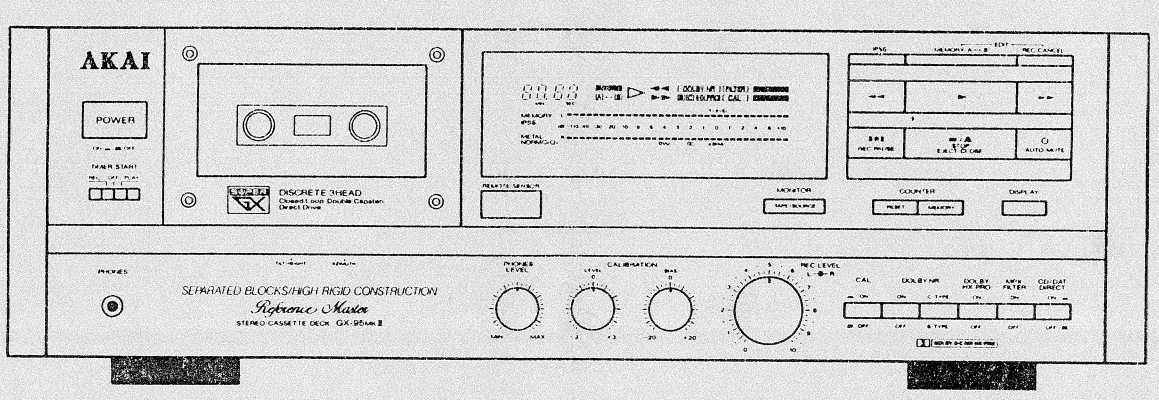
AKAI SERVICE MANUAL



MODEL GX-95MKII

STEREO CASSETTE DECK

MODEL GX-75MKII
MODEL GX-95MKII

SPECIFICATIONS

Track System	4 track 2 channel Stereo
Heads	Erase Head x1 LC-OFC SGX Head for recording x1 LC-OFC SGX Head for playback x1
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
Wow & Flutter	0.04% DIN 0.025% WRMS
Tape winding time	85 sec. (C-60)
Frequency Response	
Normal	15Hz to 19,000Hz ± 3dB
CrO_2	15Hz to 20,000Hz ± 3dB
Metal	15Hz to 22,000Hz ± 3dB
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
T, H, D	0.6%
Input Sensitivity/ Impedance	
Line	70mV/47kΩ
CD/DAT Direct IN	240mV/47kΩ
Output Level/Impedance	
Line	388mV/200Ω
Headphones	1.3mW (8Ω)
Power Requirements	220V, 50Hz for Europe exept UK 240V, 50Hz for UK (GX-95MKII ONLY)
Dimensions	GX-95MKII : 460(W)×155(H)×350(D)mm GX-75MKII : 425(W)×154(H)×350(D)mm
Weight	GX-95MKII :10.1kg GX-75MKII :9.0kg

Standard accessories

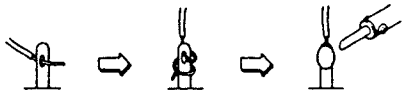
Connection cords	RCA pin cord ×2
Remote control unit	×1
Dry batteries	R6 (AA) size ×2

* 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.

★ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts indentified by the ⚠ (*) symbol are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.
The resistance measurement should be done between accessible exposed metalparts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.

★INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

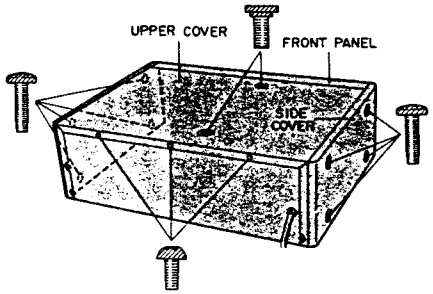
Primary destinations of units are indicated with the following alphabetic

Symbols	Primary Destinations
A	USA
B	UK
C	Canada
E	Europe(exceptUK)
J	Japan
S	Australia
V	W.Germany only
U	Universal Area
Y*	Custom version

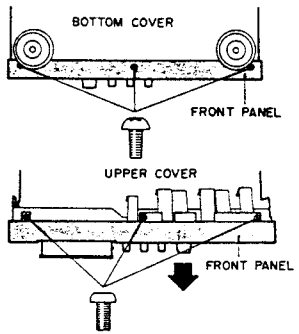
I. DISASSEMBLY

In case of trouble, etc, necessitating dismantling, please dismantle in the order shown in the photographs.
Reassemble in reverse order.

1. Removal of UPPER COVER

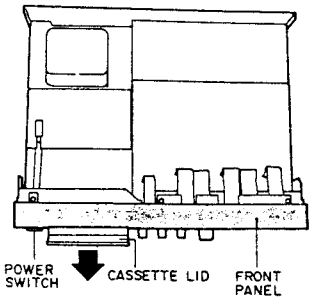


3. Removal of front panel



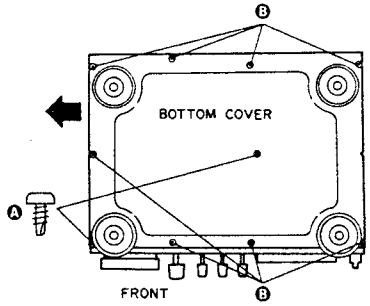
1) Remove the front panel's 3 bottom retaining screws.
2) Remove the front panel's 3 upper retaining screws.
3) Pull the front panel forward in the direction of the arrow (⇩).

2. Removal of cassette lid



1) Turn the power ON and press the STOP/EJECT button to open the cassette lid.
2) Remove the cassette lid by pulling it in the direction of the arrow (⇧)

4. Removal of bottom cover



1) Remove the bottom cover's Ⓐ retaining screw.
2) Loosen the Ⓑ screw.
3) Slide the bottom cover in the direction of the arrow (⇦) to remove it.

II. PRINCIPAL PARTS LOCATION

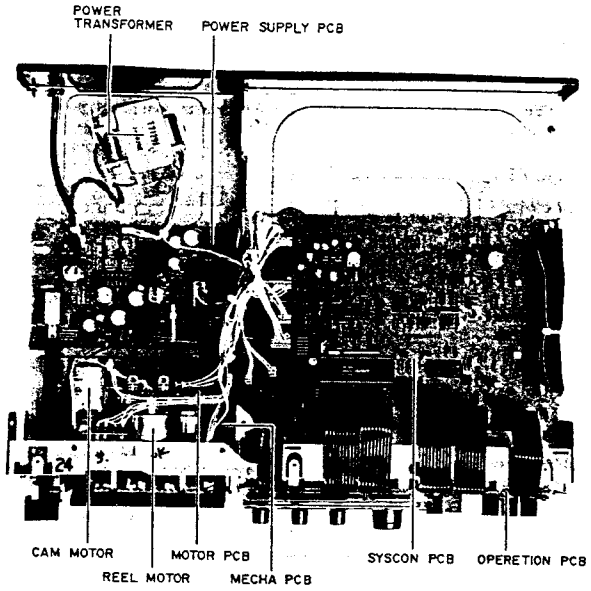


Fig. 2-1 View from upper side

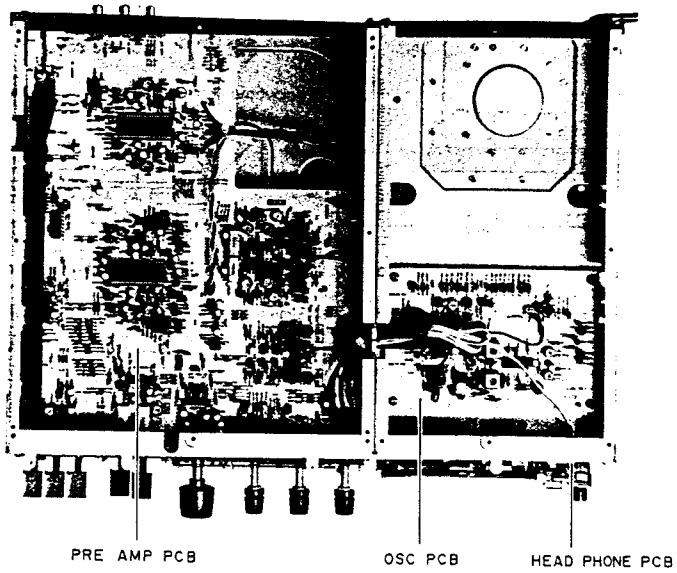


Fig. 2-2 View from bottom side

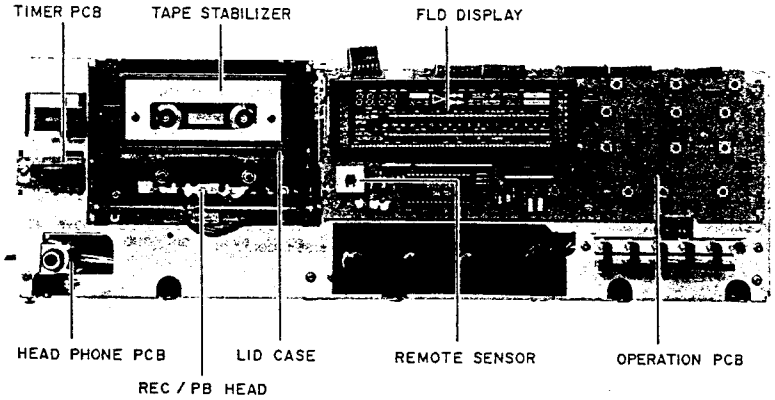


Fig. 2-3 View from front side

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 Ⓐ section of the LID ARM outward, press inward on the Ⓑ 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.

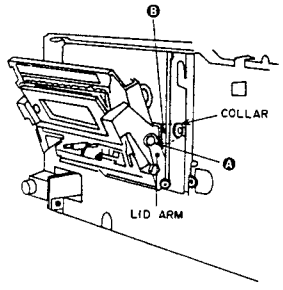


Fig. 3-1

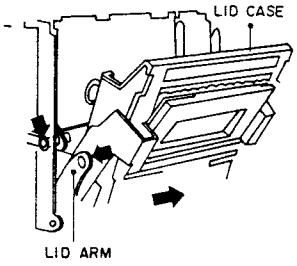


Fig. 3-2

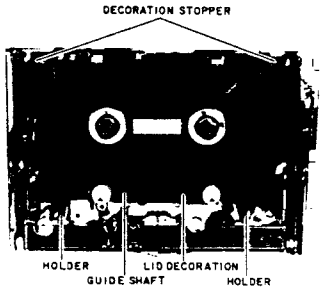


Fig. 3-3

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 Ⓑ (Refer to Fig. 3-4.)
2) Remove the six connectors P1-P6 from the SYSCON PCB. Remove mechanism block securing screws Ⓐ. (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.

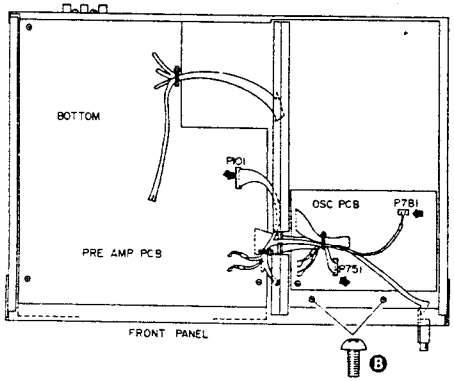


Fig. 3-4

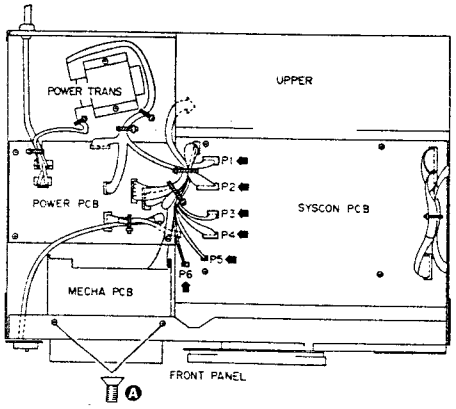


Fig. 3-5

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 ❶, ❷ and ❸ 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.

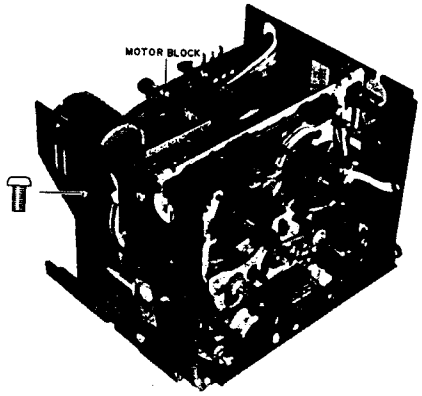


Fig. 3-6

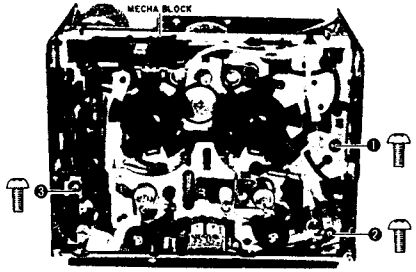


Fig. 3-7

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 ❶ and ❷ 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 ❸ and ❹. (Refer to Fig. 3-9.)
6) To reassemble, perform the above steps in the reverse order.

