

AMC

SERVICE MANUAL

CVT2030

CVT3030

VALVE AMPLIFIER

CVT2030 is Power Amplifier Section of CVT3030

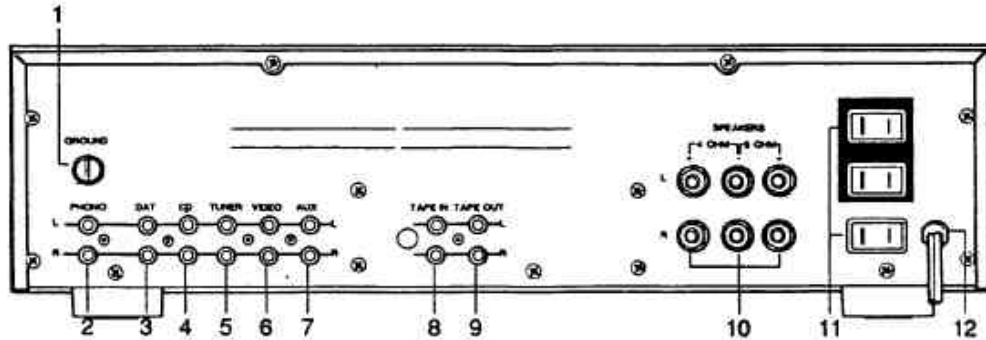
CVT2030 is Power Amplifier Section of CVT3030

CONTENTS

DESCRIPTION	PAGE
REAR PANEL CONNECTIONS/FRONT PANEL CONTROLS.....	3
SPECIFICATIONS.....	4
WIRING DIAGRAM.....	5-6
AMPLIFIER ADJUSTMENT.....	7
MAINS WIRING INSTRUCTION.....	8
PARTS LIST.....	9
NOTES.....	10

REAR PANEL CONNECTIONS/FRONT PANEL CONTROLS

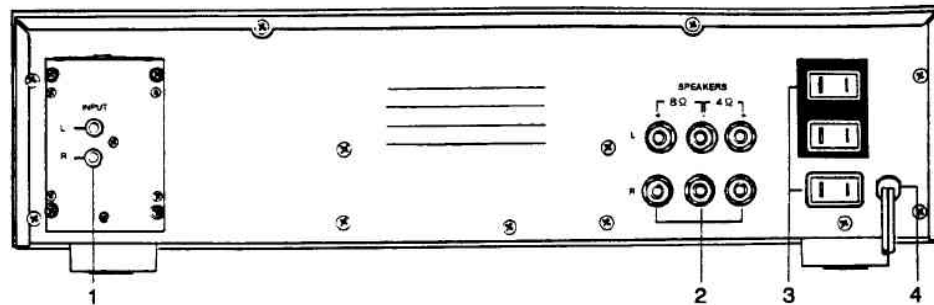
CVT3030 REAR PANEL



- 1. PHONO GROUND TERMINAL
- 2. PHONO MM INPUT
- 3. DAT INPUT
- 4. CD INPUT
- 5. TUNER INPUT
- 6. VIDEO INPUT

- 7. AUXILIARY INPUT
- 8. TAPE INPUT
- 9. TAPE OUTPUT
- 10. LOUDSPEAKER TERMINALS
- 11. AC CONVENIENCE OUTLETS
- 12. AC LINE CORD

