

Service Manual

Cassette Deck

* **DOLBY B·C NR HX PRO**

SB-CH900

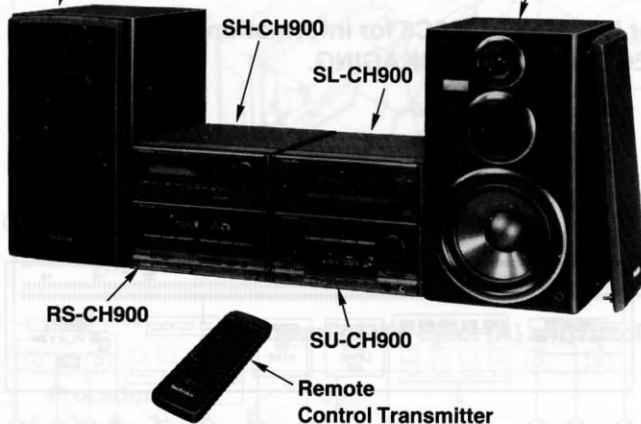
SB-CH900

SH-CH900

SL-CH900

RS-CH900

SU-CH900

Remote
Control Transmitter

Cassette Deck

RS-CH900

Color

(K) Black Type

Area

Country Code	Area	Color
(E)	Continental Europe. Great Britain. Germany and Italy. Asia, Latin America, Middle Near East and Africa. Oceania.	(K)

RS-TR165 MECHANISM SERIES (AR300)

Because of unique interconnecting cables,
when a component requires service, send or
bring in the entire system.

System: SC-CH900

SPECIFICATIONS

Track system	Compact cassette stereo
Tape speed	4.8 cm/sec.
Bias frequency	80 kHz
Heads	
DECK 2 (record/playback)	Permalloy head
(erasure)	Double-gap ferrite head
DECK 1 (playback)	Permalloy head
Motors	
DECK 2	DC servo motor
DECK 1	DC servo motor
Wow and flutter	0.1% (WRMS)
Fast forward and rewind time	Approx. 110 sec. (C-60 tape)
Frequency response (at CCRT ON)	
NORMAL	20~17000 Hz
	30~15000 Hz (DIN)
CrO ₂	20~18000 Hz
	30~17000 Hz (DIN)
METAL	20~20000 Hz
	30~19000 Hz (DIN)

S/N (CrO₂)

DOLBY off

56 dB (A WTD, signal level: MOL)

DOLBY B

66 dB (CCIR)

DOLBY C

74 dB (CCIR)

Input sensitivity LINE IN

250 mV

Output level LINE OUT

400 mV

Power consumption

14 W

Dimensions (W×H×D)

230×110×279 mm

Weight

3.1 kg

Notes:

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.

*HX Pro headroom extension originated by Bang Olufsen and
manufactured under license from Dolby Laboratories
Licensing Corporation.

"DOLBY", the double-D symbol, and "HX PRO" are trademarks
of Dolby Laboratories Licensing Corporation.

System	Tuner/CD player	Sound Processor	Amplifier	Cassette Deck	Speakers
SC-CH900	SL-CH900	SH-CH900	SU-CH900	RS-CH900	*SB-CH900

*(E) area...Made in PAES

Technics

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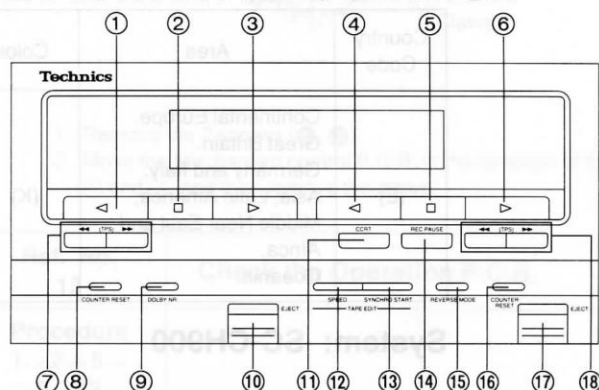
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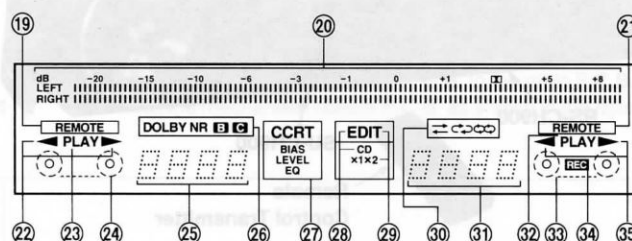
Note:

Refer to the service manual for Model No. SU-CH900, Order No. AD9111260C8 for information on ACCESSORIES, INSTALLATION OF THE SYSTEM, CONNECTIONS and PACKAGING.

■ LOCATION OF CONTROL



- ① Deck 1 reverse side playback button (◀)
- ② Deck 1 stop button (□)
- ③ Deck 1 forward side playback button (▶)
- ④ Deck 2 reverse side playback button (◀)
- ⑤ Deck 2 stop button (□)
- ⑥ Deck 2 forward side playback button (▶)
- ⑦ Deck 1 Fast-forward/rewind/tape program sensor buttons [◀◀ (TPS) ▶▶]
- ⑧ Deck 1 counter reset button (COUNTER RESET)
- ⑨ Dolby noise reduction button (DOLBY NR)
- ⑩ Deck 1 cassette eject button (EJECT)
- ⑪ CCRT (computer control record tuning) button (CCRT)
- ⑫ Edit speed select button (SPEED)
- ⑬ Synchro start button (SYNCHRO START)
- ⑭ Record/record standby button (REC PAUSE)
- ⑮ Reverse mode select button (REVERSE MODE)
- ⑯ Deck 2 counter reset button (COUNTER RESET)
- ⑰ Deck 2 cassette eject button (EJECT)
- ⑱ Deck 2 Fast-forward/rewind/tape program sensor buttons [◀◀ (TPS) ▶▶]



- ⑲ Deck 1 remote indicator (REMOTE)
- ⑳ Level meter
- ㉑ Deck 2 remote indicator (REMOTE)
- ㉒ Deck 1 tape travel direction indicators (◀, ▶)
- ㉓ Deck 1 playback indicator (PLAY)
- ㉔ Deck 1 tape indicator
- ㉕ Deck 1 tape counter
- ㉖ Dolby noise reduction indicators (DOLBY NR B, C)
- ㉗ CCRT indicator
- ㉘ CD edit indicator (EDIT CD)
- ㉙ Edit speed indicators (EDIT ×1, ×2)
- ㉚ Reverse mode indicators (↔, ↺, ↻)
- ㉛ Deck 2 tape counter
- ㉜ Deck 2 playback indicator (PLAY)
- ㉝ Deck 2 tape indicator
- ㉞ Recording indicator (REC)
- ㉟ Deck 2 tape travel direction indicators (◀, ▶)

DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"

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

Ref. No. 1 Removal of the Side Ornaments (L), (R) and Cabinet

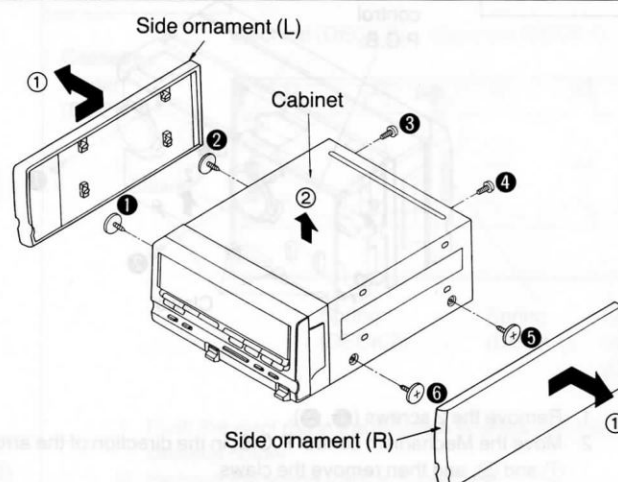
Procedure 1

■ Removal of the Side Ornaments (L), (R).

- Remove the side ornaments (L), (R) in the direction of arrow ①.

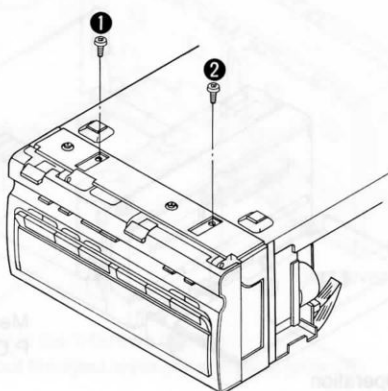
■ Removal of the Cabinet.

1. Remove the 6 screws (①~⑥).
2. Remove the cabinet in the direction of arrow ②.

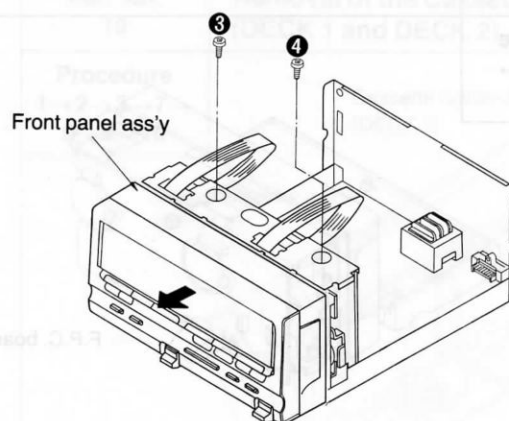


Ref. No. 2 Removal of the Front Panel Ass'y

Procedure 1→2



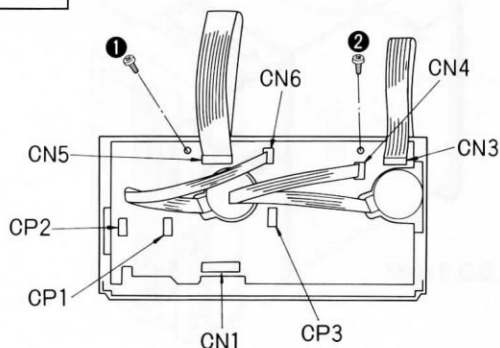
1. Remove the 2 screws (①, ②).



2. Remove the 2 screws (③, ④).
3. Remove the front panel ass'y in the direction of arrow.

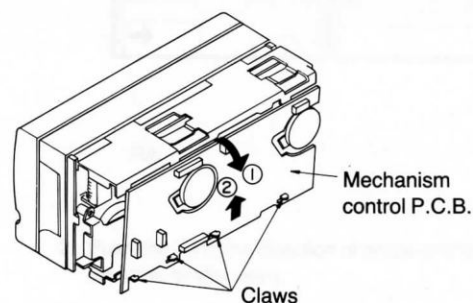
Ref. No. 3 Removal of the Mechanism Control P.C.B.

Procedure 1→2→3

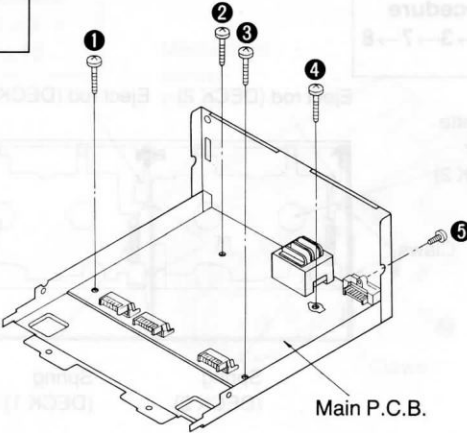
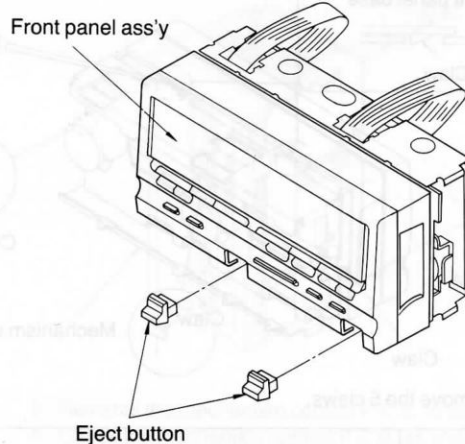
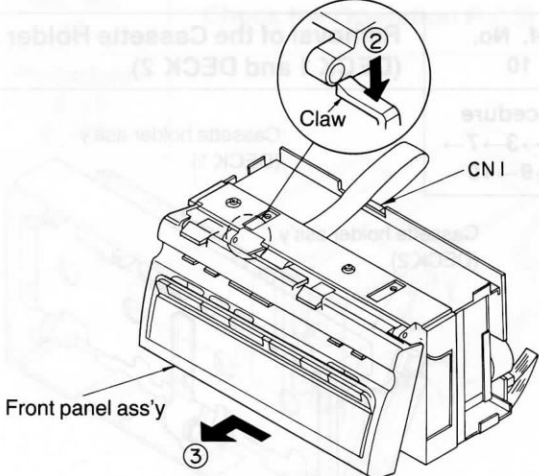
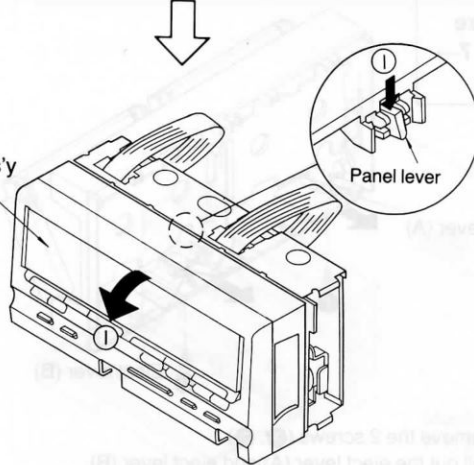
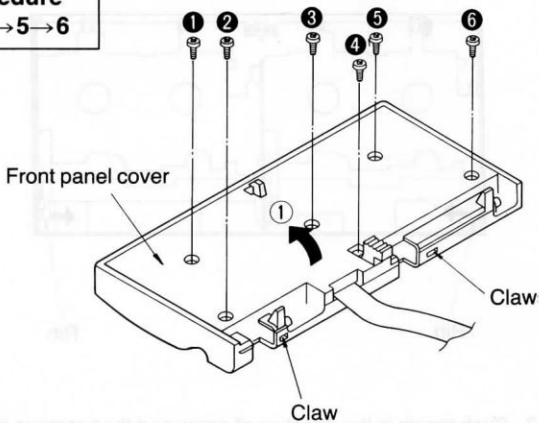


1. Remove the 3 connectors (CP1, CP2, CP3).
2. Remove the 4 flat cable (CN3, CN4, CN5, CN6).
3. Remove the F.P.C. (CN1).
4. Remove the 2 screws (①, ②).

- Push the top of the connector and then pull out the flat cable. (CN3, CN5)
- Lift the top of the connector. 1. Lift up the connector. 2. Pull out the flat cable. (CN4, CN6)
- Lift the top of the connector and then pull out the F.P.C. board. (CN1)



5. Move the Mechanism P.C.B. in the direction of the arrows ① and ②, and then remove the claws.

Ref. No. 4	Removal of the Main P.C.B.	Ref. No. 5	Removal of the Front Panel Ass'y
Procedure 1→2→4	 •Remove the 5 screws (①~⑤).	Procedure 1→2→5	 1. Pull out the eject buttons (DECK 1, DECK 2).
	 3. Remove the F.P.C. (CN1). 4. Push the claw in the direction of arrow ②, and then remove the front panel in the direction of arrow ③.		 2. Push the panel lever in the direction of the arrow ①, and then open the front panel ass'y.
Ref. No. 6	Removal of the Operation P.C.B.		 1. Remove 6 screws (①~⑥). 2. Remove 2 claws. 3. Remove the front panel cover in the direction of arrow ①.

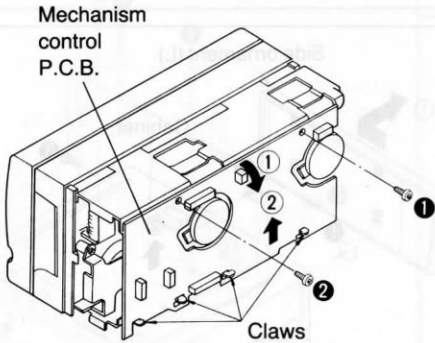
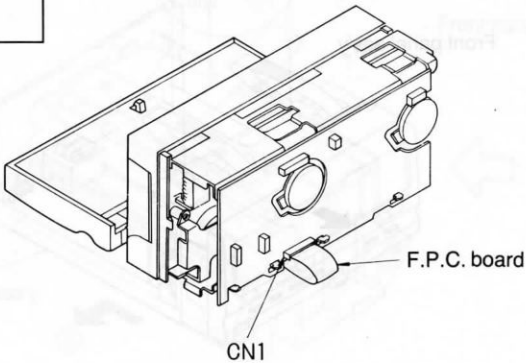
Ref. No. 7	Removal of the Mechanism Unit
Procedure 1→2→3→7	• Remove the 5 claws.

Ref. No. 9	Removal of the Eject (A) and Eject (B)
Procedure 1→2→3→7→ 8→9	1. Remove the 2 screws (1, 2). 2. Pull out the eject lever (A) and eject lever (B).

Ref. No. 11	Check the Main P.C.B.
Procedure 1→2→4→11	1. Reinstall the front panel ass'y to the main P.C.B. 2. Reinstall the rear panel to the main P.C.B. 3. Connect the G.N.D. terminal to the rear panel by the lead wire. 4. Check the main P.C.B. as shown in the figure.

