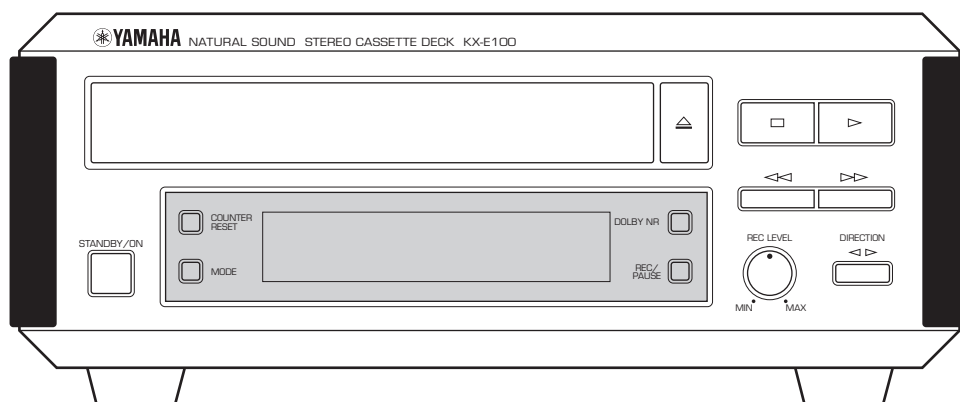


# STEREO CASSETTE DECK

# KX-E100

## 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 any 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 part replacement. Recheck all work before you apply power to the unit.

### CONTENTS

TO SERVICE PERSONNEL .....	1	ADJUSTMENT .....	6~9
SPECIFICATIONS .....	1	DISPLAY DATA .....	10
DIMENSIONS .....	2	IC DATA .....	11~12
INTERNAL VIEW .....	2	BLOCK DIAGRAM .....	13
REAR PANELS .....	3	PRINTED CIRCUIT BOARD .....	14~21
DISASSEMBLY PROCEDURES .....	4~5	SCHEMATIC DIAGRAM .....	22
		PARTS LIST .....	23~31



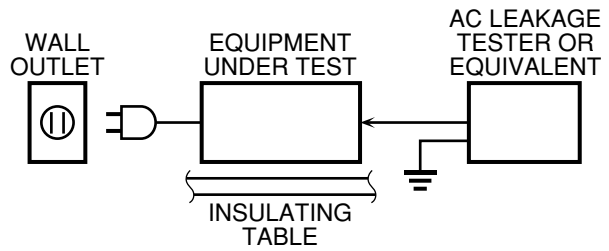
このサービスマニュアルは、エコマーク認定の再生紙を使用しています。  
This Service Manual uses recycled paper.



## ■ TO SERVICE PERSONNEL

Critical Components Information.

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



## 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!

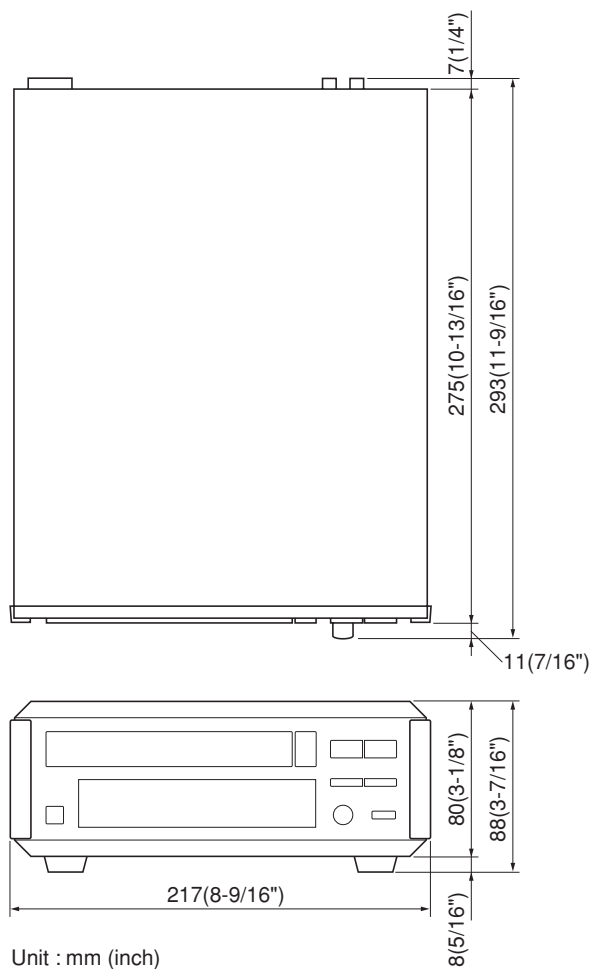
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## ■ SPECIFICATIONS

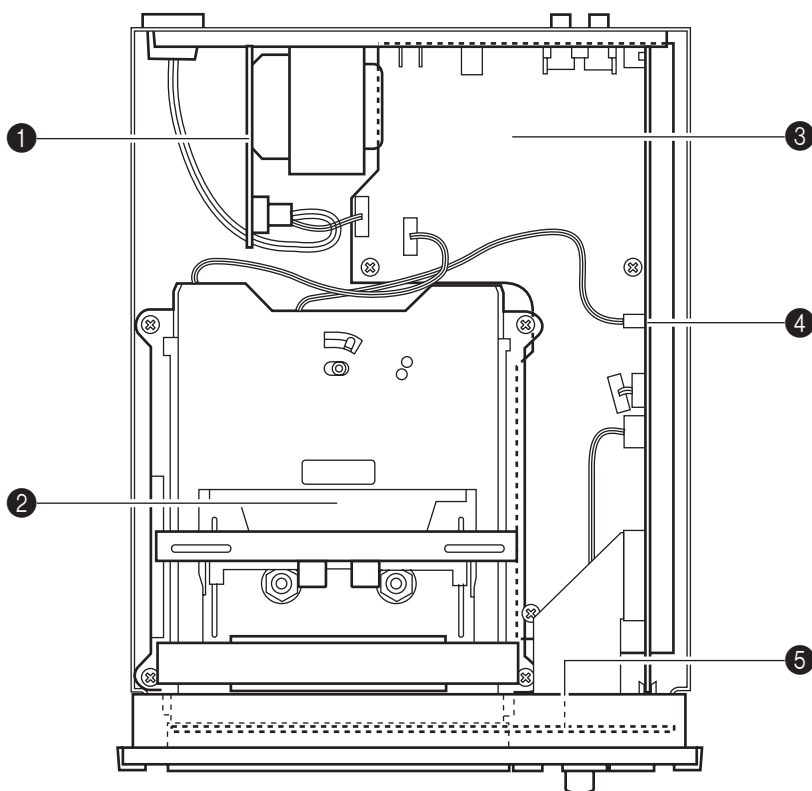
<b>Type</b>	Auto Reverse 4-Track 2-Channel Playback/Recording Stereo Cassette Deck
<b>Heads</b>	REC/PB Hard permalloy Erase Double Gap Ferrite
<b>Motors</b>	Main DC servo motor Tray Loading DC motor
<b>Wow &amp; Flutter</b>	W.PEAK (EIAJ) ±0.19 % W.RMS 0.09 %
<b>Fast Winding Time</b>	about 100 seconds (C-60 tape)
<b>Frequency Response</b>	Type I (Normal) 30 – 15,000 Hz ±3 dB Type II (CrO2) 30 – 16,000 Hz ±3 dB Type IV (Metal) 30 – 18,000 Hz ±3 dB
<b>S/N Ratio</b> (S : 3rd harmonic distortion 3 %, N : Weighted)	NR off 58 dB Dolby B NR on 66 dB Dolby C NR on 74 dB
<b>Harmonic Distortion</b>	1.0 %
<b>Channel Separation</b>	More than 40 dB

<b>Crosstalk (125 Hz)</b>	More than 55 dB
<b>Input Sensitivity/Impedance</b>	Line 100 mV/30 kΩ
<b>Output Level</b>	Line 570 mV/3.0 kΩ
<b>Power Requirements</b>	U, C models AC120 V, 60 Hz R model AC110-120/220-240 V, 50/60 Hz A model AC240 V, 50 Hz B, G models AC230 V, 50 Hz
<b>Power Consumption</b>	12 W (Standby 3W)
<b>Dimensions (W x H x D)</b>	217 x 88 x 293 mm (8-9/16" x 3-7/16" x 11-9/16")
<b>Weight</b>	3.0 kg (6 lbs 10 oz.)
<b>Accessories</b>	Input & Output cords (RCA type) x 2, System cord x 1
<i>* Specifications are subject to change without notice.</i>	
<b>U</b> ..... U.S.A. model <b>C</b> ..... Canadian model <b>R</b> ..... General model <b>A</b> ..... Australian model <b>B</b> ..... British model <b>G</b> ..... European model	

## ■ DIMENSIONS



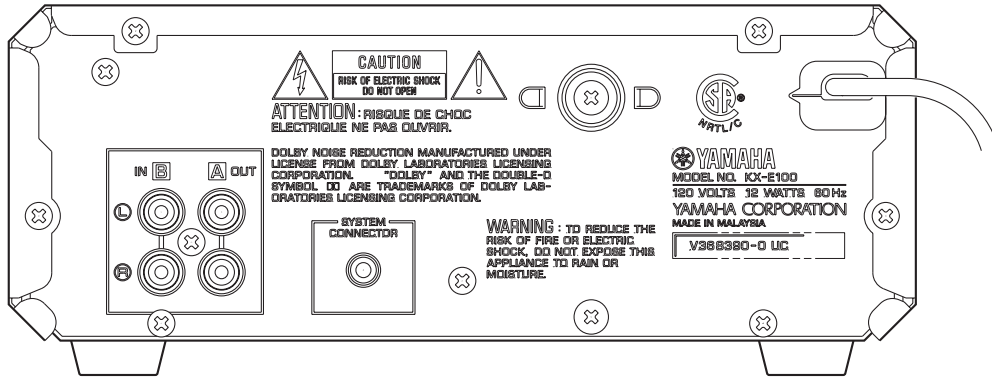
## ■ INTERNAL VIEW



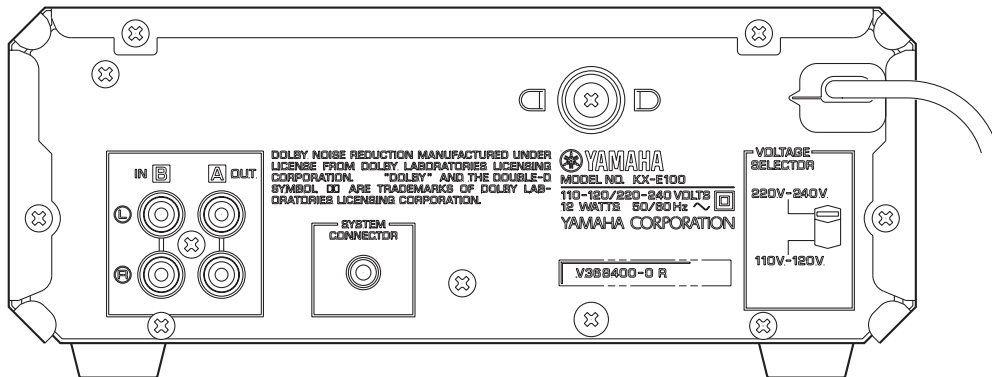
- ① MAIN P.C.B. (4)
- ② Cassette Mechanism Unit
- ③ MAIN P.C.B. (1)
- ④ MAIN P.C.B. (2)
- ⑤ MAIN P.C.B. (3)

## REAR PANELS

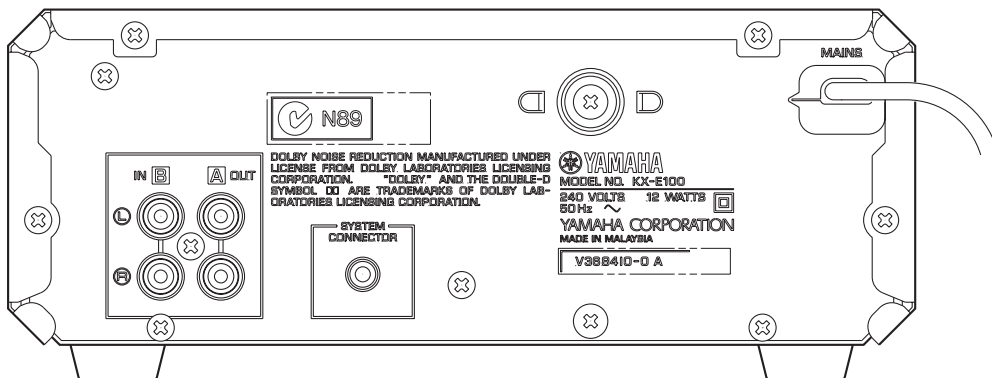
### U, C models



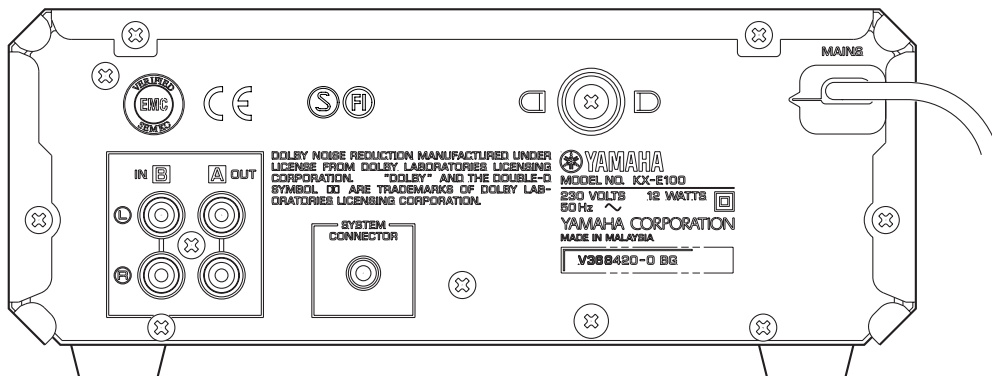
### R model



### A model



### B, G models



## ■ DISASSEMBLY PROCEDURES

Remove parts in disassembly order as numbered.

