

Service  
Service  
**Service**

Product Service Group CE Audio

# Service Information

Already published Service Informations: A02-162 3139 785 30076

## CHANGES DURING PRODUCTION

\* From production wk233 onwards a new 3CDC-LC-MP3CD2002 module will be introduced due to cost reduction.

This new 3CDC-LC-MP3CD2002 module can be recognized by the much smaller square shape MP3CD2002 board instead of a shielded MPEG board.

A completely new chapter 10 is attached.  
This chapter will replace the existing MPEG-01B board (chapter 8) and 3CDC-LC-VCD module (chapter 10).

This changeover must be synchronized with the following changes on the Front and Combi board:

### Front Board:

7400 3103 308 84531 TMP87CS71BF "M355TIV85431"

### Combi Board:

3507 4822 051 30562 5k6 5% 0,1W

3508 4822 051 30562 5k6 5% 0,1W



# **3CDC-LC-MP3CD2002**

**(3 Disc Carousel Changer+MP3 Board) Layout stage .2**

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### CD PART

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### MP3 PART

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## Service hints

### CAUTION

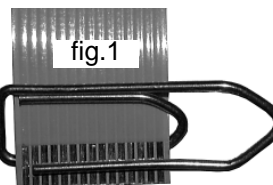
**CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE CD DRIVE ELECTRONICS WHEN CONNECTING A NEW CD MECHANISM. THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE**

- **SWITCH OFF POWER SUPPLY**
- **ESD PROTECTION**

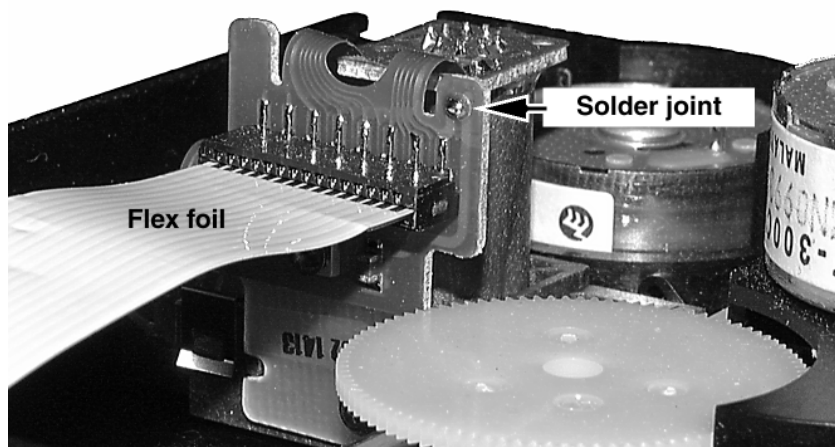
**ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.**

The following steps have to be done when replacing the CD mechanism:

1. Disconnect flexfoil cable from the old CD drive
2. Put a paperclip on the flexfoil to short-circuit the contacts (fig.1)
3. Remove the old CD drive
4. Remove paperclip from the flexfoil and connect it to the new drive
5. Position the new CD drive in its studs
6. Remove solder joint from the Laserunit



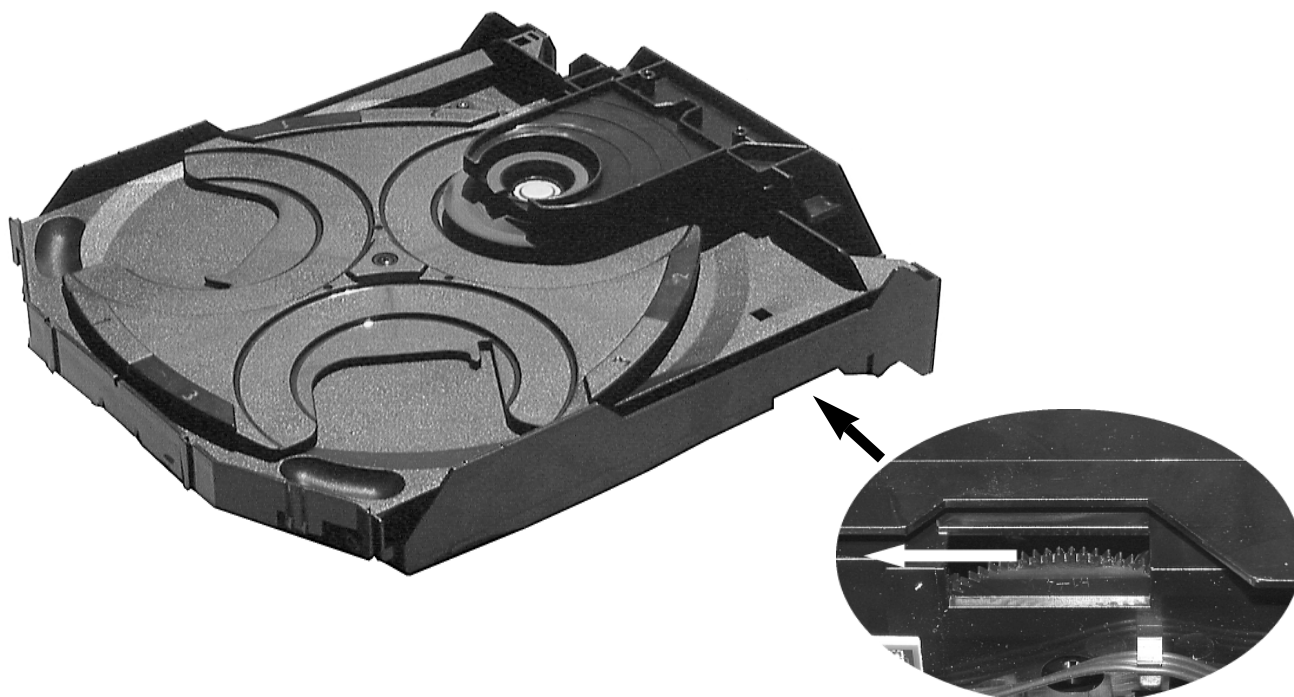
**Attention:** The laser diode of this CD drive is protected against ESD by a solder joint which shortcircuits the laserdiode to ground.  
For proper functionality of the CD drive this solder joint must be removed **after** connection the drive to the set.



### Emergency open

In case of a Supply fault, the tray can be opened manually.

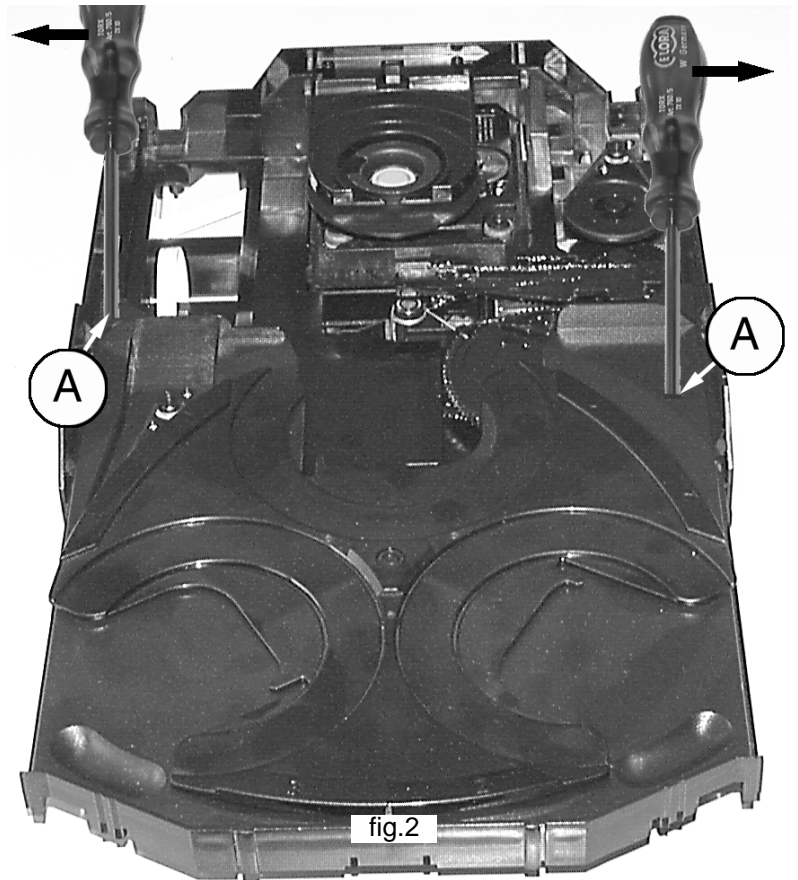
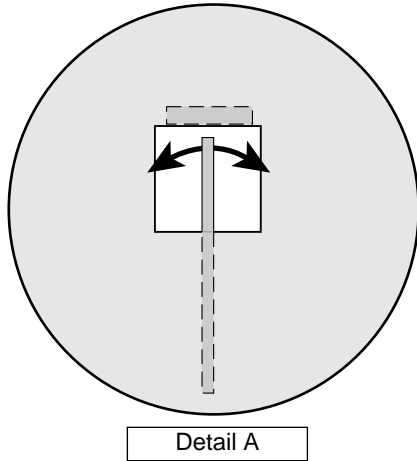
1. Remove the top cover of the set to get access to the Changer Module.
2. Turn gearwheel clockwise (as shown in picture below).



