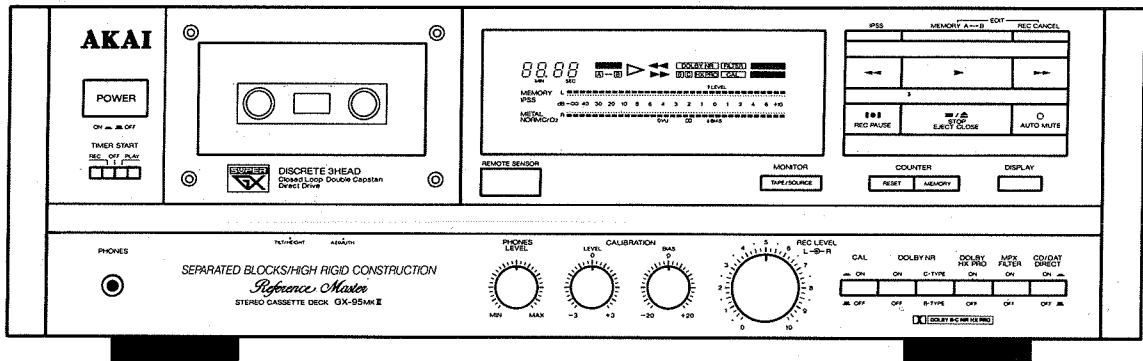


769L

GX-75MKII
GX-95MKII

AKAI SERVICE MANUAL



MODEL GX-95MKII

STEREO CASSETTE DECK

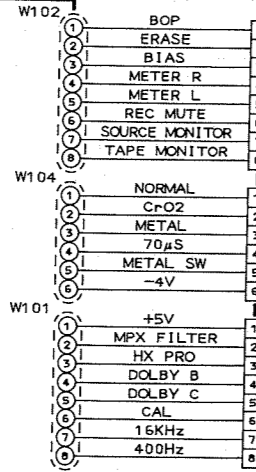
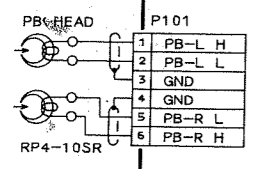
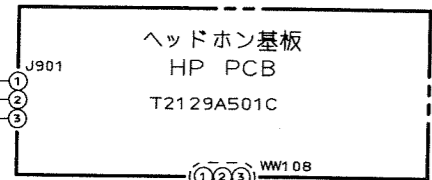
MODEL **GX-75** MKII
MODEL **GX-95** MKII

SPECIFICATIONS

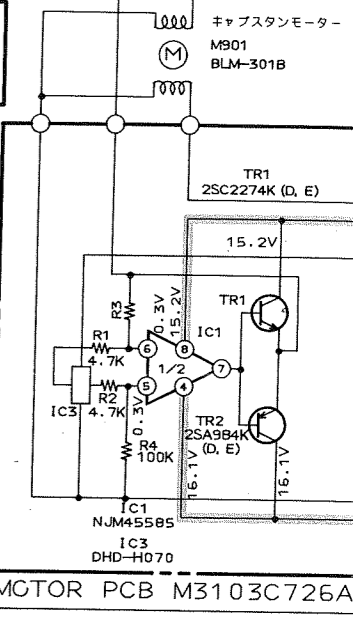
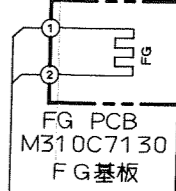
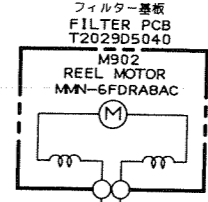
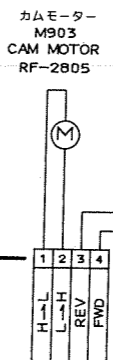
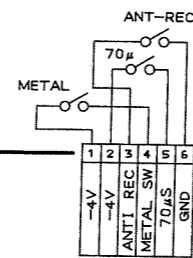
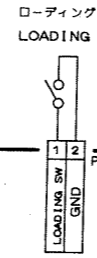
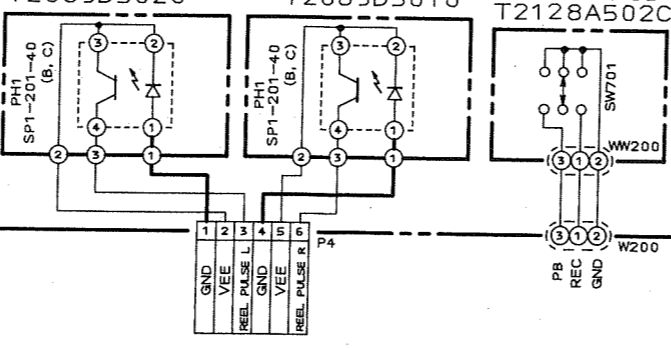
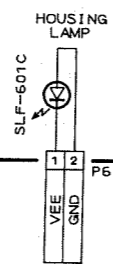
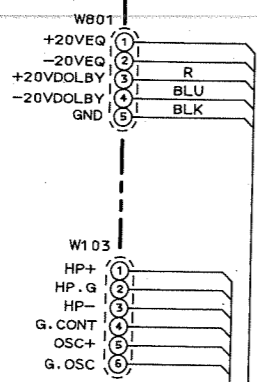
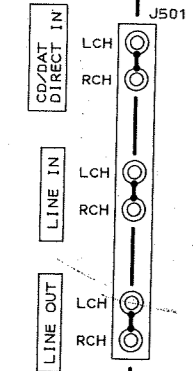
Track System	4 track 2 channel Stereo	T, H, D	0.6%
Heads	Erase Head x1 LC-OFC SGX Head for recording x1 LC-OFC SGX Head for playback x1	Input Sensitivity/ Impedance	
Motors	FG Servo D.D. motor for capstan drive x1 DC motor for reel drive x1 DC motor for cam drive & tape eject/loading x1	Line	70mV/47kΩ
Wow & Flutter	0.04% DIN 0.025% WRMS	CD/DAT Direct IN	240mV/47kΩ
Tape winding time	85 sec. (C-60)	Output Level/Impedance	
Frequency Response		Line	388mV/200Ω
Normal	15Hz to 19,000Hz ± 3dB	Headphones	1.3mW (8Ω)
CrO ₂	15Hz to 20,000Hz ± 3dB	Power Requirements	220V, 50Hz for Europe except UK 240V, 50Hz for UK (GX-95MKII ONLY)
Metal	15Hz to 22,000Hz ± 3dB	Dimensions	GX-95MKII : 460(W)×155(H)×350(D)mm GX-75MKII : 425(W)×154(H)×350(D)mm
S/N	59dB (Measured via Metal tape with peak recording level) Dolby B type NR switch ON: Improves up to 5dB at 1kHz, 10dB above 5kHz Dolby C type NR switch ON: Improves up to 15dB at 500Hz, 20dB at 1kHz to 10kHz	Weight	GX-95MKII :10.1kg GX-75MKII :9.0kg
		Standard accessories	
		Connection cords	RCA pin cord ×2
		Remote control unit	×1
		Dry batteries	R6 (AA) size ×2

- * For improvement purposes, specifications and design are subject to change without notice.
- * Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.
- * "DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

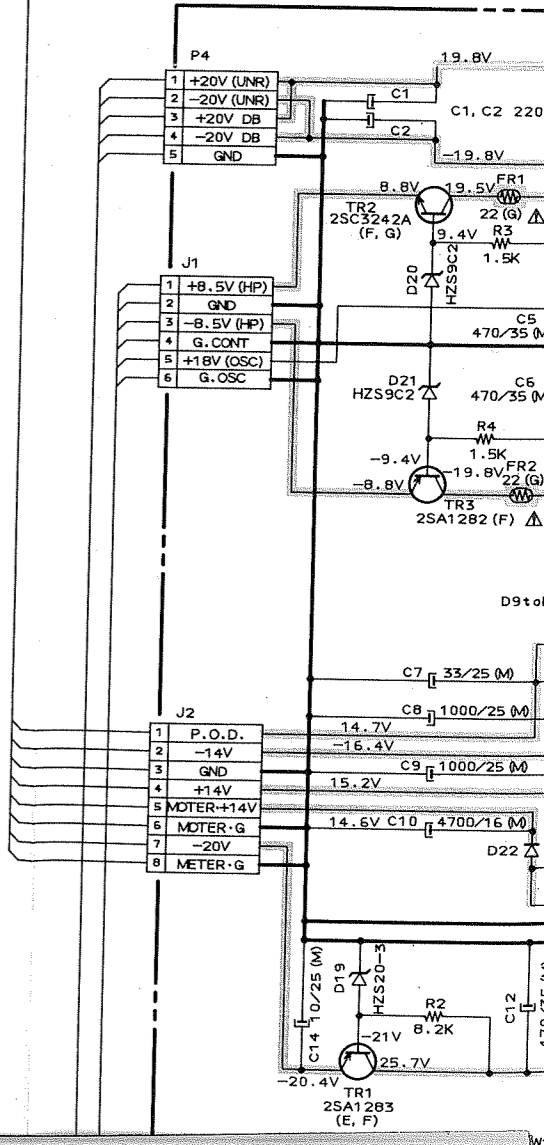
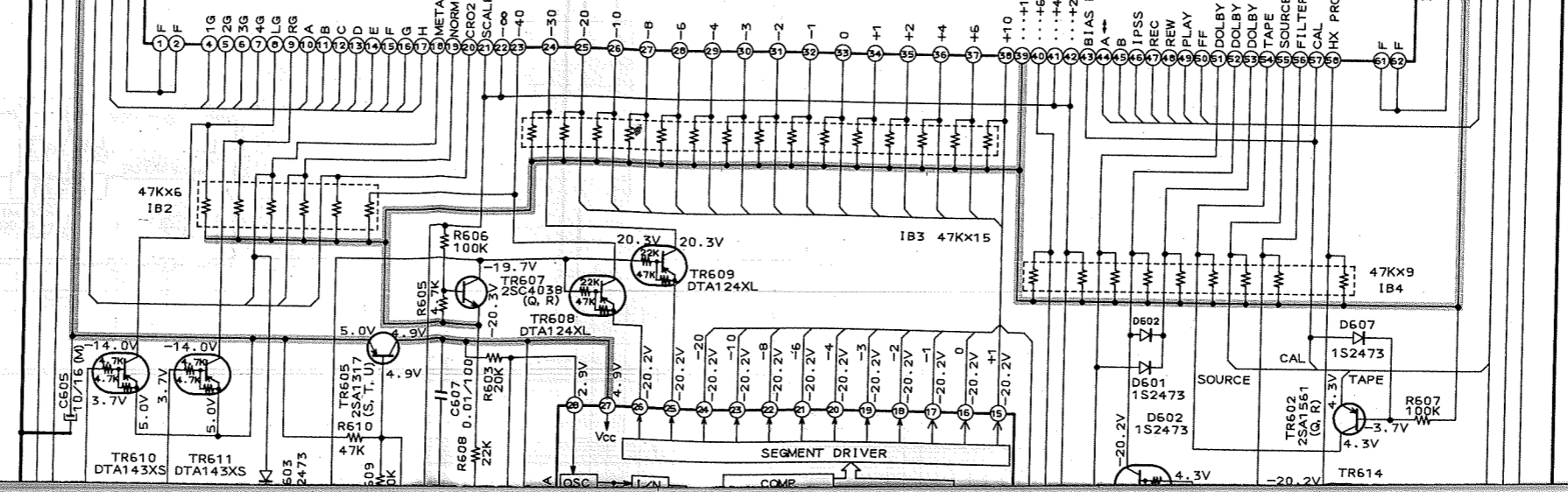
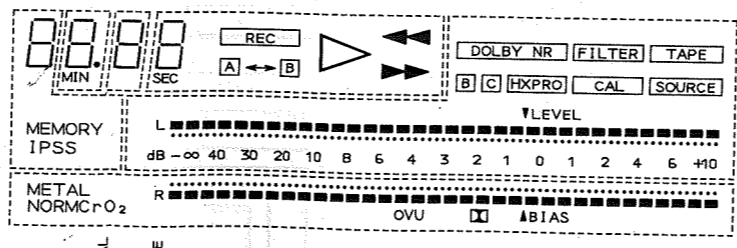
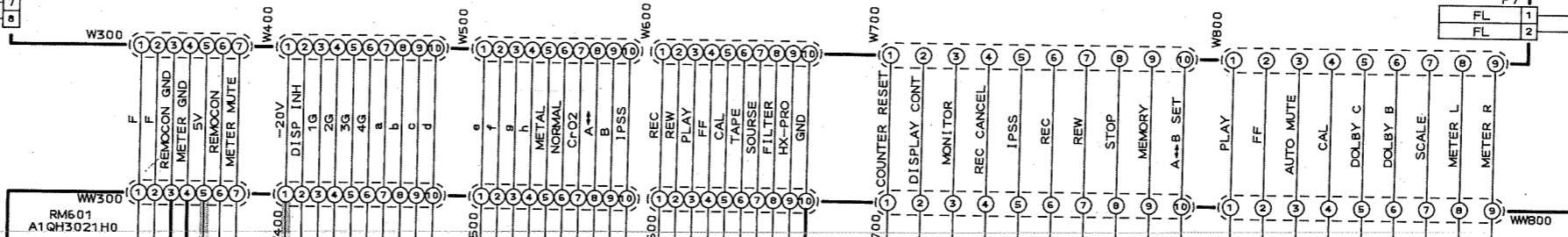
DETECTOR (R) PCB T2069D5020
DETECTOR (L) PCB T2069D5010
タイマー基板
TIMER PCB T2128A502C



