

Service Manual

Cassette Deck

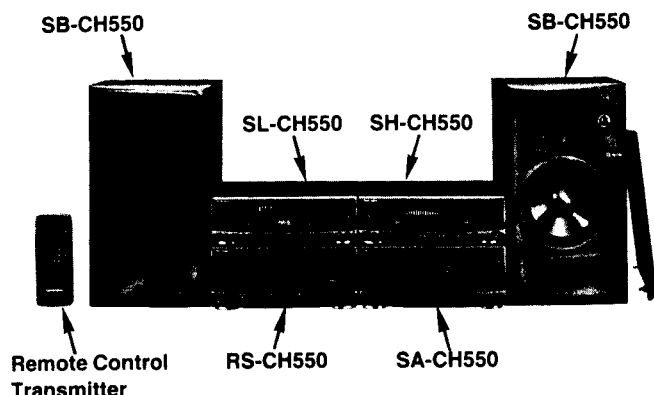


Cassette Deck

RS-CH550

Colour

(K) Black Type



Areas

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH550

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

■ RS-TR165 MECHANISM SERIES (AR300)

SPECIFICATIONS

Track system	Compact cassette stereo
Tape speed	4.8 cm/sec (1 $\frac{7}{8}$ ips)
Bias frequency	80 kHz
Heads	
DECK 1 (playback)	Permalloy head
DECK 2 (record/playback) (erasure)	Permalloy head
Motors	Double gap ferrite head
Wow and flutter	DC servo motor
Fast forward and rewind time	0.1% (WRMS)
Frequency response	Approx. 110 seconds with C-60 cassette tape
NORMAL	30 Hz–16 kHz
CrO ₂	40 Hz–15 kHz (DIN)
METAL	30 Hz–16 kHz
	40 Hz–15 kHz (DIN)
	30 Hz–17 kHz
	40 Hz–16 kHz (DIN)

S/N (CrO₂ type tape)

Dolby NR off	56 dB (A-WTD)
Dolby B NR on	66 dB (CCIR)
Dolby C NR on	74 dB (CCIR)

■ GENERAL

Dimensions (W×H×D)	270×119×264 mm
Weight	2.8 kg

Notes:

- Specifications are subject to change without notice.
- Weight and dimensions shown are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

*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.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH550

*Europe area...Made in PAES.

Technics

■ CONTENTS

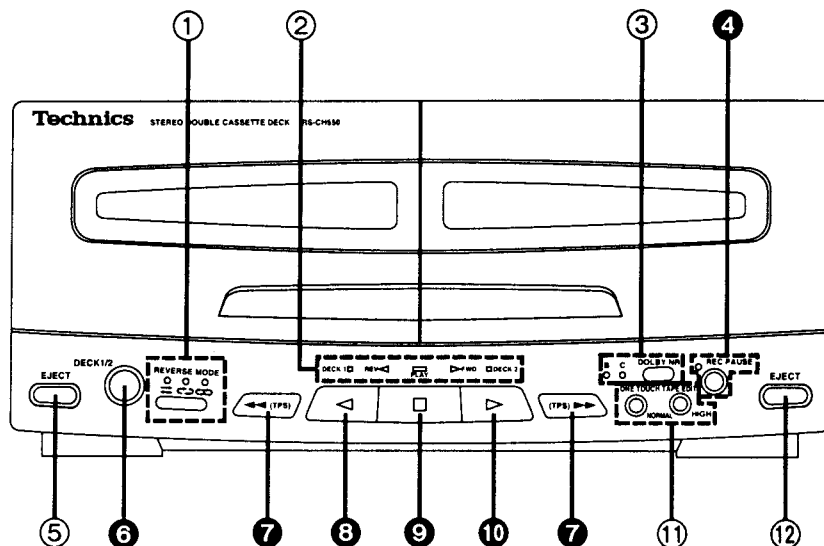
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NOTE:

Refer to the service manual for Model No. SA-CH550, Order No. AD9208265C8 for information on ACCESSORIES, STACKING THE COMPONENTS, CONNECTIONS and PACKAGING.

■ LOCATION OF CONTROLS



① Reverse mode select button and indicators (REVERSE MODE)

Press to select the reverse mode (for playback and recording).

② Indicators section

Each indicator lights as follows.

DECK 1: Lights to show you can operate the deck 1.

REV/FWD: Lights to indicate the direction of the tape travel.

PLAY: Lights when you play or record the cassette tape.

Flashes when you quickly search for the beginning of a program while the tape is being played (TPS), or while in the recording standby mode.

DECK 2: Lights to show you can operate the deck 2.

③ Dolby noise reduction button and indicators (DOLBY NR, B, C)

Press to reduce hissing noise on the tape. This system has both the Dolby B-type and Dolby C-type noise reduction.

④ Record standby/record pause button and indicator (REC PAUSE)

Press to put deck 2 into the record standby mode.

⑤ Deck 1 cassette eject button (EJECT)

Press to open the deck 1 cassette holder.

⑥ Deck 1/deck 2 select button (DECK 1/2)

Press to select the deck to be operated.

⑦ Fast-forward/rewind/tape program sensor (TPS) buttons [<< (TPS), (TPS) >>]

Press to advance or rewind the tape, or to quickly search for the beginning of a program while the tape is being played.

⑧ Reverse-side playback button (<)

Press to start the playback or recording (deck 2) in the reverse direction.

⑨ Stop button (□)

Press to stop the tape.

⑩ Forward-side playback button (>)

Press to start the playback or recording (deck 2) in the forward direction.

⑪ One-touch tape edit buttons (NORMAL, HIGH)

Press to start the tape-to-tape recording.

⑫ Deck 2 cassette eject button (EJECT)

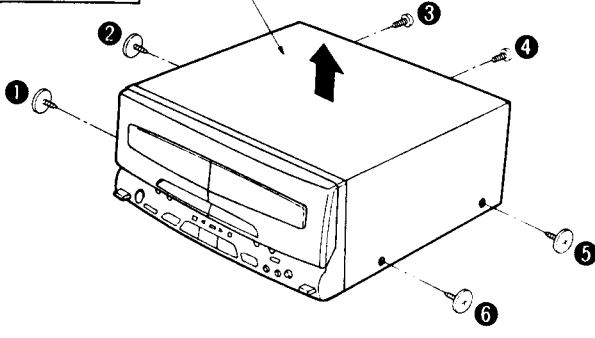
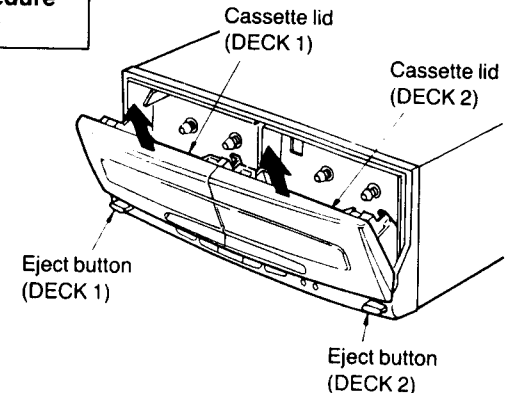
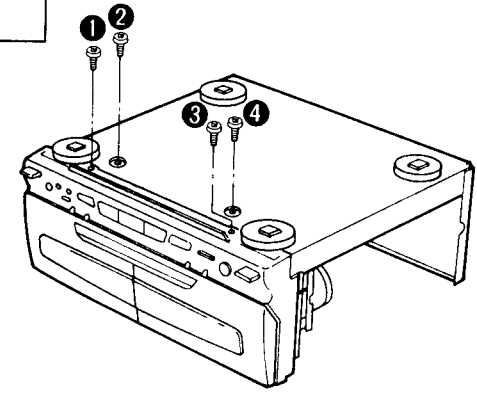
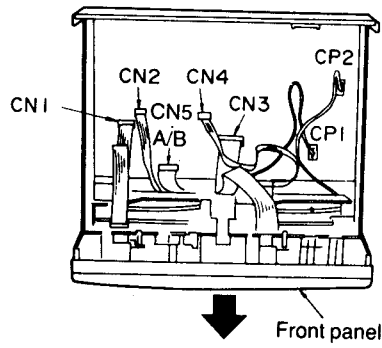
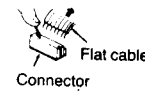
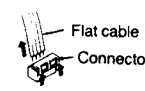
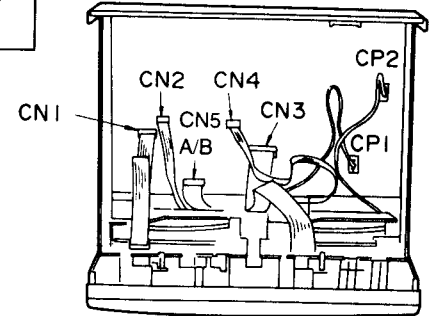
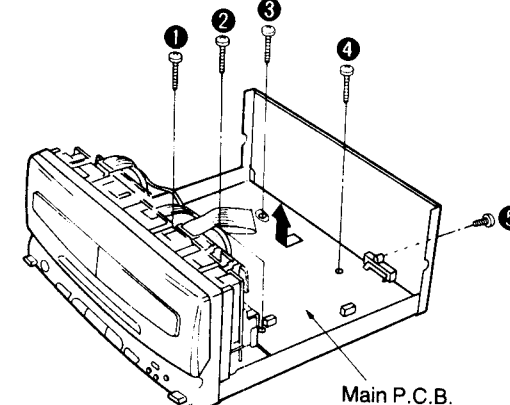
Press to open the deck 2 cassette holder.

