

Service Service Service

Product Service Group CE Audio

Service Information

Already published Service Informations: none

CHANGES IN COURSE OF PRODUCTION

- * In course of production the 3 disc changer module **3CDC-LC** has been introduced as an alternative. Compared to the original used **3CDC-LC-MB** there are different servo / motor driver ICs (TDA7073A) used on the CD board. The new board can be identified by the 12 fig. number 3103 303 34255 printed in the copper pattern.
Note: New chapter 3CDC-LC is enclosed to this Service Information.

- * From production week 0148 to 0152 a different changer module **3CDC99-DS** has been used.

This module can be identified by:

- The tray is not locked and can be opened by simply pulling it out.
- The 12 fig. number printed on the 3CDC99-DS board reads 3103 303 34283.

To enable the use of this 3CDC99-DS version following modifications have been implemented:

Mechanical:

Pos. 107 changed to 8203 306 84031 Cover Tray 3CDC99

Front Board:

7401 changed to 8203 239 35241 TMP87CP71F

Note: This microprocessor will only work in combination with the 3CDC99 Module.

Combi Board:

1509 Flex Foil Socket 15p deleted

1511 Flex Foil Socket 23p (4822 267 10757) added. Pin 20-23 have been removed in order to adapt the socket to the layout of the Combi Board.

3574 and 3575 changed to 33k Ω (4822 051 20333)

3576 and 3577 changed to 5,6k Ω (4822 051 20562)

Note: The complete chapter 3CDC99-DS is enclosed to this Service Information.



3CDC-LC

(3 Disc Carousel Changer)

Layout stage .5

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Service hints

CAUTION

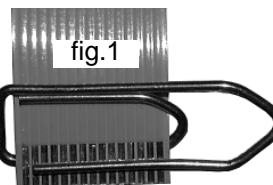
CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE CD DRIVE ELECTRONICS WHEN CONNECTING A NEW CD MECHANISM. THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

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

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

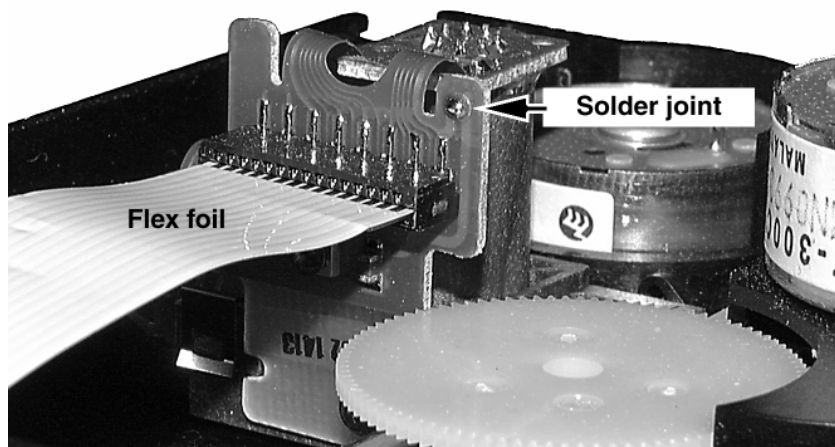
The following steps have to be done when replacing the CD mechanism:

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.

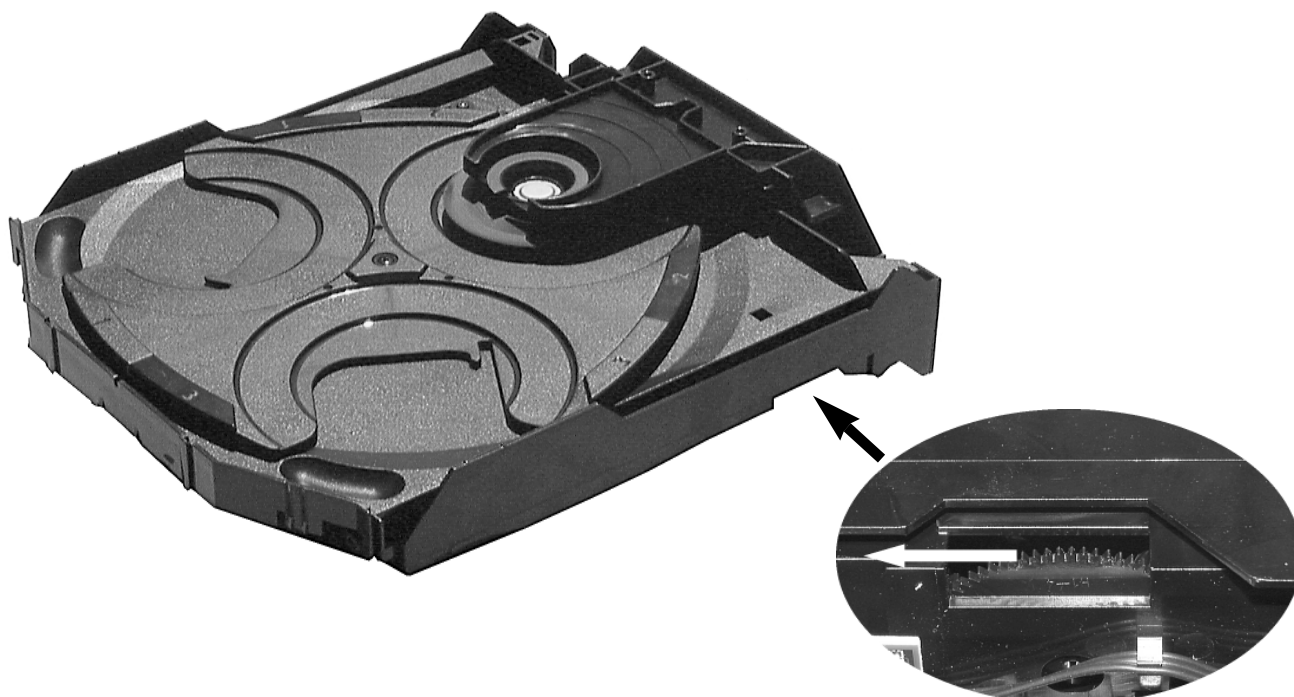
For proper functionality of the CD drive this solder joint must be removed **after** connection the drive to the set.



Emergency open

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

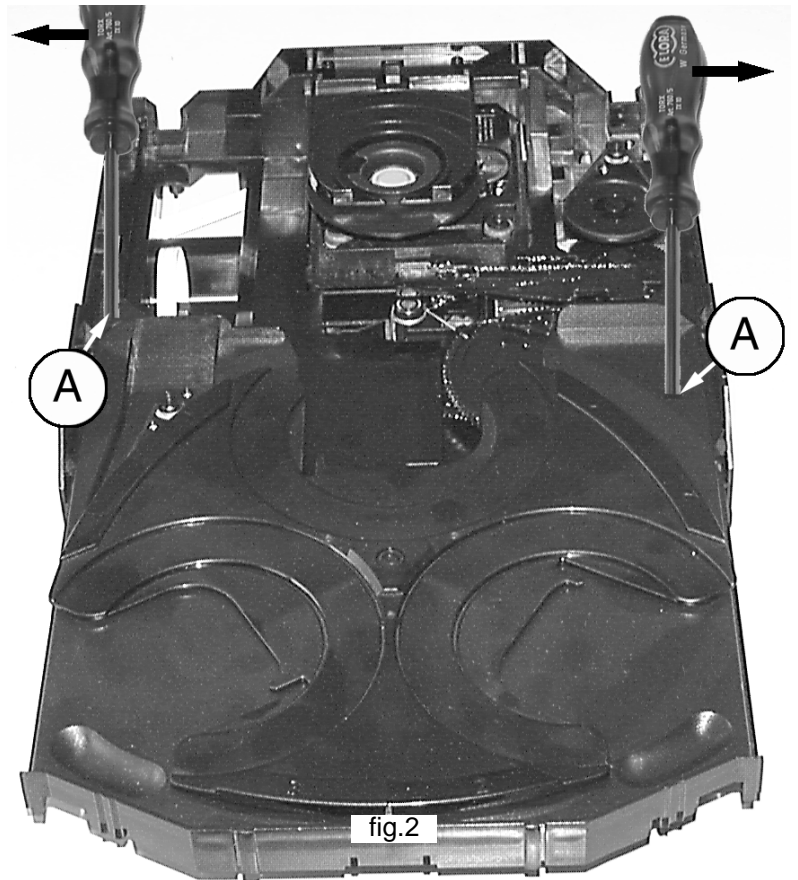
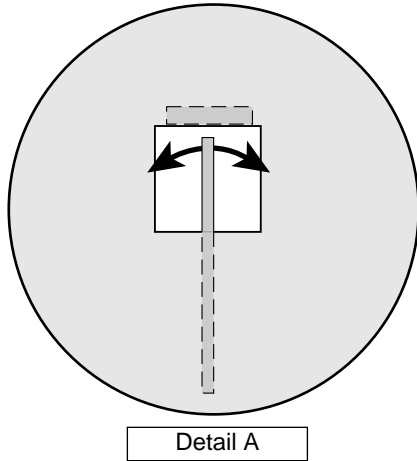
1. Remove the top cover of the set to get access to the Changer Module.
2. Turn gearwheel clockwise (as shown in picture below).



Service hints

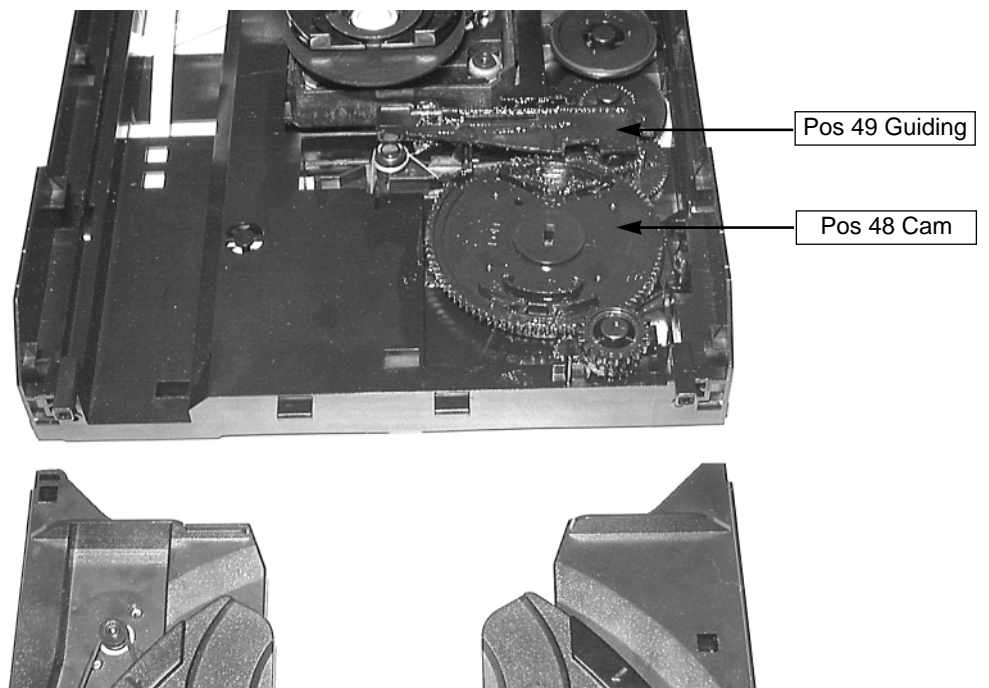
Dismantling of Tray

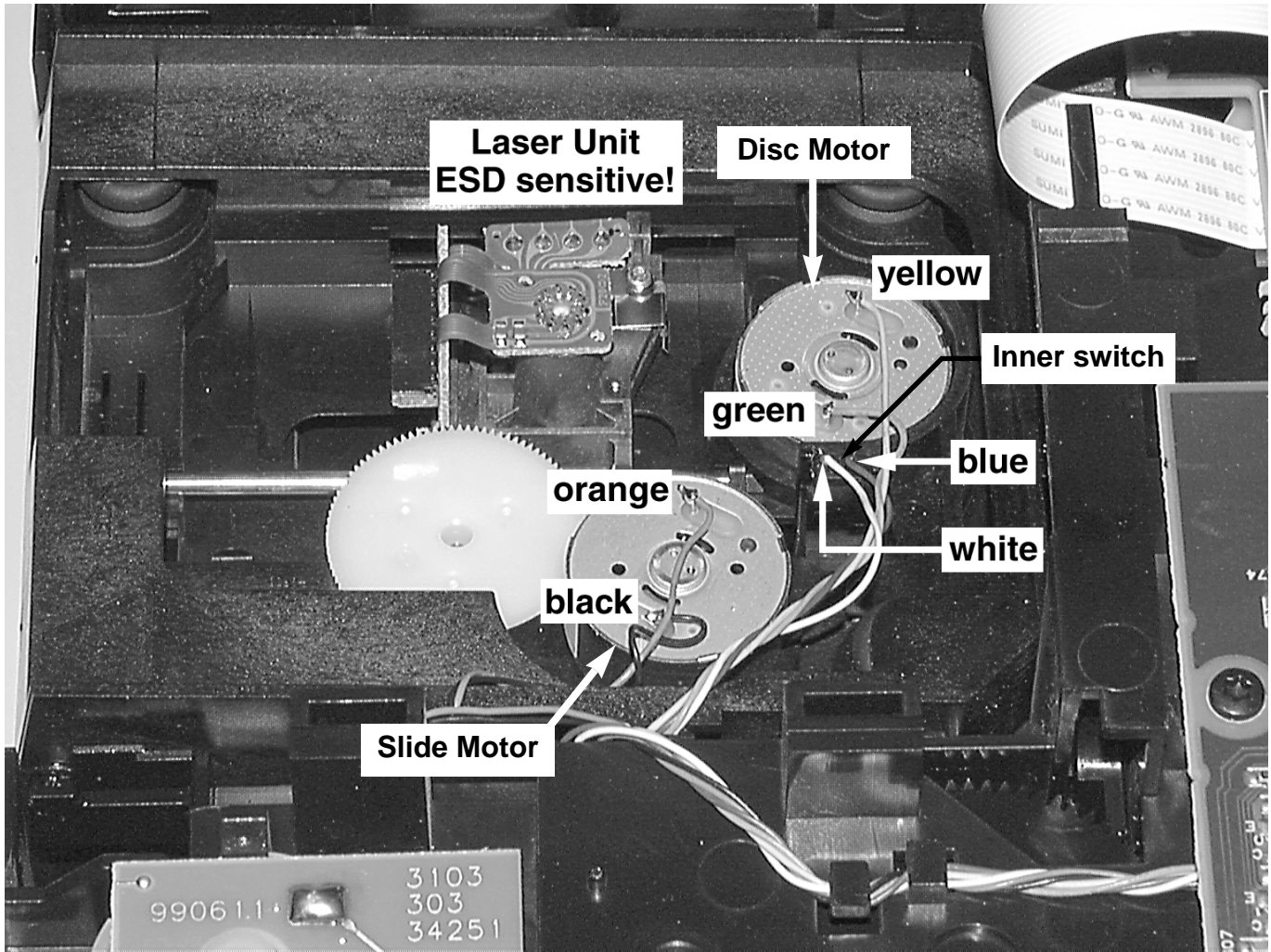
1. Open the tray.
2. Release 2x catch as shown in fig. 2 and Detail A
3. Pull tray out.



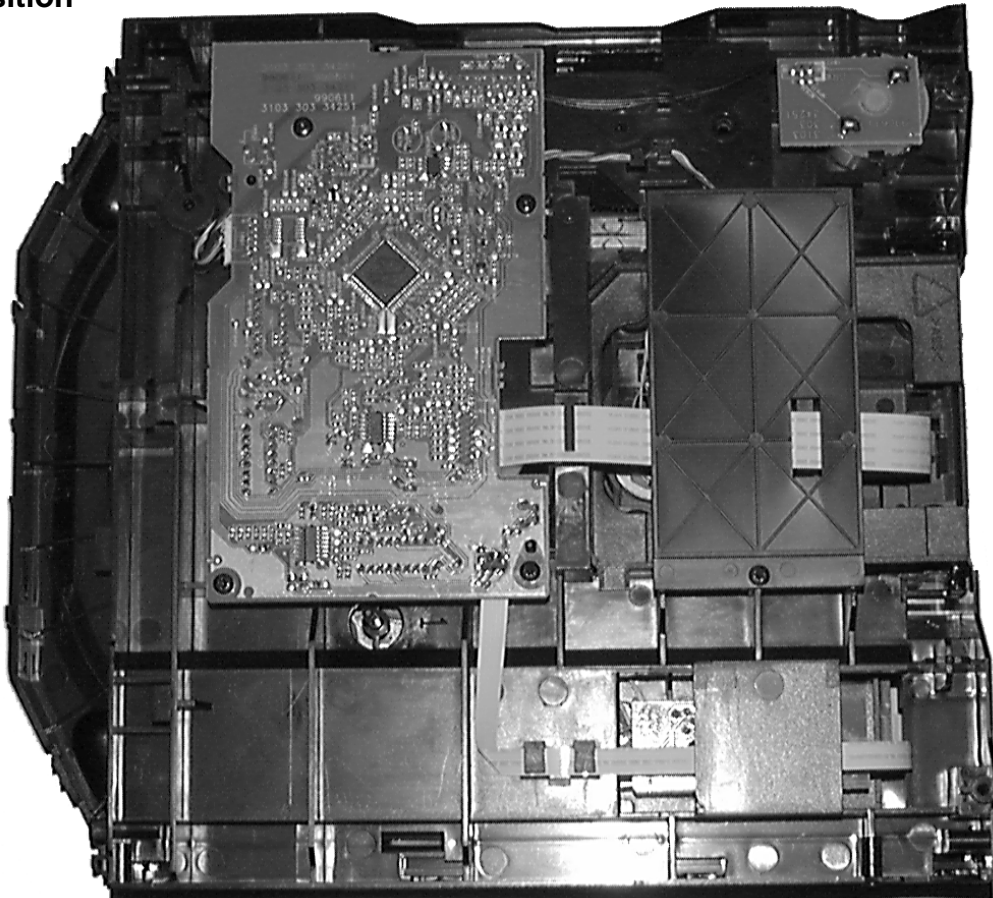
Assembling of Tray

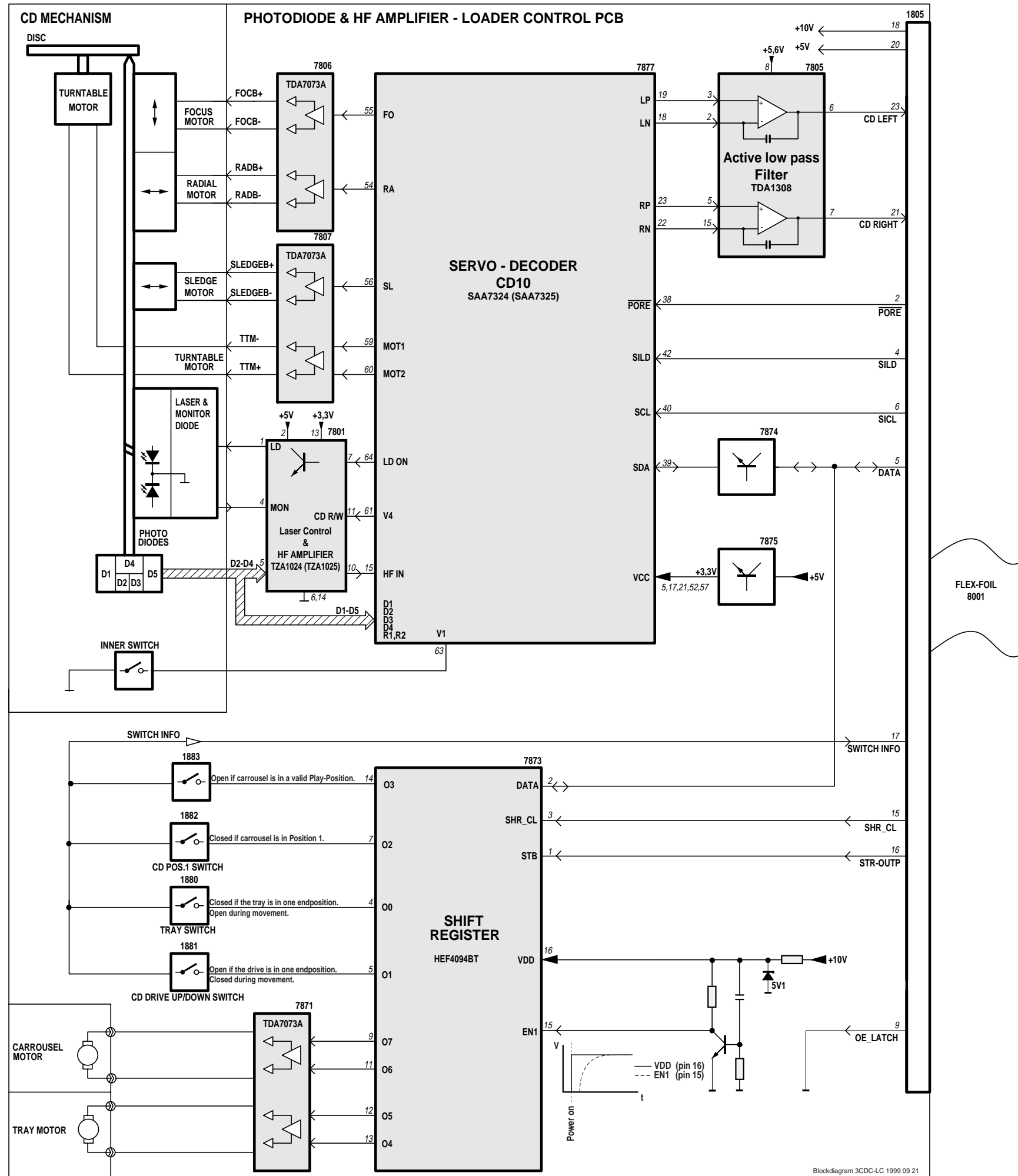
1. Turn Cam (pos. 48) clockwise to end position.
2. If necessary - move Guiding (pos. 49) to the right end position.
3. Insert the Tray.





