

MARANTZ SERVICE BULLETIN

model number 16	bulletin number 69-12/16-1	date 9-25-69
for serial numbers 16-1001	to	16-3000
subject MODIFICATION TO BE PERFORMED		

The following modification is to be performed on ALL
Model 16 Stereo Power Amplifier with serial numbers ~~below~~ *from 16-1456*

to - 16-3000 which are being returned for any repair.

1. Solder 300pf type DM15 capacitor across resistor R44.
2. Change 0.1mfd capacitor C8 to ceramic type 0.022mfd capacitor.

This will prevent a 60KHz ringing which may be present on some units when overdriven. Units with serial numbers 16-3001 and above will have this modification installed at the factory.

MARANTZ SERVICE BULLETIN	model number	bulletin number	date
	16 for serial numbers	69-15/16-2 to	10-14-69
subject			
SPECIAL PARTS ORDERING PROCEDURES			

INTEGRATED CIRCUITS

When ordering the op-amp integrated circuits for the Model 16, it is important to note the serial number of the unit in which the part is to be installed. There are two types of IC's that have been used with this amplifier and they are NOT interchangeable. Therefore, the following guide should be used to determine which part number is required.

For all units BELOW serial number 16-1456:

P/N 466-1001 (National LH201)

For all units ABOVE serial number 16-1456 AND the following additional numbers:

16-1014	16-1125
16-1450	16-1456
	16-1448

P/N 466-1005 (National LM201)

POWER TRANSISTORS

When replacing output power transistors, the appropriate part numbers AND color designation on BOTH heat sinks should be specified. These color dots are located on the inside of the heat sinks towards the rear panel of the unit. These colors denote the specific type of transistors that have been performance matched to that particular unit.

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model number 16	bulletin number 69-16/16-3	date 10-17-69
for serial numbers 16-1456	to 16-3000	
subject MODIFICATION TO BE PERFORMED SERVICE BULLETIN 69-12/16-1		

Referenced service bulletin to perform modification on Model 16 is in error. Serial number effectivity was 16-1001 to 16-3000; should be 16-1456 to 16-3000. Do not perform referenced modification on units with serial number 16-1455 or below

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model number 16	bulletin number 69-16/16-3	date 10-17-69
for serial numbers 16-1456	to 16-3000	
subject MODIFICATION TO BE PERFORMED SERVICE BULLETIN 69-12/16-1		

Referenced service bulletin to perform modification on Model 16 is in error. Serial number effectivity was 16-1001 to 16-3000; should be 16-1456 to 16-3000. Do not perform referenced modification on units with serial number 16-1455 or below

1. Solder a 300pf type DM15 capacitor across resistor R44.
2. Change 0.1mfd^{250v.} capacitor C8 to a ceramic type 0.022mfd 100v. capacitor.

This will prevent a 60KHz ringing which may be present on some units when overdriven. Units with serial numbers 16-3001 and above will have this modification installed at the factory

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model number 16	bulletin number 70-15/16-1	date 8-31-70
for serial numbers 3001 and Up		to
subject 50 Hz Modification for Model 16 Amplifier		

The 100 RMS 100 version of the Model 16 amplifier may exhibit mechanical hum when operated on 50 Hz current. This can be eliminated using modification kit 249-1013: (see enclosed diagram)

1. Remove the front dress panel.
2. Remove the bottom cover.
3. Remove the four 8-32 screws holding the power transformer in place and move the transformer for adequate clearance for the next step.
4. Lay amplifier on front and insert 1/8" rubber transformer isolator, part number 129-1000, between front plate and transformer.
5. Insert four (4) 8-32 x 7/16 screws, part number 751-0712, through front plate, rubber isolator, and transformer; tighten finger tight.
6. Attach bottom cover isolator, part number 129-1001, to center of transformer bottom.
7. Replace bottom cover with modified bottom cover, part number 136-1014, and tighten front screws finger tight.
8. Tighten front plate screws completely.
9. Insert remaining bottom cover screws and tighten all bottom cover screws.
10. Repeat for other channel.
11. Replace front dress panel.

