

# **AMC**

## **SERVICE MANUAL**

### **CVT1030**

### **CVT1030a**

(=CVT1030 + CD Balanced input module)

### **CVT1030as**

(=CVT1030a + Vacuum Tube Sockets)

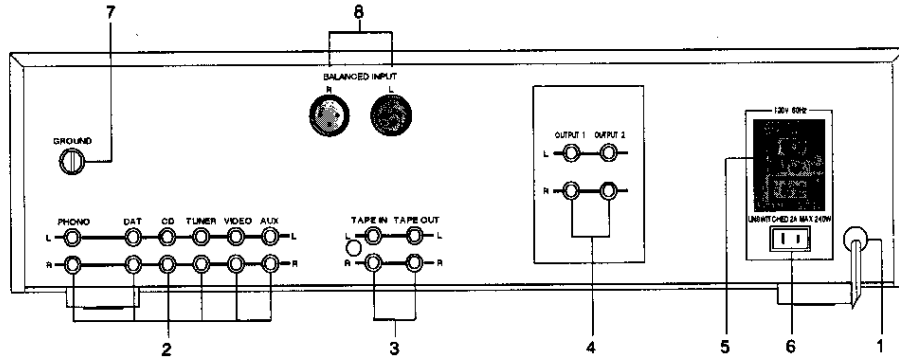
### **CCVT STEREO PREAMPLIFIER**

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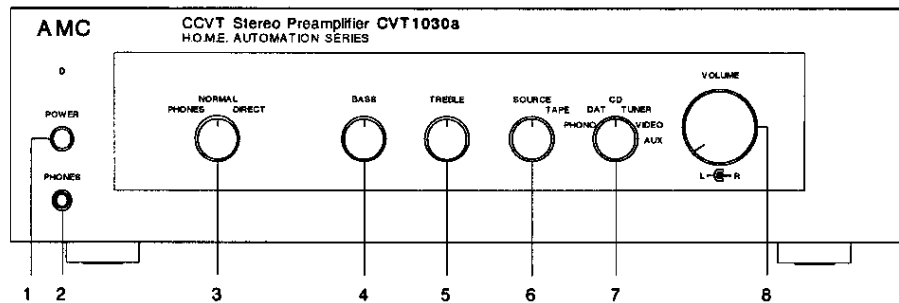
## REAR PANEL CONNECTIONS/FRONT PANEL CONTROLS

### REAR PANEL



- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. AC LINE CORD</li> <li>2. AUDIO INPUTS: PHONO, DAT, CD, TUNER, VIDEO, AUX</li> <li>3. TAPE IN/OUT</li> </ol> | <ol style="list-style-type: none"> <li>4. AUDIO OUTPUTS</li> <li>5. SWITCHED CONVENIENCE AC OUTLETS</li> <li>6. UNSWITCHED CONVENIENCE AC OUTLET</li> <li>7. PHONO GROUND TERMINAL</li> <li>8. BALANCED INPUT<br/>(For CVT1030a or CVT1030as only)</li> </ol> |
|---|---|

### FRONT PANEL



- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. POWER SWITCH</li> <li>2. PHONES SOCKET</li> <li>3. PHONES/NORMAL/DIRECT SWITCH</li> <li>4. BASS CONTROL</li> </ol> | <ol style="list-style-type: none"> <li>5. TREBLE CONTROL</li> <li>6. TAPE MONITOR SWITCH</li> <li>7. INPUT SELECTOR SWITCH</li> <li>8. VOLUME CONTROL</li> </ol> |
|--|--|

## SPECIFICATIONS

### Input sensitivity for 1volt output

High level inputs..... 150mV  
Phono input..... 2.3mV

Rated THD..... 0.03%

### Input Impedance

High level inputs..... 20K ohms/100pf  
Phono input..... 47K ohms/100pf  
Output impedance..... <200 ohm

### Frequency response

Direct mode 20Hz-20KHz..... +/-0.5dB  
Normal 20Hz-20KHz..... +/-1.0dB  
High level inputs-3dB..... 4Hz/80KHz