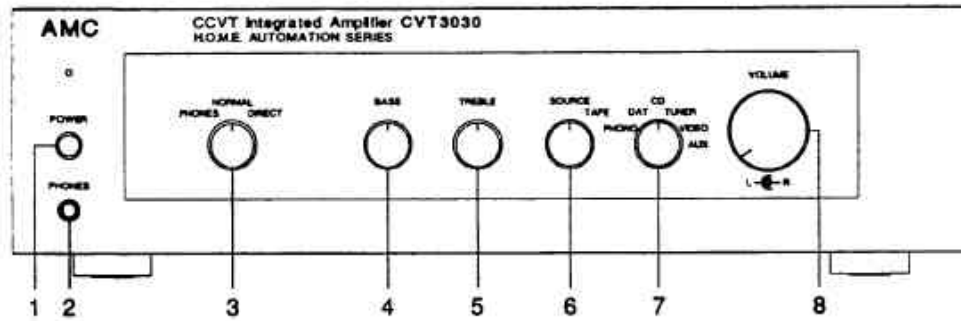
CVT2030 REAR PANEL



- 1. INPUT
- 2. LOUDSPEAKER TERMINAL

- 3. AC CONVENIENCE OUTLETS
- 4. AC LINE CORD

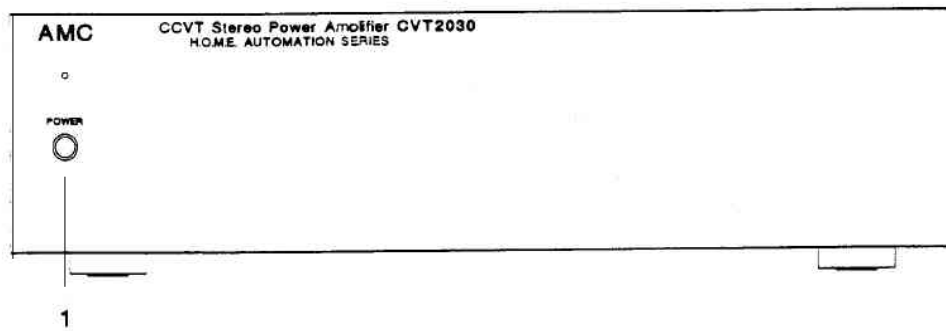
**CVT3030
FRONT PANEL**



- 1. POWER SWITCH
- 2. PHONES
- 3. PHONES/NORMAL/DIRECT SWITCH
- 4. BASS CONTROL

- 5. TREBLE CONTROL
- 6. TAPE MONITOR SWITCH
- 7. INPUT SELECTION SWITCH
- 8. VOLUME CONTROL

**CVT2030
FRONT PANEL**



- 1. POWER SWITCH

CVT3030

