

AMC

SERVICE MANUAL

2N100-2/3

MULTI-CHANNEL POWER AMPLIFIER

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SPECIFICATIONS

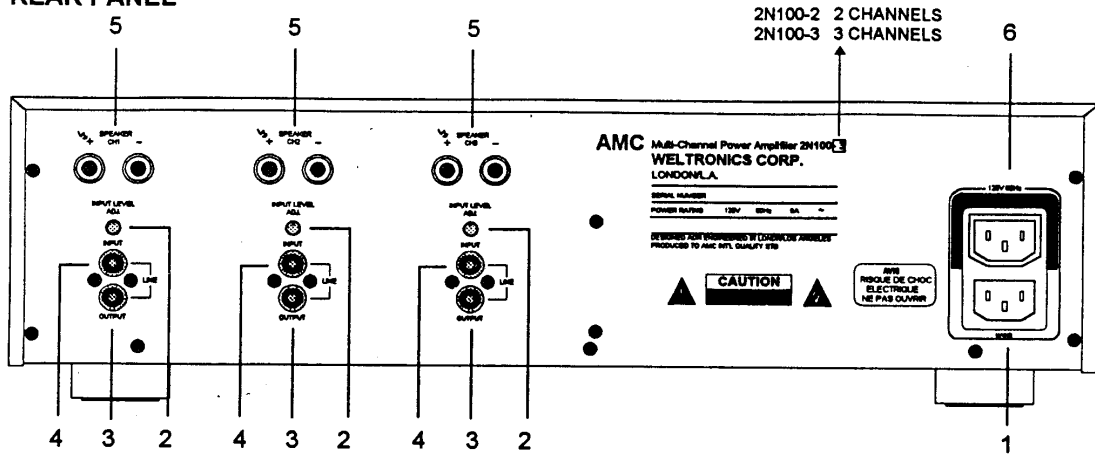
Rated power into 8 ohm (IHF)	150 W
Rated T.H.D. 20Hz-20KHz	0.03 %
Clipping power into 8 ohm	160 W
Dynamic power into 8 ohm	255 W
Current limit into 0.1 ohm and 1 ohm	30 Amps
Damping factor	>200
Input sensitivity for 100W output Power into 8 ohm	1 Vrms
Input impedance	22K ohm//150pF
Frequency response 20Hz-20KHz	+/- 0.3dB
-3dB	4Hz/75KHz
Signal to noise ratio "A" WTD (ref. 1W/8 ohm)	>100 dB
Separation 20KHz	>70 dB

OTHERS

Dimensions (WxHxD)	430x112x288 mm
Net weight 2N100-2/-3	11.4 Kg/12.3 Kg
Shipping weight (2 pieces) 2N100-2/-3	24.4 Kg/30.8 Kg

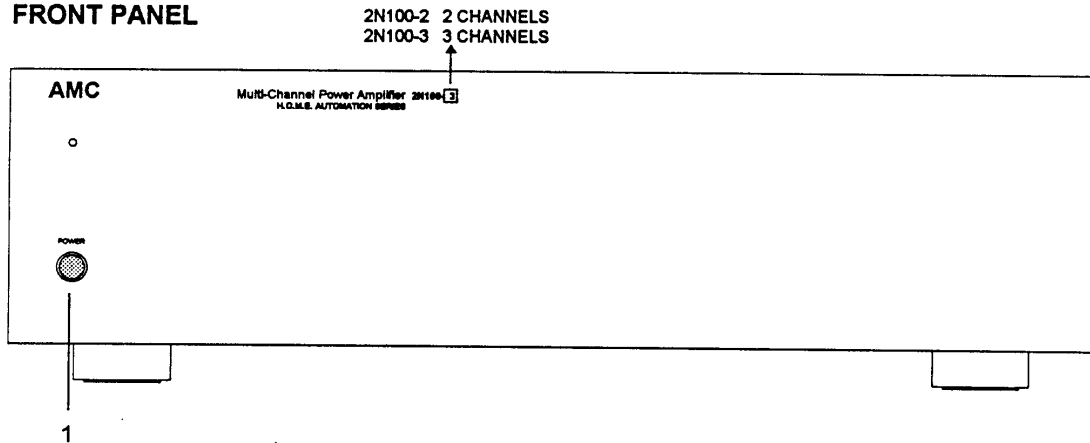
REAR PANEL CONNECTIONS/FRONT PANEL CONTROLS

