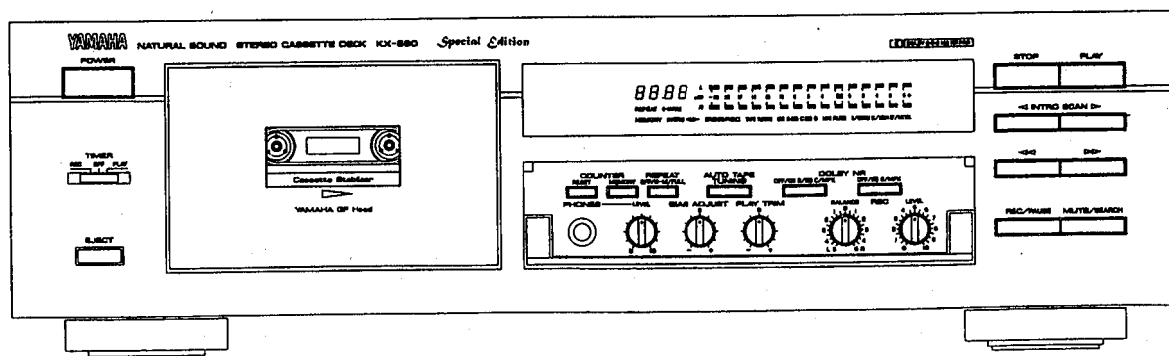


# STEREO CASSETTE DECK

# KX-580

*Special Edition*

## 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.

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## ■ TO SERVICE PERSONNEL

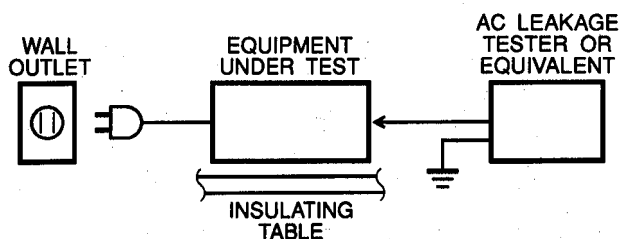
### 1. Critical Components information.

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

### 2. 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 0.15 $\mu$ F.
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



Dolby noise reduction and HX PRO headroom extension manufactured under license from Dolby Laboratories Licensing Corporation.

HX PRO originated by Bang and Olufsen.

"DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

## 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.

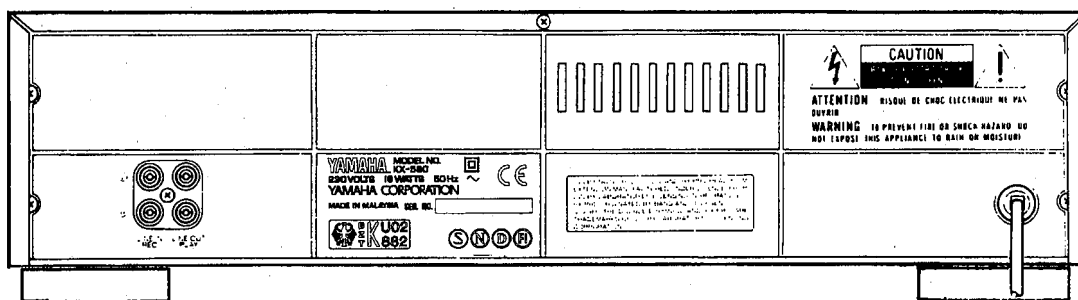
**DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!**

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

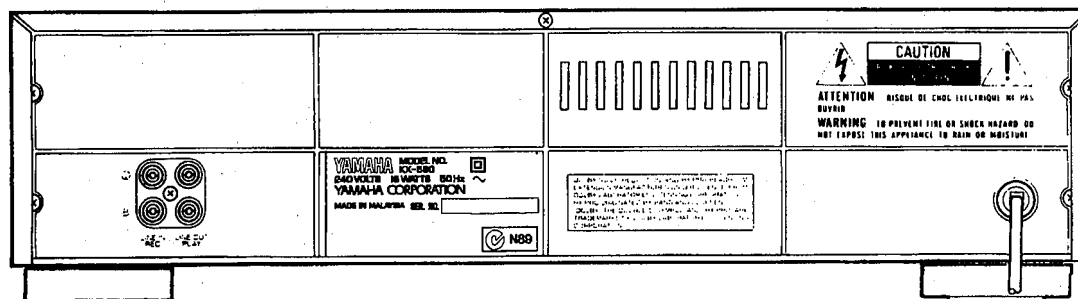
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## ■ REAR PANELS

### ▼ British & European models



### ▼ Australian model



## SPECIFICATIONS

<b>Type</b>	
4-Track 2-Channel recording and playback Stereo Cassette Deck	
<b>Heads</b>	
REC/PB	GF Head (Hard permalloy)
Erase	Double Gap Ferrite
<b>Motors</b>	
Capstan	DC servo motor
Reel	Flat torque DC motor
<b>Wow &amp; Flutter</b>	
W.PEAK	±0.08%
W.RMS	0.05%
<b>Fast Winding Time</b>	
90 seconds (C-60 tape)	
<b>Frequency Response (-20dB)</b>	
Normal tape (Type I)	20-17000Hz±3dB
High tape (Type II)	20-18000Hz±3dB
Metal tape (Type IV)	20-20000Hz±3dB
<b>S/N Ratio</b>	
NR off	60dB
Dolby B NR on	68dB
Dolby C NR on	76dB
Dolby S NR on	80dB
<b>Harmonic distortion</b>	
0.8%	
<b>Channel Separation(1kHz)</b>	
40dB	
<b>Crosstalk(125Hz)</b>	
55dB	
<b>Input Sensitivity/Impedance (0dB)</b>	
Line	100mV/50kΩ
<b>Output Level (0dB)</b>	
Line	570mV/1kΩ
Headphones	1.5mW/8Ω
<b>Power Supply</b>	
B,G models	AC230V, 50Hz
A model	AC240V, 50Hz

<b>Power Consumption</b>	16W
<b>Dimensions (W x H x D)</b>	435 x 126 x 277mm (17-1/8" x 4-15/16" x 10-29/32")
<b>Weight</b>	4.6kg(10lbs. 2oz)
<b>Accessories</b>	Input, output cords (RCA type)

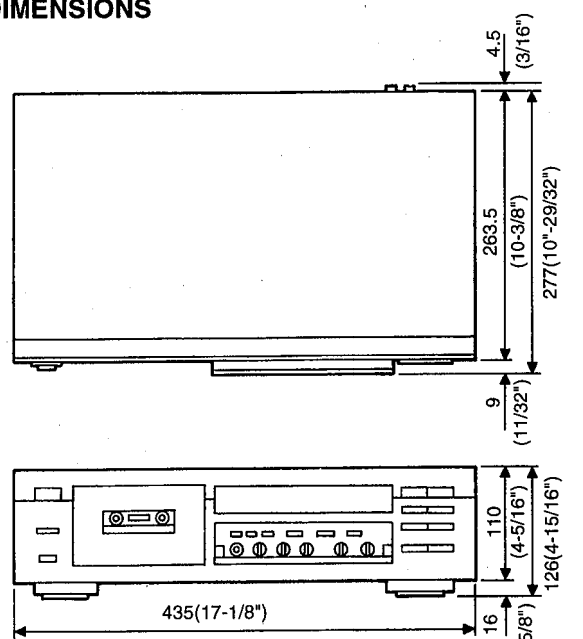
\* Specifications are subject to change without notice.

A..... Australian model

B..... British model

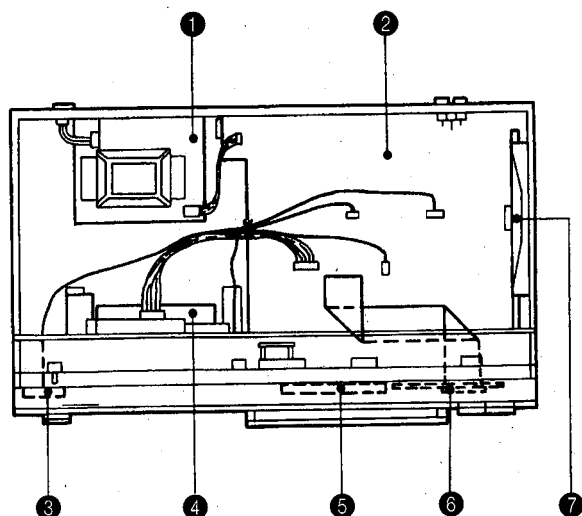
G ..... European model

## DIMENSIONS



Unit: mm (inch)

## INTERNAL VIEW



- ① MAIN P.C.B. ASS'Y(5)
- ② MAIN P.C.B. ASS'Y(1)
- ③ MAIN P.C.B. ASS'Y(4)
- ④ CASSETTE MECHANISM UNIT
- ⑤ MAIN P.C.B. ASS'Y(3)
- ⑥ MAIN P.C.B. ASS'Y(2)
- ⑦ DOLBY S P.C.B. ASS'Y

## ■ DISASSEMBLY PROCEDURES

(Remove parts in disassembly order as numbered.)

### 1. Removal of Top Cover

Remove 5 screws (①,②) in Fig. 1.

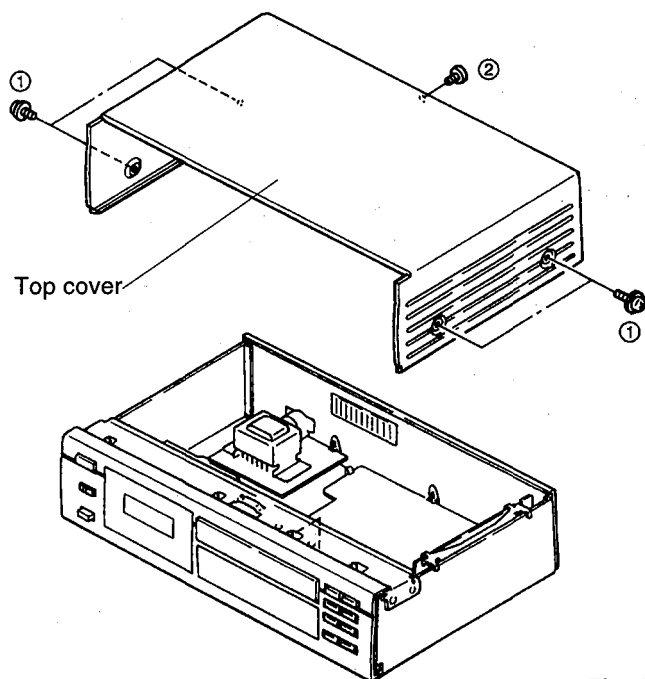


Fig. 1

### 3. Removal of Cassette Mechanism Unit

a. Remove 4 screws (④) in Fig. 3

b. Remove the Cassette Mechanism Unit after sliding it toward the back.

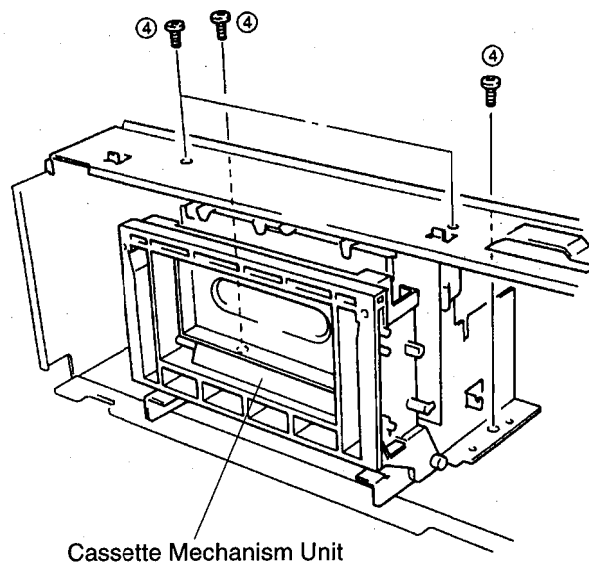


Fig. 3

### 2. Removal of Front Panel

a. Remove 6 screws (③) in Fig. 2.

b. Remove 5 knobs (A) in Fig. 2 after opening the Sub Panel.

c. Remove 1 plastic rivet (B) in Fig. 2 and then remove the Main P.C.B. Ass'y(4).

d. Remove 1 connector.