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

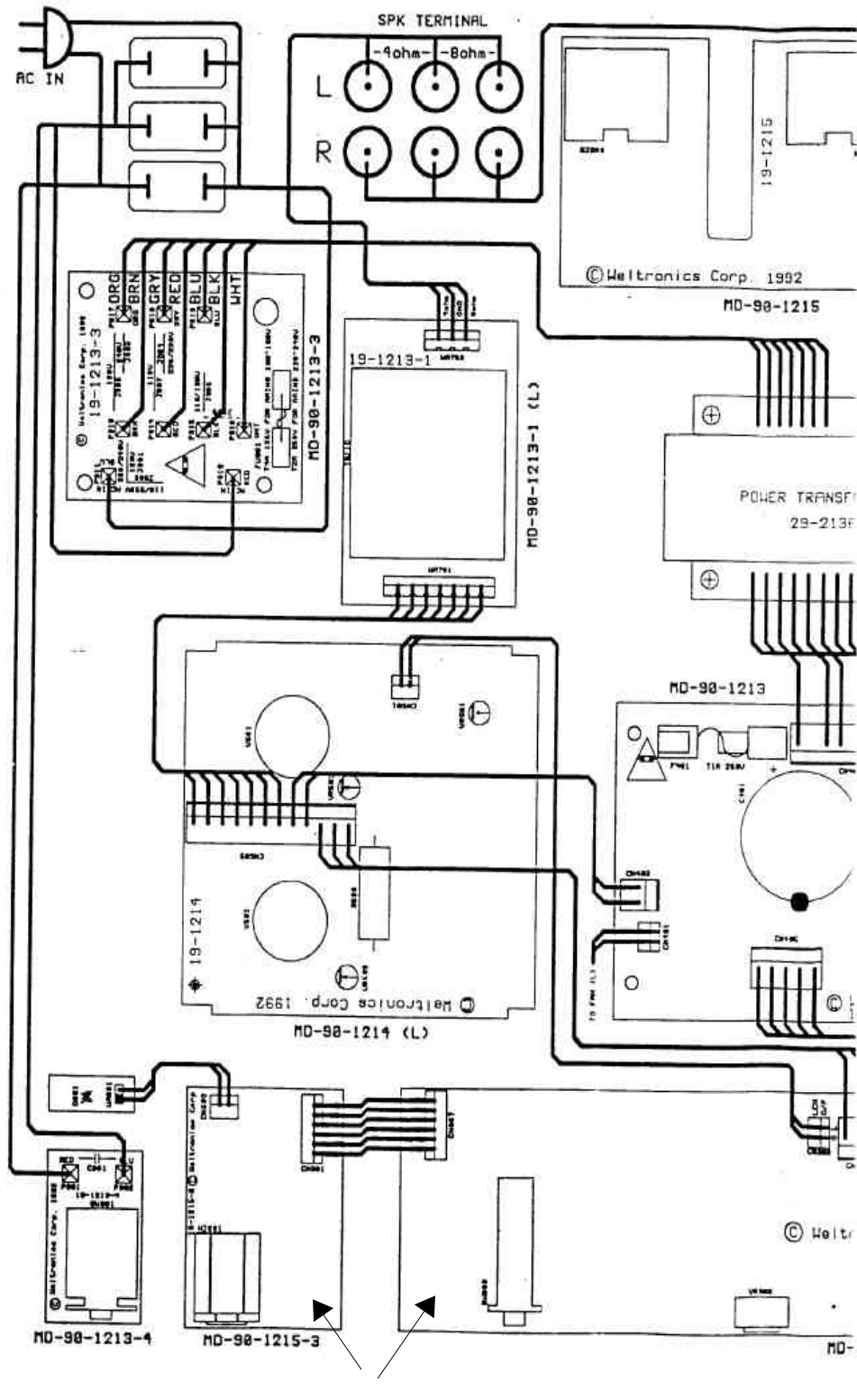
Net weight 14Kg

Shipping weight 15Kg

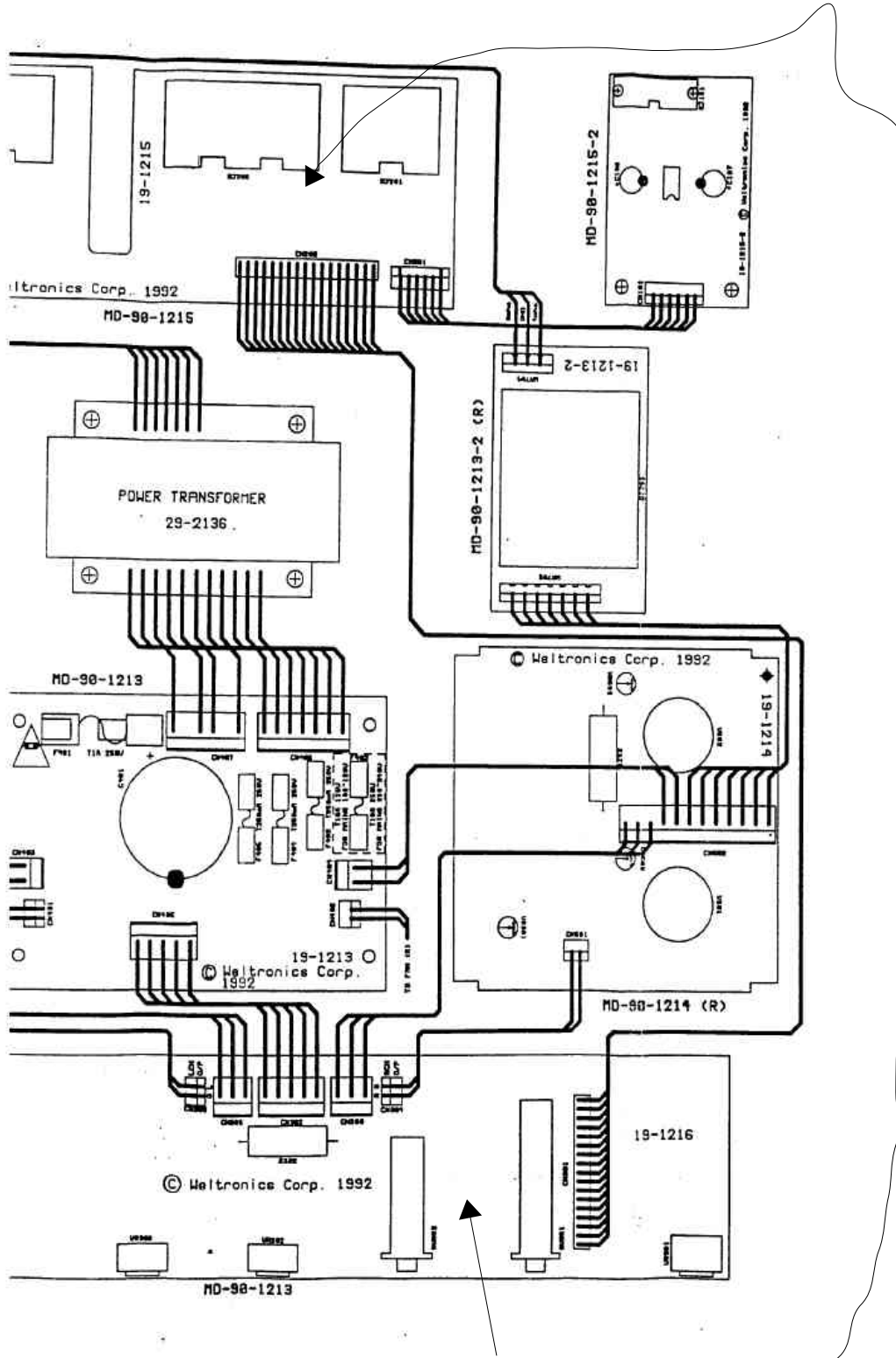
CVT2030
SPECIFICATIONS

Power output into 8/4 ohms..... With both channels driven	30W
Rated T.H.D. 45Hz-20KHz.....	1.0%
1KHz clipping power into 8/4 ohms.....	36W
Input sensitivity for 1W/30W into 8 ohms.....	230mV/1250mV
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.....	13Kg
Shipping weight.....	14Kg

