

STEREO CONTROL AMPLIFIER CX-1000/U/2000

SERVICE MANUAL

CX-1000/U/2000

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, recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

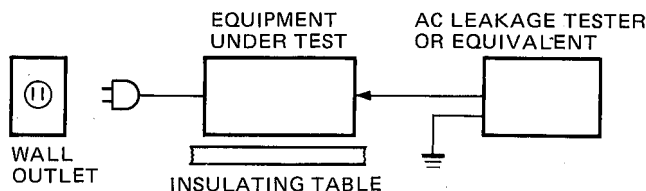
The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and specifications are subject to change without 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.

■ TO SERVICE PERSONNEL

- Critical Components Information.**
Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- Leakage Current Measurement (For 120V Model Only).**
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
 - Meter impedance should be equivalent to 1500 ohm shunted by 0.15μF.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



● POLARIZATION

This tuner product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. (U.C model only)

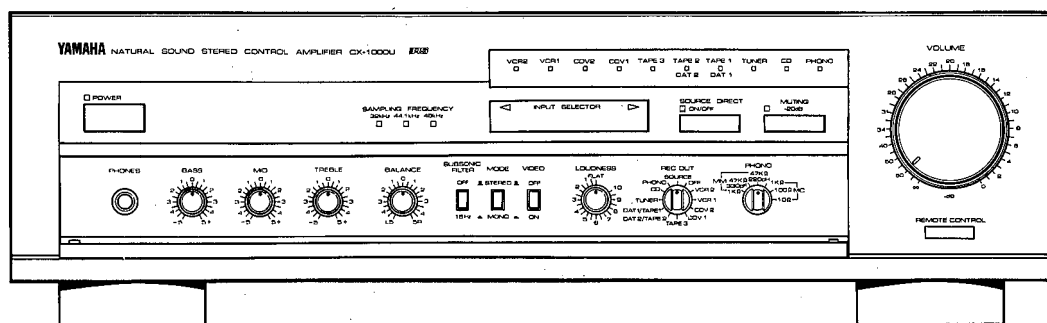
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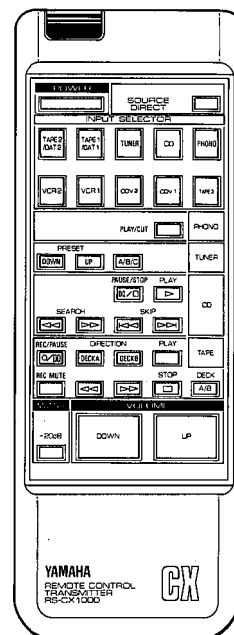
CX-1000/U/2000

FRONT PANELS

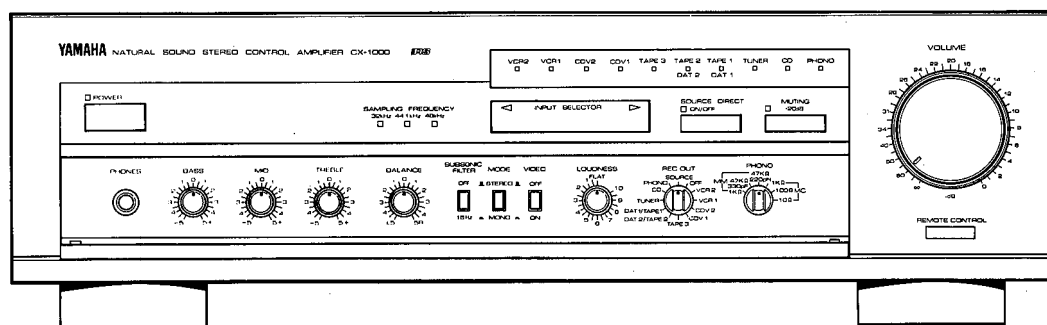
CX-1000U U, C models



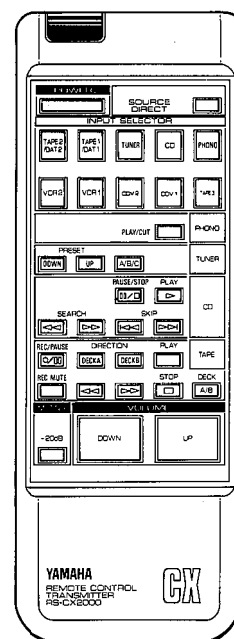
● RS-CX1000



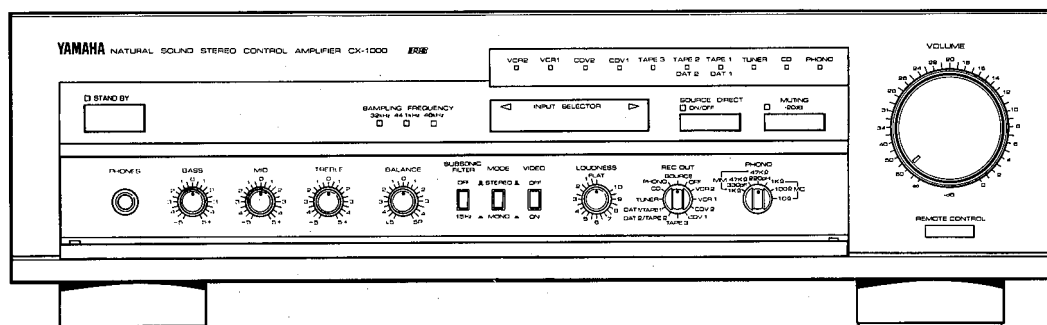
CX-1000 ● A, B R models



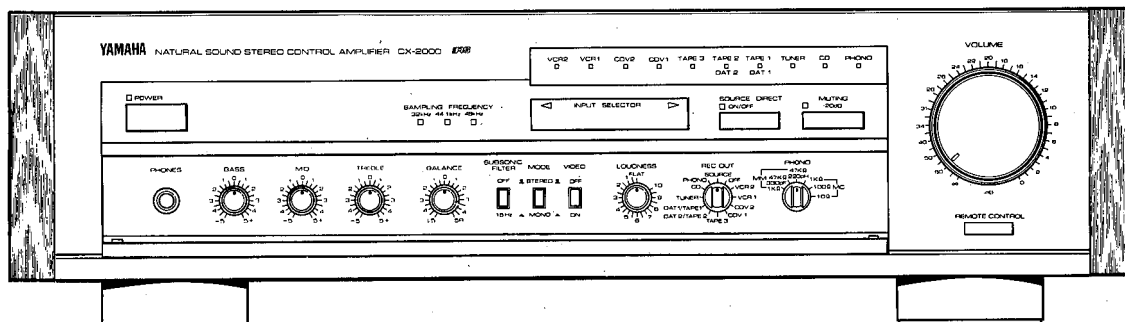
● RS-CX2000



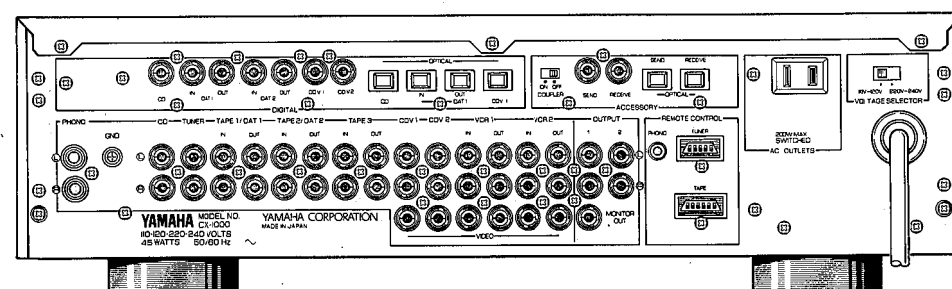
CX-1000 ● G model



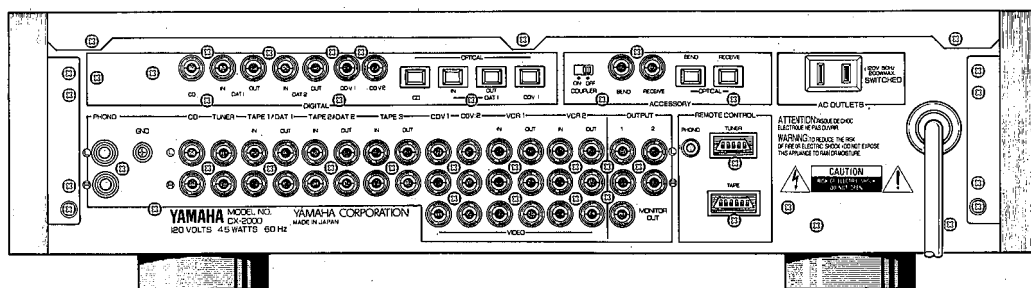
CX-2000



- **U, C models**



REAR PANEL CX-2000



SPECIFICATIONS

Input Sensitivity/Impedance

PHONO MC	100 μ V/10, 100, 1 k Ω
PHONO MM	2.5 mV/1 k Ω , 47 k Ω (220p, 330p)
CD/VIDEO/TUNER/AUX/TAPE/VCR	150 mV/47 k Ω

Input Sensitivity (New IHF)

PHONO MC	33 μ V
PHONO MM	0.83 mV
CD/VIDEO/TUNER/AUX/TAPE/VCR	50 mV

Maximum-Input Signal

1 kHz, 0.05% THD, PHONO MC	7 mV
1 kHz, 0.05% THD, PHONO MM	180 mV

Output Level/Impedance

REC OUT	150 mV/1 k Ω
REC OUT	1.5 V/47 Ω

Maximum Voltage Output

20 Hz ~ 20 kHz, 1% THD, PRE OUT	12 V
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Headphone Jack Rated Output/Impedance

RL = 100 ohms	4.5 V/100 Ω
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Frequency Response

CD/VIDEO/TUNER/AUX/TAPE/VCR (20 Hz ~ 20 kHz)	+0, -0.2 dB
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RIAA Equalization Deviation

PHONO MC/MM	± 0.2 dB
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Total Harmonic Distortion (20 Hz ~ 20 kHz)

PHONO MC to REC OUT, 1.5 V	0.002%
PHONO MM to REC OUT, 1.5 V	0.001%
CD/VIDEO/TUNER/AUX/TAPE/VCR to PRE OUT, 1.5 V	0.001%

Intermodulation Distortion

PRE OUT, 3 V	0.002%
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Signal to Noise Ratio (IHF-A-Network)

PHONO MC (500 μ V Input Shorted)	91 dB
PHONO MM (5 mV Input Shorted)	95 dB
CD/VIDEO/TUNER/AUX/TAPE/VCR (Shorted)	106 dB

Signal to Noise Ratio (New IHF)

PHONO MC	81 dB
PHONO MM	83 dB
CD/VIDEO/TUNER/AUX/TAPE/VCR	103 dB

Input Equivalent Noise

MC	-157 dBV
MM	-138 dBV

Residual Noise (IHF-A-Network)

	≤ 1.5 μ V
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Channel Separation

PHONO MC, MM 1 kHz/10 kHz Input Shorted	80 dB/70 dB
(1 kHz/10 kHz CD/VIDEO/TUNER/AUX/TAPE/VCR 5.1 k Ω terminated)	90 dB/69.5 dB

Tone Control Characteristics

BASS	boost/cut	± 10 dB (20 Hz)
	turnover frequency	350 Hz
TREBLE	boost/cut	± 10 dB (20 kHz)
	turnover frequency	3.5 kHz
MID	control range	± 10 dB (1 kHz)
	center frequency	1 kHz

Filter Characteristics

Subsonic	15 Hz, 12 dB/oct
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Continuous Loudness Control (Level related equalization)

Attenuation	-40 dB (1 kHz)
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Audio Muting

	-20 dB
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Gain Tracking Error (0 ~ -60 dB)

	≤ 2 dB
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Power Supply

	AC 120 V, 60 Hz (U, C)
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	AC 110/120/220/240 V, 60/50 Hz (R)
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	AC 220 V, 50 Hz (G)
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	AC 240 V, 50 Hz (A, B)
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Power Consumption

	45 W
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AC Outlet

Switched x 1	200 W max.
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Dimensions (W x H x D)

CX-1000/U	435 x 129.5 x 400 mm
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	(17-1/8" x 5-3/32" x 15-3/4")
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CX-2000	473 x 130 x 400 mm
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	(18-5/8" x 5-1/8" x 15-3/4")
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Weight

CX-1000/U	11.5 kg
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	(25 lbs. 5 oz.)
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CX-2000	12.2 kg
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	(26 lbs. 13 oz.)
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Specifications subject to change without notice.

(U)	U.S.A. model	(G)	European model
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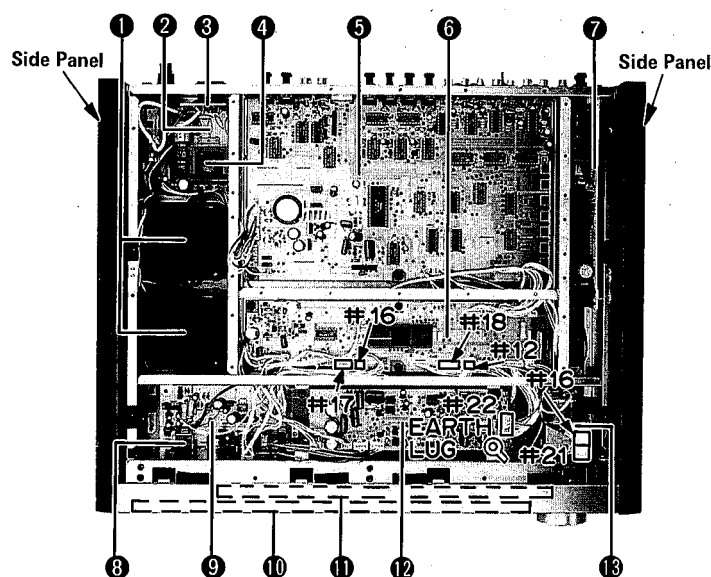
(C)	Canadian model	(B)	British model
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(A)	Australian model	(R)	Other model
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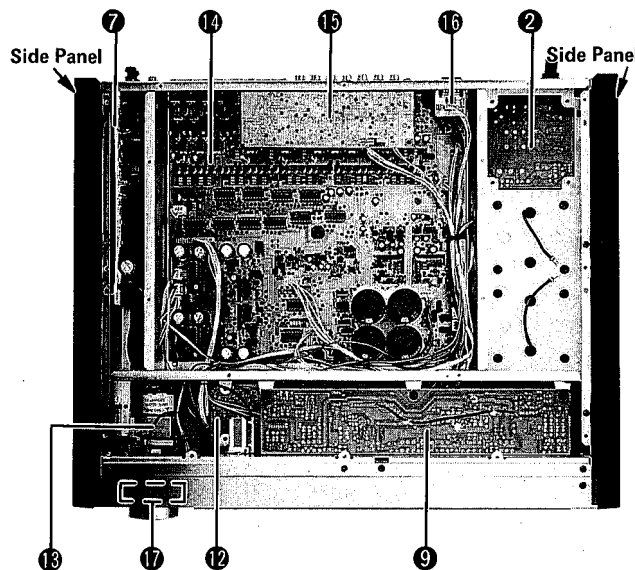
INTERNAL VIEW

Note: Side Panel (wood) is not attached to CX-1000/U.

(Top View)



(Bottom View)

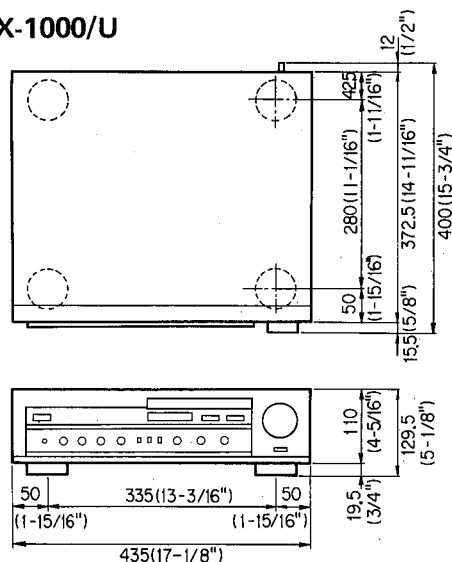


- ① POWER TRANSFORMER
- ② EQUALIZER CIRCUIT BOARD (2)
- ③ EQUALIZER CIRCUIT BOARD (9) : U, C, R Models
EQUALIZER CIRCUIT BOARD (10): A Model Only
EQUALIZER CIRCUIT BOARD (11): G Model Only
EQUALIZER CIRCUIT BOARD (12): B Model Only
- ④ SUB POWER TRANSFORMER
- ⑤ DIGITAL CIRCUIT BOARD (1)
- ⑥ DIGITAL CIRCUIT BOARD (2)
- ⑦ EQUALIZER CIRCUIT BOARD (1)
- ⑧ EQUALIZER CIRCUIT BOARD (5)

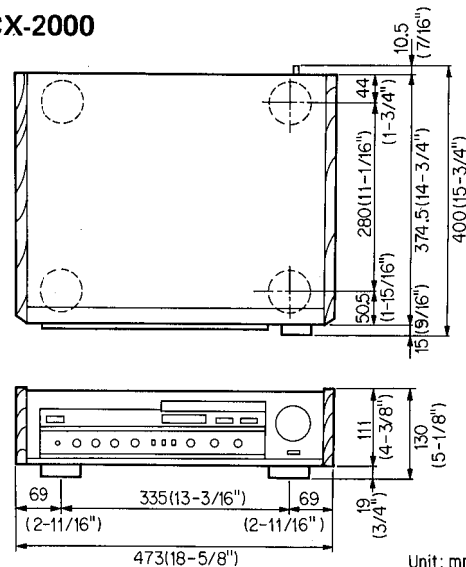
- ⑨ EQUALIZER CIRCUIT BOARD (3)
- ⑩ EQUALIZER CIRCUIT BOARD (7)
- ⑪ EQUALIZER CIRCUIT BOARD (8)
- ⑫ ANALOG CIRCUIT BOARD (2)
- ⑬ DIGITAL CIRCUIT BOARD (4)
- ⑭ ANALOG CIRCUIT BOARD (1)
- ⑮ DIGITAL CIRCUIT BOARD (3)
- ⑯ EQUALIZER CIRCUIT BOARD (6)
- ⑰ EQUALIZER CIRCUIT BOARD (4)

DIMENSIONS

● CX-1000/U



● CX-2000



Unit: mm (inch)

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

CX-1000/U

1. How to remove Bottom Cover:

- Remove 18 screws ① of Fig. 1.

2. How to remove Top Cover:

- Remove 7 screws ② of Fig. 1, remove the cover trying to lift in up.

3. How to remove Front Panel:

- Remove 7 knobs of Sealing Panel.
- Remove Connector located at 7 places (#6, 12, 16, 17, 18, 21, 22), and remove Land Metal Fitting.
- Remove 6 screws ③ of Fig. 1, and remove the Front Panel trying to pull it toward you.

4. How to remove Shield Plate:

- Remove 18 screws ④ of Fig. 1.

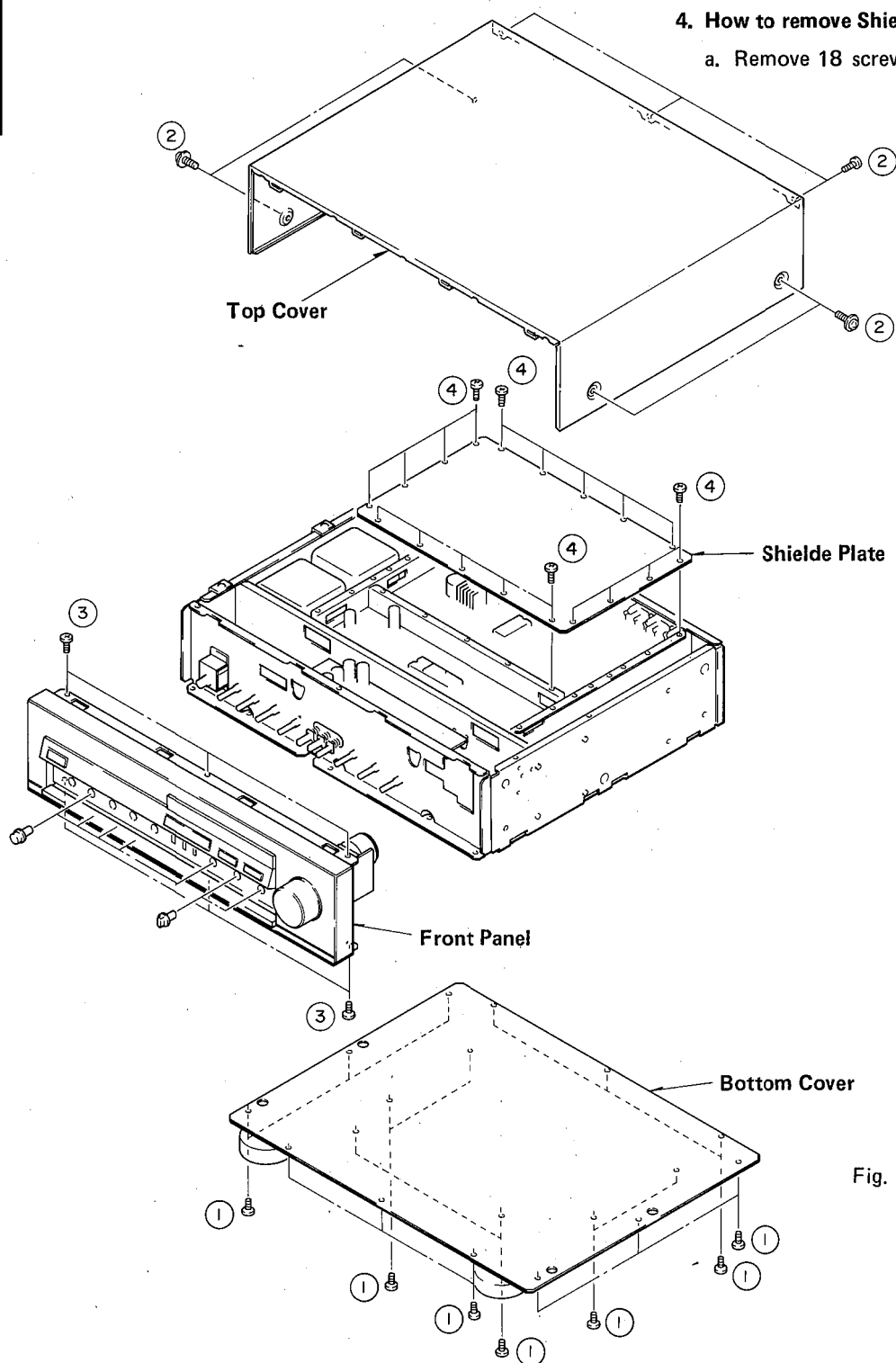


Fig. 1

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

CX-2000

1. How to remove Bottom Cover:

- a. Remove 18 screws of ① of Fig. 1.

