

Service Manual

Cassette Deck

RS-T55R

** /Dolby B-C NR, Auto-Reverse
Double Cassette Deck

Color



(K)...Black Type
(S)...Silver Type



Color	Areas
(K)	[M].....U.S.A.
(K) (S)	[MC].....Canada.
(K) (S)	[E].....All European areas except United Kingdom.
(K) (S)	[EK].....United Kingdom.
(K) (S)	[EG].....F.R. Germany.
(K) (S)	[EH].....Holland.
(K) (S)	[XA].....Asia, Latin America, Middle Near East and Africa.
(K) (S)	[XL].....Australia.
(K) (S)	[XB].....Saudi Arabia.
(K)	[PA].....Far East PX.
(K)	[PE].....European Military.

SPECIFICATIONS

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
(DECK A) REC/PLAY	Solid Permalloy head
Erasing	Double-gap ferrite head
(DECK B) PLAY	Solid Permalloy head
Motors	
(DECK A) Capstan/reel table drive	2 speed electronically controlled DC motor
(DECK B) Capstan/reel table drive	2 speed electronically controlled DC motor
Recording system	AC bias
Bias frequency	77 kHz
Erasing system	AC erase
Tape speed	4.8 cm/sec. (1-7/8 ips)
Frequency response (w/o N.R.)	
METAL	20 Hz~18 kHz
	30 Hz~17 kHz (DIN)
CrO ₂	20 Hz~17 kHz
	30 Hz~16 kHz (DIN)
NORMAL	20 Hz~16 kHz
	30 Hz~15 kHz (DIN)
Dynamic Range (with dbx on)	110 dB (1 kHz)
Max. Input level improvement (with dbx on)	10 dB
S/N (signal level = max recording level, CrO ₂ type tape)	
dbx on	92 dB (A weighted)
Dolby C NR on	74 dB (CCIR)
Dolby B NR on	66 dB (CCIR)
NR off	56 dB (A weighted)

Wow and flutter	0.07% (WRMS) [others] 0.1% (WRMS) [XL, XA, XB] ±0.2% (DIN)
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Fast Forward and Rewind Time	Approx. 95 seconds with C-60 cassette tape
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Input sensitivity and impedance	
LINE	60 mV/47 kΩ
Output voltage and impedance	
LINE	400 mV/3 kΩ
HEADPHONES	80 mV

GENERAL

Power consumption	21W
Power supply	

For U.S.A. and Canada AC 60 Hz, 120V

For United Kingdom and Australia AC 50 Hz/60 Hz, 240V

For continental Europe AC 50 Hz/60 Hz, 220V

For others AC 50 Hz/60 Hz, 110V/127V/220V/240V

Dimensions (W×H×D)	430 × 118.6 × 273.5 mm (16-15/16" × 4-11/16" × 10-25/32") 5.2 kg (11.5 lb.)
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Weight

Note:

Specifications are subject to change without notice.

Weight and dimensions are approximate.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

** The term dbx is a registered trademark of dbx Inc.

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Technics

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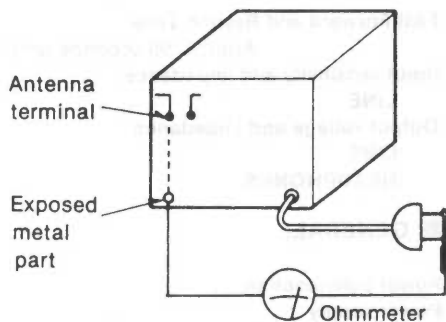
SAFETY PRECAUTION (This "safety precaution" is applied only in U.S.A.)

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

INSULATION RESISTANCE TEST

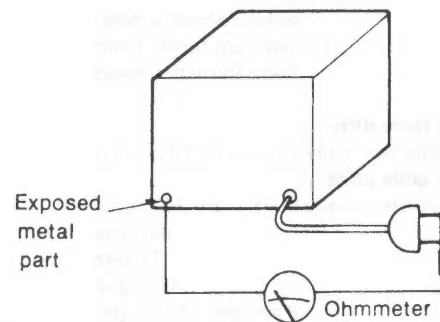
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between $3M\Omega$ and $5.2M\Omega$ to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.



(Fig. A)

Resistance = $3M\Omega - 5.2M\Omega$



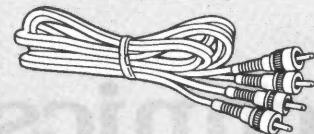
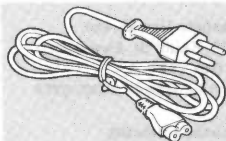
(Fig. B)

Resistance = Approx. ∞

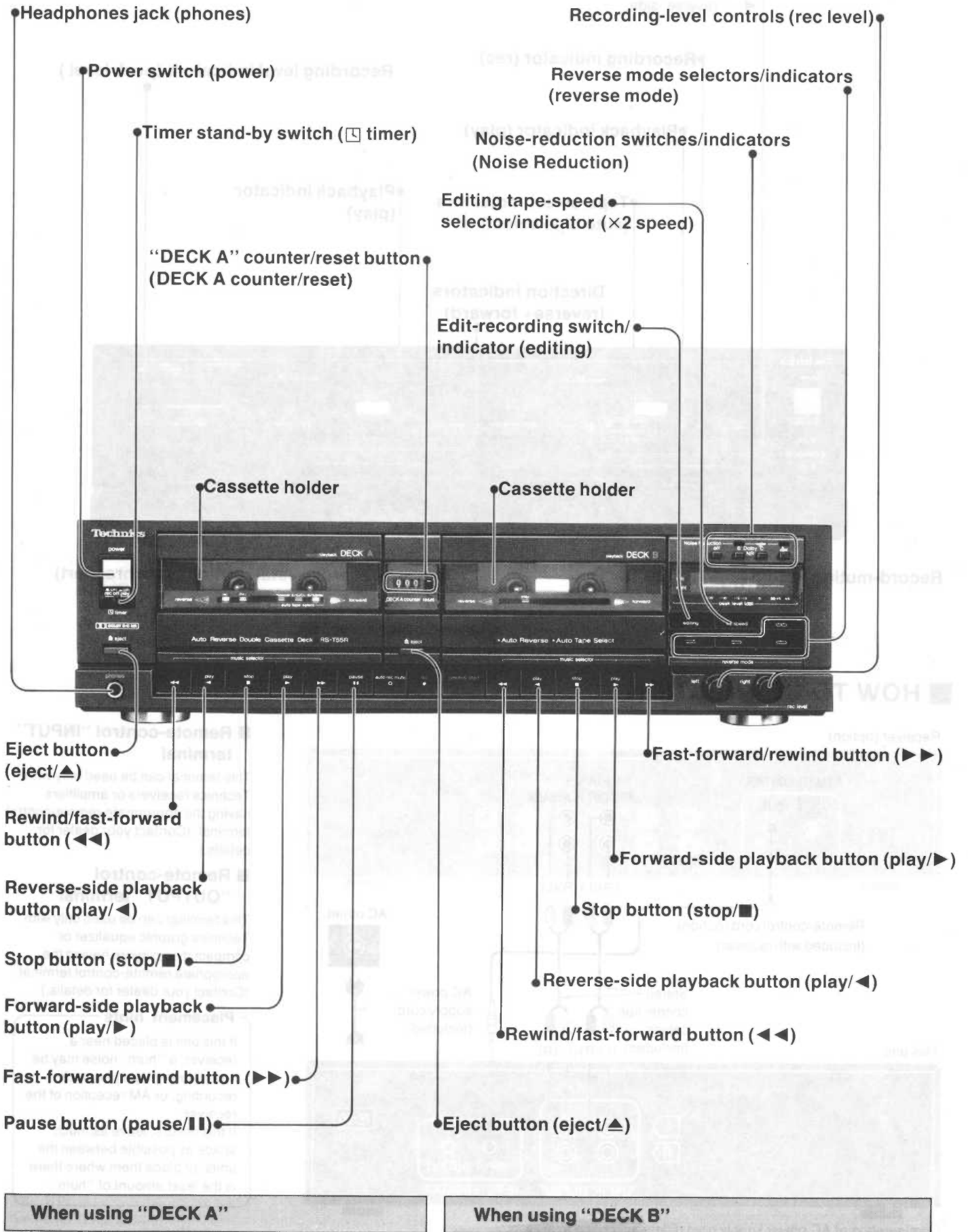
4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

ACCESSORIES

- | | | | |
|------------------------------|---|----------------------------------|---|
| • AC power supply cord | 1 | • Stereo connection cables | 2 |
| SFDAC05G02 [EK] | | (SJP2264) | |
| SFDAC05E03 [E, EH, EG] | | | |
| SJA183 [XB] | | | |
| SJA172 [MC] | | | |
| SJA173 [XL] | | | |
| SJA172-1 [M] | | | |
| SJA168-1 [XA] | | | |



LOCATION OF CONTROLS



● **Direction indicators (reverse • forward)**
 ▶: "forward" side (the cassette side facing outward)
 ◀: "reverse" side

● **Recording indicator (rec)**

● **Recording level indicators (peak level)**

● **Playback indicator (play)**

● **Tape-select indicators (auto tape select)**

● **Playback indicator (play)**

● **Direction indicators (reverse • forward)**



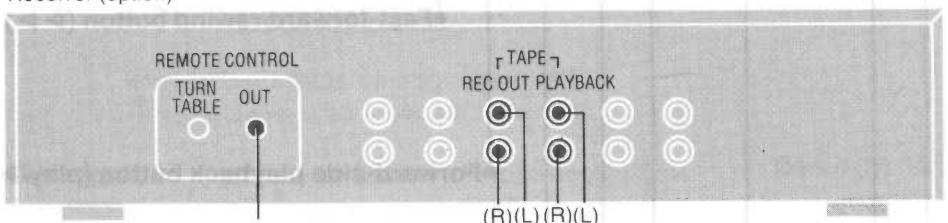
● **Record-muting button (auto rec mute/○)**

● **Synchro-recording-start button (synchro start)**

● **Record button (rec/ ●)**

HOW TO CONNECTION

Receiver (option)



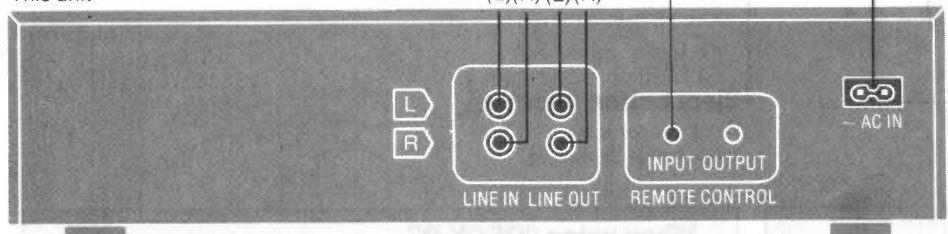
Remote-control cord (option)
 (Included with receiver)

Stereo connection cables (included)
 (L)(R)(L)(R)

AC outlet

AC power supply cord (included)

This unit



Remote-control "INPUT" terminal

This terminal can be used only with Technics receivers or amplifiers having the appropriate remote-control terminal. (Contact your dealer for details.)

Remote-control "OUTPUT" terminal

This terminal can be used only with Technics graphic equalizer or compact disc players having the appropriate remote-control terminal. (Contact your dealer for details.)

Placement hints

If this unit is placed near a receiver, a "hum" noise may be heard during tape playback, recording, or AM reception of the receiver.
 If this occurs, leave as much space as possible between the units, or place them where there is the least amount of "hum".

Configuration of AC power supply cord differs according to area.

DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1
How to remove the cabinet.

Procedure 1
• Remove the 7 screws.

Ref. No. 2
How to remove the main P.C.B.

Procedure 1 → 2
• Remove the 7 screws (1 ~ 7), and then remove the main P.C.B.

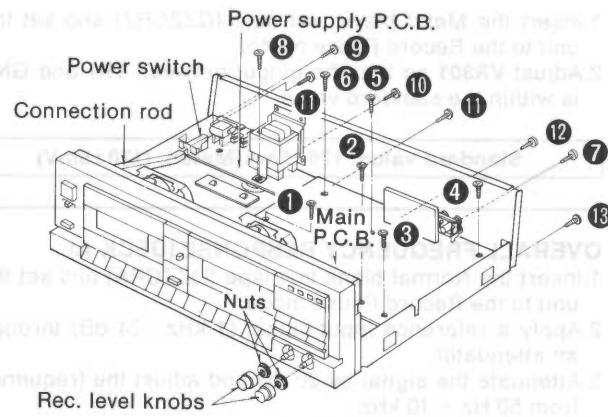


Fig. 1

Ref. No. 3
How to remove the power supply P.C.B.

