

*Service Manual*

# CD62

Issue 1.0

## DiVA CD62 Compact Disc Player (Text)



ARCAM

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# CD62 (text) Circuit Description

## Summary

The main Motherboard/Display PCBs for the Diva CD players may be assembled as three different versions:

- DiVA CD62 (text) - With alternate components fitted and the 92DAC upgrade connections omitted (L933AY).
- DiVA CD72 (text) - With the standard set of components fitted (L899AY).
- DiVA CD92 (text) - With analogue components and connectors omitted, for use as a host motherboard for the plug-in 92DAC (L934AY).

All systems are based on a Sony kit, comprising CDM14BL-5BD25 CD transport / loader / laser mechanism, micro-controller and fluorescent display.

## Power Supplies

The CD62 may be fitted with any of the following transformers dependant on supply voltage required:-

- 230VAC only - part number L849TX
- 115VAC only - part number L850TX
- 100VAC only - part number L851TX

Later models are fitted with L867TX which is a 230/115VAC transformer.

The mains transformer has three secondary windings:

1. 13.7V – 0V – 13.7V to provide  $\pm 12V(A)$  supplies (IC201 and IC205) for the audio output circuitry via regulators IC201 and IC205.
2. 9V-0V-32V to produce the digital, motor drive and fluorescent display grid supplies:
  - +11V(U) Unregulated supply for relay drive and +5V(D) supply (IC200) Mechanism and motor driver supply
  - +7V (IC202) General digital logic supply
  - +5V(D) (IC203) Supply to DAC
  - +5V(A) (IC204) Display grid voltage.
  - 30V
3. 0-5V to provide an AC supply for the display filament.

## Relay Mute Control

This circuit drives a relay to un-mute the analogue output ~5 seconds after the unit is powered on, and quickly mutes the output when the unit is switched off. The circuit works effectively as an “AND” gate.

If AC is present on the transformer secondary winding and the 5-second timer composed of R222 and C221 has reached the threshold voltage (Vbe of TR200 + Vbe of TR201 - Vce of TR202, or ~1.0V), the relay coil is connected to +11V (referenced to 0V\_3 as required by the 9DAC's internal circuitry) via TR204.

When AC is removed, C231 discharges quickly through R225, the base voltage of TR204 rises and the relay coil voltage is removed, muting the output.

TR203 resets the ‘timer’ by discharging C221 quickly at turn-off.

## Remote Control/PIC Micro

Remote control data is received from the IREye on the display PCB and buffered by TR300 and TR301. The Programmable Interrupt Controller converts the RC-5 format data into the NEC format required by the Sony micro.

## Motor Driver

The status of the drawer is indicated to the micro by two micro switches ‘INSW’ and ‘OUTSW’ on SK205. The micro controls the drawer motor via driver IC303.

## Clock Buffering

The clock and data signals LRCK, ADATA and BCLK from the mechanism connector SK300 are double buffered by IC300 before being delivered to the DAC.

## Power-On/Reset

The power-on reset signal XRST (or RESET) is generated by R409, C410 and IC404. When the power is turned on, C410 is initially uncharged and pin 11 of IC404 is at high voltage, and thus the output is low. After a short time, C410 is charged via R409; IC404 pin 11 is then low, and the output switches high (RESET is de-asserted).

## DAC & System Clock

The DAC is a Burr Brown PCM1716E, the DAC is configured for hardware control.

Digital audio is input on pins 1, 2 & 3 in standard Red Book Audio format, i.e. Word Clock, Bit Clock and Data.

The system clock is based around 16.9344 MHz crystal X400 and transistor TR402. This produces a stable clock with low jitter. IC404A & B buffer the clock as linear buffers. IC404C & D buffer the individual mech & DAC clock lines.

## Analogue Output

Left channel:

IC400A and IC400B are cascaded 69kHz 2<sup>nd</sup> order low-pass Bessel filters. The output devices internal to both op-amps in IC400 are “pulled down” to the negative supply rail to force operation in class A (one output device is conducting at all times and crossover distortion is eliminated).

C448 AC-couples the output, the muting relay shorts the output to ground through 120 ohm series resistors, and 3N3 Polypropylene shunt capacitors are used to swamp cable capacitance, ensuring stability and making up the 5<sup>th</sup> pole of the filter.

The right channel is the same as the left channel. IC401A & B are used as the buffer and filter.

## **Microcontroller & Display Board**

The system microcontroller IC100 serves the following functions:

- Control of the mechanism & decoder on the CDM14 mechanism
- Control of mute, attenuation and de-emphasis for the DAC
- Direct drive of the fluorescent display
- Remote control decoding
- Keyboard scanning

The keyboard scanning works by connecting the keys to a resistor ladder on an ADC input to the micro. Pressing a key presents a unique voltage to this input, which the micro is pre-programmed to interpret accordingly.

The remote control data contains a 'Customer Code' that identifies this as an Arcam product. The diode network D100 to D106 configures the micro to accept this code.

## **Remote Bus Carrier Filter & Demodulator**

Remote control commands can be delivered over wire to SK500 for multi-room applications. Incoming signals are attenuated and clipped by resistors and D500. L500 and C508 form a parallel resonant circuit at approximately 37kHz. This demodulates the incoming signal and the output is passed to IC501A where it is 'chopped', low pass filtered and fed to IC501B to provide the RC5 output signal.

## **Digital Output**

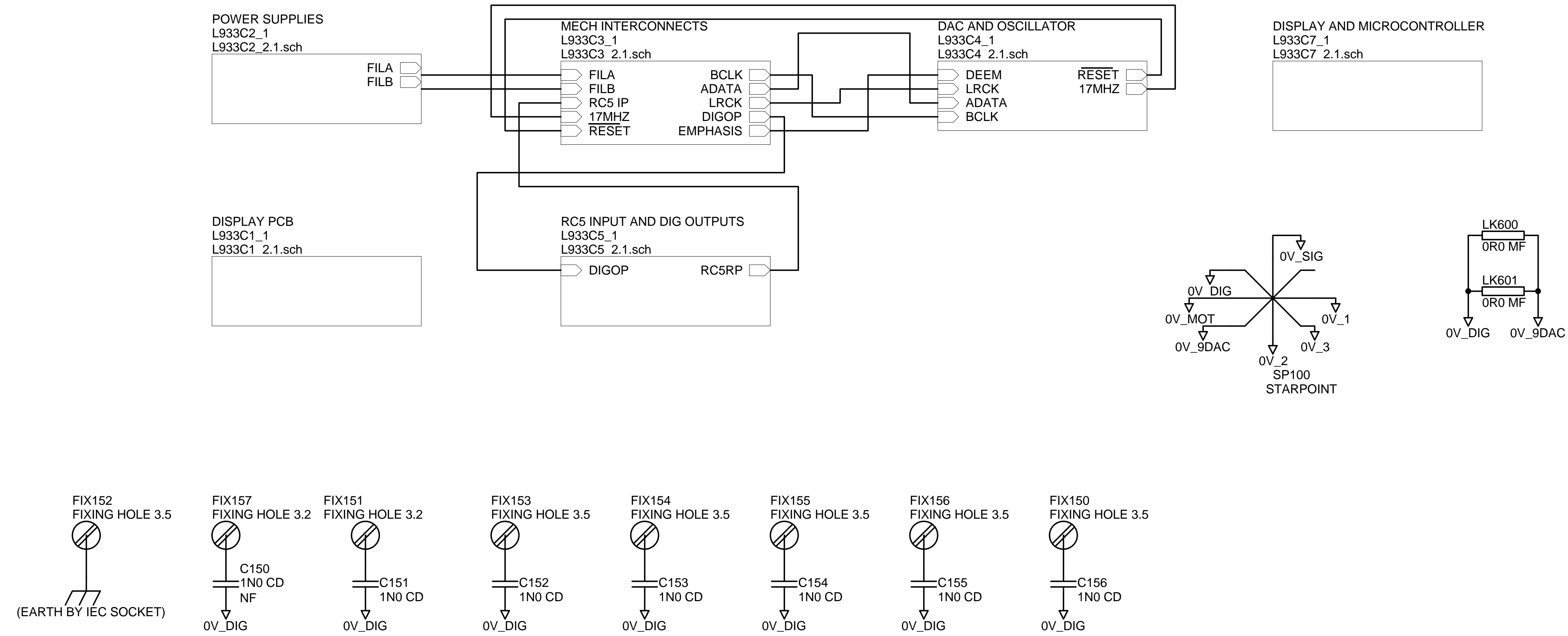
The decoder on the mechanism assembly generates an SPDIF format digital output signal. This is passed to buffer IC500A. IC500B through E are used in parallel to provide a transformer less 75-ohm source impedance to a single phono socket SK501. Optical digital output via IC502 is also tapped off the digital output signal via IC500F.

