

TC-WE435

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Chinese Model*



Dolby noise reduction extension manufactured under license from Dolby Laboratories Licensing Corporation.
HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol $\square\square$ and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	TC-WE425/WE525/WR681	
Transport Mechanism Type	DECK A	TCM-230ASR3/HSR3
	DECK B	TCM-230ASR4/HSR4

SPECIFICATIONS

System

Recording system

4-track 2-channel stereo

Fast-winding time (approx.)

100 sec. (with Sony C-60 cassette)

Bias

AC bias

Signal-to-noise ratio (at peak level and weighted with Dolby NR off)

Type I tape, Sony Type I (NORMAL): 55 dB

Type II tape, Sony Type II (HIGH): 57 dB

Type IV tape, Sony Type IV (METAL): 58 dB

S/N ratio improvement (approximate values)

With Dolby B NR on: 5 dB at 1 kHz, 10 dB at 5 kHz

With Dolby C NR on: 15 dB at 500 Hz, 20 dB at 1 kHz

Harmonic distortion

0.4% (with Type I tape, Sony Type I (NORMAL):
160 nWb/m 315 Hz, 3rd H.D.)

1.8% (with Type IV tape, Sony Type IV (METAL):
250 nWb/m 315 Hz, 3rd H.D.)

Frequency response (Dolby NR off)

Type I tape, Sony Type I (NORMAL): 30 – 16,000 Hz
(± 3 dB, IEC)

Type II tape, Sony Type II (HIGH): 30 – 17,000 Hz
(± 3 dB, IEC)

Type IV tape, Sony Type IV (METAL): 30 – 19,000 Hz
(± 3 dB, IEC)

30 – 13,000 Hz (± 3 dB, -4 dB recording)

Type I tape, Sony Type I (NORMAL): 20 – 17,000 Hz
(± 6 dB)

Type II tape, Sony Type II (HIGH): 20 – 18,000 Hz
(± 6 dB)

Type IV tape, Sony Type IV (METAL): 20 – 20,000 Hz
(± 6 dB)

Inputs

Line inputs (phono jacks)

Sensitivity: 0.16 V

Input impedance: 47 kilohms

— Continued on next page —

STEREO CASSETTE DECK

SONY®



Outputs

Line outputs (phono jacks)

Rated output level: 0.5 V at a load impedance of 47 kilohms

Load impedance: Over 10 kilohms

Headphones (stereo phone jack)

Output level: 0.25 mW at a load impedance of 32 ohms

General

Power requirements

Where purchased	Power requirements
U.S.A. and Canada	120 V AC, 60 Hz
U.K., Continental Europe, China and certain countries in Asia	220 - 230 V AC, 50/60 Hz
Australia	240 V AC, 50/60 Hz
Other countries	120/220/230 - 240 V AC, 50/60 Hz

Power consumption

18 W

Dimensions (approx.) (w/h/d)

Model for U.K. and Australia:

430 × 120 × 310 mm

Model for other countries:

430 × 120 × 290 mm (17 × 4 ³/₄ × 11 ¹/₂ in.)

including projecting parts and controls

Mass (approx.)

4 kg (8 lbs 13 oz)

Supplied accessories

- Audio connecting cords (2)
- Control A1 cord (1) (supplied for Canadian model only)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle 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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

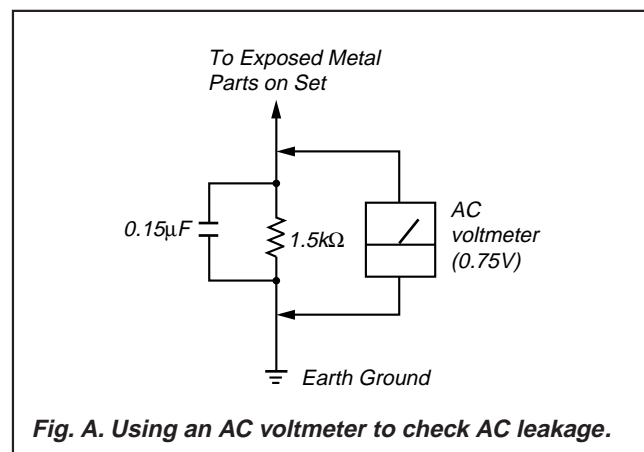


Fig. A. Using an AC voltmeter to check AC leakage.

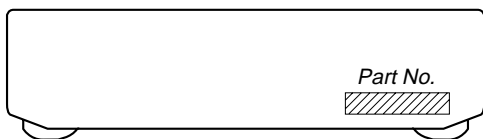
与安全有关的零部件须知

在原理图上用阴影及 \triangle 标记来识别的零部件在安全操作上是具有关键性的。这些零部件要用本手册中所示的部件号对应的索尼零部件进行更换。

在安全操作上具有关键性的电路调整与索尼公司出版的维修手册完全一致。在更换关键零部件时或怀疑动作失常时，请进行这些调整操作。

MODEL IDENTIFICATION

–Back panel–



PARTS No.	MODEL
3-032-413-0□	US model
3-032-413-1□	CND model
3-032-413-2□	AEP model
3-032-413-3□	UK model
3-032-413-4□	AUS model
3-032-413-5□	SP, MY model
3-032-413-6□	CH model

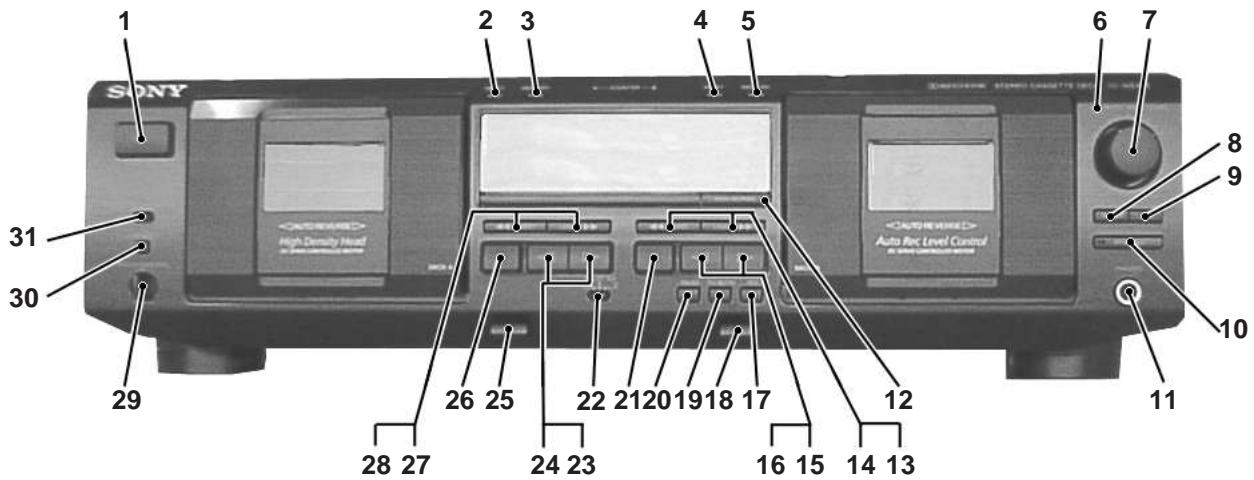
- Abbreviation
 CND : Canadian model
 SP : Singapore model
 MY : Malaysia model
 AUS : Australian model
 CH : Chinese model

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SECTION 1 GENERAL

Front Panel



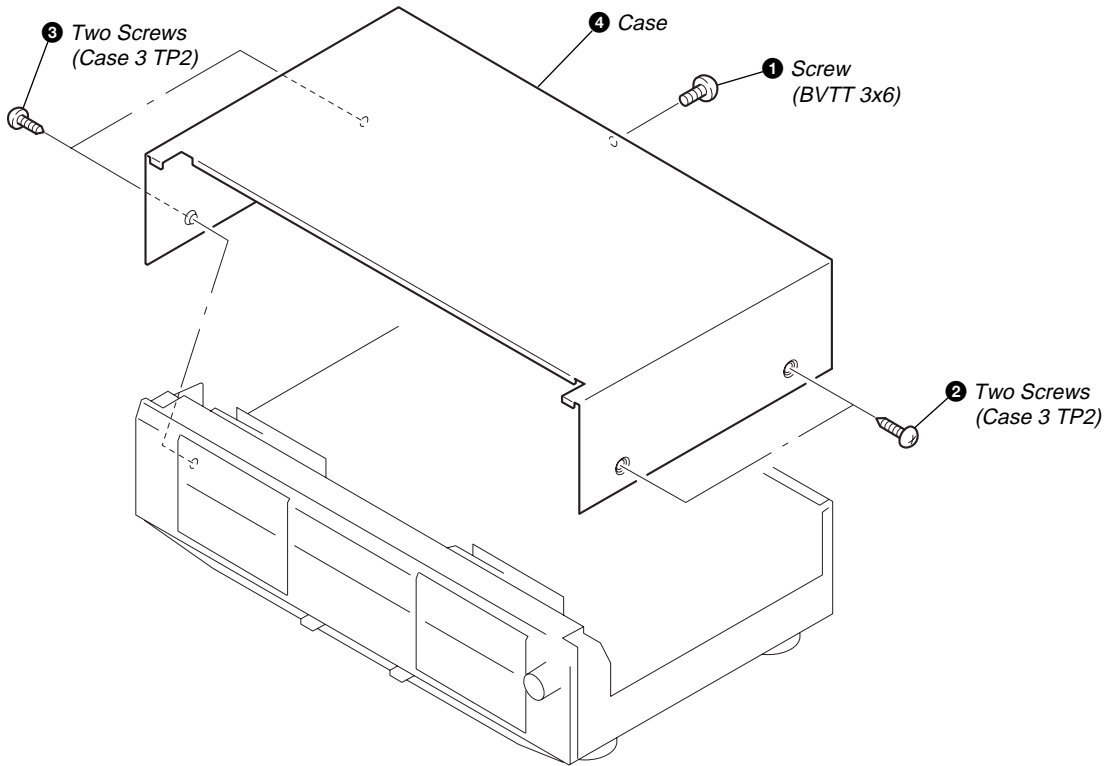
LOCATION OF PARTS AND CONTROLS

- | | | | |
|----|--------------------------|----|---------------------------|
| 1 | ⓘ button | 18 | ⊞ (Eject) (Deck B) button |
| 2 | RESET (Deck A) button | 19 | REC MUTING ⊖ button |
| 3 | MEMORY (Deck A) button | 20 | PAUSE button |
| 4 | RESET (Deck B) button | 21 | ■ (Deck B) button |
| 5 | MEMORY (Deck B) button | 22 | DOLBY NR OFF B/C switch |
| 6 | AUTO REC LEVEL indicator | 23 | ▷ (Deck A) button |
| 7 | REC LEVEL knob | 24 | ◁ (Deck A) button |
| 8 | FADER button | 25 | ⊞ (Eject) (Deck A) button |
| 9 | ARL button | 26 | ■ (Deck A) button |
| 10 | SYNCHRO button | 27 | (AMS) ▶▶ (Deck A) button |
| 11 | PHONES jack | 28 | ◀◀ (AMS) (Deck A) button |
| 12 | HIGH/NOMAL button | 29 | PITCH CONTROL knob |
| 13 | (AMS) ▶▶ (Deck B) button | 30 | PITCH CONTROL button |
| 14 | ◀◀ (AMS) (Deck B) button | 31 | DIRECTION switch |
| 15 | ▷ (Deck B) button | | |
| 16 | ◁ (Deck B) button | | |
| 17 | REC ● button | | |
- AMS is the abbreviation for Automatic Music Sensor.

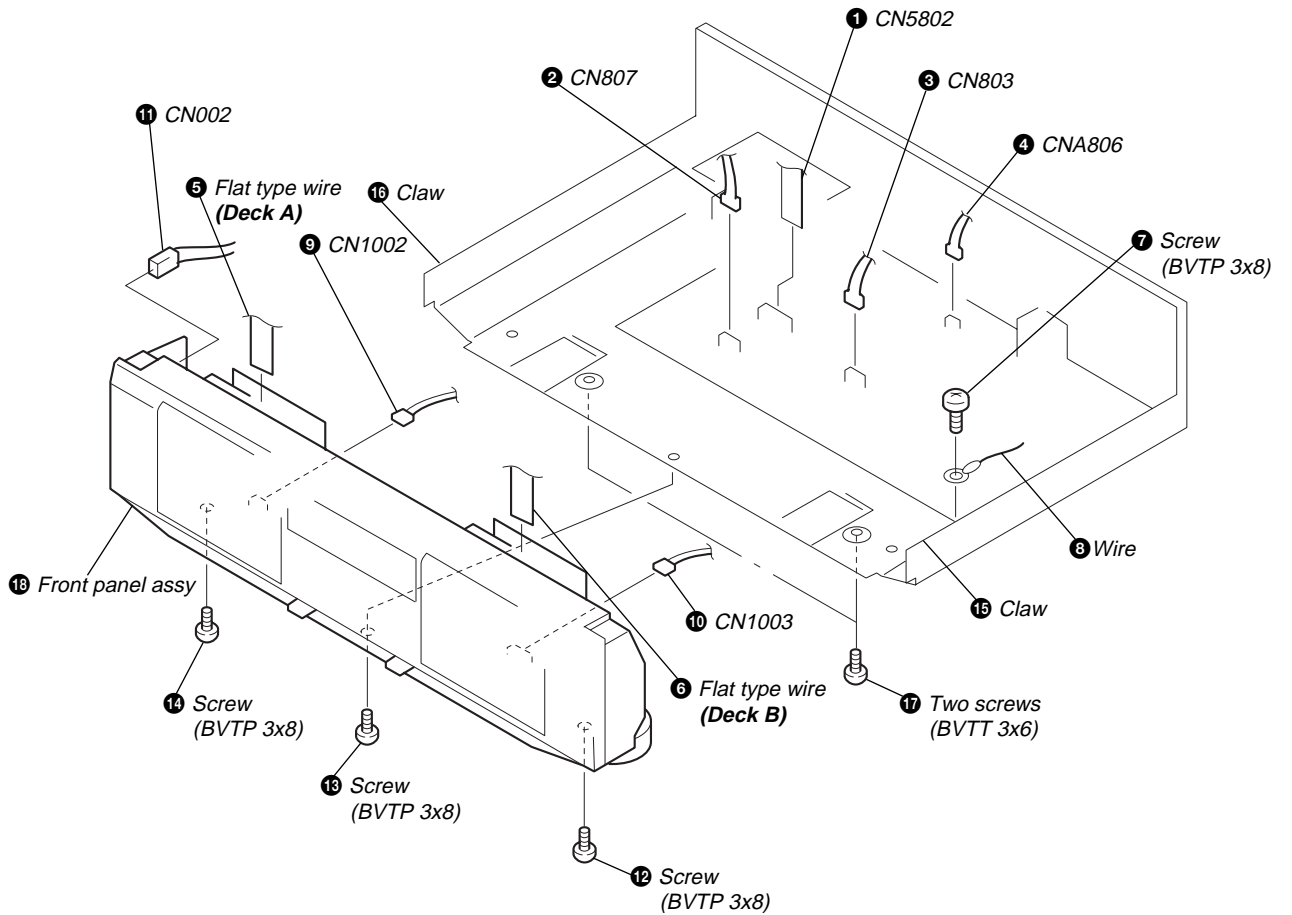
SECTION 2 DISASSEMBLY

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

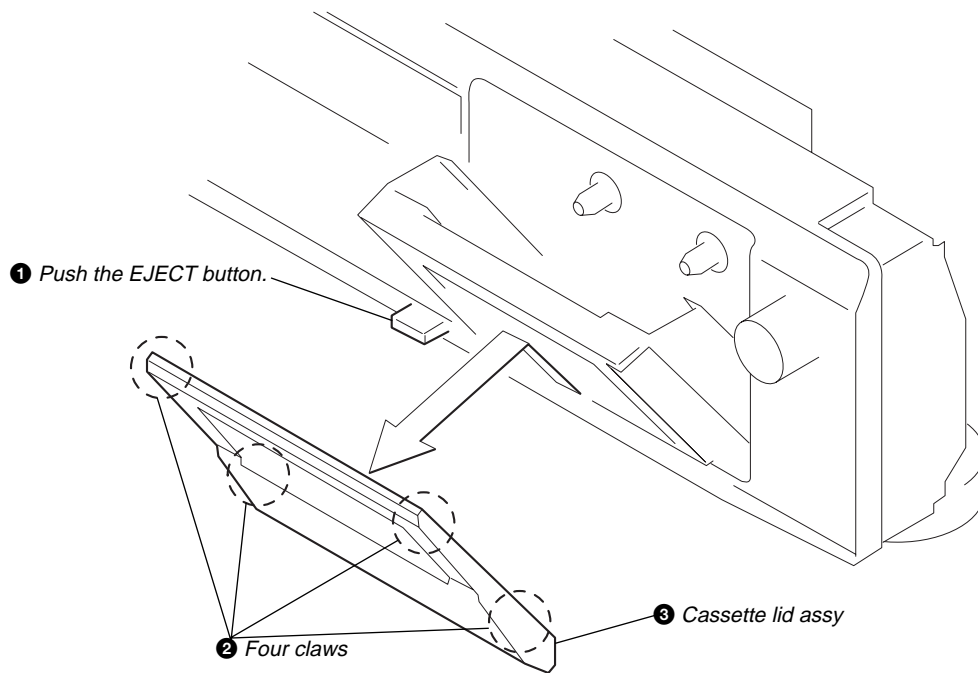
2-1. CASE



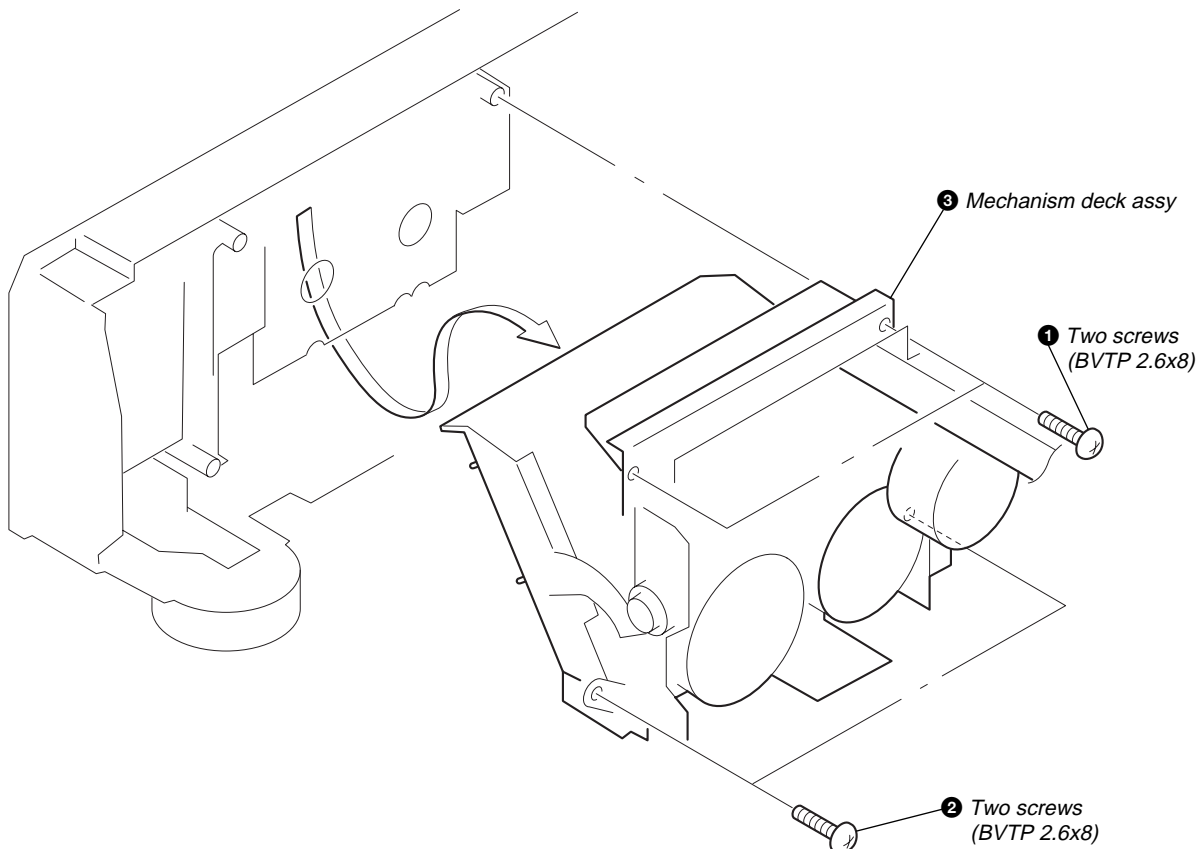
2-2. FRONT PANEL ASSEMBLY



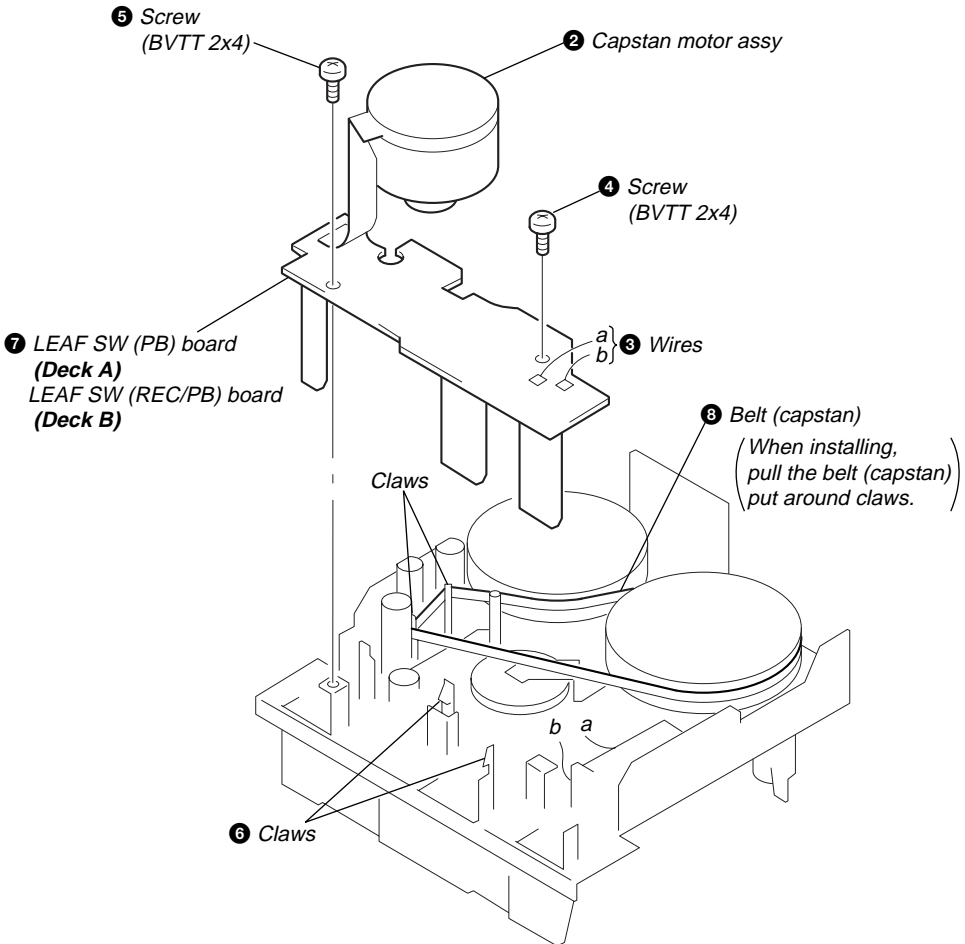
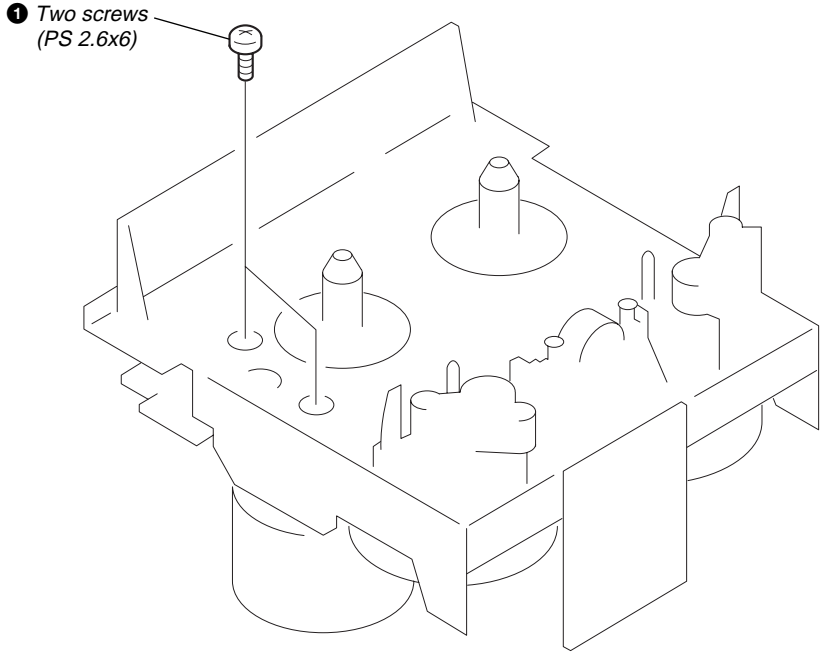
2-3. CASSETTE LID ASSEMBLY (DECK A/B)



