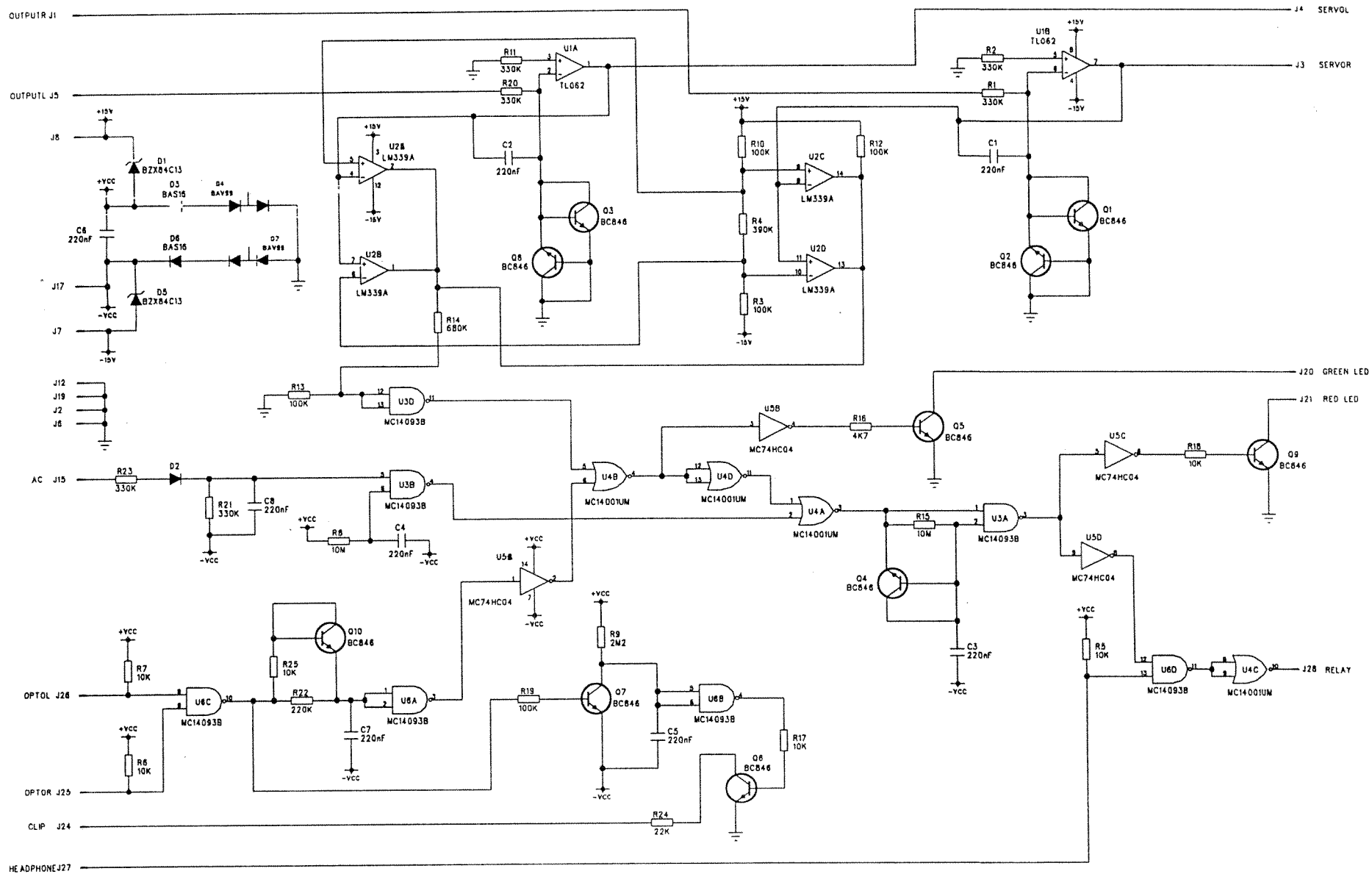


MATERIAL		FINISH				COPYRIGHT © 1996	
						DRAWN	DATE
						APT	16/4/96
						PART NO.	
						DRG. NO.	
						ISS	
						A3A9B07-L2	
						(3)	

