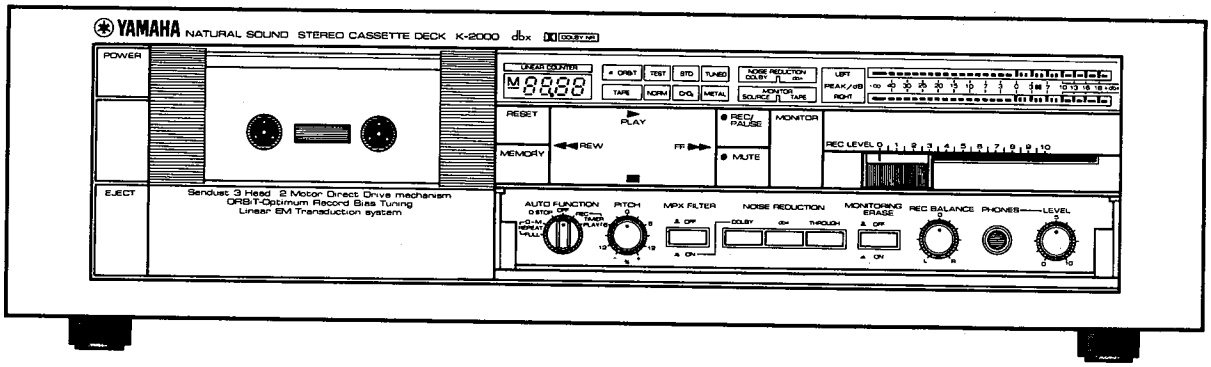
329

STEREO CASSETTE DECK

K-2000

SERVICE MANUAL

■ FRONT PANEL



■ CONTENTS

004502

SINCE 1887 YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

Printed in Japan 83.2.2.6k 376

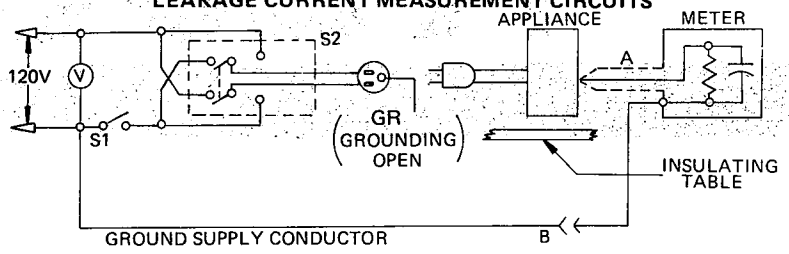
■ TO SERVICE PERSONNEL

(Prepared in accordance with UL Standard 1270)

Before service of this appliance by you, please carefully read this service manual.

Please make Leakage-current or Resistance measurements by suitable meter to determine that exposed parts are acceptably insulated from the supply circuit before returning the appliance to the customer.

LEAKAGE CURRENT MEASUREMENT CIRCUITS



Appliance intended for connection to a 120 volt power supply.

A PROBE WITH SHIELDED LEAD.

B SEPARATED AND USED AS CLIP WHEN MEASURING CURRENTS FROM ONE PART OF APPLIANCE TO ANOTHER.

Confirm that the leakage current is not more than 0.5mA AC.

■ SPECIFICATIONS

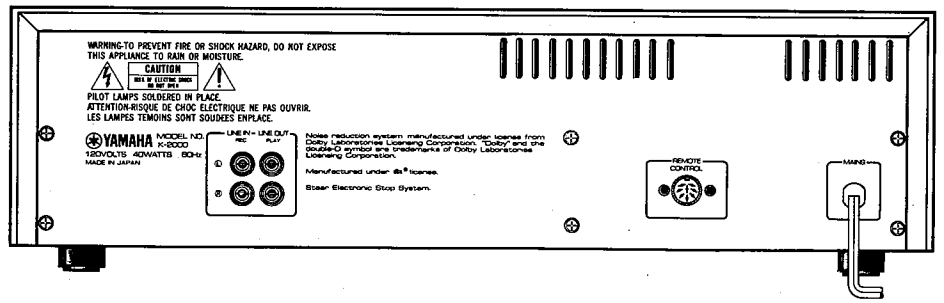
Track Configuration	4-track 2 channel Stereo Cassette Deck
Transport Controls	5-key feather touch full logic control
■ MECHANICAL SECTION	
Tape Speed	4.8 cm/sec
Wow & Flutter	less than 0.08% W. Peak less than 0.02% W. RMS
Rapid Transport (F. FWD/REW)	Within 75 seconds (for C–60 cassette)
Motor	1 Pulse Servo Brushless DD motor (Capstan) 1 Flat Torque DC motor (Reel)
Mechanism	2-motor, 2-solenoid mechanism
■ HEAD SECTION	
Recording/Playback Head	Combination, Low-Impedance Sendust 3 Laminate Core
Erase Head (Main, Sub)	Double Gap Sendust Clevite
■ AMPLIFIER SECTION	
REC/PB Frequency Response	
Normal tape (–20dB)	20Hz to 18kHz ±3dB
Chrome tape (–20dB)	20Hz to 20kHz ±3dB
Metal tape (–20dB)	20Hz to 20kHz ±3dB
(0dB)	30Hz to 15kHz ±3dB
Input Sensitivity/Impedance	LINE: 50mV/30kΩ
Maximum allowable input	LINE: 6V
Output Level/Impedance	LINE: 500mV/30kΩ PHONES: 170mV/8Ω
Signal-to-Noise Ratio	
THROUGH	more than 59dB
DOLBY	more than 68dB
dbx	more than 108 dB
Harmonic Distortion Metal tape (315Hz)	less than 0.8%
■ GENERAL	
Power Supplies	
U.S & Canadian Models	120V 60Hz
European Model	220V 50Hz
British & Australian Models	240V 50Hz
General Model	110/120/220/240V 50/60Hz
Power Consumption	40W
Dimensions (W x H x D)	435 x 122.5 x 346 (17-1/8x4-7/8x13-5/8")
Weight	9 kg (19.8 lbs)

Specifications subject to change without notice.

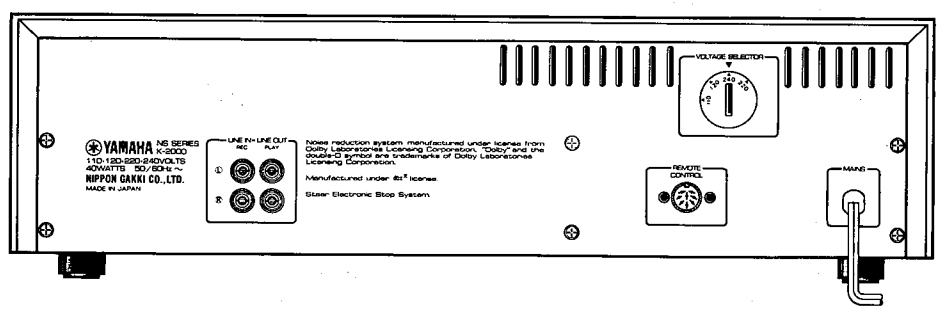
(U) ..... U.S.A. model
(C) ..... Canadian model
(A) ..... Australian model
(G) ..... European model
(B) ..... British model
(R) ..... General model

■ REAR PANEL

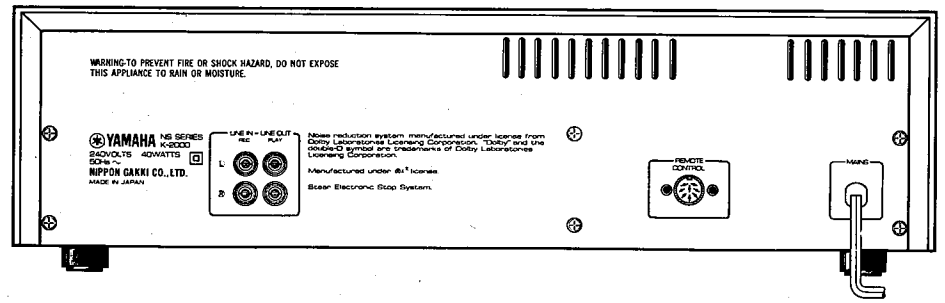
▼ U.S.A. & Canadian models



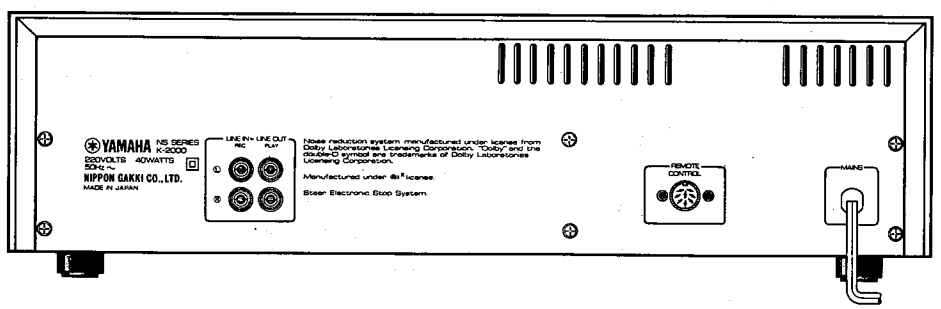
▼ General model



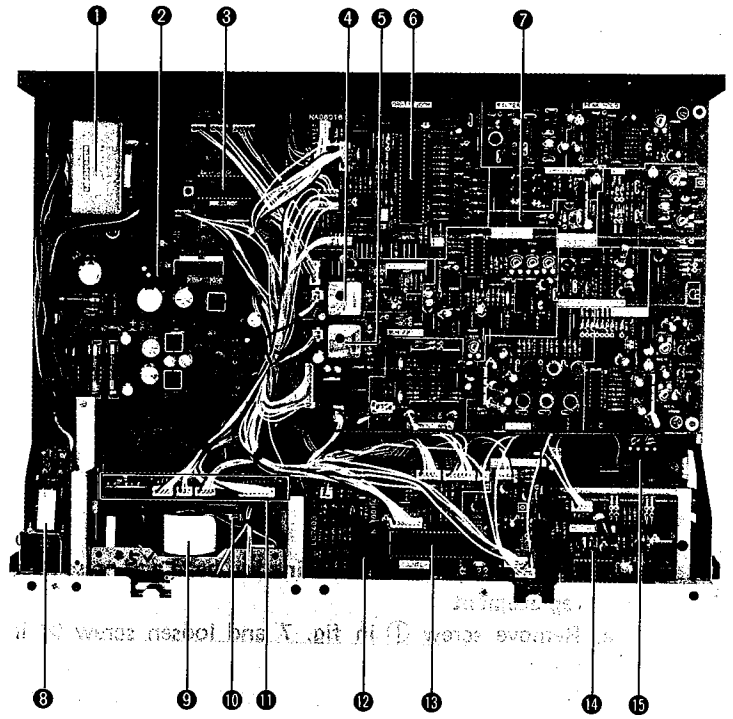
▼ British & Australian Models



▼ European model



■ INTERNAL VIEW



❶ POWER TRANSFORMER
U.S.A. & Canadian models: GA65850
Australian & British models: GA65860
European model: GA65870
General model: GA65840
❷ POWER CIRCUIT BOARD (1)
❸ LOGIC CONTROL IC: μPD554-083
❹ BIAS OSC: iG08970
❺ BIAS OSC: iG07600
❻ α ORBiT IC: LM6405A-150
❼ RECORDING AMP. CIRCUIT BOARD
❽ POWER SWITCH
❾ REEL MOTOR
❿ CAPSTAN MOTOR (D.D. Motor)
⓫ RELAY CIRCUIT BOARD
⓬ COUNTER CIRCUIT BOARD (1)
⓭ COUNTER IC: LM6402A-108
⓮ COUNTER CIRCUIT BOARD (2)
⓯ MAIN CIRCUIT BOARD (1)

■ DISASSEMBLY PROCEDURES

DISASSEMBLY PROCEDURES OF CABINET PARTS

1. Top cover removal

Remove screws ① and ② of both left and right sides in fig. 1, and then remove the top cover.

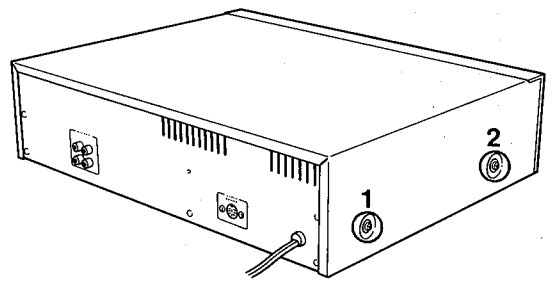


Fig. 1

2. Bottom cover removal

Remove screws ① through ⑧ in fig. 2 and then remove the bottom cover.

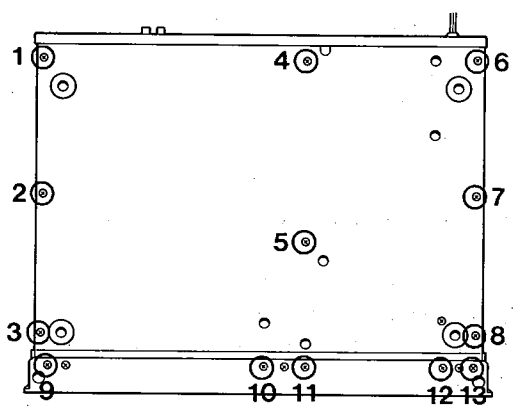


Fig. 2

3. Front panel removal

a. Remove the top cover.
b. Open two binding ties which tieup each connectors.
c. Remove screws ① and ② in fig. 3 and pull the counter circuit board (1) backward gently (connected to the front panel by connectors.)
d. Remove screws ③ and ④ in fig. 3 and pull the counter circuit board (2) backward gently (connected to the front panel as well as counter circuit board (1).)
e. Remove connectors #12, #14, #15, #16, #17.
f. Remove screws ⑨ through ⑬ (binding screws only) in fig. 2 and screws ⑤ through ⑨ (binding screws only) in fig. 3, and then pull the front panel forward gently.

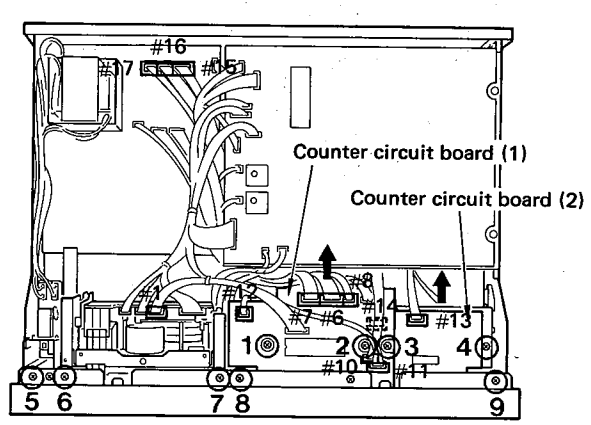


Fig. 3

DISASSEMBLY PROCEDURES OF CASSETTE MECHANISM

1. Cassette mechanism unit removal

a. Remove the top cover and front panel.
b. Disconnect the connectors (#1, #3, #4, #5) connected to the relay circuit board. (Refer to fig. 15)
c. Disconnect the head lead wire connectors (#25, #26, #27, #28). (Refer to fig. 15)
d. Remove screws ① and ③ in fig. 4, and you can remove the cassette mechanism unit.

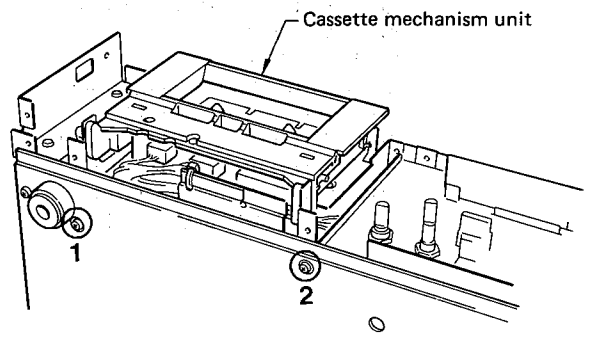


Fig. 4

2. Idler Ass'y replacement

a. Remove screw ① in fig. 5 and open the cassette holder.
*Be careful of the spring position when assembling unit. (Refer to fig. 5)
b. Loosen the lead wires (orange and white-colored) of LED on the blind plate.
c. Remove screws ② and ③ in fig. 5 and then remove the blind plate.

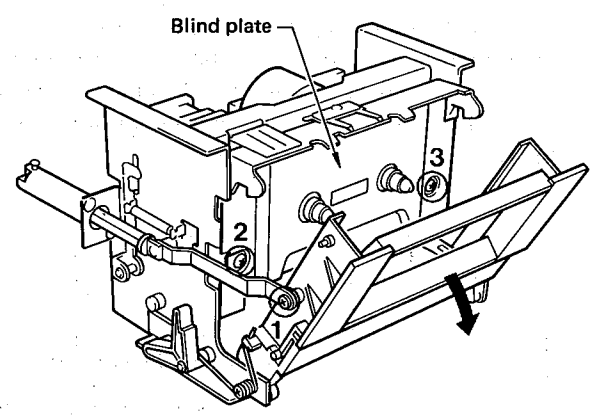


Fig. 5

d. Remove screw ① and idler spring in fig. 6, and replace the idler ass'y.

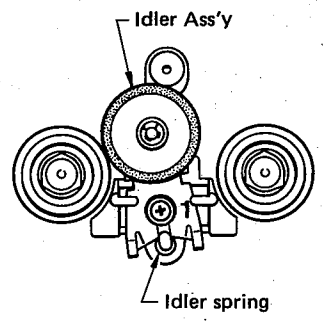


Fig. 6

3. Recording/playback combination head and erase head replacement

a. Remove screw ① in fig. 7 and loosen screw ② in fig. 7, and then remove the M circuit board plate.
b. Remove screw ③ in fig. 7 and open the cassette holder.
c. Unsolder the lead wires of heads.
*Refer to fig. 9 when connecting them.
d. Remove screws ① and ② in fig. 8 and then replace the recording/playback combination head.
e. Remove screws ③ and ④ in fig. 8 and then replace the erase head.
*Check head azimuth adjustment when replacing the recording/playback head.
*Check height adjustment of erase head guide when replacing the erase head.
f. Remove screw ⑤ in fig. 8 and then replace the sub erase head.

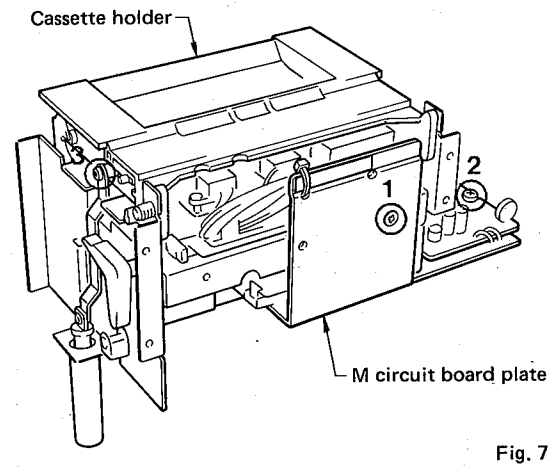


Fig. 7

4. Pinch roller replacement

a. Open the cassette holder.
b. Remove the washer ① in fig. 10 and then replace the pinch roller arm ass'y.
*Refer to fig. 10 as to the position of pinch roller spring.