## Service hints

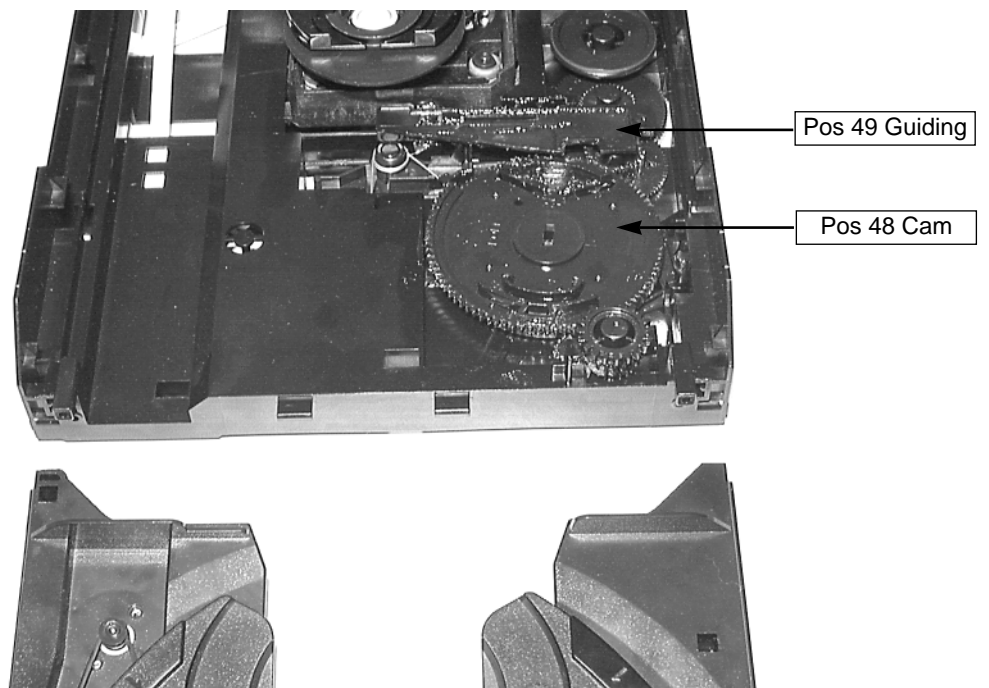
### Dismantling of Tray

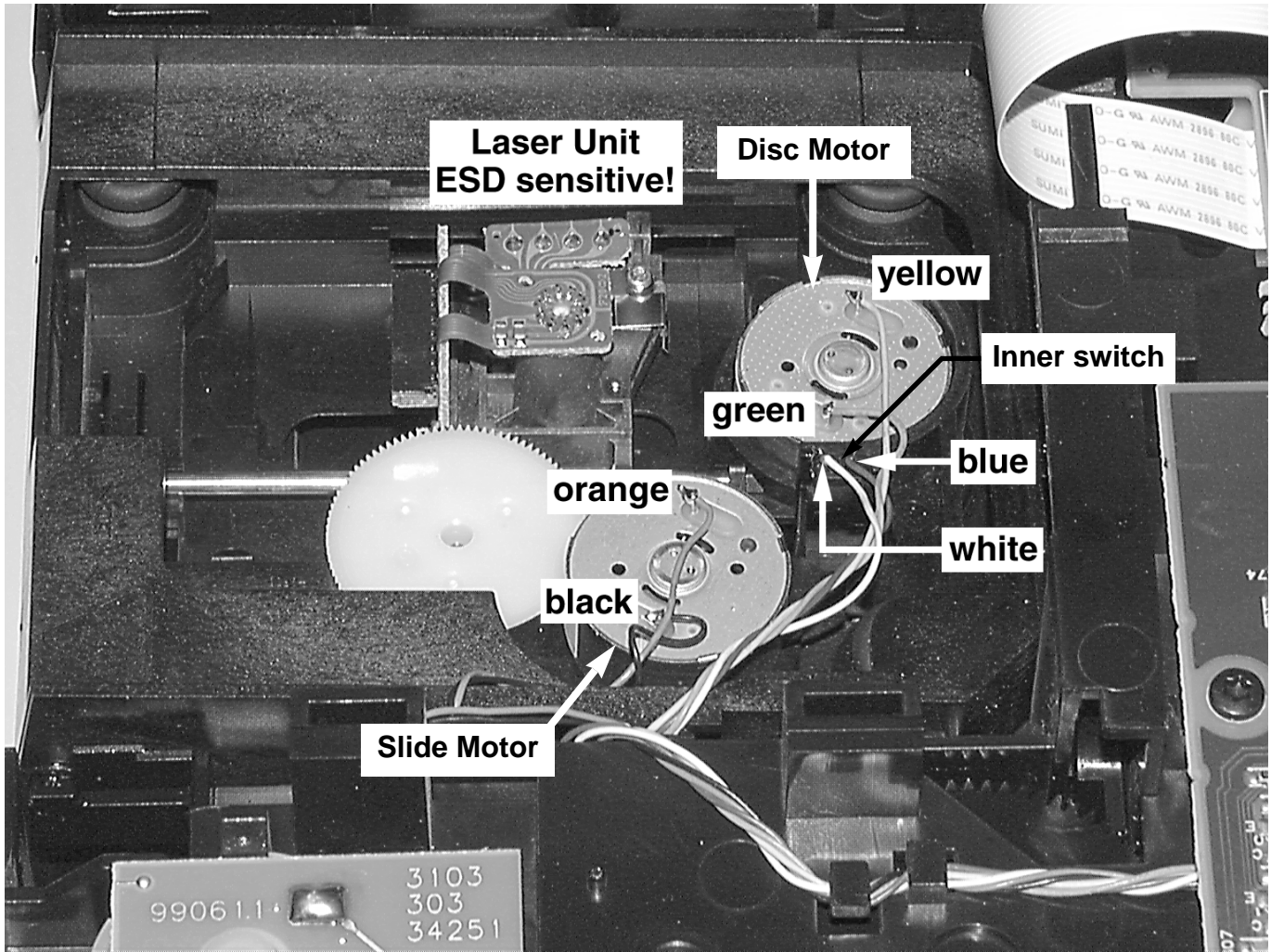
1. Open the tray.
2. Release 2x catch as shown in fig. 2 and Detail A
3. Pull tray out.



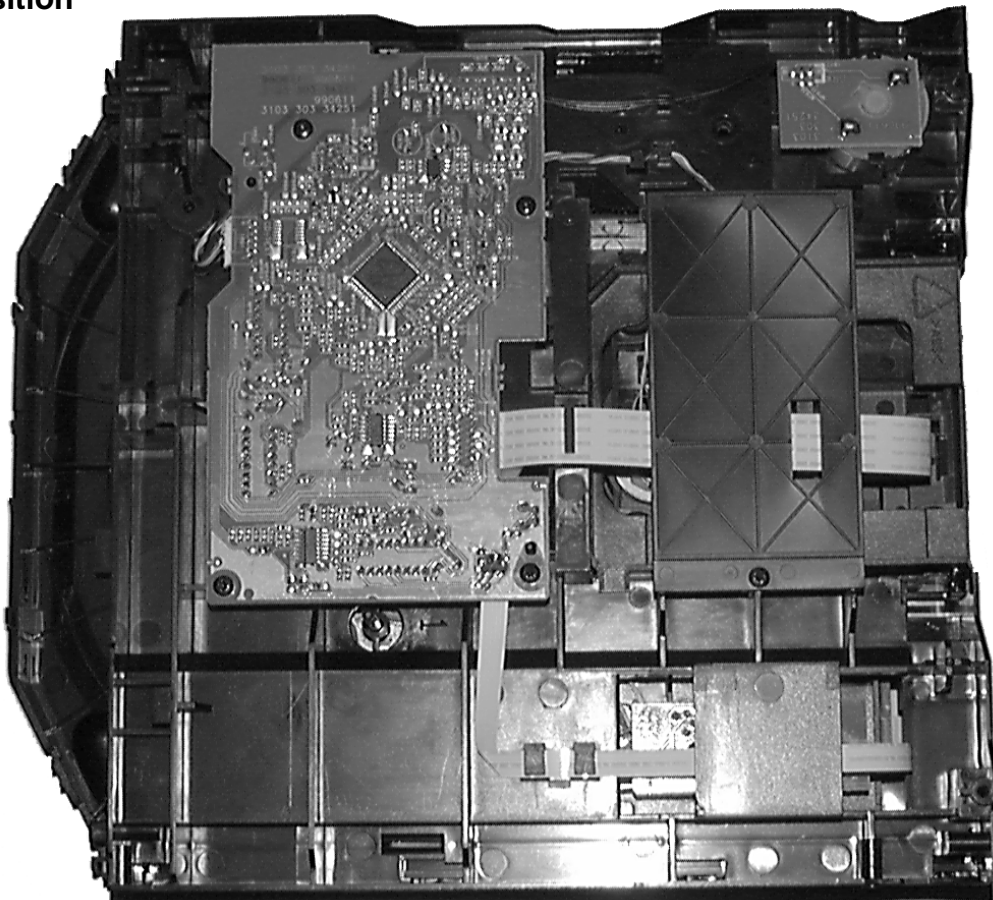
### Assembling of Tray

1. Turn Cam (pos. 48) clockwise to end position.
2. If necessary - move Guiding (pos. 49) to the right end position.
3. Insert the Tray.