WIRING DIAGRAM



There is no pre-amp section for CVT2030



There is no pre-amp section for CVT2030

POWER AMPLIFIER ADJUSTMENTS — CVT3030 / CVT2030

Important Notes:

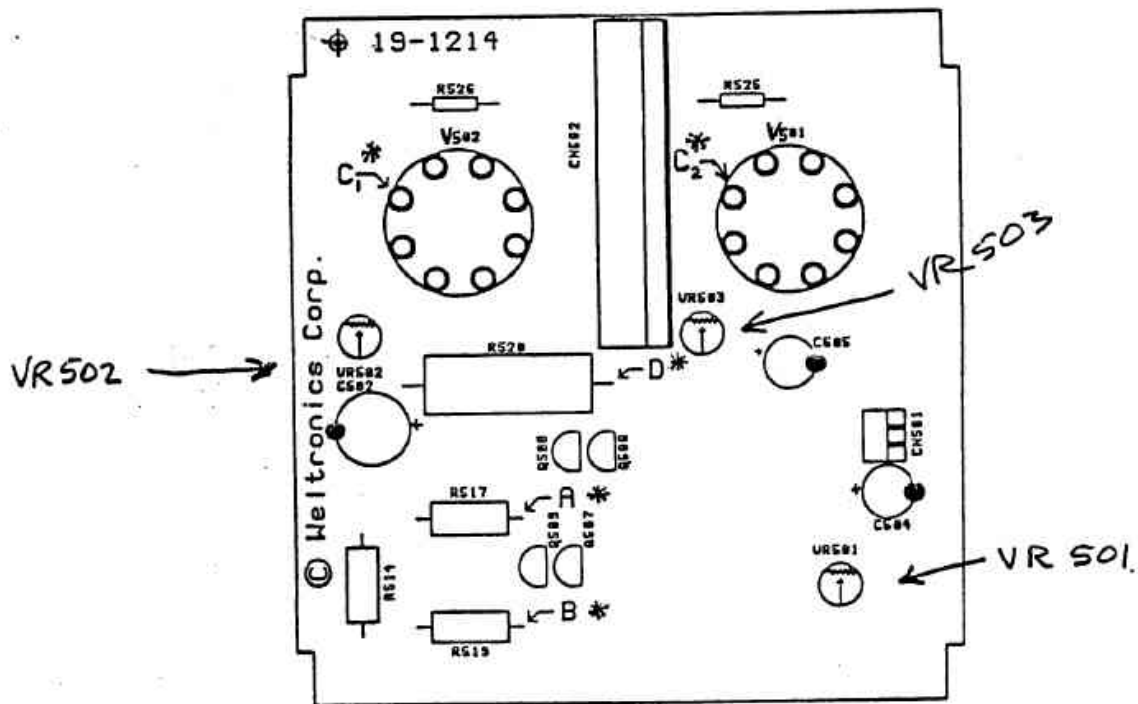
1. Make sure the primary voltage to be applied is set properly (110V – 220V)
2. Set the "PHONES/NORMAL/DIRECT" (CVT3030) switch to the "PHONES" position, which mutes the amplifier.
3. Before adjustment, turn **VR502** fully counter-clockwise and **VR503** fully clockwise.
4. Before adjustments are made,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

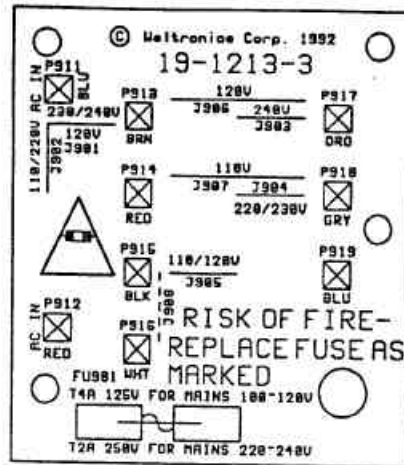
B. Bias Current Adjustment

1. Connect voltmeter between point **C₁*** (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 **C₂*** (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.



