

HCD-GR3/RX30

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
HCD-RX30
E Model
Australian Model
HCD-GR3



HCD-GR3/RX30 is the tuner, deck, CD and amplifier section in MHC-GR3/RX30.

Photo: HCD-RX30

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CD SECTION	Model Name Using Similar Mechanism	HCD-H991AV
	CD Mechanism Type	CDM38-5BD19FK
	Base Unit Type	BU-5BD19
	Optical Pick-up Type	KSS-213B/K-N
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-D270/G3100/N255
	Tape Transport Mechanism Type	TCM-YSW47C24

SPECIFICATIONS

Wavelength 780 – 790 nm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 – 108.0 MHz
Antenna FM lead antenna
Antenna terminals 75 ohm unbalanced

Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
US, Canadian models:
AM: 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
530 – 1,710 kHz (with the tuning interval set at 10 kHz)

German models:

AM: 531 – 1,602 kHz (with the interval set at 9 kHz)

AEP, UK, East European models:

MW: 531 – 1,602 kHz (with the interval set at 9 kHz)

LW: 153 – 279 kHz (with the interval set at 3 kHz)

Other models:

AM: 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
530 – 1,710 kHz (with the tuning interval set at 10 kHz)

Antenna AM loop antenna, External antenna terminals
Intermediate frequency 450 kHz

Amplifier section

US, Canadian models:
Continuous RMS power output 60W+60W (6 ohms at 1 kHz, 5% THD)

For the U.S. model AUDIO POWER SPECIFICATIONS POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 70 – 20 kHz; rated 50 watts per channel minimum RMS power, with no more than 0.9 % total harmonic distortion.

CD player section

System Compact disc and digital audio system
Laser Semiconductor laser
Laser output Max. 44.6 μ W*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.



— Continued on next page —

COMPACT DISC DECK RECEIVER

SONY®

AEP, UK, German, East European models:

DIN power output
40W+40W (6 ohms at
1 kHz, DIN)

Continuous RMS power output
50W+50W (6 ohms at
1 kHz, 10% THD)

Music power output
85W+85W (6 ohms at
1 kHz, 10% THD)

Other models:

Peak music power output
800W

Continuous RMS power output
50W+50W (6 ohms at
1 kHz, 10% THD)

Inputs

VIDEO (phono jacks):
voltage 250 mV,
impedance 47 kilohms

Outputs

PHONES (stereo phone jack):
accepts headphones of
8 ohms or more.

SPEAKER: accepts impedance of 6 to
16 ohms.

SUPER WOOFER:

Voltage 1V, impedance
1 kilo ohms.

Tape player section

Recording system
4-track 2-channel stereo

Frequency response
(DOLBY NR OFF)
40 – 13,000 Hz (± 3 dB),
using Sony TYPE I cassette
40 – 14,000 Hz (± 3 dB),
using Sony TYPE II cassette

Wow and flutter
 $\pm 0.15\%$ W. Peak (IEC)
0.1% W. RMS (NAB)
 $\pm 0.2\%$ W. Peak (DIN)

General

Power requirements

US, Canadian, Mexican models:
120V AC, 60 Hz

AEP, UK, German, East European models:
220 – 230V AC, 50/60 Hz

South Africa model:

220 – 240V AC, 50/60 Hz

Australian model:

240V AC, 50/60 Hz

Other models:

110 – 120V or 220 – 240V
AC, 50/60 Hz

Adjustable with the voltage
selector

Power consumption

US model: 105W

Canadian model: 115 W

Other models: 95W

Dimensions Approx. 280 x 330 x 360 mm
(11 1/8 x 13 x 14 1/4 in)
(w/h/d) incl.

Mass projecting parts and controls
Approx. 7 kg (15 lb 7 oz)

Design and specifications are subject to change
without notice.

CAUTION

Use of controls or adjustments or performance of procedures
other than those specified herein may result in hazardous radia-
tion exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be
damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C
during repairing.
- Do not touch the soldering iron on the same conductor of the
circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering
or unsoldering.

Laser component in this product is capable of emitting radiation
exceeding the limit for Class 1.

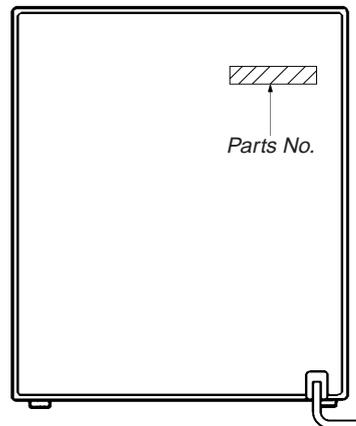
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as
a CLASS 1 LASER product.
The CLASS 1 LASER PROD-
UCT MARKING is located on
the rear exterior.

CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.
ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR
SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! ; AVATTAESSA JA SUOJALUKITUS OHTETTAESSA
DLET ALLTIINA LASERSÄTEILYLLE.
VARNING ; LASERSTRÅLING NÅR DENNA DEL ÅR ÖPPNÅD
OCH SPÅRREN ÅR URÖPPPLÅD.
ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES
UNNGÅ EKSPONERING FOR STRÅLEN.

This caution
label is located
inside the unit.

MODEL IDENTIFICATION — BACK PANEL —



- Abbreviation
CND : Canadian model
G : German model
AUS : Australian model
AR : Argentine model
SAF : South African model
MX : Mexican model
EE : East European model

MODEL	PARTS No.
GR3 : E model	4-988-804-0 <input type="checkbox"/>
GR3 : AUS model	4-988-804-1 <input type="checkbox"/>
GR3 : MX model	4-988-804-2 <input type="checkbox"/>
GR3 : AR model	4-988-804-3 <input type="checkbox"/>
GR3 : SAF model	4-988-804-4 <input type="checkbox"/>
RX30 : US model	4-988-810-0 <input type="checkbox"/>
RX30 : CND model	4-988-810-1 <input type="checkbox"/>
RX30 : AEP model	4-988-811-0 <input type="checkbox"/>
RX30 : G model	4-988-811-1 <input type="checkbox"/>
RX30 : UK model	4-988-811-2 <input type="checkbox"/>
RX30 : EE model	4-988-811-3 <input type="checkbox"/>

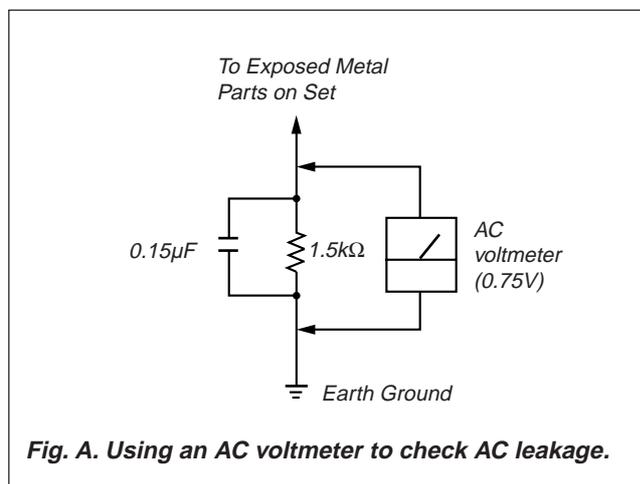
SAFETY CHECK-OUT

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)



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.

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SECTION 1

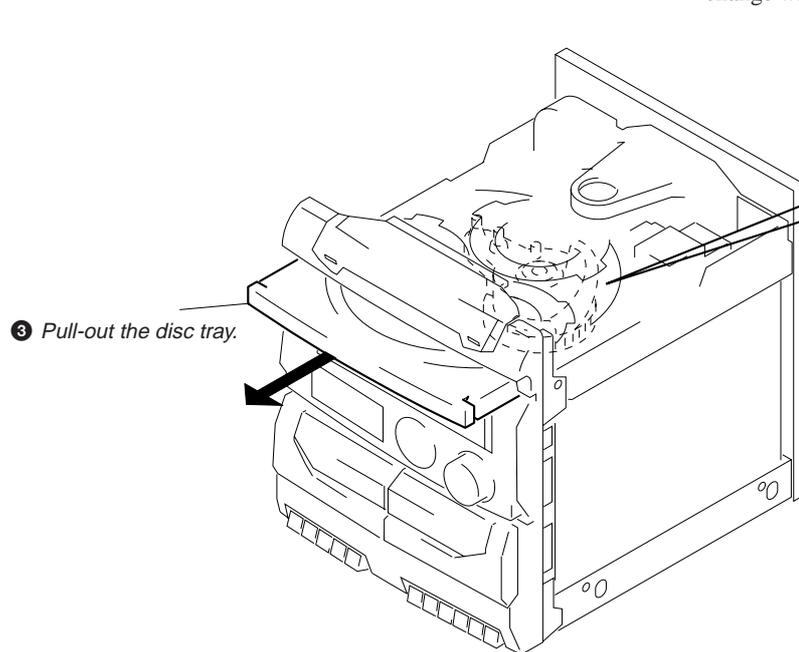
SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

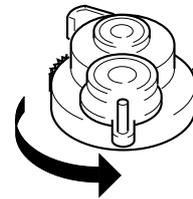
The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts. The flexible board is easily damaged and should be handled with care.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

- 1 Remove the Case.



- 3 Pull-out the disc tray.



- 2 Turn the cam to the direction of arrow.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output three times.

Switching the channel step 9 KHz/10 KHz

Press **ENTER/NEXT** button and **POWER** button simultaneously to switch the AM channel step 9 KHz and 10 KHz. Be sure not to change with carelessness.

FL Display Tube, LED All Lit and Key Check mode

When the **TUNER/BAND**, **DISPLAY**, and **MENU 2** buttons are pressed simultaneously, the FL display tube and LEDs will all light up. Press any button to enter the key check mode.

When the key check mode is entered, the FL display tube displays "KEY 1 0 0". Each time a button is pressed, the counter increases in the following order, KEY 2 → KEY 3 → KEY 4.

If buttons already pressed once are pressed again, the counter will not increase. When the **VOLUME** knob is rotated in the + direction, the count increases in the following order.

00 → 01 → 02.

When rotated in the - direction, it decreases in the following order.

00 → 09 → 08.

To exit from the test mode, press the **TUNER/BAND**, **DISPLAY**, **MENU 2** buttons simultaneously again.

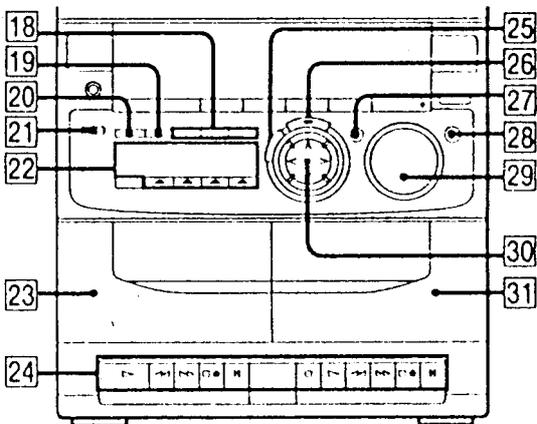
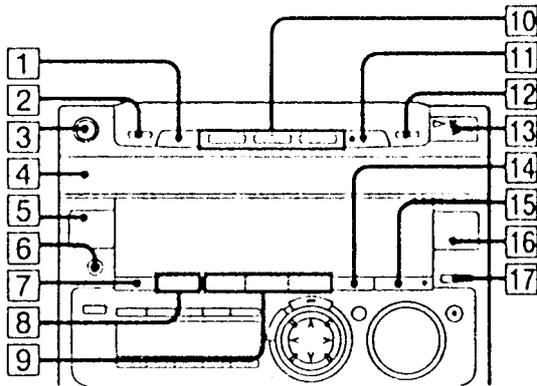
How to reset all

Pressing the **TUNER/BAND**, **DISPLAY** and **MENU 3** buttons simultaneously, all are reset and returned to as when the was shipped.

Index to Parts and Controls

Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

Front Panel



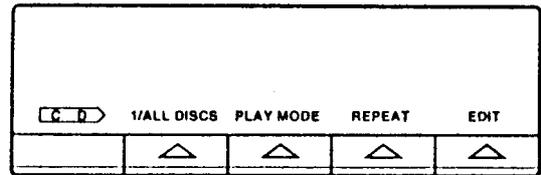
- 1 DISC SKIP EX-CHANGE button* (7)
- 2 LOOP button (11)
- 3 POWER button (7)
- 4 Disc tray (7)
- 5 TIMER button (21)
- 6 PHONES jack (19)
- 7 DISPLAY button (5)
- 8 SURROUND button (19)
- 9 MENU 1 - 3 buttons (19)
- 10 DISC 1 - 3 buttons* (7)
- 11 OPEN/CLOSE button (7)
- 12 (stop) button (7)
- 13 (play/pause) button* (7)
- 14 P FILE button (20)

- 15 EFFECT ON/OFF button* (19)
- 16 TUNER/BAND button (12)
- 17 FUNCTION button (7)
- 18 CLIP A - C buttons (10)
- 19 CLIP ERASE button (10)
- 20 CLIP PLAY button (10)
- 21 DOLBY NR button (14)
- 22 MULTI FUNCTION CONTROL buttons (27)
- 23 Deck A (14)
- 24 Tape operating buttons
 - ▷ (play) button (14)
 - ◀◀ (rewind) button (14)
 - ▶▶ (fast forward) button (14)
 - ▲ (stop/eject) button (14)
 - || (pause) button (14)
 - (rec) button (15) (for deck B only)
- 25 EQ EDIT button (20)
- 26 ENTER/NEXT button* (9)
- 27 DBFB button (19)
- 28 GROOVE button* (19)
- 29 VOLUME button (19)
- 30 MULTI CONTROLLER (7)
- 31 Deck B (14)

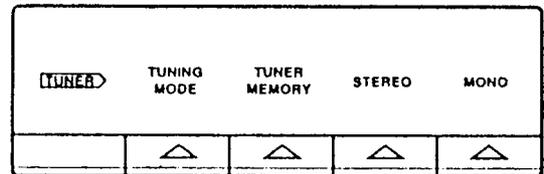
MULTI FUNCTION CONTROL buttons

The button you can operate the CD player, tuner and the tape player light up.

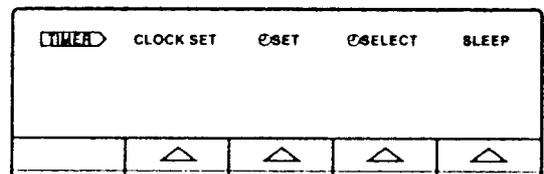
CD player



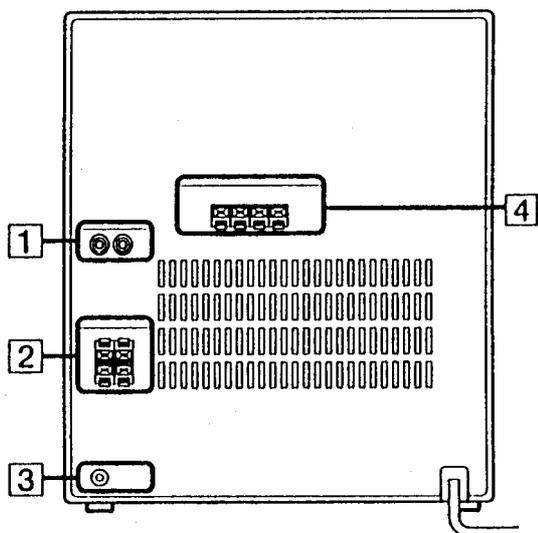
Tuner



Timer

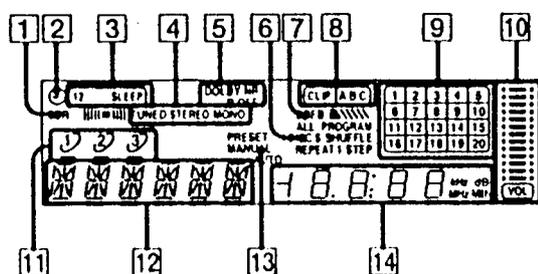


Rear panel



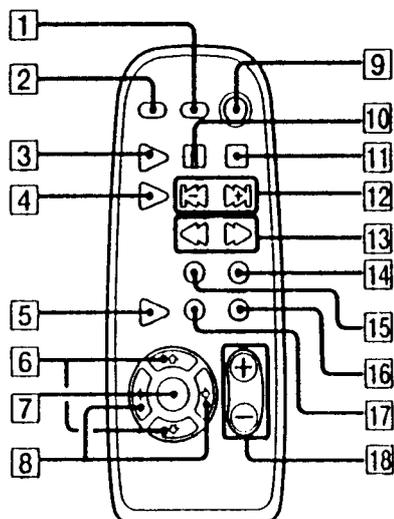
- 1 VIDEO in jacks (22)
- 2 SPEAKER jacks (4)
- 3 SUPER WOOFER jack (23)
(GR3/RX30 : US, Canadian model)
- 4 ANTENNA terminals (4)

Display Window



- 1 SUR indicator (19)
- 2 \odot indicator (20)
- 3 Timer indicators (21)
- 4 Tuning indicators (12)
- 5 DOLBY NR indicator (14)
- 6 CD playback indicators (8)
- 7 DBFB indicator (19)
- 8 CLIP indicators (10)
- 9 Music calendar (7)
- 10 VOLUME indicators
- 11 Disc tray indicator
- 12 Multi display
- 13 Tuner indicators (12)
- 14 Radio frequency/playing time/sound frequency level indications

Remote



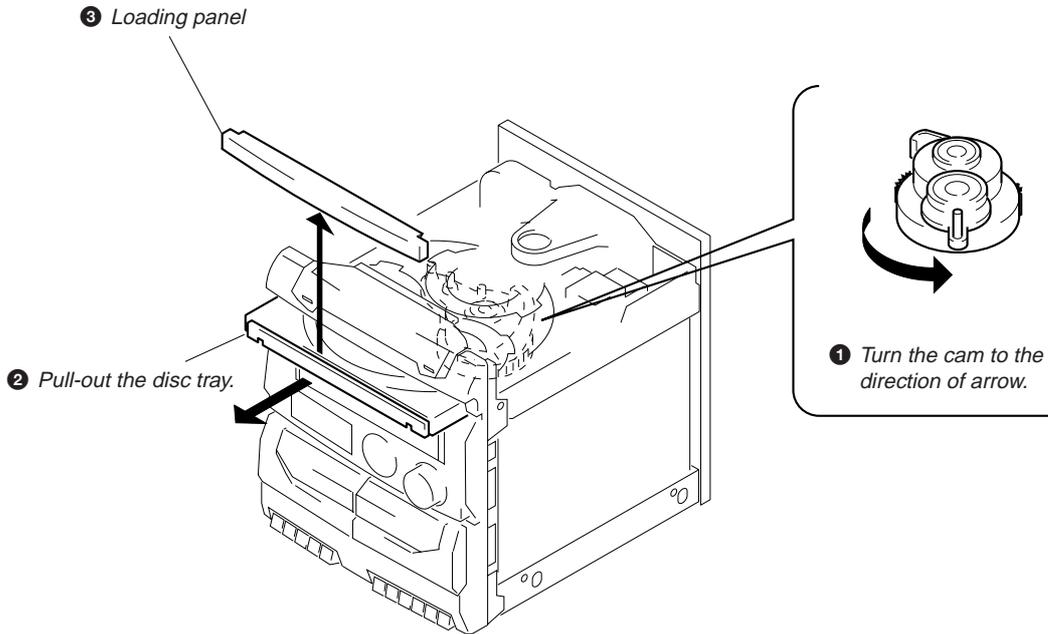
- 1 SLEEP button (21)
- 2 LOOP button (11)
- 3 CD \triangleright button (7)
- 4 TUNER/BAND button (12)
- 5 FUNCTION button (7)
- 6 \odot / \odot buttons (19, 20)
- 7 MUSIC MENU ON/OFF button (19)
- 8 \odot / \odot buttons (19, 20)
- 9 POWER switch (7)
- 10 \parallel (pause) button (7)
- 11 \square (stop) button (7)
- 12 \llcorner / \lrcorner AMS* buttons (7)
- 13 \ll / \gg (rewind/fast forward) buttons (7)
- 14 EDIT button (15)
- 15 CHECK button (9)
- 16 DISC SKIP button
- 17 CLEAR button (9)
- 18 VOL. (+/-) button (19)

* AMS=Auto Music Sensor

SECTION 3 DISASSEMBLY

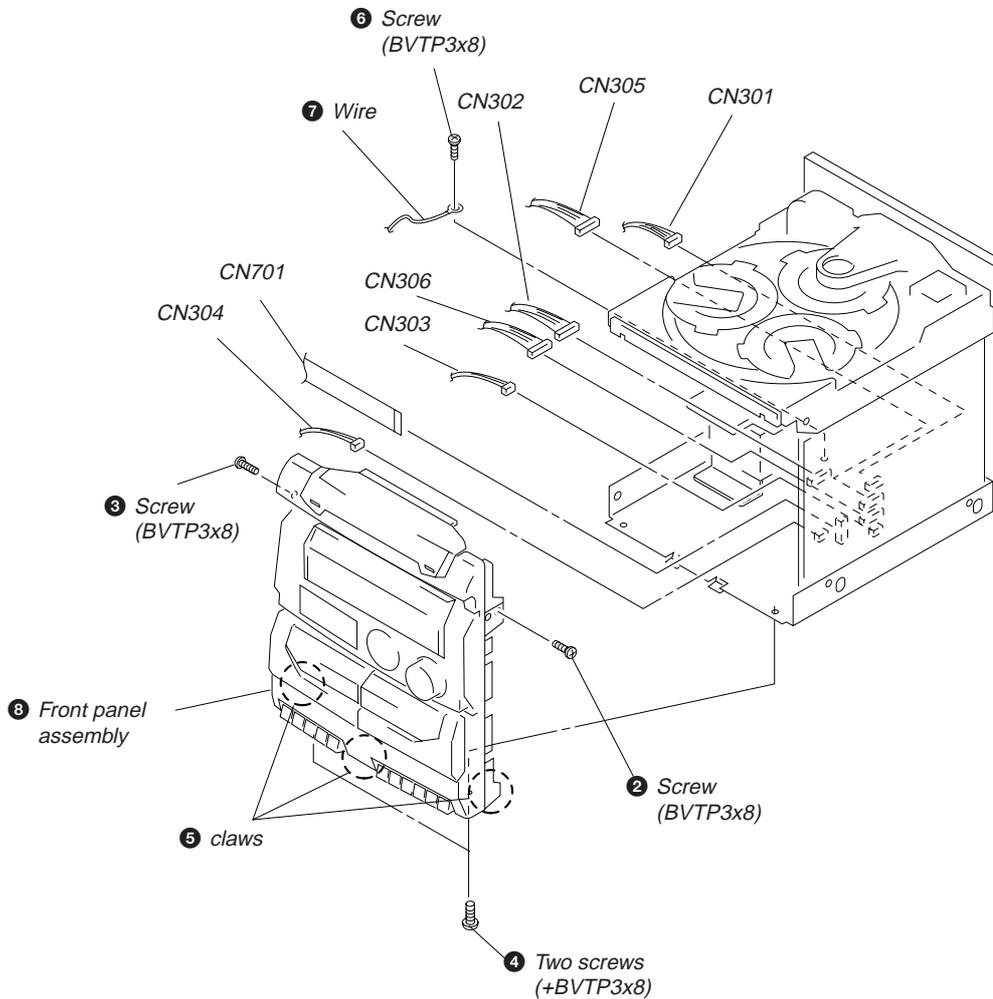
Note: Follow the disassembly procedure in the numerical order given.

3-1. LOADING PANEL



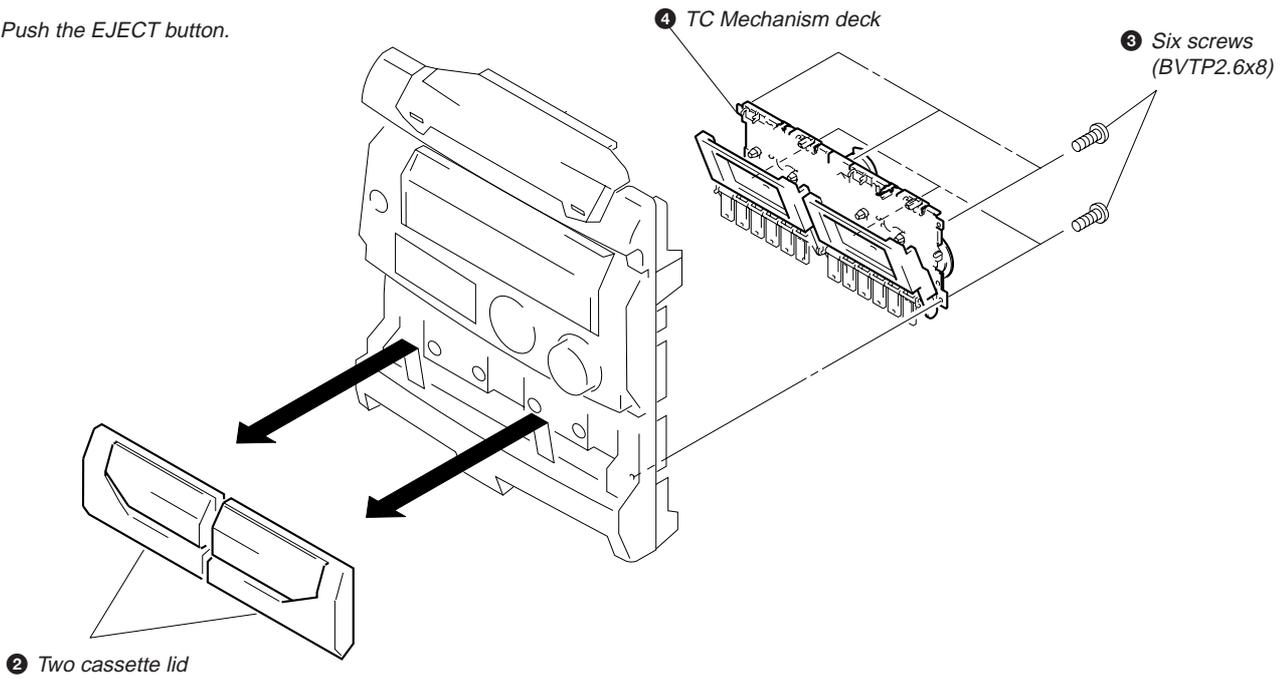
3-2. FRONT PANEL

- 1 Remove the connectors.
(Main board: CN301, CN302, CN303, CN304, CN305, CN306, CN701)

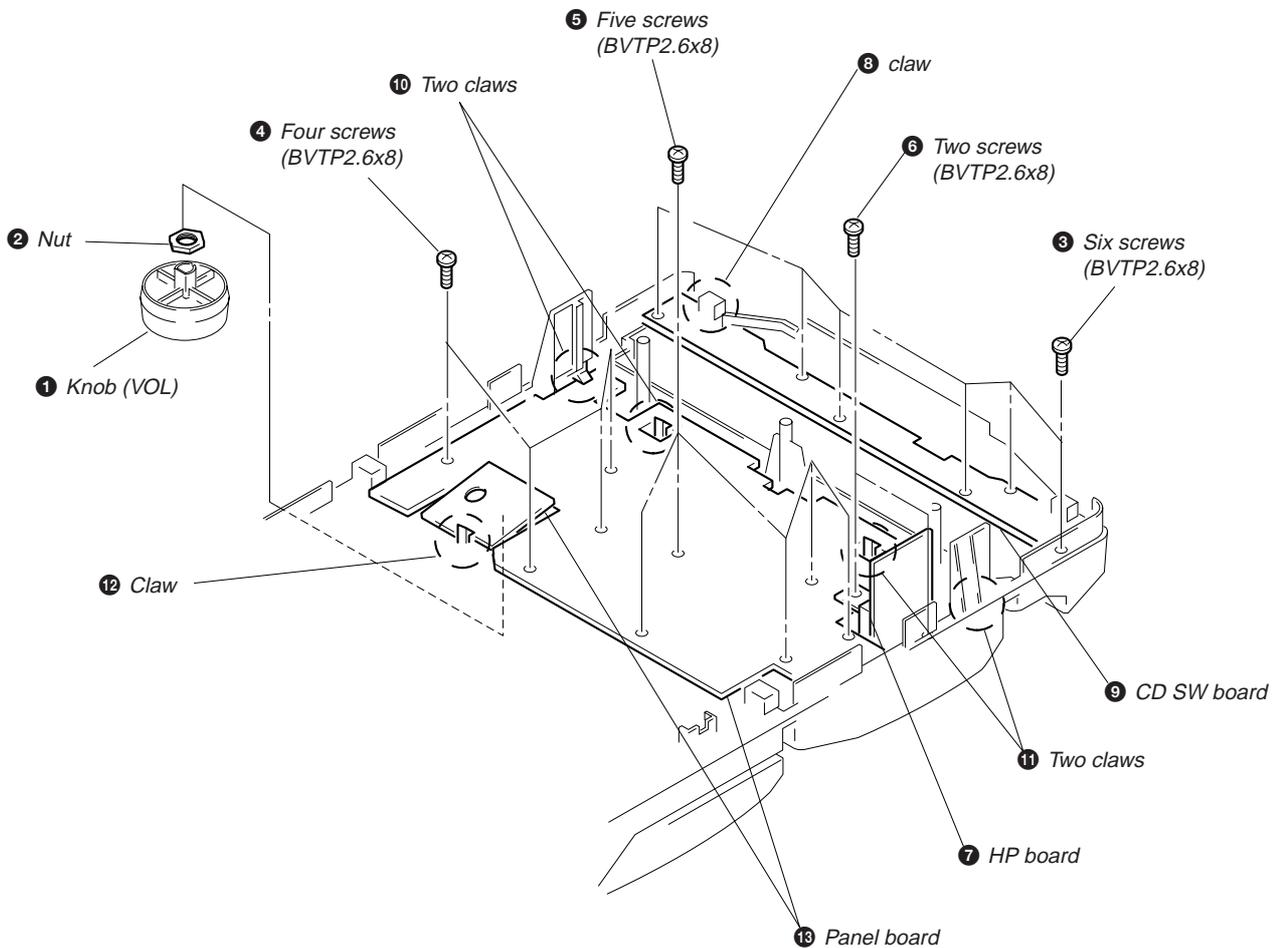


3-3. TC MECHANISM DECK

1 Push the EJECT button.

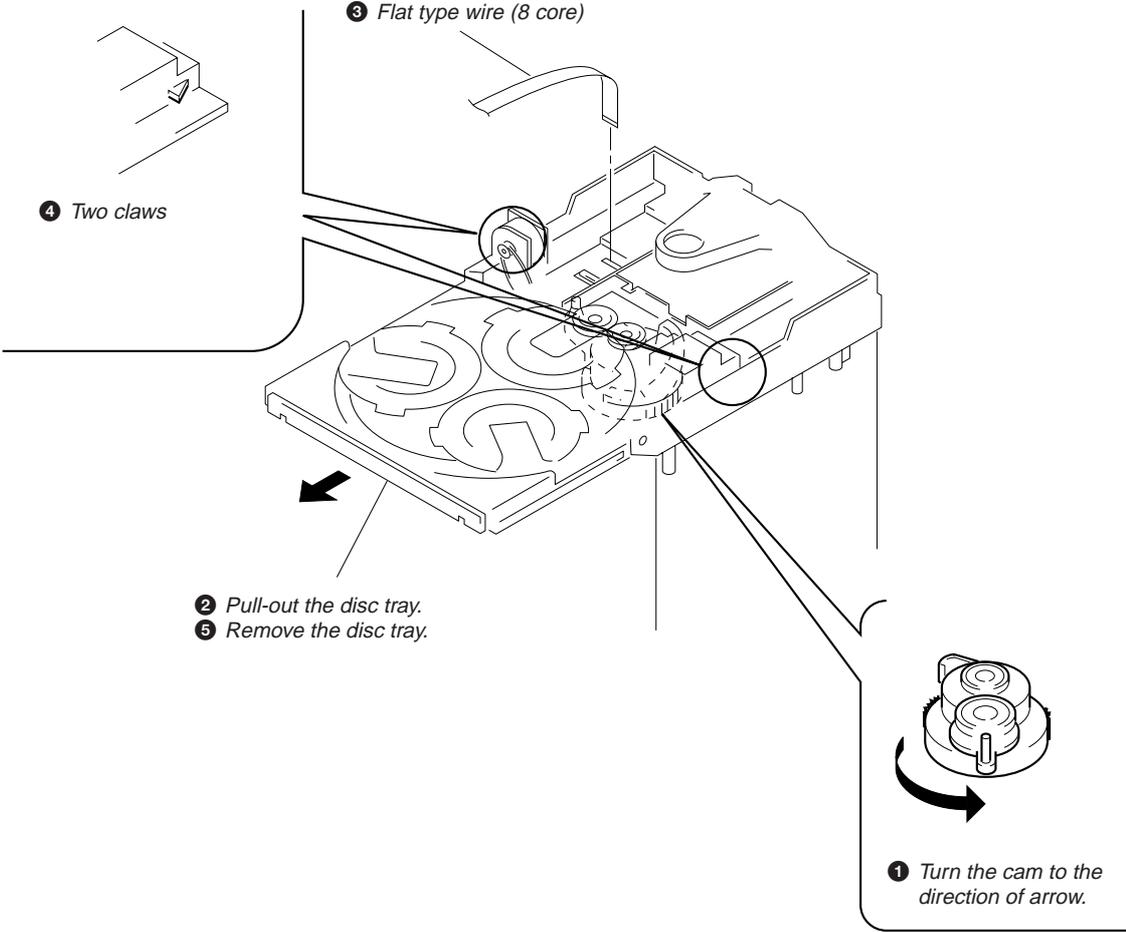


3-4. CD SW BOARD AND PANEL BOARD

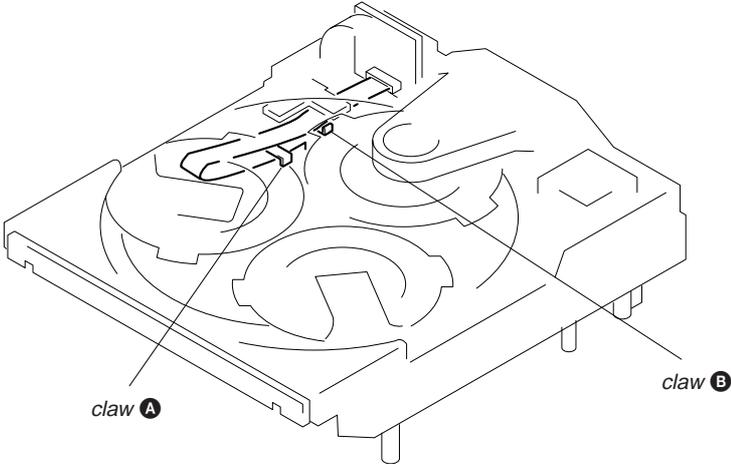


3-5. DISC TRAY

(Perform after removing the front panel.)



