HCD-V909AV

SERVICE MANUAL

E Model
Chinese Model

HCD-V909AV is the tuner, deck, Video CD and amplifier section in MHC-V909AV.

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CD SECTION	Model Name Using Similar Mechanism	HCD-V800
	CD Mechanism Type	CDM38L-5BD21AL
	Base Unit Type	BU-5BD21AL
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-V800
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

Amplifier section

Continuous RMS power output
FRONT SPEAKER: 100 + 100 watts (8 ohms, at 1 kHz, 10% THD)
REAR SURROUND SPEAKER: 12.5 + 12.5 watts (16 ohms, at 1 kHz, 10% THD)
CENTER SURROUND SPEAKER: 25 watts (8 ohms, at 1 kHz, 10% THD)
Peak music power output: 1,500 watts
Inputs
AUDIO IN (phone jacks) voltage 250 mV, impedance 47 kilohms
MIX MIC (phone jack): sensitivity 1 mV, impedance 10 kilohms
Outputs
AUDIO OUT (phono jacks): voltage 250 mV impedance 1 kilohms
VIDEO (phono jack): max. output level 1Vp-p, unbalanced, Sync negative, load impedance 75 ohms
S-VIDEO (4-pin/mini-DIN jack): Y: 1 Vp-p, unbalanced, Sync negative C: 0.286 Vp-p, load impedance 75 ohms
PHONES (stereo phone jack): accepts headphones of 8 ohms or more
FRONT SPEAKER: accepts impedance of 8 to 16 ohms.
REAR SURROUND SPEAKER: accepts impedance of 8 ohms.
CENTER SURROUND SPEAKER: accepts impedance of 8 ohms.
SUPER WOOFER: voltage 1 V impedance 1 kilohms

Video CD / CD player section

System: Compact disc digital audio and video system
Laser: Semiconductor laser (λ=780nm) Emission duration: continuous
Laser output: Max. 44.6 μW* *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.
Wavelength: 780 – 790 nm
Audio
Frequency response: 2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio: More than 90 dB
Dynamic range: More than 90 dB
Video
Color system format: NTSC, PAL

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)
Wavelength 600 nm
Output Level –18 dBm

Tape player section

Recording system: 4-track 2-channel stereo
Frequency response (DOLBY NR OFF): 60 – 13,000 Hz (±3 dB), using Sony TYPE I cassette
60 – 14,000 Hz (±3 dB), using Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range: 87.5 – 108.0 MHz
Antenna terminals: 75 ohm unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

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

— Continued on next page —

COMPACT DISC DECK RECEIVER

MICROFILM

SONY®

Other models:

MW:	531 – 1,602 kHz (with the MW tuning interval set at 9 kHz) 530 – 1,710 kHz (with the MW tuning interval set at 10 kHz)
SW:	5.95 – 17.90 MHz (with the SW tuning interval set at 5 kHz)
Intermediate frequency	450 kHz
Antenna	AM loop antenna External antenna terminal

General

Power requirements	
Thailand models:	220 V AC, 50/60 Hz
Malaysian models:	220-240 V AC, 50/60 Hz
Other models:	110-120 V or 220-240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	250 watts
Dimensions (w/h/d)	Approx. 280 × 330 × 366 mm
Mass	Approx. 10.8 kg
Supplied accessories:	AM loop antenna (1) Remote RM-SV909 (1) Sony SUM-3 (NS) batteries (2) FM lead antenna (1) Speaker cords (5) Video cord (1) Front speaker pads (8) Center speaker pads (4)

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 radiation exposure.

Notes on chip component replacement

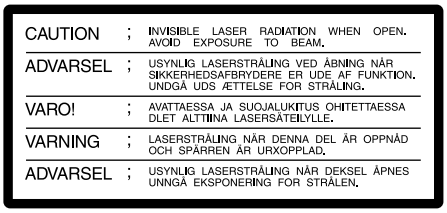
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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.

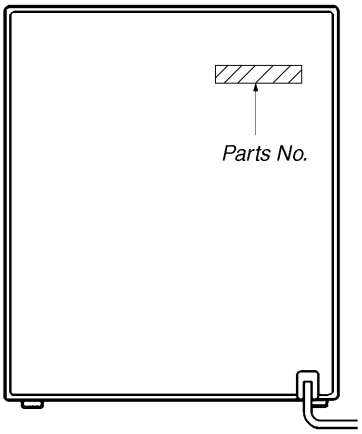
Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

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



This caution label is located inside the unit.

MODEL IDENTIFICATION — BACK PANEL —



- Abbreviation
  SP : Singapore model
  MY : Malaysia model
  IA : Indonesian model
  CH : Chinese model
  TH : Thai model

MODEL	PARTS No.
MY model	4-991-746-4 □
TH model	4-991-746-9 □
E, SP model	4-991-753-0 □
CH model	4-991-753-1 □
IA model	4-991-753-2 □

SAFETY-RELATED COMPONENT WARNING !!

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

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 repain parts.
The flexible board is easily damaged and should be handled with care.

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

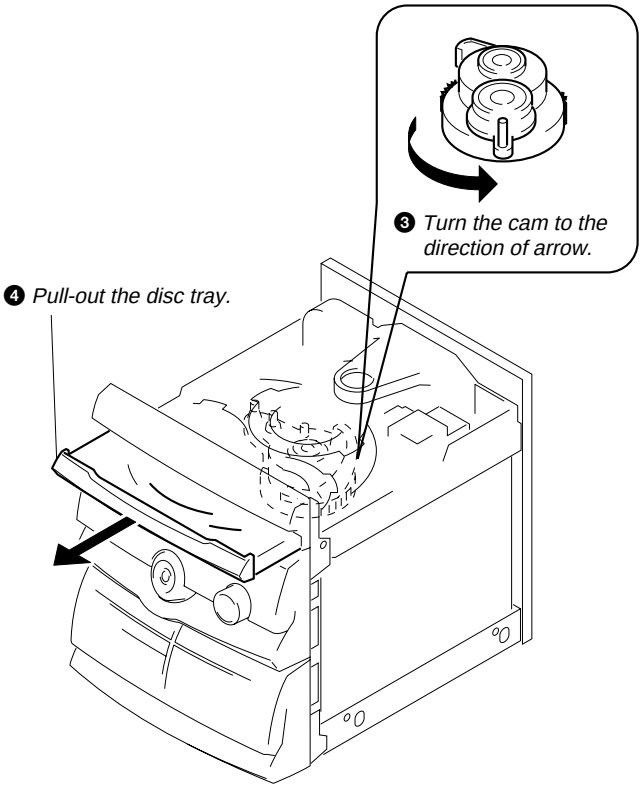
Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveform is output three times.

SECTION 1
SERVICING NOTE

TABLE OF CONTENTS

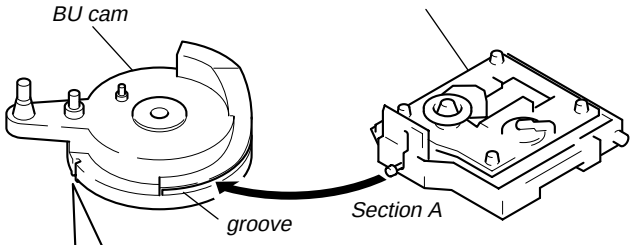
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

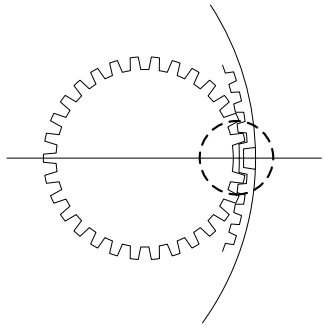
❶ *Remove the Case.*
❷ *Remove the Back panel.*



Note for Installation (ROTARY ENCODER)

Note : *When attaching the Base unit. insert the section A into the groove of BU cam.*





Note : *When attaching the BU cam, engage the Rotary encoder switch as shown in the figure.*

MC Cold Reset

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [NEXT] , [ENTER/NEXT] , and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

CD Delivery Mode

• This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [POWER] button to turn the set ON.
2. Press [PLAY MODE] button and [POWER] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

• This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [NEXT] , [ENTER/NEXT] , and [DISC 2] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

Sled Servo Mode

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Select the function "CD".
2. Press three buttons [NEXT] , [ENTER/NEXT] , and [FUNCTION] simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press [▶▶] button in CD section to move the pick-up to outside track, or [◀◀] button to inside track.
5. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note:

• Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
• Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of FUNCTION Name

• The FUNCTION name of external input terminal can be changed over to VIDEO or MD. With the FUNCTION selected to "MD", about 5dB mute is applied to the input gain.

Procedure:

1. Press [POWER] button to turn the set OFF.
2. Press [POWER] button together with [FUNCTION] button, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO" instantaneously, and thus the FUNCTION is changed over.
3. Press [POWER] button to turn the set OFF.
4. Press [ENTER/NEXT] and [POWER] buttons simultaneously, and the display of fluorescent indicator tube changes to "9k STEP" or "10k STEP", and thus the channel step is changed over.

Change-over of AM Tuner Step between 9kHz and 10kHz

• A step of AM channels can be changed over between 9kHz and 10kHz.

Procedure:

1. Press [POWER] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM" or "MW".

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons [NEXT] , [ENTER/NEXT] , and [DISC 3] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1V0 J0". Each time a button is pressed, "K"value increases. However, once a button is pressed, it is no longer taken into account.
   "J" Value increases like 1, 2, 3 ... if rotating JOG knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
   "V" Value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

Aging Mode

This mode can be used for operation check of CD section and tape deck section.

• If an error occurred:
  The aging operation stops.
• If no error occurs:
  The aging operation continues repeatedly.

1. Aging Mode in CD Section

1-1. Operating procedure of Aging Mode

1. Set discs in DISC 1 and DISC 2 trays.
2. Select the function "CD".
3. Press three buttons [NEXT] , [ENTER/NEXT] , and [KARAOKE PON/MPX] simultaneously.
4. The aging mode is activated, if a roulette mark on the fluorescent indicator tube is blinking.
5. In the aging mode, the aging is executed in a sequence given in "1-2. Operation during Aging Mode".
   The aging continues unless an alarm occurred.
6. To exit from the aging mode, press [POWER] button to turn the set OFF.

• If a button other than buttons In CD section is pressed during aging, the aging in the CD section is finished.
• To execute aging to the tape deck section successively, press [▷] button in the deck A.
  "AGING" is displayed on the fluorescent indicator tube. (For the aging in tape deck, see "2. Aging Mode in Tape Deck Section".

1-2. Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

1. The disc table is ejected.
2. The disc tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
3. TOC of disc is read.
4. The pick-up accesses to the last track.
5. Disc table is ejected.
6. Steps 2 through 5 are repeated.

1-3. Disc Selection Sequence

• During the aging mode, discs are selected in the following sequence:

Disc 1 → Disc 2
↑ ↓
Disc 2 ← Disc 1

2. Aging Mode in Tape Deck Section

2-1. Operating procedure of Aging Mode

1. Load a commercially available 10-minute tape into the decks A and B respectively.
   (If a 10-minute tape is not available, another tape may be used but a cycle time will be longer.)
2. Select the function "TAPE".
3. Rewind tapes in advance by pressing [◀◀] button respectively on decks A and B.
4. Press three buttons [NEXT] , [ENTER/NEXT] , and [KARAOKE PON/MPX] simultaneously.
5. Press [▷] button on deck A. (This button triggers the aging mode.)
6. The aging mode is activated if "AGING A" is displayed on the fluorescent indicator tube.
7. In the aging mode, the aging is executed in a sequence given in "2-2. Operation during Aging Mode".
   The aging continues unless an alarm occurred.
8. To exit from the aging mode, press [POWER] button to turn the set OFF.

2-2. Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

1. A tape on FWD side is played for one minute.
2. PAUSE STOP is made.
3. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [▷] LED does not light up.)
4. FF is executed up to the end of tape.
5. A tape is reversed, and the tape on REV side is played for one minute.
6. PAUSE STOP is made.
7. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [◁] LED does not light up.)
8. FF is executed up to the end of tape.
9. Steps 1 through 8 are executed for the other deck.
10. Steps 1 through 9 are repeated unless an alarm occurred.

2-3. Deck Selection Sequence

• During the aging mode, decks are selected in the following sequence:

Deck A (FWD) → Deck A (REV)
↑ ↓
Deck B (REV) ← Deck B (FWD)

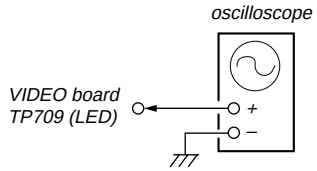
SELF-DIAGNOSIS

This model has the self-diagnosis function for the VIDEO and AUDIO decoder sections.

Immediately after the power on, the self-diagnosis function searches each operation of IC's around the mechanism control microcomputer (IC701).

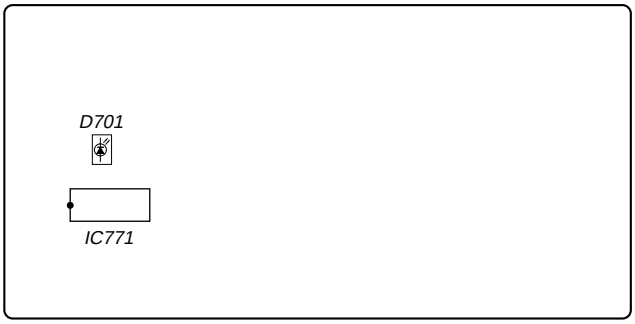
The results can be checked by connecting an oscilloscope to TP709 (LED) of theVIDEO board.

Oscilloscope (Waveform)	Symptom
H L *Light*	No error
H L *1 time blinking*	External SRAM (IC751) error
H L *2 time blinking*	MPEG decoder (IC201) error
H L *3 time blinking*	DRAM (IC251) error

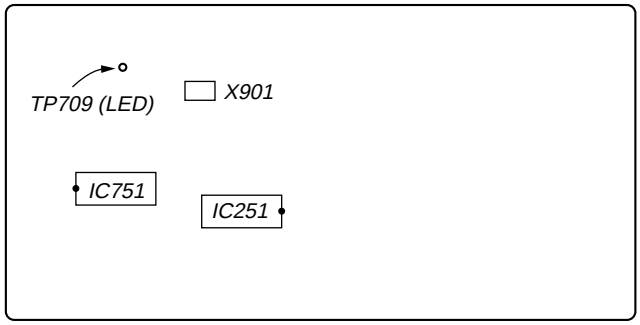


Note: The LED for check (D701) is mounted to some sets (FORMER TYPE). In this case, confirm the lighting condition of LED.

[VIDEO BOARD] (SIDE A)

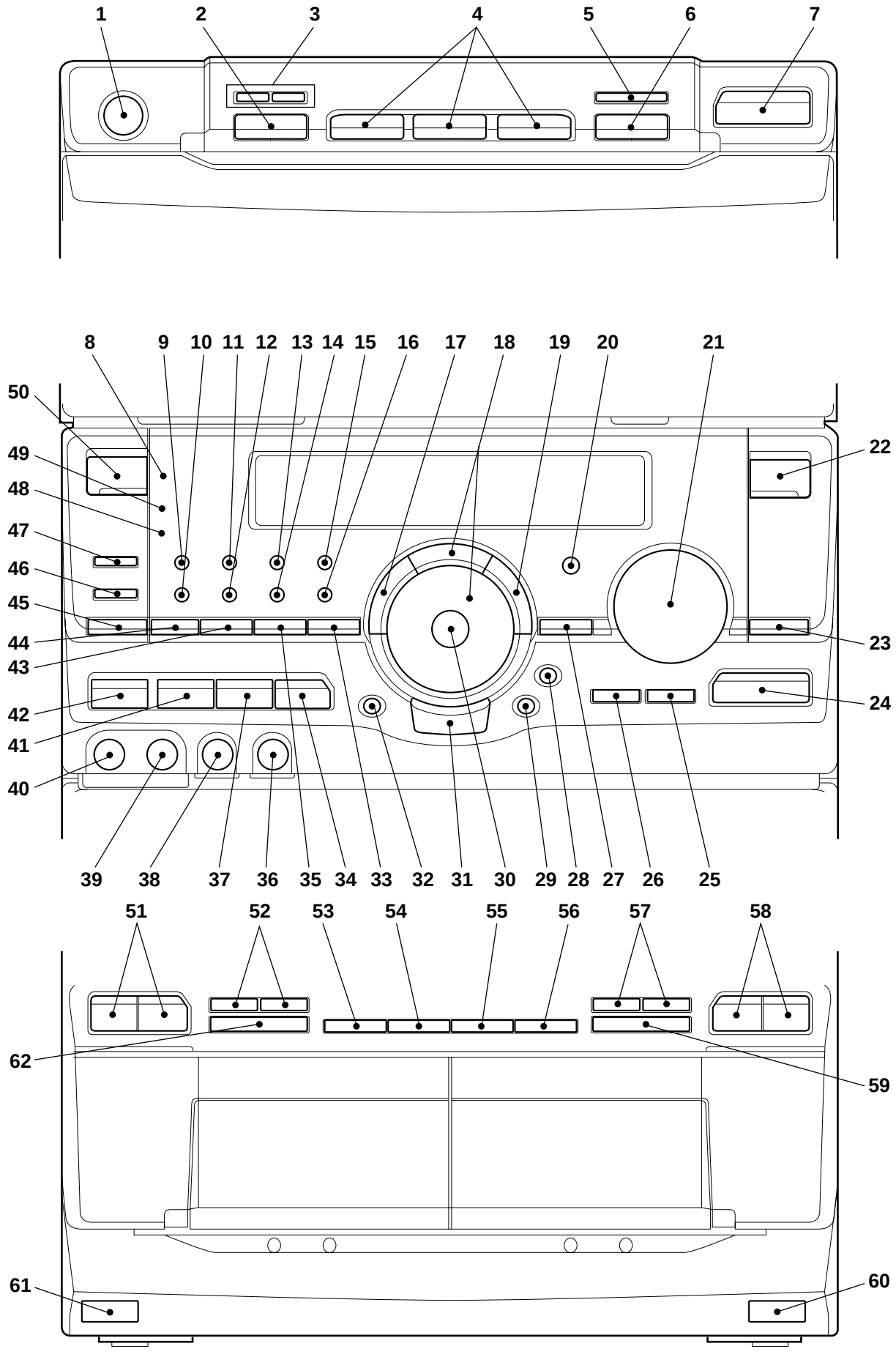


[VIDEO BOARD] (SIDE B)



