

Service Service Service

Product Service Group CE Audio

Service Information

Already published Service Informations:

CORRECTION TO SERVICE MANUAL

* Page 12-8 Below are the corrected service codes:

7202	996500002715	OTP AT27C020-12PC
7203	932214248668	IC MSM514265C-60J

ADDITION TO SERVICE MANUAL

* Below are the new service parts which are previously not available:

- a) 313911852510 MPEG Board
- b) Loudspeaker Box breakdown parts:
- | | |
|--------------|---------------------------|
| 996500000757 | Tweeter |
| 996500000758 | Woofer |
| 996500000795 | Buzzer with wire assembly |
| 482246410523 | Cloth Frame assembly |

CHANGES DURING PRODUCTION

COMBI BOARD

* From production week 9926 onwards the following are introduced to reduce motor noise during CD startup & stops.

- Delete item 4215 Chip jumper
- Solder-short pin 2 & 3 of Connector socket item 25

* From production week 9932 onwards elco 2342 is deleted to solve CD "No TOC" problem.

* From production week 9928 onwards a new pt. 3 board (recognized by the last digit of 12NC printed) is introduced to:

- permanently short pin 2 & 3 of connector socket 25
- additional pitch for elco 2225
- provision of ground pin & chip cap 2236

For service existing point 2 drawings can be used.

SERVO BOARD

* From production week 9926 onwards undermentioned is introduced to solve CD-R playability and picture frozen when tray reaches the open position problems.

Change	3827 to 560R 5% 1/6W	4822 116 52226
	3841 to 3k3 5% 1/6W	4822 116 52269

* During production the undermentioned is introduced to solve picture skipping problems.

Add	2861 22 μ F 16V	4822 124 41796	from wk9929
	3872 47R 5% 1/6W	4822 116 52195	from wk9932
Delete	9015 Bare Wire		from wk9932

* From production week 9944 onwards μ Processor IC 7850 software version 2.6 is introduced to solve CD-R playability and CD no TOC problems.

Change	7850 OM5284EB/05B	9352 624 55557
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Note: This μ Processor can only function with MPEG version 9 or higher (see Service Test program to check), otherwise the μ Processor IC 7202 on the MPEG board has to be replaced.

* From production week 9948 onwards undermentioned is introduced to solve 3m (36MHz) radiation problem.

Delete	Resistors 3855, 3856 and 3857
Add	2853 4822 122 33519 470pF 10% 50V into 3857 position (replaced)

* During production a new pt. 2 board (recognized by the last digit of 12NC printed) to prevent grounding problem in other application.

Delete	Bare wires 9000 and 9042
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MPEG BOARD

- * From production week 9928 onwards the undermentioned is introduced to improve logic "low" level:

Change 3213 to 22k 5% 4822 051 30223

- * From production week 9944 a new pt. 2 board (recognized by the last digit of 12NC printed) is introduced to solved 3m (108MHz & 162MHz) radiation problem

Change 2257 to 1nF 25V 3198 016 31020

Add 2238 10nF 50V 5322 126 11583

2255 10nF 50V 5322 126 11583

- * From production week 9944 onwards the undermentioned is introduced to improve logic "low" level:

