

# TC-H100

## SERVICE MANUAL

*E Model  
Australian Model*

This set is the cassette deck section in FH-E626CD.



Model Name Using Similar Mechanism	TC-818
Tape Transport Mechanism Type	Deck A TCM-170RA1
	Deck B TCM-170RB7

### SPECIFICATIONS

Recording system	4-track 2-channel stereo
Frequency response	(DOLBY NR OFF) 60 – 13,000 Hz ( $\pm 3$ dB), using TYPE I cassette (Sony HF-S) 60 – 14,000 Hz ( $\pm 3$ dB), using TYPE II cassette 40 – 15,000 Hz ( $\pm 3$ dB) using TYPE IV cassette
Wow and flutter	0.1% WRMS $\pm 0.3\%$ (DIN)
Dimensions	Approx. 225 x 118 x 235 mm (w/h/d) (9 x 4 $\frac{3}{4}$ x 9 $\frac{3}{8}$ inches)
Weight	Approx. 2.5 kg (5 lb 8 oz)

Design and specifications subject to change without notice.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

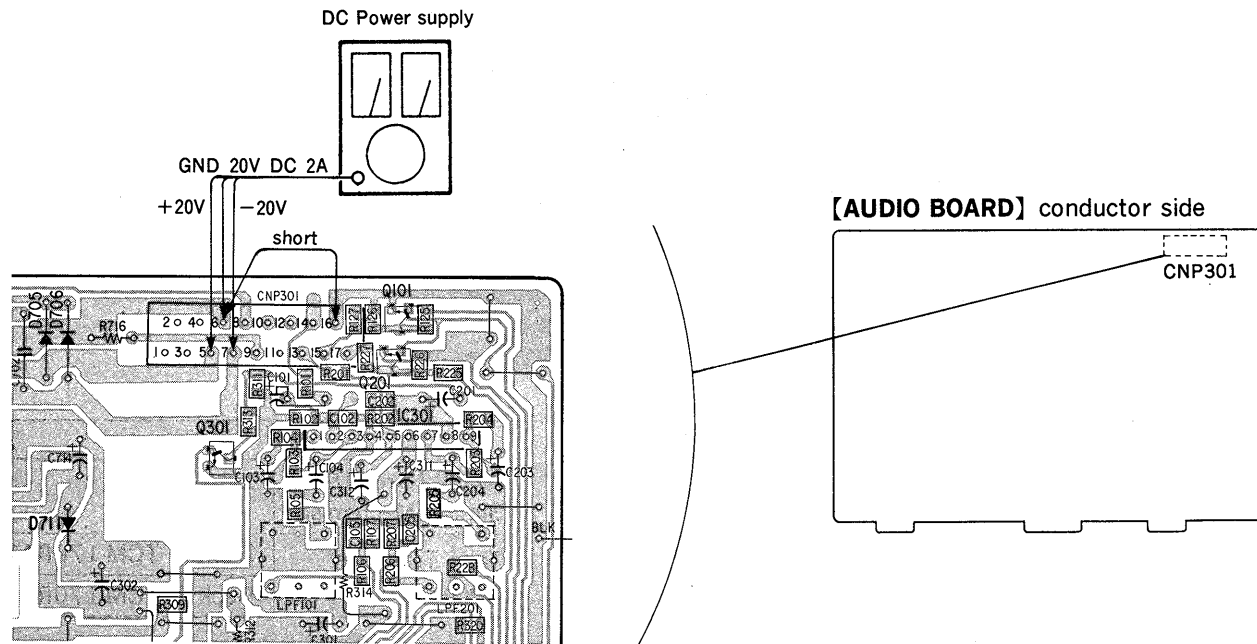
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol  $\square$  are trademarks of Dolby Laboratories Licensing Corporation.

STEREO CASSETTE DECK  
**SONY**<sup>®</sup>

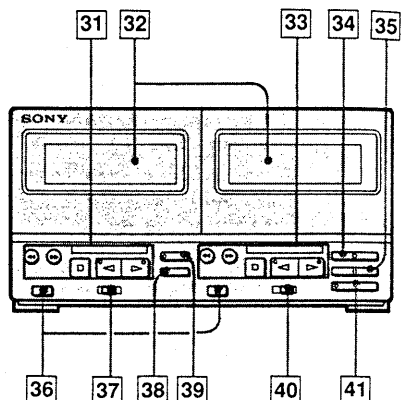
**REPAIRING PRECAUTION**

**[To apply B+ voltage]**

The power of this unit is fed from amplifier. Because of this, connect the DC Power supply as illustrated below when this unit alone operates.



**SECTION 1  
GENERAL**



- 31 Tape operation buttons for deck A  
 ◀▶: Fast winding  
 □: Stop  
 ◁: Reverse play  
 ▷: Forward play
- 32 Cassette holders
- 33 Tape operation buttons for deck B
- 34 REC (recording) button
- 35 PAUSE button
- 36 EJECT buttons
- 37 DIRECTION MODE selector
- 38 TAPE DUBBING HIGH SPEED button
- 39 CD SYNCHRO (CD synchronized recording) button
- 40 DOLBY NR selector
- 41 AMS (Automatic Music Sensor)/BLANK SKIP button

## SECTION 2 ADJUSTMENTS

### 2-1. MECHANICAL ADJUSTMENTS

#### PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
 

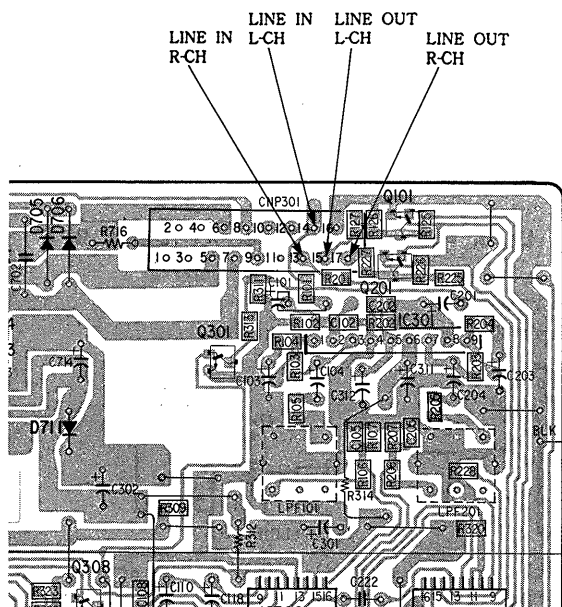
record/playback head	pinch roller
erase head	rubber belts
capstan	idler
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.

#### Torque Measurement

Torque	Torque Meter	Meter Reading
FWD	CQ-102C	30 to 60g·cm (0.416 to 0.833 oz·inch)
FWD Back tension	CQ-102C	1 to 5g·cm (0.014 to 0.069 oz·inch)
REV	CQ-102RC	30 to 60g·cm (0.416 to 0.833 oz·inch)
REV Back Tension	CQ-102RC	1 to 5g·cm (0.014 to 0.069 oz·inch)
FF, REW	CQ-201B	100 to 170g·cm (1.39 to 2.36 oz·inch)

#### • Location of LINE IN/OUT

#### AUDIO Board CNP301



### 2-2. ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in the service manual.

The adjustments should be performed for both L-CH and R-CH.

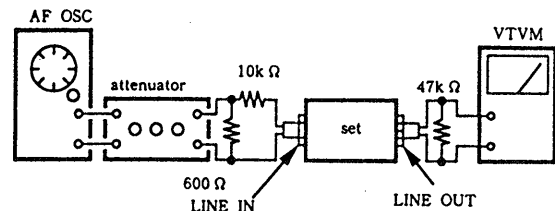
- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF

- Standard Record :

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

— Record Mode —



#### Standard Input Level

INPUT terminal	LINE IN
source impedance	10kΩ
input level	0.31V (-8dB)

#### Standard Output Level

OUTPUT terminal	LINE OUT
load impedance	47kΩ
output level	0.25V (-10dB)

#### • Test tape

Type	Signal	Used for
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB LEVEL Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

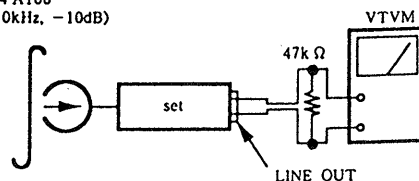
#### Record/Playback Head Azimuth Adjustment

[ DECK A ] [ DECK B ]

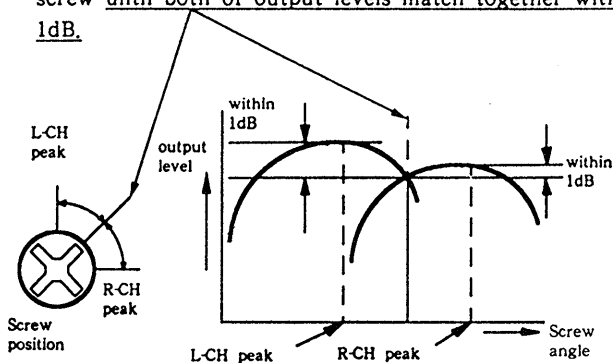
#### Procedure :

1. Mode : FWD playback

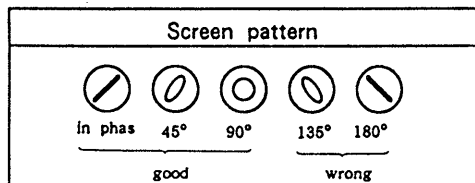
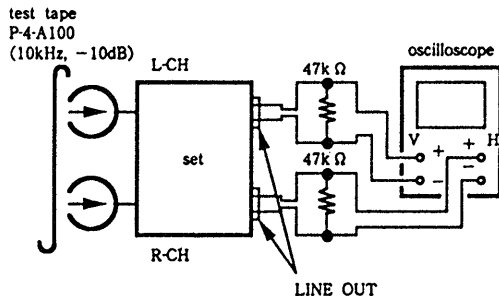
test tape  
P-4-A100  
(10kHz, -10dB)



- Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.