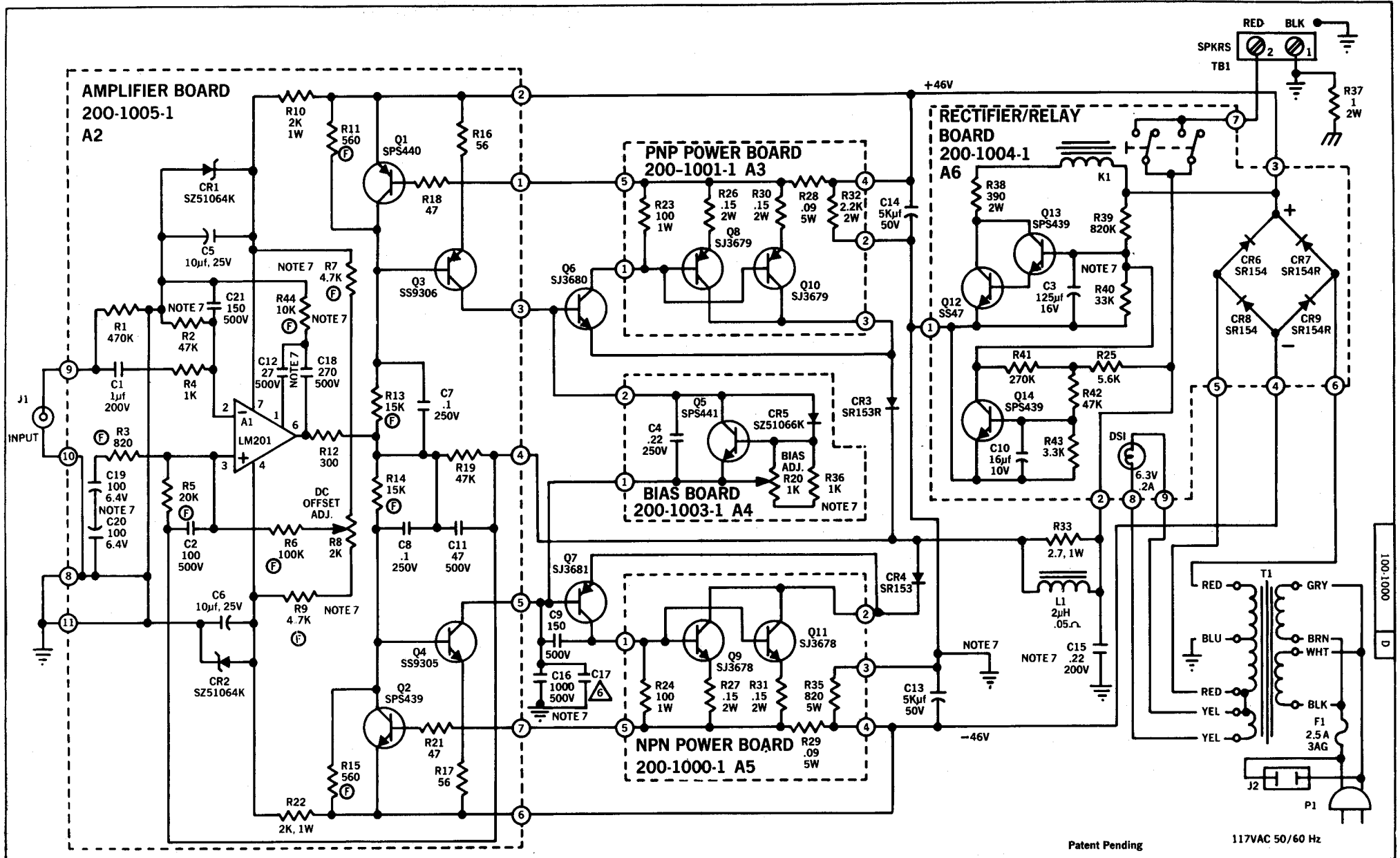


Figure 14. Marantz Model 16 Power Amplifier, Schematic Diagram.

Addendum for Model 16 (80 RMS 80)

Service Manual #199-1003,
dated September 17, 1969.