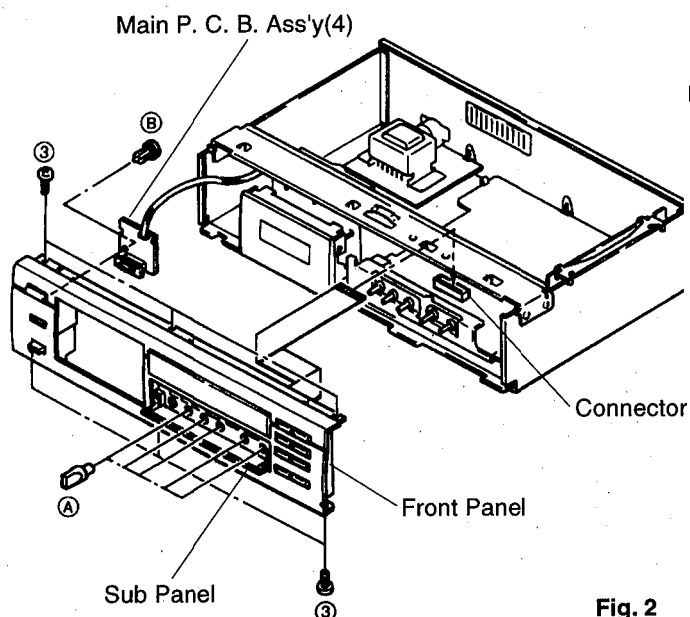


Fig. 2

### 4. Removal of Housing Ass'y

a. Detach the Spring in Fig. 4.

b. Remove lower part of the Housing Ass'y by pressing it to outside.

c. Remove the Housing Ass'y from the damper arm.

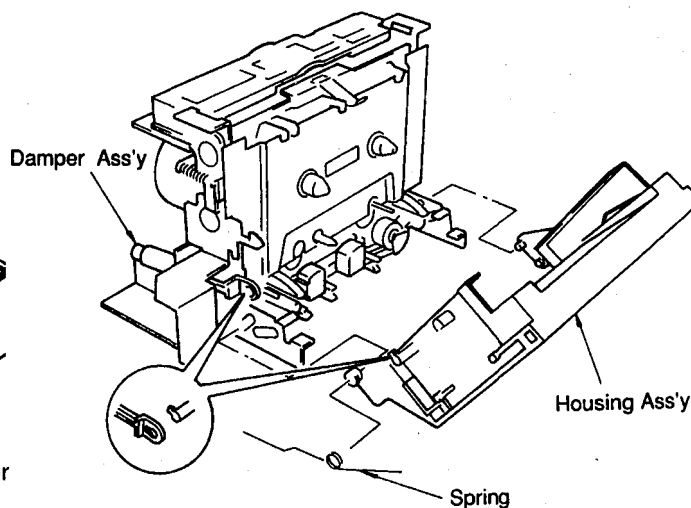


Fig. 4

### 5. Removal of Pinch Roller

- a. Detach the hook in Fig. 5 and remove the Pinch Roller.

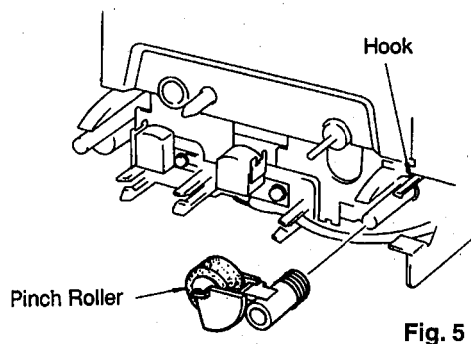


Fig. 5

### 6. Removal of Heads

- a. Remove 2 screws ( ⑤ ) in Fig. 6 and then remove the Recording/Playback Head.
- b. Remove 2 screws ( ⑥ ) in Fig. 6 and then remove the Erase Head.

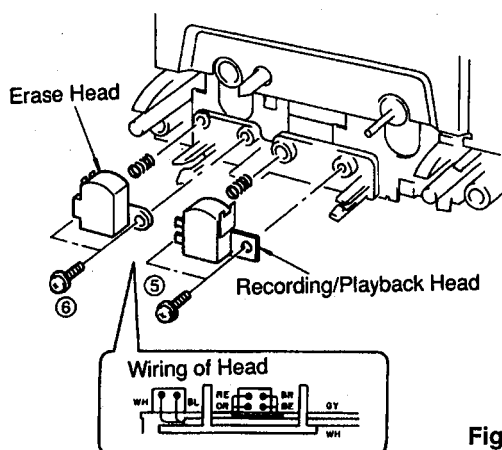


Fig. 6

### 7. Removal of Back Plate

- a. Remove 1 screw ( ⑦ ) and 1 plastic rivet ( ③ ) in Fig. 7 and then remove the Back Plate.

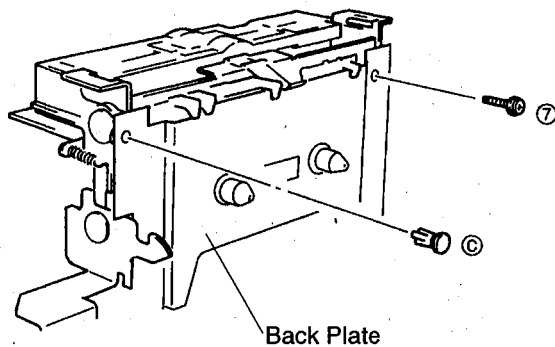


Fig. 7

### 8. Removal of Capstan Motor and Reel Motor

- a. Remove 2 screws ( ⑧ ) in Fig. 8 and then remove the Capstan Motor.
- b. Remove 2 screws ( ⑨ ) in Fig. 8 and detach 2 hooks of the Cassette Mechanism Circuit Board, then remove the Reel Motor.

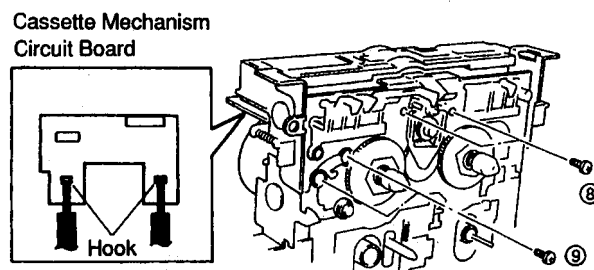


Fig. 8

### 9. Removal of Main P. C. B.(1) Ass'y and Dolby S P. C. B. Ass'y

- a. Remove 4 screws ( ⑩ ) and 1 plastic rivet ( ④ ) in Fig. 9.

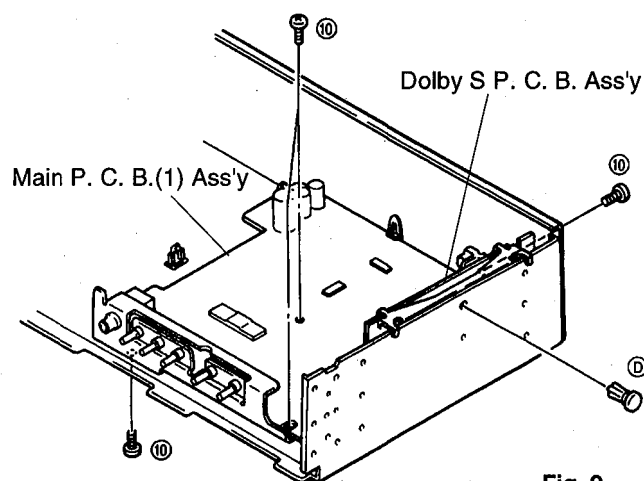


Fig. 9

## ■ ADJUSTMENTS

### 1. Before adjustment:

- Make sure that AC line voltage comes within

Models	AC line voltage
B, G	230V $\pm$ 10%
A	240V $\pm$ 10%

- 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.

### 2. Instruments required

- Audio frequency oscillator
- ACVM (or dual channel ACVM)
- Wow/flutter meter
- Oscilloscope
- Frequency counter
- Torque meter  
TW-2111A (TX911580) ..... Take up/back tension  
CT-160L (TX911120) ..... FF/REW
- DCVM

### 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  
Normal (LH) : ..... TDK AC225 (VU16720)  
High (CrO<sub>2</sub>) : ..... TDK AC514 (VU16730)  
METAL : ..... TDK AC713(VU16740)

### 4. Internal FL display test mode

To test all the FL display, press the POWER button while pressing the RESET key. All the FL display lights. The Meter peak hold OFF mode is entered when the RESET key is released. The unit returns to normal mode when the RESET key is pressed again.

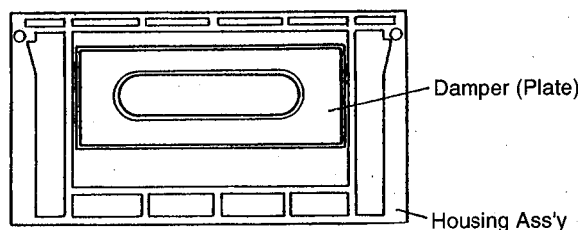
## MECHANICAL ADJUSTMENT

**Note:** The damper must be removed before you perform steps 1 and 2 of the procedure, because the torque meter is hidden behind the damper (Fig. A).

### ● How to remove the damper from the Housing Ass'y.

1. Press the damper inward to unsnap the hinge as shown in Fig.B.
2. Take out the damper, by lifting it up.

**Note:** When installing the damper, press out to snap into place after ensuring that the bottom damper levers do not jam when closing the door.



The lid panel is removed

Fig. A

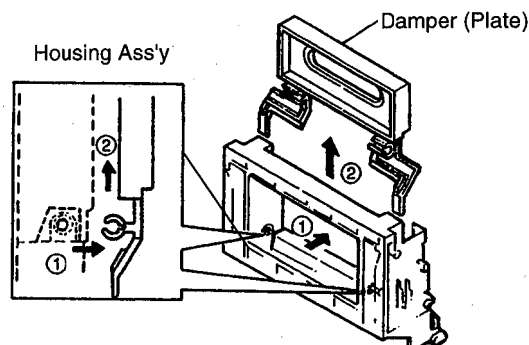


Fig. B

**MECHANICAL ADJUSTMENT-2**

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: more than 70g/cm.	
		TW-2111A		PLAY		Take up torque : 25~60g/cm.	
						Back tension : 1.5~6g/cm.	
2	Check FF, REW take up time	AC-225 (C-60)		FF REW		75 to 105 seconds.	
3	Azimuth	MTT-114N 10kHz, -10dB	ACVM Oscilloscope	PLAY	Azimuth adjusting screw (Fig. 1)	Playback output of L and R is maximum and phase difference should be minimum in both directions (Fig. 2)	After the adjustment make sure to apply screw lock point.
4	Tape Speed	MTT-111N 3kHz, -10dB	Frequency counter	PLAY	Preset Po- tentiometer at the back of the Cap- stan motor. (Fig.3)	3000Hz $\pm$ 15Hz	Perform adjustment at the position where the test tape is advanced/ rewound to the middle if possible.
5	Wow/Flutter	MTT-111N 3kHz, -10dB	Wow/flutter meter	PLAY		Less than 0.14% (WRMS)	Perform confirm at the center of the test tape length if possible.

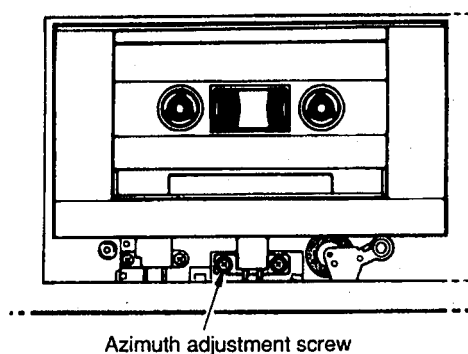
**● TEST POINT**

Fig. 1

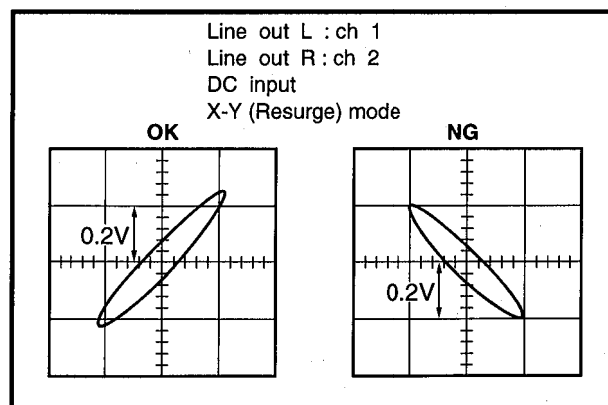


Fig. 2

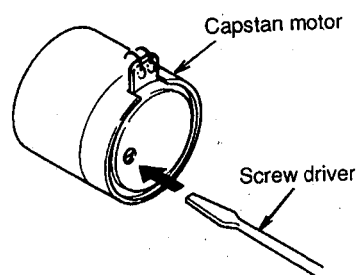


Fig. 3

## ELECTRICAL ADJUSTMENT

- Use 560mV (250nwb/m) for 0dB as the standard level of the unit.  
0dB = 250nwb/m (315Hz) = -5dBV (Line out level)
- Test conditions
  - BIAS ADJUST → Center
  - PLAY TRIM → Center
  - PHONES LEVEL → Min

### <Playback section>

Step	Item to be Adjusted	Tape	Instrument required	Mode	Measurement conditions	Points of measurement	Adjustment parts	Rating
1	Playback level (315Hz)	MTT-212N 315Hz 250nwb/m	ACVM	PLAY		LINE OUT	VR3 (L ch) VR4 (R ch)	-5 dBV
2	Playback level (10kHz)	MTT-114N 10kHz, -10dB	ACVM	PLAY		LINE OUT	VR1 (L ch) VR2 (R ch)	-15 dBV
3	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 (CrO <sub>2</sub> ) (MTT-356)	ACVM Oscilloscope	PLAY		LINE OUT		Confirm that the 14kHz playback level is within $0 \pm 3.5$ dB of the 1kHz playback level. (Fig. 4)