2. How to remove Top Panel:

- a. Remove 3 screws of ② of Fig. 1, and remove the Top Panel B.
- b. Remove 4 screws of ③ of Fig. 1, and remove the Top Panel A.

3. How to remove Front Panel:

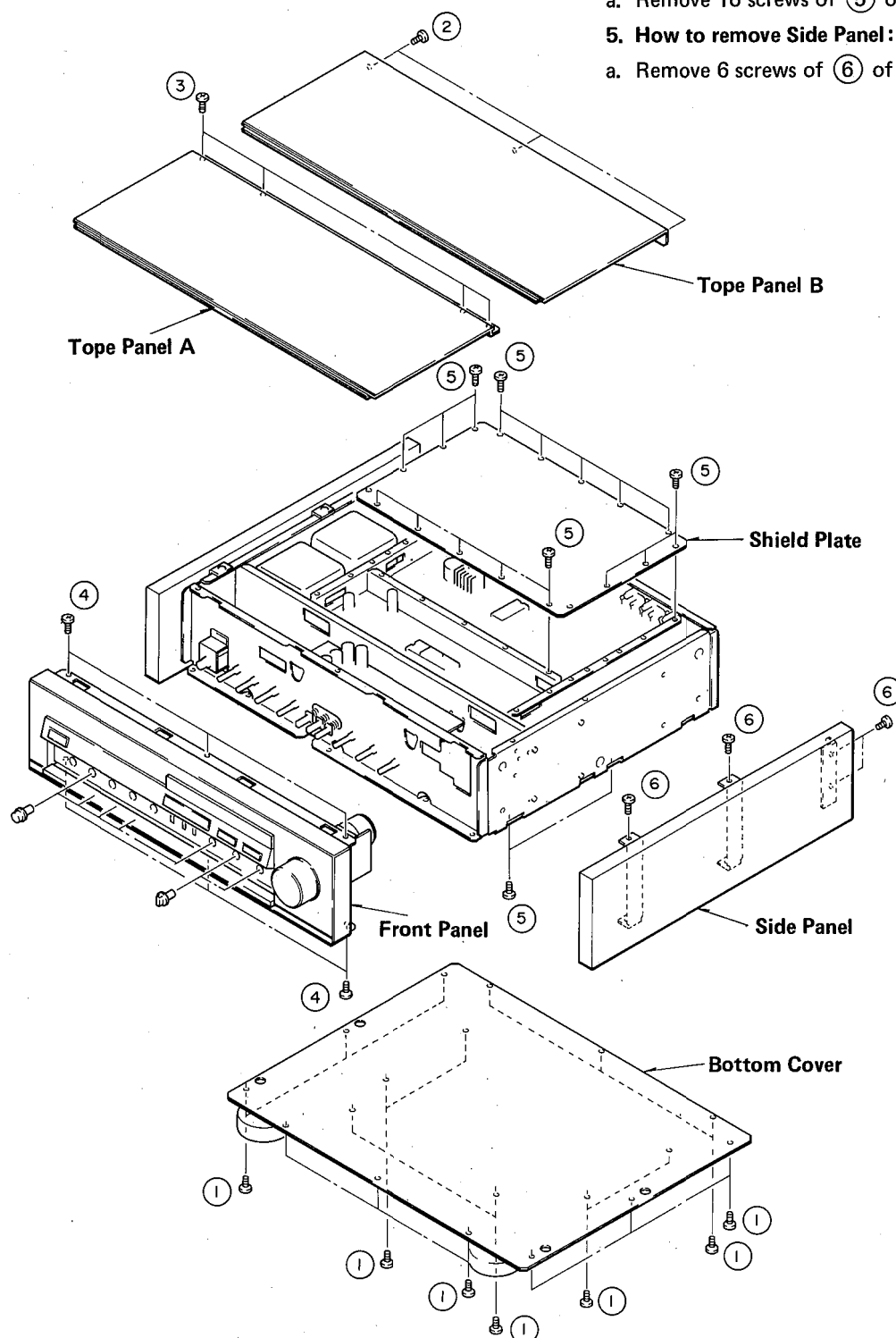
- a. Remove 7 knobs of Sealing Panel.
- b. Remove Connector located at 7 places (#6, 12, 16, 17, 18, 21, 22), and remove Land Metal Fitting.
- c. Remove 6 screws of ④ of Fig. 1, and remove the Front Panel trying to pull it toward you.

4. How to remove Shield Plate:

- a. Remove 16 screws of ⑤ of Fig. 1.

5. How to remove Side Panel:

- a. Remove 6 screws of ⑥ of Fig. 1.



■ ADJUSTMENTS

Before adjustment is conducted,

- In order to stabilize the operation of Amplifier, conduct the adjustment after having done 3 minutes aging with power ON under non-signal status.

Step	Adjustment	Measuring Place	Adjustment Place	Specification
1	Adjustment of Distortion Degree	Analog Circuit Board (1) Digital 1kHz, 0dB Signal	VR1 (L) VR2 (R)	Adjust it so as to be the best condition. (See Note: 1)
2	Adjustment of Offset of 0dB Amplifier Part	Analog Circuit Board (1) TP1-TP2 (L) TP3-TP2 (R)	VR5 (L) VR4 (R)	Set Main VR at position of min. 2.0 mV ~ 2.5 mV
3	Output Level Adjustment of D/A Converter	Analog Circuit Board (1) Input Digital 1kHz, 0dB Signal. Adjust VR, so that channel balance may be within the specification, when REC OUT output (Analog) is $2.0V \pm 0.4V$.	VR3	Less than 1dB at SOURCE REC position.

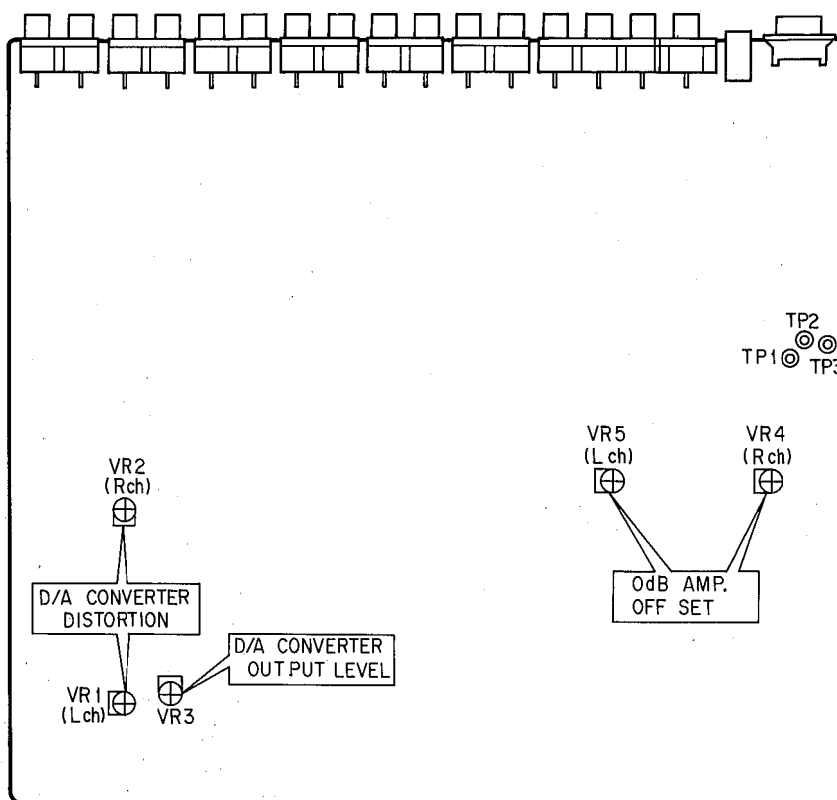
Note:

- Use 20 kHz. LPF.
- MAIN VOL MIN.
- Place REC OUT SELECTOR at SOURCE REC position, and measure REC OUT output (Analog).

As to input, input Digital Signal of 1 kHz 0dB in DIGITAL CD INPUT terminal (Connect CD Player having DIGITAL OUT).

• Test Point

ANALOG CIRCUIT BOARD (1)

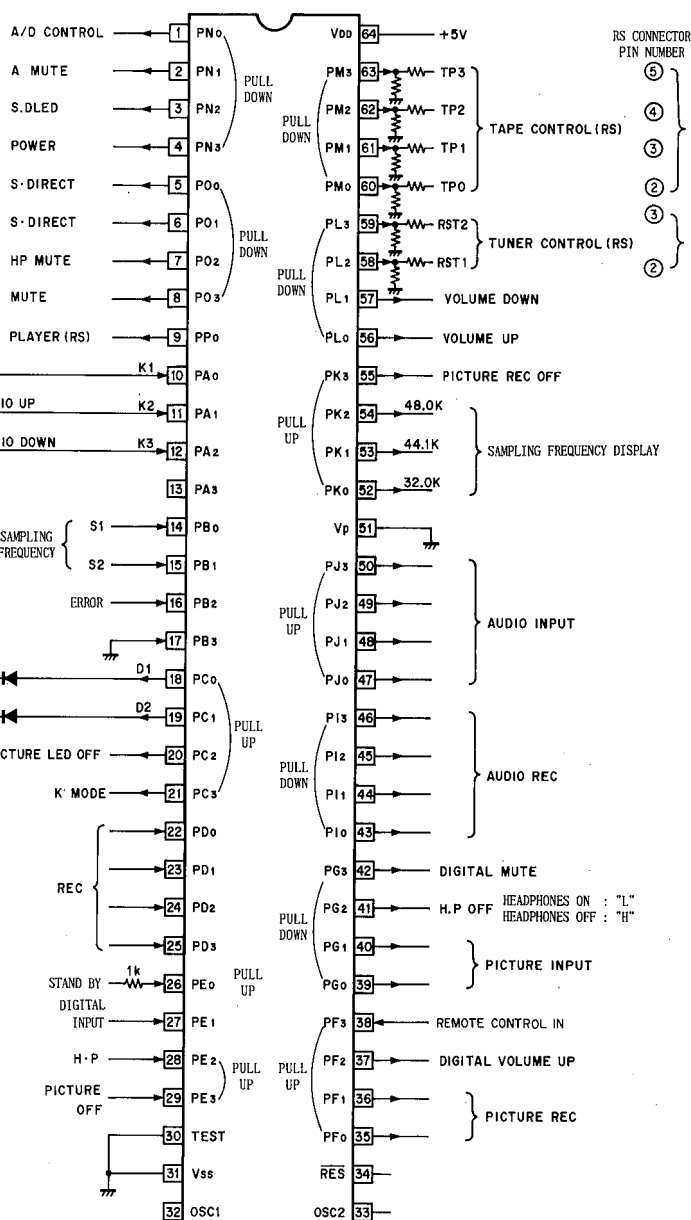
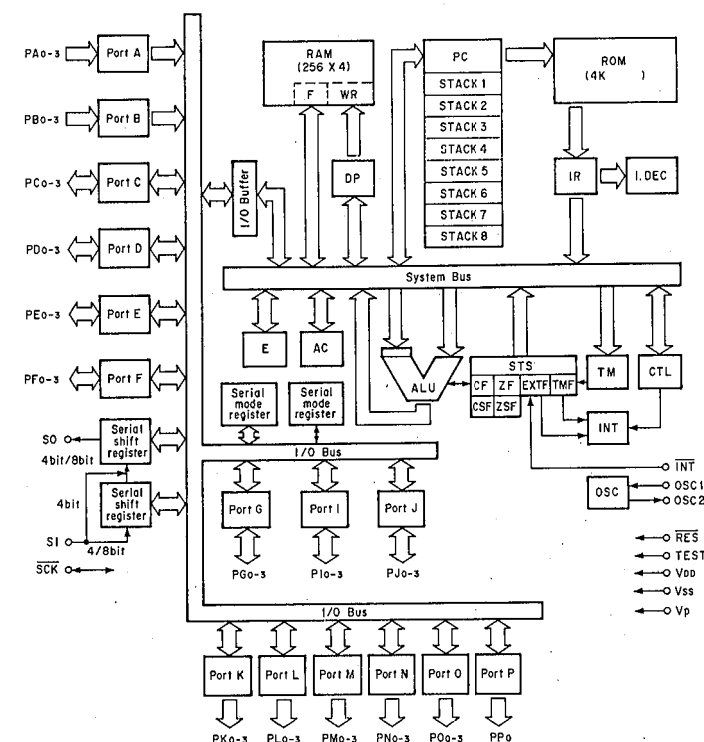


IC BLOCK

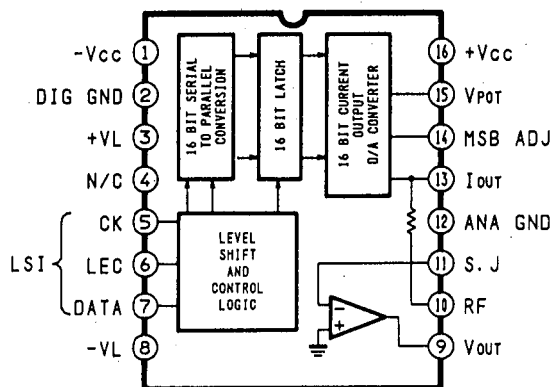
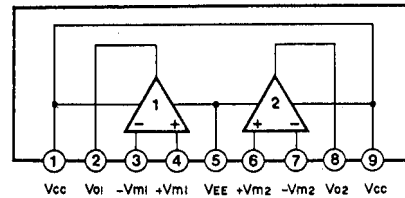
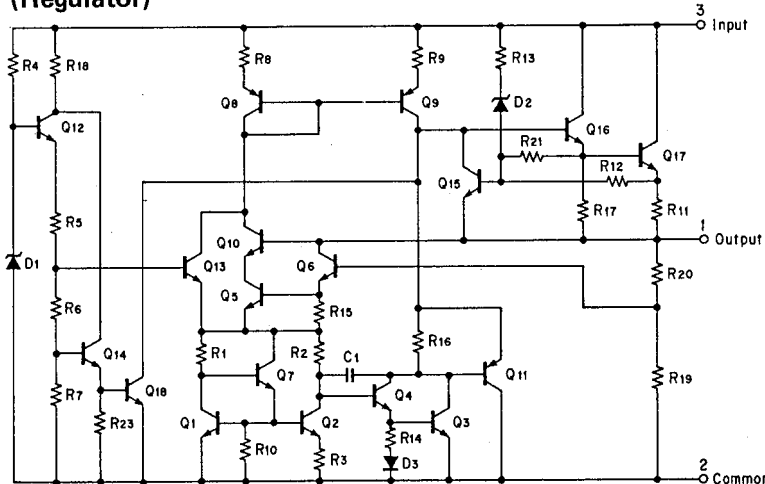
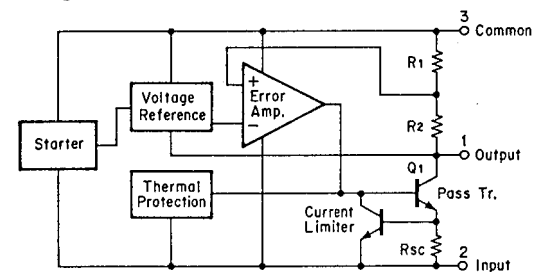
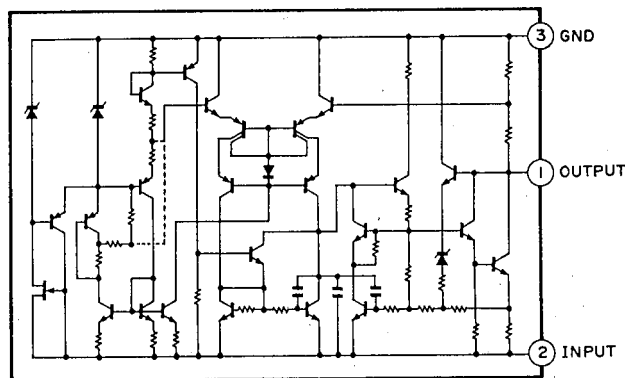
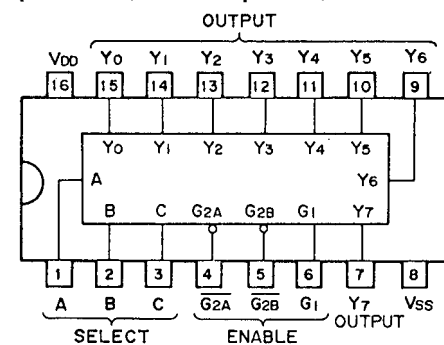
IC433: LC6554H-3709 (4-bit Micro Computer)

SAMPLING FREQUENCY		
S1	S2	FREQUENCY
0	0	44.1kHz
0	1	48.0kHz
1	1	32.0kHz

FUNCTION	AUDIO INPUT				AUDIO REC				PICTURE	SW701 REC OUT SELECTOR OUTPUT CODE			
	PJ3	PJ2	PJ1	PJ0	PI3	PI2	PI1	PI0		PD3	PD2	PD1	PD0
-	0	0	0	0	0	0	0	0	0 1	0	0	0	0
CDV 2	0	0	0	1	0	0	0	1	1 0	0	0	0	1
CDV 1	0	0	1	0	0	0	1	0		0	0	1	0
DAT 2/TAPE 2	0	0	1	1	0	0	1	1		0	1	1	0
DAT 1/TAPE 1	0	1	0	0	0	1	0	0		0	1	1	1
TUNER	0	1	0	1	0	1	0	1		0	1	1	1
CD	0	1	1	0	0	1	1	0		0	1	0	1
PHONO	0	1	1	1	0	1	1	1		0	1	0	0
VCR 2	1	0	0	0	1	0	0	0	0 0	1	1	1	1
VCR 1	1	0	0	1	1	0	0	1	1 1	1	1	1	0
TAPE 3	1	0	1	0	1	0	1	0		0	0	1	1
-	1	1	1	0	1	1	1	0		1	1	0	0
(SOURCE)	1	1	1	1									
(REC OFF)	1	1	1	1	1	1	1	1		1	1	0	1



NOTE) Pins S1, S0, SCK, INT are commonly used with PF0, PF1, PF2, and PF3, respectively

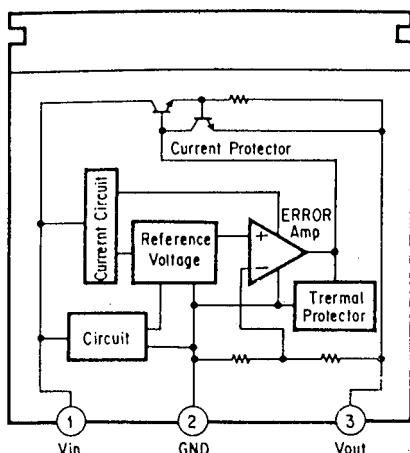
IC1, 2: PCM56P-K
(D/A Converter)

IC3 ~ 6, 801 ~ 804: NJM5532SD
IC7, 8, 301, 302: NJM5532S
IC407, 421: NJM4556SA
IC407, 421: NJM4558S
(Dual Ope-Amp)

IC9: AN7812
IC17, 18, 303: AN7820
(Regulator)

IC10: AN7912
IC39, 40, 304: AN7920
(Regulator)

IC12, 14: NJM79M12A
IC426: AN79M05 or NJM79M05
(Regulator)

IC32 ~ 35, 37, 901 ~ 903: μ PD74HC238C
(Decoder/Demultiplexer)

Truth Table

INPUT		OUTPUT										
ENABLE	SELECT											
G_1	$\overline{G_2^*}$	C	B	A	Y_0	Y_1	Y_2	Y_3	Y_4	Y_5	Y_6	Y_7
X	H	X	X	X	L	L	L	L	L	L	L	L
L	X	X	X	X	L	L	L	L	L	L	L	L
H	L	L	L	L	H	L	L	L	L	L	L	L
H	L	L	L	H	L	H	L	L	L	L	L	L
H	L	L	H	L	L	L	H	L	L	L	L	L
H	L	L	H	H	L	L	L	H	L	L	L	L
H	L	H	L	L	L	L	L	L	H	L	L	L
H	L	H	L	H	L	L	L	L	L	H	L	L
H	L	H	H	L	L	L	L	L	L	L	H	L
H	L	H	H	H	L	L	L	L	L	L	L	H

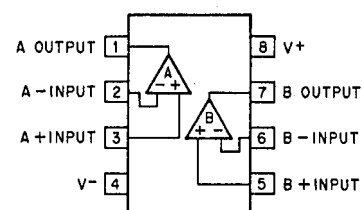
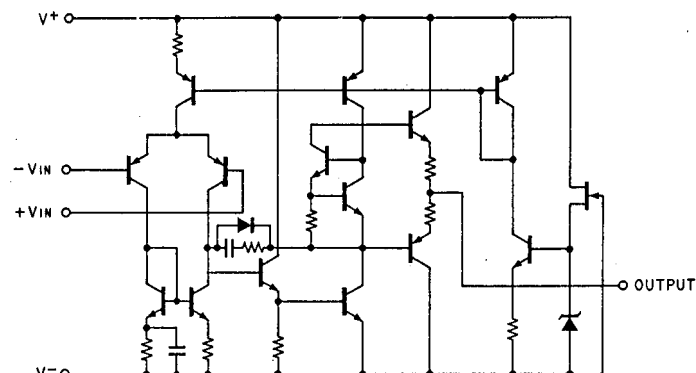
$$G_2^* = \overline{G_2A} \times G_2B$$

