CONTAC
DEOXIDAN

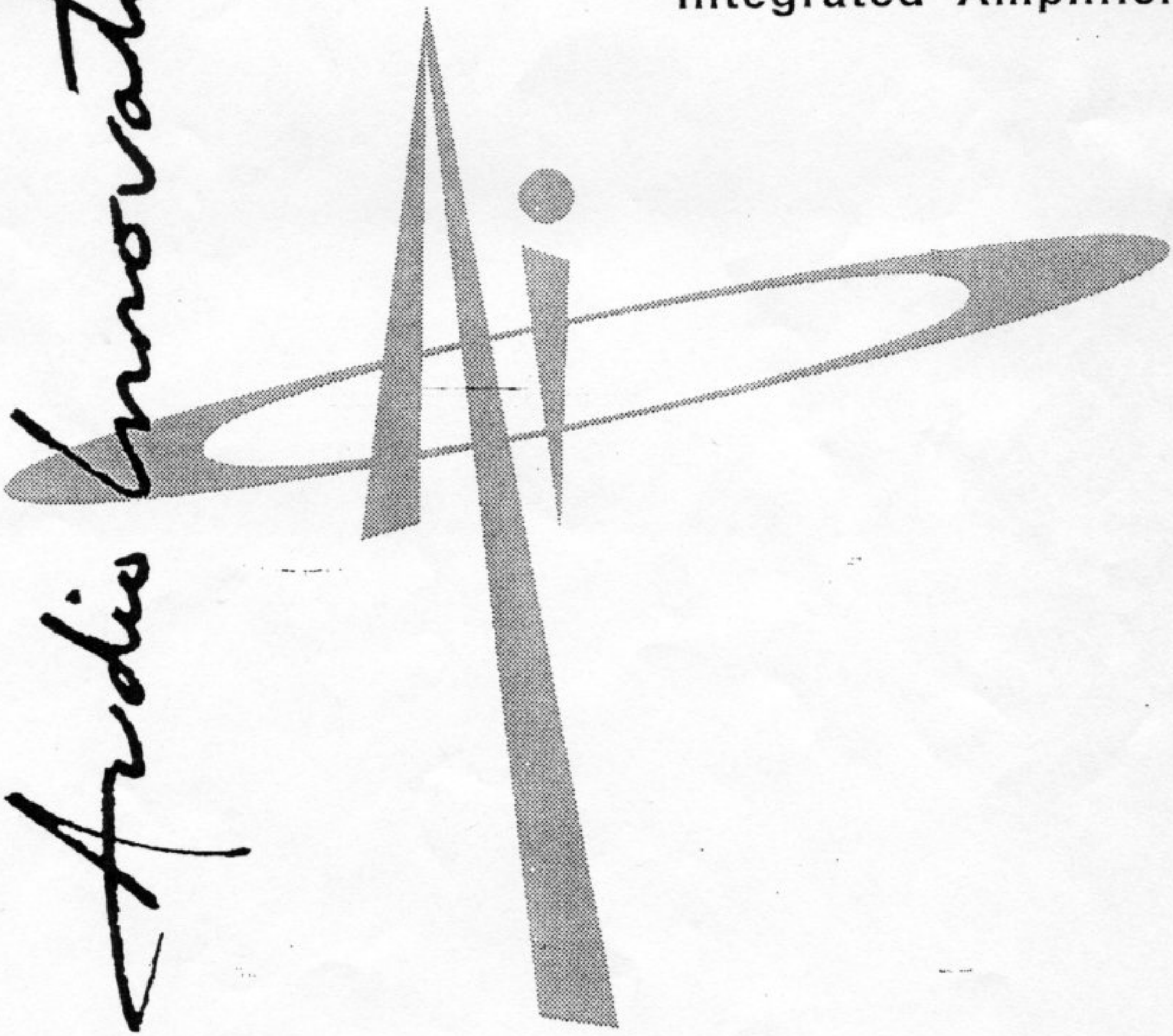
OFF
CD
TUNER
AUX 1
AUX 2
TAPE 1
TAPE 2
SOURCE

RECORD
CD
TUNER
SOURCE
TAPE 1>2
TAPE 2>1

Service Information

ALTO

Integrated Amplifier



Set up Procedure

1. Quiescent Current Set up

(i) Switch on unit and allow to stand for 5 Minutes, ensure volume control is at minimum.