1. Insert change in following places: Figure 2, page 3; Figure 5, page 7; and Figure 14, page 21. Capacitor C8 was 0.1 μ f 250 VDC, is 0.022 μ f 100 VDC per E.C.N. 1097 and Marantz service bulletins 69-12/16-1 and 69-16/16-3.
2. On PART LIST, page 16, change description and part numbers to read as follows: Capacitor, Ceramic, 0.022 MFD, 100 VDC; (Part Number) 383-1001. Add C23; Capacitor, Mica, 300 PFD, 500 VDC; (Part Number) 385-1004.
3. Insert new PARTS LIST (page 17).
4. On Figure 12, page 19, callouts for +46 VDC and -46 VDC should be moved one hole toward the center of board.
5. VOLTAGE CHART callouts should be changed as follows:
Q6 Base -45 to B+
Q7 Base +45 to B-
Add note 7: Point (voltage) being measured is always the (+) probe of voltmeter.
6. On Figure 14, page 21, add capacitor C23, 300 pF, 500 V across R44, 10K.
7. On CHANGE RECORD add:
E.C.N. no. 1097 (item 1)
(Added: C23. Changed C8).
Dated: September 23, 1969.
Effectivity: S/N 1456, on.
8. Resistor R37 is 1.2 ohms. The callouts for this value should be corrected in the following places: Figure 1, page 2; Figure 14, page 21.
9. Disregard all sine-wave symbols on Figures 1, 2, 4 and 5. They are not always correct.
10. On page 1, in the paragraph following AMPLIFIER, line 1, change V1 to J1.
11. On page 4, in the paragraph following AMPLIFIER PROTECTION, line 7, change "increases" to increased.
12. On page 18, Figure 11, change Q4 to Q11.

Reference Designator	Description	Marantz Part Number
R35	Resistor, W/W, 820 ohm, 5%	428-3822
R36	Resistor, Carbon Comp., ½ W, 1 K, 5%	422-4102
R37	Resistor, BWH, 2 W, 1.2 ohm, 10%	436-1123
R38	Resistor, BWH, 2 W, 390 ohm, 10%	436-3393
R39	Resistor, Carbon Comp., ½ W, 820 K, 10%	422-6823
R40	Resistor, Carbon Comp., ½ W, 33 K, 10%	422-5333
R41	Resistor, Carbon Comp., ½ W, 270 K, 10%	422-6273
R42	Resistor, Carbon Comp., ½ W, 47 K, 10%	422-5473
R43	Resistor, Carbon Comp., ½ W, 3.3 K, 10%	422-4333
R44	Resistor, Film, ½ W, 10 K, 2%	432-5101
T1	Transformer, Power	440-1000
TB1	Block, Barrier	363-1000
TB2	Terminal Board Assembly	201-1000-1
TB3	Terminal Strip	362-1000
XDS1	Socket, Lamp (includes MTG HDWE)	481-1000
XF1	Holder, Fuse (includes MTG HDWE)	367-1000
XQ6	Socket, Transistor	368-1001
XQ7	Same as XQ6	368-1001
XQ8	Socket, Transistor	368-1000
XQ9	Socket, Transistor	368-1000
XQ10	Same as XQ8	368-1000
XQ11	Same as XQ9	368-1000
	FRONT PANEL ASSEMBLY, consisting of:	206-1000-1
	Painted Panel	134-1000-1
	Panel MTG Screws, Satin Gold, # ¼-20 x 5/16 Head	769-1000
	Window	170-1001-1
	Painted light deflector lens	172-1000
	Bezel	137-1000
	BRIDGE PLATE, consisting of:	
	Screw, Phillips, Pan Hd, Stl, Blk Oxide, # 8-32 x ¼	751-0412
	Lockwasher, Int Tooth, # 8, Stl, Blk Oxide	677-5512

MARANTZ SERVICE BULLETIN

model number 16, 30, 32	bulletin number MG-2	date 5-13-71
for serial numbers All		to
subject Filter Capacitor Replacement		

Engineering Approval: *J. Halley* Date: *May 17, 71*

When replacing power supply filter capacitors in Models 16, 30 and 32, use part number 381-1027 (6900 uf. 50 V) for improved reliability. This capacitor is being used in place of part numbers 381-1003 (5000 uf. 50 V) and 381-1007 (6800 uf. 50 V).

Additionally, return immediately, all 5000 and 6800 uf. capacitors that you may have in stock, directly to the Marantz National Parts Department at 8414 San Fernando Road, Sun Valley, California 91352 for credit.

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