### ● PLAYBACK FREQUENCY RESPONSE

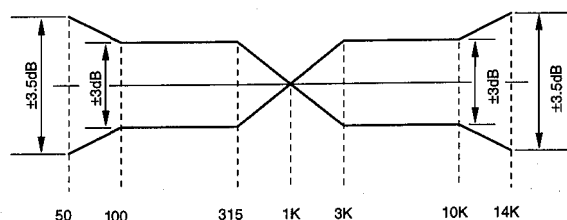
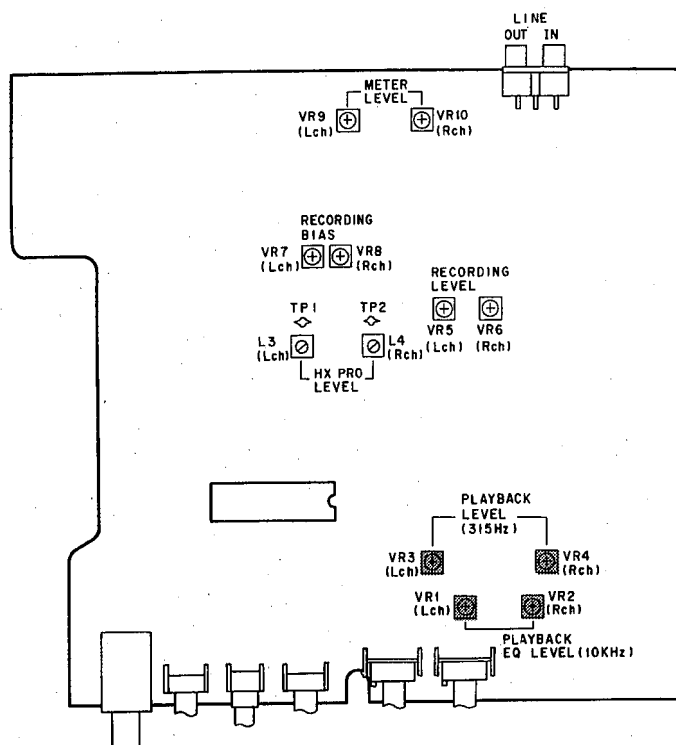


Fig. 4

### ● TEST POINT

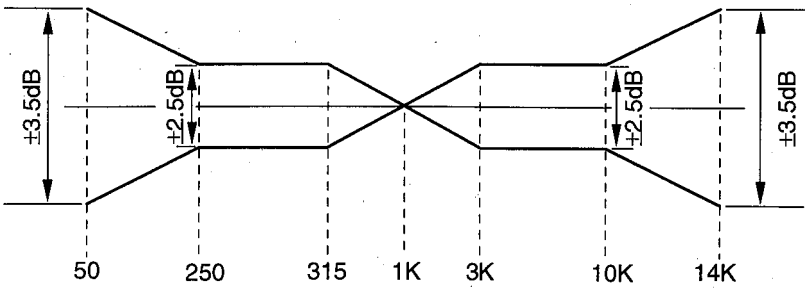




<Recording section>

Step	Item to be Adjusted	Tape	Instrument required	Mode	Measurement conditions	Points of measurement	Adjustment parts	Rating
1	Meter Level	AC225 Normal (LH)	Audio frequency oscillator	REC/ PAUSE  PEAK HOLD OFF  TEST MODE	1. Set FL display test mode to meter peak hold OFF. 2. Set REC LEVEL to maximum. 3. Input 315 Hz signal to LINE IN TERMINAL from Audio Frequency Oscillator. Adjust output level of AF OSC so that the level of LINE OUT TERMINAL becomes -5 dBV.	Peak Level Meter	VR9 (L ch) VR10 (R ch)	Adjust VR to the minimum level where 0 dB segment (red) of peak level meter lights up.
2	HX PRO	AC-514 High (CrO <sub>2</sub> )	DCVM	REC		TP1 (L)~G TP2 (R)~G	L3 (L ch) L4 (R ch)	Adjust L3 and L4 so that the DC voltage is minimized at TP1(L ch) and TP2(R ch).
3	Recording level	AC-514 High (CrO <sub>2</sub> ) Side B	ACVM Audio frequency oscillator	REC	1. Set REC LEVEL to maximum. 2. Input 315Hz Signal to LINE IN TERMINAL from Audio Frequency Oscillator. Adjust output level of Audio Frequency Oscillator so that the voltage of LINE OUT TERMINAL becomes -25dBV.	LINE OUT	VR6 (L ch) VR5 (R ch)	Adjust for equal level of the record and playback levels. (-25 dBV)
4	Recording bias (Total frequency response)	AC-514 High (CrO <sub>2</sub> ) Side B	ACVM Audio frequency oscillator	REC	1. Set REC LEVEL to maximum. 2. Input 14kHz Signal to LINE IN TERMINAL from Audio Frequency Oscillator. Adjust output level of Audio Frequency Oscillator so that the voltage of LINE OUT TERMINAL becomes -25dBV.	LINE OUT	VR7 (L ch) VR8 (R ch)	Adjust for equal level of the record and playback levels. (-25 dBV)
		AC-225 Normal (LH) Side B AC-713 METAL Side B						Adjust for equal level of the record and playback levels. (Fig.5)
5	Confirmation of recorded level	AC-514 High (CrO <sub>2</sub> ) Side B AC-713 METAL Side B AC-225 Normal (LH) Side B	ACVM Audio frequency oscillator	REC		LINE OUT		Confirm recorded level rating as in step 3 When recorded level rating is improper, go back to step 3 and also carry out confirmation in step 5 again.

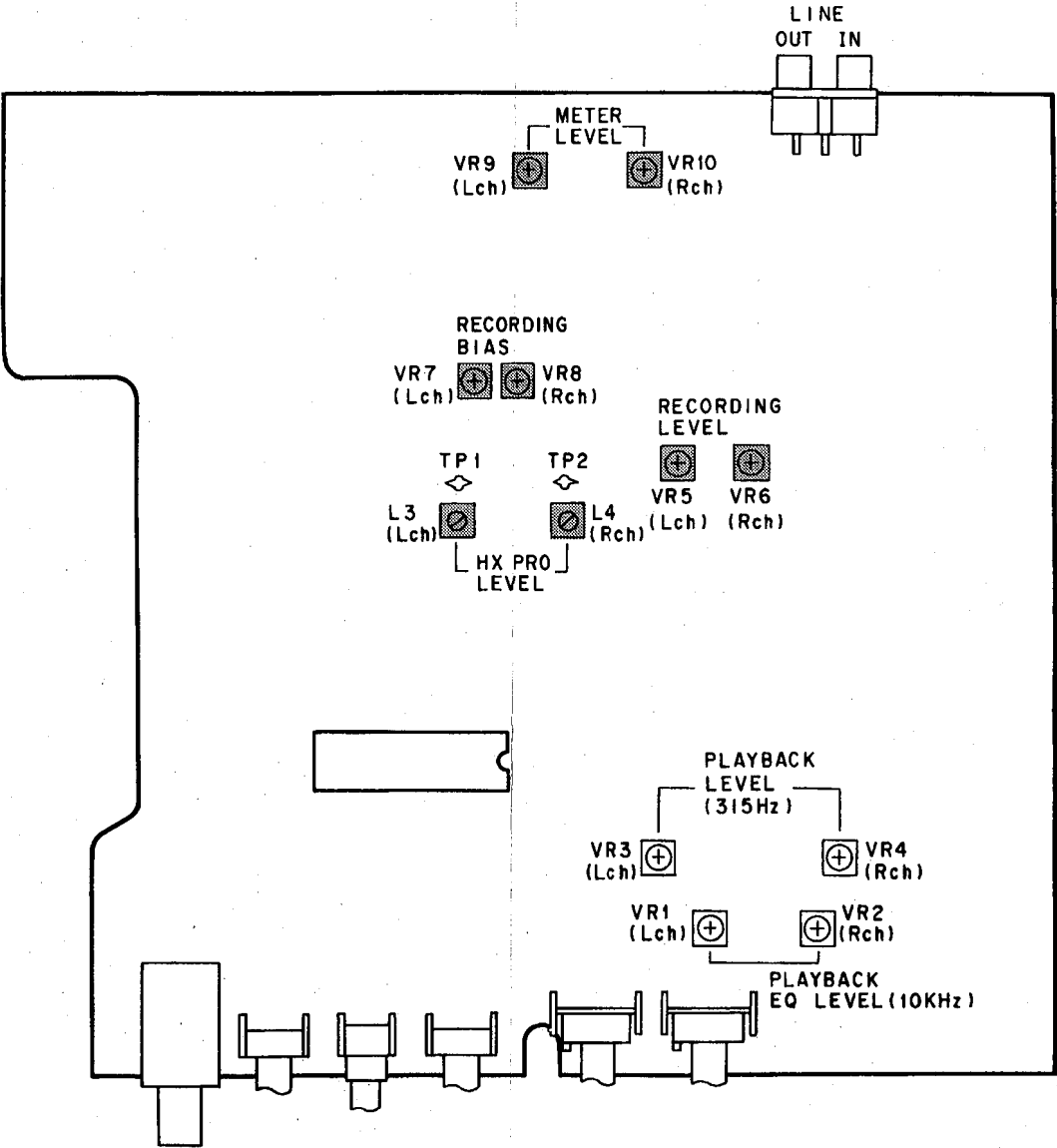
● TOTAL FREQUENCY RESPONSE (-20dB)



NR : NR off / Dolby B NR on / Dolby C NR on  
(B&C NR : Reference level must be recorded level.)  
TAPE : Normal (LH) /High (CrO<sub>2</sub>) / METAL

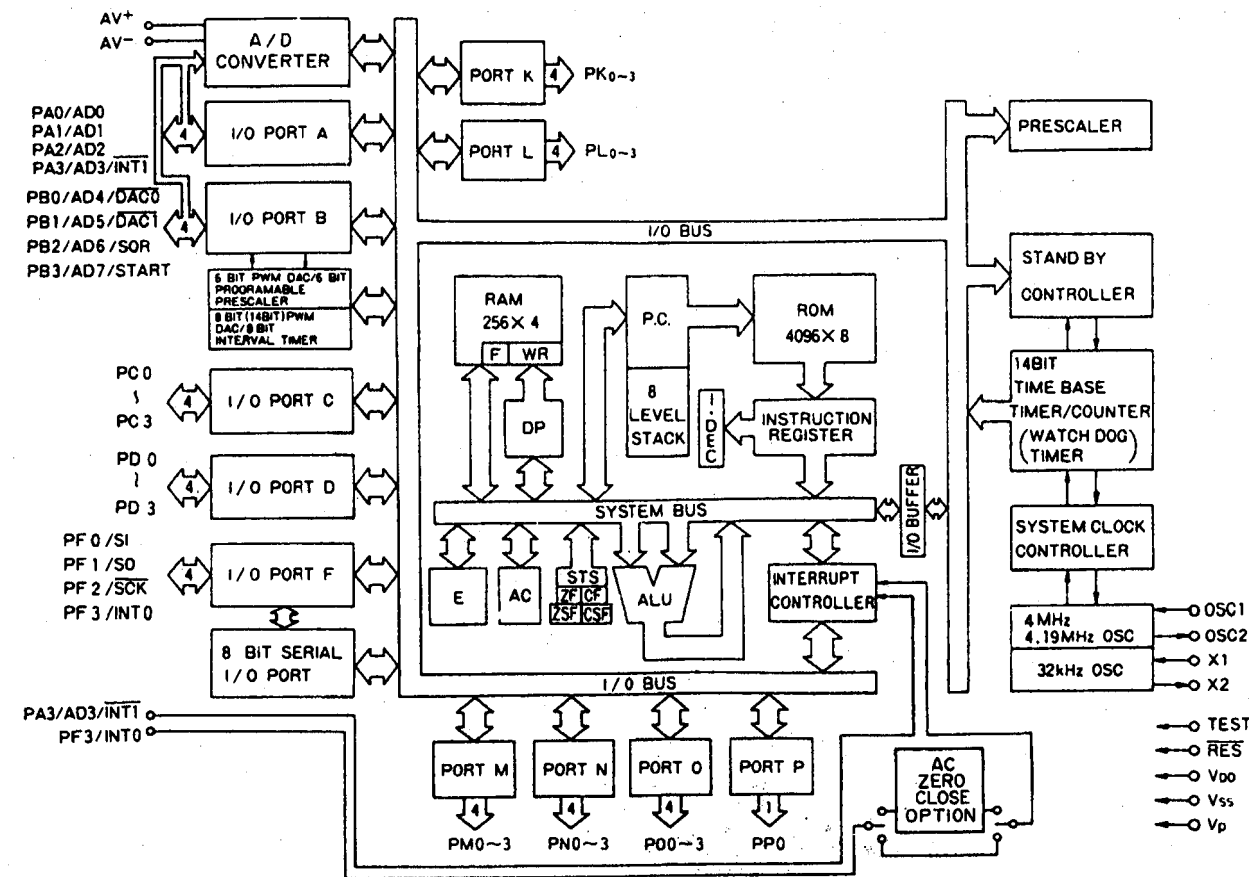
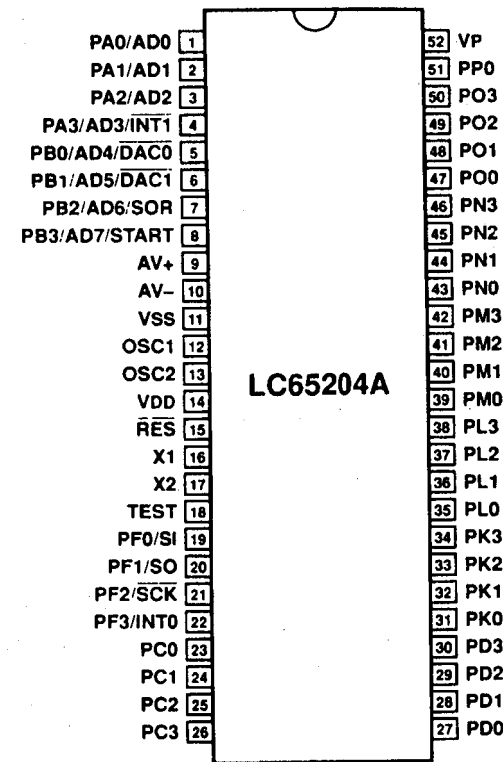
Fig.5