(ii) a. Using a DC voltmeter relative to ground, measure voltage of main power supply on FS1 or FS2.

b. Measure voltage on the left hand side of R21 which should be 50% of the main power supply voltage +/-0.5 Volt. Adjust if necessary with VR3.

c. Measure voltage on right hand side of R22 and adjust with VR4 as necessary.

(iii) a. With DC voltmeter connected across R21 reading should be 30mV +/- 1mV, adjust with VR1 as necessary.

b. Measure voltage across R22 and adjust with VR2.

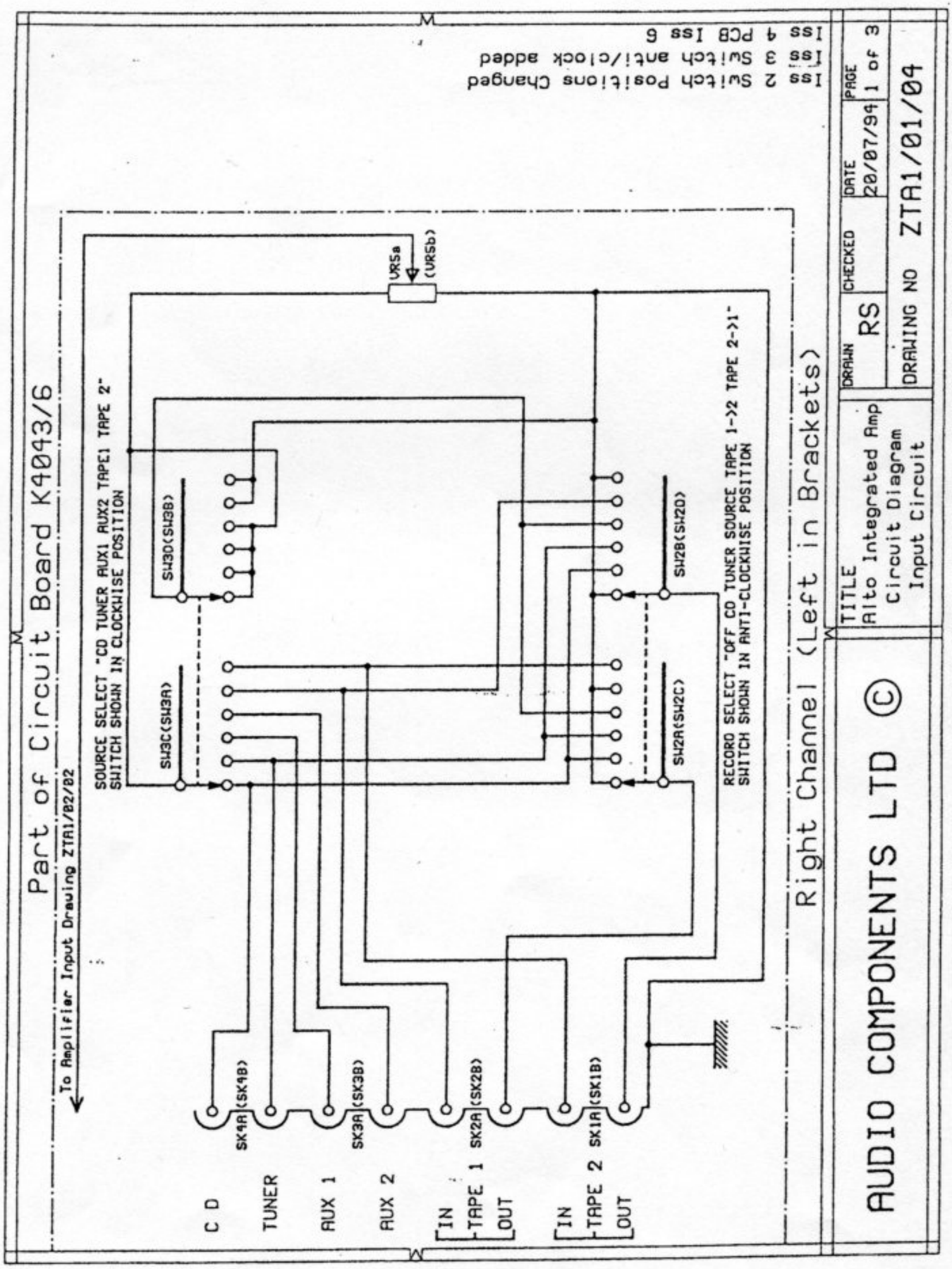
(iv) Repeat instructions (ii) and (iii) until readings are stable over a period of 5 minutes. (There is a thermal delay between adjusting the quiescent current and the reading stabilising)