DIMENSIONS IN mm		SCALE	
TOLERANCES			
0.	± 0.5		
0.0	± 0.3		
0.00	± 0.1		
UNLESS OTHERWISE STATED		DO NOT SCALE	

3	INITIAL ISSUE		16/4/96
ISS	AMENDMENT	ECN	DATE
USED ON		PA200	
TITLE		PA200 CONTROL PCB OVERLAY L2 TRACKSIDE + SILKSCREEN	

PART NO.	
DRG. NO.	
ISS	
A3A9B07-L2	
(3)	



USED ON

MATERIAL

BOW
LIMITED

DIMENSIONS IN mm

SCALE

TOLERANCES
0. ± 0.5
0.0 ± 0.3
0.00 ± 0.1



FINISH

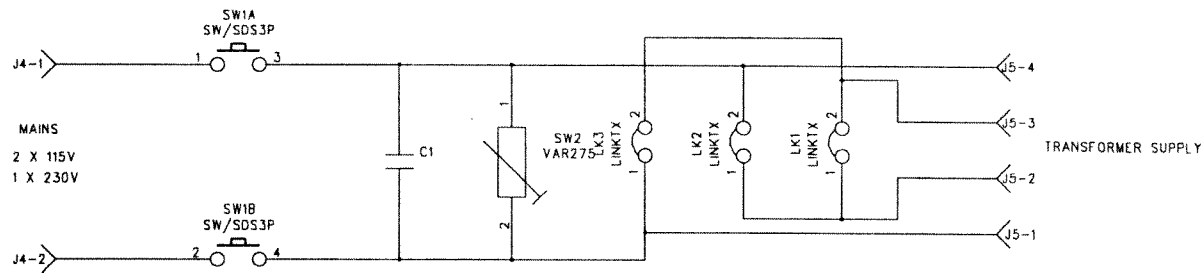
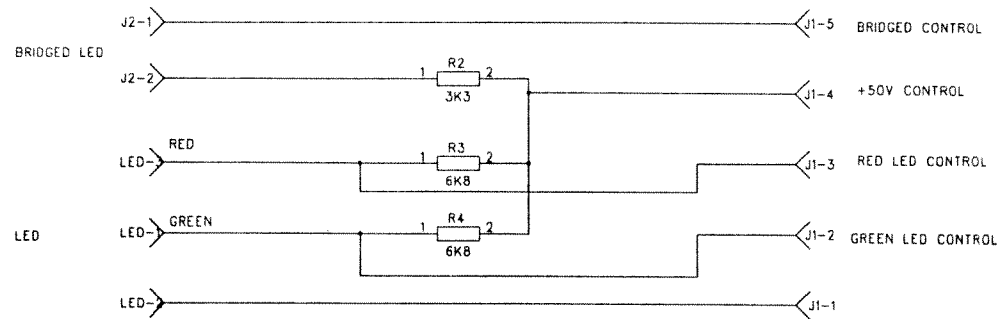
TITLE

VA150/PA200 SMT PROTECT MODULE

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DRAWN DATE
PLB 19-3-96
PART NO.
DRG. NO. ISS
A3A7B38-2Q1

1 INITIAL ISSUE

19-3-96



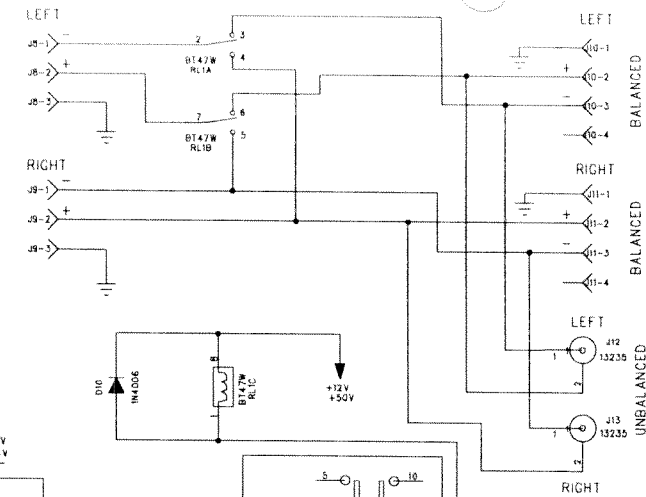
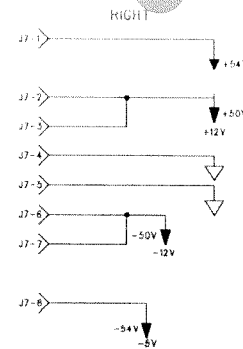
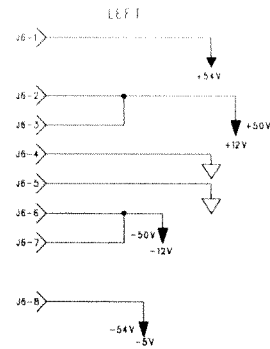
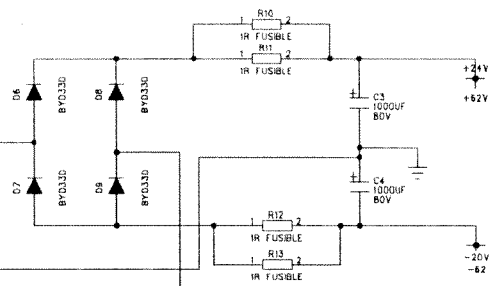
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	TOLERANCES	 DO NOT SCALE	USED ON				DRG. NO. A3A9B27-20
	0. ± 0.5		TITLE				
	0.0 ± 0.3		PA200 POWER SWITCH PCB SCHEMATIC				
	0.00 +_ 0.1						
UNLESS OTHERWISE STATED						ISS 1	