Note: When installing the Disc tray, pull around the flat type wire to pass through the claw **A** and claw **B**, as shown in the figure.



SECTION 4 MECHANICAL ADJUSTMENTS

PRECAUTION

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

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

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30 to 80g • cm (0.41 – 1.11 oz • inch)
FWD back tension	CQ-102C	1.5 to 5.5g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	55 to 130g • cm (0.76 – 1.80 oz • inch)
FWD tension	CQ-403A	100g or more (3.53 oz or more)

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION 0 dB=0.775V

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-ch.
7. Switches and controls should be set as follows unless otherwise specified.

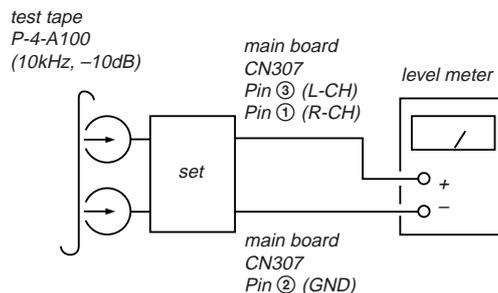
Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

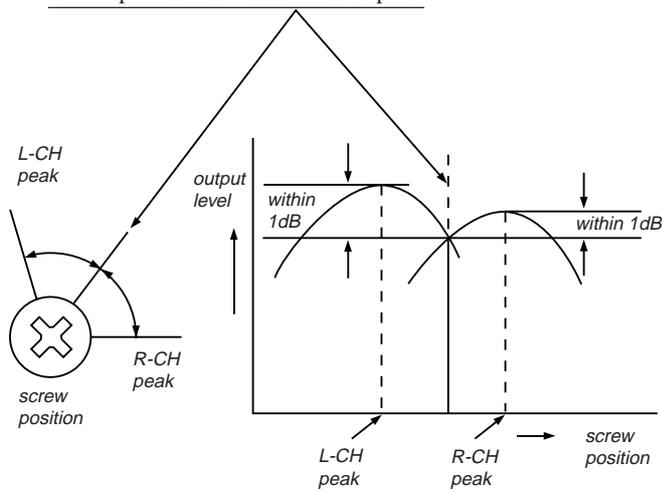
Note : Perform this adjustments for both decks.

Procedure :

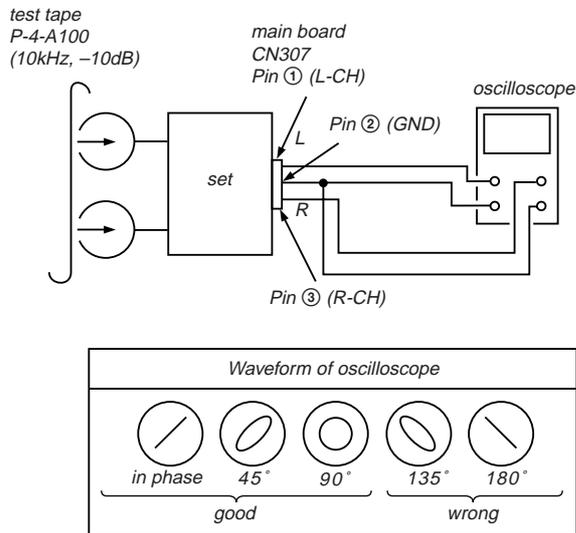
1. Mode : Playback



- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.

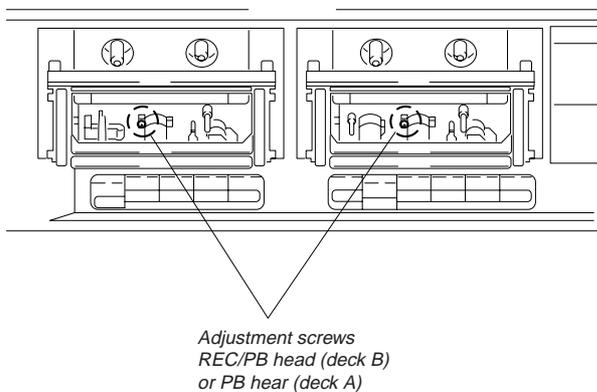


- Mode : Playback



- After the adjustments, apply suitable locking compound to the parts adjusted.

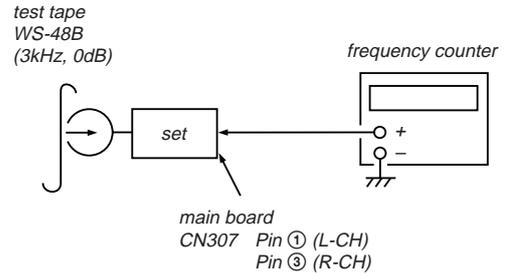
Adjustment Location :



Tape Speed Adjustment (Deck A, Deck B)

Procedure :

Mode : Playback



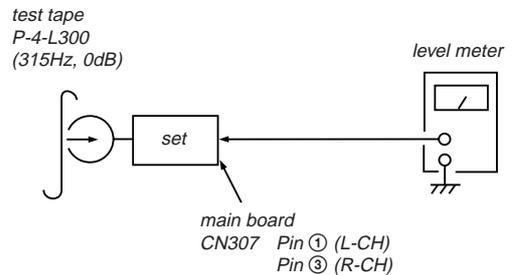
- Insert the WS-48B into the deck B, and playback.
- Adjust the RV380 so that the frequency counter reading becomes 3000 ± 10 Hz.
- Stop the deck B. Insert the WS-48B into the deck A to playback. Be sure to check that the difference of the frequency compared with the deck B becomes within +2% and -0.5%.
- Insert the CS-123 (blank tape) into the deck A and insert the WS-48B into the deck B, then playback them simultaneously. Be sure to check that the deck B's frequency counter reading becomes 3000 ± 50 Hz.

Adjustment Location : MAIN board

Playback Level Adjustment (Deck A, Deck B)

Procedure :

Mode : Playback



Deck A is RV301 (L-CH) and RV401 (R-CH), Deck B is RV302 (L-CH) and RV402 (R-CH) so that adjustment within the following adjustment level.

Adjustment level :

CN307 playback level: 301.5 to 338.3 mV (-8.2 to -7.2 dB)

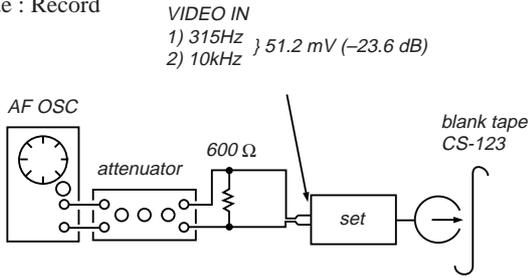
level difference between the channels: within ± 0.5 dB

Adjustment Location : MAIN board

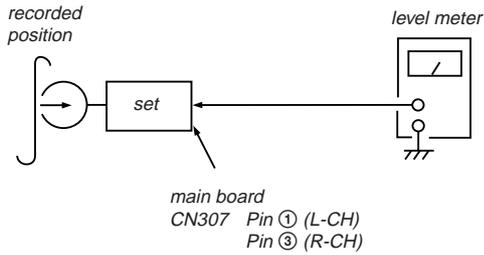
Record Bias Adjustment (Deck B)

Procedure :

1. Mode : Record



2. Mode : Playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjustment the RV303 (L-CH) and RV403 (R-CH) on the main board to repeat steps 1 and 2.

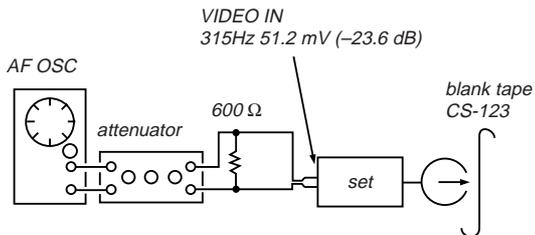
Adjustment level : Playback output of 10kHz level difference against 315Hz reference should be ± 0.5 dB.

Adjustment Location : MAIN board

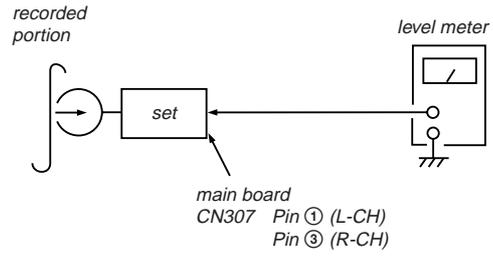
Record Level Adjustment (Deck B)

Procedure :

1. Mode: Record



2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

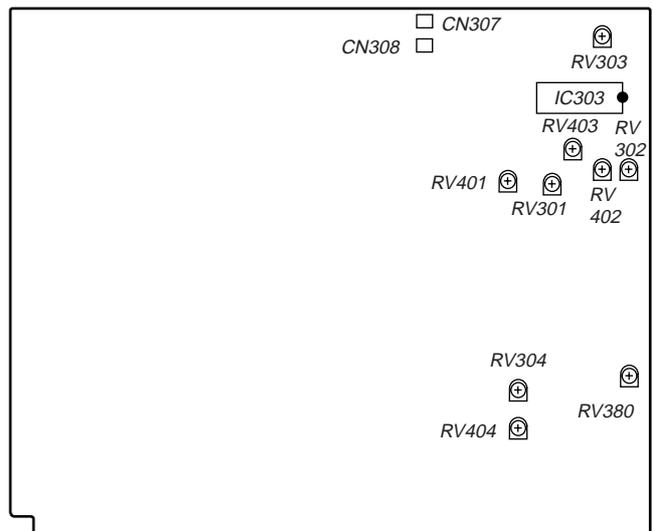
If these levels do not adjustment level, adjustment the RV303 (L-CH) and RV403 (R-CH) on the main board to repeat steps 1 and 2.

Adjustment level :

CN307 playback level : 47.2 to 53.0 mV (-24.3 to -23.3 dB)

Adjustment Location

[MAIN BOARD] (Component Side)



TUNER SECTION

0dB=1μV

Note 1: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

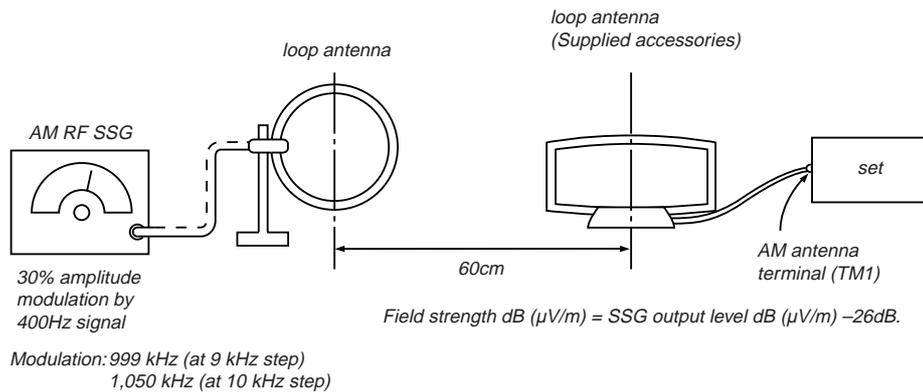
Note 2: No adjustment is needed due to a tuner pack for except AEP, UK, German, East European models.

AM Tuned Level Adjustment

Note: FM Tuned Level adjustment should be performed after this AM Tuned Level Adjustment.

Setting:

Band: AM or MW



Procedure:

1. Set the output of SSG so that the input level of the set becomes 55 dB.
2. Tune the set to 999 kHz or 1,050 kHz.
3. Adjust RV41 to the point (moment) when the TUNED indicator will change from going off to going on.

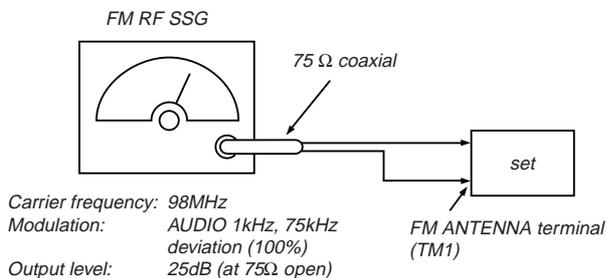
Adjustment Location: TCB board

FM Tuned Level Adjustment

Note: This adjustment should be performed after the AM Tuned Level Adjustment.

Setting:

Band: FM

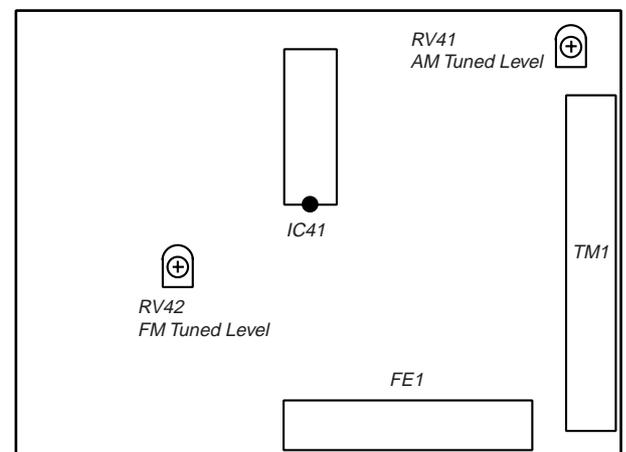


Procedure:

1. Supply a 25 dB 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV42 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location

[TCB BOARD] (Component Side)

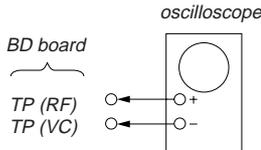


CD SECTION

Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than $10M\Omega$ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

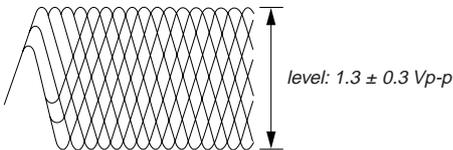
Focus Bias Adjustment



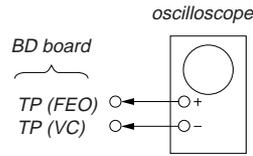
Procedure:

1. Connect oscilloscope to test point TP (RF).
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear. (Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

- RF signal
VOLT/DIV: 200 mV
TIME/DIV: 500 nS



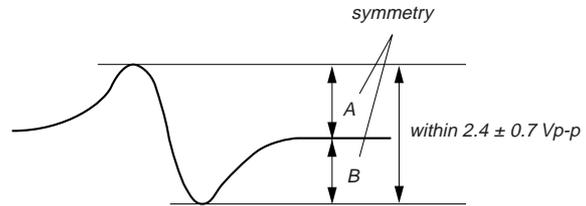
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and Ground by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.4 ± 0.7 Vp-p.

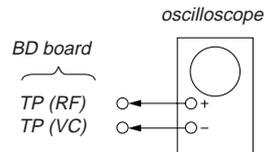
S-curve waveform



6. After check, remove the lead wire connected in step 2.

- Note:**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

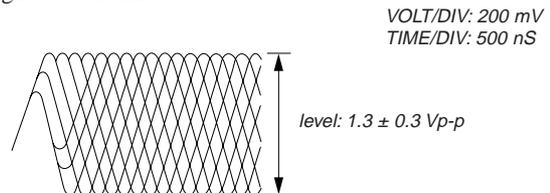


Procedure :

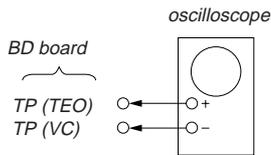
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

- Note:** Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



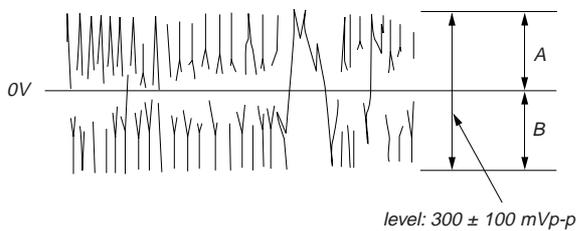
E-F Balance Check



Procedure:

1. Connect test point TP703 (ADJ2) on Main board to Ground with a lead wire.
2. Connect oscilloscope to test point TP (TEO).
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

Traverse waveform



Specified level: • $\frac{A - B}{2(A + B)} \times 100 = \text{less than } \pm 7\%$
 • $A + B = 300 \pm 100 \text{ mVp-p}$

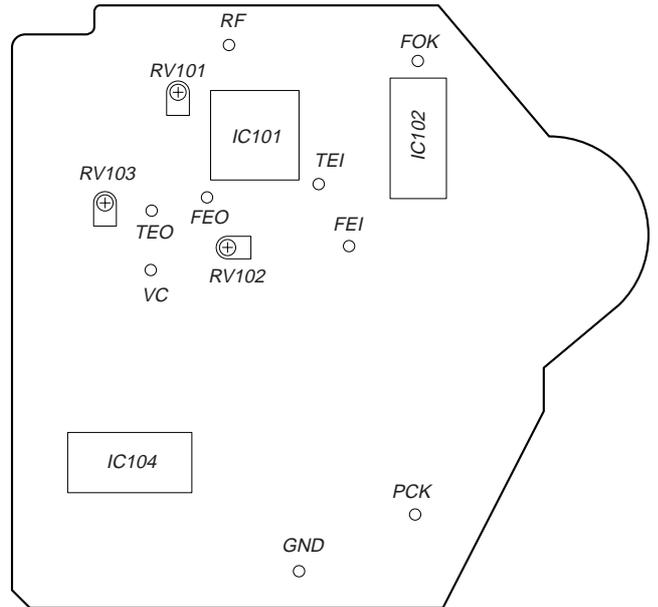
6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

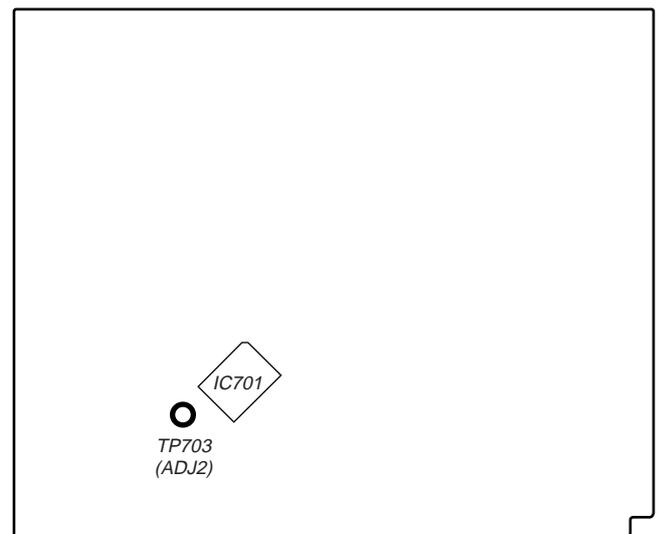
This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform this adjustment. Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location:

[BD BOARD] — Component Side —

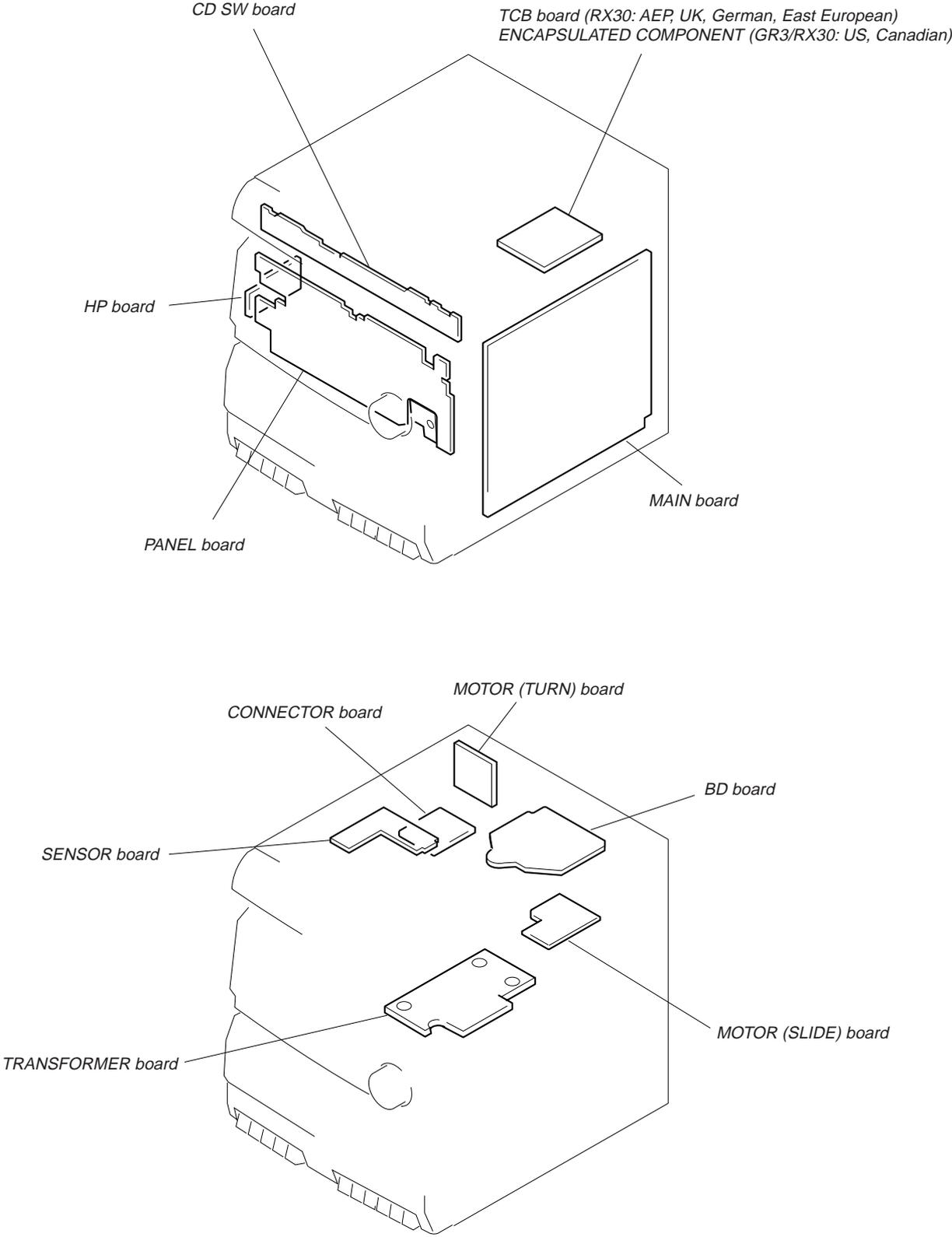


[MAIN BOARD] — Conductor Side —

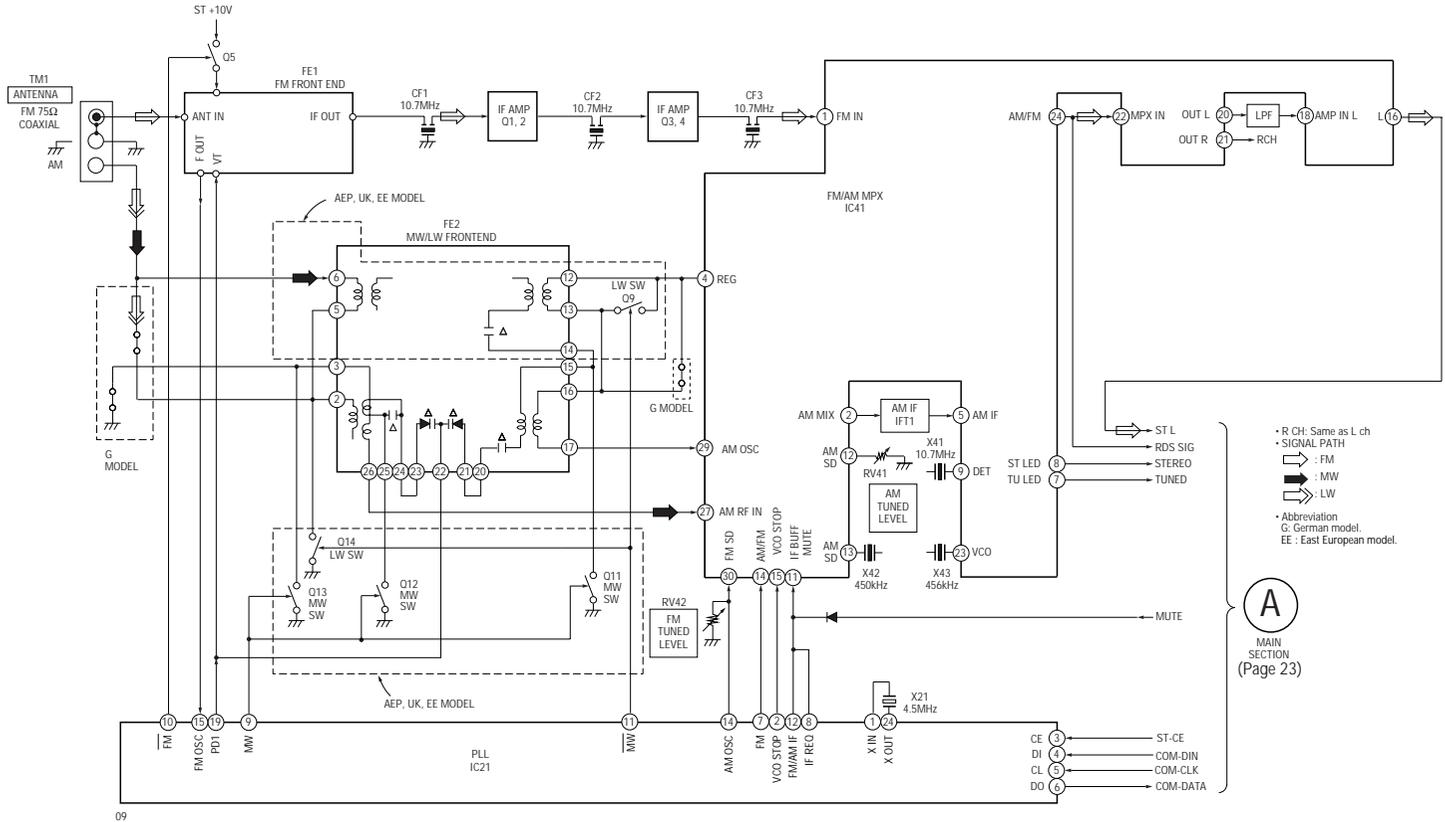


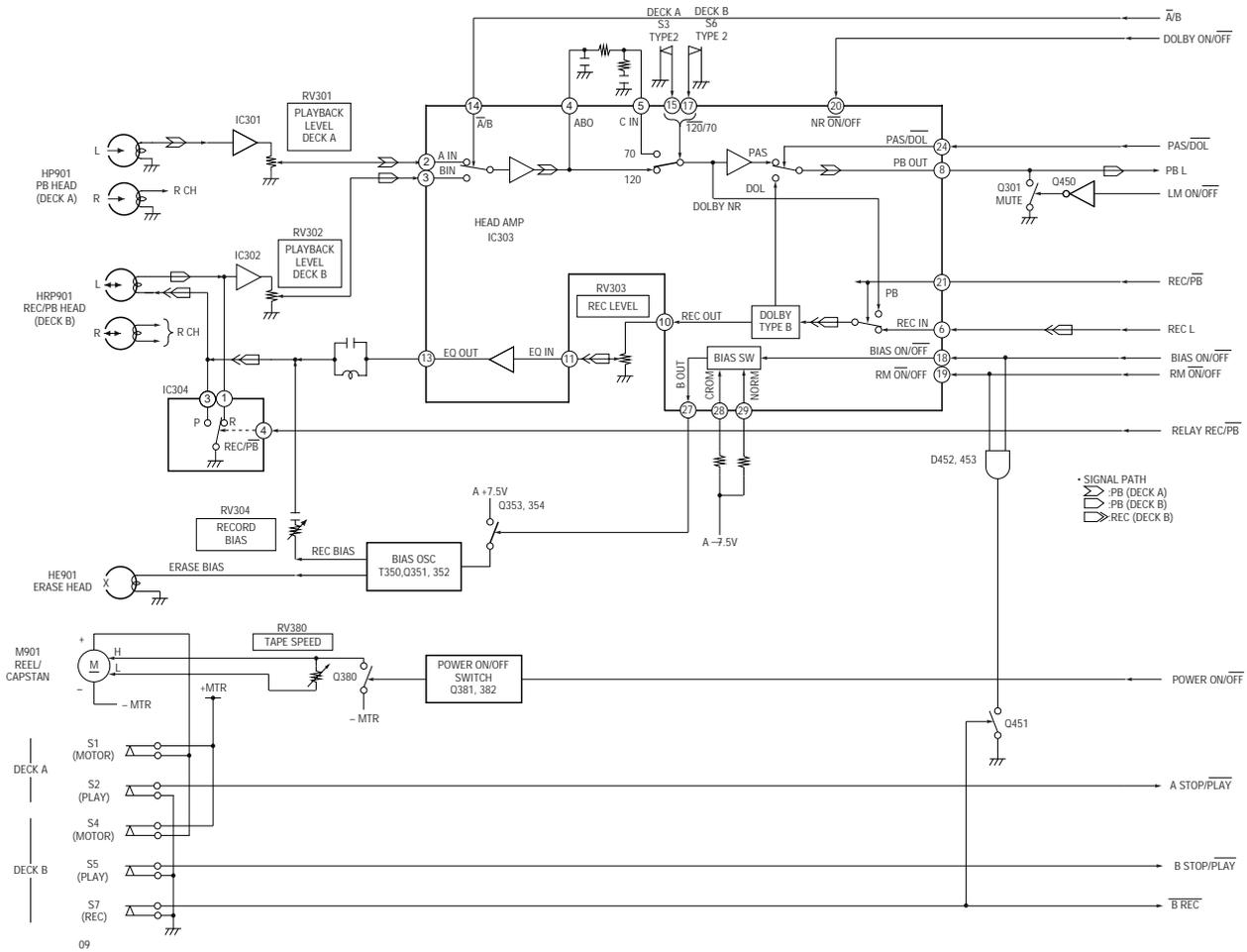
SECTION 6 DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION