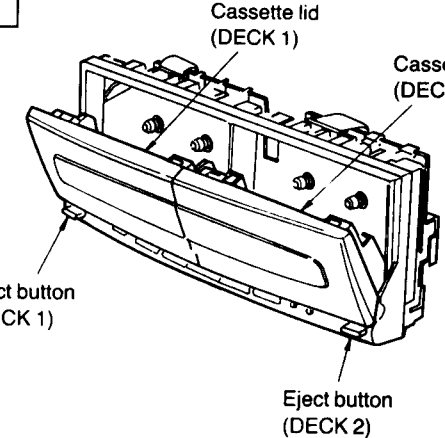
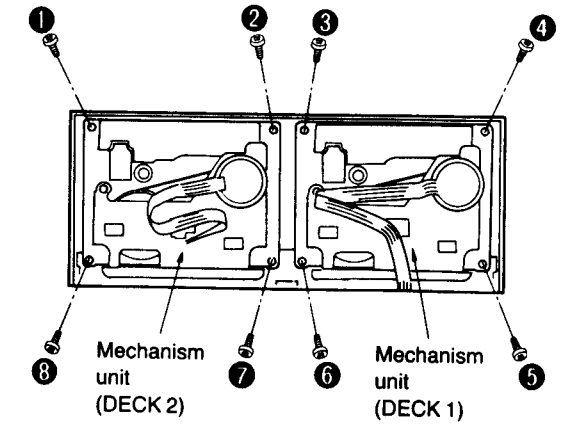
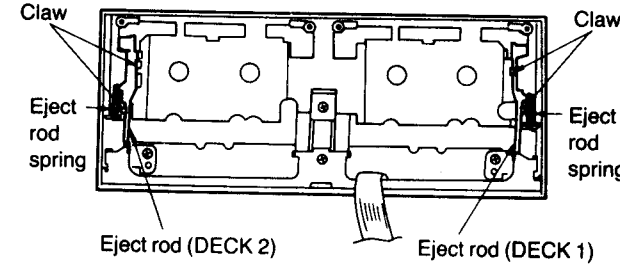
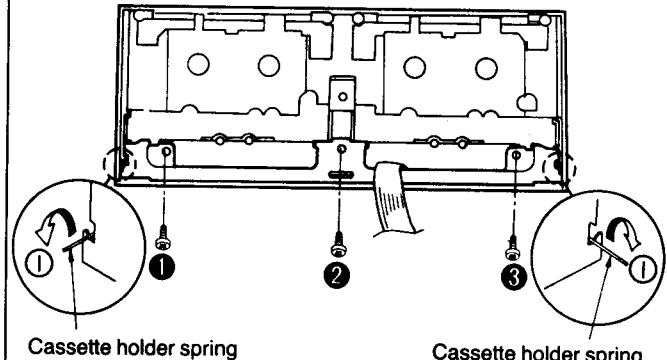
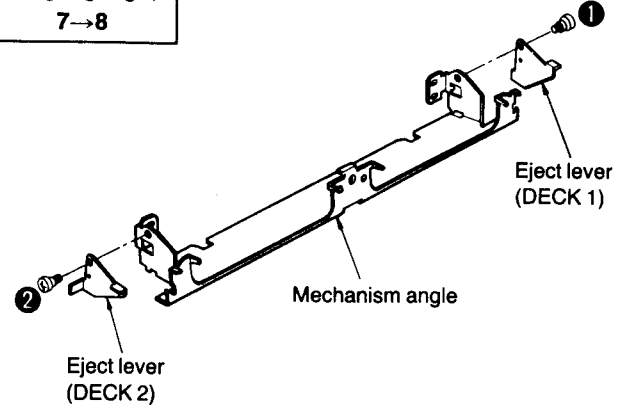
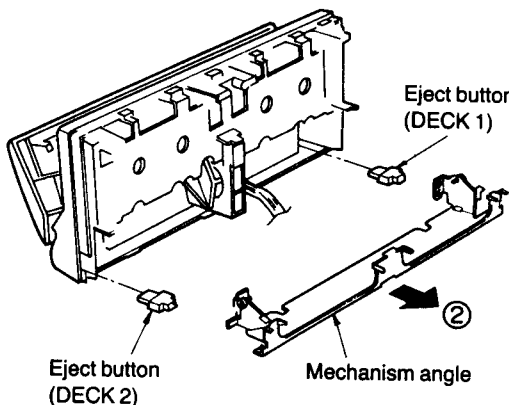
The functions indicated by the numbers with black background (for example ④) can also be activated from the remote control.

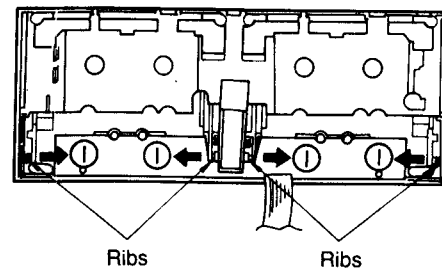
DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"

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

Ref. No. 1	Removal of the Cabinet	Ref. No. 2	Removal of the Cassette Lid (DECK 1 and DECK 2)
Procedure 1	 1. Remove the 6 screws (1~6). 2. Remove the cabinet in the direction of arrow.	 1. Press the eject button and open the cassette lid. 2. Remove the cassette lid in the direction of arrow.	
Ref. No. 3	Removal of the Front Panel		
Procedure 1→3	  1. Remove the 4 screws (1~4). 2. Remove the 5 flat cables (CN1, CN2, CN3, CN4, CN5 A/B). 3. Remove the 2 connectors (CP1, CP2). 4. Remove the front panel in the direction of arrow. • Push the top of the connector and then pull out the flat cable. (CN1, CN3)  1. Lift up the connector. 2. Pull out the flat cable. (CN2, CN4, CN5 A/B) 		
Ref. No. 4	Removal of the Main P.C.B.		
Procedure 1→4	  1. Remove the 5 flat cables (CN1, CN2, CN3, CN4, CN5 A/B). 2. Remove the 2 connectors (CP1, CP2). 3. Remove the 5 screws (1~5). 4. Remove the main P.C.B. in the direction of arrow.		

Ref. No. 5	Removal of the Mechanism Unit (DECK 1 and DECK 2)		
Procedure 1→3→5	  1. Press the eject button and open the cassette lid. 2. Remove the 8 screws (1~8).		
Ref. No. 6	Removal of the Eject Rod (DECK 1 and DECK 2)	Ref. No. 7	Removal of the Mechanism Angle
Procedure 1→3→5→6	 1. Remove the eject rod spring. 2. Release the 4 claws.	 1. Remove the cassette holder spring in the direction of arrow ① (DECK 1 and DECK 2). 2. Remove the 3 screws (1~3).	
Ref. No. 8	Removal of the Eject Lever (DECK 1 and DECK 2)		
Procedure 1→3→5→6→7→8	 • Remove the 2 screws (1, 2).	 3. Remove the mechanism angle in the direction of arrow ②. 4. Remove the eject button (DECK 1 and DECK 2).	

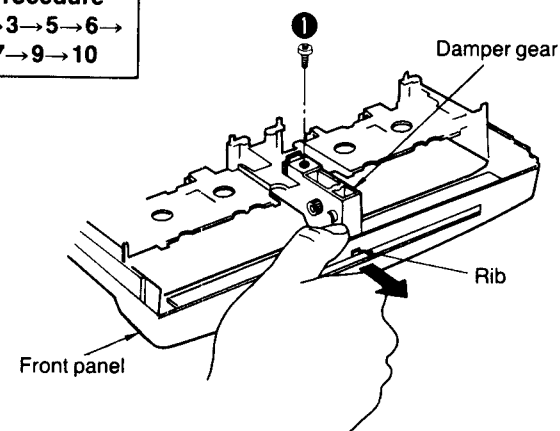
Ref. No. 9
Removal of the Cassette Holder (DECK 1 and Deck 2)
Procedure
 1→2→4→5→
 6→7→9


Cassette holder (DECK 1)

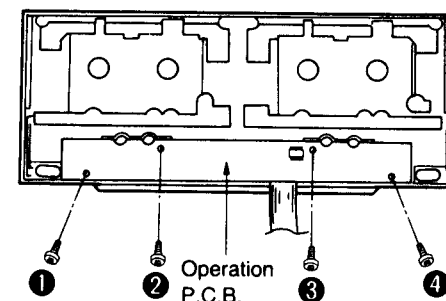
Cassette holder (DECK 2)

1. Remove the ribs in the direction of arrow ①.

2. Remove the cassette holder in the direction of arrow ②.

Ref. No. 10
Removal of the Damper Gear
Procedure
 1→3→5→6→
 7→9→10


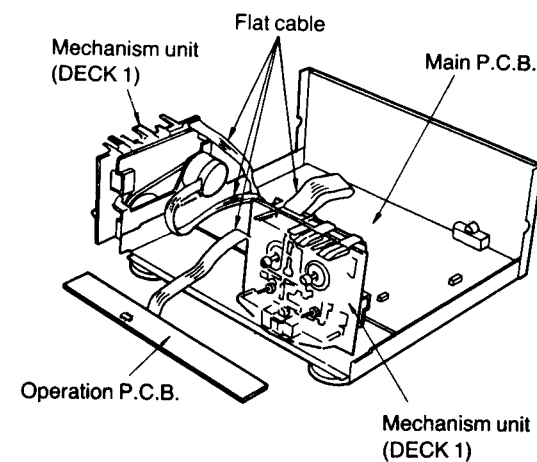
1. Remove the 1 screw (①).
2. Remove the damper gear's rib by holding the bottom and center of the front panel pressed slightly in the direction of the arrow.

Ref. No. 11
Removal of the Operation P.C.B.
Procedure
 1→3→5→6→
 7→9→10→11


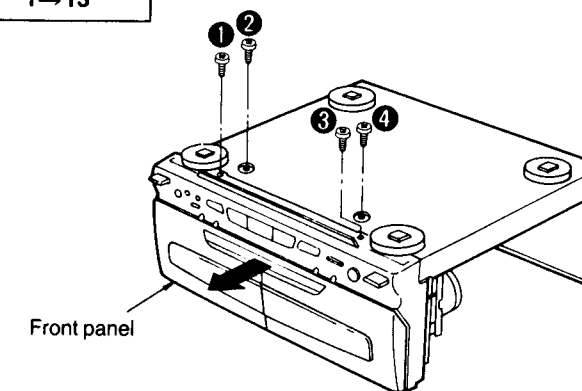
•Remove the 4 screws (①~④).

Ref. No. 12
How to check the Operation P.C.B.
Procedure
 1→3→5→6→
 7→9→10→
 11→12

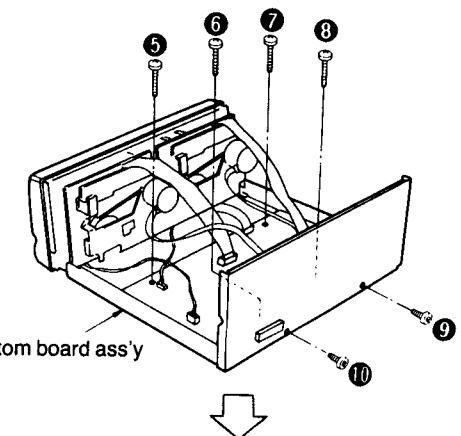
•When checking the soldered surfaces of operation P.C.B. and replacing the parts, do as show.



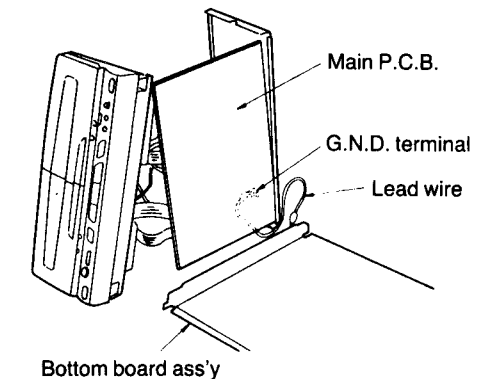
1. Connect the flat cables and connectors of the mechanism units (DECK 1 and DECK 2) to the corresponding connectors (CN1, CN2, CN3, and CN4) on the main P.C.B. (Refer to page 15.)
2. Connect the flat cable on the operation P.C.B. to the connector (CN5 A/B) on the main P.C.B. (Refer to page 15.)

Ref. No. 13
How to check the Main P.C.B.
Procedure
 1→13


Front panel



Bottom board ass'y

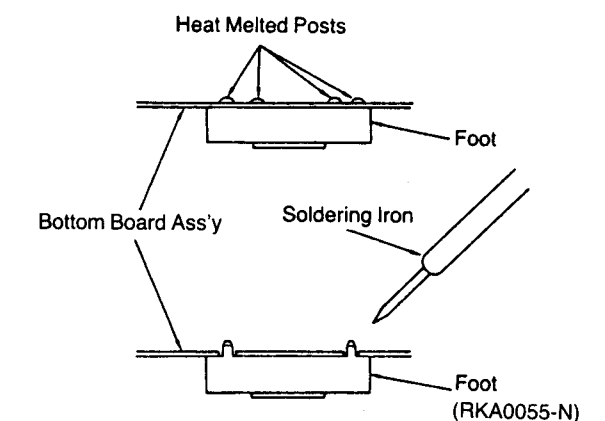


•When checking the soldered surfaces of mains P.C.B. and replacing the parts, do as show.