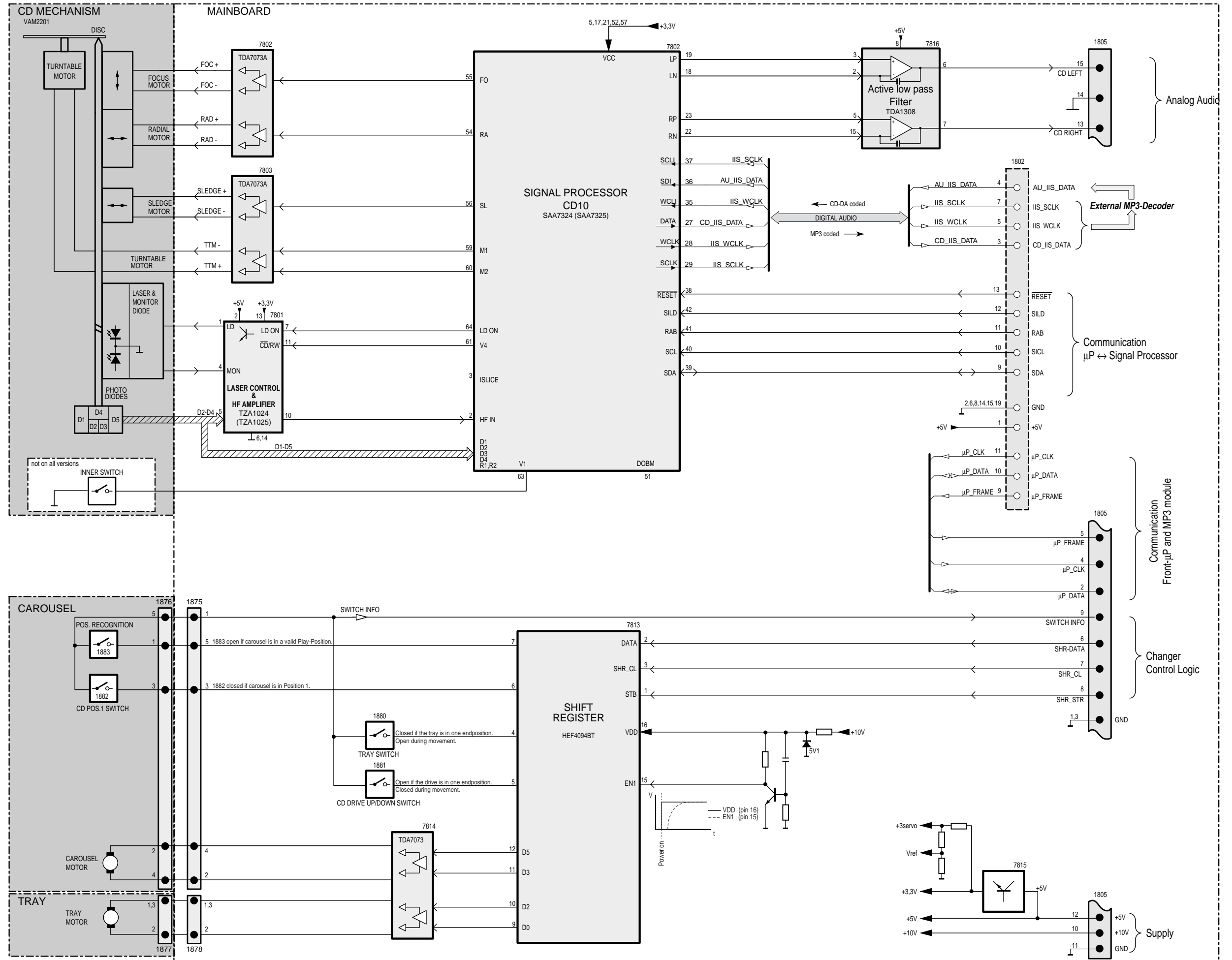




Service Position

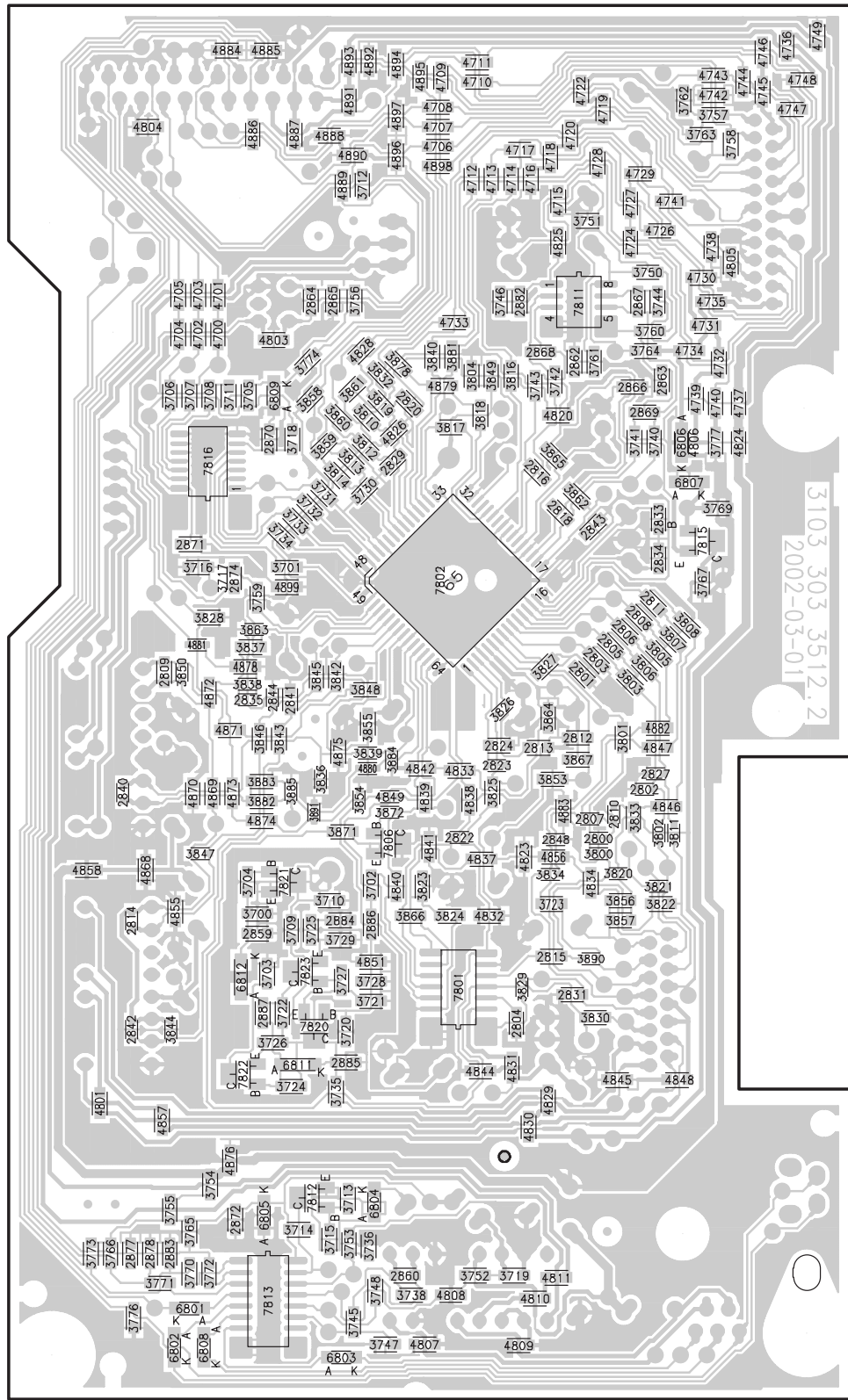


BLOCK DIAGRAM 3CDC-LC MP3 Version



Mapping

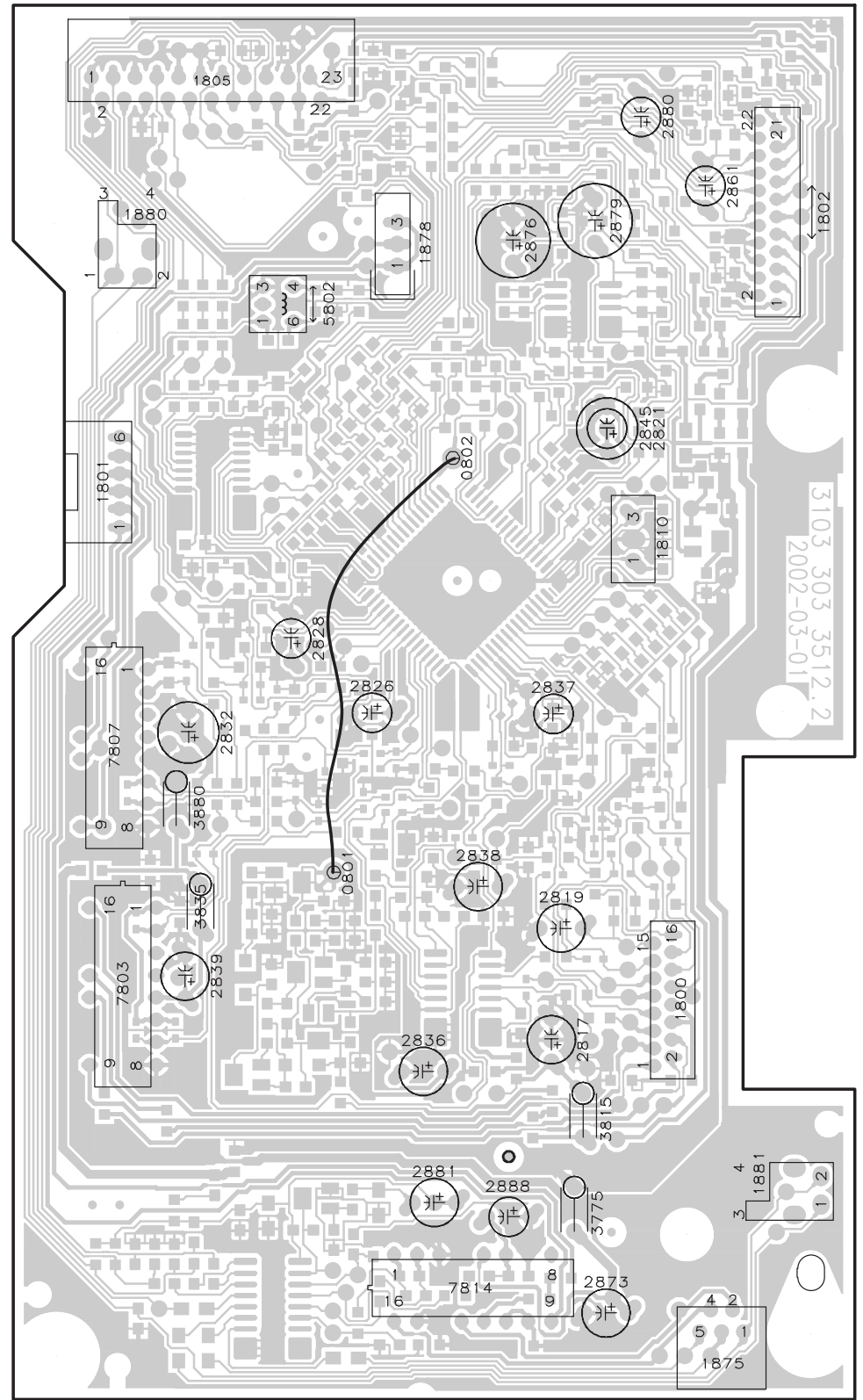
3CDC-LC-MP3CD2002 Copperside view



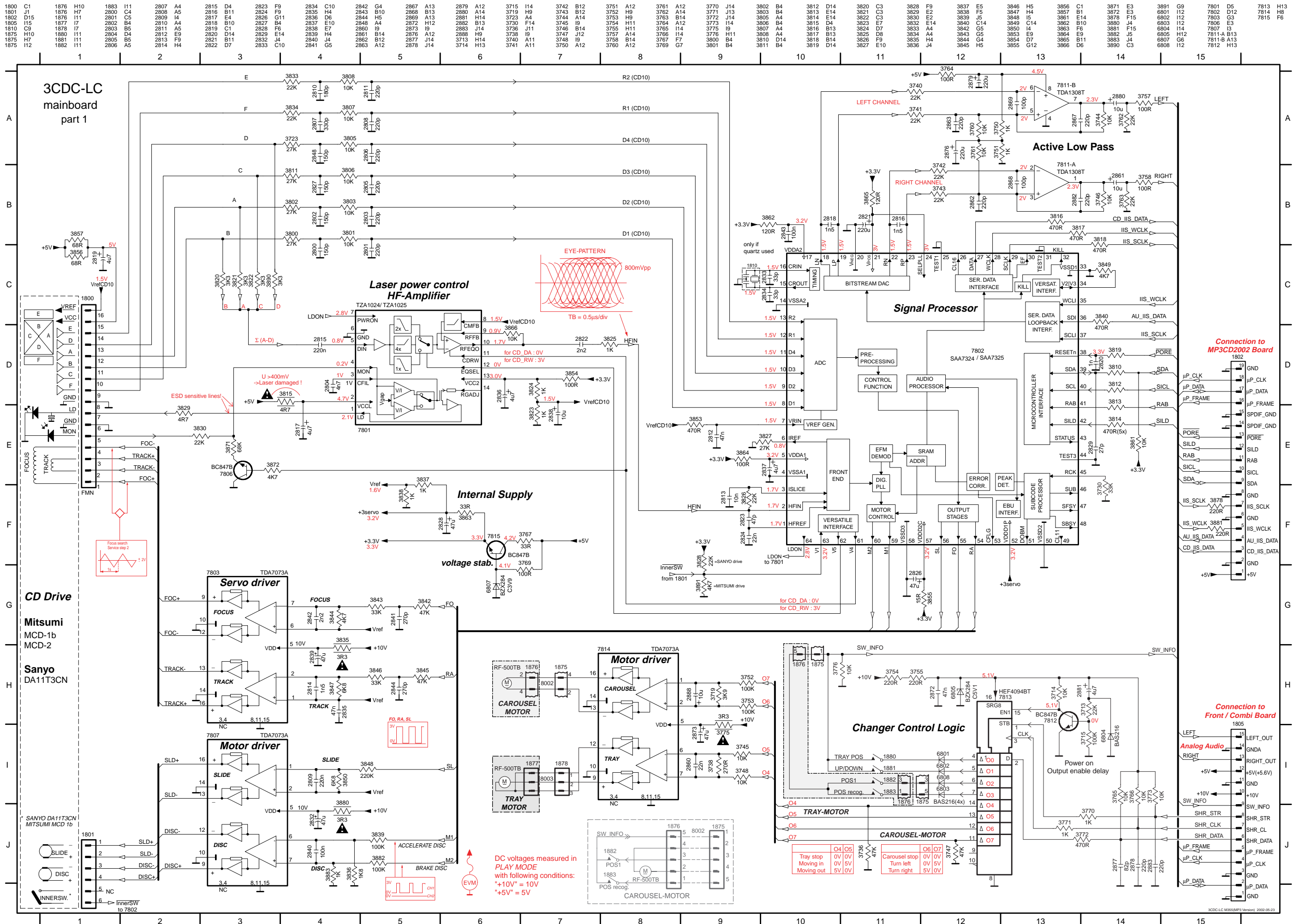
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.

