


TC-EX66

SERVICE MANUAL

AEP Model
UK Model
E Model



This set is the cassette deck section
in MHC-EX66.

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

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	TCM-ACLM578

SPECIFICATIONS

Track method	4-track, 2-channel stereo
Fast forward time	Approx. 120 seconds (for C-60)
Frequency response	
With DOLBY NR set to OFF	
TYPE-IV tape:	30 – 15,000 Hz, ± 3 dB 20 – 16,000 Hz, ± 6 dB
TYPE-II tape:	30 – 15,000 Hz, ± 3 dB 20 – 16,000 Hz, ± 6 dB
TYPE-I tape:	30 – 14,000 Hz, ± 3 dB 20 – 15,000 Hz, ± 6 dB
Overall S/N ratio	57 dB (TYPE-IV tape)
Distortion	
315 Hz, tertiary higher harmonic distortion:	1.8% (TYPE-II tape)
Recording level:	250 nWb/m
Max. recording level audio compensation	
For a TYPE-IV tape	
DOLBY NR C:	73 dB
DOLBY NR B:	66 dB
DOLBY NR OFF:	58 dB
Dimensions (w/h/d) incl. projecting parts and controls:	Approx. 280 × 90 × 348.5 mm
Mass	Approx. 2.6 kg

Design and specifications are subject to change
without notice.

STEREO CASSETTE DECK



SONY®

SERVICING NOTES

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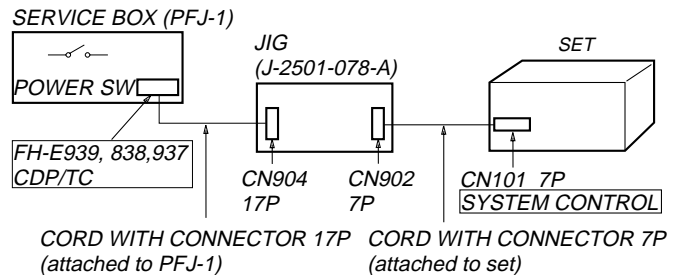
How to operate with a single unit.

Normally, this set is not operated with its own.

The exclusive jig (J-2501-078-A) and service box (PFJ-1) are necessary to operate the set with a single unit.

Turn the power set of the service box ON. Then press the **ENTER/NEXT** button and **SLEEP** button at the same time to turn the power on.

Connection:



• KEY/FL tube/LED check mode.

To enter KEY/FL tube/LED check mode, press the **ENTER/NEXT** and **REC** buttons at the same time.

Under mode, every time when press any key or turn **MULTI CONTROLLER** knob, change to next situation.

- ① All LED indicators light on
- ② All FL tube indicators light on
- ③ A part of FL tube light on mode 1. (Indicated ST-SEG)
- ④ A part of FL tube light on mode 2. (Indicated RDS-SEG)
- ⑤ KEY check mode

Note:

- 1) All LED light on mode is kept, when buttons which is pressed to enter all LED light on mode, release same time. When release them separate timing, it is moved to next All LED light on mode.
- 2) After all LED light on mode, light on point remove one by one, when any button pressed or **MULTI CONTROLLER** knob turned.
- 3) Under KEY check mode, every time buttons pressed numerical value of "KEY" in FL tube increase. And that time, numerical value of "ECDR" increase when **MULTI CONTROLLER** button turn to + direction, and it decrease turn to - direction.

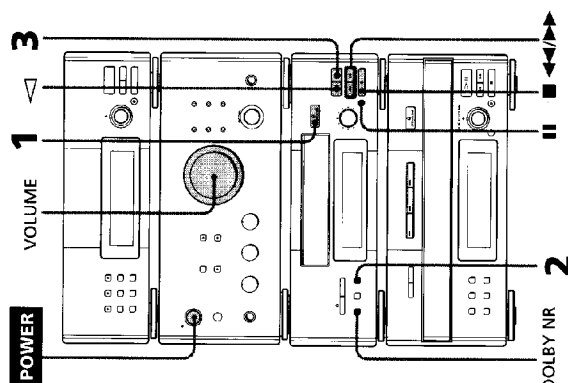
When you want to finish this mode, unplug the power of amplifier or turn off PFJ-1 of POWER switch.

Playing a tape

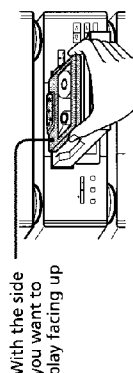
(MHC-EX66 or the optional TC-TX77 users only)

You can use any type of tape, TYPE-I (normal), TYPE-II (CrO₂) and TYPE-IV (metal), since the deck automatically detects the tape type (ATS*).

MHC-EX66 is used for illustration purpose.
* The Automatic Tape Selection (ATS) feature automatically sets the equalization and bias to match the inserted tape type.



- 1 Press **OPEN/CLOSE** on the tape deck and insert a recorded tape. Press **OPEN/CLOSE** again to close the tray.



With the side you want to play facing up

- 2 Press **DIRECTION** repeatedly to select the side you want to play. Select **→** to play one side. Select **←** to play both sides once. To play both sides in succession, select **↔**.

- 3 Press **▶**. Press **◀** to play the reverse side. Playback starts.

* The deck stops automatically after repeating the sequence five times.

To	Do this
Stop play	Press ■
Pause	Press . Press again to resume play.
Fast-forward	Press ■ , then press ▶▶ (for front side) or ◀◀ (for reverse side).
Rewind	Press ■ , then press ◀◀ (for front side) or ▶▶ (for reverse side).
Select a track (AMS*)	Press ▶▶ (to go forward) or ◀◀ (to go back) during the front side playback. Press ◀◀ (to go forward) or ▶▶ (to go back) during the reverse side playback.

To	Do this
Remove the tape	Press OPEN/CLOSE .
Adjust the volume	Turn VOLUME (or press VOL (+/-) on the remote).

* The Automatic Music Sensor (AMS) feature detects a blank space of more than four seconds between tracks and locates the track quickly.

Tips

- Pressing **SYSTEM POWER** on the DHC-MD77 / EX77MD automatically turns on the TC-TX77 deck if you connect them to each other using the audio bus cable.
- Pressing **▶** or **◀** when the power is off automatically turns the power on and starts tape playback if there is a tape in the deck (One Touch Play).
- You can switch from another source to the tape deck just by pressing **▶** or **◀** (Automatic Source Selection).
- To start playing automatically from the beginning of the tape after fast winding (Auto Play), press **▶** while holding down **◀◀** (for front side) or press **◀** while holding down **▶▶** (for reverse side).
- When you want to reduce the hiss noise in low-level high-frequency signals, press **DOLBY NR** repeatedly to select **B** or **C**.

Notes

- The AMS feature may not work properly when:
- The blank space between tracks is less than four seconds long.
 - Different material is recorded on the left and right channels (e.g., karaoke tapes with the instrumental music and a singer's voice, foreign language practice tapes, etc.).
 - Very low-level signals or low-frequency signals such as a bass saxophone are continuously recorded on the tape.
 - The system is placed too close to a TV. (Move the system away from the TV or turn off the TV.)

SECTION 1 GENERAL

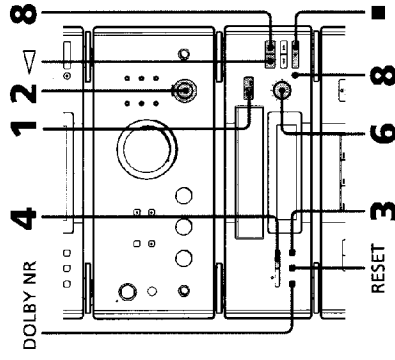
Basic Operations

This section is extracted from instruction manual.

The Tape Deck (MHC-EX66 or the optional TC-TX77 users only)

Recording on a tape manually

You can record a CD or an MD as you like, for example, recording just the tracks you want or recording from the middle of the tape.



1 Insert a blank tape.

To insert a tape, see page 20.

2 Turn FUNCTION to select the sound source to be recorded.

When you record from the radio, tune in the desired radio station.
When you record the sound of a TV or VCR, select "VIDEO 1" or "VIDEO 2/AUX" (or "VIDEO 2" for DHC-MD77). See page 13 for details.

3 Press DIRECTION repeatedly to select the side you want to record on.

Select to record on one side. Select to record on both sides.

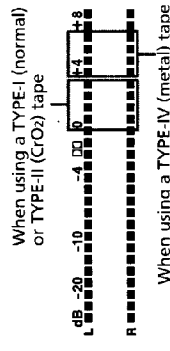
4 Press on the tape deck.

The tape deck stands by for recording. "PLAY" (for front side) appears.

5 Start playing the source to be recorded.

6 Turn REC LEVEL to adjust the recording level.

While monitoring the sound at the highest level, adjust the recording level so that it falls within the range illustrated below.



7 Stop playing the source.

8 Press or on the tape deck. Recording starts.

9 Start playing the source to be recorded.

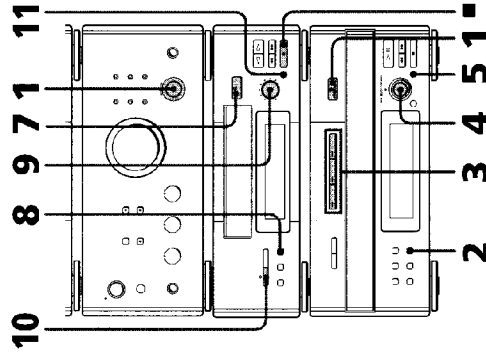
To	Press
Stop recording	on the tape deck.
Pause recording	on the tape deck.

Tips

- Pressing SYSTEM POWER on the DHC-MD77/EX77MD automatically turns on the TC-TX77 deck if you connect them to each other using the audio bus cable.
- If you want to record from the reverse side, press in step 4 so that "PLAY" (for reverse side) appears.
- When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR repeatedly to select B or C before step 4. You cannot switch DOLBY NR during recording.
- If you press RESET, the counter display returns to "00 00."

Recording the favorite CD tracks on a tape

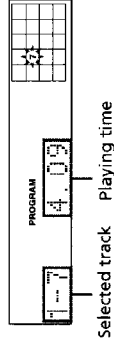
You can select your favorite CD tracks with the Program Play feature, then record the program on a tape using the CD Synchro Recording feature.



Selecting the tracks

- 1** Turn FUNCTION until the CD indicator lights up, then place a CD (CDs) on the disc tray.
- 2** Press PROGRAM.
"PROGRAM" appears.
- 3** Press one of the DISC 1 – 3 buttons to select a CD.

- 4** Turn SELECTOR until the desired track number appears.



- 5** Press ENTER.
The track is programmed. The last programmed track appears, followed by the total playing time.
- 6** To program additional tracks, repeat steps 3 to 5.
Skip step 3 if you select a track from the same disc.

Recording on a tape

- 7** Insert a blank tape.
To insert a tape, see page 20.
- 8** Press DIRECTION repeatedly to select the side you want to record on.
Select \Rightarrow to record on one side. Select \Leftarrow or \Leftarrow to record on both sides.
- 9** Turn REC LEVEL to adjust the recording level.
See "Recording on a tape manually" for details.

- 10** Press CD SYNC on the tape deck.
The tape deck stands by for recording and the CD is in pause for playback. The CD SYNC indicator lights up and "PLAY \Rightarrow \Leftarrow [REC]" (for front side) appears.

- 11** Press \Leftarrow on the tape deck.
Recording starts.

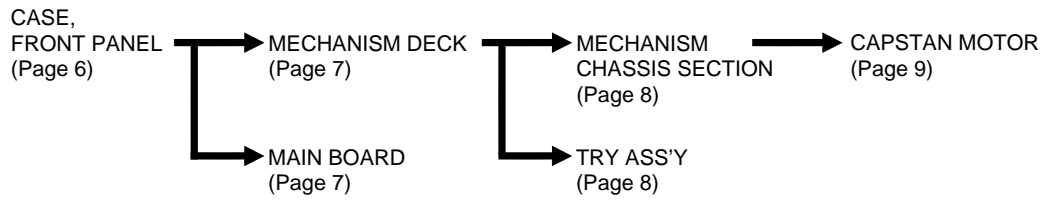
To stop recording
Press \Leftarrow on the tape deck or the CD player.

Tips

- Pressing SYSTEM POWER on the DHC-MD77 / EX77MD automatically turns on the TC-TX77 deck if you connect them to each other using the audio bus cable.
- If you want to record from the reverse side, press \Leftarrow in step 10 so that " \Leftarrow PLAY \Leftarrow [REC]" (for reverse side) appears.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side even though you select \Leftarrow .
- When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR repeatedly to select B or C before step 9. You cannot switch DOLBY NR during recording.
- If the tape reaches the end of its front side while dual-sided recording, the fadeout feature works so that a track is not abruptly cut off at the end of the tape (Fade Synchro). The track will be recorded again from the beginning on the reverse side. The Fade Synchro feature works during one-side recording, too.
- You cannot perform CD Synchro Recording by pressing the CD SYNC buttons on both the tape deck and the MD deck at the same time.
Use the CD Synchro Recording feature for a tape and record on an MD manually. This method is recommended since on the MD deck, you can erase the overlapping track recorded using the Fade Synchro feature just by specifying its track number (Erase Function).

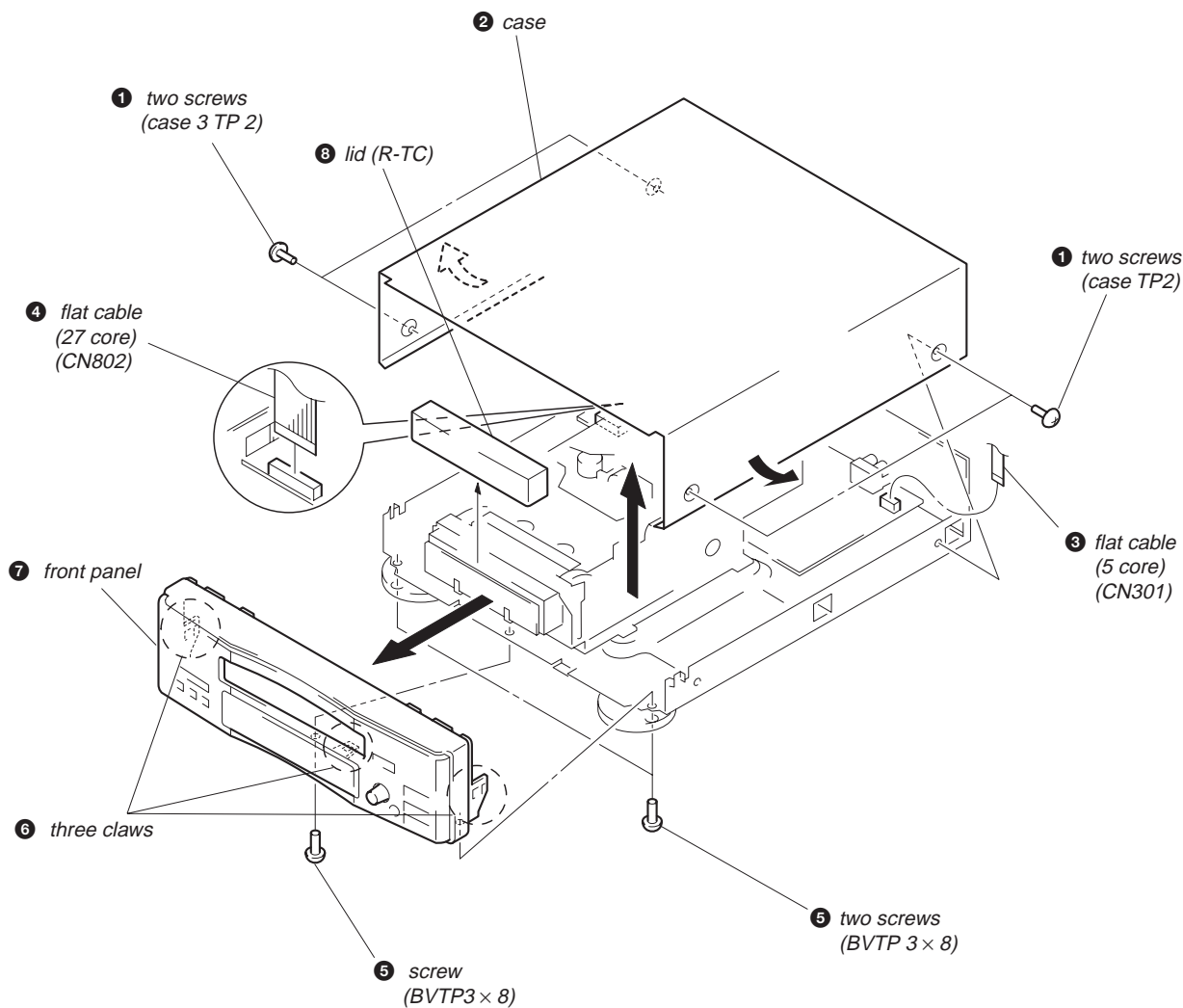
SECTION 2 DISASSEMBLY

- This set can be disassembled in the order shown below.