1. Remove the 4 screws (①~④).
2. Remove the front panel in the direction of arrow.
3. Remove the 6 screws (⑤~⑩).
4. Remove the bottom board ass'y.
5. Connect the GND terminal to the bottom board ass'y by the lead wire.

•Replacement of the Foot.

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the Bottom board ass'y, melt the 4 posts with a soldering iron.



SCHEMATIC DIAGRAM • MAIN AND OPERATION CIRCUIT (Parts list on pages 21~24.)

Notes:

- S900 : Stop switch (□)
- S901 : Fast-forward/TPS switch (TPS/▶▶)
- S902 : Fast-rewind/TPS switch (◀◀/TPS)
- S903 : Forward side playback switch (▶)
- S904 : Reverse side playback switch (◀)
- S905 : Record/record standby switch (REC PAUSE)
- S906 : Deck select switch (DECK 1/2)
- S907 : One touch tape edit switch (NORMAL)
- S908 : One touch tape edit switch (HIGH)
- S909 : Dolby noise reduction switch (DOLBY NR, B, C)
- S910 : Reverse mode select switch (REVERSE MODE)
- S951 : Mode detect switch (Deck 1)
- S952 : Half detect switch (Deck 1)
- S953 : CrO₂ tape detect switch (Deck 1)
- S971 : Mode detect switch (Deck 2)
- S972 : Half detect switch (Deck 2)
- S973 : Reverse side record prevention tab detect switch (Deck 2)
- S974 : Forward side record prevention tab detect switch (Deck 2)
- S975 : CrO₂ tape detect switch (Deck 2)
- S976 : 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.

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

Important safety notice:

Components identified by Δ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

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

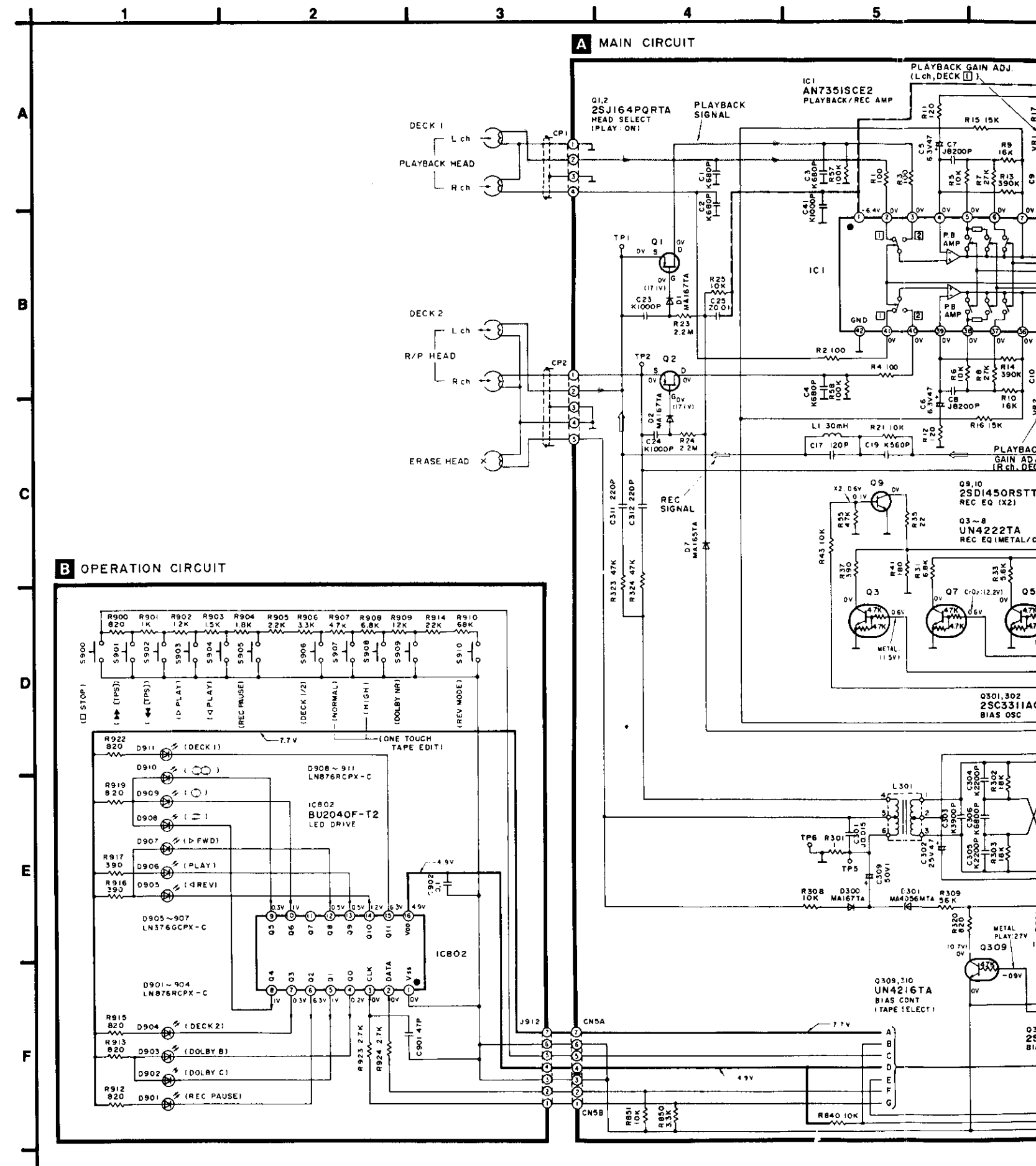
Caution!

- 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.
IC100 IC501	BA4558FT1	SVIBA4558F