	Copperside		Componentside		
2800	E4	3730 C3	3848 D3	4823 E3	1451 B5
2801	D4	3731 C2	3849 C3	4824 C5	1455 A4
2802	E4	3732 C2	3850 D1	4825 B4	2450 C1
2803	D4	3733 C2	3853 F4	4826 C3	2451 B1
2804	F3	3734 D2	3854 E3	4828 C3	2452 C2
2805	D4	3735 G2	3855 E3	4829 G4	2453 B1
2806	D4	3736 H3	3856 F4	4830 G3	2454 B1
2807	E4	3738 H3	3857 F4	4831 G3	2455 D2
2808	D4	3740 C4	3858 C2	4832 F3	2457 A2
2809	D1	3741 C4	3859 C2	4833 E3	2461 D4
2810	E4	3742 C4	3860 C2	4834 F4	2463 A3
2811	D4	3743 C4	3861 C2	4837 E3	2464 D4
2812	E4	3744 B4	3862 C4	4838 E3	2465 D4
2813	E4	3745 H2	3863 D2	4839 E3	2466 A3
2814	F1	3746 B3	3864 F4	4840 F3	2467 B4
2815	F4	3747 H3	3865 C4	4841 E3	2468 B4
2816	C4	3748 H3	3866 F3	4842 E3	2469 B4
2818	C4	3750 B4	3867 F4	4844 G3	2472 D3
2820	C3	3751 B4	3871 E2	4845 G4	3450 C1
2822	E3	3752 H3	3872 E3	4846 F4	3451 B1
2823	E3	3753 H2	3878 C3	4847 F4	3454 D2
2824	E3	3754 G2	3881 C3	4848 G4	3465 C1
2827	F4	3755 G1	3882 E2	4849 E3	3467 A3
2829	C3	3756 B2	3883 E2	4851 F3	3468 A3
2831	F4	3757 A5	3884 E3	4855 F1	3469 C4
2833	C4	3758 A5	3885 E2	4856 F4	3470 D3
2834	D4	3759 D2	3890 F4	4857 G1	3471 C4
2835	D2	3760 B4	3891 E2	4858 E1	3473 C4
2840	E1	3761 C4	4700 B2	4868 E1	3474 A3
2841	D2	3762 A4	4701 B2	4869 E2	3475 C4
2842	F1	3763 A4	4702 B2	4870 E2	3476 C4
2843	D4	3764 C4	4703 B2	4871 E2	3477 B4
2844	D2	3765 H2	4704 B1	4872 D2	3479 A2
2848	E4	3766 H1	4705 B1	4873 E2	3480 C4
2859	F2	3767 D4	4706 A3	4874 E2	3481 C4
2860	H3	3769 C5	4707 A3	4875 E2	3484 B4
2862	C4	3770 H2	4708 A3	4876 G2	3490 A4
2863	C4	3771 H1	4709 A3	4878 D2	3494 A2
2864	B2	3772 H2	4710 A3	4879 C3	3496 A4
2865	B2	3773 H1	4711 A3	4880 E3	3499 C1
2866	C4	3774 C2	4712 B3	4881 D2	4450 A4
2867	B4	3776 H1	4713 B3	4882 E4	6451 D4
2868	C4	3777 C5	4714 B3	4883 E4	7451 B3
2869	C4	3800 E4	4715 B4	4884 A2	7456 D4
2870	C2	3801 E4	4716 B3	4885 A2	7458 D1
2871	D2	3802 E4	4717 A3	4886 A2	
2872	G2	3803 D4	4718 A4	4887 A2	
2874	D2	3804 C3	4719 A4	4888 A2	
2877	H1	3805 D4	4720 A4	4889 B2	
2878	H1	3806 D4	4722 A4	4890 A2	
2882	B3	3807 D4	4724 B4	4891 A2	
2883	H1	3808 D4	4726 B4	4892 A3	
2884	F2	3810 C3	4727 B4	4893 A2	
2885	G2	3811 E4	4728 A4	4894 A3	
2886	F3	3812 C3	4729 A4	4895 A3	
2887	F2	3813 C2	4730 B4	4896 A3	
3700	F2	3814 C2	4731 B4	4897 A3	
3701	D2	3816 C3	4732 C5	4898 A3	
3702	F3	3817 C3	4733 B3	4899 D2	
3703	F2	3818 C3	4734 C4	6801 H2	
3704	F2	3819 C3	4735 B5	6802 H1	
3705	C2	3820 E4	4736 A5	6803 H2	
3706	C1	3821 F4	4737 C5	6804 G3	
3707	C2	3822 F4	4738 B5	6805 G2	
3708	C2	3823 F3	4739 C4	6806 C4	
3709	F2	3824 F3	4740 C5	6807 C4	
3710	F2	3825 E3	4741 B4	6808 H2	
3711	C2	3826 E3	4742 A5	6809 C2	
3712	B3	3827 D4	4743 A5	6811 G2	
3713	G2	3828 D2	4744 A5	6812 F2	
3714	H2	3829 F3	4745 A5	7801 F3	
3715	H2	3830 F4	4746 A5	7802 D3	
3716	D2	3832 C3	4747 A5	7806 E3	
3717	D2	3833 E4	4748 A5	7811 B4	
3718	C2	3834 E4	4749 A5	7812 G2	
3719	H3	3836 E2	4801 G1	7813 H2	
3720	F2	3837 D2	4803 B2	7815 D4	
3721	F3	3838 D2	4804 A1	7816 C2	
3722	F2	3839 E3	4805 B5	7820 F2	
3723	F4	3840 C3	4806 C4	7821 F2	
3724	G2	3842 D2	4807 H3	7822 G2	
3725	F2	3843 E2	4808 H3	7823 F2	
3726	F2	3844 F1	4809 H3		
3727	F2	3845 D2	4810 H4		
3728	F3	3846 E2	4811 H4		
3729	F2	3847 E2	4820 C4		

3CDC-LC-MP3CD2002 Components seen from Copperside



This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.



DC voltages measured in PLAY MODE with following conditions:  
 "+10V" = 10V  
 "+5V" = 5V

Tray stop Moving in	O4	O5	O6	O7
Moving out	0V	0V	0V	5V
Carousel stop Turn left	0V	0V	5V	0V
Turn right	5V	0V	5V	0V

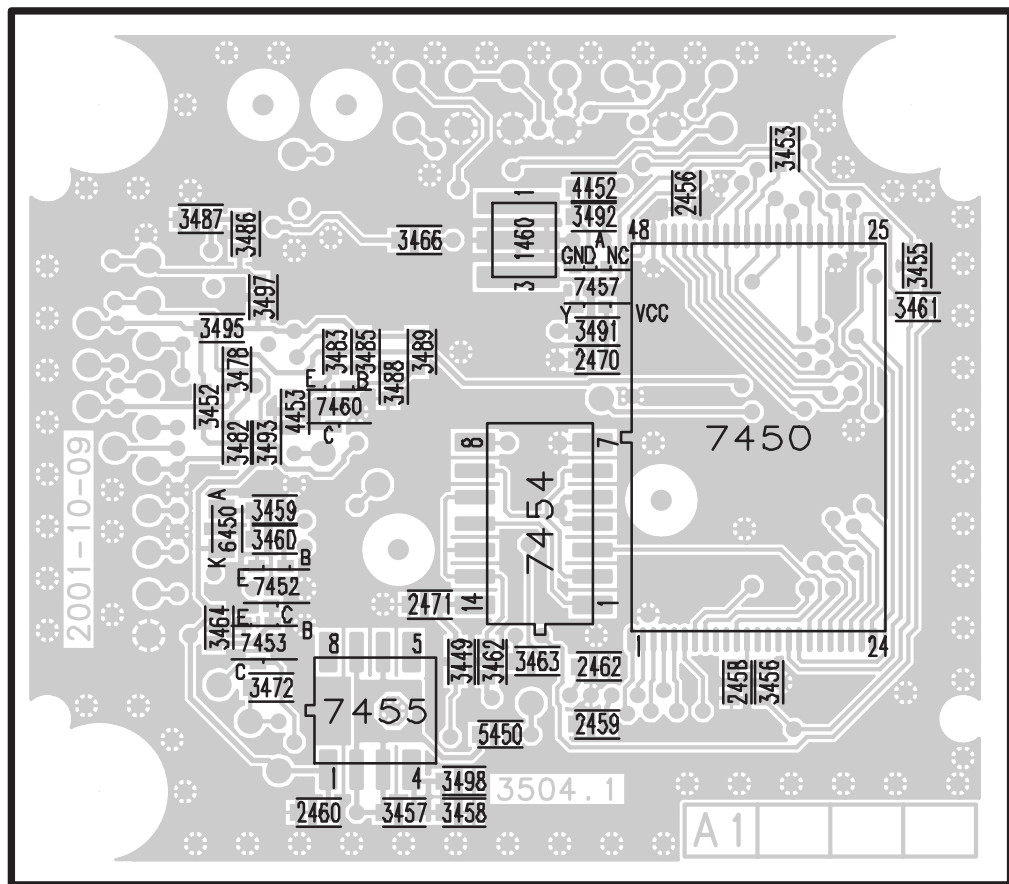


1460 A3	3449 C3	3460 C2	3482 B2	3492 A3	6450 C2
2456 A4	3452 B2	3461 B5	3483 B2	3493 B2	7450 B4
2458 D4	3453 A4	3462 C3	3485 B2	3495 B2	7452 C2
2459 D4	3455 B5	3463 C3	3486 A2	3497 B2	7453 C2
2460 D2	3456 D4	3464 C2	3487 A2	3498 D3	7454 C3
2462 C4	3457 D3	3466 A3	3488 B3	4452 A3	7455 D2
2470 B4	3458 D3	3472 D2	3489 B3	4453 B2	7457 B4
2471 C3	3459 C2	3478 B2	3491 B4	5450 D3	7460 B2

1451 B5	2457 A2	2469 B4	3469 C4	3479 A2	4450 A4
1455 A4	2461 D4	2472 D3	3470 D3	3480 C4	6451 D4
2450 C1	2463 A3	3450 C1	3471 C4	3481 C4	7451 B3
2451 B1	2464 D4	3451 B1	3473 C4	3484 B4	7456 D4
2452 C2	2465 D4	3454 D2	3474 A3	3490 A4	7458 D1
2453 B1	2466 A3	3465 C1	3475 C4	3494 A2	
2454 B1	2467 B4	3467 A3	3476 C4	3496 A4	
2455 D2	2468 B4	3468 A3	3477 B4	3499 C1	

