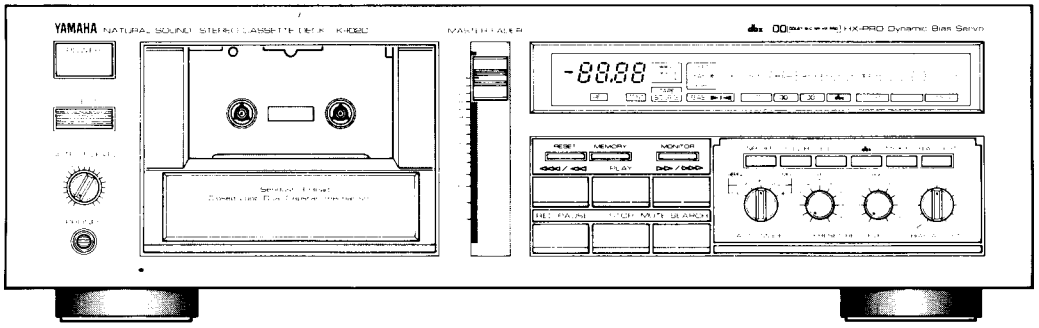
STEREO CASSETTE DECK

K-1020

SERVICE MANUAL

■ FRONT PANEL



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 inherant to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

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

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification, recognition of any applicable technical capabilitites, 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 changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

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

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

■ CONTENTS

004587

SINCE 1887 YAMAHA
NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN
2.6k-633 Printed in Japan. '85.1

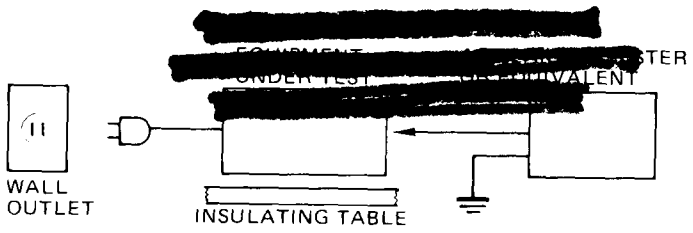
K-1020

■ 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.

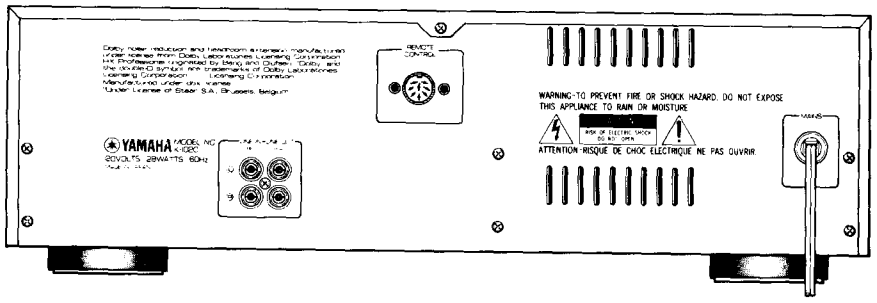
2. Leakage Current Measurement (For 120V Model Only).
   When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.

- Meter impedance should be equivalent to 1500 ohm shunted by 0.15μF
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

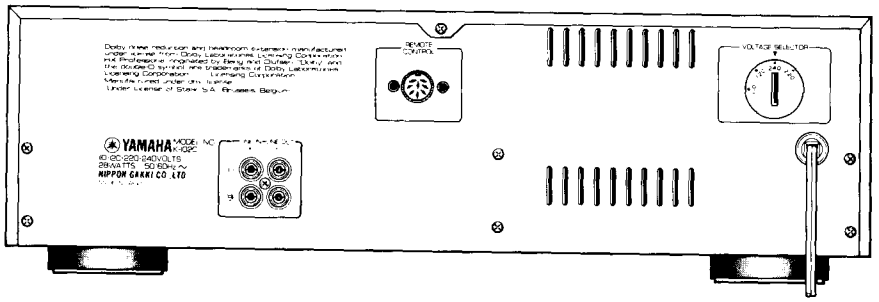


■ REAR PANELS

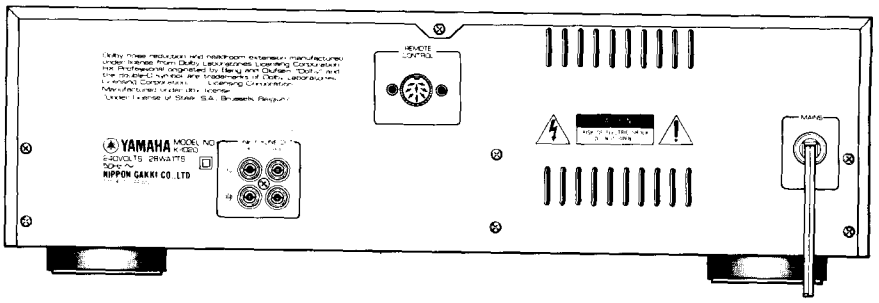
U.S.A. & Canadian models



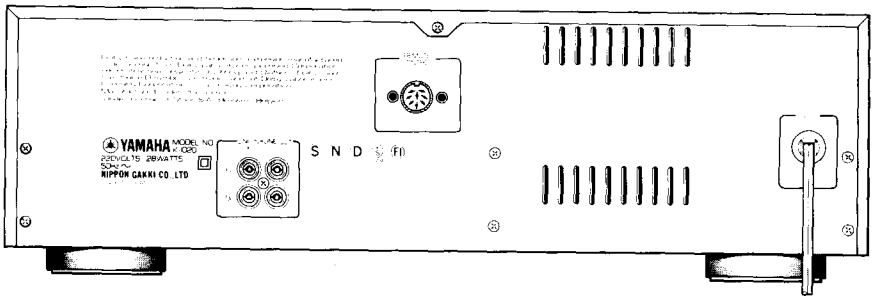
General model



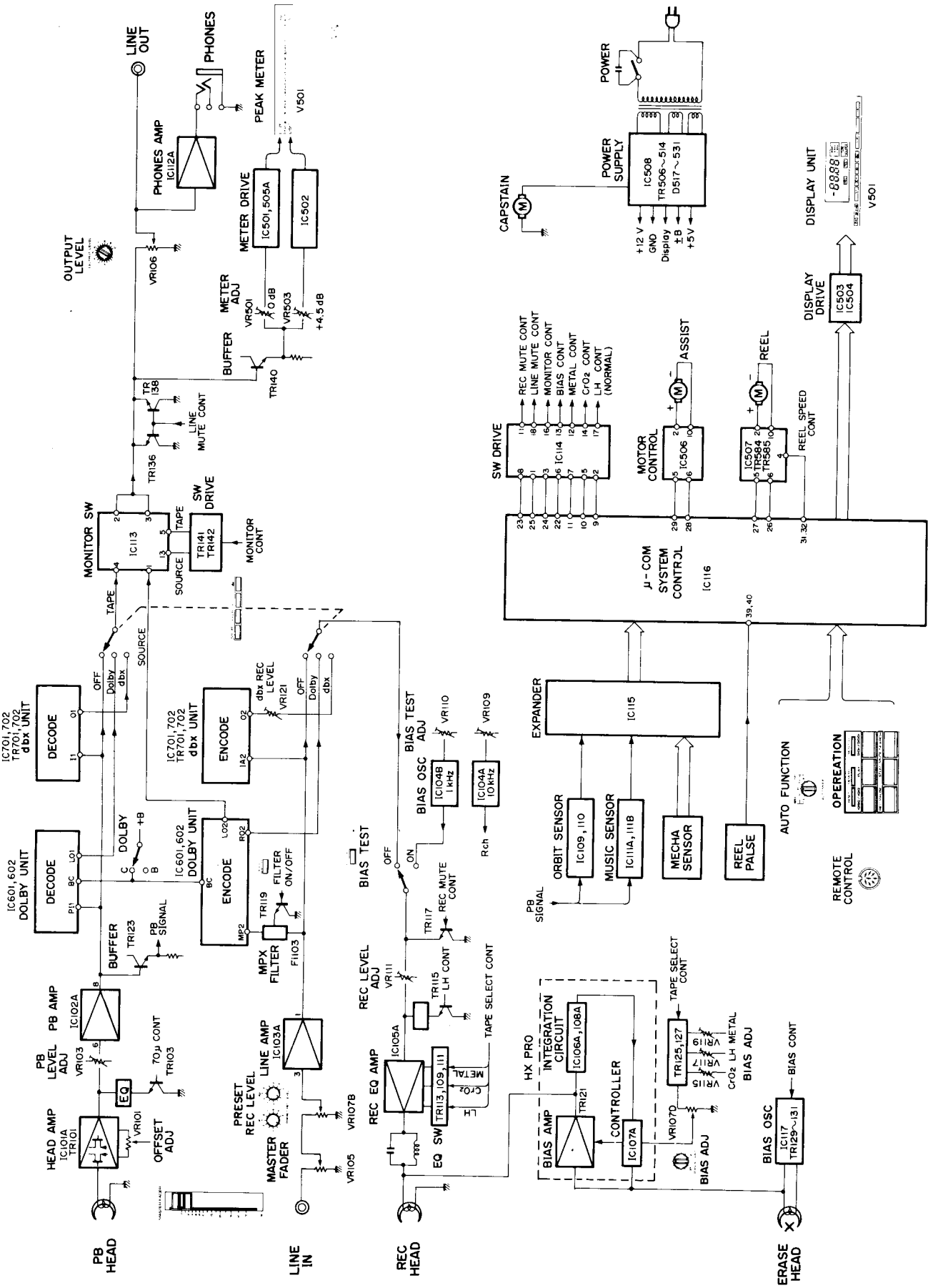
British & Australian models



European model



■ BLOCK DIAGRAM



SPECIFICATIONS

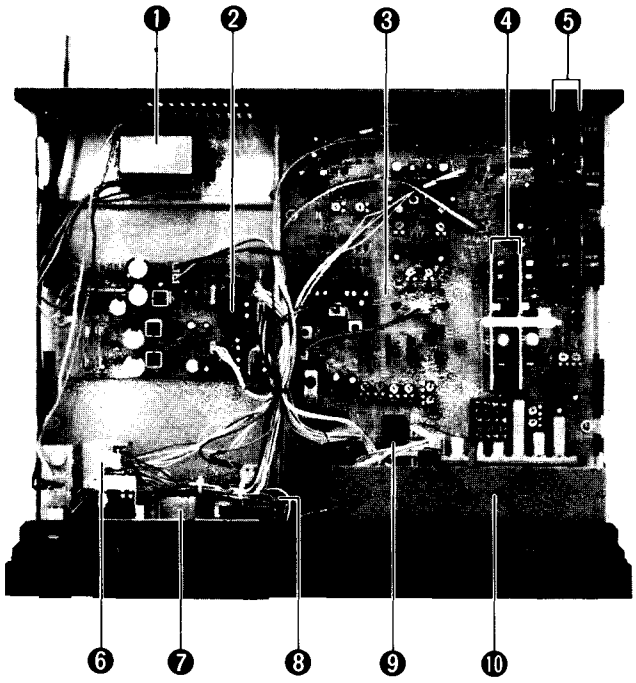
Type	4-track, 2-channel stereo
Head	R & P Heads: Combination, Pure Sendust with triple-laminated core Erase Heads: Ion-plating Ferrite, Double-gap
Motors	Capstan: DC Servo Motor Reel: Flat torque DC Motor Assist: DC Motor
Wow & Flutter	No more than ±0.06% (W. Peak); No more than 0.03% (W. RMS)
Fast Wind Time	About 70 seconds/45 seconds (High Speed winding) (C-60)
Frequency Response	
Normal tape (—20dB)	20 to 18,000Hz ± 3 dB
Chrome tape (—20dB)	20 to 20,000Hz ± 3 dB
Metal tape (—20dB)	20 to 23,000Hz ± 3 dB
Signal to Noise Ratio	
Dolby off	More than 59 dB
Dolby B on	More than 67 dB
Dolby C on	More than 75 dB
dbx on	More than 95 dB
Harmonic Distortion	
Normal tape	Less than 0.5%
Chrome tape	Less than 0.5%
Metal tape	Less than 0.8%

Input Sensitivity Impedance	
Line	40 mV/30 k-ohms
Output Level/Load Impedance	
Line	360 mV/47 k-ohms
Headphones	3.6 mW/8 ohms
Channel Separation (3150 Hz)	40 dB
Cross Talk (125 Hz)	60 dB
Power Supplies	
U.S. & Canadian Models	120V AC, 60Hz
European Model	220V AC, 50Hz
British & Australian Models	240V AC, 50Hz
General Model	110/120/220/240V AC, 50/60Hz
Power Consumption	28 watts
Dimensions (W x H x D)	435 x 134 x 380 mm 17-1/8" x 5-1/4" x 15"
Weight	7.6 kg (16 lbs. 12 oz.)

Specifications are 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

INTERNAL VIEW



1. POWER TRANSFORMER
   U.S.A. & Canadian models: GA68590
   European model: GA68600
   Australian & British models: GA68610
   General model: GA68620
2. POWER CIRCUIT BOARD (1)
3. MAIN CIRCUIT BOARD (1)
4. dbx Circuit Board
5. Dolby Circuit Board
6. CAPSTAN MOTOR
7. REEL MOTOR
8. ASSIST MOTOR
9. μ-COM IC: LM6402G-494
10. POWER CIRCUIT BOARD

■ DISASSEMBLY PROCEDURES

1. Adjustment of mechanism unit and replacement of head parts.

a. Remove the cassette lid.
b. Remove 2 screws ① in Fig. 1 and remove the blind plate.
c. Remove 4 screws ② in Fig. 1 and remove the front plate.
* In this state, the head can be adjusted and its parts can be replaced.

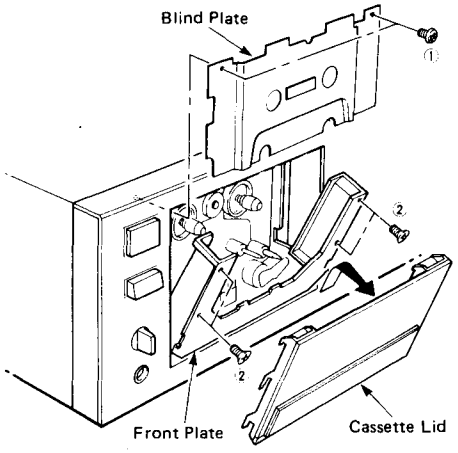


Fig. 1

d. Remove 2 screws ③ in Fig. 2 and replace the record/playback head.
e. Remove the screw ④ in Fig. 2 and replace the erase head.
f. Remove the E ring ⑤ in Fig. 2 and replace the supply side pinch roller.
g. Remove the E ring ⑥ in Fig. 2 and replace the take-up side pinch roller.
h. Remove the washer ⑦ in Fig. 2 and replace the idler.

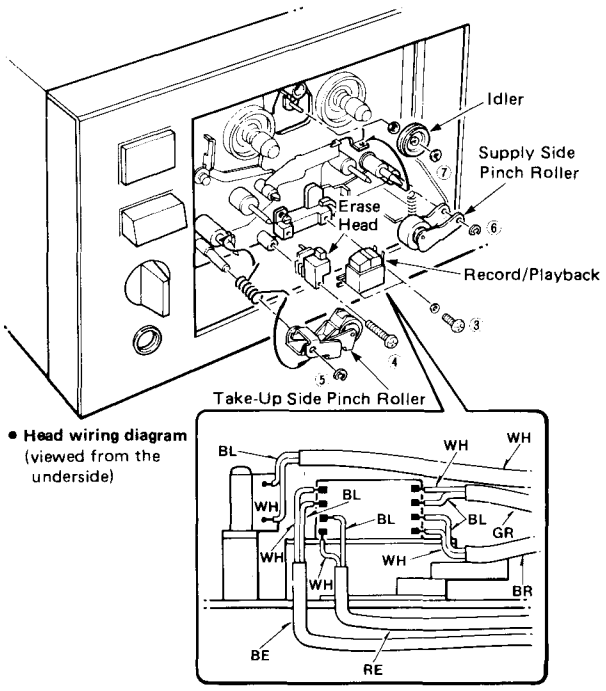


Fig. 2

2. Removal of mechanism unit

a. Remove 5 screws ⑧ in Fig. 3 and remove the top cover.
b. Remove the cassette lid.

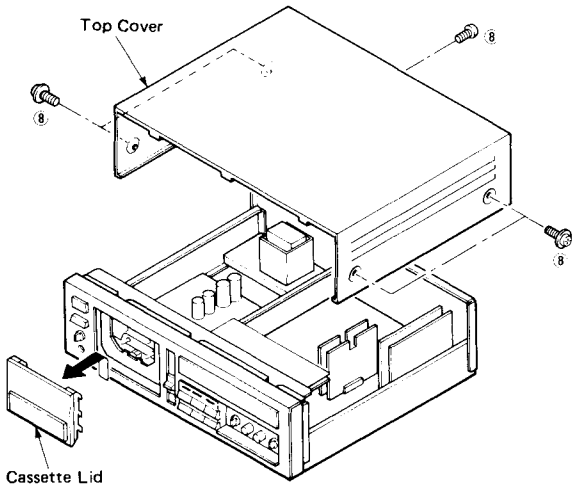
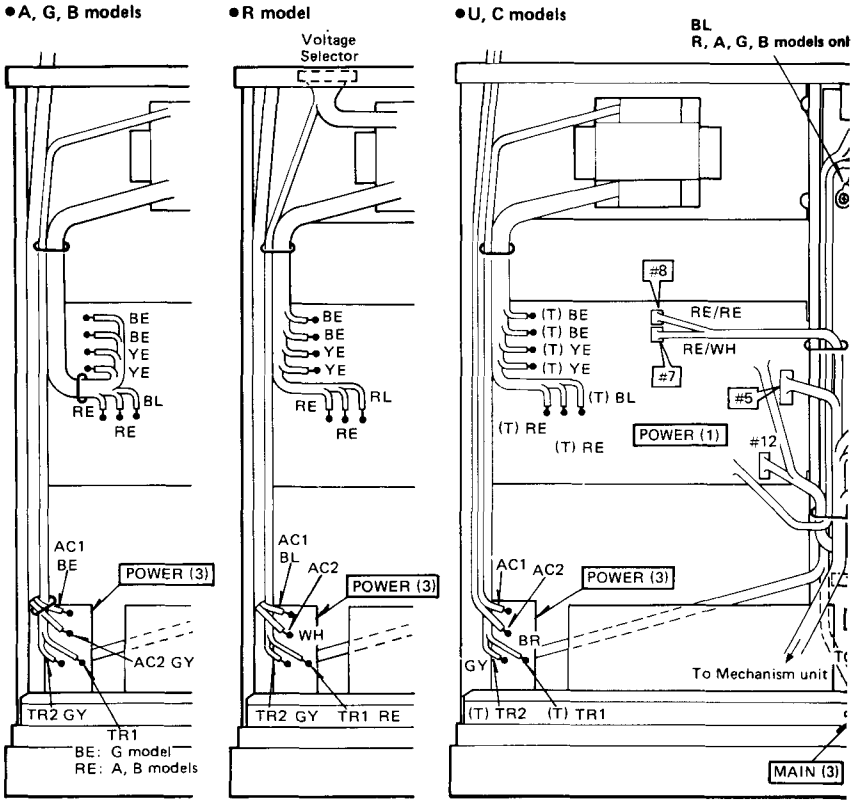


Fig. 3

c. Disconnect connectors #1 through #5, #7 and #8 in Fig. 4.

d. R
m

• CONNECTOR WIRING



d. Remove 4 screws ⑨ in Fig. 5 and pull out the mechanism unit gradually to the rear.

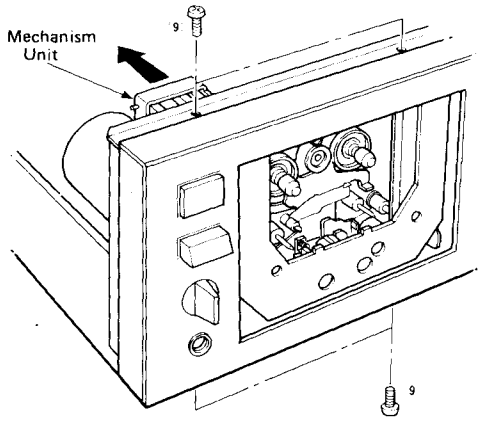


Fig. 5

3. Replacement of capstan motor

a. Remove the mechanism unit.

b. Remove 4 screws ⑩ in Fig. 6 and remove the back-plate.

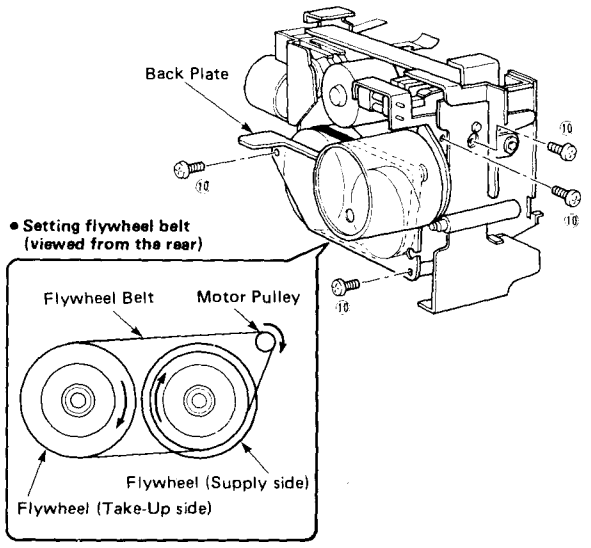
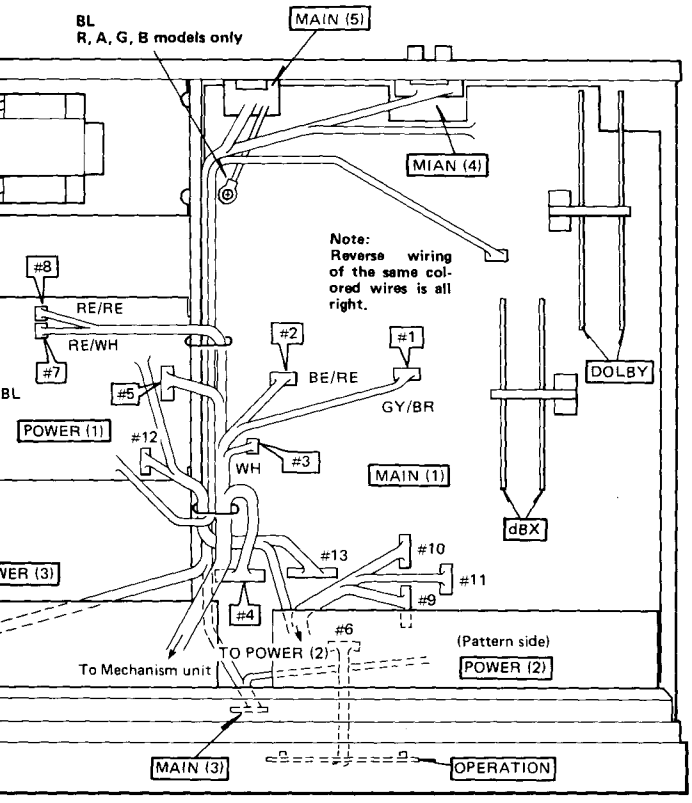
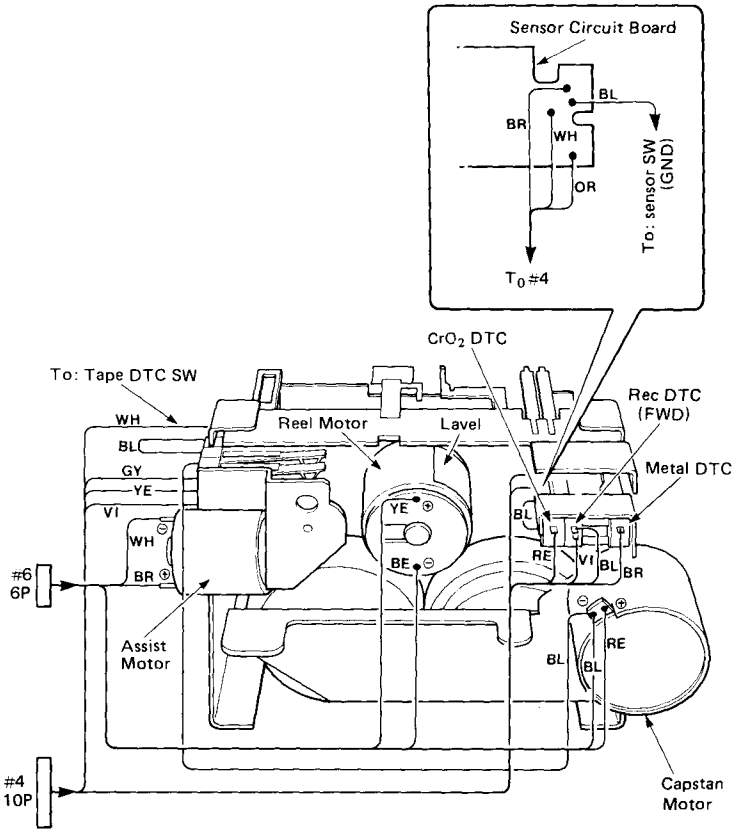


Fig. 6

• WIRING OF MECHANISM UNIT





c. Remove 3 screws ⑪ in Fig. 7 and replace the capstan motor.

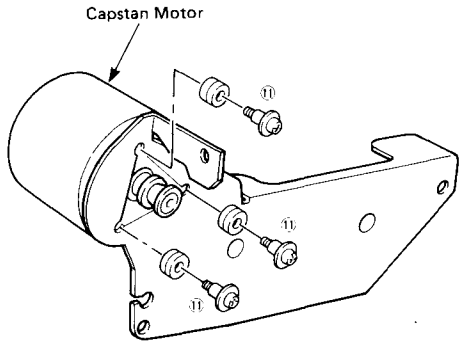


Fig. 7

4. Replacement of reel motor

a. Remove the mechanism unit.
b. Remove 2 screws ⑫ in Fig. 8 and remove the blind plate.
c. Remove the reel base as shown in Fig. 8.
* Note that coil springs of the supply reel and takeup reel are different.
Supply side: Silver
Take-up side: Green
d. Remove the back plate (Refer to Fig. 6.)
e. Remove the washer ⑬ in Fig. 8 and remove the flywheel (take-up side).