REAR PANEL



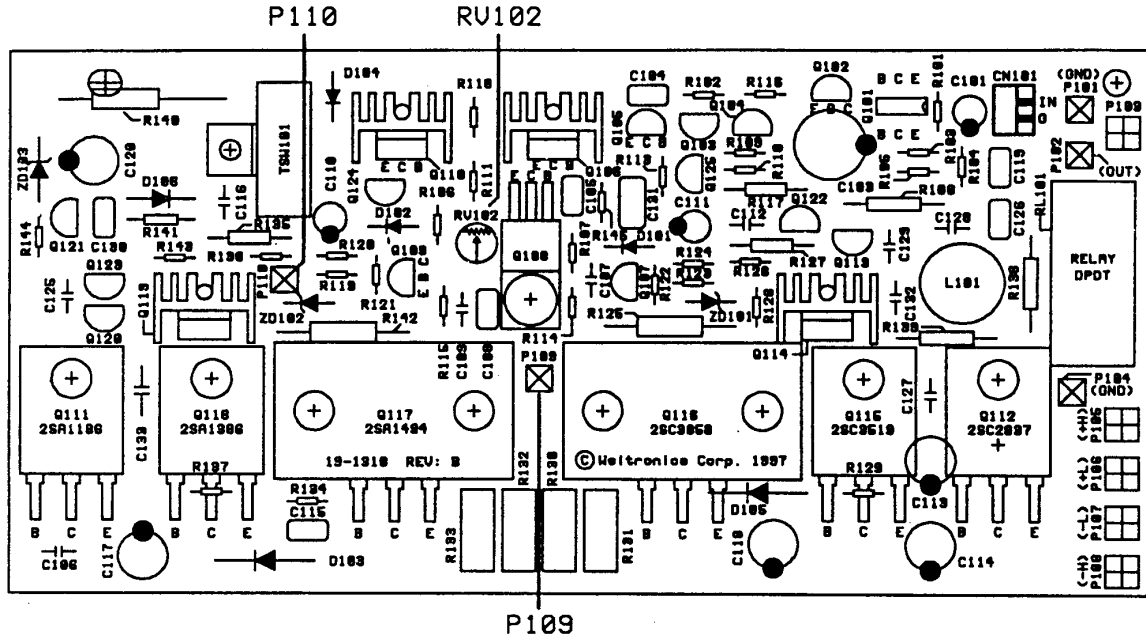
- 1. MAINS INLET
- 2. INPUT LEVEL CONTROLS
- 3. LINE OUTPUTS
- 4. LINE INPUTS
- 5. LOUDSPEAKER TERMINALS
- 6. CONVENIENCE AC OUTLET (Unswitched)