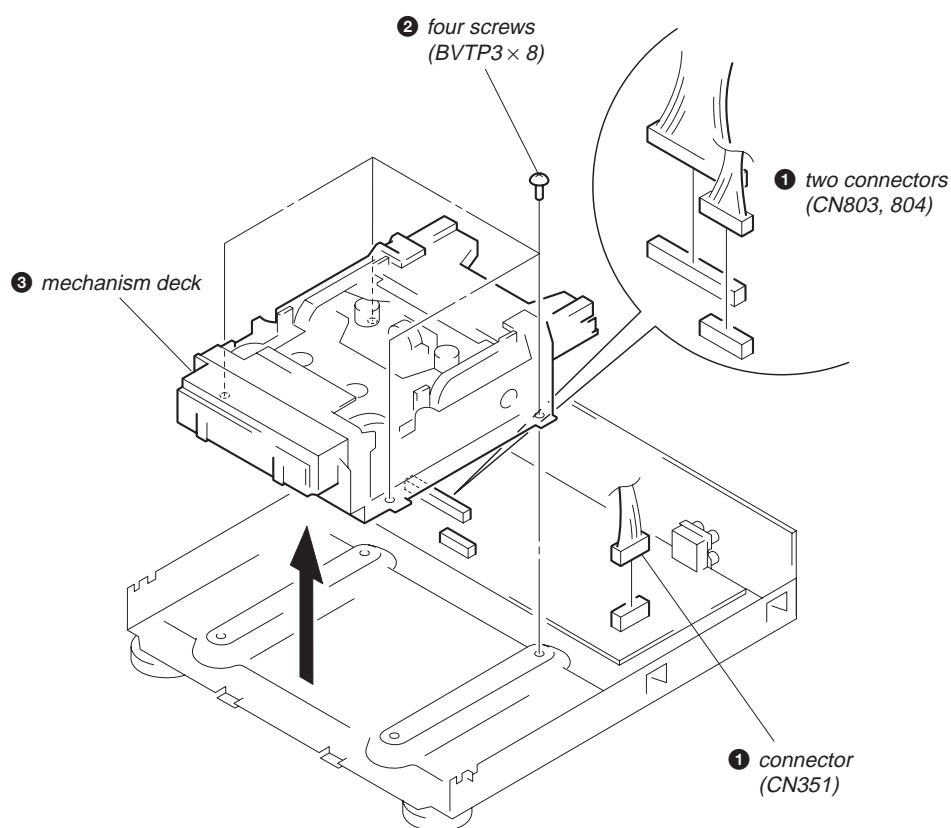


Note: Follow the disassembly procedure in the numerical order given.

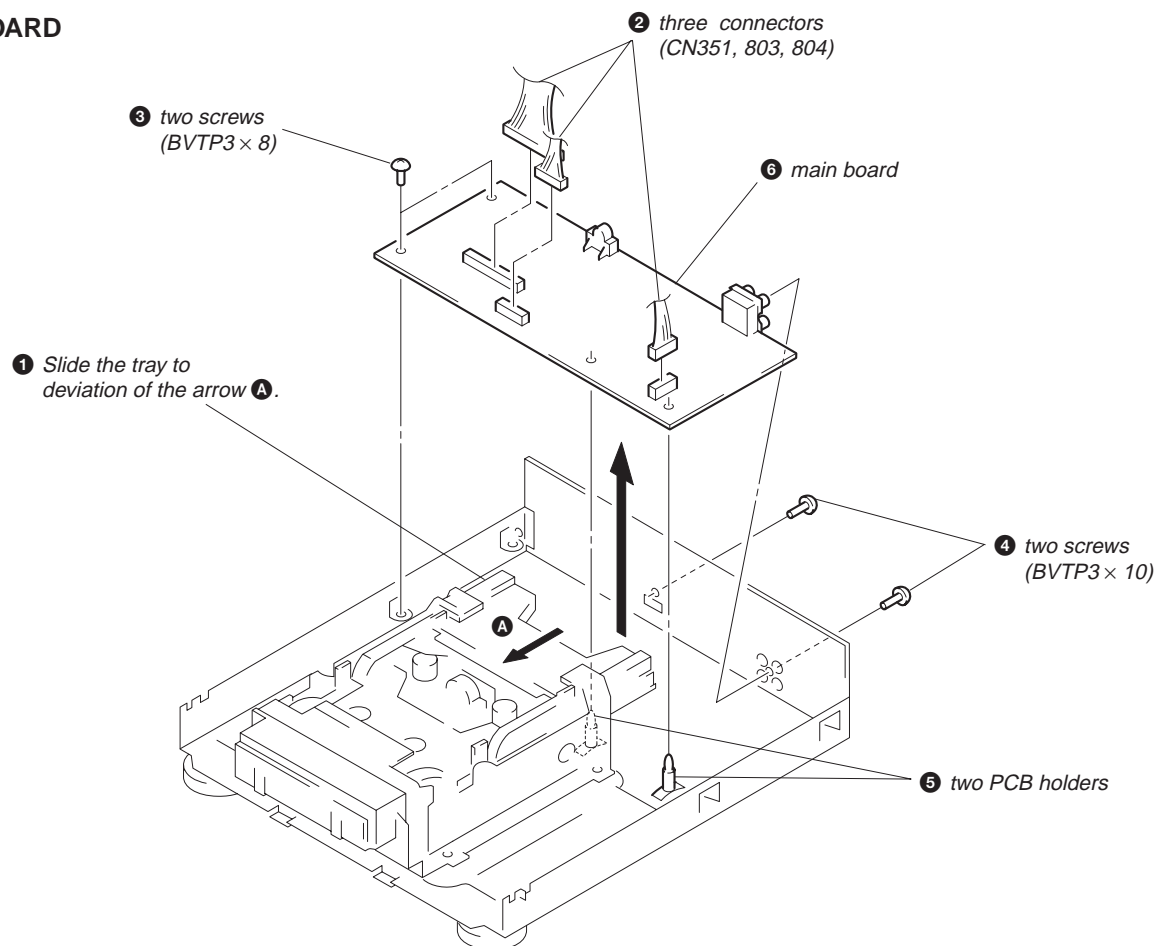
CASE, FRONT PANEL



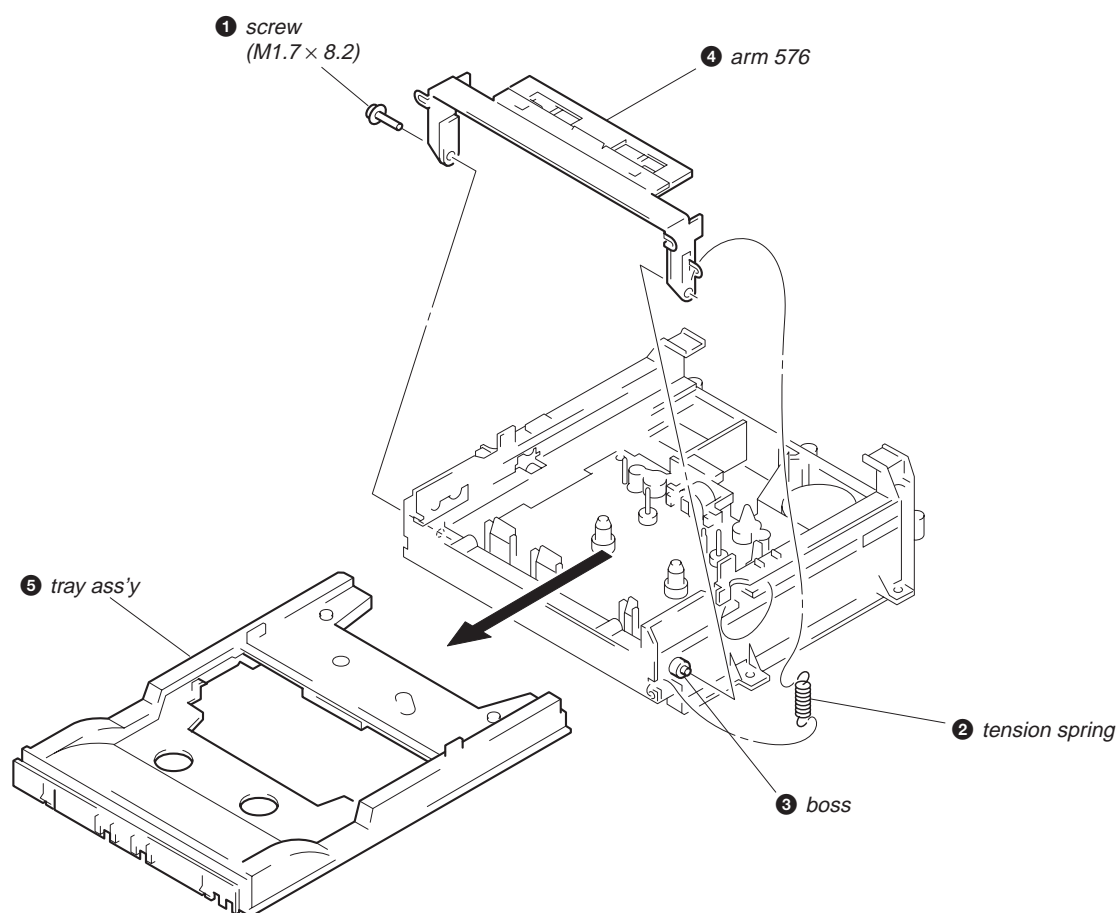
MECHANISM DECK



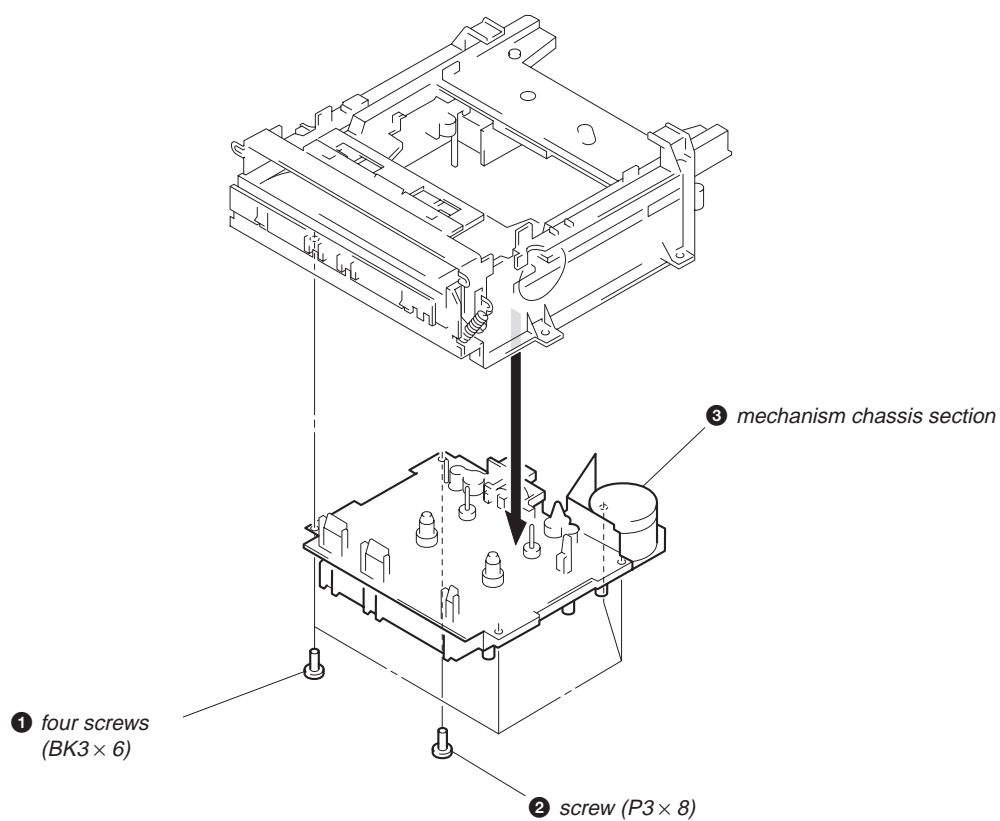
MAIN BOARD



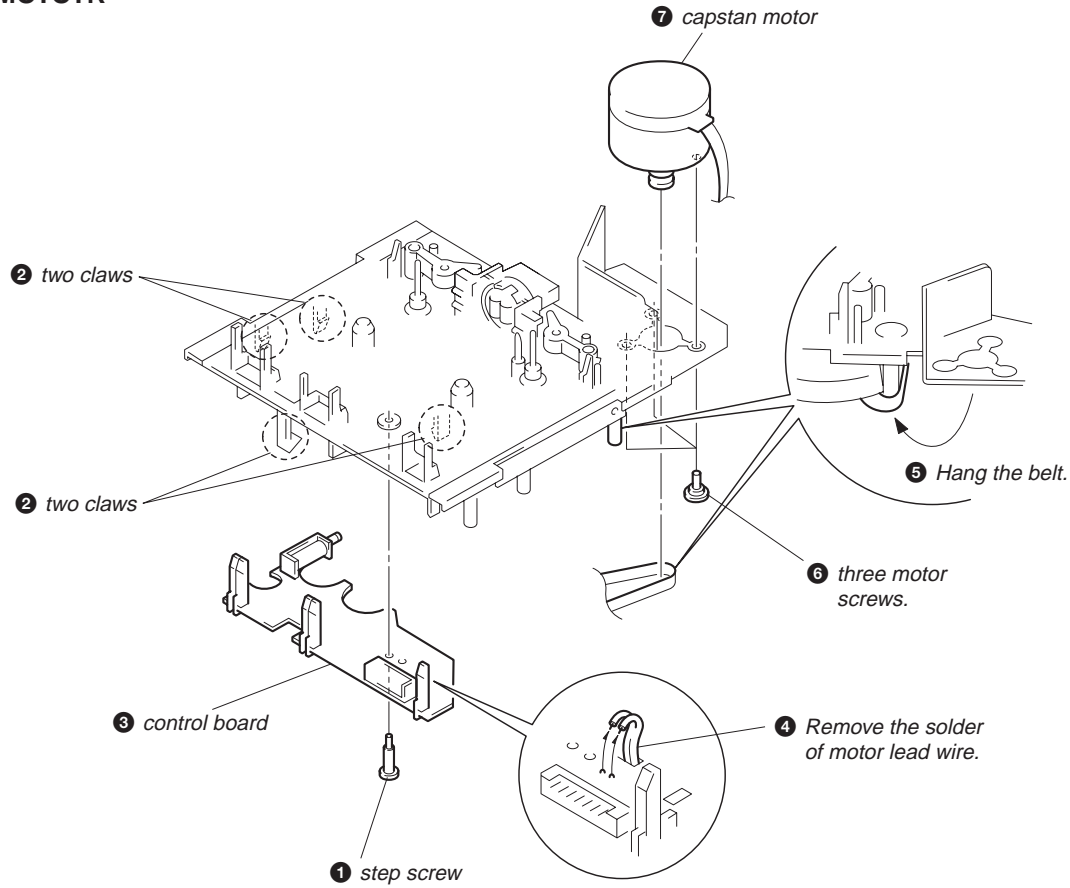
TRAY ASS'Y



MECHANISM CHASSIS SECTION



CAPSTAN MOTOTR



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:
 record/playback/earth head pinch roller
 rubber belts capstan
 idlers
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