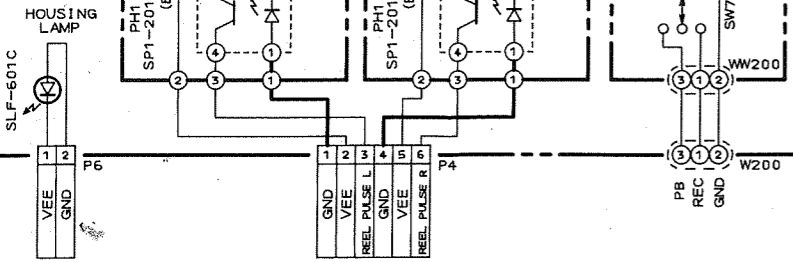
プリアンプ基板
PRE AMP PCB
T2129A501A



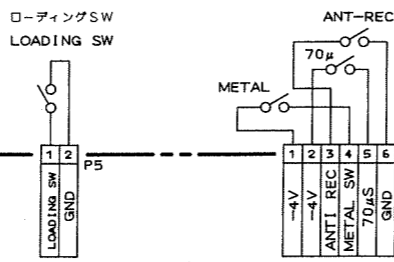
システム コントロール基板
SYSCON PCB
T2128A502A



DETECTOR (R) PCB T2069D5020
 DETECTOR (L) PCB T2069D5010
 タイマー基板
 TIMER PCB
 T2128A502C



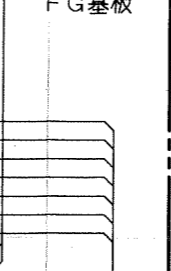
システム コントロール基板
 SYSCON PCB
 T2128A502A



フィルター基板
 FILTER PCB
 T2029D5040
 REEL MOTOR
 MN-6FDRABAC



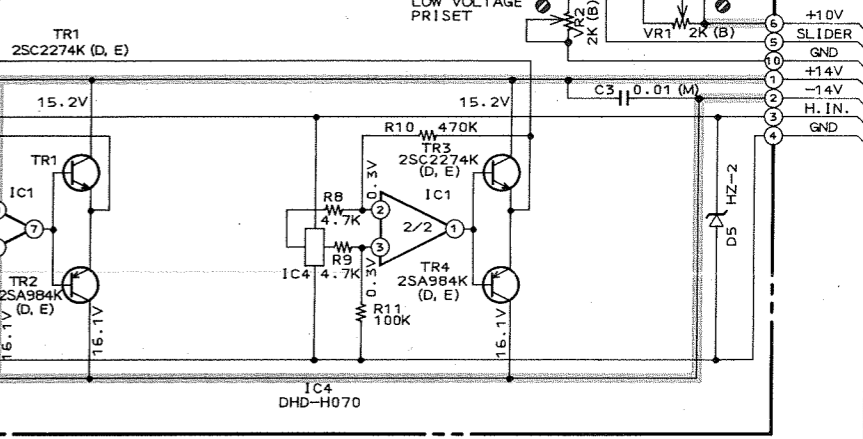
FG PCB
 M310C7130
 FG基板



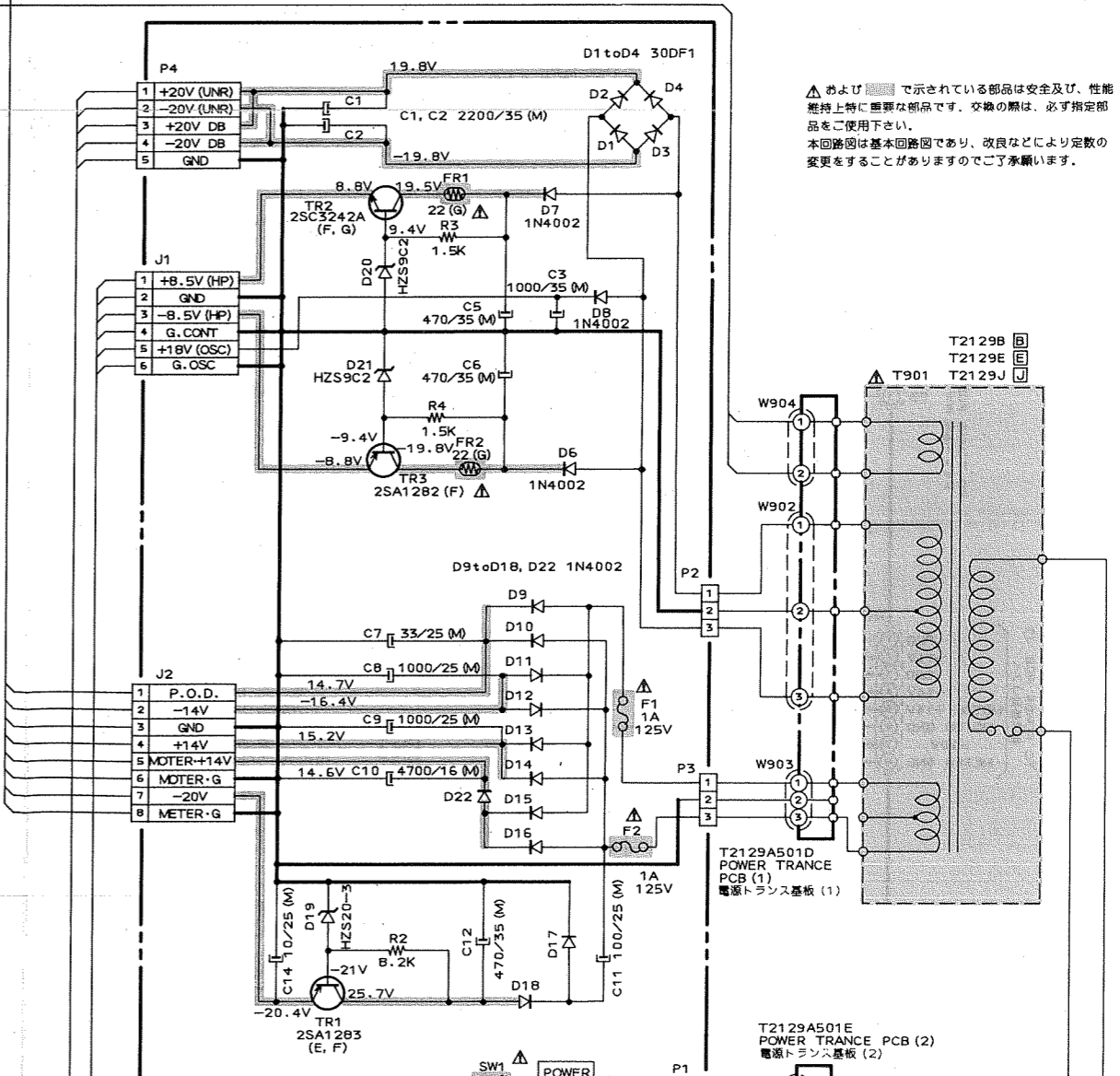
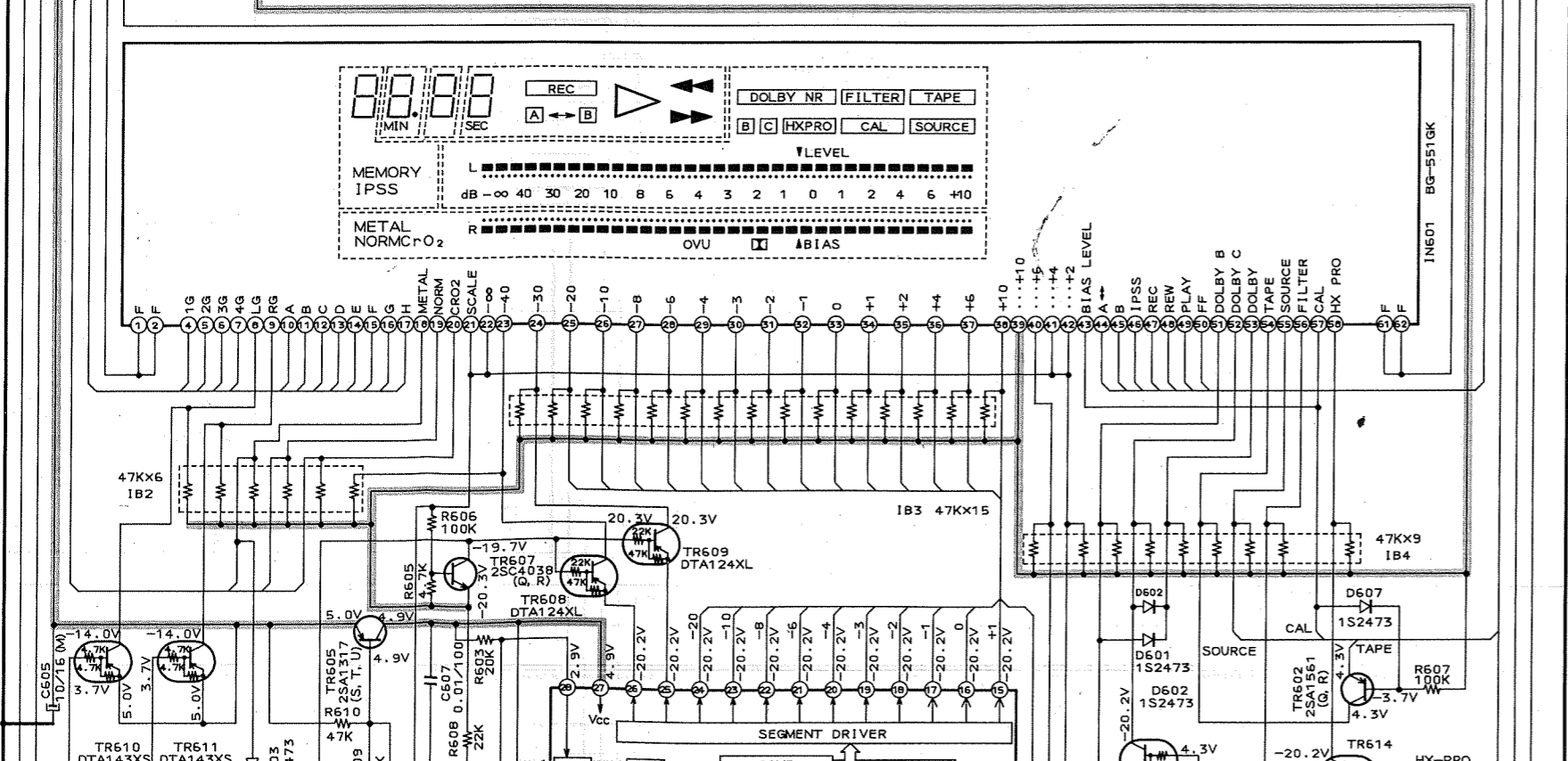
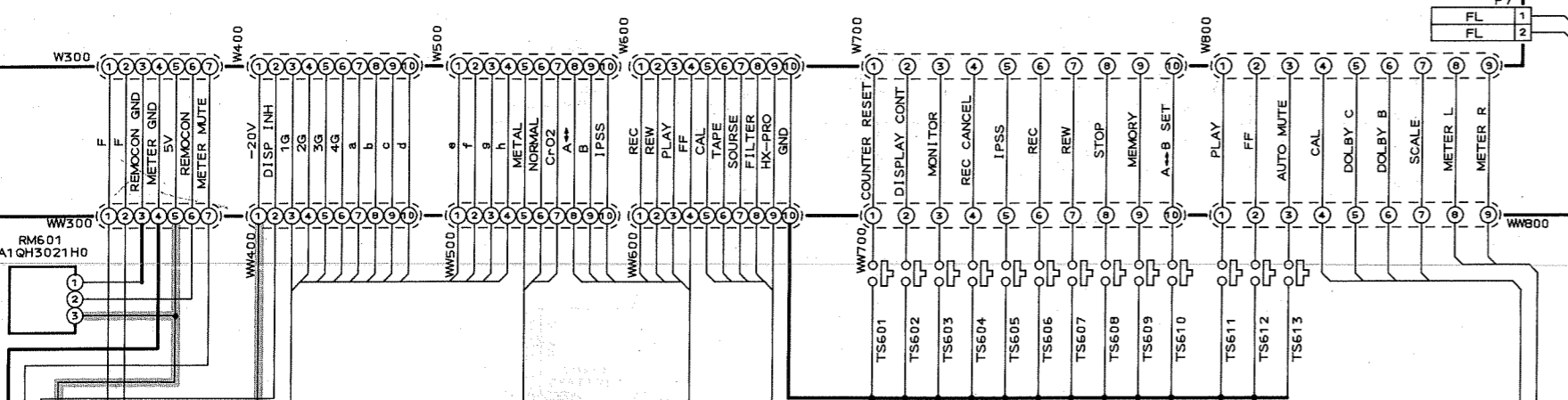
キャプスタンモーター
 M901
 BLM-301B



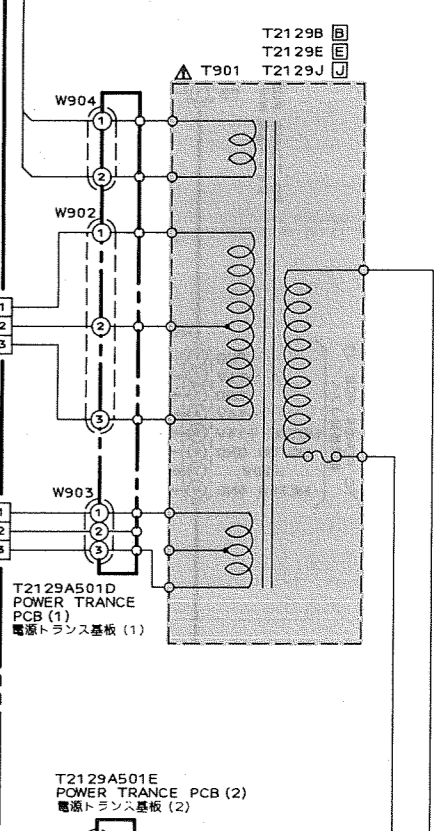
POTENTIAL PCB
 M3103D7010

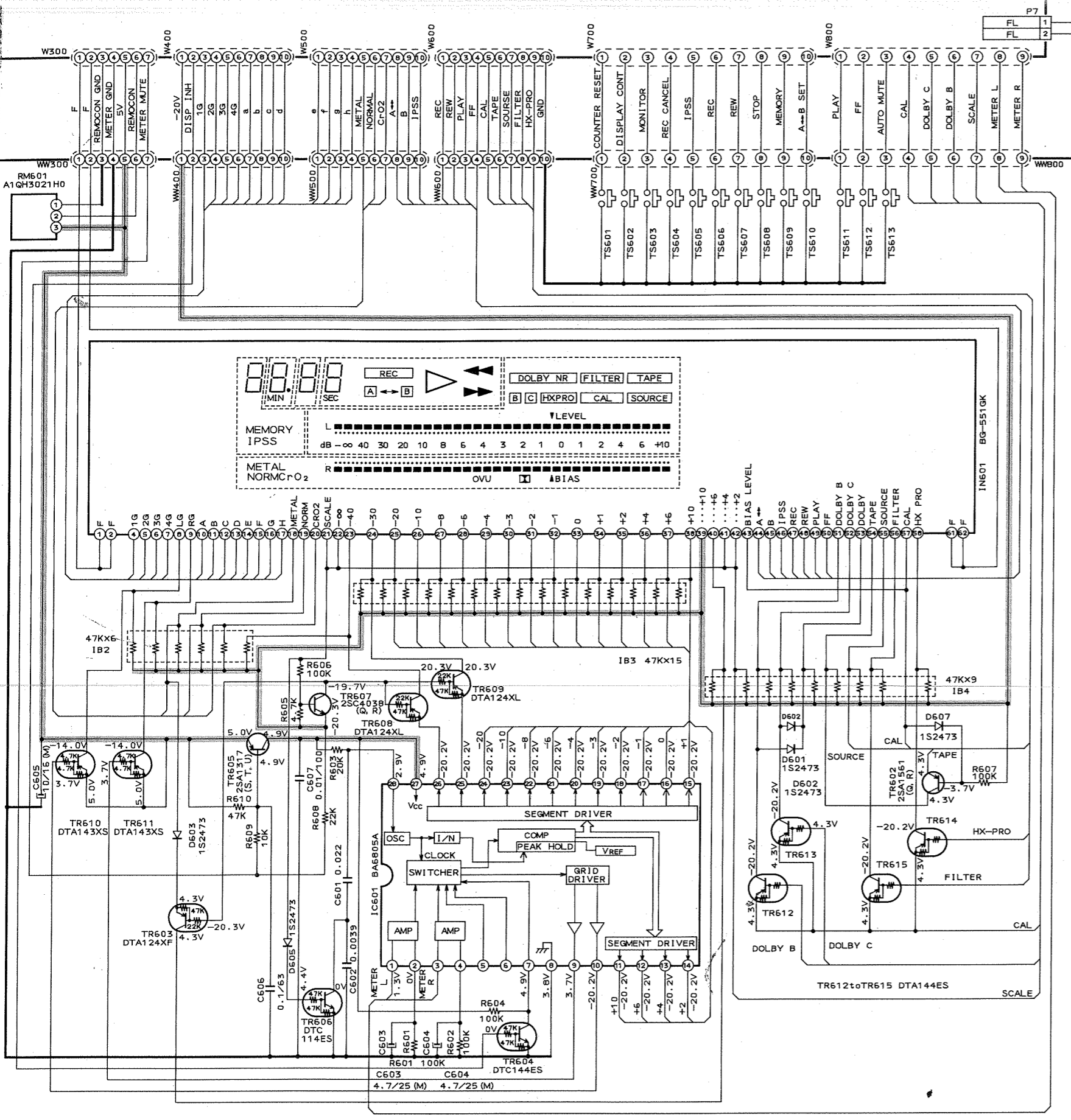


モーター基板
 MOTOR PCB M3103C726A (J3)



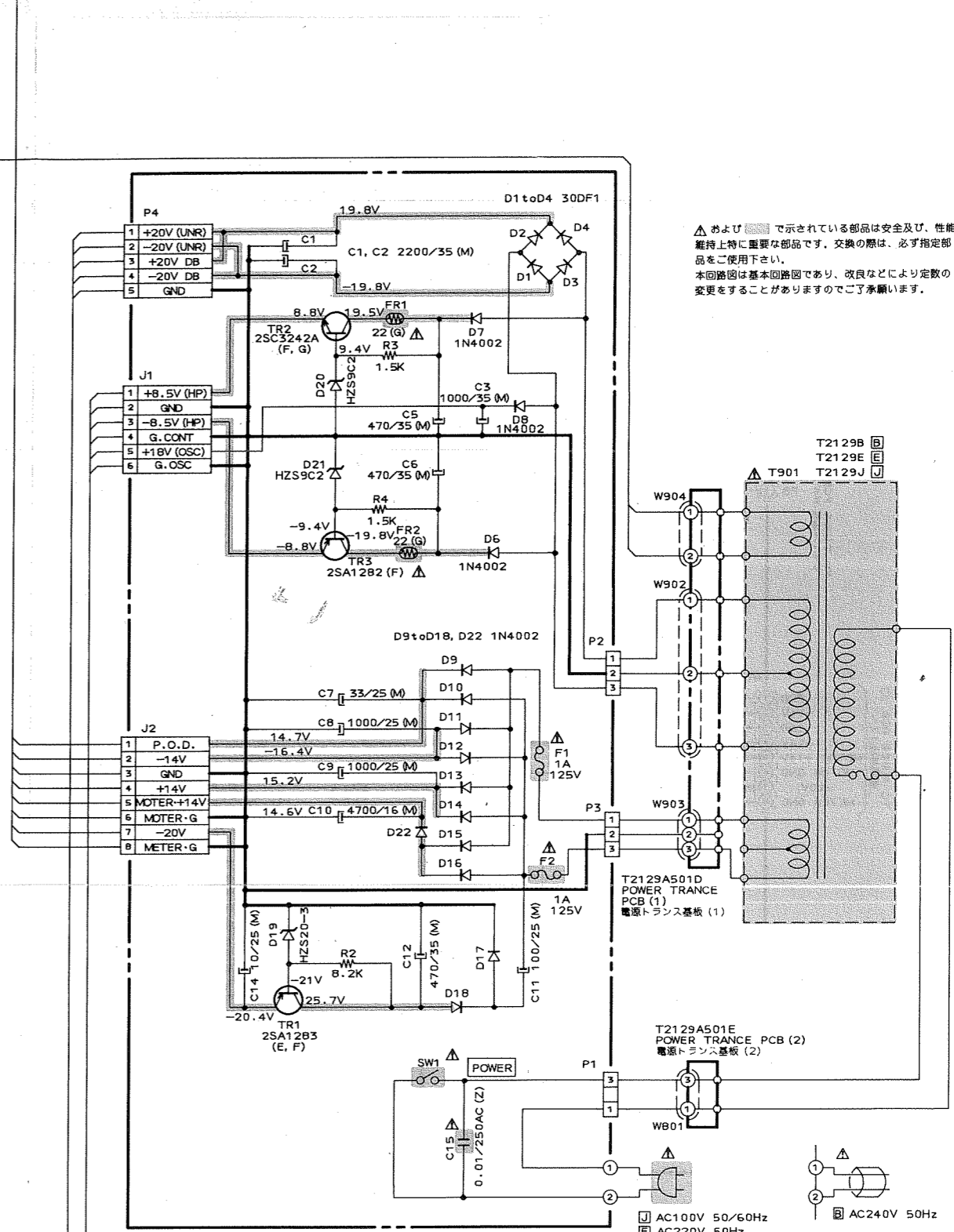
▲おまじきで示されている部品は安全及び、性能維持上特に重要な部品です。交換の際は、必ず指定部品をご使用下さい。
 本回路図は基本回路図であり、改良などにより定数の変更をすることがありますのでご了承願います。





OPERATION PCB T2128A502B

オペレーション基板



POWER SUPPLY PCB
△ T2128C5030

電源基板

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)

WARNING: △ AND ■ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.
AVERTISSEMENT: △ ET ■, ILS INDIQUENT LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

POWER SUPPLY LINE
B 電源供給

各部の電圧値は、メタルテープの再生時の直流電圧値です。

INDICATED VOLTAGES ARE MEASURED BY DC VOLTAGE ON METAL TAPE PLAYING

GX-75MKII / 95MKII
CONNECTION DIAGRAM
NO.3-1 T212804M

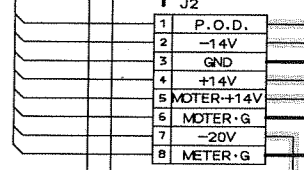
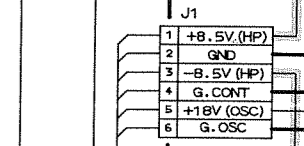
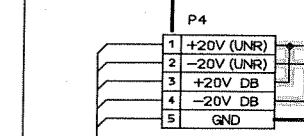
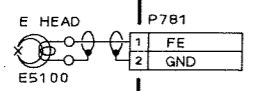
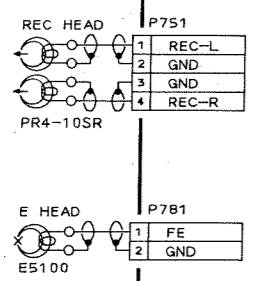
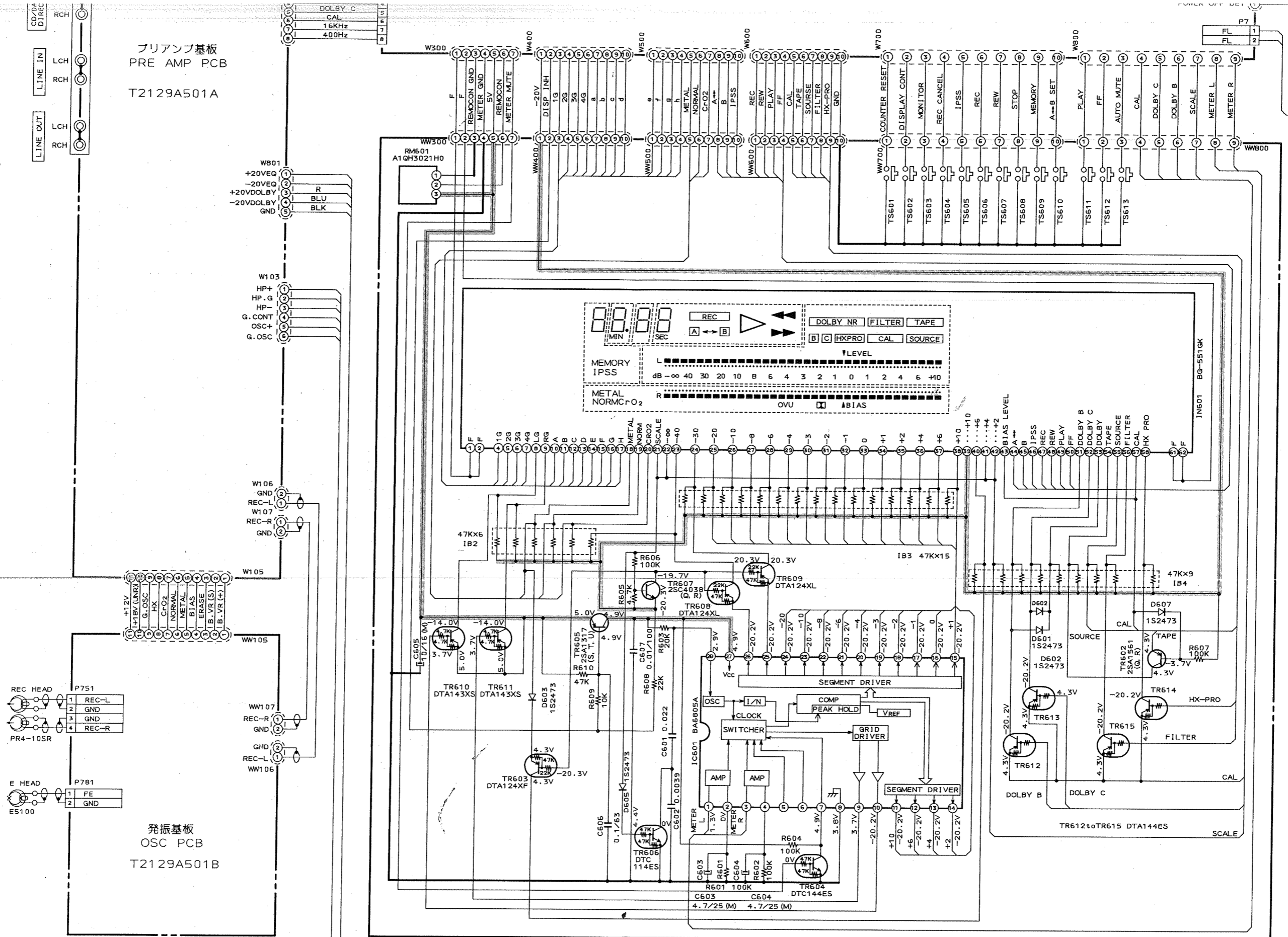
△ および ■ で示されている部品は安全及び、性能維持上特に重要な部品です。交換の際は、必ず指定部品をご使用下さい。
本回路図は基本回路図であり、改良などにより定数の変更をすることがありますのでご了承願います。