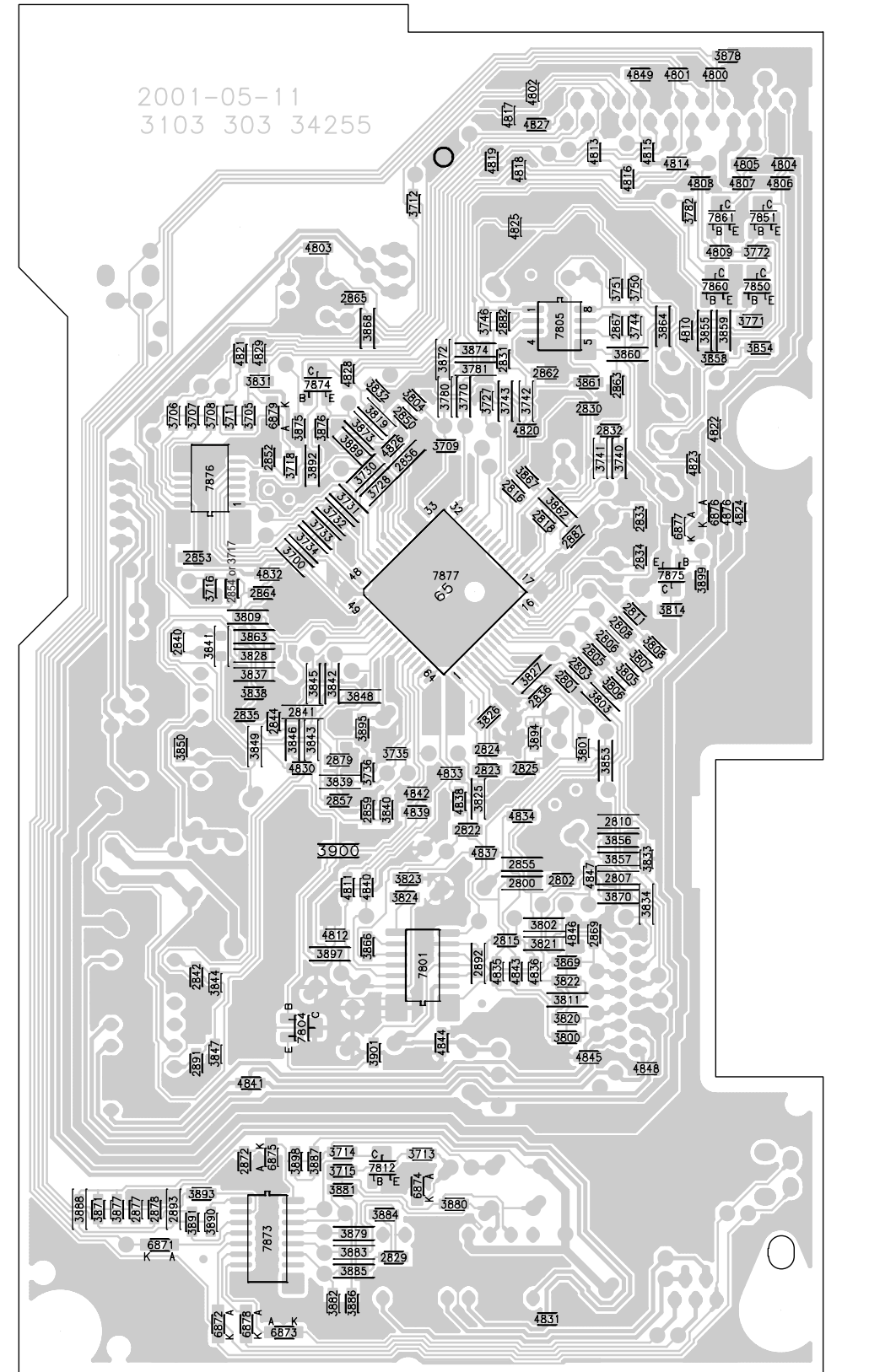
Service Position





1 2 3 4 5

3CDC-LC Mainboard Copperside view



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

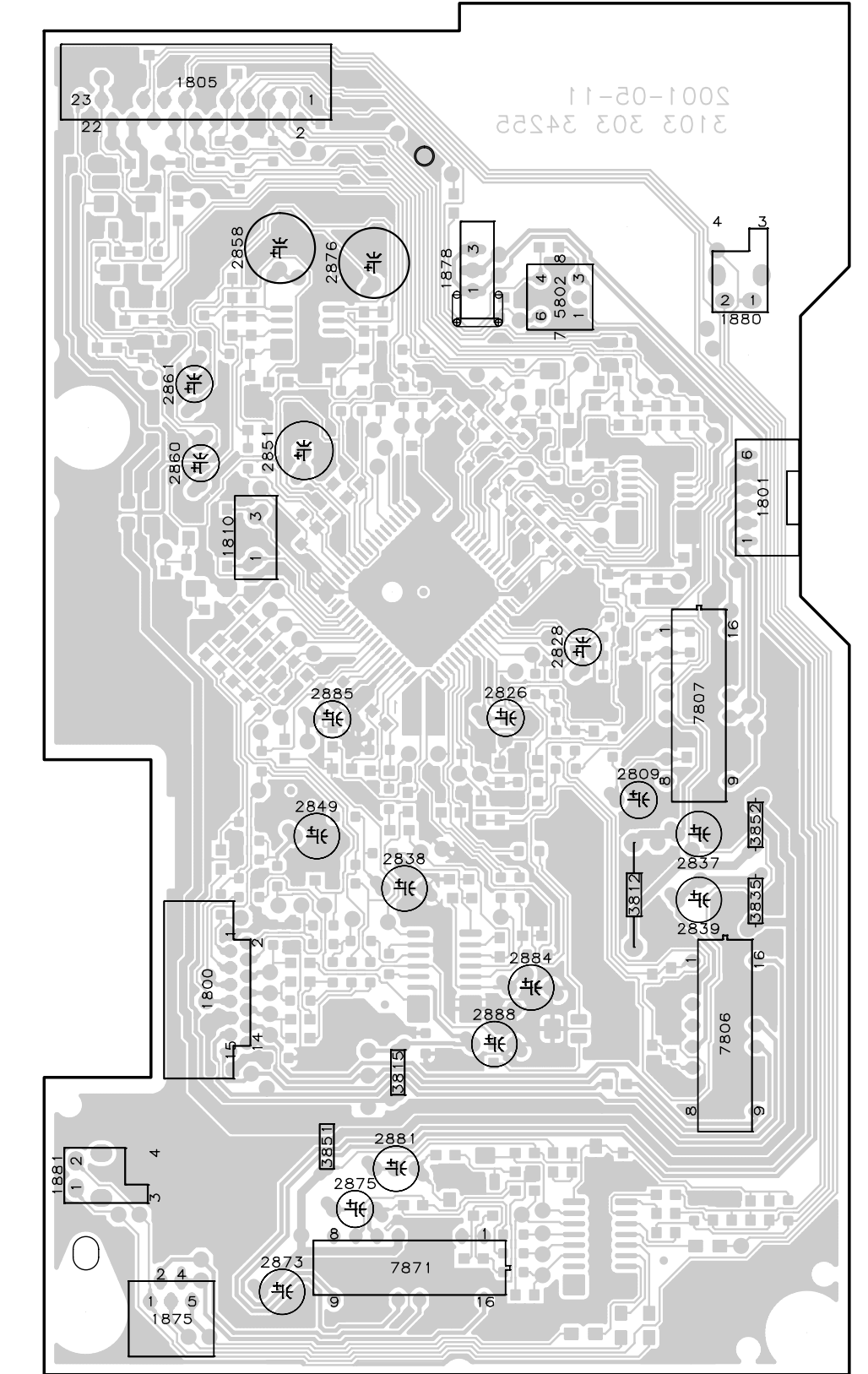
1 2 3 4 5

Mapping

Copperside			Componentside
2800	F4	3770	C3
2801	D4	3771	B5
2802	F4	3780	C3
2803	D4	3781	B3
2805	D4	3782	B5
2806	D4	3800	F4
2807	F4	3801	E4
2808	D4	3802	F4
2810	E4	3803	D4
2811	D4	3804	C3
2815	F3	3805	D4
2816	C3	3806	D4
2818	C4	3807	D4
2822	E3	3808	D4
2823	E3	3809	D2
2824	E3	3811	F4
2825	E4	3814	D4
2829	H3	3819	C3
2830	C4	3820	F4
2831	B3	3821	F4
2832	C4	3822	F4
2833	C4	3823	F3
2834	D4	3824	F3
2835	E2	3825	E3
2836	D4	3826	E3
2840	D1	3827	D4
2841	E2	3828	D2
2842	F2	3831	C2
2844	E2	3832	C3
2850	C3	3833	E4
2852	C2	3834	F4
2853	D2	3837	D2
2854	D2	3838	D2
2855	E4	3839	E2
2856	C3	3840	E3
2857	E2	3841	D2
2859	E3	3842	D2
2862	C4	3843	E2
2863	C4	3844	F2
2864	D2	3845	D2
2865	B3	3846	E2
2867	B4	3847	G2
2869	F4	3848	D3
2872	G2	3849	E2
2877	H1	3850	E1
2878	H1	3853	E4
2879	E2	3854	B5
2882	B3	3855	B5
2887	C4	3856	E4
2891	G2	3857	E4
2892	F3	3858	B5
2893	H1	3859	B5
3700	D2	3860	B4
3705	C2	3861	C4
3706	C1	3862	C4
3707	C2	3863	D2
3708	C2	3864	B4
3709	C3	3866	F3
3711	C2	3867	C4
3712	A3	3868	B3
3713	G3	3869	F4
3714	G2	3870	F4
3715	G2	3871	H1
3716	D2	3872	B3
3717	D2	3873	C3
3718	C2	3874	B3
3727	C3	3875	C2
3728	C3	3876	C2
3730	C3	3877	H1
3731	C2	3878	A5
3732	C2	3879	H3
3733	C2	3880	G3
3734	D2	3881	G2
3735	E3	3882	H2
3736	E3	3883	H3
3740	C4	3884	H3
3741	C4	3885	H3
3742	C4	3886	H2
3743	C3	3887	G2
3744	B4	3888	H1
3746	B3	3889	C2
3750	B4	3890	H2
3751	B4	3891	H2
3892	C2	3892	C2
3893	G2	3893	G2
3894	E4	3894	E4
3895	E3	3895	E3
3897	F2	3897	F2
3898	G2	3898	G2
3900	E2	3900	E2
3901	G3	3901	G3
4800	A5	4800	A5
4801	A4	4801	A4
4802	A4	4802	A4
4803	B2	4803	B2
4804	A5	4804	A5
4805	A5	4805	A5
4806	A5	4806	A5
4807	A5	4807	A5
4808	A5	4808	A5
4809	B5	4809	B5
4810	B4	4810	B4
4811	F2	4811	F2
4812	F2	4812	F2
4813	A4	4813	A4
4814	A4	4814	A4
4815	A4	4815	A4
4816	A4	4816	A4
4817	A3	4817	A3
4818	A3	4818	A3
4819	A3	4819	A3
4820	C4	4820	C4
4821	B2	4821	B2
4822	C5	4822	C5
4823	C5	4823	C5
4824	C5	4824	C5
4825	B3	4825	B3
4826	C3	4826	C3
4827	A4	4827	A4
4828	C2	4828	C2
4829	B2	4829	B2
4830	E2	4830	E2
4831	H4	4831	H4
4832	D2	4832	D2
4833	E3	4833	E3
4834	E4	4834	E4
4835	F4	4835	F4
4836	F4	4836	F4
4837	E3	4837	E3
4838	E3	4838	E3
4839	E3	4839	E3
4840	F3	4840	F3
4841	G2	4841	G2
4842	E3	4842	E3
4843	F3	4843	F3
4844	G3	4844	G3
4845	G4	4845	G4
4846	F4	4846	F4
4847	F4	4847	F4
4848	G4	4848	G4
4849	A4	4849	A4
4849	A4	4849	A4
4850	C5	4850	C5
6871	H1	6871	H1
6872	H2	6872	H2
6873	H2	6873	H2
6874	G3	6874	G3
6875	G2	6875	G2
6876	C5	6876	C5
6877	C4	6877	C4
6878	H2	6878	H2
6879	C2	6879	C2
7801	F3	7801	F3
7804	F2	7804	F2
7805	B4	7805	B4
7812	G3	7812	G3
7850	B5	7850	B5
7851	B5	7851	B5
7860	B5	7860	B5
7861	B5	7861	B5
7873	H2	7873	H2
7874	C2	7874	C2
7875	D4	7875	D4
7876	C2	7876	C2
7877	D3	7877	D3

1 2 3 4 5

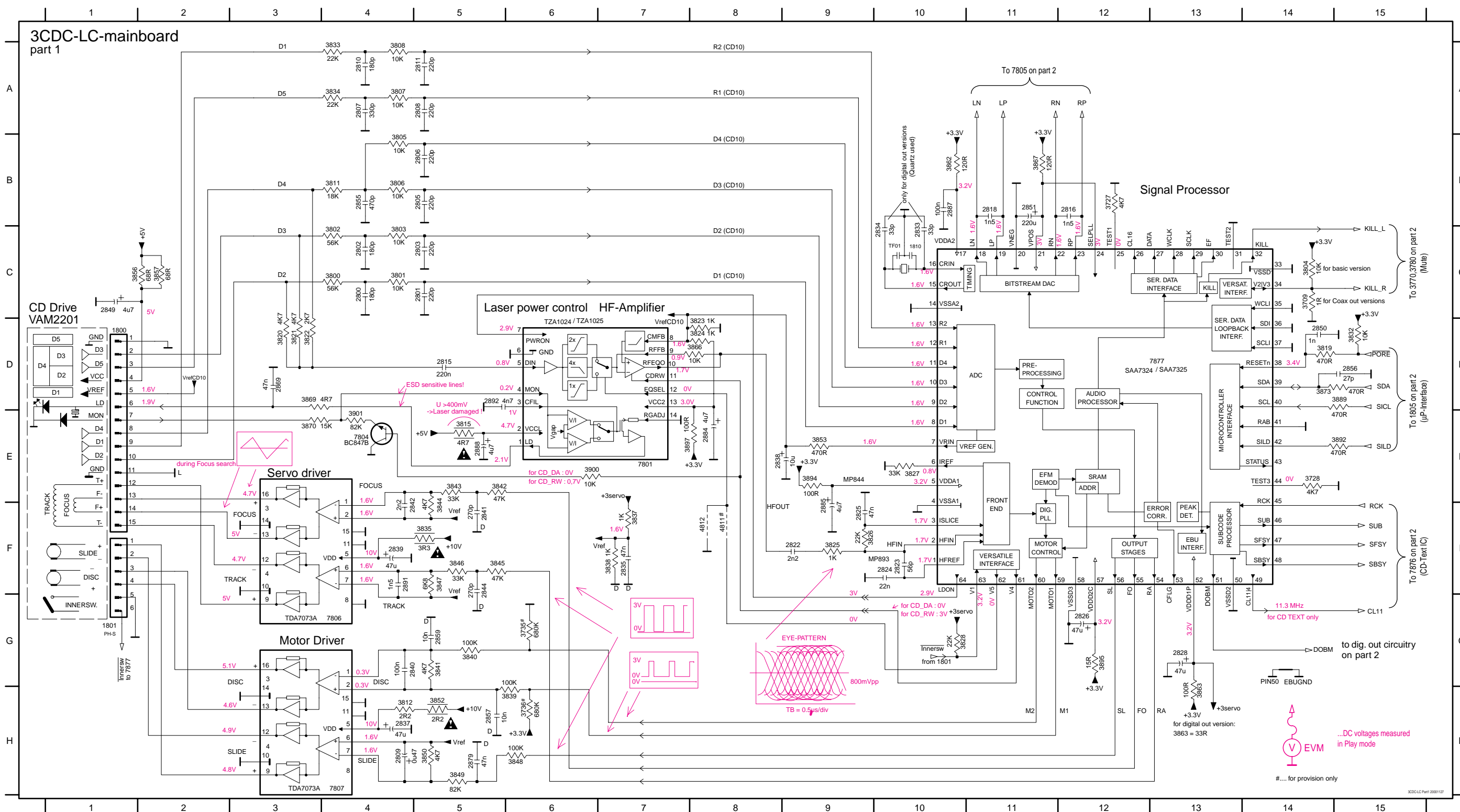
3CDC-LC Mainboard Componentside view

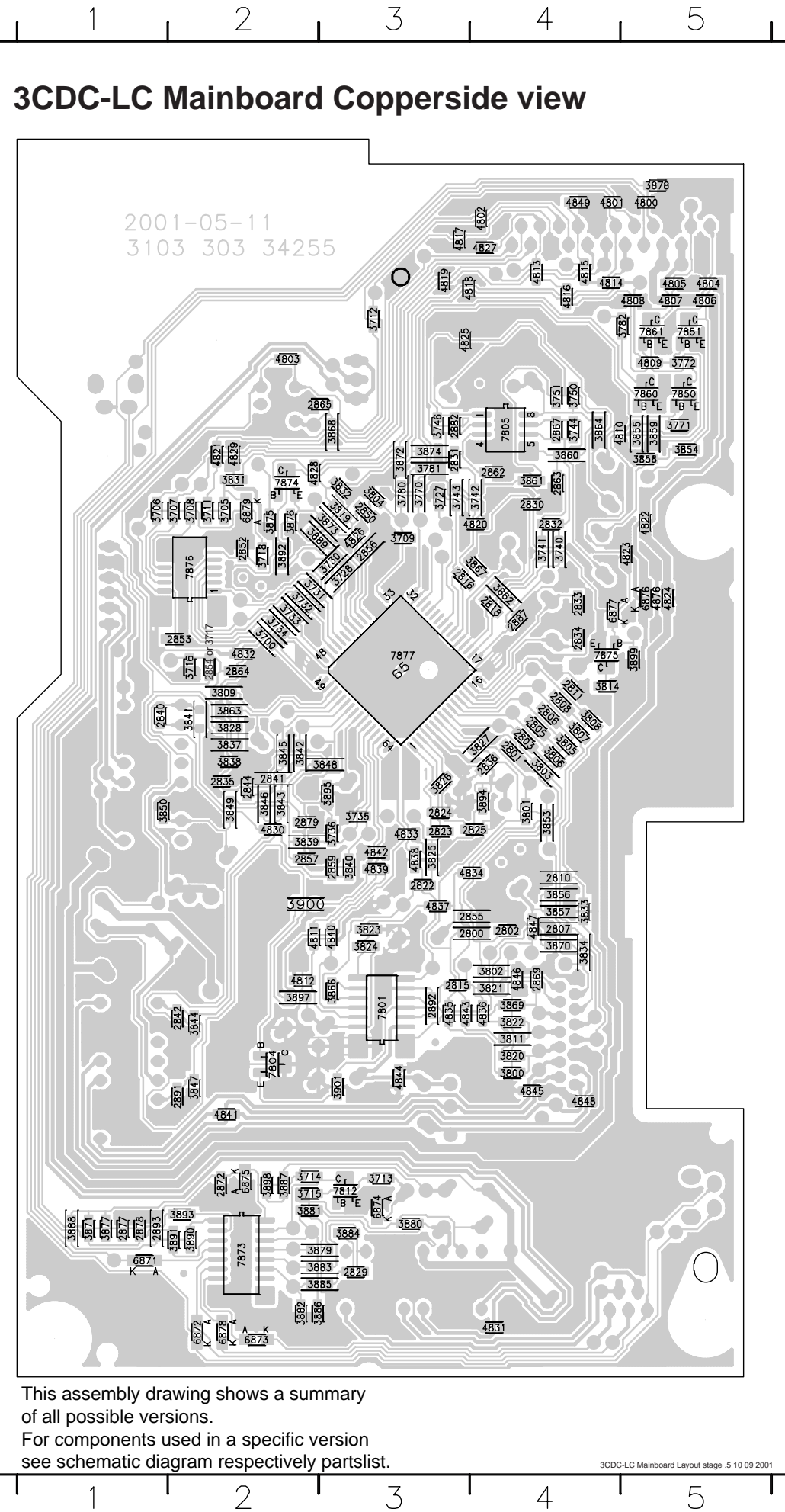


This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.