## Jumper Settings / Technical Specifications

Jumper Description	Jumper	CD62T Settings	CD72T Settings	CD92T Settings
Filter smoothing disable	PL200	Not fitted	Off	On
Filter smoothing disable	PL201	Not fitted	Off	On
IC201 Regulator bypass	PL202	Not fitted	Off	On
IC201 Regulator output enable	PL203	On	On	Off
IC205 Regulator bypass	PL204	Not fitted	Off	On
IC205 Regulator output enable	PL205	On	On	Off
System clock source select	PL300	Pin1 & 2	Pins 1 & 2	Pins 2 & 3
Main board clock power enable	PL400	On	On	Off
Main board PCM1716E DAC enable	PL401	On	On	Off
Main board output relay enable	PL402	On	On	Off

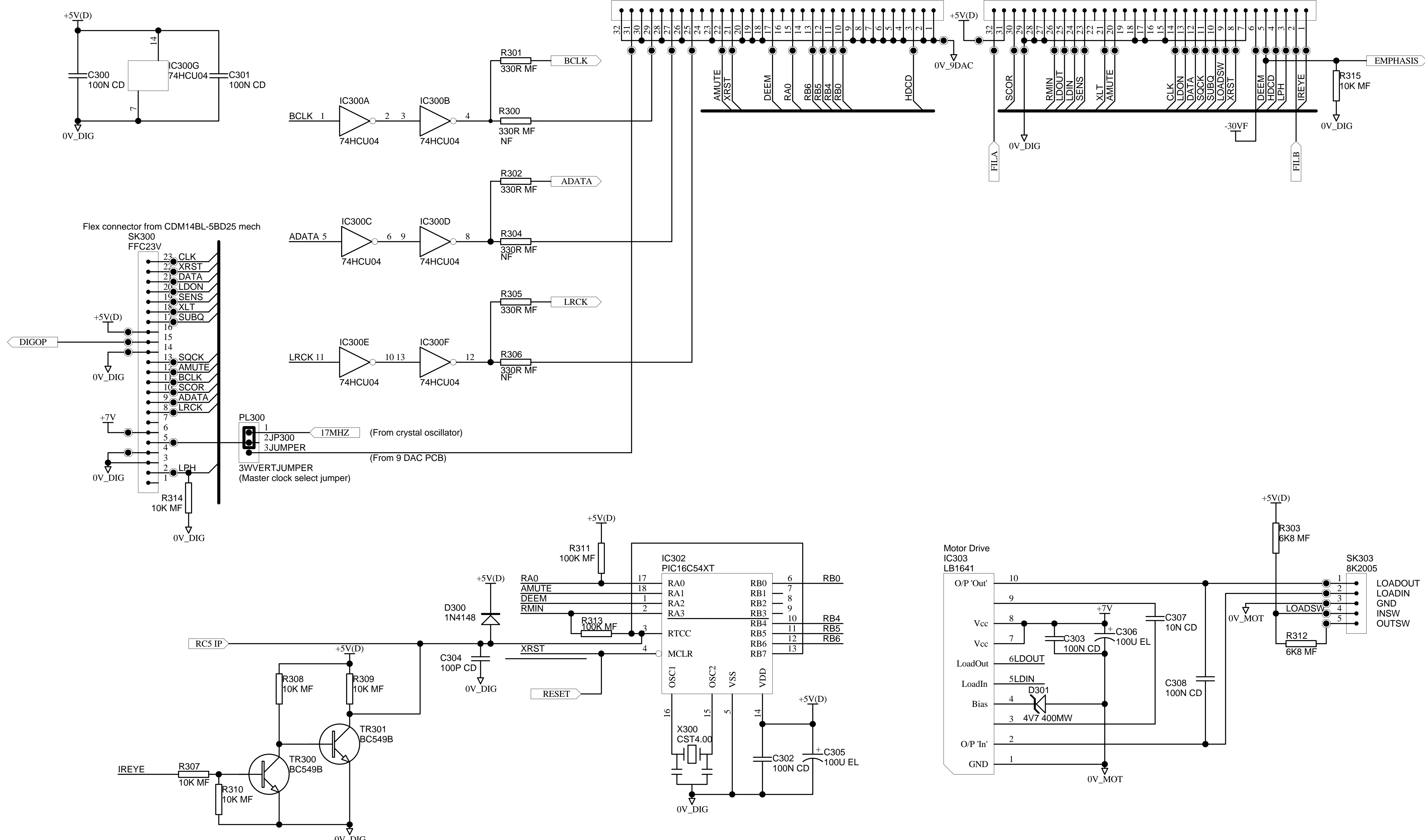
	CD62T / CD72T
<b>CD Mechanism</b>	<b>Sony CDM14BL-5BD25</b>
<b>Laser pick-up</b>	<b>3 beam</b>
<b>DAC conversion system</b>	<b>Multi-level Delta Sigma</b>
<b>Effective resolution</b>	<b>16 bits (24 bit capable DAC)</b>
<b>Dynamic Range</b>	<b>100dB</b>
<b>Signal to Noise ratio (CCIR)</b>	<b>&gt;104dB</b>
<b>Harmonic distortion (0dBFS 1kHz)</b>	<b>&lt;0.005%</b>
<b>Harmonic distortion (0dBFS 10kHz)</b>	<b>&lt;0.005%</b>
<b>Frequency response (-0.7dB)</b>	<b>&lt; 10Hz to 20kHz</b>
<b>Output level (0dBFS)</b>	<b>2.3VRMS</b>
<b>Output impedance</b>	<b>120 ohms</b>
<b>Minimum recommended load</b>	<b>5 kΩ</b>
<b>Coaxial digital output (75 ohm)</b>	<b>Class 2</b>
<b>Power consumption (max)</b>	<b>32VA</b>
<b>Size W/D/H (mm)</b>	<b>430x290x84</b>
<b>Weight, net</b>	<b>4.6kg (CD92T 5.6kg)</b>

Please refer to the CD72T (Master) schematic if changes are to be made to this schematic!  
 USE EXCLUDE NF WHEN CREATING BILL OF MATERIALS