Procedure 1 → 2 → 3
(Refer to the Fig. 1)
• Pull out the connection rod from the power switch.
• Remove the 6 screws (8 ~ 13), and then remove the power supply P.C.B. and the rear panel together.

Ref. No. 4
How to remove the front panel.

Procedure 1 → 4
• Remove the 8 screws (1 ~ 8), and then remove the front panel.

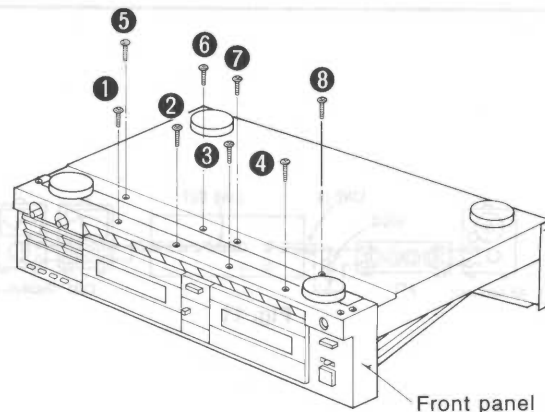


Fig. 2

Ref. No. 5
How to remove the mechanism units.

Procedure 1 → 4 → 5
• Remove the 6 screws (DECK A: 1 ~ 3/DECK B: 4 ~ 6).
• Push the eject button.
• Remove the counter belt (for the mechanism unit of DECK A).
• Remove the mechanism units (DECK A/DECK B).

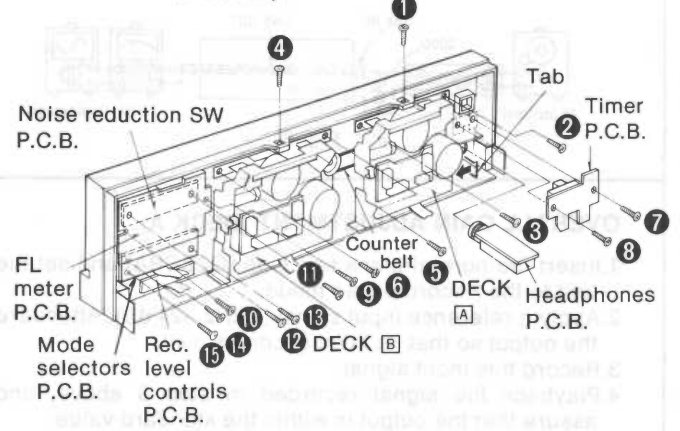


Fig. 3

Ref. No. 6
How to remove the printed circuit boards.

Procedure 1 → 4 → 6
(Refer to the Fig. 3)
• Remove the 2 screws (7, 8), and then remove the timer P.C.B.
• Push the tab aside, and then remove the headphones P.C.B.
• Remove the 2 screws (9, 10), and then remove the FL meter P.C.B.
• Remove the 2 screws (11, 12), and then remove the noise reduction SW P.C.B.
• Remove the 3 screws (13 ~ 15), and then remove the mode selectors P.C.B.
• Remove the 2 rec. level control knobs and the 2 nuts (refer to the Fig. 1), and then remove the rec. level controls P.C.B.

Ref. No. 8
How to remove the LED P.C.B.

Procedure 8
• Remove the cassette lids (DECK A and/or DECK B).
• Push the 3 tabs in the direction of the arrow, and then remove the LED P.C.B.s (DECK A and/or DECK B).

Ref. No. 7
How to remove the operation SW P.C.B.

Procedure 1 → 4 → 5 → 7
• Remove the 2 screws (DECK A: 1/DECK B: 2), and then remove the angles.
• Remove the 8 screws (DECK A: 3 ~ 6/DECK B: 7 ~ 10), and then remove the operation SW P.C.B.s (DECK A/DECK B).

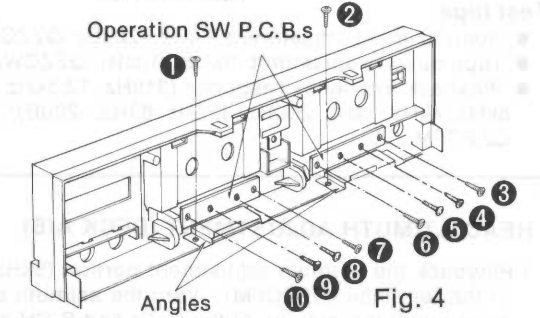


Fig. 4

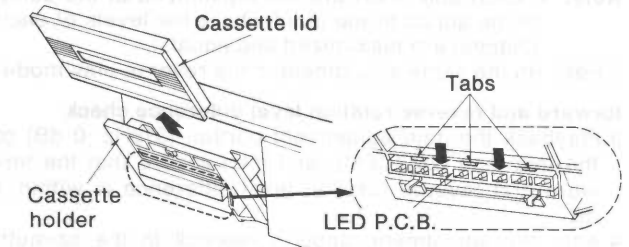


Fig. 5

TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

 BA6146 16 Pin TEA0665 28 Pin AN7016K 30 Pin LC6554H-3355 64 Pin AN6294NK 28 Pin	 M5218L 8 Pin MN6634 9 Pin	 LB1648 12 Pin
2SJ40CD 2SK381 Drain, Gate, Source	2SB621A-R 2SD592NC-R E, C, B	2SA1309AQS 2SC3311A-Q 2SD1450R E, C, B
2SA885Q 2SC1846-R E, C, B	2SA1253-S E, C, B	2SD1265-O 2SB941-P B, C, E
 Anode, Cathode, Ca, A	LN363GCPP (GREEN) LN463YCPPU (YEL) LN863RCPP (RED)	UN4211, UN4214 E, C, B
		UN4111 E, C, B
		MA165 1SR35200A Anode, Cathode, Ca, A
		MA4030M MA4068M MA4075M MA4043M MA4100M Anode, Cathode, Ca, A

MEASUREMENT AND ADJUSTMENT METHODES

Measurement Condition

- Recording level controls; Maximum
- Timer stand-by switch; Off
- Noise reduction switch; Off
- Editing switch; Off

Measuring instrument

- EVM(Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator

Test tape

- Head azimuth adjustment (8kHz, -20dB); QZZCFM
- Tape speed adjustment (3kHz, -10dB); QZZCWAT
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, -20dB); QZZCFM

- Edit-recording switch; Off
- Editing tape speed selector; Off
- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$)

- ATT(Attenuator)
- DC voltmeter
- Resistor (600Ω)

- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall frequency response, Overall gain adjustment Normal reference blank tape; QZZCRA CrO₂ reference blank tape; QZZCRX Metal reference blank tape; QZZCRZ

HEAD AZIMUTH ADJUSTMENT (DECK A/B)

1. Playback the azimuth adjustment portion (8kHz, -20dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

Note: If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2. Perform the same adjustment in the reverse play mode.

forward and reverse rotation level difference check

3. Playback the gain adjustment portion (315Hz, 0 dB) of the test tape (QZZCFM), and then assure that the forward and reverse rotation level difference is within 1 dB.

4. After the adjustment, apply screwlock to the azimuth adjusting screw.

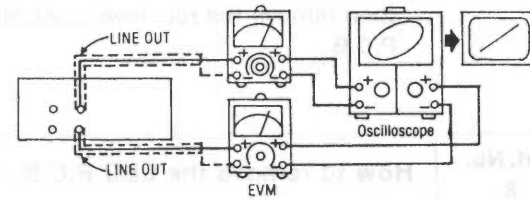


Fig. 1

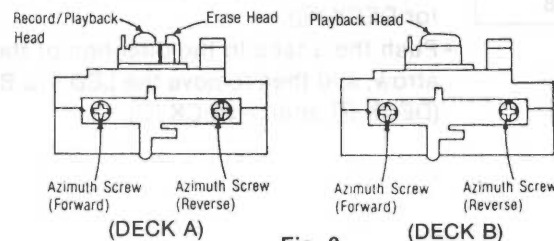


Fig. 2

TAPE SPEED ADJUSTMENT (DECK A/B)

High speed

1. Shift the editing tape speed switch to "X2" and ground TP4.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck B=VR802 and Deck A=VR801 (see Fig. 14) so that the output is within the standard value.

Normal speed

4. Shift the editing tape speed switch to "X1" and remove the ground from TP4.
5. Playback the middle portion of the test tape (QZZCWAT).
6. Adjust Deck B=VR804 and Deck A=VR803 (see Fig. 14) so that the output is within the standard value.

Note: The High speed adjustment must be done before the Normal speed adjustment.

Standard value: $3000 \pm 15\text{Hz}$ (Normal), $6000 \pm 30\text{Hz}$ (High)

PLAYBACK GAIN ADJUSTMENT (DECK A/B)

1. Playback the gain adjustment portion (315 Hz, 0 dB) of the test tape (QZZCFM).
2. Adjust Deck B=VR3 (L-CH) [[VR4 (R-CH)]] and Deck A=VR5 (L-CH) [[VR6 (R-CH)]] so that the output is within the standard value.

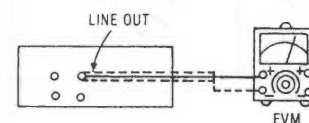


Fig. 4

Standard value: $0.4\text{V} \pm 0.5\text{dB}$

PLAYBACK FREQUENCY RESPONSE (DECK A/B)

1. Playback the frequency response portion (315 Hz, 12.5 kHz ~ 63 Hz, -20 dB) of the test tape (QZZCFM).
2. Assure that the frequency response is within the range shown in Fig. 6 for both L-CH and R-CH.

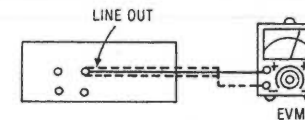


Fig. 5

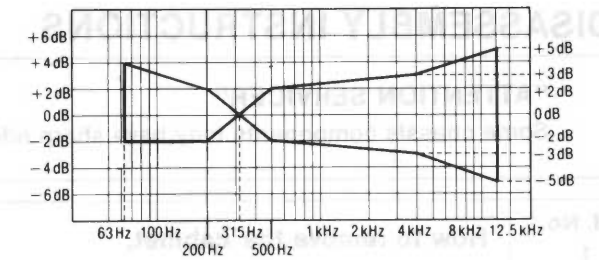


Fig. 6

ERASE CURRENT ADJUSTMENT (DECK A)

1. Insert the Metal blank test tape (QZZCRZ) and set the unit to the Record Pause mode.
2. Adjust VR301 so that the output between TP1 and GND is within the standard value.

Standard value: $170 \pm 5\text{mA}$ (Metal), $(170 \pm 5\text{mV})$

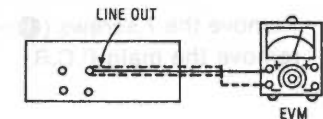


Fig. 7

OVERALL FREQUENCY RESPONSE (DECK A)

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record Pause mode.
2. Apply a reference input signal (1 kHz, -24 dB) through an attenuator.
3. Attenuate the signal by 20 dB and adjust the frequency from 50 Hz ~ 10 kHz.
4. Record the frequency sweep.
5. Playback the recorded signal and assure that it is within the range shown in Fig. 9 in comparison to the reference frequency (1 kHz).
6. If it is not within the standard range, adjust VR1 (L-CH) and VR2 (R-CH) so that the frequency level is within the standard range.
 - Level up in high frequency range.....Increase the bias current.
 - Level down in high frequency range...Decrease the bias current.
7. Repeat steps 2 ~ 6 above using the CrO₂ tape(QZZCRX) and the Metal tape(QZZCRZ) increasing the frequency range to 12kHz (50 Hz ~ 12.5 kHz).
8. Assure that the level is within the range shown in Fig. 10.

