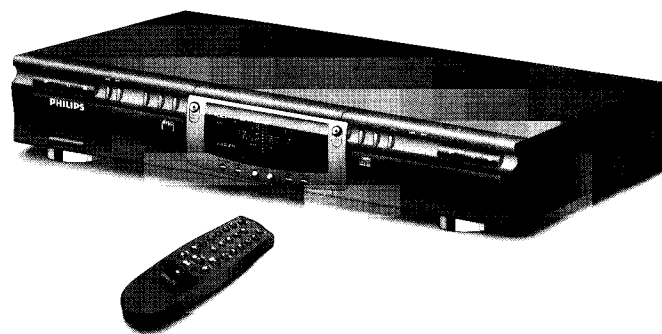


Service
Service
Service



Service Manual

SERVICING

For servicing CDR765 the set can be divided into three parts.

1. The Display board, the Connector interface board and the Headphone board have to be repaired on component level. The power supply is available as a spare part but can also be repaired on component level.
2. The CDR-loader (containing CDR mechanism and CDM-board) and the CDR main board will be exchanged completely in case of failure. Both are available as sparepart. For easy diagnostics, the set has been equipped with a selfdiagnose program. Defective loaders and main boards have to be returned for central repair.
3. The CD-loader module is a new Loader with a CDM12.4.. The complete mounted CD-Loader but also a separate CDM12.4 mechanism and separate loader parts will be available via service stock. The CD-mainboard can be repaired on component level.

Also available: Circuit description: "The basics of Compact Disc Recordable / Rewritable.
Service codenumber 4822 725 25242.

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TECHNICAL SPECIFICATIONS

General

1. Mains voltage
All range version 84-250V
/17 117V
2. Mains frequency 50-60Hz
3. Power consumption 18W

Input/Output

1. Line output(CD & CDRW).

Output level: 2Vrms at 0dB.
Output resistance: 200Ω.

2. Line input.

input sensitivity: 500mVrms.
Input impedance: 50kΩ.
Maximum input voltage: 5Vrms.

3. Digital output(CD & CDRW).

Format: AES/EBU format according IEC958
(consumer format).
Sampling frequency: 44.1kHz.
output resistance: 75Ω.

4. Digital input.

Format: AES/EBU format according IEC958
(consumer format).
Sampling frequency: 44.1kHz.
Input resistance: 75Ω.

5. Optical input.

Format: AES/EBU format according IEC958
(consumer format).
Sampling frequency: 44.1kHz.

Audio performance

Cinch analog output (playback path CD & CDRW).

Output voltage: 2Vrms $\pm$ 2dB. (0dB digital).
Frequency range F.R.: 20Hz < F.R. < 20kHz.
Amplitude linearity: $\pm$ 0.3dB.

Channel unbalance: typical.: $\pm$ 0.1dB.
<0.3dB at 1kHz.
typical: $\pm$ 0.2dB.

Output resistance: 200Ω.
Phase non-linearity: <0.2° at 1kHz.
Outband attenuation: 50dB above 30kHz.
Channel separation: >90dB at 1kHz.
typical: 110dB.
>85dB from 20Hz. until 20kHz.
typical: >93dB.

S/N-ratio A-weighted: >98dB
Typical: 105dB

S/N-ratio unweighted: >95dB.
typical: 100dB.

Dynamic range: >92dB. at 1kHz.
typical: 96dB.
>90dB from 20Hz. until 20kHz.
typical: 96dB.

THD+N: >82dB from 20Hz. until 20kHz.
typical: 85dB.

Cinch analog input/output (monitor path recordable unit only).

*Measured with Audio precision system one.
Input voltage is 500mVrms.*

Output voltage: 2Vrms $\pm$ 2dB. (0dB digital).
Frequency range F.R.: 20Hz < F.R. < 20kHz.
Amplitude linearity: $\pm$ 0.3dB.

typical.: $\pm$ 0.1dB.
<0.3dB at 1kHz.
typical: $\pm$ 0.2dB.

Output resistance: 200Ω.
Phase non-linearity: <0.2° at 1kHz.
Outband attenuation: 50dB above 30kHz.
Channel separation: >90dB at 1kHz.

typical: 98dB.
>85dB from 20Hz. until 20kHz.
typical: >92dB.

S/N-ratio unweighted: >84dB.
typical: 88dB.

Dynamic range: >85dB. at 1kHz.
typical: 90dB.

THD+N: >80dB from 20Hz. until 20kHz.
typical: 85dB.

Intermodulation THD: >80dB.

Headphone output (all functions).

Output voltage: 4Vrms(0dB) / 8 - 2000Ω.
S/N: >80dB.
THD+N: >78dB.
Channel separation: >60dB from 20Hz. until 20kHz.

Dimensions and weight

1. Number and height of feet: 4 x 11mm foiled.
2. Apparatus tray closed: WxDxH 435 x 305 x 75 (without feet)
3. Weight without packaging: 4 kg
4. Weight in packaging: 5 kg

Laser Device Unit CDRW

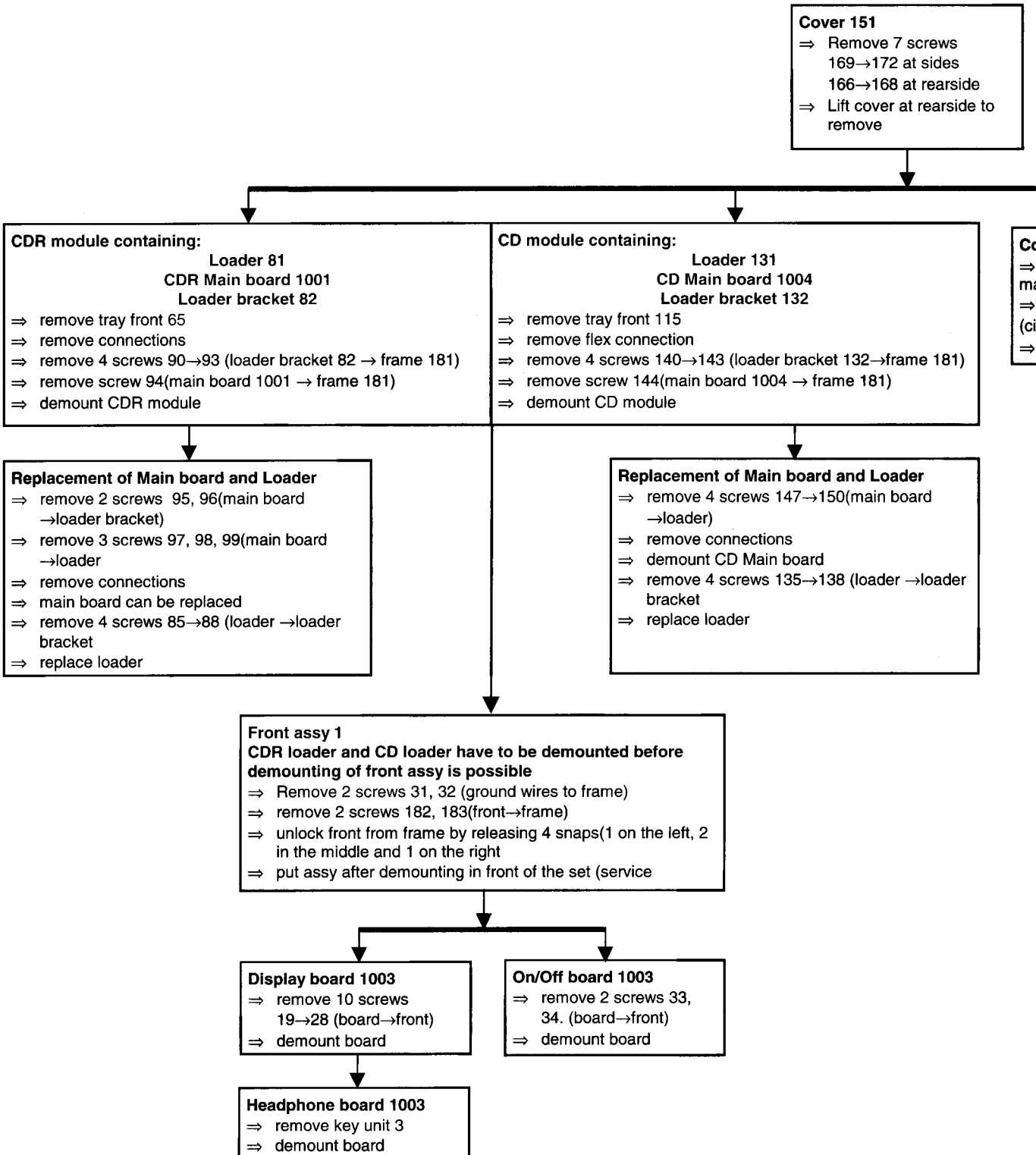
1. Material: GaAlAs
2. Wave length: 775→795 nm(at 25°C)
3. Laser output
read: 0,7→0,9 mW
write: 13→18 mW
4. Class: 3B

Laser Device Unit CD

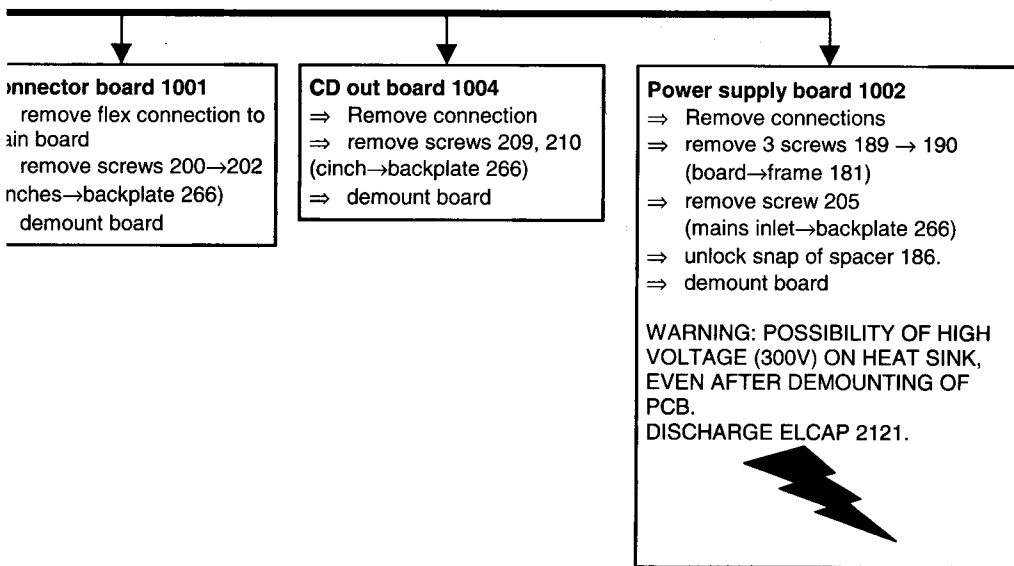
1. Material: GaAlAs
2. Wave length: 760→800 nm(at 25°C)
3. Laser output: max. 0.5 mW
4. Class: 1

DISMANTLING INSTRUCTIONS

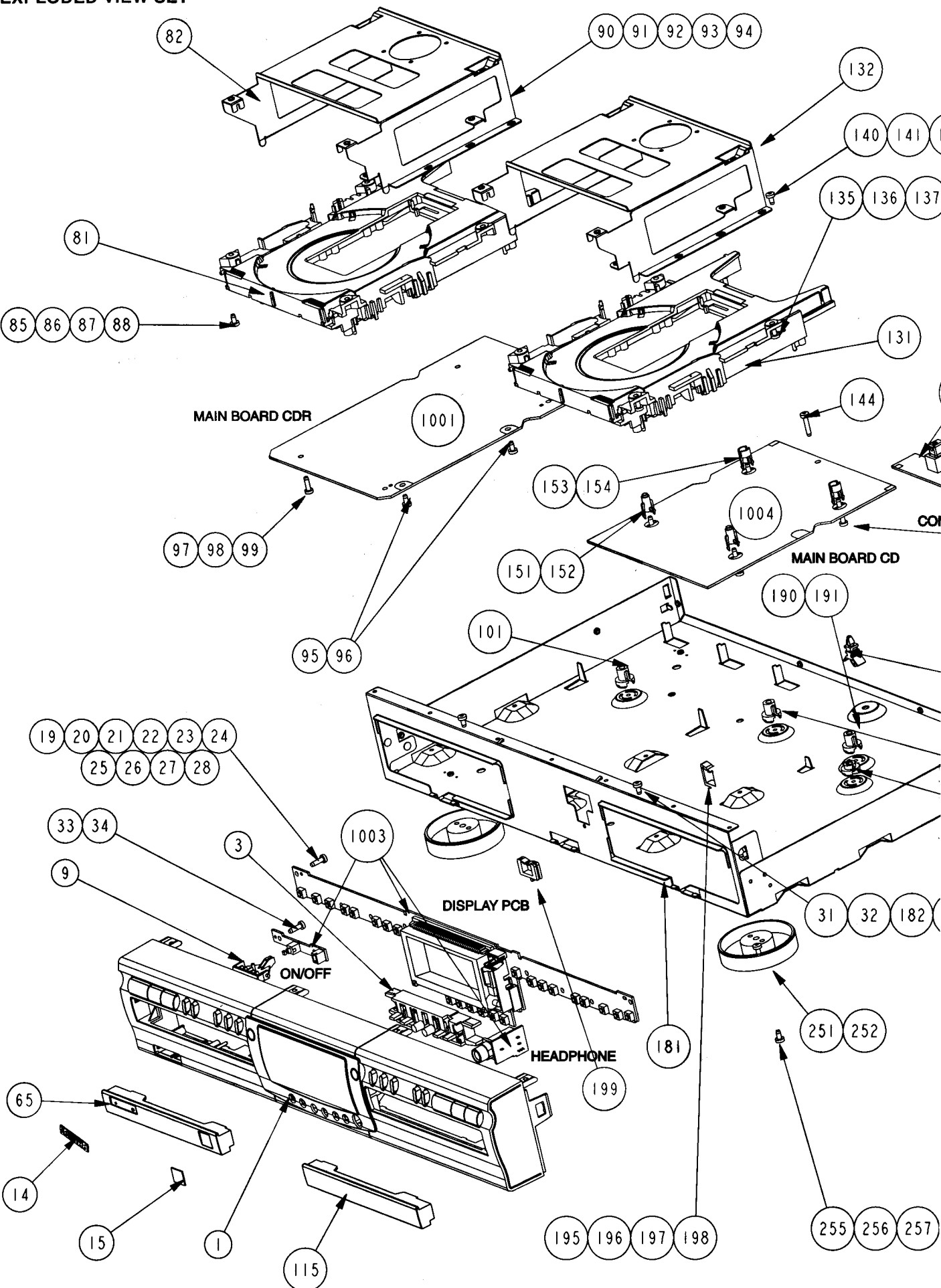
See exploded view for item numbers

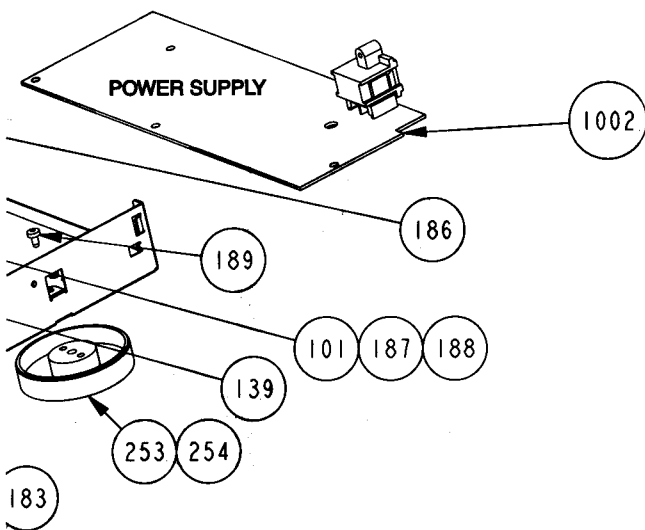
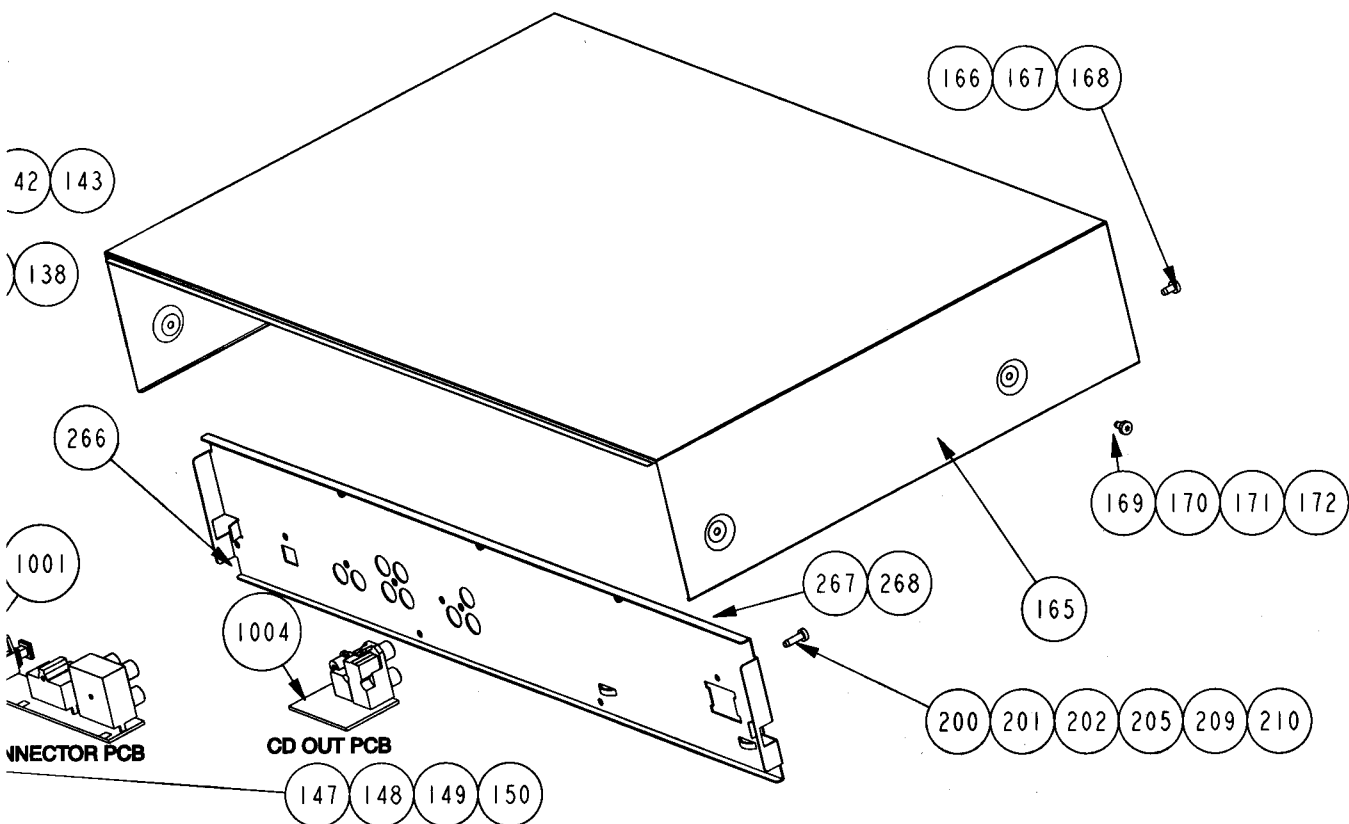


mounting
↑
↓
dismounting



EXPLODED VIEW SET

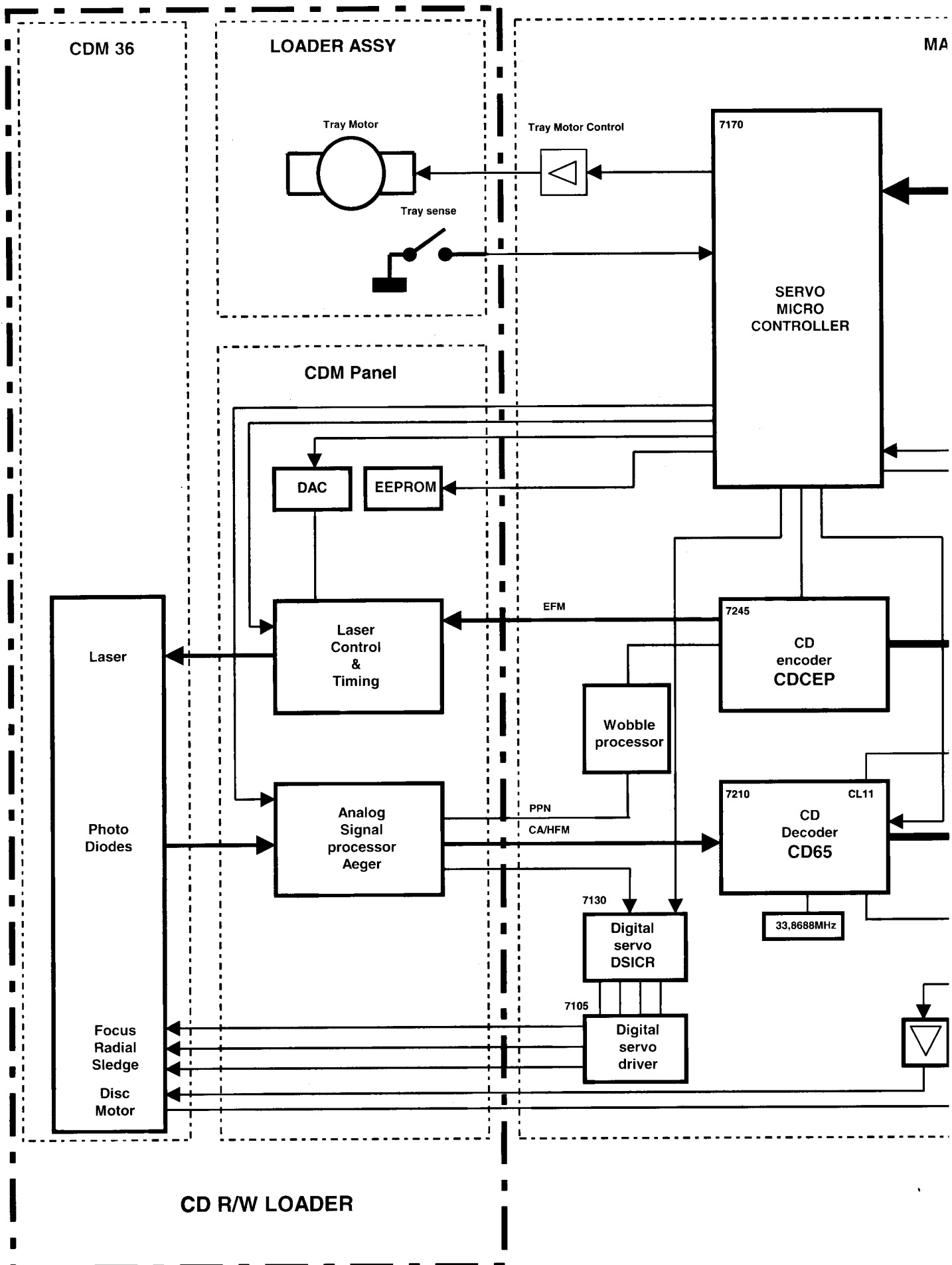




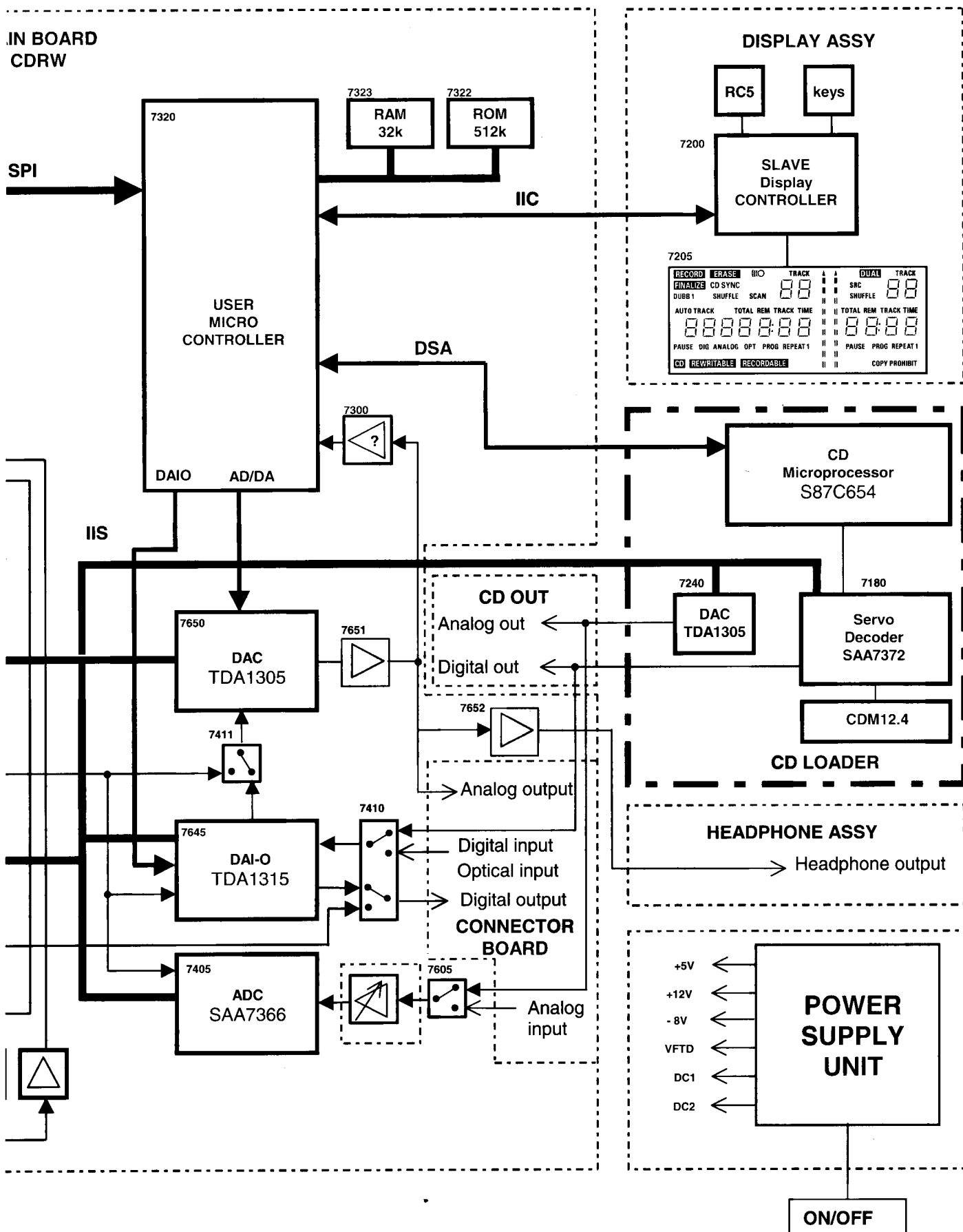
MECHANICAL PARTSLIST

1	4822 459 05099	FRONT ASSY CDR765 BLACK /xx
1	4822 459 05103	FRONT ASSY.CDR765 GREY /xxS
3	4822 410 12024	KEY UNIT MIDDLE ASSY BLACK /xx
3	4822 410 12025	KEY UNIT MIDDLE ASSY GREY /xxS
9	4822 410 11962	POWER BUTTON BLACK /xx
9	4822 410 11964	POWER BUTTON GREY /xxS
14	4822 459 10887	WORDMARK logo
15	4822 454 13339	CDRW - LOGO
65	4822 459 05101	TRAY FRONT LEFT ASSY BLACK /xx
65	4822 459 05104	TRAY FRONT LEFT ASSY GREY /xxS
81	4822 691 10737	CDR LOADER CDL3610/01
115	4822 459 05102	TRAY FRONT RIGHT ASSY BLACK /xx
115	4822 459 05105	TRAY FRONT RIGHT ASSY GREY /xxS
131	4822 691 10742	CD LOADER UNIT L1265/51
165	4822 442 01506	COVER
251	4822 462 42159	FOOT SILVER
252	4822 462 42159	FOOT SILVER
253	4822 462 42158	FOOT BLACK
254	4822 462 42158	FOOT BLACK
301▲	4822 321 10249	SBC1201 MAINS CABLE EUROPE
301▲	4822 321 10939	MAINS CORD USA
312	4822 321 11357	AUDIO CORD SET
313	4822 321 11357	AUDIO CORD SET
317	4822 321 61452	DIG OUT CABLE L=1000M M RCA
318	4822 219 10559	REMOTE CONTROL RC07110/01
1001	4822 214 12825	CDR MAINBOARD CDR765
1002▲	4822 218 11938	POWER SUPPLY 20PS314/00
1002▲	4822 218 11967	POWER SUPPLY 20PS314/17

OVERALL BLOCKDIAGRAM



CD R/W LOADER



SIGNALS AND ABBREVIATIONS

SIGNAL NAME	SIGNAL FLOW	FUNCTION AND DESCRIPTION
+12Va	Supply voltage	Single power supply +12V for op-amps 7150, 7235
+12Vb	Supply voltage	Power supply +12V for op-amps
+4V	Supply from CDR loader	Power supply +4V for servo microcontroller
+5Va	Supply voltage	Analog power supply +5V
+5Vb	Supply voltage	Digital power supply +5V
+5VDS	Supply voltage	Power supply +5V for Connector Part
+5VM	Supply voltage	Power supply turntable motor control circuit
-8Va	Supply voltage	Power supply -8V
A1A	IC7170→CONN.1101	Calculation β and HF0 Positive peak detector between CA and CALF
A2A	IC7170→CONN.1101	Beta = $(A1-A2)/(A1+A2)$ Negative peak detector between CA and CALF
ACK	IC7320↔R3904(IC7170)	Acknowledge serial communication user microprocessor
AD[0:18]	IC7320→IC7322 IC7320→IC7323	External address bus of user processor
ADC		Analog/Digital Converter
ANACD	IC7320→IC7605	Control signal dubbing analog for protected tracks
ANAIN1	IC7320→IC7601	Control signal level setting analog input
ANAIN2	IC7320→IC7601	Control signal level setting analog input
ATSB	IC7320→IC7650	Attenuation 12 dB of DAC(active low) during search
BS	IC7320→IC7440	Block synchronisation
CA	CONN.1101→R3299	Central Aperture(C1+C2+C3+C4)DC →for Mod. calculation
CALF	IC7170→CONN.1101	CA low frequency
CD60		Decoder
CD60CLK	IC7210→IC7403	I2S clock from CD60
CD60WS	IC7210→IC7403	I2S word select from CD60
CDAICL	IC7320→IC7465	DAI-O interface clock
CDAIDA	IC7320↔IC7465	DAI-O interface data
CDAILD	IC7320→IC7465	DAI-O interface mode
CDCEP		CD-Circ Efm Encoder Plus
CDE	IC7170→R3255	CD erase
CDTRAYO	IC7320→CONN1380	CD loader tray open (CDR765) (not used)
CDTRAYC	IC7320→CONN1380	CD loader tray closed (CDR765) (not used)
CE_INT	IC7170←IC7245	CDCEP interrupt
CFLG	IC7210→CONN.1250	Correction flag output(CD60)
CL11	IC7210→IC7411	11.2896 MHz systemclock for ADC/DAC
CL16	IC7210→IC7241	164344 MHz systemclock (not used)
CLCE	IC7170→IC7245	μ P clock output encoder(CD60)
CLDAIO	IC7465→IC7411	Clock output DAIO
CLDE	IC7170→IC7210	μ P clock output decoder(CD60)
CLDS	IC7170→IC7130	μ P clock output DSICR
CLKC0	IC7241→CONN1360	System clock for CD player (CDR765)
CLKCDCEP	IC7260→IC7245	I2S clock to CDCEP
CLKN2	CONN1360→IC7260	I2S clock from CD player (CDR765)
CLKQ	IC7245→IC7240 IC7245→IC7241	PLL clock output from encoder
CLKQD	IC7241→IC7240	CLKQ divided by 2
CLO3	IC7440→IC7411	GDIN clock3 out: system clock for DAC (option)
CLWP	IC7170→IC7245	μ P clock Atip information CDCEP
COMCLK	IC7320↔R3165(IC7170)	Communication clock for data transfer from user microprocessor
COMSYNC	IC7320↔IC7170	Communication synchronisation from user microprocessor
CRIN	IC7440→IC7210	GDIN clock1 out: system clock for decoder CD60 (option)
CSRAM	IC7320→IC7323	Chip Select RAM

CSROM	IC7320→IC7322	Chip Select ROM
D[0:7]	IC7320↔IC7322 IC7320↔IC7323 IC7320↔IC7324	Data bus
DAC		Digital/Analog Converter
DACDCEP	IC7260↔IC7245	I2S data to CDCEP
DACE	IC7170→IC7245	μP data I/O CDCEP
DACL	IC7170→CONN.1102	DAC clock
DADE	IC7170→IC7210	uP data CDLIP
DADI	IC7170→CONN.1102	DAC data in (CDM)
DADS	IC7170→IC7130	μP data I/O DSICR
DAIN	IC7465↔IC7245	Data signal(CDCEP)
DAI-O		Digital Audio Input/Output
DAIO_REC	IC7325→IC7403	high during recording from digital in source, low to prevent conflict in IIS bus during playback and analog recording(option)
DALD	IC7170→CONN.1102	DAC load(CDM)
DAN2	CONN1360↔IC7260	I2S data from CD player (CDR765)
DAOUT	R3217(IC7210)→IC7403	I2S data output(CD60)
DATADIR	IC7320→IC7403	Data direction: control signal, HIGH during playback
DAWP	IC7170→IC7245	μP data Atip information(CDCEP)
DEEM1	IC7320→IC7650	Deemphasis active(44.1 kHz sample rate)
DIGIN	IC7410→IC7465 IC7410→IC7440	Digital input signal to DAIO and GDIN
DIGINEXT	CONN1400→IC7410	Digital input
DIGOUT	IC7465→CONN.1400	Digital output
DIGSW1	IC7320→IC7410	Control signal for digital input/output selection
DIGSW2	IC7320→IC7410	Control signal for digital input/output selection
DSA_ACK	IC7320→CONN1360	Data/strobe/acknowledge serial communication from USER uP to CD player (CDR765)
DSA_DATA	IC7320→CONN1360	Data/strobe/acknowledge serial communication from USER uP to CD player (CDR765)
DSA_STROBE	IC7320→CONN1360	Data/strobe/acknowledge serial communication from USER uP to CD player (CDR765)
DSICR		Digital Servo IC Recordable
EBUCD60	IC7210→IC7410	Digital out signal from CD60
EBUDAIO	IC7465→IC7410	Digital out signal from DAIO
EBUININT	CONN1360→IC7410	Digital input from CD player (CDR765)
EECL	IC7170→CONN.1102	EEPROM clock
EEDA	IC7170↔CONN.1102	EEPROM data
EFM	IC7245→IC7205	Eight to Fourteen Modulation CDCEP output for monitoring (reduced voltage from CD60 to MONON)
EFMCLK	IC7245→CONN.1102	EFM clock 4.3218 or 8.6436 MHz
EFMM	IC7245→CONN.1102	EFM N-1
FEN	CONN.1101→IC7130	Focus Error Normalized = (C1 + C3 - C2 - C4)/(C1 + C2 + C3 + C4)
FEOFS	IC7170→R3133	Focus Error OFF Switch
FOC-	IC7105→CONN.1101	Focus actuator negative connection
FOC+	IC7105→CONN.1101	Focus actuator positive connection
FS	CONN.1102→R3152	FS = FS0 - DALFA(write power to laser control)
FSM	CONN.1102→D6155	Focused sense monitor
GDIN		General Digital Input (option)
GDINCL	IC7320→IC7440	GDIN interface clock
GDINDA	IC7320↔IC7440	GDIN interface data
GDINLD	IC7320→IC7440	GDIN interface mode
HALL_U, V, W	IC7170→IC7270 IC7170→IC7280	Hall element U, V, W of motor