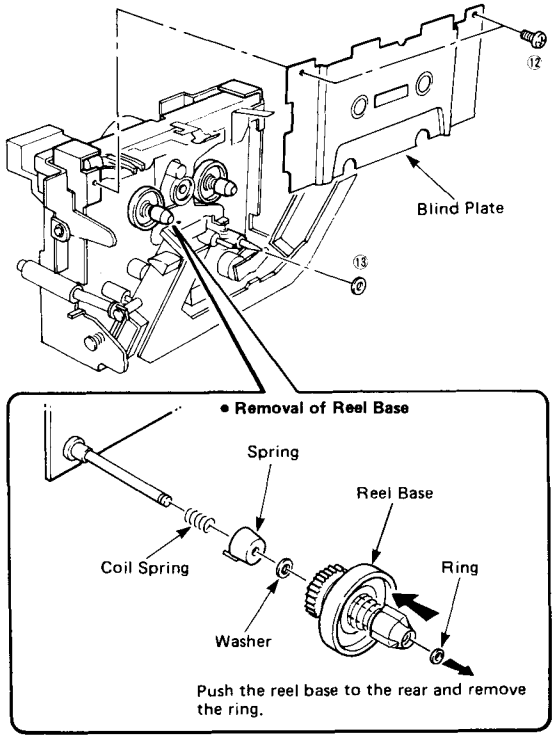


Fig. 8

f. Remove 2 screws ⑭ and nuts ⑮ in Fig. 9 and remove the reel motor installation plate.
g. Remove 2 screws ⑯ in Fig. 9 and replace the reel motor.

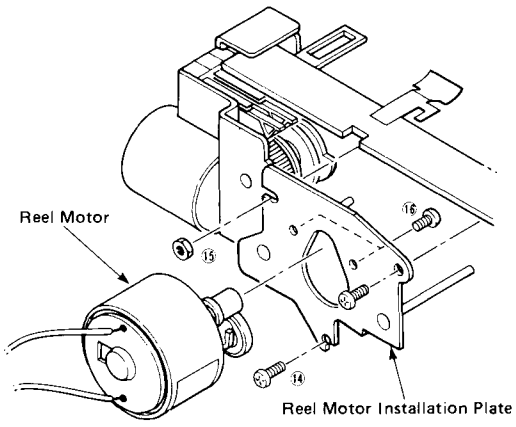


Fig. 9

5. Replacement of assist motor

a. Remove the top cover.
b. Remove the blind plate.
c. Remove 2 screws ⑰ in Fig. 10 and remove the assist motor installation plate.
d. Remove 2 screws ⑱ in Fig. 10 and replace the assist motor.

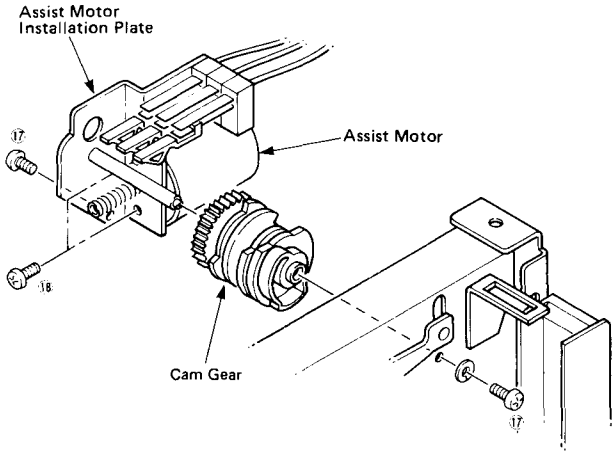


Fig. 10

■ MECHANICAL ADJUSTMENTS

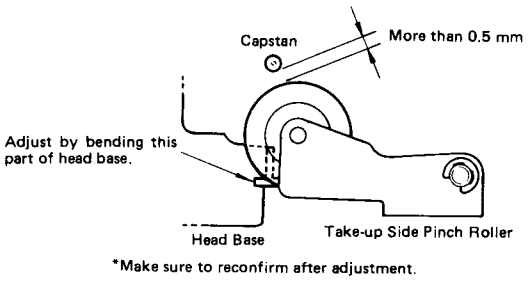
1. Before adjustment

- 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.

2. Instruments required

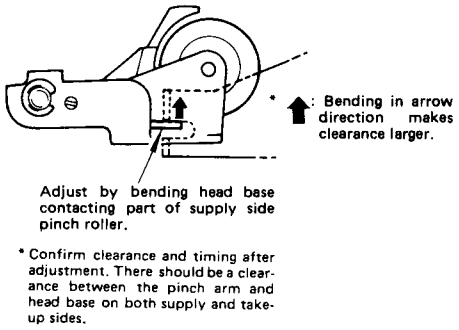
- Head Gauge (M-300)
- Audio frequency oscillator
- Oscilloscope
- Mirror Cassette (MC-109C)
- Torque meter
- Wow/flutter meter
- D.C.V.M. (DC Voltagemeter)
- A.C.V.M. (AC Voltagemeter)

Step	Adjustment item	Tape	Test Point	Instrument required	Mode	Measurement Conditions	Adjustment Parts	Rating	Remarks
1	Check clearance between take-up side pinch roller and capstan shaft.				PAUSE		Fig. A	More than 0.5mm	
2	Pinch Roller Timing				STOP	With head base pushed up, check timing at which pinch rollers on supply side and take-up side contact capstan.	Fig. B	Take-up side pinch roller should start rotating first.	If timing of both sides is simultaneous or supply side precedes, adjustment is required.
3	Height of record/playback head and tape guide		Fig.D	Headgauge (M-300)			Height adjusting screw of record/playback head tape guide (Fig. C)	Head gauge should pass through smoothly without its block contacting record/playback head guide.	
4	Record/playback head tilt angle			Headgauge (M-300)		With M-300 block placed vertically on record/playback head, adjust so that M-300 gauge and block becomes parallel (Fig. E)	Tilt angle adjusting screw (Fig. C)	M-300 gauge and block should be parallel.	Place M-300 block vertically on head leaving space between M-300 block and gauge.
5	Supply side pinch roller height		Fig.F	Headgauge (M-300)			Supply side pinch roller height adjusting screw (Fig. C)	Head gauge should pass through smoothly without its block contacting pinch roller guide. (Fig. F)	
6	Azimuth	10kHz, −10dB (MTT-114)	LINE OUT	A.C.V.M. Oscilloscope	PB		Azimuth adjusting screw (Fig. C)	Playback output of L and R is maximum and phase difference should be minimum. (Phase difference less than 60°)	Repeat adjustments in steps 3 to 6 and apply screw lock paint upon completion of adjustments.
7	Check position of erase head and tape movement.			Mirror cassette (MC-109C)	PB			Tape should move in the center of erase head smoothly. Capstan (supply side) should move smoothly. (Fig. G)	Adjust by using spacer as shown in Fig. H.
8	Check each torque.			Torque meter (Cassette type)		Measure FF, REW torque, take up torque and back tension torque.	Back tension: Adjust leaf spring (5 steps) (Fig. I)	Take-up torque 35 ~ 55g/cm FF, REW torque more than 70g/cm Back tension: 5 ~ 10g/cm	To obtain take-up torque, read the center of deflection.
9	Check FF and REW take up times	AC-512, 712,223 C-60						Normal: Less than 85 seconds High speed: Less than 55 seconds	
10	Tape speed	3kHz, −10dB (MTT-111)	LINE OUT	Wow/flutter meter Frequency counter	PB	Check speed while playing back 3kHz test tape.	Semi fixed variable resistor at the back of the Capstan Motor. (Fig. J)	3000^{+5}_{-15}Hz	
	Wow/Flutter							Less than 0.05% (WRMS)	Check wow/flutter while confirming approximately 3kHz frequency with wow/flutter meter counter.



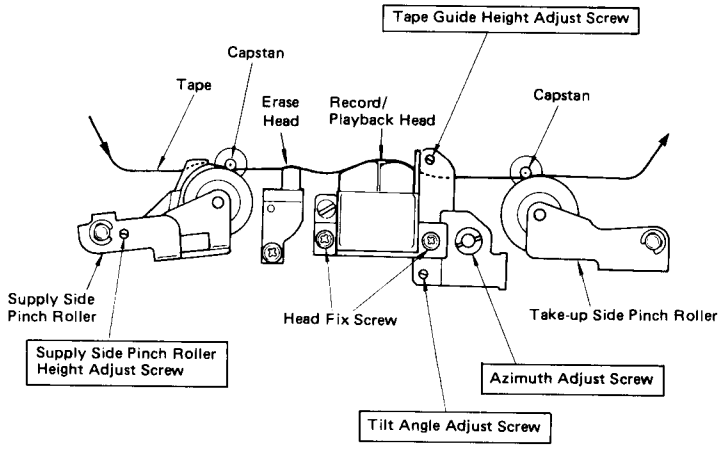
*Make sure to reconfirm after adjustment.

Fig. A



* Confirm clearance and timing after adjustment. There should be a clearance between the pinch arm and head base on both supply and take-up sides.

Fig. B



* Be sure to tighten the head fixing screw securely.
* Be sure to apply screw lock paint to each adjusting screw after adjustment.

Fig. C

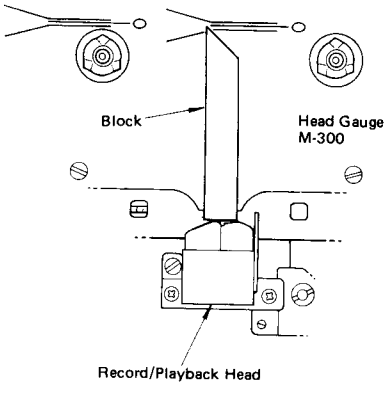


Fig. D

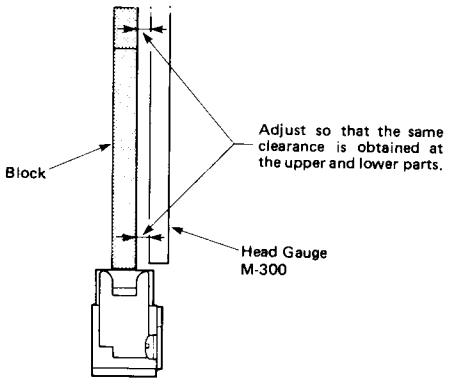


Fig. E

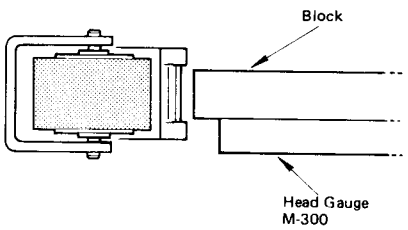


Fig. F

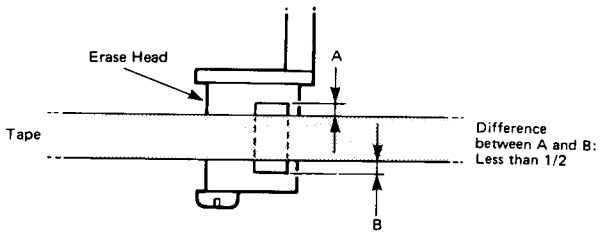
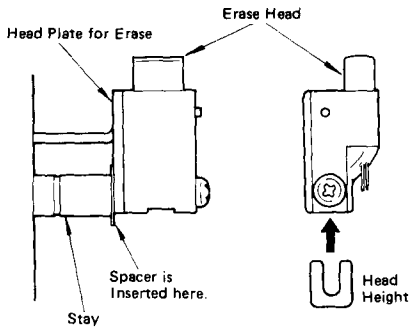


Fig. G



* Use spacer to adjust the head height.

Fig. H

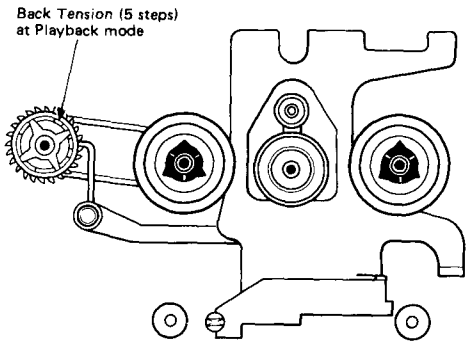


Fig. I

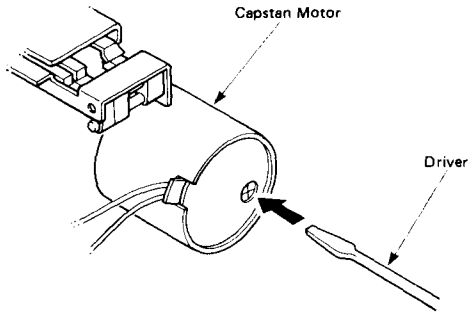


Fig. J

■ELECTRICAL ADJUSTMENTS

• PLAYBACK ADJUSTMENTS

* Make sure to use a new tape of IEC standards for a test tape.

Alignment tape
Normal TDK AC223 or YAMAHA NR 60
CrO_2 TDK AC512 or YAMAHA CR 60
METAL TDK AC712 or YAMAHA MR 60

* Use 360mV (−9dBV) for 0dB as the standard level of this unit.

• Proceed with the playback adjustments after having finished the mechanical adjustments.

Step	Adjustment item	Tape	Point of Measurement	Instrument required	Mode	Adjustment Part	Rating
1	EQ Amp. DC. Offset		TP1 (L) ~ E TP2 (R) ~ E	D.C.V.M.	STOP	VR101 (L) VR102 (R)	0 ± 2V D.C.
2	Playback level	MTT-212C (315Hz 160nwb/m)	LINE OUT	A.C.V.M. (AC Volt/dB Meter)	PB	VR103 (L) VR104 (R)	360 ± 25mV (−9.0 ± 1 dBV)
3	Playback frequency response confirmation	MTT-356U (3180 + 70μs) MTT-256U (3180 + 120μs)	LINE OUT	A.C.V.M.	PB		Frequency response should be within specification in Fig. K.
4	dbx IC		TP1 ~ TP2 (dbx circuit board)	D.C.V.M.	STOP	VR701 (dbx circuit board)	15 ± 2mV D.C.

• RECORDING ADJUSTMENT

• Proceed with the recording adjustments after having finished the playback adjustments.

Step	Adjustment item	Tape	Test Point	Instrument required	Mode	Measurement Conditions	Adjustment Parts	Rating	Remarks
1	Peak Level Meter (+4.5dB)		LINE OUT	A.C.V.M.	SOURCE	Apply a 1kHz sine wave signal from LINE IN so that LINE OUT voltage is 600mV (−4.5dBV).	VR503 (L) VR504 (R)	+4dB segment (red) should light.	
			LINE IN	Audio frequency oscillator					
	Peak Level Meter (0dB)					Apply a 1kHz sine wave signal from LINE IN so that LINE OUT voltage is 360mV (−9dBV).	VR501 (L) VR502 (R)	0dB segment (red) should light.	When MASTER FADER is decreased L and R segments around 0dB should fade out almost simultaneously.

Step	Adjustment Item	Tape	Test Point	Instrument Required	Mode	Measurement Conditions	Adjustment Parts	Rating	Remarks
2	BIAS Oscillation level	METAL	TP5 TP6	A.C.V.M.	REC	BIAS ADJUST → Maximum (VR107) Set VR119 and 120 all the way to the left.	L109 L110	Adjust so that oscillation output is maximum.	
3	BIAS Leak	METAL	LINE OUT	A.C.V.M.	REC TAPE	With no signal applied (REC at minimum), set BIAS ADJUST to maximum and measure bias leak at LINE OUT when recording and monitoring simultaneously (TAPE mode) by using a metal tape.	Fi101 (L) Fi102 (R)	Less than 13mV	Adjust so as to minimize bias leak.
4	Recording Level (Through)	AC-712 INPUT SIGNAL (1kHz, −20dB)	LINE OUT LINE IN	A.C.V.M. Audio frequency osillator	REC TAPE NR → OFF	①Set VR119 and 120 as the midpoint. ②Apply a 1kHz sine wave signal from LINE IN so that LINE OUT voltage is 36mV (−29dBV). ③Record the signal and adjust so that there is no level difference when SOURCE/TAPE is switched.	VR111 (L) VR112 (R)	±0.5dB	The reference tape of this unit is AC-720 (equivalent to TDK-MA). If other tape is used, slight difference in level results.
5	Recording Level (dbx)	AC-712 INPUT SIGNAL (1kHz, −20dB)	LINE OUT LINE IN	A.C.V.M. Audio frequency osillator	REC TAPE NR → dbx	①Apply a 1kHz sine wave signal from LINE IN so that LINE OUT voltage is 36mV (−29dBV). ②Record the signal and adjust so that there is no level difference when SOURCE/TAPE is switched.	VR121 (L) VR122 (R)	±0.5dB	Each adjustment in step 4 should be completed.
6	Recording BIAS (METAL)	AC-712 INPUT SIGNAL (1kHz, 10kHz, −20dB)	LINE OUT	A.C.V.M.	REC TAPE NR → OFF	①Confirm the 1kHz record/playback level (Step 4). ②Record and playback a 10 kHz (−20dB) signal and adjust so that the same level as the above ① level is obtained.	VR119 (L) VR120 (R)	Frequency response should satisfy Fig. L.	As ORBiT signal is 1kHz and 10kHz, use a 1kHz signal and a 10kHz one when adjusting recording/playback frequency response and confirm that each rating is satisfied. If other frequency is used for adjustment. Bias indicator may indicate an error.
7	Recording BIAS (CrO_2)	AC-512 INPUT SIGNAL (1kHz, 10kHz, −20dB)	LINE OUT LINE IN	A.C.V.M. Audio frequency osillator	REC TAPE	①Record and playback a 1kHz (−20dB) signal and read the level. (A slight difference results as record/playback level of this unit is set to AC-712.) ②Apply a 10kHz signal from LINE IN so that LINE OUT voltage is 36mV (−29dBV; voltage 20dB lower than the standard level) ③Record the signal and adjust so that the same level as the above ① level is obtained.	VR115 (L) VR116 (R)	Frequency response should satisfy Fig. M.	As ORBiT signal is 1kHz and 10kHz, use a 1kHz signal and a 10kHz one when adjusting recording/playback frequency response and confirm that each rating is satisfied. If other frequency is used for adjustment. Bias indicator may indicate an error.
8	Recording BIAS (Normal)	AC-223 INPUT SIGNAL (1kHz, 10kHz, −20dB)	LINE OUT	A.C.V.M.	REC TAPE	①Record and playback a 1kHz (−20dB) signal and read the level. ②Record and playback a 10kHz (−20dB) signal and adjust so that the same level as the above ① level is obtained.	VR117 (L) VR118 (R)	Frequency response should satisfy Fig. N.	
9	BIAS Test (LOW)	AC-712	TP3	A.C.V.M.	BIAS TEST REC BIAS ADJ Center.	Set METAL (AC-712) and perform BIAS TEST.	VR110	30 ± 5mV	Each adjustment in Steps 4 and 6 should be complited. Confirm adjustment is made within ±2 graduation when BIAS TEST is performed with other tape (AC-512, 223).
	BIAS Test (High)		BIAS Indicator				VR109	▶◀ should light.	

Step	Adjustment Item	Tape	Test Point	Instrument Required	Mode	Measurement Conditions	Adjustment Parts	Rating	Remarks
2	BIAS Oscillation level	METAL	TP5 TP6	A.C.V.M.	REC	BIAS ADJUST → Maximum (VR107) Set VR119 and 120 all the way to the left.	L109 L110	Adjust so that oscillation output is maximum.	
3	BIAS Leak	METAL	LINE OUT	A.C.V.M.	REC TAPE	With no signal applied (REC at minimum), set BIAS ADJUST to maximum and measure bias leak at LINE OUT when recording and monitoring simultaneously (TAPE mode) by using a metal tape.	Fi101 (L) Fi102 (R)	Less than 13mV	Adjust so as to minimize bias leak.
4	Recording Level (Through)	AC-712 INPUT SIGNAL (1kHz, −20dB)	LINE OUT LINE IN	A.C.V.M. Audio frequency osillator	REC TAPE NR → OFF	①Set VR119 and 120 as the midpoint. ②Apply a 1kHz sine wave signal from LINE IN so that LINE OUT voltage is 36mV (−29dBV). ③Record the signal and adjust so that there is no level difference when SOURCE/TAPE is switched.	VR111 (L) VR112 (R)	±0.5dB	The reference tape of this unit is AC-720 (equivalent to TDK-MA). If other tape is used, slight difference in level results.
5	Recording Level (dbx)	AC-712 INPUT SIGNAL (1kHz, −20dB)	LINE OUT LINE IN	A.C.V.M. Audio frequency osillator	REC TAPE NR → dbx	①Apply a 1kHz sine wave signal from LINE IN so that LINE OUT voltage is 36mV (−29dBV). ②Record the signal and adjust so that there is no level difference when SOURCE/TAPE is switched.	VR121 (L) VR122 (R)	±0.5dB	Each adjustment in step 4 should be completed.
6	Recording BIAS (METAL)	AC-712 INPUT SIGNAL (1kHz, 10kHz, −20dB)	LINE OUT	A.C.V.M.	REC TAPE NR → OFF	①Confirm the 1kHz record/playback level (Step 4). ②Record and playback a 10 kHz (−20dB) signal and adjust so that the same level as the above ① level is obtained.	VR119 (L) VR120 (R)	Frequency response should satisfy Fig. L.	As ORBiT signal is 1kHz and 10kHz, use a 1kHz signal and a 10kHz one when adjusting recording/playback frequency response and confirm that each rating is satisfied. If other frequency is used for adjustment. Bias indicator may indicate an error.
7	Recording BIAS (CrO_2)	AC-512 INPUT SIGNAL (1kHz, 10kHz, −20dB)	LINE OUT LINE IN	A.C.V.M. Audio frequency osillator	REC TAPE	①Record and playback a 1kHz (−20dB) signal and read the level. (A slight difference results as record/playback level of this unit is set to AC-712.) ②Apply a 10kHz signal from LINE IN so that LINE OUT voltage is 36mV (−29dBV: voltage 20dB lower than the standard level) ③Record the signal and adjust so that the same level as the above ① level is obtained.	VR115 (L) VR116 (R)	Frequency response should satisfy Fig. M.	As ORBiT signal is 1kHz and 10kHz, use a 1kHz signal and a 10kHz one when adjusting recording/playback frequency response and confirm that each rating is satisfied. If other frequency is used for adjustment. Bias indicator may indicate an error.
8	Recording BIAS (Normal)	AC-223 INPUT SIGNAL (1kHz, 10kHz, −20dB)	LINE OUT	A.C.V.M.	REC TAPE	①Record and playback a 1kHz (−20dB) signal and read the level. ②Record and playback a 10kHz (−20dB) signal and adjust so that the same level as the above ① level is obtained.	VR117 (L) VR118 (R)	Frequency response should satisfy Fig. N.	
9	BIAS Test (LOW)	AC-712	TP3	A.C.V.M.	BIAS TEST REC BIAS ADJ Center.	Set METAL (AC-712) and perform BIAS TEST.	VR110	30 ± 5mV	Each adjustment in Steps 4 and 6 should be complited. Confirm adjustment is made within ±2 graduation when BIAS TEST is performed with other tape (AC-512, 223).
	BIAS Test (High)		BIAS Indicator				VR109	▶◀ should light.	

• PLAYBACK FREQUENCY RESPONSE

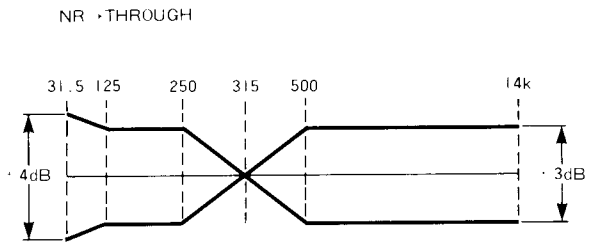


Fig. K

• RECORDING FREQUENCY RESPONSE

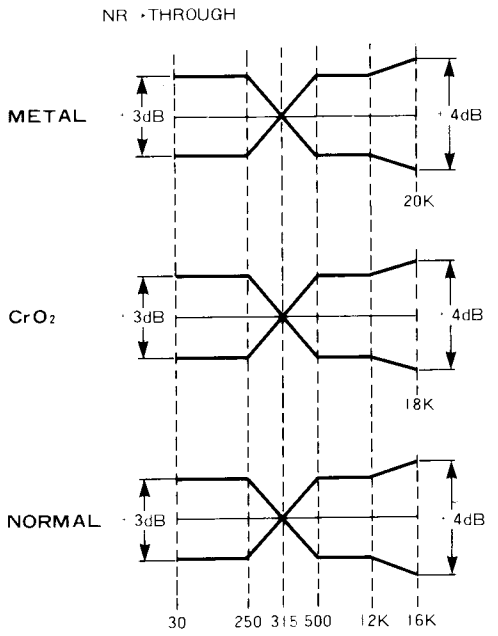
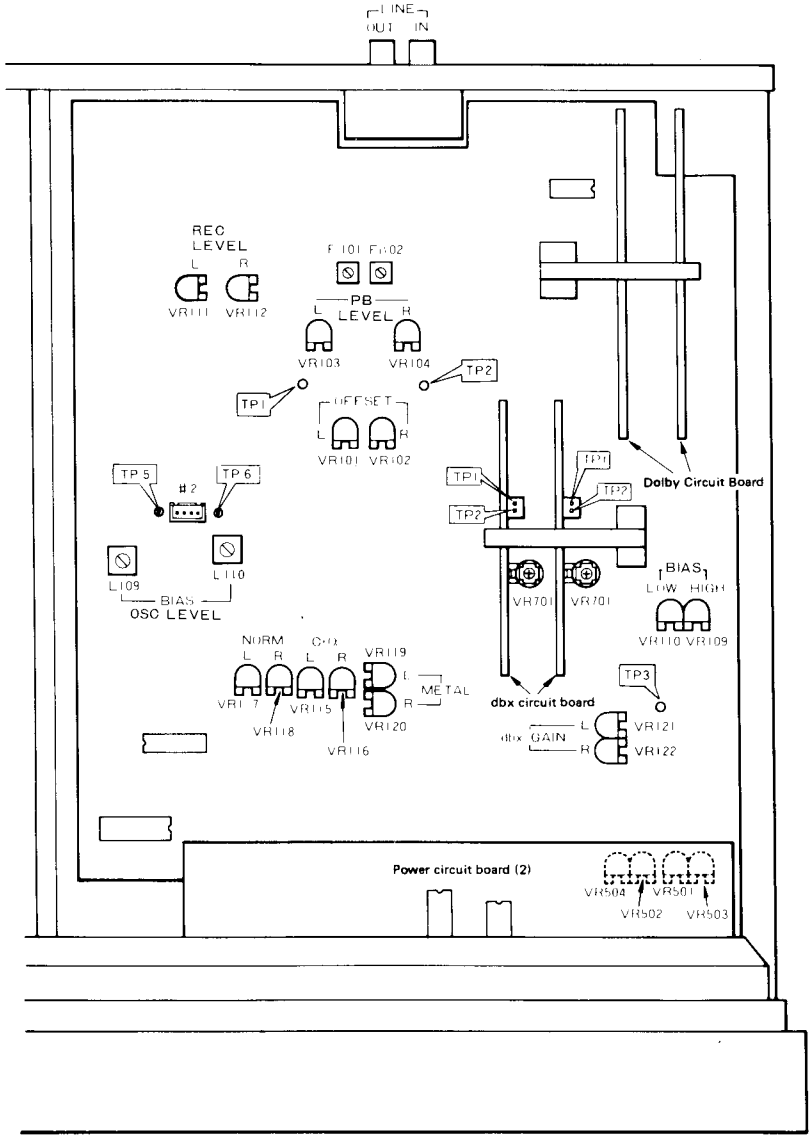