● TEST POINT



■ μ-COM DATA

IC13 : LC65204A-4C97  
4 bit μ-COM



NO.	PORT	FUNCTION	LOGIC	NO.	PORT	FUNCTION	LOGIC
1	PA0	OPERATION KEY (1)	A/D	52	Vp	- 21V	
2	PA1	OPERATION KEY (2)	A/D	51	PP0	FL DIGIT 9	H:ON
3	PA2	METER INPUT (L)	A/D	50	PO3	FL DIGIT 8	H:ON
4	PA3	METER INPUT (R)	A/D	49	PO2	FL DIGIT 7	H:ON
5	PB0	MECHA SW	A/D	48	PO1	FL DIGIT 6	H:ON
6	PB1	MECHA SW & TIMER	A/D	47	PO0	FL DIGIT 5	H:ON
7	PB2	REEL PULSE		46	PN3	FL DIGIT 4	H:ON
8	PB3	POWER PULSE		45	PN2	FL DIGIT 3	H:ON
9	AV+	+5V		44	PN1	FL DIGIT 2	H:ON
10	AV-	GND		43	PN0	FL DIGIT 1	H:ON
11	VSS	GND		42	PM3	FL SEGMENT 1	H:ON
12	OSC1	4MHz		41	PM2	FL SEGMENT 2	H:ON
13	OSC2	4MHz		40	PM1	FL SEGMENT 3	H:ON
14	VDD	+5V		41	PM2	FL SEGMENT 2	H:ON
15	RES	RESET		38	PL3	FL SEGMENT 5	H:ON
16	X1	+5V		37	PL2	FL SEGMENT 6	H:ON
17	X2	OPEN		36	PL1	FL SEGMENT 7	H:ON
18	TEST	GND		35	PL0	FL SEGMENT 8	H:ON
19	PF0	PORT EXPANDER IC (CLOCK)		34	PK3	FL SEGMENT 9	H:ON
20	PF1	PORT EXPANDER IC (DATA)		33	PK2	FL FILAMENT ON/OFF	H:ON
21	PF2	BIAS	H:ON	32	PK1	REC/PB SELECT	H:PB
22	PF3	REMOCON INPUT		31	PK0	MPX FILTER	H:ON
23	PC0	MECHA DRIVE CM	H:ON	30	PD3	DOLBY 2 (DOLBY C ON/OFF)	H:OFF
24	PC1	MECHA DRIVE SOLENOID	H:ON	29	PD2	DOLBY 1 (DOLBY ON/OFF)	H:OFF
25	PC2	MECHA DRIVE REEL FF		28	PD1	REC MUTE	H:ON
26	PC3	MECHA DRIVE REEL REW		27	PD0	LINE MUTE	H:ON

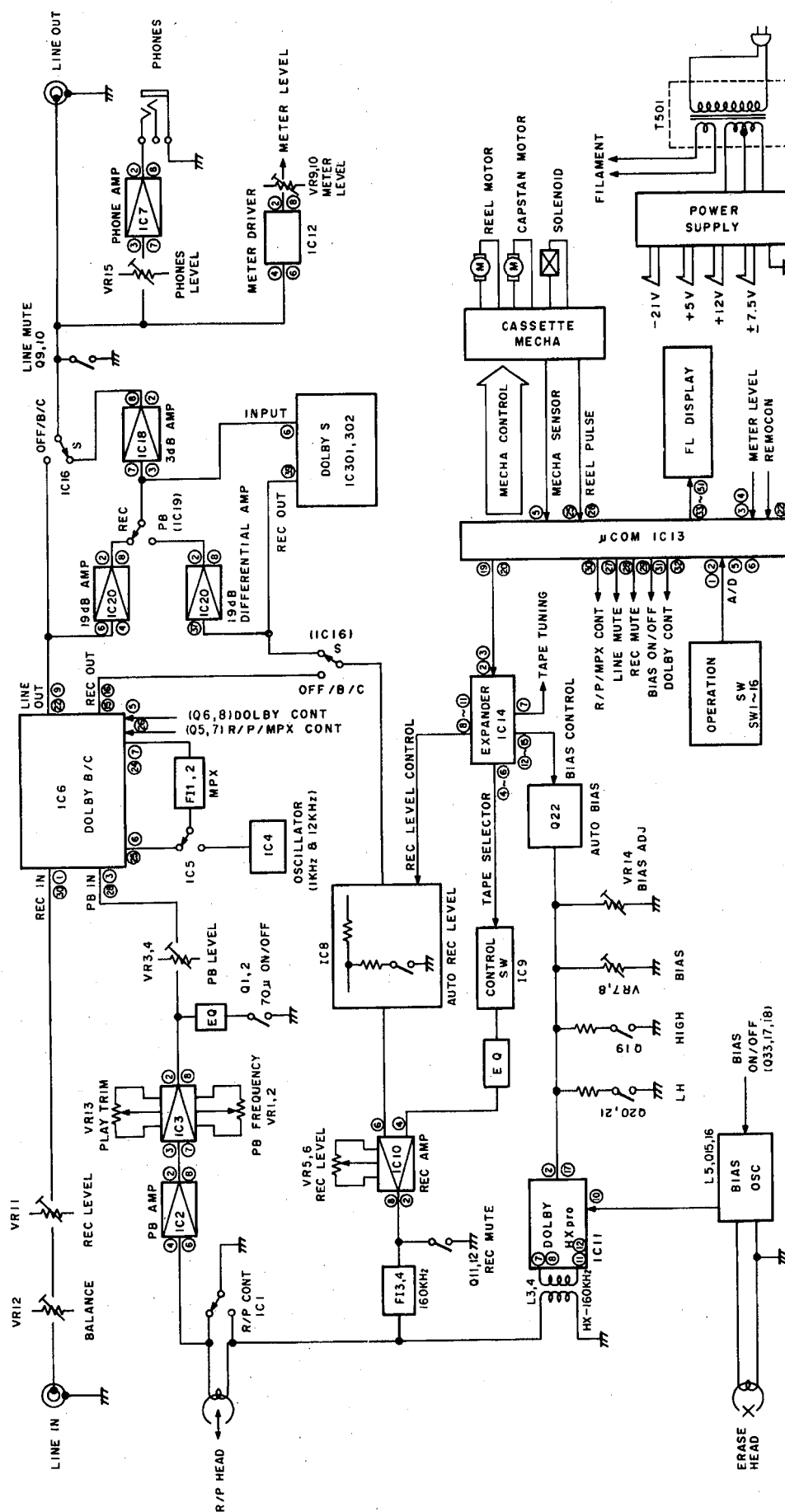
● CONDITION OF OUTPUT PORT IN EXPANDER IC (IC14:BU2040)

NO.	FUNCTION	LOGIC	NO.	FUNCTION	LOGIC
4PIN	LH	L:ON	10PIN	LEVEL 3	
5PIN	HIGH	L:ON	11PIN	LEVEL 4	
6PIN	METAL	H:ON	12PIN	BIAS 1	
7PIN	TAPE TUNING	H:OFF	13PIN	BIAS 2	
8PIN	LEVEL 1		14PIN	BIAS 3	
9PIN	LEVEL 2		15PIN	BIAS 4	

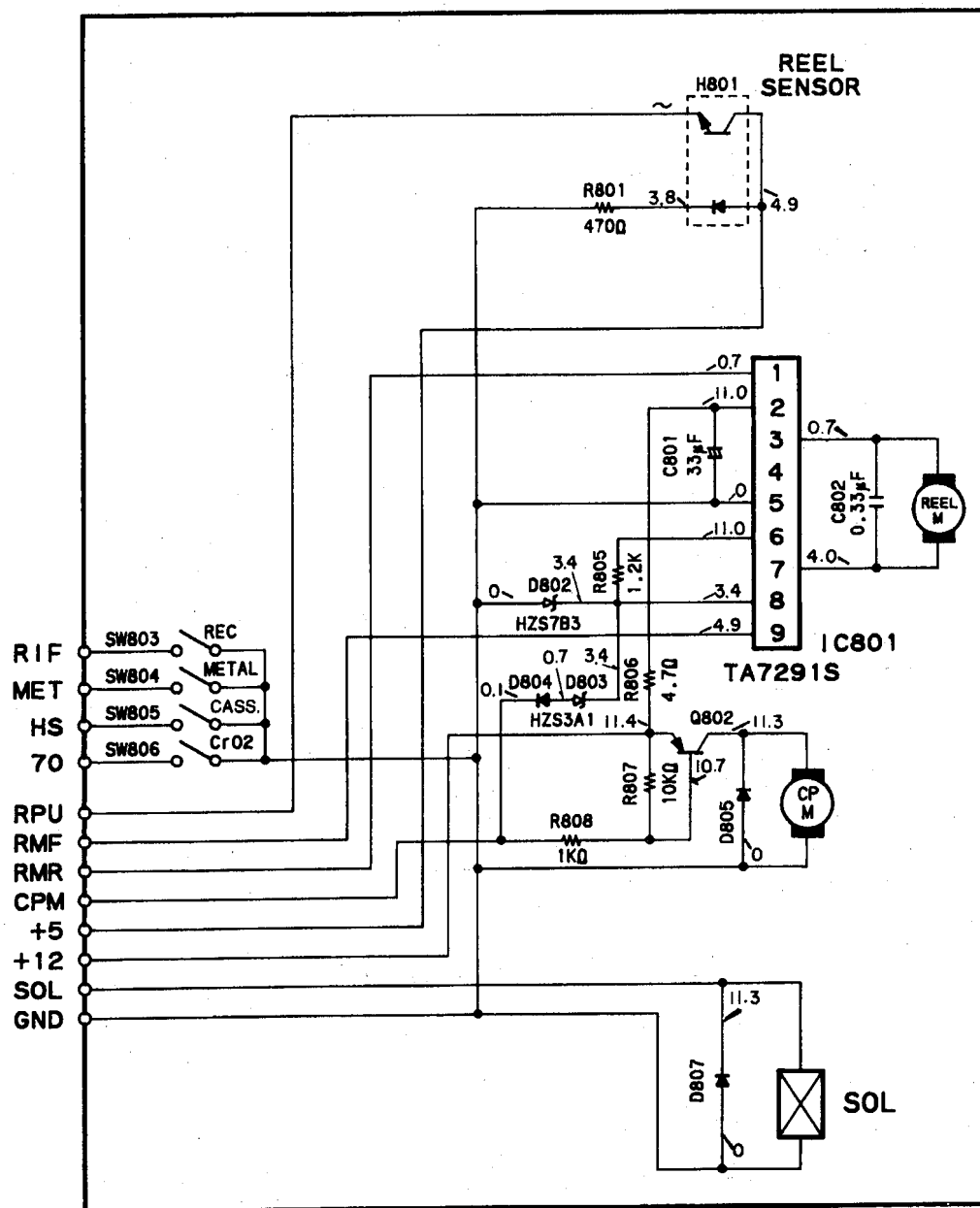
● CONDITION OF OUTPUT PORT IN DECK MODE

NO.	NAME	STOP	PLAY	FF / REW	SEARCH	REC PAUSE	REC
21	BIAS	L	L	L	L	L	H
27	LINE MUTE	H	L	H	H	L	L
28	REC MUTE	H	H	H	H	H	L
32	REC/PB SELECT	H	H	H	H	L	L