1 2 3 4 5

### Side A

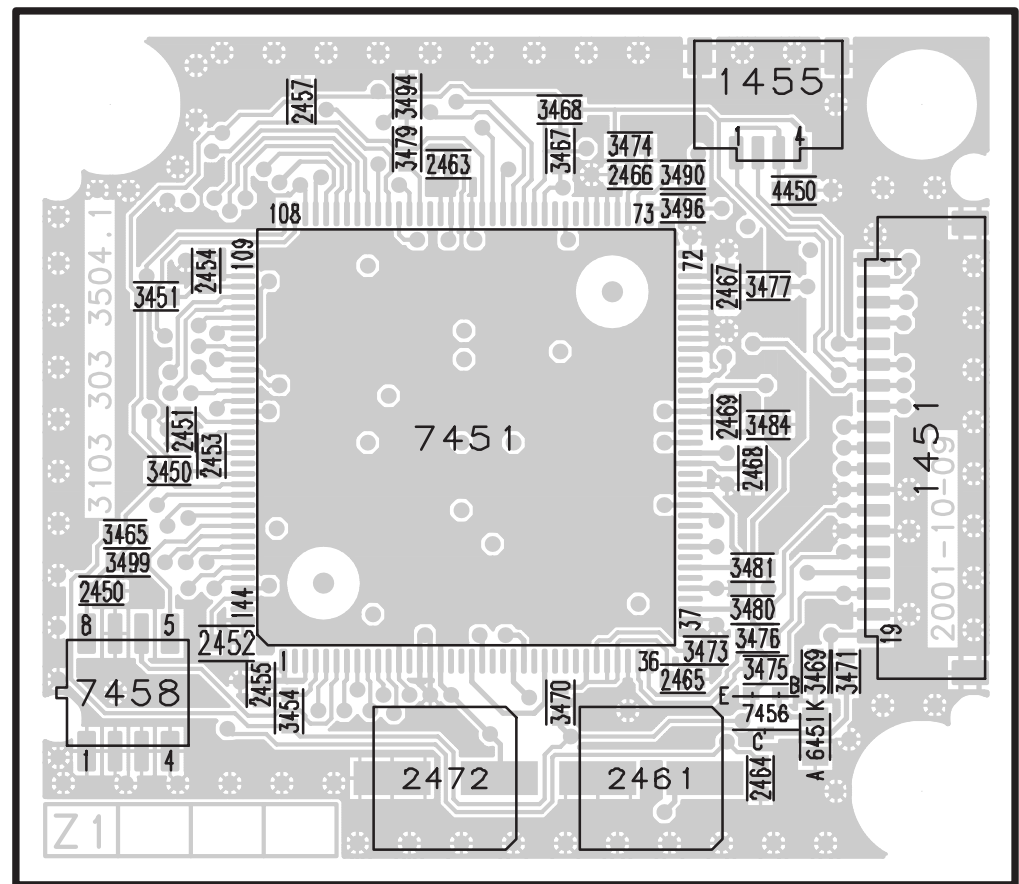


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partlist.

1 2 3 4 5

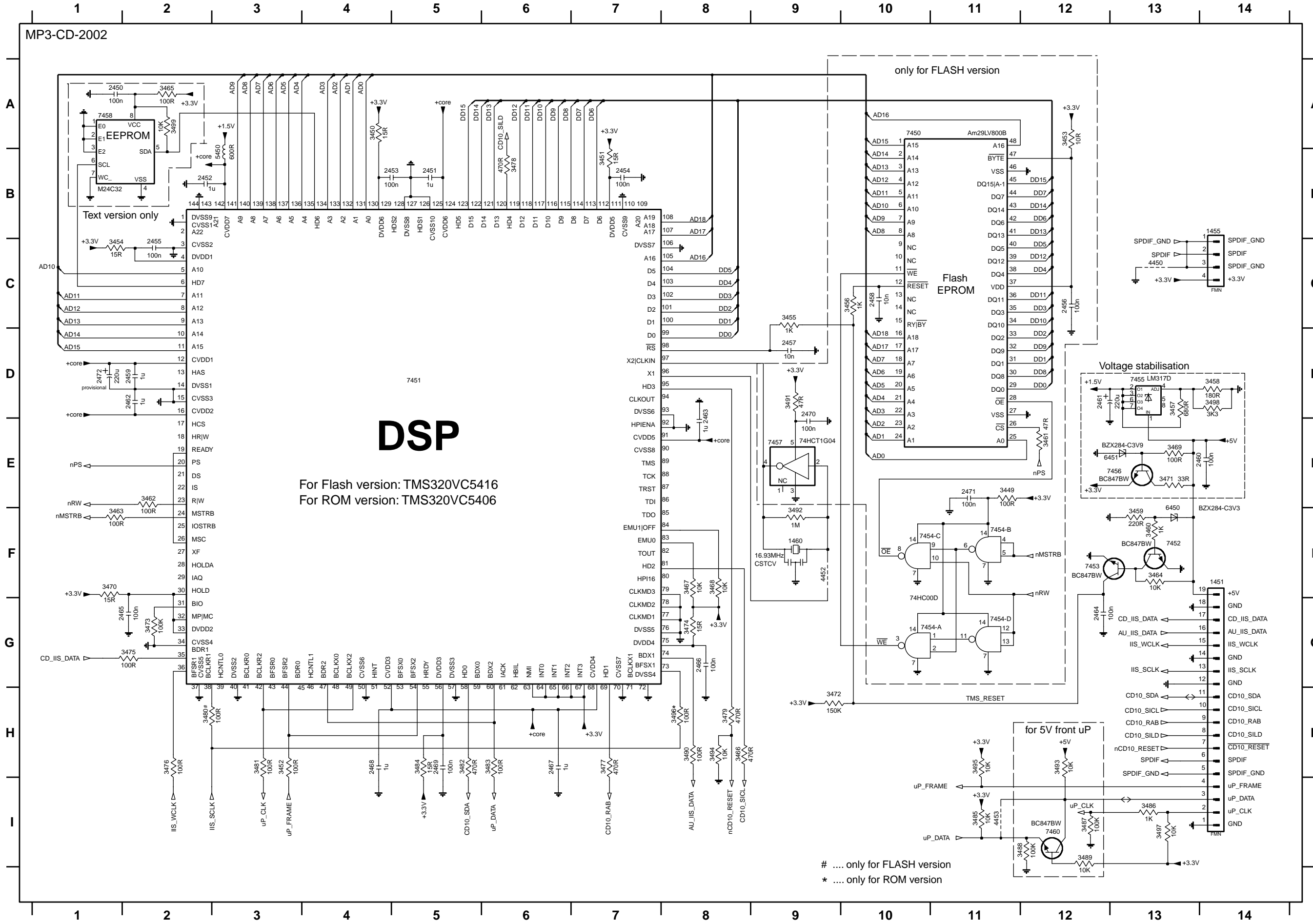
1 2 3 4 5

### Side B



1 2 3 4 5

MP3-CD-2002



# DSP

For Flash version: TMS320VC5416  
 For ROM version: TMS320VC5406

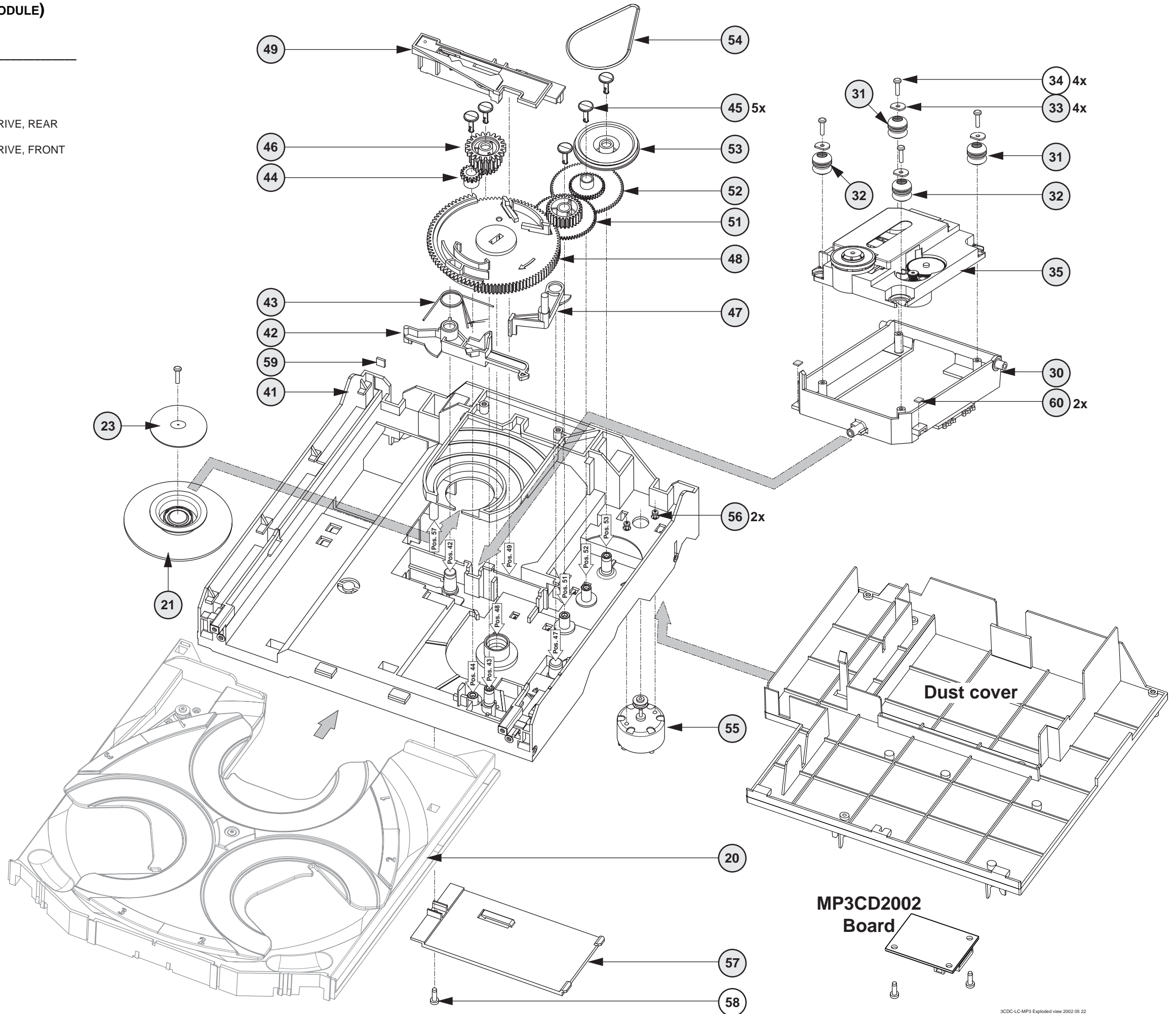
# .... only for FLASH version  
 \* .... only for ROM version

- 2451 B5
- 2452 B2
- 2453 B4
- 2454 B7
- 2455 C2
- 2456 C12
- 2457 D9
- 2458 C10
- 2459 D2
- 2460 E13
- 2461 D12
- 2462 D2
- 2463 D8
- 2464 G12
- 2465 G2
- 2466 G8
- 2467 H6
- 2468 H4
- 2469 H5
- 2470 D9
- 2471 E11
- 2472 D1
- 3449 E11
- 3450 A4
- 3451 B7
- 3452 H3
- 3453 A12
- 3454 C1
- 3455 C9
- 3456 C10
- 3457 D13
- 3458 D14
- 3459 F13
- 3460 F12
- 3461 E12
- 3462 E2
- 3463 F1
- 3464 F13
- 3465 A2
- 3466 H8
- 3467 F8
- 3468 F8
- 3469 E13
- 3470 F1
- 3471 E13
- 3472 H9
- 3473 G2
- 3474 G8
- 3475 G2
- 3476 H2
- 3477 H1
- 3478 B6
- 3479 H8
- 3480 H2
- 3481 H3
- 3482 H5
- 3483 H6
- 3484 H5
- 3485 H1
- 3486 H3
- 3487 I2
- 3488 I2
- 3489 H8
- 3490 H8
- 3491 D9
- 3492 F9
- 3493 H12
- 3494 H8
- 3495 H11
- 3496 H8
- 3497 I3
- 3498 D14
- 3499 A2
- 4450 C13
- 4452 F9
- 4453 I1
- 4454 B3
- 6450 E13
- 6451 D5
- 7452 F13
- 7453 F12
- 7454-A G11
- 7454-B F11
- 7454-C F11
- 7454-D G11
- 7455 D13
- 7456 E12
- 7457 E9
- 7458 A1
- 7460 I2