H: HIGH LEVEL L: LOW LEVEL X: H or L

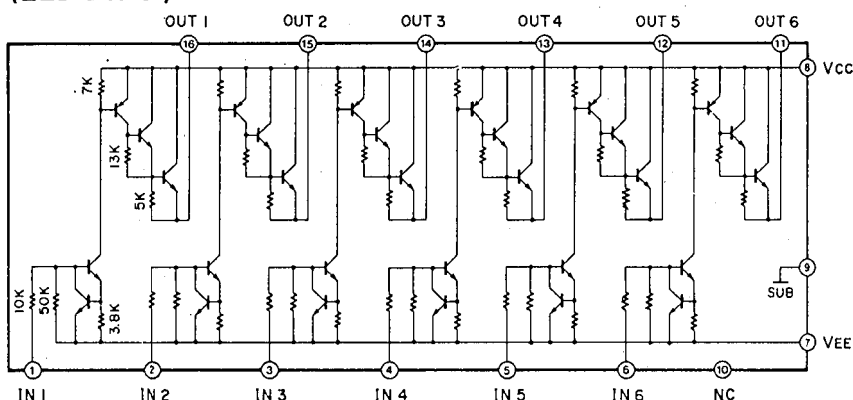
IC11, 13: NJM78M12A
 IC425, 428: AN78M05 or NJM78M05
 (Regulator)



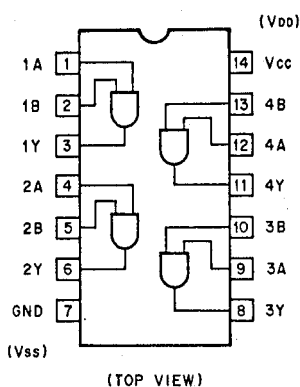
IC19 ~ 27: NJM2068DD
 (Dual Ope-Amp)



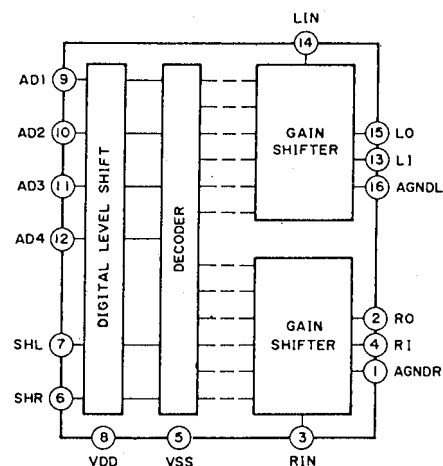
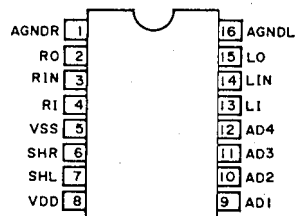
IC15, 16, 28 ~ 31, 435: LB1294
 (LED Driver)



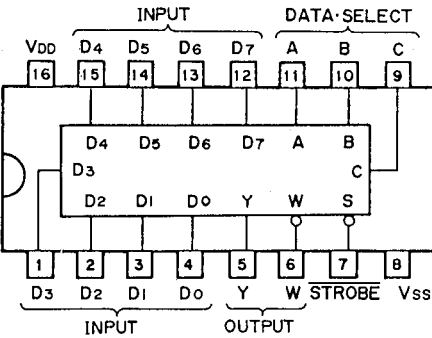
IC36, 418, 431
 TC74HC08 or μ PD74HC08C or
 M74HC08P or MN74HC08
 (Quad 2-Input AND Gate)



IC38: YM3023
 (Floating Sample Hold)



IC410 ~ 412: μ PD74HC151C
(8 to 1 Data Selector)

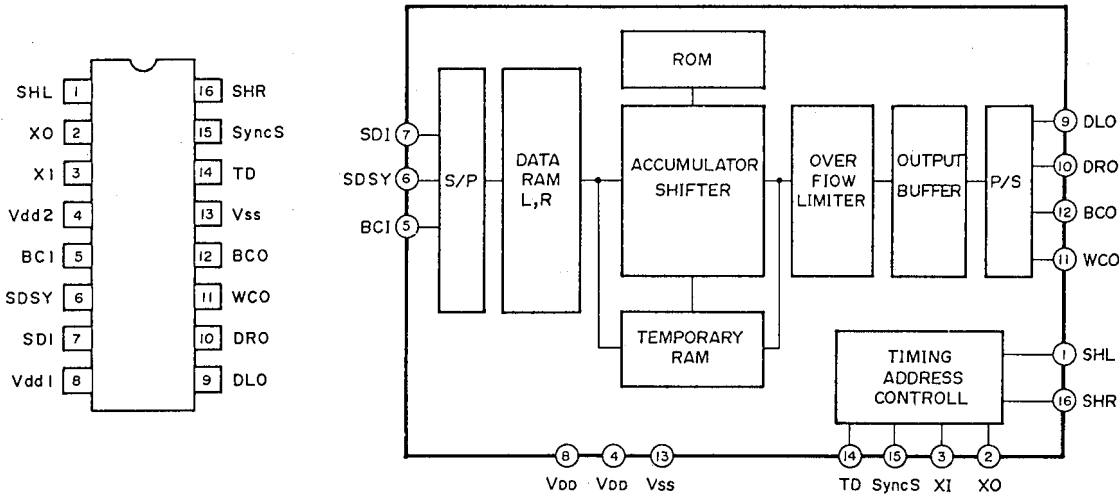


Truth Table

INPUT				OUTPUT	
SELECT			STROBE	Y	W
C	B	A	S		
X	X	X	H	L	H
L	L	L	L	D ₀	$\overline{D_0}$
L	L	H	L	D ₁	$\overline{D_1}$
L	H	L	L	D ₂	$\overline{D_2}$
L	H	H	L	D ₃	$\overline{D_3}$
H	L	L	L	D ₄	$\overline{D_4}$
H	L	H	L	D ₅	$\overline{D_5}$
H	H	L	L	D ₆	$\overline{D_6}$
H	H	H	L	D ₇	$\overline{D_7}$

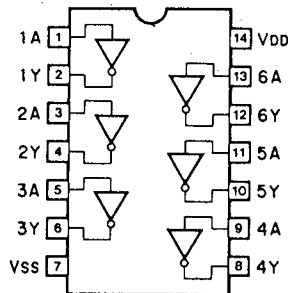
H: HIGH LEVEL L: LOW LEVEL X: H or L

IC422. YM3414
(2-ch, 8-ch Digital Filter)

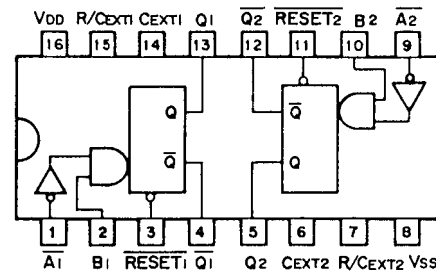


Pin No	Pin Name	I/O	Function
1	SHL	O	At 1 DAC : L channel deglitcher signal output At 2 DAC : L,R channel deglitcher signal output
2	XO	O	Clock oscillation 16.9344MHz
3	XI	I	
4	Vdd 2		+5V power supply for clock and deglitcher signal
5	BCI	I	Enters bit clock of input data
6	SDSY	I	Identifies L or R channel of input data and specifies data input timing
7	SDI	I	Serial input of converted digital signal
8	Vdd 1		+5V power supply for digital signal
9	DLO	O	At 1 DAC : L,R channel data output At 2 DAC : L channel data output
10	DRO	O	R channel data output
11	WCO	O	Word clock of output data (DLO, DLR)
12	BCO	O	Output of output data bit clock
13	Vss		Ground
14	TD	I	1 DAC= "L" or 2 DAC= "H" select input
15	Sync S	O	Sync S = "H" : Synchronized input. Sync S = "L" : Prohibition SDSY
16	SHR	O	At 1 DAC : R channel deglitcher signal output

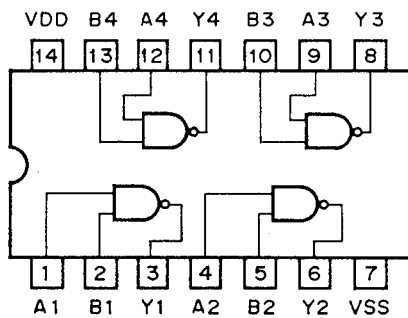
IC401 ~ 404, 407, 429: μ PD74HCU04C
(Hex Inverters)



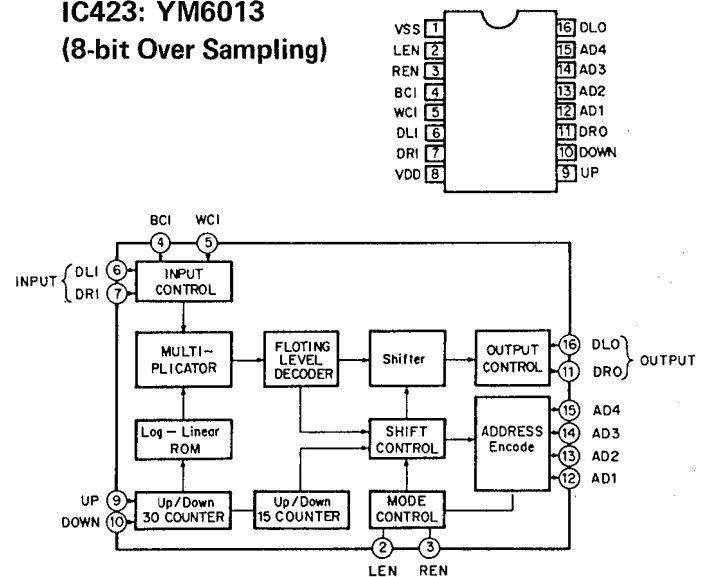
IC405, 406, 408, 424: μ PD74HC123AC
(Dual Retriggerable Single Shot)



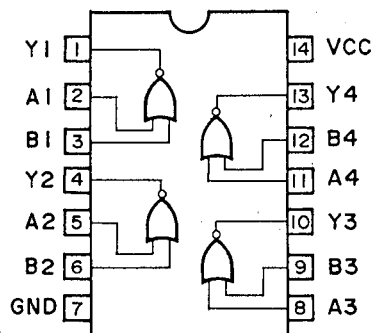
IC413 ~ 415, 417:
TC74HC00P or μ PD74HC00C or
M74HC00P or MN74HC00P
(Quad 2-Input NAND Gate)



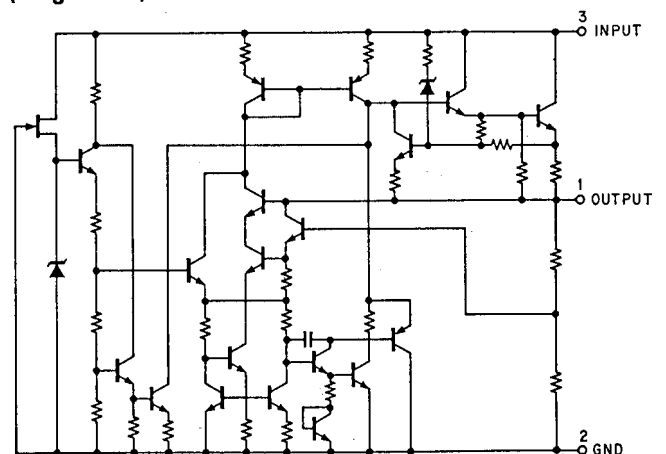
IC423: YM6013
(8-bit Over Sampling)

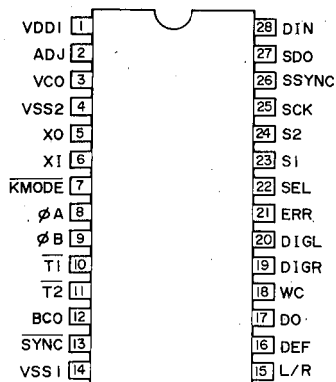


IC416, 419, 430:
TC74HC02P or μ PD74HC02P or
M74HC02P or MN74HC02
(Quad 2-Input NOR Gate)



IC427: NJM7805A
(Regulator)



IC420: YM3623B
(Digital I/O)


The pin with (PU) in the I/O column is pulled up internally.

Pin No.	Pin Name	I/O	Function
1	VDD1		Power supply for system (+5V)
2	ADJ	I	For adjustment of VCO oscillation frequency, non-connected
3	VCO	I/O	External capacitor terminal for VCO circuit
4	Vss2		Ground of VCO circuit Connect commonly with Vss1 (Inside of IC is not used in common.)
5	XO	O	For crystal oscillator (16.9344MHz)
6	XI	I	For crystal oscillator
7	KMODE	I (PU)	H: Activates PLL circuit if input is entered to DIN pin but if not, it operates by using crystal oscillator. L: Uses crystal oscillator regardless of DIN pin
8	φA	O	Crystal oscillator oscillation frequency output (16.9344MHz)
9	φB	O	1/3 division of φA when crystal oscillator is used With PLL circuit in operation, it varies depending on data speed entered to DIN pin (About 5.6448 MHz when fs = 44.1 kHz)
10	T1	I (PU)	For checking internal circuit
11	T2	I (PU)	For checking internal circuit
12	BCO	O	Timing clock of output signal from DO pin
13	SYNC	O	Synchronizing signal
14	Vss1	O	System ground (+0V)
15	L/R	O	Indicates that H = L channel and L = R channel data is output from DO pin
16	DEF	O	H: Indicates that input data is emphasized L: Indicates that input data isn't emphasized
17	DO	O	16 bit data output
18	MC	O	Indicates that data is output at DO pin
19	DIGR	O	Signal for R channel deglitch
20	DIGL	O	Signal for L channel deglitch
21	ERR	O	H: Indicates parity error or in operation with crystal L: Indicates that there is no error
22	SEL	I (PU)	Refer to the separate table.
23	S1	O	Refer to the separate table.
24	S2	O	Refer to the separate table.
25	SCK	O	Clock for sub-code output
26	SSYNC	O	Signal for sub-code
27	SDO	O	For output of sub-code data
28	DIN	I (PU)	For data input

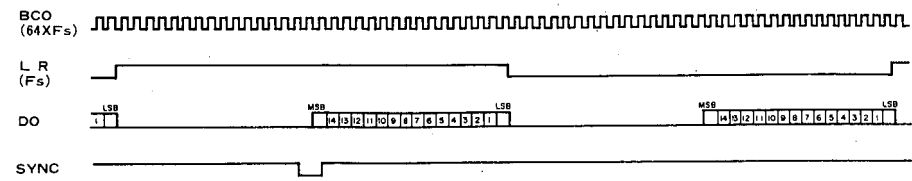
• S1, S2 SEL

The output function of S1 and S2 pins is increased. Switching the SEL pin input will switch to S1 or S2 pin output.

Input	Output	Output
SEL	S1	S2
L	L	Copy forbidden
	H	Copy enable
H	L	Sampling frequency of DIN input signal 44.1KHz
	L	48.1KHz
	H	32kHz
	H	—

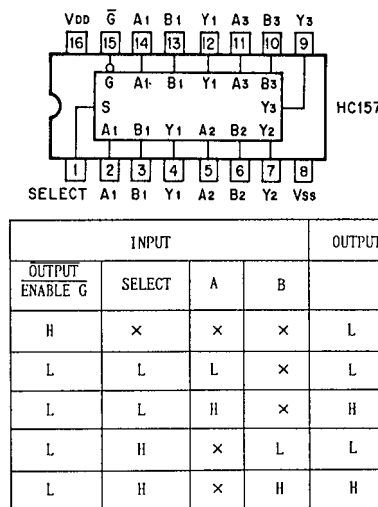
As in the above table, necessary data is drawn out of the digital audio interface format signals which have been entered and output at S1 and S2 pins.

● OUTPUT TIMING

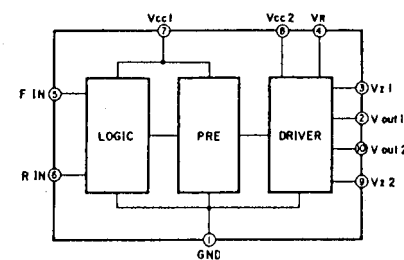


Note) FS shows the sampling frequency. For example, it is 44.1kHz with the compact disk and 48kHz with the DAT.

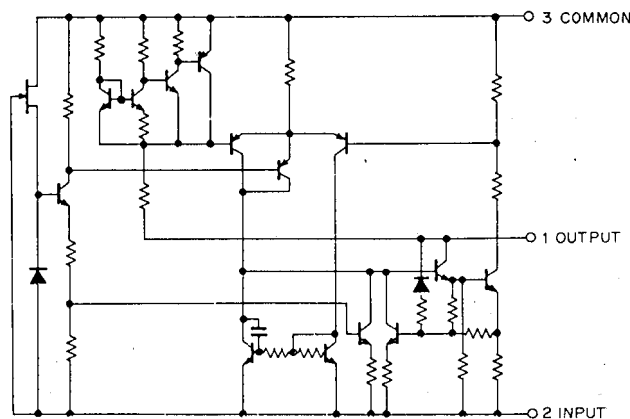
IC432: μ PD74HC157C
(Quad 2-Input Data Selector/Multiplexer)



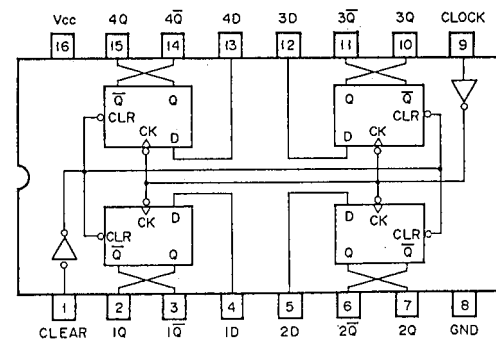
IC434: BA6209
(Motor Driver)



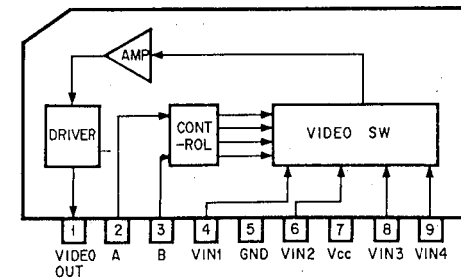
IC436: μ PC78L05J
(Regulator)



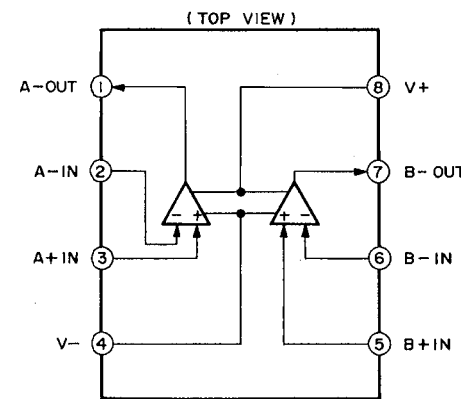
IC437: TC74HC175P or MC74HC175N
(Quad D-Type Flip-Flop with Clear)



IC501 ~ 503: LA7952
(Video Switch)

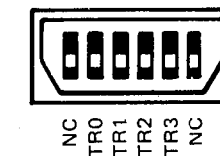


IC701, 702: NJM5532DD
(Dual Ope-Amp)

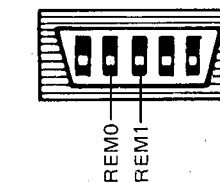


● Remote Control Terminal

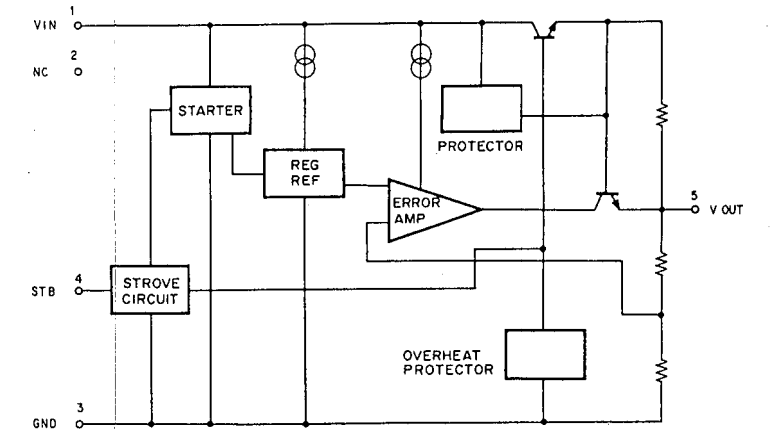
(Tape)



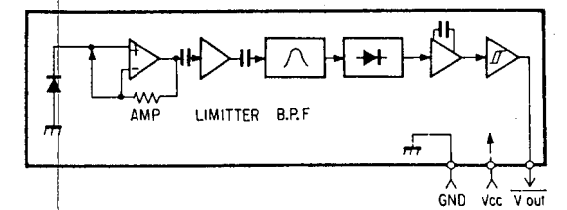
(Tuner)



IC504, 505: L780S12
(Voltage Regulator)



U701: GP1U011 or GP1U501
(Remote Control Receptor)