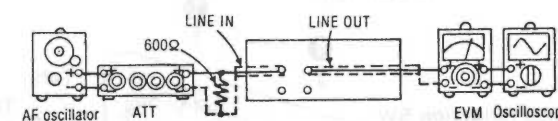


Fig. 8

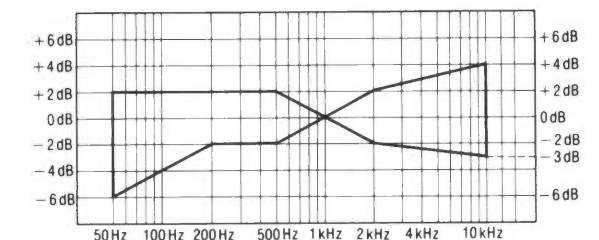


Fig. 9

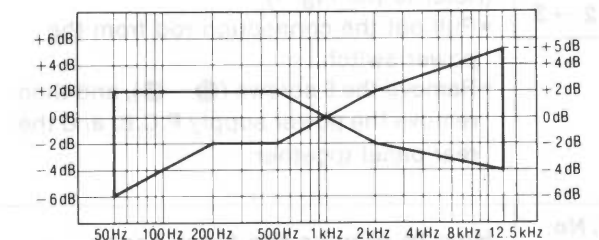


Fig. 10

OVERALL GAIN ADJUSTMENT (DECK A)

1. Insert the normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2. Apply a reference input signal (1 kHz, -24 dB). Attenuate the output so that its level becomes 0.4V.
3. Record this input signal.
4. Playback the signal recorded in step 3 above, and assure that the output is within the standard value.
5. If it is not within the standard, adjust VR7 (L-CH) and VR8 (R-CH).
6. Repeat the 2 ~ 5 above until the output is within the standard value.

Standard value: $0.4\text{V} \pm 0.5\text{dB}$

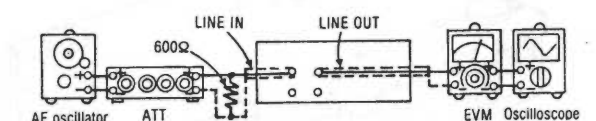


Fig. 11

FLUORESCENT METER LEVEL ADJUSTMENT

1. Insert the Normal blank test tape(QZZCRA) and apply a reference input signal (1 kHz, -24 dB) in the Record Pause mode.
2. Adjust the output to 0.4V by attenuator.
3. Adjust **VR9** (L-CH) and **VR10** (R-CH) so that the 0 dB segment part is half lighted.

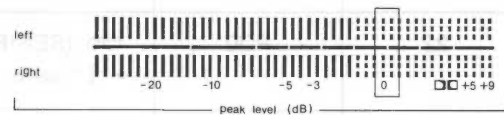


Fig. 12

dbx TIMING ADJUSTMENT

1. Shift the noise reduction switch to the dbx position.
2. Playback the gain adjustment portion (315 Hz, 0 dB) of the test tape (QZZCFM).
3. Connect a DC voltmeter across **TP501** and **TP502**.
4. Adjust **VR501** so that the output is within the standard value.

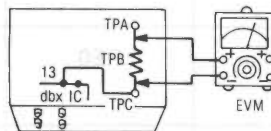


Fig. 13

TPA: TP501, TPB: R521, TPC: TP502

Standard value: DC16.6mV ± 0.5mV

• Adjustment point

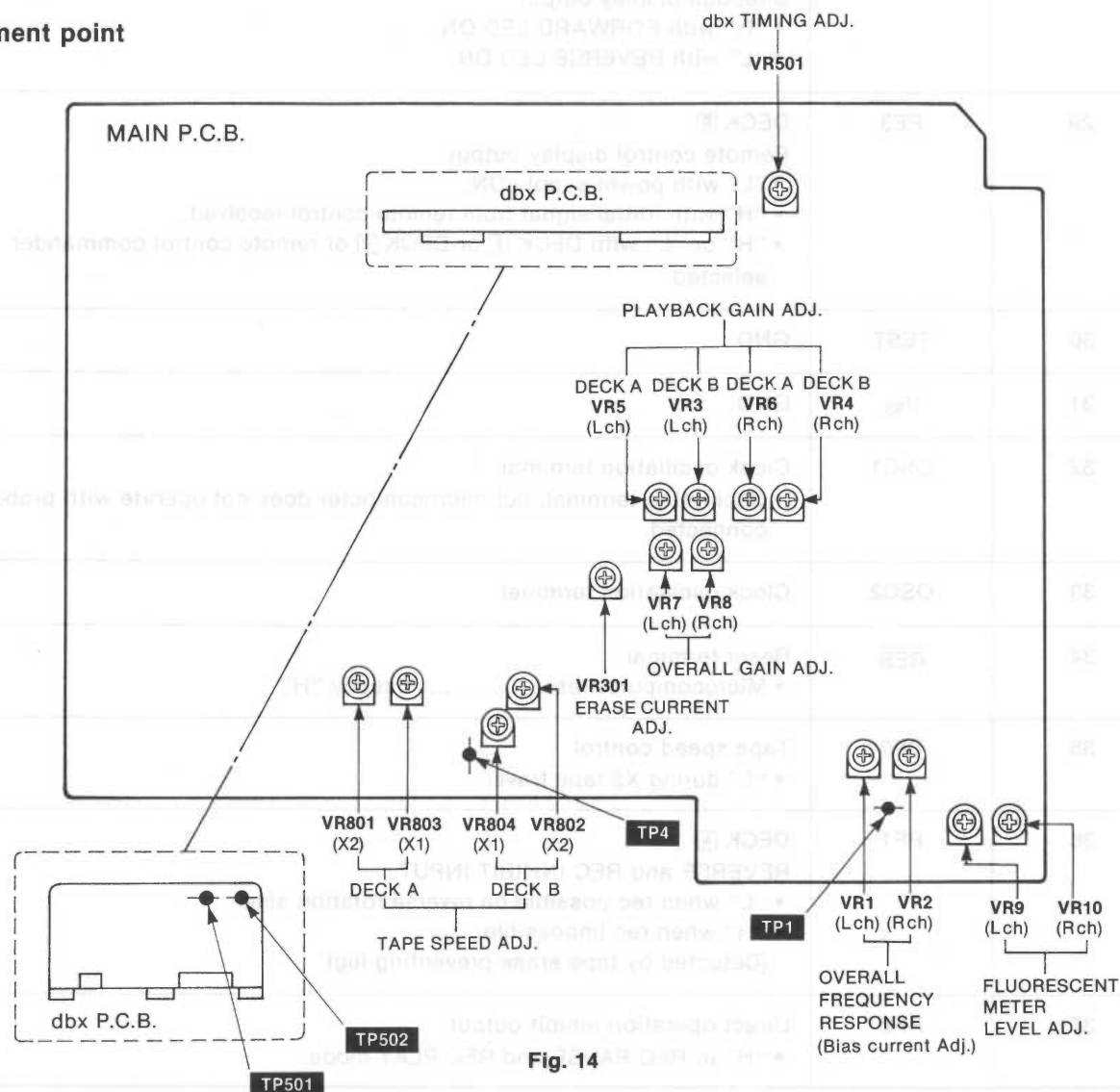























Fig. 14

■ MICROCOMPUTER TERMINAL FUNCTION AND WAVEFORM

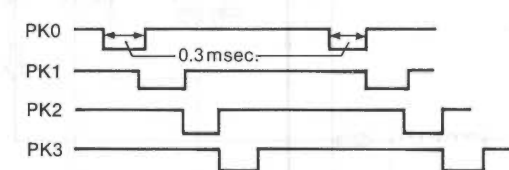
(IC901: LC6554H-3355)

Terminal	Symbol	Function/operation																																													
1	PN0	LINE OUT output mute control (OPEN in Line Out Mute mode) <table border="1" style="float: right;"> <thead> <tr> <th rowspan="2">DECK [A] Editing SW</th> <th colspan="2">STOP, FF, REW PAUSE, MS SEARCH</th> <th colspan="2">PLAY</th> </tr> <tr> <th>ON</th> <th>OFF</th> <th>ON</th> <th>OFF</th> </tr> </thead> <tbody> <tr> <td>DECK [A]</td> <td>ON</td> <td>OFF</td> <td>H</td> <td>H</td> </tr> <tr> <td>STOP, FF, REW, PAUSE</td> <td>OPEN</td> <td>OPEN</td> <td>H</td> <td>H</td> </tr> <tr> <td>PLAY</td> <td>H</td> <td>H</td> <td></td> <td></td> </tr> <tr> <td>REC PAUSE</td> <td>OPEN</td> <td>H</td> <td>H</td> <td>H</td> </tr> <tr> <td>REC PLAY</td> <td>OPEN</td> <td>H</td> <td>H</td> <td>H</td> </tr> </tbody> </table>	DECK [A] Editing SW	STOP, FF, REW PAUSE, MS SEARCH		PLAY		ON	OFF	ON	OFF	DECK [A]	ON	OFF	H	H	STOP, FF, REW, PAUSE	OPEN	OPEN	H	H	PLAY	H	H			REC PAUSE	OPEN	H	H	H	REC PLAY	OPEN	H	H	H											
DECK [A] Editing SW	STOP, FF, REW PAUSE, MS SEARCH			PLAY																																											
	ON	OFF	ON	OFF																																											
DECK [A]	ON	OFF	H	H																																											
STOP, FF, REW, PAUSE	OPEN	OPEN	H	H																																											
PLAY	H	H																																													
REC PAUSE	OPEN	H	H	H																																											
REC PLAY	OPEN	H	H	H																																											
2	PN1	Meter mute control <ul style="list-style-type: none"> • When Auto Rec Mute switch (S713) is pressed in REC PAUSE mode, "L" → "OPEN", and "OPEN" → "L" when released. • "OPEN" during Auto Rec Mute in REC PLAY mode. • "OPEN" in STOP mode, and "L" in PLAY mode. 																																													
3	PN2	Rec amp mute control <ul style="list-style-type: none"> • "L" when not in Auto Rec Mute mode. • "OPEN" in other mode. (Timing Chart)																																													
4	PN3	Dolby IC Encode/decode selection. <ul style="list-style-type: none"> • "H" in non-editing REC mode. • "L" in other mode. 																																													
5	P00	Playback time constant selection <ul style="list-style-type: none"> • "H" in normal tape play mode. • "L" in CrO₂, metal tape play mode. • Previous condition is maintained in other mode. <table border="1" style="float: right;"> <thead> <tr> <th>DECK [A]</th> <th>DECK [B]</th> <th>DECK [A] STOP, FF REW, PAUSE</th> <th>DECK [B] PLAY</th> <th>DECK [A] PLAY</th> <th>Edit mode DECK [A] PLAY</th> <th>Edit mode DECK [B] PLAY</th> <th>Edit mode DECK [A] REC PLAY or REC PAUSE</th> <th>Edit mode DECK [B] REC, PLAY or REC, PAUSE</th> </tr> </thead> <tbody> <tr> <td>NORMAL</td> <td>NORMAL</td> <td>—</td> <td>H</td> <td>H</td> <td>H</td> <td>H</td> <td>—</td> <td>H</td> </tr> <tr> <td>NORMAL</td> <td>CrO₂ METAL</td> <td>—</td> <td>H</td> <td>OPEN</td> <td>H</td> <td>OPEN</td> <td>—</td> <td>H</td> </tr> <tr> <td>CrO₂ METAL</td> <td>NORMAL</td> <td>—</td> <td>OPEN</td> <td>H</td> <td>OPEN</td> <td>H</td> <td>—</td> <td>OPEN</td> </tr> <tr> <td>CrO₂ METAL</td> <td>CrO₂ METAL</td> <td>—</td> <td>OPEN</td> <td>OPEN</td> <td>OPEN</td> <td>OPEN</td> <td>—</td> <td>OPEN</td> </tr> </tbody> </table>	DECK [A]	DECK [B]	DECK [A] STOP, FF REW, PAUSE	DECK [B] PLAY	DECK [A] PLAY	Edit mode DECK [A] PLAY	Edit mode DECK [B] PLAY	Edit mode DECK [A] REC PLAY or REC PAUSE	Edit mode DECK [B] REC, PLAY or REC, PAUSE	NORMAL	NORMAL	—	H	H	H	H	—	H	NORMAL	CrO ₂ METAL	—	H	OPEN	H	OPEN	—	H	CrO ₂ METAL	NORMAL	—	OPEN	H	OPEN	H	—	OPEN	CrO ₂ METAL	CrO ₂ METAL	—	OPEN	OPEN	OPEN	OPEN	—	OPEN
DECK [A]	DECK [B]	DECK [A] STOP, FF REW, PAUSE	DECK [B] PLAY	DECK [A] PLAY	Edit mode DECK [A] PLAY	Edit mode DECK [B] PLAY	Edit mode DECK [A] REC PLAY or REC PAUSE	Edit mode DECK [B] REC, PLAY or REC, PAUSE																																							
NORMAL	NORMAL	—	H	H	H	H	—	H																																							
NORMAL	CrO ₂ METAL	—	H	OPEN	H	OPEN	—	H																																							
CrO ₂ METAL	NORMAL	—	OPEN	H	OPEN	H	—	OPEN																																							
CrO ₂ METAL	CrO ₂ METAL	—	OPEN	OPEN	OPEN	OPEN	—	OPEN																																							
6	P01	Playback amp input selection <ul style="list-style-type: none"> • "H" in DECK [A] playback mode. • "L" in other mode. 																																													