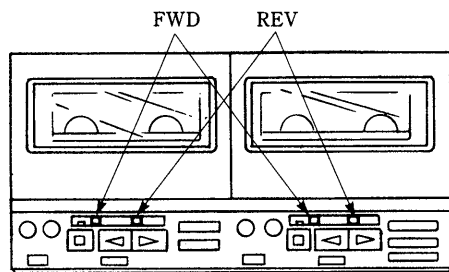
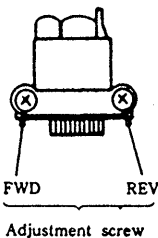


- Phase Check  
Mode : playback



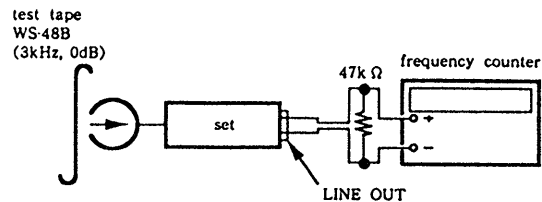
- Set in the REV mode and repeat the step 1-3.
- After the adjustment, lock the screws with locking compound.

Adjustment Location : Record/Playback head  
(Adjustable without disassembly.)



**Tape Speed Adjustment** DECK A DECK B

Procedure :  
Mode : FWD playback



Perform high speed adjustment before normal speed adjustment.

Connect TP1 to ground with soldering jamper and continue to press TEAP DUBBING HIGH SPEED switch : High speed playback.

After the high speed adjustment, remove soldering jamper of TP1.

Playback the test tape WS-48B and adjust to meet the specifications below.

speed	deck	Adjustment Part	variable resistor of motor	S805 High speed	frequency counter reading
high	A	M11A	(H)	ON	5,960±20Hz
	B	M11B	(H)		
normal	A	M11A	(L)	OFF	2,980±10Hz
	B	M11B	(L)		

Frequency difference between the beginning and the end of the tape should be within 3%.

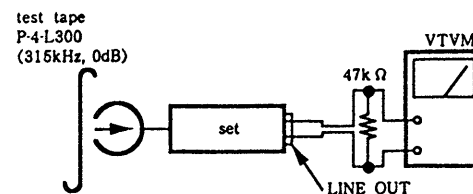
Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

**Adjustment Location :**

- deck A : motor (M11A) rear side
- deck B : motor (M11B) rear side

**Playback Level Adjustment** DECK A DECK B

Procedure :  
Mode : playback  
Connect TP1 to ground.



Adjust deck A : RV41A(L-CH), RV61A(R-CH) and deck B : RV41B(L-CH) , RV61B(R-CH) so that the reading on VTVM meets the specification below.

LINE OUT level :  $-10 \pm 0.5\text{dB}$  (0.23 to 0.26V)

Level difference between channels : less than 0.5dB

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location : MD-A, B board

**Record Bias Adjustment DECK B**

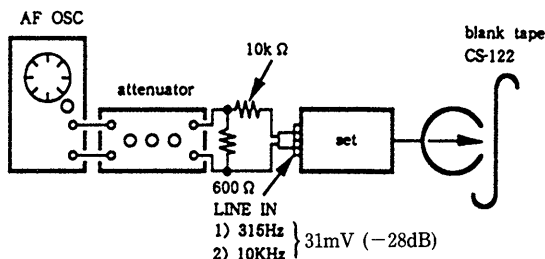
—Adjusting Parts Location Diagram—

**Setting :**

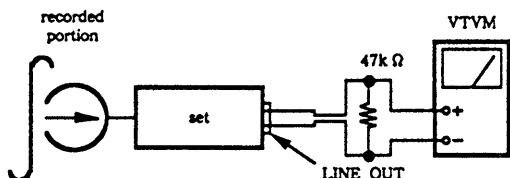
REC LEVEL control : standard record (See page 3.)  
 Connect TP1 to ground.

**Procedure :**

1. Mode : record



2. Mode : playback



Confirm that the 10kHz playback output is  $0 \pm 0.5\text{dB}$  relative to the 315Hz output. If necessary, adjust RV42 (L-CH), RV62 (R-CH) and repeat the steps given above. After the adjustment remove jumper wire of TP1.

**Adjustment Location :** MD B board

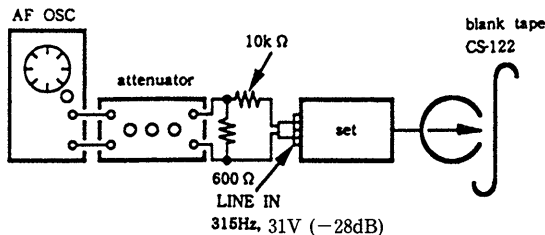
**Record Level Adjustment DECK B**

**Setting :**

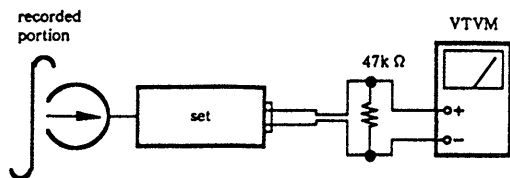
REC LEVEL control : standard record (See page 3.)  
 Connect TP1 to ground.

**Procedure :**

1. Mode : record



2. Mode : playback

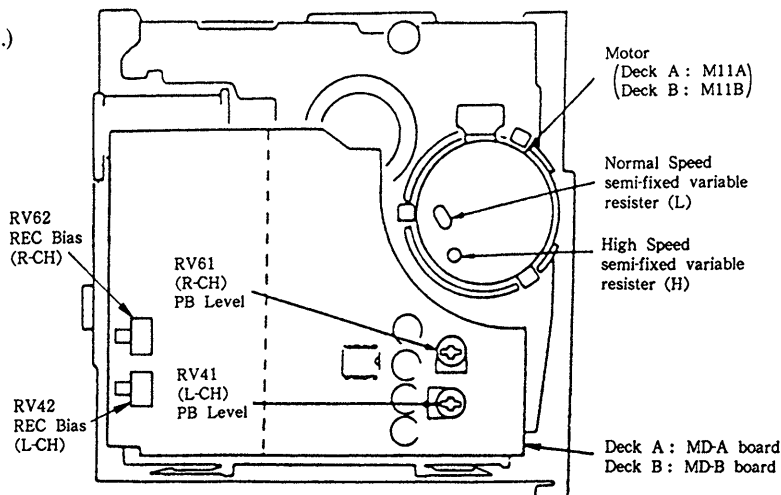


3. Play back the signal recorded in step 1. Confirm that the signal level is within the specification below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step1-3.

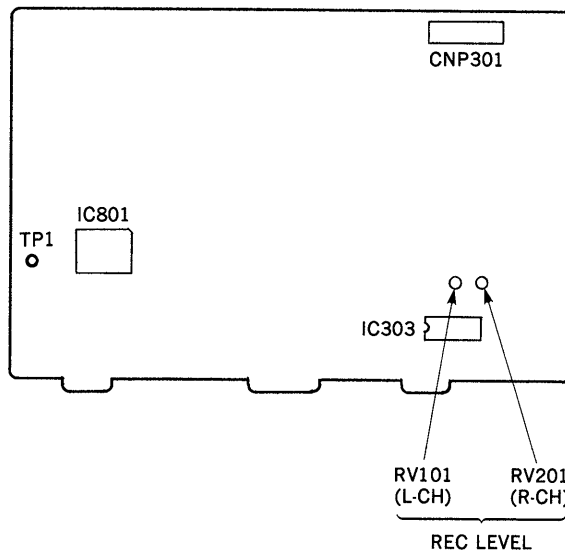
4. After the adjustment, remove jumper wire of TP1.

LINE OUT level :  $-30 \pm 0.5\text{dB}$  (23 to 26nV)

**Adjustment Location :** audio (B) board



AUDIO BOARD Conductor Side



## SECTION 3 DIAGRAMS

### 3-1. IC801 M50964-212FP PIN FUNCTIONS

PIN No.	PIN NAME	I/O	SIGNAL NAME	FUNCTION											
1	P62	O	$\overline{A FWD}$	Deck A FWD LED output											
2	P61	O	$\overline{BIAS IV}$	TYPE IV bias oscillation output											
3	P60	O	$\overline{BIAS II}$	TYPE II bias oscillation output											
4	P47	O	$\overline{A REV}$	Deck A RVS LED output											
5	P64	O	$\overline{A REV}$	Deck A RVS LED output											
6	AN5	I	B HALF	Deck B Record prevention claw A, B detection input (Analogue)											
				Voltage (V)	1V	1.9V	2.8V	3.9V	5V						
				Half	ON	ON	ON	ON	OFF						
				Claw A	OFF	ON	OFF	ON	OFF						
Claw B	ON	ON	OFF	OFF	OFF										
7	AN4	I	KEY3	KEY input											
8	AN3	I	KEY2	Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0
				KEY1	B ■	B ■■	B ►	B ◀	B ○	A ◀◀	A ►►		□ B	□ C	OFF
9	AN2	I	KEY1	KEY2	A ■	A ■■	A ►	A ◀		B ◀◀	B ►►	B ●	⊙	RELAY	OFF
				KEY3	AMS		H DUB	N DUB							
10	P41	O	$\overline{B FWD}$	Deck B FWD LED output											
11	P40	O	$\overline{B REV}$	Deck B RVS LED output											
12	P37	O	$\overline{B FWD}$	Deck A FWD LED output											
13	P36	O	$\overline{B PAUSE}$	Deck B PAUSE LED output											
14	P35	O	$\overline{B REC}$	Deck B FWD LED output											
15	P34	O	BOLBY $\overline{B/C}$	Dolby $\overline{B/C}$ output											
16	P33	O	DOLBY $\overline{ON/OFF}$	Dolby $\overline{ON/OFF}$ output											
17	P32	I	SIRCS	SIMCS input or AUDIO BUS reverse input											
18	P31	O	$\overline{70/120}$	Playback EQ output for playing deck											
19	P30	O	AUB OUT	AUDIO BUS output											
20	INTI	I	AUB IN	AUDIO BUS normal input											
24	CNVSS		CNVSS	GND											
25	$\overline{RESET}$	I	$\overline{RESET}$	Microcomputer reset input											
26	XIN	I	XIN	Clock input (4MHz)											
27	XO	O	XO	Clock output (4MHz)											
28	$\Phi$	O	$\Phi$	(Not used : OPEN)											
29	V <sub>ss</sub>		V <sub>ss</sub>	GND											
30	P57	I	$\overline{TEST}$	Electrical adjusting test mode setting											
31	P56	I	TYPE IV	TYPE IV switch input											
32	P55	I	$\overline{B70/120}$	Deck B TYPE II switch input											
33	P54	I	B SHUT	Deck B Reel table signal input											
34	P53	I	$\overline{A70/120}$	Deck A TYPE II switch input											
35	P52	I	A SHUT	Deck B Reel table signal input											
36	P51	I	$\overline{A HALF}$	Deck A Half switch input											
37	P50	I	AMSIN	AMS signal input											
39	P17	O	$\overline{MMUTE}$	Meter mute output											
40	P16	O	$\overline{LMUTE}$	Line mute output											
41	P15	O	$\overline{PASS}$	PASS AMP change output											
42	P14	O	$\overline{REC/PB}$	Dolby IC REC/PB select output											
43	P13	O	$\overline{AMS/BS}$	AMS AMP characteristics change output											
44	P12	O	AMS A/ $\overline{B}$	AMS AMP input Deck A/B select output											
45	P11	O	SEL A/ $\overline{B}$	Dolby IC PB input Deck A/B select output											
46	P10	O	$\overline{BIAS I}$	TYPE I bias oscillation output											