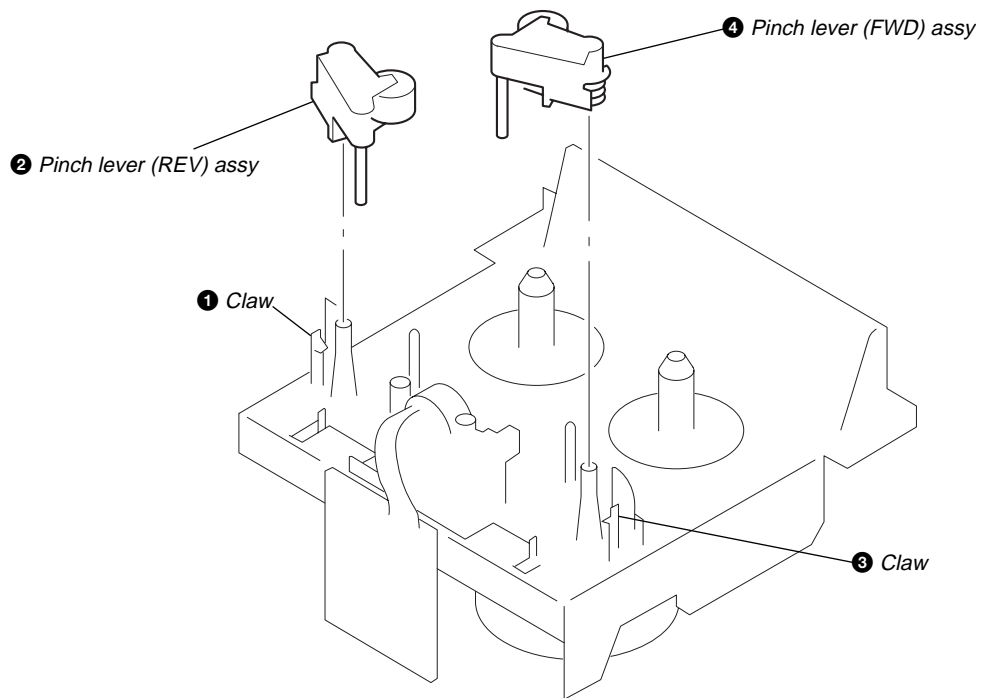
2-4. MECHANISM DECK ASSEMBLY (DECK A/B)



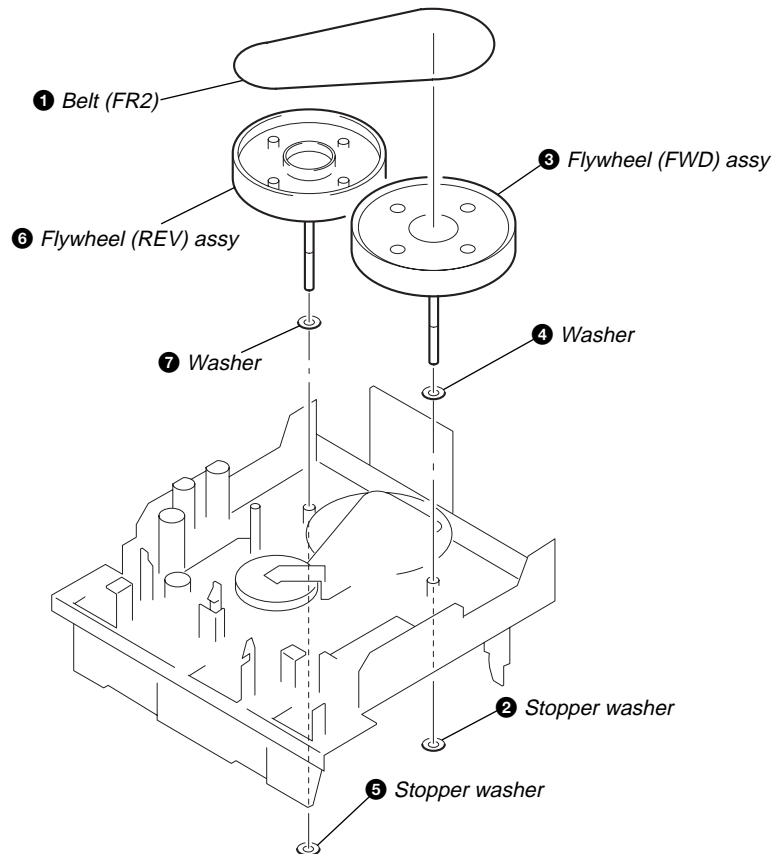
2-5. LEAF SW (PB) BOARD (DECK A), LEAF SW (REC/PB) BOARD (DECK B)



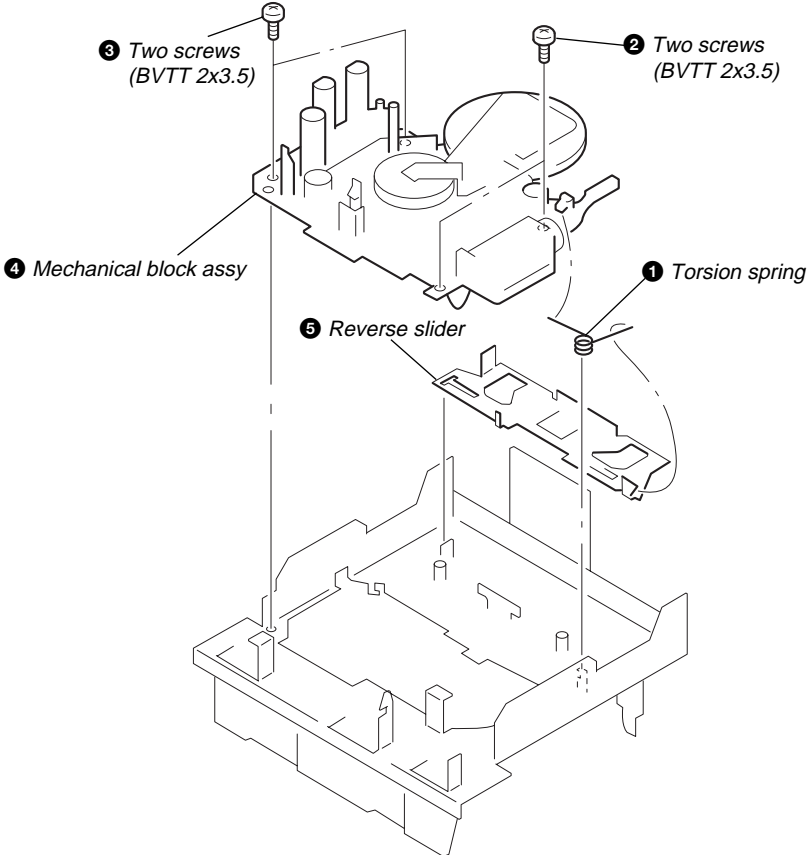
2-6. PINCH LEVER (FWD)/(REV) ASSEMBLY (DECK A/B)



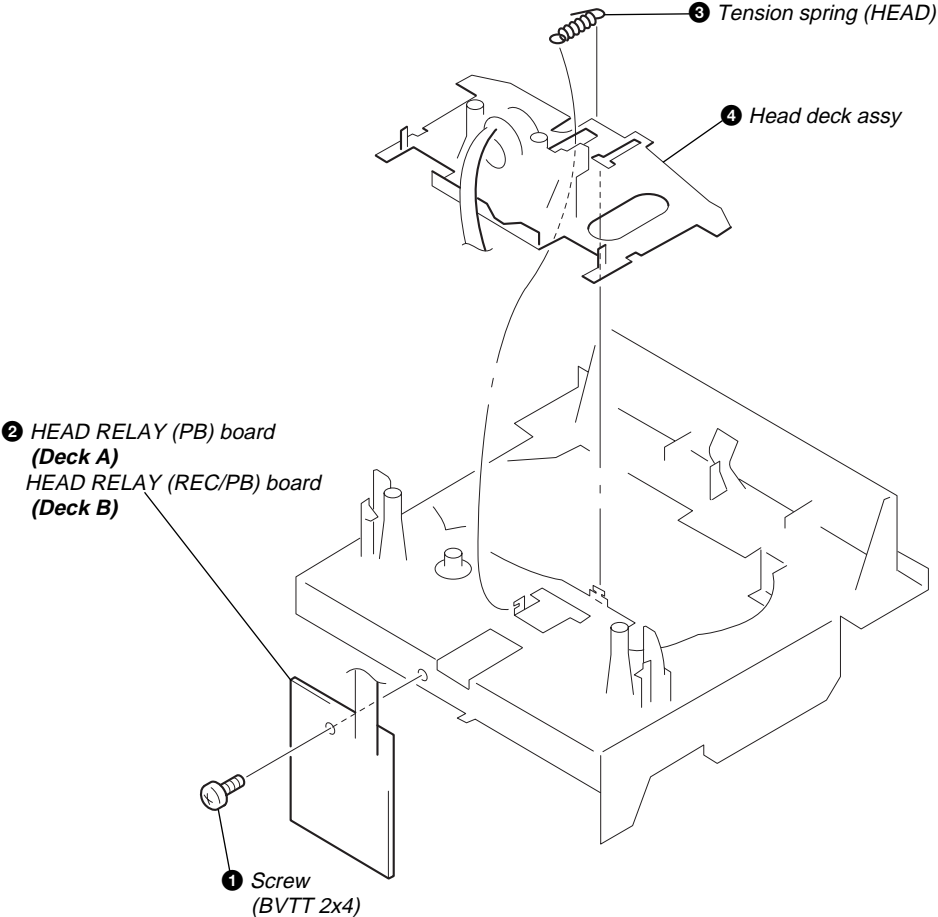
2-7. FLYWHEEL (FWD)/(REV) ASSEMBLY (DECK A/B)



2-8. MECHANICAL BLOCK ASSEMBLY (DECK A/B)






2-9. HEAD RELAY (PB) BOARD (DECK A), HEAD RELAY (REC/PB) BOARD (DECK B)



SECTION 3 SERVICE MODE

KEY CHECK & DISPLAY CHECK MODE

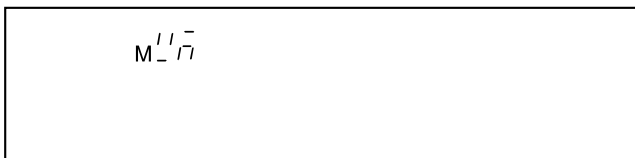
While pressing the  (A deck) and  buttons with the power off, press the  button to turn on the power. The fluorescent indicator tube displays the number or special message corresponding to the button pressed. The message displayed differs according to the position of the switch.

A deck side		B deck side	
Button	Display	Button	Display
RESET	0	RESET	0
MEMORY	1	MEMORY	1
◀◀ (AMS)	2	HIGH/NOMAL	2
(AMS) ▶▶	3	◀◀ (AMS)	3
■	Grid check display (*1)	(AMS) ▶▶	4
◁	4	■	Segment check display (*2)
▷	5	◁	5
DIRECTION MODE switch		▷	6
↑ ↓	◁	PAUSE	7
↻	PLAY	REC MUTING ○	8
RELAY	▷	REC ●	9
		FADER	A
		ARL	b
		SYNCHRO	All lit
		DOLBY NR switch	
		OFF	◁
		B	PLAY
		C	▷

Grit check display (*1)



Segment check display (*2)



SECTION 4 MECHANICAL ADJUSTMENTS

PRECAUTION

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

record/playback/erase head	pinch roller
rubber belts	capstan
idlers	
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

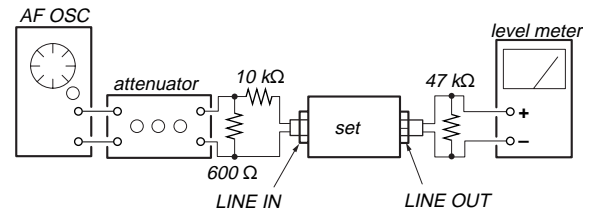
Mode	Torque meter	Meter reading
Forward	CQ-102C	30 to 65 g • cm (0.42 to 0.90 oz • inch)
Forward back tension	CQ-102C	DECK A : 1 to 6 g • cm (0.014 to 0.083 oz • inch) DECK B : 2 to 9 g • cm (0.028 to 0.125 oz • inch)
Reverse	CQ-102RC	30 to 65 g • cm (0.42 to 0.90 oz • inch)
Reverse back tension	CQ-102RC	1 to 6 g • cm (0.014 to 0.083 oz • inch)
FF/REW	CQ-201B	70 to 120 g • cm (0.97 to 1.67 oz • inch)

SECTION 5 ELECTRICAL ADJUSTMENTS

PRECAUTION

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

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

Test Tape

Tape	Contents	Use
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	PB Level Adjustment

0 dB = 0.775 V

Test Mode

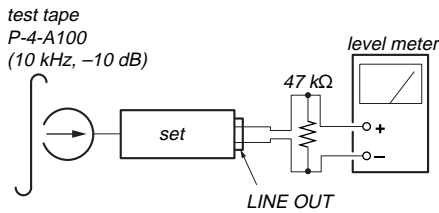
1. While pressing the **▷ (DECK A)** and **REC MUTING** buttons with the power off, press the **⓪** button to turn on the power. The fluorescent display tube lights up for about one second, and the test mode is set. The test mode performs the following two special functions.
 - Playback speed switching function
Pressing the **HIGH/NORMAL** button switches the playback speed between standard/double speed.
 - Counter RESET & MEMORY function
Resets the counter when recording starts. When rewound with the **◀ (AMS)** button after recording, stops at the point where recording started.
2. To release the test mode, turn OFF the power switch.

Record/Playback Head Azimuth Adjustment

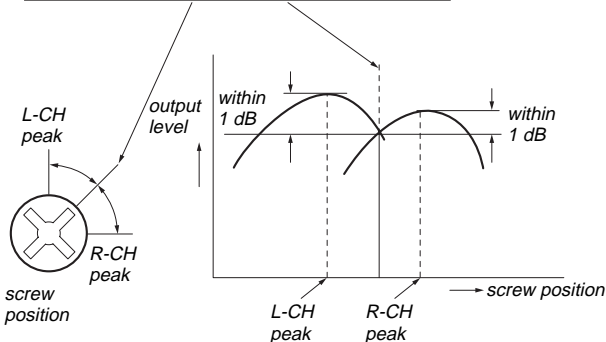
DECK A **DECK B**

Procedure:

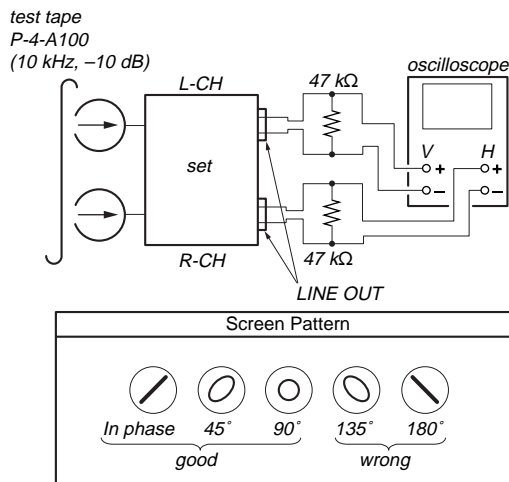
1. Forward Playback Mode



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.

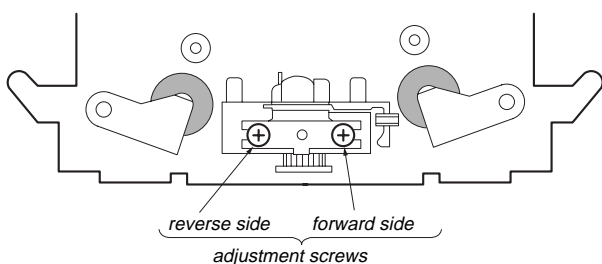


3. Playback Mode



4. Change the reverse playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screws with suitable locking compound.

Adjustment Location: – record/playback head –



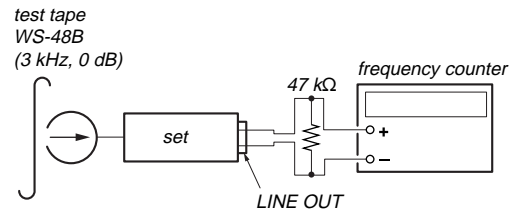
Tape speed Adjustment

DECK A **DECK B**

Adjust DECK A first

Procedure:

– Forward Playback Mode –



(High speed adjustment)

1. Press the **PITCH CONTROL** button to set to **OFF**.
2. Set to test mode. (Refer to page 11.)
3. Press the **▶** button to playback.
4. Press the **HIGH/NORMAL** button to playback at double speed.
5. Adjust RV316 (DECK A), RV416 (DECK B) so that the frequency counter reading becomes $5,980 \pm 180$ Hz.

(Normal speed adjustment)

6. Press the **▶** button to playback.
7. Press the **HIGH/NORMAL** button to playback at normal speed.
8. Adjust RV317 (DECK A), RV417 (DECK B) so that the frequency counter reading becomes $3,000 \pm 90$ Hz.

(Pitch control adjustment) (DECK A)

9. Press the **PITCH CONTROL** button to set to **ON**.
10. Set **PITCH CONTROL** knob to mechanical center.
11. Press the **▶** button to playback.
12. Adjust RV318 so that the frequency counter reading becomes $2,990 \pm 90$ Hz.

Adjustment Location: MAIN board (See page 14.)

Sample value of wow and flutter

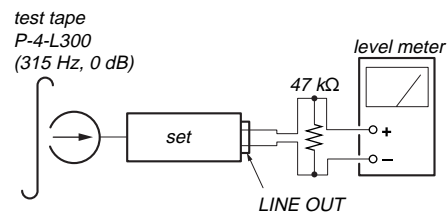
W.RMS (JIS) less than 0.3% .
(test tape : WS-48B)

Playback Level Adjustment

DECK A **DECK B**

Procedure:

– Forward Playback Mode –



Adjust DECK A : RV111 (L-CH), RV211 (R-CH) and
DECK B : RV121 (L-CH), RV221 (R-CH) so the level meter reading becomes the adjustment limits below.

Adjustment Value:

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

Level difference between channels : within 0.5 dB

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

Adjustment Location: MAIN board (See page 14.)

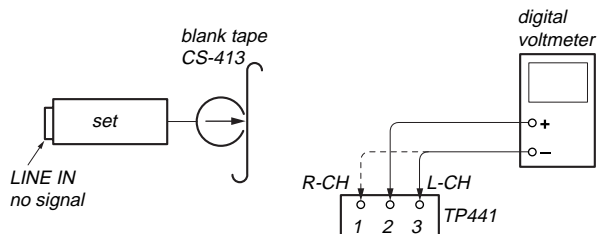
Bias Consumption Current Adjustment DECK B

This adjustment should be performed when replacing the head assy or the bias oscillator transformer (T141, T241).

Setting:

REC LEVEL knob : standard recording position (See page 11.)

Procedure:



1. Connect the digital voltmeter to test point TP441.
2. Set RV141 (L-CH), RV241 (R-CH) to mechanical center.
3. Press the ▶ button to playback.
4. Adjust T141 (L-CH), T241 (R-CH) so that the digital voltmeter reading becomes minimum.

Adjustment Value: Maximum 220 mV

Adjustment Location: MAIN board (See page 14.)

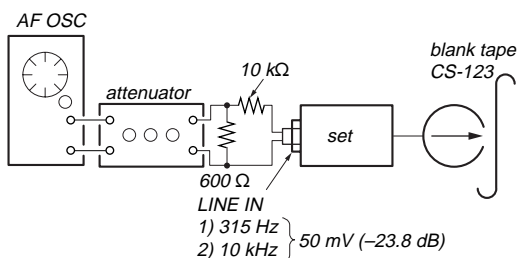
Record Bias Adjustment DECK B

Setting:

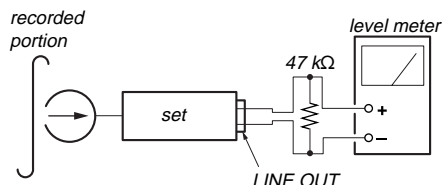
REC LEVEL knob : standard record position (See page 11.)

Procedure:

1. Set to test mode (See page 11.)
2. Insert a tape into deck B, press the REC ● button and then press the ▶ button to start recording.
3. Record Mode



4. Playback Mode



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If the selevels do not adjustment level, adjust the RV141 (L-CH) and RV241 (R-CH) to repeat steps 3 and 4.

Adjustment level:

The palyback output of 10 kHz level difference against 315 Hz reference should be ± 0.5 dB.

Adjustment Location: MAIN board (See page 14.)

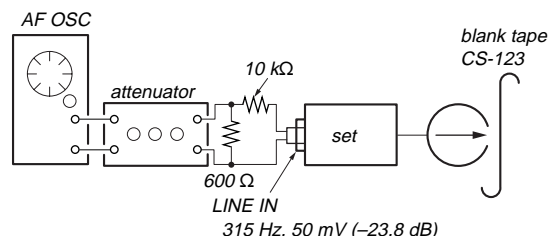
Record Level Adjustment DECK B

Setting:

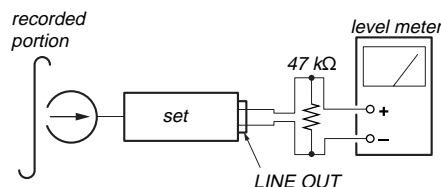
REC LEVEL knob : standard record position (See page 11.)

Procedure:

1. Set to test mode (See page 11.)
2. Insert a tpe into deck B, press the REC ● button and then press the ▶ button to start recording.
3. Record Mode



4. Playback Mode



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.

If the selevels do not adjustment level, adjust the RV101 (L-CH) and RV201 (R-CH) to repeat steps 3 and 4.