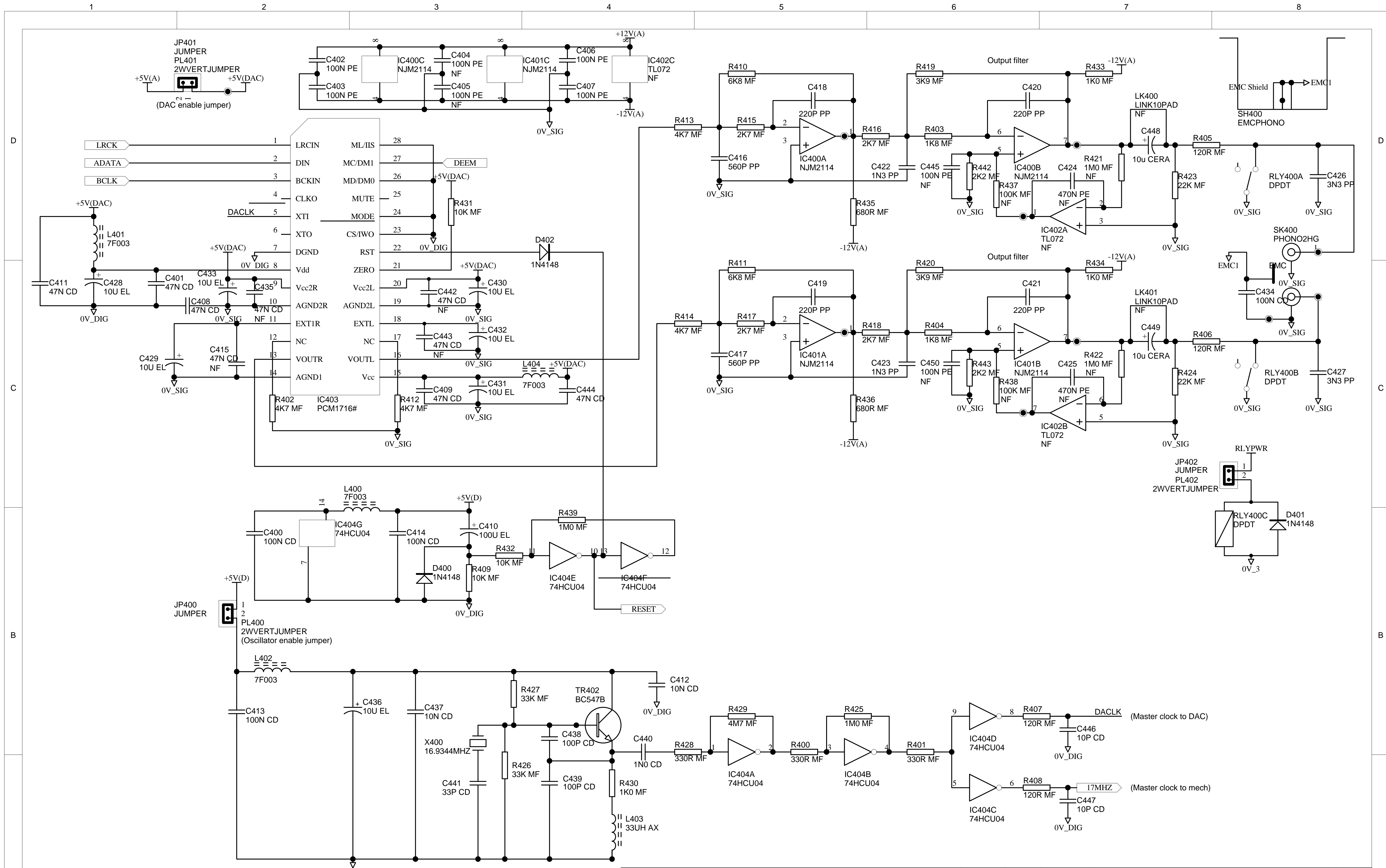
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23425 A & R Cambridge Ltd. Pembroke Avenue Denny Industrial Centre Waterbeach Cambridge CB5 9PB	<b>Circuit Diagram</b>				
	Notes:				
	01_1127	TGP	18 July 2001	Production Release	2.1
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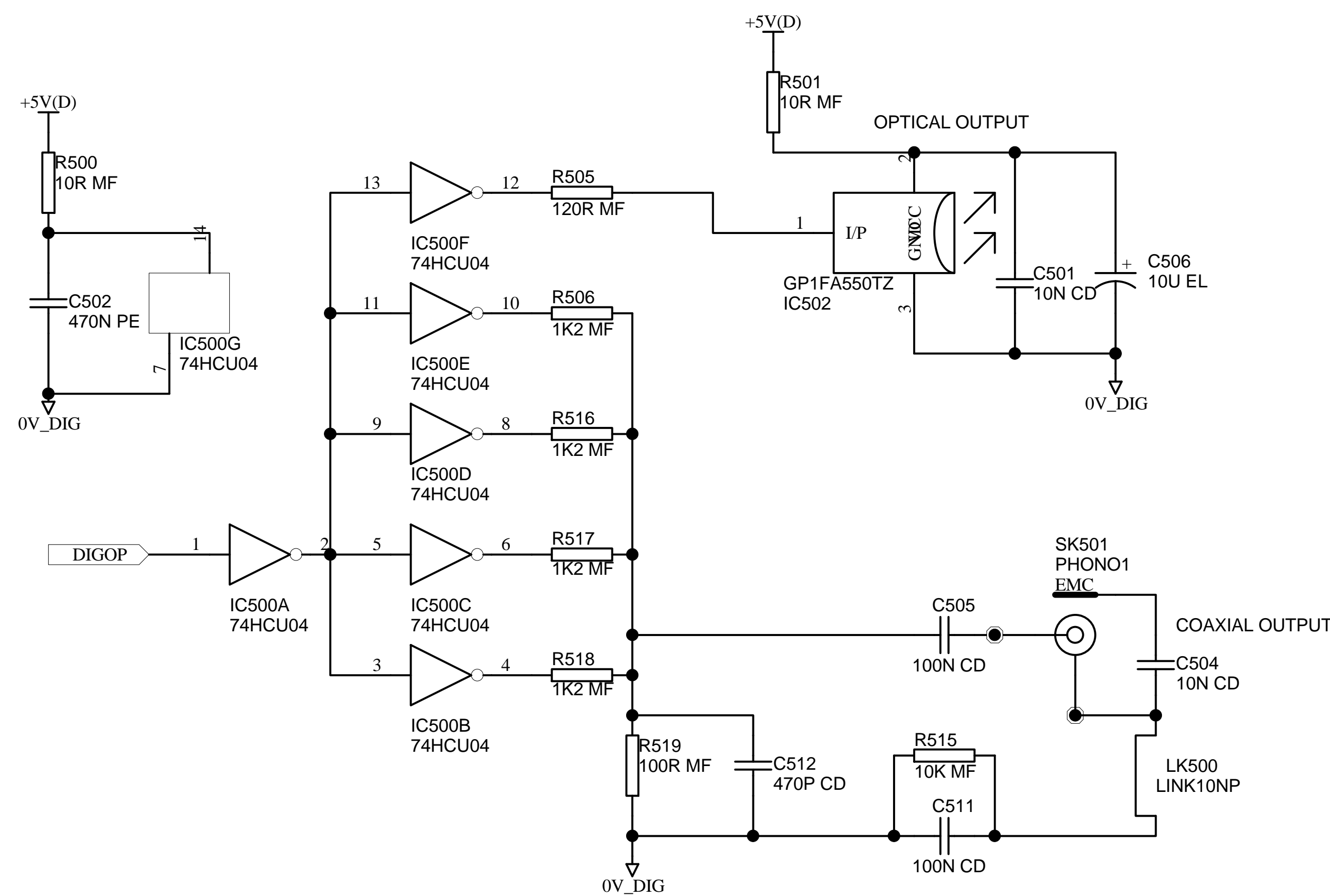
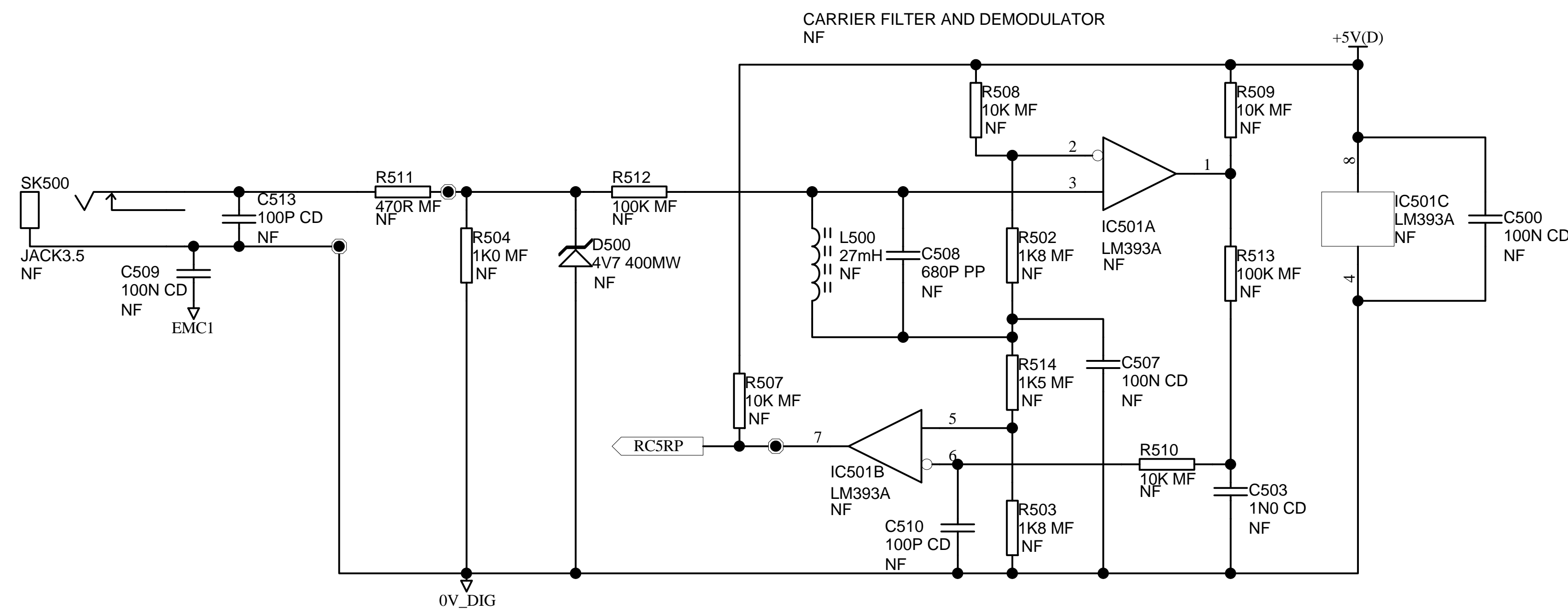