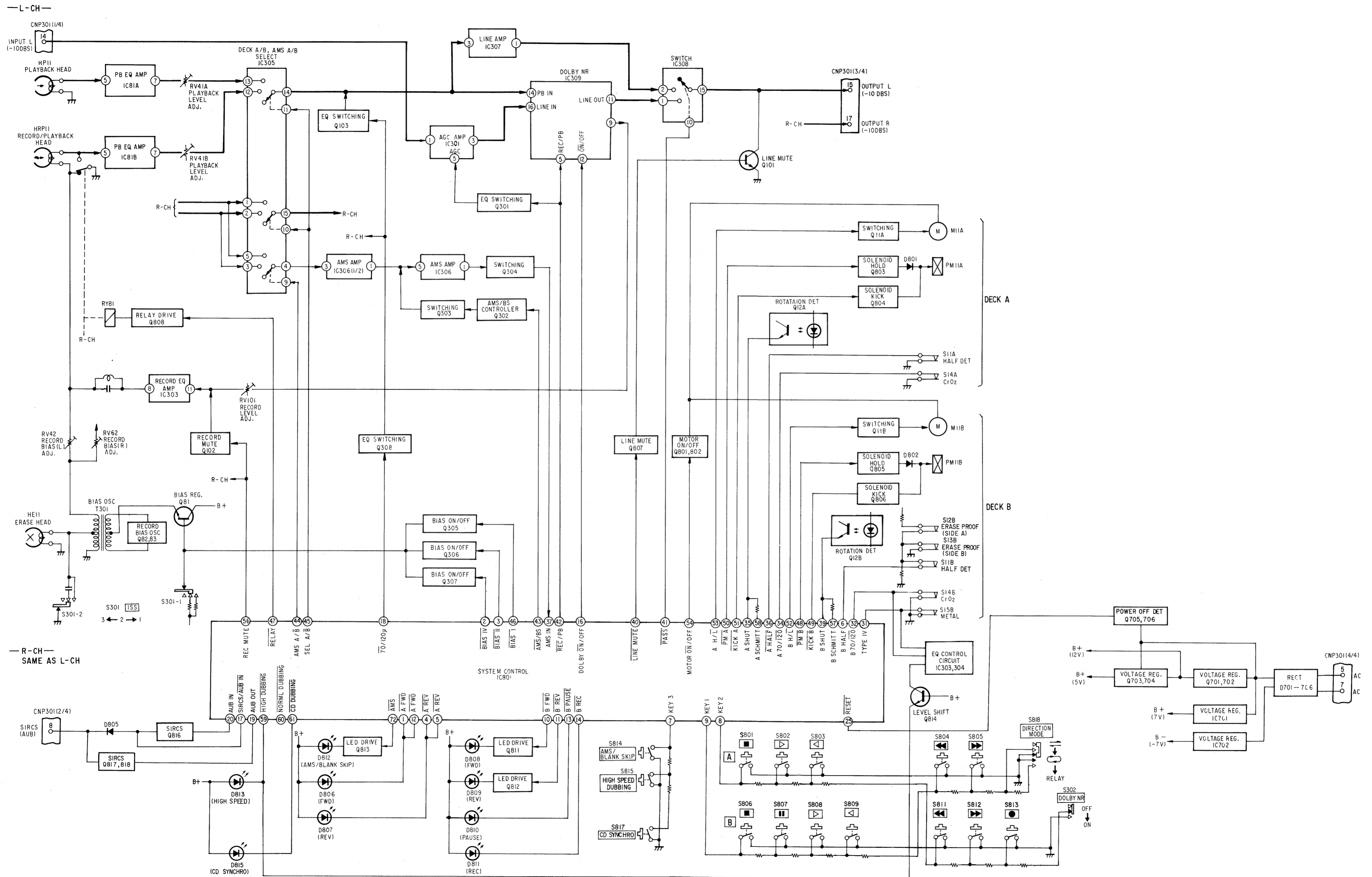
PIN No.	PIN NAME	I/O	SIGNAL NAME	FUNCTION
47	P07	O	$\overline{\text{RELAY}}$	REC/PB change relay output
48	P06	O	$\overline{\text{PM B}}$	Deck B plunger hold output
49	P05	O	$\overline{\text{KICK B}}$	Deck B plunger kick output
50	P04	O	$\overline{\text{PM A}}$	Deck A plunger hold output
51	P03	O	$\overline{\text{KICK A}}$	Deck A plunger kick output
52	P02	O	B H/ $\overline{\text{L}}$	Deck B capstan motor speed select
53	P01	O	A H/ $\overline{\text{L}}$	Deck A capstan motor speed select
54	P00	O	M $\overline{\text{ON/OFF}}$	Capstan motor $\overline{\text{ON/OFF}}$
56	P27	O	REC MUTE	REC MUTE output
57	P26	O	B SCHMITT	Deck B reel table schmitt output
58	P25	O	A SCHMITT	Deck A reel table schmitt output
59	P24	O	$\overline{\text{HDUB}}$	High Speed Dubbing LED output
60	P23	O	$\overline{\text{NDUB}}$	Normal Speed Dubbing LED output
61	P22	O	$\overline{\text{CD DUB}}$	Auto CD Synchro LED output
62	P21	O	$\overline{\text{A PAUSE}}$	Deck A PAUSE LED output
63	P20	O	$\overline{\text{SIRCS/AUB}}$	SIRCS/AUDIO BUS mode select
64	V <sub>ss</sub>		V <sub>ss</sub>	GND
67	V <sub>cc</sub>		V <sub>cc</sub>	POWER 5±0.5V
68	AVSS		AVSS	Analogue system GND
69	VREF	I	VREF	Analogue system reference voltage input
70	D-A	O	D-A	D/A conversion output (Not used : OPEN)
71	PWM	O	PWM	PWM output (Not used : GND)
72	P63	O	$\overline{\text{AMS}}$	AMS LED indication output

#### [TEST MODE]

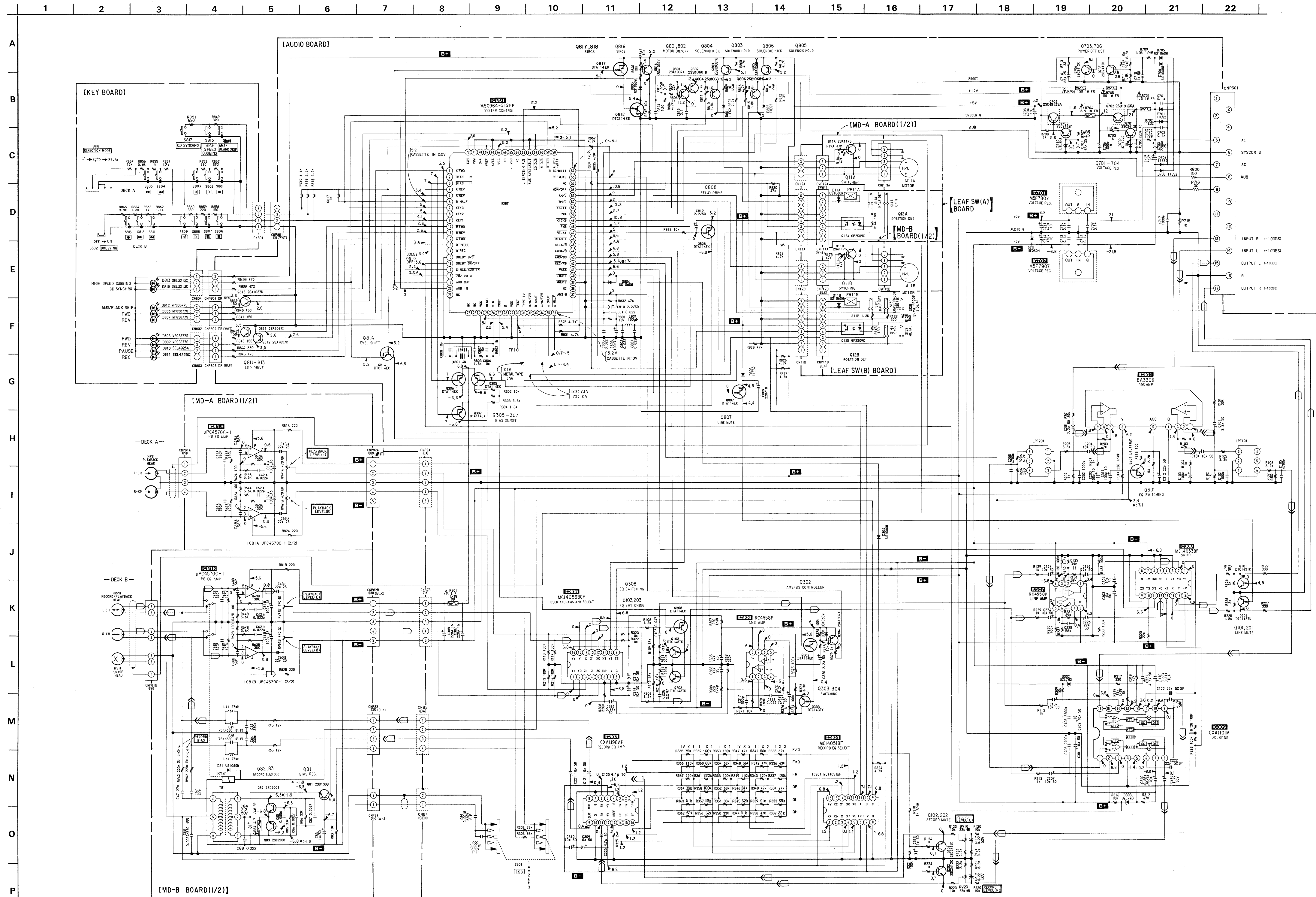
When making pin ③ low (connect TP1 to ground with jumper wire), following function operates.