FRONT PANEL



- 1. POWER SWITCH

AMPLIFIER ADJUSTMENT



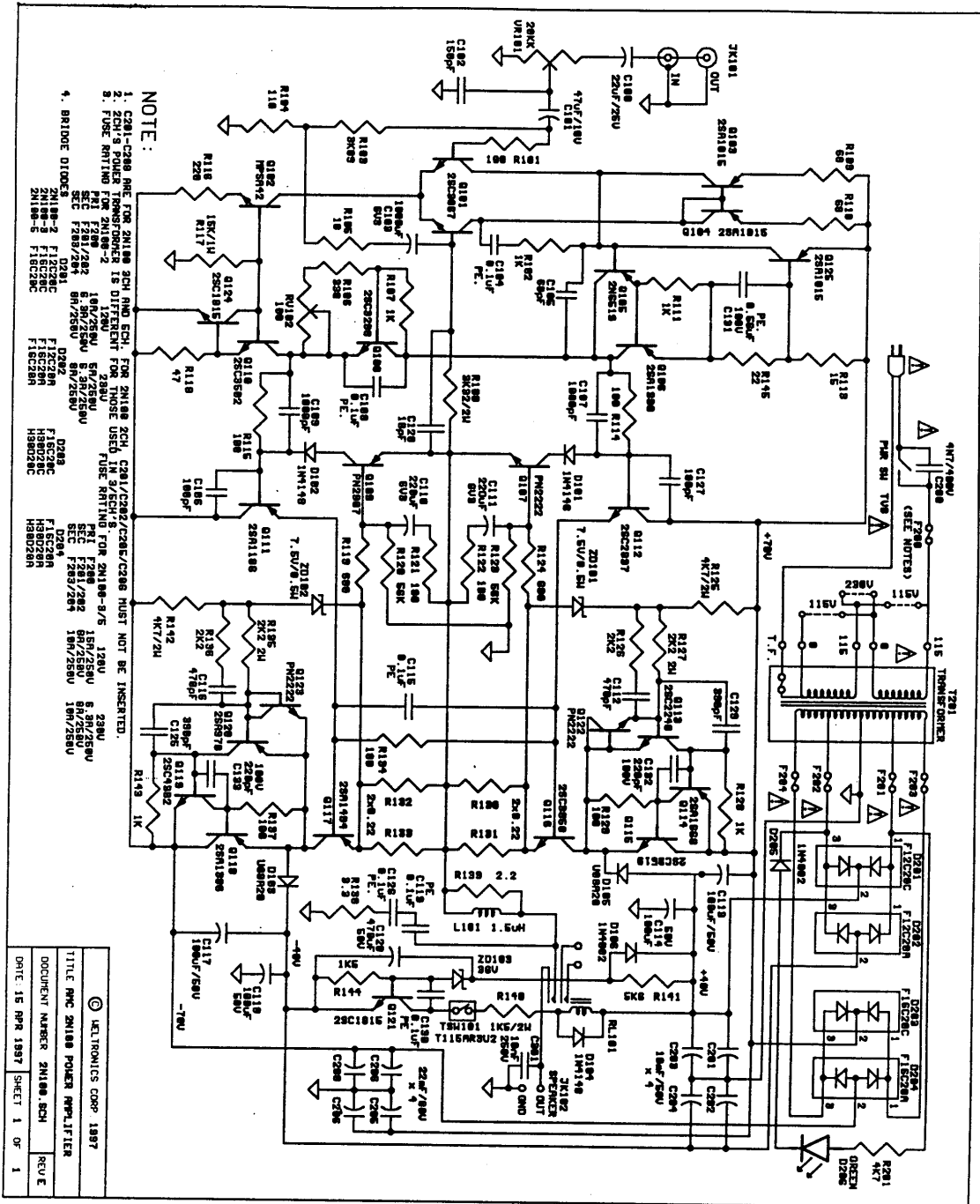
A. IDLE CURRENT ADJUSTMENT

1. Connect DMM across P109 and P110, adjust RV102 for reading of 4.5mV +/- 0.5mV DC. (Without a load across the output terminals.)
2. Repeat above procedures for each amplifier module.