1 2 3 4 5

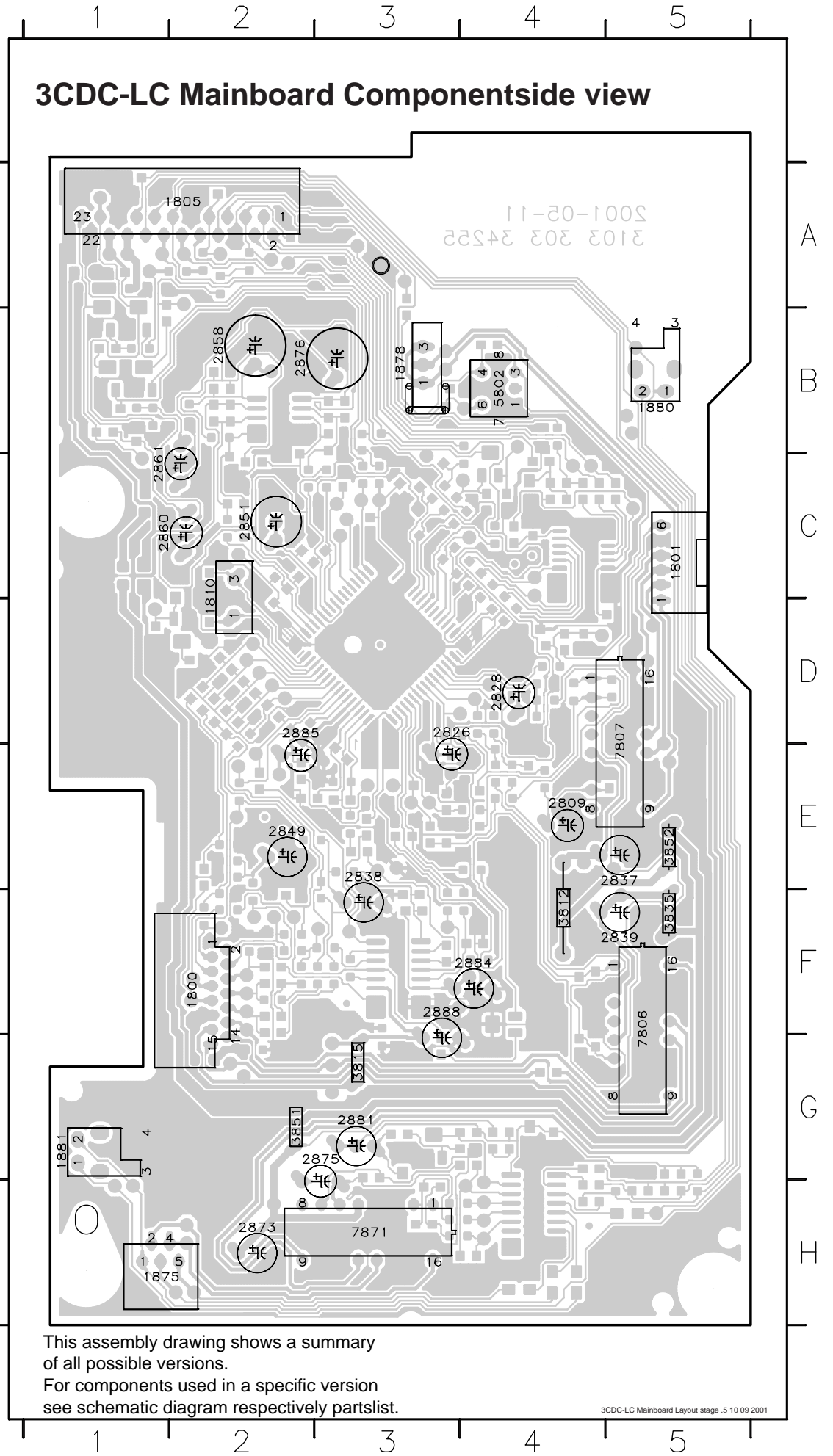
1800 D1	2803 C5	2810 A4	2823 F10	2834 C10	2841 F5	2855 B4	2884 E8	3709 C14	3801 C4	3807 A4	3820 D3	3826 F9	3835 F5	3842 E5	3848 H6	3857 C2	3870 E3	3897 E7	7804 E4
1801 G1	2805 B5	2811 A5	2824 F10	2835 F7	2842 F5	2856 D15	2885 F9	3727 B12	3802 C4	3808 A4	3821 D3	3827 E10	3837 F7	3843 E5	3849 H5	3862 B10	3873 D14	3900 E6	7806 G4
1810 C10	2806 B5	2815 D5	2825 F9	2837 H4	2844 F5	2857 H5	2887 B10	3728 E14	3803 C4	3811 B4	3822 D3	3828 G10	3838 F7	3844 F5	3850 H5	3863 H13	3889 D15	3901 E4	7807 H4
2800 C4	2807 A4	2816 B12	2826 G12	2838 E8	2849 C1	2859 G5	2888 E5	3735 G6	3804 C14	3812 H4	3823 D8	3832 D15	3839 H6	3845 F5	3852 H5	3866 D8	3892 E15	4811 F8	7877 D12
2801 C5	2808 A5	2818 B11	2828 G13	2839 F4	2850 D14	2869 D3	2891 F4	3736 H6	3805 B4	3815 E5	3824 D8	3833 A4	3840 G5	3846 F5	3853 E9	3867 B11	3894 E9	4812 F8	
2802 C4	2809 H4	2822 F9	2833 C10	2840 G4	2851 B11	2879 H5	2892 D5	3800 C4	3806 B4	3819 D14	3825 F9	3834 A4	3841 G5	3847 F5	3856 C1	3869 D3	3895 G12	7801 E7	



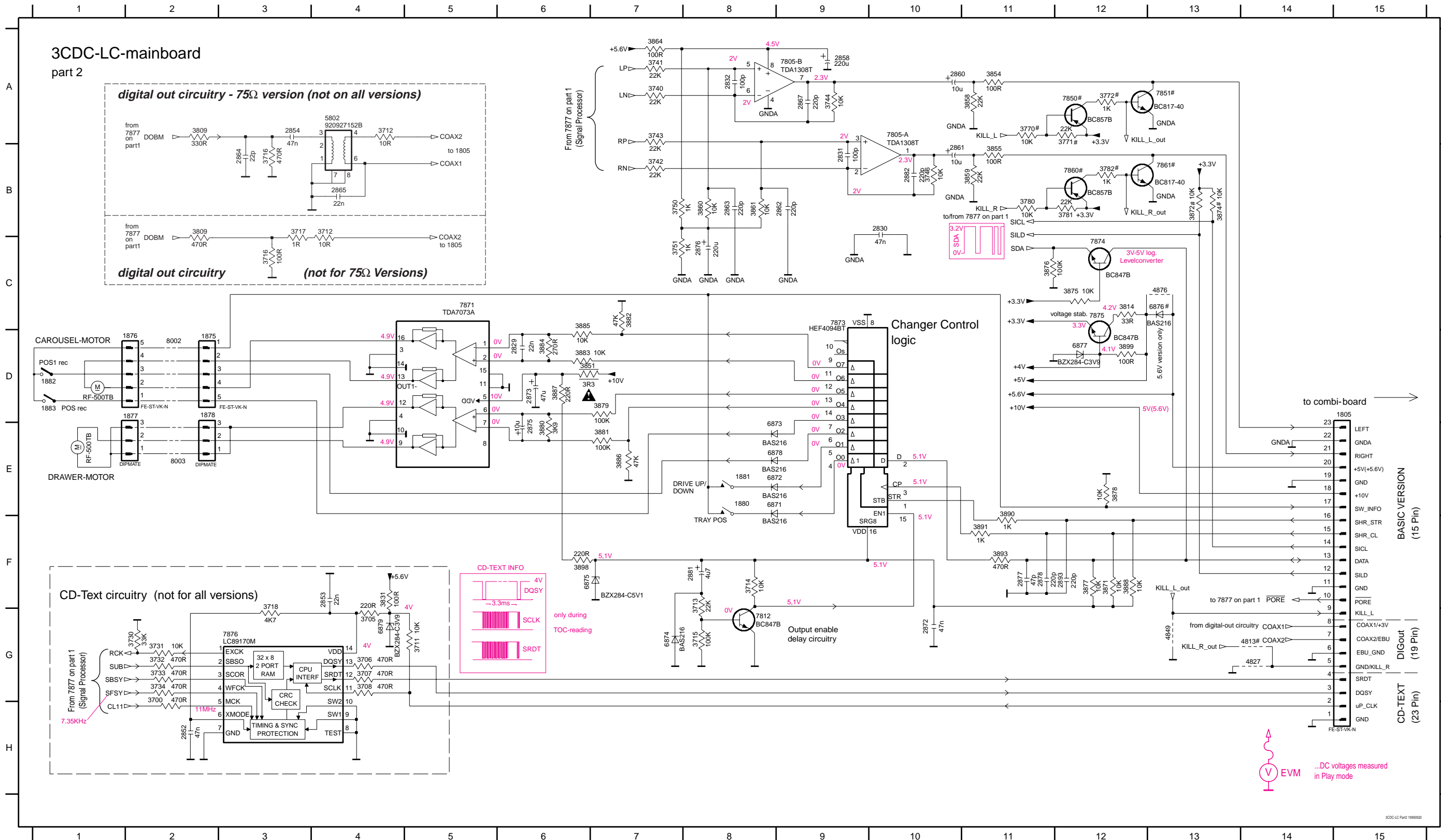


Mapping

Copperside			Componentside
2800	F4	3770 C3	3892 C2
2801	D4	3771 B5	3893 G2
2802	F4	3772 B5	3894 E4
2803	D4	3780 C3	3895 E3
2805	D4	3781 B3	3897 F2
2806	D4	3782 B5	3898 G2
2807	F4	3800 F4	3899 D5
2808	D4	3801 E4	3900 E2
2810	E4	3802 F4	3901 G3
2811	D4	3803 D4	4800 A5
2815	F3	3804 C3	4801 A4
2816	C3	3805 D4	4802 A4
2818	C4	3806 D4	4803 B2
2822	E3	3807 D4	4804 A5
2823	E3	3808 D4	4805 A5
2824	E3	3809 D2	4806 A5
2825	E4	3811 F4	4807 A5
2829	H3	3814 D4	4808 A5
2830	C4	3819 C3	4809 B5
2831	B3	3820 F4	4810 B4
2832	C4	3821 F4	4811 F2
2833	C4	3822 F4	4812 F2
2834	D4	3823 F3	4813 A4
2835	E2	3824 F3	4814 A4
2836	D4	3825 E3	4815 A4
2840	D1	3826 E3	4816 A4
2841	E2	3827 D4	4817 A3
2842	F2	3828 D2	4818 A3
2844	E2	3831 C2	4819 A3
2850	C3	3832 C3	4820 C4
2852	C2	3833 E4	4821 B2
2853	D2	3834 F4	4822 C5
2854	D2	3837 D2	4823 C5
2855	E4	3838 D2	4824 C5
2856	C3	3839 E2	4825 B3
2857	E2	3840 E3	4826 C3
2859	E3	3841 D2	4827 A4
2862	C4	3842 D2	4828 C2
2863	C4	3843 E2	4829 B2
2864	D2	3844 F2	4830 E2
2865	B3	3845 D2	4831 H4
2867	B4	3846 E2	4832 D2
2869	F4	3847 G2	4833 E3
2872	G2	3848 D3	4834 E4
2877	H1	3849 E2	4835 F3
2878	H1	3850 E1	4836 F4
2879	E2	3851 E4	4837 E3
2882	B3	3854 B5	4838 E3
2887	C4	3855 B5	4839 E3
2891	G2	3856 E4	4840 F3
2892	F3	3857 E4	4841 G2
2893	H1	3858 B5	4842 E3
3700	D2	3859 B5	4843 F3
3705	C2	3860 B4	4844 G3
3706	C1	3861 C4	4845 G4
3707	C2	3862 C4	4846 F4
3708	C2	3863 D2	4847 F4
3709	C3	3864 B4	4848 G4
3711	C2	3866 F3	4849 A4
3712	A3	3867 C4	4876 C5
3713	G3	3868 B3	6871 H1
3714	G2	3869 F4	6872 H2
3715	G2	3870 F4	6873 H2
3716	D2	3871 H1	6874 G3
3717	D2	3872 B3	6875 G2
3718	C2	3873 C3	6876 C5
3727	C3	3874 B3	6877 C4
3728	C3	3875 C2	6878 H2
3730	C3	3876 C2	6879 C2
3731	C2	3877 H1	7801 F3
3732	C2	3878 A5	7804 F2
3733	C2	3879 H3	7805 B4
3734	D2	3880 G3	7812 G3
3735	E3	3881 G2	7850 B5
3736	E3	3882 H2	7851 B5
3740	C4	3883 H3	7860 B5
3741	C4	3884 H3	7861 B5
3742	C4	3885 H3	7873 H2
3743	C3	3886 H2	7874 C2
3744	B4	3887 G2	7875 D4
3746	B3	3888 H1	7876 C2
3750	B4	3889 C2	7877 D3
3751	B4	3890 H2	
		3891 H2	



1805 D15	2830 B10	2858 A10	2865 C4	2877 F11	3705 G4	3713 F8	3730 G2	3741 A7	3751 C7	3782 B12	3855 B11	3868 C4	3877 F12	3883 D6	3890 F11	4813 G14	6872 E8	6878 E8	7851 A13	7875 C12	MP725 D8	MP803 F10	MP810 F13	MP830 A9	MP856 E14	MP867 E8	MP882 G2	MP891 B5
1875 D2	2831 B9	2860 A10	2867 A9	2878 F11	3706 G4	3714 F8	3731 G2	3742 B7	3770 A11	3809 B2	3858 A11	3871 F12	3878 E12	3884 D6	3891 F11	4827 G14	6873 E8	6879 G4	7860 B12	7876 G3	MP726 D8	MP804 G14	MP811 F13	MP832 G9	MP857 B13	MP868 F8	MP886 G3	MP892 B5
1878 D2	2832 A8	2861 B10	2872 G10	2881 F8	3707 G4	3715 G8	3732 G2	3743 A7	3771 A12	3814 C12	3859 B11	3872 B13	3879 D7	3885 C6	3893 F11	4849 G13	6874 G7	7805-A A10	7861 B13	MP721 E8	MP740 H14	MP805 E13	MP822 E3	MP833 F13	MP862 G13	MP869 C12	MP887 H5	MP897 D12
1880 E8	2852 H2	2862 B9	2873 D6	2882 B10	3708 G4	3716 B3	3733 G2	3744 A9	3772 A12	3831 F4	3860 B8	3874 B13	3880 E6	3886 E7	3898 F6	4876 C13	6875 F6	7805-B A9	7871 C5	MP722 E8	MP741 G14	MP806 F13	MP823 D3	MP834 G14	MP863 C11	MP871 D6	MP888 G5	MP898 D13
1881 E8	2853 F4	2863 B8	2875 E6	2893 F12	3711 G5	3717 B3	3734 G2	3746 B10	3780 B11	3851 D6	3861 B8	3875 C12	3881 E7	3887 D6	3899 D12	5802 B4	6876 C13	7812 G8	7873 C9	MP723 E8	MP742 G14	MP807 F14	MP824 D4	MP835 F14	MP865 D11	MP874 D12	MP889 G5	MP899 E14
2829 D6	2854 B3	2864 B3	2876 C8	3700 H2	3712 B4	3718 G3	3740 A7	3750 B7	3781 B12	3854 A11	3864 A7	3876 C11	3882 C7	3888 F12	4803 B4	6871 E8	6877 D12	7850 A12	7874 C12	MP724 D8	MP801 D12	MP808 E13	MP825 D4	MP854 A13	MP866 E8	MP881 G2	MP890 B3	



EXPLODED VIEW (3CDC-LC MODULE)

MECHANICAL PARTS *Loader* → *this page*

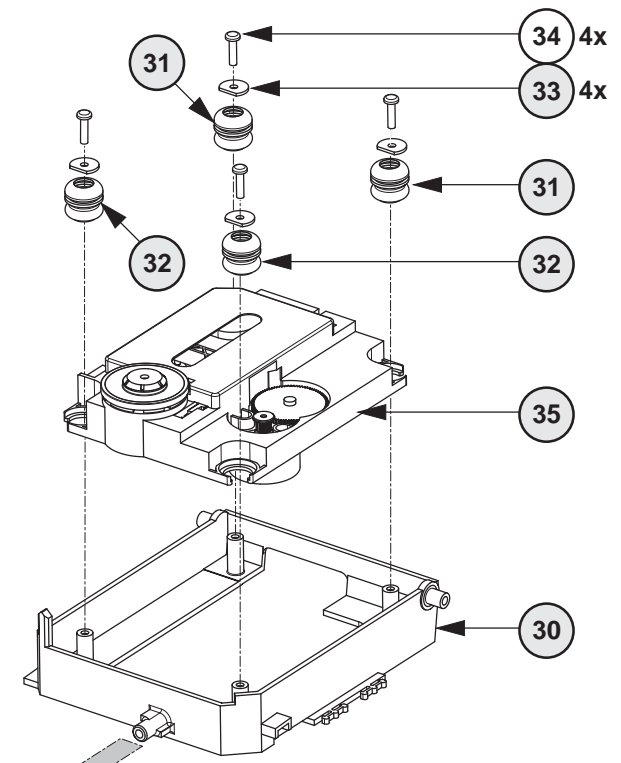
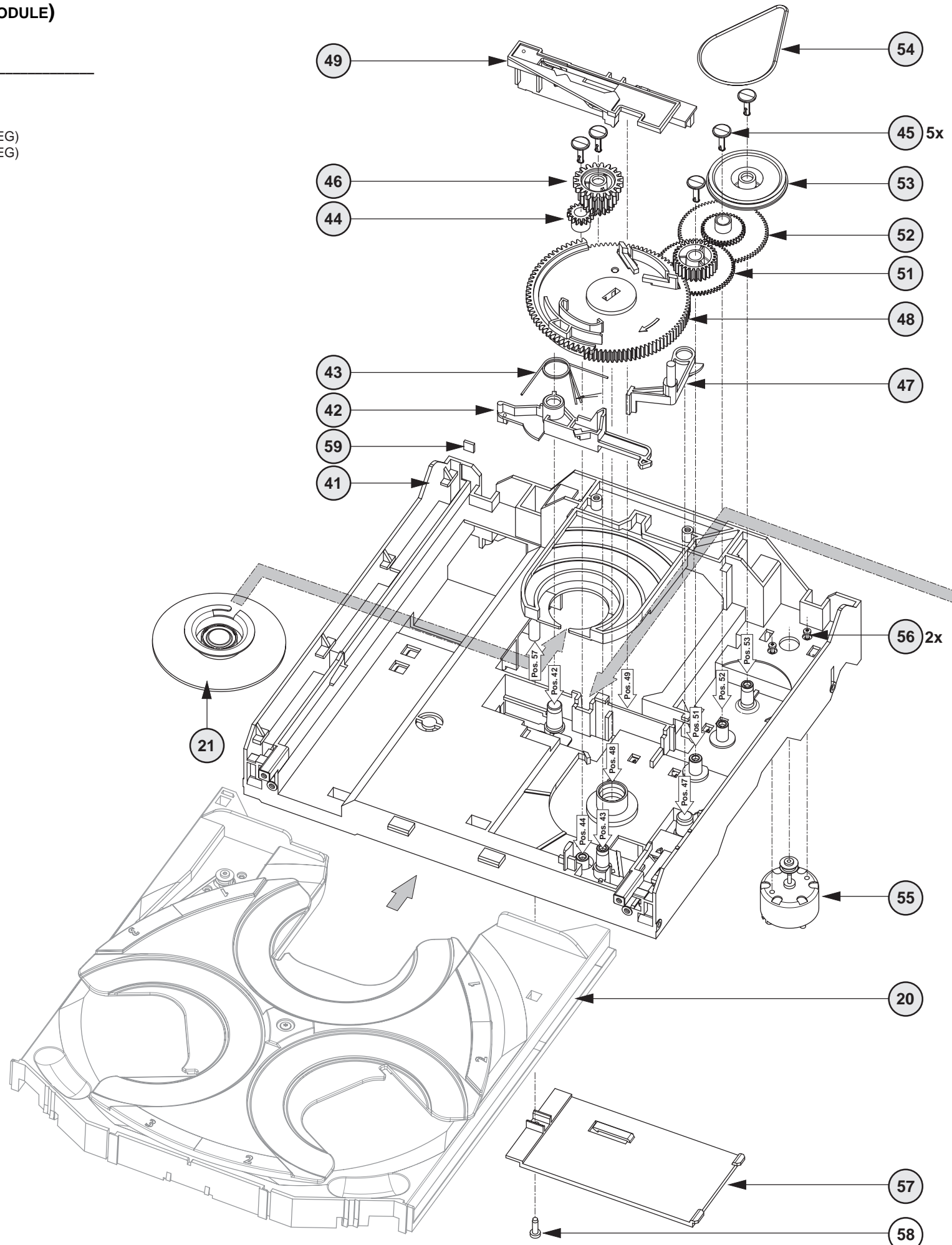
- 20 3103 304 66500 DRAWER
- 21 3140 117 58650 CLAMPER ASSY-VAM
- 30 3103 304 66560 SUPPORT
- 31 4822 529 10431 DAMPER - RUBBER (25DEG)
- 32 4822 529 10431 DAMPER - RUBBER (25DEG)

- 33 3103 304 06970 WASHER
- 35 9305 022 30103 CD Drive VAM2201/03
- 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 68890 COVER-VAM
- 59 4822 466 12146 RUBBER



MECHANICAL PARTS *Drawer* → *Chapter 10-11*

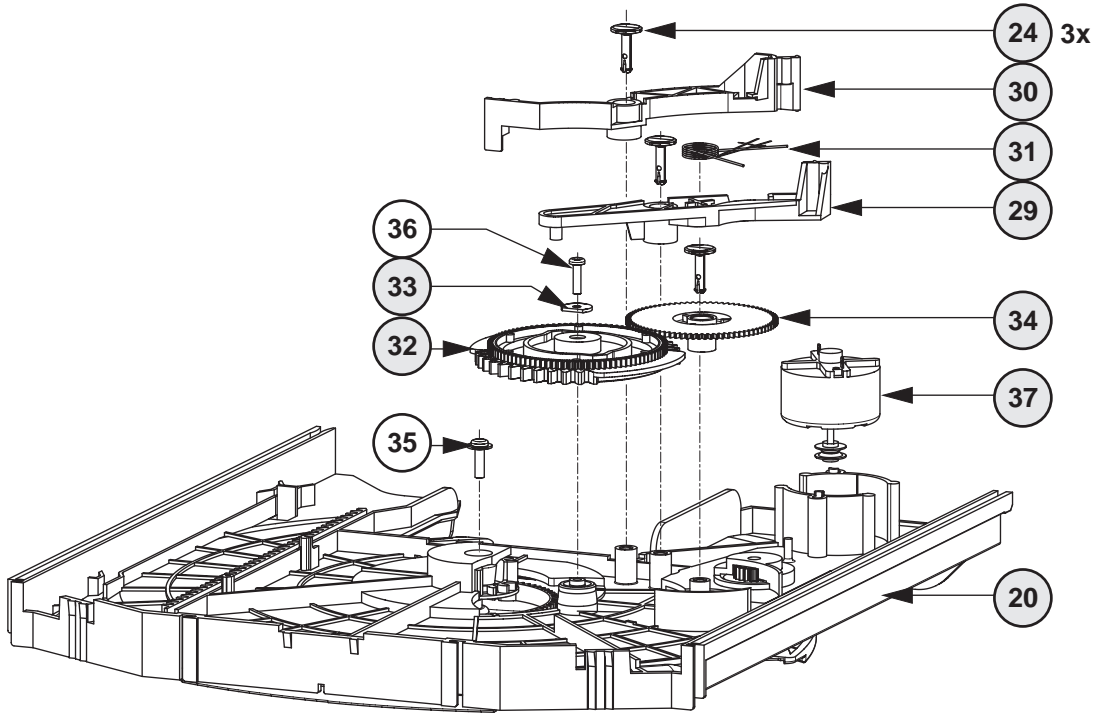
- 20 3103 304 66500 DRAWER
- 21 3103 304 66490 CAROUSEL
- 22 3103 304 06860 PULLEY-DRAWER
- 23 3103 304 06850 ECCENTRIC GEAR WHEEL
- 24 3103 304 06980 NAIL FIXATION

- 25 3103 304 66850 DRIVING BELT CAROUSEL
- 27 3103 304 07100 BUSH DRAWER (height=8,5mm,d=16mm)
- 27 4822 532 12365 BUSH DRAWER (height=5,5mm,d=9,4mm)
- 29 3103 304 66550 BRACKET-DISC
- 30 3103 304 66520 TUMBLER