1. Sourec monitor  
Release the line mute while recording.
2. High speed playback  
On recording, while pressing HIGH SPEED (DUBBING) button, high speed playback operates.
3. Record memory stop  
Using DIRECTION MODE switch ⇄, returns to the recording start point and stops or plays.

3-2. BLOCK DIAGRAM







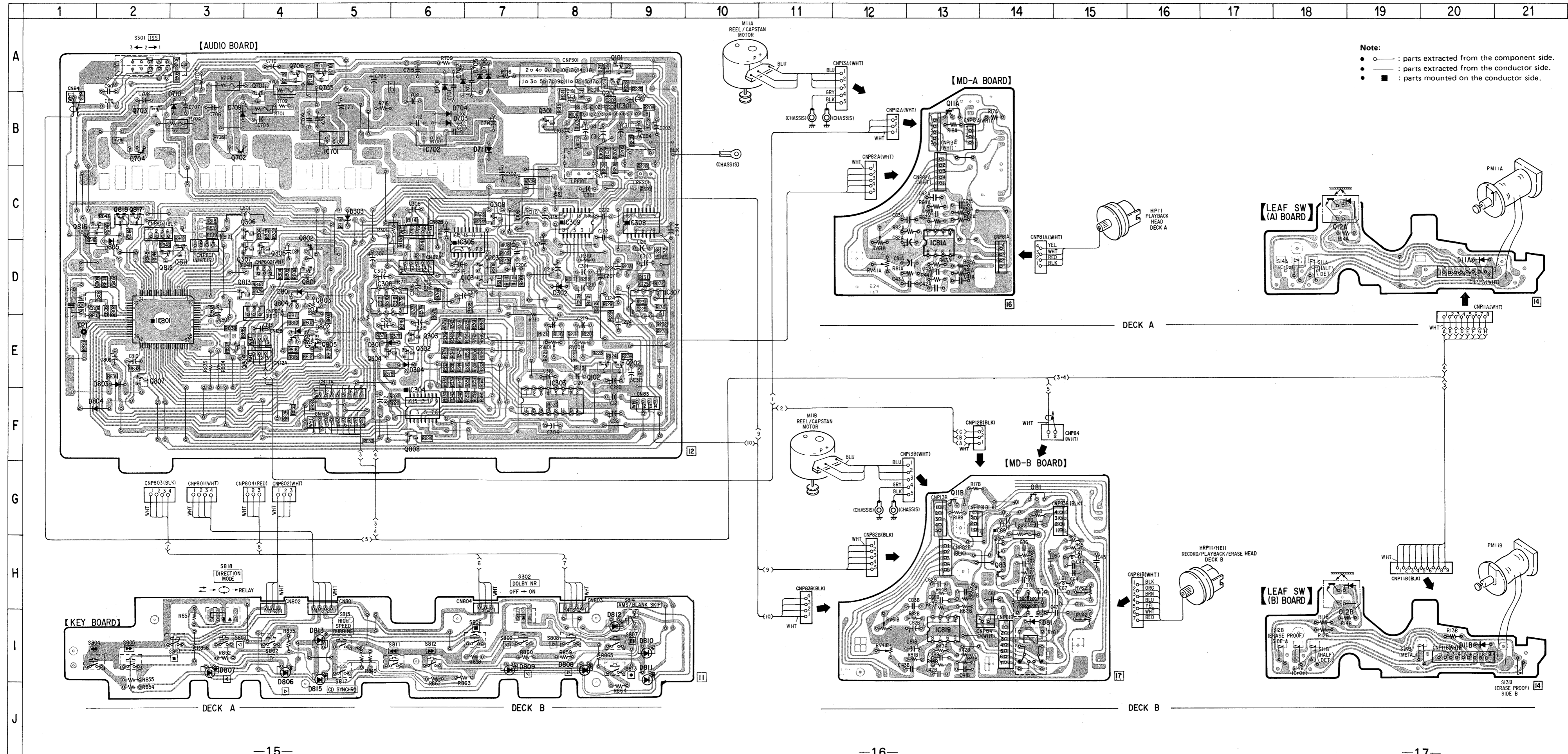
Note:  
 • All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.  
 • All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.  
 • : fusible resistor.

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

- : adjustment for repair.
- Voltage are dc with respect to ground under no-signal conditions.
  - : STOP
  - : REC
- Voltages are taken with a VOM (Input Impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - : PB (DECK B)
  - : REC (DECK B)

3-4. PRINTED WIRING BOARDS

• Refer to page 18 for Semiconductor Location and Semiconductor Lead Layouts.

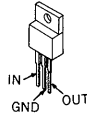


● Semiconductor Location

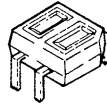
Ref. No.	Location	Ref. No.	Location
D11A	D-20	Q11A	B-13
D11B	I-20	Q11B	G-13
D81	I-15	Q12A	C-18
D301	E-6	Q12B	H-19
D302	D-8	Q81	G-14
D303	D-5	Q82	H-14
D304	F-6	Q83	H-14
D701	B-6	Q101	A-9
D702	B-7	Q102	F-9
D703	B-6	Q103	D-7
D704	B-6	Q201	B-9
D705	B-7	Q202	F-9
D706	B-7	Q203	D-7
D709	B-3	Q301	B-8
D710	B-3	Q302	E-6
D711	C-7	Q303	E-6
D801	E-4	Q304	E-6
D802	E-4	Q305	D-4
D803	F-2	Q306	D-4
D804	F-1	Q307	D-4
D805	D-2	Q308	C-7
D806	I-4	Q701	B-4
D807	I-3	Q702	C-3
D808	I-8	Q703	B-2
D809	I-7	Q704	C-2
D810	I-9	Q705	B-5
D811	I-9	Q706	B-4
D812	I-9	Q801	D-4
D813	I-5	Q802	D-4
D815	I-5	Q803	E-5
IC81A	D-13	Q804	E-4
IC81B	I-13	Q805	E-5
IC301	B-9	Q806	E-4
IC303	F-8	Q807	F-2
IC304	E-6	Q808	F-6
IC305	D-7	Q811	D-3
IC306	E-6	Q812	D-2
IC307	E-9	Q813	D-4
IC308	C-9	Q814	E-4
IC309	C-8	Q816	D-1
IC701	B-5	Q817	D-2
IC702	B-6	Q818	D-2
IC801	E-2		

● Semiconductor Lead Layouts

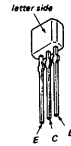
M5F7807  
M5F7907



GP-2S09-C



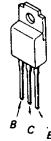
2SA1175-HFE



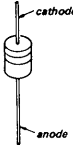
2SB1013-4  
2SC2001-LK



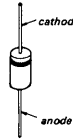
2SD1761-EF



HZS12B2L  
HZS6C3L  
HZS7B3L  
1SS120  
11EQS04  
11ES2



1SS132



MPG3877S



SEL3213C-D



SEL4225C-D  
SEL4925A-D

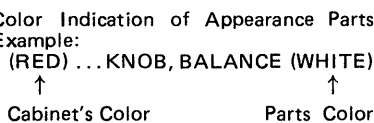


## SECTION 4 EXPLODED VIEWS

**NOTE:**

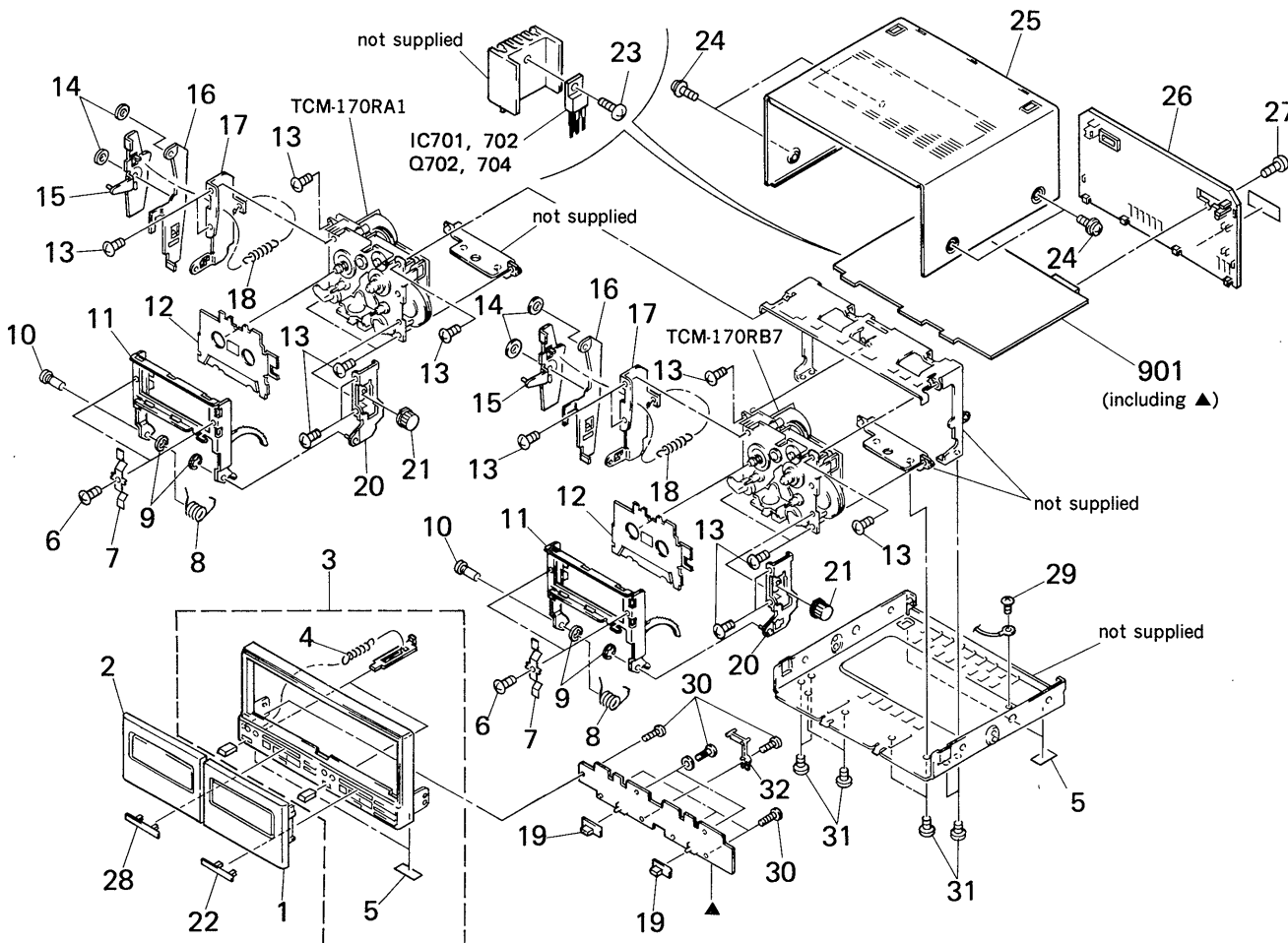
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:  
(RED) ... KNOB, BALANCE (WHITE)