# ■ BLOCK DIAGRAM



## ■ SCHEMATIC DIAGRAM (Cassette Mechanism)



## 10

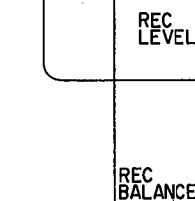
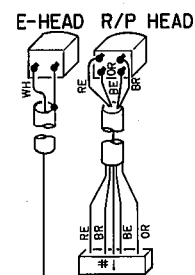
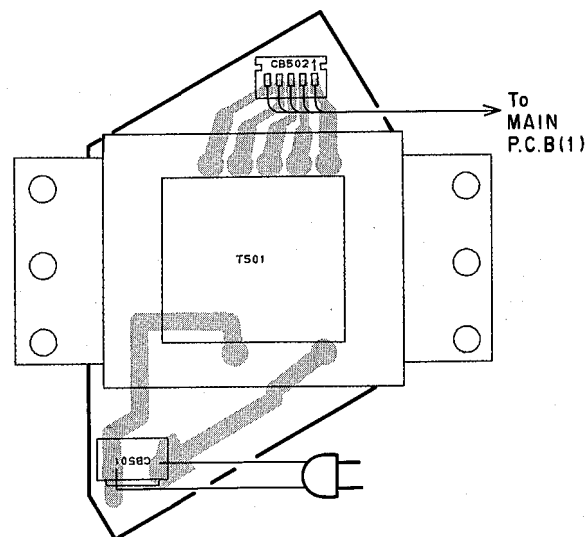
## 18



PRINTED CIRCUIT BOARD (Foil side)

MAIN P. C. B. (5)

MAIN P. C. B. (1)



To MAIN P.C.B.(4)

PLAY TRIM

To MAIN P.C.B.(2)

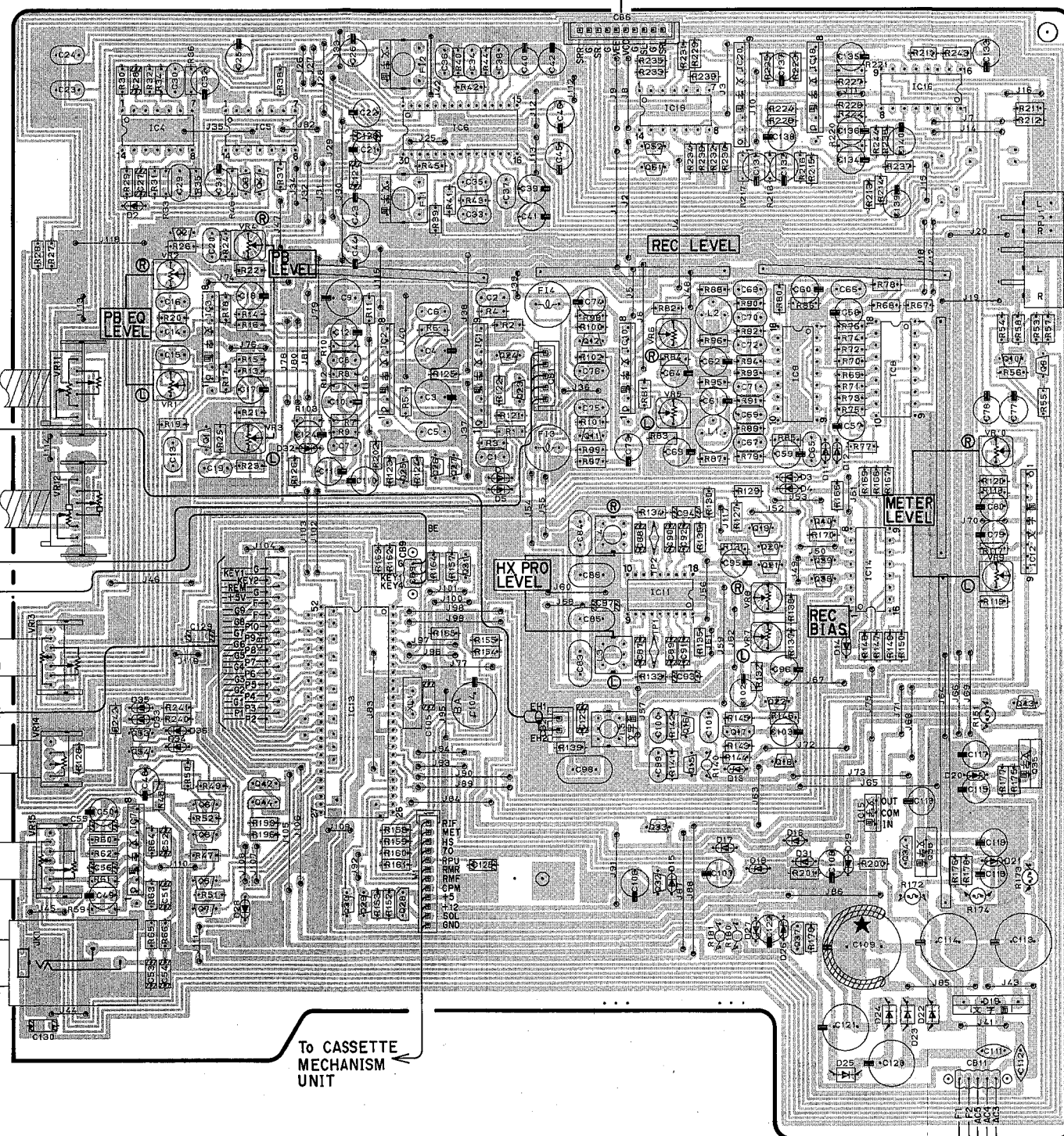
BIAS ADJUST

PHONES LEVEL

PHONES

To CASSETTE MECHANISM UNIT

From MAIN P.C.B.(5)

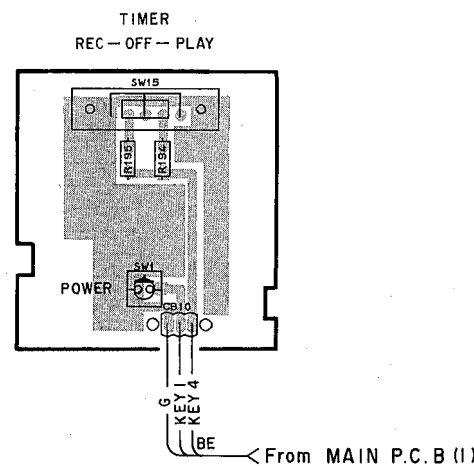


Semiconductor Location

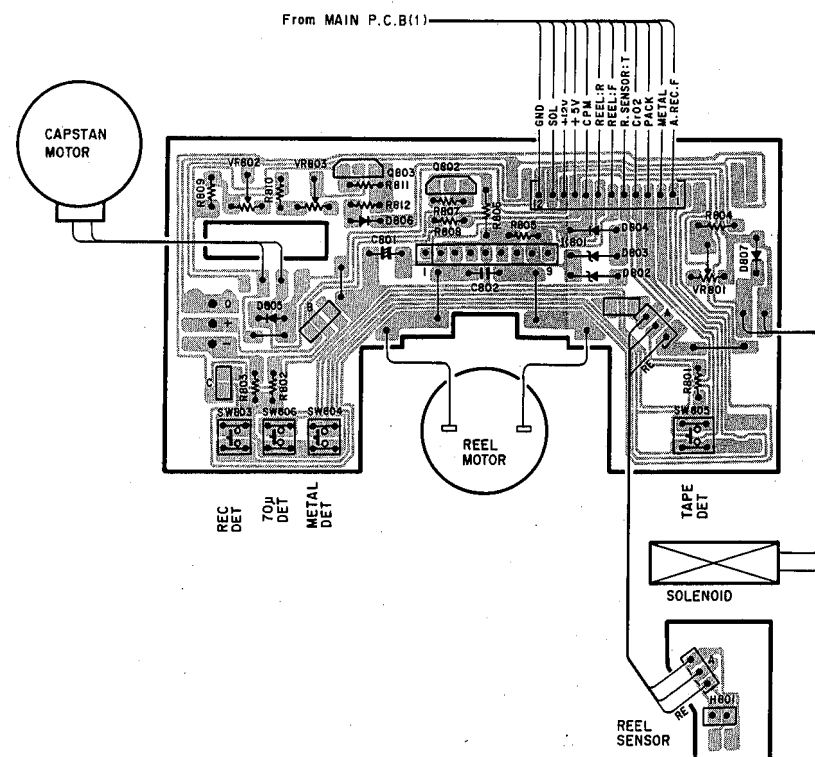
Ref. No.	Location	Ref. No.	Location
IC1	F3	Q43	H4
IC2	E3	Q44	E5
IC3	D3	Q51	F2
IC4	D2	Q52	F2
IC5	E2	Q53	D5
IC6	E2	Q54	D5
IC7	D5		
IC8	G3	D1	F3
IC9	G3	D2	D2
IC10	F3	D3	G3
IC11	F4	D4	G4
IC12	H4	D5	F4
IC13	E4	D11	G3
IC14	G4	D12	G3
IC15	G5	D13	G5
IC16	G2	D14	G4
IC18	G2	D15	F5
IC19	F2	D16	G5
IC20	G2	D17	G5
		D18	G5
Q1	D3	D19	H6
Q2	D2	D20	H5
Q3	E2	D21	H5
Q4	E2	D22	H6
Q5	D5	D23	G6
Q6	D5	D24	G6
Q7	D5	D25	G6
Q8	D5	D26	G5
Q9	H3	D27	G5
Q10	H3	D28	E5
Q11	F3	D29	D5
Q12	F3	D31	G5
Q15	G5	D32	E3
Q16	F5	D33	D5
Q17	G5	D34	D5
Q18	G5	D35	D4
Q19	G4	D36	D5
Q20	G4		
Q21	G4	VR1	D3
Q22	G4	VR2	D3
Q23	F3	VR3	E3
Q24	F3	VR4	E3
Q25	E3	VR5	F3
Q26	E3	VR6	F3
Q27	E3	VR7	G4
Q28	E5	VR8	G4
Q29	E5	VR9	H4
Q30	E5	VR10	H3
Q31	F4	VR11	D3
Q32	F5	VR12	D4
Q33	F5	VR13	D4
Q34	G5	VR14	D5
Q35	H5	VR15	D5
Q36	H5		
Q37	G5		
Q38	G4		
Q39	G4		
Q40	G4		
Q42	E5		

# ■ PRINTED CIRCUIT BOARD (Foil side)

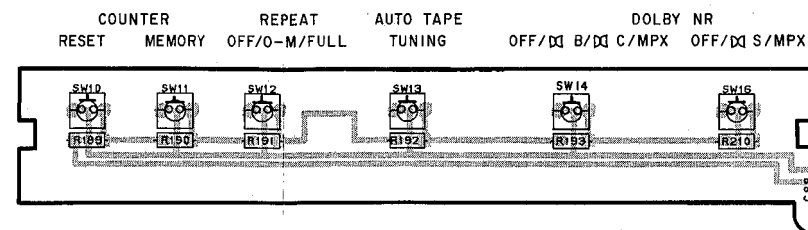
MAIN P.C.B. (4)