<b>DRAWING TITLE</b>							
<b>CD62T - MECH CONNECTS, MOTOR DRIVE AND IR MICRO</b>							
<b>23425</b> <b>A &amp; R Cambridge Ltd.</b> Pembroke Avenue Denny Industrial Centre Waterbeach Cambridge CB5 9PB		<b>Circuit Diagram</b>					
		Notes:					
01_1127	TGP	18 July 2001	Production Release				2.1
ECO No.	INITIALS	DATE	DESCRIPTION OF CHANGE				ISSUE
Filename		Date Printed	Drawn by:	Sheet 3 of 7	DRAWING NO.		g_933CT
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<b>DRAWING TITLE</b> CD62T - DAC, OSCILLATOR AND ANALOGUE OUTPUTS					
23425		<b>Circuit Diagram</b>			
A & R Cambridge Ltd. Pembroke Avenue Denny Industrial Centre Waterbeach Cambridge CB5 9PB		Notes:			
01_1127	TGP	18 July 2001	Production Release		2.1
ECO No.	INITIALS	DATE	DESCRIPTION OF CHANGE		ISSUE
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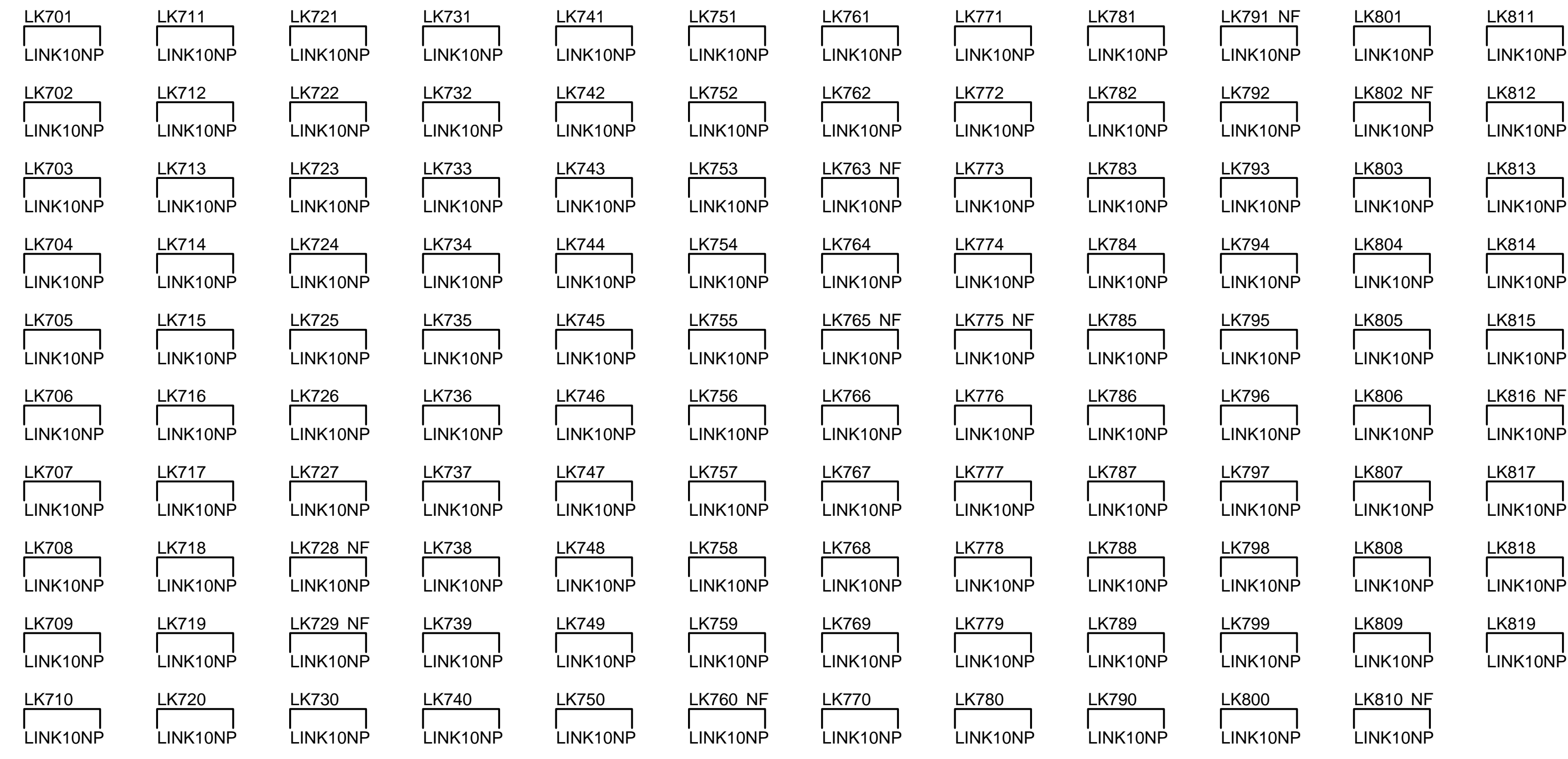


