

# **AMC**

**SERVICE MANUAL**

# **CVT3030**

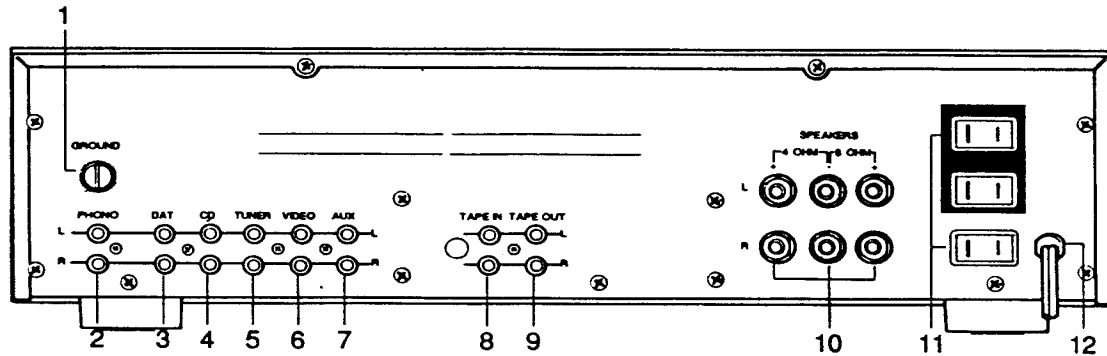
**VALVE AMPLIFIER**

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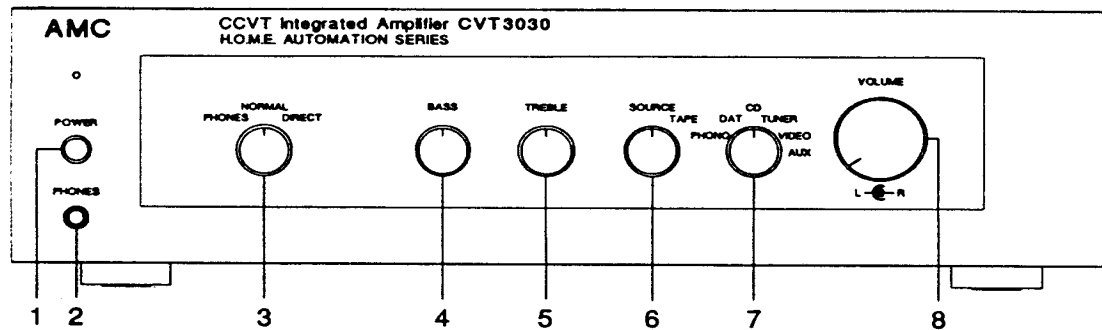
# REAR PANEL CONNECTIONS/FRONT PANEL CONTROLS

## REAR PANEL



- |                          |                            |
|--------------------------|----------------------------|
| 1. PHONO GROUND TERMINAL | 7. AUXILIARY INPUT         |
| 2. PHONO MM INPUT        | 8. TAPE INPUT              |
| 3. DAT INPUT             | 9. TAPE OUTPUT             |
| 4. CD INPUT              | 10. LOUDSPEAKER TERMINALS  |
| 5. TUNER INPUT           | 11. AC CONVENIENCE OUTLETS |
| 6. VIDEO INPUT           | 12. AC LINE CORD           |

## FRONT PANEL



- |                                |                           |
|--------------------------------|---------------------------|
| 1. POWER SWITCH                | 5. TREBLE CONTROL         |
| 2. PHONES                      | 6. TAPE MONITOR SWITCH    |
| 3. PHONES/NORMAL/DIRECT SWITCH | 7. INPUT SELECTION SWITCH |
| 4. BASS CONTROL                | 8. VOLUME CONTROL         |

