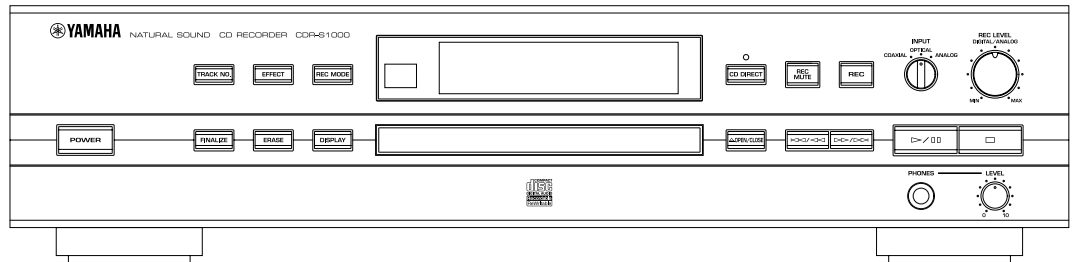
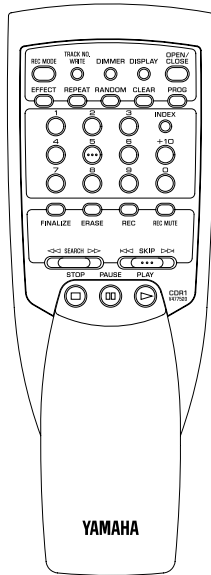


COMPACT DISC RECORDER CDR-S1000

SERVICE MANUAL



IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that all service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

CONTENTS

TO SERVICE PERSONNEL	1—2
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このサービスマニュアルは、エコマーク認定の再生紙を使用しています。
This Service Manual uses recycled paper.



■ TO SERVICE PERSONNEL

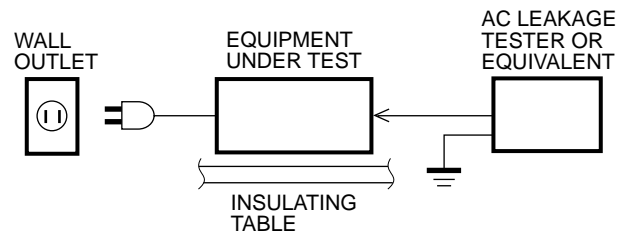
1. Critical Components Information

Components having special characteristics are marked \triangle and must be replaced with parts having specifications equal to those originally installed.

2. Leakage Current Measurement (For 120V Models Only)

When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.

- Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
- Leakage current must not exceed 0.5mA.



- Be sure to test for leakage with the AC plug in both polarities.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

WARNING: Laser Safety

This product contains a laser beam component. This component may emit invisible, as well as visible radiation, which may cause eye damage. To protect your eyes and skin from laser radiation, the following precautions must be used during servicing of the unit.

- 1) When testing and/or repairing any component within the product, keep your eyes and skin more than 30 cm away from the laser pick-up unit at all times. Do not stare the laser beam at any time.
- 2) Do not attempt readjustment, disassemble or repair of the laser pick-up, unless noted elsewhere in this manual.
- 3) CAUTION : Use of controls, adjustments or preformance of procedures other than those specified herein may result in hazardous radiation exposure.

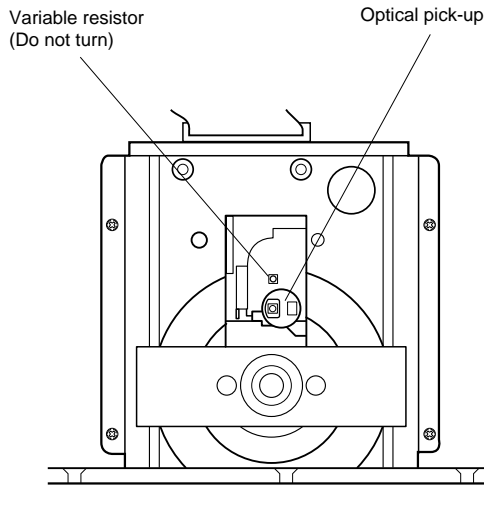
Laser Emitting conditions:

- 1) When the Top Cover is removed, and POWER SW is turned to the "ON" position, the laser component will emit a beam for several seconds to detect if a disc is present. During this time (5-10 sec.) the laser may radiate through the lens of the laser pick-up unit. Do not attempt any servicing during this period !
If no disc is detected, the laser will stop emitting the beam. When a disc is set, you will not be exposed to any laser emissions.
- 2) The laser power level can be adjusted with VR on pick-up PWB, however, this level has been set by the factory prior to shipping from the factory. Do not adjust this laser level control unless instruction is provided elsewhere in this manual. Adjustment of this control can increase the laser emission level from the device.

Laser Diode Properties

- Material : GaAlAs
- Wavelength : 783 – 789 nm
- Emission duration : Continuous
- Laser output : Max. 44.6µW*
- ANSI Class : Class 1

* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.



VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

VARNING! : OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

A, B, G models

CAUTION - VISIBLE AND / OR INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.

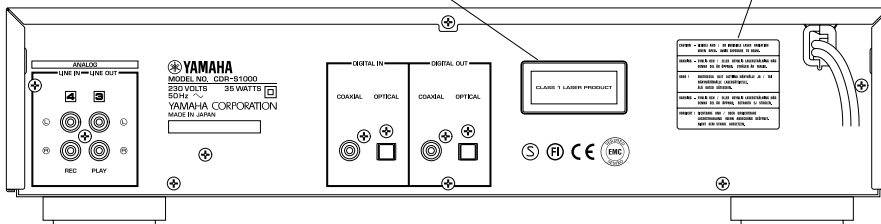
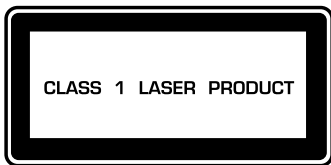
VARNING - SYNLIIG OCH / ELLER OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.

VARO! AVATTAESSA OLET ALTTIINA NÄKYMÄLLE JA / TAI NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

VARNING - SYNLIIG OCH / ELLER OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.

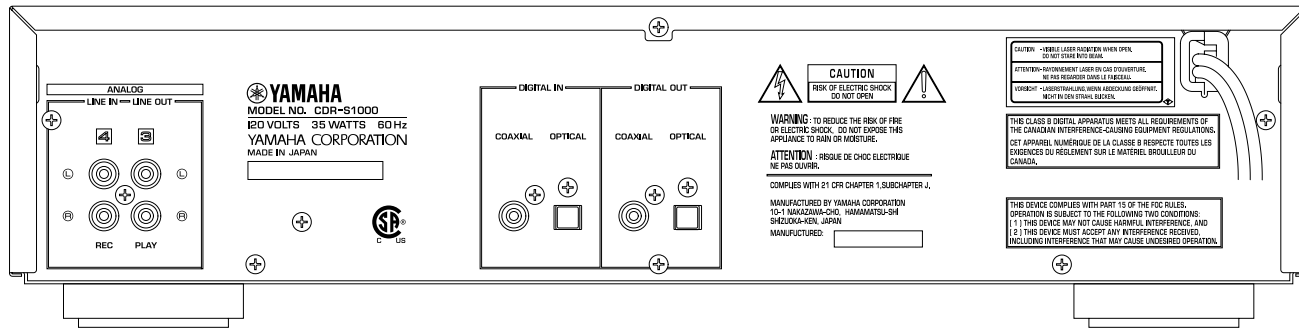
VORSICHT! SICHTBARE UND / ODER UNSICHTBARE LASERSTRALHUNG WENN ABDECKUNG GEÖFFNET, NICHT DEM STRAHL AUSSETZEN.

B, G models

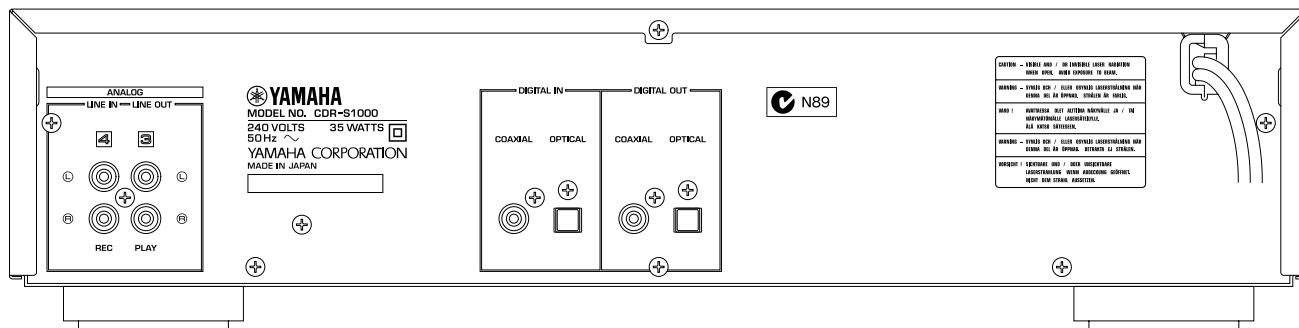


REAR PANELS

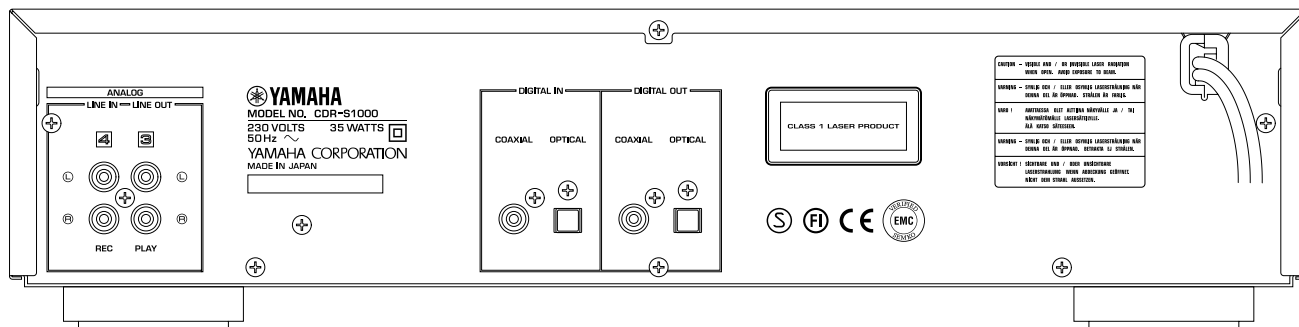
U, C models



A model



B, G models



■ SPECIFICATIONS

GENERAL

Model	Compact disc recorder
Application discs	CDs, CD-Rs for AUDIO, CD-RWs for AUDIO
Power Requirements	
U, C models	120V AC 60Hz
B, G models	230V AC 50Hz
A model	240V AC 50Hz
Power Consumption	35W
Dimensions (W x H x D)	435 x 108 x 400mm (17-1/8" x 4-1/4" x 15-3/4")
Weight	6.3kg (13 lbs 14 oz)
Operating Temperature Range	+5°C to +35°C
Panel Color	Black

AUDIO PERFORMANCE

Output Level	
1kHz, 0dB	2.0 ± 0.5Vrms
Frequency Response (EIAJ)	
5Hz — 20kHz	±0.5dB
Signal to Noise Ratio (EIAJ)	
Playback	107dB
Recording	90dB
Dynamic Range (EIAJ)	
Playback	100dB
Recording	94dB
Total Harmonic Distortion (1kHz)	
Playback	0.004%
Recording	0.008%

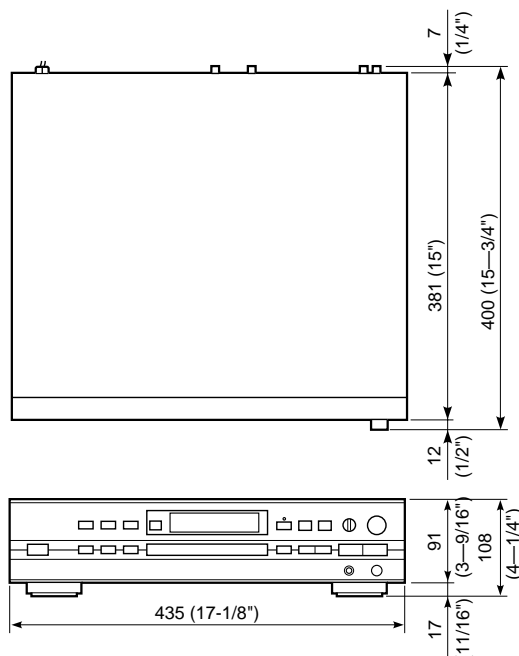
INPUT/OUTPUT

Line Output	
Output Level	2.0 Vrms
Output Impedance	990Ω
Line Input	
Input Sensitivity	500m Vrms
Input Impedance	24kΩ (REC LEVEL Max.)
Digital Output	
Coaxial Output Level	0.5Vp-p (75Ω)
Optical Output Level	-20 dBm
Sampling Frequency	44.1kHz
Digital Input	
Coaxial Input Level	0.5Vp-p (75Ω)
Optical Input Level	-20 dBm
Input Gain	±12dB, with Digital Volume ±0dB, without Digital Volume
Sampling Frequency	32kHz to 48kHz, with SRC 44.1kHz ±100ppm, without SRC (CD DIRECT mode)
Tolerance	
Headphone Output	
Output Level	300m Vrms (-20dB, 150Ω load) (PHONES LEVEL Max.)

*Specifications are subject to change without notice.

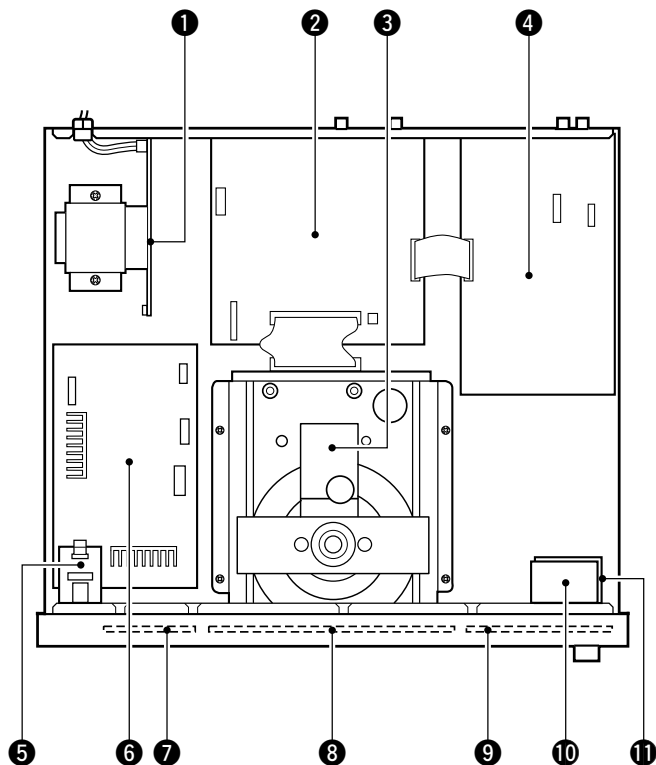
U U. S. A. model B British model
 C Canadian model G European model
 A Australian model

● DIMENSION



Unit : mm (inch)

INTERNAL VIEW



- ① ANALOG P.C.B. (3)
- ② MAIN P.C.B. (1)
- ③ CDR MECHANISM UNIT
- ④ ANALOG P.C.B. (1)
- ⑤ PANEL P.C.B. (5)
- ⑥ ANALOG P.C.B. (2)
- ⑦ PANEL P.C.B. (1)
- ⑧ MAIN P.C.B. (2)
- ⑨ PANEL P.C.B. (2)
- ⑩ PANEL P.C.B. (3)
- ⑪ PANEL P.C.B. (4)

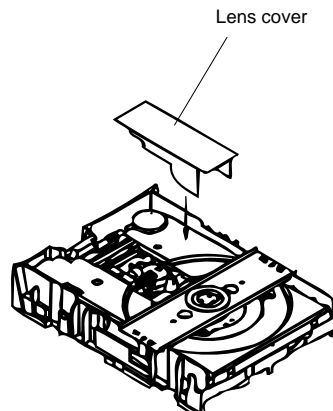
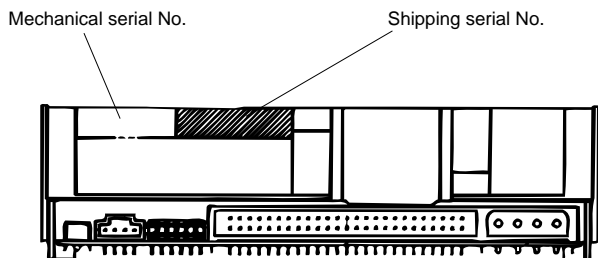
DISASSEMBLY PROCEDURES (Remove parts in disassembly order as numbered.)

CDR MECHANICAL UNIT REPLACEMENT

- When sending back the defective CDR mechanical unit for repair, send the whole unit.
- The CDR mechanical unit must be replaced as a unit. None of its components can be supplied separately.
- When sending back the defective CDR mechanical unit for repair, attach the disc which was used when the error occurred as necessary. However, Yamaha shall not be liable even if the data in the disc has become unreadable while the unit is being serviced/repaired.

Preparation before Replacement

- a. When replacing the CDR mechanical unit, write down the following items.
 - Serial No. of the product and the symptom in detail
 - Mechanical serial No. / mechanical shipping serial No. of CDR mechanical unit
- b. Prepare a lens cover (P/No. V4870500) to use when transporting the CDR mechanical unit.



1. CDR Mechanical Unit Removal

a. Turn off the power and disconnect the power plug from the service outlet.

CAUTION : Never disconnect any cable, remove any screw or other part while the power switch is on.

b. Remove 4 screws marked ① and 1 screw marked ②, and the Top Cover can be removed. (Fig. 1)

c. Disconnect the power cable / IDE cable / word clock cable from the CDR mechanical unit. (Fig. 2)

d. Remove 2 hexagonal cap nuts marked ③. (Fig. 1)

e. Remove 4 screws marked ④, and take out the CDR mechanical unit. (Fig. 1)

f. Remove the Lid.

g. Remove 4 screws marked ⑤, and the Frame/CDR can be removed. (Fig. 3)

IDE cable

a. Do not remove the cable from the female connector by pulling on the cable.

b. Remove the connector from the female connector by inserting the minus driver into the insertion place and hooking the female connector as per fig. A.

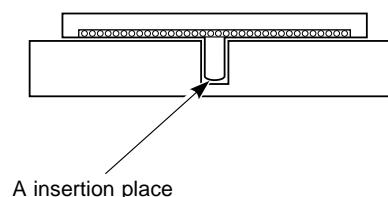


Fig. A

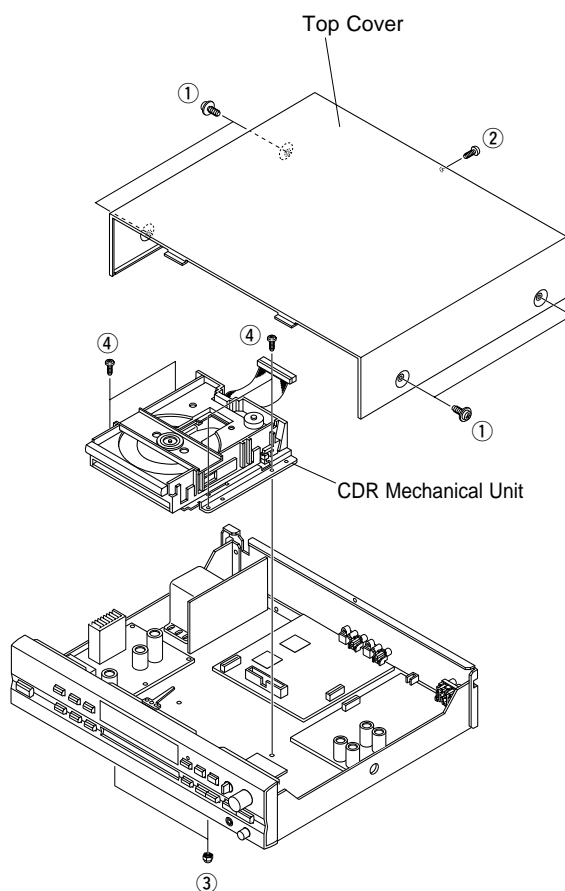


Fig. 1

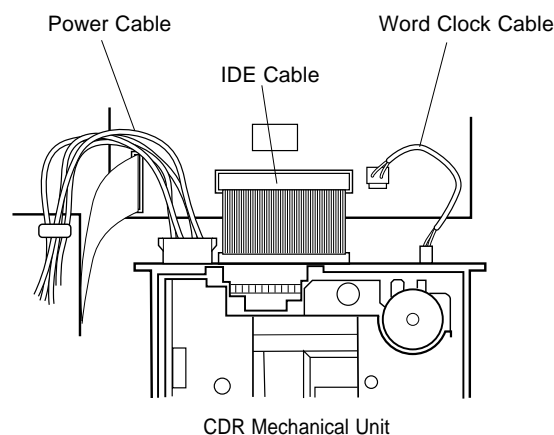


Fig. 2

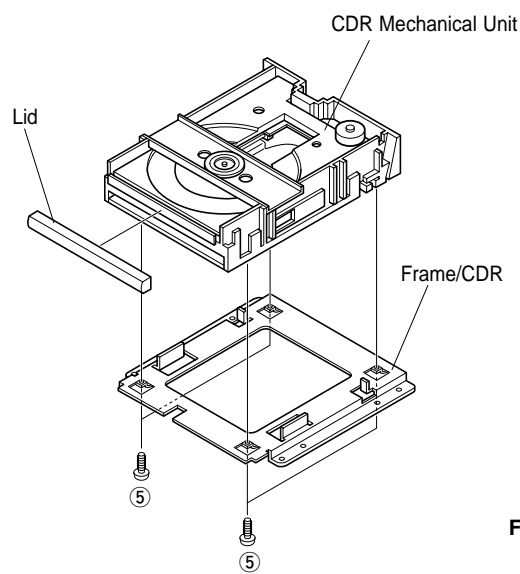


Fig. 3

2. Transportation of CDR Mechanical Unit

a. When transporting the CDR mechanical unit, be sure to install the lens cover to it and put it in the anti-static bag before packaging it.

3. CDR Mechanical Unit Installation

- a. Before installing the CDR mechanical unit, check that the jumper pin on its rear panel is inserted in the MASTER jack.



- b. Install the components of the CDR mechanical unit correctly in the reverse order of the removal.
- c. Use special care for the power cable of the CDR mechanical unit. If it is connected in reverse, the mechanical unit will be damaged and fail to operate. The end of the power cable with a red line is the No.1 pin side (+12V). Connect it to No.1 pin of the DC power input connector.
- d. The No.1 pin side of the IDE cable of the CDR mechanical unit can be identified by a red line. Connect it to No.1 pin of the IDE interface connector.

4. Operation Check after Installation

1) Checking after turning on the power

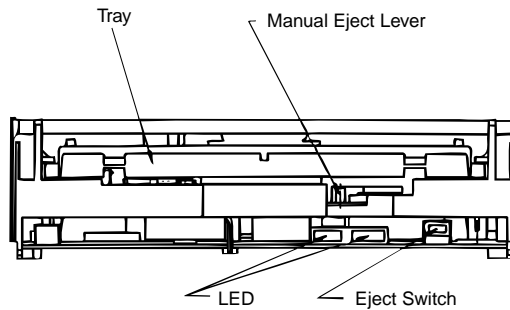
When the power is supplied, the CDR mechanical unit executes self-diagnosis automatically. If an error is detected in the initial self-diagnosis, LED segments (LED601: ON/DISC, LED602: Read/Write) on the front panel of the mechanical unit light up (in orange) simultaneously and remain on. If a malfunction has occurred, power on fails. (IDE command error)

2) Checking when malfunction has occurred

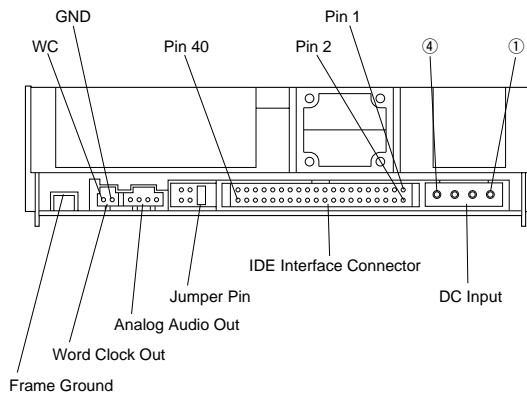
- a. Check each cable for correct connection.
- b. Check the power supply voltages. (Measure voltage at the power connector of the mechanical unit.)
- c. Check to ensure that the jumper pin on the rear panel is inserted in the MASTER jack.

CDR mechanical unit
Usually called CDR/RW drive unit
Model name : ACRW100A

Front view (ACRW100A)



Rear view (ACRW100A)



■ SERVICE CHECK PROCEDURES

When the main unit fails to operate.

1. Check the power supply voltage of ANALOG P.C.B. (2).

Connector	Pin No.	Specified voltage	Remarks
W100	1pin (+5V)	$5.0 \pm 0.25V$	+5V power supply (Main P.C.B.)
	4pin (VP)	$-27.0 \pm 1.5V$	-27V power supply (FL display)
	5pin (FL1)	$4.4 \pm 0.4V_{rms}$	+4V(AC) power supply (FL display)
	6pin (FL2)	$4.4 \pm 0.4V_{rms}$	+4V(AC) power supply (FL display)
W201	1pin (-VA)	$-9.5 \pm 0.8V$	-VA power supply (Analog P.C.B.)
	3pin (+VA)	$7.3 \pm 0.6V$	+VA power supply (Analog P.C.B.)
CB601	1pin (+12V)	$12.0 \pm 0.6V$	+12V power supply (CDR drive)
	4pin (+5V)	$5.0 \pm 0.25V$	+5V power supply (CDR drive)

2. Turn off the power to check the condition of the CDR drive section.
3. Disconnect the IDE cable.
4. Turn on the power and check the CDR drive section for proper operation.
(Check the condition of the CDR drive.)
The CDR drive should operate by itself.
(Focusing, disc motor revolution)
Operation failure means defective CDR drive.
5. Turn on the power again and check the CPU and FL display for proper operation.
Does the FL display light up after a few seconds?
Is the FL driver accessed?
(FL DATA, FL SCK, FL N CS)
6. Turn off the power and connect the IDE cable.
7. Start the TEST program and check the condition of the main P.C.B.(by using the self-diagnosis function).

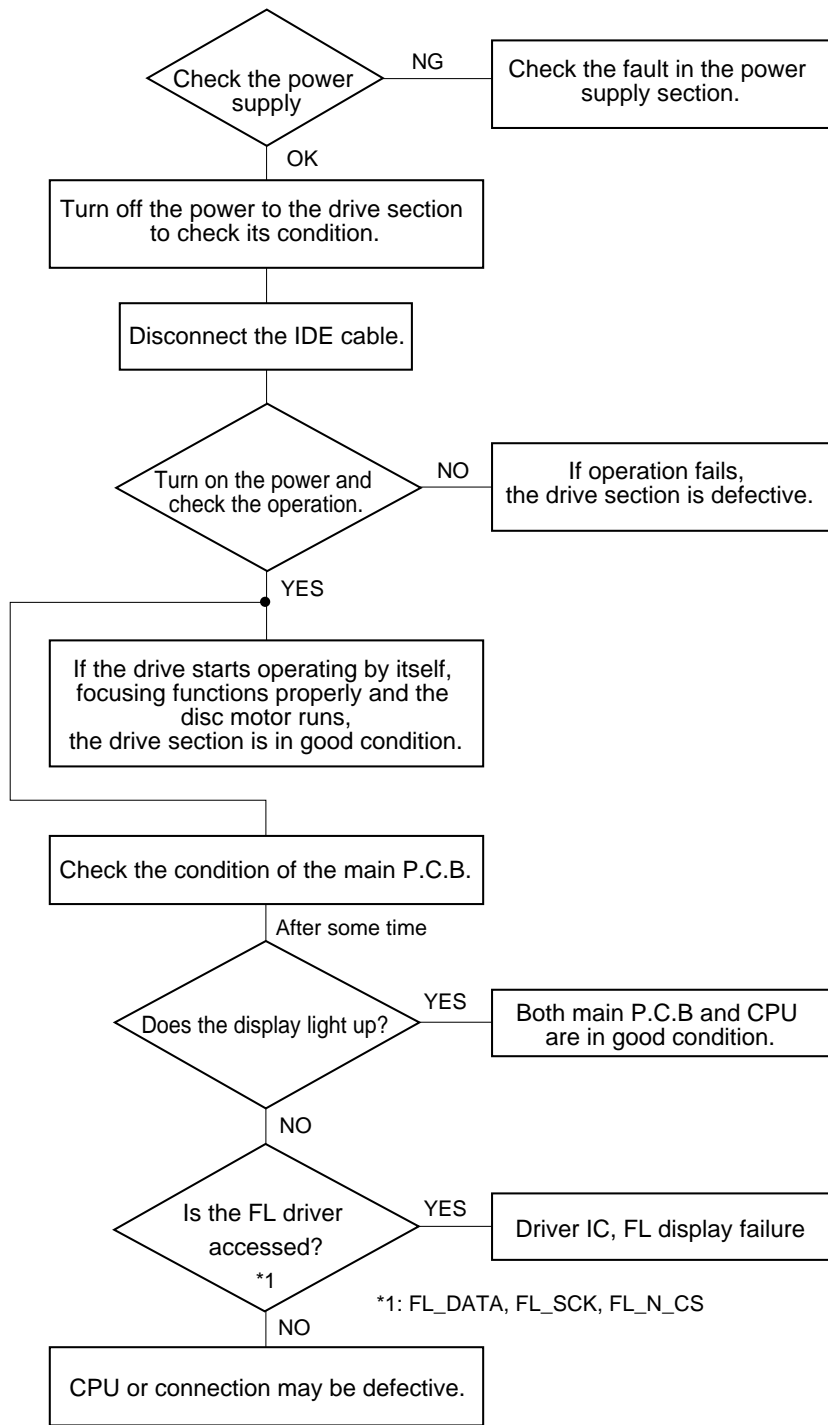
When skipping occurs from time to time, playback/recording is disabled.

1. Using a standard disc (TDK CD-RXA74 or TDK CD-RWA74), check if recording and playback are executable.

CAUTION: How to handle discs

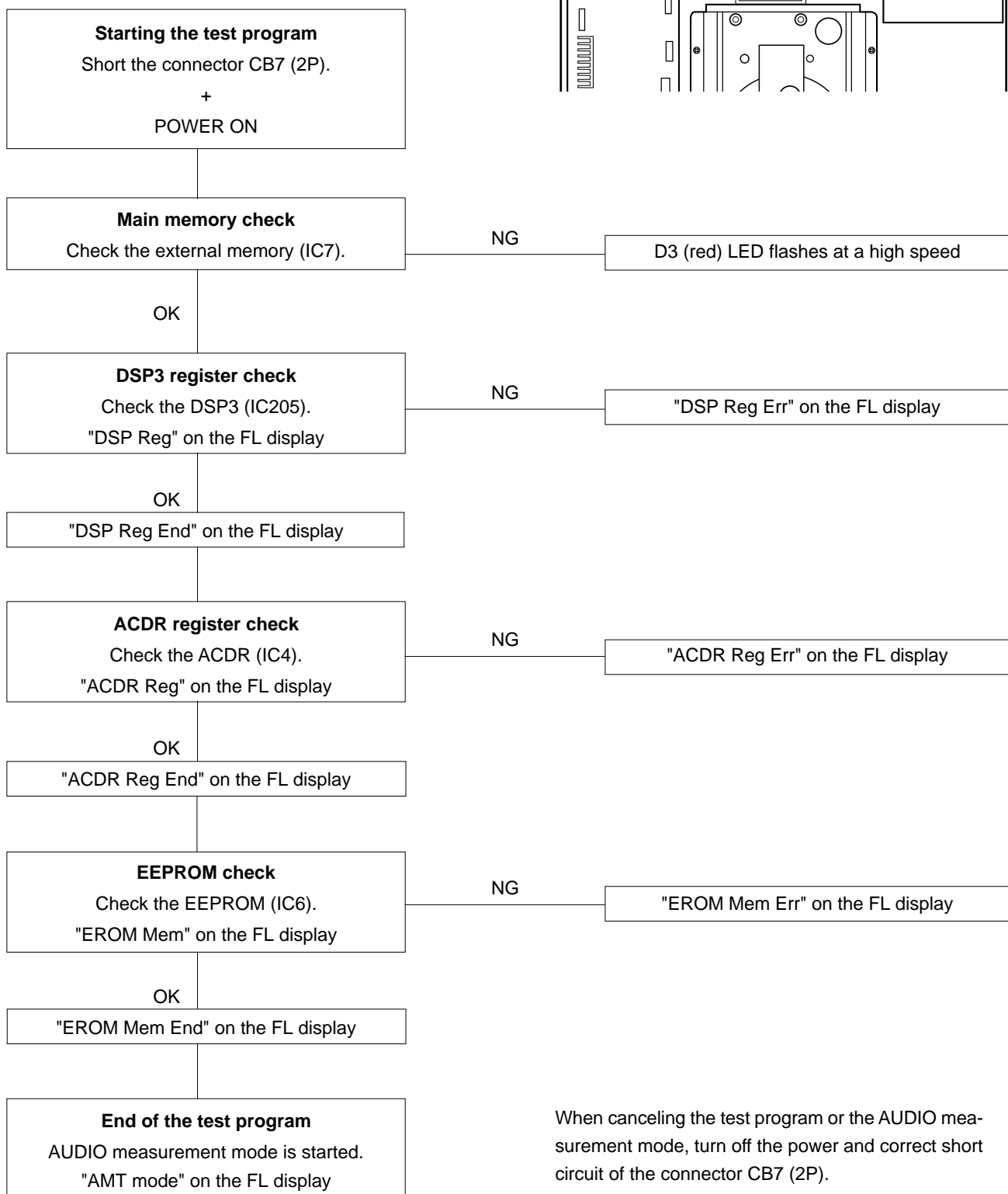
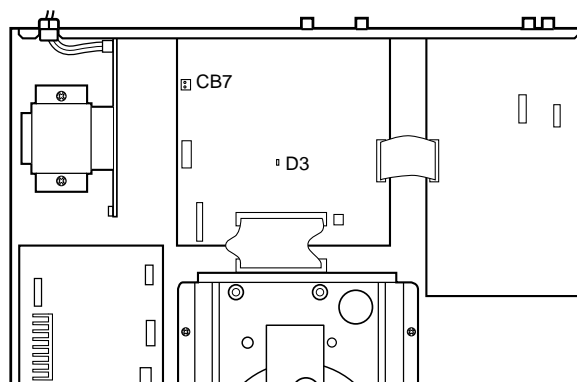
- Handle the disc with special care not to scratch it or make it dirty. Also do not expose it to ultra-violet rays when keeping it in storage. (Greater care should be used than when handling a CD disc.)
- CD-RW74 can be used repeatedly but use a number of 20 times as a rough standard for the limit.
- If the CD-R is a self-record/playback type, it can be reused (for additional recording) unless it is finalized.
(Nothing can be recorded additionally if finalized.)
The CD-R disc which has not been finalized cannot be played back on a general type CD player..
- To play back the CD-RW, an applicable type CD player must be used.