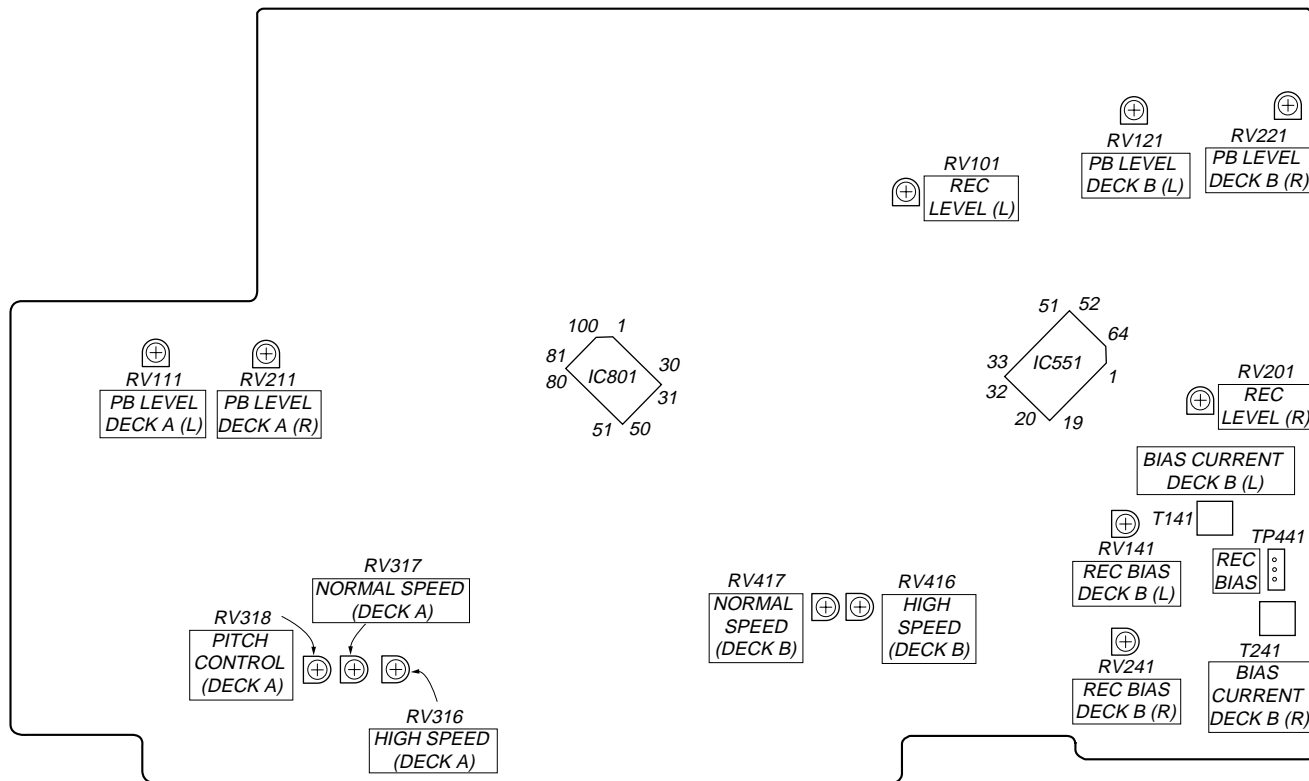
Adjustment Value:

LINE OUT level : -23.8 ± 0.5 dB (47.2 to 53.0 mV)

Adjustment Location: MAIN board (See page 14.)

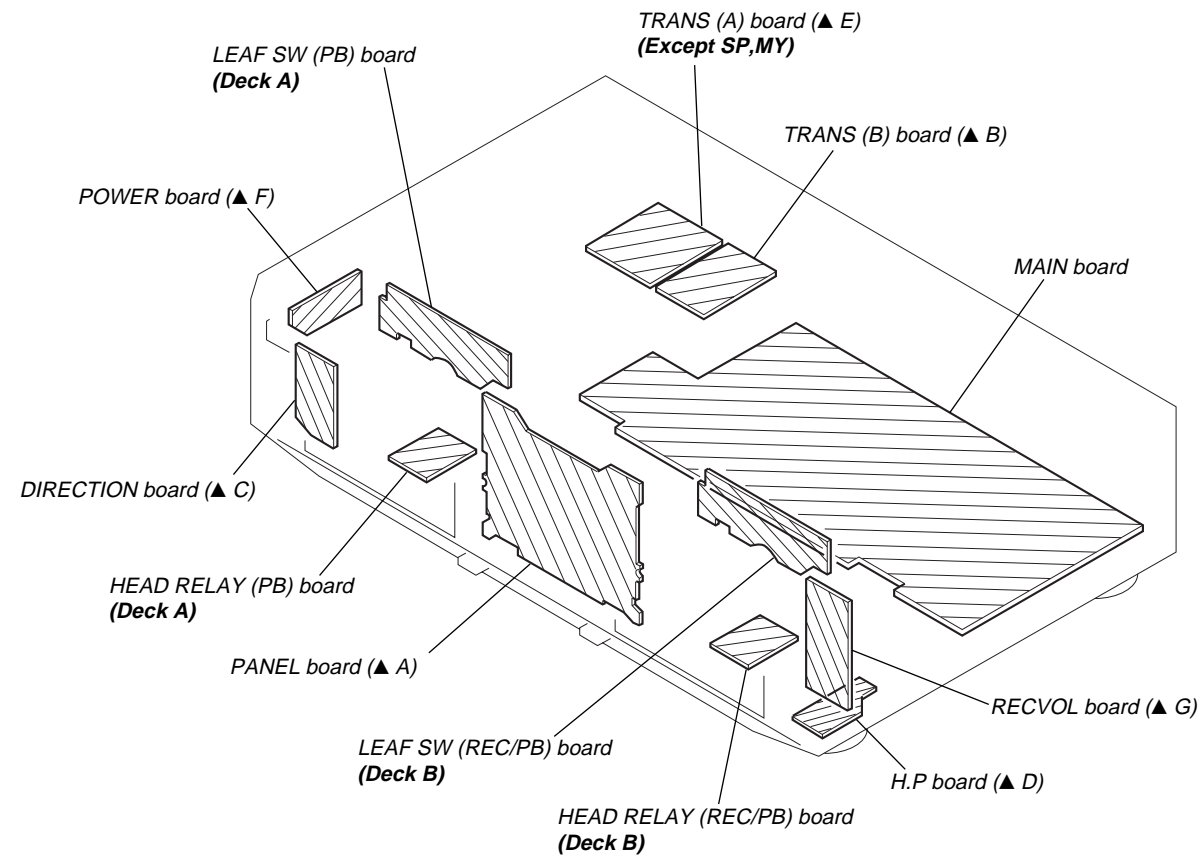
Adjustment Location: main board

[MAIN board] (Component side)



SECTION 6 DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION





- ▲A to ▲G are including into the mounted PANEL board.

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in μF unless otherwise noted. pF: μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{ W}$ or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.
-  : fusible resistor.
-  : panel designation.






Note:

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

Note:



Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

以阴影和 Δ 标志来识别的零部件，在安全方面具有关键性。因此只能以规定号码的零部件来更换。

-  : B+ Line.
-  : B- Line.
-  : adjustment for repair.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : STOP
() : REC
< > : PB
* : Can not be measured.
- Voltages are taken with a VOM (Input impedance $10\text{ M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : PB
 : REC (DECK B)
- Abbreviation
CND : Canadian model.
AUS : Australian model.
SP : Singapore model.
MY : Malaysia model.
CH : Chinese model.

For printed wiring boards.

Note:

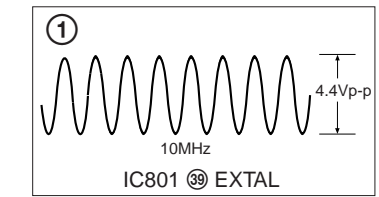
-  : parts extracted from the component side.
-  : Pattern from the side which enables seeing.
- Transistor of "B" and "C" indication is omitted.

Indication of transistor



These are omitted

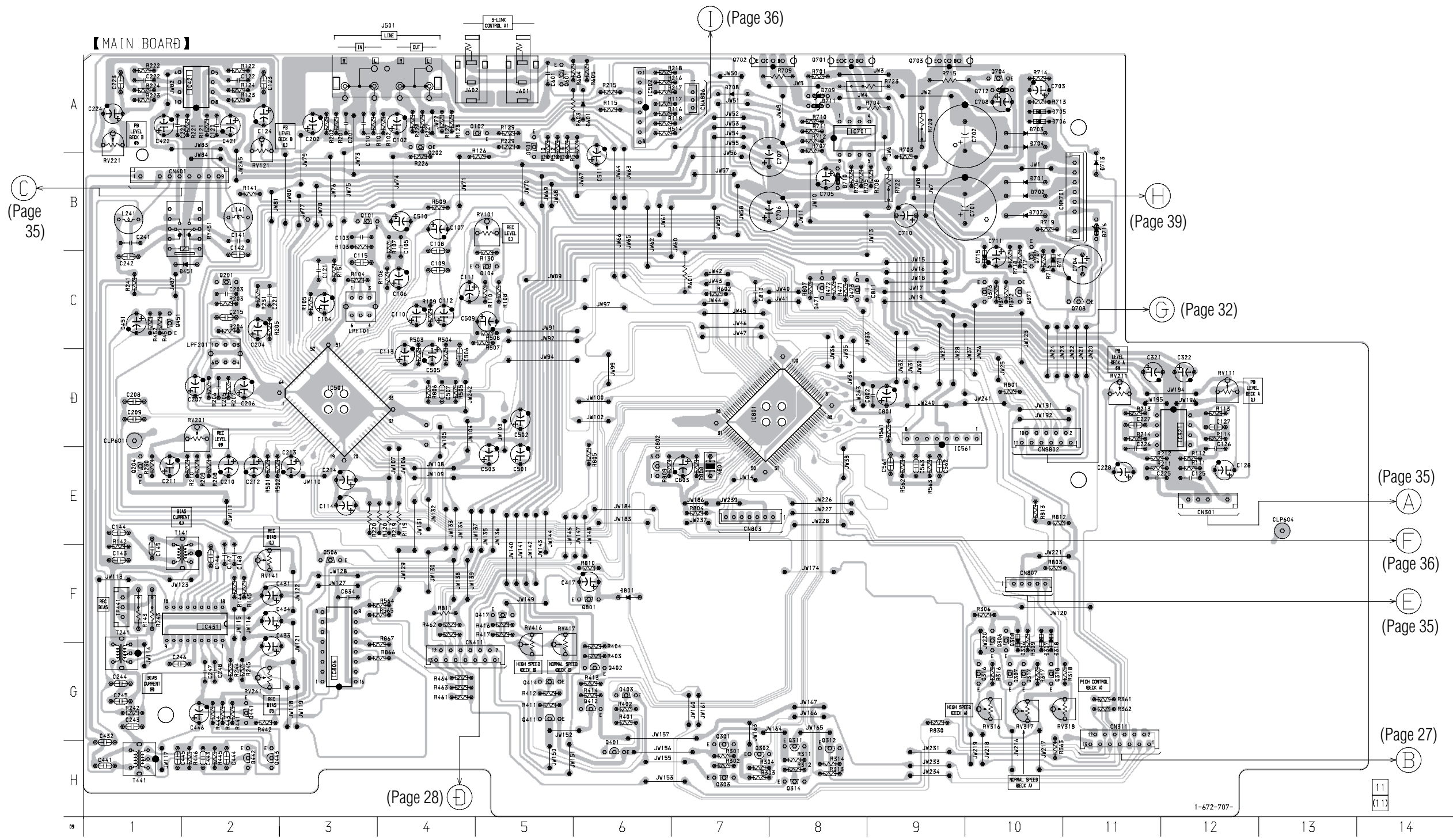
WAVEFORMS – MAIN SECTION (3/4) –



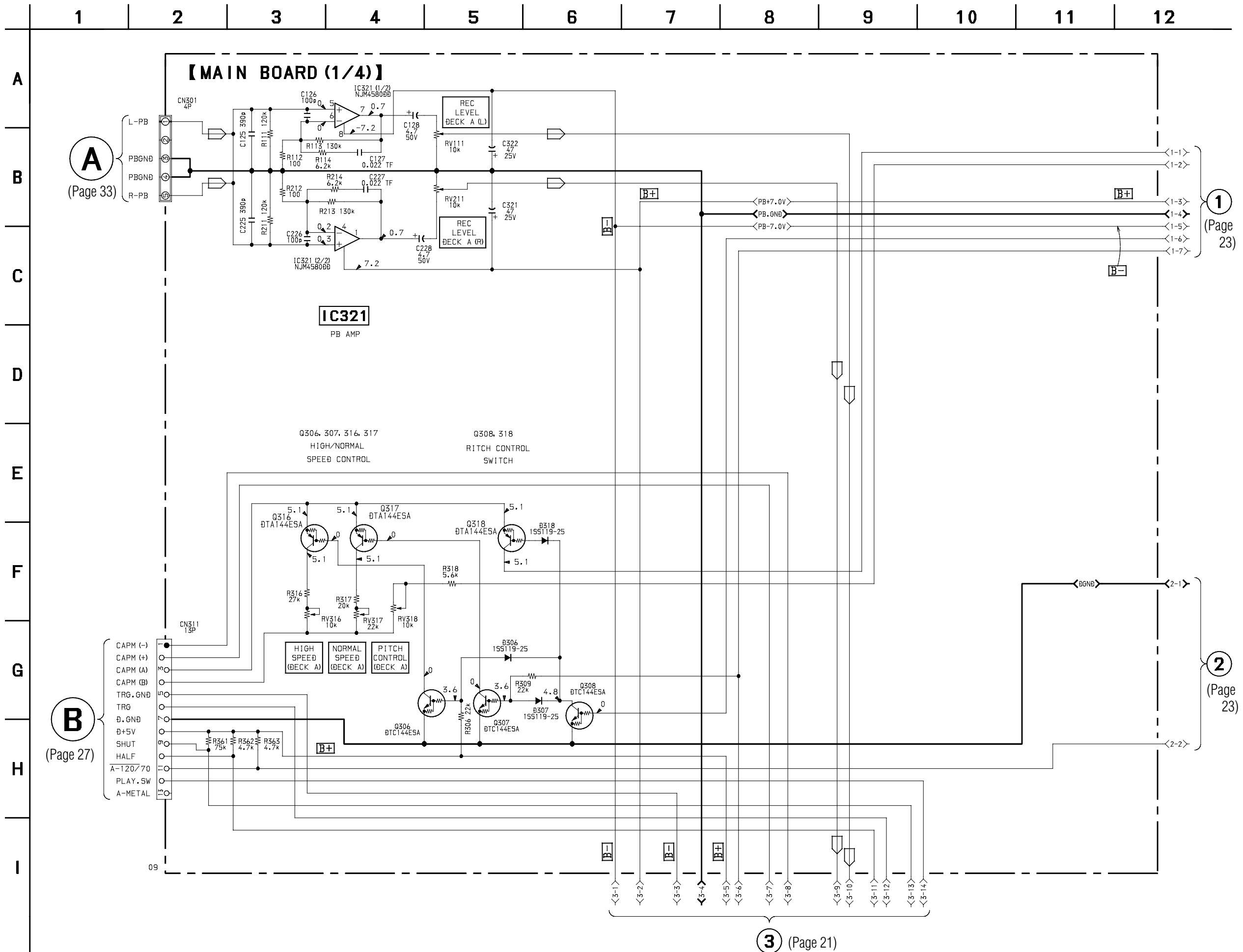
• Semiconductor Location

Ref. No.	Location
D306	G-10
D307	G-10
D318	G-10
D451	C-2
D601	A-6
D701	B-10
D702	B-10
D703	A-10
D704	A-10
D705	A-10
D706	A-10
D707	B-10
D708	A-7
D709	A-8
D710	B-8
D711	A-8
D712	A-10
D713	B-11
D714	C-10
D715	C-10
D716	B-11
D801	F-6
IC321	D-12
IC421	A-2
IC431	F-2
IC501	D-3
IC502	A-6
IC561	D-9
IC701	A-8
IC801	D-7
IC802	E-6
IC806	G-3
Q101	B-3
Q102	A-5
Q104	C-5
Q201	C-2
Q202	A-4
Q204	E-1
Q301	H-7
Q302	H-7
Q303	H-7
Q306	G-10
Q307	G-10
Q308	G-10
Q311	H-8
Q312	H-8
Q314	H-8
Q316	G-10
Q317	G-10
Q318	G-10
Q371	C-10
Q373	C-10
Q401	H-6
Q402	G-6
Q403	G-6
Q411	G-5
Q412	G-6
Q414	G-5
Q417	F-5
Q441	G-2
Q442	H-2
Q443	H-2
Q451	C-1
Q471	C-8
Q473	C-8
Q501	A-5
Q506	F-3
Q601	A-5
Q701	A-8
Q702	A-8
Q703	A-9
Q704	A-10
Q707	C-10
Q708	C-11
Q801	F-6

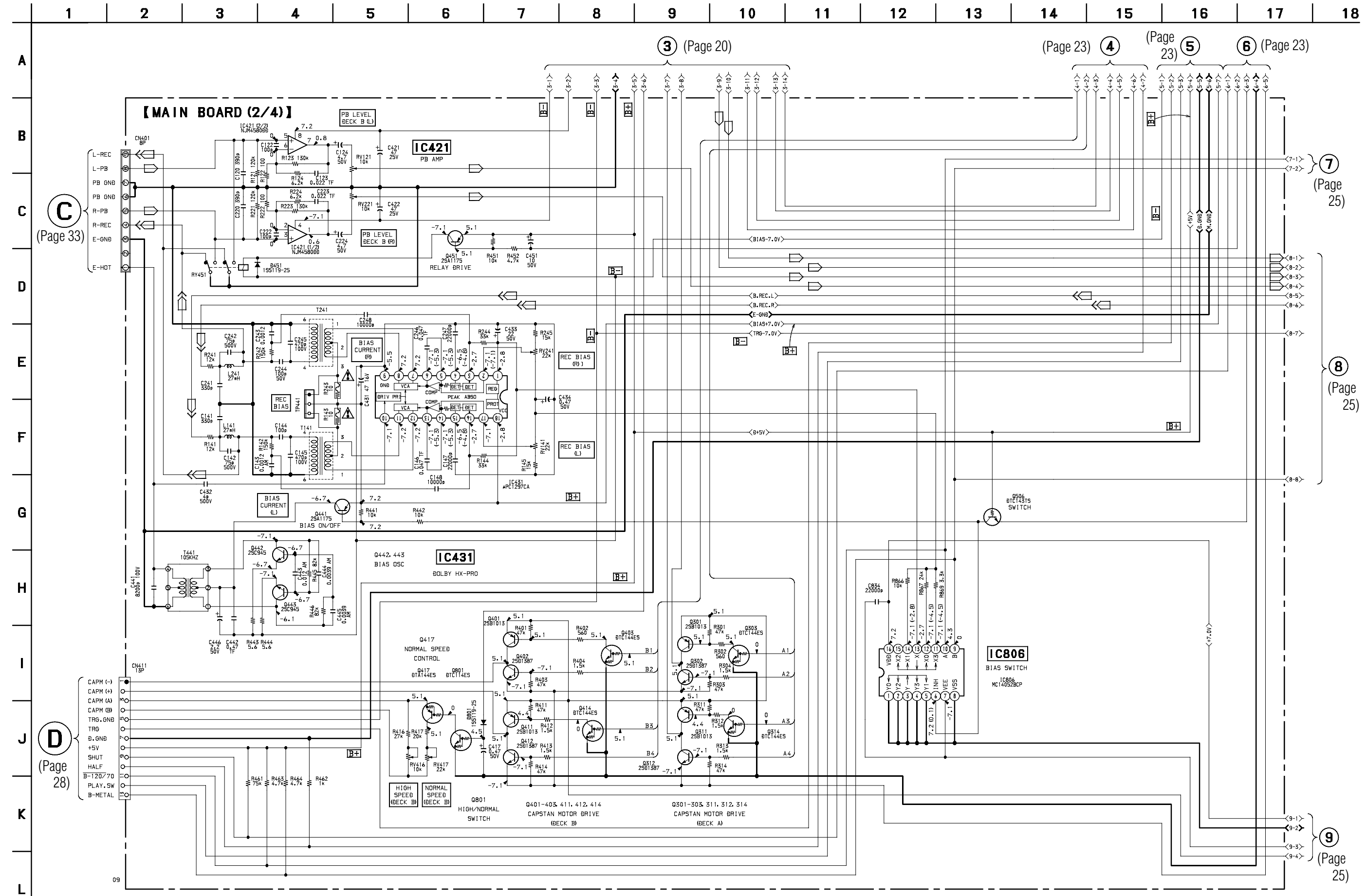
6-2. PRINTED WIRING BOARD – MAIN SECTION –
• See page 15 for Circuit Boards Location.



6-3. SCHEMATIC DIAGRAM – MAIN (1/4) SECTION –

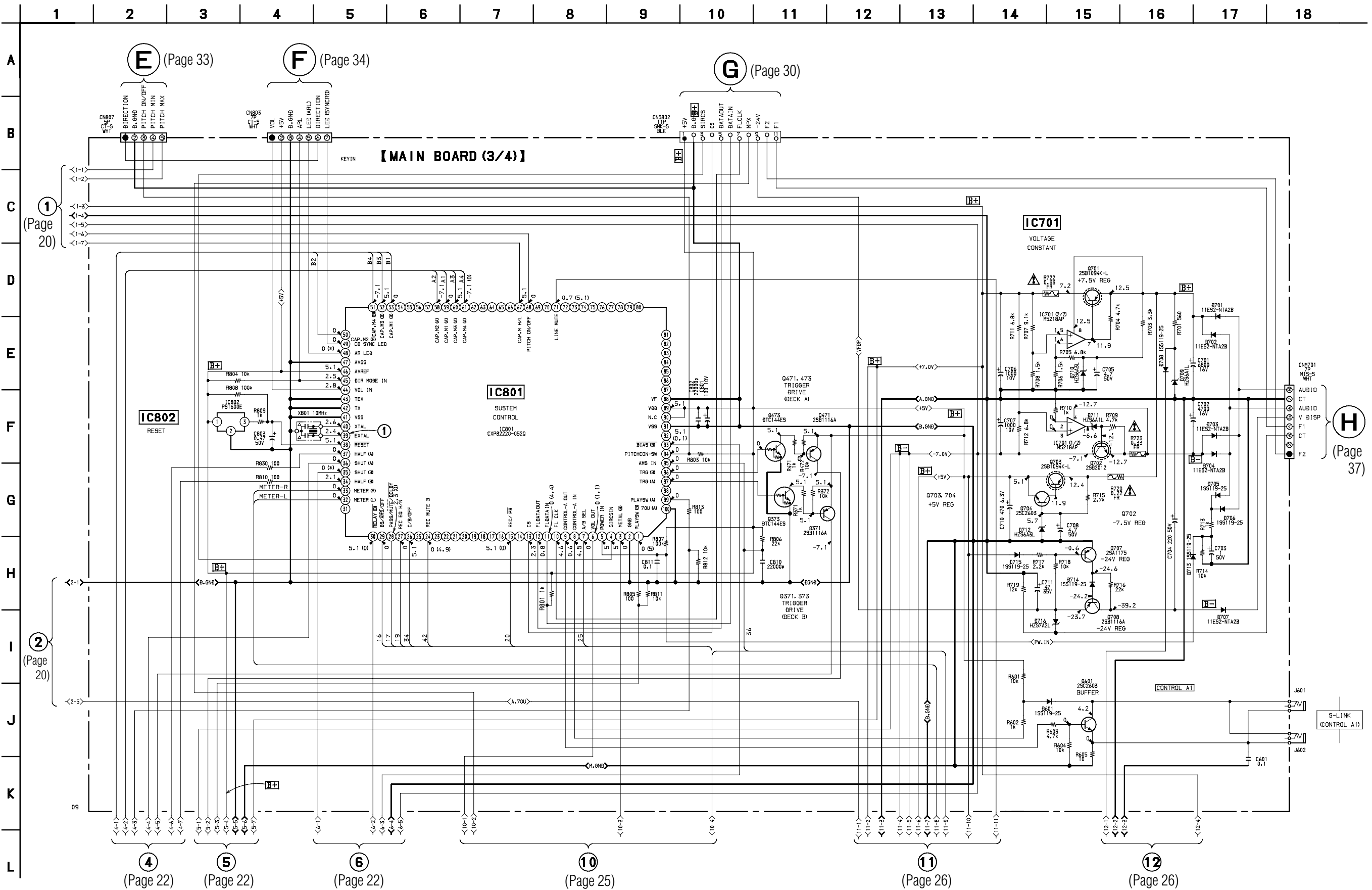


6-4. SCHEMATIC DIAGRAM – MAIN (2/4) SECTION –
• See page 17 for Printed Wiring Board.