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





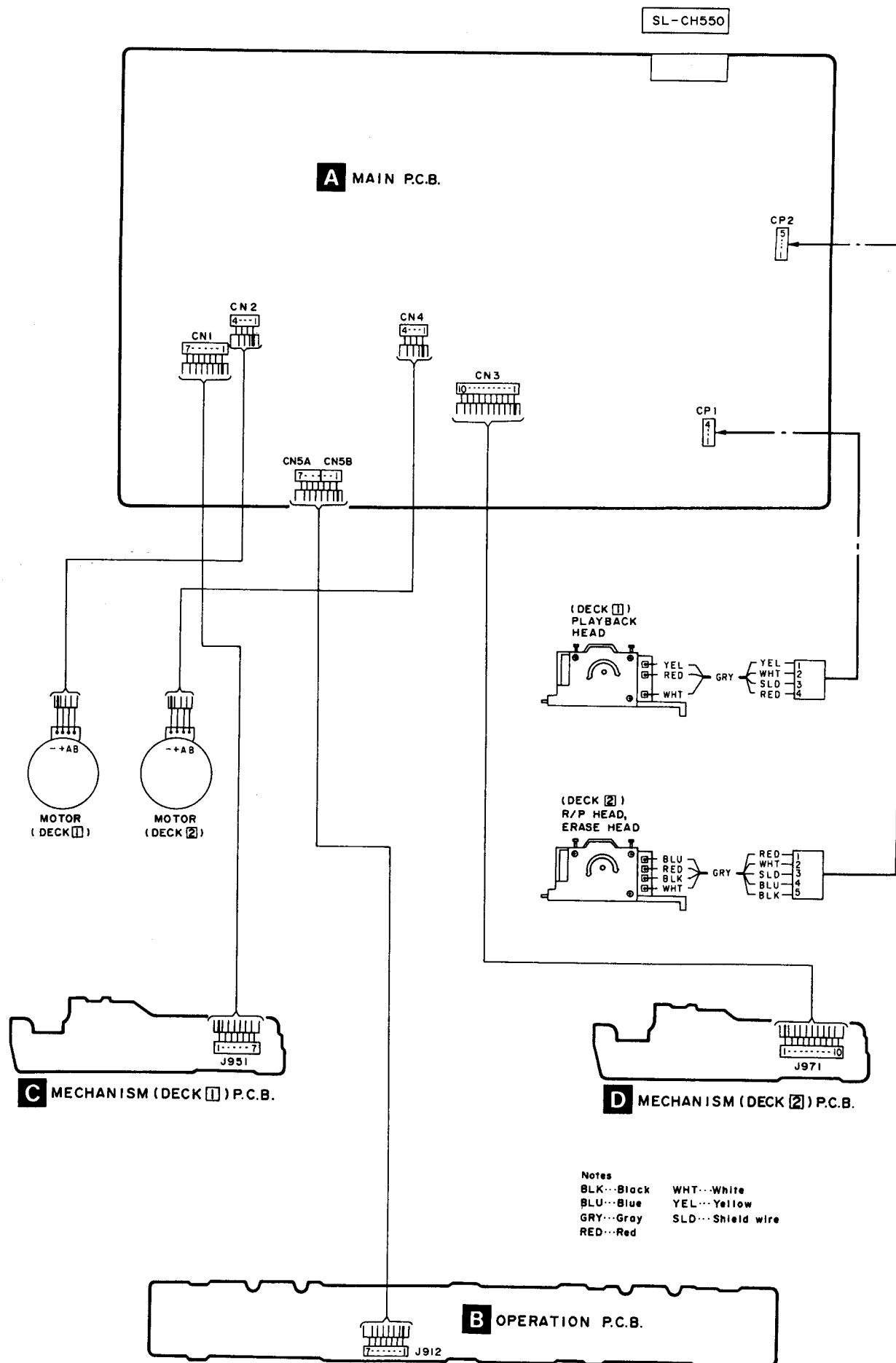




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WIRING CONNECTION DIAGRAM



■ MEASUREMENTS AND ADJUSTMENTS

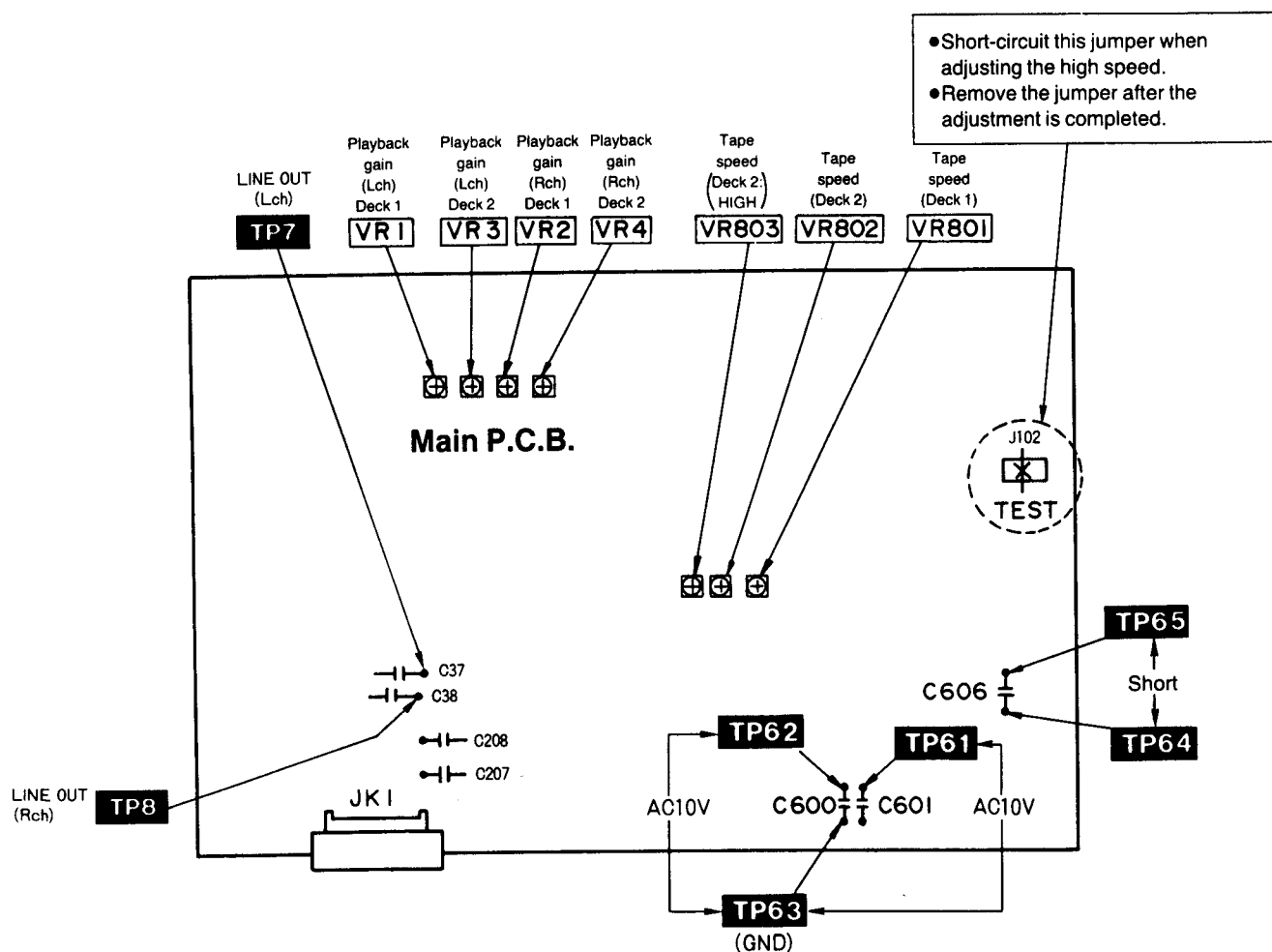
The RS-CH550 operates on power supplied from the SA-CH550 tuner amplifier.

To operate the RS-CH550 by connecting it to the tuner amplifier, short-circuit the test points shown below.

- Connect a jumper across TP64 and TP65.

The procedure below enables the RS-CH550 to be operated by itself without the SA-CH550 tuner amplifier during testing and repair.

1. Connect a jumper across TP64 and TP65.
 2. Apply 10 V AC across TP61 and TP63 and TP62.
- Remove the jumper after the operational check is completed.



Measurement Condition

- Reverse-mode selector switch;
- One touch tape edit switch; NORMAL
- Dolby NR switch; OFF

Measuring instrument

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

Test tape

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

- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$)

- Playback gain adjustment (315 Hz, 0 dB); QZZCFM

HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8 kHz, -20 dB) 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.

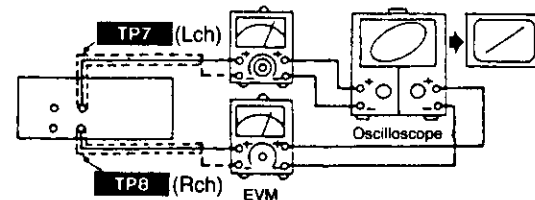


Fig. 1

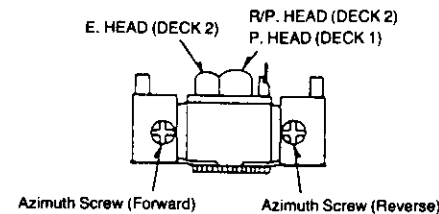


Fig. 2

TAPE SPEED ADJUSTMENT (DECK 1/2)**Normal speed**

1. Press the one touch tape edit (NORMAL) button. This will set the normal speed mode.
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. Short-circuit the jumper (J102). 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.

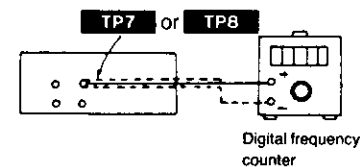


Fig. 3

PLAYBACK GAIN ADJUSTMENT (DECK 1/2)

