

TC-H3800

SERVICE MANUAL

AEP Model
UK Model



TC-H3800 is the Cassette deck in MHC-3800

COMPACT
disc
DIGITAL AUDIO

Model Name Using Similar Mechanism		TC-H1700
Tape Transport Mechanism	DECK A	TCM-190RA12A
Type	DECK B	TCM-190RB22A

SPECIFICATIONS

Cassette Deck

Recording system 4-track 2-channel stereo
Frequency response (DOLBY NR OFF)
40 — 13,000 Hz (± 3 dB),
using TYPE I cassette
(Sony HF-S)
40 — 14,000 Hz (± 3 dB),
using TYPE II cassette
(Sony UX-S)
40 — 15,000 Hz (± 3 dB),
using TYPE IV cassette
(Sony METAL-S)
Wow and flutter 0.1% WRMS $\pm 0.3\%$ (DIN)

General

Power requirements
European model:
220 V — 230 V, 50/60 Hz
U.K. model:
240 V, 50 Hz
Power consumption 170 watts
Dimensions Approx. 225 x 390 x 280 mm
(w/h/d)
($8\frac{7}{8}$ x $15\frac{3}{8}$ x $11\frac{1}{8}$ inches)
incl. projecting parts and
controls
Mass Approx. 11.7 kg (25 lb 13 oz)

Supplied accessories

Remote Commander (1) (RM-S380)
Sony SUM-3 (NS)
batteries (2)
AM loop antenna (1)
FM antenna (1)
AC power cord (2)
Fiat cord (1)
Speaker cord (except for
Europe and U.K.) (2)

Design and specifications subject to change
without notice.

Note

This appliance conforms with EEC Directive
87/308/EEC regarding interference
suppression.

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

CASSETTE DECK
SONY®

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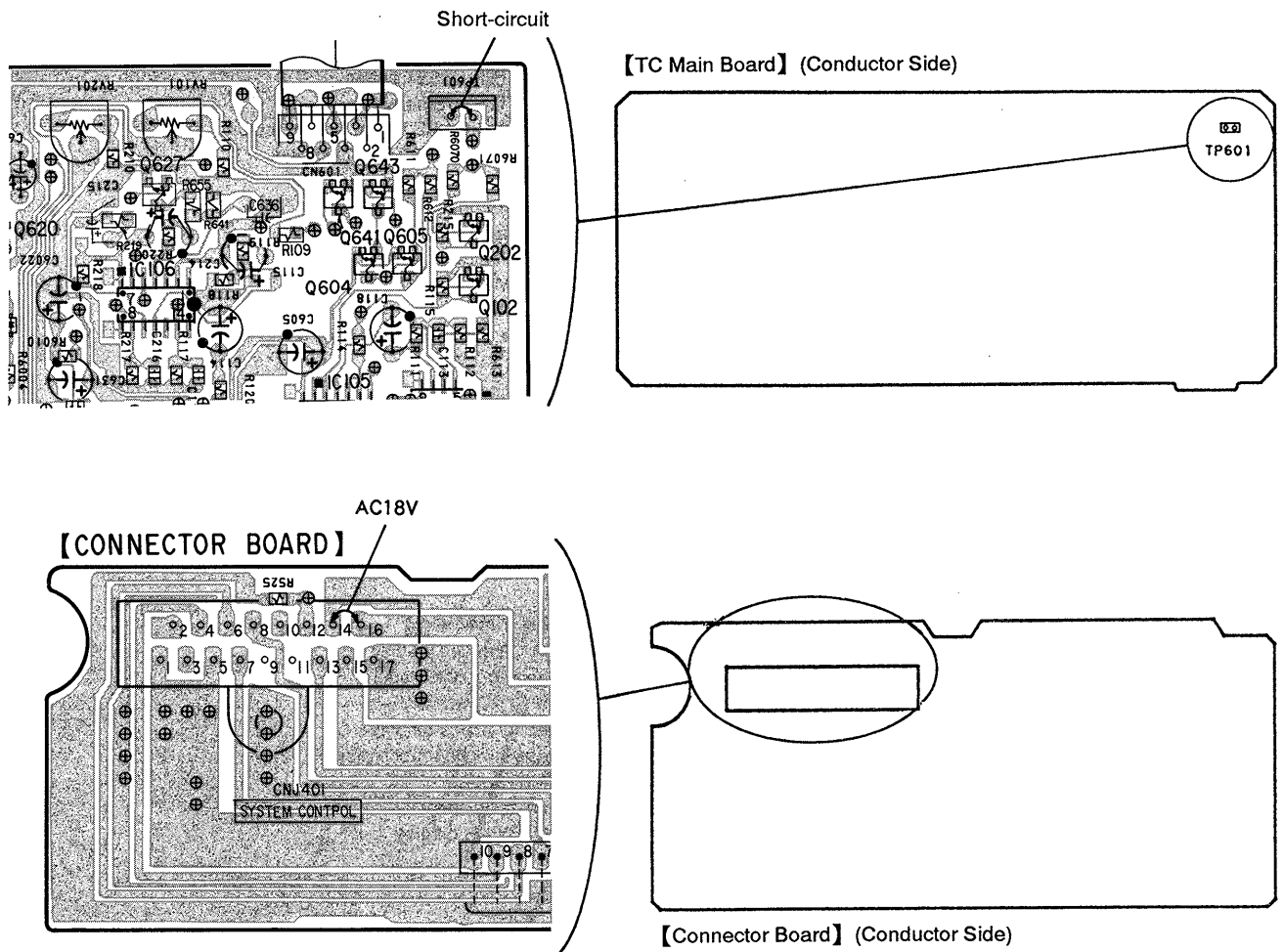
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  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.

PRECAUTIONS FOR REPAIRING

The power for this unit is normally supplied from the amplifier TA-H3800 by connecting it. When repairing it alone, first short-circuit TP601 of the TC main board as shown in the figure below and connect AC18V to Pins ⑬ and ⑭ of CNJ401 of the connector board.



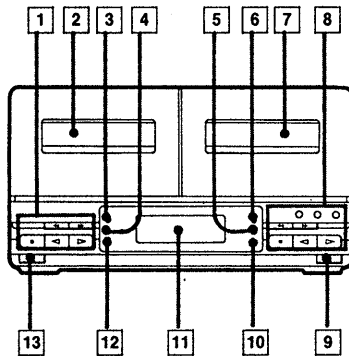
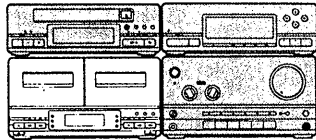
SECTION 1

GENERAL

This section is extracted from instruction manual.

Parts Identification

C



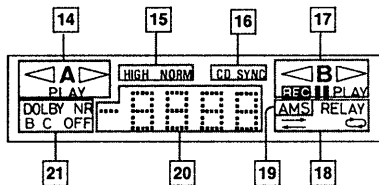
Cassette Deck Section **C**

- 1 Tape operation buttons (for Deck A)
 - ◀▶▶ AMS : Fast winding
 - : Stop
 - ▷ : Forward play
 - ◁ : Reverse play
- 2 Cassette holder (Deck A)
- 3 COUNTER RESET button
- 4 COUNTER A/B selector
- 5 DUBBING MODE button and indicator
- 6 CD SYNCHRO (CD synchronized recording) button and indicator
- 7 Cassette holder (Deck B)
- 8 Tape operation buttons (for Deck B)
 - || PAUSE button
 - MUTE button
 - REC button
 - ◀▶▶ AMS : Fast winding
 - : STOP
 - ▷ : Forward play
 - ◁ : Reverse play
- 9 EJECT button (Deck B)
- 10 DIRECTION MODE button
- 11 Display window
- 12 DOLBY NR (Dolby Noise Reduction) selection button
- 13 EJECT button (Deck A)

Display window **D**

- 14 Deck A status display
- 15 Dubbing mode display
- 16 CD SYNCHRO display
- 17 Deck B status display
- 18 Tape direction mode display
- 19 AMS display
- 20 Counter display
- 21 DOLBY NR display

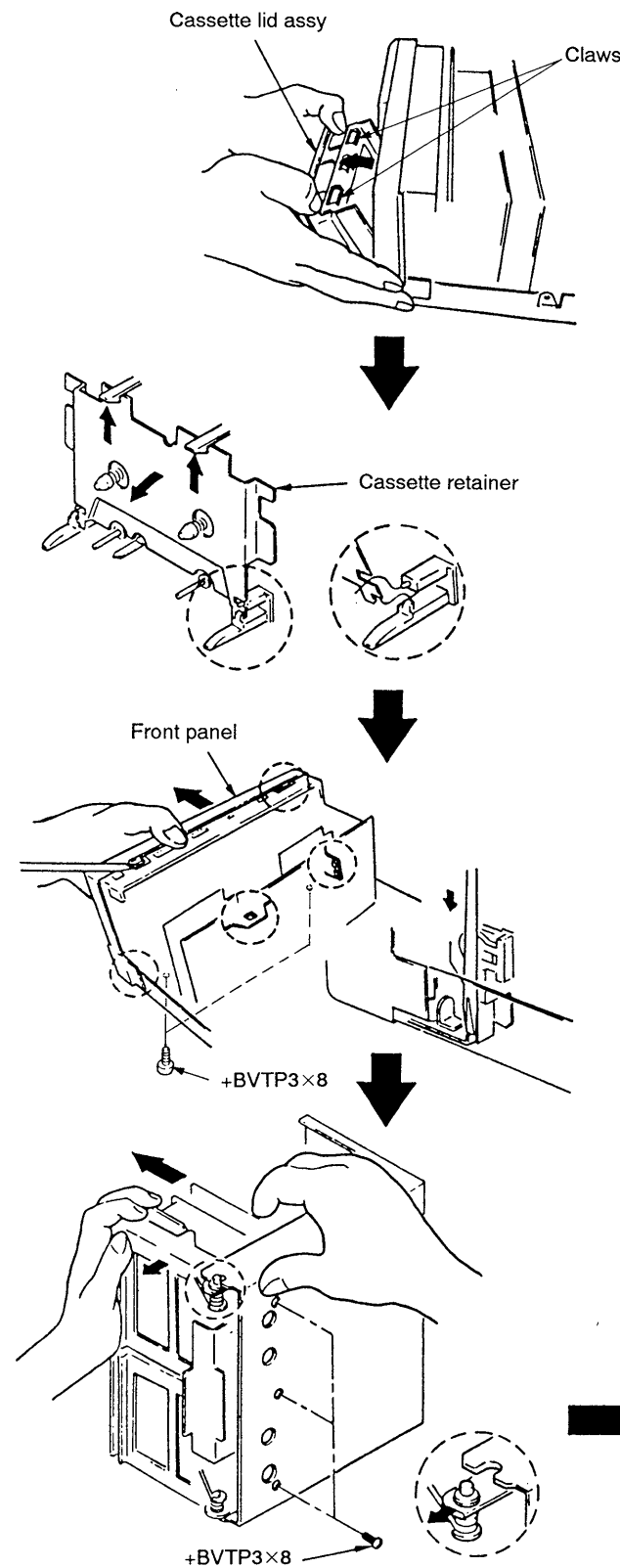
D



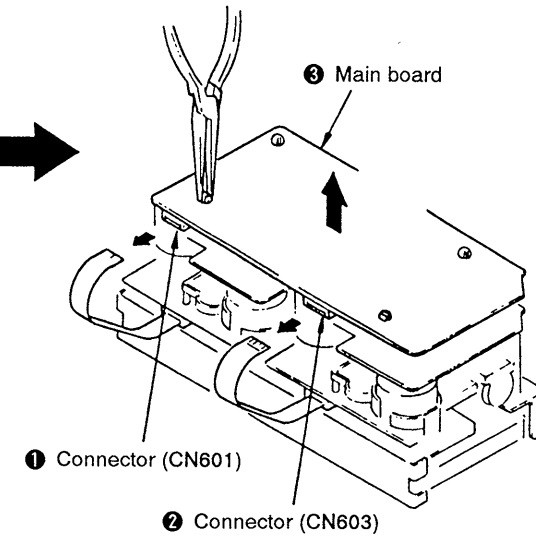
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

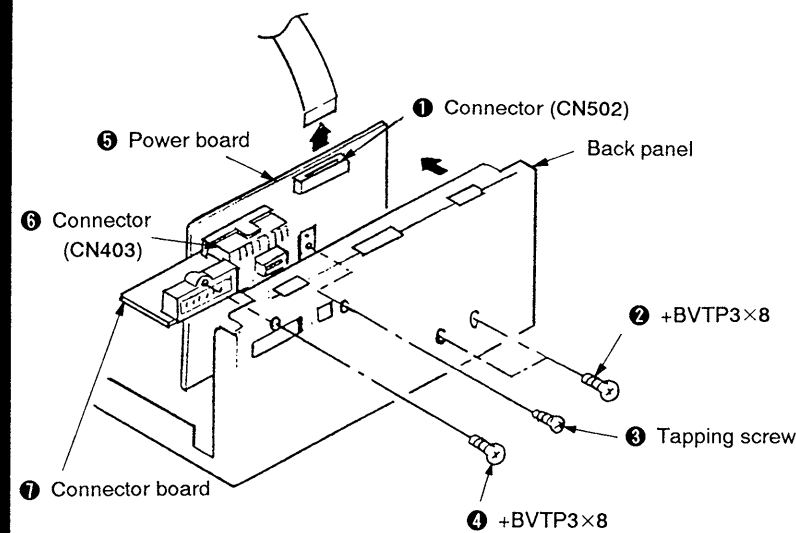
[FRONT PANEL]



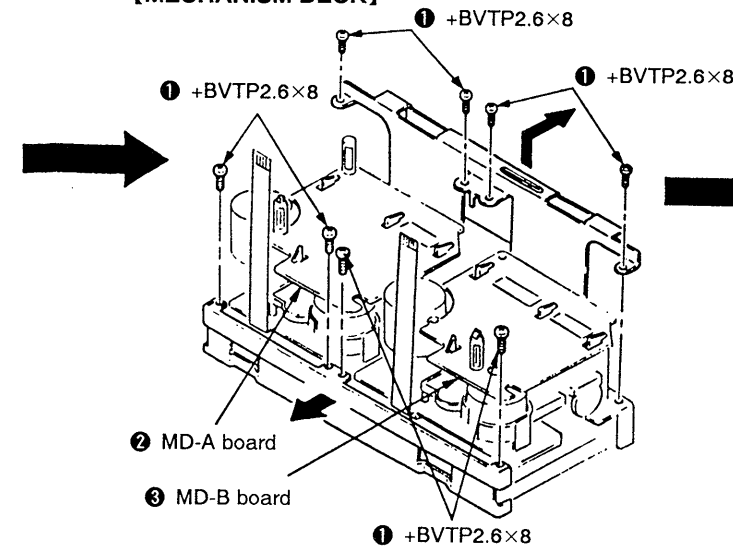
[TC MAIN BOARD]



