

# SERVICE MANUAL



***COD: 850127020***

***REV: 2.0***

DATE	NOTE	RELEVANT TO PRODUCTS FROM S.N.
2001/11/21	-	-
2002/09/18	S.C. DETECTOR IMPROVEMENT	Not available
2002/10/30	PRODUCTION IMPROVEMENT *	97996

\* For further details see the DRV 10 SERVICE MANUAL.

# BIAS REGULATION PROCEDURE

***The procedure must be effected without any input signal and any load!  
The PCB must be mounted on heatsink!***

1. With the amplifier without any connection rotate anticlockwise each trimmer to the end point.
2. Connect the power supply to the amplifier. The input voltage must be 13V. You must have a voltmeter and amperometer to input supply.
3. Switch on the amplifier using the remote input.
4. Wait about 20 sec then read the value of idle current using the amperometer. The standard value is **750 mA**
5. Rotate clockwise the trimmers, one trimmer at time, to increase the iddle current of **400 mA** each trimmer. This procedure must be effected carefully, a fast rotation shall cause an amplifier instability causing a faulty
6. At the end of the procedure the idle current must be **1,55 A**

REF-DES	DESCRIPTION	SELECTION	POWER/CASE	TYPE	VOLT	M.FACTORY
C1	100n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C2	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C3	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C4	27p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C5	22n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C6	N.C.	N.C.	D5 / H11 mm	ELECTROLYTIC CAP.	N.C.	
C7	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C8	10n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C9	10n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C10	820u	105'	D10 / H25 mm	LOW IMP.ELECTROLYTIC CAP.	16V	
C11	1n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C12	0u47	85'	D5 / H11 mm	ELECTROLYTIC CAP.	100V	
C13	1n8	5%	STEP 5 mm	POLYESTER CAP.	100V	
C14	2n2	10%	STEP 5 mm	CERAMIC CAP.	50V	
C15	3300u	105'	D16 / H25 mm	ELECTROLYTIC CAP.	16V	
C16	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C17	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C18	1n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C19	47u	85'	D8 / H11.5 mm	ELECTROLYTIC CAP.	63V	
C20	15p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C21	22n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C22	47u	85'	D8 / H11.5 mm	ELECTROLYTIC CAP.	63V	
C23	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C24	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C25	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C26	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C27	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C28	N.C.	10%	STEP 5 mm	CERAMIC CAP.	50V	
C29	3300u	105'	D16 / H25 mm	ELECTROLYTIC CAP.	16V	
C30	3300u	105'	D16 / H25 mm	ELECTROLYTIC CAP.	16V	
C31	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C32	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C33	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C34	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C35	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C36	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C37	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C38	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C39	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C40	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C41	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C42	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C43	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C44	100n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C45	100n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C46	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C47	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C48	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C49	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C50	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C51	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C52	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C53	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C54	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C55	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C56	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C57	N.C.	10%	STEP 5 mm	CERAMIC CAP.	50V	
C58	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C59	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C60	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C61	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C62	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C63	1n	5%	STEP 5 mm	POLYESTER CAP.	100V	
C64	100p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C65	100p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C66	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C67	0u47	85'	D5 / H11 mm	ELECTROLYTIC CAP.	100V	
C68	N.C.	N.C.	D5 / H11 mm	ELECTROLYTIC CAP.	N.C.	
C69	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C70	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C71	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C72	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C73	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C74	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C75	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
CLP1	45mm WIRE		AWG13	CLAMPER-TEFLON		
CLP2	45mm WIRE		AWG13	CLAMPER-TEFLON		
CLP3	45mm WIRE		AWG13	CLAMPER-TEFLON		
CLP4	45mm WIRE		AWG13	CLAMPER-TEFLON		
CTRL1	CTR10			CONTROLLER PROT.		G.T.
D1	FR104		DO41	1A FAST RECTIFIER	400V	
D2	FR104		DO41	1A FAST RECTIFIER	400V	
D3	6A20	A	R-6	6A STANDARD RECTIFIER	200V	
D4	FR104		DO41	1A FAST RECTIFIER	400V	
D5	FR104		DO41	1A FAST RECTIFIER	400V	
D6	1N4148		DO35	200mA ULTRA FAST DIODE	75V	