SERVICE CHECK FLOW CHART



TEST PROGRAM

When the test program is started, the memory and register are checked automatically. If nothing is found faulty, the AUDIO measurement mode is set.



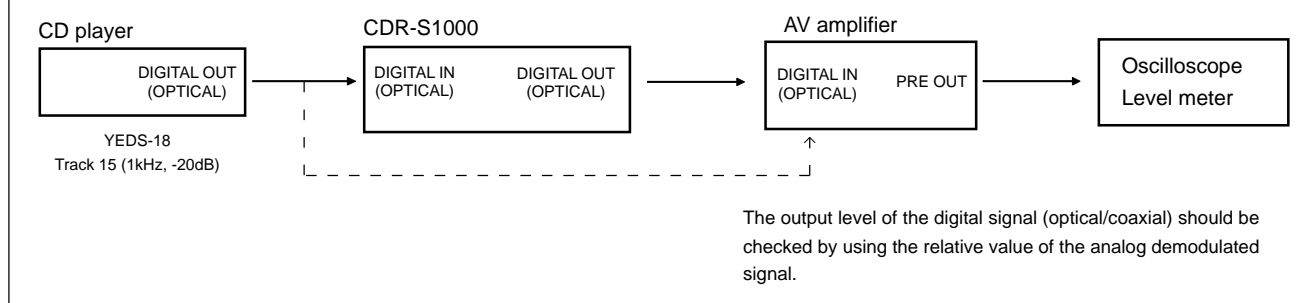
When canceling the test program or the AUDIO measurement mode, turn off the power and correct short circuit of the connector CB7 (2P).

INSPECTION SPECIFICATIONS

Instruments Required for Inspection

- CD test disc (YEDS-18: TX911730) • CD-RW disc (TDK CD-RW AUDIO 74min [XA74])
- CD player with digital output (optical/coaxial) function (used as a digital signal generator)
- AV amplifier with digital input (optical/coaxial) function (used as a D/A converter)
- Signal generator (for analog signals) • Oscilloscope • Level meter
- Distortion meter

Step	Item	Mode	Input signal	Disc	Check method and standard
1	Display	Audio measurement mode (ATM mode)		No disc	1. Check that all FL display units light up and go off properly by pressing the DISPLAY key. 2. Cancel the all on or off state of display units by pressing the ERASE key.
2	SRC	Audio measurement mode (ATM mode)	DIGITAL IN (OPTICAL) 1kHz, -20dB	No disc	1. Set the INPUT selector to the OPTICAL position. 2. Set the CD DIRECT key to the ON position. 3. Apply a 1kHz, -20dB digital signal to DIGITAL IN (OPTICAL). 4. Check that the digital output level at DIGITAL OUT (OPTICAL) is -20 ± 2 dB. 5. Set the CD DIRECT key to the OFF position. 6. Set the REC LEVEL control knob to the maximum position. 7. Check that the digital output level of at DIGITAL OUT (OPTICAL) is -8 ± 2 dB. 8. Return the REC LEVEL control knob close to the center position and check that the digital output level at DIGITAL OUT (OPTICAL) can be set to -20dB.



AUDIO measurement function of the main unit panel

INPUT selector (at CD STOP)

- Selects the input signal.
- The selected input signal passes through DSP3 and is output to LINE OUT (Analog) and DIGITAL OUT (Digital). Also, the level meter reading is displayed in response to the input signal.
- In case of the digital signal, the sampling frequency is read from the channel status and displayed as 32, 44.1 or 48 (kHz).
- When the subcode Q data is included in the digital signal, a part of the subcode Q data appears on the FL display.

CD DIRECT key (at CD STOP)

- Selects the digital input signal passage, whether through SRC (Sample Rate Converter) or direct. CD DIRECT LED lights up when the direct signal passage is selected but this does not apply when the sampling frequency is other than $44.1\text{kHz} \pm 200\text{ppm}$.

REC LEVEL control knob

- When the digital input is selected, SRC is activated as the digital volume controller.
- If CD DIRECT is selected, however, the digital volume is set through (0dB) state.
- When the analog input is selected, this control knob functions as the analog volume control.

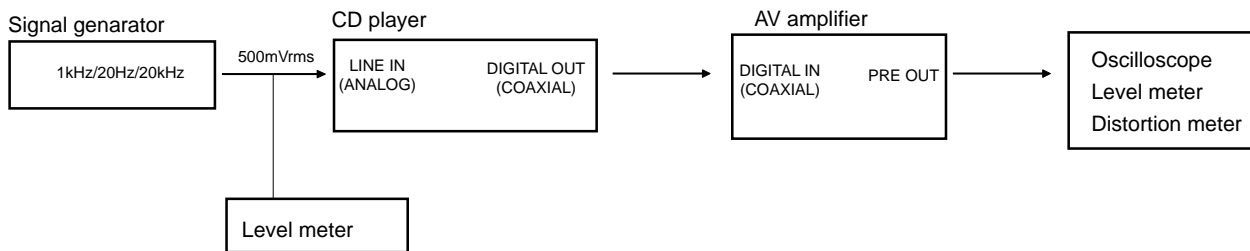
DISPLAY key

Turns on and off all the display units.
To cancel the all on or off state of display units, press the ERASE key and the original display state will be restored.

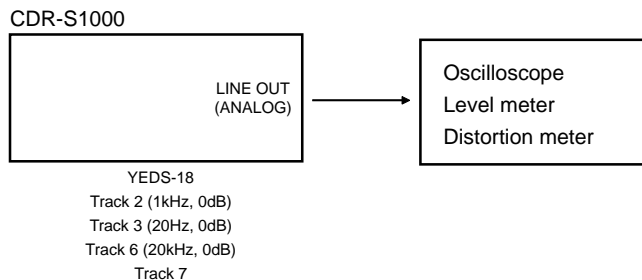
ERASE key

Cancels the all on or off state of display units.

Step	Item	Mode	Input signal	Disc	Check method and standard
3	A/D converter	Audio measurement mode (ATM mode)	LINE IN (ANALOG) 1kHz, 20Hz, 20kHz 500mVrms	No disc	<ol style="list-style-type: none"> 1. Set the INPUT selector to the ANALOG position. 2. Apply a 1kHz, 500mVrms analog signal to the LINE IN (ANALOG). 3. Demodulate the digital signal of DIGITAL OUT (COAXIAL) to analog. 4. Adjusting the REC LEVEL control knob, check that the demodulated signal level can be set to 1Vrms. (The level meter should indicate -6dB on display.) 5. At this time, check that the REC LEVEL control knob is close to the 12 o'clock position. 6. Check that the distortion factor is 0.03% or less. 7. Check that the S/N is 80dB or more. (Input shorted, REC LEVEL max.) 8. Check that the frequency response (at 20Hz and 20kHz) is 0 ± 1.5dB.



Step	Item	Mode	Input signal	Disc	Check method and standard
4	D/A converter	Normal mode		YEDS-18	<ol style="list-style-type: none"> 1. Cancel the audio measurement mode. 2. Turn on the power. (In normal mode) 3. Load the CD test disc (YEDS-18: TX911730). 4. Play track 2 (1kHz, 0dB). 5. Check that the output level of LINE OUT (ANALOG) is 2 ± 0.5Vrms. 6. Check that the distortion factor (1kHz) is 0.01% or less. 7. Play tracks 3 (20Hz) and 6 (20kHz) and check that the frequency response is 0 ± 1.5dB. 8. Play track 7 and check that S/N is 100dB or more.



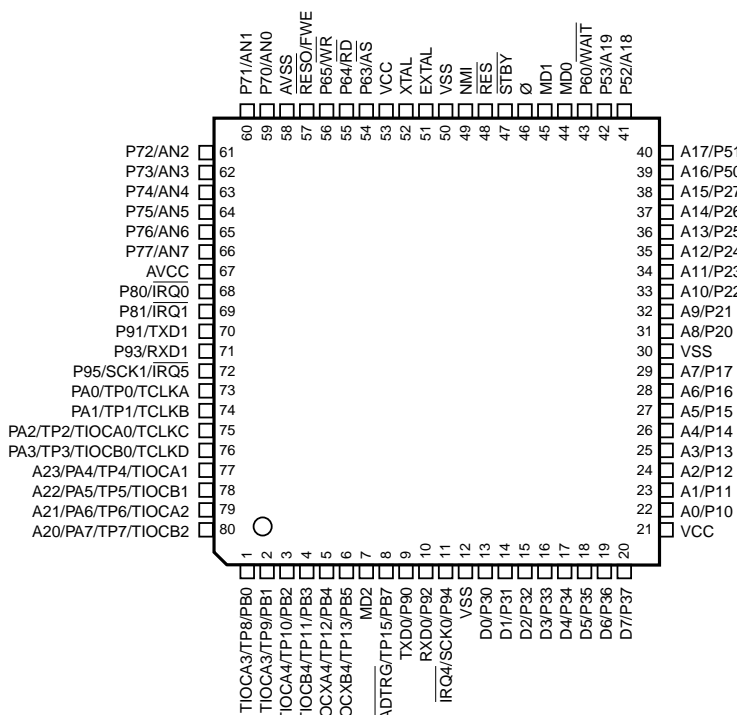
Step	Item	Mode	Input signal	Disc	Check method and standard
5	Recording Playback	Normal mode	LINE IN (ANALOG) 1kHz, 20Hz, 20kHz 370mVrms	XA74	<ol style="list-style-type: none"> 1. Load the CD-RW disc (XA74). 2. Set the INPUT selector to the ANALOG position. 3. Apply a 1kHz, 370mVrms analog signal to the LINE IN (ANALOG). 4. Set the REC LEVEL control knob to the maximum position. 5. Execute recording/playback and check that the output level at LINE OUT (ANALOG) is 2.0 ± 0.5Vrms. 6. Check that the distortion factor (1kHz) is 0.1% or less. 7. Apply a 20Hz, 20kHz signals, execute recording/playback and check that the level difference is within 0 ± 1.5dB.


```

graph LR
    SG[Signal generator  
1kHz/20Hz/20kHz] -- 370mVrms --> CDR[CDR-S1000  
LINE IN (ANALOG) | LINE OUT (ANALOG)]
    LM1[Level meter] --- SG
    CDR --> M[Oscilloscope  
Level meter  
Distortion meter]
    
```

IC DATA

IC5 : HD64F3039F18
CPU



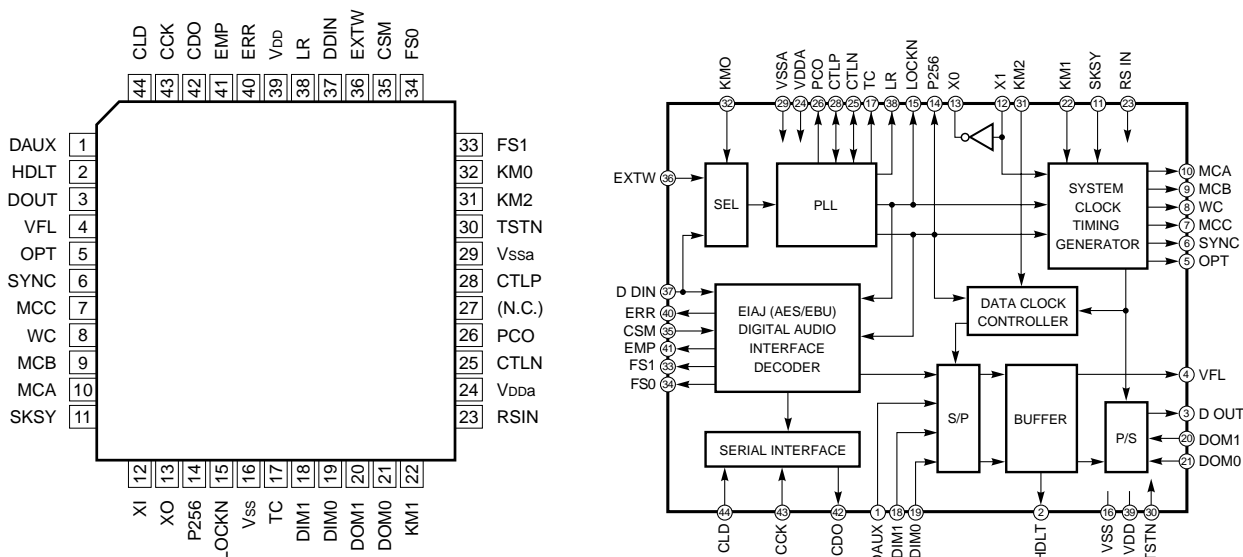
NO.	PORT	Name	I/O	Function
1	PB0	N_DEV_RST	O	Resetting peripheral devices
2	PB1	MUTE	O	Muting output
3	PB2	DIP0	I	DIP SW data
4	PB3	LED0	O	Operation check LED
5	PB4	FL_SCK	O	Clock for FL driver control
6	PB5	FL_DATA	O	Data for FL driver control
7	MD2	MD2	I	Setting CPU operation mode
8	PB7	FL_N_CS	O	Chip select for FL driver control
9	TXD0	TXD0	O	SCI0 output
10	RXD0	RXD0	I	SCI0 input
11	/IRQ4	N_IRQ4	I	External interrupt (Blank)
12	VSS	VSS		GND
13	D0	D0	I/O	Data bus
14	D1	D1	I/O	Data bus
15	D2	D2	I/O	Data bus
16	D3	D3	I/O	Data bus
17	D4	D4	I/O	Data bus
18	D5	D5	I/O	Data bus
19	D6	D6	I/O	Data bus
20	D7	D7	I/O	Data bus
21	VCC	VCC		+ 5V power
22	A0	A0	O	Address bus
23	A1	A1	O	Address bus
24	A2	A2	O	Address bus
25	A3	A3	O	Address bus

IC5 : HD64F3039F18

CPU

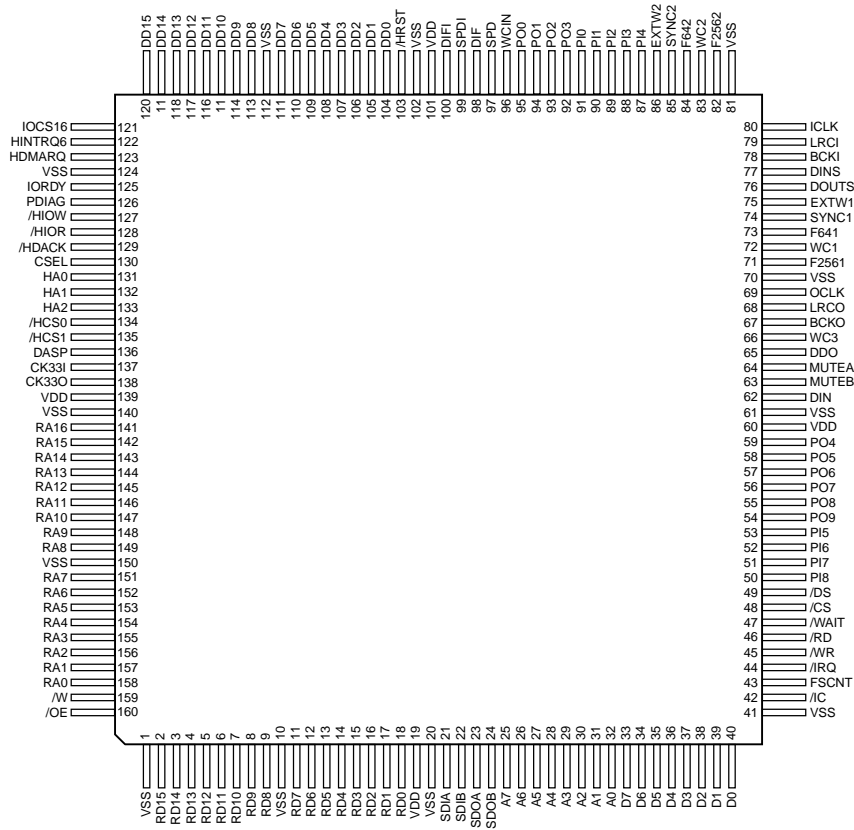
NO.	PORT	Name	I/O	Function
26	A4	A4	O	Address bus
27	A5	A5	O	Address bus
28	A6	A6	O	Address bus
29	A7	A7	O	Address bus
30	VSS	VSS		GND
31	A8	A8	O	Address bus
32	A9	A9	O	Address bus
33	A10	A10	O	Address bus
34	A11	A11	O	Address bus
35	A12	A12	O	Address bus
36	A13	A13	O	Address bus
37	A14	A14	O	Address bus
38	A15	A15	O	Address bus
39	A16	A16	O	Address bus
40	A17	A17	O	Address bus
41	A18	A18	O	Address bus
42	A19	A19	O	Address bus
43	/WAIT	N_WAIT	I	WAIT input
44	MD	MD	I	Setting CPU operation mode
45	MD1	MD1	I	Setting CPU operation mode
46	PHY	PHY	O	CPU operation clock output
47	/STBY	/STBY	I	Stand-by input
48	/RES	/RES	I	Resetting input
49	NMI	NMI	I	NMI input
50	VSS	VSS		GND
51	EXTAL	EXTAL	I	Terminal for crystal oscillator
52	XTAL	XTAL	O	Terminal for crystal oscillator
53	VCC	VCC		+ 5V power
54	/AS	N_AS	O	Address strobe
55	/RD	N_RD	O	READ strobe
56	/WR	N_WR	O	WRITE strobe
57	FWE	FWE	I	Flash write enable
58	AVSS	AVSS		GND for A/D
59	AN0	PUI_KEY0	I	Key input
60	AN1	PUI_KEY1	I	Key input
61	AN2	PUI_KEY2	I	Key input
62	AN3	PUI_KEY3	I	Key input
63	AN4	DIR0_VFL_S	I	Detecting digital input validity flag
64	AN5	PUI_KEY_VR	I	Panel volume data
65	AN6	TEMP	I	Measuring temperature by using thermistor
66	AN7	SB_DIR0_O	I	Reading data of DIR for SPDIF
67	AVCC	AVCC		+ 5V power for A/D
68	/IRQ0	REMOCON	I	External interrupt (Remote control)
69	/IRQ1	N_INT_CDR	I	External interrupt (ACDR)
70	TXD1	TXD1	O	SCI1 output
71	RXD1	RXD1	I	SCI1 input
72	/IRQ5	N_INT_USB	I	External interrupt (USB)
73	PA0	SB_DATA	O	Three-wire serial data
74	PA1	SB_SCK	O	Three-wire serial clock
75	PA2	SB_DIR0	O	Chip select of DIR for SPDIF
76	PA3	SB_ADA	O	Chip select for AD/DA
77	PA4	SB_DIT	O	Chip select for DIT (Unused)
78	PA5	SB_EEP	O	EEPROM clock
79	PA6	SB_EEP_DATA	I/O	EEPROM data
80	PA7	CDR_FSCNT	I	Counting frequency of SPDIF input

IC8, 206 : YM3436DK
DIR (Digital Format Interface Receiver)



Pin No.	Pin Name	I/O	Function	Pin No.	Pin Name	I/O	Function
1	DAUX	I	Auxiliary input for audio data	26	PCO	O	PLL phase comparison output
2	HDLT	O	Asynchronous buffer operation flag	27	(NC)		
3	DOUT	O	Audio data output	28	CTL P	I	VCO control input P
4	VFL	O	Parity flag output	29	Vssa		VCO section power (GND)
5	OPT	O	Fs x 1 Synchronous output signal for DAC	30	TSTN	I	Test terminal. Open for normal use
6	SYNC	O	Fs x 1 Synchronous output signal for DSP	31	KM2	I	Clock mode switching input 2
7	MCC	O	Fs x 64Bit clock output	32	KM0	I	Clock mode switching input 0
8	WC	O	Fs x 1Word clock output	33	FS1	O	Channel status sampling frequency display output 1
9	MCB	O	Fs x 128Bit clock output	34	FS0	O	Channel status sampling frequency display output 0
10	MCA	O	Fs x 256Bit clock output	35	CSM	I	Channel status output method selection
11	SKSY	I	Clock synchronization control input	36	EXTW	I	External synchronous auxiliary input word clock
12	XI	I	Crystal oscillator connection or external clock input	37	DDIN	I	EIAJ (AES/EBU) data input
13	XO	O	Crystal oscillator connection	38	LR	O	PLL word clock output
14	P256	O	VCO oscillating clock connection	39	Vdd		Logic section power (+5V)
15	LOCKN	O	PLL lock flag	40	ERR	O	Data error flag output
16	Vss		Logic section power (GND)	41	EMP	O	Channel status emphasis control code output
17	TC	O	PLL time constant switching output	42	CD0	O	3-wire type microcomputer interface data output
18	DIM1	I	Data input mode selection	43	CCK	I	3-wire type microcomputer interface clock input
19	DIM0	I	Data input mode selection	44	CLD	I	3-wire type microcomputer interface load input
20	DOM1	I	Data output mode selection				
21	DOM0	I	Data output mode selection				
22	KM1	I	Clock mode switching input 1				
23	RSTN	I	System reset input				
24	Vdda		VCO section power (+5V)				
25	CTLN	I	VCO control input N				

IC4 : FHIB31-70A
ACDR



NO.	PORT	Name	I/O	DC	Function
1	VSS	VSS			GND
2	RD15	CDR_RD15	I/O	T	External RAM data bus
3	RD14	CDR_RD14	I/O	T	External RAM data bus
4	RD13	CDR_RD13	I/O	T	External RAM data bus
5	RD12	CDR_RD12	I/O	T	External RAM data bus
6	RD11	CDR_RD11	I/O	T	External RAM data bus
7	RD10	CDR_RD10	I/O	T	External RAM data bus
8	RD9	CDR_RD9	I/O	T	External RAM data bus
9	RD8	CDR_RD8	I/O	T	External RAM data bus
10	VSS	VSS			GND
11	RD7	CDR_RD7	I/O	T	External RAM data bus
12	RD6	CDR_RD6	I/O	T	External RAM data bus
13	RD5	CDR_RD5	I/O	T	External RAM data bus
14	RD4	CDR_RD4	I/O	T	External RAM data bus
15	RD3	CDR_RD3	I/O	T	External RAM data bus
16	RD2	CDR_RD2	I/O	T	External RAM data bus
17	RD1	CDR_RD1	I/O	T	External RAM data bus
18	RD0	CDR_RD0	I/O	T	External RAM data bus
19	VDD	VDD			Power supply
20	VSS	VSS			GND
21	SDIA	CDR_SDIA	I	T	Serial audio data input
22	SDIB	DA_DATA	I	T	Serial audio data input
23	SDOA	CDR_SDOA	O	C	Serial audio data output
24	SDOB	CDR_SDOB	O	C	Serial audio data output

IC4 : FHIB31-70A

ACDR

NO.	PORT	Name	I/O	DC	Function
25	A7	A7	I	T	CPU interface address bus
26	A6	A6	I	T	CPU interface address bus
27	A5	A5	I	T	CPU interface address bus
28	A4	A4	I	T	CPU interface address bus
29	A3	A3	I	T	CPU interface address bus
30	A2	A2	I	T	CPU interface address bus
31	A1	A1	I	T	CPU interface address bus
32	A0	A0	I	T	CPU interface address bus
33	D7	D7	I/O	T	CPU interface data bus
34	D6	D6	I/O	T	CPU interface data bus
35	D5	D5	I/O	T	CPU interface data bus
36	D4	D4	I/O	T	CPU interface data bus
37	D3	D3	I/O	T	CPU interface data bus
38	D2	D2	I/O	T	CPU interface data bus
39	D1	D1	I/O	T	CPU interface data bus
40	D0	D0	I/O	T	CPU interface data bus
41	VSS	VSS			GND
42	/IC	N_DEV_RST	I	T	Initial clear
43	FSCNT	CDR_FSCNT	O	C	Fs count signal output
44	/IRQ	N_INT_CDR	O	C	CPU interface interrupt request
45	/WR	N_WR	I	T	CPU interface write strobe
46	/RD	N_RD	I	T	CPU interface read strobe
47	/WAIT	N_CDR_WAIT	O	C	CPU interface wait
48	/CS	N_CDR	I	T	CPU interface chip select
49	/DS	N_DS	I	T	CPU interface data strobe
50	PI8	JG_PIN1	I	T	Extended input port for H8
51	PI7	JG_PIN0	I	T	Extended input port for H8
52	PI6	DIP3	I	T	Extended input port for H8
53	PI5	DIP2	I	T	Extended input port for H8
54	PO9		O	C	Extended output port for H8 (N.C.)
55	PO8		O	C	Extended output port for H8 (N.C.)
56	PO7	LED2	O	C	Extended output port for H8
57	PO6	LED1	O	C	Extended output port for H8
58	PO5	DIT_CNTR	O	C	Extended output port for H8
59	PO4	SRC_SLW	O	C	Extended output port for H8
60	VDD	VDD			Power supply
61	VSS	VSS			GND
62	DIN	CDR_DIN	I+	T	Digital audio data input
63	MUTEB	MUTEB	I	T	Digital audio interface output mute
64	MUTEA	MUTEA	I	T	Digital audio interface output mute
65	DD0	CDR_SPD	O	C	Digital audio data output
66	WC3	DIR0_FS	I\$	T	Word clock input
67	BCKO		O\$T	C	Bit clock output (N.C.)
68	LRCO		O\$T	C	LR clock output (N.C.)
69	OCLK		O\$	C	Clock output (N.C.)
70	VSS	VSS			GND
71	F2561	DIR1_256FS1	I\$	T	Clock input (256fs)
72	WC1	DIR1_FS	I\$	T	Word clock input
73	F641	DIR1_64FS	I\$	T	Clock input (64fs)
74	SYNC1	DIR1_SYNC	I	T	Synchronous signal input
75	EXTW1	EXTW1	O\$	C	Word clock output (fs)
76	DOUTS	DOUTS	O	C	Serial audio data output
77	DINS	DINS	I	T	Serial audio data input
78	BCKI		O\$T	C	Bit clock output (N.C.)
79	LRCI		O\$T	C	LR clock output (N.C.)