Ref. No. 8	Removal of the Eject Rod (DECK 1 and DECK 2)
Procedure 1→2→3→7→8	1. Push the eject rod in the direction of arrow and then open the cassette holder. 2. Remove the spring (DECK 1, DECK 2). 3. Press 4 claws and then remove the eject rod.

Ref. No. 10	Removal of the Cassette Holder Ass'y (DECK 1 and DECK 2)
Procedure 1→2→3→7→ 8→9→10	1. Pull out the holder shaft. 2. Push the rib in the direction of arrow and then remove the cassette holder ass'y.

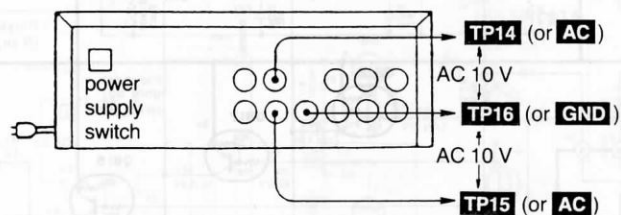
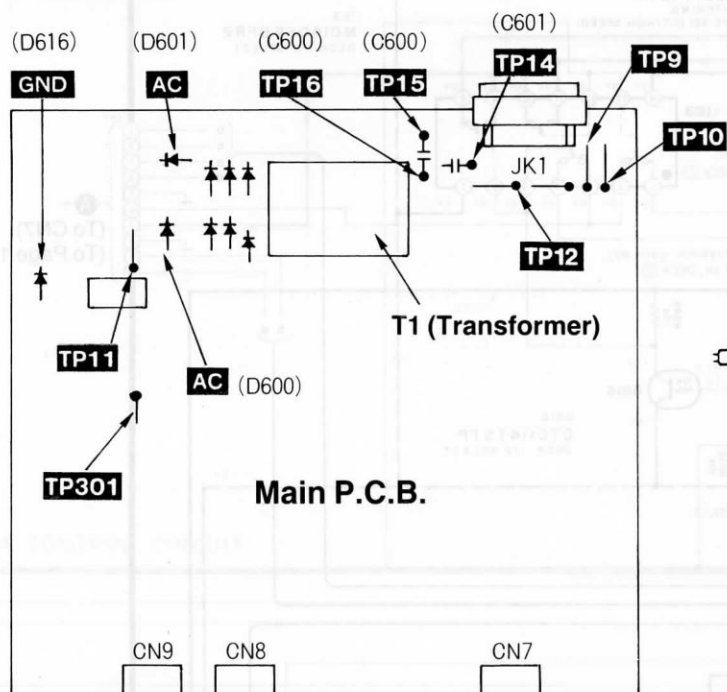
Ref. No. 12	Check the Mechanism Control P.C.B.	 Mechanism control P.C.B. Claws 1. Remove the 2 screws (①, ②). 2. Move the Mechanism control P.C.B. in the direction of the arrows ① and ②, and then remove the claws.
Procedure 1→2→3→ 11→12		
Ref. No. 13	Check the Operation P.C.B.	 F.P.C. board CN1 1. Connect the F.P.C. board (CN1). Note: Make sure not to damage the F.P.C. board. 2. Reinstall the mechanism control P.C.B. to the main P.C.B. 3. Check the operation P.C.B. as shown in the figure.
Procedure 1→2→5→ 6→13		

MEASUREMENTS AND ADJUSTMENTS

This tape deck (RS-CH900) is powered by the amplifier (SU-CH900).

To adjust or check operations on the tape deck a separate unit, follow the below.

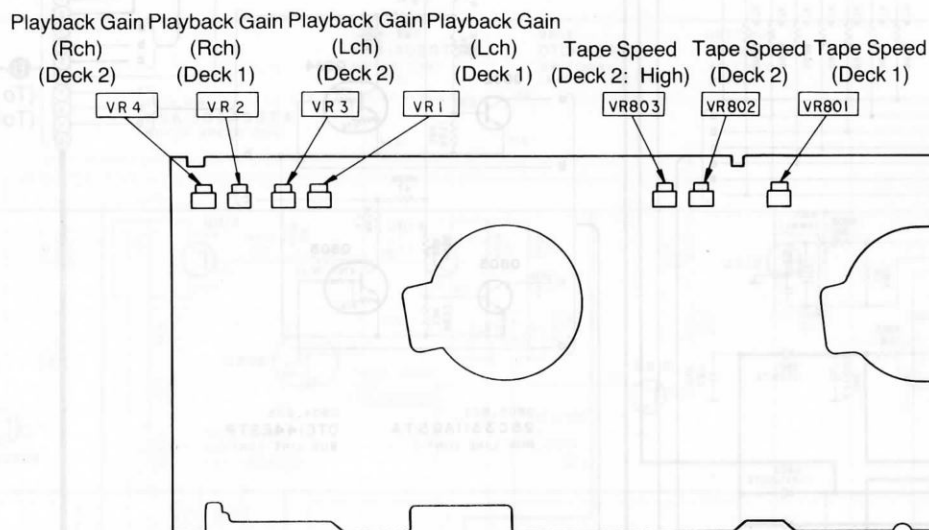
- Apply a power supply voltage of AC 10 V connect to **TP14** (or **AC D601**), **TP15** (or **AC D600**) and **TP16** (or **GND**).
- How to CONNECT



Power Supply Fixture

Continental Europe, Germany and Italy	: SZZA1062C
Great Britain	: SZZA1063C
Asia, Latin America, Middle Near East and Africa	: SZZA1065C
Oceania	: SZZA1064C

Adjustment Points



Measurement Condition

- Rec. level control; Maximum
- Timer switch; Off
- Reverse-mode selector switch; $\rightarrow$
- Edit-recording tape-speed selector; X1

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

- Dolby NR switch; 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 (600 Ω)

- 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 1/2)

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 play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

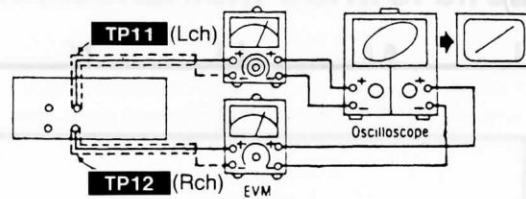


Fig. 1

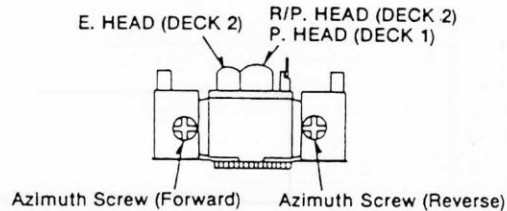


Fig. 2

TAPE SPEED ADJUSTMENT (DECK 1/2)

Normal speed

1. Shift the edit-recording tape-speed selector to "NORMAL".
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1=VR801 and Deck 2=VR802 so that the output is within the standard value.

Standard value: 3000±15 Hz (NORMAL speed)

High speed [Set the unit to forward (FWD) mode.]

4. Push the edit speed button (X2). This will set the high speed mode.
5. Playback the middle portion on the test tape (QZZCWAT).
6. At that time, check if the output from DECK 1 is within the standard value.

Standard value: 6000±630 Hz (HIGH speed)

7. Adjust VR803 so that the output frequency of DECK 2 is within ±30 Hz of the value of the output frequency of DECK 1.

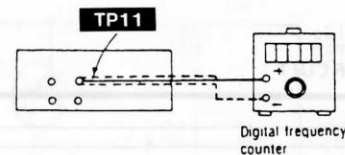


Fig. 3

PLAYBACK GAIN ADJUSTMENT (DECK 1/2)

1. Playback the gain adjusted portion (315Hz, 0dB) of the test tape (QZZCFM).
2. Adjust Deck 2=VR3 (L-CH) [VR4 (R-CH)] and Deck 1=VR1 (L-CH) [VR2 (R-CH)] so that the output is within the standard value.

Standard value: 400 mV±0.5 dB

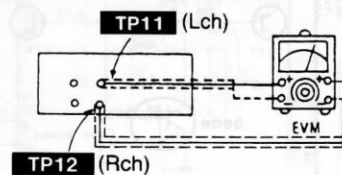


Fig. 4

PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

1. Playback the frequency response portion (315Hz, 12.5kHz~63Hz, -20dB) 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.

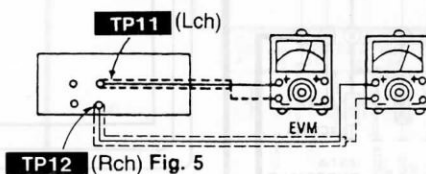


Fig. 5

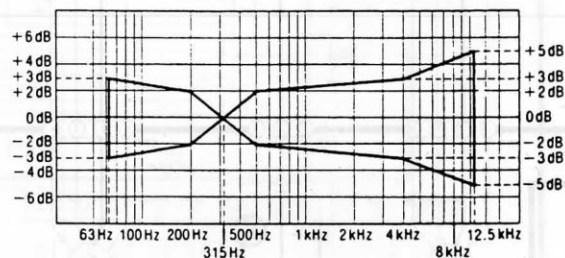
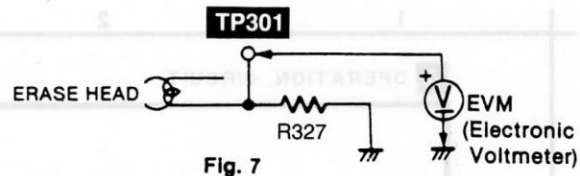


Fig. 6

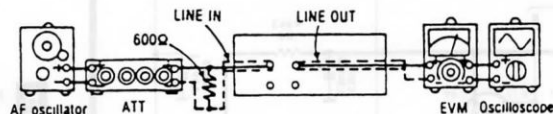
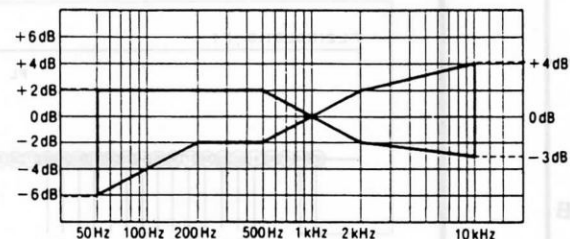
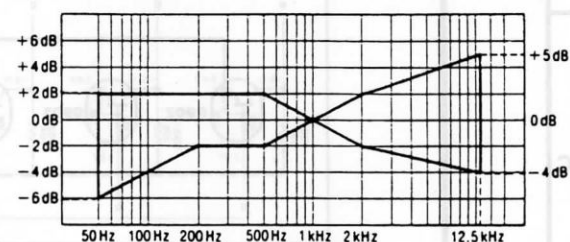
ERASE CURRENT CONFIRMATION (DECK 2)

1. Insert the Metal blank test tape (QZZCRZ) and set the unit to the Record Pause mode.
2. Check if the output at this time between the erase current confirmation point **TP301** and **GND** (chassis) (the output on both edges of R327) is within the standard value.

Standard value: $220\text{ mA} \pm 25\text{ mA}$ (Metal)

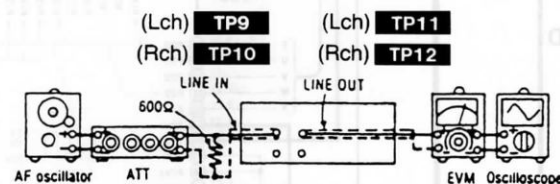
**OVERALL FREQUENCY RESPONSE (DECK 2)**

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, -36 dB and 10 kHz, -36 dB) through an attenuator.
3. Record the frequency sweep.
4. Playback the recorded signal and assure that it is within the range shown in Fig. 8 in comparison to the reference frequency (1 kHz).
5. Repeat steps 2~6 above using the CrO₂ tape (QZZCRX) and the Metal tape (QZZCRZ) increasing the frequency range to 12.5 kHz (50 Hz~12.5 kHz).
6. Assure that the level is within the range shown in Fig. 9.

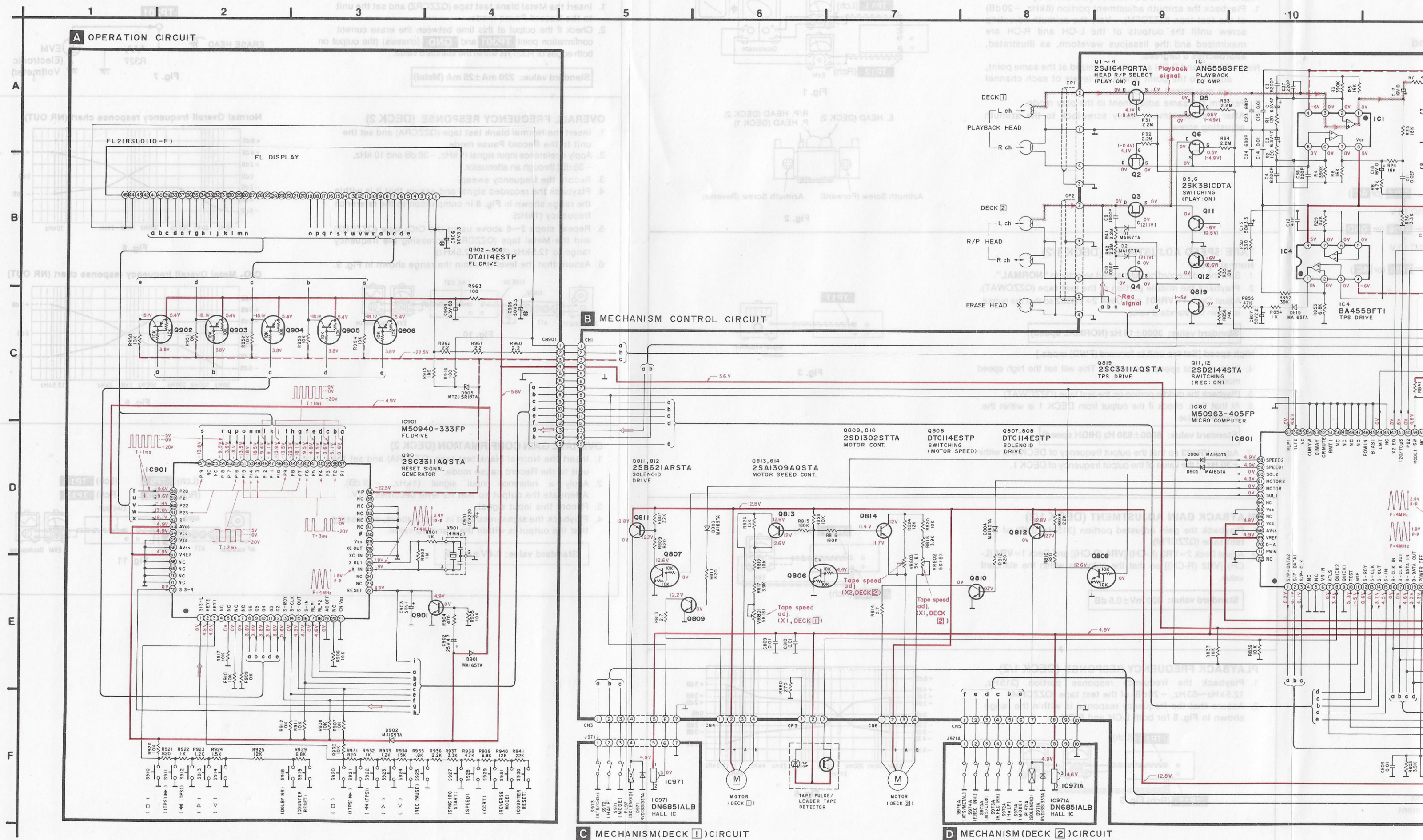
**Normal Overall frequency response chart (NR OUT)****CrO₂ Metal Overall frequency response chart (NR OUT)****OVERALL GAIN CONFIRMATION (DECK 2)**

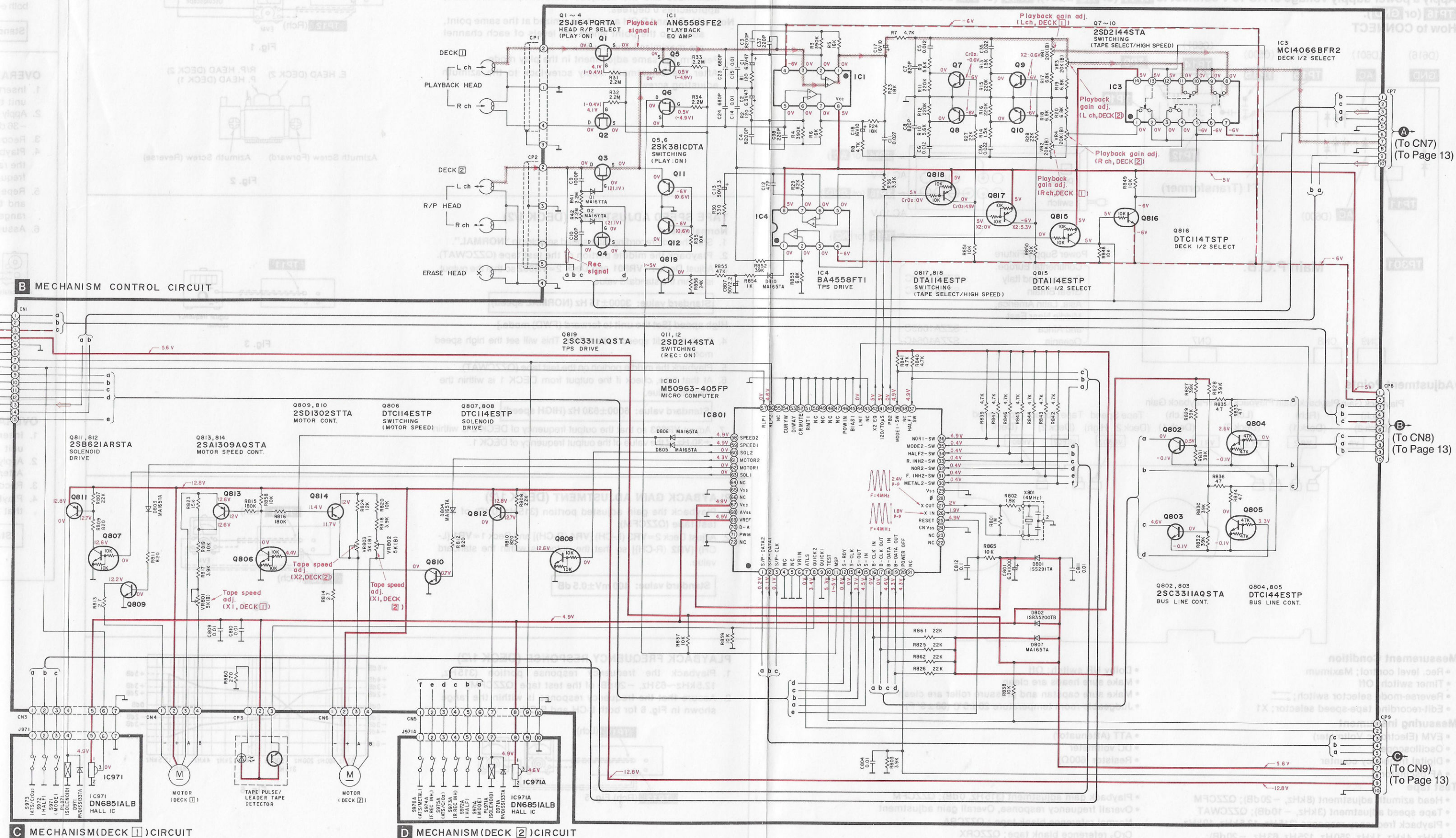
1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2. Apply a reference input signal (1 kHz, -19 dB). Attenuate the output so that its level becomes 0.4 V.
3. Record this input signal.
4. Playback the signal recorded in step 3 above, and assure that the output is within the standard value.

