

AMC

SERVICE MANUAL

CVT2100a

CVT2100as

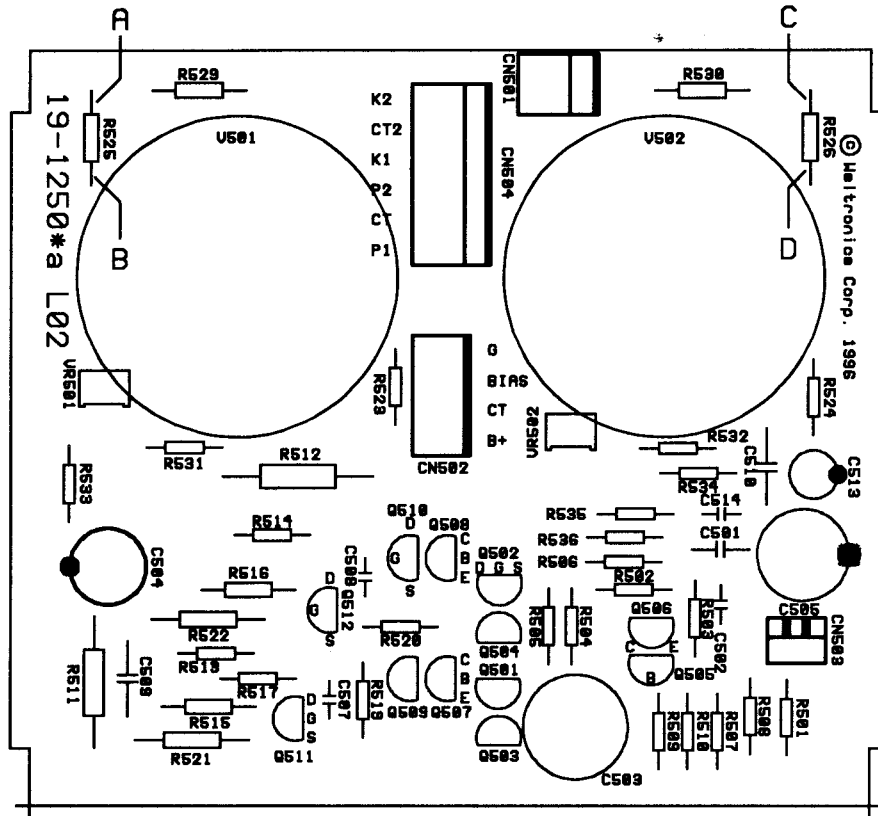
(=CVT2100a + Vacuum Tube Sockets)

VALVE POWER AMPLIFIER

SPECIFICATIONS

Power output into 8/4 ohms.....	80W
With both channels driven	
With balanced bridged input module.....	160W
Rated T.H.D. 45Hz-20KHz.....	1.0%
1KHz clipping power into 8/4 ohms.....	85W
Input sensitivity for 1W/80W into 8 ohms.....	138mV/1230mV
Input impedance.....	500K ohms/470pF
Frequency response:	
20Hz-20KHz.....	+/-0.5dB
-3dB.....	10Hz/80KHz
Signal to noise ratio (ref. 1W/8 ohms):	
"A" WTD.	95dB
UN-WTD.	85dB
Separation 20Hz-20KHz.....	> 65dB
Overall feedback.....	14dB
Dimensions (WxHxD).....	430x112x288mm
Net weight.....	19Kg
Shipping weight.....	20Kg

POWER AMPLIFIER ADJUSTMENT



IMPORTANT NOTES:

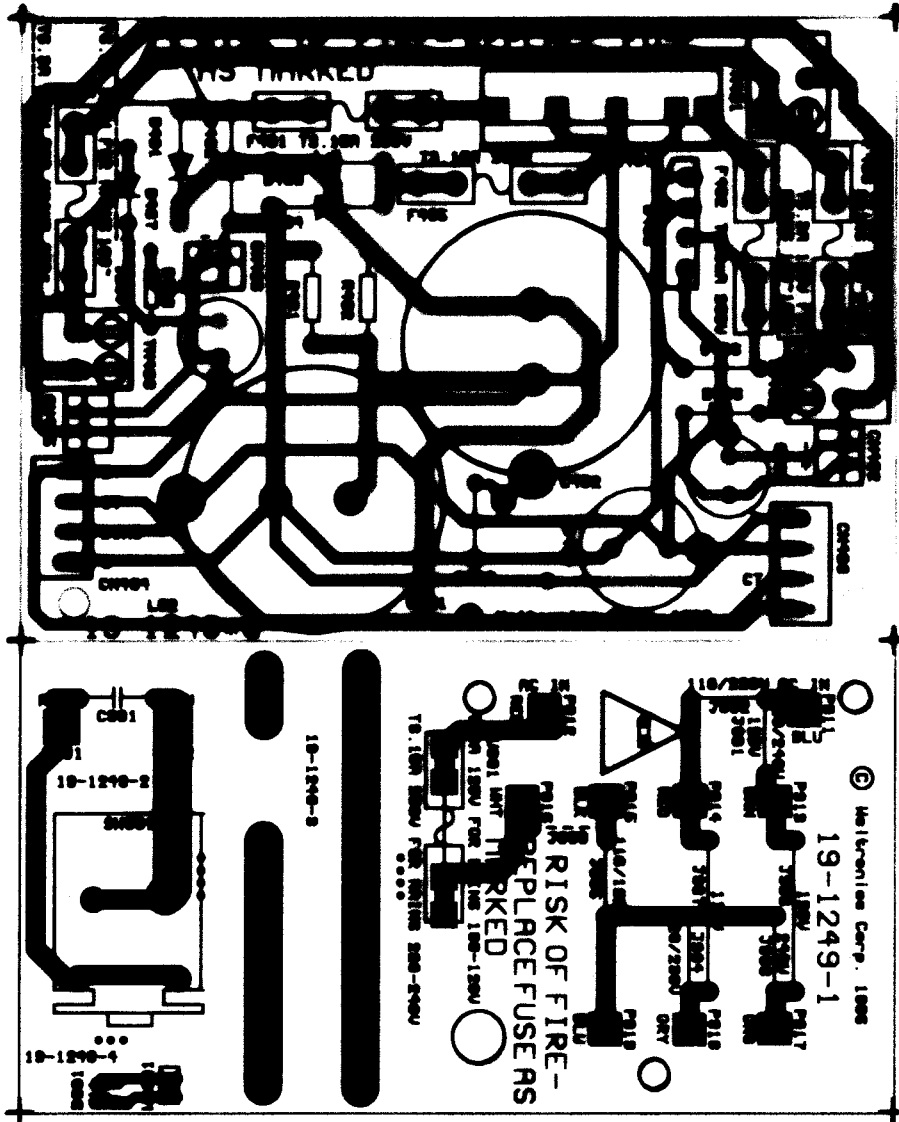
1. Make sure the primary voltage to be connected is accurately as the unit defined.
2. Before adjusting, turn VR501 clockwise and VR502 counterclockwise to the end position. (value of semi-potentiometer are setted at the maximum position.)
4. These adjustments are always necessary when power amplifier is repaired. (module of MD-90-1250*a)
5. Before adjustment is done, the tested unit must be pre-heated at least 3 to 5 minutes.

A. BIAS CURRENT ADJUSTMENT

1. Connect voltmeter between R525 resistor. (See figure - point A and B)
2. Adjust VR501 to give a reading of DC 70 mV.
3. Connect voltmeter between R526 resistor. (See figure - point C and D)
4. Adjust VR502 to give a reading of DC 70 mV.
5. Connect the output of the amplifier to an oscilloscope/analyser (with 20Hz H.P. Filter) and adjust the VR501 or VR502 for minimum mains ripple at the output.
6. Repeat above for another channel.