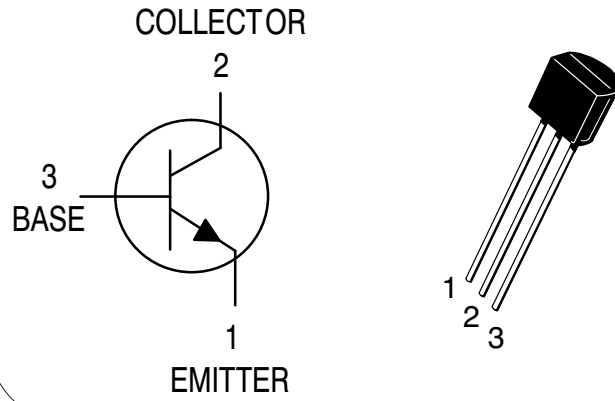
REF-DES	DESCRIPTION	SELECTION	POWER/CASE	TYPE	VOLT	M.FACTORY
D7	FR104		DO41	1A FAST RECTIFIER	400V	
D8	FR104		DO41	1A FAST RECTIFIER	400V	
D9	FR104		DO41	1A FAST RECTIFIER	400V	
D10	FR104		DO41	1A FAST RECTIFIER	400V	
D11	1N4148		DO35	200mA ULTRA FAST DIODE	75V	
D12	SF62		DO201	6A SUPER FAST RECTIFIER	100V	
D13	SF62		DO201	6A SUPER FAST RECTIFIER	100V	
D14	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D15	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D16	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D17	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D18	FR104		DO41	1A FAST RECTIFIER	400V	
D19	FR104		DO41	1A FAST RECTIFIER	400V	
D20	FR104		DO41	1A FAST RECTIFIER	400V	
D21	FR104		DO41	1A FAST RECTIFIER	400V	
D22	1N4148		DO35	200mA ULTRA FAST DIODE	75V	
DL1	LED		2mm FLAT HEAD	GREEN		
DL2	LED		2mm FLAT HEAD	RED		
DRV1	DRV-10	STD		DRIVER CIRCUIT		G.T.
DRV2	DRV-10	STD		DRIVER CIRCUIT		G.T.
DX1	1N4148		DO35	200mA ULTRA FAST DIODE	75V	
DX2	1N4148		DO35	200mA ULTRA FAST DIODE	75V	
DZ1	15V	400mW	DO35	ZENER	15V	
DZ2	15V	400mW	DO35	ZENER	15V	
F1	PCB SPACER			ALUMINIUM FERRULE		
L1	INDUCTOR		ROD CORE	COD:841015001		
L2	INDUCTOR		ROD CORE	COD:841015001		
L3	6m8H		AL0410	JETMAN INDUCTOR		
L4	6m8H		AL0410	JETMAN INDUCTOR		
L5	OUTPUT COUPLER INDUCTOR			6 TURNS ; 1,25mm WIRE ; 10mm INTERNAL DIAMETER		
L6	INDUCTOR		D 40	T157+ RCC29/7.5 (3C85)		
L7	OUTPUT COUPLER INDUCTOR			6 TURNS ; 1,25mm WIRE ; 10mm INTERNAL DIAMETER		
L8	470uH		AL0410	JETMAN INDUCTOR		
POT1	POT-20K			COD:RK-1111N-B20K-L15F		MIC
POT2	POT-20K			COD:RK-1111N-B20K-L15F		MIC
POT3	POT-100K			COD:RK-1413G-B100K-L25F		MIC
POT4	POT-20K			COD:RK-1413G-B20K-L25F		MIC
Q1	BD911		TO220	TR.NPN	100V	
Q2	BD911		TO220	TR.NPN	100V	
Q3	BD911		TO220	TR.NPN	100V	
Q4	BD911		TO220	TR.NPN	100V	
Q5	BD911		TO220	TR.NPN	100V	
Q6	TIP31	C	TO220	TR.NPN	100V	
Q7	TIP32	C	TO220	TR.PNP	100V	
Q8	BD912		TO220	TR.PNP	100V	
Q9	BD912		TO220	TR.PNP	100V	
Q10	BD912		TO220	TR.PNP	100V	
Q11	BD912		TO220	TR.PNP	100V	
Q12	BD912		TO220	TR.PNP	100V	
Q13	HUF75343P3		TO220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q14	HUF75343P3		TO220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q15	HUF75343P3		TO220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q16	HUF75343P3		TO220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q17	HUF75343P3		TO220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q18	HUF75343P3		TO220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q19	BC337	25	TO92	TR.NPN	45V	
Q20	BD140	16	TO126	TR.PNP	80V	
Q21	BD139	16	TO126	TR.NPN	80V	
Q22	BC560	C	TO92	TR.PNP	45V	
Q23	BC560	C	TO92	TR.PNP	45V	
Q24	2SC2240	BL	TO92	TR.NPN	120V	
Q25	BC327	25	TO92	TR.PNP	45V	
Q26	2SA970	BL	TO92	TR.PNP	120V	
Q27	2SC2240	BL	TO92	TR.NPN	120V	
Q28	BD140	16	TO126	TR.PNP	80V	
Q29	BD139	16	TO126	TR.NPN	80V	
Q30	BD139	16	TO126	TR.NPN	80V	
Q31	BD140	16	TO126	TR.PNP	80V	
Q32	BC337	25	TO92	TR.NPN	45V	
Q33	BC337	25	TO92	TR.NPN	45V	
Q34	2SC2240	BL	TO92	TR.NPN	120V	
Q35	2SC2240	BL	TO92	TR.NPN	120V	
Q36	BC327	25	TO92	TR.PNP	45V	
Q37	2SA970	BL	TO92	TR.PNP	120V	
Q38	BC327	25	TO92	TR.PNP	45V	
Q39	BC337	25	TO92	TR.NPN	45V	
Q40	BD911		TO220	TR.NPN	100V	
Q41	BD911		TO220	TR.NPN	100V	
Q42	BD911		TO220	TR.NPN	100V	
Q43	BD911		TO220	TR.NPN	100V	
Q44	BD911		TO220	TR.NPN	100V	
Q45	TIP31	C	TO220	TR.NPN	100V	
Q46	TIP32	C	TO220	TR.PNP	100V	
Q47	BD912		TO220	TR.PNP	100V	
Q48	BD912		TO220	TR.PNP	100V	
Q49	BD912		TO220	TR.PNP	100V	