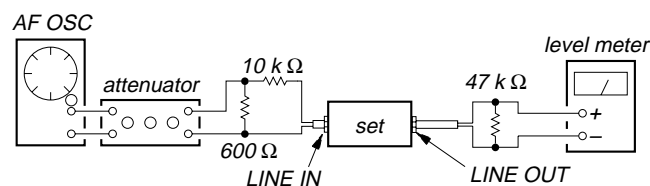
Mode	Torque Meter	Meter Reading
FWD	CQ-102C	30-65 g•cm (0.42-0.90 oz•inch)
FWD Back tension		1.5-6 g•cm (0.021-0.083 oz•inch)
REV	CQ-102RC	30-65 g•cm (0.42-0.90 oz•inch)
REV Back tension		1.5-6 g•cm (0.021-0.083 oz•inch)
FF, REW	CQ-201B	70-130 g•cm (0.98-1.80 oz•inch)

SECTION 4 ELECTRICAL ADJUSTMENTS

PRECAUTION

- The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
- The adjustments and measurement should be performed for both L-CH and R-CH.
 - Switch position
 DOLBY NR switch : OFF
 DIRECTION switch : \rightleftarrows
 - Standard record position
 Deliver the standard input signal level to input jack and set the REC LEVEL (RV301) control to obtain the standard output signal level as follows.

– Record Mode –



Standard Input Level

Input terminal	LINE IN
source impedance	10 kΩ
input signal level	0.5 V (– 3.8 dB)

Standard Output Level

Output terminal	LINE OUT (L-CH)
load impedance	47 kΩ
output signal level	0.5 V (– 3.8 dB)

Test Tape

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

0 dB = 0.775 V

Test Mode

With the POWER turned OFF, short the test point CN801 (2P) on the MAIN board (making IC801 pin ④ “L”) and turn the POWER ON. Thus, the TEST mode will be activated.

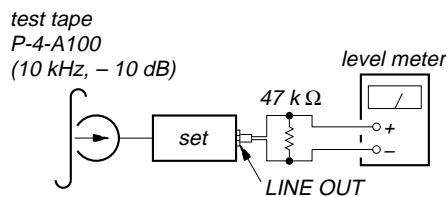
If a recording is done in the TEST mode, the REC MEMORY mode becomes active where the tape is rewound by the amount of recording when a rewinding is executed after recording.

After adjustment, make the CN801 (2P) open to release the TEST mode.

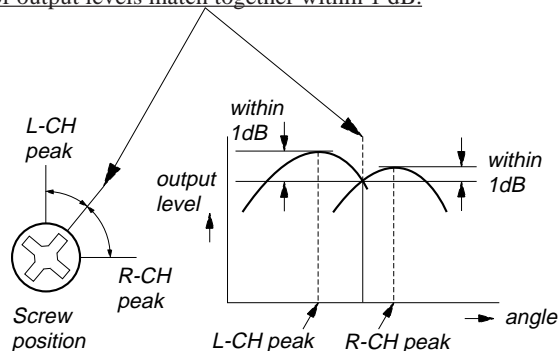
Record/Playback Head Azimuth Adjustment

Procedure:

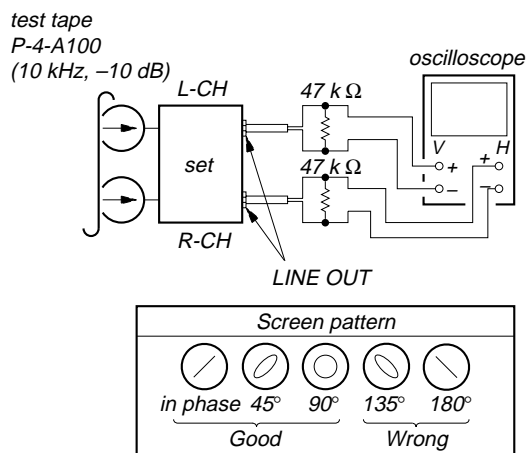
1. Mode: REV playback



2. 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 1 dB.

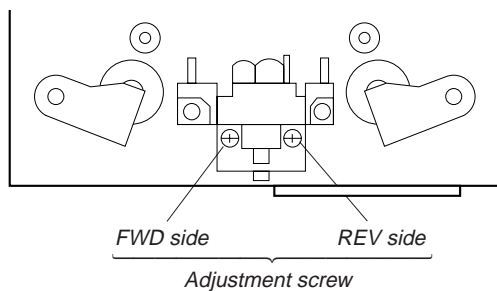


3. Phase Check
Mode: REV playback



4. Set in the FWD mode and repeat the step 1 to 3.
5. After the adjustment, lock the screw with locking compound.

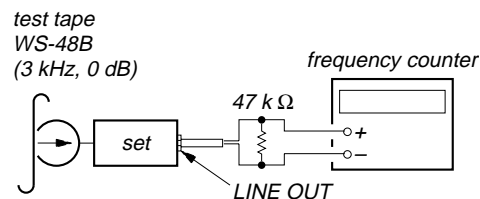
Adjustment Location: Record/Playback head



Tape Speed Adjustment

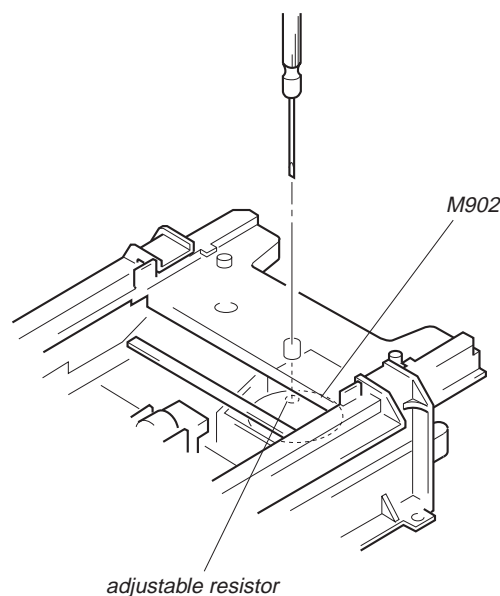
Procedure:

Mode: FWD playback



1. Set to FWD playback mode.
2. Adjust Variable resistor on the motor (M902) so that the frequency counter reading becomes $3,000 \pm 90$ Hz.
3. Confirm that the deviation between tape top and tape end is within 3%.

Adjustment Location: CAPSTAN/REEL motor (M902)



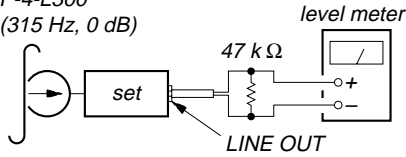
Sample Value of Wow and flutter: 0.3% or less W. RMS (WS-48B)

Playback Level Adjustment

Procedure:

Mode: FWD playback

test tape
P-4-L300
(315 Hz, 0 dB)



Adjust RV151 (L-CH) and RV251 (R-CH) so that the reading on level meter meets the adjustment limits below.

Adjustment Limits:

LINE OUT level: -7.7 ± 0.5 dB (0.301 to 0.338 V)

Level difference between channels: within 2 dB

Check that the LINE OUT level does not change even if Playback and Stop operation is repeated several times.

Adjustment Location: MAIN board (See page 13)

Record BIAS Adjustment

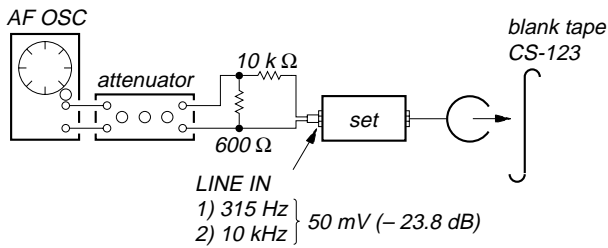
Setting:

REC LEVEL control: Standard record position (See page 10)

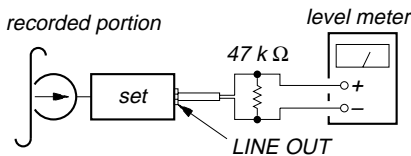
Set to the TEST mode (REC MEMORY mode) (See page 10)

Procedure:

1. Mode: Record



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjust the RV152 (L-CH) and RV252 (R-CH) to repeat step 1 and 2.

Adjustment Level: Playback output of 10 kHz to playback output of 315 Hz: ± 0.5 dB.

Adjustment Location: MAIN board (See page 13)

Record Level Adjustment

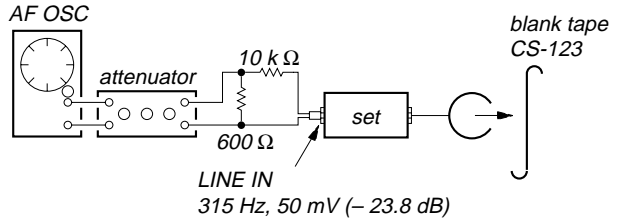
Setting:

REC LEVEL control: Standard record position (See page 10)

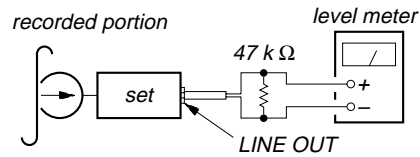
set to the TEST mode (REC MEMORY mode) (See page 10)

Procedure:

1. Mode :Record



2. Mode: Playback

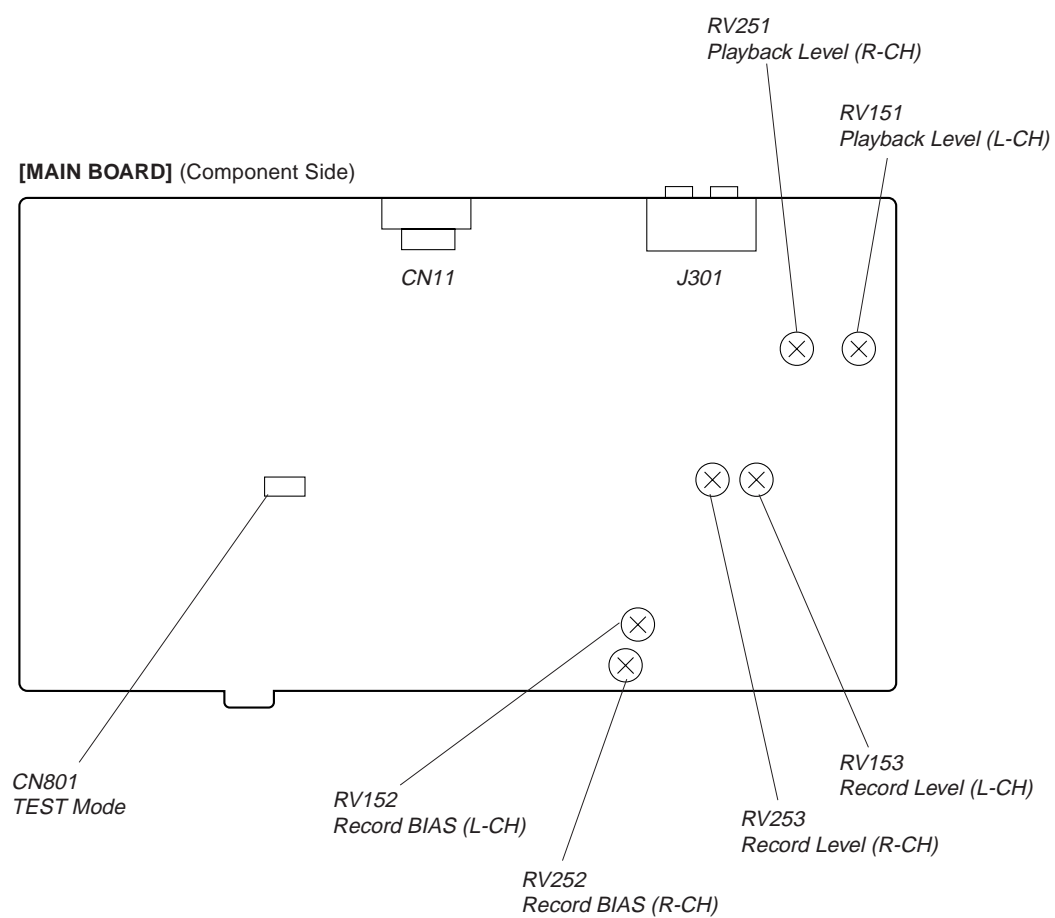


3. Confirm playback the signal recorded in step 1 become adjustment level as follows.
4. If these levels do not adjustment level, adjust RV153 (L-CH) and RV253 (R-CH) to repeat step 1 and 2.