プリアンプ基板
PRE AMP PCB
T2129A501A

発振基板
OSC PCB
T2129A501B

OPERATION PCB T2128A502B

オペレーション基板



POWER
T21
電流

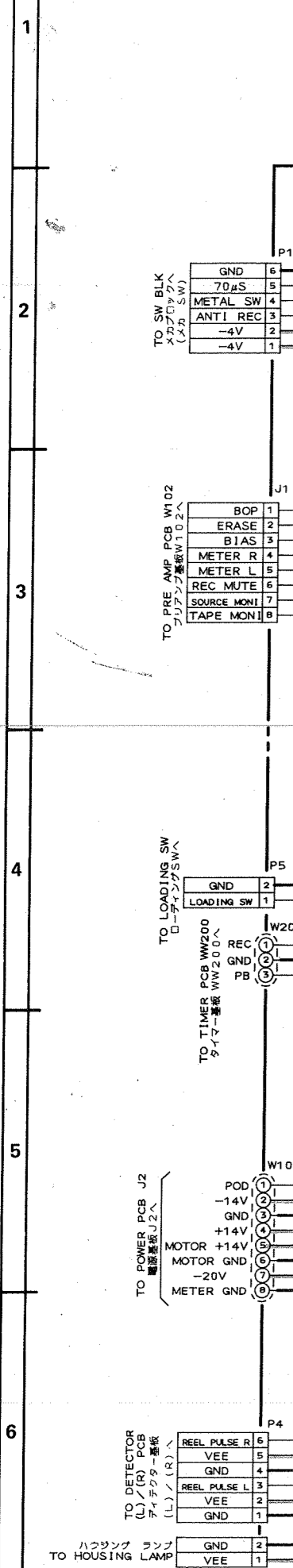
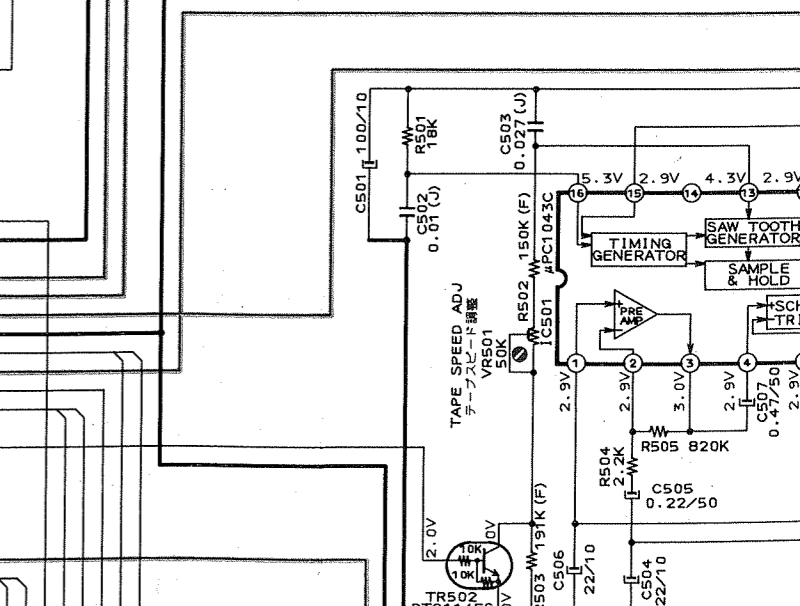
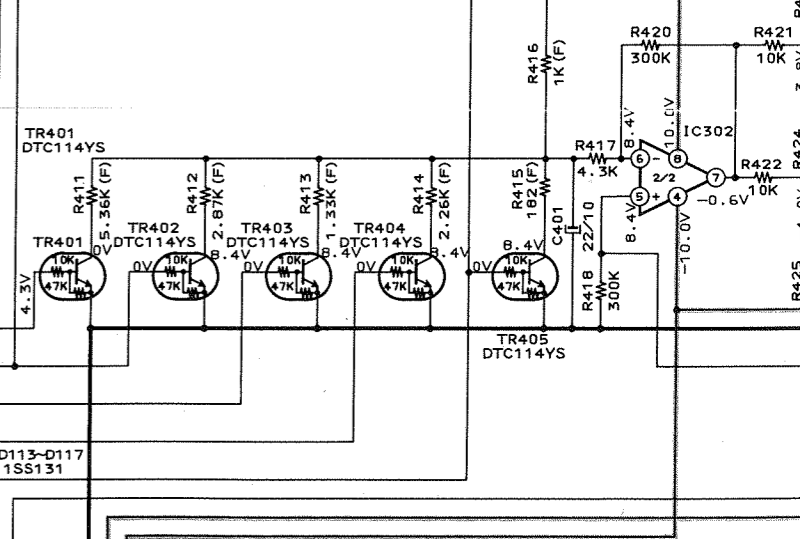
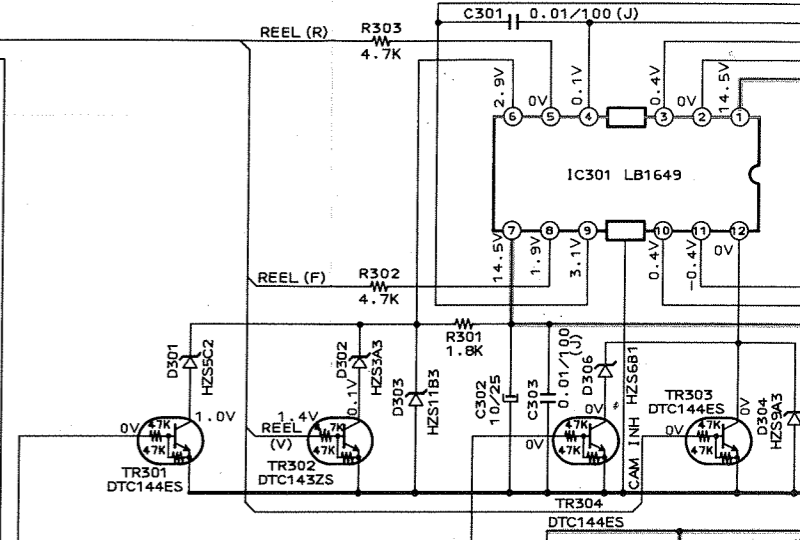
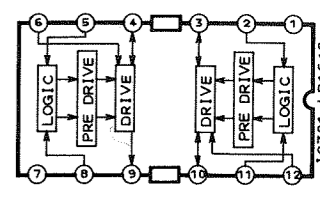
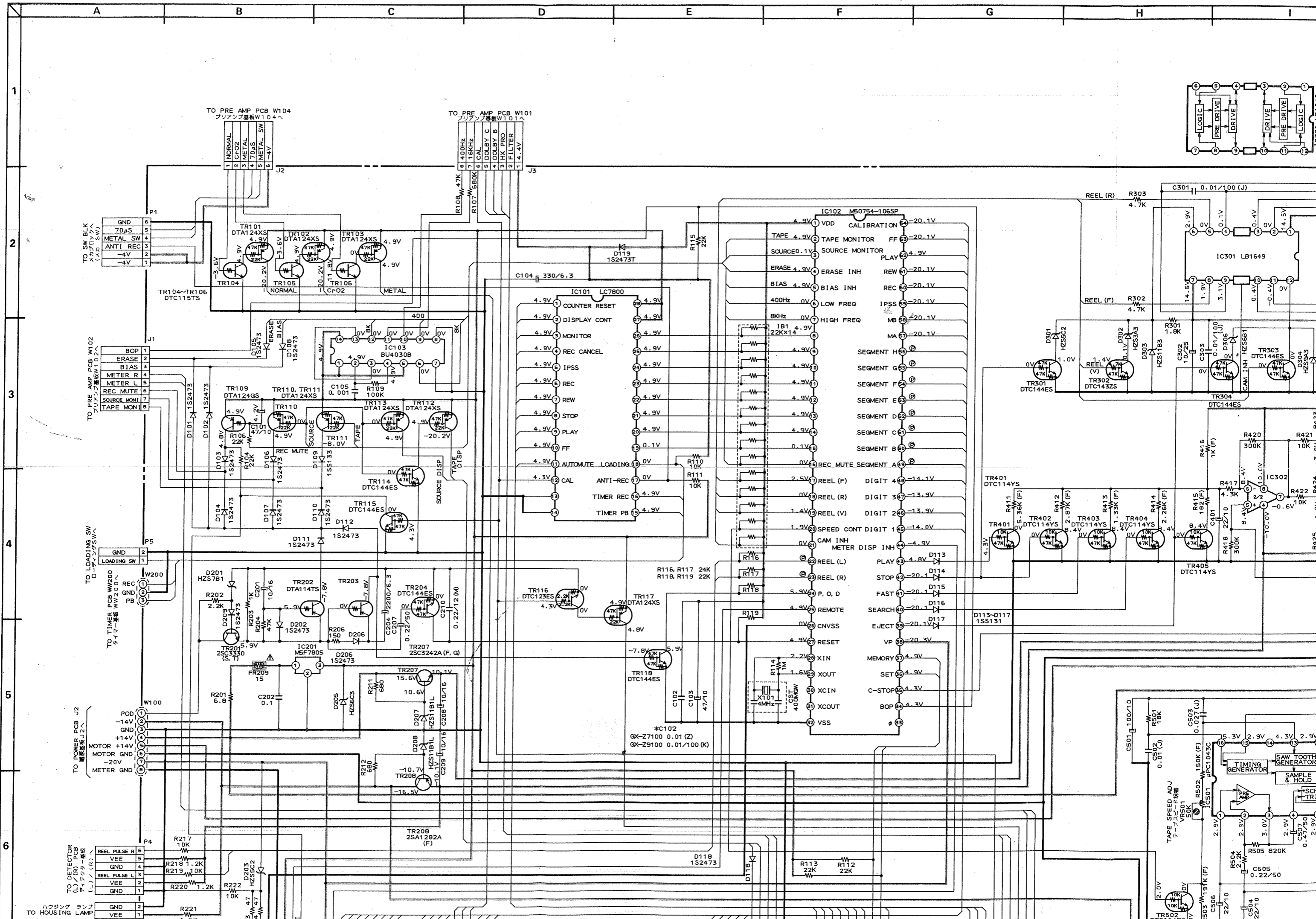
NOTE
UNLESS
ALL RES
ALL CAP

各部の電圧値
の電流電圧値

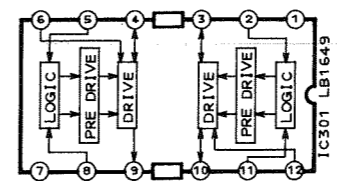
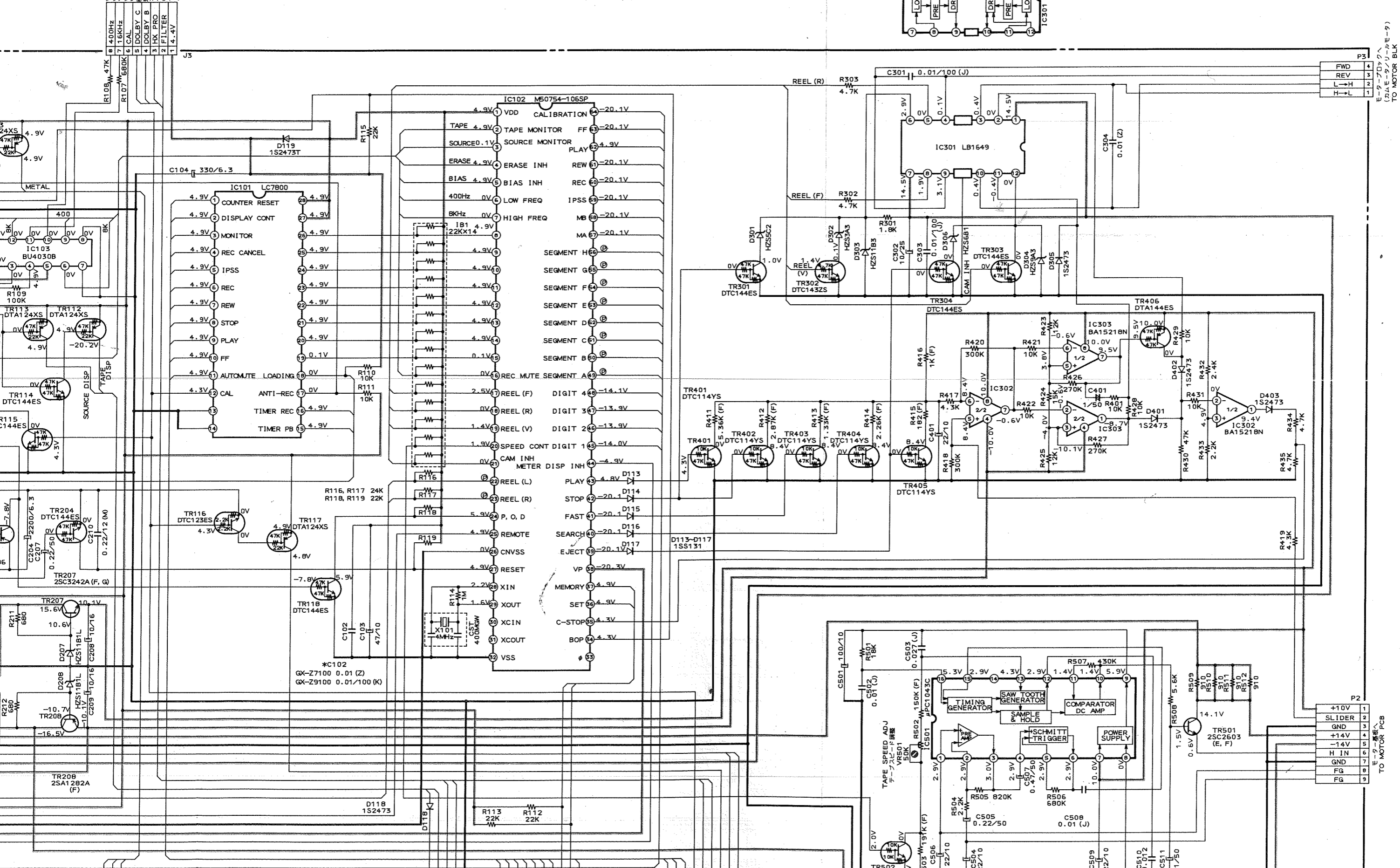
INDICATE
BY DC VOL

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A B C D E F G H



TO PRE AMP PCB W101
プリアンプ基板W101へ

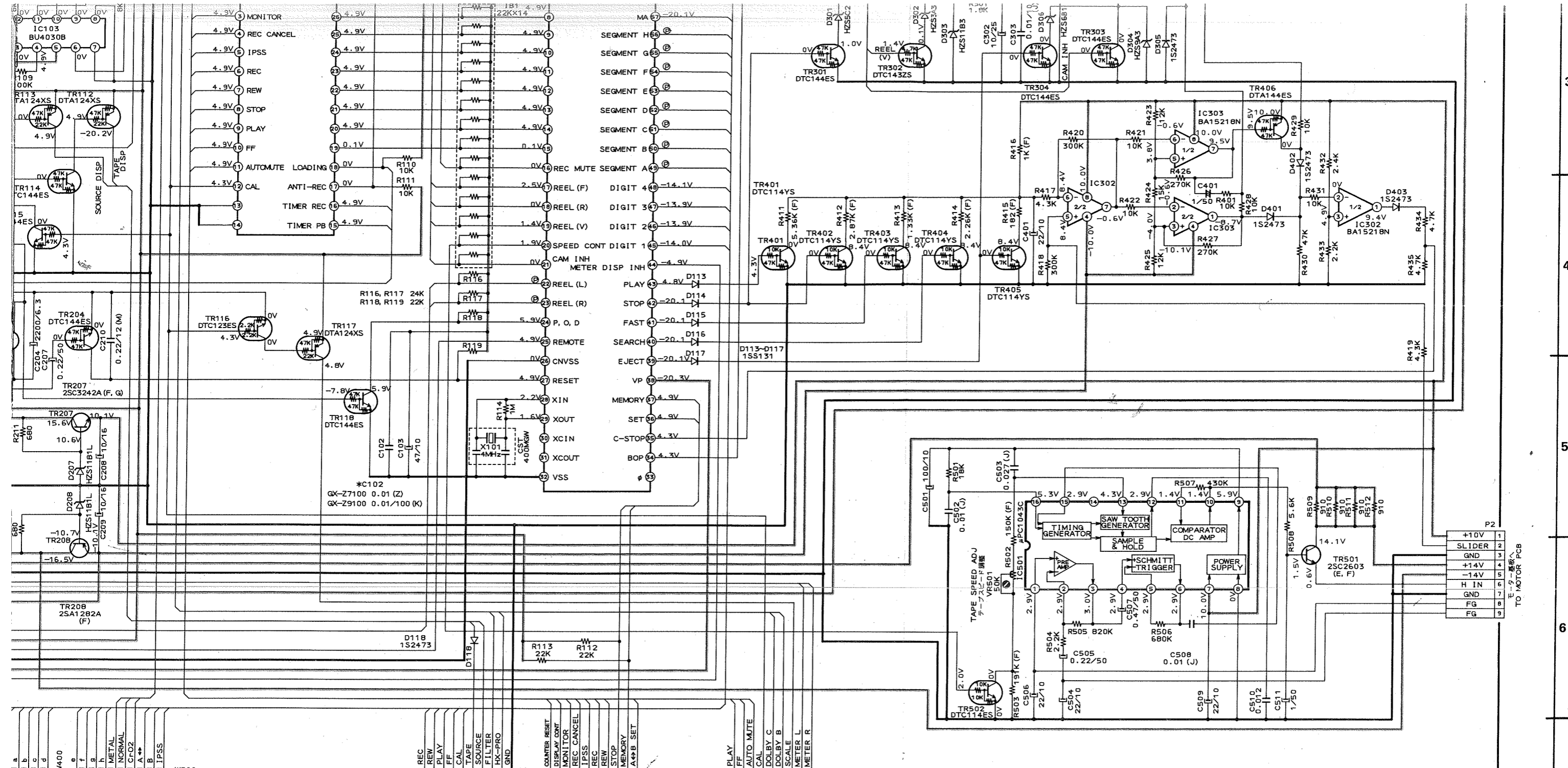


FWD	4
REV	3
L→H	2
H→L	1

E-9-7097
D/AE-92/5-REV-9
TO MOTOR BLK

+10V	1
SLIDER	2
GND	3
+14V	4
-14V	5
H IN	6
GND	7
FG	8
FG	9

E-9-7097
D/AE-92/5-REV-9
TO MOTOR PCB



シスコン基板
SYSCON PCB
△T2128A502A

オペレーション基板
TO OPERATION PCB

圧力は、メタルテープを再生した時
圧力です。
ATED VOLTAGES ARE MEASURED
VOLTAGE ON METAL TAPE PLAYING.