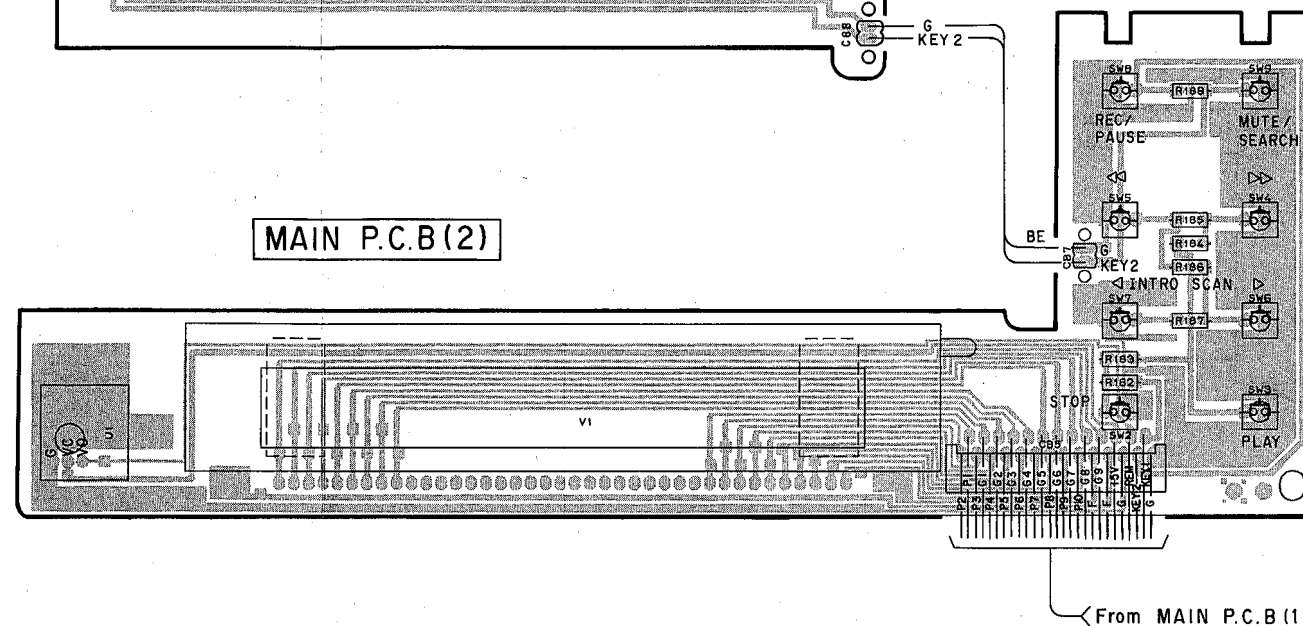
CASSETTE MECHANISM UNIT



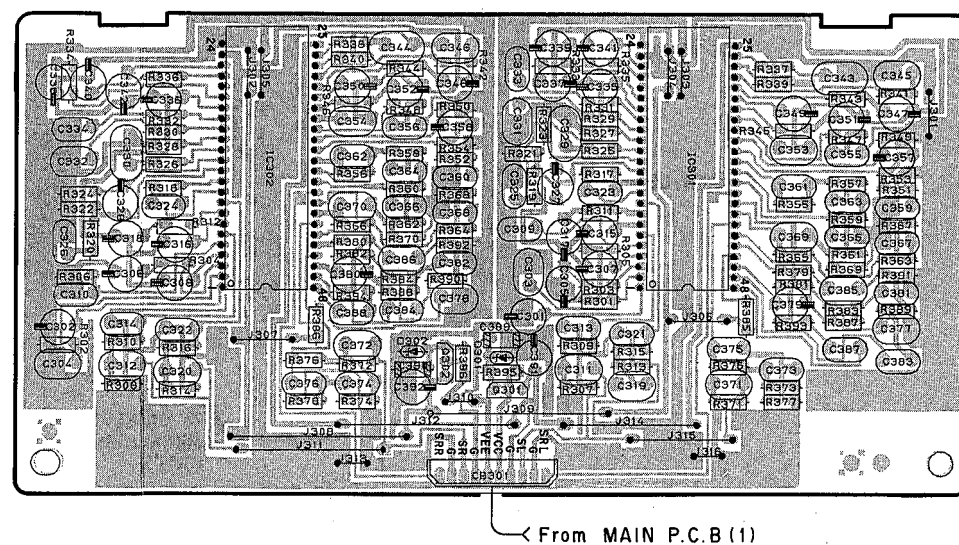
MAIN P.C.B. (3)



MAIN P.C.B. (2)



DOLBY S P.C.B.



## ● Semiconductor Location

Ref. No.	Location
IC301	G5
IC302	F5
IC801	C4
Q301	G6
Q302	F6
Q802	B4
Q803	B4
D301	G6
D302	F6
D802	C5
D803	C4
D804	C4
D805	B5
D806	B4
D807	D4
VR801	C5
VR802	B4
VR803	B4

# PARTS LIST

## ■ ELECTRICAL PARTS

### ■ WARNING

Components having special characteristics are marked  $\Delta$  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 resistor, refer to last page.

### ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

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

**Note)** Those parts marked with "#" are not included in the P. C. B. Ass'y.



## MAIN P.C.B.

Schm Ref.	PART NO.	Description	
*	VV630100	P.C.B.	MAIN(A)
*	VV630200	P.C.B.	MAIN(BG)
CB1	VL844900	CN.BS.PIN	5P
CB2	LB918020	CN.BS.PIN	2P
CB4	VR359800	CN.BS.PIN	27P
CB5	VR363400	CN.BS.PIN	27P
CB6	VQ963100	CN.BS.PIN	10P
CB7	Vi878000	CN.BS.PIN	2P
CB8	Vi878000	CN.BS.PIN	2P
CB9	Vi878100	CN.BS.PIN	3P
CB10	Vi878100	CN.BS.PIN	3P
CB11	Vi878300	CN.BS.PIN	5P
CB501	VG879900	CN.BS.PIN	2P
CB502	VK024900	CN.BS.PIN	5P
* C1	VV605300	C.MYLAR	680pF 50V
* C2	VV605300	C.MYLAR	680pF 50V
C3	VE016600	C.EL	220uF 6.3V
C4	VE016600	C.EL	220uF 6.3V
C5	VK984200	C.MYLAR	220pF 50V
C6	VK984200	C.MYLAR	220pF 50V
C7	UA654130	C.MYLAR	0.013uF 50V
C8	UA654130	C.MYLAR	0.013uF 50V
C9	VE018700	C.EL	100uF 25V
C10	VE018700	C.EL	100uF 25V
C11	UM417100	C.EL	10uF 50V
C12	UM417100	C.EL	10uF 50V
C13	UA653120	C.MYLAR	1200pF 50V
C14	UA653120	C.MYLAR	1200pF 50V
C15	UA653100	C.MYLAR	1000pF 50V
C16	UA653100	C.MYLAR	1000pF 50V
C17	UM417100	C.EL	10uF 50V
C18	UM417100	C.EL	10uF 50V
C19	UA654180	C.MYLAR	0.018uF 50V
C20	UA654180	C.MYLAR	0.018uF 50V
C21	VH621700	C.EL	1uF 50V
C22	VH621700	C.EL	1uF 50V
C23	UA652470	C.MYLAR	470pF 50V
C24	UA652470	C.MYLAR	470pF 50V
C25	VJ839200	C.EL	2.2uF 50V
C26	VJ839200	C.EL	2.2uF 50V
C27	VF467300	C.CE.TUBLR	0.01uF 16V
C28	VF467000	C.CE.TUBLR	1000pF 50V
C29	UA654390	C.MYLAR	0.039uF 50V
C30	UA653680	C.MYLAR	6800pF 50V
C31	VJ839100	C.EL	1uF 50V
C32	VJ839100	C.EL	1uF 50V
C33	UA653220	C.MYLAR	2200pF 50V
C34	UA653220	C.MYLAR	2200pF 50V
C35	UA653220	C.MYLAR	2200pF 50V
C36	UA653220	C.MYLAR	2200pF 50V
C37	UA653220	C.MYLAR	2200pF 50V
C38	UA653220	C.MYLAR	2200pF 50V
C39	UM215100	C.EL	0.1uF 50V

\* New Parts

Schm Ref.	PART NO.	Description	
C40	UM215100	C.EL	0.1uF 50V
C41	UM215100	C.EL	0.1uF 50V
C42	UM215100	C.EL	0.1uF 50V
C43	VF964800	C.EL	100uF 16V
C44	VF964800	C.EL	100uF 16V
C45	VE742700	C.EL	10uF 50V
C46	VE742700	C.EL	10uF 50V
C48	VJ839200	C.EL	2.2uF 50V
C49	VJ839100	C.EL	1uF 50V
C50	VJ839100	C.EL	1uF 50V
C51	VF466800	C.CE.TUBLR	100pF 50V
C52	VF466800	C.CE.TUBLR	100pF 50V
C53	VF467300	C.CE.TUBLR	0.01uF 16V
C54	VF467300	C.CE.TUBLR	0.01uF 16V
C55	VF467300	C.CE.TUBLR	0.01uF 16V
C56	VF467300	C.CE.TUBLR	0.01uF 16V
C57	VJ839100	C.EL	1uF 50V
C58	VJ839100	C.EL	1uF 50V
C59	VJ402700	C.EL	0.33uF 50V
C60	VJ402700	C.EL	0.33uF 50V
C61	UM417100	C.EL	10uF 50V
C62	UM417100	C.EL	10uF 50V
C63	UJ167330	C.EL	33uF 50V
C64	UJ167330	C.EL	33uF 50V
C65	UA653680	C.MYLAR	6800pF 50V
C66	UA653680	C.MYLAR	6800pF 50V
C67	UA653360	C.MYLAR	3600pF 50V
C68	UA653360	C.MYLAR	3600pF 50V
C69	UA653330	C.MYLAR	3300pF 50V
C70	UA653330	C.MYLAR	3300pF 50V
C71	UA653270	C.MYLAR	2700pF 50V
C72	UA653270	C.MYLAR	2700pF 50V
C73	VE021900	C.EL	4.7uF 100V
C74	VE021900	C.EL	4.7uF 100V
C75	VQ468100	C.MYLAR	560pF 50V
C76	VQ468100	C.MYLAR	560pF 50V
C77	UM416470	C.EL	4.7uF 50V
C78	UM416470	C.EL	4.7uF 50V
C79	VJ839200	C.EL	2.2uF 50V
C80	VJ839200	C.EL	2.2uF 50V
C83	UT452820	C.PP	820pF 100V
C84	UT452820	C.PP	820pF 100V
C85	VS204800	C.PP	100pF 100V
C86	VS204800	C.PP	100pF 100V
C87	VG280100	C.CE.TUBLR	0.022uF 25V
C88	VG280100	C.CE.TUBLR	0.022uF 25V
C89	VG280100	C.CE.TUBLR	0.022uF 25V
C90	VG280100	C.CE.TUBLR	0.022uF 25V
C91	VF467300	C.CE.TUBLR	0.01uF 16V
C92	VF467300	C.CE.TUBLR	0.01uF 16V
C93	VG278800	C.CE.TUBLR	560pF 50V
C94	VG278800	C.CE.TUBLR	560pF 50V
C95	UM417100	C.EL	10uF 50V

\* New Parts

## MAIN P.C.B.

Schm Ref.	PART NO.	Description
C96	UM215100	C.EL 0.1uF 50V
C97	VJ599000	C.CE.TUBLR 0.047uF 16V
C98	UT453390	C.PP 3900pF 100V
C99	UA653220	C.MYLAR 2200pF 50V
C100	UA653220	C.MYLAR 2200pF 50V
C101	UA654100	C.MYLAR 0.01uF 50V
C102	UJ648100	C.EL 100uF 25V
C103	UJ667470	C.EL 47uF 50V
C104	VT180400	C.EL 4700uF 5.5V
C105	VF467300	C.CE.TUBLR 0.01uF 16V
C106	VJ838800	C.EL 0.22uF 50V
C107	UM417100	C.EL 10uF 50V
C108	UM417100	C.EL 10uF 50V
* C109	UM049470	C.EL 4700uF 16V
C110	UM407220	C.EL 22uF 16V
C111	UA654100	C.MYLAR 0.01uF 50V
C112	UA654100	C.MYLAR 0.01uF 50V
C113	VN137400	C.EL 1000uF 16V
C114	VN137400	C.EL 1000uF 16V
C115	UJ667470	C.EL 47uF 50V
C116	UJ667470	C.EL 47uF 50V
C117	Vi841800	C.EL 100uF 10V
C118	Vi841800	C.EL 100uF 10V
C119	UM417100	C.EL 10uF 50V
C120	UJ658220	C.EL 220uF 35V
C121	UJ658470	C.EL 470uF 35V
C122	UM417100	C.EL 10uF 50V
C123	VF466800	C.CE.TUBLR 100pF 50V
C124	UM417100	C.EL 10uF 50V
C125	VF467300	C.CE.TUBLR 0.01uF 16V
C127	VF466900	C.CE.TUBLR 470pF 50V
C128	VF466900	C.CE.TUBLR 470pF 50V
C129	VF467300	C.CE.TUBLR 0.01uF 16V
C130	VG280100	C.CE.TUBLR 0.022uF 25V
C131	VH620500	C.EL 10uF 25V
C132	VH620500	C.EL 10uF 25V
C133	VH620500	C.EL 10uF 25V
C134	VH620500	C.EL 10uF 25V
C135	VH620500	C.EL 10uF 25V
C136	VH620500	C.EL 10uF 25V
C137	VH620500	C.EL 10uF 25V
C138	VH620500	C.EL 10uF 25V
C139	UM417100	C.EL 10uF 50V
C140	UM417100	C.EL 10uF 50V
D1	VD631600	DIODE 1SS133,176,HSS104
D2	VD631600	DIODE 1SS133,176,HSS104
D3	VD631600	DIODE 1SS133,176,HSS104
D4	VD631600	DIODE 1SS133,176,HSS104
D5	VD631600	DIODE 1SS133,176,HSS104
D11	VD631600	DIODE 1SS133,176,HSS104
D12	VD631600	DIODE 1SS133,176,HSS104
D13	VG441200	DIODE.ZENR MTZJ16C 16V
D14	VD631600	DIODE 1SS133,176,HSS104