1. Playback the gain adjusted portion (315 Hz, 0 dB) 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

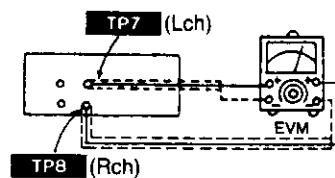


Fig. 4

PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

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

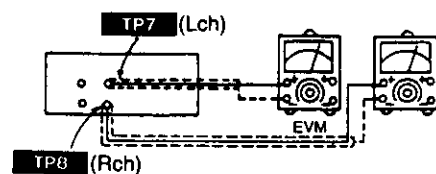


Fig. 5

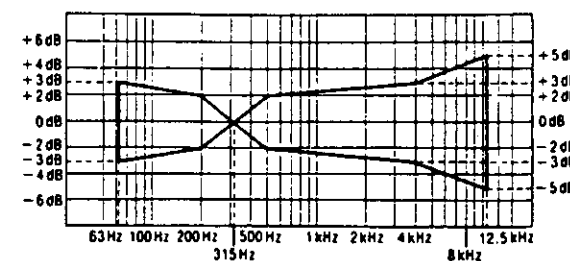


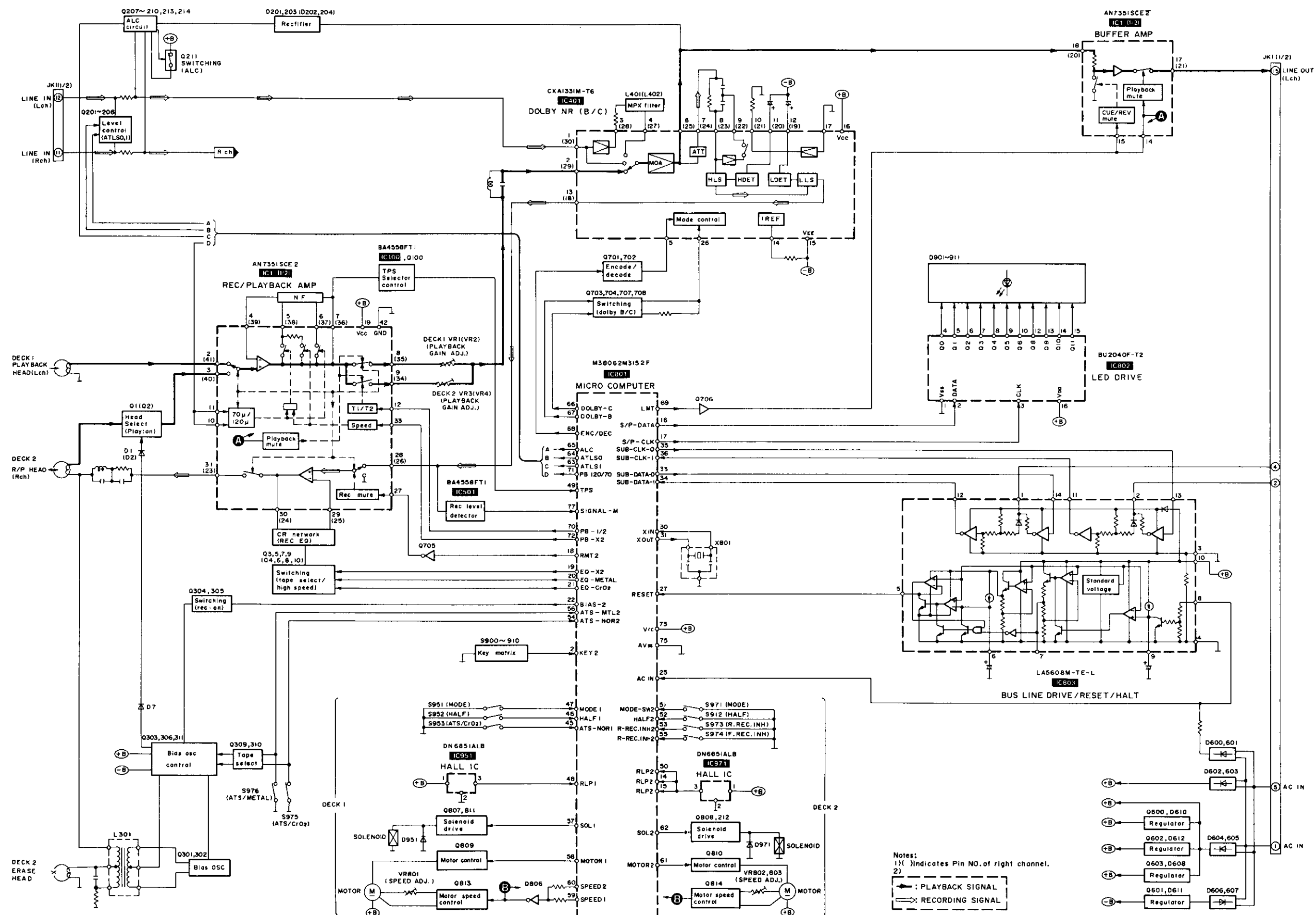
Fig. 6

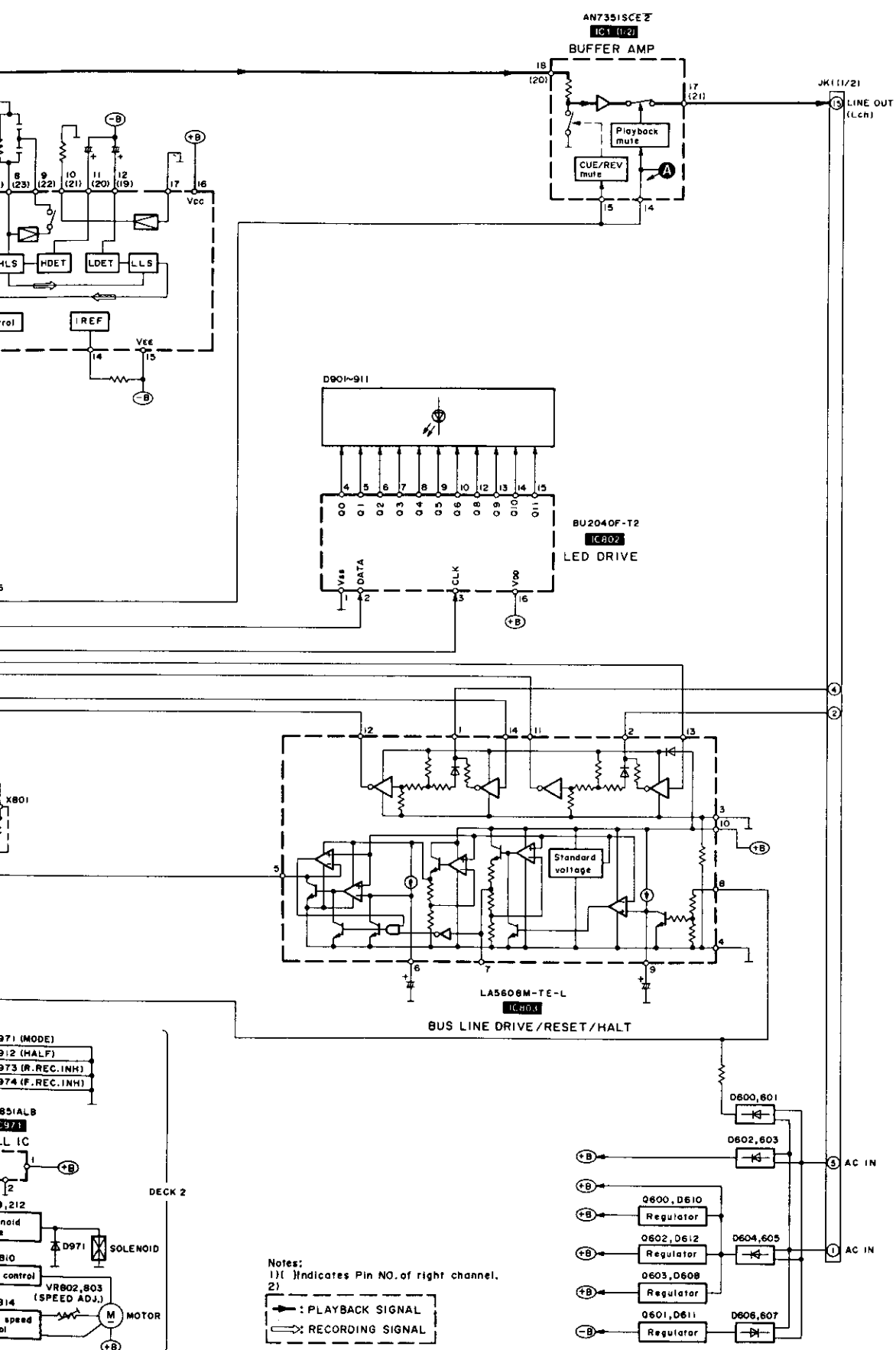
FUNCTION OF IC TERMINALS**IC801 (M38062M3152F)**

Pin No.	Terminal Name	I/O	Function
1	QUICK1	I	No use (pull down connection to Vss by resistance)
2	KEY2	I	Operation key and switch inputs of Decks 1 and 2
3	KEY1	I	Pull-up connection to Vss by resistance
4	—	—	For Vss connection
11	—	—	—
12	—	—	Pull-down connection to Vss by resistance
13	—	—	—
14	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
15	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
16	S/P-DATA	O	Serial signal output to LED IC
17	S/P-CLK	O	
18	RMT2	O	Recording muting signal output
19	EQ-x2	O	Switching signal output for equalizer of recording amplifier (x1/x2)
20	EQ-METAL	O	Switching signal output for equalizer of recording amplifier (METAL)
21	EQ-CrO2	O	Switching signal output for equalizer of recorder amplifier (CrO2)
22	BIAS2	O	ON/OFF signal output for recording bias
23	RMT1	O	No use (Pull-down connection to Vss by resistance)
24	BIAS1	O	No use (Pull-down connection to Vss by resistance)
25	AC IN	I	Power OFF detection signal input
26	CNVss	—	For Vss connection
27	RESET	I	Microprocessor reset signal output
28	—	—	Pull-down connection to Vss by resistance
29	—	—	
30	XIN	I	Microprocessor clock signal input
31	XOUT	O	Microprocessor clock signal output
32	Vss	—	Ground connection
33	BUS-DATA-O	O	Bus signal input and output
34	BUS-DATA-I	I	
35	BUS-CLK-O	O	
36	BUS-CLK-I	I	—
37	—	—	Pull-down connection to Vss by resistance
39	—	—	
40	B/C SEL	O	Pull-down connection to Vss by resistance
41	TEST	I	For ON/OFF of TEST mode
42	ATS-MTL1	I	No use (pull-down connection to Vss by resistance)
43	F-RECINH1	I	No use (pull-down connection to Vss by resistance)
44	R-RECINH1	I	No use (pull-down connection to Vss by resistance)
45	ATS-NOR1	I	Tape position (NORMAL) detection SW input of Deck 1

Pin No.	Terminal Name	I/O	Function
46	HALF1	I	Tape-in/out detection SW input of Deck 1
47	MODE1	I	Mechanical mode SW input of Deck 1
48	RLP1	I	Detection pulse signal input of Deck 1 reel rotation
49	TPS	I	Song detection signal input during TPS operation
50	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
51	MODE2	I	Mechanical mode SW input of Deck 2
52	HALF2	I	Tape-in/out detection SW input of Deck 2
53	R-RECINH2	I	Tape erasure prevention SW input of Deck 2 (in "◀" direction)
54	ATS-NOR2	I	Tape position (NORMAL) detection SW input of Deck 2
55	F-RECINH2	I	Tape erasure prevention SW input of Deck 2 (in "▶" direction)
56	ATS-MTL2	I	Tape position (METAL) detection SW input of Deck 2
57	SOL1	O	Plunger ON/OFF signal output of Deck 1 mechanism
58	MOTOR1	O	Motor ON/OFF signal output of Deck 1 mechanism
59	SPEED1	O	Motor speed switching signal output of Deck 1 mechanism
60	SPEED2	O	Motor speed switching signal output of Deck 2 mechanism
61	MOTOR2	O	Motor ON/OFF signal output of Deck 2 mechanism
62	SOL2	O	Plunger ON/OFF signal output of Deck 2 mechanism
63	ATLS1	O	Setting of ATLS operation level
64	ATLS0	O	
65	ALC	O	ON/OFF signal output of ALC circuit
66	DOLBY-C	O	ON/OFF signal output of Dolby C
67	DOLBY-B	O	ON/OFF signal output of Dolby B
68	ENC/DEC	O	Encoder/decoder switching signal output of Dolby IC
69	LMT	O	Line out muting signal output
70	PB-1/2	O	Switching signal of player amplifier (Deck 1/2)
71	PB-120/70	O	Switching signal output for equalizer of player amplifier
72	PB-X2	O	Switching signal output for equalizer of player amplifier
73	Vcc	I	Power supply terminal for microprocessor
74	Vref	I	Reference power supply terminal for A/D input
75	AVss	—	Ground terminal for A/D input
76	—	—	Pull-down connection to Vss by resistance
77	SIGNAL-M	I	ATLS signal input
78	(SIGNAL-R)	I	No use (pull-down connection to Vss by resistance)
79	(SIGNAL-L)	I	No use (pull-down connection to Vss by resistance)
80	QUICK2	I	No use (pull-down connection to Vss by resistance)

BLOCK DIAGRAM





REPLACEMENT PARTS LIST

Notes: Important safety notice:
Components identified by Δ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
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)				DIODE (S)	
IC1	AN7351SCE2	I. C. PLAYBACK/REC AMP		D1, 2	MA167	DIODE	
IC100	SV1BA4558F	I. C. TPS SELECT CONT.		D4, 5	MA700TA	DIODE	
IC401	CXA1331M-T6	I. C. DOLBY NR		D6-8	MA165	DIODE	
IC501	SV1BA4558F	I. C. REC LEVEL DET.		D100	MA165	DIODE	
IC801	M38062M3152F	I. C. MICRO COMPUTER		D201-204	MA165	DIODE	
IC802	BU2040F-T2	I. C. LED DRIVE		D300	MA167	DIODE	
IC803	LA5608M-TE-L	I. C. BUS LINE DRIVE/RESET		D301	MA4056MTA	DIODE	
IC951	DN6851ALB	I. C. HALL		D302	MA165	DIODE	
IC971	DN6851ALB	I. C. HALL		D501, 502	MA165	DIODE	
		TRANSISTOR(S)		D505, 506	MA165	DIODE	
Q1, 2	2SJ164PQRTA	TRANSISTOR		D600, 601	MA165	DIODE	Δ
Q3-8	UN4222	TRANSISTOR		D602-607	1SR35200TB	DIODE	Δ
Q9	2SD1450RTA	TRANSISTOR		D608	MA4082MTA	DIODE	
Q10	2SD1450RTA	TRANSISTOR		D610, 611	MA4082MTA	DIODE	
Q100	2SC3311A-Q	TRANSISTOR		D612	MA4062MTA	DIODE	
Q201, 202	2SC3311A-Q	TRANSISTOR		D617	MA165	DIODE	
Q203, 204	UN4111	TRANSISTOR		D800, 801	1SS291TA	DIODE	
Q205, 206	2SC3311A-Q	TRANSISTOR		D803, 804	MA165	DIODE	
Q207	2SC3312STTA	TRANSISTOR		D808	MA165	DIODE	
Q208	UN4211	TRANSISTOR		D809	MA4051H	DIODE	
Q209, 210	2SC3312STTA	TRANSISTOR		D810	MA165	DIODE	
Q211	UN4113TA	TRANSISTOR		D811	1SS291TA	DIODE	
Q213, 214	2SC3312STTA	TRANSISTOR		D813, 814	MA165	DIODE	
Q301, 302	2SC3311A-Q	TRANSISTOR		D901-904	LN876RCPX-C	L. E. D.	
Q303	2SD1862QRTV6	TRANSISTOR		D905-907	LN376GCPX-C	L. E. D.	
Q304	2SB621A-R	TRANSISTOR		D908-911	LN876RCPX-C	L. E. D.	
Q305	UN4211	TRANSISTOR		D951	RVD1SS133TA	DIODE	
Q306	2SC3311A-Q	TRANSISTOR		D971	RVD1SS133TA	DIODE	
Q309, 310	UN4216-S	TRANSISTOR				VARIABLE RESISTOR(S)	
Q311	2SB621A-R	TRANSISTOR		VR1	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK1) (L)	
Q600	2SD1862QRTV6	TRANSISTOR		VR2	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK1) (R)	
Q601	2SB1357EFTA	TRANSISTOR		VR3	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK2) (L)	
Q602	2SD1862QRTV6	TRANSISTOR		VR4	EVNDXAA00B24	V. R. PLAYBACK GAIN (DECK2) (R)	
Q701	UN4111	TRANSISTOR		VR801	EVNDXAA00B53	V. R. TAPE SPEED (DECK1)	
Q702	UN4211	TRANSISTOR		VR802	EVNDXAA00B53	V. R. TAPE SPEED (DECK2)	
Q703, 704	UN4111	TRANSISTOR		VR803	EVNDXAA00B53	V. R. TAPE SPEED (DECK2)	
Q705-708	UN4211	TRANSISTOR				COIL (S)	
Q806-808	UN4222	TRANSISTOR		L1, 2	SLQK303-1KT	COIL	
Q809, 810	2SD1302STTA	TRANSISTOR		L3, 4	RLQB103JT-Y	COIL	
Q811, 812	2SB621A-R	TRANSISTOR		L301	SL09B4-K	COIL	
Q813, 814	2SA1309A-R	TRANSISTOR					