REF-DES	DESCRIPTION	SELECTION	POWER/CASE	TYPE	VOLT	M.FACTORY
Q50	BD912		TO220	TR.PNP	100V	
Q51	BD912		TO220	TR.PNP	100V	
R1	2K7	5%	1/4W	CARBON RESISTOR		
R2	1K5	5%	1/4W	CARBON RESISTOR		
R3	10K	5%	1/4W	CARBON RESISTOR		
R4	9K53	1%	1/4W	METAL FILM RESISTOR		
R5	10K	1%	1/4W	METAL FILM RESISTOR		
R6	N.C.	1%	1/4W	METAL FILM RESISTOR		
R7	1K3	1%	1/4W	METAL FILM RESISTOR		
R8	39R	5%	1/4W	CARBON RESISTOR		
R9	39R	5%	1/4W	CARBON RESISTOR		
R10	39R	5%	1/4W	CARBON RESISTOR		
R11	39R	5%	1/4W	CARBON RESISTOR		
R12	39R	5%	1/4W	CARBON RESISTOR		
R13	39R	5%	1/4W	CARBON RESISTOR		
R14	887R	1%	1/4W	METAL FILM RESISTOR		
R15	4K7	5%	1/4W	CARBON RESISTOR		
R16	4K7	5%	1/4W	CARBON RESISTOR		
R17	15R	5%	1/2W	CARBON RESISTOR		
R18	15R	5%	1/2W	CARBON RESISTOR		
R19	20K	1%	1/4W	METAL FILM RESISTOR		
R20	20K	1%	1/4W	METAL FILM RESISTOR		
R21	18R	5%	1/4W	CARBON RESISTOR		
R22	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R23	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R24	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R25	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R26	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R27	100R	5%	1/4W	CARBON RESISTOR		
R28	10R	5%	1/4W	CARBON RESISTOR		
R29	5K62	1%	1/4W	METAL FILM RESISTOR		
R30	1K	1%	1/4W	METAL FILM RESISTOR		
R31	10R	5%	1/4W	CARBON RESISTOR		
R32	1K	5%	1/4W	CARBON RESISTOR		
R33	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R34	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R35	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R36	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R37	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R38	18R	5%	1/4W	CARBON RESISTOR		
R39	1K	1%	1/4W	METAL FILM RESISTOR		
R40	47K	5%	1/4W	CARBON RESISTOR		
R41	2K2	1%	1/4W	METAL FILM RESISTOR		
R42	2K2	1%	1/4W	METAL FILM RESISTOR		
R43	1K	1%	1/4W	METAL FILM RESISTOR		
R44	20K	1%	1/4W	METAL FILM RESISTOR		
R45	18K2	1%	1/4W	METAL FILM RESISTOR		
R46	0R		1/4W	JUMPER		
R47	20K	1%	1/4W	METAL FILM RESISTOR		
R48	18R	5%	1/4W	CARBON RESISTOR		
R49	887R	1%	1/4W	METAL FILM RESISTOR		
R50	560R	5%	1/4W	CARBON RESISTOR		
R51	560R	5%	1/4W	CARBON RESISTOR		
R52	4K7	5%	1/4W	CARBON RESISTOR		
R53	4K7	5%	1/4W	CARBON RESISTOR		
R54	24K9	1%	1/4W	METAL FILM RESISTOR		
R55	1K21	1%	1/4W	METAL FILM RESISTOR		
R56	52K3	1%	1/4W	METAL FILM RESISTOR		
R57	N.C.	1%	1/4W	METAL FILM RESISTOR		
R58	4K75	1%	1/4W	METAL FILM RESISTOR		
R59	7K15	1%	1/4W	METAL FILM RESISTOR		
R60	1K82	1%	1/4W	METAL FILM RESISTOR		
R61	100R	5%	1/4W	CARBON RESISTOR		
R62	5K9	1%	1/4W	METAL FILM RESISTOR		
R63	10K	1%	1/4W	METAL FILM RESISTOR		
R64	10M	1%	1/4W	METAL FILM RESISTOR		
R65	10M	1%	1/4W	METAL FILM RESISTOR		
R66	5K9	1%	1/4W	METAL FILM RESISTOR		
R67	10K	1%	1/4W	METAL FILM RESISTOR		
R68	24K9	1%	1/4W	METAL FILM RESISTOR		
R69	1K21	1%	1/4W	METAL FILM RESISTOR		
R70	1R	5%	1/4W	CARBON RESISTOR		
R71	4R7	5%	1/4W	CARBON RESISTOR		
R72	4K75	1%	1/4W	METAL FILM RESISTOR		
R73	52K3	1%	1/4W	METAL FILM RESISTOR		
R74	N.C.	1%	1/4W	METAL FILM RESISTOR		
R75	7K15	1%	1/4W	METAL FILM RESISTOR		
R76	1K82	1%	1/4W	METAL FILM RESISTOR		
R77	560R	5%	1/4W	CARBON RESISTOR		
R78	560R	5%	1/4W	CARBON RESISTOR		
R79	68R	5%	2W	CARBON RESISTOR		
R80	2K	1%	1/4W	METAL FILM RESISTOR		
R81	2K	1%	1/4W	METAL FILM RESISTOR		
R82	1R	5%	1/4W	CARBON RESISTOR		
R83	4R7	5%	1/4W	CARBON RESISTOR		
R84	5K9	1%	1/4W	METAL FILM RESISTOR		

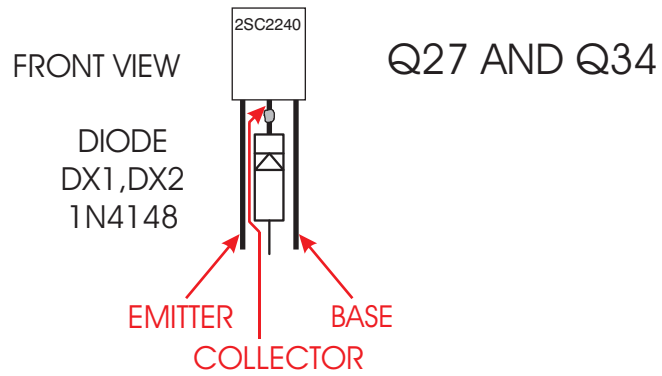
REF-DES	DESCRIPTION	SELECTION	POWER/CASE	TYPE	VOLT	M.FACTORY
R85	5K9	1%	1/4W	METAL FILM RESISTOR		
R86	4K75	1%	1/4W	METAL FILM RESISTOR		
R87	20K	1%	1/4W	METAL FILM RESISTOR		
R88	4K75	1%	1/4W	METAL FILM RESISTOR		
R89	20K	1%	1/4W	METAL FILM RESISTOR		
R90	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R91	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R92	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R93	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R94	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R95	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R96	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R97	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R98	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R99	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R100	100R	5%	1/4W	CARBON RESISTOR		
R101	10R	5%	1/4W	CARBON RESISTOR		
R102	5K62	1%	1/4W	METAL FILM RESISTOR		
R103	1K	1%	1/4W	METAL FILM RESISTOR		
R104	10R	5%	1/4W	CARBON RESISTOR		
R105	1K	5%	1/4W	CARBON RESISTOR		
R106	10K	5%	1/4W	CARBON RESISTOR		
R107	20K	1%	1/4W	METAL FILM RESISTOR		
R108	20K	1%	1/4W	METAL FILM RESISTOR		
R109	2K7	5%	1/4W	CARBON RESISTOR		
R110	1K5	5%	1/4W	CARBON RESISTOR		
R111	820R	5%	1/4W	CARBON RESISTOR		
R112	470K	5%	1/4W	CARBON RESISTOR		
R113	10K	5%	1/4W	CARBON RESISTOR		
R114	NTC-22K		STEP 2.5 mm	COD:2322 640 6223		PHILIPS
R115	47K	5%	1/4W	CARBON RESISTOR		
R116	47K	5%	1/4W	CARBON RESISTOR		
RCA1	RCA JACK			COD:K27661Z		H.T.
RR1	330K		SIP8	RESISTOR NETWORK		
STRP1	8P CONNECTOR		STRAIGHT MALE TERM.	COD:YTSN08		SHALLIN
SW1	SW-2W-2P			COD:SK22F08G15		SEIKO
SW2	SW-8W-2P			COD:SK82H01G5		SEIKO
SW3	SW-2W-2P			COD:SK22F08G15		SEIKO
T1	T.BLOCK		3 PIN	TIPO 5		G.T.
T2	T.BLOCK		4 PIN	TIPO 4		G.T.
TRF1	TRF	N27		RING 40mm		
TRM1	TRM-220R	20%	SNAP IN	COD:CA6V		
TRM2	TRM-220R	20%	SNAP IN	COD:CA6V		
U1	SG3525	A	DIP16	PWM CONTROLLER		
U2	MC33078	CN	DIP8	DUAL L.N. OPERATIONAL AMPLIFIER		
U3	MC33078	CN	DIP8	DUAL L.N. OPERATIONAL AMPLIFIER		
U4	TL072	CN	DIP8	DUAL L.N. OPERATIONAL AMPLIFIER		