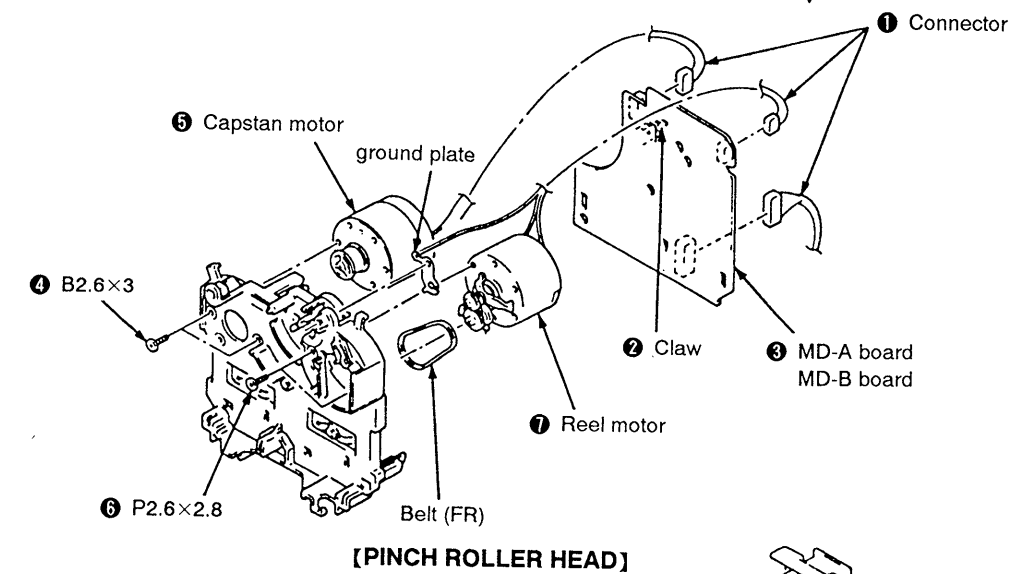
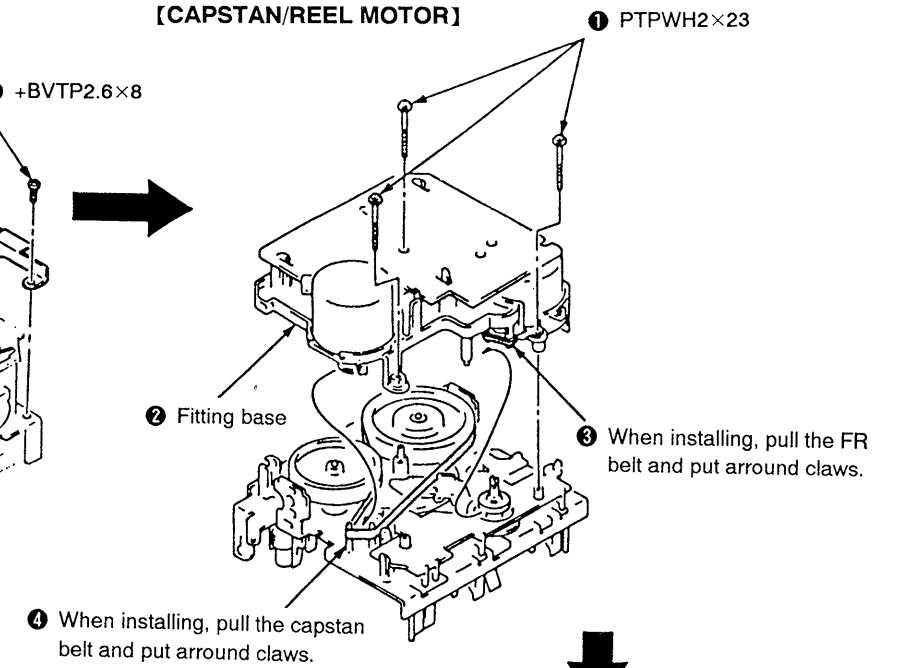
[POWER BOARD/CONNECTOR BOARD]



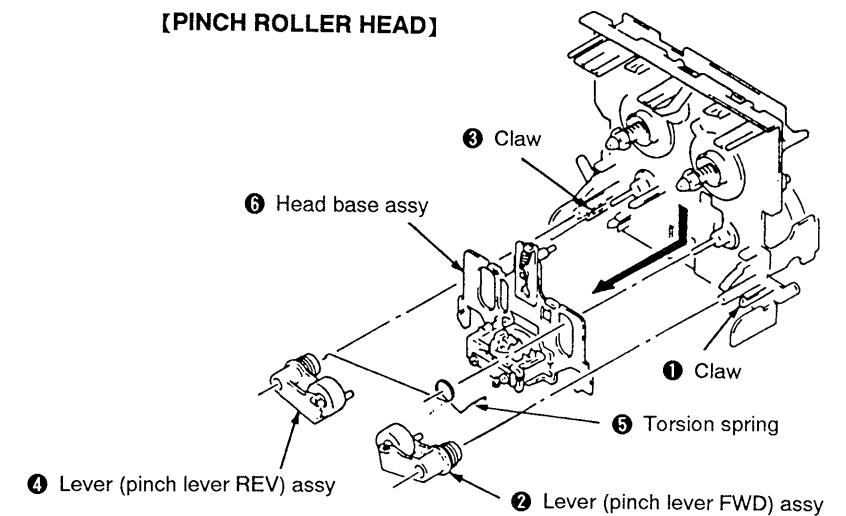
[MECHANISM DECK]



[CAPSTAN/REEL MOTOR]



[PINCH ROLLER HEAD]



SECTION 3 MECHANISM SECTION ADJUSTMENTS

PRECAUTIONS

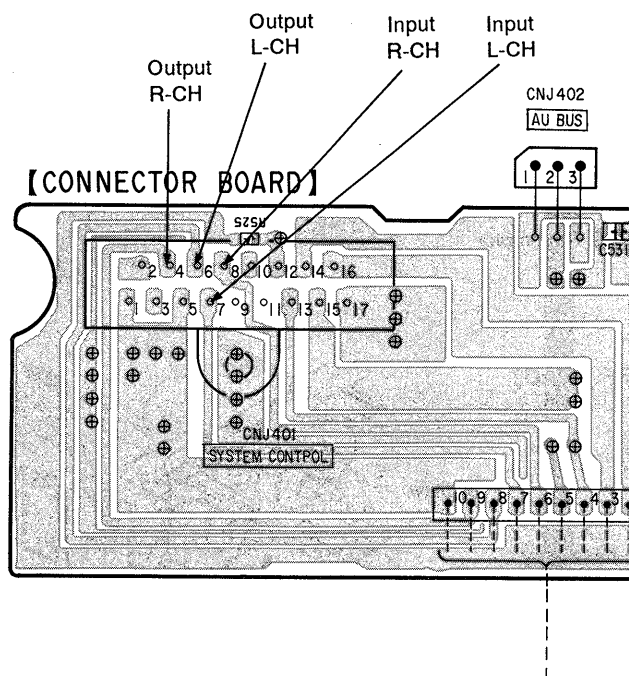
- Clean the following parts with a denatured alcoholmoistened swab:

record/playback head	pinch roller
erase head	rubber belt
capstan	idler
- Demagnetize the record/playback head with a head demagnetizer.
(Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustment.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustment should be performed with the rated power supply voltage unless otherwise noted.

[Torque Measurement]

Torque	Torque Meter	Meter Reading
FWD	CQ-102C	30 to 65 g•cm 0.42 – 0.9 oz•inch
FWD Back Tension	CQ-102C	1 to 6 g•cm 0.014 – 0.08 oz•inch
REV	CQ-102RC	30 to 65 g•cm 0.42 – 0.9 oz•inch
REV Back Tension	CQ-102RC	1 to 6 g•cm 0.014 – 0.08 oz•inch
EF, REW	CQ-201B	70 to 120 g•cm 0.97 – 1.65 oz•inch

LINE IN/OUT TERMINALS (CNJ401)



SECTION 4 ELECTRICAL ADJUSTMENTS

- The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
- The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch: OFF

Test tape

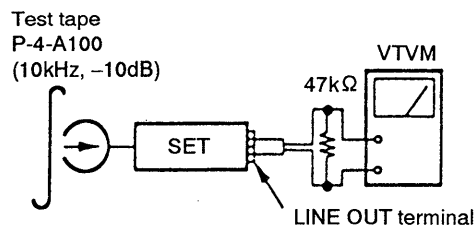
Tape	Contents	Used for
P-4-A100	10kHz, -10dB	Head Azimuth Adjustment
P-4-L300	315kHz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

[Record/playback Head Azimuth Adjustment]

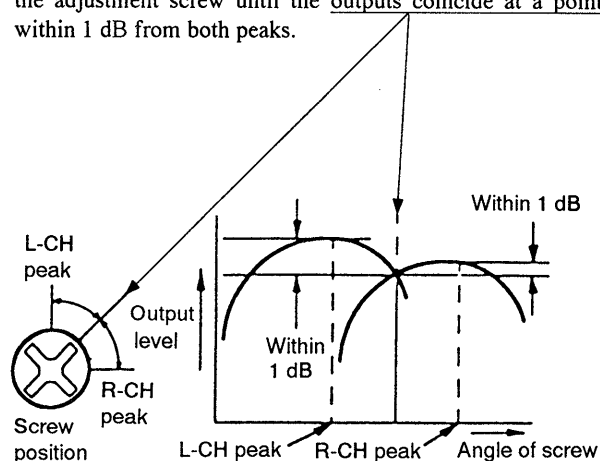
Deck A Deck B

Procedure:

- FWD/REV: Playback mode



- Turn the adjustment screw and check where the output peaks are. If the peaks of L-CH and R-CH do not coincide, turn the adjustment screw until the outputs coincide at a point within 1 dB from both peaks.

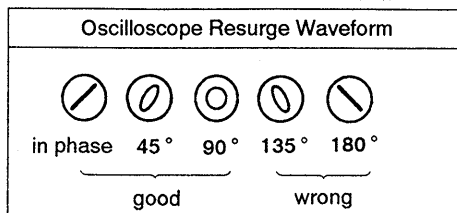
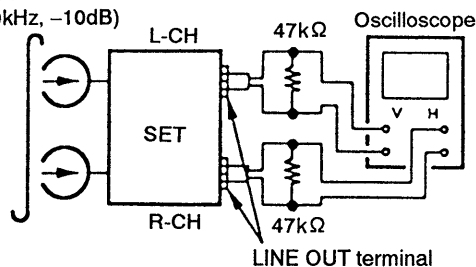


3. Playback Mode

Test tape

P-4-A100

(10kHz, -10dB)



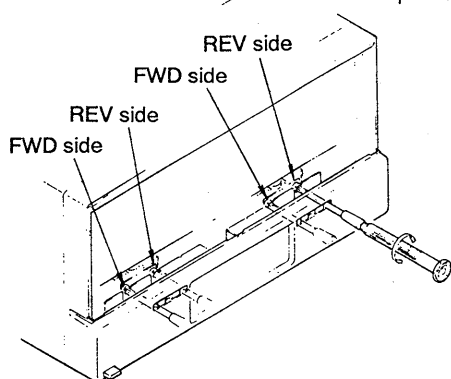
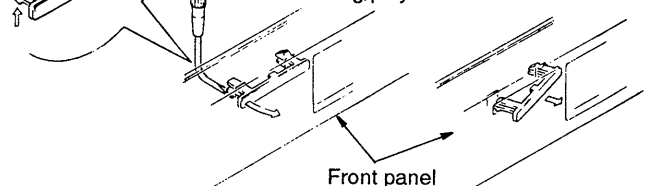
5. Ching the REV playback mode and repeat the steps 1 to 3.

6. After the adjustment, lock the adjustment screw with suitable locking compound.

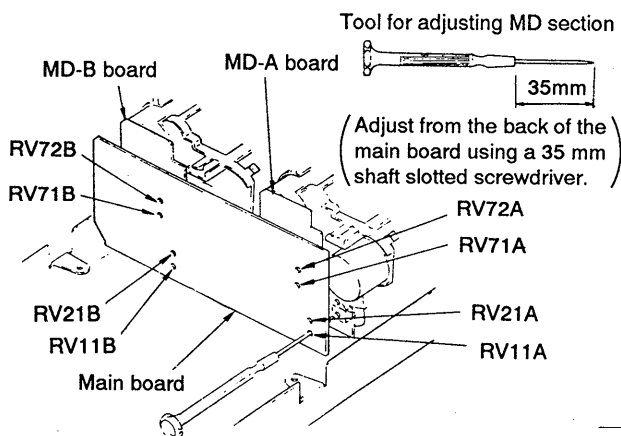
Adjustment Location: Record/playback head

Azimuth cover

- Removing the azimuth cover
Remove the stopper of the azimuth cover with a tool such as the L wrench, and adjust the recording/playback head.



Tape Speed/Playback Level Adjustment



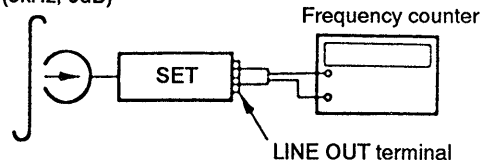
【Tape Speed Adjustment】 Deck A Deck B

Procedure:

- Adjust the high speed first, starting from Deck A and then Deck B.

— Playback Mode —

Test tape
WS-48B
(3kHz, 0dB)



(High Speed Adjustment)

1. Short-circuit TP601 (Main board) with the power off.
2. Turn on the power, press the DUB switch, and set high speed playback.
3. Set deck A into the FWD mode.
4. Adjust deck A: RV72A (H) so that the reading of the frequency counter becomes the specified value.
5. Stop deck A.
6. Carry out steps 2 to 5 for deck B in the same way.
7. After adjusting, short-circuit TP601.