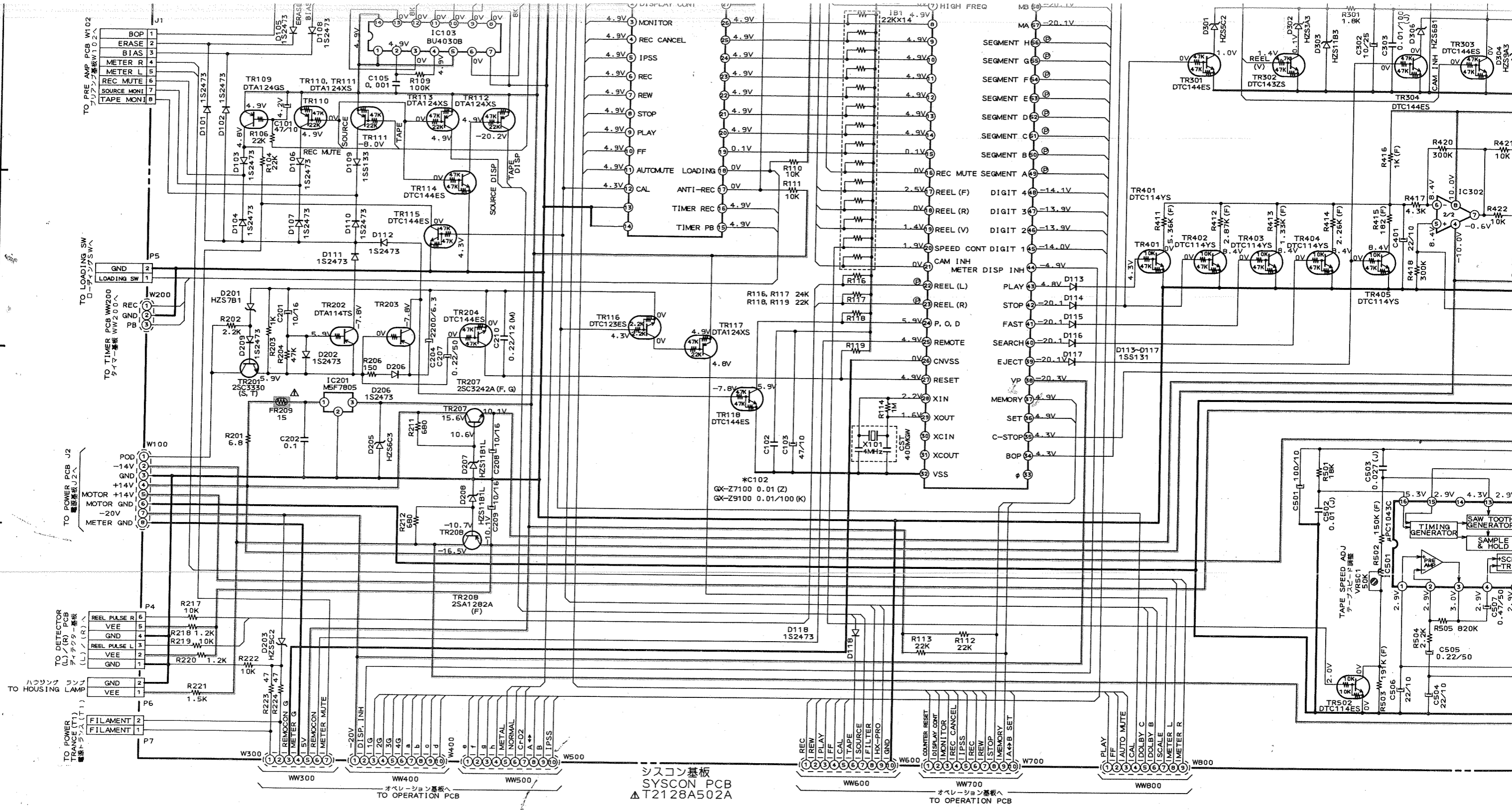
B (電源) ライン

備考
C, R の単位 (特に指定された部品以外)
抵抗 Ω 1/4W (J), (FS) 記号は不燃性部品
コンデンサ μF 50 WV (M)
各電圧は、GND間のDC電圧をデジタルボルトメーターにて
測定した値です。
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50 WV (M)

▲および■で示されている部品は安全及び、性能
維持上特に重要な部品です。交換の際は、必ず指定部
品をご使用下さい。
本回路図は基本回路図であり、改良などにより定数の
変更をすることがありますのでご了承願います。
WARNING: ▲ AND ■ INDICATE SAFETY CRITICAL
COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS
ONLY WITH MANUFACTURER'S RECOMMENDED
PARTS
AVERTISSEMENT: ▲ ET ■ ILS INDIQUENT LES
COMPOSTANTS CRITIQUES DE SÉCURITÉ,
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ
DE L'APPAREIL, NE REMPLACER QUE DES
PIÈCES RECOMMANDÉES PAR LE FABRICANT

GX-75MKII/95MKII
SYSTEM CONTROL
SCHEMATIC DIAGRAM
NO.3-2 T212805M

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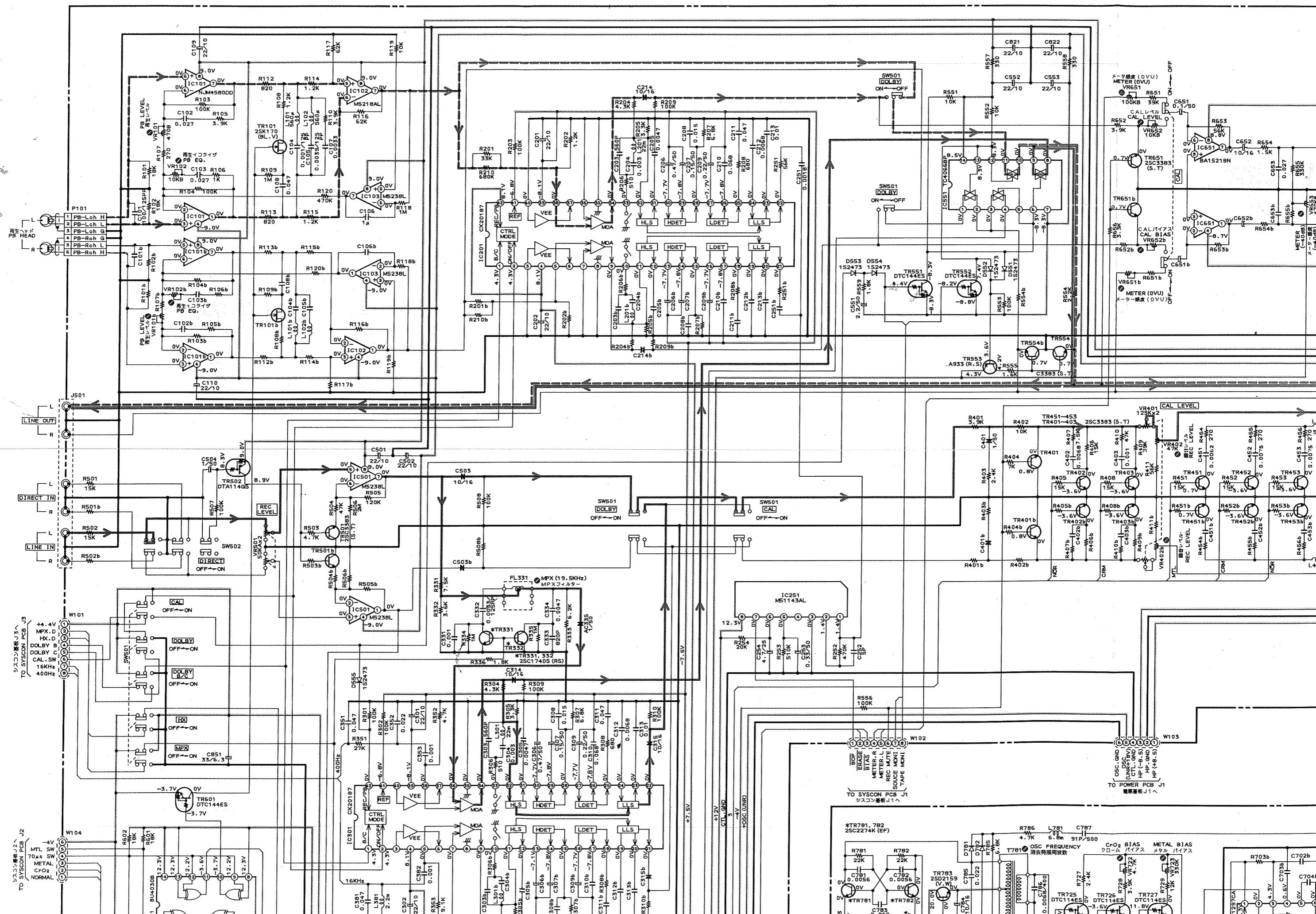
シスコン基板
SYSCON PCB
△T2128A502A

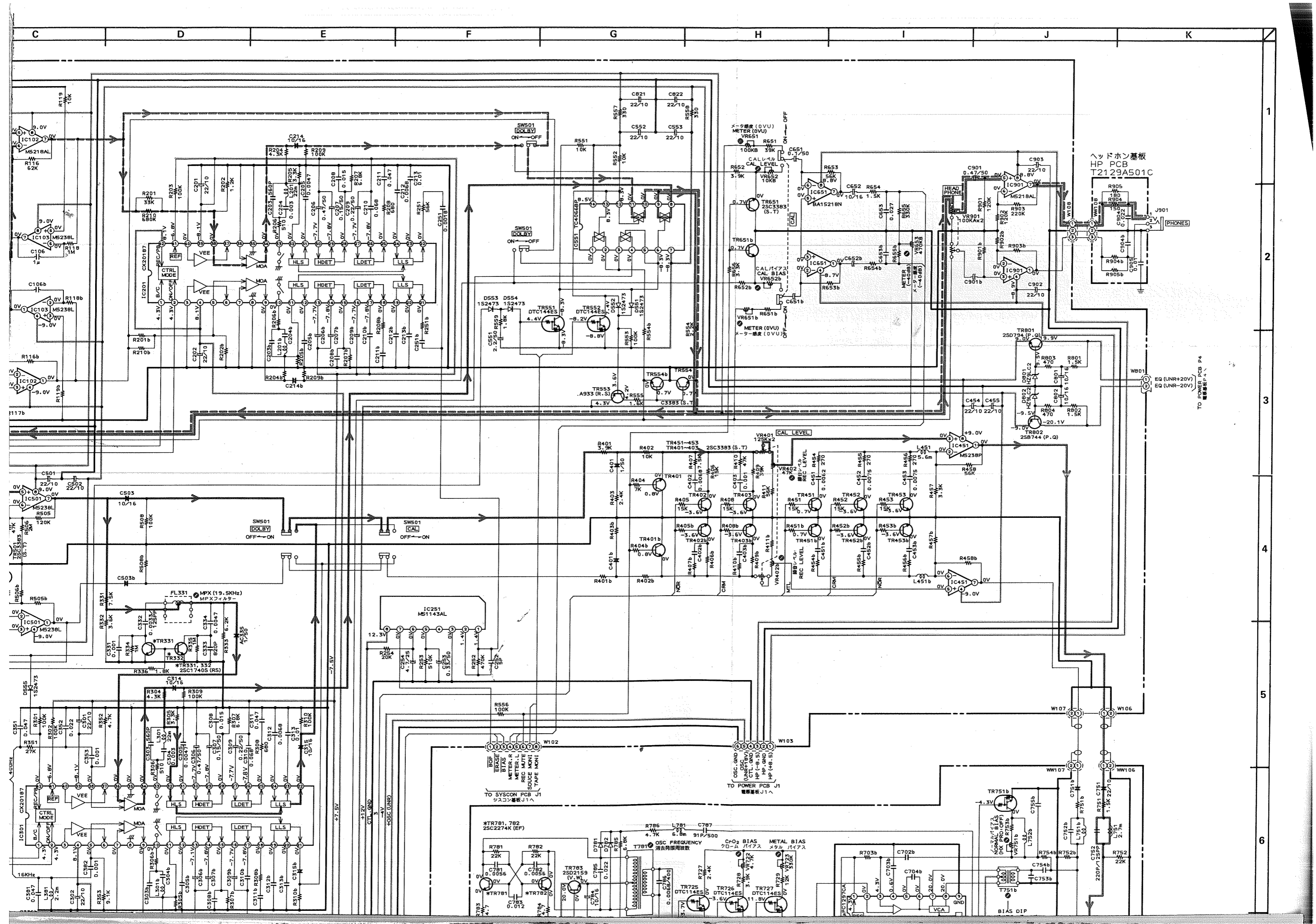
各部の電圧値は、メタルテープを再生した時の
電流電圧値です。
INDICATED VOLTAGES ARE MEASURED
BY DC VOLTAGE ON METAL TAPE PLAYING.

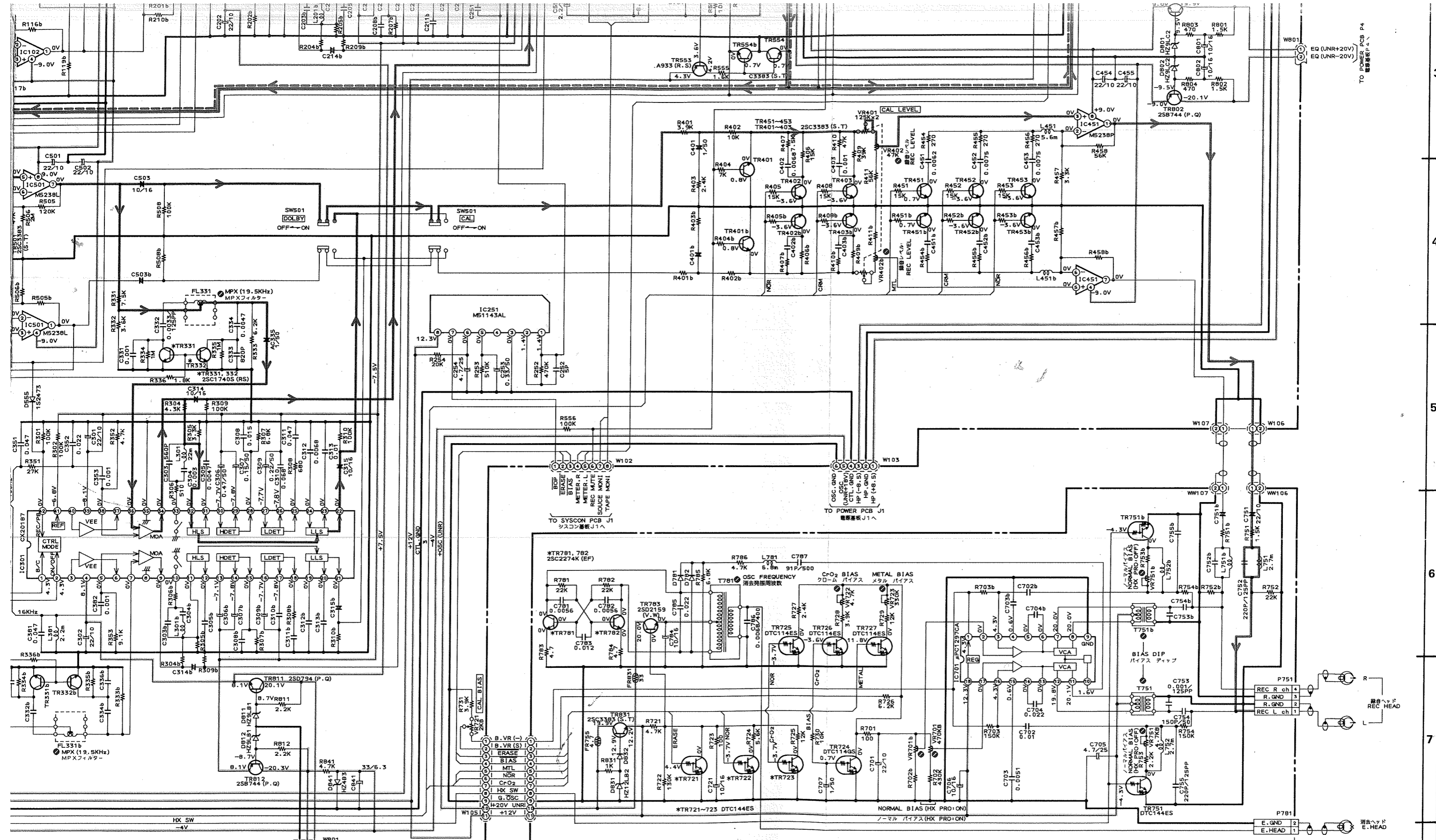
B (電源) ライン

備考
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ALL CAPACITORS IN μF 50 WV (M)

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POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ
DE L'APPAREIL, NE REMPLACER QUE DES
PIÈCES RECOMMANDÉES PAR LE FABRICANT







PRE AMP PCB T2129A501A
プリ アンプ基板

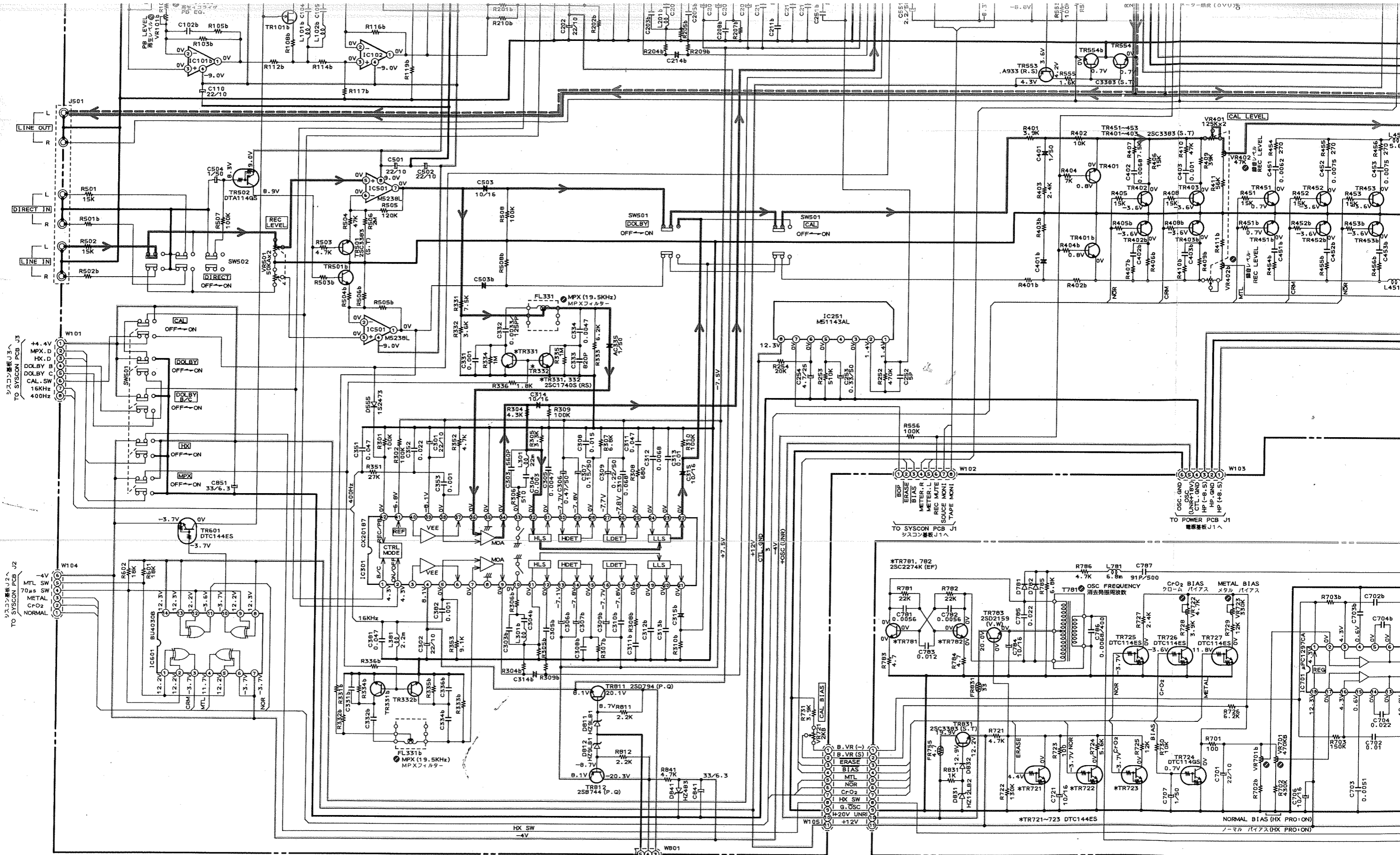
OSC PCB T2129A501B
発振基板

各部の電圧は、メタルテープを再生した時の
DC電圧値です。
INDICATED VOLTAGES ARE MEASURED BY
DC VOLTMETER ON METAL TAPE PLAYING