Adjustment Level: -23.8 ± 0.5 dB (47 to 53 mV)

Adjustment Location: MAIN board (See page 13)

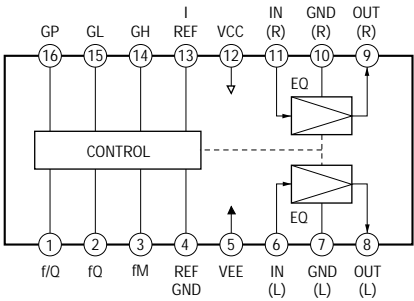
• Adjustment Parts Location



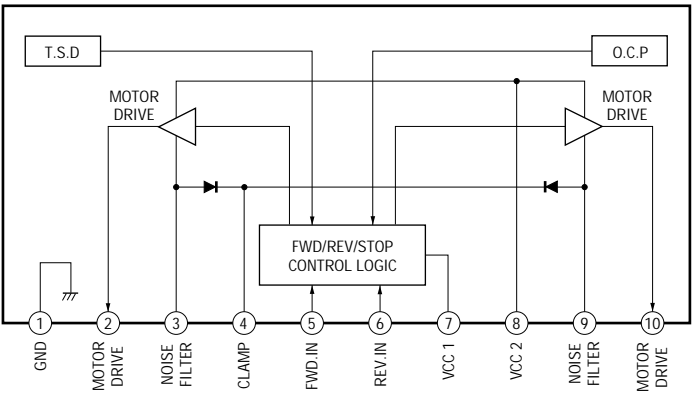
SECTION 5 DIAGRAMS

• IC Block Diagrams

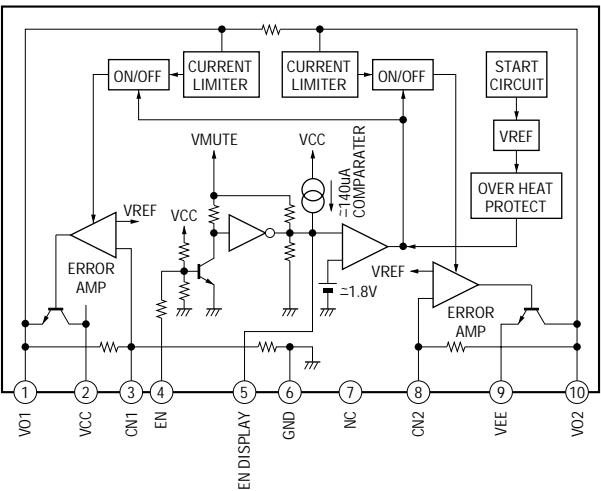
IC304 CXA1198AP



IC804 LB1641



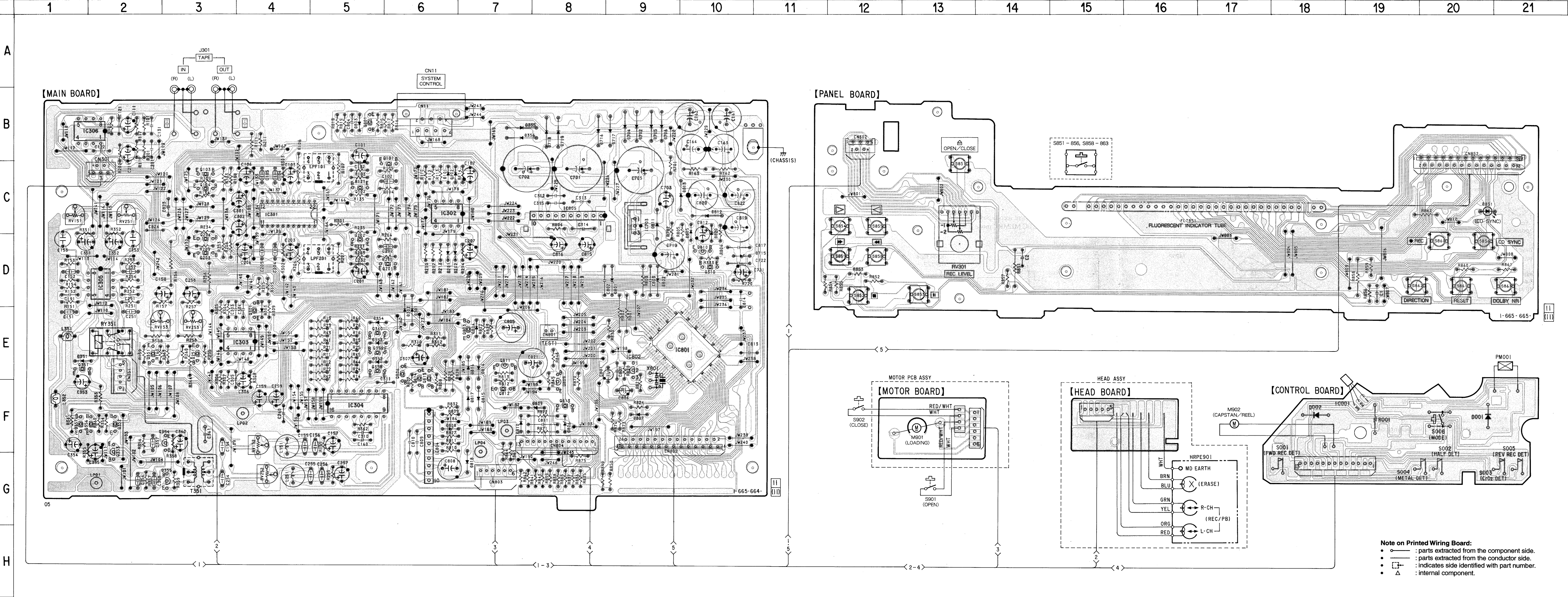
IC805 LA5617



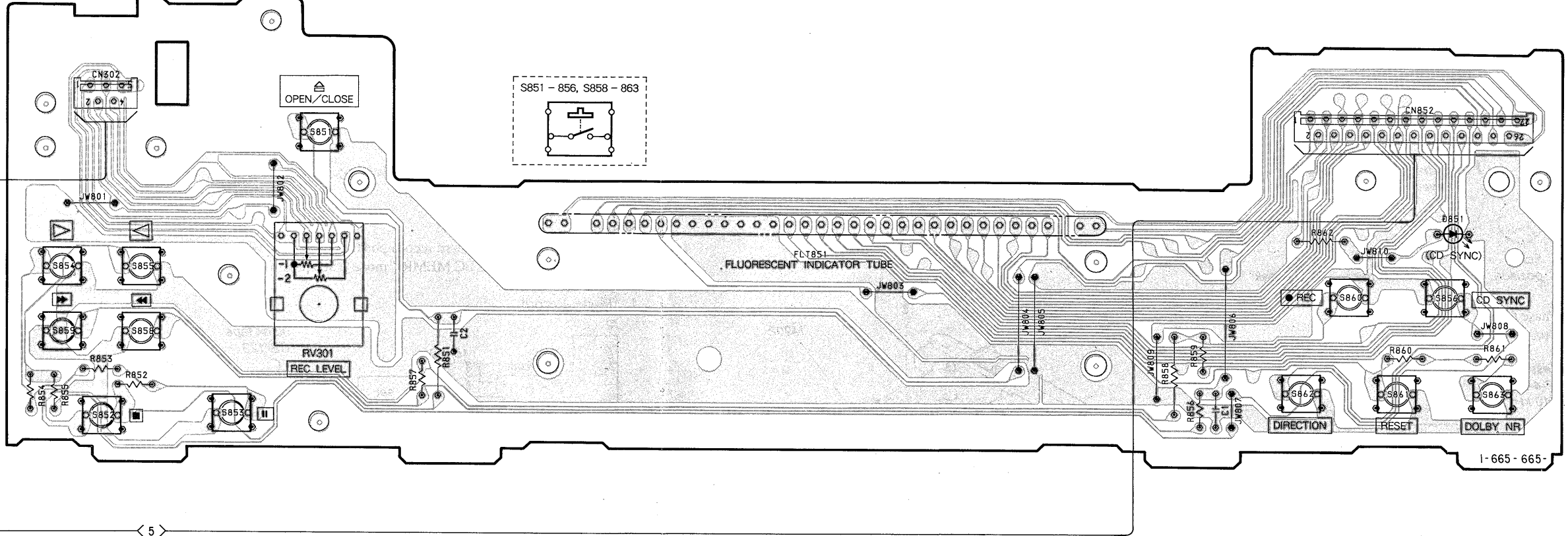
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	C-6	IC302	C-6
D102	C-6	IC303	E-4
D201	D-6	IC304	F-5
D202	D-6	IC305	D-2
D301	E-6	IC306	B-2
D302	E-6	IC703	C-9
D303	E-4	IC801	E-10
D351	E-1	IC802	E-9
D352	E-5	IC804	F-6
D353	E-5	IC805	C-8
D354	E-5		
D355	B-7	Q101	C-6
D356	B-7	Q102	C-5
D702	B-9	Q103	C-3
D704	B-9	Q104	C-3
D705	B-9	Q151	F-2
D706	B-9	Q201	D-6
D715	D-10	Q202	D-5
D716	B-8	Q203	D-3
D717	B-8	Q204	D-3
D718	B-8	Q251	F-3
D719	B-8	Q301	E-4
D801	D-9	Q310	D-10
D802	D-9	Q351	F-1
D803	B-5	Q352	F-2
D804	E-7	Q353	G-2
D805	C-10	Q354	F-3
D806	F-8	Q355	G-3
D807	F-9	Q356	F-2
D808	F-6	Q357	F-1
D809	F-8	Q358	F-5
D810	F-7	Q359	F-5
D811	C-9	Q360	F-5
D812	C-10	Q801	B-5
D813	C-10	Q803	F-7
D814	E-7	Q806	F-6
D815	F-7	Q809	D-8
D816	E-7	Q810	D-10
D817	F-7	Q811	F-7
D818	G-7	Q812	F-7
D820	C-10	Q813	F-6
D851	C-20	Q814	F-6
		Q815	F-6
IC301	C-4		

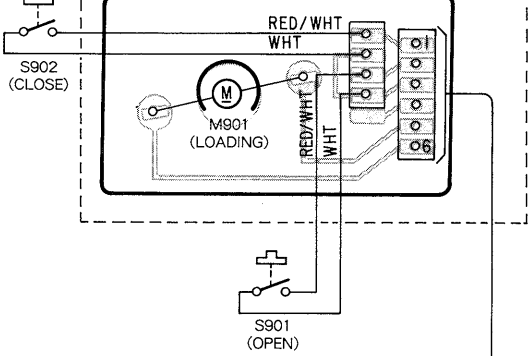
5-1. PRINTED WIRING BOARDS



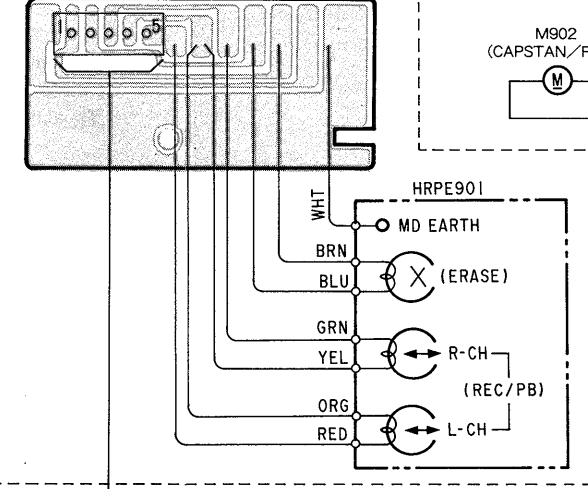
[PANEL BOARD]



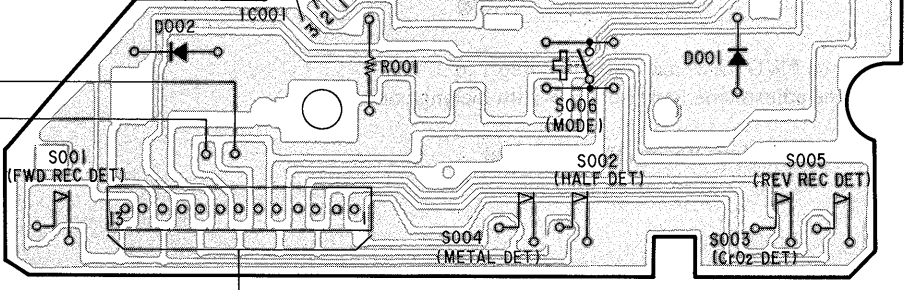
[MOTOR BOARD]



[HEAD BOARD]

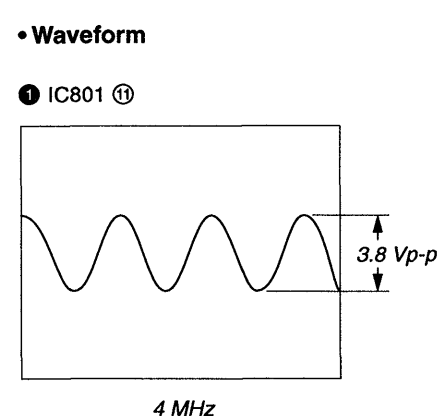


[CONTROL BOARD]

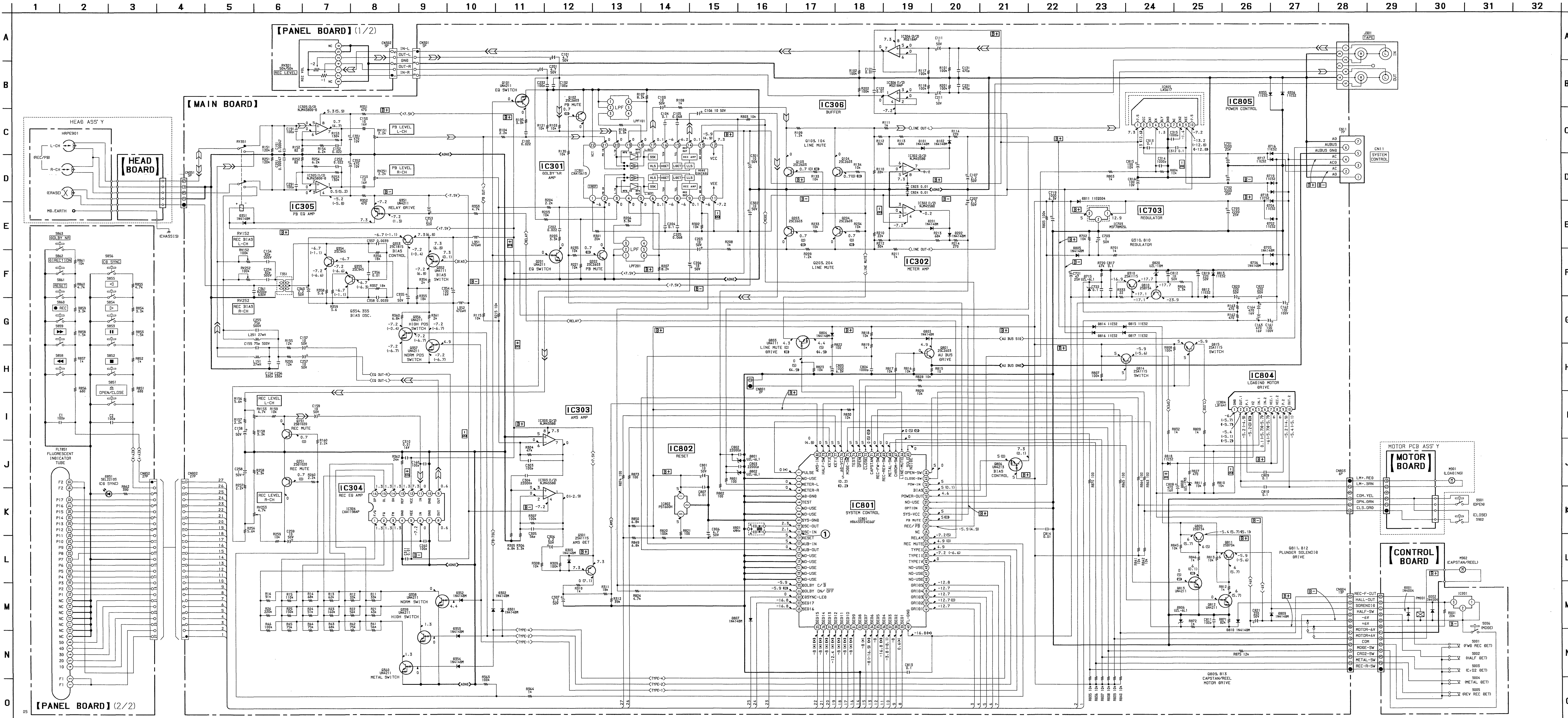


Note on Printed Wiring Board:
• : parts extracted from the component side.
• : parts extracted from the conductor side.
• : indicates side identified with part number.
• Δ : internal component.