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CD62T - REAR PANEL RC5 & DIGITAL OUTPUT							
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ECO No.	INITIALS	DATE	DESCRIPTION OF CHANGE			ISSUE	
		Date Printed 19-Jul-2001	Drawn by: TGP	7	Sheet 5 of 7	DRAWING NO. J_933CT	

Filename  
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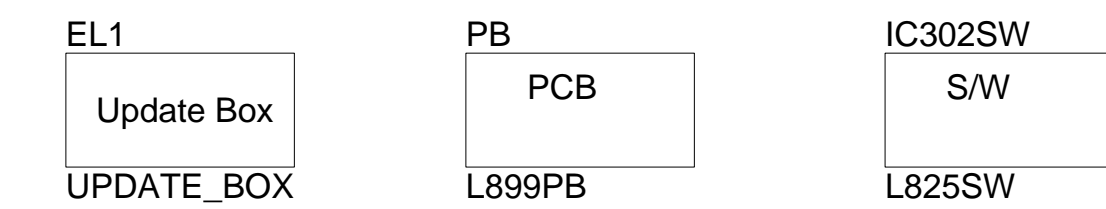
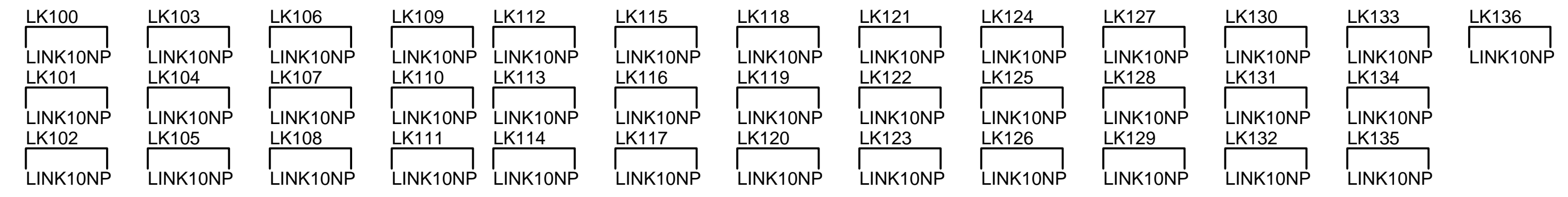


C

C

B

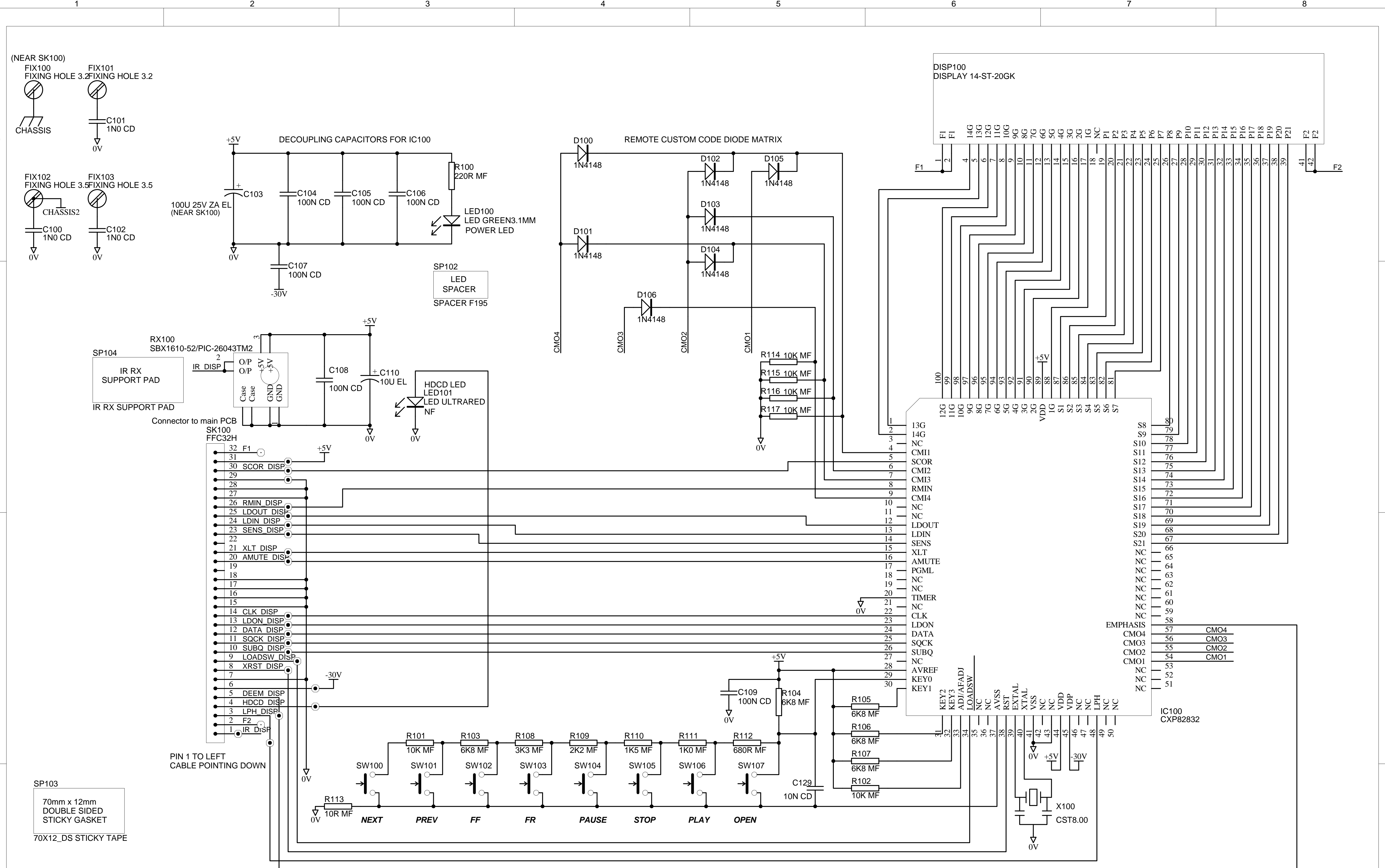
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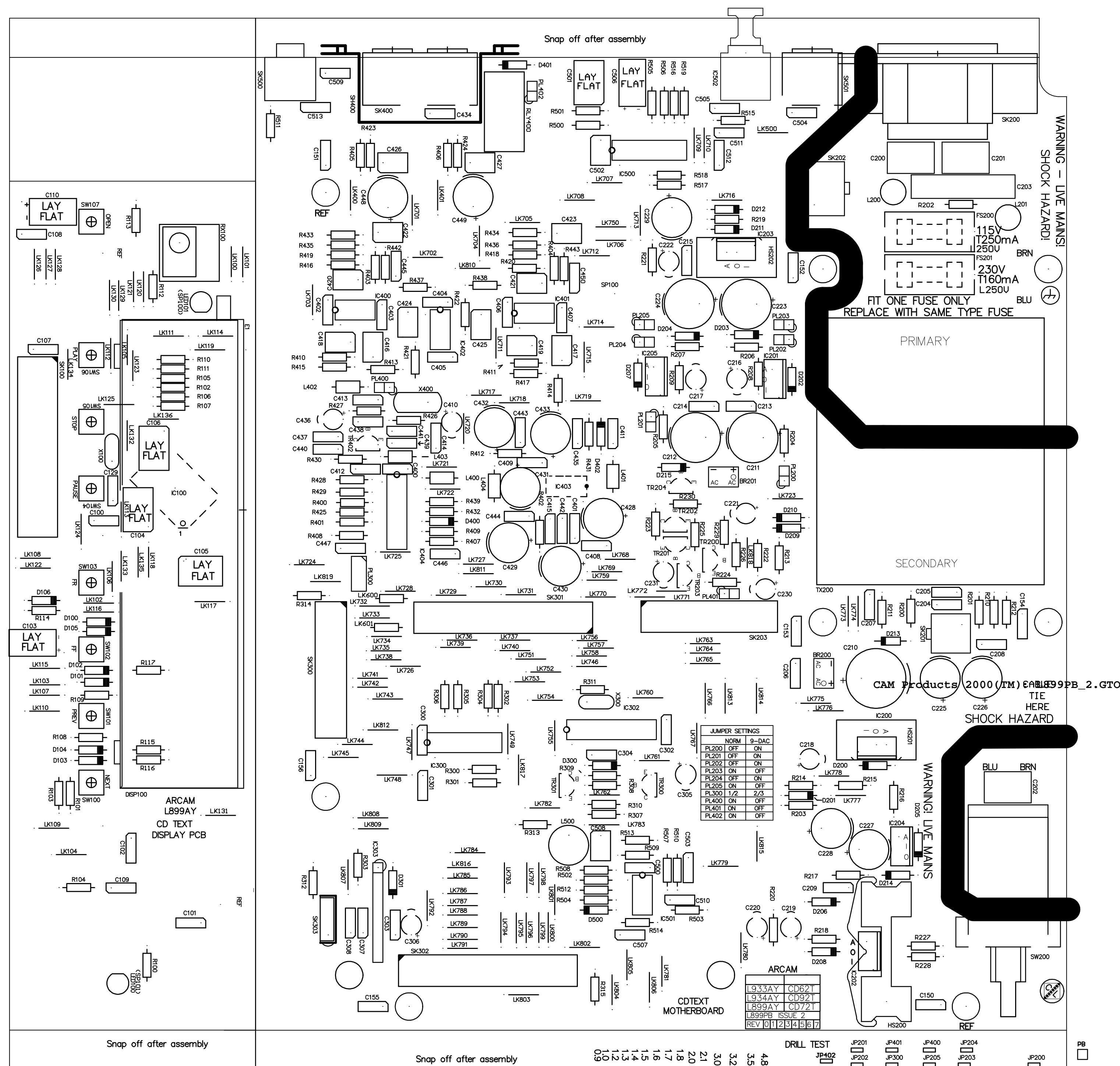
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A