### Signal to noise ratio (ref. 1volt)

High level inputs "A" WTD..... 96dB  
Phono input "A" WTD..... 79dB

### Tone control range

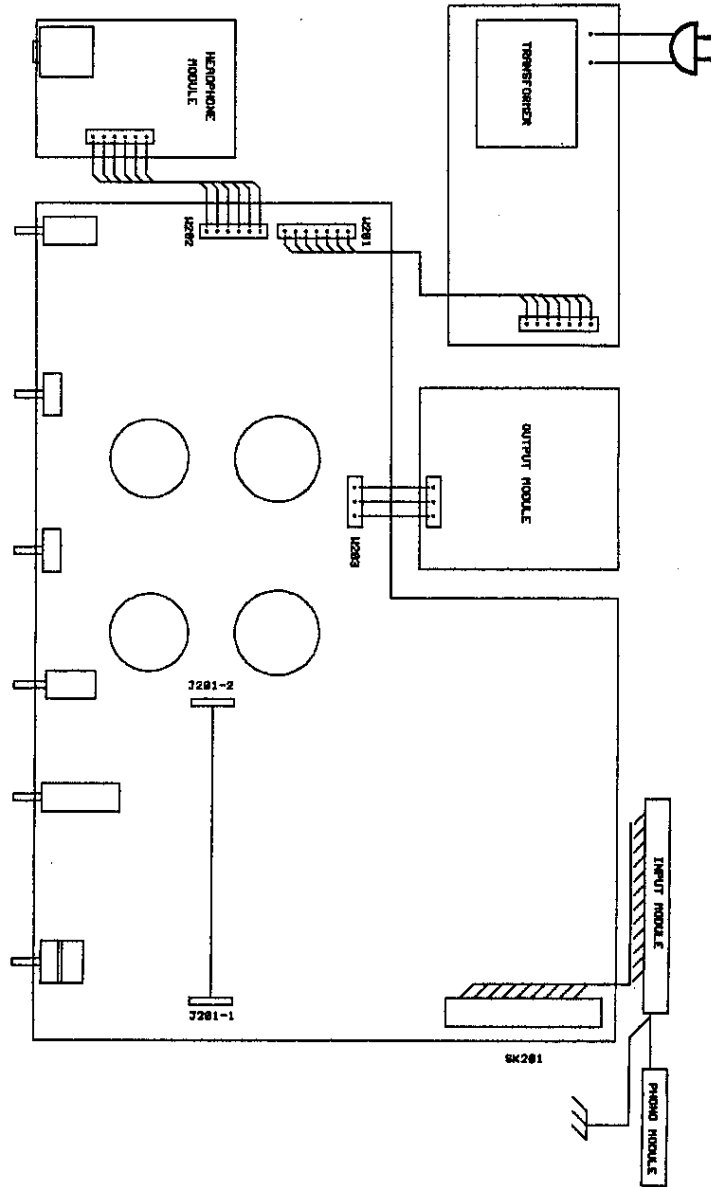
Bass at 50Hz..... +/-8dB  
Treble at 10KHz..... +/-7dB

Dimensions (W x H x D)..... 430 x 112 x 288 mm

Net Weight..... 6.5Kg

Shipping weight..... 7.5Kg

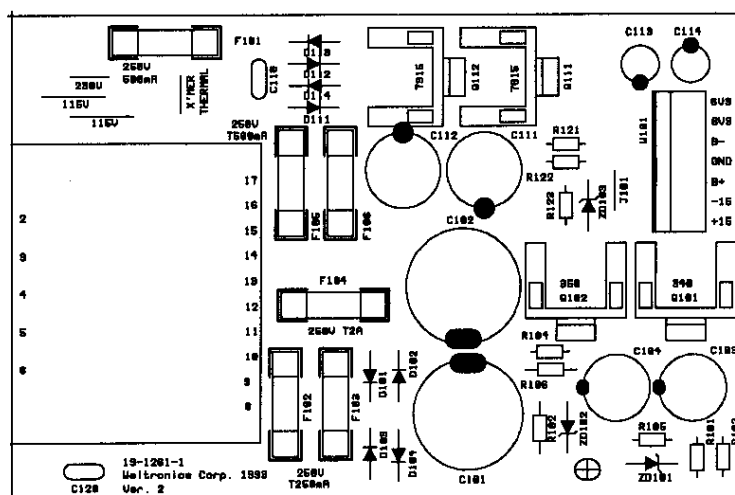
# WIRING DIAGRAM



## MAINS WIRING INSTRUCTION

1. The power transformer of CVT-1030 is UNIVERSAL type can be wired to 120V/230V mains voltages by changing the jumper wires on the MAINS PCB.