HMSW	CONN.1101→IC7170	Home Switch
IISCLK	IC7603→IC7465 IC7603→IC7245 IC7403→IC7650	I2S-BUS clock
IISWS	R3219(IC7210)→IC7403	I2S-BUS word select
INTSLAVE	CONN1330→IC7320	Slave processor interrupt
KILL	T7446→R3671,3672	Kill signal to mute analog output signal
KILL_OUT	IC7320→R3473	Control signal to activate Kill signal
LDCE	IC7170←IC7245	μP load input(from CDCEP)
LDDE	IC7170→IC7210	μP load output decoder
LDDS	IC7170→IC7130	μP load output DSICR
LDON	IC7130→CONN.1102 IC7105→CONN.1102	Laser Diode ON(on read)
LEFTOUT	C2497→CONN.1400 C2497→CONN.1420 C2497→C2300	Analog left output
LWRT	IC7245→CONN.1102	Laser at writing power
MIRN	CONN.1101→IC7130	Mirror normalized
MISO	IC7320↔R3168(IC7170) IC7320↔CONN.1300	Master in, Slave out: data from Basic Engine to USER.
MONON	IC7170→IC7205	Monitoring EFM from CDCEP to CD60
MOSI	IC7320↔R3903(IC7170) IC7320↔CONN.1300	Master out, Slave in : data from USER to Basic Engine
MOTO1	IC7210→IC7170	Control signal for motor
MPWM	IC7170→IC7245	Motor Pulse Width Modulation
N=2	IC7320→IC7260	Control signal to close switch when dubbing (n = 2 !)
N2	IC7170→IC7240 IC7170→IC7205	N = high(double speed)
N4	IC7170→IC7205	N = high(fourfold speed)
NCLOSE	IC7170→R3196	Tray close (CDR loader)
NIRQ	IC7170→IC7245	Interrupt request wobble processing(CDCEP)
NMUTE	IC7320→IC7650	Mute signal (active low)
NOPEN	IC7170→R3181	Tray open (CDR loader)
NRSMP	IC7245→CONN.1102	None read sample
OPTIN	CONN.1400→IC7440 CONN.1400→IC7465	Optical input
OTD	IC7130→IC7170	Off track detection DISCR
OVLD	IC7603→IC7320	Overload flag input
PP	CONN.1101→C2231	XB or PPN(read or write)
PWM	IC7170→R3268	Pulse width modulation
R/W	IC7320→IC7324	μP read/write signal
RAD-	IC7105→CONN.1101	Radial actuator negative connection
RAD+	IC7105→CONN.1101	Radial actuator positive connection
RADINT	IC7170→R3111	Radial actuator integrator voltage.
REN	CONN.1101	Radial Error Normalized
RENSW	IC7170→R3124	Radial Error Normalized switch
RESEN	IC7170→IC7245 IC7170→IC7130	Reset encoder(CDCEP) and digital servo(DSICR)
RESET	IC7170→IC7210	Reset decoder CD60
RIGHTOUT	C2498→CONN.1400 C2498→CONN.1420 C2498→C2303	Analog right output
RSTHA	IC7325→IC7465	Reset high active, reset for DAIO

RSTIN	IC7320→IC7325	Reset microcontroller(from user μ P)
RSTLA	IC7325→IC7440 IC7325→IC7170 IC7325→D6130 IC7325→CONN.1330	Reset low active, reset for GDIN, servo uP, DSD3, DSICR and display.
RXD	IC7320↔IC7325	Receive data of serial interface
SCL	IC7320↔L5300	I2C-bus clock for communication
SCLI	IC7320→T7326	I2C-bus clock Input to check "busy" of slave
SDA	IC7320↔L5300	I2C-bus data to display driver
SDAUX	IC7603→IC7440	Analog to digital converted data from ADC to DAI-O
SL-	IC7105→CONN.1101	Sledge motor negative connection
SL+	IC7105→CONN.1101	Sledge motor positive connection
STROBE	IC7320→IC7465 IC7320→CONN.1302	Control signal for DAI-O : data strobe
SWRT	IC7245→CONN.1102	Start Write 9ms(one shot at start up LWRT)
SYSCKLSW2	IC7320→IC7411	Control signal for system clock selection
SYSCLKSW1	IC7320→IC7411	Control signal for system clock selection
SYSSYNC	IC7170→CONN.1135	System synchronization
TLN	CONN.1101→IC7130	Track Loss Normalized
TRAYSW	CONN1380→IC7320	Control signal from CD loader (CDR765)
TRS1N	IC7170→CONN.1103	Tray sense
TXD	IC7320↔IC7325	Transmit data serial interface
UDAVAIL	IC7320→IC7465	User-data available
UNLOCK	IC7465→IC7320	Not locked on incoming EBU-signal
UNLOCK_GDIN	IC7323→R3435	Unlock signal to GDIN
V4	IC7210→CONN.1250	Versatile pin 4
VDC1	Supply voltage	Filament voltage for display
VDC2	Supply voltage	Filament voltage for display
VFTD	Supply voltage	Power supply for display
WCLK	IC7210→IC7245	Word clock
WSCDCEP	IC7260→IC7245	I2S word select to CDCEP
WSN2	CONN1360→IC7260	I2S word select from CD player (CDR765)

SERVICE TEST PROGRAM

If power ON,
switch power OFF

DEALER DIAGNOSTICS
(status of player)
Press<PLAY> + <STOP>
simultaneously and switch
power on

Display shows blinking:
"BUSY"
during the test.

Set OK?

no

yes

set displays:
"ERROR"

set displays:
"PASSED"

to end test, switch power off

ELECTRICAL SERVICE DIAGNOSTICS
(advice for replacement units)
Load 2 CDDA discs(e.g.SBC444A)
Press<PLAY> + <NEXT>
simultaneously and switch power on

CDR MAIN BOARD DIAGNOSTIC

Display shows "player's name" briefly.
RAM TEST(7323)
Display shows "DTST 1" during the test

Pass or fail <NEXT> (test aborted)

ROM TEST(7322)

Display shows "DTST 2" during the test

Pass or fail <NEXT> (test aborted)

EEPROM TEST(IN 7320)

Display shows "DTST 3" during the test

Pass or fail <NEXT> (test aborted)

DAIO TEST(7465)

Display shows "DTST 4" during the test

Pass or fail <NEXT> (test aborted)

DSA TEST(DSA BUS TO CD LOADER)

(Display shows "DTST 5" during the test)

Pass or fail <NEXT> (test aborted)

BASIC ENGINE DIAGNOSTIC**COMMUNICATION TEST (SPI BUS)**

Display shows "BTST 1" during the test

Pass or fail <NEXT> (test aborted)

SELF TEST (NEC MICROPROCESSOR)

Display shows "BTST 2" during the test

Pass or fail <NEXT> (test aborted)

Tests OK?

no

yes

set displays: "DERR n" or "BERR n"

n = nu
Result

<NEXT>

set displays next failure

<NEXT>

DISC TEST CDR LOADER

Tests OK?

no

yes

set displays: "BERR 3"
"NO CDDA" or "NO DISC" if wrong
disc or no disc is loaded

<NEXT>

set displays current disc time

Pass <NEXT>

CD MODULE DIAGNOSTICS.

Tests OK?

no

yes

set displays: "BERR 4" if test fails or if no
disc is loaded.
"NO TRACK" if wrong disc is loaded

<NEXT>

set displays current disc time

Pass <NEXT>

DISPLAY TEST

All segments are blinking at a frequency of 1Hz.

<NEXT>

KEYBOARD/REMOTE TEST

Display shows name of pressed key on keyboard or remote control.

To end test, switch power off.

DISC TEST

Display shows "BTST 3" at the begin

- Check of focus control
- Disc motor control
- Radial control
- Jump grooves control

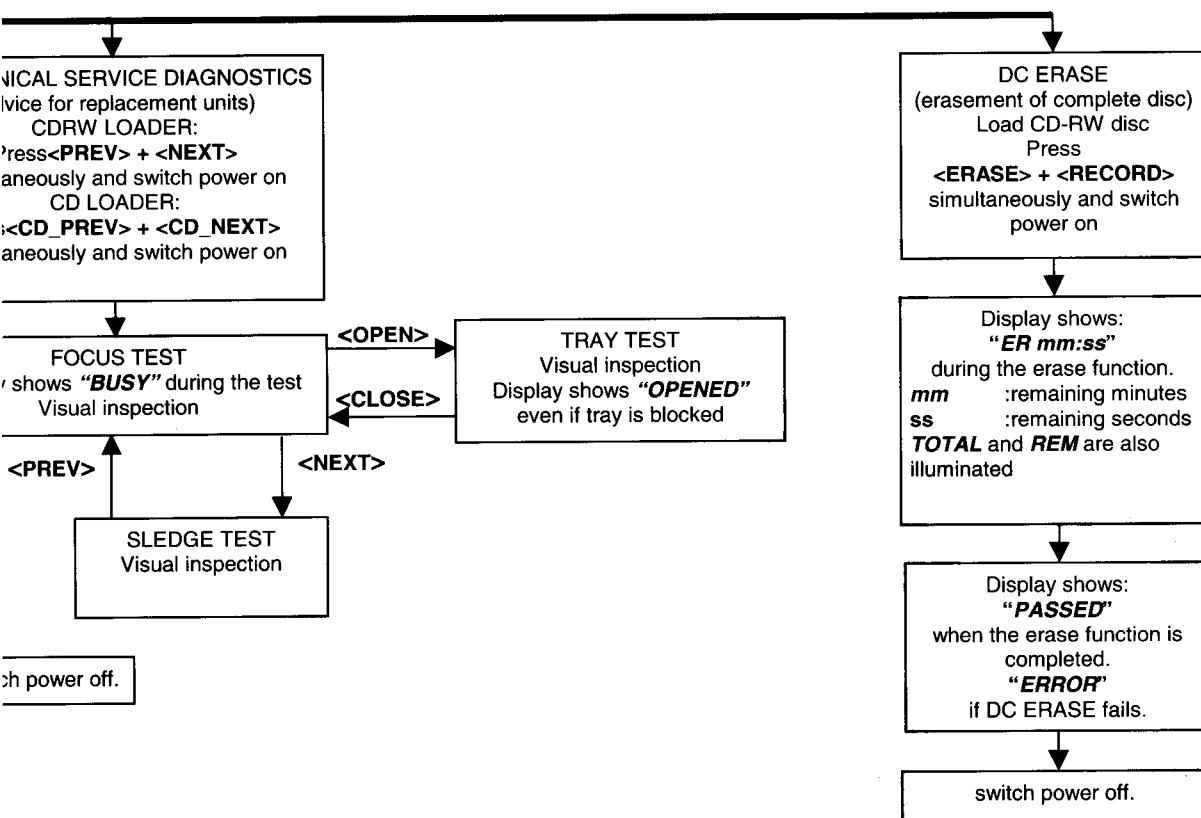
Audio playback of 5 sec.at begin, at the middle and at the end of disc.
REMARK: always pressing <NEXT> skips this test. Display message: "NO CDDA"

CD MODULE TEST

Display shows "BTST 4" at the begin

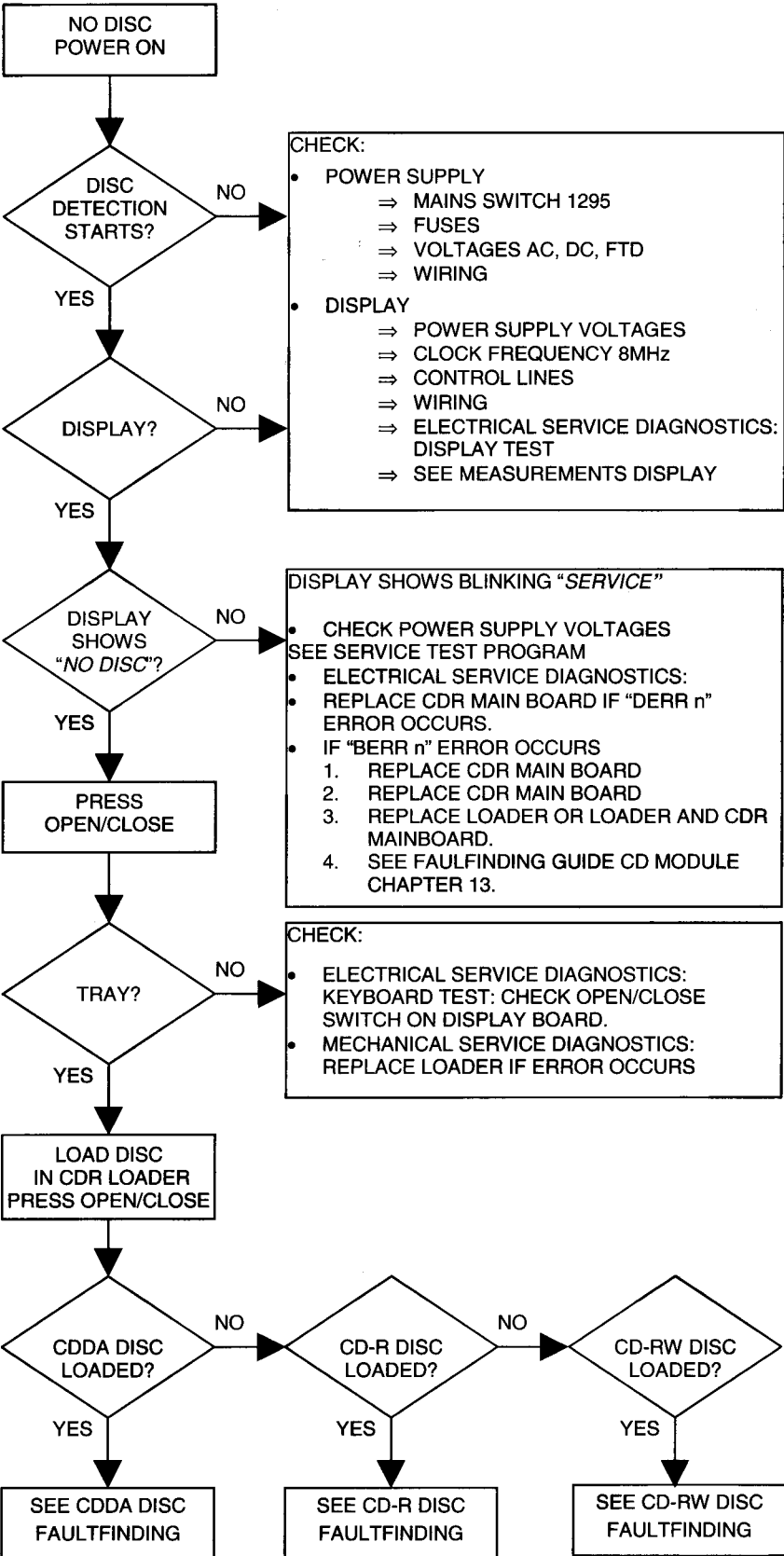
- Check of focus control
- Disc motor control
- Radial control
- Jump grooves control

Audio playback of 5 sec.at begin, at the middle and at the end of disc.

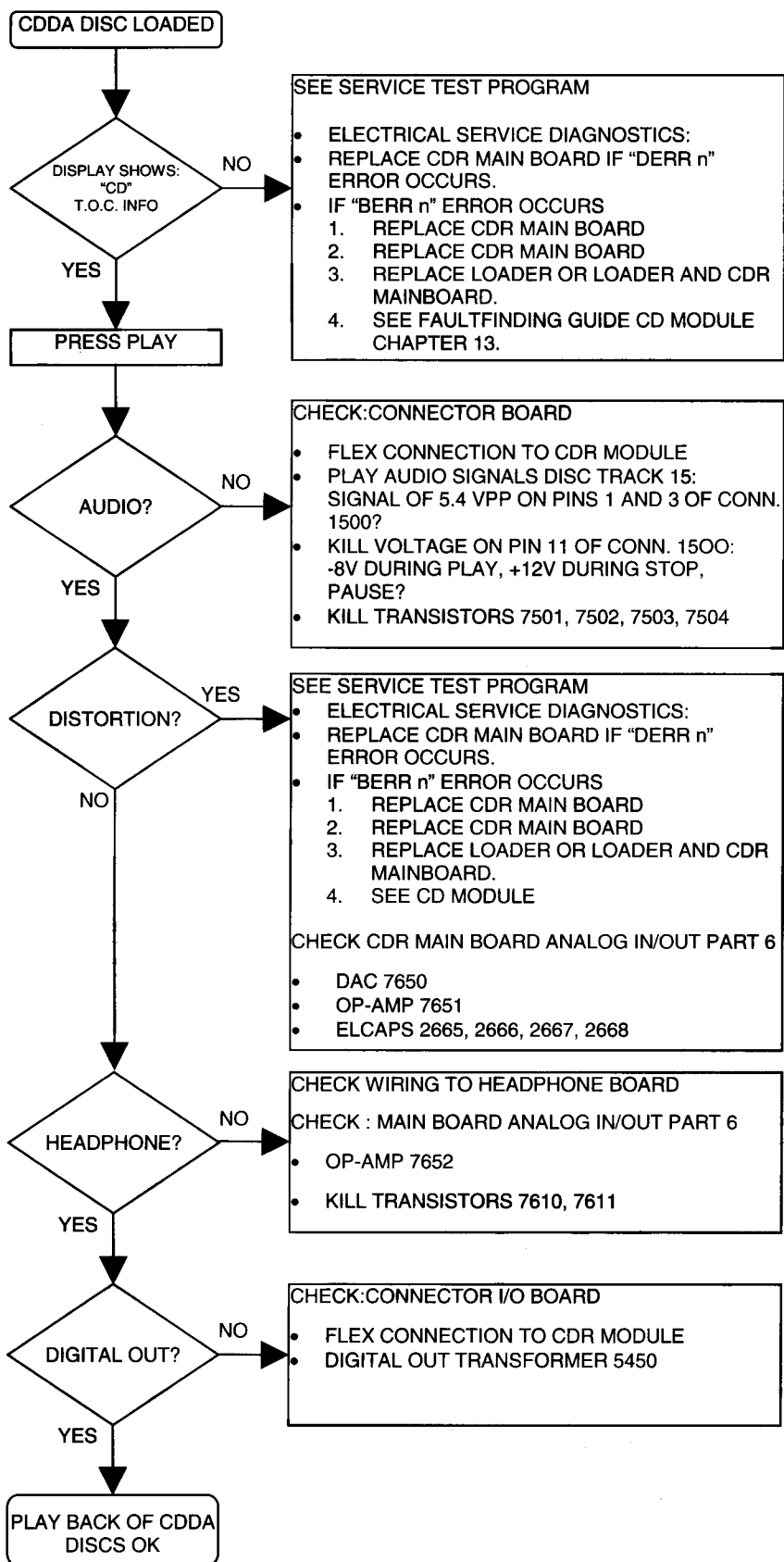


Number of test
of aborted test will not be displayed

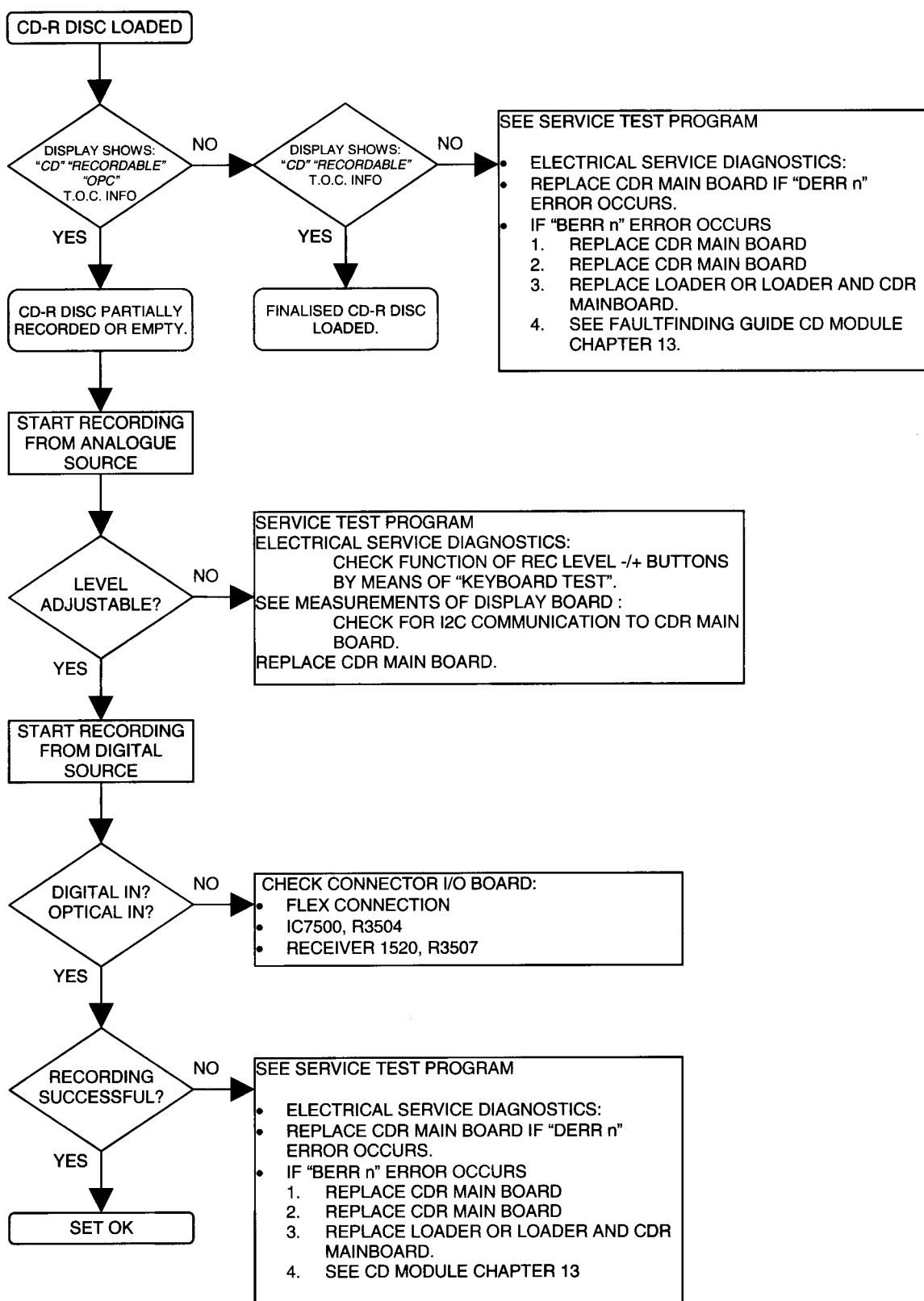
FAULTFINDING GUIDE



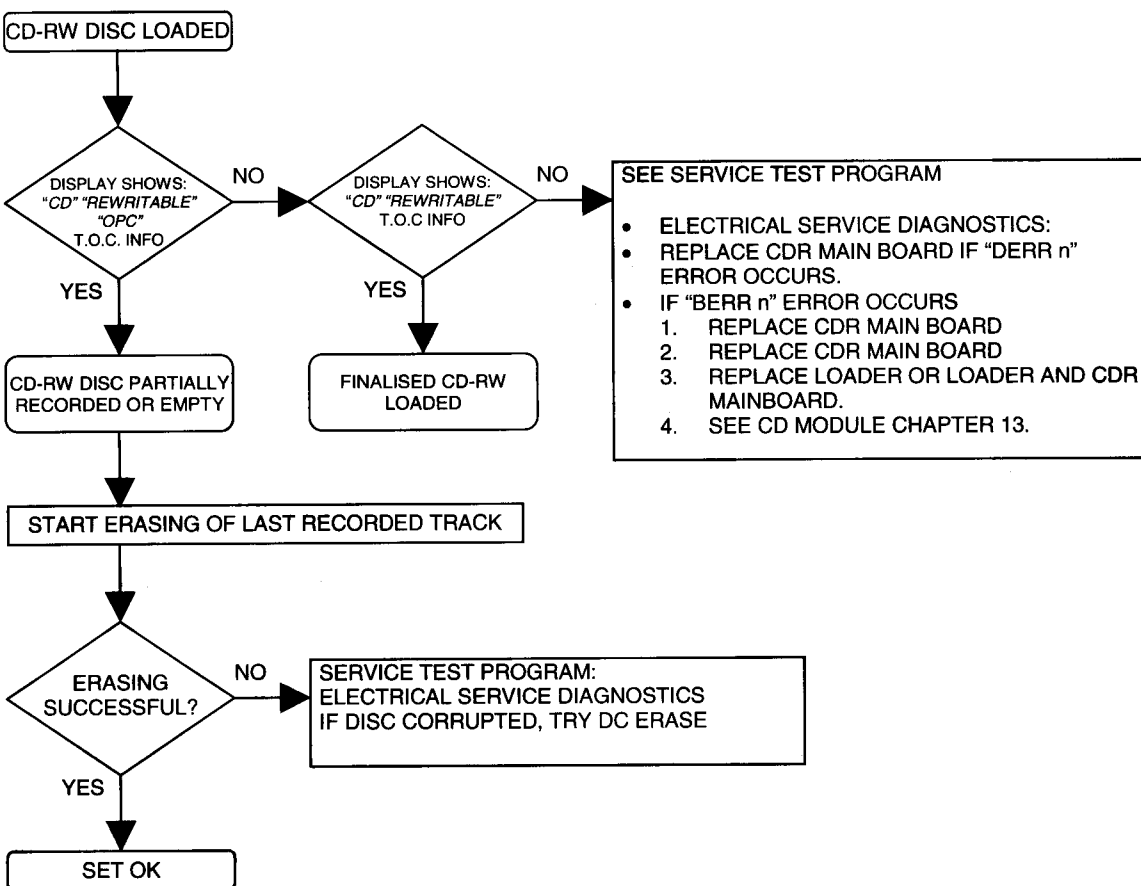
CDDA DISC FAULTFINDING GUIDE



CD-R DISC FAULTFINDING



CD-RW DISC FAULTFINDING



MEASUREMENTS DISPLAY PANEL

1. Measurement of voltage supplies.

Several voltages arrive at the display PCB.

Measurements and limits.

Voltage	Nominal value	Limits
VFTD	-26V	$\pm 5\%$
VDC1-DC2	3.5V	$\pm 10\%$
Vb	5V	$\pm 5\%$

2. Measurement of oscillator.

As clock driver for the display controller a resonator of 8Mhz is used.

The clock frequency is available at pin 8 of the display controller.

Check the frequency of 8Mhz $\pm 5\%$.

3. Checking the control lines.

There are several lines which are inputs to the display controller and others which are outputs, these lines have to be checked to guarantee basic functionality.

RESETN:

This line should be kept low during power up for at least 3 machine cycles, with supply voltage within the operating range and oscillation stable. 1 machine cycle = $12 \times 1/F_c$ (8Mhz) Sec.

SDA and SCL:

The level on these two lines must be checked. When there is no communication they should have the 'High' level.

INTERRUPT:

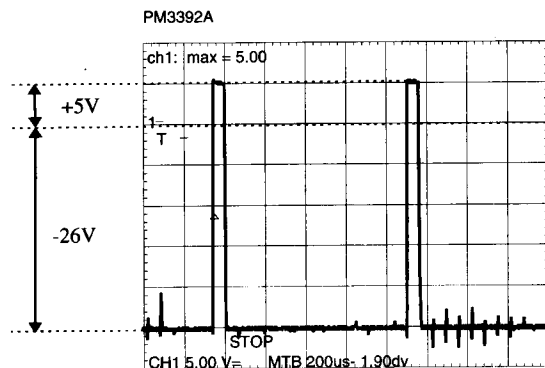
The interrupt line is an output for the display controller. Check if this level is high after reset, no key pressed and no RC5 coming in.

Low pulses will be present when a key is pressed or when receiving RC5 commands from remote control.

Key matrix lines:

Check if at I/O port 4 of the controller all pins are high. (No keys pressed). (Pin 26 to 33). If not check respective pull-up resistors.

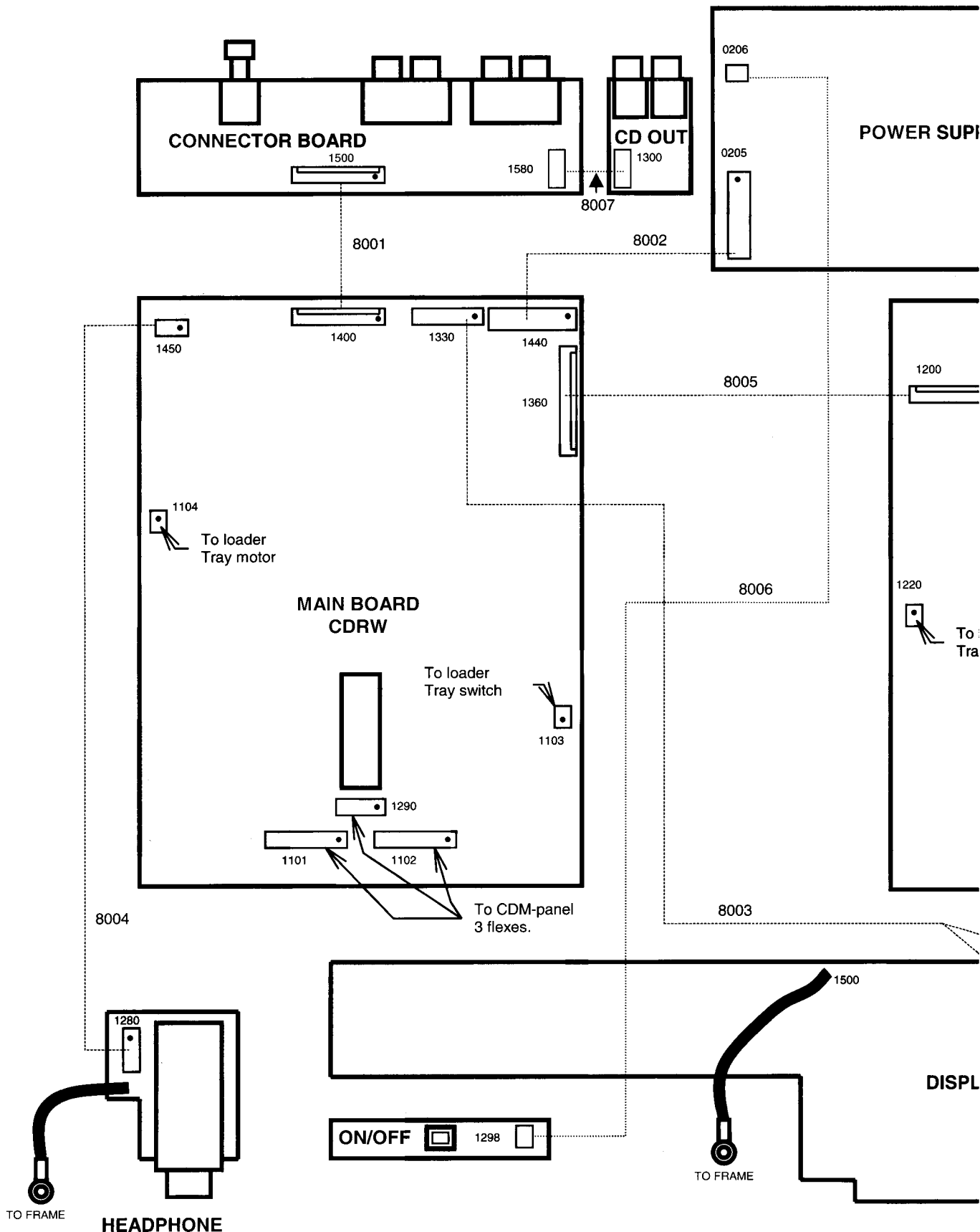
4. Operation of grid and segment control lines.



This figure shows the signal generated by the display processor on one of the grid lines. The level on the grid line changes from -26V to +5V.

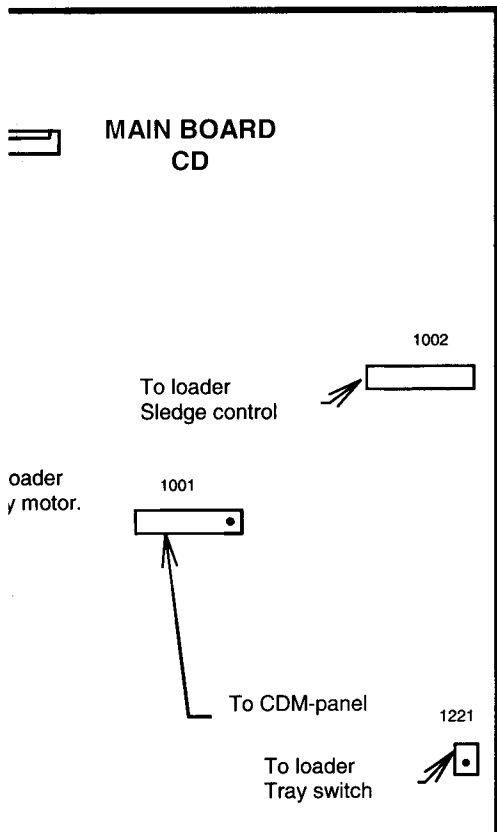
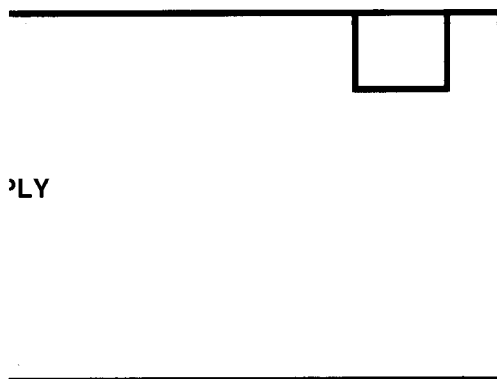
The grid lines are scanned successively about every 950 μ sec.

WIRING DIAGRAM



Pin 1 indicated by

All Wires are 1/1.

**8001**

1 RIGHTOUT!
 2 GROUND
 3 LEFTOUT!
 4 LEFTIN!
 5 GROUND
 6 RIGHTIN!
 7 GROUND
 8 +5Vb!
 9 LEFT2!
 10 GROUND
 11 KILL!
 12 RIGHT2!
 13 GROUND
 14 DIGOUT!
 15 DIGINEXT!
 16 GROUND
 17 OPTIN!
 18 GROUND
 19 EBUININT!
 20 GROUND

8004

1 HPLEFT!
 2 GROUND
 3 HPRIGHT!

8002

1 +5Vb!
 2 +5VM!
 3 +5Vb!
 4 GROUND
 5 GROUND
 6 VDC2!
 7 VFTD!
 8 GROUND
 9 +12V!
 10 -8V!
 11 VDC1!