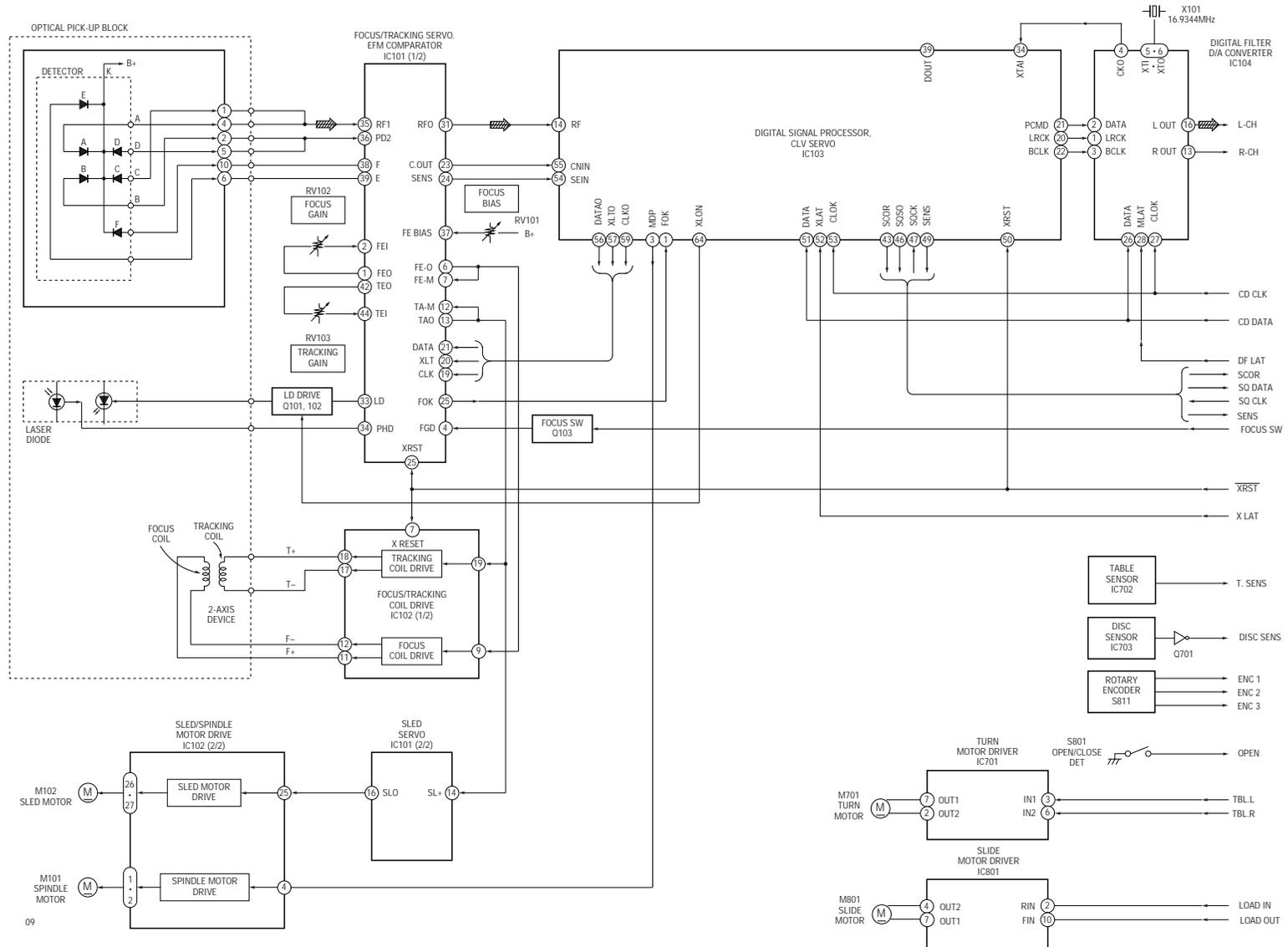
6-2. BLOCK DIAGRAMS
 — TUNER SECTION — (RX30: AEP, UK, G, EE MODEL)





B
MAIN SECTION
(Page 23)

— CD SECTION —



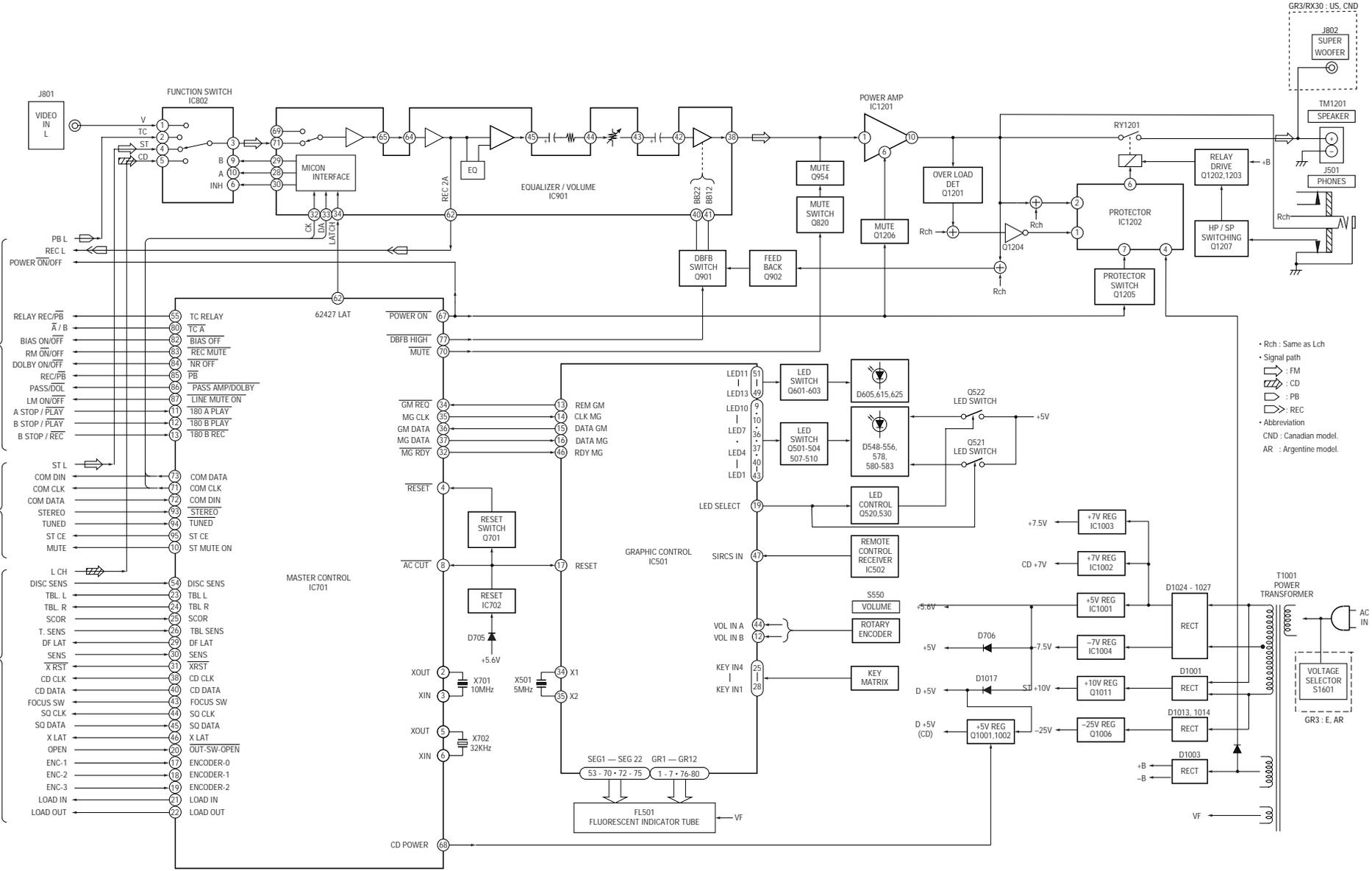
(C)
MAIN SECTION
(Page 23)

— MAIN SECTION —

B
DECK SECTION
(Page 20)

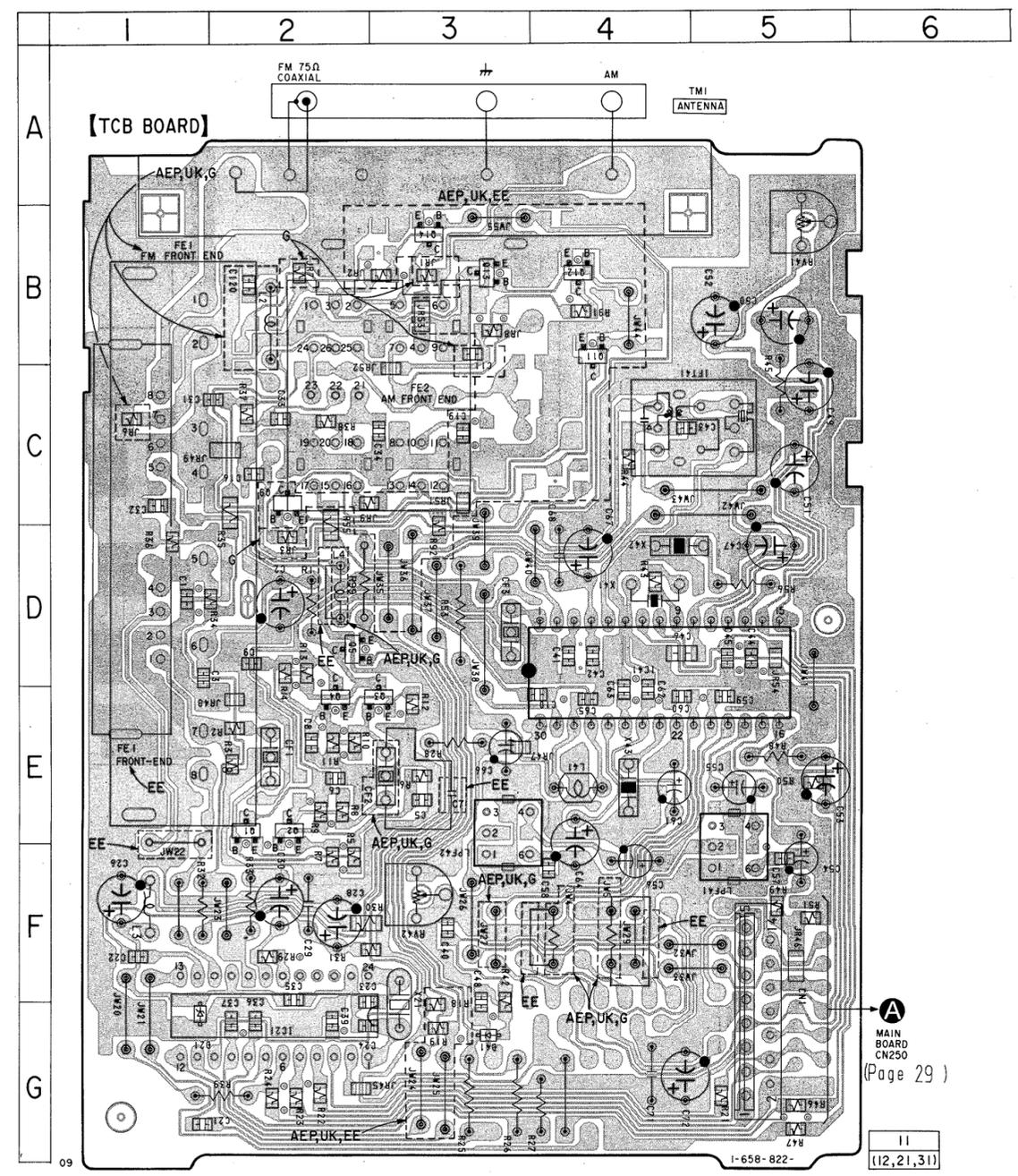
A
TUNER SECTION
(Page 18)

C
CD SECTION
(Page 22)



99

6-3. PRINTED WIRING BOARD — TUNER SECTION —
• See page 16 for Circuit Boards Location.

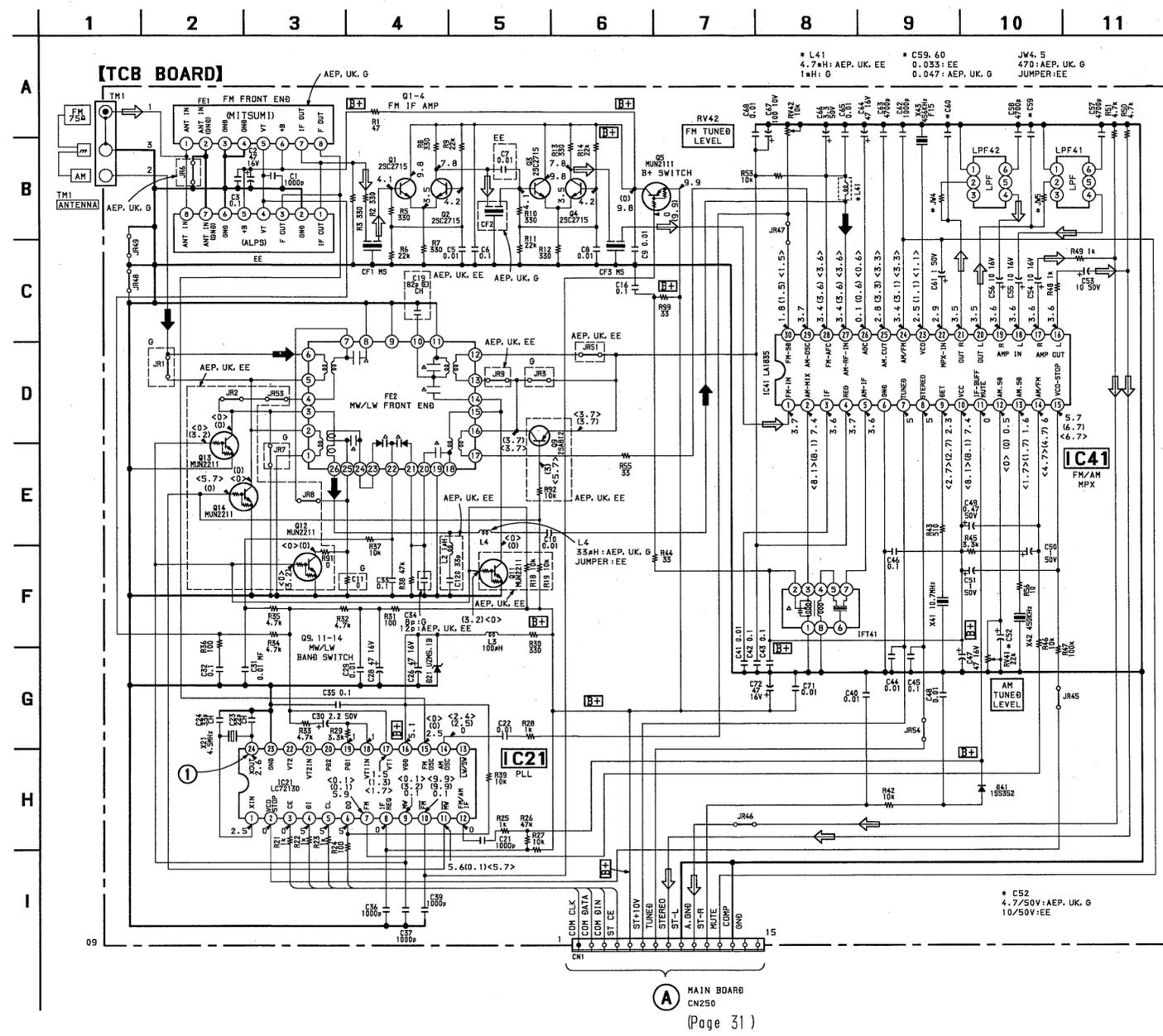


• Semiconductor Location

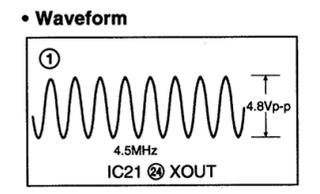
Ref. No.	Location
D21	G-1
D41	G-3
IC21	G-2
IC41	D-4
Q1	E-2
Q2	E-2
Q3	F-3
Q4	E-2
Q5	D-2
Q9	C-2
Q11	B-4
Q12	B-4
Q13	B-3
Q14	B-3

- Note:
- : parts extracted from the component side.
 - △ : Internal component.
 - ▨ : Pattern from the side which enable seeing.
 - Abbreviation
G : German model.
EE : East European model.

6-4. SCHEMATIC DIAGRAM — TUNER SECTION —
• See page 53 for IC Block Diagrams.



- NOTE
- All capacitors are in μF unless otherwise noted, pF: μF 50W 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.
 - △ : internal component.
 - : panel designation.
 - B+ : B+ Line.
 - ⊠ : adjustment for repair.
 - Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark: FM
() : MW
< : LW
> : LW
 - 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 an oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Abbreviation
G : German model.
EE : East European model.
 - Signal path.
⇨ : FM
⇨ : AM

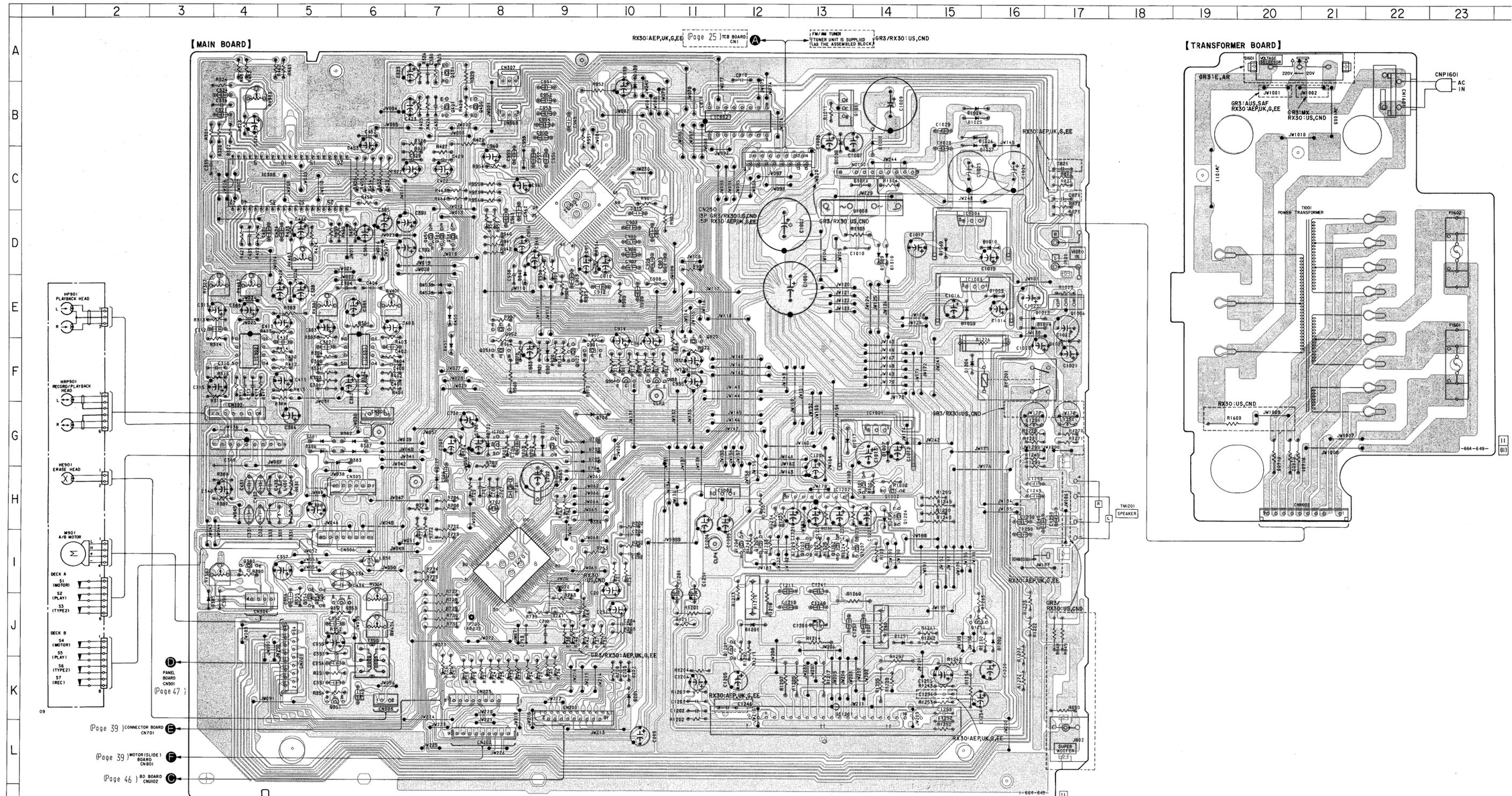


6-5. PRINTED WIRING BOARD — MAIN SECTION —
 • See page 16 for Circuit Boards Location.

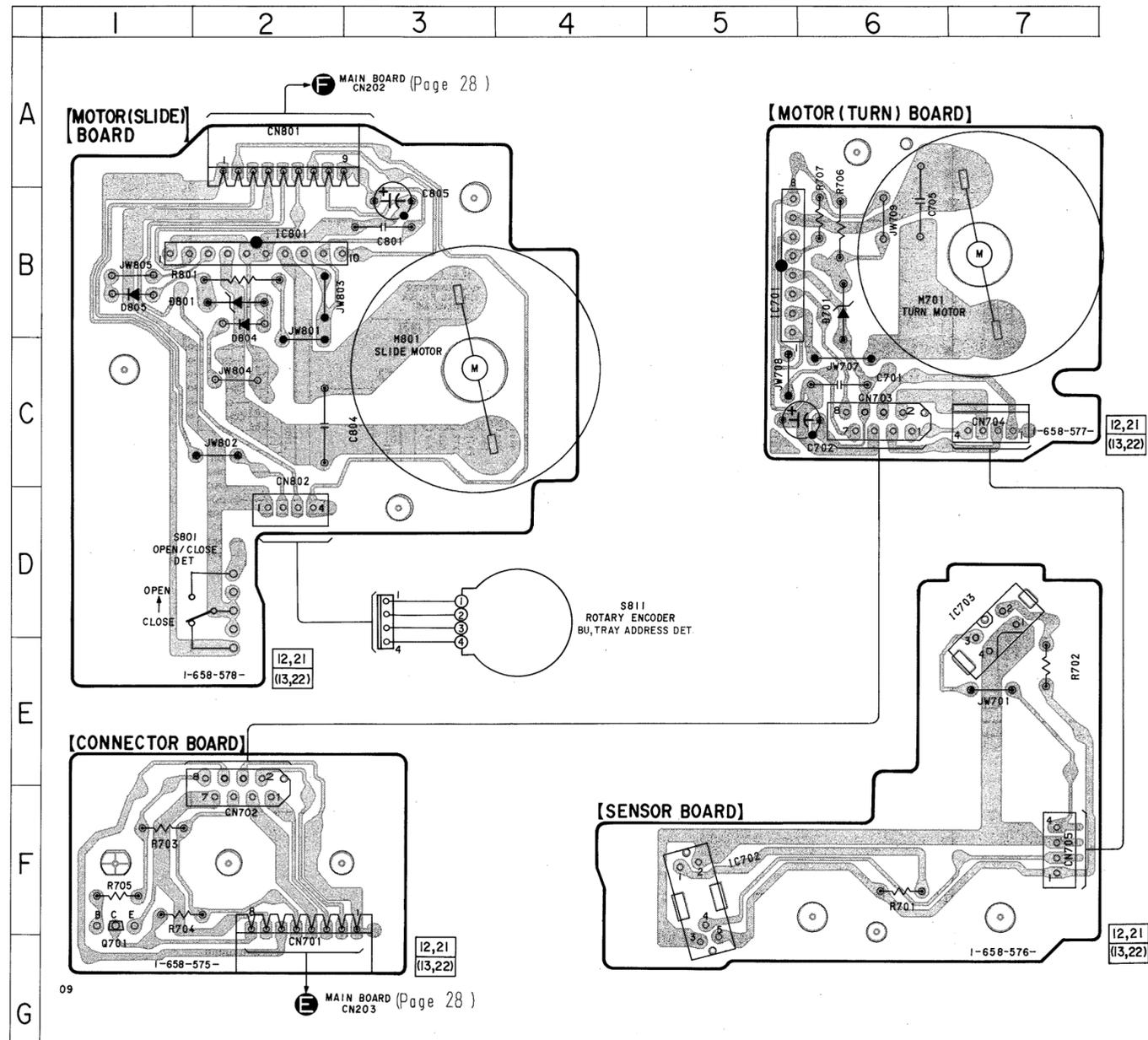
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201	K-10	IC301	F-6
D202	K-10	IC302	F-4
D381	G-5	IC303	C-4
D382	G-6	IC304	G-4
D383	G-6	IC701	I-8
D384	H-9	IC702	G-8
D385	J-3	IC802	B-11
D386	G-5	IC901	C-9
D387	G-6	IC1001	G-14
D450	E-7	IC1002	H-11
D451	F-7	IC1003	E-15
D452	E-7	IC1004	C-15
D453	E-7	IC1201	K-13
D701	G-9	IC1202	H-13
D702	G-8		
D703	G-9	Q301	A-7
D704	H-9	Q351	K-5
D705	G-9	Q352	J-5
D706	G-9	Q353	J-5
D707	G-7	Q354	J-5
D708	G-10	Q380	I-4
D901	F-9	Q381	D-7
D939	A-10	Q382	D-7
D940	D-8	Q401	B-7
D1001	B-14	Q450	B-8
D1003	C-14	Q451	D-7
D1007	G-14	Q701	G-9
D1008	C-13	Q820	E-11
D1009	E-16	Q901	F-9
D1010	D-16	Q902	F-9
D1013	E-16	Q951	F-8
D1014	E-16	Q952	E-8
D1017	G-13	Q953	F-11
D1023	F-17	Q954	F-10
D1024	B-15	Q1001	H-14
D1025	B-15	Q1002	H-14
D1026	B-16	Q1006	E-17
D1027	B-16	Q1011	B-14
D1059	E-15	Q1201	J-11
D1069	D-15	Q1201	I-13
D1201	J-12	Q1203	I-13
D1202	J-16	Q1204	H-14
D1204	F-15	Q1205	I-12
D1205	H-14	Q1206	I-12
D1251	J-14	Q1207	I-14
D1309	D-14	Q1251	J-15
D1310	D-14		

- Note:
- : parts extracted from the component side.
 - : Pattern from the side which enable seeing.
 - Abbreviation
 CND : Canadian model.
 G : German model.
 EE : East European model.
 MX : Mexican model.
 AUS : Australian model.
 AR : Argentine model.
 SAF : South African model.

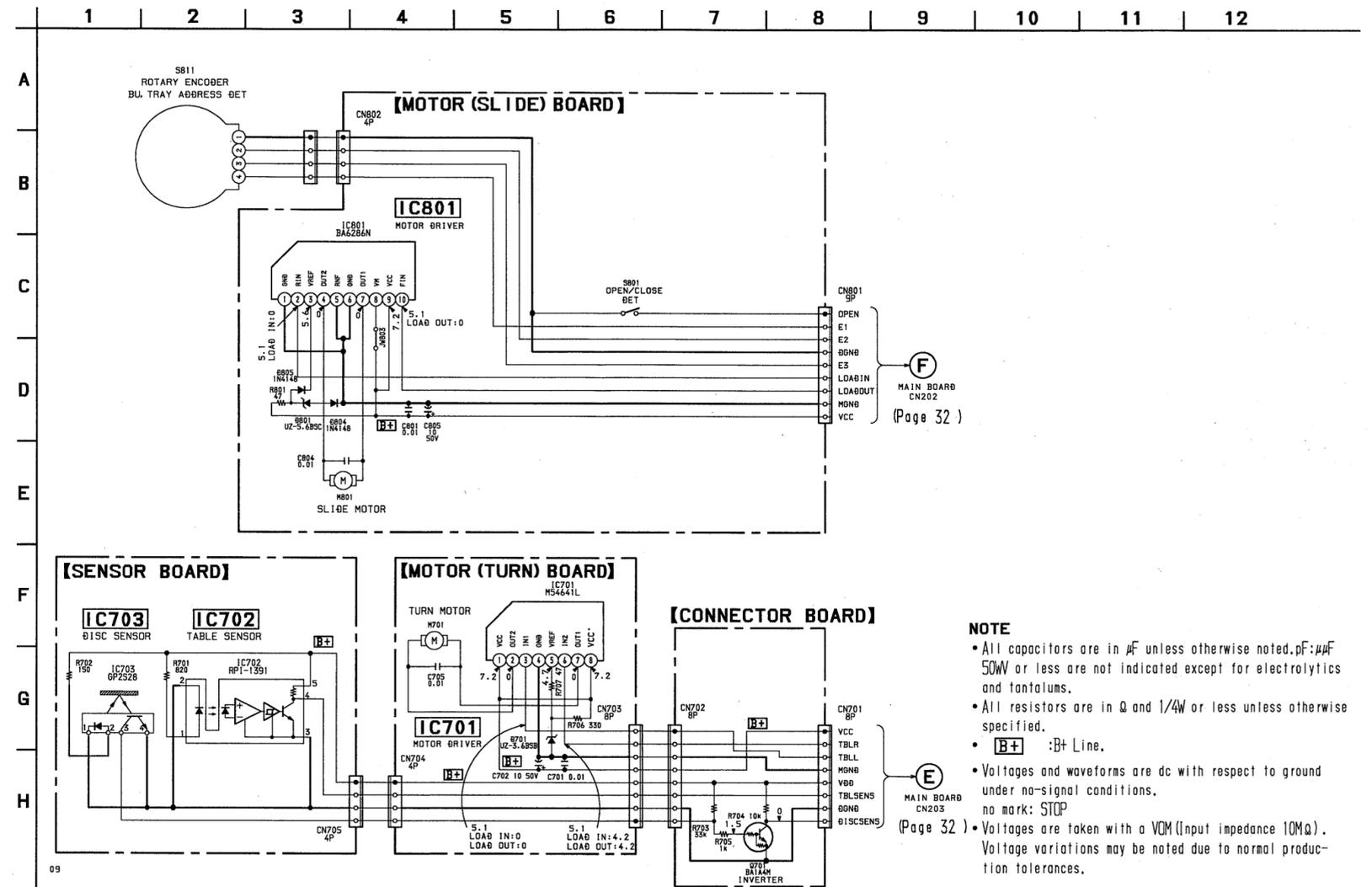


6-8. PRINTED WIRING BOARD — CD MOTOR SECTION —
• See page 16 for Circuit Boards Location.