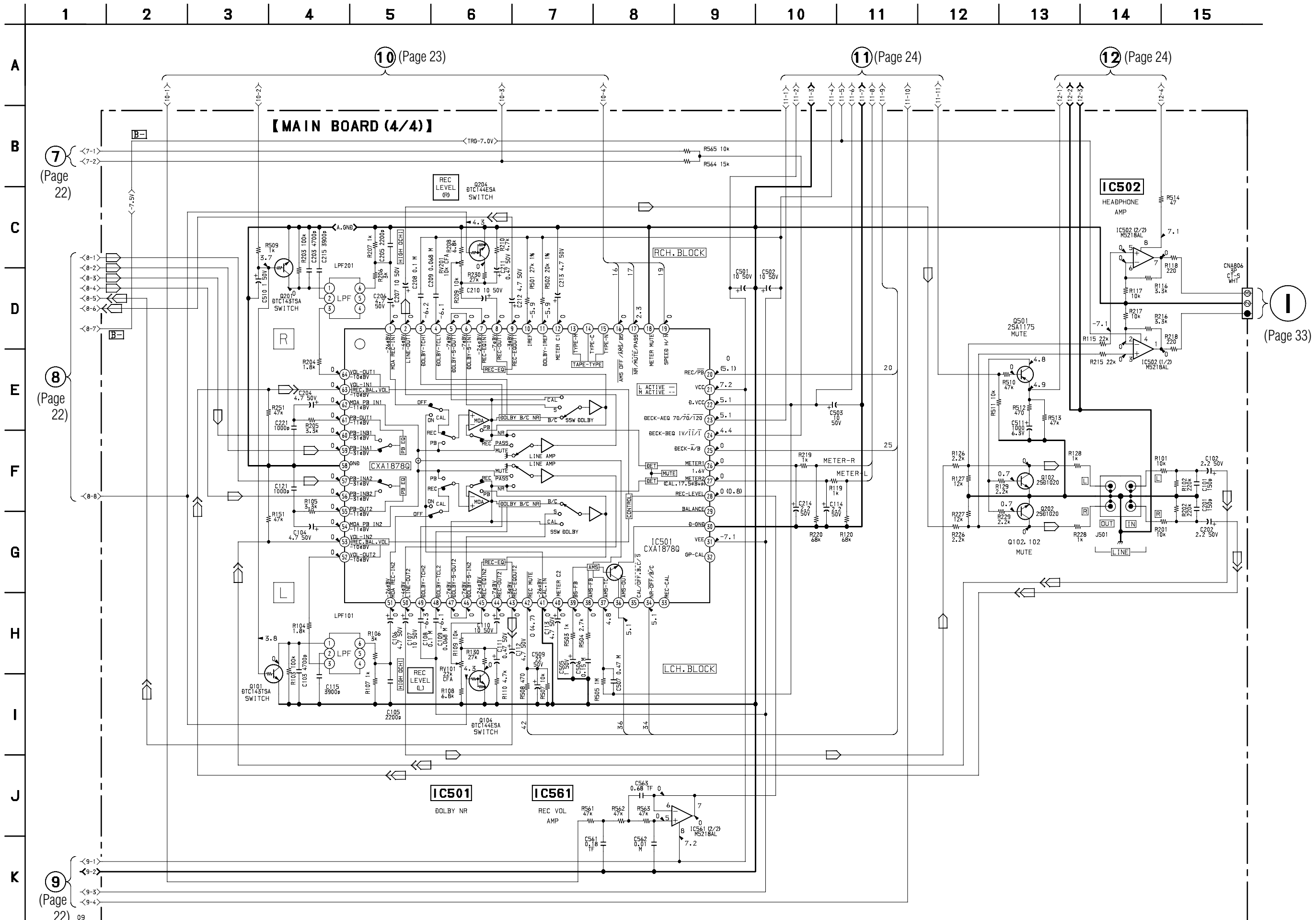


6-5. SCHEMATIC DIAGRAM – MAIN (3/4) SECTION –

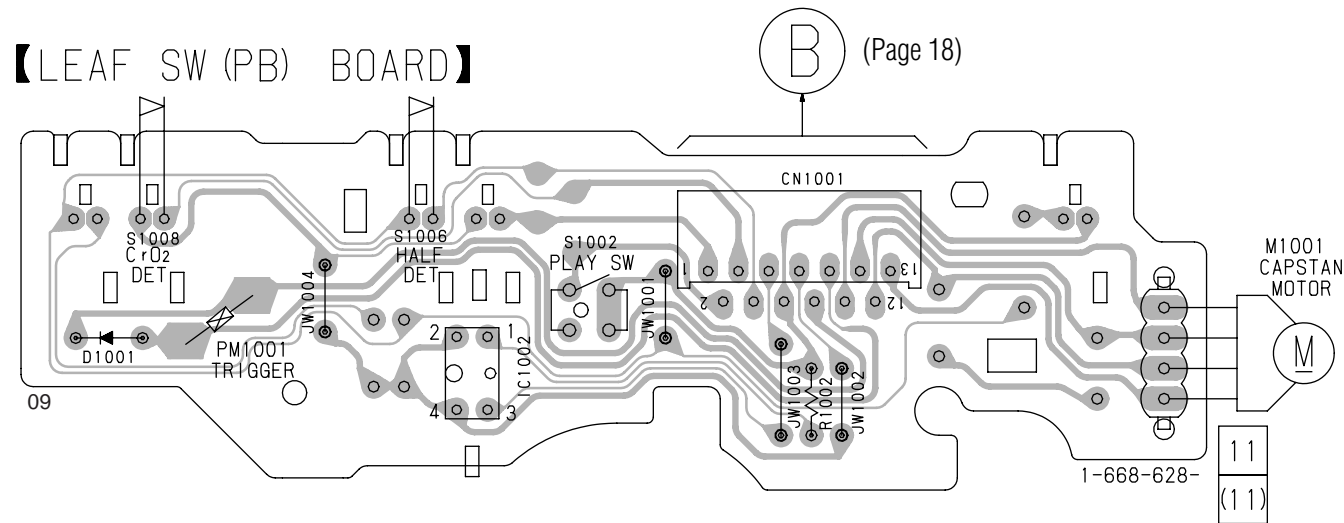
- See page 16 for Waveforms.
- See page 17 for Printed Wiring Board.
- See page 41 for IC Pin Functions.



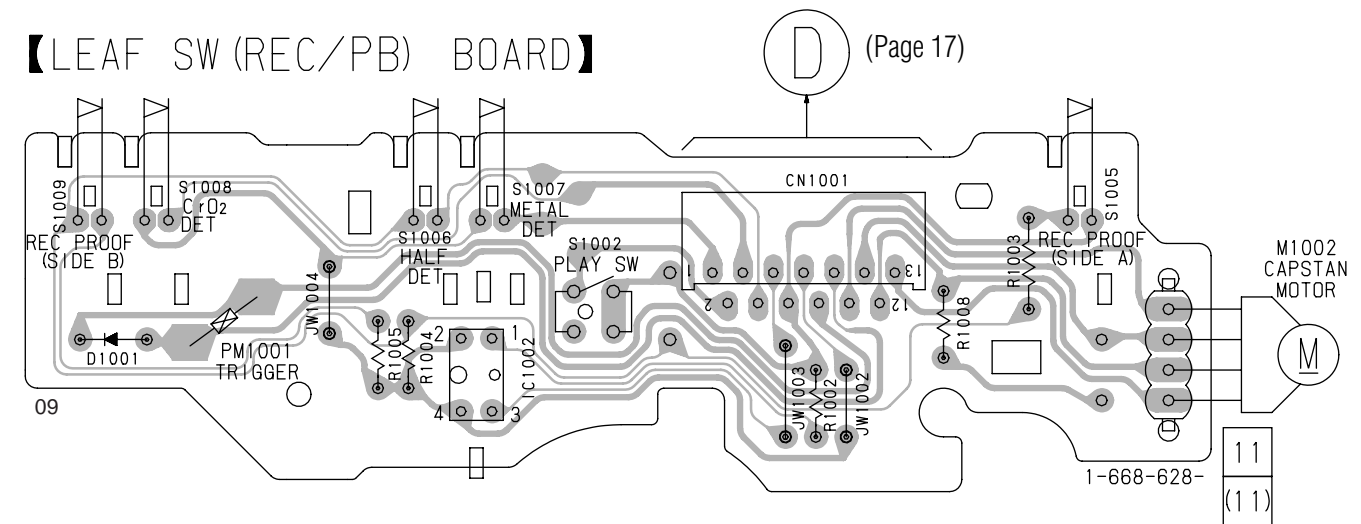
6-6. SCHEMATIC DIAGRAM – MAIN (4/4) SECTION –



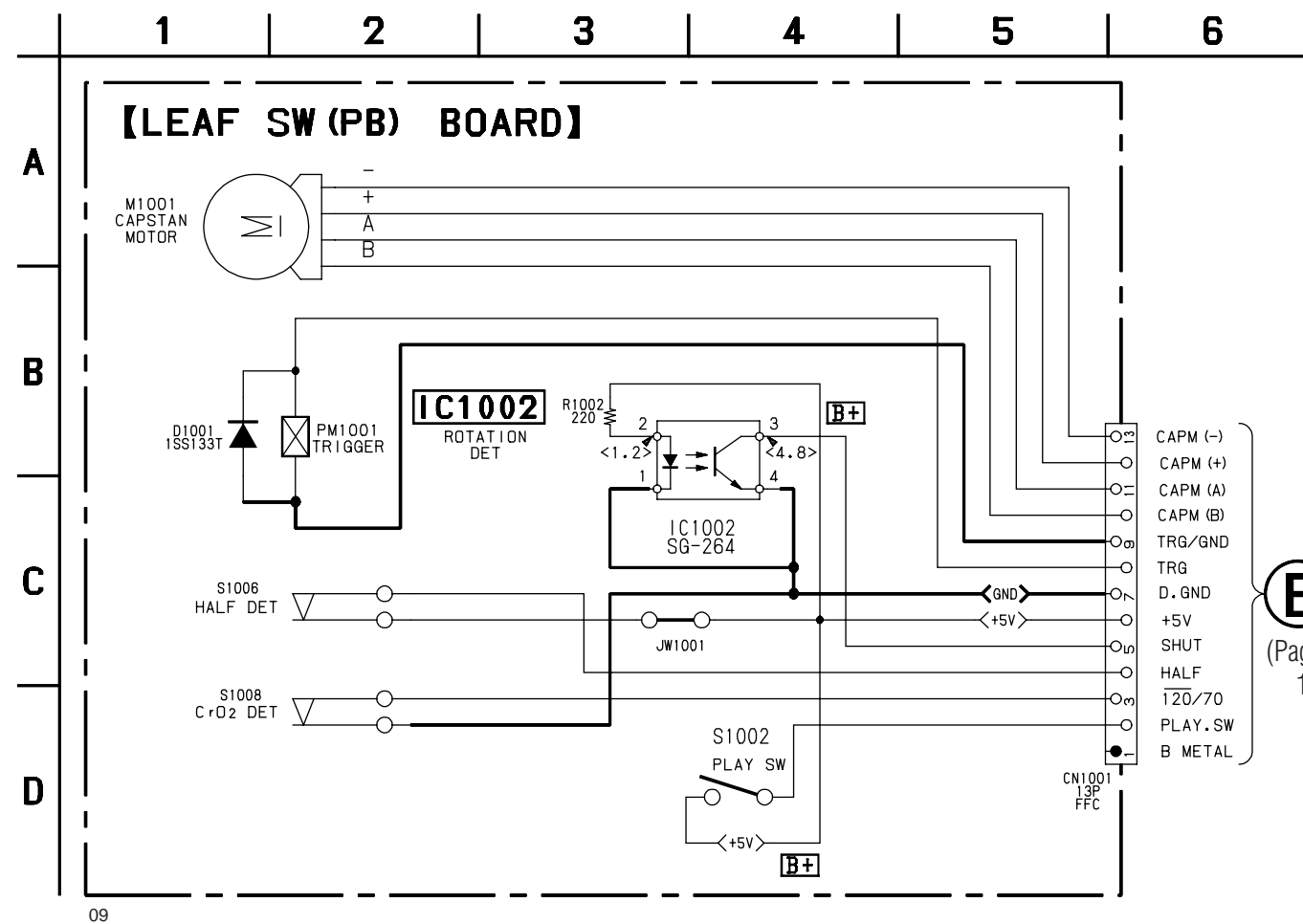
6-7. PRINTED WIRING BOARD – DECK A SECTION –
 • See page 15 for Circuit Boards Location.



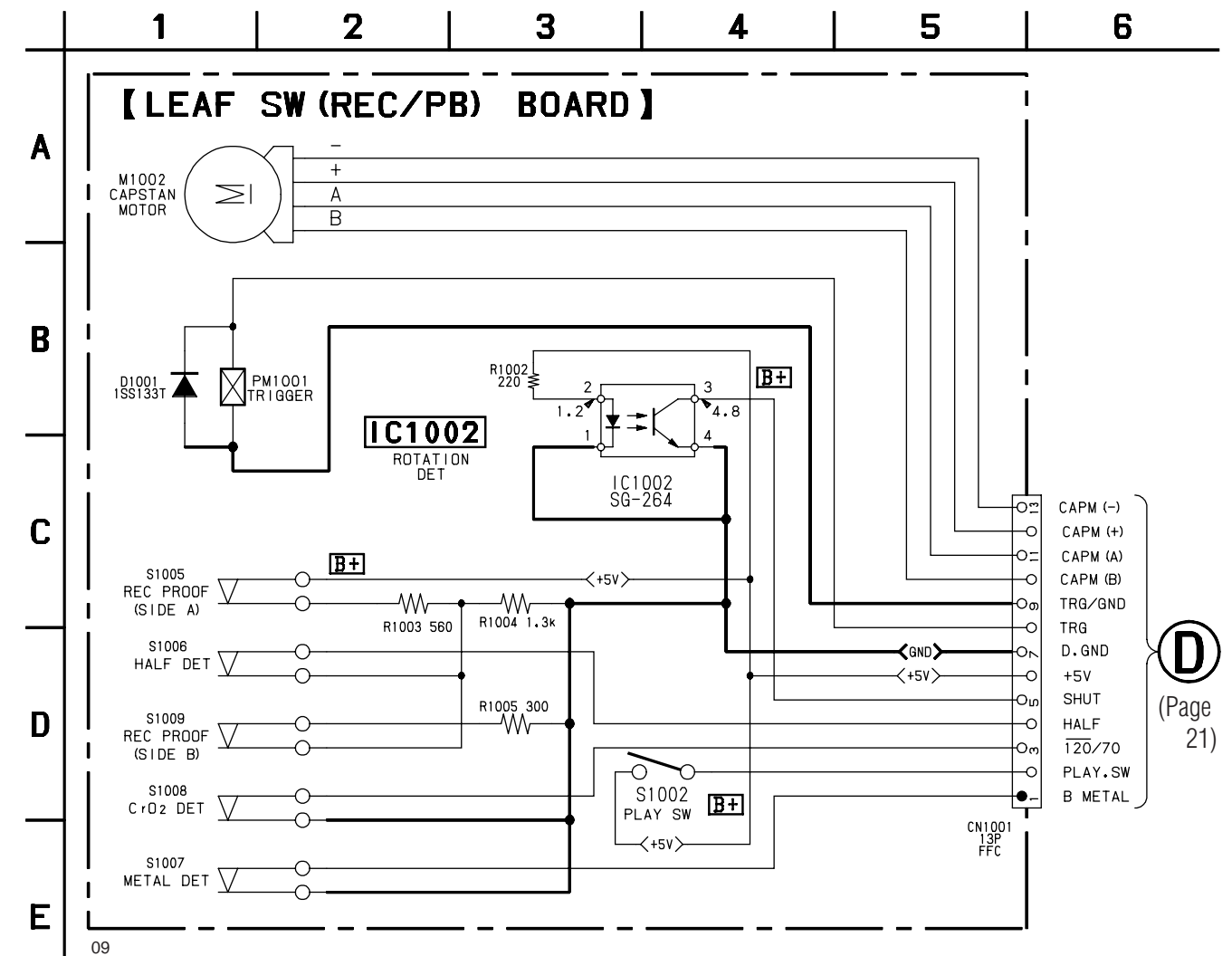
6-9. PRINTED WIRING BOARD – DECK B SECTION –
 • See page 15 for Circuit Boards Location.



6-8. SCHEMATIC DIAGRAM – DECK A SECTION –



6-10. SCHEMATIC DIAGRAM – DECK B SECTION –

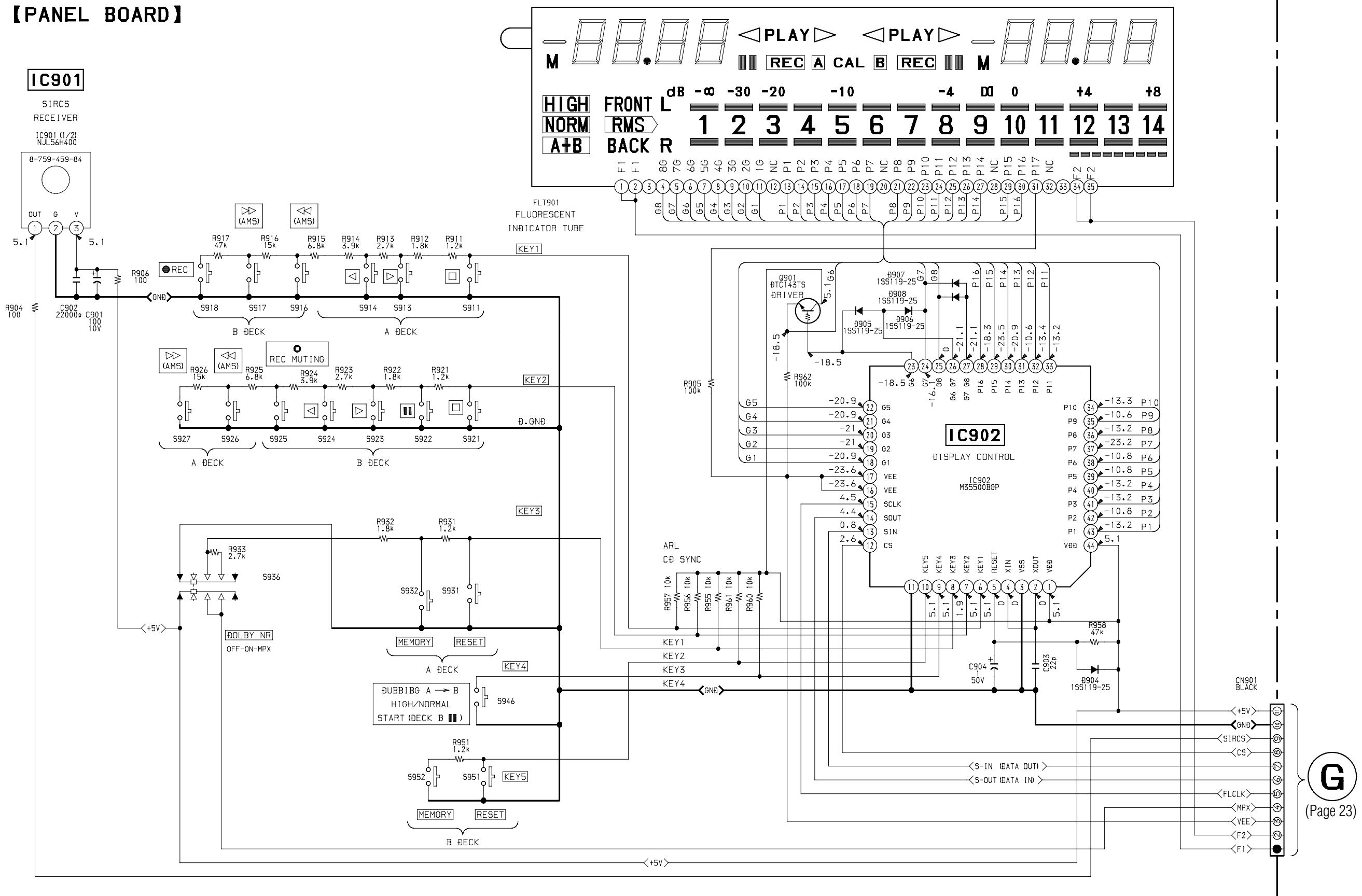


6-11. SCHEMATIC DIAGRAM - DISPLAY SECTION -

1 2 3 4 5 6 7 8 9 10 11 12 13

A B C D E F G H I

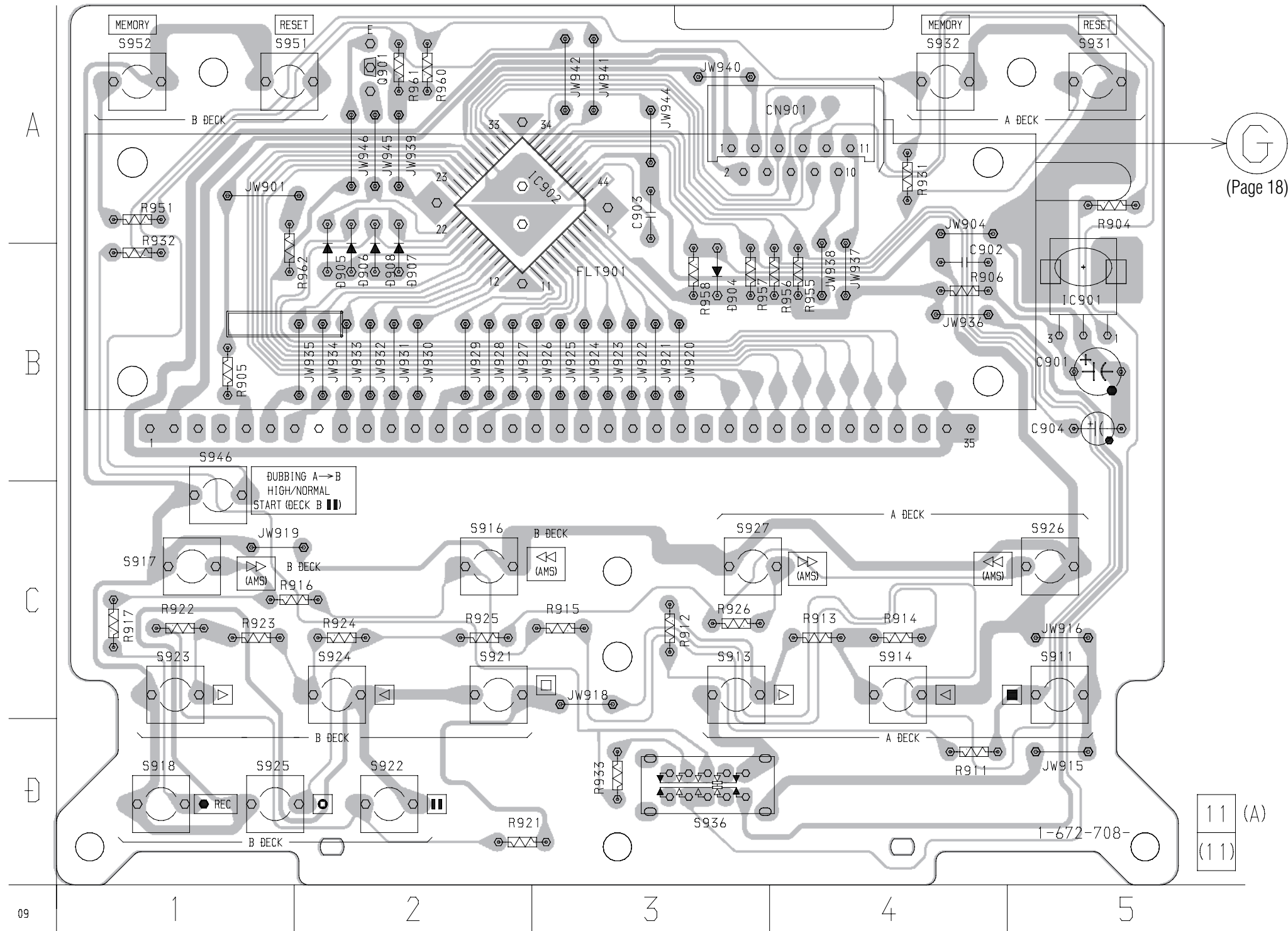
[PANEL BOARD]



G (Page 23)

6-12. PRINTED WIRING BOARD – DISPLAY SECTION –
 • See page 15 for Circuit Boards Location.