8005

1 GROUND
 2 DSA_DATA!
 3 GROUND
 4 DSA_STROBE!
 5 DSA_ACK!
 6 GROUND
 7 +5Vb!
 8 +12Vb!
 9 GROUND
 10 CLKN2!
 11 WSN2!
 12 GROUND
 13 DAN2!
 14 GROUND
 15 EBUININT!
 16 LSTHA!
 17 LEFT2!
 18 GROUND
 19 RIGHT2!
 20 GROUND
 21 CLKCD!
 22 GROUND

8003

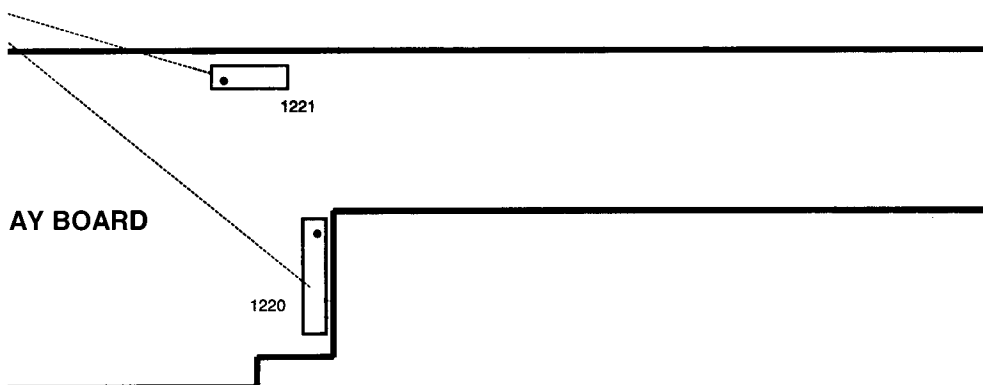
1 SDA!
 2 SCL!
 3 RSTLA!
 4 GROUND
 5 INTSLAVE!
 6 VDC1!
 7 VFTD!
 8 VDC2!
 9 +5Vb!
 10 GROUND

8006

1 ON!
 2 OFF!

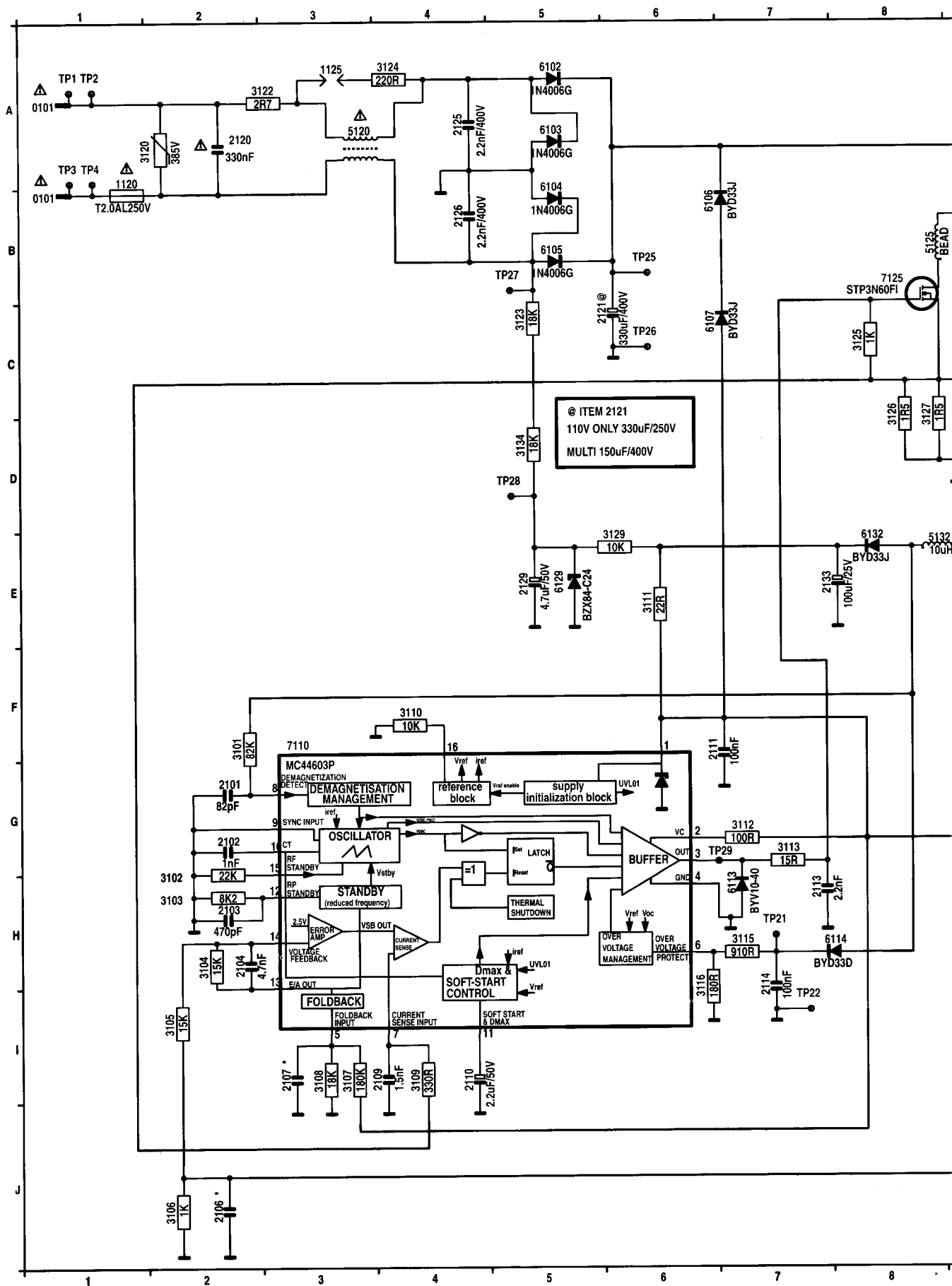
8007

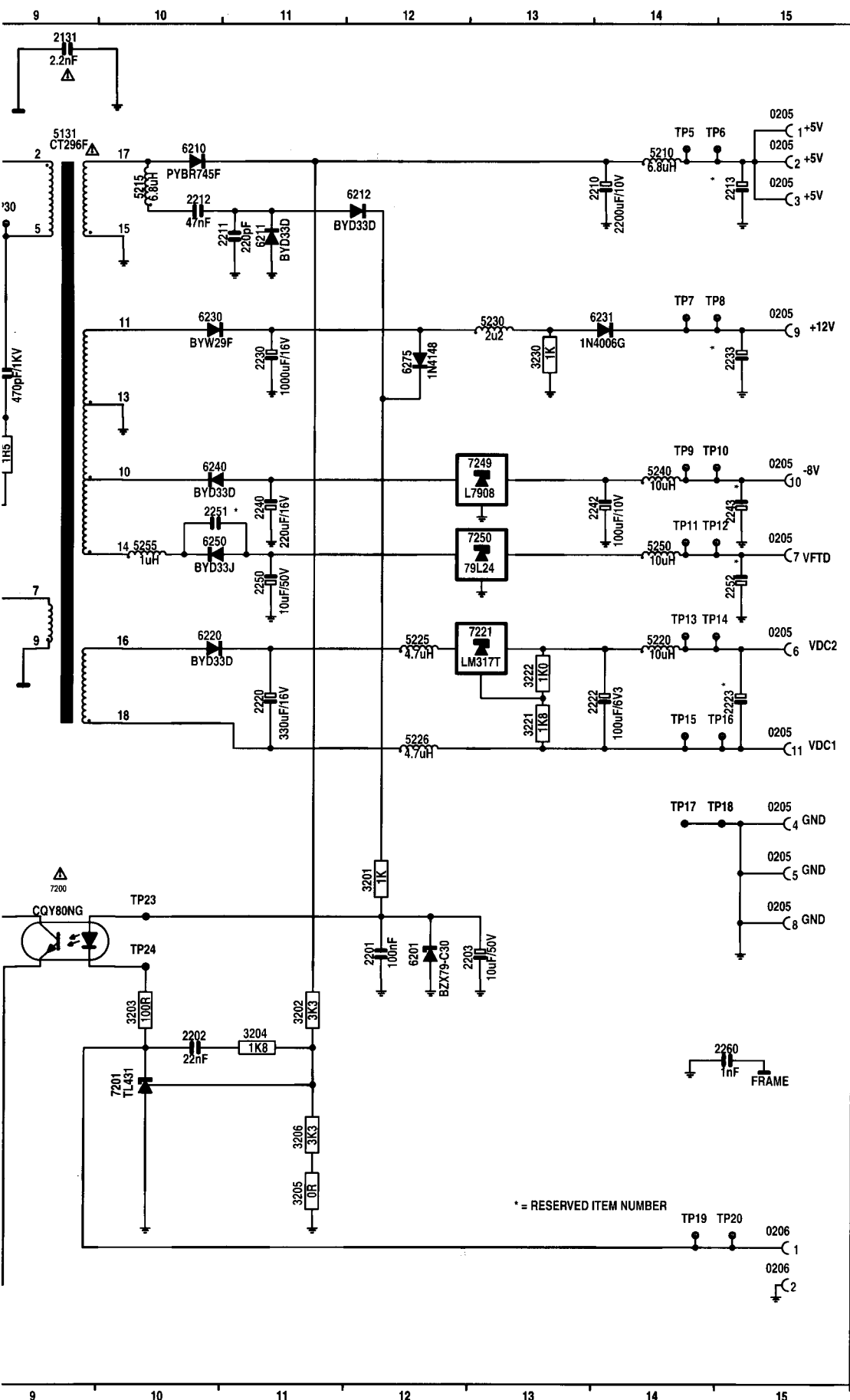
1 LEFT2!
 2 GND
 3 RIGHT2!
 4 DIGININT!
 5 GND
 6 KILL!



HAS1189
 9820

POWER SUPPLY UNIT CIRCUIT DIAGRAM

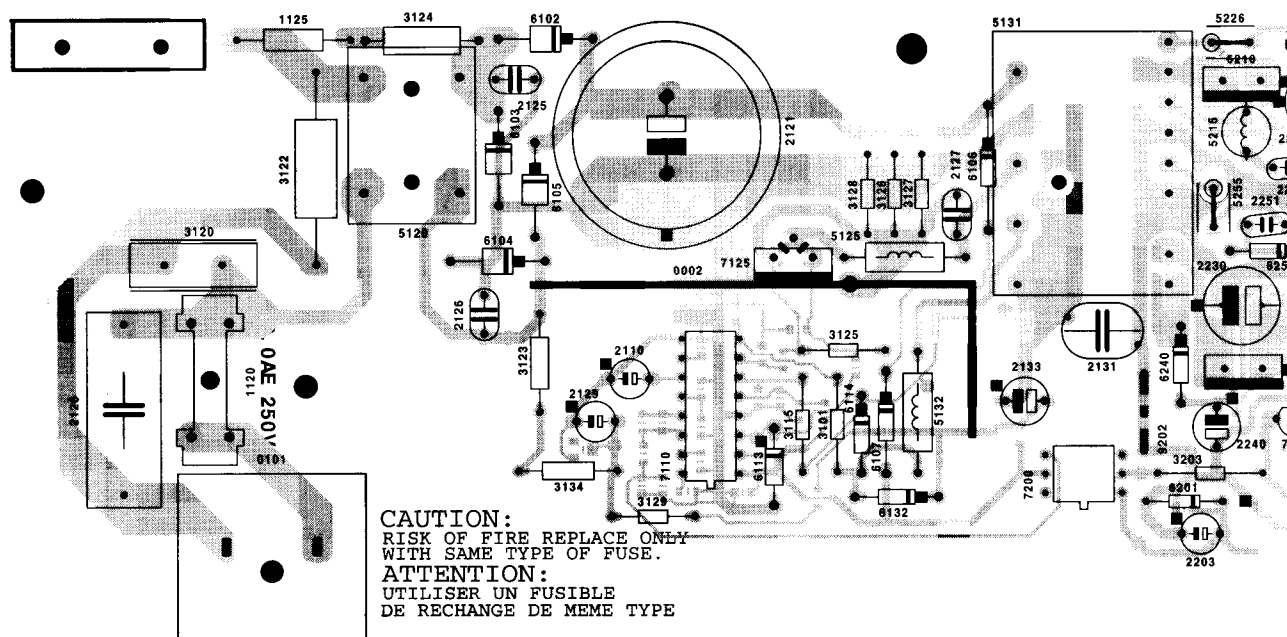




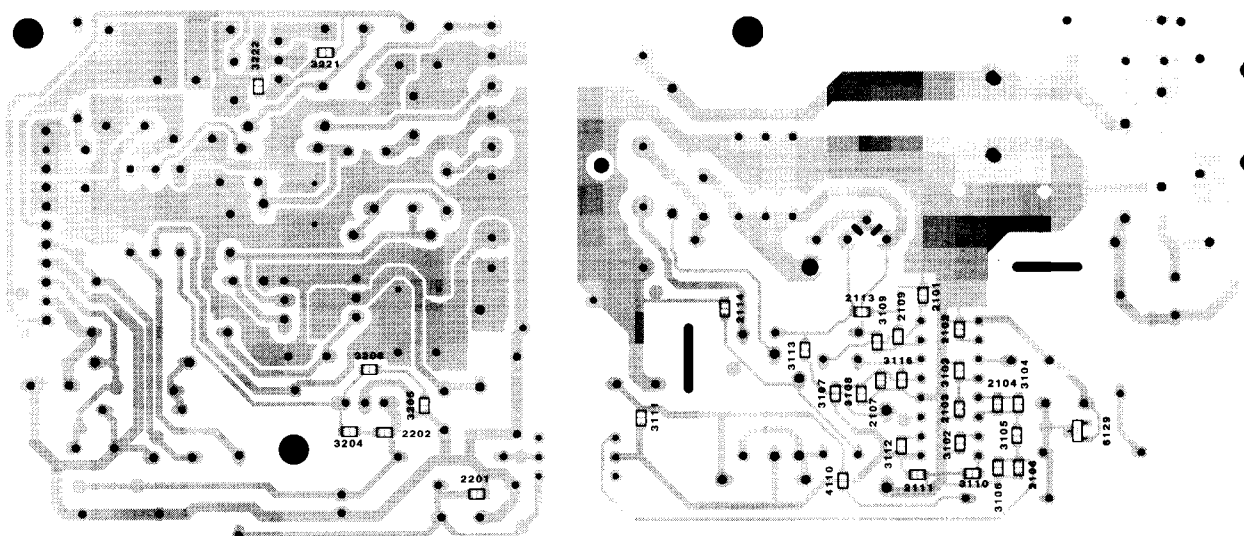
0101 A 1	6220 F 10
0101 B 1	6230 B 10
0201 A 5	6231 B 14
0205 A 15	6240 D 10
0205 A 15	6250 D 10
0205 F 15	6275 C 12
0205 G 15	7110 F 3
0205 G 15	7125 B 8
0205 D 15	7200 G 9
0205 G 15	7201 I 10
0205 B 15	7221 E 13
0205 D 15	7249 D 13
0205 F 15	7250 D 13
0206 J 15	
0206 J 15	
1120 A 1	
1125 A 3	
2101 G 2	
2102 G 2	
2103 H 2	
2104 H 2	
2106 J 2	
2107 I 3	
2109 I 4	
2110 I 4	
2111 F 6	
2113 H 7	
2114 H 7	
2120 A 2	
2121 C 6	
2125 A 4	
2126 B 4	
2127 C 9	
2129 E 5	
2131 A 9	
2133 E 7	
2201 G 12	
2202 H 10	
2203 G 13	
2210 A 14	
2211 B 11	
2212 A 10	
2213 A 15	
2220 E 11	
2222 E 14	
2223 E 15	
2230 C 11	
2233 C 15	
2240 D 11	
2242 D 14	
2243 D 15	
2250 D 11	
2251 D 10	
2252 E 15	
2260 H 15	
3101 F 2	
3102 H 2	
3103 H 2	
3104 H 2	
3105 I 2	
3106 J 2	
3107 I 3	
3108 I 3	
3109 I 4	
3110 F 4	
3111 E 6	
3112 G 7	
3113 G 7	
3115 H 7	
3116 H 6	
3120 A 2	
3122 A 3	
3123 C 5	
3124 A 4	
3125 C 8	
3126 C 8	
3127 C 8	
3128 C 9	
3129 E 6	
3134 D 5	
3201 G 12	
3202 H 11	
3203 H 10	
3204 H 11	
3205 I 11	
3206 I 11	
3221 F 13	
3222 E 13	
3230 C 13	
5120 A 3	
5125 B 8	
5131 A 9	
5132 E 8	
5132 E 8	
5210 A 14	
5215 A 10	
5220 E 14	
5225 E 12	
5226 F 12	
5230 B 13	
5240 D 14	
5250 D 14	
5255 D 10	
6102 A 5	
6103 A 5	
6104 B 5	
6105 B 5	
6106 B 6	
6107 C 6	
6113 H 7	
6114 H 8	
6129 E 5	
6132 E 8	
6201 G 12	
6210 A 10	
6211 B 11	
6212 A 12	

POWER SUPPLY UNIT BOARD

0002 B 6	1125 A 2	2126 B 4	2203 D 8	2220 A 9	2240 C 9	2252 D 10	3122 B 3	3127 B 7	3202 B 10	5131 B 8	5225 A 9	5255 B 8	6106 B 7	6201 D 8	6230 C 9	7110 C
0101 D 2	2110 C 5	2127 B 7	2210 B 9	2222 A 10	2242 C 9	2260 B 11	3123 C 4	3128 B 6	3203 D 8	5132 C 7	5226 A 9	6102 A 4	6107 C 6	6210 A 9	6231 C 10	7125 B
0205 B 11	2120 C 1	2129 C 4	2211 B 10	2223 A 10	2243 C 11	3101 C 6	3124 A 3	3129 D 5	3230 C 10	5210 A 10	5230 C 10	6103 A 4	6113 D 6	6211 B 10	6240 C 8	7200 D
0206 D 11	2121 A 5	2131 C 8	2212 B 9	2230 B 9	2250 B 10	3115 C 6	3125 C 6	3134 D 4	5120 A 3	5215 A 9	5240 C 10	6104 B 4	6114 C 6	6212 B 10	6250 B 9	7201 C
1120 C 2	2125 A 4	2133 C 7	2213 A 11	2233 C 11	2251 B 9	3120 B 2	3126 B 6	3201 B 11	5125 B 6	5220 A 10	5250 B 10	6105 B 4	6132 D 6	6220 A 10	6275 B 10	7221 A 1



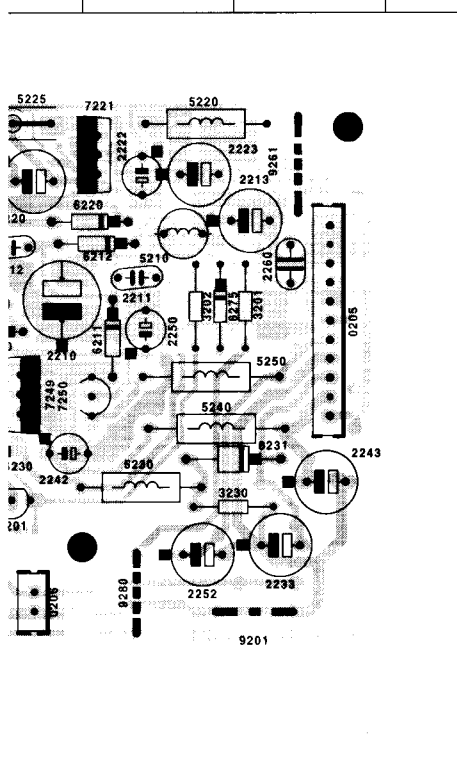
2101 B 5	2104 C 5	2109 C 6	2114 C 7	3102 C 5	3105 C 5	3108 C 6	3111 C 7	3116 C 5	3206 C 9	4110 D 6	TP2 D 2	TP5 B 11	TP8 C 11	TP11 C 10	TP14 A 11	TP17 B
2102 C 5	2106 D 5	2111 D 5	2201 D 8	3103 C 5	3106 D 5	3109 C 6	3112 C 5	3204 C 9	3221 A 9	6129 C 4	TP3 D 3	TP6 A 11	TP9 C 11	TP12 B 11	TP15 B 11	TP18 B
2103 C 5	2107 C 6	2113 C 6	2202 C 9	3104 C 5	3107 C 6	3110 D 5	3113 C 6	3205 C 9	3222 A 10	TP1 D 2	TP4 C 2	TP7 C 11	TP10 C 11	TP13 A 10	TP16 C 11	TP19 D



5 7249 C 9 9280 D 10
 6 7250 C 10
 8 9201 D 11
 9 9202 C 8
 0 9261 A 11

10

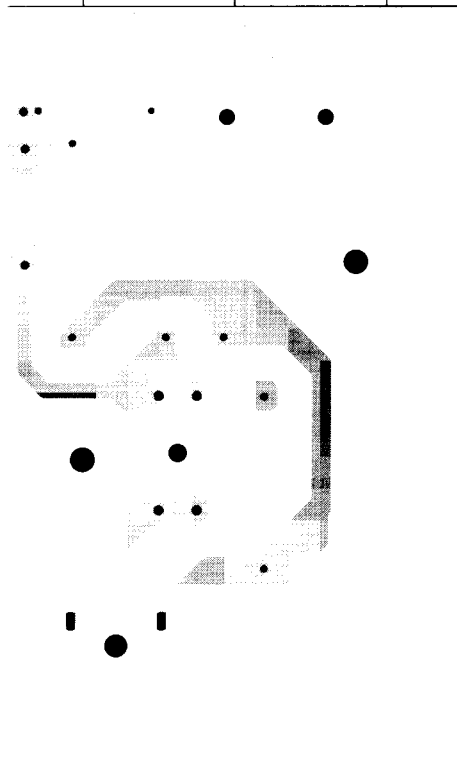
11



10

11

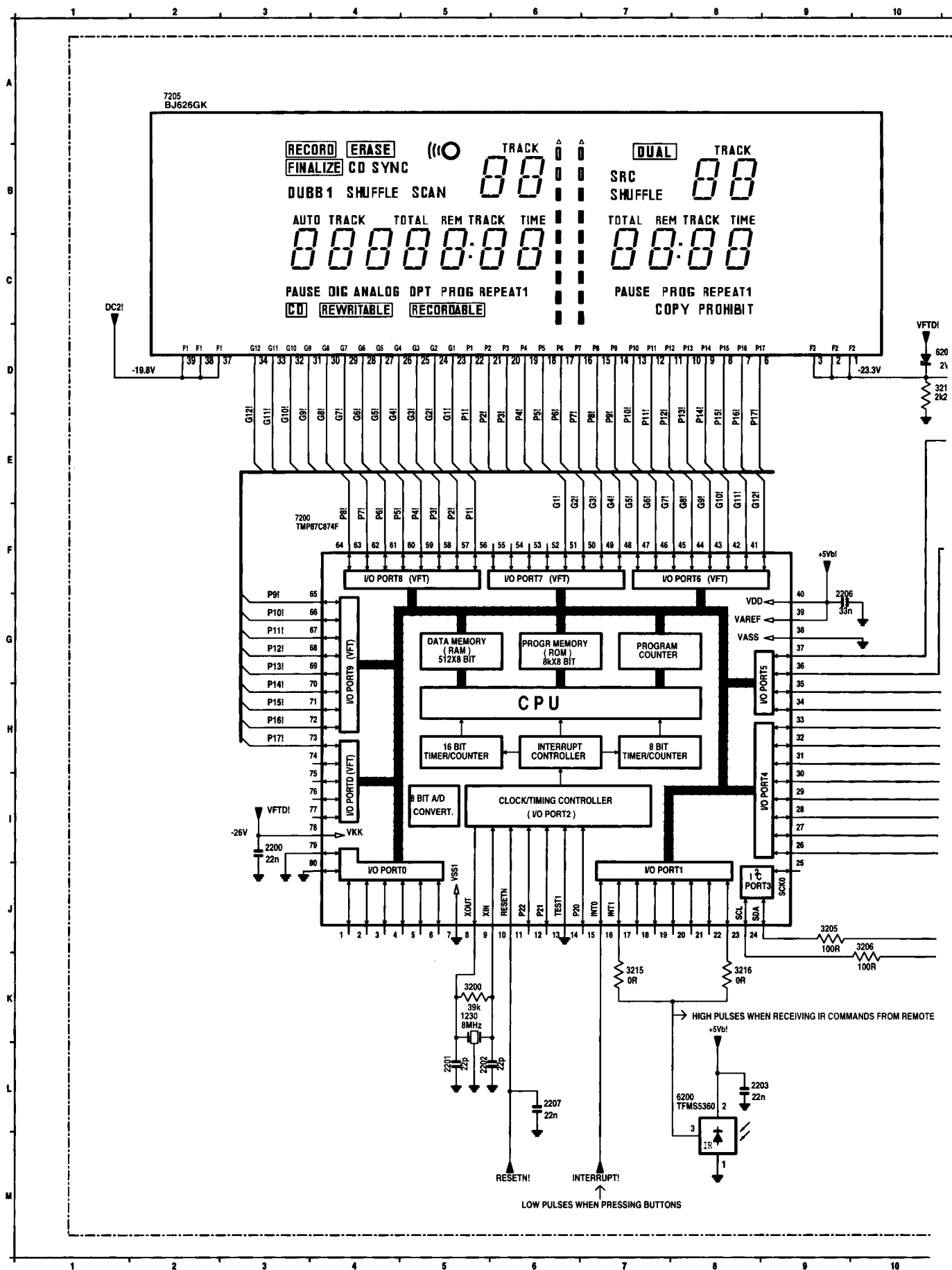
1 TP20 D 11 TP23 D 8 TP26 B 5 TP29 C 5
 1 TP21 C 7 TP24 D 8 TP27 C 4 TP30 B 7
 1 TP22 B 7 TP25 A 5 TP28 C 5
 3 2 1

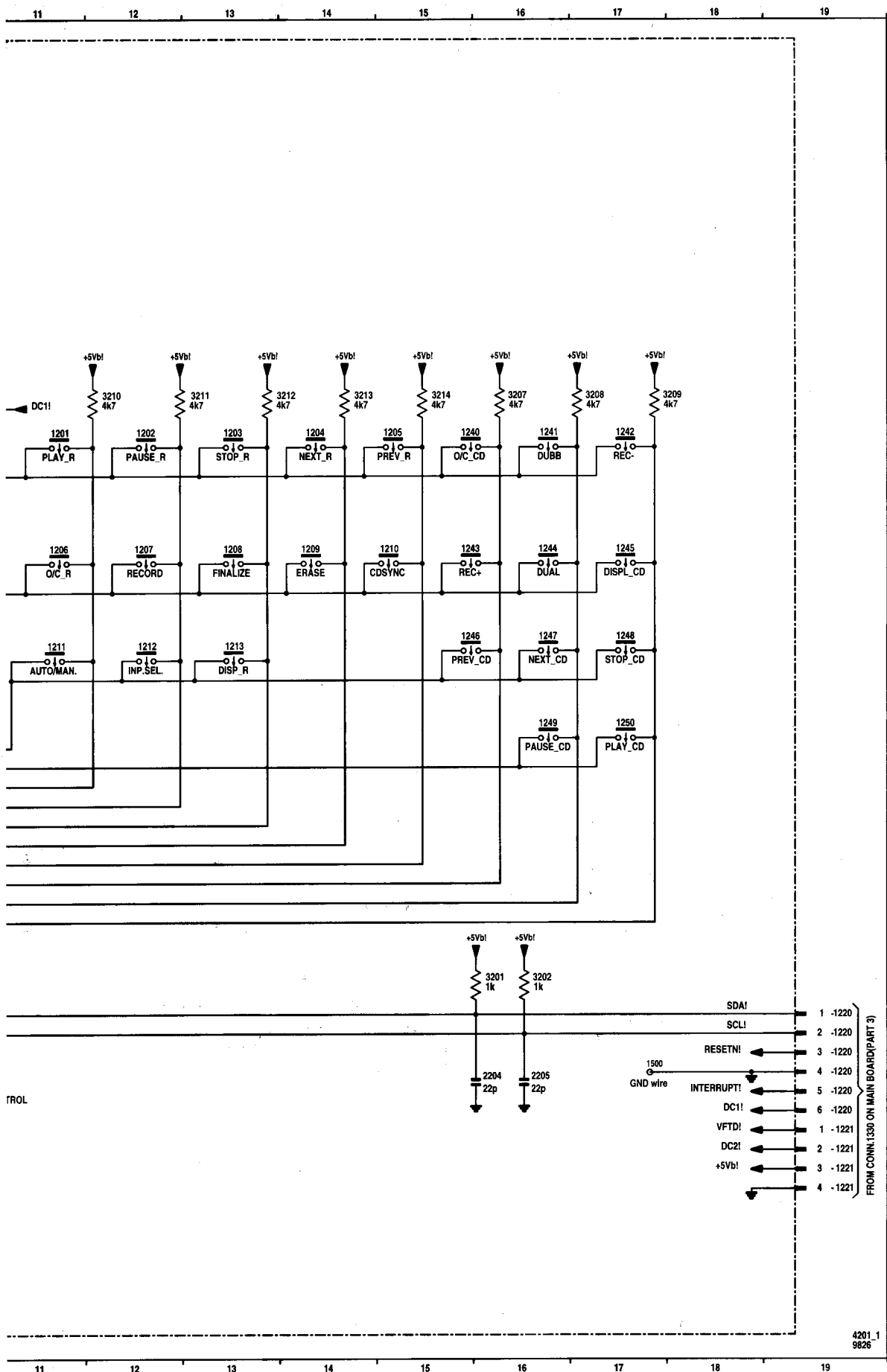


2

1

DISPLAY CIRCUIT DIAGRAM





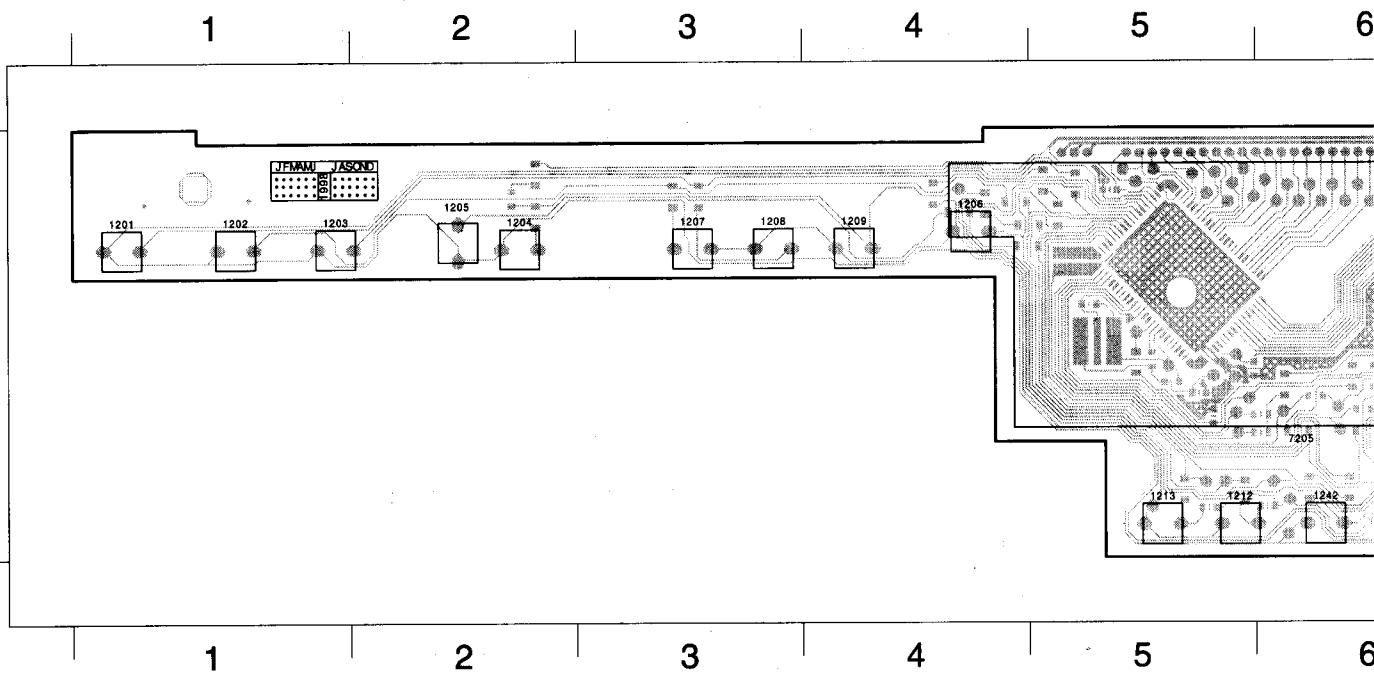
1201 D11
1202 D12
1203 D13
1204 D14
1205 D15
1206 F11
1207 F12
1208 F13
1209 F14
1210 F15
1211 G11
1212 G12
1213 G13
1220 J19
1220 K19
1220 K19
1220 K19
1220 K19
1221 L19
1221 L19
1221 L19
1230 K5
1240 D15
1241 D16
1242 D17
1243 F15
1244 F16
1245 F17
1246 F15
1247 F16
1248 F17
1249 G16
1250 G17
1500 K17
2200 L3
2201 L5
2202 L5
2203 L9
2204 K16
2205 K16
2206 G9
2207 L6
3200 K5
3201 J16
3202 J16
3205 J9
3206 J10
3207 D16
3208 D17
3209 D18
3210 D12
3211 D13
3212 D14
3213 D14
3214 D15
3215 K7
3216 K8
6200 L8
7200 F3
7205 A2

DISPLAY BOARD

TOP SIDE

1201 A 1 1202 A 1 1203 A 1 1204 A 2 1205 A 2 1206 A 4 1207 A 3 1208 A 3 1209 A 4 1210 A 8 1211 A 9 1212 A 5 1213 A 5 1220 A 7 1221 A 7 1240 A 8 1241