B. FINAL ADJUSTMENT

1. Leave power on for minimum 5 minutes.
2. Repeat idle current adjustments.

SCHEMATIC DIAGRAM

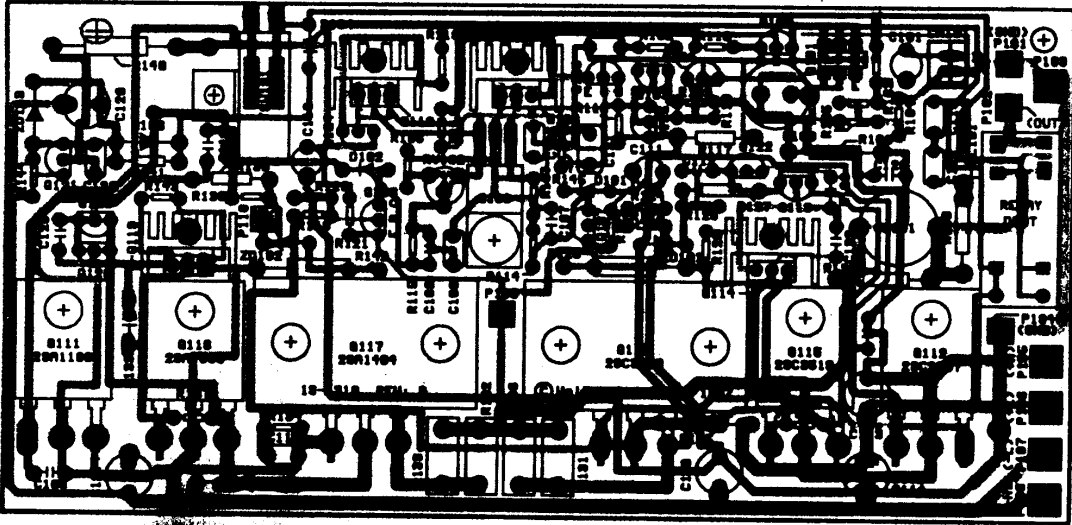
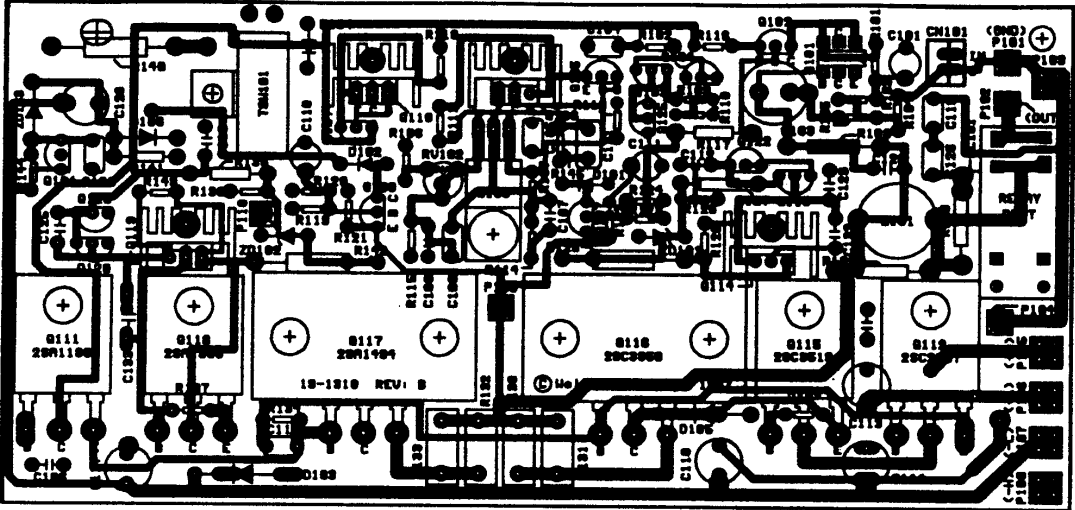


NOTE:

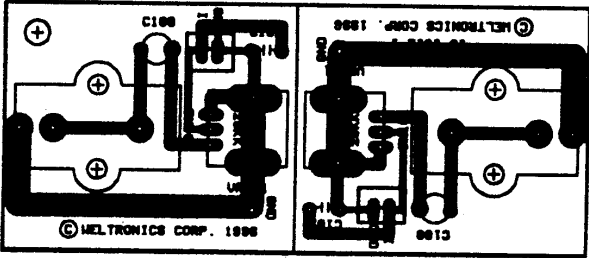
1. C201-C208 ARE FOR 2N108 3CH AND EACH FOR 2N108 2CH IN 3/4 EACH. FUSE RATING FOR 2N108 IS DIFFERENT FOR BRIDGE USED IN 3/4 EACH. FUSE RATING FOR 2N108-9/5 IS 1.20U. 320U.
2. FUSE RATING FOR 2N108-9/5 IS 1.20U. 320U.
3. FUSE RATING FOR 2N108-9/5 IS 1.20U. 320U.
4. BRIDGE DIODES: 2N108-2 F1C208C H88028A
2N108-3 F1C208C H88028A
2N108-4 F1C208C H88028A
2N108-5 F1C208C H88028A
2N108-6 F1C208C H88028A
2N108-7 F1C208C H88028A
2N108-8 F1C208C H88028A
2N108-9 F1C208C H88028A

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TITLE: RMC 2N108 POWER AMPLIFIER	
DOCUMENT NUMBER: 2N108 SCH	REV: E
ORIG: 15 APR 1987 SHEET 1 OF 1	