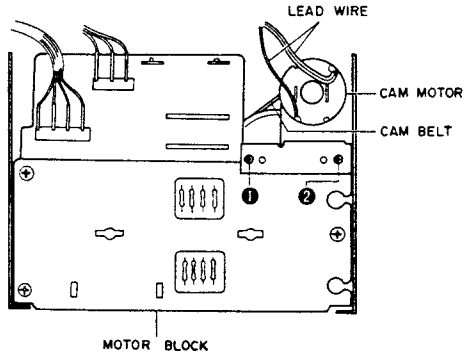


Fig. 3-8

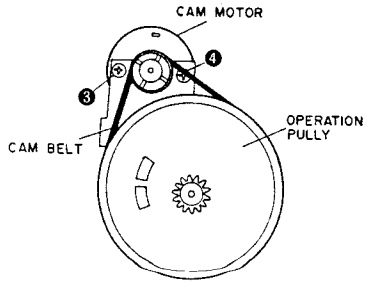


Fig. 3-9

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 ❶, ❷ and ❸ 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.

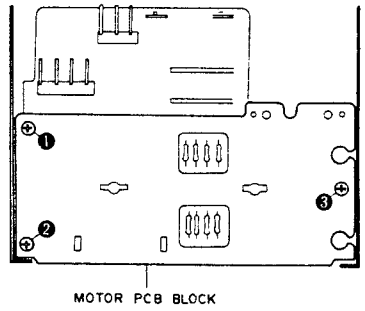


Fig. 3-10

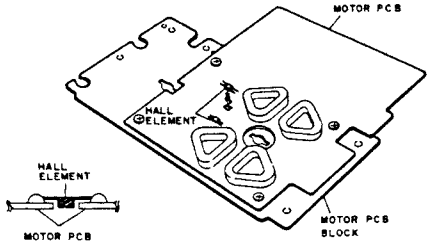


Fig. 3-11

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.)
3) Remove capstan holder securing screws ❶, ❷, ❸ and ❹. Remove the capstan holder.(Refer to Fig. 3-13.)
4) Remove the potentio 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.

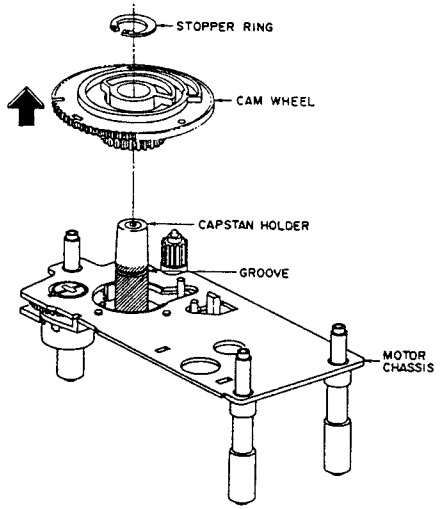


Fig. 3-12

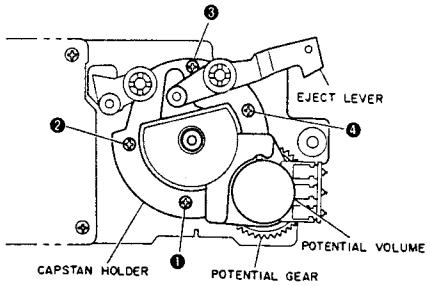


Fig. 3-13

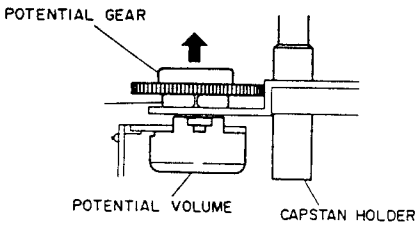


Fig. 3-14

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

1) Attach the position potential volume to the capstan holder and attach the potention gear. Attach the capstan holder to the motor block and tighten the securing screws. Align the mark on the potention 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. 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 potention gear and cam wheel are aligned with the groove in the motor chassis, attach the stopper ring.

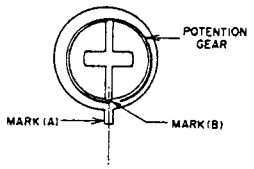


Fig. 3-15

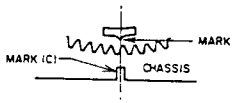


Fig. 3-16

IV. MECHANICAL ADJUSTMENT

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

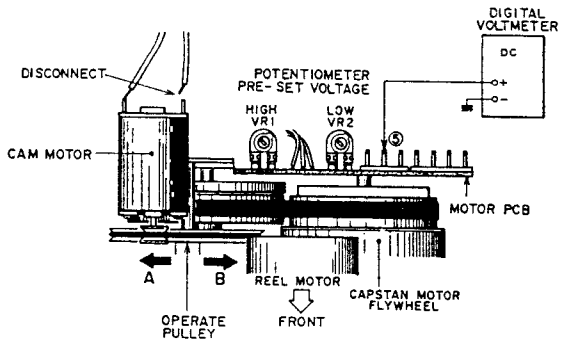


Fig. 4-1

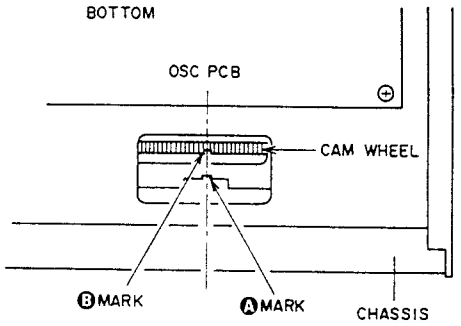


Fig. 4-2

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 Ⓑ coincides with the center of marker Ⓐ in the STOP mode as shown on Fig. 4-2. (The marker Ⓑ 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 clock wise.

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

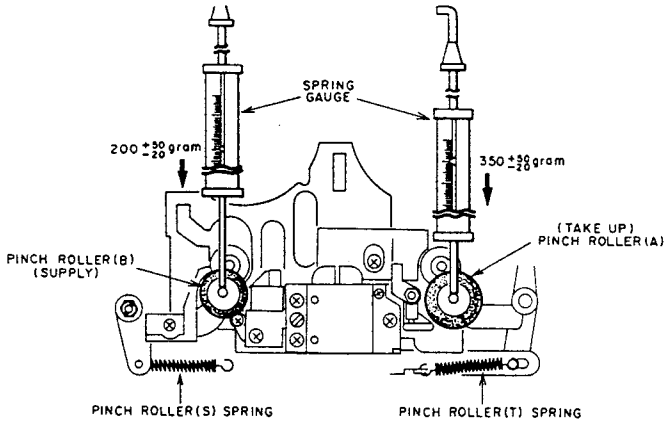


Fig. 4-3

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 +30 -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

CASSETTE TORQUE METER
(AJ-751179)

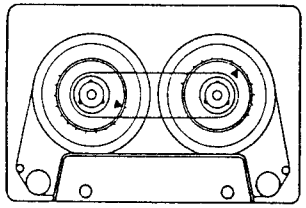


Fig. 4-4

V. HEAD ADJUSTMENT

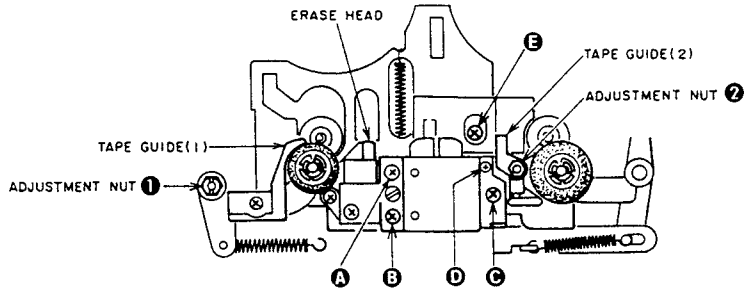


Fig. 5-1

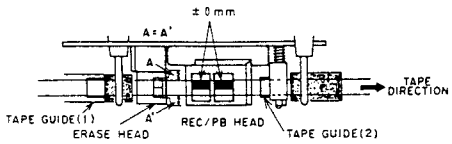


Fig. 5-2

Cassette Head Projection Gauge.

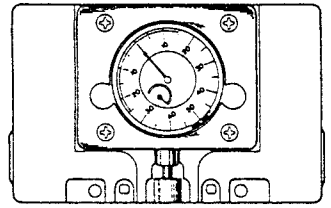


Fig. 5-3

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 ❷.
3) After adjustment, paint-lock the adjustment nut ❷.

Caution:
The tape guide adjustment nut ❶ 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 Ⓐ, Ⓑ and Ⓒ 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 Ⓐ, Ⓑ and Ⓒ 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 Ⓓ 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 Ⓓ 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 Ⓒ 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.

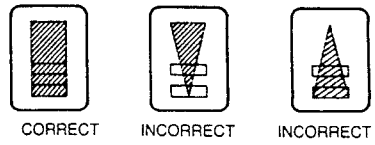
5-5. ADJUSTMENT WHEN REC/PB HEAD IS REPLACED (Refer to Fig. 5-1, 5-2, 5-3)

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 Ⓐ, Ⓑ and Ⓒ 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 Ⓐ, Ⓑ and Ⓒ 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 Ⓑ 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 Ⓑ 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 Ⓔ screw and adjust the position of the REC/PB head so that it is 3.2 ± 0.1 mm from the tape. Tighten the Ⓔ 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 Ⓐ screw so that the output from both the Left and Right LINE OUT channels is at the maximum level. After adjusting the Ⓐ screw, make the exact same adjustments to the Ⓑ and Ⓒ 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 ad-just the Ⓒ 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 Ⓓ 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 Ⓐ, Ⓑ, Ⓒ, Ⓓ, and Ⓔ screws.

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

VI. ELECTRICAL ADJUSTMENT

NOTES
1. All adjustments should be made with CAL DOLBY, HX-PRO. and MPX FILTER switches OFF (except STEP 3, 9, 14.)
2. Control settings
   REC LEVEL : Max.
   CALIBRATION LEVEL : center click position
   CALIBRATION BIAS : center click position
3. Use the following cassette tapes for adjustment.
   NORMAL TAPE : MAXELL UD1 C-60
   CrO_2 TAPE : TDK SA C-60
   METAL TAPE : TDK MA C-60

ADJUSTMENT KEY

STEP No.	ADJUSTMENT ITEM
1.	TEST TAPE, Supply signal
2.	MODE
3.	Adjustment Parts
4.	Remarks/Result

Adjustment point
Test point

4 TAPE SPEED
1. 3.150Hz TEST TAPE (AT751263)
2. PLAY
3. VR501
4. Connect a Frequency counter to LINE OUT
   *3.150 ± 2Hz

VR501

SYSCON PCB

6 PLAYBACK EQUALIZER LEVEL
1. 10kHz(-15dB) TEST TAPE (AT750778)
2. PLAY
3. VR102(Lch)/VR102b(Rch)
4. Connect the AC voltmeters to LINE OUT
   *-21.0dBs

5 PLAYBACK LEVEL
1. 315Hz TEST TAPE (AT750773)
2. PLAY
3. VR101(Lch)/VR101b(Rch)
4. Connect the AC voltmeters to LINE OUT
   *-6.0dBs

3 MPX FILTER
1. 19kHz, Set the audio signal generator output level to -6.0dBs
2. STOP/SOURCE MONITOR, MPX SW ON
3. FL331 (Lch)/FL331b (Rch)
4. Connect the AC voltmeters to LINE OUT.
   *Minimum level. (Less then -36dBs)

14 CAL METER
1. CrO_2 RECORDING TAPE
2. REC/PLAY, CAL SW ON
3. VR652 (CAL LEVEL), VR652b (CAL BIAS)
4. *Adjustment must be made just before the 0dB segment lights completely

2 METER SENSITIVITY (-40dB)
1. 400Hz, Set the audio signal generator output control, so that the OUT PUT level is -37.5dBs.
2. STOP/SOURCE MONITOR
3. VR653
4. Adjust until the -40dB indicator lights completely.