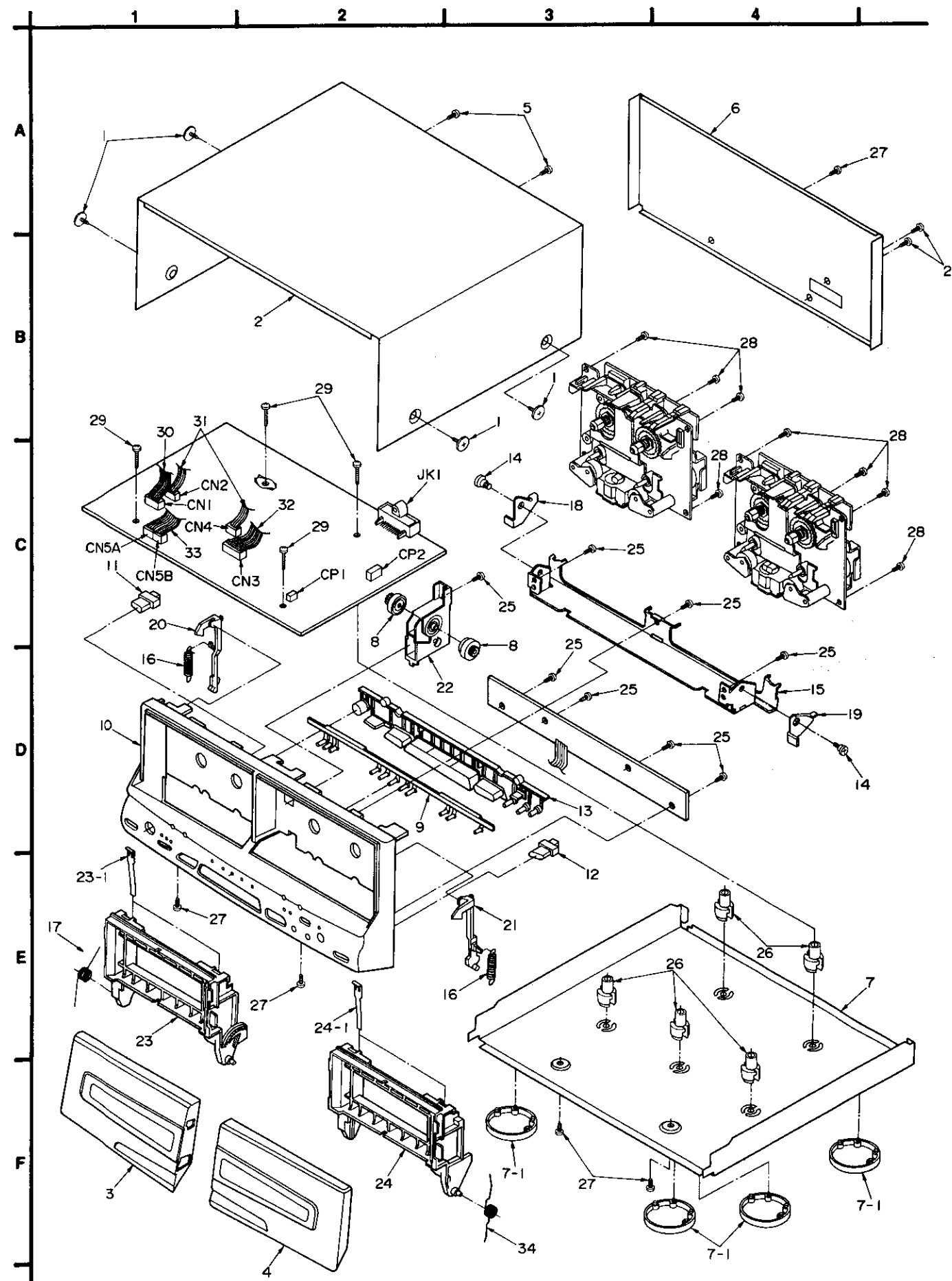
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Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS						
R1-4	ERDS2TJ101	1/4W 100	R229, 230	ERDS2TJ394	1/4W 390K	R803	ERDS2TJ104	1/4W 100K
R5, 6	ERDS2TJ103	1/4W 10K	R231, 232	ERDS2TJ562	1/4W 5.6K	R804	ERDS2TJ103	1/4W 10K
R7, 8	ERDS2TJ273	1/4W 27K	R233	ERDS2TJ223	1/4W 22K	R807, 808	ERDS2TJ223	1/4W 22K
R9	ERDS2TJ163T	1/4W 16K	R235, 236	ERDS2TJ223	1/4W 22K	R809-812	ERDS2TJ821	1/4W 820
R10	ERDS2TJ163T	1/4W 16K	R301	ERDS2TJ18D	1/4W 1.0	R813, 814	ERDS2TJ2R7T	1/4W 2.7
R11, 12	ERDS2EJ121	1/4W 120	R302, 303	ERDS2TJ183T	1/4W 18K	R815, 816	ERDS2TJ184T	1/4W 180K
R13, 14	ERDS2TJ394	1/4W 390K	R304, 305	ERDS2TJ100	1/4W 10	R817, 818	ERDS2TJ392T	1/4W 3.9K
R15, 16	ERDS2TJ153	1/4W 15K	R306	ERDS2TJ561	1/4W 560	R819, 820	ERDS2TJ103	1/4W 10K
R17, 18	ERDS2TJ272T	1/4W 2.7K	R307	ERD2FCVG150T	1/4W 15 Δ	R823	ERDS2TJ153	1/4W 15K
R19	ERDS2TJ392T	1/4W 3.9K	R308	ERDS2TJ103	1/4W 10K	R824	ERDS2TJ123	1/4W 12K
R21, 22	ERDS2TJ103	1/4W 10K	R309	ERDS2TJ563	1/4W 56K	R837	ERDS2TJ103	1/4W 10K
R23, 24	ERDS2TJ225	1/4W 2.2M	R310	ERDS2TJ562	1/4W 5.6K	R840	ERDS2TJ103	1/4W 10K
R25	ERDS2TJ103	1/4W 10K	R314	ERDS2TJ473	1/4W 47K	R841-843	ERDS2TJ472	1/4W 4.7K
R27, 28	ERDS2TJ123	1/4W 12K	R315	ERDS2TJ272T	1/4W 2.7K	R844	ERDS2TJ102	1/4W 1K
R29, 30	ERDS2TJ563	1/4W 56K	R318	ERDS2TJ561	1/4W 560	R845	ERDS2TJ472	1/4W 4.7K
R31, 32	ERDS2TJ682T	1/4W 6.8K	R319	ERDS2TJ331	1/4W 330	R846	ERDS2TJ102	1/4W 1K
R33, 34	ERDS2TJ562	1/4W 5.6K	R320	ERDS2TJ821	1/4W 820	R847-849	ERDS2TJ472	1/4W 4.7K
R35, 36	ERDS2TJ220T	1/4W 22	R321	ERDS2TJ822	1/4W 8.2K	R850	ERDS2TJ332	1/4W 3.3K
R37, 38	ERDS2TJ391	1/4W 390	R322	ERDS2TJ680T	1/4W 68	R851-860	ERDS2TJ103	1/4W 10K
R39, 40	ERDS2TJ222	1/4W 2.2K	R323, 324	ERDS2TJ473	1/4W 47K	R863-873	ERDS2TJ103	1/4W 10K
R41, 42	ERDS2TJ181T	1/4W 180	R325	ERDS2TJ103	1/4W 10K	R875-877	ERDS2TJ102	1/4W 1K
R43, 44	ERDS2TJ103	1/4W 10K	R401, 402	ERDS2TJ272T	1/4W 2.7K	R900	ERDS2TJ821	1/4W 820
R45, 46	ERDS2TJ682T	1/4W 6.8K	R403, 404	ERDS2TJ562	1/4W 5.6K	R901	ERDS2TJ102	1/4W 1K
R47, 48	ERDS2TJ272T	1/4W 2.7K	R405, 406	ERDS2TJ243T	1/4W 24K	R902	ERDS2TJ122	1/4W 1.2K
R49-52	ERDS2TJ682T	1/4W 6.8K	R407, 408	ERDS2TJ561	1/4W 560	R903	ERDS2TJ152	1/4W 1.5K
R53, 54	ERDS2TJ104	1/4W 100K	R409	ERDS2TJ151	1/4W 150	R904	ERDS2TJ182	1/4W 1.8K
R55, 56	ERDS2TJ472	1/4W 4.7K	R410	ERDS2TJ273	1/4W 27K	R905	ERDS2TJ222	1/4W 2.2K
R57, 58	ERDS2TJ104	1/4W 100K	R501, 502	ERDS2TJ393	1/4W 39K	R906	ERDS2TJ332	1/4W 3.3K
R61, 62	ERDS2TJ102	1/4W 1K	R503, 504	ERDS2TJ153	1/4W 15K	R907	ERDS2TJ472	1/4W 4.7K
R63, 64	ERDS2TJ562	1/4W 5.6K	R505, 506	ERDS2TJ124T	1/4W 120K	R908	ERDS2TJ682T	1/4W 6.8K
R100	ERDS2TJ332	1/4W 3.3K	R507	ERDS2TJ220T	1/4W 22	R909	ERDS2TJ123	1/4W 12K
R101	ERDS2TJ331	1/4W 330	R508	ERDS2TJ822	1/4W 8.2K	R910	ERDS2TJ683	1/4W 68K
R102	ERDS2TJ823T	1/4W 82K	R600, 601	ERDS2TJ472	1/4W 4.7K	R912, 913	ERDS2TJ821	1/4W 820
R103	ERDS2TJ393	1/4W 39K	R603, 604	ERDS2TJ102	1/4W 1K	R914	ERDS2TJ223	1/4W 22K
R104	ERDS2TJ682T	1/4W 6.8K	R605, 606	ERD2FCVJ4R7T	1/4W 4.7 Δ	R915	ERDS2TJ821	1/4W 820
R105	ERDS2TJ102	1/4W 1K	R607	ERD2FCVG150T	1/4W 15 Δ	R916, 917	ERDS2TJ391	1/4W 390
R106	ERDS2TJ473	1/4W 47K	R608	ERD2FCVJ4R7T	1/4W 4.7 Δ	R919	ERDS2TJ821	1/4W 820
R107	ERDS2TJ123	1/4W 12K	R609	ERDS2TJ100	1/4W 10	R922	ERDS2TJ821	1/4W 820
R201, 202	ERDS2TJ152	1/4W 1.5K	R610	ERDS2TJ222	1/4W 2.2K	R923, 924	ERDS2TJ272T	1/4W 2.7K
R211, 212	ERDS2TJ273	1/4W 27K	R611-614	ERDS2TJ270T	1/4W 27			CAPACITORS
R213, 214	ERDS2TJ332	1/4W 3.3K	R615	ERDS2TJ102	1/4W 1K			
R215, 216	ERDS2TJ392T	1/4W 3.9K	R700	ERDS2TJ100	1/4W 10			
R217, 218	ERDS2TJ103	1/4W 10K	R701	ERDS2TJ822	1/4W 8.2K	C1-4	ECBA1H681KB5	50V 680P
R219, 220	ERDS2TJ822	1/4W 8.2K	R702, 703	ERDS2TJ103	1/4W 10K	C5, 6	ECEA0JKA470B	6.3V 47U
R223, 224	ERDS2TJ223	1/4W 22K	R704-706	ERDS2TJ472	1/4W 4.7K	C7, 8	ECQB1H822JF3	50V 8200P
R227, 228	ERDS2TJ273	1/4W 27K	R707	ERDS2TJ152	1/4W 1.5K	C9	ECEA1EKA4R7B	25V 4.7U
			R710	ERDS2TJ103	1/4W 10K	C10-12	ECEA1EKA4R7B	25V 4.7U
			R800	ERDS2TJ103	1/4W 10K	C13	ECEA0JKA470B	6.3V 47U
			R802	ERDS2TJ470	1/4W 47	C15, 16	ECEA1EKA4R7B	25V 4.7U