5-2. SCHEMATIC DIAGRAM
• See page 14 for IC Block Diagrams



- Note on Schematic Diagram:**
- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{2}\text{W}$ or less unless otherwise specified.
 - \triangle : internal component.
 - \square : panel designation.
 - \square : B+ Line.
 - \square : PS Line.
 - \square : adjustment for repair.
 - Voltages and waveforms are dc with respect to ground under no-signal conditions.
 - no mark: POWER ON (STOP)
 - (): REC
 - NC: PB
 - \times : Impossible to measure
 - Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
 - Waveforms are taken with an oscilloscope.
 - Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Signal path.
 - \square : PB
 - \square : REC



5-3. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC801 HD6433724E66F (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function
1	PULSE	I	Pulse signal input
2	NO-USE	–	Not used (Fixed at “L”)
3	METER-L	I	Digital peak level meter signal input (L-ch)
4	METER-R	I	Digital peak level meter signal input (R-ch)
5	AD-GND	–	Ground for A/D converter
6	TEST	I	Not used (Fixed at “L”)
7	NO-USE	–	Not-used (Open)
8	NO-USE	–	Not-used (Fixed at “L”)
9	SYS-GND	–	Ground for system
10	OSC-OUT	O	System clock output (4 MHz)
11	OSC-IN	I	System clock input (4 MHz)
12	RESET	I	Reset signal input
13	AUB-IN	I	Audio bus input
14	AUB-OUT	O	Audio bus output
15	NO-USE	–	Not used (Fixed at “L”)
16	NO-USE	–	Not used (Fixed at “L”)
17	NO-USE	–	Not used (Fixed at “L”)
18	NO-USE	–	Not used (Fixed at “L”)
19	NO-USE	–	Not used (Fixed at “L”)
20	DOLBY C/B	O	DOLBY B/C select signal output “L”: DOLBY B, “H”: DOLBY C
21	DOLBY ON/OFF	O	DOLBY on/off select signal output “L”: DOLBY off, “H”: DOLBY on
22	CDSYNC-LED	O	Control output to CD SYNC LED (D851)
23	SEG17	O	Segment signal output to fluorescent indicator tube (FLT851)
24	SEG16	O	Segment signal output to fluorescent indicator tube (FLT851)
25	SEG15	O	Segment signal output to fluorescent indicator tube (FLT851)
26	SEG14	O	Segment signal output to fluorescent indicator tube (FLT851)
27	SEG13	O	Segment signal output to fluorescent indicator tube (FLT851)
28	SEG12	O	Segment signal output to fluorescent indicator tube (FLT851)
29	SEG11	O	Segment signal output to fluorescent indicator tube (FLT851)
30	SEG10	O	Segment signal output to fluorescent indicator tube (FLT851)
31	SEG9	O	Segment signal output to fluorescent indicator tube (FLT851)
32	SEG8	O	Segment signal output to fluorescent indicator tube (FLT851)
33	SEG7	O	Segment signal output to fluorescent indicator tube (FLT851)
34	SEG6	O	Segment signal output to fluorescent indicator tube (FLT851)
35	SEG5	O	Segment signal output to fluorescent indicator tube (FLT851)
36	SEG4	O	Segment signal output to fluorescent indicator tube (FLT851)
37	SEG3	O	Segment signal output to fluorescent indicator tube (FLT851)
38	SEG2	O	Segment signal output to fluorescent indicator tube (FLT851)
39	SEG1	O	Segment signal output to fluorescent indicator tube (FLT851)
40	FL-GND	I	Ground for fluorescent indicator tube (Fixed at “L” (–20 V))
41	GRID 1	O	Grid signal output to fluorescent indicator tube (FLT851)
42	GRID 2	O	Grid signal output to fluorescent indicator tube (FLT851)
43	GRID 3	O	Grid signal output to fluorescent indicator tube (FLT851)
44	GRID 4	O	Grid signal output to fluorescent indicator tube (FLT851)
45	GRID 5	O	Grid signal output to fluorescent indicator tube (FLT851)

Pin No.	Pin Name	I/O	Function
46	NO-USE	–	Not used (Open)
47	NO-USE	–	Not used (Open)
48	NO-USE	–	Not used (Open)
49	TYPE IV	O	Tape type output “H”: Metal Position
50	TYPE II	O	Tape type output “H”: High position
51	TYPE I	O	Tape type output “H”: Normal position
52	REC MUTE	O	Recording mute on/off control output “H”: Mute on
53	RELAY	O	Relay drive output “H”: On
54	NC	–	Not used (Open)
55	REC/PB	O	Mode control output to DOLBY NR amplifier (IC301) “L”: Record
56	PB MUTE	O	Playback mute on/off control output “H”: Mute on
57	SYS-VCC	I	Power supply for system
58	OPTION	O	Not used (Fixed at “L”)
59	NO-USE	–	Not used (Fixed at “L”)
60	POWER-OUT	O	Audio and mechanism power on/off output “H”: On
61	BIAS	O	Control output to recording bias switch (Q352) “L”: On
62	POW-IN	I	Primary power on/off input “H”: On
63	CLOSE SW	I	Close detection input from S901 “L”: Close
64	OPEN-SW	I	Open detection input from S902 “L”: Open
65	SOLENOIDE	O	Plunger (PMxxx) drive output “H”: On
66	LINE-MUTE	O	Line mute on/off control output “L”: Mute on
67	CHORM-SW	I	Tape type detection input from Sxxx “L”: Type I
68	METAL-SW	I	Tape type detection input from Sxxx “L”: Type IV
69	REC-REV-SW	I	Record proof detection input from Sxxx (REV side) “H”: Not nail
70	REC-FW-SW	I	Record proof detection input from Sxxx (FWD side) “H”: Not nail
71	CAPSTAN	O	Capstan/reel motor (M902) drive output “H”: On
72	CLOSE	O	Loading motor (M901) drive output *1
73	OPEN	O	Loading motor (M901) drive output *1
74	TEST	I	Test mode terminal
75	MODE-SW	I	Head sensor input from Sxxx
76	AD-VCC	I	Power supply for A/D converter
77	KEY 1	I	Key input (A/D convert input)*2
78	KEY 2	I	Key input (A/D convert input)*2
79	HALF-SW	I	Cassette half detection input from Sxxx
80	AMS-IN	I	AMS input

*1 Loading Motor (M901)

	IN	OUT	BRAKE
CLOSE ⑦②	H	L	H
OPEN ⑦③	L	H	H

*2 Key Input

Voltage Input port	0 V	0.45 V	1.19 V	2.19 V	3.2 V	3.98 V	4.48 V	5.0 V
Pin ⑦④, KEY 2	Open/Close ⏏	STOP ■	PAUSE ⏏	FWD ▷	REV ◁	CD SYNC	—	Not key input
Pin ⑦⑤, KEY 1	POWER ON/OFF	REW ◀◀	FF ▶▶	REC ●	RESET	DIRECTION	DOLBY NR	Not key input

SECTION 6

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

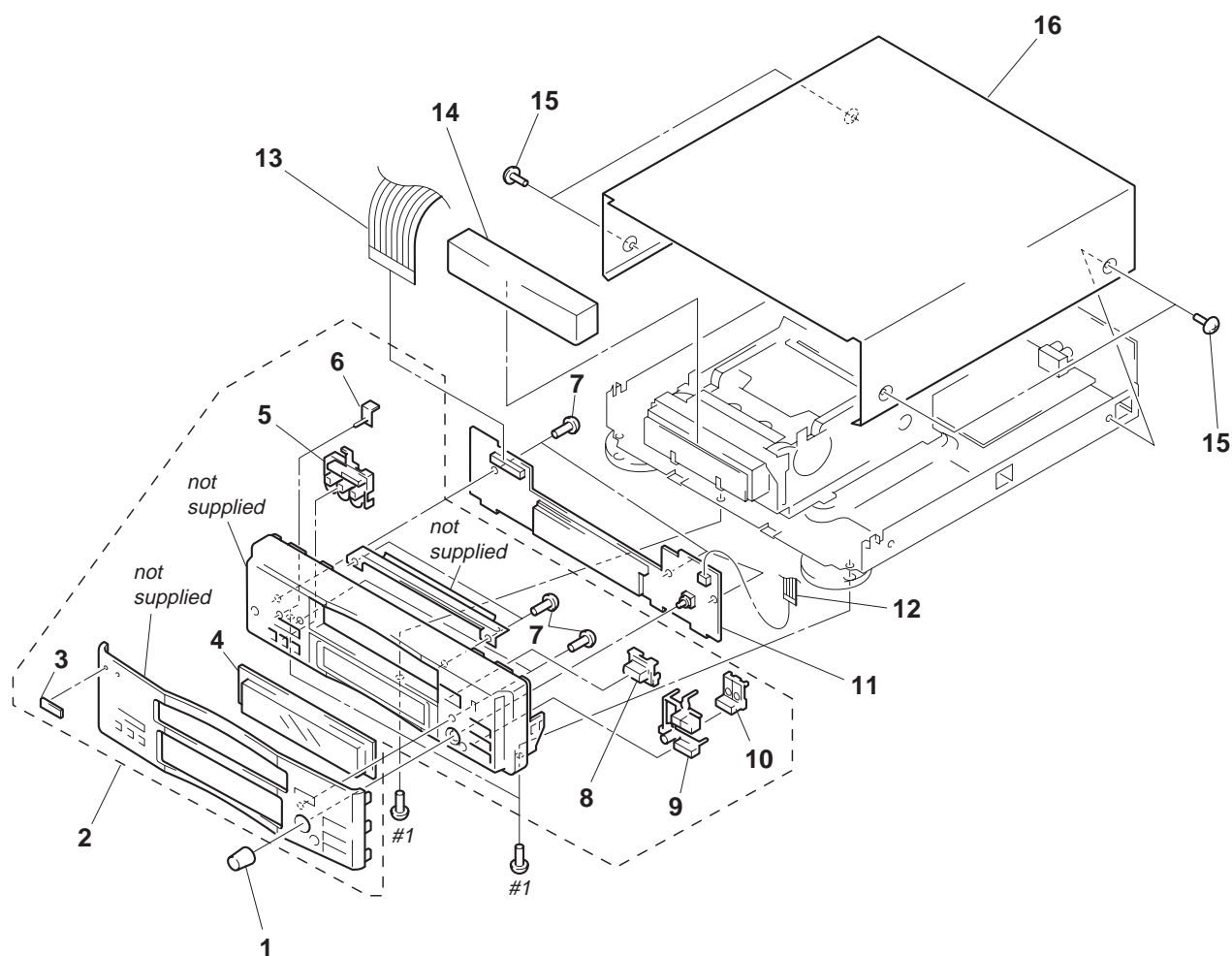
Example:

KNOB, BALANCE (WHITE) . . . (RED)

Parts Color Cabinet's Color

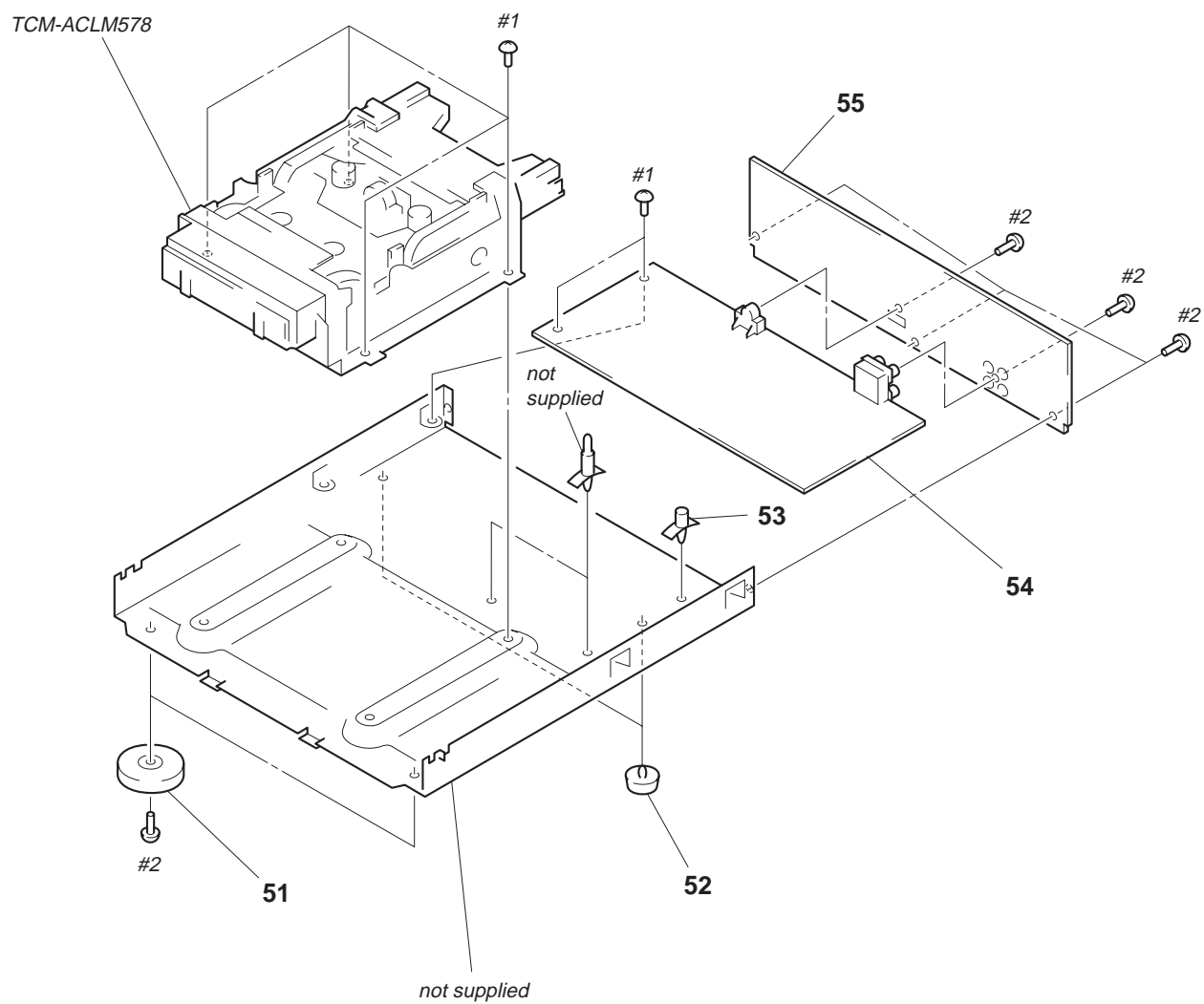
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of the electrical parts list.