IC4 : FHIB31-70A

ACDR

NO.	PORT	Name	I/O	DC	Function
80	ICLK		O\$	C	Clock output (N.C.)
81	VSS	VSS			GND
82	F2562	DIR1_256FS1	I\$	T	Clock input (256fs)
83	WC2	DIR1_FS	I\$	T	Word clock input (fs)
84	F642	DIR1_64FS	I\$	T	Clock input (64fs)
85	SYNC2	DIR1_SYNC	I	T	Synchronous signal input
86	EXTW2		O\$	C	Word clock output (N.C.)
87	PI4	DIP1	I	T	Extended input port for H8
88	PI3	DIR1_N_LOCK	I	T	Extended input port for H8
89	PI2	DIR1_ERR	I	T	Extended input port for H8
90	PI1	DIR0_N_LOCK	I	T	Extended input port for H8
91	PI0	DIR0_ERR	I	T	Extended input port for H8
92	PO3	JG_POUT2	O	C	Extended output port for H8
93	PO2	JG_POUT1	O	C	Extended output port for H8
94	PO1	JG_POUT0	O	C	Extended output port for H8
95	PO0	OPT_IN	O	C	Extended output port for H8
96	WCIN	WCIN	I\$	T	Word clock input
97	SPD	SPD	O	C	Digital audio interface output
98	DIF		O	C	Digital audio interface output (N.C.)
99	SPDI	DIT_OUT	I	T	Digital audio interface input
100	DIFI	DIFI	I	T	Digital audio interface input
101	VDD	VDD			Power supply
102	VSS	VSS			GND
103	/HRST	IDE_N_RST	OT	C	EDE interface reset
104	DD0	IDE_D0	I/O	T	IDE interface data bus
105	DD1	IDE_D1	I/O	T	IDE interface data bus
106	DD2	IDE_D2	I/O	T	IDE interface data bus
107	DD3	IDE_D3	I/O	T	IDE interface data bus
108	DD4	IDE_D4	I/O	T	IDE interface data bus
109	DD5	IDE_D5	I/O	T	IDE interface data bus
110	DD6	IDE_D6	I/O	T	IDE interface data bus
111	DD7	IDE_D7	I/O	T	IDE interface data bus
112	VSS	VSS			GND
113	DD8	IDE_D8	I/O	T	IDE interface data bus
114	DD9	IDE_D9	I/O	T	IDE interface data bus
115	DD10	IDE_D10	I/O	T	IDE interface data bus
116	DD11	IDE_D11	I/O	T	IDE interface data bus
117	DD12	IDE_D12	I/O	T	IDE interface data bus
118	DD13	IDE_D13	I/O	T	IDE interface data bus
119	DD14	IDE_D14	I/O	T	IDE interface data bus
120	DD15	IDE_D15	I/O	T	IDE interface data bus
121	IOCS16	IDE_N_IOCS16	I	T	IDE interface data bus width specify
122	HINTRQ	IDE_INTRQ	I	T	IDE interface interrupt request
123	HOMARQ	IDE_DMARQ	I	T	IDE interface DMA request
124	VSS	VSS			GND
125	IORDY	IDE_IORDY	I	T	IDE interface data ready
126	PDIAG	IDE_N_PDIAG	OD	C	IDE interface connection diagnosis control
127	/HIOW	IDE_N_IOW	OT	C	IDE interface DMA write strobe
128	/HIOR	IDE_N_IOR	OT	C	IDE interface DMA read strobe
129	/HDACK	IDE_N_DMACK	OT	C	IDE interface DMA data acknowledge
130	CSEL	IDE_CSEL	O	C	IDE interface device select
131	HA0	IDE_A0	OT	C	IDE interface address
132	HA1	IDE_A1	OT	C	IDE interface address
133	HA2	IDE_A2	OT	C	IDE interface address
134	/HCS0	IDE_N_CS0	OT	C	IDE interface chip select

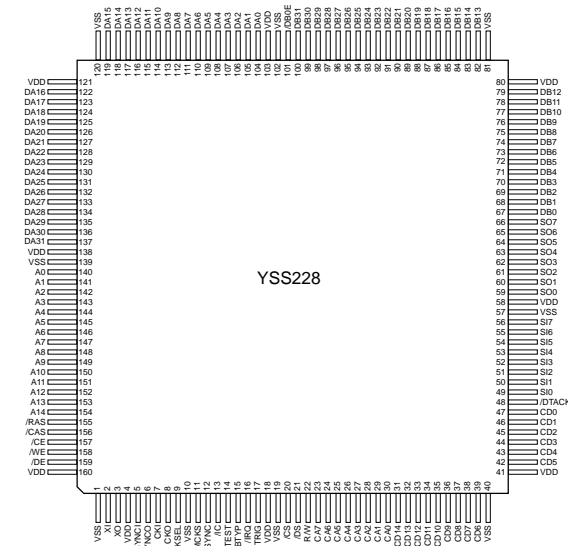
IC4 : FHIB31-70A

ACDR

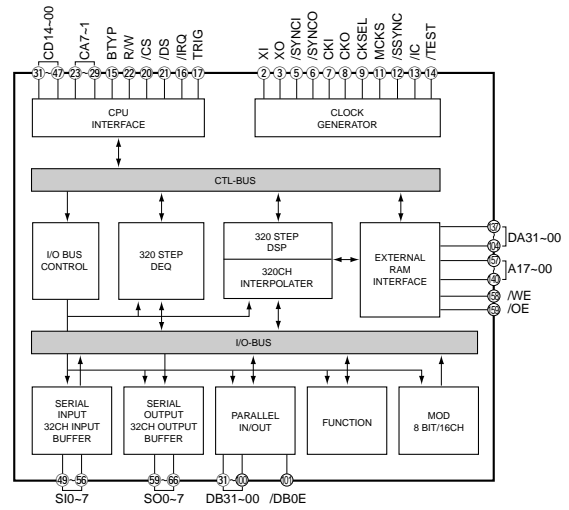
NO.	PORT	Name	I/O	DC	Function
135	/HCS1	IDE_N_CS1	OT	C	IDE interface chip select
136	DASP	IDE_N_DASP	OD	C	IDE interface active/slave
137	CK33I	CK33I	I\$	T	Word clock
138	CK33O	CK33O	O\$	T	Clock output
139	VDD	VDD			Power supply
140	VSS	VSS			GND
141	RA16	CDR_RA16	O	C	External RAM address signal
142	RA15	CDR_RA15	O	C	External RAM address signal
143	RA14	CDR_RA14	O	C	External RAM address signal
144	RA13	CDR_RA13	O	C	External RAM address signal
145	RA12	CDR_RA12	O	C	External RAM address signal
146	RA11	CDR_RA11	O	C	External RAM address signal
147	RA10	CDR_RA10	O	C	External RAM address signal
148	RA9	CDR_RA9	O	C	External RAM address signal
149	RA8	CDR_RA8	O	C	External RAM address signal
150	VSS	VSS			GND
151	RA7	CDR_RA7	O	C	External RAM address signal
152	RA6	CDR_RA6	O	C	External RAM address signal
153	RA5	CDR_RA5	O	C	External RAM address signal
154	RA4	CDR_RA4	O	C	External RAM address signal
155	RA3	CDR_RA3	O	C	External RAM address signal
156	RA2	CDR_RA2	O	C	External RAM address signal
157	RA1	CDR_RA1	O	C	External RAM address signal
158	RA0	CDR_RA0	O	C	External RAM address signal
159	/W	CDR_N_W	O	C	External RAM write control signal
160	/OE	CDR_N_OE	O	C	External RAM write control signal

I/O I: Input O: Output I/O: Bidirectional \$: Clock signal
 OT: Tri-state output +: Pull-up resistor built in OD: Open drain
DC C: CMOS level T: TTL level

IC205 : YSS228E-F
 DSP3 (Digital Audio Processor)

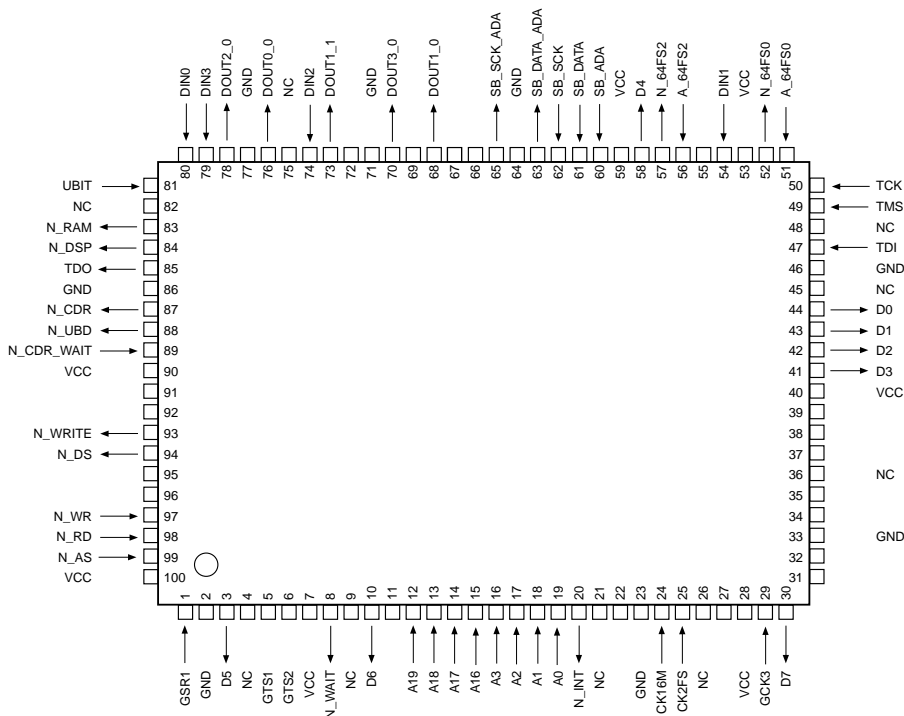


YSS228



Name	I/O	Function
XI	I	System master clock input (60MHz or 30MHz)
XO	O	System master clock output (60MHz or 30MHz)
/SYNCI	I	System synchronous signal input
CKI	I	System clock input (30MHz)
/SYNCO	O	System synchronous signal output
CKO	O	System clock output (30MHz)
CKSEL	I	System master clock select (0:60MHz, 1: 30MHz)
MCKS	I	Master clock input for serial I/O (128 x Fs)
/SSYNC	I	Synchronous signal input for serial I/O
/IC	I	Initial clear
/TEST	I	Test mode setting (0: Test, 1: Normal)
CD14-00	I/O	Host CPU data bus
CA0/CD15	I/O	Host CPU address bus / data bus
CA7-1	I	Host CPU address bus
BTYP	I	Host CPU data bus width select (0: 8 bit, 1: 16 bit)
/CS	I	Chip select signal input
/DS	I	Data strobe signal input
R/W	I	Read/Write select signal input
/IRQ	O	IRQ output
TRIG	I/O	Transfer trigger signal input/output
/DTACK	O	DTACK output
SI7-0	I	Serial data input
SO7-0	O	Serial data output
DB31-00	I/O	Parallel data bus
TIMO/DBOE	I/O	Timing signal output / parallel data bus output control input
DA31-00	I/O	External memory data bus
A17/CE	O	External memory address (SRAM), /CE (PSRAM)
A16/CAS	O	External memory address (SRAM, PSRAM), /CAS (DRAM)
A15/RAS	O	External memory address (SRAM, PSRAM), /RAS (DRAM)
A14-12	O	External memory address (SRAM, PSRAM)
A11-00	O	External memory address (SRAM, PSRAM, DRAM)
/WE	O	External memory Write Enable signal
/OE	O	External memory Output Enable signal

IC209 : XC95108-20PQ100C
PLD (Programmable Logic Device)



NO.	PORT	Name	I/O	Function
1	GSR1	N_RESET	I	Reset input
2	GND	GND		GND
3	D5	D5	O	Data bus
4	NC	NC		GND
5	GTS1	GTS1		GND
6	GTS2	GTS2		GND
7	VCC	VCC		+ 5V power
8	N WAIT	N_WAIT	O	WAIT output
9	NC	NC		GND
10	D6	D6	O	Data bus
11				GND
12	A19	A19	I	Address bus
13	A18	A18	I	Address bus
14	A17	A17	I	Address bus
15	A16	A16	I	Address bus
16	A3	A3	I	Address bus
17	A2	A2	I	Address bus
18	A1	A1	I	Address bus
19	A0	A0	I	Address bus
20	N INT	N_INT_UBD	O	UBD interrupt output
21	NC	NC		GND
22				GND
23	GND	GND		GND
24	CK16M	CK16M	I	16M clock input
25	CK2FS	CK2FS	I	Take-in clock input for UBD
26	NC	NC		GND
27				GND
28	VCC	VCC		+ 5V power
29	GCK3	GCK3	I	Spare clock input
30	D7	D7	O	Data bus

IC209 : XC95108-20PQ100C

PLD (Programmable Logic Device)

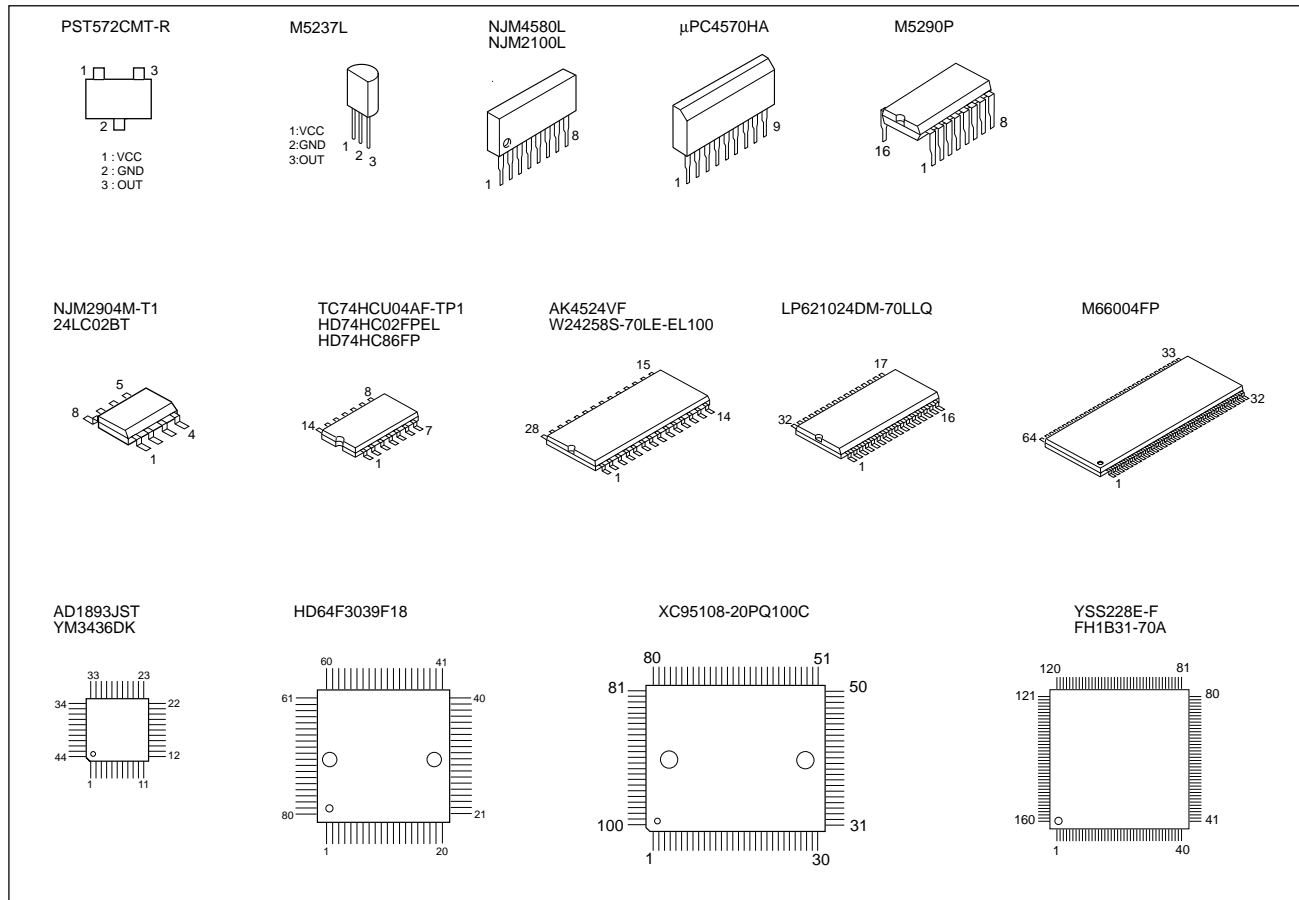
NO.	PORT	Name	I/O	Function
31				GND
32				Spare port
33	GND	GND		GND
34				GND
35				Spare port
36	NC	NC		GND
37				GND
38				GND
39				GND
40	VCC	VCC		+ 5V power
41	D3	D3	O	Data bus
42	D2	D2	O	Data bus
43	D1	D1	O	Data bus
44	D0	D0	O	Data bus
45	NC	NC		GND
46	GND	GND		GND
47	TDI	PLD_TDI	I	Terminal for writing data
48	NC	NC		GND
49	TMS	PLD_TMS	I	Terminal for writing data
50	TCK	PLD_TCK	I	Terminal for writing data
51	A 64FS0	DIR1_64FS	I	Inverter input
52	N 64FS0	DIR1_N_64FS	O	Inverter output
53	VCC	VCC		+ 5V power
54	DIN1	DIR1_256FS	I	Buffer input
55				GND
56	A 64FS2	N_DEV_RST	I	Inverter input
57	N 64FS2	DEV_RST	O	Inverter output
58	D4	D4	O	Data bus
59	VCC	VCC		+ 5V power
60	SB ADA	SB_ADA	I	AD/DA control data
61	SB DATA	SB_DATA	I	Gate input for AD/DA control data
62	SB SCK	SB_SCK	I	Gate input for AD/DA control data
63	SB DATA ADA	SB_DATA_ADA	O	Gate output for AD/DA control data
64	GND	GND		GND
65	SB SCK ADA	SB_SCK_ADA	O	Gate output for AD/DA control data
66				GND
67				GND
68	DOUT1 0	DIR1_256FS0	O	Buffer output
69				GND
70	DOUT3 0	DIR1_256FS1	O	Buffer output
71	GND	GND		GND
72				GND
73	DOUT1 1	DOUT1_1	O	Buffer output
74	DIN2	DIN2	I	Buffer input
75	NC	NC		GND
76	DOUT0 0	DIR1_DOUT0	O	Buffer output
77	GND	GND		GND
78	DOUT2 0	DOUT2_0	O	Buffer output
79	DIN3	DIN3	I	Buffer input
80	DIN0	DIR1_DOUT	I	Buffer input
81	UBIT	DIR0_UBIT	I	DIR user bit data input
82	NC	NC		GND
83	N RAM	N_RAM	O	RAM chip select
84	N DSP	N_DSP	O	DSP3 chip select
85	TDO	PLD_TDO	O	Terminal for writing data

IC209 : XC95108-20PQ100C
PLD (Programmable Logic Device)

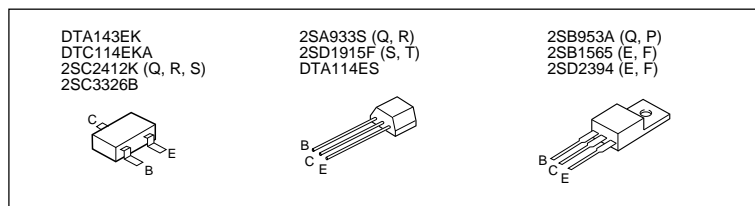
NO.	PORT	Name	I/O	Function
86	GND	GND		GND
87	N CDR	N_CDR	O	ACDR chip select
88	N UBD	N_UBD	O	ACDR chip select (for checking)
89	N CDR WAIT	N_CDR_WAIT	I	ACDR WAIT signal input
90	VCC	VCC		+ 5V power
91				GND
92				GND
93	N WRITE	N_WRITE	O	WRITE state signal
94	N DS	N_DS	O	DATA strobe
95				GND
96				GND
97	N WR	N_WR	I	WRITE strobe
98	N RD	N_RD	I	READ strobe
99	N AS	N_AS	I	Address strobe
100	VCC	VCC		+ 5V power

PIN CONNECTION DIAGRAM

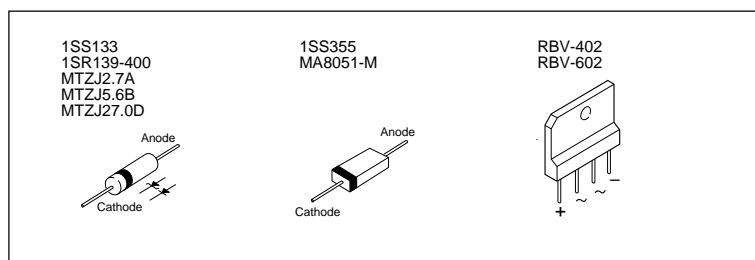
ICs



Transistors



Diodes

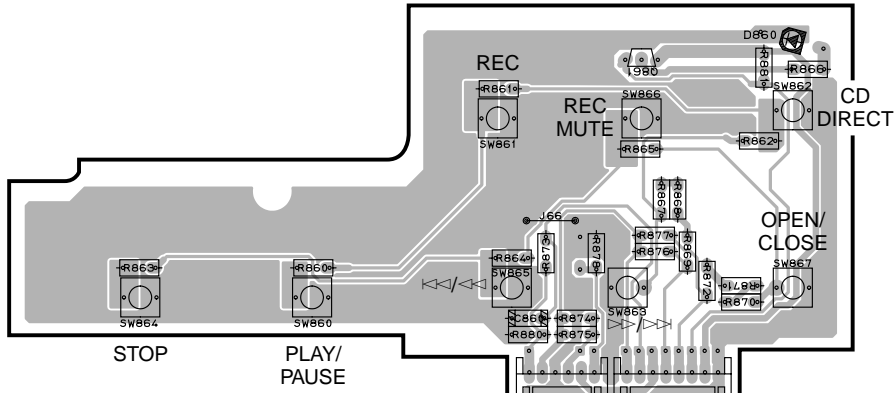


1

PRINTED CIRCUIT BOARD (Foil side)

PANEL P. C. B. (1)

2



3

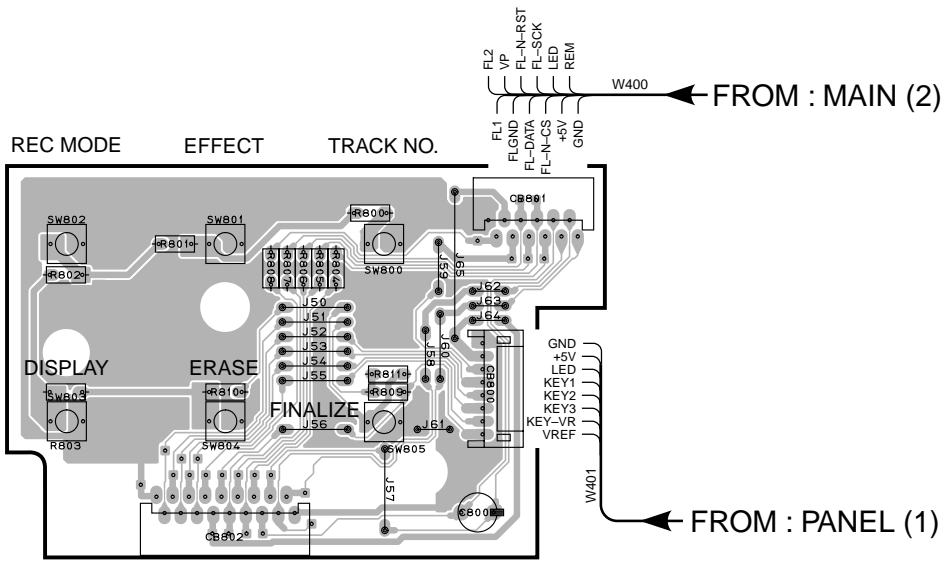
FROM : PANEL (3) → W402

← W401 FROM : PANEL (2)

4

PANEL P. C. B. (2)

5



6

← W400 FROM : MAIN (2)

← W401 FROM : PANEL (1)

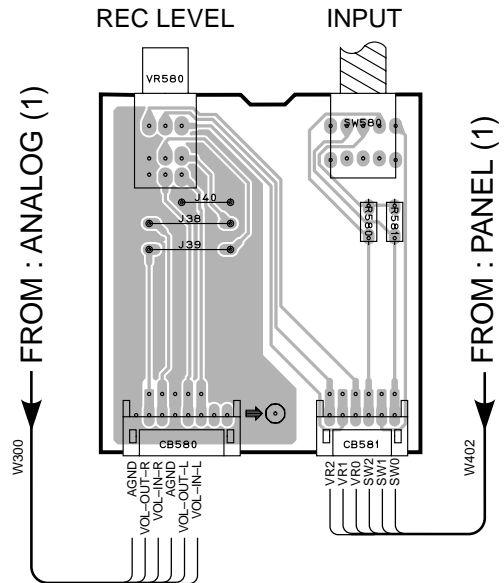
← W102 FROM : MAIN (1)

7

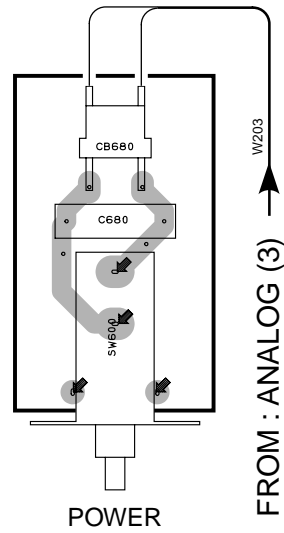
CDR-S1000

1 PRINTED CIRCUIT BOARD (Foil side)

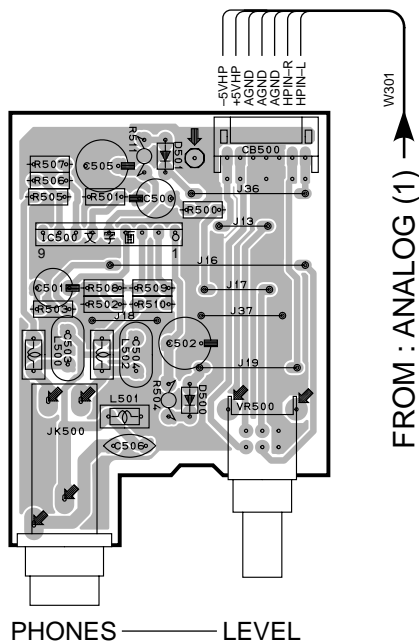
PANEL P. C. B. (3)



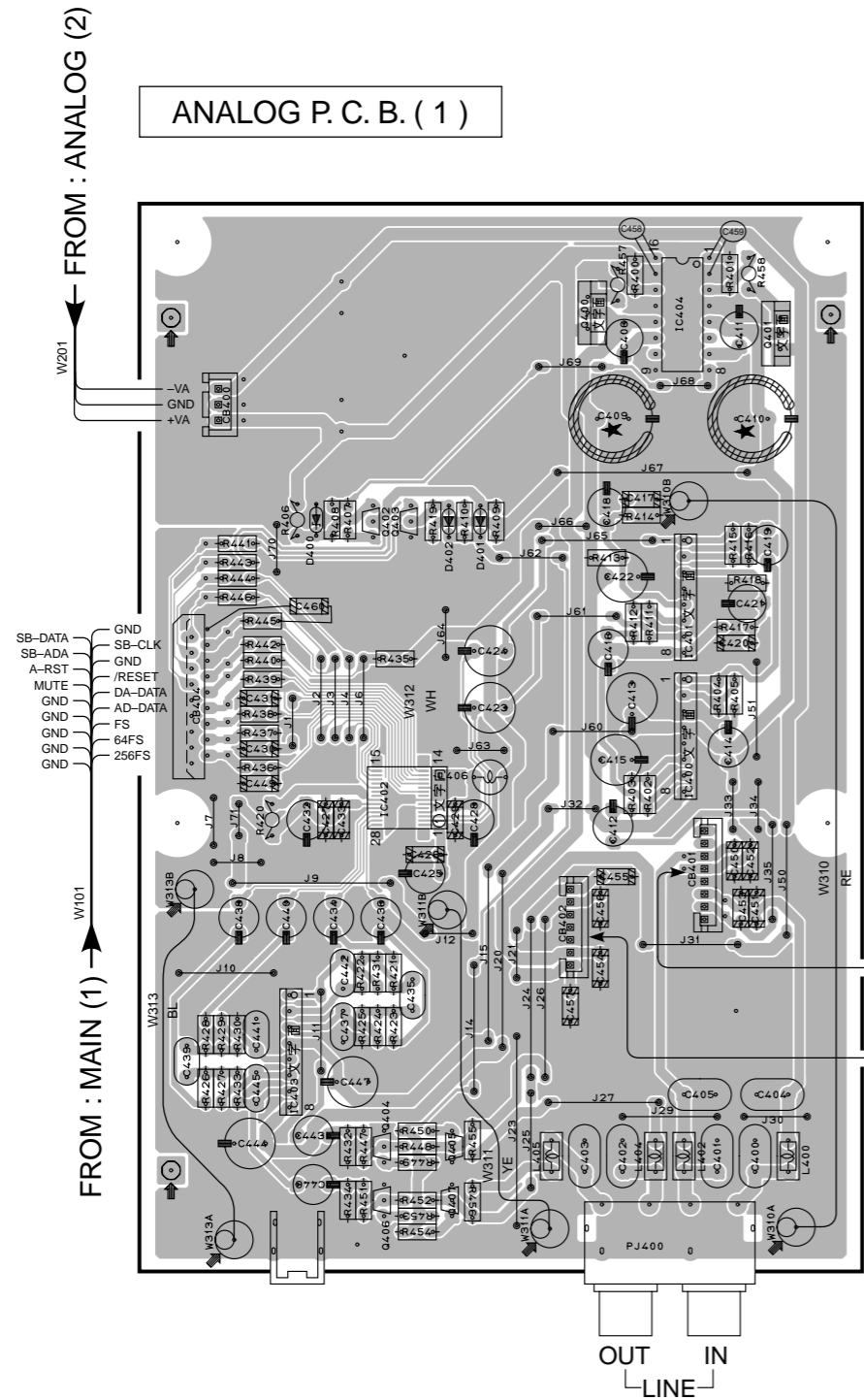
PANEL P. C. B. (5)



PANEL P. C. B. (4)



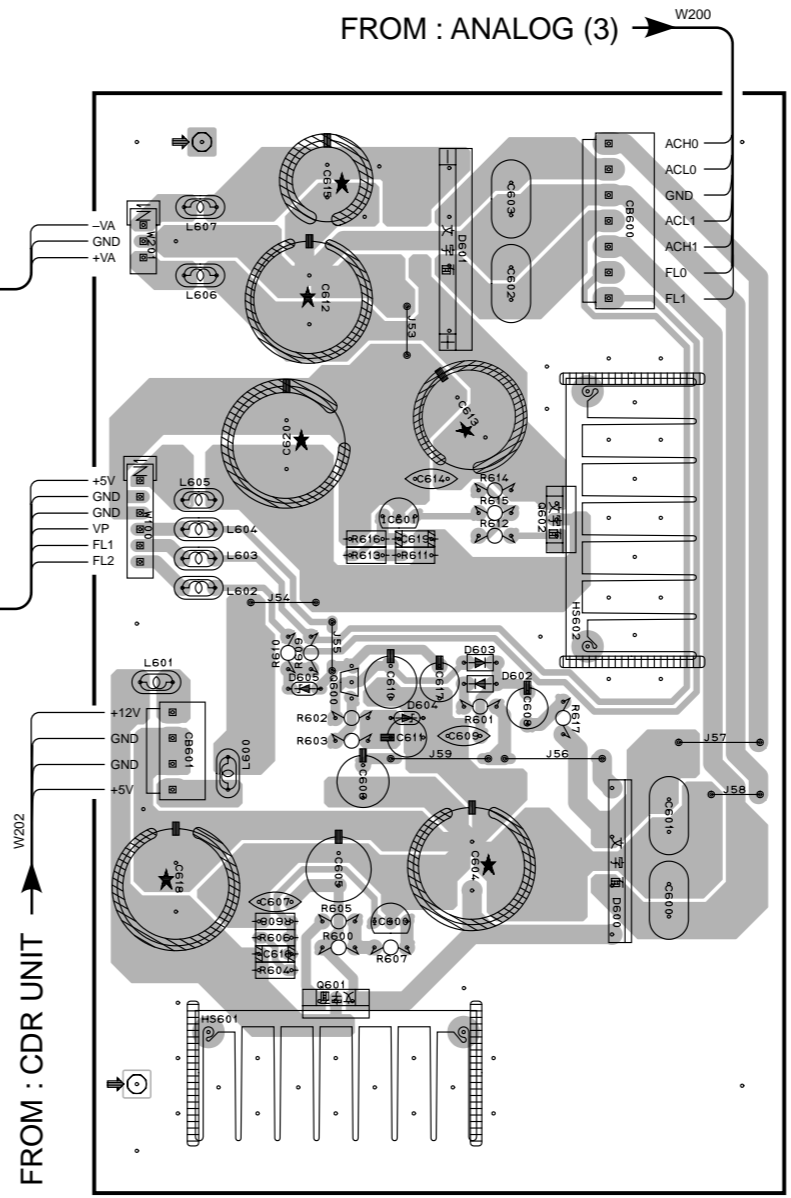
PRINTED CIRCUIT BOARD (Foil side)



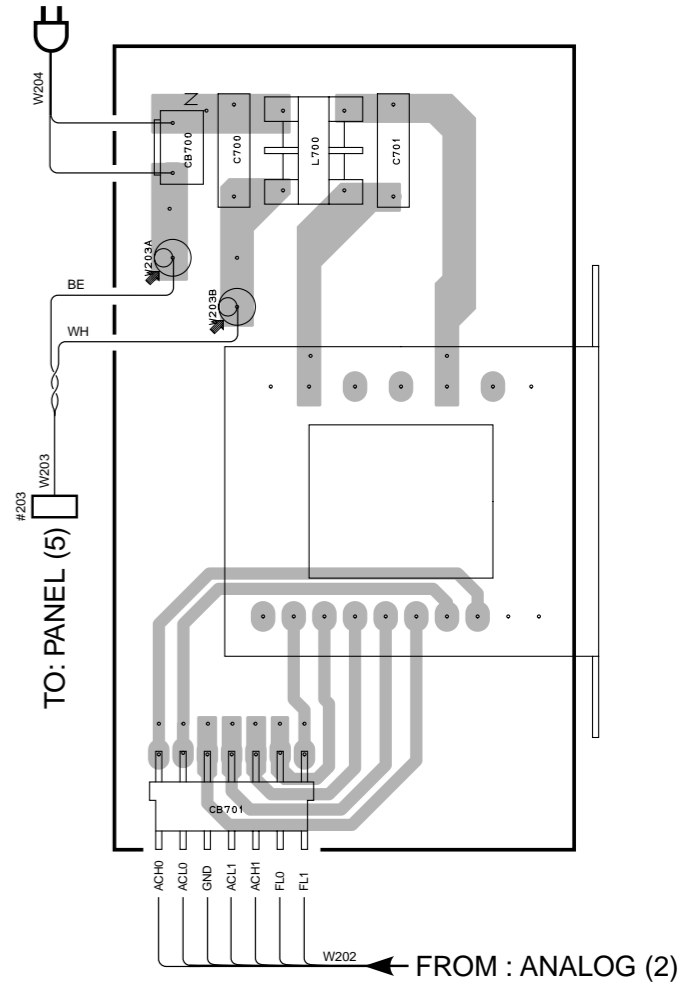
HPIN-L
HPIN-R
GND
GND
+5VHP
-5VHP

VOL-IN-L
VOL-OUT-L
AGND
VOL-IN-R
VOL-OUT-R
AGND

ANALOG P. C. B. (2)



ANALOG P. C. B. (3)



● Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D400	B2	IC400	C3	Q400	B2
D401	B2	IC401	C3	Q401	C2
D402	B2	IC402	B3	Q402	B2
D600	F4	IC403	B4	Q403	B2
D601	E2	IC404	C2	Q404	B4
D602	E3	IC600	E4	Q405	B4
D603	E3	IC601	E3	Q406	B4
D604	E3			Q407	B4
D605	E3			Q600	E3
				Q601	E4
				Q602	E3