SECTION 2
GENERAL

Front Panel



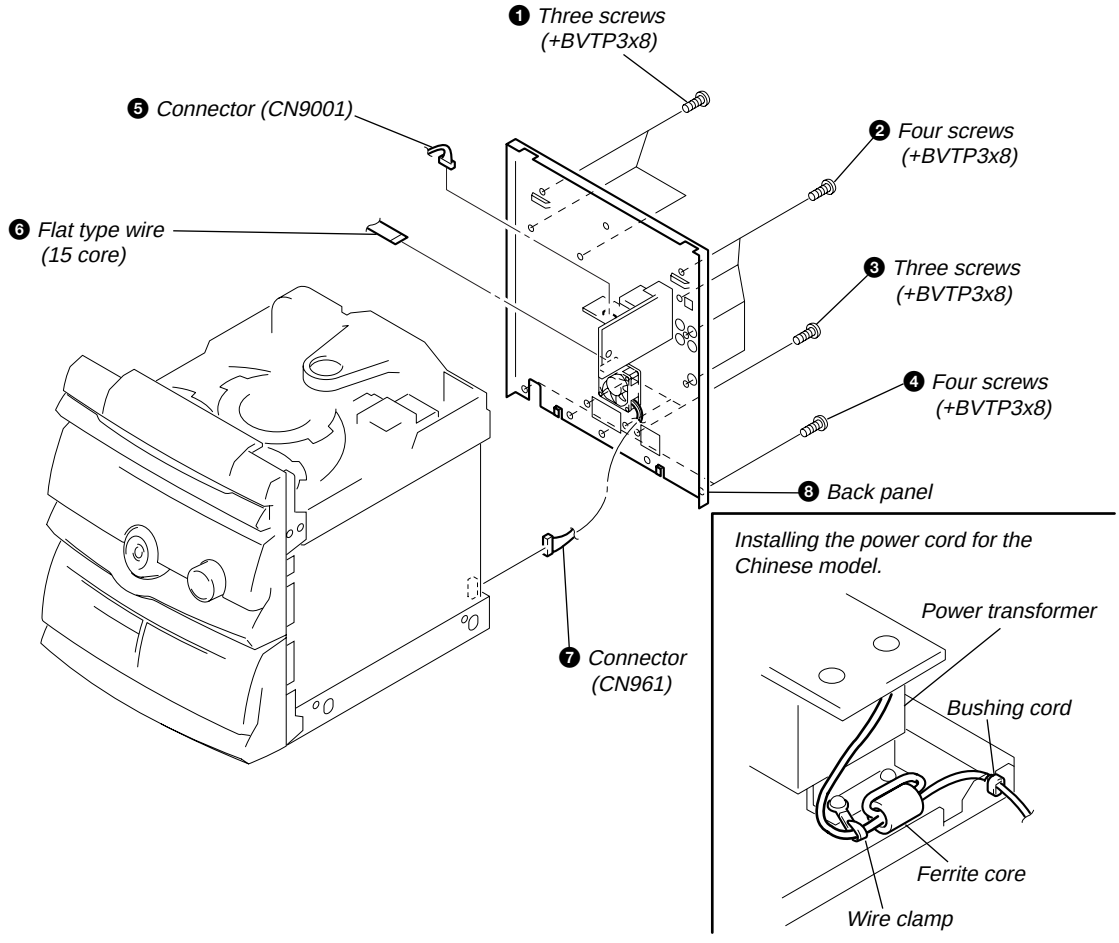
LOCATION OF PARTS AND CONTROLS

1 POWER button
2 DISC SKIP EX-CHANGE button
3 CD ◀◀, ▶▶ button
4 DISC1-DISC3 buttons
5 CD ■ button
6 ⏏ OPEN/CLOSE button
7 CD ▷II button
8 VCD indicator
9 PREV button
10 DISPLAY/DEMO button
11 NEXT button
12 DIRECTION button
13 RETURN button
14 1/ALL DISCS button
15 SELECT button
16 PLAY MODE button
17 LOW FREQUENCY button
18 JOG dial, indicator
19 HIGH FREQUENCY button
20 KARAOKE PON/MPX button
21 VOLUME control
22 FUNCTION button
23 TUNER MEMORY button
24 TUNER/BAND button
25 STEREO/MONO button
26 TUNING MODE button
27 EFFECT ON/OFF button
28 DBFB button
29 DSP button
30 ENTER/NEXT button
31 PROLOGIC button
32 GROOVE button
33 GAME button
34 FLASH button
35 MOVIE button
36 ECHO LEVEL knob
37 LOOP button
38 MIC LEVEL knob
39 MIX MIC jack
40 PHONES jack
41 WAVE button
42 NON-STOP button
43 MUSIC button
44 P FILE button
45 P FILE MEMORY button
46 SLEEP button
47 CLOCK/TIMER SET button
48 AUTO PBC indicator
49 PBC indicator
50 TIMER SELECT button
51 Deck A ◁, ▷ button
52 Deck A ◀◀, ▶▶ button
53 HIGH SPEED DUBBING button
54 CD SYNCHRO button
55 ● REC button
56 II (PAUSE) button
57 Deck B ◀◀, ▶▶ button
58 Deck B ◁, ▷ button
59 Deck B ■ button
60 Deck B ⏏ button
61 Deck A ⏏ button
62 Deck A ■ button