(Normal Speed Adjustment)

1. Set the FWD playback mode.
2. Adjust deck A: RV71A (L), deck B: RV71B (L) so that the reading of the frequency counter becomes the adjustment value.

Adjustment Values:

High Speed	6000 ± 30Hz
Normal Speed	3000 ± 15Hz

Adjust so that the difference between tape top and tape end is within 3%. Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.5%.

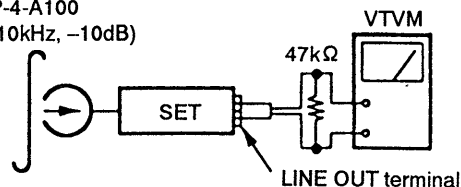
Adjustment Location: MD-A, B boards

【Playback Level Adjustment】 Deck A Deck B

Procedure:

— Playback Mode —

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



Adjust deck A: RV11A (L-CH), RV21A (R-CH), deck B: RV11B (L-CH), RV21B (R-CH) so that the output level is within the adjustment values specified.

Adjustment Level:

LINE OUT level: -7.0 to -8.0 dBs (0.31 to 0.34V)

Level Difference between Channels:

Within 0.5 dB

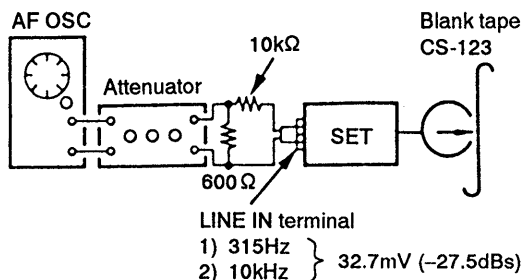
Check that the playback level does not change when playback and stop is repeated.

Adjustment Location: MD-A, B boards

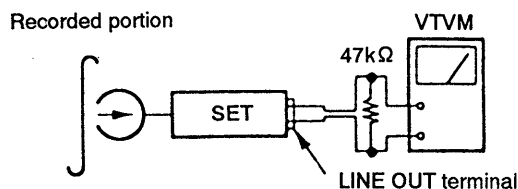
【Record Bias Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV12 (L-CH) and RV22 (R-CH), and repeat steps 1 and 2.

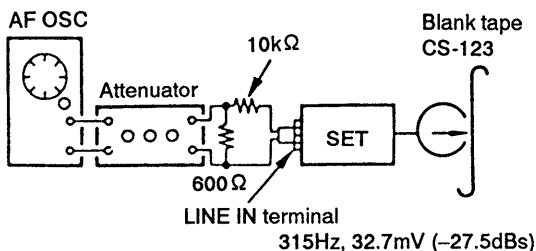
Adjustment Level: Playback output of 315 Hz to playback output of 10 kHz: -0.5 dBs to 0.5 dBs.

Adjustment Location: MD-B board

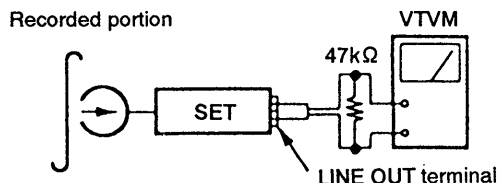
【Record Level Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV101 (L-CH) and RV201 (R-CH), and repeat steps 1 and 2.

Adjustment Level:

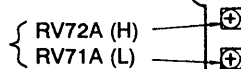
LINE OUT level: -27.0 dBs to -28.0 dBs (31 to 35 mV)

Adjustment Location: Main board

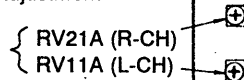
Adjustment Location:

【MD-A board】Component Side

Tape Speed Adjustment

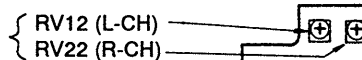


Playback Level Adjustment

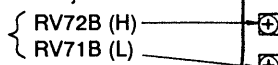


Record Bias Adjustment

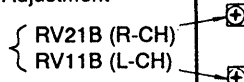
【MD-B board】Component Side



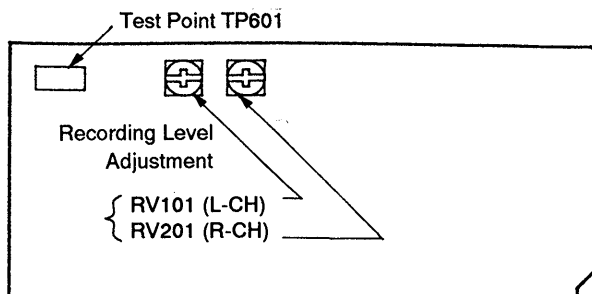
Tape Speed Adjustment



Playback Level Adjustment

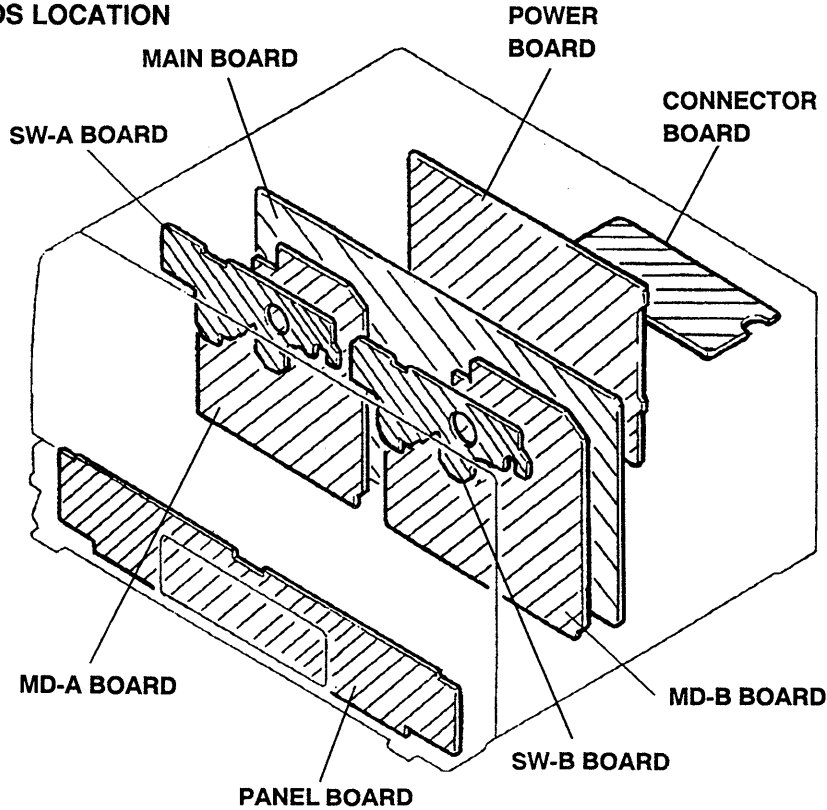


【Main board】Component Side



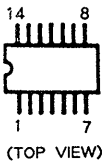
SECTION 5 DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION

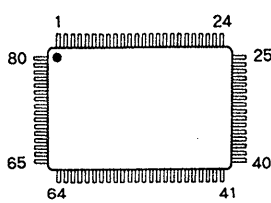


5-2. SEMICONDUCTOR LEAD LAYOUTS

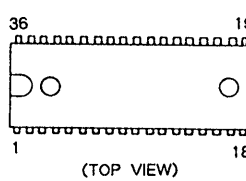
BA3308F
CD4066BCM



HD614023-FA93



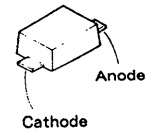
M50925-482FP



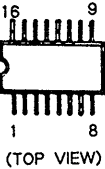
2SA1344



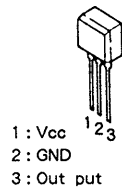
MA8056
MA8062
MA8091
02DZ2.0-TPH3



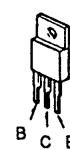
CD4052BCM
CXA1578M



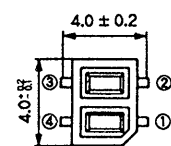
PST572E



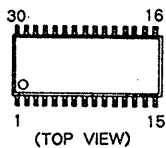
2SA473
2SD2012



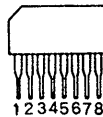
NJL5165K-B



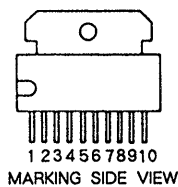
CXA1331M



M5230L-A



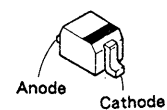
TA7272P



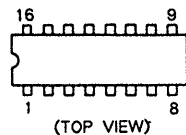
2SB1116



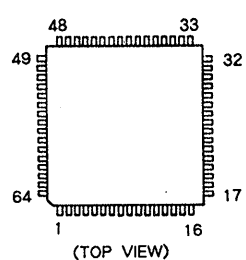
1SS352



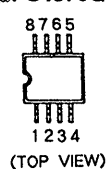
HD14053BFP



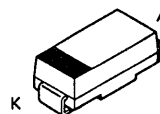
M38022M4-072FP



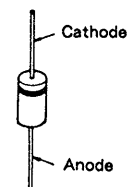
μPC4570G2



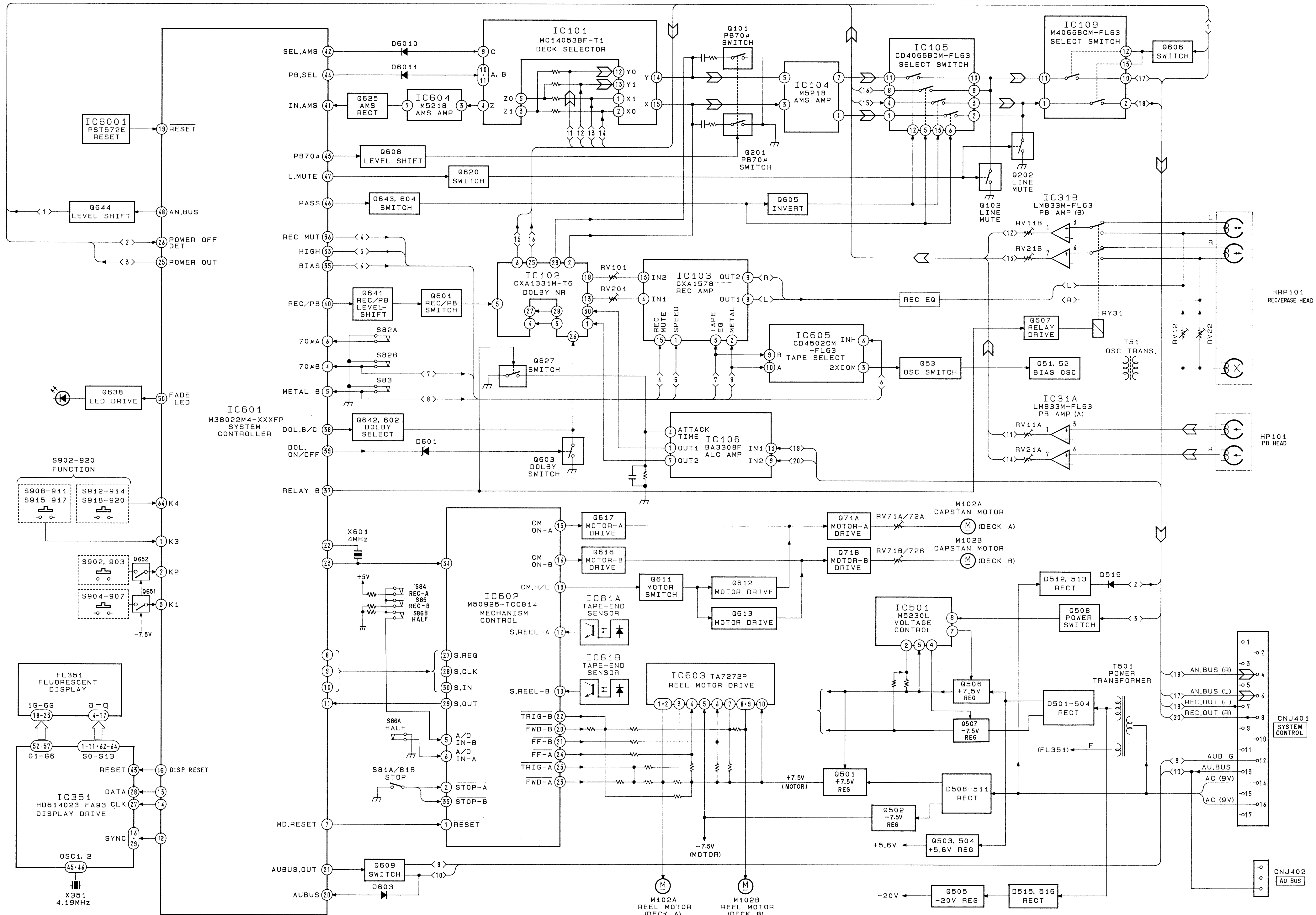
EC10DS2



10E2



5-3. BLOCK DIAGRAM



5-4. PRINTED WIRING BOARDS
• MAIN BOARD, PANEL BOARD Section

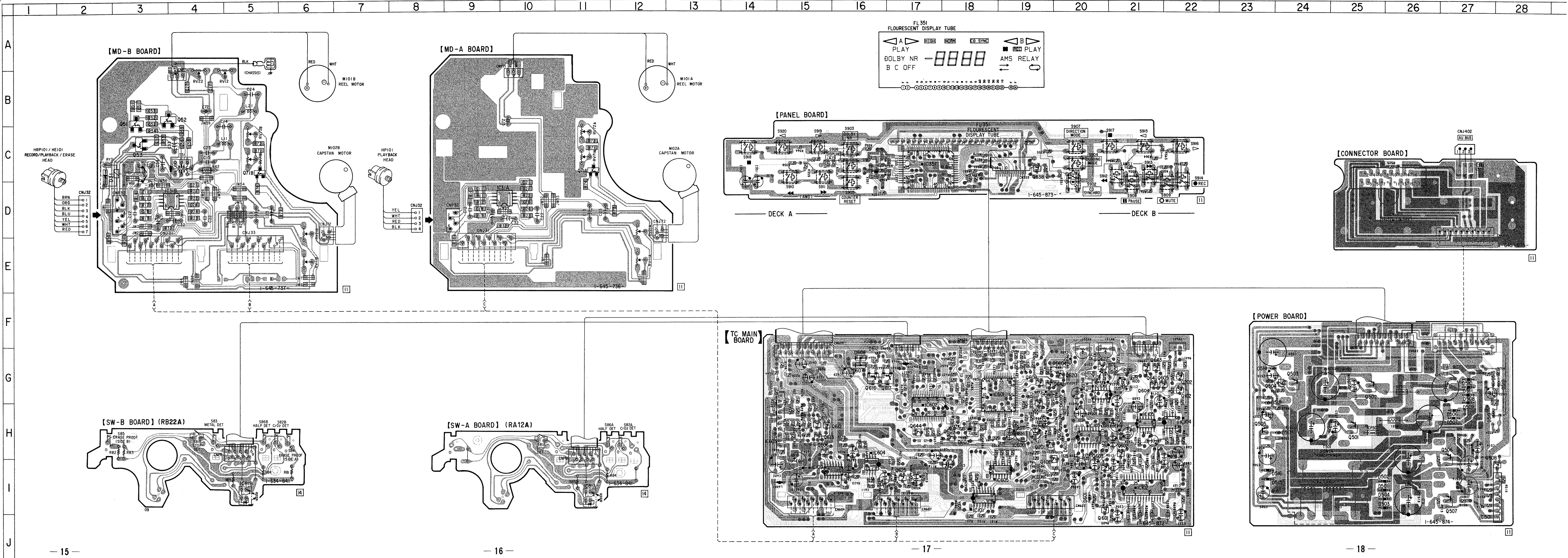
• See page 10 for Circuit Boards Location and Semiconductor Lead Layouts.

• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D31	C-2	IC802	G-17
D501	I-25	IC803	H-14
D502	I-25	IC804	H-16
D503	I-25	IC805	I-18
D504	I-25	IC6001	H-19
D506	H-27		
D507	H-27	Q51	B-3
D508	G-27	Q52	B-3
D509	G-27	Q53	C-3
D510	G-27	Q71A	C-11
D511	G-27	Q71B	C-5
D512	G-27	Q101	H-19
D513	G-27	Q102	G-22
D514	G-23	Q201	H-19
D515	I-23	Q202	G-22
D516	I-23	Q501	H-25
D517	H-23	Q502	G-25
D518	G-23	Q503	G-24
D519	H-27	Q504	G-23
D601	I-20	Q505	H-23
D602	I-16	Q506	H-27
D603	H-18	Q507	I-27
D604	G-19	Q508	H-27
D605	G-21	Q601	I-20
D607	G-16	Q602	H-21
D608	G-16	Q603	H-14
D609	H-19	Q604	G-21
D610	G-21	Q605	G-21
D612	F-16	Q606	H-15
D6010	G-19	Q607	G-19
D6011	H-19	Q608	G-19
		Q609	H-17
		Q611	H-15
IC31A	D-9	Q612	H-15
IC31B	D-3	Q613	H-15
IC81A	I-11	Q616	G-16
IC81B	I-5	Q617	G-16
IC101	I-18	Q620	G-19
IC102	I-21	Q625	I-17
IC103	H-20	Q627	G-20
IC104	H-21	Q638	C-19
IC105	H-21	Q641	G-21
IC106	G-20	Q642	G-19
IC109	I-15	Q643	G-21
IC351	C-17	Q644	H-17
IC501	I-27		
IC601	G-18		

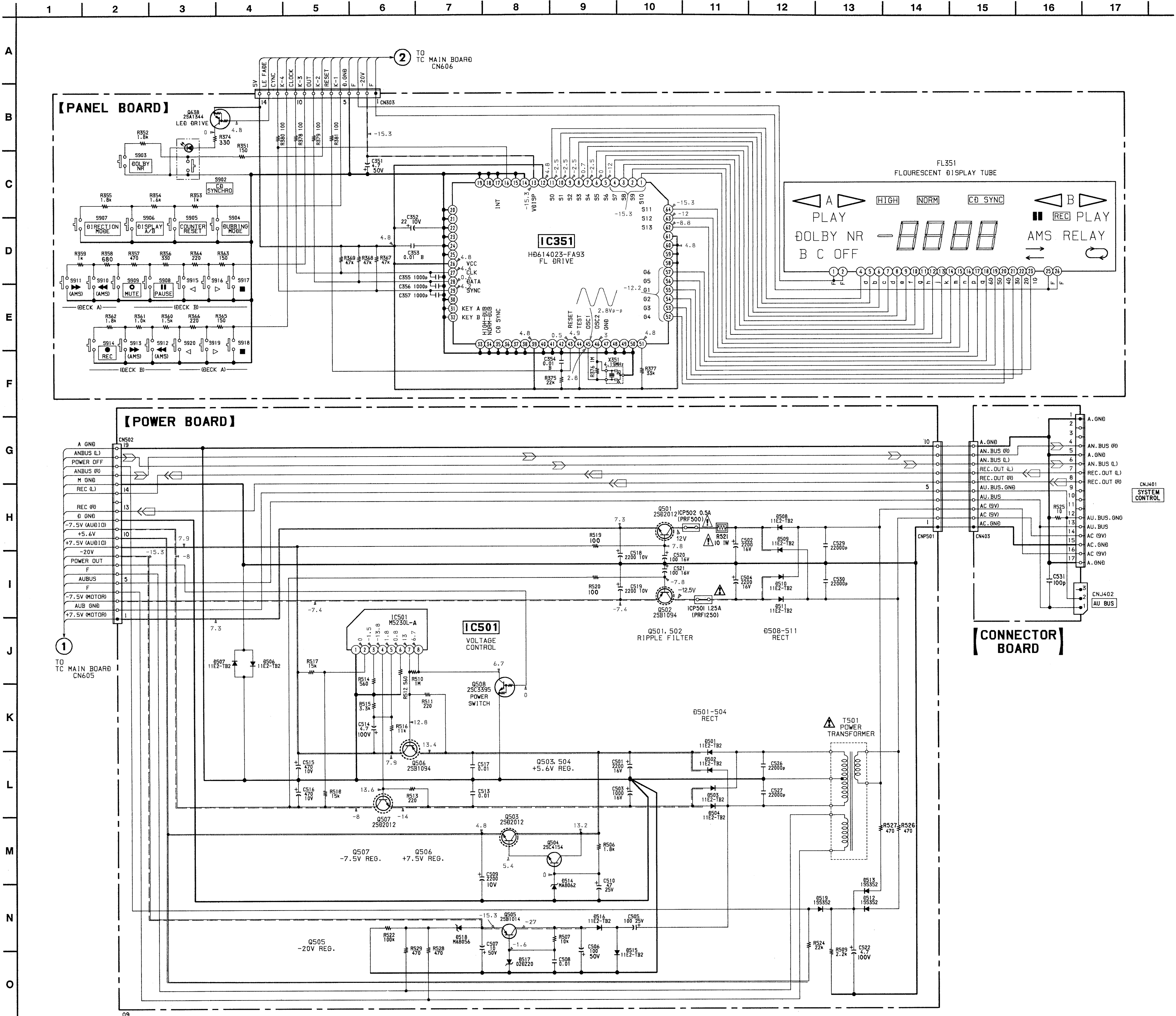
Note:

- : indicated a lead wire mounted on the component side.
- : indicated a lead wire mounted on the component side.
- ⊕ : indicated side identified with part number.
- : Parts mounted on the conductor side.
- ⊗ : Through hole.
- ⊙ : Pattern from the side which enables seeing.
- ⊞ : Pattern of the rear side.



5-6. SCHEMATIC DIAGRAMS
• PANEL BOARD Section

• See page 26 for IC Block Diagrams.



Note:

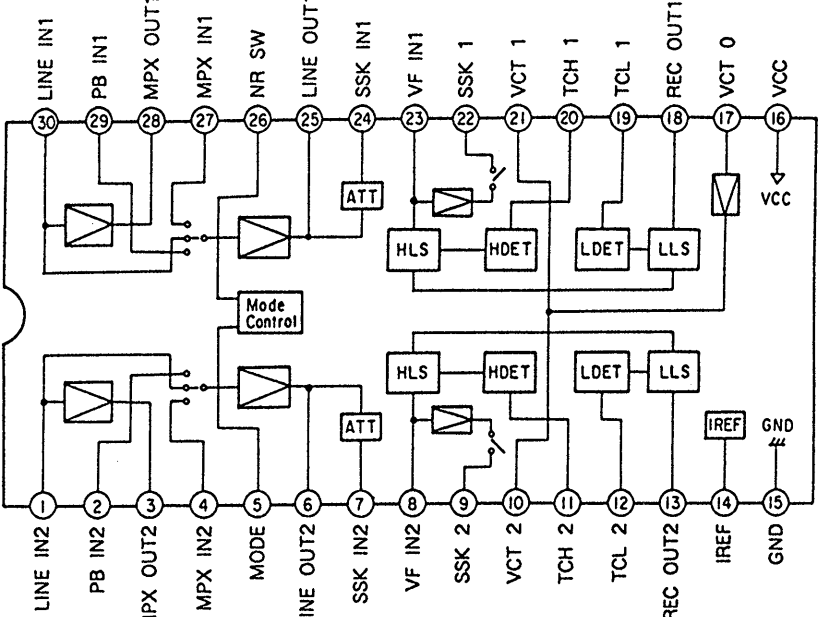
- All capacitors are in μ F unless otherwise noted, pF: μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- Δ : internal component.
- $\square$: nonflammable resistor.

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

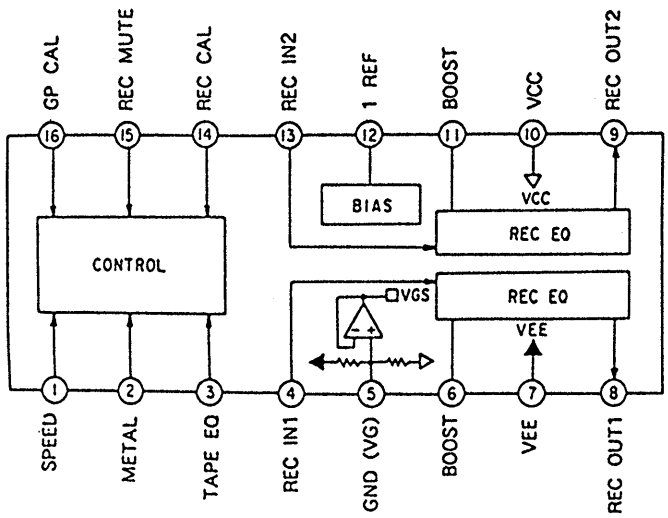
- —: B+ line
- ---: B- line
- $\square$: adjustment for repair.
- Voltage are DC between measurement points and ground under no-signal (STOP) conditions.
- no mark: STOP mode
- Voltages are taken with a VOM (input impedance 10M Ω).
- Voltage variations may be noted due to normal production tolerances.
- Signal path
- $\square$: PB (A DECK)
- $\square$: PB (B DECK)
- $\square$: REC (B DECK)