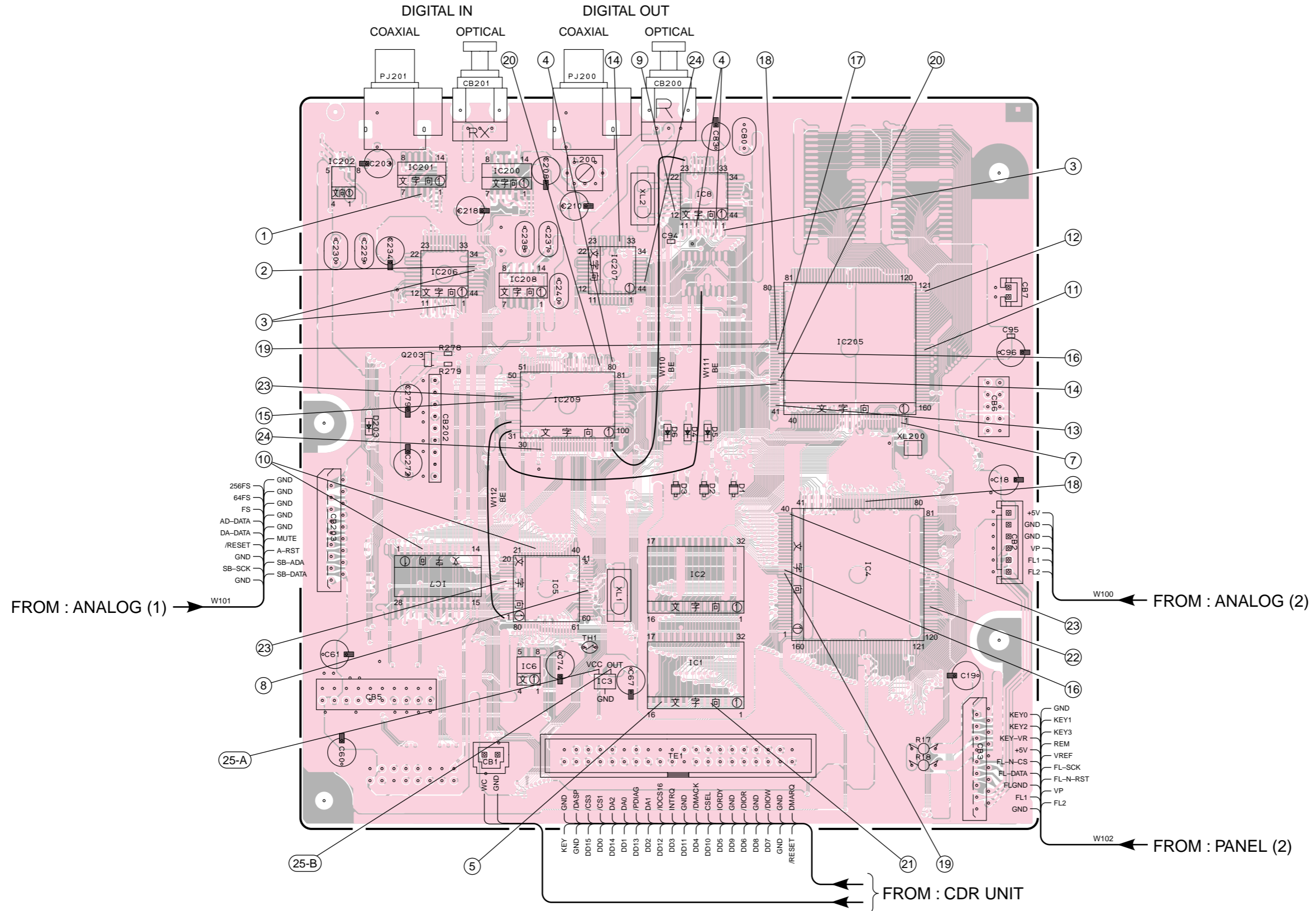
PRINTED CIRCUIT BOARD (Foil side)

MAIN P. C. B. (1) (Lead Type Device)

① to ②⑤ : TEST POINT WAVEFORMS (See page E36, 37/J32, 33)

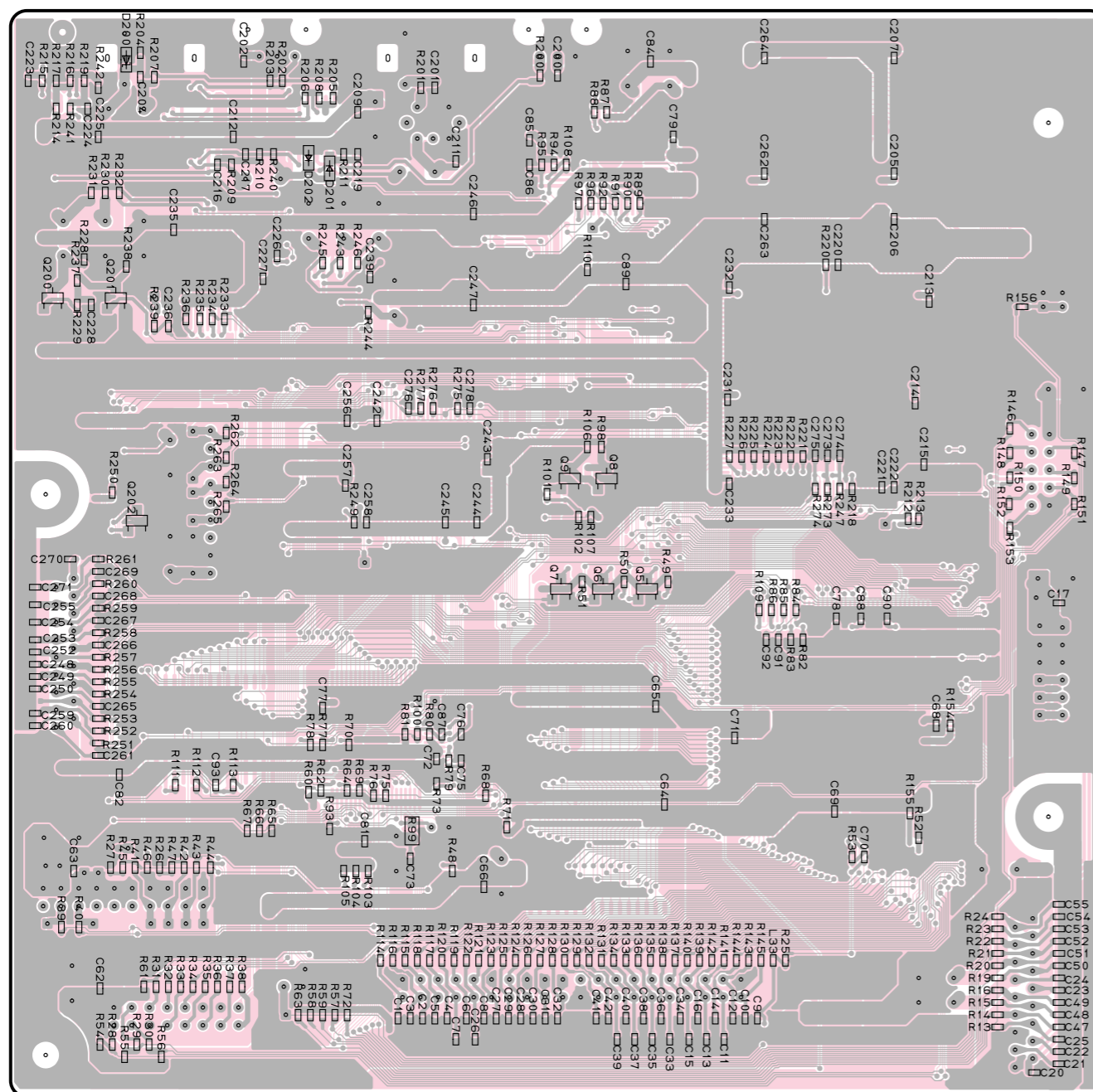
Semiconductor Location

Ref. No.	Location
D1	E3
D2	D3
D3	D3
D4	D3
D5	D3
D6	D3
D203	C3
IC1	D4
IC2	D4
IC3	D4
IC4	E4
IC5	D4
IC6	D4
IC7	C4
IC8	D2
IC200	D2
IC201	C2
IC202	C2
IC205	E3
IC206	C3
IC207	D3
IC208	D3
IC209	D3
Q203	C3



PRINTED CIRCUIT BOARD (Foil side)

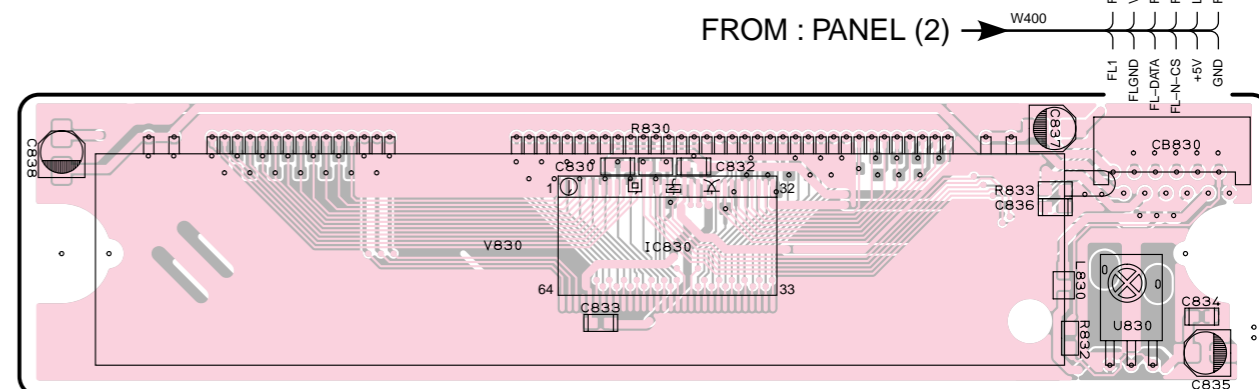
MAIN P. C. B. (1) (Surface Mount Device)



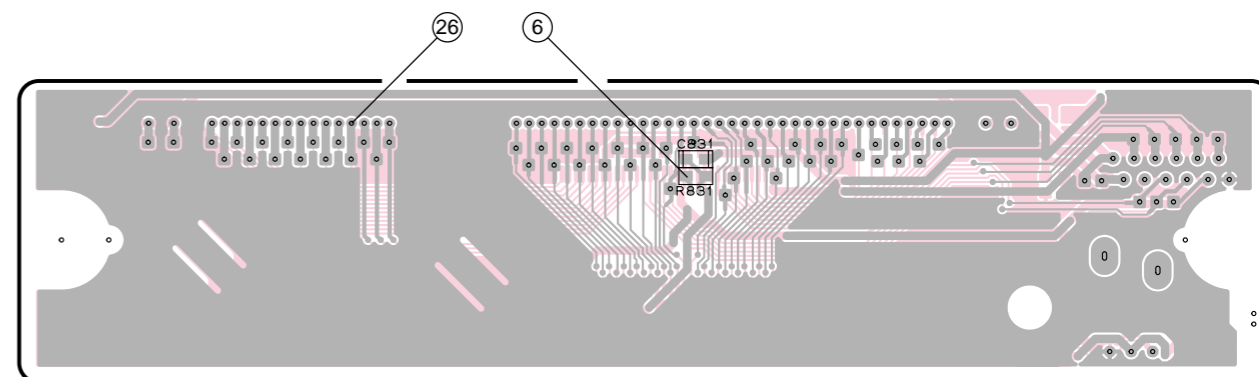
● Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D200	A2	IC830	F2	Q5	C4
D201	B2			Q6	C4
D202	B2			Q7	C4
				Q8	C3
				Q9	C3
				Q200	A3
				Q201	A3
				Q202	A3

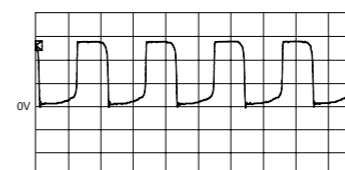
MAIN P. C. B. (2) (Lead Type Device)



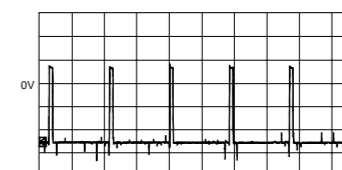
MAIN P. C. B. (2) (Surface Mount Device)



Point ⑥ (Pin 20 of IC830)
V : 2V/div, H : 1 μsec/div
DC, 1 : 1 probe

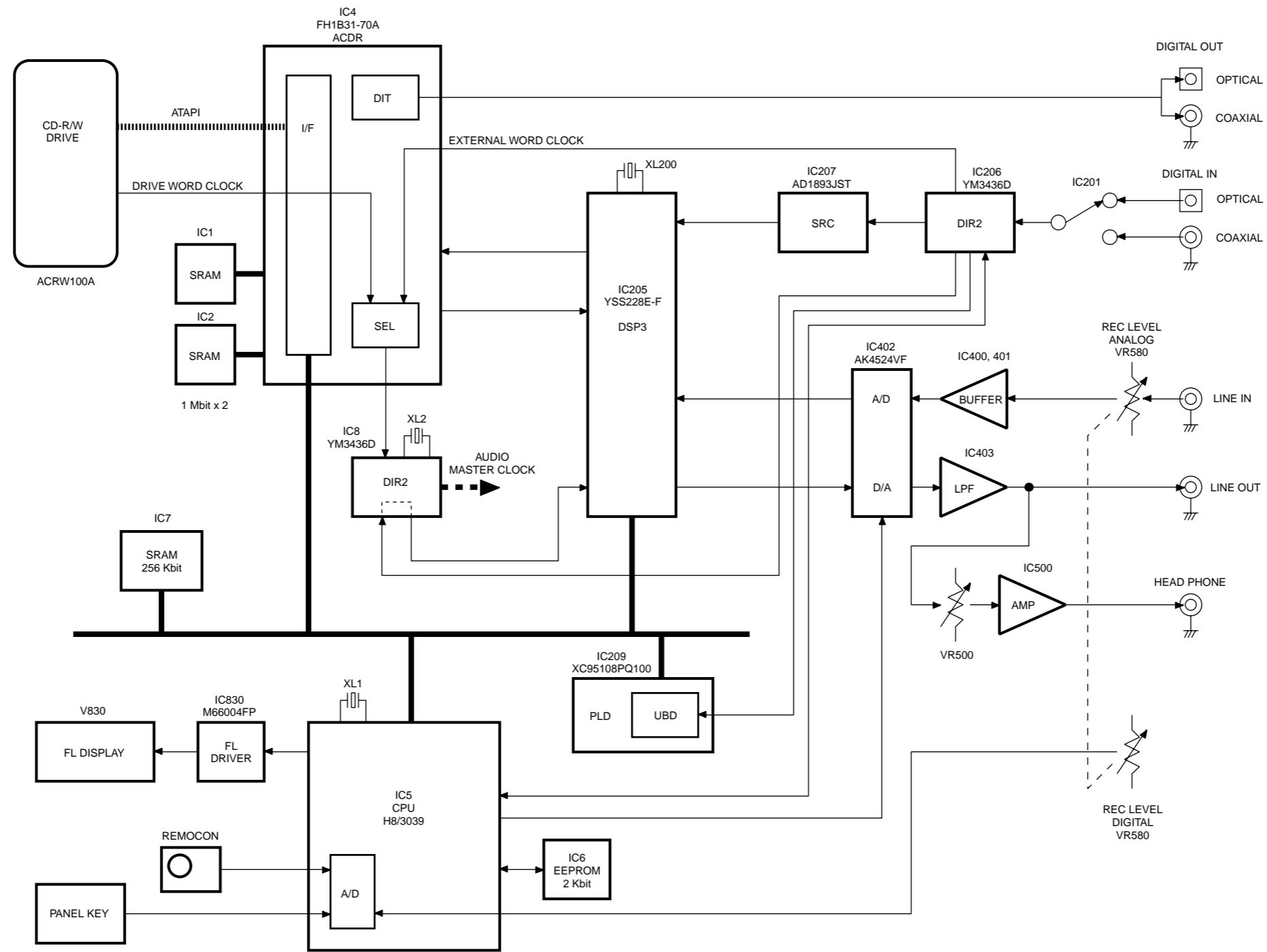


Point ②⑥ (Pin 1 of IC830)
V : 10V/div, H : 2 msec/div
DC, 1 : 1 probe



CDR-S1000

■ BLOCK DIAGRAM



SCHEMATIC DIAGRAM (MAIN P.C.B.)

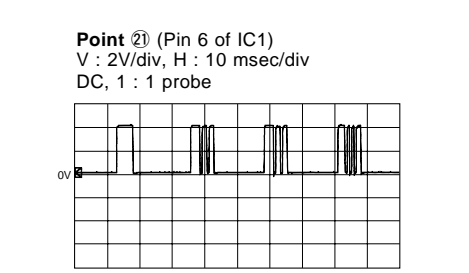
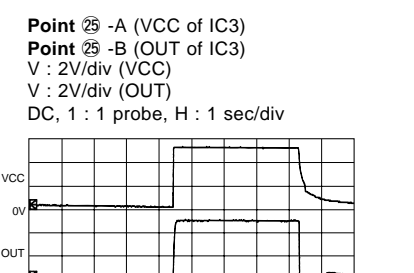
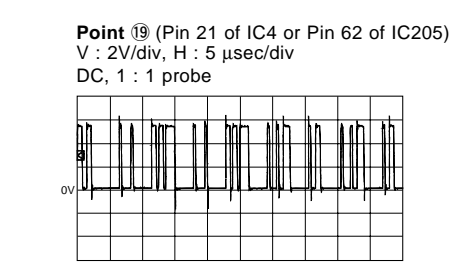
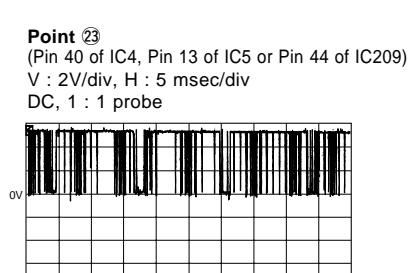
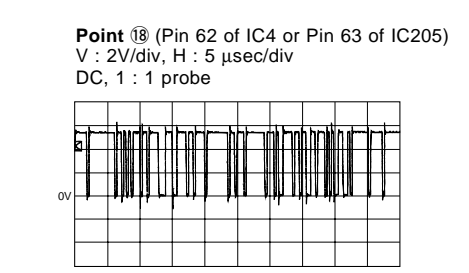
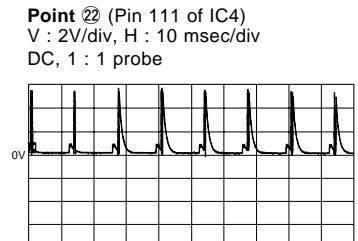
The voltage value is measured during playback. The waveform is measured while CD OPTICAL (1kHz) signal is recorded.

電圧値は、再生しているときの測定です。波形は、CD OPTICAL(1kHz)を録音しているときの測定です。

RESISTOR table with columns: REMARKS, PARTS NAME, NO. MARK, CARBON FILM RESISTOR (P=5), CARBON FILM RESISTOR (P=10), METAL OXIDE FILM RESISTOR, METAL FILM RESISTOR, METAL PLATE RESISTOR, FIRE PROOF CARBON FILM RESISTOR, CEMENT MOLDED RESISTOR, SEMI VARIABLE RESISTOR, CHIP RESISTOR.

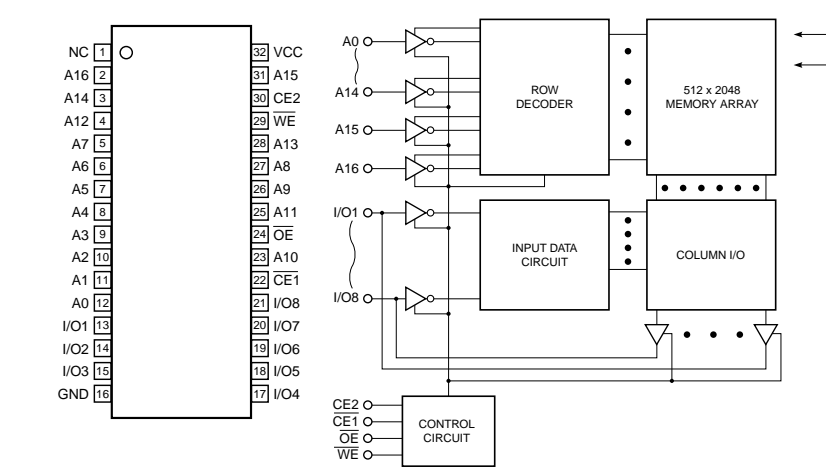
CAPACITOR table with columns: REMARKS, PARTS NAME, NO. MARK, ELECTROLYTIC CAPACITOR, TANTALUM CAPACITOR, CERAMIC CAPACITOR, CERAMIC TUBULAR CAPACITOR, POLYESTER FILM CAPACITOR, POLYSTYRENE FILM CAPACITOR, POLYPROPYLENE FILM CAPACITOR, MICA CAPACITOR, SEMICONDUCTIVE CERAMIC CAPACITOR, POLYPHENYLENE SULFIDE FILM CAPACITOR.

NOTICE (mode1) JAPANESE (U) S. A. (J) CANADIAN (C) GENERAL (R) AUSTRALIAN (A) BRITISH (B) EUROPEAN (G) CHINA (T) SINGAPORE (L)

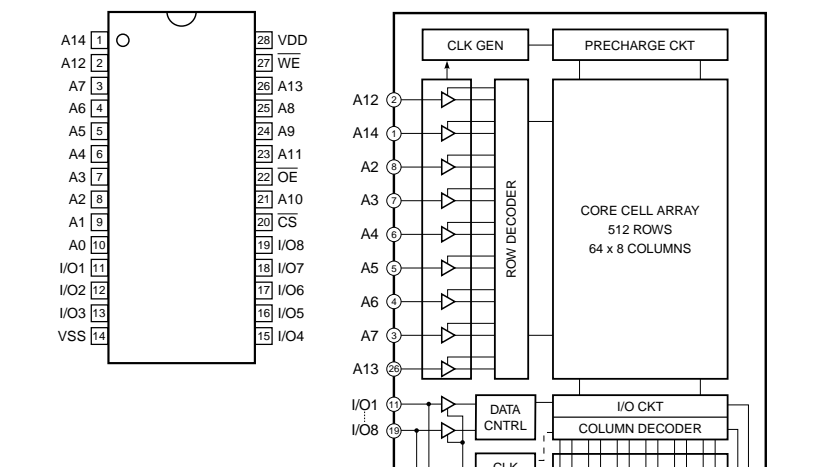


Interchangeable Parts at Manufacture Stage table with columns: Mark, Reference Parts Number, Parts Name.

