# A.G. Tannenbaum

**Electronic Service Data** 

2043 Empire Central Dallas, Texas 75235 USA Phone 214-654-0033 Fax 214-357-4693

WEB-PAGE: HTTP://WWW.AGTANNENBAUM.COM

This manual was carefully prepared from the original documents and sent to the purchaser either as a printed copy or email attachment for the sole use of the person that purchased its use.

Check Back Often As We Are Always Adding More Listings And We Appreciate Your Business

## Addendum for Model 1200

This manual is applicable to units bearing serial numbers above 3500 and is the same as the manual for units below that serial number except for the following:

Throughout the original manual, replace "A", "B", "Channel A" and "Channel B" with "L", "R", "L Channel" and "R Channel", respectively.

- Page 1 Column 2, 3rd paragraph Replace last sentence with: "This switch applies L, R, STEREO, STEREO RE-VERSE, or L+R signals to the BAL-ANCE CONTROL through the GAIN SWITCH which selects HIGH or LOW overall preamplifier gain.
- Page 4 Column 1, 2nd paragraph Replace entire paragraph with: "With the TONE CONTROL switch set to IN, the output of the tone amplifier is applied to the PREAMP OUT jacks."

Page 4 – Column 2, 2nd paragraph – Replace entire paragraph with: "With the TONE CONTROL switch set to OUT, the output of the X10 amplifier bypasses the tone amplifier and is applied directly to the PREAMP OUT jacks.

Pages 6 – Replace Figure 5 (Amplifier Simplified and 7 Schematic) with Figure 5 contained herein.

Page 11 – TECHNICAL SPECIFICATIONS – For "Input Sensitivity and Impedance, High Level", replace "135mV, 100K ohms" with "135mV, 25K ohms".

In "PERFORMANCE VERIFICATION TEST PROCEDURE", replace as indicated:

- Page 13 In paragraph C (Bias Adjustment Tests), sub-paragraph 4 – replace "10 watts" with "7 watts".
- Page 14 In paragraph C (Bias Adjustment Tests), sub-paragraph 5 – replace "10 watts" with "7 watts".
- Page 14 In paragraph E (Total Hum and Noise Test), sub-paragraph 4 – replace "36 millivolts" with "25 millivolts".
- Page 14 In paragraph G (Relay Operation), sub-paragraph 1 – Replace "two minutes." with "thirty seconds".

Page 14 — In paragraph G (Relay Operation), sub-paragraph 4 — Replace "10 Hz" with "5 Hz".

In "TROUBLE ANALYSIS", replace as indicated:

- Page 18- In SYMPTOM 1, PROCEDURE b.-Replace "Check for open control R526, 215-1005-1 bias assy." with "Check for open 215-1006 bias assy."
- Page 18 In SYMPTOM 5 Add PROCE-DURE c. "Check C502 for leakage."
- Page 19 In SYMPTOM 7 Replace PROCE-DURE a.with: "Check for defective C505, C506, C508, C509, C510, C516, C519, and C520."
- Page 19 In SYMPTOM 9 Replace PROCE-DURE b. with: "Check output for proper clipping into 4 ohm load with 25.5 volts AC output (positive and negative levels must not vary more than 1 volt at 2 KHz)".
- Page 19 Add SYMPTOM 10: "No Output". and add PROCEDURE a. "Check R529, Q510, Q511, Q802, Q803, Q804, and Q805.
- Pages 20 PARTS LIST Parts list contained thru 25 herein identifies all parts which differ from those used in units prior to serial number 3501.
- Pages 26 -Replace Figure 13.(Interconnect Boardand 27- A1 Component Assembly Diagram)with Figure 13.contained herein.
- Page 28 Replace Figure 14. (Phono Amplifier Board – A2 Component Assembly Diagram) with Figure 14. contained herein.
- Page 31 Replace Figure 17. (Power Amplifier Board – A5/A6 Component Assembly Diagram) with Figure 17. contained herein.
- Page 32 Replace Figure 18. (Power Supply Board – A7 Component Assembly Diagram) with Figure 18. contained herein.
- Pages 34 Replace Figure 20. (Model 1200 and 35 Schematic, A) with Figure 20 contained herein.

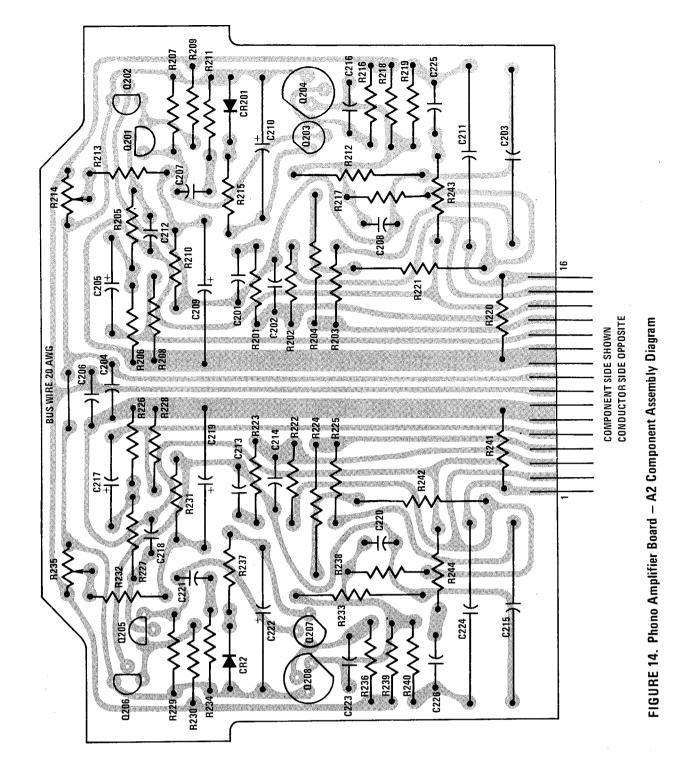
Pages 36 – Replace Figure 21. (Model 1200 and 37 Schematic, B) with figure 21. contained herein.