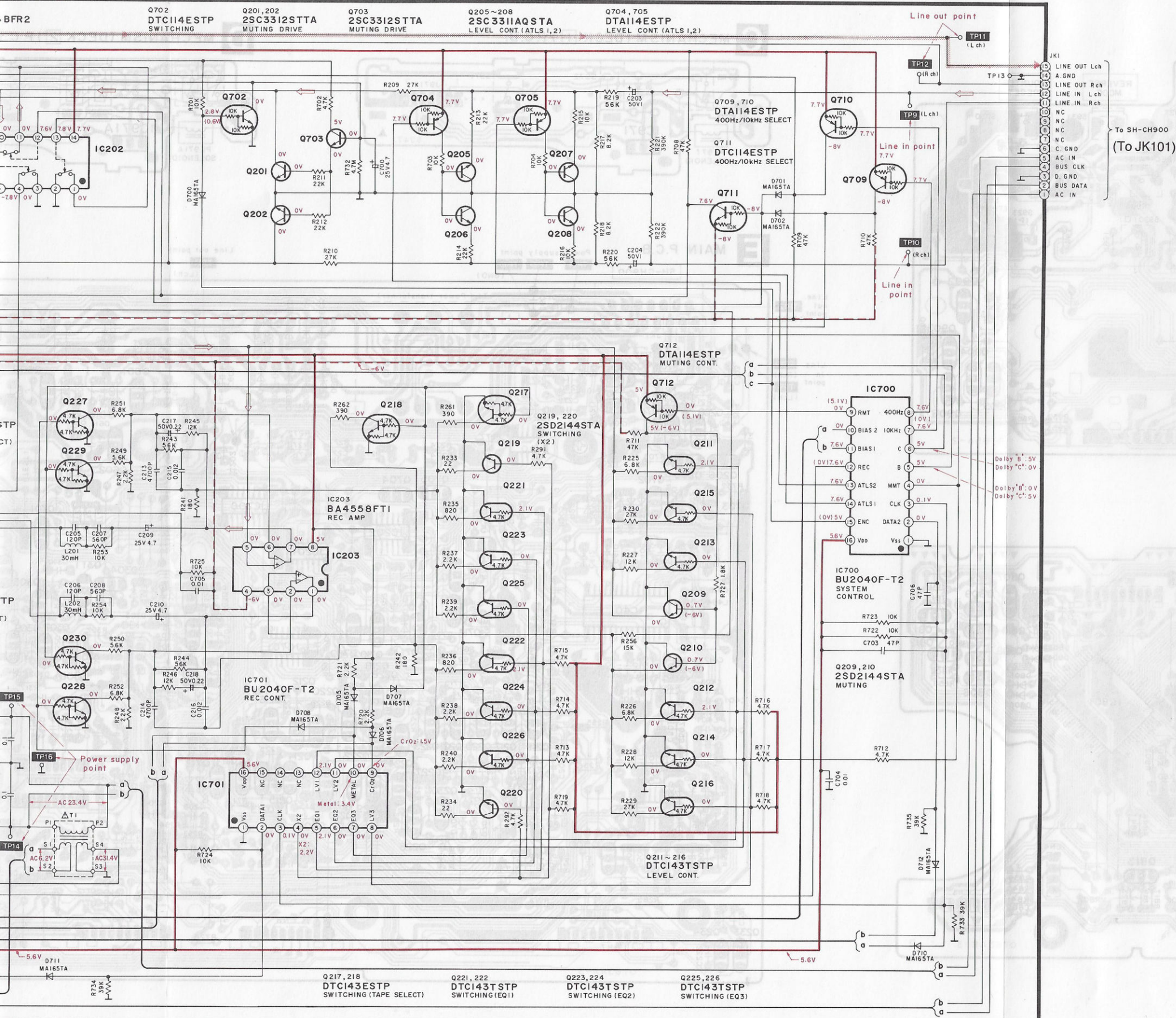
Standard value: $0.4\text{ V} \pm 0.5\text{ dB}$



SCHEMATIC DIAGRAM (Operation/Mechanism Control circuit) (Parts list on pages 27~30)







Notes:

- S910 : STOP Switch (DECK 1).
- S911 : FF Switch (DECK 1).
- S912 : REW Switch (DECK 1).
- S913 : FWD. PLAY Switch (DECK 1).
- S914 : REV. PLAY Switch (DECK 1).
- S918 : Dolby NR Switch.
- S919 : Counter Reset Switch (DECK 1).
- S920 : STOP Switch (DECK 2).
- S921 : FF Switch (DECK 2).
- S922 : REW Switch (DECK 2).
- S923 : FWD. PLAY Switch (DECK 2).
- S924 : REV. PLAY Switch (DECK 2).
- S925 : REC Pause Switch.
- S927 : Synchro Start Switch.
- S928 : Speed Switch ($\times 1$, $\times 2$).
- S929 : CCRT Switch.
- S930 : Counter Reset Switch (DECK 2).
- S931 : Reverse Mode Select Switch.
- S971 : Mode Detect Switch (DECK 1).
- S972 : Half Detect Switch (DECK 1).
- S973 : CrO₂/METAL Tape Detect Switch (DECK 1).
- S971A : Mode Detect Switch (DECK 2).
- S972A : Half Detect Switch (DECK 2).
- S973A : Reverse Side Record Prevention Detect Switch (DECK 2).
- S974A : Forward Side Record Prevention Detect Switch (DECK 2).
- S975A : CrO₂ Tape Detect Switch (DECK 2).
- S976A : METAL Tape Detect Switch (DECK 2).

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

- : Positive Voltage Line
-  : Negative Voltage Line
-  : Playback Signal Line
-  : Recording Signal Line

No mark...Playback ()...Recording

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

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.

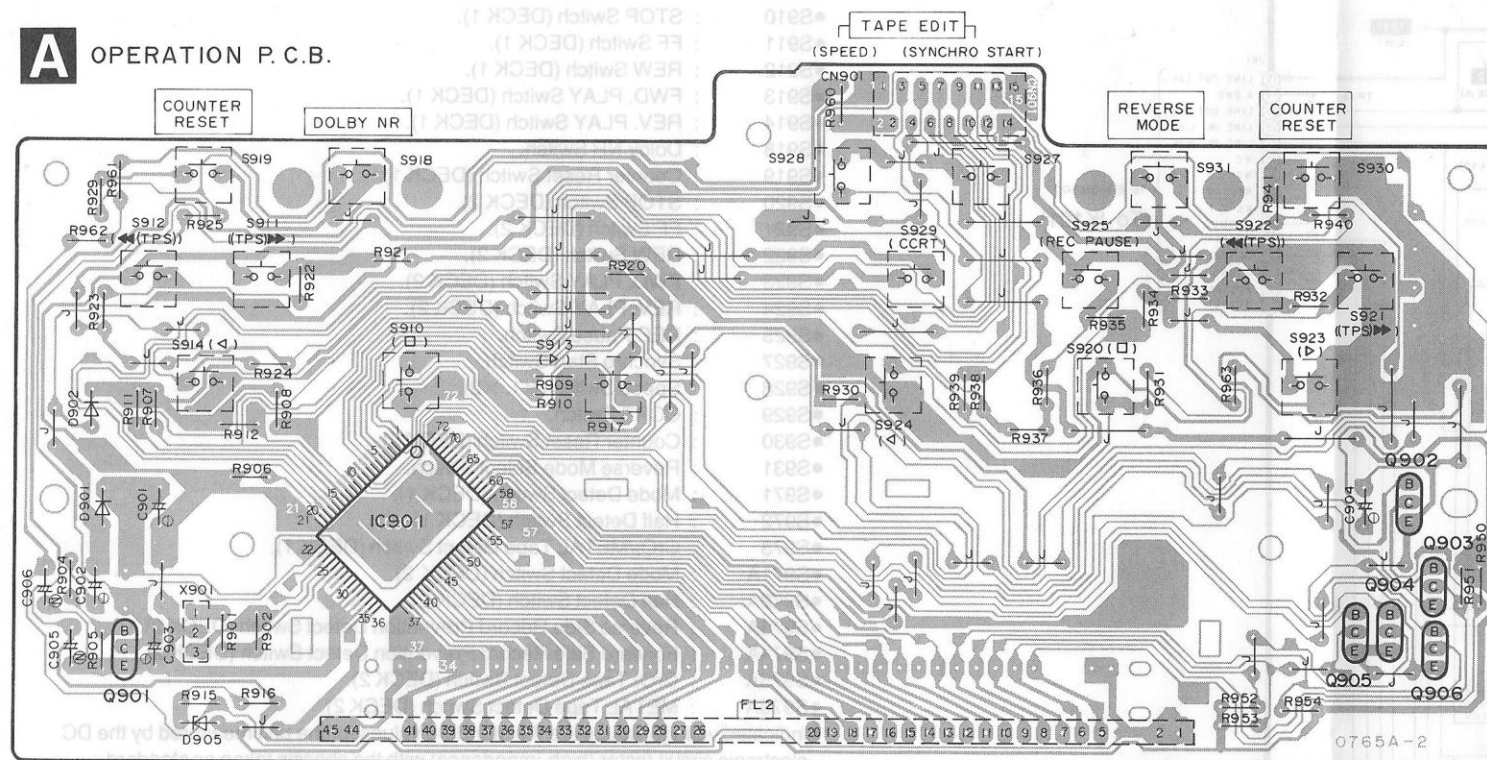
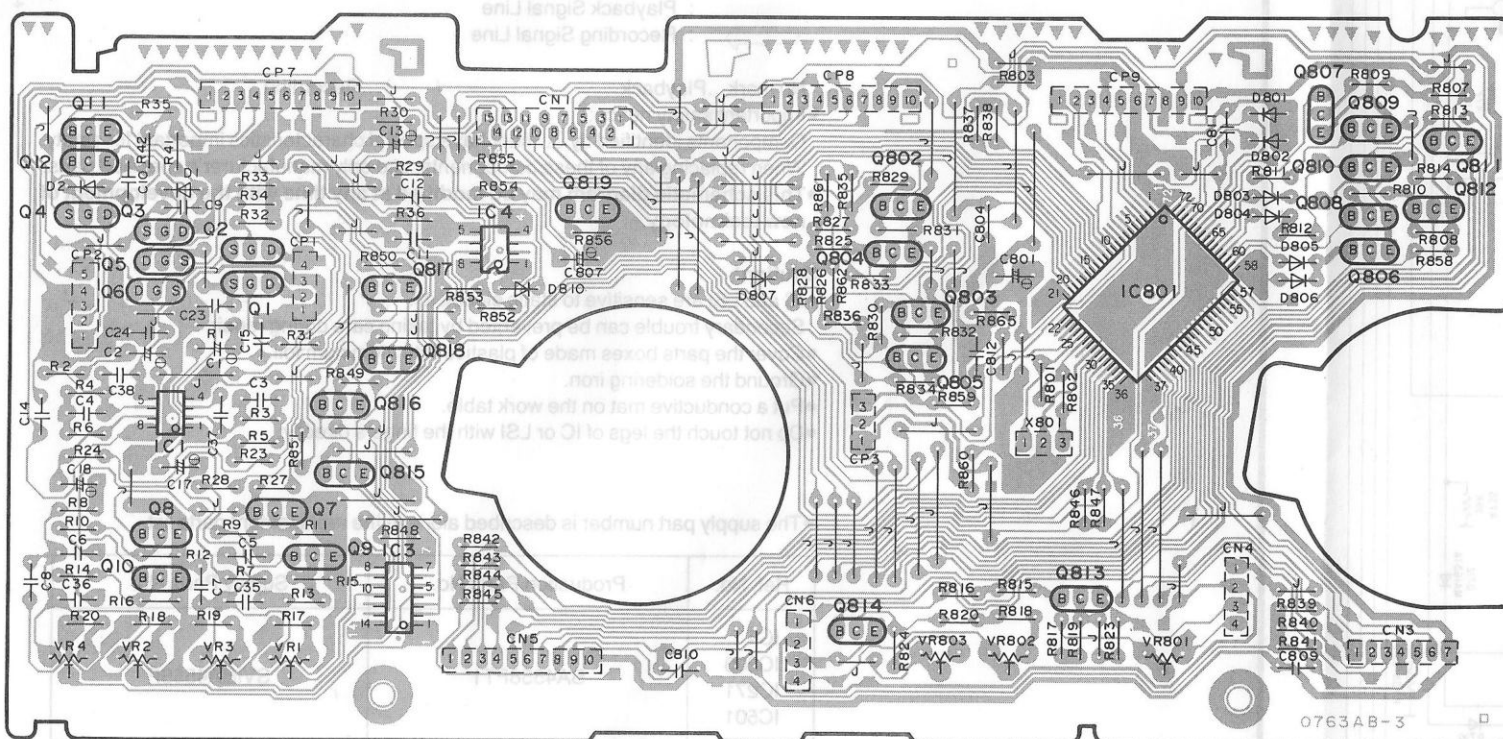
- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC4 IC203 IC271 IC501	BA4558FT1	SVIBA4558F

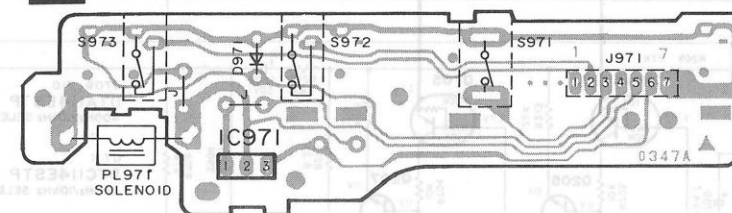
■ PRINTED CIRCUIT BOARDS (Parts list on pages 27~30)

• This circuit board diagram may be modified at any time with the development of new technology.

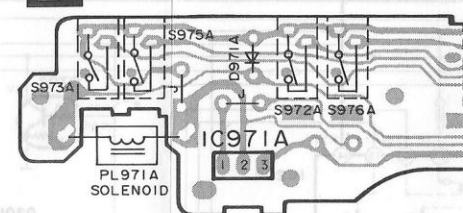
A OPERATION P.C.B.