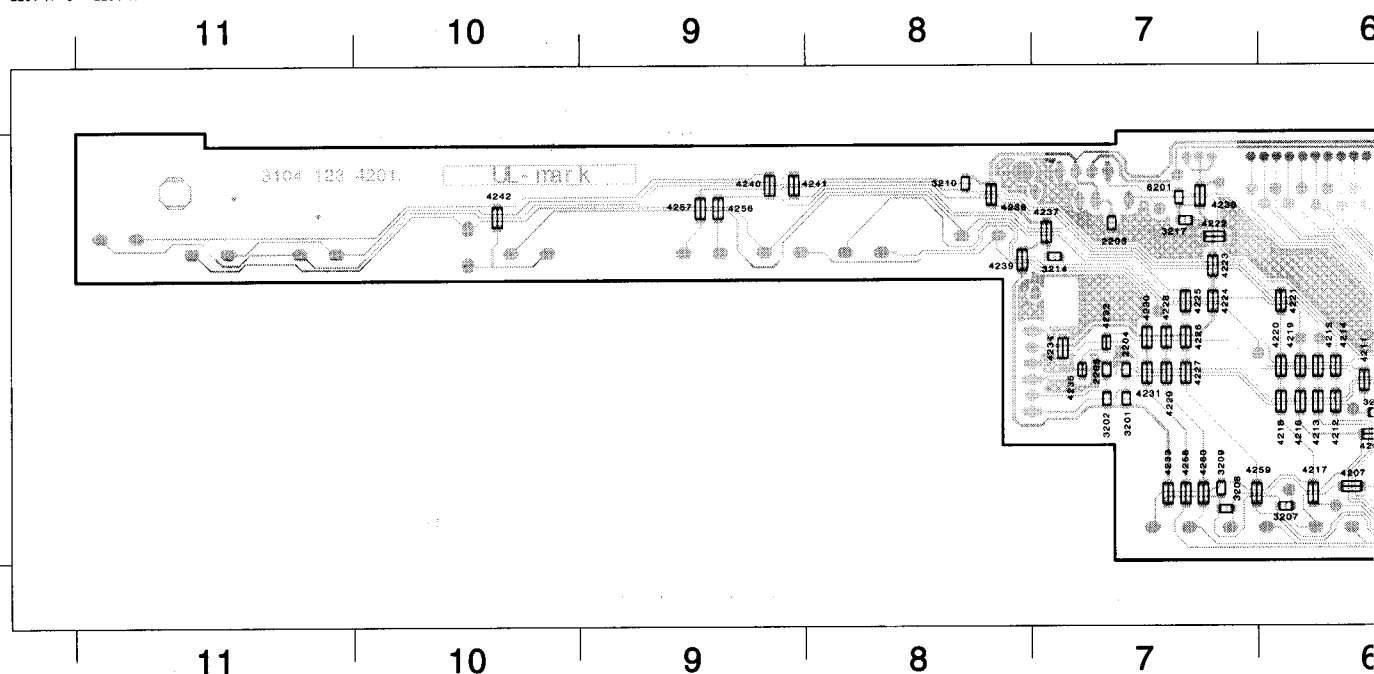
A

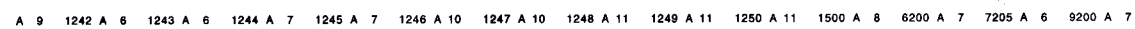


BOTTOM SIDE

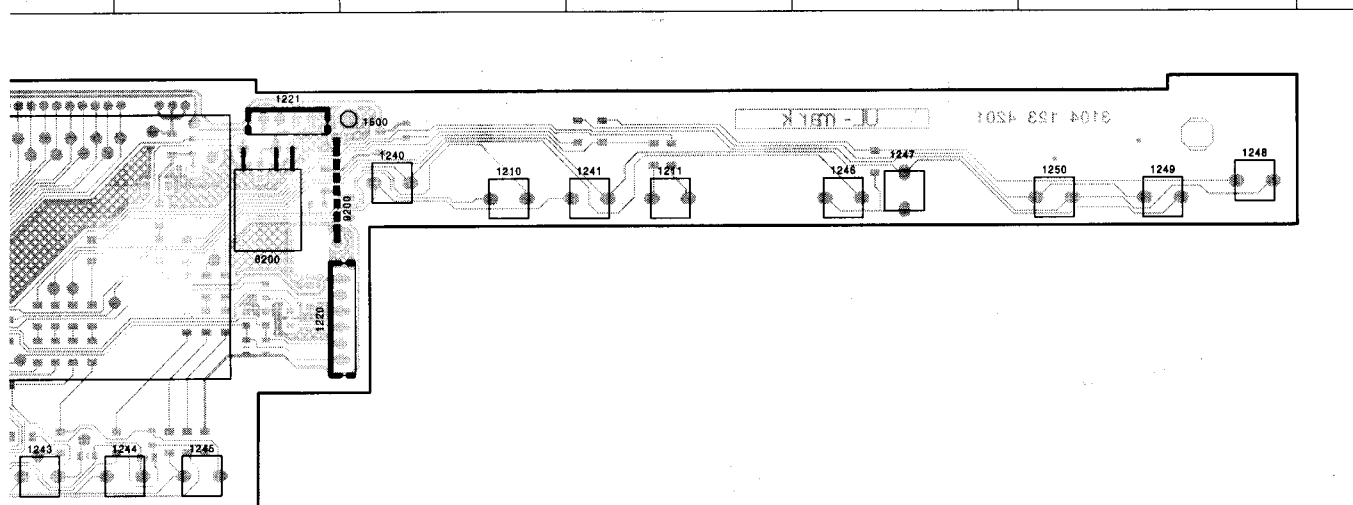
1230 A 5 2202 A 5 2205 A 7 3200 A 5 3205 A 6 3208 A 7 3211 A 6 3214 A 7 3217 A 7 4202 A 5 4205 A 6 4208 A 6 4211 A 6 4214 A 6 4217 A 6 4220 A 6 4223 A 6
 2200 A 5 2203 A 7 2206 A 5 3201 A 7 3206 A 6 3209 A 7 3212 A 5 3215 A 6 4200 A 5 4203 A 5 4206 A 6 4209 A 6 4212 A 6 4215 A 6 4218 A 6 4221 A 6 4224 A 6
 2201 A 5 2204 A 7 2207 A 5 3202 A 7 3207 A 6 3210 A 8 3213 A 2 3216 A 6 4201 A 5 4204 A 6 4207 A 6 4210 A 6 4213 A 6 4216 A 6 4219 A 6 4222 A 7 4225 A 6

A



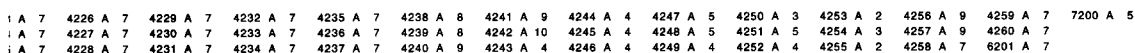


11

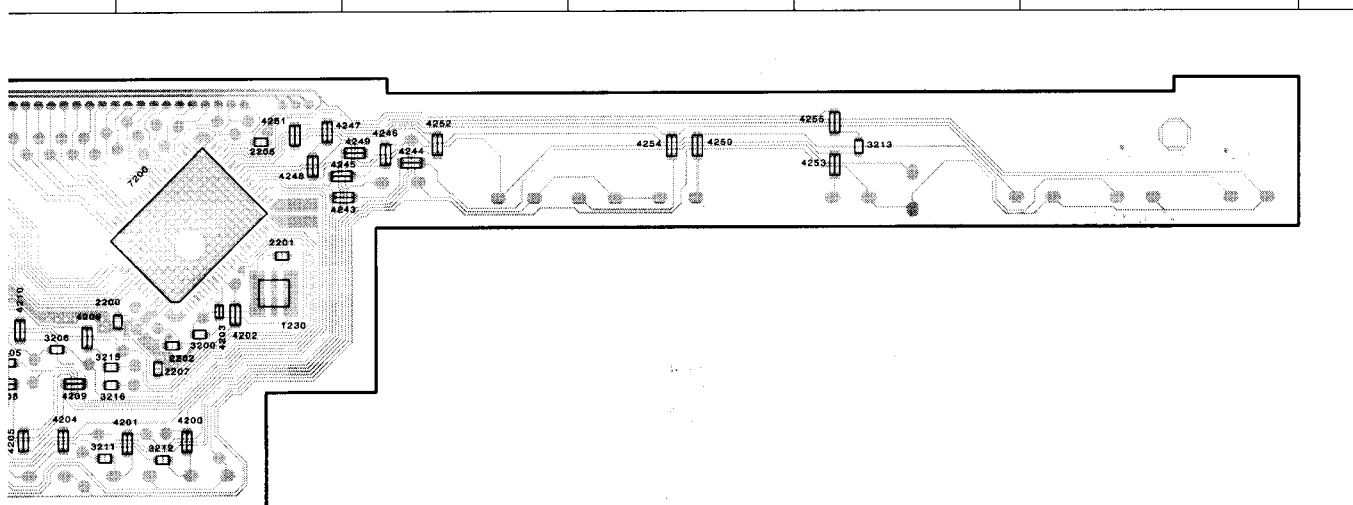


A

11



1

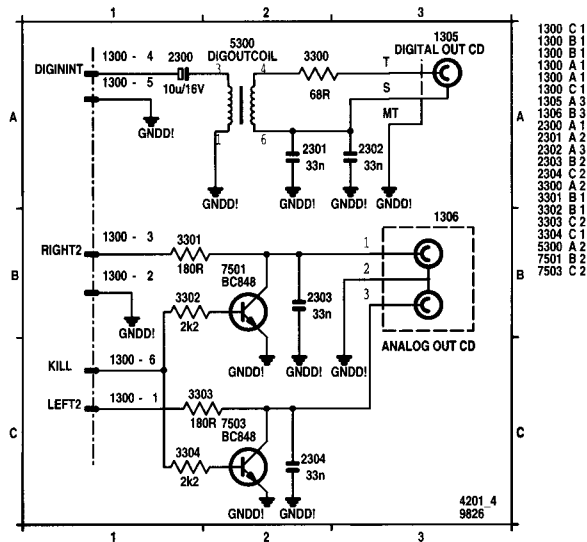


A

1

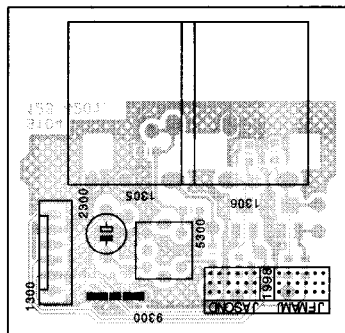
CD OUT BOARD

CIRCUIT DIAGRAM

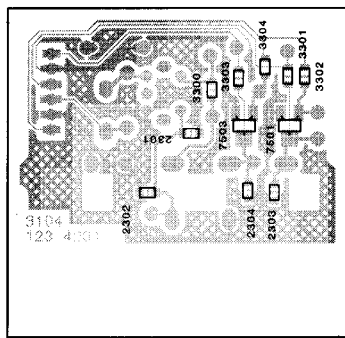


CD OUT BOARD

TOP SIDE



BOTTOM SIDE



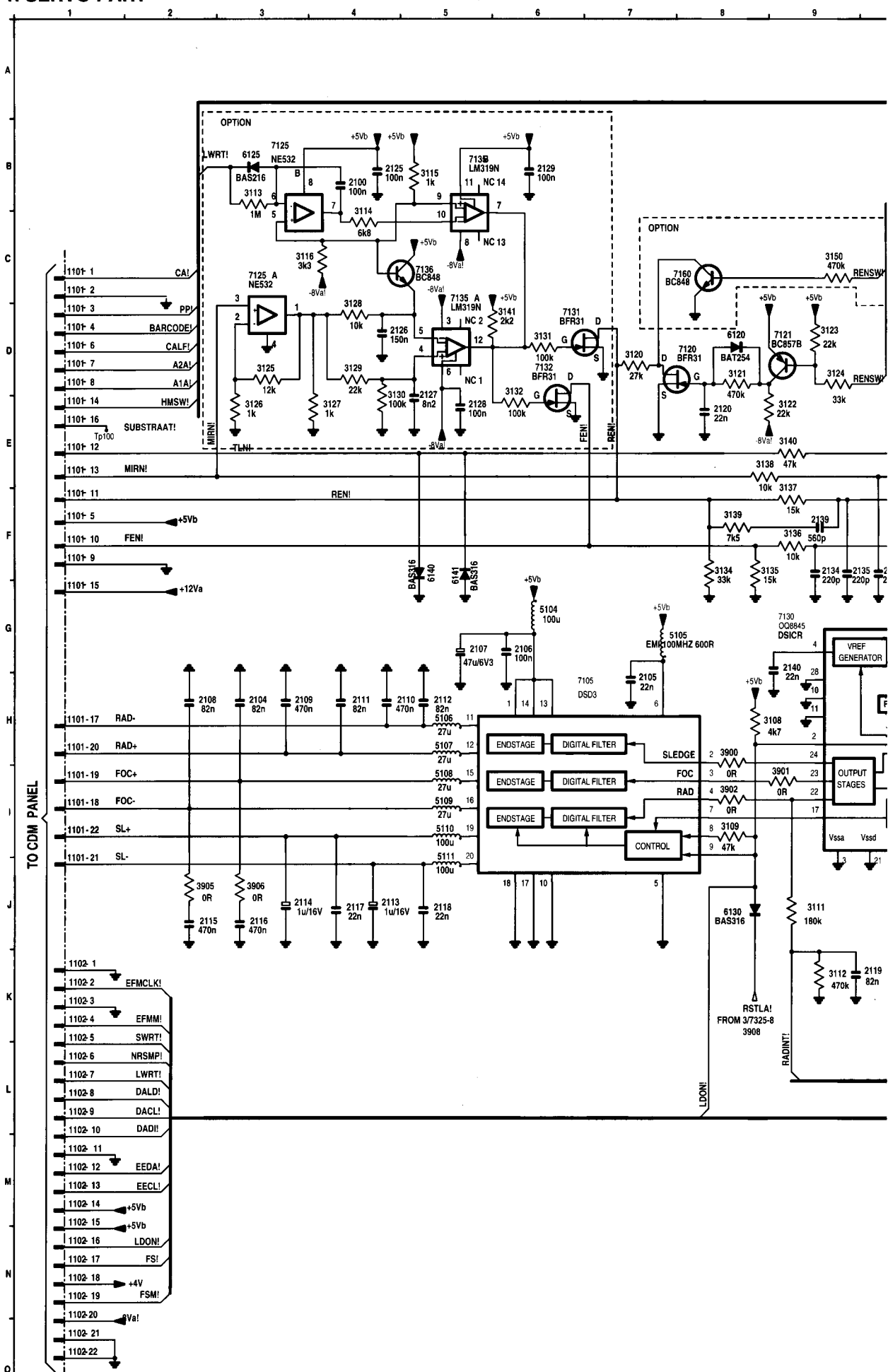
CDR MAIN BOARD

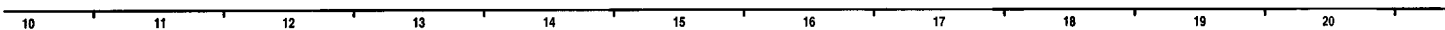
CONTENTS

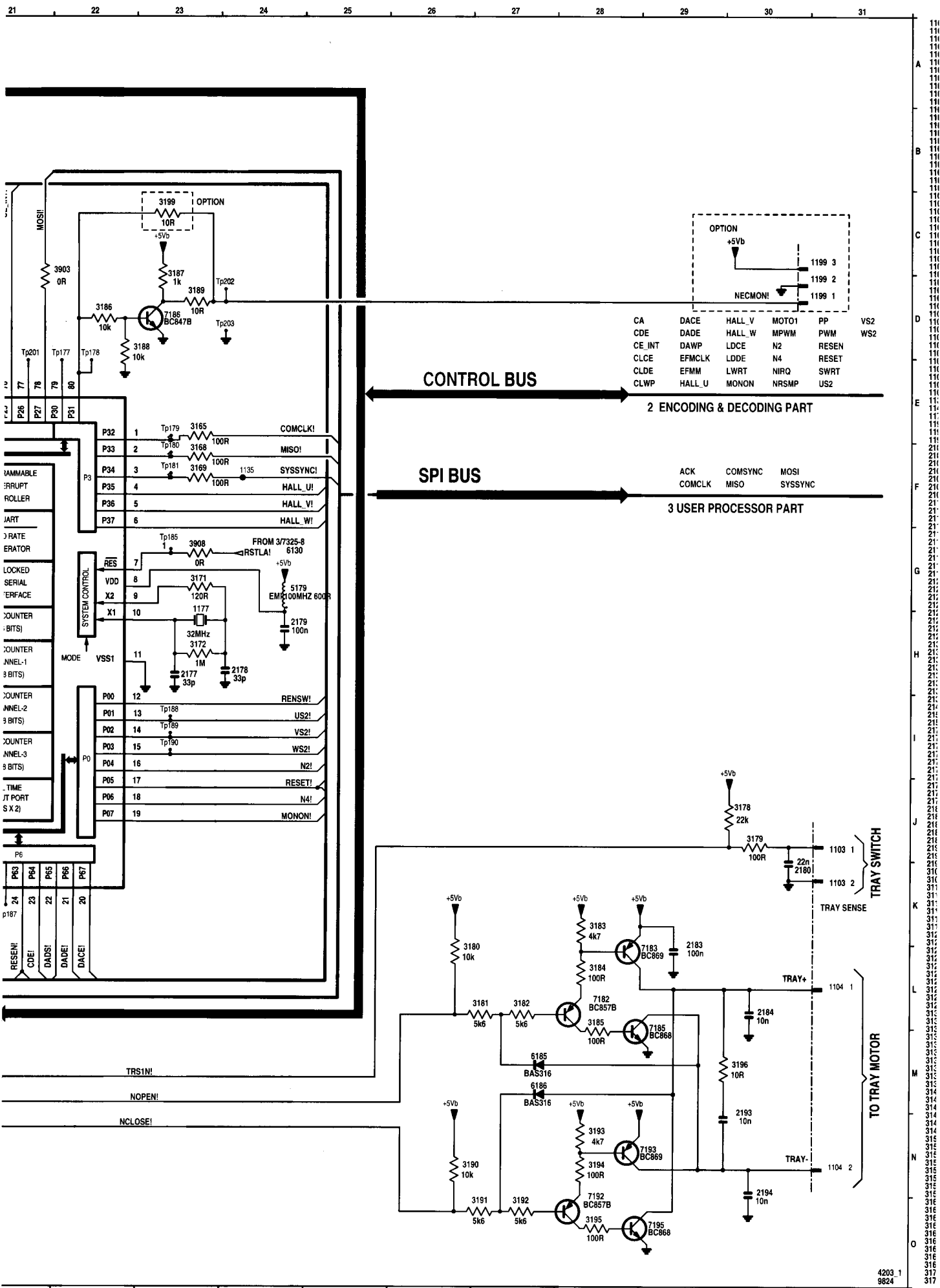
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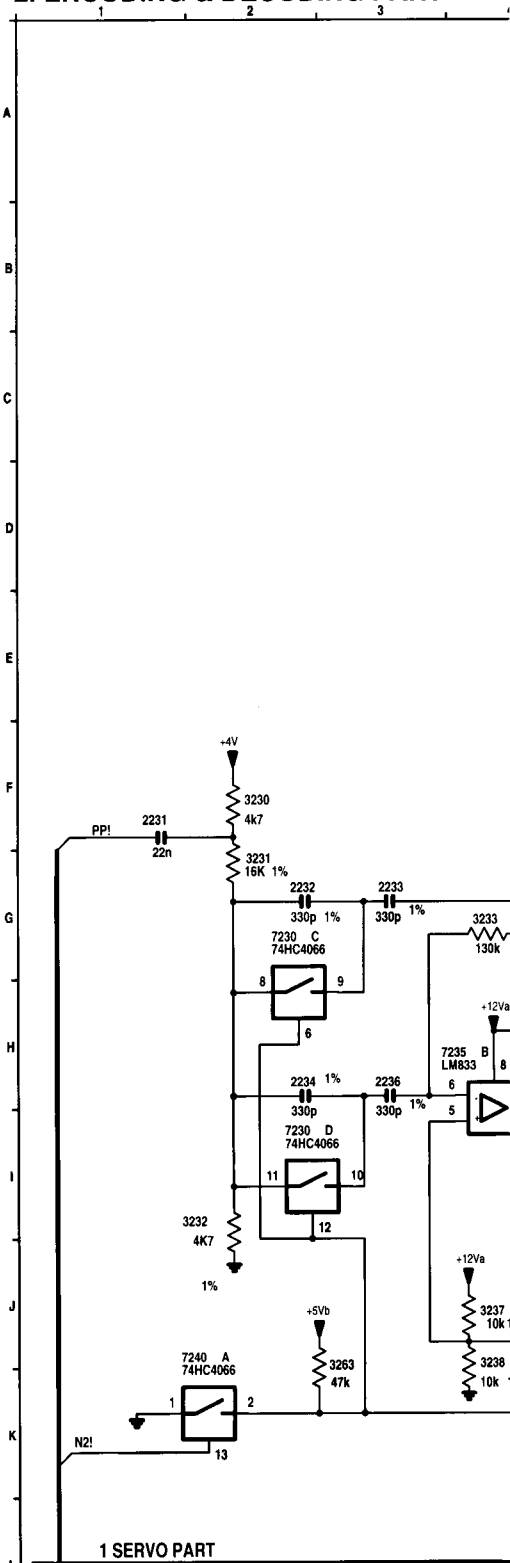
1. SERVO PART



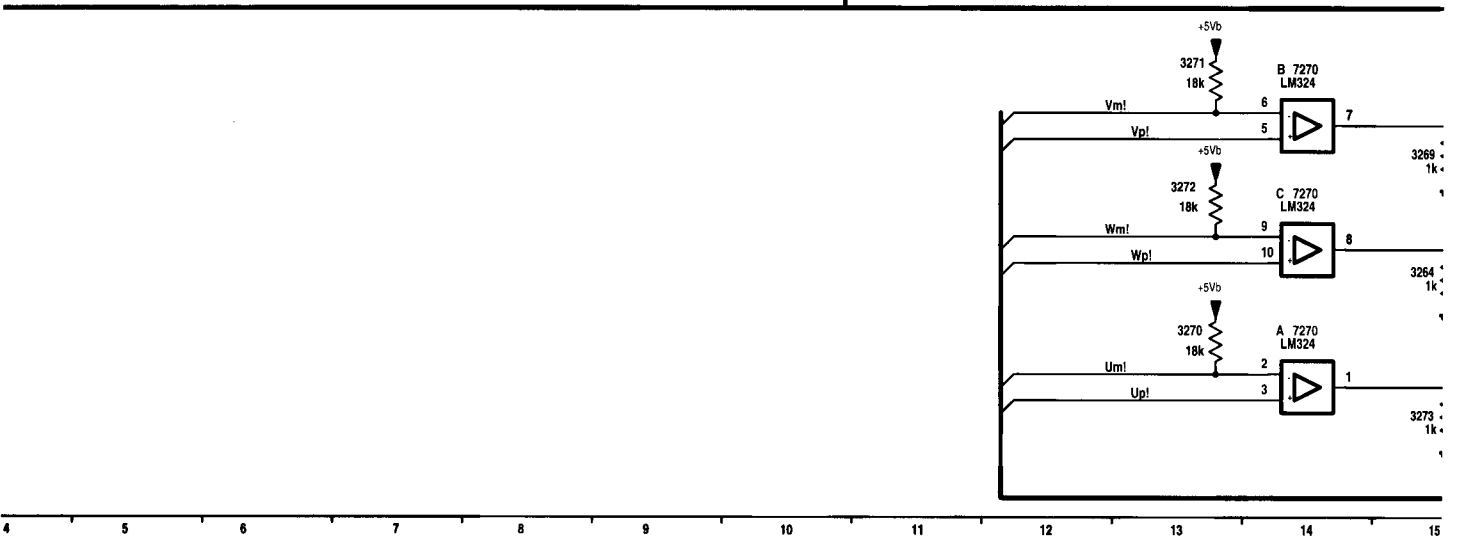
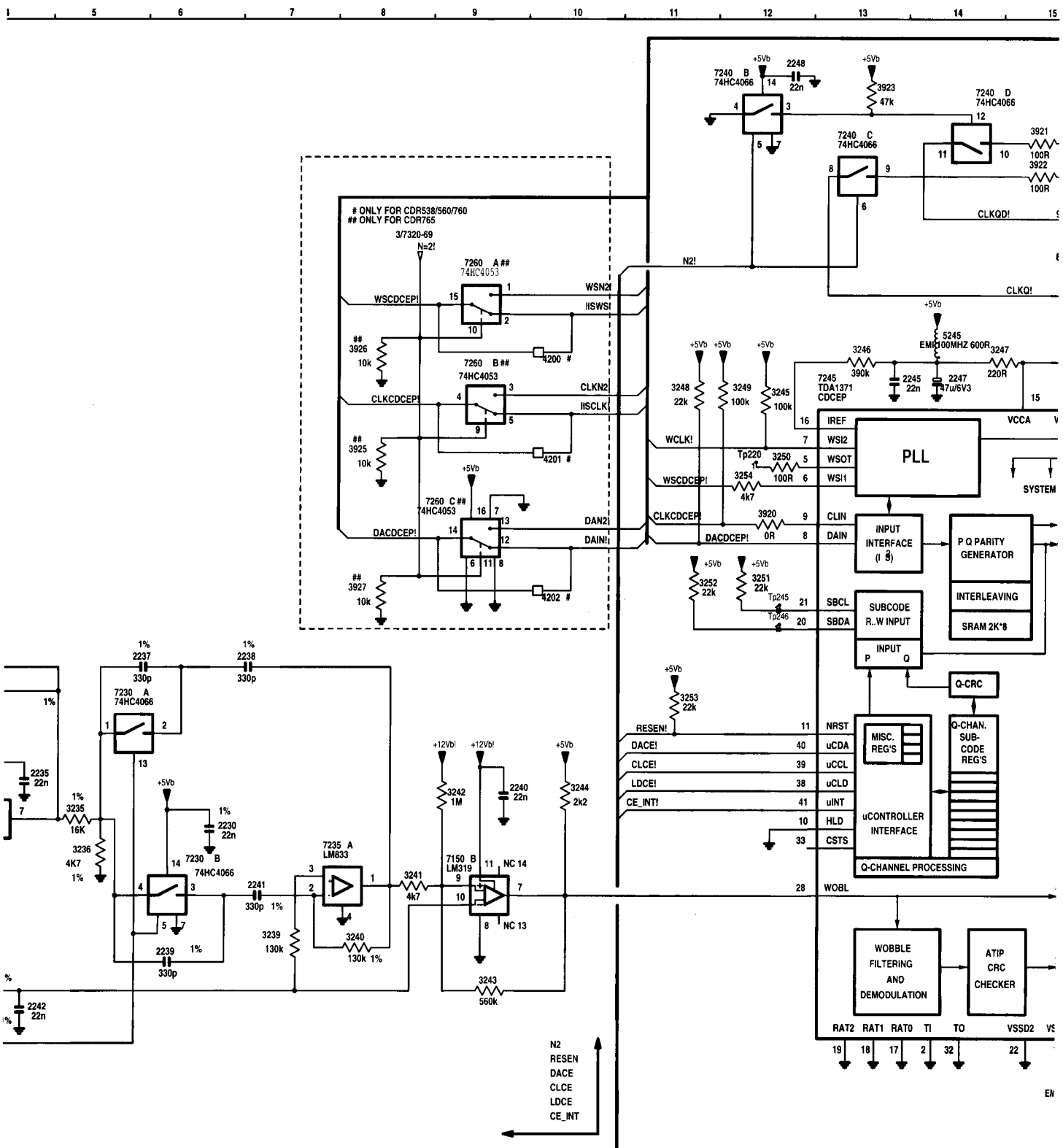


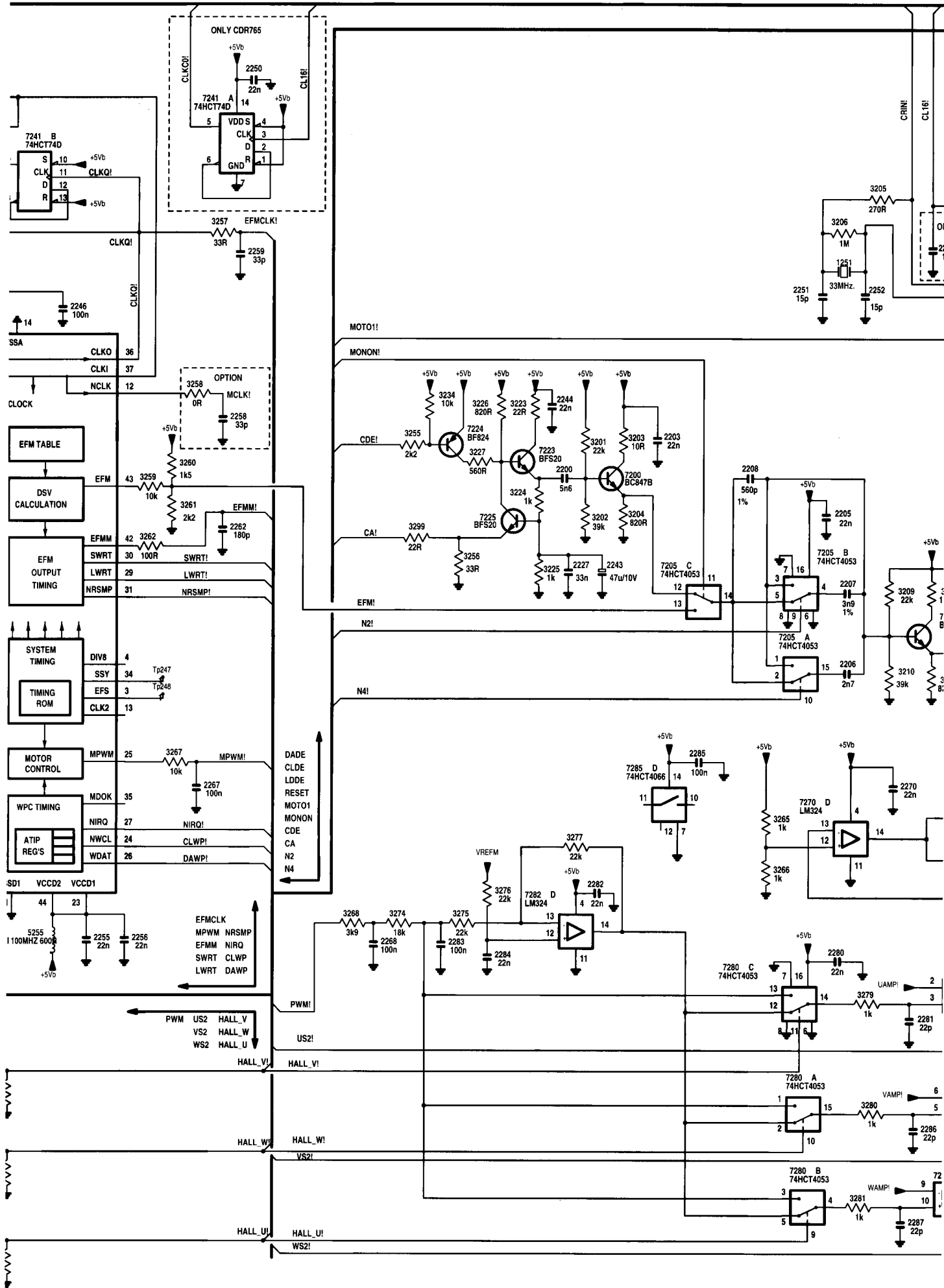


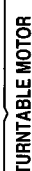
2. ENCODING & DECODING PART



SWRT	CLWP	NRSMP	PP	PWM	WS2
CA	DACE	EFMCLK	MONON	US2	VS2
CE_INT	DADE	EFMM	MOTO1	NIRQ	HALL_W
CLCE	DAWP	LDCE	N2	RESEN	HALL_V
CLDE	LWRT	LODE	N4	RESET	HALL_U
					MPWM
					CDE

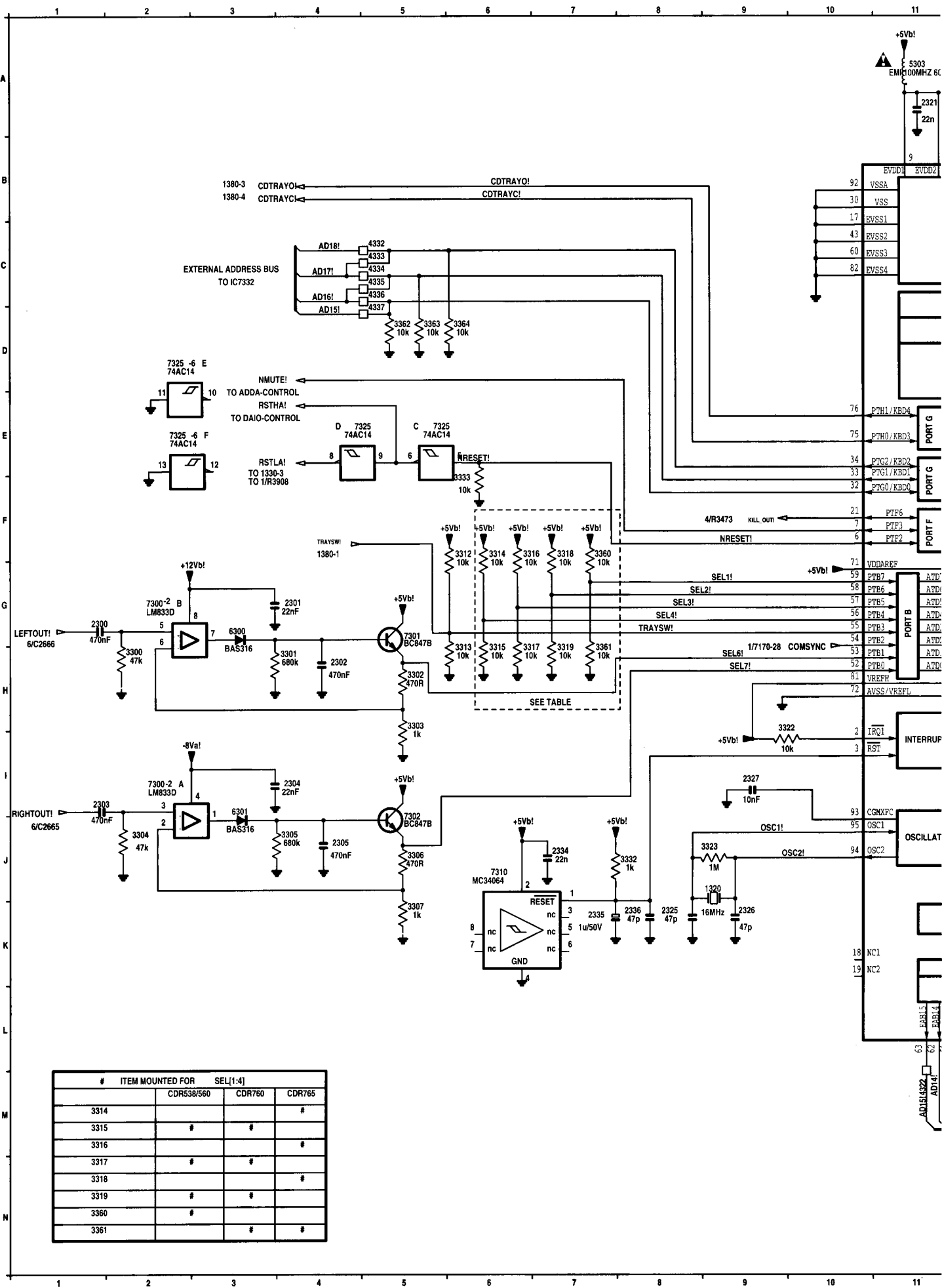




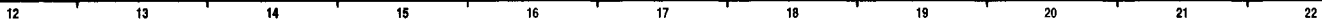


1250	B35	3289	L30
1250	B35	3290	K32
1250	B35	3291	L32
1250	B35	3292	N30
1250	B35	3293	N30
1250	B35	3294	N30
1290	H35	3295	N32
1290	H35	3296	N32
1290	H35	3297	N32
1290	H35	3298	H35
1290	H35	3299	F20
1290	L35	3290	E12
1290	L35	3291	E12
1290	O35	3292	B15
1290	J35	3293	A15
1290	L35	3294	E8
1290	L35	3295	F8
1290	L35	3296	F8
2204	G27	4200	D10
2205	G25	4201	E10
2205	G25	4202	E10
2207	G25	5211	G39
2208	F24	5212	G39
2210	H29	5248	A14
2211	H28	5249	A16
2211	F28	6286	J31
2216	F28	6286	J31
2216	F28	6286	J31
2216	F28	6286	J31
2219	F31	6296	O11
2220	F31	7150	I9
2221	F32	7200	F22
2221	F32	7200	F22
2223	G33	7205	G25
2224	H26	7205	G23
2225	G26	7205	H26
2225	G26	7205	H26
2227	G27	7224	F21
2228	E27	7224	F21
2229	E27	7224	F21
2231	F1	7230	I6
2232	G2	7230	E6
2233	G3	7230	I2
2233	G3	7230	I2
2233	H4	7235	F8
2236	H3	7240	J1
2237	G6	7240	A11
2238	G7	7240	A13
2240	H9	7241	A17
2241	F7	7241	B15
2242	G12	7245	O13
2244	E22	7260	C9
2245	D14	7260	F10
2246	D16	7270	A14
2247	G22	7270	L14
2248	E12	7270	M14
2250	A18	7270	J25
2251	O25	7271	J27
2251	O25	7271	J27
2255	K16	7280	M24
2256	K17	7280	N24
2258	E18	7280	L24
2258	E18	7280	L24
2258	E18	7280	L24
2257	H18	7282	N26
2268	K20	7282	K21
2269	L26	7285	L27
2280	L25	7285	M27
2281	L26	7285	N27
2282	K22	7285	I22
2283	K21	7286	I31
2283	K21	7287	J30
2285	I23	7288	J31
2286	N26	7288	I31
2287	O26	7290	L30
2288	L27	7291	L30
2292	L31	7292	K31
2296	G31	7293	N31
2297	H34	7294	N30
2298	G22	7295	O30
3202	F22	7296	N31
3203	E23	7297	O31
3204	F23		
3205	F23		
3206	E25		
3208	H27		
3209	G26		
3211	G26		
3212	H26		
3213	C28		
3214	C28		
3216	B33		
3217	B33		
3218	B33		
3219	C33		
3220	C34		
3221	B33		
3222	E34		
3223	F21		
3224	F21		
3225	G22		
3226	E21		
3227	F21		
3228	G27		
3229	E27		
3230	F2		
3231	G2		
3232	G2		
3233	G4		
3234	E20		
3235	H5		
3236	H5		
3237	J4		
3238	J4		
3239	J7		
3240	J7		
3241	I8		
3242	H9		
3243	J9		
3244	J9		
3245	D12		
3246	D13		
3247	D15		
3248	D15		