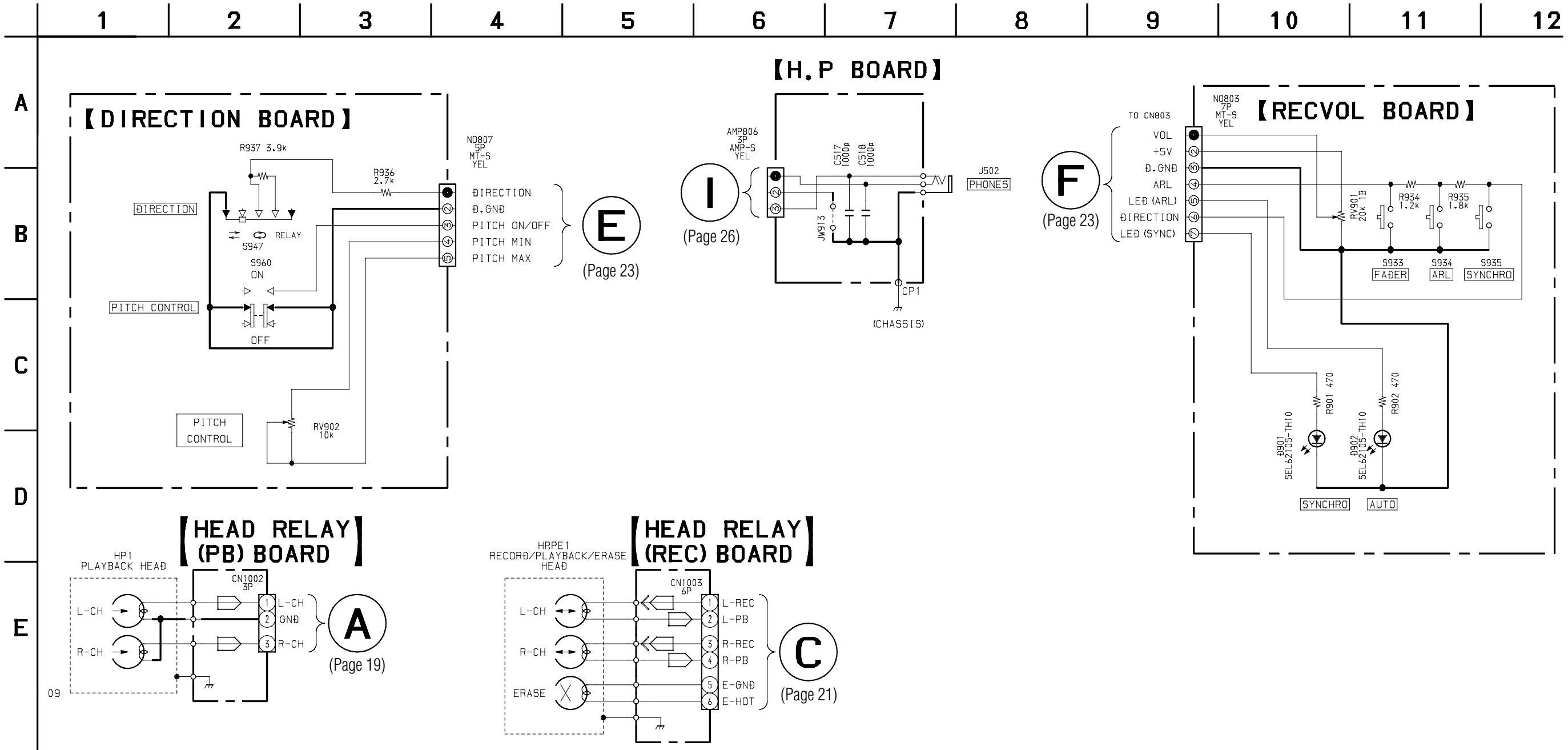
【 PANEL BOARD 】



• Semiconductor Location

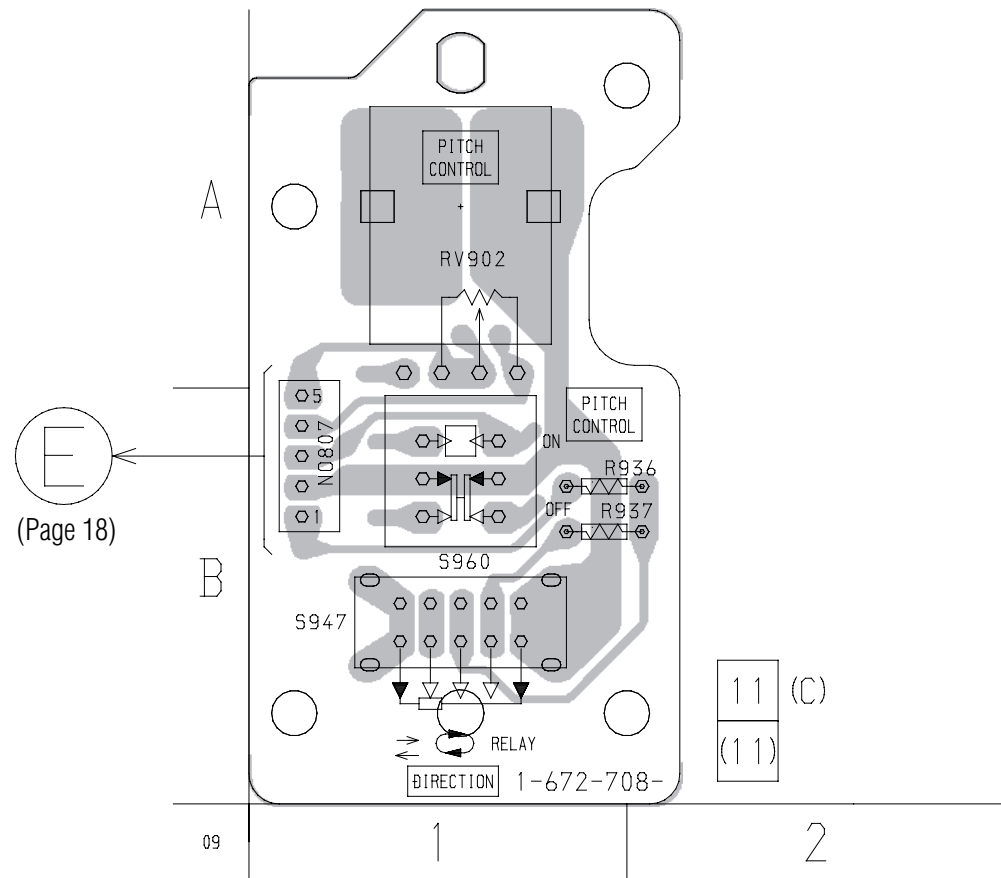
Ref. No.	Location
D904	B-3
D905	B-2
D906	B-2
D907	B-2
D908	B-2
IC901	B-5
IC902	A-2
Q901	A-2

6-13. SCHEMATIC DIAGRAM – PANEL SECTION –

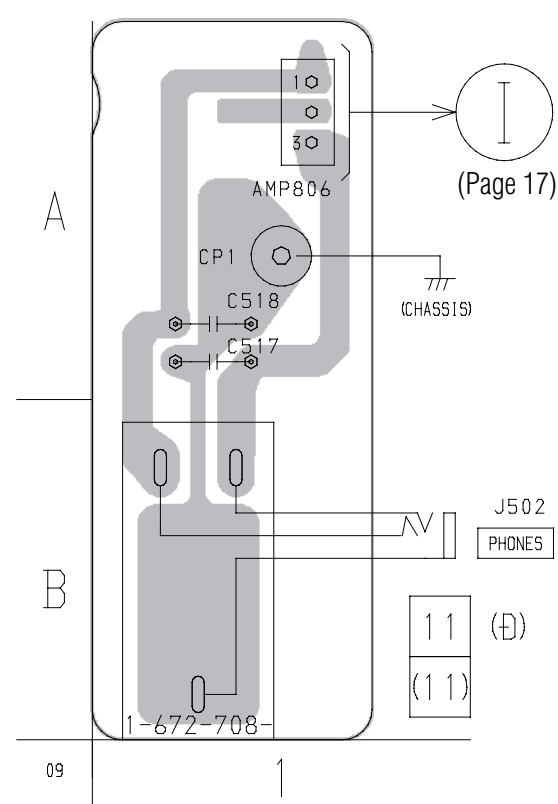


6-14. PRINTED WIRING BOARD – PANEL SECTION –
 • See page 15 for Circuit Boards Location.

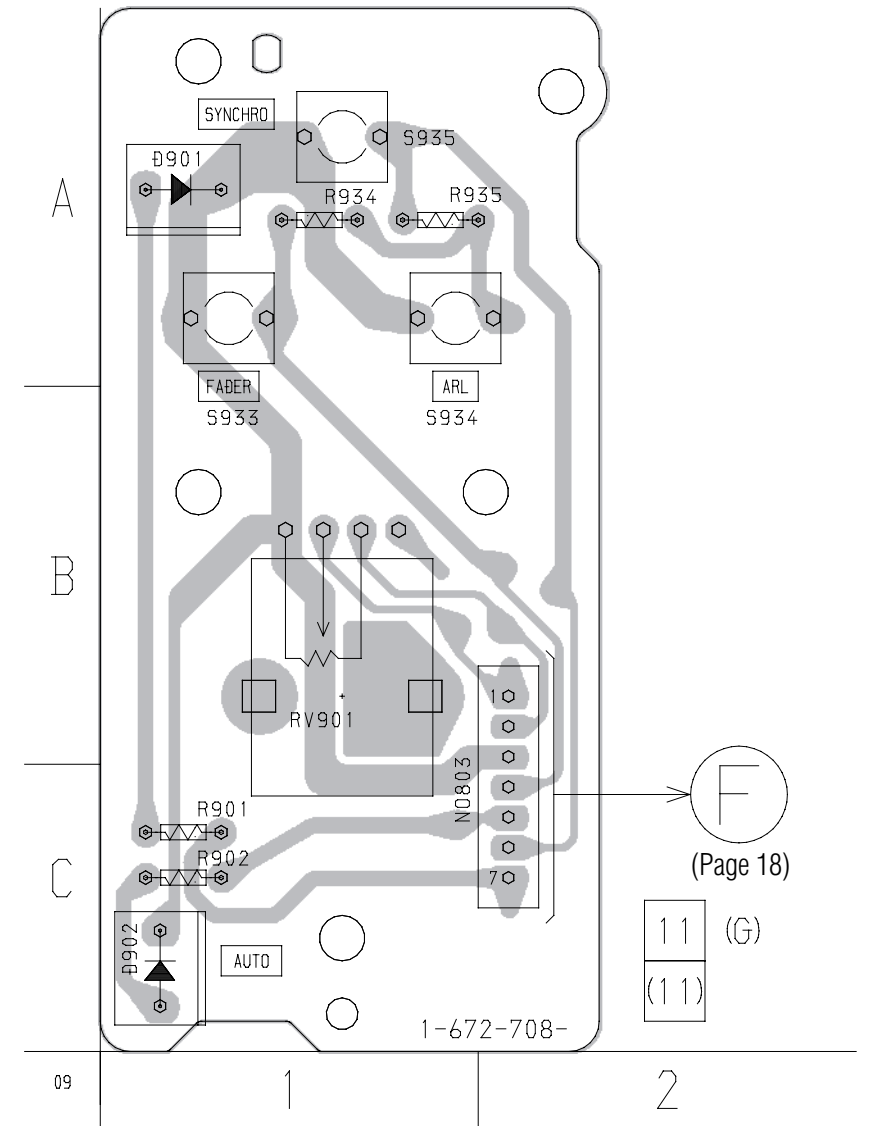
【DIRECTION BOARD】



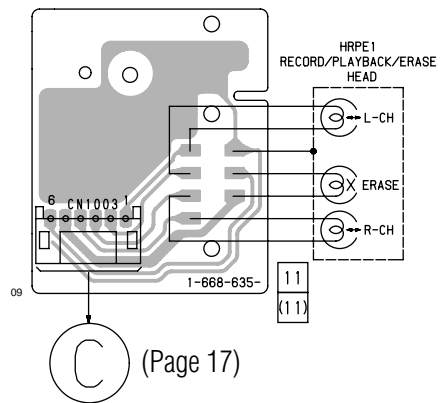
【H.P BOARD】



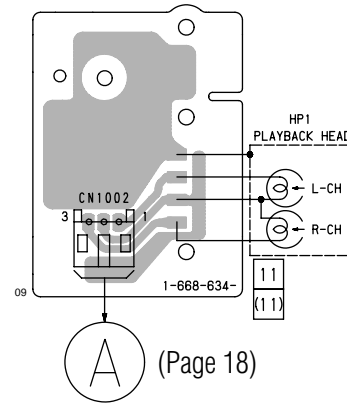
【RECVOL BOARD】



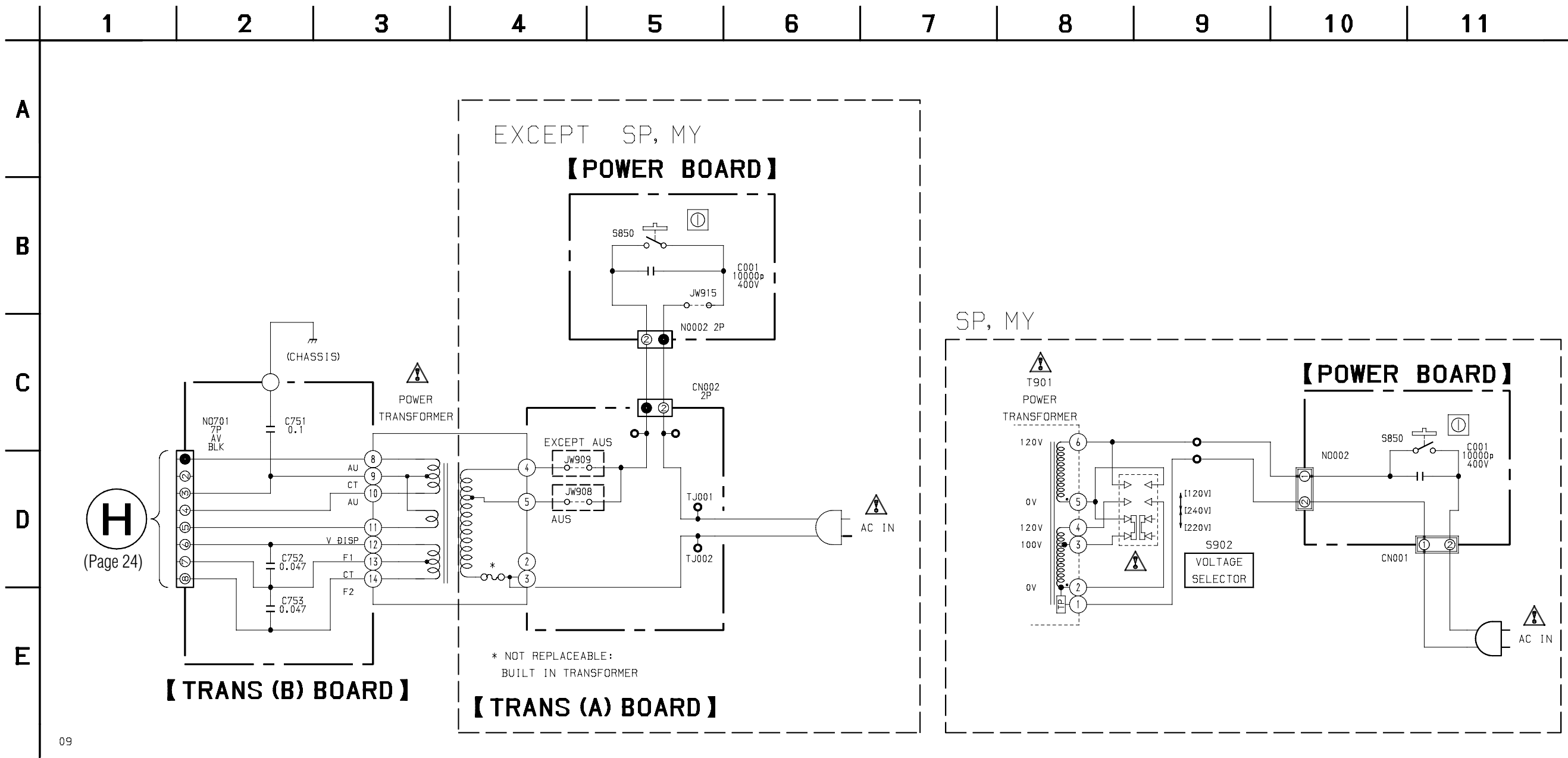
【HEAD RELAY (REC/PB) BOARD】



【HEAD RELAY (PB) BOARD】



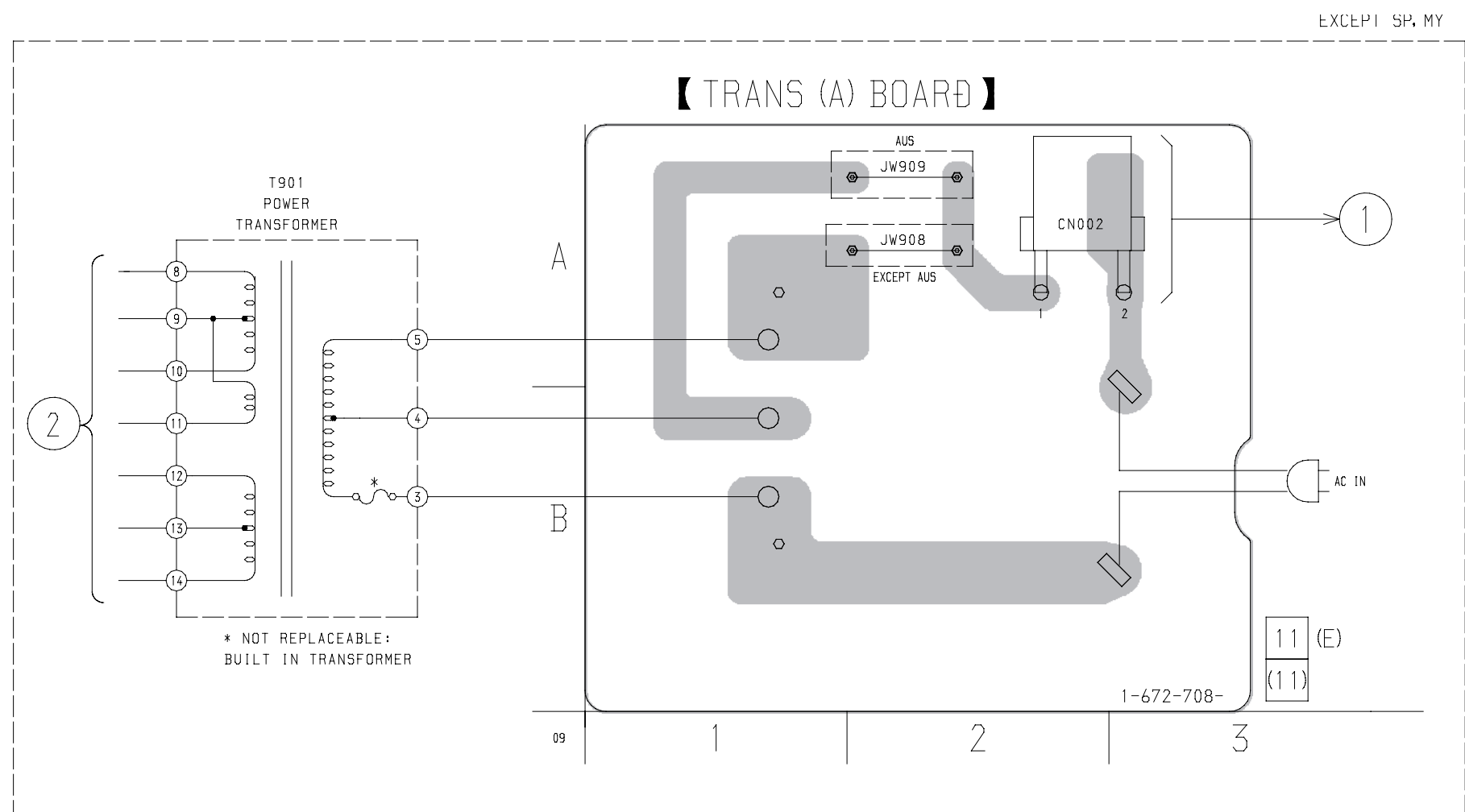
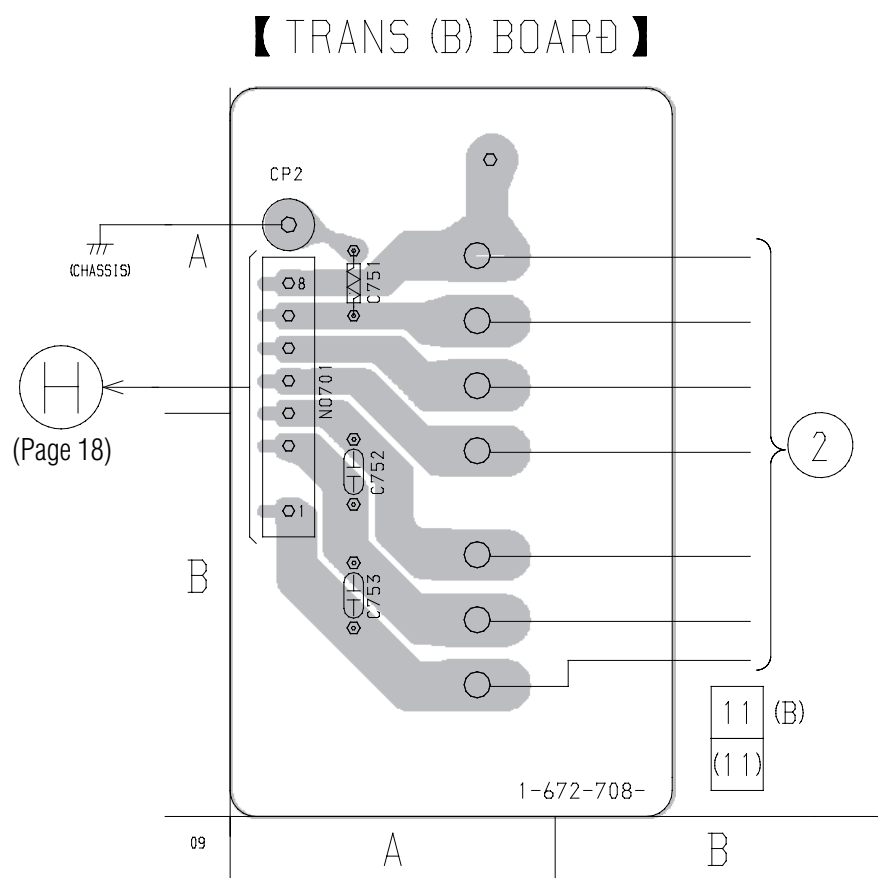
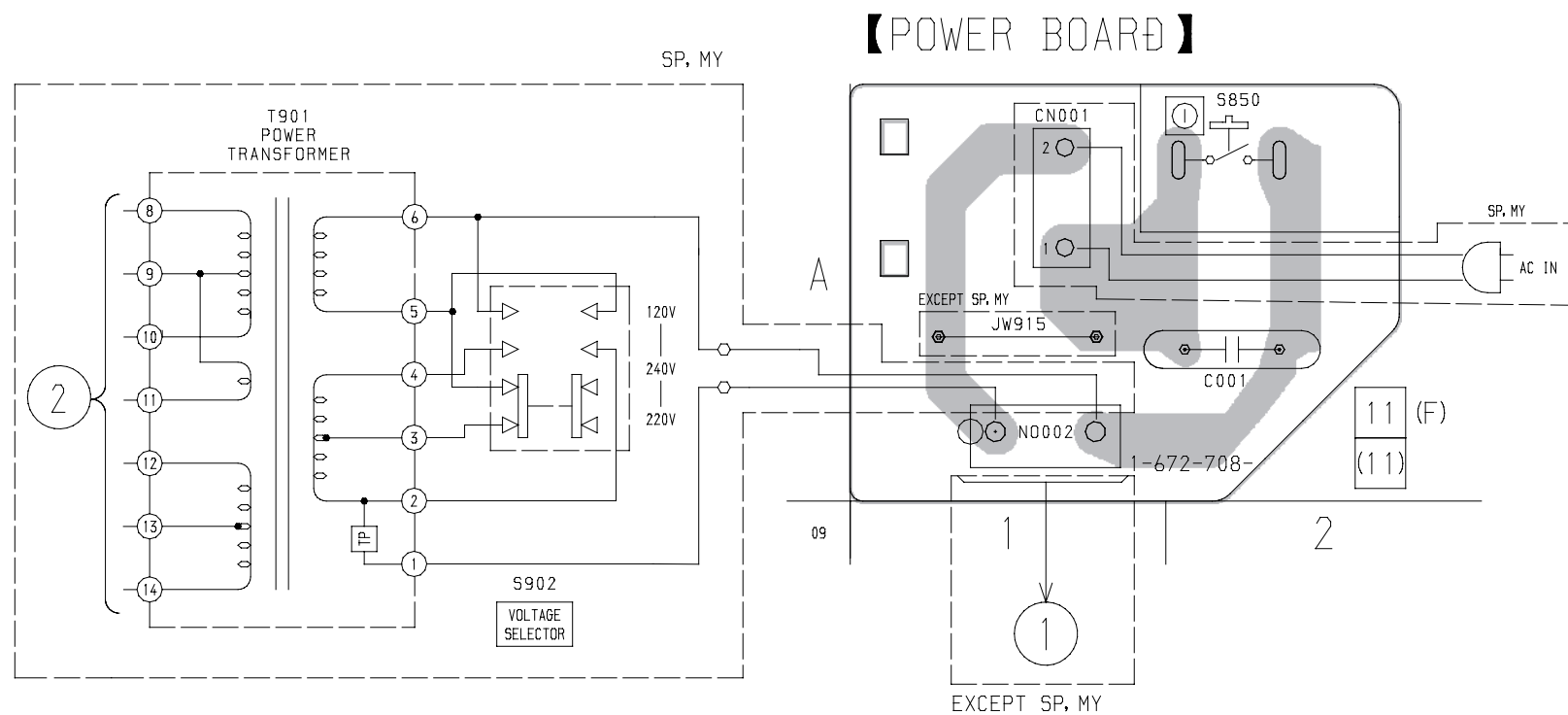
6-15. SCHEMATIC DIAGRAM – POWER SECTION –



H

(Page 24)

6-16. PRINTED WIRING BOARD – POWER SECTION –
 • See page 15 for Circuit Boards Location.