D&W
LOUDSPEAKERS
LIMITED
WORTHING ENGLAND

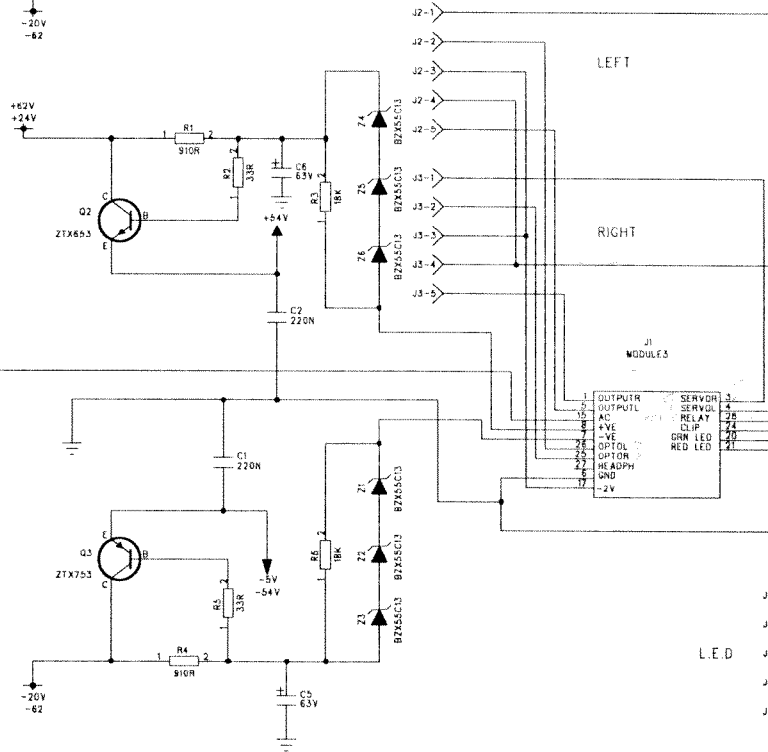
DIMENSIONS IN mm
TOLERANCES
0. ± 0.5
0.0 ± 0.3
0.00 +_ 0.1
UNLESS OTHERWISE STATED

SCALE
DO NOT SCALE

DRIVER & PRE-SUPPLY STAGE



OUTPUT SUPPLY STAGE



L.E.D.

+12V
+50V

USED ON

A3A9B07

MATERIAL

FINISH

TITLE

PA200 POWER AMPLIFIER
CONTROL & PROTECT SCHEMATIC

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DRAWN APT DATE 8-6-95

PART NO.