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:

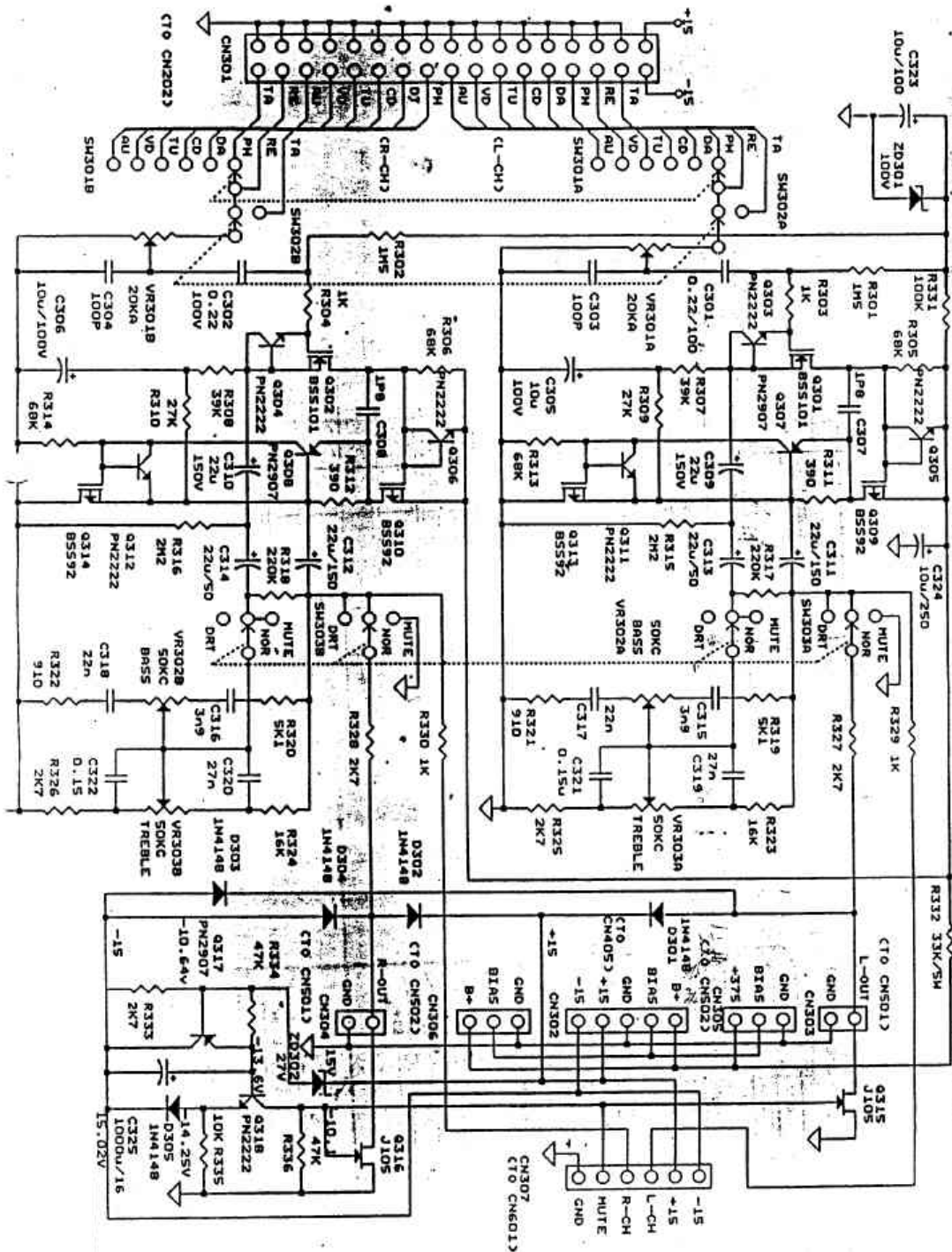
Mains Voltages	Jumper wires shall be connected for the mains voltage		
110V	J902	J905	J907
120V	J901	J905	J906
220V	J902	J904	
230V	J901	J904	
240V	J901	J903	