1



Reference Designation	Description and/or Remarks	Marantz Part Number
	INTERCONNECT BOARD COMPONENT ASSEMBLY	
C101	Cap., 520pf, <u>+</u> 10%, 100V	385-1069
C102	Cap., 0.15 $\mu$ f, ±20%, 250V	386-1022
C103	Cap., 520pf, <u>+</u> 10%, 100V	385-1069
C104	Cap., 0.15 μf, <u>+</u> 20%, 250V	386-1022
R101	Res., C/F, 1K, <u>+</u> 5%, 1/4W	434-4102
R102	Res., C/F, 1K, <u>+</u> 5%, 1/4W	434-4102
R103	Res., Variable, Tandem, 25K	420-1023
R104	Res., Variable, Tandem, 50K	420-1022-3
R105	Res., C/F, 12K, <u>+</u> 5%, 1/4W	434-5122
R106	Res., C/F, 2.7K, <u>+</u> 5%, 1/2W	433-4272
R107	Res., C/F, 12K, <u>+</u> 5%, 1/4W	434-5122
R108	Res., C/F, 2.7K, <u>+</u> 5%, 1/2W	433-4272
R113	Res., C/F, 33K, <u>±</u> 5%, 1/4W	434-5332
R114	Res∴, C/F, 33K, <u>±</u> 5%, 1/4W	434-5332
	PHONO AMP BOARD COMPONENT ASSEMBLY	
R214	Res., Variable, 25K, 1/4W	420-1024
R222	Res., C/F, 2.2Meg, <u>+</u> 10%, 1/4W	434-7223
R235	Res., Variable, 25K 1/4W	420-1024
Q201	Transistor, NPN	462-1038-1
Q202	Transistor, NPN	462-1038-1
Q205	Transistor, NPN	462-1038-1
Q206	Transistor, NPN	462-1038-1

Reference Designation	Description			
	X10 AMP BOARD COMPONENT ASSEMBLY			
C403	Cap., Elect., 1 µf, ±10%, 35∨	381-1055		
C407	Cap., Elect., 1 μf, <u>+</u> 10%, 35V	381-1055		
C414	Cap., Elect., 1 μf, ±10%, 35V	381-1055		
C417	Cap., Elect., 1 µf, ±10%, 35∨	381-1055		
Q401	Transistor, NPN	462-1038-2		
Q402	Transistor, NPN	462-1038-2		
Q404	Transistor, NPN	462-1038-2		
Q405	Transistor, NPN	462-1038-2		
	TONE AMP BOARD COMPONENT ASSEMBLY			
R307	(Not Used)			
R322	(Not Used)			
Q301	Transistor, NPN	462-1038-2		
Q302	Transistor, NPN	462-1038-2		
Q304	Transistor, NPN	462-1038-2		
Q305	Transistor, NPN	462-1038-2		
	POWER AMPLIFIER BOARD COMPONENT ASSEMBLY			
C505	Cap., 36pf, <u>+</u> 5%, 100V	385-1064		
C508	Cap., 47pf, <u>+</u> 10%, 100V	385-1040		
C512	Cap., 1000pf, <u>+</u> 10%, 100V	385-1068		
C518	(Not Used)			
C519	Cap., 0.1 μf, <u>+</u> 10%, 250V	386-1000		
C520	Cap., 6800pf, <u>+</u> 10%, 400V	386-1026		
CR503	Diode	460-1011		
R501	Res., C/F, 4.7K, <u>+</u> 5%, 1/2W	433-4472		
R508	Res., C/F, 91K, <u>+</u> 5%, 1/4W	434-5912		



والانتقاد والمراد

eference esignation	Description and/or Remarks	Marantz Part Number
	POWER SUPPLY BOARD COMPONENT ASSEMBLY	
Q601	Transistor, NPN	462-1055
Q602	Transistor, PNP	461-1048
	CHASSIS ASSEMBLY	
8	Cap., Elect., 100 µf, 3V	381-1018
60	Cap., 0.01 μf, <u>∔</u> 20%, 100V	383-1000
C10	Cap., 0.01 μf, ±20%, 100V	383-1000
R1	Res., C/F, 130K, ±5%, 1/2W	433-6132
R2	Res., C/F, 130K, ±5%, 1/2W	433-6132
R3	Res., C/F, 130K, ±5%, 1/2W	433-6132
R4	Res., C/F, 130K, ±5%, 1/2W	433-6132
R5	Res., C/F, 10 ohm, ±5%, 1/2W	433-2102
R6	(Not Used)	
R7	(Not Used)	
R8	(Not Used)	
R9	Res., C/F, 27 ohm, <u>+</u> 5%, 1/2W	433-2272
R10	Res, C/F, 10 ohm, <u>+</u> 5%, 1/2W	433-2102
R12	Res., C/F, 10 ohm, ±5%, 1/2W	433-2102
۵1	Triac	465-1000
S1	Switch, Selector	453-1018
11	Transformer, Power	440-1011
OR APPLIC	OR APPLICABLE DASH NO., SEE TRANSISTOR PECIFICATION CHART AND ASSOCIATED	ANSISTOR ATED