### 1. Removal of Top Cover

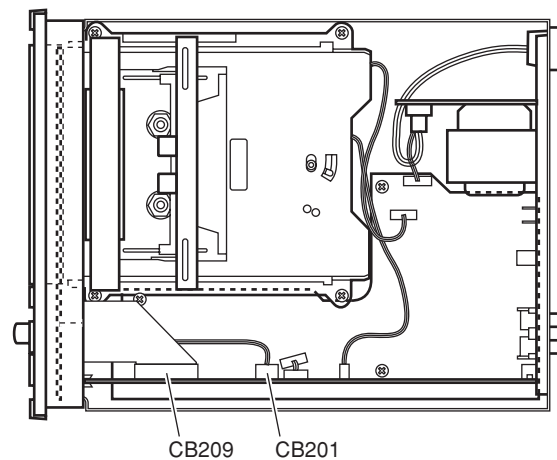
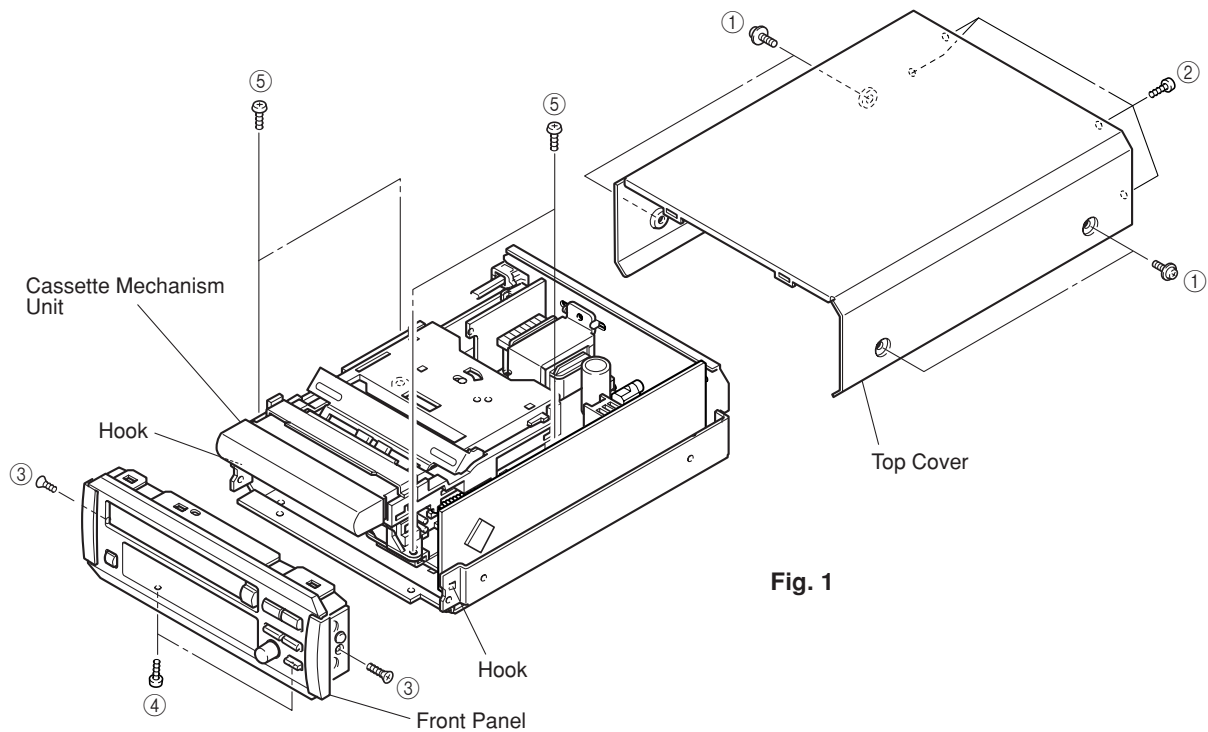
- Remove 4 screws (①) and 4 screws (②) in Fig. 1.
- Lift the Top Cover at the rear and move it rear-ward slantingly.

### 2. Removal of Front Panel

- Disconnect 2 connectors (CB201 and CB209) in Fig. 2.
- Remove 2 screws (③) and 2 screws (④) in Fig. 1.
- Detach the 2 hooks in Fig. 1 and then pull out the Front Panel forward.

### 3. Removal of Cassette Mechanism Unit

- Remove 4 screws (⑤) in Fig. 1.
- Disconnect 3 connectors (CB1, CB2 and CB3) in Fig. 3.

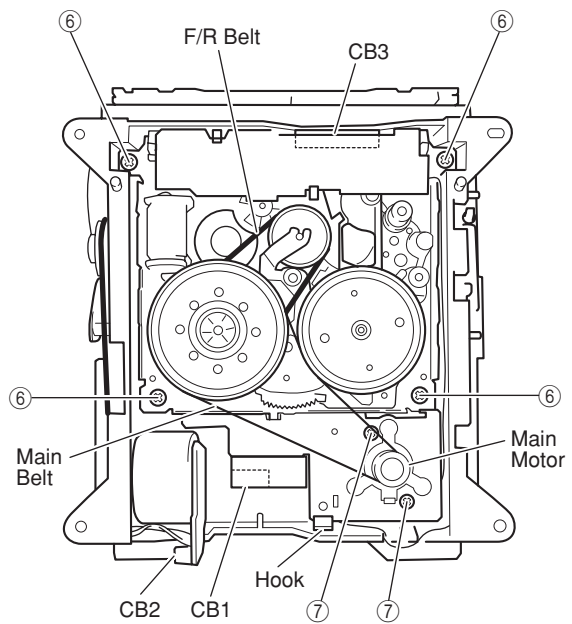


**4. Removal of Cassette Mechanism**

- a. Remove 4 screws (⑥) in Fig. 3.
- b. Detach the hook in Fig. 3 and then pull out the Cassette Mechanism.

**5. Removal of Main Motor**

Remove 2 screws (⑦) in Fig. 3.



**Fig. 3**

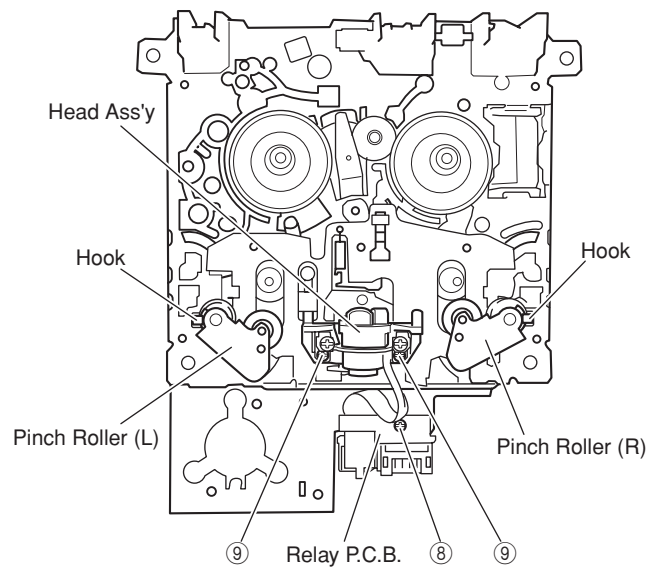
**6. Removal of Pinch Roller**

Detach the hook and then remove the Pinch Roller in Fig. 4.

**7. Removal of Head Ass'y**

- a. Remove 1 screw (⑧) and then remove the Relay P.C.B. in Fig. 4.
- b. Remove 2 screws (⑨) and then remove the Head Ass'y in Fig. 4.

\* Perform the adjustment of azimuth after installing the Head Ass'y.



**Fig. 4**

## ■ ADJUSTMENTS

### 1. Before adjustment

- Since head magnetization, dust accumulations, etc. are likely to introduce error in the various characteristics, it is very important that the heads are properly demagnetized and cleaned.
- Make adjustments of mechanical system, playback system and recording system in that order.
- Except for azimuth adjustment, adjust in the forward direction.

### 2. Instruments required

- Audio frequency oscillator
- ACVM or dual channel (ACVM)
- DCVM
- Wow/flutter meter
- Oscilloscope
- Frequency counter

- Torque meter  
 TW-2111A (TX911580) ... Take up/back tension (FWD)  
 TW-2121A (TX911570) ... Take up/back tension (RVS)  
 CT-160L (TX911120) ..... FF/REW

### 3. Test tape required

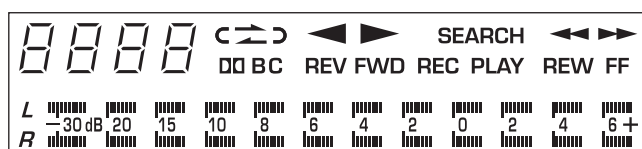
- MTT-111N (TX911650) ..... Normal speed
- MTT-114N (TX911680) ..... Azimuth
- MTT-212N (TX911660) ..... Playback level
- MTT-256 (TX911300) ..... Playback frequency response (Normal)
- MTT-356 (TX911310) ..... Playback frequency response (CrO<sub>2</sub>)
- Reference tape  
 Type I/Normal (LH) ..... TDK AC225 (VU167200)  
 Type II/High (CrO<sub>2</sub>) ..... TDK AC514 (VU167300)  
 Type IV/METAL ..... TDK AC713 (VU167400)

## TEST MODE (Operation and Display Check)

Enter the TEST MODE by pressing the STANDBY/ON key while pressing the STOP key and FF key when the power is OFF.

NO.	KEY	FUNCTION	ACTION
1	PLAY	PLAY	Playback mode without the cassette tape. In this mode, cleaning the REC/PB head.
2	STOP	STOP	Stop the playback mode.
3	DIRECTION	DIRECTION	Change the playback direction.
4	FF	DIMMER	Dimmed display when pressing the FF key. (6 step)
5	REW	PHOTO MODE	Photograph mode.
6	DOLBY NR		All display segments lit.
7	REC/PAUSE	Version	Display the program version and date when pressing the REC/PAUSE key.
8	MODE		Display grid and segments short/open check. (Fig. A is OK)
9	COUNTER RESET	EXIT	To escape the TEST MODE.
10	POWER	EXIT	To escape the TEST MODE and power off.

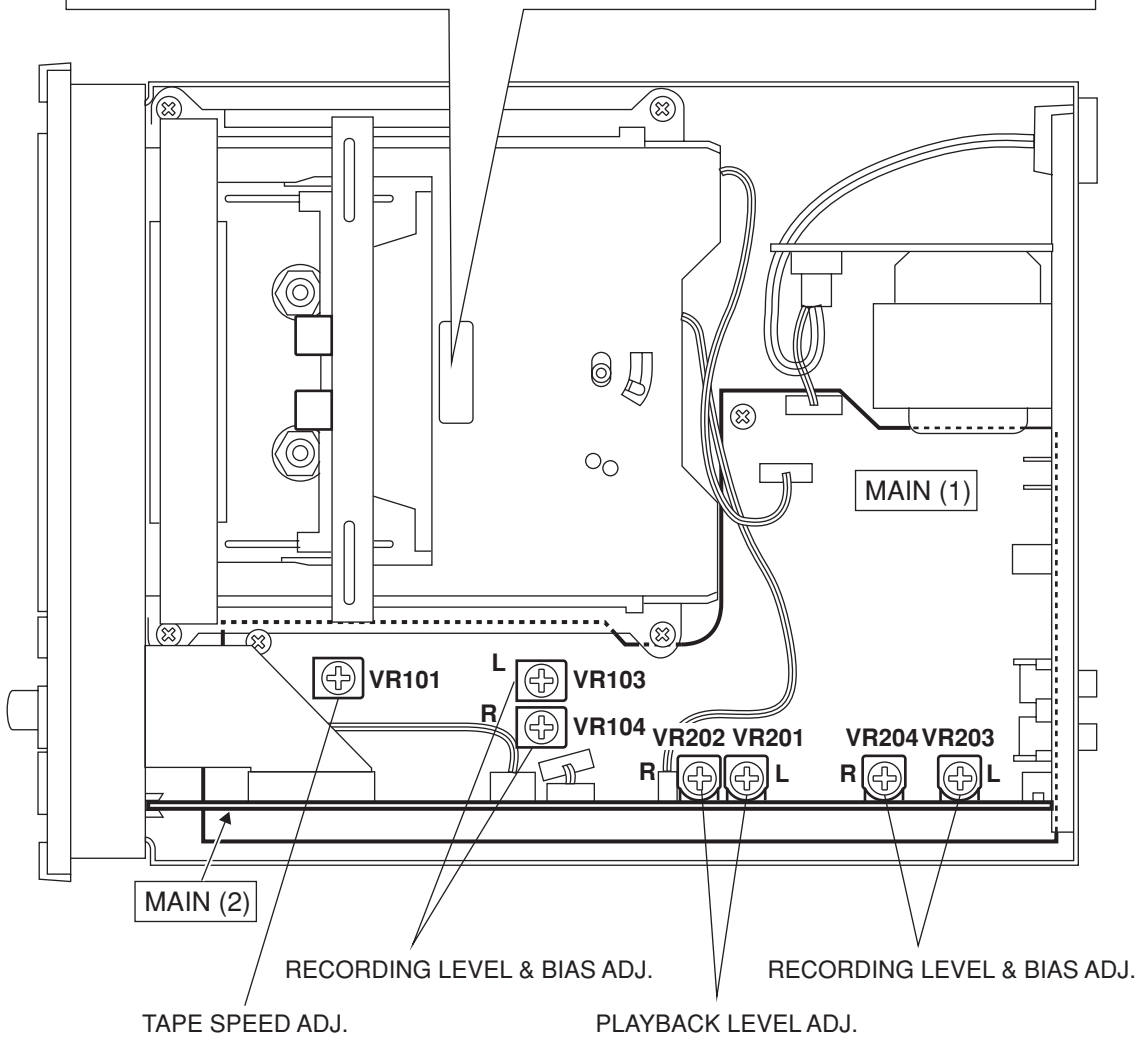
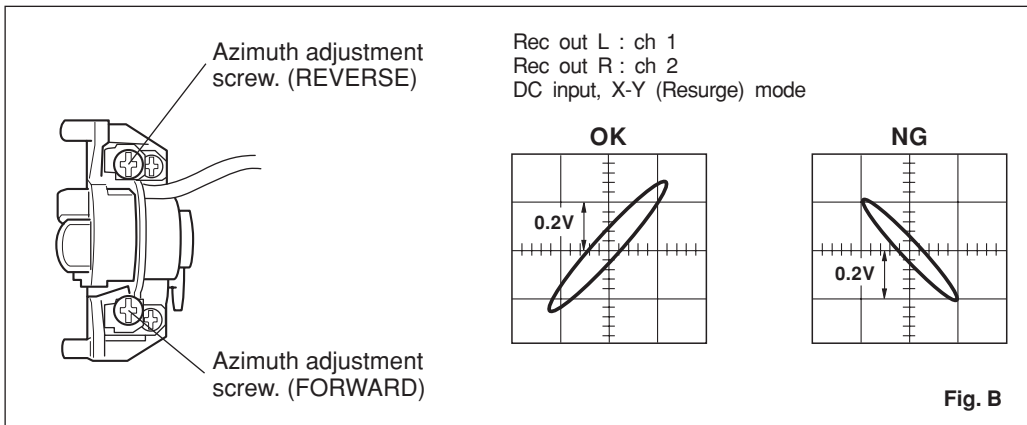
DISPLAY (Light the all segment)



DISPLAY CHECK (Light a segment of each grid)



Fig. A





### MECHANICAL ADJUSTMENT

Step	Item to be Adjusted	Tape	Instrument required	Mode	Adjustment part	Rating	Remarks
1	Check each torque	CT-160L (FF, REW)	Torque meter	FF REW		FF, REW torque : within 70 ~ 150g/cm.	
		TW-2111A (FWD)		PLAY		Take up torque : 30 ~ 70g/cm.	
		TW-2121A (RVS)				Back tension : 1.5 ~ 6g/cm.	
2	Check FF, REW take up time	AC-514 (C-60)		FF REW		80 to 120 seconds.	
3	Azimuth	MTT-114N 10kHz, -10dB	ACVM oscilloscope	PLAY	Azimuth adjustment screw. (Fig. B)	Playback output of L and R is maximum and phase difference should be minimum both directions. (Fig. B)	After the adjustment make sure to apply screw lock paint.
4	Tape Speed	MTT-111N 3kHz, -10dB	Frequency counter	PLAY	VR101	2980 Hz $\pm$ 15 Hz	Perform adjustment at the center of the test tape, if possible.
5	Wow/ Flutter	MTT-111N 3kHz, -10dB	Wow/Flutter meter	PLAY		Less than 0.19% (WRMS)	Confirm at center of the test tape, if possible.

### ELECTRICAL ADJUSTMENT

- Use 560 mV (250 nwb/m) for 0 dB as the standard level of the unit.