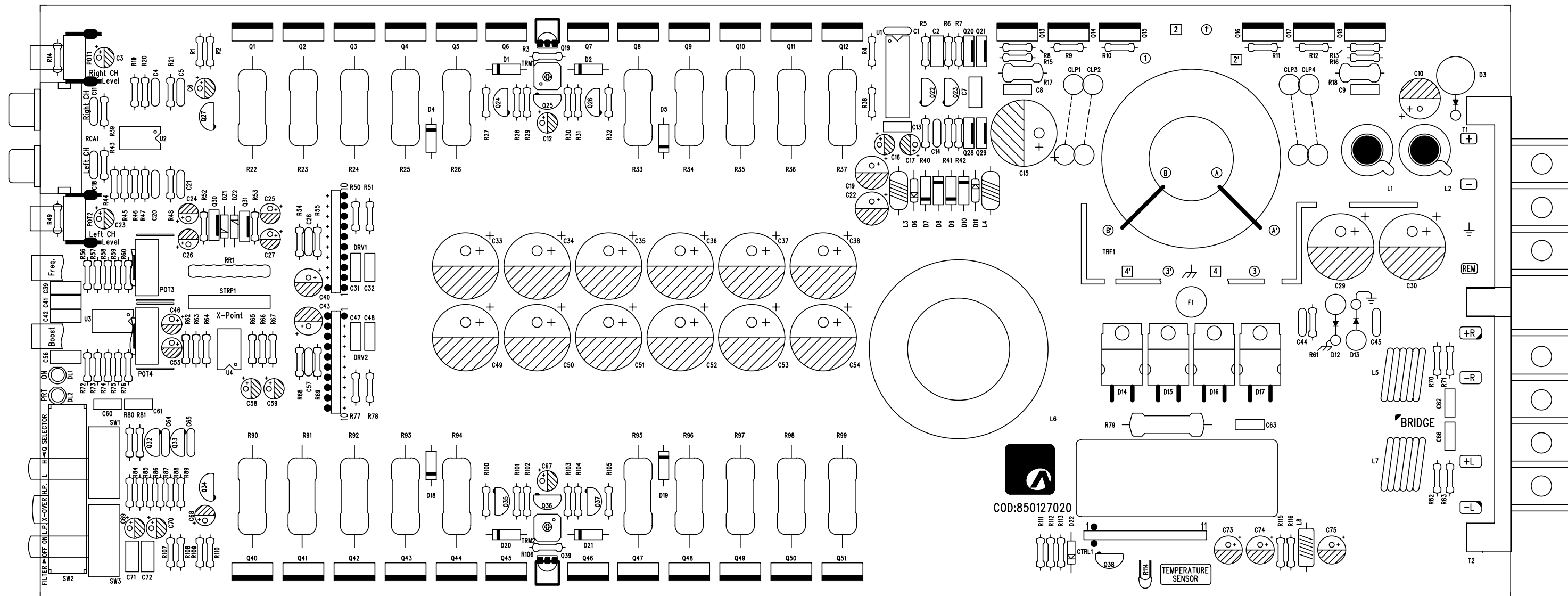
# MODIFICATION FOR K 24

## 2SC2240

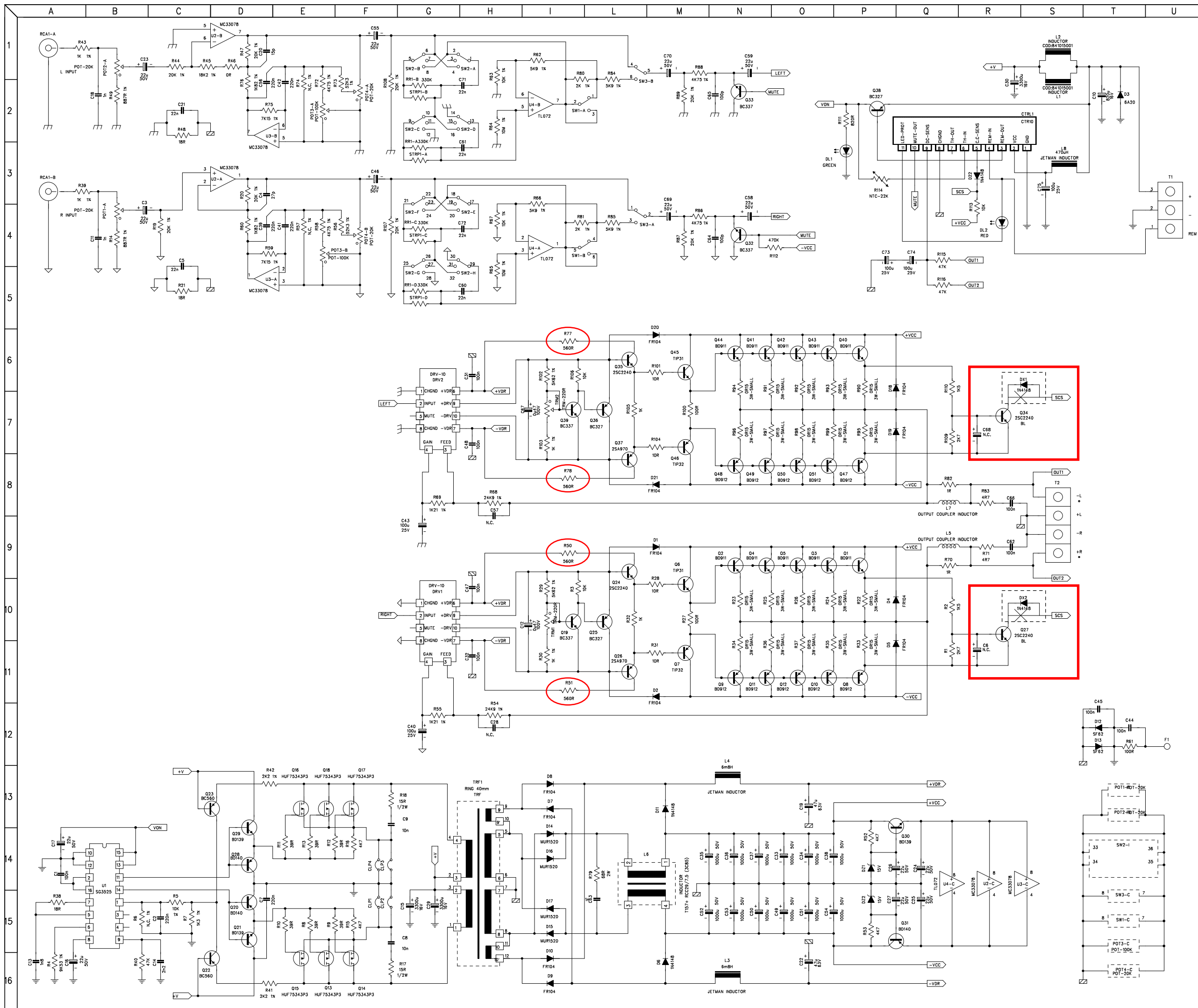


## 2SC2240









PROJECT: AMPLIFIERS K SERIES

TITLE: K24

REV: 2.0      DATE: 2001-11-21

PCB CODE: 850127020

SHEET: 01 OF 01

FILE:K24-850127020-011121-P03-AC

PREVIOUS UPDATE		
UPDATE	DATE:	SEE PAGE N.
A	XX/XX/XX	XX
B	XX/XX/XX	XX
C	XX/XX/XX	XX
D	XX/XX/XX	XX
E	XX/XX/XX	XX

POWER SUPPLY TOPOLOGY:  
 STABILIZED FROM 11V TO 16V  
 SW FREQ. : 82 KHz

TEST POINT	
VCC	+/- 43.5V
VDR	+/- 50.5V TO 58.5V
VPRE	+/- 15V
⊕	PRIMARY POWER GROUND
⊕	SECONDARY POWER GROUND
⊕	RIGHT SIGNAL GROUND
⊕	LEFT SIGNAL GROUND

INPUT SIGNAL : 0,15 Vrms TO 3,5 Vrms

NOTES

Re QUIESCENT VOLTAGE :  
 3mV BETWEEN EMITTERS

**GT trading** s.r.l.  
 Car & Home Hi-Fi Audio Electronics

Zona Artigianale - Loc. Ghilardino  
 61034 Fossombrone (PU) Italy  
 tel(+ +39)0721-728727  
 fax(+ +39)0721-749175

**Date: 2002-09-18**

RELEVANT TO PRODUCTS FROM S.N.: Not available

## **S.C. DETECTOR IMPROVEMENT**

During the production test for the item K24 we observe a malfunction on schort circuit detector.

To eliminate that problem it is necessary to replace some resistors.

The modification are described on the enclosed sheets.

In case of technical assistance to the product we suggest to apply the improvement at the amplifier to avoid any kind of problem concerning the defect showed before.

**IC'S**

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
U1	SG3525	A	DIP16	PWM CONTROLLER		
U2	MC33078	CN	DIP8	DUAL L.N. OPERATIONAL AMPLIFIER		
U3	MC33078	CN	DIP8	DUAL L.N. OPERATIONAL AMPLIFIER		
U4	TL072	CN	DIP8	DUAL L.N. OPERATIONAL AMPLIFIER		

**TRANSISTORS AND FETS**

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
Q1	BD911		T0220	TR.NPN	100V	