\*FOR APPLICABLE DASH NO., SEE TRANSISI SPECIFICATION CHART AND ASSOCIATED NOTES ON SHEET 2 OF UNIT SCHEMATIC (Figure 21)

Marantz Part Number	434-5242	434-5242	420-1025	423-2392	423-2392	423-1562	423-1562	434-5102	434-3472	434-2562	433-2102	462-1038-2	462-1038-2	461-1047-*	462-1053-*	462-1054-*	461-1046-*	462-1035-*	461-1030-*	462-1009		461-1031-*	462-1036-*	461-1031-*	462-1036-*
Description and/or Remarks	Res., C/F, 24K, <u>+</u> 5%, 1/4W	Res., C/F, 24K, <u>+</u> %, 1/4W	Res., Variable, 250 ohm, 2W	Res., C/C , 39 ohm, ±5%, 1W	Res., C/C, 39 ohm, ±5%, 1W	Res., C/C, 5.6 ohm <u>+</u> 5%, 1W	Res., C/C, 5.6 ohm, ±5%, 1W	Res., C/F, 10K, <u>±</u> 5%, 1/4W	Res., C/F, 470 ohm, ±5% 1/4W	Res., C/F, 56 ohm, ±5%, 1/4W	Res., C/F, 10 ohm, ±5%, 1/2W	Transistor, NPN	Transistor, NPN	Transistor, PNP	Transistor, NPN	Transistor, NPN	Transistor, PNP	Transistor, NPN	Transistor, PNP	Transistor, NPN	(Not Used)	Transistor, PNP	Transistor, NPN	Transistor, PNP	Transistor, NPN
Reference Designation	R524	R525	R526	R529	R530	R552	R553	R554	R555	R556	R557	Q501	<b>O</b> 502	Q507	Q508	Q510	Q511	Q516	Q517	Q520	CR801	Q802	Q803	Q804	Q805

۳Ö

San in

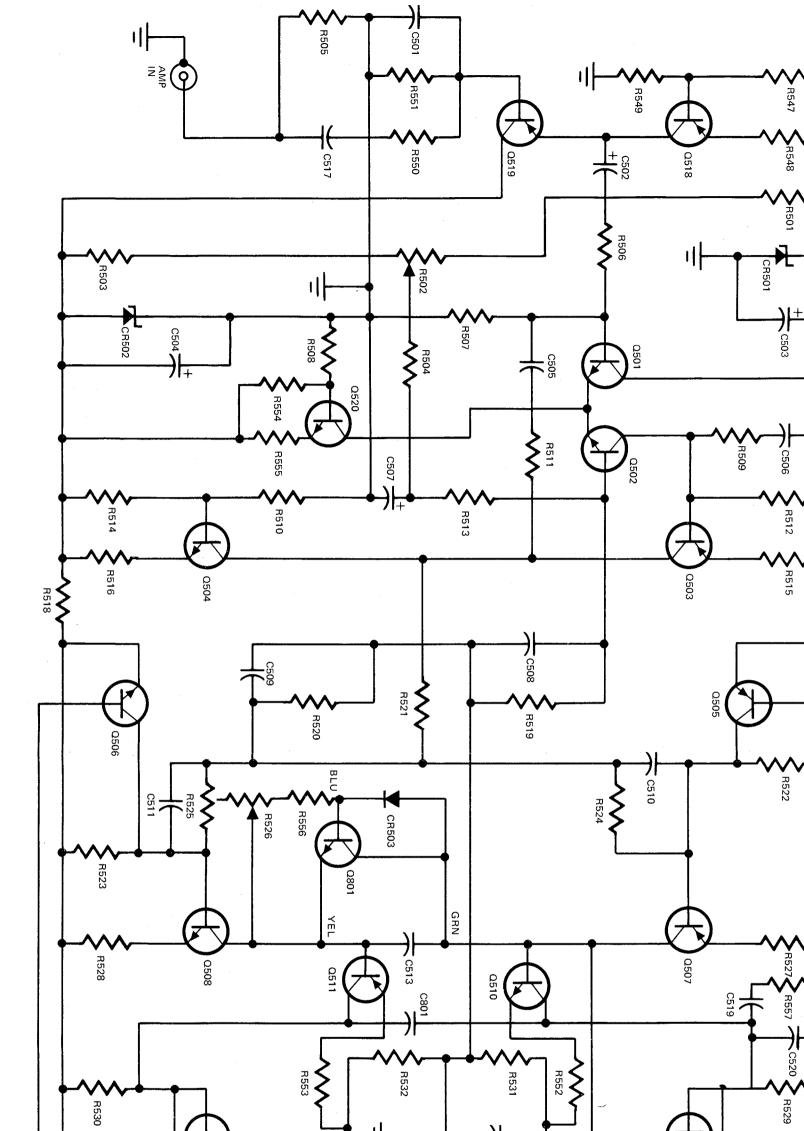
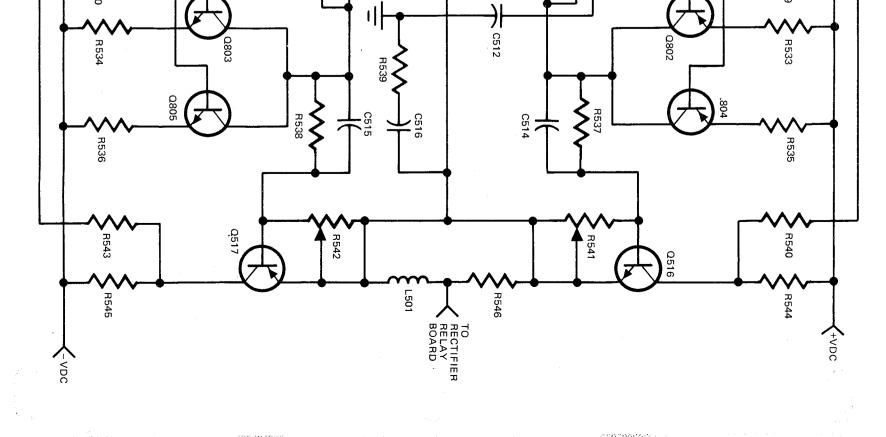