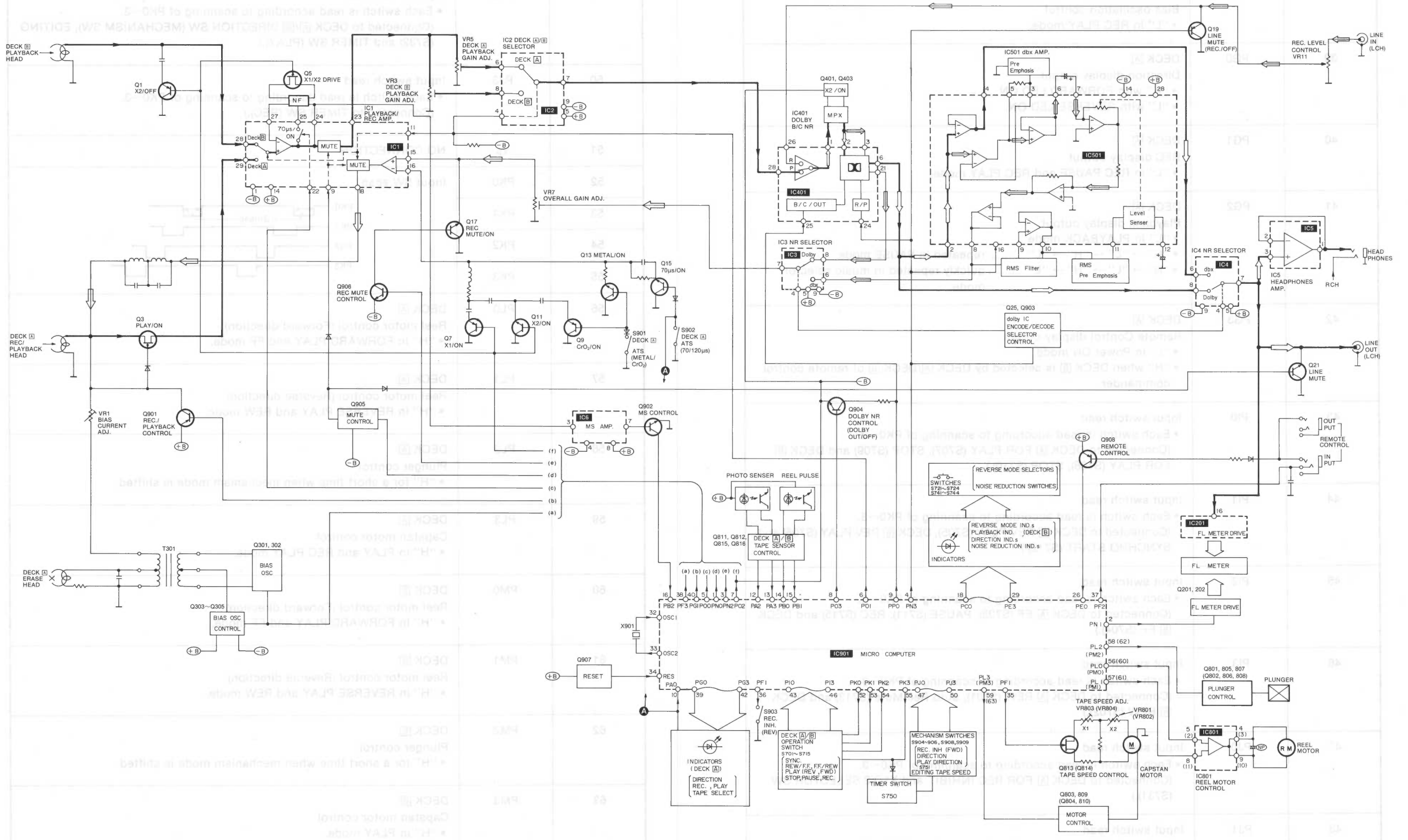
Terminal	Symbol	Function/operation
7	P02	X2 display output • "H" with X2 editing display LED ON.
8	P03	NR OFF selector • "H" in NR selector "OFF" mode.
9	PP0	Dolby C selector • "H" in Dolby C selector mode.
10	PA0	DECK  Auto tape selector input • "L" with normal tape loaded.
11	PA1	DECK  Auto tape selector input • "L" with normal tape loaded.
12	PA2	DECK  Leader tape detection • Usually "H".
13	PA3	DECK  Leader tape detection • "L" in leader tape play mode.
14	PB0	DECK  Reel base rotation detection Pulse is input when reel base rotates.
15	PB1	DECK  Reel base rotation detection Pulse is input when reel base rotates.
16	PB2	Music selector pulse input • "L" when music selector is operated with signal applied, and "H" without signal.
17	PB3	Power supply OFF detection • When power supply ON, pulse-form waveform as shown below is input. 
18	PC0	dbx display output • "L" with dbx display LED ON.
19	PC1	Dolby B display output • "L" with Dolby B display LED ON.
20	PC2	Dolby C display output • "L" with Dolby C display LED ON.
21	PC3	Editing display output • "L" with editing display LED ON.

Terminal	Symbol	Function/operation
22	PD0	 (SERIES) display output • "L" with  (SERIES) display LED ON.
23	PD1	 (ONE WAY) display output • "L" with  (ONE WAY) display LED ON.
24	PD2	 (REVERSE) display output • "L" with  (REVERSE) display LED ON.
25	PD3	 (REPEAT) display output • "L" with  (REPEAT) display LED ON.
26	PE0	Remote control serial signal input • Terminal to input KEY-IN signal from Amp, Receiver, Remote Control.
27	PE1	DECK  Playback display output • "L" in play mode • "H" → "L" → "H" repeated in music selector mode.
28	PE2	DECK  Direction display output • "H" with FORWARD LED ON. • "L" with REVERSE LED ON.
29	PE3	DECK  Remote control display output • "L" with power supply ON. • "H" with initial signal from remote control received. • "H" or "L" with DECK  or DECK  of remote control commander selected.
30	TEST	GND
31	V _{SS}	GND
32	OSC1	Clock oscillation terminal • Oscillation terminal, but microcomputer does not operate with probe connected.
33	OSC2	Clock oscillation terminal
34	$\overline{\text{RES}}$	Reset terminal • Microcomputer reset usually "H"
35	PF0	Tape speed control • "L" during X2 tape travel.
36	PF1	DECK  REVERSE and REC INHIBIT INPUT • "L" when rec possible on reverse rotation side. • "H" when rec impossible. (Detected by tape erase preventing lug)
37	PF2	Direct operation inhibit output • "H" in REC PAUSE and REC PLAY mode.

Terminal	Symbol	Function/operation
38	PF3	DECK [A] Bias oscillation control • "L" in REC PLAY mode.
39	PG0	DECK [A] Direction display output • "H" with FORWARD LED ON. • "L" with REVERSE LED ON.
40	PG1	DECK [A] REC display output • "L" in REC PAUSE and REC PLAY mode.
41	PG2	DECK [A] Playback display output • "L" in PLAYBACK mode. • "H" → "L" → "H" → "L" repeated in PAUSE mode. • "H" → "L" → "H" → "L" quickly repeated in music selector mode.
42	PG3	DECK [A] Remote Control display output • "L" in Power ON mode. • "H" when DECK [B] is selected by DECK [A]/DECK [B] of remote control commander.
43	PI0	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A] FOR PLAY (S707), STOP (S709) and DECK [B] FOR PLAY (S708), STOP (S710).)
44	PI1	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A] REV PLAY (S705), DECK [B] REV PLAY (S706) and SYNCHRO START (S712).)
45	PI2	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A] FF (S703), PAUSE (S711), REC (S715) and DECK [B] FF (S704).)
46	PI3	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A] REW (S701), auto Rec Mute (S713) and DECK [B] REW (S702).)
47	PJ0	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A] FOR REC INHIBIT and X1/X2 SELECTOR SW (S731).)
48	PJ1	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A] PLAY SW (Head base plate position detection) and DECK [B] PLAY SW.)

Terminal	Symbol	Function/operation
49	PJ2	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to DECK [A]/[B] DIRECTION SW (MECHANISM SW), EDITING (S732) and TIMER SW (PLAY).)
50	PJ3	Input switch read • Each switch is read according to scanning of PK0~3. (Connected to TIMER SW (REC).)
51	V _P	NO CONNECTION
52	PK0	Input SW scan 
53	PK1	
54	PK2	
55	PK3	
56	PL0	DECK [A] Reel motor control (Forward direction) • "H" in FORWARD PLAY and FF mode.
57	PL1	DECK [A] Reel motor control (Reverse direction) • "H" in REVERSE PLAY and REW mode.
58	PL2	DECK [A] Plunger control • "H" for a short time when mechanism mode is shifted.
59	PL3	DECK [A] Capstan motor control • "H" in PLAY and REC PLAY mode.
60	PM0	DECK [B] Reel motor control (Forward direction) • "H" in FORWARD PLAY and FF mode.
61	PM1	DECK [B] Reel motor control (Reverse direction) • "H" in REVERSE PLAY and REW mode.
62	PM2	DECK [B] Plunger control • "H" for a short time when mechanism mode is shifted.
63	PM3	DECK [B] Capstan motor control • "H" in PLAY mode.
64	V _{DD}	Operates with +4.5V to +5.5V.