Note:
 • : parts extracted from the component side.
 • : Pattern from the side which enable seeing.

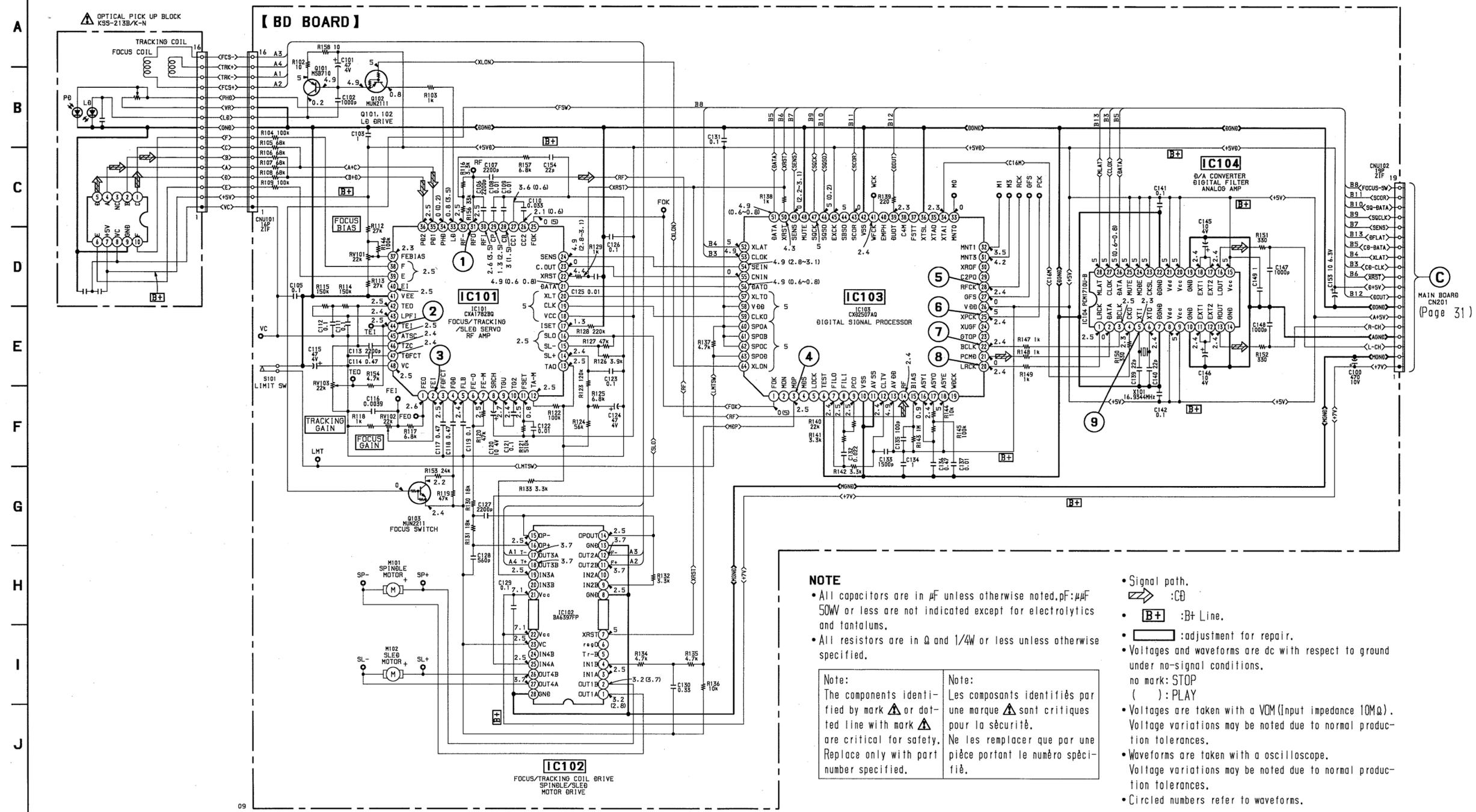
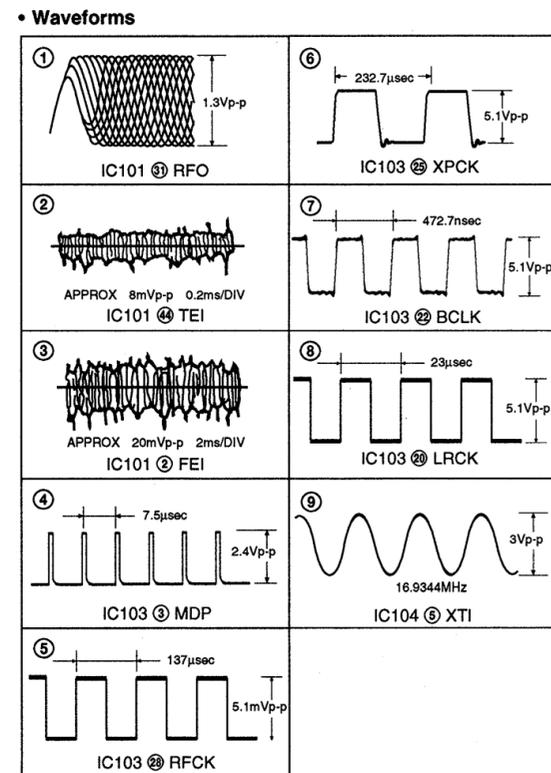
6-9. SCHEMATIC DIAGRAM — CD MOTOR SECTION —
• See page 54 for IC Block Diagrams.



NOTE
 • All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F}$
 50W or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and 1/4W or less unless otherwise specified.
 • **B+** : B+ Line.
 • Voltages and waveforms are dc with respect to ground under no-signal conditions.
 no mark: STOP
 • Voltages are taken with a VOM (input impedance 10M Ω).
 Voltage variations may be noted due to normal production tolerances.

6-10. SCHEMATIC DIAGRAM — CD SECTION —
 • See page 51 for IC Block Diagrams.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



NOTE

- All capacitors are in μF unless otherwise noted, pF : μpF 50W 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.

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.

- Signal path. \Rightarrow :CD
- **B+** :B+ Line.
- \square :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP () :PLAY
- 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.

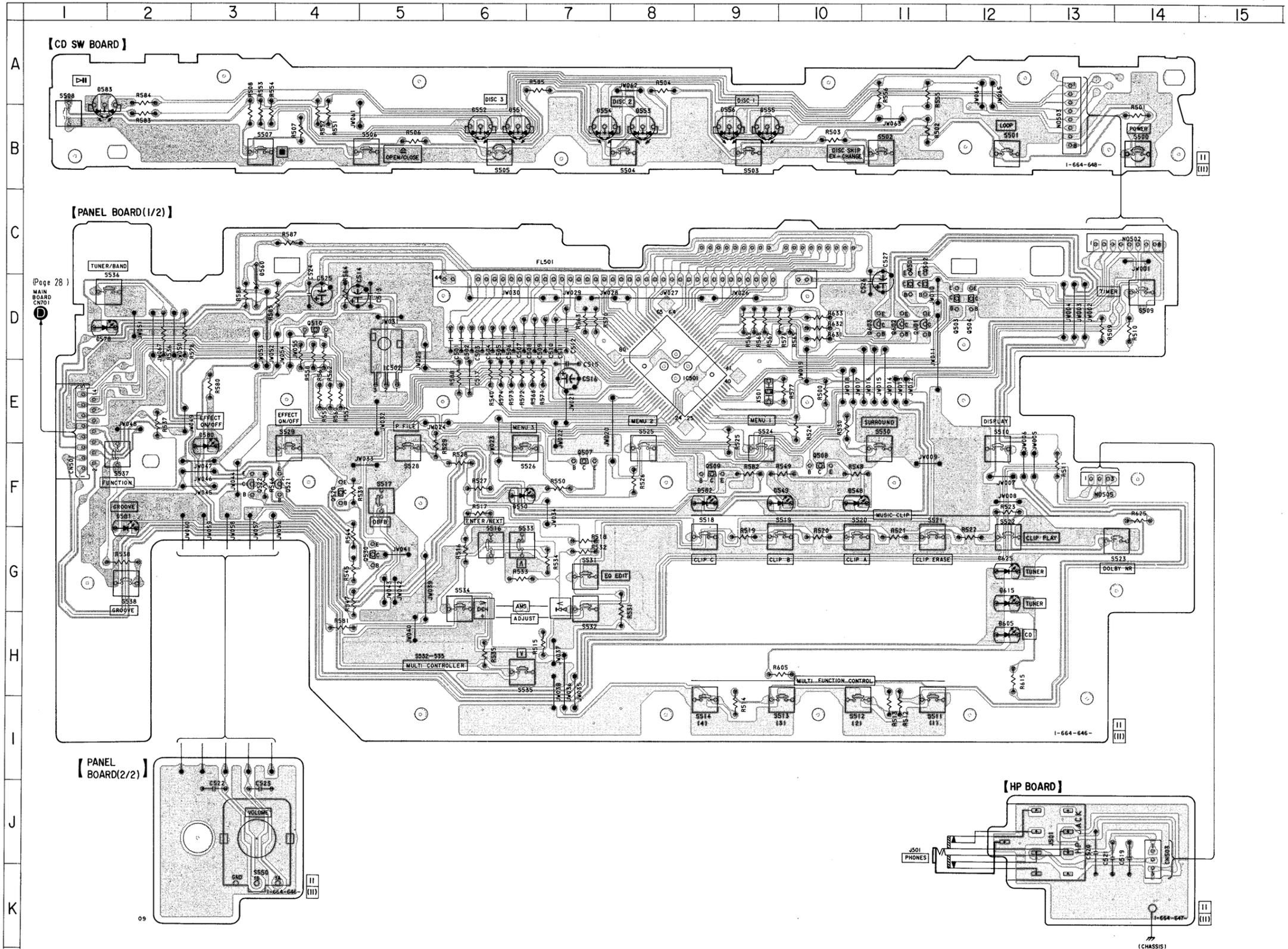
(C) MAIN BOARD CN201 (Page 31)

6-12. PRINTED WIRING BOARD — PANEL SECTION —

• See page 16 for Circuit Boards Location.

• Semiconductor Location

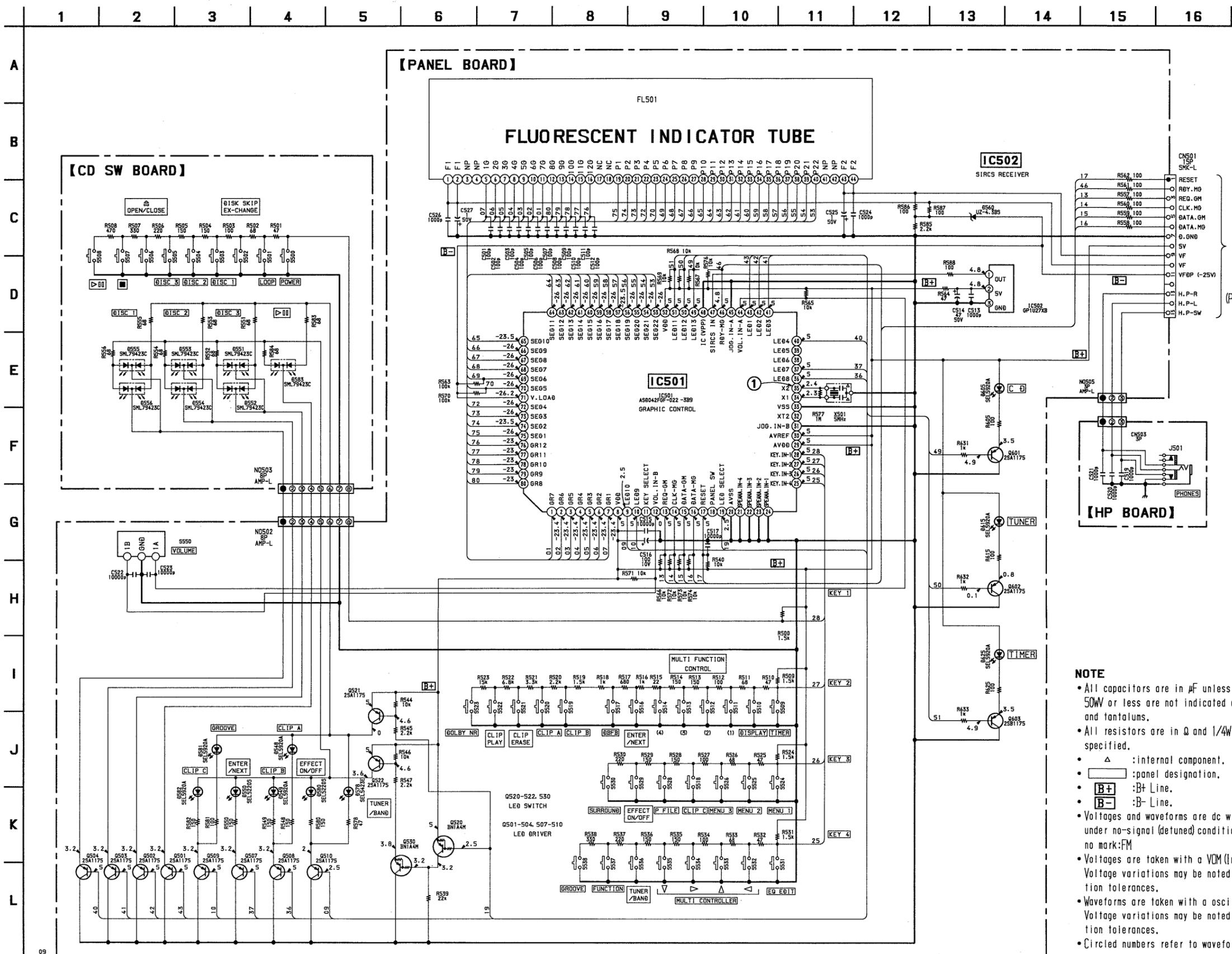
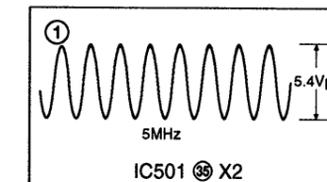
Ref. No.	Location
D548	F-10
D549	F-10
D550	F-6
D551	B-6
D552	B-6
D553	B-8
D554	B-7
D555	B-9
D556	B-9
D560	C-3
D578	D-1
D580	E-3
D581	F-2
D582	F-9
D583	A-1
D605	H-12
D615	G-12
D625	G-12
IC501	E-8
IC502	E-5
Q501	C-11
Q502	C-11
Q503	D-12
Q504	D-12
Q507	F-7
Q508	F-10
Q509	F-9
Q510	D-4
Q520	F-4
Q521	F-4
Q522	F-3
Q530	G-5
Q601	D-11
Q602	D-11
Q603	D-11



Note:
 • — : parts extracted from the component side.
 • [Pattern] : Pattern from the side which enable seeing.

6-13. SCHEMATIC DIAGRAM — PANEL SECTION —
• See page 55 for IC Pin Functions.

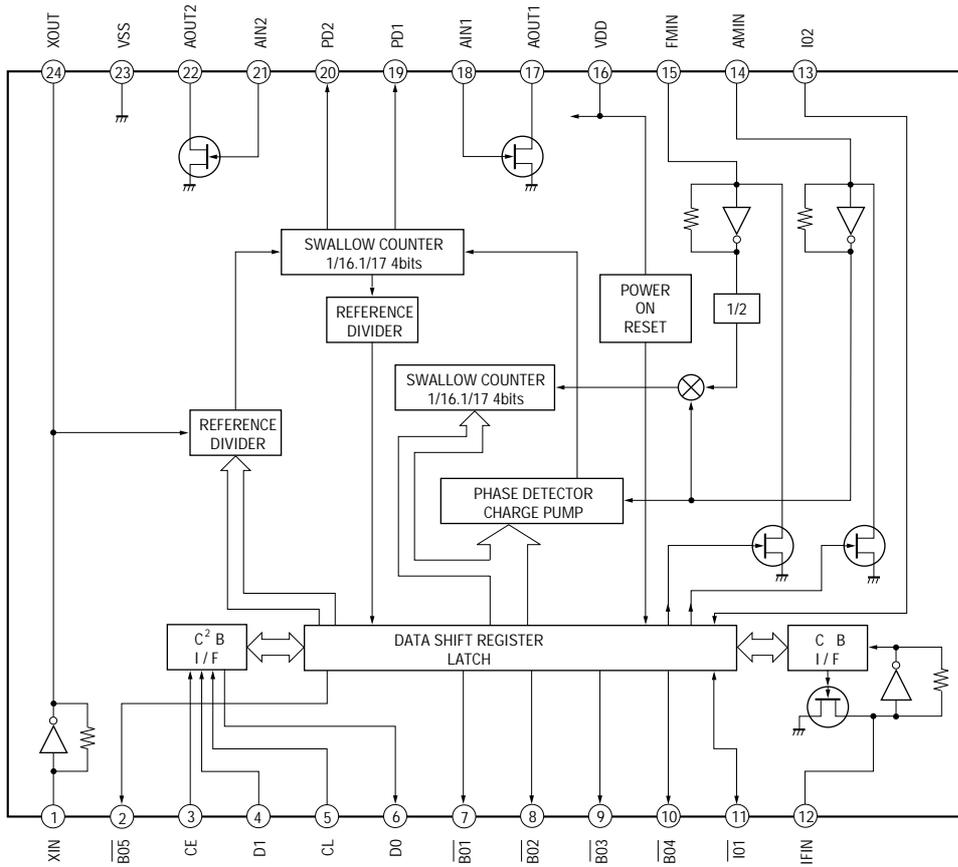
• Waveform



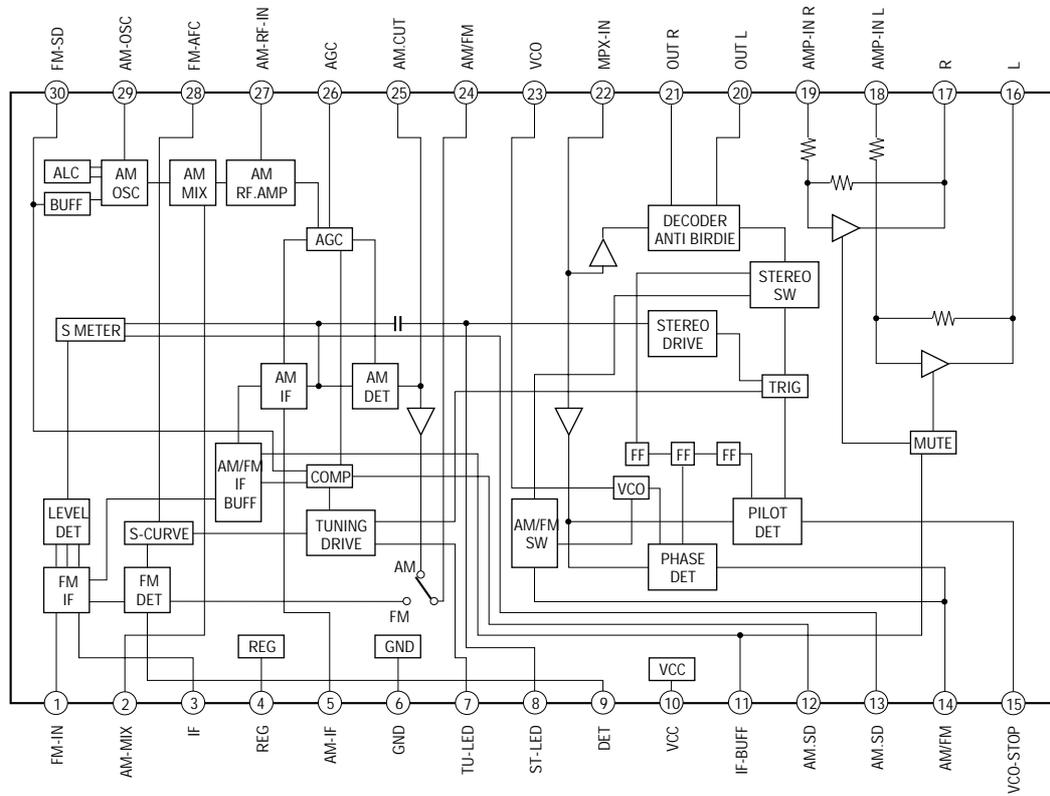
(D) MAIN BOARD CN701 (Page 32)

- NOTE**
- All capacitors are in μF unless otherwise noted. pF: μpF 50W 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.
 - Δ : internal component.
 - \square : panel designation.
 - B+ : B+ Line.
 - B- : B- Line.
 - Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark: FM
 - 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 an oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.

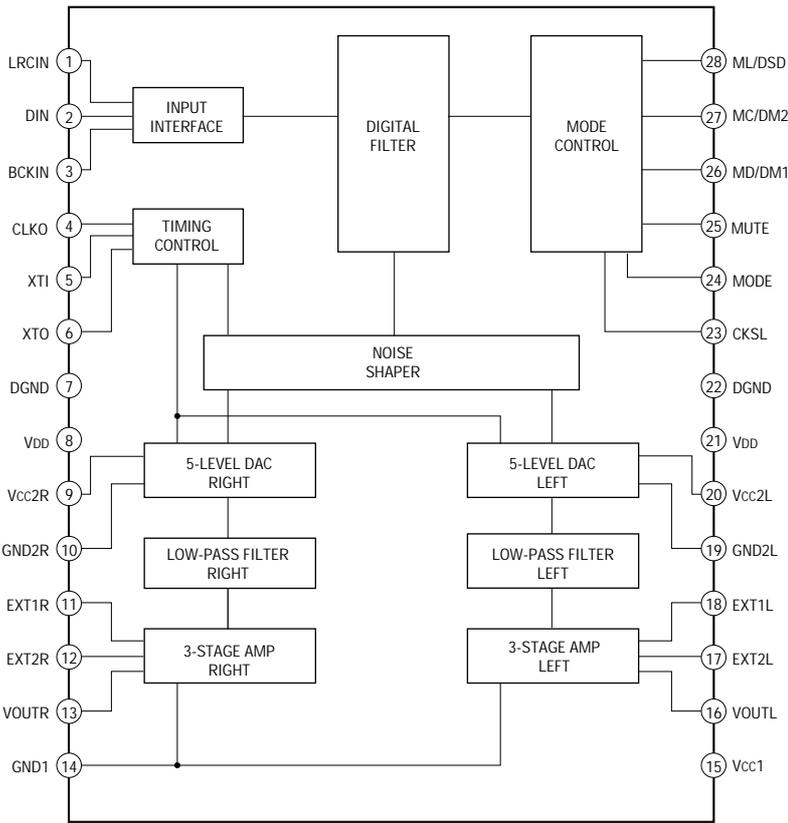
IC21 LC72130



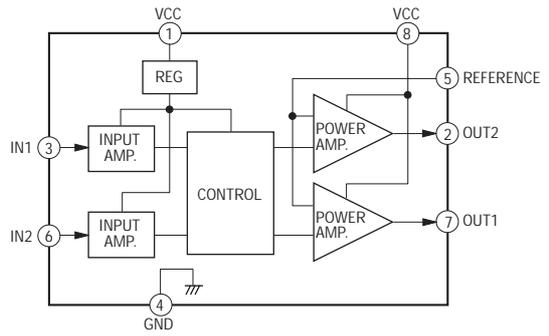
IC41 LA1835



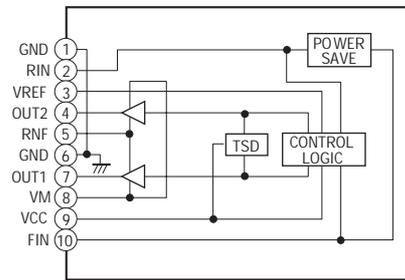
IC104 PCM1710U-B



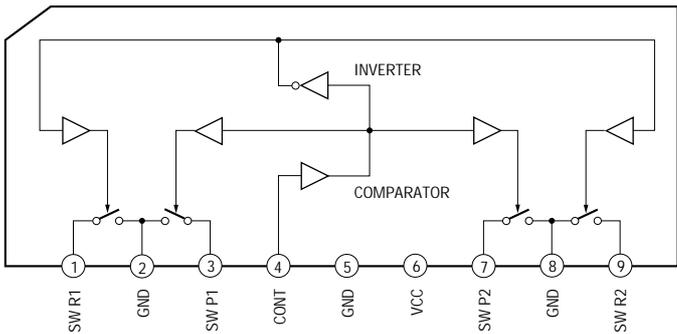
IC701 M54641L



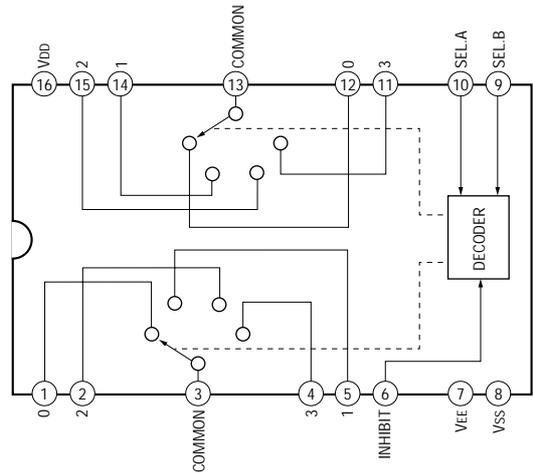
IC801 BA6286N



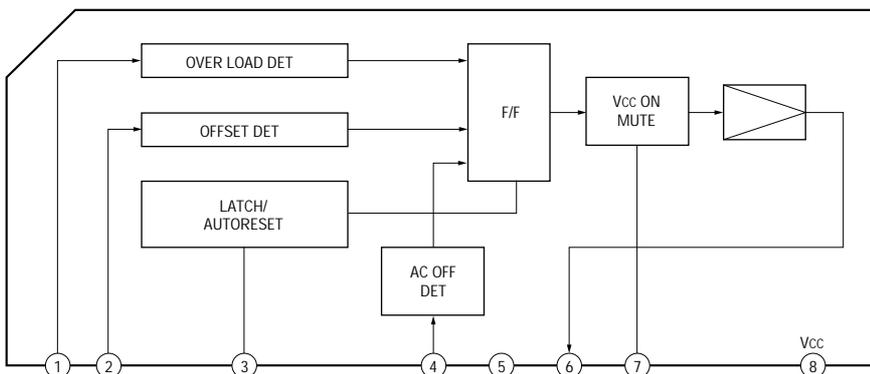
IC304 μPC1330HA



IC802 MC14052BCP



IC1202 μPC1237HA



6-15. IC PIN FUNCTIONS

• IC501 GRAPHIC CONTROL (ASD042FGF-022-3B9)

Pin No.	Pin Name	I/O	Function
1 – 7	GR1 – GR7	O	FL grid signal output
8	V _{DD}	—	+5V
9, 10	LED9, LED10	O	LED drive signal output
11	KEY SELECT	O	Not used
12	VOL IN B	I	Volume encoder signal input
13	REQ. GM	I/O	Request signal from/to master control
14	CLK MG	I	Serial clock input
15	DATA GM	O	Serial data output
16	DATA MG	I	Serial data input
17	RESET	I	Reset signal input
18	PANEL SW	I	CD door open detection input (Not used)
19	LED SELECT	O	LED select signal output
20	AV _{SS}	—	Ground
21 – 24	SPEANA IN1 – 4	I	Spectrum analyzer signal input (Connected to ground)
25 – 28	KEY IN1 – 4	I	Key matrix input
29	AV _{DD}	—	+5V
30	AV _{REF}	—	
31	JOG IN B	I	Not used (Pull down)
32	XT2	I	Not used
33	V _{SS}	—	Ground
34	X1	I	X'tal (5 MHz)
35	X2	O	
36, 37	LED7, LED8	O	LED drive signal output
38, 39	LED5, LED6	O	Not used
40 – 43	LED1 – LED4	O	LED drive signal output
44	VOL IN A	I	Volume encoder signal input
45	JOG IN A	I	Not used. (Pull down)
46	RDY MG	I	RDY signal from master control
47	SIRCS IN	I	SIRCS signal input
48	IC (VPP)	—	Ground
49 – 51	LED11 – LED13	O	LED drive signal output
52	V _{DD}	—	+5V
53 – 70	SEG5 – SEG22	O	FL segment signal output
71	V. LOAD	—	-25V for FL
72 – 75	SEG1 – SEG4	O	FL segment signal output
76 – 80	GR8 – GR12	O	FL grid signal output

• Abbreviation

FL: FLUORESCENT INDICATOR TUBE

• IC701 MASTER CONTROL (TMP87CS64YF-6536)

Pin No.	Pin Name	I/O	Function
1	V _{SS}	–	Ground
2	XOUT	O	X'tal (10 MHz)
3	XIN	I	
4	$\overline{\text{RESET}}$	I	Reset signal input
5	XOUT	O	X'tal for clock (32.768 KHz)
6	XIN	I	
7	GND (test)	–	Ground
8	$\overline{\text{AC CUT}}$	I	Back up signal input
9	SUPER WOOFER ON	O	Not used (Pull up)
10	ST-MUTE ON	O	Mute signal output for tuner
11	$\overline{\text{I80-A-PLAY}}$	I	Tape detection signal input
12	$\overline{\text{I80-B-PLAY}}$	I	
13	$\overline{\text{I80-B-REC}}$	I	
14	$\overline{\text{CLOSE (DOOR-SW)}}$	I	Not used. (Pull up)
15	$\overline{\text{BD-UP (5CD)}}$	I	Disc table up detect (Not used) (Pull down)
16	$\overline{\text{TRAY-CLOSE (1CD)}}$	I	Loading in detection signal input (Connected to ground)
17	ENCODER-0	I	Disc tray address detect encoder input
18	ENCODER-1	I	
19	ENCODER-2	I	
20	$\overline{\text{OUT SW OPEN}}$	I	Loading out detection signal input
21	LOAD IN	O	Loading motor control signal output
22	LOAD OUT	O	
23	TBL-L	O	Table motor control signal output
24	TBL-R	O	
25	SCOR	I	Sub-code sync signal input
26	TBL-SENS	I	CD Table sensor signal input
27	RDS INT	I	RDS data start input (Not used)
28	RDS DATA	I	RDS data start output (Not used)
29	DF LAT	O	Latch signal for digital filter
30	SENS	I	Table sense signal input
31	$\overline{\text{XRST}}$	O	Reset signal output for CD
32	$\overline{\text{MG-RDY}}$	O	Ready signal to graphic control
33	$\overline{\text{ADJ}}$	I	Test mode input
34	$\overline{\text{GM-REQ}}$	I	Request signal from graphic control
35	MG-CLK	O	Clock signal to graphic control
36	GM-DATA	I	Data input from graphic control
37	MG-DATA	O	Data output to graphic control
38	CD-CLK	O	Clock output. Serial bus line
39	$\overline{\text{ADJ-2}}$	I	Test mode input
40	CD-DATA	O	Data output. Serial bus line