1 METER SENSITIVITY (0VU)
1. 400Hz, Set the audio signal generator output control, so that the LINE OUTPUT level is -4.5dBs
2. STOP/SOURCE MONITOR
3. VR651 (Lch)/VR651b (Rch)
4. DOLBY □□ segments light on

PRE AMP PCB

13 RECORDING LEVEL
1. NORMAL RECORDING TAPE
   315Hz, -6.0dBs (LINE OUT)
2. REC/PLAY → PLAY
3. VR402 (Lch)/VR402b (Rch)
4. • Connect the AC voltmeters to LINE OUT
   *-6.0 dBs

11 CrO_2 POSITION FREQUENCY RESPONSE
1. CrO_2 RECORDING TAPE
   1kHz/12kHz, -26.0dBs (LINE OUT)
2. REC/PLAY → PLAY
3. VR722
4. • -26.0dBs (1kHz, 12.5kHz) flat

12 METAL POSITION FREQUENCY RESPONSE
1. METAL RECORDING TAPE
   1KHz/12kHz, -26.0dBs (LINE OUT)
2. REC/PLAY → PLAY, HX-PROON
3. VR723
4. • -26.0dBs (1kHz, 12.5kHz) flat

7 BIAS FREQUENCY
1. METAL RECORDING TAPE
2. REC/PLAY
3. T781/C786
4. Connect a Frequency counter to C786
   *105 ± 0.1kHz

9 NORMAL POSITION FREQUENCY RESPONSE (HX-PROON)
1. NORMAL RECORDING TAPE,
   1kHz/12kHz, -26dBs (LINE OUT)
2. REC/PLAY → PLAY, HX-PROON.
3. VR701 (Lch)/VR701b (Rch)
4. • Connect the AC voltmeters to LINE OUT
   *-26.0dBs

OSC PCB

8 BIAS DIP POINT
1. METAL RECORDING TAPE
2. REC/PLAY
3. T751/T751b/FR755
4. Connect a DC voltmeter to FR755
   *Minimum DC voltage

10 NORMAL POSITION FREQUENCY RESPONSE (HX-PROOFF)
1. NORMAL RECORDING TAPE
   1kHz/12kHz, -26dBs (LINE OUT)
2. REC/PLAY → PLAY
3. VR751 (Lch)/VR751b (Rch)
4. • Connect the AC voltmeters to LINE OUT
   *-26.0dBs

ATTENTION

1. **When placing an order for parts, be sure to list Part No., Model No. and the description of eachpart. 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	PAN20×03STL CMT
4	ZS-536488	BID20×08STL 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

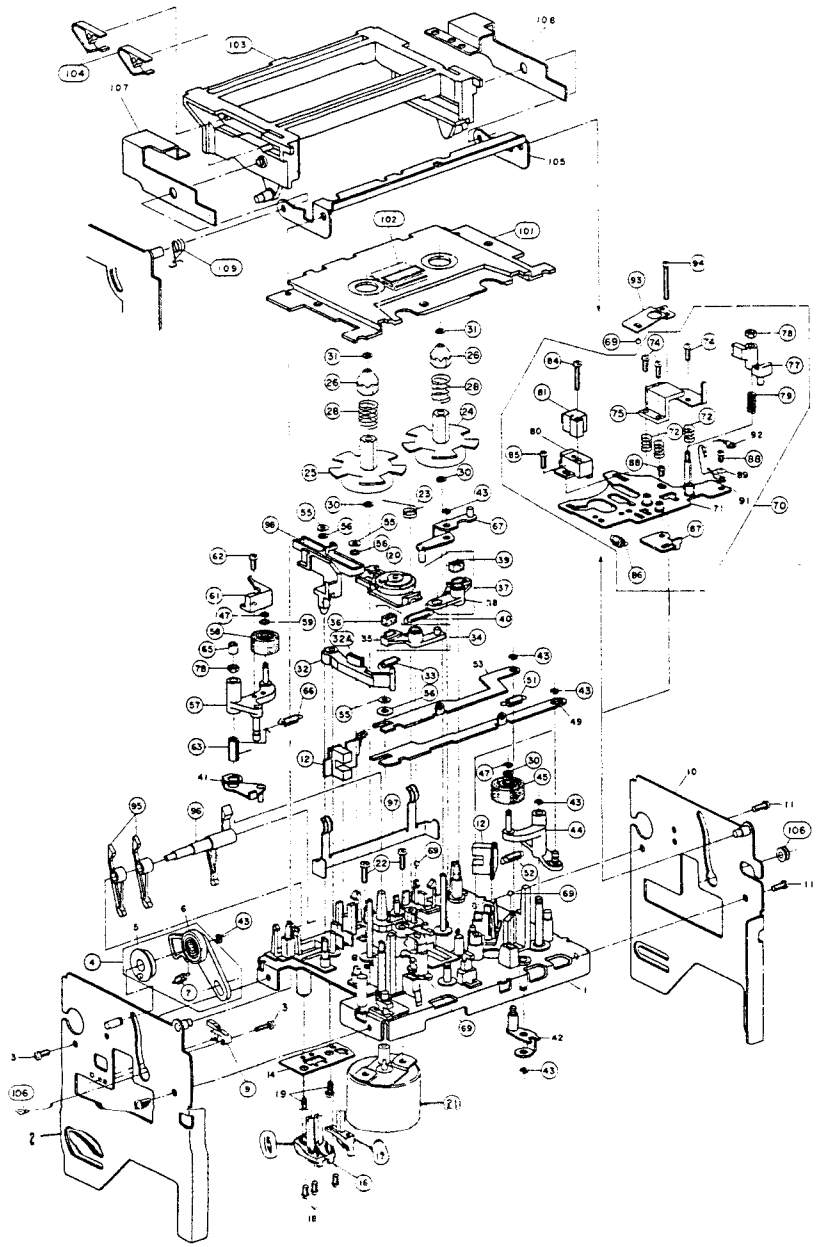
⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1.RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref.No.	PartNo.	Description
1	AX-384837J	REMOCONRC-G95
2	BB-T2047A020K	MECHABLKGX-Z7100EV
3	BH-T2047A060G	HEADBLKGX-Z7100EV
4	BL-T2030A160A	LEVERBRAKE(A)BLKGX-F51
5	BL-T2030A170A	LEVERBRAKE(B)BLKGX-F51
6	BL-B336007	LEVERBRAKECAMPART
7	BL-B336196	LEVERBTPART
8	BL-B336009	LEVEREJECTCAMPART
9	BM-M3104A010C	MOTORBLM-310C
10	BM-396252J	MOTOROPERATION(PULLEY)PART
11	BM-T2030A120D	REELMOTORBLKGX-95
12	*BT-396317J	TRANSPOWT2129(B) [B]
13	*BT-396316J	TRANSPOWT2129(E) [E]
14	ED-344244	DLEDSLF-601CAMBER [D901]
15	ED-307572	DSILICONH1SS131
16	ED-624903	DSILICONH1S2473
17	ED-511907	DSILICON1N4002100/1.0A
18	ED-338322	DSILICON10DF1100/1.0A
19	ED-393772J	DZENERHHZS11B1LT26
20	ED-393774J	DZENERHHZS11B3T26
21	ED-395070J	DZENERHHZS20-3
22	ED-393773J	DZENERHHZS3A3T26
23	ED-394924J	DZENERHHZS5C1
24	ED-388358J	DZENERHHZS5C2
25	ED-400780J	DZENERHHZS6B1T26
26	ED-396365J	DZENERHHZS6C3
27	ED-396063J	DZENERHHZS7B-1
28	ED-400779J	DZENERHHZS9A3T26
29	ED-395071J	DZENERHHZS9C2
30	ED-346559	DZENERHHZ12B2L
31	ED-305655	DZENERHHZ4B3
32	ED-346540	DZENERHHZ9B1L
33	ED-346545	DZENERHHZ9C2L
34	*EF-358974	FUSEBETT250V630MA [B]
35	*EF-601942	FUSESEMKOT250V630MA [E]
36	EH-372101	FILTERDB42B-5162-04
37	EI-400755J	HOLE-EHW-101A-04(D)
38	EI-373980	ICBA15218N
39	EI-370012	ICBA6805A
40	EI-384868J	ICBU4030B
41	EI-359985	ICCX20187
42	EI-355602	ICLB1649
43	EI-337008	ICLC7800
44	EI-377860	ICM5F7805L
45	EI-384892J	ICM50754-106SP
46	EI-357498	ICM51143AL
47	EI-393324J	ICM5218AL
48	EI-362587	ICM5238L
49	EI-362588	ICM5238P
50	EI-400756J	ICNJM4558L-B
51	EI-389881J	ICNJM4580D-D
52	EI-310036	ICTC4066BP
53	EI-336992	ICUPC1043C
54	EI-373383	ICUPC1297CA
55	EI-396490J	OSCCECST4.00MGW-TF01T05
56	EM-384893J	INDFLBG-551GKDOUBLE
57	EO-389453J	COILOSCT2124105.0KHZ
58	EO-400766J	COILOSC1T2128(HX)-7200KHZ
59	ER-320528	RFUSEHERD2FC1/4W22R0G
60	ER-400605J	RFUSEVT05ERD2FCV1/4W15R0G
61	ER-401042J	RFUSEVT05ERD2FCV1/4W33R0G
62	ES-336990	SWLEAFBSW-16901-1NO [SW901]
63	ES-372912	SWLEAFSPPB2101-2 [SW904]
64	*ES-371104	SWPUSHSDDLD101-1
65	ES-396601J	SWPUSHSPUY192-06-02N [CD/DATDIRECT]
66	ES-396600J	SWPUSHSPUY525THROW [DOLBYNR]
67	ES-370933	SWSLIDESSSU01-03N [TIMERSW]
68	ES-396610J	SWTACTSOR-122HST05 [RESET]
69	ET-381683J	DETECTORA1QH3021H0
70	ET-345091	DETECTORSPI-201-40B,C [PH1]
71	ET-363953	TRDTA114TS
72	ET-395078J	TRDTA124GS
73	ET-396487J	TRDTA124XLT05
74	ET-371075	TRDTA124XS
75	ET-370634	TRDTA143XS
76	ET-354415	TRDTA144ES
77	ET-353897	TRDTC114ES
78	ET-400795J	TRDTC114GST05
79	ET-354365	TRDTC114YS
80	ET-395077J	TRDTC115TS
81	ET-382952J	TRDTC123ES
82	ET-373391	TRDTC143ZS
83	ET-396488J	TRDTC144ELT05
84	ET-354414	TRDTC144ES
85	ET-370310	TRDTC144TS
86	ET-354897	TRFET2SK170BL,GR,V
87	ET-354841	TR2SA1282AF,GF05
88	ET-364093	TR2SA1283E,F
89	ET-353899	TR2SA1317S,T,U
90	ET-397403J	TR2SA1561R,ST05
91	ET-389803J	TR2SA933SR,S
92	ET-337760	TR2SA984KF
93	ET-353067	TR2SB744P,Q,R
94	ET-389251J	TR2SC1740SSF05
95	ET-397156J	TR2SC2274KE,F
96	ET-365394	TR2SC3242AE,F,GF05
97	ET-397160J	TR2SC3330R,S,T,U,V
98	ET-378524J	TR2SC3383S,T,U
99	ET-400741J	TR2SC3708TT05
100	ET-396486J	TR2SC4038Q,RT05
101	ET-396072J	TR2SD2159V,W
102	ET-349979	TR2SD794P,Q,R
103	HE-391975J	HEADEHAJWB3721A
104	HR-H2410A010A	HEADCOMBRP4-10SR RP4-10SR
105	MB-336026	BELTCAPSTAN
106	MB-336021	BELTOPERATION
107	MP-336204	PINCHROLLER(B)
108	MP-401746J	PINCHROLLER(A-2)-8360
109	MZ-336006	CAMWHEEL
110	MZ-336005	GEARPOTENTION
111	TC-336605	WINDIDLERASSY