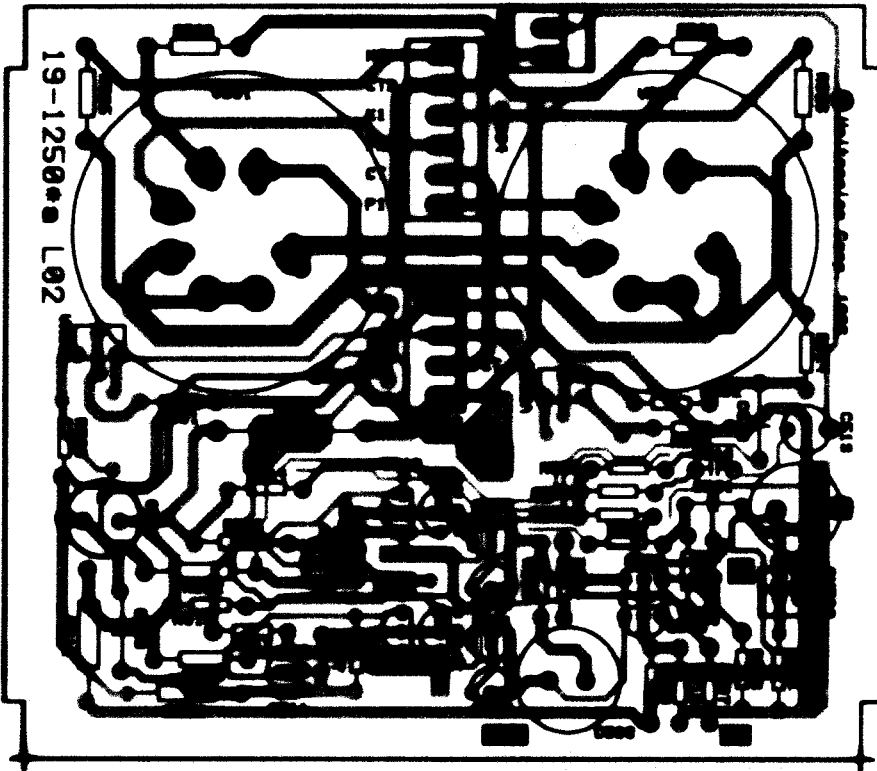
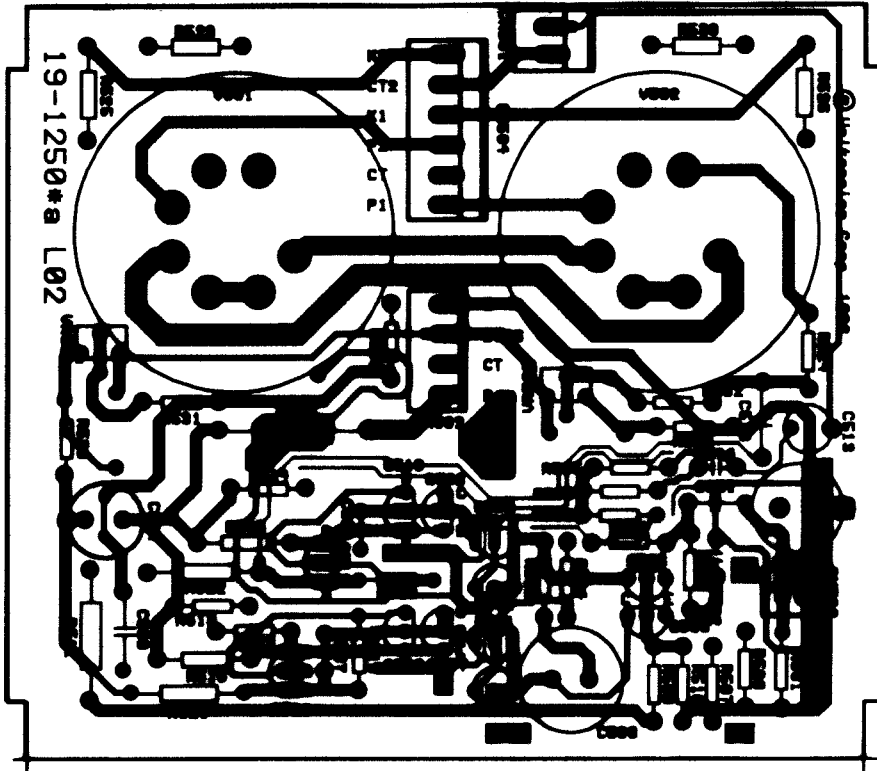
PCB LAYOUT: POWER SUPPLY PCB MODULE (PARTS SIDE)