3. USER PROCESSOR PART

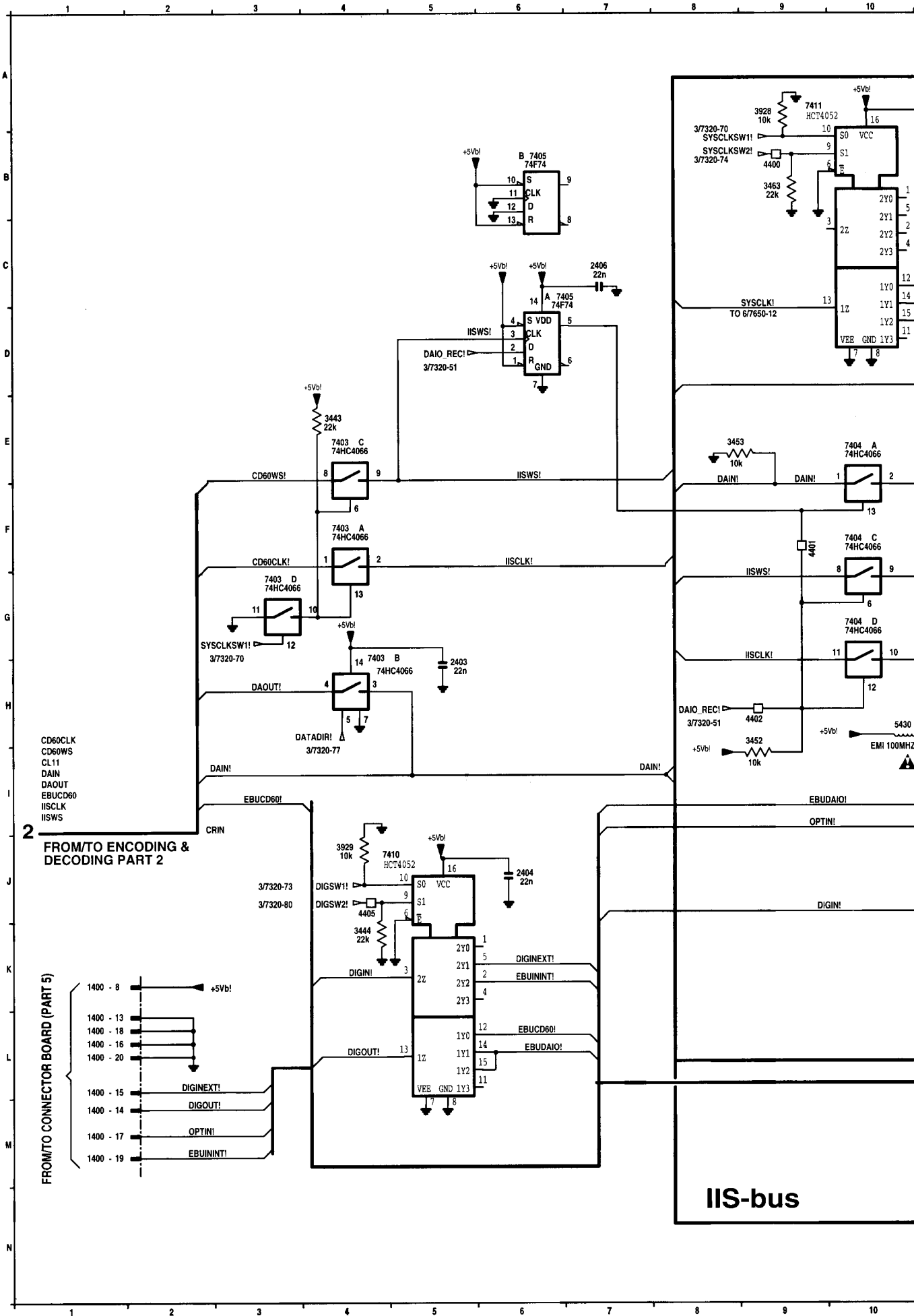


#	ITEM MOUNTED FOR	SEL[1-4]	
	CDR538/560	CDR750	CDR765
3314			#
3315	#	#	
3316			#
3317	#	#	
3318			#
3319	#	#	
3360	#		
3361		#	#

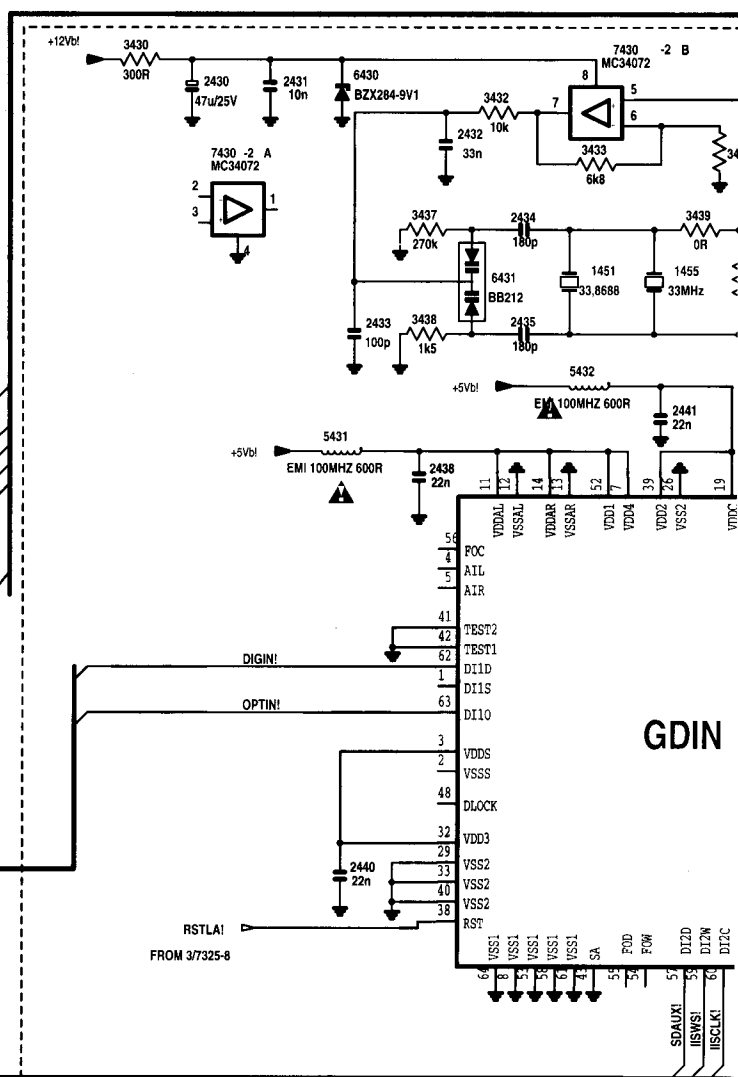


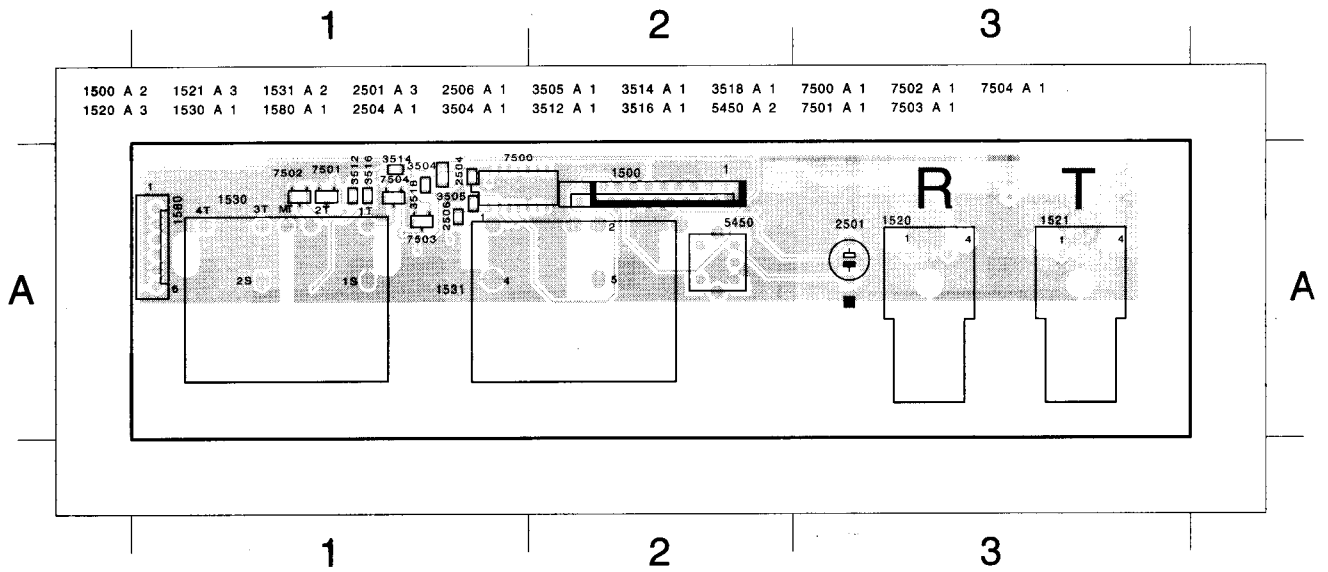
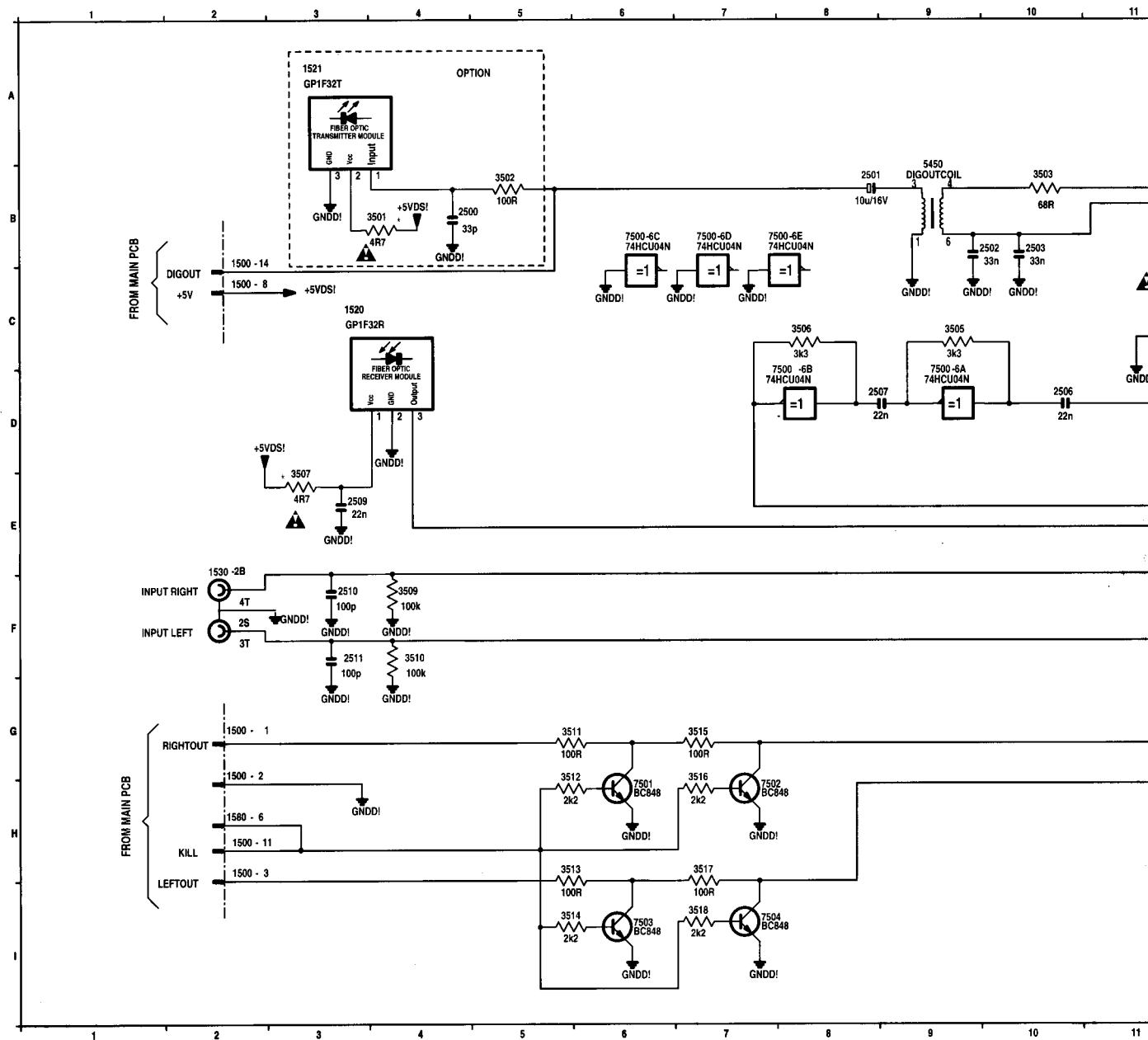


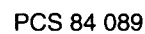
4. DIGITAL IN/OUT PART



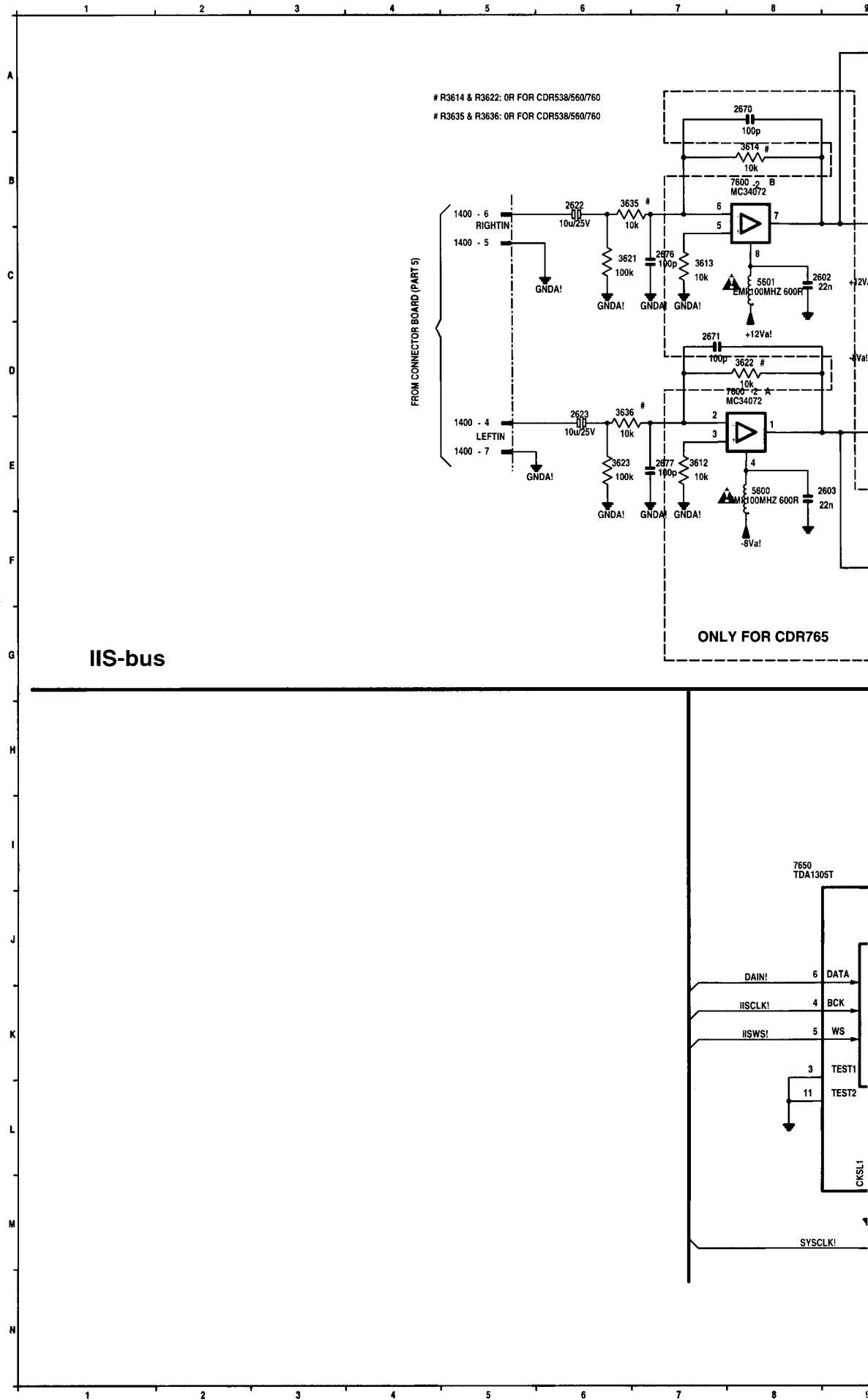
IIS-bus

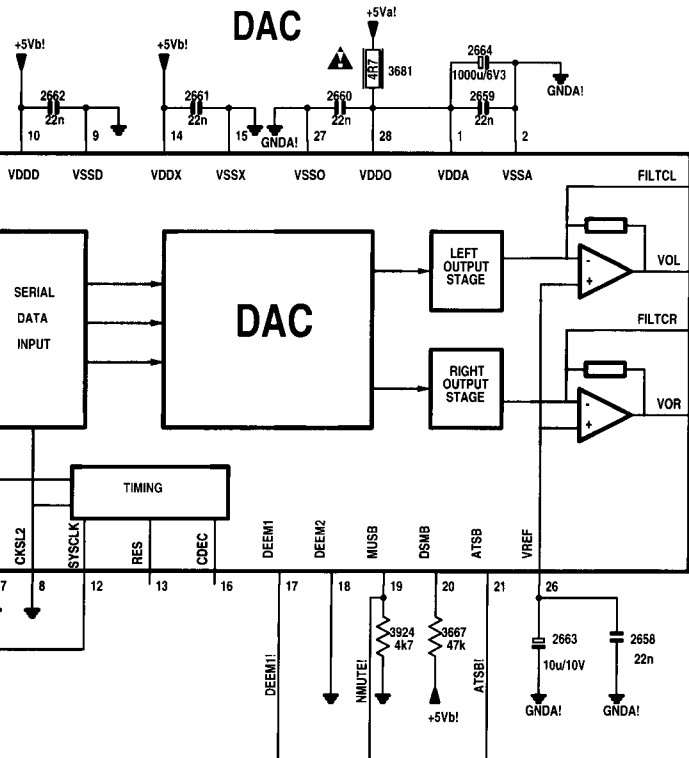


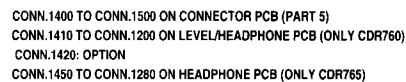




6. ANALOG IN/OUT PART







CD MAIN BOARD

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WIRING DIAGRAM CDM12.4

CD MAIN BOARD

1001

- 1 = +5V
- 2 = GNDHF
- 3 = +5VHF
- 4 = RFE
- 5 = N.C.
- 6 = N2_DALAS
- 7 = LDON
- 8 = B1
- 9 = B2
- 10 = B3
- 11 = B5
- 12 = B1
- 13 = RAD-
- 14 = RAD+
- 15 = FOC-
- 16 = FOC+

1002



- 1 = HOMESW
- 2 = GND
- 3 = M+
- 4 = M-
- 5 = SL-
- 6 = SL+

FLEX

CDM-12.4

6 WHITE

5 BLUE

SLEDGE MOTOR

2 GREEN

1 BLACK

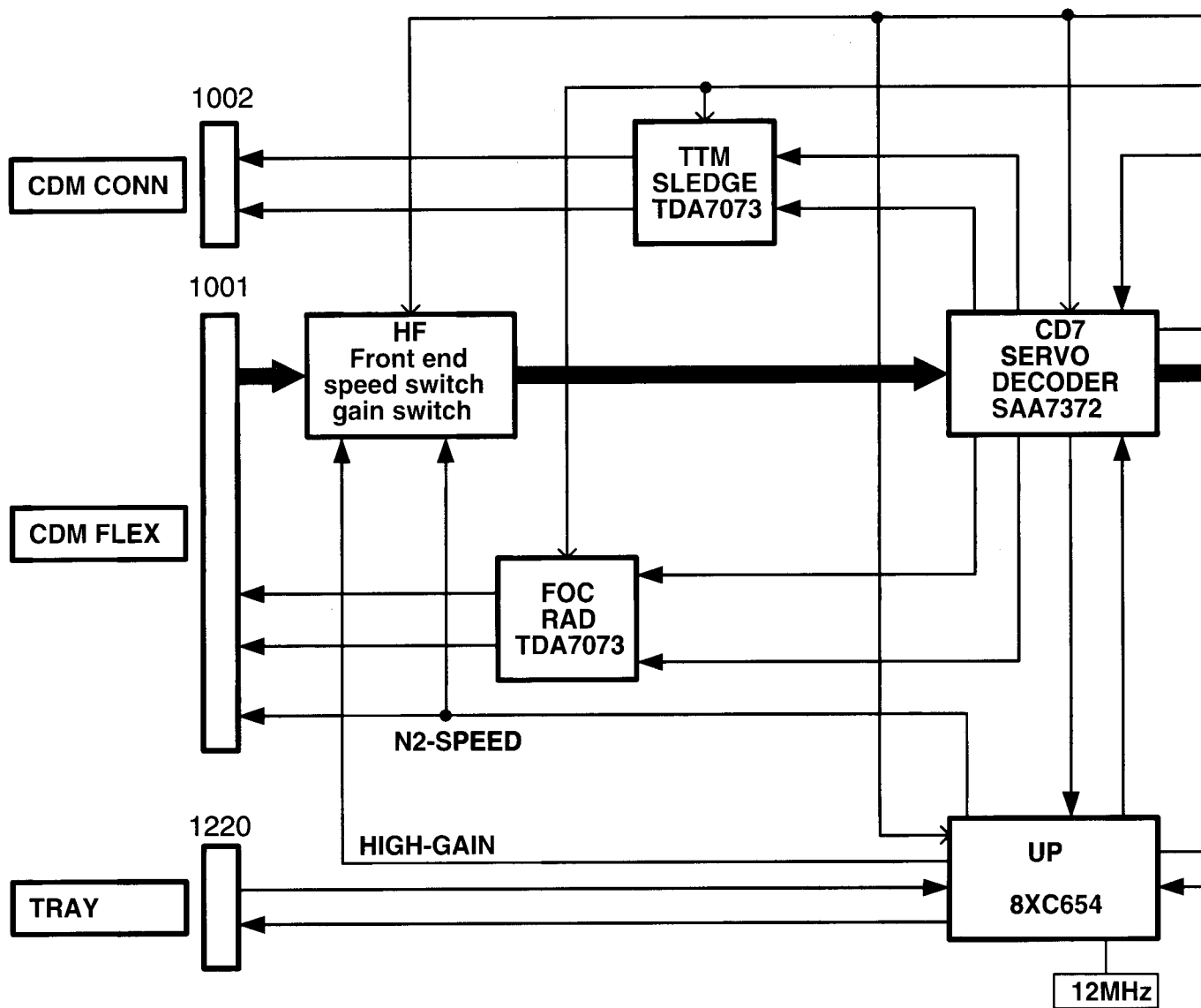
HOME SWITCH

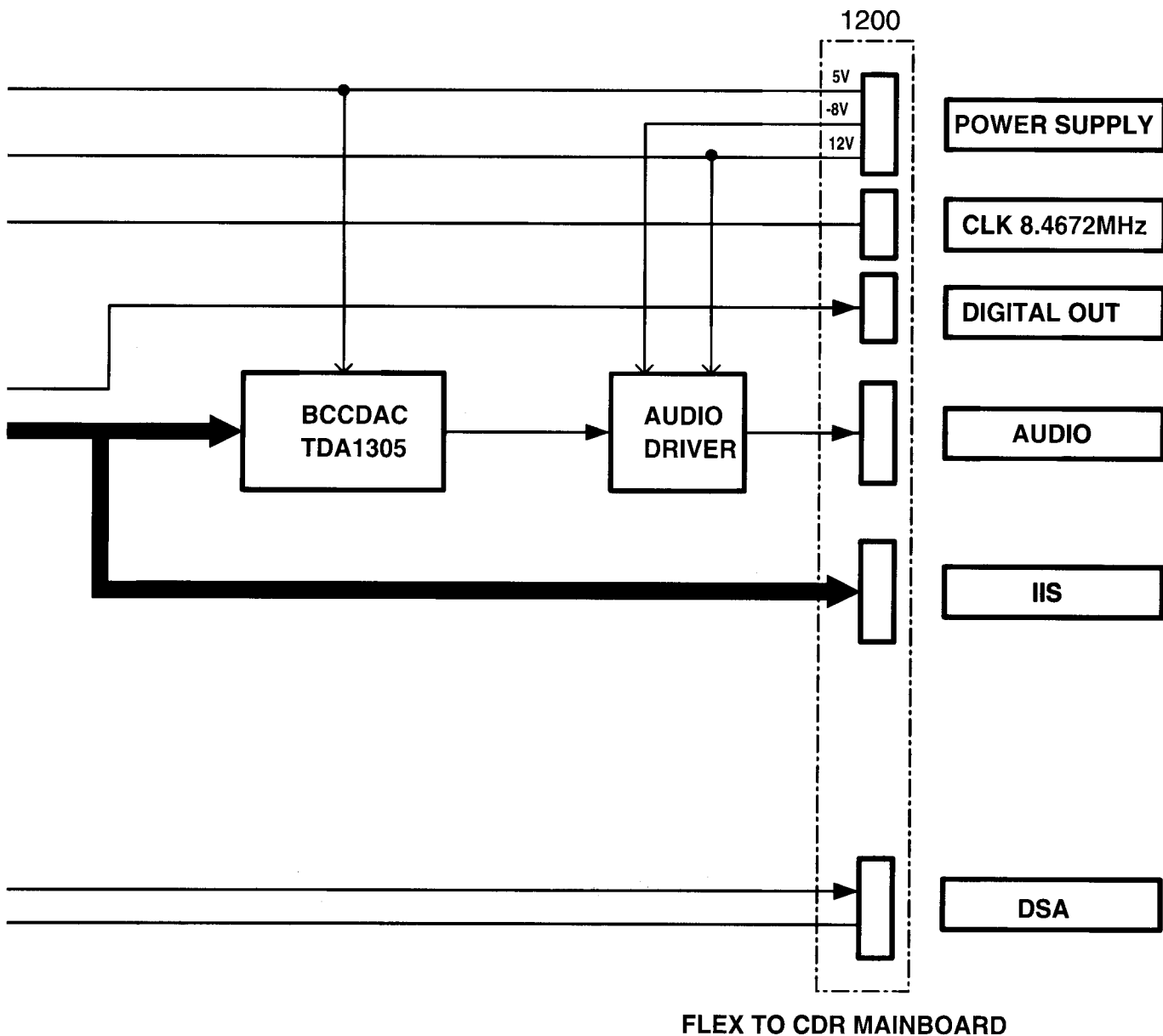
TURNABLE MOTOR

3 RED

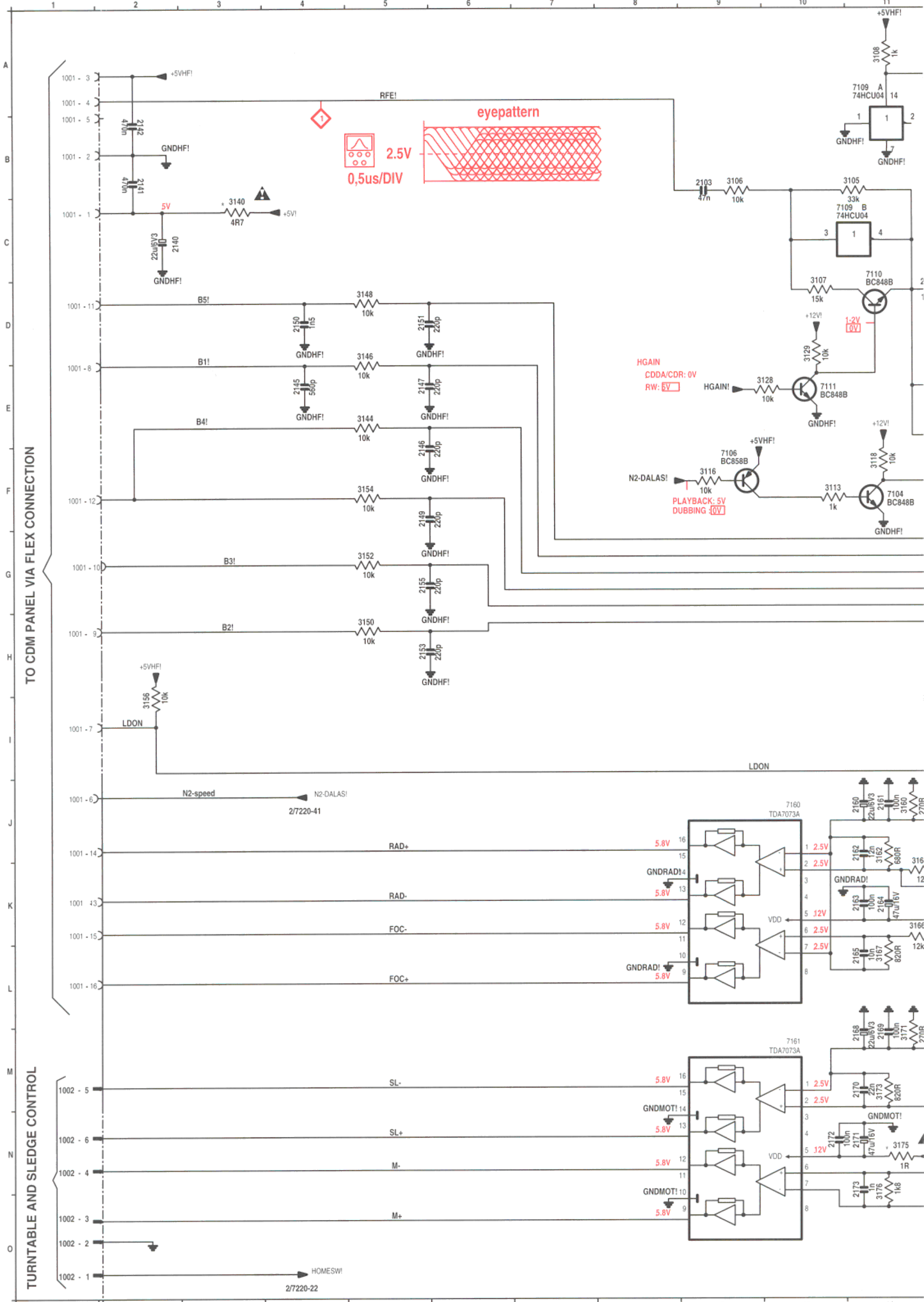
4 YELLOW

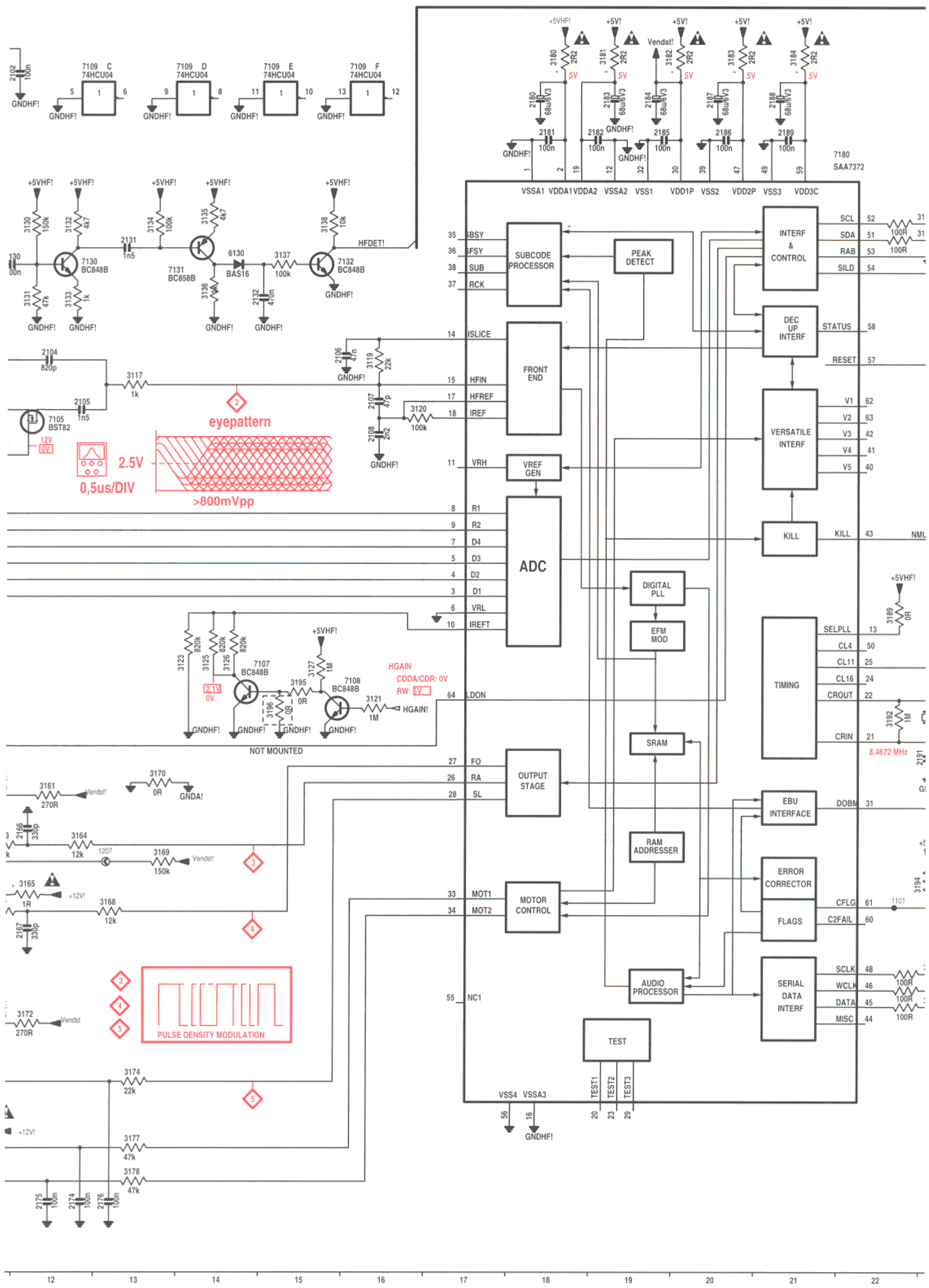
BLOCKDIAGRAM CD MAIN BOARD





1. SERVO-DECODER PART



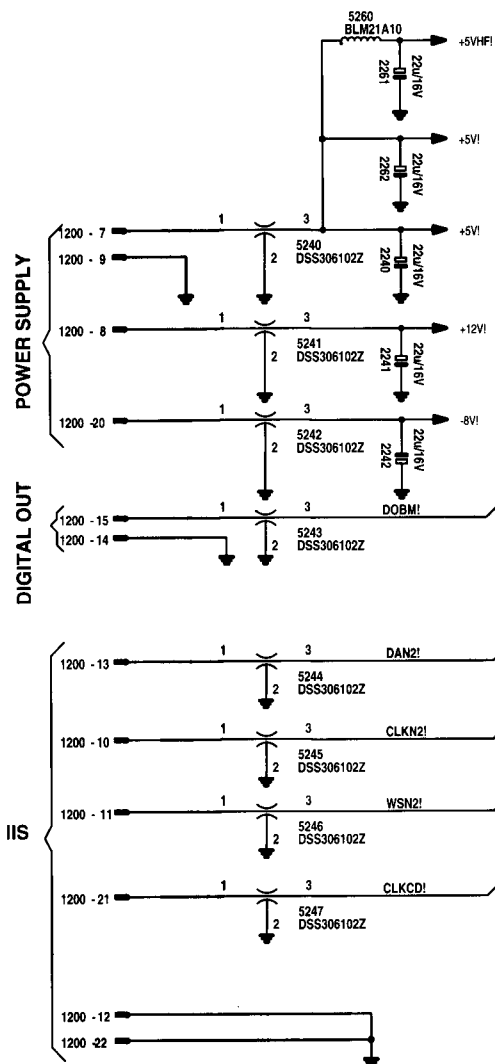




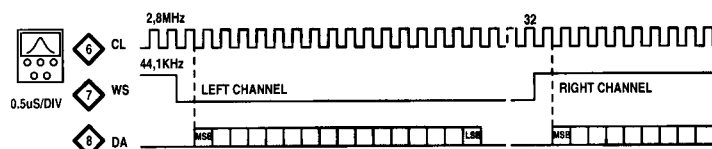
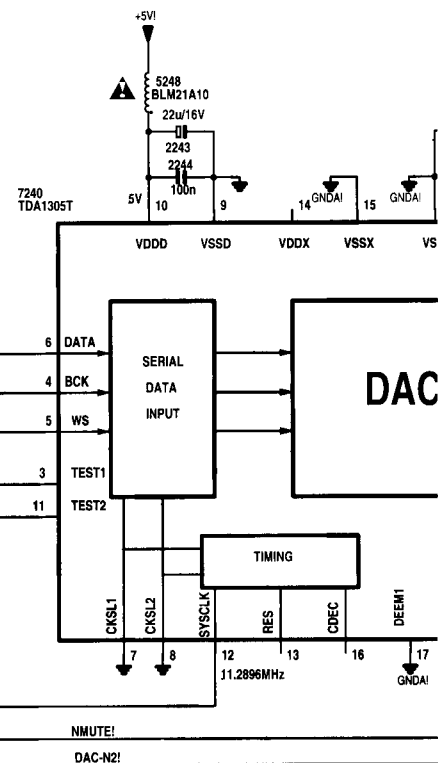
TO UP-AUDIO PART