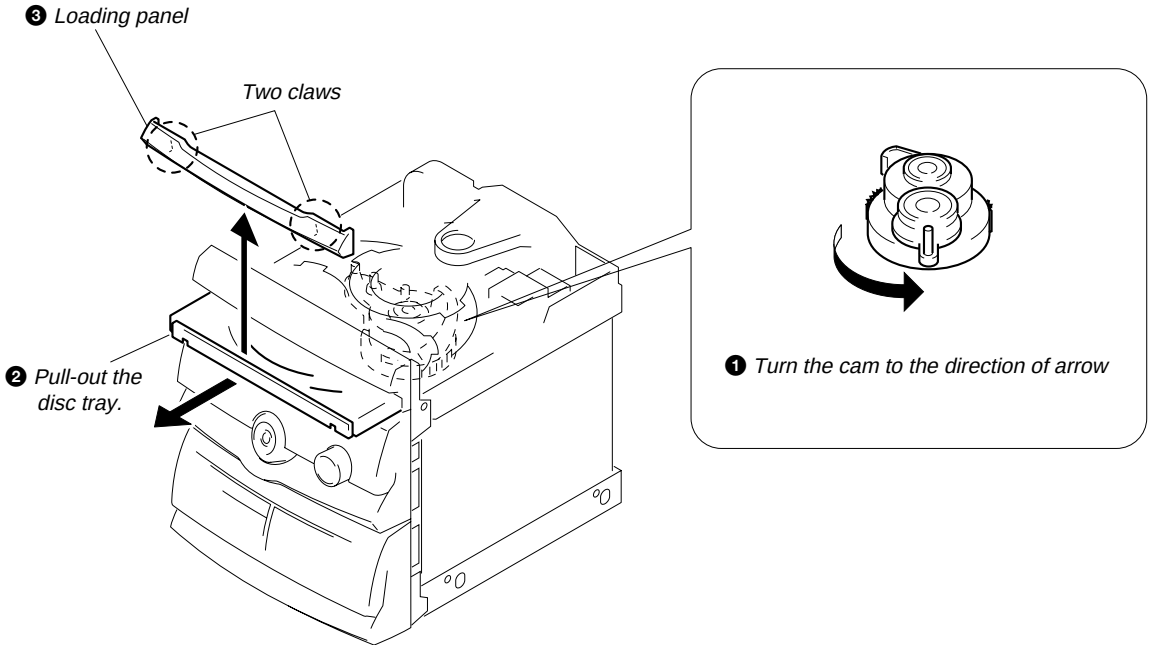
SECTION 3
DISASSEMBLY

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

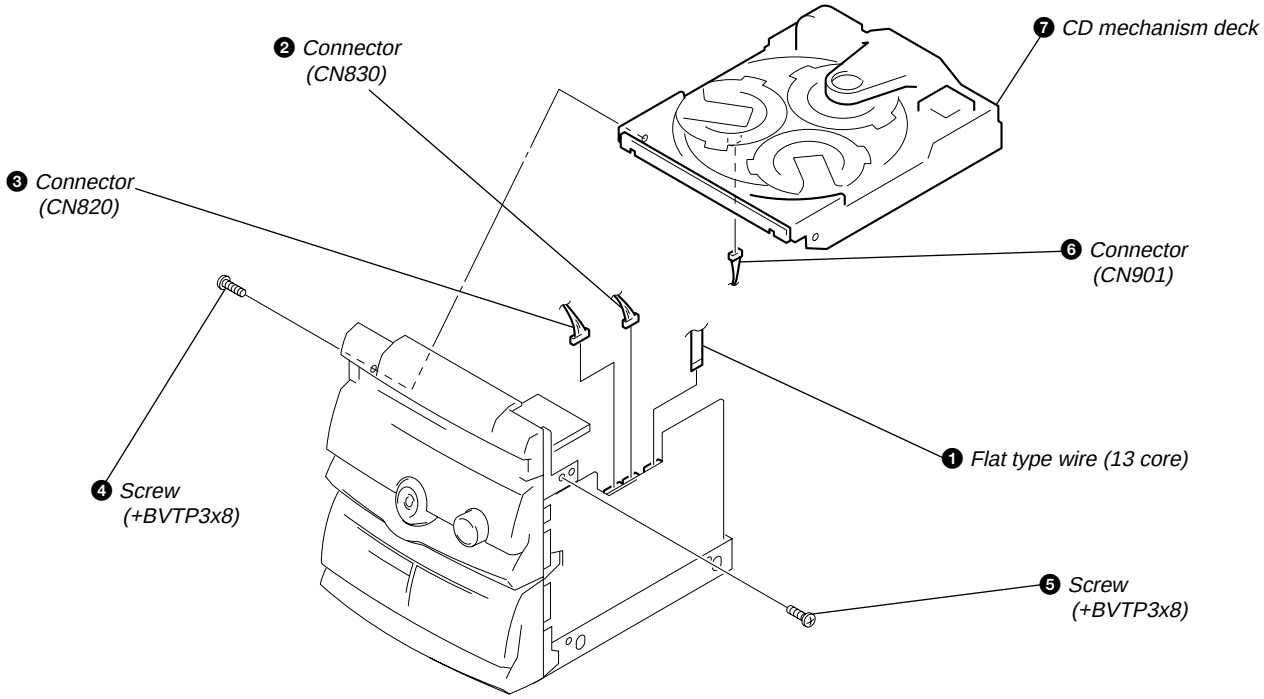
3-1. BACK PANEL



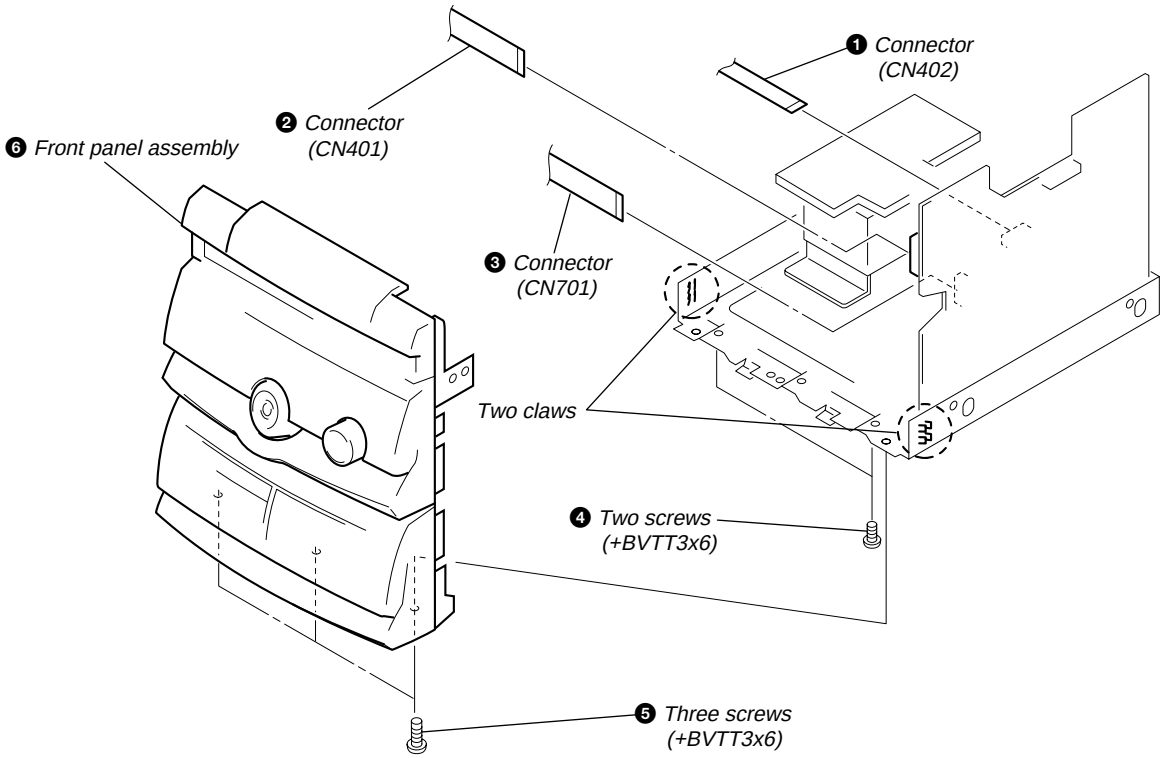
3-2. LOADING PANEL



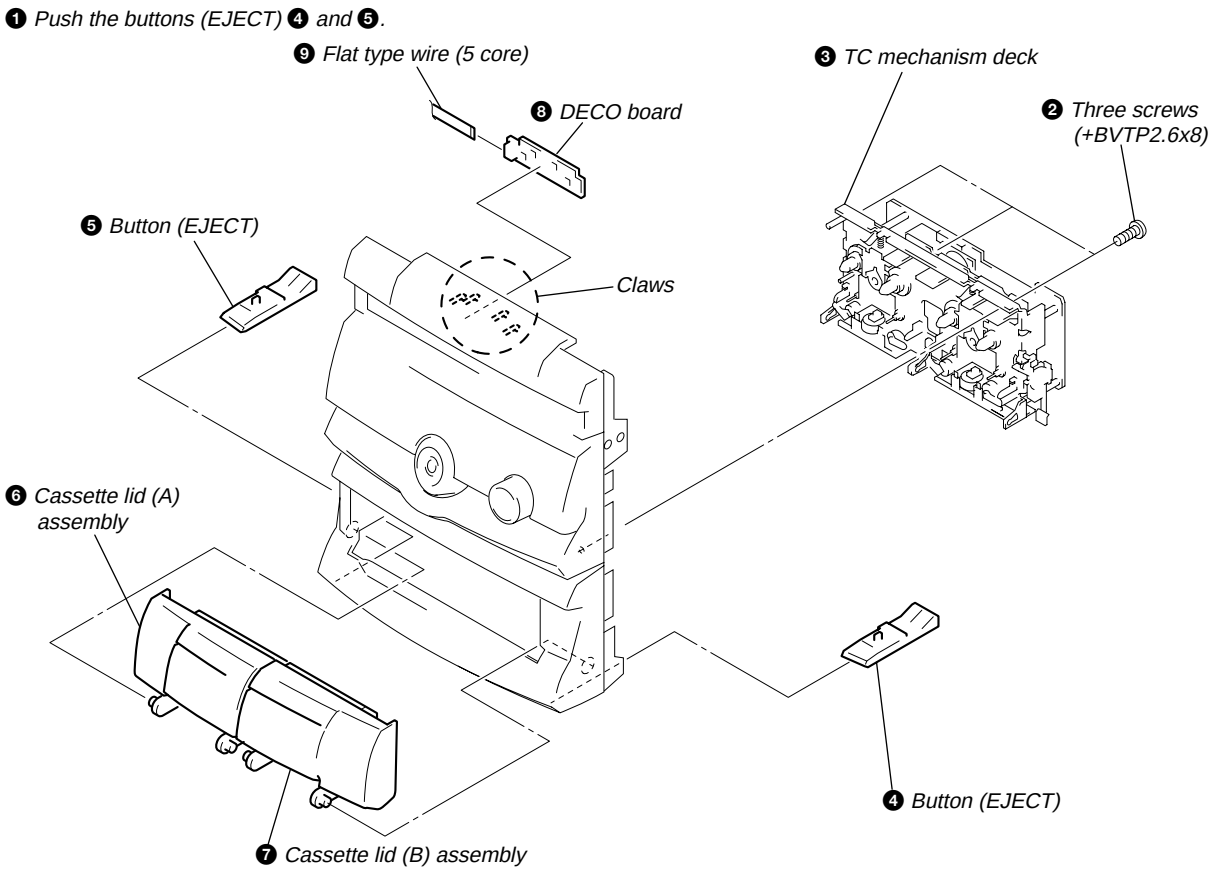
3-3. CD MECHANISM DECK



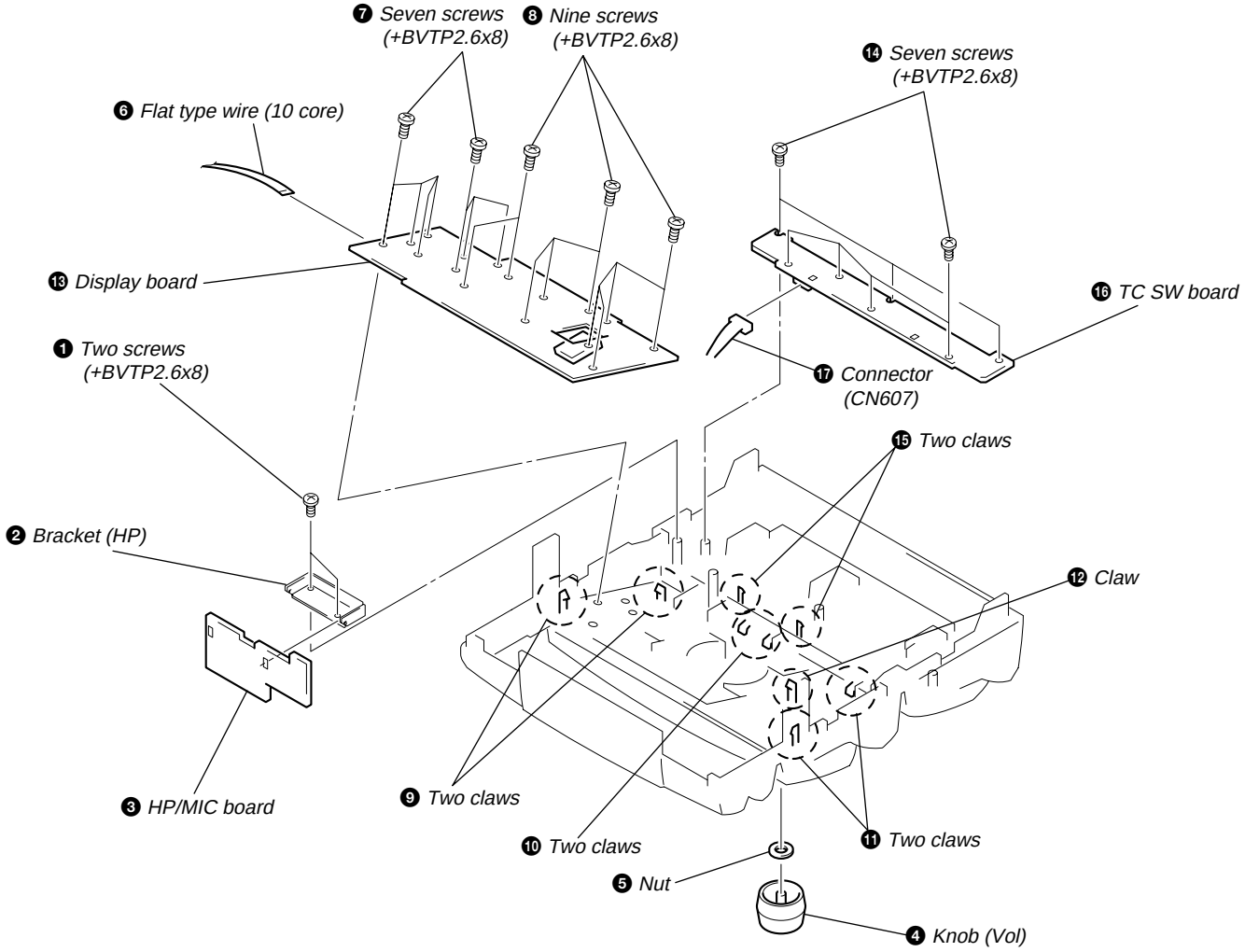
3-4. FRONT PANEL



3-5. TC MECHANISM DECK AND DECO BOARD

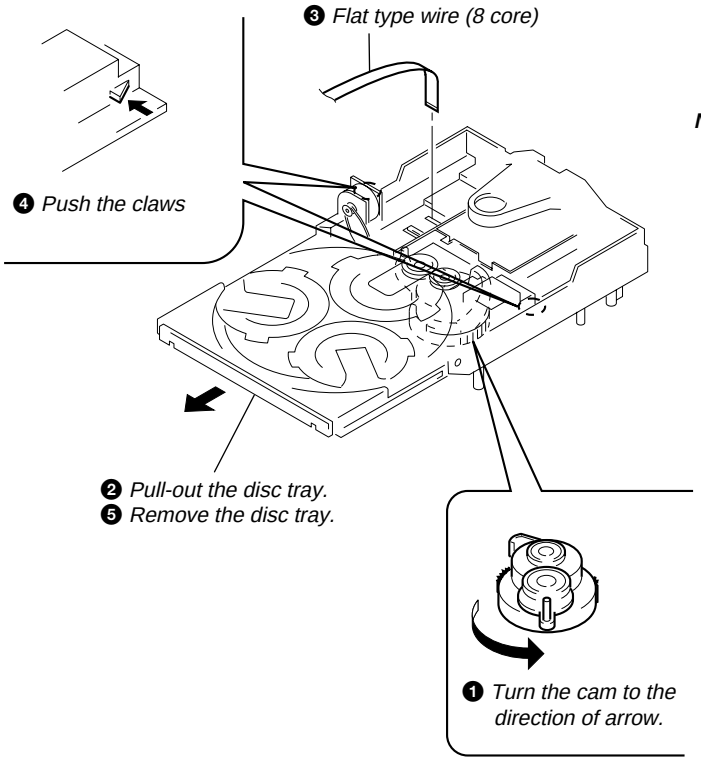


3-6. HP/MIC BOARD, DISPLAY BOARD AND TC SW BOARD

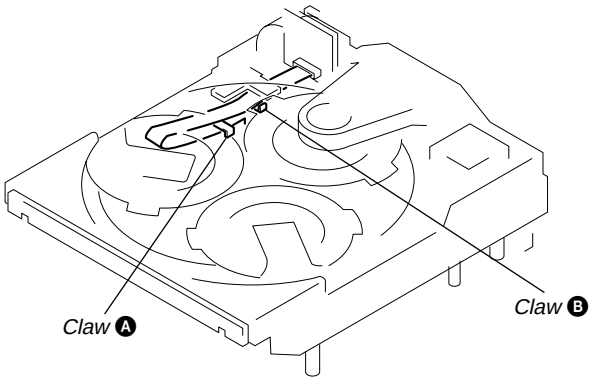


3-7. DISC TRAY

(Perform after removing the front panel.)



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



SECTION 4
TEST MODE

VIDEO CD COLOR-BARS MODE

On this mode, the data of the color-bars signal as a picture signal and the 1kHz sine wave signal as a sound signal are output by the mechanism control microcomputer (IC701) for video CD signal check. When measurement of the voltage and waveform on the VIDEO board, perform it in this mode.
For refernce, the color-bars signal can be observed at J9001 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO/MD (AUDIO) OUT) using an oscilloscope.

1. Connect the lead wire to both ends of the land of SL701 (CAL BAR) of the VIDEO board.
2. Turn the power on. Press FUNCTION button to select CD.
3. After 2 or 3 seconds later, connect the lead wire.
4. After measuring, remove the lead wire connected.

NOTE:
The 1 kHz sine wave is not outputted when the CD is played once, but it is not error.

E-F BALANCE MODE

• Refer to SECTION 6 ELECTRICAL ADJUSTMENTS page 15.

1. Connect the lead wire to both ends of the land of SL702 (ADJ) and SL703 (AFADJ) of the VIDEO board.
2. Turn the power on. Press FUNCTION button to select CD.
3. Short-circuit the lead wire. (At this time, “DISC” on the fluorescent indicator tube will blink (test mode). If it is not blinking, perform from step 1 again.)
4. Press the ▷ button in playback.
5. Every pressing the REPEAT button, the tracking servo and the sledding servo are turned on or off.
6. When the servo is OFF, the counter on front panel will not be changed.
7. After measuring, remove the lead wire connected step 1.

[VIDEO BOARD] (SIDE B)

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   - record/playback heads
   - erase head
   - capstan
   - pinch rollers
   - rubber belts
   - 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	36 to 61 g • cm (0.5 - 0.84 oz • inch)
FWD back tension	CQ-102C	2 to 6 g • cm (0.02 - 0.08 oz • inch)
REV	CQ-102RC	36 to 61 g • cm (0.5 - 0.84 oz • inch)
REV back tension	CQ-102RC	2 to 6 g • cm (0.02 - 0.08 oz • inch)
FF/REW	CQ-201B	61 to 143 g • cm (0.85 - 1.99 oz • inch)
FWD tension	CQ-403A	100 g or more (3.53 oz or more)
REV tension	CQ-403R	100 g or more (3.53 oz or more)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION **0 dB=0.775V**

1. Demagnetize the record/playback head with a head damagnetizer.
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

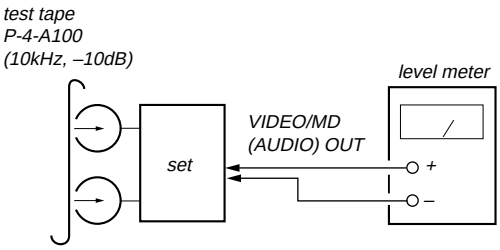
NOTE:
Set the test mode by following step before performing the adjustment of "DECK SECTION". All effects for the output signal are canceled. If the adjustment is not performed in this test mode, you cannot adjust correctly.

Procedure :
With the power turned ON, press the NEXT button, ENTER/NEXT button, and EFFECT ON/OFF button simultaneously.
(The "VOLUME" on the fluorescent display tube will blink while in the test mode.)
To exit the test mode, press the POWER button.

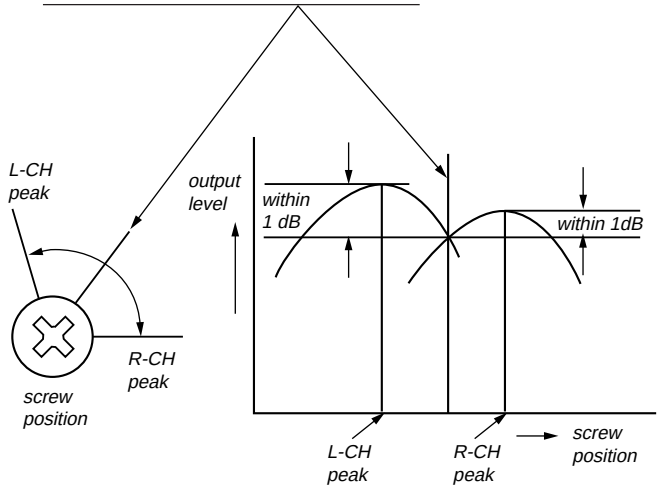
Record/Playback Head Azimuth Adjustment (Deck A, Deck B)

Note: Perform this adjustments for both decks.

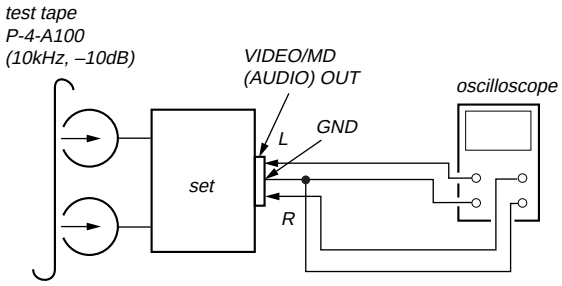
Procedure:
1. Mode : Playback

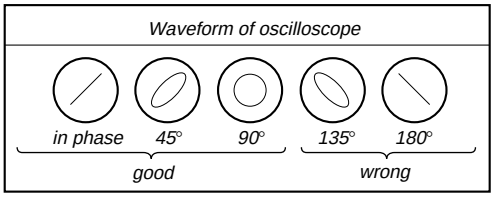


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



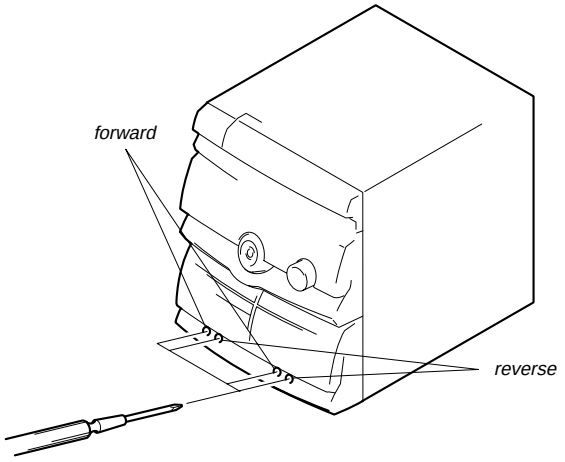
3. Mode: Playback





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

Adjustment Location: Playback Head (Deck A)
Record/Playback/Erase Head (Deck B)



Tape Speed Adjustment (Deck A)

Note: Set the test mode using the following method and begin tape speed adjustment.
In the test mode, the tape will move at double speed while the HIGH SPEED DUBBING button is pressed.

Procedure :
With the power turned ON, press the NEXT button, ENTER/NEXT button, and EFFECT ON/OFF button simultaneously.
(The "VOLUME" on the fluorescent display tube will blink while in the test mode.)
To exit the test mode, press the POWER button.

1. Load WS-48B into deck A and a recordable tape into deck B.
2. Press the ● REC button, and press the ▷ button of deck B to set deck B into the recording state.
3. Play deck A.
4. While pressing the HIGH SPEED DUBBING button, set double speed play.
5. Adjust RV652 of the AUDIO board so that the reading of the frequency counter becomes 6000 ± 90 Hz.
6. Release the HIGH SPEED DUBBING button to set normal speed play.
7. Adjust RV651 of the AUDIO board so that the reading of the frequency counter becomes 3000 ± 90 Hz.

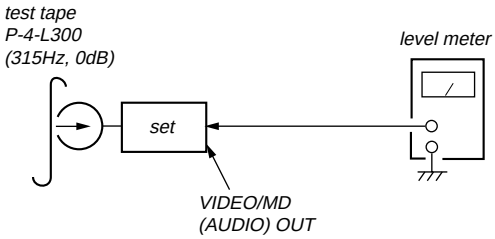
Adjustment Location: AUDIO board

Sample Value of Wow and flutter

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

Playback Level Adjustment (Deck A, Deck B)

Procedure:



Mode: Playback
Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH)
so that adjustment within the following adjustment level.

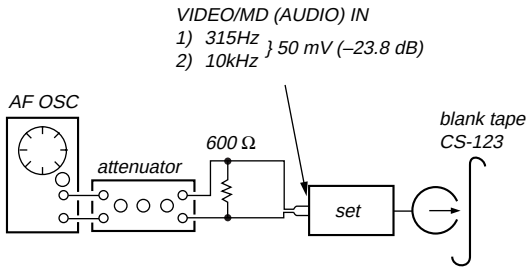
Adjustment level:
J101 playback level: 301.5 to 338.3 mV (–8.2 to –7.2 dB)
level difference between the channels: within ± 0.5 dB
Adjustment Location: AUDIO board

Record Bias Adjustment (Deck B)

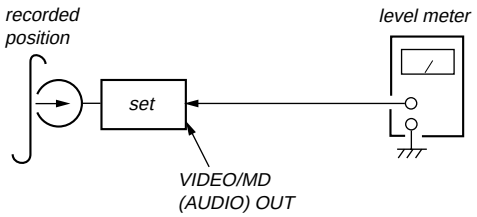
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Load a tape into deck B, and press the [● REC] button.
3. Mode: Record



4. Mode: Playback



5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

Adjustment level: The playback output of 10 kHz level difference against 315 Hz reference should be ± 1.0 dB.