0 dB = 250 nwb/m (315 Hz) = -7 dBV (Rec out level)

#### <Playback section>

Step	Item to be Adjusted	Tape	Instrument required	Mode	Points of measurement	Adjustment parts	Rating
1	Playback level (315Hz)	MTT-212N 315Hz, 250nwb/m	ACVM	PLAY	LINE OUT	VR201 (L ch) VR202 (R ch)	- 5 dBV $\pm$ 0.3 dBV
2	Confirmation of playback frequency response	Test tape for frequency check. 3180 $\mu$ s + 120 $\mu$ s (LH) (MTT-256) 3180 $\mu$ s + 70 $\mu$ s (CrO2) (MTT-356)	ACVM oscilloscope	PLAY	LINE OUT		Check that the 10kHz playback level is within 0 $\pm$ 3 dB of the 1kHz playback level. (Fig. C)

#### ● PLAYBACK FREQUENCY RESPONSE

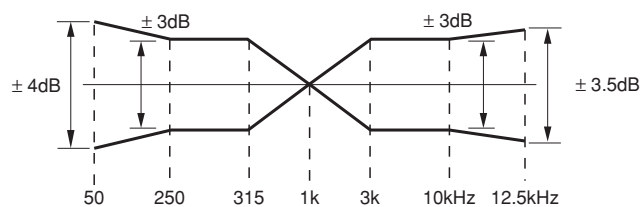


Fig. C

<Recording section>

Step	Item to be Adjusted	Tape	Instrument required	Mode	Measurement conditions	Points of measurement	Adjustment parts	Rating
1	Recording level	AC-514 High (CrO <sub>2</sub> )	ACVM Audio frequency oscillator	REC PLAY	Input 315 Hz Signal to LINE IN from Audio Frequency Oscillator. Adjust output level of Audio Frequency Oscillator so that the voltage of LINE OUT becomes - 25 dBV.	LINE OUT	VR203 (L ch) VR204 (R ch)	Adjust for equal record and playback levels. (- 25 dBV ± 0.3 dBV)
2	Recording bias (Total frequency response)	AC-514 High (CrO <sub>2</sub> )	ACVM Audio frequency oscillator	REC PLAY	Input 12.5 kHz Signal to LINE IN from Audio Frequency Oscillator. Adjust output level of Audio Frequency Oscillator so that the voltage of LINE OUT becomes - 25 dBV.	LINE OUT	VR103 (L ch) VR104 (R ch)	Adjust for equal record and playback levels. (- 25 dBV ± 0.5 dBV)
		AC-225 Normal (LH)						Adjust for equal record and playback levels. (Fig. D) Perform record bias adjustment of High (CrO <sub>2</sub> ) tape again, if the rating was not satisfied.
3	Confirmation of recorded level	AC-514 High (CrO <sub>2</sub> )	ACVM Audio frequency oscillator	REC PLAY		LINE OUT		Confirm recorded level rating as in step 1 when recorded level rating is improper, go back to step 1 and also carry out adjustments in step 2 again.

● TOTAL FREQUENCY RESPONSE ( - 20 dBV)

Dolby NR OFF / B on / C on

Type I (Normal) / Type II (High) / Type IV (METAL)

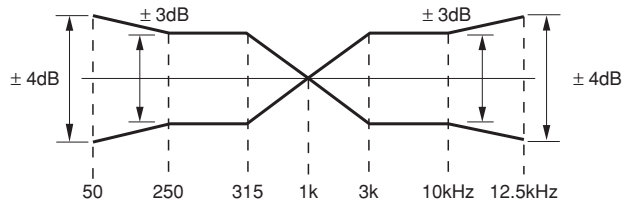
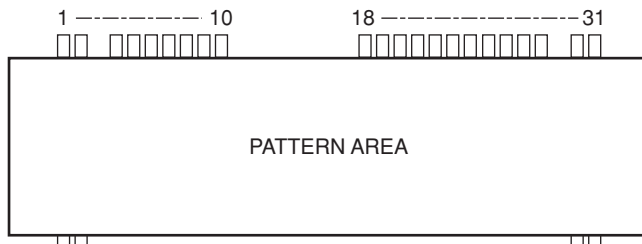


Fig. D

## ■ DISPLAY DATA

### ● VO301 : BJ707GNK (V358690)

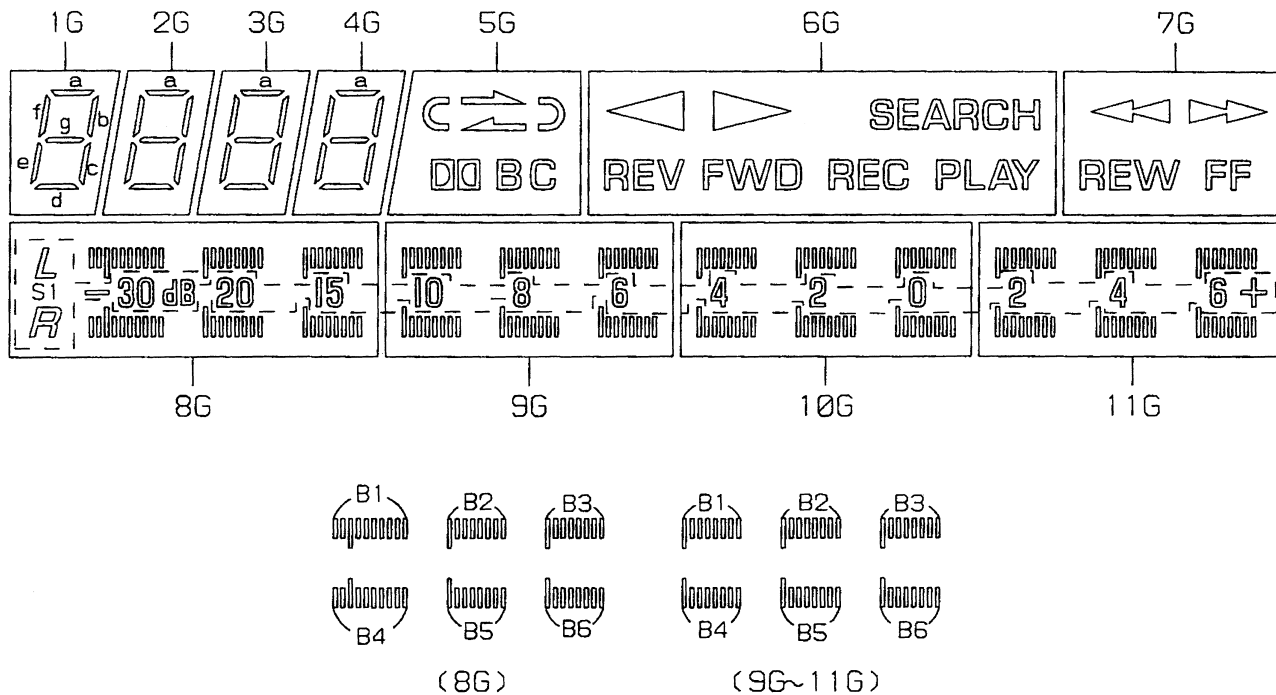


### ● PIN CONNECTION

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
Connection	F1	F1	NP	P1	P2	P3	P4	P5	P6	P7	NX	NX	NX	NX	NX	NX	NX	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	NP	F2	F2

Note : 1) F1, F2 ..... Filament 2) NP ..... No pin 3) NX ..... No extended pin 4) 1G ~ 11G ..... Grid

### ● GRID ASSIGNMENT

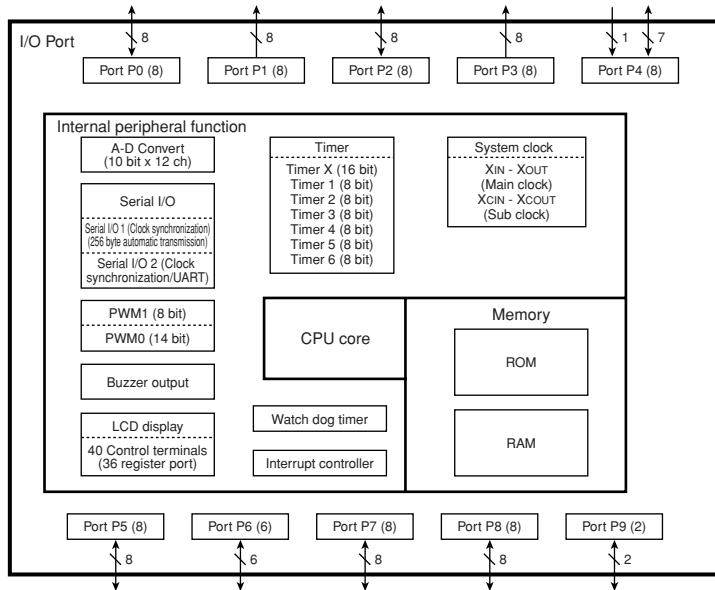
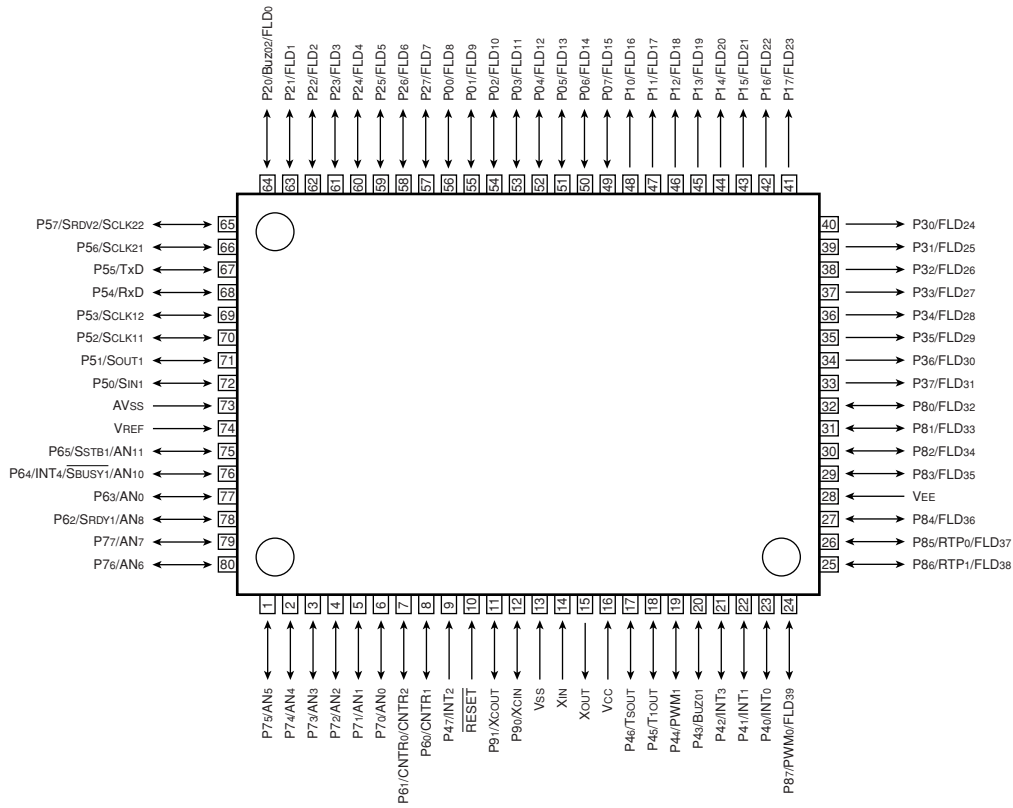


### ● ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G
P1	a	a	a	a	C	◀	◀◀	S1	S1	S1	S1
P2	b	b	b	b	▶	REV	REW	B1	B1	B1	B1
P3	c	c	c	c	◻	▶	▶▶	B2	B2	B2	B2
P4	d	d	d	d	◻◻	FWD	FF	B3	B3	B3	B3
P5	e	e	e	e	B	SEARCH	-	B4	B4	B4	B4
P6	f	f	f	f	C	PLAY	-	B5	B5	B5	B5
P7	g	g	g	g	-	REC	-	B6	B6	B6	B6