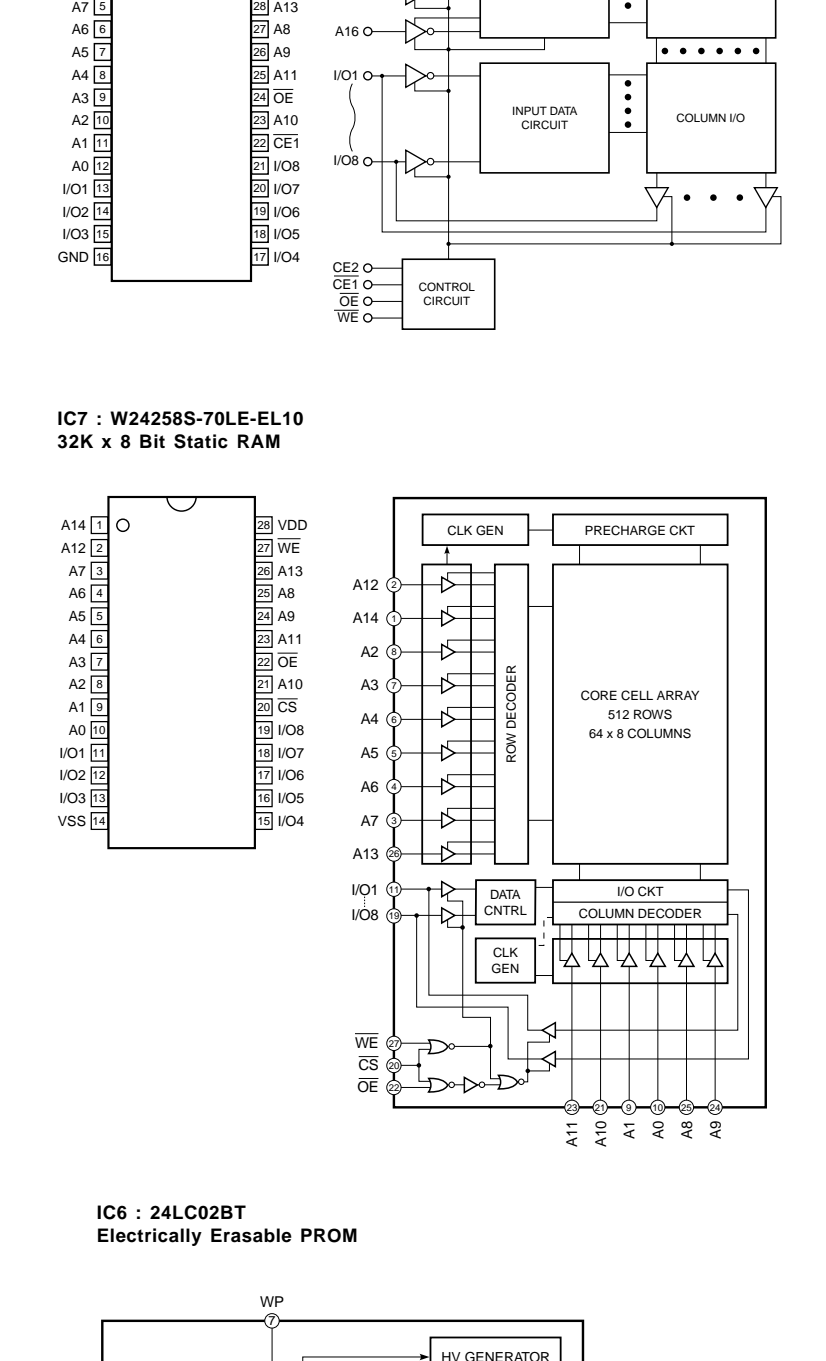
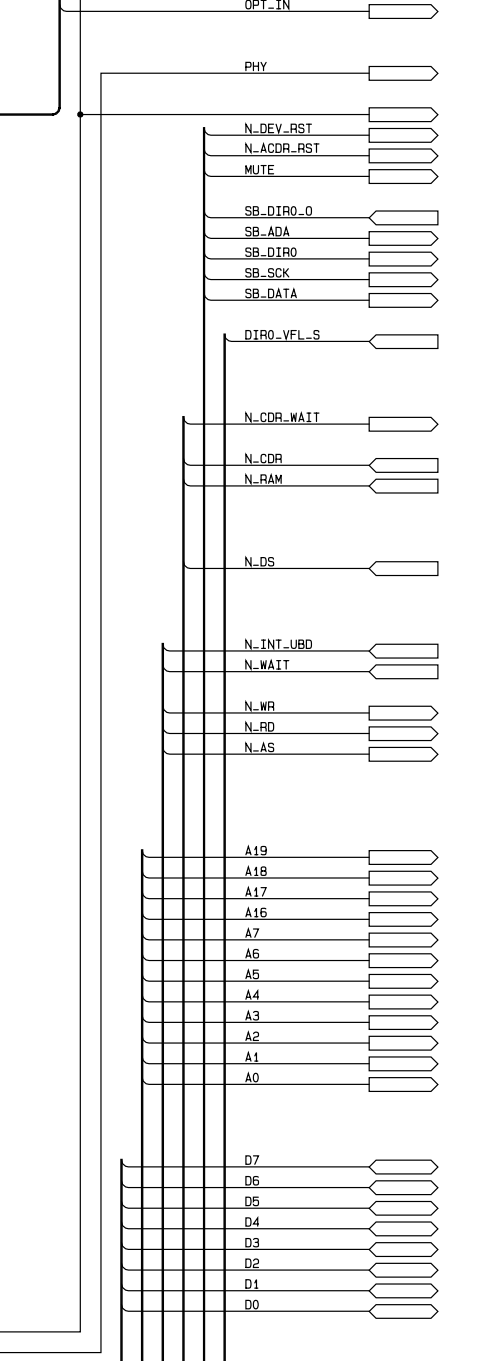
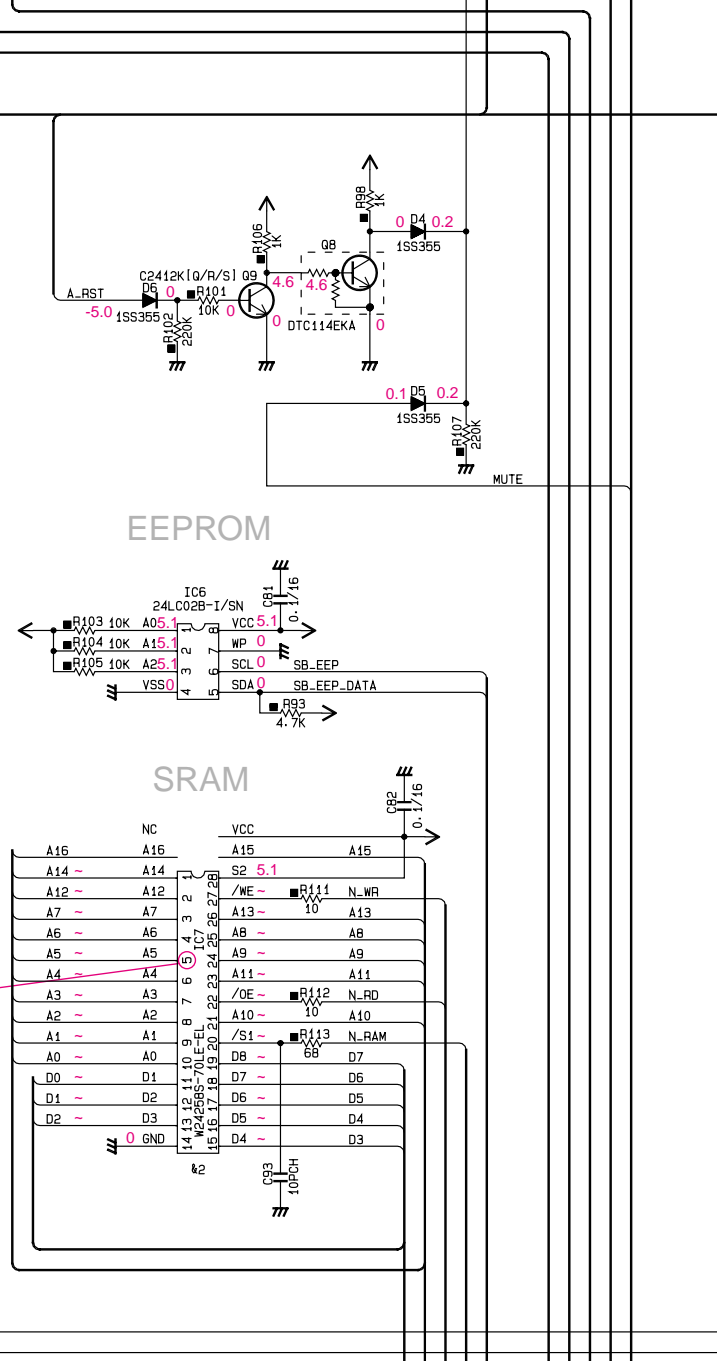
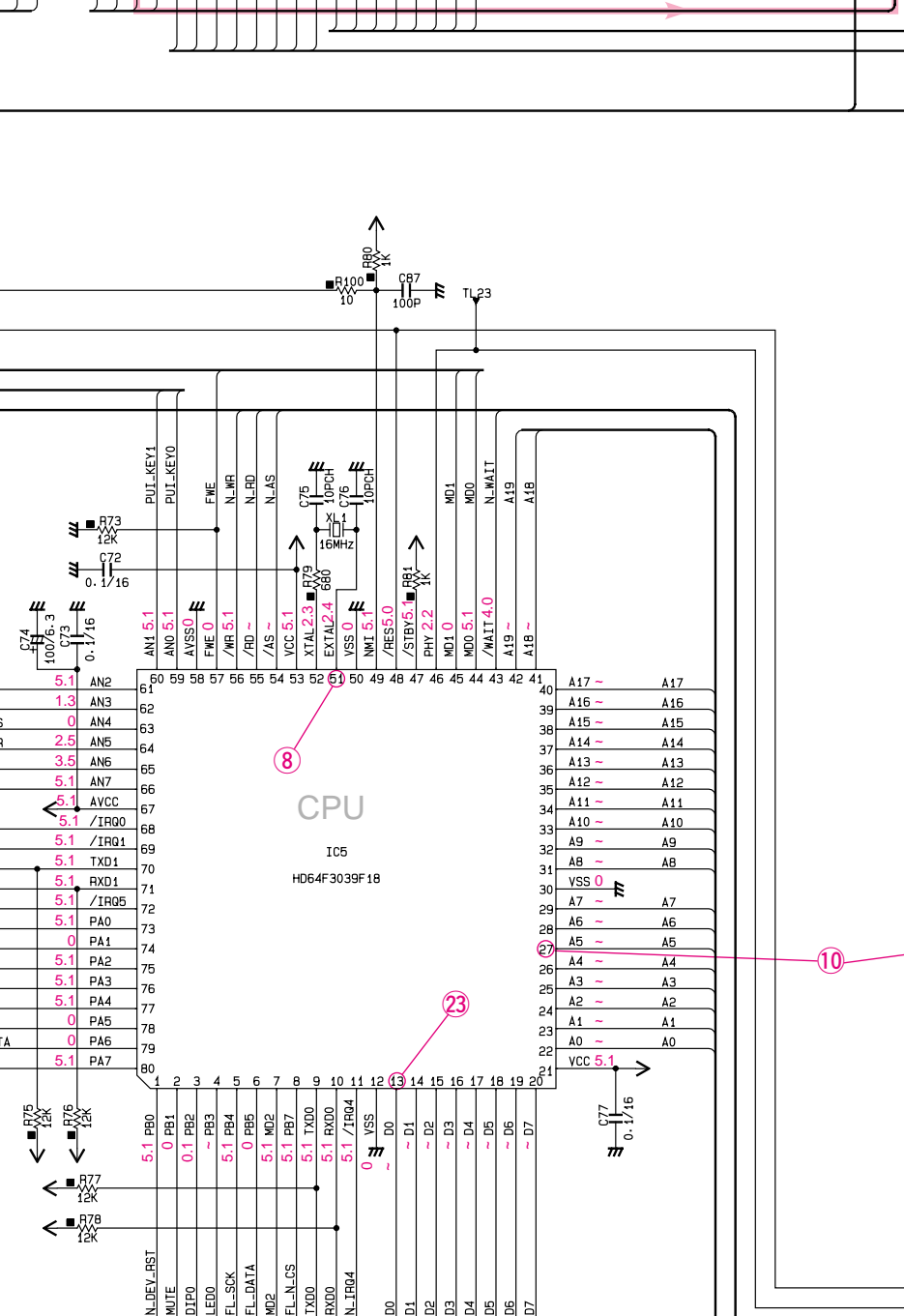
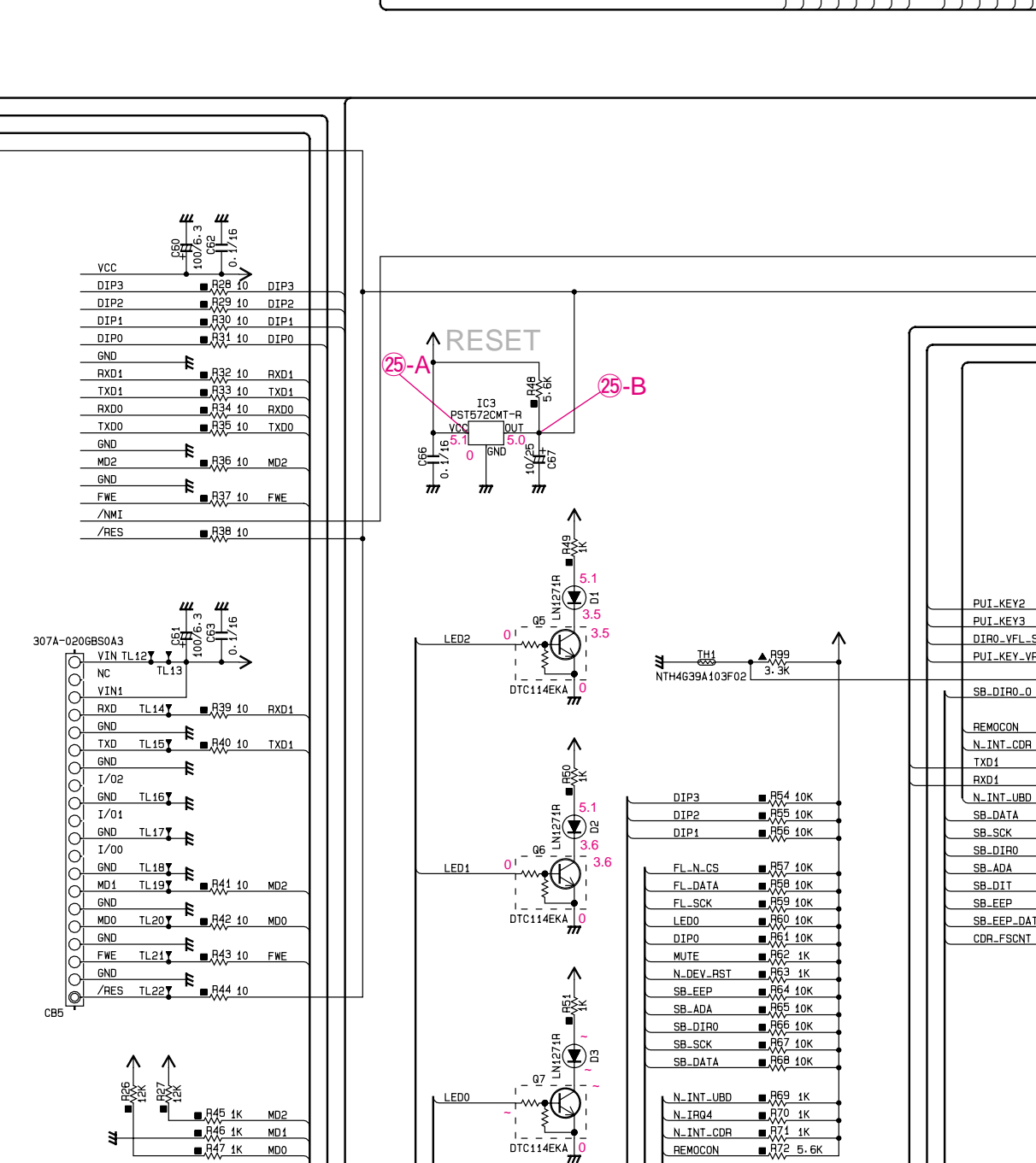
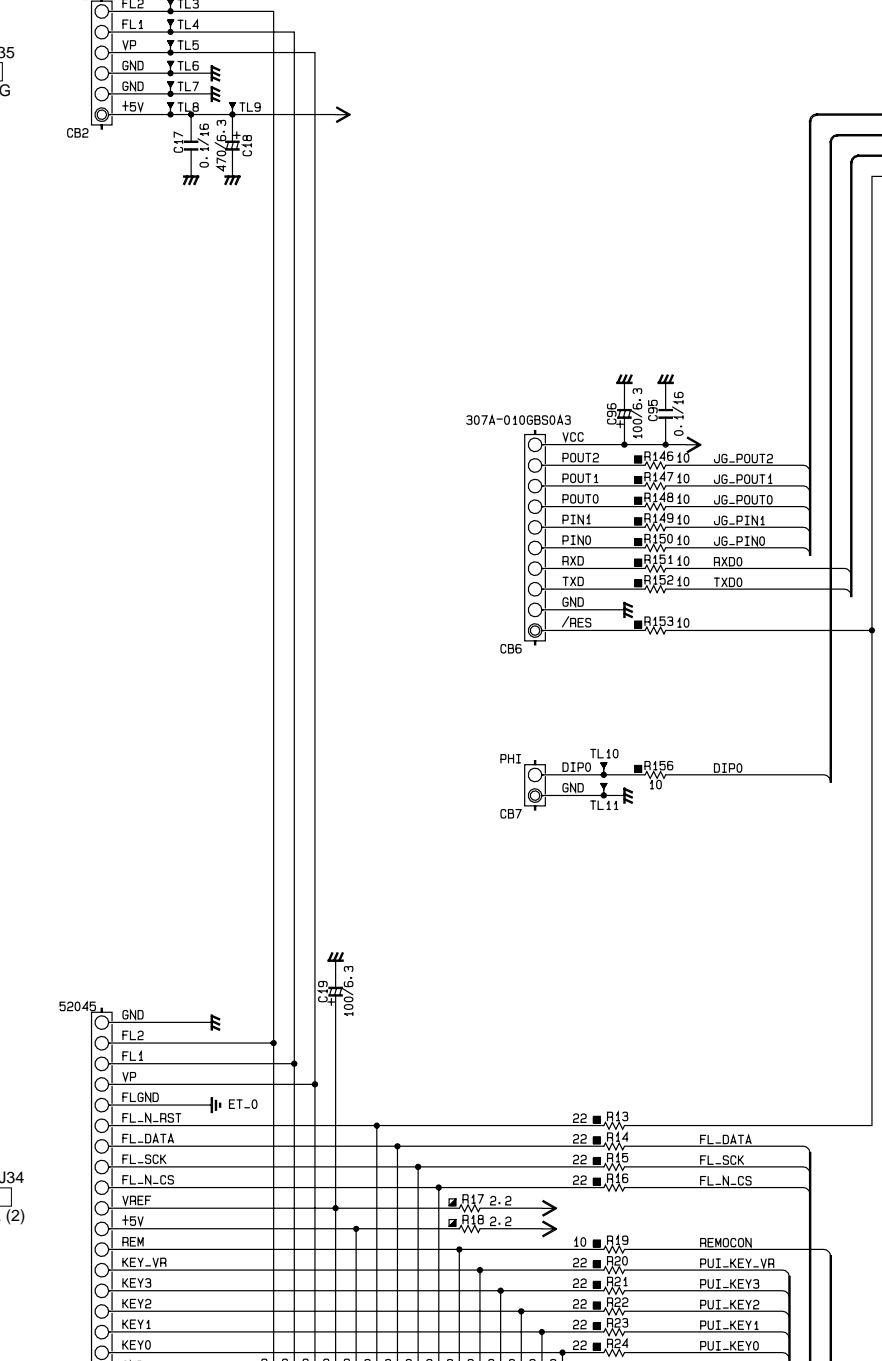
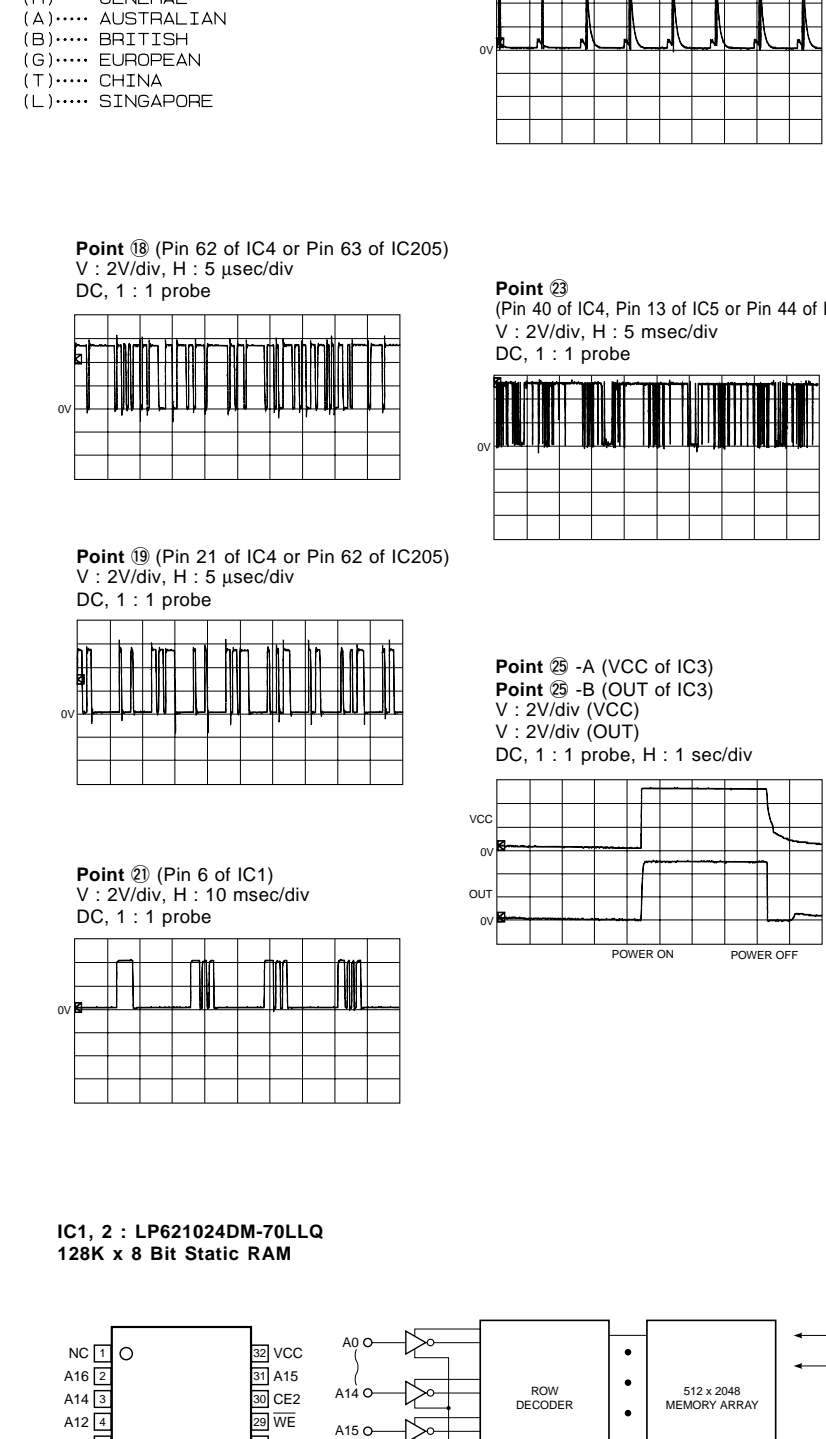
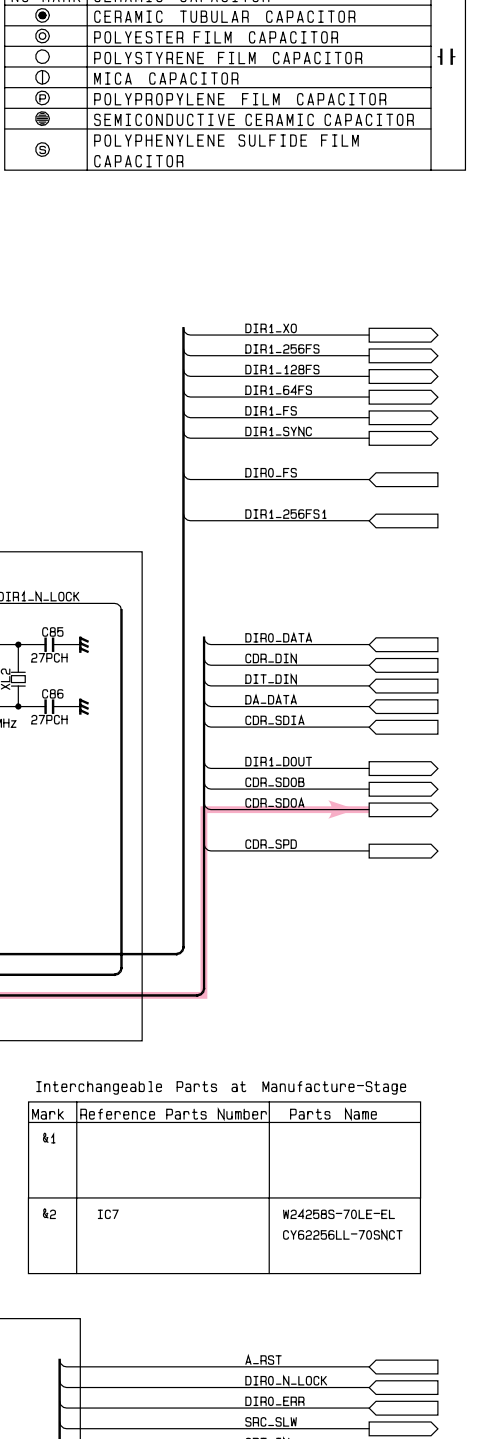
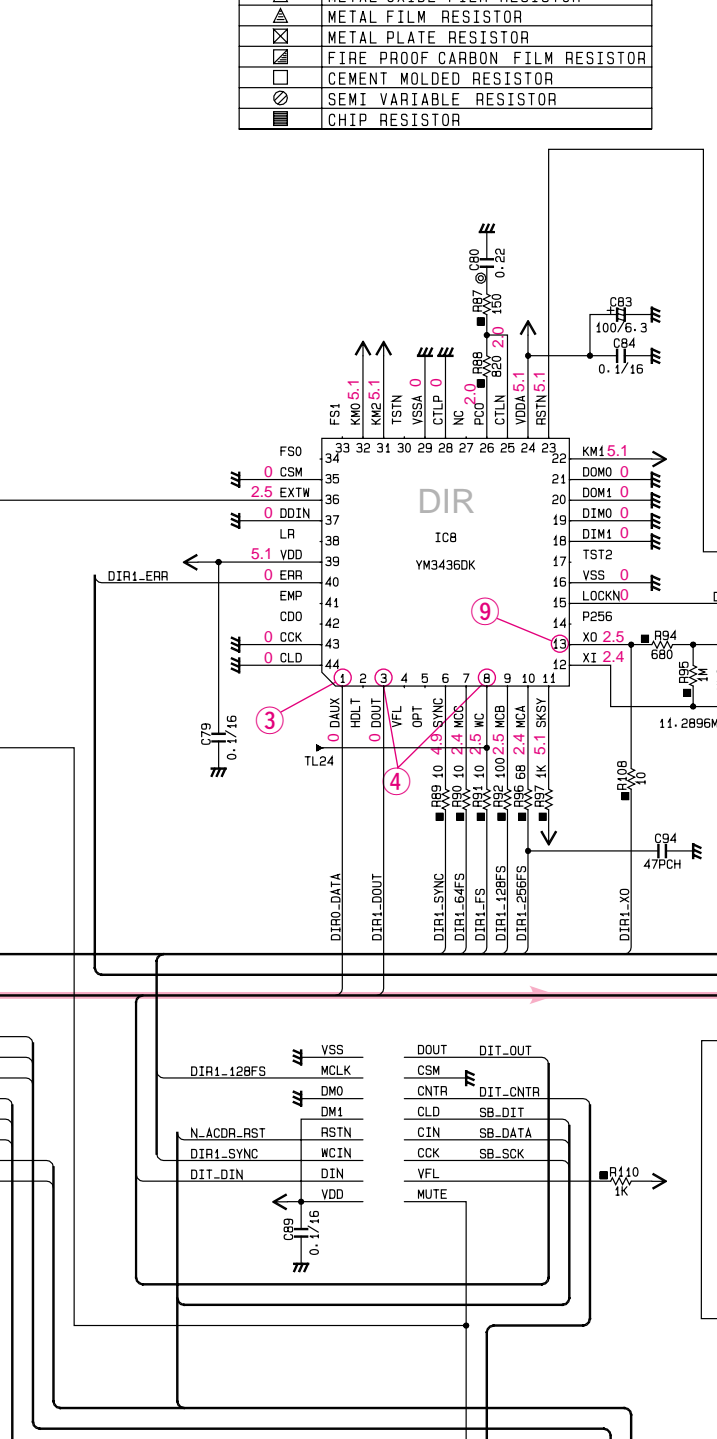
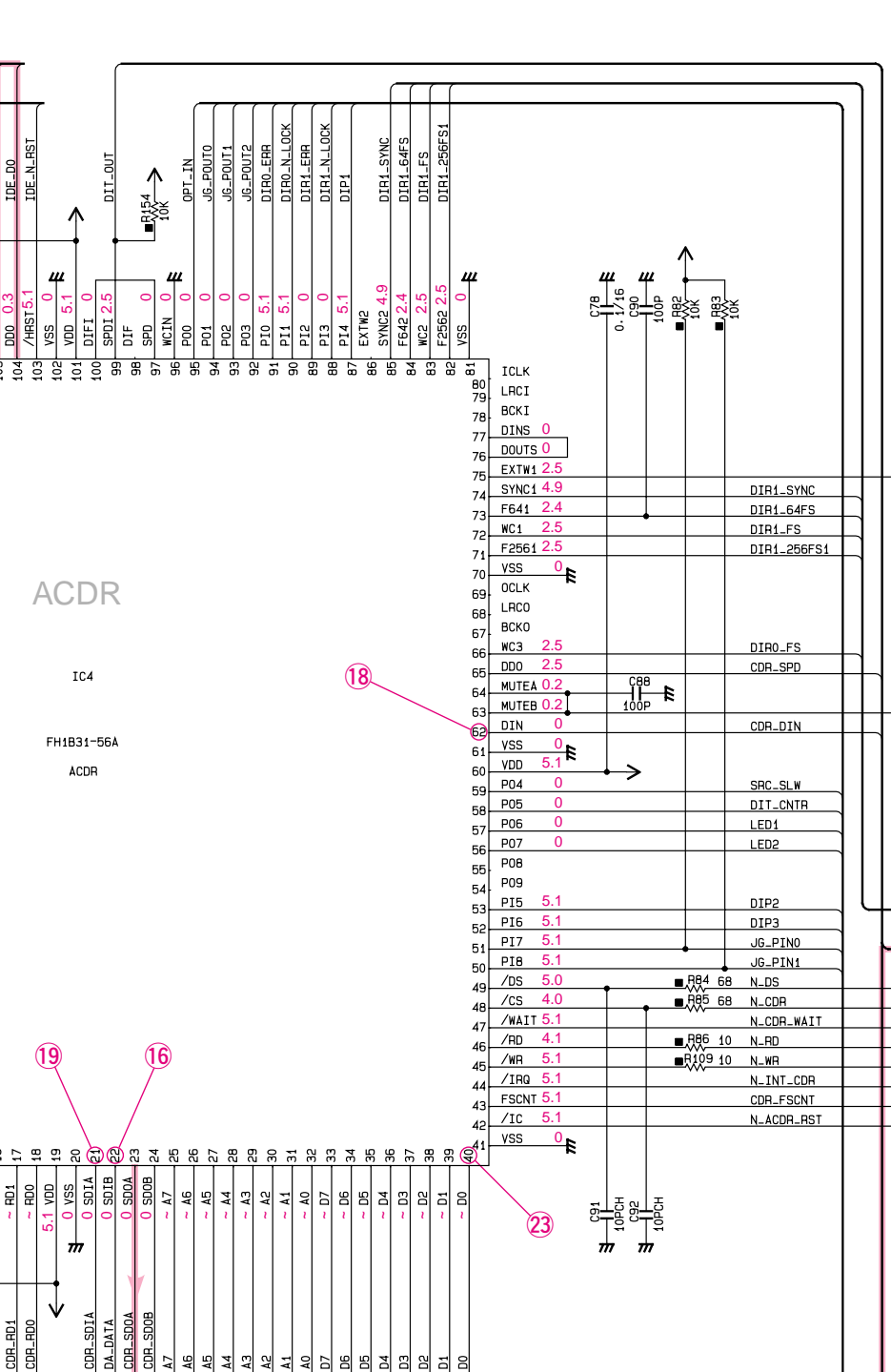
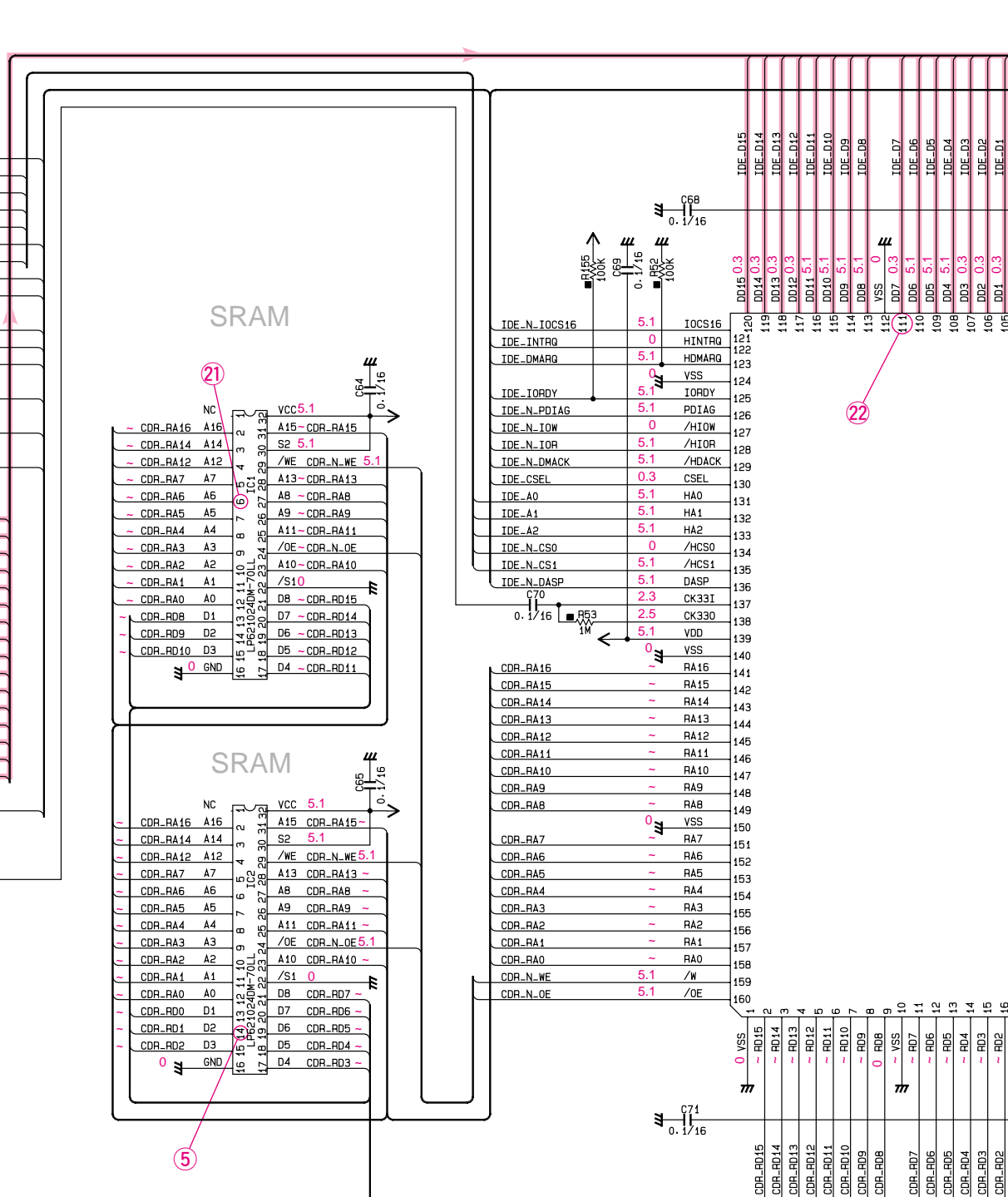
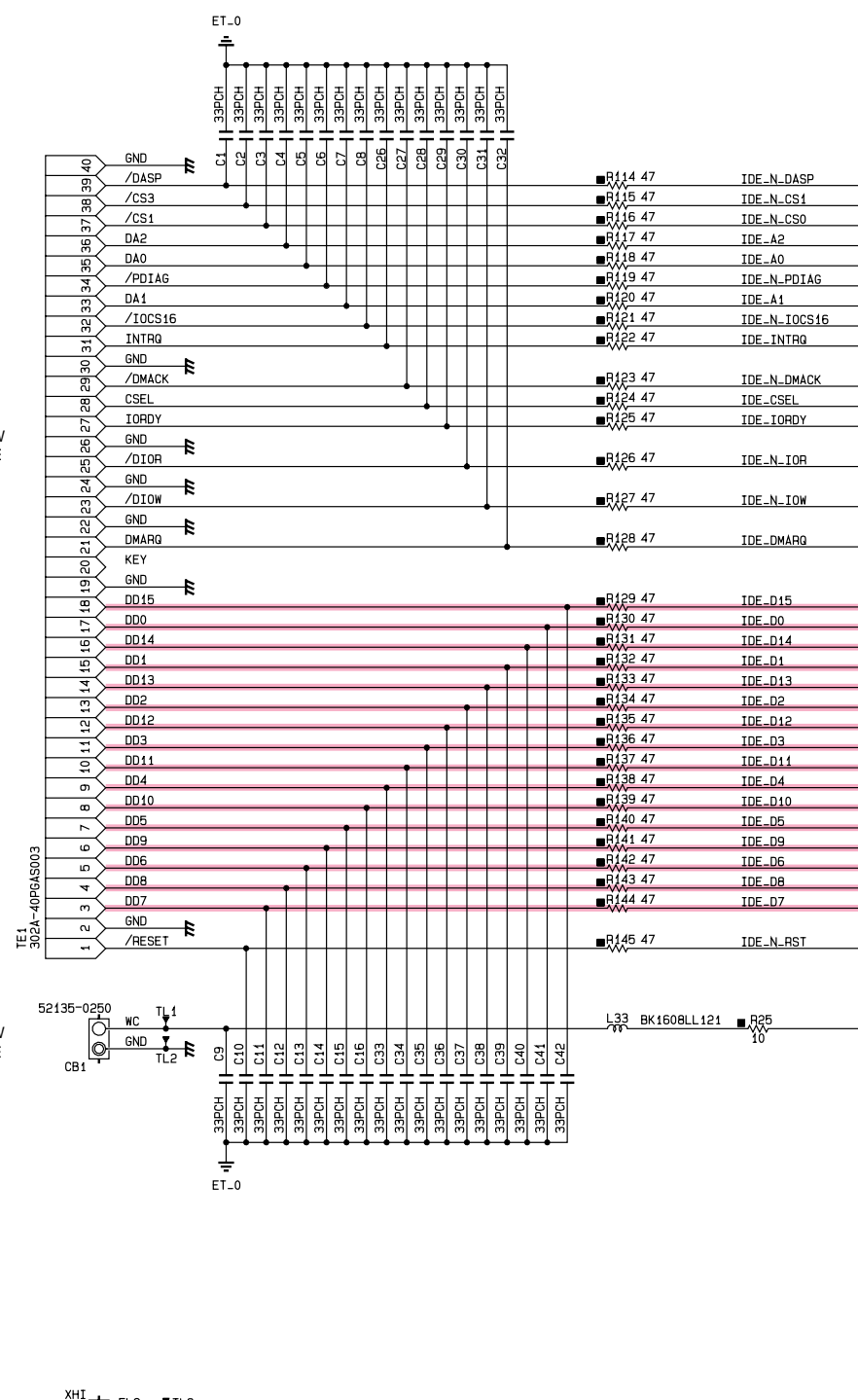
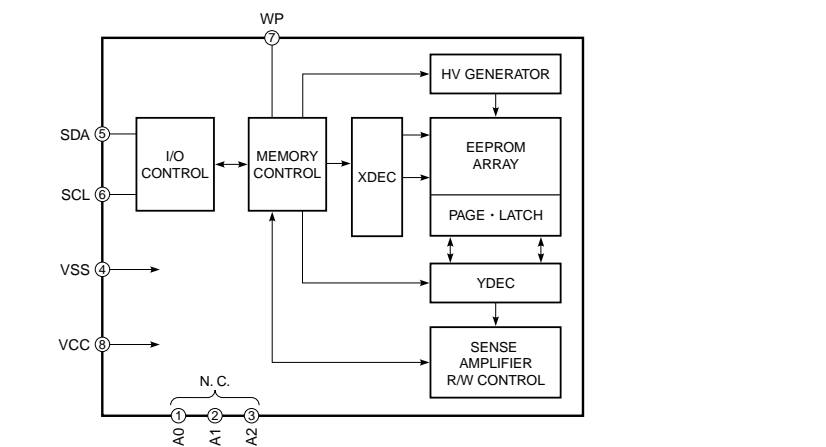
IC1, 2 : LP621024DM-70LLQ 128K x 8 Bit Static RAM



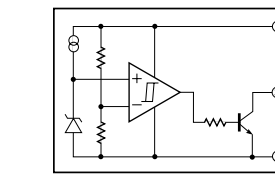
IC7 : W24256S-70LE-EL10 32K x 8 Bit Static RAM



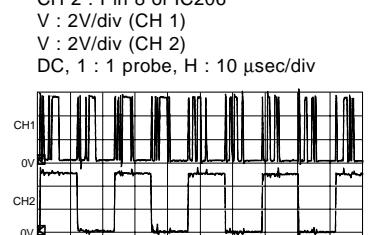
IC6 : 24LC02BT Electrically Erasable PROM



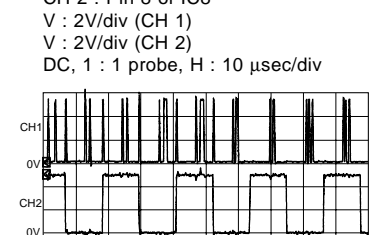
IC3 : PST572CM-T System Reset



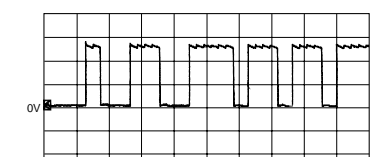
Point 3 CH 1 : Pin 3 of IC206 or Pin 1 of IC8 CH 2 : Pin 8 of IC206



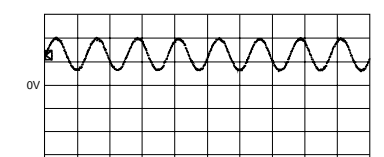
Point 4 CH 1 : Pin 3 of IC8 or Pin 80 of IC209 CH 2 : Pin 8 of IC8



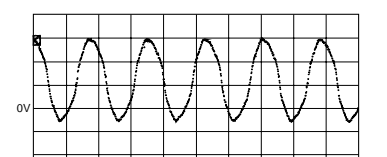
Point 5 (Pin 14 of IC2) V : 2V/div, H : 50 nsec/div DC, 1 : 1 probe