**B** MECHANISM CONTROL P.C.B.

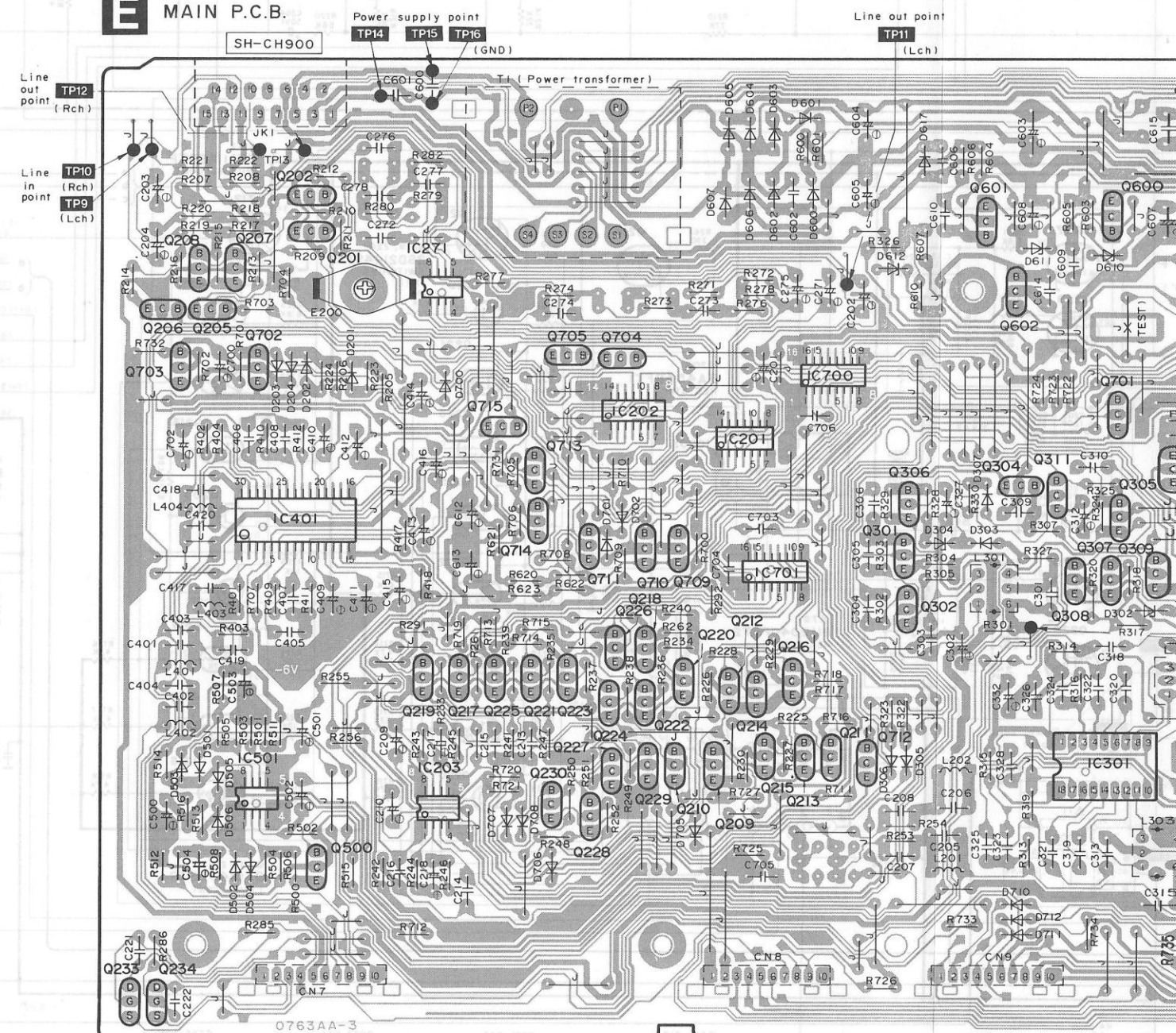
C MECHANISM (DECK **I**) P.C.B.

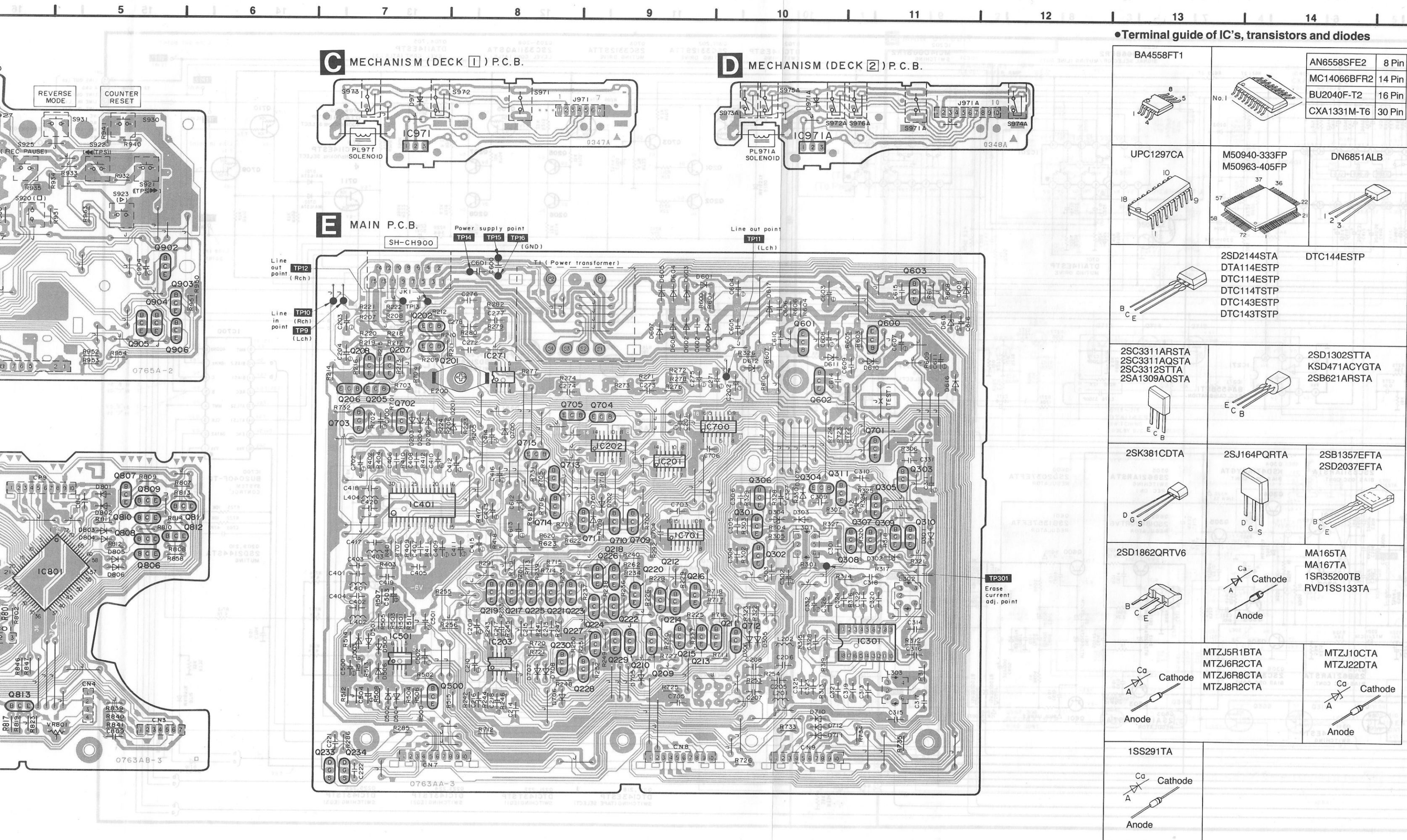


D MECHANISM (DECK 2) P. C

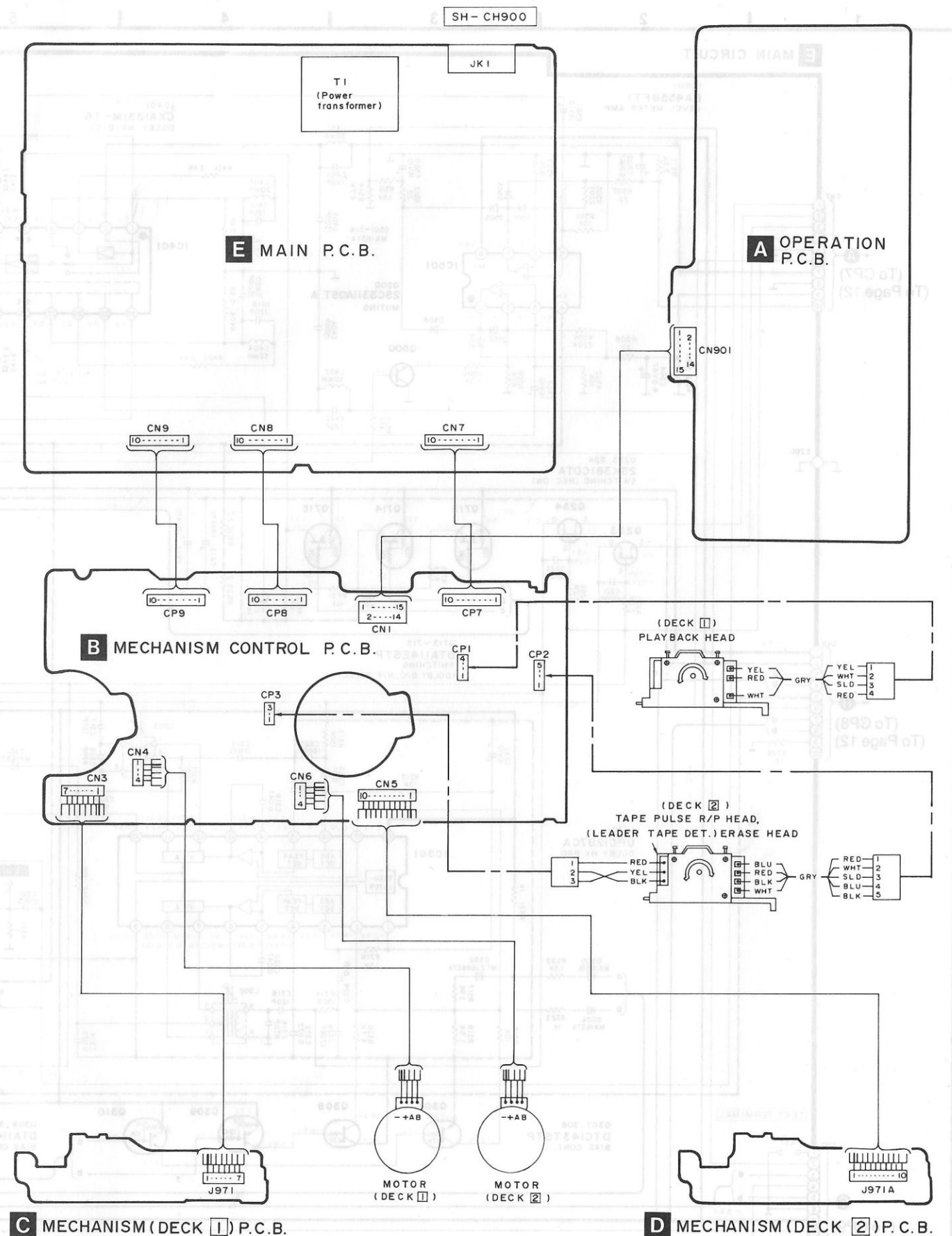
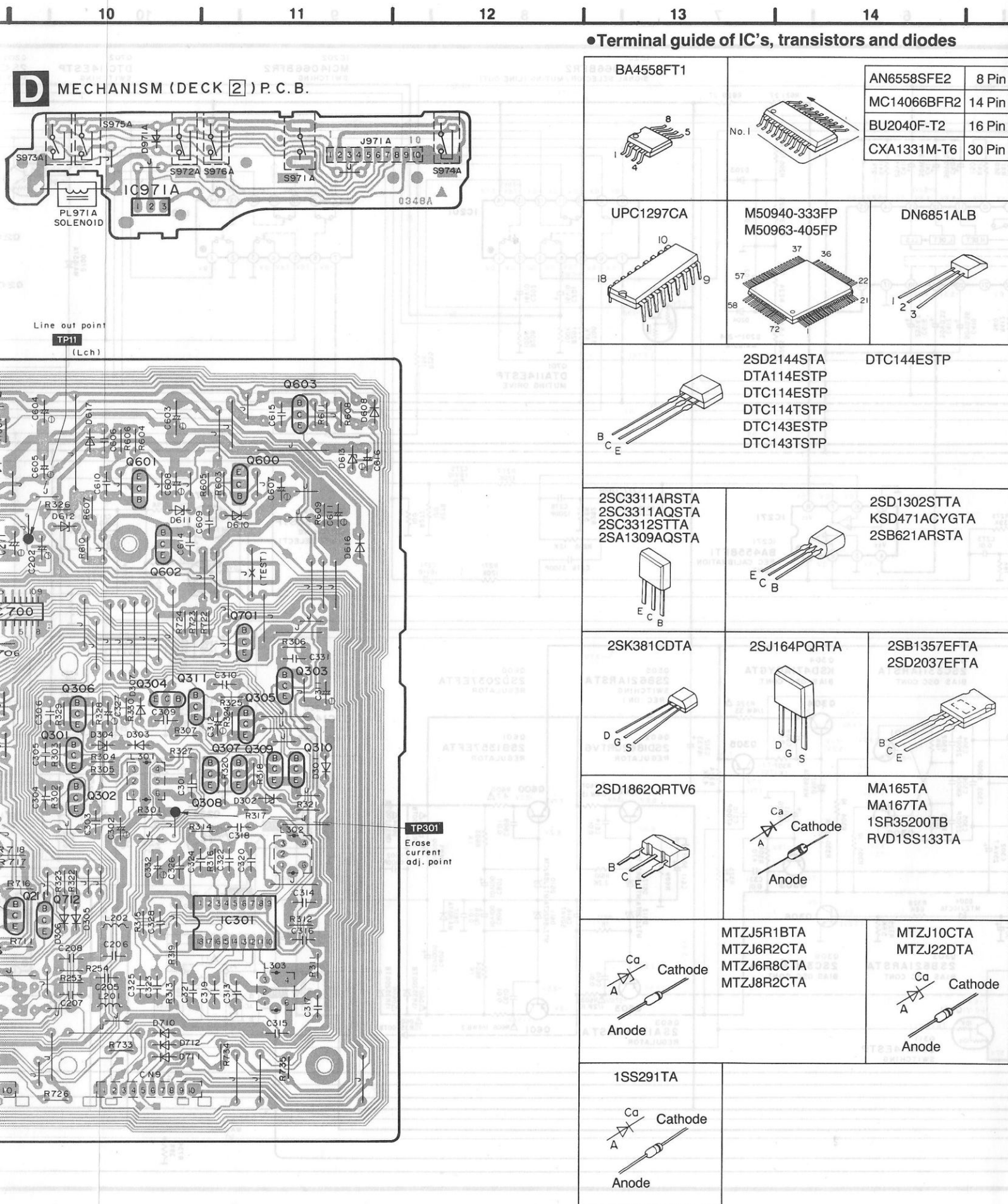


F MAIN P.C.B.