2. MAINS P.C.B. drawing:



3. Jumper wires connected chart:

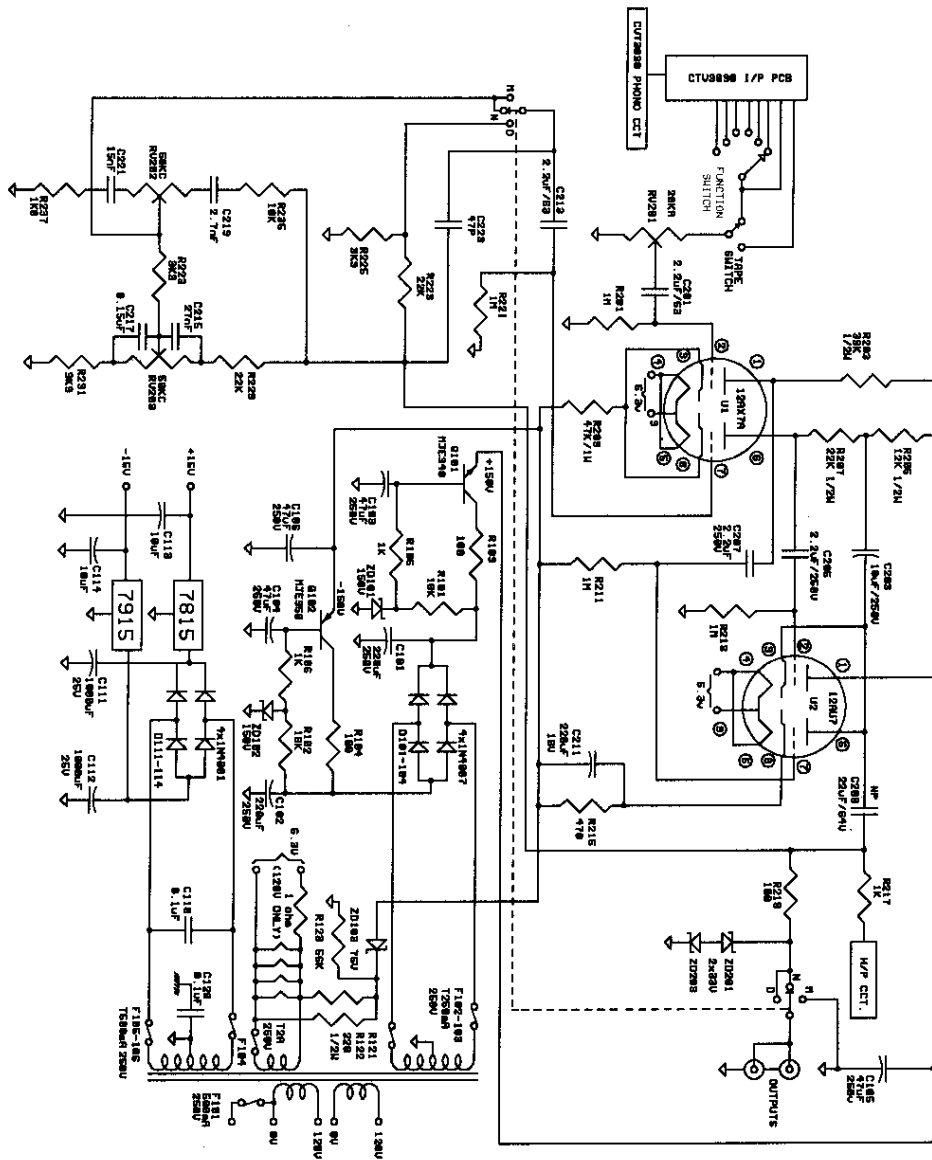
Mains Voltages	Jumper wires shall be connected for the mains voltage		
120V	115V	115V	
230V			230V

4. CAUTION: For continued protection against risk of fire, replace only with the same type of fuses as specified.

ATTENTION: Utiliser un fusible DE recharge DE meme type.

MAINS	100V – 120V		220V – 240V		
F101	T500mA	250V	T500mA	250V	T: TIME LAG FUSE
F102	T250mA	250V	T250mA	250V	
F103	T250mA	250V	T250mA	250V	
F104	T2A	250V	T2A	250V	
F105	T500mA	250V	T500mA	250V	
F106	T500mA	250V	T500mA	250V	

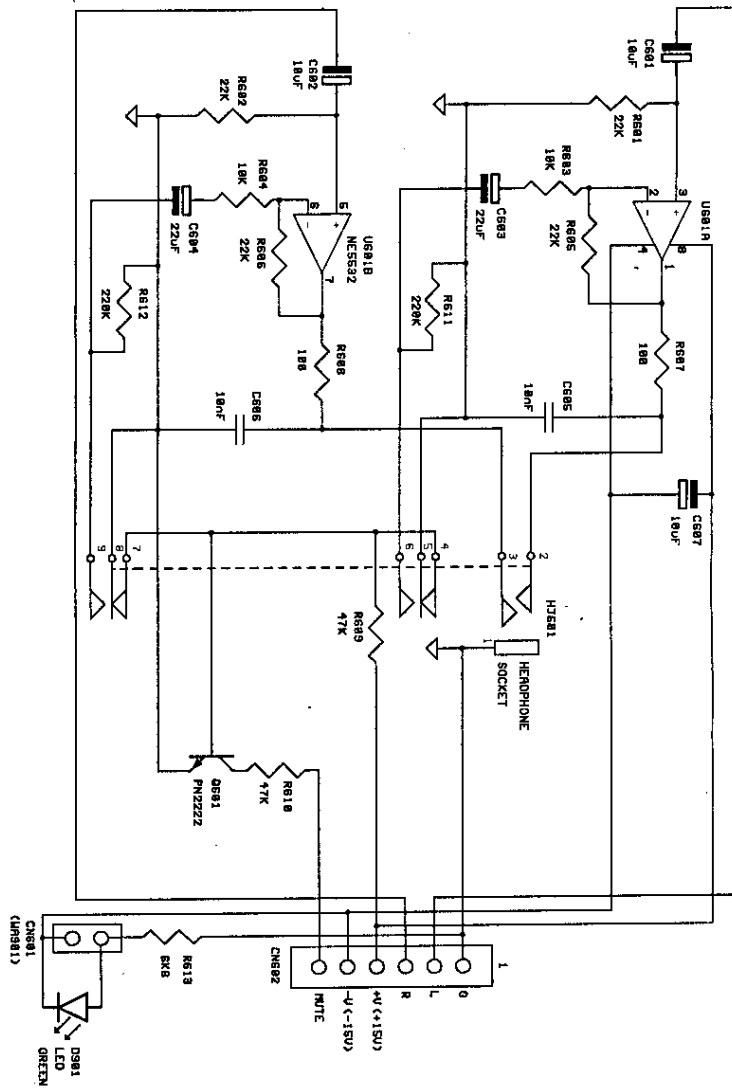
# SCHEMATIC DIAGRAM (PRE AMPLIFIER and POWER SUPPLY)