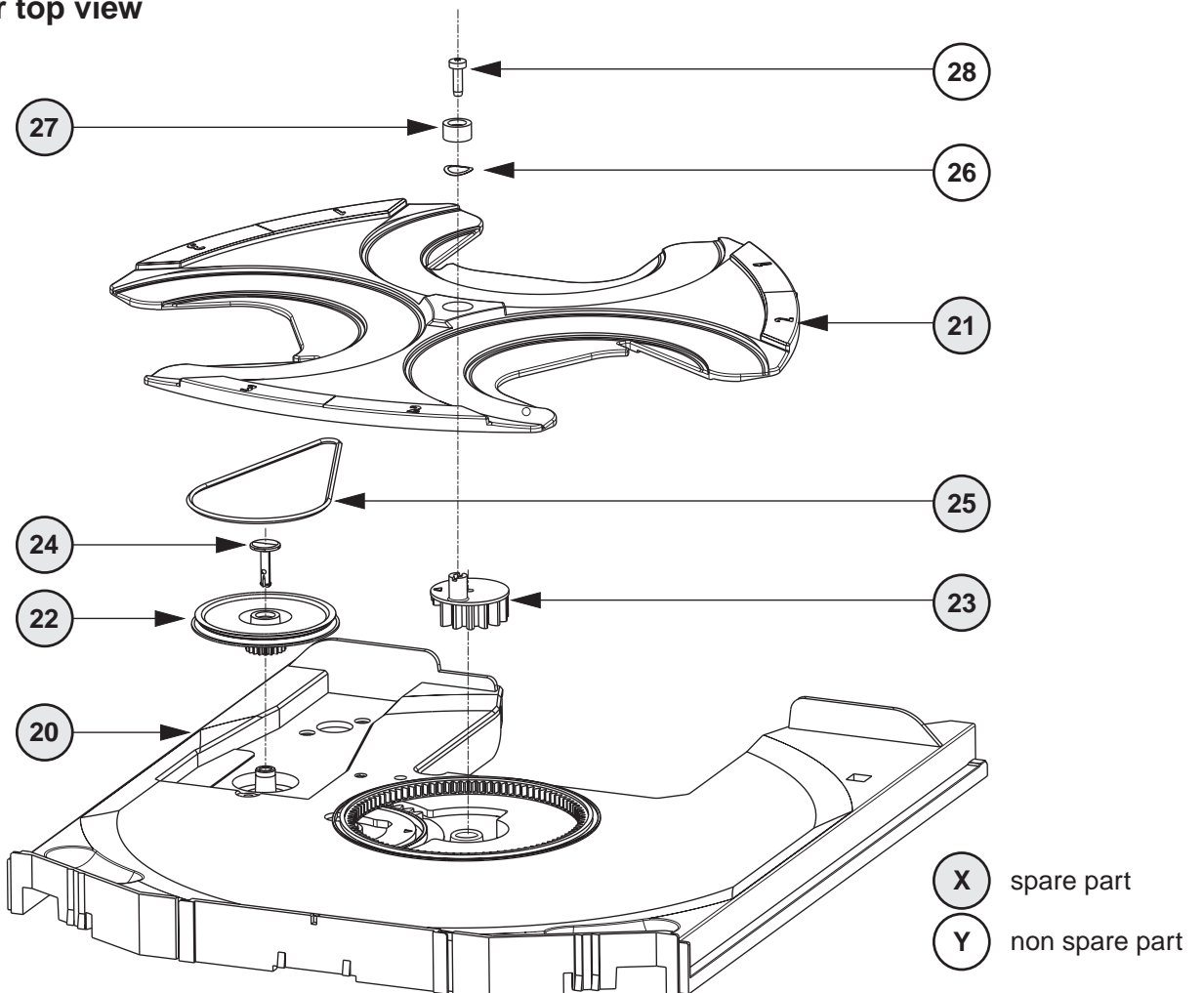
- 31 3103 301 06470 SPRING-DISC
- 32 3103 304 06920 CONTROL-DISC
- 34 3103 304 06870 GEAR-1
- 37 4822 361 10753 CAROUSEL MOTOR

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

Drawer bottom view



Drawer top view



ELECTRICAL PARTSLIST 3CDC-LC MODULE

MISCELLANEOUS

1800	4822 265 10925	FLEX FOIL CONNECTOR 15PIN
1805	4822 265 10979	FLEX FOIL CONNECTOR 15PIN
1805	4822 265 11182	FLEX FOIL CONNECTOR 23PIN
1805	4822 265 11545	FLEX FOIL CONNECTOR 19PIN
1875	4822 267 10958	FLEX FOIL CONNECTOR 5PIN
1876	2422 025 08332	FLEX FOIL CONNECTOR 5PIN
1880	4822 276 13503	SWITCH, Tray in endposition
1881	4822 276 13503	SWITCH, Drive up/down
1882	4822 276 13503	SWITCH, Position 1
1883	4822 276 13503	SWITCH, Position recogniced
8002	3103 308 91990	FLEX FOIL CABLE 5P, 200mm
8005	3103 308 91980	FLEX FOIL CABLE 15P, 170mm

CAPACITORS

2800©	4822 126 10326	180pF	5%	
2801©	4822 122 33575	220pF	5%	50V
2802©	4822 126 10326	180pF	5%	
2803©	4822 122 33575	220pF	5%	50V
2805©	4822 122 33575	220pF	5%	50V
2806©	4822 122 33575	220pF	5%	50V
2807©	5322 122 31863	330pF	5%	50V
2808©	4822 122 33575	220pF	5%	50V
2809	5322 124 41948	0,47µF	20%	50V
2810©	4822 126 10326	180pF	5%	
2811©	4822 122 33575	220pF	5%	50V
2815©	4822 126 14076	220nF	20%	25V
2816©	4822 126 13344	1,5nF	5%	63V
2818©	4822 126 13344	1,5nF	5%	63V
2822©	2222 861 15222	2,2nF	10%	50V
2823©	4822 126 13693	56pF	1%	63V
2824©	4822 126 13751	47nF	10%	50V
2825©	4822 122 33177	10nF	20%	50V
2826	4822 124 12362	47µF	20%	4V
2828	4822 124 12362	47µF	20%	4V
2829©	5322 122 32654	22nF	10%	63V
2830©	4822 126 13751	47nF	10%	50V
2831©	5322 122 32531	100pF	5%	50V
2832©	5322 122 32531	100pF	5%	50V
2833©	5322 122 32659	33pF	5%	50V
2834©	5322 122 32659	33pF	5%	50V
2835©	4822 126 13751	47nF	10%	50V
2837	4822 124 40433	47µF	20%	25V
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 122 33127	2,2nF	10%	63V
2844©	4822 122 33216	270pF	5%	50V
2849	4822 124 40769	4,7µF	20%	100V
2850©	5322 122 31647	1nF	10%	63V
2851	4822 124 42383	220µF	20%	4V
2852©	4822 126 13751	47nF	10%	50V
2853©	5322 122 32654	22nF	10%	63V
2854©	4822 126 13751	47nF	10%	50V
2855©	5322 122 34099	470pF	10%	63V
2856©	4822 126 13691	27pF	1%	63V
2857©	4822 122 33177	10nF	20%	50V
2858	4822 124 12245	220µF	20%	16V
2859©	4822 122 33177	10nF	20%	50V
2860	4822 124 11947	10µF	20%	16V
2861	4822 124 11947	10µF	20%	16V
2862©	4822 122 33575	220pF	5%	50V
2863©	4822 122 33575	220pF	5%	50V
2864©	5322 122 32658	22pF	5%	50V

CAPACITORS

2865©	5322 122 32654	22nF	10%	63V
2867©	4822 122 33575	220pF	5%	50V
2869©	4822 126 13751	47nF	10%	50V
2872©	4822 126 13751	47nF	10%	50V
2873	4822 124 80231	47µF	20%	16V
2875	4822 124 11947	10µF	20%	16V
2876	4822 124 12245	220µF	20%	16V
2877©	4822 126 13692	47pF	1%	63V
2878©	4822 122 33575	220pF	5%	50V
2879©	4822 126 13751	47nF	10%	50V
2881	4822 124 40769	4,7µF	20%	100V
2882©	4822 122 33575	220pF	5%	50V
2884	4822 124 40769	4,7µF	20%	100V
2885	4822 124 40769	4,7µF	20%	100V
2887©	4822 126 14585	100nF	10%	50V
2888	4822 124 40769	4,7µF	20%	100V
2891©	5322 122 31865	1,5nF	10%	63V
2892©	5322 126 10223	4,7nF	10%	63V
2893©	4822 122 33575	220pF	5%	50V

RESISTORS

3700©	4822 051 20471	470Ω	5%	0,1W
3705©	4822 117 11503	220Ω	5%	0,1W
3706©	4822 051 20471	470Ω	5%	0,1W
3707©	4822 051 20471	470Ω	5%	0,1W
3708©	4822 051 20471	470Ω	5%	0,1W
3709©	4822 051 20108	1Ω	5%	0,1W
3711©	4822 117 10833	10kΩ	1%	0,1W
3712©	4822 051 20109	10Ω	5%	0,1W
3713©	4822 051 20223	22kΩ	5%	0,1W
3714©	4822 117 10833	10kΩ	1%	0,1W
3715©	4822 117 10837	100kΩ	1%	0,1W
3716©	4822 051 20471	470Ω	5%	0,1W
3718©	4822 051 20472	4,7kΩ	5%	0,1W
3727©	4822 051 20472	4,7kΩ	5%	0,1W
3728©	4822 051 20472	4,7kΩ	5%	0,1W
3730©	4822 051 20333	33kΩ	5%	0,1W
3731©	4822 117 10833	10kΩ	1%	0,1W
3732©	4822 051 20471	470Ω	5%	0,1W
3733©	4822 051 20471	470Ω	5%	0,1W
3734©	4822 051 20471	470Ω	5%	0,1W
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 117 10833	10kΩ	1%	0,1W
3746©	4822 117 10833	10kΩ	1%	0,1W
3750©	4822 051 10102	1kΩ	2%	0,25W
3751©	4822 051 10102	1kΩ	2%	0,25W
3800©	4822 117 11148	56kΩ	1%	0,1W
3801©	4822 117 10833	10kΩ	1%	0,1W
3802©	4822 117 11148	56kΩ	1%	0,1W
3803©	4822 117 10833	10kΩ	1%	0,1W
3805©	4822 117 10833	10kΩ	1%	0,1W
3806©	4822 117 10833	10kΩ	1%	0,1W
3807©	4822 117 10833	10kΩ	1%	0,1W
3808©	4822 117 10833	10kΩ	1%	0,1W
3809©	4822 117 13577	330Ω	1%	0,1W
3811©	4822 051 20273	27kΩ	5%	0,1W
3812	4822 053 10228	2,2Ω	5%	1W
3814©	4822 051 20339	33Ω	5%	0,1W
3815	4822 052 10478	4,7Ω	5%	NFR
3819©	4822 051 20471	470Ω	5%	0,1W
3820©	4822 051 20472	4,7kΩ	5%	0,1W

ELECTRICAL PARTSLIST 3CDC-LC MODULE

RESISTORS

3821©	4822 051 20472	4,7kΩ	5%	0,1W
3822©	4822 117 12955	2,7kΩ	1%	0,1W
3823©	4822 051 10102	1kΩ	2%	0,25W
3824©	4822 051 10102	1kΩ	2%	0,25W
3825©	4822 051 10102	1kΩ	2%	0,25W
3826©	4822 051 20223	22kΩ	5%	0,1W
3827©	4822 051 20273	27kΩ	5%	0,1W
3828©	4822 051 20223	22kΩ	5%	0,1W
3831©	4822 051 20101	100Ω	5%	0,1W
3832©	4822 117 10833	10kΩ	1%	0,1W
3833©	4822 051 20223	22kΩ	5%	0,1W
3834©	4822 051 20223	22kΩ	5%	0,1W
3835	4822 052 10338	3,3Ω		NFR25
3837©	4822 051 10102	1kΩ	2%	0,25W
3838©	4822 051 10102	1kΩ	2%	0,25W
3839©	4822 117 10837	100kΩ	1%	0,1W
3840©	4822 117 10837	100kΩ	1%	0,1W
3841©	4822 051 20472	4,7kΩ	5%	0,1W
3842©	4822 117 10834	47kΩ	1%	0,1W
3843©	4822 051 20333	33kΩ	5%	0,1W
3844©	4822 051 20472	4,7kΩ	5%	0,1W
3845©	4822 117 10834	47kΩ	1%	0,1W
3846©	4822 051 20333	33kΩ	5%	0,1W
3847©	4822 117 11507	6,8kΩ	1%	0,1W
3848©	4822 117 10837	100kΩ	1%	0,1W
3849©	4822 117 11149	82kΩ	1%	0,1W
3850©	4822 051 20472	4,7kΩ	5%	0,1W
3851	4822 052 10338	3,3Ω		NFR25
3852	4822 052 10228	2,2Ω	5%	0,33W
3853©	4822 051 20471	470Ω	5%	0,1W
3854©	4822 051 20101	100Ω	5%	0,1W
3855©	4822 051 20101	100Ω	5%	0,1W
3856©	4822 117 12521	68Ω	1%	0,1W
3857©	4822 117 12521	68Ω	1%	0,1W
3858©	4822 051 20223	22kΩ	5%	0,1W
3859©	4822 051 20223	22kΩ	5%	0,1W
3860©	4822 117 10833	10kΩ	1%	0,1W
3861©	4822 117 10833	10kΩ	1%	0,1W
3862©	4822 051 20121	120Ω	5%	0,1W
3863©	4822 051 20339	33Ω	5%	0,1W
3864©	4822 051 20101	100Ω	5%	0,1W
3866©	4822 117 10833	10kΩ	1%	0,1W
3867©	4822 051 20121	120Ω	5%	0,1W
3869©	4822 051 20478	4,7Ω	5%	0,1W
3870©	4822 116 83933	15kΩ	5%	0,1W
3871©	4822 117 10833	10kΩ	1%	0,1W
3873©	4822 051 20471	470Ω	5%	0,1W
3875©	4822 117 10833	10kΩ	1%	0,1W
3876©	4822 117 10837	100kΩ	1%	0,1W
3877©	4822 117 10833	10kΩ	1%	0,1W
3878©	4822 117 10833	10kΩ	1%	0,1W
3879©	4822 117 10837	100kΩ	1%	0,1W
3880©	4822 051 20392	3,9kΩ	5%	0,1W
3881©	4822 117 10837	100kΩ	1%	0,1W
3882©	4822 117 10834	47kΩ	1%	0,1W
3883©	4822 117 10833	10kΩ	1%	0,1W
3884©	4822 117 11504	270Ω	1%	0,1W
3885©	4822 117 10833	10kΩ	1%	0,1W
3886©	4822 117 10834	47kΩ	1%	0,1W
3887©	4822 117 11503	220Ω	5%	0,1W
3888©	4822 117 10833	10kΩ	1%	0,1W
3889©	4822 051 20471	470Ω	5%	0,1W
3890©	4822 051 10102	1kΩ	2%	0,25W
3891©	4822 051 10102	1kΩ	2%	0,25W

RESISTORS

3892©	4822 051 20471	470Ω	5%	0,1W
3893©	4822 051 20471	470Ω	5%	0,1W
3894©	4822 051 20101	100Ω	5%	0,1W
3895©	4822 051 20159	15Ω	5%	0,1W
3897©	4822 051 20101	100Ω	5%	0,1W
3898©	4822 117 11503	220Ω	5%	0,1W
3899©	4822 051 20101	100Ω	5%	0,1W
3900©	4822 051 20823	82kΩ	5%	0,1W
3901©	4822 117 10833	10kΩ	1%	0,1W
4800©	4822 051 20008			CHIP JUMPER 0805
4801©	4822 051 20008			CHIP JUMPER 0805
4802©	4822 051 20008			CHIP JUMPER 0805
4804©	4822 051 20008			CHIP JUMPER 0805
4805©	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
4810©	4822 051 20008			CHIP JUMPER 0805
4812©	4822 051 20008			CHIP JUMPER 0805
4817©	4822 051 20008			CHIP JUMPER 0805
4818©	4822 051 20008			CHIP JUMPER 0805
4819©	4822 051 20008			CHIP JUMPER 0805
4820©	4822 051 20008			CHIP JUMPER 0805
4821©	4822 051 20008			CHIP JUMPER 0805
4822©	4822 051 20008			CHIP JUMPER 0805
4823©	4822 051 20008			CHIP JUMPER 0805
4824©	4822 051 20008			CHIP JUMPER 0805
4825©	4822 051 20008			CHIP JUMPER 0805
4826©	4822 051 20008			CHIP JUMPER 0805
4827©	4822 051 20008			CHIP JUMPER 0805
4828©	4822 051 20008			CHIP JUMPER 0805
4830©	4822 051 20008			CHIP JUMPER 0805
4831©	4822 051 20008			CHIP JUMPER 0805
4832©	4822 051 20008			CHIP JUMPER 0805
4833©	4822 051 20008			CHIP JUMPER 0805
4834©	4822 051 20008			CHIP JUMPER 0805
4835©	4822 051 20008			CHIP JUMPER 0805
4836©	4822 051 20008			CHIP JUMPER 0805
4837©	4822 051 20008			CHIP JUMPER 0805
4838©	4822 051 20008			CHIP JUMPER 0805
4839©	4822 051 20008			CHIP JUMPER 0805
4840©	4822 051 20008			CHIP JUMPER 0805
4841©	4822 051 20008			CHIP JUMPER 0805
4842©	4822 051 20008			CHIP JUMPER 0805
4843©	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 20008			CHIP JUMPER 0805
4876©	4822 051 20008			CHIP JUMPER 0805
COILS				
1810	2422 543 01068			RESONATOR 8MHZ
5802	4822 157 70601			100μH

ELECTRICAL PARTSLIST 3CDC-LC MODULE

DIODES

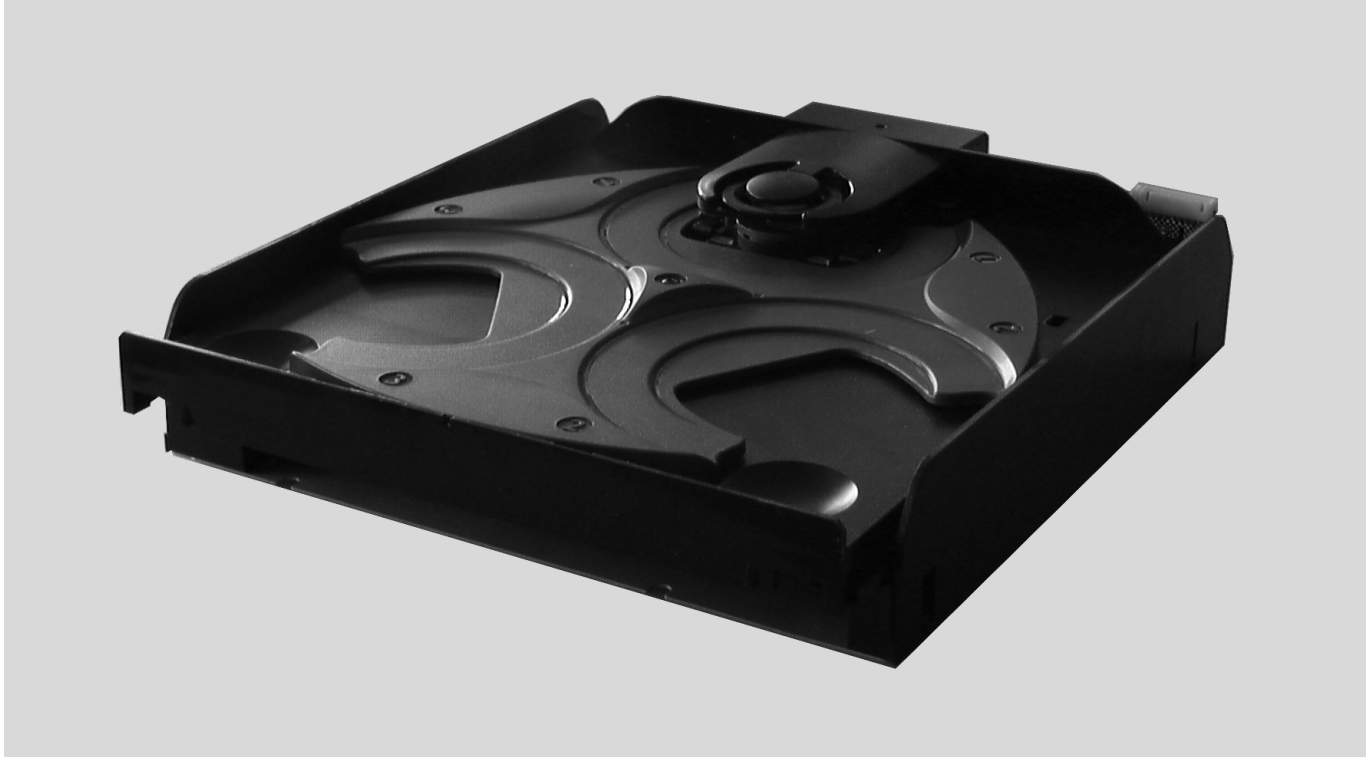
6871 ©	4822 130 11397	BAS316
6872 ©	4822 130 11397	BAS316
6873 ©	4822 130 11397	BAS316
6874 ©	4822 130 11397	BAS316
6875 ©	9340 548 52115	BZX284-C5V1
6877 ©	9322 129 34685	BZX284-C3V9
6878 ©	4822 130 11397	BAS316
6879 ©	9322 129 34685	BZX284-C3V9

TRANSISTORS

7804 ©	5322 130 60159	BC846B
7812 ©	5322 130 60159	BC846B
7874 ©	5322 130 60159	BC846B
7875 ©	5322 130 60159	BC846B

INTEGRATED CIRCUITS

7801 ©	9352 622 36118	TZA1025T/V2 HF-Amplifier
7805 ©	4822 209 33165	TDA1308T/N1, OPAMP
7806	4822 209 32852	TDA7073A/N2, Motor driver
7807	4822 209 32852	TDA7073A/N2, Motor driver
7871	4822 209 32852	TDA7073A/N2, Motor driver
7873	5322 209 11306	HEF4094BT, Shift register
7876	4822 209 16143	LC89170M, CD TEXT IC
7877 ©	9352 642 17557	SAA7325H/M2B CD10/M2