Q2	BD911		T0220	TR.NPN	100V	
Q3	BD911		T0220	TR.NPN	100V	
Q4	BD911		T0220	TR.NPN	100V	
Q5	BD911		T0220	TR.NPN	100V	
Q6	TIP31	C	T0220	TR.NPN	100V	
Q7	TIP32	C	T0220	TR.PNP	100V	
Q8	BD912		T0220	TR.PNP	100V	
Q9	BD912		T0220	TR.PNP	100V	
Q10	BD912		T0220	TR.PNP	100V	
Q11	BD912		T0220	TR.PNP	100V	
Q12	BD912		T0220	TR.PNP	100V	
Q13	HUF75343P3		T0220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q14	HUF75343P3		T0220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q15	HUF75343P3		T0220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q16	HUF75343P3		T0220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q17	HUF75343P3		T0220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q18	HUF75343P3		T0220	N CHANNEL MOSFET Rds(on)=0.009	55V	
Q19	BC337	25	T092	TR.NPN	45V	
Q20	BD140	16	T0126	TR.PNP	80V	
Q21	BD139	16	T0126	TR.NPN	80V	
Q22	BC560	C	T092	TR.PNP	45V	
Q23	BC560	C	T092	TR.PNP	45V	
Q24	2SC2240	BL	T092	TR.NPN	120V	
Q25	BC327	25	T092	TR.PNP	45V	
Q26	2SA970	BL	T092	TR.PNP	120V	
Q27	2SC2240	BL	T092	TR.NPN	120V	
Q28	BD140	16	T0126	TR.PNP	80V	
Q29	BD139	16	T0126	TR.NPN	80V	
Q30	BD139	16	T0126	TR.NPN	80V	
Q31	BD140	16	T0126	TR.PNP	80V	
Q32	BC337	25	T092	TR.NPN	45V	
Q33	BC337	25	T092	TR.NPN	45V	
Q34	2SC2240	BL	T092	TR.NPN	120V	
Q35	2SC2240	BL	T092	TR.NPN	120V	
Q36	BC327	25	T092	TR.PNP	45V	
Q37	2SA970	BL	T092	TR.PNP	120V	
Q38	BC327	25	T092	TR.PNP	45V	
Q39	BC337	25	T092	TR.NPN	45V	
Q40	BD911		T0220	TR.NPN	100V	
Q41	BD911		T0220	TR.NPN	100V	
Q42	BD911		T0220	TR.NPN	100V	
Q43	BD911		T0220	TR.NPN	100V	
Q44	BD911		T0220	TR.NPN	100V	
Q45	TIP31	C	T0220	TR.NPN	100V	
Q46	TIP32	C	T0220	TR.PNP	100V	
Q47	BD912		T0220	TR.PNP	100V	
Q48	BD912		T0220	TR.PNP	100V	
Q49	BD912		T0220	TR.PNP	100V	
Q50	BD912		T0220	TR.PNP	100V	
Q51	BD912		T0220	TR.PNP	100V	