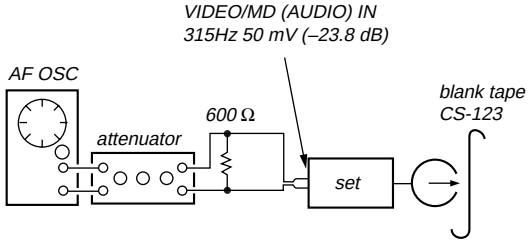
Adjustment Location: AUDIO board

Record Level Adjustment (Deck B)

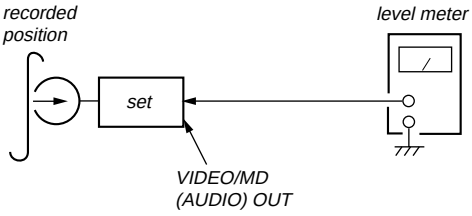
Procedure:

INTRODUCTION
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.
This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

1. Press [FUNCTION] button to select VIDEO. (This step is not necessary if the above test mode has already been set.)
2. Load a tape into deck B, and press the [● REC] button.
3. Mode: Record



4. Mode: Playback

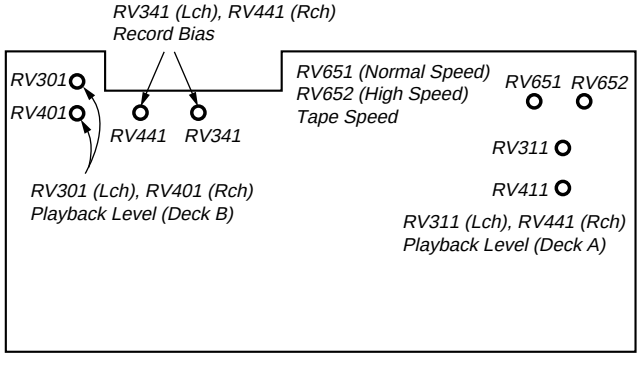


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
   If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

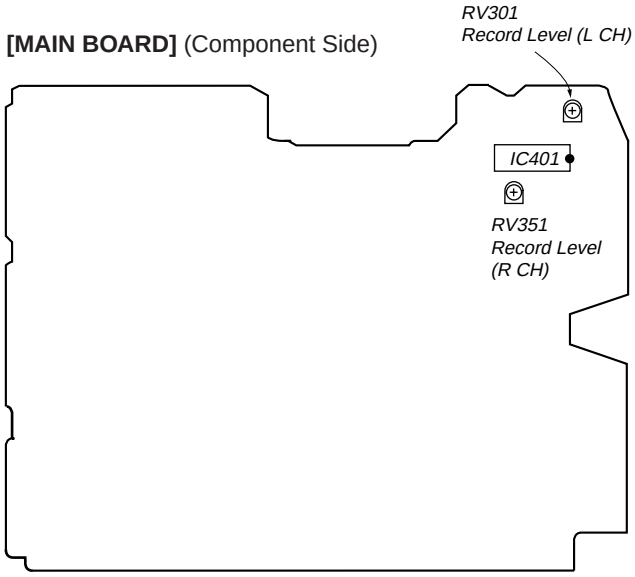
Adjustment level:
CN403 playback level: 47.2 to 53.0 mV (–24.3 to –23.3 dB)

Adjustment Location: MAIN board

Adjustment Location
[AUDIO BOARD] (Conductor Side)



[MAIN BOARD] (Component Side)

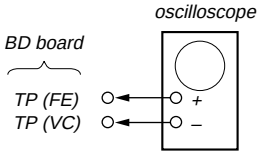


CD SECTION

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 10MΩ 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.

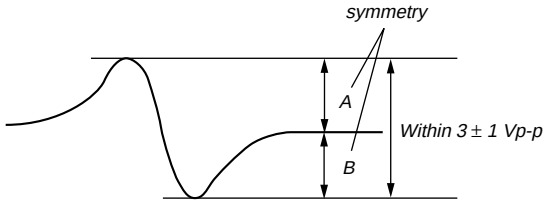
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned 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 3±1 Vp-p.

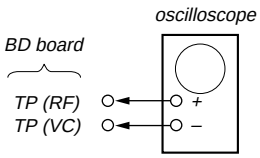
S-curve waveform



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

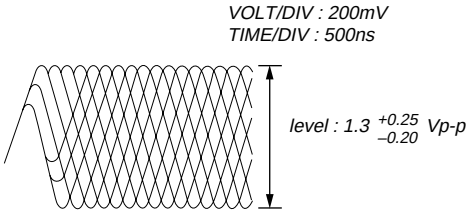


Procedure :

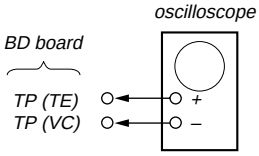
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



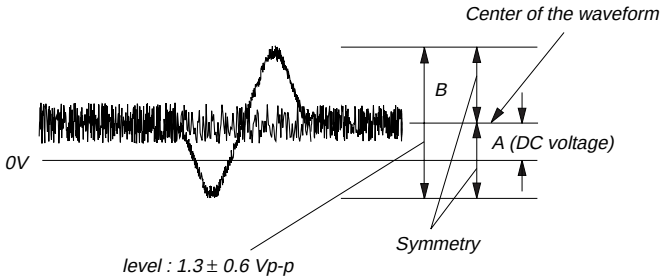
E-F Balance (1 Track Jump) check (Without remote commander)



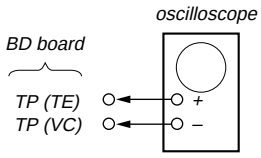
Procedure:

1. Connect oscilloscope to test point TP (TE) on BD board.
2. Turned Power switch on. Press FUNCTION button to select CD.
3. Put disc (YEDS-18) in to play the number five track.
4. Press the "❚❚ (Pause)" button.
5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following:
   • A/B x 100 = less then ± 22 (%)

1 track jump waveform



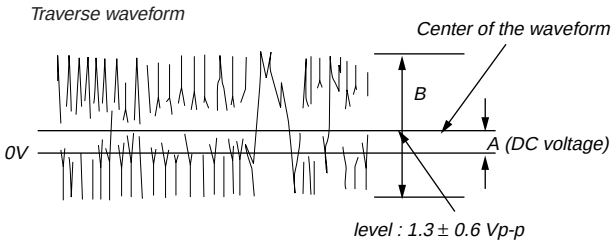
E-F Balance (Traverse) Check (With remote commander)



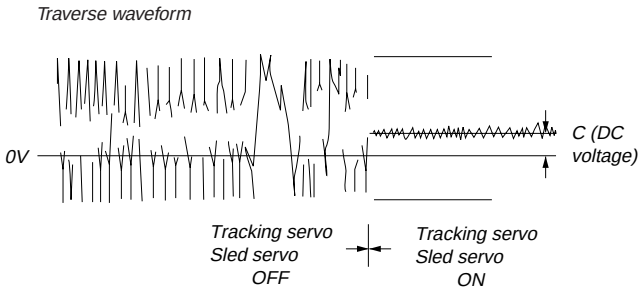
Procedure :

1. Connect oscilloscpe to test point TP (TE) on BD board.
2. Connect the lead wire to both ends of the land of SL702 (ADJ) and SL703 (AFADJ) of the VIDEO board.
3. Turned Power switch on. Press FUNCTION button to select CD.
4. Short the lead wire.
5. Put disc (YEDS-18) in to play the number five track.
6. Press the REPEAT button. (The tracking servo and the sledding servo are turned OFF.)

7. Check the level B of the oscilliscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%



8. Press the REPEAT button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 7.

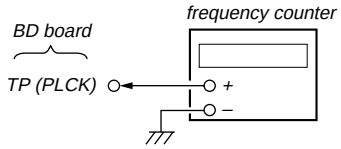


9. Remove the lead wire connected step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to TP (PLCK) with lead wire.

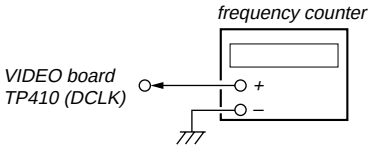


2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track.
   Confirm that reading on frequency counter is 4.3218MHz.

VIDEO SECTION

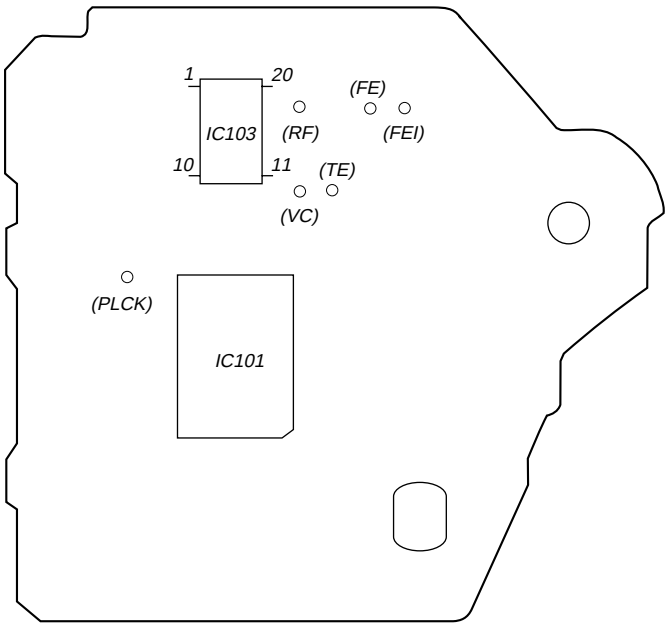
Frequency adjustment

1. Connect the frequency counter to check point of the VIDEO board.
2. Adjust CT401 of the VIDEO board so that the frequency counter read 13.5MHz ± 40Hz at STOP condition.

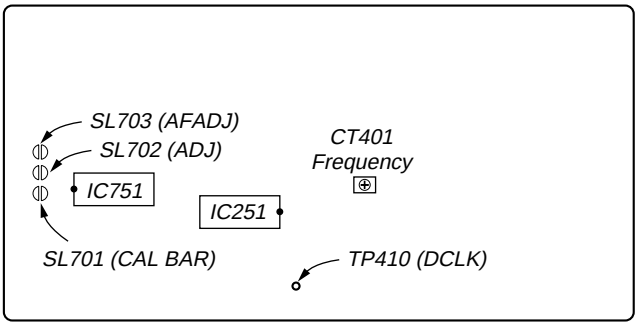


Adjustment Location :

[BD BOARD] — SIDE A —

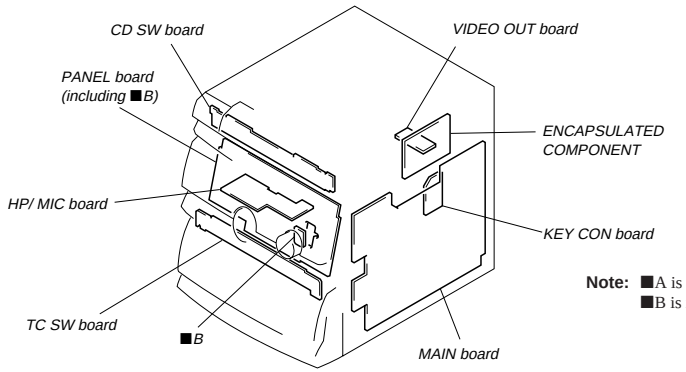


[VIDEO BOARD] — SIDE B —

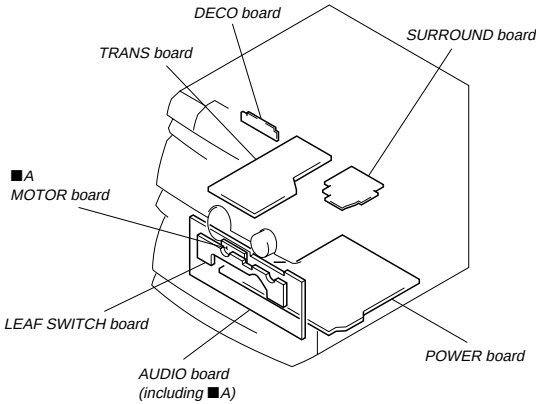


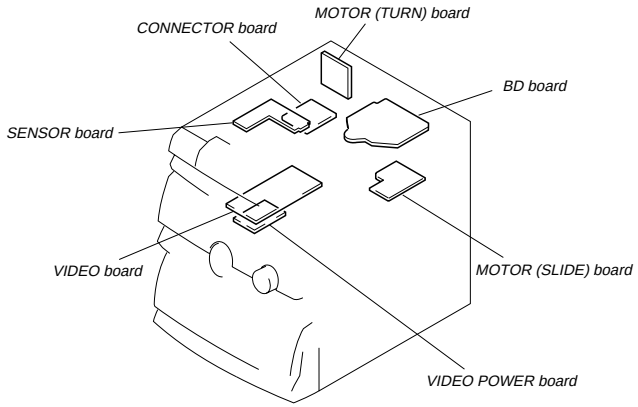
SECTION 7
DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION

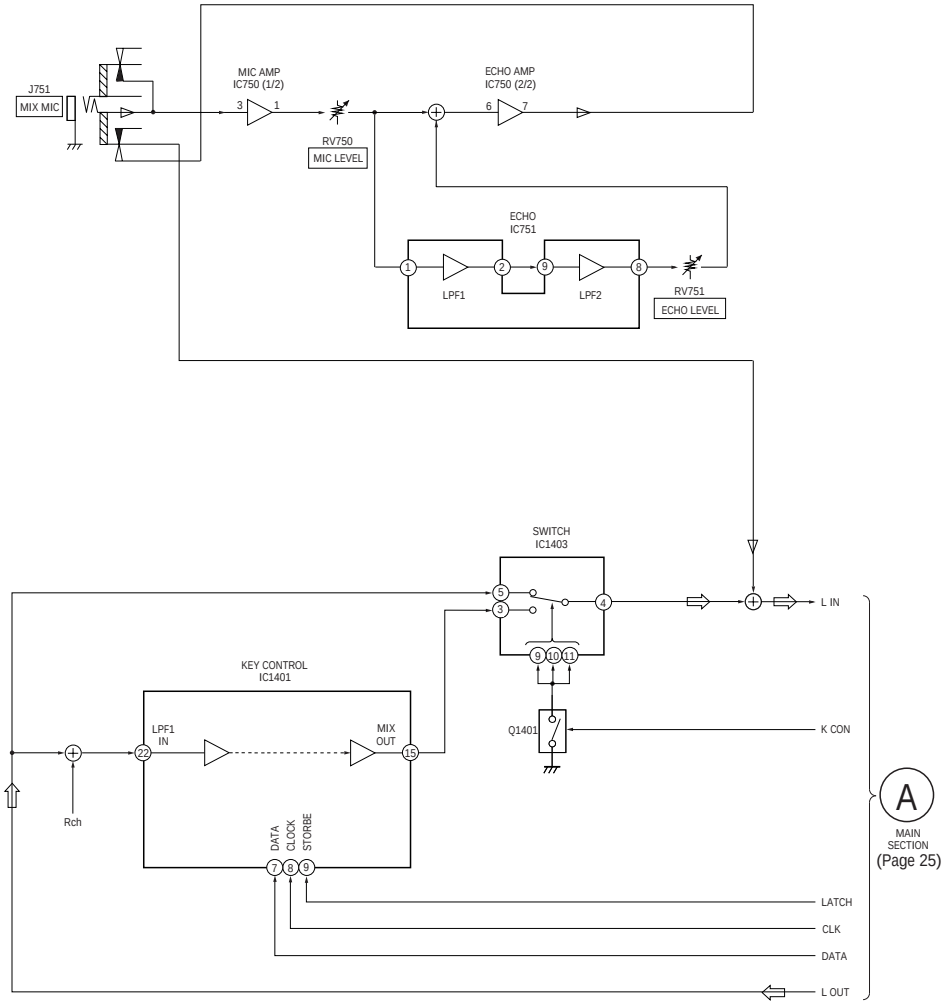


Note: ■A is including in AUDIO board.
■B is including in PANEL board.