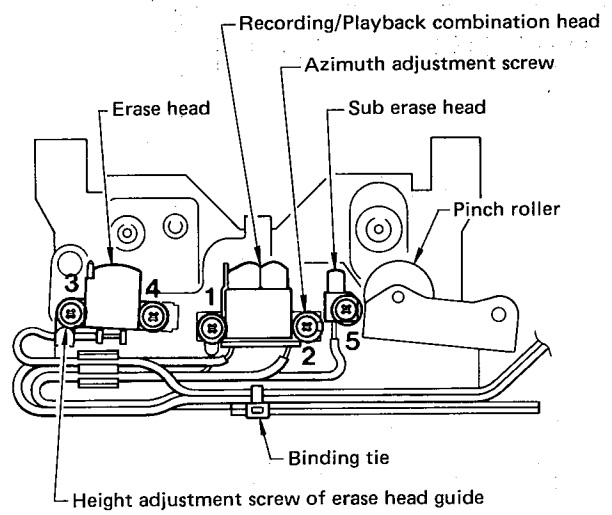


Fig. 8

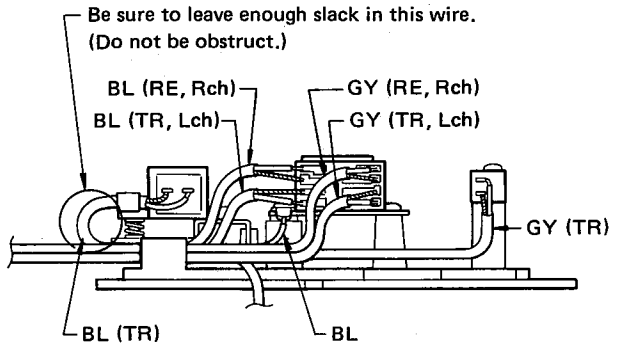


Fig. 9

• WIRE COLOR ABBREVIATIONS

BL	▶	Black	VI	▶	Violet
BR	▶	Brown	GY	▶	Gray
RE	▶	Red	WH	▶	White
OR	▶	Orange	GG	▶	Light Green
YE	▶	Yellow	SB	▶	Light Blue
GR	▶	Green	PK	▶	Pink
BE	▶	Blue	TR	▶	Transparent

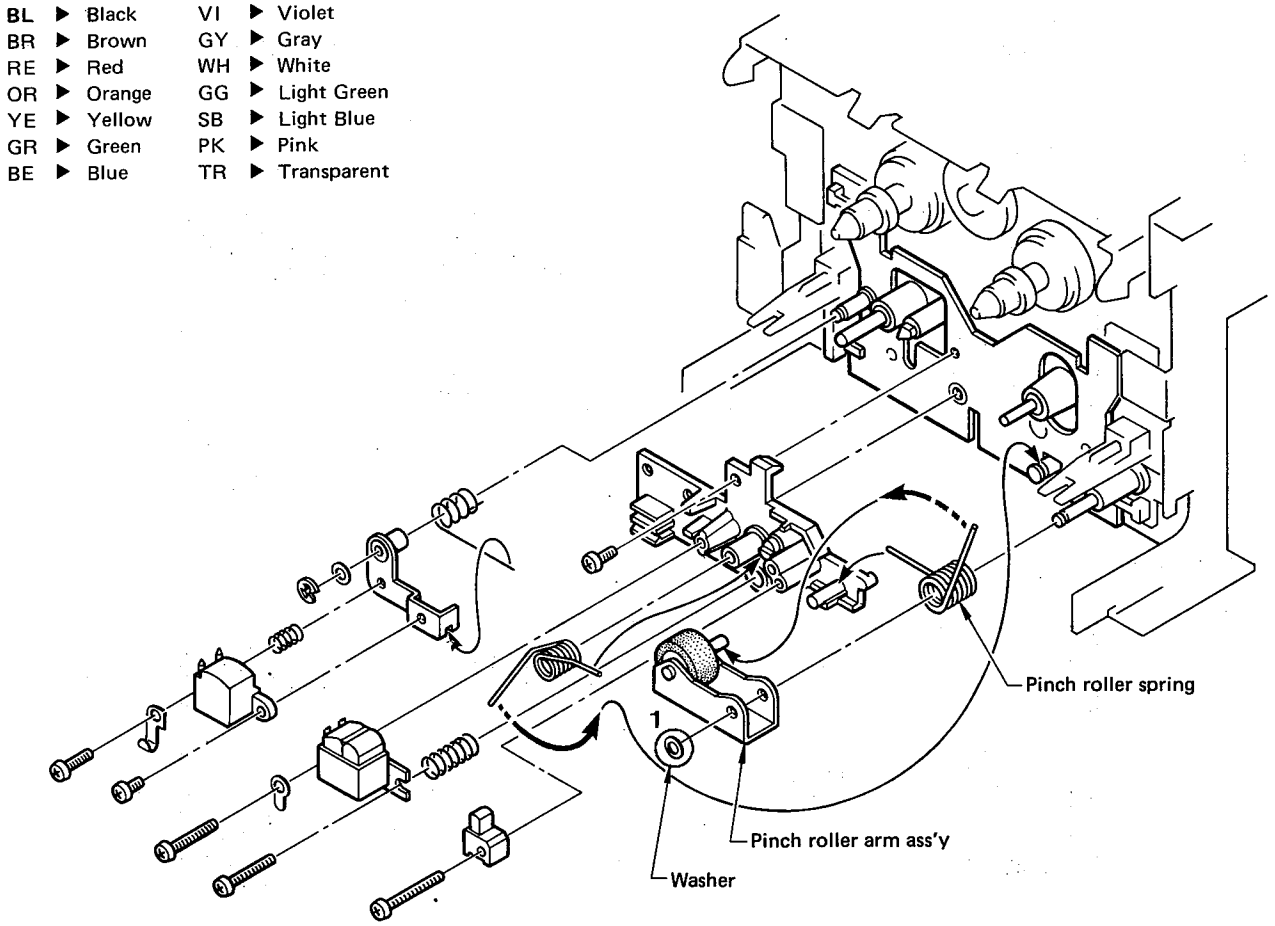


Fig. 10

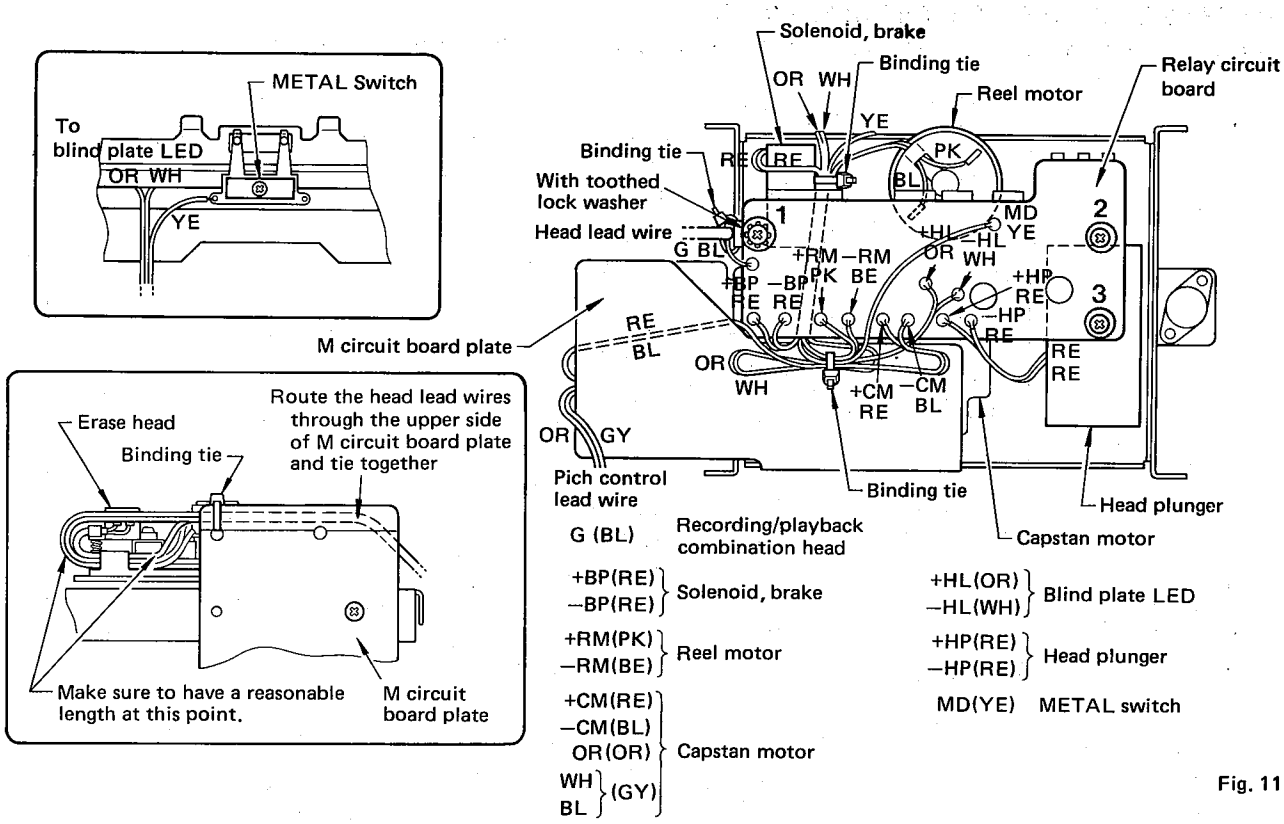


Fig. 11

5. Reel motor replacement

a. Removing the reel motor with idler ass'y is impossible, so first remove the idler ass'y according to procedure 2 on P4.

b. Remove screws ① through ③ in fig. 11 and then remove the relay circuit board.

c. Remove screw ① in fig. 12 and then remove the reel motor unit.

*At this time, if the idler ass'y has not been removed, you will be not able to remove the reel motor unit.

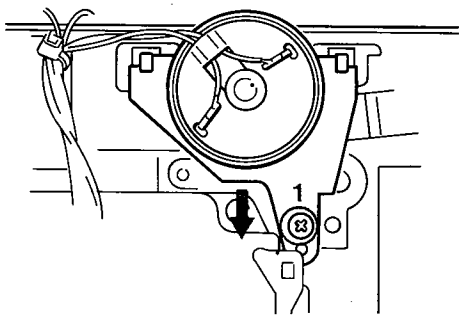


Fig. 12

d. When installing relay circuit board, make sure that acrylic fibers are securely fitted into acrylic fiber holders (2 locations).

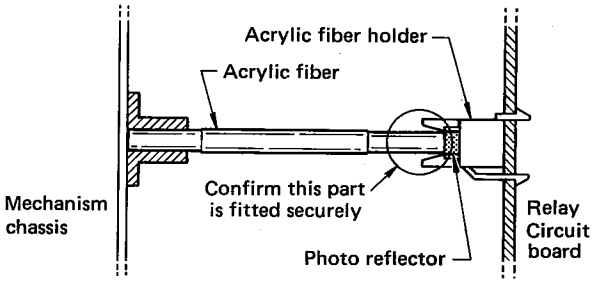


Fig. 13

6. Capstan motor replacement

a. Remove the relay circuit board.

b. Remove the M circuit board plate.

c. Remove screws ① through ③ in fig. 14 and then replace the capstan motor.

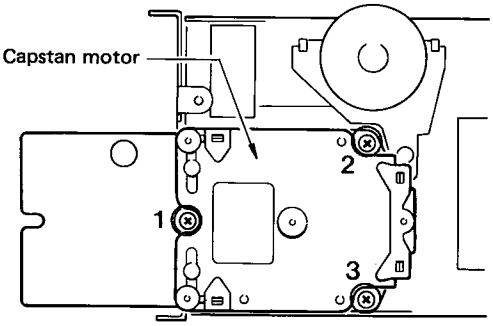


Fig. 14

PARTS OF EACH CIRCUIT BOARD REPLACEMENT

*Replacement of the parts of most circuit boards in this unit is possible by removing the top and bottom cover.

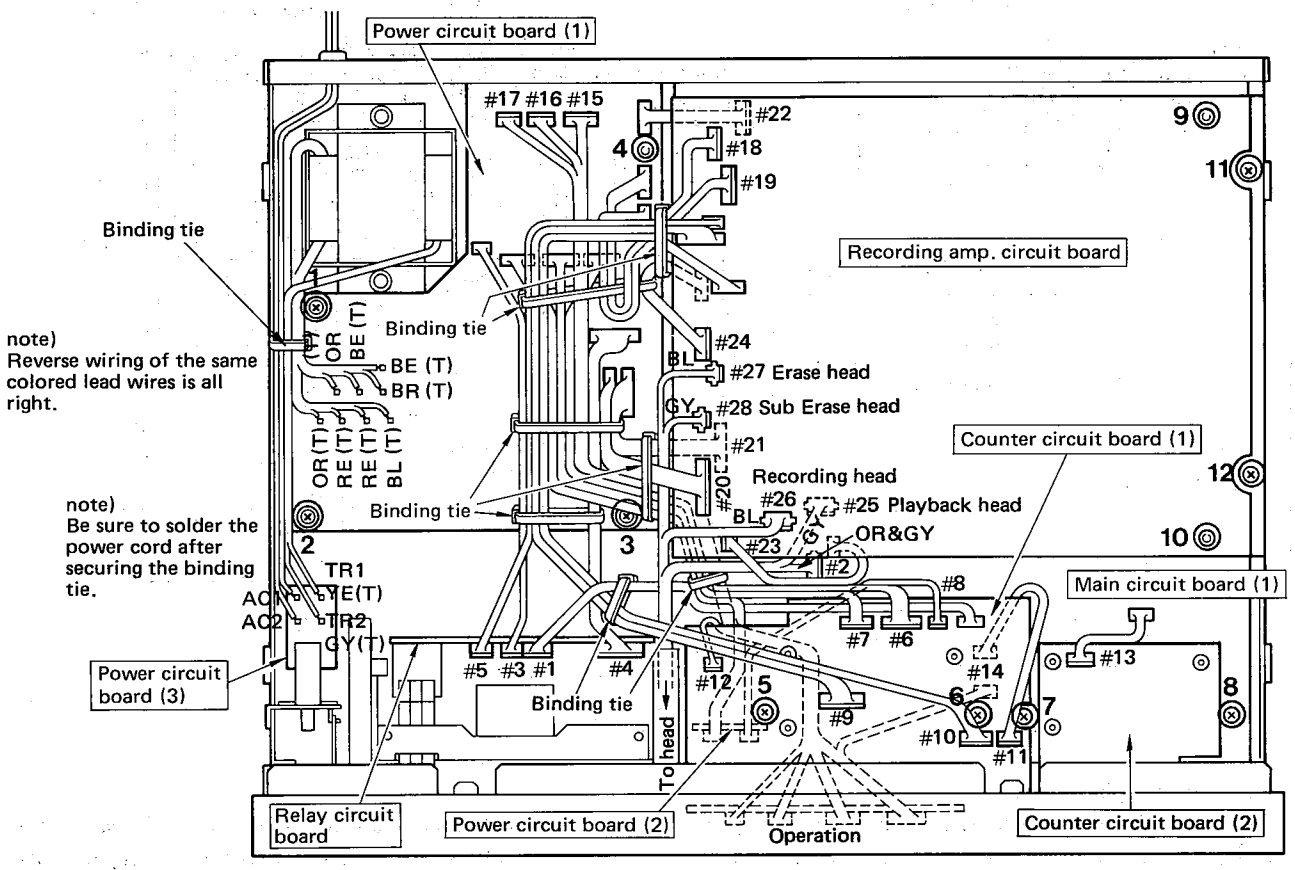


Fig. 15

1. Counter circuit board (1) removal

Remove screws ⑤ and ⑥ in fig. 15 and then pull out the counter circuit board (1) by sliding it backward.

*This circuit board is connected to the front panel with connectors.

2. Counter circuit board (2) removal

Remove screws ⑦ and ⑧ and then pull out the counter circuit board (2) by sliding it backward.

*This circuit board is connected to the front panel with connectors.

3. Recording amp. circuit board replacement

Remove plastic rivets ⑨ and ⑩ in fig. 15 and then rotate the recording amp. circuit board upward. (Refer to fig. 16)

In this way, you can replace the parts.

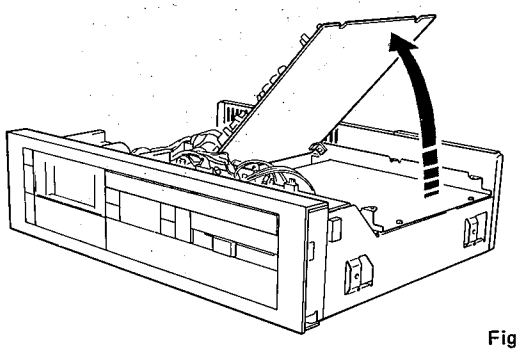


Fig. 16

4. Adjustment and parts replacement of main circuit board

Remove screws ⑪ and ⑫ (don't remove plastic rivets ⑨ and ⑩) in fig. 15 and then rotate the recording amp. unit upward.

In this way, you can perform adjustments and parts replacement on main circuit board.

■ 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.
- Proceed with the recording section adjustment after having finished the playback section adjustment.

2. Instruments required

- Audio frequency oscillator
- ACVM or 2 channel ACVM
- Wow/flutter meter
- Oscilloscope
- Torque meter
- DCVM

MECHANICAL ADJUSTMENT

"CONFIRMATION OF TORQUES"

Confirm that torques are within the following ratings;

Adjustment item	Ratings	Measurement conditions
TAKE UP torque	35 ± 10 g.cm	Couple the Torque Meter (SRK CT-100M) to the deck in play mode, and read the torque of take up reel's.(While in play, read the center of deflection.)
FF torque	More than 80 g.cm	Set the Torque Meter (SRK CT-100M) to the FF mode, and when it was wound completely, read the torque of take up reel's.
REW torque	More than 80 g.cm	Set the Torque Meter (SRK CT-100M) to the REW mode, and when winding is over, read the torque of supply reel's.
BACK TENSION torque	$2.5^{+1.5}_{-0.5}$ g.cm $2.5^{+1.5}_{-0.5}$ g.cm	Measure the back tension torque with the Torque Meter (CT-W) in play mode.
Pinch roller pressure	460 ± 50 g	Measure the pinch roller pressure to the capstan in play mode.
Tape tension	More than 150 g (Referential rating)	Set the power torque meter and measure the tape tension of pinch roller and capstan in play mode.

- **CHECK OF FAST FORWARD AND FAST REWIND TIMES.**

Insert a C-60 tape and check to ensure that time of fast forward and fast rewind is less than 75 seconds and that the tape is transported at a constant speed all the way.

- **MECHANICAL ADJUSTMENT**

Step	Adjustment item	Tape	Instrument required	Mode	Adjustment part	Rating	Remarks
1	Tape speed	MTT-111 3kHz, −10dB (250nwb/m)	Wow/flutter meter or Frequency counter	PB	Semi fixed variable resistor in circuit board of the D.D capstan motor.	3000 +10 Hz PITCH knob → center (0)	This adjustment is possible through the bottom cover (Fig. 17) *Perform adjustment at the center of the test tape length if possible.
2	Wow/flutter	MTT-111 3kHz, −10dB (250nwb/m)	Wow/flutter meter	PB		Less than 0.035% (JIS WRMS)	After the test tape has run about 30 seconds, check that the meter deflects less than 0.035%.
3	Azimuth	MTT-114 10kHz, −10dB (250nwb/m)	ACVM	PB	Azimuth adjustment screw of REC/PB combination head. (Fig. 18)	Set both channel levels to maximum output level and the phase difference between the left and right channels to minimum.	After the adjustment, make sure to apply screw lock paint.
4	Height of erase head guide	Mirror cassette (MC-09)		PB	Height adjustment screw of erase head. (Fig. 18)	Adjust the height position so that the tape runs smoothly.	

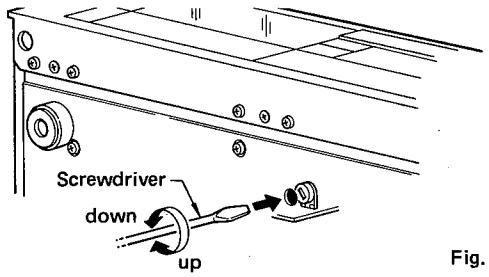


Fig. 17

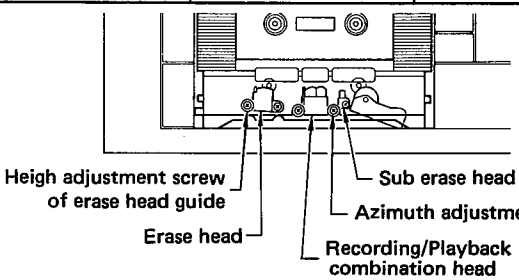


Fig. 18

ELECTRICAL ADJUSTMENT

Perform each adjustment or measurement at THROUGH position of NOISE REDUCTION.

Step	Adjustment item	Tape	Instrument required	Mode	Measurement conditions	Point of measurement	Adjustment part	Rating
1	Playback Amp. offset		DCVM			TP11(Lch) ~E TP12(Rch) ~E	VR119(Lch) VR120(Rch) (OFFSET)	0V ± 100mV
2	Playback level	MTT-212C 315Hz, 160nwb/m or MTT-212 315Hz, 250nwb/m	ACVM	PB TAPE		LINE OUT	VR113(Lch) VR114(Rch) (PBL)	−6dBV ± 0.5dBV (500mV ± 30mV) −2dBV ± 0.5dBV (794mV ± 30mV)
3	Playback frequency	Test tape for frequency check. 3180μs+120μs (LH) 315Hz, −10dB 10kHz, −10dB or MTT-256	ACVM	PB TAPE		LINE OUT	VR111(Lch) VR112(Rch) (PBF)	Check that the 10kHz playback level lies within 0 ± 1dB of the 315Hz playback level.
4	Playback frequency response confirmation	Test tape for frequency check. 3180μs+120μs (LH) (MTT-256) 3180μs+70μs (CrO_2) (MTT-356)	ACVM	PB TAPE		LINE OUT		Check that the 14kHz playback level lies within 0 ± 2dB of the 315Hz playback level. (Refer to Fig. 19)
5	Meter		ACVM	REC SOURCE	Apply a 1kHz signal to LINE IN terminals. Set the REC LEVEL knob so that LINE OUT voltage is −6dBV (500mV)		VR117(Lch) VR118(Rch) (METER)	Adjust VR117 and VR118 to the lowest level where the 0dB display part of the level meter light up.
6	Record level	YAMAHA CR60 (CrO_2)	ACVM	REC	Apply a 1kHz signal to LINE IN terminals Short TP1 (AUTO OFF) terminals.	LINE OUT	VR805(Lch) VR806(Rch) (REC-L, R)	−6dBV ± 0.5dBV (500mV ± 30mV)
7	Record bias	YAMAHA CR60 (CrO_2)	ACVM	REC TAPE	Apply 1kHz and 15kHz signal to LINE IN terminals at the same interval. Short TP1 terminals.	LINE OUT (−26 dBV)	VR808 (BIAS CR) VR810 (BIAS BALANCE)	15kHz record and playback level lies within 0 ± 2dB of the 1kHz record and playback level.
		YAMAHA NR60 (LH)	ACVM	REC TAPE	Apply 1kHz and 14kHz signal to LINE IN terminals at the same interval. Short TP1 terminals.	LINE OUT (−26dBV)	VR809 (BIAS-LH)	14kHz record and playback level lies within 0 ± 2dB of the 1kHz record and playback level.
		YAMAHA MR60 (METAL)	ACVM	REC TAPE	Apply 1kHz and 17kHz signal to LINE IN terminals at the same interval. Short TP1 terminals.	LINE OUT (−26dBV)	VR807 (BIAS-ME)	17kHz record and playback level lies within 0 ± 2dB of the 1kHz record and playback level.
8	Channel balance		ACVM	REC	Apply a 1kHz, −10dBV signal to LINE IN terminals.	LINE OUT	VR115 (R-GAIN)	When center of REC LEVEL within 0.2dB.