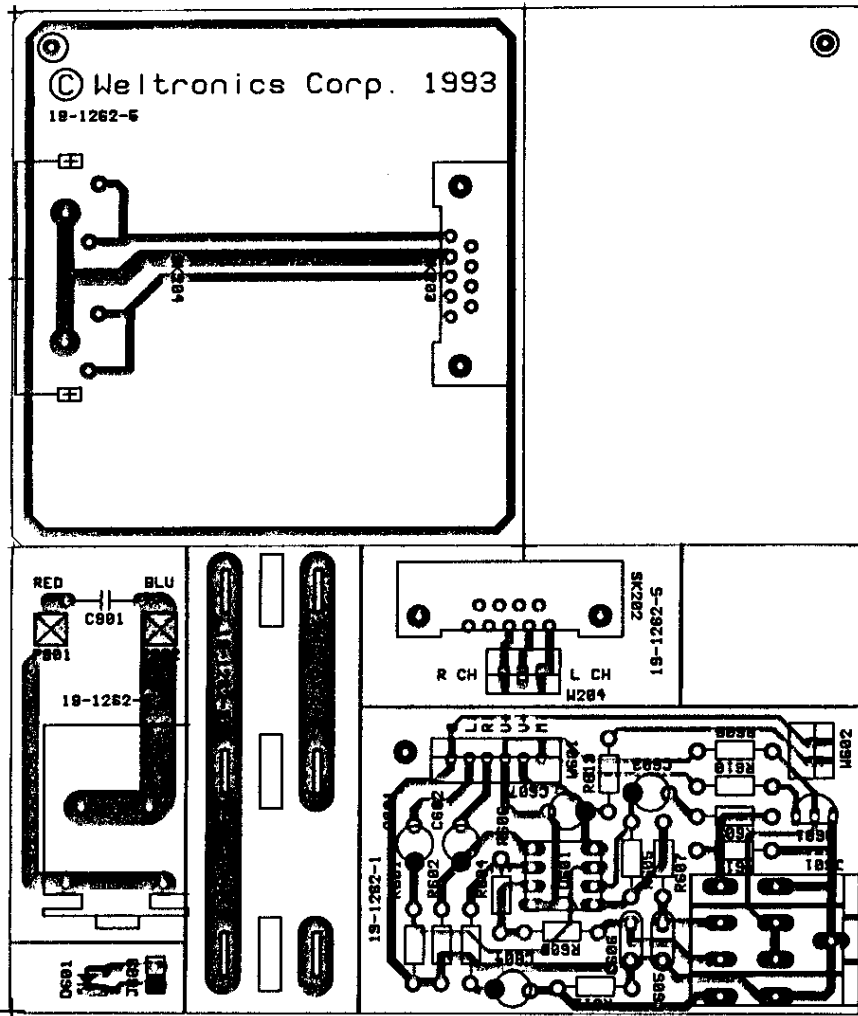




# SCHEMATIC DIAGRAM (HEADPHONE AMP)

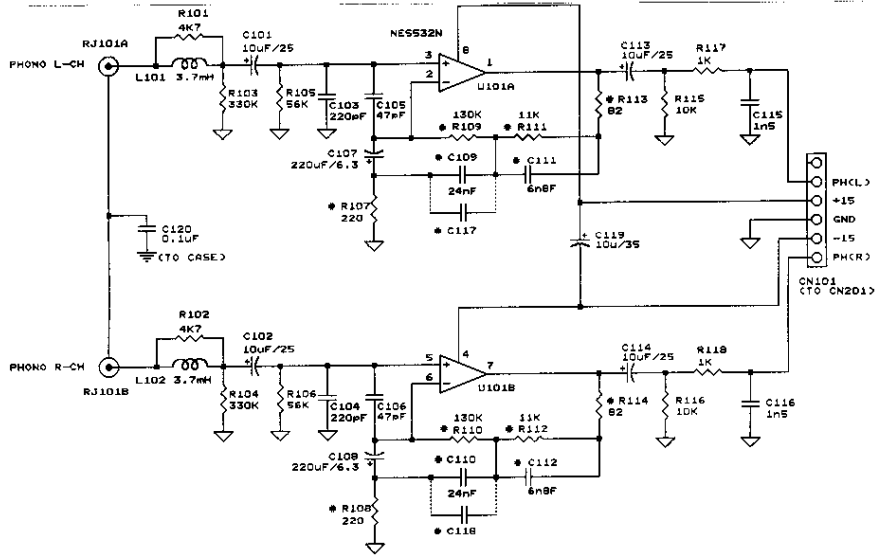


**PCB LAYOUT (HEADPHONE AMP and OUTPUT)**  
**MD90-1262 (PARTS SIDE)**



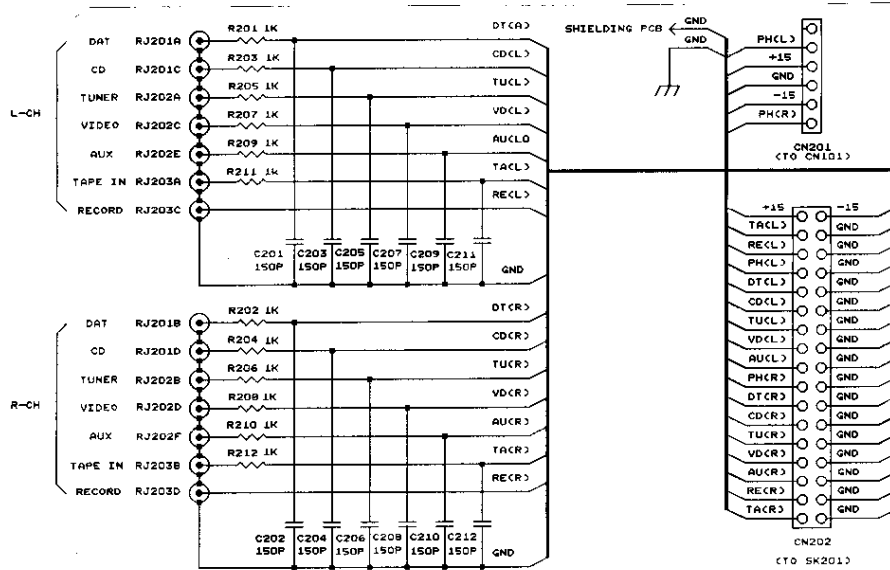
# SCHEMATIC DIAGRAM (PHONO and INPUT)