MECHA BLOCK



2. MECHA BLOCK

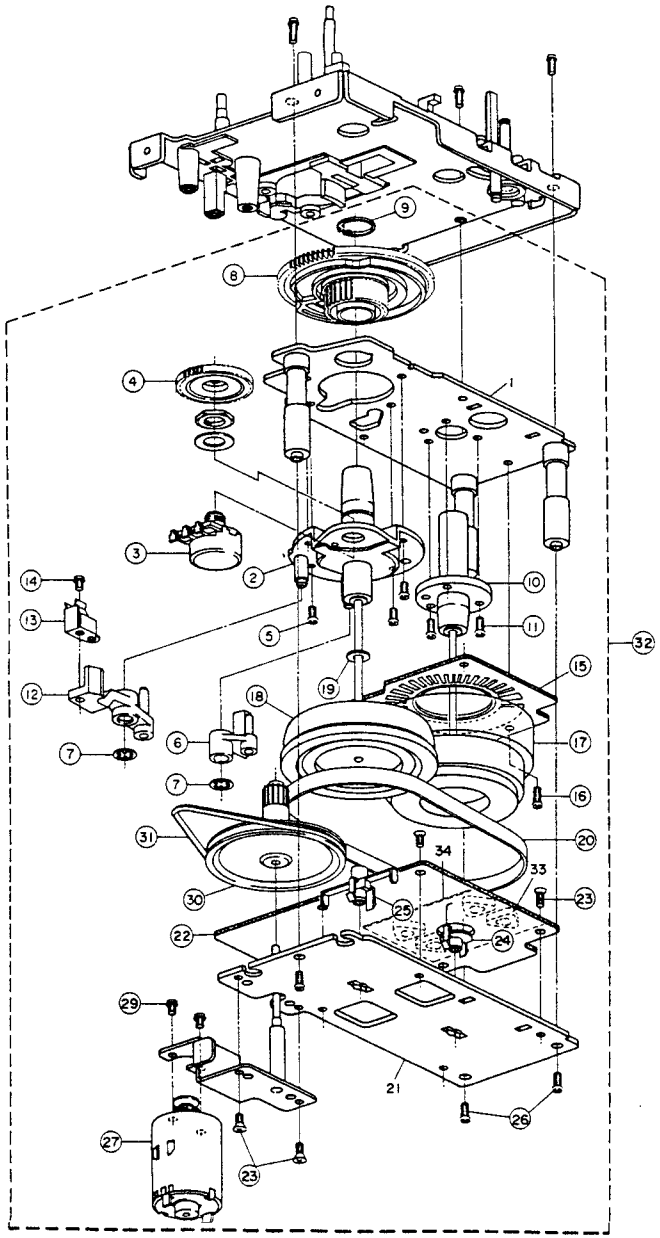
Ref.No.	Part No.	Description
4	MZ-388144J	OIL CLUTCH PART
7	ZG-388145J	SP PULL OIL CLUTCH(2)
9	ES-372912	SW LEAF SPPB21 01-2 [SW904]
12	ET-345091	DETECTOR SPI-201-40 B.C [PH1]
15	ES-336990	SW LEAF BSW-169 01-1 NO [SW901]
16	ES-336990	SW LEAF BSW-169 01-1 NO [SW902]
17	ES-336990	SW LEAF BSW-169 01-1 NO [SW903]
20	TC-336605	WIND IDLER ASSY
21	BM-T2030A120D	REEL MOTOR BLK GX-95
23	ZG-336140	SP TORSION IDLER
24	MT-395947J	REEL TABLE (R) PART
25	MT-395948J	REEL TABLE (L) PART
26	MT-349681	REEL RETAINER(B)
28	ZG-395944J	SP PUSH BT
30	ZW-305546	PW21X040X025PSL
31	ZW-343120	PW17X040X025PSL
32	BL-B336196	LEVER BT PART
32A	MZ-344983	FELT BT
33	ZG-330078	SP T2-03.2/0.20-09.0 T2-038
34	BL-T2030A160A	LEVER BRAKE (A) BLK GX-F51
36	TC-336146	BRAKE RUBBER
37	BL-T2030A170A	LEVER BRAKE (B) BLK GX-F51
39	TC-336146	BRAKE RUBBER
40	ZG-312946	SP T1-03.2/0.29-16.0 T1-062
43	ZW-270088	RING E190SUP CMT
44	BL-B336150	ARM PINCH ROLLER (A) PART
45	MP-401746J	PINCH ROLLER(A-2)-B360
47	ZW-356657	RING E150SUP CMT
51	ZG-336175J1	SP PULL PINCH ROLLER (T)
52	ZG-321534	SP T2-03.2/0.29-12.5 T2-060
55	ZW-329422	RING CS 0300
56	ZW-306464	PW31X070X050STL CMT
57	BL-B336202	ARM PINCH ROLLER (B) PART
58	MP-336204	PINCH ROLLER (B)
59	ZW-381644	PW21X040X013PSL
61	HZ-387921J	GUIDE TAPE (B)(2)
62	ZS-608095	PAN20X05STL CMT
63	ZG-336206	SP TORSION RETURN
65	ZW-356166	N
66	ZG-336208	SP PULL PINCH ROLLER (S)
67	BL-B336155	ARM HEAD SLIDE PART
69	MV-357208	BALL 200STL
70	BH-T2047A060G	HEAD BLK GX-Z7100EV
72	ZG-336127	SP PUSH HEAD
74	ZS-330864	PAN20X07STL CMT
75	HR-H2410A010A	HEAD COMB RP4-10SR RP4-10SR
77	HZ-387920J	GUIDE TAPE(2)
78	ZW-618884	N20STL CMT 1
79	ZG-336130	SP PUSH GUIDE
81	HE-391975J	HEAD E HAJWB3721A
84	ZS-306126	PAN20X12STL CMT
85	ZS-417161	PAN23X04STL CMT
86	ZG-341972	SP PULL HEAD RETURN
87	HZ-336132	ADJUST PLATE
88	ZS-201407	PAN23X03STL CMT
93	ZG-336157	SP PLATE HEAD HOLD
94	ZS-342002	ST PAN26X16STL CMT
95	ML-336158	LEVER DETECTION (B)
96	ML-336159J2	LEVER DETECTOR(A)
97	ZG-336160	SP PLATE CASSETTE HOLDER (A)
98	TC-336161J1	SLIDE EJECT
101	BD-B365352-A	LID DECORATION (A) PART
102	ED-344244	D LED SLF-601C AMBER [D901]
103	SP-388188J1	LID CASE(2)
104	ZG-336615	SP PLATE CASSETTE HOLDER (B)
106	SZ-336166	COLLAR LID
109	ZG-387804J	SP TORSION RETURN

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

3. MOTOR BLOCK (BLM-310C)

Ref.No.	Part No.	Description
2	TC-B336004A	HOLDER CAPSTAN (C-1) PART
3	EV-337052	VR ROTARY 16L10XOR B103
4	MZ-336005	GEAR POTENTION
5	ZS-432843	PAN26X04STL CMT
6	BL-B336007	LEVER BRAKE CAM PART
7	ZW-653163	RING CS 280STL PKR
8	MZ-336006	CAM WHEEL
9	ZW-336604	RETAINING RING O S930SUP ACP
10	TC-336002J1	HOLDER CAPSTAN (B)
11	ZS-355818	ST BR26X04STL CMT
12	BL-B336009	LEVER EJECT CAM PART
13	ZG-353158J2	SP PLATE EJECT
14	ZS-477876	PAN20X03STL CMT
15	EA-336012	PC FG
16	ZS-479474	PAN26X05STL CMT
17	BF-390568J1	FLYWHEEL (A) PART
18	BF-336025	FLYWHEEL (B)
19	ZW-309295	WASHER THRUST
20	MB-336026	BELT CAPSTAN
22	BA-M3103A030A	PC(#) MOTOR BLK BLM-300
23	ZS-477887	CTS26X05STL CMT
24	TC-336016	HOLDER THRUST (A)
25	TC-336027	HOLDER THRUST (B)
26	ZS-479474	PAN26X05STL CMT
27	BM-396252J	MOTOR OPERATION(PULLEY) PART
29	ZS-432674	PAN30X03STL CMT
30	MR-336019	PULLEY OPERATE
31	MB-336021	BELT OPERATION
32	BM-M3104A010C	MOTOR BLM-310C

MOTOR BLOCK (BLM-310C)



4. P.C BOARD BLOCK

Ref.No.	Part No.	Description
1A	BA-T2129A020C	PC(#) PREAMP BLK GX-75-2
1B	BA-T2129A020B	PC(#) PREAMP BLK GX-95-2
2	BA-T2128A030A	PC(#) SYSCON BLK GX-Z7100EV
3	BA-T2128A040C	PC POWER BLK GX-95-2

PC(#) PRE AMP BLK CONSISTS OF FOLLOWING P.C BOARD.
- PRE-AMP P.C BOARD
- OSC P.C BOARD
- HEADPHONE P.C BOARD

PC(#) SYSCON BLK CONSISTS OF FOLLOWING P.C BOARD.
- SYSCON P.C BOARD
- OPERATION P.C BOARD
- TIMER SW P.C BOARD

5. PRE-AMP P.C BOARD

Ref.No.	Part No.	Description
D551	ED-624903	D SILICON H 1S2473
D552	ED-624903	D SILICON H 1S2473
D553	ED-624903	D SILICON H 1S2473
D554	ED-624903	D SILICON H 1S2473
D555	ED-624903	D SILICON H 1S2473
D801	ED-346545	D ZENER H HZ9C2L
D802	ED-346545	D ZENER H HZ9C2L
D811	ED-346540	D ZENER H HZ9B1L
D812	ED-346540	D ZENER H HZ9B1L
D841	ED-305655	D ZENER H HZ4 B3
FL331	EH-372101	FILTER DB 42B-5162-04
IC101	EI-389881J	IC NJM4580D-D
IC102	EI-393324J	IC M5218AL
IC103	EI-362587	IC M5238L
IC201	EI-359985	IC CX20187
IC251	EI-357498	IC M51143AL
IC301	EI-359985	IC CX20187
IC451	EI-362588	IC M5238P
IC501	EI-362587	IC M5238L
IC551	EI-310036	IC TC4066BP
IC601	EI-384868J	IC BU4030B
IC651	EI-373980	IC BA15218N
IC901	EI-393324J	IC M5218AL
J501A	EJ-344370	PIN J YKC21-0081 P 6P [GX-75-2]
J501B	EJ-397198J	PIN J YKC-21-0464 6P [GX-95-2]
L101	EO-392605J	COIL FIX 1 RC875 561J
L102	EO-392605J	COIL FIX 1 RC875 561J
L201	EO-372996	COIL FIX 1 RC875 223J
L301	EO-372996	COIL FIX 1 RC875 223J
L381	EO-400782J	COIL FIX 1 EL0606RA T05 222J
L451	EO-400826J	COIL FIX 2 21D4A-682 682G
SW501	ES-396600J	SW PUSH SPUY52 5THROW [DOLBY NR]
SW502	ES-396601J	SW PUSH SPUY19 2-06-02N [CD/DAT DIRECT]
TR101	ET-354897	TR FET 2SK170 BL,GR,V
TR331	ET-389251J	TR 2SC1740S S F05
TR332	ET-389251J	TR 2SC1740S S F05
TR401	ET-378524J	TR 2SC3383 S,T,U
TR402	ET-378524J	TR 2SC3383 S,T,U
TR403	ET-378524J	TR 2SC3383 S,T,U
TR451	ET-378524J	TR 2SC3383 S,T,U
TR452	ET-378524J	TR 2SC3383 S,T,U
TR453	ET-378524J	TR 2SC3383 S,T,U
TR501	ET-378524J	TR 2SC3383 S,T,U
TR502	ET-389803J	TR 2SA933S R,S
TR551	ET-396488J	TR DTC144EL T05
TR552	ET-396488J	TR DTC144EL T05
TR553	ET-397403J	TR 2SA1561 R,S T05
TR554	ET-378524J	TR 2SC3383 S,T,U
TR601	ET-354414	TR DTC144ES
TR651	ET-378524J	TR 2SC3383 S,T,U
TR801	ET-349979	TR 2SD794 P,Q,R
TR802	ET-353067	TR 2SB744 P,Q,R
TR811	ET-349979	TR 2SD794 P,Q,R
TR812	ET-353067	TR 2SB744 P,Q,R
VR101	EV-618107	R S-FIX H RH1021C 0.50W471
VR102	EV-390869J1	R S-FIX H T05 RH0638C 0.1W 103
VR401	EV-389927J	VR RK16312A0 SPL C1253X2 [CALIBRATION LEVEL]
VR402	EV-391833J1	R S-FIX H T05 RH0638C 0.1W 104
VR501	EV-396613J	VR ROTARY RK1612220 A503X2 [REC LEVEL]
VR651	EV-391833J1	R S-FIX H T05 RH0638C 0.1W 104
VR652	EV-390869J1	R S-FIX H T05 RH0638C 0.1W 103
VR653	EV-396335J	R S-FIX H T05 RH0638C 0.1W 474
VR721	EV-400657J	VR ROTARY RK1631110 B202 [CALIBRATION BIAS]
VR901	EV-373388	VR ROTARY RK16312A0 A104X2 [HEADPHONE LEVEL]

6. OSC P.C BOARD

Ref.No.	Part No.	Description
D781	ED-624903	D SILICON H 1S2473
D782	ED-624903	D SILICON H 1S2473
D831	ED-346559	D ZENER H HZ12B2L
D832	ED-624903	D SILICON H 1S2473
FR755	ER-320528	R FUSE H ERD2FC 1/4W 22R0G
FR831	ER-401042J	R FUSE V T05 ERD2FCV 1/4W33R0G
IC701	EI-373383	IC UPC1297CA
L751	EO-401048J	COIL FIX 2 21D4A-262 262G
L752	EO-373247	COIL FIX 1 RC875 272J
L781	EO-379951J	COIL FIX 1 7132 682J
T751	EO-400766J	COIL OSC 1 T2128(HX)-7 200KHZ
T781	EO-389453J	COIL OSC T2124 105.0KHZ
TR721	ET-354414	TR DTC144ES
TR722	ET-354414	TR DTC144ES
TR723	ET-354414	TR DTC144ES
TR724	ET-400795J	TR DTC114GS T05
TR725	ET-353897	TR DTC114ES
TR726	ET-353897	TR DTC114ES
TR727	ET-353897	TR DTC114ES
TR751	ET-354414	TR DTC144ES
TR781	ET-400741J	TR 2SC3706 T T05
TR782	ET-400741J	TR 2SC3706 T T05
TR783	ET-396072J	TR 2SD2159 V,W
TR831	ET-378524J	TR 2SC3383 S,T,U
VR701	EV-396335J	R S-FIX H T05 RH0638C 0.1W 474
VR722	EV-390873J1	R S-FIX H T05 RH0638C 0.1W 472
VR723	EV-397243J	R S-FIX H T05 RH0638C 0.1W 334
VR751	EV-390873J1	R S-FIX H T05 RH0638C 0.1W 472

7. HEADPHONE P.C BOARD

Ref.No.	Part No.	Description
J901	EJ-369995	PHONE J 3P HLJ0540-410 GP 6.3 [HEADPHONE JACK]