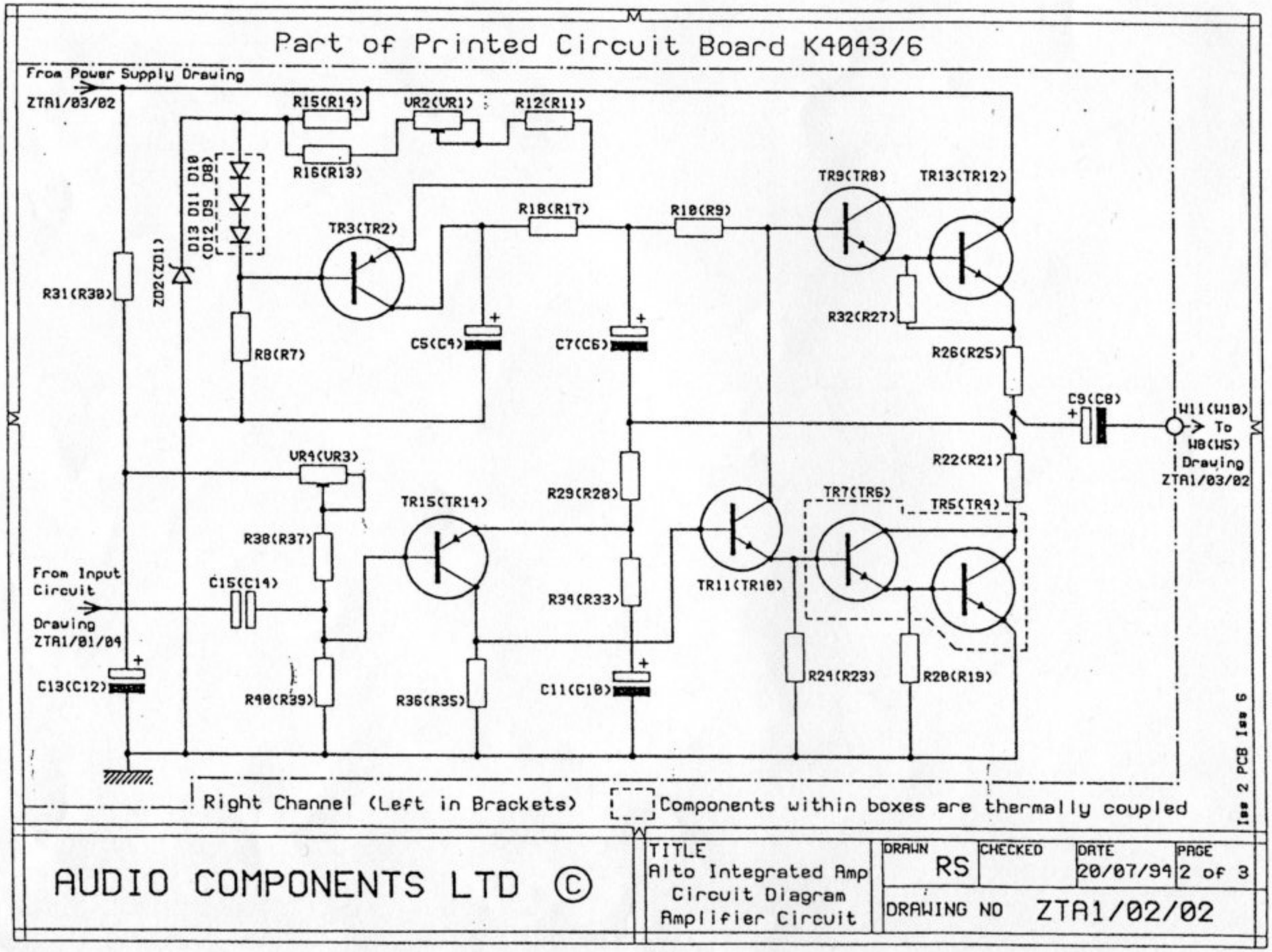
2. Thermal Compensation Check

(i) Carry out above set up procedures, connect 8 ohm dummy load, apply 1kHz sine wave and run unit at just below clipping level for 5 minutes.

(ii) Remove input signal, recheck voltages across R21 and R22 which must be lower.