\* New Parts

Schm Ref.	PART NO.	Description
D15	VD631600	DIODE 1SS133,176,HSS104
D16	VD631600	DIODE 1SS133,176,HSS104
D17	VD631600	DIODE 1SS133,176,HSS104
D18	VG437200	DIODE.ZENR MTZJ4.7C 4.7V
D19	VQ379300	DIODE.BRG S1VB20 1.0A 200V
D20	VG438700	DIODE.ZENR MTZJ7.5C 7.5V
D21	VG438700	DIODE.ZENR MTZJ7.5C 7.5V
D22	VU264100	DIODE 1SR139-400
D23	VU264100	DIODE 1SR139-400
D24	VU264100	DIODE 1SR139-400
D25	VU264100	DIODE 1SR139-400
D26	VG442100	DIODE.ZENR MTZJ22B 22V
D27	VG436200	DIODE.ZENR MTZJ3.6A 3.6V
D28	VD631600	DIODE 1SS133,176,HSS104
D29	VD631600	DIODE 1SS133,176,HSS104
D31	VD631600	DIODE 1SS133,176,HSS104
D32	VD631600	DIODE 1SS133,176,HSS104
D33	VD631600	DIODE 1SS133,176,HSS104
D34	VD631600	DIODE 1SS133,176,HSS104
D35	VD631600	DIODE 1SS133,176,HSS104
D36	VD631600	DIODE 1SS133,176,HSS104
Fi1	VM548100	FLTR.MPX 160KHz MPX
Fi2	VM548100	FLTR.MPX 160KHz MPX
Fi3	VM548200	FLTR.LC 160KHz BEF
Fi4	VM548200	FLTR.LC 160KHz BEF
IC1	XD864A00	IC uPC1330HA
IC2	XR618A00	IC NJM2043L-D OP AMP
IC3	XM922A00	IC NJM4558L
IC4	iG001720	IC TC4069UBP
IC5	iG037400	IC uPD4066BC
IC6	XH741A00	IC HA12142NT
IC7	XP844A00	IC NJM4556AL
IC8	iG089900	IC AN90B20
IC9	iG089900	IC AN90B20
IC10	XM922A00	IC NJM4558L
IC11	XA300A00	IC uPC1297CA
IC12	iG074900	IC BA6138
IC13	XN483B00	IC LC65204A-4C97
IC14	XM974A00	IC BU2040
IC15	XA507A00	IC AN78N05
IC16	Xi929A00	IC BU4551B
IC18	XM922A00	IC NJM4558L
IC19	iG037400	IC uPD4066BC
IC20	XB247301	IC uPC4570HA
JK1	LB301370	JACK.PHONE
L1	GE901660	COIL 18mH
L2	GE901660	COIL 18mH
L3	VM548000	COIL 160KHz
L4	VM548000	COIL 160KHz
L5	VM620000	COIL.BIAS 160KHz
PJ1	LB401040	JACK.PIN 4P
Q1	VG722000	TR.DGT DTC144ES
Q2	VG722000	TR.DGT DTC144ES

\* New Parts

## MAIN P.C.B.

Schm Ref.	PART NO.	Description
Q3	VD678500	TR.DGT DTA114ES
Q4	VG722000	TR.DGT DTC144ES
Q5	VG722000	TR.DGT DTC144ES
Q6	VG722000	TR.DGT DTC144ES
Q7	VG722000	TR.DGT DTC144ES
Q8	VG722000	TR.DGT DTC144ES
Q9	VK432900	TR 2SD1915F S,T
Q10	VK432900	TR 2SD1915F S,T
Q11	VK432900	TR 2SD1915F S,T
Q12	VK432900	TR 2SD1915F S,T
Q15	IC174020	TR 2SC1740S R,S
Q16	IC174020	TR 2SC1740S R,S
△ Q17	VE613400	TR 2SD1858 Q,R
Q18	VG722000	TR.DGT DTC144ES
Q19	VG722000	TR.DGT DTC144ES
Q20	VG722000	TR.DGT DTC144ES
Q21	VG722000	TR.DGT DTC144ES
Q22	IC174020	TR 2SC1740S R,S
Q23	VC218900	TR 2SC3330 R,S,T
Q24	VC218900	TR 2SC3330 R,S,T
Q25	VC218700	TR 2SA1317 R,S,T
Q26	VG722000	TR.DGT DTC144ES
Q27	VG722000	TR.DGT DTC144ES
△ Q28	VE613300	TR 2SB1237 Q,R
Q29	VD678700	TR.DGT DTC114ES
Q30	VD678700	TR.DGT DTC114ES
Q31	IC174020	TR 2SC1740S R,S
Q32	VD488500	TR.DGT DTC143XS
Q33	VD678500	TR.DGT DTA114ES
△ Q34	VE613300	TR 2SB1237 Q,R
△ Q35	VS883400	TR 2SD2394 E,F
△ Q36	VS883300	TR 2SB1565 E,F
△ Q37	VE613300	TR 2SB1237 Q,R
Q38	VD678500	TR.DGT DTA114ES
Q39	VD678500	TR.DGT DTA114ES
Q40	VD678500	TR.DGT DTA114ES
Q42	VE613400	TR 2SD1858 Q,R
Q43	VD678500	TR.DGT DTA114ES
Q44	VE613400	TR 2SD1858 Q,R
Q51	VD678500	TR.DGT DTA114ES
Q52	VG722000	TR.DGT DTC144ES
Q53	VG722000	TR.DGT DTC144ES
Q54	VG722000	TR.DGT DTC144ES
△ R140	HV453560	R.CAR.FP 5.6Ω 1/4W
△ R151	VE009700	R.FUS 4.7Ω 1/4W
R164	HU597100	R.MTL.FLM 10KΩ 1/4W
△ R172	VE009700	R.FUS 4.7Ω 1/4W
△ R173	VE009700	R.FUS 4.7Ω 1/4W
△ R174	VE009700	R.FUS 4.7Ω 1/4W
△ R180	HV455100	R.CAR.FP 100Ω 1/4W
△ R181	HV455100	R.CAR.FP 100Ω 1/4W
SW1	VG392900	SW.TACT SKHVAA
SW2	VG392900	SW.TACT SKHVAA

\* New Parts

Schm Ref.	PART NO.	Description
SW3	VG392900	SW.TACT SKHVAA
SW4	VG392900	SW.TACT SKHVAA
SW5	VG392900	SW.TACT SKHVAA
SW6	VG392900	SW.TACT SKHVAA
SW7	VG392900	SW.TACT SKHVAA
SW8	VG392900	SW.TACT SKHVAA
SW9	VG392900	SW.TACT SKHVAA
SW10	VG392900	SW.TACT SKHVAA
SW11	VG392900	SW.TACT SKHVAA
SW12	VG392900	SW.TACT SKHVAA
SW13	VG392900	SW.TACT SKHVAA
SW14	VG392900	SW.TACT SKHVAA
SW15	VF113100	SW.SLIDE SSSU01
SW16	VG392900	SW.TACT SKHVAA
△ T501	XN503A00	TRANS.PWR (A)
T501	XN504A00	TRANS.PWR (BG)
TP1	VL448600	JUMPER.TST
TP2	VL448600	JUMPER.TST
U1	VK498900	L.DTCT S-100
V1	VQ667400	FL.DSPLY BJ214GK
VR1	VJ694200	VR.TRIM B100KΩ
VR2	VJ694200	VR.TRIM B100KΩ
VR3	VJ693800	VR.TRIM B22KΩ
VR4	VJ693800	VR.TRIM B22KΩ
VR5	VJ693500	VR.TRIM B6.8KΩ
VR6	VJ693500	VR.TRIM B6.8KΩ
VR7	VJ693800	VR.TRIM B22KΩ
VR8	VJ693800	VR.TRIM B22KΩ
VR9	VJ693800	VR.TRIM B22KΩ
VR10	VJ693800	VR.TRIM B22KΩ
VR11	VR090600	VR A50KΩ
VR12	VR114800	VR A50KΩ
VR13	VM641000	VR B100KΩ
VR14	VG237500	VR 2KΩ
VR15	VM640800	VR A5KΩ
XL1	VB759100	RSNR.CE 4MHz
	VB966900	CN IMSA-6024
	VQ948200	SPACER FL
	VQ859800	SHEET.FL 2SD1858 Q,R

\* New Parts

## DOLBY S P.C.B.

Schm Ref.	PART NO.	Description
	VR284800	P.C.B.
		DOLBY S
CB301	VQ961300	CN.BS.PIN 10P
C301	UM407220	C.EL 22uF 16V
C302	UM407220	C.EL 22uF 16V
C303	UA655100	C.MYLAR 0.1uF 50V
C304	UA655100	C.MYLAR 0.1uF 50V
C305	UM417100	C.EL 10uF 50V
C306	UM417100	C.EL 10uF 50V
C307	VJ838800	C.EL 0.22uF 50V
C308	VJ838800	C.EL 0.22uF 50V
C309	UA654330	C.MYLAR 0.033uF 50V
C310	UA654330	C.MYLAR 0.033uF 50V
C311	UA654680	C.MYLAR 0.068uF 50V
C312	UA654680	C.MYLAR 0.068uF 50V
C313	UA654150	C.MYLAR 0.015uF 50V
C314	UA654150	C.MYLAR 0.015uF 50V
C315	VJ838800	C.EL 0.22uF 50V
C316	VJ838800	C.EL 0.22uF 50V
C317	VJ839100	C.EL 1uF 50V
C318	VJ839100	C.EL 1uF 50V
C319	UA654390	C.MYLAR 0.039uF 50V
C320	UA654390	C.MYLAR 0.039uF 50V
C321	UA652680	C.MYLAR 680pF 50V
C322	UA652680	C.MYLAR 680pF 50V
C323	UA653100	C.MYLAR 1000pF 50V
C324	UA653100	C.MYLAR 1000pF 50V
C325	UA653820	C.MYLAR 8200pF 50V
C326	UA653820	C.MYLAR 8200pF 50V
C327	VJ839100	C.EL 1uF 50V
C328	VJ839100	C.EL 1uF 50V
C329	UA655220	C.MYLAR 0.22uF 50V
C330	UA655220	C.MYLAR 0.22uF 50V
C331	UA654820	C.MYLAR 0.082uF 50V
C332	UA654820	C.MYLAR 0.082uF 50V
C333	UA654150	C.MYLAR 0.015uF 50V
C334	UA654150	C.MYLAR 0.015uF 50V
C335	UM215100	C.EL 0.1uF 50V
C336	UM215100	C.EL 0.1uF 50V
C337	VJ839000	C.EL 0.47uF 50V
C338	VJ839000	C.EL 0.47uF 50V
C339	VJ838800	C.EL 0.22uF 50V
C340	VJ838800	C.EL 0.22uF 50V
C341	UM215100	C.EL 0.1uF 50V
C342	UM215100	C.EL 0.1uF 50V
C343	UA655330	C.MYLAR 0.33uF 50V
C344	UA655330	C.MYLAR 0.33uF 50V
C345	UA654820	C.MYLAR 0.082uF 50V
C346	UA654820	C.MYLAR 0.082uF 50V
C347	VJ839000	C.EL 0.47uF 50V
C348	VJ839000	C.EL 0.47uF 50V
C349	UM215100	C.EL 0.1uF 50V
C350	UM215100	C.EL 0.1uF 50V
C351	VJ838800	C.EL 0.22uF 50V

\* New Parts

Schm Ref.	PART NO.	Description
C352	VJ838800	C.EL 0.22uF 50V
C353	UA654470	C.MYLAR 0.047uF 50V
C354	UA654470	C.MYLAR 0.047uF 50V
C355	UA654150	C.MYLAR 0.015uF 50V
C356	UA654150	C.MYLAR 0.015uF 50V
C357	VJ839100	C.EL 1uF 50V
C358	VJ839100	C.EL 1uF 50V
C359	UA653820	C.MYLAR 8200pF 50V
C360	UA653820	C.MYLAR 8200pF 50V
C361	UA653100	C.MYLAR 1000pF 50V
C362	UA653100	C.MYLAR 1000pF 50V
C363	UA653220	C.MYLAR 2200pF 50V
C364	UA653220	C.MYLAR 2200pF 50V
C365	UA652470	C.MYLAR 470pF 50V
C366	UA652470	C.MYLAR 470pF 50V
C367	UA653180	C.MYLAR 1800pF 50V
C368	UA653180	C.MYLAR 1800pF 50V
C369	UA654390	C.MYLAR 0.039uF 50V
C370	UA654390	C.MYLAR 0.039uF 50V
C371	UA655100	C.MYLAR 0.1uF 50V
C372	UA655100	C.MYLAR 0.1uF 50V
C373	UA653180	C.MYLAR 1800pF 50V
C374	UA653180	C.MYLAR 1800pF 50V
C375	UA653180	C.MYLAR 1800pF 50V
C376	UA653180	C.MYLAR 1800pF 50V
C377	UA655100	C.MYLAR 0.1uF 50V
C378	UA655100	C.MYLAR 0.1uF 50V
C379	VJ839000	C.EL 0.47uF 50V
C380	VJ839000	C.EL 0.47uF 50V
C381	UA654220	C.MYLAR 0.022uF 50V
C382	UA654220	C.MYLAR 0.022uF 50V
C383	UA654180	C.MYLAR 0.018uF 50V
C384	UA654180	C.MYLAR 0.018uF 50V
C385	UA655100	C.MYLAR 0.1uF 50V
C386	UA655100	C.MYLAR 0.1uF 50V
C387	UA653180	C.MYLAR 1800pF 50V
C388	UA653180	C.MYLAR 1800pF 50V
C389	VF467300	C.CE.TUBLR 0.01uF 16V
C390	VF467300	C.CE.TUBLR 0.01uF 16V
C391	UM417100	C.EL 10uF 50V
C392	UM417100	C.EL 10uF 50V
D301	VG438500	DIODE.ZENR MTZJ7.5A 7.5V
D302	VG438500	DIODE.ZENR MTZJ7.5A 7.5V
IC301	XN066A00	IC CXA1417S DOLBY S
IC302	XN066A00	IC CXA1417S DOLBY S
Q301	VE613400	TR 2SD1858 Q,R
Q302	VE613300	TR 2SB1237 Q,R