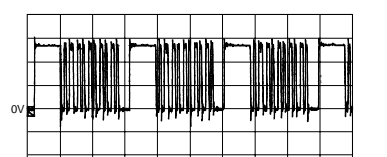
Point 8 (Pin 51 of IC5) V : 2V/div, H : 50 nsec/div DC, 1 : 1 probe



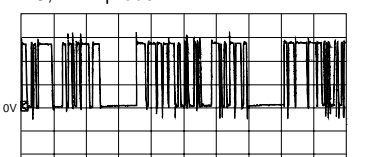
Point 9 (Pin 13 of IC8) V : 2V/div, H : 20 nsec/div DC, 1 : 1 probe



Point 18 (Pin 27 of IC5 or Pin 5 of IC7) V : 2V/div, H : 20 nsec/div DC, 1 : 1 probe



Point 19 (Pin 22 of IC4 or Pin 59 of IC205) V : 2V/div, H : 5 nsec/div DC, 1 : 1 probe



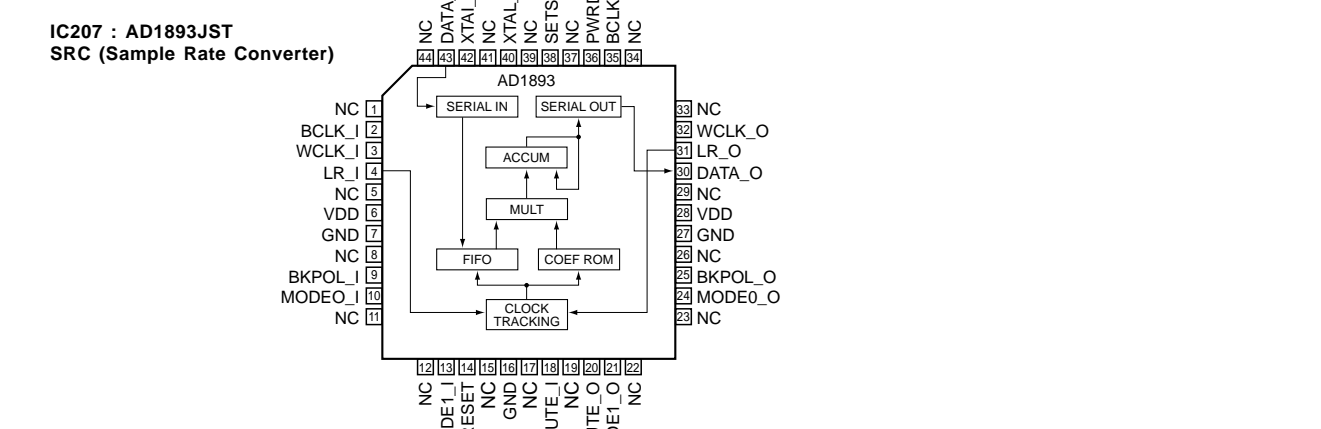
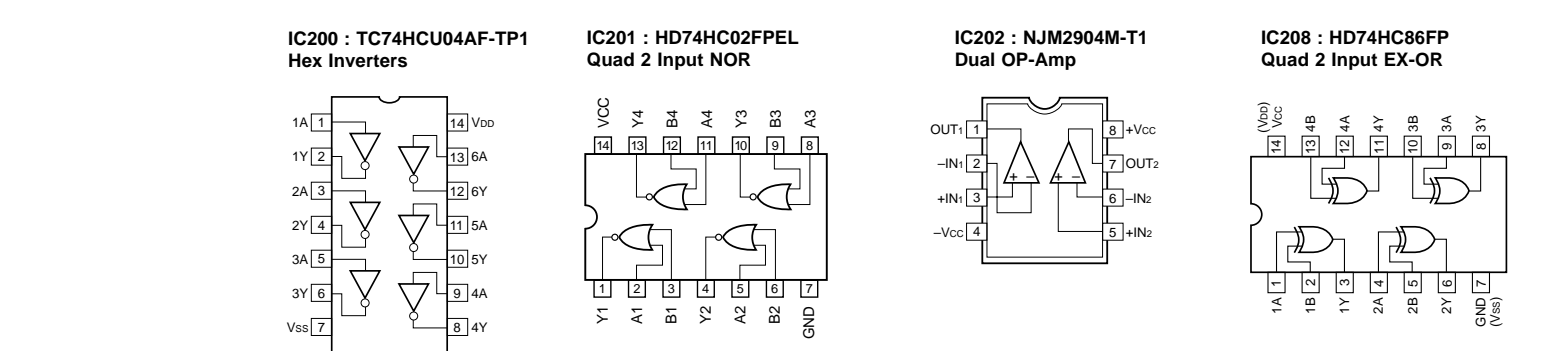
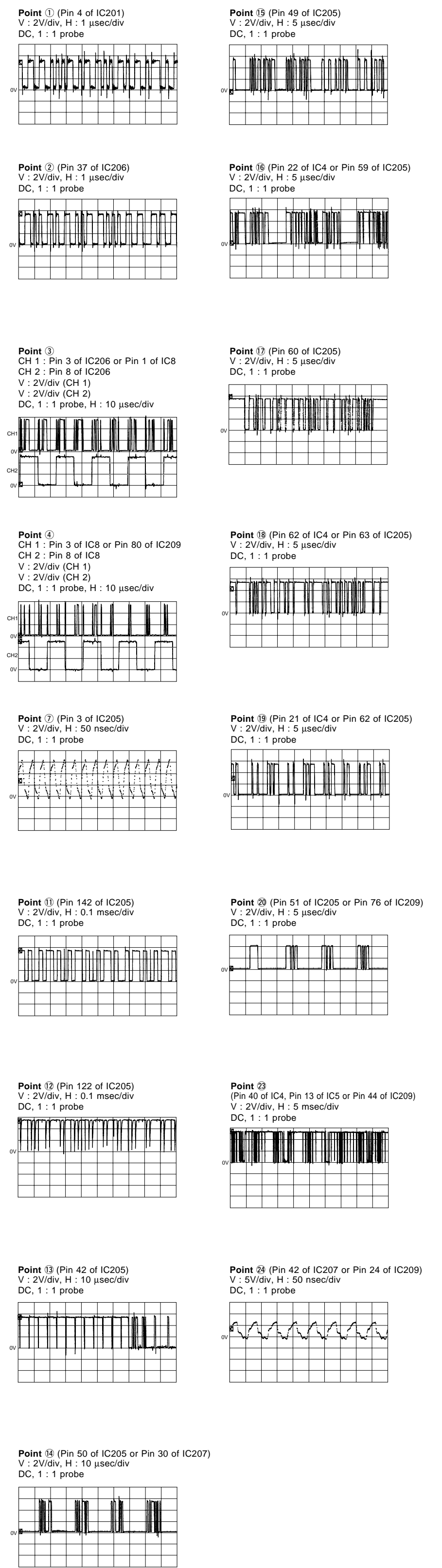
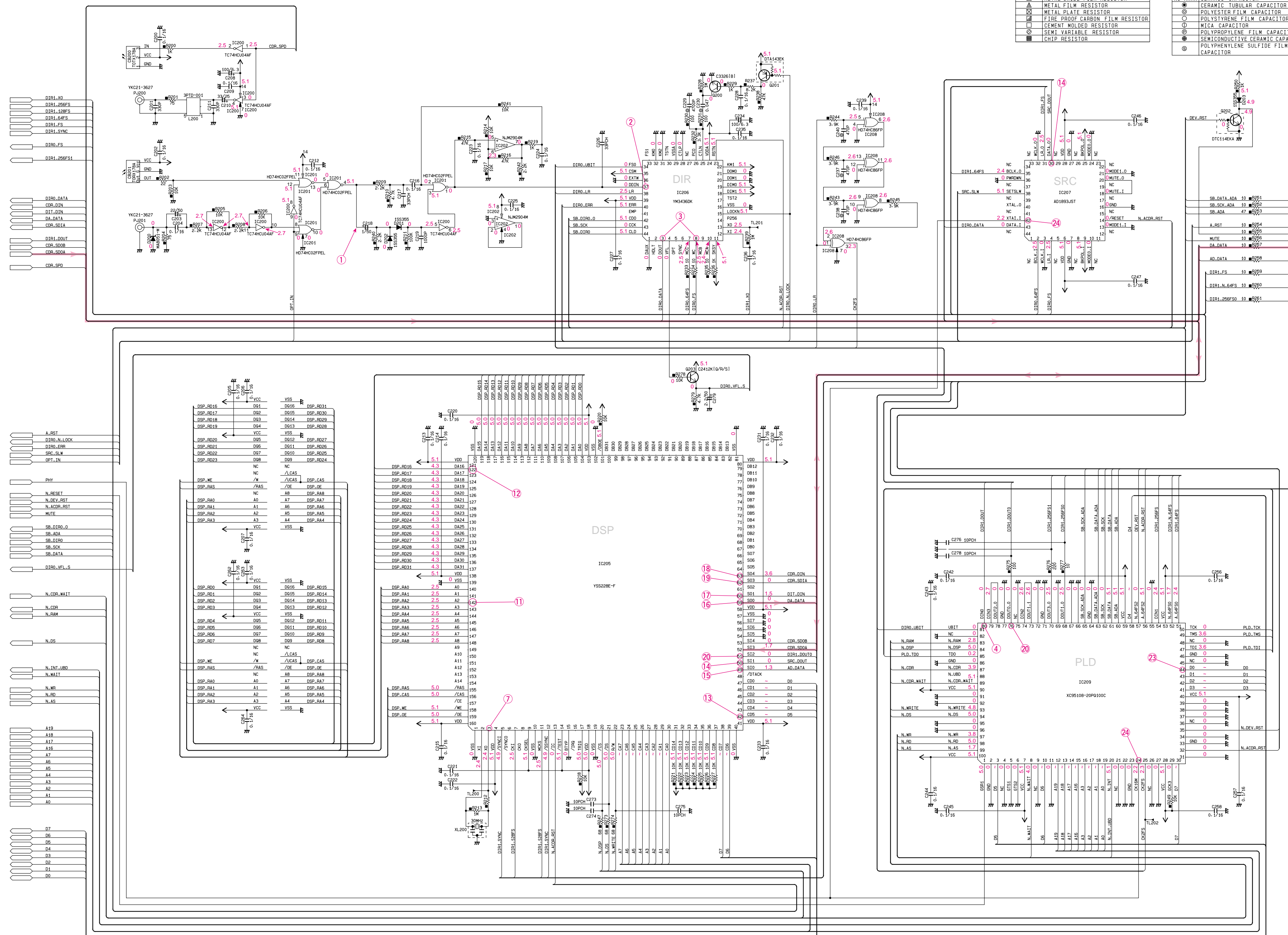
All voltage are measured with a 10MΩ/DC electric volt meter. Components having special characteristics are marked with a triangle and must be replaced with parts having specifications equal to those originally installed. Schematic diagram is subject to change without notice.

CDR-S1000
SCHEMATIC DIAGRAM (MAIN P.C.B.)

REMARKS	PARTS NAME	REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR [P=5]	NO MARK	ELECTROLYTIC CAPACITOR
△	CARBON FILM RESISTOR [P=10]	◎	TANTALUM CAPACITOR
□	METAL OXIDE FILM RESISTOR	○	CERAMIC CAPACITOR
◇	METAL FILM RESISTOR	⊙	CERAMIC TUBULAR CAPACITOR
○	METAL PLATE RESISTOR	⊗	POLYESTER FILM CAPACITOR
⊙	FIRE PROOF CARBON FILM RESISTOR	○	POLYSTYRENE FILM CAPACITOR
⊚	CEMENT WOUND RESISTOR	⊙	MICA CAPACITOR
⊛	SEMI VARIABLE RESISTOR	⊙	POLYPROPYLENE FILM CAPACITOR
■	CHIP RESISTOR	⊙	SEMICONDUCTIVE CERAMIC CAPACITOR
		⊙	POLYPHENYLENE SULFIDE FILM CAPACITOR

REMARKS	PARTS NAME	REMARKS	PARTS NAME
(J)	JAPANESE	(U)	USA
(C)	CANADIAN	(R)	GENERAL
(A)	AUSTRALIAN	(B)	BRITISH
(G)	EUROPEAN	(T)	CHINA
(L)	SINGAPORE		

NOTICE (mode 1)
 (J)..... JAPANESE
 (U)..... USA
 (C)..... CANADIAN
 (R)..... GENERAL
 (A)..... AUSTRALIAN
 (B)..... BRITISH
 (G)..... EUROPEAN
 (T)..... CHINA
 (L)..... SINGAPORE



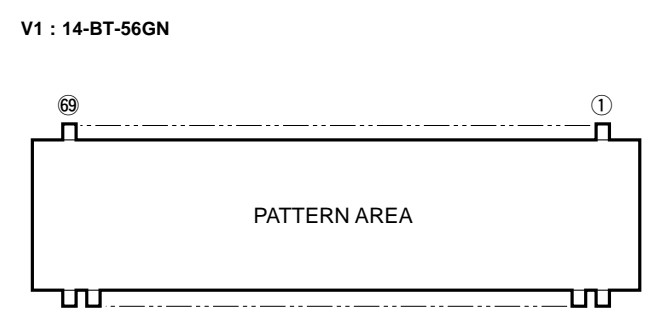
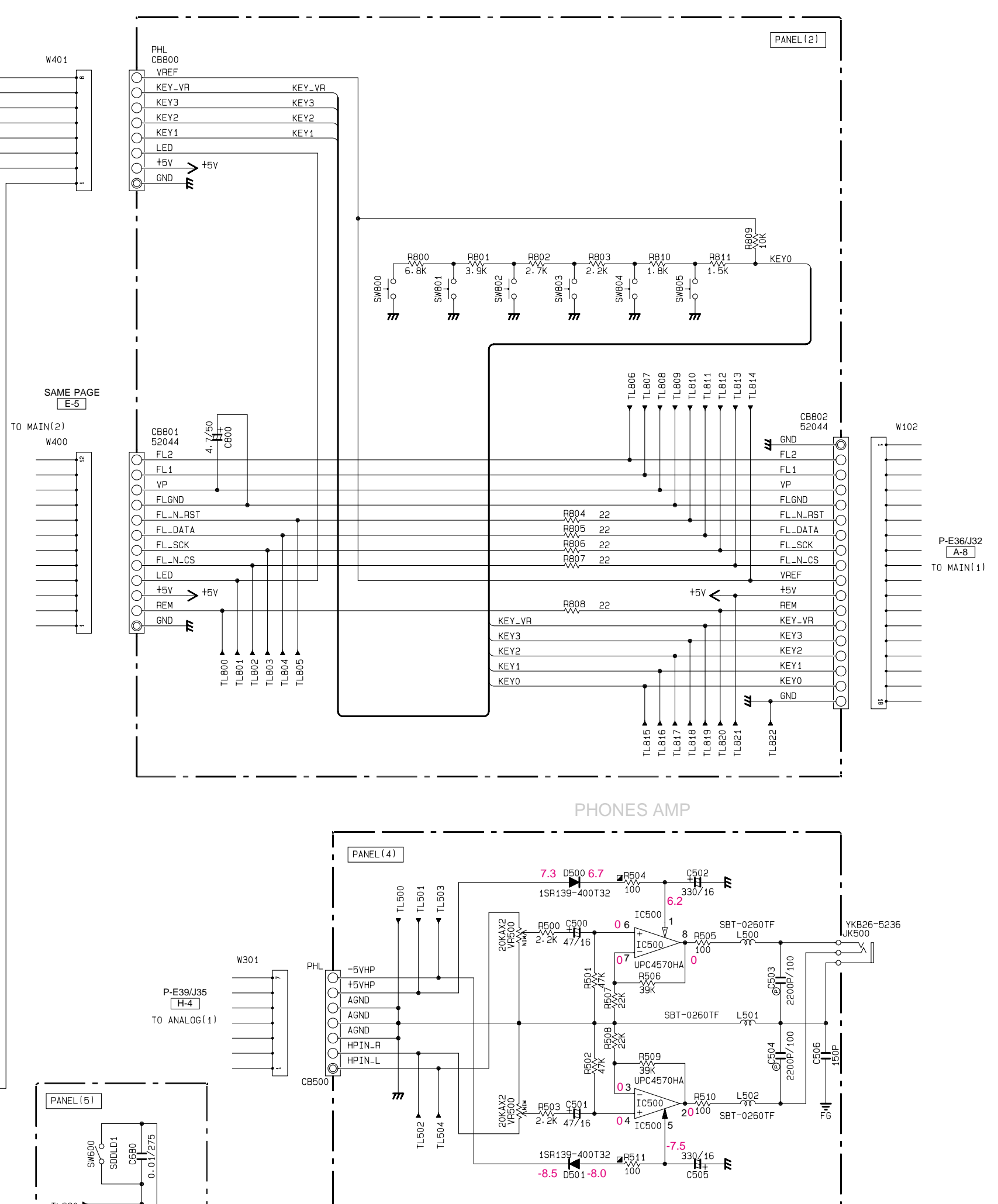
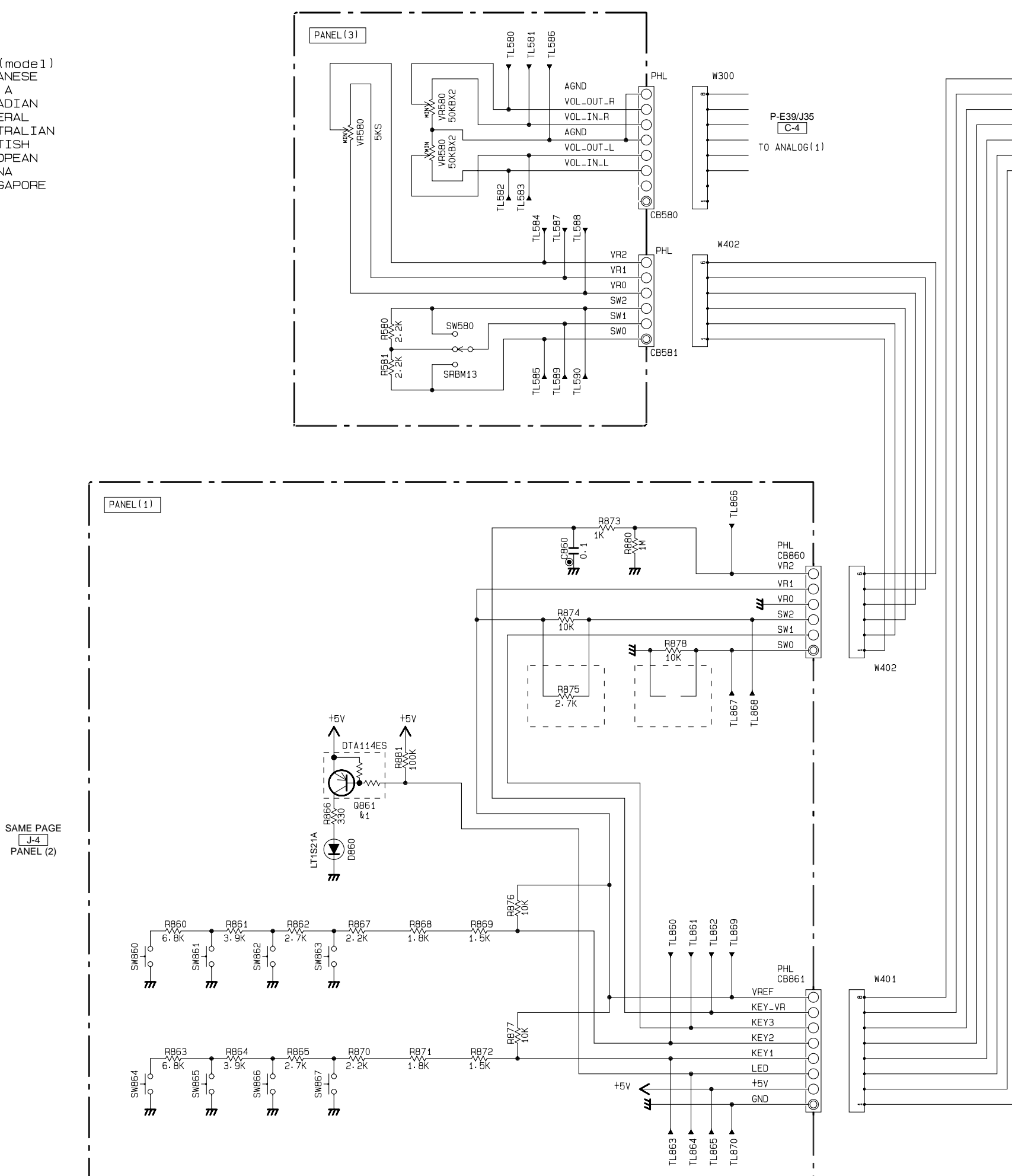
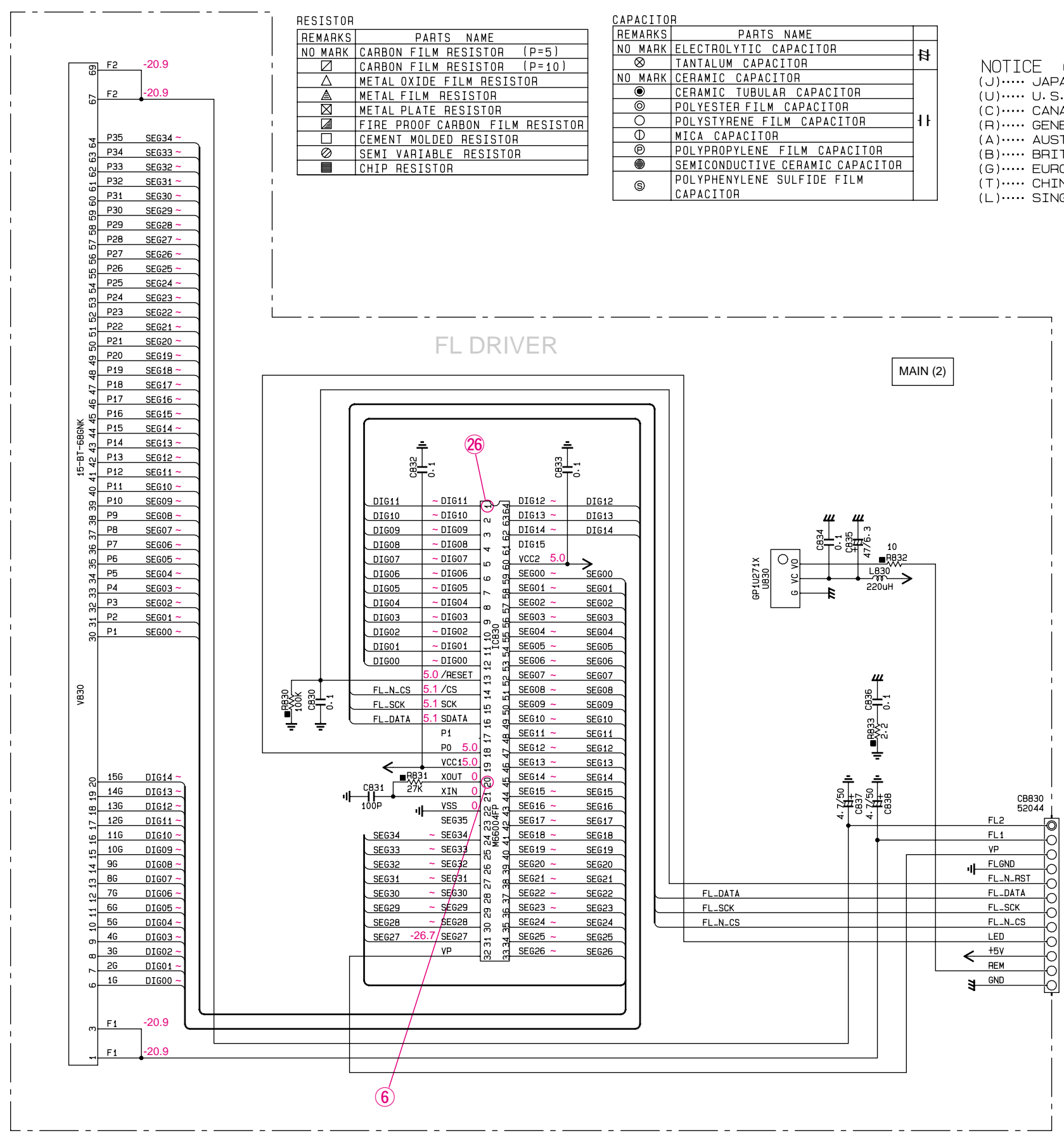
The voltage value is measured during playback.
 The waveform is measured while CD OPTICAL (1kHz) signal is recorded.
 電圧値は、再生しているときの測定です。
 波形は、CD OPTICAL(1kHz)を録音しているときの測定です。

* All voltage are measured with a 10MΩ/V DC electric volt meter.
 * Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.
 * Schematic diagram is subject to change without notice.

SCHEMATIC DIAGRAM (MAIN & PANEL P.C.B.)

RESISTOR		CAPACITOR	
REMARKS	PARTS NAME	REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)	NO MARK	ELECTROLYTIC CAPACITOR
△	CARBON FILM RESISTOR (P=10)	○	TANTALUM CAPACITOR
△	METAL OXIDE FILM RESISTOR	NO MARK	CERAMIC CAPACITOR
△	METAL FILM RESISTOR	●	CERAMIC TUBULAR CAPACITOR
△	METAL PLATE RESISTOR	○	POLYESTER FILM CAPACITOR
△	FIRE PROOF CARBON FILM RESISTOR	○	POLYSTYRENE FILM CAPACITOR
△	CERAMT MOLDED RESISTOR	○	MICA CAPACITOR
△	SEMI VARIABLE RESISTOR	○	POLYPROPYLENE FILM CAPACITOR
△	CHIP RESISTOR	○	SEMICONDUCTIVE CERAMIC CAPACITOR
		○	POLYPHENYLENE SULFIDE FILM CAPACITOR

NOTICE (mode1)
 (J)..... JAPANESE
 (U)..... U.S.A
 (C)..... CANADIAN
 (A)..... AUSTRALIAN
 (B)..... BRITISH
 (G)..... EUROPEAN
 (T)..... CHINA
 (L)..... SINGAPORE

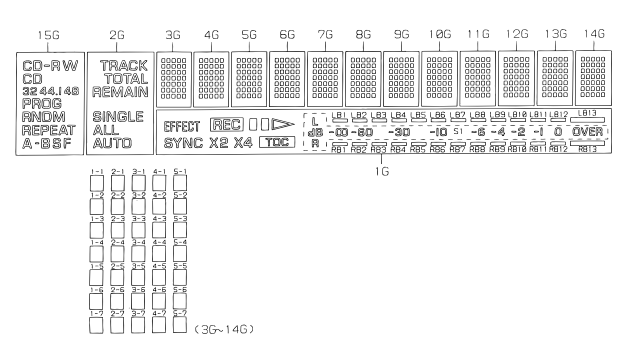


PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CONNECTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

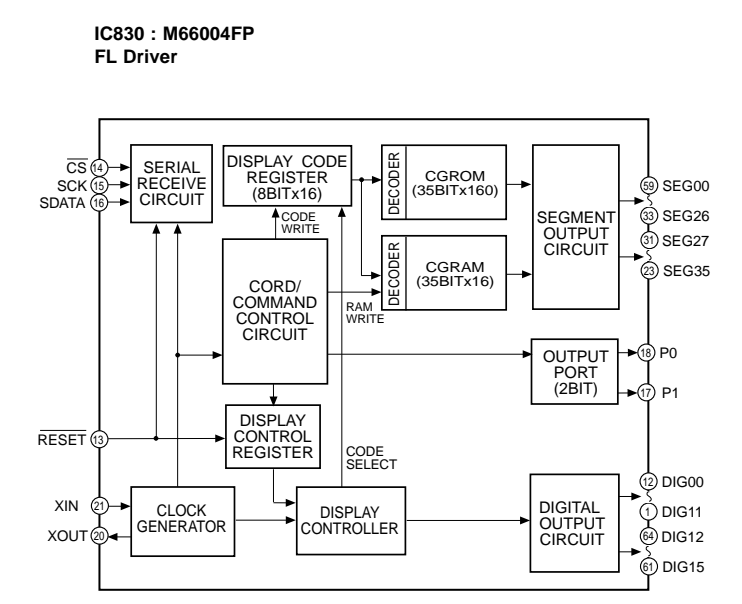
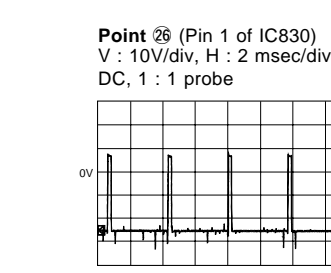
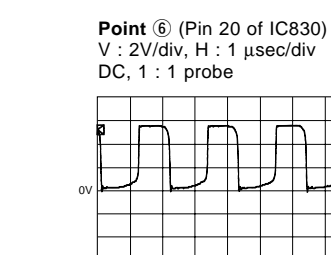
Note 1) F1, F2 Filament 3) NX No Extend pin 5) 1G-15G Grid
 2) NP No Pin 4) P1-P35 Datum Line

GRID ASSIGNMENT



ANODE CONNECTION

	1G	2S	3G-14G	15G
P1	EFFECT	-	1-1	-
P2	SYNC	-	2-1	-
P3	XS	-	3-1	-
P4	XS	-	4-1	-
P5	TT	-	5-1	-
P6	TT	-	1-2	-
P7	REC	-	2-2	-
P8	YOC	-	3-2	-
P9	RB1	-	4-2	-
P10	RB2	-	5-2	-
P11	RB3	-	1-3	-
P12	RB4	-	2-3	-
P13	RB5	-	3-3	-
P14	RB6	-	4-3	-
P15	RB7	TRACK	5-3	-
P16	RB8	TOTAL	1-4	-
P17	RB9	REMAIN	2-4	-
P18	RB10	SINGLE	3-4	-
P19	RB11	ALL	4-4	-
P20	RB12	ALTD	5-4	-
P21	RB13	-	1-5	-
P22	S1	-	2-5	-
P23	LB1	-	3-5	-
P24	LB2	-	4-5	-
P25	LB3	-	5-5	-
P26	LB4	-	1-6	-
P27	LB5	-	2-6	-
P28	LB6	-	3-6	-
P29	LB7	-	4-6	-
P30	LB8	-	5-6	-
P31	LB9	-	1-7	-
P32	LB10	-	2-7	-
P33	LB11	-	3-7	-
P34	LB12	-	4-7	-
P35	LB13	-	5-7	-

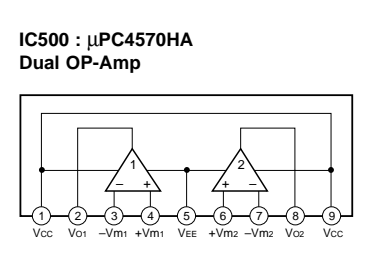


The voltage value is measured during playback.
 The waveform is measured while CD OPTICAL (1kHz) signal is recorded.