# SPECIFICATIONS

Power output into 8/4 ohms ..... 30W  
With both channels driven

Rated T.H.D. 45Hz–20KHz ..... 1.0%

1KHz clipping power into 8/4 ohms ..... 36W

## Input sensitivity for 1W/30W into 8 ohms:

High level inputs ..... 34mV/180mV

Phono input ..... 0.5mV/2.7mV

## Input impedance:

High level inputs ..... 20K ohms/100pF

Phono input ..... 47K ohms/100pF

## Frequency response:

Tone bypass 20Hz–20KHz ..... +/- 0.5dB

Normal 20Hz–20KHz ..... +/- 1.0dB

High level inputs -3dB ..... 10Hz/80KHz

## Signal to noise ratio (ref. 1W/8 ohms):

High level inputs "A" WTD. .... 80dB

Phono input "A" WTD. .... 79dB

Separation 20Hz–20KHz ..... > 50dB

## Tone control range:

Bass at 50Hz ..... +/- 8dB

Treble at 10KHz ..... +/- 7dB

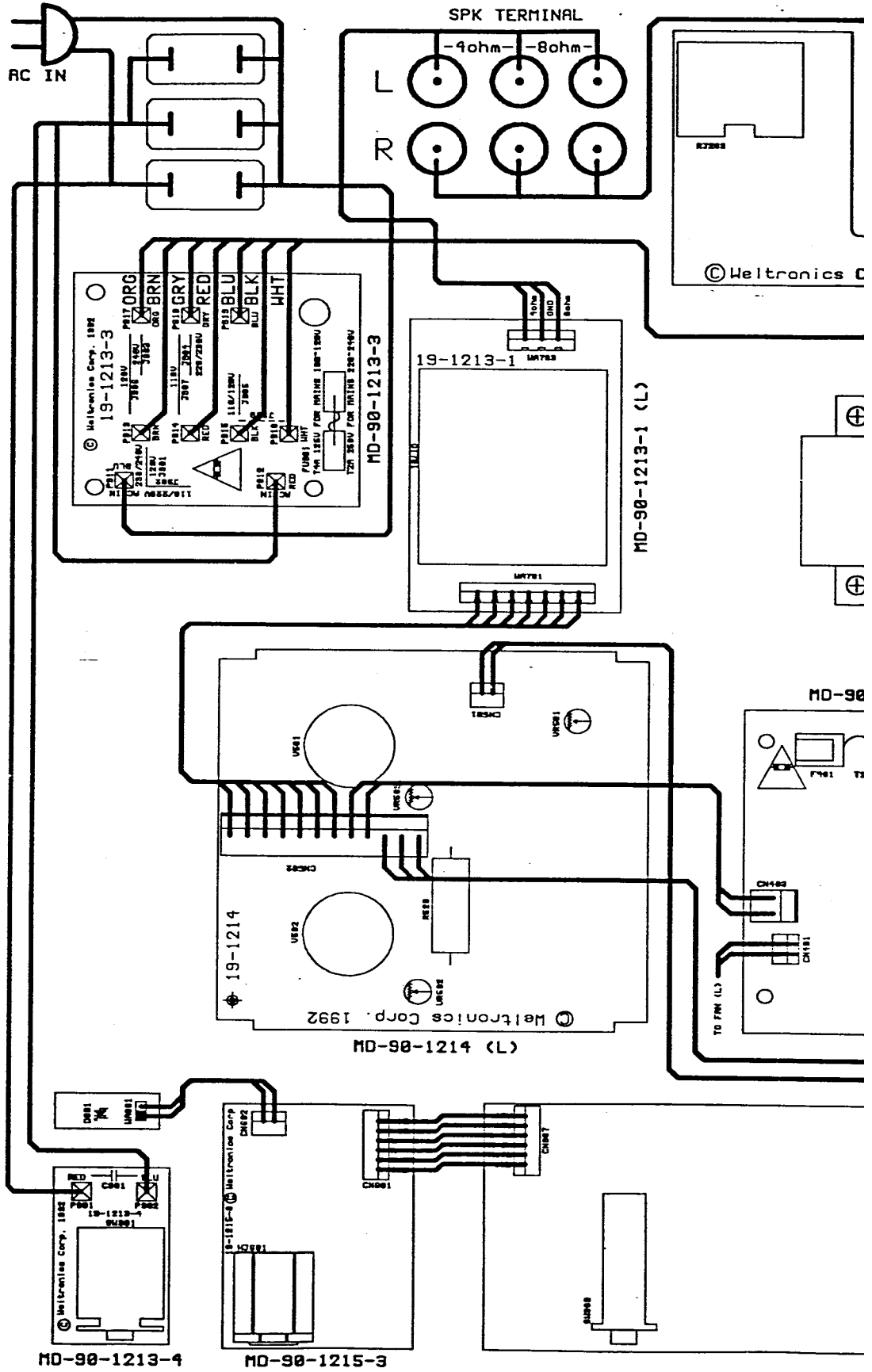
Overall feedback ..... 14dB

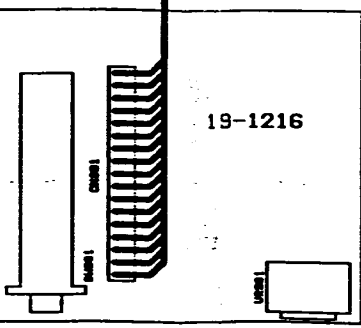
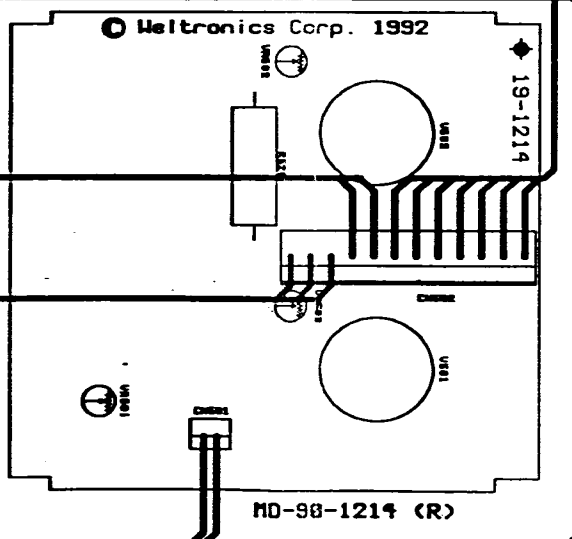
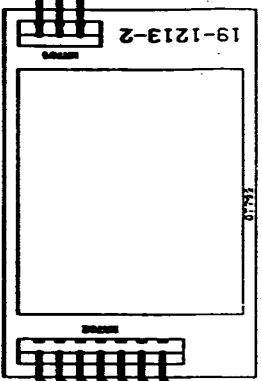
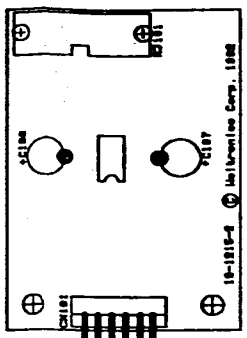
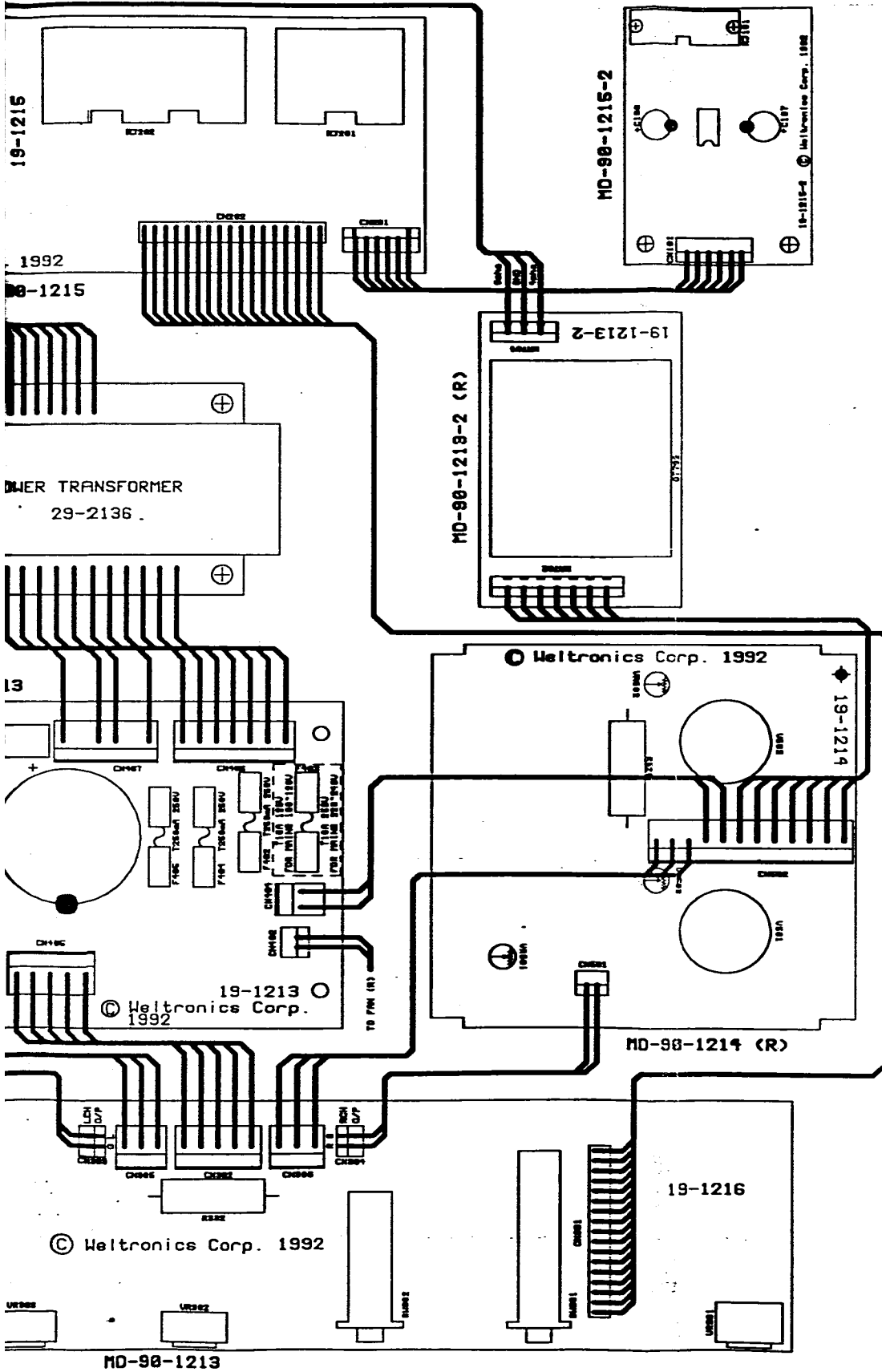
Dimensions (WxHxD) ..... 430x112x288mm