**DIODES**

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
D1	FR104		D041	1A FAST RECTIFIER	400V	
D2	FR104		D041	1A FAST RECTIFIER	400V	
D3	6A20	A	R-6	6A STANDARD RECTIFIER	200V	
D4	FR104		D041	1A FAST RECTIFIER	400V	
D5	FR104		D041	1A FAST RECTIFIER	400V	
D6	1N4148		D035	200mA ULTRA FAST DIODE	75V	
D7	FR104		D041	1A FAST RECTIFIER	400V	

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
D8	FR104		D041	1A FAST RECTIFIER	400V	
D9	FR104		D041	1A FAST RECTIFIER	400V	
D10	FR104		D041	1A FAST RECTIFIER	400V	
D11	1N4148		D035	200mA ULTRA FAST DIODE	75V	
D12	SF62		D0201	6A SUPER FAST RECTIFIER	100V	
D13	SF62		D0201	6A SUPER FAST RECTIFIER	100V	
D14	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D15	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D16	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D17	MUR1520		TO220	15A ULTRA FAST RECTIFIER	200V	
D18	FR104		D041	1A FAST RECTIFIER	400V	
D19	FR104		D041	1A FAST RECTIFIER	400V	
D20	FR104		D041	1A FAST RECTIFIER	400V	
D21	FR104		D041	1A FAST RECTIFIER	400V	
D22	1N4148		D035	200mA ULTRA FAST DIODE	75V	
DZ1	15V	400mW	D035	ZENER	15V	
DZ2	15V	400mW	D035	ZENER	15V	

### RESISTORS

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
R1	1K5	5%	1/4W	CARBON RESISTOR		
R2	1K8	5%	1/4W	CARBON RESISTOR		
R3	10K	5%	1/4W	CARBON RESISTOR		
R4	9K53	1%	1/4W	METAL FILM RESISTOR		
R5	10K	1%	1/4W	METAL FILM RESISTOR		
R6	N.C.	1%	1/4W	METAL FILM RESISTOR		
R7	1K3	1%	1/4W	METAL FILM RESISTOR		
R8	39R	5%	1/4W	CARBON RESISTOR		
R9	39R	5%	1/4W	CARBON RESISTOR		
R10	39R	5%	1/4W	CARBON RESISTOR		
R11	39R	5%	1/4W	CARBON RESISTOR		
R12	39R	5%	1/4W	CARBON RESISTOR		
R13	39R	5%	1/4W	CARBON RESISTOR		
R14	887R	1%	1/4W	METAL FILM RESISTOR		
R15	4K7	5%	1/4W	CARBON RESISTOR		
R16	4K7	5%	1/4W	CARBON RESISTOR		
R17	15R	5%	1/2W	CARBON RESISTOR		
R18	15R	5%	1/2W	CARBON RESISTOR		
R19	20K	1%	1/4W	METAL FILM RESISTOR		
R20	20K	1%	1/4W	METAL FILM RESISTOR		
R21	18R	5%	1/4W	CARBON RESISTOR		
R22	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R23	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R24	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R25	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R26	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R27	100R	5%	1/4W	CARBON RESISTOR		
R28	10R	5%	1/4W	CARBON RESISTOR		
R29	5K62	1%	1/4W	METAL FILM RESISTOR		
R30	1K	1%	1/4W	METAL FILM RESISTOR		
R31	10R	5%	1/4W	CARBON RESISTOR		
R32	1K	5%	1/4W	CARBON RESISTOR		
R33	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R34	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R35	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R36	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R37	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R38	18R	5%	1/4W	CARBON RESISTOR		
R39	1K	1%	1/4W	METAL FILM RESISTOR		
R40	47K	5%	1/4W	CARBON RESISTOR		
R41	2K2	1%	1/4W	METAL FILM RESISTOR		
R42	2K2	1%	1/4W	METAL FILM RESISTOR		
R43	1K	1%	1/4W	METAL FILM RESISTOR		
R44	20K	1%	1/4W	METAL FILM RESISTOR		
R45	18K2	1%	1/4W	METAL FILM RESISTOR		
R46	0R		1/4W	JUMPER		
R47	20K	1%	1/4W	METAL FILM RESISTOR		
R48	18R	5%	1/4W	CARBON RESISTOR		
R49	887R	1%	1/4W	METAL FILM RESISTOR		
R50	560R	5%	1/4W	CARBON RESISTOR		