# IC DATA

## IC205 : M38B57M6-135FP (XW379A00)

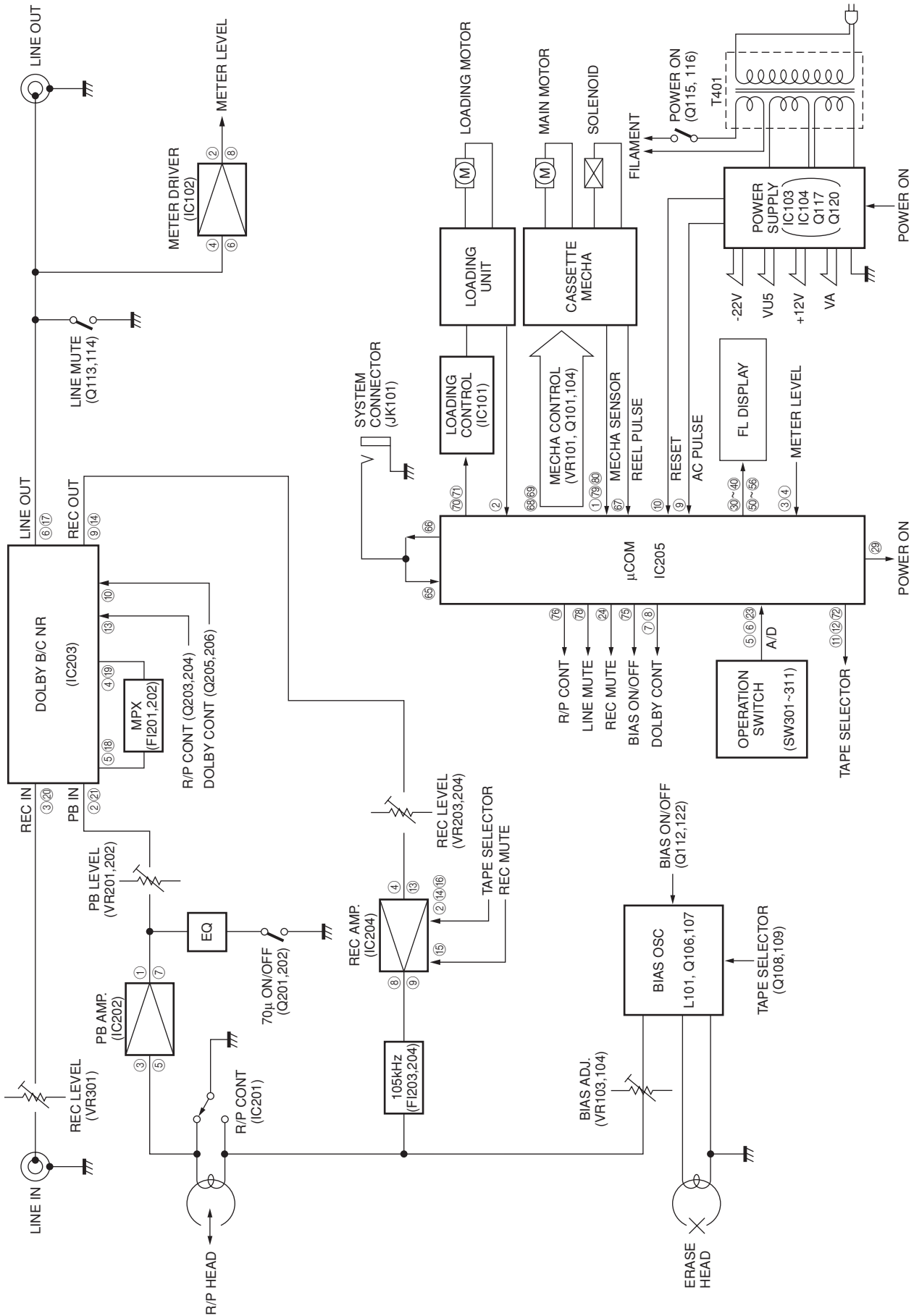


Pin No.	PORT	I/O	IN	OUT	RESISTOR	Pin No.	PORT	I/O	IN	OUT	RESISTOR
1	P75/AN5	I	Mecha SW1	AD(PLAY, Half)	PU	38	P32/FL26	O	FL-DIG3	ON : H	
2	P74/AN4	I	Loading SW	AD(IN,OUT)	PU	39	P31/FL25	O	FL-DIG2	ON : H	
3	P73/AN3	I	Meter L	AD(-30 - +6)		40	P30/FL24	O	FL-DIG1	ON : H	
4	P72/AN2	I	Meter R	AD(-30 - +6)		41-48	P10-P17	O	(Open)		
5	P71/AN1	I	Operation 2	AD(FF,REW,REC,COU,EJ)	PU	49	P07/FL15	I	(Open)		
6	P70/AN0	I	Operation 1	AD(ST,PL,DIR,DOL,MOD)	PU	50	P06/FL14	O	FL-SEG7	ON : H	
7	P61/CN0,2	O	DOLBY-B	B : H		51	P05/FL13	O	FL-SEG6	ON : H	
8	P60/CN1	O	DOLBY-OFF	OFF : H	PU	52	P04/FL12	O	FL-SEG5	ON : H	
9	P47/INT2	I	AC Pulse			53	P03/FL11	O	FL-SEG4	ON : H	
10	RESET	I	Reset	Reset : L	PU	54	P02/FL10	O	FL-SEG3	ON : H	
11	P91/XCO	O	METAL	METAL : H		55	P01/FL9	O	FL-SEG2	ON : H	
12	P90/XCI	O	HIGH	HIGH : H		56	P00/FL8	O	FL-SEG1	ON : H	
13	VSS		GND			57-64	P20-P27	I	(Pull down)		PD
14	XIN		4MHz			65	P57/SC22	I	SYS-IN		
15	XOUT		4MHz			66	P56/SC21	O	SYS-OUT		
16	VCC		Vu			67	P55/TD	I	Reel pulse		
17-22	P41-P46	I	(Pull down)		PD	68	P54/RD	O	Solenoid	ON : H	PD
23	P40/INT0	I	Power SW	ON : L	PU	69	P53/SC12	O	Main motor	ON : H	PD
24	P87/PWM	O	REC MUTE	ON : L (PWMControl)		70	P52/SC11	O	Loading	IN : H	PD
25-27	P84-P86	I	(Pull down)		PD	71	P51/SO1	O	Loading+	OUT : H	PD
28	VEE		-22V			72	P50/SI1	O	N/H/M	NOR:L,HIGH:M,MET:H	
29	P83/FL35	I	Power ON	ON : H		73	AVSS		GND		
30	P82/FL34	O	FL-DIG11	ON : H	PD	74	VREF		+5V		
31	P81/FL33	O	FL-DIG10	ON : H	PD	75	P65/AN11	O	BIAS	ON : L	PU
32	P80/FL32	O	FL-DIG9	ON : H	PD	76	P64/AN10	O	REC/PB	PB : L	PD
33	P37/FL31	O	FL-DIG8	ON : H		77	P63/AN9	I	(Pull down)		PD
34	P36/FL30	O	FL-DIG7	ON : H		78	P62/AN8	O	LINE MUTE	ON : L	PD
35	P35/FL29	O	FL-DIG6	ON : H		79	P77/AN7	I	Mecha SW3	AD(Error erase F,Error erase R)	PU
36	P34/FL28	O	FL-DIG5	ON : H		80	P76/AN6	I	Mecha SW2	AD(70,METAL)	PU
37	P33/FL27	O	FL-DIG4	ON : H							

## AD INPUT PORT

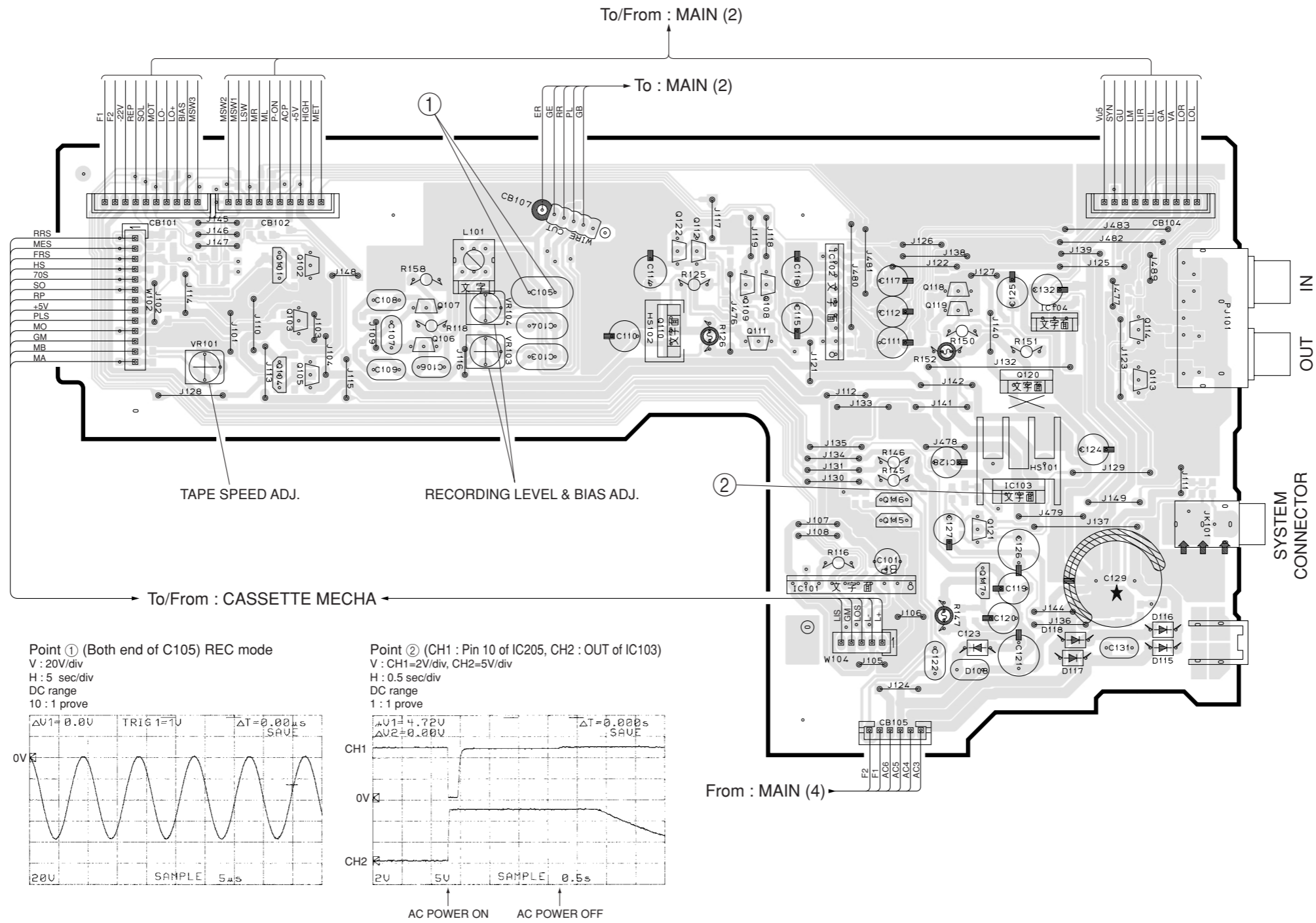
PIN	NAME	VOLTAGE AREA	STANDARD VOLTAGE	MODE
6	AN0 (ope 1)	4.58 - 5.00	5.00	OFF
		3.75 - 4.58	4.17	-
		2.92 - 3.75	3.34	MODE
		2.10 - 2.92	2.51	DOLBY
		1.25 - 2.10	1.67	DIREC.
		0.41 - 1.25	0.83	PLAY
		0.00 - 0.41	0.00	STOP
5	AN1 (ope 2)	4.58 - 5.00	5.00	OFF
		3.75 - 4.58	4.17	-
		2.92 - 3.75	3.34	EJECT
		2.10 - 2.92	2.51	COUN.
		1.25 - 2.10	1.67	REC
		0.41 - 1.25	0.83	REW
		0.00 - 0.41	0.00	FF

# ■ BLOCK DIAGRAM



1 ■ PRINTED CIRCUIT BOARD

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



● Semiconductor Location

Ref. No.	Location
D108	G5
D115	H5
D116	H5
D117	G5
D118	G5
Q101	C3
Q102	C3
Q103	C3
Q104	C4
Q105	C4
Q106	D3
Q107	D3
Q108	E3
Q109	E3
Q110	E3
Q111	E3
Q112	E3
Q113	H4
Q114	H3
Q115	F4
Q116	F4
Q117	G5
Q118	G3
Q119	G3
Q120	G4
Q121	G4
Q122	E3
IC101	F5
IC102	F3
IC103	G4
IC104	G3

PRINTED CIRCUIT BOARD

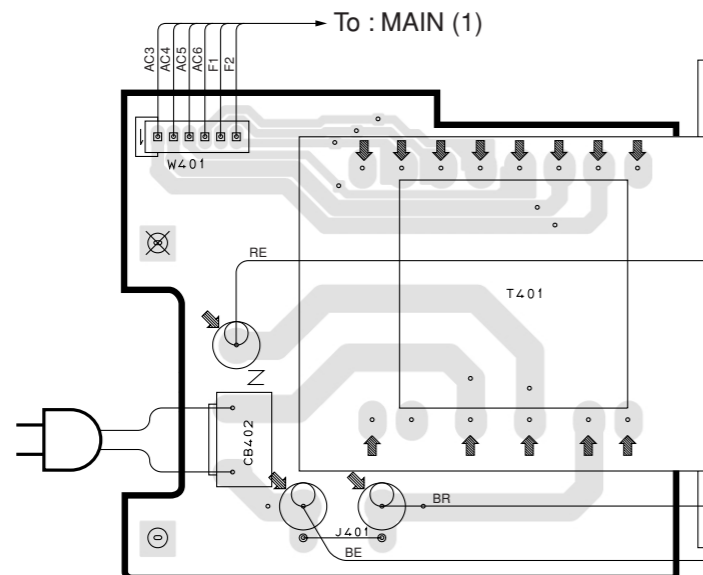
P.C.B. MAIN (1) (Surface Mount Devices)



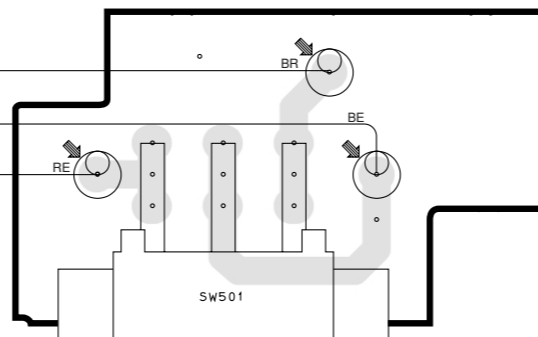
Semiconductor Location

Ref. No.	Location
D101	C2
D102	B3
D103	F4
D104	E3
D105	F3
D106	F3
D107	F4
D109	F2
D110	G3
D111	F4
D112	F3
D113	G4
D114	G4
D119	G2

P.C.B. MAIN (4) (Lead Type Devices)



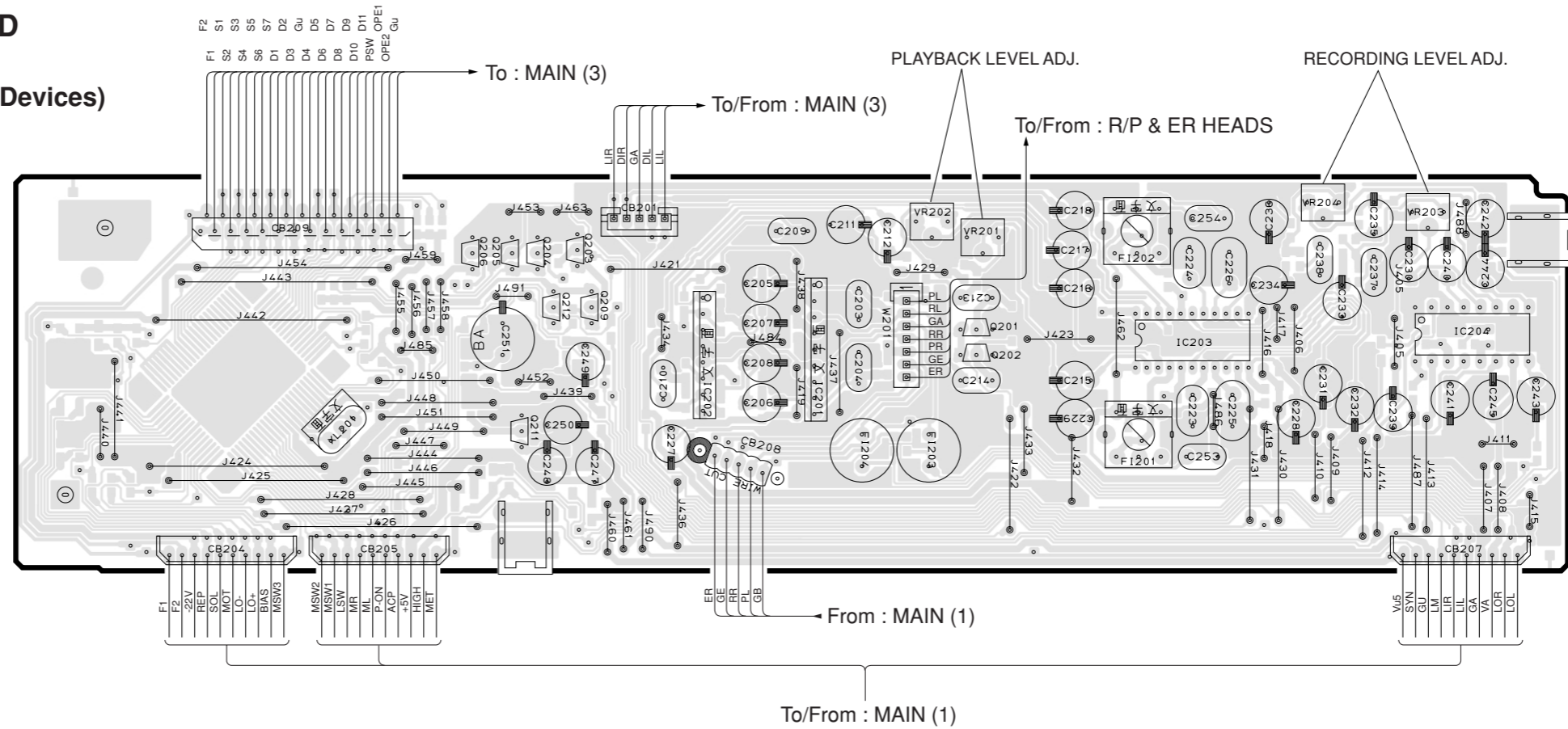
P.C.B. MAIN (5) (Lead Type Devices) R model only