**EXPLODED VIEW (3CDC-LC MODULE)**

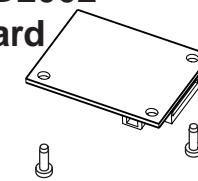
**MECHANICAL PARTS Loader**

20	3103 304 66500	DRAWER BLACK
21	3140 114 29070	PRESSURE RING-DA11
23	3140 111 21270	METAL RING-DA11
30	3103 304 66560	SUPPORT
31	4822 529 10386	RUBBER DAMPER CD DRIVE, REAR
32	4822 529 10387	RUBBER DAMPER CD DRIVE, FRONT
33	3103 304 06970	WASHER
35	3103 309 05350	CD DRIVE MCD1B
41	3103 304 66480	FRAME
42	3103 304 66540	BRACKET-GUIDING
43	3103 301 06460	SPRING-GUIDING
44	3103 304 06890	GEAR-3
45	3103 304 06980	NAIL FIXATION
46	3103 304 06880	GEAR-2
47	3103 304 66530	BRACKET-LOAD
48	3103 304 06910	CAM
49	3103 304 66510	GUIDING
51	3103 304 06900	GEAR-4
52	3103 304 06870	GEAR-1
53	3103 304 06960	PULLEY-FRAME
54	3103 304 66910	DRIVING-BELT-DRAWER
55	4822 361 10753	TRAY MOTOR
56	4822 502 12548	SCREW M2,6X3,5
57	3103 304 69880	COVER-DA11
59	4822 466 12146	RUBBER



- X** spare part
- Y** non spare part

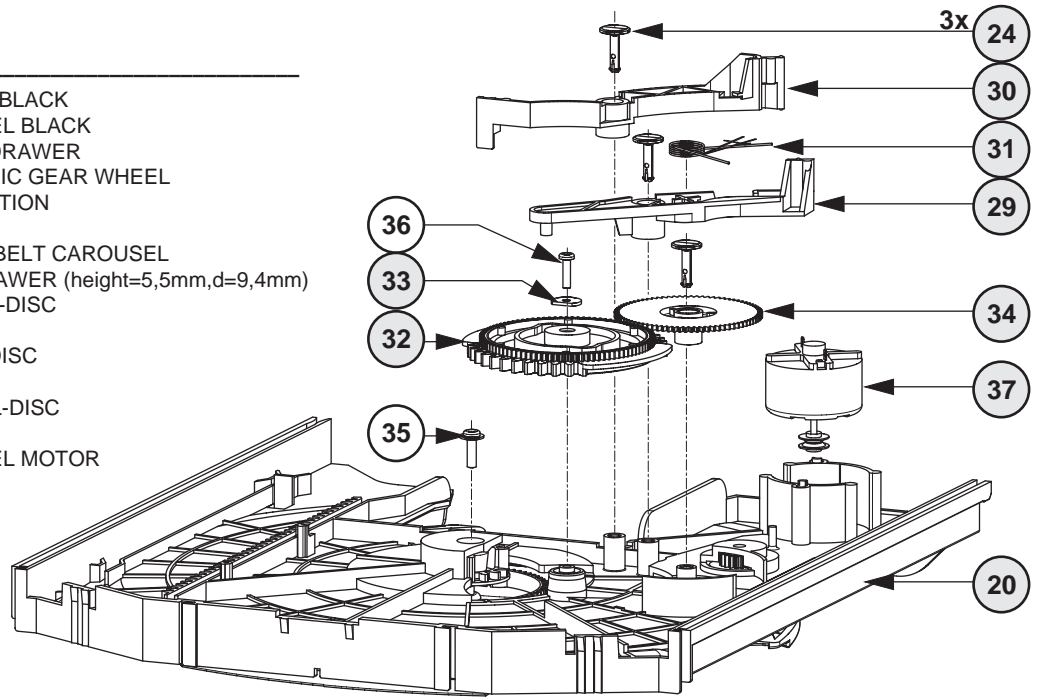
**MP3CD2002 Board**



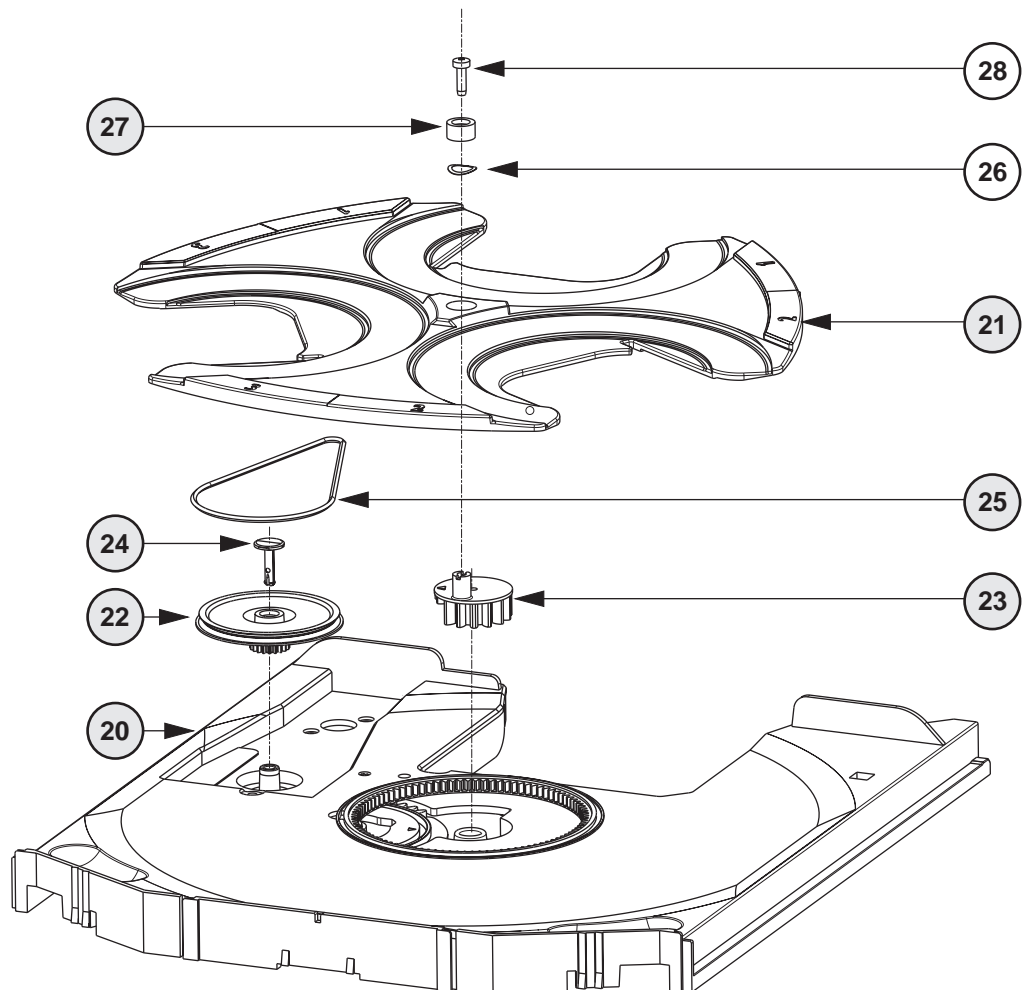
## Drawer bottom view

### MECHANICAL PARTS *Drawer*

20	3103 304 66500	DRAWER BLACK
21	3103 304 66490	CAROUSEL BLACK
22	3103 304 06860	PULLEY-DRAWER
23	3103 304 06850	ECCENTRIC GEAR WHEEL
24	3103 304 06980	NAIL FIXATION
25	3103 304 66850	DRIVING BELT CAROUSEL
27	4822 532 12365	BUSH DRAWER (height=5,5mm,d=9,4mm)
29	3103 304 66550	BRACKET-DISC
30	3103 304 66520	TUMBLER
31	3103 301 06470	SPRING-DISC
32	3103 304 06920	CONTROL-DISC
34	3103 304 06870	GEAR-1
37	4822 361 10753	CAROUSEL MOTOR



## Drawer top view



- X** spare part
- Y** non spare part

**ELECTRICAL PARTSLIST 3CDC-LC MODULE****MISCELLANEOUS**

37	4822 361 10753	CAROUSEL MOTOR
55	4822 361 10753	TRAY MOTOR
1800	2422 025 17389	FFC-CONNECTOR 16Pin
1805	4822 265 10979	FFC-CONNECTOR 15Pin
1875	4822 267 10958	FFC-CONNECTOR 5Pin
1876	2422 025 08332	FFC-CONNECTOR 5Pin
1880	4822 276 13503	SWITCH
1881	4822 276 13503	SWITCH
1882	4822 276 13503	SWITCH
1883	4822 276 13503	SWITCH
8001	3103 308 93070	FLEX FOIL CABLE 19P, 170mm BD
8002	3103 308 91990	FLEXFOIL CABLE, 5P, 200mm AD
8005	3103 308 92930	FLEX FOIL CABLE 16P 170mm 1:n

**CAPACITORS**

2800©	4822 122 33753	150pF	5%	50V
2801©	4822 126 13883	220pF	5%	50V
2802©	4822 122 33753	150pF	5%	50V
2803©	4822 126 13883	220pF	5%	50V
2804©	4822 126 13193	4,7nF	10%	63V
2805©	4822 126 13883	220pF	5%	50V
2806©	4822 126 13883	220pF	5%	50V
2807©	4822 126 14241	330pF		50V
2808©	4822 126 13883	220pF	5%	50V
2809©	4822 126 13879	220nF	20%	16V
2810©	4822 126 14508	180pF	5%	50V
2811©	4822 126 13883	220pF	5%	50V
2812©	3198 024 44730	47nF	5%	50V
2813©	4822 122 33177	10nF	20%	50V
2814©	4822 126 14247	1,5nF	10%	50V
2815©	4822 126 14076	220nF	20%	25V
2816©	4822 126 13344	1,5nF	5%	63V
2817	4822 124 40769	4,7µF	20%	100V
2818©	4822 126 13344	1,5nF	5%	63V
2819	4822 124 40769	4,7µF	20%	100V
2820©	5322 126 11578	1nF	10%	63V
2821	4822 124 42383	220µF	20%	4V
2822©	4822 126 14238	2,2nF	10%	50V
2823©	4822 126 11785	47pF	5%	50V
2824©	5322 122 32654	22nF	10%	63V
2826	4822 124 12362	47µF	20%	4V
2827©	4822 122 33753	150pF	5%	50V
2828	4822 124 12362	47µF	20%	4V
2829©	4822 126 11669	27pF	10%	50V
2832	4822 124 40433	47µF	20%	25V
2833©	2222 867 15339	33pF	5%	50V
2835©	3198 024 44730	47nF	5%	50V
2836	4822 124 40769	4,7µF	20%	100V
2837	4822 124 22726	4,7µF	20%	35V
2838	4822 124 40248	10µF	20%	63V
2839	4822 124 40433	47µF	20%	25V
2840©	4822 126 14585	100nF	10%	50V
2841©	4822 122 33216	270pF	5%	50V
2842©	4822 126 14238	2,2nF	10%	50V
2843©	4822 126 14585	100nF	10%	50V
2844©	4822 122 33216	270pF	5%	50V
2848©	4822 122 33753	150pF	5%	50V
2860©	4822 126 14494	22nF	10%	25V
2861	4822 124 11947	10µF	20%	16V
2862©	4822 126 13883	220pF	5%	50V
2863©	4822 126 13883	220pF	5%	50V
2865©	5322 122 32654	22nF	10%	63V
2866©	4822 126 13751	47nF	10%	50V