FIGURE 5. Amplifier Simplified Schematic

(~



• R547

R548

►R501

.,++ ℃503

ナ C506

**N**8512

► R515

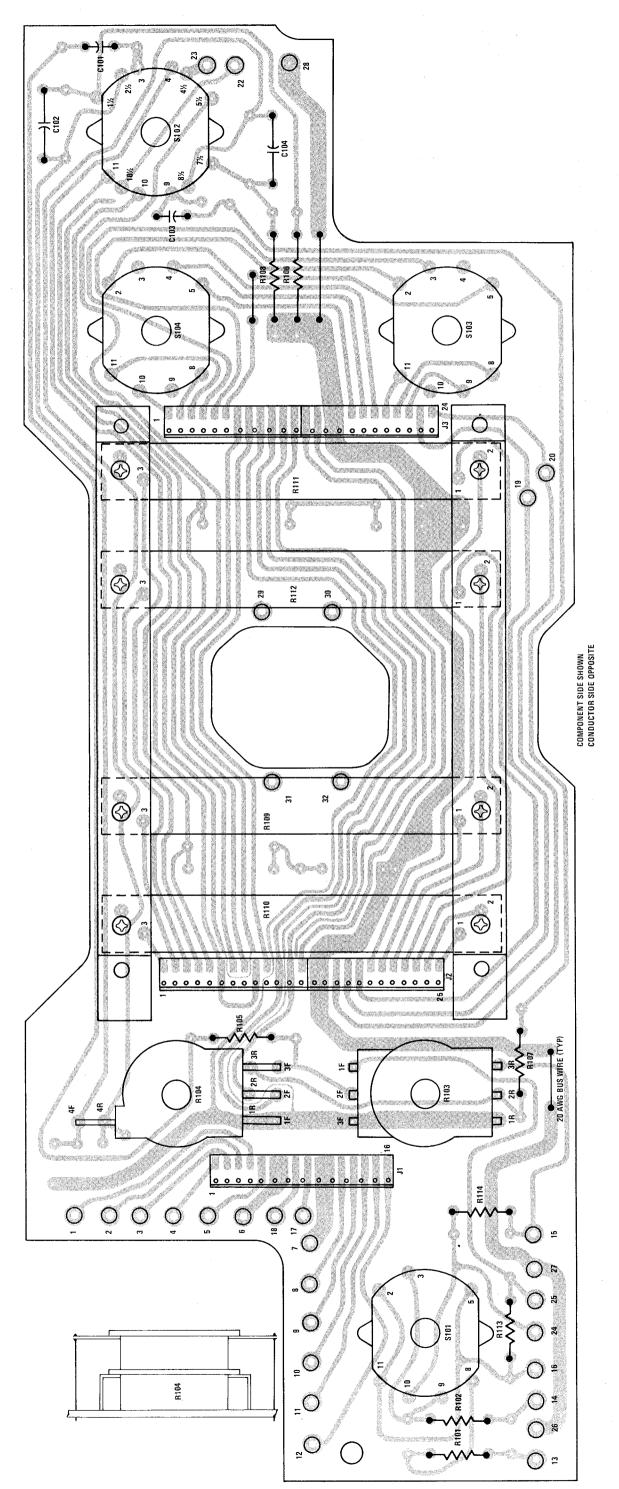
R522

R527

R557 - C520

R529

**S**17



ala wasanda

Diagram



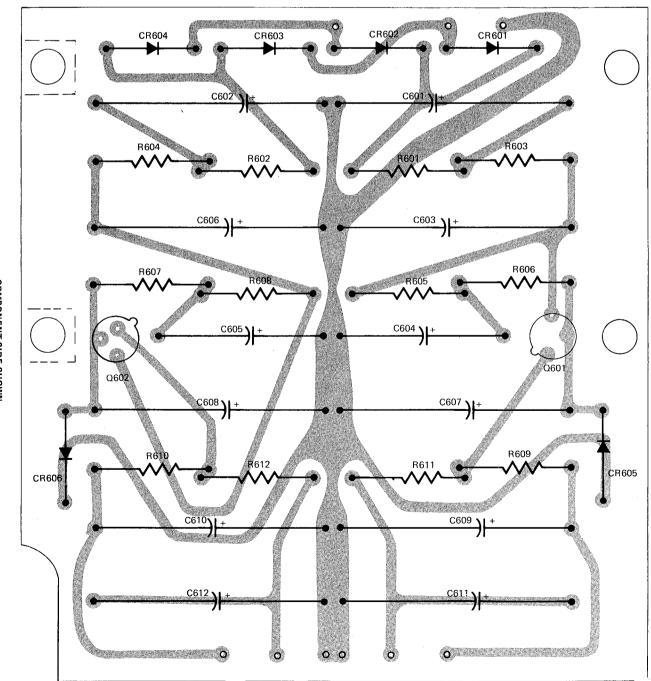


 $\textcircled{NOTES:}^{\mathsf{NOTES:}}$ 

20 AWG BARE BUS WIRE JUMPER 20 AWG INSULATED WIRE JUMPER CR603 IS INSTALLED UNDER 0507, IN INTIMATE CONTACT WITH 0507 CASE

> COMPONENT SIDE SHOWN CONDUCTOR SIDE OPPOSITE





C517 RSIR C504 RSID ζ -Ω508 ω2 B 0511 ø ξ Ð 059 ತ(ದ đ R556  $(\mathbf{O})$ D Ð 0 Ð R538  $\langle \rangle$ 697 E BAR

ωదα⊐ ₩

C50

R502

050

C510

3503

2013

2 RET

(0503)

0510

CSOS .