Net weight ..... 14Kg

Shipping weight ..... 15Kg

# WIRING DIAGRAM





## POWER AMPLIFIER ADJUSTMENTS -- CVT3030 / CVT2030

### Important Notes:

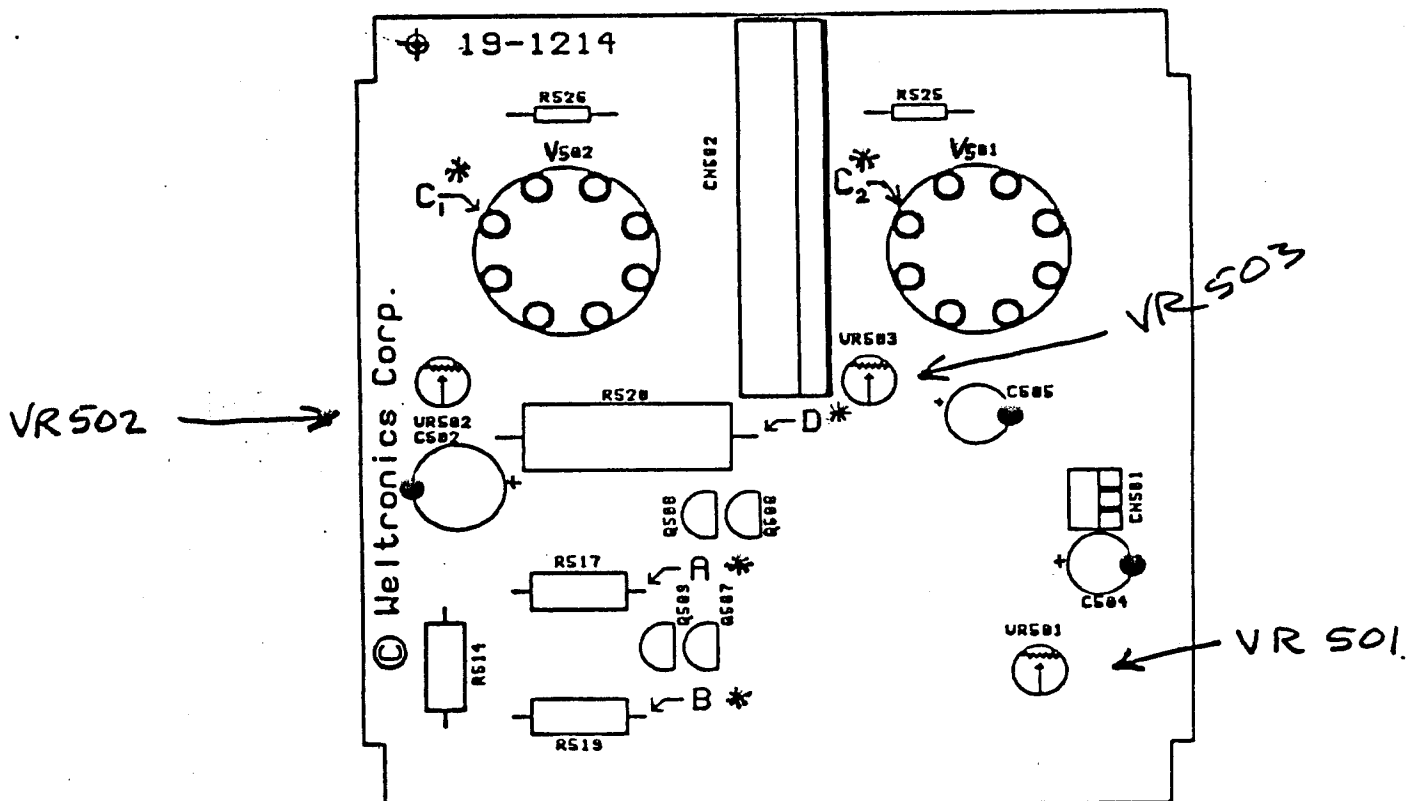
1. Make sure the primary voltage to be applied is set properly (110V – 220V)
2. Set the "PHONES/NORMAL/DIRECT" (CVT3030) switch to the "PHONES" position, which mutes the amplifier.
3. Before adjustment, turn **VR502** fully counter-clockwise and **VR503** fully clockwise.
4. Before adjustments are made, unit must be pre-heated at least 5 minutes.

### A. Center Voltage Adjustment

1. Connect voltmeter between point **A\*** (the junction of the drain of Q508 and R517) and point **B\*** (the junction of the drain of Q509 and R519).
2. Adjust **VR501** for a voltmeter reading of 0 Volts, +/- 5 Volts.
3. Repeat above for the other channel.

### B. Bias Current Adjustment

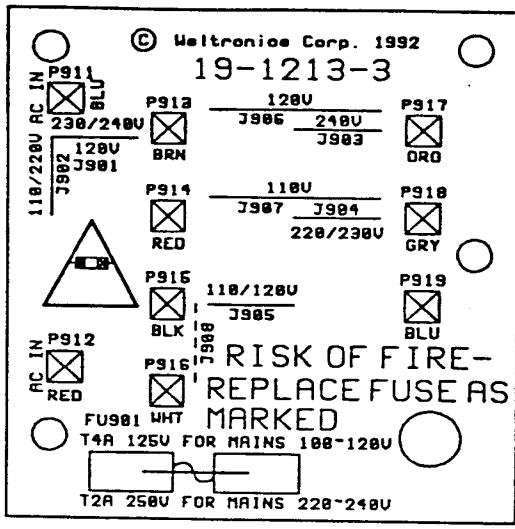
1. Connect voltmeter between point **C<sub>1</sub>\*** (the plate of tube V502) and point **D\*** (the B+ supply).
2. Adjust **VR502** for a voltmeter reading of 6 Volts.
3. Connect voltmeter between point **C<sub>2</sub>\*** (the plate of tube V501) and point **D\*** (the B+ supply).
4. Adjust **VR503** for a voltmeter reading of 6 Volts.
5. Repeat above for the other channel.



WIRING INSTRUCTIONS

1. The power transformer of CVT-3030 is UNIVERSAL type can be wired to 110V/120V/220V/230V/240V mains voltages by changing the jumper wires on the MAINS PCB.