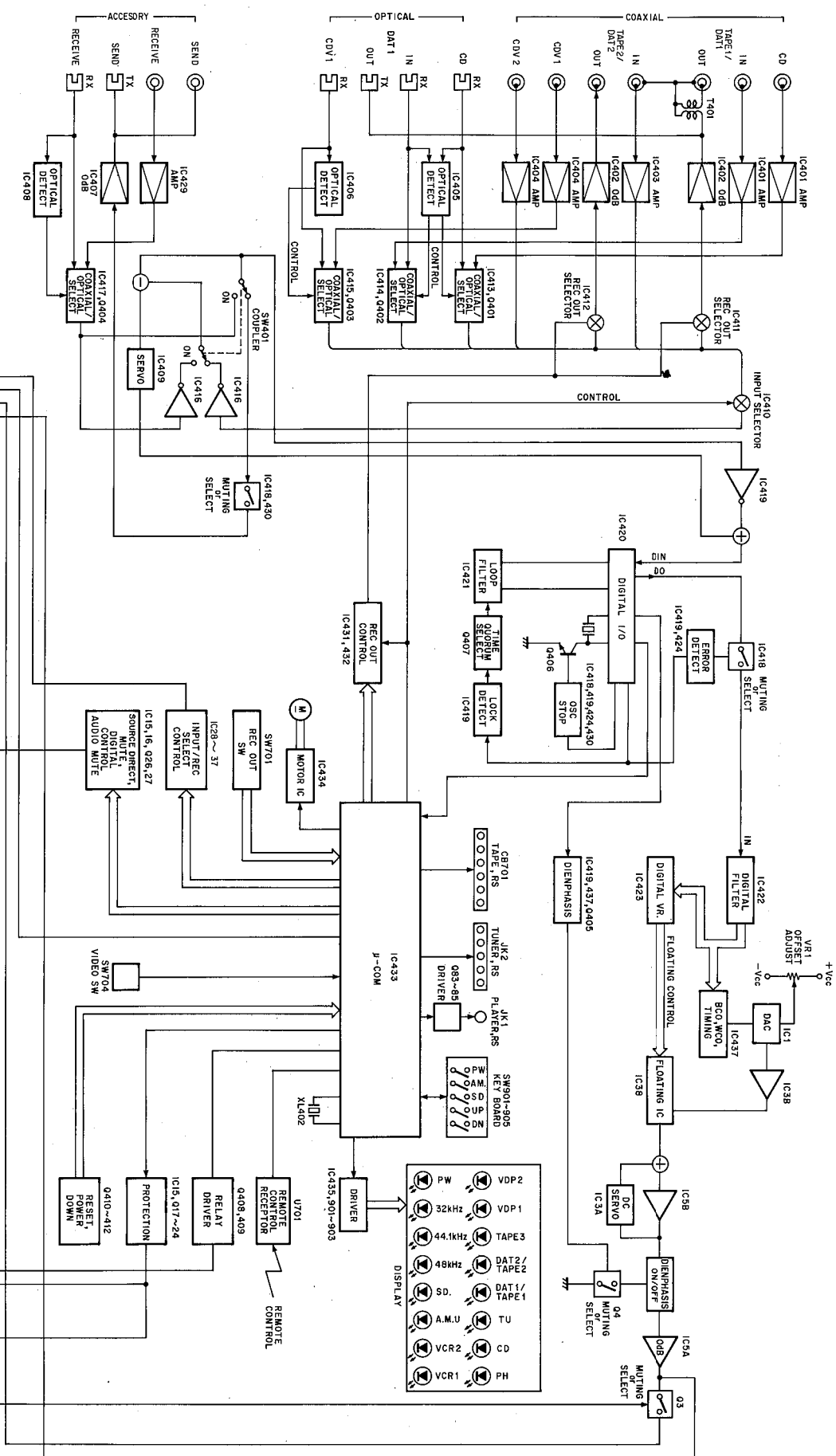
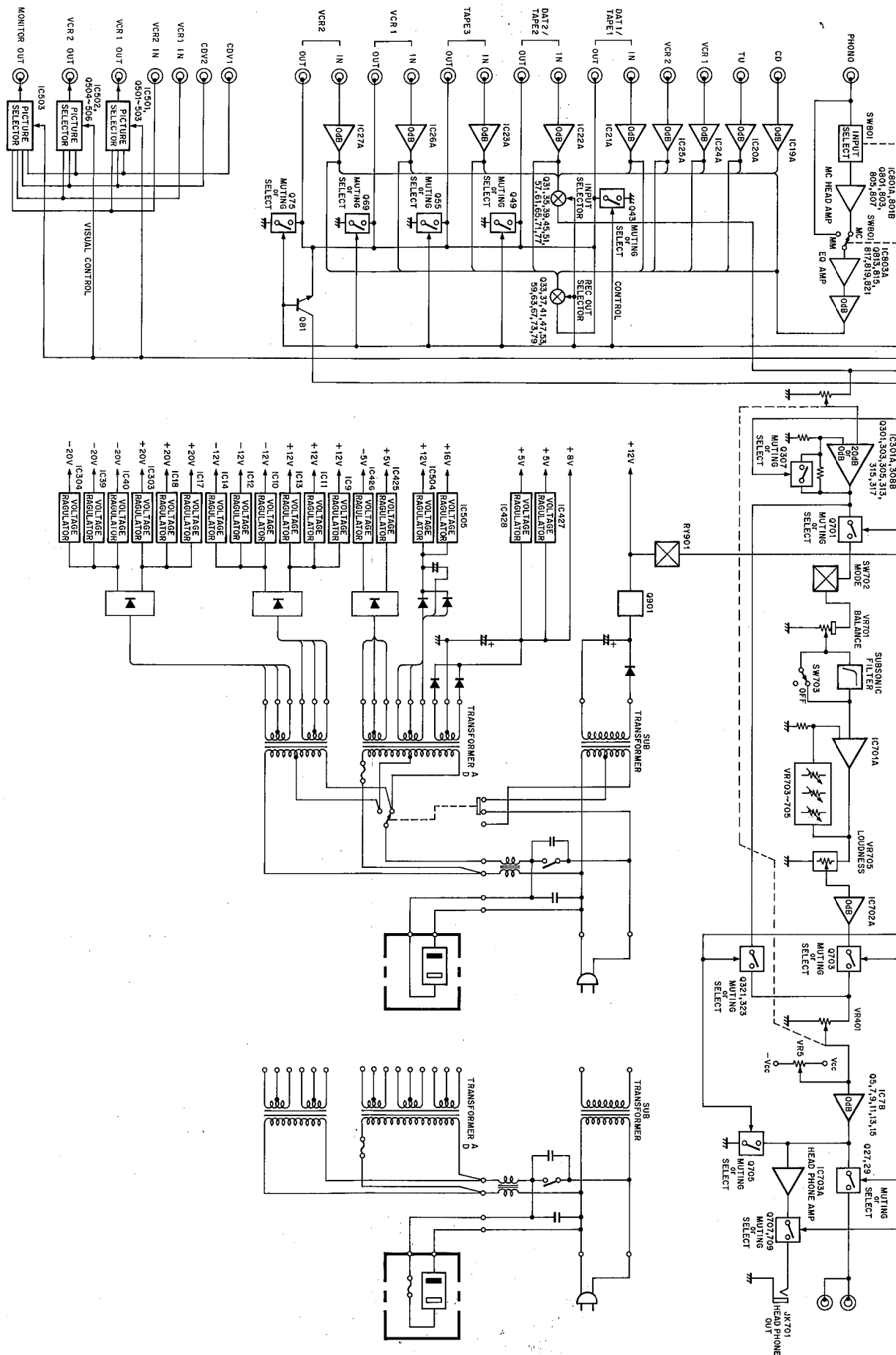
TR3	TR2	TR1	TR0	MODE
L	L	L	L	NO DATA
L	L	L	H	STOP
L	L	H	L	FF
L	L	H	H	REW
L	H	L	L	PLAY
L	H	L	H	REC PAUSE
L	H	H	L	REC MUTE
L	H	H	H	FADER
H	L	L	L	CUE
H	L	L	H	REVIEW
H	H	L	L	DIRECTION

Note) H 3V ~ 5V
L Less than 0.6V
Pulse .. More than 30msec

MODE	REM 0	REM 1
UP	H	L
DOWN	L	H
P1-P8/P9-P16	H	H

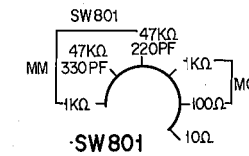
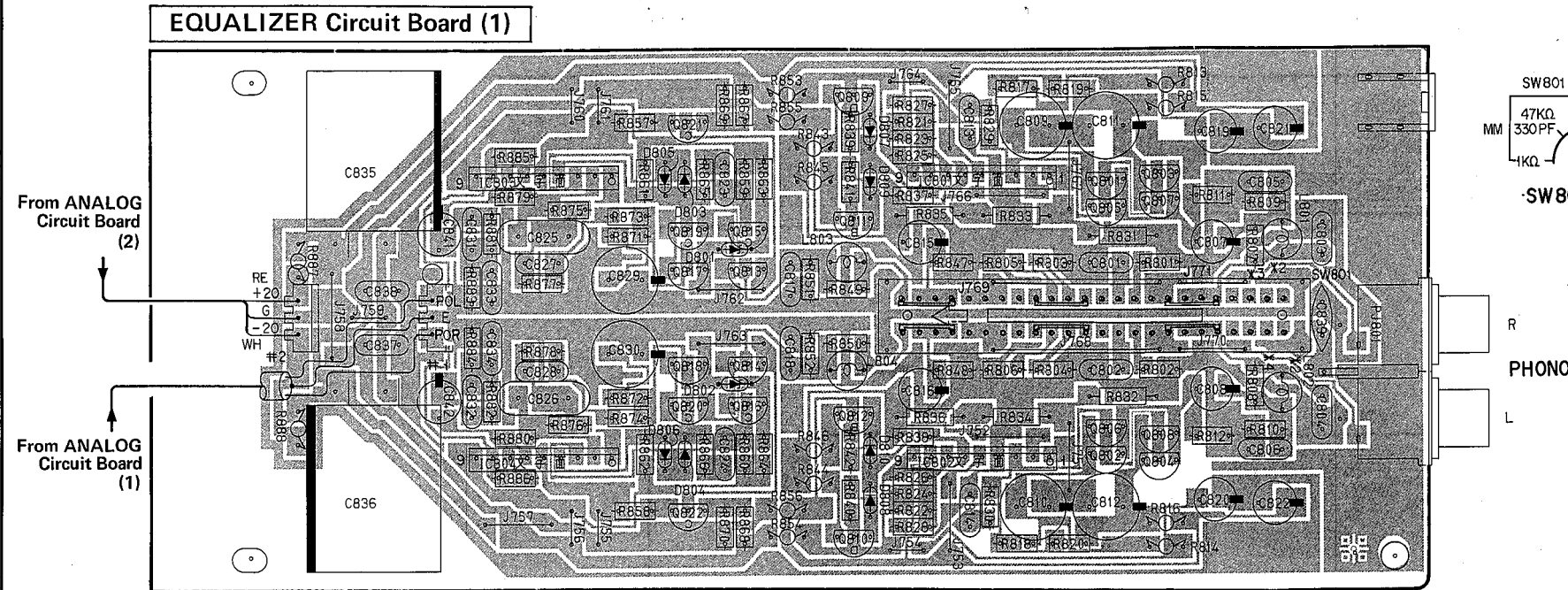
L = 0 ~ 1.5V
H = 3.3 ~ 5.5V

■ BLOCK DIAGRAM



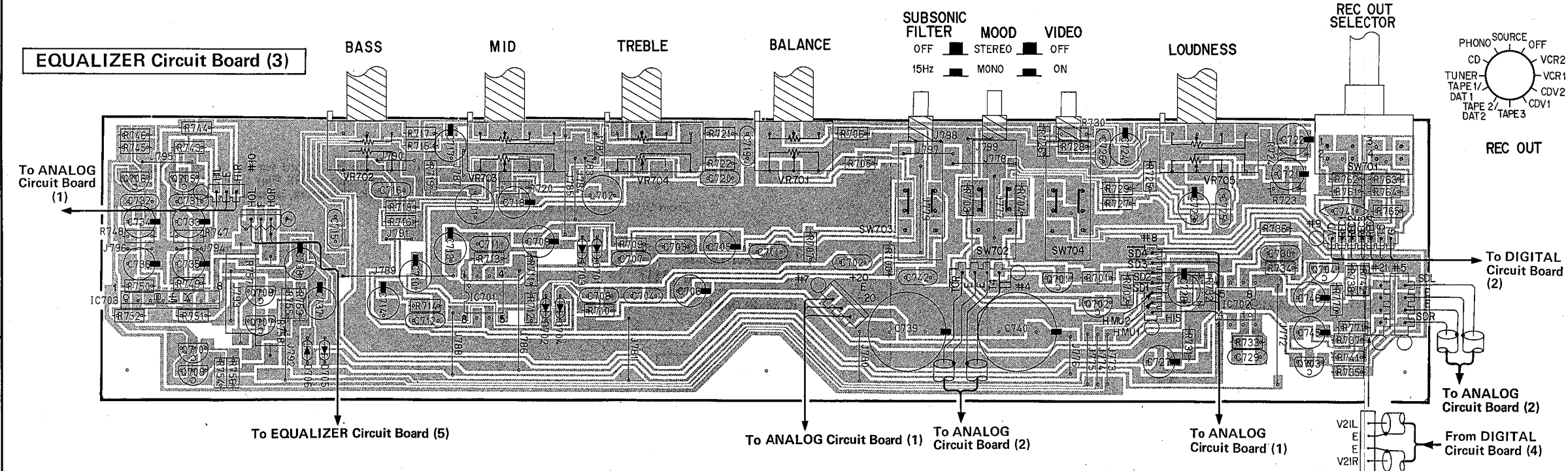
■ PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side

CX-1000/U/2000



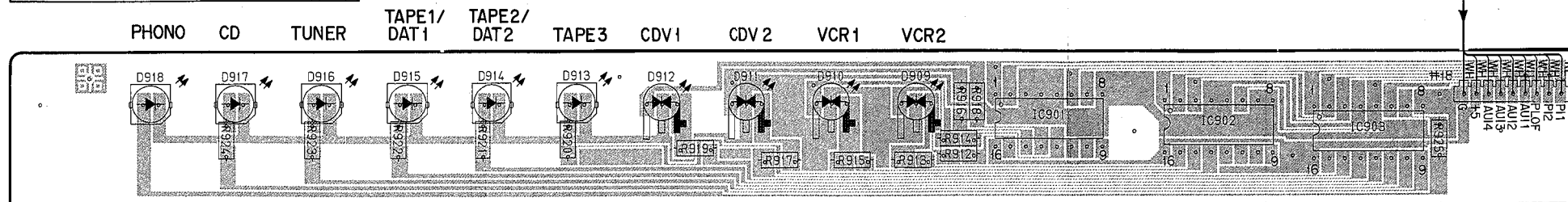
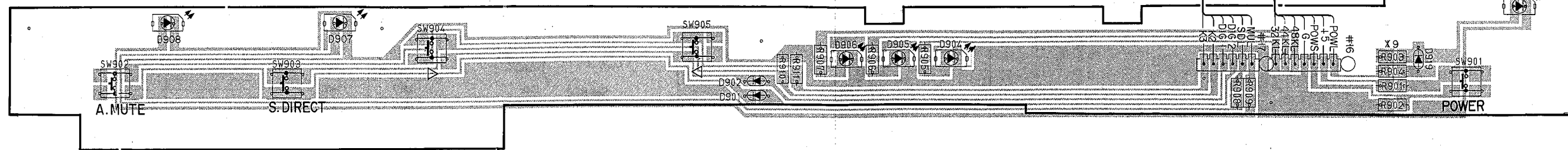
Note : marked

#	J	U.C	R	A	B	G
1	C329.330	OPEN	②0.033/50k			
2	L801.802	OPEN				15 μH
3	R807	SHORT				220
4	R808	SHORT				220
5	SI.S2.S3	x	x	○	x	x
6	J701	○	○	x	○	x
7	FUSE HOLD	x	x	x	x	○
8	F701	OPEN				T2.5A250V
9	R903	OPEN				2.2k
10	R110 ~113	SHORT	2P 4.7	SHORT		

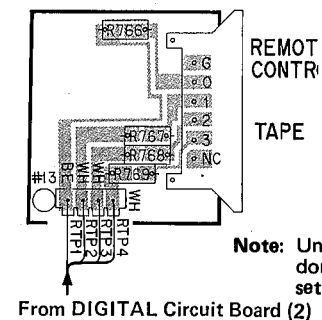
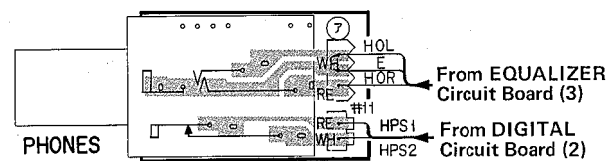
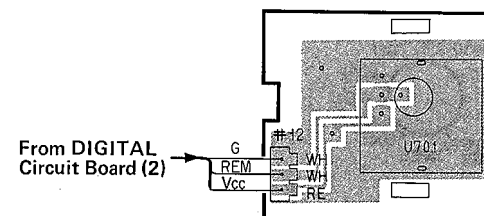


W701 : REC OUT SELECTOR OUTPUT CODE TABLE

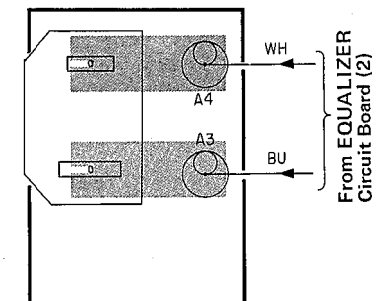
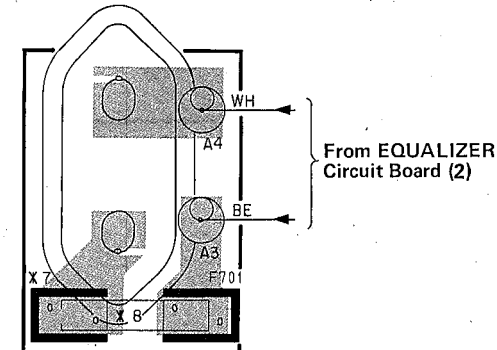
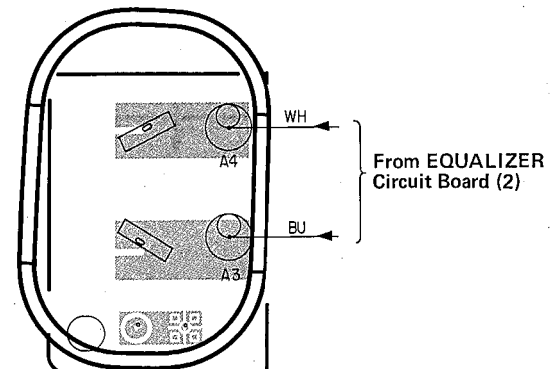
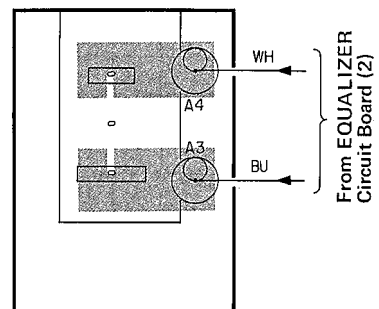
SELECT POSITION	PIN NO.			
	4	3	2	1
PHONO	0	1	0	0
CD	0	1	0	1
TUNER	0	1	1	1
TAPE 1/DAT 1	0	1	1	0
TAPE 2/DAT 2	0	0	1	0
TAPE 3	0	0	1	1
CDV 1	0	0	0	1
CDV 2	0	0	0	0
VCR 1	1	1	1	0
VCR 2	1	1	1	1
OFF	1	1	0	1
SOURCE	1	1	0	0



*		J	U.C	R	A	B	G
1	C329, 330	OPEN	⊗0, 033/50k				→
2	L801, 802	OPEN				→	15 μH
3	R807	SHORT				→	220
4	R808	SHORT				→	220
5	S1, S2, S3	×	×	○	×	×	×
6	J701	○	○	×	○	○	×
7	FUSE HOLD	×	×	×	×	×	○
8	F701	OPEN				→	T2, 5A250V
9	R903	OPEN				→	2, 2k
10	R110 ~113	SHORT	2P 4, 7	SHORT			→