(1) CASE, FRONT PANEL SECTION



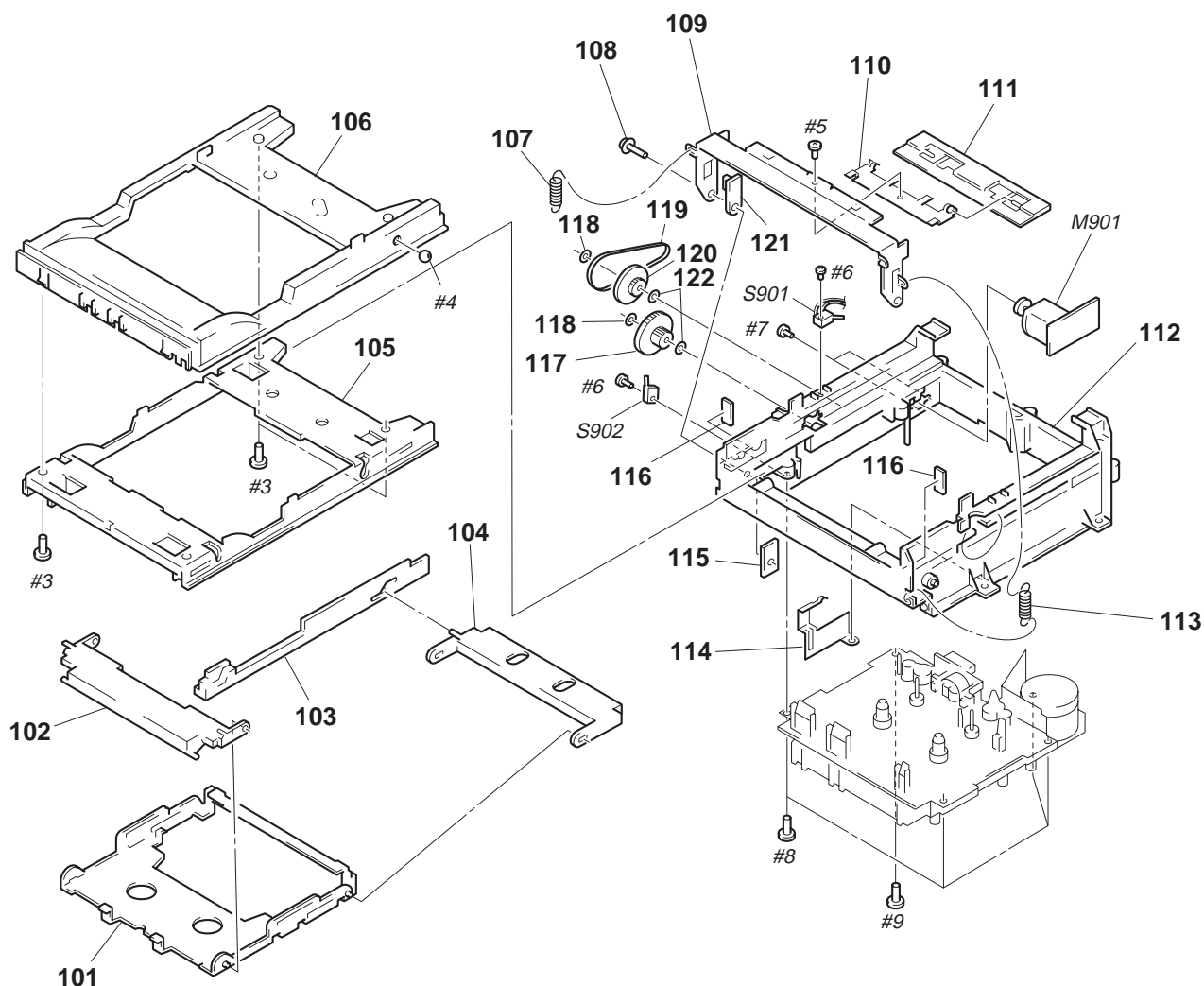
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-985-926-01	KNOB		9	3-939-642-01	BUTTON (PLAY) (◀, ▶, ■)	
2	X-3373-604-1	PANEL ASSY, FRONT		10	3-939-643-01	BUTTON (FF) (◀◀, ▶▶)	
3	4-962-708-01	EMBLEM (4-A), SONY		* 11	A-2007-722-A	PANEL BOARD, COMPLETE	
4	3-939-648-01	WINDOW (TC)		12	1-782-490-11	WIRE (FLAT TYPE) (5 CORE)	
5	3-939-646-01	BUTTON (REC) (CD SYNC, ● REC)		13	1-773-257-11	WIRE (FLAT TYPE) (27 CORE)	
6	3-939-647-01	INDICATOR (TC)		14	3-012-561-01	LID (R-TC)	
7	4-951-620-01	SCREW (2.6X8), +BVTP		15	3-363-099-01	SCREW (CASE 3 TP2)	
8	3-012-560-01	BUTTON (EJECT) (≡ OPEN/CLOSE)		* 16	3-939-652-11	CASE	

(2) CHASSIS SECTION



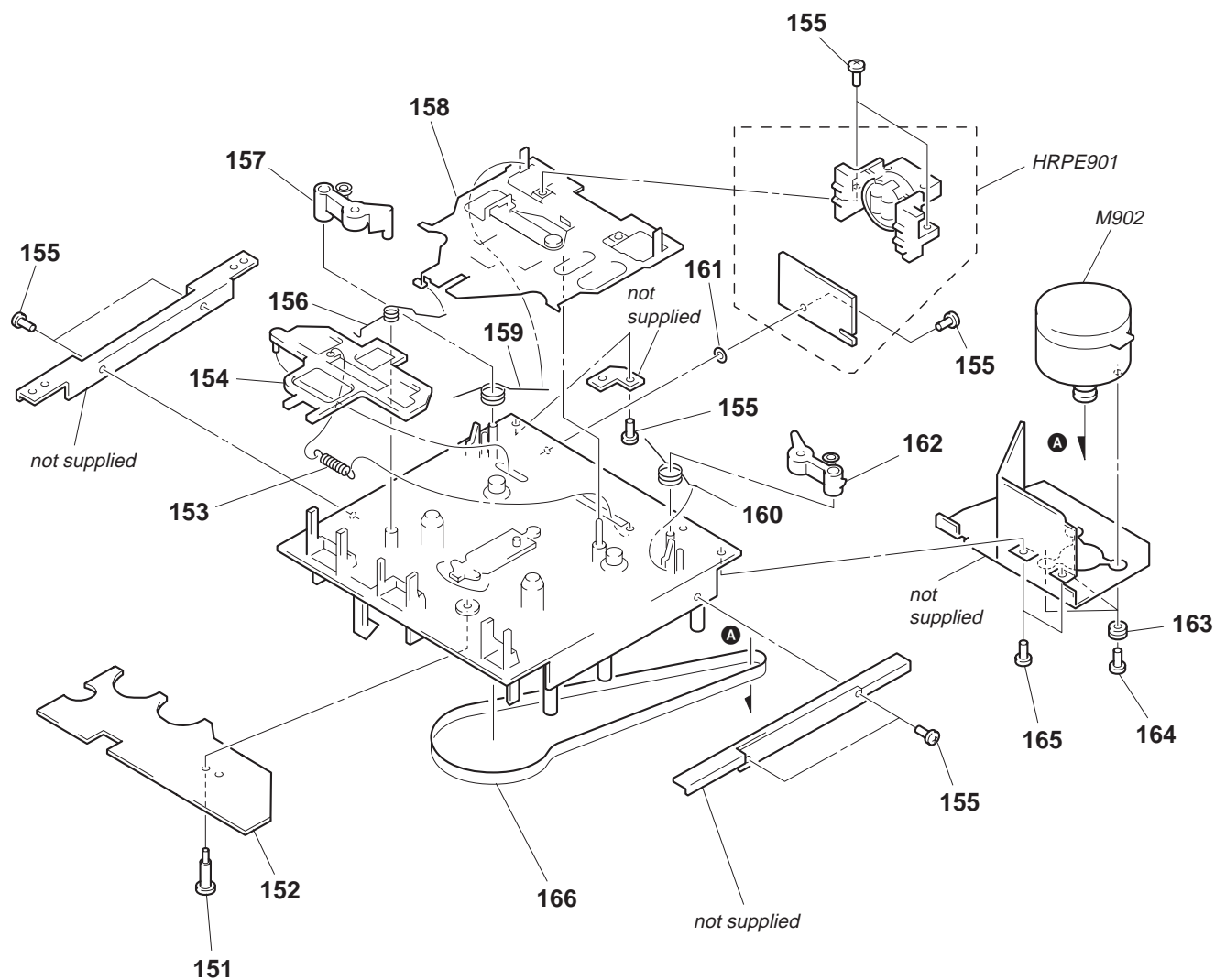
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-977-699-11	LEG (F)		* 54	A-2007-721-A	MAIN BOARD, COMPLETE	
52	4-965-822-01	FOOT		* 55	3-012-563-02	PANEL, BACK	
* 53	3-350-847-31	HOLDER, PCB					

(3) MECHANISM DECK SECTION-1
(TCM-ACLM578)



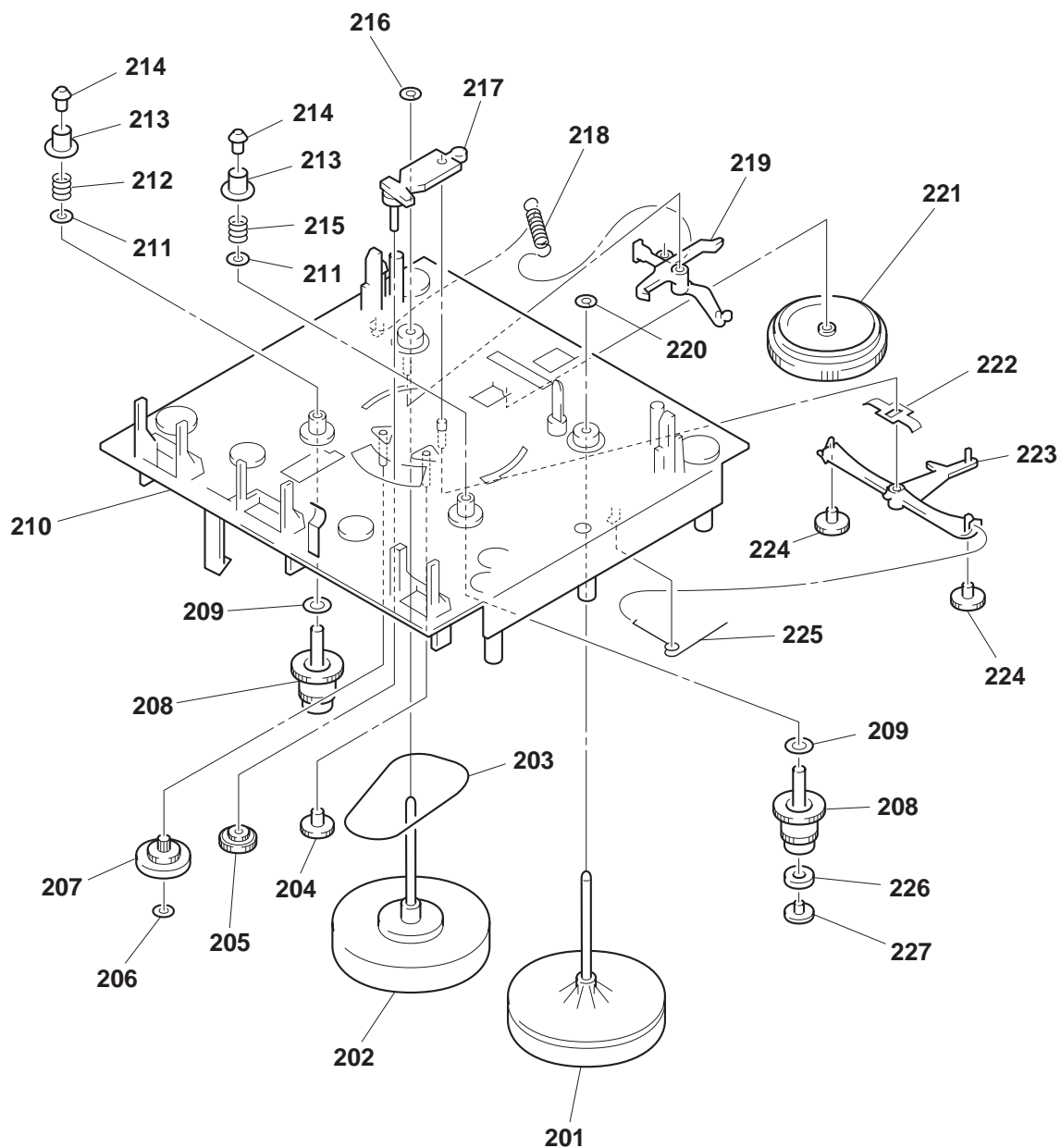
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-017-214-01	HOLDER		114	3-017-234-01	GROUND, PLATE	
102	3-017-215-01	ARM (A)		115	3-017-243-01	NUT	
103	3-017-233-01	RACK, GEAR		116	3-017-242-01	BUFFER	
104	3-017-216-01	ARM (C)		117	3-017-232-01	GEAR (B)	
105	3-017-213-01	CHASSIS		118	3-017-241-01	WASHER (1.6X4X0.5)	
106	3-017-212-01	TRAY		119	3-017-237-01	BELT (49.2)	
107	3-017-235-01	SPRING (A)		120	3-017-231-01	PULLEY (C)	
108	3-017-244-01	SCREW (1.7X8.2), SPECIAL		121	3-017-220-01	ARM	
109	3-017-217-01	ARM (576)		122	3-017-240-01	WASHER (2.1X4X0.5)	
110	3-017-218-01	RETAINER		M901	3-017-239-01	PULLEY (MOTOR) (LOADING)	
111	3-017-219-01	PLATE		S901	3-017-238-01	LIMITTER (SW MSS-8B) (OPEN)	
112	3-017-211-01	FRAME		S902	3-017-238-01	LIMITTER (SW MSS-8B) (CLOSE)	
113	3-017-236-01	SPRING (B)					

(4) MECHANISM DECK SECTION-2
(TCM-ACLM578)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-017-294-01	SCREW (S), SPECIAL		160	3-017-278-01	PINCH (R), SPRING	
* 152		CONTROL BOARD		161	3-017-300-01	WASHER, FLAT	
153	3-017-273-01	LEVER AC, SPRING		162	3-017-255-01	PINCH ROLLER (R)	
154	3-017-270-01	AC, LEVER		163	3-017-296-01	CUTION (MOTOR)	
155	3-017-279-01	SCREW (M2), SPECIAL		164	3-017-297-01	SCREW (MOTOR)	
156	3-017-274-01	HEAD, SPRING BASE		165	3-017-280-01	SCREW (M2 TAPPING), SPECIAL	
157	3-017-254-01	PINCH ROLLER (F)		166	3-017-285-01	BELT (MAIN)	
158	3-017-253-01	CHASSIS (HEAD)		HRPE901		HEAD ASSY (RECORD/PLAYBACK/ERASE)	
159	3-017-277-01	PINCH (F), SPRING		M902	3-017-259-01	PULLEY (MOTOR) (CAPSTAN/REEL)	

(5) MECHANISM DECK SECTION-3
(TCM-ACLM578)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-017-258-01	FLYWHEEL (R)		215	3-017-272-01	SPRING (BT) (R)	
202	3-017-257-01	FLYWHEEL (F)		216	3-017-281-01	WASHER, FLAT	
203	3-017-284-01	BELT (SUB)		217	3-017-256-01	ARM (PLAY)	
204	3-017-265-01	IDLER, GEAR		218	3-017-275-01	LOCK, SPRING CAM	
205		GEAR P ASSY		219	3-017-267-01	LOCK, ARM CAM	
206	3-017-283-01	WASHER, FLAT		220	3-017-282-01	WASHER, FLAT	
207		CLUTCH ASSY		221	3-017-264-01	CAM, GEAR	
208	3-017-263-01	REEL, BASE		222	3-017-266-01	BASE, LEVER	
209	3-017-295-01	WASHER, FLAT		223	3-017-268-01	ARM (RF)	
210	3-017-252-01	CHASSIS (OS)		224	3-017-269-01	GEAR (RF)	
211	3-017-298-01	WASHER (B/T)		225	3-017-276-01	ARM (RF), SPRING	
212	3-017-299-01	SPRING (B/T) (F)		226	3-017-293-01	MAGNET, PLATE	
213	3-017-288-01	REEL, CAP		227	3-017-271-01	CAP (MG)	
214	3-017-262-01	REEL, BUSHING					