PCB LAYOUT: MAIN AMP AND INPUT MODULE (PARTS SIDE)
MD90-1310 & MD90-1312



MD90-1312
INPUT MODULE



PARTS LIST

2N100-2/-3 SERVICE PARTS LIST					
SYMBOL NO.	PARTS NO.	DESCRIPTION	SPECIFICATION	2N100-2	2N100-3
		PACKING ASS'Y			
	21-4116	OWNER'S MANUAL	2N100-2	1	
	21-4117	OWNER'S MANUAL	2N100-3		1
	34-1065-1	POLYLONE F		1	1
	34-1065-2	POLYLONE R		1	1
	CT-5276	INNER CARTON		1	1
	CT-5277	OUTER CARTON		0.5	0.5
		CHASSIS ASS'Y			
	11-6149*B	FRONT CHASSIS	2N100-2/-3	1	1
	11-6151	CENTER CHASSIS R	CVT2030	1	1
	11-6212	MAIN CHASSIS	2N100-2	1	
	11-6213	MAIN CHASSIS	2N100-3		1
	11-8588	FRONT PANEL	2N100-2	1	
	11-8590	FRONT PANEL	2N100-3		1
	12-2115	AC INLET/OUTLET	2N100-2/-3	1	1
	12-2168-1	BANANA SOCKET	RED TEXTURE	2	3
	12-2168-2	BANANA SOCKET	BLK TEXTURE	2	3
	12-3152GN	POWER SW BUTTON	GREEN	1	1
	13-8277B	PW KNOB BUSHION		1	1
	15-2079	MECHANIC SCREW	M10*100L	1	1
	15-2080	NUT M10		1	1
	15-2081	WASHER	10*28	1	1
C301	17-50DR103Z	CAP.CC,	10nF/500V +80-20% (SPK +/-)	2	3
	19-1314	PCB JUMPER	2N100-2/-3/-5	1	1
	28-1046-1B	FOOT	H=17 M/M	2	2
	28-1046-2B	FOOT	H=17 M/M	2	2
	28-2074	SPONGE FOR FOOT		4	4
	29-2171	X'FORMER 2CH	2N100-2	1	
	29-2172	X'FORMER 3CH (5CH)	2N100-3/-5		1
	29-3070	RF. FILTER COIL	DFK1628-09 T7	2	3
	50-1038-1	CABINET BLACK	CVT3030	1	1
	11-8587-1	REAR PANEL	120V/60Hz A1	1	
	11-8587-2	REAR PANEL	230V/50Hz B/B1/EC	1	
	11-8589-1	REAR PANEL	120V/60Hz A1		1
	11-8589-2	REAR PANEL	230V/50Hz B/B1/EC		1
	14-5107	POWER CORD	CL-105+ST-003 SPT-2 A1	1	1
	14-5108	POWER CORD	CL-105+CL-202 B1	1	1
	14-5030	POWER CORD	CL-105+CL-107 EC	1	1
	28-2078-BK	CAP BINDING POST	BLK SILICON	2	3
	28-2078-RD	CAP BINDING POST	RED SILICON	2	3
	MD90-1310	MAIN AMP MODULE	WITH COMPONENTS	2	3
	19-1310	PCB. POW AMP	85*173*1.6t FR4	2	3
	11-5105	HEAT SINK	170.5*100mm(MAIN AMP MODULE)	2	3
C101	17-1ER476M	CAP.EL	47uF/10V +-20% TAP	2	3
C103	17-0.63EF108M	CAP.EC	1000uF/6.3V +-20%	2	3
C104	17-6.3GR104J	CAP.MP	100nF/63V +-5% (BOX) TAP	2	3
C105	17-5DR680J	CAP.CC	68pF/50V +-5% TAP	2	3
C106	17-5DR101J	CAP.CC	100pF/50V +-5% TAP	2	3
C107	17-6.3GR102J	CAP.MP	1nF/63V +-5% (BOX) TAP	2	3
C108	17-6.3GR104J	CAP.MP	100nF/63V +-5% (BOX) TAP	2	3
C109	17-6.3GR102J	CAP.MP	1nF/63V +-5% (BOX) TAP	2	3
C110,C111	17-0.63ER227M	CAP.EL	220uF/6.3V +-20% TAP	4	6
C112	17-5DR471J	CAP.CC	470pF/50V +-5% TAP	2	3
C113,C114	17-5ER107M	CAP.EL	100uF/50V +-20% TAP	4	6
C115	17-6.3GR104J	CAP.MP	100nF/63V +-5% (BOX) TAP	2	3
C116	17-5DR471J	CAP.CC	470pF/50V +-5% TAP	2	3
C117,C118	17-5ER107M	CAP.EL	100uF/50V +-20% TAP	4	6
C119	17-6.3GR104J	CAP.MP	100nF/63V +-5% (BOX) TAP	2	3
C120	17-5EF477M	CAP.EL	470uF/50V +-20%	2	3
C125	17-5DR391J	CAP.CC	390pF/50V +-5% TAP	2	3
C126	17-6.3GR104J	CAP.MP	100nF/63V +-5% (BOX) TAP	2	3
C127	17-5DR101J	CAP.CC	100pF/50V +-5% TAP	2	3
C128	17-5DR180J	CAP.CC	18pF/50V +-5% TAP	2	3