DRG. NO. ISS

A3A9B07-20(3)

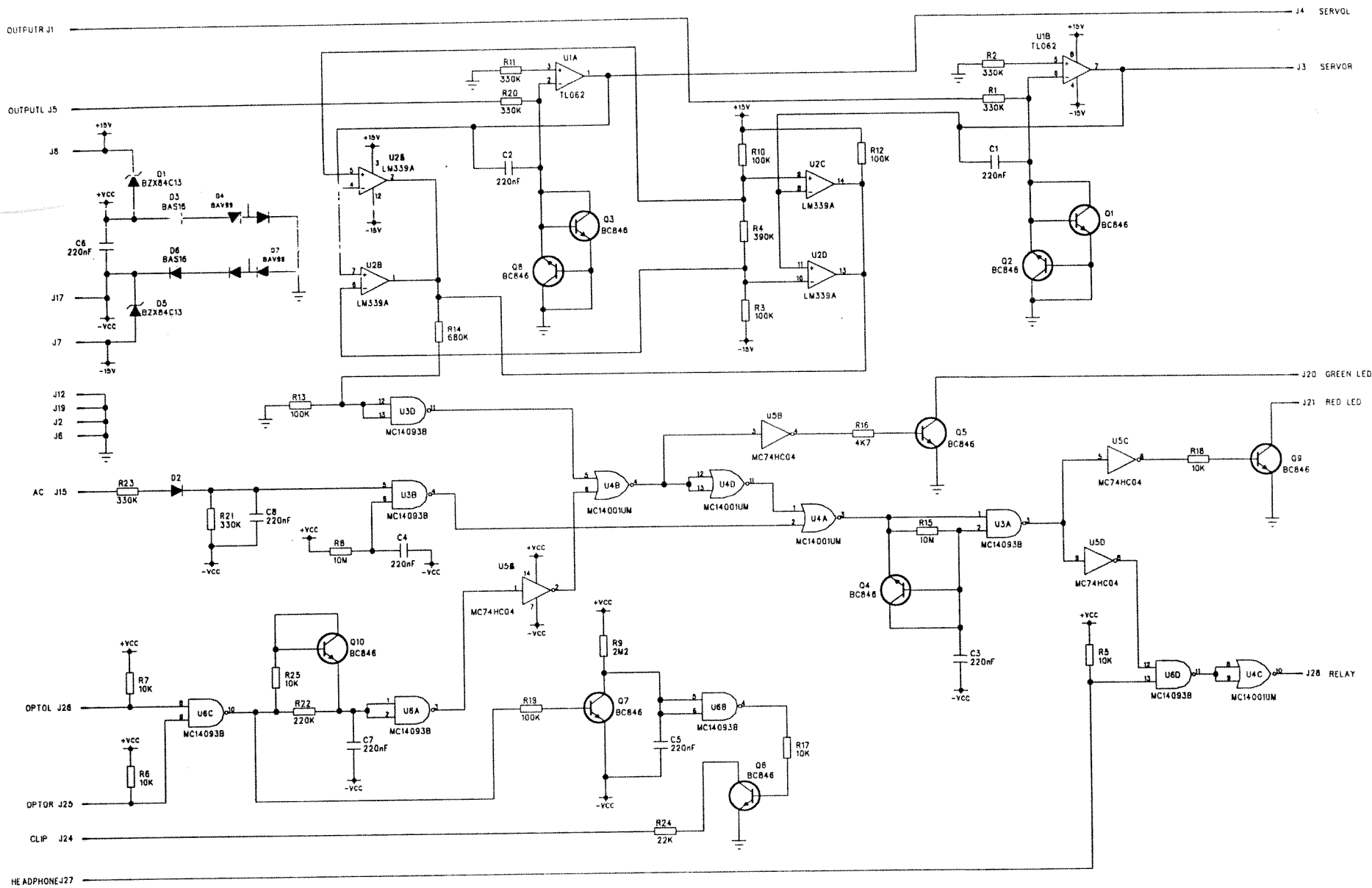
B&W
LIMITED

DIMENSIONS IN mm

SCALE

TOLERANCES
0.1 ± 0.5
0.0 ± 0.3
0.00 ± 0.1





USED ON

MATERIAL

FINISH



DIMENSIONS IN mm

SCALE

TOLERANCES

0. ± 0.5
0.0 ± 0.3
0.00 ± 0.1



TITLE

VA150/PA200 SMT PROTECT MODULE