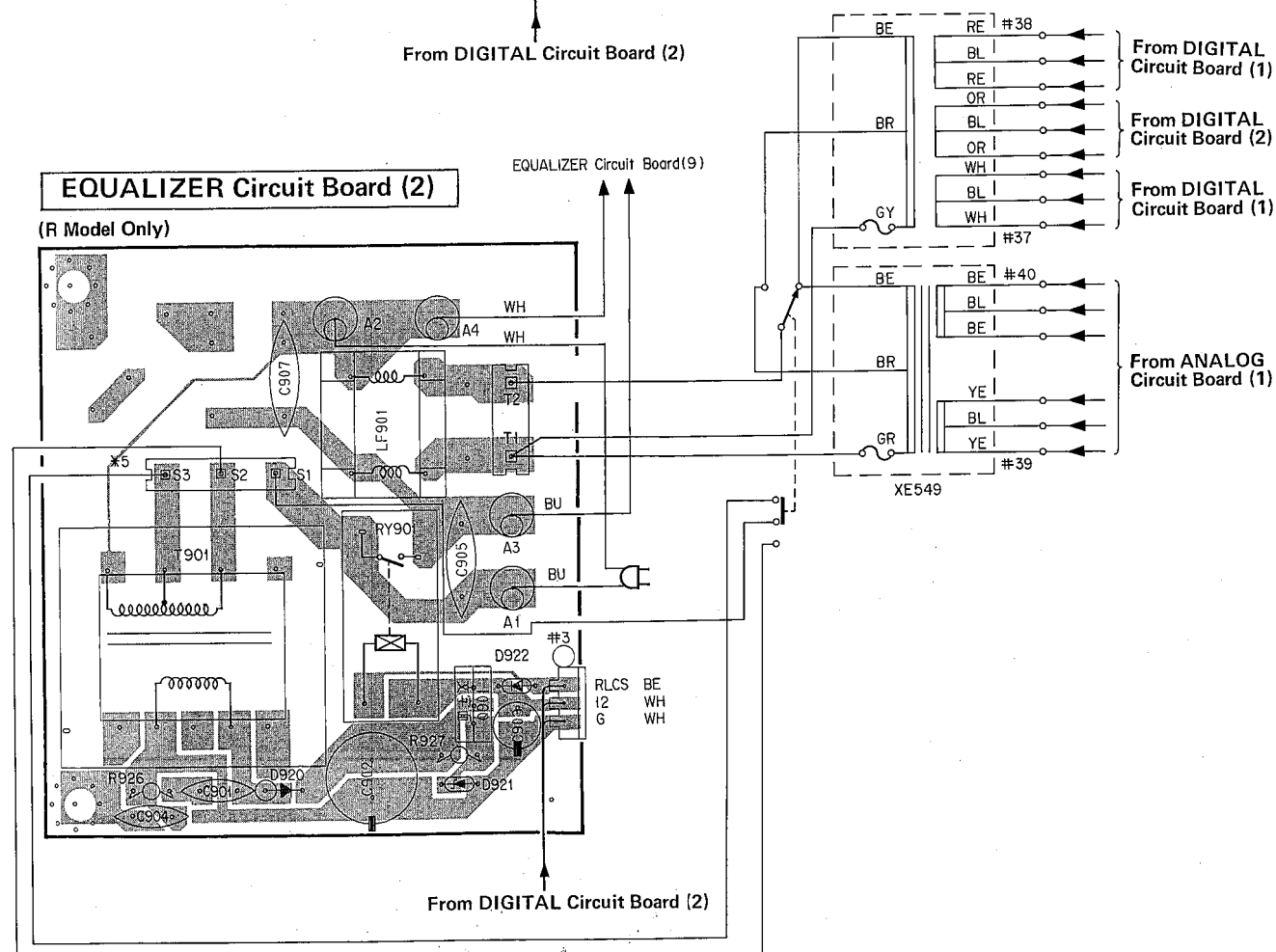
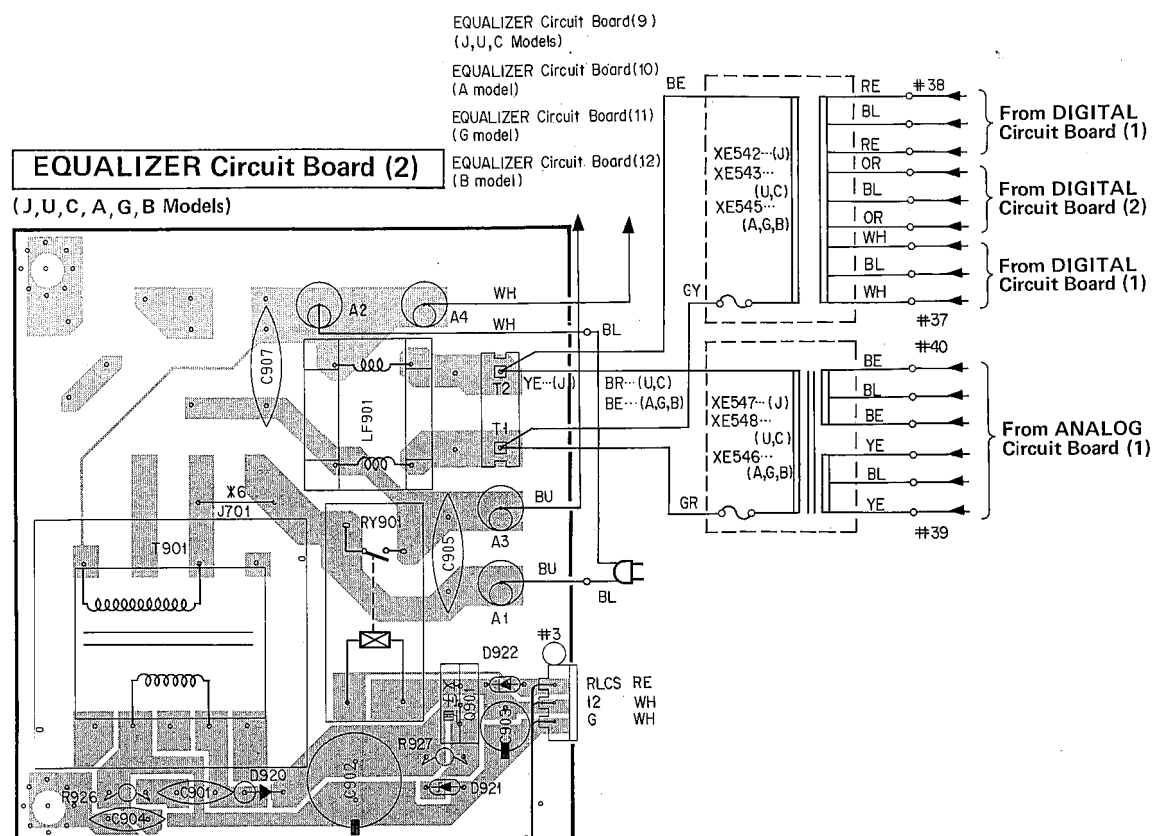
Note: Unless connection of Pin Plug Cord for use in sound has been done besides the connection of RS Flat Cable, Tuner and Cassette Deck will not work. Therefore, be sure to confirm it.



■ PRINTED CIRCUIT BOARD (Pattern Side)

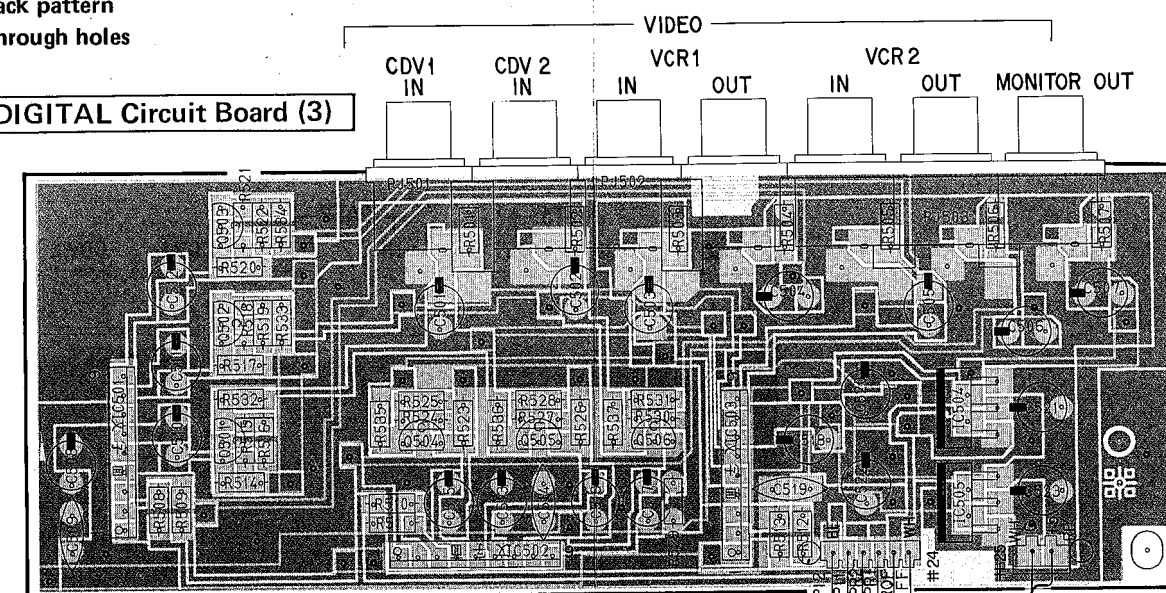
(Note) 文字面 : Component Side

CX-1000/U/2000

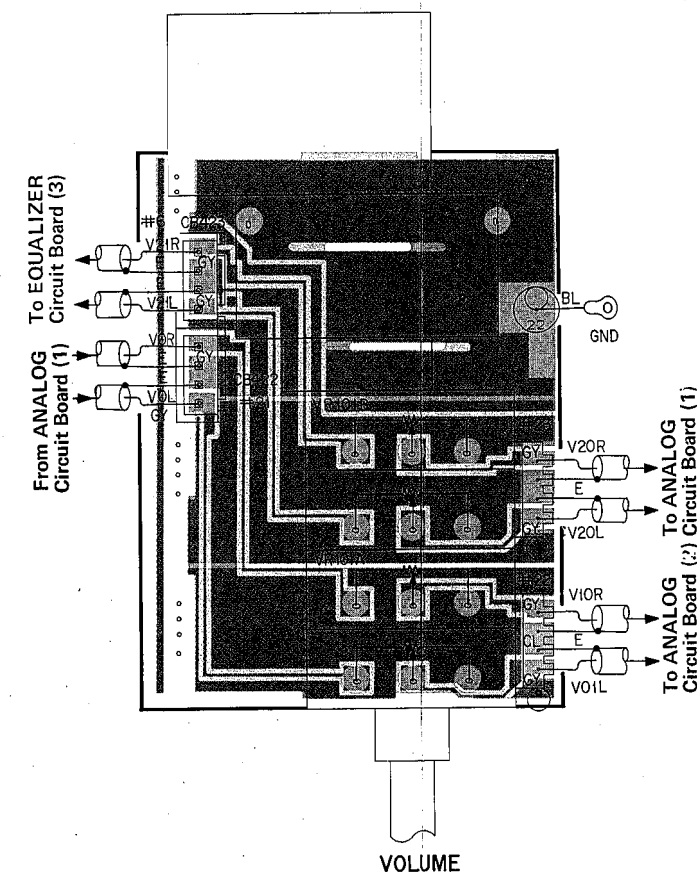


- Front pattern
- Back pattern
- Through holes

DIGITAL Circuit Board (3)



DIGITAL Circuit Board (4)



A

B

C

D

E

F

G

H

I

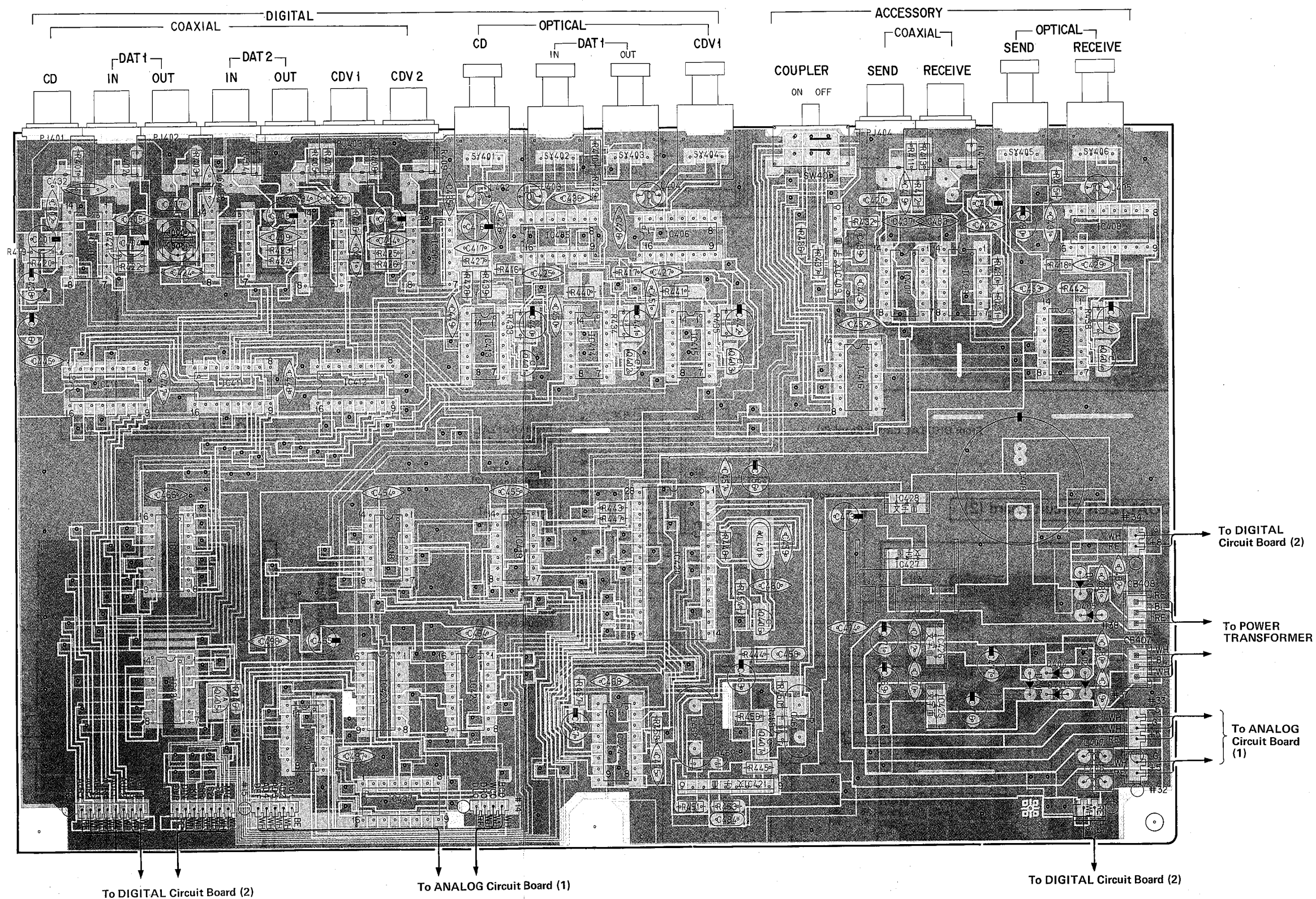
J

CX-1000/U/2000

■ PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side

- 1
- : Front pattern
□ : Back pattern
● : Through holes

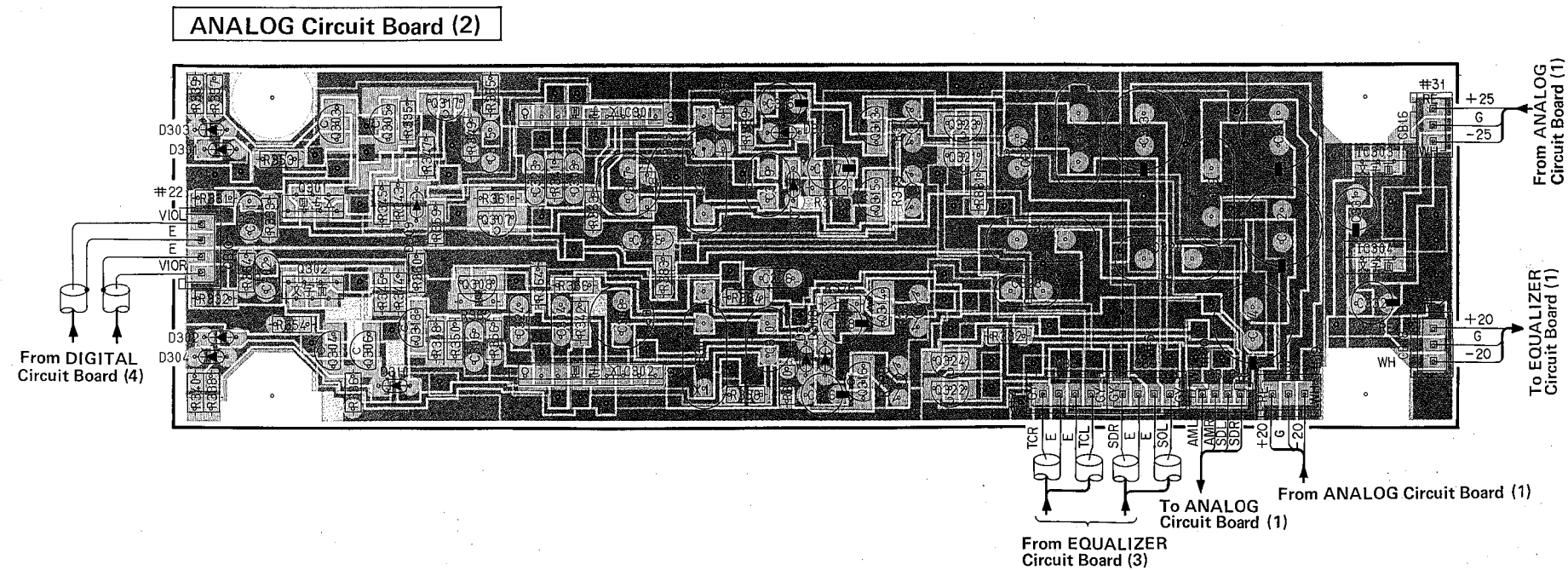
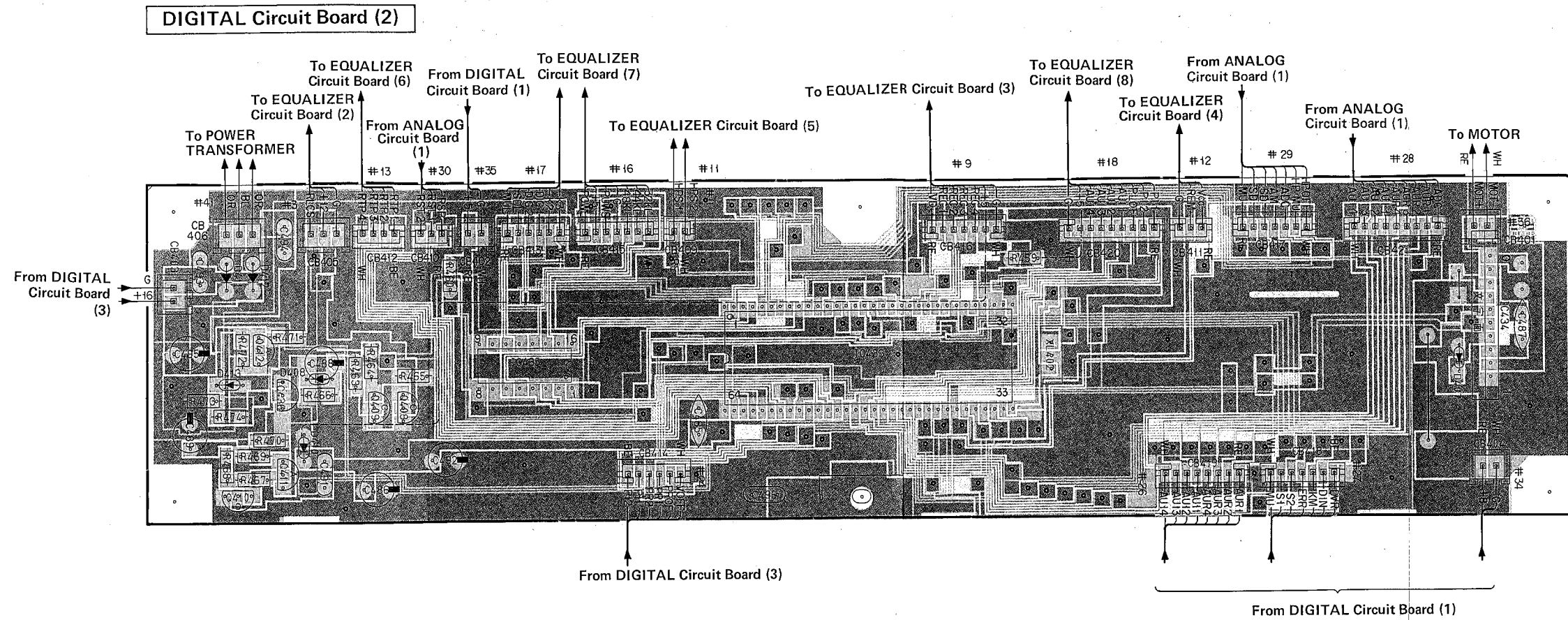
DIGITAL Circuit Board (1)



■ PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side

CX-1000/U/2000

- : Front pattern
- : Back pattern
- : Through holes



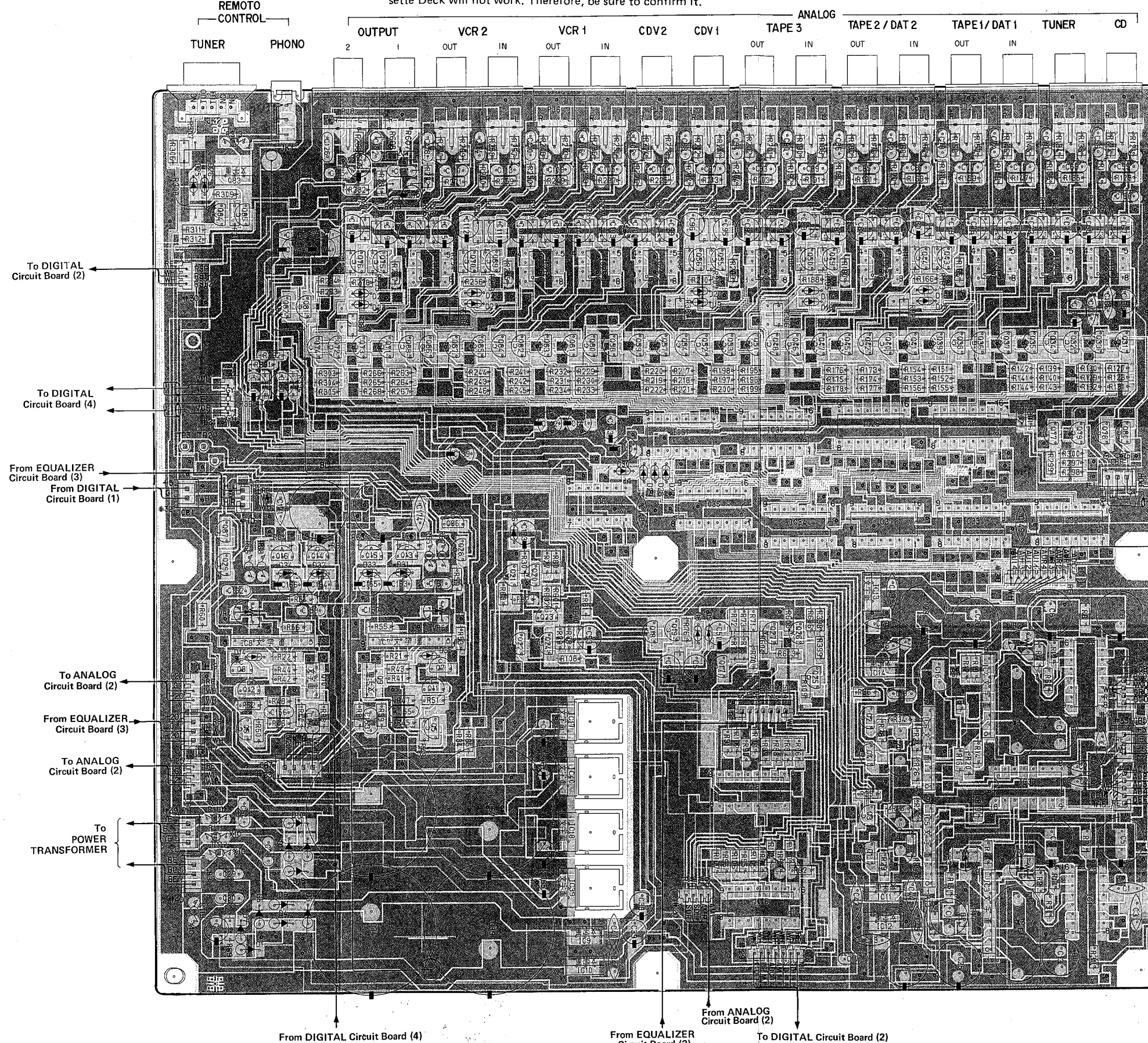
Note : marked

#		J	U.C	R	A	B	G
1	C329, 330	OPEN	②0.033/50k				
2	L801, 802	OPEN					15 μ H
3	R807	SHORT					220
4	R808	SHORT					220
5	S1, S2, S3	x	x	○	x	x	x
6	J701	○	○	x	○	○	x
7	FUSE HOLD	x	x	x	x	x	○
8	F701	OPEN					T2, 5A250V
9	R903	OPEN					2.2k
10	R110 ~ 113	SHORT	2P 4.7	SHORT			

PRINTED CIRCUIT BOARD (Pattern Side) (Note) 文字面 : Component Side

ANALOG Circuit Board (1)

Note: Unless connection of Pin Plug Cord for use in sound has been done besides the connection of RS Flat Cable, Tuner and Cassette Deck will not work. Therefore, be sure to confirm it.