2. MAINS P.C.B. drawing:



3. Jumper wires connected chart:

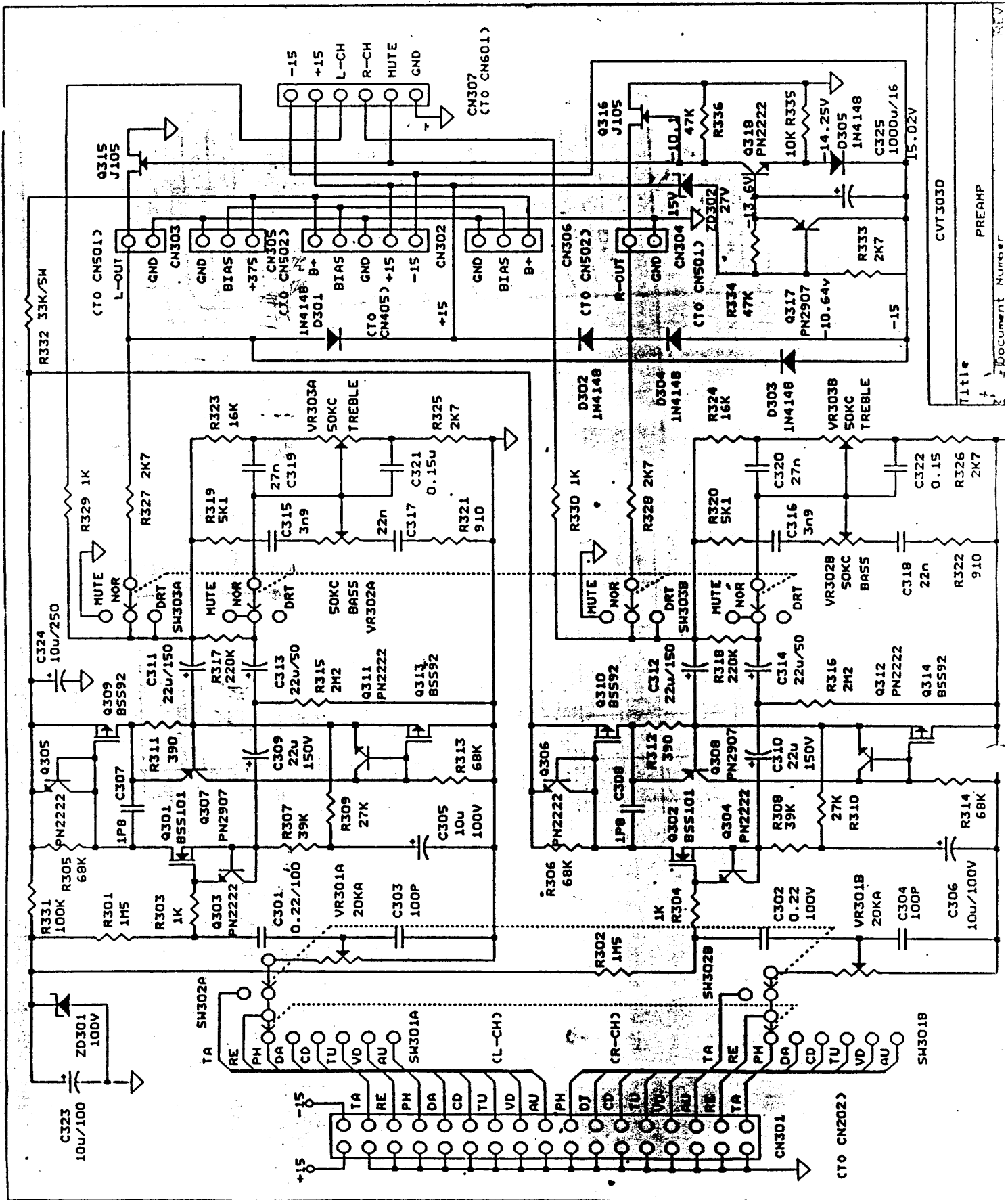
Mains Voltages	Jumper wires shall be connected for the mains voltage		
=====	=====	=====	=====
110V	J902	J905	J907
120V	J901	J905	J906
220V	J902	J904	
230V	J901	J904	
240V	J901	J903	

(J908 is only a spare position for shorting connection of thermal fuse inside of the transformer.)