2N100-2/3 SERVICE PARTS LIST					
SYMBOL NO.	PARTS NO.	DESCRIPTION	SPECIFICATION	2N100-2	2N100-3
C129	17-5DR391J	CAP.CC	390pF/50V +-5% TAP	2	3
C130	17-6.3GR104J	CAP.MP	100nF/63V +-5% (BOX) TAP	2	3
C131	17-10GR564J	CAP.MP	0.56uF/100V +-5% TAP	2	3
C132,C133	17-5DR221J	CAP.CC	220pF/50V +-5% TAP	4	6
D101,D102	30-1N4148	DIODE SWITCH	1N4148 TAP	4	6
D103	30-U08A20	DIODE	U08A20 MOSPEC	2	3
D104	30-1N4148	DIODE SWITCH	1N4148 TAP	2	3
D105	30-U08A20	DIODE	U08A20 MOSPEC	2	3
D106	30-1N4002	DIODE	1N4002 100V 1A TAP	2	3
L101	29-3072	COIL	1.5uH P=12.5mm 2N100	2	3
Q101	30-2SC3067G	TR NPN	2SC3067G 120V 50mA	2	3
Q102	30-MPSA42	TRANSISTOR	MPSA42	2	3
Q103,Q104	30-2SA1015GR	TR. PNP	2SA1015GR, TOSHIBA	4	6
Q105	30-2N6519	TR.	2N6519	2	3
Q106	30-2SA1380D	TR. PNP	2SA1380D/E	2	3
FOR Q106	11-5104	HEAT SINK	L=25mm W=15mm	2	3
Q107	30-PN2222	TRANSISTOR	PN2222A	2	3
Q108	30-2SC3298	TR. NPN	2SC3298	2	3
Q109	30-PN2907	TRANSISTOR	PN2907A	2	3
Q110	30-2SC3502E	TR.	2SC3502E SANYO	2	3
FOR Q110	11-5104	HEAT SINK	L=25mm W=15mm	2	3
Q111	30-2SA1186	TR. PNP HF	2SA1186+MICA	2	3
Q112	30-2SC2837	TR. NPN HF	2SC2837+MICA	2	3
Q113	30-2SC2240GR	TR. NPN	2SC2240GR/BL	2	3
Q114	30-2SA1666	TR. PNP	2SA1666 SANKEN	2	3
FOR Q114	11-5104	HEAT SINK	L=25mm W=15mm	2	3
Q115	30-2SC3519	TR. NPN	2SC3519	2	3
Q116	30-2SC3858	TR. NPN	2SC3858	2	3
Q117	30-2SA1494	TR. PNP	2SA1494	2	3
Q118	30-2SA1386	TR. PNP	2SA1386	2	3
Q119	30-2SC4382	TR. NPN	2SC4382 SANKEN	2	3
FOR Q119	11-5104	HEAT SINK	L=25mm W=15mm	2	3
Q120	30-2SA970GR	TR. PNP	2SA970GR/BL TAP	2	3
Q121	30-2SC1815GR	TR. NPN	2SC1815GR, TOSHIBA	2	3
Q122,Q123	30-PN2222	TRANSISTOR	PN2222A	4	6
Q124	30-2SC1815GR	TR. NPN	2SC1815GR, TOSHIBA	2	3
Q125	30-2SA1015GR	TR. PNP	2SA1015GR, TOSHIBA	2	3
R101	16-1.6MA101F	RES MF,	100 1/6W +-1% 52mm TAP	2	3
R102	16-1.6MA102F	RES MF,	1K 1/6W +-1% 52mm TAP	2	3
R103	16-1.6MA3091F	RES MF,	3K09 1/6W +-1% 52mm TAP	2	3
R104	16-1.6MA111F	RES MF,	100 1/6W +-1% 52mm TAP	2	3
R105	16-1.6MA100F	RES MF,	10 1/6W +-1% 52mm TAP	2	3
R106	16-1.6MA331F	RES MF,	330 1/6W +-1% 52mm TAP	2	3
R107	16-1.6MA102F	RES MF,	1K 1/6W +-1% 52mm TAP	2	3
R108	16-2AN332J	RES MO,	3K3 2W +-5%	2	3
R109,R110	16-1.6MA680F	RES MF,	68 1/6W +-1% 52mm TAP	4	6
R111	16-1.6MA102F	RES MF,	1K 1/6W +-1% 52mm TAP	2	3
R113	16-1.6MA150F	RES MF,	15 1/6W +-1% 52mm TAP	2	3
R114,R115	16-1.6MA101F	RES MF,	100 1/6W +-1% 52mm TAP	4	6
R116	16-1.6MA221F	RES MF,	220 1/6W +-1% 52mm TAP	2	3
R117	16-1AN153J	RES MO,	15K 1W +-5%	2	3
R118	16-1.6MA470F	RES MF,	47 1/6W +-1% 52mm TAP	2	3
R119	16-1.6MA681F	RES MF,	680 1/6W +-1% 52mm TAP	2	3
R120	16-1.6MA563F	RES MF,	56K 1/6W +-1% 52mm TAP	2	3
R121,R122	16-1.6MA181F	RES MF,	180 1/6W +-1% 52mm TAP	4	6
R123	16-1.6MA563F	RES MF,	56K 1/6W +-1% 52mm TAP	2	3
R124	16-1.6MA681F	RES MF,	680 1/6W +-1% 52mm TAP	2	3
R125	16-2AN472J	RES MO,	4K7 2W+-5%	2	3
R126	16-1.6MA222F	RES MF,	2K2 1/6W +-1% 52mm TAP	2	3
R127	16-2AN222J	RES.METAL OXIDE	2K2 2W +-5%	2	3
R128	16-1.6MA103F	RES MF,	10K 1/6W +-1% 52mm TAP	2	3
R129	16-1.6MA101F	RES MF,	100 1/6W +-1% 52mm TAP	2	3
R130-133	16-5GSR22J	RES METAL PLATE CEMENT	0.22 5W +-5%	8	12