MD90-1249*a

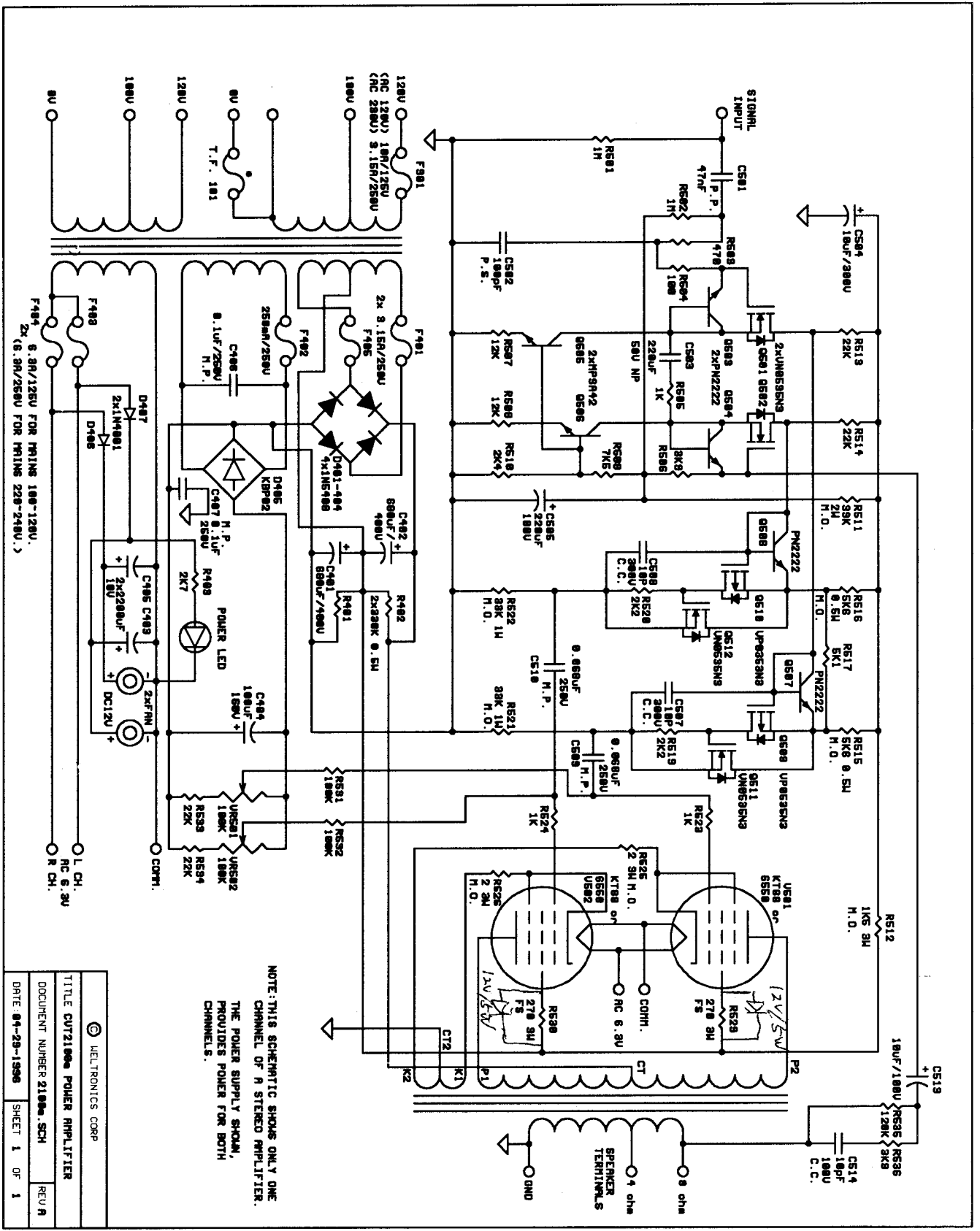


PCB LAYOUT: POWER AMP PCB MODULE (PARTS SIDE)

MD90-1250*a



SCHMATIC DIAGRAM



NOTE: THIS SCHEMATIC SHOWS ONLY ONE CHANNEL OF A STEREO AMPLIFIER. THE POWER SUPPLY SHOWN, PROVIDES POWER FOR BOTH CHANNELS.

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TITLE CVT21000 POWER AMPLIFIER	
DOCUMENT NUMBER 21000-SCH	REV A
DATE: 04-29-1996	SHEET 1 OF 1