Fig. L

Fig. M

Fig. N

• TEST POINT



■LSI DATA TABLES

• LM6402G-494

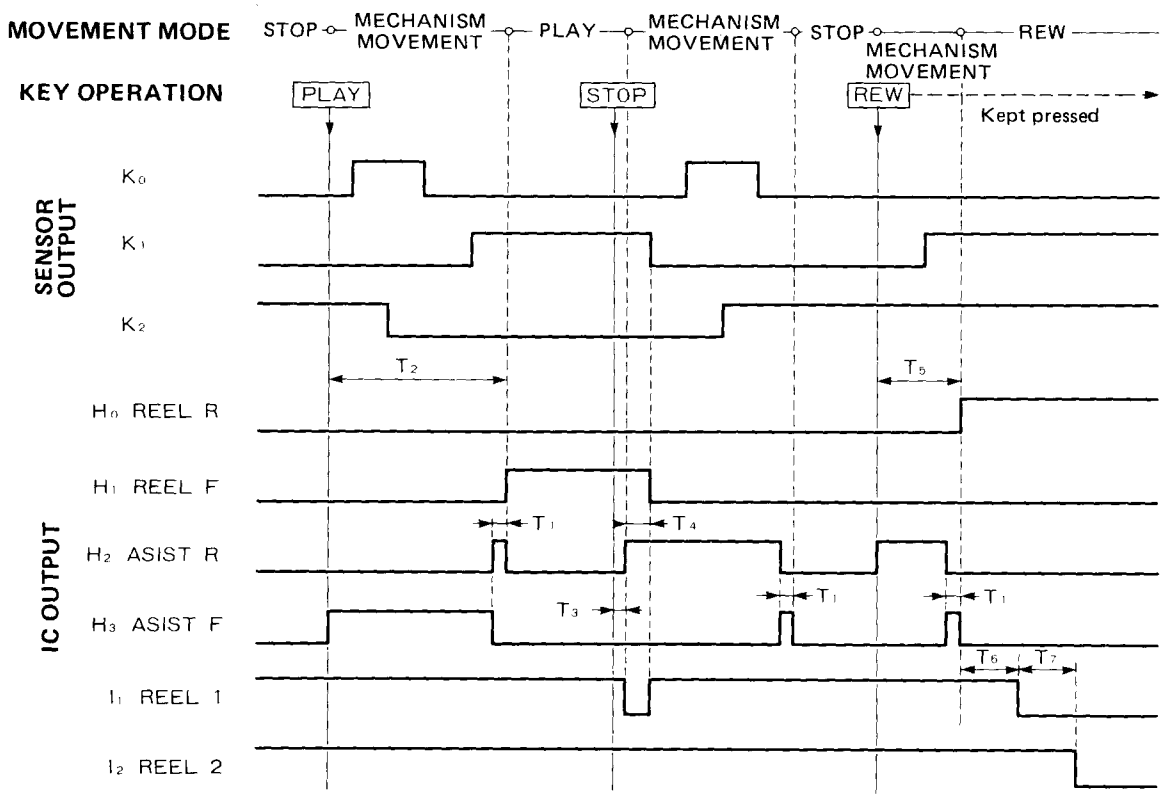
No.	NAME	FUNCTION	No.	NAME	FUNCTION
1	Xtal	CLOCK, Microcomputer (800 kHz)	42	EXtal	CLOCK, Microcomputer (800 kHz)
2	C_0	(1 figure) KEY SCAN 1	41	VDD	+5V
3	C_1	DISPLAY (2 figure) KEY SCAN 2	40	B_3	PULSE INPUT, Reel stand (Take-up)
4	C_2	DIGIT (3 figure) KEY SCAN 3	39	B_2	PULSE INPUT, Reel stand (Supply)
5	C_3	OUTPUT (4 figure) KEY SCAN 4	38	B_1	KEY SCAN INPUT
6	$\overline{INT}$	Not used (+5V)	37	B_0	
7	$\overline{RES}$	RESET, Microcomputer (Reset at "L" level)	36	A_3	
8	D_0	DISPLAY DIGIT (Dot) KEY SCAN 5	35	A_2	
9	D_1	NORMAL TAPE	34	A_1	
10	D_2	CrO_2 TAPE	33	A_0	
11	D_3	METAL TAPE	32	I_2	Speed Control of Reel Motor 2
12	E_0	a. MEMORY	31	I_1	Speed Control of Reel Motor 1
13	E_1	b. BIAS	30	I_0	Not Use
14	E_2	LED SEGMENT OUTPUT c. ▷⋮	29	H_3	Assist Motor Control
15	E_3	d. ⋮◁	28	H_2	
16	F_0	e. TAPE	27	H_1	Reel Motor Control
17	F_1	f. O–M REPEAT	26	H_0	
18	F_2	g. FULL REPEAT	25	G_3	LINE MUTE OUTPUT Signal
19	F_3	–, REC, ˙, TEST	24	G_2	MONITOR SW Signal
20	TEST	Gnd.	23	G_1	REC MUTE OUTPUT Signal
21	Vss	Gnd.	22	G_0	REC BIAS OUTPUT Signal

• MODE VS OUTPUT

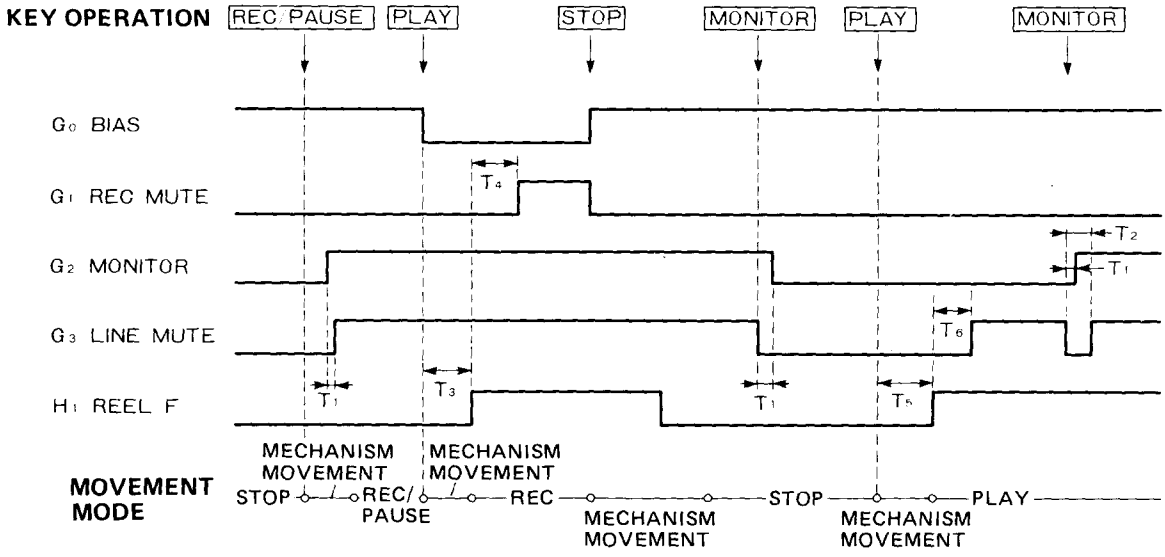
Terminal	NAME	STOP	FF	FF(High Speed)	REW	REW(High Speed)	PLAY	REC/ PAUSE	REC/ PLAY	CUE	REVIEW
22 · G_0	BIAS	H	H	H	H	H	H	–	L	H	H
23 · G_1	REC MUTE	L	L	L	L	L	L	L	H	L	L
24 · G_2	MONITOR	–	–	–	–	–	**L	***H	***H	–	–
25 · G_3	LINE MUTE	*	*	*	*	*	H	*	*	*	*
26 · H_0	REEL · R	L	L	L	H	H	L	L	L	L	H
27 · H_1	REEL · F	L	H	H	L	L	H	L	H	H	L
31 · I_1	REEL 1	H	L	L	L	L	H	H	H	L	L
32 · I_2	REEL 2	H	H	L	H	L	H	H	H	H	H

Note : L ..... Low level
H ..... High level
– ..... Holding premode
** ..... L changes when operation is ON.
*** ..... H changes at initial REC.
* ..... L changes when TAPE is selected.
H changes when SOURCE is selected.

■TIMING CHART



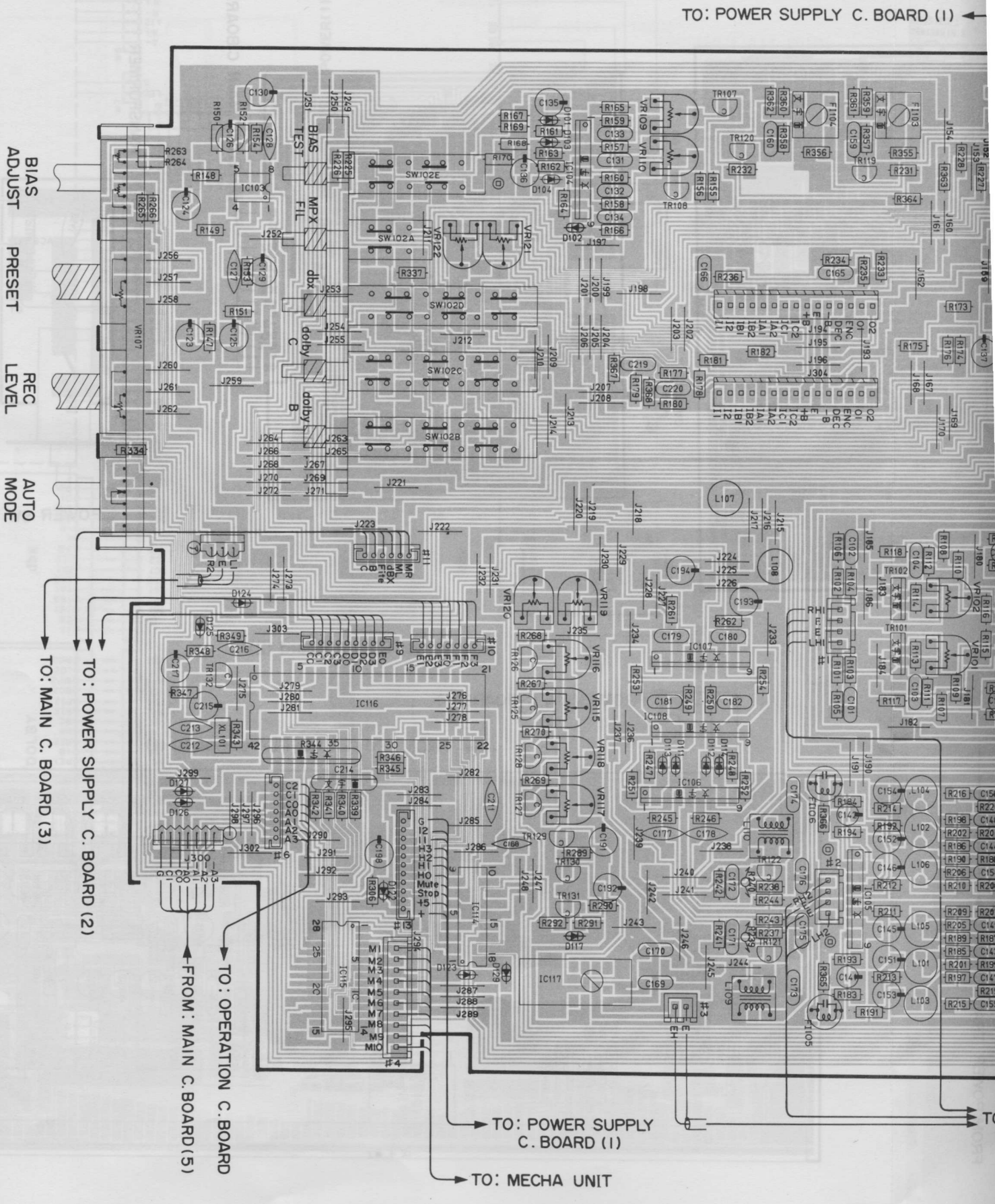
T_1 : Reversing due to assist motor stop . . . About 14 msec
T_2 : Play operation time . . . About 300 msec
T_3 : Delay of play → STOP . . . About 15 mesc
T_4 : Reel motor running time before shifting out of the previous mode . . . About 50 msec
T_5 : Operation time of STOP → REW. . . About 90 msec
T_6 : Delay before fast forward voltage . . . About 260 msec
T_7 : Delay before high speed fast forward voltage . . . About 300 msec



T_1 : Monitor mute delay . . . About 25μsec
T_2 : Monitor switching mute . . . About 50 msec
T_3 : Operation of PAUSE → PLAY . . . About 150 msec
T_4 : REC mute delay . . . About 250 msec (to wait til running is stabilized)
T_5 : PLAY operation . . . About 300 msec
T_6 : Line mute delay . . . About 250 msec

■ PRINTED CIRCUIT BOARD (Pattern side)

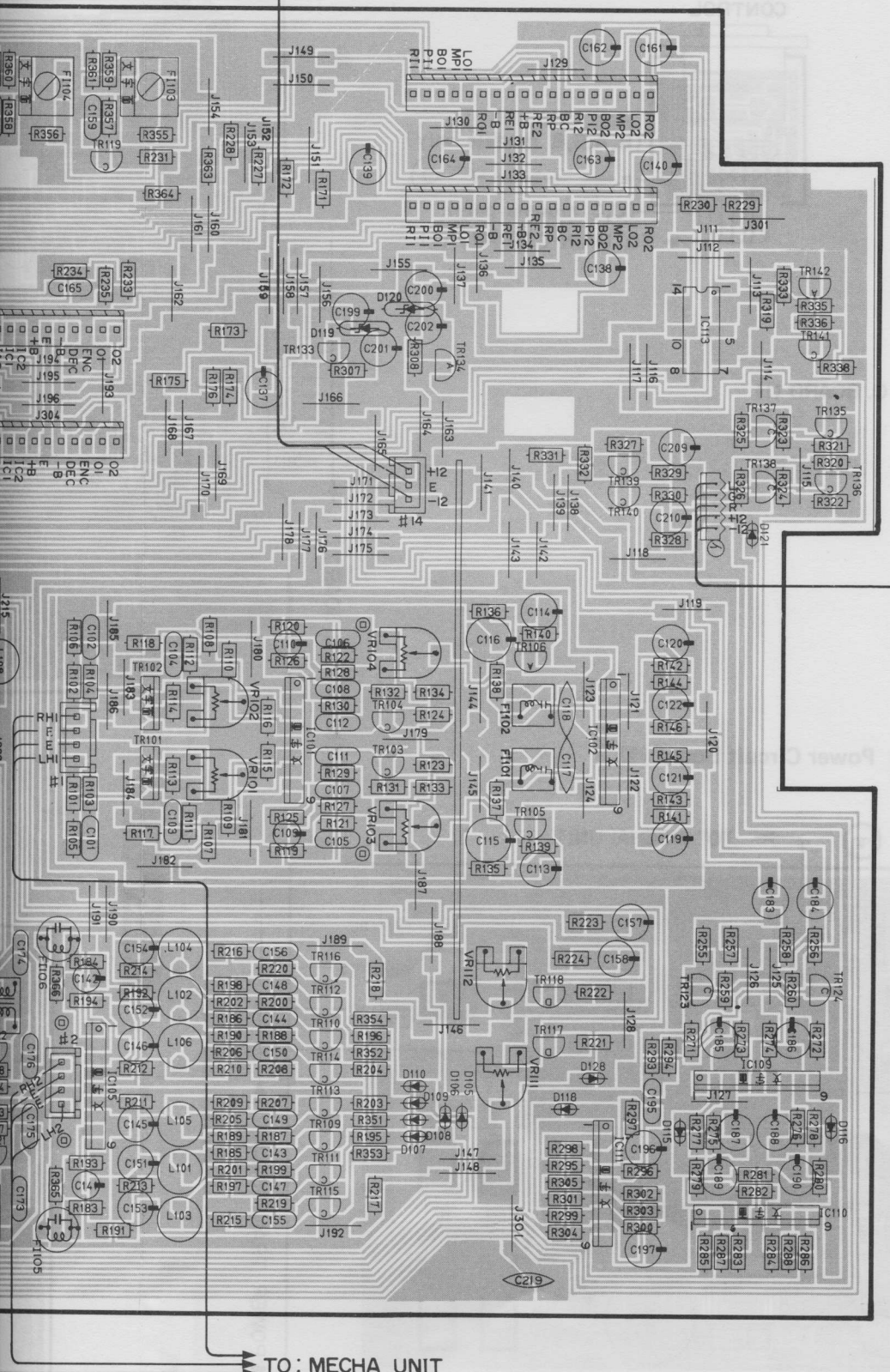
- Main Circuit Board (1)



Note)

文字面 : Letter side

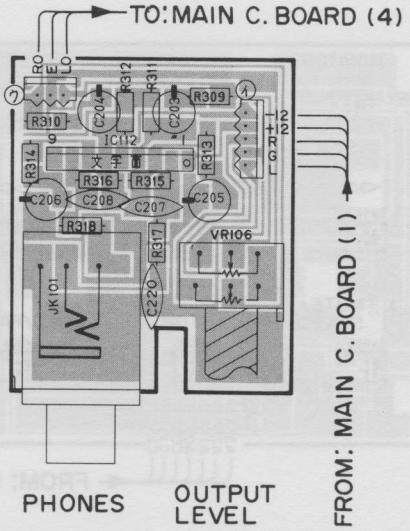
SUPPLY C. BOARD (1)



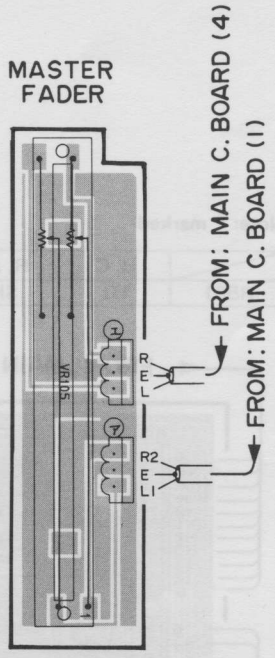
TO: MECHA UNIT

TO: MAIN C. BOARD (2)

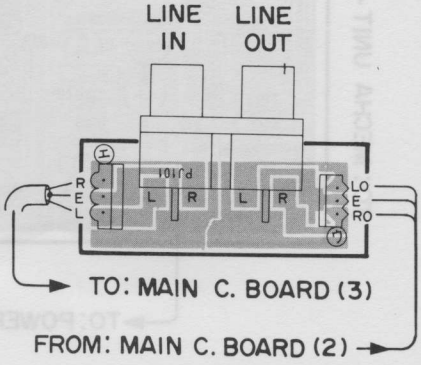
• Main Circuit Board (2)



• Main Circuit Board (3)



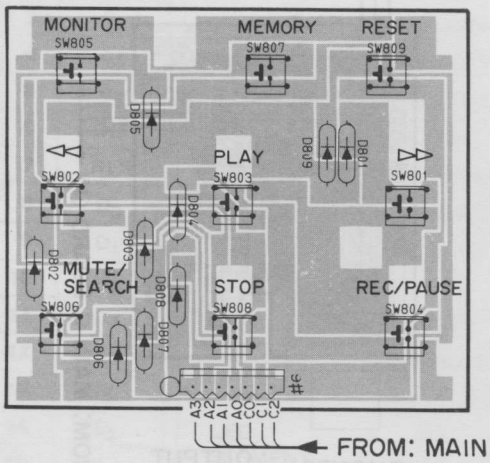
• Main Circuit Board (4)



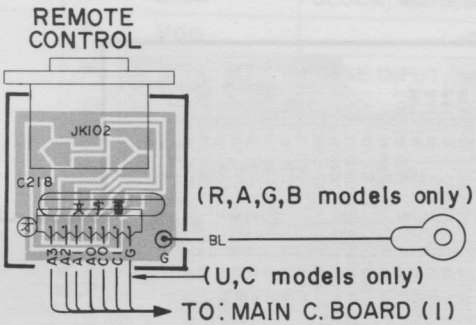
■ PRINTED CIRCUIT BOARD (Pattern side)

Note)
文字面： Letter side

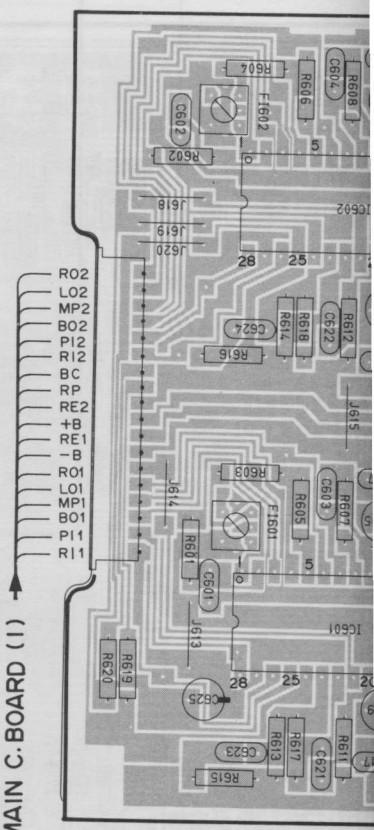
• Operation Circuit Board



• Main Circuit Board (5)



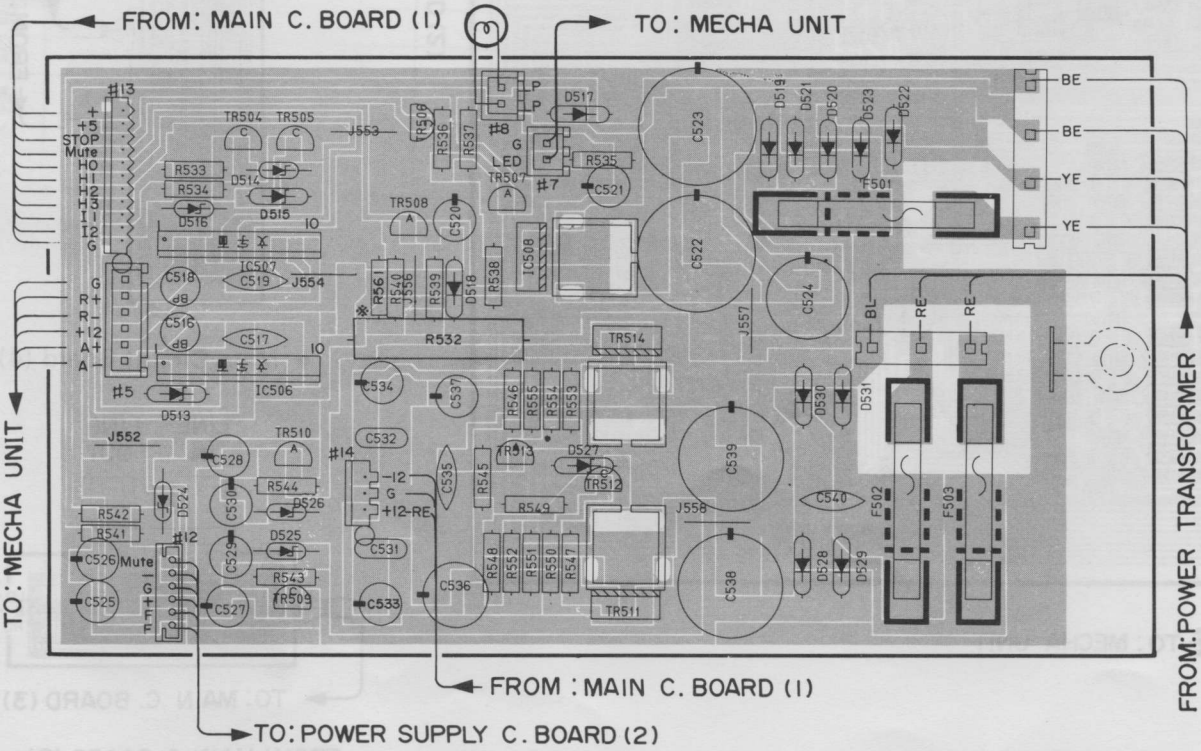
• Dolby Circuit Bo



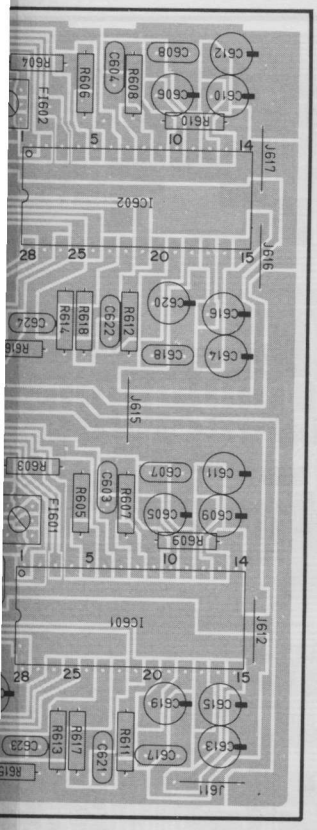
Note: * marked

	U, C	R, A, G, B
R561	1Ω	SHORT

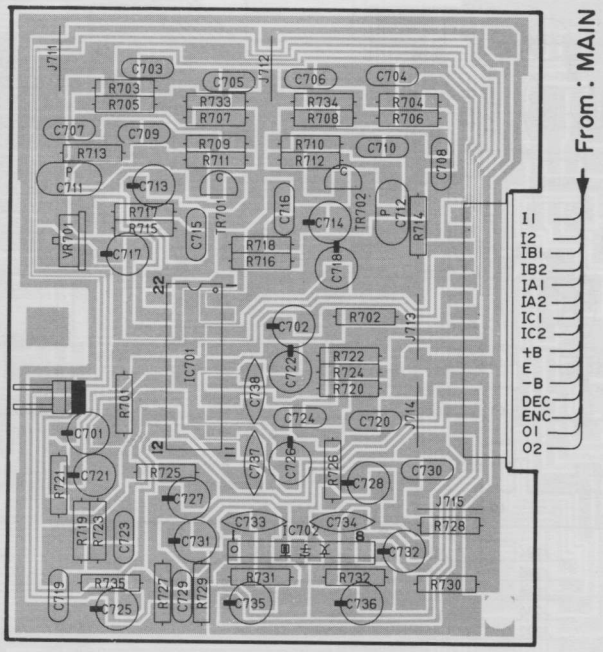
• Power Circuit Board (1)