BLOCK DIAGRAM

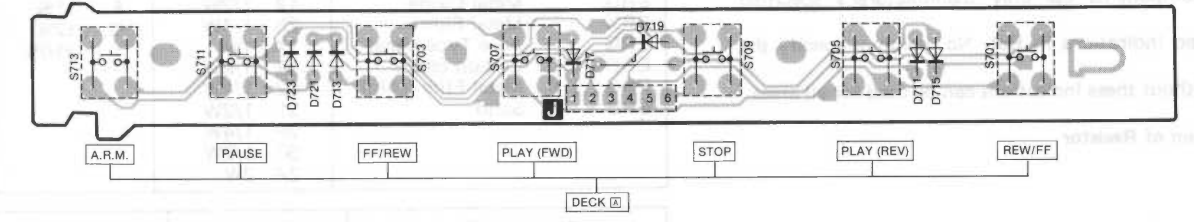


NOTES:
 (→): Playback signal
 (⇄): Recording signal

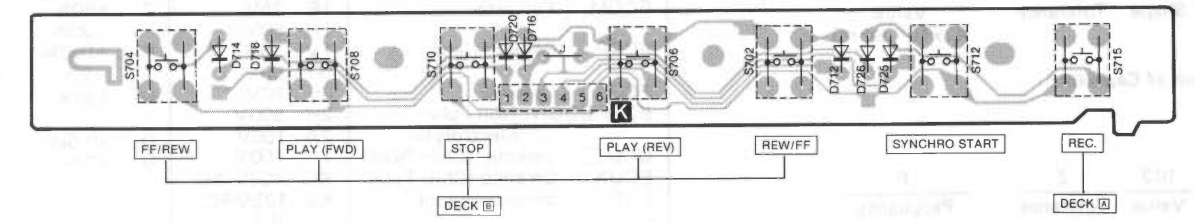
Ref. No.	Part No.	Part Code	Description	Ref. No.	Part No.	Part Code	Description
Q17, Q18	2SD1450R	001 030 4366 1	TRANSISTOR	I.C. PROTECTORS			
Q19, Q20	2SA1253-S	001 030 4843 3	TRANSISTOR	ICP603	SRUN10	001 061 3071 4	I.C. PROTECTOR
Q21, Q22	2SD1450R	001 030 4366 1	TRANSISTOR	ICP601, ICP602	SRUN15	001 061 2834 9	I.C. PROTECTOR
Q25	UN4111	001 030 2899 5	TRANSISTOR	VARIABLE RESISTORS			
Q201	UN4211	001 030 4033 9	TRANSISTOR	VR1, VR2	EVND4AA00B15	001 180 2243 2	V.R., 100KΩ(B)
Q202	2SA1309AQS	001 030 4846 0	TRANSISTOR	VR3, VR4	EVND4AA00B24	001 180 2244 1	V.R., 20KΩ(B)
Q301, Q302	2SC3311A-Q	001 030 5279 5	TRANSISTOR	VR5, VR6	EVND4AA00B24	001 180 2244 1	V.R., 20KΩ(B)
Q303	2SD592NC-R	001 030 1759 0	TRANSISTOR	VR7, VR8	EVND4AA00B14	001 180 2242 3	V.R., 10KΩ(B)
Q304	2SA1309AQS	001 030 4846 0	TRANSISTOR	VR9, VR10	EVND4AA00B15	001 180 2243 2	V.R., 100KΩ(B)
Q305	2SB621A-R	001 030 0668 6	TRANSISTOR	VR11, VR12	SVR1F20A54	001 174 9177 3	VARIABLE RESISTOR
Q401, Q402	2SA1309AQS	001 030 4846 0	TRANSISTOR	VR301, VR501	EVND4AA00B53	001 180 2319 9	V.R., 5KΩ(B)
Q403, Q404	2SA1309AQS	001 030 4846 0	TRANSISTOR	VR801, VR802	EVN4LCA00B14	001 180 3116 4	V.R., 10KΩ(B)
Q407	2SC3311A-Q	001 030 5279 5	TRANSISTOR	VR803, VR804	EVND4AA00B14	001 180 2242 3	V.R., 10KΩ(B)
Q601	2SD1265-0	001 030 2652 6	TRANSISTOR	COILS AND TRANSFORMERS			
Q602	2SB941-P	001 030 2636 4	TRANSISTOR	L1, L2	SLQX272-1YT	001 211 0649 2	CHOKE COIL
Q603	2SD1265-0	001 030 2652 6	TRANSISTOR	L3, L4	SLQX303-1K	001 211 1756 6	CHOKE COIL
Q604	2SA1309AQS	001 030 4846 0	TRANSISTOR	L401, L402	QLB40048	001 210 7275 9	COIL
Q801, Q802	2SA885Q	001 030 0457 5	TRANSISTOR	L403, L404	SLM1B8-K	001 211 2731 1	MPX COIL
Q803, Q804	2SB621A-R	001 030 0668 6	TRANSISTOR	T301	SL09C19-K	001 211 2472 1	OSCILLATOR COIL
Q805, Q806	UN4211	001 030 4033 9	TRANSISTOR	T601 Δ	SLT5V18	001 202 9209 7	POWER TRANSFORMER
Q807, Q808	2SC1846-R	001 030 1134 7	TRANSISTOR	T601 Δ	SLT5V19	001 202 9210 4	POWER TRANSFORMER
Q809, Q810	UN4214	001 030 4835 3	TRANSISTOR	T601 Δ	SLT5V20	001 202 9183 0	POWER TRANSFORMER
Q811, Q812	2SC3311A-Q	001 030 5279 5	TRANSISTOR	T601 Δ	SLT5V21	001 202 9113 4	POWER TRANSFORMER
Q813, Q814	2SK381	001 030 4439 1	TRANSISTOR	OSCILLATORS			
Q815, Q816	2SC3311A-Q	001 030 5279 5	TRANSISTOR	X901	SVFCSA300MG	001 241 1296 5	CERAMIC FILTER
Q901	2SA1309AQS	001 030 4846 0	TRANSISTOR	SWITCHES			
Q902	2SC3311A-Q	001 030 5279 5	TRANSISTOR	S601 Δ	ESB8249V	003 435 5877 0	POWER SWITCH
Q903	2SA1309AQS	001 030 4846 0	TRANSISTOR	S602 Δ	SSR187-1	003 430 2201 5	SW. VOLTAGE SELECT
Q904, Q905	UN4211	001 030 4033 9	TRANSISTOR	DIODES			
Q906	UN4211	001 030 4033 9	TRANSISTOR	S701, S702	EVQQAC05G	003 439 2072 1	SW
Q908	2SA1309AQS	001 030 4846 0	TRANSISTOR	S703, S704	EVQQAC05G	003 439 2072 1	SW
Q970, Q971	2SC3311A-Q	001 030 5279 5	TRANSISTOR	S705, S706	EVQQAC05G	003 439 2072 1	SW
Q972	UN4111	001 030 2899 5	TRANSISTOR	S707, S708	EVQQAC05G	003 439 2072 1	SW
Q979	2SC3311A-Q	001 030 5279 5	TRANSISTOR	S709, S710	EVQQAC05G	003 439 2072 1	SW
Q980, Q981	UN4211	001 030 4033 9	TRANSISTOR	S711, S712	EVQQAC05G	003 439 2072 1	SW
D1, D2	MA165	001 032 0494 0	DIODE	S713, S715	EVQQAC05G	003 439 2072 1	SW
D201	MA4030M	001 032 5807 3	DIODE	S721, S722	EVQQAC05G	003 439 2072 1	SW
D202	MA4043M	001 032 5574 1	DIODE	S723, S724	EVQQAC05G	003 439 2072 1	SW
D301, D302	MA165	001 032 0494 0	DIODE	S731, S732	EVQQAC05G	003 439 2072 1	SW
D505	MA165	001 032 0494 0	DIODE	S741, S742	EVQQAC05G	003 439 2072 1	SW
D601, D602 Δ	SVD1SR35200A	001 032 3951 4	RECTIFIER	S743, S744	EVQQAC05G	003 439 2072 1	SW
D603, D604 Δ	SVD1SR35200A	001 032 3951 4	RECTIFIER	S750	SSS157	003 431 3020 9	SW
D605, D606 Δ	SVD1SR35200A	001 032 3951 4	RECTIFIER	S901	SMQA1058	003 435 6131 1	SW, PACK
D607, D608	MA165	001 032 0494 0	DIODE	S902	SMQA1059	003 435 6132 0	SW
D609, D610	MA4100M	001 032 4722 1	DIODE	S903	SMQA1058	003 435 6131 1	SW, PACK
D611	MA4068M	001 032 4954 7	DIODE	S904	SMQA1040	003 434 1025 7	SW
D612, D613 Δ	SVD1SR35200A	001 032 3951 4	RECTIFIER	S905, S906	SMQA1023	003 434 1024 8	SW
D701, D702	MA165	001 032 0494 0	DIODE	S907	SMQA1058	003 435 6131 1	SW, PACK
D703, D707	MA165	001 032 0494 0	DIODE	S908, S909	SMQA1023	003 434 1024 8	SW
D708, D709	MA165	001 032 0494 0	DIODE	OTHERS (LED PCB DECK A, B)			
D711, D712	MA165	001 032 0494 0	DIODE	D1, D2	MA165	001 032 0494 0	DIODE
D713, D714	MA165	001 032 0494 0	DIODE	D3, D4	MA165	001 032 0494 0	DIODE
D715, D716	MA165	001 032 0494 0	DIODE	D5, D6	MA165	001 032 0494 0	DIODE
D717, D718	MA165	001 032 0494 0	DIODE	D7	LN363GCPP	001 032 7262 6	DIODE, GAASP
D719, D720	MA165	001 032 0494 0	DIODE	D8	LN863RCPP	001 032 7263 5	L.E.D
D721, D723	MA165	001 032 0494 0	DIODE	D9	LN363GCPP	001 032 7262 6	DIODE, GAASP
D725, D726	MA165	001 032 0494 0	DIODE	D10	LN363GCPP	001 032 7262 6	DIODE, GAASP
D801, D802 Δ	SVD1SR35200A	001 032 3951 4	RECTIFIER	(M, MC)			
D803, D804	MA165	001 032 0494 0	DIODE	D11	LN863RCPP	001 032 7263 5	L.E.D
D805, D806	MA165	001 032 0494 0	DIODE	D12	LN363GCPP	001 032 7262 6	DIODE, GAASP
D807, D808	MA165	001 032 0494 0	DIODE	D13	LN463YCPPU	001 032 7258 2	LED
D809, D810	MA4043M	001 032 5574 1	DIODE	D14, D16	LN363GCPP	001 032 7262 6	DIODE, GAASP
D811, D812	MA165	001 032 0494 0	DIODE	D17	LN363GCPP	001 032 7262 6	DIODE, GAASP
D813, D814	MA165	001 032 0494 0	DIODE	(M, MC)			
D815, D816	MA4075M	001 032 7212 6	DIODE	D18	LN363GCPP	001 032 7262 6	DIODE, GAASP
D817, D818	MA165	001 032 0494 0	DIODE	R1, R2	ERDS2TJ271	001 152 2435 4	CARBON, 270Ω, 1/4W
D819, D820	MA165	001 032 0494 0	DIODE	R3, R4	ERDS2TJ271	001 152 2435 4	CARBON, 270Ω, 1/4W
D821, D901	MA165	001 032 0494 0	DIODE	R5, R6	ERDS2TJ271	001 152 2435 4	CARBON, 270Ω, 1/4W
D902, D903	MA165	001 032 0494 0	DIODE	R7, R8	ERDS2TJ271	001 152 2435 4	CARBON, 270Ω, 1/4W
D904, D905	MA165	001 032 0494 0	DIODE	R9, R10	ERDS2TJ271	001 152 2435 4	CARBON, 270Ω, 1/4W
D906, D907	MA165	001 032 0494 0	DIODE	R11	ERDS2TJ271	001 152 2435 4	CARBON, 270Ω, 1/4W
D908, D909	MA165	001 032 0494 0	DIODE				
D910, D911	MA165	001 032 0494 0	DIODE				
D912, D918	MA165	001 032 0494 0	DIODE				
D919, D971	MA165	001 032 0494 0	DIODE				
D975, D979	MA165	001 032 0494 0	DIODE				
D980, D981	MA165	001 032 0494 0	DIODE				
D982, D983	MA165	001 032 0494 0	DIODE				
D984, D985	MA165	001 032 0494 0	DIODE				
D986, D990	MA165	001 032 0494 0	DIODE				
D992, D993	MA165	001 032 0494 0	DIODE				
D997, D999	MA165	001 032 0494 0	DIODE				
D999	MA165	001 032 0494 0	DIODE				

PRINTED CIRCUIT BOARDS

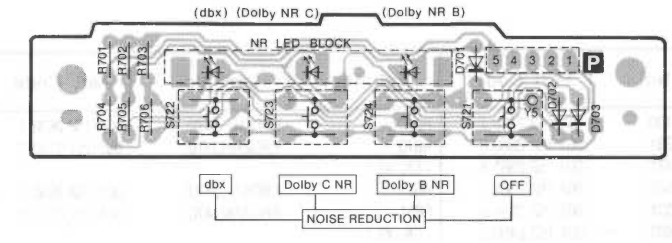
X OPERATION SW P.C.B. (1)



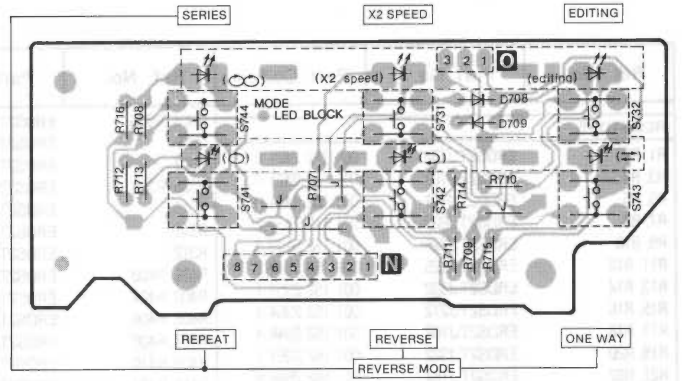
XI OPERATION SW P.C.B. (2)



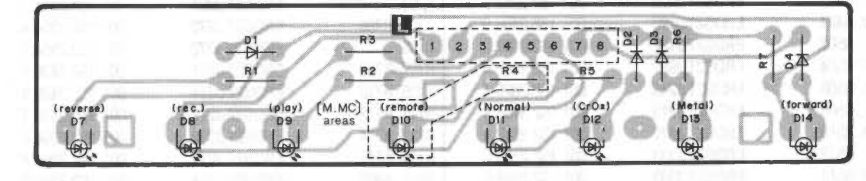
IX NOISE REDUCTION SW P.C.B.



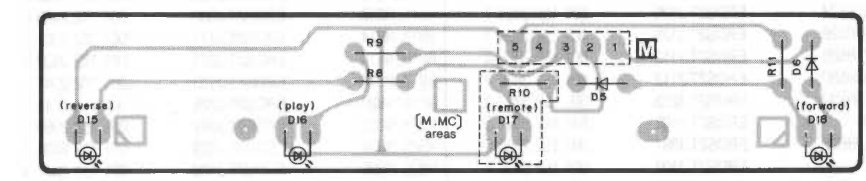
III MODE SELECTORS P.C.B.