PLAYBACK FREQUENCY RESPONSE

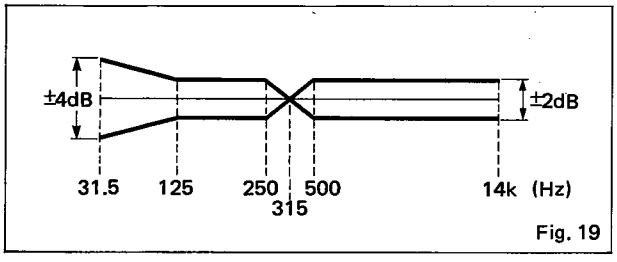


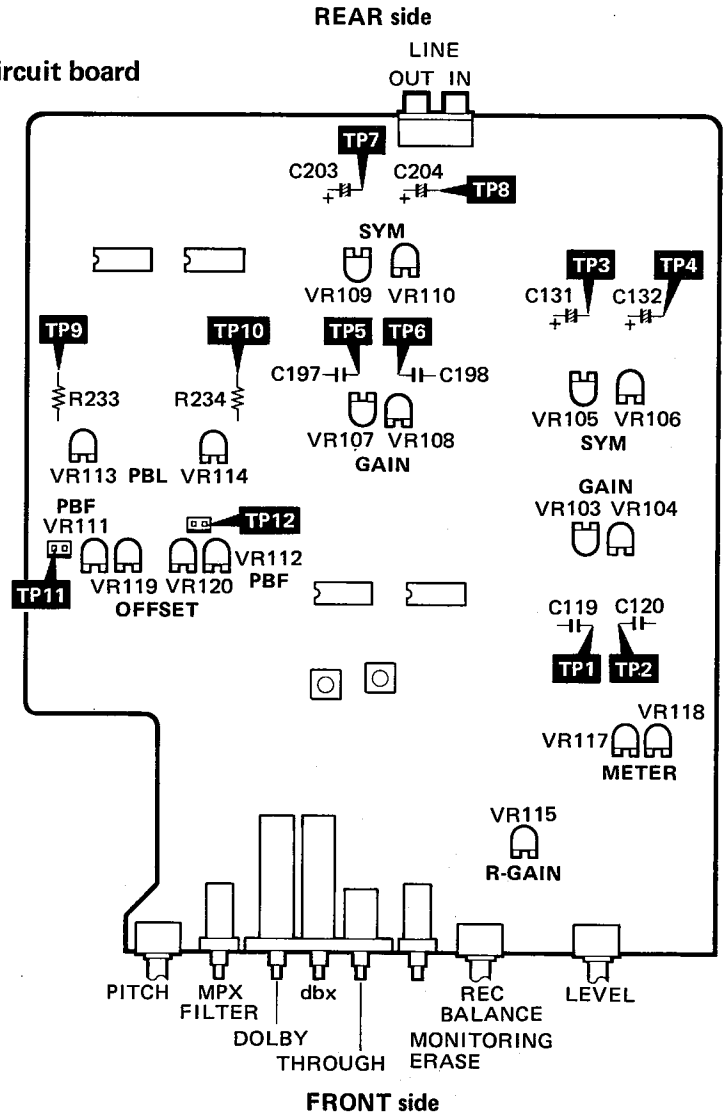
Fig. 19

− 2dBV = 794mV = 0.2dBm
− 6dBV = 500mV = − 3.8dBm
−10dBV = 316mV = − 7.8dBm
−21dBV = 89mV = −18.8dBm
−26dBV = 50mV = −23.8dBm

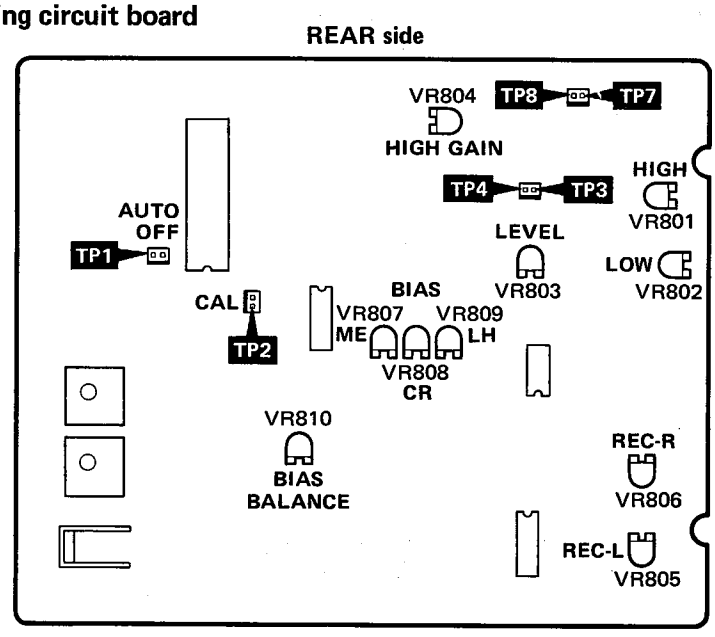
〈0dBV = V〉

- TEST POINT

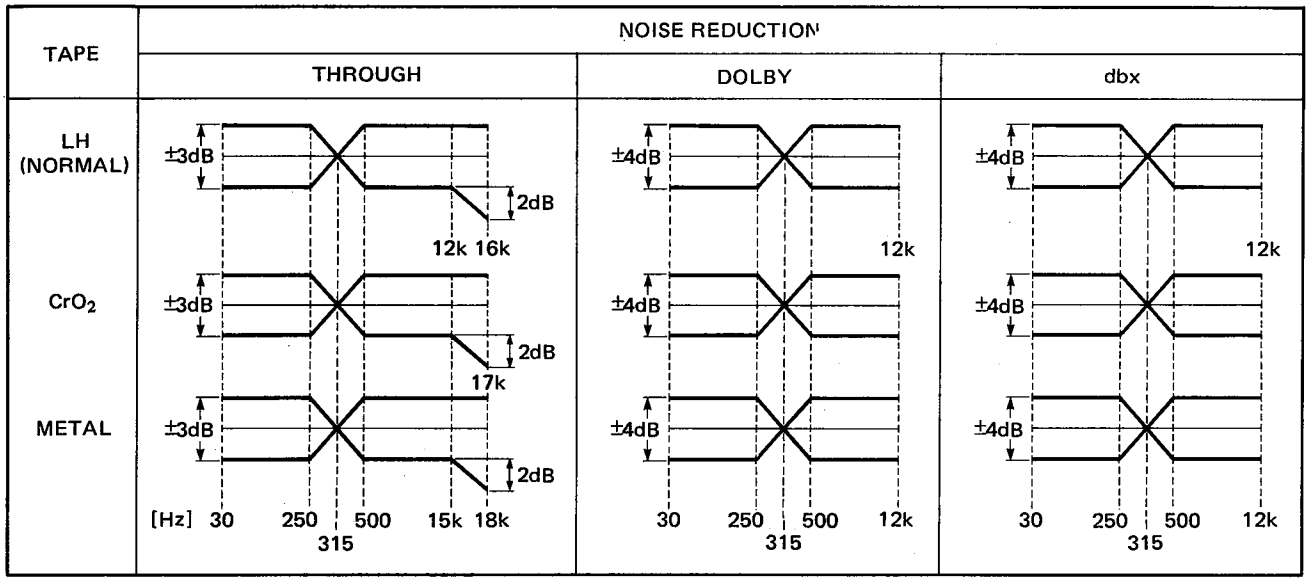
- Main circuit board



- Recording circuit board



TOTAL FREQUENCY RESPONSE



• dbx ADJUSTMENT

Perform this adjustment only when dbx system needs to be readjusted.

Step	Adjustment item	Input signal	Instrument required	Measurement conditions	Point of measurement	Adjustment part	Rating
1	dbx output offset (Playback)		DCVM	STOP mode REC LEVEL →Min	TP7 (Lch) TP8 (Rch)	VR109 (Lch) VR110 (Rch) (SYM)	0V ± 10mV
2	dbx gain at playback mode.	TP9 (Lch) TP10 (Rch) 100Hz	ACVM	Apply a 100Hz signal to TP9 and TP10 terminals so that the TP5 (Lch) and TP6 (Rch) becomes to 400mV.	TP7 (Lch) TP8 (Rch)	VR107 (Lch) VR108 (Rch) (GAIN)	400mV ± 10mV
3	dbx output offset (Record)		DCVM	STOP mode REC LEVEL →Min	TP3 (Lch) TP4 (Rch)	VR105 (Lch) VR106 (Rch) (SYM)	0V ± 10mV
4	dbx gain at record mode	LINE IN 100Hz	ACVM	Apply a 100Hz signal to LINE IN terminals so that the TP1 (Lch) and TP2 (Rch) becomes to 400mV	TP3 (Lch) TP4 (Rch)	VR103 (Lch) VR104 (Rch) (GAIN)	400mV ± 10mV

• ORBiT (Optimum Record Bias Tuning) ADJUSTMENT

Proceed with the ORBiT adjustments after having finished the total frequency response adjustment and confirmation.

Step	Adjustment item		Tape	Instrument required	Mode	Measurement conditions	Point of measurement	Adjustment part	Rating
1	OSC output	10kHz		ACVM Frequency counter	STOP	Short TP2 terminals one time.	TP3	VR801 (HIGH)	5V ± 0.1V (10kHz ± 2kHz)
		1kHz					TP4	VR802 (LOW)	5V ± 0.1V (1kHz ± 200Hz)
2	ORBiT	1kHz level	YAMAHA CR60 (CrO_2)	ACVM			TP8	VR803 (LEVEL)	2.5V ± 50mV
		10kHz level					TP7	VR804 (HIGH GAIN)	2.5V ± 50mV

Adjusting ORBiT, TEST indicator continue to light. After the adjustment, once turn the power switch off and turn it on again. Confirm that the α ORBiT indicator changes TEST to TUNED when REC.

• α ORBiT SELF TEST

The following items are set by SELF TEST movements.
It is able to advance the steps with being shorted TP2 (CAL) terminals repeatedly.

Note) Jumping may be occured by chattering. In order to avoid the chattering it is recommended to provide the circuit like fig. 20 and to check the following items.

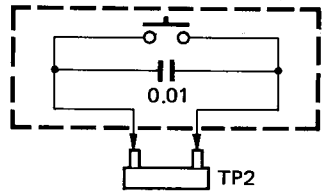
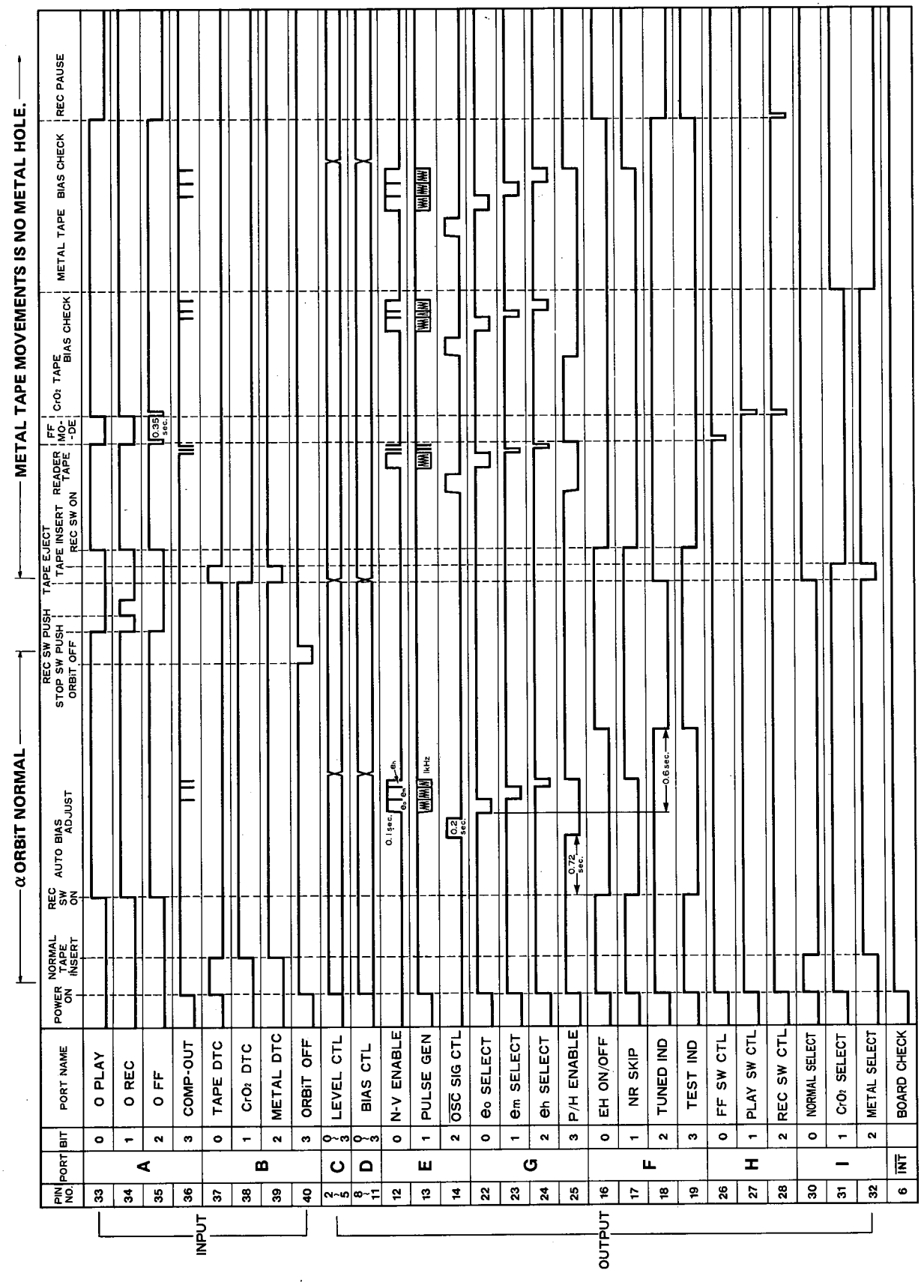


Fig. 20

SELF TEST STEP	ITEM CHECKED	POINT OF MEASUREMENT	RATING	IC OUTPUT	REMARKS
1	Ref Volt Select : e_0	TP9	DC +3.5V ±0.1V (e_0)	REC C →ON ("L") OSC →ON ("H") EH, NR, PH, e_0 →ON ("L")	Load a YAMAHA CR60 (CrO_2 tape). In REC PLAY mode.
2	Select : em	TP10	DC +3.5V ±0.5V	e_0 →OFF ("H") e_0 →ON ("L")	
3	Select : eh	TP10	DC +3.5V ±0.5V	em →OFF ("H") eh →ON ("L")	
	Level : STD	TP11, 12	AC 82mV ±5mV (Recording level of test signal.)		
4	Level : Min	TP11, 12	−2.7 ±0.3dB (Level: Level ratio of STD)	L (0 ~ 3) = 111	
5	Level : Max	TP11, 12	+1.8 ±0.3dB (Level: Level ratio of STD)	L (0 ~ 3) = 0000	
6	Level : STD	TP11, 12	AC 82mV ±5mV	L (0 ~ 3) = 1001	Condition is back to STEP 3.
7	Bias : Max	TP14	+0.8 ±0.1dB (Level: Level ratio of STD)	B (0 ~ 3) = 1111	
8	Bias : Min	TP14	−1.7 ±0.2dB (Bias : Level ratio of STD)	B (0 ~ 3) = 0000	
9	Bias : STD	TP14	AC 1V ±0.3V	B (0 ~ 3) = 1010 eh →OFF ("H") e_0 →ON ("L")	f = 200kHz
10	A–D Conv Check & FF Check			N–V →ON ("H") PLS →ON (f=1kHz) ↓ FF. C →ON ("L") ↓ REC C, PLAY C →ON ("L")	Output level from PLS is decided by e_0 level.
11	TUNED		TEST →OFF OPT →ON	REC C →ON ("L") TUNED →lights ("L")	SELF TEST is completed. (In REC PAUSE mode.)
12	NORMAL MODE				Getting out of SELF TEST routine, normal movements is active.

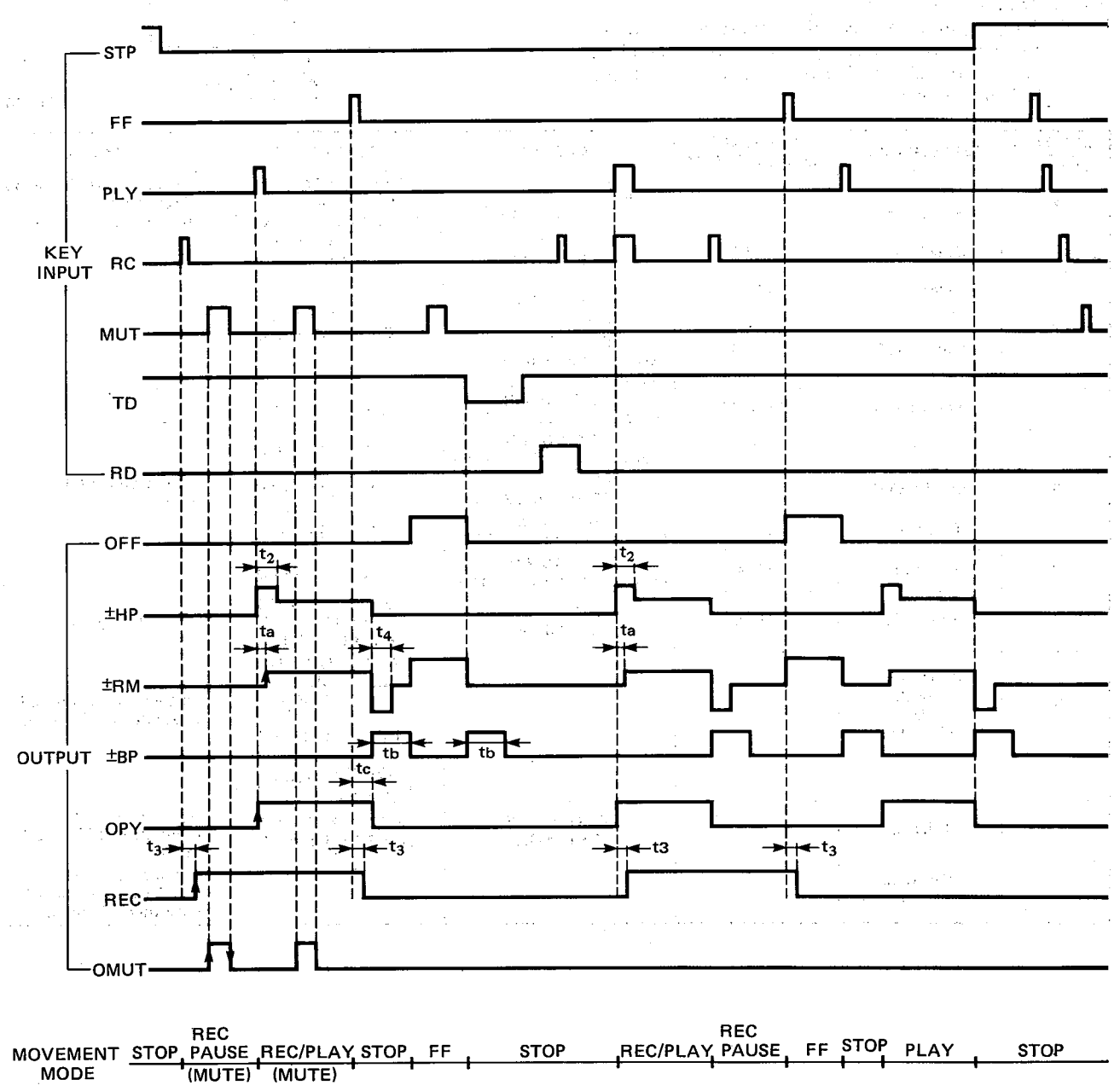
■TIMING CHART

• AUTO BIAS TIMING CHART (IC811: LM6405-150)



• FOUNDATION MOVEMENTS

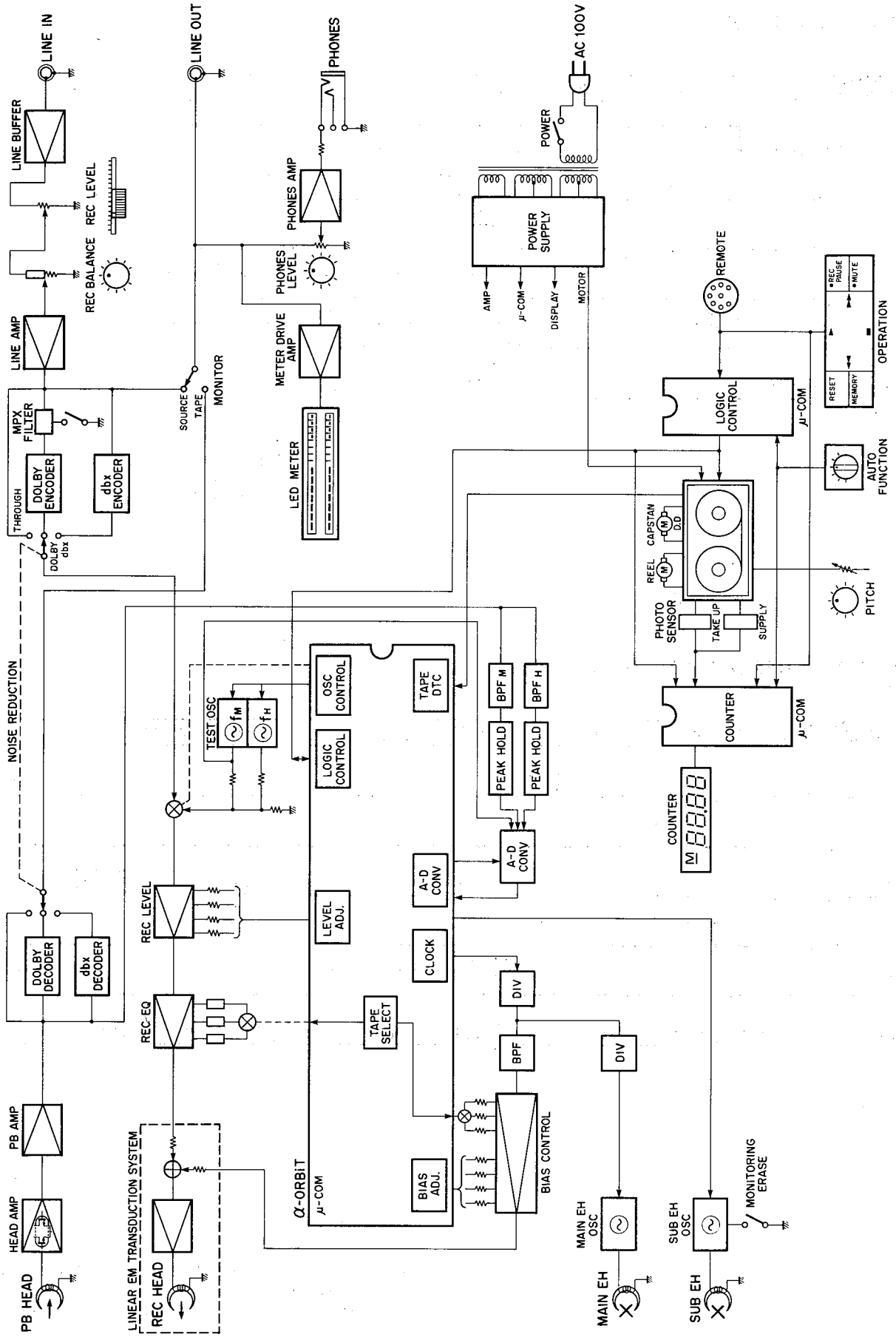
Set the AUTO FUNCTION to OFF position.