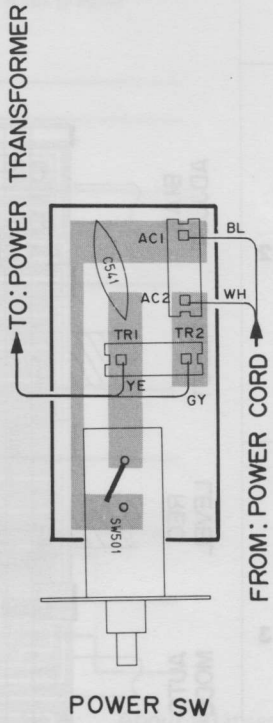
Circuit Board



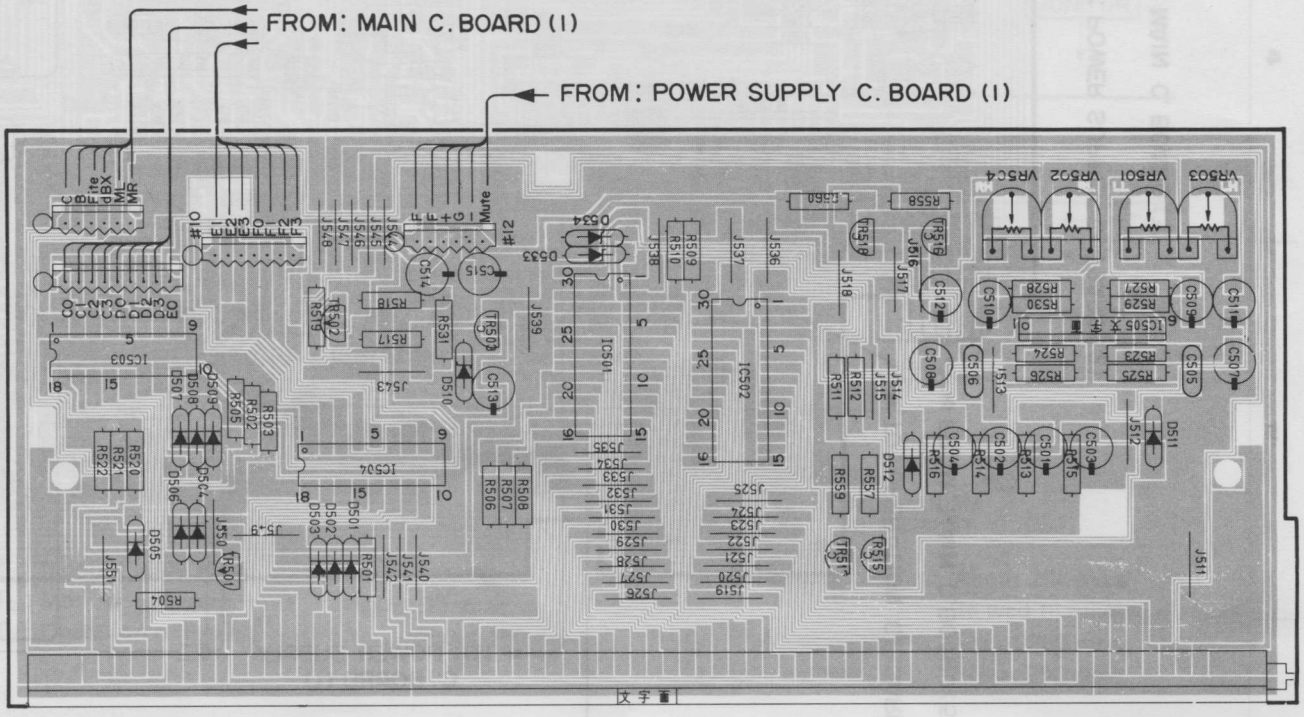
• dbx Circuit Board



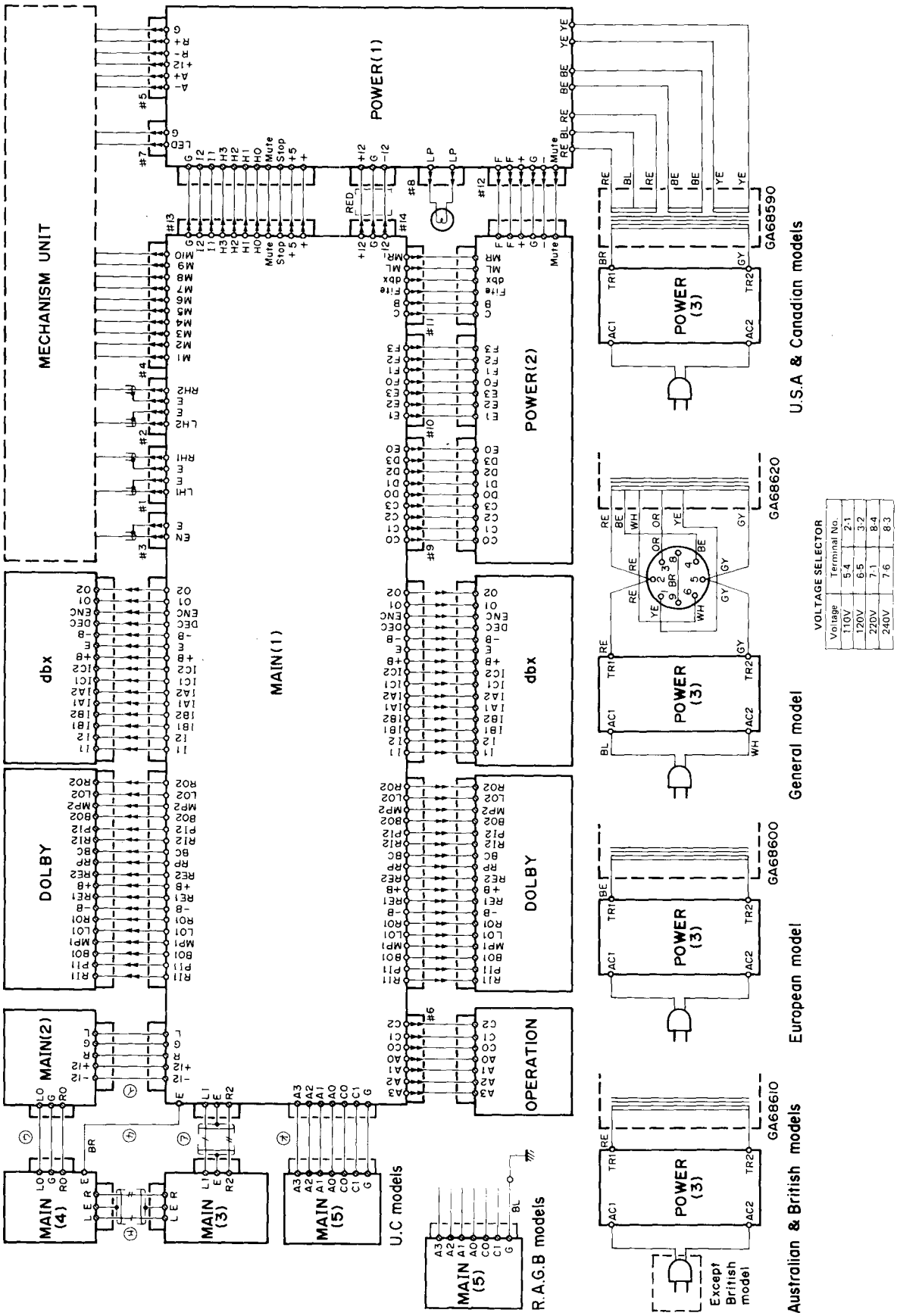
• Power Circuit Board (3)



• Power Circuit Board (2)



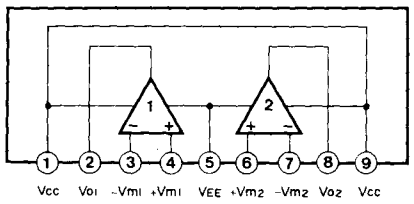
■WIRING


MECHANISM UNIT
POWER(1)
POWER(2)
MAIN(1)
MAIN(2)
dbx
DOLBY
OPERATION
MAIN (4)
MAIN (3)
MAIN (5)
U.C models
R.A.G.B models
MAIN (5)
POWER (3)
GA68590
GA68620
GA68600
GA68610
U.S.A & Canadian models
General model
European model
Australian & British models
Except British model
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

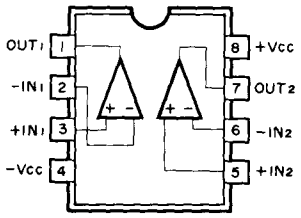
■IC BLOCK

IC101, 102, 104, 107 ~ 111, 505, 702: AN6551 or NJM4558S or BA715

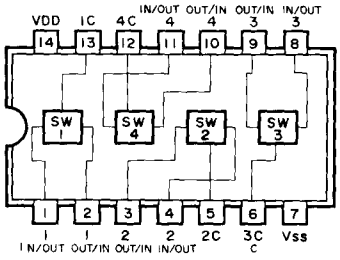
IC105, 112: NJM4556S
IC106: NJM4560S



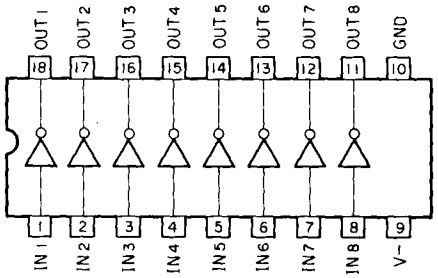
IC103: NJM2043D



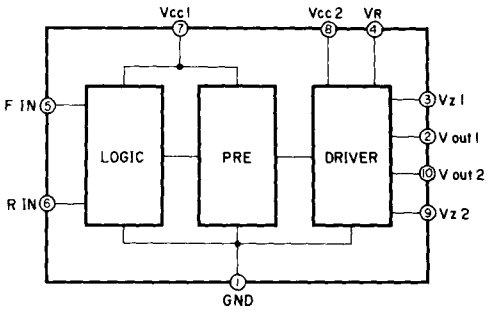
IC113: μPD4066BC or LC4066B or M4066BP



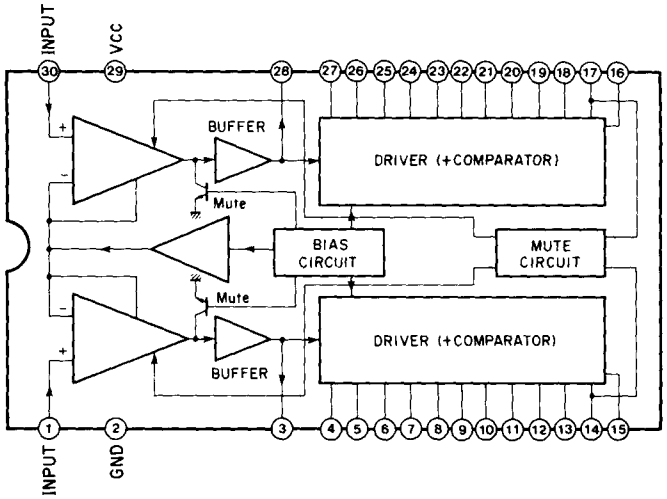
IC114, 503, 504: AN6873 or LB1241



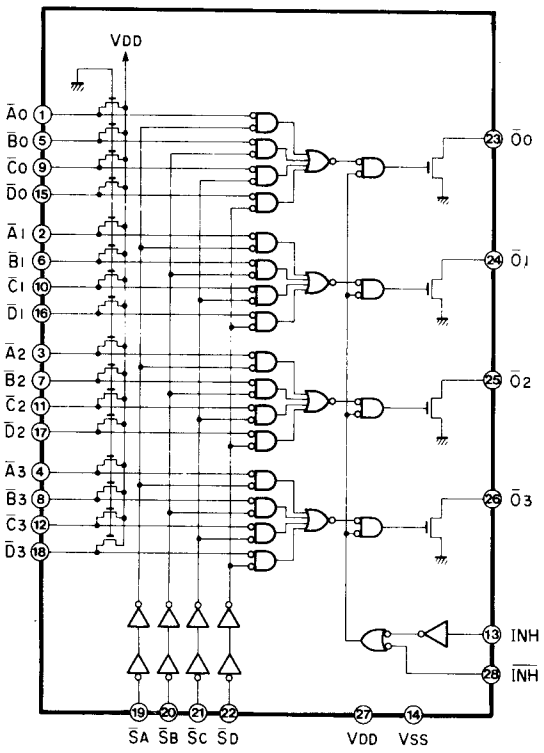
IC506, 507: BA6209



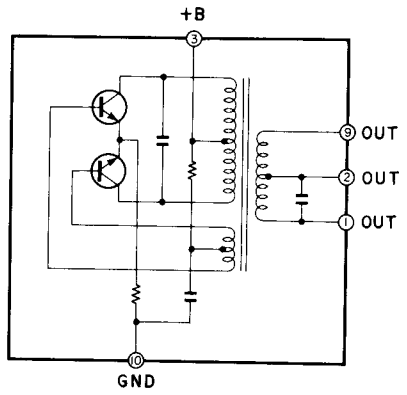
IC501, 502: HA12067NT



IC115: LC7800



IC117: iG14680



"1" High Level
"0" Low Level
"*"don't Care Case

INPUTS																				OUTPUTS			
DATA IN																SELECT IN				INHIBIT IN							
A				B				C				D															
$\overline{A_0}$	A_1	$\overline{A_2}$	$\overline{A_3}$	$\overline{B_0}$	$\overline{B_1}$	$\overline{B_2}$	$\overline{B_3}$	$\overline{C_0}$	$\overline{C_1}$	$\overline{C_2}$	$\overline{C_3}$	$\overline{D_0}$	$\overline{D_1}$	$\overline{D_2}$	$\overline{D_3}$	$\overline{S_A}$	$\overline{S_B}$	$\overline{S_C}$	$\overline{S_D}$	I_{NR}	$\overline{I_{MH}}$	$\overline{O_0}$	$\overline{O_1}$	$\overline{O_2}$	$\overline{O_3}$
0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1
1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	0	1
1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	0
1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1
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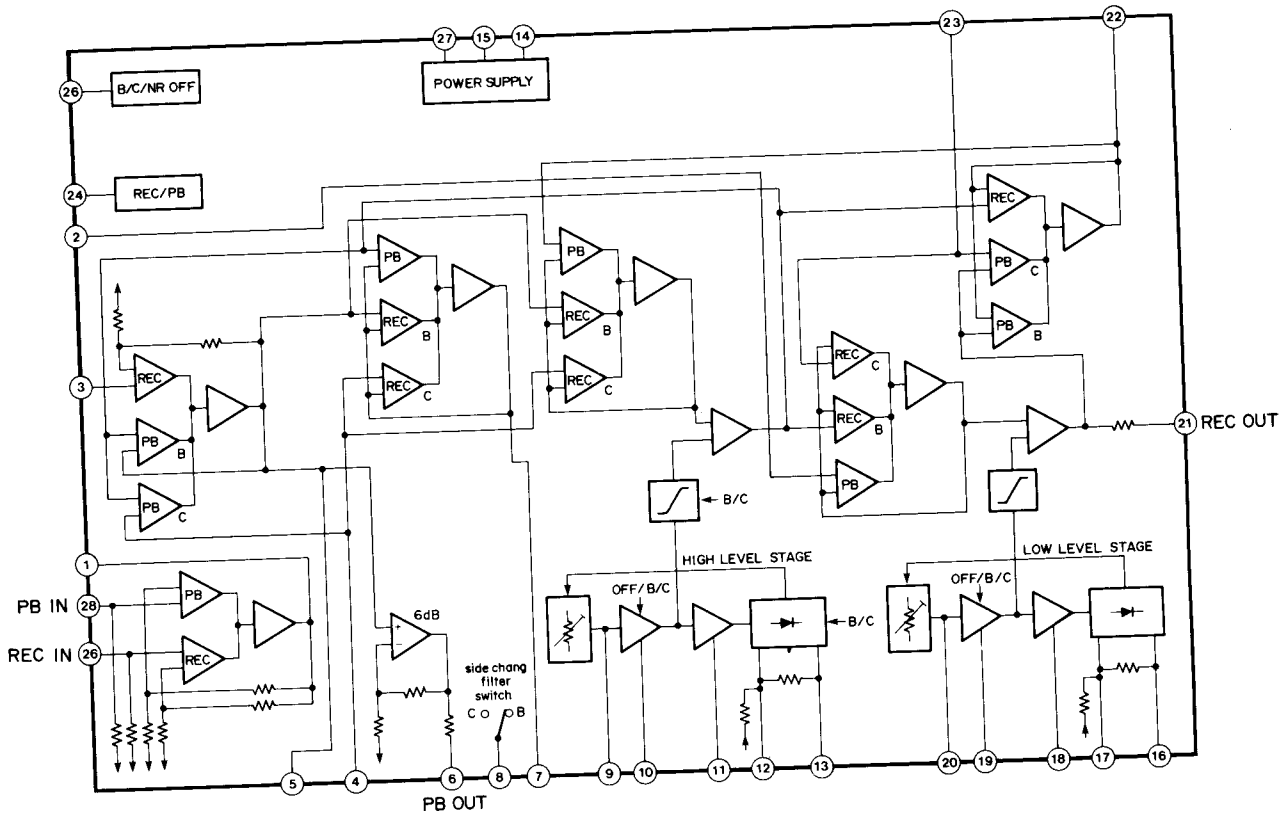
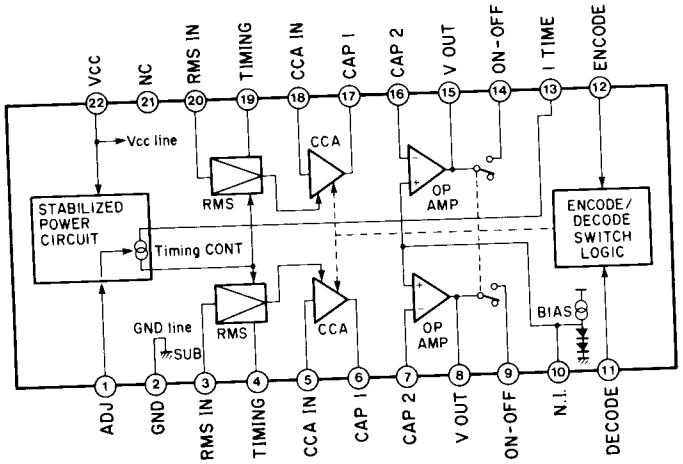
1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	0
1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1
1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	1	0	1	1
1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	0	1	1	1	0	1
1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	0
1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	0	1	0	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	0	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	1	1	0	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	1	0
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	0	1	1	1	1
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	*	1	1	1	1
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	0	1	1	1	1