電源ライン B (POWER SUPPLY) LINE
録音信号ライン REC SIGNAL LINE
再生信号ライン PB SIGNAL LINE

GX-75MKII / 95MKII
PRE AMP & OSC
SCHEMATIC DIAGRAM
NO. 3-3 T212806M

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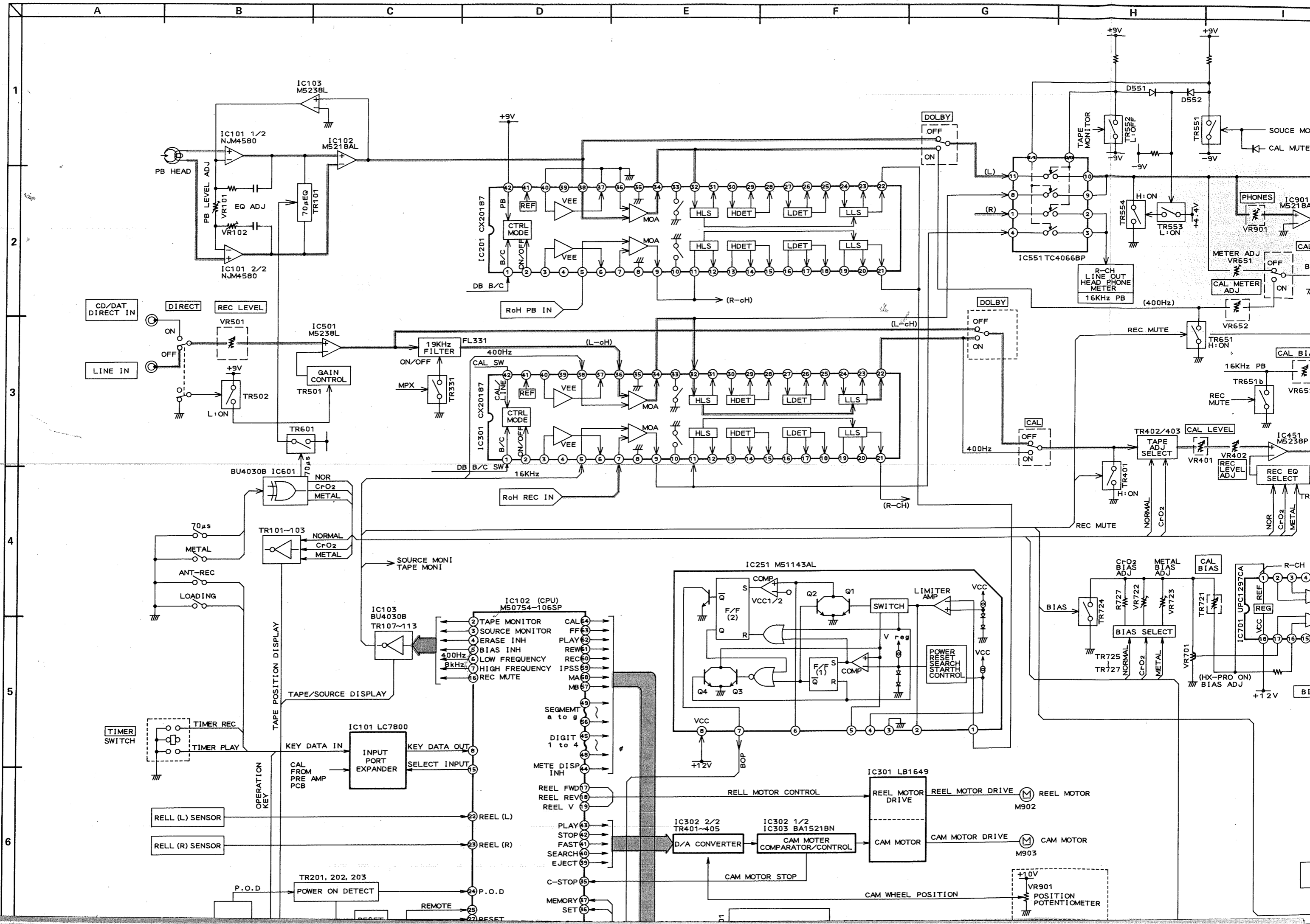
PRE AMP PCB T2129A501A
プリ アンプ基板

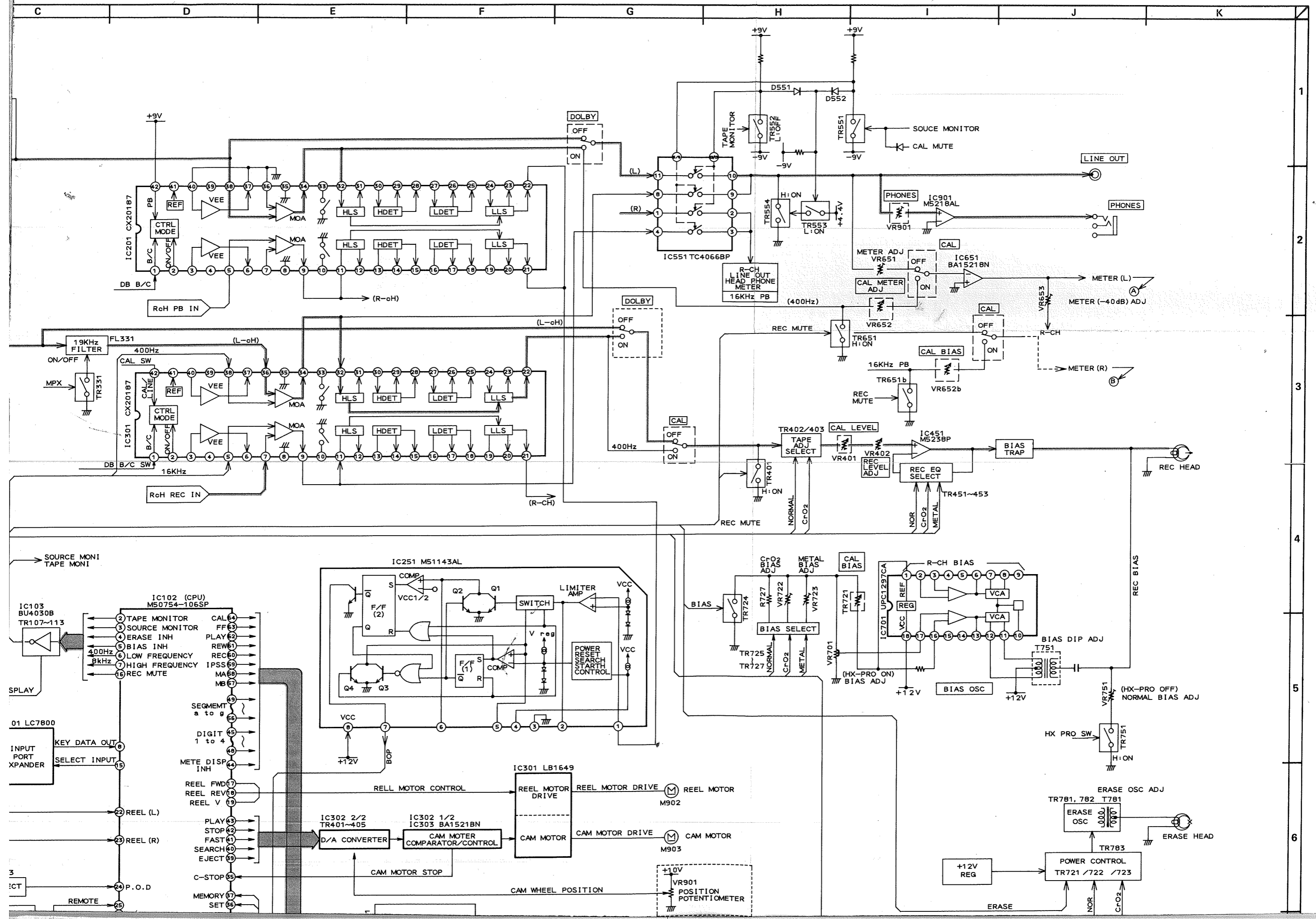
OSC PCB T2129A501B
発振基板

TO POWER PCB P4
電源基板P4へ

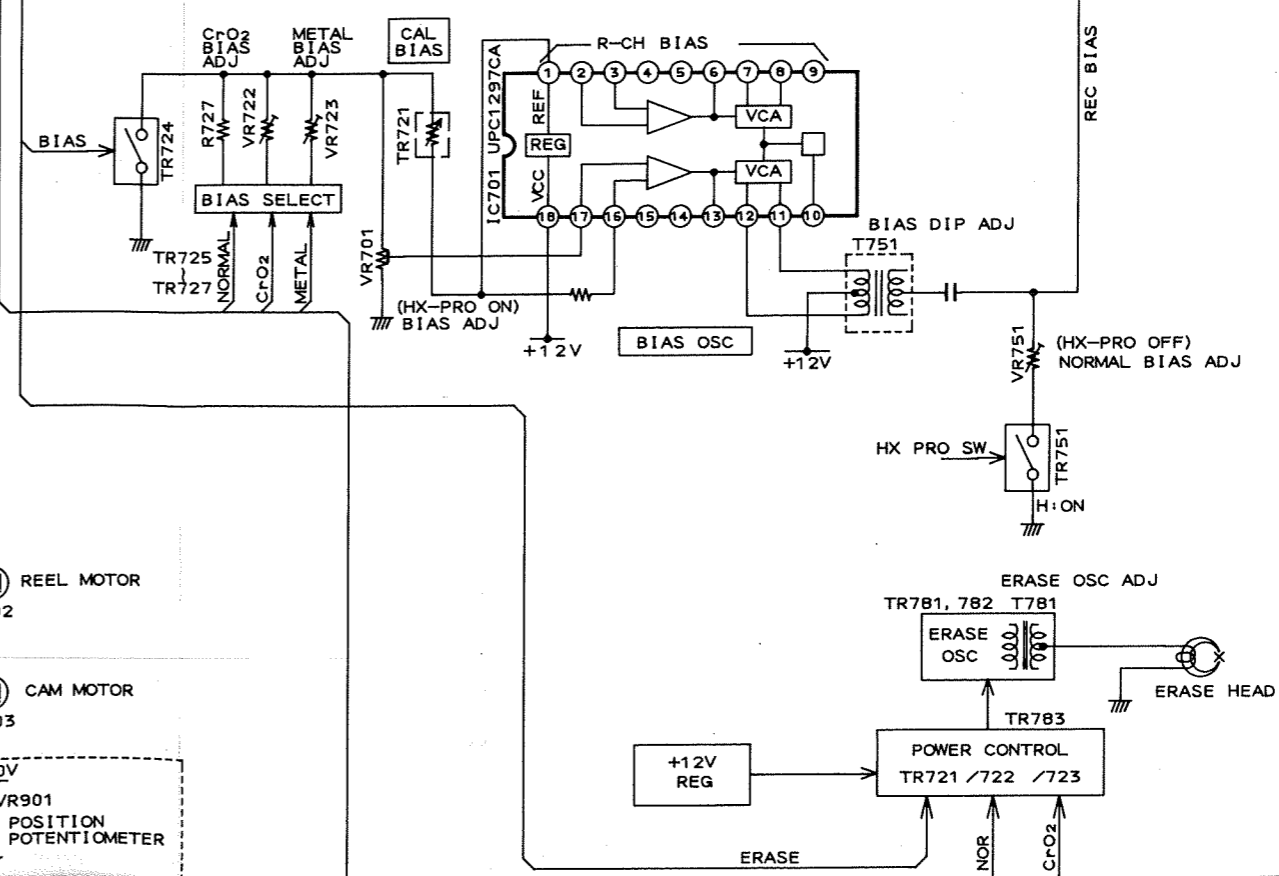
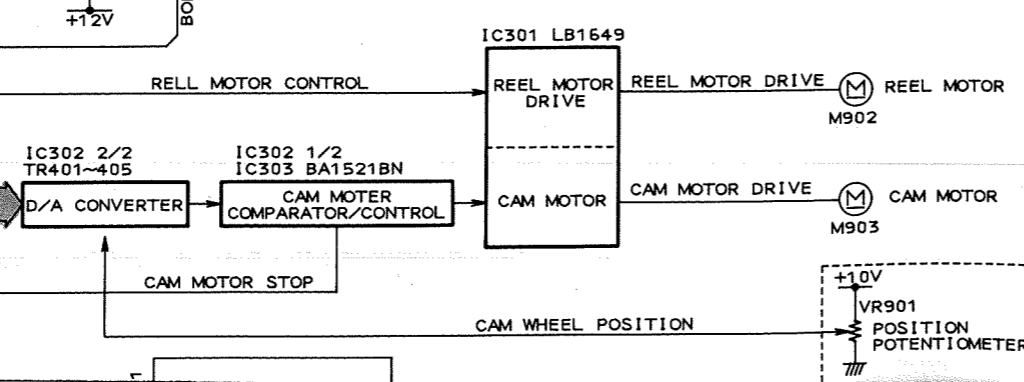
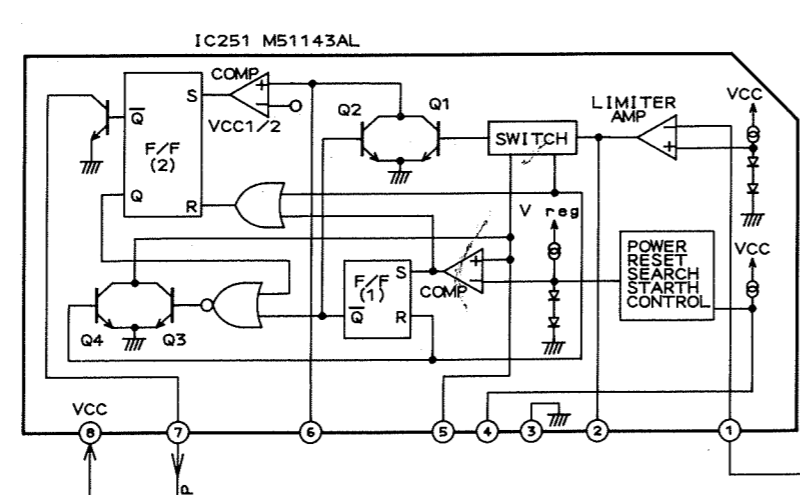
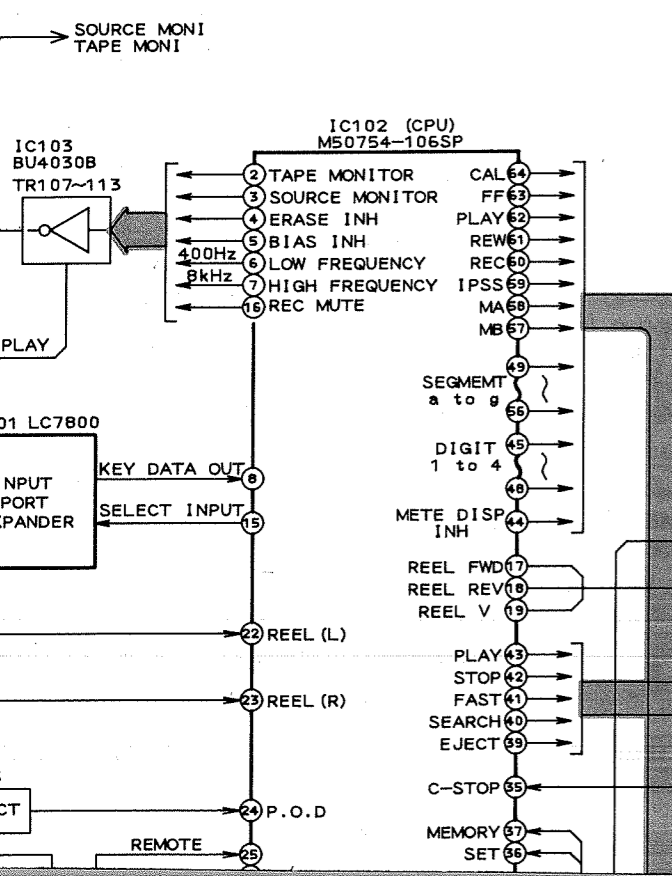
各部の電圧は、メタルテープを再生した時の
DC電圧値です。
INDICATED VOLTAGES ARE MEASURED BY
DC VOLTMETER ON METAL TAPE PLAYING