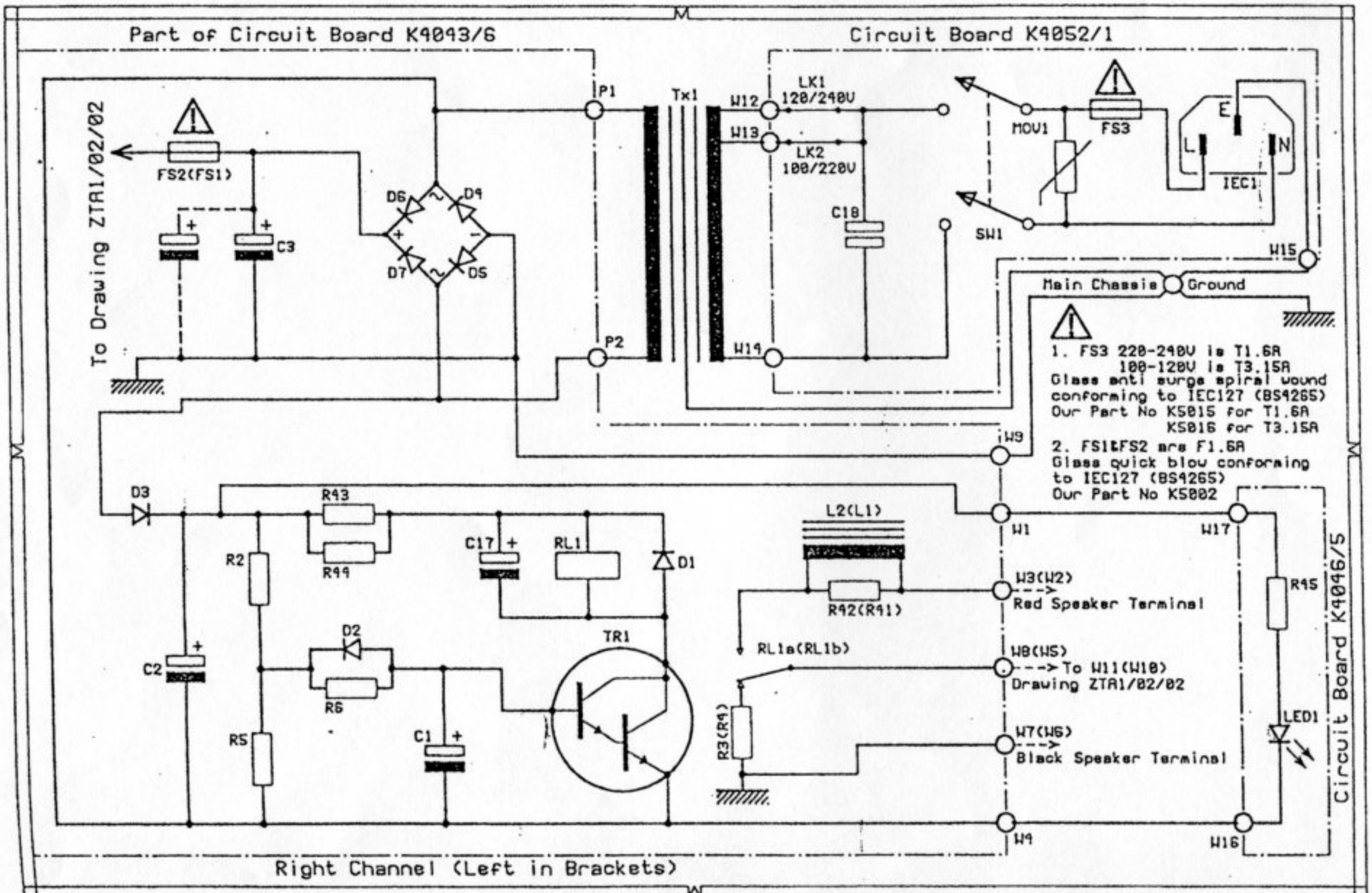
Circuit Diagram





AUDIO COMPONENTS LTD ©

TITLE Alto Integrated Amp Circuit Diagram Amplifier Circuit	DRAWN RS	CHECKED	DATE 20/07/94
	PAGE 2 of 3		
	DRAWING NO ZTA1/02/02		



AUDIO COMPONENTS LTD ©	TITLE Alto Integrated Amp Circuit Diagram PSU & Relay Circuit	DRAWN RS	CHECKED	DATE 20/07/94
		PAGE 3 of 3		
	DRAWING NO ZTA1/03/02			

Specifications

Inputs (Line Level)	4
Tape Loops	2
Input Sensitivity (Full Power)	265 mV rms
Input Impedance	47 Kohms
Output Power (at 1kHz into 8 ohms)	35 Watts
Speaker Impedance	4 to 16 ohms
Frequency Response (-3 dB)	20 Hz - > 100 kHz
Power Consumption (Maximum)	400 Watts
Product Dimensions	430(W) x 300(D) x 84(H) mm
Shipping Dimensions	490(W) x 450(D) x 145(H) mm
Shipping Weight	6.5 Kg

The manufacturer retains the right to alter the specification of this product at any time.

designed and manufactured in the U K

Audio Components Limited

Albany Court, Albany Road, Granby Industrial Estate Weymouth, Dorset DT4 9TH. United Kingdom
Telephone: **0305 761017** Facsimile: **0305 761492**