5-7. IC BLOCK DIAGRAMS

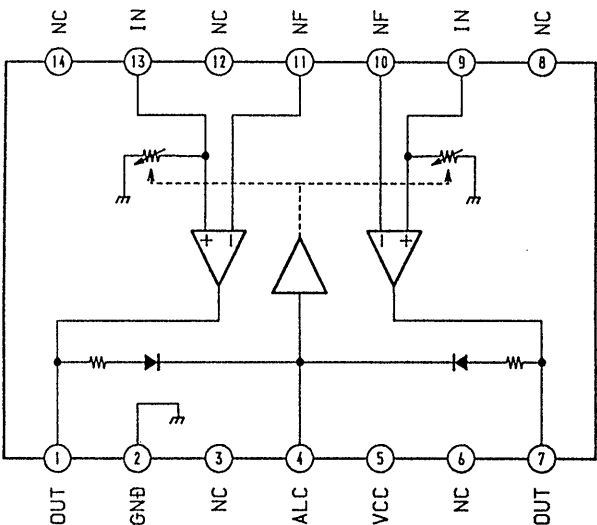
• IC102 CXA1131M



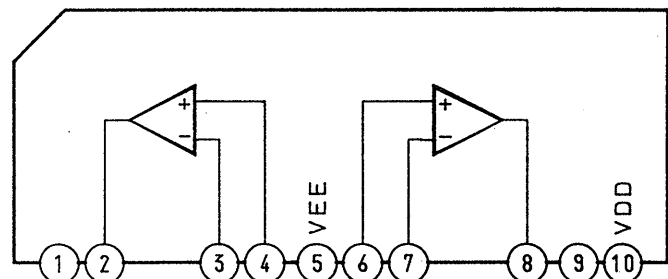
• IC103 CXA1578M



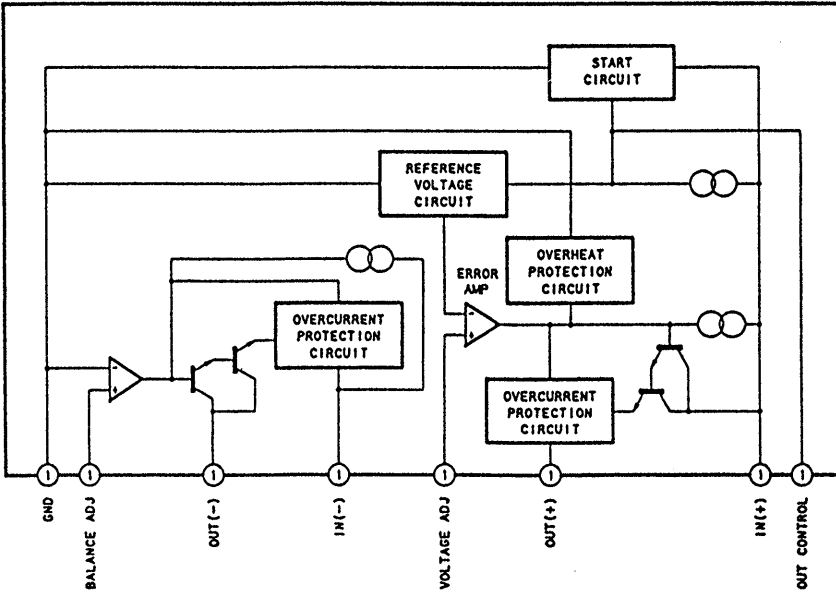
• IC106 BA3308F



• IC603 TA7272P



• IC501 M5230L-A



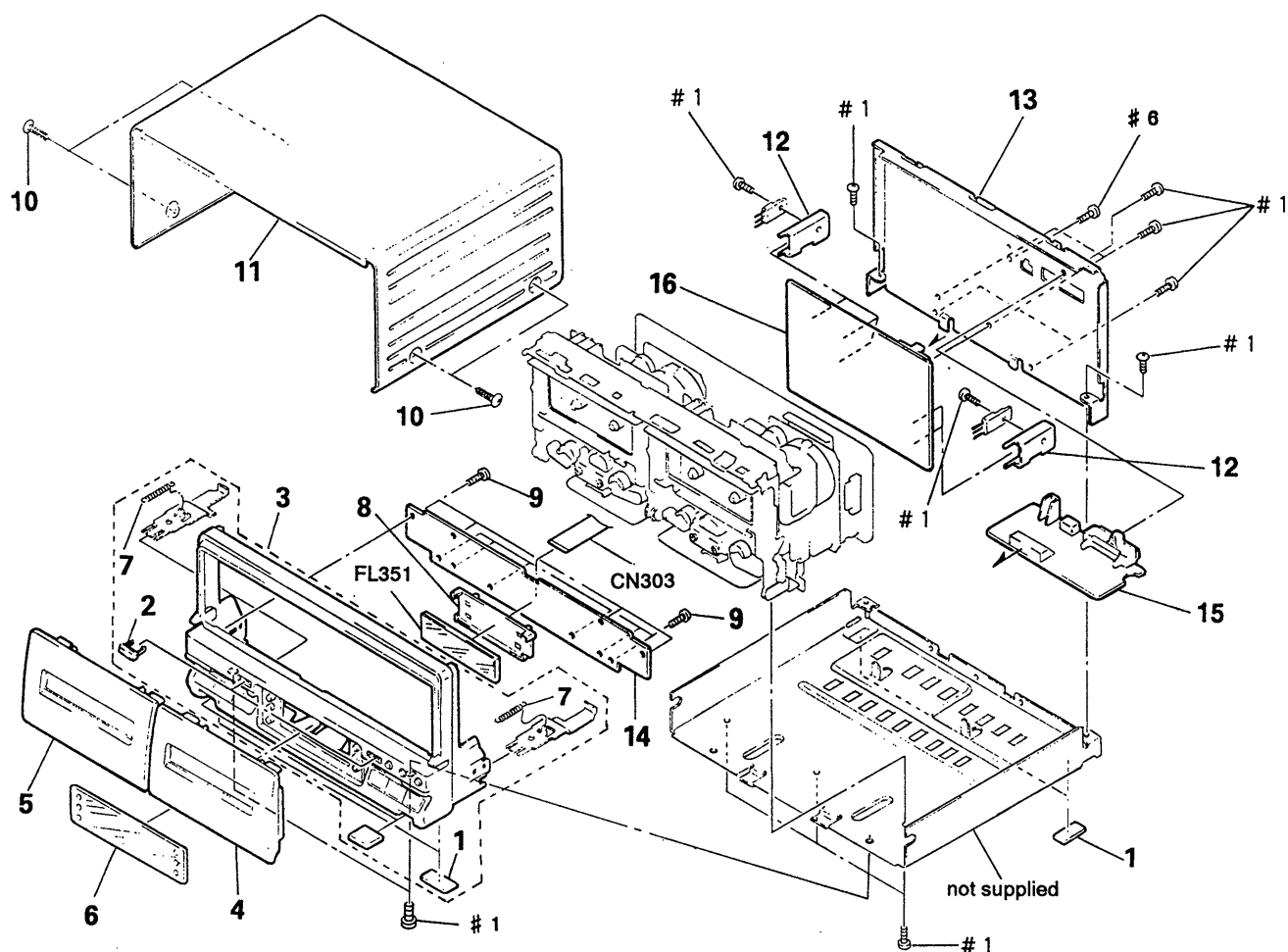
EXPLODED VIEWS

NOTE:

- ↑ ↑
- Parts color Cabinet's color**

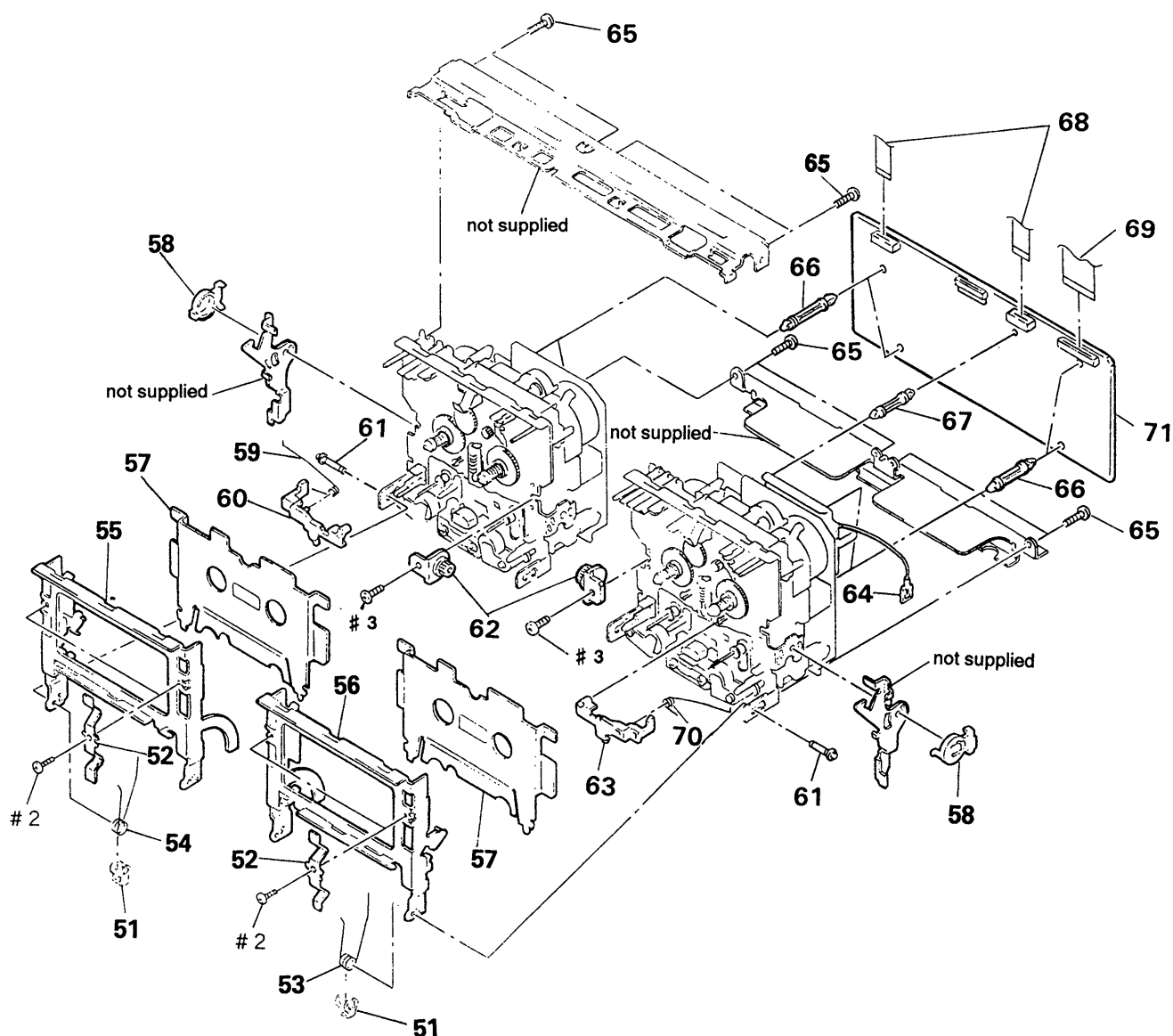
- The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

6-1. FRONT PANEL AND PC BOARDS SECTION



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
1	4-930-336-21	FOOT (FELT)		* 11	3-382-491-01	CASE	
2	3-383-665-01	WINDOW (AZIMUTH)		* 12	3-309-144-31	HEAT SINK	
3	X-3365-747-1	PANEL ASSY. FRONT		* 13	3-382-505-41	PANEL, BACK (AEP, UK, Italian)	
4	X-3365-750-1	LID (R) ASSY, CASSETTE		* 14	3-382-505-51	PANEL, BACK (Germany)	
5	X-3365-749-1	LID (L) ASSY, CASSETTE			A-2007-003-A	PANEL BOARD, COMPLETE	
6	3-383-666-03	PLATE, INDICATION		* 15	1-645-875-11	CONNECTOR BOARD	
7	3-489-099-11	SPRING, TENSION		* 16	A-2007-004-A	POWER BOARD, COMPLETE	
* 8	3-367-839-01	HOLDER, FL TUBE		* CN303	1-696-746-11	WIRE, FLAT TYPE (15 CORE)	
9	4-951-620-01	SCREW (2.6X8), +BVTP		FL351	1-519-708-11	INDICATOR TUBE, FLUORESCENT	
10	3-363-099-21	SCREW (CASE 3 TP2)					

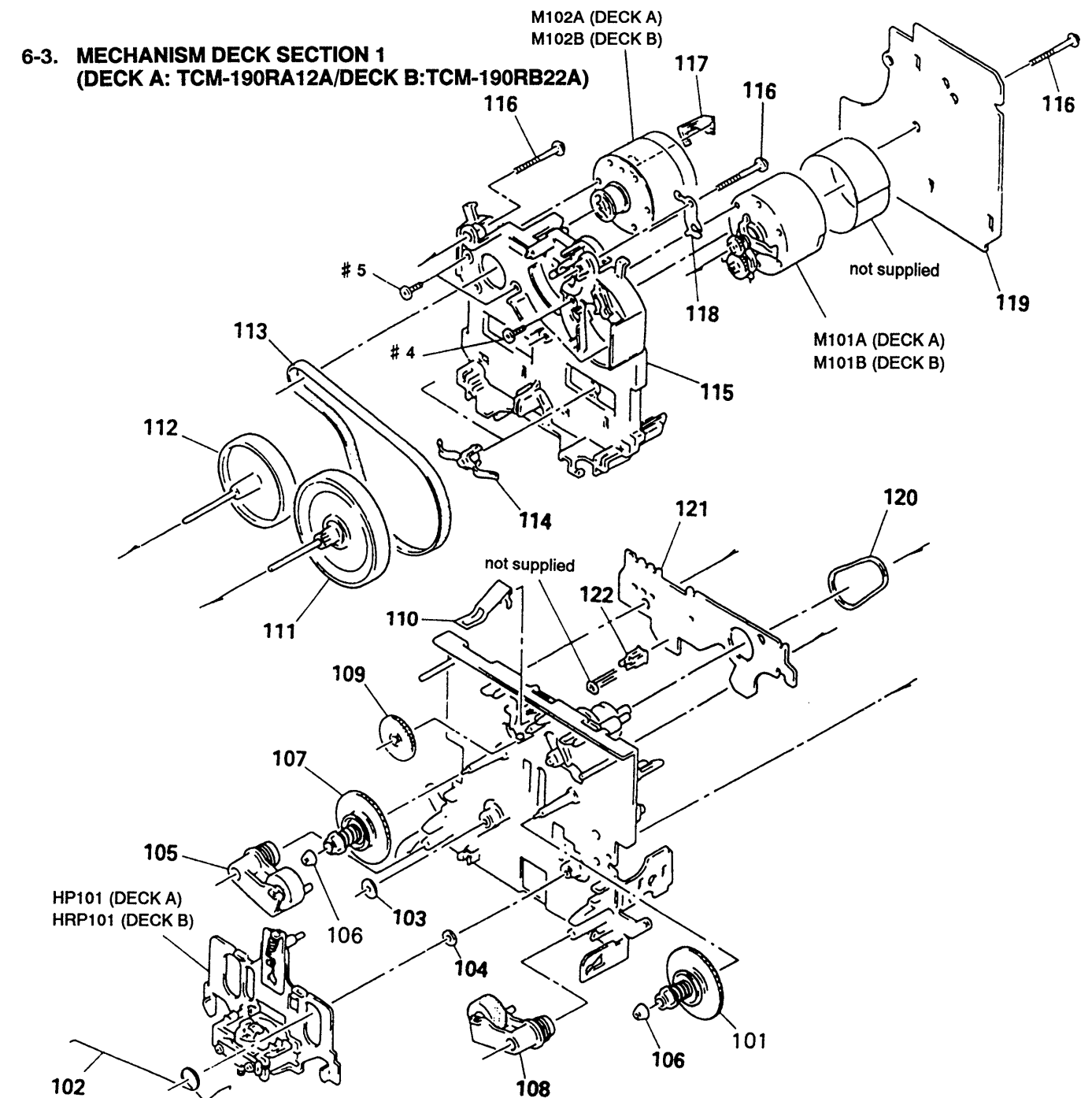
6-2. CASSETTE HOLDER SECTION



Ref.No.	Part No.	Description
51	3-367-720-01	RING (W), RETAINING
52	3-340-137-01	SPRING, CASSETTE RETAINER
53	3-354-960-01	SPRING (LOADING R), TORSION
54	3-354-959-01	SPRING (LOADING L), TORSION
55	X-3362-857-1	HOLDER (L) ASSY, CASSETTE
56	X-3362-856-1	HOLDER (R) ASSY, CASSETTE
57	3-367-711-01	RETAINER, CASSETTE
58	3-354-957-01	JOINT (LOCK LEVER)
59	3-354-961-01	SPRING (EJ SAFTY SPRING L)
60	3-354-955-01	LEVER (EJ SAFTY LEVER L)
61	3-367-721-01	SHAFT (FULCRUM SHAFT)