The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

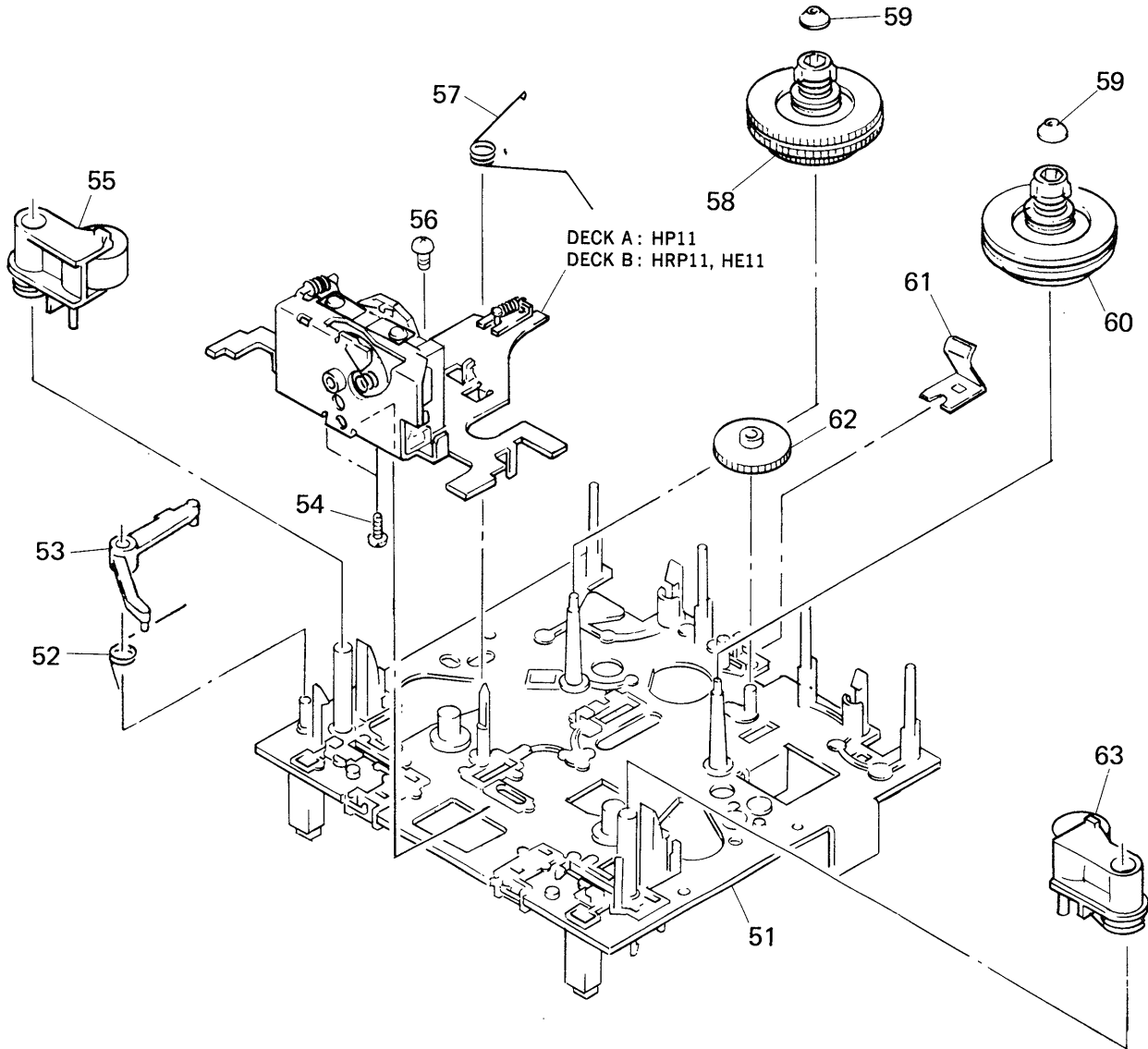
### 4-1. CHASSIS BLOCK



Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
1	X-3358-501-1	LID (B) ASSY, CASSETTE		20	*X-3332-494-1	BRACKET (R) ASSY	
2	X-3340-198-1	LID (A) ASSY, CASSETTE		21	X-3340-185-1	GEAR (DAMPER) ASSY	
3	X-3358-502-1	PANEL ASSY, FRONT	4.5	22	3-354-985-01	PLATE (AZIMUTH R), ORNAMENTAL	
4	3-567-110-00	SPRING, TENSION		23	7-685-646-79	SCREW BVTP 3X8 TYPE2 IT-3	
5	4-930-336-01	FOOT (FELT)		24	3-704-366-01	SCREW (CASE) (M3X8)	
6	7-621-255-15	SCREW +PTT 2X3 (S)		25	4-932-841-11	CASE	
7	3-354-908-01	SPRING (CASSETTE RETAINER)		26	*3-354-982-01	PANEL, BACK	
8	3-346-364-01	SPRING (LOADING), TORSION		27	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
9	7-624-105-04	RETAINING, RING E-2.3		28	3-354-984-01	PLATE (AZIMUTH L), ORNAMENTAL	
10	*3-346-334-01	SHAFT (HOLDER FITTING LEFT)		29	7-685-870-01	SCREW +BVTT 3X5 (S)	
11	*3-340-150-01	HOLDER, CASSETTE		30	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
12	*3-340-123-01	RETAINER, CASSETTE		31	7-682-547-04	SCREW +BVTT 3X6 (S)	
13	7-621-773-86	SCREW +BVTT 2.6X4 (S)		32	*3-354-986-01	RETAINER	
14	3-558-708-21	WASHER, STOPPER		901	*A-2006-232-A	MOUNTED PCB, AUDIO	
15	*X-3332-465-1	LEVER (LOCK) ASSY		IC701	8-759-604-86	IC M5F7807L	
16	*3-340-142-01	LEVER (EJECT)		IC702	8-759-604-90	IC M5F7907L	
17	*X-3332-466-1	BRACKET (LEFT) ASSY		Q702	8-729-920-98	TRANSISTOR 2SD1761-EF	
18	3-343-474-01	SPRING, TENSION		Q704	8-729-920-98	TRANSISTOR 2SD1761-EF	
19	3-349-054-01	KNOB (SLIDE)					