Pin No.	Pin Name	I/O	Function
41	AUB IN	I	Audio bus in/output. (Not used)
42	AUB OUT	O	
43	FOCUS SW	O	Focus switching signal output
44	SQ-CLK	O	Subcode Q data read clock output
45	SQ-DATA	I	Subcode Q data input
46	X-LAT	O	Latch signal output for digital signal processor
47	TEST	I	Test land
48	VAREF	I	Analog reference voltage input
49	V _{Ass}	–	Ground
50	V _{SS}	–	
51	V _{DD}	–	+5V
52	SPEC	I	Destination detection setting input
53	DESTINATION	I	
54	DISC SENS	I	Slit sensor of disc table input
55	TC RELAY	O	REC/PB select signal output
56	A-SHUT	I	Control signal input from deck (Connected to ground)
57	B-SHUT	I	
58	B-HALF	I	
59	A-HALF	I	
60	220-A-PLAY	I	
61	220-B-PLAY	I	
62	62427 LAT	O	PLL latch output
63	K-CON-LAT	O	Not used
64	VOL LAT (AV)	O	Latch signal for electrical volume (Not used)
65	REAR SP RELAY B	O	Rear speaker relay B Control output (Not used)
66	FRONT SP RELAY C	O	Front speaker relay C Control output (Not used)
67	$\overline{\text{POWER ON}}$	O	Power on signal output
68	CD POWER	O	CD power control signal output
69	$\overline{\text{PROLOG LAT}}$	O	Latch signal output for dolby pro logic (Not used)
70	$\overline{\text{MUTE}}$	O	Mute signal for AMP
71	COM CLK	O	PLL clock output
72	COM DIN	I	PLL data input
73	COM DATA	O	PLL data output
74	$\overline{\text{K CON ON}}$	O	Not used
75	LIDDED LED	O	Disc No LED drive signal output (Not used)
76	$\overline{\text{PROLOG-ON}}$	O	Not used
77	$\overline{\text{DBFB-HIGH}}$	O	DBFB switching signal output
78	URG-STB-STD-BY	I	Not used
79	$\overline{\text{URG-SIG-ON}}$	O	Not used
80	$\overline{\text{TC A}}$	O	Deck A, B select output

Pin No.	Pin Name	I/O	Function
81	$\overline{\text{NORM}}$	O	NORMAL/HIGH control signal output (Not used)
82	$\overline{\text{BIAS OFF}}$	O	Bias oscillation output
83	$\overline{\text{REC MUTE}}$	O	Mute output
84	$\overline{\text{NR OFF}}$	O	Dolby ON/OFF signal output
85	PB	O	REC/PB control signal output
86	$\overline{\text{PASS. AMP/DOLBY}}$	O	Dolby switching signal output
87	$\overline{\text{LINE MUTE ON}}$	O	Mute signal output for deck
88	$\overline{\text{CAP. M-HIGH}}$	O	Capstan motor control signal output (Not used)
89	A-TRG	O	Trigger motor control signal output (Not used)
90	B-TRG	O	
91	$\overline{\text{TRG LOW}}$	O	Trigger motor high/low control signal output (Not used)
92	$\overline{\text{CAP M ON}}$	O	Capstan motor ON/OFF control signal output (Not used)
93	$\overline{\text{STEREO}}$	I	Stereo detection signal from tuner
94	$\overline{\text{TUNED}}$	I	Tuned detection signal from tuner
95	ST-CE	O	Latch signal output for tuner
96	$\overline{\text{DELAY SEL MIC}}$	O	Not used
97	$\overline{\text{DELAY ON}}$	O	Not used (Connected to ground)
98	DELAY LEVEL A	O	
99	DELAY LEVEL B	O	
100	V _{DD}	-	+5V

SECTION 7 EXPLODED VIEWS

NOTE:

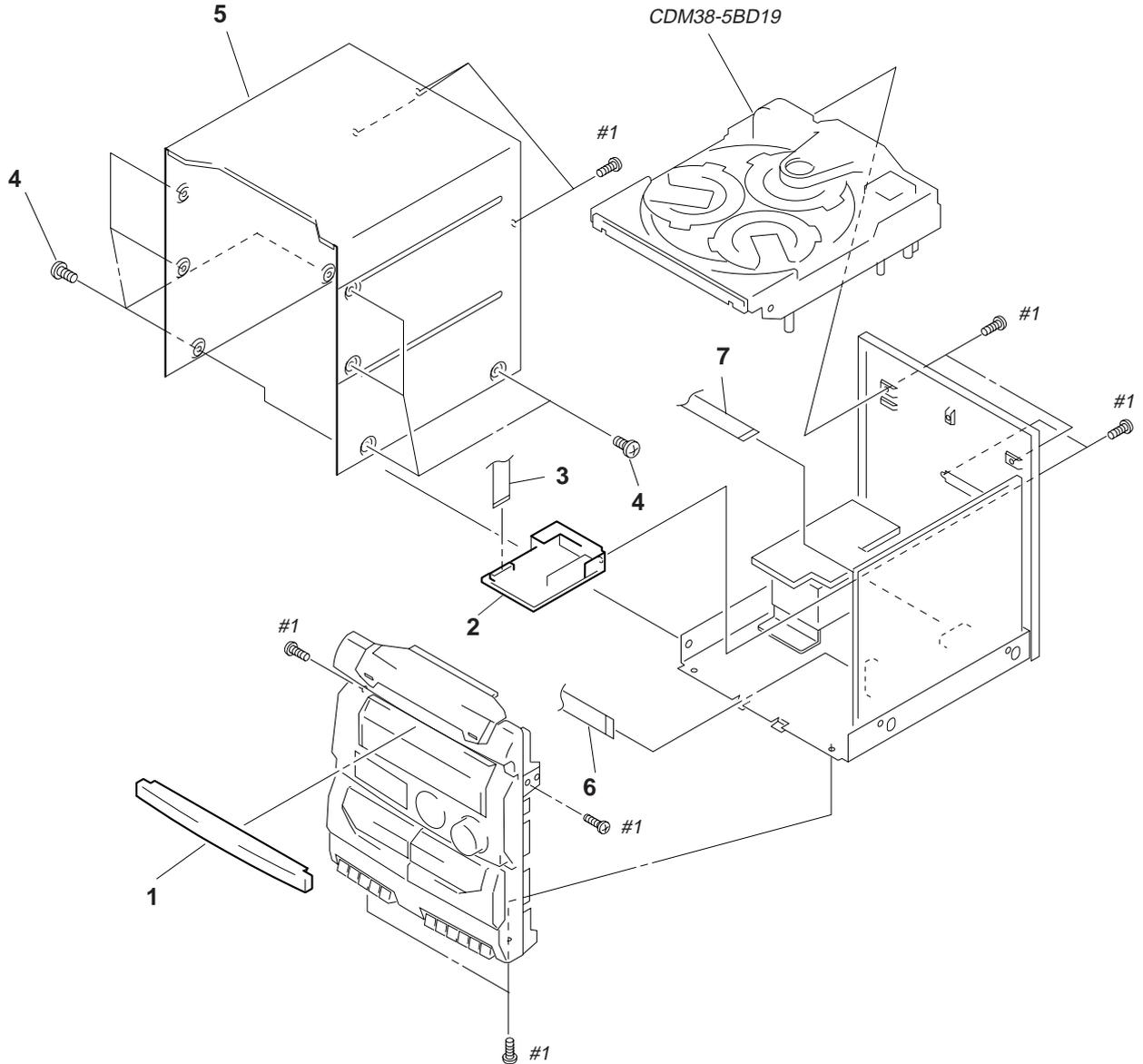
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)
↓ ↓
Parts color Cabinets color
- The mechanical parts with no reference 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
G : German model
EE : East European model
SAF : South African model
MX : Mexican model
AR : Argentine model
AUS : Australian model

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

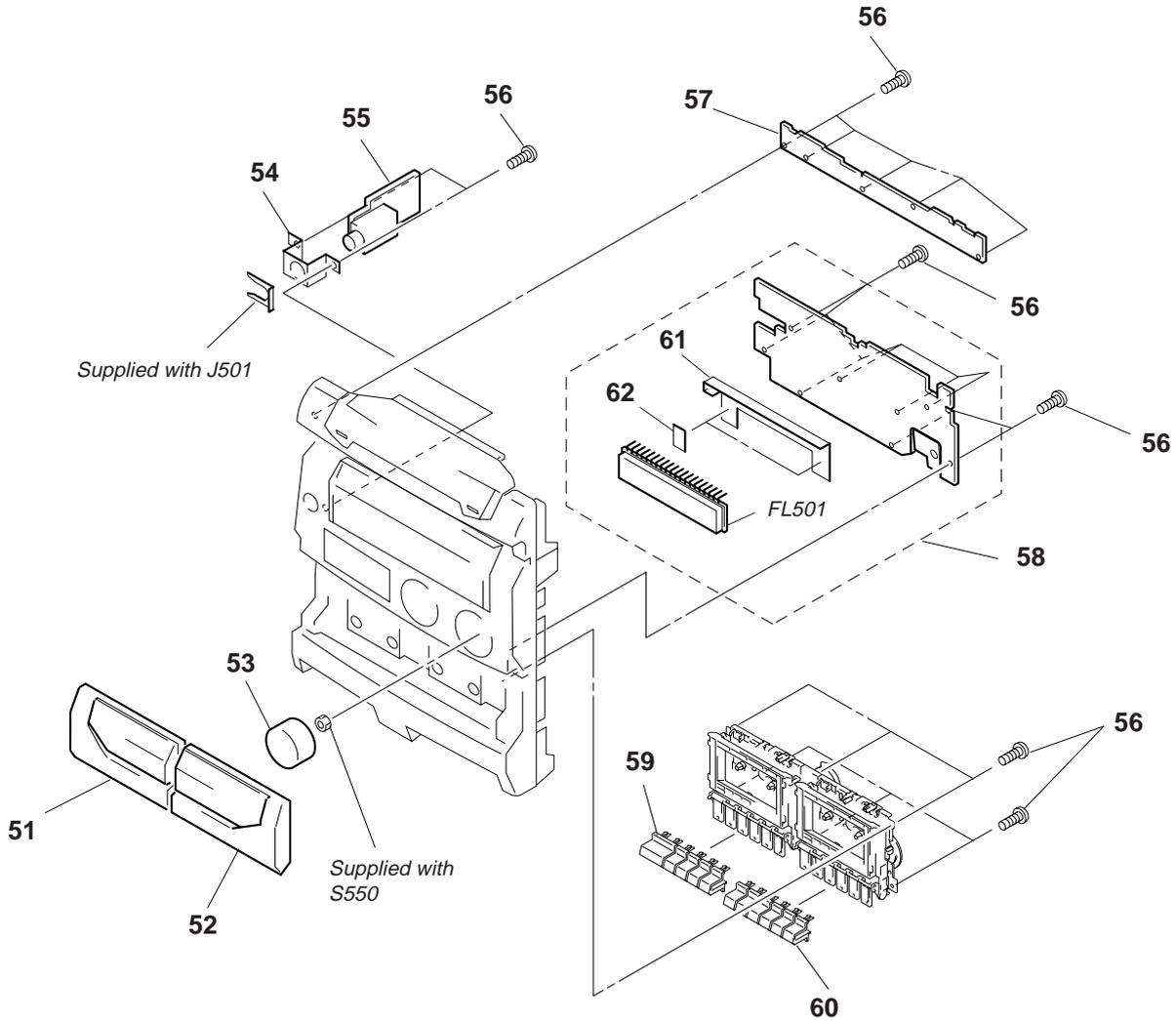
Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE SECTION



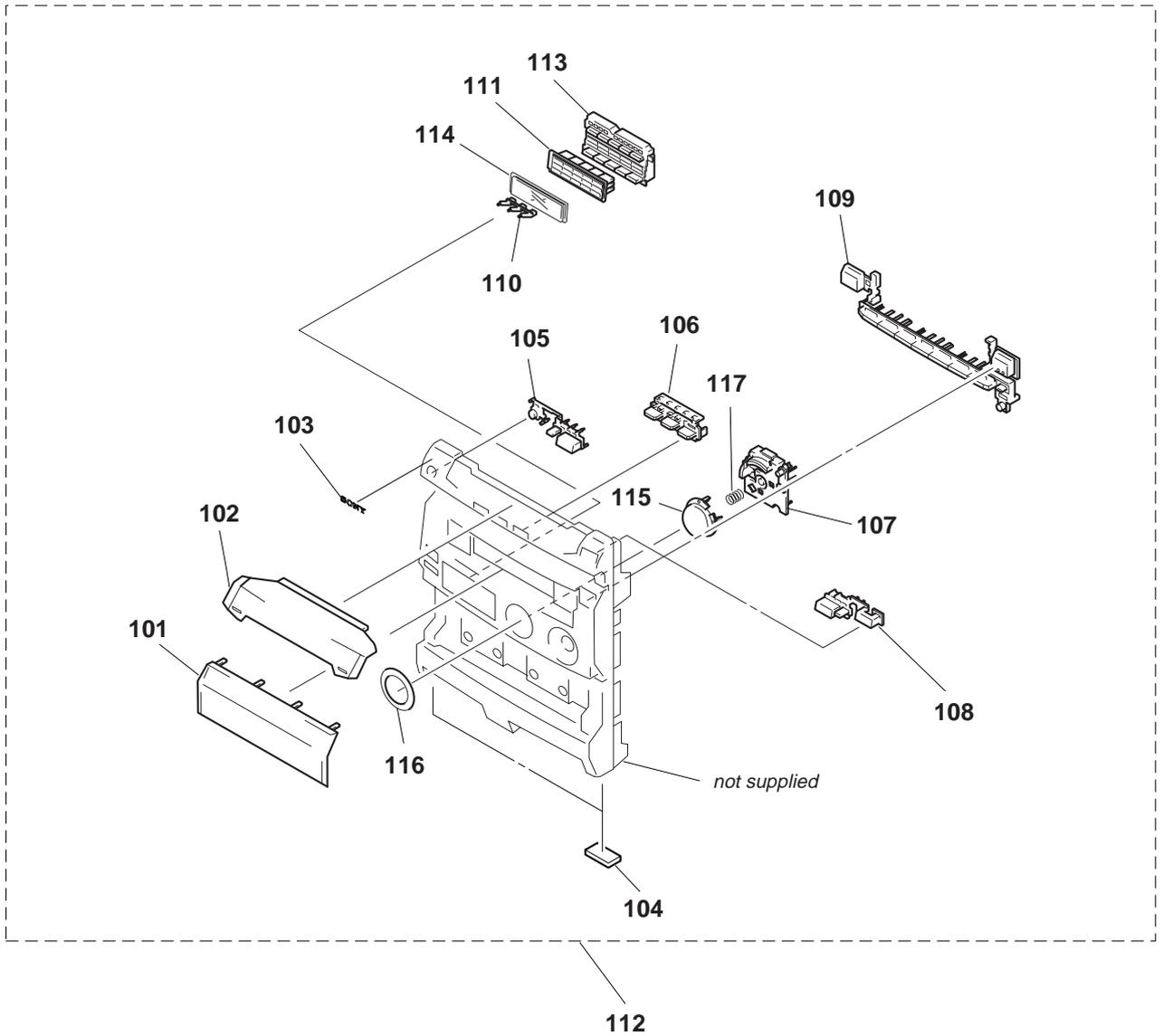
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-988-802-01	PANEL, LOADING (BLACK)(RX30)		3	1-769-977-11	WIRE (FLAT TYPE)(13 CORE)(GR3:SAF)	
1	4-988-802-11	PANEL, LOADING (BLACK)(GR3)		3	1-782-079-11	WIRE (FLAT TYPE)(13 CORE)	
1	4-988-802-21	PANEL, LOADING (SILVER)(GR3)				(GR3:EXCEPT SAF/RX30:US,CND)	
1	4-988-802-31	PANEL, LOADING (SILVER)(RX30)		3	1-782-081-11	WIRE (FLAT TYPE)(15 CORE)	
* 2	A-4303-514-A	TCB BOARD, COMPLETE (AEP, UK)				(RX30:AEP,UK,G,EE)	
* 2	A-4303-515-A	TCB BOARD, COMPLETE (G)		4	3-363-099-01	SCREW (CASE 3 TP2)	
* 2	A-4303-516-A	TCB BOARD, COMPLETE (EE)		* 5	4-978-748-01	CASE (BLACK)	
2	1-233-544-11	ENCAPSULATED COMPONENT (RX30:US,CND)		* 5	4-983-736-01	CASE (SILVER)	
2	1-233-545-11	ENCAPSULATED COMPONENT		6	1-773-020-11	WIRE (FLAT TYPE)(15 CORE)(SAF)	
		(GR3:EXCEPT SAF)		6	1-782-082-11	WIRE (FLAT TYPE)(15 CORE)(EXCEPT SAF)	
2	1-233-546-11	ENCAPSULATED COMPONENT (GR3:SAF)		7	1-776-240-11	WIRE (FLAT TYPE)(19 CORE)	

7-2. FRONT PANEL SECTION 1



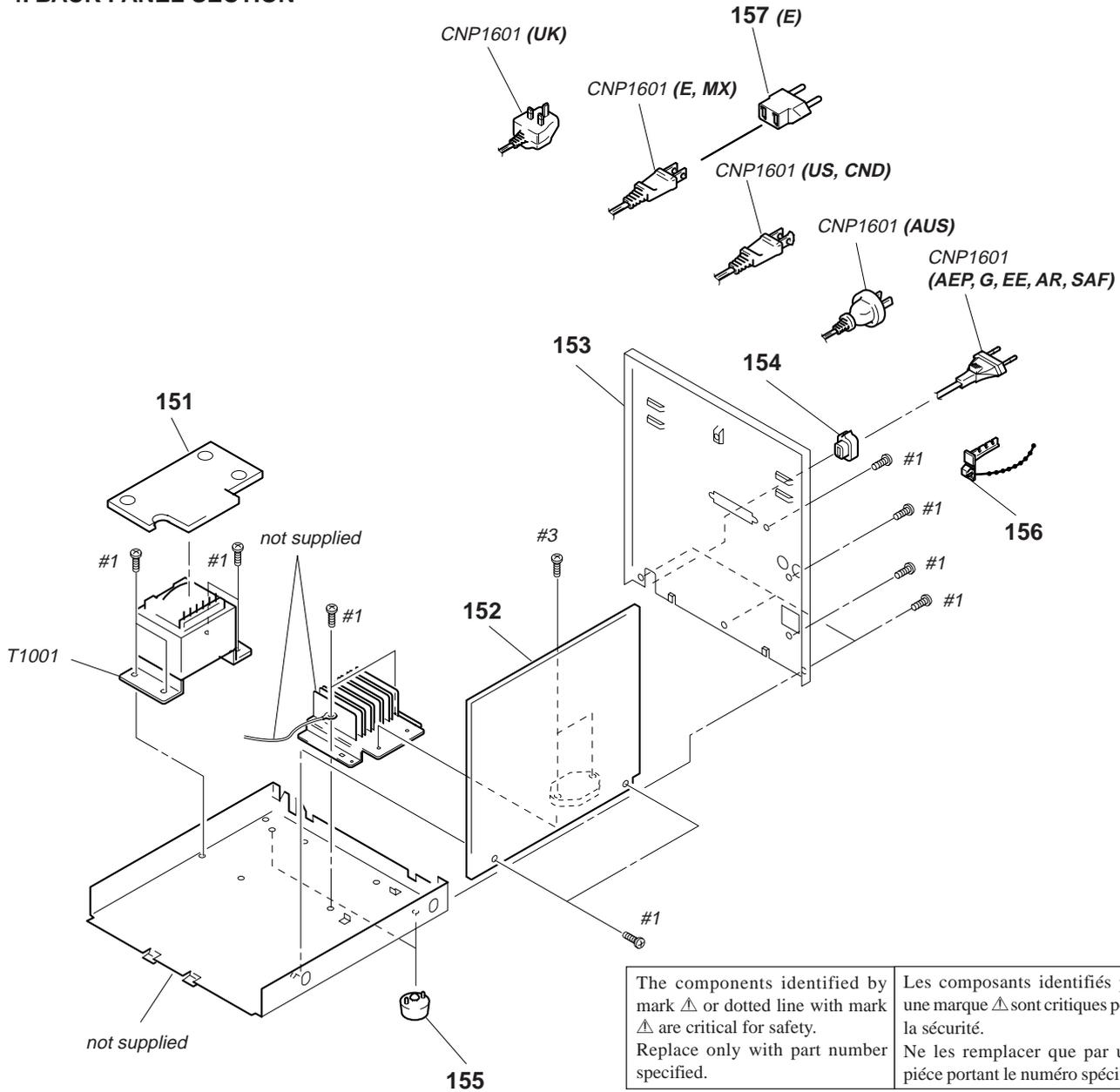
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-4948-140-1	LID (A) ASSY, CASSETTE (SILVER)		* 58	A-4392-601-A	PANEL BOARD, COMPLETE (EXCEPT SAF)	
51	X-4948-247-1	LID (A) ASSY, CASSETTE (BLACK)		* 58	A-4398-500-A	PANEL BOARD, COMPLETE (SAF)	
52	X-4948-141-1	LID (B) ASSY, CASSETTE (SILVER)		59	4-978-826-01	BUTTON (MD-A)(BLACK)	
52	X-4948-248-1	LID (B) ASSY, CASSETTE (BLACK)		59	4-978-826-21	BUTTON (MD-A)(SILVER)	
53	4-991-934-01	KNOB (VOL)(BLACK)		60	4-978-827-01	BUTTON (MD-A)(BLACK)	
53	4-991-934-11	KNOB (VOL)(SILVER)		60	4-978-827-21	BUTTON (MD-B)(SILVER)	
* 54	4-978-830-01	BRACKET, HP		* 61	4-978-168-01	HOLDER, FL TUBE	
* 55	1-664-647-11	HP BOARD		* 62	4-932-810-11	CUSHION (FL)	
56	4-951-620-01	SCREW (2.6X8), +BVTP		FL501	1-517-660-11	INDICATOR TUBE, FLUORESCENT	
* 57	1-664-648-11	CD SW BOARD					

7-3. FRONT PANEL SECTION 2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-978-716-01	WINDOW (FL)		109	X-4948-246-1	BUTTON (T/B) ASSY (SILVER)	
102	4-978-715-01	WINDOW (3-CD)		110	4-978-739-01	INDICATOR (CLIP)	
103	4-962-708-11	EMBLEM (4-A), SONY		111	4-978-742-01	HOLDER (MULTI), LED	
104	4-930-336-61	FOOT (FELT)		112	X-4948-138-1	PANEL ASSY, FRONT (BLACK)	
105	4-978-723-01	BUTTON (POWER)(BLACK)		112	X-4948-242-1	PANEL ASSY, FRONT (SILVER)	
105	4-989-282-01	BUTTON (POWER)(SILVER)		113	4-978-824-21	BUTTON (MULTI)(SILVER)	
106	X-4946-703-1	BUTTON (3-CD) ASSY		113	4-978-824-01	BUTTON (MULTI)(BLACK)	
107	X-4946-716-1	BUTTON (ENTER/NEXT) ASSY (BLACK)		114	4-989-402-11	PLATE (MULTI), ORNAMENTAL (SILVER)	
107	X-4948-252-1	BUTTON (ENTER/NEXT) ASSY (SILVER)		114	4-989-402-01	PLATE (MULTI), ORNAMENTAL (BLACK)	
108	X-4946-698-1	BUTTON (CD-PLAY) ASSY (BLACK)		115	4-978-828-01	KNOB, CURSOR	
108	X-4948-251-1	BUTTON (CD-PLAY) ASSY (SILVER)		116	4-978-858-01	PLATE, CURSOL ORNAMENTAL	
109	X-4948-139-1	BUTTON (T/B) ASSY (BLACK)		117	4-958-595-01	SPRING, COMPRESSION	

7-4. BACK PANEL SECTION

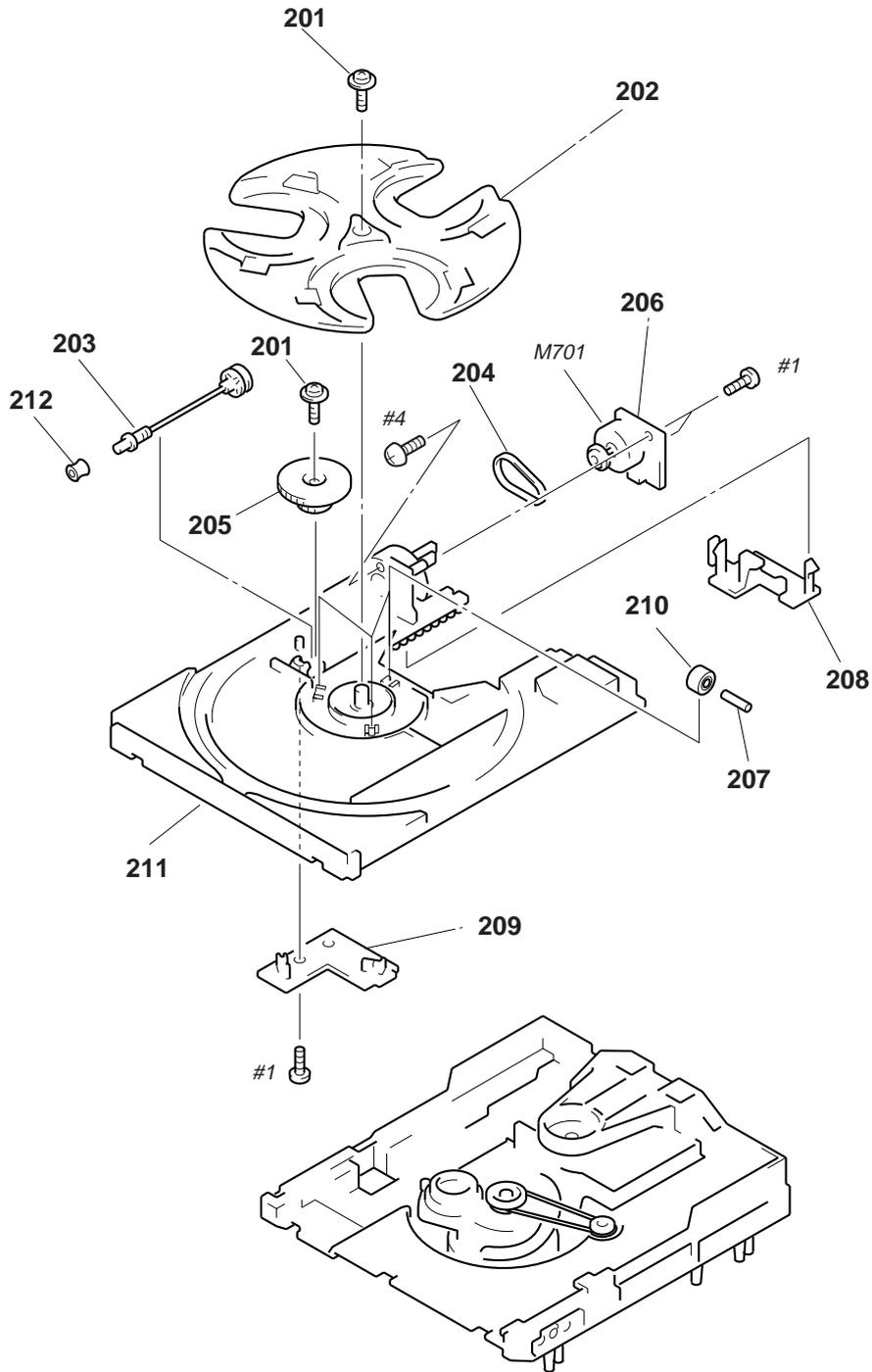


The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

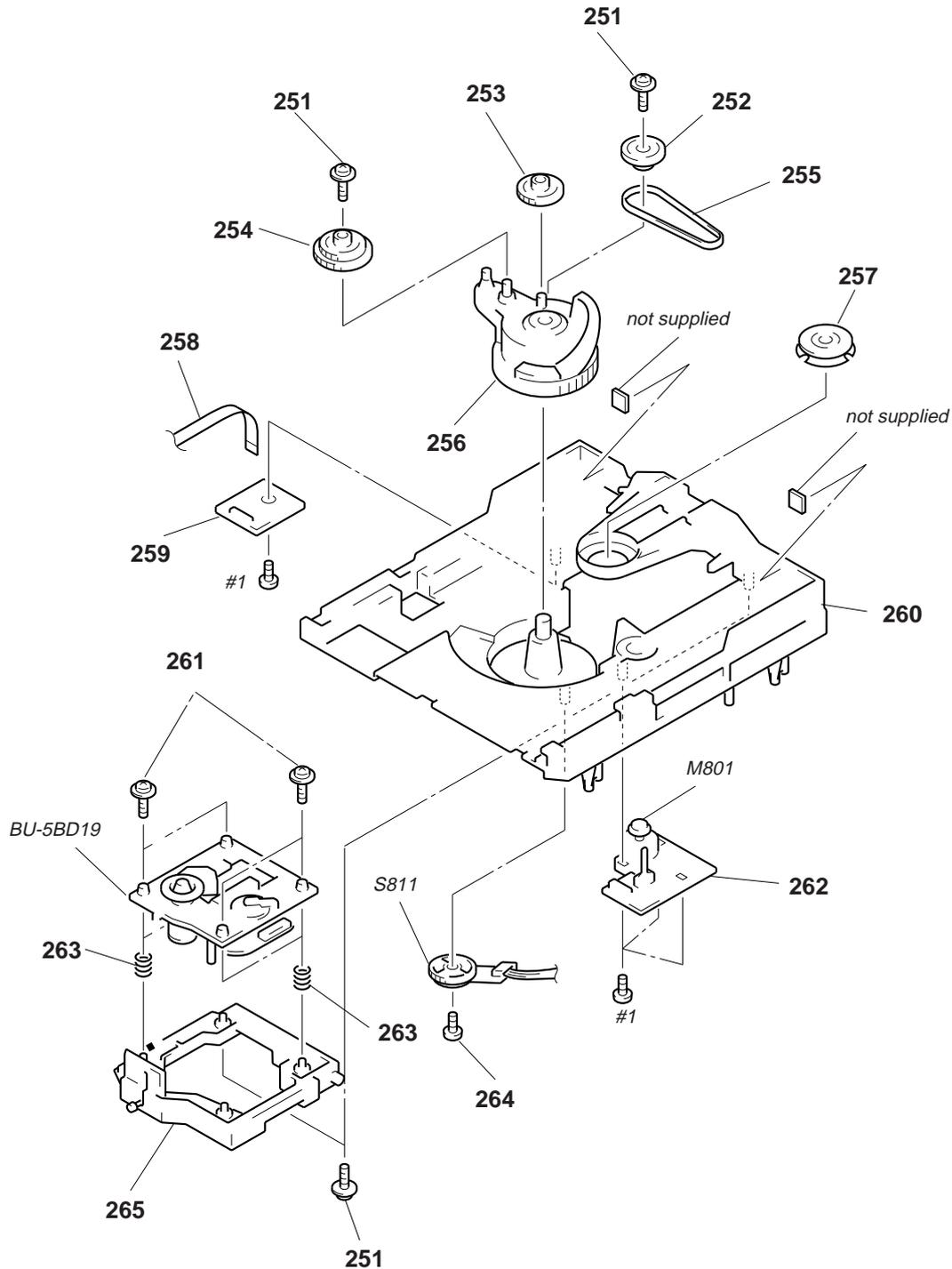
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	1-664-649-11	TRANSFORMER BOARD		* 153	4-988-811-31	PANEL, BACK (RX30:EE)	
* 152	A-4392-597-A	MAIN BOARD, COMPLETE (GR3:E,MX,AR)		* 153	4-988-804-41	PANEL, BACK (GR3:SAF)	
* 152	A-4398-503-A	MAIN BOARD, COMPLETE (GR3:SAF)		* 154	3-703-244-00	BUSHING (2104), CORD (EXCEPT E, MX)	
* 152	A-4392-605-A	MAIN BOARD, COMPLETE (RX30:US,CND)		154	3-703-571-11	BUSHING (S)(4516), CORD (E, MX)	
* 152	A-4392-614-A	MAIN BOARD, COMPLETE (RX30:AEP,UK)		155	4-965-822-01	FOOT	
* 152	A-4392-618-A	MAIN BOARD, COMPLETE (RX30:G)		156	4-956-370-12	BAND, PLUG FIXED (GR3:AUS/RX30:UK)	
* 152	A-4392-621-A	MAIN BOARD, COMPLETE (GR3:AUS)		Δ 157	1-569-007-11	ADAPTOR, CONVERSION (E)	
* 152	A-4392-764-A	MAIN BOARD, COMPLETE (RX30:EE)		Δ CNP1601	1-782-315-11	CORD, POWER (E, MX)	
* 153	4-988-804-01	PANEL, BACK (GR3:E)		Δ CNP1601	1-690-608-11	CORD, POWER (AUS)	
* 153	4-988-804-11	PANEL, BACK (GR3:AUS)		Δ CNP1601	1-690-609-21	CORD, POWER (CND)	
* 153	4-988-804-21	PANEL, BACK (GR3:MX)		Δ CNP1601	1-777-070-11	CORD, POWER (US)	
* 153	4-988-804-31	PANEL, BACK (GR3:AR)		Δ CNP1601	1-777-071-11	CORD, POWER (AEP, G, EE, AR)	
* 153	4-988-810-01	PANEL, BACK (RX30:US)		Δ CNP1601	1-575-651-11	CORD, POWER (SAF)	
* 153	4-988-810-11	PANEL, BACK (RX30:CND)		Δ CNP1601	1-777-512-11	CORD, POWER (UK)	
* 153	4-988-811-01	PANEL, BACK (RX30:AEP)		Δ T1001	1-431-127-11	TRANSFORMER, POWER (GR3)	
* 153	4-988-811-11	PANEL, BACK (RX30:G)		Δ T1001	1-431-128-11	TRANSFORMER, POWER (RX30:US,CND)	
* 153	4-988-811-21	PANEL, BACK (RX30:UK)		Δ T1001	1-431-129-11	TRANSFORMER, POWER (RX30:AEP,UK,G,EE)	