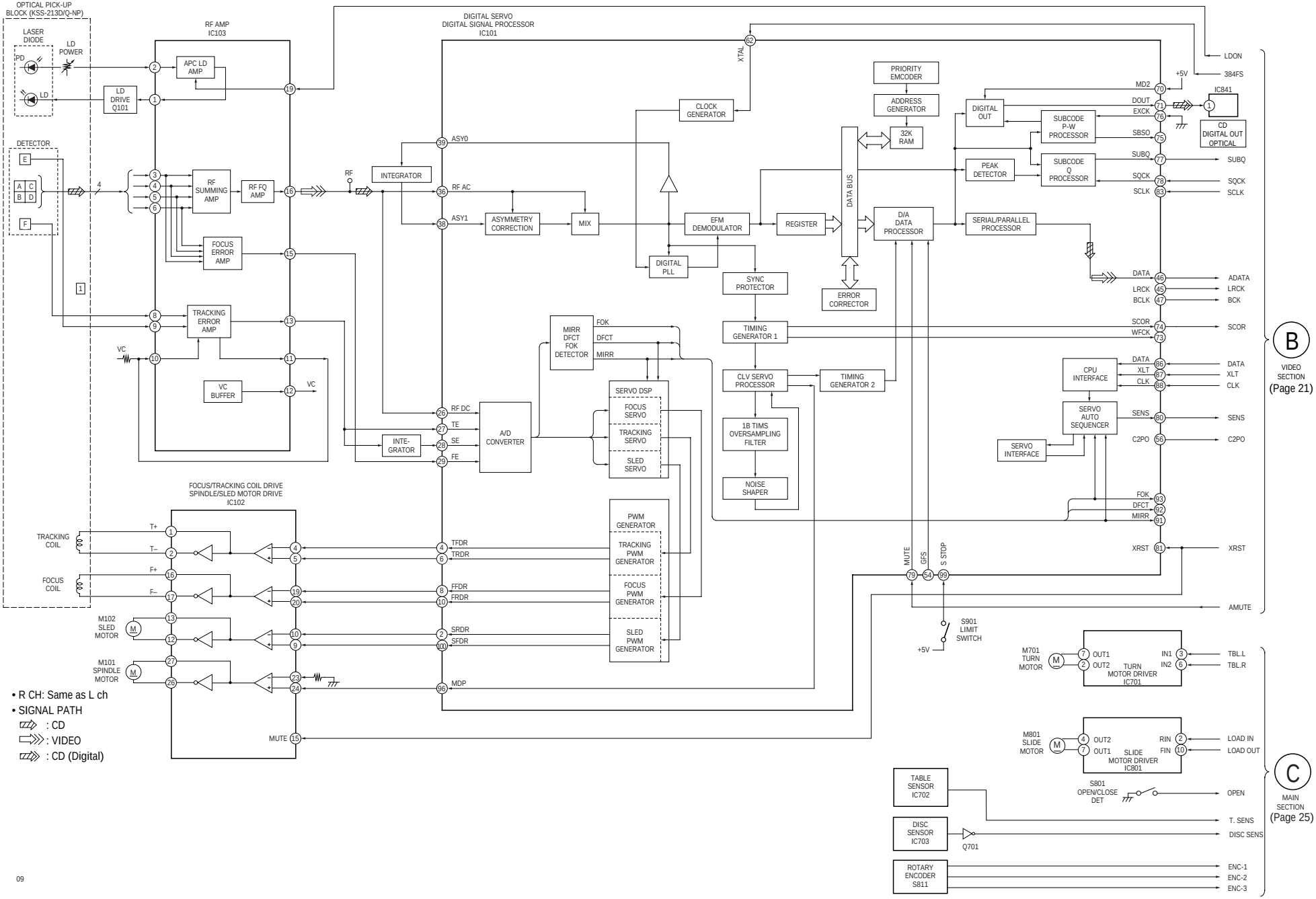
7-2. BLOCK DIAGRAMS
— KEY CON SECTION —



09

- R CH : Same as Lch
- Signal path
  ⇨ : FM
  ▷ : MIC

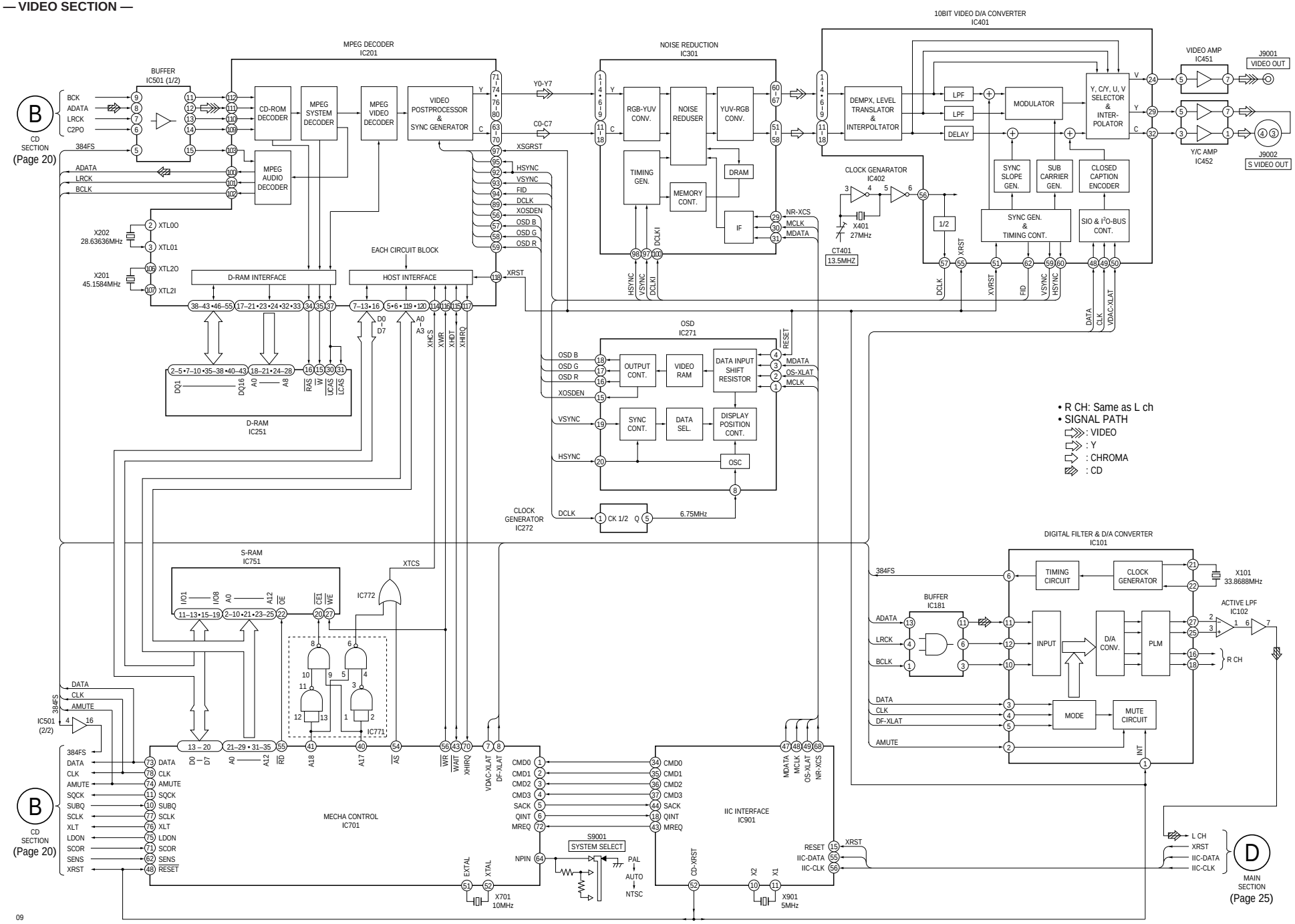
— CD SECTION —



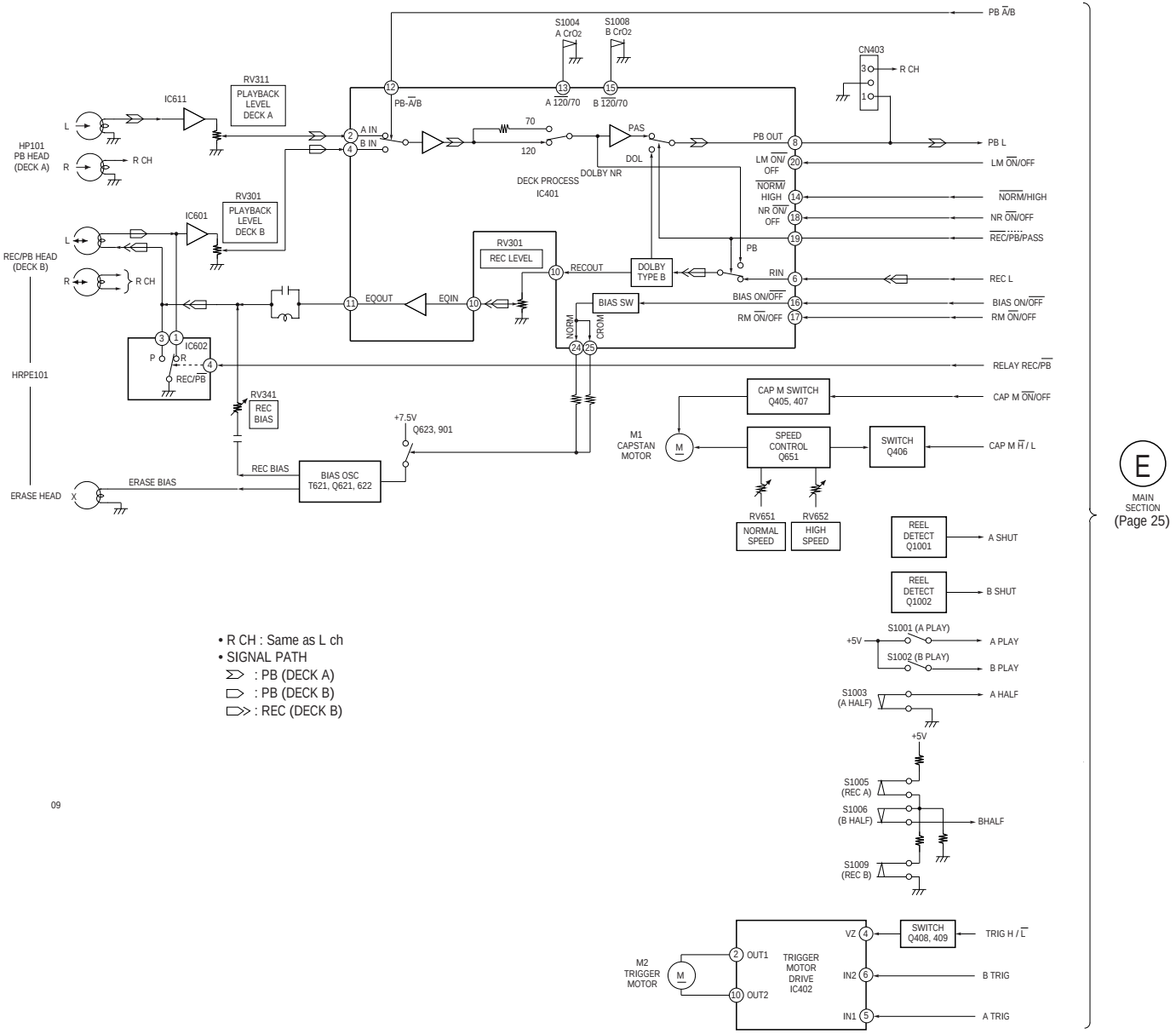
- R CH: Same as L ch
- SIGNAL PATH
  - : CD
  - : VIDEO
  - : CD (Digital)

09

— VIDEO SECTION —



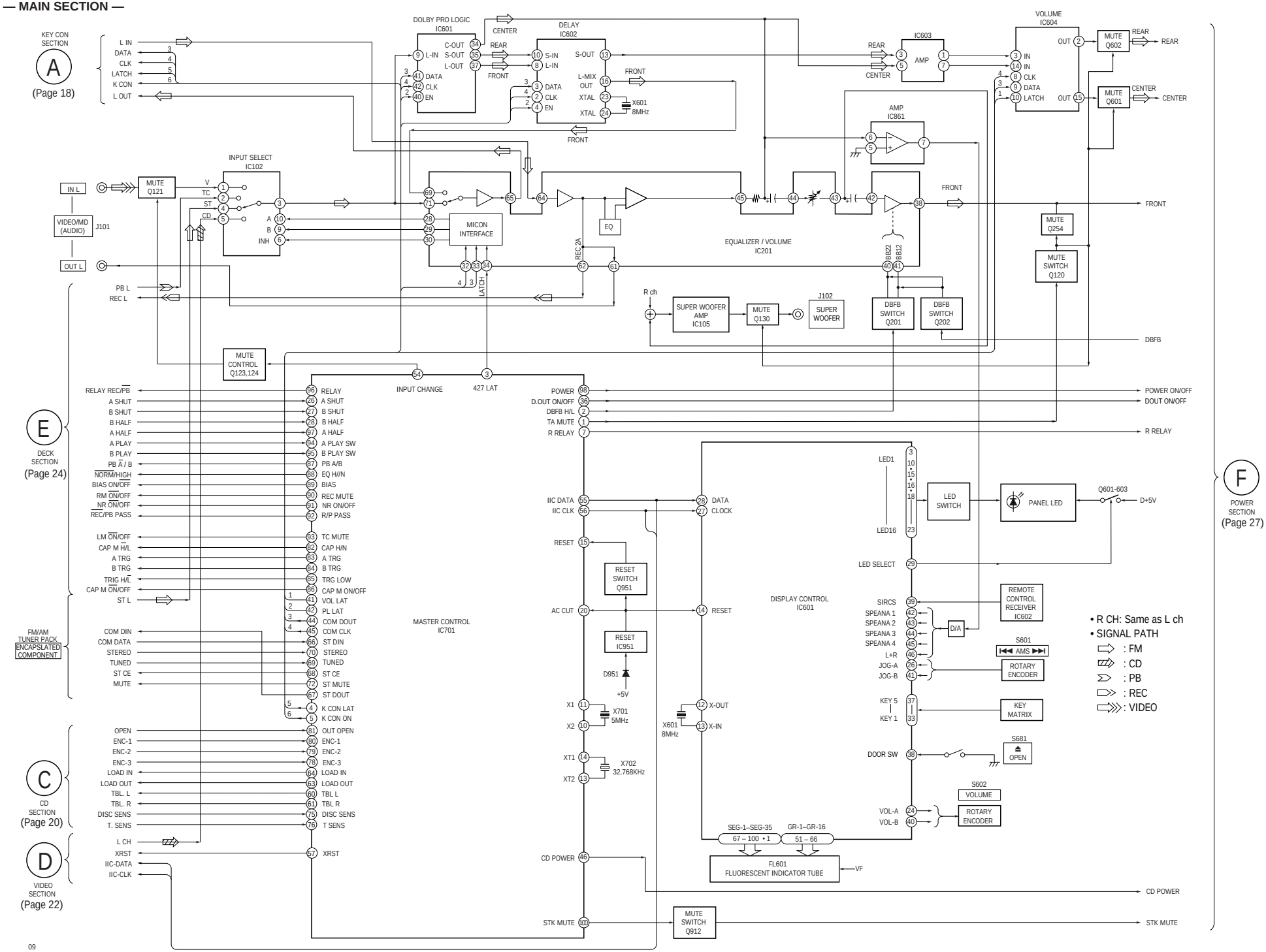
— DECK SECTION —



- R CH : Same as L ch
- SIGNAL PATH
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)

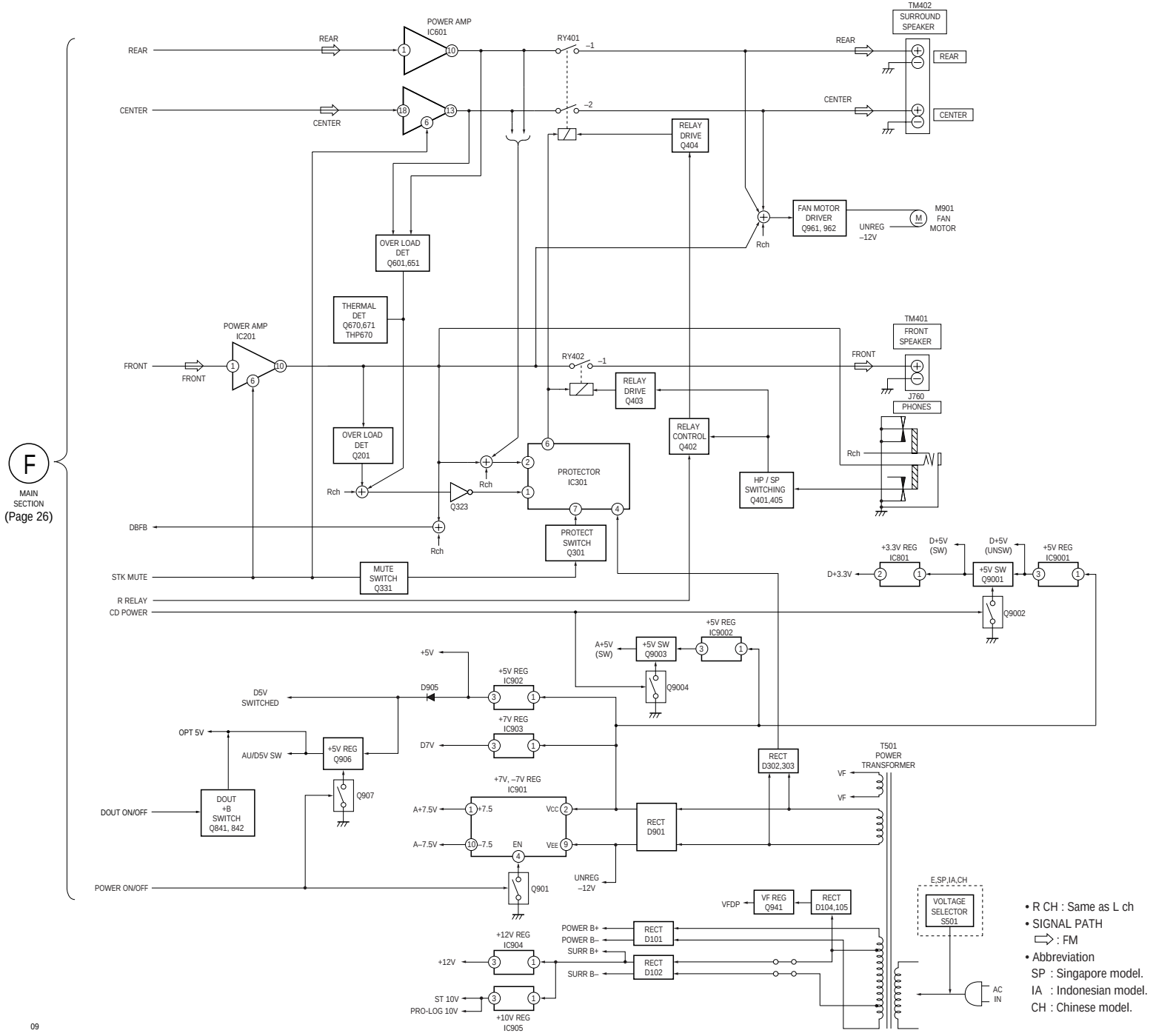
E
MAIN SECTION
(Page 25)