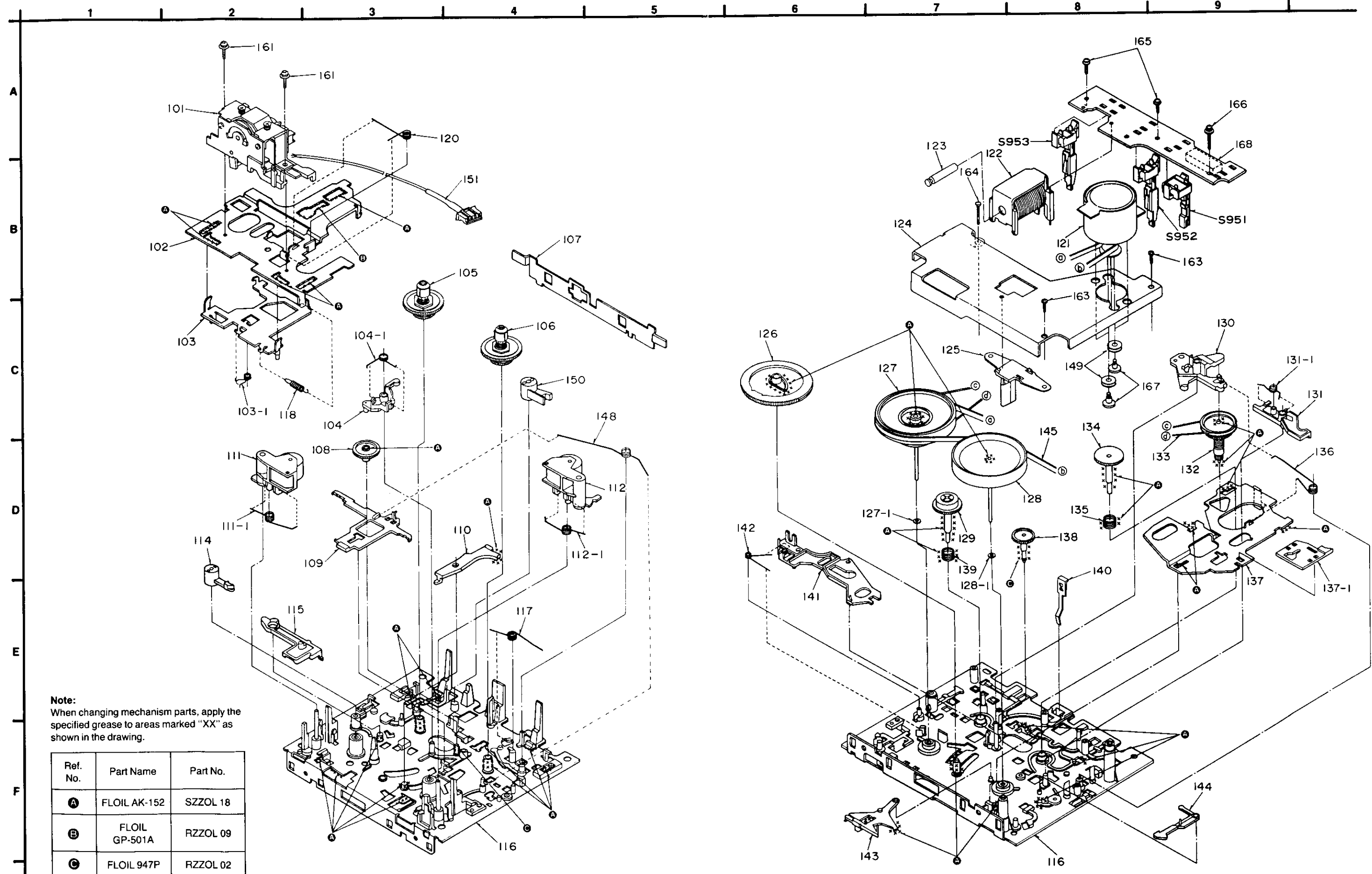
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C17, 18	ECKR2H121KB5	500V 120P	C811	ECEA1HKA33B	50V 0.33U
C19, 20	ECBT1H561KB5	50V 560P	C812	ECBT1E103ZF	25V 0.01U
C23, 24	ECBT1H102KB5	50V 1000P	C813	ECEA1HKA22B	50V 0.22U
C25	ECBT1E103ZF	25V 0.01U	C901	ECBT1H470J5	50V 47P
C27, 28	ECEA1HKA22B	50V 0.22U	C902	ECBT1H104ZF5	50V 0.1U
C29, 30	ECQB1H472JF3	50V 4700P			
C31, 32	ECQB1H123JF3	50V 0.012U			
C33, 34	ECBT1H391KB5	50V 390P			
C35, 36	ECBT1H102KB5	50V 1000P			
C37, 38	ECEA1CKA100B	16V 10U			
C39, 40	ECBT1C392KR5	16V 3900P			
C41	ECBT1H102KB5	50V 1000P			
C100	ECQB1H103JF3	50V 0.01U			
C101	ECEA1HKA33B	50V 3.3U			
C102	ECBT1H470J5	50V 47P			
C103	ECEA1HKA22B	50V 2.2U			
C207, 208	ECEA1HKA010B	50V 1U			
C209	ECEA1EKA4R7B	25V 4.7U			
C301	ECQP1153JZ	100V 0.015U			
C302	ECEA1EKA4R7B	25V 4.7U			
C303	ECKR1H392KB5	50V 3900P			
C304, 305	ECKW1H222KB5	50V 2200P			
C306	ECKD1H682KB	50V 6800P			
C307	ECBT1E103ZF	25V 0.01U			
C308	ECKR1H472KB5	50V 4700P			
C309	ECEA1HKA010B	50V 1U			
C310	ECBT1E103ZF	25V 0.01U			
C311, 312	ECBT1H221KB5	50V 220P			
C401, 402	ECBT1H391KB5	50V 390P			
C403, 404	ECBT1C332KR5	16V 3300P			
C405, 406	ECEA1EKA4R7B	25V 4.7U			
C407-410	ECQB1H222JF3	50V 2200P			
C411, 412	ECEA1HUR56B	50V 0.56U			
C413, 414	ECEA1HKA33B	50V 0.33U			
C415, 416	ECEA1CKA100B	16V 10U			
C501-503	ECEA1CKA100B	16V 10U			
C600, 601	ECKR1H103ZF5	50V 0.01U Δ			
C602	ECKR2H682PE	500V 6800P Δ			
C603	ECEA1EU222B	25V 2200U			
C604, 605	ECA1EM102B	25V 1000U			
C606	ECKR1H103ZF5	50V 0.01U			
C607, 608	ECEA1KA101B	10V 100U			
C609, 610	ECBT1E103ZF	25V 0.01U			
C611	ECEA1HKA010B	50V 1U			
C612, 613	ECA1AM471B	10V 470U			
C614, 615	ECBT1E103ZF	25V 0.01U			
C616, 617	ECKR1H103ZF5	50V 0.01U			
C618	ECEA1CKA100B	16V 10U			
C701	ECEA1CKA100B	16V 10U			
C802	ECA0JM102B	6.3V 1000U			
C803, 804	ECBT1E103ZF	25V 0.01U			
C810	ECBT1E223ZF	25V 0.022U			