Œ

٩

.

۲

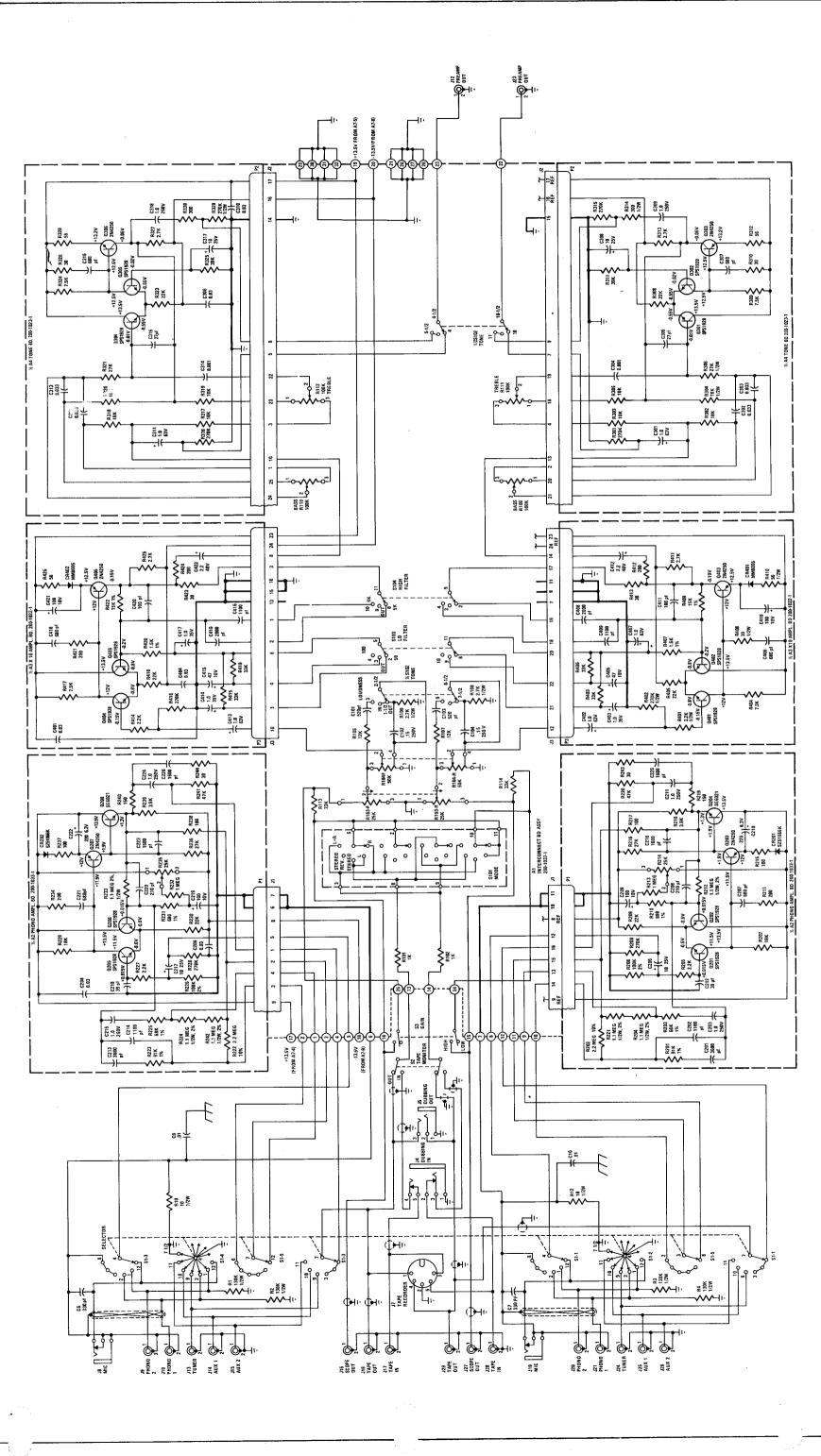
18

0516

\$<sup>₿</sup>\$₿

6

COMPONENT SIDE SHOWN CONDUCTOR SIDE OPPOSITE



N

FIGURE 20. Model 1200 Schematic, A

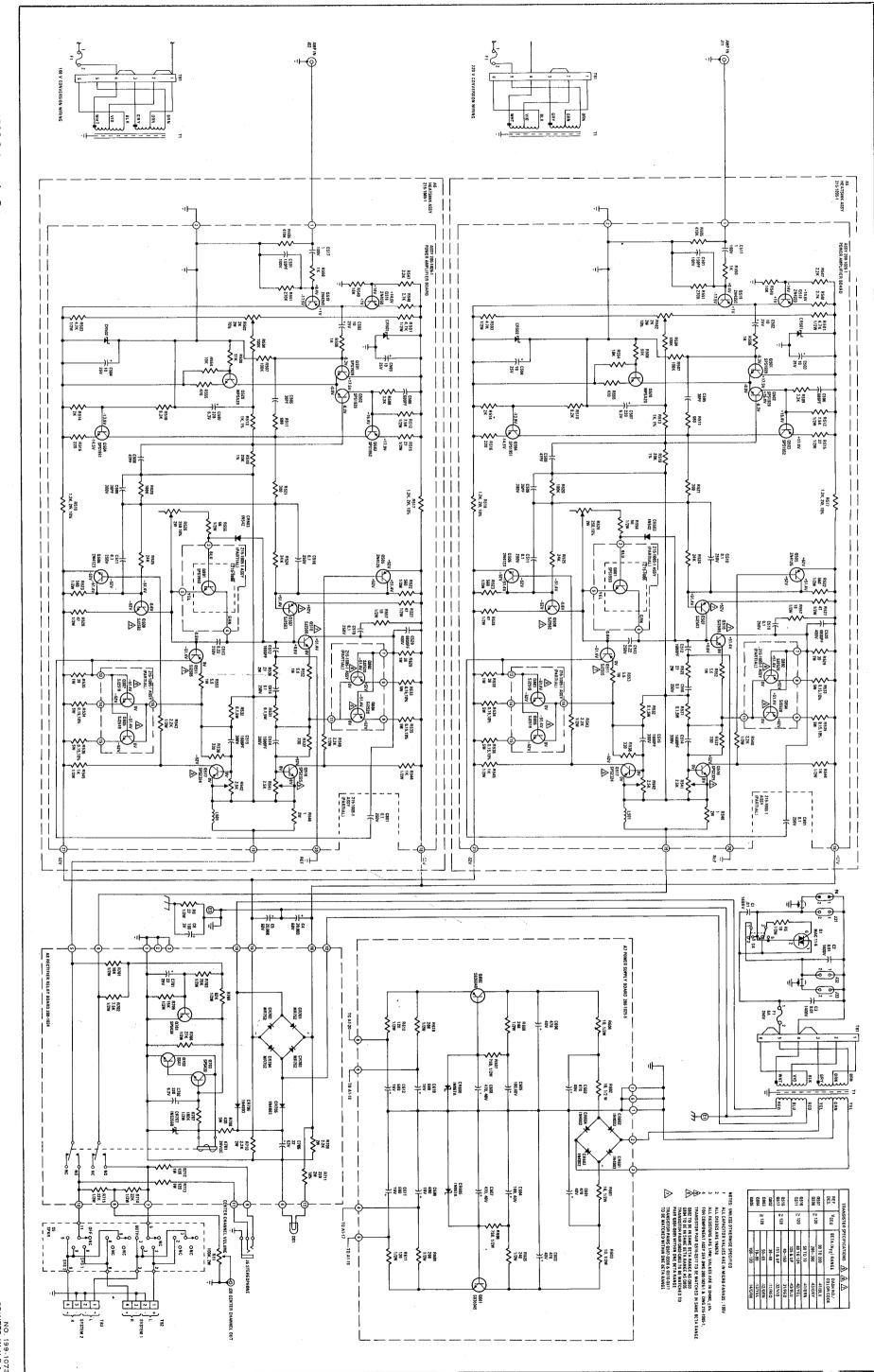


FIGURE 21. Model 1200 Schematic, B A

NO. 199-1073 PRINTED IN U.S.A.

a and a second second

the second s

.

o general

	1200	M1200-1	June 18,	1971
	for serial numbers 1001	to	1100	
ERVICE BULLETIN	subj <del>e</del> ct			
ERVICE BULLETIN	1001		_1100	

Ground Modification at Input Jacks

Date: 6-22-71. Engineering Approval:

On Model 1200's between serial numbers 1001 through 1100, you may experience hum problems when using the preamplifier section to drive a separate power amplifier. To prevent this possibility, please perform the following modification.

In the unmodified units, the signal ground connection for the "Preamp Out" and "Amp In" jacks, is made internally with a bus wire joining the shield terminals. As part of the modification, remove this connection, as well as the bus running between the common terminals of the "Tape In" and "Phono 2" jacks. Make sure that you repeat this procedure in both channels. Do not alter any remaining bus wires on other terminals.

Next, remove and <u>discard</u> the external molded jumpers between the "Preamp Out" and "Amp In" jacks. Replace these with part number: 360-1027, (two required). When ordering, always specify the above bulletin number as the Parts Department will send the jumpers at no charge.

Please note that externally, the old and new jumpers are identical in appearance. The difference is internal as the new types have a ground or shield connection as compared to the old ones which do not. Of course, you can easily identify kinds with the use of an ohmeter.

Maraniz Company Inc., P.O. Box 99, Bun Valley. Conformation 01282 + (212) 787-0780 + 278-0800 + A Cubaldiary of Gun

M1-043

nnar an tz.	nodel number 1200 for serial numbers <u>3501 and up</u> subject	M-1200-2
SERVICE BULLETIN	EXCESSIVE engineering approval	CROSS-TALK date 11/16/72

You may receive customer complaints regarding excessive crosstalk in the Marantz Model 1200 (S/N 3501 and up).

The cross-talk may exist when source is applied to the high level inputs (Tuner, Aux 1, Aux 2) and the unit is used in phono mode.