電圧値は、再生しているときの測定です。
 波形は、CD OPTICAL(1kHz)を録音しているときの測定です。

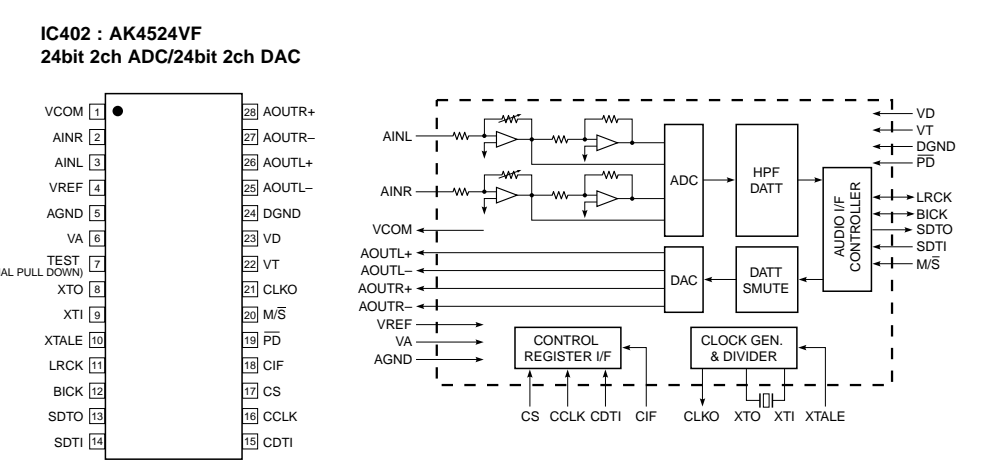
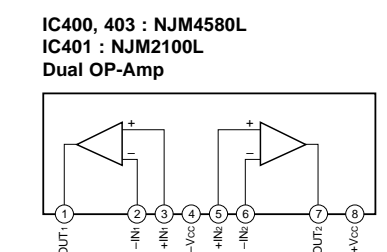
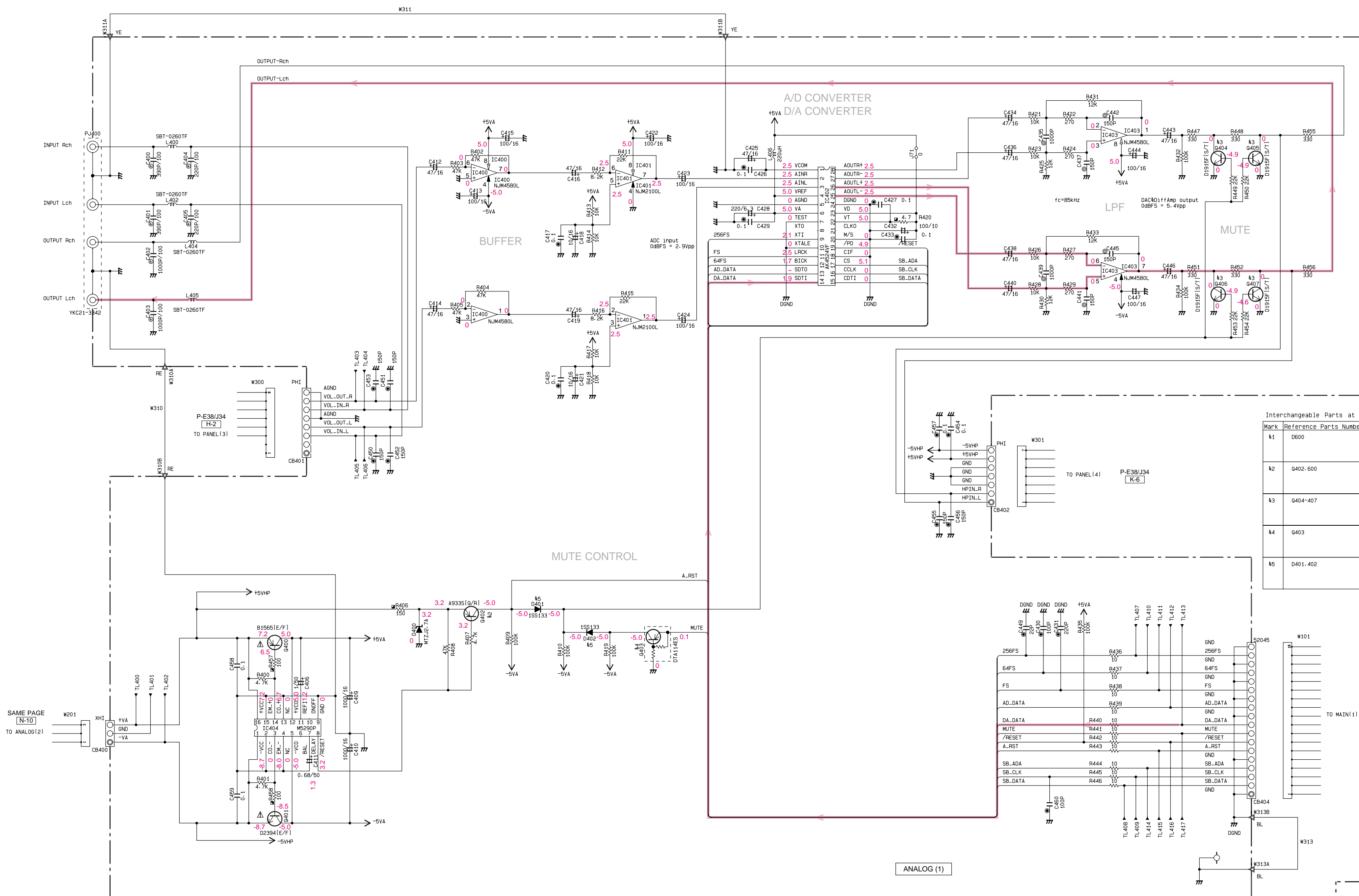
Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
k1	0861	DTA114ES UN4111



* All voltage are measured with a 10MΩ/ DC electric volt meter.
 * Components having special characteristics are marked Δ, and must be replaced with parts having specifications equal to those originally installed.
 * Schematic diagram is subject to change without notice.

CDR-S1000
SCHEMATIC DIAGRAM (ANALOG P.C.B.)

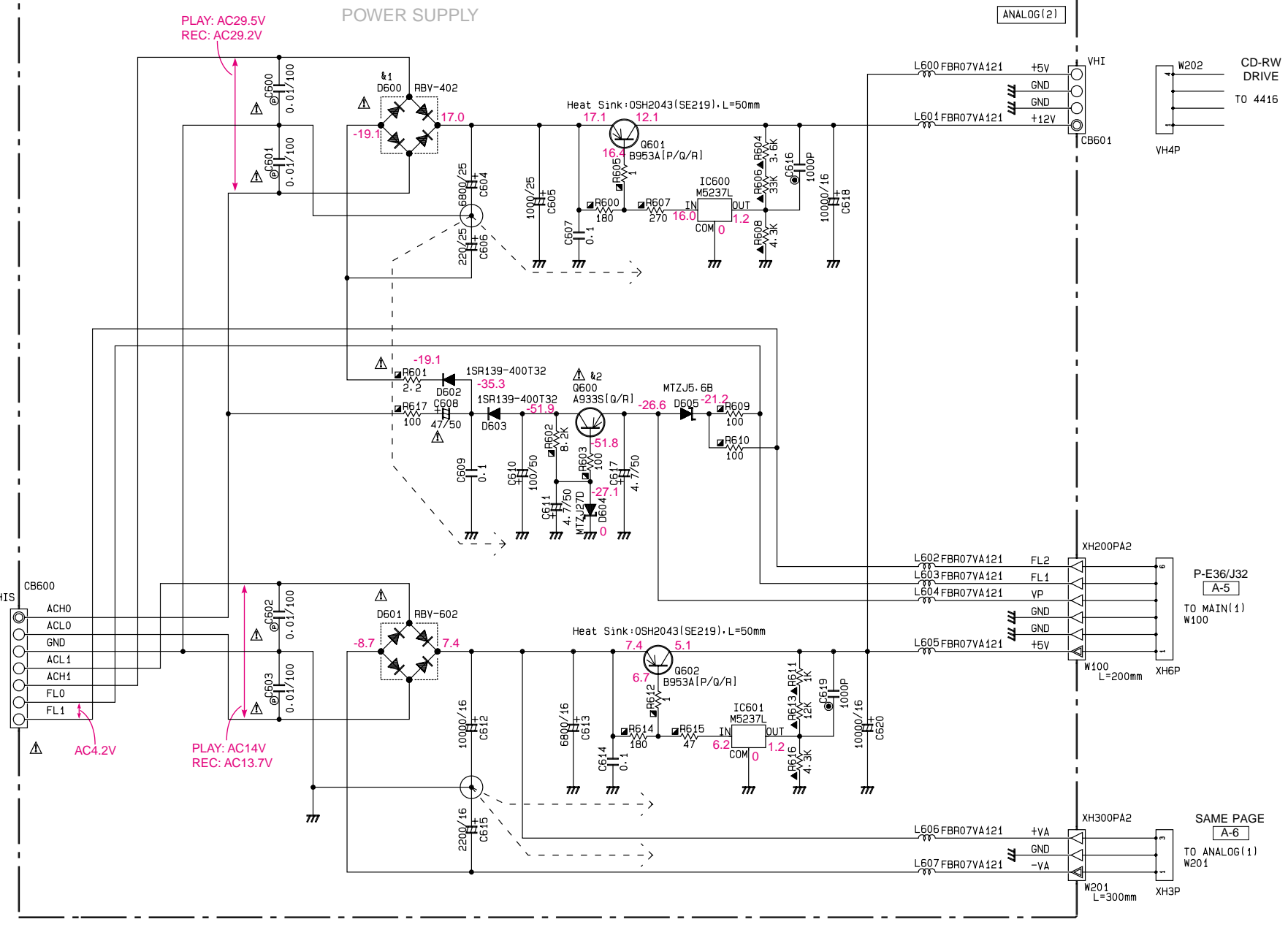
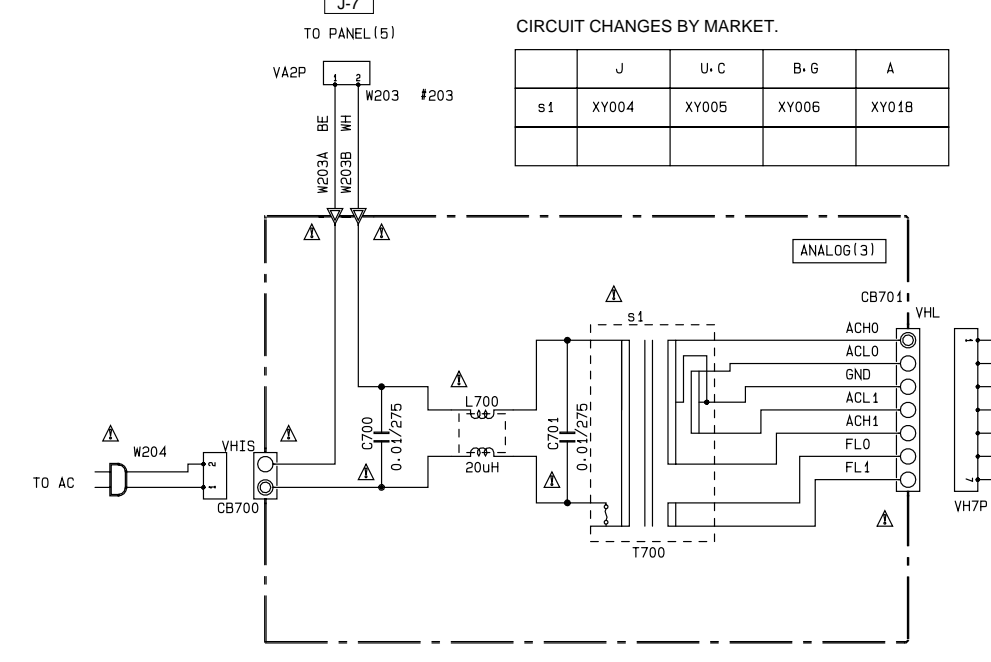
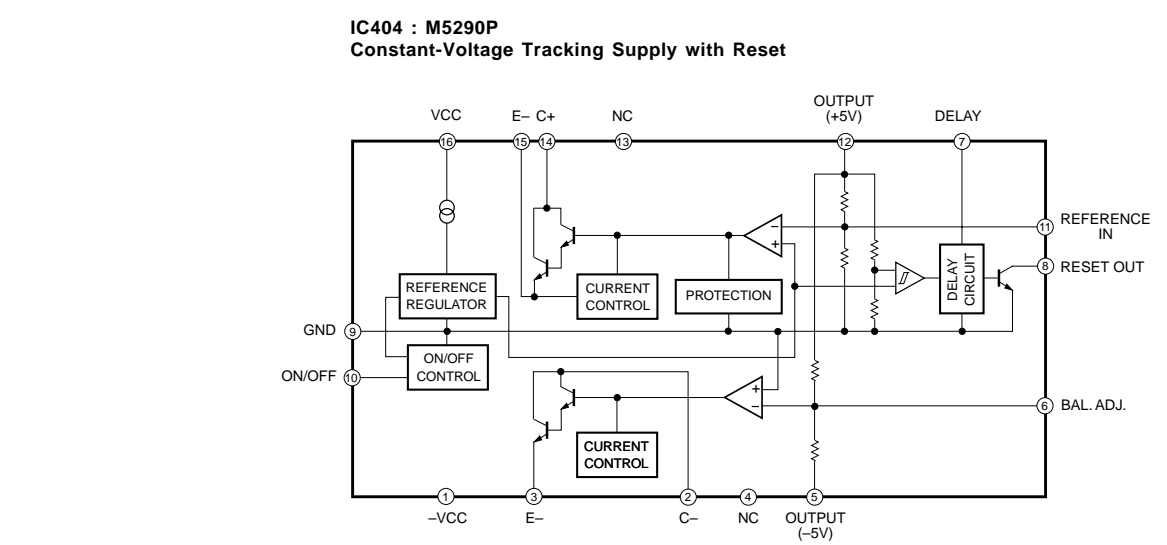


Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
K1	D600	RBV-402 03SBA20
K2	D402-600	25A93391(Q/R) 25A1309A1(Q/R/S)
K3	D404-407	25D1919P1(S/T) 25C287N1(A/B)
K4	D403	DTA114ES UN4111
K5	D401-402	15S133 H5S104TD

REMARKS	REMARKS
NO MARK	NO MARK
⊠	⊠
⊡	⊡
⊢	⊢
⊣	⊣
⊤	⊤
⊥	⊥
⊦	⊦
⊧	⊧
⊨	⊨
⊩	⊩
⊪	⊪
⊫	⊫
⊬	⊬
⊭	⊭
⊮	⊮
⊯	⊯
⊰	⊰
⊱	⊱
⊲	⊲
⊳	⊳
⊴	⊴
⊵	⊵
⊶	⊶
⊷	⊷
⊸	⊸
⊹	⊹
⊺	⊺
⊻	⊻
⊼	⊼
⊽	⊽
⊾	⊾
⊿	⊿

NOTICE (mode1)
 (J)..... JAPANESE
 (U)..... U.S.A
 (C)..... CANADIAN
 (R)..... GENERAL
 (A)..... AUSTRALIAN
 (B)..... BRITISH
 (G)..... EUROPEAN
 (T)..... CHINA
 (L)..... SINGAPORE



* All voltage are measured with a 10MΩ/V DC electric volt meter.
 * Components having special characteristics are marked ⊠ and must be replaced with parts having specifications equal to those originally installed.
 * Schematic diagram is subject to change without notice.

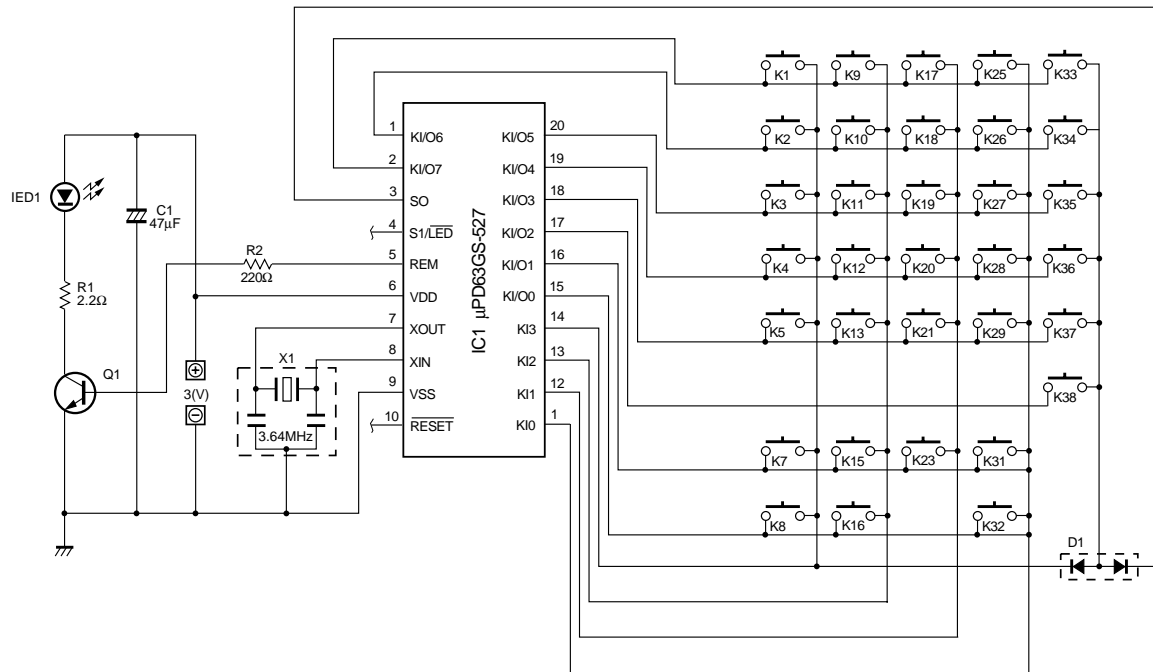
The voltage value is measured during playback. 電圧値は、再生しているときの測定です。

1

REMOTE CONTROL TRANSMITTER

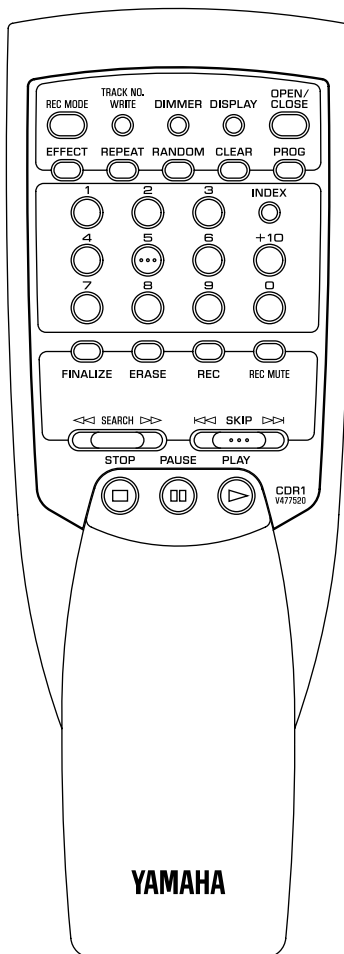
■ SCHEMATIC DIAGRAM

2



3

4



5

6

7

KEY No.	FUNCTION	CUSTOM CODE (HEX)	DATA CODE (HEX)	CUSTOM CODE (BIN)	CUSTOM CODE (BIN)	DATA CODE (BIN)	DATA CODE (BIN)
1	REPEAT	7F	8D	1111 1110	0000 0001	1011 0001	0100 1110
2	1	7F	91	1111 1110	0000 0001	1000 1001	0111 0110
3	4	7F	94	1111 1110	0000 0001	0010 1001	1101 0110
4	7	7F	97	1111 1110	0000 0001	1110 1001	0001 0110
5	FINALIZE	7F	A5	1111 1110	0000 0001	1010 0101	0101 1010
7	SEARCH ◀◀	7F	88	1111 1110	0000 0001	0001 0001	1110 1110
8	STOP ■	7F	84	1111 1110	0000 0001	0010 0001	1101 1110
9	RANDOM	7F	8E	1111 1110	0000 0001	0111 0001	1000 1110
10	2	7F	92	1111 1110	0000 0001	0100 1001	1011 0110
11	5 ●●●	7F	95	1111 1110	0000 0001	1010 1001	0101 0110
12	8	7F	98	1111 1110	0000 0001	0001 1001	1110 0110
13	ERASE	7F	A6	1111 1110	0000 0001	0110 0101	1001 1010
15	SEARCH ▶▶	7F	89	1111 1110	0000 0001	1001 0001	0110 1110
16	PAUSE ■■	7F	83	1111 1110	0000 0001	1100 0001	0011 1110
17	CLEAR	7F	8C	1111 1110	0000 0001	0011 0001	1100 1110
18	3	7F	93	1111 1110	0000 0001	1100 1001	0011 0110
19	6	7F	96	1111 1110	0000 0001	0110 1001	1001 0110
20	9	7F	99	1111 1110	0000 0001	1001 1001	0110 0110
21	REC	7F	A0	1111 1110	0000 0001	0000 0101	1111 1010
23	SKIP ◀◀	7F	86	1111 1110	0000 0001	0110 0001	1001 1110
25	PROG	7F	8B	1111 1110	0000 0001	1101 0001	0010 1110
26	INDEX	7F	8A	1111 1110	0000 0001	0101 0001	1010 1110
27	+10	7F	9A	1111 1110	0000 0001	0101 1001	1010 0110
28	0	7F	90	1111 1110	0000 0001	0000 1001	1111 0110
29	REC MUTE	7F	A1	1111 1110	0000 0001	1000 0101	0111 1010
31	SKIP ▶▶	7F	87	1111 1110	0000 0001	1110 0001	0001 1110
32	PLAY ▶	7F	82	1111 1110	0000 0001	0100 0001	1011 1110
33	EFFECT	7F	AA	1111 1110	0000 0001	0101 0101	1010 1010
34	REC MODE	7F	A2	1111 1110	0000 0001	0100 0101	1011 1010
35	TRACK No. WRITE	7F	A7	1111 1110	0000 0001	1110 0101	0001 1010
36	DIMMER	7F	9C	1111 1110	0000 0001	0011 1001	1100 0110
37	DISPLAY	7F	9E	1111 1110	0000 0001	0111 1001	1000 0110
38	OPEN/CLOSE	7F	81	1111 1110	0000 0001	1000 0001	0111 1110

PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

Components having special characteristics are marked \triangle and must be replaced with parts having specifications equal to those originally installed.

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the parts No. of the carbon resistors, refer to last page.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

C.A.EL.CHP	: CHIP ALUMI. ELECTROLYTIC CAP	L.EMIT	: LIGHT EMITTING MODULE
C.CE	: CERAMIC CAP	LED.DSPLY	: LED DISPLAY
C.CE.ARRAY	: CERAMIC CAP ARRAY	LED.INFRD	: LED, INFRARED
C.CE.CHP	: CHIP CERAMIC CAP	MODUL.RF	: MODULATOR, RF
C.CE.ML	: MULTILAYER CERAMIC CAP	PHOT.CPL	: PHOTO COUPLER
C.CE.M.CHP	: CHIP MULTILAYER CERAMIC CAP	PHOT.INTR	: PHOTO INTERRUPTER
C.CE.SAFTY	: RECOGNIZED CERAMIC CAP	PHOT.RFLCT	: PHOTO REFLECTOR
C.CE.TUBLR	: CERAMIC TUBULAR CAP	PIN.TEST	: PIN, TEST POINT
C.CE.SMI	: SEMI CONDUCTIVE CERAMIC CAP	PLST.RIVET	: PLASTIC RIVET
C.EL	: ELECTROLYTIC CAP	R.ARRAY	: RESISTOR ARRAY
C.MICA	: MICA CAP	R.CAR	: CARBON RESISTOR
C.ML.FLM	: MULTILAYER FILM CAP	R.CAR.CHP	: CHIP RESISTOR
C.MP	: METALLIZED PAPER CAP	R.CAR.FP	: FLAME PROOF CARBON RESISTOR
C.MYLAR	: MYLAR FILM CAP	R.FUS	: FUSABLE RESISTOR
C.MYLAR.ML	: MULTILAYER MYLAR FILM CAP	R.MTL.CHP	: CHIP METAL FILM RESISTOR
C.PAPER	: PAPER CAPACITOR	R.MTL.FLM	: METAL FILM RESISTOR
C.PLS	: POLYSTYRENE FILM CAP	R.MTL.OXD	: METAL OXIDE FILM RESISTOR
C.POL	: POLYESTER FILM CAP	R.MTL.PLAT	: METAL PLATE RESISTOR
C.POLY	: POLYETHYLENE FILM CAP	RSNR.CE	: CERAMIC RESONATOR
C.PP	: POLYPROPYLENE FILM CAP	RSNR.CRYS	: CRYSTAL RESONATOR
C.TNTL	: TANTALUM CAP	R.TW.CEM	: TWIN CEMENT FIXED RESISTOR
C.TNTL.CHP	: CHIP TANTALUM CAP	R.WW	: WIRE WOUND RESISTOR
C.TRIM	: TRIMMER CAP	SCR.BND.HD	: BIND HEAD B-TITE SCREW
CN	: CONNECTOR	SCR.BW.HD	: BW HEAD TAPPING SCREW
CN.BS.PIN	: CONNECTOR, BASE PIN	SCR.CUP	: CUP TITE SCREW
CN.CANNON	: CONNECTOR, CANNON	SCR.TERM	: SCREW TERMINAL
CN.DIN	: CONNECTOR, DIN	SCR.TR	: SCREW, TRANSISTOR
CN.FLAT	: CONNECTOR, FLAT CABLE	SUPRT.PCB	: SUPPORT, P.C.B.
CN.POST	: CONNECTOR, BASE POST	SURG.PRTCT	: SURGE PROTECTOR
COIL.MX.AM	: COIL, AM MIX	SW.TACT	: TACT SWITCH
COIL.AT.FM	: COIL, FM ANTENNA	SW.LEAF	: LEAF SWITCH
COIL.DT.FM	: COIL, FM DETECT	SW.LEVER	: LEVER SWITCH
COIL.MX.FM	: COIL, FM MIX	SW.MICRO	: MICRO SWITCH
COIL.OUTPT	: OUTPUT COIL	SW.PUSH	: PUSH SWITCH
DIOD.ARRAY	: DIODE ARRAY	SW.RT.ENC	: ROTARY ENCODER
DIODE.BRG	: DIODE BRIDGE	SW.RT.MTR	: ROTARY SWITCH WITH MOTOR
DIODE.CHP	: CHIP DIODE	SW.RT	: ROTARY SWITCH
DIODE.VAR	: VARACTOR DIODE	SW.SLIDE	: SLIDE SWITCH
DIOD.Z.CHP	: CHIP ZENER DIODE	TERM.SP	: SPEAKER TERMINAL
DIODE.ZENR	: ZENER DIODE	TERM.WRAP	: WRAPPING TERMINAL
DSCR.CE	: CERAMIC DISCRIMINATOR	THRMST.CHP	: CHIP THERMISTOR
FER.BEAD	: FERRITE BEADS	TR.CHP	: CHIP TRANSISTOR
FER.CORE	: FERRITE CORE	TR.DGT	: DIGITAL TRANSISTOR
FET.CHP	: CHIP FET	TR.DGT.CHP	: CHIP DIGITAL TRANSISTOR
FL.DSPLY	: FLUORESCENT DISPLAY	TRANS	: TRANSFORMER
FLTR.CE	: CERAMIC FILTER	TRANS.PULS	: PULSE TRANSFORMER
FLTR.COMB	: COMB FILTER MODULE	TRANS.PWR	: POWER TRANSFORMER ASS'y
FLTR.LC.RF	: LC FILTER, EMI	TUNER.AM	: TUNER PACK, AM
GND.MTL	: GROUND PLATE	TUNER.FM	: TUNER PACK, FM
GND.TERM	: GROUND TERMINAL	TUNER.PK	: FRONT-END TUNER PACK
HOLDER.FUS	: FUSE HOLDER	VR	: ROTARY POTENTIOMETER
IC.PRTCT	: IC PROTECTOR	VR.MTR	: POTENTIOMETER WITH MOTOR
JUMPER.CN	: JUMPER CONNECTOR	VR.SW	: POTENTIOMETER WITH ROTARY SW
JUMPER.TST	: JUMPER, TEST POINT	VR.SLIDE	: SLIDE POTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE	VR.TRIM	: TRIMMER POTENTIOMETER

Note) Those parts marked with “#” are not included in the P.C.B. ass'y.

P.C.B. PANEL & MAIN

Schm Ref.	PART NO.	Description	
*	V4836900	P.C.B.	PANEL
	CB500	VB858600	CN.BS.PIN 7P
	CB580	VB858700	CN.BS.PIN 8P
	CB581	VB858500	CN.BS.PIN 6P
△	CB680	VP245600	CN 2P
	CB800	VB858700	CN.BS.PIN 8P
	CB801	VN066500	CN.BS.PIN 12P
	CB802	VQ044800	CN.BS.PIN 18P
	CB860	VB858500	CN.BS.PIN 6P
	CB861	VB858700	CN.BS.PIN 8P
	C500	VJ837200	C.EL 47uF 16V
	C501	VJ837200	C.EL 47uF 16V
	C502	UJ638330	C.EL 330uF 16V
	C503	UT453220	C.PP 2200pF 100V
	C504	UT453220	C.PP 2200pF 100V
	C505	UJ638330	C.EL 330uF 16V
	C506	FG212150	C.CE 150pF 50V
△	C680	VV975400	C.CE 0.01uF 275V
	C800	UM416470	C.EL 4.7uF 50V
	C860	VH053100	C.CE.TUBLR 0.1uF 50V
	D500	VU264100	DIODE 1SR139-400
	D501	VU264100	DIODE 1SR139-400
	D860	V5256500	LED LT1S21A
	IC500	XB247301	IC uPC4570HA
	JK500	V5129000	JACK.PHONE YKB26-5236
	L500	VD473700	COIL 60uH
	L501	VD473700	COIL 60uH
	L502	VD473700	COIL 60uH
	Q861	VD678500	TR.DGT DTA114ES
	R504	HV455100	R.CAR.FP 100Ω 1/4W
	R511	HV455100	R.CAR.FP 100Ω 1/4W
	SW580	VP841400	SW.RT SRBM13186A
△	SW680	VC133100	SW.PUSH SDDL1
	SW800	VG392900	SW.TACT SKHVAA
	SW801	VG392900	SW.TACT SKHVAA
	SW802	VG392900	SW.TACT SKHVAA
	SW803	VG392900	SW.TACT SKHVAA
	SW804	VG392900	SW.TACT SKHVAA
	SW805	VG392900	SW.TACT SKHVAA
	SW860	VG392900	SW.TACT SKHVAA
	SW861	VG392900	SW.TACT SKHVAA
	SW862	VG392900	SW.TACT SKHVAA
	SW863	VG392900	SW.TACT SKHVAA
	SW864	VG392900	SW.TACT SKHVAA
	SW865	VG392900	SW.TACT SKHVAA
	SW866	VG392900	SW.TACT SKHVAA
	SW867	VG392900	SW.TACT SKHVAA
*	VR500	V4433900	VR A20KΩ
*	VR580	V4737800	VR B50KΩ
		VB966900	CN IMSA-6024

* New Parts

Schm Ref.	PART NO.	Description	
*	V4837300	P.C.B.	MAIN
*	CB1	V4325300	CN 2P
	CB2	VL845000	CN.BS.PIN 6P
	CB3	VP573800	CN.BS.PIN 18P
*	CB5	V4831400	CN.BS.PIN 20P
*	CB6	V4831100	CN.BS.PIN 10P
	CB7	VD004500	CN.BS.PIN 2P
	CB200	V4164300	L.EMIT TOTX178A
	CB201	VT620100	L.DTCT TORX178A
*	CB202	V4728600	CN.BS.PIN 9P
	CB203	VP573800	CN.BS.PIN 18P
	CB830	VN066500	CN.BS.PIN 12P
	C1	US061330	C.CE.M.CHP 33pF 50V
	C2	US061330	C.CE.M.CHP 33pF 50V
	C3	US061330	C.CE.M.CHP 33pF 50V
	C4	US061330	C.CE.M.CHP 33pF 50V
	C5	US061330	C.CE.M.CHP 33pF 50V
	C6	US061330	C.CE.M.CHP 33pF 50V
	C7	US061330	C.CE.M.CHP 33pF 50V
	C8	US061330	C.CE.M.CHP 33pF 50V
	C9	US061330	C.CE.M.CHP 33pF 50V
	C10	US061330	C.CE.M.CHP 33pF 50V
	C11	US061330	C.CE.M.CHP 33pF 50V
	C12	US061330	C.CE.M.CHP 33pF 50V
	C13	US061330	C.CE.M.CHP 33pF 50V
	C14	US061330	C.CE.M.CHP 33pF 50V
	C15	US061330	C.CE.M.CHP 33pF 50V
	C16	US061330	C.CE.M.CHP 33pF 50V
	C17	US135100	C.CE.CHP 0.1uF 16V
	C18	UR818470	C.EL 470uF 6.3V
	C19	VK679700	C.EL 100uF 6.3V
	C20	US063100	C.CE.M.CHP 1000pF 50V
	C21	US063100	C.CE.M.CHP 1000pF 50V
	C22	US063100	C.CE.M.CHP 1000pF 50V
	C23	US063100	C.CE.M.CHP 1000pF 50V
	C24	US063100	C.CE.M.CHP 1000pF 50V
	C25	US062100	C.CE.M.CHP 100pF 50V
	C26	US061330	C.CE.M.CHP 33pF 50V
	C27	US061330	C.CE.M.CHP 33pF 50V
	C28	US061330	C.CE.M.CHP 33pF 50V
	C29	US061330	C.CE.M.CHP 33pF 50V
	C30	US061330	C.CE.M.CHP 33pF 50V
	C31	US061330	C.CE.M.CHP 33pF 50V
	C32	US061330	C.CE.M.CHP 33pF 50V
	C33	US061330	C.CE.M.CHP 33pF 50V
	C34	US061330	C.CE.M.CHP 33pF 50V
	C35	US061330	C.CE.M.CHP 33pF 50V
	C36	US061330	C.CE.M.CHP 33pF 50V
	C37	US061330	C.CE.M.CHP 33pF 50V
	C38	US061330	C.CE.M.CHP 33pF 50V
	C39	US061330	C.CE.M.CHP 33pF 50V
	C40	US061330	C.CE.M.CHP 33pF 50V
	C41	US061330	C.CE.M.CHP 33pF 50V