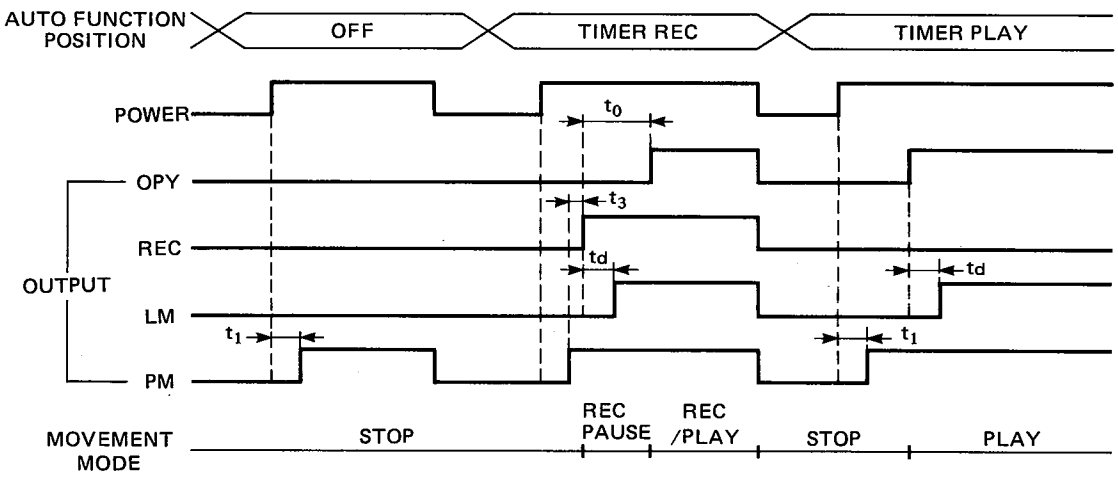
Terms and symbols

STP	:	Stop	HP	:	Head plunger	t_1	: 0.1 sec.
FF	:	Fast foward	RM	:	Rec mute	t_2	: 0.3 sec.
PLY	:	Play	BP	:	Breake plunger	t_3	: 0.01 sec.
RC	:	Recording	OPY	:	Play out	t_4	: 0.04 sec.
MUT	:	Muting	OMUT	:	Muting out	ta	: 0.1 sec.
TD	:	Tape detector	LM	:	Line mute	tb	: 0.2 sec.
RD	:	Record inhibit detector	MEM	:	Memory	tc	: 0.05 sec.
			INT	:	Interrupt		
			ORW	:	Rewind out		

BLOCK DIAGRAM

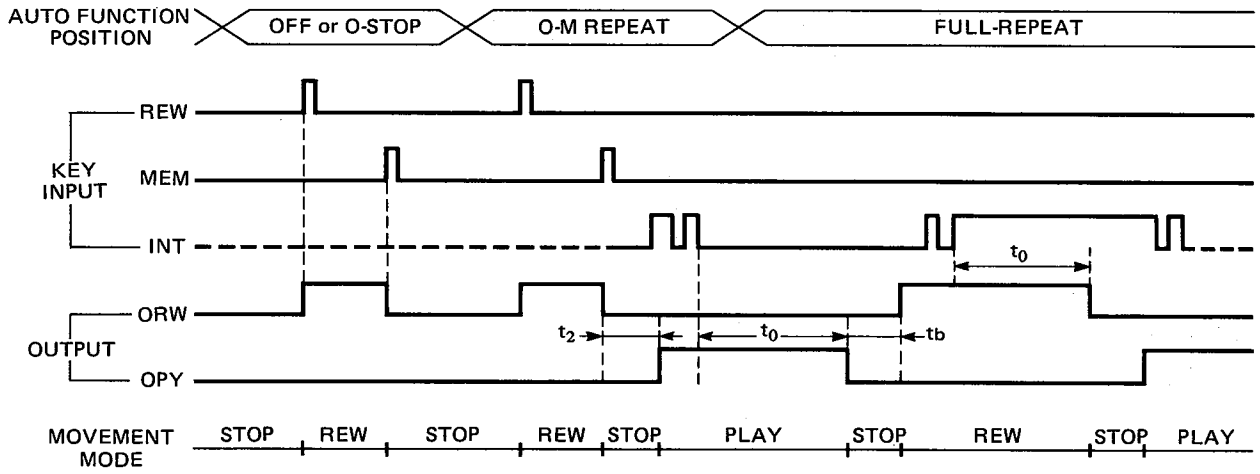


• TIMER MOVEMENT



t_0 : 2 sec.
t_1 : 0.1 sec.
t_3 : 0.01 sec.
td : 0.15 sec.

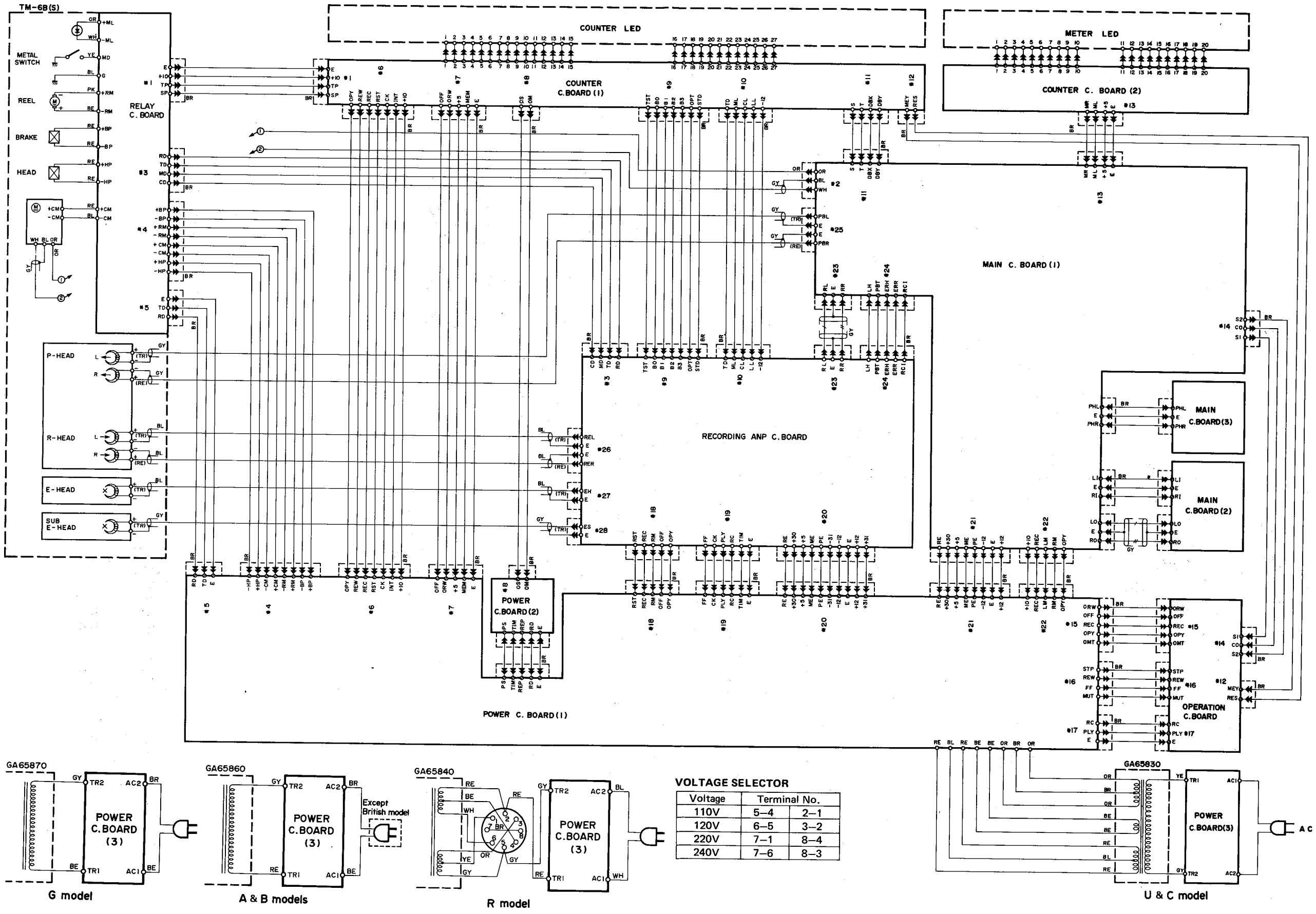
• MEMORY & REPEAT MOVEMENT



t_0 : 2 sec.
t_2 : 0.3 sec.
tb : 0.2 sec.

Note) AUTO STOP and AUTO REPEAT act after 2 second (t_0) when INT signal changes last.
(Cycle of INT signal's repeat should be more than 12 msec.)

■WIRING

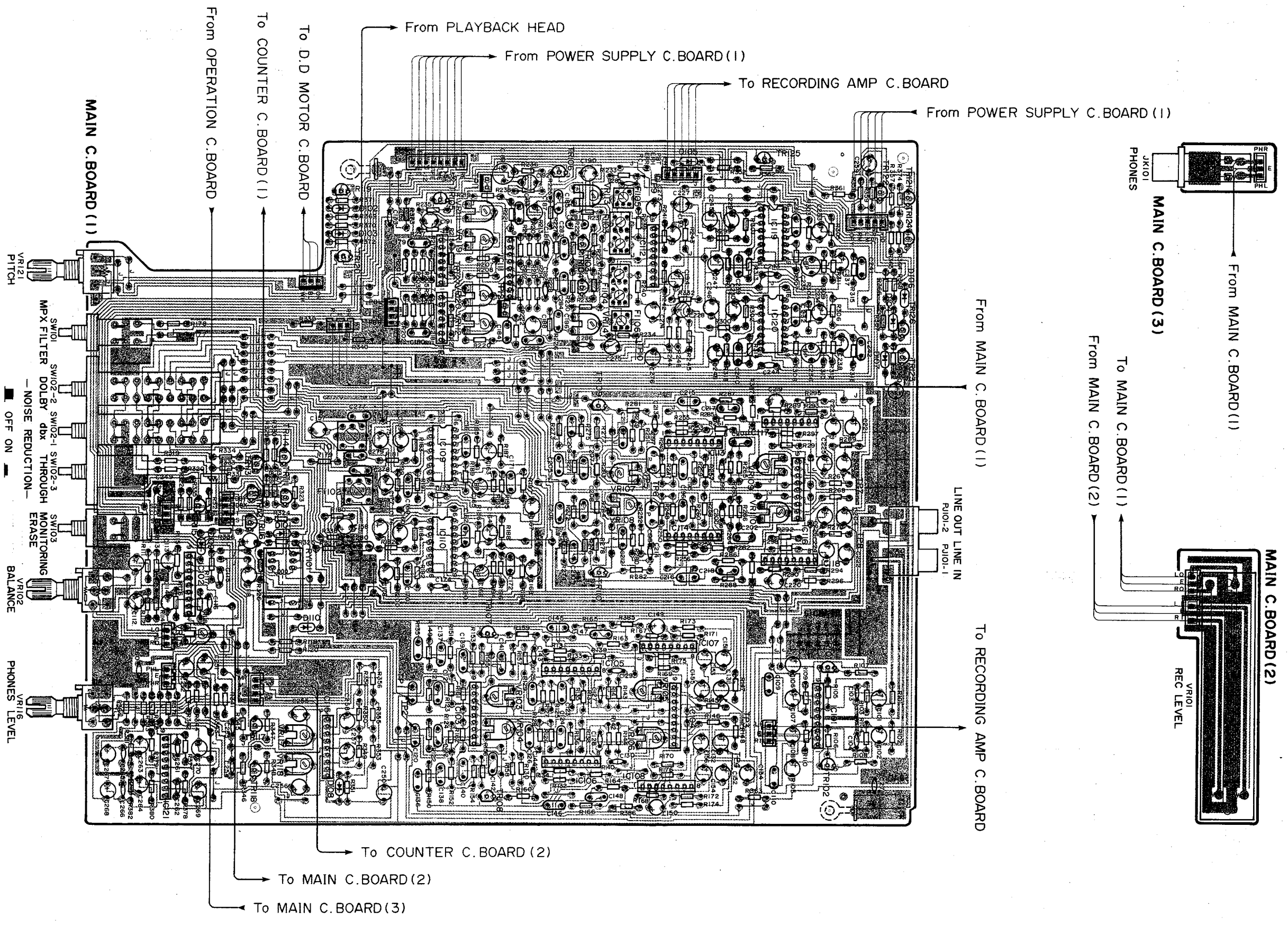


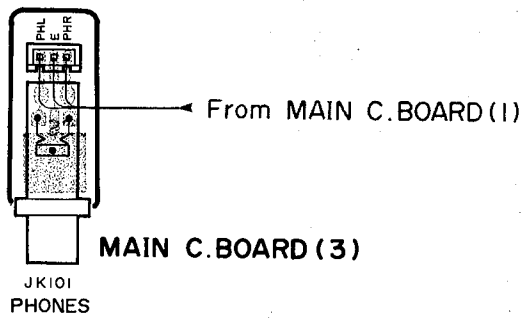
VOLTAGE SELECTOR

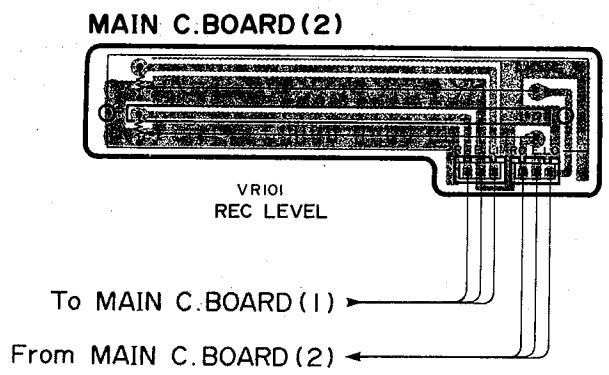
Voltage	Terminal No.	
110V	5–4	2–1
120V	6–5	3–2
220V	7–1	8–4
240V	7–6	8–3