8. SYSCON P.C BOARD

Ref.No.	Part No.	Description
C204	EC-201645	C EC V CUT AS1 222M 6.3DC
D101	ED-624903	D SILICON H 1S2473
D102	ED-624903	D SILICON H 1S2473
D103	ED-624903	D SILICON H 1S2473
D104	ED-624903	D SILICON H 1S2473
D105	ED-624903	D SILICON H 1S2473
D106	ED-624903	D SILICON H 1S2473
D107	ED-624903	D SILICON H 1S2473
D108	ED-624903	D SILICON H 1S2473
D109	ED-307572	D SILICON H 1SS131
D110	ED-624903	D SILICON H 1S2473
D111	ED-624903	D SILICON H 1S2473
D112	ED-624903	D SILICON H 1S2473
D113	ED-307572	D SILICON H 1SS131
D114	ED-307572	D SILICON H 1SS131
D115	ED-307572	D SILICON H 1SS131
D116	ED-307572	D SILICON H 1SS131
D117	ED-307572	D SILICON H 1SS131
D118	ED-624903	D SILICON H 1S2473
D119	ED-624903	D SILICON H 1S2473
D201	ED-396063J	D ZENER H HZS7B-1
D202	ED-624903	D SILICON H 1S2473
D203	ED-394924J	D ZENER H HZS5C1
D205	ED-396365J	D ZENER H HZS6C3
D206	ED-624903	D SILICON H 1S2473
D207	ED-393772J	D ZENER H HZS11B1L T26
D208	ED-393772J	D ZENER H HZS11B1L T26
D209	ED-624903	D SILICON H 1S2473
D301	ED-388358J	D ZENER H HZS5C2
D302	ED-393773J	D ZENER H HZS3A3 T26
D303	ED-393774J	D ZENER H HZS11B3 T26
D304	ED-400779J	D ZENER H HZS9A3 T26
D305	ED-624903	D SILICON H 1S2473
D306	ED-400780J	D ZENER H HZS6B1 T26
D401	ED-624903	D SILICON H 1S2473
D402	ED-624903	D SILICON H 1S2473
D403	ED-624903	D SILICON H 1S2473
FR209	ER-400605J	R FUSE V T05 ERD2FCV 1/4W15R0G
IB1	EH-382929J	COMP R RGLE14T 223J
IC101	EI-337008	IC LC7800
IC102	EI-384892J	IC M50754-106SP
IC103	EI-384868J	IC BU4030E
IC201	EI-377860	IC M5F7805L
IC301	EI-355602	IC LB1649
IC302	EI-373980	IC BA15218N
IC303	EI-373980	IC BA15218N
IC501	EI-336992	IC UPC1043C
TR101	ET-371075	TR DTA124XS
TR102	ET-371075	TR DTA124XS
TR103	ET-371075	TR DTA124XS
TR104	ET-395077J	TR DTC115TS
TR105	ET-395077J	TR DTC115TS
TR106	ET-395077J	TR DTC115TS
TR109	ET-395078J	TR DTA124GS
TR110	ET-371075	TR DTA124XS
TR111	ET-371075	TR DTA124XS
TR112	ET-371075	TR DTA124XS
TR113	ET-371075	TR DTA124XS
TR114	ET-354414	TR DTC144ES
TR115	ET-354414	TR DTC144ES
TR116	ET-382952J	TR DTC123ES
TR117	ET-371075	TR DTA124XS
TR118	ET-370310	TR DTC144TS
TR201	ET-397160J	TR 2SC3330 R,S,T,U,V
TR202	ET-363953	TR DTA114TS
TR203	ET-363953	TR DTA114TS
TR204	ET-354414	TR DTC144ES
TR207	ET-365394	TR 2SC3242A E,F,G F05
TR208	ET-354841	TR 2SA1282A F,G F05
TR301	ET-354414	TR DTC144ES
TR302	ET-373391	TR DTC143ZS
TR303	ET-354414	TR DTC144ES
TR304	ET-354414	TR DTC144ES
TR401	ET-354365	TR DTC114YS
TR402	ET-354365	TR DTC114YS
TR403	ET-354365	TR DTC114YS
TR404	ET-354365	TR DTC114YS
TR405	ET-354365	TR DTC114YS
TR406	ET-354415	TR DTA144ES
TR501	ET-397160J	TR 2SC3330 R,S,T,U,V
TR502	ET-353897	TR DTC114ES
VR501	EV-330531	R S-FIX H TM8KV2-1S 0.50W503
X101	EI-396490J	OSC CE CST4.00MGW-TF01 T05

9. OPERATION P.C BOARD

Ref.No.	Part No.	Description
D601	ED-624903	D SILICON H 1S2473
D602	ED-624903	D SILICON H 1S2473
D603	ED-624903	D SILICON H 1S2473
D605	ED-624903	D SILICON H 1S2473
D607	ED-624903	D SILICON H 1S2473
IB2	EH-382935J	COMP R RGLD6X473J
IB3	EH-382931J	COMP R RGLD15T 473J
IB4	EH-382932J	COMP R RGLD9T 473J
IC601	EI-370012	IC BA6805A
IN601	EM-384893J	IND FL BG-551GK DOUBLE
RM601	ET-381683J	DETECTOR A1QH3021H0
TR602	ET-397403J	TR 2SA1561 R,S T05
TR603	ET-396487J	TR DTA124XL T05
TR604	ET-354414	TR DTC144ES
TR605	ET-353899	TR 2SA1317 S,T,U
TR606	ET-353897	TR DTC114ES
TR607	ET-396486J	TR 2SC4038 Q,R T05
TR608	ET-396487J	TR DTA124XL T05
TR609	ET-396487J	TR DTA124XL T05
TR610	ET-370634	TR DTA143XS
TR611	ET-370634	TR DTA143XS
TR612	ET-354415	TR DTA144ES
TR613	ET-354415	TR DTA144ES
TR614	ET-354415	TR DTA144ES
TR615	ET-354415	TR DTA144ES
TS601	ES-396610J	SW TACT SOR-122HS T05 [RESET]
TS602	ES-396610J	SW TACT SOR-122HS T05 [DISPLAY]
TS603	ES-396610J	SW TACT SOR-122HS T05 [MONITOR]
TS604	ES-396610J	SW TACT SOR-122HS T05 [REC CANCEL]
TS605	ES-396610J	SW TACT SOR-122HS T05 [IPSS]
TS606	ES-396610J	SW TACT SOR-122HS T05 [REC]
TS607	ES-396610J	SW TACT SOR-122HS T05 [REW]
TS608	ES-396610J	SW TACT SOR-122HS T05 [STOP]
TS609	ES-396610J	SW TACT SOR-122HS T05 [MEMORY]
TS610	ES-396610J	SW TACT SOR-122HS T05 [A-B SET]
TS611	ES-396610J	SW TACT SOR-122HS T05 [PLAY]
TS612	ES-396610J	SW TACT SOR-122HS T05 [FF]
TS613	ES-396610J	SW TACT SOR-122HS T05 [AUTO MUTE]

10. TIMER SW P.C BOARD

Ref.No.	Part No.	Description
SW701	ES-370933	SW SLIDE SSSU 01-03N [TIMER SW]

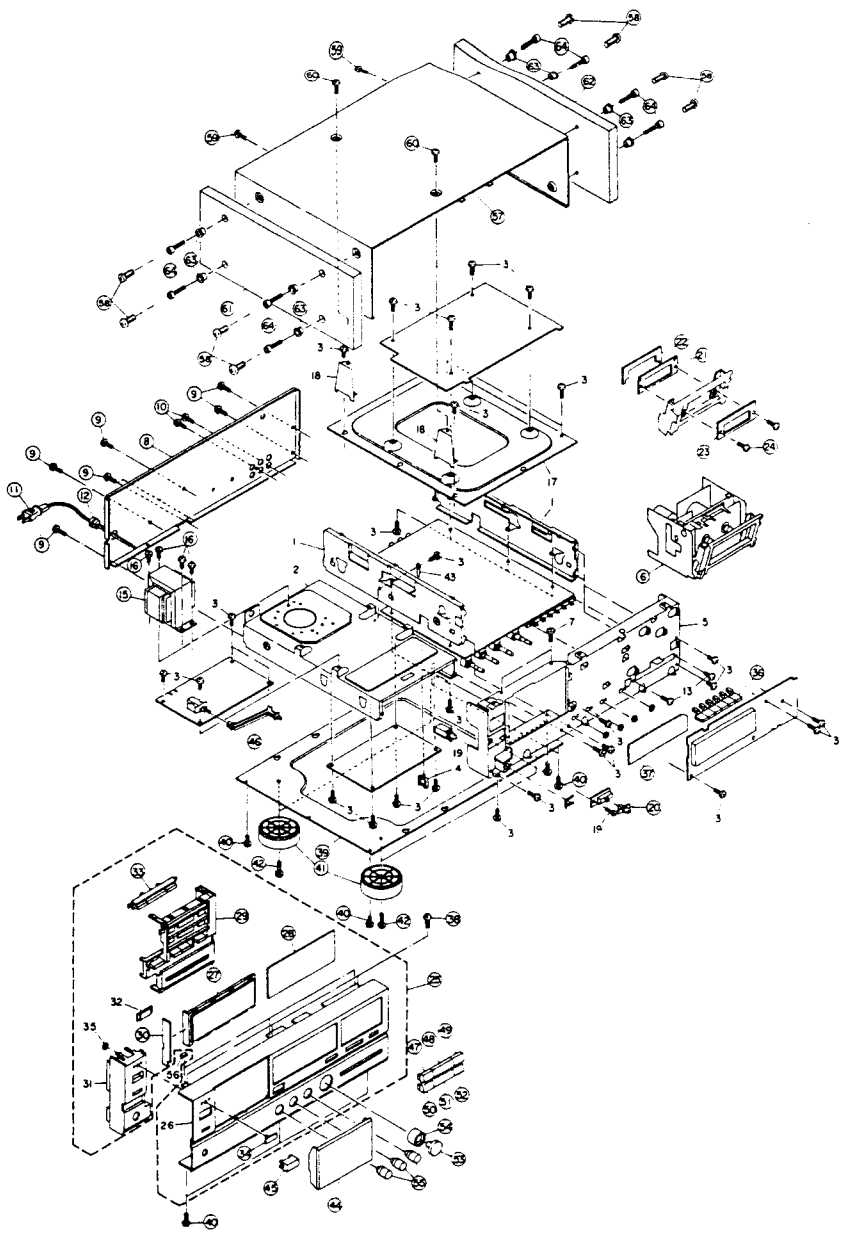
11. POWER P.C BOARD

Ref.No.	Part No.	Description
C1	EC-324662	C EC V CUT AS1 222M 25.0DC
C2	EC-324662	C EC V CUT AS1 222M 25.0DC
C3	EC-365619	C EC V CUT AS1 102M 25.0DC
C5	EC-365619	C EC V CUT AS1 102M 25.0DC
C6	EC-365619	C EC V CUT AS1 102M 25.0DC
C8	EC-365619	C EC V CUT AS1 102M 25.0DC
C9	EC-365619	C EC V CUT AS1 102M 25.0DC
C10	EC-322804	C EC V CUT AS1 472M 16.0DC
C15	EC-338411	C CE V DE7 FZ 103P 400AC
D1	ED-338322	D SILICON 10DF1 100/1.0A
D2	ED-338322	D SILICON 10DF1 100/1.0A
D3	ED-338322	D SILICON 10DF1 100/1.0A
D4	ED-338322	D SILICON 10DF1 100/1.0A
D6	ED-511907	D SILICON 1N4002 100/1.0A
D7	ED-511907	D SILICON 1N4002 100/1.0A
D8	ED-511907	D SILICON 1N4002 100/1.0A
D9	ED-511907	D SILICON 1N4002 100/1.0A
D10	ED-511907	D SILICON 1N4002 100/1.0A
D11	ED-511907	D SILICON 1N4002 100/1.0A
D12	ED-511907	D SILICON 1N4002 100/1.0A
D13	ED-511907	D SILICON 1N4002 100/1.0A
D14	ED-511907	D SILICON 1N4002 100/1.0A
D15	ED-511907	D SILICON 1N4002 100/1.0A
D16	ED-511907	D SILICON 1N4002 100/1.0A
D17	ED-511907	D SILICON 1N4002 100/1.0A
D18	ED-511907	D SILICON 1N4002 100/1.0A
D19	ED-395070J	D ZENER H HZS20-3
D20	ED-395071J	D ZENER H HZS9C2
D21	ED-395071J	D ZENER H HZS9C2
D22	ED-511907	D SILICON 1N4002 100/1.0A
F1A	*EF-601942	FUSE SEMKO T 250V 630MA [E]
F1B	*EF-358974	FUSE BET T 250V 630MA [B]
F2A	*EF-601942	FUSE SEMKO T 250V 630MA [E]
F2B	*EF-358974	FUSE BET T 250V 630MA [B]
FR1	ER-320528	R FUSE H ERD2FC 1/4W 22R0G
FR2	ER-320528	R FUSE H ERD2FC 1/4W 22R0G
SW1	*ES-371104	SW PUSH SDDLD1 01-1
TR1	ET-364093	TR 2SA1283 E,F
TR2	ET-365394	TR 2SC3242A E,F,G F05
TR3	ET-354841	TR 2SA1282A F,G F05