1 ■ PRINTED CIRCUIT BOARD

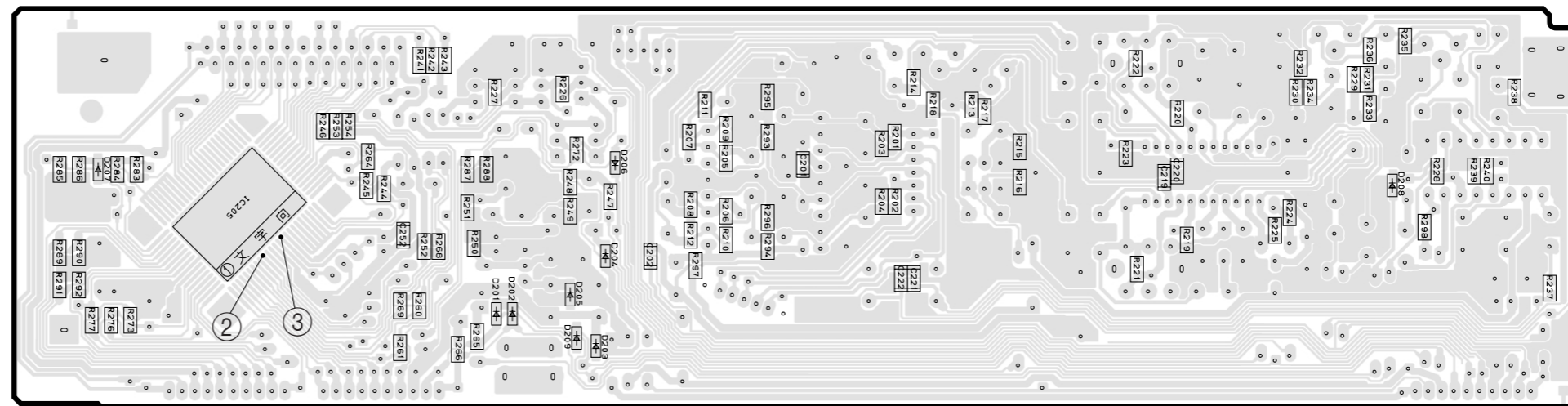
2 P.C.B. MAIN (2) (Lead Type Devices)



● Semiconductor Location

Ref. No.	Location
Q201	F2
Q202	F2
Q203	E2
Q204	D2
Q205	D2
Q206	D2
Q209	E2
Q211	D3
Q212	D2
IC201	F2
IC202	E2
IC203	G2
IC204	H2

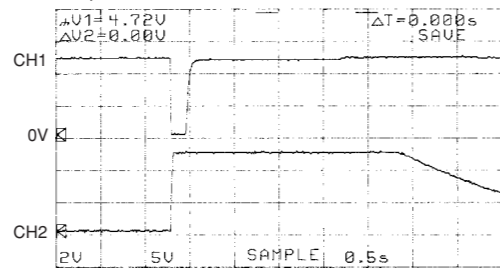
4 P.C.B. MAIN (2) (Surface Mount Devices)



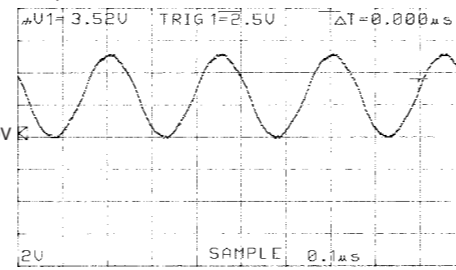
● Semiconductor Location

Ref. No.	Location
D201	D5
D202	D5
D203	E6
D204	E5
D205	E5
D206	E5
D207	C5
D208	H5
D209	E6
IC205	C5

Point ② (CH1 : Pin 10 of IC205, CH2 : OUT of IC103)  
 V : CH1=2V/div, CH2=5V/div  
 H : 0.5 sec/div  
 DC range  
 1 : 1 probe

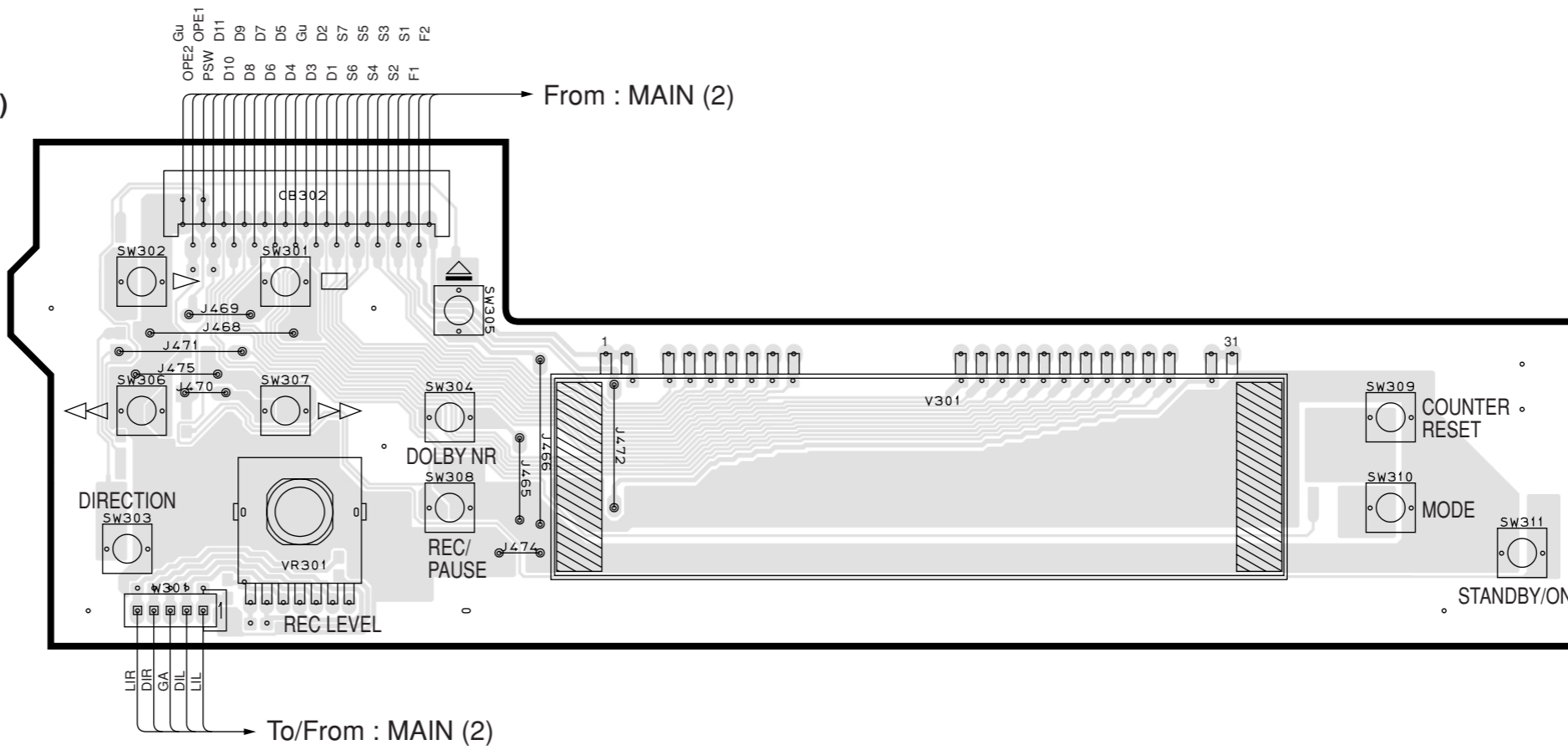


Point ③ (Pin 15 of IC205)  
 V : 2V/div  
 H : 0.1 sec/div  
 DC range  
 1 : 1 probe

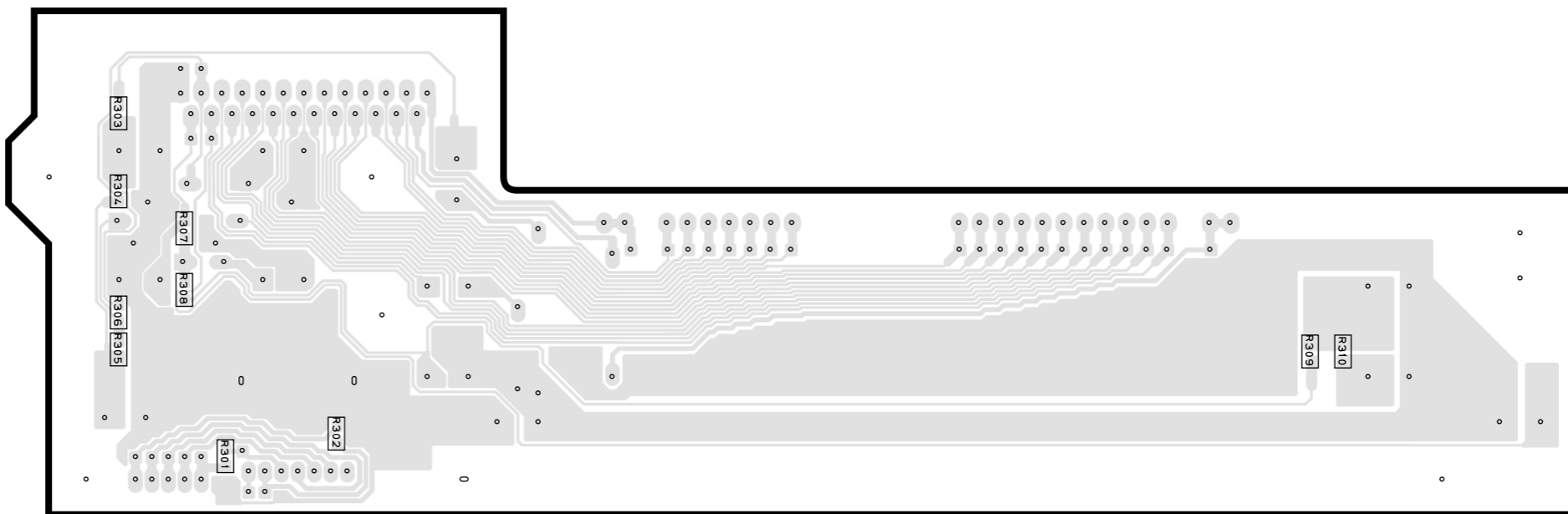


# PRINTED CIRCUIT BOARD

## P.C.B. MAIN (3) (Lead Type Devices)



## P.C.B. MAIN (3) (Surface Mount Devices)





SCHEMATIC DIAGRAM (総回路図)

RESISTOR

REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
△	CARBON FILM RESISTOR (P=10)
▲	METAL FILM RESISTOR
□	METAL FILM RESISTOR
◇	METAL PLATE RESISTOR
○	FIRE PROOF CARBON FILM RESISTOR
◎	CEMENT MOLDED RESISTOR
⊙	SEMI VARIABLE RESISTOR
⊚	CHIP RESISTOR

CAPACITOR

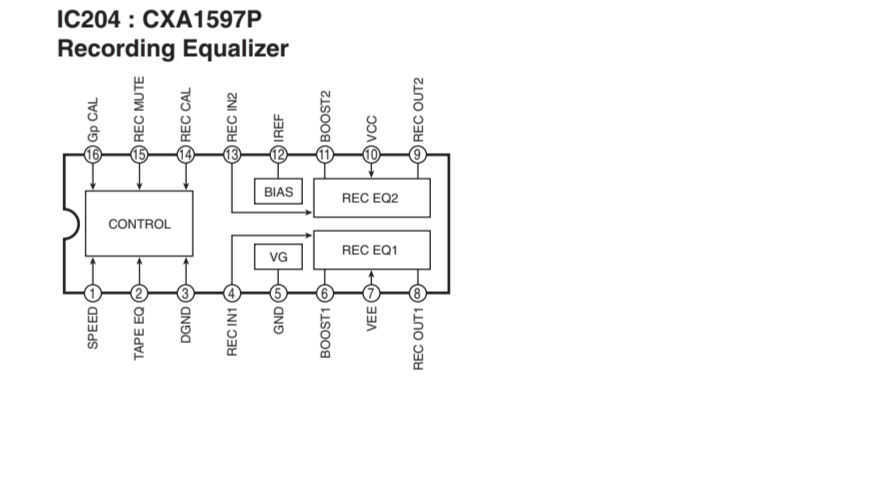
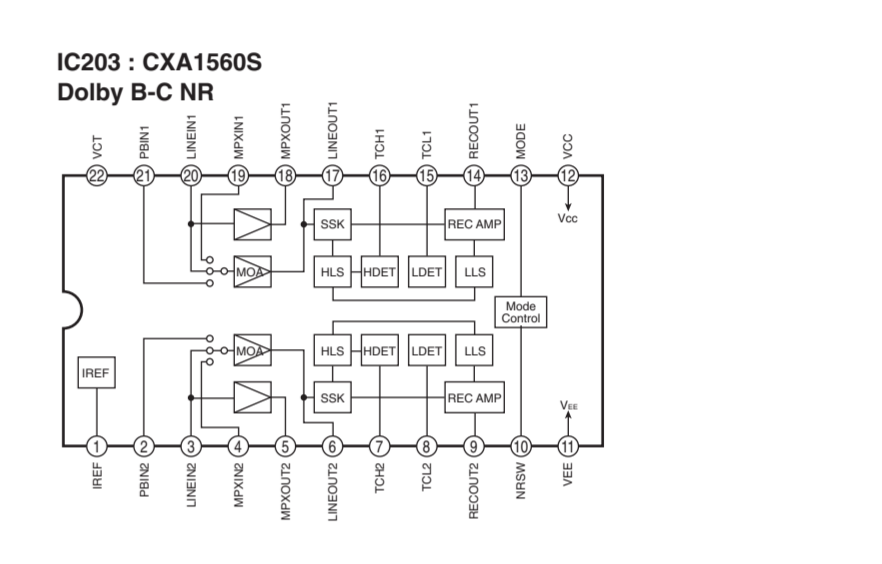
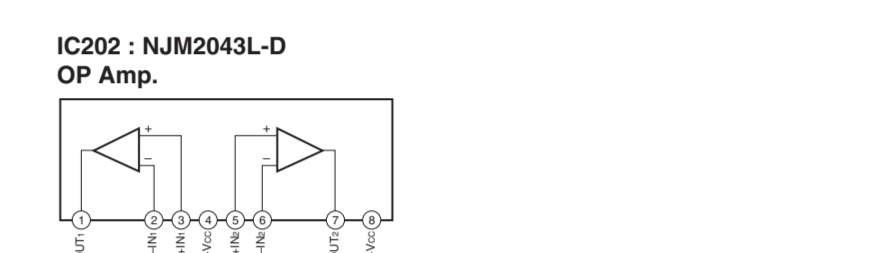
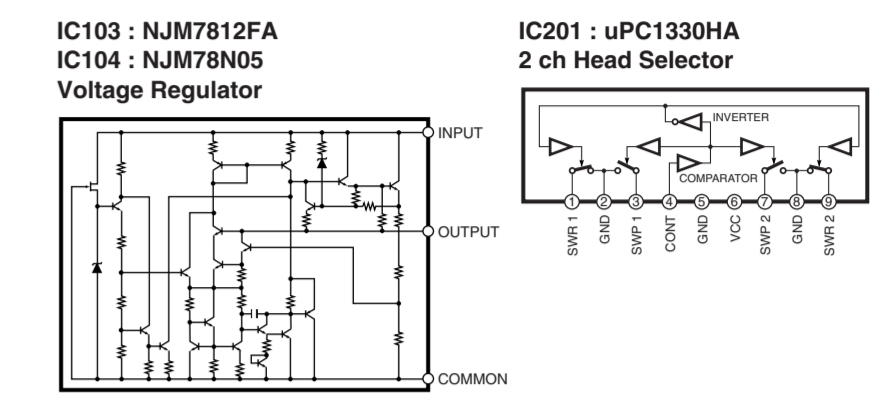
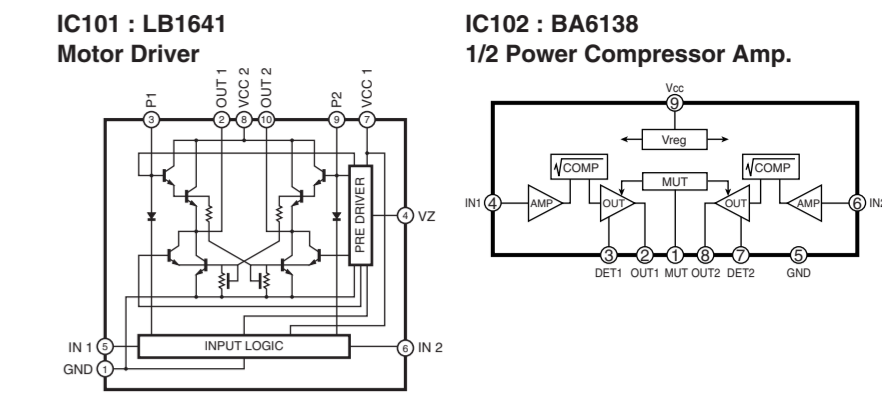
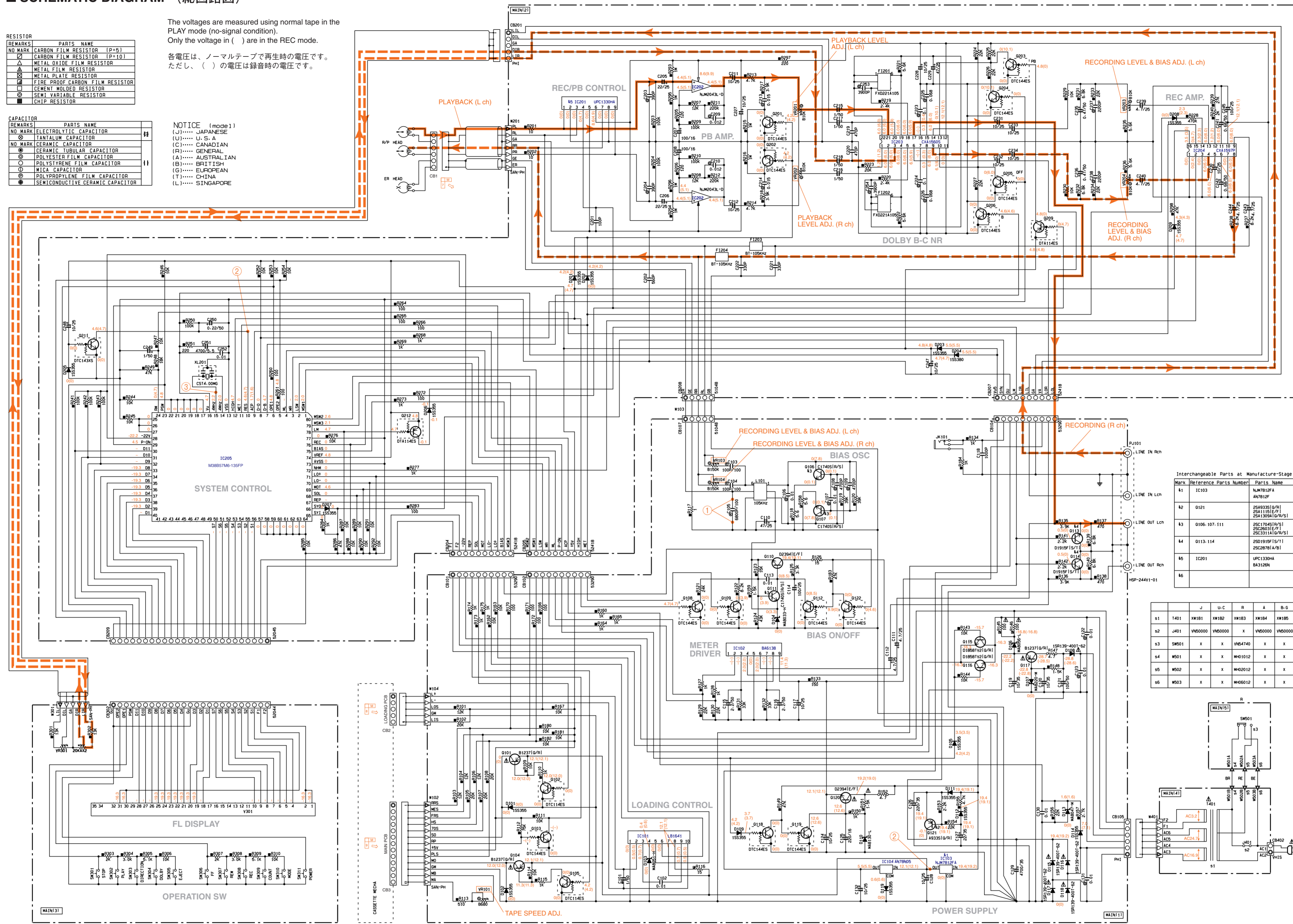
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
○	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
○	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
○	NICA CAPACITOR
○	POLYPROPYLENE FILM CAPACITOR
○	SEMICONDUCTIVE CERAMIC CAPACITOR