7-5. CD MECHANISM SECTION 1 (CDM38-5BD19)



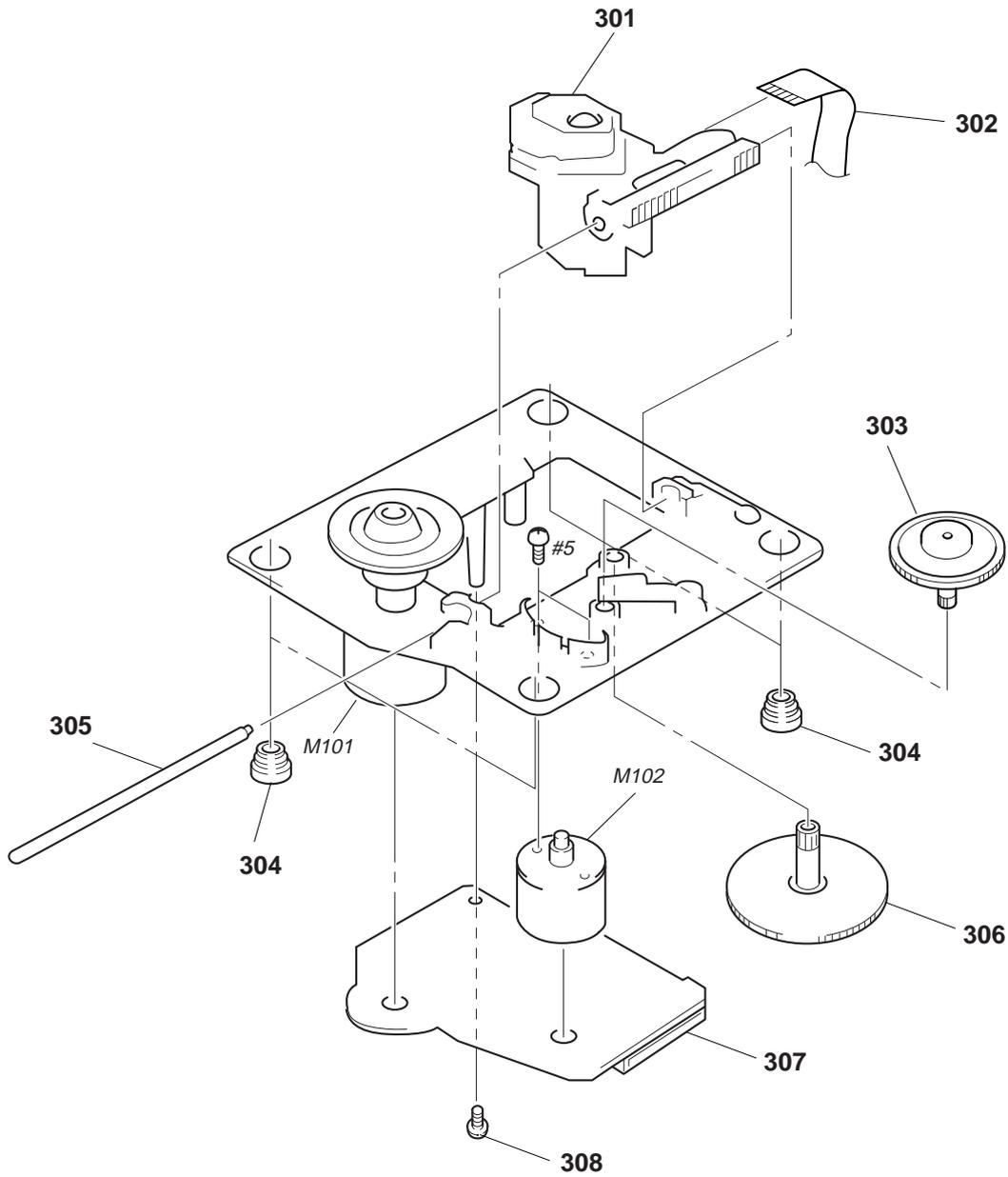
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-917-583-21	BRACKET, YOKE		208	4-977-941-01	BEARING (WORM)	
202	4-977-945-01	TRAY (TURN)		* 209	1-658-576-11	SENSOR BOARD	
203	X-4946-665-1	SHAFT ASSY, WORM		210	4-934-376-01	SHAFT (ROLLER)	
204	4-977-943-01	BELT (TURN) (1.2)		211	4-977-944-01	TRAY (SLIDE)	
205	4-977-956-01	WHEEL, WORM		212	4-981-187-01	COLLAR (WORM)	
* 206	1-658-577-11	MOTOR (TURN) BOARD		M701	A-4672-004-A	MOTOR ASSY (TURN)	
207	X-4924-457-1	ROLLER ASSY					

7-6. CD MECHANISM SECTION 2 (CDM38-5BD19)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-917-583-71	BRACKET, YOKE		* 260	X-4946-668-1	CHASSIS (CDM) ASSY	
252	4-977-954-01	PULLEY (SL)		261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
253	4-977-953-01	GEAR (SL-A)		* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
254	4-977-955-01	GEAR (SL-B)		263	4-982-447-01	SPRING (BU), COMPRESSION	
255	4-977-942-01	BELT (SL) (1.4)		264	4-951-620-41	SCREW (2.6), +BVTP	
256	X-4946-667-1	CAM ASSY, BU		* 265	X-4946-666-1	HOLDER (BU) ASSY	
257	1-452-538-11	MAGNET		M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)		S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
* 259	1-658-575-11	CONNECTOR BOARD					

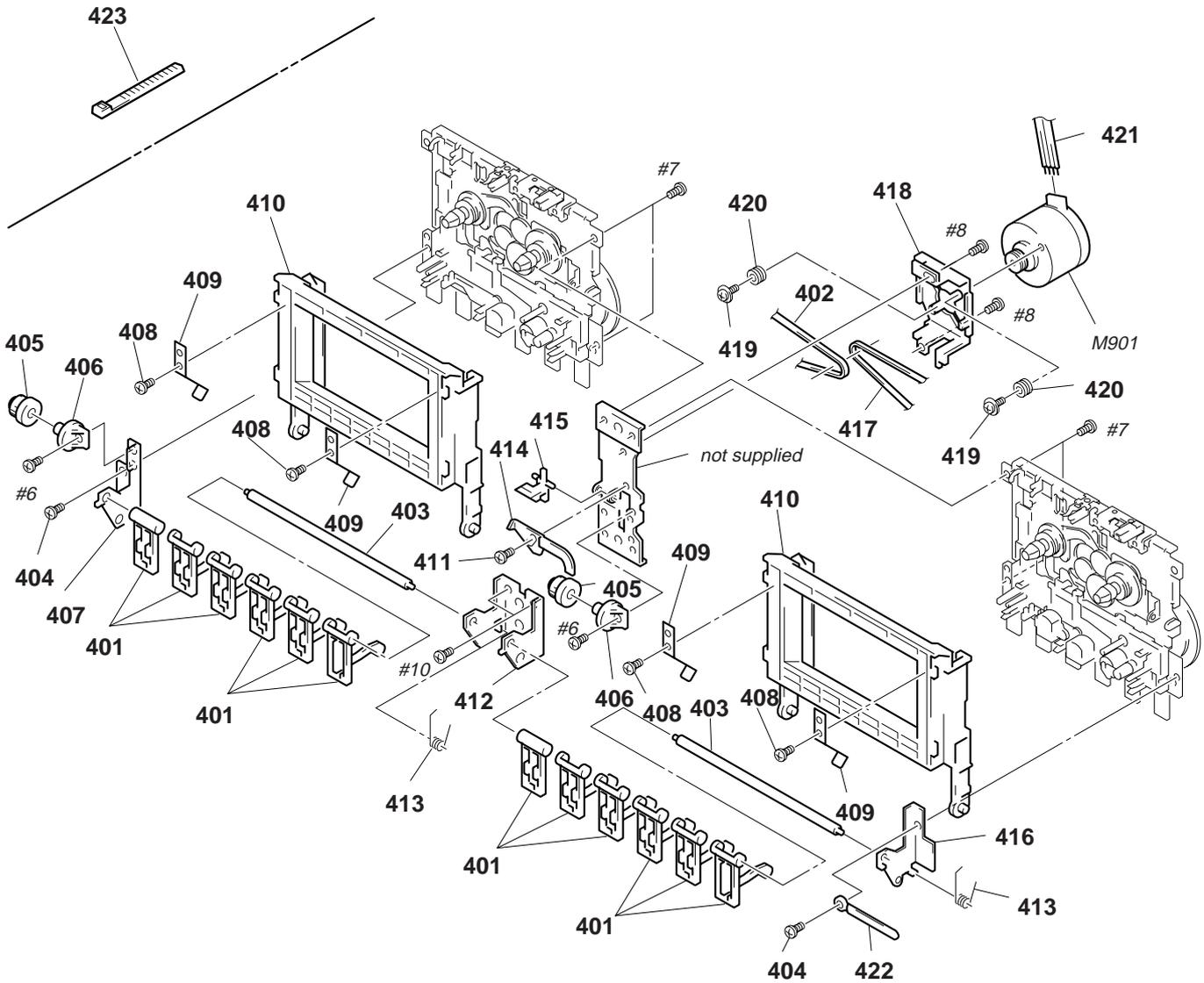
7-7. BASE UNIT SECTION (BU-5BD19)



<p>The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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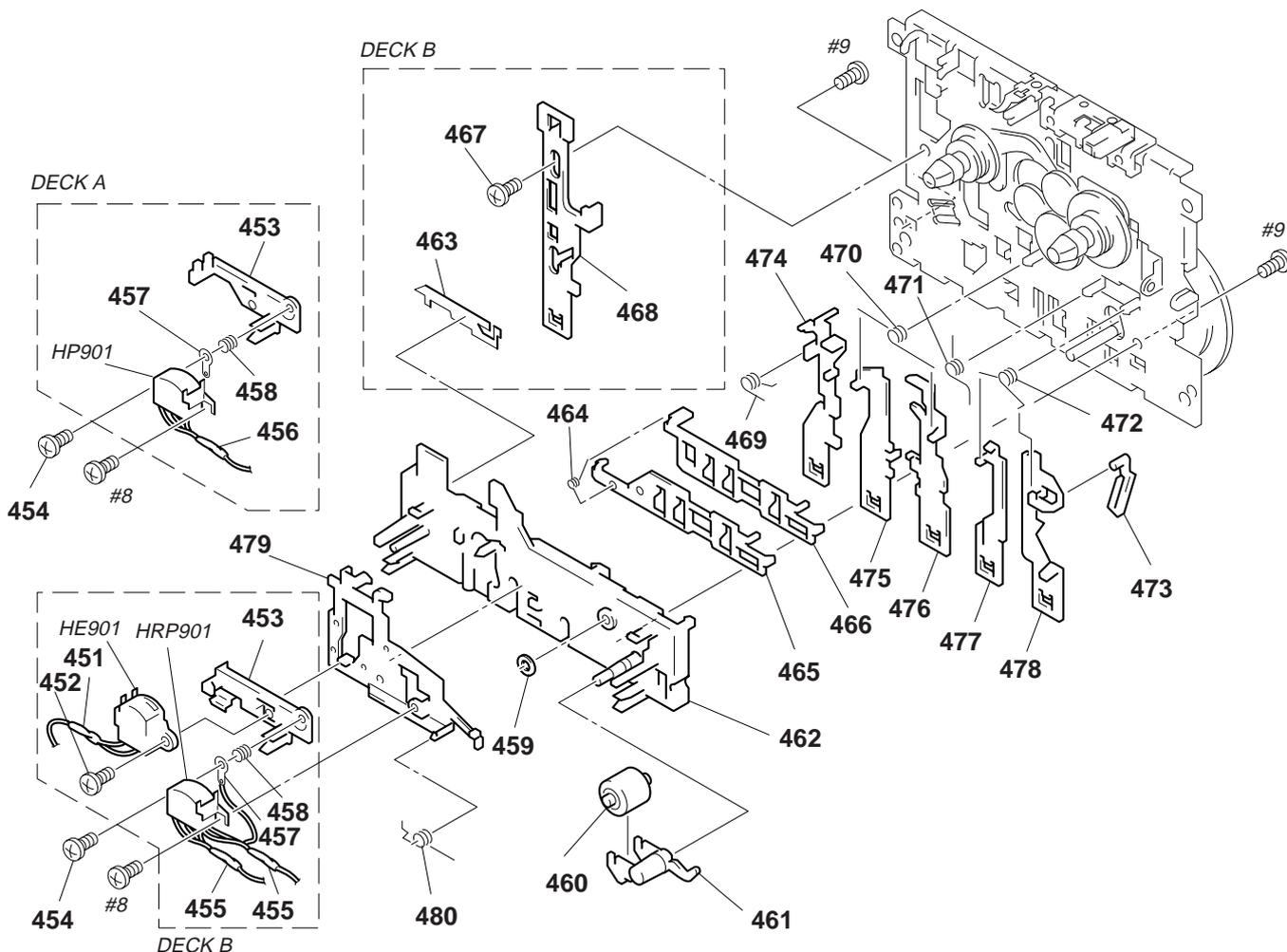
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
\triangle 301	8-848-367-11	OPTICAL PICK-UP KSS-213B/K-N		306	4-917-564-01	GEAR (P), FLATNESS	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		* 307	A-4673-402-A	BD BOARD, COMPLETE	
303	4-917-567-01	GEAR (M)		308	4-951-620-01	SCREW (2.6X8), +BVTP	
304	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
305	4-917-565-01	SHAFT, SLED		M102	X-4917-504-1	MOTOR ASSY (SLED)	

7-8. TC MECHANISM SECTION 1 (TCM-YSW47C24)



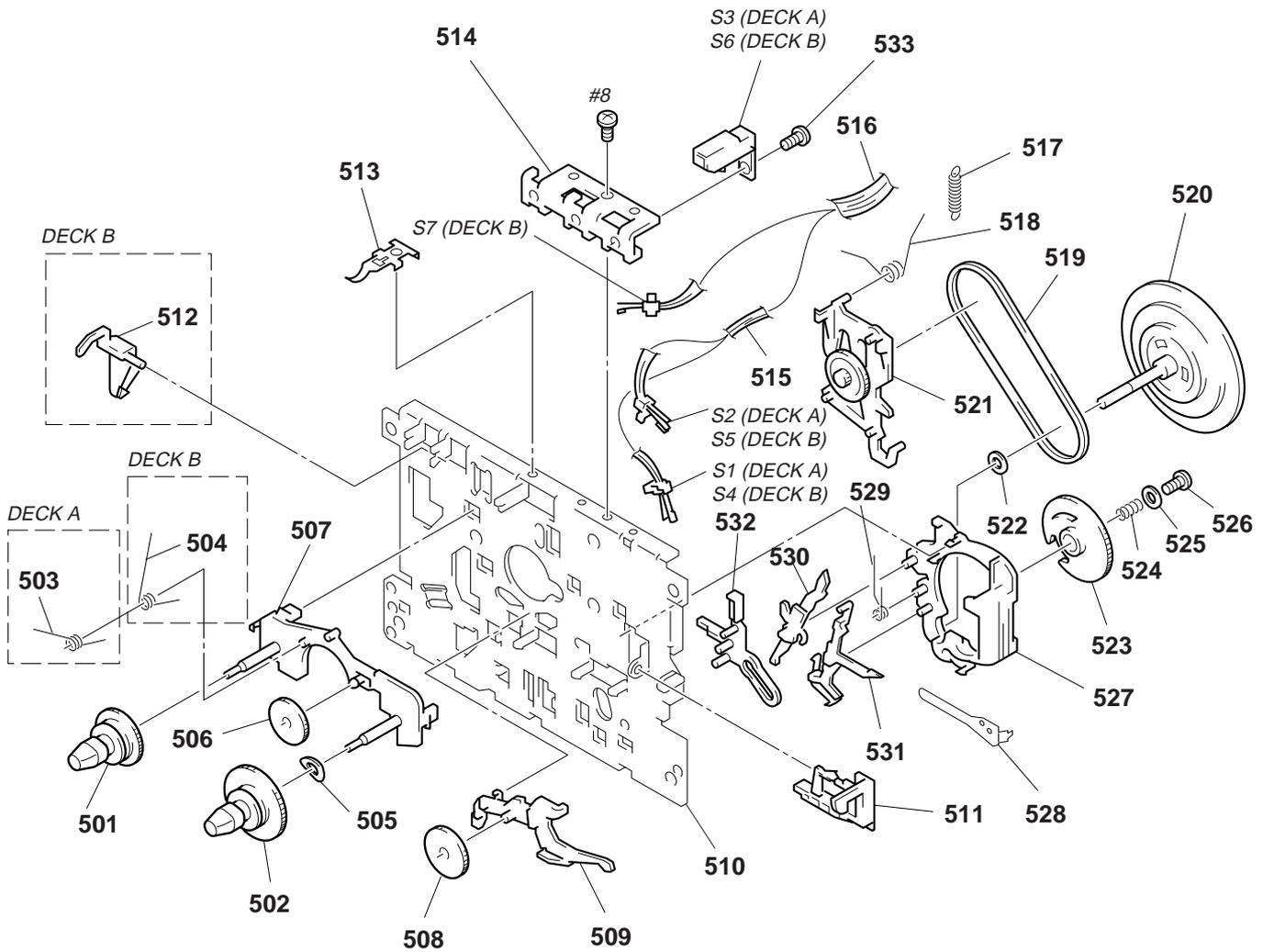
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	3-931-802-01	BUTTON, LEVER		413	3-931-805-01	SPRING	
402	3-918-734-01	BELT		* 414	3-369-927-01	ARM, CONNECT	
* 403	3-931-794-01	BUTTON, SHAFT		415	3-369-928-01	ARM, RELEASE	
404	3-918-741-01	SCREW					
405	3-931-807-01	DAMPER, GEAR		* 416	3-931-792-01	BUTTON (R), HOLDER	
406	3-931-806-01	GEAR, HOLDER		417	3-369-931-01	BELT	
* 407	3-931-793-01	BUTTON (L), HOLDER		* 418	3-918-742-01	HOLDER, MOTOR	
408	3-931-790-01	SCREW		419	3-343-896-01	SCREW, MOTOR	
* 409	3-931-804-01	PLATE, KEEP		420	3-343-897-01	WASHER, RUBBER	
410	3-931-803-01	CASE, CASSETTE					
411	3-931-791-01	SCREW		421	3-937-331-01	MOTOR, WIRE	
412	3-931-809-01	BUTTON (S), HOLDER		* 422	3-931-808-01	LUG, PLATE	
				423	3-701-748-00	CLAMP	
				M901	X-3372-231-1	MOTOR ASSY (REEL/CAPSTAN)	

7-9. TC MECHANISM SECTION 2 (TCM-YSW47C24)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
451	1-500-322-11	HEAD, WIRE (E)		467	3-362-958-01	SCREW	
452	3-931-789-01	SCREW		* 468	3-362-947-01	LEVER, REC	
453	1-500-319-11	HEAD, HOLDER (DECK B)		469	3-362-954-01	SPRING	
453	3-362-986-01	HOLDER, HEAD (DECK A)		470	3-362-955-01	SPRING	
454	3-363-229-01	SCREW		471	3-362-956-01	SPRING	
455	1-500-320-11	HEAD, WIRE R/P (DECK B)		472	3-932-552-01	SPRING	
456	1-500-321-11	HEAD, WIRE P.B (DECK A)		473	3-362-953-01	ARM, PAUSE	
457	3-390-817-01	LUG		* 474	3-362-948-01	LEVER, PLAY	
458	3-362-985-01	SPRING		* 475	3-362-949-01	LEVER, REW	
459	3-362-980-01	WASHER		* 476	3-362-950-01	LEVER, FF	
460	3-362-982-01	PINCH ROLLER		* 477	3-362-951-01	LEVER, SE	
461	3-362-981-01	PINCH ARM		* 478	3-362-952-01	LEVER, PAUSE	
462	3-362-942-01	FRAME ASSY		* 479	3-362-984-01	HEAD (BASE)	
463	3-362-944-01	STOPPER, REC		480	3-362-983-01	SPRING	
464	3-362-945-01	SPRING		HE901	1-500-318-11	HEAD, E (ERASE)(DECK B)	
* 465	3-362-943-01	PLATE, FUNCTION		HP901	1-543-424-21	HEAD (PLAYBACK)(DECK A)	
* 466	3-362-946-01	LEVER, SW		HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK)(DECK B)	

7-10. TC MECHANISM SECTION 3 (TCM-YSW47C24)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
501	X-3363-611-1	REEL, S		521	3-362-969-01	IDLER ASSY, PF	
502	3-362-962-01	REEL ASSY, T		522	3-918-736-01	WASHER	
503	3-372-120-01	SPRING		523	X-3363-315-1	GEAR, CAM	
504	3-918-735-01	SPRING		524	3-369-962-01	SPRING, COMPRESSION	
505	3-932-553-01	PLATE SPRING BT		525	3-369-961-01	WASHER	
506	3-362-965-01	IDLER, FF		526	3-366-352-01	SCREW	
507	3-362-961-01	SPINDLE (BASE)		527	3-362-973-01	AS (BASE)	
508	3-362-960-01	PULLEY, IDLER		528	3-362-978-01	SPRING, PLATE	
509	3-362-959-01	ARM, IDLER		529	3-362-977-01	SPRING	
* 510	3-362-941-01	CHASSIS		530	3-362-976-01	LEVER, CONTROL	
511	3-362-968-01	LEVER, EJECT		531	3-362-975-01	LEVER, SENSOR	
512	3-362-966-01	INTER LOCK		532	3-387-697-01	SENSOR	
513	3-918-744-01	SPRING, CASSETTE		533	3-918-741-01	SCREW	
514	1-762-610-11	SWITCH, PLATE		S1	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK A)	
515	1-762-613-11	SWITCH, WIRE LEAF		S2	1-571-745-11	SWITCH, LEAF (PLAY)(DECK A)	
516	1-762-612-11	SWITCH, WIRE LEAF		S3	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK A)	
517	3-362-971-01	SPRING		S4	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK B)	
518	3-362-970-01	SPRING		S5	1-571-745-11	SWITCH, LEAF (PLAY)(DECK B)	
519	3-918-734-01	BELT		S6	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK B)	
520	3-369-921-01	FW ASSY		S7	1-571-556-11	SWITCH, LEAF (REC)(DECK B)	

SECTION 8 ELECTRICAL PARTS LIST

BD

Note:

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
EE : East European model
MX : Mexican model
AR : Argentine model
AUS : Australian model
SAF : South African model
G : German model

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark
*	A-4673-402-A	BD BOARD, COMPLETE *****							
		< CAPACITOR >							
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V				
C102	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V				
C103	1-164-346-11	CERAMIC CHIP	1uF		16V				
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C106	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V				
C107	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V				
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V				
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V				
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V				
C111	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C113	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V				
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V				
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V				
C116	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V				
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V				
C118	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V				
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C120	1-135-201-11	TANTALUM CHIP	10uF	20%	4V				
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V				
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V				
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V				
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C127	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V				
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V				
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V				
C131	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C132	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V				
C133	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V				
C134	1-164-346-11	CERAMIC CHIP	1uF		16V				
C135	1-163-251-11	CERAMIC CHIP	100PF	5%	50V				
C136	1-164-005-11	CERAMIC CHIP	0.47uF		25V				
C137	1-164-232-11	CERAMIC CHIP	0.01uF		50V				
C139	1-163-235-11	CERAMIC CHIP	22PF	5%	50V				
C140	1-163-235-11	CERAMIC CHIP	22PF	5%	50V				
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C142	1-163-038-91	CERAMIC CHIP	0.1uF		25V				
C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4V				
C146	1-135-201-11	TANTALUM CHIP	10uF	20%	4V				
C147	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V				
C148	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V				
C149	1-164-346-11	CERAMIC CHIP	1uF		16V				
C153	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V				
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V				
		< CONNECTOR >							
CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P							
CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P							
		< IC >							
IC101	8-752-069-56	IC CXA1782BQ							
IC102	8-759-291-06	IC BA6397FP							
IC103	8-752-372-94	IC CXD2507AQ							
IC104	8-759-185-29	IC PCM1710U-B							
		< MOTOR >							
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)							
M102	X-4917-504-1	MOTOR ASSY (SLED)							
		< TRANSISTOR >							
Q101	8-729-010-08	TRANSISTOR MSB710-R							
Q102	8-729-424-08	TRANSISTOR UN2111							
Q103	8-729-421-22	TRANSISTOR UN2211							
		< RESISTOR >							
R102	1-216-001-00	METAL CHIP	10	5%	1/10W				
R103	1-216-049-91	METAL GLAZE	1K	5%	1/10W				
R104	1-216-097-91	METAL GLAZE	100K	5%	1/10W				
R105	1-216-093-00	METAL CHIP	68K	5%	1/10W				
R106	1-216-093-00	METAL CHIP	68K	5%	1/10W				
R107	1-216-093-00	METAL CHIP	68K	5%	1/10W				
R108	1-216-093-00	METAL CHIP	68K	5%	1/10W				
R109	1-216-097-91	METAL GLAZE	100K	5%	1/10W				
R112	1-216-083-00	METAL CHIP	27K	5%	1/10W				
R113	1-216-083-00	METAL CHIP	27K	5%	1/10W				
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W				
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W				
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W				
R117	1-216-069-00	METAL CHIP	6.8K	5%	1/10W				
R118	1-216-049-91	METAL GLAZE	1K	5%	1/10W				
R119	1-216-089-91	METAL GLAZE	47K	5%	1/10W				
R120	1-216-089-91	METAL GLAZE	47K	5%	1/10W				
R121	1-216-114-00	METAL GLAZE	510K	5%	1/10W				
R122	1-216-097-91	METAL GLAZE	100K	5%	1/10W				
R123	1-216-099-00	METAL CHIP	120K	5%	1/10W				

BD	CD SW	CONNECTOR	HP
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Ref. No.	Part No.	Description	Remark
R124	1-216-091-00	METAL CHIP 56K 5%	1/10W
R125	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R126	1-216-063-91	METAL GLAZE 3.9K 5%	1/10W
R127	1-216-089-91	METAL GLAZE 47K 5%	1/10W
R128	1-216-105-91	METAL GLAZE 220K 5%	1/10W
R129	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R130	1-216-079-00	METAL CHIP 18K 5%	1/10W
R131	1-216-079-00	METAL CHIP 18K 5%	1/10W
R132	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R133	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R134	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R135	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R136	1-216-073-00	METAL CHIP 10K 5%	1/10W
R137	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R138	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R139	1-216-033-00	METAL CHIP 220 5%	1/10W
R140	1-216-081-00	METAL CHIP 22K 5%	1/10W
R141	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R142	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R143	1-216-121-91	METAL GLAZE 1M 5%	1/10W
R144	1-216-073-00	METAL CHIP 10K 5%	1/10W
R145	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R146	1-216-097-91	METAL GLAZE 100K 5%	1/10W
R147	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R148	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R149	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R150	1-216-037-00	METAL CHIP 330 5%	1/10W
R151	1-216-037-00	METAL CHIP 330 5%	1/10W
R152	1-216-037-00	METAL CHIP 330 5%	1/10W
R153	1-216-082-00	METAL GLAZE 24K 5%	1/10W
R154	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R156	1-216-085-00	METAL CHIP 33K 5%	1/10W
R157	1-216-069-00	METAL CHIP 6.8K 5%	1/10W
R158	1-216-001-00	METAL CHIP 10 5%	1/10W
< VARIABLE RESISTOR >			
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
< VIBRATOR >			
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)	

*	1-664-648-11	CD SW BOARD *****	
< DIODE >			
D551	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)	
D552	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)	
D553	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)	
D554	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)	
D555	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)	
D556	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)	