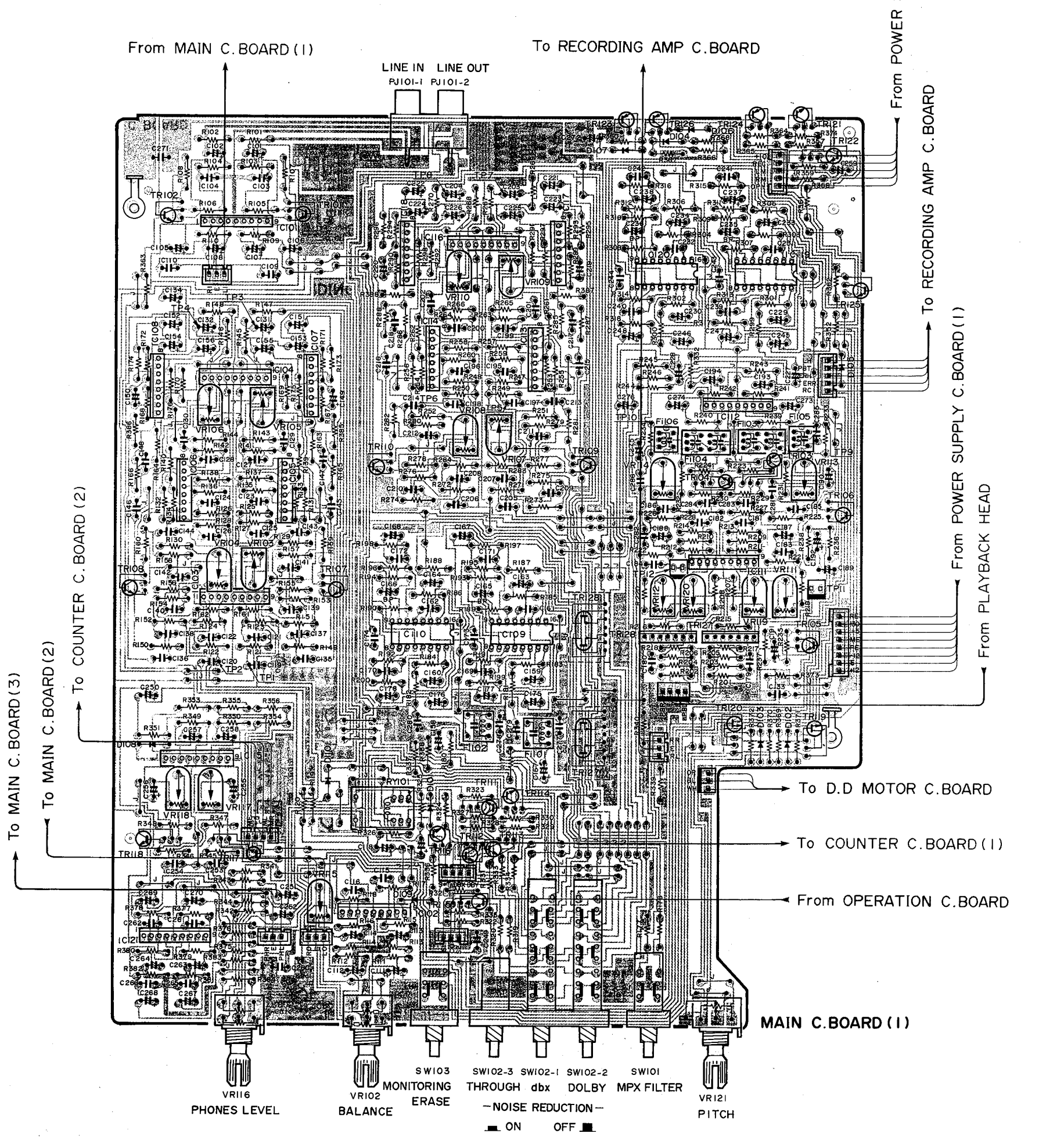
■ PRINTED CIRCUIT BOARD

<Main circuit board> Parts side



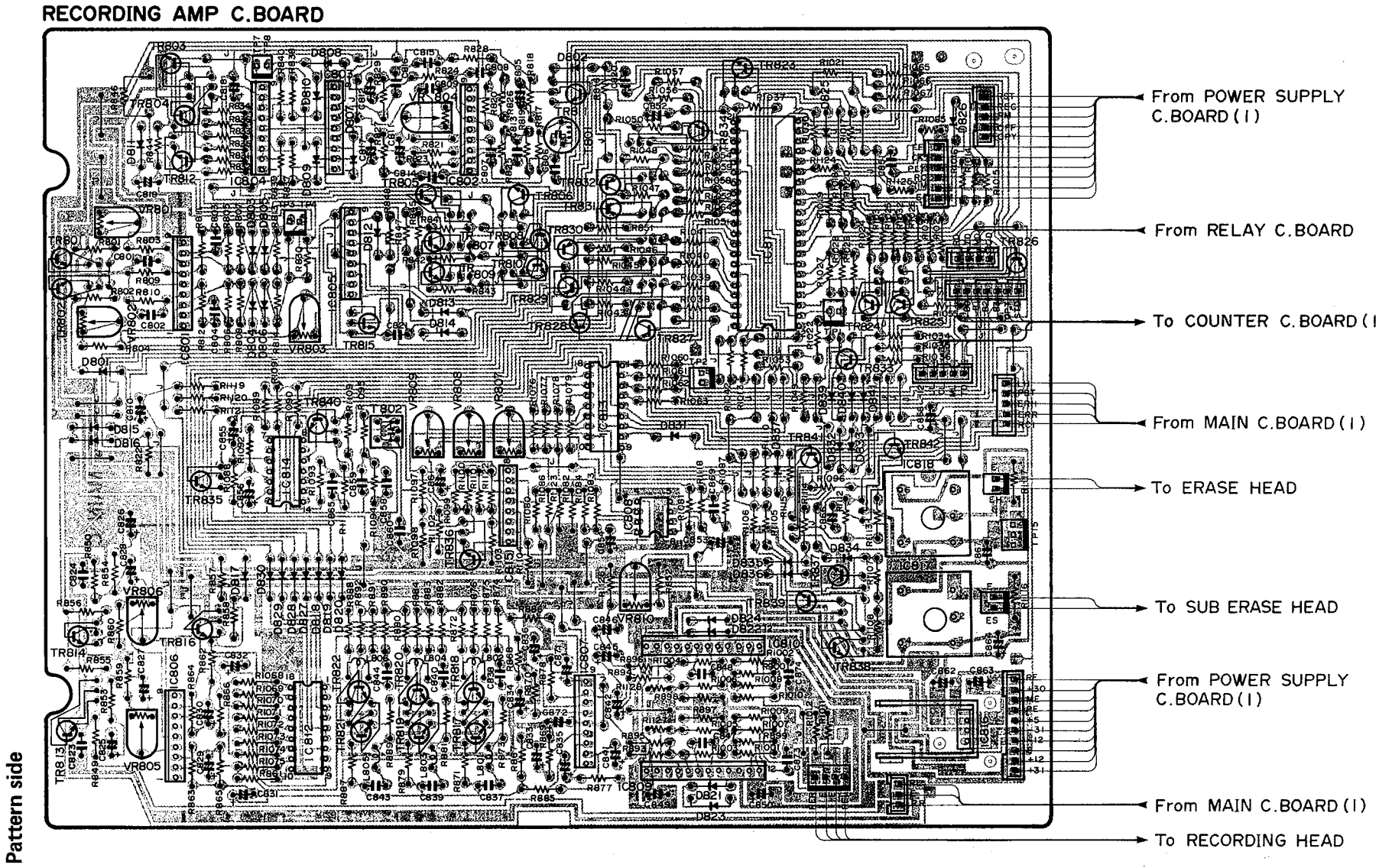




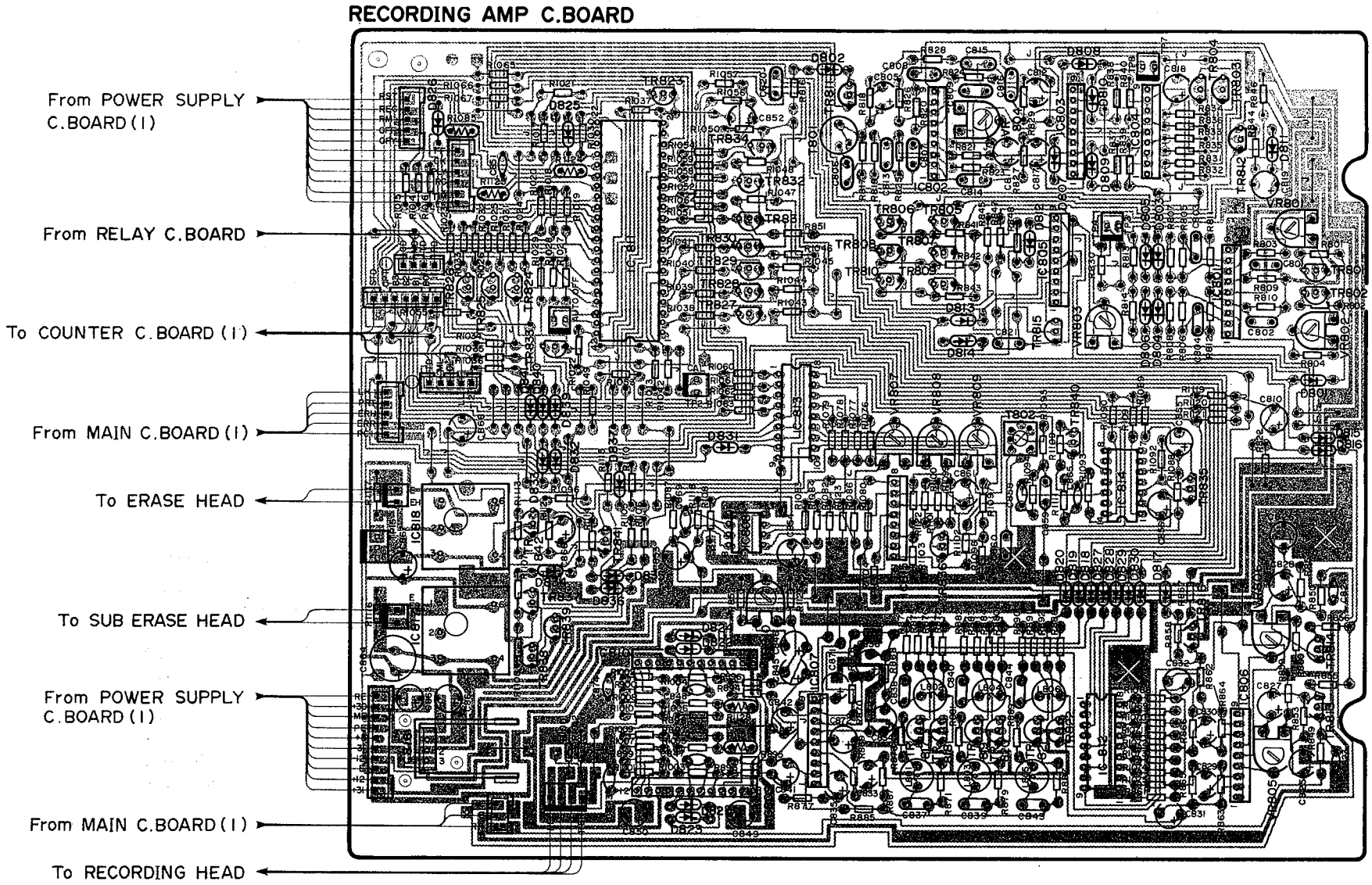


<Main circuit board> Pattern side

RECORDING AMP C.BOARD

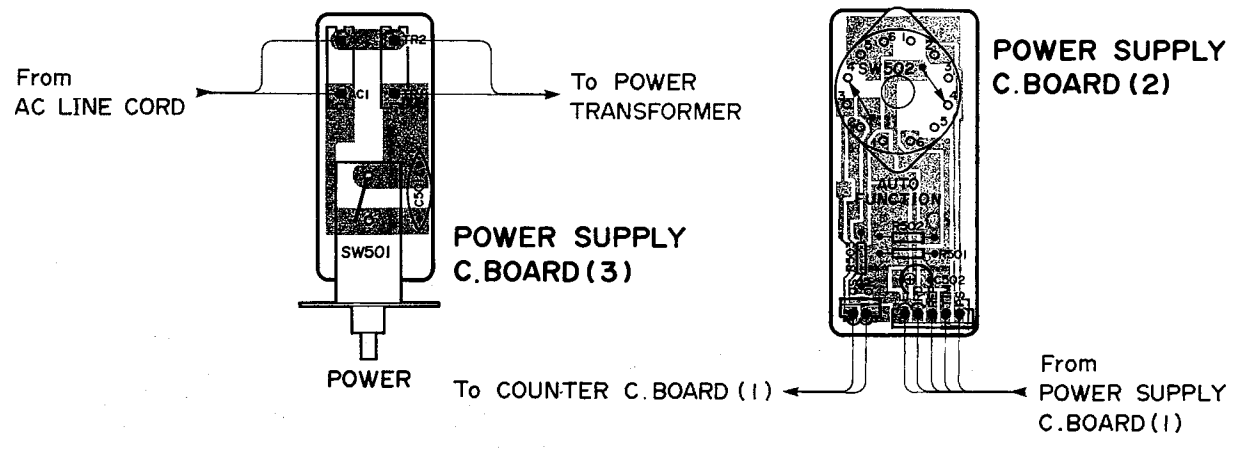


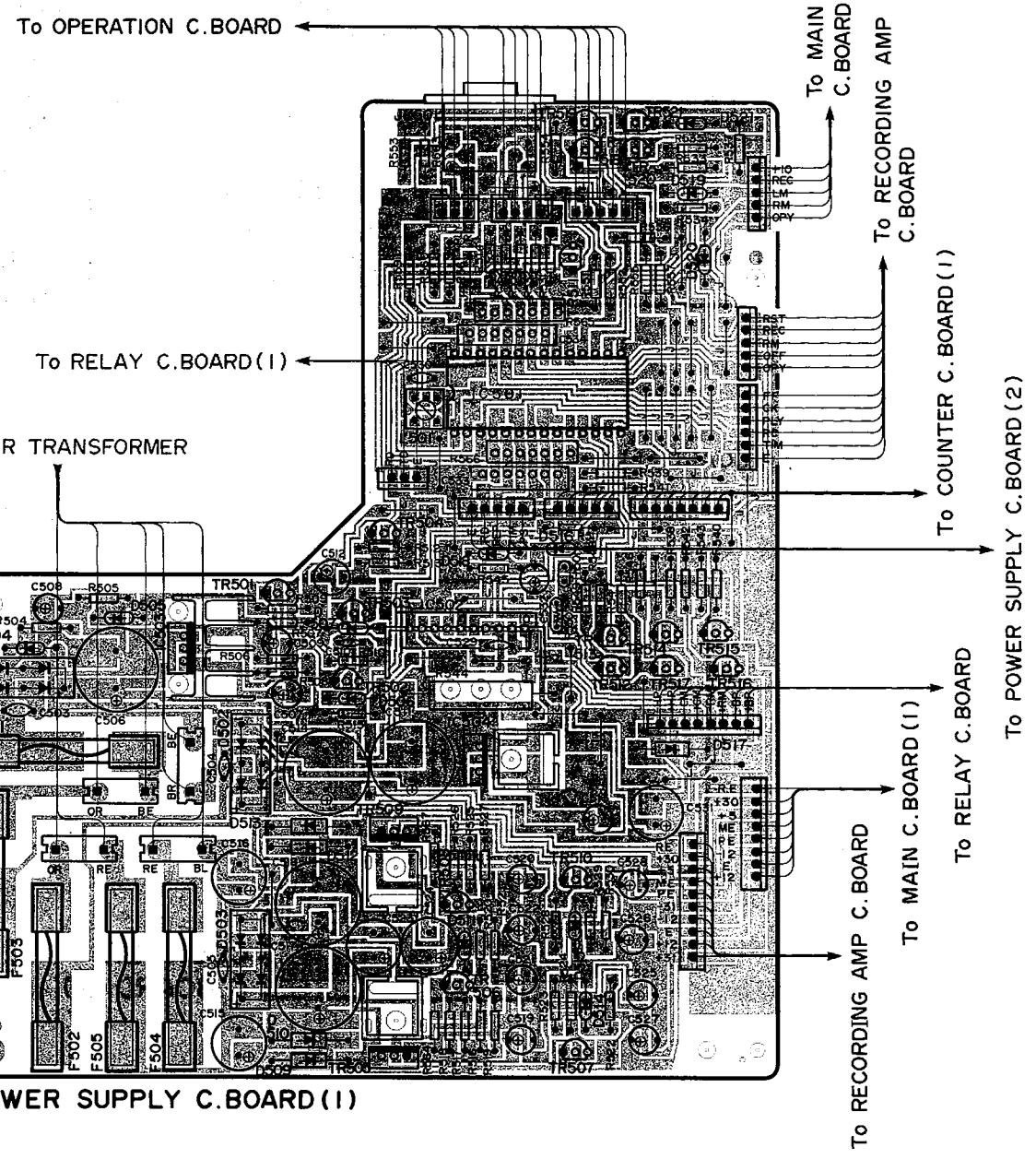
RECORDING AMP C.BOARD



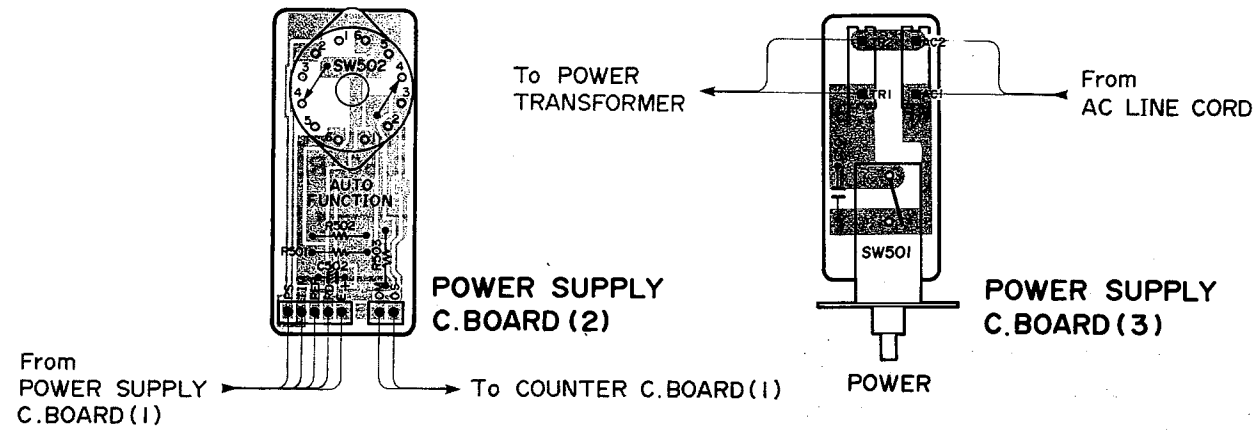
<Power circuit board>

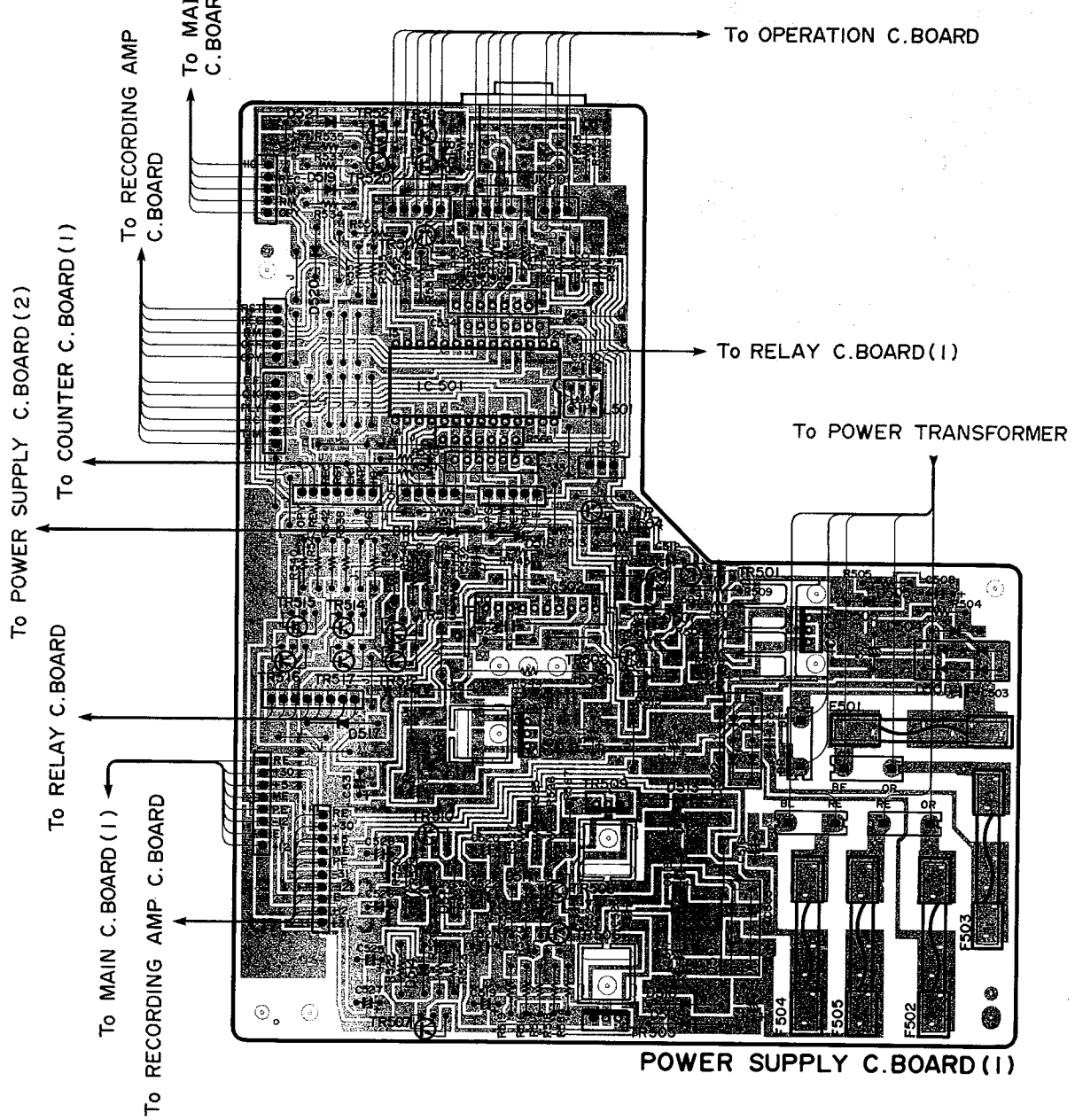
Parts side





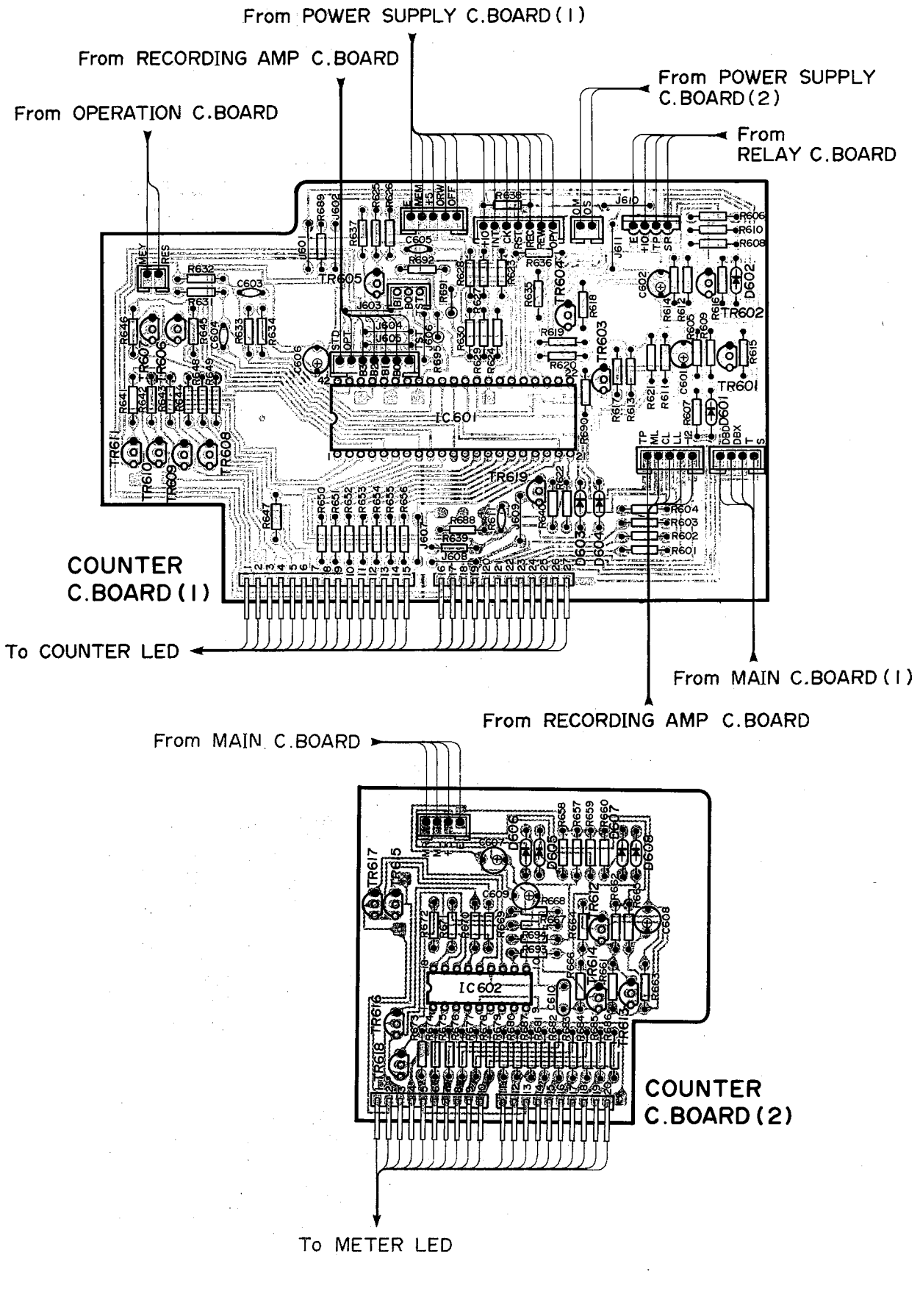
Pattern side



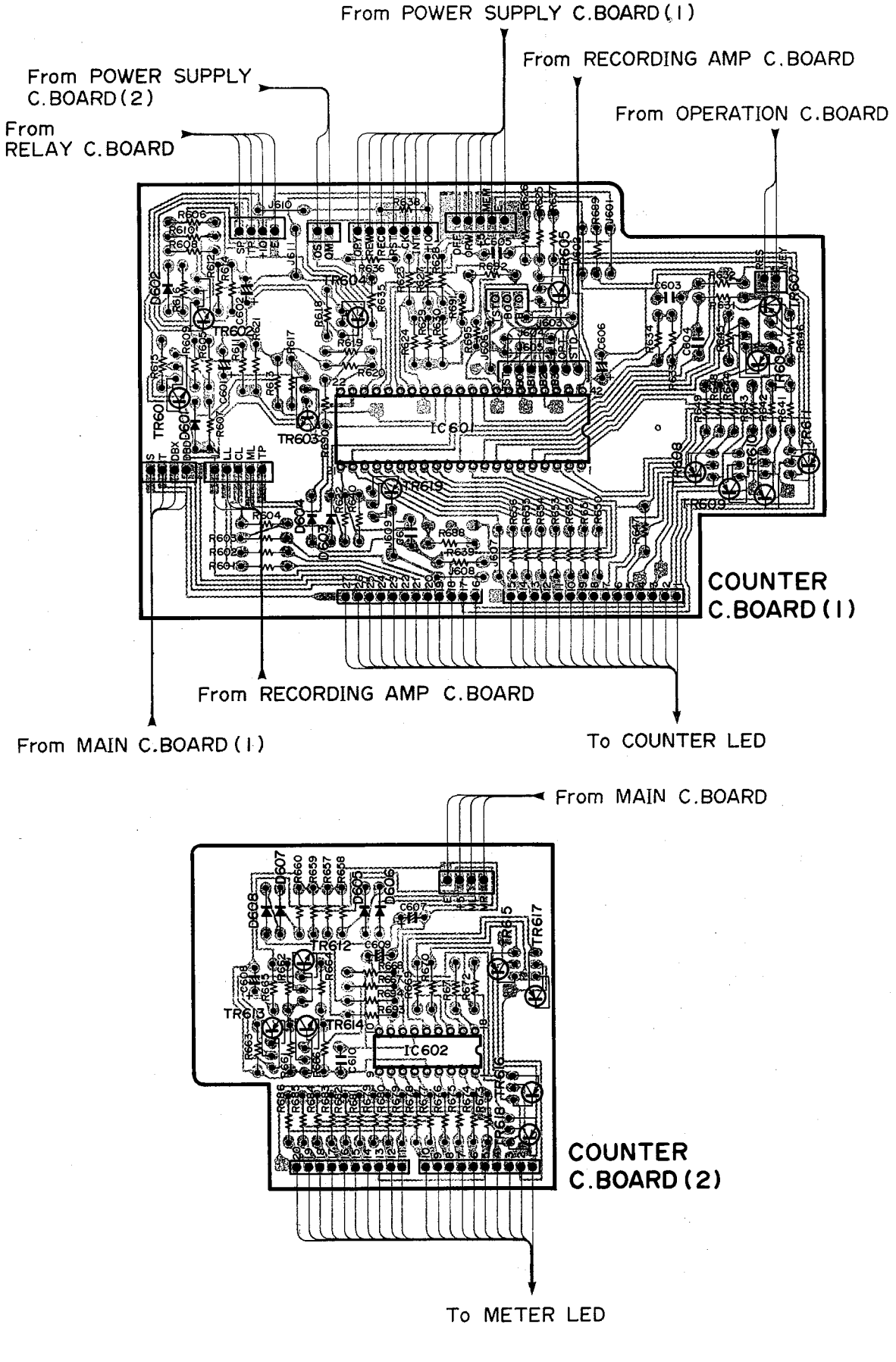


<Counter circuit board>

Parts side

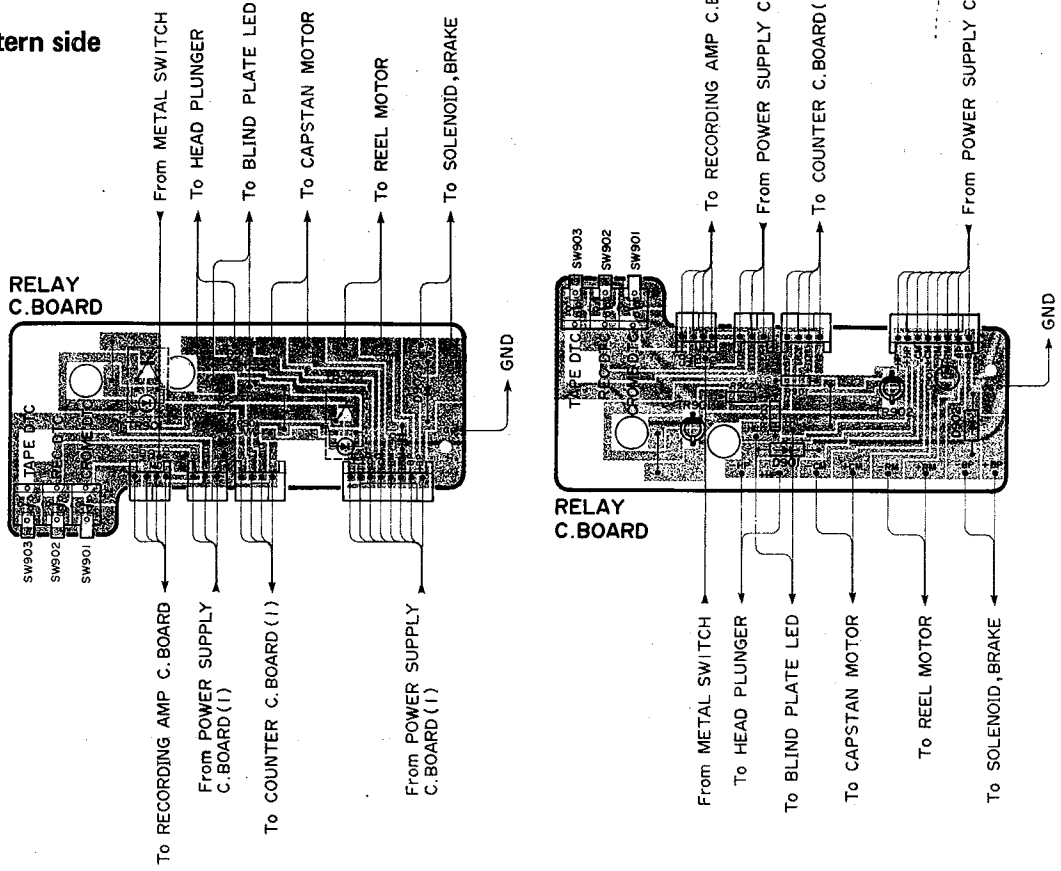


Pattern side



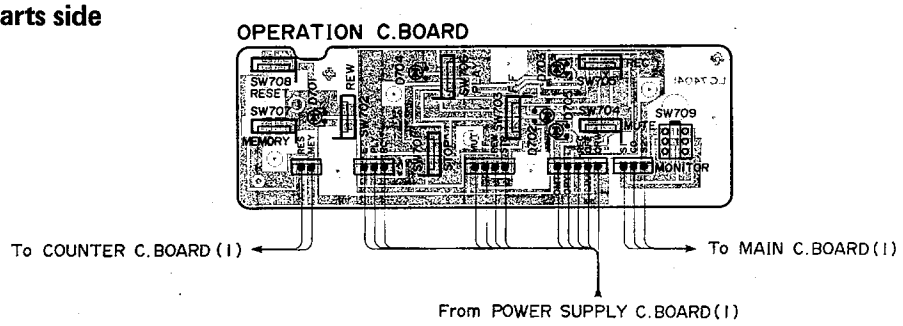
<Relay circuit board>

Pattern side

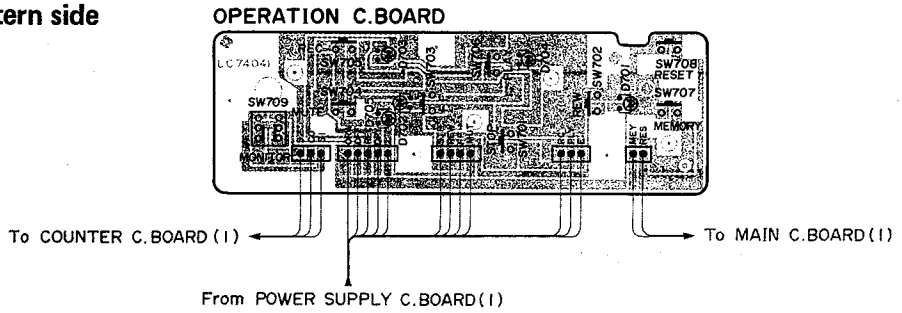


<Operation circuit board>

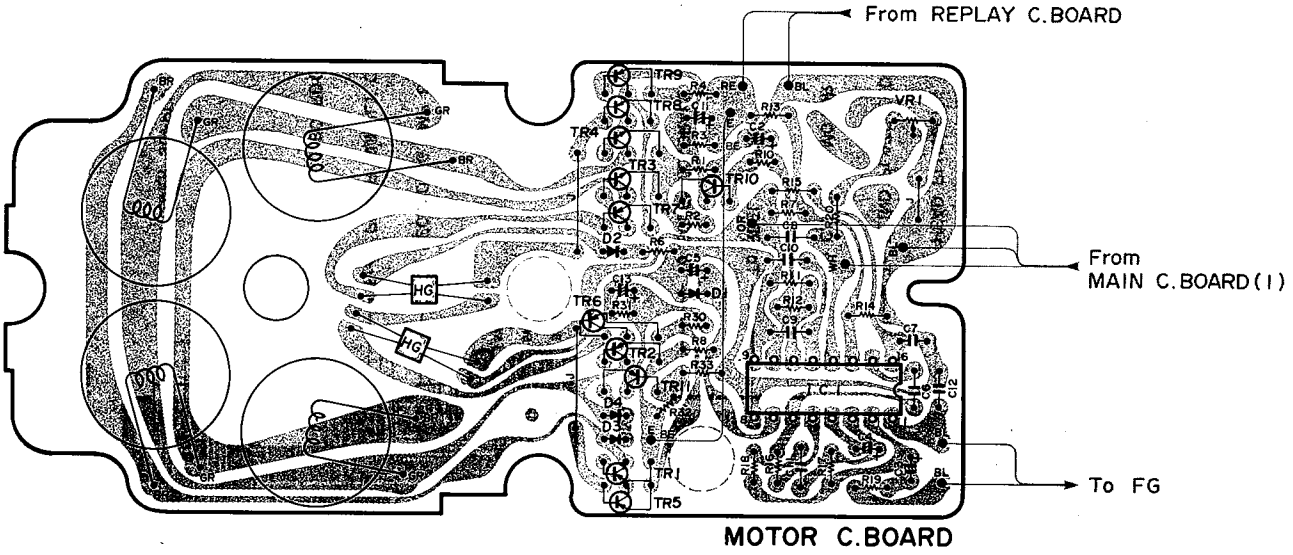
Parts side



Pattern side

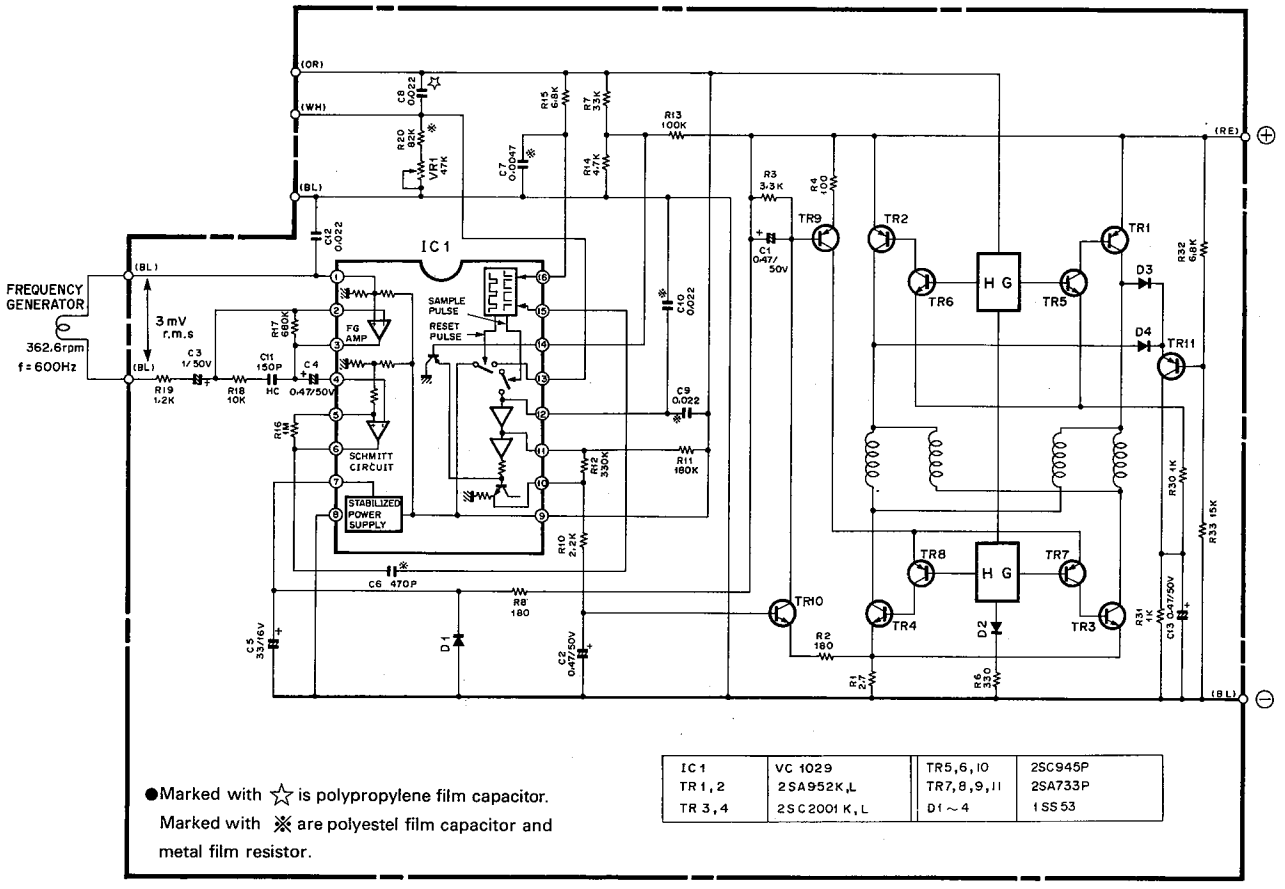


<D.D. Motor circuit board> Pattern side



SCHEMATIC DIAGRAM <D.D Motor>

MOTOR CIRCUIT BOARD (JC00073)



IC 1	VC 1029	TR5,6,10	2SC945P
TR 1,2	2SA952K,L	TR7,8,9,11	2SA733P
TR 3,4	2SC2001 K,L	D1 ~ 4	1SS53

●Marked with ☆ is polypropylene film capacitor.
Marked with ※ are polyestel film capacitor and metal film resistor.

PARTS LIST

■ELECTRICAL PARTS

■WARNING

UL Standard 1270 requires that components marked ⚠ be replaced with parts having specifications equal to those originally installed.

- Carbon resistors of this cassette deck are ¼W. There is no discription about them in this parts list. Use the "Part No." HJ35OOOOor equivalent.

	Ref. No.	Part No.	Description	部品名	Remarks	Common Model	Markets
※		NA 08 00 40	Main Circuit Board	Silver メインシート			J,R,A,G,B
※		NA 08 00 50	〃	〃			U,C
※		NA 08 00 60	〃	Black 〃			J,R,A,G,B
※		NA 08 00 70	〃	〃			U,C
		FG 41 21 00	Ceramic Cap.	100pF 50V セラコン	C115,116,127~130,199, 200,261,262,265,266		
		FG 41 23 30	〃	330pF 50V 〃	C143,144,213,214,285,286		
		FG 41 24 70	〃	470pF 50V 〃	C173,174,243,244		
		FG 41 22 20	〃	220pF 50V 〃	C103,104		
		FG 41 25 60	〃	560pF 50V 〃	C253,254		
		FG 41 32 20	〃	2200pF 50V 〃	C181,182		
		FG 44 41 00	〃	0.01μF 50V 〃	C133,271		
		FG 44 44 70	〃	0.047μF 50V 〃	C260		
※		FT 55 22 00	Polypropylene Cap.	200pF 50V ポリプロコン	C197,198		
		FA 15 31 20	Mylar Cap.	1200pF 50V マイラーコン	C179,180		
		FA 15 31 30	〃	1300pF 50V 〃	C283,284		
		UA 25 32 20	〃	2200pF 50V 〃	C109,110,169,170,239,240		
		UA 25 31 50	〃	1500pF 50V 〃	C281,282		
		UA 25 33 30	〃	3300pF 50V 〃	C139~142,209~212		
		UA 25 33 90	〃	3900pF 50V 〃	C185,186,277~280		
		UA 25 41 00	〃	0.01μF 50V 〃	C125,126,147,148,201,202, 217,218		
		UA 25 41 20	〃	0.012μF 50V 〃	C161,162,183,184,231,232		
		UA 25 41 80	〃	0.018μF 50V 〃	C171,172,241,242		
		UA 25 51 00	〃	0.1μF 50V 〃	C119~122,135~138,145, 146,205~208,215,216		
		FA 15 53 00	〃	0.3μF 50V 〃	C123,124,195,196		
		UK 14 64 70	Electrolytic Cap.	4.7μF 25V BPコン	C165,166,235,236		
		UW 56 53 30	〃	0.33μF 50V ケミコン	C175,176,245,246		
		UW 91 74 70	〃	47μF 6.3V 〃	C113,114		
		UW 91 81 00	〃	100μF 6.3V 〃	C259,273,274		