2N100-2/-3 SERVICE PARTS LIST					
SYMBOL NO.	PARTS NO.	DESCRIPTION	SPECIFICATION	2N100-2	2N100-3
R134	16-1.6MA181F	RES MF,	180 1/6W +-1% 52mm TAP	2	3
R135	16-2AN222J	RES.METAL OXIDE	2K2 2W +-5%	2	3
R136	16-1.6MA222F	RES MF,	2K2 1/6W +-1% 52mm TAP	2	3
R137	16-1.6MA101F	RES MF,	100 1/6W +-1% 52mm TAP	2	3
R138	16-2AN3R3J	RES MO,	3.3 2W +-5%	2	3
R139	16-2AN2R2J	RES MO,	2.2 2W +-5%	2	3
R140	16-2AN152J	RES MO,	1K5 2W+-5%	2	3
R141	16-1.4MA562F	RES MF,	5K6 1/4W +-1% 52mm TAP	2	3
R142	16-2AN472J	RES MO,	4K7 2W+-5%	2	3
R143	16-1.6MA103F	RES MF,	10K 1/6W +-1% 52mm TAP	2	3
R144	16-1.6MA152F	RES MF,	1K5 1/6W +-1% 52mm TAP	2	3
R145	16-1.6MA220F	RES MF,	22 1/6W +-1% 52mm TAP	2	3
RL101	35-3044-1	RELAY DC24V	OMI-SS-224LM N116	2	3
RV102	29-R6V101B-1	SVR, 6mm	100 B TYPE(RH0614C12J0ZA)	2	3
TSW101	29-8004	THERMAL SWITCH	UP72/115C/050MM	2	3
	11-2156	BKT, THERMAL SWITCH	2N100-2/-3/5	2	3
ZD101,ZD102	30-1.2Z7V5	ZENER DIODE	7V5 1/2W TAP	4	6
ZD103	30-1.2Z36V	ZENER DIODE	36V 1/2W	2	3
	MD90-1311	POWER SUPPLY MODULE	WITH COMPONENTS	1	1
	19-1311	PCB. POW SPY.	2N100 FR4	1	1
C200	17-40CR472M	CAP AC-CER	4700pF/400V +-20%	1	1
C201,C202	17-5EG109M	CAP.EL,	10000uF/50V +-20%		2
C203,C204	17-5EG109M	CAP.EL,	10000uF/50V +-20%	2	2
C205,C206	17-8EG229M	CAP.ELE	22000uF/80V +-20% ELNA		2
C207,C208	17-8EG229M	CAP.ELE	22000uF/80V +-20% ELNA	2	2
FOR D201-204	11-5104	HEAT SINK	L=25mm W=15mm	4	2
D201	30-F12C20C	DIODE BRIDGE	F12C20C MOSPEC	1	1
D202	30-F12C20A	DIODE BRIDGE	F12C20A MOSPEC	1	1
D203	30-F16C20C	DIODE BRIDGE	F16C20C MOSPEC	1	
D203	30-H30D20C	DIODE BRIDGE	H30D20C		1