Ref. No.	Part No.	Description	Remark
D583	8-719-056-13	DIODE SML79423C-TP15 (▷▯▯)	
< RESISTOR >			
R501	1-249-401-11	CARBON 47 5%	1/4W F
R502	1-249-403-11	CARBON 68 5%	1/4W F
R503	1-247-807-31	CARBON 100 5%	1/4W
R504	1-249-407-11	CARBON 150 5%	1/4W F
R505	1-249-407-11	CARBON 150 5%	1/4W F
R506	1-249-409-11	CARBON 220 5%	1/4W F
R507	1-249-411-11	CARBON 330 5%	1/4W
R508	1-249-413-11	CARBON 470 5%	1/4W F
R551	1-249-403-11	CARBON 68 5%	1/4W F
R552	1-249-403-11	CARBON 68 5%	1/4W F
R553	1-249-403-11	CARBON 68 5%	1/4W F
R554	1-249-403-11	CARBON 68 5%	1/4W F
R555	1-249-403-11	CARBON 68 5%	1/4W F
R556	1-249-403-11	CARBON 68 5%	1/4W F
R583	1-249-403-11	CARBON 68 5%	1/4W F
R584	1-249-403-11	CARBON 68 5%	1/4W F
< SWITCH >			
S500	1-762-196-21	SWITCH, TACT (POWER)	
S501	1-762-196-21	SWITCH, TACT (LOOP)	
S502	1-762-196-21	SWITCH, TACT (DISC SKIP, EX-CHANGE)	
S503	1-762-196-21	SWITCH, TACT (DISC 1)	
S504	1-762-196-21	SWITCH, TACT (DISC 2)	
S505	1-762-196-21	SWITCH, TACT (DISC 3)	
S506	1-762-196-21	SWITCH, TACT (≡ OPEN/CLOSE)	
S507	1-762-196-21	SWITCH, TACT (■)	
S508	1-762-196-21	SWITCH, TACT (▷▯▯)	

*	1-658-575-11	CONNECTOR BOARD *****	
< CONNECTOR >			
* CN701	1-568-946-11	PIN, CONNECTOR 8P	
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P	
< TRANSISTOR >			
Q701	8-729-900-80	TRANSISTOR DTC114ES	
< RESISTOR >			
R703	1-249-435-11	CARBON 33K 5%	1/4W
R704	1-249-429-11	CARBON 10K 5%	1/4W
R705	1-249-417-11	CARBON 1K 5%	1/4W F

*	1-664-647-11	HP BOARD *****	
< CAPACITOR >			
C519	1-162-294-31	CERAMIC 0.001uF 10%	50V
C520	1-162-294-31	CERAMIC 0.001uF 10%	50V
C521	1-162-294-31	CERAMIC 0.001uF 10%	50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CONNECTOR >		C335	1-162-286-31	CERAMIC	220PF 10% 50V
CN503	1-506-468-11	PIN, CONNECTOR 3P		C336	1-162-286-31	CERAMIC	220PF 10% 50V
		< JACK >		C340	1-126-961-11	ELECT	2.2uF 20% 50V
J501	1-770-226-11	JACK (LARGE TYPE)(PHONES)		C351	1-130-478-00	MYLAR	0.0039uF 5% 50V
		*****		C352	1-130-478-00	MYLAR	0.0039uF 5% 50V
*	A-4392-597-A	MAIN BOARD, COMPLETE (GR3:E,MX,AR)	*****	C353	1-162-305-11	CERAMIC	0.0068uF 30% 16V
*	A-4392-605-A	MAIN BOARD, COMPLETE (RX30:US,CND)	*****	C354	1-130-482-00	MYLAR	0.0082uF 5% 50V
*	A-4392-614-A	MAIN BOARD, COMPLETE (RX30:AEP,UK)	*****	C355	1-126-961-11	ELECT	2.2uF 20% 50V
*	A-4392-618-A	MAIN BOARD, COMPLETE (RX30:G)	*****	C356	1-130-487-00	MYLAR	0.022uF 5% 50V
*	A-4392-621-A	MAIN BOARD, COMPLETE (GR3:AUS)	*****	C357	1-126-934-11	ELECT	220uF 20% 16V
*	A-4392-764-A	MAIN BOARD, COMPLETE (RX30:EE)	*****	C360	1-130-848-00	FILM	0.0082uF 5% 100V
*	A-4398-503-A	MAIN BOARD, COMPLETE (GR3:SAF)	*****	C381	1-126-933-11	ELECT	100uF 20% 16V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		C382	1-126-933-11	ELECT	100uF 20% 16V
		< CAPACITOR >		C383	1-126-933-11	ELECT	100uF 20% 16V
C201	1-126-961-11	ELECT	2.2uF 20% 50V	C384	1-126-933-11	ELECT	100uF 20% 16V
C202	1-162-600-11	CERAMIC	0.0047uF 30% 16V	C385	1-126-964-11	ELECT	10uF 20% 50V
C203	1-126-925-11	ELECT	470uF 20% 10V	C386	1-126-964-11	ELECT	10uF 20% 50V
C204	1-162-282-31	CERAMIC	100PF 10% 50V	C388	1-126-934-11	ELECT	220uF 20% 16V
C205	1-162-282-31	CERAMIC	100PF 10% 50V	C389	1-162-306-11	CERAMIC	0.01uF 20% 16V
C251	1-126-961-11	ELECT	2.2uF 20% 50V	C390	1-162-282-31	CERAMIC	100PF 10% 50V
C252	1-162-600-11	CERAMIC	0.0047uF 30% 16V	C391	1-126-934-11	ELECT	220uF 20% 16V
C300	1-162-282-31	CERAMIC	100PF 10% 50V	C392	1-126-934-11	ELECT	220uF 20% 16V
C301	1-162-290-31	CERAMIC	470PF 10% 50V	C400	1-162-282-31	CERAMIC	100PF 10% 50V
C302	1-136-157-00	FILM	0.022uF 5% 50V	C401	1-162-290-31	CERAMIC	470PF 10% 50V
C303	1-126-964-11	ELECT	10uF 20% 50V	C402	1-136-157-00	FILM	0.022uF 5% 50V
C304	1-162-292-31	CERAMIC	680PF 10% 50V	C403	1-126-964-11	ELECT	10uF 20% 50V
C310	1-162-282-31	CERAMIC	100PF 10% 50V	C404	1-162-292-31	CERAMIC	680PF 10% 50V
C311	1-162-289-31	CERAMIC	390PF 10% 50V	C410	1-162-282-31	CERAMIC	100PF 10% 50V
C312	1-136-157-00	FILM	0.022uF 5% 50V	C411	1-162-289-31	CERAMIC	390PF 10% 50V
C313	1-126-964-11	ELECT	10uF 20% 50V	C412	1-136-157-00	FILM	0.022uF 5% 50V
C315	1-126-934-11	ELECT	220uF 20% 16V	C413	1-126-964-11	ELECT	10uF 20% 50V
C321	1-130-479-00	MYLAR	0.0047uF 5% 50V	C415	1-126-934-11	ELECT	220uF 20% 16V
C322	1-126-960-11	ELECT	1uF 20% 50V	C421	1-130-479-00	MYLAR	0.0047uF 5% 50V
C323	1-126-963-11	ELECT	4.7uF 20% 50V	C422	1-126-960-11	ELECT	1uF 20% 50V
C324	1-136-165-00	FILM	0.1uF 5% 50V	C423	1-126-963-11	ELECT	4.7uF 20% 50V
C326	1-126-960-11	ELECT	1uF 20% 50V	C424	1-136-165-00	FILM	0.1uF 5% 50V
C328	1-126-963-11	ELECT	4.7uF 20% 50V	C426	1-126-960-11	ELECT	1uF 20% 50V
C329	1-162-291-31	CERAMIC	560PF 10% 50V	C428	1-126-963-11	ELECT	4.7uF 20% 50V
C330	1-162-301-11	CERAMIC	0.0015uF 30% 16V	C429	1-162-291-31	CERAMIC	560PF 10% 50V
C331	1-107-599-11	CERAMIC	27PF 5% 500V	C430	1-162-301-11	CERAMIC	0.0015uF 30% 16V
C332	1-101-890-00	CERAMIC	75PF 5% 50V	C431	1-107-599-11	CERAMIC	27PF 5% 500V
C333	1-162-288-31	CERAMIC	330PF 10% 50V	C432	1-101-890-00	CERAMIC	75PF 5% 50V
C334	1-102-973-00	CERAMIC	100PF 5% 50V	C433	1-162-288-31	CERAMIC	330PF 10% 50V
				C434	1-102-973-00	CERAMIC	100PF 5% 50V
				C435	1-162-286-31	CERAMIC	220PF 10% 50V
				C452	1-164-159-11	CERAMIC	0.1uF 50V
				C453	1-126-960-11	ELECT	1uF 20% 50V
				C701	1-162-306-11	CERAMIC	0.01uF 20% 16V
				C702	1-126-926-11	ELECT	1000uF 20% 10V
				C703	1-126-964-11	ELECT	10uF 20% 50V
				C704	1-136-165-00	FILM	0.1uF 5% 50V
				C705	1-136-165-00	FILM	0.1uF 5% 50V
				C706	1-126-965-11	ELECT	22uF 20% 50V
				C707	1-162-205-31	CERAMIC	18PF 5% 50V
				C708	1-162-205-31	CERAMIC	18PF 5% 50V
				C710	1-162-306-11	CERAMIC	0.01uF 20% 16V
				C713	1-162-306-11	CERAMIC	0.01uF 20% 16V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CN303	1-564-505-11	PLUG, CONNECTOR 2P				< IC >	
* CN304	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P		IC301	8-759-710-59	IC NJM4580D-D	
* CN305	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P		IC302	8-759-710-59	IC NJM4580D-D	
				IC303	8-759-289-38	IC HA12195NT	
* CN306	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P		IC304	8-759-143-54	IC uPC1330HA	
* CN307	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P		IC701	8-759-459-27	IC TMP87CS64YF-6536	
* CN308	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P					
* CN701	1-568-834-11	SOCKET, CONNECTOR 15P		IC702	8-759-165-80	IC PST600C-T	
				IC802	8-759-000-48	IC MC14052BCP	
		< DIODE >		IC901	8-759-331-39	IC M62427FP	
D201	8-719-987-63	DIODE 1N4148M		IC1001	8-759-231-53	IC TA7805S	
D202	8-719-987-63	DIODE 1N4148M		IC1002	8-759-604-86	IC M5F7807L	
D381	8-719-024-99	DIODE 11ES2-NTA2B					
D382	8-719-024-99	DIODE 11ES2-NTA2B		IC1003	8-759-604-86	IC M5F7807L	
D383	8-719-024-99	DIODE 11ES2-NTA2B		IC1004	8-759-604-90	IC M5F7907L	
				IC1201	8-749-920-09	IC STK-4152MK2K (GR3/RX30:AEP,UK,G,EE)	
D384	8-719-987-63	DIODE 1N4148M		IC1201	8-749-900-24	IC STK-4162MK2 (RX30:US,CND)	
D385	8-719-987-63	DIODE 1N4148M		IC1202	8-759-111-68	IC uPC1237HA	
D386	8-719-024-99	DIODE 11ES2-NTA2B				< JACK >	
D387	8-719-024-99	DIODE 11ES2-NTA2B		J801	1-774-725-11	JACK, PIN 2P (VIDEO IN)	
D450	8-719-987-63	DIODE 1N4148M		J802	1-774-785-11	JACK, PIN 1P (SUPER WOOFER)	(GR3/RX30:US,CND)
D451	8-719-987-63	DIODE 1N4148M				< COIL >	
D452	8-719-987-63	DIODE 1N4148M		L301	1-410-780-11	INDUCTOR 27mH	
D453	8-719-987-63	DIODE 1N4148M		L351	1-414-223-11	INDUCTOR 470uH	
D701	8-719-987-63	DIODE 1N4148M		L401	1-410-780-11	INDUCTOR 27mH	
D702	8-719-987-63	DIODE 1N4148M		L1201	1-420-872-00	COIL, AIR-CORE (RX30:AEP,UK,G,EE)	
				L1251	1-420-872-00	COIL, AIR-CORE (RX30:AEP,UK,G,EE)	
D703	8-719-987-63	DIODE 1N4148M				< TRANSISTOR >	
D704	8-719-987-63	DIODE 1N4148M		Q301	8-729-119-79	TRANSISTOR 2SC2785-FEK	
D705	8-719-987-63	DIODE 1N4148M		Q351	8-729-194-57	TRANSISTOR 2SC945-P	
D706	8-719-024-99	DIODE 11ES2-NTA2B		Q352	8-729-194-57	TRANSISTOR 2SC945-P	
D707	8-719-987-63	DIODE 1N4148M		Q353	8-729-119-77	TRANSISTOR 2SA1175-FEK	
				Q354	8-729-119-79	TRANSISTOR 2SC2785-FEK	
D708	8-719-987-63	DIODE 1N4148M					
D901	8-719-987-63	DIODE 1N4148M		Q380	8-729-900-89	TRANSISTOR DTC144ES	
D939	8-719-987-63	DIODE 1N4148M		Q381	8-729-900-65	TRANSISTOR DTA144ES	
D940	8-719-987-63	DIODE 1N4148M		Q382	8-729-900-89	TRANSISTOR DTC144ES	
D1001	8-719-024-99	DIODE 11ES2-NTA2B		Q401	8-729-119-79	TRANSISTOR 2SC2785-FEK	
				Q450	8-729-900-65	TRANSISTOR DTA144ES	
D1003	8-719-028-23	DIODE D3SBA20-4101					
D1007	8-719-987-63	DIODE 1N4148M		Q451	8-729-900-89	TRANSISTOR DTC144ES	
D1008	8-719-001-42	DIODE UZL-11M1		Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1009	8-719-987-63	DIODE 1N4148M		Q820	8-729-422-57	TRANSISTOR UN4111	
D1010	8-719-987-63	DIODE 1N4148M		Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1013	8-719-024-99	DIODE 11ES2-NTA2B					
D1014	8-719-024-99	DIODE 11ES2-NTA2B		Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1017	8-719-024-99	DIODE 11ES2-NTA2B		Q952	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1023	8-719-934-18	DIODE HZS27-2L		Q953	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D1024	8-719-024-99	DIODE 11ES2-NTA2B		Q954	8-729-141-26	TRANSISTOR 2SC3622A-LK	
				Q1001	8-729-118-01	TRANSISTOR 2SB1116-K	
D1025	8-719-024-99	DIODE 11ES2-NTA2B					
D1026	8-719-024-99	DIODE 11ES2-NTA2B		Q1002	8-729-900-36	TRANSISTOR DTC124ES	
D1027	8-719-024-99	DIODE 11ES2-NTA2B		Q1006	8-729-141-83	TRANSISTOR 2SB1094-LK	
D1059	8-719-987-63	DIODE 1N4148M		Q1011	8-729-021-82	TRANSISTOR 2SD2396K	
D1069	8-719-987-63	DIODE 1N4148M		Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
				Q1202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1201	8-719-987-63	DIODE 1N4148M					
D1202	8-719-987-63	DIODE 1N4148M		Q1203	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D1204	8-719-987-63	DIODE 1N4148M		Q1204	8-729-900-63	TRANSISTOR DTA124ES	
D1205	8-719-987-63	DIODE 1N4148M		Q1205	8-729-900-36	TRANSISTOR DTC124ES	
D1251	8-719-987-63	DIODE 1N4148M					
D1309	8-719-987-63	DIODE 1N4148M					
D1310	8-719-987-63	DIODE 1N4148M					

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q1206	8-729-900-80	TRANSISTOR DTC114ES		R426	1-249-428-11	CARBON 8.2K 5%	1/4W F
Q1207	8-729-422-57	TRANSISTOR UN4111		R427	1-247-840-00	CARBON 2.4K 5%	1/4W
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R428	1-249-433-11	CARBON 22K 5%	1/4W
		< RESISTOR >		R429	1-249-417-11	CARBON 1K 5%	1/4W F
R201	1-249-415-11	CARBON 680 5%	1/4W F	R431	1-249-430-11	CARBON 12K 5%	1/4W
R202	1-249-435-11	CARBON 33K 5%	1/4W	R450	1-249-429-11	CARBON 10K 5%	1/4W
R203	1-249-425-11	CARBON 4.7K 5%	1/4W F	R451	1-249-429-11	CARBON 10K 5%	1/4W
R208	1-249-425-11	CARBON 4.7K 5%	1/4W F	R452	1-249-429-11	CARBON 10K 5%	1/4W
R251	1-249-415-11	CARBON 680 5%	1/4W F	R453	1-249-429-11	CARBON 10K 5%	1/4W
R252	1-249-435-11	CARBON 33K 5%	1/4W	R454	1-249-429-11	CARBON 10K 5%	1/4W
R301	1-247-889-00	CARBON 270K 5%	1/4W	R455	1-249-429-11	CARBON 10K 5%	1/4W
R302	1-249-404-00	CARBON 82 5%	1/4W F	R456	1-249-429-11	CARBON 10K 5%	1/4W
R303	1-247-882-11	CARBON 130K 5%	1/4W	R457	1-247-864-11	CARBON 24K 5%	1/4W
R304	1-247-850-11	CARBON 6.2K 5%	1/4W	R458	1-249-429-11	CARBON 10K 5%	1/4W
R311	1-247-889-00	CARBON 270K 5%	1/4W	R459	1-249-440-11	CARBON 82K 5%	1/4W
R312	1-249-404-00	CARBON 82 5%	1/4W F	R460	1-247-862-11	CARBON 20K 5%	1/4W
R313	1-247-882-11	CARBON 130K 5%	1/4W	R461	1-249-425-11	CARBON 4.7K 5%	1/4W F
R314	1-247-850-11	CARBON 6.2K 5%	1/4W	R462	1-249-425-11	CARBON 4.7K 5%	1/4W F
R315	1-249-433-11	CARBON 22K 5%	1/4W	R463	1-249-429-11	CARBON 10K 5%	1/4W
R320	1-249-432-11	CARBON 18K 5%	1/4W	R464	1-249-429-11	CARBON 10K 5%	1/4W
R321	1-249-429-11	CARBON 10K 5%	1/4W	R701	1-249-429-11	CARBON 10K 5%	1/4W
R322	1-249-431-11	CARBON 15K 5%	1/4W	R702	1-249-437-11	CARBON 47K 5%	1/4W
R323	1-249-432-11	CARBON 18K 5%	1/4W	R703	1-249-437-11	CARBON 47K 5%	1/4W
R324	1-249-417-11	CARBON 1K 5%	1/4W F	R704	1-249-429-11	CARBON 10K 5%	1/4W
R325	1-249-421-11	CARBON 2.2K 5%	1/4W F	R705	1-249-429-11	CARBON 10K 5%	1/4W
R326	1-249-428-11	CARBON 8.2K 5%	1/4W F	R706	1-249-429-11	CARBON 10K 5%	1/4W
R327	1-247-840-00	CARBON 2.4K 5%	1/4W	R708	1-249-415-11	CARBON 680 5%	1/4W F
R328	1-249-433-11	CARBON 22K 5%	1/4W	R709	1-249-429-11	CARBON 10K 5%	1/4W
R329	1-249-417-11	CARBON 1K 5%	1/4W F	R712	1-249-429-11	CARBON 10K 5%	1/4W
R331	1-249-430-11	CARBON 12K 5%	1/4W	R713	1-249-429-11	CARBON 10K 5%	1/4W
R351	1-249-434-11	CARBON 27K 5%	1/4W	R714	1-249-429-11	CARBON 10K 5%	1/4W
R352	1-249-434-11	CARBON 27K 5%	1/4W	R715	1-249-429-11	CARBON 10K 5%	1/4W
△ R353	1-217-641-00	FUSIBLE 4.7 5%	1/4W F	R716	1-247-807-31	CARBON 100 5%	1/4W
△ R354	1-217-641-00	FUSIBLE 4.7 5%	1/4W F	R717	1-247-807-31	CARBON 100 5%	1/4W
R355	1-249-429-11	CARBON 10K 5%	1/4W	R718	1-247-807-31	CARBON 100 5%	1/4W
R381	1-249-413-11	CARBON 470 5%	1/4W F	R719	1-247-807-31	CARBON 100 5%	1/4W
R382	1-249-413-11	CARBON 470 5%	1/4W F	R720	1-247-807-31	CARBON 100 5%	1/4W
R383	1-249-413-11	CARBON 470 5%	1/4W F	R721	1-247-807-31	CARBON 100 5%	1/4W
R384	1-249-413-11	CARBON 470 5%	1/4W F	R724	1-247-807-31	CARBON 100 5%	1/4W
R387	1-249-417-11	CARBON 1K 5%	1/4W F	R725	1-247-807-31	CARBON 100 5%	1/4W
R388	1-249-429-11	CARBON 10K 5%	1/4W	R726	1-247-807-31	CARBON 100 5%	1/4W
R390	1-249-417-11	CARBON 1K 5%	1/4W F	R727	1-247-807-31	CARBON 100 5%	1/4W
R401	1-247-889-00	CARBON 270K 5%	1/4W	R728	1-247-807-31	CARBON 100 5%	1/4W
R402	1-249-404-00	CARBON 82 5%	1/4W F	R729	1-247-807-31	CARBON 100 5%	1/4W
R403	1-247-882-11	CARBON 130K 5%	1/4W	R730	1-247-807-31	CARBON 100 5%	1/4W
R404	1-247-850-11	CARBON 6.2K 5%	1/4W	R731	1-247-807-31	CARBON 100 5%	1/4W
R411	1-247-889-00	CARBON 270K 5%	1/4W	R732	1-247-807-31	CARBON 100 5%	1/4W
R412	1-249-404-00	CARBON 82 5%	1/4W F	R733	1-247-807-31	CARBON 100 5%	1/4W
R413	1-247-882-11	CARBON 130K 5%	1/4W	R734	1-247-807-31	CARBON 100 5%	1/4W
R414	1-247-850-11	CARBON 6.2K 5%	1/4W	R735	1-247-807-31	CARBON 100 5%	1/4W
R415	1-249-433-11	CARBON 22K 5%	1/4W	R736	1-247-807-31	CARBON 100 5%	1/4W
R421	1-249-429-11	CARBON 10K 5%	1/4W	R737	1-247-807-31	CARBON 100 5%	1/4W
R422	1-249-431-11	CARBON 15K 5%	1/4W	R738	1-247-843-11	CARBON 3.3K 5%	1/4W
R423	1-249-432-11	CARBON 18K 5%	1/4W			(GR3/RX30:US,CND,AEP,UK,G)	
R424	1-249-417-11	CARBON 1K 5%	1/4W F	R738	1-249-427-11	CARBON 6.8K 5%	1/4W F
R425	1-249-421-11	CARBON 2.2K 5%	1/4W F			(RX30:EE)	
				R739	1-249-429-11	CARBON 10K 5%	1/4W
						(GR3/RX30:US,CND,AEP,UK,G)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R739	1-249-435-11	CARBON	33K 5% 1/4W (RX30:EE)	R951	1-249-425-11	CARBON	4.7K 5% 1/4W F
R740	1-249-427-11	CARBON	6.8K 5% 1/4W F (RX30:G)	R952	1-249-425-11	CARBON	4.7K 5% 1/4W F
R740	1-249-433-11	CARBON	22K 5% 1/4W (GR3:AUS)	R954	1-249-431-11	CARBON	15K 5% 1/4W
R740	1-249-429-11	CARBON	10K 5% 1/4W (RX30:AEP,UK)	R955	1-249-441-11	CARBON	100K 5% 1/4W
R740	1-249-435-11	CARBON	33K 5% 1/4W (RX30:EE)	R956	1-247-895-00	CARBON	470K 5% 1/4W
R740	1-249-425-11	CARBON	4.7K 5% 1/4W F (GR3:E,SAF,MX,AR)	R957	1-249-440-11	CARBON	82K 5% 1/4W
R741	1-249-433-11	CARBON	22K 5% 1/4W (GR3:AUS)	R958	1-249-433-11	CARBON	22K 5% 1/4W
R741	1-247-843-11	CARBON	3.3K 5% 1/4W (RX30:AEP,UK,G)	R959	1-249-419-11	CARBON	1.5K 5% 1/4W F
R741	1-249-427-11	CARBON	6.8K 5% 1/4W F (GR3:E,SAF,MX,AR/RX30:EE)	R960	1-249-429-11	CARBON	10K 5% 1/4W
R742	1-247-807-31	CARBON	100 5% 1/4W	R961	1-249-421-11	CARBON	2.2K 5% 1/4W F
R743	1-247-807-31	CARBON	100 5% 1/4W	R962	1-249-441-11	CARBON	100K 5% 1/4W
R753	1-247-807-31	CARBON	100 5% 1/4W	R963	1-249-429-11	CARBON	10K 5% 1/4W
R762	1-249-429-11	CARBON	10K 5% 1/4W	R964	1-249-437-11	CARBON	47K 5% 1/4W
R763	1-249-429-11	CARBON	10K 5% 1/4W	R970	1-247-903-00	CARBON	1M 5% 1/4W
R764	1-249-429-11	CARBON	10K 5% 1/4W	R973	1-247-903-00	CARBON	1M 5% 1/4W
R771	1-249-429-11	CARBON	10K 5% 1/4W	R1001	1-249-421-11	CARBON	2.2K 5% 1/4W F
R772	1-249-429-11	CARBON	10K 5% 1/4W	R1002	1-249-409-11	CARBON	220 5% 1/4W F
R773	1-249-429-11	CARBON	10K 5% 1/4W	R1011	1-249-421-11	CARBON	2.2K 5% 1/4W F
R821	1-249-417-11	CARBON	1K 5% 1/4W F	R1023	1-249-417-11	CARBON	1K 5% 1/4W F
R822	1-249-441-11	CARBON	100K 5% 1/4W	R1201	1-249-417-11	CARBON	1K 5% 1/4W F
R825	1-247-887-00	CARBON	220K 5% 1/4W	R1202	1-249-437-11	CARBON	47K 5% 1/4W
R826	1-249-441-11	CARBON	100K 5% 1/4W	R1203	1-249-413-11	CARBON	470 5% 1/4W F
R848	1-249-439-11	CARBON	68K 5% 1/4W (GR3/RX30:US,CND)	R1204	1-249-437-11	CARBON	47K 5% 1/4W
R849	1-249-439-11	CARBON	68K 5% 1/4W (GR3/RX30:US,CND)	R1205	1-260-103-11	CARBON	2.2K 5% 1/2W
R850	1-249-429-11	CARBON	10K 5% 1/4W (GR3/RX30:US,CND)	R1207	1-260-103-11	CARBON	2.2K 5% 1/2W
R871	1-249-417-11	CARBON	1K 5% 1/4W F	△R1210	1-208-602-11	WIREWOUND	0.22 10% 2W F
R872	1-249-441-11	CARBON	100K 5% 1/4W	R1211	1-249-417-11	CARBON	1K 5% 1/4W F
R901	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1212	1-249-431-11	CARBON	15K 5% 1/4W
R902	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1213	1-249-441-11	CARBON	100K 5% 1/4W
R904	1-249-431-11	CARBON	15K 5% 1/4W	R1214	1-260-099-11	CARBON	1K 5% 1/2W
R905	1-249-441-11	CARBON	100K 5% 1/4W	R1217	1-260-099-11	CARBON	1K 5% 1/2W
R906	1-247-895-00	CARBON	470K 5% 1/4W	R1218	1-260-076-11	CARBON	10 5% 1/2W
R907	1-249-440-11	CARBON	82K 5% 1/4W	R1220	1-249-389-11	CARBON	4.7 5% 1/4W F (RX30:AEP,UK,G,EE)
R908	1-249-433-11	CARBON	22K 5% 1/4W	R1221	1-249-389-11	CARBON	4.7 5% 1/4W F (RX30:AEP,UK,G,EE)
R909	1-249-419-11	CARBON	1.5K 5% 1/4W F	R1222	1-249-409-11	CARBON	220 5% 1/4W F
R910	1-249-429-11	CARBON	10K 5% 1/4W	R1223	1-249-409-11	CARBON	220 5% 1/4W F
R911	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1224	1-249-429-11	CARBON	10K 5% 1/4W
R912	1-249-441-11	CARBON	100K 5% 1/4W	R1225	1-249-429-11	CARBON	10K 5% 1/4W
R913	1-249-429-11	CARBON	10K 5% 1/4W	△R1226	1-215-868-00	METAL OXIDE	680 5% 1W F
R914	1-249-437-11	CARBON	47K 5% 1/4W	R1227	1-249-429-11	CARBON	10K 5% 1/4W
R920	1-249-441-11	CARBON	100K 5% 1/4W	R1228	1-247-891-00	CARBON	330K 5% 1/4W
R921	1-249-418-11	CARBON	1.2K 5% 1/4W F	R1229	1-249-429-11	CARBON	10K 5% 1/4W
R922	1-249-429-11	CARBON	10K 5% 1/4W	R1230	1-249-429-11	CARBON	10K 5% 1/4W
R923	1-247-903-00	CARBON	1M 5% 1/4W	R1231	1-249-417-11	CARBON	1K 5% 1/4W F
R938	1-247-807-31	CARBON	100 5% 1/4W	R1233	1-249-426-11	CARBON	5.6K 5% 1/4W (GR3/RX30:AEP,UK,G,EE)
R940	1-249-429-11	CARBON	10K 5% 1/4W	R1233	1-249-427-11	CARBON	6.8K 5% 1/4W F (RX30:US,CND)
R941	1-249-429-11	CARBON	10K 5% 1/4W	R1234	1-249-426-11	CARBON	5.6K 5% 1/4W (GR3/RX30:AEP,UK,G,EE)
R942	1-249-429-11	CARBON	10K 5% 1/4W	R1234	1-249-427-11	CARBON	6.8K 5% 1/4W F (RX30:US,CND)
				R1235	1-249-435-11	CARBON	33K 5% 1/4W
				R1236	1-249-441-11	CARBON	100K 5% 1/4W
				R1237	1-249-429-11	CARBON	10K 5% 1/4W
				R1240	1-249-438-11	CARBON	56K 5% 1/4W
				R1241	1-249-397-11	CARBON	22 5% 1/4W F

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MAIN

MOTOR (SLIDE)

MOTOR (TURN)