PARTS LIST

AMC 2100a SERVICE PARTS LIST				
SYMBOL NO.	PARTS NO.	DESCRIPTION	SPECIFICATION	Q'TY
		PACKING ASS'Y		
	21-4065	OWNERS MANUAL	AMC 2100a	1
	34-1065-1	POLYLONE F	CVT2100	1
	34-1065-2	POLYLONE R	CVT2100	1
	CT-5248*A	INNER CARTON	CVT2100	1
	CT-5249	OUTER CARTON	CVT2100	1
		CHASSIS ASS'Y		
	11-1134	MODULE COVER	CVT2030	1
	11-1135	MODULE CASE		1
	11-2368	MODULE SUPPORT	CVT2030	1
	11-2370	CENTER BRACKET	CVT2100	2
	11-6149*A	FRONT CHASSIS		1
	11-6167	MAIN CHASSIS		1
	11-8469	FRONT PANEL	CVT2100	1
	11-8472-1	MODULE CASE FOR TUBE AMP.	CVT2100	2
	11-9071	FAN GUARD	CVT2100	2
	11-9072	SHIELD	CVT2100	2
	12-2133N*A	BINDING POST RED	CVT2100	4
	12-2134N*A	BINDING POST BLK	CVT2100	2
	12-3152GN	POWER SW BUTTON GREEN		1
	13-8227B	PW KNOB BUSHION		1
	14-5003	CORD BUSH	4N-4	1
	28-1046-1B	FOOT	H=17 M/M	2
	28-1046-2B	FOOT	H=17 M/M	2
	28-2074	SPONGE FOR FOOT		4
	29-2148*A	POWER TRANSFORMER	CVT2100a	1
	29-2149-1*A	OUTPUT TRANSFORMER		1
	29-2149-2*A	OUTPUT TRANSFORMER		1
	29-6115	DC FAN 12V	90X90mmX2.5 CVT2100	2
	50-1038-1	CABINET BLACK	CVT3030	1
	11-8470-1	REAR PANEL	120V VERSION	1
	11-8470-2	REAR PANEL	230V VERSION	1
	MD90-1236*A	I/P PCB MODULE	WITH COMPONENTS	1
	12-2141	RCA JACK 2P DARALLE M5A		1
	12-2159	9P SOCKET 90 R TYPE		1
	12-2160	9P CONNECTOR 90 R TYPE		1
	19-1236	PCB I/P(FR4)	CVT2030	1
	MD90-1249*A	POWER SUPPLY MODULE	WITH COMPONENTS	1
	19-1249*A	POWER SUPPLY PCB		1
C401,C402	17-40EF687M	CAP.EL	680uF/400V+-20%	2
C403	17-1EF228M	CAP.EL	2200uF/10V+-20%	1
C404	17-16EF107M	CAP.EL	100uF/160V+-20%	1
C405	17-1EF228M	CAP.EL	2200uF/10V+-20%	1
C406,C407	17-25FR104M	CAP.MP	0.1uF/250V+-20% RED	2
C901	17-40CR472M	CAP AC-CER	4700pF/400V+-20%	1
CN401	12-1110-8WT	CONNECTOR 8P	PCH=3.96mm	1
CN402	12-1087-2WT	CONNECTOR 2P	WHITE	1
CN403,CN404	12-1107-1-4WT	CONNECTOR 4P	PCH=3.96mm	2
CN405,CN406	12-1087-2WT	CONNECTOR 2P	WHITE	2
D401-404	30-1N5408	DIODE 1N5408	3A/Vrms=1000V	4
D405	30-1121	DIODE BRIDGE		1
D406,D407	30-1N4001	DIODE 1N4001	1A/Vrms=50V TAP	2
D801	30-1115	DIODE LED CSL300GIDT	L>20mm	1
F401-405	32S2016	FUSE HOLDER	5X20mm	10
F901	32S2016	FUSE HOLDER	5X20mm	2
R401,R402	16-1.2MA334F	RES.,MF	330K 1/2W +-1% 52mm TAP	2
R403	16-1.4MA272F	RES.,MF	2K7 1/4W +-1% 52mm TAP	1
SW901	31-1240	SW POWER (TV-8)	5A/250V	1
TM401-403	13-3061-2	TERMINAL 2P	PCH=5mm	3
F401,F405	32S12503K15TU	FUSE	T3.15A/250V UL/CSA 120V VERSION	2
F401,F405	32S12503K15TS	FUSE	T3.15A/250V SEMKO 230V VERSION	2
F402	32S1250250TU	FUSE	T250mA/250V UL/CSA 120V VERSION	1
F402	32S1250250TS	FUSE	T250mA/250V SEMKO 230V VERSION	1
F403,F404	32S11256K3TU	FUSE	T6.3A/125V 120V VERSION	2
F403,F404	32S12506K3TS	FUSE	T6.3A/250V SEMKO 230V VERSION	2
F901	32S112510K0T	FUSE	T10A/125V UL/CSA 120V VERSION	1