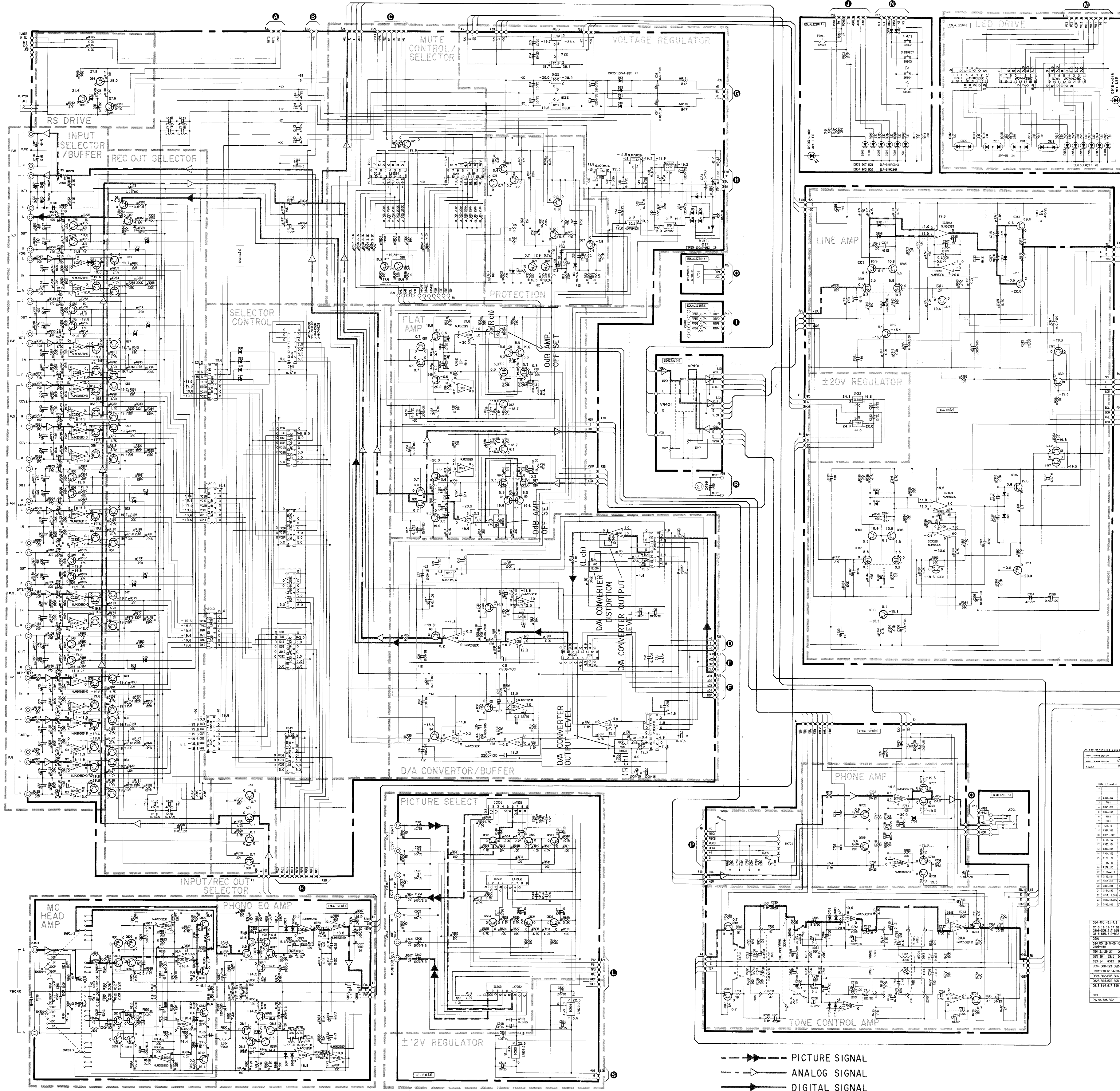
- : Front pattern
- : Back pattern
- : Through holes

Note : marked

* J	U.C	R	A	B	G
1 C329,330	OPEN	②0.033/50k			
2 L801,802	OPEN				15 μ H
3 R807	SHORT				220
4 R808	SHORT				220
5 S1,S2,S3	x	x	○	x	x
6 J701	○	○	x	○	x
7 FUSE HOLD	x	x	x	x	○
8 F701	OPEN				T2, 5A250V
9 R903	OPEN				2.2k
10 R110 ~113	SHORT	2P 4.7	SHORT		

■ SCHEMATIC DIAGRAM

CX-1000/2000

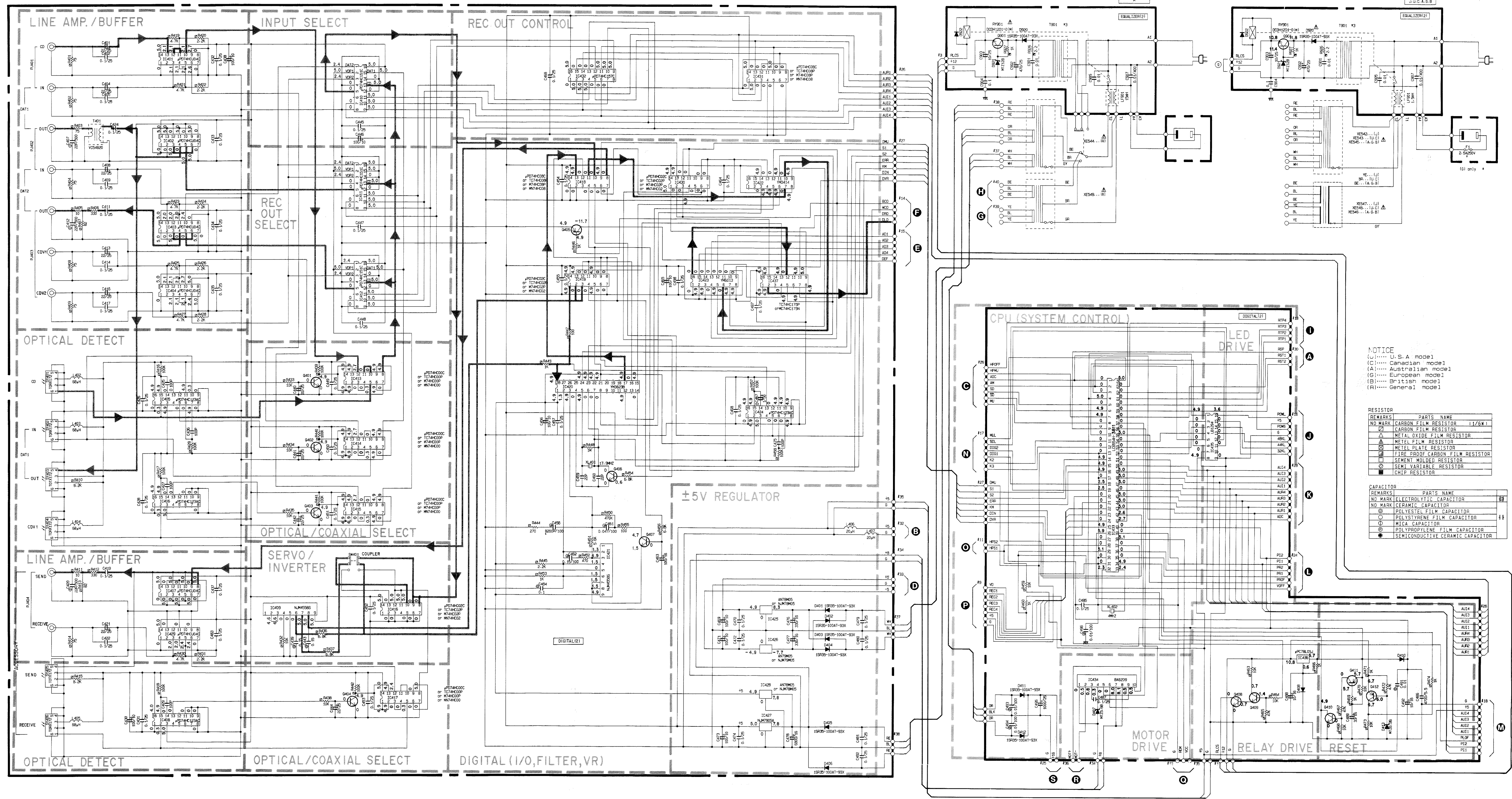


2SA1015 (Y) 2SA1115 (E, F) 2SB560 (E, F) 2SC1815 (Y) 2SC2603 (E, F) 2SC2878 (A, B) 2SD438 (E, F) 2SD880 (Y, GR)	2SD880 2SB737 (Q, R, S) 2SD786 (Q, R, S)	2SD1505	2SK170
2SK389 (GR, BL)	1SS133 MA165 1SR35-100AT-93X MT23.6B MT25.6B MT26.2B MT212B	MT216C MA4062 (N)-L	SLR-34URC3H SLR-34MC3H SPR-55
NJM7805A AN7812 AN7912 AN7920	NJM78M12A NJM79M12A AN79M05 NJM79M05	μPC78L05J	L780512
NJM2068D-D NJM5532D-D	NJM4556S-A NJM5532S NJM5532SD LA7952 NJM4558S	BA6209	YM3623B
TC74HC00P μPD74HC00C M74HC00P MN74HC00 TC74HC02P μPD74HC02P MN74HC02	μPD74HC04C TC74HC08P μPD74HC08P M74HC08P MN74HC08	LB1294 PCM56P-K YM3023 YM3414 YM6013 μPD74HC157C μPD74HC123AC μPD74HC151C	TC74HC175P MC74HC175N μPD74HC238C
LC6554H-3709			

PIN CONNECTIONS									
Pin	Function	Pin	Function	Pin	Function	Pin	Function	Pin	Function
1	NC	11	NC	21	NC	31	NC	41	NC
2	NC	12	NC	22	NC	32	NC	42	NC
3	NC	13	NC	23	NC	33	NC	43	NC
4	NC	14	NC	24	NC	34	NC	44	NC
5	NC	15	NC	25	NC	35	NC	45	NC
6	NC	16	NC	26	NC	36	NC	46	NC
7	NC	17	NC	27	NC	37	NC	47	NC
8	NC	18	NC	28	NC	38	NC	48	NC
9	NC	19	NC	29	NC	39	NC	49	NC
10	NC	20	NC	30	NC	40	NC	50	NC

CAUTION

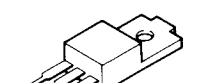
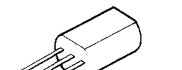
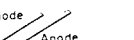
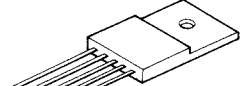
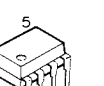
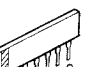
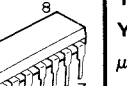
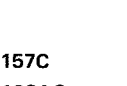
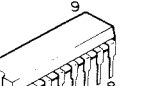
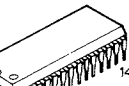
- Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- All voltages are measured with a 10M Ω /V DC electric volt meter.
- Schematic diagram is subject to change without notice.



NOTICE
(U)..... U.S.A model
(C)..... Canadian model
(A)..... Australian model
(G)..... European model
(B)..... British model
(R)..... General model

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR 1/2W
□	CARBON FILM RESISTOR
△	METAL OXIDE FILM RESISTOR
▲	METAL FILM RESISTOR
▴	METAL PLATE RESISTOR
▾	FIRE PROOF CARBON FILM RESISTOR
⊞	SEMENT MOLDED RESISTOR
⊠	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
□	CERAMIC CAPACITOR
⊙	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
⊖	MYLA CAPACITOR
⊕	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

2SA1015 (Y) 2SA1115 (E, F) 2SB560 (E, F) 2SC1815 (Y) 2SC2603 (E, F) 2SC2878 (A, B) 2SD438 (E, F) 2SD880 (Y, GR)	2SD880 2SB737 (Q, R, S) 2SD786 (Q, R, S)	2SD1505	2SK170	2SK389 (GR, BL)	1SS133 MA165 1SR35-100AT-93X MT23. 6B MT25. 6B MT26. 2B MT212B	MT216C MA4062 (NI)-L	SLR-34URC3H3 SLR-34MC3H3 SLR-55URC3H SPR-55	NJM7805A AN7812 AN7912 AN7820 AN7920	NJM78M12A NJM79M12A AN79M05 NJM79M05	μPC78L05J
										
L780512	NJM2068D-D NJM5532D-D	NJM4556S-A NJM5532S NJM5532SD LA7952 NJM4558S	BA6209	TC74HC00P μPD74HC00C M74HC00P MN74HC00 TC74HC02P μPD74HC02P M74HC02P MN74HC02	μPD74HCU04C TC74HC08P μPD74HC08P M74HC08P MN74HC08	LB1294 PCM56P-K YM3023 YM3414 YM6013 μPD74HC157C μPD74HC123AC μPD74HC151C	TC74HC175P MC74HC175N μPD74HC238C	YM3623B	LC6554H-3709	
										

CAUTION
• Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
• All voltages are measured with a 10M Ω /V DC electric volt meter.
• Schematic diagram is subject to change without notice.

[illegible]

PARTS LIST

ELECTRICAL PARTS

WARNING

- Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- Carbon resistors 1/6 W are not included in the ELECTRICAL PARTS list.
- For the parts No. of the carbon resistor, refer to the last Page.

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※	NA 09 99 80	Analog Circuit Board	アナログシート			J	
※	NA 09 87 80	//	//			U, C	
※	NA 09 87 90	//	//			G	
※	VG 16 41 00	//	//			R, A, B,	
	FF 11 21 00	Polystyrene Film Cap.	100pF	スチコン	C161, 162	J	
	FU 35 12 20	Mica Cap.	22pF 500V	FEマイカコン	//	U, C, R, A, B, G	
	FF 11 21 00	Polystyrene Film Cap.	100pF	スチコン	C323, 324	J	
	FU 35 14 70	Mica Cap.	47pF 500V	FEマイカコン	//	U, C, R, A, B, G	
※	VE 23 98 00	Polypropylene Film Cap.	220pF 100V	ポリプロコン	C301, 302	U, C, R, A, B, G	
※	FF 11 22 20	Polystyrene Film Cap.	220pF 125V	スチコン	//	J	
※	UT 45 31 50	Polypropylene Film Cap.	1500pF 100V	ポリプロコン	C303, 304	U, C, R, A, B, G	
※	FF 11 31 50	Polystyrene Film Cap.	1500pF 125V	スチコン	//	J	
	FZ 00 58 80	Ceramic Cap.	0.1μF 25V	積層セラコン	C1~4, 21, 22, 40~49, 135, 136 146~149, 171, 174		
	FA 15 44 70	Mylar Cap.	0.047μF 50V	マイラーコン	C155, 156		
	UT 45 22 20	Polypropylene Film Cap.	220pF 100V	ポリプロコン	C121, 122, 125, 126	U, C, R, A, B, G	
	UT 45 21 00	//	100pF 100V	//	//	J	
	UT 45 21 00	//	100pF 100V	//	C55, 56, 59, 70, 73, 74, 77, 78, 81, 82, 85, 86, 89, 90, 93, 94, 97, 98, 101, 102, 105, 106, 108, 110, 113, 114, 117, 118	J, U, C, R, A, B	
	UT 45 22 20	//	220pF 100V	//	//	G	
	UT 45 31 00	//	1000pF 100V	//	C325, 325		
	UT 45 41 00	//	0.01μF 100V	//	C17, 18, 23, 29, 30, 54, 157, 158, 168, 172, 327, 328		
	UT 45 44 70	//	0.047μF 100V	//	C305, 306		
	UT 45 46 80	//	0.068μF 100V	//	C19, 20		
※	VF 96 74 00	//	0.068μF 100V	//	C319~322	J	
	UT 46 51 00	//	0.1μF 100V	//	//	U, C, R, A, B, G	
※	VF 85 76 00	//	0.033μF 50V	//	C329, 330	U, C, R, A, B, G	
※	VF 85 77 00	//	0.1μF 50V	//	C11, 12	U, C, R, A, B, G	
※	VF 95 14 00	//	0.1μF 100V	//	//	J	
※	VE 23 98 00	//	220pF 100V	//	C153, 154		
※	VE 24 04 00	//	0.1μF 100V	//	C309, 310	U, C, R, A, B, G	
※	VF 95 14 00	//	0.1μF 100V	//	//	J	
※	VE 23 98 00	//	220pF 100V	//	C9, 10	J	
	UT 45 22 20	//	220pF 100V	//	//	U, C, R, A, B, G	
	VE 01 65 00	Electrolytic Cap.	100μF 6.3V	ケミコン	C139		
	VE 01 83 00	//	10μF 25V	//	C60, 61, 64, 65, 150, 151 163~166, 315~318, 331, 332		
	VE 01 86 00	//	47μF 25V	//	C137, 138, 140~145		
	VE 01 98 00	//	1μF 50V	//	C38, 39, 67, 68, 71, 72, 75, 83, 84, 91, 92, 99, 100, 103, 104, 107, 108, 115, 116		
	VE 02 02 00	//	10μF 50V	//	C79, 80, 87, 88, 95, 96, 111, 112, 119, 120		
※	VF 88 41 00	//	22μF 25V	B P コ ン	C13~16, 307, 308		
※	VF 24 84 00	//	470μF 25V	ケミコン	C311~314		
※	VF 24 87 00	//	1000μF 16V	//	C5~8, 25~28		
※	VF 81 72 00	//	2200μF 25V	//	C167, 170		
※	VF 16 10 00	//	6200μF 35V	//	C24, 34, 35, 37		
	UJ 24 63 30	//	3.3μF 25V	//	C31		
	UJ 13 74 70	//	47μF 16V	//	C50, 51		
	UH 14 71 00	//	10μF 25V	//	C173		
	UJ 16 61 00	//	1μF 50V	//	C52, 53		
	HL 33 46 80	Metal Oxide Film Resistor	68Ω 3W	酸化金抵抗	R308		
	HL 32 34 70	//	4.7Ω 2W	//	R110~113	U, C	
	HV 45 34 70	Flame Ploof Carbon Resistor	4.7Ω 1/4W	不燃化カーボン抵抗	R65~68, 110~113, 313, 377~380		
	VA 78 84 00	Pre-Set Potentiometer	B100KΩ	半固定抵抗	VR1, 2		

※New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	VB 86 19 00	Pre-set Potentiometer	B100KΩ	半 固 定 抵 抗	VR4, 5		
	VB 86 15 00	//	B10KΩ	//	VR3		
	iA 10 15 21	Transistor	2SA1015(Y)	ト ラ ン ジ ス タ ー	Q20, 21, 26, 27		
	iA 11 15 10	//	2SA1115(E, F)	//	Q84		
	iB 05 60 20	//	2SB560(E, F)	//	Q15, 16, 315, 316		
	iC 18 15 20	//	2SC1815(Y)	//	Q5~8, 11, 12, 17, 18, 22, 23, 25, 303~306, 317, 318		
	iC 26 03 10	//	2SC2603(E, F)	//	Q19, 24, 85		
	iC 28 78 20	//	2SC2878(A, B)	//	Q1~4, 28, 29, 31~82, 86, 87, 307, 308, 321~324		
	iD 04 38 10	//	2SD438(E, F)	//	Q13, 14, 313, 314		
	iD 08 80 00	//	2SD880	//	Q83 } inter-		
	iD 08 80 10	//	2SD880(Y, GR)	//	// } changeable		
	iE 10 45 00	Dual FET	2SK389(GR, BL)	デュアル F E T	Q9, 10, 301, 302		
	iF 00 34 50	Diode	1SS133	ダ イ オ ー ド	D15~25, 27~34, 36, 301~308		
	iF 00 84 80	//	1SR35-100A	//	D1, 3~7, 10~13		
	iF 00 62 90	Zener Diode	MTZ5.6B	ツェナーダイオード	D8, 9		
	iF 00 86 40	//	MTZ16C	//	D26		
※	VF 38 94 00	//	MA4062(N)-L	//	D14, 35, 309, 310		
	iG 08 34 00	IC	AN7812	I C	IC9		
※	iG 15 98 00	//	AN7912	//	IC10		
	iR 02 38 20	//	μPD74HC238C	//	IC32~35, 37		
	iR 00 08 00	//	TC74HC08P	//	IC36 } inter-		
	iR 00 08 20	//	μPD74HC08C	//	// } changeable		
	iR 00 08 90	//	MN74HC08	//	// }		
※	XA 98 70 01	//	NJM2068D-D	//	IC19~27		
	XA 42 60 01	//	NJM5532S	//	IC7, 8, 301, 302		
	XC 63 20 01	//	NJM5532S-D	//	IC3~6		
	XA 54 90 01	//	LB1294	//	IC15, 16, 28~31		
	XB 24 90 01	//	NJM78M12A	//	IC11, 13		
	XB 25 00 01	//	NJM79M12A	//	IC12, 14		
	XB 63 80 01	//	PCM56P-K	//	IC1, 2		
	XB 70 30 01	//	YM3023	//	IC38		
※	XD 90 80 01	//	AN7820	//	IC17, 18, 303	J,R,A,B,G	
※	XF 22 10 01	//	AN7818	//	//	U,C	
※	XD 90 90 01	//	AN7920	//	IC39, 40, 304	J,R,A,B,G	
※	XF 22 20 01	//	AN7918	//	//	U,C	
	VE 33 29 00	Pin Jack	2P	ピ ン ジャ ッ ク	PJ8		
※	VE 33 30 00	//	4P	//	PJ1~6		
	VE 33 36 00	//	6P	//	PJ7		
	LB 50 07 10	ST Connector Socket	5P	ST コネクターソケット	JK2		
	LB 10 07 30	Mini Jack		ミ ニ ジャ ッ ク	JK1		
	LB 91 80 20	Base Pin	2P i-Type	XH ベ ー ス ピ ン	CB1		
	LB 91 80 30	//	3P i-Type	//	CB2~6, 16~18		
	LB 91 80 40	//	4P i-Type	//	CB7~10		
	VD 00 47 00	//	4P	PH ベ ー ス ピ ン	CB12, 13		
	VD 00 48 00	//	5P	//	CB14		
	VD 00 46 00	//	3P	//	CB11		
	VD 00 50 00	//	7P	//	CB15		
	LA 00 41 20	Test Point Pin		テストポイントピン			