SECTION 7 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.
- -XX and -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

- 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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*		CONTROL BOARD *****		C121	1-162-306-11	CERAMIC	0.01uF 20% 16V
		< CONNECTOR >		C122	1-162-306-11	CERAMIC	0.01uF 20% 16V
CN	3-017-287-01	TERMINAL (RP)		C131	1-162-290-31	CERAMIC	470PF 10% 50V
		< DIODE >		C132	1-162-282-31	CERAMIC	100PF 10% 50V
D	8-719-987-63	DIODE 1N418M		C151	1-130-467-00	MYLAR	470PF 5% 50V
D	8-719-987-63	DIODE 1N418M		C152	1-137-372-11	FILM	0.022uF 5% 50V
		< IC >		C153	1-107-714-11	ELECT	10uF 20% 16V
IC	3-017-289-01	PLATE, ROTARY DETECTION		C154	1-107-610-11	CERAMIC	82PF 5% 500V
		< PLUNGER SOLENOID >		C155	1-107-609-11	CERAMIC	75PF 5% 500V
PM	3-017-292-01	SOLENOID		C156	1-102-820-00	CERAMIC	330PF 5% 50V
		< RESISTOR >		C157	1-126-964-11	ELECT	10uF 20% 50V
R	1-247-682-11	CARBON		C158	1-126-960-11	ELECT	1uF 20% 50V
		< SWITCH >		C159	1-126-964-11	ELECT	10uF 20% 50V
S	3-017-290-01	SWITCH, DETECT (FWD REC DET)		C160	1-162-282-31	CERAMIC	100PF 10% 50V
S	3-017-290-01	SWITCH, DETECT (HALF DET)		C161	1-128-563-11	ELECT	100uF 20% 100V
S	3-017-290-01	SWITCH, DETECT (CrO2 DET)		C162	1-128-563-11	ELECT	100uF 20% 100V
S	3-017-290-01	SWITCH, DETECT (METAL DET)		C163	1-126-935-11	ELECT	470uF 20% 16V
S	3-017-290-01	SWITCH, DETECT (REV REC DET)		C164	1-126-935-11	ELECT	470uF 20% 16V
S	3-017-291-01	SWITCH, MODE (MODE)		C191	1-162-282-31	CERAMIC	100PF 10% 50V
*****				C201	1-126-963-11	ELECT	4.7uF 20% 50V
*	A-2007-721-A	MAIN BOARD, COMPLETE *****		C202	1-137-372-11	FILM	0.022uF 5% 50V
				C203	1-126-964-11	ELECT	10uF 20% 50V
*	3-309-144-21	HEAT SINK		C204	1-136-165-00	FILM	0.1uF 5% 50V
	7-685-871-01	SCREW +BVTT 3X6 (S)		C205	1-136-163-00	FILM	0.068uF 5% 50V
		< CAPACITOR >		C206	1-126-964-11	ELECT	10uF 20% 50V
C101	1-126-963-11	ELECT	4.7uF 20% 50V	C207	1-126-961-11	ELECT	2.2uF 20% 50V
C102	1-137-372-11	FILM	0.022uF 5% 50V	C211	1-126-960-11	ELECT	1uF 20% 50V
C103	1-126-964-11	ELECT	10uF 20% 50V	C231	1-162-290-31	CERAMIC	470PF 10% 50V
C104	1-136-165-00	FILM	0.1uF 5% 50V	C232	1-162-282-31	CERAMIC	100PF 10% 50V
C105	1-136-163-00	FILM	0.068uF 5% 50V	C251	1-130-467-00	MYLAR	470PF 5% 50V
C106	1-126-964-11	ELECT	10uF 20% 50V	C252	1-137-372-11	FILM	0.022uF 5% 50V
C107	1-126-961-11	ELECT	2.2uF 20% 50V	C253	1-107-714-11	ELECT	10uF 20% 16V
C111	1-126-960-11	ELECT	1uF 20% 50V	C254	1-107-610-11	CERAMIC	82PF 5% 500V
				C255	1-107-609-11	CERAMIC	75PF 5% 500V
				C256	1-102-820-00	CERAMIC	330PF 5% 50V
				C257	1-126-964-11	ELECT	10uF 20% 50V
				C258	1-126-960-11	ELECT	1uF 20% 50V
				C259	1-126-964-11	ELECT	10uF 20% 50V
				C260	1-162-282-31	CERAMIC	100PF 10% 50V
				C291	1-162-282-31	CERAMIC	100PF 10% 50V
				C301	1-126-964-11	ELECT	10uF 20% 50V
				C302	1-126-964-11	ELECT	10uF 20% 50V
				C303	1-162-282-31	CERAMIC	100PF 10% 50V
				C304	1-161-494-00	CERAMIC	0.022uF 25V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
C305	1-162-217-31	CERAMIC	56PF	5%	50V	* CN804	1-564-715-11	PIN, CONNECTOR (SMALL TYPE)13P	
C306	1-126-961-11	ELECT	2.2uF	20%	50V			< DIODE >	
C307	1-126-961-11	ELECT	2.2uF	20%	50V				
C310	1-162-306-11	CERAMIC	0.01uF	20%	16V	D101	8-719-987-63	DIODE 1N4148M	
C311	1-162-306-11	CERAMIC	0.01uF	20%	16V	D102	8-719-987-63	DIODE 1N4148M	
C312	1-164-159-11	CERAMIC	0.1uF		50V	D201	8-719-987-63	DIODE 1N4148M	
C313	1-164-159-11	CERAMIC	0.1uF		50V	D202	8-719-987-63	DIODE 1N4148M	
C314	1-162-294-31	CERAMIC	0.001uF	10%	50V	D301	8-719-987-63	DIODE 1N4148M	
C315	1-162-294-31	CERAMIC	0.001uF	10%	50V	D302	8-719-987-63	DIODE 1N4148M	
C351	1-126-925-11	ELECT	470uF	20%	10V	D303	8-719-987-63	DIODE 1N4148M	
C352	1-126-925-11	ELECT	470uF	20%	10V	D351	8-719-987-63	DIODE 1N4148M	
C353	1-126-961-11	ELECT	2.2uF	20%	50V	D352	8-719-987-63	DIODE 1N4148M	
C354	1-126-933-11	ELECT	100uF	20%	16V	D353	8-719-987-63	DIODE 1N4148M	
C355	1-126-960-11	ELECT	1uF	20%	50V	D354	8-719-987-63	DIODE 1N4148M	
C356	1-137-370-11	FILM	0.01uF	5%	50V	D355	8-719-200-82	DIODE 11ES2	
C357	1-137-436-11	FILM	0.0039uF	5%	50V	D356	8-719-200-82	DIODE 11ES2	
C358	1-137-436-11	FILM	0.0039uF	5%	50V	D702	8-719-200-82	DIODE 11ES2	
C360	1-126-961-11	ELECT	2.2uF	20%	50V	D704	8-719-200-82	DIODE 11ES2	
C361	1-136-562-11	FILM	0.0082uF	5%	630V	D705	8-719-987-63	DIODE 1N4148M	
C701	1-126-943-11	ELECT	2200uF	20%	25V	D706	8-719-987-63	DIODE 1N4148M	
C702	1-126-943-11	ELECT	2200uF	20%	25V	D715	8-719-933-33	DIODE HZS6A1L	
C703	1-126-960-11	ELECT	1uF	20%	50V	D716	8-719-200-82	DIODE 11ES2	
C705	1-126-943-11	ELECT	2200uF	20%	25V	D717	8-719-200-82	DIODE 11ES2	
C719	1-126-916-11	ELECT	1000uF	20%	6.3V	D718	8-719-200-82	DIODE 11ES2	
C721	1-104-664-11	ELECT	47uF	20%	25V	D719	8-719-200-82	DIODE 11ES2	
C722	1-164-159-11	CERAMIC	0.1uF		50V	D801	8-719-933-33	DIODE HZS6A1L	
C801	1-126-964-11	ELECT	10uF	20%	50V	D802	8-719-933-33	DIODE HZS6A1L	
C802	1-161-494-00	CERAMIC	0.022uF		25V	D803	8-719-987-63	DIODE 1N4148M	
C803	1-161-494-00	CERAMIC	0.022uF		25V	D804	8-719-987-63	DIODE 1N4148M	
C804	1-162-294-31	CERAMIC	0.001uF	10%	50V	D805	8-719-987-63	DIODE 1N4148M	
C805	1-126-916-11	ELECT	1000uF	20%	6.3V	D806	8-719-933-33	DIODE HZS6A1L	
C806	1-126-963-11	ELECT	4.7uF	20%	50V	D807	8-719-987-63	DIODE 1N4148M	
C807	1-162-306-11	CERAMIC	0.01uF	20%	16V	D808	8-719-933-48	DIODE HZS7B3L	
C808	1-126-935-11	ELECT	470uF	20%	16V	D809	8-719-987-63	DIODE 1N4148M	
C809	1-164-159-11	CERAMIC	0.1uF		50V	D810	8-719-987-63	DIODE 1N4148M	
C810	1-164-159-11	CERAMIC	0.1uF		50V	D811	8-719-210-21	DIODE 11EQS04	
C811	1-162-282-31	CERAMIC	100PF	10%	50V	D812	8-719-200-82	DIODE 11ES2	
C812	1-126-964-11	ELECT	10uF	20%	50V	D813	8-719-200-82	DIODE 11ES2	
C813	1-164-159-11	CERAMIC	0.1uF		50V	D814	8-719-200-82	DIODE 11ES2	
C814	1-162-306-11	CERAMIC	0.01uF	20%	16V	D815	8-719-200-82	DIODE 11ES2	
C815	1-126-933-11	ELECT	100uF	20%	10V	D816	8-719-200-82	DIODE 11ES2	
C816	1-126-933-11	ELECT	100uF	20%	10V	D817	8-719-200-82	DIODE 11ES2	
C817	1-164-159-11	CERAMIC	0.1uF		50V	D818	8-719-200-82	DIODE 11ES2	
C819	1-126-969-11	ELECT	220uF	20%	50V	D820	8-719-002-09	DIODE UZL-18M	
C820	1-126-969-11	ELECT	220uF	20%	50V			< GROUND TERMINAL >	
C821	1-126-969-11	ELECT	220uF	20%	50V				
C822	1-126-969-11	ELECT	220uF	20%	50V				
C823	1-162-306-11	CERAMIC	0.01uF	20%	16V	EPT01	1-537-770-21	TERMINAL BOARD, GROUND	
C824	1-162-306-11	CERAMIC	0.01uF	20%	16V			< IC >	
< CONNECTOR >									
CN11	1-770-158-21	HOUSING, CONNECTOR 7P	(SYSTEM CONTROL)						
* CN301	1-568-824-11	SOCKET, CONNECTOR 5P							
* CN351	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P							
* CN801	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P							
* CN802	1-568-842-11	SOCKET, CONNECTOR 27P							
* CN803	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P							
						IC301	8-752-060-46	IC CXA1561S	
						IC302	8-759-634-51	IC M5218AP	
						IC303	8-759-634-51	IC M5218AP	
						IC304	8-752-060-64	IC CXA1198AP	
						IC305	8-759-710-59	IC NJM4580D-D	
						IC306	8-759-634-51	IC M5218AP	
						IC703	8-759-604-35	IC M5F78M05L	
						IC801	8-759-479-87	IC HD6433724E66F	
						IC802	8-759-165-85	IC PST600H-T	