Change 3278 to 100R 5% 0,1W 4822 051 30101

3279 to 100R 5% 0,1W 4822 051 30101

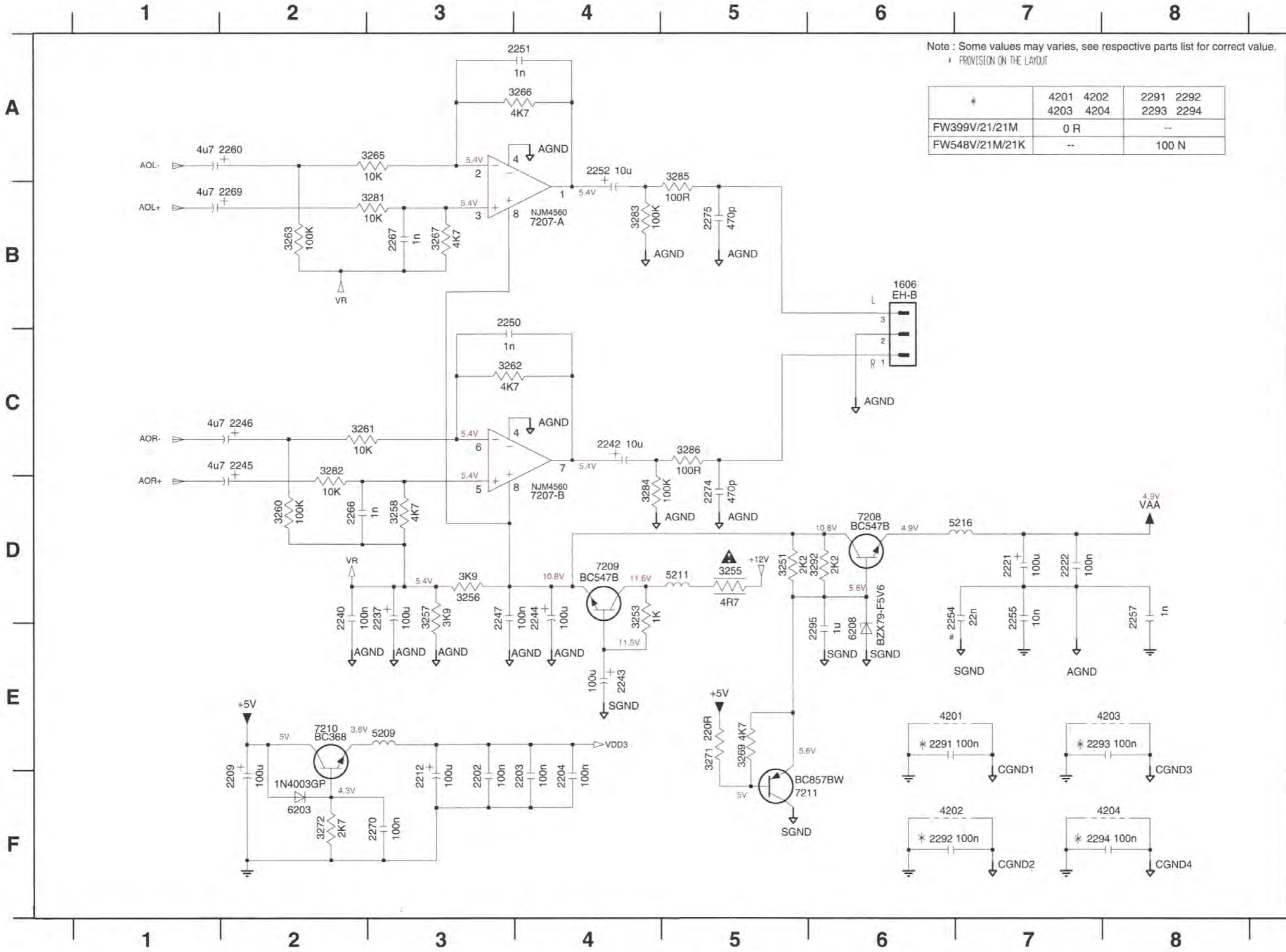
3280 to 100R 5% 0,1W 4822 051 30101

FRONT BOARD

- * From production week 9944 onwards the μ Processor IC 7401 is introduced to solve set going to "PAUSE" mode when a track is selected by the numeric keypad while the TOC is being read. The new μ Processor IC is

7401 313911052260 TMP87CS71F "399S52261"