<b>DRAWING TITLE</b> CD62T - LINKS AND MECH PARTS							
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		Notes:					
01_1127	TGP	18 July 2001	Production Release		2.1		
<b>ECO No.</b>	<b>INITIALS</b>	<b>DATE</b>	<b>DESCRIPTION OF CHANGE</b>		<b>ISSUE</b>		
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<b>DRAWING TITLE</b> CD62T - DISPLAY AND SYSTEM MICRO							
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		01_1127	TGP	18 July 2001	Production Release	2.1	
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LAYER STACKUP	
1	L899PB_2.GTO
2	
3	
4	
5	

Manufacture in accordance with IPC-A-600F Class 1.

MATERIAL	CEM1	NOTES--
COPPER WEIGHT	1oz	1/ Always use NC drill file as reference.
HOLE SIZES	FINISHED (SEE NOTE 1)	2/ All routing uses 2.0mm tool unless otherwise stated.
ROUTING	SEE NOTE 2	3/ Coat the component side with a resist layer to give a green finish. Generate component ident by negative imaging through the green finish.
LAYERS	ONE	4/ Mark month/year of manufacture on ident layer.
MINIMUM WIDTH	8ML	
MINIMUM GAP	8ML	
RESIST	GREEN	
IDENT	SEE NOTE 3	GENERAL TOLERANCES
VENDOR CODES	SEE NOTE 4	PCB Dims. +/- 0.2mm
FINISH	GL-COAT	Routing +/- 0.1mm
SCORING	DENOTED BY >>>	All holes +/- 0.08mm
		ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED

DRAWING TITLE		CDTEXT MOTHERBOARD AND DISPLAY PCB		Top Overlay			
<p>A &amp; R Cambridge Ltd. Pembroke Avenue Waterbeach Cambridge CB5 9PB</p>	Filename: L899PB_2.pcb	01_1123	CL	03/07/01	ADMINISTRATIVE CHANGES	2	
	ON SINGLE SDED PCBs ALL HOLES ARE NON PTH	01_1115	CL	16/06/01	PRODUCTION RELEASE	1	
			CL	01/05/01		PROTOTYPE	B
			WAF	5-4-01		PROTOTYPE	A
Contact Engineer: CLIFF LAWRENCE	Contact Tel: +44 (0) 1223 203294	E.C.O. No.	INITIALS	DATE	DESCRIPTION OF CHANGE	ISSUE	
					Printed: 6-Jan-2001	Sheet 1 of 4	
					DRAWING NO. L899PB		

## CD62 Main Board L933\_2.1

Reference	Description	Part number
BR200	Bridge rectifier DF01M 1A 100V	3BDF01M
BR201	Bridge rectifier DF01M 1A 100V	3BDF01M
C100-102	CERD 1N0 63V 20% RA	2A210
C103-109	ELST 100U 25V ZA RUBYCON	2P710Z A
C110	ELST 10U 50V	2N610
C129	CERD 10N 63V 20% RA	2A310
C151-156	CERD 1N0 63V 20% RA	2A210
C200-202	SUPPR CAP 3N3 250V	2K233
C203	220NF CLASS X2 CAP 275VRMS	2D422
C204-209	CERD 100N 63V 20% RA	2A410
C210	ELST 3M3 25V	2N833
C211	ELST 1M0 35V	2N810C
C212	ELST 1M0 35V	2N810C
C213-215	PEST 100N 63V 10%	2K410
C216-222	ELST 100U 25V	2N710
C223	ELST 1M0 25V	2N810
C224	ELST 1M0 25V	2N810
C225-227	ELST 100U 100V	2N710B
C228	ELST 1M0 10V	2N810 A
C229	ELST 1M0 10V	2N810 A
C230	ELST 100U 25V	2N710
C231	ELST 10U 50V	2N610
C300-303	CERD 100N 63V 20% RA	2A410
C304	CERD 100P 50V -20% +80% RA	2A110
C305	ELST 100U 25V	2N710
C306	ELST 100U 25V	2N710
C307	CERD 10N 63V 20% RA	2A310
C308	CERD 100N 63V 20% RA	2A410
C400	CERD 100N 63V 20% RA	2A410
C401	CERD 47N 63V -20% +80% RA	2A347
C402, 403	PEST 100N 63V 10%	2K410
C406, 407	PEST 100N 63V 10%	2K410
C408	CERD 47N 63V -20% +80% RA	2A347
C409	CERD 47N 63V -20% +80% RA	2A347
C410	ELST 100U 25V	2N710
C411	CERD 47N 63V -20% +80% RA	2A347
C412	CERD 10N 63V 20% RA	2A310
C413	CERD 100N 63V 20% RA	2A410
C414	CERD 100N 63V 20% RA	2A410
C416	PPRO 560P 5% 63V RA	2D156
C417	PPRO 560P 5% 63V RA	2D156
C418-421	PPRO 220P 5% 63V RA	2D122
C419-421	PPRO 220P 5% 63V RA	2D122
C422	PPRO 1N3 63V 5% RA	2D213 N
C423	PPRO 1N3 63V 5% RA	2D213 N
C426	PPRO 3N3 5% 63V RA	2D233
C427	PPRO 3N3 5% 63V RA	2D233
C428-433	ELST 10U 50V	2N610
C434	CERD 100N 63V 20% RA	2A410
C436	ELST 10U 50V	2N610