XII LED P.C.B. (DECK A)



XIII LED P.C.B. (DECK B)



SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

Notes:

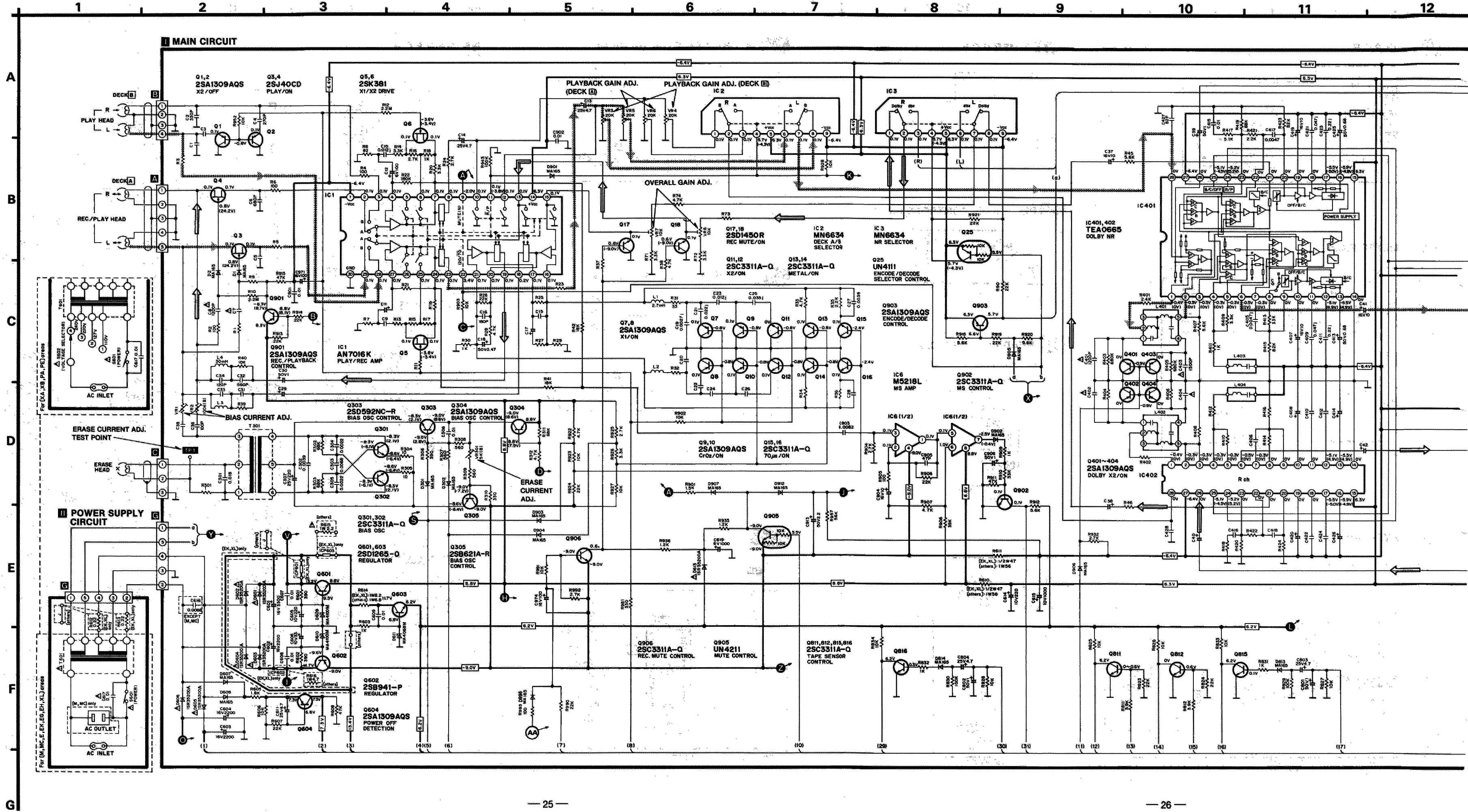
- S601 : Power switch in "on" position.
- S602 : Voltage selector in "240V" position (XA, XB, PA, PE areas).
- S701 : DECK [A] Rew./F.F. switch in "off" position.
- S702 : DECK [B] Rew./F.F. switch in "off" position.
- S703 : DECK [A] F.F./Rew. switch in "off" position.
- S704 : DECK [B] F.F./Rew. switch in "off" position.
- S705 : DECK [A] Play (REV) switch in "off" position.
- S706 : DECK [B] Play (REV) switch in "off" position.
- S707 : DECK [A] Play (FWD) switch in "off" position.
- S708 : DECK [B] Play (FWD) switch in "off" position.
- S709 : DECK [A] Stop switch in "off" position.
- S710 : DECK [B] Stop switch in "off" position.
- S711 : DECK [A] Pause switch in "off" position.
- S712 : Syncro-recording-start switch in "off" position.
- S713 : DECK [A] Auto rec. mute switch in "off" position.
- S715 : DECK [A] Rec. switch in "off" position.
- S721 : NR off switch in "off" position.
- S722 : NR dbx switch in "off" position.
- S723 : Dolby C NR switch in "off" position.
- S724 : Dolby B NR switch in "off" position.
- S731 : Editing-tape-speed selector in "off (X1)" position.
- S732 : Edit-recording switch in "off" position.
- S741 : Repeat (⏮) switch in "off" position.
- S742 : Reverse (↔) switch in "off" position.
- S743 : One way (↔) switch in "off" position.
- S744 : Series (⏮) switch in "off" position.
- S750 : Timer stand-by switch in "off" position.
- S901 : DECK [A] ATS (Metal/CrO₂) switch in "off" position.
- S902 : DECK [A] ATS (70/120µs) switch in "off" position.
- S903 : DECK [A] Rec. inhibit (REV) switch in "off" position.
- S904 : DECK [A] Rec. inhibit (FWD) switch in "off" position.
- S905 : DECK [A] Play detection switch in "off" position.
- S906 : DECK [A] Direction switch in "off" position.
- S907 : DECK [A] ATS (70/120µs) switch in "off" position.
- S908 : DECK [A] Play detection switch in "off" position.
- S909 : DECK [A] Direction switch in "off" position.

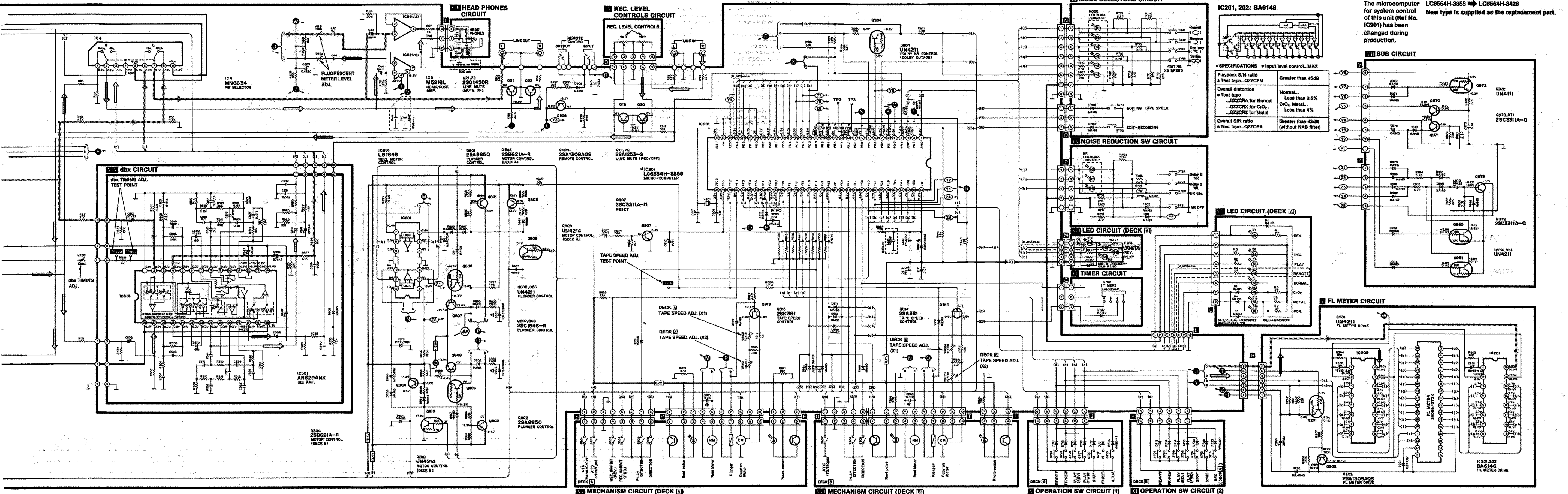
Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
 1K=1,000 (Ω), 1M=1,000k (Ω)
 Capacity are in micro-farads (µF) unless specified otherwise.
 All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position otherwise specified.
 ().....Voltage values at record mode.
 For measurement use EVM.

Important safety notice
 Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

- (-) indicates B (bias).
- (→) indicates the flow of the playback signal.
- (→) indicates the flow of the record signal.

*** Caution!**
 IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
 * Cover the parts boxes made of plastics with aluminum foil.
 * Ground the soldering iron.
 * Put a conductive mat on the work table.
 * Do not touch the legs of IC or LSI with the fingers directly.