MPEG AUDIO CIRCUIT

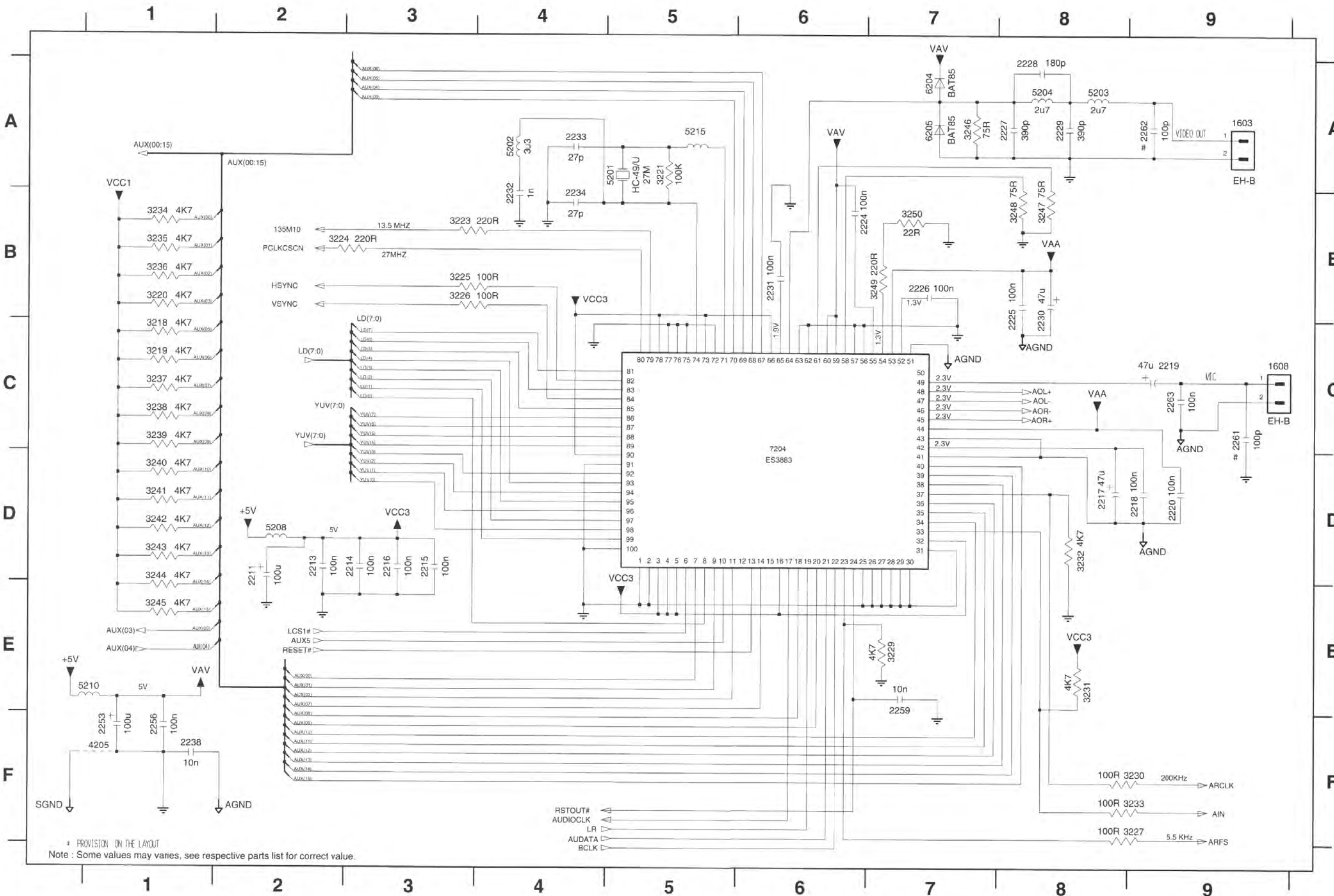


Note : Some values may varies, see respective parts list for correct value.
 * PROVISION ON THE LAYOUT