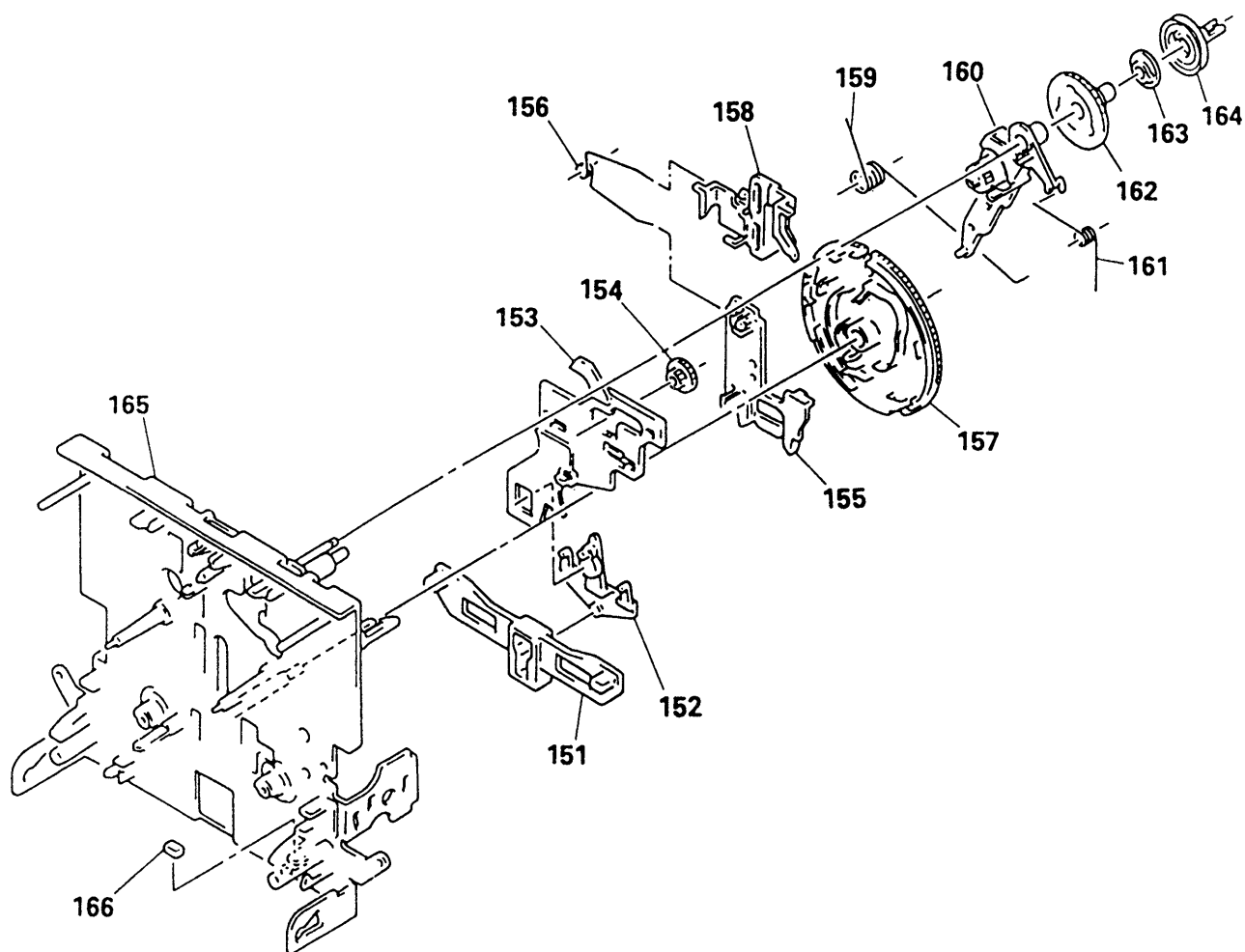
Ref.No.	Part No.	Description	Remark
62	3-354-963-01	DAMPER	
63	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
* 64	1-690-880-31	LEAD (WITH CONNECTOR)	
65	4-951-620-01	SCREW (2.6X8), +BVTP	
* 66	3-682-419-21	HOLDER, P.C.B	
* 67	3-682-419-11	HOLDER, P.C.B	
68	1-590-902-11	WIRE, FLAT TYPE (9 CORE)	
69	1-696-748-11	WIRE (FLAT TYPE) (19 CORE)	
70	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 71	A-2006-999-A	TC MAIN BOARD, COMPLETE	

6-3. MECHANISM DECK SECTION 1
(DECK A: TCM-190RA12A/DECK B:TCM-190RB22A)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
101	X-3359-404-1	TABLE ASSY, REEL		117	1-638-983-11	MOTOR FLEXIBLE BOARD	
102	3-359-455-01	SPRING, TORSION		118	3-359-450-01	PLATE, GROUND	
103	3-356-714-01	WASHER		* 119	A-2006-399-A	AUDIO BOARD, COMPLETE (RA12A)	(DECK A)
104	3-356-713-01	WASHER		*	A-2006-400-A	AUDIO BOARD, COMPLETE (RB22A)	(DECK B)
105	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY					
106	3-362-308-01	CAP (REEL)		120	3-359-466-01	BELT (FR), SQUARE	
107	X-3362-078-1	TABLE ASSY (B), REEL		* 121	1-634-841-14	SW-A BOARD (DECK A)	
108	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY		*	1-634-841-14	SW-B BOARD (DECK B)	
109	3-359-424-01	GEAR (REV GEAR)		122	3-343-419-01	HOLDER (S SENSOR A)	
110	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF		HP101	A-2003-837-F	BASE ASSY, HEAD (DECK A)	
111	X-3359-406-1	FLYWHEEL (FWD) ASSY		HRP101	A-2003-838-A	BASE ASSY, HEAD (DECK B)	
112	X-3359-410-1	FLYWHEEL (REV) ASSY		M101A	X-3363-501-1	MOTOR, REEL ASSY (DECK A)	
113	3-359-417-01	BELT (FLAT), CAPSTAN		M101B	X-3363-501-1	MOTOR, REEL ASSY (DECK B)	
114	3-575-321-00	RETAINER, THRUST, CAPSTAN		M102A	X-3359-417-1	MOTOR, CAPSTAN (DECK A)	
* 115	3-359-436-01	BASE (THRUST RETAINER), FITTING		M102B	X-3359-417-1	MOTOR, CAPSTAN ASSY (DECK B)	
116	3-359-414-01	SCREW (+PTPHW 2X23)					

6-4. MECHANISM DECK SECTION 2
(DECK A: TCM-190RA12A/DECK B:TCM-190RB22A)



Ref.No.	Part No.	Description
* 151	3-359-425-01	SLIDER (REVERSE SLIDER)
152	3-359-426-01	LEVER (REVERSE LEVER)
* 153	3-359-415-01	SLIDER (TRIGGER SLIDER)
154	3-359-448-01	GEAR (TRIGGER)
* 155	3-359-427-01	SLIDER (LEVERSE SLIDER)
156	3-359-454-01	SPRING, TORSION
157	3-359-420-01	GEAR (CAM GEAR)
158	3-359-429-01	SLIDER (BRAKE PLATE)
159	3-359-456-01	SPRING (TRIGGER SPRING), TORSION

Remark

62

Ref.No.	Part No.	Description	Remark
160	X-3359-405-1	LEVER (FR ARM) ASSY	
161	3-359-453-01	SPRING (FR ARM), TORSION	
162	3-359-419-01	GEAR (FR GEAR)	
163	3-359-421-01	CLUTCH (REEL DISK)	
164	3-359-418-01	PULLEY (FR PULLEY)	
165	X-3363-790-1	CHASSIS, MECHANICAL ASSY	
166	3-359-469-01	SPACER	

SECTION 7

ELECTRICAL PARTS LIST

NOTE:

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

When indicating parts by reference number, please include the board name.

- 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.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑ ↑
Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- Hardware (# mark) list is given in the last of this parts list.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2006-399-A	AUDIO BOARD, COMPLETE (DECK A) *****		R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
		< CAPACITOR >		R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V		R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
C12	1-136-157-00	FILM 0.022uF 5% 50V		R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
C13	1-124-234-00	ELECT 22uF 20% 16V		R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V					
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V		R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
				R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
C22	1-136-157-00	FILM 0.022uF 5% 50V		R73	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C23	1-124-234-00	ELECT 22uF 20% 16V		R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C28	1-163-117-00	CERAMIC CHIP 100PF 5% 50V				< VARIABLE RESISTOR >	
C31	1-124-234-00	ELECT 22uF 20% 16V		RV11A	1-241-627-11	RES, ADJ, CARBON 1K	
C32	1-124-234-00	ELECT 22uF 20% 16V		RV21A	1-241-627-11	RES, ADJ, CARBON 1K	
				RV71A	1-241-630-11	RES, ADJ, CARBON 10K	
C72	1-124-499-11	ELECT, NONPOLAR 1uF 20% 50V		RV72A	1-241-630-11	RES, ADJ, CARBON 10K	
		< CONNECTOR >				*****	
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD		*	A-2006-400-A	AUDIO BOARD, COMPLETE (DECK B) *****	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P				< CAPACITOR >	
		< PIN, CONNECTOR >		C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P		C12	1-136-157-00	FILM 0.022uF 5% 50V	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		C13	1-124-234-00	ELECT 22uF 20% 16V	
		< IC >		C14	1-136-273-91	FILM 75PF 5% 630V	
IC31A	8-759-106-02	IC uPC4570G2		C15	1-164-080-11	CERAMIC 390PF 10% 50V	
		< JUMPER WIRE >					
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W		C17	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
JW51	1-216-296-00	METAL CHIP 0 5% 1/8W		C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W		C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W		C22	1-136-157-00	FILM 0.022uF 5% 50V	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W		C23	1-124-234-00	ELECT 22uF 20% 16V	
		< TRANSISTOR >					
Q71A	8-729-602-36	TRANSISTOR 2SA1602		C24	1-136-273-91	FILM 75PF 5% 630V	
		< RESISTOR >		C25	1-164-080-11	CERAMIC 390PF 10% 50V	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W		C27	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W		C28	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W		C31	1-124-234-00	ELECT 22uF 20% 16V	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W					
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W		C32	1-124-234-00	ELECT 22uF 20% 16V	
				C33	1-124-234-00	ELECT 22uF 20% 16V	
				C51	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
				C52	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
				C53	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V	
				C54	1-136-559-11	FILM 0.0047uF 5% 630V	
				C56	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
				C57	1-164-346-11	CERAMIC CHIP 1uF 16V	

AUDIO (DECK B) CONNECTOR

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C58	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V		R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
C72	1-124-499-11	ELECT, NONPOLAR 1uF 20% 50V		R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
< CONNECTOR >				△R15	1-249-430-11	CARBON 12K 5% 1/4W	
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD		R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD		R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P		R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
< PIN, CONNECTOR >				R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P		△R25	1-249-430-11	CARBON 12K 5% 1/4W	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
< DIODE >				R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
D31	8-719-016-74	DIODE 1SS352		△R41	1-249-393-11	CARBON 10 5% 1/4W F	
< IC >				△R42	1-249-393-11	CARBON 10 5% 1/4W F	
IC31B	8-759-106-02	IC uPC4570G2		R51	1-216-075-00	METAL CHIP 12K 5% 1/10W	
< JUMPER WIRE >				R52	1-216-075-00	METAL CHIP 12K 5% 1/10W	
JW1	1-216-296-00	METAL CHIP 0 5% 1/8W		R53	1-216-073-00	METAL CHIP 10K 5% 1/10W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W		R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
JW3	1-216-295-00	METAL CHIP 0 5% 1/10W		R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
JW4	1-216-295-00	METAL CHIP 0 5% 1/10W		R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W	
JW6	1-216-295-00	METAL CHIP 0 5% 1/10W		R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
JW7	1-216-295-00	METAL CHIP 0 5% 1/10W		R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W		R73	1-216-089-00	METAL CHIP 47K 5% 1/10W	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W		R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W		< VARIABLE RESISTOR >			
JW55	1-216-296-00	METAL CHIP 0 5% 1/8W		RV11B	1-241-627-11	RES, ADJ, CARBON 1K	
JW56	1-216-296-00	METAL CHIP 0 5% 1/8W		RV12	1-238-551-11	RES, ADJ, CARBON 220K	
JW57	1-216-296-00	METAL CHIP 0 5% 1/8W		RV21B	1-241-627-11	RES, ADJ, CARBON 1K	
JW58	1-216-296-00	METAL CHIP 0 5% 1/8W		RV22	1-238-551-11	RES, ADJ, CARBON 220K	
JW59	1-216-296-00	METAL CHIP 0 5% 1/8W		RV71B	1-241-630-11	RES, ADJ, CARBON 10K	
JW60	1-216-296-00	METAL CHIP 0 5% 1/8W		RV72B	1-241-630-11	RES, ADJ, CARBON 10K	
JW61	1-216-296-00	METAL CHIP 0 5% 1/8W		< RELAY >			
< COIL >				RY31	1-515-913-11	RELAY	
L11	1-410-780-11	INDUCTOR 27mH		< TRASFORMER >			
L21	1-410-780-11	INDUCTOR 27mH		T51	1-406-419-11	COIL, BIAS OSCILLATION	
< TRANSISTOR >				*****			
Q51	8-729-808-01	TRANSISTOR 2SD1622-S		* 1-645-875-11	CONNECTOR BOARD		
Q52	8-729-808-01	TRANSISTOR 2SD1622-S		*****			
Q53	8-729-808-01	TRANSISTOR 2SD1622-S		< CAPACITOR >			
Q71B	8-729-602-36	TRANSISTOR 2SA1602		C531	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
< RESISTOR >				< CONNECTOR >			
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W		* CN403	1-569-505-11	PIN, CONNECTOR 10P	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W		CNJ401	1-569-624-21	SOCKET, CONNECTOR 17P (SYSTEM CONTROL)	
				* CNJ402	1-565-561-11	PIN, CONNECTOR 3P (AU BUS)	

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

CONNECTOR

PANEL

POWER

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
< RESISTOR >							
R525	1-216-001-00	METAL CHIP 10 5% 1/10W		R368	1-216-089-00	METAL CHIP 47K 5% 1/10W	
*****				R369	1-216-089-00	METAL CHIP 47K 5% 1/10W	
*	A-2007-003-A	PANEL BOARD, COMPLETE		R374	1-216-037-00	METAL CHIP 330 5% 1/10W	