3CDC99-DS Module

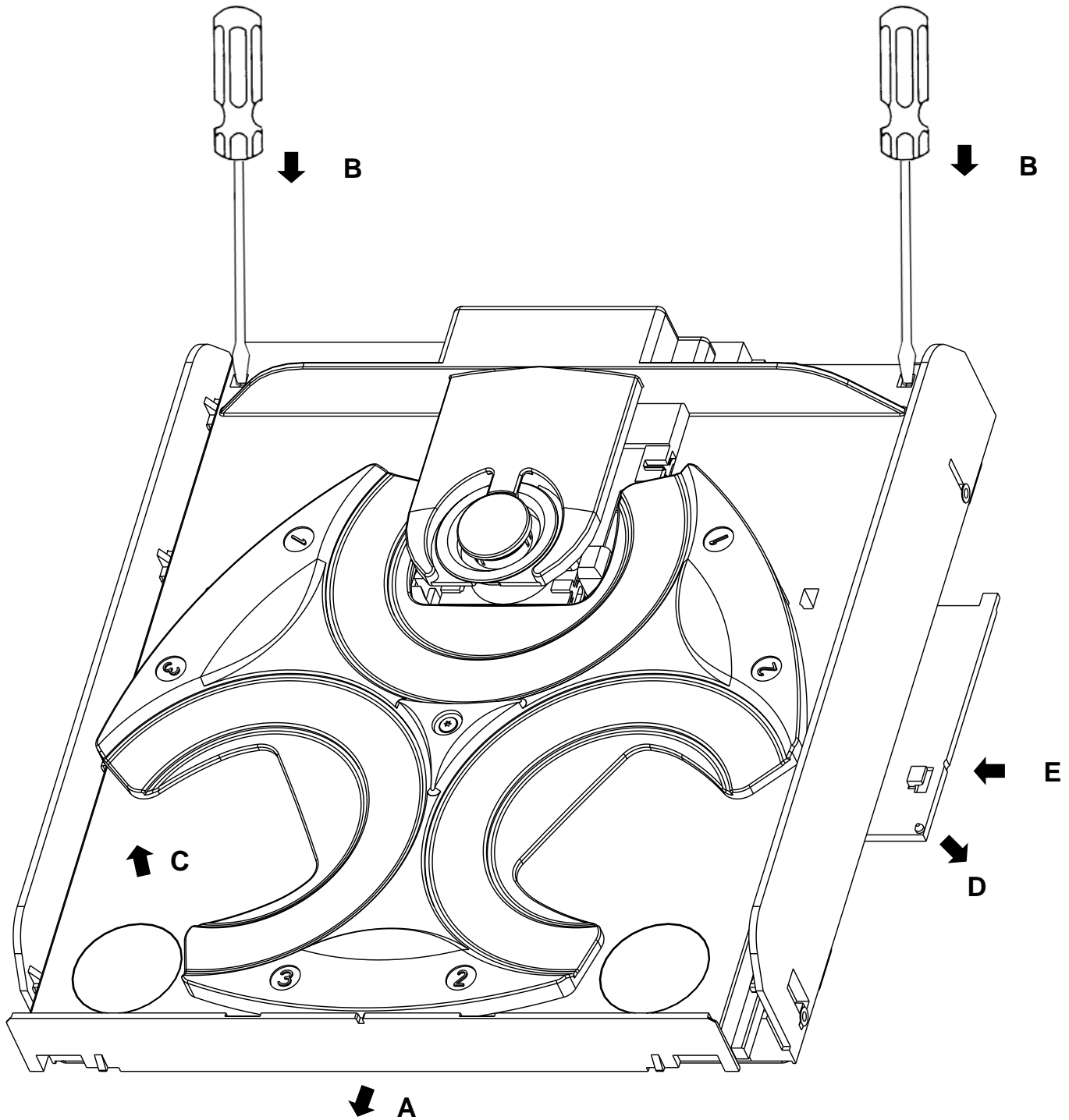
(3 Disc Carousel Changer)

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Lubrication Instructions.....	10-4
ESD Warnings.....	10-6
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Dismantling Hints



Dismantling of Drawer

- A Pull drawer outwards
- B Unlock drawer with screwdriver
- C Lift drawer to demount from chassis

Dismantling of Flex Plate

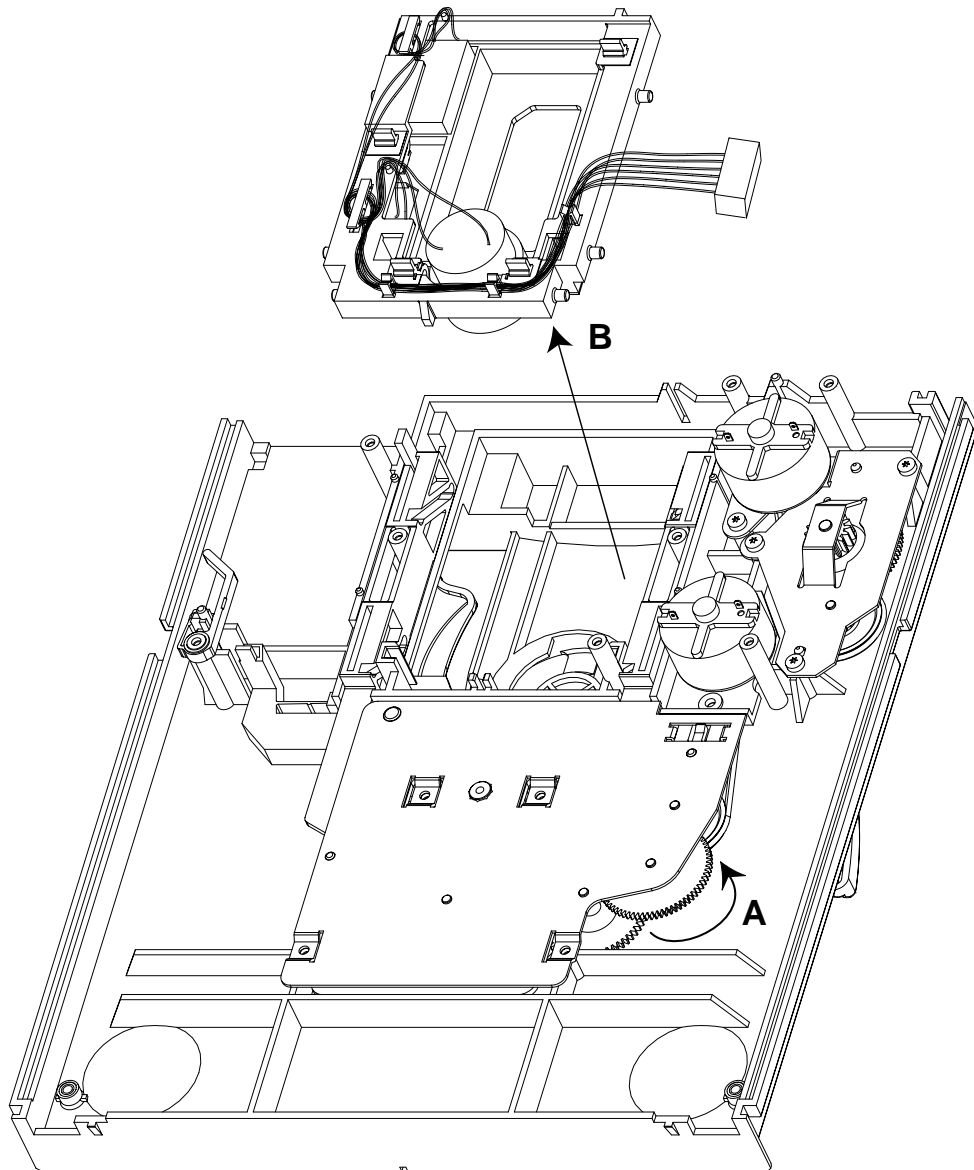
- D Lift plate to unlock pin from bottom plate
- E Move plate inwards to demount from bottom plate

Servicing Hints

Replacement of CD Drive

See also exploded view of changer mechanism.

1. Dismantle printed circuit board: remove 5 screws.
2. Disconnect flexfoil cable and JST connector.
Pay attention to WARNING!
3. Loosen 2 screws (pos 107,108) and remove CD drive-lockings (pos 105,106).
4. Turn gearwheel (pos 42) of disc change mechanism by finger to move CD drive support in upper position as shown in picture below (A).
5. Dismantle CD drive support (pos 95) (B).
6. Replace CD drive (pos 100). The wire tree of JST connector has to be desoldered and resoldered on the new CD drive again.

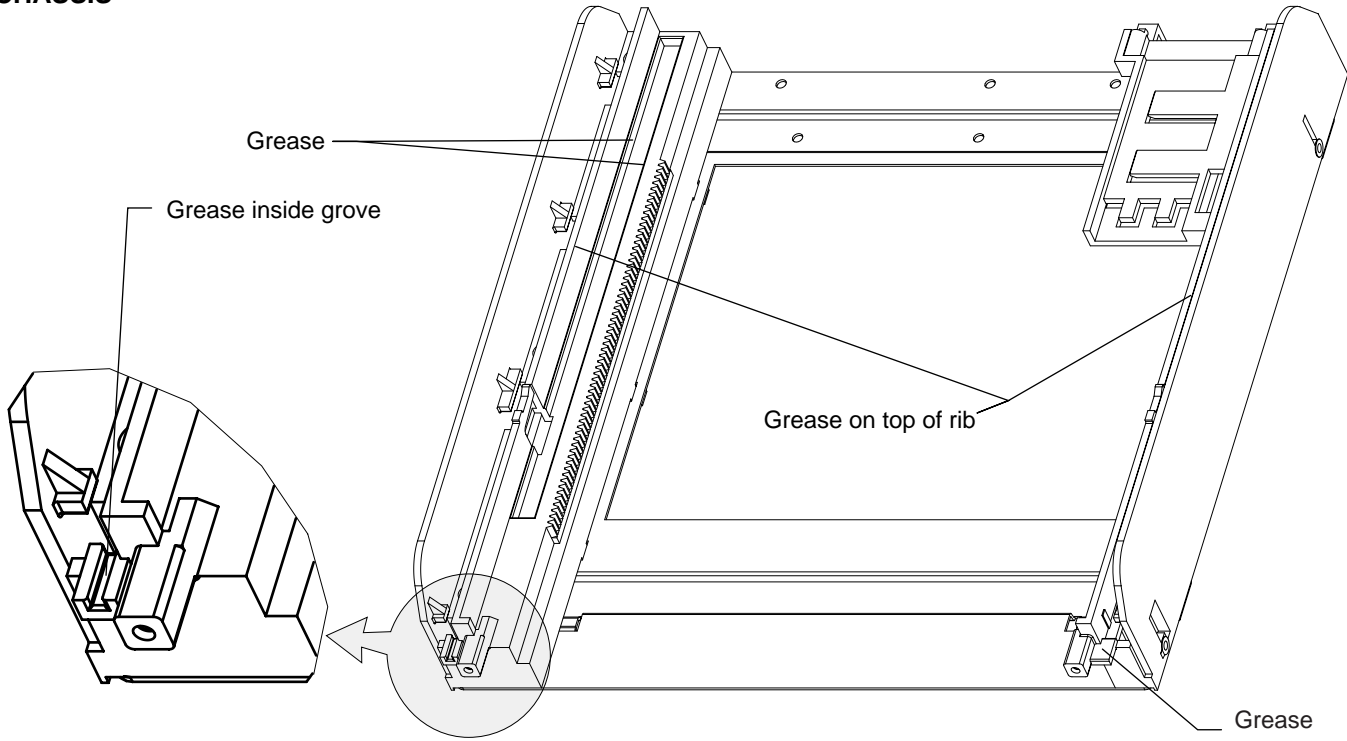


Mounting of Carousel

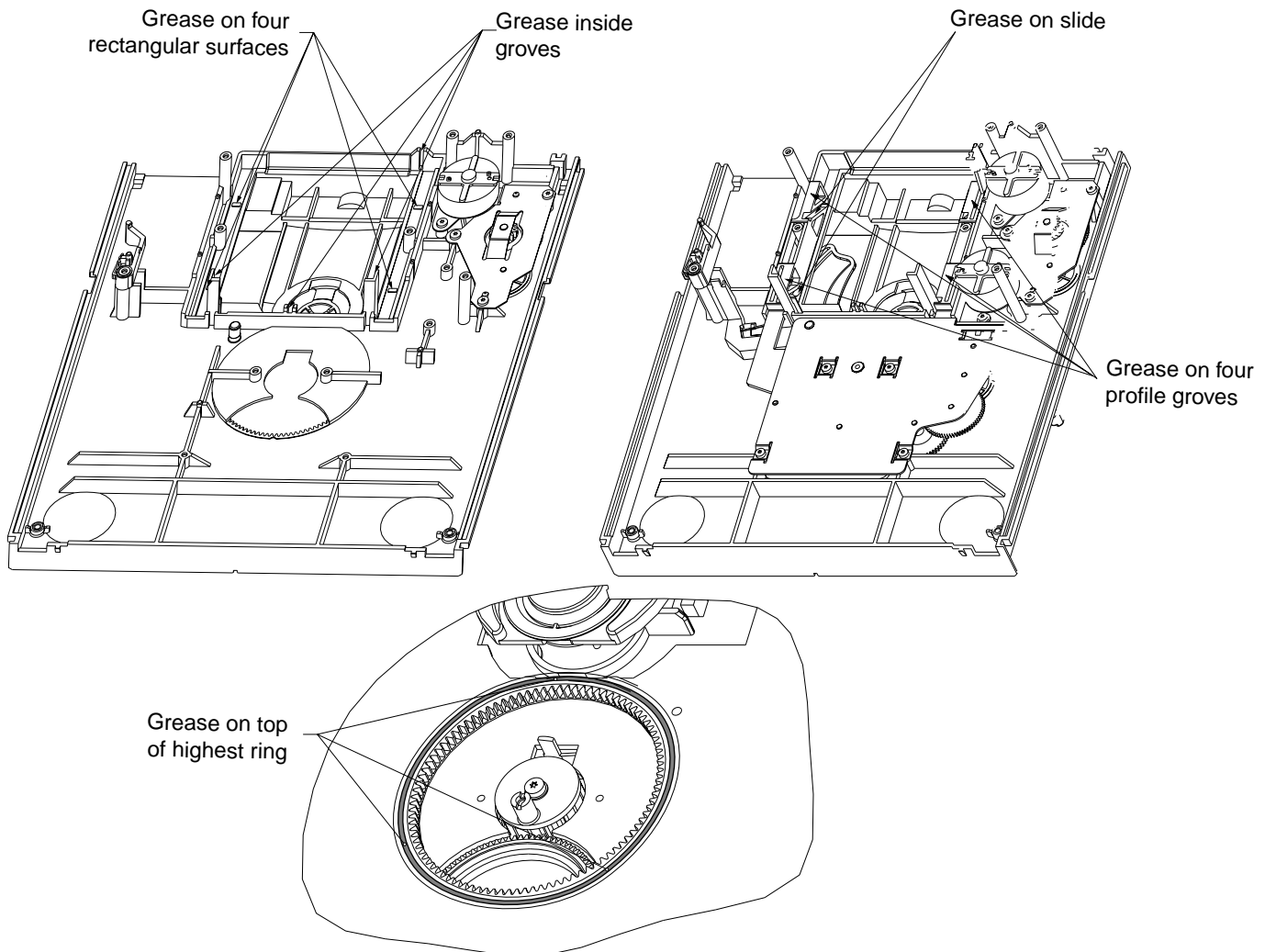
1. Turn gearwheel (pos 42) of disc change mechanism by finger until CD drive is in play position.
2. Mount carousel (pos 115) so that disc is positioned right on turntable. Carousel position number doesn't matter.

Lubrication Instructions

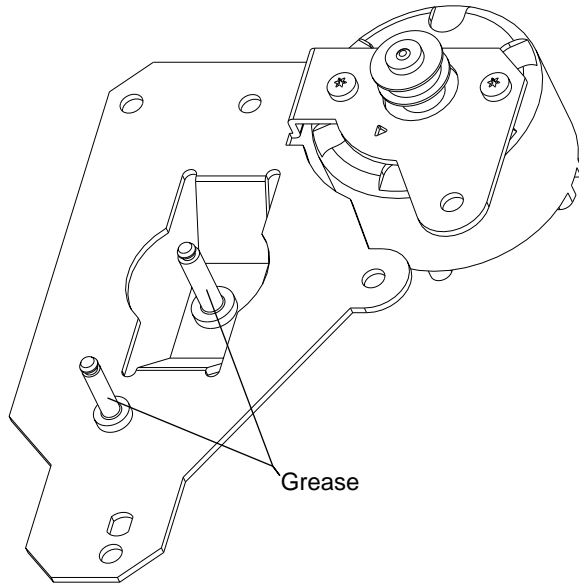
CHASSIS



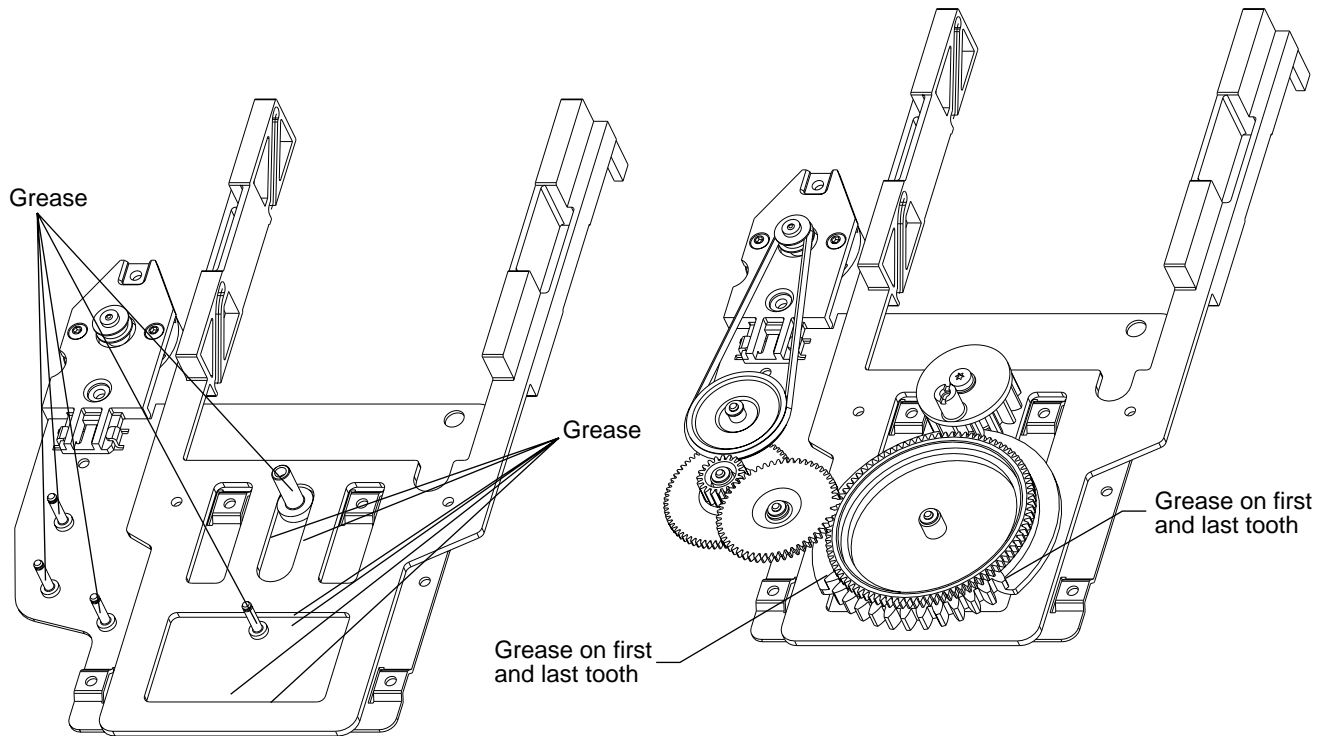
DRAWER



DRAWER MECHANISM



DISC CHANGE MECHANISM



Use only grease **Polylub GLY 801** service codenumber 4822 390 10136

WARNING

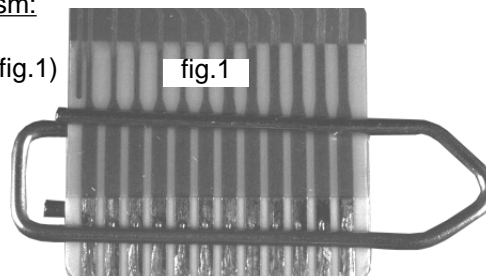
CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE CD DRIVE ELECTRONICS WHEN CONNECTING A NEW CD MECHANISM. THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

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

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

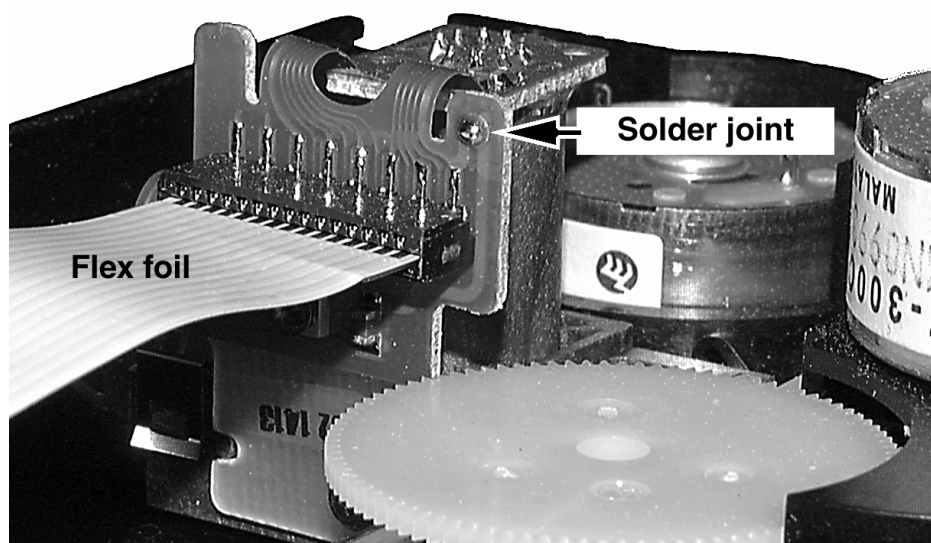
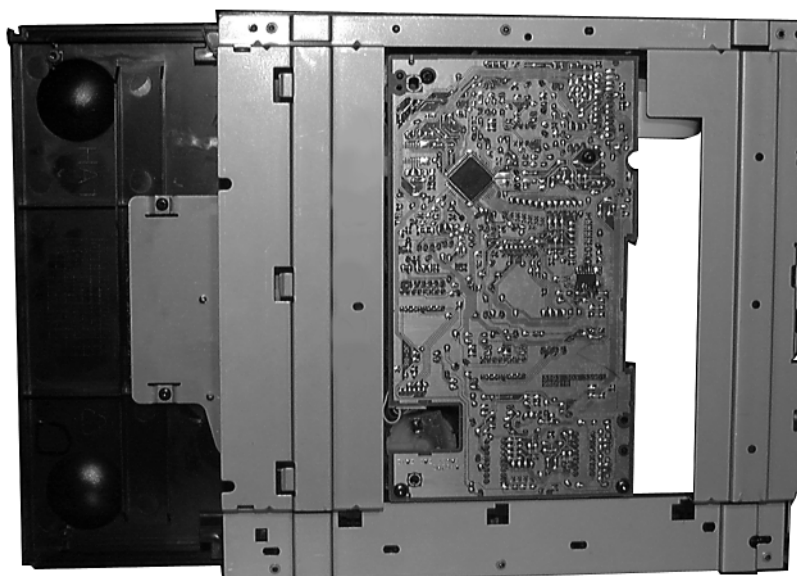
The following steps have to be done when replacing the CD mechanism:

1. Disconnect flexfoil cable from old CD drive
2. Put a paper clip onto the flexfoil cable to short-circuit connections (fig.1)
3. Remove old CD drive
4. Remove paper clip from flexfoil cable
5. Connect flexfoil cable to new CD drive
6. Position new CD drive on its studs
7. Remove soldered short-circuit from Laserunit (see below)

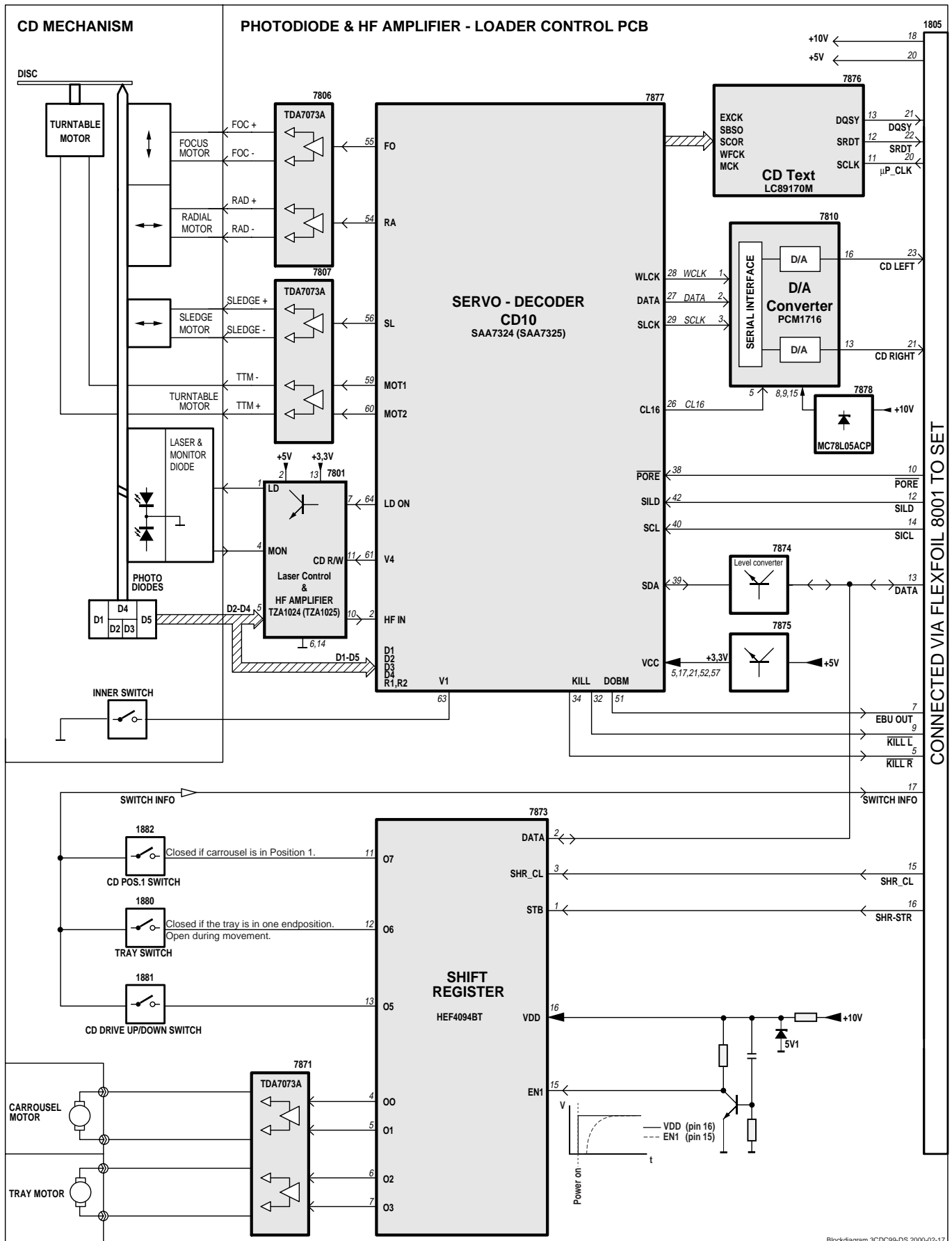


Attention: The laser diode of this CD drive is protected against ESD by a solder joint which shortcircuits the laser diode to ground.

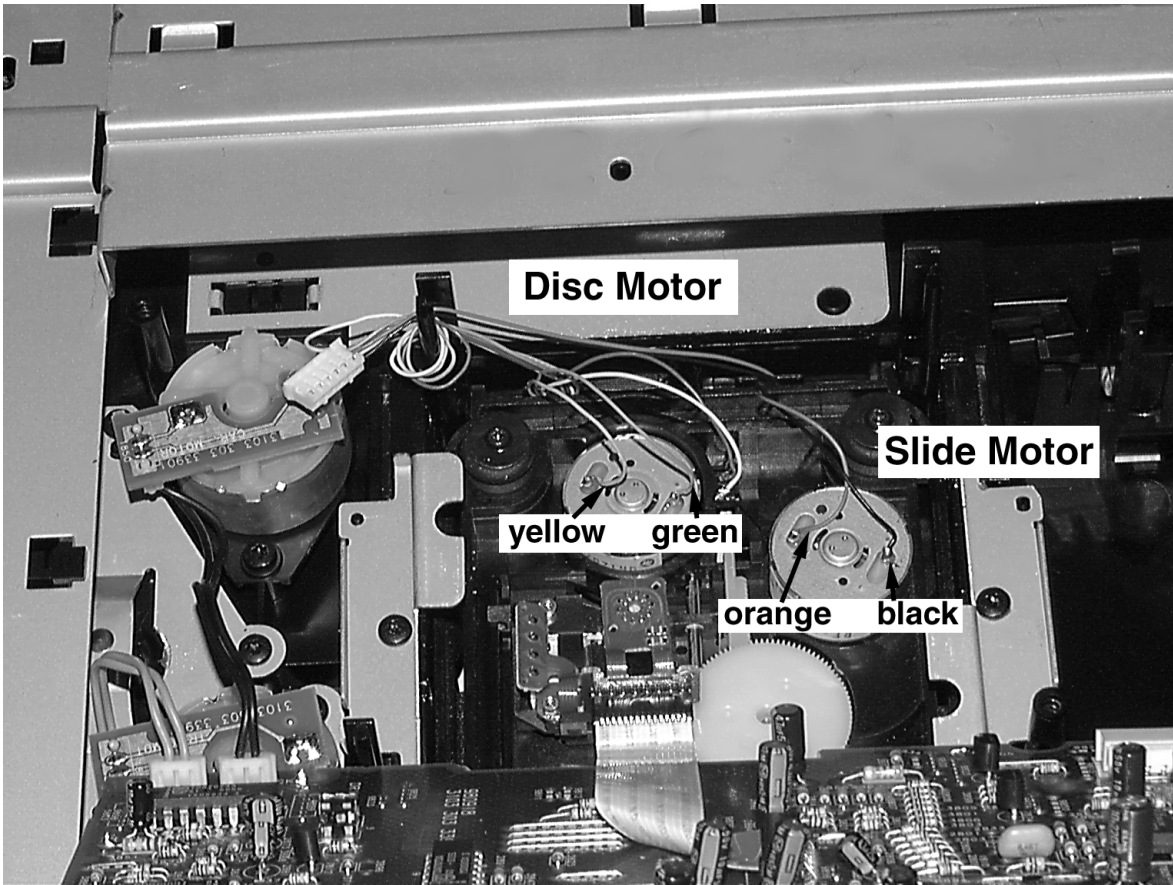
For proper functionality of the CD drive this solder joint must be removed **after** connecting the drive to the set.

**Service Position**

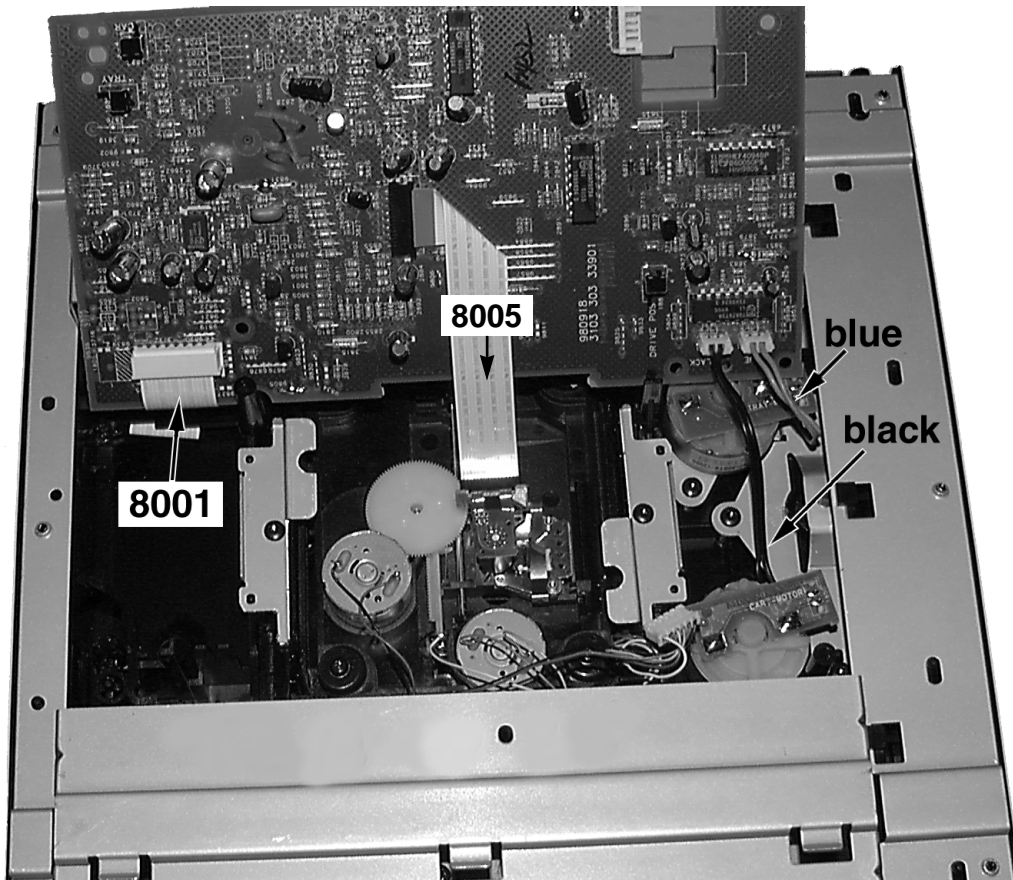
Blockdiagram



Wiring of CD Drive

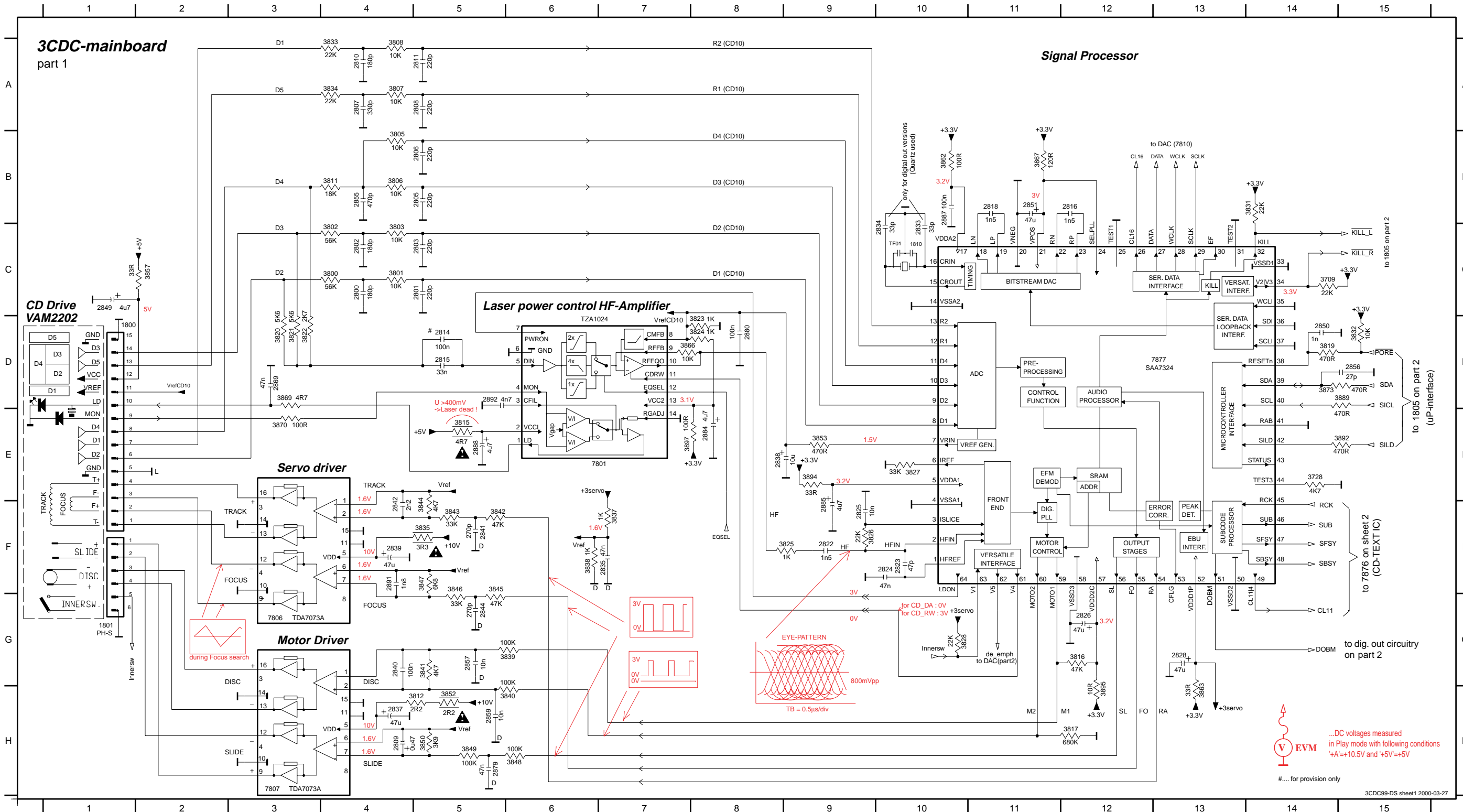


Pict. 1



Pict. 2

1800 D2	2803 C5	2810 A4	2822 F9	2833 C10	2840 G4	2851 B11	2879 H5	2891 F4	3802 C4	3811 B4	3820 D3	3826 F9	3834 A4	3841 G5	3847 F5	3857 C2	3870 E3	3897 E7
1801 G1	2805 B5	2811 A5	2823 F10	2834 C10	2841 F5	2855 B4	2880 D8	2892 D5	3803 C4	3812 H5	3821 D3	3827 E10	3835 F5	3842 F5	3848 H6	3862 B10	3873 D14	7801 E7
1810 C10	2806 B5	2814 D5	2824 F10	2835 F7	2842 F4	2856 D15	2884 E8	3709 C14	3805 B4	3815 E5	3822 D3	3828 G10	3837 F7	3843 F5	3849 H5	3863 H13	3889 D15	7806 G3
2800 C4	2807 A4	2815 D5	2825 F9	2837 H4	2844 G5	2857 G5	2885 F9	3728 E14	3806 B4	3816 G12	3823 D8	3831 B14	3838 F6	3844 F5	3850 H5	3866 D7	3892 E15	7807 H3
2801 C5	2808 A5	2816 B12	2826 G12	2838 E8	2849 C1	2859 H5	2887 B10	3800 C4	3807 A4	3817 H12	3824 D8	3832 D15	3839 G6	3845 F5	3852 H5	3867 B11	3894 E9	7877 D12
2802 C4	2809 H4	2818 B11	2828 G13	2839 F4	2850 D14	2869 D3	2888 E5	3801 C4	3808 A4	3819 D14	3825 F9	3833 A4	3840 H6	3846 F5	3853 E9	3869 D3	3895 H12	

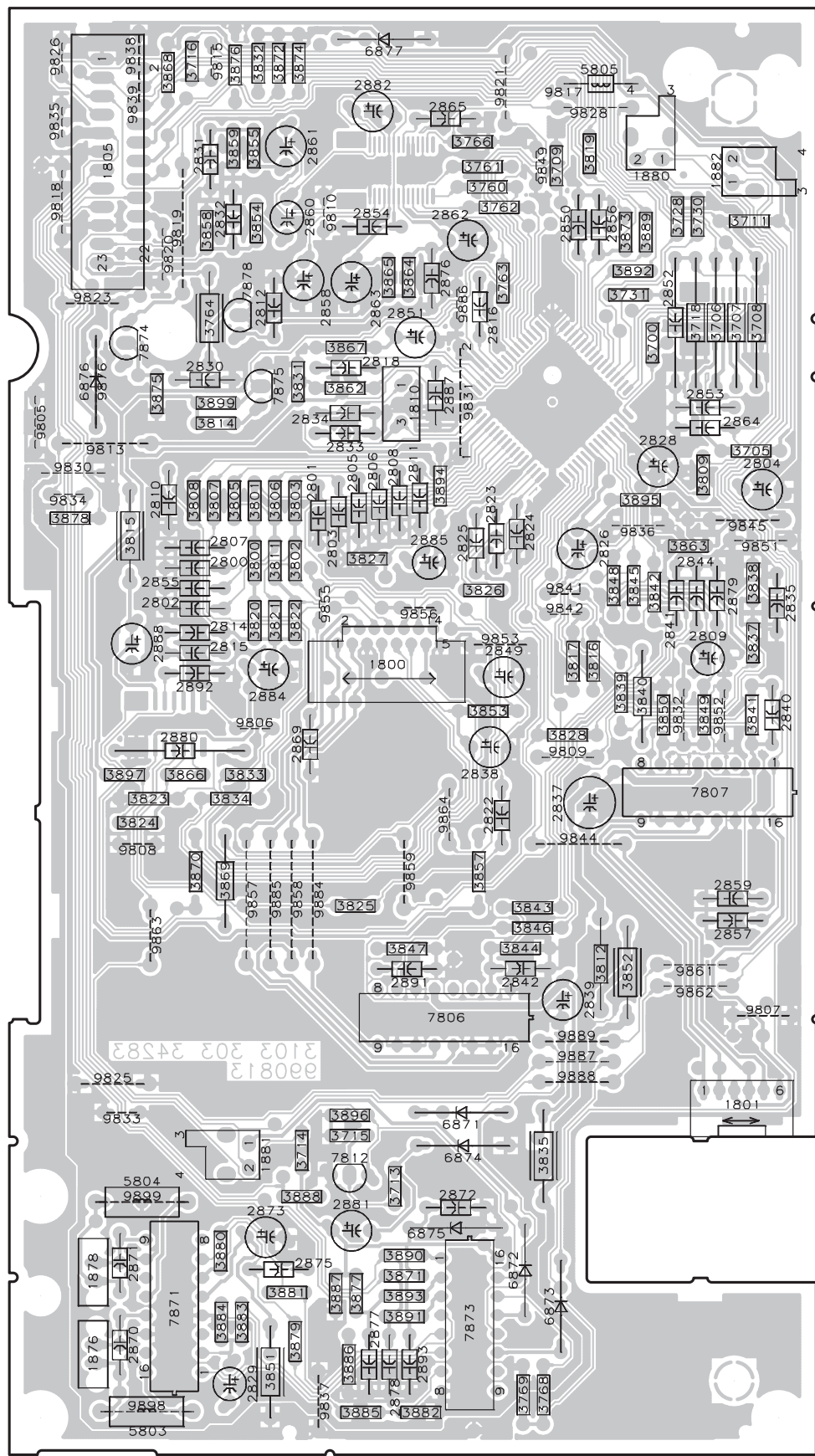


EVM

...DC voltages measured in Play mode with following conditions '+A'=+10.5V and '+5V'=+5V

#... for provision only

3CDC99 DS Board Componentside view



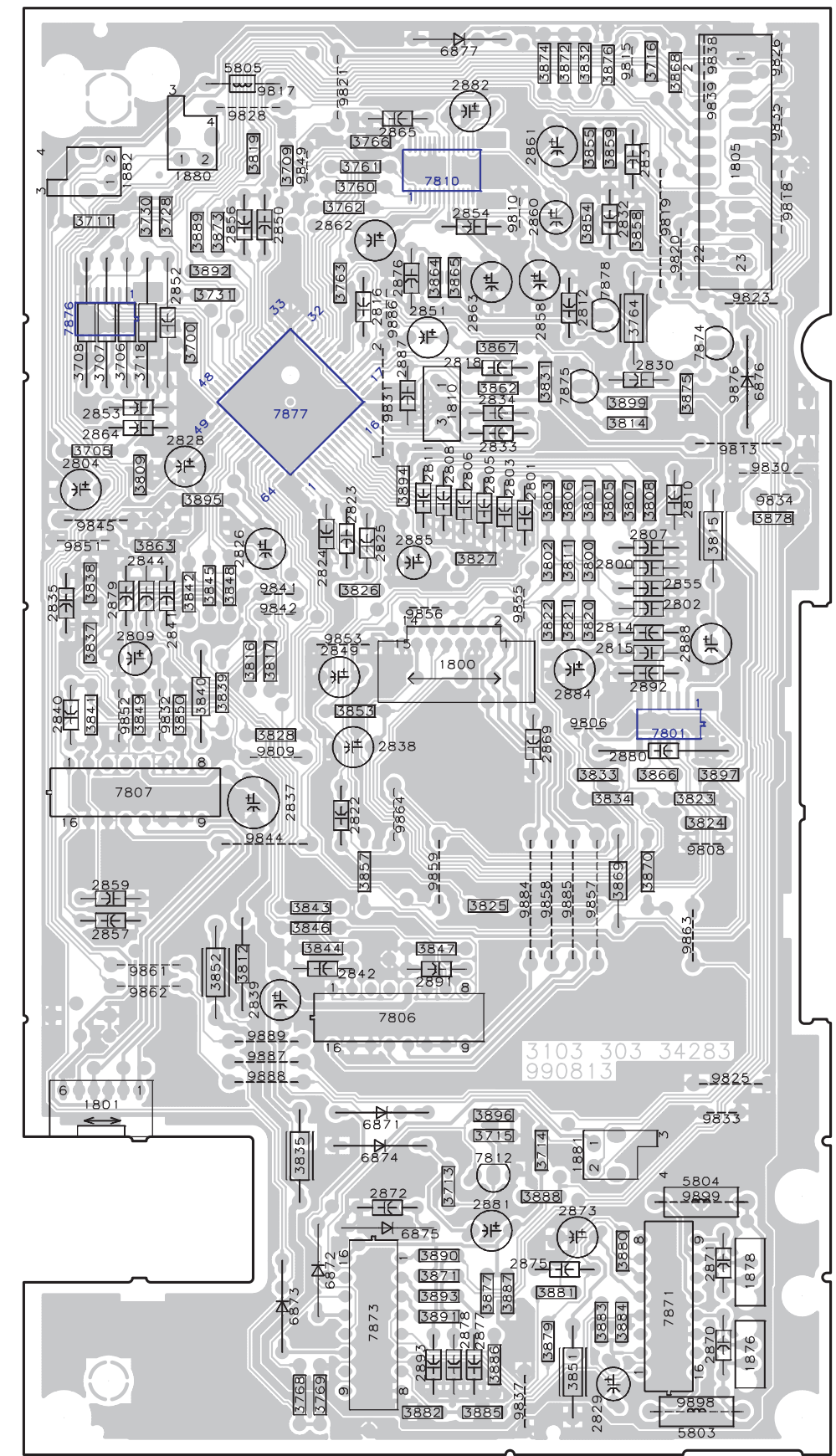
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.