*	4201	4202	2291	2292
	4203	4204	2293	2294
FW399V/21/21M	0 R		--	
FW548V/21M/21K	--		100 N	

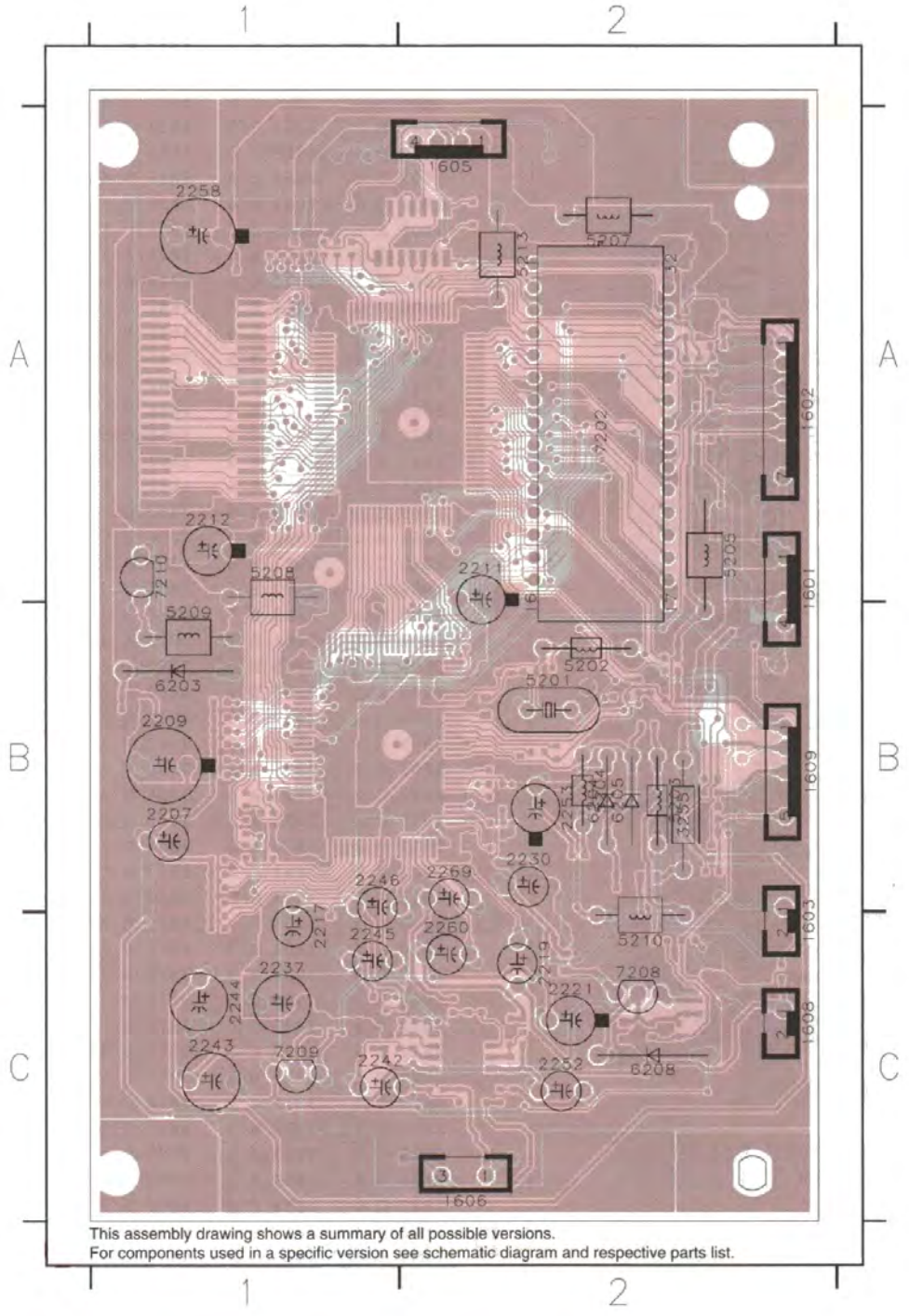
- A 1606 B6
- 2202 F3
- 2203 F4
- 2204 F4
- 2209 F2
- 2212 F3
- 2221 D7
- 2222 D7
- 2237 D3
- 2240 D2
- 2242 C4
- 2243 E4
- 2244 D4
- 2245 C2
- 2246 C2
- 2247 D3
- 2250 B3
- 2251 A4
- 2252 A4
- 2254 D6
- 2255 D7
- 2257 D8
- 2260 A2
- 2266 D2
- 2267 B3
- 2269 B2
- 2270 F3
- 2274 D5
- 2275 B5
- 2291 E6
- 2292 F6
- 2293 E7
- 2294 F7
- 2295 E6
- 3251 D5
- 3253 D4
- 3255 D5
- 3256 D3
- 3257 D3
- 3258 D3
- 3260 D2
- 3261 C2
- 3262 C3
- 3263 B2
- 3265 A3
- 3266 A4
- 3267 B3
- 3269 E5
- 3271 E5
- 3272 F2
- 3281 B3
- 3282 C2
- 3283 B4
- 3284 D4
- 3285 A5
- 3286 C5
- 3292 D6
- 4201 E6
- 4202 F6
- 4203 E8
- 4204 F8
- 5209 E3
- 5211 D5
- 5216 D7
- B 6203 F2
- 6208 E6
- 7207-A B4
- 7207-B D4
- 7208 D6
- 7209 D4
- 7210 E2
- 7211 F5