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
R51	560R	5%	1/4W	CARBON RESISTOR		
R52	4K7	5%	1/4W	CARBON RESISTOR		
R53	4K7	5%	1/4W	CARBON RESISTOR		
R54	24K9	1%	1/4W	METAL FILM RESISTOR		
R55	1K21	1%	1/4W	METAL FILM RESISTOR		
R56	52K3	1%	1/4W	METAL FILM RESISTOR		
R57	N.C.	1%	1/4W	METAL FILM RESISTOR		
R58	4K75	1%	1/4W	METAL FILM RESISTOR		
R59	7K15	1%	1/4W	METAL FILM RESISTOR		
R60	1K82	1%	1/4W	METAL FILM RESISTOR		
R61	100R	5%	1/4W	CARBON RESISTOR		
R62	5K9	1%	1/4W	METAL FILM RESISTOR		
R63	10K	1%	1/4W	METAL FILM RESISTOR		
R64	10M	1%	1/4W	METAL FILM RESISTOR		
R65	10M	1%	1/4W	METAL FILM RESISTOR		
R66	5K9	1%	1/4W	METAL FILM RESISTOR		
R67	10K	1%	1/4W	METAL FILM RESISTOR		
R68	24K9	1%	1/4W	METAL FILM RESISTOR		
R69	1K21	1%	1/4W	METAL FILM RESISTOR		
R70	1R	5%	1/4W	CARBON RESISTOR		
R71	4R7	5%	1/4W	CARBON RESISTOR		
R72	4K75	1%	1/4W	METAL FILM RESISTOR		
R73	52K3	1%	1/4W	METAL FILM RESISTOR		
R74	N.C.	1%	1/4W	METAL FILM RESISTOR		
R75	7K15	1%	1/4W	METAL FILM RESISTOR		
R76	1K82	1%	1/4W	METAL FILM RESISTOR		
R77	560R	5%	1/4W	CARBON RESISTOR		
R78	560R	5%	1/4W	CARBON RESISTOR		
R79	68R	5%	2W	CARBON RESISTOR		
R80	2K	1%	1/4W	METAL FILM RESISTOR		
R81	2K	1%	1/4W	METAL FILM RESISTOR		
R82	1R	5%	1/4W	CARBON RESISTOR		
R83	4R7	5%	1/4W	CARBON RESISTOR		
R84	5K9	1%	1/4W	METAL FILM RESISTOR		
R85	5K9	1%	1/4W	METAL FILM RESISTOR		
R86	4K75	1%	1/4W	METAL FILM RESISTOR		
R87	20K	1%	1/4W	METAL FILM RESISTOR		
R88	4K75	1%	1/4W	METAL FILM RESISTOR		
R89	20K	1%	1/4W	METAL FILM RESISTOR		
R90	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R91	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R92	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R93	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R94	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R95	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R96	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R97	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R98	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R99	0R15	5%	3W-SMALL	WIRE WOUND RESISTOR		
R100	100R	5%	1/4W	CARBON RESISTOR		
R101	10R	5%	1/4W	CARBON RESISTOR		
R102	5K62	1%	1/4W	METAL FILM RESISTOR		
R103	1K	1%	1/4W	METAL FILM RESISTOR		
R104	10R	5%	1/4W	CARBON RESISTOR		
R105	1K	5%	1/4W	CARBON RESISTOR		
R106	10K	5%	1/4W	CARBON RESISTOR		
R107	20K	1%	1/4W	METAL FILM RESISTOR		
R108	20K	1%	1/4W	METAL FILM RESISTOR		
R109	1K5	5%	1/4W	CARBON RESISTOR		
R110	1K8	5%	1/4W	CARBON RESISTOR		
R111	820R	5%	1/4W	CARBON RESISTOR		
R112	470K	5%	1/4W	CARBON RESISTOR		
R113	10K	5%	1/4W	CARBON RESISTOR		
R114	NTC-22K		STEP 2.5 mm	COD:2322 640 6223		PHILIPS
R115	47K	5%	1/4W	CARBON RESISTOR		
R116	47K	5%	1/4W	CARBON RESISTOR		

#### POTENTIOMETERS

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
POT1	POT-20K			COD:RK-1111N-B20K-L15F		MIC

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
POT2	POT-20K			COD:RK-1111N-B20K-L15F		MIC
POT3	POT-100K			COD:RK-1413G-B100K-L25F		MIC
POT4	POT-20K			COD:RK-1413G-B20K-L25F		MIC
TRM1	TRM-220R	20%	SNAP IN	COD:CA6V		
TRM2	TRM-220R	20%	SNAP IN	COD:CA6V		