— MAIN SECTION —



09

— POWER SECTION —

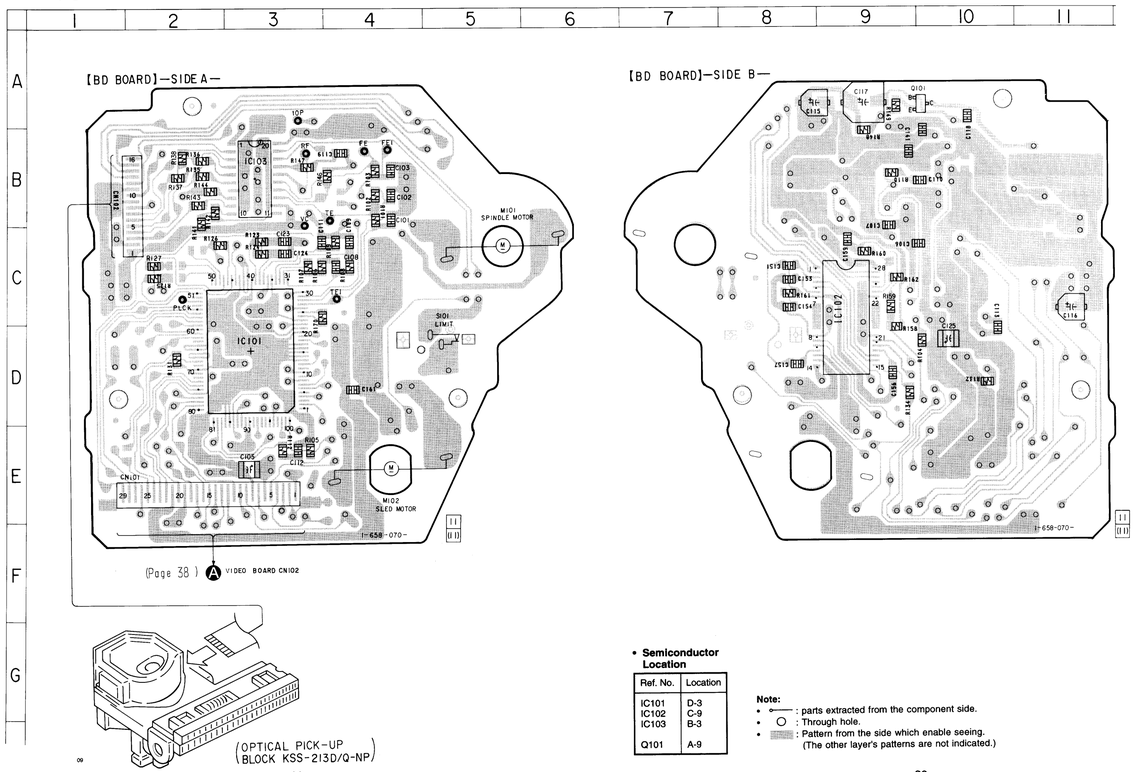


- R CH : Same as L ch
- SIGNAL PATH
  ⇨ : FM
- Abbreviation
  SP : Singapore model.
  IA : Indonesian model.
  CH : Chinese model.

09

7-3. PRINTED WIRING BOARD — CD SECTION —

• See page 17 for Circuit Boards Location.



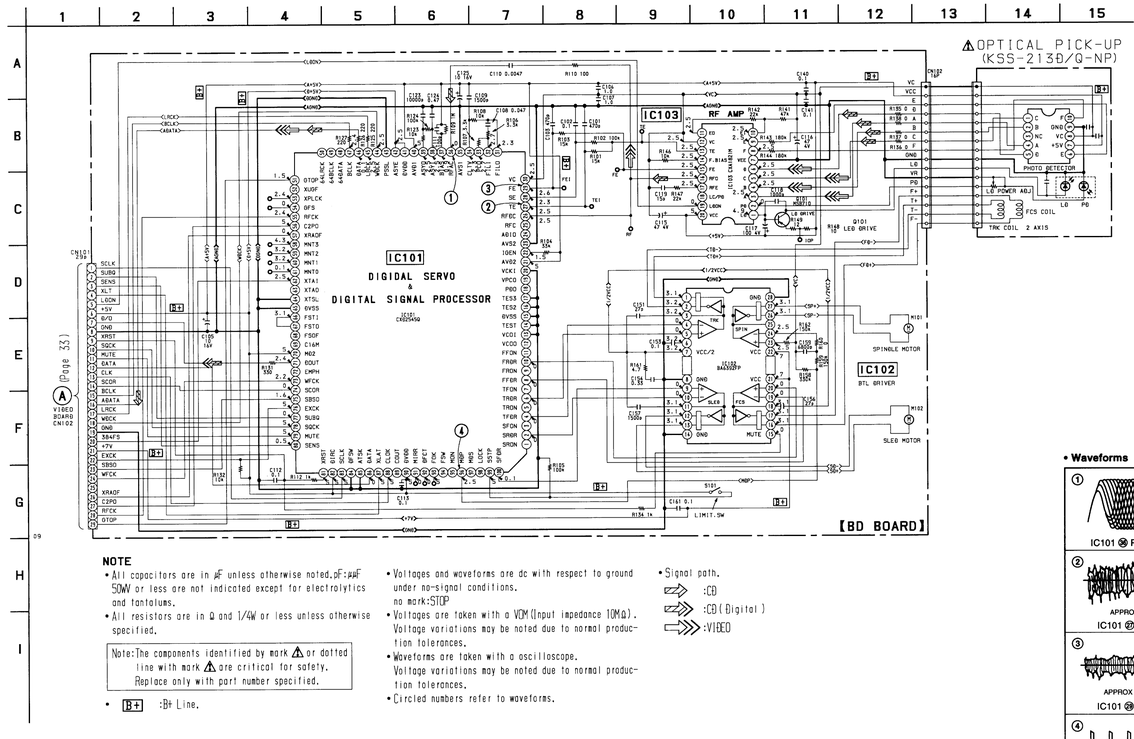
• **Semiconductor Location**

Ref. No.	Location
IC101	D-3
IC102	C-9
IC103	B-3
Q101	A-9

Note:
- ⟵ : parts extracted from the component side.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

7-4. SCHEMATIC DIAGRAM — CD SECTION —

• See page 73 for IC Block Diagrams.
• See page 80 for IC Pin Functions.

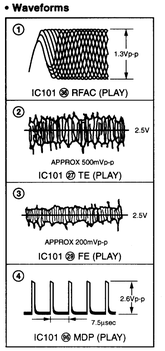


NOTE
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

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

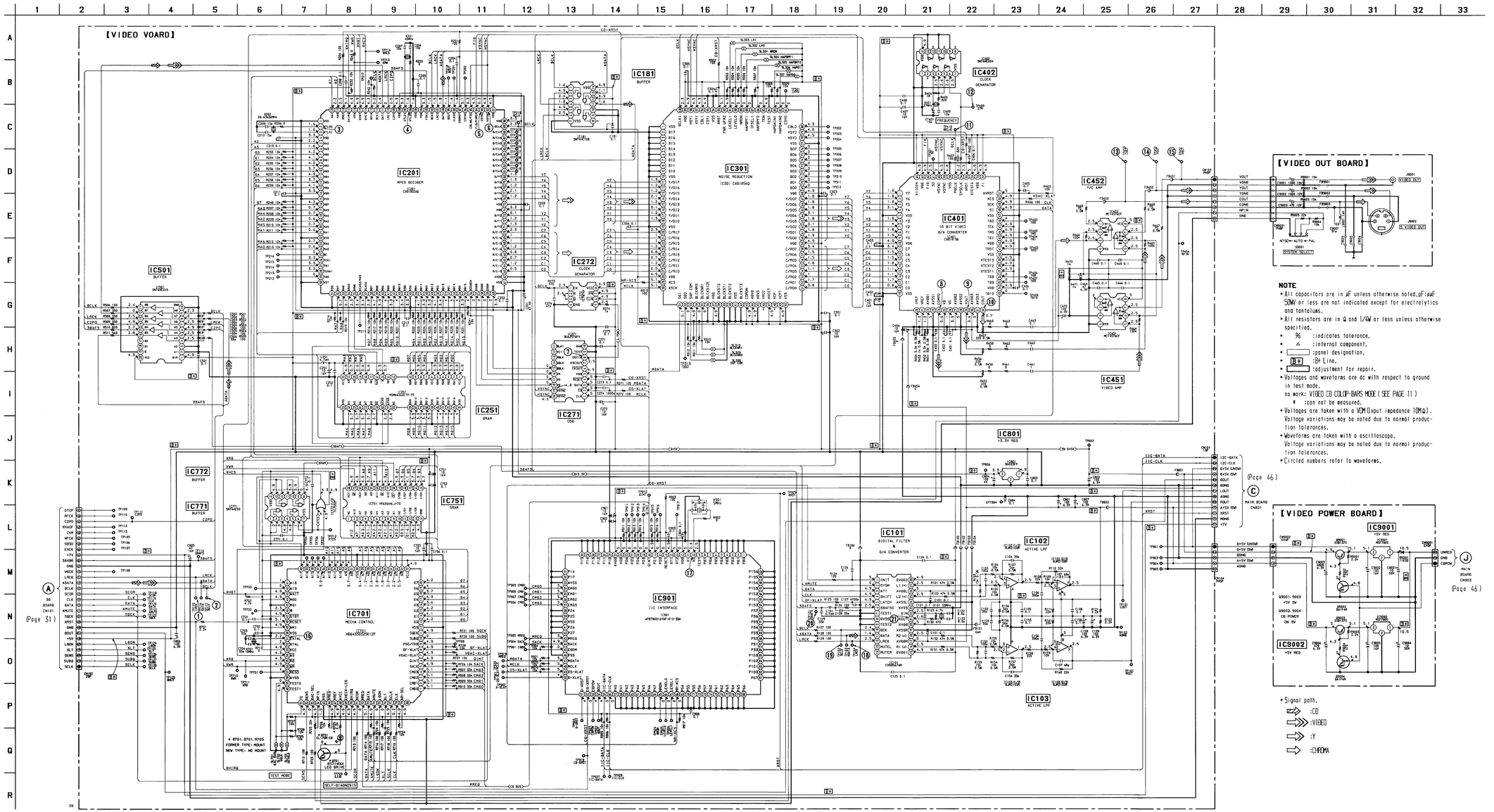
- B+ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇒ : CD
  - ⇒ : CD (Digital)
  - ⇒ : VIDEO

• **Waveforms**



7-5. SCHEMATIC DIAGRAM — VIDEO SECTION —

• See page 74 for IC Block Diagrams.
• See page 82 for IC Pin Functions.

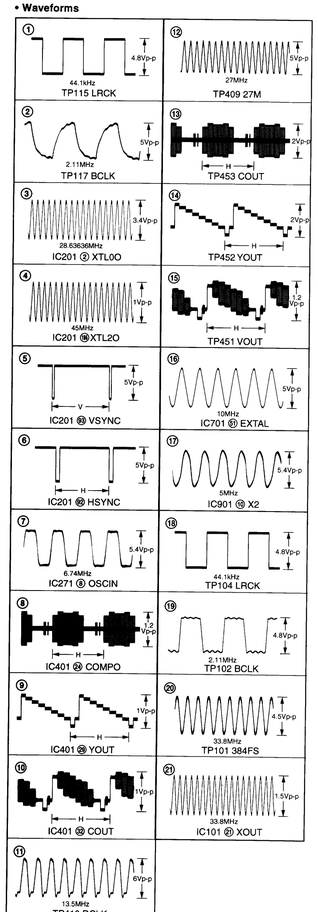


NOTE

- All capacitors are in μF unless otherwise noted. pF: μF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : panel designation.
- : B+ Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground in test mode.
  no work: VIDEO CD COLOR-BARS MODE (SEE PAGE 11)
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

• Signal path.
: CD
: VIDEO
: Y
: CHROMA

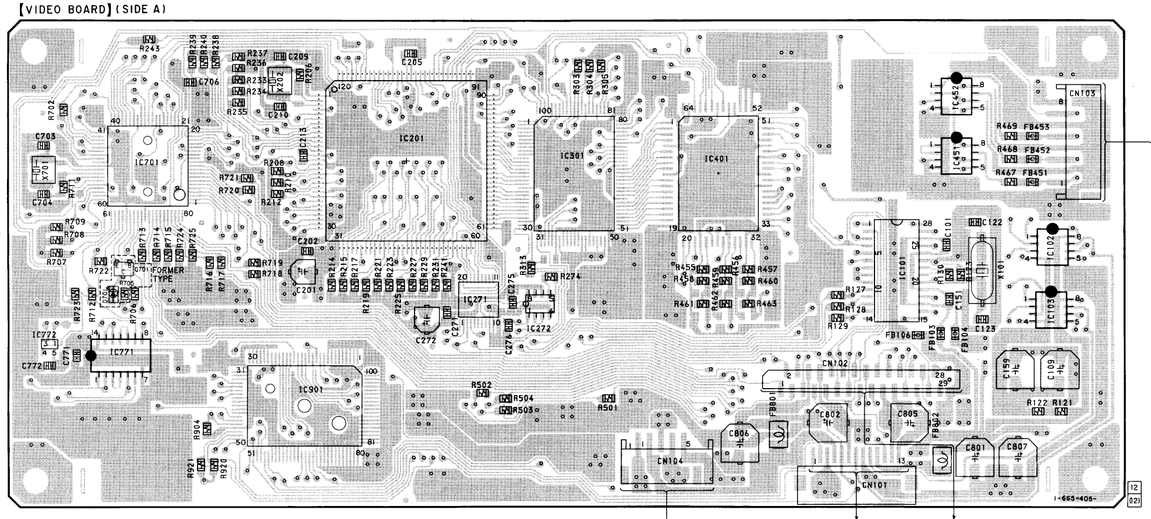
• Waveforms



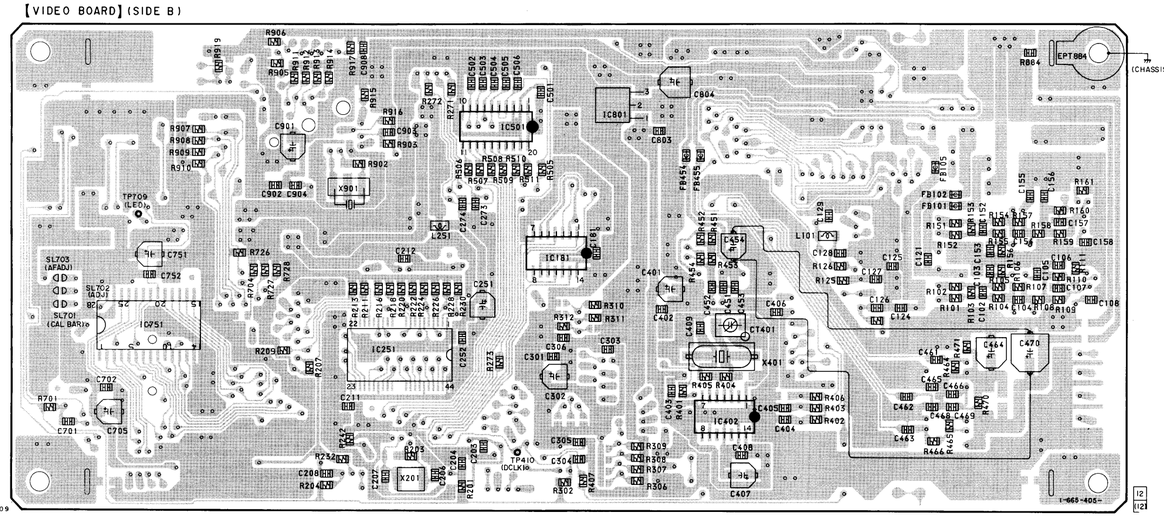
7-6. PRINTED WIRING BOARD — VIDEO SECTION —

• See page 17 for Circuit Boards Location.