MPEG ES3883 CIRCUIT



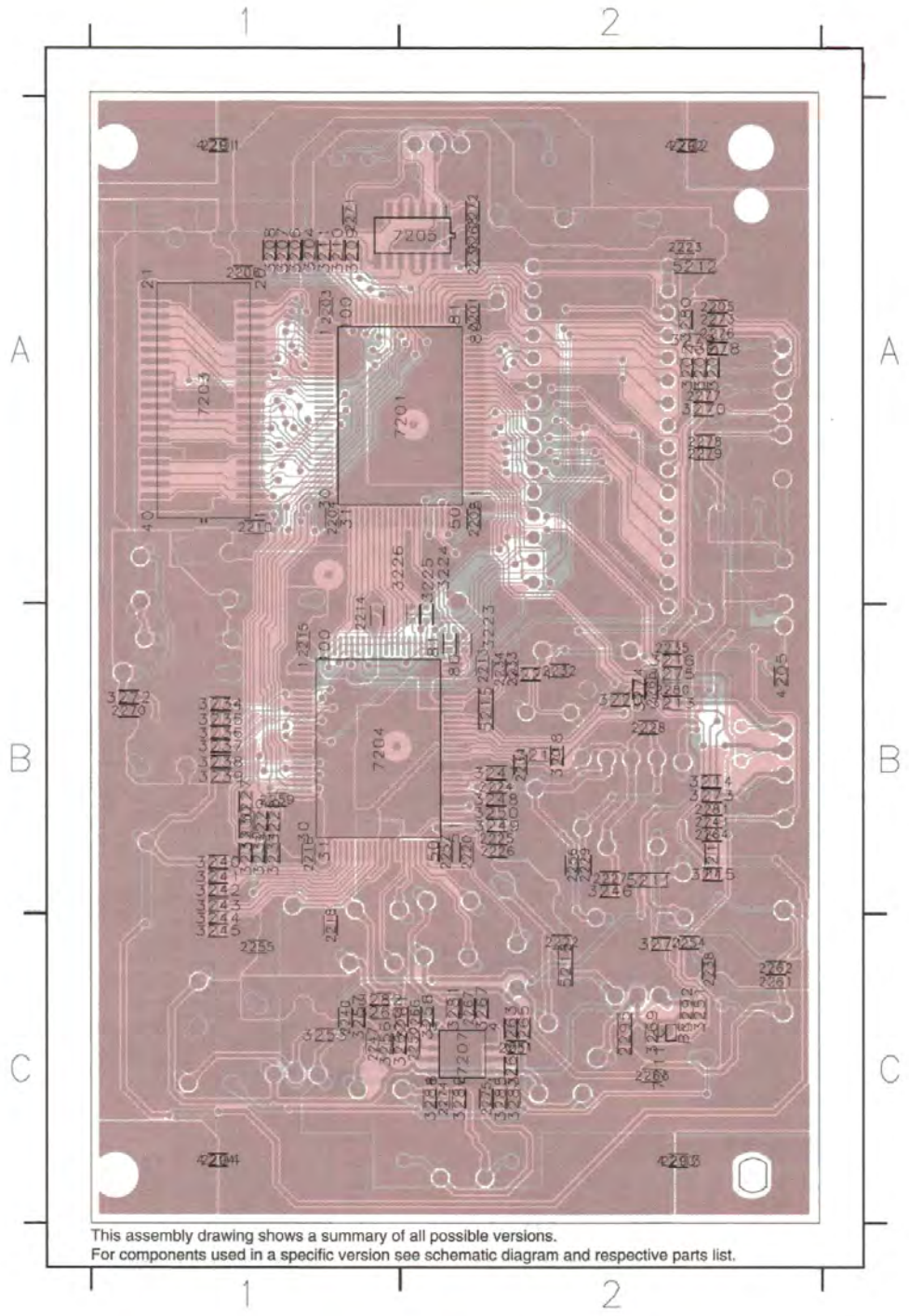
- 1603 A9
- 1608 C9
- 2211 D2
- 2213 D2
- 2214 D3
- 2215 D3
- 2216 D3
- 2217 D8
- 2218 D9
- 2219 C9
- 2220 D9
- 2224 B6
- 2225 B8
- 2226 B7
- 2227 A8
- 2228 A8
- 2229 A8
- 2230 B8
- 2231 B6
- 2232 B4
- 2233 A4
- 2234 B4
- 2238 F1
- 2253 F1
- 2256 F1
- 2259 E7
- 2261 C9
- 2262 A9
- 2263 C9
- 3218 C1
- 3219 C1
- 3220 B1
- 3221 A5
- 3223 B3
- 3224 B2
- 3225 B3
- 3226 B3
- 3227 F9
- 3229 E7
- 3230 F9
- 3231 E8
- 3232 D8
- 3233 F9
- 3234 B1
- 3235 B1
- 3236 B1
- 3237 C1
- 3238 C1
- 3239 C1
- 3240 D1
- 3241 D1
- 3242 D1
- 3243 D1
- 3244 D1
- 3245 E1
- 3246 A7
- 3247 B8
- 3248 B8
- 3249 B7
- 3250 B7
- 4205 F1
- 5201 A5
- 5202 A4
- 5203 A8
- 5204 A8
- 5208 D2
- 5210 E1
- 5215 A5
- 6204 A7
- 6205 A7
- 7204 C6