Mapping

1800 E3	3714 H2	3886 J3
1801 H5	3715 H3	3887 I3
1805 A1	3716 A2	3888 I3
1810 D3	3718 C5	3889 B5
1876 J1	3728 B5	3890 I3
1878 I1	3730 B5	3891 I3
1880 A5	3731 C5	3892 C4
1881 I2	3760 B3	3893 I3
1882 B5	3761 B3	3894 D4
2800 D2	3762 B3	3895 D5
2801 D3	3763 C4	3896 H3
2802 E2	3764 C2	3897 F1
2803 D3	3766 B3	3899 C2
2804 D5	3768 J4	5803 J1
2805 D3	3769 J4	5804 I1
2806 D3	3800 D2	5805 A5
2807 D2	3801 D2	6871 H4
2808 D3	3802 D3	6872 I4
2809 E5	3803 D2	6873 I4
2810 D2	3805 D2	6874 H4
2811 D3	3806 D2	6875 I4
2812 C2	3807 D2	6876 C1
2814 E2	3808 D2	6877 A3
2815 E1	3809 D5	7801 F2
2816 C4	3811 D2	7806 H3
2818 C3	3812 G4	7807 F5
2822 F4	3814 D2	7810 B3
2823 D4	3815 D1	7812 H3
2824 D4	3816 E5	7871 I1
2825 D4	3817 F4	7873 J4
2826 D4	3819 B5	7874 C1
2828 D5	3820 E2	7875 C2
2829 J2	3821 E2	7876 C5
2830 C2	3822 E3	7877 C4
2831 B2	3823 F1	7878 C2
2832 B2	3824 F1	9805 C1
2833 D2	3825 G3	9806 E2
2834 C2	3826 F4	9807 G5
2835 E5	3827 E3	9808 F1
2837 F4	3828 F4	9809 F4
2838 F4	3831 C2	9810 B3
2839 H4	3832 A2	9813 D1
2840 E5	3833 F2	9815 A2
2841 E5	3834 F2	9817 A5
2842 G4	3835 H4	9818 B1
2844 E5	3837 E5	9819 B2
2849 E4	3838 D5	9820 B2
2850 B4	3839 E5	9821 A4
2851 C3	3840 E5	9823 C1
2852 C5	3841 E5	9825 H1
2853 C5	3842 E5	9826 A1
2854 B3	3843 G4	9828 A5
2855 E2	3844 G4	9830 D1
2856 C4	3845 E5	9831 C4
2857 G5	3846 G4	9832 E5
2858 C3	3847 G3	9833 H1
2859 G5	3848 E5	9834 D1
2860 B3	3849 E5	9835 A1
2861 A2	3850 E5	9836 D5
2862 B4	3851 J2	9837 J3
2863 C3	3852 G5	9838 A1
2864 D5	3853 F4	9839 A1
2865 A3	3854 B2	9841 E4
2869 F2	3855 B2	9842 E4
2870 J1	3857 G4	9844 F4
2871 I1	3858 B2	9845 D5
2872 I4	3859 A2	9849 A4
2873 I2	3862 C3	9851 D5
2875 I3	3863 D5	9852 E5
2876 B3	3864 B3	9853 E4
2877 J3	3865 C3	9855 E3
2878 J3	3866 F2	9856 E3
2879 E5	3867 C3	9857 G2
2880 F2	3868 B2	9858 G3
2881 I3	3869 G2	9859 G3
2882 A3	3870 G2	9861 G5
2884 E2	3871 I3	9862 G5
2885 E3	3872 A2	9863 G2
2887 C4	3873 B5	9864 F3
2888 E1	3874 A3	9876 C1
2891 G3	3875 C1	9884 G3
2892 E2	3876 A2	9885 G2
2893 J3	3877 I3	9886 C3
3700 C5	3878 D1	9887 H4
3705 D5	3879 J3	9888 H4
3706 C5	3880 I2	9889 H4
3707 C5	3881 I2	9898 J1
3708 C5	3882 J3	9899 I1
3709 B4	3883 J2	
3711 B5	3884 I2	
3713 I3	3885 J3	

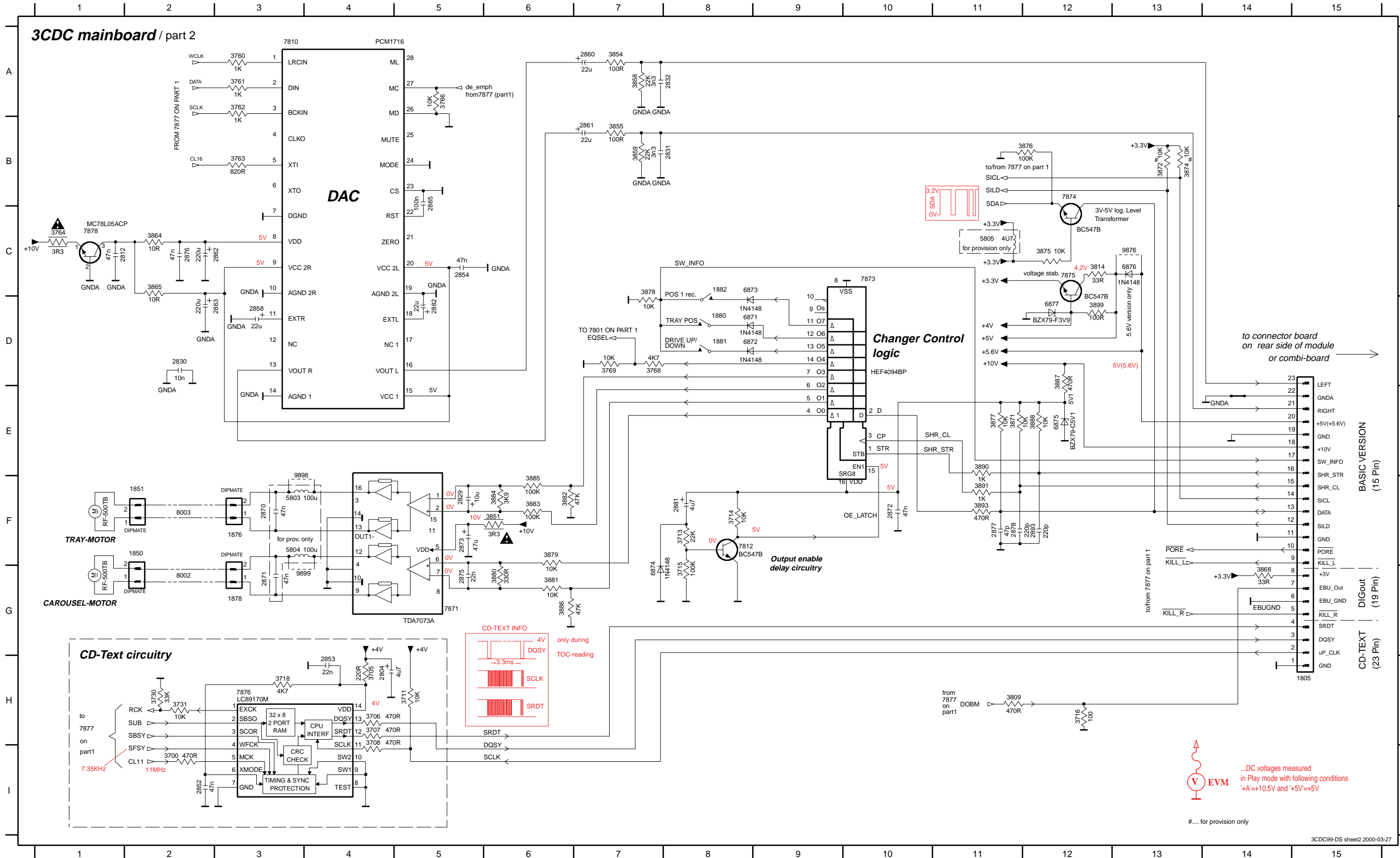
3CDC99 DS Board Copperside view

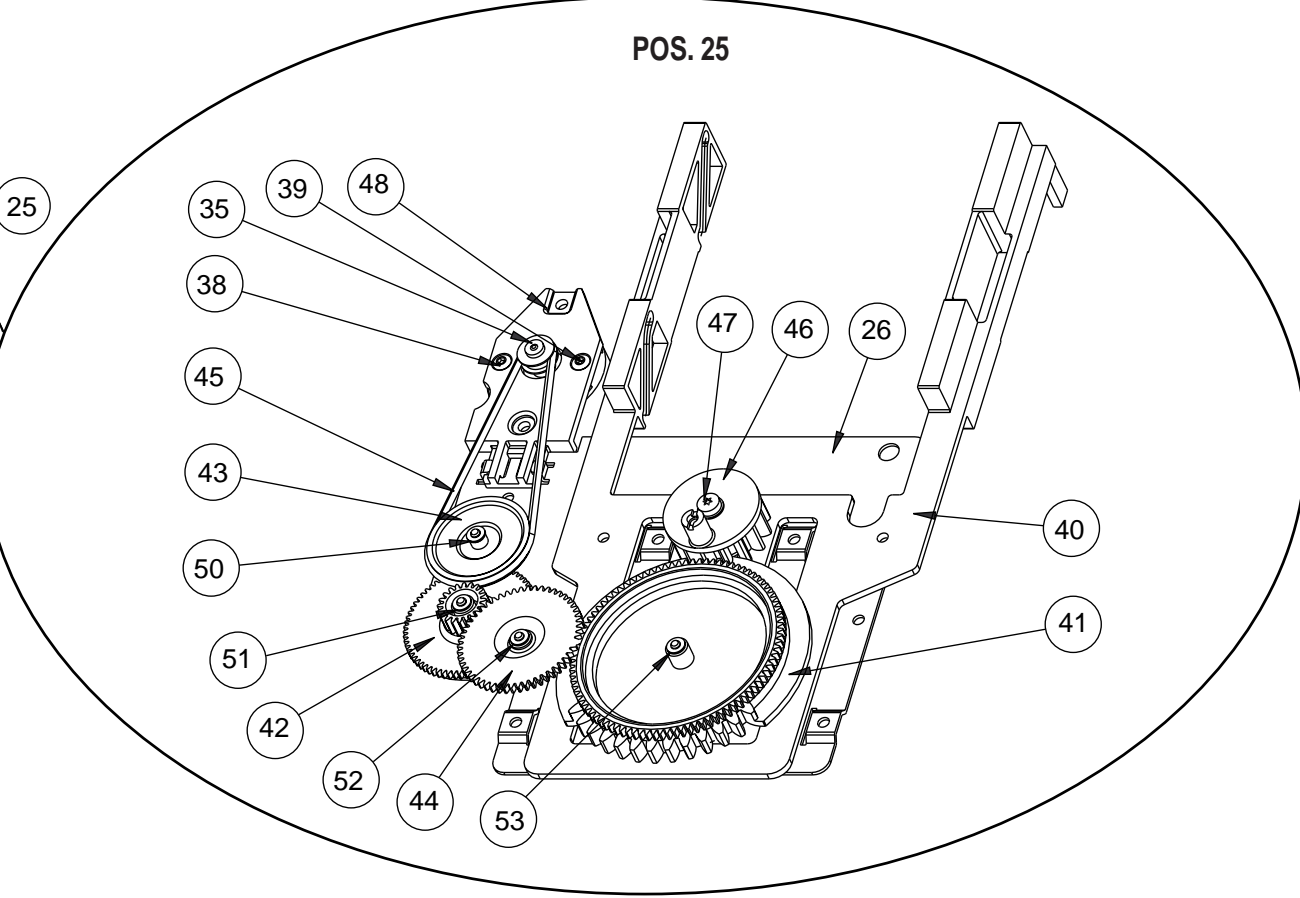
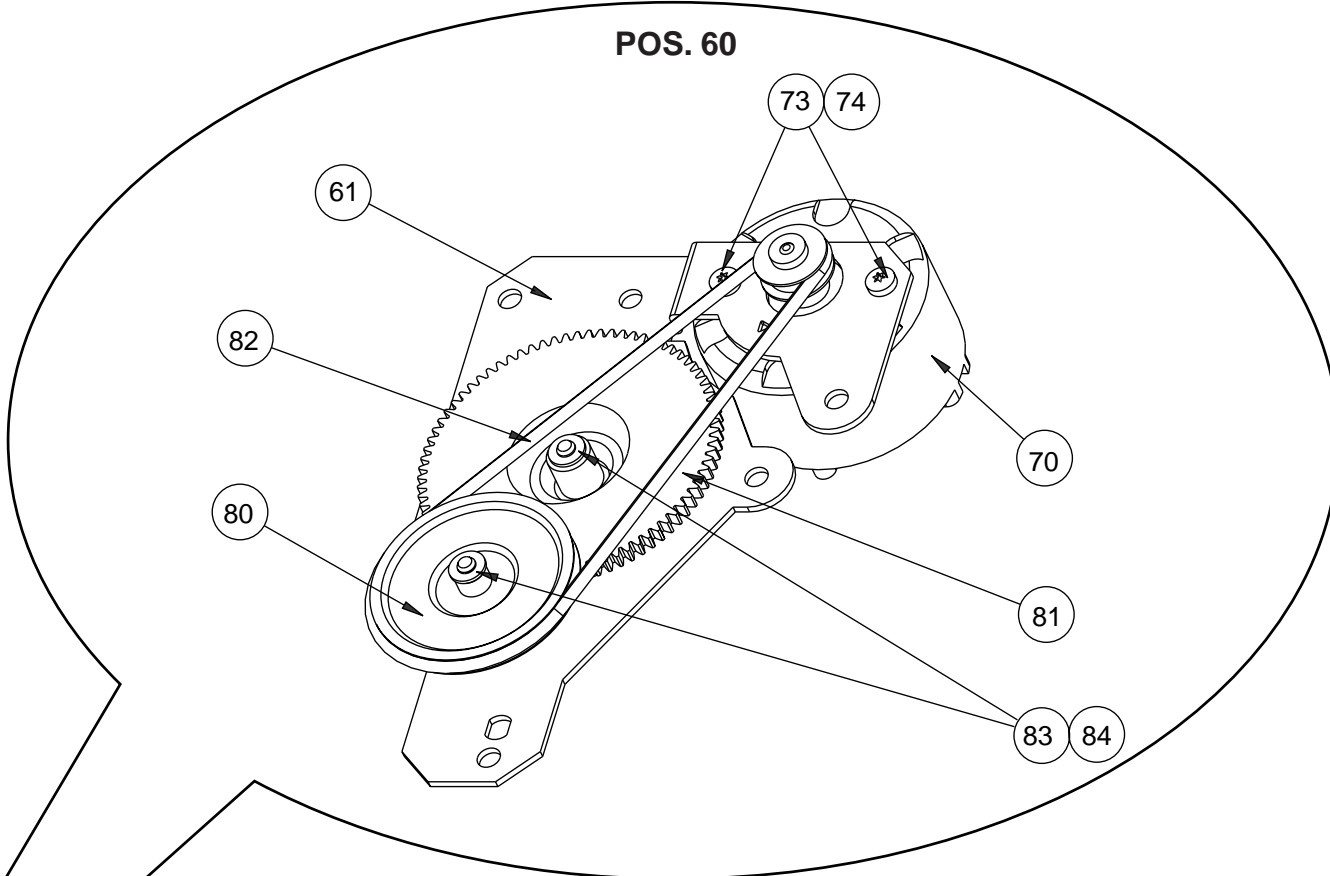
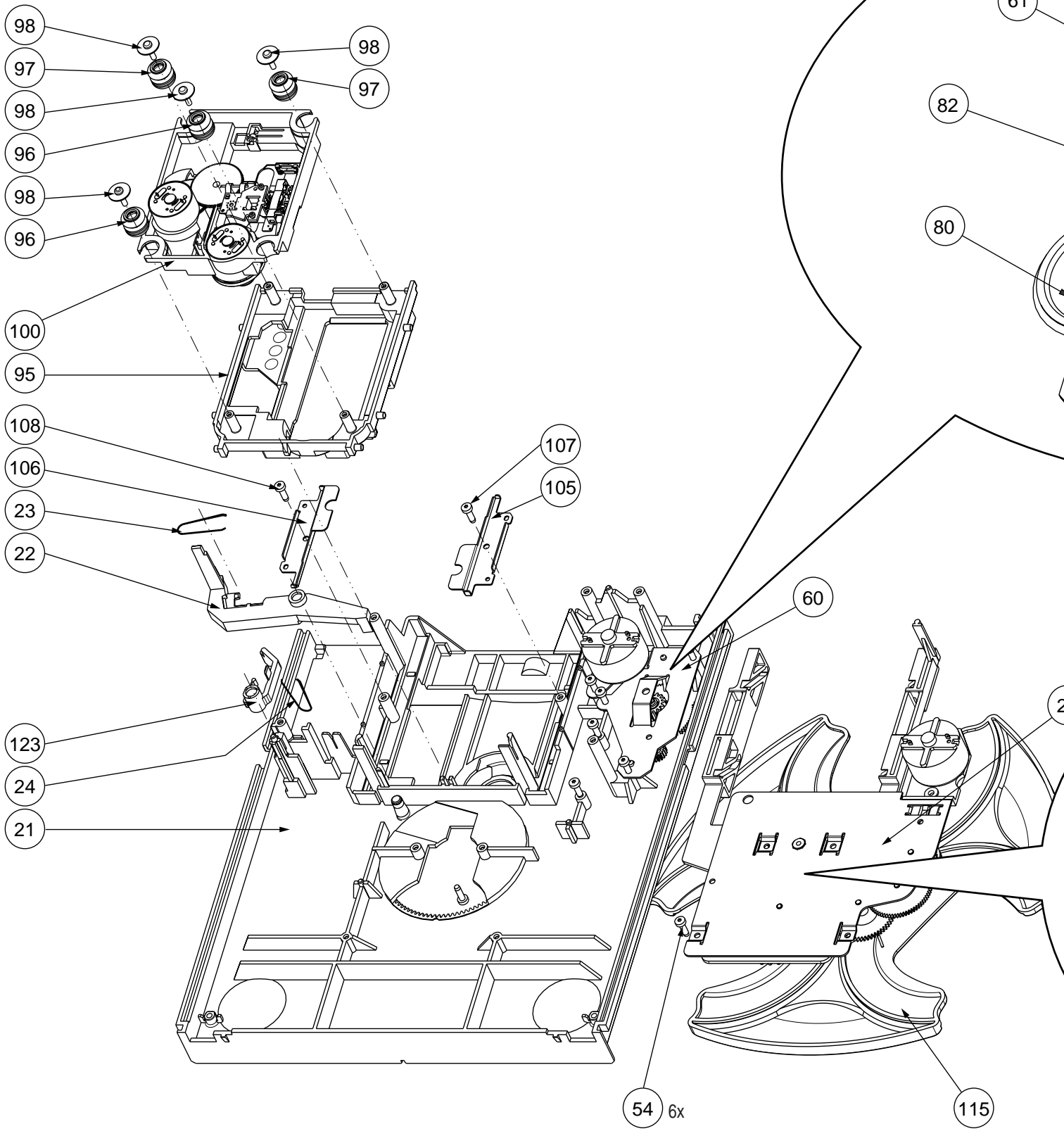


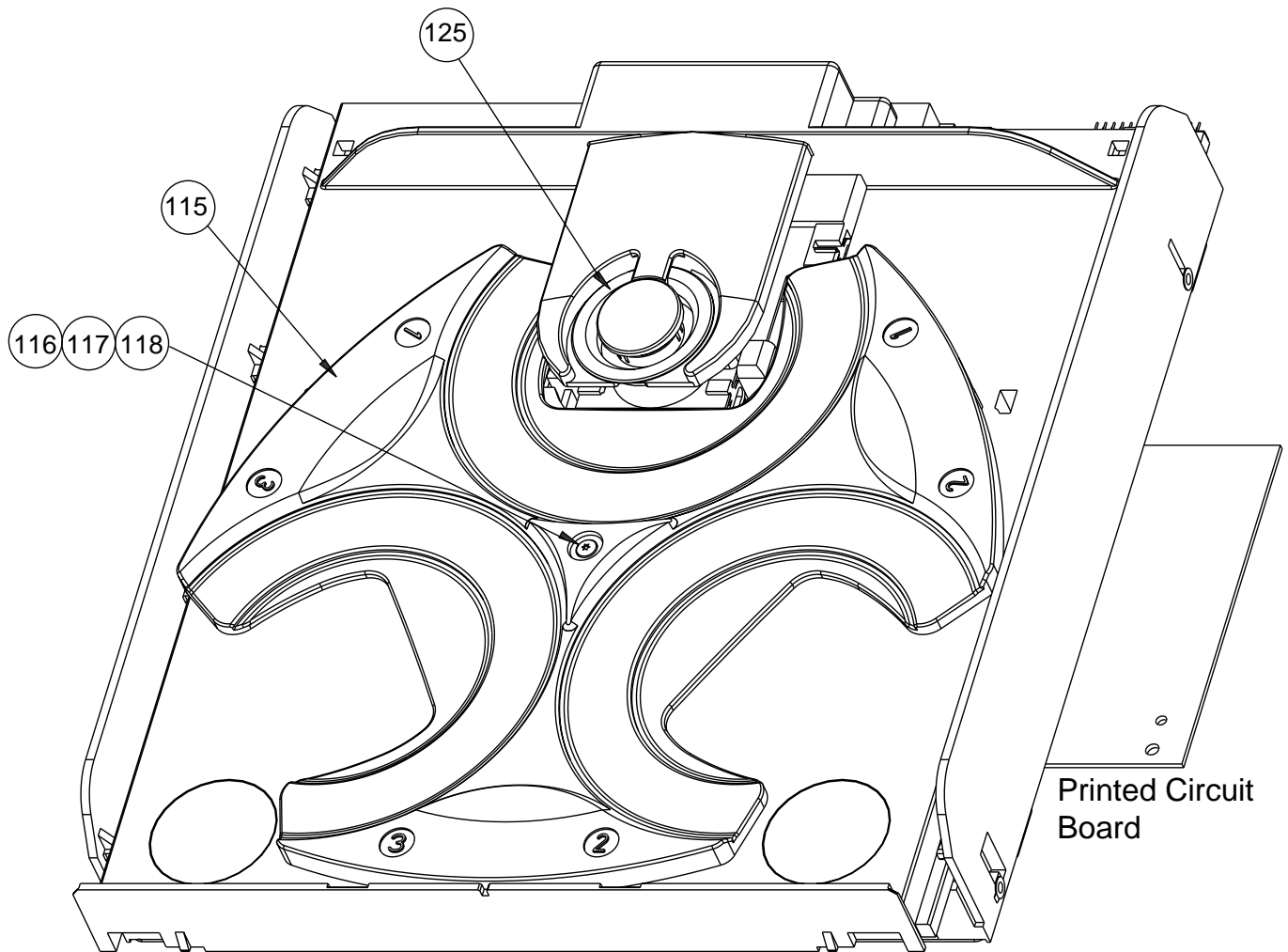
This assembly drawing shows a summary of all possible versions. For components used in a specific version see schematic diagram respectively partslist.