BILL OF MATERIALS K40437.PCB

Quantity	Package	Value	Components
1	LED	A5500 LED 3 BLUE	
1	C R P 02 025	C1010 220u 10V	C1
3	C R P 02 05	C1022 100u 63V	C10,C11,C2
3	C R P 02 035	C1023 22u 63V	C12,C13,C17
2	C R N 09-012	C4005 0u47 400V	C14,C15
1	C R N 06 04	C4016 0u1 250V X	C18
1	C C P SPEC	C1019 10000u 63V	C3
2	C R P 02 035	C1026 10u 63V	C4,C5
2	C R P 02 05	C1024 220u 63V	C6,C7
2	C C P 04 12	C1020 2200u 63V	C8,C9
2	D 07015	A2023 1N4004	D1,D3
3	1N4148R	A2004 1N4148	D10,D11,D13
3	1N4148	A2004 1N4148	D12,D8,D9
1	D 0701	A2004 1N4148	D2
2	BR 07TL	A2006 1N5404	D4,D7
2	BR 07TR	A2006 1N5404	D5,D6
1	FUSE1L	K5013 F/HLD 20mm	FS1
1	FUSE1R	K5013 F/HLD 20mm	FS2
1	FUSE	K5013 F/HLD 20mm	FS3
1	FUSE1	K5013 F/HLD 20mm	FSS
1	IEC	K1003 PCB IEC SK	IEC1
2	COIL	A6034/2 5uH COIL	L1,L2
1	LINK 035	240 OR 120 VOLTS	LK1
1	LINK 035	220 OR 100 VOLTS	LK2
18	LINK 12S	W2555 1.2" LINK	LKA1,LKA10,LKA11,LKA12,LKA15, LKA18,LKA2,LKA22,LKA25,LKA26, LKA27,LKA28,LKA29,LKA3,LKA30, LKA31,LKA32,LKA6
14	LINK 12SS	W2555 1.2" LINK	LKA13,LKA14,LKA16,LKA17,LKA19, LKA20,LKA21,LKA23,LKA24,LKA4, LKA5,LKA7,LKA8,LKA9
2	LINK 12	W2555 1.2" LINK	LKA33,LKA34
1	MOV	R7000/R7001 MOV	MOV1
4	SSPIN	F4022 1.3 PIN	P1,P2,P4,P5
3	R 05	R1017 1k0 0W25	R10,R5,R9
2	R 05	R1025 270R 0W25	R11,R12
2	R 05	R1027 10R 0W25	R13,R16
4	R 07	R3004 1k0 1W	R14,R15,R17,R18
4	R 05S	R1018 47R 0W25	R19,R20,R27,R32
1	R 07	R3005 4k7 1W	R2
4	R 07	R4031 0R22 2W5	R21,R22,R25,R26