※New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	BA 08 40 00	Heat Sink	# 8400	放 熱 板			
	Ei 33 00 86	Binding Head Tapping Screw	3.0×8 FCRM3-BI	バインドタッピングネジ	PACK		
※	NA 09 88 00	Digital Circuit Board		デ ジ タ ル シ ー ト		J,U,C,R,A,B	
※	NA 09 88 10	//		//		G	
	FG 21 21 00	Ceramic Cap.	100pF 50V	セ ラ コ ン	C425, 427, 429, 436, 475		
	FG 21 12 20	//	22pF 50V	//	C459, 460		
	FU 35 12 20	Mica Cap.	22pF 500V	FE マ イ カ コ ン	C407, 412, 420		
	FZ 00 58 80	Ceramic Cap.	0.1μF 25V	積 層 セ ラ コ ン	C402, 405, 409, 411, 414, 417, 419, 422, 424, 426, 428, 431~435, 437, 445, 447~455, 457, 464, 466, 468, 470, 472, 474, 479~483, 485, 487, 497, 498, 509, 514, 519		
	FA 15 41 00	Mylar Cap.	0.01μF 50V	マ イ ラ ー コ ン	C491		
	FA 15 51 00	//	0.1μF 50V	//	C484		
	FA 15 51 50	//	0.15μF 50V	//	C439, 443		
	UJ 13 71 00	Electrolytic Cap.	10μF 16V	ケ ミ コ ン	C488, 492, 510~512, 515~517		
	UJ 13 73 30	//	33μF 16V	//	C489, 508, 513, 518		
	UJ 13 81 00	//	100μF 16V	//	C520, 522		
	UJ 15 71 00	//	10μF 35V	//	C501~503, 505, 521, 523		
	UJ 16 61 00	//	1μF 50V	//	C467		
	UJ 14 91 00	//	1000μF 25V	//	C495		
	UJ 11 91 00	//	1000μF 6.3V	//	C504, 506, 507		
	UT 45 44 70	Polypropylene Film Cap.	0.047μF 100V	ポ リ プ ロ コ ン	C461		
※	VF 07 11 00	//	0.15μF 100V	//	C462		
	UT 65 38 20	//	8200pF 100V	//	C458		
	UT 65 41 00	//	0.01μF 100V	//	C493, 494, 496		
※	VE 01 72 00	Electrolytic Cap.	100μF 10V	ケ ミ コ ン	C430, 438, 446, 456, 465, 469, 471, 473		
	VE 01 79 00	//	100μF 16V	//	C463		
	VE 01 81 00	//	330μF 16V	//	C476, 477		
	VE 01 84 00	//	22μF 25V	//	C401, 404, 408, 413, 416, 421, 440~442, 444		
	VB 17 01 00	//	4700μF 5.5V	//	C486		
※	VF 88 39 00	//	6800μF 16V	//	C478		
	FZ 00 76 60	//	1μF 50V	BP ケ ミ コ ン	C499		
	GE 90 19 70	Coil	68μH	コ イ ル	L402~405		
	VB 97 11 00	//	20μH	//	L406~407		
	VB 75 91 00	Ceramic Resonator	4MHz	セ ラ ミ ッ ク 発 振 子	XL402		
	VD 61 38 00	Quart Cristal Unit	17.9MHz	水 晶 発 振 子	XL401		
	VC 54 82 00	Coil		バ ル ス ト ラ ン ス	T401		
※	VF 28 29 00	Potentiometer With Motor	Y10K×4	モ ー タ ー 付 可 変 抵 抗 器	VR401		
	iA 10 15 21	Transistor	2SA1015(Y)	ト ラ ン ジ ス タ ー	Q501~506		
	iA 11 15 10	//	2SA1115(E, F)	//	Q405, 411, 412		
	iC 18 15 20	//	2SC1815(Y)	//	Q401~404		
	iC 26 03 10	//	2SC2603(E, F)	//	Q406~410		
	iF 00 34 50	Diode	ISS133	ダ イ オ ー ド	D408, 410		
	iF 00 84 80	//	ISR35-100A	//	D401~406, 411, 412		
	iF 00 62 90	Zener Diode	MTZ5.6B	ツ ェ ナ ー ダイ オ ー ド	D407		

※New Parts (新親部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
	IF 01 07 40	Zener Diode	MTZ6.2B	ツェナー ダイオード	D413		
	XC 34 90 01	IC	μPC78L05J	I C	IC436		
	IG 07 56 00	//	NJM7805A-5V	//	IC425, 428		
	IG 07 68 00	//	NJM4558S	//	IC409, 421		
	IG 10 11 00	//	BA6209	//	IC434		
	IG 14 22 20	//	μPD74HCU04C	//	IC401~404, 407, 429		
	IG 14 76 00	//	NJM7805A-5V	//	IC427		
	IR 00 00 00	//	TC74HC00P	//	IC413~415, 417 } inter-changeable		
	IR 00 00 80	//	M74HC00P	//			
	IR 01 75 00	//	TC74HC175P	//	IC437		
	IR 00 02 00	//	TC74HC02P	//	IC416, 419, 430 } inter-changeable		
	IR 00 02 80	//	M74HC02P	//			
	IR 00 08 00	//	TC74HC08P	//	IC418, 431 } inter-changeable		
	IR 00 08 20	//	μPD74HC08C	//			
	IR 00 08 90	//	MN74HC08	//			
	IR 01 23 20	//	μPD74HC123AC	//	IC405, 406, 408, 424		
	IR 01 51 20	//	μPD74HC151C	//	IC410~412		
	XB 11 60 01	//	NJM79M05-5V	//	IC462		
	XA 54 90 01	//	LB1294	//	IC435		
	XD 49 30 01	//	L780S12	//	IC504, 505		
※	XE 55 20 03	//	LC6554H-3811	//	IC433		
	XD 52 40 01	//	LA7952	//	IC501~503		
	XD 22 20 01	//	YM3623B	//	IC420		
	XD 71 20 01	//	YM3414	//	IC422		
	XD 71 10 01	//	YM6013	//	IC423		
※	IR 01 57 20	//	μPD74HC157C	//	IC432		
	VD 98 21 00	Transmission Module	TOTX172	送信モジュール	SY403, 405		
	VD 98 22 00	Receive Module	TORX172	受信モジュール	SY401, 402, 404, 406		
※	VF 28 30 00	Slide Switch		スライドスイッチ	SW401		
	VE 33 26 00	Pin Jack	2P	ピンジャック	RJ501, 502		
	VE 33 27 00	//	2P	//	PJ401, 402, 404		
※	VE 84 98 00	//	3P	//	PJ503		
※	VE 84 97 00	//	3P	//	PJ403		
	LB 91 80 20	Base Pin	2P i-Type	XH ベースピン	CB401~404		
	LB 91 80 30	//	3P i-Type	//	CB405~408		
	LB 91 80 40	//	4P i-Type	//	CB422, 423		
	VD 00 45 00	//	2P	PH ベースピン	CB409		
	VD 00 46 00	//	3P	//	CB410, 411		
	VD 00 47 00	//	4P	//	CB412		
	VD 00 49 00	//	6P	//	CB413, 414		
	VD 00 50 00	//	7P	//	CB415~418		
	VD 00 51 00	//	8P	//	CB419		
	VD 00 52 00	//	9P	//	CB420, 421		
※	VF 81 73 00	Heat Sink		放 熱 板			
	BB 06 95 10	Land Metal Fitting		ランド金具			
	ED 33 00 86	Binding Head Screw	3.0×8 FCRM3-B1	バインド小ネジ	PACK		

※New Parts (新規部品)

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	ランク
※	NA 09:88:70	Equalizer Circuit Board	イコライザーシート			J	
※	NA 09:88:20	//	//			U,C	
※	NA 09:88:30	//	//			R	
※	NA 09:88:40	//	//			A	
※	NA 09:88:50	//	//			B	
※	NA 09:88:60	//	//			G	
	Fi 41 41 00	Ceramic Cap.	0.01 μ F VA-I セ ラ コ ン	C905 } inter- // } changeable			
	Fi 50 41 00	//	0.01 μ F DNS //				
	FG 24 41 00	//	0.01 μ F 50V //	C741, 901			
	VE 17 92 00	//	0.01 μ F 400V //	C907			
	FZ 00 58 80	//	0.1 μ F 25V 積 層 セ ラ コ ン	C839, 904			
	FA 15 31 00	Mylar Cap.	1000pF 50V マ イ ラ ー コ ン	C729, 730			
	FA 15 33 30	//	3300pF 50V //	C823, 824		U,C,R,A,B,G	
	FC 44 33 30	//	3300pF 50V //	//		J	
	FA 15 34 70	//	4700pF 50V //	C725, 726			
	FA 15 41 20	//	0.012 μ F 50V //	C813, 814		U,C,R,A,B,G	
	FC 36 41 20	//	0.012 μ F 50V //	//		J	
	FA 15 41 50	//	0.015 μ F 50V //	C833, 834		U,C,R,A,B,G	
※	FC 44 41 50	//	0.015 μ F 50V //	//		J	
	FA 15 43 30	//	0.033 μ F 50V //	C719, 720			
	FA 15 44 70	//	0.047 μ F 50V //	C831, 832		U,C,R,A,B,G	
	FC 34 44 70	//	0.047 μ F 50V //	//		J	
	FA 15 51 00	//	0.1 μ F 50V //	C703, 704, 707, 708, 837, 838			
	FA 15 48 20	//	0.082 μ F 50V //	C715, 716			
	UT 46 42 70	Polypropylene Film Cap.	0.027 μ F 100V ポ リ プ ロ コ ン	C827, 828			
	UT 46 51 00	//	0.1 μ F 100V //	C825, 826			
	UT 45 21 00	//	100pF 100V //	C701, 702, 711, 712, 731, 732, 801, 802			
	UT 45 22 20	//	220pF 100V //	C817, 818			
	UT 45 41 00	//	0.01 μ F 100V //	C742			
	UT 45 41 00	//	0.01 μ F 100V //	C805, 806		J,U,C,R,A,B	
	UT 45 34 70	//	4700 μ F 100V //	//		G	
	UT 65 41 80	//	0.018 μ F 100V //	C803, 804			
	UJ 14 71 00	Electrolytic Cap.	10 μ F 25V ケ ミ コ ン	C733~738, 903			
	UJ 14 81 00	//	100 μ F 25V //	C819~822			
	UJ 14 82 20	//	220 μ F 25V //	C713, 714			
	UJ 16 53 30	//	0.33 μ F 50V //	C721, 722			
	UJ 16 54 70	//	0.47 μ F 50V //	C717, 718			
	UJ 16 62 20	//	2.2 μ F 50V //	C705, 706			
	UJ 46 63 30	//	3.3 μ F 50V //	C723, 724			
	UJ 14 84 70	//	470 μ F 25V //	C902			
	UM 02 91 00	//	1000 μ F 6.3V オーディオケミコン	C809~812, 829, 830			
	VE 74 13 00	//	1000 μ F 25V ケ ミ コ ン	C739, 740, 835, 836			
	VE 01 98 00	//	1 μ F 50V //	C727, 728			
	VE 01 83 00	//	10 μ F 25V //	C815, 816		J	
	VE 39 42 00	//	10 μ F 25V //	//		U,C,R,A,B,G	
	VE 39 26 00	//	470 μ F 6.3V //	C807, 808			
	VE 39 42 00	//	10 μ F 25V //	C815, 816, 841, 842			
	VE 01 83 00	//	10 μ F 25V //	C745, 746			
	VE 01 82 00	//	4.7 μ F 25V //	C709, 710			
※	GE 90 18 60	Coil	47mH 固 定 コ イ ル	L701, 702			
	VF 54 11 00	//	15 μ H コ イ ル	L801, 802			
	VB 05 69 00	//	220 μ H //	L803, 804			

※New Parts (新規部品)

Ref. No.	Part No.	Description		部 品 名	Remarks	Common Model	Markets	ランク	
※	XA 75 20 01	Power Transformer		サ ブ ト ラ ン ス	T901		J		
	XA 75 40 01	//		//	//		U, C		
	XE 58 60 02	//		//	//		R		
	XE 58 50 01	//		//	//		G		
	XE 93 80 01	//		//	//		A, B		
	VA 77 84 00	Line Filter	1.5mH	ACラインフィルター	LF901				
※	HL 32 46 80	Metal Oxide Film Resistor	68Ω 2W	酸 金 抵 抗	R757, 758				
	HU 57 31 50	Metal Film Resistor	1.5Ω SNI4K2E	金 属 被 膜 抵 抗	R831, 832				
	HU 57 41 80	//	18Ω SNI4K2E	//	R833, 836				
	HV 45 32 20	Flame Ploof Carbon Resistor	2.2Ω	不 燃 化 カ ー ボ ン 抵 抗	R926				
	HV 45 34 70	//	4.7Ω	//	R843~846				
	HV 45 41 00	//	10Ω	//	R887, 888				
	HV 45 51 00	//	100Ω	//	R853~856				
	HV 45 61 00	//	1KΩ	//	R927				
	HV 45 62 20	//	2.2KΩ	//	R813~816				
	※	VE 85 46 00	Rotary Potentiometer	30KΩ MN	ロ ー タ リ ー VR	VR701			
VF 33 80 00		//	18KΩ 特 2連	//	VR702				
VA 98 48 00		//	20KΩ 特 2連	//	VR703, 704				
VF 99 09 00		//	30KΩ 特 2連	//	VR705				
	iC 18 15 20	Transistor	2SC1815(Y)	ト ラ ン ジ ス タ ー	Q815, 816, 819~822				
	iC 28 78 20	//	2SC2878(A, B)	//	Q701~710				
	iD 15 05 00	//	2SD1505	//	Q901				
	iE 10 24 80	F E T	2SK170 (GR1,2,3 BL1,2,3,4)	F E T	Q813, 814, 817, 818				
	iB 07 37 00	Transistor	2SB737(Q, R, S)	ト ラ ン ジ ス タ ー	Q801, 802, 805, 806				
	iD 07 86 00	//	2SD786(Q, R, S)	//	Q803, 804, 807, 808				
	iD 04 38 10	//	2SD438(E, F)	//	Q809, 810				
	iB 05 60 10	//	2SB560(E, F)	//	Q811, 812				
		iF 00 34 50	Diode	ISS133	ダ イ オ ード	D701~704, 803~810, 901, 902, 919, 922			
		iF 00 84 80	//	ISR35-100A	//	D920			
iF 01 07 40		Zener Diode	MTZ6.2B	ツェナーダイオード	D801, 802				
iF 00 88 60		//	MTZ12B	//	D921				
iF 00 88 10		//	MTZ3.6B	//	D705, 706				
iF 00 87 30		LED	SLR-34URC3H3	L E D	D801, 802				
iF 00 87 40		//	SLR-34MC3H3	//	D921				
iF 00 42 70		//	SLR-55URC3H	//	D913~918				
iF 00 79 70		//	SPR-55	2 色 L E D	D909~912				
		VB 96 96 00	Remote Control Receptor	GPIU011	リモコン受光ユニット	U701 } inter- // } changeable			
	VD 85 31 00	//	GPIU501	//					
	iG 07 74 10	IC	NJM4556S-A	I C	IC703				
	iR 02 38 20	//	μPD74HC238C	//	IC901~903				
	XC 63 20 01	//	NJM5532SD	//	IC801~804				
	XA 67 30 01	//	NJM5532DD	//	IC701, 702				
	※	KA 90 28 90	Rotary Switch, Remote Type	6-5	リモートロータリースイッチ	SW801			
VF 97 71 00		Digital Switch		デ ジ タ ル ス イ ッ チ	SW701				
VF 33 77 00		Push Switch		ブ ッ シ ュ ス イ ッ チ	SW702~704				
VE 32 73 00		Tact Switch	KHH-MA901	タ ク ド ス イ ッ チ	SW901~905				

※New Parts (新規部品)

[illegible]

※New Parts (新規部品)

A

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J

CX-1000/U/2000

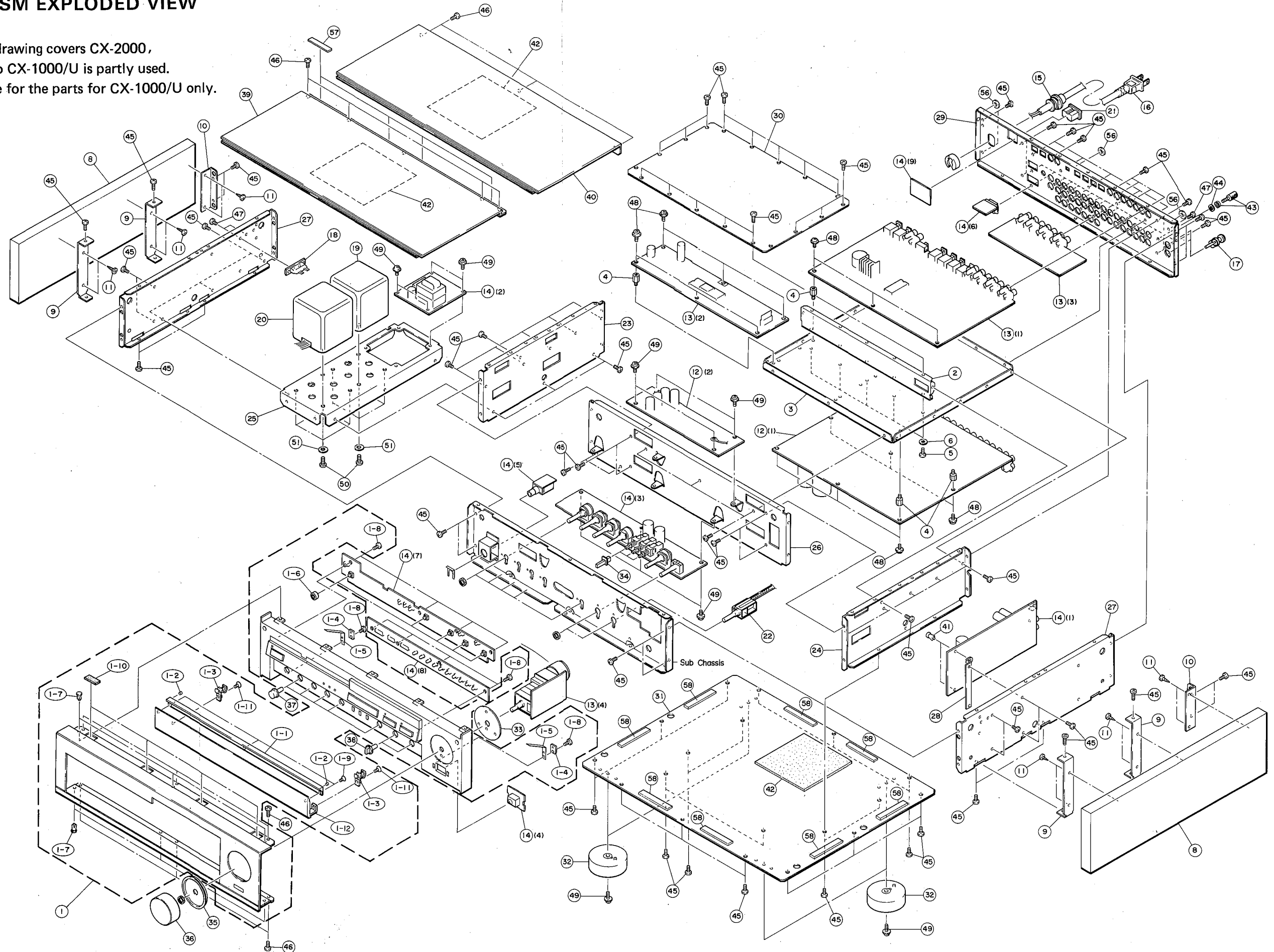
MECHANISM EXPLODED VIEW

Note:

This disassembly drawing covers CX-2000.

Part in common to CX-1000/U is partly used.