CABINET PARTS LOCATION

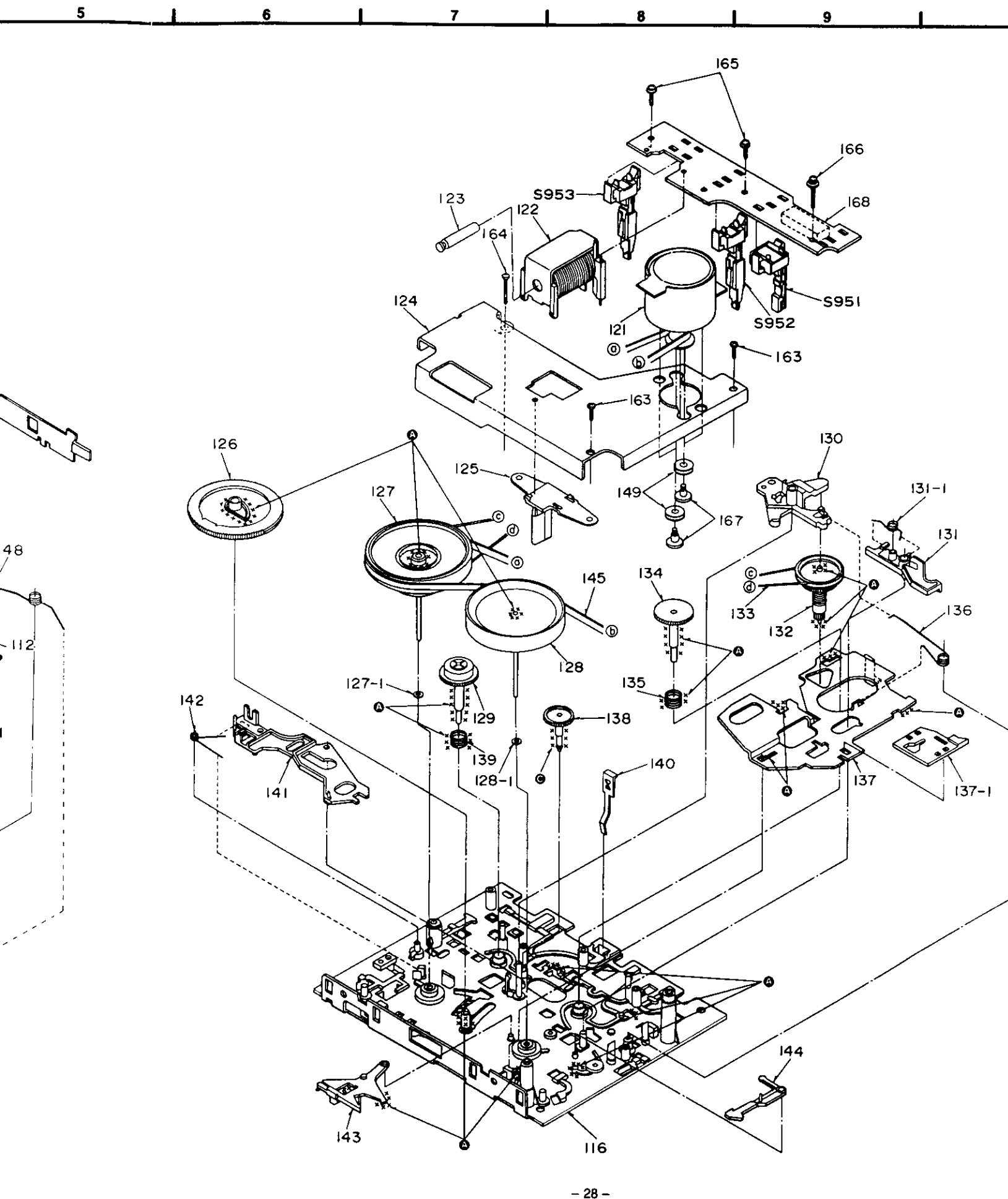


Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS					
1	RHD30007	SCREW					
2	RHMD202-1K	CABINET					
3	RYF0182A-K	CASSETTE LID(DECK1)					
4	RYF0183-K	CASSETTE LID(DECK2)					
5	XTBS3+8JFZ1	SCREW					
6	RGR0147A-C	REAR PANEL					
7	RFKJHC550NK	BOTTOM BOARD ASS'Y					
7-1	RKA0055-N	FOOT					
8	RDG0201	DAMPER GEAR					
9	RGL0166-Q	LENS					
10	RGP0276-K	FRONT PANEL					
11	RGU0765-K	EJECT BUTTON(DECK1)					
12	RGU0766-K	EJECT BUTTON(DECK2)					
13	RGU0767-K	BUTTON, OPERATION					
14	RHD30032	SCREW					
15	RMA0593	MECHANISM ANGLE					
16	RMB0141-1	EJECT ROD SPRING					
17	RMB0253	C. HOLDER SPRING(DECK1)					
18	RML0263	EJECT LEVER(DECK1)					
19	RML0264	EJECT LEVER(DECK2)					
20	RMD0089	EJECT ROD(DECK1)					
21	RMD0090	EJECT ROD(DECK2)					
22	RMR0576-K	GEAR HOLDER					
23	RYF0184-K	CASSETTE HOLDER(DECK1)					
23-1	RUS7572A	SPRING					
24	RYF0185-K	CASSETTE HOLDER(DECK2)					
24-1	RUS7572A	SPRING					
25	XTBS26+8J	SCREW					
26	SHE185-2	HOLDER					
27	XTBS3+8JFZ1	SCREW					
28	XTB3+10JFZ	SCREW					
29	XTB3+16JFZ	SCREW					
30	RWJ5707210XX	FLAT CABLE(7P)					
31	RWJ1804200XX	FLAT CABLE(4P)					
32	RWJ5710200XX	FLAT CABLE(10P)					
33	REZ0511	FLAT CABLE(7P) (J912)					
34	RMB0254	C. HOLDER SPRING(DECK2)					

MECHANISM PARTS LOCATION • DECK 1



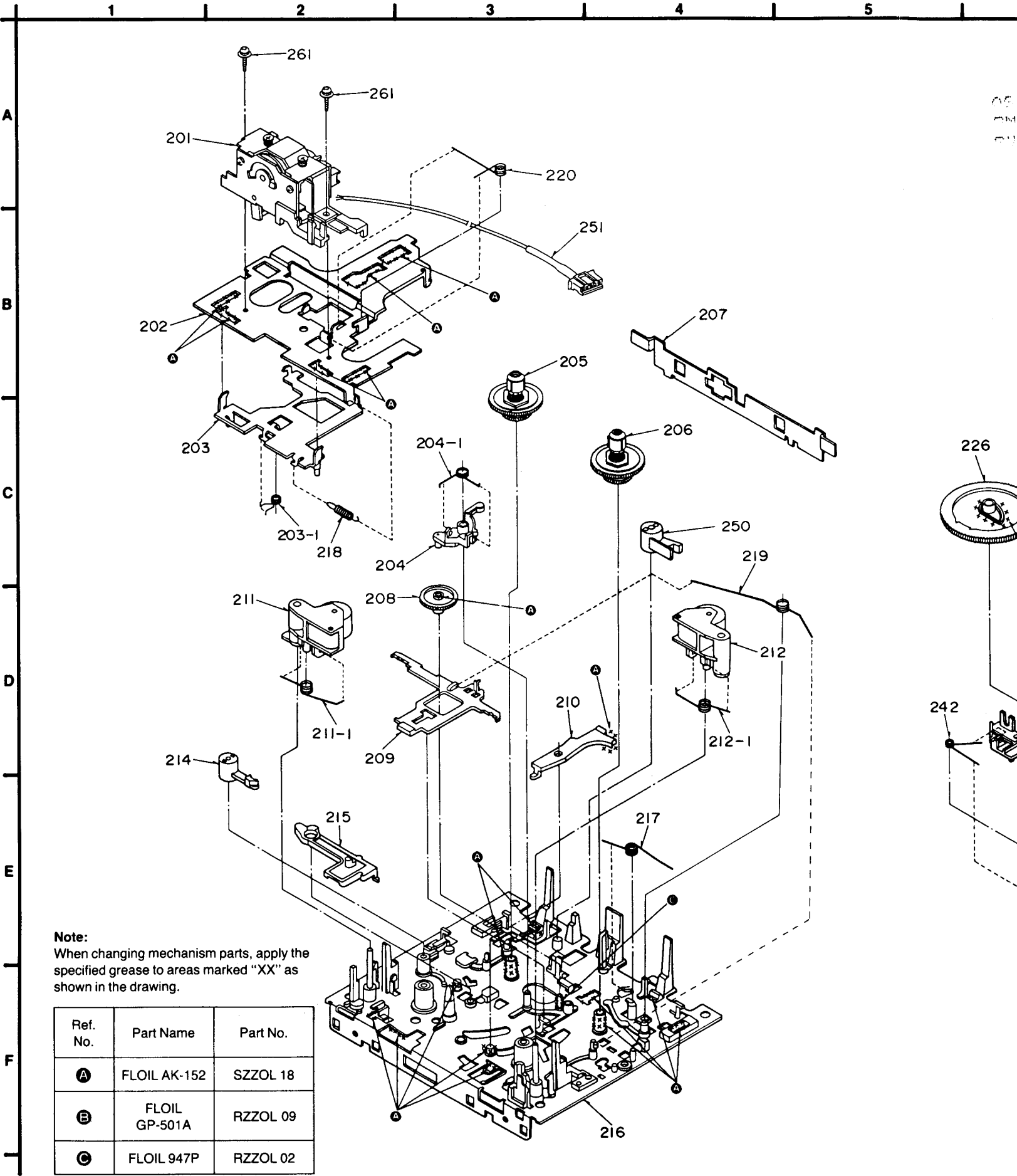
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Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS		143	RUB5152A	LEVER	
		DECK1 (P. B)		144	RUB5092A	LEVER	
101	RXQ0051-2	HEAD ASS' Y (P. B)		145	RDV1082A	BELT	
102	RUA7932F	CHASSIS		148	RUW1442A	SPRING	
103	RZLAR300	LEVER ASS' Y		149	RHG30322A	RUBBER	
103-1	RUW1432A	SPRING		150	RNL1802B	LEVER	
104	1UB00892A	ARM		151	REX0061	CABLE ASS' Y	
104-1	RUW1482A	SPRING		161	XTW2+6L	SCREW	
105	1DMD0182B	REEL TABLE ASS' Y		163	XTN26+7J	SCREW	
106	1DMD0172B	REEL TABLE ASS' Y		164	RHE52032A	SCREW	
107	RML0069-1	LEVER		165	XTW2+8S	SCREW	
108	RDG57722C	GEAR		166	XYC2+JF16	SCREW	
109	RUB5082B	LEVER		167	RHD26002	SCREW	
110	RUB5062B	LEVER		168	RJS7T72A	CONNECTOR (7P)	
111	1UB00882B	PINCH ROLLER					
111-1	RUW1412A	SPRING					
112	1UB00872B	PINCH ROLLER					
112-1	RUW1402C	SPRING					
114	RNL12D	ARM					
115	RUB5032D	LEVER					
116	RFKRAA0320	CHASSIS ASS' Y					
117	RUW1422A	SPRING					
118	RUD1052A	SPRING					
120	RUW1392A	SPRING					
121	RFM1332A	MOTOR ASS' Y					
122	1UE00152B	PLUNGER					
123	RUB4282E	SHAFT					
124	RUL1030YA	PLATE					
125	RMD50142C	SPACER					
126	RDG59272G	GEAR					
127	1DMD0372B	FLYWHEEL ASS' Y					
127-1	RNW1392A	WASHER					
128	1DMD0382B	FLYWHEEL ASS' Y					
128-1	RNW1382A	WASHER					
129	1DG00062B	GEAR					
130	RUB5132D	LEVER					
131	1UB00912A	LEVER					
131-1	RUW1462A	SPRING					
132	1DR00112B	PULLEY ASS' Y					
133	RDV902B	BELT					
134	RDG57692A	GEAR					
135	RUQ1112B	SPRING					
136	RUW1452A	SPRING					
137	1UB00902A	ROD					
137-1	RUB5122B	ROD					
138	RDG57732B	GEAR					
139	RUQ1122A	SPRING					
140	RUS6092C	SPRING					
141	RUB5142C	LEVER					
142	RUW1472A	SPRING					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		DECK2 (R/P)					
201	RXQ007-2	HEAD ASS' Y (R/P)		243	RUB515ZA	LEVER	
202	RJA793ZF	CHASSIS		244	RUB509ZA	LEVER	
203	RZLAR300	LEVER ASS' Y		245	RDV108ZA	BELT	
203-1	RUW143ZA	SPRING		249	RHG3032ZA	RUBBER	
204	1UB0089ZA	ARM		250	RNL180ZB	LEVER	
204-1	RUW148ZA	SPRING		251	REX0059	CABLE ASS' Y	
205	1DM0018ZB	REEL TABLE ASS' Y		261	XTW2+6L	SCREW	
206	1DM0017ZB	REEL TABLE ASS' Y		263	XTN26+7J	SCREW	
207	RML0069-1	LEVER		264	RHE5203ZA	SCREW	
208	RDG5772ZC	GEAR		265	XTW2+8S	SCREW	
209	RUB508ZB	LEVER		266	XVC2+JF16	SCREW	
210	RUB506ZB	LEVER		267	RHD26002	SCREW	
211	1UB0088ZB	PINCH ROLLER		268	RJS1077ZA	CONNECTOR (10P)	
211-1	RUW141ZA	SPRING					
212	1UB0087ZB	PINCH ROLLER					
212-1	RUW140ZC	SPRING					
214	RNL12D	ARM					
215	RUB503ZD	LEVER					
216	RFKRAA0320	CHASSIS ASS' Y					
217	RUW142ZA	SPRING					
218	RUD105ZA	SPRING					
219	RUW144ZA	SPRING					
220	RUW139ZA	SPRING					
221	RFM133ZA	MOTOR ASS' Y					
222	1UE0015ZB	PLUNGER					
223	RUB428ZE	SHAFT					
224	RUL1030YA	PLATE					
225	RMD5014ZC	SPACER					
226	RDG5927ZG	GEAR					
227	1DM0037ZB	FLYWHEEL ASS' Y					
227-1	RNW139ZA	WASHER					
228	1DM0038ZB	FLYWHEEL ASS' Y					
228-1	RNW138ZA	WASHER					
229	1DG0006ZB	GEAR					
230	RUB513ZD	LEVER					
231	1UB0091ZA	LEVER					
231-1	RUW146ZA	SPRING					
232	1DR0011ZB	PULLEY ASS' Y					
233	RDV90ZB	BELT					
234	RDG5769ZA	GEAR					
235	RJQ111ZB	SPRING					
236	RUW145ZA	SPRING					
237	1UB0090ZA	ROD					
237-1	RUB512ZB	ROD					
238	RDG5773ZB	GEAR					
239	RJQ112ZA	SPRING					
240	RUS609ZC	SPRING					
241	RUB514ZC	LEVER					
242	RUW147ZA	SPRING					

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