12. MOTOR P.C BOARD

Ref.No.	Part No.	Description
IC1	EI-400756J	IC NJM4558L-B
IC3	EI-400755J	HOLE-E HW-101A-04(D)
IC4	EI-400755J	HOLE-E HW-101A-04(D)
TR1	ET-397156J	TR 2SC2274K E,F
TR2	ET-337760	TR 2SA984K F
TR3	ET-397156J	TR 2SC2274K E,F
TR4	ET-337760	TR 2SA984K F
VR1	EV-464253	R S-FIX V V8K1-1 0.10W 202
VR2	EV-464253	R S-FIX V V8K1-1 0.10W 202

FINAL ASSEMBLY BLOCK



13. FINAL ASSEMBLY

Ref.No.	Part No.	Description
6	BB-T2047A020K	MECHA BLK GX-Z7100EV
8A	SP-396307J1	PANEL REAR GX-75-2B(E)
8B	SP-396305J1	PANEL REAR GX-95-2B(E)
8C	SP-396306J1	PANEL REAR GX-95-2B(B)
9	ZS-376523	ST BID30X06STL BNI EARTH LOCK
10	ZS-350934	PT BR30X08STL BNI
11A	*EW-336923	AC CORD 2C KP-419C.LTCE-2F EV [E]
11B	*EW-346249	AC CORD 2 CORES LCFL2X0.75 B [B]
12	*EZ-631945	STRAIN RELIEF SP-4N-4
15A	*BT-396316J	TRANS POW T2129(E) [E]
15B	*BT-396317J	TRANS POW T2129(B) [B]
16	ZS-301576	ST PAN40X10STL CMT
20	SK-358066B	KNOB SLIDE-BLACK
21	MZ-385721J2	PLATE DAMP
22	SZ-392824J	SHEET DAMP NEW
23	SE-395611J	PLATE STAB!
24	ZS-387752J	6RB26X030SCM BZN
25A	BD-T2107A050L	PANEL FRONT BLK GX-75-2B
25B	BD-T2107A050K	PANEL FRONT BLK GX-95-2B
27	SE-382435J	WINDOW METER
28	SE-384090J	FILTER FLD
29	SK-384075J	KNOB OPERATE B
33	SK-384079J1	KNOB B
34	SM-365756C	NAME PLATE AKAI(2)
36	SK-384077J	KNOB PUSH B
37	SE-384091J	MASK VR
38	ZS-358936	ST BID30X06STL CMT
39A	SP-384060J	CHASSIS BOTTOM [GX-75-2]
39B	SP-384386J1	CHASSIS BOTTOM(2) [GX-95-2]
40	ZS-305827	ST BID30X06STL BNI
41A	SA-384105J	FOOT ROUND SHAPED(N) [GX-75-2]
41B	SA-384387J	FOOT ROUND SHAPED(N)(2) [GX-95-2]
42	ZS-389961J	ST BID30X14STL COP CLEAR CUP
44A	BD-T2124A060C	LID PANEL BLK GX-Z7100EV-B [GX-75-2]
44B	BD-T2124A060E	LID PANEL BLK GX-95-2B [GX-95-2]
45	SK-373236B	KNOB POWER-B
46	MZ-384059J	JOINT POW
47	SK-373337C	KNOB OPERATION(B) REW-BLACK
48	SK-373336C	KNOB OPERATION(A) PLAY-BLACK
49	SK-373337A	KNOB OPERATION(B) FF-BLACK
50	SK-373337E	KNOB OPERATION(B) PAUSE-BLACK
51	SK-373336A	KNOB OPERATION(A) STOP-BLACK
52	SK-373337G	KNOB OPERATION(B) MUTE B
53	SK-384083J	KNOB REC(L)-B PART
54	SK-384088J	KNOB REC(R) B PART
55	SK-381051J	KNOB VR-B(2) PART
57	SP-384100J1	COVER UPPER B
58	ZS-341960	ST BID40X06STL BNI [GX-75-2]
59	ZS-376523	ST BID30X06STL BNI EARTH LOCK
60	ZS-381482J	SCREW TOP COVER(3) B OM
61	SP-384102J	SIDEBOARD(L) [GX-95-2]
62	SP-384101J	SIDEBOARD(R) [GX-95-2]
63	ZW-376292	WASHER SIDE BOARD [GX-95-2]
64	ZS-376293	SCREW SIDE BOARD [GX-95-2]

NOTE:
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

14. ACCESSARY

Ref.No.	Part No.	Description
1	EW-383168J	CORD TC-C-05S P-P 2P 2PCS
2	AX-384837J	REMOCON RC-G95

15. REMOTE CONTROL RC-G95

Ref.No.	Part No.	Description
1	SC-726112J	CASE BATTERY GX-Z9100R

MEMO

ABBREVIATIONS (CASSETTE)

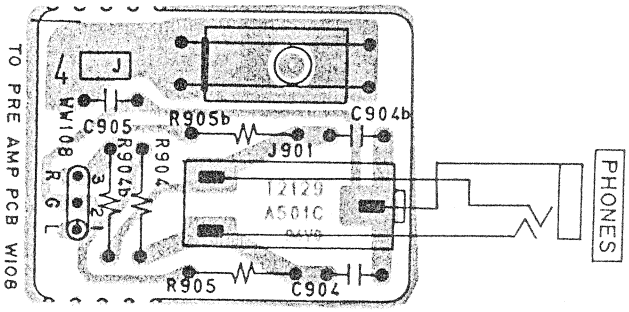
ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi PleX
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord (RECording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF (or F.FWD)	Fast Foward	SIG	SIGnal
FLD	FLuoresent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLume
L	Low	VOLT	VOLtage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitining Diode	XTAL	cysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MIcroCOMputer	X2	Dubble speed

AKAI

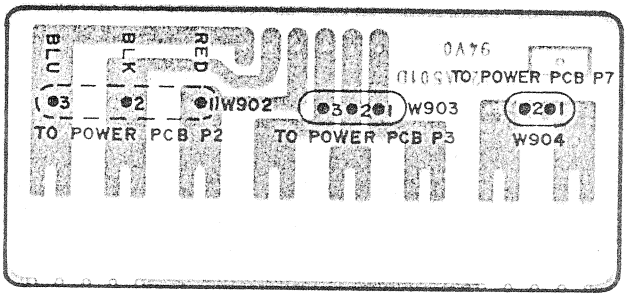
MODEL GX-75MKII
MODEL GX-95MKII

SCHEMATIC DIAGRAMS AND PC BOARDS

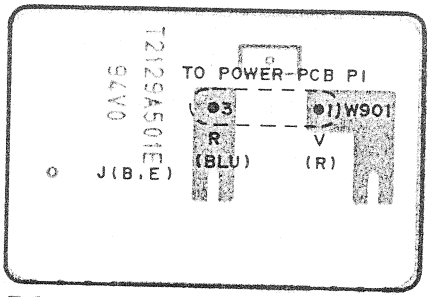
TABLE OF CONTENTS



PHONE PCB T2129A501C



POWER TRANS PCB (1)
T2129A501D



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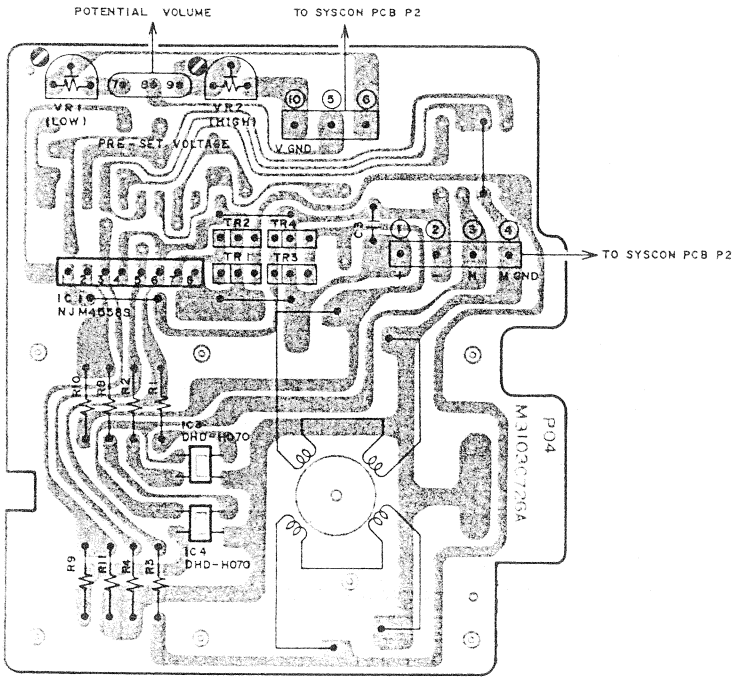
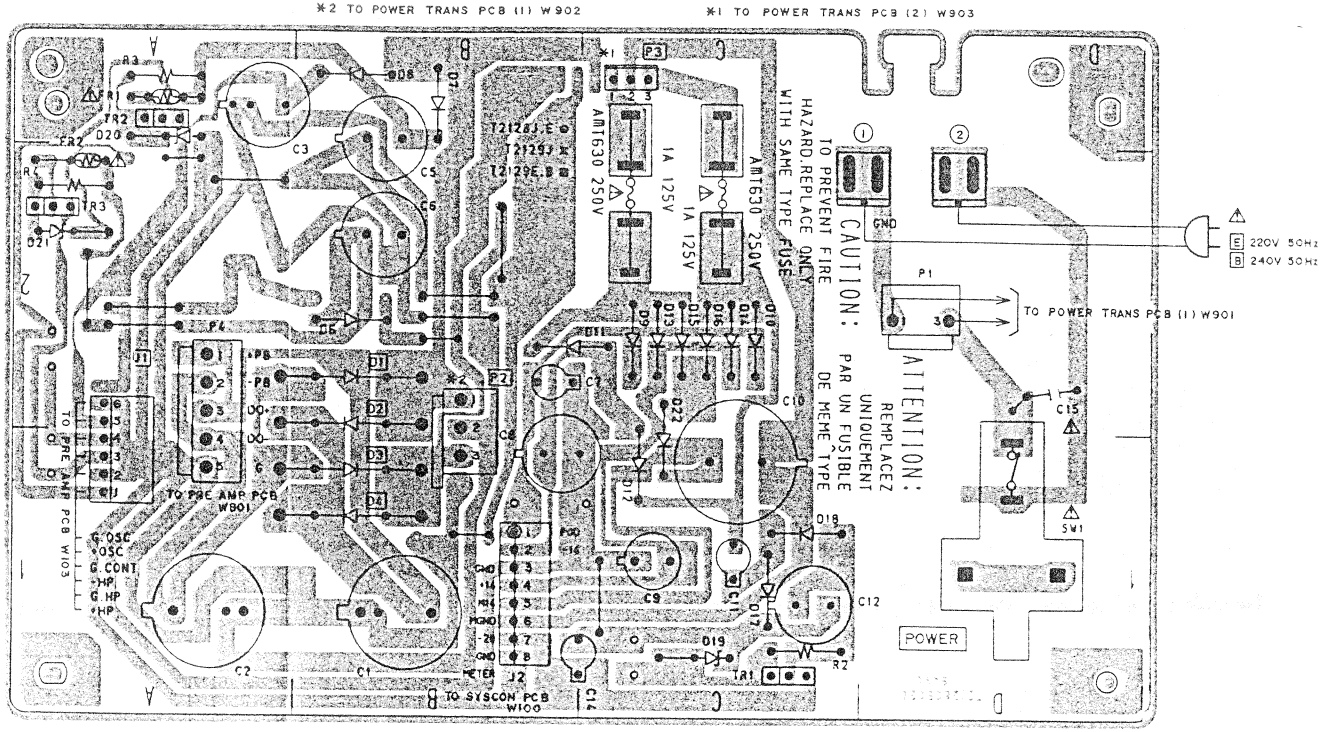
T2129A501E