## PHONO



P/S: 1. THE RESISTORS MARKED WITH '\*' ARE 2% IN TOLERANCE  
 2. THE CAPACITORS MARKED WITH '\*' ARE 5% IN TOLERANCE

## INPUT





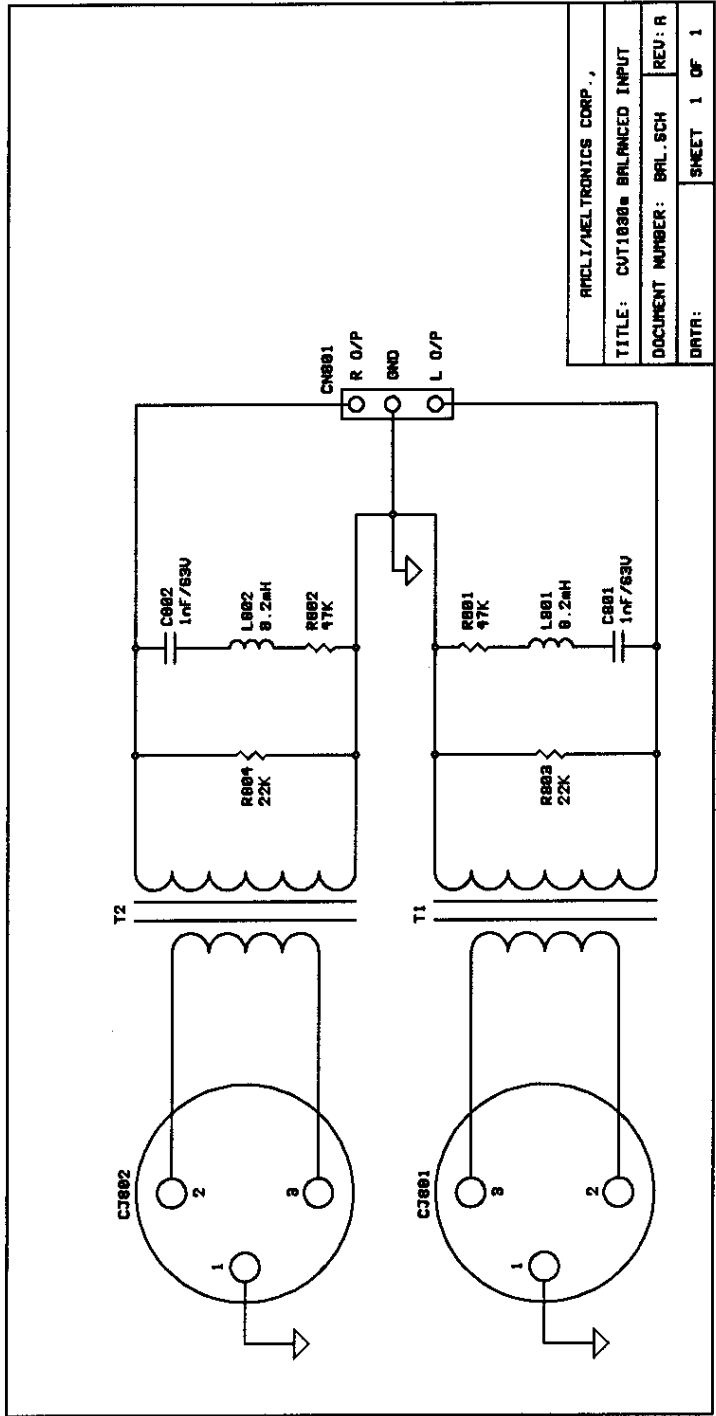
# PARTS LIST

## CVT1030 PARTS LIST

SYMB LOC.	PARTS NO.	DESCRIPTION	SPRCIFICATION	Q'TY
		CHASSIS ASS'Y	CVT1030	1
	11-6149*A	FRONT CHASSIS	CVT3030	1
	11-6171	MAIN CHASSIS	CVT1030	1
	11-8418-3	FRONT PANEL	CVT1030	1
	11-8419	AUX PANEL	CVT3030	1
	11-8473-1	REAR PANEL	120V (A1)	1
	11-8473-2	REAR PANEL	230V (EC)	1
	50-1038-1	CABINET	CVT3030	1
	15-2037	GROUND BOLT		1
	15-2037-1	GROUND NUT		1
	15-2037-2	BOLT NUT, M3.5		1
	15-2037-3	STOP WASHER		1
	15-2037-4	CONNECTOR WASHER		1
	15-2037-5	GEAR WASHER		1
	12-3149	VOLUMM KNOB A		1
	12-3150	VOLUMM KNOB B		1
	12-3151	CONTROL KNOB		5
	12-3152GN	POWER SW BUTTON		1
	28-1046-1B	FOOT		2
	28-1046-2B	FOOT		2
	28-2074	SPONGE, FOOT		4
	28-1049-1	CUSHION	CONTRON KNOB	5
	28-1049-2	CUSHION B	VOLUME	1
	28-1049-3	CUSHION A	VOLUME	1
	14-5003	BUSHING		1
	14-5027	POWER CORD	UL/CSA 120V (A1)	1
	14-5028	POWER CORD	EMKO 230V (EC)	1
	12-2110	AC OUTLET	UL/CSA 120V (A1)	3
	12-2122	AC OUTLET	EMKO 230V (EC)	1
		PACKING ASS'Y	CVT1030	1
	CT-5256	INNER CARTON		0.5
	CT-5257	OUTER CARTON		1
	34-1065-1	POLYLONE, FRONT		1
	34-1065-2	POLYLONE, REAR		1
	27-2012G	RCA CABLE	GOLD PLATE	1
	21-4068	OWNER'S MANUAL		1
	MD90-1261	PRE AMP MODULE		1
	90-1261	PRE AMP BLOCK	CVT1030	1
R203, 204	16-1/2XA393J	RES	M.X. 39K 1/2W +/-5%	2
R205, 206	16-1/2XA123J	RES	M.X. 12K 1/2W +/-5%	2
R207, 208	16-1/2XA223J	RES	M.X. 22K 1/2W +/-5%	2
	16-1MF010J	RES (A1/B/B1)	M.F. 1 ohm 1W +/-5%	2
R209, 210	16-1XA473J	RES	M.X. 47K 1W +/-5%	2
R108, 109, 201, 202	16-1/4MA105F	RES	M.X. 1M 1/4W +/-1%	4
R211-214	16-1/4MA105F	RES	M.X. 1M 1/4W +/-1%	4