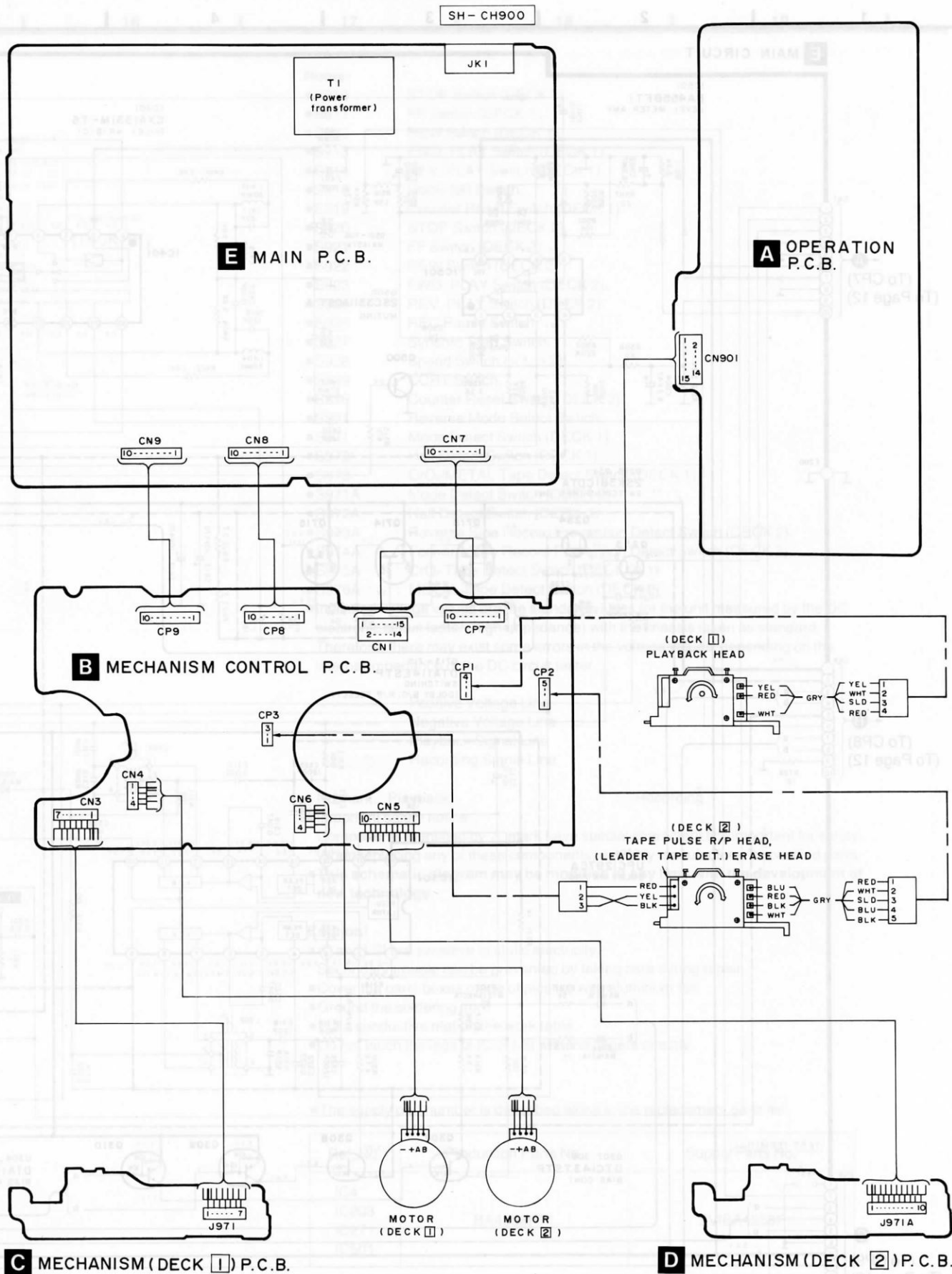


■ WIRING CONNECTION DIAGRAM

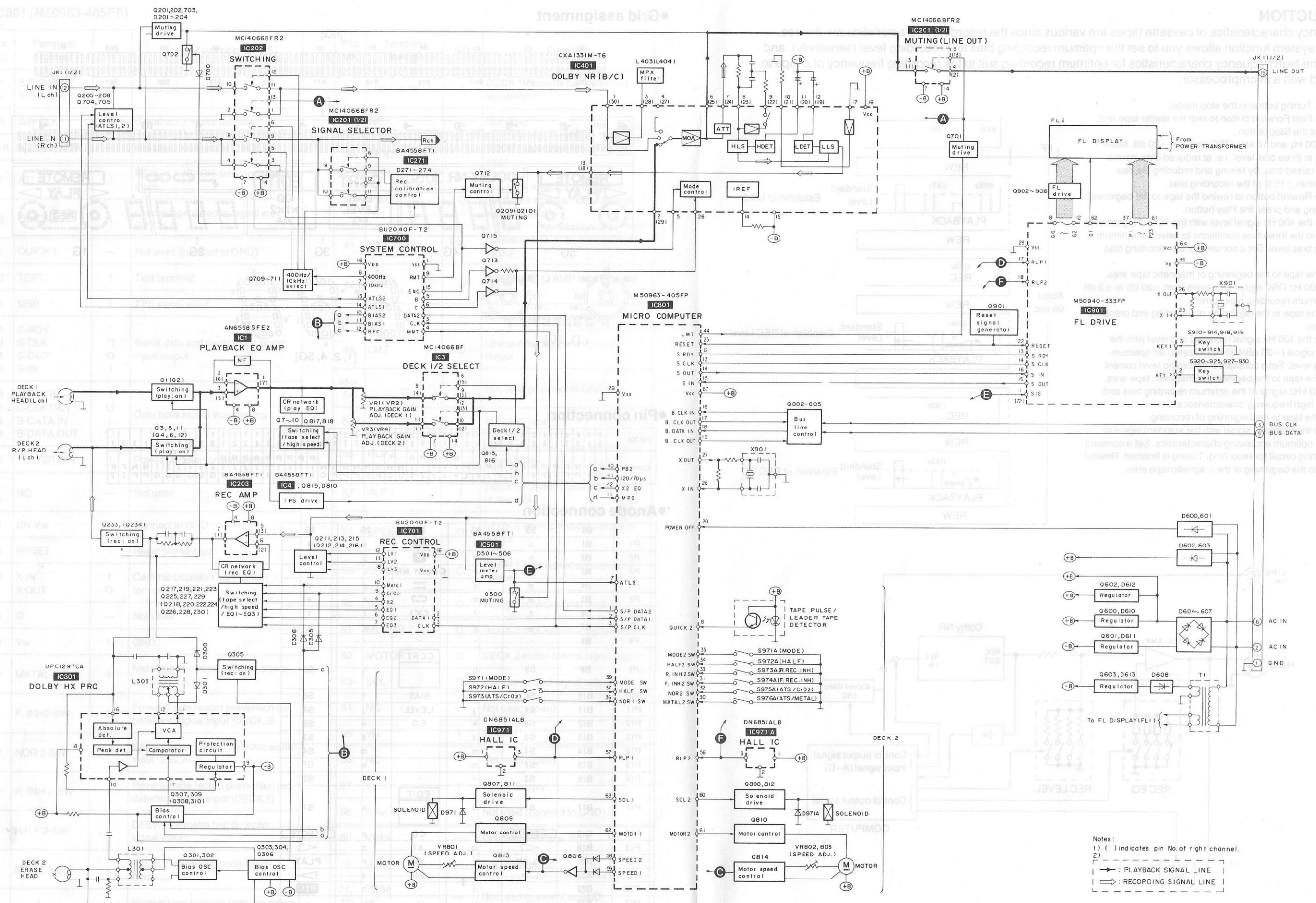


WIRING CONNECTION DIAGRAM

SH-CH900



BLOCK DIAGRAM

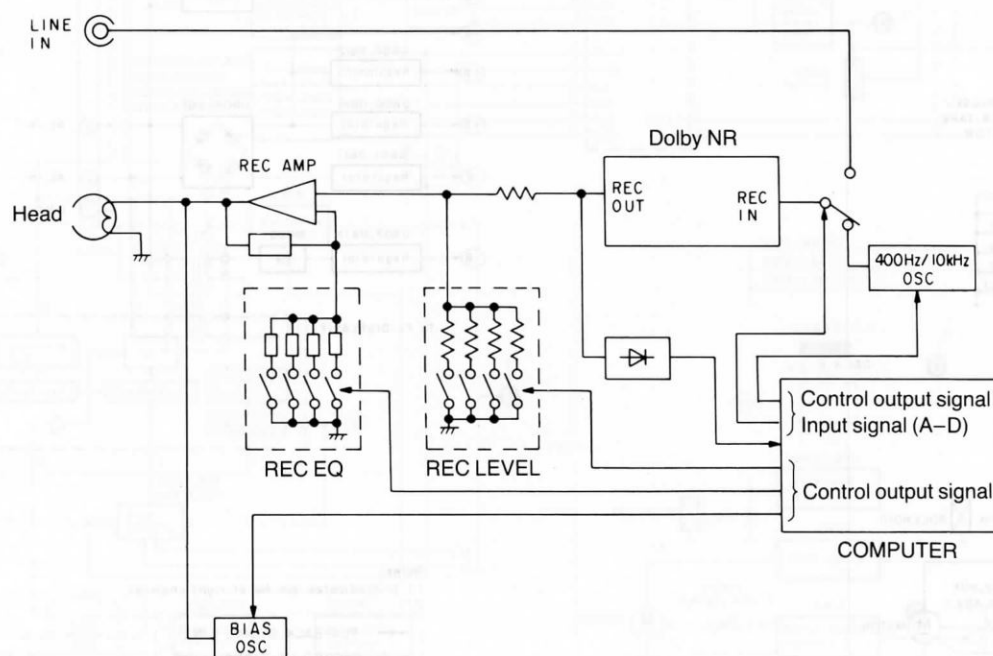
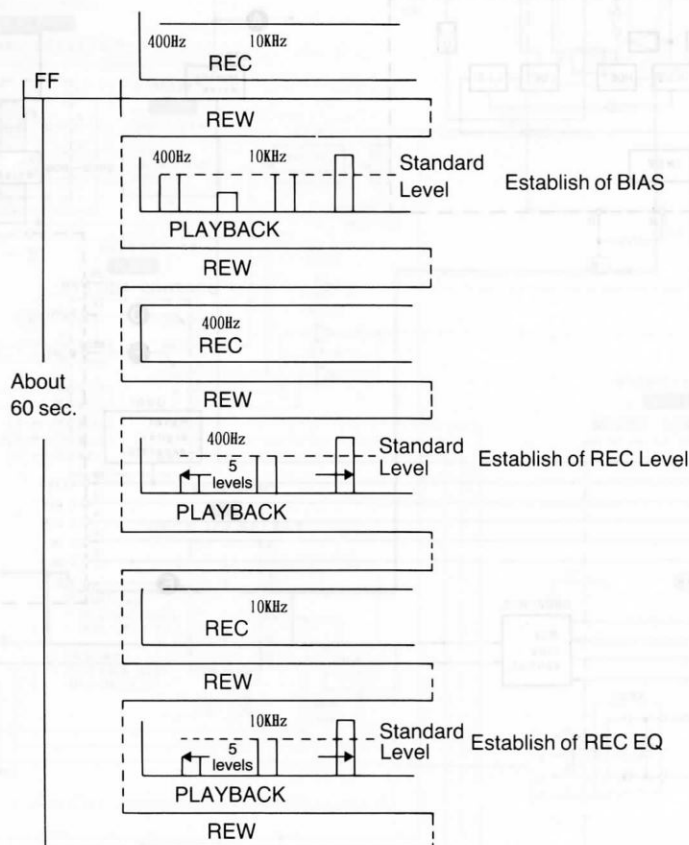


COMPUTER CONTROL RECORDING SYSTEM (CCRT)

INTRODUCTION

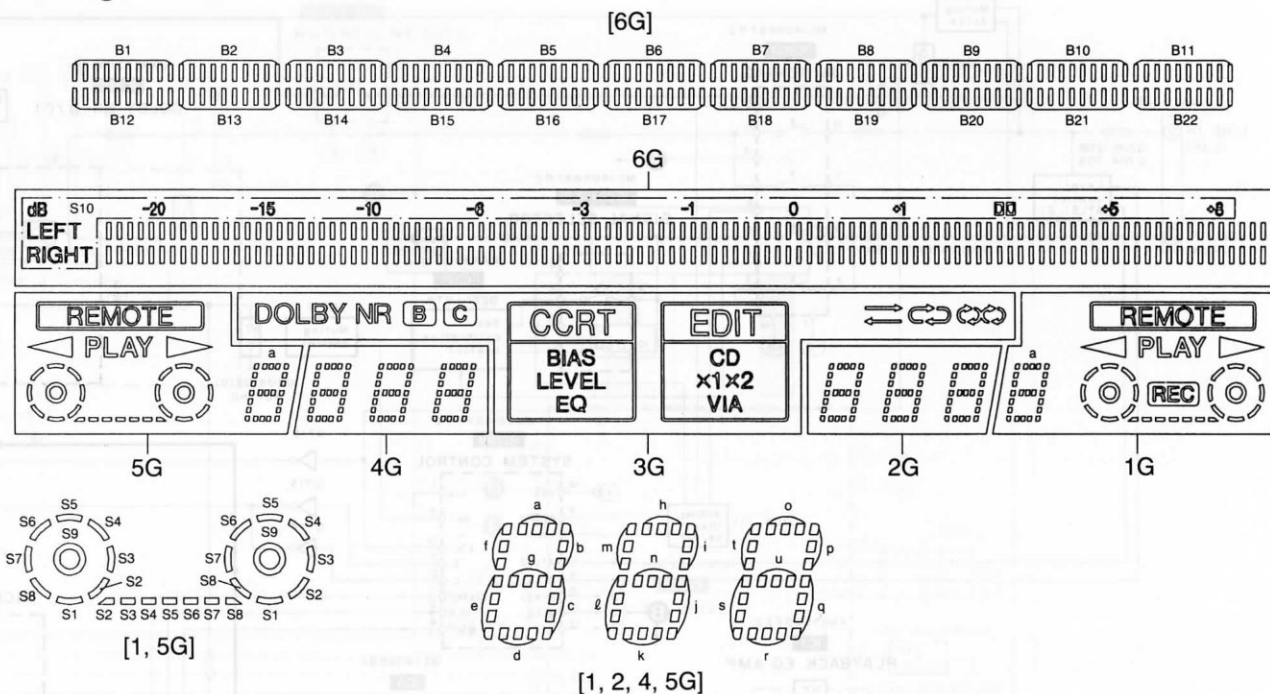
The frequency characteristics of cassette tapes are various since the recording characteristics are diverse. The CCRT system function allows you to set the optimum recording bias and recording level (sensitivity), and equalizes the high frequency characteristics for optimum recording suit to the recording frequency of a tape to be recorded with a microprocessor.

1. Press the Tuning button in the stop mode.
2. Press the Fast Forward button to skip the leader tape and then press the Stop button.
3. Record 400 Hz and 10 kHz OSC signal at -20 dB. Make recording in three bias level, i.e. at reduced bias, normal bias, and raised bias, by raising and reducing the bias current within $\pm 15\%$ of the recording bias.
4. Press the Rewind button to rewind the tape to the beginning of recording and press the Play button.
5. Compare the 400 Hz signal level with the 10 kHz signal level recorded in the three bias conditions to select an optimum recording bias level. Set a constant of the recording bias circuit.
6. Rewind the tape to the beginning of magnetic tape area.
7. Record 400 Hz OSC signal at 5 levels from -20 dB to ± 3 dB at an optimum recording bias current.
8. Rewind the tape to the beginning of recording and press the play button.
9. Compare the 400 Hz signal recorded at 5 level with the standard signal (-20 dB/400 Hz) to select an optimum recording level. Set a constant of recording level current.
10. Rewind the tape to the beginning of magnetic tape area.
11. Record 10 kHz signal at the optimum recording bias and level at 5 high frequency characteristics.
12. Rewind the tape to the beginning of recording.
13. Compare the recorded signal with the standard signal to select an optimum equalizing characteristics. Set a constant of equalizing circuit for recording. Tuning is finished. Rewind the tape to the beginning of the magnetic tape area.



■ DESCRIPTION OF FL PANEL [FL 2 (RSL0110-F)]

- **Grid assignment**



- **Pin connection**

Pin No.	4 5	4 4	4 4	4 2	4 1	4 0	3 9	3 8	3 7	3 6	3 5	3 4	3 3	3 2	3 1	3 0	2 9	2 8	2 7	2 6	2 5	2 4	2 3	2 2	2 1	2 0	1 9	1 8	1 7	1 6	1 5	1 4	1 3	1 2	1 1	1 0	9	8	7	6	5	4	3	2	1
Connection	F 1	F 1	N P	N P	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 0	P 1	P 1	P 1	P 1	P 1	N C	N C	N P	N P	N P	N P	N C	P 1	P 1	P 1	P 1	P 1	P 2	P 2	P 2	P 2	6 G	5 G	4 G	3 G	2 G	1 N	P P	F 2		

● Anode connection

	6G	5G	4G	3G	2G	1G
P1	B1	a	a		a	a
P2	B2	b	b		b	b
P3	B3	c	c	DOLBY NR	c	c
P4	B4	d	d		d	d
P5	B5	e	e		e	e
P6	B6	f	f		f	f
P7	B7	g	g	-	g	g
P8	B8	-	-	-	-	-
P9	B9	S5	h	CCRT	h	S5
P10	B10	S6	i	BIAS	i	S6
P11	B11	S9	j	LEVEL	j	S9
P12	B12	S8	k	EQ	k	S8
P13	B13	S3	ℓ	-	ℓ	S3
P14	B14	S4	m	-	m	S4
P15	B15	S7	n	-	n	S7
P16	B16	S2	-	-	-	S2
P17	B17	S1	o	EDIT	o	S1
P18	B18	REMOTE	p	CD	p	REMOTE
P19	B19		q	x1	q	
P20	B20	PLAY	r	x2	r	PLAY
P21	B21		s	VIA	s	
P22	B22	-	t	-	t	REC
P23	S10	-	u	-	u	-

■ FUNCTION OF IC TERMINALS

● IC801 (M50963-405FP)

Pin No.	Terminal name	I/O	Function
1 2	S/P-DATA 2 S/P-DATA 1	O	Serial data signal output
3	S/P-CLK	O	Serial clock signal output
4~6	NC, NC, VRIN	—	Not used (connect to GND)
7	ATLS	I	REC/PLAYBACK detection signal input
8	QUICK 2	I	Leader tape detector signal input (DECK 2)
9	QUICK 1	—	Not used (connect to GND)
10	TEST	I	Test terminal
11	MSP	I	TPS signal input
12 13 14 15	S-RDY S-CLK S-OUT S-IN	I O O I	Serial data and serial clock signal input/output
16 17 18 19	B-CLK IN B-CLK OUT B-DATA IN B-DATA OUT	I O I O	Data bass signal input/output
20	POWER OFF	I	Power off detector signal input
21~ 23	NC	—	Not used
24	CN V _{ss}	I	Connect to GND
25	RESET	I	Reset signal input
26 27	X IN X OUT	I O	Ceramic oscillator connection terminal (4 MHz)
28	∅	—	Not used
29	V _{ss}	I	GND
30	MATAL-2 SW	I	Metal tape position detector signal input (DECK 2)
31	F. INH2-SW	I	Forward side record prevention tad detection signal input (DECK 2)
32	NOR 2-SW	I	Normal tape position detector signal input (DECK 2)
33	R. INH 2-SW	I	Reverse side record prevention tad detection signal input (DECK 2)
34	HALF 2-SW	I	DECK 2 cassette half detection signal input
35	MODE 2-SW	I	DECK 2 operation mode signal input
36	NOR 1-SW	I	Normal tape position detector signal input (DECK 1)

Pin No.	Terminal name	I/O	Function
37	HALF 1-SW	I	DECK 1 cassette half detection signal input
38	NC	—	Not used
39	MODE 1-SW	I	DECK 1 operation mode signal input
40	PB 2	O	Playback AMP control signal (selectore of input/output control signal) output
41	120/70 μ S	O	Playback E.Q. AMP control signal output
42	X2 EQ	O	Playback E. Q AMP control signal output
43	NC	—	Not used (connect to GND)
44	LMT	O	Line out muting control signal output
45~ 54	—	—	Not used (connect to GND)
55	NC	—	Not used (open)
56	RLP 2	I	DECK 2 rotation pulse signal input of reel table
57	RLP 1	I	DECK 1 rotation pulse signal input of reel table
58	SPEED 2	O	DECK 2 tape speed control signal output
59	SPEED 1	O	DECK 1 tape speed control signal output
60	SOL 2	O	Plunger control signal output
61	MOTOR 2	O	DECK 2 motor control signal output
62	MOTOR 1	O	DECK 2 motor control signal output
63	SOL 1	O	Plunger control signal output
64	NC	—	Not used (open)
65	V _{ss}	I	Ground
66	NC	—	Not used (open)
67	V _{cc}	I	Power Supply
68	AV _{ss}	—	Not used (connect to GND)
69	VREF	—	Reference voltage input
70	D-A	—	Not used (open)
71, 72	PWM NC	—	Not used (connect to GND)