		UW 93 71 00	〃	10μF 16V 〃	C117,118,131,132,155~160,203,204, 225,226,229,230,250,255,256		
		UW 93 72 20	〃	22μF 16V 〃	C107,108,153,154,163,164,193,194, 223,224,227,228,233,234,263,264,		
		UW 93 73 30	〃	33μF 16V 〃	C151,152,221,222,269,270, 275,276		
		UW 93 81 00	〃	100μF 16V 〃	C134,191,192,272,		
		UW 94 64 70	〃	4.7μF 25V 〃	C167,168,237,238		
		UW 96 61 00	〃	1μF 50V 〃	C101,102,105,106,111,112,149,150,177,178,219, 220,247~249,251,252,257,258,267,268		
		FV 24 71 00	〃	10μF 25V 〃	C187,188		
		FV 26 61 00	〃	1μF 50V 〃	C189,190		
※		GE 20 04 50	Dolby Filter	200kHz ドルビーフィルター	Fi101,102		
※		GE 90 08 80	Trap Coil	200kHz トラップコイル	Fi103,104		
※		GE 90 10 10	Bias Trap Coil	75kHz バイアストラップコイル	Fi105,106		
		HL 31 54 70	Metal Oxide Film Resistor	470Ω 1P 酸金抵抗	R331		
※		HZ 00 27 70	Carbon Composition Resistor	22MΩ ソリッド抵抗	R385~388		
※		HQ 40 02 00	Slide Variable Resistor	A5kΩ×2 スライドVR	VR101 REC LEVEL		
※		HS 41 16 90	Variable Resistor	10kΩ CC 可変抵抗器	VR102 BALANCE		
※		HS 41 17 00	〃	A50kΩ×2 〃	VR116 PHONES LEVEL		
※		HS 41 17 10	〃	B10kΩ CC,CT 〃	VR121 BIAS		
		HT 37 01 50	Semi Variable Resistor	B100Ω 半固定抵抗	VR119,120		
		HT 37 00 40	〃	B500Ω 〃	VR115		

※ New Parts (新規部品)

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets
		HT 37 00 60	Semi Variable Resistor	B2kΩ	半固定抵抗	VR117,118		
		HT 37 00 20	〃	B10kΩ	〃	VR103,104,107,108,111~114		
		HT 37 01 00	〃	B50kΩ	〃	VR105,106,109,110		
		iA 09 99 10	Transistor	2SA999(E,F)	トランジスタ	TR106,123,124,126 Inter-		
		iA 11 27 00	〃	2SA1127(R,S,T)	〃	〃 〃 changeable		
		iC 23 20 10	〃	2SC2320(E,F)	〃	TR101~105,107~110,115,117,118,121,122,125 Inter-		
		iC 26 34 00	〃	2SC2634(R,S,T)	〃	〃 changeable		
		iC 26 55 00	〃	2SC2655(O,Y)	〃	TR116		
※		iC 28 78 00	〃	2SC2878	〃	TR111~114		
		iE 10 00 20	FET	2SK30A(GR)	FET	TR119,120		
		iE 10 19 00	Dual FET	μPA68H	デュアルFET	TR127,128		
		iF 00 00 40	Diode	1S1555	ダイオード	D101~108,110 Inter-		
		iF 00 06 70	〃	1S2473	〃	〃 changeable		
		iF 00 15 10	Zener Diode	HZ-6C1L	ツェナーダイオード	D109		
※		iG 06 23 00	IC	μPC1180C	IC	IC109,110,119,120		
※		iG 06 24 00	〃	μPC1253H2	〃	IC107,108,117,118		
※		iG 06 25 00	〃	μPC1252H2	〃	IC105,106,113,114		
※		iG 07 49 00	〃	BA6138	〃	IC115		
※		iG 07 68 00	〃	NJM4558S	〃	IC103,104,111,112,116		
※		iG 08 02 00	〃	NJM2043S	〃	IC101,102		
※		iG 07 74 00	〃	NJM4556S	〃	IC121		
		KA 80 28 20	Push Switch		プッシュスイッチ	SW101 MPX FILTER		
※		KA 80 31 50	〃		〃	SW103 MONITORING ERASE		
※		KA 80 31 60	〃		〃	SW102 NOISE REDUCTION		
		KC 00 12 90	Relay	HB 24V	リレー	RY101		
※		LB 30 16 80	Phone Jack	HLJ0520 White	ホーンジャック	JK101		J,R,U,A,G,C,B
※		LB 30 16 90	〃	〃 Black	〃	〃		G
※		LB 40 10 30	Pin Jack	4P	ピンジャック			
		LB 30 07 30	2.5 Pitch Base Pin	TEB3P-SHF	2.5ピッチベースピン			
		LB 40 05 70	〃	TEB4P-SHF	〃			
		LB 91 20 30	Short Plug	3P i-Type	ショートプラグ			
		LB 91 20 50	〃	5P i-Type	〃			
		LB 90 20 80	〃	8P i-Type	〃			
		LB 20 13 90	2.5 Pitch Base Pin	TEB2P-SHF	2.5ピッチベースピン			
		BB 06 62 90	Ground Washer		アースワッシャー			
※		NA 08 01 10	Power Supply Circuit Board		電源			J,N
※		NA 08 01 20	〃		〃			U,C
※		NA 08 01 30	〃		〃			G,B
※		NA 08 07 90	〃		〃			R,A
		FG 41 22 20	Ceramic Cap.	220pF 50V	セラコン	C530		
		FG 44 41 00	〃	0.01μF 50V	〃	C529		