AMC 2100a SERVICE PARTS LIST				
SYMBOL NO.	PARTS NO.	DESCRIPTION	SPECIFICATION	Q'TY
F901	32S1250K15TS	FUSE	T3.15A/250V SEMKO 230V VERSION	1
	MD90-1250*A	POWER AMP MODULE	WITH COMPONENTS	1
	19-1250*A	PCB POWER AMPLIFIER	CVT2100a	1
C501	17-10FR473J	CAP.MP	0.047uF/100V +-5%	1
C502	17-10UF101J	CAP.PS	100pF/100V +-5%	1
C503	17-5EF227M-NP	CAP.EL.MINI	220uF/50V +-20% NP	1
C504	17-30EF106M	CAP.EL	10uF/300v +-20%	1
C505	17-10EF227M	CAP.EL	220uF/100V +-20%	1
C507,C508	17-30DF100J	CAP.CC	10pF/300V +-5%	2
C509,C510	17-25FR683M	CAP.MP	0.068uF/250V +-20%	2
C513	17-10EF106M	CAP.EL	10uF/100V +-20%	1
C514	17-10DF100J	CAP.CC	10pF/100V +-5%	1
CN501	12-1110-2WT	CONNECTOR 2P	PCH=3.96mm	1
CN502	12-1107-1-4WT	CONNECTOR 4P	PCH=3.96mm	1
CN503	12-1087-2WT	CONNECTOR 2P	WHITE	1
CN504	12-1110-6WT	CONNECTOR 6P	PCH=3.96mm	1
Q501,Q502	30-VNO535N3	TRANSISTOR	TR. VNO535N3	2
Q503,Q504	30-PN2222	TRANSISTOR	TR. PN2222A	2
Q505,Q506	30-MPSA42	TRANSISTOR	TR. MPSA42	2
Q507,Q508	30-PN2222	TRANSISTOR	TR. PN2222A	2
Q509,Q510	30-VPO535N3	TRANSISTOR	TR. VPO535N3	2
Q511,Q512	30-VNO535N3	TRANSISTOR	TR. VNO535N3	2
R501,R502	16-1.4MA105F	RES.,MF	1M 1/4W +-1% 52mm TAP	2
R503	16-1.4MA471F	RES.,MF	470 1/4W +-1% 52mm TAP	1
R504	16-1.4MA101F	RES.,MF	100 1/4W +-1% 52mm TAP	1
R505	16-1.4MA102F	RES.,MF	1K 1/4W +-1% 52mm TAP	1
R506	16-1.4MA392F	RES.,MF	3K9 1/4W +-1% 52mm TAP	1
R507,R508	16-1.4MA123F	RES.,MF	12K 1/4W +-1% 52mm TAP	2
R509	16-1.4MA752F	RES.,MF	7K5 1/4W +-1% 52mm TAP	1
R510	16-1.4MA242F	RES.,MF	2K4 1/4W +-1% 52mm TAP	1
R511	16-3AN393J	RES.,MO	39K 3W +-5% M TYPE	1
R512	16-3AN152J	RES.,MO	1K5 3W +-5% M TYPE	1
R513,R514	16-1.4MA223F	RES.,MF	22K 1/4W +-1% 52mm TAP	2
R515,R516	16-1.2AN562J	RES.,MO	5K6 1/2W +-5% M TYPE	2
R517	16-1.4MA512F	RES.,MF	5K1 1/4W +-1% 52mm TAP	1
R519,R520	16-1.4MA222F	RES.,MF	2K2 1/4W +-1% 52mm TAP	2
R521,R522	16-1AN333J	RES.,MO	33K 1W +-5% M TYPE	2
R523,R524	16-1.4MA102F	RES.,MF	1K 1/4W +-1% 52mm TAP	2
R525,R526	16-1.2MS2R0F	RES.,MF	2 1/2W +-1% 52mm	2
R529,R530	16-3AN271J	RES.,MO	270 3W +-5% M TYPE	2
R531,R532	16-1.4MA104F	RES.,MF	100K 1/4W +-1% 52mm TAP	2
R533,R534	16-1.4MA223F	RES.,MF	22K 1/4W +-1% 52mm TAP	2
R535	16-1.4MA124F	RES.,MF	120K 1/4W +-1% 52mm TAP	1
R536	16-1.4MA392F	RES.,MF	3K9 1/4W +-1% 52mm TAP	1
V501,V502	30-5005	TUBE SV6550B		2
VR501,VR502	29-4195-W104	SVR	100K	2
	11-9072	SHIELD	CVT2100	1

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