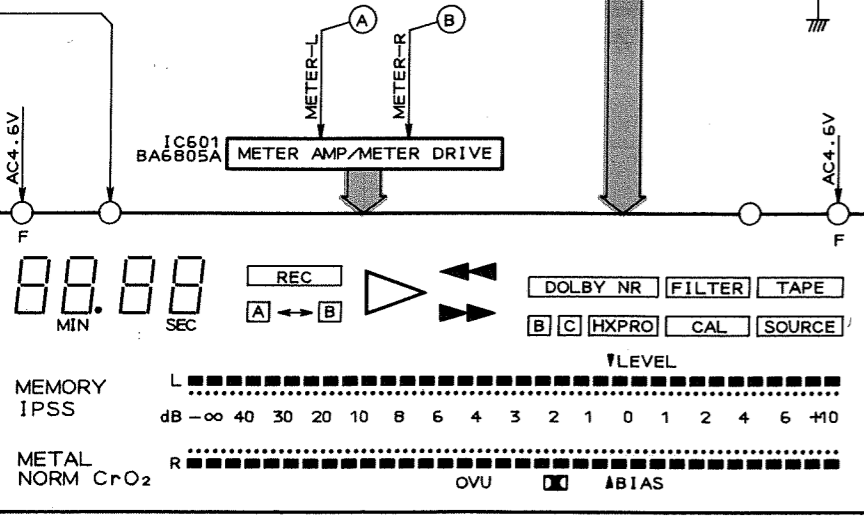
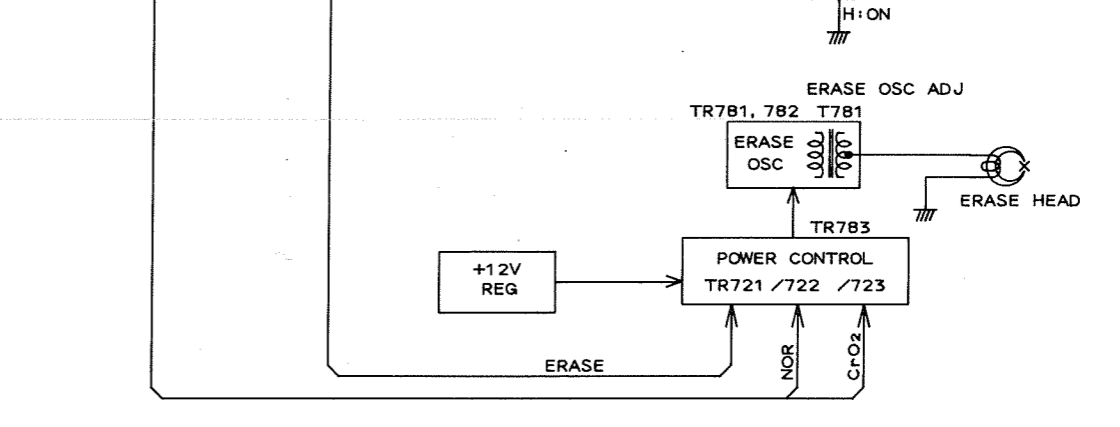
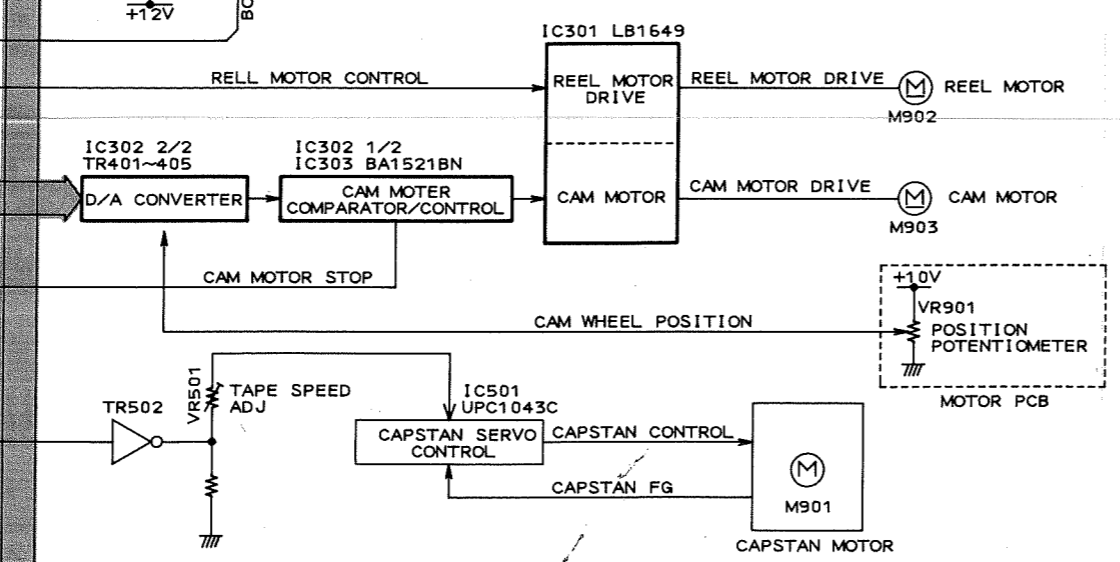
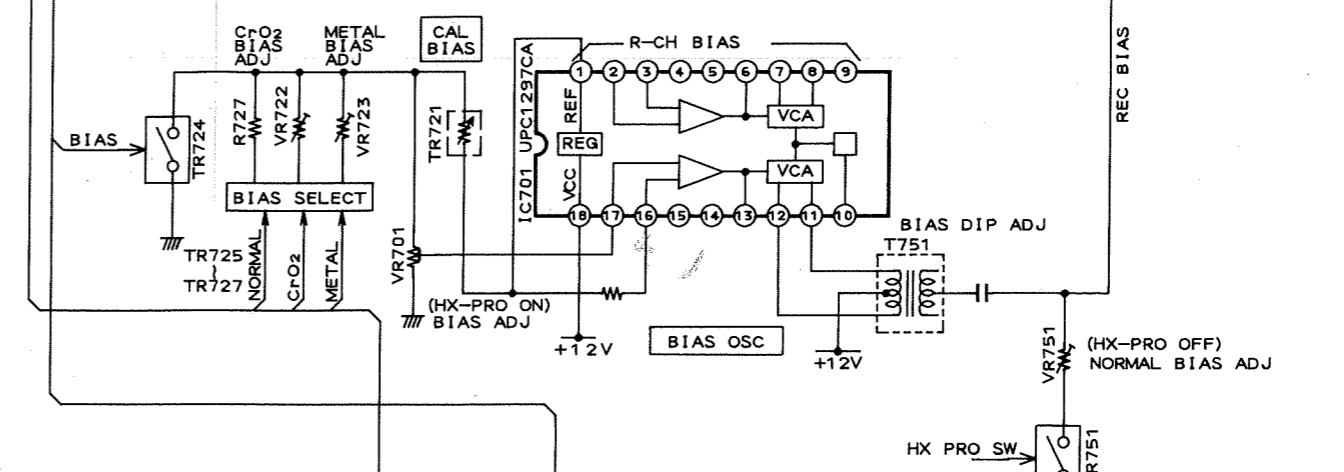
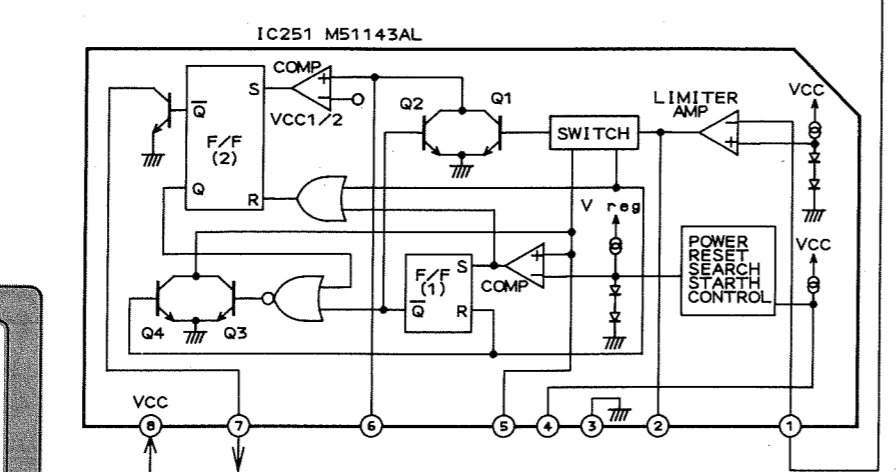
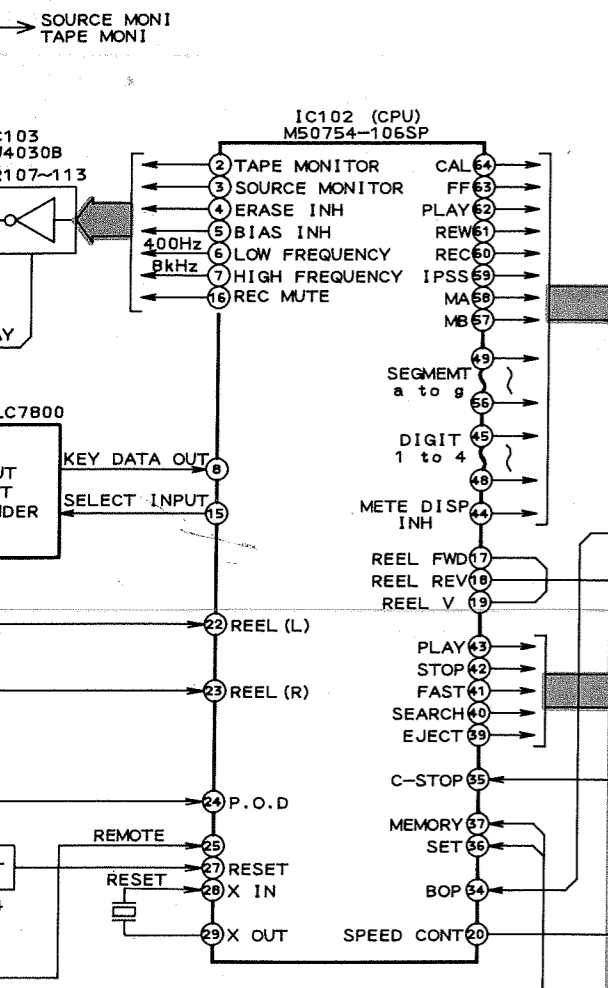
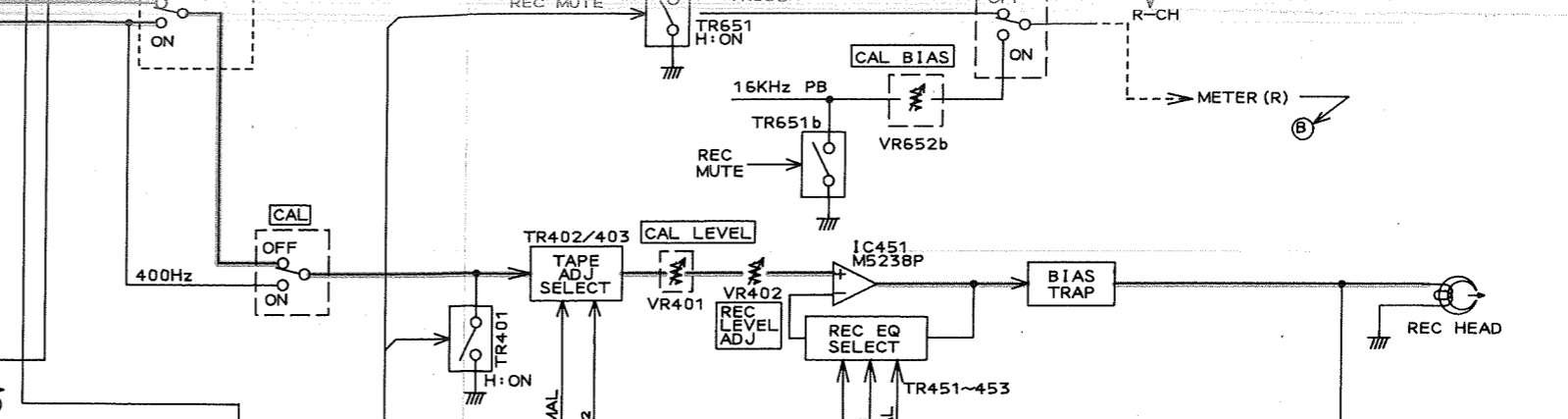
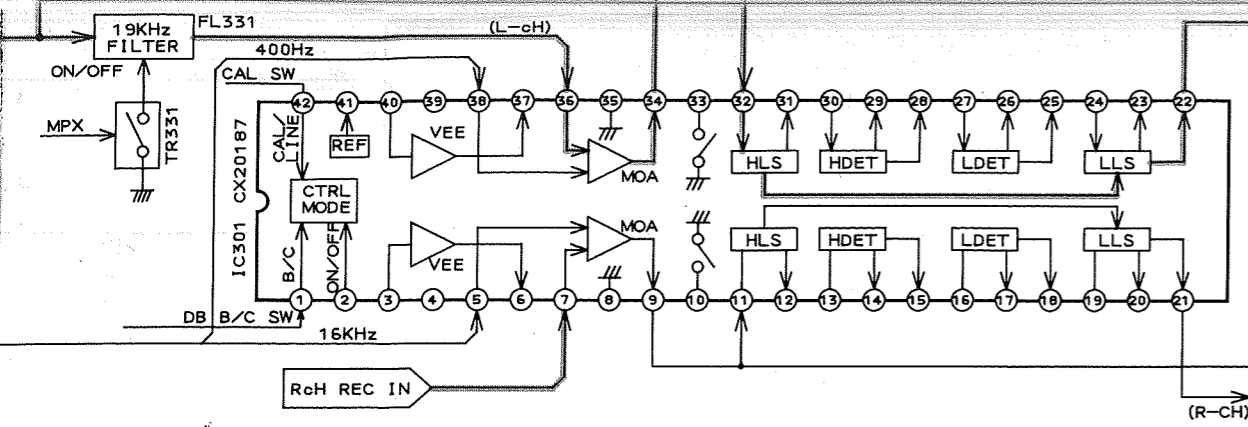
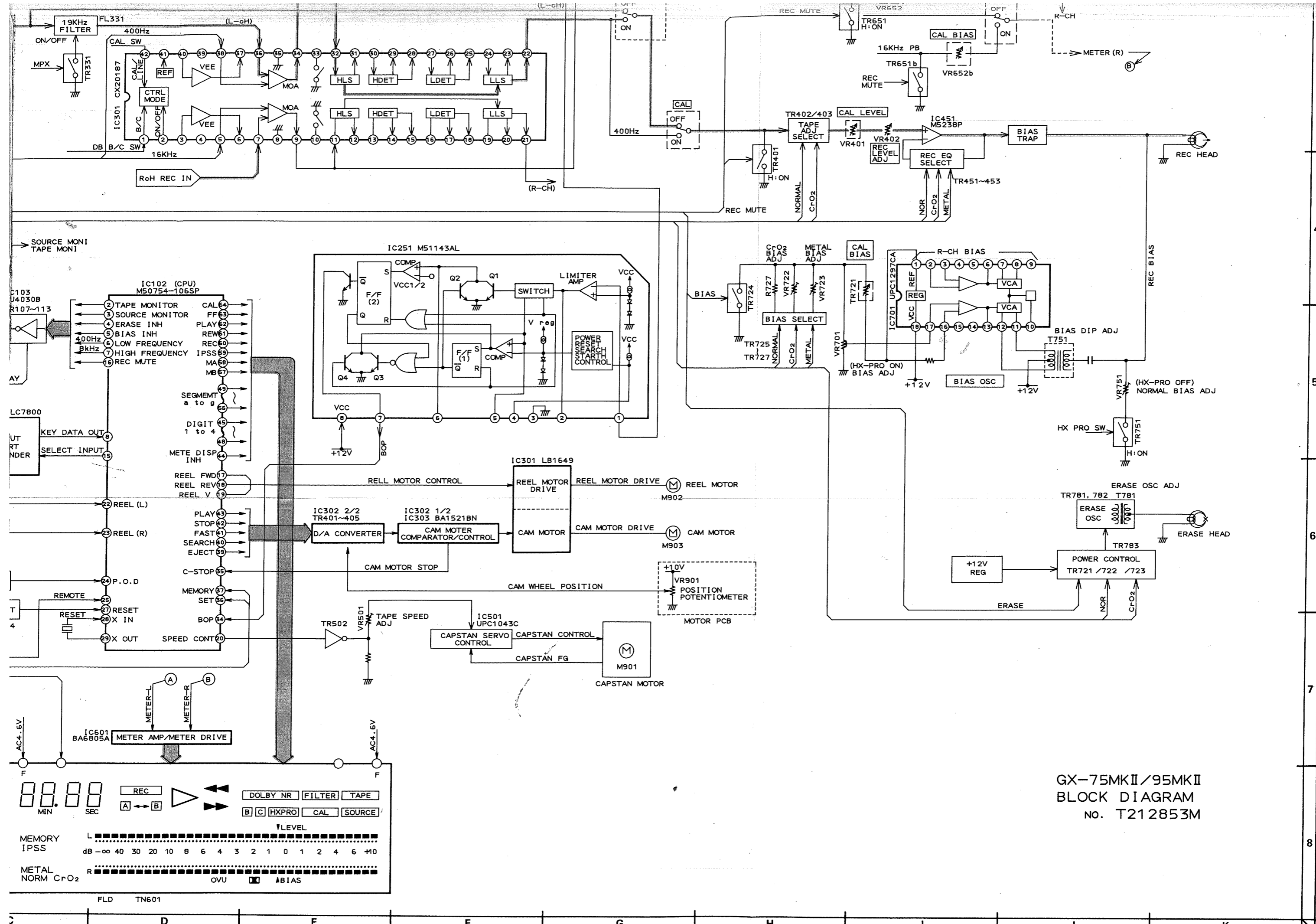
A B C D E F G H I





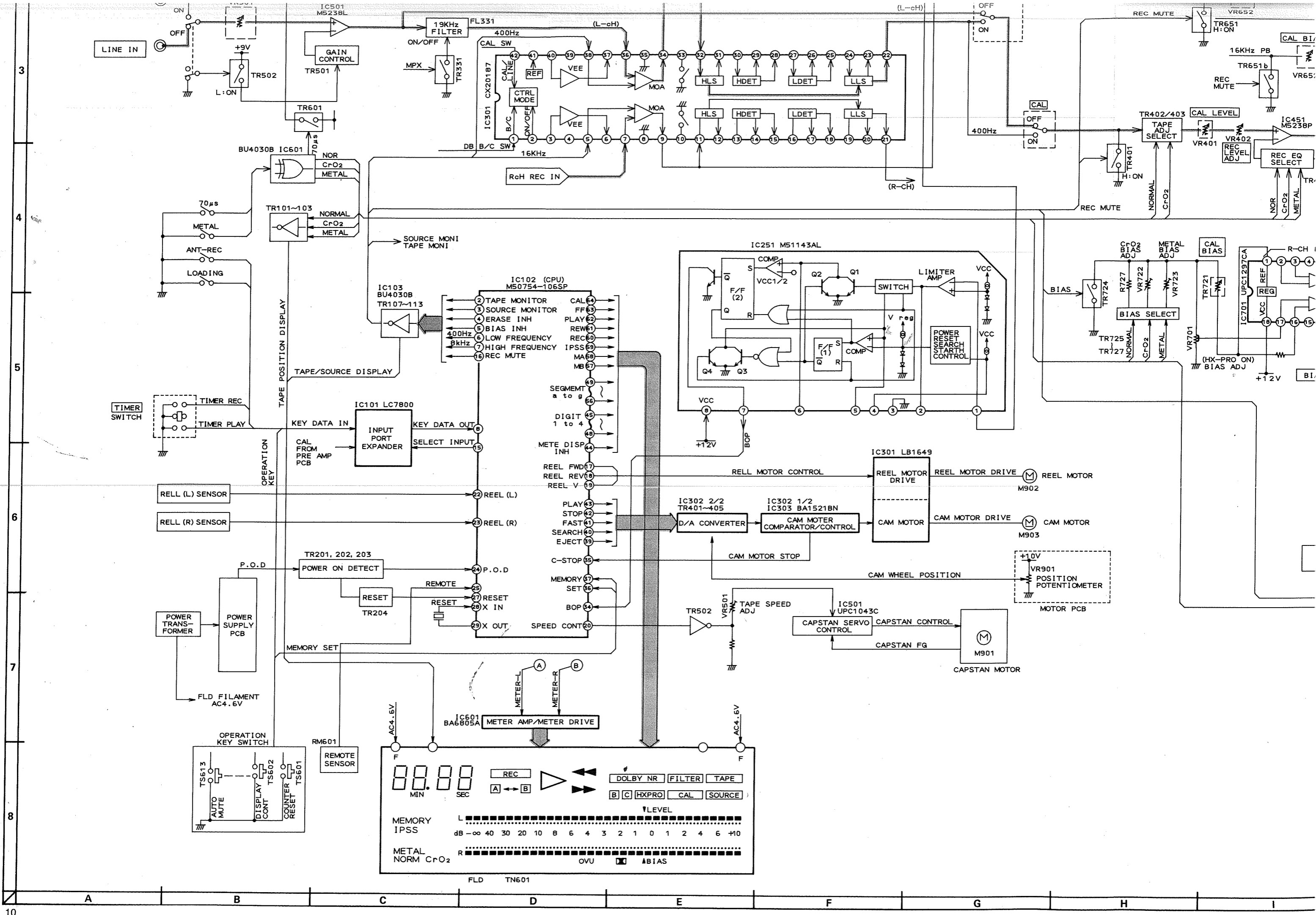
1
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GX-75MKII/95MKII
BLOCK DIAGRAM
NO. T212853M

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II. PRINCIPAL PARTS LOCATION