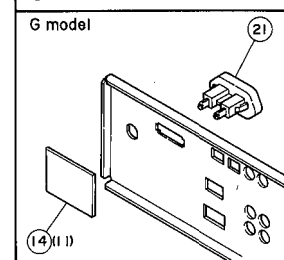
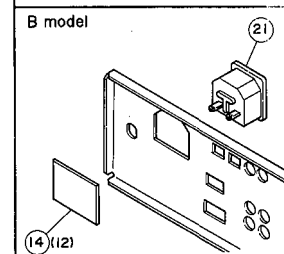
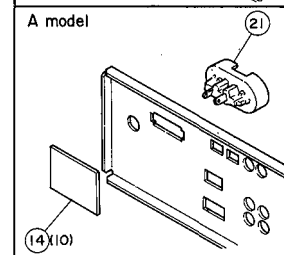
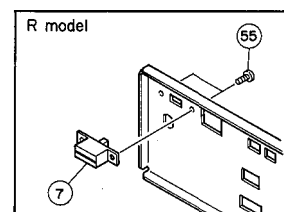
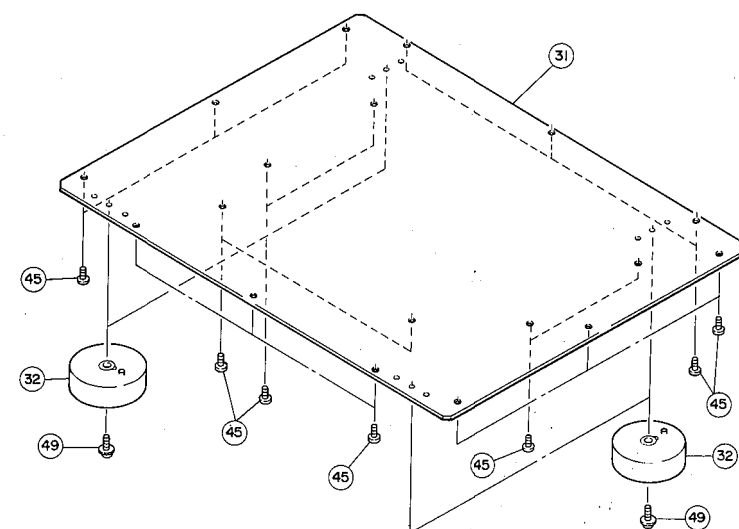
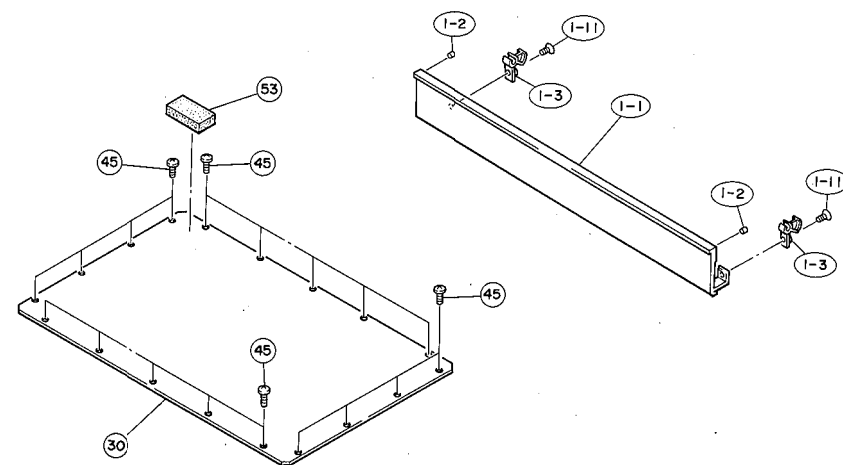
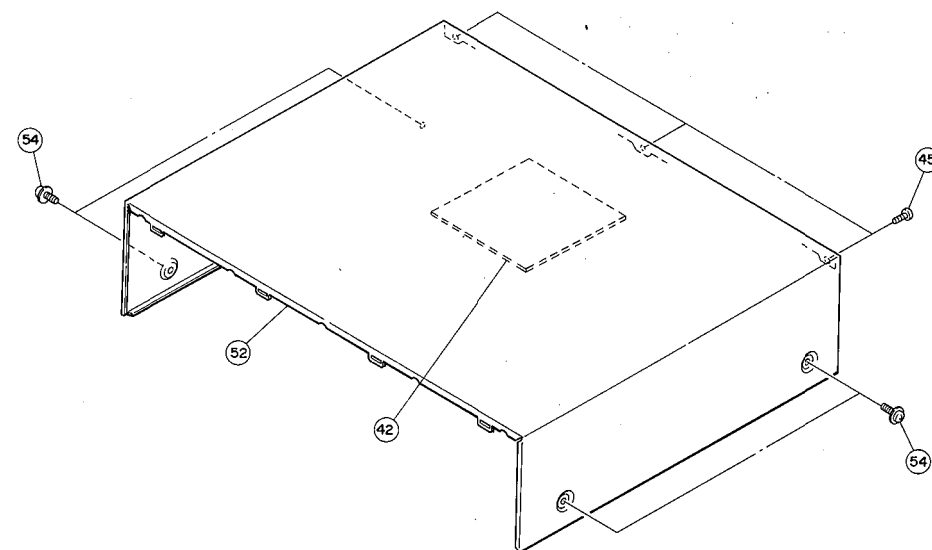
Refer to next page for the parts for CX-1000/U only.



A B C D E

MECHANISM EXPLODED VIEW

Note: This disassembly drawing covers parts for CX-1000/U use only.



MECHANISM PARTS

Note :

●Mark Shows the Part for Model CX-2000

○Mark Shows the Part for Model CX-1000/U

No-mark Shows the Common Part for Models CX-1000/U and CX-2000

CX-1000/U/2000

Ref. No.	Part No.	Description	部 品 名	Remarks	Common Model	Markets	
※ 1	VF 33 44 00	Panel Unit	パ ネ ル ユ ニ ッ ト			U, C	●
※ //	VF 33 21 00	//	//			U, C	○
※ //	VF 33 22 00	//	//			R, A, B	○
※ //	VF 33 23 00	//	//			G	○
※ 1-1	VE 94 94 00	Sub Panel, D1	サ ブ パ ネ ル D1				●
※ //	VE 94 93 00	Sub Panel, D	サ ブ パ ネ ル D				○
※ 1-2	VF 07 56 00	Damper	ダ ン パ ー				●
※ //	CB 63 97 50	//	//				○
※ 1-3	VE 95 18 00	Stopper	ス ト ッ パ ー				
※ 1-4	VE 95 19 00	Washer	ワ ッ シ ャ ー				
※ 1-5	VE 95 24 00	Spring	ス プ リ ン グ				
1-6	VE 27 47 00	Cushion	ク ッ シ ョ ン				
1-7	CB 06 88 80	Plastic Rivet	プ ラ ス チ ッ ク リ ベ ッ ト				
1-8	ED 33 00 86	Binding Head Screw	3.0×8 FCRM3-BI	バ イ ン ド 小 ネ ジ	PACK		
1-9	EX 60 10 30	Flat Head Screw	2.6×3 1種Z/金メッキ	皿 小 ネ ジ			●
1-10	VF 78 28 00	Damper	ダ ン パ ー				●
※ //	VF 33 63 00	//	//				○
1-11	EB 33 00 66	Flat Head Screw	3.0×3 FCRM3-BI	皿 小 ネ ジ	PACK		
1-12	VE 94 95 00	Sub Panel D2	サ ブ パ ネ ル D2				●
※ 2	VE 95 41 00	Frame C-U	フ レ ー ム CU				
※ 3	VE 95 38 00	Frame C	フ レ ー ム C				
※ 4	VE 27 63 00	PCB Post	PCB ポ ス ト				
5	E1 33 00 86	Binding Head Tapping Screw	3×8 FCRM3-BI	バ イ ン ド タ ッ ピ ン グ ネ ジ	PACK		
6	EV 41 30 36	Toothed Lock Washer	3mm FCRM3-BI	歯 付 座 金	PACK		
7	VE 96 26 00	Slide Switch	ス ラ イ ド ス イ ッ チ			R	○
※ 8	VE 95 52 00	Side Panel L,R	サ イ ド パ ネ ル L,R				●
※ 9	VE 95 46 00	Support, S,P-F	サ ポ ー ト S,P-F				●
※ 10	VE 95 47 00	Support, S,P-R	サ ポ ー ト S,P-R				●
11	EQ 03 11 66	Round Head Wood Screw	3.1×16 ZMC2-Y	丸 木 ネ ジ	PACK		
※ 12	NA 09 87 80	Analog Circuit Board	ア ナ ロ グ シ ー ト			U, C	
※ //	VG 16 41 00	//	//			R, A, B	○
※ //	NA 09 87 90	//	//			G	○
※ 13	NA 09 88 00	Digital Circuit Board	デ ジ タ ル シ ー ト			U, C, R, A, B	
※ //	NA 09 88 10	//	//			G	○
※ 14	NA 09 88 20	Equalizer Circuit Board	イ コ ラ イ ザ ー シ ー ト			U, C	
※ //	NA 09 88 30	//	//			R	○
※ //	NA 09 88 40	//	//			A	○
※ //	NA 09 88 50	//	//			B	○
※ //	NA 09 88 60	//	//			G	○
15	CB 62 02 00	Cord Stopper	CM-22C	コ ー ド ス ト ッ パ ー		U, C	
※ //	CB 62 01 90	//	CM-22B	//		R, A, B, G	
16	MG 00 22 20	Power Cord	10A 125V	電 源 コ ー ド		U, C	
※ //	MG 00 16 30	//	6A 250V	//		R	○
※ //	MG 00 23 10	//	7.5A 250V	//		A	○
※ //	MG 00 23 30	//	300V	//		B	○
※ //	MG 00 23 20	//	2.5V 250V	//		G	○
17	LB 10 01 80	Short Plug		シ ョ ー ト プ ラ グ			
18	VD 61 41 00	Terminal	2P	中 継 端 子 台			
※ 19	XE 54 30 01	Power Transformer		電 源 ト ラ ン ス D		U, C	
※ //	XE 54 40 01	//		//		R	○
※ //	XE 54 50 01	//		//		A, B	○

※New Parts (新規部品)

CX-1000/U/2000

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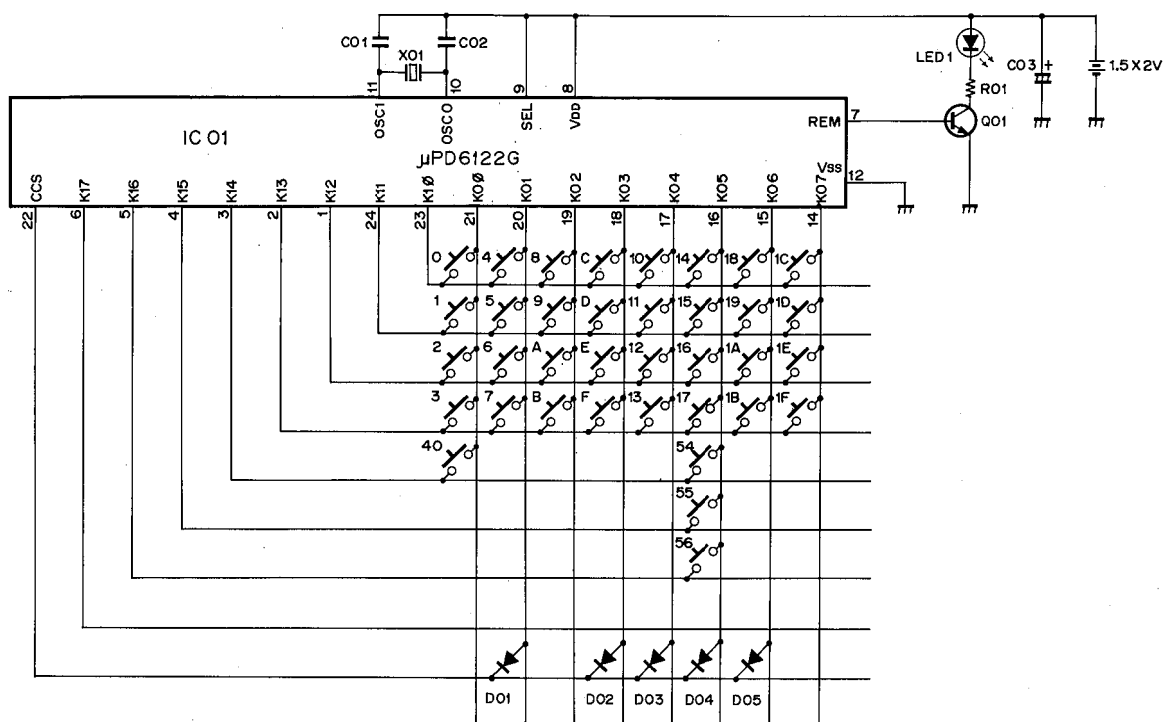
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※New Parts (新規部品)

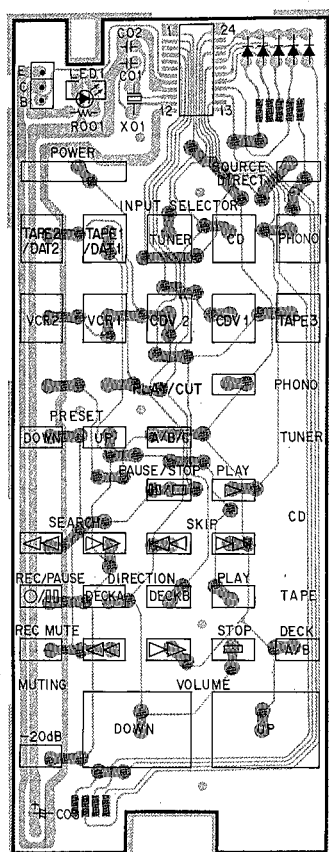
※New Parts (新規部品)

RS-CX1000/2000 REMOTE CONTROL TRANSMITTER

● SCHEMATIC DIAGRAM



● PRINTED CIRCUIT BOARD



KEY NO.	FUNCTION	KEY NO.	FUNCTION
0	TAPE PLAY	40	TAPE DIRECTION B
1	◀◀	41	
2	▶▶	42	
3	STOP □	43	
4	REC/PAUSE	44	
5	REC MUTE	45	
6	DECK A/B	46	
7	DIRECTION A	47	
8	CD PLAY ▶	48	
9	PAUSE/STOP	49	
A	SKIP ▶▶	4A	
B	◀◀	4B	
C	SEARCH ▶▶	4C	
D	◀◀	4D	
E	PHONO PLAY/CUT	4E	
F	INPUT VCR1	4F	
10	TUNER PRESET UP	50	
11	DOWN	51	
12	A/B/C	52	
13	INPUT VCR2	53	
14	PHONO	54	INPUT TAPE3
15	CD	55	CDV1
16	TUNER	56	SOURCE DIRECT
17	CDV2	57	
18	TAPE1/DAT1	58	
19	TAPE2/DAT2	59	
1A	VOLUME UP	5A	
1B	DOWN	5B	
1C	MUTING -20dB	5C	
1D		5D	
1E		5E	
1F	POWER	5F	

A

B

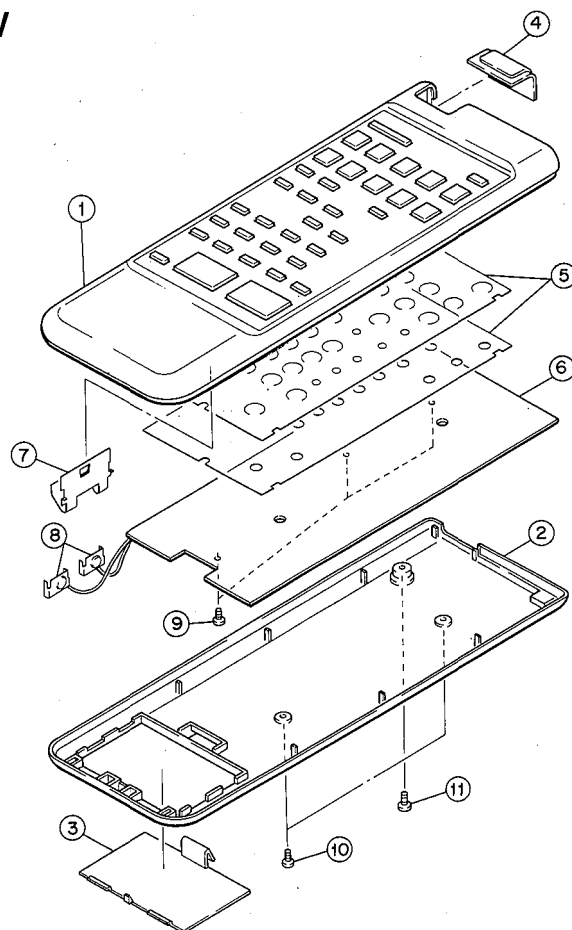
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CX-1000/U/2000

EXPLODED VIEW



Ref. No.	Part No.	Description	部 品 名	Remarks/Markets	Common Model	ランク
※	VE 26 17 00	Remote Control Transmitter	RS-CX1000	リモートコントロールトランスミッター		
※	VF 37 02 00	//	RS-CX2000	//	U,C	
※	1 CX 60 45 40	Case (A) Ass'y		ケース (A) Ass'y	RS-CX1000	LH-101-64CFMF
※	// CX 60 50 20	//		//	RS-CX2000	LH-101-60CFMF
※	2 CX 60 45 50	Case (B) Ass'y		ケース (B) Ass'y	RS-CX1000	LH-101-61CB
※	// CX 60 45 70	//		//	RS-CX2000	LH-101-60CB
※	3 CX 60 44 60	Lid		電池 ケース	RS-CX1000	LH-101-62CD
※	// CX 60 19 50	//		//	RS-CX2000	
※	4 CX 60 20 10	Filter Smoke		スモーク板		LH-101-FI
※	5 KX 60 12 90	Mainbrane Switch Unit		メインブレンスイッチユニット		FB-LH101-Ass'y-61
※	6 NX 60 26 20	P.C Board Ass'y		プリント基板 Ass'y		8P-LH101-Ass'y-62
※	7 LX 60 08 30	Dry Cell Terminal (A)		電池 接 片 (A)		DT-LH101FNB
※	8 LX 60 13 40	// (B)		// (B)		LH-101-DTCN
※	9 EX 60 04 00	Bind Head Tapping Screw	2×4 ZMC2-BI	ナベタッピングネジ		
※	10 EJ 32 00 36	//	2×3 FCRM3-BI	//	PACK	
※	11 Ei 32 60 66	Binding Head Tapping Screw	2.6×6 ZMC2-BI	バインドタッピングネジ	PACK	
※	NX 60 26 20	P.C Board Ass'y		プリント基板 Ass'y		
※	iX 61 10 70	LED	SLR-56SB3	L E D		
※	HF 85 31 00	Carbon Resistor	1Ω 1/6W	カーボン抵抗	R01	
※	iF 00 34 50	Diode	ISS133	ダイオード	D01~05	
※	iX 61 10 80	Transistor	2SD1469	トランジスタ	Q01	
※	iIX 61 16 30	IC	μPD6122G	I C	IC01	
※	UJ 11 74 70	Electrolytic Cap.	47μF 6.3V	ケミコン	C03	
※	FG 21 21 00	Ceramic Cap.	100pF 50V	セラコン	C01,02	
※	QX 60 00 20	Ceramic Resonator	CSB455EB	セラミック発振器	X01	

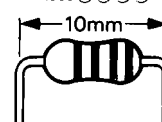
※New Parts (新規部品)

Parts List for Carbon Resistor

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	HJ353100	HF853100	12K Ω	HJ357120	HF857120
1.8 "	HJ353180	※	15 "	HJ357150	HF857150
2.2 "	HJ353220	HF853220	18 "	HJ357180	HF857180
3.3 "	HJ353330	HF853330	22 "	HJ357220	HF857220
4.7 "	HJ353470	HF853470	27 "	HJ357270	HF857270
5.6 "	HJ353560	HF853560	33 "	HJ357330	HF857330
10 "	HJ354100	HF854100	39 "	HJ357390	HF857390
15 "	HJ354150	HF854150	47 "	HJ357470	HF857470
22 "	HJ354220	HF854220	56 "	HJ357560	HF857560
27 "	HJ354270	HF854270	68 "	HJ357680	HF857680
33 "	HJ354330	HF854330	82 "	HJ357820	HF857820
39 "	HJ354390	HF854390	91 "	HJ357910	HF857910
47 "	HJ354470	HF854470	100 "	HJ358100	HF858100
56 "	HJ354560	HF854560	120 "	HJ358120	HF858120
68 "	HJ354680	HF854680	150 "	HJ358150	HF858150
82 "	HJ354820	HF854820	180 "	HJ358180	HF858180
100 "	HJ355100	HF855100	220 "	HJ358220	HF858220
110 "	HJ355110	HF855110	270 "	HJ358270	HF858270
120 "	HJ355120	HF855120	330 "	HJ358330	HF858330
150 "	HJ355150	HF855150	390 "	HJ358390	HF858390
160 "	HJ355160	※	470 "	HJ358470	HF858470
180 "	HJ355180	HF855180	560 "	HJ358560	HF858560
220 "	HJ355220	HF855220	680 "	HJ358680	HF858680
270 "	HJ355270	HF855270	820 "	HJ358820	HF858820
330 "	HJ355330	HF855330	1.0M Ω	HJ359100	HF859100
390 "	HJ355390	HF855390	1.2 "	HJ359120	※
470 "	HJ355470	HF855470	1.5 "	HJ359150	HF859150
510 "	※	HF855510	1.8 "	HJ359180	HF859180
560 "	HJ355560	HF855560	2.2 "	HJ359220	HF859220
680 "	HJ355680	HF855680	3.3 "	HJ359330	HF859330
820 "	HJ355820	HF855820	3.9 "	HJ359390	※
910 "	HJ355910	HF855910	4.7 "	HJ359470	HF859470
1.0K Ω	HJ356100	HF856100			
1.2 "	HJ356120	HF856120			
1.5 "	HJ356150	HF856150			
1.8 "	HJ356180	HF856180			
2.0 "	HJ356200	HF856200			
2.2 "	HJ356220	HF856220			
2.4 "	HJ356240	HF856240			
2.7 "	HJ356270	HF856270			
3.0 "	HJ356300	HF856300			
3.3 "	HJ356330	HF856330			
3.6 "	HJ356360	HF856360			
3.9 "	HJ356390	HF856390			
4.7 "	HJ356470	HF856470			
5.1 "	HJ356510	HF856510			
5.6 "	HJ356560	HF856560			
6.8 "	HJ356680	HF856680			
8.2 "	HJ356820	HF856820			
9.1 "	HJ356910	HF856910			
10 "	HJ357100	HF857100			

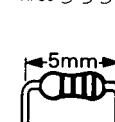
1/4W Type

HJ35○○○○



1/6W Type

HF85○○○○



CX-1000/U/2000

CX-1000/U/2000

YAMAHA