MPEG-99 BOARD LAYOUT



- 1601 A2
- 1602 A2
- 1603 C2
- 1605 A2
- 1606 C2
- 1608 C2
- 1609 B2
- 2207 B1
- 2209 B1
- 2211 A2
- 2212 A1
- 2217 C1
- 2219 C2
- 2221 C2
- 2230 B2
- 2237 C1
- 2242 C1
- 2243 C1
- 2244 C1
- 2245 C1
- 2246 B1
- 2252 C2
- 2253 B2
- 2258 A1
- 2260 C2
- 2269 B2
- 3255 B2
- 5201 B2
- 5202 B2
- 5203 B2
- 5204 B2
- 5205 A2
- 5207 A2
- 5208 A1
- 5209 B1
- 5210 C2
- 5213 A2
- 6203 B1
- 6204 B2
- 6205 B2
- 6208 C2
- 7202 A2
- 7208 C2
- 7209 C1
- 7210 A1

This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.



- 2201 A2
- 2202 A2
- 2203 A1
- 2204 A1
- 2205 A2
- 2206 A1
- 2210 A1
- 2213 B2
- 2214 B1
- 2215 B1
- 2216 B1
- 2218 C1
- 2220 B2
- 2222 C2
- 2223 A2
- 2224 B2
- 2225 B2
- 2226 B2
- 2227 B2
- 2228 B2
- 2229 B2
- 2231 B2
- 2232 B2
- 2233 B2
- 2234 B2
- 2235 B2
- 2236 A2
- 2238 C2
- 2240 C1
- 2241 B2
- 2247 C1
- 2250 C2
- 2251 C2
- 2254 C2
- 2255 C1
- 2256 B2
- 2257 B2
- 2259 B1
- 2261 C2
- 2262 C2
- 2263 C2
- 2264 B2
- 2265 B2
- 2266 C2
- 2267 C2
- 2268 A2
- 2270 B1
- 2271 A1
- 2272 A2
- 2273 A2
- 2274 C2
- 2275 C2
- 2276 A2
- 2277 A2
- 2278 A2
- 2279 A2
- 2280 B2
- 2281 B2
- 2291 A1
- 2292 A2
- 2293 C2
- 2294 C1
- 2295 C2
- 3201 A2
- 3202 A2
- 3203 A2
- 3204 A1
- 3206 A1
- 3207 A1
- 3208 A1
- 3209 A1
- 3210 A1
- 3211 A1
- 3213 B2
- 3214 B2
- 3215 B2
- 3216 B2
- 3217 B2
- 3218 B2
- 3219 B2
- 3220 B2
- 3221 B2
- 3222 A2
- 3225 A2
- 3226 A1
- 3227 B1
- 3228 B1
- 3229 B1
- 3230 B1
- 3231 B1
- 3232 B1
- 3233 B1
- 3234 B1
- 3235 B1
- 3236 B1
- 3237 B1
- 3238 B1
- 3239 B1
- 3240 B1
- 3241 B1
- 3242 B1
- 3243 B1
- 3244 C1
- 3245 C1
- 3246 B2
- 3247 B2
- 3248 B2
- 3249 B2
- 3250 B2
- 3251 C2
- 3253 C1
- 3256 C1
- 3257 C1
- 3258 C2
- 3260 C1
- 3261 C2
- 3262 C1
- 3263 C2
- 3265 C2
- 3266 C2
- 3267 C2
- 3269 C2
- 3270 A2
- 3271 C2
- 3272 B1
- 3273 B2
- 3274 B2
- 3275 B2
- 3278 A2
- 3279 A2
- 3280 A2
- 3281 C2
- 3282 C1
- 3283 C2
- 3284 C2
- 3285 C2
- 3286 C2
- 3288 C2
- 4201 A1
- 4202 A2
- 4203 C2
- 4204 C1
- 4205 B2
- 5211 B2
- 5212 A2
- 5215 B2
- 5216 C2
- 7201 A2
- 7203 B1
- 7204 B1
- 7205 A2
- 7207 C2
- 7211 C2

This assembly drawing shows a summary of all possible versions.
For components used in a specific version see schematic diagram and respective parts list.