The following modification is recommended and should be performed only if the sympton fits specifically the case above. Perform the modification is the numbered sequence listed below: This modification consists of removing jumpers at six (6) locations on the Selector switch. The six locations are:

- Between pin 9 of deck 1 and pin 9 of deck 2.
  Between pin 10 of deck 1 and pin 10 of deck 2.
- 3) Between pin 11 of deck 1 and pin 11 of deck 2.
- 4) Between pin 9 of deck 3 and pin 9 of deck 4.
- 5) Between pin 10 of deck 3 and pin 10 of deck 4.
- 6) Between pin 11 of deck 3 and pin 11 of deck 4.

ervasio

National Technical Advisor

M2-090

nnen en nuz.	model number 1200 for serial numbers ALン	M-1200-3
	subject 240 VOLT CONV	ERSION
SERVICE BULLETIN	engineering approval N/A	date 12/13/72

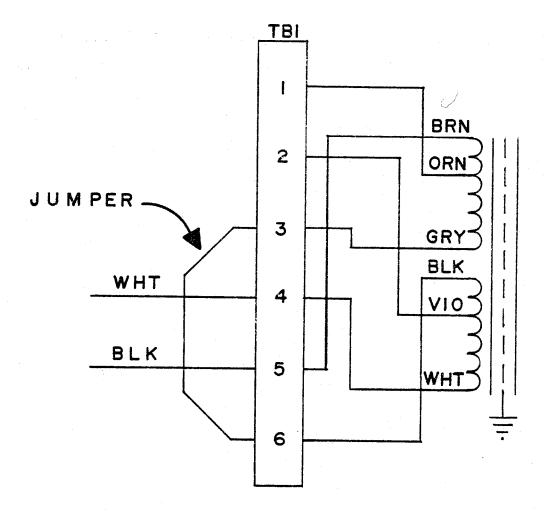
To convert the Model 1200 to 240 volt operation, perform the following steps:

- 1) Remove top cover.
- 2) Orient the Model 1200 so that the rear panel is facing towards the viewer.
- Locate TBl, the strip located on the power transformer half shell facing the rear panel, which terminates the power transformer primary wires.
- 4) Unsolder the black and the white power lead-in wires and all jumpers from TBL.
- 5) Solder a jumper on TBL connecting the grey and black transformer wires.
- Solder the black and the white power lead-in wires to the brown and the white transformer wires, respectively, on TB1.
- 7) Replace the top cover.
- 8) Replace the 6 amp. 250V fuse in the unit with a 4 amp. 250V fuse, part number 451-1003.
- 9) Verify that unit operates properly.

Hector E. Gervasio Technical Services Manager

MARANTZ SERVICE BULLETIN M-1200-3 240 Volt Conversion

12/13/72 page 2



MODEL 1200 240V CONVERSION

M2-094

 1	 	- Milling and a second
Chr		
	يعام عاينك.	• • • • • • • • • • • • • • • • • • •

SERVICE BULLETIN

model number 1200	bulletin number						
for serial numbers 3501 and UP	M-1200-4						
subject							
EXCESSIVE CROSS-TALK							
engineering approval	date						
The Drawlor	, 8-14-73						

THIS BULLETIN SUPERSEDES PREVIOUS SERVICE BULLETIN M-1200-2, DATED NOVEMBER 16, 1973 ON THIS SUBJECT.

You may receive customer complaints regarding excessive crosstalk in the Marantz Model 1200 (S/N 3501 and up.)

The cross-talk may exist when the unit is used in the phono mode, while source is applied to the high inputs (Tuner, Aux 1, Aux 2.)

The following modification is recommended and should only be performed if the specific symptom fits the above case.

Perform the modification of the selector-switch in the numbered sequence listed below:

- Remove jump between pin 9 of deck 1 and pin 9 of deck 2.
  Remove jump between pin 10 of deck 1 and pin 10 of deck 2.
  Remove jump between pin 11 of deck 1 and pin 11 of deck 2.
  Remove jump between pin 9 of deck 3 and pin 9 of deck 4.
  Remove jump between pin 10 of deck 3 and pin 10 of deck 4.
  Remove jump between pin 11 of deck 3 and pin 10 of deck 4.
  Remove jump between pin 11 of deck 3 and pin 10 of deck 4.
  Remove jump between pin 11 of deck 3 and pin 10 of deck 4.
  Remove jump between pin 11 of deck 3 and pin 11 of deck 4.
- 8) Install ground connection by soldering a piece of flexible wire from pin 8 of deck 3 to terminal 26 on the interconnecting board as shown in figure #1.

Hector E. Gervasio, Manager Technical Services

Marantz Company, Inc., P.O. Box 99, Sun Valley, California 91352 • (213) 767-9750 • 875-0810 • A Subsidiary of Superscope, Inc.

· · · · · · · · · · · · · · · · · · ·			
tor	-		

SERVICE BULLETIN

model number 1200	bulletin number						
for serial numbers 3501 and up to 5900	M-1200-5						
subject							
CROSS-TALK							
engineering approval	date						
(the bi	10-19-73						

THIS BULLETIN SUPERSEDES PREVIOUS SERVICE BULLETIN M-1200-4, DATED AUGUST 14, 1973 ON THIS SUBJECT.

1

You may receive customer complaints regarding cross-talk in the Marantz Model 1200 (S/N 3501 and up to 5900).