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

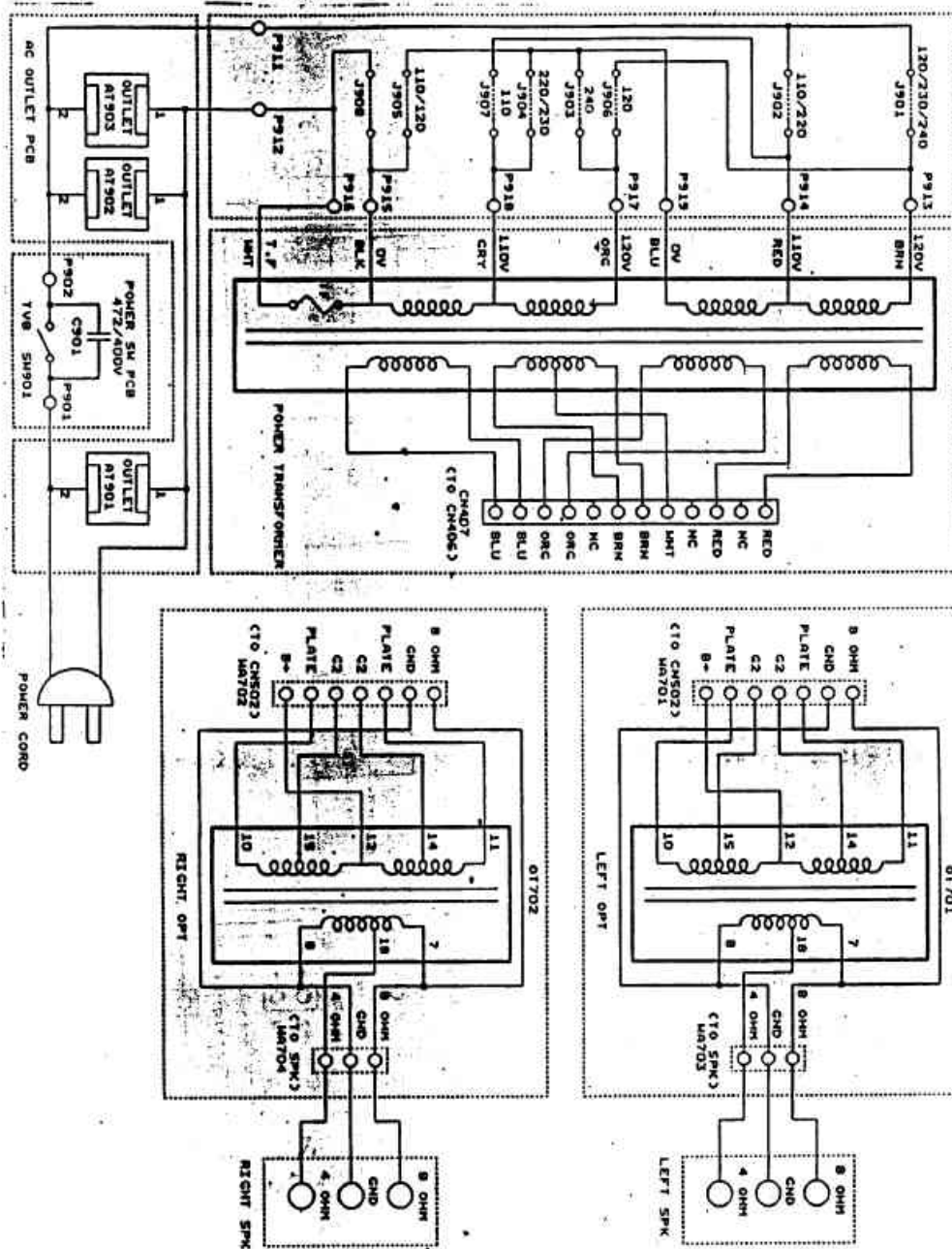
4. The FUSES shall be changed to correct rating and safety approved fuses as shown on PCB.

- 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

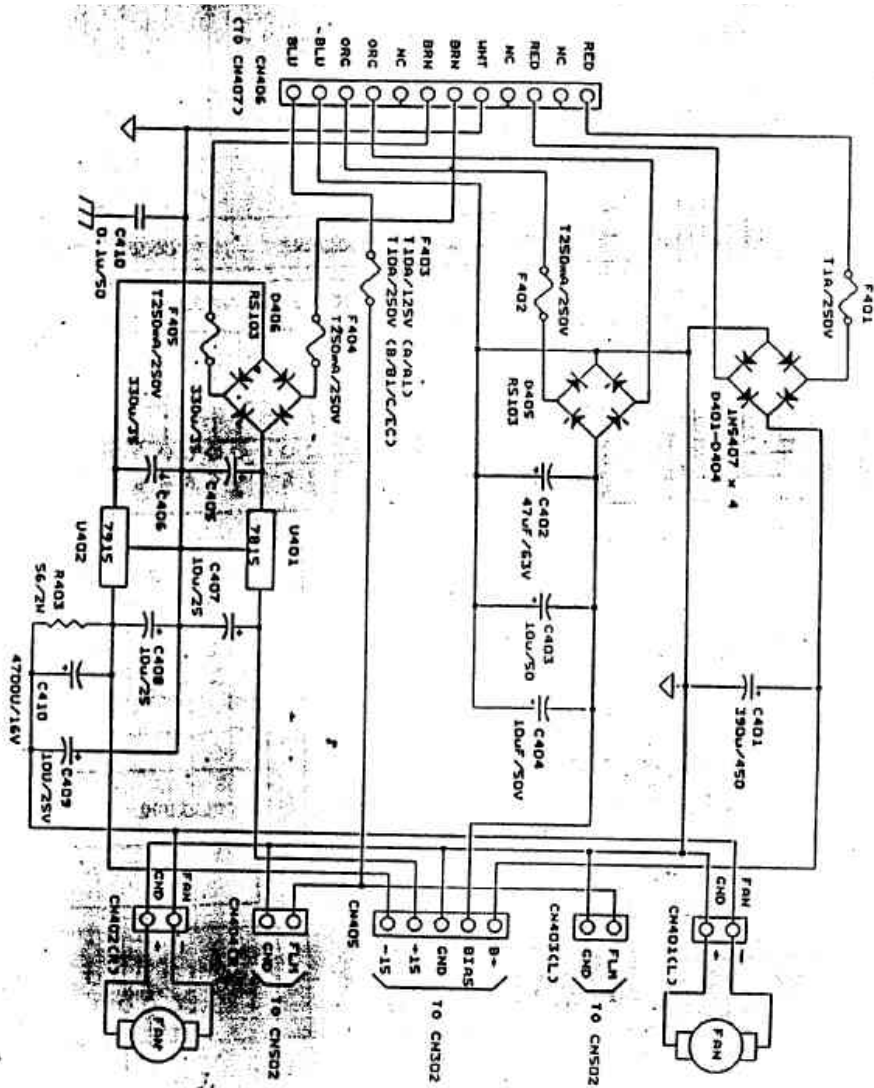
Schematic Diagram (Preamp Module) – CVT3030