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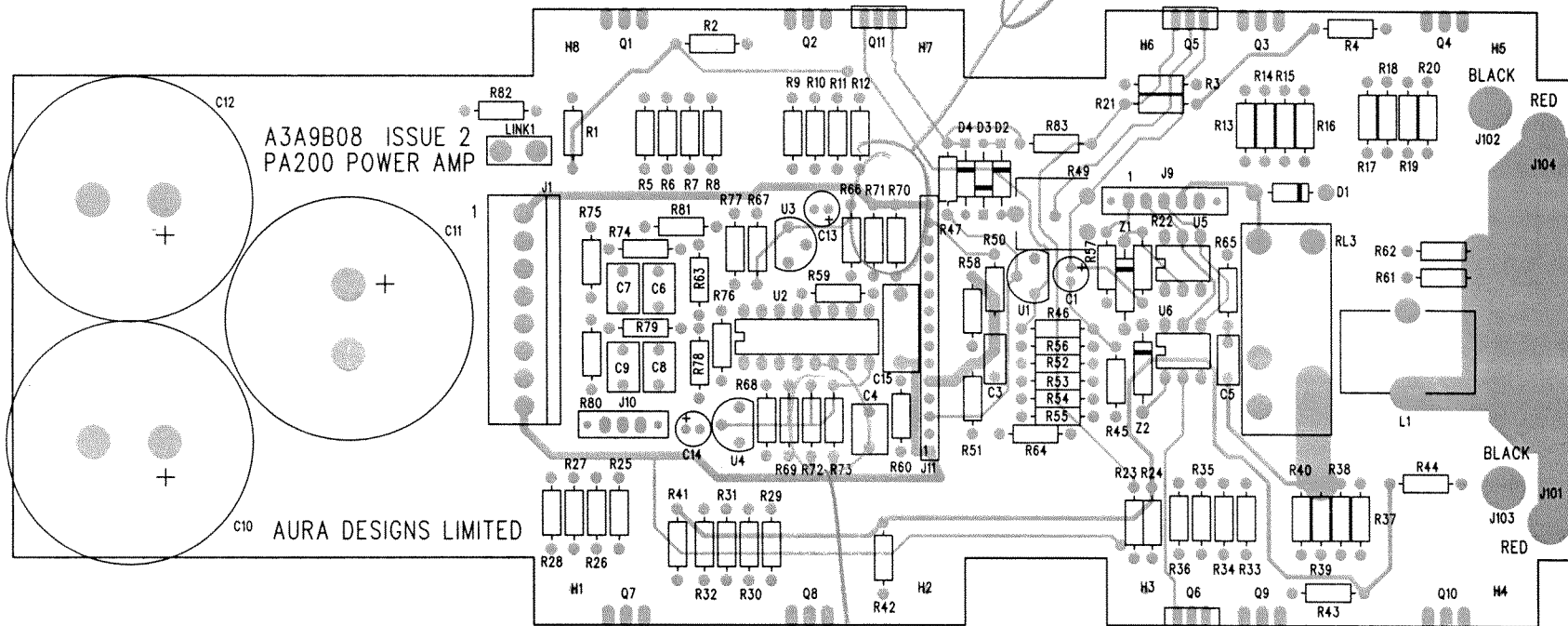
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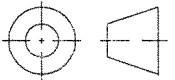
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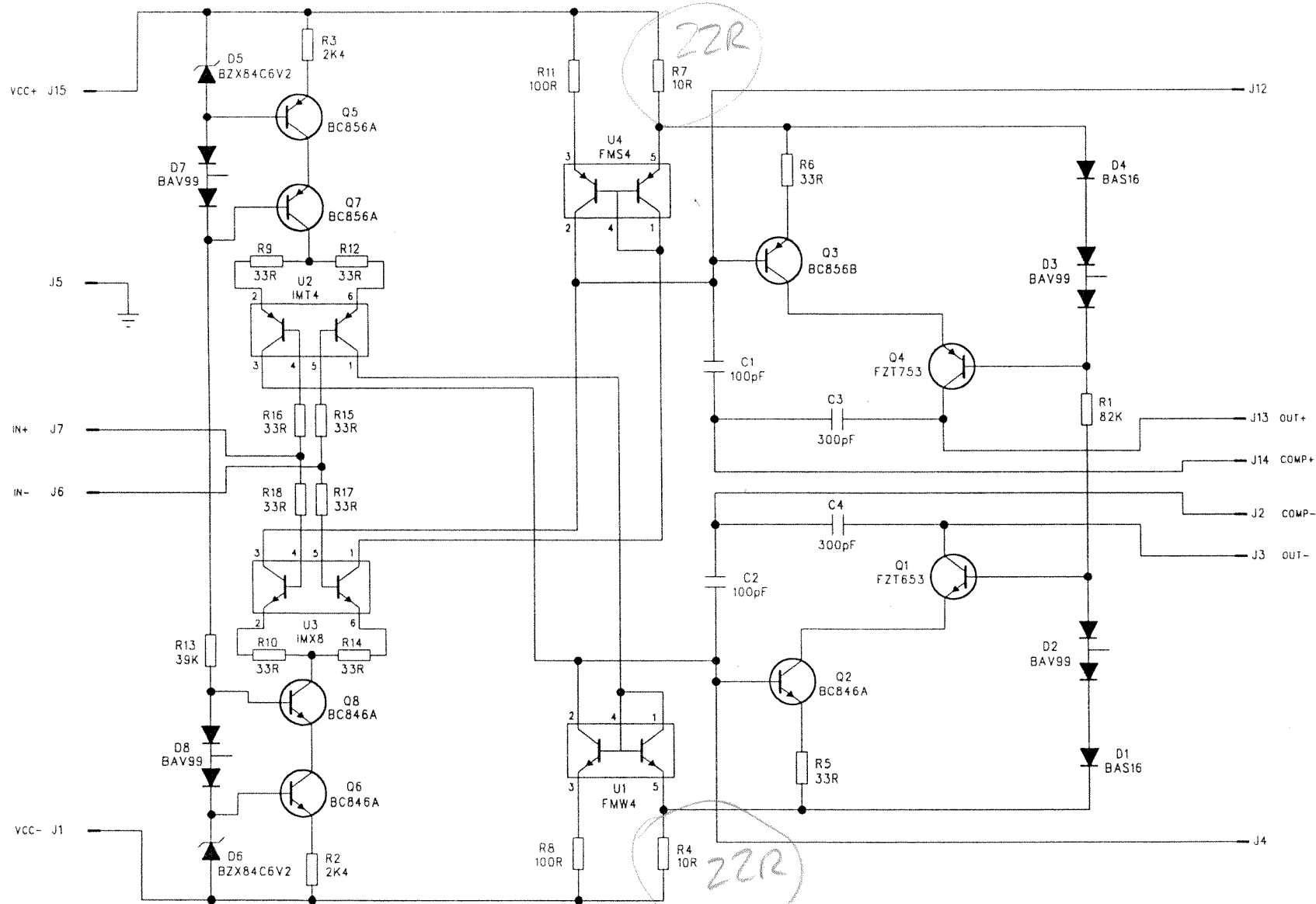
PART NO.