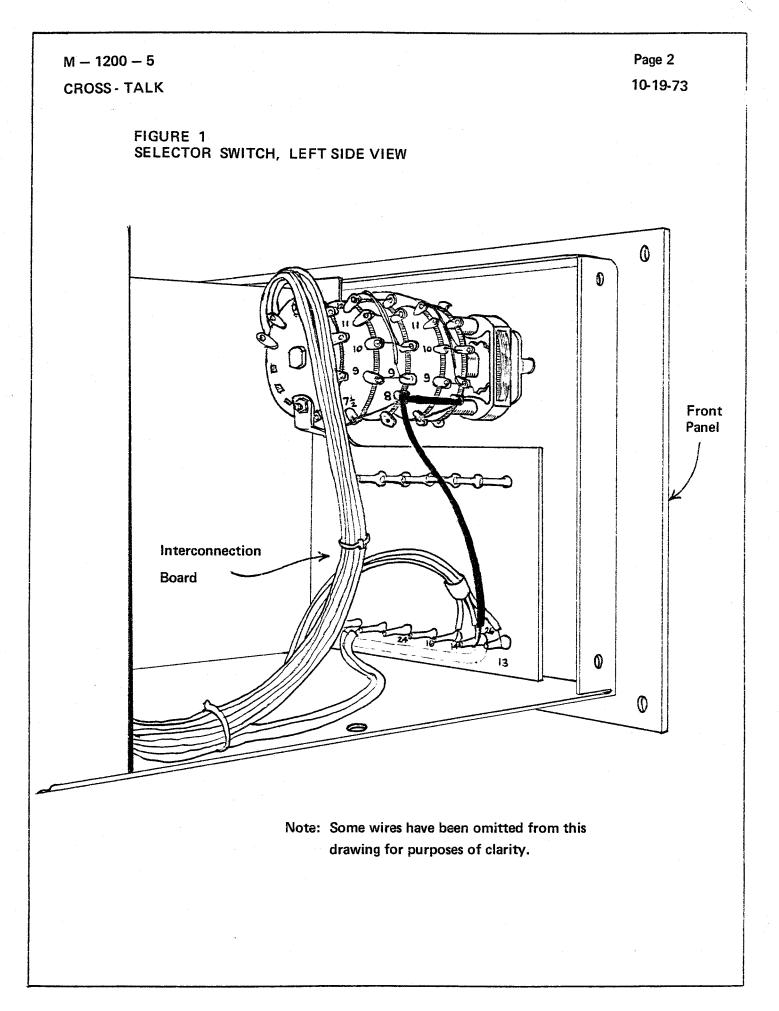
The cross-talk may exist when the unit is used in the phono mode, while source is applied to the high inputs (Tuner, Aux 1, Aux 2).

The following modification is recommended and should only be performed if the specific symptom fits the above case.

Perform the modification of the selector-switch in the numbered sequence listed below:

- Install and solder jumper between pin 8 of deck 1 and pin 8 of deck 3.
- 2) Install ground connection by soldering a piece of flexible wire from pin 8 of deck 3 to terminal 26 on the interconnecting board as shown in figure #1.

Hector E. Gervasio, Manager Technical Services



	model number 1200	bulletin number				
marantz	for serial numbers SEE BELOW	M-1200-8				
	subject					
	SERVICE MANUAL SUPPLEMENT					
SERVICE BULLETIN	engineering approval	date 9-24-75				

This Supplement supercedes Marantz Service Bulletin M-1200-7 "Service Manual Supplement", and should be incorporated into the Model 1200 Service Manual as soon as possible to ensure proper reference information.

I. Information applicable to all units below serial number 5900.

REF. DESIG.

#### PART NUMBER

174-1001-000
174-1002-000
174-1004-000
174-1005-000
159-1001-000
136-1022-000
132-1005-000
136-1017-000
371-1006-000
371-1007-000
132-1024-000
132-1020-100
360-1025-000
360-1008-000
360-1001-000
360-1016-000
361-1001-000
367-1001-000
249-1015-100
199-1069-000

#### DESCRIPTION

Knob, Large Knob, Medium Knob, Small Knob, Power Switch Dust Mask Shield, Front Panel Bracket, Heatsink Extension Cover, Power Transistor Transistor Insulator (TO-3) Transistor Insulator (TO-66) Heatsink (TO-66 Bracket Type) **Circuit Board Keeper** Male Connector Pin "F" Post Phono Plug, Self Shorting AC Outlet, Accessory Connector Receptacle (DIN) Line Cord **Fuse Holder** Accessory Kit **Owners Manual** 

Page 1 of 2

J31, 32, 33 J7 P4 XF1

1				FOR SERIAL NUMBERS		
REF. DESIG.	PART NUMBER	DESCRIPTION	BELOW 3500	3500 TO 5900 (See Note 1)	ABOVE 5900 (See Note 2)	
A2	200-1021-100	Phono Amp. PCB Assy.	$\checkmark$			
A2	200-1033-100	Phono Amp. PCB Assy.		$\checkmark$	$\checkmark$	
A3	200-1022-100	X10 Amp. PCB Assy.	V	$\checkmark$	1	
A4	200-1023-100	Tone PCB Assy.	$\checkmark$		V	
A5 - A6	215-1005-100	Heatsink	$\overline{\checkmark}$		· · · · · · · · · · · · · · · · · · ·	
A5 - A6	215-1012-200	Heatsink				
	200-1026-100	Power Amp. PCB Assy.	$\checkmark$	$\sim$	V	
	200-1071-200	Power Amp. PCB Assy.	·		$\checkmark$	
A7	200-1025-100	Power Supply PCB Assy.	$\checkmark$	i	v	
A7	200-1025-500	Power Supply PCB Assy.	·		 	
A8	200-1024-100	Rectifier Relay PCB Assy.	$\checkmark$	· · · · · · · · · · · · · · · · · · ·	v	
A8	200-1075-100	Rectifier Relay PCB Assy.	¥	<b>v</b>	$\checkmark$	

### II. Information applicable only to units bearing serial numbers indicated by check ( $\checkmark$ ) mark.

NOTES: 1. For additional information on units bearing serial numbers 3500 to 5900 refer to Model 1200 Addendum, Part Number 199-1073-000.

2. For additional information on units bearing serial numbers above 5900 refer to Model 1200B Addendum, Part Number 199-1146-000.

Albert Almeida, Manager Technical Services