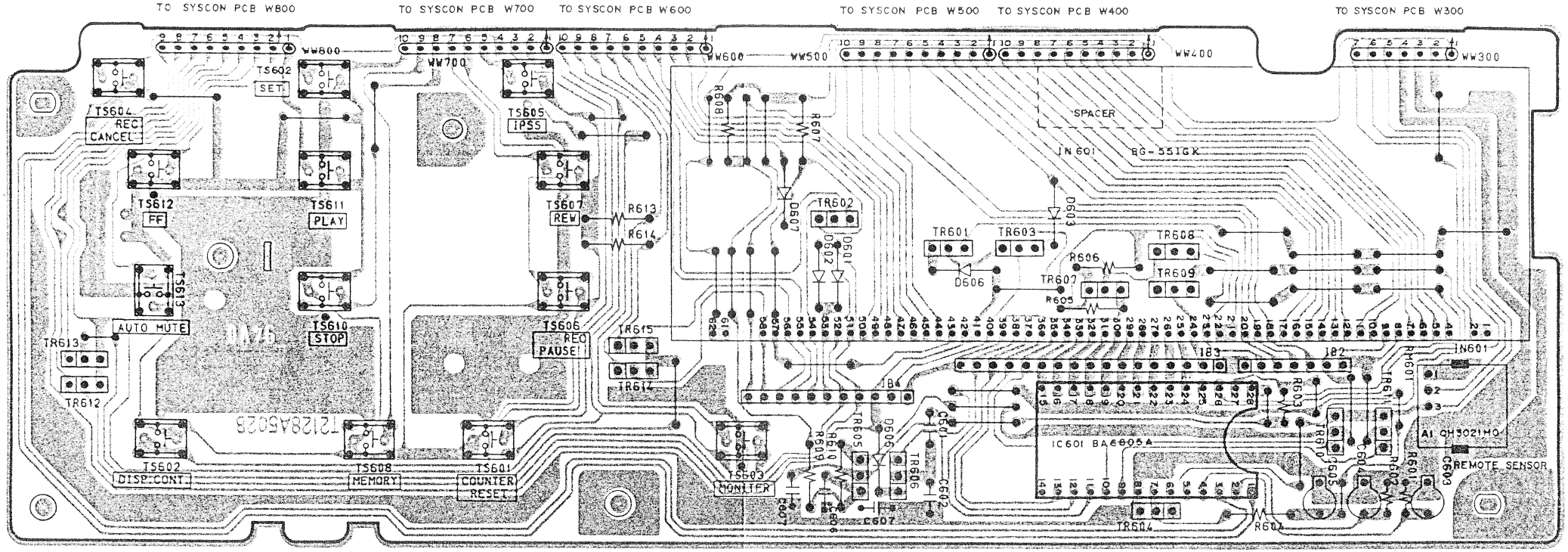
MOTOR PCB M3103C726A



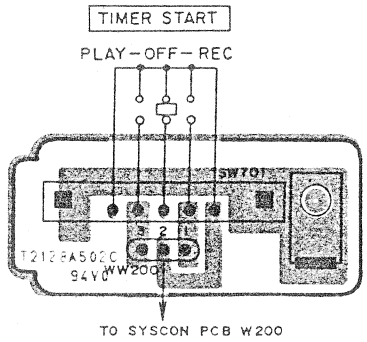
POWER SUPPLY PCB T2128C5030

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'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



OPERATION PCB T2128A502B



TIMER PCB T2128A502C

ヘッドホン基板
HP PCB
T2129A501C

プリアンプ基板
PRE AMP PCB
T2129A501A

発振基板
OSC PCB
T2129A501B

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

FG PCB M310C7130
FG基板

キャプスタンモーター M901 BLM-301B

POTENTION PCB M3103D7010

MOTOR PCB M3103C726A (J3)
モーター基板

フィルター基板 FILTER PCB T2029D5040

カムモーター M903 CAM MOTOR RF-2805

M902 REEL MOTOR MMN-5FDRABAC

OPERATION PCB T2128A502B
オペレーション基板

POWER SUPPLY PCB
⚠T2128C5030
電源基板

T2129B T2129E T2129J
T2129A501D POWER TRANCE PCB (1) 電源トランス基板 (1)
T2129A501E POWER TRANCE PCB (2) 電源トランス基板 (2)

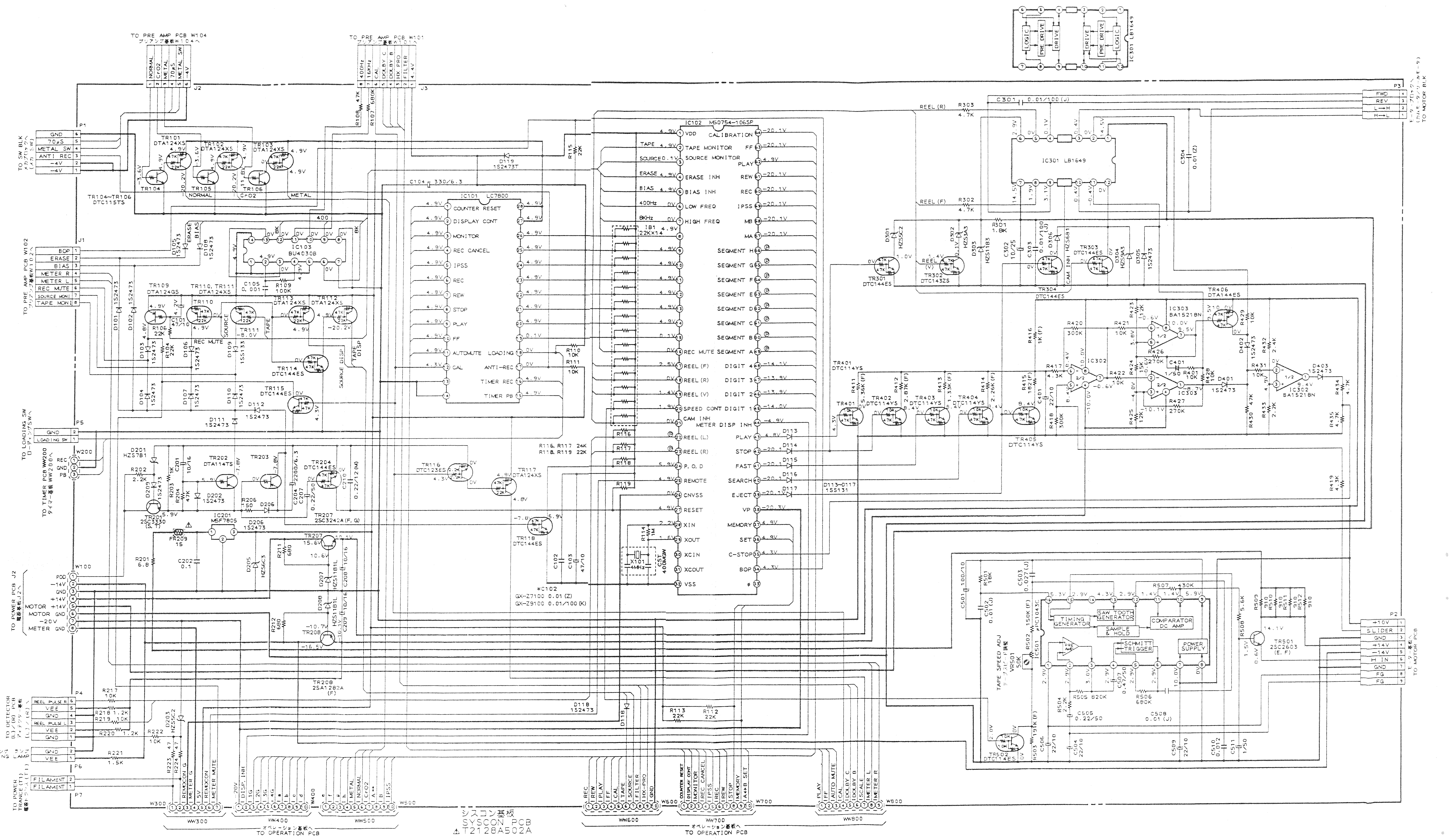
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μF 50WV (J)

⚠ および 回路 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 IRIT E CAL COMPONENTS FOR CONTINUED SIFETY. REPLACE SAFETY CRITICAL COMPONE FITS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS
AVERTISSMENT: ⚠ ET ▨ ILS INDIQUENT L ES COMPOSTANTS CRITIQUES DE SÉCURI TÉ. POUR MAINTENIR LE DEGRÉ DESÉCU RITÉ DE L' APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LEFABRE ICANT

INDICATED VOLTAGES ARE MEASURED BY DC VOLTAGE ON METAL TAPE PLAYING

GX-75MKII/95MK II
CONNECTION DI AGRAM
NO.3-1 T21 2804M



各部の電圧値は、メタルテープを再生した時の直流電圧値です。

INDICATED VOLTAGES ARE MEASURED BY DC VOLTAGE ON METAL TAPE PLAYING.

B（電源）ライン

備考
C、Rの単位（特に指定された部品以外）
抵抗・・・・・・Ω1/4W（J），（FS）記号は不燃性部品
コンデンサ・・・μF 50WV（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。
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WARNING: ⚠AND ▒ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▒, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

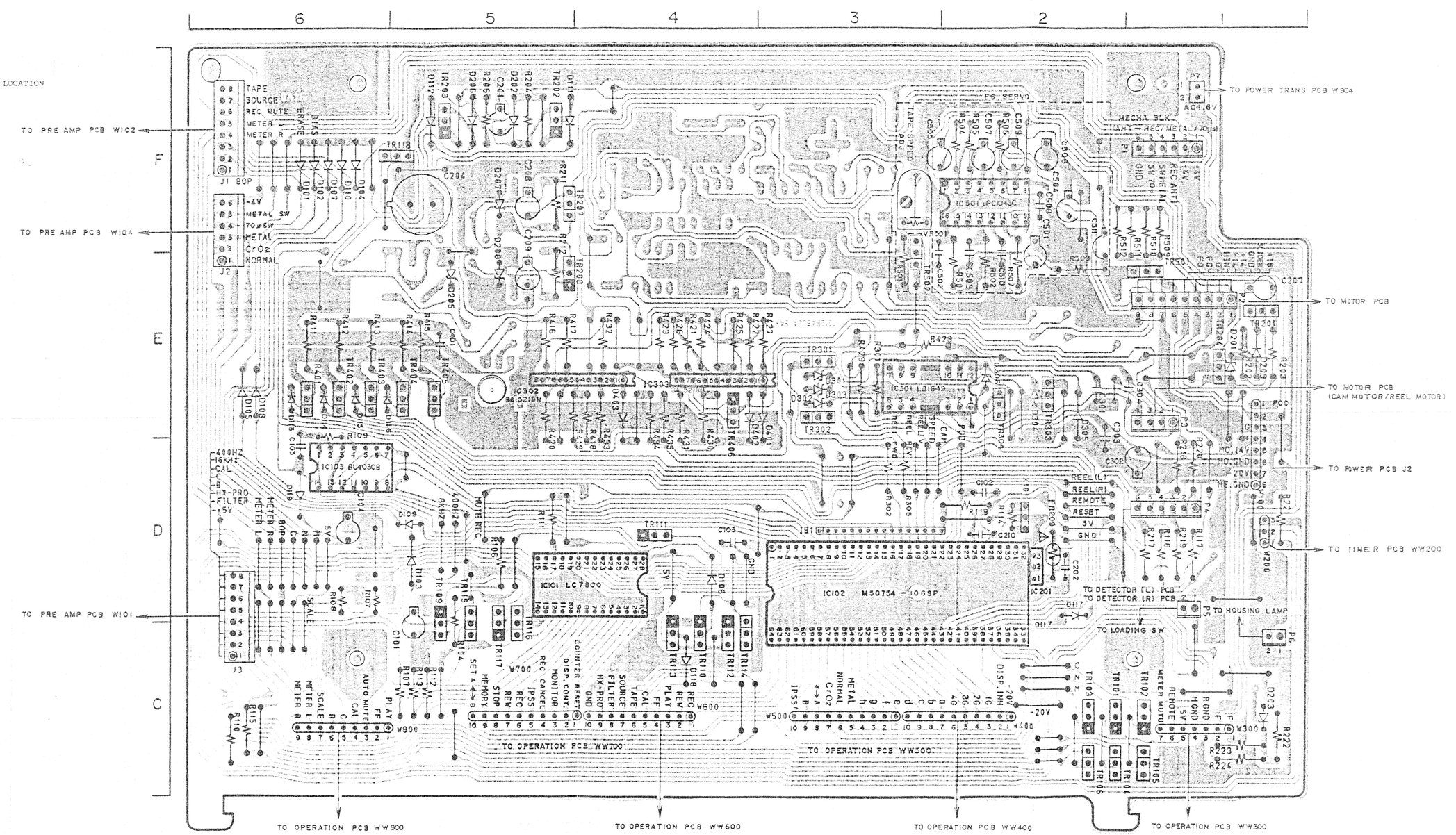
GX-75MKII/95MKII
SYSTEM CONTROL
SCHEMATIC DIAGRAM
NO.3-2 T2128|5M