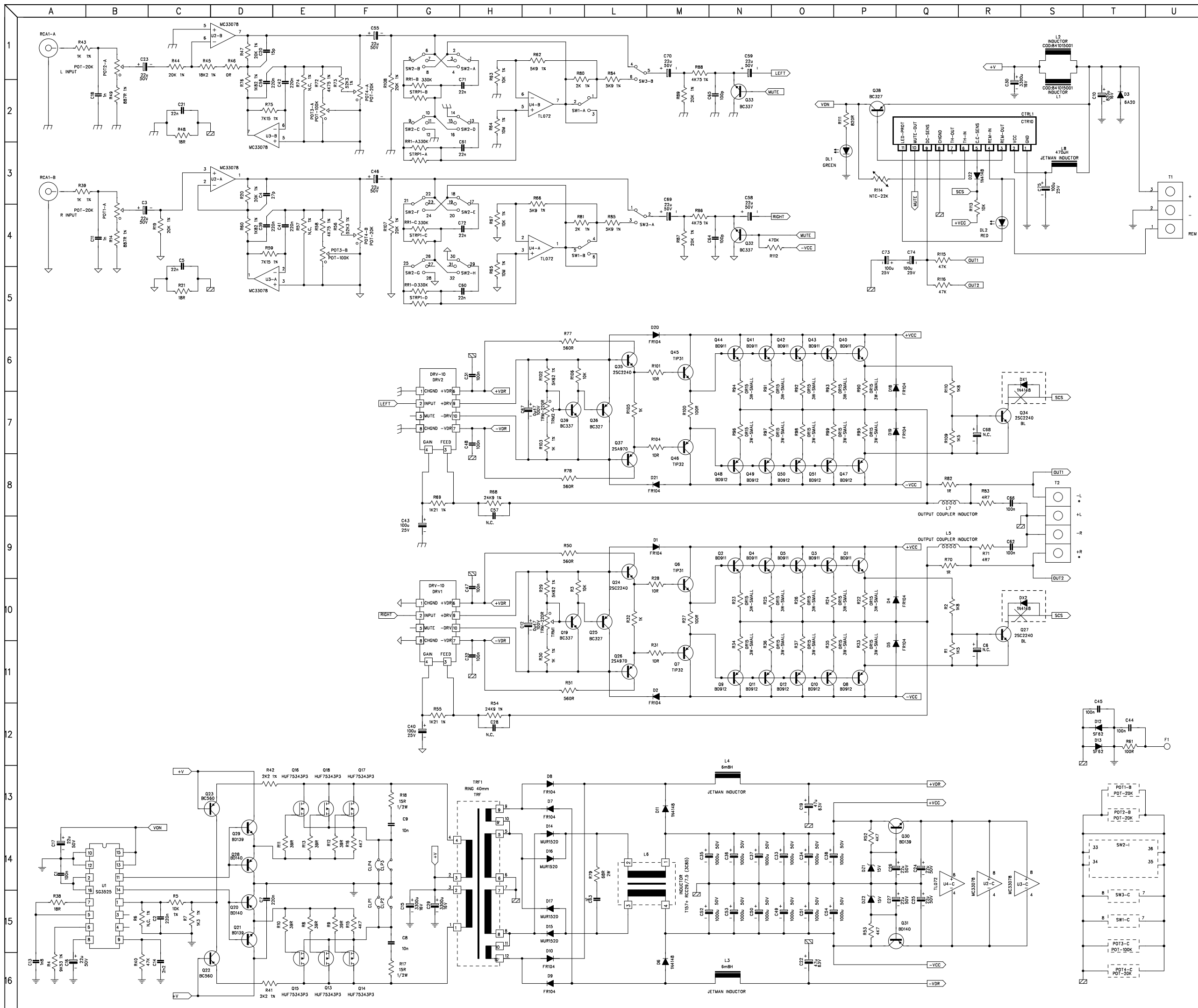
#### CAPACITORS

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
C1	100n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C2	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C3	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C4	27p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C5	22n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C6	N.C.	N.C.	D5 / H11 mm	ELECTROLYTIC CAP.	N.C.	
C7	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C8	10n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C9	10n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C10	820u	105'	D10 / H25 mm	LOW IMP.ELECTROLYTIC CAP.	16V	
C11	1n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C12	0u47	85'	D5 / H11 mm	ELECTROLYTIC CAP.	100V	
C13	1n8	5%	STEP 5 mm	POLYESTER CAP.	100V	
C14	2n2	10%	STEP 5 mm	CERAMIC CAP.	50V	
C15	3300u	105'	D16 / H25 mm	ELECTROLYTIC CAP.	16V	
C16	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C17	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C18	1n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C19	47u	85'	D8 / H11.5 mm	ELECTROLYTIC CAP.	63V	
C20	15p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C21	22n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C22	47u	85'	D8 / H11.5 mm	ELECTROLYTIC CAP.	63V	
C23	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C24	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C25	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C26	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C27	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C28	N.C.	10%	STEP 5 mm	CERAMIC CAP.	50V	
C29	3300u	105'	D16 / H25 mm	ELECTROLYTIC CAP.	16V	
C30	3300u	105'	D16 / H25 mm	ELECTROLYTIC CAP.	16V	
C31	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C32	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C33	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C34	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C35	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C36	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C37	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C38	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C39	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C40	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C41	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C42	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C43	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C44	100n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C45	100n	10%	STEP 5 mm	CERAMIC CAP.	50V	
C46	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C47	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C48	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C49	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C50	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C51	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C52	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C53	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C54	1000u	85'	D16 / H25 mm	ELECTROLYTIC CAP.	50V	
C55	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C56	220n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C57	N.C.	10%	STEP 5 mm	CERAMIC CAP.	50V	
C58	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C59	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C60	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C61	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C62	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
C63	1n	5%	STEP 5 mm	POLYESTER CAP.	100V	
C64	100p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C65	100p	10%	STEP 5 mm	CERAMIC CAP.	50V	
C66	100n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C67	0u47	85'	D5 / H11 mm	ELECTROLYTIC CAP.	100V	
C68	N.C.	N.C.	D5 / H11 mm	ELECTROLYTIC CAP.	N.C.	
C69	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C70	22u	85'	D5 / H11 mm	ELECTROLYTIC CAP.	50V	
C71	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C72	22n	5%	STEP 5 mm	POLYESTER CAP.	63V	
C73	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C74	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	
C75	100u	85'	D6.3 / H11 mm	ELECTROLYTIC CAP.	25V	

#### MISCELLANEOUS

Ref.No.	Nomenclature	Selection	Power/Case	Description	Volt	M.Factory
CLP1	45mm WIRE		AWG13	CLAMPER-TEFLON		
CLP2	45mm WIRE		AWG13	CLAMPER-TEFLON		
CLP3	45mm WIRE		AWG13	CLAMPER-TEFLON		
CLP4	45mm WIRE		AWG13	CLAMPER-TEFLON		
CTRL1	CTR10			CONTROLLER PROT.		G.T.
DL1	LED		2mm FLAT HEAD	GREEN		
DL2	LED		2mm FLAT HEAD	RED		
DRV1	DRV-10	STD		DRIVER CIRCUIT		G.T.
DRV2	DRV-10	STD		DRIVER CIRCUIT		G.T.
DX1	1N4148		D035	200mA ULTRA FAST DIODE	75V	
DX2	1N4148		D035	200mA ULTRA FAST DIODE	75V	
F1	PCB SPACER			ALUMINIUM FERRULE		
L1	INDUCTOR		ROD CORE	COD:841015001		
L2	INDUCTOR		ROD CORE	COD:841015001		
L3	6m8H		AL0410	JETMAN INDUCTOR		
L4	6m8H		AL0410	JETMAN INDUCTOR		
L5	OUTPUT COUPLER INDUCTOR			6 TURNS ; 1,25mm WIRE ; 10mm INTERNAL DIAMETER		
L6	INDUCTOR		D 40	T157+ RCC29/7.5 (3C85)		
L7	OUTPUT COUPLER INDUCTOR			6 TURNS ; 1,25mm WIRE ; 10mm INTERNAL DIAMETER		
L8	470uH		AL0410	JETMAN INDUCTOR		
RCA1	RCA JACK			COD:K27661Z		H.T.
RR1	330K		SIP8	RESISTOR NETWORK		
STRP1	8P CONNECTOR		STRAIGHT MALE TERM.	COD:YTSN08		SHALLIN
SW1	SW-2W-2P			COD:SK22F08G15		SEIKO
SW2	SW-8W-2P			COD:SK82H01G5		SEIKO
SW3	SW-2W-2P			COD:SK22F08G15		SEIKO
T1	T.BLOCK		3 PIN	TIPO 5		G.T.
T2	T.BLOCK		4 PIN	TIPO 4		G.T.
TRF1	TRF	N27		RING 40mm		



PROJECT: AMPLIFIERS K SERIES

TITLE: K24

REV: 2.0      DATE: 2002-09-18

PCB CODE: 850127020

SHEET: 01 OF 01

FILE:K24-850127020-020918-P03-AD

PREVIOUS UPDATE

UPDATE	DATE:	SEE PAGE N.
A	XX/XX/XX	XX
B	XX/XX/XX	XX
C	XX/XX/XX	XX
D	XX/XX/XX	XX
E	XX/XX/XX	XX

POWER SUPPLY TOPOLOGY:  
 STABILIZED FROM 11V TO 16V  
 SW FREQ. : 82 KHz

TEST POINT

VCC	+/- 43.5V
VDR	+/- 50.5V TO 58.5V
VPRE	+/- 15V
⊥	PRIMARY POWER GROUND
⊥	SECONDARY POWER GROUND
⊥	RIGHT SIGNAL GROUND
⊥	LEFT SIGNAL GROUND

INPUT SIGNAL : 0,15 Vrms TO 3,5 Vrms

NOTES

Re QUIESCENT VOLTAGE :  
 3mV BETWEEN EMITTERS

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