Ref. No.	Part No.	Description	Remark
R1242	1-249-429-11	CARBON 10K	5% 1/4W
R1243	1-249-383-11	CARBON 1.5	5% 1/6W F
R1245	1-249-433-11	CARBON 22K	5% 1/4W
R1249	1-249-389-11	CARBON 4.7	5% 1/4W F (RX30:AEP,UK,G,EE)
R1250	1-249-421-11	CARBON 2.2K	5% 1/4W F
R1251	1-249-417-11	CARBON 1K	5% 1/4W F
R1252	1-249-437-11	CARBON 47K	5% 1/4W
R1253	1-249-413-11	CARBON 470	5% 1/4W F
R1254	1-249-437-11	CARBON 47K	5% 1/4W
R1255	1-260-103-11	CARBON 2.2K	5% 1/2W
R1257	1-260-103-11	CARBON 2.2K	5% 1/2W
△R1260	1-208-602-11	WIREWOUND 0.22	10% 2W F
R1261	1-249-417-11	CARBON 1K	5% 1/4W F
R1262	1-249-431-11	CARBON 15K	5% 1/4W
R1263	1-249-441-11	CARBON 100K	5% 1/4W
R1268	1-260-076-11	CARBON 10	5% 1/2W
R1270	1-249-389-11	CARBON 4.7	5% 1/4W F (RX30:AEP,UK,G,EE)
R1271	1-249-389-11	CARBON 4.7	5% 1/4W F (RX30:AEP,UK,G,EE)
R1272	1-249-409-11	CARBON 220	5% 1/4W F
R1273	1-249-409-11	CARBON 220	5% 1/4W F
R1290	1-249-437-11	CARBON 47K	5% 1/4W
R1295	1-249-433-11	CARBON 22K	5% 1/4W
R1299	1-249-389-11	CARBON 4.7	5% 1/4W F (RX30:AEP,UK,G,EE)
R1303	1-249-427-11	CARBON 6.8K	5% 1/4W F (GR3/RX30:AEP,UK,G,EE)
R1303	1-249-428-11	CARBON 8.2K	5% 1/4W F (RX30:US,CND)
R1304	1-249-427-11	CARBON 6.8K	5% 1/4W F (GR3/RX30:AEP,UK,G,EE)
R1304	1-249-428-11	CARBON 8.2K	5% 1/4W F (RX30:US,CND)
< VARIABLE RESISTOR >			
RV301	1-238-600-11	RES, ADJ, CARBON 10K	
RV302	1-238-600-11	RES, ADJ, CARBON 10K	
RV303	1-238-600-11	RES, ADJ, CARBON 10K	
RV304	1-238-603-11	RES, ADJ, CARBON 100K	
RV380	1-238-599-11	RES, ADJ, CARBON 4.7K	
RV401	1-238-600-11	RES, ADJ, CARBON 10K	
RV402	1-238-600-11	RES, ADJ, CARBON 10K	
RV403	1-238-600-11	RES, ADJ, CARBON 10K	
RV404	1-238-603-11	RES, ADJ, CARBON 100K	
< RELAY >			
RY1201	1-515-920-11	RELAY (24V)	
< TRANSFORMER >			
T350	1-433-349-11	TRANSFORMER, BIAS OSCILLATION	
< TERMINAL >			
TM1201	1-537-240-31	TERMINAL BOARD (CHECKER PIN)(SPEAKER) (GR3/RX30:US,CND)	
TM1201	1-537-801-11	TERMINAL BOARD (SPEAKER) (RX30:AEP,UK,G,EE)	

Ref. No.	Part No.	Description	Remark
< VIBRATOR >			
X701	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	
X702	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)	

*	1-658-578-11	MOTOR (SLIDE) BOARD *****	
< CAPACITOR >			
C801	1-162-306-11	CERAMIC 0.01uF	20% 16V
C804	1-162-306-11	CERAMIC 0.01uF	20% 16V
C805	1-126-964-11	ELECT 10uF	20% 50V
< CONNECTOR >			
* CN801	1-568-947-11	PIN, CONNECTOR 9P	
< DIODE >			
D801	8-719-010-43	DIODE UZ-5.6BSC	
D804	8-719-987-63	DIODE 1N4148M	
D805	8-719-987-63	DIODE 1N4148M	
< IC >			
IC801	8-759-274-09	IC BA6286N	
< MOTOR >			
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
< RESISTOR >			
R801	1-249-401-11	CARBON 47	5% 1/4W F
< SWITCH >			
S801	1-762-527-11	SWITCH, ROTARY (OPEN/CLOSE)	

*	1-658-577-11	MOTOR (TURN) BOARD *****	
< CAPACITOR >			
C701	1-162-306-11	CERAMIC 0.01uF	20% 16V
C702	1-126-964-11	ELECT 10uF	20% 50V
C705	1-162-306-11	CERAMIC 0.01uF	20% 16V
< CONNECTOR >			
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P	
CN704	1-506-469-11	PIN, CONNECTOR 4P	
< DIODE >			
D701	8-719-010-23	DIODE UZ-3.6BSB	
< IC >			
IC701	8-759-633-65	IC M54641L	
< MOTOR >			
M701	A-4672-004-A	MOTOR ASSY (TURN)	

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MOTOR (TURN)

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< RESISTOR >				< FLUORESCENT INDICATOR >			
R706	1-249-411-11	CARBON	330 5% 1/4W	FL501	1-517-660-11	INDICATOR TUBE, FLUORESCENT	
R707	1-249-401-11	CARBON	47 5% 1/4W F	< IC >			
*****				IC501	8-759-438-11	IC ASD042FGF-022-3B9	
* A-4392-601-A	PANEL BOARD, COMPLETE (EXCEPT SAF)			IC502	8-759-332-18	IC GP1U27XB	
*****				< TRANSISTOR >			
* A-4398-500-A	PANEL BOARD, COMPLETE (SAF)			Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE	
*****				Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE	
* 4-932-810-11	CUSHION (FL)			Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE	
* 4-978-168-01	HOLDER, FL TUBE			Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE	
< CAPACITOR >				Q507	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C501	1-162-282-31	CERAMIC	100PF 10% 50V	Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C502	1-162-282-31	CERAMIC	100PF 10% 50V	Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C503	1-162-282-31	CERAMIC	100PF 10% 50V	Q510	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C504	1-162-282-31	CERAMIC	100PF 10% 50V	Q520	8-729-422-57	TRANSISTOR UN4111	
C505	1-162-282-31	CERAMIC	100PF 10% 50V	Q521	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C506	1-162-282-31	CERAMIC	100PF 10% 50V	Q522	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C507	1-162-282-31	CERAMIC	100PF 10% 50V	Q530	8-729-422-57	TRANSISTOR UN4111	
C508	1-162-282-31	CERAMIC	100PF 10% 50V	Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C509	1-162-282-31	CERAMIC	100PF 10% 50V	Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C510	1-162-282-31	CERAMIC	100PF 10% 50V	Q603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C511	1-162-282-31	CERAMIC	100PF 10% 50V	< RESISTOR >			
C512	1-162-282-31	CERAMIC	100PF 10% 50V	R500	1-249-419-11	CARBON	1.5K 5% 1/4W F
C513	1-162-294-31	CERAMIC	0.001uF 10% 50V	R509	1-249-419-11	CARBON	1.5K 5% 1/4W F
C514	1-126-967-11	ELECT	47uF 20% 50V	R510	1-249-401-11	CARBON	47 5% 1/4W F
C515	1-162-306-11	CERAMIC	0.01uF 20% 16V	R511	1-249-403-11	CARBON	68 5% 1/4W F
C516	1-124-584-00	ELECT	100uF 20% 10V	R512	1-247-807-31	CARBON	100 5% 1/4W
C517	1-162-306-11	CERAMIC	0.01uF 20% 16V	R513	1-249-407-11	CARBON	150 5% 1/4W F
C522	1-162-306-11	CERAMIC	0.01uF 20% 16V	R514	1-249-407-11	CARBON	150 5% 1/4W F
C523	1-162-306-11	CERAMIC	0.01uF 20% 16V	R515	1-249-397-11	CARBON	22 5% 1/4W F
C524	1-162-294-31	CERAMIC	0.001uF 10% 50V	R516	1-249-417-11	CARBON	1K 5% 1/4W F
C525	1-126-960-11	ELECT	1uF 20% 50V	R517	1-249-415-11	CARBON	680 5% 1/4W F
C526	1-162-294-31	CERAMIC	0.001uF 10% 50V	R518	1-249-417-11	CARBON	1K 5% 1/4W F
C527	1-126-960-11	ELECT	1uF 20% 50V	R519	1-249-419-11	CARBON	1.5K 5% 1/4W F
< CONNECTOR >				R520	1-249-421-11	CARBON	2.2K 5% 1/4W F
* CN501	1-568-858-11	SOCKET, CONNECTOR 15P		R521	1-247-843-11	CARBON	3.3K 5% 1/4W
< DIODE >				R522	1-249-427-11	CARBON	6.8K 5% 1/4W F
D548	8-719-033-06	DIODE SEL5920A (CLIP A)		R523	1-249-431-11	CARBON	15K 5% 1/4W
D549	8-719-033-06	DIODE SEL5920A (CLIP B)		R524	1-249-419-11	CARBON	1.5K 5% 1/4W F
D550	8-719-811-44	DIODE TLO124 (ENTER/NEXT)		R525	1-249-401-11	CARBON	47 5% 1/4W F
D560	8-719-011-54	DIODE UZ-4.3BS-TA (SAF)		R526	1-249-403-11	CARBON	68 5% 1/4W F
D560	8-719-012-82	DIODE UZ-4.3BS-TP (EXCEPT SAF)		R527	1-247-807-31	CARBON	100 5% 1/4W
D578	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)		R528	1-249-407-11	CARBON	150 5% 1/4W F
D580	8-719-812-44	DIODE TLO124 (EFFECT ON/OFF)		R529	1-249-407-11	CARBON	150 5% 1/4W F
D581	8-719-033-06	DIODE SEL5920A (GROOVE)		R530	1-249-409-11	CARBON	220 5% 1/4W F
D582	8-719-033-06	DIODE SEL5920A (CLIP C)		R531	1-249-419-11	CARBON	1.5K 5% 1/4W F
D605	8-719-033-06	DIODE SEL5920A (CD)		R532	1-249-401-11	CARBON	47 5% 1/4W F
D615	8-719-033-06	DIODE SEL5920A (TUNER)		R533	1-249-403-11	CARBON	68 5% 1/4W F
D625	8-719-033-06	DIODE SEL5920A (TIMER)		R534	1-247-807-31	CARBON	100 5% 1/4W
				R535	1-249-407-11	CARBON	150 5% 1/4W F
				R536	1-249-407-11	CARBON	150 5% 1/4W F
				R537	1-249-409-11	CARBON	220 5% 1/4W F
				R538	1-249-411-11	CARBON	330 5% 1/4W
				R539	1-249-433-11	CARBON	22K 5% 1/4W

PANEL	SENSOR	TCB
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Ref. No.	Part No.	Description	Remark
R540	1-249-429-11	CARBON	10K 5% 1/4W
R544	1-249-429-11	CARBON	10K 5% 1/4W
R545	1-249-421-11	CARBON	2.2K 5% 1/4W F
R546	1-249-429-11	CARBON	10K 5% 1/4W
R547	1-249-421-11	CARBON	2.2K 5% 1/4W F
R548	1-249-407-11	CARBON	150 5% 1/4W F
R549	1-249-407-11	CARBON	150 5% 1/4W F
R550	1-249-407-11	CARBON	150 5% 1/4W F
R557	1-247-807-31	CARBON	100 5% 1/4W
R558	1-247-807-31	CARBON	100 5% 1/4W
R559	1-247-807-31	CARBON	100 5% 1/4W
R560	1-247-807-31	CARBON	100 5% 1/4W
R561	1-247-807-31	CARBON	100 5% 1/4W
R562	1-247-807-31	CARBON	100 5% 1/4W
R563	1-249-441-11	CARBON	100K 5% 1/4W
R564	1-249-401-11	CARBON	47 5% 1/4W F
R565	1-249-429-11	CARBON	10K 5% 1/4W
R566	1-249-429-11	CARBON	10K 5% 1/4W
R567	1-249-429-11	CARBON	10K 5% 1/4W
R568	1-249-429-11	CARBON	10K 5% 1/4W
R569	1-249-429-11	CARBON	10K 5% 1/4W
R570	1-249-441-11	CARBON	100K 5% 1/4W
R571	1-249-429-11	CARBON	10K 5% 1/4W
R572	1-249-429-11	CARBON	10K 5% 1/4W
R573	1-249-429-11	CARBON	10K 5% 1/4W
R574	1-249-429-11	CARBON	10K 5% 1/4W
R576	1-249-429-11	CARBON	10K 5% 1/4W
R577	1-247-903-00	CARBON	1M 5% 1/4W
R578	1-249-401-11	CARBON	47 5% 1/4W F
R580	1-249-407-11	CARBON	150 5% 1/4W F
R581	1-247-807-31	CARBON	100 5% 1/4W
R582	1-249-407-11	CARBON	150 5% 1/4W F
R585	1-249-421-11	CARBON	2.2K 5% 1/4W F
R586	1-247-807-31	CARBON	100 5% 1/4W
R587	1-247-807-31	CARBON	100 5% 1/4W
R588	1-247-807-31	CARBON	100 5% 1/4W
R605	1-247-807-31	CARBON	100 5% 1/4W
R615	1-247-807-31	CARBON	100 5% 1/4W
R625	1-247-807-31	CARBON	100 5% 1/4W
R631	1-249-417-11	CARBON	1K 5% 1/4W F
R632	1-249-417-11	CARBON	1K 5% 1/4W F
R633	1-249-417-11	CARBON	1K 5% 1/4W F
< SWITCH >			
S509	1-762-196-21	SWITCH, TACT (TIMER)	
S510	1-762-196-21	SWITCH, TACT (DISPLAY)	
S511	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (1))	
S512	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (2))	
S513	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (3))	
S514	1-762-196-21	SWITCH, TACT (MULTI FUNCTION CONTROL (4))	
S516	1-762-196-21	SWITCH, TACT (ENTER/NEXT)	
S517	1-762-196-21	SWITCH, TACT (DBFB)	
S518	1-762-196-21	SWITCH, TACT (CLIP C)	
S519	1-762-196-21	SWITCH, TACT (CLIP B)	
S520	1-762-196-21	SWITCH, TACT (CLIP A)	
S521	1-762-196-21	SWITCH, TACT (CLIP ERASE)	
S522	1-762-196-21	SWITCH, TACT (CLIP PLAY)	
S523	1-762-196-21	SWITCH, TACT (DOLBY NR)	

Ref. No.	Part No.	Description	Remark
S524	1-762-196-21	SWITCH, TACT (MENU 1)	
S525	1-762-196-21	SWITCH, TACT (MENU 2)	
S526	1-762-196-21	SWITCH, TACT (MENU 3)	
S528	1-762-196-21	SWITCH, TACT (P FILE)	
S529	1-762-196-21	SWITCH, TACT (EFFECT ON/OFF)	
S530	1-762-196-21	SWITCH, TACT (SURROUND)	
S531	1-762-196-21	SWITCH, TACT (EQ EDIT)	
S532	1-762-196-21	SWITCH, TACT (<, <=<, -)	
S533	1-762-196-21	SWITCH, TACT (^)	
S534	1-762-196-21	SWITCH, TACT (>, >=>, +)	
S535	1-762-196-21	SWITCH, TACT (v)	
S536	1-762-196-21	SWITCH, TACT (TUNER/BAND)	
S537	1-762-196-21	SWITCH, TACT (FUNCTION)	
S538	1-762-196-21	SWITCH, TACT (GROOVE)	
S550	1-467-869-11	ENCODER, ROTARY (VOLUME)	
< VIBRATOR >			
X501	1-760-489-11	VIBRATOR, CERAMIC (5MHZ)	

*	1-658-576-11	SENSOR BOARD	

< IC >			
IC702	8-749-924-18	PH OTO INTERRUPTER RPI-1391	
IC703	8-749-924-30	PH OTO REFLECTOR GP2S28	
< RESISTOR >			
R701	1-249-416-11	CARBON	820 5% 1/4W F
R702	1-249-407-11	CARBON	150 5% 1/4W F

*	A-4303-514-A	TCB BOARD, COMPLETE (AEP,UK)	

*	A-4303-515-A	TCB BOARD, COMPLETE (G)	

*	A-4303-516-A	TCB BOARD, COMPLETE (EE)	

< CAPACITOR >			
C1	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C2	1-126-967-11	ELECT	47uF 20% 16V
C3	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C5	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C6	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C7	1-101-004-00	CERAMIC	0.01uF 50V (EE)
C8	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C9	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C10	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C11	1-216-295-91	CONDUCTOR, CHIP (2012)(G)	
C16	1-163-038-91	CERAMIC CHIP	0.1uF 25V
C19	1-163-249-11	CERAMIC CHIP	82PF 5% 50V (AEP,UK,EE)
C21	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C22	1-163-031-11	CERAMIC CHIP	0.01uF 50V
C23	1-163-235-11	CERAMIC CHIP	22PF 5% 50V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	CF3	1-760-393-11	FILTER, CERAMIC (AEP,UK,G)			
C26	1-126-967-11	ELECT	47uF	20%	16V			< CONNECTOR >			
C28	1-126-967-11	ELECT	47uF	20%	16V						
C29	1-162-306-11	CERAMIC	0.01uF	30%	16V						
C30	1-126-961-11	ELECT	2.2uF	20%	100V	* CN1	1-568-834-11	SOCKET, CONNECTOR 15P			
C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V			< DIODE >			
C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V						
C33	1-163-038-91	CERAMIC CHIP	0.1uF		25V	D21	8-719-976-99	DIODE UDZ-TE-17-5.1B			
C34	1-163-091-00	CERAMIC CHIP	8PF		50V (G)	D41	8-719-016-74	DIODE 1SS352-TPH3			
C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V			< FRONT-END >			
					(AEP,UK,EE)						
C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V	FE1	1-233-542-11	FRONT END (4 GANG)(AEP,UK,G)			
C36	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	FE1	1-693-335-11	FRONT END (3 GANG)(EE)			
C37	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	FE2	1-233-514-11	ENCAPSULATED COMPONENT (AEP,UK,EE)			
C39	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	FE2	1-239-260-11	ENCAPSULATED COMPONENT (G)			
C40	1-163-031-11	CERAMIC CHIP	0.01uF		50V			< IC >			
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V						
C42	1-163-038-91	CERAMIC CHIP	0.1uF		25V	IC21	8-759-288-54	IC LC72130			
C43	1-163-038-91	CERAMIC CHIP	0.1uF		25V	IC41	8-759-176-03	IC LA1835			
C44	1-163-031-11	CERAMIC CHIP	0.01uF		50V			< IFT >			
C45	1-163-038-91	CERAMIC CHIP	0.1uF		25V						
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V	IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)			
C47	1-126-967-11	ELECT	47uF	20%	16V			< JUMPER RESISTOR >			
C48	1-163-031-11	CERAMIC CHIP	0.01uF		50V						
C49	1-126-959-11	ELECT	0.47uF	20%	50V	JR1	1-216-295-11	METAL CHIP	0	5%	1/10W
C50	1-126-960-11	ELECT	1.0uF	20%	50V						(G)
C51	1-126-960-11	ELECT	1.0uF	20%	50V	JR2	1-216-295-11	METAL CHIP	0	5%	1/10W
C52	1-126-963-11	ELECT	4.7uF	20%	50V						(AEP,UK,EE)
					(AEP, UK, G)	JR3	1-216-295-11	METAL CHIP	0	5%	1/10W
C52	1-126-964-11	ELECT	10uF	20%	50V (EE)						(G)
C53	1-126-964-11	ELECT	10uF	20%	50V	JR6	1-216-295-11	METAL CHIP	0	5%	1/10W
C54	1-104-396-11	ELECT	10uF	20%	16V						(AEP,UK,G)
C55	1-104-396-11	ELECT	10uF	20%	16V	JR7	1-216-295-11	METAL CHIP	0	5%	1/10W
C56	1-104-396-11	ELECT	10uF	20%	16V						(G)
C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	JR8	1-216-295-11	METAL CHIP	0	5%	1/10W
C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V						(AEP,UK,EE)
C59	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	JR9	1-216-295-11	METAL CHIP	0	5%	1/10W
					(AEP,UK,G)						(AEP,UK,EE)
C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)	JR45	1-216-295-11	METAL CHIP	0	5%	1/10W
C60	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	JR46	1-216-296-11	METAL CHIP	0	5%	1/8W
					(AEP,UK,G)	JR47	1-216-295-11	METAL CHIP	0	5%	1/10W
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)	JR48	1-216-295-11	METAL CHIP	0	5%	1/10W
C61	1-126-301-11	ELECT	1uF	20%	50V	JR49	1-216-296-11	METAL CHIP	0	5%	1/8W
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	JR51	1-216-295-11	METAL CHIP	0	5%	1/10W
											(AEP,UK,EE)
C63	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	JR52	1-216-295-11	METAL CHIP	0	5%	1/10W
C64	1-126-967-11	ELECT	47uF	20%	16V	JR53	1-216-296-11	METAL CHIP	0	5%	1/8W
C65	1-163-031-11	CERAMIC CHIP	0.01uF		50V						(AEP,UK,EE)
C66	1-126-162-11	ELECT	3.3uF	20%	50V						
C67	1-126-933-11	ELECT	100uF	20%	10V	JR54	1-216-295-11	METAL CHIP	0	5%	1/10W
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V			< JUMPER RESISTOR >			
C71	1-162-306-11	CERAMIC	0.01uF	30%	16V						
C72	1-126-967-11	ELECT	47uF	20%	16V	JW4	1-249-413-11	CARBON	470	5%	1/4W
C120	1-163-105-00	CERAMIC CHIP	33PF	5%	50V						(AEP,UK,G)
					(AEP,UK,G)	JW5	1-249-413-11	CARBON	470	5%	1/4W
											(AEP,UK,G)
		< FILTER >						< COIL >			
CF1	1-567-389-11	FILTER, CERAMIC				L2	1-414-142-11	MICRO INDUCTOR	1uH	(AEP,UK,G)	
CF2	1-760-393-11	FILTER, CERAMIC (AEP,UK,G)				L3	1-410-521-11	MICRO INDUCTOR	100uH		
CF3	1-567-389-11	FILTER, CERAMIC (EE)									

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L4	1-410-515-11	INDUCTOR 33uH (AEP,UK,G)		R43	1-216-042-00	METAL CHIP 510	5% 1/10W
L41	1-407-500-00	MICRO INDUCTOR 4.7mH (AEP,UK,EE)		R44	1-216-013-00	METAL CHIP 33	5% 1/10W
L41	1-410-119-11	MICRO INDUCTOR (EL TYPE) 1mH (G)		R45	1-247-843-11	CARBON 3.3K	5% 1/4W F
		< FILTER >		R46	1-216-073-00	METAL CHIP 10K	5% 1/10W
				R47	1-216-097-91	METAL CHIP 100K	5% 1/10W
LPF41	1-239-845-11	FILTER, LOW PASS		R48	1-249-417-11	CARBON 1K	5% 1/4W F
LPF42	1-239-845-11	FILTER, LOW PASS		R49	1-216-049-91	METAL CHIP 1.0K	5% 1/10W
		< TRANSISTOR >		R50	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
Q1	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L		R51	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
Q2	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L		R53	1-249-429-11	CARBON 10K	5% 1/4W
Q3	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L		R55	1-216-162-00	METAL CHIP 33	5% 1/8W
Q4	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L		R56	1-249-393-11	CARBON 10	5% 1/4W F
Q5	8-729-424-08	TRANSISTOR UN2111		R91	1-216-295-11	METAL CHIP 0	5% 1/10W (AEP,UK,EE)
Q9	8-729-216-22	TRANSISTOR 2SA812-M5M6 (AEP,UK,EE)		R92	1-216-073-00	METAL CHIP 10K	5% 1/10W (AEP,UK,EE)
Q11	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)		R99	1-249-399-11	CARBON 33	5% 1/4W
Q12	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)				< VARIABLE RESISTOR >	
Q13	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)		RV41	1-238-601-11	RES, ADJ, CARBON 22K	
Q14	8-729-421-22	TRANSISTOR UN2211 (AEP,UK,EE)		RV42	1-238-600-11	RES, ADJ, CARBON 10K	
		< RESISTOR >				< TERMINAL >	
R1	1-249-401-11	CARBON 47	5% 1/4W F				
R2	1-216-037-00	METAL CHIP 330	5% 1/10W	TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)	
R3	1-216-037-00	METAL CHIP 330	5% 1/10W			< VIBRATOR >	
R5	1-216-037-00	METAL CHIP 330	5% 1/10W	X21	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)	
R6	1-216-081-00	METAL CHIP 22K	5% 1/10W	X41	1-760-220-11	FILTER, CERAMIC (10.7MHz)	
R7	1-216-037-00	METAL CHIP 330	5% 1/10W	X42	1-527-981-00	FILTER, CERAMIC (450KHz)	
R8	1-216-037-00	METAL CHIP 330	5% 1/10W	X43	1-577-075-11	OSCILLATOR, CERAMIC (456KHz)	
R9	1-216-081-00	METAL CHIP 22K	5% 1/10W			*****	
R10	1-216-037-00	METAL CHIP 330	5% 1/10W	*	1-664-649-11	TRANSFORMER BOARD *****	
R11	1-216-081-00	METAL CHIP 22K	5% 1/10W		1-533-233-21	HOLDER, FUSE	
R12	1-216-037-00	METAL CHIP 330	5% 1/10W			< CONNECTOR >	
R13	1-216-037-00	METAL CHIP 330	5% 1/10W	CN1601	1-564-321-00	PIN, CONNECTOR 2P	
R14	1-216-081-00	METAL CHIP 22K	5% 1/10W	CN1602	1-691-771-11	PLUG (MICRO CONNECTOR) 9P	
R18	1-216-073-00	METAL CHIP 10K	5% 1/10W (AEP,UK,EE)			< FUSE >	
R19	1-216-073-00	METAL CHIP 10K	5% 1/10W (AEP,UK,EE)	△F1601	1-532-504-31	FUSE, TIME-LAG (4A/250V) (GR3/RX30:AEP,UK,G,EE)	
R21	1-216-049-91	METAL CHIP 1.0K	5% 1/10W	△F1601	1-533-420-11	FUSE, GLASS CYLINDRICAL (DIA.5)(5A/125V) (RX30:US,CND)	
R22	1-216-049-91	METAL CHIP 1.0K	5% 1/10W	△F1602	1-532-504-31	FUSE, TIME-LAG (4A/250V) (GR3/RX30:AEP,UK,G,EE)	
R23	1-216-049-91	METAL CHIP 1.0K	5% 1/10W	△F1602	1-533-420-11	FUSE, GLASS CYLINDRICAL (DIA.5)(5A/125V) (RX30:US,CND)	
R24	1-216-025-91	METAL CHIP 100	5% 1/10W			< RESISTOR >	
R25	1-249-417-11	CARBON 1K	5% 1/4W F	△R1600	1-202-725-00	SOLID 3.3M 10% 1/2W (RX30:US,CND)	
R26	1-249-437-11	CARBON 47K	5% 1/4W	△R1601	1-217-637-00	FUSIBLE 1 5% 1/4W F	
R27	1-249-429-11	CARBON 10K	5% 1/4W	△R1602	1-219-121-11	FUSIBLE 0.22 5% 1/4W F	
R28	1-249-417-11	CARBON 1K	5% 1/4W F	△R1603	1-219-121-11	FUSIBLE 0.22 5% 1/4W F	
R29	1-216-061-00	METAL CHIP 3.3K	5% 1/10W				
R30	1-216-186-00	METAL CHIP 330	5% 1/8W				
R31	1-216-025-91	METAL CHIP 100	5% 1/10W				
R32	1-249-425-11	CARBON 4.7K	5% 1/4W F				
R33	1-249-425-11	CARBON 4.7K	5% 1/4W F				
R34	1-216-065-00	METAL CHIP 4.7K	5% 1/10W				
R35	1-216-214-00	METAL CHIP 4.7K	5% 1/8W				
R36	1-216-025-91	METAL CHIP 100	5% 1/10W				
R37	1-216-073-00	METAL CHIP 10K	5% 1/10W				
R38	1-216-089-91	METAL CHIP 47K	5% 1/10W				
R39	1-249-429-11	CARBON 10K	5% 1/4W				
R42	1-216-073-00	METAL CHIP 10K	5% 1/10W				

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TRANSFORMER

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
△ S1601	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(GR3:E,AR)	
		< TRANSFORMER >	
△ T1001	1-431-127-11	TRANSFORMER, POWER (GR3)	
△ T1001	1-431-128-11	TRANSFORMER, POWER (RX30:US,CND)	
△ T1001	1-431-129-11	TRANSFORMER, POWER (RX30:AEP,UK,G,EE)	

		MISCELLANEOUS *****	
2	1-233-544-11	ENCAPSULATED COMPONENT (RX30:US,CND)	
2	1-233-545-11	ENCAPSULATED COMPONENT (GR3:EXCEPT SAF)	
2	1-233-546-11	ENCAPSULATED COMPONENT (GR3:SAF)	
3	1-769-977-11	WIRE (FLAT TYPE)(13 CORE)(GR3:SAF)	
3	1-782-079-11	WIRE (FLAT TYPE)(13 CORE) (GR3:EXCEPT SAF/RX30:US,CND)	
3	1-782-081-11	WIRE (FLAT TYPE)(15 CORE)(RX30:AEP,UK,G,EE)	
6	1-773-020-11	WIRE (FLAT TYPE)(15 CORE)(SAF)	
6	1-782-082-11	WIRE (FLAT TYPE)(15 CORE)(EXCEPT SAF)	
7	1-776-240-11	WIRE (FLAT TYPE)(19 CORE)	
257	1-452-538-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
△ 301	8-848-367-11	OPTICAL PICK-UP KSS-213B/K-N	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
451	1-500-322-11	HEAD, WIRE (E)	
453	1-500-319-11	HEAD, HOLDER (DECK B)	
455	1-500-320-11	HEAD, WIRE R/P (DECK B)	
456	1-500-321-11	HEAD, WIRE P.B (DECK A)	
514	1-762-610-11	SWITCH, PLATE	
515	1-762-613-11	SWITCH, WIRE LEAF	
516	1-762-612-11	SWITCH, WIRE LEAF	
△ CNP1601	1-782-315-11	CORD, POWER (E,MX)	
△ CNP1601	1-690-608-11	CORD, POWER (AUS)	
△ CNP1601	1-690-609-21	CORD, POWER (CND)	
△ CNP1601	1-777-070-11	CORD, POWER (US)	
△ CNP1601	1-777-071-11	CORD, POWER (AEP,G,EE,AR)	
△ CNP1601	1-575-651-11	CORD, POWER (SAF)	
△ CNP1601	1-777-512-11	CORD, POWER (UK)	
FL501	1-517-660-11	INDICATOR TUBE, FLUORESCENT	
HE901	1-500-318-11	HEAD, E (ERASE)(DECK B)	
HP901	1-543-424-21	HEAD (PLAYBACK)(DECK A)	
HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK)(DECK B)	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
M901	X-3372-231-1	MOTOR ASSY (REEL/CAPSTAN)	
S1	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK A)	
S2	1-571-745-11	SWITCH, LEAF (PLAY)(DECK A)	
S3	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK A)	
S4	1-571-556-11	SWITCH, LEAF (MOTOR)(DECK B)	
S5	1-571-745-11	SWITCH, LEAF (PLAY)(DECK B)	
S6	1-762-611-11	SWITCH, LEAF (TYPE 2)(DECK B)	
S7	1-571-556-11	SWITCH, LEAF (REC)(DECK B)	

Ref. No.	Part No.	Description	Remark
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
△ T1001	1-431-127-11	TRANSFORMER, POWER (GR3)	
△ T1001	1-431-128-11	TRANSFORMER, POWER (RX30:US,CND)	
△ T1001	1-431-129-11	TRANSFORMER, POWER (RX30:AEP,UK,G,EE)	

ACCESSORIES & PACKING MATERIALS *****

1-501-374-11	ANTENNA, LOOP (SAF)
1-501-659-11	ANTENNA (FM)(SAF)
3-859-826-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH)(SAF)
4-979-371-01	COVER, BATTERY (for RM-SD25)
8-917-538-90	REMOCON RM-SD25//M SET (SAF)

***** HARDWARE LIST *****

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-872-09	SCREW +BVTT 3X8 (S)
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#4	7-685-791-09	SCREW +PTT 2.6X5 (S)
#5	7-621-255-15	SCREW +P 2X3
#6	7-685-782-01	SCREW +PTT 2X5 (S)
#7	7-621-773-86	SCRTEWTOTSU PTTWH 2.6X4
#8	7-685-781-09	SCREW +PTT 2X4 (S)
#9	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT
#10	7-621-775-10	SCREW +B 2.6X4

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