The voltages are measured using normal tape in the PLAY mode (no-signal condition). Only the voltage in ( ) are in the REC mode.

各電圧は、ノーマルテープで再生時の電圧です。ただし、( )の電圧は録音時の電圧です。

NOTICE (mode1)

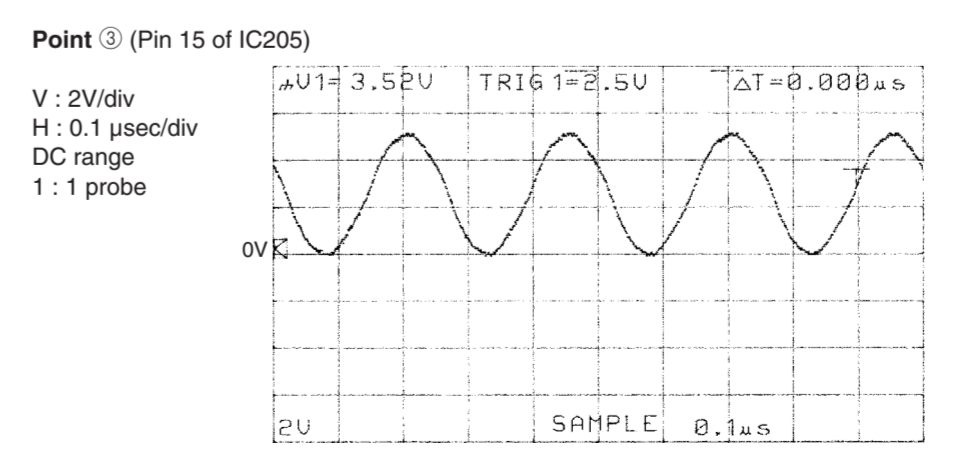
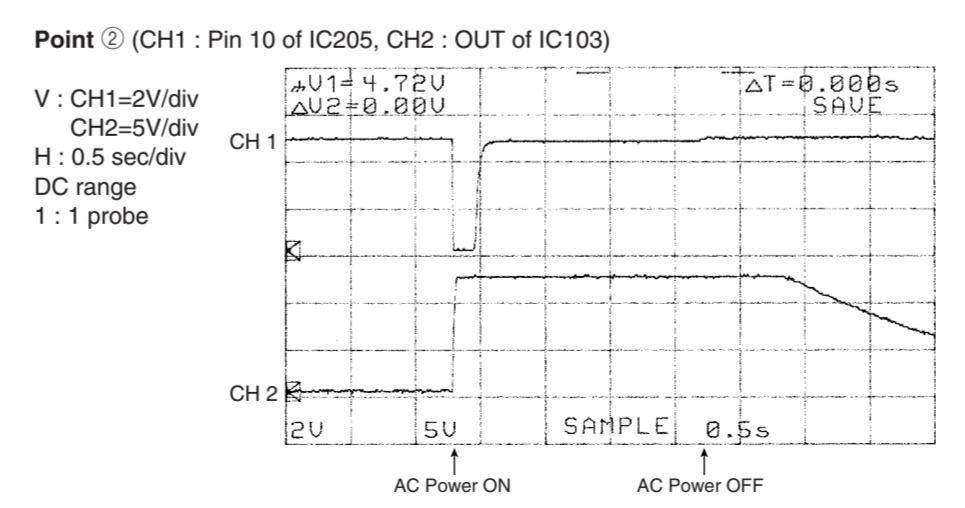
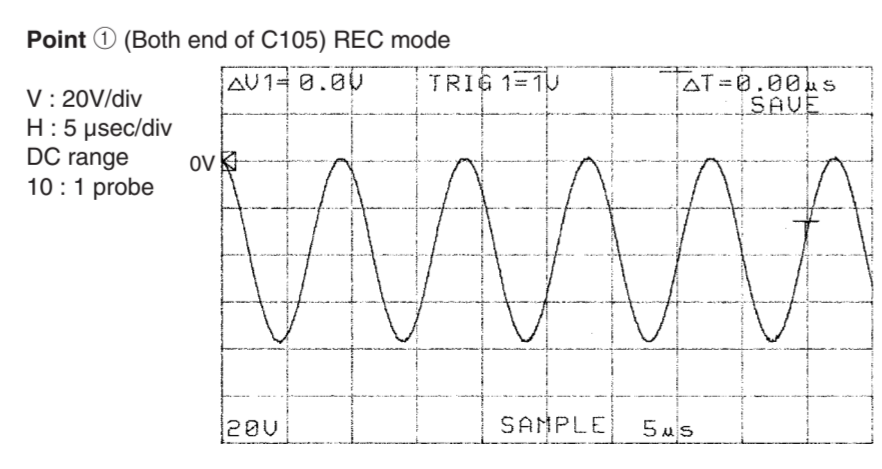
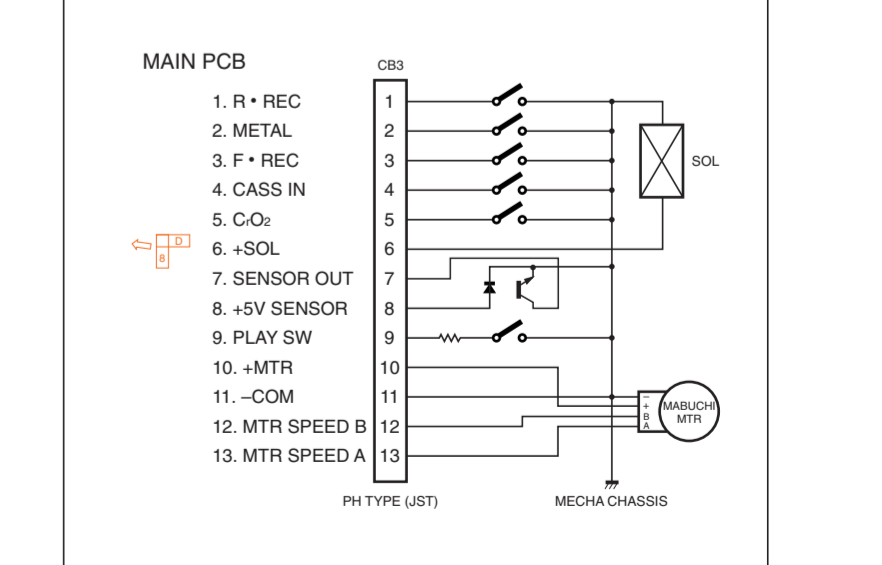
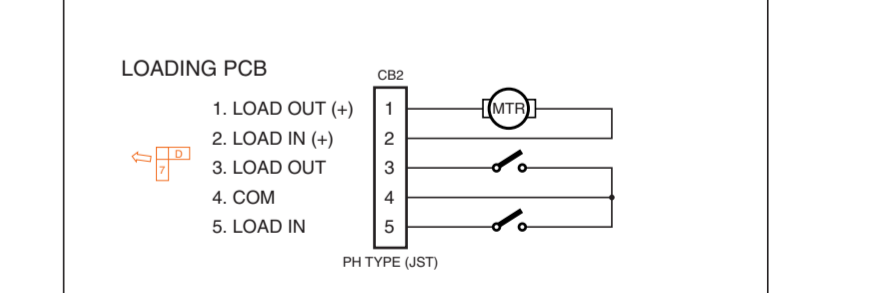
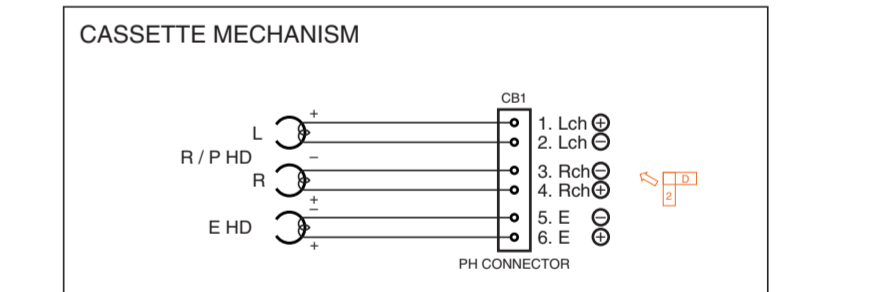
(J)..... JAPANESE  
(U)..... U.S.A  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE



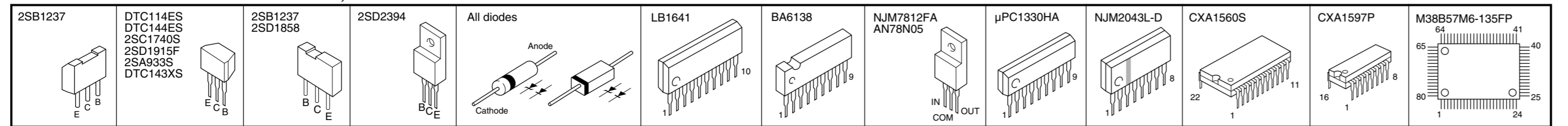
Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
41	IC103	NJ7812FA AN7812P
42	D121	2S49335 (D/R/S) 2S41110 (E/P) 2S41305A (D/R/S)
43	D106-107-111	2S21744E (D/R/S) 2S23114 (D/R/S)
44	D113-114	2S21919 (S/T) 2S28791 (A/S)
45	IC201	uPC1330HA BA3126A

	J	U-C	R	A	B-G
S1	T401	X	X	X	X
S2	J401	VN50000	X	VN50000	VN50000
S3	SW501	X	X	VN54740	X
S4	W501	X	X	WH01012	X
S5	W502	X	X	WH02012	X
S6	W503	X	X	WH06012	X



PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.



All voltage are measured with a 10M Ω 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.

●電圧は、内部抵抗10MΩの電圧計で測定したものです。  
●△印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。  
●本回路図は標準回路図です。改良のため予告なく変更することがございます。

# 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	: CHIPRESISTOR
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	: POWERTRANSFORMER 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-ENDTUNER 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	: SLIDEPOTENTIOMETER
L.DTCT	: LIGHT DETECTING MODULE	VR.TRIM	: TRIMMER POTENTIOMETER

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



**Note on the Main P.C.B. (Parts marked with "%")**

Of the main P.C.B. part Nos., only the silver (SI) type part Nos. are included in the table.

The only different part between the gold (GD) and silver (SI) type parts is the sheet/FL that is attached to the fluorescent character display tube. When a GD type main P.C.B. becomes necessary, order a SI type main P.C.B. and a GD type sheet/FL (VU988700) and replace the sheet/FL of the SI type main P.C.B. with the GD type sheet/FL.