* New Parts

P.C.B. MAIN

Schm Ref.	PART NO.	Description		
C42	US061330	C.CE.M.CHP	33pF	50V
C47	US062100	C.CE.M.CHP	100pF	50V
C48	US062100	C.CE.M.CHP	100pF	50V
C49	US062100	C.CE.M.CHP	100pF	50V
C50	US062100	C.CE.M.CHP	100pF	50V
C51	US062100	C.CE.M.CHP	100pF	50V
C52	US062100	C.CE.M.CHP	100pF	50V
C53	US062100	C.CE.M.CHP	100pF	50V
C54	US062100	C.CE.M.CHP	100pF	50V
C55	US062100	C.CE.M.CHP	100pF	50V
C60	VK679700	C.EL	100uF	6.3V
C61	VK679700	C.EL	100uF	6.3V
C62	US135100	C.CE.CHP	0.1uF	16V
C63	US135100	C.CE.CHP	0.1uF	16V
C64	US135100	C.CE.CHP	0.1uF	16V
C65	US135100	C.CE.CHP	0.1uF	16V
C66	US135100	C.CE.CHP	0.1uF	16V
C67	UR847100	C.EL	10uF	25V
C68	US135100	C.CE.CHP	0.1uF	16V
C69	US135100	C.CE.CHP	0.1uF	16V
C70	US135100	C.CE.CHP	0.1uF	16V
C71	US135100	C.CE.CHP	0.1uF	16V
C72	US135100	C.CE.CHP	0.1uF	16V
C73	US135100	C.CE.CHP	0.1uF	16V
C74	VK679700	C.EL	100uF	6.3V
C75	US061100	C.CE.M.CHP	10pF	50V
C76	US061100	C.CE.M.CHP	10pF	50V
C77	US135100	C.CE.CHP	0.1uF	16V
C78	US135100	C.CE.CHP	0.1uF	16V
C79	US135100	C.CE.CHP	0.1uF	16V
C80	VR168700	C.MYLAR.ML	ECQ-V1H224JL3	
C81	US135100	C.CE.CHP	0.1uF	16V
C82	US135100	C.CE.CHP	0.1uF	16V
C83	VK679700	C.EL	100uF	6.3V
C84	US135100	C.CE.CHP	0.1uF	16V
C85	US061270	C.CE.M.CHP	27pF	50V
C86	US061270	C.CE.M.CHP	27pF	50V
C87	US062100	C.CE.M.CHP	100pF	50V
C88	US062100	C.CE.M.CHP	100pF	50V
C89	US135100	C.CE.CHP	0.1uF	16V
C90	US062100	C.CE.M.CHP	100pF	50V
C91	US061100	C.CE.M.CHP	10pF	50V
C92	US061100	C.CE.M.CHP	10pF	50V
C93	US061100	C.CE.M.CHP	10pF	50V
C94	US061470	C.CE.M.CHP	47pF	50V
C95	US135100	C.CE.CHP	0.1uF	16V
C96	VK679700	C.EL	100uF	6.3V
C200	US135100	C.CE.CHP	0.1uF	16V
C201	US062330	C.CE.M.CHP	330pF	50V
C202	US135100	C.CE.CHP	0.1uF	16V
C203	Ui367220	C.EL	22uF	50V
C204	US135100	C.CE.CHP	0.1uF	16V
C205	US135100	C.CE.CHP	0.1uF	16V

* New Parts

Schm Ref.	PART NO.	Description		
C206	US135100	C.CE.CHP	0.1uF	16V
C207	US135100	C.CE.CHP	0.1uF	16V
C208	VK679700	C.EL	100uF	6.3V
C209	US135100	C.CE.CHP	0.1uF	16V
C210	UR847330	C.EL	33uF	25V
C211	US062330	C.CE.M.CHP	330pF	50V
C212	US135100	C.CE.CHP	0.1uF	16V
C213	US135100	C.CE.CHP	0.1uF	16V
C214	US135100	C.CE.CHP	0.1uF	16V
C215	US135100	C.CE.CHP	0.1uF	16V
C216	US135100	C.CE.CHP	0.1uF	16V
C217	US061330	C.CE.M.CHP	33pF	50V
C218	VJ839100	C.EL	1uF	50V
C219	US063100	C.CE.M.CHP	1000pF	50V
C220	US135100	C.CE.CHP	0.1uF	16V
C221	US135100	C.CE.CHP	0.1uF	16V
C222	US135100	C.CE.CHP	0.1uF	16V
C223	US135100	C.CE.CHP	0.1uF	16V
C224	US135100	C.CE.CHP	0.1uF	16V
C225	US135100	C.CE.CHP	0.1uF	16V
C226	US061330	C.CE.M.CHP	33pF	50V
C227	US135100	C.CE.CHP	0.1uF	16V
C228	US135100	C.CE.CHP	0.1uF	16V
C229	UA653470	C.MYLAR	4700pF	50V
C230	UA654470	C.MYLAR	0.047uF	50V
C231	US135100	C.CE.CHP	0.1uF	16V
C232	US135100	C.CE.CHP	0.1uF	16V
C233	US135100	C.CE.CHP	0.1uF	16V
C234	VK679700	C.EL	100uF	6.3V
C235	US135100	C.CE.CHP	0.1uF	16V
C236	US135100	C.CE.CHP	0.1uF	16V
C237	UA652470	C.MYLAR	470pF	50V
C238	UA652470	C.MYLAR	470pF	50V
C239	US135100	C.CE.CHP	0.1uF	16V
C240	UA652470	C.MYLAR	470pF	50V
C242	US135100	C.CE.CHP	0.1uF	16V
C243	US135100	C.CE.CHP	0.1uF	16V
C244	US135100	C.CE.CHP	0.1uF	16V
C245	US135100	C.CE.CHP	0.1uF	16V
C246	US135100	C.CE.CHP	0.1uF	16V
C247	US135100	C.CE.CHP	0.1uF	16V
C248	US062100	C.CE.M.CHP	100pF	50V
C249	US062100	C.CE.M.CHP	100pF	50V
C250	US062100	C.CE.M.CHP	100pF	50V
C252	US061330	C.CE.M.CHP	33pF	50V
C253	US061330	C.CE.M.CHP	33pF	50V
C254	US061330	C.CE.M.CHP	33pF	50V
C255	US061330	C.CE.M.CHP	33pF	50V
C256	US135100	C.CE.CHP	0.1uF	16V
C257	US135100	C.CE.CHP	0.1uF	16V
C258	US135100	C.CE.CHP	0.1uF	16V
C259	US062100	C.CE.M.CHP	100pF	50V
C260	US062100	C.CE.M.CHP	100pF	50V

* New Parts

P.C.B. MAIN & ANALOG

Schm Ref.	PART NO.	Description		
C261	US135100	C.CE.CHP	0.1uF	16V
C262	US135100	C.CE.CHP	0.1uF	16V
C263	US135100	C.CE.CHP	0.1uF	16V
C264	US135100	C.CE.CHP	0.1uF	16V
C265	US135100	C.CE.CHP	0.1uF	16V
C266	US135100	C.CE.CHP	0.1uF	16V
C267	US135100	C.CE.CHP	0.1uF	16V
C268	US135100	C.CE.CHP	0.1uF	16V
C269	US135100	C.CE.CHP	0.1uF	16V
C270	US135100	C.CE.CHP	0.1uF	16V
C271	US061330	C.CE.M.CHP	33pF	50V
C272	VK679700	C.EL	100uF	6.3V
C273	US061100	C.CE.M.CHP	10pF	50V
C274	US061100	C.CE.M.CHP	10pF	50V
C275	US061100	C.CE.M.CHP	10pF	50V
C276	US061100	C.CE.M.CHP	10pF	50V
C278	US061470	C.CE.M.CHP	47pF	50V
C279	UR866220	C.EL	2.2uF	50V
C830	UB045100	C.CE.M.CHP	0.1uF	50V
C831	UB052100	C.CE.M.CHP	100pF	50V
C832	UB045100	C.CE.M.CHP	0.1uF	50V
C833	UB045100	C.CE.M.CHP	0.1uF	50V
C834	UB045100	C.CE.M.CHP	0.1uF	50V
C835	UF017470	C.EL.CHP	47uF	6.3V
C836	UB045100	C.CE.M.CHP	0.1uF	50V
C837	UF066470	C.EL.CHP	4.7uF	50V
C838	UF066470	C.EL.CHP	4.7uF	50V
D1	V2342100	LED.CHP(re	LN1271R	
D2	V2342100	LED.CHP(re	LN1271R	
D3	V2342100	LED.CHP(re	LN1271R	
D4	VT332900	DIODE	1SS355	
D5	VT332900	DIODE	1SS355	
D6	VT332900	DIODE	1SS355	
D200	VU992600	DIODE.ZENR	MA8051-M	5.1V
D201	VT332900	DIODE	1SS355	
D202	VT332900	DIODE	1SS355	
D203	VT332900	DIODE	1SS355	
IC1	XV378B00	IC	LP621024DM-70LL	
IC2	XV378B00	IC	LP621024DM-70LL	
IC3	XL122A00	IC	PST572CMT-R	
* IC4	XV903A00	IC	FH1B31-70A	
* IC5		IC		
* IC6	XW844A00	IC	24LC02B-I/SN EEPRO	
IC7	XV411A00	IC	W24258S-70LE-EL10	
IC8	XG948E00	IC	YM3436DK	
IC200	XD660A00	IC	TC74HCU04AF-TP1	
IC201	XL091A00	IC	HD74HC02FPEL NOR	
IC202	XR038A00	IC	NJM2904M OP AMP	
IC205	XQ962D00	IC	YSS228E-F	
IC206	XG948E00	IC	YM3436DK	
* IC207	XW839A00	IC.CPU	AD1893JST SRC	
* IC208	XW838A00	IC	HD74HC86FP EXOR	
IC209	XY186B00	IC.CPU	XC95108-20PQ100C	

* New Parts

Schm Ref.	PART NO.	Description		
IC830	XT828A00	IC	M66004FP	
L33	VY657500	COIL.CHP	120uH	
L200	Vi530800	TRANS.PULS	3PTD-001	
L830	VR355700	COIL.CHP	220uH	
PJ200	VY667700	JACK.PIN	1P	
PJ201	VY667700	JACK.PIN	1P	
Q5	VV655400	TR.DGT	DTC114EKA	
Q6	VV655400	TR.DGT	DTC114EKA	
Q7	VV655400	TR.DGT	DTC114EKA	
Q8	VV655400	TR.DGT	DTC114EKA	
Q9	VV556400	TR	2SC2412K Q,R,S	
Q200	VG730700	TR.CHP	2SC3326 B	
Q201	VC123900	TR.DGT	DTA143EK	
Q202	VV655400	TR.DGT	DTC114EKA	
Q203	VV556400	TR	2SC2412K Q,R,S	
R17	HV453220	R.CAR.FP	2.2Ω	1/4W
R18	HV453220	R.CAR.FP	2.2Ω	1/4W
R99	Vi196100	R.MTL.CHP	3.3KΩ	1/10W
* TE1	V4728500	CN	40P	
TH1	VT518900	POSISTOR	NTH4G39A103F02	10K
U830	VU591000	L.DTCT	GP1U271X	
* V830	V4572000	FL.DSPLY	15-BT-68GNK	
XL1	VP864900	RSNR.CRYS	16MHz	SMD-49
* XL2	VY712700	RSNR.CRYS	11.2896M	SMD-49
XL200	V3743900	RSNR.CE	30.00M	CSTCV30MX
* V830	VR519500	SHEET.FL		
* V830	V4833700			
	V4837400	P.C.B.	ANALOG	
CB400	VL844700	CN.BS.PIN	3P	
CB401	VD005100	CN.BS.PIN	8P	
CB402	VD005000	CN.BS.PIN	7P	
CB404	VP573800	CN.BS.PIN	18P	
△ CB600	LB932070	CN.BS.PIN	7P	
CB601	LB932040	CN.BS.PIN	4P	
△ CB700	VG879900	CN.BS.PIN	2P	
△ CB701	LB933070	CN.BS.PIN	7P	
C400	UT452390	C.PP	390pF	100V
C401	UT452390	C.PP	390pF	100V
C402	UT453100	C.PP	1000pF	100V
C403	UT453100	C.PP	1000pF	100V
C404	UT452220	C.PP	220pF	100V
C405	UT452220	C.PP	220pF	100V
C406	VJ839100	C.EL	1uF	50V
C409	VG779100	C.EL	1000uF	16V
C410	VG779100	C.EL	1000uF	16V
C411	VG290400	C.EL	0.68uF	50V
C412	VQ083000	C.EL	47uF	16V
C413	VE018700	C.EL	100uF	25V
C414	VQ083000	C.EL	47uF	16V
C415	VE018700	C.EL	100uF	25V

* New Parts

P.C.B. ANALOG

Schm Ref.	PART NO.	Description		
C416	VQ083000	C.EL	47uF	16V
C417	VH053100	C.CE.TUBLR	0.1uF	50V
C418	VQ082700	C.EL	10uF	16V
C419	VQ083000	C.EL	47uF	16V
C420	VH053100	C.CE.TUBLR	0.1uF	50V
C421	VQ082700	C.EL	10uF	16V
C422	VE018700	C.EL	100uF	25V
C423	VQ083100	C.EL	100uF	16V
C424	VQ083100	C.EL	100uF	16V
C425	VE742600	C.EL	47uF	25V
C426	VH053100	C.CE.TUBLR	0.1uF	50V
C427	VH053100	C.CE.TUBLR	0.1uF	50V
C428	VE742600	C.EL	47uF	25V
C429	VH053100	C.CE.TUBLR	0.1uF	50V
C430	VF466800	C.CE.TUBLR	100pF	50V
C431	VG278400	C.CE.TUBLR	220pF	50V
C432	VE742600	C.EL	47uF	25V
C433	VH053100	C.CE.TUBLR	0.1uF	50V
C434	VQ083000	C.EL	47uF	16V
C435	UA653100	C.MYLAR	1000pF	50V
C436	VQ083000	C.EL	47uF	16V
C437	UA652150	C.MYLAR	150pF	50V
C438	VQ083000	C.EL	47uF	16V
C439	UA653100	C.MYLAR	1000pF	50V
C440	VQ083000	C.EL	47uF	16V
C441	UA652150	C.MYLAR	150pF	50V
C442	UA652150	C.MYLAR	150pF	50V
C443	VQ083000	C.EL	47uF	16V
C444	VE018700	C.EL	100uF	25V
C445	UA652150	C.MYLAR	150pF	50V
C446	VQ083000	C.EL	47uF	16V
C447	VE018700	C.EL	100uF	25V
C449	VG276600	C.CE.TUBLR	22pF	50V
C450	VG278200	C.CE.TUBLR	150pF	50V
C451	VG278200	C.CE.TUBLR	150pF	50V
C452	VG278200	C.CE.TUBLR	150pF	50V
C453	VG278200	C.CE.TUBLR	150pF	50V
C454	VH053100	C.CE.TUBLR	0.1uF	50V
C455	VG278200	C.CE.TUBLR	150pF	50V
C456	VG278200	C.CE.TUBLR	150pF	50V
C457	VH053100	C.CE.TUBLR	0.1uF	50V
C458	VF611200	C.CE.ML	0.1uF	50V
C459	VF611200	C.CE.ML	0.1uF	50V
C600	UT454100	C.PP	0.01uF	100V
C601	UT454100	C.PP	0.01uF	100V
C602	UT454100	C.PP	0.01uF	100V
C603	UT454100	C.PP	0.01uF	100V
C604	UR749680	C.EL	6800uF	25V
C605	UR849100	C.EL	1000uF	25V
C606	UR848220	C.EL	220uF	25V
C607	VF611200	C.CE.ML	0.1uF	50V
C608	UJ667470	C.EL	47uF	50V
C609	VF611200	C.CE.ML	0.1uF	50V

Schm Ref.	PART NO.	Description		
C610	UJ668100	C.EL	100uF	50V
C611	UM416470	C.EL	4.7uF	50V
C612	UR73A100	C.EL	10000uF	16V
C613	UR639330	C.EL	3300	16V
C614	VF611200	C.CE.ML	0.1uF	50V
C615	UR739220	C.EL	2200uF	16V
C616	VF467000	C.CE.TUBLR	1000pF	50V
C617	UM416470	C.EL	4.7uF	50V
C618	UR73A100	C.EL	10000uF	16V
C619	VF467000	C.CE.TUBLR	1000pF	50V
C620	UR73A100	C.EL	10000uF	16V
C700	VV975400	C.CE	0.01uF	275V
C701	VV975400	C.CE	0.01uF	275V
D400	VG435600	DIODE.ZENR	MTZJ2.7A	2.7V
D401	iF004600	DIODE	1SS133	
D402	iF004600	DIODE	1SS133	
D600	VC971500	DIODE.BRG	RBV-402	4.0A 200V
D601	Vi234100	DIODE.BRG	RBV-602	
D602	VU264100	DIODE	1SR139-400	
D603	VU264100	DIODE	1SR139-400	
D604	VG443100	DIODE.ZENR	MTZJ27D	27V
D605	VG437700	DIODE.ZENR	MTZJ5.6B	5.6V
* HS601	V4420600	HEAT.SINK	OSH-2043-L50-SPL	
* HS602	V4420600	HEAT.SINK	OSH-2043-L50-SPL	
IC400	XF195A00	IC	NJM4580L	OPAMP
IC401	Xi357A00	IC	NJM2100L	
* IC402	XW631A00	IC	AK4524VF	
IC403	XF195A00	IC	NJM4580L	OPAMP
IC404	XD201A00	IC	M5290P	
IC600	XQ667A00	IC	M5237L	
IC601	XQ667A00	IC	M5237L	
L400	VD473700	COIL	60uH	
L402	VD473700	COIL	60uH	
L404	VD473700	COIL	60uH	
L405	VD473700	COIL	60uH	
L406	VB056900	COIL	220uH	
L407	VB056900	COIL	220uH	
L600	VM749700	FER.BEAD	FB07VA121TB	
L601	VM749700	FER.BEAD	FB07VA121TB	
L602	VM749700	FER.BEAD	FB07VA121TB	
L603	VM749700	FER.BEAD	FB07VA121TB	
L604	VM749700	FER.BEAD	FB07VA121TB	
L605	VM749700	FER.BEAD	FB07VA121TB	
L606	VM749700	FER.BEAD	FB07VA121TB	
L607	VM749700	FER.BEAD	FB07VA121TB	
L700	VH227500	FLTR	20uH	SU10VD-10020
PJ400	V2020500	JACK.PIN	4P	
Q400	VS883300	TR	2SB1565	E,F
Q401	VS883400	TR	2SD2394	E,F
Q402	iA093320	TR	2SA933S	Q,R
Q403	VD678500	TR.DGT	DTA114ES	
Q404	VK432900	TR	2SD1915F	S,T
Q405	VK432900	TR	2SD1915F	S,T

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* New Parts

* New Parts

P.C.B. ANALOG

Schm Ref.	PART NO.	Description
Q406	VK432900	TR 2SD1915F S,T
Q407	VK432900	TR 2SD1915F S,T
Q600	iA093320	TR 2SA933S Q,R
Q601	VD107400	TR 2SB953A Q,P
Q602	VD107400	TR 2SB953A Q,P
R406	HV455150	R.CAR.FP 150Ω 1/4W
R420	HV453470	R.CAR.FP 4.7Ω 1/4W
R457	HV455100	R.CAR.FP 100Ω 1/4W
R458	HV455100	R.CAR.FP 100Ω 1/4W
R600	HV455180	R.CAR.FP 180Ω 1/4W
R601	HV453220	R.CAR.FP 2.2Ω 1/4W
R602	HV456820	R.CAR.FP 8.2KΩ 1/4W
R603	HV455100	R.CAR.FP 100Ω 1/4W
R604	HU576360	R.MTL.FLM 3.6KΩ 1/4W
R605	HV453100	R.CAR.FP 1Ω 1/4W
R606	VP442600	R.MTL.FLM 33KΩ 1/4W
R607	HV455270	R.CAR.FP 270Ω 1/4W
* R608	VH006300	R.MTL.FLM 4.3KΩ 1/4W
R609	HV455100	R.CAR.FP 100Ω 1/4W
R610	HV455100	R.CAR.FP 100Ω 1/4W
R611	HU596100	R.MTL.FLM 1KΩ 1/4W
R612	HV453100	R.CAR.FP 1Ω 1/4W
R613	VH007400	R.MTL.FLM 12KΩ 1/4W
R614	HV455180	R.CAR.FP 180Ω 1/4W
R615	HV454470	R.CAR.FP 47Ω 1/4W
* R616	VH006300	R.MTL.FLM 4.3KΩ 1/4W
R617	HV455100	R.CAR.FP 100Ω 1/4W
	VB966900	CN IMSA-6024
	CB069250	BIND.TIE BK-1
	BB071360	SCR.TERM 8.3x13
	VA295800	SCR.BND.HD 3x8 ZMC2-BL
	VJ828000	PIN IMSA-6024-03E

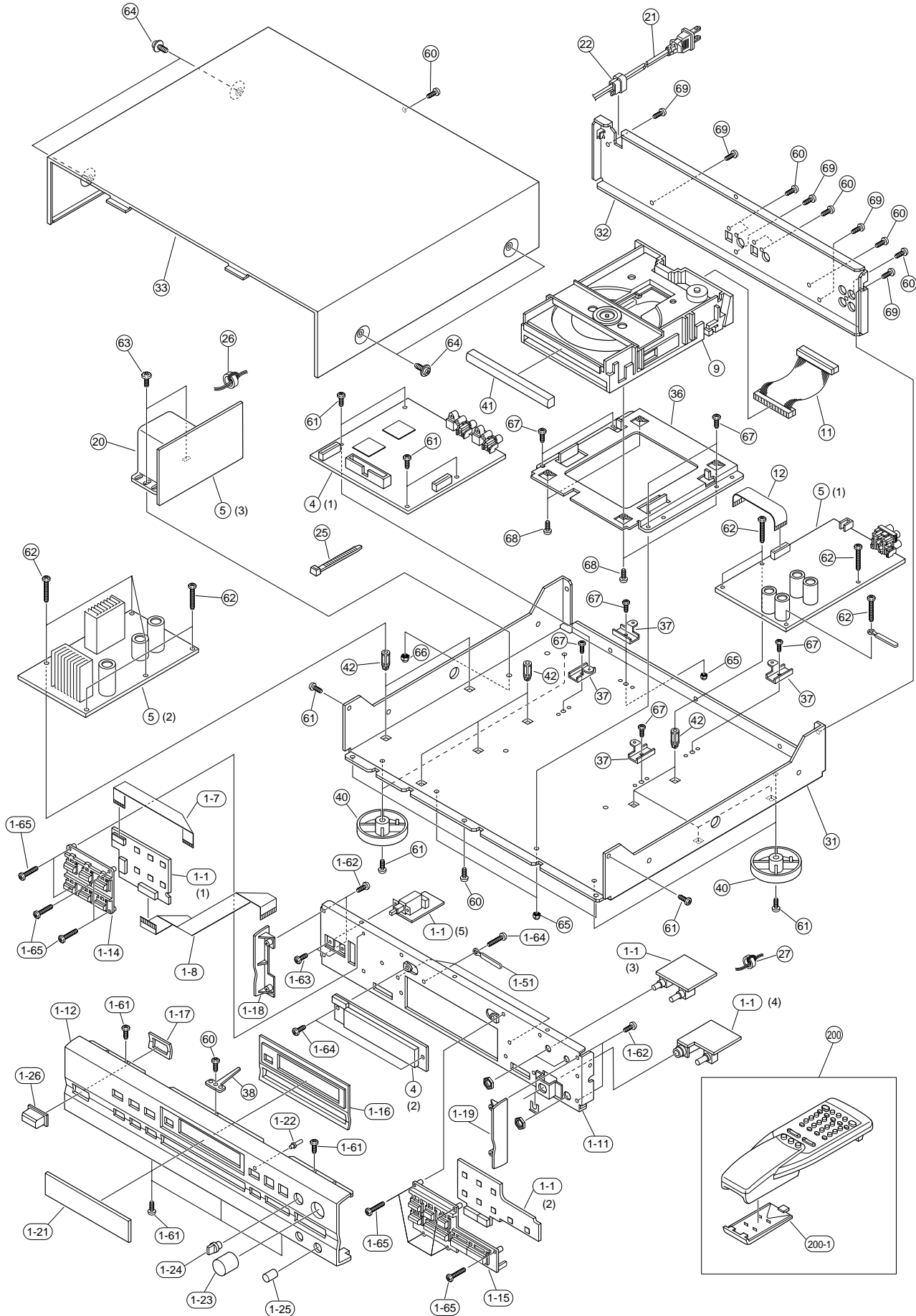
* New Parts

CHIP RESISTORS

Schm Ref.	PART NO.	Description
	RD250000	R.CAR.CHP 0Ω 1/10W
	RD253220	R.CAR.CHP 2.2Ω 1/10W
	RD254100	R.CAR.CHP 10Ω 1/10W
	RD254220	R.CAR.CHP 22Ω 1/10W
	RD254750	R.CAR.CHP 75Ω 1/10W
	RD255100	R.CAR.CHP 100Ω 1/10W
	RD255150	R.CAR.CHP 150Ω 1/10W
	RD255220	R.CAR.CHP 220Ω 1/10W
	RD255680	R.CAR.CHP 680Ω 1/10W
	RD255820	R.CAR.CHP 820Ω 1/10W
	RD256100	R.CAR.CHP 1KΩ 1/10W
	RD256220	R.CAR.CHP 2.2KΩ 1/10W
	RD256270	R.CAR.CHP 2.7KΩ 1/10W
	RD256330	R.CAR.CHP 3.3KΩ 1/10W
	RD256390	R.CAR.CHP 3.9KΩ 1/10W
	RD256470	R.CAR.CHP 4.7KΩ 1/10W
	RD256560	R.CAR.CHP 5.6KΩ 1/10W
	RD256820	R.CAR.CHP 8.2KΩ 1/10W
	RD257100	R.CAR.CHP 10KΩ 1/10W
	RD257120	R.CAR.CHP 12KΩ 1/10W
	RD257270	R.CAR.CHP 27KΩ 1/10W
	RD257470	R.CAR.CHP 47KΩ 1/10W
	RD258100	R.CAR.CHP 100KΩ 1/10W
	RD258220	R.CAR.CHP 220KΩ 1/10W
	RD259100	R.CAR.CHP 1MΩ 1/10W
	RD354470	R.CAR.CHP 47Ω 1/16W
	RD354680	R.CAR.CHP 68Ω 1/16W

* New Parts

1 ■ EXPLODED VIEW



MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
* 1-1	V4836900	P.C.B. ASS'Y	PANEL	
* 1-7	V5237300	FLEXIBLE FLAT CABLE	12P 150mm	
* 1-8	V4868200	FLEXIBLE FLAT CABLE	18P 270mm	
* 1-11	V4725600	FRAME, FRONT		
* 1-12	V4725800	FRONT PANEL		
* 1-14	V4727100	BUTTON 6KEY		
* 1-15	V4727300	BUTTON PLAY		
* 1-16	V4726300	GRILL LID		
* 1-17	V4728200	ESCUTCHEON PB		
* 1-18	V4726700	PANEL SIDE L		
* 1-19	V4726900	PANEL SIDE R		
* 1-21	V4728000	WINDOW PANEL, LID		
* 1-22	V4728100	LENS, LED		
* 1-23	V4727500	KNOB REC		
* 1-24	V4727700	KNOB		
* 1-25	V3322700	KNOB, ED		
1-26	VZ494400	BUTTON	11x22	
1-51	CB836200	BINDING TIE	S-70B	
1-61	EN340030	BIND HEAD BONDING B-T. SCREW	3x6 FCRM3-BL	
1-62	EP630220	BIND HEAD P-TITE SCREW	3x8 ZMC2-BL	
1-63	ED330066	BIND HEAD SCREW	3x6 FCRM3-BL	
1-64	EP600190	BIND HEAD B-TITE SCREW	3x8 ZMC2-BL	
1-65	EP600380	BIND HEAD B-TITE SCREW	3x16 MFZN2-BL	
* 4	V4837300	P.C.B. ASS'Y	MAIN	
* 5	V4837400	P.C.B. ASS'Y	ANALOG	
* 9	V4836800	CDR MECH UNIT		
* 11	V4868300	CONNECTOR, FLAT CABLE	40P 110mm	
12	MF118070	FLEXIBLE FLAT CABLE	18P 70mm	
△* 20	XY005A00	POWER TRANSFORMER		(UC)
△* 20	XY006A00	POWER TRANSFORMER		(A)
△* 20	XY018A00	POWER TRANSFORMER		(BG)
△ 21	V2559400	POWER CORD ASS'Y		(UC)
△ 21	VP418300	POWER CORD ASS'Y		(A)
△ 21	VS759300	POWER CORD ASS'Y		(G)
△ 21	VU411300	POWER CORD ASS'Y		(B)
22	V2438700	CORD STOPPER	'10P1	
25	CB069250	BINDING TIE	BK-1	
26	V3479100	FERRITE CORE	FSOB300RT03	
27	Vi491100	FERRITE CORE	BP53RB19012080M	
* 31	V4725400	CHASSIS, MAIN		
* 32	V4725000	REAR PANEL		(UC)
* 32	V4725200	REAR PANEL		(A)
* 32	V4725300	REAR PANEL		(BG)
* 33	V5170100	TOP COVER		
* 36	V4726100	FRAME, CDR		
37	V2093400	SUPPORT, PCB		
38	VN806000	GROUND PLATE		
40	VQ780300	LEG	D60xH16	
* 41	V4726500	LID		
42	Vi048500	SUPPORT, P.C.B.		
60	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2-BL	
61	EP600190	BIND HEAD B-TITE SCREW	3x8 ZMC2-BL	
62	EP630640	BIND HEAD P-TITE SCREW	3x20 FCRM3-BL	

* New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
63	EK396010	BIND HEAD S-TITE SCREW	4x8 FCRM3-BL	
64	EK365090	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	
65	VQ057700	HEXAGONAL CAP NUT	3mm FNM3-3G	
66	EX604260	HEXAGONAL CAP NUT	4.0 MFNI33	
67	EP630210	BIND HEAD S-TITE SCREW	3x6 ZMC2-BL	
68	VF617600	PAN HEAD P-TITE SCREW	2.6x8 FCRM3-BL	
69	EN340030	BIND HEAD BONDING B-T. SCREW	3x6 FCRM3-BL	
		ACCESSORIES		
* 200	V4775200	REMOTE CONTROL TRANSMITTER	SBGH00049A	
200-1	CX679050	LID		
*	V4868100	OPTICAL FIBER CABLE	600mm P2187-60E	
	VT970100	AV CABLE	2P 1.0m	
		BATTERY, MANGANESE	SUM-3,AA,R06	

* New Parts

Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 kΩ	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 kΩ	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 kΩ	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 kΩ	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 kΩ	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 kΩ	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 kΩ	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 kΩ	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 kΩ	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 kΩ	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 kΩ	HF45 7330	HF45 7330
39 Ω	HJ35 4470	HF85 4390	36 kΩ	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 kΩ	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 kΩ	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 kΩ	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 kΩ	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 kΩ	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 kΩ	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 kΩ	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 kΩ	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 kΩ	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 kΩ	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 kΩ	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 kΩ	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 kΩ	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 kΩ	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 kΩ	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 kΩ	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 kΩ	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 kΩ	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 kΩ	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 kΩ	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 kΩ	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 kΩ	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 MΩ	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 MΩ	HJ35 9120	*
1.0 kΩ	HF45 6100	HF45 6100	1.5 MΩ	HJ35 9150	HF85 9150
1.2 kΩ	HF45 6120	HF45 6120	1.8 MΩ	HJ35 9180	HF85 9180
1.5 kΩ	HF45 6150	HF45 6150	2.2 MΩ	HJ35 9220	HF85 9220
1.8 kΩ	HF45 6180	HF45 6180	3.3 MΩ	HJ35 9330	HF85 9330
2.0 kΩ	HJ35 6200	HF85 6200	3.9 MΩ	HJ35 9390	*
2.2 kΩ	HF45 6220	HF45 6220	4.7 MΩ	HJ35 9470	HF85 9470
2.4 kΩ	HJ35 6240	HF85 6240			
2.7 kΩ	HF45 6270	HF45 6270			
3.0 kΩ	HF45 6300	HF45 6300			
3.3 kΩ	HF45 6330	HF45 6330			
3.6 kΩ	HJ35 6360	HF85 6360			
3.9 kΩ	HF45 6390	HF45 6390			
4.7 kΩ	HF45 6470	HF45 6470			
5.1 kΩ	HF45 6510	HF45 6510			
5.6 kΩ	HF45 6560	HF45 6560			
6.8 kΩ	HF45 6680	HF45 6680			
8.2 kΩ	HF45 6820	HF45 6820			
9.1 kΩ	HF45 6910	HF45 6910			

1/4W Type

HJ35 ○○○○

10mm

1/4W Type

HF45 ○○○○

1/6W Type

HF85 ○○○○

5mm

CDR-S1000

YAMAHA
