

Marantz SA8400 modifications

Power supply

Part:	Org. value:	Replace by:	Brand:	Farnell:	Remark:
C801	6800u/16V	5600u/16V	Panasonic FC	969-2118	+4u7 MKT
C802/806	3300u/6,3V	3300u/10V	Rubycon ZL	114-4687	+100n PPS
C803	100n cer.	100n PPS	Panasonic	969-5532	
C804	3300u/16V	8200u/16V	Panasonic FC	969-2126	
C805	6800u/16V	8200u/16V	Panasonic FC	969-2126	+4u7 MKT
C807/808	100n cer.	100n PPS	Panasonic	969-5532	
C809	1000u/10V	470u/16V	Black Gate Std.		
C821	4700u/25V	5600u/25V	Panasonic FC	Digi-Key	+4u7 MKT
C822/823	2200u/16V	2200u/16V	Rubycon ZL	114-4694	+100n PPS
CD21	10u/63V	33u/16V	Black Gate N		
CD26	220u/25V	220u/16V	Black Gate Std.		
Q801/802	BA05T	MC7805ACT	ONsemi	300-4831	
Q803	78M05AF	5,4V shuntreg	Tentlabs		modified reg.
D801...808	11EQS10	MBR1100	IR	489-7432	
D809	11EQS10	jumper for Q803 mod.			
D821/822	1D3	MBR1100	IR	489-7432	
DN01/02	1D3	MBR1100	IR	489-7432	
DY51/52	1D3	MBR1100	IR	489-7432	
QD01	BA033T	3,3V shuntreg	Tentlabs		modified reg.
RD24	1k5/5%	1k5/1%		934-2621	
RD25	3k9/5%	3k9/1%		934-3156	

Analog supply

C851/852	3300u/25V	6800u/35V	Nichicon KG 'Gold Tune'		+4u7/63V MKT
C855/856	10u/25V cf	33u/16V	Black Gate N		
C857/858	470u/16V cf	470u/16V	Black Gate Std.		
D851...854	11EQS10	MBR1100	IR	489-7432	
R851/852	100R/5%	100R/1%		934-2397	
R853/855	2k7/5%	2k7 or 4k7/1% (for ±15V)		934-2940 or 934-3253	
R854/856...858	3k3/5%	3k3/1%		934-3040	

HDAM

C605/606	220u/16V cf	470u/16V	Black Gate Std.		
----------	-------------	----------	-----------------	--	--

OUTPUT FILTER

C601/651	1n8 5%	1n8 PS 1%	LCR	952-0473	
C602/652	330p 5%	330p PS 1%	LCR	952-0759	
C603/653	47p cer.	47p PS 2,5%	LCR	951-9998	
C604/654	120p 5%	120p PS 1%	LCR	952-0678	
C609/659	1n2 5%	1n2 PS 1%	LCR	952-0457	
C610/660	560p 5%	560p PS 1%	LCR	952-0813	
C611/661	33p cer.	33p PS ±1pF	LCR	951-9980	
C612/662	680p 5%	680p PS 1%	LCR	952-0821	
C616/666	100u/25V sm	jumper			

CURRENT LPF

C613/614	220u/16V cf	470u/16V	Black Gate Std.		
QN61...64	2SC2878	remove			
R644/694	75R	jumper			
R645/695	75R	39R/1%	Holco H4		

DAC (CS4367)

CD22	100u/10V	100u/16V	Black Gate Std.	
CD61/64	100u/25V	100u/16V	Black Gate Std.	
CD62/63/66/68/69	47n cer.	100n PPS	Panasonic	969-5532
CD65	10u/25V cf	22u/6,3V	Black Gate Nx-HiQ	
CD67	100u/10V cf	100u/16V	Black Gate Std.	

Digital out (74HC04)

CT01	100n cer.	100n PPS	Panasonic	969-5532
CT06	100n cer.	100n PPS	Panasonic	969-5532
CT10	100n cer.	100n PPS	Panasonic	969-5532

- insert a new muting relay: remove QN04 and jumper it's base and collector. Remove RN04 and replace by jumper. Remove CN04 and RN05 to disable -12V to the muting circuit. Remove U5 and U12 to disable unneeded muting-traces. Use a BC547 and a small relay with two NC contacts to short the outputs to ground. Tap power from emitter of QN04 (+) and U102 (-). The base of the BC547 is connected to the original muting-line, the collector of QN04.
- connect external master clock: remove FB402 to cut power to IC406. Remove IC405 to disable the on-board oscillator and create a signal insertion point. Connect the clock signal to the PCB at the junction of R464 and R465.
- disable LPF switch: remove U3, U4, U20 and U84. Remove R351 to disable +5V to LPF switch. Jumper pin 3 of JF02 to GND (pin 8) to set filter to 'custom' permanently.
- replace GND jumpers: U22, U51, U52, U78, U85, U94, U502 (JF01), U503 (DIG. OUT), U504 (C801), U506 (JL02), U507 (Q802), U510 (JF03), U511/512 (output), U513 (Q803), U514 (CN01), U515 (DAC).

10-01-2009, data collected by R.A. van der Steen

U77: MODE1 (Vref.)
MODE1: L = CD, Vref. = 3,3V
H = SACD, Vref. = 5,4V
FS-SW: pin 19, SYCL = 192/384*Fs

- place 47n across secondaries
- CD69 -> CD22 + CD69