SERVO BOARD - COMPONENT SIDE VIEW

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UL-mark
 3139 113 3378.2

3139 113 3378.2

SOLDER DIRECTION

fw388v
 3139 113 3378.2
 servo-p2-990901-1

fw388v
 servo-p2-990901-1

3139 113 3378.2

20 D 3	2860 B 4	3829 C 4	9001 B 3
21 D 4	2861 B 4	3830 C 4	9002 A 5
1450 D 2	2862 B 4	3831 C 4	9003 A 5
1800 B 3	2863 C 3	3832 C 4	9004 B 3
1801 B 1	2864 C 3	3833 C 4	9007 B 5
1802 D 3	2865 C 3	3835 B 5	9008 C 3
1803 D 3	2866 C 4	3836 B 5	9009 B 5
1804 D 4	2867 B 4	3837 B 5	9010 A 5
1805 A 5	2868 C 3	3838 C 5	9011 B 3
1806 D 2	2869 B 4	3840 B 2	9012 B 2
1807 D 1	2870 C 3	3841 B 1	9013 B 5
1808 D 2	2871 B 4	3842 B 1	9014 B 5
1809 D 3	2872 B 4	3843 B 1	9015 C 4
1810 B 4	2873 B 5	3846 C 1	9016 C 5
1811 D 4	2874 B 4	3847 C 1	9017 C 5
1840 A 1	2875 B 4	3848 B 1	9018 C 5
1841 A 1	2876 C 3	3850 C 5	9019 C 4
1842 C 1	2877 B 5	3851 C 4	9020 C 4
1843 C 1	2878 B 5	3852 C 5	9021 C 4
1850 C 5	2879 B 5	3853 C 5	9022 C 5
1851 A 4	2880 B 5	3854 B 5	9023 C 4
1852 C 5	2881 B 5	3855 B 5	9024 C 4
1853 C 5	2882 B 5	3856 B 5	9025 C 3
2800 B 2	2883 B 5	3857 B 5	9026 C 2
2801 A 1	2884 A 5	3858 A 5	9027 B 2
2802 A 3	2885 D 3	3859 A 5	9028 A 2
2803 A 2	2886 D 4	3860 C 5	9029 A 4
2804 A 4	2887 D 2	3861 B 5	9030 A 5
2805 A 3	2890 A 2	3862 C 4	9031 A 2
2806 A 3	2891 A 3	3863 C 4	9032 B 2
2808 C 2	2892 A 5	3864 B 4	9033 B 2
2810 C 2	2893 A 5	3865 B 4	9034 B 2
2811 B 2	3800 A 2	3866 C 4	9035 B 2
2812 C 2	3801 A 3	3867 B 5	9036 B 2
2813 C 2	3802 A 3	3869 B 4	9037 B 5
2814 A 2	3803 A 3	3870 B 4	9039 A 4
2816 A 4	3804 A 2	3872 C 4	9040 A 3
2817 C 2	3805 A 3	3873 A 5	9041 A 5
2818 A 4	3806 D 5	3874 B 5	9043 A 5
2820 B 3	3807 D 4	3875 B 5	9044 A 5
2821 B 3	3809 C 2	3876 B 5	9045 A 5
2822 B 3	3810 B 2	3877 C 5	9046 D 2
2823 C 3	3811 C 2	3878 C 5	9050 C 5
2824 C 3	3812 A 4	3879 C 5	9051 B 5
2825 C 3	3813 A 2	3880 C 5	----
2826 C 4	3814 A 2	6850 A 5	9005 C 5
2827 C 4	3816 C 2	6860 B 5	9006 C 4
2828 D 5	3817 A 4	6875 C 4	9038 B 4
2829 D 4	3819 C 2	6876 C 3	9047 D 3
2840 C 1	3820 B 2	7800 A 2	9048 D 5
2841 C 1	3821 B 3	7810 C 2	
2842 B 1	3822 B 3	7820 B 3	
2843 B 1	3823 C 3	7821 C 3	
2844 C 1	3824 C 3	7822 C 4	
2850 C 4	3825 C 3	7823 C 4	
2851 B 5	3826 C 3	7840 B 1	
2852 C 4	3827 C 3	7850 C 5	
2853 B 5	3828 C 4	7860 B 5	

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