Reference	Description	Part number
C437	CERD 10N 63V 20% RA	2A310
C438	CERD 100P 50V -20% +80% RA	2A110
C439	CERD 100P 50V -20% +80% RA	2A110
C440	CERD 1N0 63V 20% RA	2A210
C441	CERD 33P 63V 20% RA	2A033
C444	CERD 47N 63V -20% +80% RA	2A347
C446	CERD 10P 63V 20% RA	2A010
C447	CERD 10P 63V 20% RA	2A010
C448	ELEC 10U 50V CERAFINE	2P610C C
C449	ELEC 10U 50V CERAFINE	2P610C C
C501	CERD 10N 63V 20% RA	2A310
C502	PEST 470N 63V 10%	2K447
C504	CERD 10N 63V 20% RA	2A310
C505	CERD 100N 63V 20% RA	2A410
C506	ELST 10U 50V	2N610
C511	CERD 100N 63V 20% RA	2A410
C512	CERD 470P 50V -20% +80% RA	2A147
CA1	CD...T MAINS JUMPER CABLE	L920C A
D100-106	SSDIODE 1N4148 75V	3A4148
D200-212	SSDIODE 1N4148 75V	3A4148
D213	RECTIFIER 1N4003F 1A 200V	3B4003
D214	Diode 5V1 400mW	3C0510 4
D215	SSDIODE 1N4148 75V	3A4148
D300	SSDIODE 1N4148 75V	3A4148
D301	ZENER 4V7 400MW	3C0470 4
D400-402	SSDIODE 1N4148 75V	3A4148
DISP100	DISP CD SONY 14-ST-20GK	B1015
E1	CDTEXT VFD SUPPORT	E916M C
EL200	EARTH LEAD	8M101
FS200	INS COVER PCB FUSEHOLDER	F022
FS200	FUSEHOLDER 20mm PCB	8S004
FS201	FUSE 20mm 160mA T S504160mA	C11166
FS201	FUSEHOLDER 20mm PCB	8S004
FS201	INS COVER PCB FUSEHOLDER	F022
HS200	HEATSINK CLIP TO220 13/8.6 DC/W	F006
HS200	HEATSINK TO220 8.6 DEG/W	F008
HS201	HEATSINK TO220 CLIP 30	F007
HS202	HEATSINK TO220 CLIP 30	F007
IC100	IC CD CXP82832-031Q MICRO	5G8283 2
IC200	IC VREG LM1086CT-ADJ	5D1086 A
IC201-203	IC VREG POS LM317T	5D317T
IC204	IC VREG POS LM337T	5D337
IC205	IC VREG POS LM337T	5D337
IC300	IC HCMOS 74HCU04	5J7404
IC302	IC CMOS MICRO PIC16C54XT/P	5H16C5 4X
IC302	IC SOCKET 18 PIN 0.3"	8S018

Reference	Description	Part number
IC302SW	SOFTWARE	L825S W
IC303	IC MOTOR DRIVER LB1641	5Q1641
IC400	IC OPAMP DUAL NJM2114D	5B2114
IC401	IC OPAMP DUAL NJM2114D	5B2114
IC403	IC CD PCM1716 24 bit 96KHZ DAC	5G1716
IC404	IC HCMOS 74HCU04	5J7404
IC500	IC HCMOS 74HCU04	5J7404
IC502	SPDIF OPTICAL TRANSMITTER	5TG550 T
JP203	JUMPER SOCKET 0.1"	8K004
JP205	JUMPER SOCKET 0.1"	8K004
JP300	JUMPER SOCKET 0.1"	8K004
JP400	JUMPER SOCKET 0.1"	8K004
JP401	JUMPER SOCKET 0.1"	8K004
JP402	JUMPER SOCKET 0.1"	8K004
L200	6U8H INDUCTOR	7D968 A
L201	6U8H INDUCTOR	7D968 A
L400-402	FERRITE BEAD SINGLE AXIAL TAPED 2K BOX	7F003
L403	33UH IND 34-48330	7D033
L404	FERRITE BEAD SINGLE AXIAL TAPED 2K BOX	7F003
LED100	LED GREEN 3.1MM SLR- 37MG3F	3D007
LK600	RES MF W4 1% 0R0	1H000
LK601	RES MF W4 1% 0R0	1H000
PB	PCB	L899PB 2
PL203	2WAY MOLEX VERT MALE CONNECTOR	8K6201
PL205	2WAY MOLEX VERT MALE CONNECTOR	8K6201
PL300	3WAY MOLEX VERT MALE CONNECTOR	8K2103
PL400-402	2WAY MOLEX VERT MALE CONNECTOR	8K6201
R100	RES MF W4 1% 220R	1H122
R101	RES MF W4 1% 10K	1H310
R102	RES MF W4 1% 10K	1H310
R103	RES MF W4 1% 6K8	1H268
R104-107	RES MF W4 1% 6K8	1H268
R108	RES MF W4 1% 3K3	1H233
R109	RES MF W4 1% 2K2	1H222
R110	RES MF W4 1% 1K5	1H215
R111	RES MF W4 1% 1K0	1H210
R112	RES MF W4 1% 680R	1H168
R113	RES MF W4 1% 10R	1H010
R114-117	RES MF W4 1% 10K	1H310
R200	RES MF FU W3 1R0 5% NFR25	1G810
R201	RES MF FU W3 1R0 5% NFR25	1G810
R202	RES W25 5% VR25 1M5	1K515
R203	RES MF W4 1% 330R	1H133
R204	RES MF W4 1% 10R	1H010
R205	RES MF W4 1% 10R	1H010
R206	RES MF W4 1% 220R	1H122
R207	RES MF W4 1% 220R	1H122
R208	RES MF W4 1% 1K8	1H218