●IC901 (M50940-333FP)

Pin No.	Terminal name	I/O	Function
1	SIS-L	I	S-Meter signal input
2	KEY 2	I	DECK 2 key control signal input
3	KEY 1	I	DECK 1 key control signal input
4	NC	—	Not used (open)
5~7	NC	—	Not used (connect to GND)
8~12	G6~G2	O	FL grid signal output
13	S-RDY	O	Serial data and serial clock signal input/output
14	S-CLK	I	
15	S-OUT	O	
16	S-IN	I	
17	RLP 1	I	DECK 1 rotation pulse signal input of reel table
18	RLP 2	I	DECK 2 rotation pulse signal input of reel table
19	AC OFF	I	Not used (open)
20	NC	—	Connect to GND
21	CN V _{SS}	I	
22	RESET	I	Reset signal input
23, 24	NC	—	Not used (open)
25	X IN	I	Ceramic oscillator connection terminal (4 MHz)
26	X OUT	O	
27	XC IN	I	Not used (connect to GND)
28	XC OUT	O	Not used (open)
29	V _{SS}	I	Ground
30	∅	—	Not used (open)
31~34	NC	—	Not used (connect to GND)
35	NC	—	Not used (open)
36	VP	I	Pull down voltage input
37~54	P1~P18	O	FL Anode signal output
55, 56	NC	—	Not used (open)

Pin No.	Terminal name	I/O	Function
57~61	P19~P23	O	FL Anode signal output
62	G1	O	FL Grid signal output
63	AV _{CC}	I	A/D of Power supply terminal
64	V _{CC}	I	Power supply terminal
65	V _{SS}	I	Ground
66	AV _{SS}	I	A/D of ground terminal
67	VREF	I	A/D of reference voltage input
68~71	NC	—	Not used (connect to GND)
72	SIS-R	I	S-Meter signal input

REPLACEMENT PARTS LIST

Notes : * Important safety notice:

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

- * The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q701	DTA114ESTP	TRANSISTOR	
				Q702	DTC114ESTP	TRANSISTOR	
				Q703	2SC3312STTA	TRANSISTOR	
IC1	AN6558SFE2	I. C, PLAYBACK EQ. AMP.		Q704, 705	DTA114ESTP	TRANSISTOR	
IC3	MC14066BFR2	I. C, DECK 1/2 SELECT		Q709, 710	DTA114ESTP	TRANSISTOR	
IC4	SV1BA4558F	I. C, TPS DRIVE		Q711	DTC114ESTP	TRANSISTOR	
IC201	MC14066BFR2	I. C, SIGNAL SELECTOR		Q712-715	DTA114ESTP	TRANSISTOR	
IC202	MC14066BFR2	I. C, SWITCHING		Q802, 803	2SC3311A-Q	TRANSISTOR	
IC203	SV1BA4558F	I. C, REC. AMP.		Q804, 805	DTC144ESTP	TRANSISTOR	
IC271	SV1BA4558F	I. C, REC. CALIBRATION CONT.		Q806-808	DTC114ESTP	TRANSISTOR	
IC301	UPC1297CA	I. C, DOLBY HX PRO.		Q809, 810	2SD1302STTA	TRANSISTOR	
IC401	CXA1331M-T6	I. C, DOLBY NR(B/C)		Q811, 812	2SB621A-R	TRANSISTOR	
IC501	SV1BA4558F	I. C, LEVEL METER AMP.		Q813, 814	2SA1309A-R	TRANSISTOR	
IC700	BU2040F-T2	I. C, SYSTEM CONTROL		Q815	DTA114ESTP	TRANSISTOR	
IC701	BU2040F-T2	I. C, REC CONTROL		Q816	DTC114TSTP	TRANSISTOR	
IC801	M50963-405FP	I. C, MICRO COMPUTER		Q817, 818	DTA114ESTP	TRANSISTOR	
IC901	M50940-333FP	I. C, FL. DRIVE		Q819	2SC3311A-Q	TRANSISTOR	
IC971	DN6851ALB	I. C, HALL (DECK1)		Q901	2SC3311A-Q	TRANSISTOR	
IC971A	DN6851ALB	I. C, HALL (DECK2)		Q902-906	DTA114ESTP	TRANSISTOR	
		TRANSISTOR(S)				DIODE (S)	
Q1-4	2SJ164PQRTA	TRANSISTOR		D1, 2	MA167	DIODE	
Q5, 6	2SK381BCDTA	TRANSISTOR		D201-204	MA165	DIODE	
Q7-9	2SD2144S	TRANSISTOR		D301	MA165	DIODE	
Q10-12	2SD2144S	TRANSISTOR		D302	MTZJ6R8CTA	DIODE	
Q201, 202	2SC3312STTA	TRANSISTOR		D303	MA167	DIODE	
Q205-208	2SC3311A-Q	TRANSISTOR		D304	MTZJ10CTA	DIODE	
Q209, 210	2SD2144S	TRANSISTOR		D305-307	MA165	DIODE	
Q211-216	DTC143TSTP	TRANSISTOR		D501-506	MA165	DIODE	
Q217, 218	DTC143ESTP	TRANSISTOR		D600, 601	MA165	DIODE	$\triangle$
Q219, 220	2SD2144S	TRANSISTOR		D602-608	1SR35200TB	DIODE	$\triangle$
Q221-226	DTC143TSTP	TRANSISTOR		D610, 611	MTZJ8R2CTA	DIODE	
Q227-230	DTC143ESTP	TRANSISTOR		D612	MTZJ6R2CTA	DIODE	
Q233, 234	2SK381BCDTA	TRANSISTOR		D613	MTZJ22DTA	DIODE	
Q301, 302	2SC3311ARSTA	TRANSISTOR		D616	1SR35200TB	DIODE	$\triangle$
Q303	2SB621A-R	TRANSISTOR		D617	MA165	DIODE	
Q304	KSD471ACYGTA	TRANSISTOR		D700-702	MA165	DIODE	
Q305	2SB621A-R	TRANSISTOR		D705-708	MA165	DIODE	
Q306	2SC3311A-Q	TRANSISTOR		D710-712	MA165	DIODE	
Q307, 308	DTC143TSTP	TRANSISTOR		D801	1SS291TA	DIODE	
Q309-311	DTA114ESTP	TRANSISTOR		D802	1SR35200TB	DIODE	
Q500	2SC3311A-Q	TRANSISTOR		D803-807	MA165	DIODE	
Q600	2SD2037EFTA	TRANSISTOR		D810	MA165	DIODE	
Q601	2SB1357EFTA	TRANSISTOR		D901, 902	MA165	DIODE	
Q602	2SD1862QRTV6	TRANSISTOR		D905	MTZJ5R1BTA	DIODE	
Q603	2SA1309A-R	TRANSISTOR		D971	RVD1SS133TA	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D971A	RVD1SS133TA	DIODE	
		VARIABLE RESISTOR(S)	
VR1-4	EVNDCAA03B24	V. R. P. B. GAIN ADJ.	
VR801-803	EVNDCAA03B53	V. R. TAPE SPEED ADJ.	
		COIL (S)	
L201, 202	SLQX303-1KT	COIL	
L301	SL09B4-K	COIL	
L302, 303	SL09B1-Z	COIL	
L401-404	SLQX303-1KT	COIL	
		TRANSFORMER (S)	
T1	RTP1I4G002	POWER TRANSFORMER	△
		OSCILLATOR(S)	
X801	EFOGC4004A4	CERAMIC OSCILLATOR	
X901	EFOGC4004A4	CERAMIC OSCILLATOR	
		DISPLAY	
FL2	RSL0110-F	FL DISPLAY	
		SWITCH(ES)	
S910	EVQ21405R	SW, STOP (DECK1)	
S911	EVQ21405R	SW, FF (TPS) (DECK1)	
S912	EVQ21405R	SW, REW (TPS) (DECK1)	
S913	EVQ21405R	SW, PLAY (FWD) (DECK1)	
S914	EVQ21405R	SW, PLAY (REV) (DECK1)	
S918	EVQ21405R	SW, DOLBY NR	
S919	EVQ21405R	SW, COUNTER RESET (DECK1)	
S920	EVQ21405R	SW, STOP (DECK2)	
S921	EVQ21405R	SW, FF (TPS) (DECK2)	
S922	EVQ21405R	SW, REW (TPS) (DECK2)	
S923	EVQ21405R	SW, PLAY (FWD) (DECK2)	
S924	EVQ21405R	SW, PLAY (REV) (DECK2)	
S925	EVQ21405R	SW, REC. PAUSE	
S927	EVQ21405R	SW, SYNCHRO START	
S928	EVQ21405R	SW, SPEED	
S929	EVQ21405R	SW, CCRT	
S930	EVQ21405R	SW, COUNTER RESET (DECK2)	
S931	EVQ21405R	SW, REVERSE MODE	
S971	RSH1A89Z	SW, MODE (DECK1)	
S971A	RSH1A89Z	SW, MODE (DECK2)	
S972	RSH1A90YB-U	SW, HALF (DECK1)	
S972A	RSH1A90YB-U	SW, HALF (DECK2)	
S973	RSH1A90YB-U	SW, ATS/CrO2 (DECK1)	

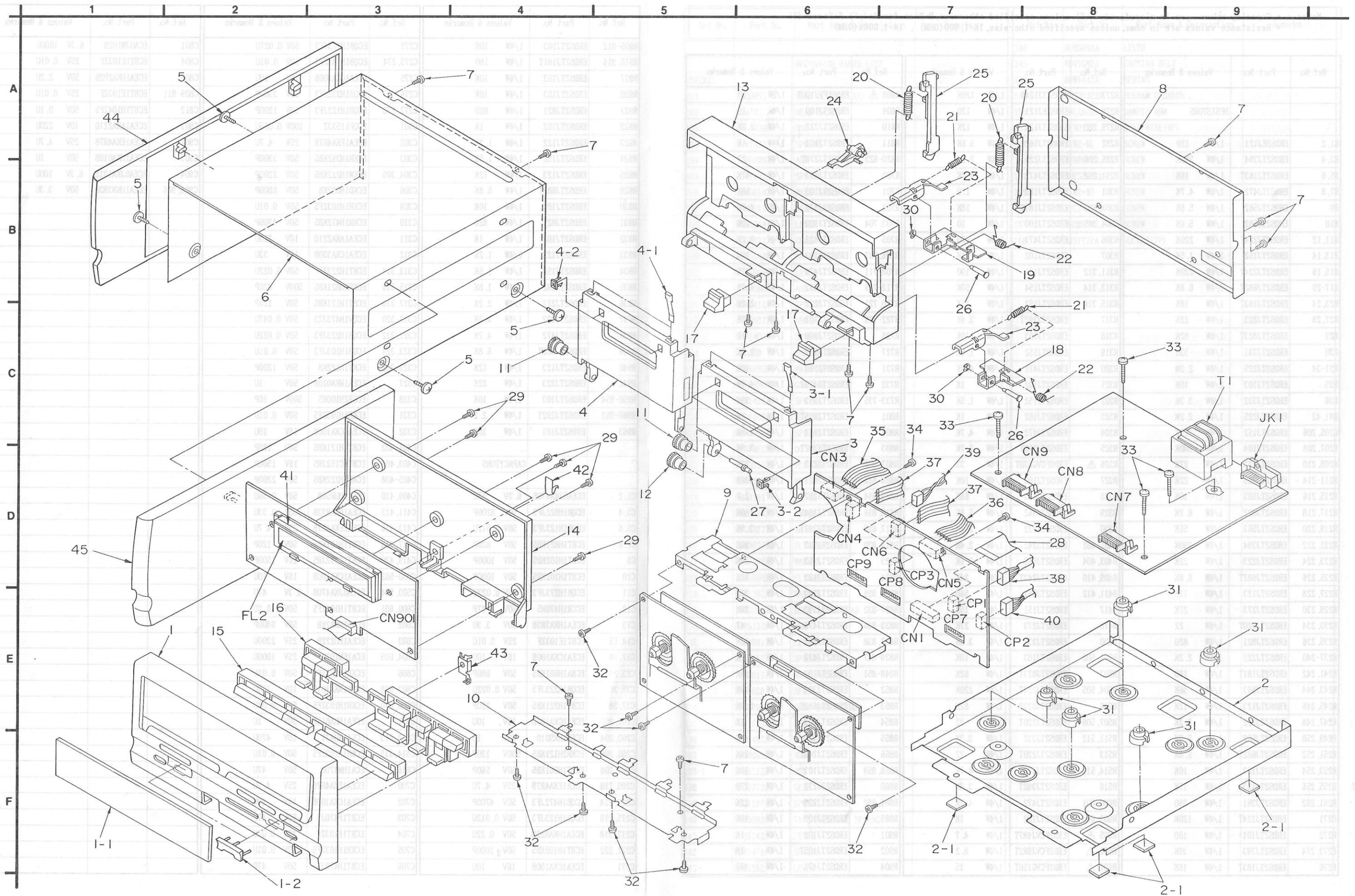
Ref. No.	Part No.	Part Name & Description	Remarks
S973A	RSH1A90YB-U	SW, R. REC. INH (DECK2)	
S974A	RSH1A90YB-U	SW, F. REC. INH (DECK2)	
S975A	RSH1A90YB-U	SW, ATS/CrO2 (DECK2)	
S976A	RSH1A90YB-U	SW, ATS/METAL (DECK2)	
		CONNECTOR(S)	
CN1	RJS15Q8ZA	SOCKET (15P)	
CN3	RJS7T4ZA	SOCKET (7P)	
CN4	RJS1A6604	SOCKET (4P)	
CN5	SJSD1005	SOCKET (10P)	
CN6	RJS1A6604	SOCKET (4P)	
CN7-9	RJU003K010M1	SOCKET (10P)	
CN901	RJS15Q9ZA	SOCKET (15P)	
CP1	SJTD413	CONNECTOR (4P)	
CP2	RJP5G18ZA	CONNECTOR (5P)	
CP3	SJTD313	CONNECTOR (3P)	
CP7-9	RJT003K10VM	CONNECTOR (10P)	
J971	RJS7T7ZA	SOCKET (7P)	
J971A	RJS10T7ZA	SOCKET (10P)	
		EARTH TERMINAL (S)	
E200	SNE1004-1	GND PLATE	
		JACK(S)	
JK1	RJT055K015-1	CONNECTOR (15P)	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R277	ERDS2TJ124T	1/4W 120K	R608	ERDS1FVJ100T	1/2W 10
			R278	ERDS2EJ121	1/4W 120	R609	ERDS2TJ100	1/4W 10
			R279, 280	ERDS2TJ123	1/4W 12K	R610	ERDS2TJ222	1/4W 2.2K
R1, 2	ERDS2EJ121	1/4W 120	R282	ERDS2TJ562	1/4W 5.6K	R611	ERDS2TJ102	1/4W 1K
R3, 4	ERDS2TJ394	1/4W 390K	R285, 286	ERDS2TJ225	1/4W 2.2M	R620-623	ERDS2TJ270T	1/4W 27
R5, 6	ERDS2TJ163T	1/4W 16K	R291, 292	ERDS2TJ472	1/4W 4.7K	R700	ERDS2TJ473	1/4W 47K
R7, 8	ERDS2TJ472	1/4W 4.7K	R301	ERDS2TJ180	1/4W 1.0	R701	ERDS2TJ103	1/4W 10K
R9	ERDS2TJ562	1/4W 5.6K	R302, 303	ERDS2TJ183T	1/4W 18K	R702	ERDS2TJ472	1/4W 4.7K
R10	ERDS2TJ562	1/4W 5.6K	R304, 305	ERDS2TJ100	1/4W 10	R703, 704	ERDS2TJ103	1/4W 10K
R11, 12	ERDS2TJ224T	1/4W 220K	R306	ERDS2TJ471	1/4W 470	R705	ERDS2TJ822	1/4W 8.2K
R13, 14	ERDS2TJ152	1/4W 1.5K	R307	ERDS2TJ102	1/4W 1K	R706, 707	ERDS2TJ103	1/4W 10K
R15, 16	ERDS2TJ224T	1/4W 220K	R311, 312	ERDS2TJ101	1/4W 100	R708-711	ERDS2TJ473	1/4W 47K
R17-20	ERDS2TJ682T	1/4W 6.8K	R313, 314	ERDS2TJ154	1/4W 150K	R712-719	ERDS2TJ472	1/4W 4.7K
R23, 24	ERDS2TJ183T	1/4W 18K	R315, 316	ERDS2TJ153	1/4W 15K	R720, 721	ERDS2TJ222	1/4W 2.2K
R27, 28	ERDS2TJ223	1/4W 22K	R317	ERDS2TJ392T	1/4W 3.9K	R722-725	ERDS2TJ103	1/4W 10K
R29	ERDS2TJ823T	1/4W 82K	R318	ERDS2TJ103	1/4W 10K	R726	ERDS2TJ100	1/4W 10
R30	ERDS2TJ331	1/4W 330	R319	ERDS2TJ152	1/4W 1.5K	R727	ERDS2TJ182	1/4W 1.8K
R31-34	ERDS2TJ225	1/4W 2.2M	R320	ERDS2TJ472	1/4W 4.7K	R731	ERDS2TJ103	1/4W 10K
R35	ERDS2TJ103	1/4W 10K	R321	ERDS2TJ102	1/4W 1K	R732	ERDS2TJ475T	1/4W 4.7M
R36	ERDS2TJ332	1/4W 3.3K	R322	ERDS2TJ152	1/4W 1.5K	R733-735	ERDS2TJ393	1/4W 39K
R41, 42	ERDS2TJ225	1/4W 2.2M	R323	ERDS2TJ102	1/4W 1K	R801	ERDS2TJ105T	1/4W 1M
R205, 206	ERDS2TJ152	1/4W 1.5K	R324	ERDS2TJ472	1/4W 4.7K	R802	ERDS2TJ182	1/4W 1.8K
R207, 208	ERDS2TJ104	1/4W 100K	R325	ERDS2TJ272T	1/4W 2.7K	R803	ERDS2TJ392T	1/4W 3.9K
R209, 210	ERDS2TJ273	1/4W 27K	R326	ERD2FCVG330T	1/4W 33	R807, 808	ERDS2TJ223	1/4W 22K
R211-214	ERDS2TJ223	1/4W 22K	R327	ERDS2TJ103	1/4W 10K	R809-812	ERDS2TJ821	1/4W 820
R215, 216	ERDS2TJ103	1/4W 10K	R328	ERDS2TJ683	1/4W 68K	R813, 814	ERDS2TJ2R7T	1/4W 2.7
R217, 218	ERDS2TJ822	1/4W 8.2K	R329	ERDS2TJ562	1/4W 5.6K	R815, 816	ERDS2TJ184T	1/4W 180K
R219, 220	ERDS2TJ563	1/4W 56K	R330	ERDS2TJ222	1/4W 2.2K	R817, 818	ERDS2TJ392T	1/4W 3.9K
R221, 222	ERDS2TJ394	1/4W 390K	R401, 402	ERDS2TJ242	1/4W 2.4K	R819, 820	ERDS2TJ103	1/4W 10K
R223, 224	ERDS2TJ223	1/4W 22K	R403, 404	ERDS2TJ562	1/4W 5.6K	R823	ERDS2TJ153	1/4W 15K
R225, 226	ERDS2TJ682T	1/4W 6.8K	R409, 410	ERDS2TJ243T	1/4W 24K	R824	ERDS2TJ123	1/4W 12K
R227, 228	ERDS2TJ123	1/4W 12K	R411, 412	ERDS2TJ561	1/4W 560	R825, 826	ERDS2TJ223	1/4W 22K
R229, 230	ERDS2TJ273	1/4W 27K	R417	ERDS2TJ151	1/4W 150	R827-832	ERDS2TJ393	1/4W 39K
R233, 234	ERDS2TJ220T	1/4W 22	R418	ERDS2TJ273	1/4W 27K	R833-836	ERDS2TJ470	1/4W 47
R235, 236	ERDS2TJ821	1/4W 820	R500	ERDS2TJ332	1/4W 3.3K	R837, 838	ERDS2TJ103	1/4W 10K
R237-240	ERDS2TJ222	1/4W 2.2K	R501, 502	ERDS2TJ103	1/4W 10K	R839-847	ERDS2TJ472	1/4W 4.7K
R241, 242	ERDS2TJ181T	1/4W 180	R503	ERDS2TJ823T	1/4W 82K	R848-851	ERDS2TJ103	1/4W 10K
R243, 244	ERDS2TJ563	1/4W 56K	R504, 505	ERDS2TJ224T	1/4W 220K	R852	ERDS2TJ393	1/4W 39K
R245, 246	ERDS2TJ123	1/4W 12K	R506	ERDS2TJ823T	1/4W 82K	R853	ERDS2TJ682T	1/4W 6.8K
R247, 248	ERDS2TJ222	1/4W 2.2K	R507, 508	ERDS2TJ220T	1/4W 22	R854	ERDS2TJ102	1/4W 1K
R249, 250	ERDS2TJ562	1/4W 5.6K	R511, 512	ERDS2TJ332	1/4W 3.3K	R855	ERDS2TJ473	1/4W 47K
R251, 252	ERDS2TJ682T	1/4W 6.8K	R513	ERDS2TJ220T	1/4W 22	R856	ERDS2TJ243T	1/4W 24K
R253, 254	ERDS2TJ103	1/4W 10K	R514, 515	ERDS2TJ472	1/4W 4.7K	R858, 859	ERDS2TJ103	1/4W 10K
R255, 256	ERDS2TJ153	1/4W 15K	R516	ERDS2TJ392T	1/4W 3.9K	R860	ERDS2TJ271	1/4W 270
R261, 262	ERDS2TJ391	1/4W 390	R600, 601	ERDS2TJ472	1/4W 4.7K	R861, 862	ERDS2TJ223	1/4W 22K
R271	ERDS2TJ124T	1/4W 120K	R603, 604	ERDS2TJ102	1/4W 1K	R865	ERDS2TJ103	1/4W 10K
R272	ERDS2TJ101	1/4W 100	R605	ERD2FCVJ4R7T	1/4W 4.7	R901	ERDS2TJ102	1/4W 1K
R273, 274	ERDS2TJ393	1/4W 39K	R606	ERD2FCVJ8R2T	1/4W 8.2	R902	ERDS2TJ105T	1/4W 1M
R276	ERDS2TJ183T	1/4W 18K	R607	ERD2FCVG150T	1/4W 15	R904	ERDS2TJ471	1/4W 470