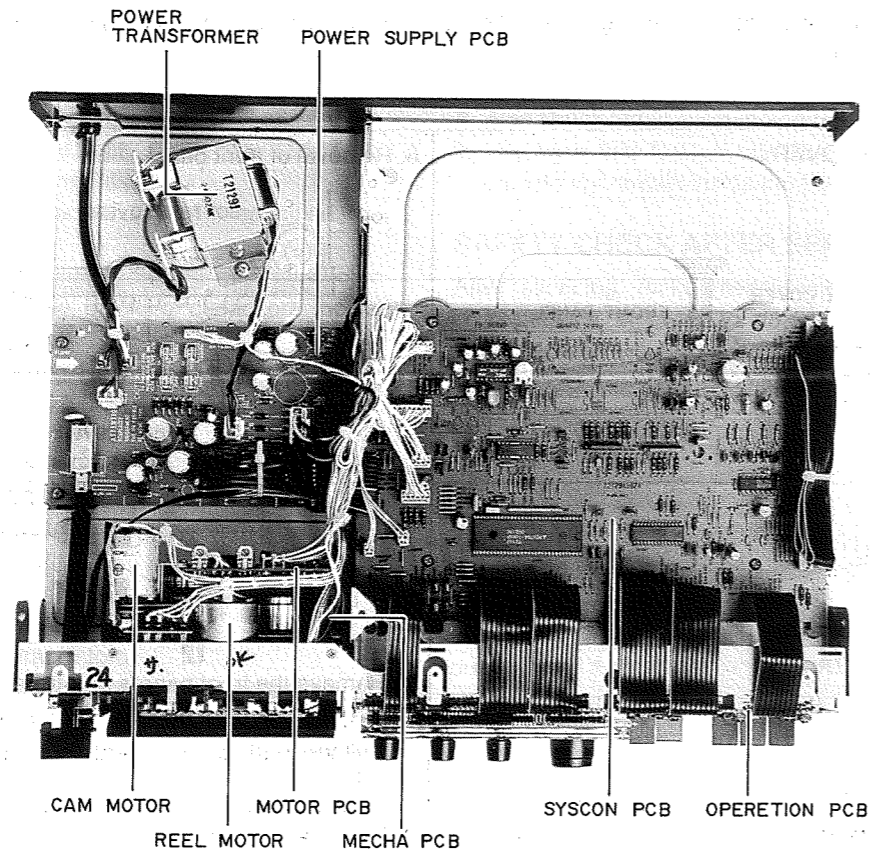


Fig. 2-1 View from upper side

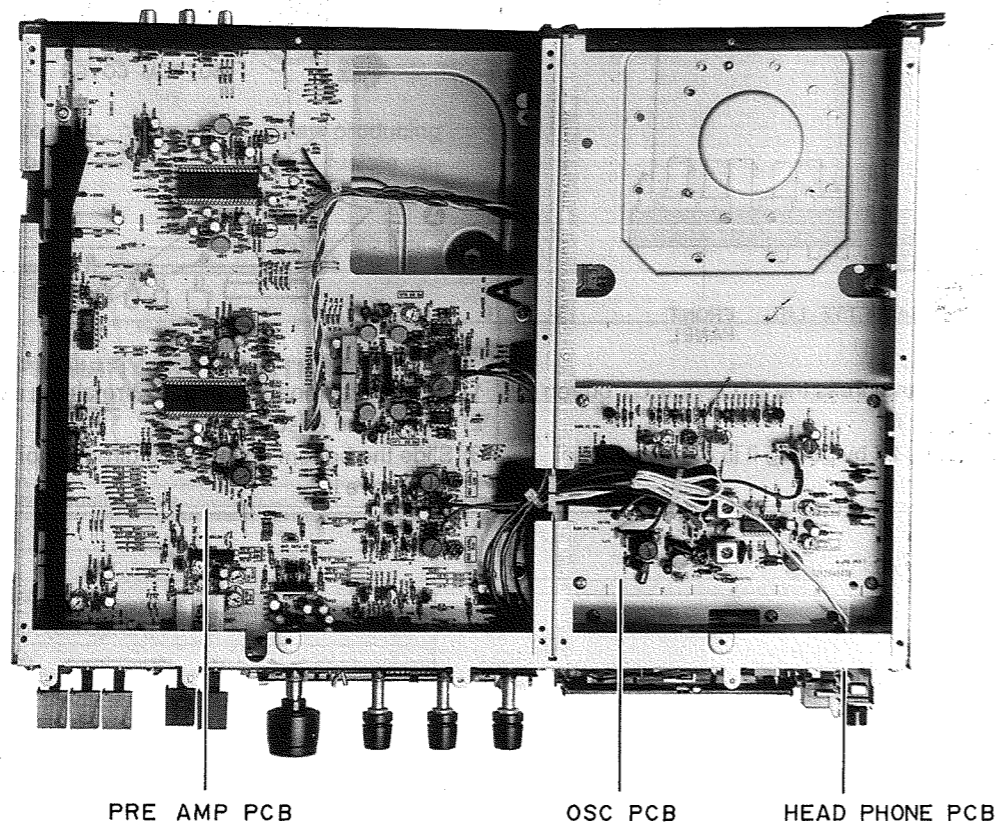


Fig. 2-2 View from bottom side

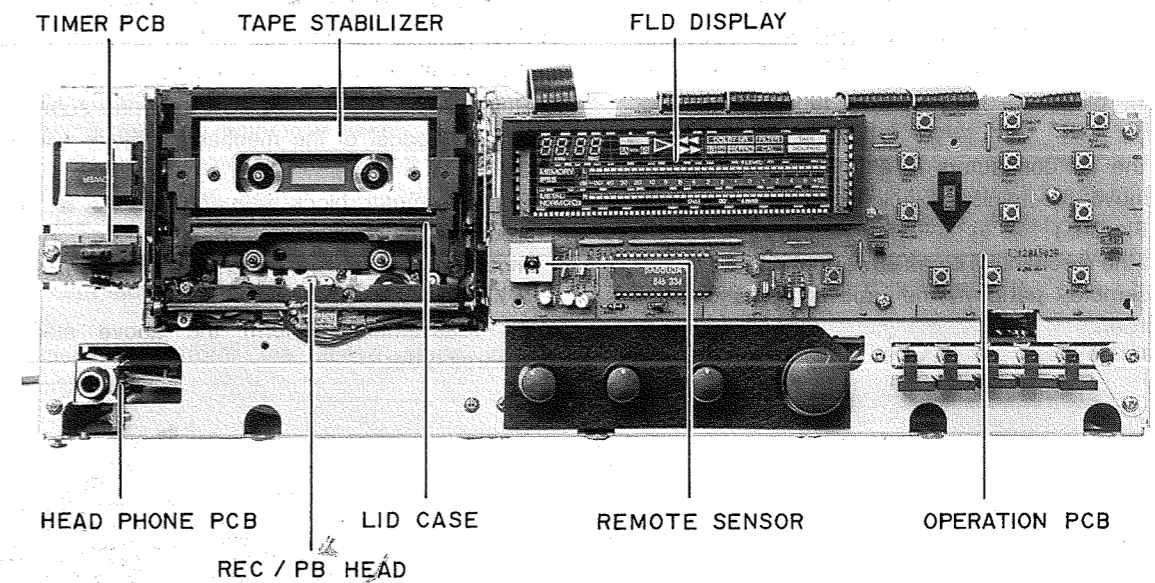


Fig. 2-3 View from front side

III. DISASSEMBLY AND REASSEMBLY OF THE MECHANISM BLOCK

3-1. REMOVING THE LID CASE AND LID DECORATION

- 1) Turn the power on and press the STOP/EJECT button. Remove the lid panel when the lid is in the eject position. Press the STOP/EJECT button a second time to close the lid. Turn the power off.
- 2) While pulling the **A** section of the LID ARM outward, press inward on the **B** section of the LID CASE to disengage the LID CASE from the collar and LID ARM (Refer to Fig. 3-1, 3-2)
- 3) Disengage the LID CASE from the MECHA BLOCK by pulling in the direction of the arrow.
- 4) Proceed in the reverse order for reassembling.
- 5) Next, while pressing up slightly on the decoration stopper on the upper right and left sides, move the lid decoration forward and down, disengaging it from the holders and guide shafts on the bottom left and right. (Refer to Fig. 3-3.)
- 6) To reassemble, perform the above steps in the reverse order.

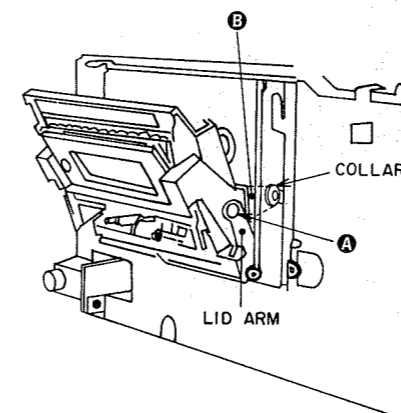


Fig. 3-1

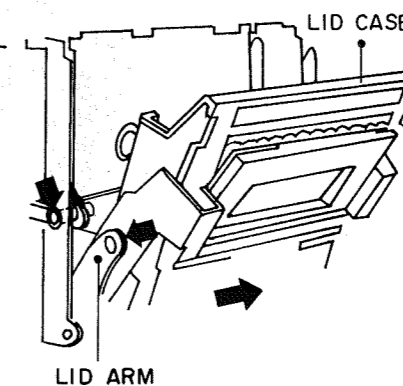


Fig. 3-2

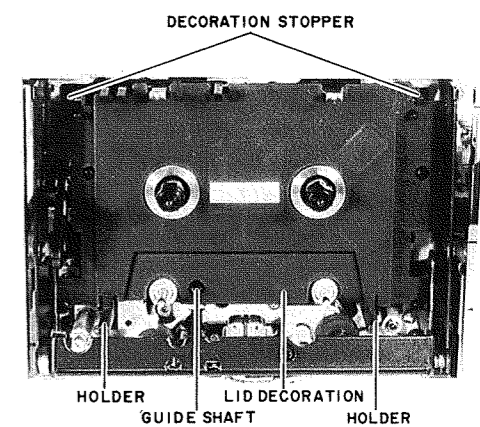


Fig. 3-3

3-2. REMOVING THE MECHANISM BLOCK

- 1) Remove connector P101 from the PRE AMP PCB and the P751 and P781 from the OSC PCB. Next, remove mechanism block securing screws **B** (Refer to Fig. 3-4.)
- 2) Remove the six connectors P1-P6 from the SYSCON PCB. Remove mechanism block securing screws **A**. (Refer to Fig. 3-5.)
- 3) Finally, lift the mechanism block upward to remove it.
- 4) To reassemble, perform the above steps in the reverse order.

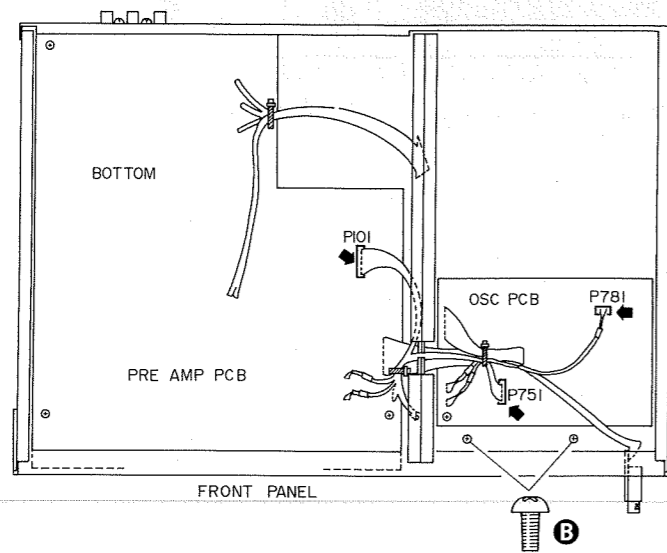


Fig. 3-4

3-3. REMOVING THE MOTOR BLOCK

- 1) First remove the lid case and lid decoration, then take the mechanism block out of the main unit.
- 2) Remove the MOTOR BLOCK securing screw from the left side panel of the mechanism block. (Refer to Fig. 3-6.)
- 3) Remove motor block securing screws **1**, **2** and **3** from the mechanism block's front side. Remove the motor block from the mechanism block (Refer to Fig. 3-7.)
- 4) To reassemble, perform the above steps in the reverse order.

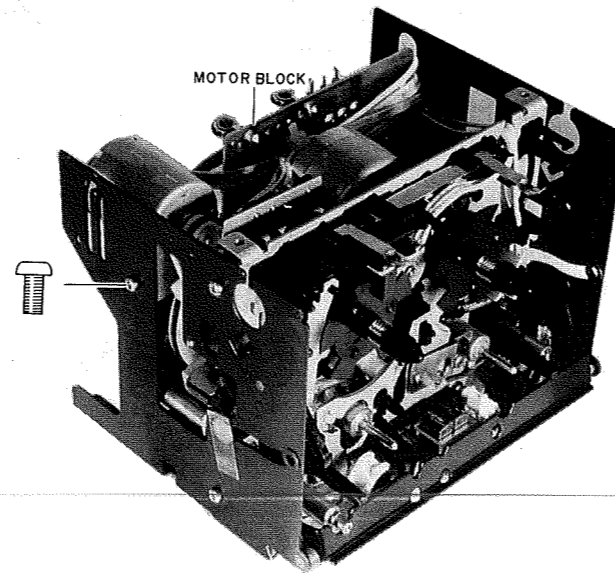


Fig. 3-6

3-4. REMOVING THE CAM MOTOR AND CAM BELT

- 1) Remove the motor block from the mechanism block. (See section 3-3, "Removing the motor block.")
- 2) Disconnect the two cam motor lead wires.
- 3) Remove cam motor base screws **1** and **2** from the motor block. (Refer to Fig. 3-8.)
- 4) Remove the cam belt and operation pulley from the cam motor block which has just been removed.
- 5) Remove cam motor securing screws **3** and **4**. (Refer to Fig. 3-9.)
- 6) To reassemble, perform the above steps in the reverse order.

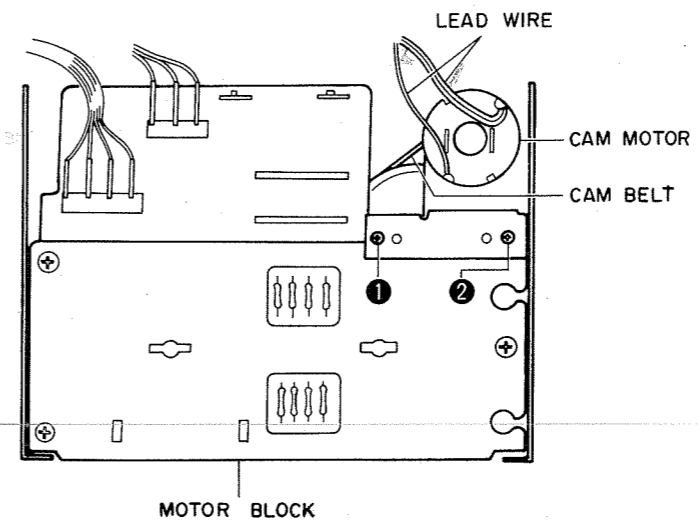


Fig. 3-8

3-5. REPLACING THE HALL ELEMENT

- 1) Remove the motor block from the mechanism block. (See section 3-4, "Removing the motor block.")
- 2) Remove motor PCB block securing screws **1**, **2** and **3** and take out the motor PCB block. (Refer to Fig. 3-10.)
- 3) Remove the solder from the Hall element. Remove the Hall element from the motor circuit board.
- 4) When attaching a replacement, connect the protruding portion of the Hall element to the circuit board. (Refer to Fig. 3-11.)
- 5) To reassemble, perform the above steps in the reverse order.

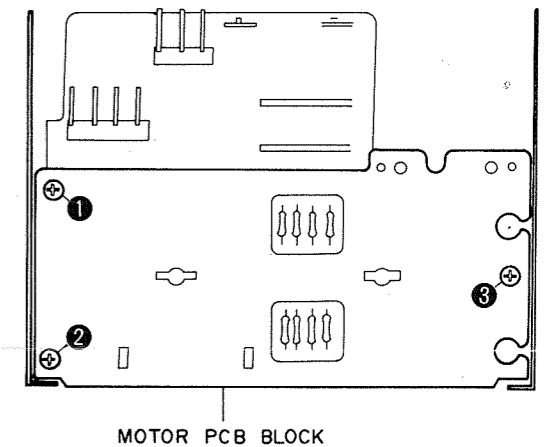


Fig. 3-10

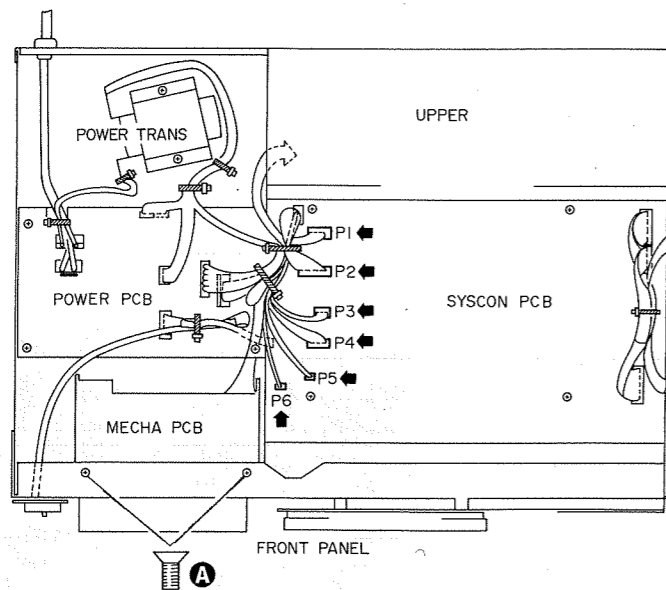


Fig. 3-5

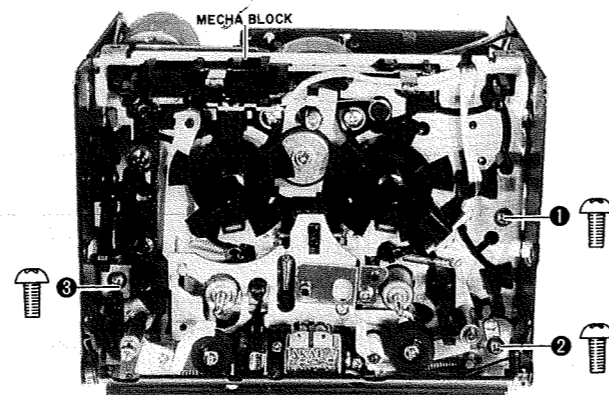


Fig. 3-7

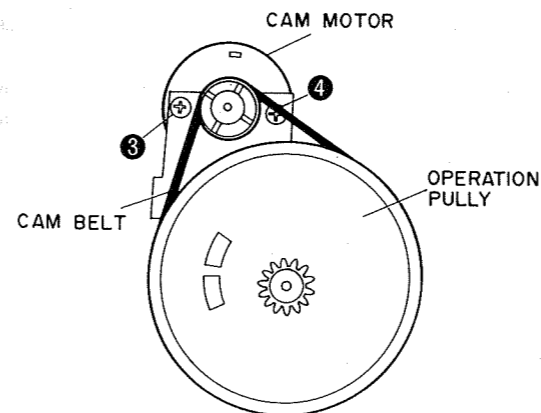


Fig. 3-9

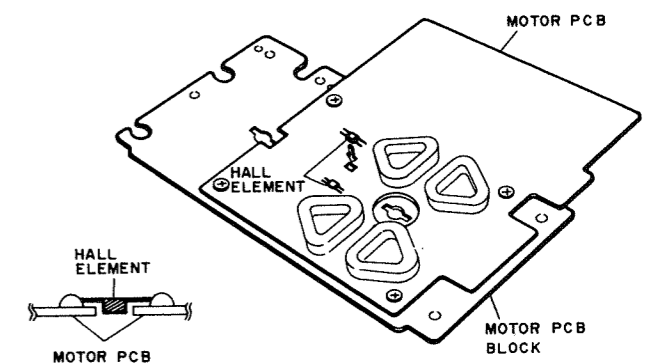


Fig. 3-11

3-6. REMOVING THE CAM WHEEL AND POSITION POTENTIAL VOLUME

- 1) Remove the motor block from the mechanism block. (See section 3-3, "Removing the motor block.") Also remove the motor PCB, the capstan belt and the fly-wheel.
- 2) Remove the stopper ring from the capstan holder. Pull off the cam wheel. (Refer to Fig. 3-12.)

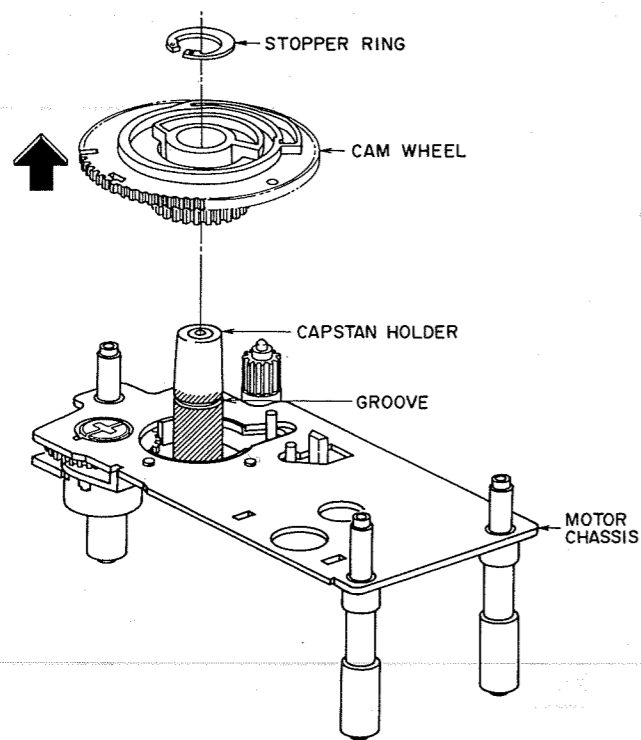


Fig. 3-12

- 3) Remove capstan holder securing screws ①, ②, ③ and ④. Remove the capstan holder. (Refer to Fig. 3-13.)
- 4) Remove the potentiometer gear. Unscrew the position potential volume securing nut. (Refer to Fig. 3-14.)
- 5) To reassemble, follow the directions in section 3-7, "Reassembling the cam wheel and position potential volume," below.