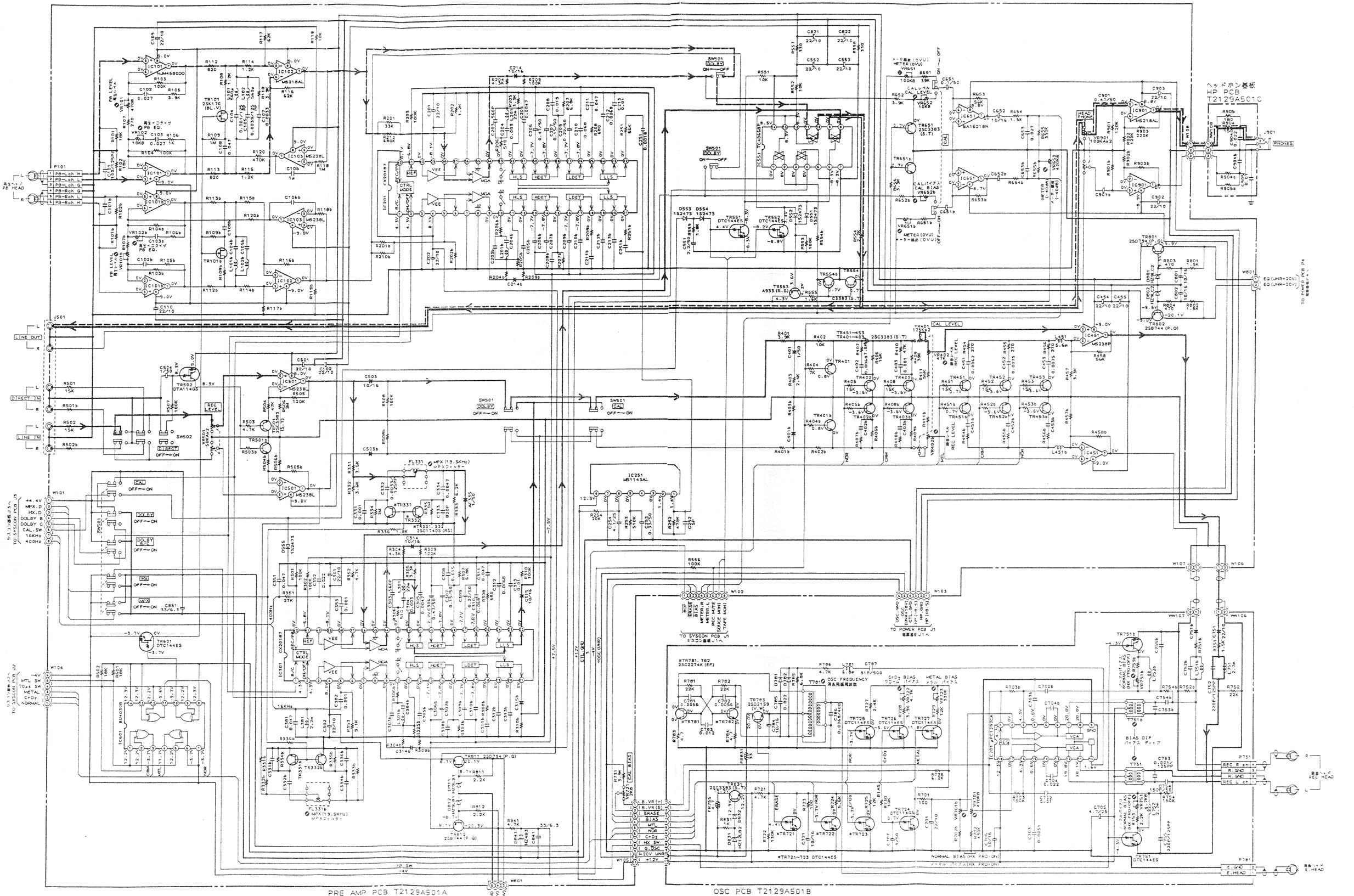
PRINCIPAL PARTS LOCATION

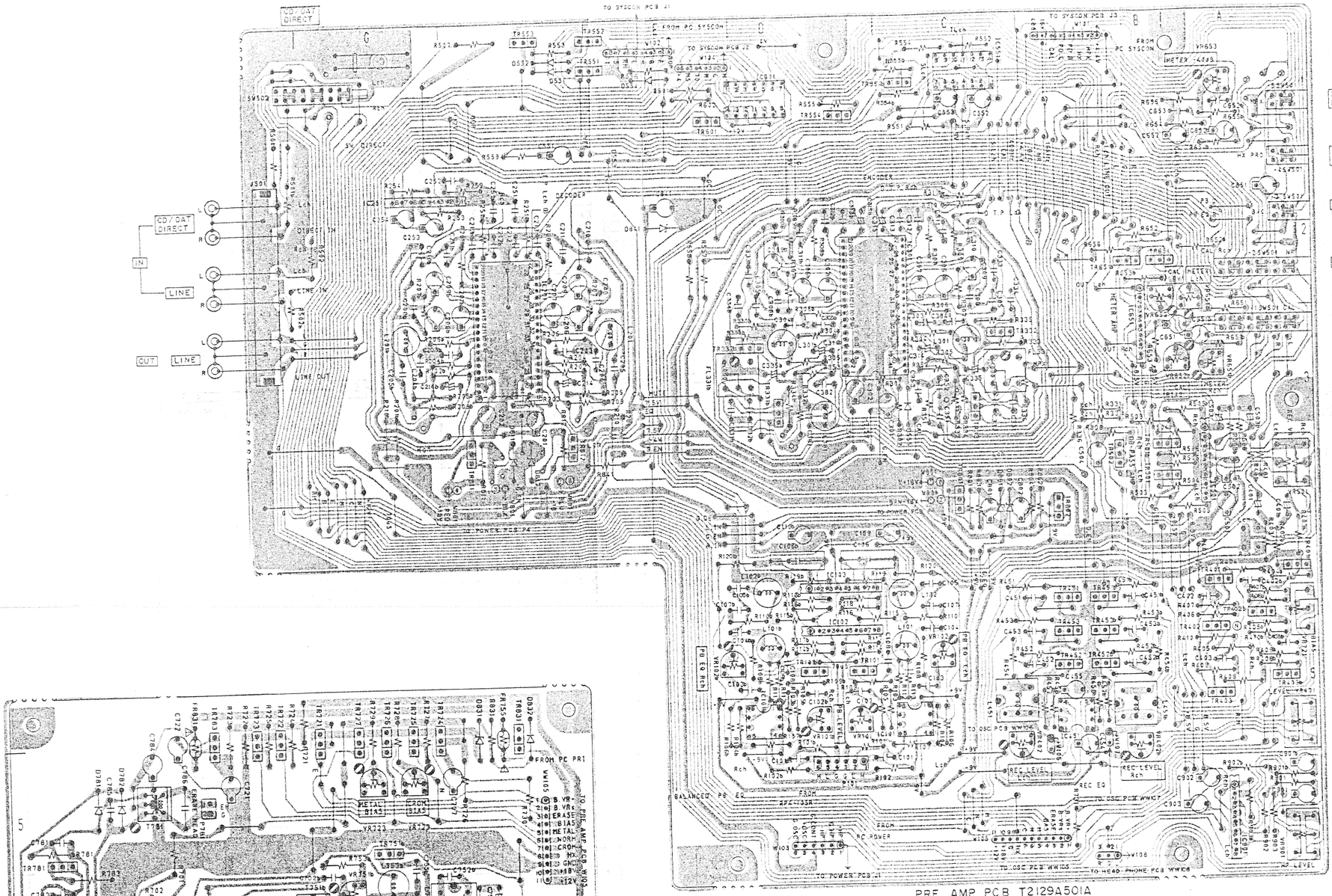
ICS
IC101.....D4
IC102.....D3
IC103.....D6
IC201.....D2
IC301.....E3
IC302.....B4
IC303.....B4
IC501.....F2

CONNECTORS
P1.....F1
P2.....E1
P3.....E1
P4.....D1
P5.....D1
P6.....C1
P7.....F1
J1.....F6
J2.....F6
J3.....D6
W100.....D1
W200.....D1
W300.....C1
W400.....C2
W500.....C3
W600.....C4
W700.....C5
W800.....C6

TRANSISTORS
TR101.....C2
TR102.....C1
TR103.....C2
TR104.....C2
TR105.....C1
TR106.....C2
TR109.....C5
TR110.....C4
TR111.....D4
TR112.....C4
TR113.....C4
TR114.....C4
TR115.....C5
TR116.....C5
TR117.....C5
TR118.....F5
TR201.....E1
TR202.....F5
TR203.....F5
TR204.....E1
TR207.....F5
TR208.....E5
TR301.....E3
TR302.....E3
TR303.....E2
TR304.....E2
TR401.....E6
TR402.....E6
TR403.....E6
TR404.....E5
TR405.....E5
TR406.....E4
TR501.....E1
TR502.....F3




PRE AMP PCB T2129A501A
プリ アンプ基板
OSC PCB T2129A501B
発振基板
ヘッドホン基板
HP PCB
T2129A501C
GX-75MKⅡ/95MKⅡ
PRE AMP & OSC
SCHEMATIC DIAGRAM
NO.3-3 T212806M



PRE AMP PCB T2129A501A

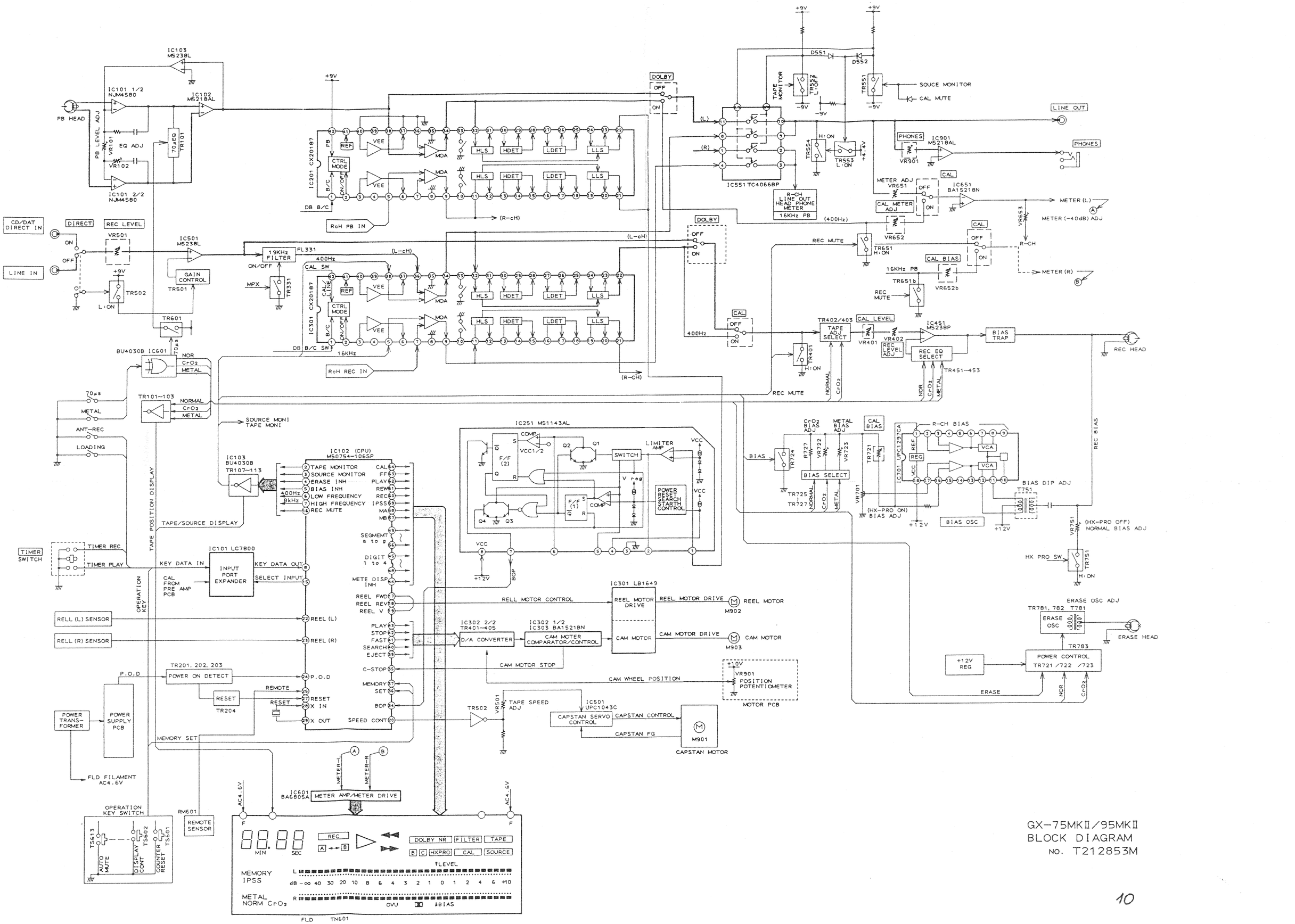
OSC PCB T2129A501B

PRINCIPAL PARTS LOCATION

ICs
IC101.....C5
IC101b.....D5
IC102.....D5
IC103.....D4
IC201.....F2
IC251.....G2
IC301.....D2
IC451.....B5
IC501.....A1
IC551.....C1
IC601.....D1
IC651.....B2
IC901.....A6

CONNECTORS
P101.....D6
J501.....H2
W101.....B1
W102.....E1
W103.....D6
W104.....E1
W105.....B6
W106.....B5
W107.....B5
W108.....B6
W801.....C4,F4

TRANSISTORS
TR101.....D5
TR101b.....D5
TR331.....C3
TR331b.....D3
TR332.....C3
TR332b.....D3
TR401.....A4
TR401b.....A4
TR402.....A5
TR402b.....A5
TR403.....A5
TR403b.....A5
TR451.....B4
TR451b.....B4
TR452.....B5
TR452b.....B5
TR453.....B5
TR453b.....B5
TR501.....B4
TR501b.....B3
TR502.....B3
TR553.....F1
TR554.....D1
TR554b.....C1
TR551.....E1
TR552.....E1
TR601.....E1
TR651.....B2
TR651b.....B2
TR801.....C4
TR802.....B4
TR811.....F3
TR812.....F3



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