**CAPACITORS**

2867©	4822 126 13883	220pF	5%	50V
2868©	2020 552 94427	100pF	5%	50V
2869©	2020 552 94427	100pF	5%	50V
2872©	3198 024 44730	47nF	5%	50V
2873	4822 124 80231	47µF	20%	16V
2876	4822 124 12245	220µF	20%	16V
2877©	4822 126 14226	82pF		50V
2878©	4822 126 13883	220pF	5%	50V
2879	4822 124 12245	220µF	20%	16V
2880	4822 124 11947	10µF	20%	16V
2881	4822 124 40769	4,7µF	20%	100V
2882©	4822 126 13883	220pF	5%	50V
2888	4822 124 11947	10µF	20%	16V

**RESISTORS**

3713©	4822 051 30223	22kΩ	5%	0,06W
3714©	4822 051 30103	10kΩ	5%	0,06W
3715©	4822 117 13632	100kΩ	1%	0,06W
3719©	4822 051 30392	3,9kΩ	5%	0,06W
3723©	4822 051 20273	27kΩ	5%	0,1W
3730©	4822 051 20333	33kΩ	5%	0,1W
3736©	4822 117 12925	47kΩ	1%	0,06W
3738©	4822 051 30271	270Ω	5%	0,06W
3740©	4822 051 20223	22kΩ	5%	0,1W
3741©	4822 051 20223	22kΩ	5%	0,1W
3742©	4822 051 20223	22kΩ	5%	0,1W
3743©	4822 051 20223	22kΩ	5%	0,1W
3744©	4822 051 30103	10kΩ	5%	0,06W
3745©	4822 117 10833	10kΩ	1%	0,1W
3746©	4822 051 30103	10kΩ	5%	0,06W
3747©	4822 117 12925	47kΩ	1%	0,06W
3748©	4822 051 30103	10kΩ	5%	0,06W
3750©	4822 051 30102	1kΩ	5%	0,06W
3751©	4822 051 30102	1kΩ	5%	0,06W
3752©	4822 117 13632	100kΩ	1%	0,06W
3753©	4822 117 13632	100kΩ	1%	0,06W
3754©	4822 051 30221	220Ω	5%	0,06W
3755©	4822 117 11503	220Ω	5%	0,1W
3757©	4822 117 11373	100Ω	1%	0,1W
3758©	4822 051 30101	100Ω	5%	0,06W
3760©	4822 117 10833	10kΩ	1%	0,1W
3761©	4822 051 30103	10kΩ	5%	0,06W
3762©	4822 051 30223	22kΩ	5%	0,06W
3763©	4822 051 30223	22kΩ	5%	0,06W
3764©	4822 117 11373	100Ω	1%	0,1W
3765©	4822 051 30103	10kΩ	5%	0,06W
3766©	4822 117 10833	10kΩ	1%	0,1W
3767©	4822 051 30339	33Ω	5%	0,06W
3769©	4822 051 30101	100Ω	5%	0,06W
3770©	4822 051 30102	1kΩ	5%	0,06W
3771©	4822 051 30102	1kΩ	5%	0,06W
3772©	4822 051 30471	470Ω	5%	0,06W
3773©	4822 117 10833	10kΩ	1%	0,1W
3774©	4822 117 11373	100Ω	1%	0,1W
3775▲	4822 052 10338	3,3Ω	5%	NFR25
3776©	4822 051 30103	10kΩ	5%	0,06W
3800©	4822 051 30273	27kΩ	5%	0,06W
3801©	4822 117 10833	10kΩ	1%	0,1W
3802©	4822 051 30273	27kΩ	5%	0,06W
3803©	4822 117 10833	10kΩ	1%	0,1W
3805©	4822 051 30103	10kΩ	5%	0,06W
3806©	4822 051 30103	10kΩ	5%	0,06W
3807©	4822 051 30103	10kΩ	5%	0,06W
3808©	4822 051 30103	10kΩ	5%	0,06W

**ELECTRICAL PARTSLIST 3CDC-LC MODULE**

## RESISTORS

3810	©	4822 051 30471	470Ω	5%	0,06W
3811	©	4822 051 30273	27kΩ	5%	0,06W
3812	©	4822 051 20471	470Ω	5%	0,1W
3813	©	4822 051 20471	470Ω	5%	0,1W
3814	©	4822 051 20471	470Ω	5%	0,1W
3815	▲	4822 052 10478	4,7Ω	5%	NFR25
3816	©	4822 051 20471	470Ω	5%	0,1W
3817	©	4822 051 30471	470Ω	5%	0,06W
3818	©	4822 051 30471	470Ω	5%	0,06W
3819	©	4822 051 20471	470Ω	5%	0,1W
3820	©	4822 051 30332	3,3kΩ	5%	0,06W
3821	©	4822 051 30332	3,3kΩ	5%	0,06W
3822	©	4822 051 20332	3,3kΩ	5%	0,1W
3823	©	4822 051 30102	1kΩ	5%	0,06W
3824	©	4822 051 30102	1kΩ	5%	0,06W
3825	©	4822 051 10102	1kΩ	2%	0,25W
3826	©	4822 051 30223	22kΩ	5%	0,06W
3827	©	4822 051 20273	27kΩ	5%	0,1W
3829	©	4822 117 13608	4,7Ω	5%	0,06W
3830	©	4822 051 20223	22kΩ	5%	0,1W
3833	©	4822 051 30223	22kΩ	5%	0,06W
3834	©	4822 051 30223	22kΩ	5%	0,06W
3835	▲	4822 052 10338	3,3Ω	5%	NFR25
3836	©	4822 117 12903	1,8kΩ	1%	0,06W
3837	©	4822 051 10102	1kΩ	2%	0,25W
3838	©	4822 051 30102	1kΩ	5%	0,06W
3839	©	4822 117 13632	100kΩ	1%	0,06W
3840	©	4822 051 20471	470Ω	5%	0,1W
3842	©	4822 117 10834	47kΩ	1%	0,1W
3843	©	4822 051 20333	33kΩ	5%	0,1W
3844	©	4822 051 30472	4,7kΩ	5%	0,06W
3845	©	4822 117 10834	47kΩ	1%	0,1W
3846	©	4822 051 20333	33kΩ	5%	0,1W
3847	©	4822 051 30682	6,8kΩ	5%	0,06W
3848	©	3198 021 52240	220kΩ	5%	0,1W
3849	©	4822 051 30472	4,7kΩ	5%	0,06W
3850	©	4822 051 30682	6,8kΩ	5%	0,06W
3853	©	4822 051 20471	470Ω	5%	0,1W
3854	©	4822 117 11373	100Ω	1%	0,1W
3855	©	4822 117 12971	15Ω	5%	0,06W
3856	©	4822 117 12521	68Ω	1%	0,1W
3857	©	4822 117 12521	68Ω	1%	0,1W
3861	©	4822 051 30103	10kΩ	5%	0,06W
3862	©	4822 051 20121	120Ω	5%	0,1W
3863	©	4822 051 30339	33Ω	5%	0,06W
3864	©	4822 051 30101	100Ω	5%	0,06W
3865	©	4822 051 30121	120Ω	5%	0,06W
3866	©	4822 051 30103	10kΩ	5%	0,06W
3871	©	4822 051 20683	68kΩ	5%	0,1W
3872	©	4822 051 30472	4,7kΩ	5%	0,06W
3878	©	4822 117 11503	220Ω	5%	0,1W
3880	▲	4822 052 10338	3,3Ω	5%	NFR25
3881	©	4822 117 11503	220Ω	5%	0,1W
3882	©	4822 117 10837	100kΩ	1%	0,1W
3883	©	4822 051 10102	1kΩ	2%	0,25W
3890	©	4822 051 30332	3,3kΩ	5%	0,06W
3891	©	4822 051 30472	4,7kΩ	5%	0,06W
4700	©	4822 051 20008	CHIP JUMPER		0805
4701	©	4822 051 20008	CHIP JUMPER		0805
4702	©	4822 051 20008	CHIP JUMPER		0805
4703	©	4822 051 20008	CHIP JUMPER		0805
4704	©	4822 051 20008	CHIP JUMPER		0805
4705	©	4822 051 20008	CHIP JUMPER		0805
4706	©	4822 051 20008	CHIP JUMPER		0805

## RESISTORS

4707	©	4822 051 20008	CHIP JUMPER		0805
4708	©	4822 051 20008	CHIP JUMPER		0805
4709	©	4822 051 20008	CHIP JUMPER		0805
4710	©	4822 051 20008	CHIP JUMPER		0805
4711	©	4822 051 20008	CHIP JUMPER		0805
4712	©	4822 051 20008	CHIP JUMPER		0805
4713	©	4822 051 20008	CHIP JUMPER		0805
4714	©	4822 051 20008	CHIP JUMPER		0805
4715	©	4822 051 20008	CHIP JUMPER		0805
4716	©	4822 051 20008	CHIP JUMPER		0805
4717	©	4822 051 30008	CHIP JUMPER		0603
4718	©	4822 051 20008	CHIP JUMPER		0805
4719	©	4822 051 20008	CHIP JUMPER		0805
4720	©	4822 051 20008	CHIP JUMPER		0805
4722	©	4822 051 20008	CHIP JUMPER		0805
4724	©	4822 051 20008	CHIP JUMPER		0805
4726	©	4822 051 20008	CHIP JUMPER		0805
4727	©	4822 051 20008	CHIP JUMPER		0805
4728	©	4822 051 20008	CHIP JUMPER		0805
4729	©	4822 051 20008	CHIP JUMPER		0805
4730	©	4822 051 20008	CHIP JUMPER		0805
4731	©	4822 051 30008	CHIP JUMPER		0603
4732	©	4822 051 20008	CHIP JUMPER		0805
4733	©	4822 051 30008	CHIP JUMPER		0603
4734	©	4822 051 20008	CHIP JUMPER		0805
4735	©	4822 051 20008	CHIP JUMPER		0805
4736	©	4822 051 30008	CHIP JUMPER		0603
4737	©	4822 051 30008	CHIP JUMPER		0603
4738	©	4822 051 30008	CHIP JUMPER		0603
4739	©	4822 051 30008	CHIP JUMPER		0603
4740	©	4822 051 30008	CHIP JUMPER		0603
4741	©	4822 051 20008	CHIP JUMPER		0805
4742	©	4822 051 20008	CHIP JUMPER		0805
4743	©	4822 051 20008	CHIP JUMPER		0805
4744	©	4822 051 30008	CHIP JUMPER		0603
4745	©	4822 051 20008	CHIP JUMPER		0805
4746	©	4822 051 20008	CHIP JUMPER		0805
4747	©	4822 051 20008	CHIP JUMPER		0805
4748	©	4822 051 20008	CHIP JUMPER		0805
4749	©	4822 051 30008	CHIP JUMPER		0603
4801	©	4822 051 20008	CHIP JUMPER		0805
4804	©	4822 051 20008	CHIP JUMPER		0805
4806	©	4822 051 20008	CHIP JUMPER		0805
4807	©	4822 051 20008	CHIP JUMPER		0805
4808	©	4822 051 20008	CHIP JUMPER		0805
4809	©	4822 051 20008	CHIP JUMPER		0805
4810	©	4822 051 20008	CHIP JUMPER		0805
4811	©	4822 051 20008	CHIP JUMPER		0805
4820	©	4822 051 20008	CHIP JUMPER		0805
4823	©	4822 051 30008	CHIP JUMPER		0603
4824	©	4822 051 30008	CHIP JUMPER		0603
4825	©	4822 051 20008	CHIP JUMPER		0805
4826	©	4822 051 20008	CHIP JUMPER		0805
4828	©	4822 051 30008	CHIP JUMPER		0603
4829	©	4822 051 20008	CHIP JUMPER		0805
4830	©	4822 051 20008	CHIP JUMPER		0805
4831	©	4822 051 20008	CHIP JUMPER		0805
4832	©	4822 051 30008	CHIP JUMPER		0603
4833	©	4822 051 20008	CHIP JUMPER		0805
4834	©	4822 051 20008	CHIP JUMPER		0805
4837	©	4822 051 20008	CHIP JUMPER		0805
4838	©	4822 051 30008	CHIP JUMPER		0603
4839	©	4822 051 20008	CHIP JUMPER		0805
4840	©	4822 051 20008	CHIP JUMPER		0805