MAIN

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
IC804	8-759-822-09	IC LB1641					R21	1-247-870-11	CARBON	43K	5%	1/4W	
IC805	8-759-288-53	IC LA5617					R22	1-249-438-11	CARBON	56K	5%	1/4W	
		< JACK >					R23	1-247-884-11	CARBON	160K	5%	1/4W	
J301	1-770-720-11	JACK, PIN 4P (TAPE (IN/OUT))					R24	1-247-872-11	CARBON	51K	5%	1/4W	
		< COIL >					R25	1-247-883-00	CARBON	150K	5%	1/4W	
L151	1-410-780-11	INDUCTOR 27mH					R26	1-247-887-00	CARBON	220K	5%	1/4W	
L251	1-410-780-11	INDUCTOR 27mH					R41	1-249-438-11	CARBON	56K	5%	1/4W	
L351	1-414-223-11	INDUCTOR 470uH					R42	1-247-876-11	CARBON	75K	5%	1/4W	
L352	1-414-223-11	INDUCTOR 470uH					R43	1-249-439-11	CARBON	68K	5%	1/4W	
		< FILTER >					R44	1-247-876-11	CARBON	75K	5%	1/4W	
LPF101	1-236-087-11	FILTER, LOW PASS					R45	1-247-876-11	CARBON	75K	5%	1/4W	
LPF201	1-236-087-11	FILTER, LOW PASS					R46	1-249-441-11	CARBON	100K	5%	1/4W	
		< TRANSISTOR >					R101	1-249-441-11	CARBON	100K	5%	1/4W	
Q101	8-729-900-80	TRANSISTOR DTC114ES					R102	1-249-441-11	CARBON	100K	5%	1/4W	
Q102	8-729-620-05	TRANSISTOR 2SC2603-EF					R103	1-249-429-11	CARBON	10K	5%	1/4W	
Q103	8-729-620-05	TRANSISTOR 2SC2603-EF					R104	1-249-421-11	CARBON	2.2K	5%	1/4W	
Q104	8-729-620-05	TRANSISTOR 2SC2603-EF					R105	1-247-843-11	CARBON	3.3K	5%	1/4W	
Q151	8-729-142-25	TRANSISTOR 2SD1020-HFE					R106	1-247-843-11	CARBON	3.3K	5%	1/4W	
Q201	8-729-900-80	TRANSISTOR DTC114ES					R107	1-249-428-11	CARBON	8.2K	5%	1/4W	
Q202	8-729-620-05	TRANSISTOR 2SC2603-EF					R108	1-249-417-11	CARBON	1K	5%	1/4W	
Q203	8-729-620-05	TRANSISTOR 2SC2603-EF					R109	1-249-418-11	CARBON	1.2K	5%	1/4W	
Q204	8-729-620-05	TRANSISTOR 2SC2603-EF					R110	1-249-433-11	CARBON	22K	5%	1/4W	
Q251	8-729-142-25	TRANSISTOR 2SD1020-HFE					R111	1-249-417-11	CARBON	1K	5%	1/4W	
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE					R112	1-247-866-11	CARBON	30K	5%	1/4W	
Q310	8-729-119-76	TRANSISTOR 2SA1175-HFE					R113	1-249-439-11	CARBON	68K	5%	1/4W	
Q351	8-729-900-80	TRANSISTOR DTC114ES					R114	1-249-410-11	CARBON	270	5%	1/4W	
Q352	8-729-422-57	TRANSISTOR UN4111					R115	1-249-429-11	CARBON	10K	5%	1/4W	
Q353	8-729-281-53	TRANSISTOR 2SC1815-GR					R117	1-249-441-11	CARBON	100K	5%	1/4W	
Q354	8-729-194-57	TRANSISTOR 2SC945-P					R118	1-249-441-11	CARBON	100K	5%	1/4W	
Q355	8-729-194-57	TRANSISTOR 2SC945-P					R121	1-249-429-11	CARBON	10K	5%	1/4W	
Q356	8-729-900-80	TRANSISTOR DTC114ES					R133	1-249-429-11	CARBON	10K	5%	1/4W	
Q357	8-729-900-80	TRANSISTOR DTC114ES					R134	1-249-429-11	CARBON	10K	5%	1/4W	
Q358	8-729-900-80	TRANSISTOR DTC114ES					R135	1-249-429-11	CARBON	10K	5%	1/4W	
Q359	8-729-900-80	TRANSISTOR DTC114ES					R151	1-247-881-00	CARBON	120K	5%	1/4W	
Q360	8-729-900-80	TRANSISTOR DTC114ES					R152	1-249-404-00	CARBON	82	5%	1/4W	
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF					R153	1-247-882-11	CARBON	130K	5%	1/4W	
Q803	8-729-422-57	TRANSISTOR UN4111					R154	1-247-850-11	CARBON	6.2K	5%	1/4W	
Q806	8-729-900-89	TRANSISTOR DTC144ES					R155	1-249-430-11	CARBON	12K	5%	1/4W	
Q809	8-729-140-97	TRANSISTOR 2SB734-34					R156	1-249-426-11	CARBON	5.6K	5%	1/4W	
Q810	8-729-140-97	TRANSISTOR 2SB734-34					R157	1-249-421-11	CARBON	2.2K	5%	1/4W	
Q811	8-729-140-97	TRANSISTOR 2SB734-34					R158	1-247-843-11	CARBON	3.3K	5%	1/4W	
Q812	8-729-900-80	TRANSISTOR DTC114ES					R159	1-249-429-11	CARBON	10K	5%	1/4W	
Q813	8-729-900-80	TRANSISTOR DTC114ES					R160	1-249-421-11	CARBON	2.2K	5%	1/4W	
Q814	8-729-119-76	TRANSISTOR 2SA1175-HFE					R162	1-249-413-11	CARBON	470	5%	1/4W	
Q815	8-729-119-76	TRANSISTOR 2SA1175-HFE					R163	1-249-413-11	CARBON	470	5%	1/4W	
		< RESISTOR >					R201	1-249-441-11	CARBON	100K	5%	1/4W	
R11	1-249-435-11	CARBON 33K	5%	1/4W			R202	1-249-441-11	CARBON	100K	5%	1/4W	
R12	1-249-435-11	CARBON 33K	5%	1/4W			R203	1-249-429-11	CARBON	10K	5%	1/4W	
R13	1-247-874-11	CARBON 62K	5%	1/4W			R204	1-249-421-11	CARBON	2.2K	5%	1/4W	
R14	1-249-439-11	CARBON 68K	5%	1/4W			R205	1-247-843-11	CARBON	3.3K	5%	1/4W	
R15	1-247-880-11	CARBON 110K	5%	1/4W			R206	1-247-843-11	CARBON	3.3K	5%	1/4W	
R16	1-247-878-00	CARBON 91K	5%	1/4W			R207	1-249-428-11	CARBON	8.2K	5%	1/4W	
							R208	1-249-417-11	CARBON	1K	5%	1/4W	
							R209	1-249-418-11	CARBON	1.2K	5%	1/4W	
							R210	1-249-433-11	CARBON	22K	5%	1/4W	
							R211	1-249-417-11	CARBON	1K	5%	1/4W	
							R212	1-247-866-11	CARBON	30K	5%	1/4W	
							R213	1-249-439-11	CARBON	68K	5%	1/4W	
							R214	1-249-410-11	CARBON	270	5%	1/4W	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R215	1-249-429-11	CARBON	10K	5%	1/4W	R815	1-249-393-11	CARBON	10	5%	1/4W
R221	1-249-429-11	CARBON	10K	5%	1/4W	R816	1-249-429-11	CARBON	10K	5%	1/4W
R233	1-249-429-11	CARBON	10K	5%	1/4W	R817	1-249-429-11	CARBON	10K	5%	1/4W
R234	1-249-429-11	CARBON	10K	5%	1/4W	R818	1-249-429-11	CARBON	10K	5%	1/4W
R235	1-249-429-11	CARBON	10K	5%	1/4W	R819	1-249-417-11	CARBON	1K	5%	1/4W
						R820	1-249-441-11	CARBON	100K	5%	1/4W
R251	1-247-881-00	CARBON	120K	5%	1/4W	R821	1-247-807-31	CARBON	100	5%	1/4W
R252	1-249-404-00	CARBON	82	5%	1/4W						
R253	1-247-882-11	CARBON	130K	5%	1/4W	R822	1-247-807-31	CARBON	100	5%	1/4W
R254	1-247-850-11	CARBON	6.2K	5%	1/4W	R823	1-249-429-11	CARBON	10K	5%	1/4W
R255	1-249-430-11	CARBON	12K	5%	1/4W	R824	1-249-425-11	CARBON	4.7K	5%	1/4W
						R827	1-249-413-11	CARBON	470	5%	1/4W
R256	1-249-426-11	CARBON	5.6K	5%	1/4W	R828	1-249-429-11	CARBON	10K	5%	1/4W
R257	1-249-421-11	CARBON	2.2K	5%	1/4W						
R258	1-247-843-11	CARBON	3.3K	5%	1/4W	R829	1-249-429-11	CARBON	10K	5%	1/4W
R259	1-249-429-11	CARBON	10K	5%	1/4W	R830	1-249-429-11	CARBON	10K	5%	1/4W
R260	1-249-421-11	CARBON	2.2K	5%	1/4W	R832	1-249-417-11	CARBON	1K	5%	1/4W
						R835	1-249-429-11	CARBON	10K	5%	1/4W
R301	1-215-452-00	METAL	20K	1%	1/4W	R836	1-249-429-11	CARBON	10K	5%	1/4W
R302	1-249-429-11	CARBON	10K	5%	1/4W						
R303	1-249-429-11	CARBON	10K	5%	1/4W	R837	1-249-429-11	CARBON	10K	5%	1/4W
R304	1-249-437-11	CARBON	47K	5%	1/4W	R838	1-249-429-11	CARBON	10K	5%	1/4W
R305	1-249-427-11	CARBON	6.8K	5%	1/4W	R839	1-249-429-11	CARBON	10K	5%	1/4W
						R840	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-247-843-11	CARBON	3.3K	5%	1/4W	R841	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-249-441-11	CARBON	100K	5%	1/4W						
R308	1-249-429-11	CARBON	10K	5%	1/4W	R842	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-441-11	CARBON	100K	5%	1/4W	R845	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-417-11	CARBON	1K	5%	1/4W	R846	1-249-417-11	CARBON	1K	5%	1/4W
						R849	1-249-427-11	CARBON	6.8K	5%	1/4W
R311	1-249-432-11	CARBON	18K	5%	1/4W	R850	1-249-427-11	CARBON	6.8K	5%	1/4W
R312	1-249-436-11	CARBON	39K	5%	1/4W						
R333	1-249-397-11	CARBON	22	5%	1/4W	R863	1-247-807-31	CARBON	100	5%	1/4W
R351	1-249-413-11	CARBON	470	5%	1/4W	R864	1-247-807-31	CARBON	100	5%	1/4W
R352	1-249-413-11	CARBON	470	5%	1/4W	R865	1-247-807-31	CARBON	100	5%	1/4W
						R870	1-247-807-31	CARBON	100	5%	1/4W
R353	1-249-425-11	CARBON	4.7K	5%	1/4W	R871	1-249-440-11	CARBON	82K	5%	1/4W
R354	1-247-838-00	CARBON	2K	5%	1/4W						
R355	1-249-432-11	CARBON	18K	5%	1/4W	R872	1-249-417-11	CARBON	1K	5%	1/4W
R356	1-249-432-11	CARBON	18K	5%	1/4W	R873	1-247-807-31	CARBON	100	5%	1/4W
R357	1-249-432-11	CARBON	18K	5%	1/4W	R874	1-247-807-31	CARBON	100	5%	1/4W
						R875	1-249-430-11	CARBON	12K	5%	1/4W
R358	1-249-390-11	CARBON	5.6	5%	1/4W						
R359	1-249-390-11	CARBON	5.6	5%	1/4W	< VARIABLE RESISTOR >					
R360	1-249-427-11	CARBON	6.8K	5%	1/4W	RV151	1-238-598-11	RES, ADJ, CARBON 2.2K			
R361	1-247-838-00	CARBON	2K	5%	1/4W	RV152	1-238-603-11	RES, ADJ, CARBON 100K			
R362	1-215-454-00	METAL	24K	1%	1/4W	RV153	1-238-599-11	RES, ADJ, CARBON 4.7K			
						RV251	1-238-598-11	RES, ADJ, CARBON 2.2K			
R363	1-249-441-11	CARBON	100K	5%	1/4W	RV252	1-238-603-11	RES, ADJ, CARBON 100K			
R364	1-249-417-11	CARBON	1K	5%	1/4W						
R701	1-249-417-11	CARBON	1K	5%	1/4W	RV253	1-238-599-11	RES, ADJ, CARBON 4.7K			
R702	1-249-429-11	CARBON	10K	5%	1/4W						
R720	1-249-437-11	CARBON	47K	5%	1/4W	< RELAY >					
						RY351	1-515-614-11	RELAY			
R801	1-247-807-31	CARBON	100	5%	1/4W						
R802	1-247-807-31	CARBON	100	5%	1/4W	< TRANSFORMER >					
R803	1-249-417-11	CARBON	1K	5%	1/4W						
R804	1-249-429-11	CARBON	10K	5%	1/4W	T351	1-429-316-11	TRANSFORMER, BIAS OSCILLATION			
R805	1-249-441-11	CARBON	100K	5%	1/4W						
						< VIBRATOR >					
R806	1-247-843-11	CARBON	3.3K	5%	1/4W	X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
R807	1-249-441-11	CARBON	100K	5%	1/4W	*****					
R808	1-249-441-11	CARBON	100K	5%	1/4W						
R809	1-249-417-11	CARBON	1K	5%	1/4W						
R810	1-249-429-11	CARBON	10K	5%	1/4W						
R811	1-249-429-11	CARBON	10K	5%	1/4W						
R812	1-249-417-11	CARBON	1K	5%	1/4W						
R813	1-249-429-11	CARBON	10K	5%	1/4W						

PANEL

Ref. No.	Part No.	Description	Remark			
*	A-2007-722-A	PANEL BOARD, COMPLETE	*****			
*	4-932-810-01	CUSHION (FL)				
*	4-946-899-01	HOLDER (FL)				
< CAPACITOR >						
C1	1-162-282-31	CERAMIC	100PF	10%	50V	
C2	1-162-282-31	CERAMIC	100PF	10%	50V	
< CONNECTOR >						
* CN302	1-568-848-11	SOCKET, CONNECTOR 5P				
* CN852	1-568-869-11	SOCKET, CONNECTOR 27P				
< DIODE >						
D851	8-719-057-09	DIODE LNJ801LPDJA (CD SYNC)				
< FLUORESCENT INDICATOR TUBE >						
FLT851	1-517-317-21	INDICATOR TUBE, FLUORESCENT				
< RESISTOR >						
R851	1-249-415-11	CARBON	680	5%	1/4W	
R852	1-249-417-11	CARBON	1K	5%	1/4W	
R853	1-249-419-11	CARBON	1.5K	5%	1/4W	
R854	1-247-843-11	CARBON	3.3K	5%	1/4W	
R855	1-249-425-11	CARBON	4.7K	5%	1/4W	
R856	1-249-415-11	CARBON	680	5%	1/4W	
R857	1-249-417-11	CARBON	1K	5%	1/4W	
R858	1-249-419-11	CARBON	1.5K	5%	1/4W	
R859	1-247-843-11	CARBON	3.3K	5%	1/4W	
R860	1-249-425-11	CARBON	4.7K	5%	1/4W	
R861	1-249-429-11	CARBON	10K	5%	1/4W	
R862	1-249-412-11	CARBON	390	5%	1/4W	
< VARIABLE RESISTOR >						
RV301	1-225-383-11	RES, VAR, CARBON 50K/50K (REC LEVEL)				
< SWITCH >						
S851	1-762-196-21	SWITCH, TACT (≡ OPEN/CLOSE)				
S852	1-762-196-21	SWITCH, TACT (■)				
S853	1-762-196-21	SWITCH, TACT (▨)				
S854	1-762-196-21	SWITCH, TACT (▷)				
S855	1-762-196-21	SWITCH, TACT (◁)				
S856	1-762-196-21	SWITCH, TACT (CD SYNC)				
S858	1-762-196-21	SWITCH, TACT (◀◀)				
S859	1-762-196-21	SWITCH, TACT (▶▶)				
S860	1-762-196-21	SWITCH, TACT (● REC)				
S861	1-762-196-21	SWITCH, TACT (RESET)				
S862	1-762-196-21	SWITCH, TACT (DIRECTION)				
S863	1-762-196-21	SWITCH, TACT (DOLBY NR)				

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			

12	1-782-490-11	WIRE (FLAT TYPE) (5 CORE)	
13	1-773-257-11	WIRE (FLAT TYPE) (27 CORE)	
HRPE901		HEAD ASSY (RECORD/PLAYBACK/ERASE)	
M901	3-017-239-01	PULLEY (MOTOR) (LOADING)	
M902	3-017-259-01	PULLEY (MOTOR) (CAPSTAN/REEL)	
S901	3-017-238-01	LIMITTER (SW MSS-8B) (OPEN)	
S902	3-017-238-01	LIMITTER (SW MSS-8B) (CLOSE)	

HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-132-19	SCREW +P2.6X5 TYPE2 NON-SLIT	
#4	7-671-157-01	SCREW, PRECISION +P1.4X2	
#5	7-627-551-18	SCREW, PRECISION +P1.4X2	
#6	7-685-105-19	SCREW +P2X8 TYPE2 NON-SLIT	
#7	7-621-255-20	SCREW +P2X4	
#8	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
#9	7-685-146-11	SCREW +P3X8 TYPE2 NON-SLIT	

SONY®

SERVICE MANUAL

AEP Model
UK Model
E Model

SUPPLEMENT-1

File this supplement with the service manual.

Subject: Additton of service parts on CONTROL board

(SPM-98013)

PARTS LIST(CONTROL BOARD)

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Ref. No.	Part No.	Description	Remark
*	1-672-011-11	CONTROL BOARD *****	
	3-017-287-01	CONNECTOR,TERMINAL (RP)	
		< DIODE >	
D001	8-719-987-63	DIODE 1N4148M	
D002	8-719-987-63	DIODE 1N4148M	
		< IC >	
IC001	3-017-289-01	IC, HOLE, ROTARY DETECTION	
		< SOLENOID >	
PM001	3-017-292-01	SOLENOID	
		< RESISTOR >	
R001	1-247-862-11	CARBON 20K 5% 1/4W	
		< SWITCH >	
S001	3-017-290-01	SWITCH, DETECT (FWD REC DET)	
S002	3-017-290-01	SWITCH, DETECT (HALF DET)	
S003	3-017-290-01	SWITCH, DETECT (CrO2 DET)	
S004	3-017-290-01	SWITCH, DETECT (METAL DET)	
S005	3-017-290-01	SWITCH, DETECT (REV REC DET)	
S006	3-017-291-01	SWITCH, MODE (MODE)	