R215, 216	16-1/4MA471F	RES	M.F. 470 1/4W +/-1%	2
R217, 218	16-1/4MA102F	RES	M.F. 1K 1/4W +/-1%	2
R219, 220	16-1/4MA101F	RES	M.F. 100 1/4W +/-1%	4
R231, 232	16-1/4MA392F	RES	M.F. 3K9 1/4W +/-1%	4
R229, 230	16-1/4MA223F	RES	M.F. 22K 1/4W +/-1%	2
R233, 234	16-1/4MA332F	RES	M.F. 3K3 1/4W +/-1%	4
R235, 236	16-1/4MA103F	RES	M.F. 10K 1/4W +/-1%	2
R237, 238	16-1/4MA182F	RES	M.F. 1K8 1/4W +/-1%	6
C205-C208	17-25FR225K	CAP. P=22mm	M.PE. 2u2F 250V +/-10%	2
C201, 202, 213, 214	17-25FA225K	CAP. MER. P=15mm	MER. 2u2F 250V +/-5%	2
C203, 204	17-25ER106M	CAP	E.C. 10u 250V +/-20%	2
C209, 210	17-6.3ER226MNP	CAP	E.C. 22uF 63V +/-20%	2
C211, C212	17-1.6ER227M	CAP	E.C. 220uF 16V +/-20%	2
C105, 106	17-25ER476M	CAP	E.C. 47uF 250V +/-20%	2
C215, 216	17-6.3FR273J	CAP	M.PE. 27nF 63V +/-5%	2
C217, 218	17-6.3FR154J	CAP	M.PE. 150nF 63V +/-5%	2
C219, 220	17-6.3FR272J	CAP	M.PE. 2n7F 63V +/-5%	2
C221, C222	17-6.3FR153J	CAP	M.PE. 15nF 63V +/-5%	2
C223, C224	17-5DR470J	CAP RD16CG-470J-500RR	MC.C. 47pF 50V +/-5%	2
U1, 2	30-5003	VACUUM TUBE	12AX7A/ECC83	2
U3, 4	30-5004	VACUUM TUBE	12AU7/ECC82	2
ZD201-ZD204	30-1/2Z33J	ZENER DIODE	Z 33V 1/2W +/-5%	4
RV202, 203	29-4165-2	POT, VOLUME	RK161228OR76-20Kax2-EK	1
SW202	29-4167	POT, BASS/TREBLE	RK16312AA202-50Kcx2-EK	2
SW201	31-1241	S/W, TAPE/SOURCE	SRRZS42N01-EK	1
SW203	31-1242	S/W, FUNC. SEL.	SRRZS46N08-EK	1
	31-1247	S/W, HP, NOR. DIR.	SRRZS43M24-EK	1
	90-1261-1	POWER SUPPLY BLOCK	FR4	1
R103, 104	16-1/4XA101J	RES	M.X. 100 1/4W +/-5%	2
R101, 102	16-1/4MA183F	RES	M.F. 18K 1/4W +/-1%	2
R105, 106	16-1/4MA102F	RES	M.F. 1K 1/4W +/-1%	2
R121, 122	16-1/2XA221J	RES	M.X. 220 1/2W +/-5%	2
	16-1/2XA563J	RES	M.X. 56K 1/2W +/-5%	1
C101, 102	17-25ER227M	CAP BUBYCON	E.C. 220uF 250V +/-20%	2
C103, 104	17-25ER476M	CAP	E.C. 47uF 250V +/-20%	2