Schm Ref.	PART NO.	Description
	V4228600	P.C.B.
	V4228700	P.C.B.
	V4228800	P.C.B.
	V4228900	P.C.B.
CB101	VQ963100	CN.BS.PIN
CB102	VQ963100	CN.BS.PIN
CB104	VQ963100	CN.BS.PIN
CB105	VB390200	CN.BS.PIN
CB107	VK024900	CN.BS.PIN
CB201	VB390100	CN.BS.PIN
CB204	VQ961300	CN.BS.PIN
CB205	VQ961300	CN.BS.PIN
CB207	VQ961300	CN.BS.PIN
CB208	Vi878300	CN.BS.PIN
CB209	VP082900	CN.BS.PIN
CB302	VQ045400	CN.BS.PIN
CB402	VG879900	CN.BS.PIN
C101	UN866100	C.EL 1uF 50V
C102	UB044100	C.CE.M.CHP 0.01uF 50V
C103	UT652100	C.PP 100pF 100V
C104	UT652100	C.PP 100pF 100V
C105	UT653680	C.PP 6800pF 100V
C106	UA954100	C.MYLAR 0.01uF 50V
C107	UA954100	C.MYLAR 0.01uF 50V
C108	UA953470	C.MYLAR 4700pF 50V
C109	UA953470	C.MYLAR 4700pF 50V
C110	UR847470	C.EL 47uF 25V
C111	UR846470	C.EL 4.7uF 25V
C112	UR846470	C.EL 4.7uF 25V
C113	UB044100	C.CE.M.CHP 0.01uF 50V
C114	UR848100	C.EL 100uF 25V
C115	UR866220	C.EL 2.2uF 50V
C116	UR866220	C.EL 2.2uF 50V
C117	UR847100	C.EL 10uF 25V
C118	UB013100	C.CE.M.CHP 1000pF 50V
C119	UR857100	C.EL 10uF 35V
C120	UR857100	C.EL 10uF 35V
C121	UR868100	C.EL 100uF 50V
C122	UA954100	C.MYLAR 0.01uF 50V
C123	UA954100	C.MYLAR 0.01uF 50V
C124	UR847100	C.EL 10uF 25V
C125	UR838220	C.EL 220uF 16V
C126	UR858220	C.EL 220uF 35V
C127	UR857220	C.EL 22uF 35V
C128	UR847100	C.EL 10uF 25V
C129	UR759470	C.EL 4700uF 35V
C130	UB044100	C.CE.M.CHP 0.01uF 50V
C131	UA954100	C.MYLAR 0.01uF 50V
C132	UR847100	C.EL 10uF 25V
C201	UB052100	C.CE.M.CHP 100pF 50V
C202	UB012560	C.CE.M.CHP 560pF 50V
C203	UA952390	C.MYLAR 390pF 50V
C204	UA952390	C.MYLAR 390pF 50V
C205	UR847220	C.EL 22uF 25V
C206	UR847220	C.EL 22uF 25V
C207	UR838100	C.EL 100uF 16V
C208	UR838100	C.EL 100uF 16V
C209	UA954120	C.MYLAR 0.012uF 50V
C210	UA954120	C.MYLAR 0.012uF 50V
C211	UR847100	C.EL 10uF 25V
C212	UR847100	C.EL 10uF 25V
C213	UA954150	C.MYLAR 0.015uF 50V
C214	UA954150	C.MYLAR 0.015uF 50V

Schm Ref.	PART NO.	Description
C215	UR866100	C.EL 1uF 50V
C216	UR866100	C.EL 1uF 50V
C217	UR866100	C.EL 1uF 50V
C218	UR866100	C.EL 1uF 50V
C219	UB012470	C.CE.M.CHP 470pF 50V
C220	UB012470	C.CE.M.CHP 470pF 50V
C221	UB012330	C.CE.M.CHP 330pF 50V
C222	UB012330	C.CE.M.CHP 330pF 50V
C223	UA655100	C.MYLAR 0.1uF 50V
C224	UA655100	C.MYLAR 0.1uF 50V
C225	UA954680	C.MYLAR 0.068uF 50V
C226	UA954680	C.MYLAR 0.068uF 50V
C227	UR847100	C.EL 10uF 25V
C228	UR847100	C.EL 10uF 25V
C229	UR847470	C.EL 47uF 25V
C230	UR847100	C.EL 10uF 25V
C231	UR847100	C.EL 10uF 25V
C232	UR847100	C.EL 10uF 25V
C233	UR847100	C.EL 10uF 25V
C234	UR847100	C.EL 10uF 25V
C235	UR865470	C.EL 0.47uF 50V
C236	UR865470	C.EL 0.47uF 50V
C237	UA953220	C.MYLAR 2200pF 50V
C238	UA953220	C.MYLAR 2200pF 50V
C239	UR846470	C.EL 4.7uF 25V
C240	UR846470	C.EL 4.7uF 25V
C241	UR865680	C.EL 0.68uF 50V
C242	UR865680	C.EL 0.68uF 50V
C243	UR846470	C.EL 4.7uF 25V
C244	UR846470	C.EL 4.7uF 25V
C245	UR848100	C.EL 100uF 25V
C247	UR847100	C.EL 10uF 25V
C248	UR847100	C.EL 10uF 25V
C249	UR866100	C.EL 1uF 50V
C250	UR865220	C.EL 0.22uF 50V
C251	VF992600	C.EL 4700uF 5.5V
C252	UB044100	C.CE.M.CHP 0.01uF 50V
C253	UA953390	C.MYLAR 3900pF 50V
C254	UA953390	C.MYLAR 3900pF 50V
D101	VT332900	DIODE 1SS355
D102	VT332900	DIODE 1SS355
D103	VU992700	DIODE.ZENR MA8051-H 5.3V
D104	VU990900	DIODE.ZENR MA8033-H 3.4V
D105	VT332900	DIODE 1SS355
D106	VU992900	DIODE.ZENR MA8056-L 5.4V
D107	VU998700	DIODE.ZENR MA8220-M 22V
D108	VU264200	DIODE 1SR139-400
D109	VT332900	DIODE 1SS355
D110	VU996500	DIODE.ZENR MA8130-L 12.7V
D111	VT332900	DIODE 1SS355
D112	VT332900	DIODE 1SS355
D113	VU992200	DIODE.ZENR MA8047-M 4.7V
D114	VT332900	DIODE 1SS355
D115	VU264200	DIODE 1SR139-400
D116	VU264200	DIODE 1SR139-400
D117	VU264200	DIODE 1SR139-400
D118	VU264200	DIODE 1SR139-400
D119	VT332900	DIODE 1SS355
D201	VT332900	DIODE 1SS355
D202	VT332900	DIODE 1SS355
D203	VT332900	DIODE 1SS355
D204	VV833200	DIODE 1SS380
D205	VT332900	DIODE 1SS355

\* New Parts

\* New Parts

Schm Ref.	PART NO.	Description	
D206	VT332900	DIODE	1SS355
D207	VT332900	DIODE	1SS355
D208	VT332900	DIODE	1SS355
D209	VT332900	DIODE	1SS355
* Fi201	V3733300	FLTR.LC.MP	FXD221A105 23KHz
* Fi202	V3733300	FLTR.LC.MP	FXD221A105 23KHz
Fi203	GE900780	COIL.BIAS	105KHz
Fi204	GE900780	COIL.BIAS	105KHz
HS101	VR506800	HEAT.SINK	PUH16-25
HS102	Vi835500	HEAT.SINK	PH-0124S-B
IC101	XF494A00	IC	LB1641
* IC102	iG074900	IC	BA6138
IC103	XJ608A00	IC	NJM7812FA
IC104	XA507A00	IC	AN78N05
IC201	XD864A00	IC	uPC1330HA
* IC202	XR618A00	IC	NJM2043L-D OP AMP
* IC203	XV904A00	IC	CXA1560S
* IC204	XV905A00	IC	CXA1597P
IC205	XW379A00	IC.CPU	M38B57M6-135FP CPU
JK101	VJ726800	JACK.MNI	
* L101	V3733200	COIL.BIAS	BIAS OSC
PJ101	VT029100	JACK.PIN	4P
⚠ Q101	VE613300	TR	2SB1237 Q,R
Q102	VD678700	TR.DGT	DTC114ES
Q103	VG722000	TR.DGT	DTC144ES
⚠ Q104	VE613300	TR	2SB1237 Q,R
Q105	VD678700	TR.DGT	DTC114ES
Q106	iC174020	TR	2SC1740S R,S
Q107	iC174020	TR	2SC1740S R,S
Q108	VG722000	TR.DGT	DTC144ES
Q109	VG722000	TR.DGT	DTC144ES
Q110	VS883400	TR	2SD2394 E,F
Q111	iC174020	TR	2SC1740S R,S
Q112	VG722000	TR.DGT	DTC144ES
Q113	VK432900	TR	2SD1915F S,T
Q114	VK432900	TR	2SD1915F S,T
Q115	VE613400	TR	2SD1858 Q,R
Q116	VE613400	TR	2SD1858 Q,R
⚠ Q117	VE613300	TR	2SB1237 Q,R
Q118	VG722000	TR.DGT	DTC144ES
Q119	VG722000	TR.DGT	DTC144ES
⚠ Q120	VS883400	TR	2SD2394 E,F
Q121	iA093320	TR	2SA933S Q,R
Q122	VG722000	TR.DGT	DTC144ES
Q201	VG722000	TR.DGT	DTC144ES
Q202	VG722000	TR.DGT	DTC144ES
Q203	VG722000	TR.DGT	DTC144ES
Q204	VG722000	TR.DGT	DTC144ES
Q205	VG722000	TR.DGT	DTC144ES
Q206	VG722000	TR.DGT	DTC144ES
Q209	VD678500	TR.DGT	DTA114ES
Q211	VD488500	TR.DGT	DTC143XS
Q212	VD678500	TR.DGT	DTA114ES
* R116	HV754150	R.CAR.FP	15 1/4W
R118	HV753560	R.CAR.FP	5.6 1/4W
R125	HV756330	R.CAR.FP	3.3K 1/4W
⚠ R126	VK186800	R.FUS	15 1/4W
⚠ R145	HV755100	R.CAR.FP	100 1/4W
⚠ R146	HV755100	R.CAR.FP	100 1/4W
* ⚠ R147	VE009700	R.FUS	4.7 1/4W
R150	HV756100	R.CAR.FP	1K 1/4W
R151	HV756150	R.CAR.FP	1.5K 1/4W
* ⚠ R152	VE009700	R.FUS	4.7 1/4W

\* New Parts

Schm Ref.	PART NO.	Description		
R158	HV753560	R.CAR.FP	5.6	1/4W
SW301	VG392900	SW.TACT	SKHVAA	
SW302	VG392900	SW.TACT	SKHVAA	
SW303	VG392900	SW.TACT	SKHVAA	
SW304	VG392900	SW.TACT	SKHVAA	
SW305	VG392900	SW.TACT	SKHVAA	
SW306	VG392900	SW.TACT	SKHVAA	
SW307	VG392900	SW.TACT	SKHVAA	
SW308	VG392900	SW.TACT	SKHVAA	
SW309	VG392900	SW.TACT	SKHVAA	
SW310	VG392900	SW.TACT	SKHVAA	
SW311	VG392900	SW.TACT	SKHVAA	
* SW501	VN547400	SW.SLIDE	SDKGA4380B(R)	
* ⚠ T401	XW182A00	TRANS.PWR	(UC)	
* ⚠ T401	XW183A00	TRANS.PWR	(R)	
* ⚠ T401	XW184A00	TRANS.PWR	(A)	
* ⚠ T401	XW185A00	TRANS.PWR	(BG)	
* V301	V3586900	FL.DSPLY	BJ707GNK	
VR101	VJ692900	VR.TRIM	B680	
VR103	VJ694300	VR.TRIM	B150K	
VR104	VJ694300	VR.TRIM	B150K	
* VR201	V4117800	VR.TRIM	B10K	
* VR202	V4117800	VR.TRIM	B10K	
* VR203	V4117800	VR.TRIM	B10K	
* VR204	V4117800	VR.TRIM	B10K	
* VR301	V3800800	VR	A20K	
* XL201	VE906000	RSNR.CE	4MHz	
* V3750100		PIN	L=50	
* V3750200		PIN	L=70	
* BB071360		SCR.TERM	8.3x13	
* V3688600		SHEET.FL	SI	
* VU988700		SHEET.FL	GD	
* V2669700		SPACER		
* EP600530		SCR.BND.HD	3x8	ZMC2-BL
	RD253100	R.CAR.CHP	1	1/10W
	RD254100	R.CAR.CHP	10	1/10W
	RD255100	R.CAR.CHP	100	1/10W
	RD255120	R.CAR.CHP	120	1/10W
	RD255150	R.CAR.CHP	150	1/10W
	RD255220	R.CAR.CHP	220	1/10W
	RD255470	R.CAR.CHP	470	1/10W
	RD255510	R.CAR.CHP	510	1/10W
	RD256100	R.CAR.CHP	1K	1/10W
	RD256150	R.CAR.CHP	1.5K	1/10W
	RD256200	R.CAR.CHP	2K	1/10W
	RD256220	R.CAR.CHP	2.2K	1/10W
	RD256240	R.CAR.CHP	2.4K	1/10W
	RD256270	R.CAR.CHP	2.7K	1/10W
	RD256300	R.CAR.CHP	3K	1/10W
	RD256390	R.CAR.CHP	3.9K	1/10W
	RD256470	R.CAR.CHP	4.7K	1/10W
	RD256510	R.CAR.CHP	5.1K	1/10W
	RD256560	R.CAR.CHP	5.6K	1/10W
	RD256680	R.CAR.CHP	6.8K	1/10W
	RD256820	R.CAR.CHP	8.2K	1/10W
	RD257100	R.CAR.CHP	10K	1/10W
	RD257120	R.CAR.CHP	12K	1/10W
	RD257130	R.CAR.CHP	13K	1/10W
	RD257150	R.CAR.CHP	15K	1/10W
	RD257180	R.CAR.CHP	18K	1/10W

\* New Parts

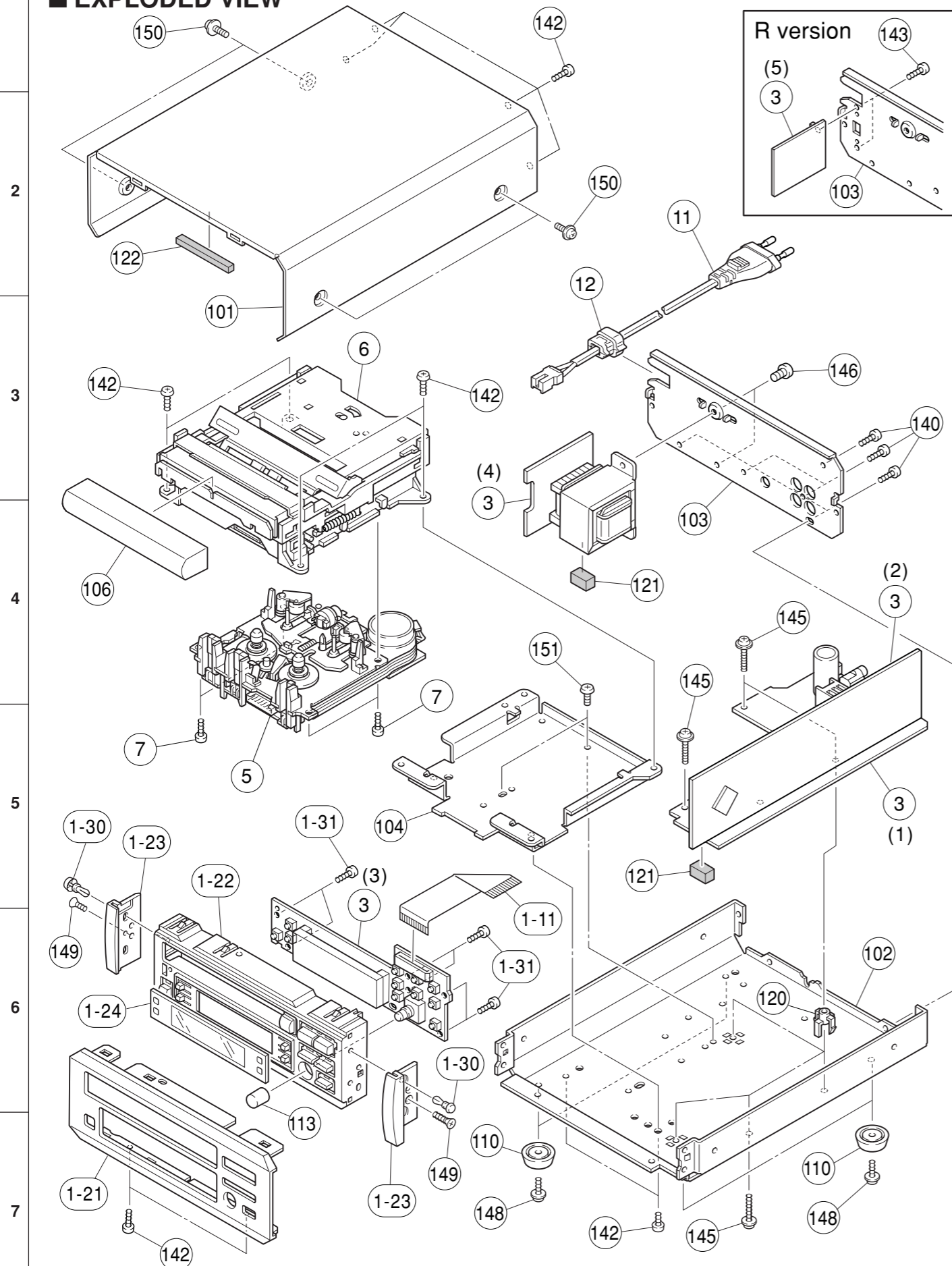
Schm Ref.	PART NO.	Description		
	RD257200	R.CAR.CHP	20K	1/10W
	RD257220	R.CAR.CHP	22K	1/10W
	RD257240	R.CAR.CHP	24K	1/10W
	RD257270	R.CAR.CHP	27K	1/10W
	RD257330	R.CAR.CHP	33K	1/10W
	RD257390	R.CAR.CHP	39K	1/10W
	RD257430	R.CAR.CHP	43K	1/10W
	RD257470	R.CAR.CHP	47K	1/10W
	RD257750	R.CAR.CHP	75K	1/10W
	RD258100	R.CAR.CHP	100K	1/10W
	RD258220	R.CAR.CHP	220K	1/10W
	RD258470	R.CAR.CHP	470K	1/10W
	RD259100	R.CAR.CHP	1M	1/10W