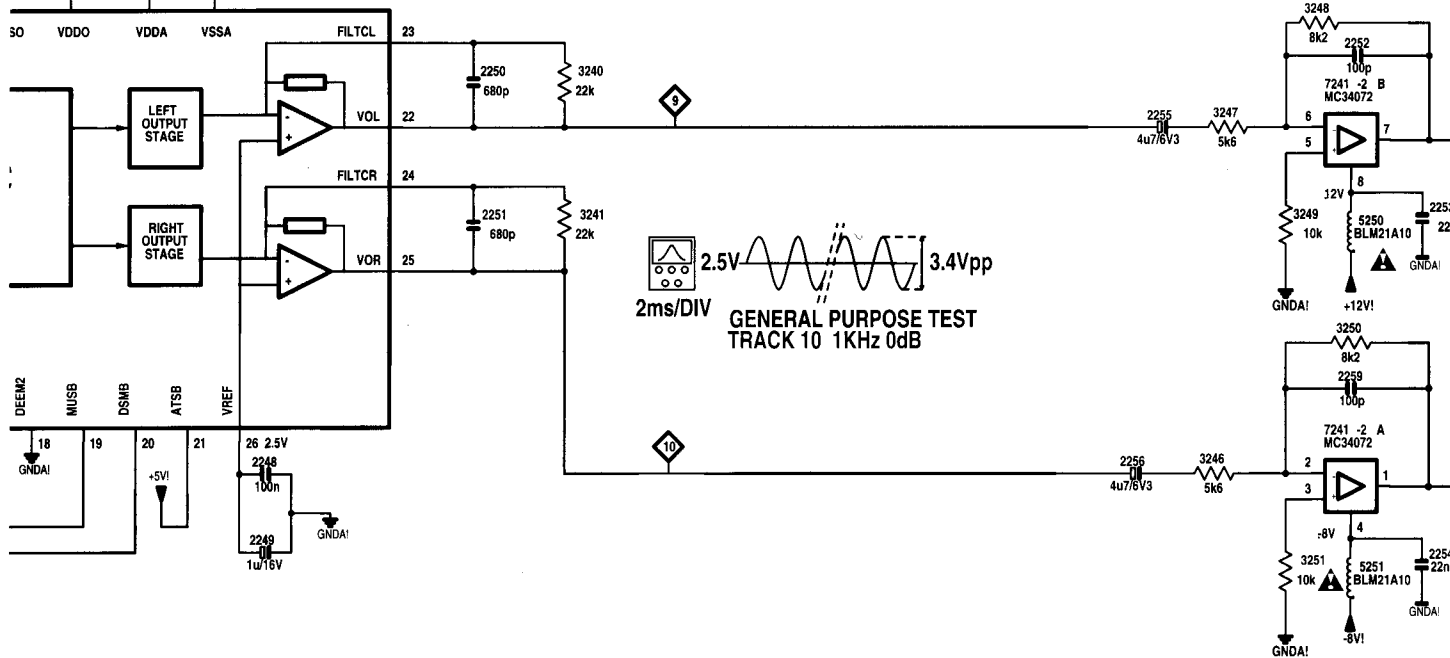
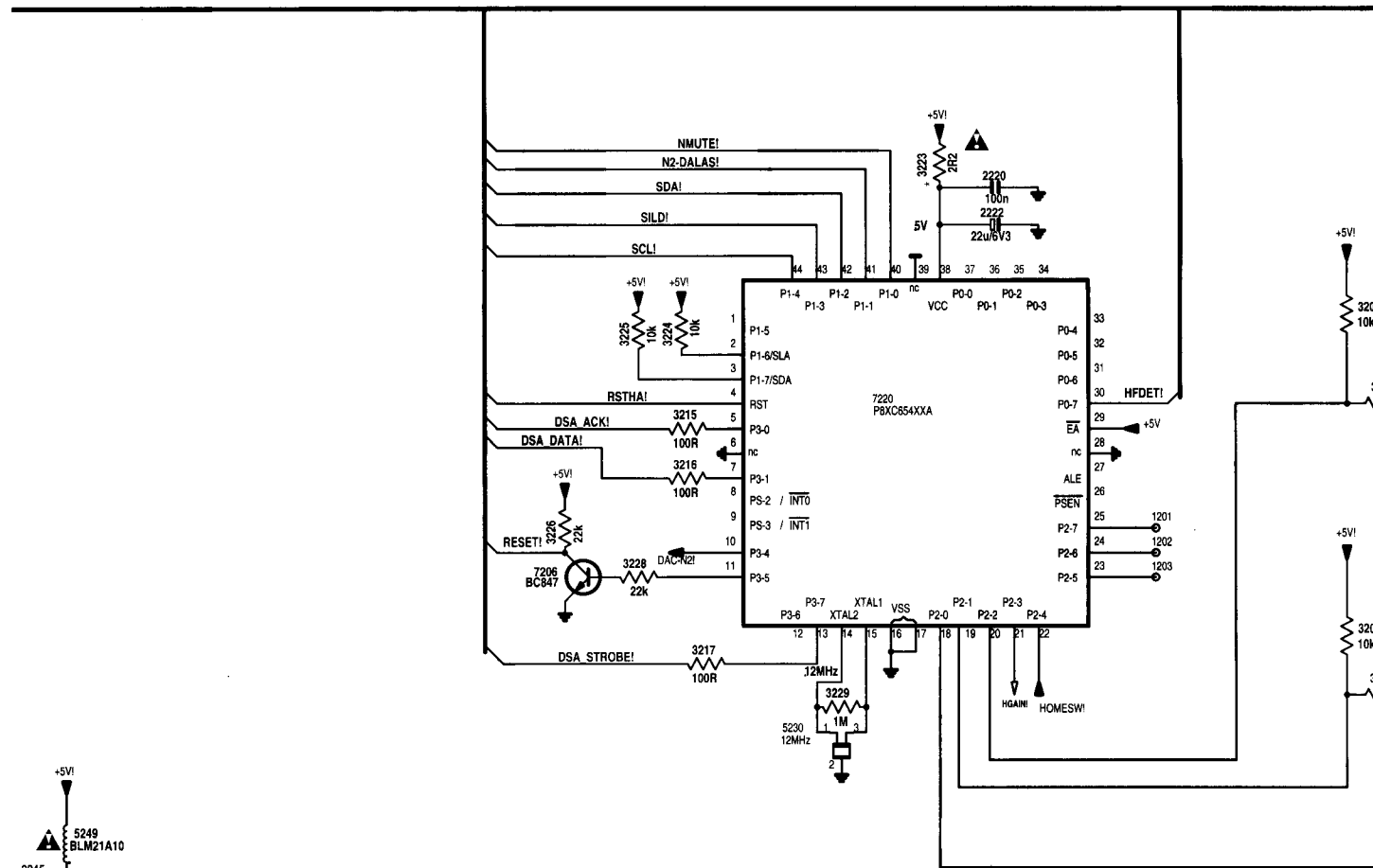


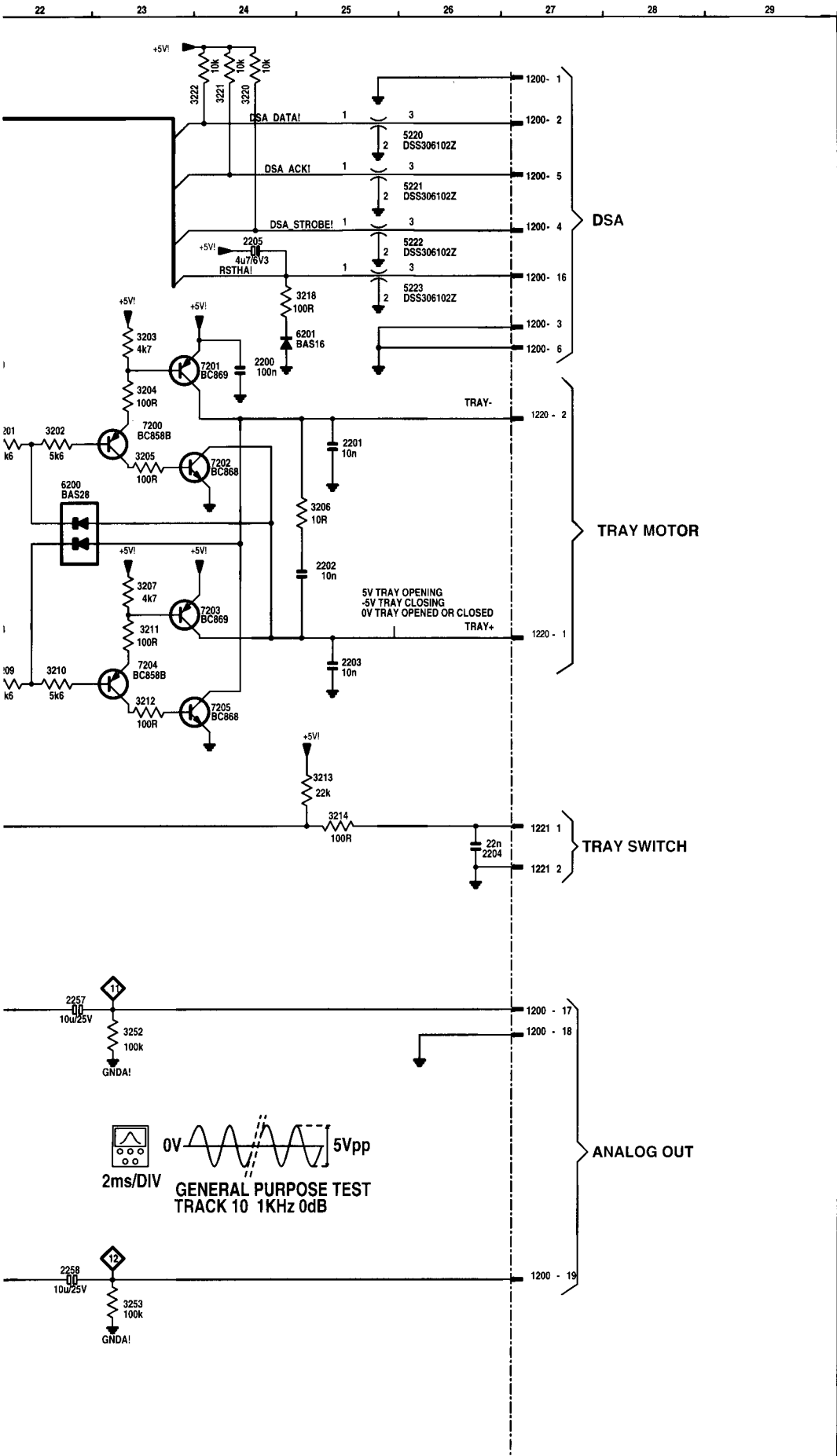
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10001 A1	7132 D15
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10001 J1	7161 M10
10001 J1	7160 B21
10001 I1	
10001 E1	
10001 H1	
10001 G1	
10001 D1	
10001 F1	
10001 K1	
10001 J1	
10001 K1	
10001 L1	
10002 O1	
10002 O1	
10002 O1	
10002 N1	
10002 M1	
10002 N1	
11001 K22	
11002 L23	
11003 L23	
12007 K13	
21002 A12	
21003 B9	
21004 E12	
21005 E12	
21006 M11	
21007 E16	
21008 F16	
2130 D12	
21402 C13	
2132 D14	
2140 C12	
2141 B2	
2145 E4	
2146 F5	
2147 E5	
2150 D4	
2151 D5	
2153 H5	
2154 B1	
2160 J11	
2161 J11	
2162 J11	
2163 K11	
2164 K11	
2165 L11	
2166 J12	
2167 L12	
2168 M11	
2169 M11	
2170 M11	
2171 N11	
2172 N10	
2173 N11	
2174 O12	
2175 O12	
2176 O13	
2180 B18	
2181 B18	
2182 B19	
2183 B19	
2184 B19	
2185 B19	
2186 B20	
2187 B20	
2188 B21	
2189 B21	
2190 J23	
2191 J23	
2193 J24	
31005 B11	
3106 B9	
3107 D10	
3108 M11	
3110 L23	
3111 L23	
3111 M23	
3113 F10	
3114 C23	
3115 C23	
3116 F9	
3117 O13	
3118 F11	
3119 E16	
3120 E16	
3121 H16	
3123 H14	
3125 H14	
3126 H14	
3127 H14	
3128 E10	
3129 D10	
3130 C12	
3131 C12	
3132 C12	
3133 D12	
3134 C13	
3135 C14	
3136 D14	
3137 D15	
3138 C15	
3140 C13	
3144 E5	
3146 D5	
3148 D5	
3150 H5	
3152 A5	
3154 F5	
3156 I2	
3160 J11	
3161 J12	
3162 J11	
3163 K11	
3164 K12	
3165 K12	
3166 K11	
3167 L11	
3168 K13	
3169 K13	
3170 J13	
3171 M11	
3172 M12	
3173 M13	
3174 M13	
3175 N11	
3176 N11	
3177 H13	
3178 O13	
3180 A18	
3181 A19	
3182 A19	
3183 A20	
3184 A21	
3185 C24	
3186 C24	
3188 C23	
3189 H22	
3191 H23	
3192 I22	
3193 J23	
3194 K23	
3195 I15	
3196 I15	
6130 D14	
7104 F11	
7105 F12	
7106 F9	
7107 H15	
7108 I16	
7109 A11	
7109 C10	
7109 A12	
7109 A13	
7109 A15	
7109 A16	
7110 C11	
7111 E10	



FROM SERVO-DECODER PART







1200 A27
1200 A27
1200 C27
1200 B27
1200 B27
1200 C27
1200 F1
1200 G1
1200 F1
1200 J1
1200 J1
1200 L1
1200 I1
1200 H1
1200 H1
1200 C27
1200 J27
1200 J27
1200 M27
1200 G1
1200 K1
1200 L1
1201 E20
1202 F20
1203 F20
1220 F27
1220 D27
1221 H27
1221 I27
1220 D24
1220 D25
1220 F25
1220 G25
1220 H25
1220 B24
1220 C19
1222 C18
1220 F4
1221 G4
1222 H4
1223 H8
1224 I9
1225 H11
1226 I11
1227 I12
1228 L12
1229 M12
1220 I14
1221 K14
1222 I21
1223 J22
1224 M22
1225 J19
1226 L19
1227 J22
1228 M22
1229 L21
1226 E4
1227 E4
1228 D22
1220 D22
1221 D22
1222 C23
1223 D23
1224 E23
1225 E25
1226 F23
1227 F22
1228 G22
1229 G22
1220 F23
1221 F23
1222 G23
1223 H25
1224 H25
1225 E16
1226 E16
1227 F16
1228 C25
1220 A24
1221 A24
1222 A24
1223 B18
1224 D16
1225 D16
1226 E15
1227 E16
1228 G17
1229 I15
1220 K15
1221 K15
1222 L20
1223 J20
1224 I21
1225 K20
1226 K21
1227 M21
1228 J23
1229 M23
1220 A26
1221 B26
1222 B26
1223 C26
1224 G17
1225 F3
1226 G3
1227 H3
1228 H3
1229 I3
1220 J3
1221 K3
1222 K3
1223 H8
1224 H11
1225 K21
1226 M21
1227 D3
1228 E22
1229 C24
1220 D23
1221 D24
1222 E24
1223 F24
1224 G23
1225 G24
1226 F15
1227 D17
1228 I7
1229 L21
1220 L21
1221 J21

CD MAINBOARD BOTTOM SIDE

4

3

2

1

A

B

C

D

H_GAIN
N2_DALAS

2

1

11 12

9 10

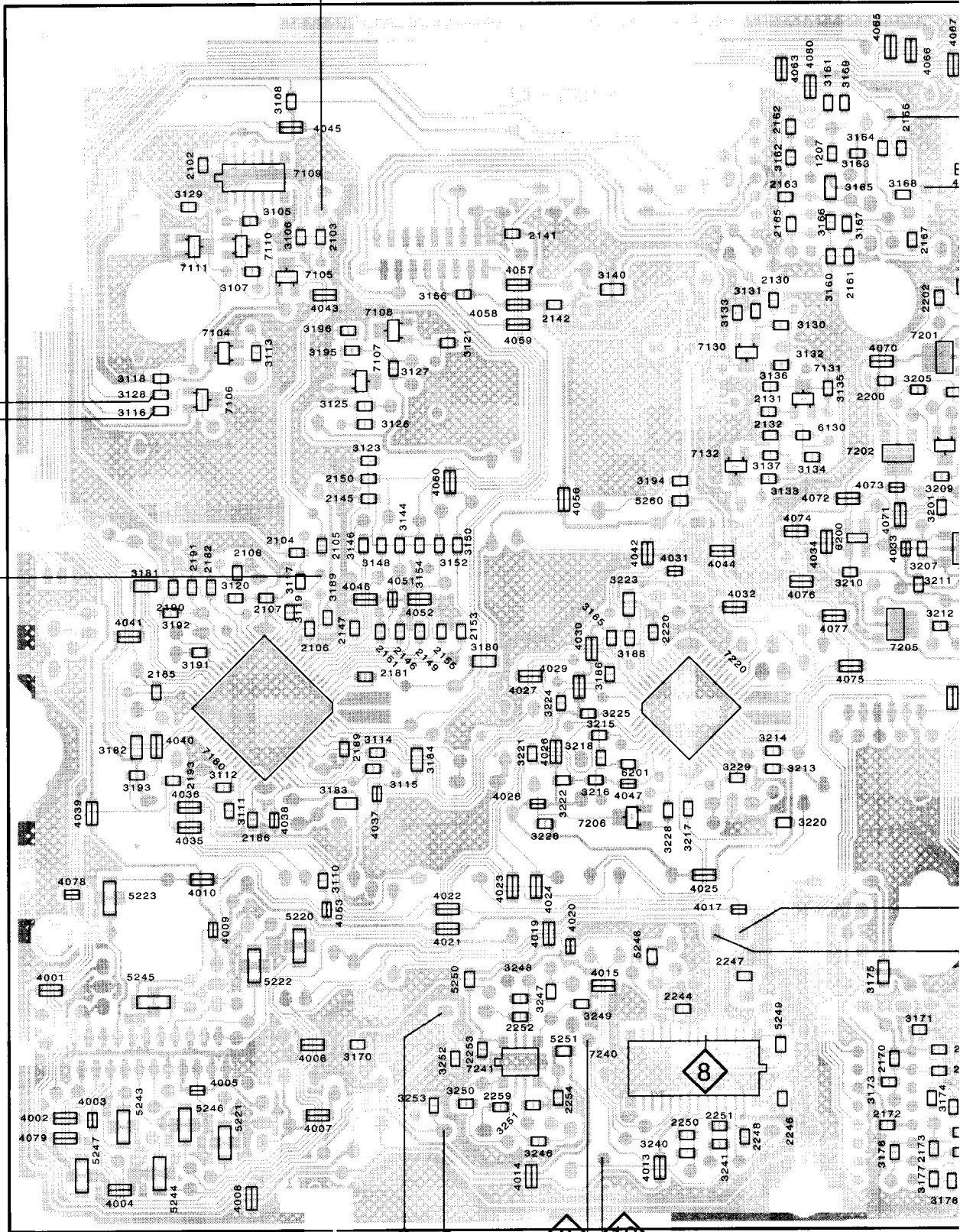
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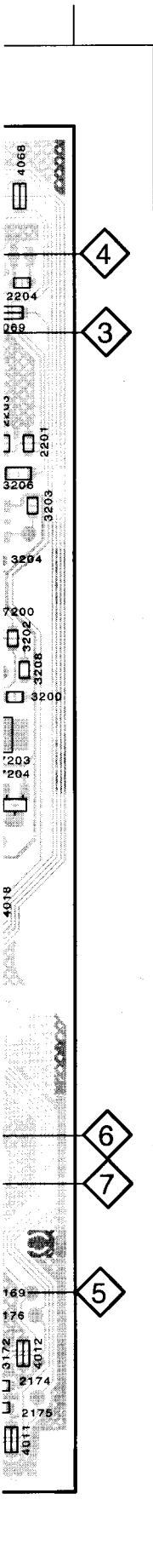
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3

2

1





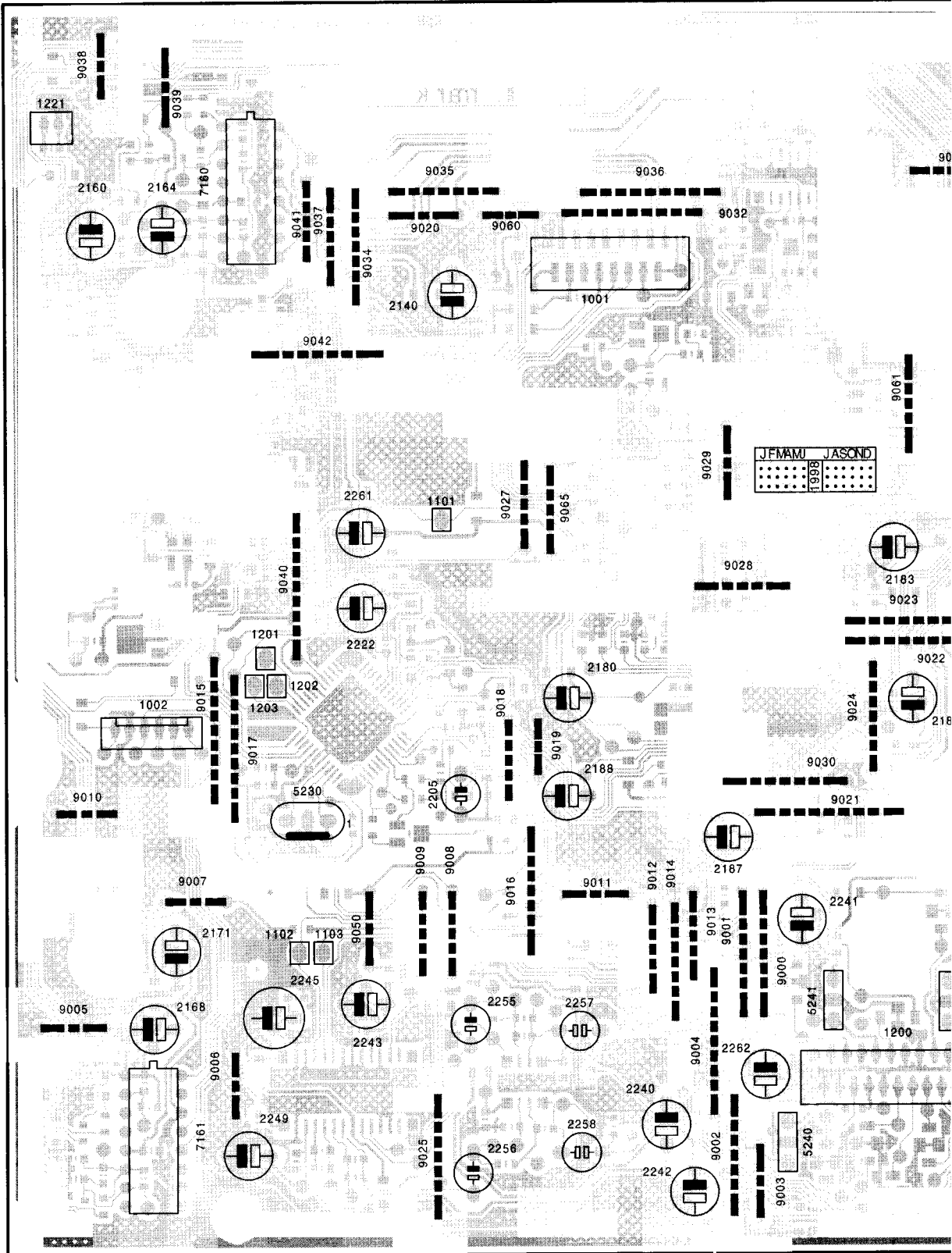
A

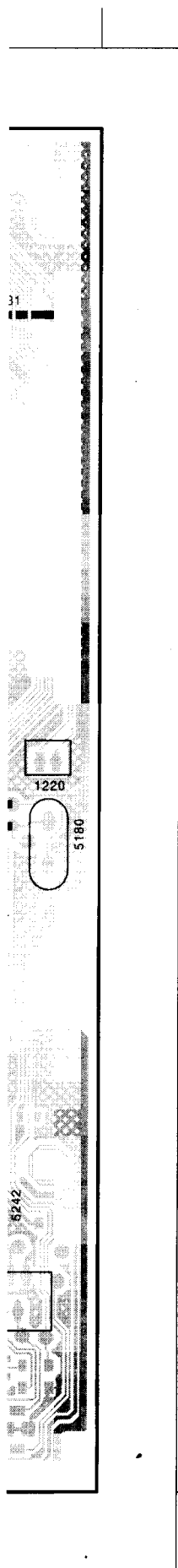
B

C

D

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2104 B 3	3132 B 1	3246 D 2	5220 D 3
2105 B 3	3133 A 2	3247 D 2	5221 D 4
2106 C 3	3134 B 1	3248 D 2	5222 D 4
2107 B 3	3135 B 1	3249 D 2	5223 D 4
2108 B 4	3136 B 1	3250 D 3	5243 D 4
2130 A 1	3137 B 1	3251 D 2	5244 D 4
2131 B 2	3138 B 2	3252 D 3	5245 D 4
2132 B 1	3140 A 2	3253 D 3	5246 D 4
2141 A 3	3144 B 3	4001 D 4	5247 D 4
2142 A 2	3146 B 3	4002 D 4	5248 D 2
2145 B 3	3148 B 3	4003 D 4	5249 D 1
2146 C 3	3150 B 3	4004 D 4	5250 D 3
2147 C 3	3152 B 3	4005 D 4	5251 D 2
2149 C 3	3154 B 3	4006 D 3	5260 B 2
2150 B 3	3156 A 3	4007 D 3	6130 B 1
2151 C 3	3160 A 1	4008 D 4	6200 B 1
2153 C 3	3161 A 1	4009 D 4	6201 C 2
2155 C 3	3162 A 1	4010 D 4	7104 A 4
2161 A 1	3163 A 1	4011 D 1	7105 A 3
2162 A 1	3164 A 1	4012 D 1	7106 B 4
2163 A 1	3165 A 1	4013 D 2	7107 B 3
2165 A 1	3166 A 1	4014 D 2	7108 A 3
2166 A 1	3167 A 1	4015 D 2	7109 A 4
2167 A 1	3168 A 1	4017 D 2	7110 A 4
2169 D 1	3169 A 1	4018 C 1	7111 A 4
2170 D 1	3170 D 3	4019 D 2	7130 A 2
2172 D 1	3171 D 1	4020 D 2	7131 B 1
2173 D 1	3172 D 1	4021 D 3	7132 B 2
2174 D 1	3173 D 1	4022 D 3	7180 C 3
2175 D 1	3174 D 1	4023 D 3	7200 B 1
2176 D 1	3175 D 1	4024 D 2	7201 A 1
2181 C 3	3176 D 1	4025 D 2	7202 B 1
2182 B 4	3177 D 1	4026 C 2	7203 B 1
2185 C 4	3178 D 1	4027 C 2	7204 B 1
2186 C 4	3180 C 3	4028 C 2	7205 C 1
2189 C 3	3181 B 4	4029 C 2	7206 C 2
2190 B 4	3182 C 4	4030 C 2	7220 C 2
2191 B 4	3183 C 3	4031 B 2	7240 D 2
2193 C 4	3184 C 3	4032 B 2	7241 D 2
2200 B 1	3185 C 2	4033 B 1	
2201 A 1	3186 C 2	4034 B 1	
2202 A 1	3188 C 2	4035 C 4	
2203 A 1	3189 C 3	4036 C 4	
2204 A 1	3191 C 4	4037 C 3	
2220 C 2	3192 B 4	4038 C 3	
2244 D 2	3193 C 4	4039 C 4	
2246 D 1	3194 B 2	4040 C 4	
2247 D 2	3195 A 3	4041 C 4	
2248 D 2	3196 A 3	4042 B 2	
2250 D 2	3200 B 1	4043 A 3	
2251 D 2	3201 B 1	4044 B 2	
2252 D 2	3202 B 1	4045 A 3	
2253 D 3	3203 A 1	4046 B 3	
2254 D 2	3204 B 1	4047 C 2	
2259 D 3	3205 B 1	4051 B 3	
3105 A 4	3206 A 1	4052 B 3	
3106 A 3	3207 B 1	4053 D 3	
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3108 A 3	3209 B 1	4057 A 2	
3110 D 3	3210 B 1	4058 A 2	
3111 C 4	3211 B 1	4059 A 2	
3112 C 4	3212 C 1	4060 B 3	
3113 A 4	3213 C 1	4063 A 1	
3114 C 3	3214 C 1	4065 A 1	
3115 C 3	3215 C 2	4066 A 1	
3116 B 4	3216 C 2	4067 A 1	
3117 B 3	3217 C 2	4068 A 1	
3118 B 4	3218 C 2	4069 A 1	
3119 B 3	3220 C 1	4070 A 1	
3120 B 4	3221 C 2	4071 B 1	
3121 A 3	3222 C 2	4072 B 1	
3123 B 3	3223 B 2	4073 B 1	
3125 B 3	3224 C 2	4074 B 1	
3126 B 3	3225 C 2	4075 C 1	
3127 B 3	3226 C 2	4076 B 1	
3128 B 4	3228 C 2	4077 C 1	





1001 A 3 9039 A 1
 1002 C 1 9040 B 2
 1101 B 2 9041 A 2
 1102 D 2 9042 A 2
 1103 D 2 9050 D 2
 1200 D 4 9060 A 2
 1201 C 1 9061 B 4
 1202 C 2 9065 B 3

A

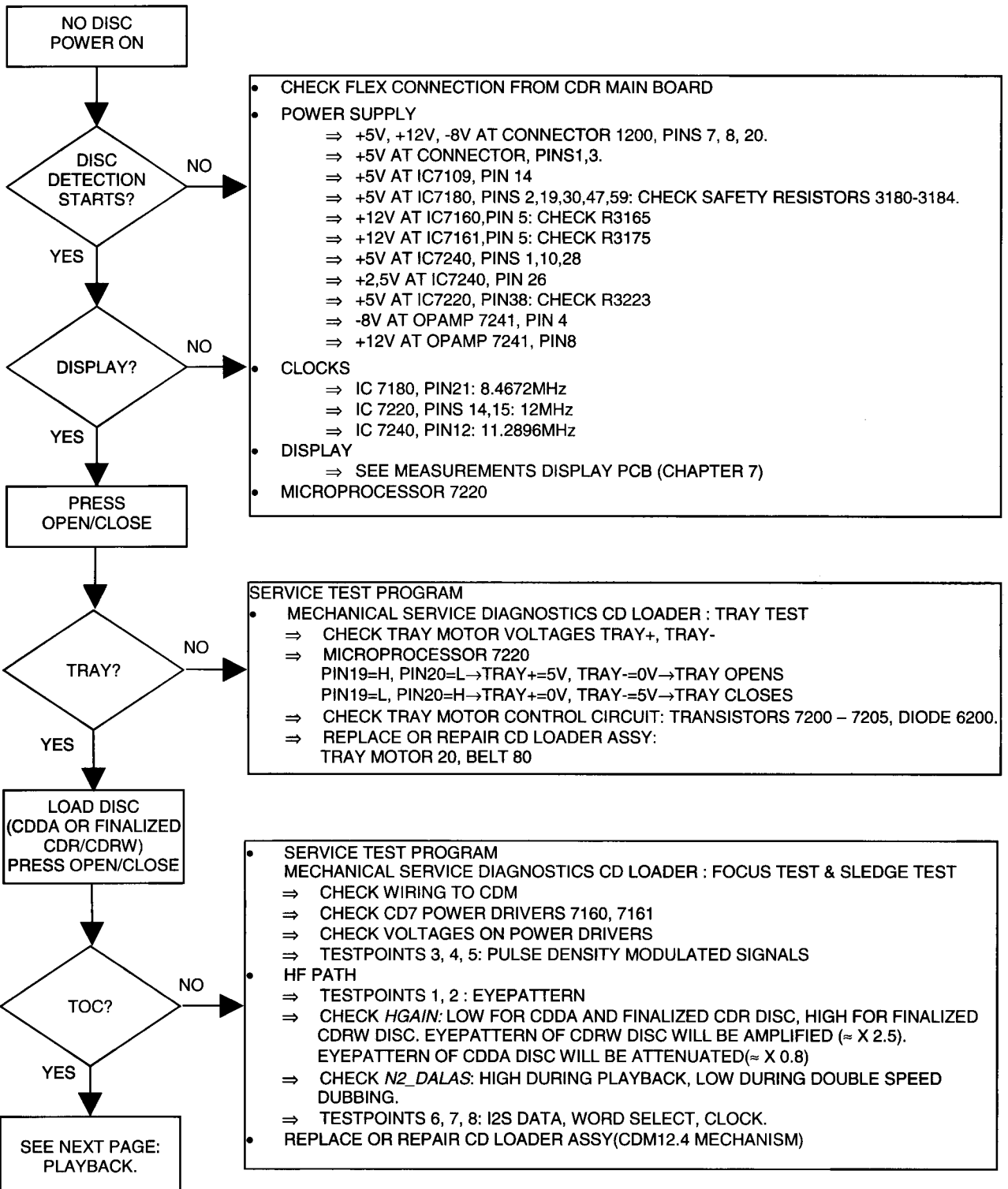
B

C

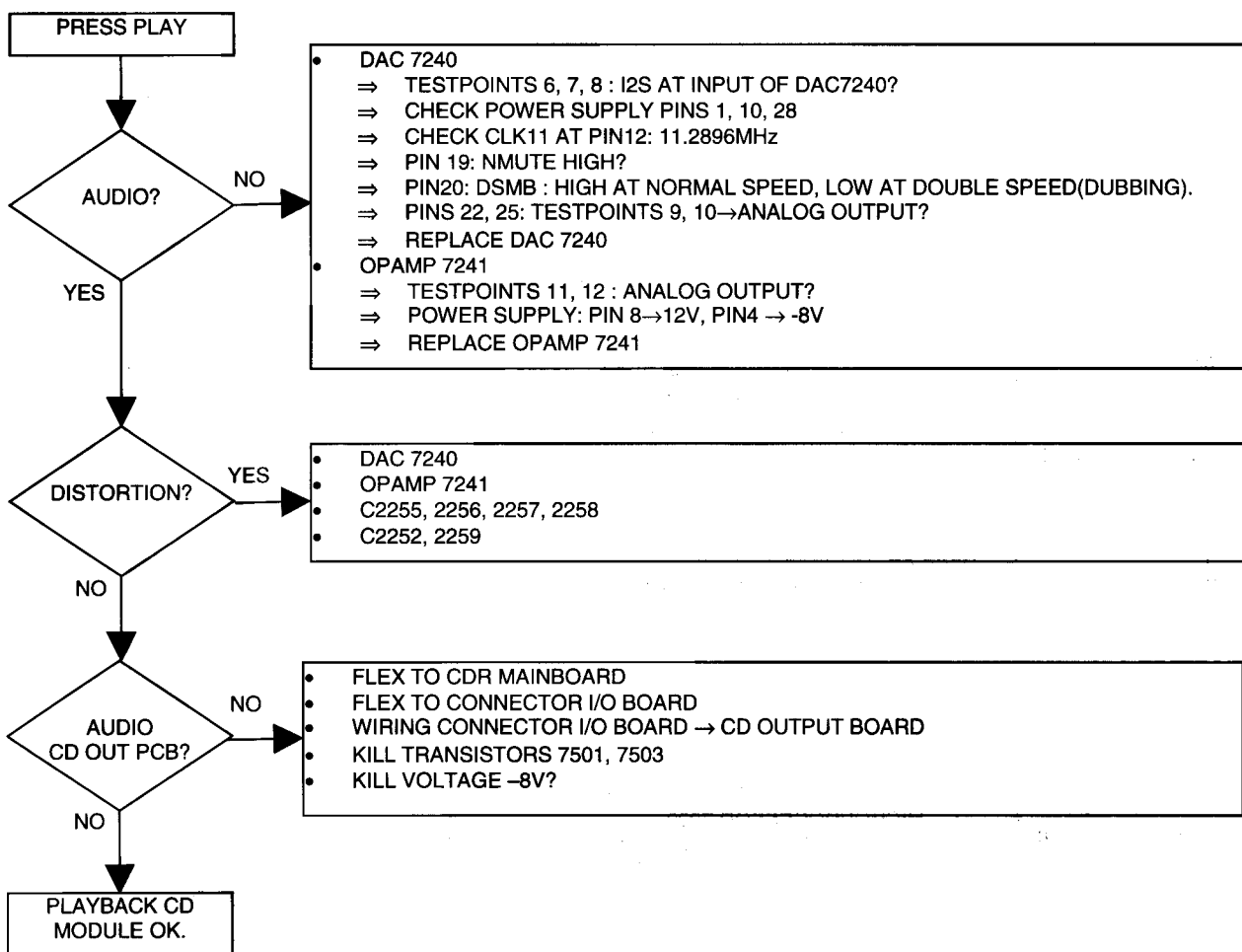
D

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 1221 A 1
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 2160 A 1
 2164 A 1
 2168 D 1
 2171 D 1
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 2183 B 4
 2184 C 4
 2187 C 3
 2188 C 3
 2205 C 2
 2222 B 2
 2240 D 3
 2241 D 4
 2242 D 3
 2243 D 2
 2245 D 2
 2249 D 1
 2255 D 2
 2256 D 2
 2257 D 3
 2258 D 3
 2261 B 2
 2262 D 3
 5180 C 4
 5230 C 2
 5240 D 4
 5241 D 4
 5242 D 4
 7160 A 1
 7161 D 1
 9000 D 3
 9001 D 3
 9002 D 3
 9003 D 3
 9004 D 3
 9005 D 1
 9006 D 1
 9007 D 1
 9008 D 2
 9009 D 2
 9010 C 1
 9011 D 3
 9012 D 3
 9013 D 3
 9014 D 3
 9015 C 1
 9016 D 3
 9017 C 1
 9018 C 2
 9019 C 3
 9020 A 2
 9021 C 4
 9022 C 4
 9023 B 4
 9024 C 4
 9025 D 2
 9027 B 2
 9028 B 3
 9029 B 3
 9030 C 4
 9031 A 4
 9032 A 3
 9034 A 2
 9035 A 2
 9036 A 3
 9037 A 2
 9038 A 1