CVT1030 PARTS LIST

SYMB LOC.	PARTS NO.	DESCRIPTION	SPRCIFICATION	Q'TY
C111, 112	17-2.5ER106M	CAP	E.C. 100uF 25V +/-20%	2
C113, 114	17-2.5ER106M	CAP	E.C. 10uF 25V +/-20%	2
C110, 120	17-5FR104J	CAP	M.P.E. 0.1uF 50V +/-10%	2
F102, 103	32S1250250TS	FUSE	T250mA 250V SEMKO 230V (EC)	2
F105, 106	32S1250500TS	FUSE	T500mA 250V SEMKO 230V (EC)	2
F104	32S12502K0TS	FUSE	T2A 250V SEMKO 230V (EC)	1
F101	32S1250500TS	FUSE	T500mA 250V SEMKO 230V (EC)	1
	32S1250250TU	FUSE	T250mA 250V UL/CSA 120V (A1)	2
	32S1250500TU	FUSE	T500mA 250V UL/CSA 120V (A1)	2
	32S12502K0TU	FUSE	T2A 250V UL/CSA 120V (A1)	1
	32S1250500TU	FUSE	T500mA 250V UL/CSA 120V (A1)	1
D101-D104	30-1N4007	DIODE	1N4007	4
D111-D114	30-1N4002	DIODE	1N4002	4
ZD101, ZD102	30-1/2Z150J	ZENER	Z 150V 1/2W +/-5%	2
	30-1/2Z75	ZENER	Z 75V 1/2W +/-5%	1
Q101	30-MJE340	TR	MJE340	1
Q102	30-MJE350	TR	MJE350	1
Q111	30-L7815	REGULATOR	7815	1
Q112	30-L7915	REGULATOR	7915	1
	29-2150	X'MER	DS-0967	1
F101-F106	32S2016	FUSE HOLDER		12
Q101, 102, 111, 112	11-5072	HEAT SINK	HEAT SINK	4
	13-4127	TR. SILICON		4
	90-1262-4	POWER S/W BLOCK		1
	17-40CR472M	AC CAP	472/400V	1
	30-1240	POWER SWITCH	SDDFA3117U-EK	1
	MD90-1262	HEADPHONE MODULE		1
	90-1262	HEADPHONE BLOCK		1
C601, 602	17-3.5ER106M	CAP	E.C. 10uF 35V +/-20%	2
C607	17-5ER106M	CAP	E.C. 10uF 50V +/-20%	1
C603, 604	17-3.5ER226M	CAP	E.C. 22uF 35V +/-20%	2
C605, 606	17-5FR103J	CAP	M.P.E. 10nF 50V +/-5%	2
R601, 602, 605, 606	16-1/4MA223F	RES	M.F. 22K 1/4W +/-1%	4
R603, 604	16-1/4MA103F	RES	M.F. 10K 1/4W +/-1%	2
R607, 608	16-1/4MA101F	RES	M.F. 100 1/4W +/-1%	2
R611, 612	16-1/4MA224F	RES	M.F. 220K 1/4W +/-1%	2
R609, 610	16-1/4MA473F	RES	M.F. 47K 1/4W +/-1%	2
R613	16-1/4MA682F	RES	M.F. 68K 1/4W +/-1%	1
Q601	30-PN2222	TR	PN2222A	1
U601	30-NE5532	IC	NE5532	1
	12-2128G	HEADPHONE JACK		1
	90-1262-2&-5	OUTPUT BLOCK		1
	12-2159	SOCKET		1
	12-2160	CONNECTOR		1