6-17. IC PIN FUNCTION

• IC801 SYSTEM CONTROL (CXP82220-052Q) (MAIN board)

Pin No.	Pin Name	I/O	Function
1	PLAYSW (B)	I	Play switch input (DECK B)
2	GND	-	Ground
3	METAL (B)	I	METAL input (DECK B)
4	SIRCS IN	I	Sircs signal input
5	POWER IN	I	Power hold input
6	VOL OUT	O	Volume output
7	A/B SEL	I	Playback A/B selector input "L": A, "H": B
8	CONTROL-A IN	I	Control A signal input
9	CONTROL-A OUT	O	Control A signal output
10	FL CLK	I	FL CLK control input
11	FL DATA IN	I	Display control input
12	FL DATA OUT	O	Display control output
13	CS	I	Sircs signal input
14	NC	-	Not used
15	REC /PB	O	Record /playback dolby NR mode selector output "L": Playback
16 to 23	NC	-	Not used
24	REC MUTE B	O	Recording mute output (DECK B)
25	NC	-	Not used
26	C/B/OFF	O	Dolby selector "H": C, "Open": B, "L": Dolby off
27	REC EQ H/N	O	REC EQ high/normal selector output "L": Dolby
28	PASS/MUTE/DOLBY	O	Audio selector "H": Pass, "Open": Mute, "L": Recording
29	BS/AMS/OFF	O	AMS amp selector "H": BS, "Open": AMS, "L": OFF
30	RELAY (B)	I	Relay switch input (DECK B)
31	NC	-	Not used
32	METER (L)	I	Meter L-CH input
33	METER (R)	I	Meter R-CH input
34	HALF (B)	I	Half switch input (DECK B)
35	SHUT (B)	I	Capstan motor rotation detection input (DECK B)
36	SHUT (A)	I	Capstan motor rotation detection input (DECK A)
37	HALF (A)	I	Half switch input (DECK A)
38	RESET	I	System reset input
39	EXTAL	O	System clock oscillator output (10 MHz)
40	XTAL	I	System clock oscillator input (10 MHz)
41	VSS	-	Ground
42	TX	-	
43	TEX	-	
44	VOL IN	I	Auto rec level control input
45	DIR MODE IN	I	Key input
46	AVREF	-	Connected to power supply
47	AV SS	-	Ground
48	AR LED	O	AUTO LED driver "H": ON
49	CD SYNC LED	O	SYNCHRO LED driver "L": ON
50	CAP, M2 (B)	O	Capstan motor driver (DECK B)
51	CAP, M4 (B)	O	
52	CAP, M3 (B)	O	
53	CAP, M1 (B)	O	
54 to 57	NC	-	Not used
58	CAP, M2 (A)	O	Capstan motor driver (DECK A)
59	CAP, M1 (A)	O	

Pin No.	Pin Name	I/O	Function
60	CAP, M3 (A)	O	Capstan motor driver (DECK A)
61	CAP, M4 (A)	O	
62 to 66	NC	-	Not used
67	CAP, M H/L	O	Capstan motor high/normal selector output "L": ON
68	PITCH ON/OFF	O	Pitch control ON/OFF output
69 to 70	NC	-	Not used
71	LINE MUTE	O	Line mute ON/OFF control output
72 to 87	NC	-	Not used
88	VF	-	Ground
89	VDD	-	Power supply (+5V)
90	N.C	-	Not used
91	VSS	-	Ground
92	NC	-	Not used
93	BIAS (B)	O	Bias ON/OFF output (DECK B)
94	PITCH CON-SW	O	Pitch control ON/OFF control output "L": ON
95	AMS IN	I	AMS amp selector
96	TRG (B)	O	Trigger control output (DECK B)
97	TRG (A)	O	Trigger control output (DECK A)
98	NC	-	Not used
99	PLAYSW (A)	I	Play switch input (DECK A)
100	70U	I	Ground

SECTION 7 EXPLODED VIEWS

NOTE:

- 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 and accessories and packing materials are given in the last of this parts list.

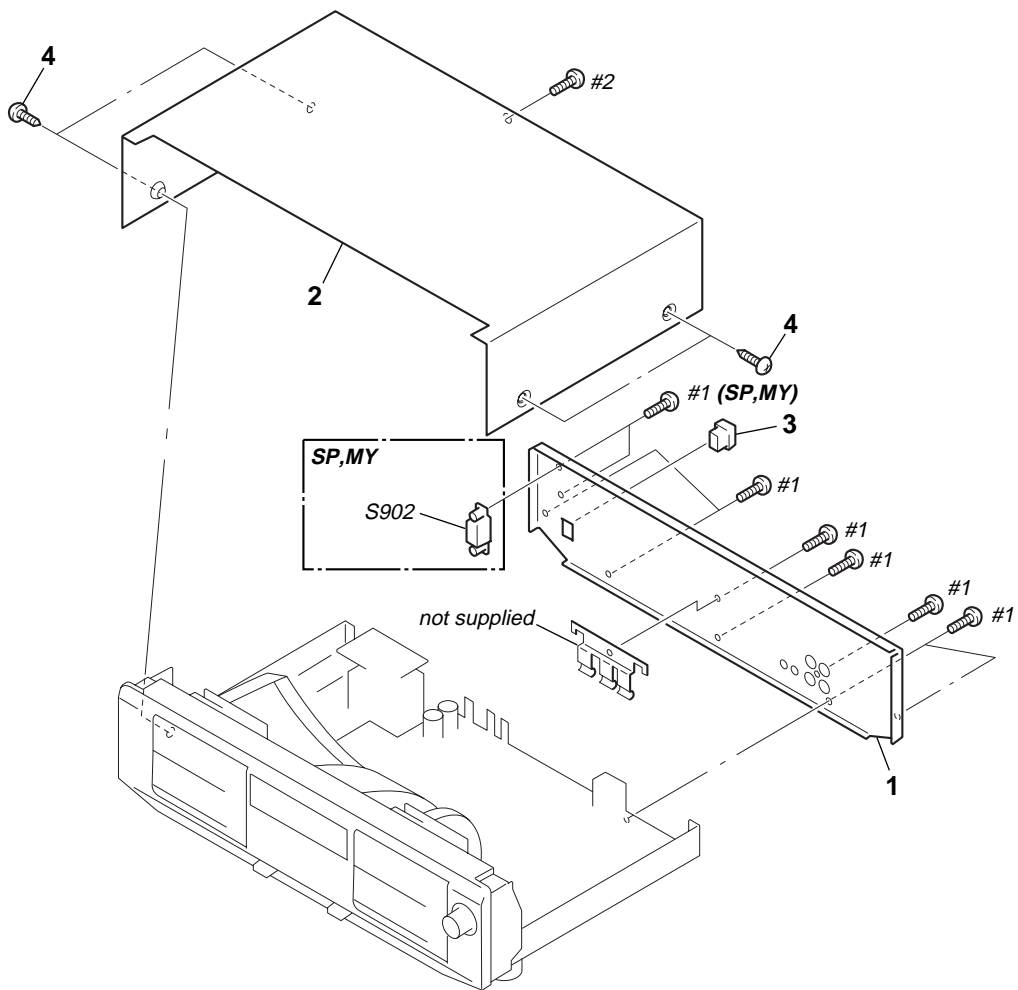
- Abbreviation
 CND : Canadian model
 SP : Singapore model
 MY : Malaysia model
 AUS : Australian model
 CH : Chinese model

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

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

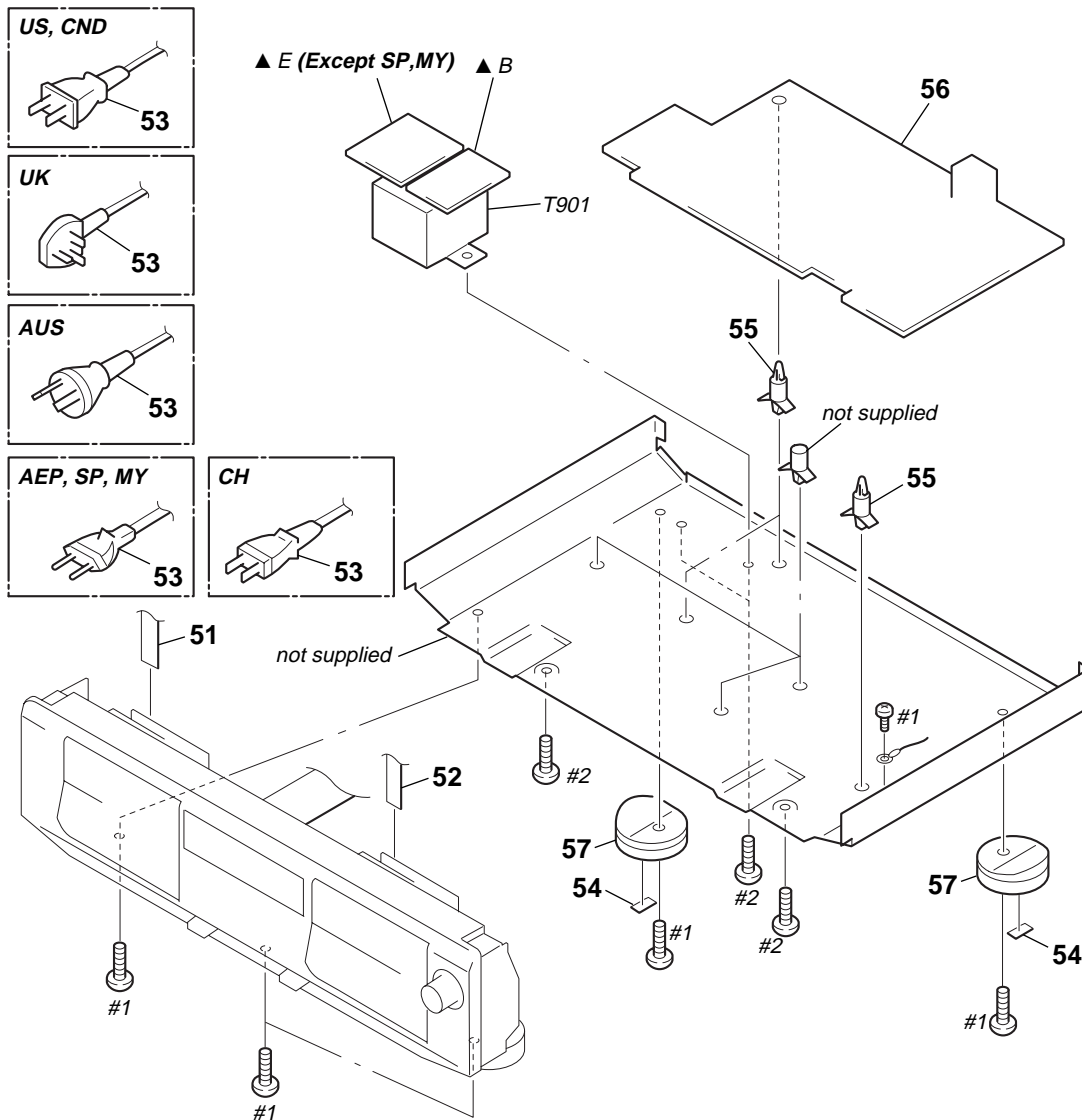
以阴影和 \triangle 标志来识别的零部件，在安全方面具有关键性。因此只能以规定号码的零部件来更换。

7-1. CASE SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	3-032-413-61	PANEL, BACK (CH)		* 2	3-935-634-01	CASE (410726)	
* 1	3-032-413-01	PANEL, BACK (US)		3	3-703-244-00	BUSHING (2104), CORD (EXCEPT US,CND)	
* 1	3-032-413-11	PANEL, BACK (CND)		* 3	3-703-571-11	BUSHING (S)(4516), CORD(CND)	
* 1	3-032-413-21	PANEL, BACK (AEP)		3	4-966-267-11	BUSHING (FBS001), CORD (US)	
* 1	3-032-413-31	PANEL, BACK (UK)		4	3-363-099-01	SCREW (CASE 3 TP2)	
* 1	3-032-413-41	PANEL, BACK (AUS)		\triangle S902	1-692-155-11	SELECTOR, POWER VOLTAGE (VOLTAGE)(SP,MY)	
* 1	3-032-413-51	PANEL, BACK (SP,MY)					

7-2. CHASSIS SECTION



以阴影和 ▲标志来识别的零部件、在安全方面具有关键性。因此只能以规定号码的零部件来更换。

▲B and ▲E are including into the mounted PANEL board (Ref No. 163).
 ▲E TRANS (A) board (EXCEPT SP, MY)
 ▲B TRANS (B) board

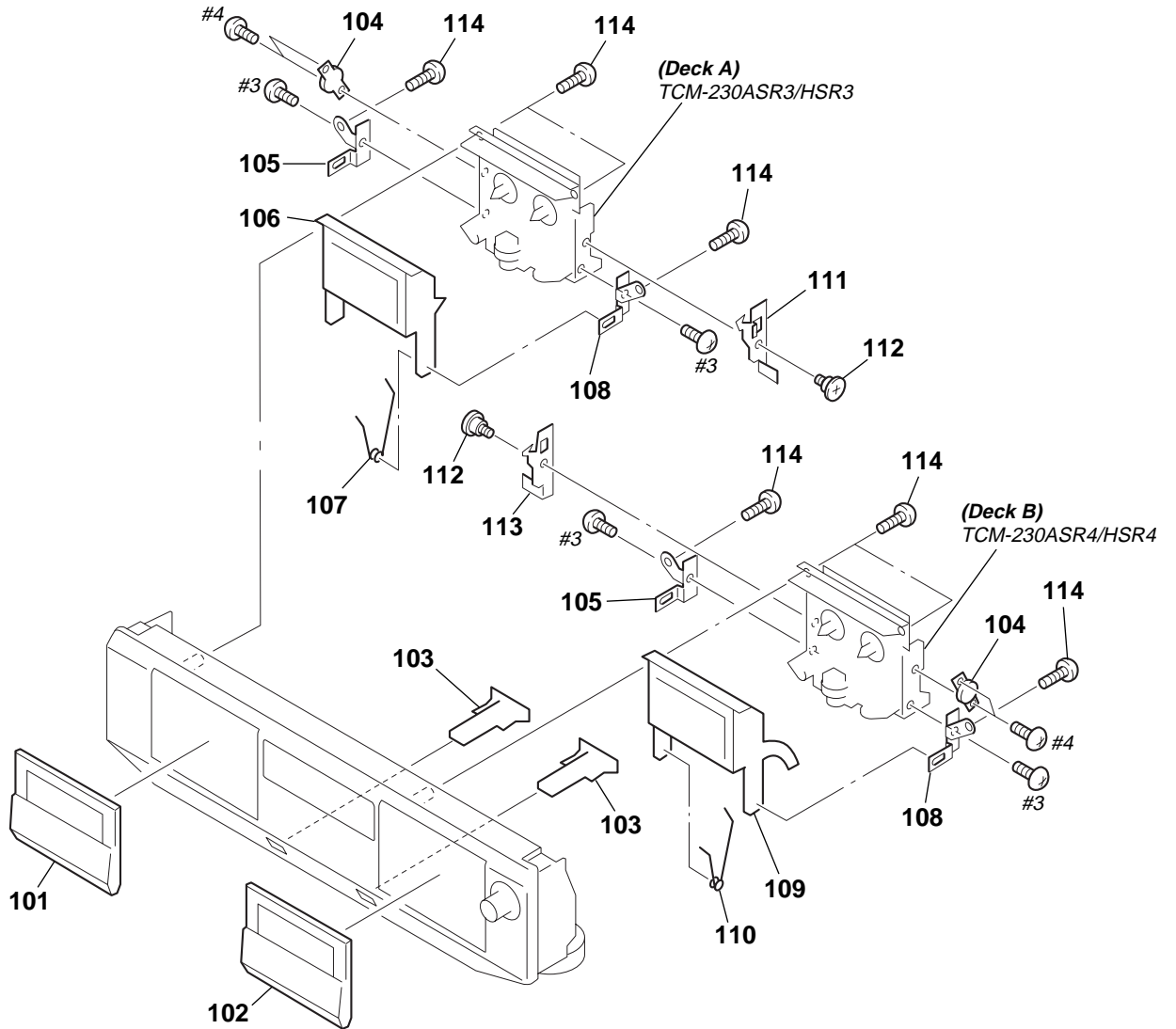
The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Les composants identifiés par marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	1-751-086-11	WIRE (FLAT TYPE)(13 CORE)(180mm)	
52	1-769-976-11	WIRE (FLAT TYPE)(13 CORE)(140mm)	
▲53	1-558-945-21	CORD, POWER (POLAR.SPT-1)(CND)	
▲53	1-575-651-21	CORD, POWER (SP,MY)	
▲53	1-751-535-11	CORD, POWER (UK)	
▲53	1-777-107-11	CORD, POWER (AEP)	
▲53	1-777-218-11	CORD, POWER (AUS)	
▲53	1-783-108-11	CORD, POWER (CH)	
▲53	1-783-531-51	CORD, POWER (US)	

Ref. No.	Part No.	Description	Remark
* 54	4-978-398-21	CUSHION	
* 55	3-346-265-31	HOLDER, PC BOARD	
* 56	A-2007-813-A	MAIN BOARD, COMPLETE	
57	4-977-591-01	FOOT (F50150S)(EXCEPT US,CND)	
57	4-977-591-11	FOOT (F50150S)(US,CND)	
▲T901	1-431-786-12	TRANSFORMER, POWER (AEP,UK,AUS,CH)	
▲T901	1-431-788-12	TRANSFORMER, POWER (US,CND)	
▲T901	1-431-789-12	TRANSFORMER, POWER (SP,MY)	

7-3. CASSETTE HOLDER SECTION

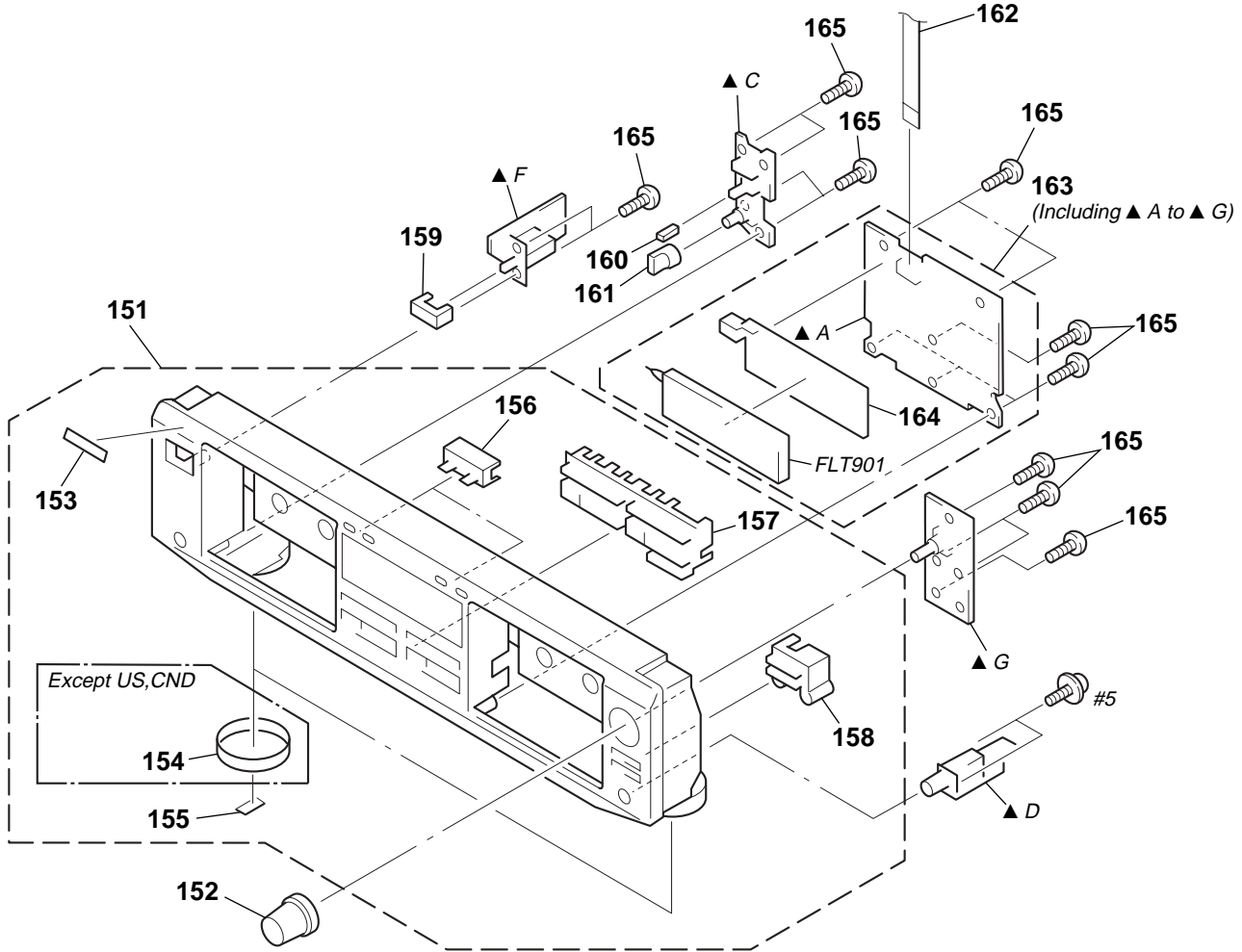


Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-3377-097-1	LID (A) ASSY, CASSETTE		108	3-019-451-01	PLATE (R), FULCRUM	
102	X-3376-716-1	LID (B) ASSY, CASSETTE		109	X-3375-107-1	HOLDER (L) ASSY, CASSETTE	
103	3-931-427-31	BUTTON (EJ)		110	3-019-454-01	SPRING (L), LOADING	
104	3-022-410-01	DAMPER		111	3-019-453-01	LEVER (LOCK R)	
105	3-019-450-01	PLATE (L), FULCRUM		112	3-019-456-01	SCREW, STEP	
106	X-3375-103-1	HOLDER (R) ASSY, CASSETTE		113	3-019-452-01	LEVER (LOCK L)	
107	3-019-455-01	SPRING (R), LOADING		114	4-951-620-01	SCREW (2.6X8), +BVTP	