\* New Parts

Schm Ref.	PART NO.	Description		
-----------	----------	-------------	--	--

\* New Parts

**EXPLODED VIEW**



**MECHANICAL PARTS**

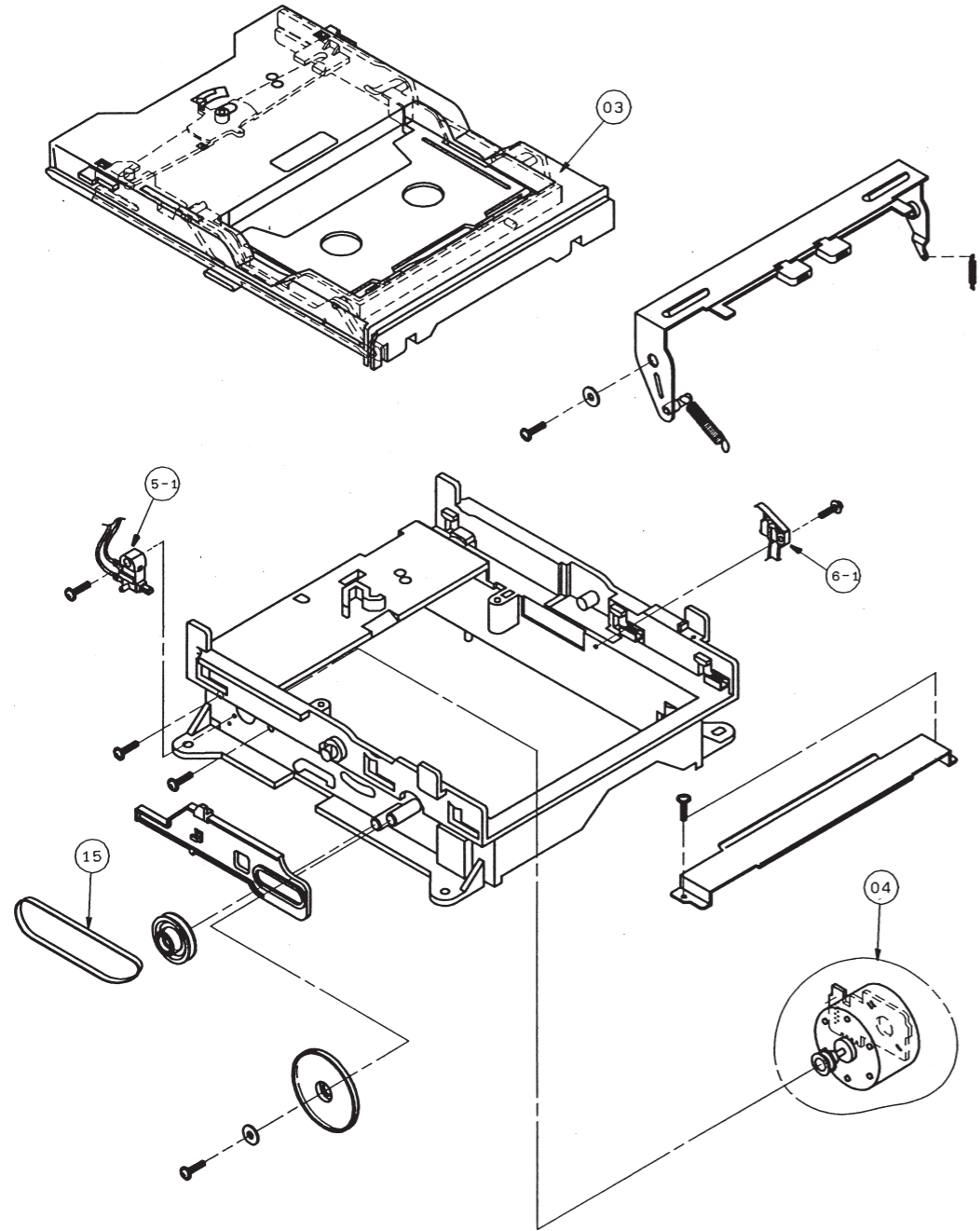
**Note on the Main P.C.B. (Parts marked with "%")**  
 Of the main P.C.B. part Nos., only the silver (SI) type part Nos. are included in the table.  
 The only different part between the gold (GD) and silver (SI) type parts is the sheet/FL that is attached to the fluorescent character display tube. When a GD type main P.C.B. becomes necessary, order a SI type main P.C.B. and a GD type sheet/FL (VU988700) and replace the sheet/FL of the SI type main P.C.B. with the GD type sheet/FL.

Ref. No.	PART NO.	Description	Remarks	Markets
* 1-11	MF225100	S FLEXIBLE FLAT CABLE	25P 100mm	
* 1-21	V3686200	FRONT PANEL		SI
* 1-21	V3810300	FRONT PANEL		GD
* 1-22	V3687100	SUB PANEL-KX		SI
* 1-22	V3810800	SUB PANEL-KX		GD
* 1-23	V3687500	PANEL, SIDE-H61		
* 1-24	V3688200	SHEET, WINDOW-KX		
1-30	VQ368600	PUSH RIVET	P3555-B	
1-31	VF617600	PAN HEAD P-TITE SCREW	2.6x8 FCRM3-BL	
% 3	V4228600	P.C.B. ASS'Y	SI:MAIN	SI (UC)
% 3	V4228700	P.C.B. ASS'Y	SI:MAIN	SI (R)
% 3	V4228800	P.C.B. ASS'Y	SI:MAIN	SI (A)
% 3	V4228900	P.C.B. ASS'Y	SI:MAIN	SI (BG)
* 5	AAX07650	CASSETTE DECK MECH. UINT		F511638
* 6	AAX07660	LOADING UNIT		F511630
7	EP600290	SCREW	3x6	
⚠ 11	V2296800	POWER CORD ASS'Y		(A)
⚠ 11	V2363800	POWER CORD ASS'Y		(UC)
⚠ 11	VN363700	POWER CORD ASS'Y		(G)
⚠ 11	VV437300	POWER CORD ASS'Y		(B)
⚠ 11	VZ542500	POWER CORD ASS'Y		(R)
12	V2438700	CORD STOPPER	'10P1	
* 101	V3681800	TOP COVER		SI
* 101	V3809300	TOP COVER		GD
* 102	V3684500	CHASSIS		
* 103	V3683900	REAR PANEL		(UC)
* 103	V3684000	REAR PANEL		(R)
* 103	V3684100	REAR PANEL		(A)
* 103	V3684200	REAR PANEL		(BG)
* 104	V3684800	FRAME, MECH-KX		
* 106	V3687300	LID, KX		SI
* 106	V3811000	LID, KX		GD
* 110	V3688500	LEG	M0080-M0	
* 113	V3687800	KNOB	D10	SI
* 113	V3811300	KNOB	D10	GD
120	VR264400	SPACER	H8	
121	VQ390100	DAMPER	8x8x15	
122	VP857700	DAMPER	4x6x5	
123	VS936800	DAMPER	3x5x10	
140	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2-BL	
142	EP600830	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
143	VF617600	PAN HEAD P-TITE SCREW	2.6x8 FCRM3-BL	(R)
145	VT669400	PW HEAD B-TITE SCREW	3x15-8 MFC2	
146	V2728500	BIND HEAD S-TITE SCREW	4x7 MFZN2-BL	
148	EL300650	PW HEAD B-TITE SCREW	3x8-8 FCRM3-BL	
149	EP600790	FLAT HEAD B-TITE SCREW	3x8 MFZN2-BL	
* 150	VY712800	PW HEAD B-TITE SCREW	3x8-8 MFNI33	
151	EP630210	BIND HEAD S-TITE SCREW	3x6 ZMC2-BL	GD
%	VU988700	SHEET, FL		
* V4135300		ACCESSORIES SYSTEM CORD	1P 1.0m	
* VY952200		PIN-PLUG CORD	2P 1.0m	

\* New Parts



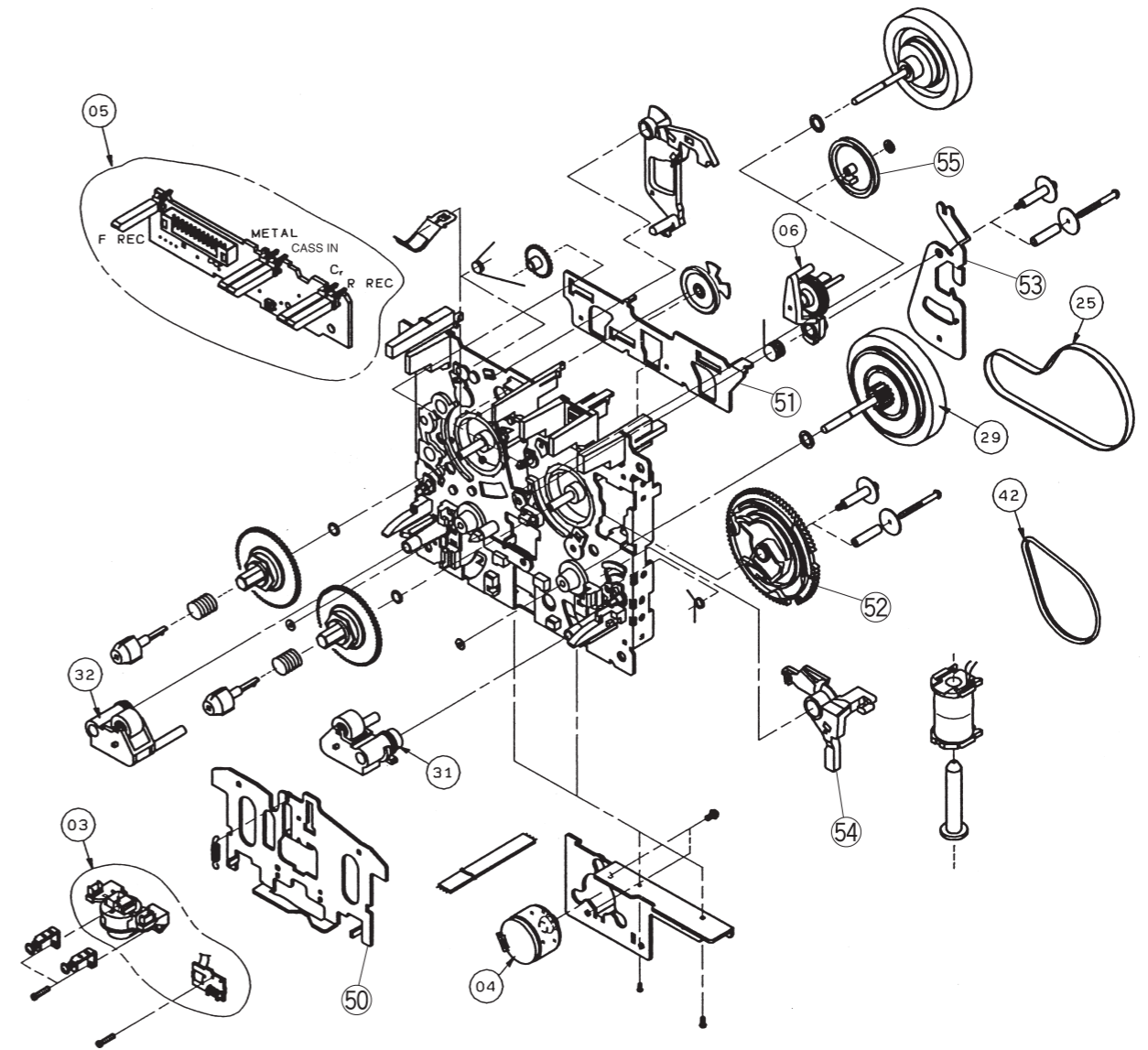
■ EXPLODED VIEW (Loading Mechanism)



Ref. No.	PART NO.	Description	Remarks	Markets
*	AAX07660	LOADING UNIT	F511630	
*	3	AAX07480	HOLDER CST BLOCK	F527078
*	4	AAX07460	MTR REEL BLOCK	F564313
*	5-1	AAX07510	SWITCH	UE15S14
*	6-1	AAX07520	SWITCH	UE18P21
*	15	AAX07580	BELT	FF19L12
	200	EP600290	SCREW	3x6

\* New Parts

■ EXPLODED VIEW (Cassette Deck Mechanism)



Ref. No.	PART NO.	Description	Remarks	Markets	
*	AAX07650	CASSETTE DECK MECH. UINT	F511638		
*	3	AAX07550	PLATE HD BLOCK	F513831	
*	4	AAX07450	MTR MAIN BLOCK	F525327	
*	5	AAX07470	PCB CONTROL BLOCK	F567626	
*	6	AAX07490	CLUTCH ASS'Y BLOCK	F522037	
*	25	AAX07570	BELT	MAIN	FF19H11
*	29	AAX07500	CLUTCH ASS'Y BLOCK	F522048	
*	31	AAX07530	ROLLER PINCH BLOCK	R	F514129
*	32	AAX07540	ROLLER PINCH BLOCK	L	F514130
*	42	AAX07560	BELT	F/R	FF18W12
	50	AX623570	HEAD BASE		FC61K28
	51	AX622210	PLATE, SLIDE		FC61L17
	52	CX677140	CAM, GEAR		FD52Y20
	53	CX677130	LEVER	F/R	FC62G12
	54	AX623590	LOCK LEVER		FD53D19
	55	CX679800	PULLEY, CLUTCH		FD53F14

\* 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 →

**1/6W Type**

HF85 ○○○○  
← 5mm →

\* : Not available

# KX-E100

---