Reference	Description	Part number
R209	RES MF W4 1% 1K8	1H218
R210	RES MF FU W3 1R0 5% NFR25	1G810
R211	RES MF FU W3 10R 5% NFR25	1G010
R212	RES MF FU W3 1R0 5% NFR25	1G810
R213	RES MF FU W3 10R 5% NFR25	1G010
R214	RES MF W4 1% 1K6	1H216
R215	RES MF W4 1% 22K	1H322
R216	RES MF W4 1% 1K0	1H210
R217	RES MF W4 1% 33K	1H333
R218	RES MF W4 1% 270R	1H127
R219	RES MF W4 1% 270R	1H127
R220	RES MF W4 1% 820R	1H182
R221	RES MF W4 1% 820R	1H182
R222	RES MF W4 1% 470K	1H447
R223	RES MF W4 1% 10K	1H310
R224	RES MF W4 1% 10K	1H310
R225	RES MF W4 1% 2K2	1H222
R226	RES MF W4 1% 10K	1H310
R227	RES MF W4 1% 100R	1H110
R228	RES MF W4 1% 100R	1H110
R229	RES MF W4 1% 1K5	1H215
R230	RES MF W4 1% 10K	1H310
R301	RES MF W4 1% 330R	1H133
R302	RES MF W4 1% 330R	1H133
R303	RES MF W4 1% 6K8	1H268
R305	RES MF W4 1% 330R	1H133
R307-310	RES MF W4 1% 10K	1H310
R311	RES MF W4 1% 100K	1H410
R312	RES MF W4 1% 6K8	1H268
R313	RES MF W4 1% 100K	1H410
R314	RES MF W4 1% 10K	1H310
R315	RES MF W4 1% 10K	1H310
R400	RES MF W4 1% 330R	1H133
R401	RES MF W4 1% 330R	1H133
R402	RES MF W4 1% 4K7	1H247
R403	RES MF W4 1% 1K8	1H218
R404	RES MF W4 1% 1K8	1H218
R405-408	RES MF W4 1% 120R	1H112
R409	RES MF W4 1% 10K	1H310
R410	RES MF W4 1% 6K8	1H268
R411	RES MF W4 1% 6K8	1H268
R412-414	RES MF W4 1% 4K7	1H247
R415-418	RES MF W4 1% 2K7	1H227
R419	RES MF W4 1% 3K9	1H239
R420	RES MF W4 1% 3K9	1H239
R423	RES MF W4 1% 22K	1H322
R424	RES MF W4 1% 22K	1H322
R425	RES MF W4 1% 1M0	1H510
R426	RES MF W4 1% 33K	1H333
R427	RES MF W4 1% 33K	1H333
R428	RES MF W4 1% 330R	1H133
R429	RES MF W4 1% 4M7	1H547
R430	RES MF W4 1% 1K0	1H210
R431	RES MF W4 1% 10K	1H310
R432	RES MF W4 1% 10K	1H310
R433	RES MF W4 1% 1K0	1H210
R434	RES MF W4 1% 1K0	1H210
R435	RES MF W4 1% 680R	1H168

Reference	Description	Part number
R436	RES MF W4 1% 680R	1H168
R439	RES MF W4 1% 1M0	1H510
R442	RES MF W4 1% 2K2	1H222
R443	RES MF W4 1% 2K2	1H222
R500	RES MF W4 1% 10R	1H010
R501	RES MF W4 1% 10R	1H010
R505	RES MF W4 1% 120R	1H112
R506	RES MF W4 1% 1K2	1H212
R515	RES MF W4 1% 10K	1H310
R516-518	RES MF W4 1% 1K2	1H212
R519	RES MF W4 1% 100R	1H110
RLY400	RELAY 960 OHM 51SB12T	A205
RX100	REMOTE RX PIC-26043TM2 38KHZ	B2107
SH400	PHONO EMC SHIELD	E821M C
SK100	32-WAY FFC CONN HORIZ	8K8132
SK200	IEC MAINS CONN PCB INS PX	8A001
SK200	COPPER RIVET TCP/D48 BS	HP007
SK200	COPPER RIVET TCP/D48 BS	HP007
SK300	23-WAY FFC CONN VERT	8K8023
SK302	32-WAY FFC CONN VERT	8K8032
SK303	5-WAY AMP CT CONN	8K2005
SK400	PHONO SKT 2-WAY HOR EMC GOLD	8D230
SK501	PHONO SKT SINGLE EMC	8D220
SP102	LED SPACER	F195
SP103	DS STICKY PAD 70 X 12mm	F205
SP104	IR RX SUPPORT PAD	E822AP
SW100- SW107	TACT SWITCH 2-PIN LOW PROF 9.5mm ACTUATOR SKHVBH	A1511
SW200	SWITCH PUSH MAINS DPST TV-8	A1010
TR200- TR203	TRANS LF SS N BC549B	4A549
TR204	TRANS LF SS P BC557B	4A557
TR300	TRANS LF SS N BC549B	4A549
TR301	TRANS LF SS N BC549B	4A549
TR402	TRANS LF SS N BC547B	4A547
TX200	ALPHA 7CD MAINS TRANSFORMER	L849T X
X100	CER RESON 8.00MHz	7W008
X300	CER RESON 4.00MHz	7W005
X400	CRYSTAL 16.9344MHz PARALLEL	7X012



## CD62 General Assembly Parts List

ITEM	230V	115V	100V	SILVER	BLACK	DESCRIPTION	WHERE USED	QTY
A	L817RC					REMOTE CONTROL		1
B	L849TX	L850TX	L851TX			TX ( L867TX = 230/115VAC multivoltage )		1
				E050AY	E050AYB	CD72 FRONT PANEL		1
				E071AY	E071AYB	CD DRAWER FRONT		1
				E828CP	E827CP	COVER PLATE		1
				HA4V06S	HAV406B	M/C TORX M4X6	LID TO CHASSIS	4
	B2012					SONY MECH		1
	C11166 160mA T	C11256 250mA T	C11316 315mA T			FUSE 20MM	L899AY FS201	1
	E049AY					REAR PANEL ASSEMBLY		1
	E061AY					CHASSIS & DVD / CD SUB PANEL ASSY		1
	E072AY					DIVA EXTENDED POWER BUTTON		1
	E808MI					MAINS INSULATOR		1
	E879PM					FOOT		4
	E879SL					PRODUCT CONFIGURATION CONTROL LABEL	INSIDE CHASSIS NEXT TO SL115	1
	E897PM					DT81 CONFIRM BUTTON	IN FRONT PANEL	8
	F022					FUSE HOLDER COVER	E899AY FS200 FS201	2
	F164					TAPE 3509 BK 3M TESA. 5MM WIDE	FRONT PANEL	400MM
	F205					D/SIDED TAPE 12MM WIDE	CD DRAWER FRONT	250MM
	F214					WHITE 12MM DOUBLE SIDED STICKY TAPE	STICK ADAPTOR TO MECH FRONT	120MM
	HA3V10A					M3 x 6mm MACHINE SCREW	PCB TO CHASSIS	8
	HA3V06A					MC TORX P/H M3X6 STZP SCREW	DISP PCB TO SUB PANEL	4
	HA4A12B					M/C PAN SUPA M4X12 STBK (500)	EARTH LEAD TO CHASSIS	1
	HA4V06S					M/C TORX M4X6 ST STAINLESS STEEL	MECH TO BUSHES ON NEW CHS	3
	HE6V06B					SFTP TORX SCREW NO.6x6mm BK	FRONT PANEL TO CHASSIS, PCB TO CHASSIS EARTH	4
	HF4V09B					SCREW AND STAR WASHER NO.4 X 3/8"	REAR PANEL, LID TO REAR PANEL	13
	HJ4A00A					NUT M4 FULL STZP (1000)	EARTH LEAD TO CHASSIS	1
	HL4SA					WASHER M4 IN LOCK STZP	EARTH LEAD TO CHASSIS	1
	K5408					LIGHT PIPE SLEEVING (6mm)		1
	L806CA					CABLE ASS MOTORDRVE L806CA ISS2	CD MECH. LEAD	1
	L811CA3					23-WAY FLEX-FOIL	CD MECH. LEAD	1

## CD62 General Assembly Parts List

ITEM	230V	115V	100V	SILVER	BLACK	DESCRIPTION	WHERE USED	QTY
	L860CA					CD 72/92 DISPLAY TO MAIN FCC CABLE	DISPLAY LEAD	1
	L933AY					MOTHER/DISP. PCB BUILD STD		1
	SL017					BLANKING LABEL	REAR PANEL	1
	SL025					LASER WARNING (CLASS 1 LASER PRODUCT)	REAR PANEL	1
	SL115					LASER LABEL (DANGER RADIATION)	INSIDE CHASSIS	1