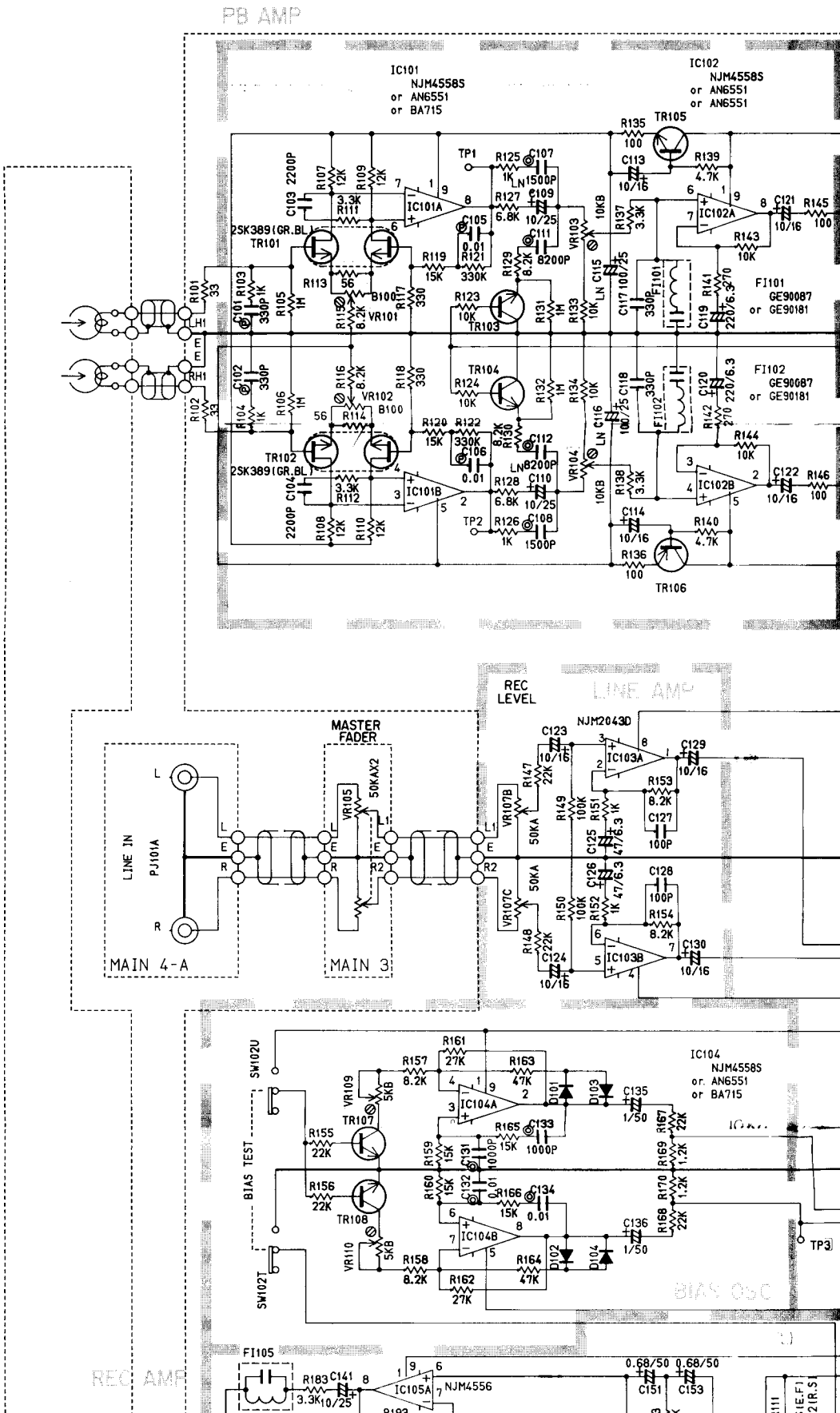
IC601, 602: TEA0665

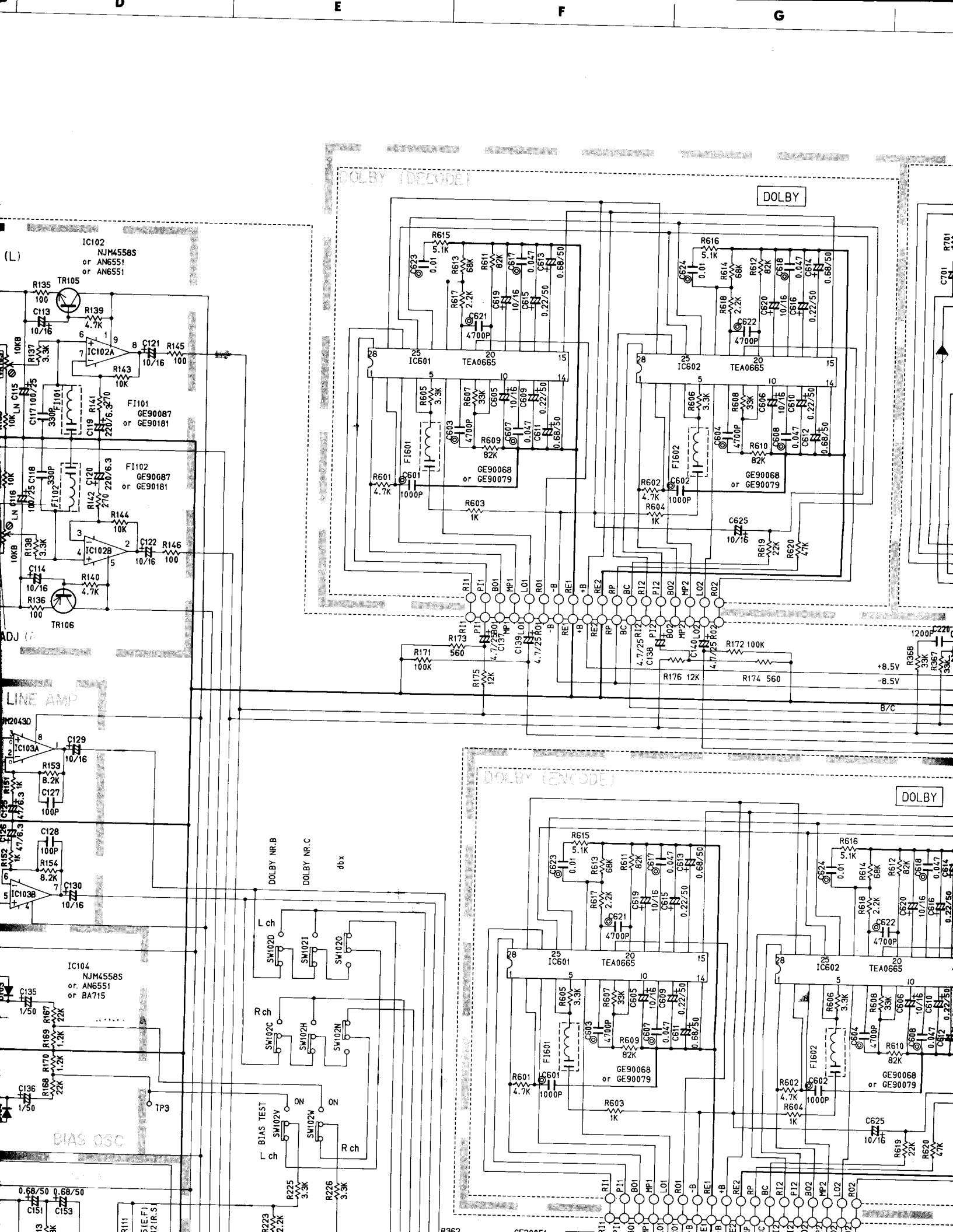


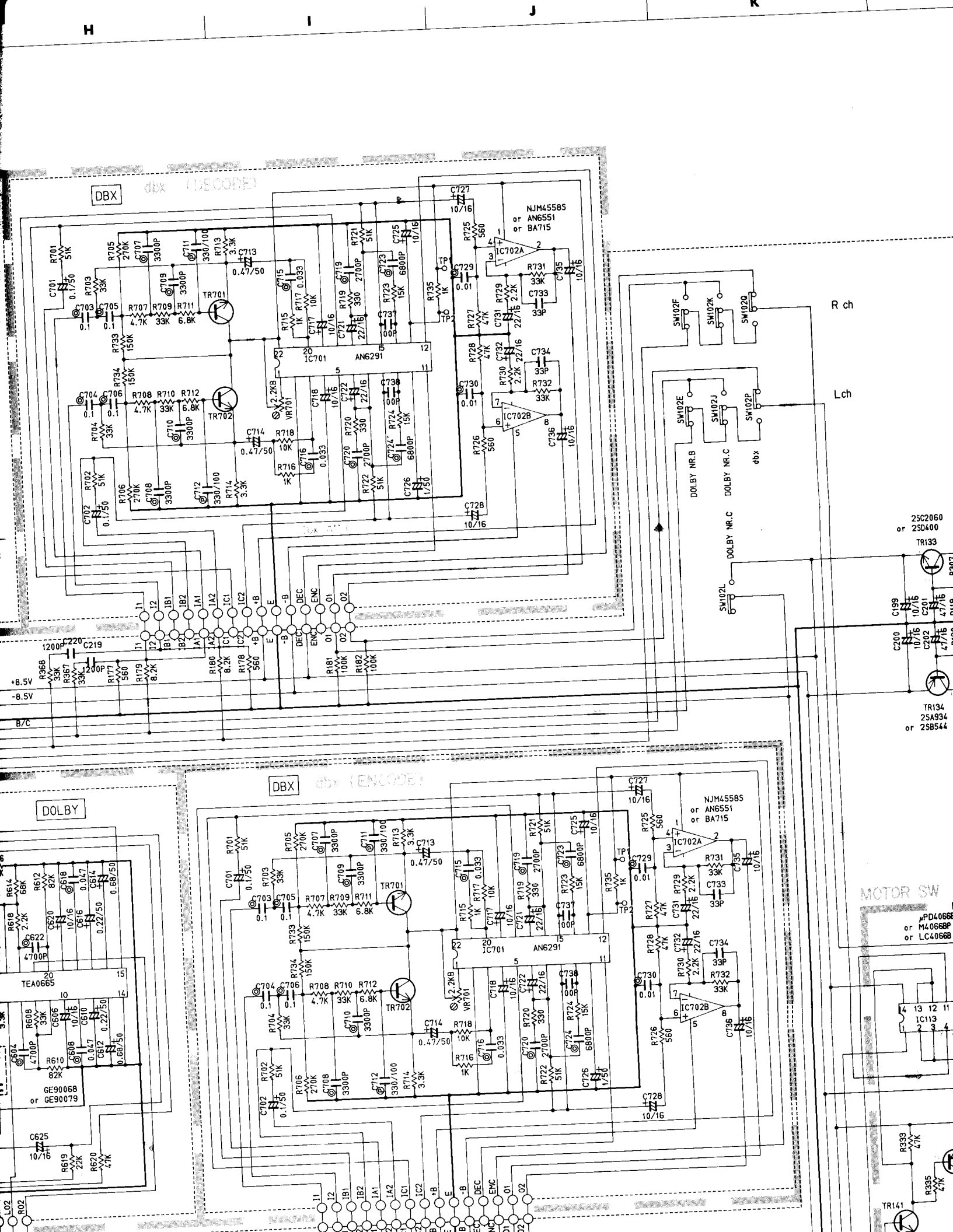
IC701: AN6291

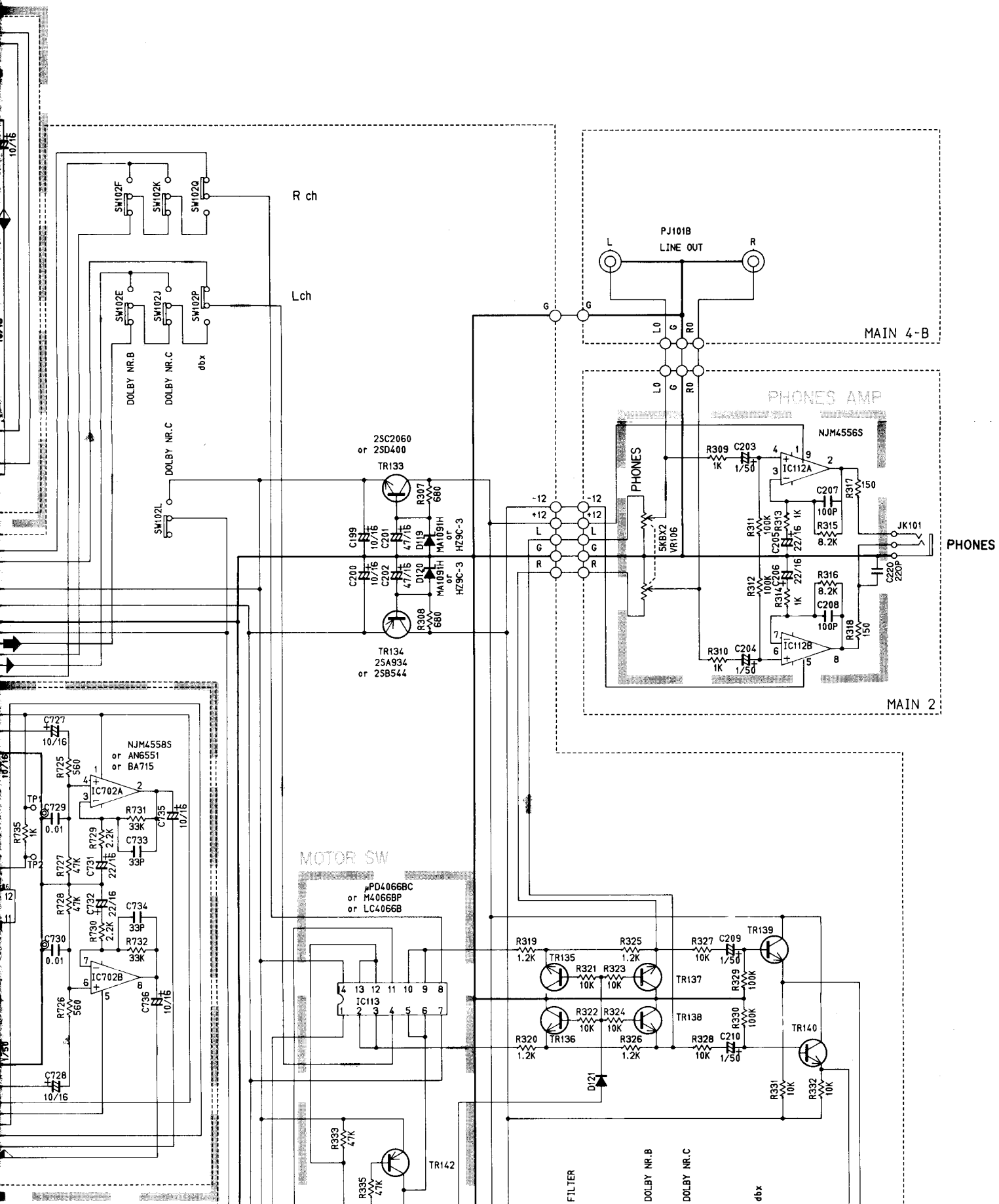


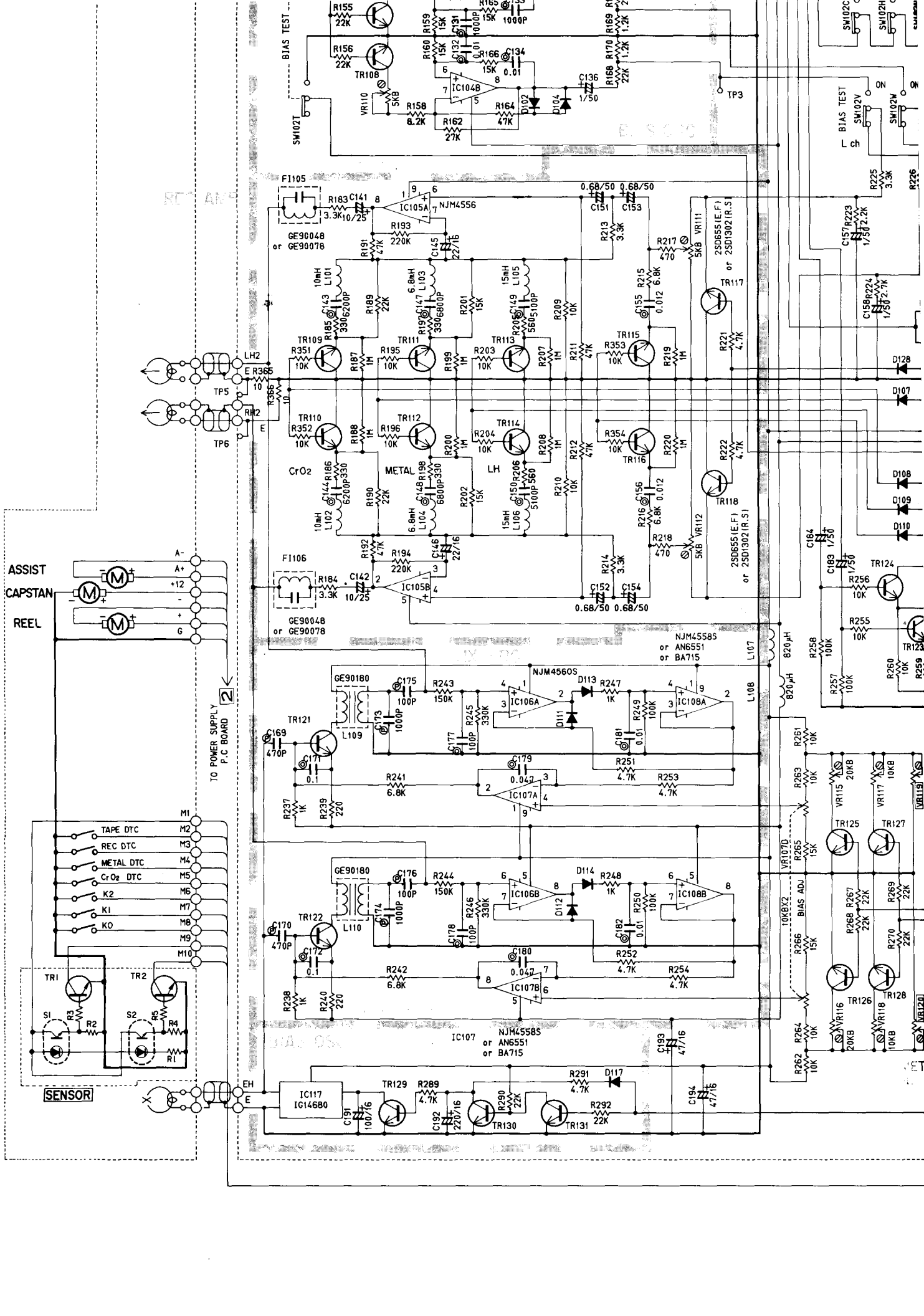
■ SCHEMATIC DIAGRAM

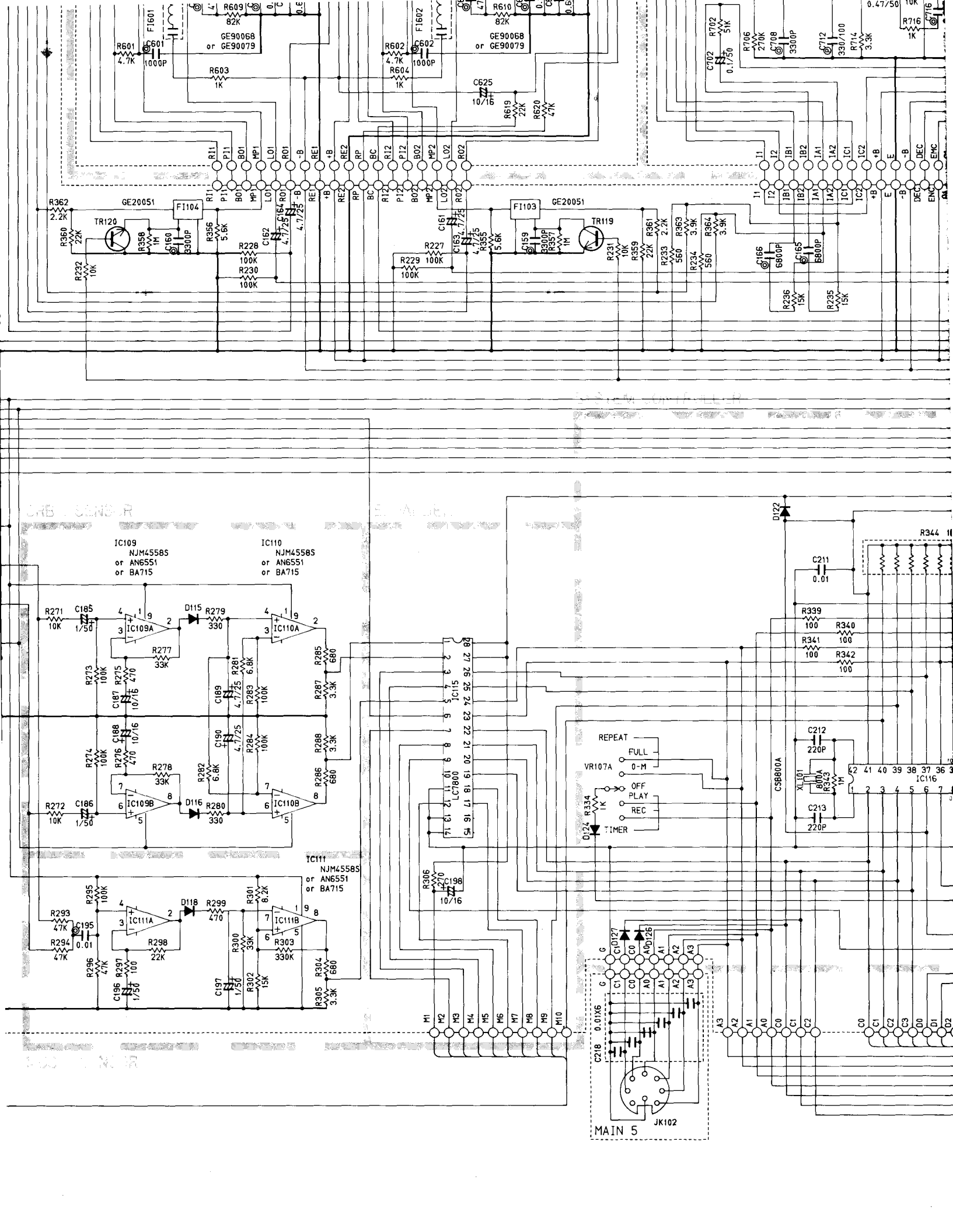


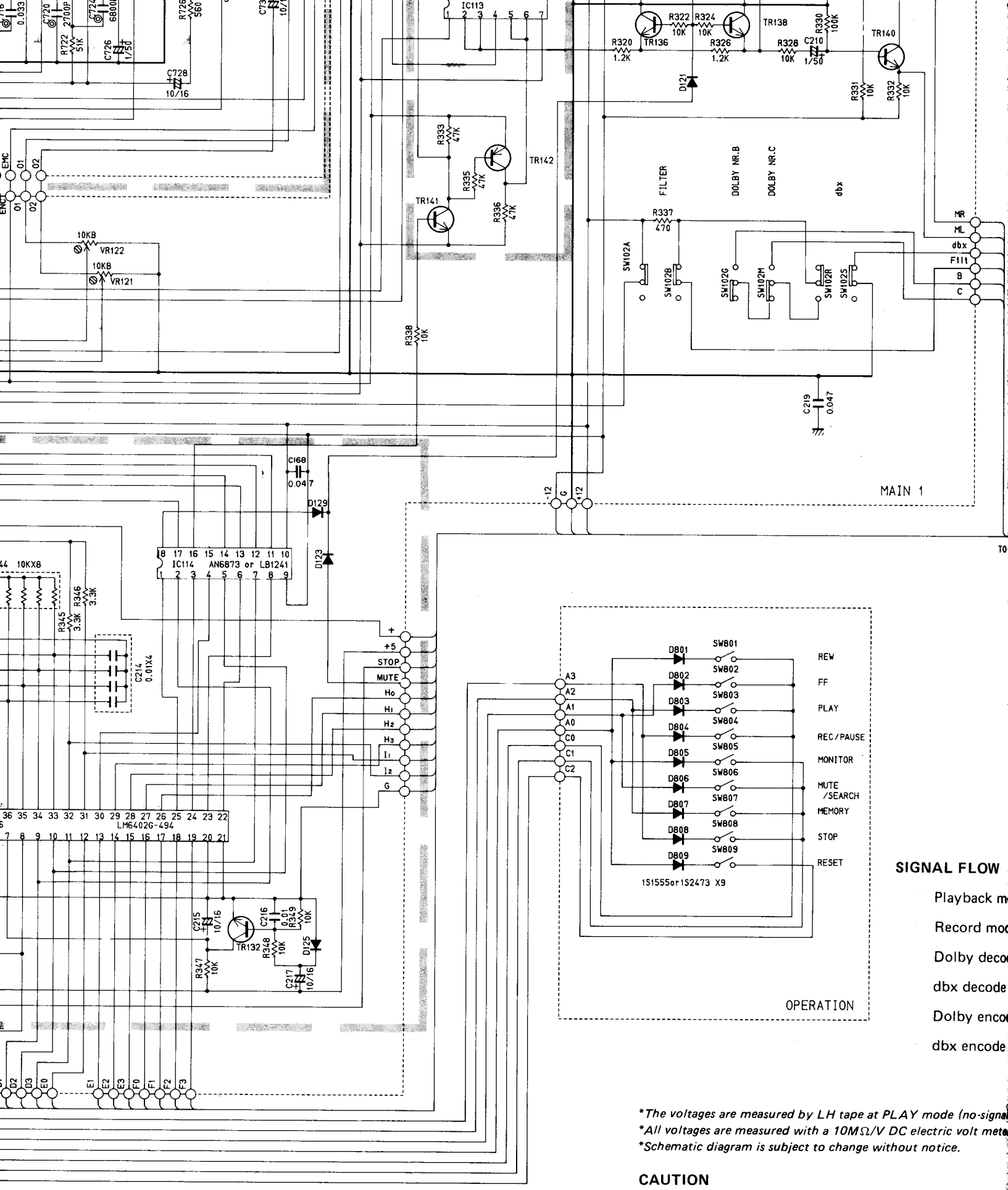

D
E
F
G
DOLBY (DECODE)
DOLBY
IC102
NJM4558S
or AN6551
or AN6551
(L)
TR105
TR106
IC102A
IC102B
FI101
GE90087
or GE90181
FI102
GE90087
or GE90181
IC601
TEA0665
IC602
TEA0665
FI601
FI602
GE90068
or GE90079
GE90068
or GE90079
LINE AMP
IC103A
IC103B
IC104
NJM4558S
or AN6551
or BA715
DOLBY NR.B
DOLBY NR.C
dbx
L ch
R ch
BIAS TEST
BIAS OSC
TP3
+8.5V
-8.5V
B/C
DOLBY (ENCODE)
DOLBY


DBX
dbx (DECODER)
NJM4558S
or AN6551
or BA715
IC702A
IC702B
IC701
AN6291
TR701
TR702
R ch
Lch
SW102F
SW102K
SW102Q
SW102E
SW102J
SW102P
SW102L
DOLBY NR.B
DOLBY NR.C
dbx
2SC2060
or 2SD400
TR133
TR134
2SA934
or 2SB544
+8.5V
-8.5V
B/C
DOLBY
TEA0665
GE90068
or GE90079
DBX
dbx (ENCODER)
MOTOR SW
μPD4066B
or M4066BP
or LC4066B
IC113
TR141


R ch
Lch
SW102F
SW102K
SW102Q
SW102E
SW102J
SW102P
SW102L
DOLBY NR.B
DOLBY NR.C
dbx
DOLBY NR.C
PJ101B
LINE OUT
L
R
MAIN 4-B
PHONES AMP
NJM4556S
IC112A
IC112B
PHONES
JK101
5KBX2
VR106
2SC2060
or 2SD400
TR133
TR134
2SA934
or 2SB544
MA1091H
or
HZ9C-3
MAIN 2
MOTOR SW
μPD4066BC
or M4066BP
or LC4066B
IC113
NJM4558S
or AN6551
or BA715
IC702A
IC702B
TR135
TR136
TR137
TR138
TR139
TR140
TR142
D121
D119
D120
FILTER
DOLBY NR.B
DOLBY NR.C
dbx


BIAS TEST
SW102T
R155 22K
R156 22K
TR108
VR110 5KB
R158 8.2K
R159 15K
R160 15K
C131 1000P
C132 0.01
R165 15K
1000P
R166 15K
C134 0.01
IC104B
R162 27K
R164 47K
D102
D104
C136 1/50
R168 22K
R169 1.2K
R170 1.2K
TP3
SW102C
SW102H
SW102V
SW102W
ON
L ch
R225 3.3K
R226
F1105
R183 3.3K
C141 10/25
IC105A
NJM4556
R193 220K
GE90048 or GE90078
R191 47K
C145 22/16
0.68/50 0.68/50
C151
C153
R213 3.3K
R217 470
VR111 5KB
2SD655(E.F) or 2SD1302(R.S)
C157 1/50
R223 2.2K
R224 2.7K
C158 1/50
C155 0.012
R215 6.8K
TR117
R221 4.7K
D128
D107
D108
D109
D110
C184 1/50
C183 1/50
TR124
R256 10K
R255 10K
R258 100K
R257 100K
R260 10K
R259
TR123
10mH L101
6.8mH L103
15mH L105
C143 330 6200P
C147 330 6800P
C149 560 5100P
R185
R193
R205
R189 22K
R201 15K
R209 10K
TR109
TR111
TR113
R351 10K
R195 10K
R203 10K
R187 1M
R199 1M
R207 1M
R211 47K
R353 10K
R219 1M
TR115
LH2
E R365 10
RH2
R366 10
TP5
TP6
E
TR110
TR112
TR114
R352 10K
R196 10K
R204 10K
R188 1M
R200 1M
R208 1M
R212 47K
R354 10K
R220 1M
TR116
R222 4.7K
TR118
CrO2
METAL
LH
C144 6200P 330
C148 6800P 330
C150 5100P 560
R186
R198
R206
R190 22K
R202 15K
R210 10K
C156 0.012
R216 6.8K
10mH L102
6.8mH L104
15mH L106
R218 470
VR112 5KB
2SD655(E.F) or 2SD1302(R.S)
R214 3.3K
R192 47K
R194 220K
C146 22/16
F1106
R184 3.3K
C142 10/25
IC105B
C152 0.68/50
C154 0.68/50
GE90048 or GE90078
NJM4558S or AN6551 or BA715
L107
820μH
L108
820μH
R258 100K
R257 100K
R260 10K
R259
ASSIST
CAPSTAN
REEL
A-
A+
+12
-
+
G
TO POWER SUPPLY P.C BOARD
2
GE90180
C175 100P
R243 150K
IC106A
D113
R247 1K
IC108A
L109
C173 1000P
C177 100P
R245 330K
D111
R249 100K
C181 0.01
TR121
C169 470P
C171 0.1
R241 6.8K
C179 0.047
IC107A
R251 4.7K
R253 4.7K
R237 1K
R239 220
R251 10K
R263 10K
VR115 20KB
VR117 10KB
VR119
TR125
TR127
VR107D
R265 15K
GE90180
C176 100P
R244 150K
IC106B
D114
R248 1K
IC108B
L110
C174 1000P
C178 100P
R246 330K
D112
R250 100K
C182 0.01
TR122
C170 470P
C172 0.1
R242 6.8K
C180 0.047
IC107B
R252 4.7K
R254 4.7K
R238 1K
R240 220
10KBX2
BIAS ADJ
R266 15K
R267 22K
R268 22K
R269 22K
R270 22K
TR126
TR128
VR116 20KB
VR118 10KB
VR120
R264 10K
R262 10K
M1
M2
M3
M4
M5
M6
M7
M8
M9
M10
TAPE DTC
REC DTC
METAL DTC
CrO2 DTC
K2
K1
KO
TR1
TR2
S1
S2
R3
R2
R5
R4
R1
SENSOR
EH
E
IC107
NJM4558S or AN6551 or BA715
C193 47/16
IC117 IG14680
TR129
R289 4.7K
R291 4.7K
D117
C191 100/16
C192 220/16
R290 22K
TR130
TR131
R292 22K
C194 47/16


IC109
NJM4558S
or AN6551
or BA715
IC110
NJM4558S
or AN6551
or BA715
IC111
NJM4558S
or AN6551
or BA715
IC109A
IC109B
IC110A
IC110B
IC111A
IC111B
IC115
LC7800
IC116
GE90068
or GE90079
GE20051
FI104
FI103
TR120
TR119
REPEAT
FULL
A-M
OFF
PLAY
REC
TIMER
VR107A
CSB800A
XL101
JK102
MAIN 5



SIGNAL FLOW

Playback m

Record mod

Dolby deco

dbx decode

Dolby enco

dbx encode

**The voltages are measured by LH tape at PLAY mode (no-signa*

**All voltages are measured with a 10MΩ/V DC electric volt mete*

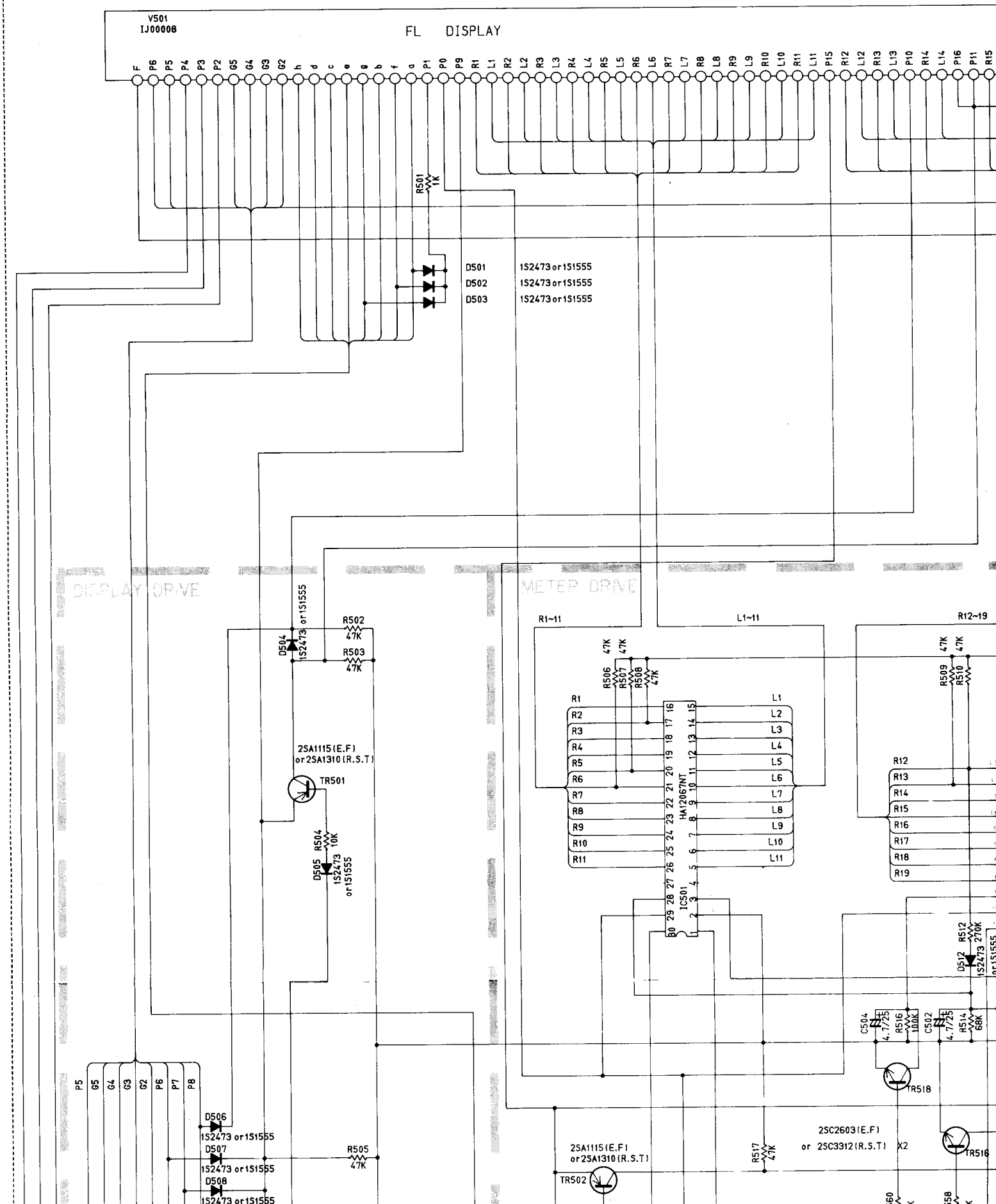
**Schematic diagram is subject to change without notice.*