*	3-367-839-01	HOLDER, FL TUBE		R375	1-216-081-00	METAL CHIP 22K 5% 1/10W	
< CAPACITOR >				R376	1-216-121-00	METAL CHIP 1M 5% 1/10W	
C351	1-126-163-11	ELECT 4.7uF 20% 50V		R377	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C352	1-124-638-11	ELECT 22uF 20% 10V		R378	1-216-025-00	METAL CHIP 100 5% 1/10W	
C353	1-164-232-11	CERAMIC CHIP 0.01uF 50V		R379	1-216-025-00	METAL CHIP 100 5% 1/10W	
C354	1-164-232-11	CERAMIC CHIP 0.01uF 50V					
C355	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		< SWITCH >			
C356	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		S902	1-570-101-61	SWITCH, KEY BOARD (CD SYNCRO)	
C357	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		S903	1-554-303-21	SWITCH, TACTILE (DOLBY NR)	
< CONNECTOR >				S904	1-554-303-21	SWITCH, TACTILE (DUBBING MODE)	
CN303	1-696-850-11	WIRE (FLAT TYPE) (14 CORE)		S905	1-554-303-21	SWITCH, TACTILE (COUNTER RESET)	
< FILTER >				S906	1-554-303-21	SWITCH, TACTILE (DISPLAY A/B)	
FL351	1-519-708-11	INDICATOR TUBE, FLUORESCENT					
< IC >				S907	1-554-303-21	SWITCH, TACTILE (DIRECTION MODE)	
IC351	8-759-323-35	IC HD-614023-FA93		S908	1-554-303-21	SWITCH, TACTILE (■ PAUSE) (DECK B)	
< TRANSISTOR >				S909	1-554-303-21	SWITCH, TACTILE (● MUTE) (DECK B)	
Q638	8-729-805-65	TRANSISTOR 2SA1344		S910	1-554-303-21	SWITCH, TACTILE (◀ (AMS)) (DECK A)	
< RESISTOR >				S911	1-554-303-21	SWITCH, TACTILE (▶ (AMS)) (DECK A)	
R351	1-216-029-00	METAL CHIP 150 5% 1/10W					
R352	1-216-055-00	METAL CHIP 1.8K 5% 1/10W		S912	1-554-303-21	SWITCH, TACTILE (◀ (AMS)) (DECK B)	
R353	1-216-049-00	METAL CHIP 1K 5% 1/10W		S913	1-554-303-21	SWITCH, TACTILE (▶ (AMS)) (DECK B)	
R354	1-216-054-00	METAL GLAZE 1.6K 5% 1/10W		S914	1-554-303-21	SWITCH, TACTILE (● REC) (DECK B)	
R355	1-216-055-00	METAL CHIP 1.8K 5% 1/10W		S915	1-554-303-21	SWITCH, TACTILE (◁) (DECK B)	
R356	1-216-037-00	METAL CHIP 330 5% 1/10W		S916	1-554-303-21	SWITCH, TACTILE (▷) (DECK B)	
R357	1-216-041-00	METAL CHIP 470 5% 1/10W					
R358	1-216-045-00	METAL CHIP 680 5% 1/10W		S917	1-554-303-21	SWITCH, TACTILE (■) (DECK B)	
R359	1-216-049-00	METAL CHIP 1K 5% 1/10W		S918	1-554-303-21	SWITCH, TACTILE (■) (DECK A)	
R360	1-216-053-00	METAL CHIP 1.5K 5% 1/10W		S919	1-554-303-21	SWITCH, TACTILE (▷) (DECK A)	
R361	1-216-049-00	METAL CHIP 1K 5% 1/10W		S920	1-554-303-21	SWITCH, TACTILE (◁) (DECK A)	
R362	1-216-055-00	METAL CHIP 1.8K 5% 1/10W		< VIBRATOR >			
R363	1-216-029-00	METAL CHIP 150 5% 1/10W		X351	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)	
R364	1-216-033-00	METAL CHIP 220 5% 1/10W		*****			
R365	1-216-029-00	METAL CHIP 150 5% 1/10W		*	A-2007-004-A	POWER BOARD, COMPLETE	
R366	1-216-033-00	METAL CHIP 220 5% 1/10W		*****			
R367	1-216-089-00	METAL CHIP 47K 5% 1/10W		*	3-309-144-31	HEAT SINK	
				< CAPACITOR >			
				C501	1-126-768-11	ELECT 2200uF 20% 16V	
				C502	1-126-768-11	ELECT 2200uF 20% 16V	
				C503	1-124-360-00	ELECT 1000uF 20% 16V	
				C504	1-126-768-11	ELECT 2200uF 20% 16V	
				C505	1-124-478-11	ELECT 100uF 20% 25V	
				C506	1-124-122-11	ELECT 100uF 20% 50V	
				C507	1-124-907-11	ELECT 10uF 20% 50V	
				C508	1-164-232-11	CERAMIC CHIP 0.01uF 50V	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C509	1-124-893-11	ELECT	2200uF 20% 10V	< TRANSISTOR >			
C510	1-124-477-11	ELECT	47uF 20% 25V	Q501	8-729-209-15	TRANSISTOR 2SD2012	
C513	1-164-232-11	CERAMIC CHIP	0.01uF 50V	Q502	8-729-141-83	TRANSISTOR 2SB1094-LK	
C514	1-124-927-11	ELECT	4.7uF 20% 100V	Q503	8-729-209-15	TRANSISTOR 2SD2012	
C515	1-124-472-11	ELECT	470uF 20% 10V	Q504	8-729-602-21	TRANSISTOR 2SC4154	
C516	1-124-472-11	ELECT	470uF 20% 10V	Q505	8-729-118-01	TRANSISTOR 2SB1116	
C517	1-164-232-11	CERAMIC CHIP	0.01uF 50V	Q506	8-729-141-83	TRANSISTOR 2SB1094-LK	
C518	1-126-927-11	ELECT	2200uF 20% 10V	Q507	8-729-209-15	TRANSISTOR 2SD2012	
C519	1-126-927-11	ELECT	2200uF 20% 10V	Q508	8-729-805-45	TRANSISTOR 2SC3395	
C520	1-126-101-11	ELECT	100uF 20% 16V	< RESISTOR >			
C521	1-126-101-11	ELECT	100uF 20% 16V	R506	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
C522	1-124-927-11	ELECT	4.7uF 20% 100V	R507	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C526	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R509	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
C527	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R510	1-216-121-00	METAL CHIP 1M 5% 1/10W	
C529	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R511	1-216-033-00	METAL CHIP 220 5% 1/10W	
C530	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R512	1-216-043-00	METAL CHIP 560 5% 1/10W	
< CONNECTOR >				R513	1-216-033-00	METAL CHIP 220 5% 1/10W	
CN502	1-695-775-11	CONNECTOR, FFC/FPC 19P		R514	1-216-043-00	METAL CHIP 560 5% 1/10W	
* CNP501	1-569-496-11	SOCKET, CONNECTOR 10P		R515	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
< DIODE >				R516	1-216-074-00	METAL CHIP 11K 5% 1/10W	
D501	8-719-200-02	DIODE 10E2		R517	1-216-077-00	METAL CHIP 15K 5% 1/10W	
D502	8-719-200-02	DIODE 10E2		R518	1-216-077-00	METAL CHIP 15K 5% 1/10W	
D503	8-719-200-02	DIODE 10E2		R519	1-216-025-00	METAL CHIP 100 5% 1/10W	
D504	8-719-200-02	DIODE 10E2		R520	1-216-025-00	METAL CHIP 100 5% 1/10W	
D506	8-719-200-02	DIODE 10E2		△R521	1-215-857-11	METAL OXIDE 10 5% 1W F	
D507	8-719-200-02	DIODE 10E2		R522	1-216-097-00	METAL CHIP 100K 5% 1/10W	
D508	8-719-200-02	DIODE 10E2		R524	1-216-081-00	METAL CHIP 22K 5% 1/10W	
D509	8-719-200-02	DIODE 10E2		R526	1-216-041-00	METAL CHIP 470 5% 1/10W	
D510	8-719-200-02	DIODE 10E2		R527	1-216-041-00	METAL CHIP 470 5% 1/10W	
D511	8-719-200-02	DIODE 10E2		R528	1-216-041-00	METAL CHIP 470 5% 1/10W	
D512	8-719-016-74	DIODE 1SS352		R529	1-216-041-00	METAL CHIP 470 5% 1/10W	
D513	8-719-016-74	DIODE 1SS352		< TRASFORMER >			
D514	8-719-422-58	DIODE MA8062-TX		△T501	1-423-382-11	TRANSFORMER, POWER	
D515	8-719-200-02	DIODE 10E2		*****			
D516	8-719-200-02	DIODE 10E2		*	1-634-841-14	SW-A BOARD (RA12A)	
D517	8-719-017-34	DIODE 02DZ20-TPHR3		*****			
D518	8-719-422-46	DIODE MA8056		3-343-419-01 HOLDER (S SENSER A)			
D519	8-719-016-74	DIODE 1SS352		< CONNECTOR >			
< IC >				* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
IC501	8-759-602-66	IC M5230L-A		< IC >			
< LINK, IC >				IC81A	8-719-710-03	DIODE NJL5165K-B	
△ICP501	1-532-840-21	LINK, IC 1.25A (PRF1250)					
△ICP502	1-532-836-21	LINK, IC 0.5A (PRF500)					

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

SW-A**SW-B****TC MAIN**

Ref.No.	Part No.	Description	Remark
< RESISTOR >			
R84	1-249-417-11	CARBON 1K 5% 1/4W F	
R85	1-249-408-11	CARBON 180 5% 1/4W F	
< SWITCH >			
S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82A	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
S86A	1-571-281-21	SWITCH, LEAF (HALF DET)	

*	1-634-841-14	SW-B BOARD (RB22A)	

	3-343-419-01	HOLDER (S SENSER A)	
< CONNECTOR >			
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
< IC >			
IC81B	8-719-710-03	DIODE NJL5165K-B	
< RESISTOR >			
R81	1-249-414-11	CARBON 560 5% 1/4W F	
R82	1-247-818-11	CARBON 300 5% 1/4W	
R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
R84	1-249-417-11	CARBON 1K 5% 1/4W F	
R85	1-249-408-11	CARBON 180 5% 1/4W F	
< SWITCH >			
S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82B	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
S83	1-571-281-21	SWITCH, LEAF (METAL DET)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF (SIDE A))	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF (SIDE B))	
S86B	1-571-281-21	SWITCH, LEAF (HALF DET)	

*	A-2006-999-A	TC MAIN BOARD, COMPLETE	

	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
< CAPACITOR >			
C101	1-136-157-00	FILM 0.022uF 5% 50V	
C102	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C103	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C104	1-106-351-00	MYLAR 2200PF 5% 200V	
C105	1-106-351-00	MYLAR 2200PF 5% 200V	

Ref.No.	Part No.	Description	Remark
C106	1-124-925-11	ELECT 2.2uF 20% 100V	
C107	1-136-174-00	FILM 0.56uF 5% 50V	
C108	1-136-171-00	FILM 0.33uF 5% 50V	
C109	1-124-927-11	ELECT 4.7uF 20% 100V	
C110	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C111	1-164-005-11	CERAMIC CHIP 0.47uF 25V	
C112	1-124-903-11	ELECT 1uF 20% 50V	
C113	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C114	1-124-907-11	ELECT 10uF 20% 50V	
C115	1-124-443-00	ELECT 100uF 20% 10V	
C116	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C117	1-124-925-11	ELECT 2.2uF 20% 100V	
C118	1-124-257-00	ELECT 2.2uF 20% 50V	
C201	1-136-157-00	FILM 0.022uF 5% 50V	
C202	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C203	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C204	1-106-351-00	MYLAR 2200PF 5% 200V	
C205	1-106-351-00	MYLAR 2200PF 5% 200V	
C206	1-124-925-11	ELECT 2.2uF 20% 100V	
C207	1-136-174-00	FILM 0.56uF 5% 50V	
C208	1-136-171-00	FILM 0.33uF 5% 50V	
C209	1-124-927-11	ELECT 4.7uF 20% 100V	
C210	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C211	1-164-005-11	CERAMIC CHIP 0.47uF 25V	
C212	1-124-903-11	ELECT 1uF 20% 50V	
C213	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C214	1-124-907-11	ELECT 10uF 20% 50V	
C215	1-124-443-00	ELECT 100uF 20% 10V	
C216	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C217	1-124-925-11	ELECT 2.2uF 20% 100V	
C218	1-124-257-00	ELECT 2.2uF 20% 50V	
C601	1-126-157-11	ELECT 10uF 20% 16V	
C602	1-124-907-11	ELECT 10uF 20% 50V	
C603	1-124-903-11	ELECT 1uF 20% 50V	
C604	1-124-903-11	ELECT 1uF 20% 50V	
C605	1-124-903-11	ELECT 1uF 20% 50V	
C606	1-124-903-11	ELECT 1uF 20% 50V	
C608	1-124-927-11	ELECT 4.7uF 20% 100V	
C609	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C610	1-163-111-00	CERAMIC CHIP 56PF 5% 50V	
C611	1-163-111-00	CERAMIC CHIP 56PF 5% 50V	
C612	1-126-177-11	ELECT 100uF 20% 10V	
C613	1-126-177-11	ELECT 100uF 20% 10V	
C615	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C617	1-124-477-11	ELECT 47uF 20% 25V	
C618	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C620	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C621	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C622	1-124-472-11	ELECT 470uF 20% 10V	
C623	1-163-038-00	CERAMIC CHIP 0.1uF 25V	