FAULTFINDING GUIDE CD MODULE



FAULTFINDING GUIDE PLAYBACK



ELECTRICAL PARTSLIST

CDR MAIN BOARD

MISCELLANEOUS

1001 4822 214 12825 PCB ASSY MAIN 4203 CDR765

1101 4822 267 60409 FLEX CONN 22P FEMALE
 1102 4822 267 60409 FLEX CONN 22P FEMALE
 1143 4822 242 82075 CSTCS16,00MXC03-TC
 1177 4822 242 10557 XTL.RESONATOR 32 MHz
 1251 4822 242 10757 33.868 000MHz SM 20P CX-11F
 1290 4822 267 51454 FLEX CONN. 11P FEMALE
 1320 4822 242 10236 LN-G102-139 (16MHz)
 1360 4822 265 11154 FLEX CONN 22P
 1400 4822 267 10939 FLEX CONN. 20P
 1500 4822 267 10939 FLEX.CONN. 20P
 1520 4822 218 11487 OPTICAL INPUT GP1F32R
 1530 4822 265 11151 ANALOG INPUT/OUTPUT CINCH
 1531 4822 267 31448 DIGITAL INPUT/OUTPUT CINCH

CAPACITORS

2104 4822 126 14104 82nF 10% 0805 16V
 2105 5322 122 32654 22nF 10% 63V
 2106 4822 126 13296 100nF 10% 16V
 2107 4822 124 80483 47µF 20% 6.3V
 2108 4822 126 14104 82nF 10% 0805 16V
 2109 4822 126 13482 470nF 80/20% 16V
 2110 4822 126 13482 470nF 80/20% 16V
 2111 4822 126 14104 82nF 10% 0805 16V
 2112 4822 126 14104 82nF 10% 0805 16V
 2113 4822 124 11353 1µF 20% 16V

2114 4822 124 11353 1µF 20% 16V
 2115 4822 126 13482 470nF 80/20% 16V
 2116 4822 126 13482 470nF 80/20% 16V
 2117 5322 122 32654 22nF 10% 63V
 2118 5322 122 32654 22nF 10% 63V
 2119 4822 126 14104 82nF 10% 0805 16V
 2120 5322 122 32654 22nF 10% 63V
 2130 5322 122 32654 22nF 10% 63V
 2131 4822 124 80483 47µF 20% 6.3V
 2132 5322 122 32654 22nF 10% 63V

2134 4822 122 33575 220pF 5% 50V
 2135 4822 122 33575 220pF 5% 50V
 2136 4822 122 33575 220pF 5% 50V
 2138 4822 122 33575 220pF 5% 50V
 2139 5322 116 80853 560pF 5% 63V
 2140 5322 122 32654 22nF 10% 63V
 2156 5322 126 10223 4.7nF 10% 63V
 2157 5322 122 32654 22nF 10% 63V
 2170 5322 122 32654 22nF 10% 63V
 2171 4822 124 40433 47µF 20% 25V

2172 4822 122 33891 3.3nF 10% 63V
 2173 4822 122 33891 3.3nF 10% 63V
 2174 4822 122 33891 3.3nF 10% 63V
 2175 5322 122 34123 1nF 10% 50V
 2176 4822 126 13296 100nF 10% 16V
 2177 5322 122 32659 33pF 5% 50V
 2178 5322 122 32659 33pF 5% 50V
 2179 4822 126 13296 100nF 10% 16V
 2180 5322 122 32654 22nF 10% 63V
 2181 5322 122 32654 22nF 10% 63V

2182 5322 122 32654 22nF 10% 63V
 2183 4822 126 13296 100nF 10% 16V
 2184 4822 122 33177 10nF 20% 50V
 2193 4822 122 33177 10nF 20% 50V
 2194 4822 122 33177 10nF 20% 50V

2195 5322 122 32654 22nF 10% 63V
 2200 4822 122 32646 5.6nF 10% 50V
 2203 5322 122 32654 22nF 10% 63V
 2204 5322 122 32654 22nF 10% 63V
 2205 5322 122 32654 22nF 10% 63V

2206 4822 122 32627 2.7nF 10% 50V
 2207 5322 126 10465 3.9nF 10% 50V 0805 CER2
 2208 5322 116 80853 560pF 5% 63V
 2210 5322 122 32654 22nF 10% 63V
 2211 4822 124 80483 47µF 20% 6.3V
 2214 4822 126 13692 47pF 1% 63V
 2215 4822 122 33177 10nF 20% 50V
 2216 4822 122 33177 10nF 20% 50V
 2217 5322 122 32654 22nF 10% 63V
 2218 5322 122 32654 22nF 10% 63V

2219 5322 122 32654 22nF 10% 63V
 2220 5322 122 32654 22nF 10% 63V
 2221 5322 122 32654 22nF 10% 63V
 2222 5322 122 32654 22nF 10% 63V
 2223 4822 124 80483 47µF 20% 6.3V
 2224 4822 126 13296 100nF 10% 16V
 2225 5322 122 32448 10pF 5% 50V
 2226 5322 122 32448 10pF 5% 50V
 2227 4822 126 12105 33nF 5% 63V
 2228 4822 126 12105 33nF 5% 63V

2229 4822 122 33177 10nF 20% 50V
 2230 5322 122 32654 22nF 10% 63V
 2231 5322 122 32654 22nF 10% 63V
 2232 4822 126 13618 330pF 1% 63V
 2233 4822 126 13618 330pF 1% 63V
 2234 4822 126 13618 330pF 1% 63V
 2235 5322 122 32654 22nF 10% 63V
 2236 4822 126 13618 330pF 1% 63V
 2237 4822 126 13618 330pF 1% 63V
 2238 4822 126 13618 330pF 1% 63V

2239 4822 126 13618 330pF 1% 63V
 2240 5322 122 32654 22nF 10% 63V
 2241 4822 126 13618 330pF 1% 63V
 2242 5322 122 32654 22nF 10% 63V
 2243 4822 124 11445 47µF 20% 10V
 2244 5322 122 32654 22nF 10% 63V
 2245 5322 122 32654 22nF 10% 63V
 2246 4822 126 13296 100nF 10% 16V
 2247 4822 124 80483 47µF 20% 6.3V
 2248 5322 122 32654 22nF 10% 63V

2250 5322 122 32654 22nF 10% 63V
 2251 4822 126 13486 15pF 2% 63V
 2252 4822 126 13486 15pF 2% 63V
 2255 5322 122 32654 22nF 10% 63V
 2256 5322 122 32654 22nF 10% 63V
 2262 4822 126 10326 180pF 5% 63V
 2267 4822 126 13296 100nF 10% 16V
 2268 4822 126 13296 100nF 10% 16V
 2270 5322 122 32654 22nF 10% 63V
 2280 5322 122 32654 22nF 10% 63V

2281 5322 122 32658 22pF 5% 50V
 2282 5322 122 32654 22nF 10% 63V
 2283 4822 126 13296 100nF 10% 16V
 2284 5322 122 32654 22nF 10% 63V
 2285 4822 126 13296 100nF 10% 16V
 2286 5322 122 32658 22pF 5% 50V
 2287 5322 122 32658 22pF 5% 50V
 2288 4822 126 12105 33nF 5% 63V
 2292 4822 126 12105 33nF 5% 63V
 2296 4822 126 12105 33nF 5% 63V

2297	4822 126 13296	100nF 10% 16V	2617	4822 124 40433	47µF 20% 25V
2300	4822 126 13482	470nF 80/20% 16V	2618	4822 124 11445	47µF 20% 10V
2301	5322 122 32654	22nF 10% 63V	2619	4822 124 40433	47µF 20% 25V
2302	4822 126 13482	470nF 80/20% 16V	2620	4822 124 41829	1000µF 20% 6.3V
2303	4822 126 13482	470nF 80/20% 16V	2621	4822 124 11445	47µF 20% 10V
2304	5322 122 32654	22nF 10% 63V	2622	4822 124 80865	10µF 20% 25V
2305	4822 126 13482	470nF 80/20% 16V	2623	4822 124 80865	10µF 20% 25V
2321	5322 122 32654	22nF 10% 63V	2650	5322 122 32654	22nF 10% 63V
2322	5322 122 32654	22nF 10% 63V	2651	5322 122 32654	22nF 10% 63V
2323	5322 122 32654	22nF 10% 63V	2652	5322 122 32654	22nF 10% 63V
2324	5322 122 32654	22nF 10% 63V	2653	5322 122 32654	22nF 10% 63V
2325	4822 126 13692	47pF 1% 63V	2654	5322 122 32531	100pF 5% 50V
2326	4822 126 13692	47pF 1% 63V	2655	5322 122 32531	100pF 5% 50V
2327	4822 122 33177	10nF 20% 50V	2656	5322 126 10184	680P 5% 50V.
2329	5322 122 32654	22nF 10% 63V	2657	5322 126 10184	680P 5% 50V.
2330	4822 126 13296	100nF 10% 16V	2658	5322 122 32654	22nF 10% 63V
2334	5322 122 32654	22nF 10% 63V	2659	5322 122 32654	22nF 10% 63V
2336	4822 126 13692	47pF 1% 63V	2660	5322 122 32654	22nF 10% 63V
2339	4822 124 11445	47µF 20% 10V	2661	5322 122 32654	22nF 10% 63V
2340	5322 122 32654	22nF 10% 63V	2662	5322 122 32654	22nF 10% 63V
2341	5322 122 32654	22nF 10% 63V	2663	4822 124 41579	10µF 20% 50V
2342	5322 122 32654	22nF 10% 63V	2664	4822 124 41829	1000µF 20% 6.3V
2350	4822 126 12105	33nF 5% 63V	2665	4822 124 80865	10µF 20% 25V
2400	5322 122 32654	22nF 10% 63V	2666	4822 124 80865	10µF 20% 25V
2403	5322 122 32654	22nF 10% 63V	2667	4822 124 40246	4.7µF 20% 63V DXH=5X11
2404	5322 122 32654	22nF 10% 63V	2668	4822 124 40246	4.7µF 20% 63V DXH=5X11
2405	4822 124 42242	330µF 20% 6.3V	2670	5322 122 32531	100pF 5% 50V
2406	5322 122 32654	22nF 10% 63V	2671	5322 122 32531	100pF 5% 50V
2436	4822 124 80483	47µF 20% 6.3V	2672	5322 122 32531	100pF 5% 50V
2437	4822 124 80483	47µF 20% 6.3V	2673	5322 122 32531	100pF 5% 50V
2439	4822 124 80483	47µF 20% 6.3V	2674	5322 122 32531	100pF 5% 50V
2442	4822 124 80483	47µF 20% 6.3V	2675	5322 122 32531	100pF 5% 50V
2462	4822 124 80483	47µF 20% 6.3V	2676	5322 122 32531	100pF 5% 50V
2463	4822 124 80483	47µF 20% 6.3V	2677	5322 122 32531	100pF 5% 50V
2464	5322 122 32654	22nF 10% 63V	RESISTORS		
2465	5322 122 34123	1nF 10% 50V	3108	4822 051 20472	4k7 5% 0.1W
2466	4822 126 12102	330 nF 10% 16V 0603	3109	4822 117 10834	47k 1% 0.1W
2467	4822 126 12105	33nF 5% 63V	3111	4822 051 20184	180k 5% 0.1W
2468	5322 122 32654	22nF 10% 63V	3112	4822 051 20474	470k 5% 0.1W
2469	4822 126 13296	100nF 10% 16V	3120	4822 051 20273	27k 5% 0.1W
2470	5322 122 34123	1nF 10% 50V	3121	4822 051 20474	470k 5% 0.1W
2501	4822 124 41579	10µF 20% 50V	3122	4822 051 20223	22k 5% 0.1W
2502	4822 126 12105	33nF 5% 63V	3123	4822 051 20223	22k 5% 0.1W
2503	4822 126 12105	33nF 5% 63V	3124	4822 051 20333	33k 5% 0.1W
2504	5322 122 32654	22nF 10% 63V	3133	4822 051 20105	1M 5% 0.1W
2505	5322 122 33538	150pF 2% 63V			
2506	5322 122 32654	22nF 10% 63V	3134	4822 051 20333	33k 5% 0.1W
2507	5322 122 32654	22nF 10% 63V	3135	4822 051 20153	15k 5% 0.1W
2509	5322 122 32654	22nF 10% 63V	3136	4822 117 10833	10k 1% 0.1W
2510	5322 122 32531	100pF 5% 50V	3137	4822 051 20153	15k 5% 0.1W
2511	5322 122 32531	100pF 5% 50V	3138	4822 117 10833	10k 1% 0.1W
2512	5322 122 32659	33pF 5% 50V	3139	4822 051 20752	7k5 5% 0.1W
2513	5322 122 32659	33pF 5% 50V	3140	4822 117 10834	47k 1% 0.1W
2600	5322 122 32654	22nF 10% 63V	3142	4822 117 10833	10k 1% 0.1W
2601	5322 122 32654	22nF 10% 63V	3143	4822 051 20105	1M 5% 0.1W
2602	5322 122 32654	22nF 10% 63V	3144	4822 117 10833	10k 1% 0.1W
2603	5322 122 32654	22nF 10% 63V			
2604	5322 122 32654	22nF 10% 63V	3149	4822 117 11449	2k2 1% 0.1W
2605	5322 122 32654	22nF 10% 63V	3152	4822 051 20104	100k 5% 0.1W
2606	5322 122 32654	22nF 10% 63V	3153	4822 051 10102	1k 2% 0.25W
2607	5322 122 32654	22nF 10% 63V	3154	4822 051 10102	1k 2% 0.25W
2608	5322 122 32654	22nF 10% 63V	3155	4822 051 20105	1M 5% 0.1W
2609	5322 122 32654	22nF 10% 63V	3156	4822 051 20101	100Ω 5% 0.1W
2610	5322 122 32654	22nF 10% 63V	3157	4822 051 20101	100Ω 5% 0.1W
2611	4822 126 13694	68pF 1% 63V	3158	4822 051 20101	100Ω 5% 0.1W
2612	4822 126 13694	68pF 1% 63V	3160	4822 051 20223	22k 5% 0.1W
2613	5322 122 32654	22nF 10% 63V	3161	4822 051 20105	1M 5% 0.1W
2614	5322 122 32654	22nF 10% 63V			
2615	4822 124 40246	4.7µF 20% 63V DXH=5X11	3162	4822 051 20105	1M 5% 0.1W
2616	4822 124 40246	4.7µF 20% 63V DXH=5X11	3163	4822 051 20393	39k 5% 0.1W
			3164	4822 051 20223	22k 5% 0.1W

3165	4822 051 20101	100Ω 5% 0.1W	3242	4822 051 20105	1M 5% 0.1W
3166	4822 051 20393	39k 5% 0.1W	3243	4822 051 20564	560k 5% 0.1W
3168	4822 051 20101	100Ω 5% 0.1W	3244	4822 117 11449	2k2 1% 0.1W
3169	4822 051 20101	100Ω 5% 0.1W	3245	4822 051 20104	100k 5% 0.1W
3171	4822 051 20121	120Ω 5% 0.1W	3246	4822 051 20394	390k 5% 0.1W
3172	4822 051 20105	1M 5% 0.1W	3247	4822 117 11503	220Ω 1% 0.1W
3173	4822 051 20101	100Ω 5% 0.1W	3248	4822 051 20223	22k 5% 0.1W
			3249	4822 051 20104	100k 5% 0.1W
3174	4822 051 20101	100Ω 5% 0.1W			
3175	4822 051 20101	100Ω 5% 0.1W	3250	4822 051 20101	100Ω 5% 0.1W
3176	4822 051 20101	100Ω 5% 0.1W	3251	4822 051 20223	22k 5% 0.1W
3177	4822 051 20101	100Ω 5% 0.1W	3252	4822 051 20223	22k 5% 0.1W
3178	4822 051 20223	22k 5% 0.1W	3253	4822 051 20223	22k 5% 0.1W
3179	4822 051 20101	100Ω 5% 0.1W	3254	4822 051 20472	4k7 5% 0.1W
3180	4822 117 10833	10k 1% 0.1W	3255	4822 117 11449	2k2 1% 0.1W
3181	4822 051 20562	5k6 5% 0.1W 0805	3256	4822 051 20339	33Ω 5% 0.1W
3182	4822 051 20562	5k6 5% 0.1W 0805	3257	4822 051 20339	33Ω 5% 0.1W
3183	4822 051 20472	4k7 5% 0.1W	3259	4822 117 10833	10k 1% 0.1W
			3260	4822 117 11139	1k5 1% 0.1W
3184	4822 051 20101	100Ω 5% 0.1W			
3185	4822 051 20101	100Ω 5% 0.1W	3261	4822 117 11449	2k2 1% 0.1W
3186	4822 117 10833	10k 1% 0.1W	3262	4822 051 20101	100Ω 5% 0.1W
3187	4822 051 10102	1k 2% 0.25W	3263	4822 117 10834	47k 1% 0.1W
3188	4822 117 10833	10k 1% 0.1W	3264	4822 051 10102	1k 2% 0.25W
3189	4822 051 20109	10Ω 5% 0.1W	3265	4822 051 10102	1k 2% 0.25W
3190	4822 117 10833	10k 1% 0.1W	3266	4822 051 10102	1k 2% 0.25W
3191	4822 051 20562	5k6 5% 0.1W 0805	3267	4822 117 10833	10k 1% 0.1W
3192	4822 051 20562	5k6 5% 0.1W 0805	3268	4822 051 20392	3k9 5% 0.1W
3193	4822 051 20472	4k7 5% 0.1W	3269	4822 051 10102	1k 2% 0.25W
			3270	4822 117 10965	18k 1% 0.1W
3194	4822 051 20101	100Ω 5% 0.1W			
3195	4822 051 20101	100Ω 5% 0.1W	3271	4822 117 10965	18k 1% 0.1W
3196	5322 117 11726	10Ω 5%	3272	4822 117 10965	18k 1% 0.1W
3201	4822 051 20223	22k 5% 0.1W	3273	4822 051 10102	1k 2% 0.25W
3202	4822 051 20393	39k 5% 0.1W	3274	4822 117 10965	18k 1% 0.1W
3203	4822 051 20109	10Ω 5% 0.1W	3275	4822 051 20223	22k 5% 0.1W
3204	4822 117 11454	820Ω 1% 0.1W	3276	4822 051 20223	22k 5% 0.1W
3205	4822 117 11504	270Ω 1% 0.1W	3277	4822 051 20223	22k 5% 0.1W
3206	4822 051 20105	1M 5% 0.1W	3279	4822 051 10102	1k 2% 0.25W
3208	4822 051 20229	22Ω 5% 0.1W	3280	4822 051 10102	1k 2% 0.25W
			3281	4822 051 10102	1k 2% 0.25W
3209	4822 051 20223	22k 5% 0.1W			
3210	4822 051 20393	39k 5% 0.1W	3282	4822 051 10102	1k 2% 0.25W
3211	4822 051 20109	10Ω 5% 0.1W	3283	4822 051 10102	1k 2% 0.25W
3212	4822 117 11454	820Ω 1% 0.1W	3284	4822 051 20479	47Ω 5% 0.1W
3213	4822 051 20472	4k7 5% 0.1W	3285	4822 051 20562	5k6 5% 0.1W 0805
3215	4822 117 10833	10k 1% 0.1W	3286	4822 051 20562	5k6 5% 0.1W 0805
3216	4822 051 20101	100Ω 5% 0.1W	3287	4822 051 10102	1k 2% 0.25W
3217	4822 051 20101	100Ω 5% 0.1W	3288	4822 051 10102	1k 2% 0.25W
3218	4822 051 20101	100Ω 5% 0.1W	3289	4822 051 20479	47Ω 5% 0.1W
3219	4822 051 20101	100Ω 5% 0.1W	3290	4822 051 20562	5k6 5% 0.1W 0805
			3291	4822 051 20562	5k6 5% 0.1W 0805
3220	4822 051 20101	100Ω 5% 0.1W			
3221	4822 051 20472	4k7 5% 0.1W	3292	4822 051 10102	1k 2% 0.25W
3222	4822 051 20101	100Ω 5% 0.1W	3293	4822 051 10102	1k 2% 0.25W
3223	4822 051 20229	22Ω 5% 0.1W	3294	4822 051 20479	47Ω 5% 0.1W
3224	4822 051 10102	1k 2% 0.25W	3295	4822 051 20562	5k6 5% 0.1W 0805
3225	4822 051 10102	1k 2% 0.25W	3296	4822 051 20562	5k6 5% 0.1W 0805
3226	4822 117 11454	820Ω 1% 0.1W	3297	4822 117 11503	220Ω 1% 0.1W
3227	4822 051 20561	560Ω 5% 0.1W	3298	4822 117 11503	220Ω 1% 0.1W
3228	4822 117 10833	10k 1% 0.1W	3299	4822 051 20229	22Ω 5% 0.1W
3229	4822 117 10833	10k 1% 0.1W	3300	4822 051 20104	100k 5% 0.1W
			3301	4822 051 20684	680k 5% 0.1W
3230	4822 051 20472	4k7 5% 0.1W			
3231	4822 117 11751	16k RC12H 1% 0805	3302	4822 051 20471	470Ω 5% 0.1W
3232	4822 117 11145	4k7 1% 0.1W	3303	4822 051 10102	1k 2% 0.25W
3233	4822 117 10839	130k 1% 0.1W	3304	4822 051 20104	100k 5% 0.1W
3234	4822 117 10833	10k 1% 0.1W	3305	4822 051 20684	680k 5% 0.1W
3235	4822 117 11751	16k RC12H 1% 0805	3306	4822 051 20471	470Ω 5% 0.1W
3236	4822 117 11145	4k7 1% 0.1W	3307	4822 051 10102	1k 2% 0.25W
3237	4822 117 10833	10k 1% 0.1W	3312	4822 117 10833	10k 1% 0.1W
3238	4822 117 10833	10k 1% 0.1W	3313	4822 117 10833	10k 1% 0.1W
3239	4822 117 10839	130k 1% 0.1W	3314	4822 117 10833	10k 1% 0.1W
			3316	4822 117 10833	10k 1% 0.1W
3240	4822 117 10839	130k 1% 0.1W			
3241	4822 051 20472	4k7 5% 0.1W	3318	4822 117 10833	10k 1% 0.1W

3322	4822 117 10833	10k 1% 0.1W
3323	4822 051 20105	1M 5% 0.1W
3326	4822 051 20104	100k 5% 0.1W
3327	4822 117 10833	10k 1% 0.1W
3328	4822 117 11507	6k8 1% 0.1W
3330	4822 051 20101	100Ω 5% 0.1W
3332	4822 051 10102	1k 2% 0.25W
3333	4822 051 10102	1k 2% 0.25W
3334	4822 117 10833	10k 1% 0.1W
3350	4822 051 20472	4k7 5% 0.1W
3361	4822 117 10833	10k 1% 0.1W
3362	4822 117 10833	10k 1% 0.1W
3363	4822 117 10833	10k 1% 0.1W
3364	4822 117 10833	10k 1% 0.1W
3380	4822 117 10833	10k 1% 0.1W
3443	4822 051 20223	22k 5% 0.1W
3444	4822 117 10833	10k 1% 0.1W
3447	4822 117 10834	47k 1% 0.1W
3449	4822 051 20104	100k 5% 0.1W
3450	4822 051 20104	100k 5% 0.1W
3451	4822 051 20101	100Ω 5% 0.1W
3452	4822 117 10833	10k 1% 0.1W
3453	4822 117 10833	10k 1% 0.1W
3462	4822 051 20223	22k 5% 0.1W
3463	4822 051 20223	22k 5% 0.1W
3464	4822 117 11504	270Ω 1% 0.1W
3470	4822 051 20562	5k6 5% 0.1W 0805
3471	4822 051 20562	5k6 5% 0.1W 0805
3472	4822 051 20562	5k6 5% 0.1W 0805
3473	4822 051 20562	5k6 5% 0.1W 0805
3503	4822 051 20689	68Ω 5% 0.1W
3504▲	4822 117 11152	4Ω7 5%
3505	4822 051 20332	3k3 5% 0.1W
3506	4822 051 20332	3k3 5% 0.1W
3507▲	4822 117 11152	4Ω7 5%
3508	4822 051 20759	75Ω 5% 0.1W
3509	4822 051 20104	100k 5% 0.1W
3510	4822 051 20104	100k 5% 0.1W
3511	4822 117 11373	100Ω 1% RC12H 0805
3512	4822 1' 7 11449	2k2 1% 0.1W
3513	4822 1' 7 11373	100Ω 1% RC12H 0805
3514	4822 1' 7 11449	2k2 1% 0.1W
3515	4822 1' 7 11373	100Ω 1% RC12H 0805
3516	4822 1' 7 11449	2k2 1% 0.1W
3517	4822 1' 7 11373	100Ω 1% RC12H 0805
3518	4822 1' 7 11449	2k2 1% 0.1W
3602	4822 1' 7 10833	10k 1% 0.1W
3603	4822 1' 7 10833	10k 1% 0.1W
3604	4822 1' 7 10833	10k 1% 0.1W
3606	4822 1' 7 10833	10k 1% 0.1W
3608	4822 1' 7 11188	20k 1% 0.1W
3609	4822 1' 7 10833	10k 1% 0.1W
3610	4822 1' 7 13472	5k1 1% 0805 RC12H R3
3611	4822 1' 7 12955	2k7 1% 0.1W 0805
3612	4822 1' 7 10833	10k 1% 0.1W
3613	4822 1' 7 10833	10k 1% 0.1W
3614	4822 1' 7 10833	10k 1% 0.1W
3615	4822 1' 7 11188	20k 1% 0.1W
3616	4822 1' 7 10833	10k 1% 0.1W
3617	4822 117 13472	5k1 1% 0805 RC12H R3
3618	4822 117 12955	2k7 1% 0.1W 0805
3620	4822 117 10833	10k 1% 0.1W
3621	4822 051 20104	100k 5% 0.1W
3622	4822 117 10833	10k 1% 0.1W
3623	4822 051 20104	100k 5% 0.1W
3624	4822 117 10833	10k 1% 0.1W
3625	4822 117 10833	10k 1% 0.1W
3626	4822 051 20334	330k 5% 0.1W
3627	4822 117 10833	10k 1% 0.1W

3628	4822 117 10833	10k 1% 0.1W
3629	4822 051 20334	330k 5% 0.1W
3630	4822 117 11188	20k 1% 0.1W
3631	4822 117 11504	270Ω 1% 0.1W
3632	4822 117 11504	270Ω 1% 0.1W
3633	4822 117 11504	270Ω 1% 0.1W
3635	4822 117 11188	20k 1% 0.1W
3636	4822 117 11188	20k 1% 0.1W
3650	4822 117 10362	7k5 1% 0.1W
3651	4822 051 20104	100k 5% 0.1W
3652	4822 051 20104	100k 5% 0.1W
3653	4822 117 10362	7k5 1% 0.1W
3654	4822 051 20104	100k 5% 0.1W
3658	4822 051 20104	100k 5% 0.1W
3659	4822 117 10833	10k 1% 0.1W
3660	4822 117 10833	10k 1% 0.1W
3661	4822 117 11437	8k2 1% 0.1W
3662	4822 117 11437	8k2 1% 0.1W
3663	4822 117 13085	5k6 1% RC12H 0.1W 0805
3664	4822 117 13085	5k6 1% RC12H 0.1W 0805

3665	4822 051 20223	22k 5% 0.1W
3666	4822 051 20223	22k 5% 0.1W
3667	4822 117 10834	47k 1% 0.1W
3670	4822 051 20121	120Ω 5% 0.1W
3671	4822 117 11449	2k2 1% 0.1W
3672	4822 117 11449	2k2 1% 0.1W
3673	4822 051 20121	120Ω 5% 0.1W
3680▲	4822 117 11152	4Ω7 5%
3681▲	4822 117 11152	4Ω7 5%
3900	4822 051 20008	0Ω JUMP. (0805)

3901	4822 051 20008	0Ω JUMP. (0805)
3902	4822 051 20008	0Ω JUMP. (0805)
3903	4822 051 20008	0Ω JUMP. (0805)
3904	4822 051 20008	0Ω JUMP. (0805)
3905	4822 051 20008	0Ω JUMP. (0805)
3906	4822 051 20008	0Ω JUMP. (0805)
3908	4822 051 20008	0Ω JUMP. (0805)
3911	4822 051 20008	0Ω JUMP. (0805)
3920	4822 051 20008	0Ω JUMP. (0805)
3921	4822 051 20101	100Ω 5% 0.1W

3922	4822 051 20101	100Ω 5% 0.1W
3923	4822 117 10834	47k 1% 0.1W
3924	4822 117 10833	10k 1% 0.1W
3925	4822 117 10833	10k 1% 0.1W
3928	4822 117 10833	10k 1% 0.1W
3929	4822 117 10833	10k 1% 0.1W
3930	4822 117 10833	10k 1% 0.1W
3932	4822 117 10833	10k 1% 0.1W
3933	4822 117 10833	10k 1% 0.1W

COILS

5104	4822 157 71659	100μH 15% 7A06L
5105▲	4822 157 71206	BLM21A601SPT
5106	4822 157 71658	27μH 15% 7A06L
5107	4822 157 71658	27μH 15% 7A06L
5108	4822 157 71658	27μH 15% 7A06L
5109	4822 157 71658	27μH 15% 7A06L
5110	4822 157 71659	100μH 15% 7A06L
5111	4822 157 71659	100μH 15% 7A06L
5130▲	4822 157 71206	BLM21A601SPT
5132▲	4822 157 71206	BLM21A601SPT
5170▲	4822 157 71206	BLM21A601SPT
5176▲	4822 157 71206	BLM21A601SPT
5179▲	4822 157 71206	BLM21A601SPT
5210▲	4822 157 71206	BLM21A601SPT
5223▲	4822 157 71206	BLM21A601SPT
5245▲	4822 157 71206	BLM21A601SPT
5255▲	4822 157 71206	BLM21A601SPT
5301▲	4822 157 71206	BLM21A601SPT
5302▲	4822 157 71206	BLM21A601SPT

5303▲	4822 157 71206	BLM21A601SPT
5304▲	4822 157 71206	BLM21A601SPT
5310	4822 242 10958	NFM39R12C102T1
5311	4822 242 10958	NFM39R12C102T1
5312	4822 242 10958	NFM39R12C102T1
5313	4822 242 10958	NFM39R12C102T1
5314	4822 242 10958	NFM39R12C102T1
5315	4822 242 10958	NFM39R12C102T1
5420	4822 242 82201	DSS306-92F223Z16
5421	4822 157 11716	BLM21P300SPT
5422	4822 242 82201	DSS306-92F223Z16
5423	4822 157 11716	BLM21P300SPT
5424	4822 242 82201	DSS306-92F223Z16
5425	4822 157 11716	BLM21P300SPT
5430▲	4822 157 71206	BLM21A601SPT
5450	4822 157 70601	100μH (920927085A)
5600▲	4822 157 71206	BLM21A601SPT
5601▲	4822 157 71206	BLM21A601SPT
5602▲	4822 157 71206	BLM21A601SPT
5604▲	4822 157 71206	BLM21A601SPT
5605▲	4822 157 71206	BLM21A601SPT
5606▲	4822 157 71206	BLM21A601SPT
5651▲	4822 157 71206	BLM21A601SPT
5652▲	4822 157 71206	BLM21A601SPT
5653▲	4822 157 71206	BLM21A601SPT
5654▲	4822 157 71206	BLM21A601SPT