D204	30-F16C20A	DIODE BRIDGE	F16C20A MOSPEC	1	
D204	30-H30D20A	DIODE BRIDGE	H30D20A		1
FOR D203,D204	11-5080*A	HEAT SINK	2N100-3/-5		2
D205	30-1N4002	DIODE	1N4002 100V 1A TAP	1	1
D206	30-1115	DIODE LED	L>20mm,CSL300GIDT GREEN	1	1
FOR F200-F204	32S2016	FUSE HOLDER	5X20mm	10	10
F200	32S125010KTU	FUSE, T-LAG 5x20mm	T10A/250V UL/CSA (GTE) A1	1	
F200	32S12505K0TS	FUSE, T-LAG 5x20mm	T5A/250V SEMKO (S506) B/B1/EC	1	
F200	32S125015KT	FUSE, T-LAG 5x20mm	T15A/250V (UTE) A1		1
F200	32S12506K3TS	FUSE, T-LAG 5x20mm	T6.3A/250V SEMKO (S506) B/B1/EC		1
F201,F202	32S12506K3TU	FUSE, T-LAG 5x20mm	T6.3A/250V UL/CSA (GSL) A1	2	
F201,F202	32S12506K3TS	FUSE, T-LAG 5x20mm	T6.3A/250V SEMKO (S506) B/B1/EC	2	
F201,F202	32S12508K0TU	FUSE, T-LAG 5x20mm	T8A/250V UL/CSA (GSL) A1		2
F201,F202	32S12508K0T	FUSE, T-LAG 5x20mm	T8A/250V (UTE) B/B1/EC		2
F203,F204	32S12508K0TU	FUSE, T-LAG 5x20mm	T8A/250V UL/CSA (GSL) A1	2	
F203,F204	32S12508K0T	FUSE, T-LAG 5x20mm	T8A/250V (UTE) B/B1/EC	2	
F203,F204	32S125010KTU	FUSE, T-LAG 5x20mm	T10A/250V UL/CSA (GTE) A1		2
F203,F204	32S125010KT	FUSE, T-LAG 5x20mm	T10A/250V (UTE) B/B1/EC		2
P201-210	11-3050	PIN TERMINAL Y TYPE		10	10
P221-230	11-3050	PIN TERMINAL Y TYPE		10	10
R201	16-1.4MA472F	RES MF,	4K7 1/4W +-1% 52mm TAP	1	1
S201	31-1240	SW POWER	(TV-8) 5A/250V	1	1
	S2B03+I08SL-2	TAPPING SCREW	T3*8SL BLK	4	4
	MD90-1312	INPUT/OUTPUT MODULE	WITH COMPONENTS	2	3
	19-1312	PCB. I/O	2N100 FR4	2	3
C100	17-SER225M	CAP EL,	2.2uF/50V +-20% TAP	2	3
C102	17-5DR151J	CAP CC,	150pF/50V +-5% TAP	3	3
JR101	12-2238	2P RCA JACK		2	3
VR101	29-4215	VR. 9mm	20K K TYPE	2	3