4. The FUSES shall be changed to correct rating and safety approved fuses as shown on PCB.

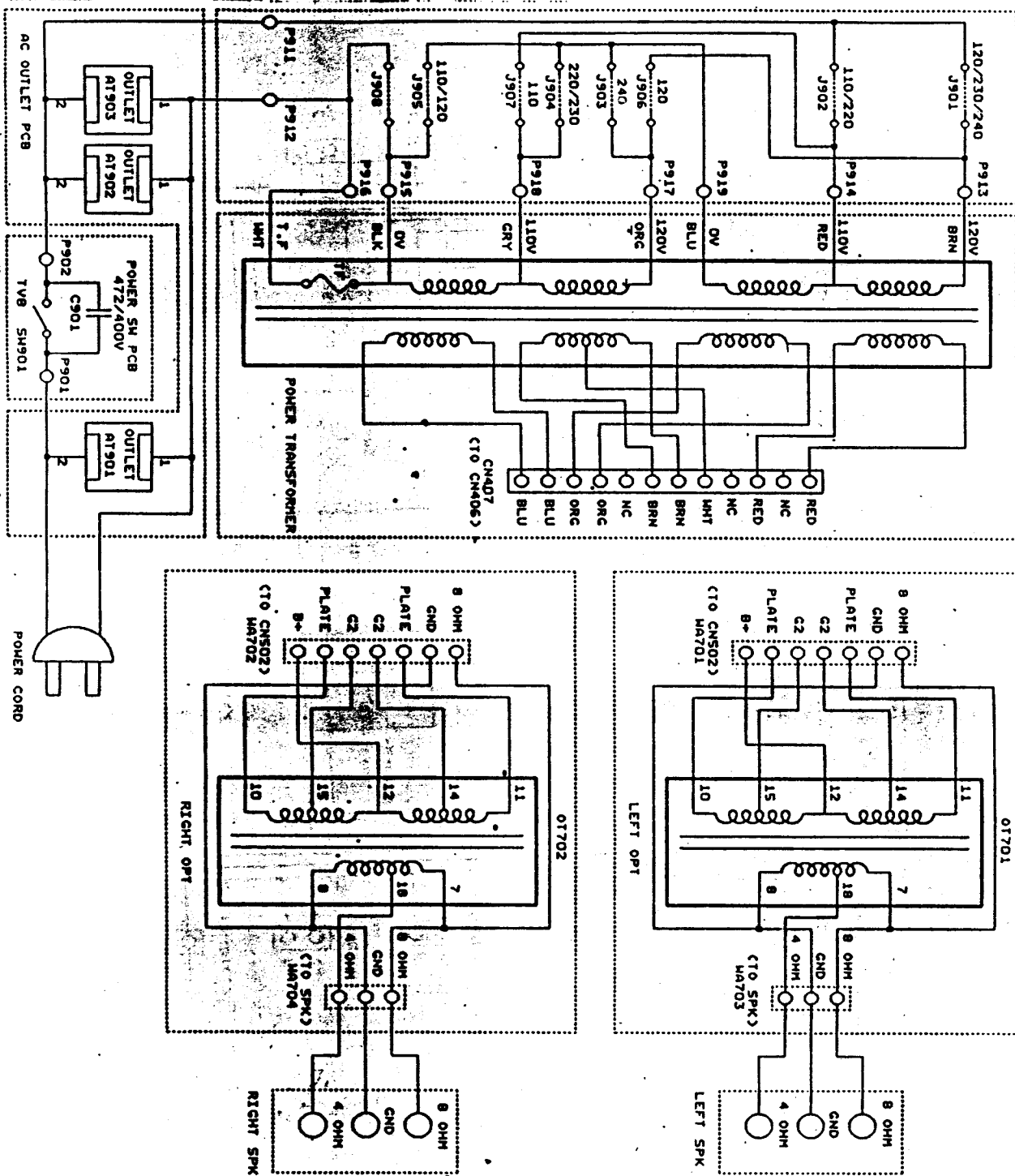
- FU901: T4A 125V for Mains between 100V to 120V  
T2A 250V for Mains between 220V to 240V  
(FU901 is added into CVT-3030 from 1001 of the latest 4 digits of serial number to protect the power transformer more secure.)
- F401: T1A 250V
- F402: T250mA 250V
- F403: T10A 125V for Mains between 100V to 120V  
T10A 250V for Mains between 220V to 240V
- F404, F405: T250mA 250V