	13-3058-1	RCA JACK	CPS-054GA-92	1
	11-1134-3	TOP COVER		1
	11-1135	REAR CASE		1
	11-2368-1	MODULE BKT		1
	MD90-1215	INPUT MODULE		1
	90-1215	INPUT PCB BLOCK	CVT3030/ CVT1030	1
	12-2146	RCA JACK	RED/WHT/4P	2
	12-2147	RCA JACK	RED/WHT/6P	1
	16-1/6MA102F	RES	M.F. 1K 1/4W +/-1%	12
	17-5DR151J	CAP.CERAMIC	M.CER. 150pF 50V +/-5%	12
	90-1215-2	PHONO PCB BLOCK	CVT3030	1
	12-2141	RCA JACK	RED/WHT/2P	1
	16-1/6MA102F	RES	M.F. 1K 1/6W +/-1%	2
	16-1/6MA472F	RES	M.F. 4K7 1/6W +/-1%	2
	16-1/6MA334F	RES	M.F. 330K 1/6W +/-1%	2
	16-1/6MA563F	RES	M.F. 56K 1/6W +/-1%	2
	16-1/6MA103F	RES	M.F. 10K 1/6W +/-1%	2
	16-1/6MA221F	RES	M.F. 220 1/6W +/-1%	2
	16-1/6MA134F	RES	M.F. 130K 1/6W +/-1%	2
	16-1/6MA113F	RES	M.F. 11K 1/6W +/-1%	2
	16-1/6MA820F	RES	M.F. 82 1/6W +/-1%	2
	17-5DR470J	CAP.CERAMIC	M.CER. 47pF 50V +/-5%	2
	17-5DR221J	CAP.CERAMIC	M.CER. 220pF 50V +/-5%	2
	17-5FR152J	CAP	M.P.E. 1n5F 50V +/-5%	2
	17-5DR104K	CAP.CERAMIC	M.CER. 0.1uF 50V +/-10%	1
	17-6V3ER227M	CAP	E.C. 220uF 6V5 +/-20%	2
	17-2.5ER106M	CAP	E.C. 10uF 25V +/-20%	4
	17-5ER106M	CAP	E.C. 10uF 50V +/-20%	1
	17-5FR243J	CAP.MYLAR	MYLAR 24nF 50V +/-5%	2
	17-5FR682J	CAP.MYLAR	MYLAR 6n8F 50V +/-5%	2
	30-NE5532	IC	NE5532	1
	29-1089	COIL	TORIC	2



RMDLI/MELTRONICS CORP.		
TITLE: CVT1838 BALANCED INPUT		
DOCUMENT NUMBER: BRL.SCH	REV: R	
DATE:	SHEET 1 OF 1	

CVT1030a PARTS LIST

SYMB LOC.	PARTS NO.	DESCRIPTION	SPECIFICATION	QTY
	90-1257	BALANCE INPUT MODULE	CVT1030a	
R803-804	16-1.6MA223F	RES	MF,22K 1/6W +-1% 52mm TAP	2
R801-802	16-1.6MA473F	RES	MF,47K 1/6W +-1% 52mm TAP	2
C801-802	17-6.3GR102J	CAP	MP,1nF/63V +-5% (BOX) TAP	2
	19-1257*A	PCB INPUT MODULE (BALANCE)		1
CN801	12-1087-3WT	CONNECTORS 3P WHITE		1
CJ801-082	12-1104	CANNON JACK	NC3FGC-H-O	2
	14-1178	WIRE ASS'Y 3P WHITE	L=460mm	0.5
	29-1112	COIL 8.2mH (822K) 5%	MD2102	2
	29-2147	XMER IPT BALANCED	MD2103	2