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R905-912	ERDS2TJ103	1/4W 10K	C272	ECQB1H273JF3	50V 0.027U	C801	ECA0JM102B	6.3V 1000U
R915, 916	ERDS2TJ181T	1/4W 180	C273, 274	ECQB1H103JF3	50V 0.01U	C804	ECBT1E103ZF	25V 0.01U
R917	ERDS2TJ103	1/4W 10K	C275	ECEA1CKA100B	16V 10U	C807	ECEA1HKA2R2B	50V 2.2U
R920	ERDS2TJ103	1/4W 10K	C276	ECQB1H332JF3	50V 3300P	C809-811	ECBT1E103ZF	25V 0.01U
R921	ERDS2TJ821	1/4W 820	C277, 278	ECQB1H122JF3	50V 1200P	C812	ECBT1H104ZF5	50V 0.1U
R922	ERDS2TJ102	1/4W 1K	C301	ECQP1153JZ	100V 0.015U	C901	ECEA1AKA221Q	10V 220U
R923	ERDS2TJ122	1/4W 1.2K	C302	ECEA1EKA4R7B	25V 4.7U	C902	ECEA1EKA4R7B	25V 4.7U
R924	ERDS2TJ152	1/4W 1.5K	C303	ECKR1H392KB5	50V 3900P	C903	ECEA1HKA010B	50V 1U
R925	ERDS2TJ123	1/4W 12K	C304, 305	ECKW1H222KB5	50V 2200P	C904	ECEA0JKA101B	6.3V 100U
R929	ERDS2TJ682T	1/4W 6.8K	C306	ECKD1H682KB	50V 6800P	C905, 906	ECEA1HKN3R3B	50V 3.3U
R930	ERDS2TJ103	1/4W 10K	C309	ECKR1H103ZF5	50V 0.01U			
R931	ERDS2TJ821	1/4W 820	C310	ECKR1H472KB5	50V 4700P			
R932	ERDS2TJ102	1/4W 1K	C311	ECEA1AKA221Q	10V 220U			
R933	ERDS2TJ122	1/4W 1.2K	C312	ECEA1CKA330B	16V 33U			
R934	ERDS2TJ152	1/4W 1.5K	C313, 314	ECKT1H223ZF	50V 0.022U			
R935	ERDS2TJ182	1/4W 1.8K	C315, 316	ECKR2H821KB5	500V 820P			
R936	ERDS2TJ222	1/4W 2.2K	C317, 318	ECBT1H121KB5	50V 120P			
R937	ERDS2TJ332	1/4W 3.3K	C319, 320	ECQV1H473JZ3	50V 0.047U			
R938	ERDS2TJ472	1/4W 4.7K	C321, 322	ECQB1H223JF3	50V 0.022U			
R939	ERDS2TJ682T	1/4W 6.8K	C323, 324	ECQB1H103JF3	50V 0.01U			
R940	ERDS2TJ123	1/4W 12K	C325, 326	ECKT1H122KB	50V 1200P			
R941	ERDS2TJ223	1/4W 22K	C327	ECEA1HKA010B	50V 1U			
R950-954	ERDS2TJ103	1/4W 10K	C328	ECCR2H100K5	500V 10P			
R960-962	ERDS2TJ2R2T	1/4W 2.2	C331	ECKR1H103ZF5	50V 0.01U			
R963	ERDS2TJ101	1/4W 100	C332	ECEA1CKA100B	16V 10U			
			C401, 402	ECBT1H121KB5	50V 120P			
		CAPACITORS	C403, 404	ECBT1C152JR5	16V 1500P			
			C405-408	ECKW1H222KB5	50V 2200P			
C1, 2	ECEA0JKA470B	6.3V 47U	C409, 410	ECEA1HUR56B	50V 0.56U			
C3, 4	ECQB1H822JF3	50V 8200P	C411, 412	ECEA1HKA33B	50V 0.33U			
C5, 6	ECQB1H123JF3	50V 0.012U	C413-416	ECEA1EKA4R7B	25V 4.7U			
C7, 8	ECBT1H821KB5	50V 820P	C417, 418	ECBT1H121KB5	50V 120P			
C9	ECBT1H102KB5	50V 1000P	C419, 420	ECBT1C152JR5	16V 1500P			
C10	ECBT1H102KB5	50V 1000P	C500-502	ECEA1CKA100B	16V 10U			
C11	ECQB1H273JF3	50V 0.027U	C503, 504	ECEA0JKA470B	6.3V 47U			
C12	ECCR1H470K5	50V 47P	C600, 601	ECBT1H104ZF5	50V 0.1U			
C13	ECEA1HKA3R3B	50V 3.3U	C602	ECKD1H682KB	50V 6800P			
C14, 15	ECBT1E103ZF	25V 0.01U	C603	ECEA1EU222B	25V 2200U			
C17, 18	ECEA1CKA100B	16V 10U	C604, 605	ECA1EM102B	25V 1000U			
C23, 24	ECBA1H681KB5	50V 680P	C606	ECKR1H103ZF5	50V 0.01U			
C35, 36	ECQB1H223JF3	50V 0.022U	C607, 608	ECEA1AKA101B	10V 100U			
C37, 38	ECBT1H221KB5	50V 220P	C609, 610	ECKR1H103ZF5	50V 0.01U			
C201, 202	ECEA1CKA100B	16V 10U	C611	ECEA1HKA010B	50V 1U			
C203, 204	ECEA1HKS010	50V 1U	C612, 613	ECEA1AU471	10V 470U			
C205, 206	ECKR2H121KB5	500V 120P	C614, 615	ECKR1H103ZF5	50V 0.01U			
C207, 208	ECBT1H561KB5	50V 560P	C616	ECA1HM470B	50V 47U			
C209, 210	ECEA1EKA4R7B	25V 4.7U	C700	ECEA1EKA4R7B	25V 4.7U			
C213, 214	ECQB1H472JF3	50V 4700P	C702	ECEA1CKA100B	16V 10U			
C215, 216	ECQB1H123JF3	50V 0.012U	C703	ECBT1H470J5	50V 47P			
C217, 218	ECEA1HKA22B	50V 0.22U	C704	ECBT1E103ZF	25V 0.01U			
C221, 222	ECBT1H102KB5	50V 1000P	C705	ECKR1H103ZF5	50V 0.01U			
C271	ECEA1CKA100B	16V 10U	C706	ECBT1H470J5	50V 47P			