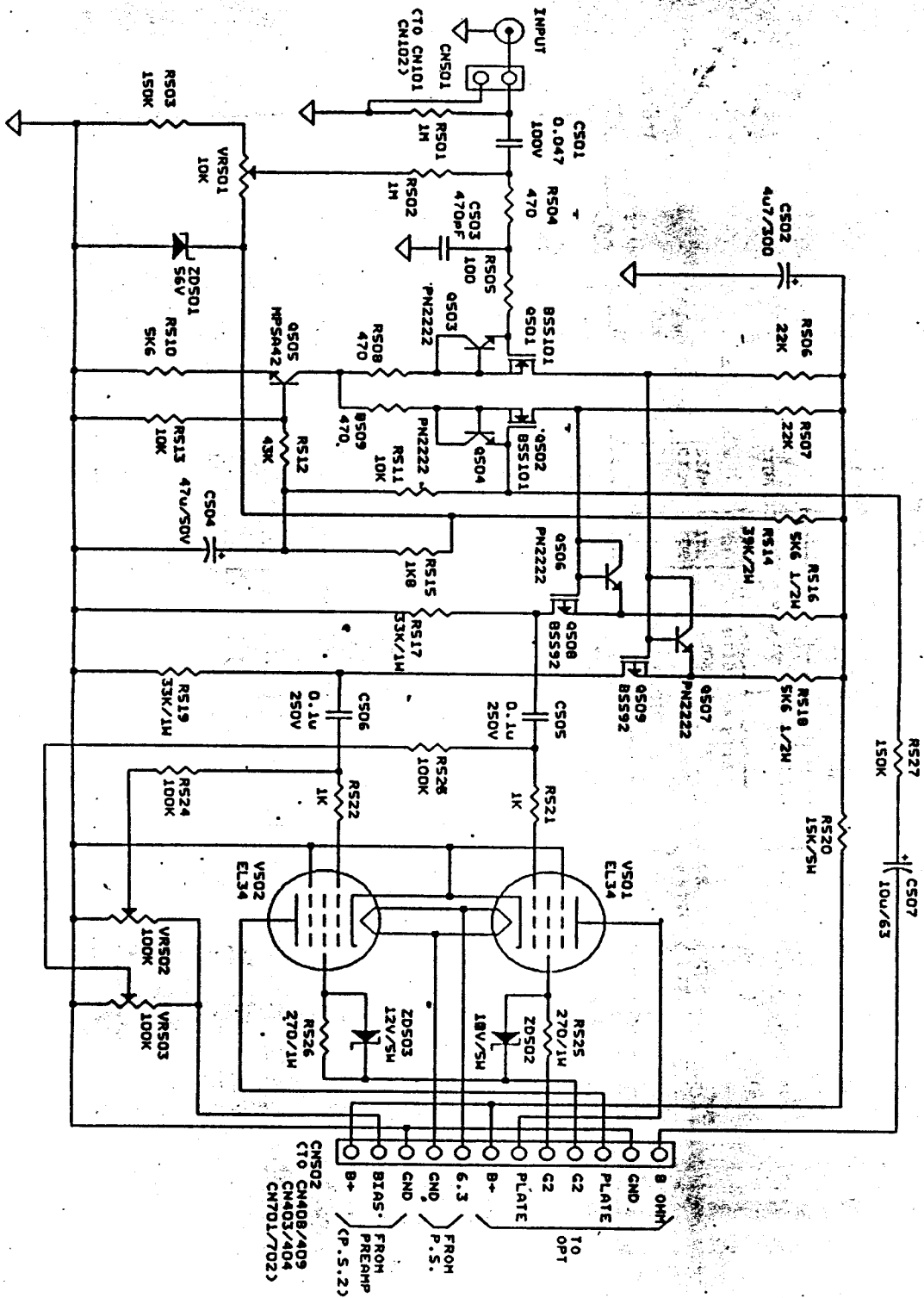
Document Number  
 Title  
 PREAMP  
 CVT3030  
 REV

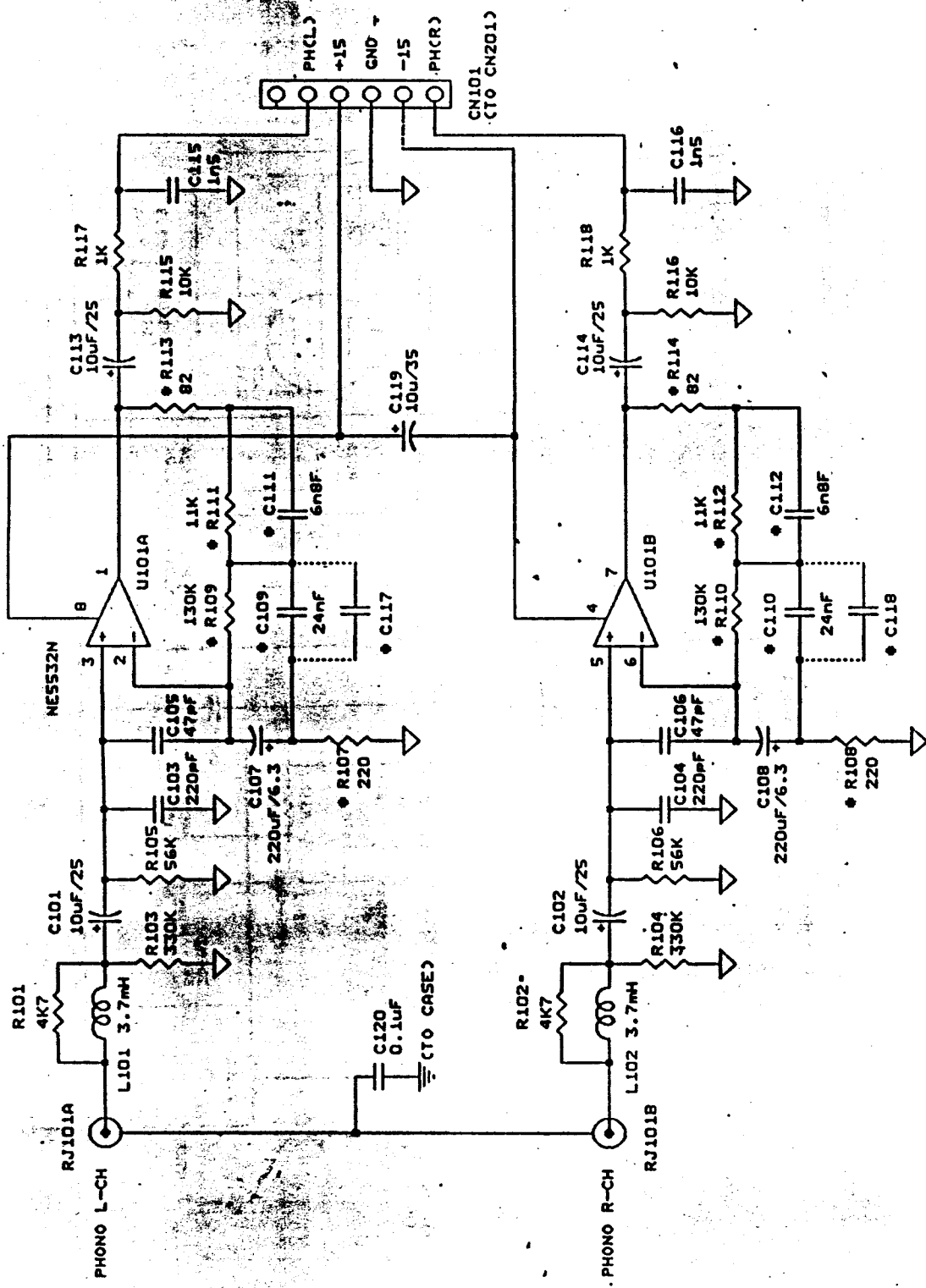
# SCHEMATIC DIAGRAM (AC MAINS and O.P.T. MODULE)