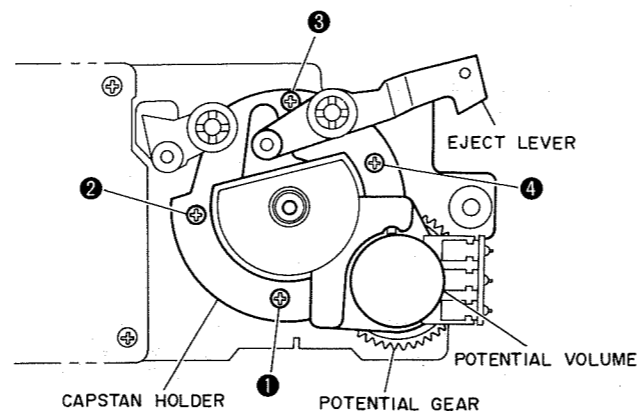


Fig. 3-13

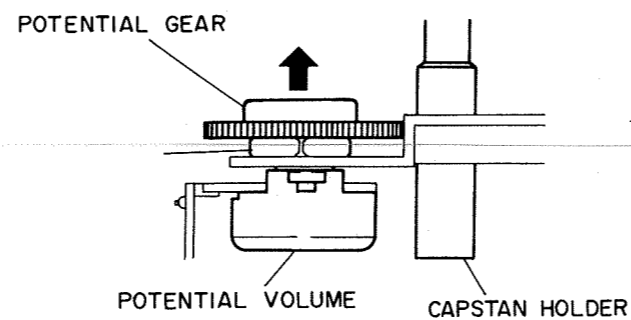


Fig. 3-14

3-7. REASSEMBLING THE CAM WHEEL AND POSITION POTENTIAL VOLUME

- 1) Attach the position potential volume to the capstan holder and attach the potentiometer gear. Attach the capstan holder to the motor block and tighten the securing screws. Align the mark on the potentiometer gear with the groove in the motor chassis as shown in Fig. 3-15.
- 2) Slide the cam wheel onto the capstan holder and position it so that the eject lever fits into the slot in the cam wheel and the center of the mark on the cam wheel aligns with the center of the chassis groove.

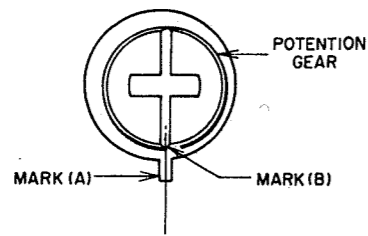


Fig. 3-15

- Take care not to scratch the gear. When replacing with a new part, apply molybdenum grease to the portion of the capstan holder indicated by the slanted lines and the cam portion of the cam wheel before assembling.
- 3) After confirming that the positions of the marks on the potentiometer gear and cam wheel are aligned with the groove in the motor chassis, attach the stopper ring.

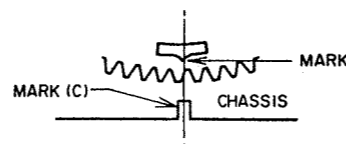


Fig. 3-16

IV. MECHANICAL ADJUSTMENT

4-1. POTENTIAL VOLUME PRESET VOLTAGE ADJUSTMENT (Refer to Fig. 4-1, 4-2)

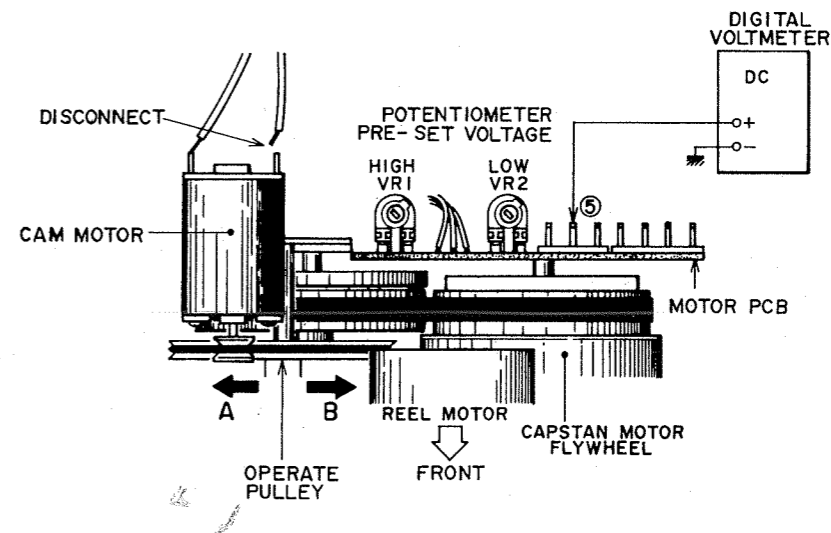


Fig. 4-1

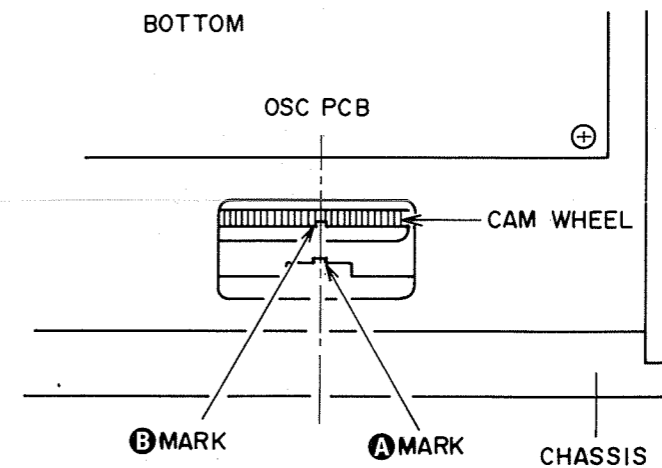


Fig. 4-2

1) LOW VOLTAGE ADJUSTMENT

- a. With power OFF, remove the connecting cord of the CAM MOTOR and turn the OPERATE PULLEY fully with your fingers in the A direction. (EJECT DIRECTION)
- b. Connect the digital voltmeter as shown in Fig. 4-1.
- c. With power ON, adjust VR2 so that the voltage reading on the Digital DC Voltmeter is 1.13V.

2) HIGH VOLTAGE ADJUSTMENT

- a. With power OFF, turn the OPERATE PULLEY fully with your fingers in B direction. (PLAY DIRECTION)
- b. With power ON, adjust VR1 so that the voltage reading on the Digital DC Voltmeter is 9.08V.

3) Repeat step 1) and 2).

- 4) With power OFF, connect the connecting cord of the CAM MOTOR.

5) Remove the Cassette lid, Front panel and Bottom cover.

(Refer to I. DISASSEMBLY)

6) a. Turn the power ON

- b. Adjust VR1 slightly so that the center of marker ③ coincides with the center of marker ① in the STOP mode as shown on Fig. 4-2. (The marker ③ on the CAM WHEEL can be seen clearly by lighting it from the back.)
- c. Set the IPLS switch to ON.

- d. Turn the reel with fingers in STOP mode to check that the brake works sufficiently. When the brake acts normally, the take-up reel does not turn clockwise and the supply reel does not rotate counter clockwise.

4-2. PINCH ROLLER PRESSURE MEASUREMENT (Refer to Fig. 4-3)

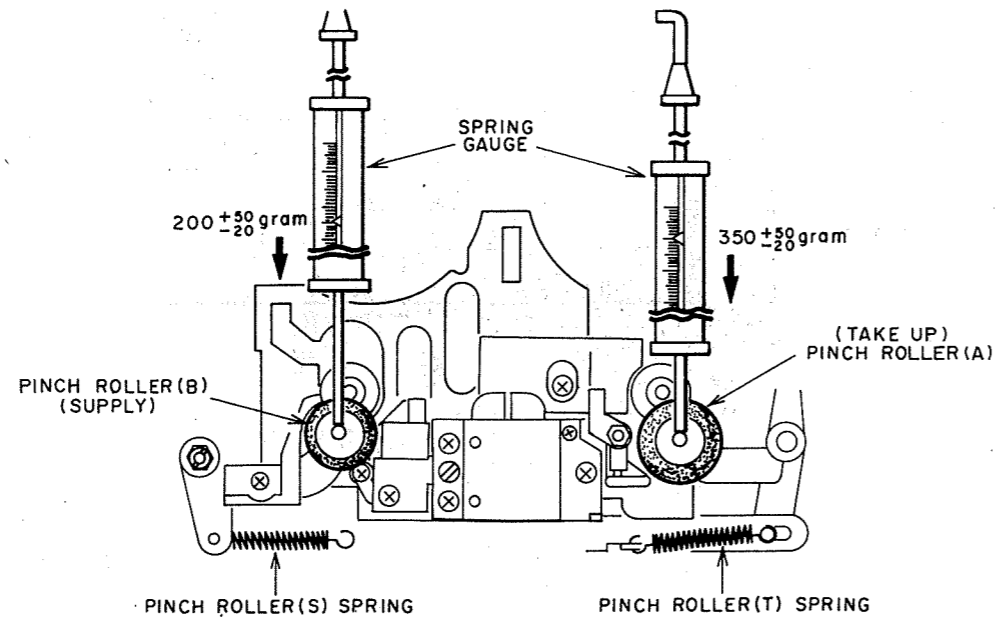


Fig. 4-3

Engage the PLAY mode. Push the pinch roller shaft down with the spring gauge, and push the pinch roller 1 to 2mm away from the capstan and release slowly. Read the spring gauge at the moment the pinch roller touches the capstan and begins to rotate.

Specified pressure : 350⁺⁵⁰/₋₂₀ gram (Take up)
200⁺⁵⁰/₋₂₀ gram (Supply)

If there is no measurement obtained, replace the pinch roller spring.

Note: Remove the cassette lid and cassette holder first. (Refer to Assembly and disassembly of the mechanism)

4-3. WINDING TORQUE MEASUREMENT IN EACH MODE (Refer to Fig. 4-4)

Insert a cassette torque meter (AJ-751179) and measure in each mode. For Fast Forward and Rewind, measure at the end of the tape when the tape has stopped running.

PLAY mode

Take up Torque : 40⁺²⁰/₋₁₀ g-cm
Back tension torque : 10⁺¹⁰/₋₀ g-cm

FAST FORWARD, REWIND mode

Take up Torque : 120⁺¹³⁰/₋₅₀ g-cm

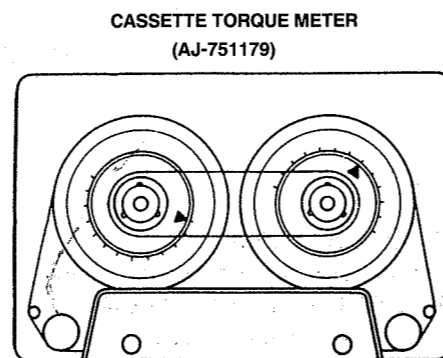


Fig. 4-4

V. HEAD ADJUSTMENT

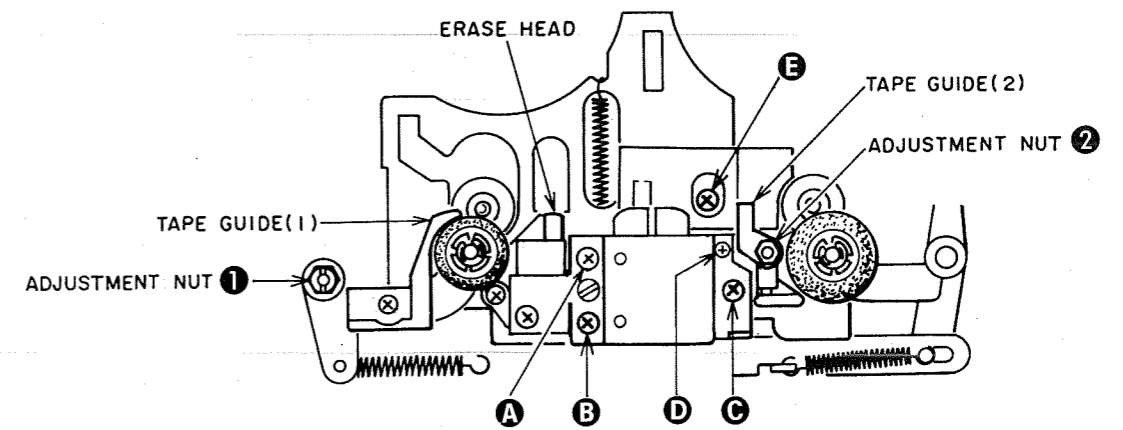


Fig. 5-1

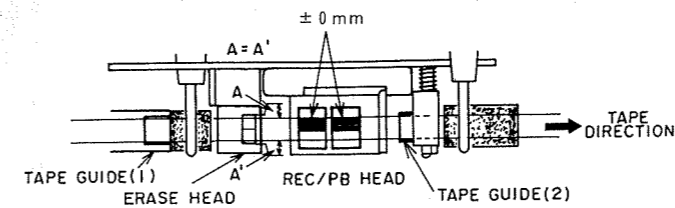


Fig. 5-2

Cassette Head Projection Gauge.

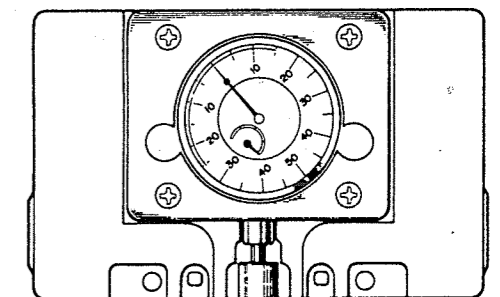


Fig. 5-3

5-1. TAPE GUIDE HEIGHT ADJUSTMENT

- 1) Load the mirror cassette tape (AJ-751178) and engage the PLAY mode.
- 2) Adjust the tape guide (2) so that the tape runs smoothly and is not hitched by the tape guide. For adjustment, use the adjustment nut (2).
- 3) After adjustment, paint-lock the adjustment nut (2).

Caution:

The tape guide adjustment nut (1) is important as it fixes the position of the tape guide (1). This nut should not be moved as it has been pre-adjusted at the factory.

5-2. REC/PB HEAD HEIGHT ADJUSTMENT

- 1) Load the mirror cassette tape and engage the PLAY mode.
- 2) Turn the A, B and C screws alternately so that the upper edge of the REC/PB head core and the tape edge is in alignment.

NOTE: Always turn the three screws in the same direction and to the same degree. If they are not turned in the same manner, re-adjustment of head azimuth or tape transportation may be necessary.

- 3) Play back the head height adjustment tape (4 Track 1,000Hz) (AT-750775), and fine-adjust screws A, B and C so that the largest output is obtained for both channels.

5-3. REC/PB HEAD AZIMUTH ALIGNMENT ADJUSTMENT

- 1) Play back a 10kHz (-15dB), Head Azimuth Adjustment Tape (AT-750778) and adjust the (E) adjustment screw until the output level from both LINE OUT channels is maximum. At the same time make sure that output phase is equal for both channels.
- 2) While recording a 12kHz (-26dBs) signal from an audio signal generator, monitor it and adjust the recording head azimuth adjustment screw (D) so that the play back level is maximum. At the same time make sure that output phase is equal for both channels.
- 3) After adjustment, paint-lock the adjustment screw.

NOTES: 1. Be sure to clean the heads prior to head adjustment.
2. Be careful not to use a magnetized driver or other magnetized tools in the vicinity of the heads.
3. Be sure to demagnetize the heads with a Head Demagnetizer before and after head adjustment.

5-4. TAPE TRANSPORTATION SYSTEM ADJUSTMENT (Refer to Fig. 5-1, 5-2)

If there is level fluctuation or poor frequency response caused by faulty tape transportation use the following procedure to adjust the tape transportation system.

- 1) Load the mirror cassette tape (AJ-751178) and engage the PLAY mode.
- 2) Check to make sure that the tape is running smoothly and that it does not curl or wrinkle at the tape guide. If the tape is not running smoothly, make adjustment using the tape guide height adjustment screw (2).
- 3) Play back a 10KHz (-15dB) Head Azimuth Adjustment tape (AT-750778) and adjust the **C** adjustment screw so that the output from both the Right and Left LINE OUT channels is at the maximum level. At the same time make sure that output phase is equal for both channels.
- 4) After adjustment, paint-lock the adjustment screws.
- 5) After finishing the above adjustment refer to the "VI Electrical adjustment" section and perform electrical adjustment to the playback and recording circuits.

Caution:

The tape guide (1) screw is an important adjustment screw that fixes the position of tape transport. This screw should not be moved as it has been pre-adjusted at the factory.

5-5. ADJUSTMENT WHEN REC/PB HEAD IS REPLACED (Refer to Fig. 5-1, 5-2, 5-3)

Before proceeding with the following adjustment, the lid decoration must be removed. (Refer to section 3-1, "REMOVING THE LID CASE AND LID DECORATION".)

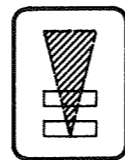
- 1) Attach the REC/PB head to the head mount with the **A**, **B** and **C** screws.
Turn each screw the same amount of times (4 or 5 times) so that the screws are tightened temporarily.
- 2) Load the mirror cassette tape (AJ-751178) and engage the play mode.
- 3) Turn the **A**, **B** and **C** screws alternately so that the upper edge of the REC/PB head core and the tape edge is in alignment.

NOTE: Always turn the three screws in the same direction and to the same degree. If they are not turned in the same manner, re-adjustment of head azimuth or tape transportation may be necessary.

- 4) Perform the following procedure to adjust the angle of the REC/PB head against the tape surface.
 - a. Using your finger, lightly rub the top of the REC/PB head (where it makes contact with the tape) until it is cloudy.
 - b. Play back the tape for a few seconds.
 - c. Eject the cassette tape and check the shape of the mark made by the tape.



CORRECT



INCORRECT



INCORRECT

Fig. 5-4

- A long rectangular mark indicates good tape transportation.
 - If the tape leaves an inverted triangular mark, adjust the angle of the head by turning the **B** screw in the counterclockwise direction. Repeat the adjustment until a long rectangular mark is left by the tape.
 - If the tape leaves a triangular mark, adjust the angle of the head by turning the **B** screw in the clockwise direction. Repeat the adjustment until a long rectangular mark is left by the tape.
- 5) Insert the cassette head projection gauge (AJ-751180) and engage the PLAY mode. Loosen the **B** screw and adjust the position of the REC/PB head so that it is 3.2 ± 0.1 mm from the tape. Tighten the **B** screw and measure the position.
Repeat the adjustment until the correct measurement is obtained.
 - 6) Play back a 1000Hz (0dB) 4 track head height adjustment tape (AT-750775).
Adjust the **A** screw so that the output from both the Left and Right LINE OUT channels is at the maximum level. After adjusting the **A** screw, make the exact same adjustments to the **B** and **C** screws.

NOTE: always turn the screws in the same direction and to the same degree. If they are not turned in the same manner, re-adjustment of head azimuth or tape transportation may be necessary.

- 7) Play back a 10kHz (-15dB) Head Azimuth Adjustment tape (AT-750778) and adjust the **C** adjustment screw so that the output from both the Left and Right LINE OUT channels is at the maximum level.
At the same time make sure that output phase is equal for both channels.
- 8) Repeat adjustments 6) and 7) a few times and set at the best point.
- 9) Once adjustments 1) to 8) have been made, refer to the "VI electrical adjustment" section and perform electrical adjustment to the playback and recording circuits.
When adjusting the recording circuit's normal position frequency response, record a 12kHz (-26dB) signal from an audio signal generator. While recording the signal, monitor it and adjust the recording head azimuth with the **D** screw so that the playback level is maximum. At the same time make sure that the Left and Right levels are the same.
- 10) After finishing the above adjustment, paint-lock the **A**, **B**, **C**, **D**, and **E** screws.

Caution:

All adjustment screws other than screws **A** to **E** have been pre-adjusted and should not be moved.

VI. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

Ref.No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20x03STL CMT
4	ZS-536488	BID20x08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

6. MAIN PC BOARD

Ref.No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A]: AAL (U.S.A) [S]: SAA (Australia)
 [B]: BEAB (England) [U]: U/T (Universal Area)
 [C]: CSA (Canada)
 [E]: CEE (Europe) [V]: VDE (W. Germany)
 [J]: JPN (Japan) [Y]: Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

WARNING

△ (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

△ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.