7-4. FRONT PANEL SECTION

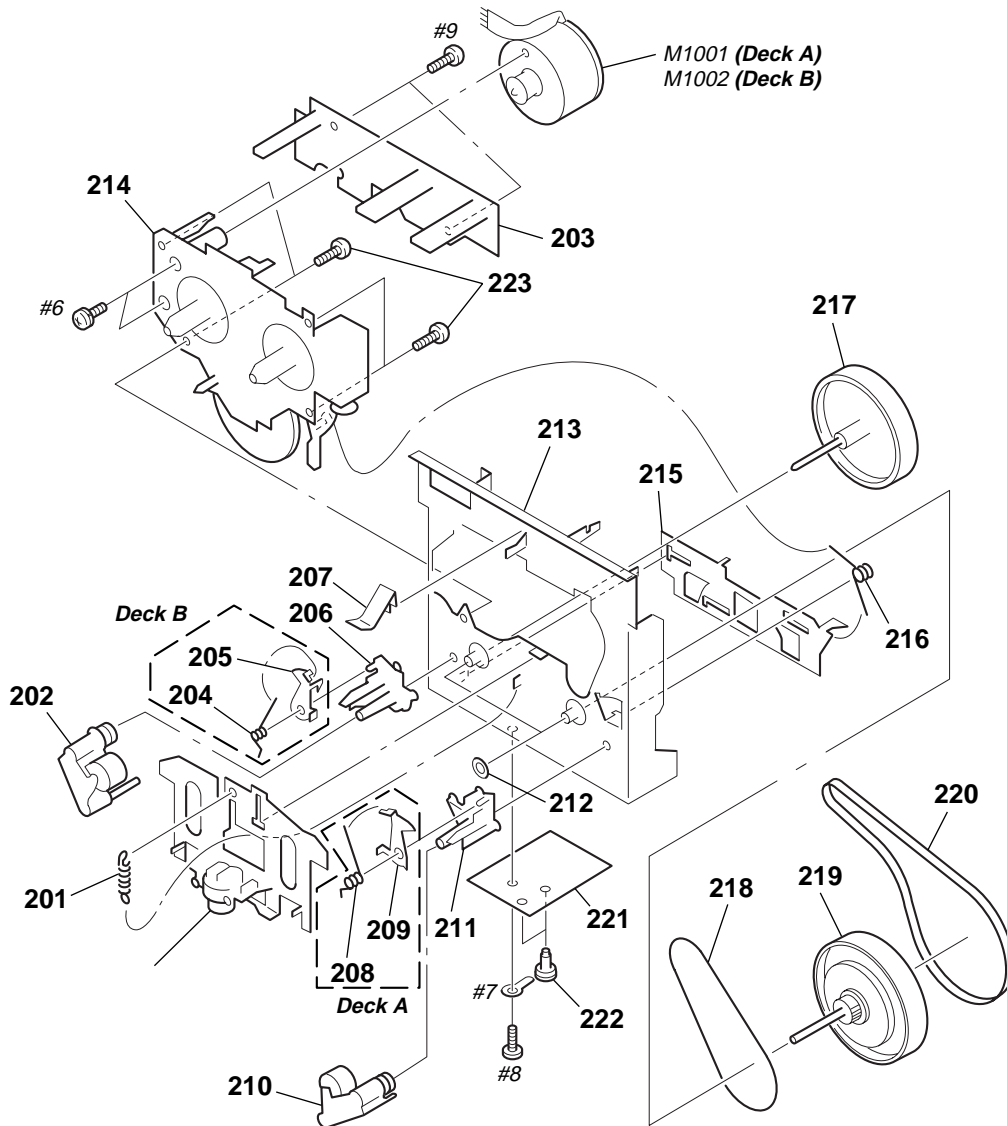
• ▲A to ▲G are including into the mounted PANEL board (Ref No. 163).

- ▲A PANEL board
- ▲C DIRECTION board
- ▲D H.P board
- ▲F POWER board
- ▲G RECVOL board



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3376-710-1	PANEL ASSY, FRONT		160	3-380-952-21	BUTTON	
151	X-3376-761-1	PANEL ASSY, FRONT (US,CND)		161	3-931-378-01	KNOB (F10)	
152	3-021-239-01	KNOB (REC)		162	1-769-950-11	WIRE (FLAT TYPE)(11 CORE)	
153	4-996-698-41	EMBLEM, SONY		* 163	A-2007-814-A	PANEL BOARD, COMPLETE (EXCEPT SP,MY)	
154	4-977-593-01	RING (DIA. 50), ORNAMENTAL (EXCEPT US,CND)		* 163	A-2007-815-A	PANEL BOARD, COMPLETE (SP,MY)	
* 155	4-978-398-21	CUSHION		* 164	3-377-337-11	HOLDER (FL)	
156	3-021-232-01	BUTTON (COUNTER)		165	4-951-620-01	SCREW (2.6X8), +BVTP	
157	3-021-230-01	BUTTON (FUNCTION)		FLT901	1-517-263-11	INDICATOR TUBE, FLUORESCENT	
158	3-931-241-21	BUTTON (SYNCHRO)					
159	3-931-429-41	BUTTON (POWER)					

7-5. TAPE MECHANISM SECTION
(DECK A: TCM-230ASR3/HSR3)
(DECK B: TCM-230ASR4/HSR4)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-016-574-01	SPRING (HEAD), TENSION (DECK A)		215	3-016-566-01	SLIDER, REVERSE	
201	3-016-574-11	SPRING (HEAD), TENSION (DECK B)		216	3-016-575-01	SPRING, TORSION (DECK A)	
202	X-3374-156-1	PINCH LEVER (REV) ASSY		216	3-016-575-11	SPRING, TORSION (DECK B)	
* 203	1-668-628-11	LEAF SW (PB) BOARD (DECK A)		217	X-3376-933-1	FLYWHEEL (REV) ASSY	
* 203	1-668-628-11	LEAF SW (REC/PB) BOARD (DECK B)					
204	3-032-809-02	SPRING (L), TORSION (DECK B)		218	3-024-405-01	BELT (FR2)	
205	3-016-572-01	LEVER (EJECT PREVENTION L)(DECK B)		219	X-3376-932-1	FLYWHEEL (FWD) ASSY	
206	3-016-565-01	BASE (PINCH LEVER REV)		220	3-016-570-01	BELT (CAPSTAN)	
207	3-016-567-01	SPRING (CASSETTE), LEAF		* 221	1-668-634-11	HEAD RELAY (PB) BOARD (DECK A)	
208	3-032-810-02	SPRING (R), TORSION (DECK A)		* 221	1-668-635-11	HEAD RELAY (REC/PB) BOARD (DECK B)	
209	3-016-573-01	LEVER (EJECT PREVENTION R)(DECK A)		222	3-036-914-01	RIVET, PUSH	
210	X-3374-155-1	PINCH LEVER (FWD) ASSY		223	3-030-823-01	SCREW (+BVTT)(2X3.5)	
211	3-016-564-01	BASE (PINCH LEVER FWD)		HP1	A-2056-681-C	DECK (A) ASSY, HEAD (PLAYBACK)(DECK A)	
212	3-019-208-01	WASHER, STOPPER		HRPE1	A-2004-646-C	DECK (B) ASSY, HEAD (RECORD/PLAYBACK/ERASE)(DECK B)	
* 213	X-3374-828-1	CHASSIS ASSY, MECHANICAL		M1001	A-2004-644-A	MOTOR ASSY, CAPSTAN (DECK A)	
U 214	A-2004-699-A	MECHANICAL BLOCK ASSY		M1002	A-2004-644-A	MOTOR ASSY, CAPSTAN (DECK B)	

HEAD RELAY (PB)

SECTION 8 ELECTRICAL PARTS LIST

HEAD RELAY (REC/PB)

LEAF SW (PB)

LEAF SW (REC/PB)

MAIN

Note:

以阴影和 Δ 标志来识别的零件，在安全方面具有关键性，因此只能以规定号码的零件来更换。

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

Les composants identifiés par une marque Δ sont critiques pour la sécurité.

Ne les remplacer que par une pièce portant le numéro spécifié.

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.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable

• 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

• Abbreviation

CND : Canadian model

SP : Singapore model

MY : Malaysia model

AUS : Australian model

CH : Chinese model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-668-634-11	HEAD RELAY (PB) BOARD *****				< DIODE >	
		< CONNECTOR >		D1001	8-719-991-33	DIODE 1SS133T-77	
* CN1002	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P *****				< IC >	
				IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264	
*	1-668-635-11	HEAD RELAY (REC/PB) BOARD *****				< RESISTOR >	
		< CONNECTOR >		R1002	1-249-409-11	CARBON 220 5% 1/4W F	
CN1003	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P *****		R1003	1-249-414-11	CARBON 560 5% 1/4W F	
				R1004	1-247-834-11	CARBON 1.3K 5% 1/4W	
*	1-668-628-11	LEAF SW (PB) BOARD *****		R1005	1-247-818-91	CARBON 300 5% 1/4W	
		< CONNECTOR >				< SWITCH >	
CN1001	1-568-444-11	SOCKET, CONNECTOR 13P *****		S1002	1-570-953-11	SWITCH, PUSH (1 KEY)(PLAY SW)	
		< DIODE >		S1005	1-771-205-11	SWITCH, LEAF (REC PROOF)(SIDE A)	
D1001	8-719-991-33	DIODE 1SS133T-77		S1006	1-771-333-11	SWITCH, LEAF (HALF DET)	
		< IC >		S1007	1-771-205-11	SWITCH, LEAF (METAL DET)	
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264		S1008	1-771-205-11	SWITCH, LEAF (CrO2 DET)	
		< RESISTOR >		S1009	1-771-205-11	SWITCH, LEAF (REC PROOF)(SIDE B)	
R1002	1-249-409-11	CARBON 220 5% 1/4W F				*****	
		< SWITCH >		*	A-2007-813-A	MAIN BOARD, COMPLETE *****	
S1002	1-570-953-11	SWITCH, PUSH (1 KEY)(PLAY SW)				< CAPACITOR >	
S1006	1-771-333-11	SWITCH, LEAF (HALF DET)		C101	1-162-284-31	CERAMIC 150PF 10% 50V	
S1008	1-771-205-11	SWITCH, LEAF (CrO2 DET)		C102	1-126-961-11	ELECT 2.2uF 20% 50V	
		*****		C103	1-162-600-11	CERAMIC 0.0047uF 30% 16V	
*	1-668-628-11	LEAF SW (REC/PB) BOARD *****		C104	1-126-963-11	ELECT 4.7uF 20% 50V	
		< CONNECTOR >		C105	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
CN1001	1-568-444-11	SOCKET, CONNECTOR 13P *****		C106	1-126-963-11	ELECT 4.7uF 20% 50V	
		< DIODE >		C107	1-126-964-11	ELECT 10uF 20% 50V	
				C108	1-130-495-00	MYLAR 0.1uF 5% 50V	
				C109	1-137-375-11	FILM 0.068uF 5% 50V	
				C110	1-126-964-11	ELECT 10uF 20% 50V	
				C111	1-126-959-11	ELECT 0.47uF 20% 50V	
				C112	1-126-963-11	ELECT 4.7uF 20% 50V	
				C113	1-126-963-11	ELECT 4.7uF 20% 50V	
				C114	1-126-961-11	ELECT 2.2uF 20% 50V	
				C115	1-137-436-11	FILM 0.0039uF 5% 50V	
				C120	1-162-289-31	CERAMIC 390PF 10% 50V	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C121	1-162-294-31	CERAMIC	0.001uF	10%	50V	C441	1-136-293-11	FILM	0.0082uF	5%	100V
C122	1-162-282-31	CERAMIC	100PF	10%	50V	C442	1-136-173-00	FILM	0.47uF	5%	50V
C123	1-137-372-11	FILM	0.022uF	5%	50V	C443	1-130-299-00	FILM	0.012uF	5%	50V
C124	1-126-963-11	ELECT	4.7uF	20%	50V	C444	1-137-436-11	FILM	0.0039uF	5%	50V
C125	1-162-289-31	CERAMIC	390PF	10%	50V	C445	1-137-436-11	FILM	0.0039uF	5%	50V
C126	1-162-282-31	CERAMIC	100PF	10%	50V	C446	1-126-964-11	ELECT	10uF	20%	50V
C127	1-137-372-11	FILM	0.022uF	5%	50V	C451	1-126-964-11	ELECT	10uF	20%	50V
C128	1-126-963-11	ELECT	4.7uF	20%	50V	C501	1-126-964-11	ELECT	10uF	20%	50V
C141	1-162-288-31	CERAMIC	330PF	10%	50V	C502	1-126-964-11	ELECT	10uF	20%	50V
C142	1-107-609-11	CERAMIC	75PF	5%	500V	C503	1-126-964-11	ELECT	10uF	20%	50V
C143	1-137-433-11	FILM	0.0012uF	5%	50V	C505	1-126-960-11	ELECT	1uF	20%	50V
C144	1-102-973-00	CERAMIC	100PF	5%	50V	C506	1-130-497-00	MYLAR	0.15uF	5%	50V
C145	1-136-356-11	FILM	470PF	5%	100V	C507	1-136-173-00	FILM	0.47uF	5%	50V
C146	1-137-374-11	FILM	0.047uF	5%	50V	C509	1-126-965-11	ELECT	22uF	20%	50V
C147	1-161-494-00	CERAMIC	0.022uF		25V	C510	1-126-960-11	ELECT	1uF	20%	50V
C148	1-162-306-11	CERAMIC	0.01uF	20%	16V	C511	1-126-916-11	ELECT	1000uF	20%	6.3V
C201	1-162-284-31	CERAMIC	150PF	10%	50V	C561	1-136-168-00	FILM	0.18uF	5%	50V
C202	1-126-961-11	ELECT	2.2uF	20%	50V	C562	1-137-370-11	FILM	0.01uF	5%	50V
C203	1-162-600-11	CERAMIC	0.0047uF	30%	16V	C563	1-136-175-00	FILM	0.68uF	5%	50V
C204	1-126-963-11	ELECT	4.7uF	20%	50V	C601	1-164-159-11	CERAMIC	0.1uF		50V
C205	1-162-302-11	CERAMIC	0.0022uF	20%	16V	C701	1-128-547-11	ELECT	6800uF	20%	16V
C206	1-126-963-11	ELECT	4.7uF	20%	50V	C702	1-126-937-11	ELECT	4700uF	20%	16V
C207	1-126-964-11	ELECT	10uF	20%	50V	C703	1-126-960-11	ELECT	1uF	20%	50V
C208	1-130-495-00	MYLAR	0.1uF	5%	50V	C704	1-126-969-11	ELECT	220uF	20%	50V
C209	1-137-375-11	FILM	0.068uF	5%	50V	C705	1-126-963-11	ELECT	4.7uF	20%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V	C706	1-126-926-11	ELECT	1000uF	20%	10V
C211	1-126-959-11	ELECT	0.47uF	20%	50V	C707	1-126-926-11	ELECT	1000uF	20%	10V
C212	1-126-963-11	ELECT	4.7uF	20%	50V	C708	1-126-963-11	ELECT	4.7uF	20%	50V
C213	1-126-963-11	ELECT	4.7uF	20%	50V	C710	1-126-935-11	ELECT	470uF	20%	6.3V
C214	1-126-961-11	ELECT	2.2uF	20%	50V	C711	1-126-947-11	ELECT	47uF	20%	35V
C215	1-137-436-11	FILM	0.0039uF	5%	50V	C801	1-104-665-11	ELECT	100uF	20%	10V
C220	1-162-289-31	CERAMIC	390PF	10%	50V	C802	1-161-494-00	CERAMIC	0.022uF		25V
C221	1-162-294-31	CERAMIC	0.001uF	10%	50V	C803	1-126-959-11	ELECT	0.47uF	20%	50V
C222	1-162-282-31	CERAMIC	100PF	10%	50V	C810	1-161-494-00	CERAMIC	0.022uF		25V
C223	1-137-372-11	FILM	0.022uF	5%	50V	C811	1-164-159-11	CERAMIC	0.1uF		50V
C224	1-126-963-11	ELECT	4.7uF	20%	50V	C834	1-161-494-00	CERAMIC	0.022uF		25V
C225	1-162-289-31	CERAMIC	390PF	10%	50V	< CONNECTOR >					
C226	1-162-282-31	CERAMIC	100PF	10%	50V	CN301	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
C227	1-137-372-11	FILM	0.022uF	5%	50V	CN311	1-784-774-11	CONNECTOR, FFC 13P			
C228	1-126-963-11	ELECT	4.7uF	20%	50V	CN401	1-691-770-11	PLUG (MICRO CONNECTOR) 8P			
C241	1-162-288-31	CERAMIC	330PF	10%	50V	CN411	1-784-774-11	CONNECTOR, FFC 13P			
C242	1-107-609-11	CERAMIC	75PF	5%	500V	* CN803	1-568-934-11	PIN, CONNECTOR 7P			
C243	1-137-433-11	FILM	0.0012uF	5%	50V	* CN807	1-568-954-11	PIN, CONNECTOR 5P			
C244	1-102-973-00	CERAMIC	100PF	5%	50V	CNA806	1-506-468-11	PIN, CONNECTOR 3P			
C245	1-136-356-11	FILM	470PF	5%	100V	CNM701	1-691-769-11	PLUG (MICRO CONNECTOR) 7P			
C246	1-137-374-11	FILM	0.047uF	5%	50V	CNS802	1-568-830-11	CONNECTOR, FFC 11P			
C247	1-161-494-00	CERAMIC	0.022uF		25V	< DIODE >					
C248	1-162-306-11	CERAMIC	0.01uF	20%	16V	D306	8-719-911-19	DIODE 1SS119-25			
C321	1-104-664-11	ELECT	47uF	20%	25V	D307	8-719-911-19	DIODE 1SS119-25			
C322	1-104-664-11	ELECT	47uF	20%	25V	D318	8-719-911-19	DIODE 1SS119-25			
C417	1-126-959-11	ELECT	0.47uF	20%	50V	D451	8-719-911-19	DIODE 1SS119-25			
C421	1-104-664-11	ELECT	47uF	20%	25V	D601	8-719-911-19	DIODE 1SS119-25			
C422	1-104-664-11	ELECT	47uF	20%	25V	D701	8-719-024-99	DIODE 11ES2-NTA2B			
C431	1-104-664-11	ELECT	47uF	20%	16V	D702	8-719-024-99	DIODE 11ES2-NTA2B			
C432	1-107-584-11	CERAMIC	4PF	0.25PF	500V	D703	8-719-024-99	DIODE 11ES2-NTA2B			
C433	1-126-965-11	ELECT	22uF	20%	50V						
C434	1-126-959-11	ELECT	0.47uF	20%	50V						