2	R 05	R1016 330R 0W25	R23,R24
2	R 05	R1022 6k8 0W25	R28,R29
2	R 07	R4032 100R 2W5	R3,R4
2	R 05	R1012 22k 0W25	R30,R31
2	R 05	R1021 100R 0W25	R33,R34
2	R 05	R1020 10k 0W25	R35,R36
5	R 05	R1014 220k 0W25	R37,R38,R39,R40,R6
2	R 07	R3032 47R 1W	R41,R42
1	R 07	R3030 3K9 1W	R43
1	R 07	R3025 3K3 1W	R44
1	R 07S	R3033 6K8 1W	R45
2	R 05	R1024 39k 0W25	R7,R8
1	RLOMRON	K8001 OM G2R-2	RL1
4	QUAD PH	K3048 GOLD PHONO	SK1,SK2,SK3,SK4
1	MAINSW	K6013 MAINS SW	SW1
2	4P6WNEW	K6017 RTYSW 4P6W	SW2,SW3

Quantity	Package	Value	Components
1	ELINE	A1008 ZTX600B	TR1
2	ELINE	A1004 ZTX651	TR10,TR11
4	TO3	A1007&A1079TR/HS	TR12,TR13,TR4,TR5
4	TO92PNP	A1005 BC556	TR14,TR15,TR2,TR3
2	TIP45	A1006 TIP31A	TR6,TR7
2	TIP	A1006 TIP31A	TR8,TR9
2	VRPRE2	R5016 50R PRESET	VR1,VR2
2	VRPRE	R5014 20k PRESET	VR3,VR4
1	POTPCB	R5001/1 100k VOL	VR5
1	LAY S 8	W15 LED +Ve	W1
1	WIRE	TO W5 O/P LEFT	W10
1	WIRE	TO W8 O/P RIGHT	W11
1	WIRE	Tx BRN OR BLK	W12
1	WIRE	Tx RED OR GREY	W13
1	WIRE	Tx BLUE OR WHITE	W14
1	WIRE	GROUND GRN/YEL	W15
1	LAY S 8	LED SUPPLY -Ve	W16
1	LAY S 8	LED SUPPLY +Ve	W17
1	WIRE	OUTPUT +Ve LEFT	W2
1	WIRE	OUTPUT +Ve RIGHT	W3
1	LAY S 8	W14 LED -Ve	W4
1	WIRE	TO W10 O/P LEFT	W5
1	WIRE	OUTPUT -Ve LEFT	W6
1	WIRE	OUTPUT -Ve RIGHT	W7
1	WIRE	TO W11 O/P RIGHT	W8
1	LAY8	GROUND	W9
2	ZD 0701	A1003 BZX85 43V	ZD1,ZD2
3	WARNING		
2	SHOCK		

K4052/2 MAINS INLET SWITCH PC
WARNING HIGH VOLTAGE
DISCONNECT FROM MAINS
BEFORE REPLACING FUSE