\* New Parts

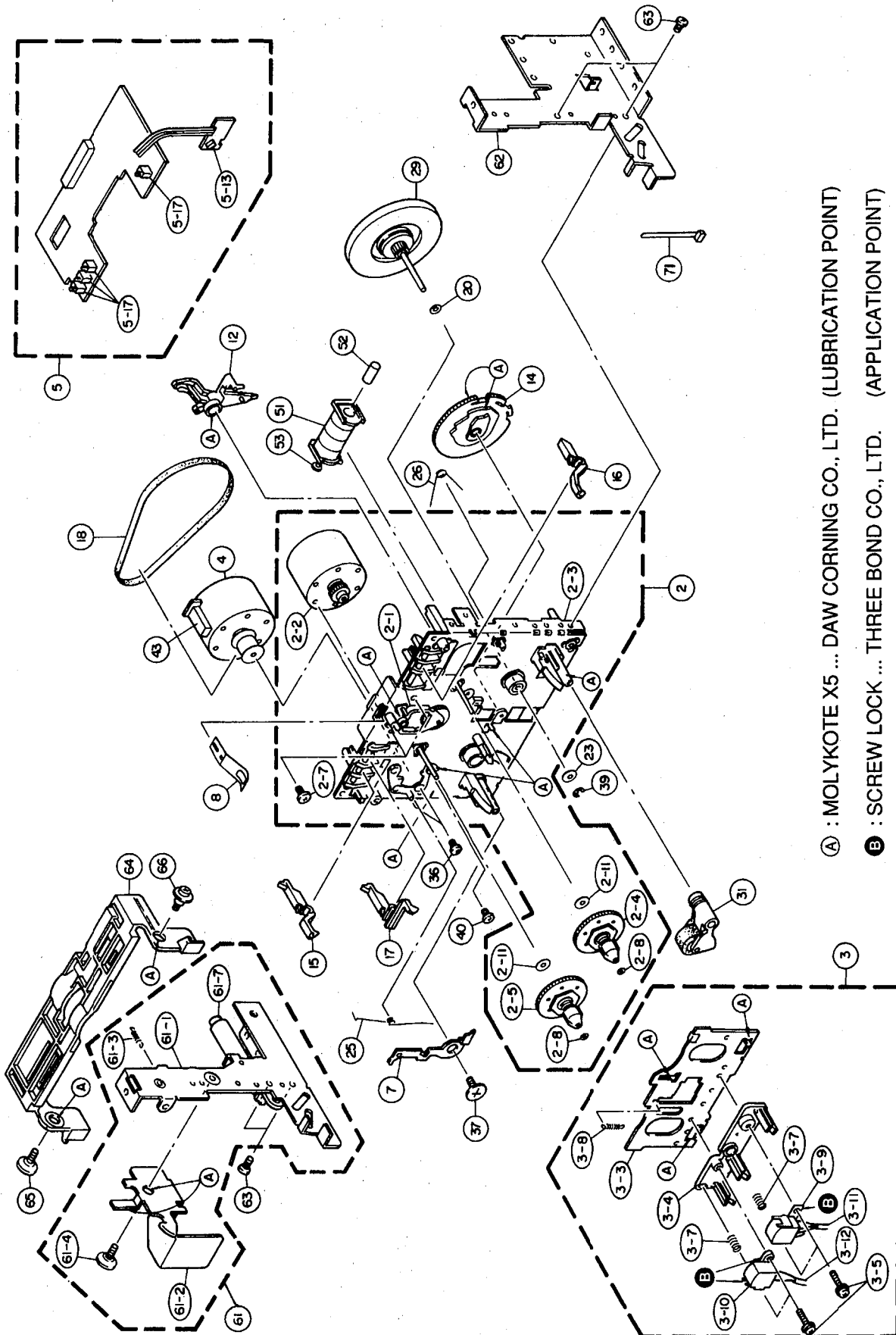
## 5

# MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
14	VM986300	CASSETTE DECK MECHANISM		
1-5	VR398300	BACK PLATE	B	
1-6	VQ146900	LABEL B.P		
1-8	VM873800	SPRING	EJ	
1-13	VQ368500	PUSH RIVET	P3545-B	
1-15	EK096060	PW HEAD S-TITE SCREW	2.5x12 FCRM3-BL	
1-21	VQ860400	CASSETTE HOUSING		
1-22	VM868200	GUIDE, CASSETTE		
1-23	VQ860600	PLATE, DAMPER		
1-24	VK919000	DAMPER		
* 2-1	VV631200	FRONT PANEL		
2-2	VQ858400	SUB PANEL		
2-3	VQ793300	WINDOW PANEL		
2-4	VY679600	PLATE, SP	B	
2-5	VQ853000	BUTTON GUIDE		
2-6	VQ852700	BUTTON	EJ	
2-8	VQ852900	SPRING	D6.4C	
2-11	VQ368600	PUSH RIVET	P3555-B	
2-21	VQ858600	PANEL LID		
2-22	VQ859300	HINGE, LID		
2-26	EX601590	BIND HEAD P-TITE SCREW	2.6x8 FCRM3-BL	
* 3	VV630100	P.C.B. ASS'Y	MAIN	(A)
* 3	VV630200	P.C.B. ASS'Y	MAIN	(BG)
△ 5	VL238400	POWER CORD ASS'Y		(A)
△ 5	VS168400	POWER CORD ASS'Y		(G)
△ 5	VS680700	POWER CORD ASS'Y		(B)
6	VN158600	CORD STOPPER	No.2104	
7	VR284800	P.C.B. ASS'Y	DOLBY S	
* 8	MF127250	FLEXIBLE FLAT CABLE C&C	27P 250mm	
9	VU590000	BINDING TIE	CBTD001B	
101	VM871200	CHASSIS		
102	VM634400	TOP FRAME		
103	VQ859200	BRACKET, VR		
104	VQ854400	TOP COVER		
105	VQ859900	SUPPORT, PCB		
111	VQ853700	SUB PANEL, LID		
112	VQ854300	WINDOW, PANEL	LID	
121	VQ859400	KNOB, VR	D10	
122	VQ853500	KNOB, SL		
131	VQ780300	LEG	D60xH16	
161	VQ368500	PUSH RIVET	P3545-B	
162	VQ368600	PUSH RIVET	P3555-B	
171	EK093040	BIND HEAD P-TITE SCREW	3x12 ZMC2-Y	
172	Ei330086	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
173	EN335030	BIND HEAD BONDING TAP. SCREW	3x10 FCRM3-BL	
174	EK365090	PW HEAD S-TITE SCREW	4x8-10 FCRM3-BL	
176	EK930010	PW HEAD B-TITE SCREW	3x8-8 FCRM3-BL	
		ACCESSORIES		
	VN159900	PIN-PLUG CORD	2P 1.0m	

\* New Parts

# ■ EXPLODED VIEW (Cassette Deck Mechanism)



- Ⓐ : MOLYKOTE X5 ... DAW CORNING CO., LTD. (LUBRICATION POINT)
- Ⓑ : SCREW LOCK ... THREE BOND CO., LTD. (APPLICATION POINT)

# MECHANICAL PARTS (Cassette Deck Mechanism)

Ref. No.	PART NO.	Description	Remarks	Markets
	VM986300	CASSETTE DECK MECHANISM	CMAY5Z338A	
2	AX616800	CHASSIS ASS'Y	F511529	
2-1	AX605120	IDLER ASS'Y	F517049	
2-2	JX600660	MOTOR ASS'Y, REEL	F564280	
2-3	AX616810	CHASSIS BASE ASS'Y	F612184	
2-4	AX605150	REEL BASE ASS'Y	F623037	
2-5	AX605160	REEL BASE ASS'Y	F623127	
2-7	AX616670	SCREW	2.6x6.4 FG15611A	
2-8	XX636610	WASHER	1.7x3.2-0.25 FJ11117	
2-11	XX641850	WASHER	2.1x7-0.25 UJ12V11	
3	NX610710	PLATE HEAD ASS'Y	F513664	
3-3	AX616820	HEAD BASE	FC52E46	
3-8	AX600370	SPRING, HEAD BASE	FK26N14	
3-9	GX603050	HEAD, REC/PB	FU15R12	
3-10	GX606840	HEAD, ERASE	FU19211	
3-11	MX601130	CONNECTOR	WH48C06	
3-12	MX601140	CONNECTOR	E WH50T05	
4	NX608410	MOTOR ASS'Y, MAIN	F525269	
5	NX610720	P.C.B. ASS'Y	F567476	
5-13	IX618310	SENSOR	SPI-335-34-FG AW13F00	
5-17	KX601080	PUSH SWITCH	UE16E11	
7	AX602510	PROTECT ARM, EJECT	L FC39S33	
8	AX608580	SPRING, CASSETTE HOLDER	FC52H12	
12	BX602330	PLAY ARM	FD45G13	
14	CX672960	CAM GEAR	3R FD45B16	
15	AX611250	SENSOR LEVER	REC FD44T14	
16	CX608720	SENSOR LEVER	CASS. FD44Y12	
17	CX612740	SENSOR LEVER	METAL TAPE FD44V12	
18	CX673050	BELT, MAIN	FF17W31	
20	XX636810	WASHER	2.6x0.25 FJ11130	
23	CX608740	WASHER	2.6x0.5 FJ11114	
25	AX616690	SPRING, EJECT PROTECT	L FK28M16	
26	AX605650	SPRING, SLIDE	FK28R11	
29	NX604300	FLYWHEEL ASS'Y	FR22D11	
31	CX672980	PINCH ROLLER ASS'Y	R FR20L22	
36	XX697410	SPECIAL SCREW	2.6x5 FG11414	
37	AX613160	SPECIAL SCREW	7.7 UG15S11A	
39	AX605640	E-RING	UG13U15	
40	AX616830	SPECIAL SCREW	3x8 UG20B11	
43	CX615200	CUSHION	HOLDER L FF17C12	
51	JX600430	SOLENOID ASS'Y	F765263	
52	AX611260	STEEL CORE	FL39H12A	
53	JX600440	PLUNGER	FL39K12	
61	AX616700	PLATE HOLD ASS'Y	F573246	
61-1	BX602340	HOLDER ASS'Y	FC58G12	
61-2	BX602350	EJECT LEVER	FC58K11	
61-3	AX616710	SPRING, EJECT ARM	FK31V11	
61-7	XX636970	DAMPER ASS'Y	FP47211	
62	BX602360	HOLDER R, MECHANISM	FC58H12	
63	Ei026046	BIND HEAD TAPPING SCREW	2.6x4 ZMC2-Y KG19428	
64	CX672990	ARM, EJECT	FD50E13	
65	AX613170	SPECIAL SCREW	4.7 UG14M31	
66	XX684660	SPECIAL SCREW	UG14L11	

\* New Parts

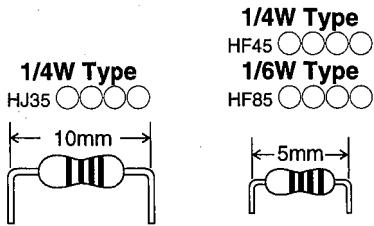
Ref. No.	PART NO.	Description	Remarks	Markets
71	CB069250	BINDING TIE	BK-1	FH12613
5	NX610720	P.C.B. ASS'Y		F567476
	XF557A00	IC	TA7291S	AH14N00
	IA093400	TRANSISTOR	2SA934	AT20CT00
	IX618190	ZENER DIODE	HZS7B3 7.0V	AV37BT00
	IX618200	ZENER DIODE	HZS3A1 3.0V	AV35AT00
	IX614400	DIODE	1SS252	AP13LT00
	NX608430	TERMINAL P.C.B		FP17V13
	IX618310	SENSOR	SPI-335-34-FG	AW13F00
	KX601080	PUSH SWITCH		UE16E11
	LX604840	CONNECTOR	12P	UY20E21

\* 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 4390	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			



※: Not available

KX-580 Special Edition  
YAMAHA