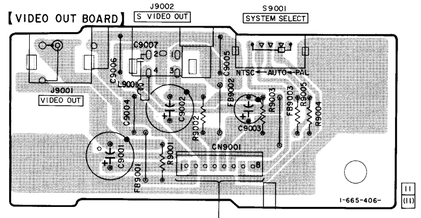
【VIDEO BOARD】(SIDE A)



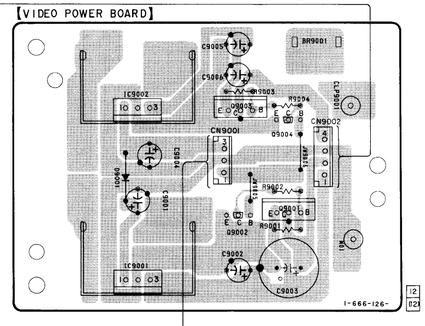
【VIDEO BOARD】(SIDE B)



【VIDEO OUT BOARD】



【VIDEO POWER BOARD】



(Page 42) C MAIN BOARD CN801 — A BD BOARD CN102 (Page 29)

MAIN BOARD CN903 (Page 41)

• **Semiconductor Location**

Ref. No.	Location
IC101	D-10
IC102	C-12
IC103	D-12
IC181	I-6
IC201	B-5
IC251	J-5
IC271	D-6
IC272	D-6
IC301	B-7
IC401	B-8
IC402	K-8
IC451	B-11
IC452	B-11
IC501	H-6
IC701	B-2
IC751	J-2
IC771	D-2
IC772	D-1
IC801	H-7
IC901	E-4
IC9001	I-15
IC9002	H-15
Q9001	I-16
Q9002	I-16
Q9003	H-16
Q9004	H-16

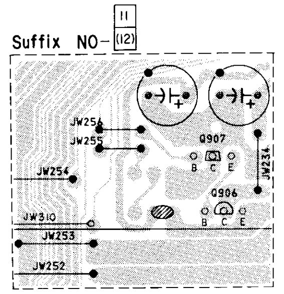
Note:

- ○——: parts extracted from the component side.
- ●——: parts extracted from the conductor side.
- ○: Through hole.
- ▒▒: Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)

- Semiconductor Location

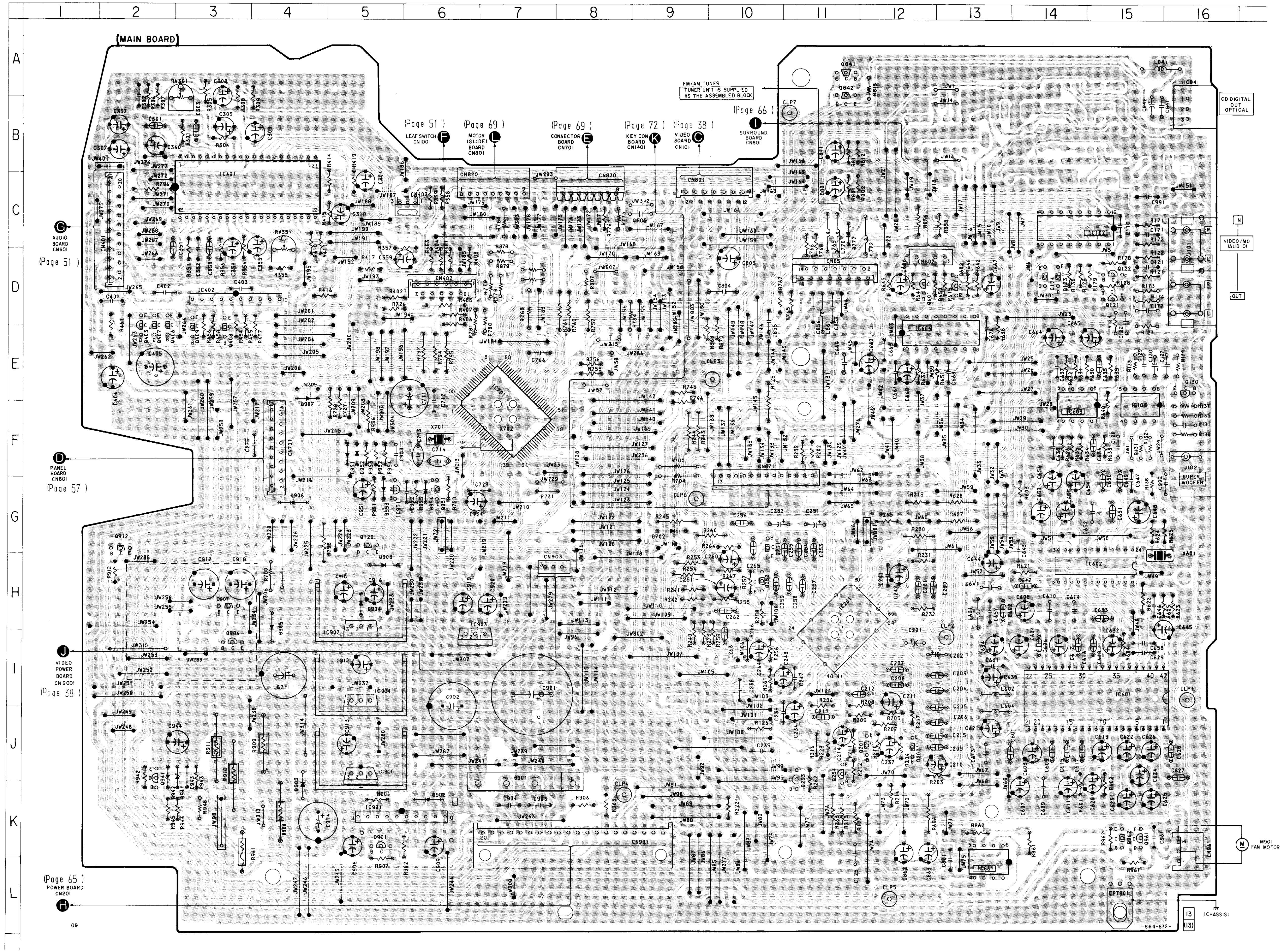
Ref. No.	Location
D702	G-9
D772	C-11
D901	K-7
D902	K-6
D904	H-5
D905	I-4
D906	G-4
D907	F-4
D908	H-5
D941	K-3
D942	K-3
D951	F-5
D952	F-5
D953	G-5
D954	G-6
IC102	C-15
IC105	F-15
IC201	H-11
IC401	C-2
IC402	D-2
IC601	I-15
IC602	H-15
IC603	F-14
IC604	E-12
IC701	E-7
IC841	A-16
IC861	L-13
IC901	K-5
IC902	I-5
IC903	I-7
IC904	J-5
IC905	J-5
IC951	G-5
Q120	G-5
Q121	D-15
Q122	D-15
Q123	D-14
Q124	D-14
Q130	E-16
Q201	J-12
Q202	J-12
Q251	H-10
Q252	H-10
Q253	K-11
Q254	K-11
Q403	E-2
Q406	E-2
Q407	E-2
Q408	E-3
Q409	E-3
Q601	D-12
Q602	D-13
Q841	A-11
Q842	B-11
Q901	K-5
Q906	I-3
Q907	H-3
Q912	G-2
Q941	K-2
Q951	G-6
Q961	K-15
Q962	K-15

Suffix NO-



7-7. PRINTED WIRING BOARD — MAIN SECTION —

• See page 17 for Circuit Boards Location.

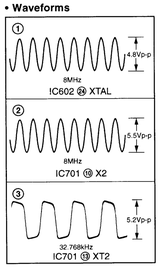


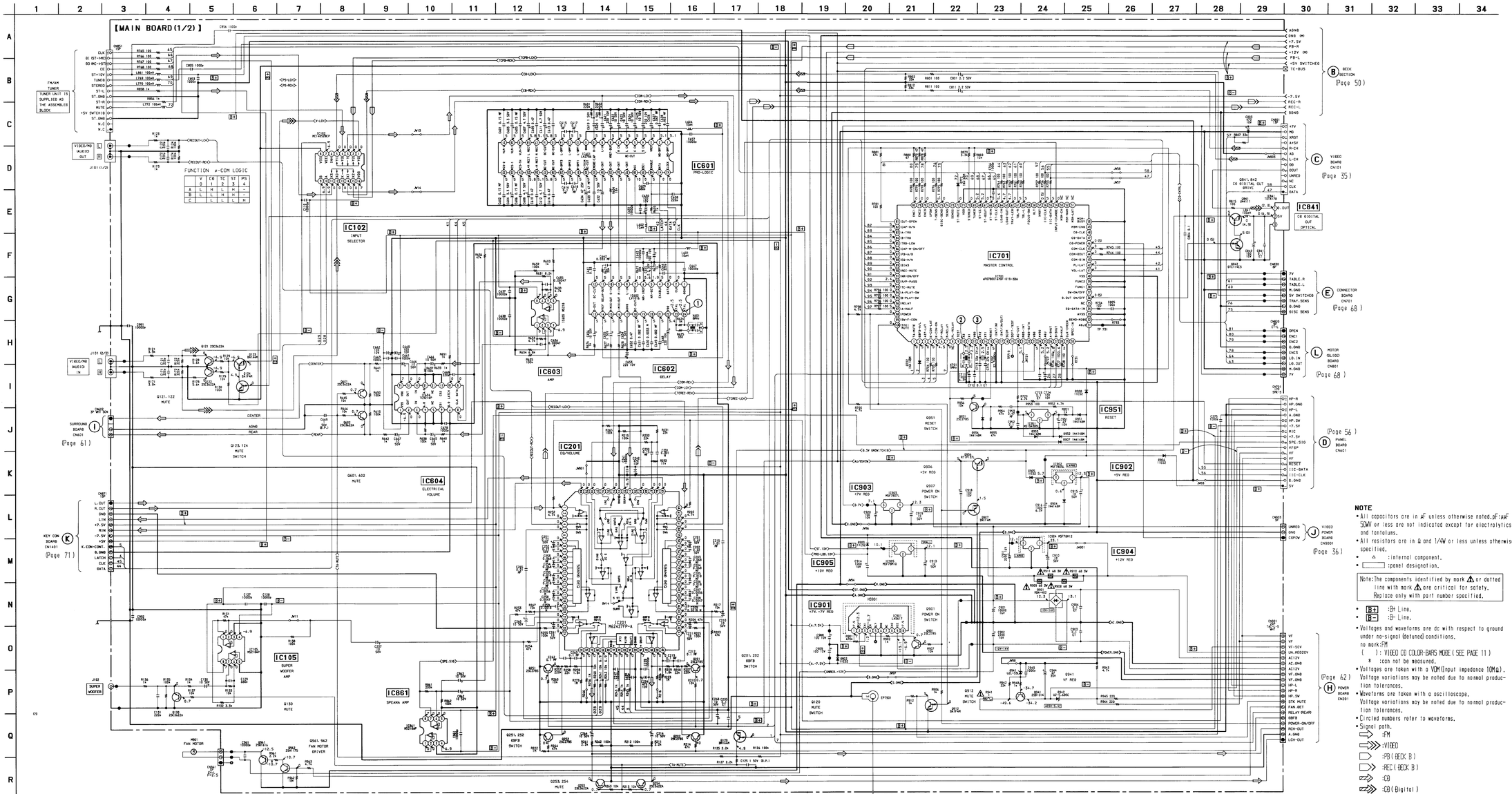
Note:
- ○—— : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.
- ⊘ : Solder bridge.

7-8. SCHEMATIC DIAGRAM — MAIN SECTION —

- See page 76 for IC Block Diagrams.
- See page 94 for IC Pin Functions.

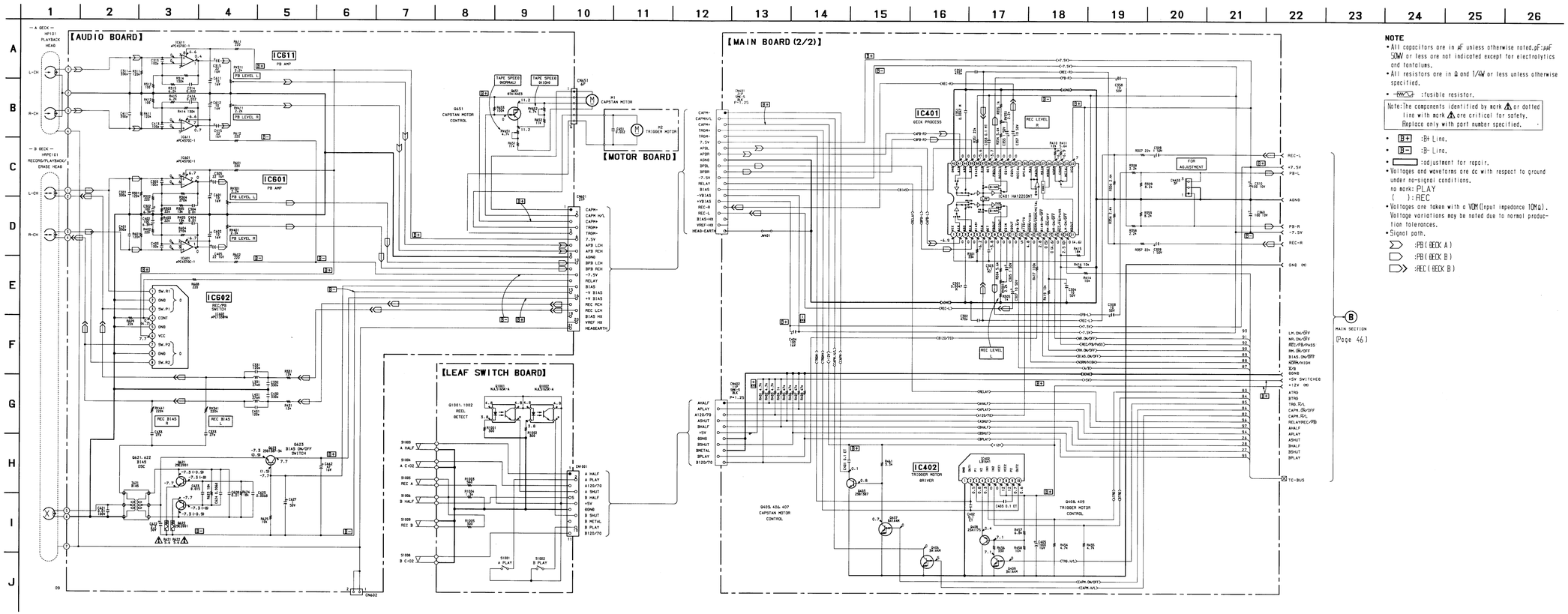
- Waveforms





7-9. SCHEMATIC DIAGRAM — DECK SECTION —

- See page 30 for Printed Wiring Board.
- See page 78 for IC Block Diagrams.



NOTE

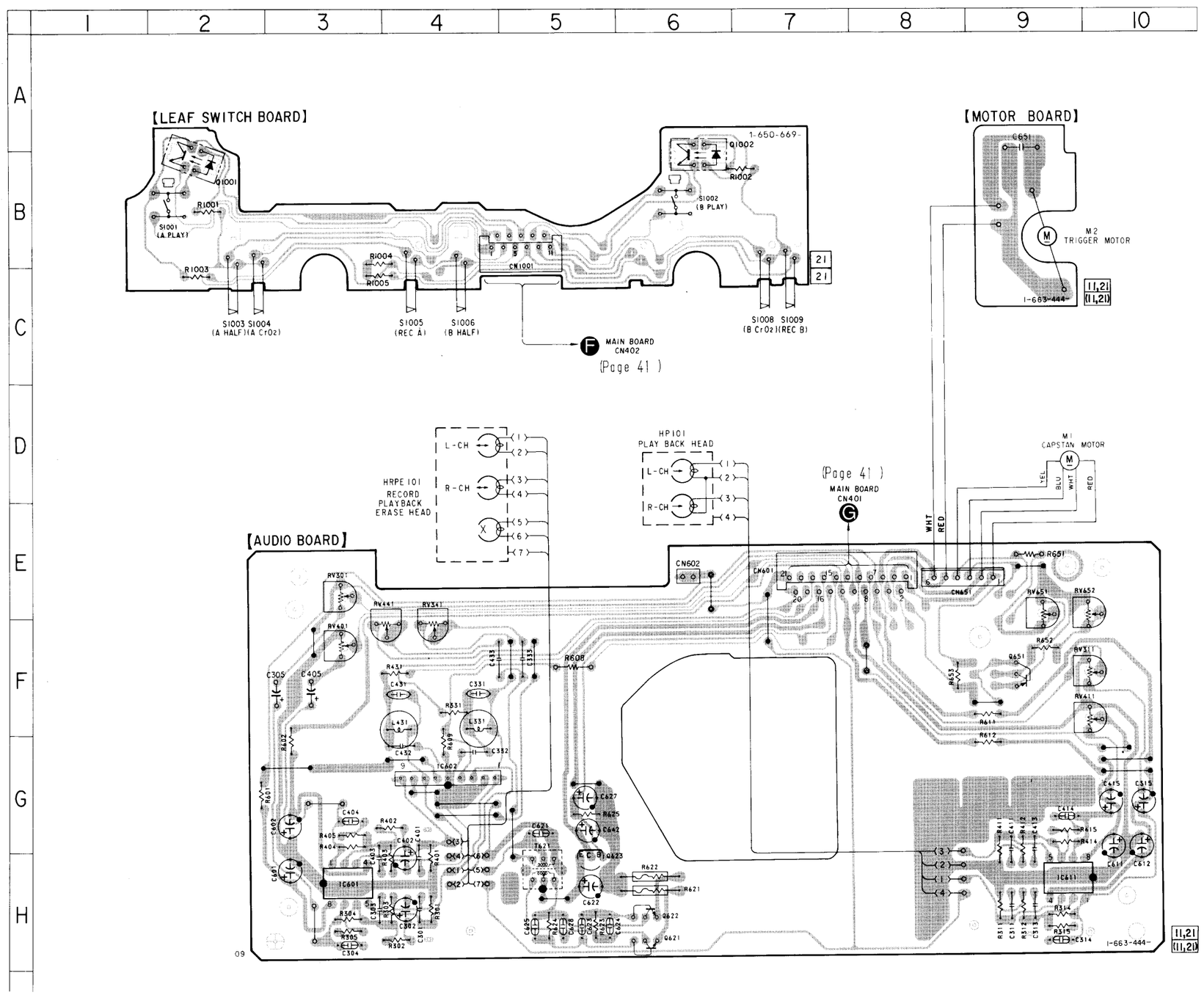
- All capacitors are in μF unless otherwise noted. pF: μμF
  50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ⚠ : fusible resistor.