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D704	8-719-024-99	DIODE 11ES2-NTA2B		Q314	8-729-030-02	TRANSISTOR DTC144ESA	
D705	8-719-911-19	DIODE 1SS119-25					
D706	8-719-911-19	DIODE 1SS119-25		Q316	8-729-029-56	TRANSISTOR DTA144ESA	
D707	8-719-024-99	DIODE 11ES2-NTA2B		Q317	8-729-029-56	TRANSISTOR DTA144ESA	
D708	8-719-911-19	DIODE 1SS119-25		Q318	8-729-029-56	TRANSISTOR DTA144ESA	
D709	8-719-933-33	DIODE HZS6A1L		Q371	8-729-140-04	TRANSISTOR 2SB1116A-L	
D710	8-719-933-35	DIODE HZS6A3L		Q373	8-729-030-02	TRANSISTOR DTC144ESA	
D711	8-719-933-33	DIODE HZS6A1L		Q401	8-729-801-84	TRANSISTOR 2SB1013-4	
D712	8-719-933-35	DIODE HZS6A3L		Q402	8-729-801-93	TRANSISTOR 2SD1387	
D713	8-719-911-19	DIODE 1SS119-25		Q403	8-729-029-66	TRANSISTOR DTC114ESA	
D714	8-719-911-19	DIODE 1SS119-25		Q411	8-729-801-84	TRANSISTOR 2SB1013-4	
D715	8-719-911-19	DIODE 1SS119-25		Q412	8-729-801-93	TRANSISTOR 2SD1387	
D716	8-719-985-95	DIODE HZS7A2LTA		Q414	8-729-029-66	TRANSISTOR DTC114ESA	
D801	8-719-911-19	DIODE 1SS119-25		Q417	8-729-029-56	TRANSISTOR DTA144ESA	
		< IC >		Q441	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC321	8-759-710-59	IC NJM4580D-D		Q442	8-729-194-57	TRANSISTOR 2SC945-P	
IC421	8-759-710-59	IC NJM4580D-D		Q443	8-729-194-57	TRANSISTOR 2SC945-P	
IC431	8-759-106-56	IC UPC1297CA		Q451	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC501	8-752-075-27	IC CXA1878Q		Q471	8-729-140-04	TRANSISTOR 2SB1116A-L	
IC502	8-759-634-50	IC M5218AL		Q473	8-729-030-02	TRANSISTOR DTC144ESA	
IC561	8-759-634-50	IC M5218AL		Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC701	8-759-634-51	IC M5218AP		Q506	8-729-029-94	TRANSISTOR DTC143TSA	
IC801	8-752-902-29	IC CXP82220-052Q		Q601	8-729-620-05	TRANSISTOR 2SC2603-EF	
IC802	8-759-165-82	IC PST600E-T		Q701	8-729-141-83	TRANSISTOR 2SB1094K-L	
IC806	8-759-000-48	IC MC14052BCP		Q702	8-729-209-15	TRANSISTOR 2SD2012	
		< JACK >		Q703	8-729-141-83	TRANSISTOR 2SB1094K-L	
J501	1-770-614-11	JACK, PIN 4P (LINE OUT)		Q704	8-729-620-05	TRANSISTOR 2SC2603-EF	
* J601	1-764-188-11	JACK (SMALL TYPE) (DIA. 3.5)		Q707	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		(S-LINK CONTROL A1)		Q708	8-729-140-04	TRANSISTOR 2SB1116A-L	
* J602	1-764-188-11	JACK (SMALL TYPE) (DIA. 3.5)		Q801	8-729-029-66	TRANSISTOR DTC114ESA	
		(S-LINK CONTROL A1)				< RESISTOR >	
		< COIL >		R101	1-249-429-11	CARBON 10K 5% 1/4W	
L141	1-410-780-11	INDUCTOR 27mH		R102	1-247-887-00	CARBON 220K 5% 1/4W	
L241	1-410-780-11	INDUCTOR 27mH		R103	1-249-441-11	CARBON 100K 5% 1/4W	
		< FILTER >		R104	1-249-420-11	CARBON 1.8K 5% 1/4W F	
LPF101	1-233-271-11	FILTER, LOW PASS		R105	1-247-843-11	CARBON 3.3K 5% 1/4W	
LPF201	1-233-271-11	FILTER, LOW PASS		R106	1-247-842-11	CARBON 3K 5% 1/4W	
		< TRANSISTOR >		R107	1-249-417-11	CARBON 1K 5% 1/4W F	
Q101	8-729-029-94	TRANSISTOR DTC143TSA		R108	1-249-427-11	CARBON 6.8K 5% 1/4W F	
Q102	8-729-142-25	TRANSISTOR 2SD1020-HFE		R109	1-249-429-11	CARBON 10K 5% 1/4W	
Q104	8-729-030-02	TRANSISTOR DTC144ESA		R110	1-249-425-11	CARBON 4.7K 5% 1/4W F	
Q201	8-729-029-94	TRANSISTOR DTC143TSA		R111	1-247-881-00	CARBON 120K 5% 1/4W	
Q202	8-729-142-25	TRANSISTOR 2SD1020-HFE		R112	1-247-807-31	CARBON 100 5% 1/4W	
Q204	8-729-030-02	TRANSISTOR DTC144ESA		R113	1-247-882-11	CARBON 130K 5% 1/4W	
Q301	8-729-801-84	TRANSISTOR 2SB1013-4		R114	1-247-850-11	CARBON 6.2K 5% 1/4W	
Q302	8-729-801-93	TRANSISTOR 2SD1387		R115	1-249-433-11	CARBON 22K 5% 1/4W	
Q303	8-729-030-02	TRANSISTOR DTC144ESA		R116	1-247-843-11	CARBON 3.3K 5% 1/4W	
Q306	8-729-030-02	TRANSISTOR DTC144ESA		R117	1-249-429-11	CARBON 10K 5% 1/4W	
Q307	8-729-030-02	TRANSISTOR DTC144ESA		R118	1-249-409-11	CARBON 220 5% 1/4W F	
Q308	8-729-030-02	TRANSISTOR DTC144ESA		R119	1-249-417-11	CARBON 1K 5% 1/4W F	
Q311	8-729-801-84	TRANSISTOR 2SB1013-4		R120	1-249-439-11	CARBON 68K 5% 1/4W	
Q312	8-729-801-93	TRANSISTOR 2SD1387		R121	1-247-881-00	CARBON 120K 5% 1/4W	
				R122	1-247-807-31	CARBON 100 5% 1/4W	
				R123	1-247-882-11	CARBON 130K 5% 1/4W	
				R124	1-247-850-11	CARBON 6.2K 5% 1/4W	
				R126	1-249-421-11	CARBON 2.2K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R127	1-249-430-11	CARBON	12K 5% 1/4W	R318	1-249-426-11	CARBON	5.6K 5% 1/4W
R128	1-249-417-11	CARBON	1K 5% 1/4W F	R361	1-247-876-11	CARBON	75K 5% 1/4W
R129	1-249-421-11	CARBON	2.2K 5% 1/4W F	R362	1-249-425-11	CARBON	4.7K 5% 1/4W F
R130	1-249-434-11	CARBON	27K 5% 1/4W	R363	1-249-425-11	CARBON	4.7K 5% 1/4W F
R141	1-249-430-11	CARBON	12K 5% 1/4W	R371	1-249-417-11	CARBON	1K 5% 1/4W F
R142	1-247-883-00	CARBON	150K 5% 1/4W	R372	1-249-429-11	CARBON	10K 5% 1/4W
△R143	1-219-153-11	FUSIBLE	10 5% 1/4W F	R401	1-249-437-11	CARBON	47K 5% 1/4W
R144	1-249-435-11	CARBON	33K 5% 1/4W	R402	1-249-414-11	CARBON	560 5% 1/4W F
R145	1-249-429-11	CARBON	10K 5% 1/4W	R403	1-249-437-11	CARBON	47K 5% 1/4W
R151	1-249-437-11	CARBON	47K 5% 1/4W	R404	1-249-419-11	CARBON	1.5K 5% 1/4W F
R201	1-249-429-11	CARBON	10K 5% 1/4W	R411	1-249-437-11	CARBON	47K 5% 1/4W
R202	1-247-887-00	CARBON	220K 5% 1/4W	R412	1-249-419-11	CARBON	1.5K 5% 1/4W F
R203	1-249-441-11	CARBON	100K 5% 1/4W	R413	1-249-414-11	CARBON	560 5% 1/4W F
R204	1-249-420-11	CARBON	1.8K 5% 1/4W F	R414	1-249-437-11	CARBON	47K 5% 1/4W
R205	1-247-843-11	CARBON	3.3K 5% 1/4W	R416	1-249-434-11	CARBON	27K 5% 1/4W
R206	1-247-842-11	CARBON	3K 5% 1/4W	R417	1-247-862-11	CARBON	20K 5% 1/4W
R207	1-249-417-11	CARBON	1K 5% 1/4W F	R441	1-249-429-11	CARBON	10K 5% 1/4W
R208	1-249-427-11	CARBON	6.8K 5% 1/4W F	R442	1-249-429-11	CARBON	10K 5% 1/4W
R209	1-249-429-11	CARBON	10K 5% 1/4W	R443	1-249-390-11	CARBON	5.6 5% 1/4W F
R210	1-249-425-11	CARBON	4.7K 5% 1/4W F	R444	1-249-390-11	CARBON	5.6 5% 1/4W F
R211	1-247-881-00	CARBON	120K 5% 1/4W	R445	1-249-440-11	CARBON	82K 5% 1/4W
R212	1-247-807-31	CARBON	100 5% 1/4W	R446	1-249-440-11	CARBON	82K 5% 1/4W
R213	1-247-882-11	CARBON	130K 5% 1/4W	R451	1-249-429-11	CARBON	10K 5% 1/4W
R214	1-247-850-11	CARBON	6.2K 5% 1/4W	R452	1-249-425-11	CARBON	4.7K 5% 1/4W F
R215	1-249-433-11	CARBON	22K 5% 1/4W	R461	1-247-876-11	CARBON	75K 5% 1/4W
R216	1-247-843-11	CARBON	3.3K 5% 1/4W	R462	1-249-425-11	CARBON	4.7K 5% 1/4W F
R217	1-249-429-11	CARBON	10K 5% 1/4W	R463	1-249-425-11	CARBON	4.7K 5% 1/4W F
R218	1-249-409-11	CARBON	220 5% 1/4W F	R464	1-249-425-11	CARBON	4.7K 5% 1/4W F
R219	1-249-417-11	CARBON	1K 5% 1/4W F	R471	1-249-417-11	CARBON	1K 5% 1/4W F
R220	1-249-439-11	CARBON	68K 5% 1/4W	R472	1-249-429-11	CARBON	10K 5% 1/4W
R221	1-247-881-00	CARBON	120K 5% 1/4W	R501	1-215-455-00	METAL	27K 1% 1/4W
R222	1-247-807-31	CARBON	100 5% 1/4W	R502	1-215-452-00	METAL	20K 1% 1/4W
R223	1-247-882-11	CARBON	130K 5% 1/4W	R503	1-249-417-11	CARBON	1K 5% 1/4W F
R224	1-247-850-11	CARBON	6.2K 5% 1/4W	R504	1-249-422-11	CARBON	2.7K 5% 1/4W F
R226	1-249-421-11	CARBON	2.2K 5% 1/4W F	R505	1-247-903-00	CARBON	1M 5% 1/4W
R227	1-249-430-11	CARBON	12K 5% 1/4W	R507	1-249-429-11	CARBON	10K 5% 1/4W
R228	1-249-417-11	CARBON	1K 5% 1/4W F	R508	1-249-413-11	CARBON	470 5% 1/4W F
R229	1-249-421-11	CARBON	2.2K 5% 1/4W F	R509	1-249-417-11	CARBON	1K 5% 1/4W F
R230	1-249-434-11	CARBON	27K 5% 1/4W	R510	1-249-437-11	CARBON	47K 5% 1/4W
R241	1-249-430-11	CARBON	12K 5% 1/4W	R511	1-249-429-11	CARBON	10K 5% 1/4W
R242	1-247-883-00	CARBON	150K 5% 1/4W	R512	1-249-413-11	CARBON	470 5% 1/4W F
△R243	1-219-153-11	FUSIBLE	10 5% 1/4W F	R513	1-249-437-11	CARBON	47K 5% 1/4W
R244	1-249-435-11	CARBON	33K 5% 1/4W	R514	1-249-401-11	CARBON	47 5% 1/4W F
R245	1-249-429-11	CARBON	10K 5% 1/4W	R561	1-249-437-11	CARBON	47K 5% 1/4W
R251	1-249-437-11	CARBON	47K 5% 1/4W	R562	1-249-437-11	CARBON	47K 5% 1/4W
R301	1-249-437-11	CARBON	47K 5% 1/4W	R563	1-249-437-11	CARBON	47K 5% 1/4W
R302	1-249-414-11	CARBON	560 5% 1/4W F	R564	1-249-431-11	CARBON	15K 5% 1/4W
R303	1-249-437-11	CARBON	47K 5% 1/4W	R565	1-249-429-11	CARBON	10K 5% 1/4W
R304	1-249-419-11	CARBON	1.5K 5% 1/4W F	R601	1-249-429-11	CARBON	10K 5% 1/4W
R306	1-249-433-11	CARBON	22K 5% 1/4W	R602	1-249-417-11	CARBON	1K 5% 1/4W F
R309	1-249-433-11	CARBON	22K 5% 1/4W	R603	1-249-425-11	CARBON	4.7K 5% 1/4W F
R311	1-249-437-11	CARBON	47K 5% 1/4W	R604	1-249-429-11	CARBON	10K 5% 1/4W
R312	1-249-419-11	CARBON	1.5K 5% 1/4W F	R605	1-249-393-11	CARBON	10 5% 1/4W F
R313	1-249-414-11	CARBON	560 5% 1/4W F	R701	1-249-414-11	CARBON	560 5% 1/4W F
R314	1-249-437-11	CARBON	47K 5% 1/4W	R703	1-247-843-11	CARBON	3.3K 5% 1/4W
R316	1-249-434-11	CARBON	27K 5% 1/4W	R704	1-249-425-11	CARBON	4.7K 5% 1/4W F
R317	1-247-862-11	CARBON	20K 5% 1/4W	R705	1-249-427-11	CARBON	6.8K 5% 1/4W F

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MAIN **PANEL**

The PANEL board is composed of following boards.
(TRANS (A), TRANS (B), DIRECTION, H.P, POWER and RECVOL BOARD)

Ref. No.	Part No.	Description	Remark
R706	1-249-419-11	CARBON 1.5K 5%	1/4W F
R707	1-247-854-11	CARBON 9.1K 5%	1/4W
R708	1-249-419-11	CARBON 1.5K 5%	1/4W F
R709	1-249-425-11	CARBON 4.7K 5%	1/4W F
R710	1-249-417-11	CARBON 1K 5%	1/4W F
R711	1-249-427-11	CARBON 6.8K 5%	1/4W F
R712	1-249-427-11	CARBON 6.8K 5%	1/4W F
R713	1-249-417-11	CARBON 1K 5%	1/4W F
R714	1-249-429-11	CARBON 10K 5%	1/4W
R715	1-249-422-11	CARBON 2.7K 5%	1/4W F
R716	1-249-433-11	CARBON 22K 5%	1/4W
R717	1-249-421-11	CARBON 2.2K 5%	1/4W F
R718	1-249-429-11	CARBON 10K 5%	1/4W
R719	1-249-430-11	CARBON 12K 5%	1/4W
△R720	1-219-136-11	FUSIBLE 0.22 10%	1/4W
△R722	1-219-137-11	FUSIBLE 0.33 10%	1/4W
△R723	1-219-137-11	FUSIBLE 0.33 10%	1/4W
R801	1-249-417-11	CARBON 1K 5%	1/4W F
R803	1-249-429-11	CARBON 10K 5%	1/4W
R804	1-249-429-11	CARBON 10K 5%	1/4W
R805	1-247-807-31	CARBON 100 5%	1/4W
R806	1-249-433-11	CARBON 22K 5%	1/4W
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 F
R810	1-247-807-31	CARBON 100 5%	1/4W
R811	1-249-429-11	CARBON 10K 5%	1/4W
R812	1-249-429-11	CARBON 10K 5%	1/4W
R813	1-247-807-31	CARBON 100 5%	1/4W
R830	1-247-807-31	CARBON 100 5%	1/4W
R866	1-249-429-11	CARBON 10K 5%	1/4W
R867	1-247-864-11	CARBON 24K 5%	1/4W
R869	1-247-843-11	CARBON 3.3K 5%	1/4W
< VARIABLE RESISTOR >			
RV101	1-241-765-11	RES, ADJ, CARBON 22K	
RV111	1-241-764-11	RES, ADJ, CARBON 10K	
RV121	1-241-764-11	RES, ADJ, CARBON 10K	
RV141	1-241-765-11	RES, ADJ, CARBON 22K	
RV201	1-241-765-11	RES, ADJ, CARBON 22K	
RV211	1-241-764-11	RES, ADJ, CARBON 10K	
RV221	1-241-764-11	RES, ADJ, CARBON 10K	
RV241	1-241-765-11	RES, ADJ, CARBON 22K	
RV316	1-241-764-11	RES, ADJ, CARBON 10K	
RV317	1-241-765-11	RES, ADJ, CARBON 22K	
RV318	1-241-764-11	RES, ADJ, CARBON 10K	
RV416	1-241-764-11	RES, ADJ, CARBON 10K	
RV417	1-241-765-11	RES, ADJ, CARBON 22K	
< RELAY >			
RY451	1-755-061-11	RELAY	
< TRANSFORMER >			
T141	1-433-381-11	TRANSFORMER, BIAS OSCILLATOR	
T241	1-433-381-11	TRANSFORMER, BIAS OSCILLATOR	
T441	1-429-222-11	TRANSFORMER, BIAS OSCILLATION (105kHz)	

Ref. No.	Part No.	Description	Remark
		< TEST PIN >	
TP441	1-766-276-11	PIN, CONNECTOR (PC BOARD) 3P	
		< VIBRATOR >	
X801	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	

*	A-2007-814-A	PANEL BOARD, COMPLETE (EXCEPT SP,MY)	

*	A-2007-815-A	PANEL BOARD, COMPLETE (SP,MY)	

(TRANS(A), TRANS(B), DIRECTION, H.P, POWER, REC VOL BOARD are included.)			
*	3-377-337-11	HOLDER (FL)	
		< CAPACITOR >	
C001	1-113-925-11	CERAMIC 0.01uF 20% 250V	
C517	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C518	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C751	1-164-159-11	CERAMIC 0.1uF 50V	
C752	1-137-374-11	FILM 0.047uF 5% 50V	
C753	1-137-374-11	FILM 0.047uF 5% 50V	
C901	1-104-665-11	ELECT 100uF 20% 10V	
C902	1-161-494-00	CERAMIC 0.022uF 25V	
C903	1-162-207-31	CERAMIC 22PF 5% 50V	
C904	1-126-160-11	ELECT 1uF 20% 50V	
		< CONNECTOR >	
* CN001	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P (SP,MY)	
* CN002	1-568-226-11	PIN, CONNECTOR 2P (EXCEPT SP,MY)	
CN901	1-784-733-11	CONNECTOR, FFC 11P	
		< DIODE >	
D901	8-719-313-43	DIODE SEL6210S-TH10 (SYNCHRO)	
D902	8-719-313-43	DIODE SEL6210S-TH10 (AUTO)	
D904	8-719-911-19	DIODE 1SS119-25	
D905	8-719-911-19	DIODE 1SS119-25	
D906	8-719-911-19	DIODE 1SS119-25	
D907	8-719-911-19	DIODE 1SS119-25	
D908	8-719-911-19	DIODE 1SS119-25	
		< FLUORESCENT >	
FLT901	1-517-263-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC901	8-749-014-66	IC NJL56H400A	
IC902	8-759-547-59	IC M35500BGP	
		< JACK >	
J502	1-568-519-41	JACK, LARGE TYPE (PHONES)	
		< TRANSISTOR >	
Q901	8-729-029-94	TRANSISTOR DTC143TSA	

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< RESISTOR >							
R901	1-249-413-11	CARBON	470 5% 1/4W F	S933	1-762-875-21	SWITCH, KEYBOARD (FADER)	
R902	1-249-413-11	CARBON	470 5% 1/4W F	S934	1-762-875-21	SWITCH, KEYBOARD (ARL)	
R904	1-247-807-31	CARBON	100 5% 1/4W	S935	1-762-875-21	SWITCH, KEYBOARD (SYNCHRO)	
R905	1-249-441-11	CARBON	100K 5% 1/4W	S936	1-762-567-11	SWITCH, SLIDE (DOLBY NR OFF-ON-MPX)	
R906	1-247-807-31	CARBON	100 5% 1/4W	S946	1-762-875-21	SWITCH, KEYBOARD (START (DECK B ■), HIGH/NORMAL, DUBBING A→B)	
R911	1-249-418-11	CARBON	1.2K 5% 1/4W F	S947	1-762-609-11	SWITCH, SLIDE (DIRECTION ⇐/⇒/RELAY)	
R912	1-249-420-11	CARBON	1.8K 5% 1/4W F	S951	1-762-875-21	SWITCH, KEYBOARD (RESET B DECK)	
R913	1-249-422-11	CARBON	2.7K 5% 1/4W F	S952	1-762-875-21	SWITCH, KEYBOARD (MEMORY B DECK)	
R914	1-249-424-11	CARBON	3.9K 5% 1/4W F	S960	1-554-118-00	SWITCH, PUSH (1 KEY)(PITCH CON ON/OFF)	
R915	1-249-427-11	CARBON	6.8K 5% 1/4W F	*****			
R916	1-249-431-11	CARBON	15K 5% 1/4W	MISCELLANEOUS			
R917	1-249-437-11	CARBON	47K 5% 1/4W	*****			
R921	1-249-418-11	CARBON	1.2K 5% 1/4W F	51	1-751-086-11	WIRE (FLAT TYPE)(13 CORE)(180mm)	
R922	1-249-420-11	CARBON	1.8K 5% 1/4W F	52	1-769-976-11	WIRE (FLAT TYPE)(13 CORE)(140mm)	
R923	1-249-422-11	CARBON	2.7K 5% 1/4W F	△53	1-558-945-21	CORD, POWER (POLAR.SPT-1)(CND)	
R924	1-249-424-11	CARBON	3.9K 5% 1/4W F	△53	1-575-651-21	CORD, POWER (SP,MY)	
R925	1-249-427-11	CARBON	6.8K 5% 1/4W F	△53	1-751-535-11	CORD, POWER (UK)	
R926	1-249-431-11	CARBON	15K 5% 1/4W	△53	1-777-107-11	CORD, POWER (AEP)	
R931	1-249-418-11	CARBON	1.2K 5% 1/4W F	△53	1-777-218-11	CORD, POWER (AUS)	
R932	1-249-420-11	CARBON	1.8K 5% 1/4W F	△53	1-783-108-11	CORD, POWER (CH)	
R933	1-249-422-11	CARBON	2.7K 5% 1/4W F	△53	1-783-531-51	CORD, POWER (US)	
R934	1-249-418-11	CARBON	1.2K 5% 1/4W F	162	1-769-950-11	WIRE (FLAT TYPE)(11 CORE)	
R935	1-249-420-11	CARBON	1.8K 5% 1/4W F	FLT901	1-517-263-11	INDICATOR TUBE, FLUORESCENT	
R936	1-249-422-11	CARBON	2.7K 5% 1/4W F	HP1	A-2056-681-C	DECK (A) ASSY, HEAD (PLAYBACK)(DECK A)	
R937	1-249-424-11	CARBON	3.9K 5% 1/4W F	HRPE1	A-2004-646-C	DECK (B) ASSY, HEAD (RECORD/PLAYBACK/ERASE)(DECK B)	
R951	1-249-418-11	CARBON	1.2K 5% 1/4W F	M1001	A-2004-644-A	MOTOR ASSY, CAPSTAN (DECK A)	
R955	1-249-429-11	CARBON	10K 5% 1/4W	M1002	A-2004-644-A	MOTOR ASSY, CAPSTAN (DECK B)	
R956	1-249-429-11	CARBON	10K 5% 1/4W	△S902	1-692-155-11	SELECTOR, POWER VOLTAGE (VOLTAGE)(SP,MY)	
R957	1-249-429-11	CARBON	10K 5% 1/4W	△T901	1-431-786-12	TRANSFORMER, POWER (AEP,UK,AUS,CH)	
R958	1-249-437-11	CARBON	47K 5% 1/4W	△T901	1-431-788-12	TRANSFORMER, POWER (US,CND)	
R960	1-249-429-11	CARBON	10K 5% 1/4W	△T901	1-431-789-12	TRANSFORMER, POWER (SP,MY)	
R961	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R962	1-249-441-11	CARBON	100K 5% 1/4W	ACCESSORIES & PACKING MATERIALS			
< VARIABLE RESISTOR >				*****			
RV901	1-225-707-11	RES, VAR, CARBON 20K		1-776-263-51	CORD, CONNECTION (AUDIO)		
RV902	1-225-619-11	RES, VAR, CARBON 10K		1-777-241-11	CORD, CONNECTION (CONTROL A1)(CND)		
< SWITCH >				3-866-255-11	MANUAL, INSTRUCTION (ENGLISH)		
S850	1-762-581-11	SWITCH, AC POWER PUSH (1 KEY)(Ⓞ)		3-866-255-21	MANUAL, INSTRUCTION (FRENCH,SPANISH)(CND,AEP,SP,MY)		
S911	1-762-875-21	SWITCH, KEYBOARD (□ A DECK)		3-866-255-31	MANUAL, INSTRUCTION (GERMAN,DUTCH,SWEDISH,ITALIAN,PORTUGUESE)(AEP)		
S913	1-762-875-21	SWITCH, KEYBOARD (▷ A DECK)		3-866-255-41	MANUAL, INSTRUCTION (CHINESE)(SP,MY,CH)		
S914	1-762-875-21	SWITCH, KEYBOARD (◁ A DECK)		3-866-671-11	MANUAL (FOR CONTROL A1) (ENGLISH)(US,UK,AUS)		
S916	1-762-875-21	SWITCH, KEYBOARD (◁◁ (AMS) B DECK)		3-866-671-21	MANUAL (FOR CONTROL A1) (ENGLISH,FRENCH,GERMAN,SPANISH,DUTCH,PORTUGUESE, SWEDISH,ITALIAN,CHINESE)(CND,AEP,SP,MY,CH)		
S917	1-762-875-21	SWITCH, KEYBOARD (▷▷ (AMS) B DECK)		*****			
S918	1-762-875-21	SWITCH, KEYBOARD (● REC B DECK)					
S921	1-762-875-21	SWITCH, KEYBOARD (□ B DECK)					
S922	1-762-875-21	SWITCH, KEYBOARD (■ B DECK)					
S923	1-762-875-21	SWITCH, KEYBOARD (▷ B DECK)					
S924	1-762-875-21	SWITCH, KEYBOARD (◁ B DECK)					
S925	1-762-875-21	SWITCH, KEYBOARD (Ⓞ REC MUTING B DECK)					
S926	1-762-875-21	SWITCH, KEYBOARD (◁◁ (AMS) A DECK)					
S927	1-762-875-21	SWITCH, KEYBOARD (▷▷ (AMS) A DECK)					
S931	1-762-875-21	SWITCH, KEYBOARD (RESET A DECK)					
S932	1-762-875-21	SWITCH, KEYBOARD (MEMORY A DECK)					

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TC-WE435

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		***** HARDWARE LIST *****	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-851-09	SCREW +BVTT 2X4 (S)	
#4	7-685-852-04	SCREW +BVTT 2X5 (S)	
#5	7-685-902-21	SCREW +PTPWH 2.6X8 (TYPE2)	
#6	7-628-254-15	SCREW +PS 2.6X6	
#7	7-623-505-01	LUG, 2	
#8	7-685-851-04	SCREW +BVTT 2X4 (S)	