※ New Parts (新規部品)

	Ref. No.	Part No.	Description	部品名	Remarks	Common Model	Markets
		FG 44 44 70	Ceramic Cap.	0.047μF 50V	セラコン	C503~505,510		
※		Fi 40 41 00	〃	0.01μF AC250V (D,E)	〃	C501		J ⚠
※		Fi 41 41 00	〃	0.01μF VA-1	〃	〃		R,U,A,G,C,B ⚠
		FZ 00 35 70	Capacitor Array	0.01μF×6	コンデンサアレイ	C533,534		
		UW 54 92 20	Electrolytic Cap.	2200μF 25V	ケミコン	C511,517,518		
※		UW 86 91 00	〃	1000μF 50V	〃	C514		
		UW 56 52 20	〃	0.22μF 50V	〃	C512		
		UW 93 71 00	〃	10μF 16V	〃	C507,513 521,522		
		UW 93 72 20	〃	22μF 16V	〃	C502		
		UJ 15 92 20	〃	2200μF 35V	〃	C506		
		UW 94 81 00	〃	100μF 25V	〃	C519,520		
		UW 95 71 00	〃	10μF 35V	〃	C527,528		
		UW 85 72 20	〃	22μF 35V	〃	C525,526		
		UW 96 61 00	〃	1μF 50V	〃	C509		
		UW 96 62 20	〃	2.2μF 50V	〃	C508,532		
		UW 86 81 00	〃	100μF 50V	〃	C515,516		
		UW 67 81 00	〃	100μF 63V	〃	C523,524		
※		UM 05 86 80	〃	680μF 25V	〃	C531		
※		GE 90 08 90	OSC. Coil	400KHz	発振コイル	L501		
※		HM 55 42 20	Cement Molded Resistor	22Ω 5P	セメント抵抗	R544		
		HU 07 61 00	Metal Film Resistor	1kΩ RE35	金属被膜抵抗	R550		
※		HZ 00 25 80	Resistor Network	47kΩ×6	抵抗ネットワーク	R565,566		
※		HZ 00 28 90	Thermistor	112-501-2	サーミスタ	Th501		
		iA 09 99 10	Transistor	2SA999(E,F)	トランジスタ	TR501,508,512 } Inter-		
		iA 11 27 00	〃	2SA1127(R,S,T)	〃	〃 } changeable		
		iB 05 07 00	〃	2SB507(E,F)	〃	TR509		
※		iB 08 65 00	〃	2SB865	〃	TR510,516		
		iC 23 20 10	〃	2SC2320(E,F)	〃	TR502~504,506,511 513,515,518~521 } Inter-		
		iC 26 34 00	〃	2SC2634(R,S,T)	〃	〃 } changeable		
		iC 19 83 00	〃	2SC1983	〃	TR505		
※		iD 11 53 00	〃	2SD1153	〃	TR507,514,517		
		iF 00 00 40	Diode	1S1555	ダイオード	D504~507,516 518~521 } Inter-		
		iF 00 06 70	〃	1S2473	〃	〃 } changeable		
		iF 00 15 10	Zener Diode	HZ-6C1L	ツェナーダイオード	D511		
※		iF 00 41 80	〃	HZ30-3L	〃	D514,515		
		iH 00 05 90	Diode	10E-1	ダイオード	D509,510,512,513,517		
		iH 00 09 70	Diode Bridge	1S2371A	ダイオードブリッジ	D501~503		⚠
※		iG 07 40 00	IC	BA6109	IC	IC502		
※		iG 07 50 00	〃	μPD554C-083	〃	IC501		
※		iG 07 53 00	〃	AN78M05	〃	IC503 } Inter-		
※		iG 07 56 00	〃	NJM78M05/A	〃	〃 } changeable		
※		iG 07 54 00	〃	AN78M10	〃	IC504 } Inter-		
※		iG 07 57 00	〃	NJM78M10/A	〃	〃 } changeable		
※		KA 50 17 80	Rotary Switch	L=20 2-6	ロータリースイッチ	SW502 AUTO FUNCTION		
※		KA 80 32 90	Power Switch	SDLC-1P	パワースイッチ	SW501		⚠

※ New Parts (新規部品)

Ref. No.	Part No.	Description	部品名	Remarks	Common Model	Markets	
	KB 00 03 10	Fuse	T0.5A 250V	ヒューズ	F504,505		J,R,A	⚠
	KB 00 07 10	〃	T500mA 250V	〃	〃		G,B	⚠
	KB 00 11 50	〃	0.5A 250V	〃	〃		U,C	⚠
	KB 00 03 40	〃	T1.5A 250V	〃	F501		J,R,A	⚠
	KB 00 07 40	〃	T1.6A 250V	〃	〃		G,B	⚠
※	KB 00 27 10	〃	1.5A 250V	〃	〃		U,C	⚠
	KB 00 03 50	〃	T2A 250V	〃	F502,503		J,R,A	⚠
	KB 00 07 50	〃	T2A 250V	〃	〃		G,B	⚠
	KB 00 12 40	〃	2A 250V	〃	〃		U,C	⚠
※	LB 60 50 30	DIN Jack	8P 12.5 Black	DIN ジャック	JK501			
	LA 00 21 40	Wrapping Terminal	P=10 2P i-Type	i型ラッピング端子板				
	LB 20 18 80	Fuse Holder Pin	PC-FH1	ヒューズホルダーピン				
	LB 91 20 30	Short Plug	3P i-Type	ショートプラグ				
	LB 91 20 40	〃	4P i-Type	〃				
	LB 91 20 50	〃	5P i-Type	〃				
	AA 61 35 60	Bracket,Switch		スイッチブラケット		K-1000		
	BA 08 39 90	Heat Sink		放熱板		〃		
	BA 08 40 00	〃		〃		〃		
	BB 06 62 90	Ground Washer		アースワッシャー				
	Ei 03 00 60	Binding Head Tapping Screw	3×6 ZMC2-Y	バインドタッピングネジ				
	ED 03 00 40	Binding Head Screw	3×4 ZMC2-Y	バインド小ネジ				
	BA 06 77 80	Radiator		放熱器				
※	NA 08 01 50	Counter Circuit Board	モジュール	カウンターユニット			J,R,A,G,B	
※	NA 08 02 10	〃		〃			U,C	
	FG 44 41 00	Ceramic Cap.	0.01μF 50V	セラコン	C603~605,611			
	UA 25 51 00	Mylar Cap.	0.1μF 50V	マイラーコン	C610			
	UW 91 74 70	Electrolytic Cap.	47μF 6.3V	ケミコン	C606			
	UW 91 82 20	〃	220μF 6.3V	〃	C607			
	UW 93 71 00	〃	10μF 16V	〃	C608,609			
	UW 94 64 70	〃	4.7μF 25V	〃	C601,602			
	HJ 35 51 00	Carbon Resistor	100Ω 1/4W	カーボン抵抗	R695			
	HJ 35 71 00	〃	10kΩ 〃	〃	R691			
	iA 09 99 10	Transistor	2SA999(E,F)	トランジスタ	TR606,607,613,619 } Inter-			
	iA 11 27 00	〃	2SA1127(R,S,T)	〃	〃 } changeable			
※	iB 05 98 00	〃	2SB598(E,F)	〃	TR608~611,615~618			
	iC 23 20 10	〃	2SC2320(E,F)	〃	TR601~605,612,614 } Inter-			
	iC 26 34 00	〃	2SC2634(R,S,T)	〃	〃 } changeable			
※	iG 07 51 00	IC	LM6402A-108	IC	IC601			
※	iG 07 52 00	〃	MSL9350RS	〃	IC602			
	iF 00 00 40	Diode	1S1555	ダイオード	D601~608 } Inter-			
	iF 00 06 70	〃	1S2473	〃	〃 } changeable			
	LB 60 09 60	Connector Pin	10Pin L-Type	L型コネクターピン				
※	LB 60 09 90	〃	12Pin L-Type	〃				
※	LB 60 10 30	〃	15Pin L-Type	〃				
	LB 91 20 20	Short Plug	2P i-Type	ショートプラグ				

※ New Parts (新規部品)

	Ref. No.	Part No	Description	部品名	Remarks	Common Model	Markets
		LB 91 20 40	Short Plug	4P i-Type	ショートプラグ			
		LB 91 20 50	〃	5P i-Type	〃			
		LB 91 20 70	〃	7P i-Type	〃			
		AA 61 35 70	Holder,Circuit Board		基板ホルダー			
		CB 60 56 20	Plastic Rivet		プラスチックリベット			
		Ei 03 00 86	Binding Head Tapping Screw	3×8 ZMC2-Y	バインドタッピングネジ	PACK		
		EV 20 00 36	Plain Washer	φ3 ZMC2-Y	平座金	PACK		
※		NA 08 01 70	Operation Circuit Board		オペレーションシート			
		iF 00 23 70	LED	SLR-34GC (Green)	L E D	D701,702,704		
		iF 00 23 80	〃	SLR-34URC(Red)	〃	D703,705		
※		KA 80 31 70	Push Switch		プッシュスイッチ	SW709		
		KA 90 30 10	Switch		タクトスイッチ	SW701～708		
		CB 06 88 80	Plastic Rivet		プラスチックリベット			
		CB 61 36 50	Holder		ホルダー			
※		NA 08 01 80	Recording Amp. Circuit Board	〃	録音アンプシート	〃		J,R
※		NA 08 01 90	〃	〃	〃	〃		U,A,G,C,B
		FG 41 04 00	Ceramic Cap.	4pF 50V	セラコン	C847,848		
		FG 41 11 50	〃	15pF 50V	〃	C869		
		FG 41 14 70	〃	47pF 50V	〃	C865		
		FG 41 11 00	〃	10pF 50V	〃	C873,874		
		FG 41 21 00	〃	100pF 50V	〃	C823,824		
		FG 41 31 00	〃	1000pF 50V	〃	C858		
		FG 44 41 00	〃	0.01μF 50V	〃	C851		
		FG 44 44 70	〃	0.047μF 50V	〃	C875,876		
		UA 25 31 00	Mylar Cap.	1000pF 50V	マイラーコン	C801,803,806,807,859,860		
		UA 25 32 20	〃	2200pF 50V	〃	C809,813,814		
		UA 25 33 30	〃	3300pF 50V	〃	C815		
		FA 15 35 10	〃	5100pF 50V	〃	C839,840		
		FA 15 34 30	〃	4300pF 50V	〃	C843,844		
		UA 25 36 80	〃	6800pF 50V	〃	C808,820		
		UA 25 41 50	〃	0.015μF 50V	〃	C802,804		
		UA 25 41 60	〃	0.016μF 50V	〃	C816		
		FA 15 53 30	〃	0.33μF 50V	〃	C821		
		UA 25 35 60	〃	5600pF 50V	〃	C837,838		
		UW 91 81 00	Electrolytic Cap.	100μF 6.3V	ケミコン	C827,828		
		UW 93 71 00	〃	10μF 16V	〃	C855		
		UW 93 72 20	〃	22μF 16V	〃	C817～819,861		
		UW 93 73 30	〃	33μF 16V	〃	C852,856		
		UW 94 71 00	〃	10μF 25V	〃	C812,841,842,862,866,867,871,872		
		UW 94 82 20	〃	220μF 25V	〃	C864		
		UW 96 54 70	〃	0.47μF 50V	〃	C868		
		UW 56 56 80	〃	0.68μF 50V	〃	C831～834		
		UW 96 61 00	〃	1μF 50V	〃	C805,811,829,830,835,836,845,846,849,850,853,854,863		
		UW 96 62 20	〃	2.2μF 50V	〃	C825,826		
		UW 96 63 30	〃	3.3μF 50V	〃	C810		
		GE 90 02 50	Coil	10mH	コイル	L803,804		
		GE 90 02 40	〃	8.2mH	〃	L801,802		
		GE 90 04 30	〃	15mH	〃	L805,806		

※ New Parts (新規部品)

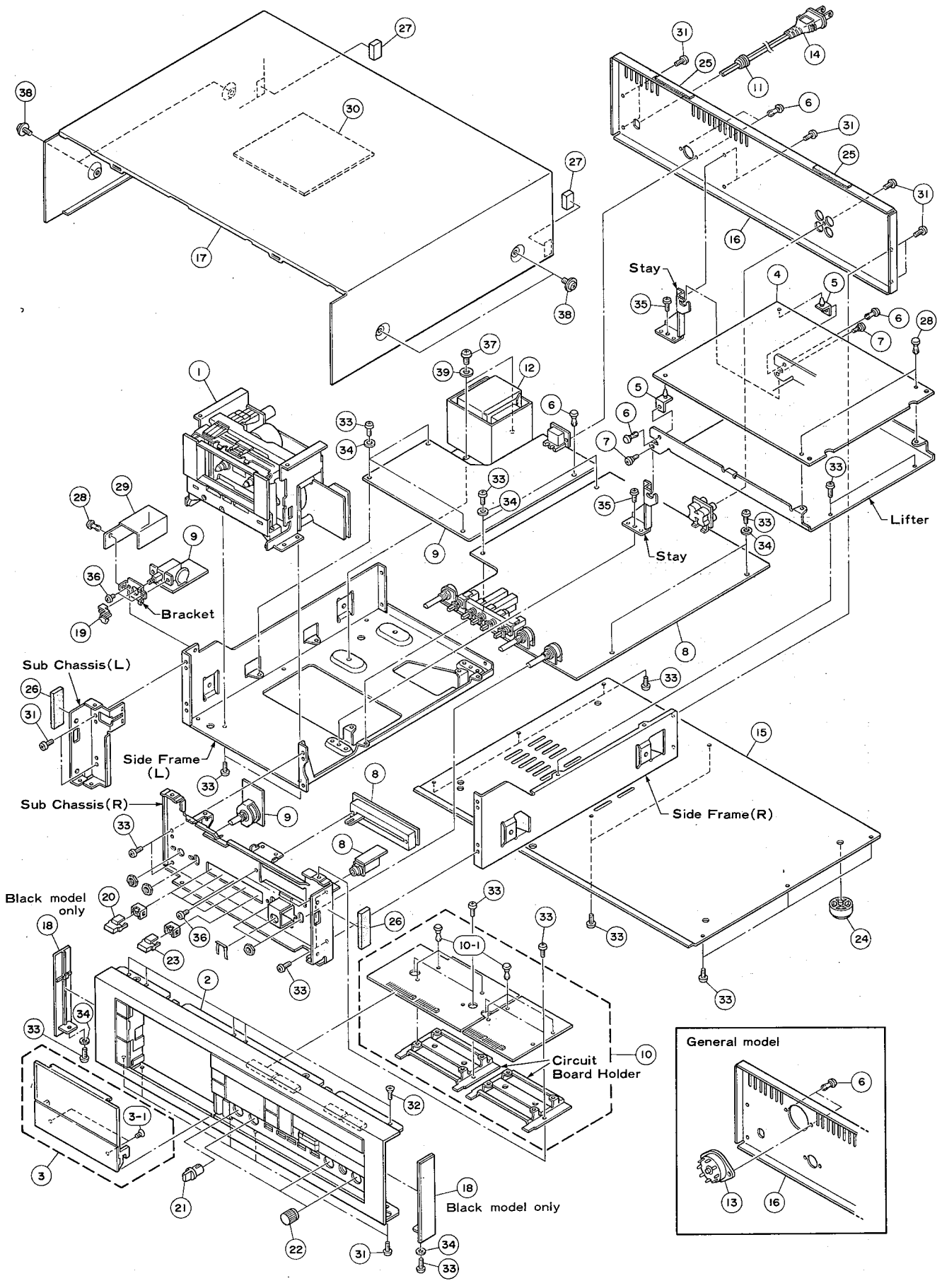
	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets
※		GE 90 09 90	OSC. Coil	600kHz	発振コイル	T802		
※		GE 90 10 00	Bias Trap Coil	75kHz	バイアストラップコイル	T801		
		HU 07 63 30	Metal Film Resistor	3.3kΩ RE35	金属被膜抵抗	R1127,1128		
		HU 07 71 00	〃	10kΩ 〃	〃	R1085,1124,1125		
		HT 37 00 60	Semi Variable Resistor	B2kΩ	半固定抵抗	VR801~803,808		
		HT 37 00 70	〃	B3kΩ	〃	VR805~807		
		HT 37 00 40	〃	B500Ω	〃	VR810		
		HT 37 01 60	〃	B200Ω	〃	VR804		
		HT 37 00 10	〃	B1kΩ	〃	VR809		
		iA 09 99 10	Transistor	2SA999(E,F)	トランジスタ	TR824~834 } Inter-		
		iA 11 27 00	〃	2SA1127(R,S,T)	〃	〃 } changeable		
		iC 23 20 10	〃	2SC2320(E,F)	〃	TR801~812,816~823 835~842 } Inter-		
		iC 26 34 00	〃	2SC2634(R,S,T)	〃	〃 } changeable		
※		iD 10 12 00	〃	2SD1012(G,H)	〃	TR813,814 } Inter-		
		iD 06 55 00	〃	2SD655(D,E,F)	〃	〃 } changeable		
		iE 10 00 20	FET	2SK30A(GR)	FET	TR815		
		iF 00 00 40	Diode	1S1555	ダイオード	D801~837 839~841 } Inter-		
		iF 00 06 70	〃	1S2473	〃	〃 } changeable		
		iG 02 67 10	IC	HD74LS93	IC	IC814		
		iG 06 25 00	〃	μPC1252H2	〃	IC815		
		iG 06 71 00	〃	μPC1225H	〃	IC809,810		
※		iG 07 48 10	〃	LM6405A-150	〃	IC811		
※		iG 07 58 00	〃	NJM78M20A	〃	IC816		
※		iG 08 97 00	Bias OSC. Block	100kHz	バイアス発振ブロック	IC818		
※		iG 07 60 00	〃	75kHz	〃	IC817		
		iG 07 68 00	IC	NJM4558S	IC	IC801~805		
※		iG 08 30 00	Transistor Array	AN90B70	トランジスタアレイ	IC812		
※		iG 08 99 00	〃	AN90B20	〃	IC813		
※		iG 07 74 00	IC	NJM4556S	IC	IC806,807		
		iG 04 25 00	〃	NJM4556D	〃	IC808		
		LB 20 13 90	2.5 Pitch Base Pin	TEB2P-SHF	2.5ピッチベースピン			
		LB 40 05 70	〃	TEB4P-SHF	〃			
		LB 91 20 30	Short Plug	3P	ショートプラグ			
		LB 91 20 50	〃	5P	〃			
		LB 91 20 60	〃	6P	〃			
		LB 91 21 00	〃	10P	〃			
		LB 30 07 30	2.5 Pitch Base Pin	TEB3P-SHF	2.5ピッチベースピン			
		BA 08 59 80	Radiator		放熱器			
		Ei 03 00 66	Binding Head Tapping Screw	3×6 ZMC2-Y	バインドタッピングネジ	PACK		

※ New Parts (新規部品)