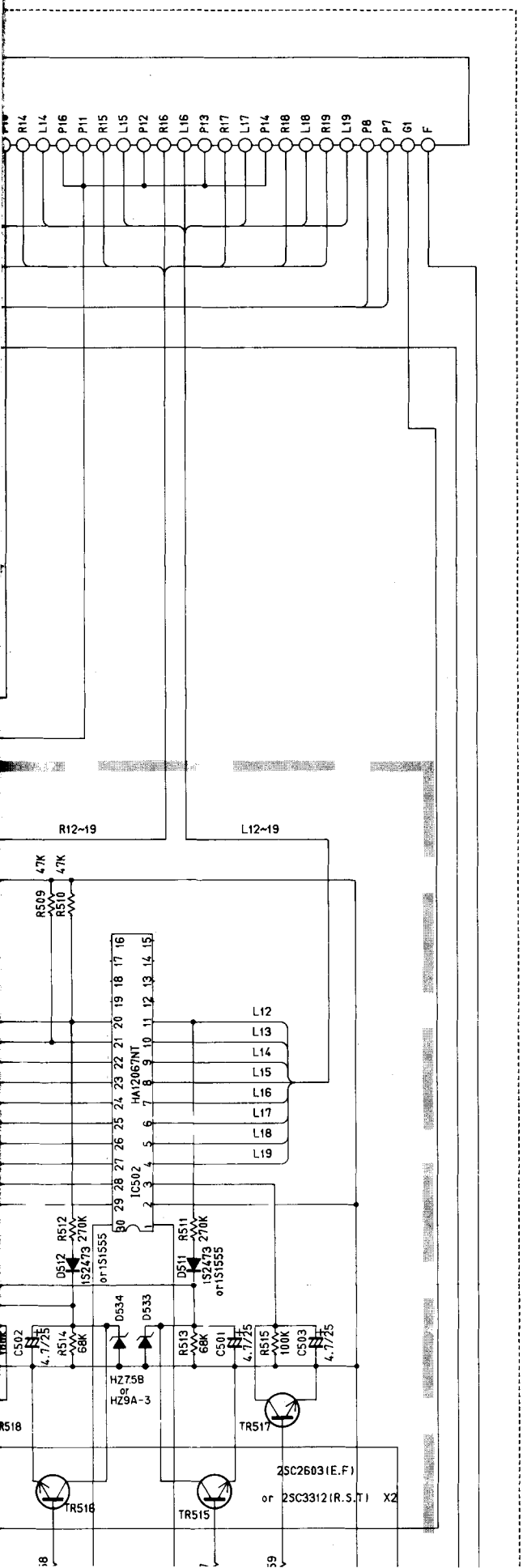
CAUTION

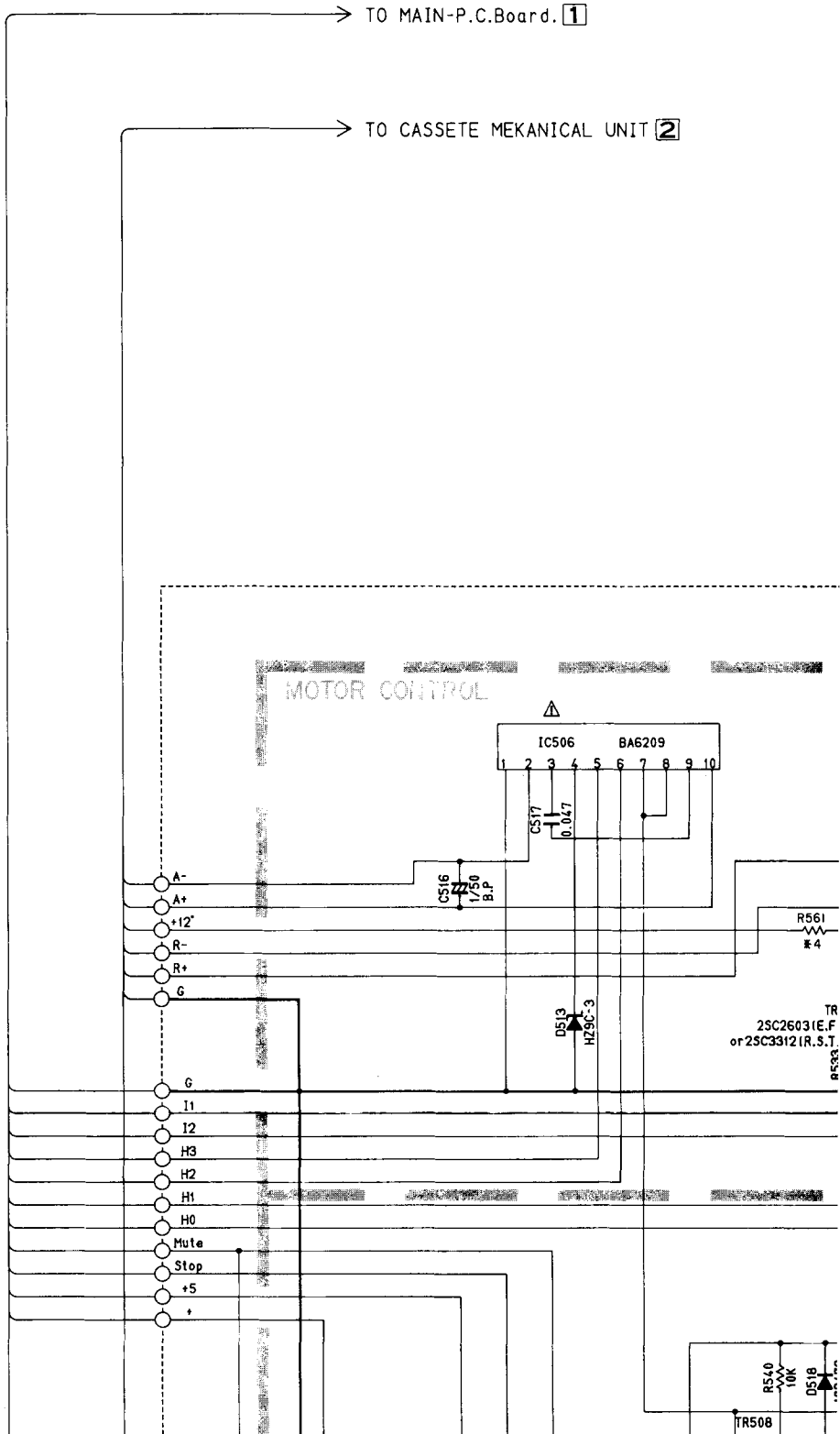
- Components having special characteristics are marked ⚠ and
  replaced with parts having specifications equal to those origina

K-1020

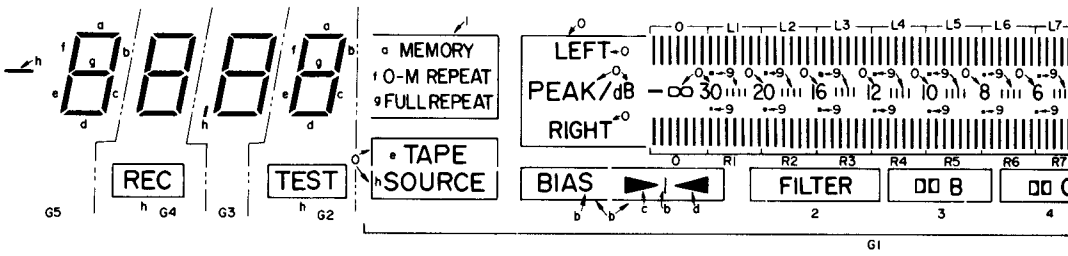
■ SCHEMATIC DIAGRAM




R14 L14 P16 P11 R15 L15 P12 R16 L16 P13 R17 L17 P14 R18 L18 R19 L19 P8 P7 G1 F
R12~19
L12~19
R509 47K
R510 47K
IC502 HA12067NT
L12
L13
L14
L15
L16
L17
L18
L19
D512 1S2473 or1S1555
R512 270K
D511 1S2473 or1S1555
R511 270K
C502 4.7/25
R514 68K
D534
D533
R513 68K
C501 4.7/25
R515 100K
C503 4.7/25
HZ7.5B or HZ9A-3
TR517
TR518
TR515
2SC2603(E.F) or 2SC3312(R.S.T) X2

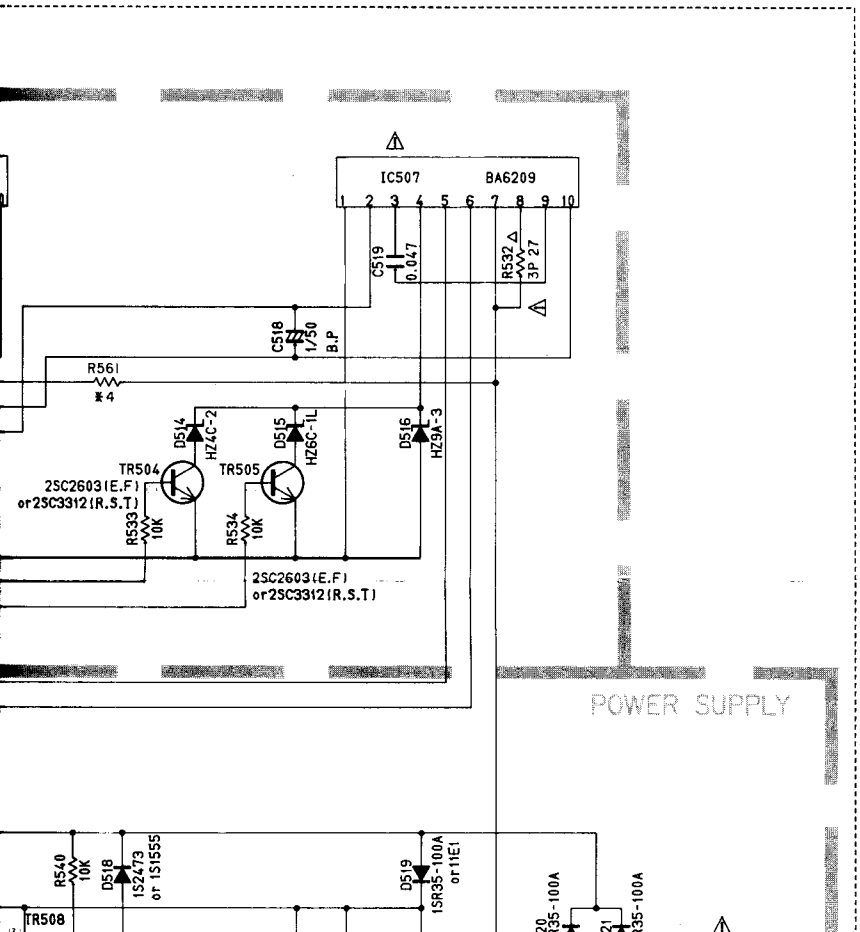

TO MAIN-P.C.Board. 1
TO CASSETE MEKANICAL UNIT 2
MOTOR CONTROL
IC506 BA6209
C517 0.047
C516 1/50 B.P
A-
A+
+12
R-
R+
G
R561 *4
D513 HZ9C-3
TR 2SC2603(E.F or2SC3312(R.S.T
G
I1
I2
H3
H2
H1
H0
Mute
Stop
+5
+
R540 10K
D518
TR508

V501 (Display Unit)



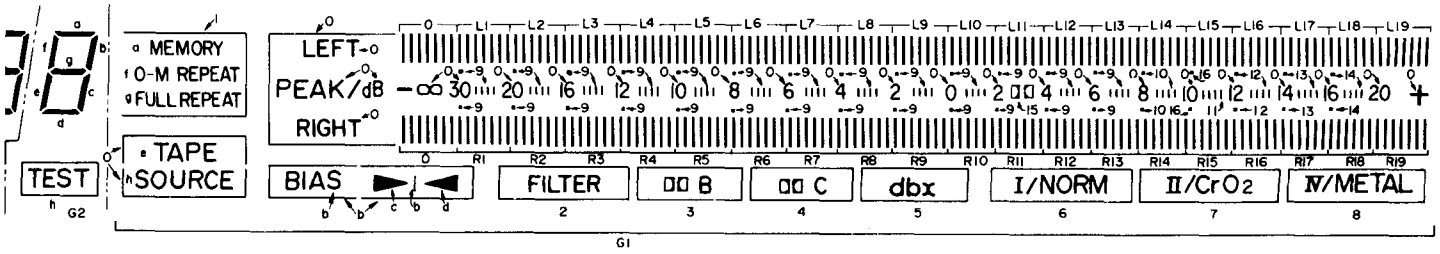
Pin assignment

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1
Assignment	F	P6	P5	P4	P3	P2	G5	G4	G3	G2	h	d	c	e	g	b
Pin No.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	4
Assignment	R3	L3	R4	L4	R5	L5	R6	L6	R7	L7	R8	L8	R9	L9	R10	L1
Pin No.	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	6
Assignment	L14	P16	P11	R15	L15	P12	R16	L16	P13	R17	L17	P14	R18	L18	R19	L1



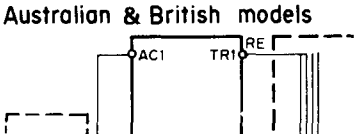
Austral

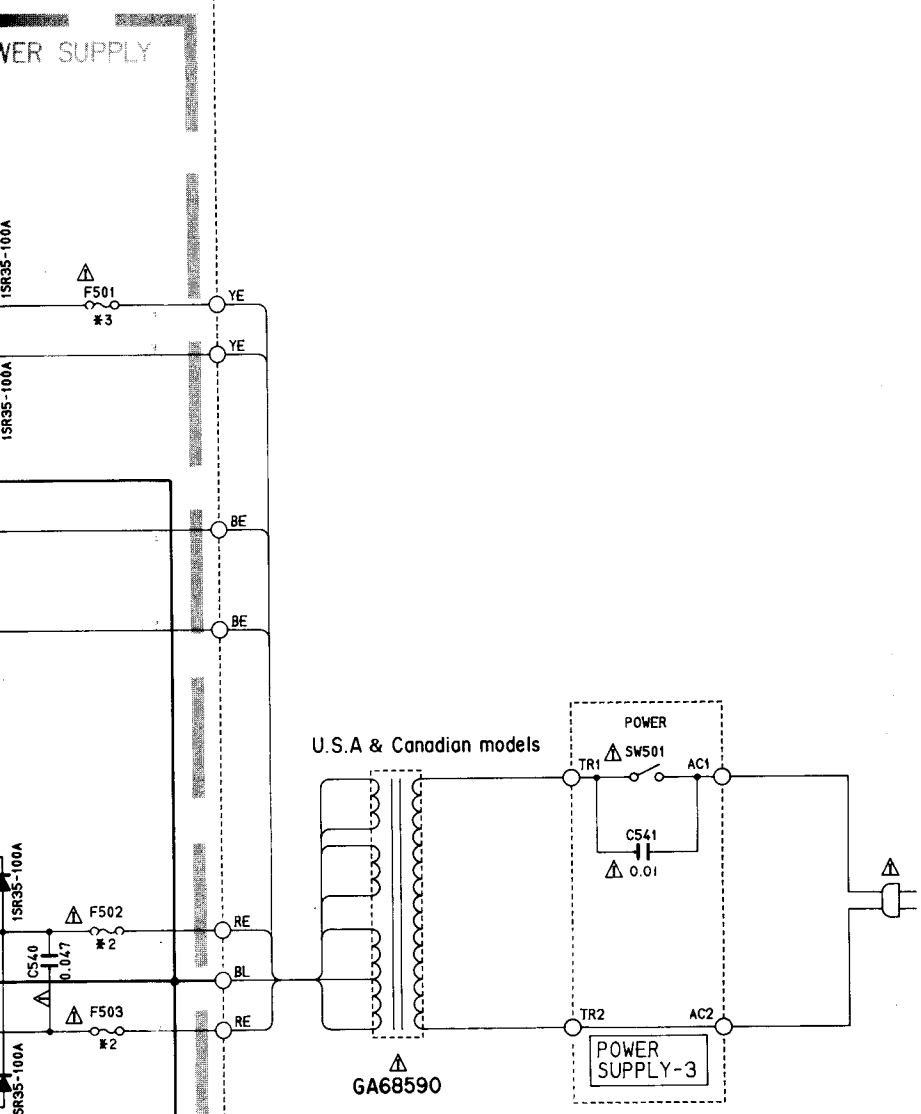
V501 (Display Unit)



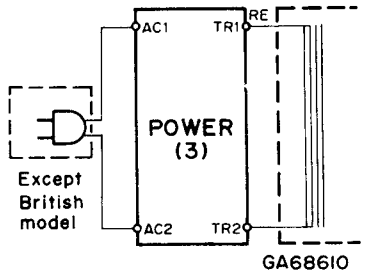
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
5	P4	P3	P2	G5	G4	G3	G2	h	d	c	e	g	b	f	a	P1	P0	P9	R1	L1	R2	L2
3	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
4	L4	R5	L5	R6	L6	R7	L7	R8	L8	R9	L9	R10	L10	R11	L11	P15	R12	L12	R13	L13	P10	R14
3	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70					
1	R15	L15	P12	R16	L16	P13	R17	L17	P14	R18	L18	R19	L19	P8	P7	G1	F					

Australian & British models

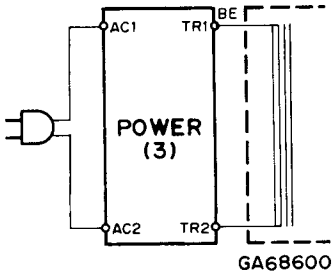




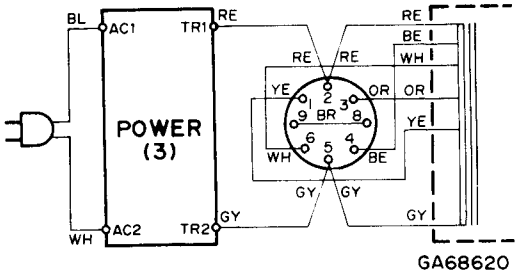
Australian & British models



European model



General model



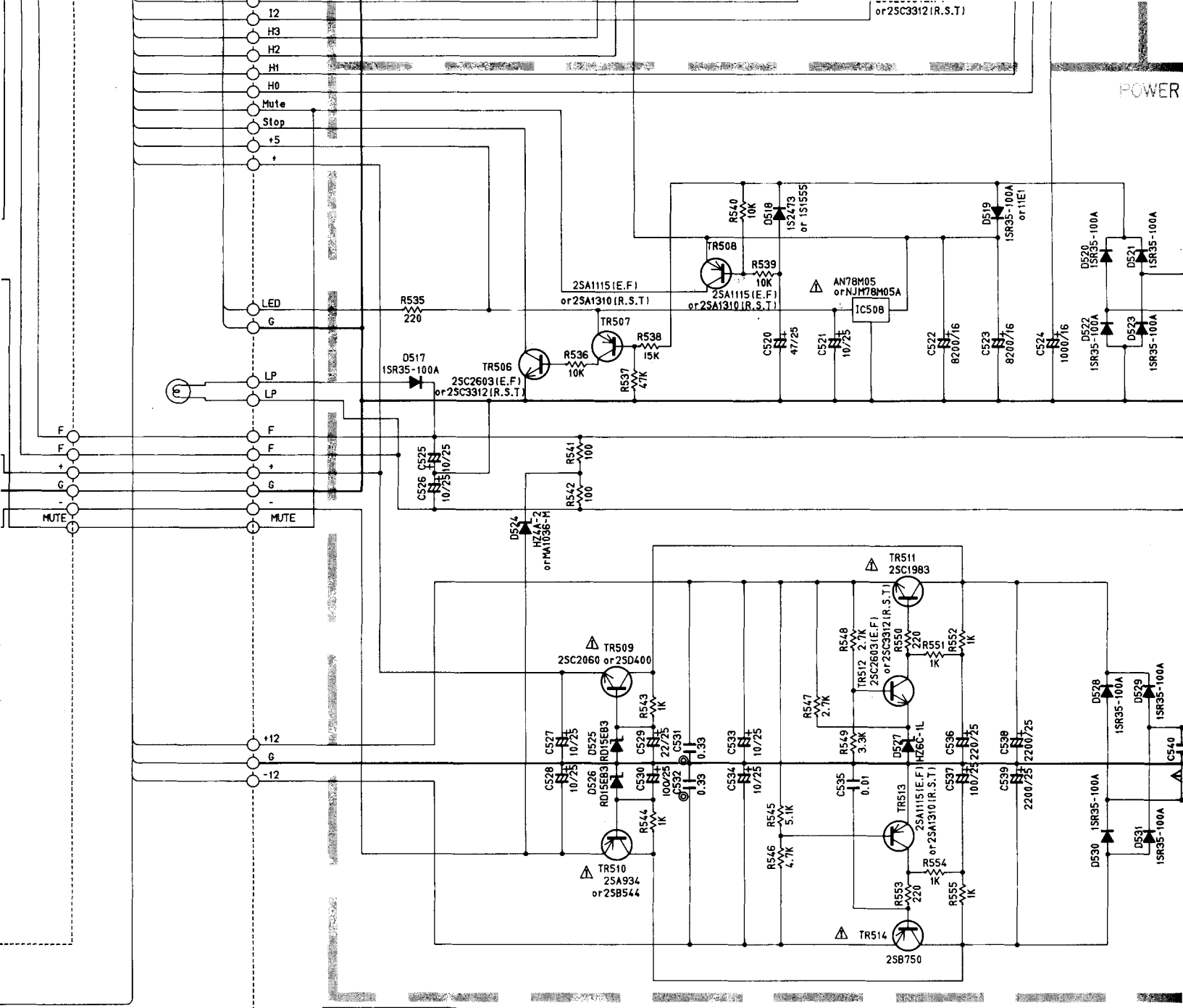
	R	U	C	A	G	B
*2 F502,503	T1.0A 250V	1.0A 250V	→	T800mA 250V		→
*3 F501	T2.0A 250V	2.0A 250V	→	T1.0A 250V		→
*4 R561	SHORT	I	I	SHORT	→	

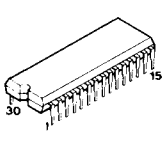
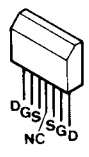
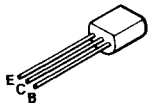
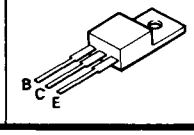
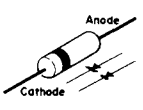
VOLTAGE SELECTOR

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

cial characteristics are marked ⚠ and must be
ng specifications equal to those originally installed.