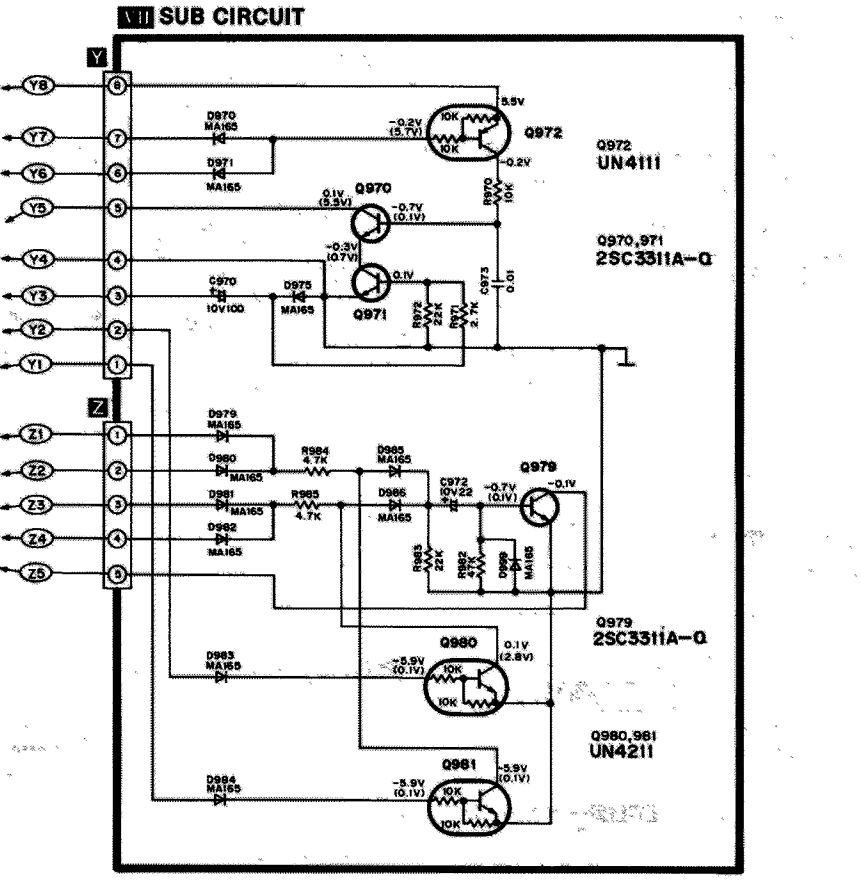


EQUIVALENT CIRCUIT
IC201, 202: BA6146

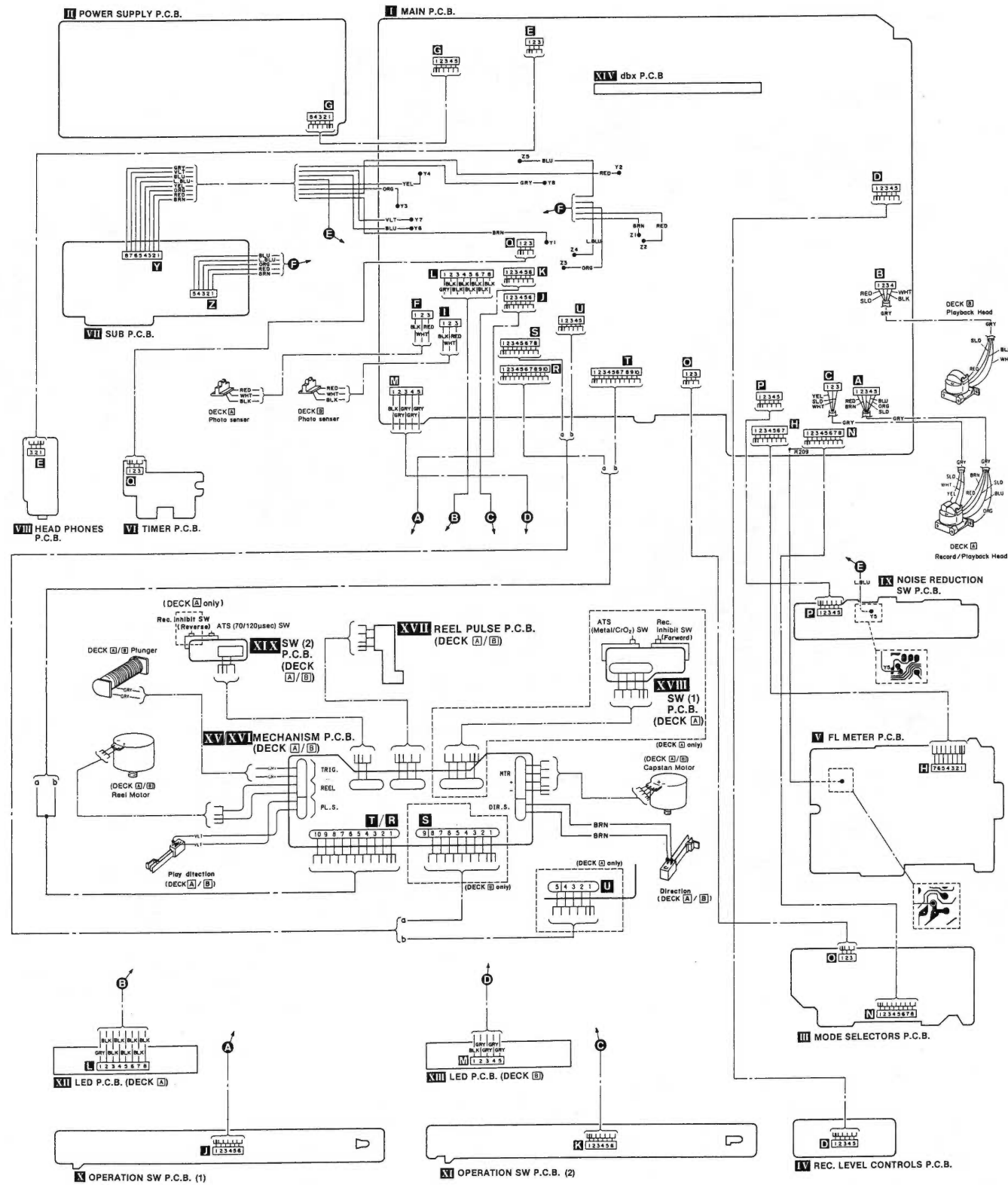
Playback S/N ratio	Greater than 45dB
* Test tape...QZZCFM	
Overall distortion	Normal...
* Test tape	Less than 3.5%
...QZZCRA for Normal	CrO ₂ Metal...
...QZZCRK for CrO ₂	Less than 4%
...QZZCRZ for Metal	
Overall S/N ratio	Greater than 43dB
* Test tape...QZZCRA	(without NAB filter)

Caution!
The microcomputer for system control of this unit (Ref No. IC901) has been changed during production.

(OLD) LC8554H-3355
(NEW) LC8554H-3428
New type is supplied as the replacement part.



WIRING CONNECTION DIAGRAM



REPLACEMENT PARTS LIST

Notes: * Bracketed indications in Ref. No. columns specify the area.
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Code	Description	Ref. No.	Part No.	Part Code	Description
CASSETTE DECK				[E, EH, EG]			
101	SMQA1043	005 500 7741 7	SCREW	145	SMQA1066	016 756 0085 3	WHEEL
102	SMQA1118	001 270 1891 9	MAGNETIC HEAD	[M, MC, XL]			TAPE A
			TAPE B	[XA, XB, PA]			TAPE A
			MAGNETIC HEAD	[PE]			TAPE A
103	SMQA1046	005 507 1969 8	TAPE A	146	SMQA1123	016 745 0226 9	GEAR
			TAPE B	147	SMQA1097	016 643 1004 4	SPACER
104	SMQA1047	016 641 0257 9	GUIDE	148	SMQA1068	016 650 5303 9	BRACKET
105	SMQA1048	001 036 0036 2	PHOTO ELECTRIC TRANSDUCER	149	XTN26+C	005 501 0318 1	TAPPING SCREW
106	SMQA1049	016 726 0878 6	COIL SPRING	150	SMQA1069	016 718 3359 8	DET. LEVER
107	SMQA1050	016 726 0879 5	COIL SPRING	151	SMQA1070	003 454 0638 6	PLUNGER
108	SMQA1051	016 630 1779 5	PLATE	152	XTN26+8C	005 501 0323 4	TAPPING SCREW
109	SMQA1004	016 726 0826 8	SPRING	153	SMQA1071	016 643 0989 0	WASHER
110	SMQA1164	016 713 0416 3	SCREW	155	SMQA1073	016 718 3360 5	LEVER
111	XTS3+6F	005 501 3545 0	TAPPING SCREW	156	SMQA1074	016 752 0127 0	FLAT BELT
112	SMQA1005	016 740 0114 1	ROLLER	[M, MC, XL, XA, XB]			
113	SMQA1006	016 726 0825 9	SPRING	156	SMQA1124	016 754 0077 3	ANGULAR BELT
114	SMQA1052	016 740 0121 2	ROLLER	[E, EH, EG, EK]			
115	SMQA1053	016 726 0880 2	COIL SPRING	157	SMQA1125	002 310 2495 4	DC MOTOR
116	SMQA1091	016 862 1061 4	INDICATION PLATE LABEL	158	SMQA1036	002 310 2270 9	DC MOTOR
117	SMQA1054	016 630 1780 2	PLATE	159	SMQA1076	016 631 0055 3	FRAME HOLDER
118	SMQA1010	016 765 0056 7	WASHER	160	SMQA1025	016 718 3349 0	DET. LEVER
119	SMQA1013	016 913 0004 5	REEL				
120	SMQA1026	016 913 0003 6	REEL				
121	SMQA1014	016 641 0246 2	WASHER				
122	SMQA1007	016 862 1041 8	WASHER	161	XTN26+5F	005 501 0310 9	SCREW
							TAPE A
123	XTN3+10G	005 501 0353 8	SCREW	162	SMQA1223	016 632 1950 2	ANGLE
				165	SMQA1079	016 640 0487 2	CAP
124	SMQA1009	016 643 0966 7	SPACER	166	XYN26+C6	005 503 0654 1	SCREW
125	SMQA1055	016 717 0257 0	ARM	167	SMQA1080	016 717 0258 9	ARM
126	SMQA1012	016 726 0835 7	SPRING	168	SMQA1081	016 717 0259 8	ARM
127	SMQA1056	016 718 3358 9	LEVER	169	SMQA1082	016 726 0884 8	COIL SPRING
128	XTN3+4F	005 501 0412 4	TAPPING SCREW	170	SMQA1083	016 726 0886 6	COIL SPRING
129	SMQA1181	003 455 0411 8	PLUNGER	171	SMQA1148	016 632 1947 7	ANGLE
132	SMQA1147	016 630 1884 5	CHASSIS ASS'Y	172	SMQA1149	016 632 1946 8	ANGLE
133	SMQA1061	016 742 0039 5	IDLER PULLEY	173	SMQA1114	016 718 3414 8	DOOR ROCK
134	SMQA1106			174	SMQA1131	016 718 3378 5	LEVER
				175	SMQA1133	016 726 0835 4	COIL SPRING
135	SMQA1024	016 726 0834 8	TAPE B	176	XTS2+4F	005 501 4873 3	TAPPING SCREW
136	SMQA1062	016 726 0881 1	SPRING	177	SMQA1221	016 643 1080 2	COLOR
137	XYN26+C3	005 503 0738 5	SCREW	178	SMQA1222	016 713 0438 7	SCREW
138	SMQA1029	016 640 0459 6	CAP	179	XTN3+5C	005 501 3249 5	TAPPING SCREW
139	SMQA1063	016 630 1783 9	PLATE	180	SMQA1058	003 435 6131 1	SW. PACK
140	SMQA1064	016 726 0882 0	COIL SPRING	181	SMQA1059	003 435 6132 0	SW
141	SMQA1023	003 434 1024 8	SW	182	SMQA1021	016 643 0965 8	SPACER
142	XTN2+7C	005 501 3506 7	TAPPING SCREW	183	SMQA1041	001 035 0392 0	PHOTO ELECTRIC TRANSDUCER
143	SMQA1031	005 513 4185 4	WASHER	184	SMQA1022	016 643 0964 9	SPACER
144	SMQA1065	016 756 0084 4	WHEEL	185	SMQA1040	003 434 1025 7	SW
[M, MC, XL]				186	SJT30540LX-V	003 410 5396 1	CONNECTOR(5-P)
[XA, XB, PA]							TAPE B
[PE]				186	SJT30640LX-V	003 410 6149 8	CONNECTOR(6-P)
							TAPE A
144	SMQA1096	016 756 0086 2	WHEEL	186	SJT30840LX-V	003 410 5398 9	CONNECTOR(8-P)
[E, EH, EG]							TAPE A
[EK]				186	SJT31040LX-V	003 410 6112 1	LUG TERMINAL
145	SMQA1032	016 756 0083 5	WHEEL				TAPE A

MECHANICAL PARTS LOCATION

SPECIFICATIONS

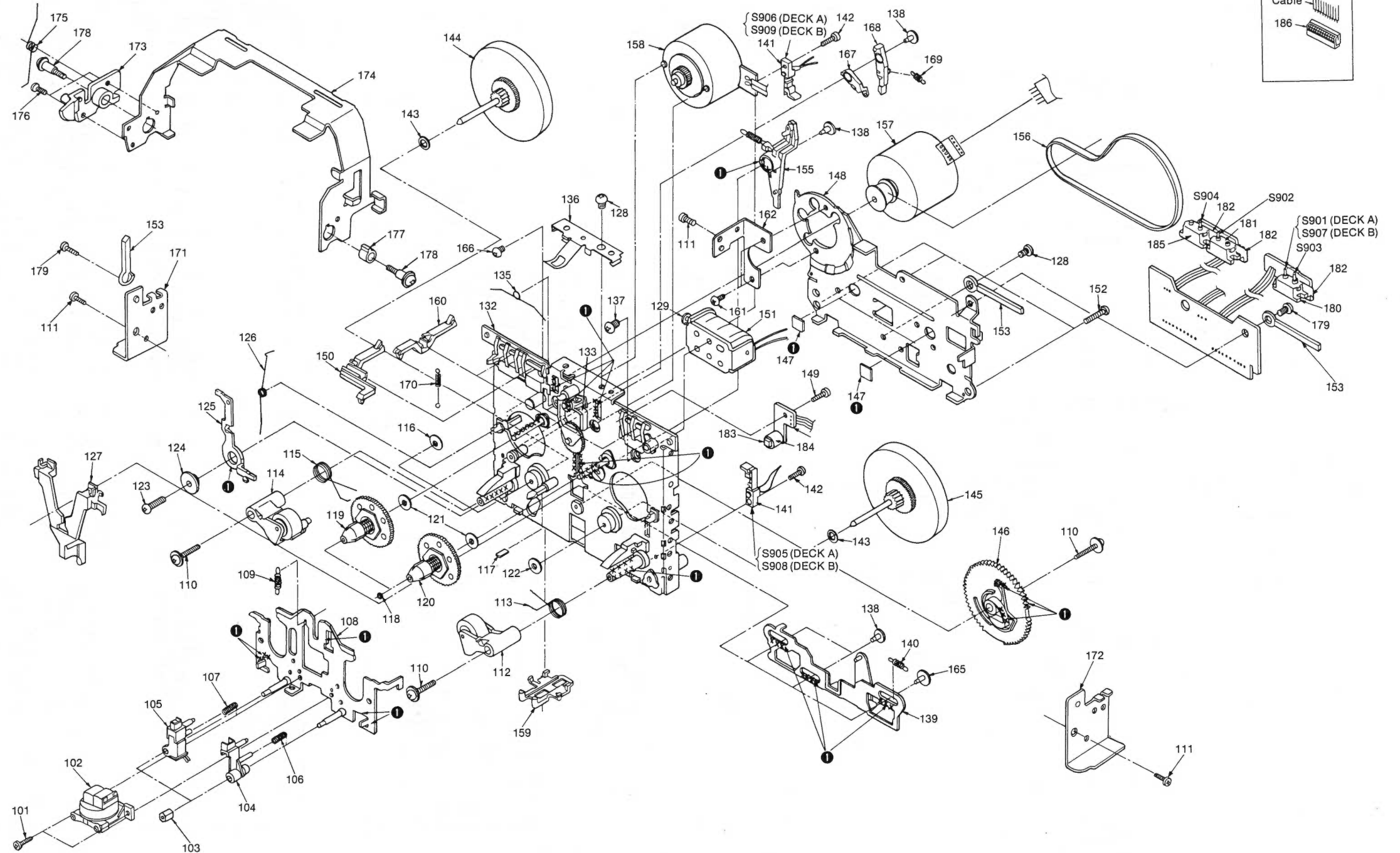
NOTE: The value indicated by the torque tape may fluctuate during torque measurement.
In that case, obtain the middle of the values.