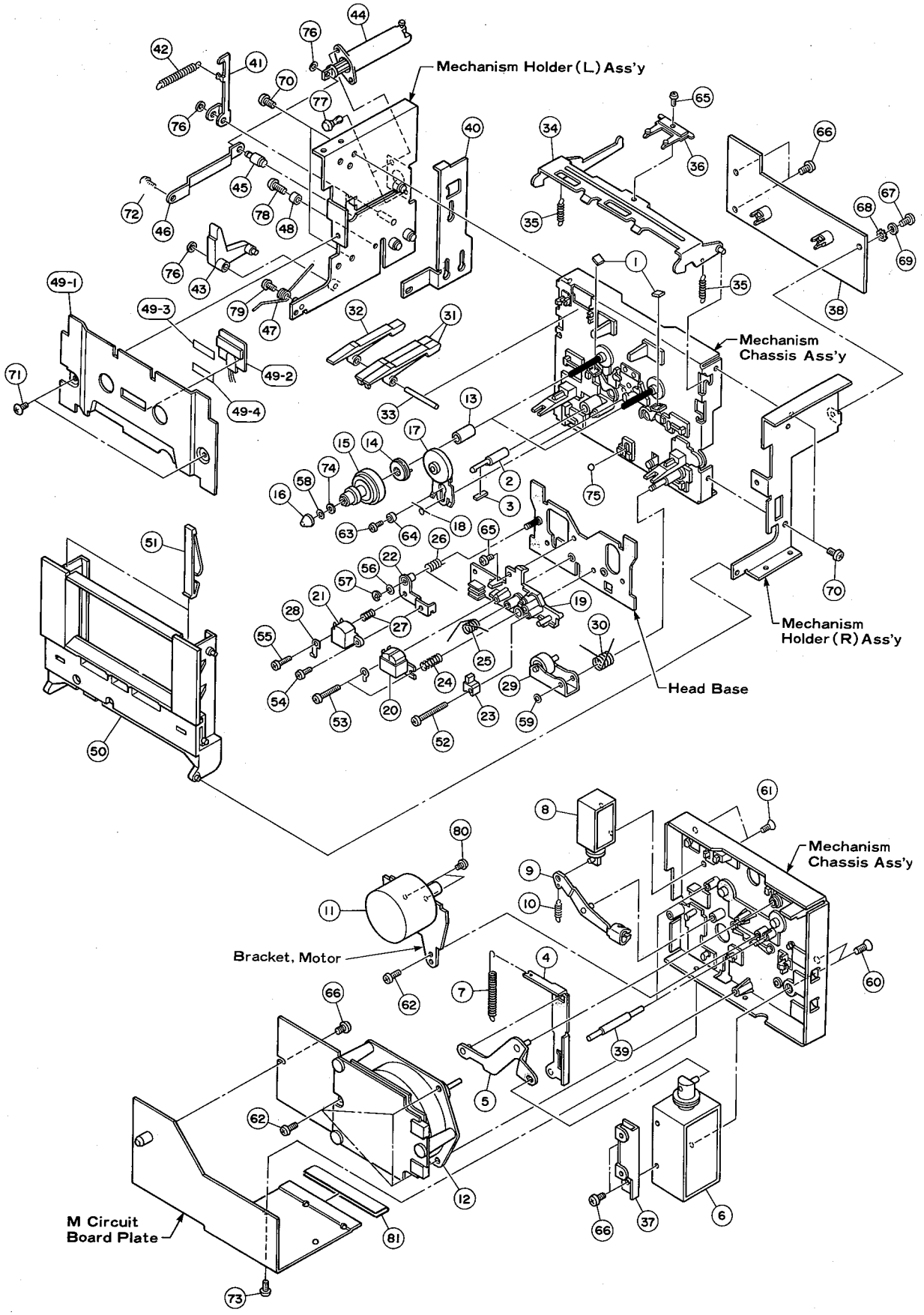
	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets
※		NA 07 87 60	Relay Circuit Board		中継シート			
		UK 13 72 20	Electralytic Cap.	22μF 16V	BPコン	C901		
		iH 00 05 90	Diode	10E-1	ダイオード	D901,902		
		iK 00 03 80	Photo Reflector	NJL5141EA	フォトリフレクター	TR901,902		
		KA 60 04 70	Switch	MSW-S209CU	スケルトンスイッチ	SW901～903		
		LB 91 10 30	Short Plug	3P L-Type	ショートプラグ			
		LB 91 10 40	〃	4P L-Type	〃			
		LB 91 10 80	〃	8P L-Type	〃			
		CB 60 95 10	Holder		ファイバーホルダー			
※		JC 00 07 30	D.D Motor	MG950E	DDモーター			
		UW 96 54 70	Electrolytic Cap.	0.47μF 50V	ケミコン	C1,2,4,13		
		UW 86 61 00	〃	1μF 50V	〃	C3		
		UW 83 73 30	〃	33μF 16V	〃	C5		
		FD 21 24 70	Polystyrene Film Cap.	470pF	スチコン	C6		
		FD 15 34 70	〃	0.0047μF	〃	C7		
		FD 15 42 20	〃	0.022μF	〃	C9,10		
		FT 17 42 20	Polypropylene Film Cap.	0.022μF	ポリプロピレンフィルムコン	C8		
		FH 61 21 50	Ceramic Cap.	150pF	セラコン	C11		
		FG 74 42 20	〃	0.022μF	〃	C12		
		HK 15 32 70	Carbon Resistor	2.7Ω FCR25	カーボン抵抗	R1		
		HU 57 78 20	Metal Film Resistor	82kΩ	金属被膜抵抗	R20		
		HT 41 01 40	Variable Resistor	47kΩ	半固定抵抗	VR1		
		iX 60 06 80	Transistor	2SA952(K,L)	トランジスタ	TR1,2		
		iC 99 01 50	〃	2SC2001(K,L)	〃	TR3,4		
		iX 60 03 70	〃	2SC945(P)	〃	TR5,6,10		
		iX 60 13 70	〃	2SA733(P)	〃	TR7,8,9,11		
		iF 99 04 00	Diode	1SS53	ダイオード	D1～4		
		iX 60 04 80	IC	VC1209	IC	IC1		

※ New Parts (新規部品)

■ EXPLODED VIEW



■EXPLODED VIEW(CASSETTE MECHANISM)



In this figure, apply silicone grease to the parts printed
apply diamond oil to the parts printed
apply molypaste to the parts printed

■CASSETTE MECHANISM PARTS

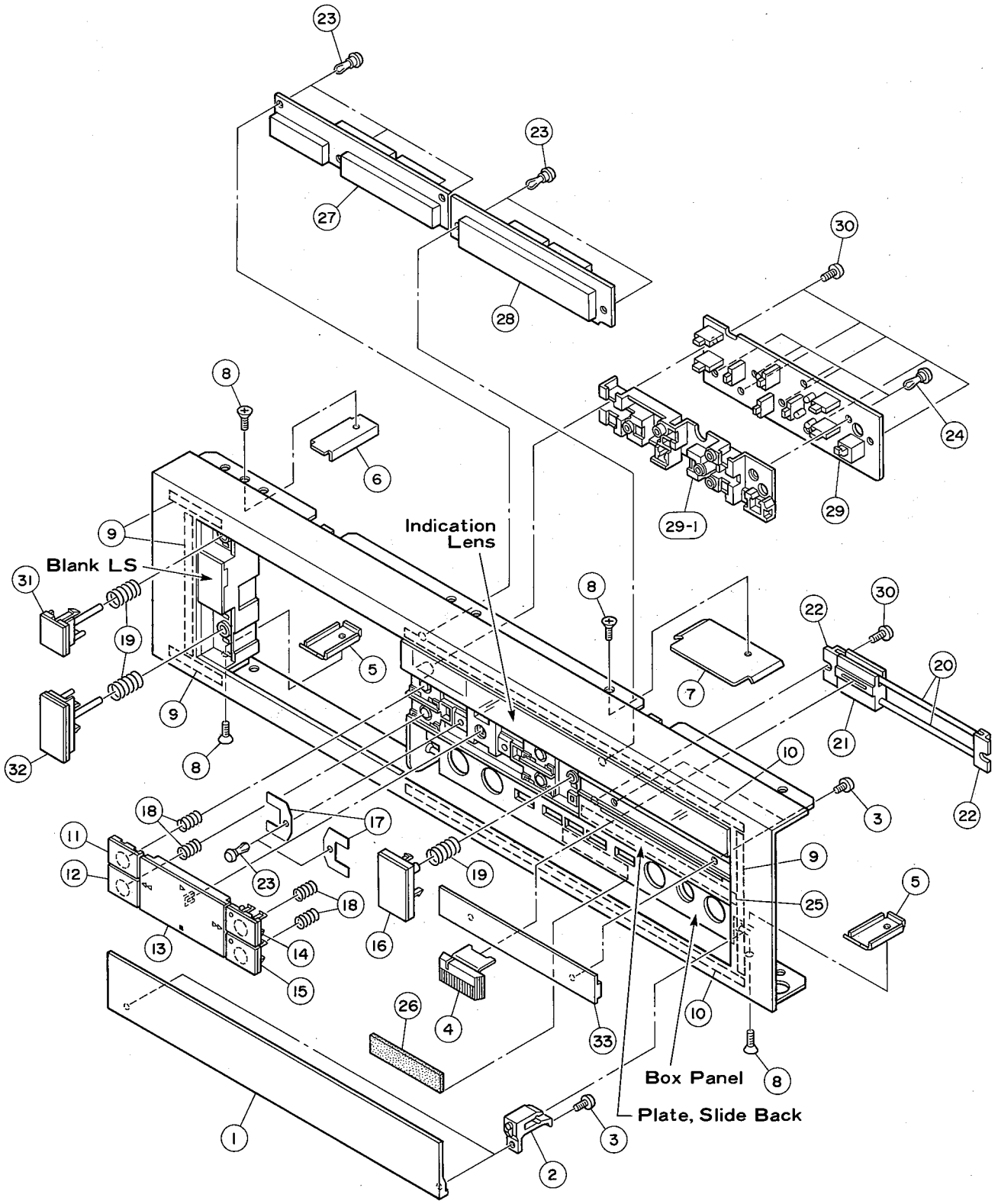
	Ref. No.	Part No.	Description	部品名	Remarks	Common Model	Markets
※		SM 60 16 00	Cassette Mechanism Ass'y TM-6B Silver	TM-6B 総組立			
※		SM 60 25 00	〃 〃 Black	〃			
	1	CC 01 67 80	Felt, Brake	ブレーキフェルト			
	2	AA 61 09 80	Shaft, Erase Head Tension	E.Hテンションポスト		K-1000	
	3	CC 01 68 90	Felt, Erase Head Tension	E.Hテンションフェルト		K-1000	
	4	NB 60 51 80	Coupling Plate Ass'y	ベース連結板Ass'y		K-1000	
	5	NB 09 81 50	Link Ass'y	リンク Ass'y			
	6	JF 00 03 10	Solenoid, Base TDS-10E	ベースソレノイド		K-1000	
	7	AA 61 09 90	Return Spring	リターンスプリング		K-1000	
	8	JF 00 03 50	Solenoid, Brake TDS-07A	ブレーキソレノイド		K-1000	
	9	CB 60 94 80	Lever, Brake	ブレーキレバー		K-1000	
	10	AA 61 27 30	Brake Spring	ブレーキスプリング		K-1000	
	11	JC 00 07 40	Reel Motor BFS-7B	リールモーター		K-1000	
※	12	JC 00 07 30	D.D. Motor MC-950E	D.Dモーター			
	13	AA 61 10 00	B.T Spring	B.Tスプリング L		K-1000	
	14	NB 09 81 80	B.T Disk Ass'y	B.Tディスク Ass'y			
	15	NB 60 52 50	Reel Base Ass'y	リール台 Ass'y		K-1000	
	16	CB 09 24 00	Reel Cap	リールキャップ			
	17	NB 60 51 90	Idler Ass'y	アイドラー Ass'y		K-1000	
	18	AA 61 27 40	Idler Spring	アイドラースプリング		K-1000	
	19	CB 61 53 40	Base	支柱台		K-1000	
※	20	GF 00 02 30	Rec/Playback Combination Head	録再コンビネーションヘッド			
	21	GF 00 02 60	Erase Head	消去ヘッド		K-1000	
	22	NB 60 52 30	Erase Head Arm Ass'y	消去ヘッドアーム Ass'y		K-1000	
※	23	GF 00 02 40	Sub Erase Head	サブ消去ヘッド			
	24	AA 60 45 10	Spring	アジマススプリング			
	25	AA 61 10 50	〃	ベース駆動スプリング		K-1000	
	26	AA 61 10 60	〃	消去ヘッドスプリング		K-1000	
	27	AA 61 15 00	〃	消去ヘッドアジマススプリング		K-1000	
	28	BB 07 01 30	Binding Plate	束線止め		K-1000	
	29	NB 60 52 00	Pinch Roller Ass'y	ピンチローラー Ass'y		K-1000	
	30	AA 61 10 10	Pinch Roller Spring	ピンチローラースプリング		K-1000	
	31	CB 60 04 80	Lever, Senser	センサーレバー			
	32	CB 61 30 40	〃	〃		K-1000	
	33	BB 06 92 50	Shaft, Senser	センサーシャフト			
	34	NB 60 52 70	Holder Plate Ass'y	押え板 Ass'y		K-1000	
	35	AA 61 10 20	Spring	押えスプリング		K-1000	
	36	NB 60 18 50	Metal Switch Ass'y	メタルスイッチ Ass'y		K-20	
	37	AA 61 29 40	Bracket	基板ブラケット		K-1000	
※	38	NA 07 87 60	Relay Circuit Board	中継シート			
	39	CB 60 95 00	Acrylic Fiber	アクリルファイバー		K-1000	
	40	AA 61 28 40	Plate (Eject Operate)	イジェクト作動板		K-1000	
	41	AA 61 28 50	Lever, Lock	ロックレバー		K-1000	
	42	AA 61 29 30	Spring	ロックレバースプリング		K-1000	
	43	CB 61 30 50	Lever, Eject	イジェクトレバー		K-1000	
	44	NB 60 78 70	Damper Ass'y	ダンパー Ass'y		K-1000	
	45	BB 07 00 10	Shaft, Slide	スライド軸		K-1000	
	46	AA 61 28 60	Coupling Plate	イジェクト連結板		K-1000	
	47	AA 61 29 10	Spring	イジェクトスプリング		K-1000	
	48	CB 61 42 10	Stopper	ストッパー		K-1000	
	49-1	AA 61 28 90	Blind Plate Ass'y Silver	ブラインドプレート		K-1000	
	〃	AA 61 29 00	〃 Black	〃		K-1000	
	49-2	iF 00 35 70	LED	LED		K-1000	

※ New Parts (新規部品)

Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets
49-3	CB 07 41 90	Adhesive Tape		ダブルタックテープ		K-1000	
49-4	CB 07 42 00	〃		〃		K-1000	
50	NB 60 52 10	Cassette Guide Ass'y		カセットガイド Ass'y	Silver	K-1000	
〃	NB 60 78 80	〃		〃	Black	K-1000	
51	CB 61 30 90	Half Spring		ハーフ押えスプリング	Silver		
〃	CB 61 31 00	〃		〃	Black		
52	EA 02 02 06	Pan Head Screw	2×20 ZMC2-Y	ナベ小ネジ	PACK		
53	ED 02 01 46	Binding Head Screw	2×14 ZMC2-Y	バインド小ネジ	PACK		
54	ED 02 00 36	〃	2×3 ZMC2-Y	〃	PACK		
55	ED 02 00 66	〃	2×6 ZMC2-Y	〃	PACK		
56	EV 90 04 70	Washer	2.6×4.7×0.13	ポリスライダーワッシャー	STW-FT25		
57	EV 50 12 06	E Ring	ETWJ-2	E リング	PACK		
58	CB 09 08 60	Washer	1.6×3.4×0.25	ポリスライダーワッシャー			
59	CB 60 04 60	〃	2.1×4.5×0.5	〃			
60	EB 03 00 86	Flat Head Screw	3×8 ZMC2-Y	皿小ネジ	PACK		
61	EB 02 60 46	〃	2.6×4 ZMC2-Y	〃	PACK		
62	Ei 02 60 80	Binding Head Tapping Screw	2.6×8 ZMC2-Y	バインドタッピングネジ			
63	Ei 02 00 56	〃	2×5 ZMC2-Y	〃	PACK		
64	EZ 00 14 20	Bush	φ2×2 ZMC2-Y	巻きブッシュ			
65	ED 02 00 46	Binding Head Screw	2×4 ZMC2-Y	バインド小ネジ	PACK		
66	ED 03 00 46	〃	3×4 ZMC2-Y	〃	PACK		
67	EA 03 00 66	Pan Head Screw	3×6 ZMC2-Y	ナベ小ネジ	PACK		
68	EV 42 00 36	Toothed Lock Washer	M3 ZMC2-Y	歯付き座金	PACK		
69	EV 20 00 36	Plain Washer	φ3 ZMC2-Y	平座金	PACK		
70	Ei 03 00 66	Binding Head Tapping Screw	3×6 ZMC2-Y	バインドタッピングネジ	PACK		
71	EC 12 60 66	Truss Head Screw	2.6×6 FNM3-3g	トラス小ネジ	PACK		
72	Ei 32 60 56	Binding Head Tapping Screw	2.6×5 FCM3-Bℓ	バインドタッピングネジ	PACK		
73	EO 03 00 66	Flat Head Tapping Screw	3×6 ZMC2-Y	皿タッピングネジ	PACK		
74	EV 90 02 10	Washer	2.1×4×0.13	ポリスライダーワッシャー	STW-F-20		
75	EZ 00 19 80	Steal Ball	φ2.5	スチールボール			
76	CB 61 30 60	Washer	2.6×4.7×0.5	ポリスライダーワッシャー			
77	CB 60 92 60	Plastic Rivet		プラスチックリベット			
78	Ei 03 00 86	Binding Head Tapping Screw	3×8 ZMC2-Y	バインドタッピングネジ	PACK		
79	ED 02 60 46	Binding Head Screw	2.6×4 ZMC2-Y	バインド小ネジ	PACK		
80	EA 02 60 36	Pan Head Screw	2.6×3 ZMC2-Y	ナベ小ネジ	PACK		
81	CB 08 01 00	Tape		アセテートテープ	1Roll=30m		
	LA 00 39 80	Ground Lug	2×4.5	アースラグ			
	CB 06 92 50	Binding Tie		インシュロックタイ			

※ New Parts (新規部品)

■EXPLODED VIEW(FRONT PANEL)



■FRONT PANEL PARTS

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets
※		NB 60 85 00	Panel Unit	Silver	パネルユニット			
※		NB 60 85 40	〃	Black	〃			
※	1	BA 08 42 50	Siling Panel	Silver	シーリングパネル			
※	〃	BA 08 42 60	〃	Black	〃			
	2	CB 61 37 90	Hinge,Door	Silver	ドアーヒンジ		K-1000	
	〃	CB 61 38 00	〃	Black	〃		K-1000	
	3	ED 03 00 50	Binding Head Screw	3×5 ZMC2-Y	バインド小ネジ			
	4	NB 60 83 50	Slide Knob Ass'y	Silver	スライドツマミ Ass'y		K-1000	
	〃	NB 60 83 60	〃	Black	〃		K-1000	
	5	AA 61 37 10	Clamp A		クランプ A		K-1000	
	6	AA 61 37 20	Clamp B		クランプ B		K-1000	
	7	AA 61 37 30	Clamp C		クランプ C		K-1000	
	8	EN 39 00 40	Flat Head Tapping Screw	3×8 FCRM3-Bℓ	皿タッピングネジ			
	9	CB 61 57 70	Adhesive Tape		ダブルタックテープ			
	10	CB 07 41 90	〃		〃			
	11	NB 60 82 30	Button Ass'y	Silver	ボタン Ass'y	RESET	K-1000	
	〃	NB 60 82 40	〃	Black	〃	〃	K-1000	
	12	NB 60 82 50	〃	Silver	〃	MEMORY	K-1000	
	〃	NB 60 82 60	〃	Black	〃	〃	K-1000	
	13	NB 60 82 70	〃	Silver	〃	OPERATION	K-1000	
	〃	NB 60 82 80	〃	Black	〃	〃	K-1000	
	14	NB 60 82 90	〃	Silver	〃	REC/PAUSE	K-1000	
	〃	NB 60 83 00	〃	Black	〃	〃	K-1000	
	15	NB 60 83 10	〃	Silver	〃	MUTE	K-1000	
	〃	NB 60 83 20	〃	Black	〃	〃	K-1000	
※	16	NB 60 83 30	〃	Silver	〃	MONITOR		
※	〃	NB 60 83 40	〃	Black	〃	〃		
	17	AA 61 37 00	Leaf Spring		リーフスプリング	OPERATION	K-1000	
	18	AA 61 36 80	Spring	φ6	スプリング		K-1000	
	19	AA 61 36 90	〃	φ8	〃		K-1000	
	20	AA 61 36 70	Slide Shaft		スライドシャフト		K-1000	
	21	CB 61 38 10	Slider		スライダー		K-1000	
	22	CB 61 38 20	Shaft Holder		シャフトホルダー		K-1000	
	23	CB 60 88 10	Plastic Rivet		プラスチックリベット			
	24	CB 06 88 80	〃		〃			
	25	CB 07 42 00	Adhesive Tape		ダブルタックテープ			
	26	CB 61 71 10	Anti-Vibration Rubber		防振ゴム		K-1000	
※	27	NA 08 05 80	Indication LED	2SLS041-3	インジケーションLED	Silver		
※	〃	NA 08 05 90	〃	2BLS041-2	〃	Black		
	28	NA 08 06 00	LED Meter	SLS032-S	LED メーター	Silver	K-1000	
	〃	NA 08 06 10	〃	BLS032-B	〃	Black	K-1000	
※	29	NA 08 01 70	Operation Circuit Board		オペレーションシート			
	29-1	CB 61 36 50	Holder		ホルダー		K-1000	
	30	EN 03 00 20	Binding Head Tapping Screw	3×8 ZMC2-Y	バインドタッピングネジ			
	31	NB 60 81 90	Button Ass'y	Silver	ボタン Ass'y	POWER	K-1000	
	〃	NB 60 82 00	〃	Black	〃	〃	K-1000	
	32	NB 60 82 10	〃	Silver	〃	EJECT	K-1000	
	〃	NB 60 82 20	〃	Black	〃	〃	K-1000	
※	33	BA 08 43 30	Blank Panel	Silver	ブランクパネル			
※	〃	BA 08 43 40	〃	Black	〃			

※ New Parts (新規部品)

K-2000

YAMAHA