1805 H15	2804 H4	2852 I2	2862 C2	2872 F10	2881 F8	3707 H4	3716 H12	3762 A3	3809 H11	3859 B7	3874 B13	3880 G6	3886 G6	3896 G10	6872 D8	7810 A3	7876 H3	9839 C14
1876 F3	2812 C1	2853 H4	2863 D2	2873 F5	2882 D5	3708 H4	3718 H3	3763 B3	3814 C12	3864 C2	3875 C12	3881 G6	3887 D12	3899 D12	6873 C8	7812 F8	7878 C1	9876 C13
1878 G3	2829 F5	2854 C5	2864 H12	2875 G5	2893 F12	3711 H5	3730 H2	3764 C1	3815 F6	3865 C2	3876 B12	3882 F6	3888 E12	5803 F3	6874 G7	7871 G5	9826 H14	9898 E3
1880 D8	2830 D2	2858 D3	2865 B5	2876 C2	3700 I2	3713 F8	3731 H2	3766 A5	3854 A7	3868 G14	3877 E11	3883 F6	3890 E11	5804 F3	6875 E12	7873 C10	9834 F10	9899 G3
1881 D8	2831 B8	2860 A7	2870 F3	2877 F11	3705 H4	3714 F8	3768 D7	3760 A3	3855 B7	3871 E11	3878 C7	3884 F6	3891 F11	5805 C11	6876 C13	7874 B12	9835 G11	
1882 C8	2832 A8	2861 B7	2871 G3	2878 F11	3706 H4	3715 G8	3761 A3	3769 D7	3858 A7	3872 B13	3879 F6	3885 E6	3893 F11	6871 D8	6877 D12	7875 C12	9838 C14	

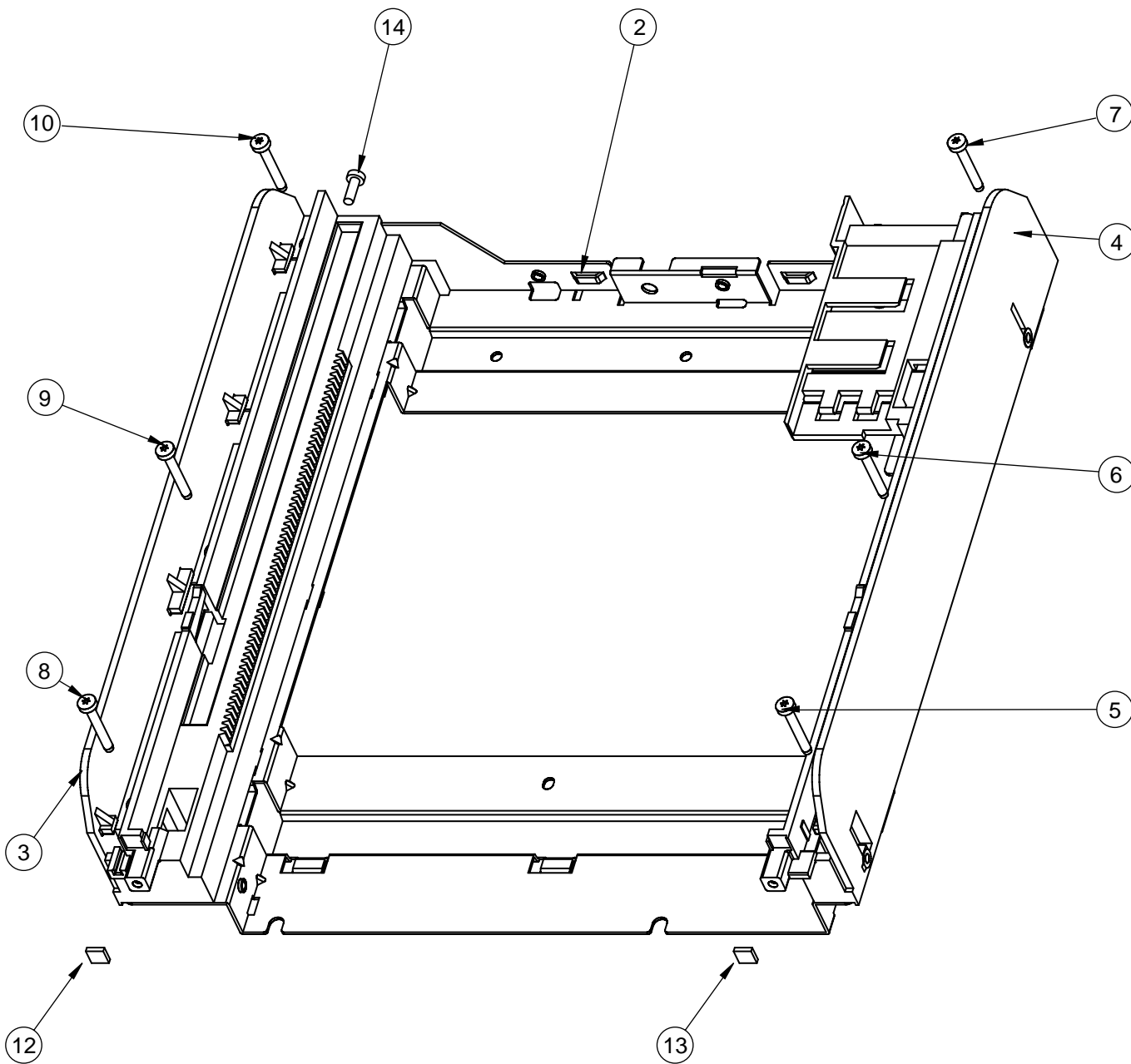





MECHANICAL PARTSLIST 3CDC-99 MODULE

0003	4822 463 11235	GUIDING LEFT	0040	4822 463 11237	SLIDE
0004	4822 463 11236	GUIDING RIGHT	0041	4822 522 10509	CONTROL DISC
0012	4822 466 12146	RUBBER	0042	4822 522 10492	GEAR WHEEL
0013	4822 466 12146	RUBBER	0043	4822 528 10937	PULLEY
0021	4822 418 10403	DRAWER	0044	4822 522 10493	IDLER WHEEL
0022	4822 402 11236	BRACKET TUMBLER	0045	4822 358 10115	BELT
0023	4822 492 11721	SPRING	0046	4822 466 10735	ECCENTRIC GEAR WHEEL
0024	4822 492 11721	SPRING	0050	4822 532 12364	WASHER
0038	4822 502 12548	SCREW M2,6x3,5	0051	4822 532 12364	WASHER
0039	4822 502 12548	SCREW M2,6x3,5	0052	4822 532 12364	WASHER

continued on next page



MECHANICAL PARTSLIST 3CDC-99 MODULE

0053	4822 532 12364	WASHER	0097	4822 529 10387	RUBBER DAMPER CD DRIVE, FRONT
0073	4822 502 12548	SCREW M2,6X3,5	0100	9305 022 30201	VAM2202/01
0074	4822 502 12548	SCREW M2,6X3,5	0115	4822 466 10736	CAROUSEL
0080	4822 528 10937	PULLEY	0117	4822 532 12365	BUSH DRAWER
0081	4822 522 10494	GEAR DRAWER	0123	4822 402 11237	SWITCH-BRACKET
0082	4822 358 10115	BELT	0125	4822 401 11708	DISC CLAMP VAM DRIVE 3CDC
0083	4822 532 12364	WASHER			
0084	4822 532 12364	WASHER			
0095	4822 404 10985	SUPPORT-VAM			
0096	4822 529 10387	RUBBER DAMPER CD DRIVE, FRONT			

ELECTRICAL PARTSLIST 3CDC-99 MODULE**MISCELLANEOUS**

0035	4822 361 10753	CAROUSEL MOTOR
0070	4822 361 10753	TRAY MOTOR
1800	4822 265 10925	FFC SOCKET, 15P
1805	4822 265 11533	FFC SOCKET, 23P
1880	4822 276 13503	SWITCH
1881	4822 276 13503	SWITCH
1882	4822 276 13503	SWITCH
8001	3103 308 92020	FLEX FOIL CABLE 23P, 420mm
8005	3103 308 91820	FLEX FOIL CABLE 15P, 95mm

CAPACITORS

2800	4822 126 10053	180pF	10%	50V
2801	4822 122 10466	220pF	10%	50V
2802	4822 126 10053	180pF	10%	50V
2803	4822 122 10466	220pF	10%	50V
2804	4822 124 40769	4,7μF	20%	100V
2805	4822 122 10466	220pF	10%	50V
2806	4822 122 10466	220pF	10%	50V
2807	4822 126 12787	330pF	10%	50V
2808	4822 122 10466	220pF	10%	50V
2809	5322 124 41948	0,47μF	20%	50V
2810	4822 126 10053	180pF	10%	50V
2811	4822 122 10466	220pF	10%	50V
2812	4822 126 12785	47nF	20%	50V
2815	4822 126 13174	33nF	20%	16V
2816	4822 126 12878	1,5nF	10%	16V
2818	4822 126 12878	1,5nF	10%	16V
2822	4822 126 12878	1,5nF	10%	16V
2823	4822 122 33848	47pF	5%	50V
2824	4822 126 12785	47nF	20%	50V
2825	4822 121 51387	10nF	20%	16V
2826	4822 124 80231	47μF	20%	16V
2828	4822 124 40433	47μF	20%	25V
2829	4822 124 21732	10μF	20%	25V
2830	4822 121 51387	10nF	20%	16V
2831	4822 122 10577	3,3nF	10%	16V
2832	4822 122 10577	3,3nF	10%	16V
2833	4822 122 33069	33pF	5%	50V
2834	4822 122 33069	33pF	5%	50V
2835	4822 126 12785	47nF	20%	50V
2837	4822 124 40433	47μF	20%	25V
2838	4822 124 40248	10μF	20%	63V
2839	4822 124 40433	47μF	20%	25V
2840	4822 126 12882	100nF	20%	50V
2841	4822 126 12702	270pF	10%	50V
2842	4822 126 12339	2,2nF	10%	16V
2844	4822 126 12702	270pF	10%	50V
2849	4822 124 40769	4,7μF	20%	100V
2850	4822 122 33197	1nF	10%	50V
2851	4822 124 40433	47μF	20%	25V
2852	4822 126 12785	47nF	20%	50V
2853	4822 126 11585	22nF	20%	50V
2854	4822 126 12785	47nF	20%	50V
2855	4822 122 33519	470pF	10%	50V
2856	4822 122 33848	47pF	5%	50V
2857	4822 121 51387	10nF	20%	16V
2858	4822 124 81151	22μF	20%	50V
2859	4822 121 51387	10nF	20%	16V
2860	4822 124 41596	22μF	20%	50V
2861	4822 124 41596	22μF	20%	50V
2862	4822 124 11912	220μF	20%	6,3V

CAPACITORS

2863	4822 124 11912	220μF	20%	6,3V
2865	4822 126 12882	100nF	20%	50V
2869	4822 126 12785	47nF	20%	50V
2872	4822 126 12785	47nF	20%	50V
2873	4822 124 12233	47μF	20%	25V
2875	4822 126 11585	22nF	20%	50V
2876	4822 126 12785	47nF	20%	50V
2877	4822 122 33848	47pF	5%	50V
2878	4822 122 10466	220pF	10%	50V
2879	4822 126 12785	47nF	20%	50V
2880	4822 126 12882	100nF	20%	50V
2881	4822 124 40769	4,7μF	20%	100V
2882	4822 124 81151	22μF	20%	50V
2884	4822 124 40769	4,7μF	20%	100V
2885	4822 124 40769	4,7μF	20%	100V
2887	4822 126 12882	100nF	20%	50V
2888	4822 124 40769	4,7μF	20%	100V
2891	4822 122 10576	1,8nF	10%	16V
2892	4822 126 11714	4,7nF	20%	16V
2893	4822 122 10466	220pF	10%	50V

RESISTORS

3700	4822 116 83883	470Ω	5%	0,16W
3705	4822 116 83872	220Ω	5%	0,5W
3706	4822 116 83883	470Ω	5%	0,16W
3707	4822 116 83883	470Ω	5%	0,16W
3708	4822 116 83883	470Ω	5%	0,16W
3709	4822 116 52257	22kΩ	5%	0,5W
3711	4822 050 21003	10kΩ	2%	0,25W
3713	4822 116 52257	22kΩ	5%	0,5W
3714	4822 050 21003	10kΩ	2%	0,25W
3715	4822 116 52234	100kΩ	5%	0,5W
3716	4822 116 52175	100Ω	5%	0,5W
3718	4822 116 52283	4,7kΩ	5%	0,5W
3728	4822 116 52283	4,7kΩ	5%	0,5W
3730	4822 050 23303	33kΩ	1%	0,6W
3731	4822 050 21003	10kΩ	2%	0,25W
3760	4822 050 11002	1kΩ	5%	0,2W
3761	4822 050 11002	1kΩ	5%	0,2W
3762	4822 050 11002	1kΩ	5%	0,2W
3763	4822 116 52231	820Ω	5%	0,5W
3764	4822 052 10338	3,3Ω		NFR25
3766	4822 050 21003	10kΩ	2%	0,25W
3768	4822 116 52283	4,7kΩ	5%	0,5W
3769	4822 050 21003	10kΩ	2%	0,25W
3800	4822 116 52291	56kΩ	5%	0,5W
3801	4822 050 21003	10kΩ	2%	0,25W
3802	4822 116 52291	56kΩ	5%	0,5W
3803	4822 050 21003	10kΩ	2%	0,25W
3805	4822 050 21003	10kΩ	2%	0,25W
3806	4822 050 21003	10kΩ	2%	0,25W
3807	4822 050 21003	10kΩ	2%	0,25W
3808	4822 050 21003	10kΩ	2%	0,25W
3809	4822 116 83883	470Ω	5%	0,16W
3811	4822 116 52251	18kΩ	5%	0,5W
3812	4822 053 10228	2,2Ω	5%	1W
3814	4822 116 52191	33Ω	5%	0,5W
3815	4822 052 10478	4,7Ω	5%	NFR
3816	4822 116 83884	47kΩ	5%	0,16W
3817	4822 116 52298	680kΩ	5%	0,5W
3819	4822 116 83883	470Ω	5%	0,16W
3820	4822 116 52289	5,6kΩ	5%	0,16W

ELECTRICAL PARTSLIST 3CDC-99 MODULE**RESISTORS**

3821	4822 116 52289	5,6kΩ	5%	0,16W
3822	4822 116 52263	2,7kΩ	5%	0,5W
3823	4822 050 11002	1kΩ	5%	0,2W
3824	4822 050 11002	1kΩ	5%	0,2W
3825	4822 050 11002	1kΩ	5%	0,2W
3826	4822 116 52257	22kΩ	5%	0,5W
3827	4822 050 23303	33kΩ	1%	0,6W
3828	4822 116 52257	22kΩ	5%	0,5W
3831	4822 116 52257	22kΩ	5%	0,5W
3832	4822 050 21003	10kΩ	2%	0,25W
3833	4822 116 52257	22kΩ	5%	0,5W
3834	4822 116 52257	22kΩ	5%	0,5W
3835	4822 052 10338	3,3Ω		NFR25
3837	4822 050 11002	1kΩ	5%	0,2W
3838	4822 050 11002	1kΩ	5%	0,2W
3839	4822 116 52234	100kΩ	5%	0,5W
3840	4822 116 52234	100kΩ	5%	0,5W
3841	4822 116 52283	4,7kΩ	5%	0,5W
3842	4822 116 83884	47kΩ	5%	0,16W
3843	4822 050 23303	33kΩ	1%	0,6W
3844	4822 116 52283	4,7kΩ	5%	0,5W
3845	4822 116 83884	47kΩ	5%	0,16W
3846	4822 050 23303	33kΩ	1%	0,6W
3847	4822 116 83961	6,8kΩ	5%	0,16W
3848	4822 116 52234	100kΩ	5%	0,5W
3849	4822 116 52234	100kΩ	5%	0,5W
3850	4822 116 52276	3,9kΩ	5%	0,5W
3851	4822 052 10338	3,3Ω		NFR25
3852	4822 052 10228	2,2Ω	5%	0,33W
3853	4822 116 83883	470Ω	5%	0,16W
3854	4822 116 52175	100Ω	5%	0,5W
3855	4822 116 52175	100Ω	5%	0,5W
3857	4822 116 52191	33Ω	5%	0,5W
3858	4822 116 52257	22kΩ	5%	0,5W
3859	4822 116 52257	22kΩ	5%	0,5W
3862	4822 116 52175	100Ω	5%	0,5W
3863	4822 116 52191	33Ω	5%	0,5W
3864	4822 116 52176	10Ω	5%	0,5W
3865	4822 116 52176	10Ω	5%	0,5W
3866	4822 050 21003	10kΩ	2%	0,25W
3867	4822 116 52206	120Ω	5%	0,5W
3869	4822 050 24708	4,7Ω	1%	0,6W
3870	4822 116 52175	100Ω	5%	0,5W
3871	4822 050 21003	10kΩ	2%	0,25W
3872	4822 050 21003	10kΩ	2%	0,25W
3873	4822 116 83883	470Ω	5%	0,16W
3874	4822 050 21003	10kΩ	2%	0,25W
3875	4822 050 21003	10kΩ	2%	0,25W
3876	4822 116 52234	100kΩ	5%	0,5W
3877	4822 050 21003	10kΩ	2%	0,25W
3878	4822 050 21003	10kΩ	2%	0,25W
3879	4822 050 21003	10kΩ	2%	0,25W
3880	4822 116 52219	330Ω	5%	0,5W
3881	4822 050 21003	10kΩ	2%	0,25W
3882	4822 116 83884	47kΩ	5%	0,16W
3883	4822 116 52234	100kΩ	5%	0,5W
3884	4822 116 52276	3,9kΩ	5%	0,5W
3885	4822 116 52234	100kΩ	5%	0,5W
3886	4822 116 83884	47kΩ	5%	0,16W
3887	4822 116 83883	470Ω	5%	0,16W

RESISTORS

3888	4822 050 21003	10kΩ	2%	0,25W
3889	4822 116 83883	470Ω	5%	0,16W
3890	4822 050 11002	1kΩ	5%	0,2W
3891	4822 050 11002	1kΩ	5%	0,2W
3892	4822 116 83883	470Ω	5%	0,16W
3893	4822 116 83883	470Ω	5%	0,16W
3894	4822 116 52191	33Ω	5%	0,5W
3895	4822 116 52176	10Ω	5%	0,5W
3897	4822 116 52175	100Ω	5%	0,5W
3899	4822 116 52175	100Ω	5%	0,5W

COILS

1810	4822 242 10849	CRYSTAL 8,46MHz
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DIODES

6871	4822 130 30621	1N4148
6872	4822 130 30621	1N4148
6873	4822 130 30621	1N4148
6874	4822 130 30621	1N4148
6875	3198 010 55180	DIO REG BZX79-B5V1
6877	3198 010 53980	DIO REG BZX79-B3V9

TRANSISTORS

7812	4822 130 40959	BC547B
7874	4822 130 40959	BC547B
7875	4822 130 40959	BC547B

INTEGRATED CIRCUITS

7801 ©	4822 209 17286	TZA1024T/N1 HF-AMPLIFIER
7806	9352 628 49112	IC TDA7073A/N4
7807	9352 628 49112	IC TDA7073A/N4
7810 ©	8203 303 11278	D/A CONVERTER PCM1716
7871	9352 628 49112	IC TDA7073A/N4
7873	5322 209 10421	HEF4094BP
7876 ©	4822 209 16143	LC89170M
7877 ©	9352 641 80557	SAA7324H/M2B CD10/M2B
7878	4822 209 72042	MC78L05ACP