Pressure of pressure roller	350±50g
Takeup tension * Use cassette torque meter.....QZZSRKCT	30~60g-cm
Wow and flutter; (JIS) * Use test tapeQZZCWAT	Less than 0.07% (WRMS) [EG] 0.08% (WRMS) [E, EH, EK] 0.14% (WRMS) [others]

NOTES:

• When changing mechanism parts, apply the specified grease to the are marked "x" shown in the drawing "Mechanical Parts Location".

Ref. No.	Part Name	Part No.
①	MOLYKOTE	RZZ0L05



176 179 175 178	173	171	174 177 170 178 160 166	160	183 161 162	184	167 168	169	165	172	185	182 181 182 186 179 180 182
	153		150	143 144	132 135 159	136 133 137 158	141 151 141 147 155 149 142 148 142 138 157	147 143 138 138 140 139 145 146 153 156 152				153
101 111 102 127 123 105 124 110 103 125 107 126 104 109 114 115 106 119 108 118 116 110 120 121 117 112 113 122						128 129 111				128 110		111

REPLACEMENT PARTS LIST

Notes: * Important safety notice:

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* Bracketed indications in Ref. No. columns specify the area.

Parts without these indications can be used for all areas.

* $\text{\textcircled{C}}$ -marked parts are used for black only, while $\text{\textcircled{S}}$ -marked parts are for silver type only.

* Part other than $\text{\textcircled{C}}$ -and $\text{\textcircled{S}}$ -marked are use for both black and silver type.

Ref. No.	Part No.	Part Code	Description	Ref. No.	Part No.	Part Code	Description
CABINET AND CHASSIS				(XB)			
1	$\text{\textcircled{S}}$ SBC666	016 702 5545 6	BUTTON, POWER	35	SGXST55R-SM	016 820 0639 2	CASSETTE LID
1	$\text{\textcircled{C}}$ SBC666-5	016 702 6679 9	BUTTON, POWER	(M, MC)			
2	SUB266-1	016 712 0372 3	ROD	36	SGXST55R-KE1	016 846 3909 5	CASSETTE LID
3	SMQ20022	016 754 0076 4	COUNTER BELT	(E, EH, EG)			
4	SKU11750	016 802 2204 9	BOTTOM BOARD	(EK, XL, XA)			
5	SGP7140-1B	016 840 8045 8	REAR PANEL	(XB)			
(E)				36	SGXST55R-KM1	016 820 0640 9	CASSETTE LID
5	SGP7140-1D	016 840 8135 7	REAR PANEL	(M, MC, PA)			
(EH, EG)				(PE)			
5	SGP7140-1F	016 840 7925 9	REAR PANEL	36	SGXST55R-SE1	016 846 3910 2	CASSETTE LID
(EK)				(E, EH, EG)			
5	SGP7140-1H	016 840 8134 8	REAR PANEL	(EK, XL, XA)			
(XL)				(XB)			
5	SGP7140-2B	016 840 8005 6	REAR PANEL	36	SGXST55R-SM1	016 820 0638 3	CASSETTE LID
(XA, XB, PA)				(M, MC)			
(PE)				37	$\text{\textcircled{C}}$ SBN1228	016 700 2005 1	KNOB
5	SGP7140B	016 840 7953 5	REAR PANEL	37	$\text{\textcircled{S}}$ SBN1228-1	016 700 2006 0	KNOB
(M, MC)				38	$\text{\textcircled{C}}$ SKC2100K99	016 800 3147 7	CABINET BODY
6	SHE185	016 918 0330 9	SPACER	38	$\text{\textcircled{S}}$ SKC2100S98	016 800 3158 4	CABINET BODY
7	SHR9804	016 652 0655 8	PLASTIC SPACER	39	SJS501	003 403 7434 3	CONNECTOR
8	SJS9331A	003 403 7236 7	AC OUTLET COVER	40	SJJ141-1	003 440 7804 8	JACK SOCKET
(M, MC)				41	SJF3057NK	003 410 8123 0	TERMINAL BOARD
9	SMC1267	016 601 0648 2	SHIELD COVER	42	SJJ134B	003 400 7050 0	JACK, HEADPHONES
11	SHR301	016 645 0044 0	CLAMPER	43	SJS9331B	003 403 7275 0	AC OUTLET
12	SKL310	016 828 0332 8	FOOT	44	Δ SJS9236	003 403 4660 7	AC INLET
13	SHR6076	016 652 0868 7	PLASTIC SPACER	(M, MC)			
14	SMQST33R-KM	016 652 0870 3	HOLDER ASSY	(M, MC, XL)			
15	SMQST33R-KM1	016 652 0869 6	HOLDER ASSY	44	Δ SJS9236	003 403 4660 7	AC INLET
16	SGXST33R-KM2	016 846 3913 9	CASSETTE LID	(E, EH, EG)			
16-1	QBP2006A	015 727 0706 8	SPRING	(EK, XA, XB)			
17	SGU557	016 842 1683 2	FILTER	(PA, PE)			
18	$\text{\textcircled{C}}$ SGU558	016 842 1682 3	FILTER	45	SJT3319	003 403 3892 7	CONNECTOR
18	$\text{\textcircled{S}}$ SGU558-1	016 842 1713 3	FILTER	45	SJT3415	003 403 3909 5	CONNECTOR(4-P)
19	$\text{\textcircled{C}}$ SGYST55R-KM	016 840 8054 7	FRONT PANEL (K)	45	SJT3511	003 403 3893 6	CONNECTOR(5-P)
19	$\text{\textcircled{S}}$ SGYST55R-SM	016 840 8133 9	FRONT PANEL (S)	45	SJT3809	003 410 6013 3	CONNECTOR
20	$\text{\textcircled{C}}$ SGX7916	016 846 3870 3	ORNAMENT	46	SJT30340LX-V	003 410 6075 9	CONNECTOR(3-P)
20	$\text{\textcircled{S}}$ SGX7916-1	016 846 3912 0	ORNAMENT	46	SJT30540LX-V	003 410 5996 1	CONNECTOR(5-P)
21	$\text{\textcircled{C}}$ SBC776	016 702 6300 1	BUTTON	46	SJT30640LX-V	003 410 6149 8	CONNECTOR(6-P)
21	$\text{\textcircled{S}}$ SBC776-1	016 702 6576 5	BUTTON	46	SJT30840LX-V	003 410 5998 9	CONNECTOR(8-P)
22	SMQ40024	016 718 3408 6	EJECT LEVER	47	SMX888	016 600 0358 4	SHIELD PARTS
23	SMQ40025	016 718 3409 5	EJECT LEVER	(E, EH, EG)			
24	SGX7920	016 846 3868 7	ORNAMENT	(EK, XL, XA)			
25	SJN27	016 892 0132 2	TAPE COUNTER	(XB, PA, PE)			
26	SMN2050	016 632 1929 9	ANGLE	48	SUW3079	016 650 5415 2	BRACKET, FOR V.ADJ
27	SMN2047	016 632 1938 8	ANGLE	(XA, XB, PA)			
28	$\text{\textcircled{C}}$ SBC951	016 702 7140 5	BUTTON	(PE)			
28	$\text{\textcircled{S}}$ SBC951-1	016 702 7139 8	BUTTON	49	SUS862	016 726 1024 0	SPRING
29	$\text{\textcircled{C}}$ SBC953	016 702 7142 3	BUTTON	50	SHE224	016 918 0635 5	PARTS KIT
29	$\text{\textcircled{S}}$ SBC953-1	016 702 7218 0	BUTTON	51	LN068410P	001 033 0356 4	DIODE, GAASP
30	SMN2048	016 632 1927 1	ANGLE	52	LN031408P	001 033 0355 5	DIODE, GAASP
31	SMN2049	016 632 1939 7	ANGLE	SCREWS, WASHERS & NUTS			
32	SKL310	016 828 0332 8	FOOT	71	XTB3*8JFZ	005 501 0138 3	SCREW
33	$\text{\textcircled{C}}$ SBCST55R-KM	016 702 7220 6	BUTTON	72	XTB3*16JFZ	005 501 1169 2	SCREW
33	$\text{\textcircled{S}}$ SBCST55R-SM	016 702 7219 9	BUTTON	73	XTB3*6FFZ	005 501 1590 3	SCREW
35	SGXST55R-KE	016 846 3907 7	CASSETTE LID	74	XNS9	005 507 0574 7	NUT
(E, EH, EG)				75	XTBS3*10JFR1	005 501 4861 7	TAPPING SCREW
(EK, XL, XA)				76	XTB3*12JFZ	005 501 2078 0	SCREW
(XB)				77	XTS3*8JFZ	005 501 2270 2	SCREW
35	SGXST55R-KM	016 820 0641 8	CASSETTE LID	78	$\text{\textcircled{S}}$ SNE2129	005 500 8058 5	SCREW
(M, MC, PA)				78	$\text{\textcircled{C}}$ SNE2129-1	005 500 7938 6	SCREW
(PE)				79	$\text{\textcircled{S}}$ XTB3*8J	005 501 1535 0	SCREW
35	SGXST55R-SE	016 846 3908 6	CASSETTE LID	79	$\text{\textcircled{C}}$ XTB3*8JFZ	005 501 0138 3	SCREW
(E, EH, EG)				80	XTB3*8JFZ	005 501 0138 3	SCREW
(EK, XL, XA)				(XA)			

Ref. No.	Part No.	Part Code	Description	Ref. No.	Part No.	Part Code	Description
PACKINGS				A1	SQF12944	016 983 5361 5	INSTRUCTION BOOK
P1	SPG5986	016 971 5179 7	CARTON BOX	(M)			
(KM)				A1	SQF12945	016 983 5398 2	INSTRUCTION BOOK
P1	SPG5987	016 971 5128 8	CARTON BOX	(MC)			
(KMC, KE, KEH)				A1	SQF13044	016 983 5399 1	INSTRUCTION BOOK
(KEG, KEK)				(XB)			
(KXA)				A1	SQF13045	016 983 5400 5	INSTRUCTION BOOK
P1	SPG5988	016 971 5178 8	CARTON BOX	(PA, PE)			
(SE, SEH, SEG)				A1	SQF13067	016 983 5401 4	INSTRUCTION BOOK
(SEK, SXA)				(XL, XA)			
P1	SPG5989	016 971 5177 9	CARTON BOX	A2	Δ SFDAC05E03	003 490 4809 5	POWER CORD
(XL)				(E, EH, EG)			
P2	SPS4991	016 977 3347 7	PAD	A2	Δ SFDAC05G02	003 490 2613 3	POWER CORD
(KM, KMC, E)				(EK)			
(EH, EG, EK)				A2	Δ SJA168-1	003 490 4122 9	POWER CORD
(XL, XA)				(XA, PA, PE)			
P3	SPS4992	016 977 3348 6	PAD	A2	Δ SJA172	003 490 4069 7	POWER CORD
(KM, KMC, E)				(MC)			
(EH, EG, EK)				A2	Δ SJA172-1	003 490 4930 5	POWER CORD
(XA)				(M)			
P3	SPS4992-1	016 977 3349 5	PAD	A2	Δ SJA173	003 490 4161 2	POWER CORD
(XL)				(XL)			
P4	SPS4905	016 977 3274 7	PAD	A2	Δ SJA183	003 490 4873 7	POWER CORD
P5	$\text{\textcircled{C}}$ SPP756	016 978 0540 5	PROTECTION COVER	(XB)			
P5	$\text{\textcircled{S}}$ XZB50X65B02	016 978 0420 2	PROTECTION COVER	A3	SJP2257T	003 492 6803 3	CORD
ACCESSORIES				(M, MC)			
A1	SQF12941	016 983 5331 1	INSTRUCTION BOOK	A4	Δ SJP9215	003 402 1437 9	AC PLUG ADAPTOR
(E, EH, EK)				(XA, XB, PA)			
A1	SQF12943	016 983 5396 4	INSTRUCTION BOOK	(PE)			
(EG)				A5	SJP2264	003 492 5035 3	OUTPUT CORD