DRG. NO. ISS

A3A7B38-201



MATERIAL	FINISH	COPYRIGHT © 1996			
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DIMENSIONS IN mm TOLERANCES 0. ± 0.5 0.0 ± 0.3 0.00 ± 0.1 UNLESS OTHERWISE STATED		SCALE  DO NOT SCALE	USED ON PA200 TITLE PA200 POWER AMP PCB OVERLAY L1 TRACKSIDE + SILKSCREEN		
				PART NO. DRG. NO. A3A9B08-L1 ISS (2)	



MATERIAL

FINISH

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1 INITIAL ISSUE

19-3-96

DRAWN
APT

DATE
19-3-96

ISS AMENDMENT

ECN DATE

PART NO.

USED ON

TITLE

DRG. NO.

ISS

VA150/PA200 SMT AMPLIFIER MODULE

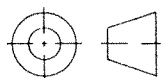
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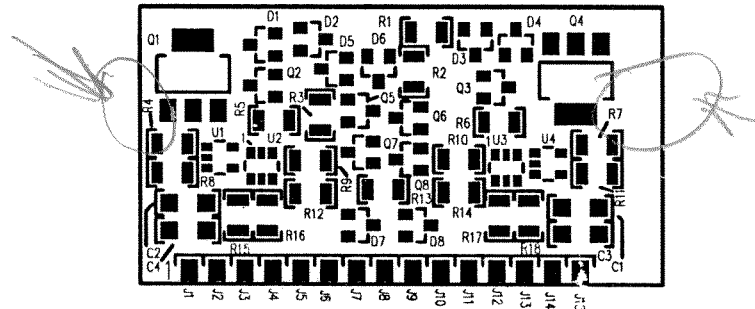
B&W
LOUDSPEAKERS
LIMITED
WORTHING ENGLAND

DIMENSIONS IN mm

TOLERANCES
0. ± 0.5
0.0 ± 0.3
0.00 ± 0.1

SCALE





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

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