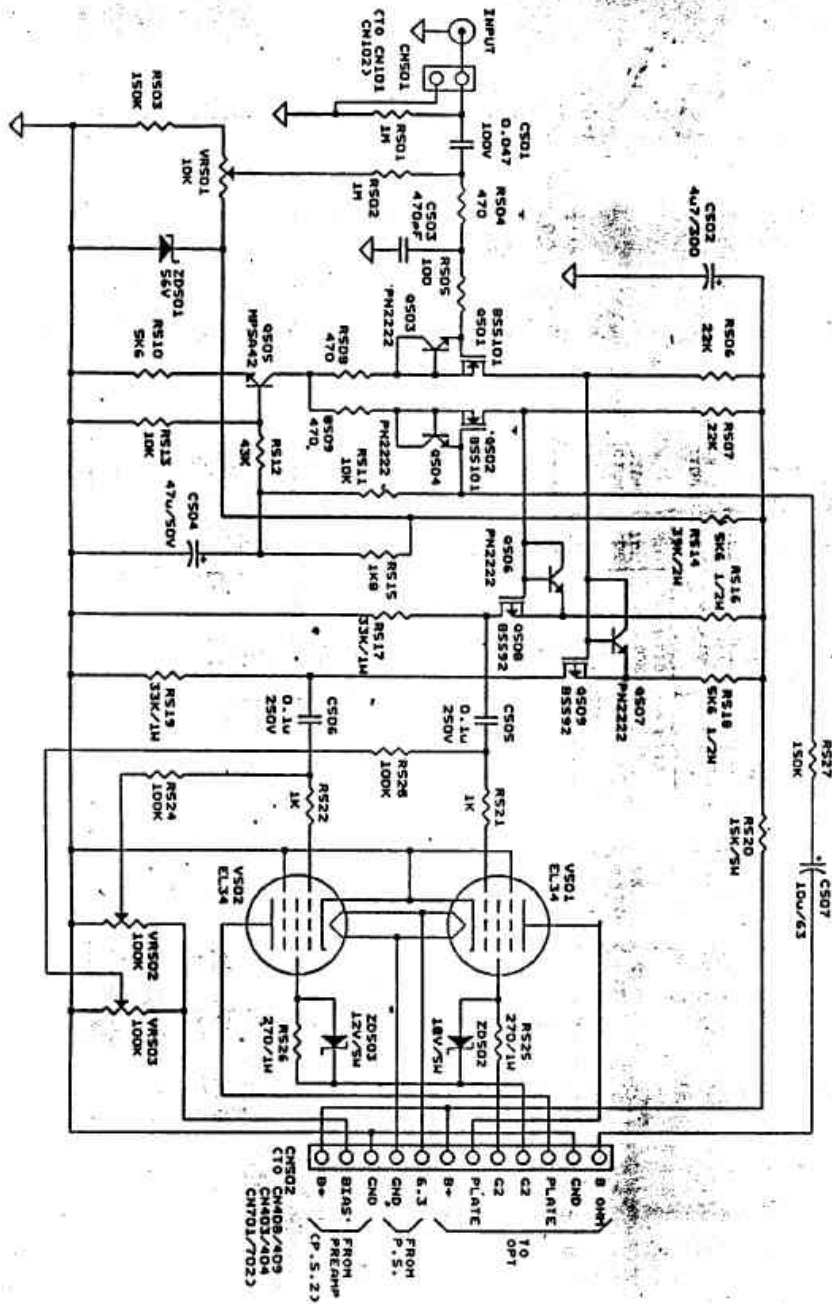
SCHEMATIC DIAGRAM (AC MAINS and O.P.T. MODULE) - CVT3030, CVT2030