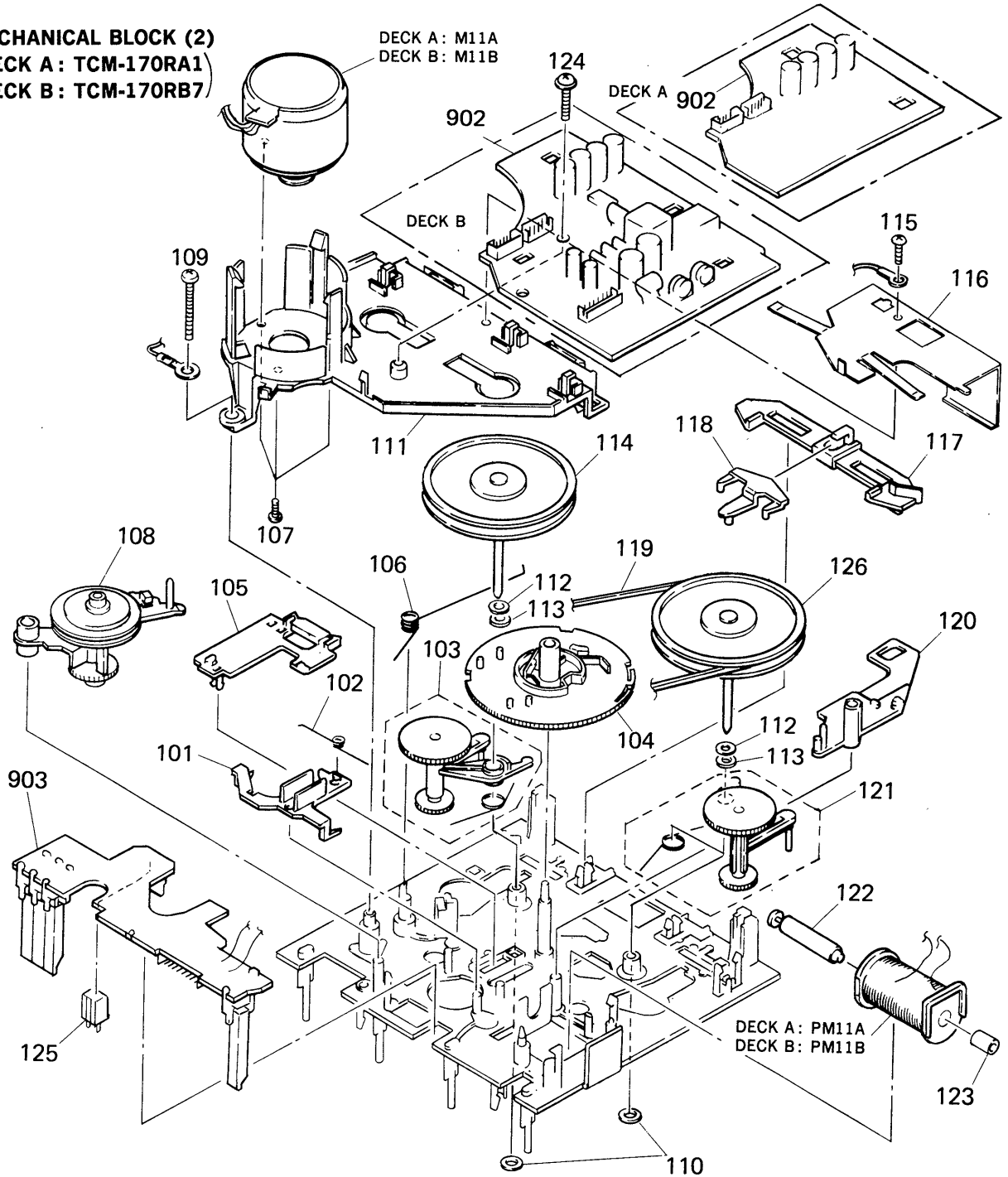


**4-2. MECHANICAL BLOCK (1)**  
**(DECK A : TCM-170RA1)**  
**(DECK B : TCM-170RB7)**



Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
51	X-3343-439-1	CHASSIS ASSY, MECHANICAL		59	3-343-439-01	CAP (REEL TABLE)	
52	3-343-477-01	SPRING, TORSION (EJECT SAFTY)		60	X-3343-401-1	TABEL ASSY, REEL	
53	3-343-476-01	LEVER (EJECT SAFETY LEVER)		61	3-343-420-01	SPRING, LEAF	
54	7-685-102-19	SCREW +P 2X4 NON-SLIT TYPE 2		62	3-343-411-01	GEAR (FF GEAR)	
55	X-3343-456-1	LEVER (PINCH R) ASSY		63	X-3343-455-1	LEVER (PINCH F) ASSY	
56	7-621-773-86	SCREW +BVTT 2.6X4 (S)		HP11	A-2003-503-A	(DECK A)...PC BOARD ASSY, HEAD	
57	3-343-401-01	SPRING, TORSION		HRP11	A-2003-504-A	(DECK B)...CHASSIS ASSY, HEAD	
58	X-3343-415-1	TABEL (REV) ASSY, REEL					

**4-3. MECHANICAL BLOCK (2)**  
**(DECK A : TCM-170RA1)**  
**(DECK B : TCM-170RB7)**



Ref.No	Part No.	Description	Remarks
101	3-343-453-01	SLIDER (BRAKE PLATE)	
102	3-343-429-01	SPRING, TORSION	
103	X-3343-454-1	LEVER (TU-R) ASSY	
104	3-343-470-01	GEAR (CAM GEAR)	
105	3-343-461-01	SLIDER	
106	3-343-430-01	SPRING, TORSION	
107	7-627-556-28	SCREW +P 2.6X3.5	
108	X-3343-414-1	LAVER (FR ARM) ASSY	
109	3-355-801-01	SCREW (BTP 2X18)	
110	3-343-473-01	WASHER, NYLON	
111	*X-3343-407-1	BASE (THRUST RETAINER) ASSY	
112	4-605-835-11	WASHER (2.6), POLYSLIDER	
113	3-307-482-00	WASHER, LUMILER	
114	X-3343-411-6	FLYWHEEL COMPLETE ASSY	
115	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
116	3-343-480-01	PLATE, SHIELD	
117	3-343-457-01	SLIDER (REVERSE SLIDER)	

Ref.No	Part No.	Description	Remarks
118	3-343-462-01	LEVER	
119	3-313-816-02	BELT (CAPSTAN BELT SQUARE)	
120	3-343-493-01	LEVER (PM LEVER)	
121	X-3343-453-1	LEVER (TU-F) ASSY	
122	*3-343-425-01	ARBOR(MOVABLE IRON ARBOR),IRON	
123	*3-343-424-01	ARBOR (FIXED IRON ARBOR), IRON	
124	3-343-404-01	SCREW (PTPWH 2X12)	
125	3-343-419-01	HOLDER (S SENSER A)	
126	X-3343-416-7	FLYWHEEL (REV) COMPLETE ASSY	
902	*1-624-146-11	(DECK B)....PC BOARD,MD-B	
902	*1-624-147-11	(DECK A)....PC BOARD, MD-A	
903	*1-624-148-11	PC BOARD, LEAF SW	
M11A	X-3343-447-1	(DECK A)....MOTOR ASSY	
M11B	X-3343-447-1	(DECK B)....MOTOR ASSY	
PM11A	1-454-456-11	(DECK A)....SOLENOID, PLUNGER	
PM11B	1-454-456-11	(DECK B)....SOLENOID, PLUNGER	

## SECTION 5 ELECTRICAL PARTS LIST

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

**CAPACITORS:**

MF:  $\mu$ F, PF:  $\mu$ MF.

**RESISTORS**

- All resistors are in ohms.
- F: nonflammable

**COILS**

- MMH: mH, UH:  $\mu$ H

**SEMICONDUCTORS**

In each case, U:  $\mu$ , for example:

UA...:  $\mu$ A..., UPA...:  $\mu$ PA...,  
UPC...:  $\mu$ PC, UPD...:  $\mu$ PD...

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description	Ref.No	Part No.	Description			
901	*A-2006-232-A	MOUNTED PCB, AUDIO	C124	1-123-875-11	ELECT	10MF	20%	50V
902	*1-624-146-11	(DECK B)...PC BOARD, MD-B	C125	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
902	*1-624-147-11	(DECK A)...PC BOARD, MD-A	C126	1-126-233-11	ELECT	22MF	20%	50V
903	*1-624-148-11	PC BOARD, LEAF SW	C201	1-124-925-11	ELECT	2.2MF	20%	50V
			C202	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
		<b>CAPACITOR</b>						
C41A	1-162-289-31	CERAMIC	C203	1-124-443-00	ELECT	100MF	20%	10V
C41B	1-162-289-31	CERAMIC	C204	1-123-875-11	ELECT	10MF	20%	50V
C42A	1-136-157-00	FILM	C205	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C42B	1-136-157-00	FILM	C206	1-136-161-00	FILM	0.047MF	5%	50V
C43A	1-124-282-00	ELECT	C207	1-123-875-11	ELECT	10MF	20%	50V
C43B	1-124-282-00	ELECT	C208	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C44	1-162-288-31	CERAMIC	C210	1-131-587-11	TANTALUM	0.68MF	10%	35V
C45	1-136-273-91	FILM	C218	1-124-927-11	ELECT	4.7MF	20%	50V
C47	1-162-209-31	CERAMIC	C219	1-124-464-11	ELECT	0.22MF	20%	50V
C48A	1-162-217-31	CERAMIC	C220	1-124-927-11	ELECT	4.7MF	20%	50V
C48B	1-162-217-31	CERAMIC	C221	1-123-875-11	ELECT	10MF	20%	50V
C61A	1-162-289-31	CERAMIC	C222	1-126-233-11	ELECT	22MF	20%	50V
C61B	1-162-289-31	CERAMIC	C224	1-123-875-11	ELECT	10MF	20%	50V
C62A	1-136-157-00	FILM	C225	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C62B	1-136-157-00	FILM	C226	1-126-233-11	ELECT	22MF	20%	50V
C63A	1-124-282-00	ELECT	C301	1-123-875-11	ELECT	10MF	20%	50V
C63B	1-124-282-00	ELECT	C302	1-123-875-11	ELECT	10MF	20%	50V
C64	1-162-288-31	CERAMIC	C303	1-123-875-11	ELECT	10MF	20%	50V
C65	1-136-273-91	FILM	C304	1-123-875-11	ELECT	10MF	20%	50V
C67	1-162-209-31	CERAMIC	C305	1-124-477-11	ELECT	47MF	20%	25V
C68A	1-162-217-31	CERAMIC	C306	1-124-477-11	ELECT	47MF	20%	25V
C68B	1-162-217-31	CERAMIC	C307	1-124-120-11	ELECT	220MF	20%	16V
C81A	1-126-101-11	ELECT	C308	1-124-120-11	ELECT	220MF	20%	16V
C81B	1-126-101-11	ELECT	C309	1-123-875-11	ELECT	10MF	20%	50V
C82A	1-126-101-11	ELECT	C310	1-123-875-11	ELECT	10MF	20%	50V
C82B	1-126-101-11	ELECT	C311	1-124-443-00	ELECT	100MF	20%	10V
C83	1-124-791-11	ELECT	C312	1-126-233-11	ELECT	22MF	20%	50V
C84	1-124-925-11	ELECT	C313	1-123-875-11	ELECT	10MF	20%	50V
C85	1-130-480-00	MYLAR	C314	1-123-875-11	ELECT	10MF	20%	50V
C86	1-130-476-00	MYLAR	C315	1-124-791-11	ELECT	1MF	20%	50V
C87	1-130-476-00	MYLAR	C316	1-124-902-00	ELECT	0.47MF	20%	50V
C88	1-136-562-11	FILM	C317	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C89B	1-161-494-00	CERAMIC	C318	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V
C89	1-136-554-11	FILM	C319	1-124-925-11	ELECT	2.2MF	20%	50V
C90	1-136-553-11	FILM	C320	1-124-925-11	ELECT	2.2MF	20%	50V
C101	1-124-925-11	ELECT	C321	1-124-927-11	ELECT	4.7MF	20%	50V
C102	1-163-009-11	CERAMIC CHIP	C701	1-164-159-11	CERAMIC	0.1MF		50V
C103	1-124-443-00	ELECT	C702	1-164-159-11	CERAMIC	0.1MF		50V
C104	1-123-875-11	ELECT	C703	1-124-563-11	ELECT	2200MF	20%	25V
C105	1-163-017-00	CERAMIC CHIP	C704	1-124-480-11	ELECT	470MF	20%	25V
C106	1-136-161-00	FILM	C705	1-124-120-11	ELECT	220MF	20%	16V
C107	1-123-875-11	ELECT	C706	1-124-360-00	ELECT	1000MF	20%	16V
C108	1-164-161-11	CERAMIC CHIP	C707	1-124-477-11	ELECT	47MF	20%	25V
C110	1-131-587-11	TANTALUM	C708	1-124-472-11	ELECT	470MF	20%	10V
C118	1-124-927-11	ELECT	C709	1-164-159-11	CERAMIC	0.1MF		50V
C119	1-124-464-11	ELECT	C710	1-164-159-11	CERAMIC	0.1MF		50V
C120	1-124-927-11	ELECT	C711	1-124-472-11	ELECT	470MF	20%	10V
C121	1-123-875-11	ELECT	C712	1-164-159-11	CERAMIC	0.1MF		50V
C122	1-126-233-11	ELECT	C713	1-164-159-11	CERAMIC	0.1MF		50V
			C714	1-124-472-11	ELECT	470MF	20%	10V