TC MAIN

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C624	1-124-472-11	ELECT	470uF 20% 10V	< IC >			
C625	1-164-232-11	CERAMIC CHIP	0. 01uF 50V	IC101	8-759-300-71	IC HD14053BFP	
C626	1-164-232-11	CERAMIC CHIP	0. 01uF 50V	IC102	8-752-037-90	IC CXA1331M	
C627	1-163-038-00	CERAMIC CHIP	0. 1uF 25V	IC103	8-752-055-60	IC CXA1578M	
C629	1-126-157-11	ELECT	10uF 20% 16V	IC104	8-759-636-55	IC M5218AFP	
C630	1-124-916-11	ELECT	22uF 20% 63V	IC105	8-759-516-47	IC CD4066BCM	
C631	1-124-903-11	ELECT	1uF 20% 50V	IC106	8-759-998-71	IC BA3308F	
C636	1-124-916-11	ELECT	22uF 20% 63V	IC109	8-759-516-47	IC CD4066BCM	
C6009	1-124-907-11	ELECT	10uF 20% 50V	IC601	8-759-163-38	IC M38022M4-072FP	
C6010	1-163-038-00	CERAMIC CHIP	0. 1uF 25V	IC602	8-759-636-67	IC M50925-482FP	
C6011	1-163-129-00	CERAMIC CHIP	330PF 5% 50V	IC603	8-759-207-05	IC TA7272P	
C6012	1-163-129-00	CERAMIC CHIP	330PF 5% 50V	IC604	8-759-636-55	IC M5218AFP	
C6013	1-124-478-11	ELECT	100uF 20% 25V	IC605	8-759-516-41	IC CD4052BCM	
C6021	1-163-141-00	CERAMIC CHIP	0. 001uF 5% 50V	IC6001	8-759-520-90	IC PST572E	
C6022	1-124-927-11	ELECT	4. 7uF 20% 100V	< JUMPER RESISTOR >			
C6023	1-126-163-11	ELECT	4. 7uF 20% 50V	JR1	1-216-295-00	METAL CHIP 0 5% 1/10W	
C6024	1-124-257-00	ELECT	2. 2uF 20% 50V	JR2	1-216-295-00	METAL CHIP 0 5% 1/10W	
C6025	1-124-257-00	ELECT	2. 2uF 20% 50V	< COIL >			
C6029	1-163-141-00	CERAMIC CHIP	0. 001uF 5% 50V	L6001	1-410-482-31	INDUCTOR 100uH	
C6030	1-163-141-00	CERAMIC CHIP	0. 001uF 5% 50V	L6002	1-410-470-11	INDUCTOR 10uH	
C6031	1-163-038-00	CERAMIC CHIP	0. 1uF 25V	< TRANSISTOR >			
C6033	1-163-141-00	CERAMIC CHIP	0. 001uF 5% 50V	Q101	8-729-207-56	TRANSISTOR RN1402	
C6034	1-163-141-00	CERAMIC CHIP	0. 001uF 5% 50V	Q102	8-729-602-21	TRANSISTOR 2SC4154-F	
C6035	1-163-141-00	CERAMIC CHIP	0. 001uF 5% 50V	Q201	8-729-207-56	TRANSISTOR RN1402	
C6036	1-124-257-00	ELECT	2. 2uF 20% 50V	Q202	8-729-602-21	TRANSISTOR 2SC4154-F	
C6061	1-124-443-00	ELECT	100uF 20% 10V	Q601	8-729-805-65	TRANSISTOR 2SA1344	
C6062	1-124-902-00	ELECT	0. 47uF 20% 50V	Q602	8-729-805-65	TRANSISTOR 2SA1344	
< CONNECTOR >				Q603	8-729-207-56	TRANSISTOR RN1402	
CN601	1-573-101-11	SOCKET, CONNECTOR 9P		Q604	8-729-805-65	TRANSISTOR 2SA1344	
CN602	1-580-783-11	CONNECTOR, BOARD TO BOARD		Q605	8-729-901-06	TRANSISTOR DTA144EK	
CN603	1-573-101-11	SOCKET, CONNECTOR 9P		Q606	8-729-805-65	TRANSISTOR 2SA1344	
CN604	1-580-783-11	CONNECTOR, BOARD TO BOARD		Q607	8-729-805-65	TRANSISTOR 2SA1344	
CN605	1-695-739-11	CONNECTOR, FFC/FPC 19P		Q608	8-729-805-65	TRANSISTOR 2SA1344	
* CN606	1-750-119-11	SOCKET, CONNECTOR 14P		Q609	8-729-207-56	TRANSISTOR RN1402	
CN607	1-580-783-11	CONNECTOR, BOARD TO BOARD		Q611	8-729-805-65	TRANSISTOR 2SA1344	
< DIODE >				Q612	8-729-207-56	TRANSISTOR RN1402	
D601	8-719-422-91	DIODE MA8091		Q613	8-729-207-56	TRANSISTOR RN1402	
D602	8-719-016-74	DIODE 1SS352		Q616	8-729-804-41	TRANSISTOR 2SB1122-S	
D603	8-719-016-74	DIODE 1SS352		Q617	8-729-804-41	TRANSISTOR 2SB1122-S	
D604	8-719-016-74	DIODE 1SS352		Q620	8-729-805-65	TRANSISTOR 2SA1344	
D607	8-719-210-33	DIODE EC10DS2		Q625	8-729-602-36	TRANSISTOR 2SA1602-F	
D608	8-719-210-33	DIODE EC10DS2		Q627	8-729-207-56	TRANSISTOR RN1402	
D609	8-719-016-74	DIODE 1SS352		Q641	8-729-207-56	TRANSISTOR RN1402	
D612	8-719-016-84	DIODE 02D22. 0-TPH3		Q642	8-729-207-56	TRANSISTOR RN1402	
D6010	8-719-016-74	DIODE 1SS352		Q643	8-729-207-56	TRANSISTOR RN1402	
D6011	8-719-016-74	DIODE 1SS352		Q644	8-729-207-56	TRANSISTOR RN1402	

Ref.No.	Part No.	Description	Remark				Ref.No.	Part No.	Description	Remark			
< RESISTOR >							R611	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R101	1-216-089-00	METAL CHIP	47K	5%	1/10W		R612	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R102	1-216-089-00	METAL CHIP	47K	5%	1/10W		R613	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R103	1-216-056-00	METAL GLAZE	2K	5%	1/10W		R614	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R104	1-216-060-00	METAL GLAZE	3K	5%	1/10W		R615	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R105	1-216-105-00	METAL CHIP	220K	5%	1/10W		R616	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R106	1-216-051-00	METAL CHIP	1.2K	5%	1/10W		R617	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R107	1-216-082-00	METAL GLAZE	24K	5%	1/10W		R618	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R108	1-216-043-00	METAL CHIP	560	5%	1/10W		R619	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W		R620	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R110	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R621	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R111	1-216-097-00	METAL CHIP	100K	5%	1/10W		R622	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R112	1-216-065-00	METAL CHIP	4.7K	5%	1/10W		R623	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R114	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R624	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R115	1-216-105-00	METAL CHIP	220K	5%	1/10W		R625	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R116	1-216-689-11	METAL CHIP	39K	0.5%	1/10W		R626	1-216-043-00	METAL CHIP	560	5%	1/10W	
R117	1-216-049-00	METAL CHIP	1K	5%	1/10W		R628	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R118	1-216-093-00	METAL CHIP	68K	5%	1/10W		R629	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R119	1-216-049-00	METAL CHIP	1K	5%	1/10W		R630	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R120	1-216-083-00	METAL CHIP	27K	5%	1/10W		R631	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R128	1-216-105-00	METAL CHIP	220K	5%	1/10W		R632	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R201	1-216-089-00	METAL CHIP	47K	5%	1/10W		R633	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R202	1-216-089-00	METAL CHIP	47K	5%	1/10W		R634	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R203	1-216-056-00	METAL GLAZE	2K	5%	1/10W		R635	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R204	1-216-060-00	METAL GLAZE	3K	5%	1/10W		R636	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R205	1-216-105-00	METAL CHIP	220K	5%	1/10W		R637	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R206	1-216-051-00	METAL CHIP	1.2K	5%	1/10W		R638	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R207	1-216-082-00	METAL GLAZE	24K	5%	1/10W		R639	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R208	1-216-043-00	METAL CHIP	560	5%	1/10W		R640	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R209	1-216-073-00	METAL CHIP	10K	5%	1/10W		R641	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R210	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R642	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R211	1-216-097-00	METAL CHIP	100K	5%	1/10W		R643	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R212	1-216-065-00	METAL CHIP	4.7K	5%	1/10W		R644	1-216-025-00	METAL CHIP	100	5%	1/10W	
R213	1-216-089-00	METAL CHIP	47K	5%	1/10W		R645	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R214	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R646	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R215	1-216-105-00	METAL CHIP	220K	5%	1/10W		R647	1-216-025-00	METAL CHIP	100	5%	1/10W	
R216	1-216-689-11	METAL CHIP	39K	0.5%	1/10W		R648	1-216-025-00	METAL CHIP	100	5%	1/10W	
R217	1-216-049-00	METAL CHIP	1K	5%	1/10W		R649	1-216-025-00	METAL CHIP	100	5%	1/10W	
R218	1-216-093-00	METAL CHIP	68K	5%	1/10W		R650	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R219	1-216-049-00	METAL CHIP	1K	5%	1/10W		R651	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R220	1-216-083-00	METAL CHIP	27K	5%	1/10W		R652	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R228	1-216-105-00	METAL CHIP	220K	5%	1/10W		R653	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R601	1-216-081-00	METAL CHIP	22K	5%	1/10W		R654	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R602	1-216-081-00	METAL CHIP	22K	5%	1/10W		R655	1-216-001-00	METAL CHIP	10	5%	1/10W	
R605	1-216-081-00	METAL CHIP	22K	5%	1/10W		R656	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R606	1-216-081-00	METAL CHIP	22K	5%	1/10W		R661	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R607	1-216-081-00	METAL CHIP	22K	5%	1/10W		R662	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R608	1-216-049-00	METAL CHIP	1K	5%	1/10W		R663	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R609	1-216-083-00	METAL CHIP	27K	5%	1/10W		R664	1-216-045-00	METAL CHIP	680	5%	1/10W	
R610	1-216-083-00	METAL CHIP	27K	5%	1/10W		R665	1-216-073-00	METAL CHIP	10K	5%	1/10W	

TC MAIN

Ref. No.	Part No.	Description			
R666	1-216-045-00	METAL CHIP	680	5%	1/10W
R667	1-216-025-00	METAL CHIP	100	5%	1/10W
R668	1-216-090-00	METAL CHIP	51K	5%	1/10W
R669	1-216-089-00	METAL CHIP	47K	5%	1/10W
R670	1-216-084-00	METAL CHIP	30K	5%	1/10W
R671	1-216-090-00	METAL CHIP	51K	5%	1/10W
R672	1-216-065-00	METAL CHIP	4. 7K	5%	1/10W
R673	1-216-080-00	METAL CHIP	20K	5%	1/10W
R674	1-216-083-00	METAL CHIP	27K	5%	1/10W
R675	1-216-080-00	METAL CHIP	20K	5%	1/10W
R676	1-216-065-00	METAL CHIP	4. 7K	5%	1/10W
R677	1-216-089-00	METAL CHIP	47K	5%	1/10W
R678	1-216-084-00	METAL CHIP	30K	5%	1/10W
R679	1-216-083-00	METAL CHIP	27K	5%	1/10W
R680	1-216-090-00	METAL CHIP	51K	5%	1/10W
R681	1-216-090-00	METAL CHIP	51K	5%	1/10W
R682	1-216-025-00	METAL CHIP	100	5%	1/10W
R683	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W
R684	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W
R685	1-216-025-00	METAL CHIP	100	5%	1/10W
R686	1-216-025-00	METAL CHIP	100	5%	1/10W
R687	1-216-081-00	METAL CHIP	22K	5%	1/10W
R689	1-216-025-00	METAL CHIP	100	5%	1/10W
R690	1-216-025-00	METAL CHIP	100	5%	1/10W
R691	1-216-025-00	METAL CHIP	100	5%	1/10W
R692	1-216-081-00	METAL CHIP	22K	5%	1/10W
R693	1-216-025-00	METAL CHIP	100	5%	1/10W
R696	1-216-081-00	METAL CHIP	22K	5%	1/10W
R700	1-216-073-00	METAL CHIP	10K	5%	1/10W
R6004	1-216-089-00	METAL CHIP	47K	5%	1/10W
R6005	1-216-089-00	METAL CHIP	47K	5%	1/10W
R6010	1-216-049-00	METAL CHIP	1K	5%	1/10W
R6012	1-216-049-00	METAL CHIP	1K	5%	1/10W
R6013	1-216-085-00	METAL CHIP	33K	5%	1/10W
R6014	1-216-079-00	METAL CHIP	18K	5%	1/10W
R6016	1-216-073-00	METAL CHIP	10K	5%	1/10W
R6018	1-216-081-00	METAL CHIP	22K	5%	1/10W
R6050	1-216-025-00	METAL CHIP	100	5%	1/10W
R6061	1-216-081-00	METAL CHIP	22K	5%	1/10W
R6062	1-216-035-00	METAL CHIP	270	5%	1/10W
R6063	1-216-689-11	METAL CHIP	39K	0. 5%	1/10W
R6070	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W
R6071	1-216-057-00	METAL CHIP	2. 2K	5%	1/10W
< VARIABLE RESISTOR >					
RV101	1-241-136-11	RES, ADJ, CARBON	10K		
RV201	1-241-136-11	RES, ADJ, CARBON	10K		

Ref. No.	Part No.	Description	Remark
		< PIN, CONNECTOR >	
* TP601	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
		< VIBRATOR >	
X601	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

		MISCELLANEOUS	

* 64	1-690-880-31	LEAD (WITH CONNECTOR)	
68	1-590-902-11	WIRE, FLAT TYPE (9 CORE)	
69	1-696-748-11	WIRE (FLAT TYPE) (19 CORE)	
117	1-638-983-11	MOTOR FLEXIBLE BOARD	
* CN303	1-696-746-11	WIRE, FLAT TYPE (15 CORE)	
HP101	A-2003-837-F	BASE ASSY, HEAD (DECK A)	
HRP101	A-2003-838-A	BASE ASSY, HEAD (DECK B)	
M101A	X-3363-501-1	MOTOR, REEL ASSY (DECK A)	
M101B	X-3363-501-1	MOTOR, REEL ASSY (DECK B)	
M102A	X-3359-417-1	MOTOR, CAPSTAN (DECK A)	
M102B	X-3359-417-1	MOTOR, CAPSTAN ASSY (DECK B)	

		HARDWARE LIST	

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-621-255-15	SCREW +PTT 2X3 (S)	
#3	7-621-770-67	SCREW +PTT 2. 6X6 (S)	
#4	7-627-556-08	SCREW +P 2. 6X2. 8	
#5	7-621-775-00	SCREW +B 2. 6X3	
#6	7-621-849-00	SCREW, TAPPING	