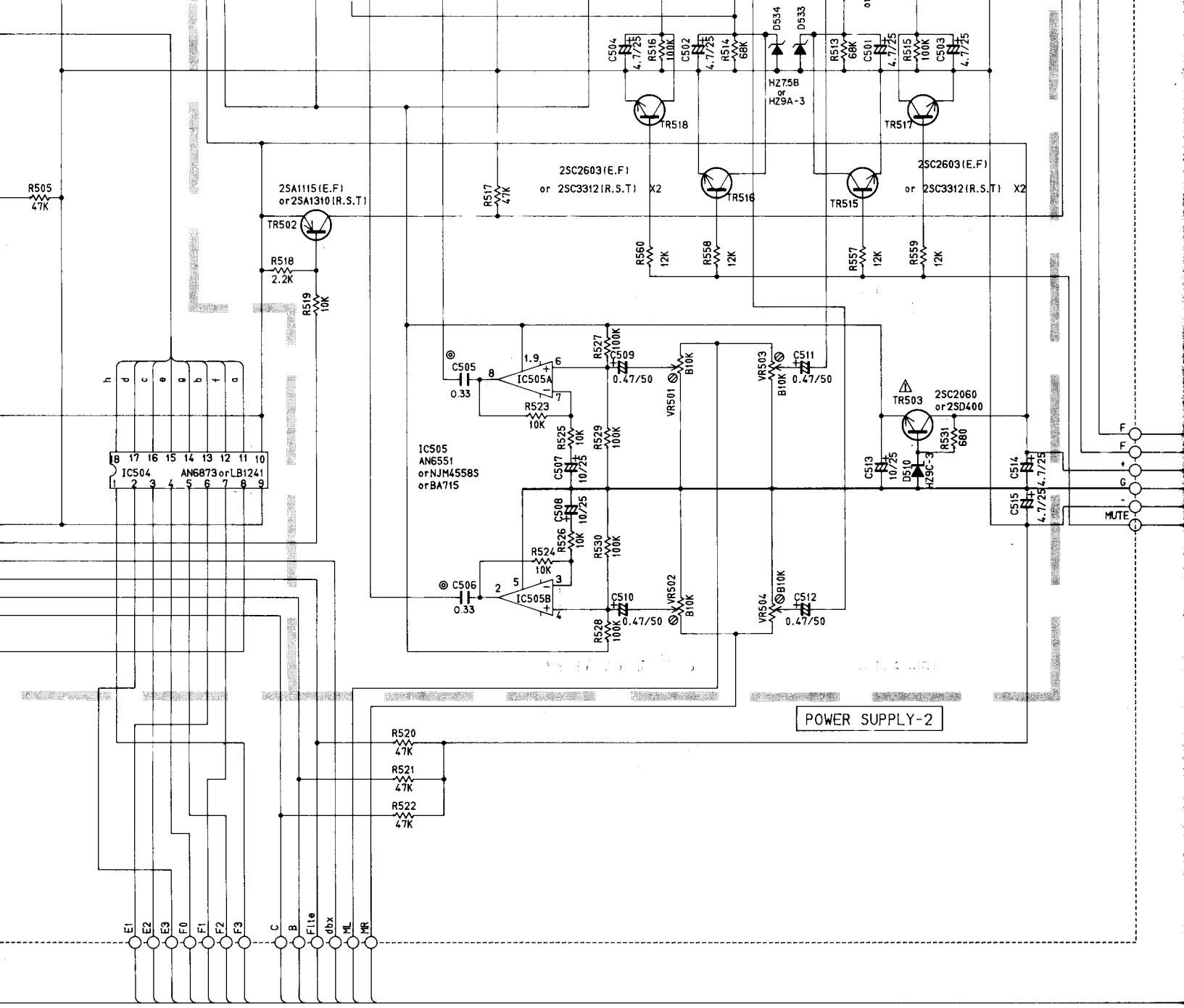
**The voltages are measured by LH tape at PLAY mode (no-signal condition)*
**All voltages are measured with a 10MΩ/V DC electric volt meter.*
**Schematic diagram is subject to change without notice.*

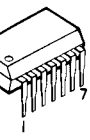
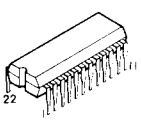
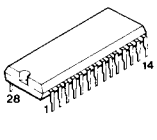
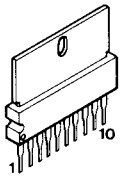
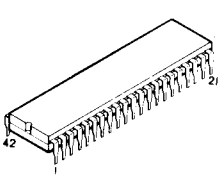
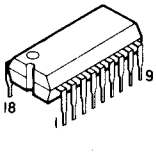
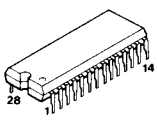
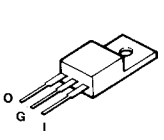
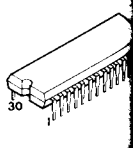


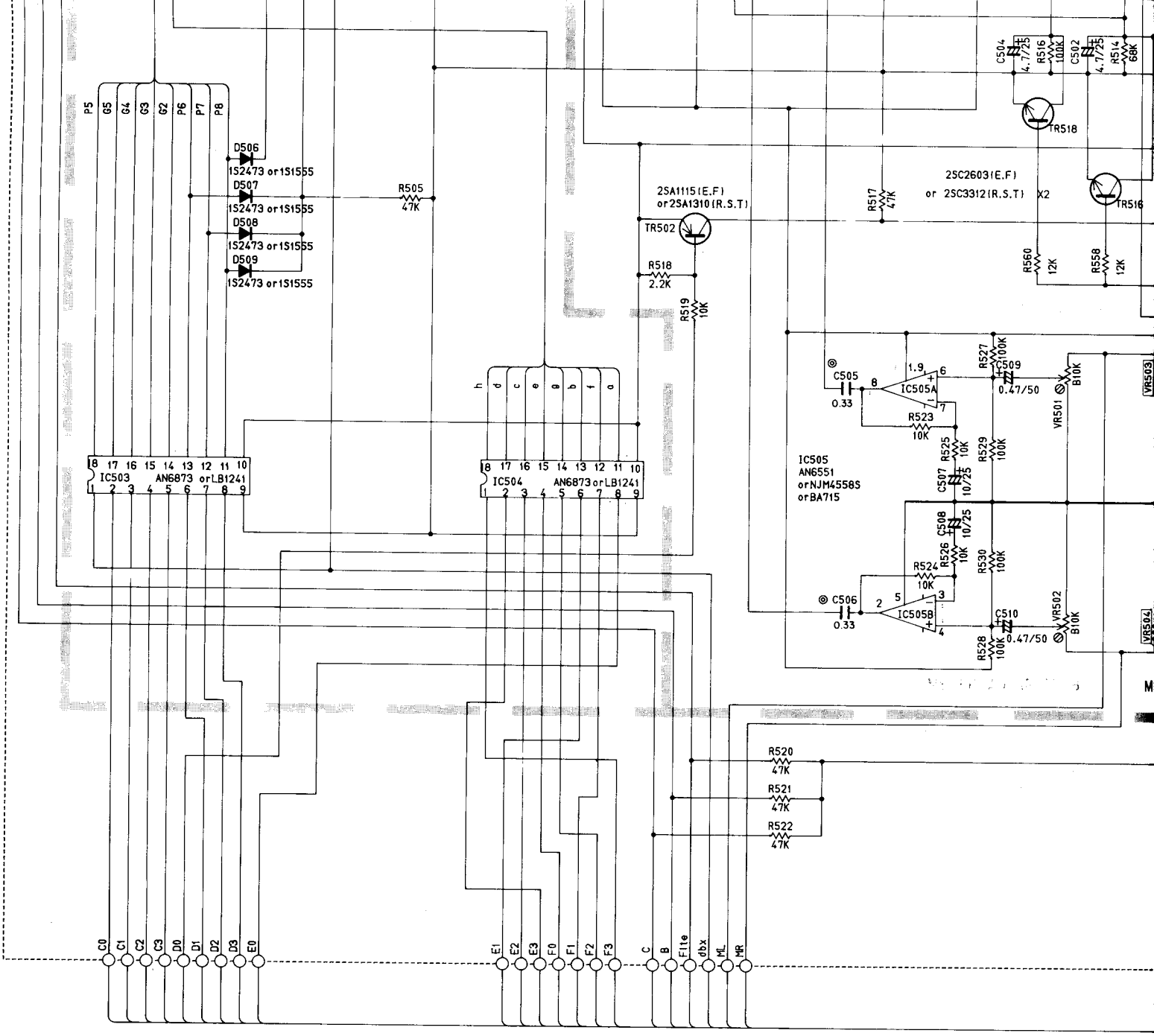
HA12067NT 	2SK389 (GR, BL) 	2SA1115 (E, F) 2SA1310 (R, S, T) 2SA934 2SB544 2SC2603 (E, F) 2SC3312 (R, S, T) 2SC2060 2SD400 2SD655	2SD1302 (R, S) 2SC2634 (R, S, T) 	2SC1983 2SB750 	ISS/33 HZ9C-3 MA1091-H RD15EB3 HZ9A-3 HZ6C-1L IS2473 IS1555 HZ4A2	MA1036-M HZ4C2 1SR35-100A 

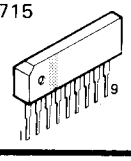
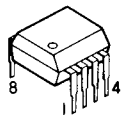
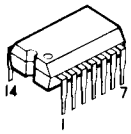
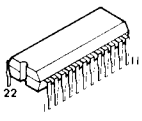
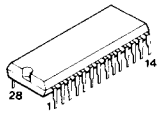
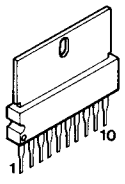
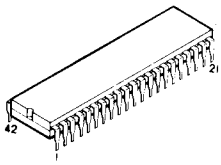
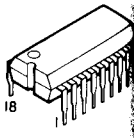
CAUTION

- Components having special ch
  replaced with parts having spe



066BC 066B 66BP	AN6291	TEA0665	BA6209	LM6402G-494	LB1241 AN6873	LC7800	AN78M05 NJM78M05A	HA12067NT
								



NJM4558S NJM4556S AN6551 BA715	NJM2043D	μPD4066BC LC4066B M4066BP	AN6291	TEA0665	BA6209	LM6402G-494	LB1241 AN6873
							

PARTS LIST

■ **WARNING**
UL Standard 1270 requires that components marked ⚠ be replacement 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." HJ35○○○○ or equivalent.

■ ELECTRICAL PARTS

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク
※		NA 08 61 80	Operation Circuit Board		オペレーションシート				
		iF 00 00 40	Diode	IS1555	ダイオード	D801~809			
		KA 90 63 80	Switch	5M EVQ-QRB-04M	ライトタッチスイッチ	SW801~809			
※		NA 08 62 00	Main Circuit Board		メインシート	Silver		J	
※		NA 08 62 10	〃		〃	Silver		U, C	
※		NA 08 62 20	〃		〃	Black		J	
※		NA 08 62 30	〃		〃	Black		U, C	
※		NA 08 62 40	〃		〃	Silver		R, A, G, B	
※		NA 08 62 50	〃		〃	Black		R, A, G, B	
		FG 41 21 00	Ceramic Cap	100pF 50V	セラコン	C127,128,177,178, 207,208			
		FG 41 22 20	〃	220pF 50V	〃	C212, 213, 220			
		FG 41 23 30	〃	330pF 50V	〃	C117, 118			
		FG 44 41 00	〃	0.01μF 50V	〃	C211, 216			
		FG 44 44 70	〃	0.047μF 50V	〃	C168, 219			
		UM 05 71 00	Electrolytic Cap	10μF 25V	ケミコン	C109, 110, 141, 142			
		UM 05 81 00	〃	100μF 25V	〃	C115, 116			
		FZ 00 35 70	Capacitor Array	0.01μF×6	コンデンサーアレー	C218		R,U,A,G,C,B	
		FZ 00 37 50	〃	0.01μF×4	〃	C214			
		UA 25 33 30	Mylar Cap	3300pF 50V	マイラーコン	C159, 160			
		FA 15 35 10	〃	5100pF 50V	〃	C149, 150			
		FA 15 36 20	〃	6200pF 50V	〃	C143, 144, 147, 148			
		UA 25 36 80	〃	6800pF 50V	〃	C165, 166			
		UA 25 38 20	〃	8200pF 50V	〃	C111, 112			
		UA 25 31 00	〃	1000pF 50V	〃	C131, 133			
		FA 15 31 20	〃	1200pF 50V	〃	C219, 220			
		UA 25 31 50	〃	1500pF 50V	〃	C107, 108			
		UA 25 32 20	〃	2200pF 50V	〃	C103, 104			
		UA 25 41 00	〃	0.01μF 50V	〃	C132,134,181,182,195			
		UA 25 41 20	〃	0.012μF 50V	〃	C155, 156			
		UA 25 44 70	〃	0.047μF 50V	〃	C179, 180			
		UA 25 51 00	〃	0.1μF 50V	〃	C171, 172			
		UW 93 82 20	Electrolytic Cap	220μF 16V	ケミコン	C192			
		UT 45 21 00	Polypropylene Film Cap	100pF 100V	ポリプロコン	C175, 176			
		UT 45 23 30	〃	330pF 100V	〃	C101, 102			
		UT 45 24 70	〃	470pF 100V	〃	C169, 170			
		FT 15 31 00	〃	1000pF 100V	〃	C173, 174			
		UT 45 41 00	〃	0.01μF 100V	〃	C105, 106			
		UW 91 74 70	Electrolytic Cap	47μF 6.3V	ケミコン	C125, 126			
		UW 91 82 20	〃	220μF 6.3V	〃	C119, 120			
		UW 93 71 00	〃	10μF 16V	〃	C113,114,121~124,129,130, 187,188,198~200,215,217			
		UW 93 72 20	〃	22μF 16V	〃	C145, 146, 205, 206			
		UW 93 74 70	〃	47μF 16V	〃	C193, 194, 201, 202			
		UW 93 81 00	〃	100μF 16V	〃	C191			
		UW 94 64 70	〃	4.7μF 25V	〃	C137~140,161~164, 189,190			
		UW 56 56 80	〃	0.68μF 50V	〃	C151~154			
		UW 96 61 00	〃	1μF 50V	〃	C135,136,157,158,183~186, 196,197,203,204,209,210			
		GE 20 05 10	Dolby Filter		ドルビーフィルター	Fi103, 104	K-720		
		GE 90 04 80	Bias Trap Coil	105kHz	バイアストラップコイル	Fi105,106	併用		
		GE 90 07 80	〃	105kHz	〃	〃	Interchangeable		

New Parts（新規部品）

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク
		GE 90 08 70	Bias Trap Coil	105kHz	バイアストラップコイル	C101,102 併用			
※		GE 90 18 10	〃	105kHz	〃	〃 Interchangeable			
		GE 90 09 60	Coil	820μH	コイル	L107, 108			
		GE 90 16 10	〃	6.8mH	〃	L103, 104			
※		GE 90 16 30	〃	10mH	〃	L101, 102			
		GE 90 16 50	〃	15mH	〃	L105, 106			
		GE 90 18 00	〃		ステップアップコイル	L108, 109			
		GG 00 07 20	Ceramic Crystal Unit	CSB800A	セラミック発振子	XL101			
※		HQ 40 02 70	Slide Potentiometer	A50kΩ×2	スライド可変抵抗器	VR105			
※		HS 11 06 20	Switch Potentiometer Unit		スイッチ・可変抵抗器ユニット	VR107			
※		HS 41 27 40	Potentiometer	A5kΩ×2	可変抵抗器	VR106			
※		HT 37 03 00	Pre-Set Potentiometer	B100Ω	半固定抵抗	VR101, 102			
		HT 37 03 70	〃	B5kΩ	〃	VR109～112			
		HT 37 03 80	〃	B10kΩ	〃	VR103, 104, 117, 118, 121, 122			
		HT 37 03 90	〃	B20kΩ	〃	VR115, 116, 119, 120			
		HV 45 51 50	Flame Proof Carbon Resistor	150Ω	不燃化カーボン抵抗	R239, 240			
		HZ 00 28 80	Resistor Array	10kΩ×8	抵抗アレー	R344			
		iA 11 15 10	Transistor	2SA1115 (E, F)	トランジスタ	TR106, 142			
		iA 09 34 00	〃	2SA934	〃	TR134 併用			
		iB 05 44 20	〃	2SB544	〃	〃 Interchangeable			
		iC 26 03 10	〃	2SC2603 (E, F)	〃	TR103～105,107～116, 119～132,135～141			
		iC 20 60 00	〃	2SC2060	〃	TR133 併用			
		iD 04 00 00	〃	2SD400	〃	〃 Interchangeable			
		iD 06 55 10	〃	2SD655 (E, F)	〃	TR117,118 併用			
		iD 13 02 00	〃	2SD1302 (R, S)	〃	〃 Interchangeable			
		iE 10 45 00	Dual FET	2SK389 (GR, BL)	デュアルFET	TR101, 102			
		iF 00 61 30	Diode	1SS133	ダイオード	D101～118, 121～125, 128, 129			
		iF 00 61 30	〃	1SS133	〃	D126, 127		R,U,A,G,C,B	
		iF 00 33 20	Zener Diode	HZ9C-3	ツェナーダイオード	D119,120 併用			
		iF 00 68 80	〃	MA1091-H	〃	〃 Interchangeable			
		iG 07 74 00	IC	NJM4556S	IC	IC105, 112			
		iG 12 18 00	〃	NJM4560S	〃	IC106			
		iG 03 47 00	〃	AN6551	〃	IC101,102,104, 107～111 併用			
		iG 07 68 00	〃	NJM4558S	〃	〃 Interchangeable			
		iG 13 22 00	〃	BA715	〃	〃			
※		iG 12 15 00	〃	NJM2043D	〃	IC103			
		iG 06 16 00	〃	μPD4066BC	〃	IC113 併用			
		iG 08 92 00	〃	LC4066B	〃	〃 Interchangeable			
		iG 11 05 00	〃	M4066BP	〃	〃			
		iG 14 59 00	〃	AN6873	〃	IC114 併用	K-720		
※		iG 14 62 00	〃	LB1241	〃	〃 Interchangeable			
		iG 14 63 00	〃	LC7800	〃	IC115	K-720		
※		iG 14 64 00	〃	LM6402G-494	〃	IC116			
※		iG 14 68 00	Bias Osc Block		バイアス発振ブロック	IC117			
※		KA 80 49 50	Push Switch		プッシュスイッチ	SW102			

※New Parts（新規部品）

Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク
	LB 30 21 40	Phone Jack		ヘッドホンジャック	JK101 Black			
	LB 30 21 50	〃		〃	〃 Silver			
	LB 60 50 30	DIN Jack	8P	DINジャック	JK102		R,U,C,A,G,B	
	LB 40 12 90	Pin Jack	4P	ピンジャック	PJ101			
	LA 00 41 20	Test Point Pin		テストポイントピン				
	BB 07 04 20	Bus Bar	l=100	バスバー				
※	NA 08 62 60	Power Circuit Board		電源シート			J	
※	NA 08 62 70	〃		〃			U, C	
※	NA 08 62 80	〃		〃			A, G, B	
※	NA 08 64 50	〃		〃			R	
	FG 44 41 00	Ceramic Cap	0.01μF 50V	セラコン	C535			
	FG 44 44 70	〃	0.047μF 50V	〃	C517, 519, 540			⚠
	Fi 40 41 00	〃	0.01μF AC250V	〃	C541		J	⚠
	Fi 41 41 00	〃	0.01μF	〃	〃		R,U,A,G,C,B	⚠
	UA 55 53 30	Mylar Cap	0.33μF 50V	マイラーコン	C531, 532, 505, 506			
	Ui 93 98 20	Electrolytic Cap	8200μF 16V	ケミコン	C522, 523			
	UK 16 61 00	〃	1μF 50V	BPコン	C516, 518			
	UW 94 64 70	〃	4.7μF 25V	ケミコン	C501～504,514,515			
	UW 94 71 00	〃	10μF 25V	〃	C507,508,513,521, 525～528,533,534			
	UW 94 72 20	〃	22μF 25V	〃	C529			
	UW 94 81 00	〃	100μF 25V	〃	C537, 530			
	UW 96 54 70	〃	0.47μF 50V	〃	C509～512			
	UW 83 91 00	〃	1000μF 16V	〃	C524			
	UW 94 82 20	〃	220μF 25V	〃	C536			
	UW 94 92 20	〃	2200μF 25V	〃	C538, 539			
	UW 94 74 70	〃	47μF 25V	〃	C520			
	HL 33 42 70	Metal Oxide Film Resistor	27Ω 3P	酸金抵抗	R532			⚠
	HT 37 03 80	Pre-Set Potentiometer	B10kΩ	半固定抵抗	VR501～504			
	iA 09 34 00	Transistor	2SA934	トランジスタ	TR510 併用			
	iB 05 44 20	〃	2SB544	〃	〃 Interchangeable			⚠
	iA 11 15 10	〃	2SA1115 (E, F)	〃	TR501,502,507,508,513			⚠
	iB 07 50 00	〃	2SB750	〃	TR514			
	iC 19 83 00	〃	2SC1983	〃	TR511			⚠
	iC 26 03 10	〃	2SC2603 (E, F)	〃	TR504～506,512,515～518			⚠
	iC 20 60 00	〃	2SC2060	〃	TR503,509 併用			
	iD 04 00 00	〃	2SD400	〃	〃 Interchangeable			⚠
	iF 00 17 00	Zener Diode	RD15EB3	ツェナーダイオード	D525, 526			⚠
	iF 00 25 60	〃	HZ9A-3	〃	D516, 534, 533			
	iF 00 15 10	〃	HZ6C-1L	〃	D515, 527			
	iF 00 00 40	Diode	IS1555	ダイオード	D501～509,511,512,518			
	iF 00 33 20	Zener Diode	HZ9C-3	ツェナーダイオード	D510, 513			
	iF 00 38 20	〃	HZ4A2	〃	D524			
	iF 00 38 90	〃	HZ4C2	〃	D514			
	iH 00 14 30	Diode	1SR35-100A	ダイオード	D517,519～523,528～531			
	iF 00 15 40	Zener Diode	HZ9A	ツェナーダイオード	D533, 534 併用			
	iF 00 64 70	〃	MTZ7.5B	〃	〃 Interchangeable			

※New Parts（新規部品）

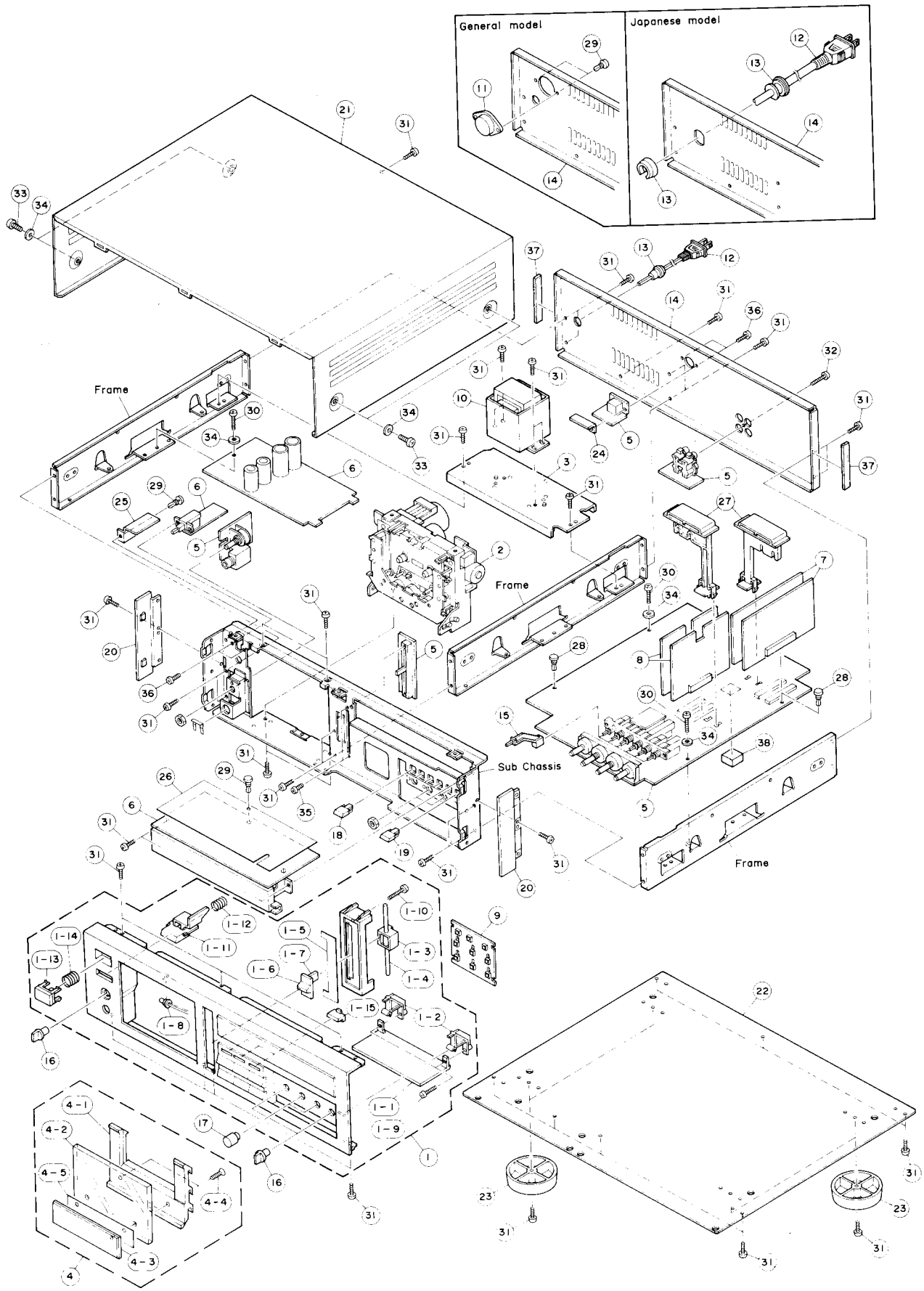
Ref. No.	Part No.	Description	部品名		Remarks	Common Model	Markets	ランク	
	iG 07 53 00	IC	AN78M05	I C	IC508 併用				⚠
	iG 07 56 00	〃	MJM78M05A	〃	〃 Interchangeable				⚠
	iG 03 47 00	〃	AN6551	〃	IC505 併用				
	iG 07 68 00	〃	NJM4558S	〃	〃 Interchangeable				
	iG 13 22 00	〃	BA715	〃	〃				
	iG 10 11 00	〃	BA6209	〃	IC506, 507				⚠
	iG 14 60 00	〃	HA12067NT	〃	IC501, 502	K-720			
	iG 14 59 00	〃	AN6873	〃	IC503,504 併用	〃			
※	iG 14 62 00	〃	LB1241	〃	〃 Interchangeable				
※	iJ 00 00 80	Display Unit		蛍光表示管	V501				
	KA 80 32 90	Power Switch	SDLC1P002	パワースイッチ	SW501 併用				⚠
	KA 80 36 10	〃	ESB8213A-F	〃	〃 Interchangeable				⚠
	KB 00 03 30	Fuse	T1.0A 250V	ヒューズ	F502, 503		J, R		⚠
	KB 00 07 20	〃	T800mA 250V	〃	〃		A, G, B		⚠
	KB 00 10 60	〃	1.0A 250V	〃	〃		U, C		⚠
	KB 00 03 50	〃	T2.0A 250V	〃	F501		J, R		⚠
	KB 00 07 30	〃	T1.0A 250V	〃	〃		A, G, B		⚠
	KB 00 12 40	〃	2.0A 250V	〃	〃		U, C		⚠
	LA 00 21 40	Lapping Terminal	P=10 2P i-Type	i型ラッピング端子板					
	LA 00 23 20	〃	P=7.5 3P i-Type	〃					
	LA 00 23 30	〃	P=7.5 4P i-Type	〃					
	LB 20 18 80	Fuse Holder Pin		ヒューズホルダーピン					
※	AA 62 43 00	Holder, FL		FLホルダー					
	BB 06 62 90	Ground Washer		アースワッシャー					
	BA 08 40 00	Heat Sink		放熱板					
	CB 60 56 20	Plastic Rivet		プラスチックリベット					
	Ei 03 00 66	Binding Head Tapping Screw	3X6 ZMC2-Y	バインドタッピングネジ	PACK				
※	CB 63 91 70	Filter, FL		FLフィルター					
※	NA 08 62 90	*Dolby Circuit Board*		ドルビーシート					
	UA 25 34 70	Mylar Cap	4700pF 50V	マイラーコン	C603, 604, 621, 622				
	UA 25 31 00	〃	1000pF 50V	〃	C601, 602				
	UA 25 41 00	〃	0.01μF 50V	〃	C623, 624				
	UA 25 44 70	〃	0.047μF 50V	〃	C607, 608, 617, 618				
	UW 93 71 00	Electrolytic Cap	10μF 16V	ケミコン	C605,606,619,620,625				
	UW 56 52 20	〃	0.22μF 50V	〃	C609, 610, 615, 616				
	UW 56 56 80	〃	0.68μF 50V	〃	C611～614				
	GE 90 06 80	Coil	20kHz	スキューイングコイル	Fi601,602 併用				
	GE 90 07 90	〃	19kHz	トラップコイル	〃 Interchangeable				
※	iG 14 47 00	IC	TEA0665	I C	IC601, 602				
	LB 02 01 80	Connector	18P	SHVQコネクター		K-720			
	NA 08 63 00	*dbx Circuit Board*		dbxシート		K-720			
	FG 41 13 30	Ceramic Cap	33pF 50V	セラコン	C733, 734				
	FG 41 21 00	〃	100pF 50V	〃	C737, 738				
	UA 25 32 70	Mylar Cap	2700pF 50V	マイラーコン	C719, 720				