Ref.No	Part No.	Description				Ref.No	Part No.	Description
C715	1-124-791-11	ELECT	1MF	20%	50V	D815	8-719-311-05	DIODE SEL3213C-D
C716	1-124-482-11	ELECT	33MF	20%	25V	HP11	A-2003-503-A	(DECK A)....PC BOARD ASSY, HEAD
C717	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	HRP11	A-2003-504-A	(DECK B)....PC BOARD ASSY, HEAD
C801	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	IC81A	8-759-111-44	IC UPC4570C-1
C802	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	IC81B	8-759-111-44	IC UPC4570C-1
C803	1-124-443-00	ELECT	100MF	20%	10V	IC301	8-759-939-73	IC BA3308
C804	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	IC303	8-752-033-61	IC CXA1198AP
C805	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	IC304	8-759-009-05	IC MC14051BF
C806	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	IC305	8-759-009-07	IC MC14053BF
C807	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	IC306	8-759-945-58	IC RC4558P
C808	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	IC307	8-759-945-58	IC RC4558P
C809	1-126-176-11	ELECT	220MF	20%	10V	IC308	8-759-009-07	IC MC14053BF
C810	1-124-925-11	ELECT	2.2MF	20%	50V	IC309	8-752-032-05	IC CXA1101M
C811	1-124-927-11	ELECT	4.7MF	20%	50V	IC701	8-759-604-86	IC M5F7807L
C812	1-124-925-11	ELECT	2.2MF	20%	50V	IC702	8-759-604-90	IC M5F7907L
C813	1-164-159-11	CERAMIC	0.1MF		50V	IC801	8-759-632-53	IC M50964-212FP
C814	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	L41	1-410-780-11	INDUCTOR 27MMH
CN84	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				L61	1-410-780-11	INDUCTOR 27MMH
CNP11A	1-564-501-11	PIN, CONNECTOR 8P				L801	1-408-080-00	INDUCTOR 100UH
CNP11B	1-506-615-11	PIN, CONNECTOR 9P				LPF101	1-236-087-11	FILTER, LOW PASS
CNP12A	*1-564-337-00	PIN, CONNECTOR 3P				LPF201	1-236-087-11	FILTER, LOW PASS
CNP12B	*1-564-337-61	PIN, CONNECTOR 3P				M11A	X-3343-447-1	MOTOR ASSY
CNP13A	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P				M11B	X-3343-447-1	MOTOR ASSY
CNP13B	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P				PM11A	1-454-456-11	SOLENOID, PLUNGER
CNP81A	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P				PM11B	1-454-456-11	SOLENOID, PLUNGER
CNP81B	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P				Q11A	8-729-119-76	TRANSISTOR 2SA1175-HFE
CNP82A	*1-564-339-00	PIN, CONNECTOR 5P				Q11B	8-729-119-76	TRANSISTOR 2SA1175-HFE
CNP82B	*1-564-339-61	PIN, CONNECTOR 5P				Q12A	8-719-939-23	PHOTO TRANSISTOR GP2S09-C
CNP83	*1-564-338-61	PIN, CONNECTOR 4P				Q12B	8-719-939-23	PHOTO TRANSISTOR GP2S09-C
CNP84	*1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				Q81	8-729-111-29	TRANSISTOR 2SD1616A-K
CNP301	*1-569-624-11	SOCKET, CONNECTOR 17P				Q82	8-729-142-46	TRANSISTOR 2SC2001-LK
CNP801	*1-564-338-00	PIN, CONNECTOR 4P				Q83	8-729-142-46	TRANSISTOR 2SC2001-LK
CNP802	*1-564-337-00	PIN, CONNECTOR 3P				Q101	8-729-900-98	TRANSISTOR DTC143TK
CNP803	*1-564-338-61	PIN, CONNECTOR 4P				Q102	8-729-901-78	TRANSISTOR 2SC2412K-R
CNP804	*1-564-337-71	PIN, CONNECTOR 3P				Q103	8-729-900-98	TRANSISTOR DTC143TK
D11A	8-719-107-94	DIODE 1SS132				Q201	8-729-900-98	TRANSISTOR DTC143TK
D11B	8-719-107-94	DIODE 1SS132				Q202	8-729-901-78	TRANSISTOR 2SC2412K-R
D81	8-719-107-94	DIODE 1SS132				Q203	8-729-900-98	TRANSISTOR DTC143TK
D301	8-719-912-20	DIODE 1SS120				Q301	8-729-900-53	TRANSISTOR DTC114EK
D302	8-719-933-48	DIODE HZS7B3L				Q302	8-729-901-04	TRANSISTOR DTA114EK
D303	8-719-933-48	DIODE HZS7B3L				Q303	8-729-900-98	TRANSISTOR DTC143TK
D304	8-719-912-20	DIODE 1SS120				Q304	8-729-216-22	TRANSISTOR 2SA1162
D701	8-719-200-82	DIODE 11ES2				Q305	8-729-901-04	TRANSISTOR DTA114EK
D702	8-719-200-82	DIODE 11ES2				Q306	8-729-901-04	TRANSISTOR DTA114EK
D703	8-719-200-82	DIODE 11ES2				Q307	8-729-901-04	TRANSISTOR DTA114EK
D704	8-719-200-82	DIODE 11ES2				Q308	8-729-901-04	TRANSISTOR DTA114EK
D705	8-719-912-20	DIODE 1SS120				Q701	8-729-901-78	TRANSISTOR 2SC2412K-R
D706	8-719-912-20	DIODE 1SS120				Q702	8-729-920-98	TRANSISTOR 2SD1761-EF
D709	8-719-910-25	DIODE HZS12B2L				Q703	8-729-901-78	TRANSISTOR 2SC2412K-R
D710	8-719-933-41	DIODE HZS6C3L				Q704	8-729-920-98	TRANSISTOR 2SD1761-EF
D711	8-719-210-21	DIODE 11EQS04				Q705	8-729-901-78	TRANSISTOR 2SC2412K-R
D801	8-719-200-82	DIODE 11ES2				Q706	8-729-901-78	TRANSISTOR 2SC2412K-R
D802	8-719-200-82	DIODE 11ES2				Q801	8-729-216-22	TRANSISTOR 2SA1162
D803	8-719-200-82	DIODE 11ES2				Q802	8-729-801-84	TRANSISTOR 2SB1013-4
D804	8-719-912-20	DIODE 1SS120				Q803	8-729-801-84	TRANSISTOR 2SB1013-4
D805	8-719-912-20	DIODE 1SS120				Q804	8-729-801-84	TRANSISTOR 2SB1013-4
D806	8-719-942-15	DIODE MPG3877S				Q805	8-729-801-84	TRANSISTOR 2SB1013-4
D807	8-719-942-15	DIODE MPG3877S				Q806	8-729-801-84	TRANSISTOR 2SB1013-4
D808	8-719-942-15	DIODE MPG3877S				Q807	8-729-901-04	TRANSISTOR DTA114EK
D809	8-719-942-15	DIODE MPG3877S				Q808	8-729-901-04	TRANSISTOR DTA114EK
D810	8-719-310-04	DIODE SEL4925A-D				Q811	8-729-216-22	TRANSISTOR 2SA1162
D811	8-719-312-38	DIODE SEL4225C-D						
D812	8-719-942-15	DIODE MPG3877S						
D813	8-719-311-05	DIODE SEL3213C-D						





Ref.No	Part No.	Description			
Q812	8-729-216-22	TRANSISTOR 2SA1162			
Q813	8-729-216-22	TRANSISTOR 2SA1162			
Q814	8-729-900-53	TRANSISTOR DTC114EK			
Q816	8-729-216-22	TRANSISTOR 2SA1162			
Q817	8-729-901-04	TRANSISTOR DTA114EK			
Q818	8-729-900-53	TRANSISTOR DTC114EK			
<b>RESISTOR</b>					
R11B	1-247-834-11	CARBON	1.3K	5%	1/4W
R12B	1-249-414-11	CARBON	560	5%	1/4W
R13B	1-247-818-11	CARBON	300	5%	1/4W
R14A	1-249-408-11	CARBON	180	5%	1/4W
R14B	1-249-408-11	CARBON	180	5%	1/4W
R17A	1-249-437-11	CARBON	47K	5%	1/4W
R17B	1-249-437-11	CARBON	47K	5%	1/4W
R18A	1-249-437-11	CARBON	47K	5%	1/4W
R18B	1-249-437-11	CARBON	47K	5%	1/4W
R41A	1-247-881-00	CARBON	120K	5%	1/4W
R41B	1-247-881-00	CARBON	120K	5%	1/4W
R42A	1-249-405-11	CARBON	100	5%	1/4W
R42B	1-249-405-11	CARBON	100	5%	1/4W
R43A	1-247-882-11	CARBON	130K	5%	1/4W
R43B	1-247-882-11	CARBON	130K	5%	1/4W
R44A	1-249-426-11	CARBON	5.6K	5%	1/4W
R44B	1-249-426-11	CARBON	5.6K	5%	1/4W
R45	1-249-430-11	CARBON	12K	5%	1/4W
R61A	1-247-881-00	CARBON	120K	5%	1/4W
R61B	1-247-881-00	CARBON	120K	5%	1/4W
R62A	1-249-405-11	CARBON	100	5%	1/4W
R62B	1-249-405-11	CARBON	100	5%	1/4W
R63A	1-247-882-11	CARBON	130K	5%	1/4W
R63B	1-247-882-11	CARBON	130K	5%	1/4W
R64A	1-249-426-11	CARBON	5.6K	5%	1/4W
R64B	1-249-426-11	CARBON	5.6K	5%	1/4W
R65	1-249-430-11	CARBON	12K	5%	1/4W
R81A	1-249-409-11	CARBON	220	5%	1/4W
R81B	1-249-409-11	CARBON	220	5%	1/4W
R82A	1-249-409-11	CARBON	220	5%	1/4W
R82B	1-249-409-11	CARBON	220	5%	1/4W
R83	1-249-429-11	CARBON	10K	5%	1/4W
R84	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R85	1-249-435-11	CARBON	33K	5%	1/4W
R86	1-249-435-11	CARBON	33K	5%	1/4W
R101	1-216-084-00	METAL GLAZE	30K	5%	1/10W
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R103	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R104	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R105	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R106	1-216-068-00	METAL GLAZE	6.2K	5%	1/10W
R107	1-216-043-00	METAL GLAZE	560	5%	1/10W
R108	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R109	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R110	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R111	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R112	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R113	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R114	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R120	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R121	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R122	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R123	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R124	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R125	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R126	1-216-060-00	METAL GLAZE	3K	5%	1/10W
R127	1-216-037-00	METAL GLAZE	330	5%	1/10W