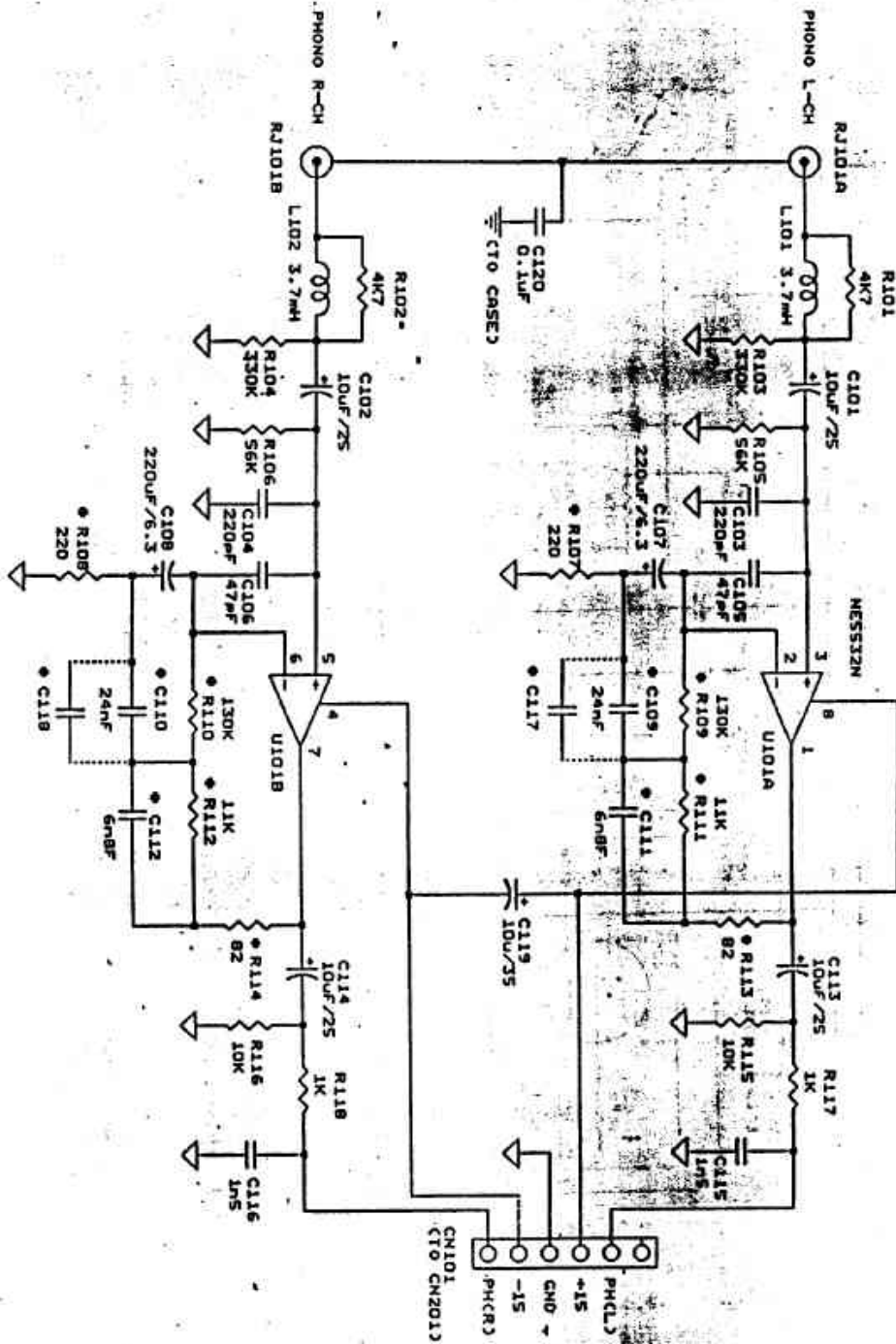
Schematic Diagram (Power Supply Module) – CVT3030, CVT2030



SCHEMATIC DIAGRAM (POWER AMP MODULE) - CVT3030, CVT2030



Schematic Diagram (PHONO Module) – CVT3030



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

Spare Parts/ Module List – CVT3030, CVT2030

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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