DIODES

6120	4822 130 10654	BAT254
6130	4822 130 11397	BAS316
6140	4822 130 11397	BAS316
6141	4822 130 11397	BAS316
6155	4822 130 10654	BAT254
6185	4822 130 11397	BAS316
6186	4822 130 11397	BAS316
6285	4822 130 11397	BAS316
6286	4822 130 11397	BAS316
6290	4822 130 11397	BAS316
6291	4822 130 11397	BAS316
6295	4822 130 11397	BAS316
6296	4822 130 11397	BAS316
6300	4822 130 11397	BAS316
6301	4822 130 11397	BAS316
6432	4822 130 11397	BAS316
6600	4822 130 11383	BZX284-C5V1

TRANSISTORS & INTEGRATED CIRCUITS

7105	4822 209 15602	SZA1010T/K1
7120	5322 130 44787	BFR31
7121	5322 130 60508	BC857B
7130	4822 209 33421	OQ8845
7150	4822 209 30732	LM319D
7170	4822 209 14785	SERVO CONTROLLER V 2.1
7182	5322 130 60508	BC857B
7183	4822 130 60142	BC869
7185	5322 130 61569	BC868
7186	4822 130 60511	BC847B
7192	5322 130 60508	BC857B
7193	4822 130 60142	BC869
7195	5322 130 61569	BC868
7200	4822 130 60511	BC847B
7205	4822 209 60792	74HC4053D
7209	4822 130 60511	BC847B
7210	4822 209 16438	CD65WD
7223	5322 130 42718	BFS20
7224	4822 130 60383	BF824
7225	5322 130 42718	BFS20
7230	5322 209 61482	PC74HC4066T
7235	4822 209 30095	LM833D

7240	5322 209 61482	PC74HC4066T
7241	5322 209 73179	74HCT74D
7245	4822 209 33417	TDA1371H/N1
7260	4822 209 60792	74HC4053D
7270	4822 209 31615	LM324AD
7271	4822 130 60511	BC847B
7272	5322 130 60508	BC857B
7280	4822 209 60792	74HC4053D
7282	4822 209 31615	LM324AD
7285	5322 209 61482	PC74HC4066T
7286	4822 130 60511	BC847B
7287	5322 130 60508	BC857B
7288	4822 130 60142	BC869
7289	5322 130 61569	BC868
7290	4822 130 60511	BC847B
7291	5322 130 60508	BC857B
7292	4822 130 60142	BC869
7293	5322 130 61569	BC868
7294	4822 130 60511	BC847B
7295	5322 130 60508	BC857B
7296	4822 130 60142	BC869
7297	5322 130 61569	BC868
7300	4822 209 30095	LM833D
7301	4822 130 60511	BC847B
7302	4822 130 60511	BC847B
7310	4822 209 31275	MC34064D5
7320	4822 209 16834	MC68HC08AB0
7322	4822 209 16879	IC USER CDR765
7323	4822 209 16439	CY6264-70SNC
7325	5322 209 11548	74HC14D
7326	4822 130 60511	BC847B
7403	5322 209 61482	PC74HC4066T
7405	5322 209 73179	74HCT74D
7410	5322 209 61132	PC74HCT4052T
7411	5322 209 61132	PC74HCT4052T
7445	5322 130 60508	BC857B
7446	5322 130 60508	BC857B
7447	4822 130 60511	BC847B
7448	4822 130 60511	BC847B
7465	4822 209 33395	TDA1315H/N2
7500	5322 209 11517	PC74HCU04T
7501	4822 130 60511	BC847B
7502	4822 130 60511	BC847B
7503	4822 130 60511	BC847B
7504	4822 130 60511	BC847B
7600	4822 209 30095	LM833D
7601	5322 209 61132	PC74HCT4052T
7602	4822 209 30095	LM833D
7603	4822 209 33397	SAA7366T
7604	4822 209 72042	L78L05ACZ
7605	4822 209 60792	74HC4053D
7610	4822 130 60511	BC847B
7611	4822 130 60511	BC847B
7650	4822 209 33403	TDA1305T/N2
7651	4822 209 30095	LM833D
7652	4822 209 82362	NJM4556D

**DISPLAY-HEADPHONE-CD OUT-
ON/OFF****MISCELLANEOUS**

1003/	4822 256 10506	FTD HOLDER
1201	4822 276 13114	TACT SWITCH
1202	4822 276 13114	TACT SWITCH
1203	4822 276 13114	TACT SWITCH
1204	4822 276 13114	TACT SWITCH
1205	4822 276 13114	TACT SWITCH
1206	4822 276 13114	TACT SWITCH
1207	4822 276 13114	TACT SWITCH
1208	4822 276 13114	TACT SWITCH
1209	4822 276 13114	TACT SWITCH
1210	4822 276 13114	TACT SWITCH
1211	4822 276 13114	TACT SWITCH
1212	4822 276 13114	TACT SWITCH
1213	4822 276 13114	TACT SWITCH
1230	4822 242 10753	CSTCS8,00MT-TC
1240	4822 276 13114	TACT SWITCH
1241	4822 276 13114	TACT SWITCH
1242	4822 276 13114	TACT SWITCH
1243	4822 276 13114	TACT SWITCH
1244	4822 276 13114	TACT SWITCH
1245	4822 276 13114	TACT SWITCH
1246	4822 276 13114	TACT SWITCH
1247	4822 276 13114	TACT SWITCH
1248	4822 276 13114	TACT SWITCH
1249	4822 276 13114	TACT SWITCH
1250	4822 276 13114	TACT SWITCH
1290	4822 267 31453	HEADPHONE SOCKET
1295	4822 276 14007	ON/OFF SWITCH
1305	4822 267 31729	DIGITAL OUT CINCH CD
1306	4822 265 11406	ANALOG OUT CINCH CD

CAPACITORS

2200	5322 122 32654	22nF 10% 63V
2201	5322 122 32658	22pF 5% 50V
2202	5322 122 32658	22pF 5% 50V
2203	5322 122 32654	22nF 10% 63V
2204	5322 122 32658	22pF 5% 50V
2205	5322 122 32658	22pF 5% 50V
2206	4822 126 12105	33nF 5% 63V
2207	5322 122 32654	22nF 10% 63V
2300	4822 124 11947	10μF 20% 16V
2301	4822 126 12105	33nF 5% 63V
2302	4822 126 12105	33nF 5% 63V
2303	4822 122 33575	220pF 5% 50V
2304	4822 122 33575	220pF 5% 50V

RESISTORS

3200	4822 051 20393	39k 5% 0.1W
3201	4822 051 10102	1k 2% 0.25W
3202	4822 051 10102	1k 2% 0.25W
3205	4822 051 20101	100Ω 5% 0.1W
3206	4822 051 20101	100Ω 5% 0.1W
3207	4822 051 20472	4k7 5% 0.1W
3208	4822 051 20472	4k7 5% 0.1W
3209	4822 051 20472	4k7 5% 0.1W
3210	4822 051 20472	4k7 5% 0.1W
3211	4822 051 20472	4k7 5% 0.1W
3212	4822 051 20472	4k7 5% 0.1W
3213	4822 051 20472	4k7 5% 0.1W
3214	4822 051 20472	4k7 5% 0.1W
3215	4822 051 20008	0Ω JUMP. (0805)
3216	4822 051 20008	0Ω JUMP. (0805)
3217	4822 117 11449	2k2 1% 0.1W
3300	4822 051 20689	68Ω 5% 0.1W

3301	4822 11	11448	180Ω 1% 0.1W
3302	4822 11	11449	2k2 1% 0.1W
3303	4822 11	11448	180Ω 1% 0.1W

3304	4822 117	11449	2k2 1% 0.1W
4xxx	4822 051	10008	0Ω 5% 0.25W

COILS

5280	4822 242	10805	NFM41R10C102T3
5281	4822 242	10805	NFM41R10C102T3
5300	4822 157	70601	100μH (920927085A)

DIODES

6200	4822 212	30842	TSOP1736SB1
6201	4822 130	10756	BZX284-C2V7

INTEGRATED CIRCUITS

7200	4822 209	16055	TMP87PM74ZF
7205	4822 135	00245	BJ626GK
7501	4822 130	60511	BC847B
7503	4822 130	60511	BC847B

CD MAIN BOARD**MISCELLANEOUS**

1001	4822 267 51451	FLEX CONN 16P (CDM)
1200	4822 265 11414	FLEX CONN 22P

CAPACITORS

2102	4822 126 13196	100nF 10% 0805 25V
2103	5322 126 10223	4.7nF 10% 63V
2104	4822 122 33806	820pF 10% 63V
2105	5322 122 31865	1.5nF 10% 63V
2106	4822 126 12944	47nF 10% 50V
2107	4822 126 13692	47pF 1% 63V
2108	4822 122 33175	2.2nF 20% 50V
2130	4822 126 13296	100nF 10% 16V
2131	5322 122 31865	1.5nF 10% 63V
2132	4822 126 13482	470nF 80/20% 16V

2140	4822 124 41796	22μF 20% 16V
2141	4822 126 13482	470nF 80/20% 16V
2142	4822 126 13482	470nF 80/20% 16V
2145	5322 116 80853	560pF 5% 63V
2146	4822 122 33575	220pF 5% 50V
2147	4822 122 33575	220pF 5% 50V
2149	4822 122 33575	220pF 5% 50V
2150	5322 122 31865	1.5nF 10% 63V
2151	4822 122 33575	220pF 5% 50V
2153	4822 122 33575	220pF 5% 50V

2155	4822 122 33575	220pF 5% 50V
2160	4822 124 41796	22μF 20% 16V
2161	4822 126 13196	100nF 10% 0805 25V
2162	4822 126 12104	12nF 5% 63V
2163	4822 126 13196	100nF 10% 0805 25V
2164	4822 124 81286	47μF 20% 16V
2165	4822 122 33177	10nF 20% 50V
2166	5322 122 31863	330pF 5% 50V
2167	5322 122 31863	330pF 5% 50V
2168	4822 124 41796	22μF 20% 16V

2169	4822 126 13196	100nF 10% 0805 25V
2170	5322 122 32654	22nF 10% 63V
2171	4822 124 81286	47μF 20% 16V
2172	4822 126 13196	100nF 10% 0805 25V
2173	5322 122 34123	1nF 10% 50V
2174	4822 126 13196	100nF 10% 0805 25V
2175	4822 126 13196	100nF 10% 0805 25V
2176	4822 126 13196	100nF 10% 0805 25V
2180	4822 124 81286	47μF 20% 16V
2181	4822 126 13196	100nF 10% 0805 25V

2182	4822 126 13196	100nF 10% 0805 25V
2183	4822 124 81286	47μF 20% 16V
2184	4822 124 81286	47μF 20% 16V
2185	4822 126 13196	100nF 10% 0805 25V
2186	4822 126 13196	100nF 10% 0805 25V
2187	4822 124 81286	47μF 20% 16V
2188	4822 124 81286	47μF 20% 16V
2189	4822 126 13196	100nF 10% 0805 25V
2193	4822 126 13692	47pF 1% 63V
2200	4822 126 13196	100nF 10% 0805 25V

2201	4822 122 33177	10nF 20% 50V
2202	4822 122 33177	10nF 20% 50V
2203	4822 122 33177	10nF 20% 50V
2204	5322 122 32654	22nF 10% 63V
2220	4822 126 13196	100nF 10% 0805 25V
2222	4822 124 41796	22μF 20% 16V
2240	4822 124 41796	22μF 20% 16V
2241	4822 124 41796	22μF 20% 16V
2242	4822 124 41796	22μF 20% 16V
2243	4822 124 41796	22μF 20% 16V

2244	4822 126 13196	100nF 10% 0805 25V
2245	4822 124 12181	1000μF 20% 6.3V

2246	4822 126 13196	100nF 10% 0805 25V
2247	4822 126 13196	100nF 10% 0805 25V
2248	4822 126 13196	100nF 10% 0805 25V
2249	4822 124 22649	10μF 20% 16V
2250	5322 126 10184	680P 5% 50V.
2251	5322 126 10184	680P 5% 50V.
2252	5322 122 32531	100pF 5% 50V
2253	5322 122 32654	22nF 10% 63V

2254	5322 122 32654	22nF 10% 63V
2255	4822 124 12255	10μF 20% 50V
2256	4822 124 12255	10μF 20% 50V
2257	4822 124 80865	10μF 20% 25V
2258	4822 124 80865	10μF 20% 25V
2259	5322 122 32531	100pF 5% 50V
2261	4822 124 41796	22μF 20% 16V
2262	4822 124 41796	22μF 20% 16V

RESISTORS

3105	4822 051 20333	33k 5% 0.1W
3106	4822 117 10833	10k 1% 0.1W
3107	4822 051 20153	15k 5% 0.1W
3108	4822 051 10102	1k 2% 0.25W
3110	4822 051 20101	100Ω 5% 0.1W
3111	4822 051 20101	100Ω 5% 0.1W
3112	4822 051 20101	100Ω 5% 0.1W
3113	4822 051 10102	1k 2% 0.25W
3114	4822 051 20101	100Ω 5% 0.1W
3115	4822 051 20101	100Ω 5% 0.1W

3116	4822 117 10833	10k 1% 0.1W
3117	4822 051 10102	1k 2% 0.25W
3118	4822 117 10833	10k 1% 0.1W
3119	4822 051 20223	22k 5% 0.1W
3120	4822 051 20104	100k 5% 0.1W
3121	4822 051 20105	1M 5% 0.1W
3123	4822 051 20824	820k 5% 0.1W
3125	4822 051 20824	820k 5% 0.1W
3126	4822 051 20824	820k 5% 0.1W
3127	4822 051 20105	1M 5% 0.1W

3128	4822 117 10833	10k 1% 0.1W
3129	4822 117 10833	10k 1% 0.1W
3130	4822 051 20154	150k 5% 0.1W
3131	4822 117 10834	47k 1% 0.1W
3132	4822 051 20472	4k7 5% 0.1W
3133	4822 051 10102	1k 2% 0.25W
3134	4822 051 20104	100k 5% 0.1W
3135	4822 051 20472	4k7 5% 0.1W
3136	4822 051 10102	1k 2% 0.25W
3137	4822 051 20104	100k 5% 0.1W

3138	4822 1 7 10833	10k 1% 0.1W
3140▲	4822 1 7 11152	4Ω 7 5%
3144	4822 1 7 10833	10k 1% 0.1W
3146	4822 1 7 10833	10k 1% 0.1W
3148	4822 1 7 10833	10k 1% 0.1W
3150	4822 1 7 10833	10k 1% 0.1W
3152	4822 1 7 10833	10k 1% 0.1W
3154	4822 1 7 10833	10k 1% 0.1W
3156	4822 1 7 10833	10k 1% 0.1W
3160	4822 1 7 11504	270Ω 1% 0.1W

3161	4822 117 11504	270Ω 1% 0.1W
3162	4822 051 20681	680Ω 5% 0.1W
3163	4822 117 11383	12k 1% 0.1W
3164	4822 117 11383	12k 1% 0.1W
3165▲	4822 117 11151	1Ω 5%
3166	4822 117 11383	12k 1% 0.1W
3167	4822 117 11454	820Ω 1% 0.1W
3168	4822 117 11383	12k 1% 0.1W
3169	4822 051 20154	150k 5% 0.1W
3170	4822 051 20008	0Ω JUMP. (0805)

3171	4822 117 11504	270Ω 1% 0.1W
3172	4822 117 11504	270Ω 1% 0.1W

3173	4822 117 11454	820Ω 1% 0.1W
3174	4822 051 20223	22k 5% 0.1W
3175▲	4822 117 11151	1Ω 5%
3176	4822 051 20182	1k8 5% 0.1W
3177	4822 117 10834	47k 1% 0.1W
3178	4822 117 10834	47k 1% 0.1W
3180▲	4822 117 11748	2Ω2 1206 5% FUSE
3181▲	4822 117 11748	2Ω2 1206 5% FUSE

3182▲	4822 117 11748	2Ω2 1206 5% FUSE
3183▲	4822 117 11748	2Ω2 1206 5% FUSE
3184▲	4822 117 11748	2Ω2 1206 5% FUSE
3185	4822 051 20223	22k 5% 0.1W
3186	4822 051 20223	22k 5% 0.1W
3188	4822 117 10834	47k 1% 0.1W
3189	4822 051 20008	0Ω JUMP. (0805)
3191	4822 051 20101	100Ω 5% 0.1W
3193	4822 051 20101	100Ω 5% 0.1W
3194	4822 117 10833	10k 1% 0.1W

3195	4822 051 20008	0Ω JUMP. (0805)
3200	4822 117 10833	10k 1% 0.1W
3201	4822 051 20562	5k6 5% 0.1W 0805
3202	4822 051 20562	5k6 5% 0.1W 0805
3203	4822 051 20472	4k7 5% 0.1W
3204	4822 051 20101	100Ω 5% 0.1W
3205	4822 051 20101	100Ω 5% 0.1W
3206▲	5322 117 11726	10Ω 5%
3207	4822 051 20472	4k7 5% 0.1W
3208	4822 117 10833	10k 1% 0.1W

3209	4822 051 20562	5k6 5% 0.1W 0805
3210	4822 051 20562	5k6 5% 0.1W 0805
3211	4822 051 20101	100Ω 5% 0.1W
3212	4822 051 20101	100Ω 5% 0.1W
3213	4822 051 20223	22k 5% 0.1W
3214	4822 051 20101	100Ω 5% 0.1W
3215	4822 051 20101	100Ω 5% 0.1W
3216	4822 051 20101	100Ω 5% 0.1W
3217	4822 051 20101	100Ω 5% 0.1W
3220	4822 117 10833	10k 1% 0.1W

3221	4822 117 10833	10k 1% 0.1W
3222	4822 117 10833	10k 1% 0.1W
3223▲	4822 117 11748	2Ω2 1206 5% FUSE
3224	4822 117 10833	10k 1% 0.1W
3225	4822 117 10833	10k 1% 0.1W
3226	4822 051 20223	22k 5% 0.1W
3228	4822 051 20223	22k 5% 0.1W
3229	4822 051 20105	1M 5% 0.1W
3240	4822 051 20223	22k 5% 0.1W
3241	4822 051 20223	22k 5% 0.1W

3246	4822 117 13085	5k6 1% RC12H 0.1W 0805
3247	4822 117 13085	5k6 1% RC12H 0.1W 0805
3248	4822 117 11437	8k2 1% 0.1W
3249	4822 117 10833	10k 1% 0.1W
3250	4822 117 11437	8k2 1% 0.1W
3251	4822 117 10833	10k 1% 0.1W
3252	4822 051 20104	100k 5% 0.1W
3253	4822 051 20104	100k 5% 0.1W
4xxx	4822 051 10008	0Ω 5% 0.25W

COILS

5220	4822 157 11405	NFM41R00C221T3
5221	4822 157 11405	NFM41R00C221T3
5222	4822 157 11405	NFM41R00C221T3
5223	4822 157 11405	NFM41R00C221T3
5230	5322 242 73686	CST12.00MTW-TF01
5240	4822 242 82201	DSS306-92F223Z16
5241	4822 242 82201	DSS306-92F223Z16
5242	4822 242 82201	DSS306-92F223Z16
5243	4822 157 11405	NFM41R00C221T3
5244	4822 157 11405	NFM41R00C221T3

5245	4822 157 11405	NFM41R00C221T3
5246	4822 157 11405	NFM41R00C221T3
5247	4822 157 11405	NFM41R00C221T3
5248▲	4822 157 71206	BLM21A601SPT
5249▲	4822 157 71206	BLM21A601SPT
5250▲	4822 157 71206	BLM21A601SPT
5251▲	4822 157 71206	BLM21A601SPT
5260▲	4822 157 71206	BLM21A601SPT

DIODES

6130	4822 130 11397	BAS316
6200	5322 130 80214	BAS28

TRANSISTORS & INTEGRATED CIRCUITS

7104	4822 130 60511	BC847B
7105	5322 130 60803	BST72A
7106	5322 130 60508	BC857B
7107	4822 130 60511	BC847B
7108	4822 130 60511	BC847B
7109	5322 209 11517	PC74HCU04T
7110	4822 130 60511	BC847B
7111	4822 130 60511	BC847B
7130	4822 130 60511	BC847B
7131	5322 130 60508	BC857B

7132	4822 130 60511	BC847B
7160	4822 209 32852	TDA7073A/N2
7161	4822 209 32852	TDA7073A/N2
7180	4822 209 90341	SAA7372GP/M1
7200	5322 130 60508	BC857B
7201	4822 130 60142	BC869
7202	5322 130 61569	BC868
7203	4822 130 60142	BC869
7204	5322 130 60508	BC857B
7205	5322 130 61569	BC868
7206	4822 130 60511	BC847B
7220	4822 209 16881	MICROPROC. P8XC654XXA
7240	4822 209 33403	TDA1305T/N2
7241	4822 209 30095	LM833D

CONNECTIONS

8001	4822 320 12451	CWAS FLEX CDR 20P
8005	4822 320 12475	CWAS FLEX CDR 22P

POWER SUPPLY**MISCELLANEOUS**

1003	4822 218 11938	PSU ASSY 20PS314/00
1003	4822 218 11967	PSU ASSY 20PS314/17
4▲	4822 265 31015	MAINS INLET /00
4▲	4822 265 31016	MAINS INLET /17
9▲	4822 256 92053	FUSE HOLDER CLICK (PROM)
1120▲	4822 070 32002	FUSE 218002.(2A)
1125	4822 252 60151	DSP-501N-A21F A

CAPACITORS

2101	4822 126 13695	82pF 1% NP0 63V
2102	5322 126 10511	1nF 5%NP0 50V
2103	5322 122 32268	470pF 10% 50V
2104	5322 126 10223	4,7nF10%X7R 63V
2109	5322 122 31865	1,5nF10%X7R 63V
2110	4822 124 41576	2,2μF 20% 50V
2111	4822 126 13196	100nF 10% 0805 X7R 25V
2113	4822 122 33127	2,2nF10%X7R 63V
2114	4822 126 13196	100nF 10% 0805 X7R 25V
2120	4822 121 10799	330nF 20% MPP 250V
2121	4822 124 12281	150μF 20% 400V(all versions except /17 USA)
2121	4822 124 12293	330μF 20% 250V(/17 version)
2125	4822 121 51598	2,2nF 5% 400V
2126	4822 121 51598	2,2nF 5% 400V
2127	4822 126 14496	470pF 10% 1KV
2129	4822 124 81024	4,7μF20% 50V
2131▲	4822 126 14497	2,2nF 20% 250V
2133	4822 124 12062	100uF 20% 25V
2201	4822 126 13196	100nF 10% 0805 X7R 25V
2202	5322 122 32654	22nF10%X7R 63V
2203	4822 124 40248	10μF20% 63V
2210	4822 124 12282	2200μF 20% YK 10V
2211	4822 122 31173	220pF 10% 500V
2212	4822 121 43526	47nF 5% 250V
2220	4822 124 40849	330μF 20% 16V
2222	4822 124 12283	100μF 20% MS7 6.3V
2230	4822 124 81144	1000μF 16V
2240	4822 124 41545	220μF20% 16V
2242	4822 124 41584	100μF 20% 10V
2250	4822 124 40248	10μF20% 63V
2260	4822 122 31175	1nF 10% 500V

RESISTORS

3101	4822 116 52304	82k 5% 0,5W
3102	4822 051 20223	22k 5% 0,1W
3103	4822 051 20822	8k2 5% 0,1W
3104	4822 051 20153	15k 5% 0,1W
3105	4822 051 20153	15k 5% 0,1W
3106	4822 051 20102	1k 5% 0,1W
3107	4822 051 20184	180k 5% 0,1W
3108	4822 117 10965	18k 1% 0,1W
3109	4822 051 20331	330Ω 5% 0,1W
3110	4822 117 10833	10k 1% 0,1W
3111	4822 051 20229	22Ω 5% 0,1W
3112	4822 051 20101	100Ω 5% 0,1W
3113	4822 051 20159	15Ω 5% 0,1W
3115	4822 116 52232	910Ω 5% 0,5W
3116	4822 117 11448	180Ω 1% 0,1W
3120	4822 116 21217	1MA/423V 800V
3122	4822 117 13515	2Ω7 3W AC03 WW
3123	4822 050 21803	18k 1% 0,6W
3124	4822 116 83872	220Ω 5% 0,5W
3125	4822 050 21002	1k 1% 0,6W
3126	4822 116 80676	1Ω5 5% 0,5W
3127	4822 116 80676	1Ω5 5% 0,5W
3128	4822 116 80676	1Ω5 5% 0,5W

3129	4822 116 83864	10k 5% 0,5W
3134	4822 050 21803	18k 1% 0,6W
3201	4822 050 21002	1k 1% 0,6W
3202	4822 050 13302	3k3 1% 0,4W
3203	4822 116 52175	100Ω 5% 0,5W
3204	4822 051 20182	1k8 5% 0,1W
3205	4822 051 20008	0Ω JUMP. (0805)

3206	4822 051 20332	3k3 5% 0,1W
3221	4822 051 20182	1k8 5% 0,1W
3222	4822 051 20102	1k 5% 0,1W
3230	4822 050 21002	1k 1% 0,6W
4110	4822 051 20008	0Ω JUMP. (0805)

COILS

5120▲	4822 157 53348	FILTER CHOKE ASSY CU15D3
5125	4822 157 11411	100MHz
5131▲	4822 146 11062	TRANSFORMER CT296F
CDR765		
5132	4822 157 51462	10μH
5210	4822 157 11722	6,8μH 20% 7,7X9,5
5215	4822 157 11722	6,8μH 20% 7,7X9,5
5220	4822 157 51462	10μH
5225	4822 157 53139	4,7μH
5226	4822 157 53139	4,7μH
5230	4822 157 50963	2,2μH
5240	4822 157 51462	10μH
5250	4822 157 51462	10μH
5255	4822 157 51195	1μH 20% 4X9,8MM AXIAL

DIODES

6102	4822 130 31603	1N4006
6103	4822 130 31603	1N4006
6104	4822 130 31603	1N4006
6105	4822 130 31603	1N4006
6106	4822 130 42606	BYD33J
6107	4822 130 42606	BYD33J
6113	4822 130 32245	BYV10-40
6114	4822 130 42488	BYD33D
6129	5322 130 80122	BZX84-C24
6132	4822 130 42488	BYD33D
6201	4822 130 34328	BZX79-B30
6210	4822 130 83801	PBYR745F
6211	4822 130 42488	BYD33D
6212	4822 130 42488	BYD33D
6220	4822 130 42488	BYD33D
6230	4822 130 80983	BYW29F-150
6231	4822 130 31603	1N4006
6240	4822 130 42488	BYD33D
6250	4822 130 42606	BYD33J
6275	4822 130 30621	1N4148

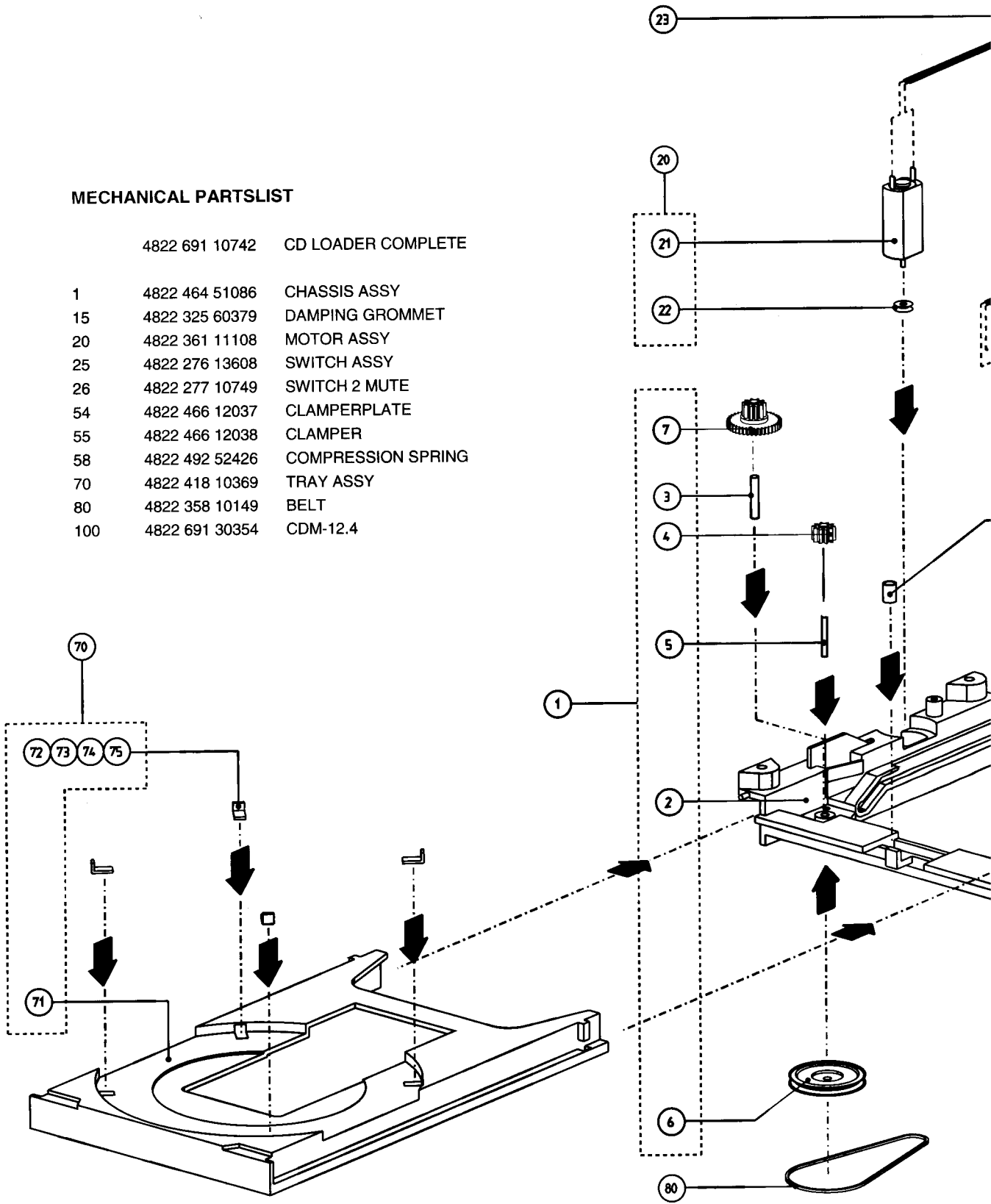
IC's

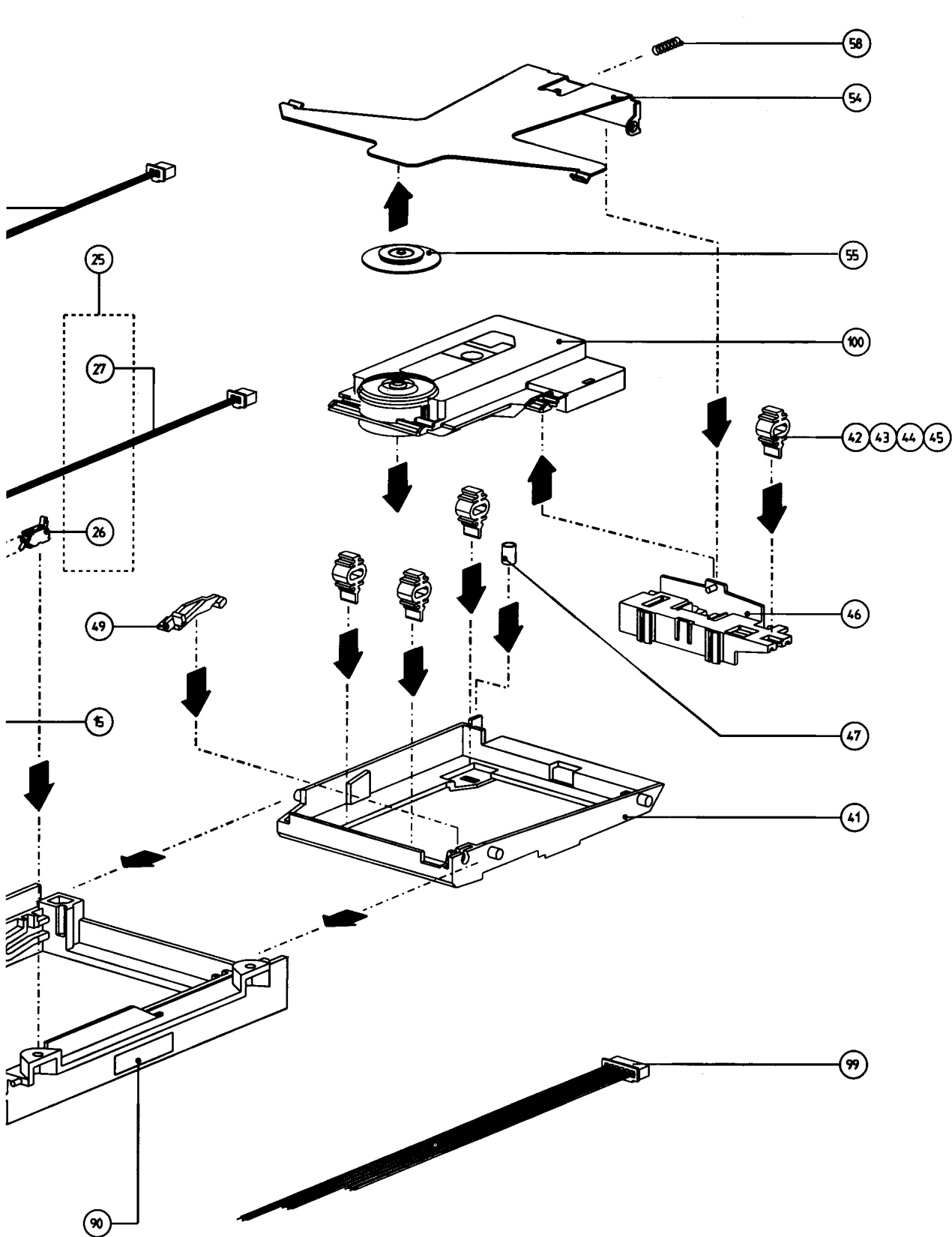
7110	4822 209 90025	MC44603P
7125	4822 130 63689	STP3N60FI
7200▲	4822 130 91451	CQY80NG
7201	4822 209 16944	KA431AZ
7221	4822 209 80591	LM317T
7249	4822 209 82112	MC7908CT
7250	4822 209 31257	MC79L24ACP

EXPLODED VIEW CD LOADER

MECHANICAL PARTSLIST

	4822 691 10742	CD LOADER COMPLETE
1	4822 464 51086	CHASSIS ASSY
15	4822 325 60379	DAMPING GROMMET
20	4822 361 11108	MOTOR ASSY
25	4822 276 13608	SWITCH ASSY
26	4822 277 10749	SWITCH 2 MUTE
54	4822 466 12037	CLAMPERPLATE
55	4822 466 12038	CLAMPER
58	4822 492 52426	COMPRESSION SPRING
70	4822 418 10369	TRAY ASSY
80	4822 358 10149	BELT
100	4822 691 30354	CDM-12.4





(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.

Keep components and tools also at this potential.

ESD**(NL) WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.

Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle IC und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).

Unvorsichtige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. Sorgen Sie dafür, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.

Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL) Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt terug gebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D) Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerats darf nicht verändert werden. Für Reparaturen sind Original-Ersatzteile zu verwenden.

(I) Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.



**CAUTION
VARO!
VARNING
ADVERSEL
DANGER
VORSICHT**

INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE ÄLÄ KATSO SÄTEESSEN.
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRakta EJ STRÅLEN.
USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSÆTTELSE FOR STRÅLING.
INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

SHOCK, FIRE HAZARD SERVICE TEST:

CAUTION: After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom, Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before return to user/customer. Ref.UL Standard NO.1492.

NOTE ON SAFETY:

Symbol **▲** : Fire or electrical shock hazard. Only original parts should be used to replace any part with symbol **▲**. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne."

**CLASS 1
LASER PRODUCT**

3122 140 03420