**ELECTRICAL PARTSLIST 3CDC-LC MODULE****RESISTORS**

4841 ©	4822 051 20008	CHIP JUMPER 0805
4842 ©	4822 051 20008	CHIP JUMPER 0805
4844 ©	4822 051 20008	CHIP JUMPER 0805
4845 ©	4822 051 20008	CHIP JUMPER 0805
4846 ©	4822 051 20008	CHIP JUMPER 0805
4847 ©	4822 051 20008	CHIP JUMPER 0805
4848 ©	4822 051 20008	CHIP JUMPER 0805
4849 ©	4822 051 30008	CHIP JUMPER 0603
4851 ©	4822 051 30008	CHIP JUMPER 0603
4855 ©	4822 051 20008	CHIP JUMPER 0805
4856 ©	4822 051 20008	CHIP JUMPER 0805
4857 ©	4822 051 20008	CHIP JUMPER 0805
4858 ©	4822 051 20008	CHIP JUMPER 0805
4868 ©	4822 051 20008	CHIP JUMPER 0805
4869 ©	4822 051 20008	CHIP JUMPER 0805
4870 ©	4822 051 20008	CHIP JUMPER 0805
4871 ©	4822 051 20008	CHIP JUMPER 0805
4872 ©	4822 051 20008	CHIP JUMPER 0805
4873 ©	4822 051 20008	CHIP JUMPER 0805
4874 ©	4822 051 20008	CHIP JUMPER 0805
4875 ©	4822 051 20008	CHIP JUMPER 0805
4876 ©	4822 051 20008	CHIP JUMPER 0805
4878 ©	4822 051 20008	CHIP JUMPER 0805
4879 ©	4822 051 20008	CHIP JUMPER 0805
4880 ©	4822 051 20008	CHIP JUMPER 0805
4882 ©	4822 051 20008	CHIP JUMPER 0805
4883 ©	4822 051 20008	CHIP JUMPER 0805
4884 ©	4822 051 20008	CHIP JUMPER 0805
4885 ©	4822 051 20008	CHIP JUMPER 0805
4886 ©	4822 051 20008	CHIP JUMPER 0805
4887 ©	4822 051 30008	CHIP JUMPER 0603
4888 ©	4822 051 20008	CHIP JUMPER 0805
4889 ©	4822 051 20008	CHIP JUMPER 0805
4890 ©	4822 051 20008	CHIP JUMPER 0805
4891 ©	4822 051 30008	CHIP JUMPER 0603

**RESISTORS**

4892 ©	4822 051 20008	CHIP JUMPER 0805
4893 ©	4822 051 20008	CHIP JUMPER 0805
4894 ©	4822 051 20008	CHIP JUMPER 0805
4895 ©	4822 051 20008	CHIP JUMPER 0805
4896 ©	4822 051 20008	CHIP JUMPER 0805
4897 ©	4822 051 20008	CHIP JUMPER 0805
4898 ©	4822 051 20008	CHIP JUMPER 0805
4899 ©	4822 051 20008	CHIP JUMPER 0805

**COILS**

1810	2422 540 98519	RESONATOR 8,467MHz
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**DIODES**

6801 ©	4822 130 11397	BAS316
6802 ©	4822 130 11397	BAS316
6803 ©	4822 130 11397	BAS316
6804 ©	4822 130 11397	BAS316
6805 ©	9340 548 52115	BZX284-C5V1
6807 ©	9322 129 34685	BZX284-C3V9
6808 ©	4822 130 11397	BAS316
6809 ©	9322 129 34685	BZX284-C3V9

**TRANSISTORS**

7806 ©	5322 130 60159	BC846B
7812 ©	5322 130 60159	BC846B
7815 ©	5322 130 60159	BC846B

**INTEGRATED CIRCUITS**

7801 ©	9352 622 36118	TZA1025T/V2 HF-Amplifier
7802 ©	9352 641 80557	SAA7324H/M2B, "CD10" SIGN.PROC.
7803	4822 209 32852	TDA7073A/N2
7807	4822 209 32852	TDA7073A/N2
7811 ©	4822 209 33165	TDA1308T/N1
7813 ©	5322 209 11306	HEF4094BT, SHIFT REGISTER
7814	4822 209 32852	TDA7073A/N2

**ELECTRICAL PARTSLIST MP3CD2002 MODULE****MISCELLANEOUS**

3103 308 67020 complete MP3CD2002 Module  
 1451 2422 025 17303 FLEX FOIL CONNECTOR 19P

**CAPACITORS**

2450	2238 586 59812	100nF	10%	50V
2451	3198 017 41050	1µF	20%	10V
2452	3198 017 41050	1µF	20%	10V
2453	2238 586 59812	100nF	10%	50V
2454	2238 586 59812	100nF	10%	50V
2455	2238 586 59812	100nF	10%	50V
2456	2238 586 59812	100nF	10%	50V
2457	5322 126 11583	10nF	10%	63V
2458	5322 126 11583	10nF	10%	63V
2459	3198 017 41050	1µF	20%	10V
2460	2238 586 59812	100nF	10%	50V
2461	4822 124 81059	220µF	20%	4V
2462	3198 017 41050	1µF	20%	10V
2463	3198 017 41050	1µF	20%	10V
2464	2238 586 59812	100nF	10%	50V
2465	2238 586 59812	100nF	10%	50V
2466	2238 586 59812	100nF	10%	50V
2467	3198 017 41050	1µF	20%	10V
2468	3198 017 41050	1µF	20%	10V
2469	2238 586 59812	100nF	10%	50V
2470	2238 586 59812	100nF	10%	50V
2471	2238 586 59812	100nF	10%	50V

**RESISTORS**

3449	4822 051 30101	100Ω	5%	0,06W
3450	4822 117 12971	15Ω	5%	0,06W
3451	4822 117 12971	15Ω	5%	0,06W
3452	4822 051 30101	100Ω	5%	0,06W
3453	4822 051 30109	10Ω	5%	0,06W
3454	4822 117 12971	15Ω	5%	0,06W
3455	4822 051 30102	1kΩ	5%	0,06W
3456	4822 051 30102	1kΩ	5%	0,06W
3457	5322 117 13051	680Ω	1%	0,063W
3458	5322 117 13061	180Ω	1%	0,063W
3459	4822 051 30221	220Ω	5%	0,06W
3460	4822 051 30102	1kΩ	5%	0,06W
3461	4822 051 30479	47Ω	5%	0,06W
3462	4822 051 30101	100Ω	5%	0,06W
3463	4822 051 30101	100Ω	5%	0,06W
3464	4822 051 30103	10kΩ	5%	0,06W
3465	4822 051 30101	100Ω	5%	0,06W
3466	4822 051 30471	470Ω	5%	0,06W
3467	4822 051 30103	10kΩ	5%	0,06W
3468	4822 051 30103	10kΩ	5%	0,06W
3469	4822 051 30101	100Ω	5%	0,06W
3470	4822 117 12971	15Ω	5%	0,06W
3471	4822 051 30339	33Ω	5%	0,06W
3472	4822 051 30154	150kΩ	5%	0,06W
3473	4822 117 13632	100kΩ	1%	0,06W

**RESISTORS**

3474	4822 117 12971	15Ω	5%	0,06W
3475	4822 051 30101	100Ω	5%	0,06W
3476	4822 051 30101	100Ω	5%	0,06W
3477	4822 051 30471	470Ω	5%	0,06W
3478	4822 051 30471	470Ω	5%	0,06W
3479	4822 051 30471	470Ω	5%	0,06W
3480	4822 051 30101	100Ω	5%	0,06W
3481	4822 051 30101	100Ω	5%	0,06W
3482	4822 051 30471	470Ω	5%	0,06W
3483	4822 051 30101	100Ω	5%	0,06W
3484	4822 117 12971	15Ω	5%	0,06W
3486	4822 051 30101	100Ω	5%	0,06W
3488	4822 117 13632	100kΩ	1%	0,06W
3489	4822 051 30103	10kΩ	5%	0,06W
3490	4822 051 30101	100Ω	5%	0,06W
3491	4822 051 30479	47Ω	5%	0,06W
3492	4822 051 30105	1MΩ	5%	0,06W
3493	4822 051 30103	10kΩ	5%	0,06W
3494	4822 051 30103	10kΩ	5%	0,06W
3495	4822 051 30103	10kΩ	5%	0,06W
3497	4822 051 30103	10kΩ	5%	0,06W
3498	4822 051 30332	3,3kΩ	5%	0,06W
3499	4822 051 30103	10kΩ	5%	0,06W
4450	4822 051 30008			CHIP JUMPER 0603

**COILS**

1460	4822 242 10989	CER.RES. 16,9MHz
5450	4822 157 11074	100µH

**DIODES**

6450	4822 130 11411	BZX284-C3V3
6451	4822 130 11366	BZX284-C3V9
7454	4822 130 34174	BZX79-B4V7

**TRANSISTORS**

7452	3198 010 42310	BC847BW
7453	3198 010 42310	BC847BW
7456	3198 010 42310	BC847BW
7460	3198 010 42310	BC847BW

**INTEGRATED CIRCUITS**

7450	not available	please order complete MP3 module
7451	not available	please order complete MP3 module
7455	4822 209 17108	LM317LD Voltage Regulator
7457	9352 456 50115	HC1G04, Inverter
7458	9322 130 41668	M24C64, EEPROM

**3103 308 67020 complete MP3CD2002 Module**