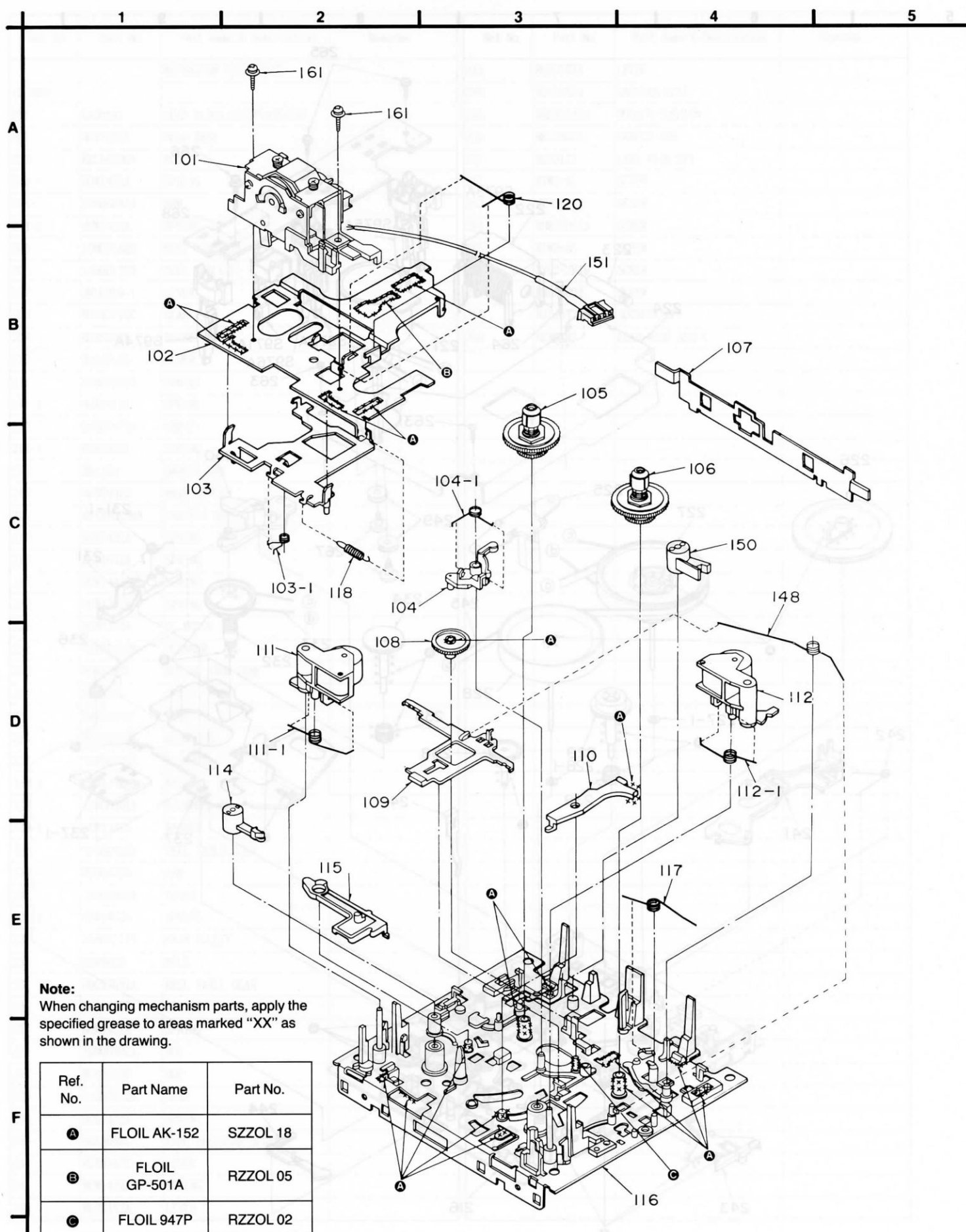
CABINET PARTS LOCATION

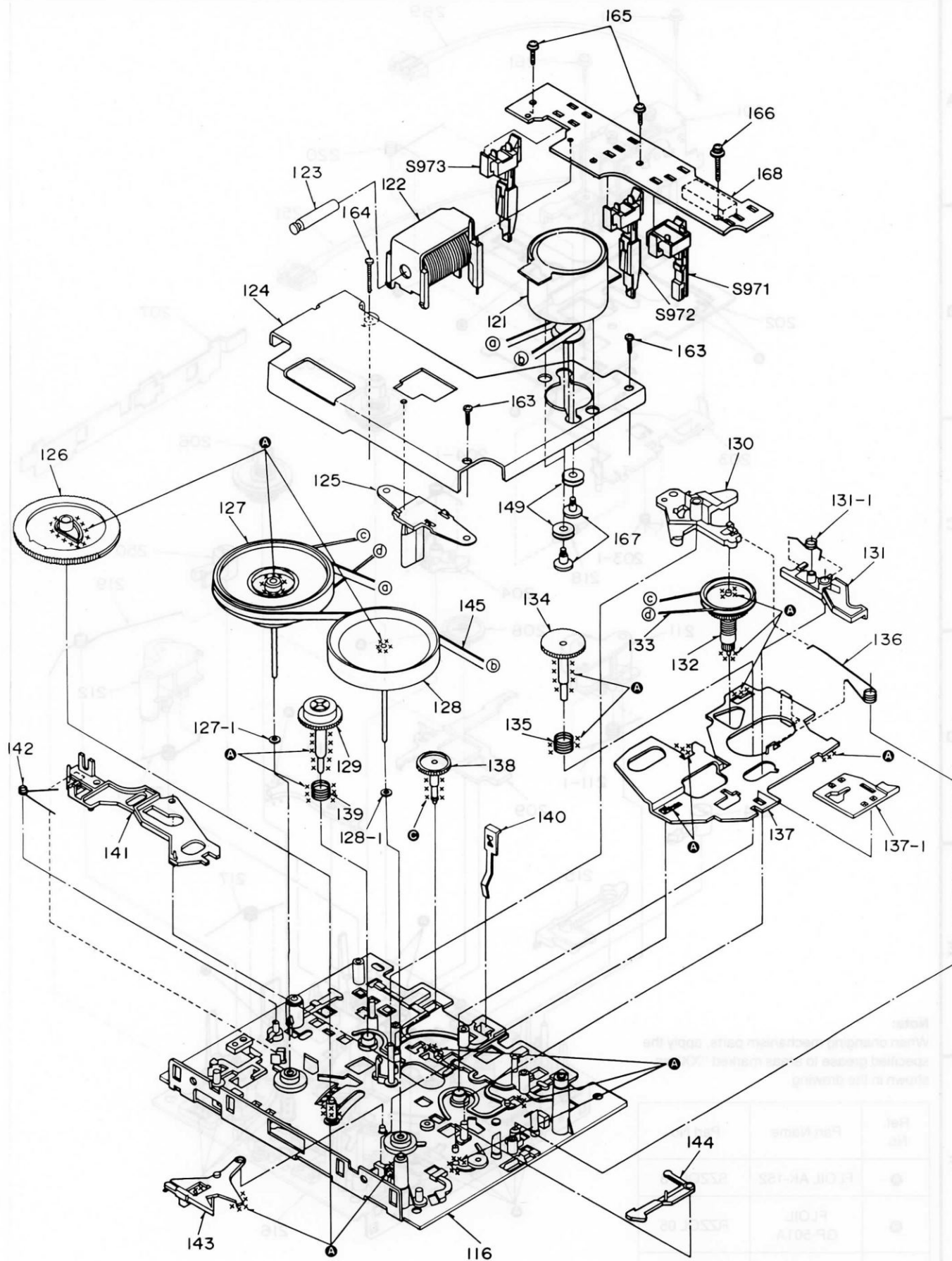


Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS		43	RMC0157	EARTH PLATE	
1	RFKGSCH900EK	FRONT PANEL ASS'Y		44	RYQ0084-K	SIDE ORNAMENT(L)	
1-1	RKWO190-K	FL PANEL		45	RYQ0085-K	SIDE ORNAMENT(R)	
1-2	RGK0449-K	ORNAMENT					
2	RFKJSC700NK	BOTTOM BOARD ASS'Y					
2-1	RKA0043	FOOT					
3	RFKLSCH700BK	CASSETTE HOLDER ASS'Y (R)					
3-1	QBP2006A	SPRING					
3-2	RMRO485	ORNAMENT					
4	RFKLSCH700AK	CASSETTE HOLDER ASS'Y (L)					
4-1	QBP2006A	SPRING					
4-2	RMRO485	ORNAMENT					
5	RHD30007	SCREW					
6	RKMO105E-K	CABINET					
7	XTBS3+8JFZ1	SCREW					
8	RGRO131A-D2	REAR PANEL					
9	RMA0520	MECHANISM ANGLE (UPPER)					
10	RMA0521	MECHANISM ANGLE (LOWER)					
11	RDG0167	GEAR					
12	RDG0168	GEAR					
13	RGPO198-1K1	FRONT PANEL BASE					
14	RGPO199-K3	FRONT PANEL COVER					
15	RGU0659-K	OPERATION (A) BUTTON					
16	RGU0693-K	OPERATION (B) BUTTON					
17	RGU0661-K	EJECT BUTTON					
18	RMA0440	EJECT ANGLE (A)					
19	RMA0441	EJECT ANGLE (B)					
20	RMBO141-1	SPRING					
21	RMBO160	SPRING					
22	RMBO193	SPRING					
23	RML0221	EJECT LEVER					
24	RML0222	PANEL LEVER					
25	RMMO061-1	EJECT ROD					
26	RMS0242	EJECT SHAFT					
27	RMS0310	HOLDER SHAFT					
28	RWJ5215220C1	FLEXIBLE CABLE (15P)					
29	XTB3+10JFZ	SCREW					
30	XUC2FT	E-RING					
31	SHE170-2	P. C. B. SPACER					
32	XTB26+6F	SCREW					
33	XTB3+12JFZ	SCREW					
34	XTB3+8JFZ	SCREW					
35	RWJ5707210QQ	FLAT CABLE (7P)					
36	RWJ5710200QQ	FLAT CABLE (10P)					
37	RWJ1804200QQ	FLAT CABLE (4P)					
38	REX0132	FLAT CABLE (4P)					
39	REX0145	FLAT CABLE (10P)					
40	REX0172	FLAT CABLE (5P)					
41	RMN0157	FL HOLDER					
42	RMC0156	SPRING					

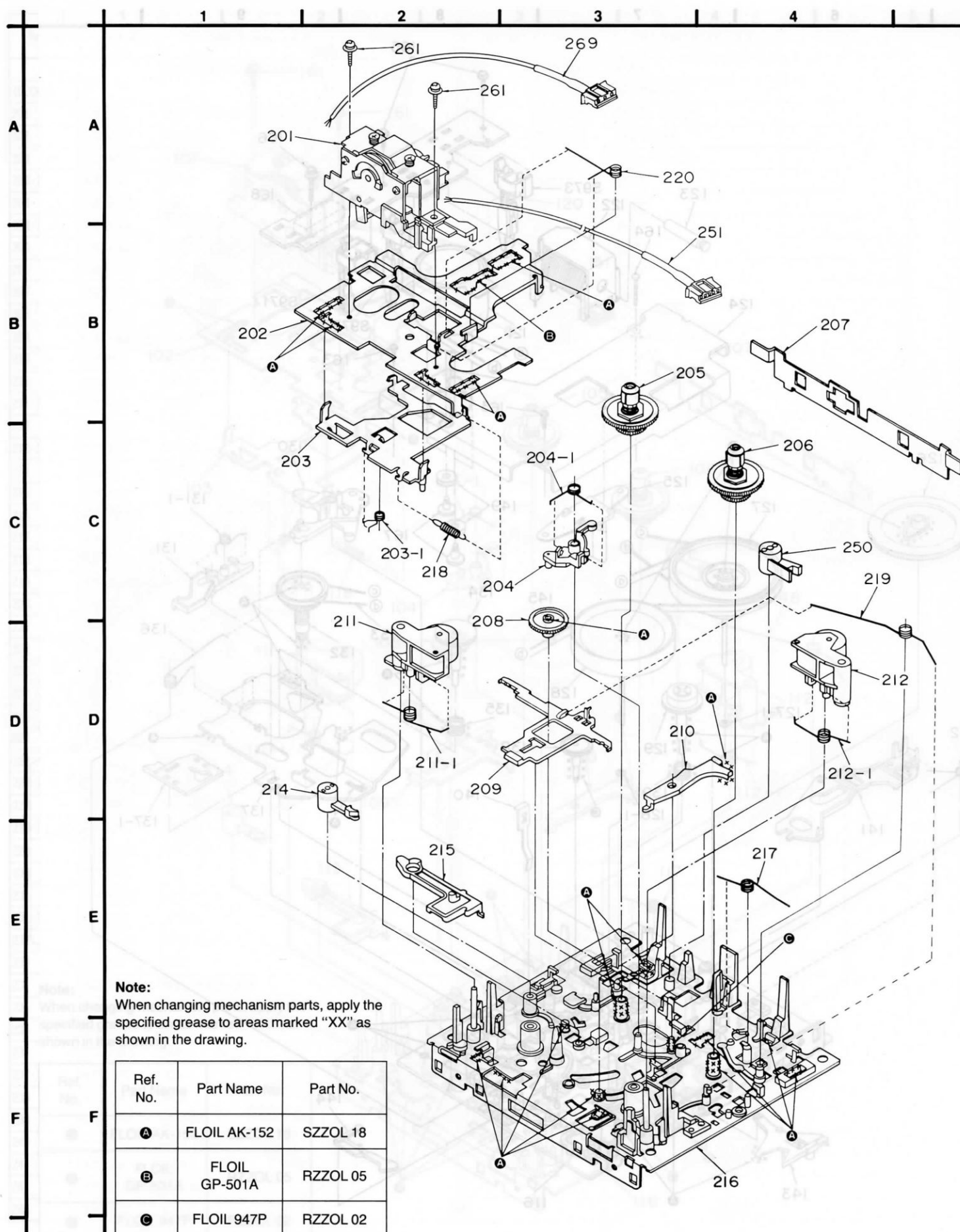
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST		144	RUB509ZA	LEVER	
(DECK1)				145	RDV108ZA	CAPSTAN BELT	
101	RXQ0051-1	HEAD BLOCK(PLAY)		148	RJW144ZA	SPRING	
102	RJA793ZF	HEAD BASE		149	RHG3032ZA	RUBBER CUSHION	
103	RZLAR300A	ROD		150	RNL180ZB	DAMPER ARM	
103-1	RJW143ZA	SPRING		151	REX0132	LEAD WIRE (4P)	
104	IUB0089ZA	ARM		161	XTW2+6L	SCREW	
104-1	RJW148ZA	SPRING		163	XTN26+7J	SCREW	
105	1DM0018ZB	REEL TABLE (R)		164	RHE5203ZA	SCREW	
106	1DM0017ZB	REEL TABLE (F)		165	XTW2+8S	SCREW	
107	RML0069-1	LEVER		166	XYC2+JF16	SCREW	
108	RDG5772ZC	GEAR		167	RHD26002	SCREW	
109	RUB508ZB	BRACKET ROD		168	RJS7T7ZA	SOCKET (7P)	
110	RUB506ZB	LEVER					
111	IUB0088ZB	ARM(R)					
111-1	RJW141ZA	SPRING					
112	IUB0087ZB	ARM(F)					
112-1	RJW140ZC	SPRING					
114	RNL12D	DAMPER ARM					
115	RUB503ZD	MAIN LEVER					
116	RFKRRSCH9N	CHASSIS ASS'Y					
117	RJW142ZA	SPRING					
118	RJD105ZA	SPRING					
120	RJW139ZA	SPRING					
121	RFKPRSCH9N	DC MOTOR ASS'Y					
122	IUE0015ZB	PLUNGER					
123	RUB428ZE	MOVING IRON CORE					
124	RMA0101	ANGLE					
125	RMD5014ZC	ANGLE					
126	RDG5927ZG	MAIN GEAR					
127	1DW0037ZB	FLYWHEEL (F)					
127-1	RNW139ZA	WASHER					
128	1DW0038ZB	FLYWHEEL (R)					
128-1	RNW138ZA	WASHER					
129	1DG0006ZB	REEL TABLE GEAR					
130	RUB513ZD	ARM					
131	IUB0091ZA	LEVER					
131-1	RJW146ZA	SPRING					
132	1DR0011ZB	MAIN PULLEY					
133	RDV90ZB	BELT					
134	RDG5769ZA	REEL TABLE GEAR					
135	RJQ111ZB	SPRING					
136	RJW145ZA	SPRING					
137	IUB0090ZA	ROD					
137-1	RUB512ZB	ROD					
138	RDG5773ZB	GEAR					
139	RJQ112ZA	SPRING					
140	RJS609ZC	TAPE PRESSURE SPRING					
141	RUB514ZC	LEVER					
142	RJW147ZA	SPRING					
143	RUB515ZA	LEVER					

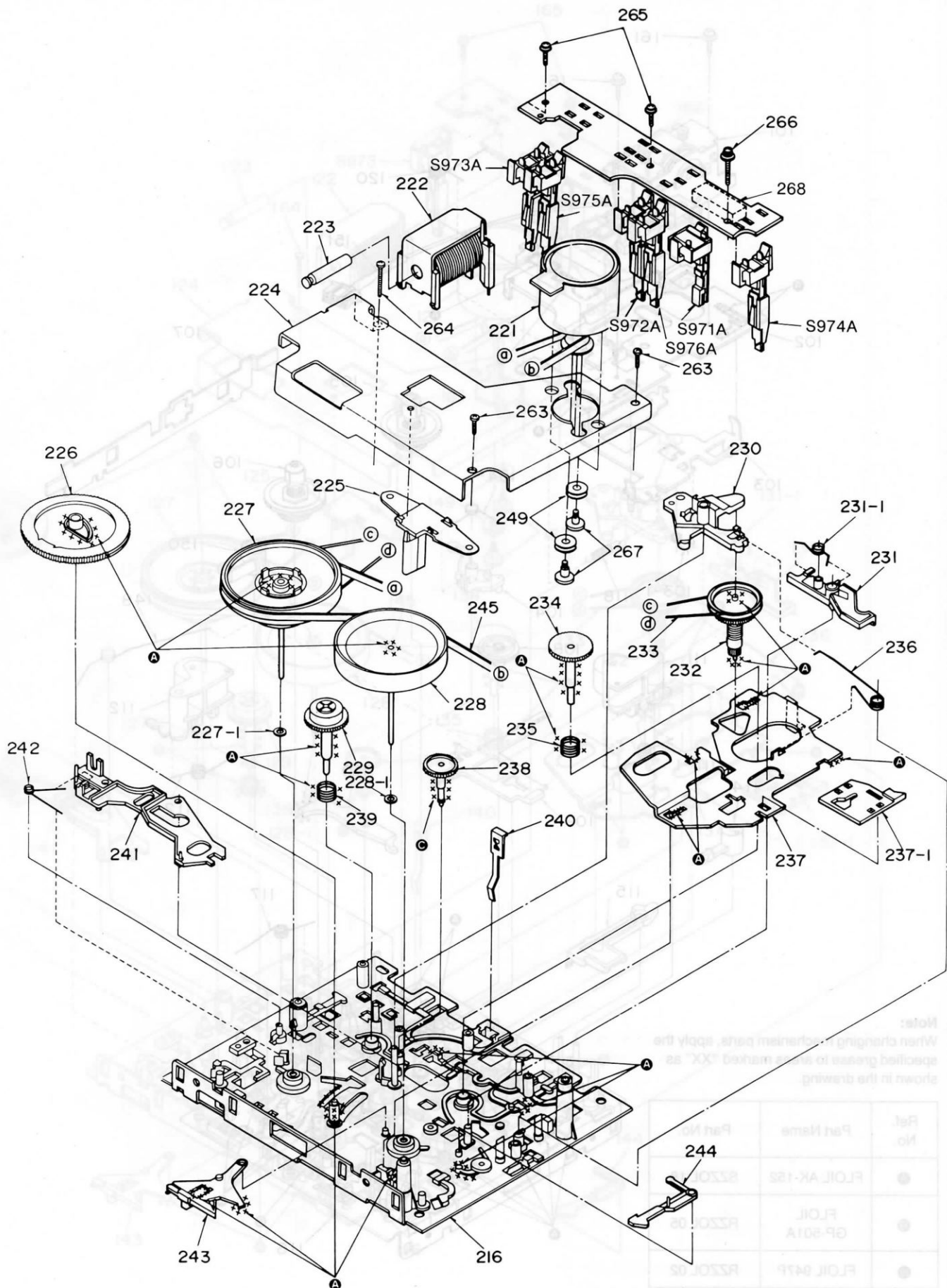
MECHANISM PARTS LOCATION • DECK 1





MECHANISM PARTS LOCATION • DECK 2





MECHANISM PARTS LOCATION - DECK 1

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST		244	RUB509ZA	LEVER	
(DECK2)				245	RDV108ZA	CAPSTAN BELT	
201	RXQ0161	HEAD BLOCK (REC/PLAYBACK)		249	RHG3032ZA	RUBBER CUSHION	
202	RJA793ZF	HEAD BASE		250	RNL180ZB	DAMPER ARM	
203	RZLAR300A	ROD		251	REX017Z	LEAD WIRE (5P)	
203-1	RUW143ZA	SPRING		261	XTW2+6L	SCREW	
204	IUB0089ZA	ARM		263	XTN26+7J	SCREW	
204-1	RUW148ZA	SPRING		264	RHE5203ZA	SCREW	
205	1DM0018ZB	REEL TABLE (R)		265	XTW2+8S	SCREW	
206	1DM0017ZB	REEL TABLE (F)		266	XYC2+JF16	SCREW	
207	RML0069-1	LEVER		267	RHD26002	SCREW	
208	RDG5772ZC	GEAR		268	RJS10T7ZA	SOCKET (10P)	
209	RUB508ZB	BRAKET ROD		269	REX0145	LEAD WIRE ASS'Y	
210	RUB506ZB	LEVER					
211	IUB0088ZB	ARM (R)					
211-1	RUW141ZA	SPRING					
212	IUB0087ZB	ARM (F)					
212-1	RUW140ZC	SPRING					
214	RNL17ZD	DAMPER ARM					
215	RUB503ZD	MAIN LEVER					
216	RFKRRSCH9N	CHASSIS ASS'Y					
217	RUW142ZA	SPRING					
218	RUD105ZA	SPRING					
219	RUW144ZA	SPRING					
220	RUW139ZA	SPRING					
221	RFM133ZA	DC MOTOR					
222	IUE0015ZB	PLUNGER					
223	RUB428ZE	MOVING IRON CORE					
224	RMA0101	ANGLE					
225	RMD5014ZC	ANGLE					
226	RDG5927ZG	MAIN GEAR					
227	1DW0037ZB	FLYWHEEL (F)					
227-1	RNW139ZA	WASHER					
228	1DW0038ZB	FLYWHEEL (R)					
228-1	RNW138ZA	WASHER					
229	1DG0006ZB	REEL TABLE GEAR					
230	RUB513ZD	ARM					
231	IUB0091ZA	LEVER					
231-1	RUW146ZA	SPRING					
232	1DR0011ZB	MAIN PULLEY					
233	RDV90ZB	BELT					
234	RDG5769ZA	REEL TABLE GEAR					
235	RJQ111ZB	SPRING					
236	RUW145ZA	SPRING					
237	IUB0090ZA	ROD					
237-1	RUB512ZB	ROD					
238	RDG5773ZB	GEAR					
239	RJQ112ZA	SPRING					
240	RUS609ZC	TAPE PRESSURE SPRING					
241	RUB514ZC	LEVER					
242	RUW147ZA	SPRING					
243	RUB515ZA	LEVER					