Ref.No	Part No.	Description			
R128	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R129	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R130	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R131	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R132	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R133	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R201	1-216-084-00	METAL GLAZE	30K	5%	1/10W
R202	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R203	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R204	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R205	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R206	1-216-068-00	METAL GLAZE	6.2K	5%	1/10W
R207	1-216-043-00	METAL GLAZE	560	5%	1/10W
R208	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R209	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R210	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R211	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R212	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R213	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R214	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R220	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R221	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R222	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R223	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R225	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R226	1-216-060-00	METAL GLAZE	3K	5%	1/10W
R227	1-216-037-00	METAL GLAZE	330	5%	1/10W
R228	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R229	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R230	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R231	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R232	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R233	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R301	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R302	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R303	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R304	1-216-052-00	METAL GLAZE	1.3K	5%	1/10W
R305	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R306	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R307	1-249-409-11	CARBON	220	5%	1/4W
R308	1-249-409-11	CARBON	220	5%	1/4W
R309	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R310	1-249-417-11	CARBON	1K	5%	1/4W
R311	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W
R312	1-249-437-11	CARBON	47K	5%	1/4W
R313	1-216-025-00	METAL GLAZE	100	5%	1/10W
R314	1-249-409-11	CARBON	220	5%	1/4W
R316	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R317	1-216-037-00	METAL GLAZE	330	5%	1/10W
R318	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R319	1-215-460-00	METAL	43K	1%	1/6W
R320	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R321	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R322	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R323	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R325	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R332	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R333	1-216-748-11	METAL GLAZE	39K	5%	1/10W
R334	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R335	1-216-092-00	METAL GLAZE	62K	5%	1/10W
R336	1-216-088-00	METAL GLAZE	43K	5%	1/10W
R337	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R338	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R339	1-216-090-00	METAL GLAZE	51K	5%	1/10W

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description				
R340	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R341	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R342	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R343	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R344	1-216-090-00	METAL GLAZE	51K	5%	1/10W	
R345	1-216-092-00	METAL GLAZE	62K	5%	1/10W	
R346	1-216-082-00	METAL GLAZE	24K	5%	1/10W	
R347	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R348	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R349	1-216-098-00	METAL GLAZE	110K	5%	1/10W	
R350	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R351	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R352	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R353	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R354	1-216-092-00	METAL GLAZE	62K	5%	1/10W	
R355	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R356	1-216-092-00	METAL GLAZE	62K	5%	1/10W	
R357	1-216-088-00	METAL GLAZE	43K	5%	1/10W	
R358	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R359	1-216-102-00	METAL GLAZE	160K	5%	1/10W	
R360	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R361	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R362	1-216-092-00	METAL GLAZE	62K	5%	1/10W	
R363	1-216-090-00	METAL GLAZE	51K	5%	1/10W	
R364	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R365	1-216-094-00	METAL GLAZE	75K	5%	1/10W	
R366	1-216-098-00	METAL GLAZE	110K	5%	1/10W	
R367	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R368	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R369	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R370	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R371	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R372	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R373	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R374	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R375	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R376	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R377	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R378	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R379	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R701	△ 1-219-108-11	FUSIBLE	1.5	5%	1W	F
R702	1-249-423-11	CARBON	3.3K	5%	1/4W	
R703	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R704	△ 1-219-109-11	FUSIBLE	3.9	5%	1W	F
R705	△ 1-219-110-11	FUSIBLE	150	5%	1W	F
R706	△ 1-219-110-11	FUSIBLE	150	5%	1W	F
R707	1-249-425-11	CARBON	4.7K	5%	1/4W	
R708	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R709	1-249-419-11	CARBON	1.5K	5%	1/4W	
R710	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R711	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R712	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R713	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R715	1-249-417-11	CARBON	1K	5%	1/4W	
R716	1-249-405-11	CARBON	100	5%	1/4W	
R800	1-249-407-11	CARBON	150	5%	1/4W	
R801	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R802	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R803	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R804	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R805	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R806	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R807	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R808	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R809	1-249-393-11	CARBON	10	5%	1/4W	

Ref.No	Part No.	Description				
R810	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R811	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R812	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R813	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R814	1-249-393-11	CARBON	10	5%	1/4W	
R815	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R816	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R817	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R818	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R819	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R820	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R824	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R825	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R826	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R827	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R828	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R829	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R830	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R831	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R832	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R833	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R834	1-247-895-00	CARBON	470K	5%	1/4W	
R835	1-247-895-00	CARBON	470K	5%	1/4W	
R836	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R838	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R839	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R840	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R841	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R842	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R843	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R844	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R845	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R846	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R847	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R848	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R849	1-249-412-11	CARBON	390	5%	1/4W	
R851	1-249-416-11	CARBON	820	5%	1/4W	
R852	1-249-412-11	CARBON	390	5%	1/4W	
R853	1-249-411-11	CARBON	330	5%	1/4W	
R854	1-249-418-11	CARBON	1.2K	5%	1/4W	
R855	1-249-417-11	CARBON	1K	5%	1/4W	
R856	1-249-426-11	CARBON	5.6K	5%	1/4W	
R857	1-249-430-11	CARBON	12K	5%	1/4W	
R858	1-249-407-11	CARBON	150	5%	1/4W	
R859	1-249-409-11	CARBON	220	5%	1/4W	
R860	1-249-411-11	CARBON	330	5%	1/4W	
R862	1-247-832-11	CARBON	1.1K	5%	1/4W	
R863	1-249-417-11	CARBON	1K	5%	1/4W	
R864	1-249-420-11	CARBON	1.8K	5%	1/4W	
R865	1-249-424-11	CARBON	3.9K	5%	1/4W	
R867	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
RV41A	1-228-989-00	RES, ADJ. CARBON	470			
RV41B	1-228-989-00	RES, ADJ. CARBON	470			
RV42	1-230-500-11	RES, ADJ. CARBON	220K			
RV61A	1-228-989-00	RES, ADJ. CARBON	470			
RV61B	1-228-989-00	RES, ADJ. CARBON	470			
RV62	1-230-500-11	RES, ADJ. CARBON	220K			
RV101	1-228-995-00	RES, ADJ. CARBON	22K			
RV201	1-228-995-00	RES, ADJ. CARBON	22K			
RY81	1-515-614-11	RELAY				
S11A	1-571-281-21	SWITCH, LEAF (HALF DET)				
S11B	1-571-281-21	SWITCH, LEAF (HALF DET)				
S12B	1-571-281-21	SWITCH, LEAF (ERASE PROOF (A))				
S13B	1-571-281-21	SWITCH, LEAF (ERASE PROOF (B))				

**Note:** The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

<u>Ref.No</u>	<u>Part No.</u>	<u>Description</u>
S14A	1-571-281-21	SWITCH, LEAF (CrO <sub>2</sub> )
S14B	1-571-281-21	SWITCH, LEAF (CrO <sub>2</sub> )
S15B	1-571-281-21	SWITCH, LEAF (METAL)
S301	1-554-798-31	SWITCH, SLIDE (ISS)
S302	1-570-845-11	SWITCH, SLIDE (DOLBY NR)
S801	1-572-184-11	SWITCH, KEYBOARD (DECK A : ■)
S802	1-572-184-11	SWITCH, KEYBOARD (DECK A : ▷)
S803	1-572-184-11	SWITCH, KEYBOARD (DECK A : ◁)
S804	1-572-184-11	SWITCH, KEYBOARD (DECK A : ◀◀)
S805	1-572-184-11	SWITCH, KEYBOARD (DECK A : ▶▶)
S806	1-572-184-11	SWITCH, KEYBOARD (DECK B : ■)
S807	1-572-184-11	SWITCH, KEYBOARD ( II )
S808	1-572-184-11	SWITCH, KEYBOARD (DECK B : ▷)
S809	1-572-184-11	SWITCH, KEYBOARD (DECK B : ◁)
S811	1-572-184-11	SWITCH, KEYBOARD (DECK B : ◀◀)
S812	1-572-184-11	SWITCH, KEYBOARD (DECK B : ▶▶)
S813	1-572-184-11	SWITCH, KEYBOARD ( ● )
S814	1-572-184-11	SWITCH, KEYBOARD (AMS/BLANK SKID)
S815	1-572-184-11	SWITCH, KEYBOARD (HIGH SPEED)
S817	1-572-184-11	SWITCH, KEYBOARD (CD SYNCHRO)
S818	1-570-835-11	SWITCH, SLIDE (DIRECTION HODE)
T81	1-433-337-11	TRANSFORMER, BIAS OSCILLATION
X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)