※New Parts（新規部品）

Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク
	UA 25 33 30	Mylar Cap	3300pF 50V	マイラーコン	C707～710			
	UA 25 36 80	〃	6800pF 50V	〃	C723, 724			
	UA 25 41 00	〃	0.01μF 50V	〃	C729, 730			
	UA 25 43 30	〃	0.033μF 50V	〃	C715, 716			
	UA 25 51 00	〃	0.1μF 50V	〃	C703～706			
	UT 45 23 30	Polypropylene Film Cap	330pF 100V	ポリプロコン	C711, 712			
	UW 93 71 00	Electrolytic Cap	10μF 16V	ケミコン	C717,718,725,727, 728,735,736			
	UW 93 72 20	〃	22μF 16V	〃	C721, 722, 731, 732			
	UW 56 51 00	〃	0.1μF 50V	〃	C701, 702			
	UW 56 54 70	〃	0.47μF 50V	〃	C713, 714			
	UW 56 61 00	〃	1μF 50V	〃	C726			
	HT 41 01 60	Pre-Set Potentiometer	B2.2kΩ	ソリッドVR	VR701			
	iC 26 03 10	Transistor	2SC2603 (E, F)	トランジスタ	TR701,702 } 併用			
	iC 26 34 00	〃	2SC2634 (R,S,T)	〃	〃 } Interchangeable			
	iG 03 47 00	IC	AN6551	IC	IC702 } 併用			
	iG 07 68 00	〃	NJM4558S	〃	〃 } Interchangeable			
	iG 13 22 00	〃	BA715	〃	〃 }			
	iG 14 61 00	〃	AN6291	〃	IC701	K-720		
※	LB 02 01 50	Connector	15P	SHVQコネクター				

※New Parts（新規部品）

■EXPLODED VIEW



■ MECHANISM PARTS

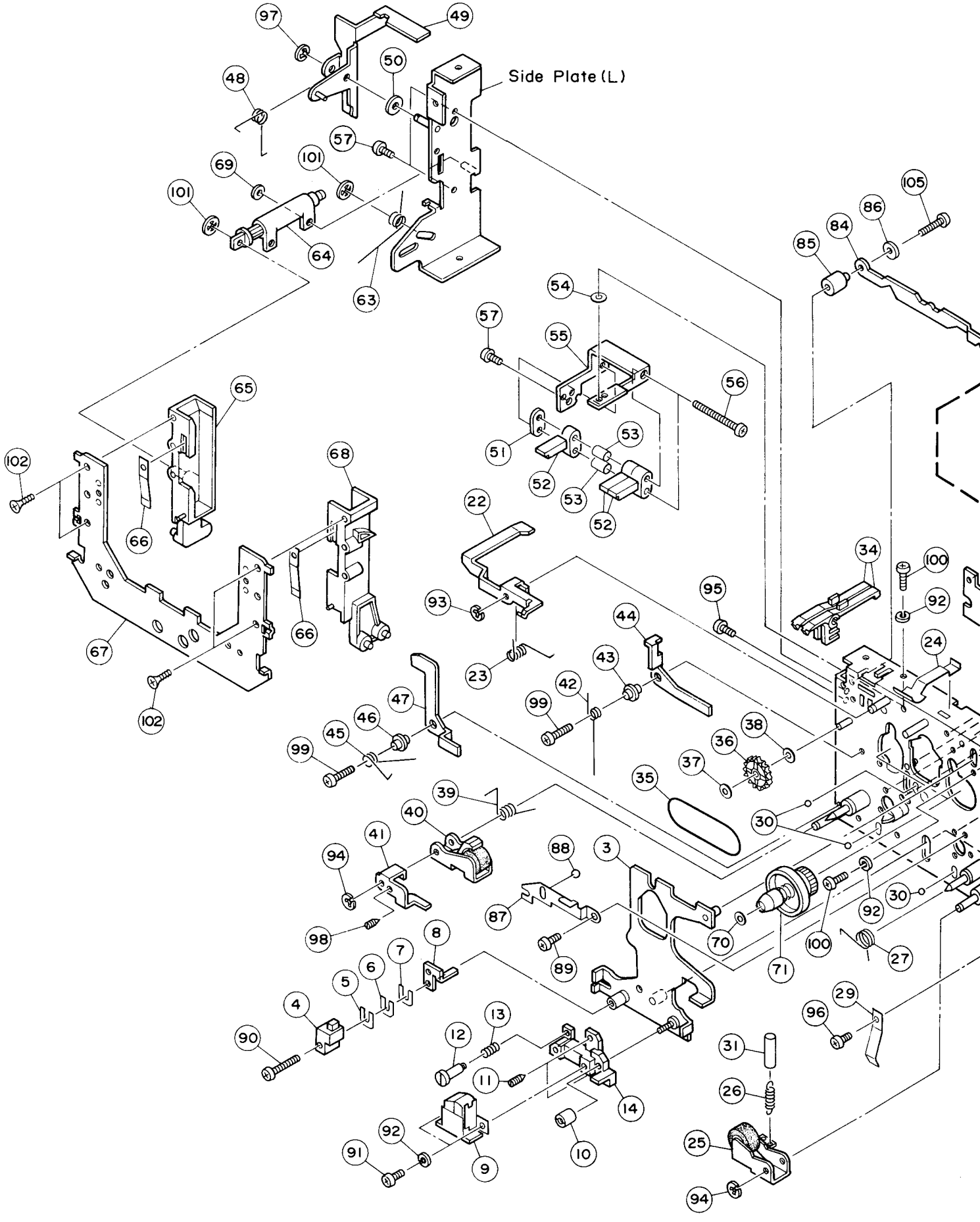
	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク	
※	1	NB 62 45 20	Panel Unit		パネルユニット	Silver		J		
※	〃	NB 62 45 30	〃		〃	Black		J		
※	〃	NB 62 47 30	〃		〃	Silver		R,U,A,G,C,B		
※	〃	NB 62 47 40	〃		〃	Black		R,U,A,G,C,B		
※	1-1	BA 09 13 50	Pocket Panel		ポケットパネル	Silver				※
※	〃	BA 09 13 60	〃		〃	Black				
※	1-2	CB 63 64 20	Arm		アーム					
※	1-3	CB 63 64 30	Slider		スライダー					
	1-4	AA 61 93 20	Shaft (L)		シャフト(L)		CD-X1			
※	1-5	BA 09 13 70	Plate, VR		VRプレート	Silver				
※	〃	BA 09 13 80	〃		〃	Black				
※	1-6	BA 09 18 60	Slide Knob		スライドツマミ	Silver				
※	〃	BA 09 18 70	〃		〃	Black				
※	1-7	AA 62 41 50	Slide Lever		スライドレバー	Silver				
※	〃	AA 62 41 60	〃		〃	Black				
※	1-8	JB 00 12 50	Lamp	150mA 8V	パイロットランプ					※
※	1-9	Ei 12 60 86	Binding Head Tapping Screw	2.6×8 ZMC2-Y	バインドタッピングネジ	Siver PACK				※
	〃	Ei 32 60 86	〃	2.6×8 FCRM3-BI	〃	Black PACK				※
	1-10	Ei 03 01 26	〃	3×12 ZMC2-Y	〃	PACK				※
※	1-11	CB 63 63 70	Button, EJ		ボタンEJ	Silver				※
※	〃	CB 63 63 80	〃		〃	Black				※
※	1-12	AA 62 43 20	Spring		スプリング					
※	1-13	NB 61 41 30	Button (P) Ass'y		ボタン(P)Ass'y	Silver				
	〃	NB 61 41 40	〃		〃	Black	A-700			※
	1-14	AA 61 78 80	Spring		スプリング					
※	1-15	CB 63 64 10	Push Button		プッシュボタン	Silver				
※	〃	CB 64 33 80	〃		〃	Black				
※	2	NB 62 50 20	Mechanism Unit		メカユニット					※
※	3	BA 09 14 90	Holder, Transformer		トランスホルダー					
※	4	NB 62 46 20	Lid Ass'y		リッドAss'y	Silver				
※	〃	NB 62 46 30	〃		〃	Black				※
※	4-1	CB 63 74 10	Holder		ガラスホルダー					※
※	4-2	CG 06 12 30	Lid Glass		リッドガラス					※
※	4-3	BA 09 16 30	Lid Panel		リッドパネル	Silver				
※	〃	BA 09 16 40	〃		〃	Black				
	4-4	EB 33 01 06	Flat Head Screw	3×10 FCRM3-BI	皿小ネジ	PACK				※
※	4-5	CA 07 73 50	Lid Sheet		リッドシート					※
※	5	NA 08 62 00	Main Circuit Board		メインシート	Silver		J		※
※	〃	NA 08 62 10	〃		〃	〃		U, C		
※	〃	NA 08 62 20	〃		〃	Black		J		
※	〃	NA 08 62 30	〃		〃	〃		U, C		
※	〃	NA 08 62 40	〃		〃	Silver		R, A, G, B		
※	〃	NA 08 62 50	〃		〃	Black		R, A, G, B		
※	6	NA 08 62 60	Power Circuit Board		電源シート			J		
※	〃	NA 08 62 70	〃		〃			U, C		
※	〃	NA 08 62 80	〃		〃			A, G, B		
※	〃	NA 08 64 50	〃		〃			R		
※	7	NA 08 62 90	Dolby Circuit Board		ドルビーシート					
	8	NA 08 63 00	dbx Circuit Board		dbxシート		K-720			
※	9	NA 08 61 80	Operation Circuit Board		オペレーションシート					
※	10	GA 68 58 00	Power Transformer		電源トランス			J		⚠
※	〃	GA 68 59 00	〃		〃			U, C		⚠
※	〃	GA 68 60 00	〃		〃			G		⚠

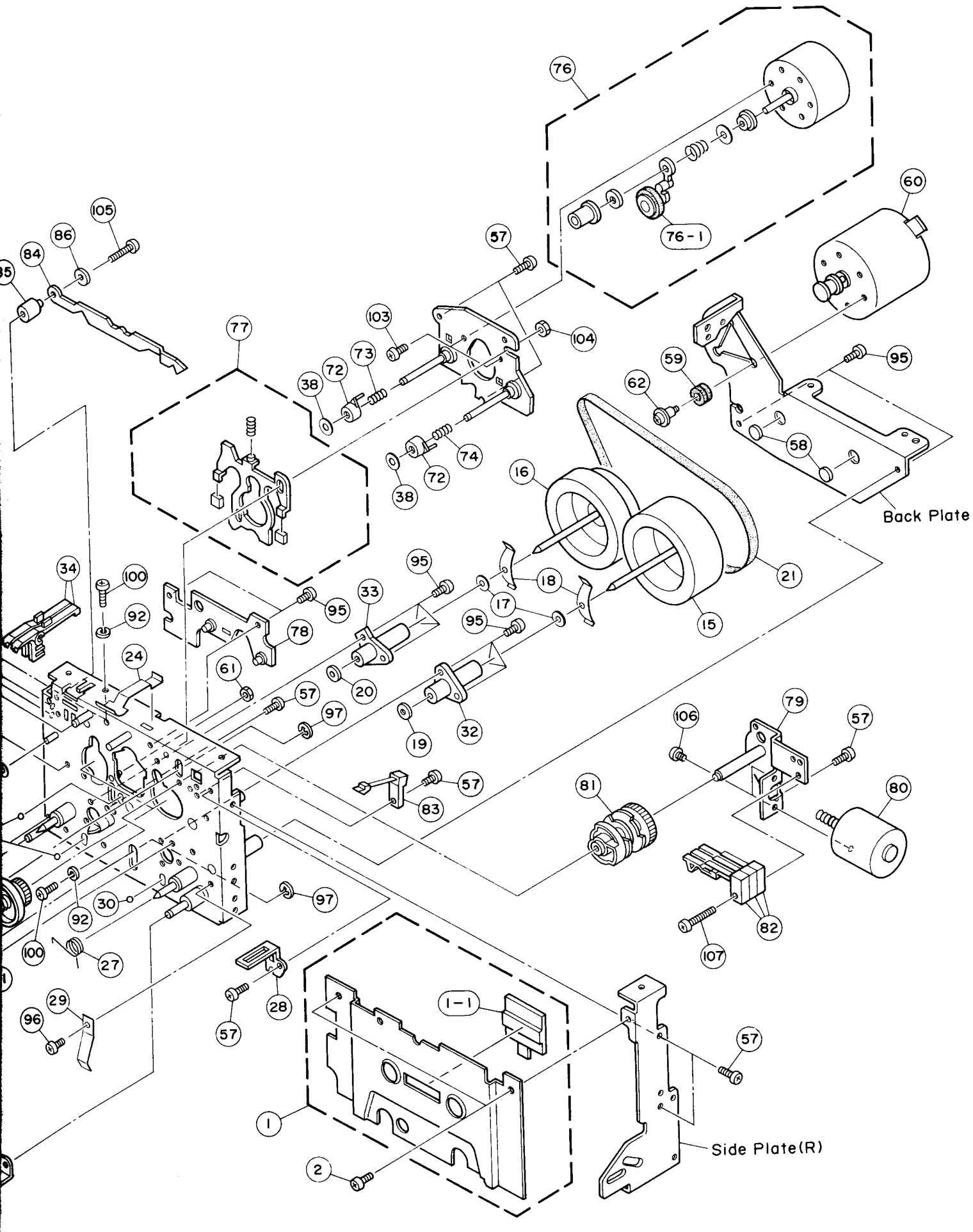
※New Parts（新規部品）

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク	
※	10	GA 68 61 00	Power Transformer		電源トランス			A, B		⚠
※	〃	GA 68 62 00	〃		〃			R		⚠
	11	LB 20 14 80	Voltage Selector		電圧切換器			R		⚠
※	12	MG 00 21 90	Power Cord	7A 125V	電源コード			J		⚠
	〃	MG 00 08 40	〃	10A 125V 2m	〃	併用		U, C		⚠
	〃	MG 00 12 40	〃	10A 125V 2m	〃	Interchangeable		U, C		⚠
	〃	MG 00 09 20	〃	7.5A 250V 2.5m	〃	併用		A		⚠
	〃	MG 00 14 90	〃	7.5A 250V 2.5m	〃	Interchangeable		A		⚠
	〃	MG 00 09 60	〃	2.5A 250V 2m	〃	併用		G		⚠
	〃	MG 00 16 20	〃	2.5A 250V 2m	〃	Interchangeable		G		⚠
	〃	MG 00 16 30	〃	6A 250V 2m	〃			R		⚠
	〃	MG 00 18 60	〃	2.5A 250V 2m	〃			B		⚠
	13	CB 61 68 10	Cord Stopper	CM-22A	コードストッパー			U, C		
	〃	CB 62 01 90	〃	CM-22B	〃			R, A, G, B		
※	14	AA 62 42 90	Rear Panel		リアパネル			J		
※	〃	AA 62 44 20	〃		〃			R		
※	〃	AA 62 44 30	〃		〃			U, C		
※	〃	AA 62 44 40	〃		〃			A, B		
※	〃	AA 62 44 50	〃		〃			G		
※	15	CB 63 63 90	Rod Switch		ロッドスイッチ					
	16	CB 63 42 60	Knob		ツマミ	Silver	K-720			
	〃	CB 63 42 70	〃		〃	Black	K-720			
※	17	CB 63 79 40	〃		〃	Silver				
	〃	CB 62 08 20	〃		〃	Black	A-1000			
	18	CB 63 42 20	Push Button		プッシュボタン	Silver				
	〃	CB 63 42 30	〃		〃	Black				
※	19	CB 64 08 00	〃 (Red)		〃 (アカ)					
	20	CB 62 07 10	Side Cover		サイドカバー	Silver	A-720			
	〃	CB 62 07 20	〃		〃	Black	A-720			
※	21	AA 62 43 30	Top Cover		トップカバー	Silver				
※	〃	AA 62 43 40	〃		〃	Black				
※	22	AA 62 42 80	Bottom Cover		ボトムカバー					
	23	NB 62 01 40	Leg		脚					
	24	AA 60 74 20	Nut		連ナット					
※	25	CB 64 11 80	Isolation Cover		絶縁カバー					
※	26	CA 07 72 10	Isolation Fiber		絶縁ファイバー					
※	27	CB 64 18 80	P. C. B Support		P. C. B サポート					
	28	CB 60 56 20	Plastic Rivet		プラスチックリベット					
	29	CB 06 88 80	〃		〃					
	30	Ei 33 00 86	Binding Head Tapping Screw	FCRM3-BI	バインドタッピングネジ	PACK				
	31	Ei 33 00 66	〃	3×6 FCRM3-BI	〃	PACK				
	32	Ei 33 01 06	〃	3×10 FCRM3-BI	〃	PACK				
	33	ED 14 00 86	BW Head Tapping Screw	4×8 FNM3-3g	バインド小ネジ	PACK Silver				
	〃	ED 34 00 86	〃	4×8 FCRM3-BI	〃	PACK Black				
	34	EV 20 30 36	Plain Washer	φ3 FCRM3-BI	平座金	PACK				
	35	ED 02 00 36	Binding Head Screw	2×3 ZMC2-Y	バインド小ネジ	PACK				
	36	ED 33 00 66	〃	3×6 FCRM3-BI	〃	PACK				
	37	CB 62 38 70	Isolation Rubber		防振ゴム					
	38	CB 63 07 60	Dampar (M)		ダンパー(M)					
	39	EV 20 10 46	Plain Washer	φ4 FNM3-3g	平座金	PACK Silver				
	〃	EV 20 30 46	〃	φ4 FCRM3-3g	〃	PACK Black				
			Accessories		付属品					
		Mi 06 62 10	Pin Cord	1.2m	ピンコード					

※New Parts (新規部品)

■EXPLODED VIEW(MECHA UNIT)

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Back Plate
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Side Plate(R)

■MECHANISM PARTS(MECHA UNIT)

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク
※		NB 62 50 20	*Mechanism Unit*		メカユニット				
※	1	NB 62 46 40	Blind Plate Ass'y		ブラインドプレートAss'y				
	1-1	iF 00 35 70	LED (Yellow)		LED(キ)				
※	2	Ei 32 60 46	Binding Head Tapping Screw	2.6×4 FCRM3-BI	バインドタッピングネジ	PACK			
※	3	XX 64 06 10	Head Base		ヘッドベースカシメ組				
※	4	XX 64 06 20	Erase Head		消去ヘッド				
※	5	XX 64 06 30	Spacer	t0.06	スペーサー				
※	6	XX 64 06 40	〃	t0.03	〃				
※	7	XX 64 06 50	〃	t0.1	〃				
※	8	XX 64 06 60	Head Plate for Erase		Eヘッド板(B)				
※	9	XX 64 06 70	R/P Combination Head		R/Pコンビヘッド				
※	10	XX 64 06 80	Nut		調整ナット				
※	11	XX 64 06 90	Screw	M2×4	止メネジ				
※	12	XX 64 07 00	〃		軸				
※	13	XX 64 07 10	Coil Spring		圧縮コイルバネ				
※	14	XX 64 07 20	Head Block		ヘッドブロック				
※	15	XX 64 07 30	Flywheel	φ2.5	フライホイール				
※	16	XX 64 07 40		φ2.2	〃				
※	17	XX 64 07 50	Washer	φ2.6×φ4.7×t0.5	ワッシャー				
※	18	XX 64 07 60	Spring Plate		板バネ				
※	19	XX 64 07 70	Plain Washer	φ2.5	座金				
※	20	XX 64 07 80	〃	φ2.2	〃				
※	21	XX 64 07 90	Belt, Flywheel		平ベルト				
※	22	XX 64 08 00	Sensor Lever		検知レバー				
※	23	XX 64 08 10	Coil Spring		コイルバネ				
※	24	XX 64 08 20	Spring Plate		カセット押えバネ				
※	25	XX 64 08 30	Pinch Arm Ass'y		ピンチアームAss'y				
※	26	XX 64 08 40	Coil Spring		引張コイルバネ				
※	27	XX 64 08 50	〃		ネジリコイルバネ				
※	28	XX 64 08 60	Plate		保護板				
※	29	XX 64 08 70	Spring Plate		カセットバネ				
	30	EZ 00 15 30	Steel Ball	φ2	スチールボール				
※	31	XX 64 14 20	Tube	l=19	チューブ				
※	32	XX 64 08 80	Stand	φ2.5	キャプスタンスタンド				
※	33	XX 64 08 90	〃	φ2.2	〃				
※	34	XX 64 09 00	Lever, REC		REC レバー				
※	35	XX 64 09 10	Belt		角ベルト				
※	36	XX 64 09 20	Pully Unit		プーリーユニット				
	37	XX 64 03 30	Washer	φ1.8×φ3.8×t0.5	ポリスライダーワッシャー		K-720		
	38	XX 64 03 60	〃	φ2.1×φ4.5×t0.1	ワッシャー		〃		
※	39	XX 64 09 30	Coil Spring		コイルバネ				
※	40	XX 64 09 40	Pinch Roller Ass'y		SピンチローラーAss'y				
※	41	XX 64 09 50	Plate, ADJ		調整板				
※	42	XX 64 09 60	Coil Spring		コイルバネ				
※	43	XX 64 09 70	Coller		カラー				
※	44	XX 64 09 80	Change Lever		切換レバー				
※	45	XX 64 09 90	Coil Spring		コイルバネ				
※	46	XX 64 10 00	Coller		カラー				
※	47	XX 64 10 10	Locked Plate		ロック板				
※	48	XX 64 10 20	Coil Spring		コイルバネ				
※	49	XX 64 10 30	Lever, Eject		解除レバー圧入組				
※	50	XX 64 10 40	Plain Washer	φ4.4×φ10×t0.5	平座金				
※	51	XX 64 10 50	Washer	4.4×10.4×1.0	ワッシャー				

※New Parts (新規部品)

	Ref. No.	Part No.	Description		部品名	Remarks	Common Model	Markets	ランク
※	52	XX 64 10 60	Leaf Switch		リーフスイッチ				
※	53	XX 64 10 70	Coller		カラー				
※	54	XX 64 10 80	Washer	φ2.7×φ5×t0.5	ワッシャー				
※	55	XX 64 10 90	Plate		SW取付板				
※	56	XX 64 11 00	Screw		ビス				
※	57	XX 62 36 50	Pan Head Screw	M2.5×6 ZMC2-Y	ナベ小ネジ				
※	58	XX 64 11 10	Thrust Stand		スラスト受				
※	59	XX 64 11 20	Cushion Rubber		ゴム座				
※	60	XX 64 14 10	Capstan Motor Ass'y		キャプスタンモーター組				
※	61	EV 10 02 66	Hexagonal Nut	M2.6	六角ナット	PACK			
※	62	XX 64 11 30	Screw		モーター止メネジ				
※	63	XX 64 11 40	Coil Spring		コイルバネ				
※	64	XX 64 11 50	Damper Unit		ダンパーユニット				
※	65	XX 64 11 60	Holder (L)		ホルダー(左)				
※	66	XX 64 11 70	Spring		カセットバネ				
※	67	XX 64 11 80	Front Plate		フロントプレート				
※	68	XX 64 11 90	Holder (R)		ホルダー(右)				
※	69	XX 64 12 00	Washer	φ2.2×φ5×t0.2	座金				
※	70	XX 64 12 10	〃	φ1.8×φ3.2×t0.5	ポリスライダーワッシャー				
※	71	XX 64 12 20	Reel Base Ass'y		リール台総組				
※	72	XX 64 12 30	Spring Stand		バネ受				
※	73	XX 64 12 40	Coil Spring		圧縮コイルバネ				
※	74	XX 64 12 50	〃		〃				
※	75	XX 64 12 60	Holder, Motor		モーター取付板				
※	76	XX 64 12 70	Reel Motor Ass'y		リールモーターAss'y				
※	76-1	XX 64 12 80	Idler Lever Ass'y		アイドラレバー組				
※	77	XX 64 12 90	Lever Ass'y, Brake		ブレーキ板組				
※	78	XX 64 13 00	Sensor Circuit Board		センサー基板組				
※	79	XX 64 13 10	PAD Holder		PADホルダー				
※	80	XX 64 13 20	PAD Motor		PADモーター				
※	81	XX 64 13 30	Gear, Cum		カムギヤ				
※	82	XX 64 13 40	Leaf Switch		リーフスイッチ				
※	83	XX 64 13 50	〃		〃				
※	84	XX 64 13 60	Plate, Joint		連結板				
※	85	XX 64 13 70	Coller		カラー				
※	86	XX 64 13 80	Plain Washer	φ8×φ2.6×t1.0	平座金				
※	87	XX 64 13 90	Head Holder Plate		ヘッド押え板				
※	88	EX 60 01 30	Steel Ball	3φ	スチールボール				
	89	EA 03 00 46	Pan Head Screw	M3×4 ZMC2-Y	ナベ小ネジ	PACK			
	90	ED 02 01 26	Binding Head Screw	M2×12 ZMC2-Y	バインド小ネジ	PACK			
	91	EA 02 00 46	Pan Head Screw	M2×4 ZMC2-Y	ナベ小ネジ	PACK			
	92	EV 30 02 06	Spring Washer	φ2 ZMC2-Y	スプリングワッシャー	PACK			
	93	EV 50 12 56	E-Ring	φ2.5 FNM3-3g	Eリング	PACK			
	94	EV 50 12 06	〃	φ2 FNM3-3g	〃				
	95	XX 62 36 60	Pan Head Screw	M2.5×5 ZMC2-Y	ナベ小ネジ				
	96	XX 62 36 70	Truss Head Tapping Screw	2×3.2 ZMC2-Y	トラスタッピングネジ				
	97	EV 50 13 06	E-Ring	φ3 ZMC2-Y	Eリング	PACK			
	98	XX 64 14 00	Screw	M2×3	止メネジ				
※	99	EA 02 51 00	Pan Head Screw	M2.5×10 ZMC2-Y	ナベ小ネジ				
	100	EA 02 00 56	〃	M2×5 ZMC2-Y	〃	PACK			
	101	EX 60 01 20	CS-Ring	CS2.4mm	CSリング				
	102	EN 39 00 20	Flat Head Tapping Screw	2.6×8 ZMC2-Y	サラタッピングネジ				
	103	EA 02 60 36	Pan Head Screw	M2.6×3 ZMC2-Y	ナベ小ネジ	PACK			

※New Parts (新規部品)

Ref. No.	Part No.	Description	部品名	Remarks	Common Model	Markets	ランク
104	EV 10 00 26	Hexagonal Nut	M2 ZMC2-Y	六角ナット	PACK		
105	EA 02 61 26	Pan Head Screw	M2.6×12 ZMC2-Y	ナベ小ネジ	PACK		
106	EA 02 00 30	〃	M2×3 ZMC2-Y	〃			
107	EA 02 62 06	〃	M2.6×20 ZMC2-Y	〃	PACK		

※New Parts (新規部品)

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YAMAHA