# SCHEMATIC DIAGRAM (POWER AMP MODULE)





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

Document Number	PHONO	REV
CVT3030		

CVT3030 PARTS LIST

PARTS NO.	DESCRIPTION	SPRCIFICATION	REF	Q'TY
MD-90-1213	MODULE OF POWER SUPPLY	CVT3030 AMC		1
MD-90-1213-1	MODULE OF OPT (L)	CVT3030 AMC		1
MD-90-1213-2	MODULE OF OPT (R)	CVT3030 AMC		1
MD-90-1213-3	MODULE OF AC SELECTOR	CVT3030 AMC		1
MD-90-1214	MODULE OF POWER AMP	CVT3030 AMC		2
MD-90-1215	MODULE OF INPUT	CVT3030 AMC		1
MD-90-1215-2	MODULE OF PHONO	CVT3030 AMC		1
MD-90-1215-3	MODULE OF HEADPHONE	CVT3030 AMC		1
MD-90-1216	MODULE OF PREAMP	CVT3030 AMC		1
	PACKING ASS'Y	CVT3030 AMC		1
34-1065-1	POLYLONE, FRONT	CVT3030 AMC		1
34-1065-2	POLYLONE, REAR	CVT3030 AMC		1
21-4051	OWNER'S MANUAL	CVT3030 AMC		1
21-3015	WARRANTY CARD	AMC (120V VERSION FOR USA MARKET ONLY)		1
CT-5217	INNER CARTON	CVT3030 AMC		1
CT-5218	OUTER CARTON	CVT3030 AMC		0.5
26-0022	PE BAG FOR SET	450x600x0.07		1
26-0018	PE BAG FOR POWER CORD	100x260x0.07		1
26-0016	PE BAG FOR MANUAL	220x330x0.05		1
34-2001	PROTECTION SHEET, EPE	110x440x40mm		1
	CHASSIS ASS'Y	CVT3030 AMC		1
50-1038-1	CABINET	BLACK CVT3030		1
50-1038-2	CABINET	GRAY CVT3030		1
11-6146	MAIN CHASSIS			1
11-8418-1	FRONT PANEL	BLACK		1
11-8418-2	FRONT PANEL	GRAY		1
11-6150	CENTER CHASSIS L			1
11-6151	CENTER CHASSIS R	WITH GROUND' ED		1
11-8419-1	AUX PANEL	BLACK		1
11-8419-2	AUX PANEL	GRAY		1
12-3149	VOLUMN KNOB A	FRONT		1
28-1049-3	CUSHION A	VOLUMN KNOB A		1
12-3150	VOLUMN KNOB B	REAR		1
28-1049-2	CUSHION B	VOLUMN KNOB B		1
12-3151	CONTROL KNOB			5
28-1049-1	CUSHION	CONTROL KNOB		5
12-3152GN	POWER SW. BUTTON	GREEN		1
13-8227B	BUSHING, POWER BUTTON	BLACK		1
28-1046	FOOT			4
28-2074	SPONGE	FOOT		4
11-6149	FRONT CHASSIS	CVT3030		1
11-8420-1	REAR PANEL (120V) A A1	CVT3030		1
11-8420-3	REAR PANEL (230V) EC	CVT3030		1
28-2076	RETAINER EVA	5x30x1mm	REAR PANEL	2
12-2134N	BINDING POST, BLK			2
12-2133N	BINDING POST, RED			4
28-2078RD	CAP, BINDING POST	RED (230V AREA 4 PCS)		4
28-2078BK	CAP, BINDING POST	BLK (230V AREA 2 PCS)		2
14-5027	POWER CORD	UL/CSA US/CN (120V)		1
14-5028	POWER CORD	EMKO WG/EU (230V)		1
14-5022	POWER CORD	SA B1 VERSION ONLY		1
14-5003	BUSHING	4N-4 (4RF-5)		1
12-2110	AC OUTLET (A/A1/J/T)	US TYPE UL/CSA (A/A1 x3)		3
12-2122	AC OUTLET (B/B1/EC/C/C1)	EU TYPE EMKO (B/B1/C/EC x1)		1
11-8435-1	MODULE CASE	EXTRUSION		2
29-2136	POWER TRANSFORMER	0-110-120x2+T.F.		1
11-9064	FAN GUARD	80*80 KGI, G80-18		2
29-6113	DC FAN	12V 80x80x2.5 MM		2
21-1128	DECORATIUE PLATE	54x74x0.3t FOR P.T.		1
21-1129	DECORATIUE PLATE	28.5x71.5x0.3t FOR OPT		2

## **NOTES:**

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