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

- B+ : B+ Line.
- B− : B− Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: PLAY
  ( ): REC
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)

7-10. PRINTED WIRING BOARD — DECK SECTION —

• See page 17 for Circuit Boards Location.



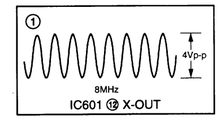
• **Semiconductor Location**

Ref. No.	Location
IC601	H-3
IC602	G-4
IC611	H-9
Q621	I-6
Q622	H-6
Q623	H-5
Q651	F-9
Q1001	B-2
Q1002	B-6

Note:

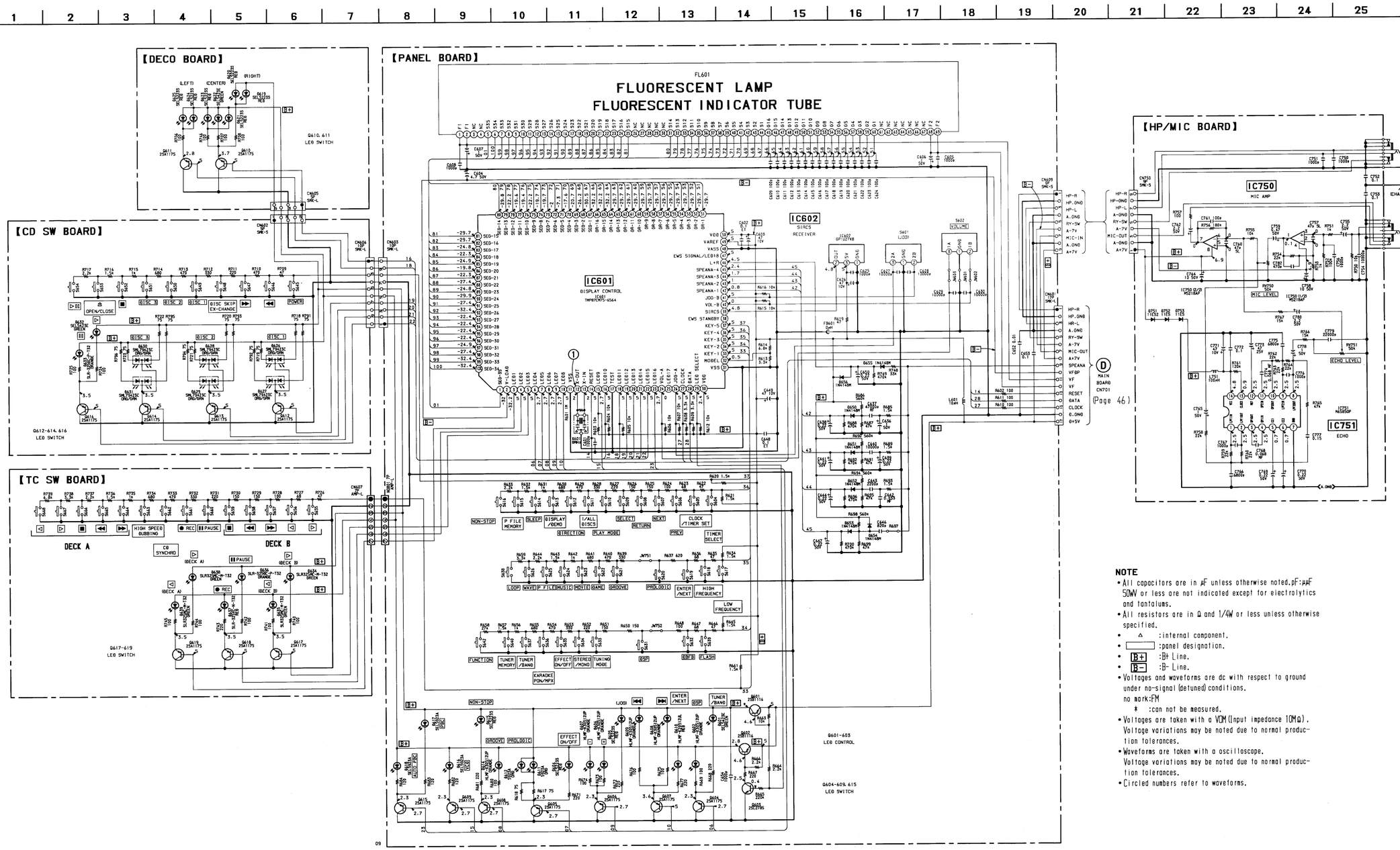
- ⟜ : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.

• Waveform



7-11. SCHEMATIC DIAGRAM — PANEL SECTION —

• See page 78 for IC Block Diagrams.
• See page 96 for IC Pin Functions.

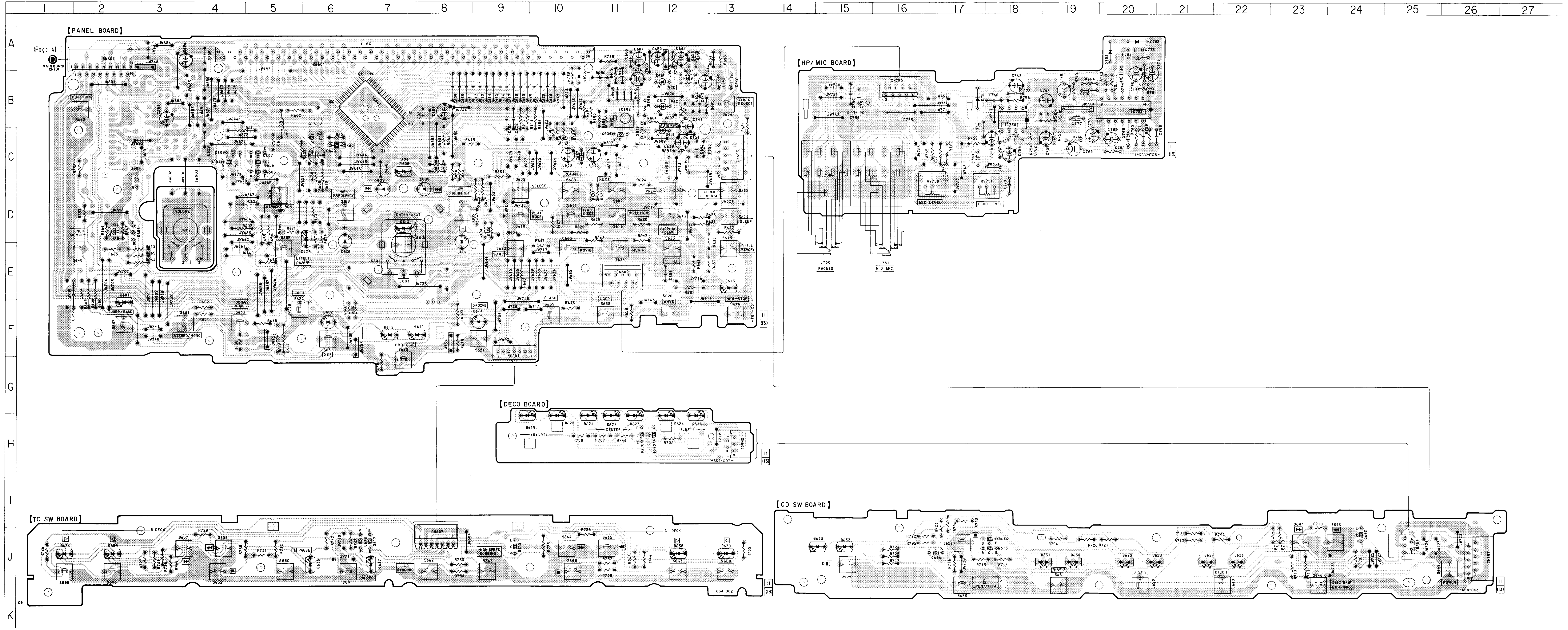


NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : 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
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). 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.

7-12. PRINTED WIRING BOARD — PANEL SECTION —

• See page 17 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D601	F-2
D602	F-6
D604	D-6
D605	C-7
D606	E-6
D607	E-8
D608	D-7
D609	D-8
D610	D-7
D611	F-8
D612	F-7
D614	F-9
D615	E-13
D616	B-12
D617	B-12
D618	C-12
D619	H-10
D620	H-10
D621	H-11
D622	H-11
D623	H-11
D624	H-12
D625	H-13
D626	J-22
D627	J-22
D628	J-21
D629	J-20
D630	J-19
D631	J-19
D632	J-15
D633	J-15
D634	J-1
D635	J-2
D636	J-6
D637	J-7
D638	J-12
D639	J-13
D650	C-10
D651	C-12
D652	B-12
D653	A-12
D654	A-13
D655	B-10
D656	B-11
D751	B-17
D752	A-20
D753	A-20
IC601	B-7
IC602	B-11
IC750	C-18
IC751	B-20
Q601	C-3
Q602	D-2
Q603	D-3
Q604	C-4
Q605	C-4
Q606	C-5
Q607	C-5
Q608	C-5
Q609	C-11
Q610	H-11
Q611	H-12
Q612	J-24
Q613	J-18
Q614	J-18
Q615	C-11
Q616	J-17
Q617	J-7
Q618	J-6
Q619	J-9

Note:

- o—— : parts extracted from the component side.
- ░░ : Pattern from the side which enable seeing.

7-13. SCHEMATIC DIAGRAM — POWER SECTION —

• See page 78 for IC Block Diagrams.

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- :nonflammable resistor.
- :fusible resistor.
- :panel designation.

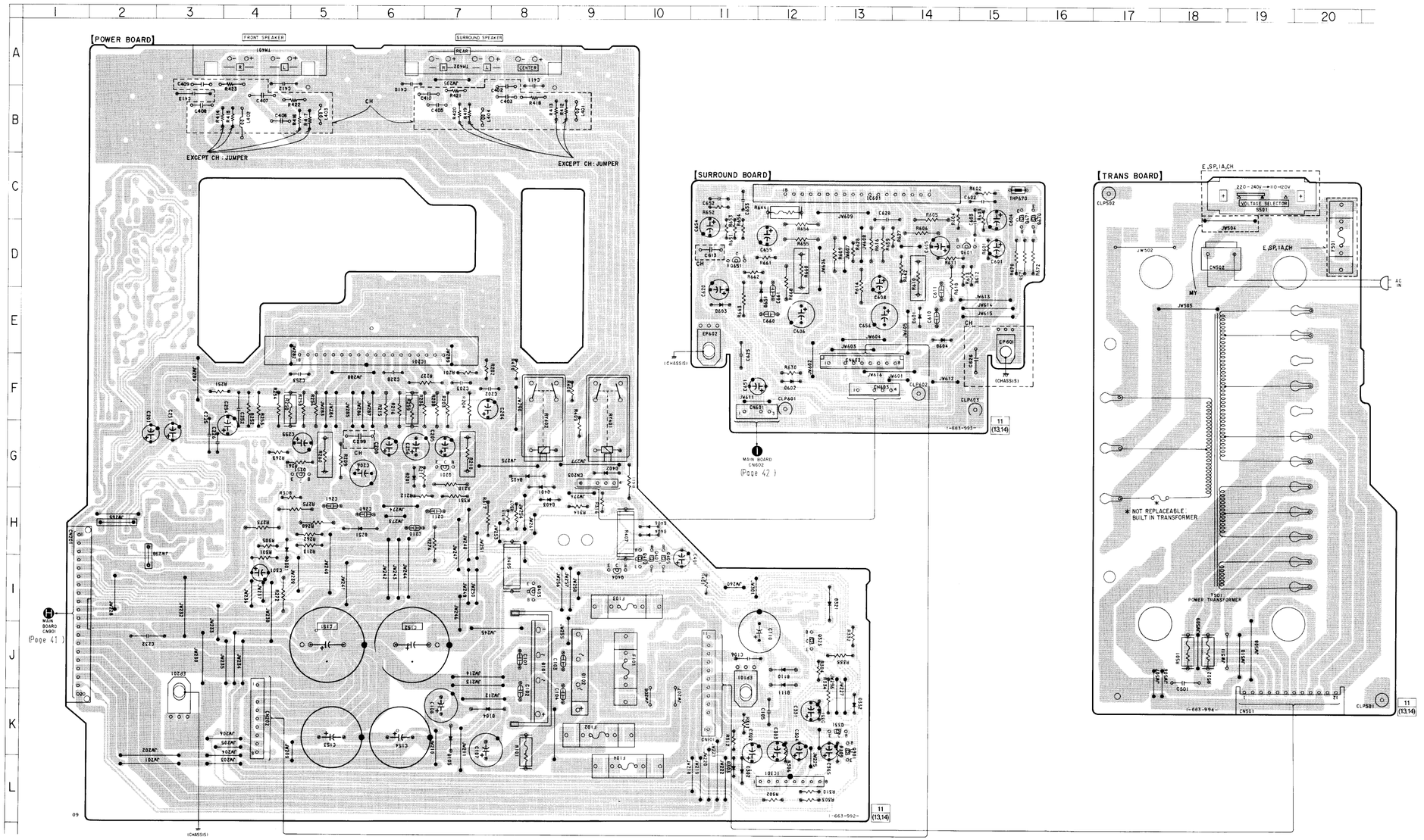
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- 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 10MΩ). Voltage variations may be noted due to normal production tolerances.

- Abbreviation
  SP : Singapore model.
  IA : Indonesian model.
  MY : Malaysia model.
  TH : Thai model.
  CH : Chinese model.
- Signal path.
  ⇨ :FM

7-14. PRINTED WIRING BOARD — POWER SECTION —

• See page 17 for Circuit Boards Location.



• **Semiconductor Location**

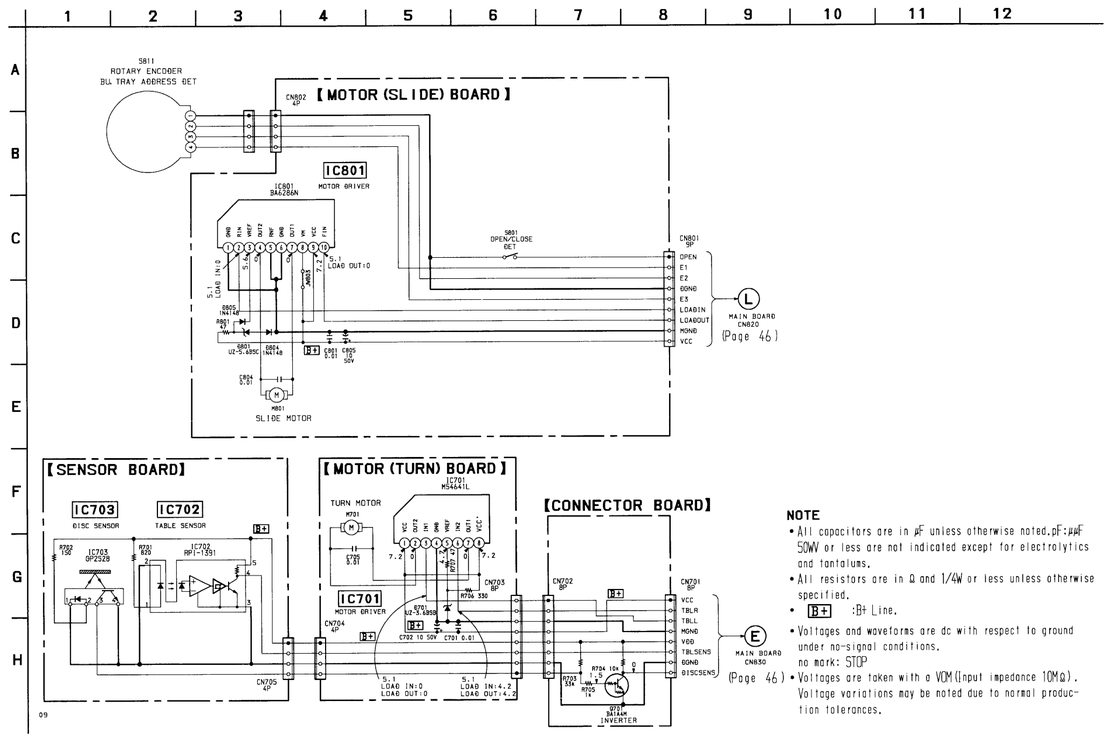
Ref. No.	Location
D101	J-8
D102	J-9
D104	K-8
D105	K-7
D110	J-12
D111	J-12
D201	G-6
D251	H-6
D301	I-4
D302	L-11
D303	L-11
D321	I-13
D331	K-13
D332	K-13
D401	H-8
D402	G-9
D403	H-8
D404	H-10
D405	G-8
D406	H-10
D601	E-14
D602	F-12
D603	E-11
D604	E-14
D651	E-12
IC201	F-6
IC301	L-12
IC601	C-13
Q201	G-7
Q251	G-5
Q301	K-13
Q323	J-13
Q331	K-13
Q401	I-10
Q402	I-10
Q403	I-8
Q404	I-9
Q405	I-10
Q601	D-15
Q651	D-11
Q670	C-16
Q671	C-16

Note:

- ⟷ : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.
- Abbreviation
  SP : Singapore model.
  MY : Malaysia model.
  IA : Indonesian model.
  TH : Thai model.
  CH : Chinese model.

7-15. SCHEMATIC DIAGRAM — CD MOTOR SECTION —

• See page 79 for IC Block Diagrams.

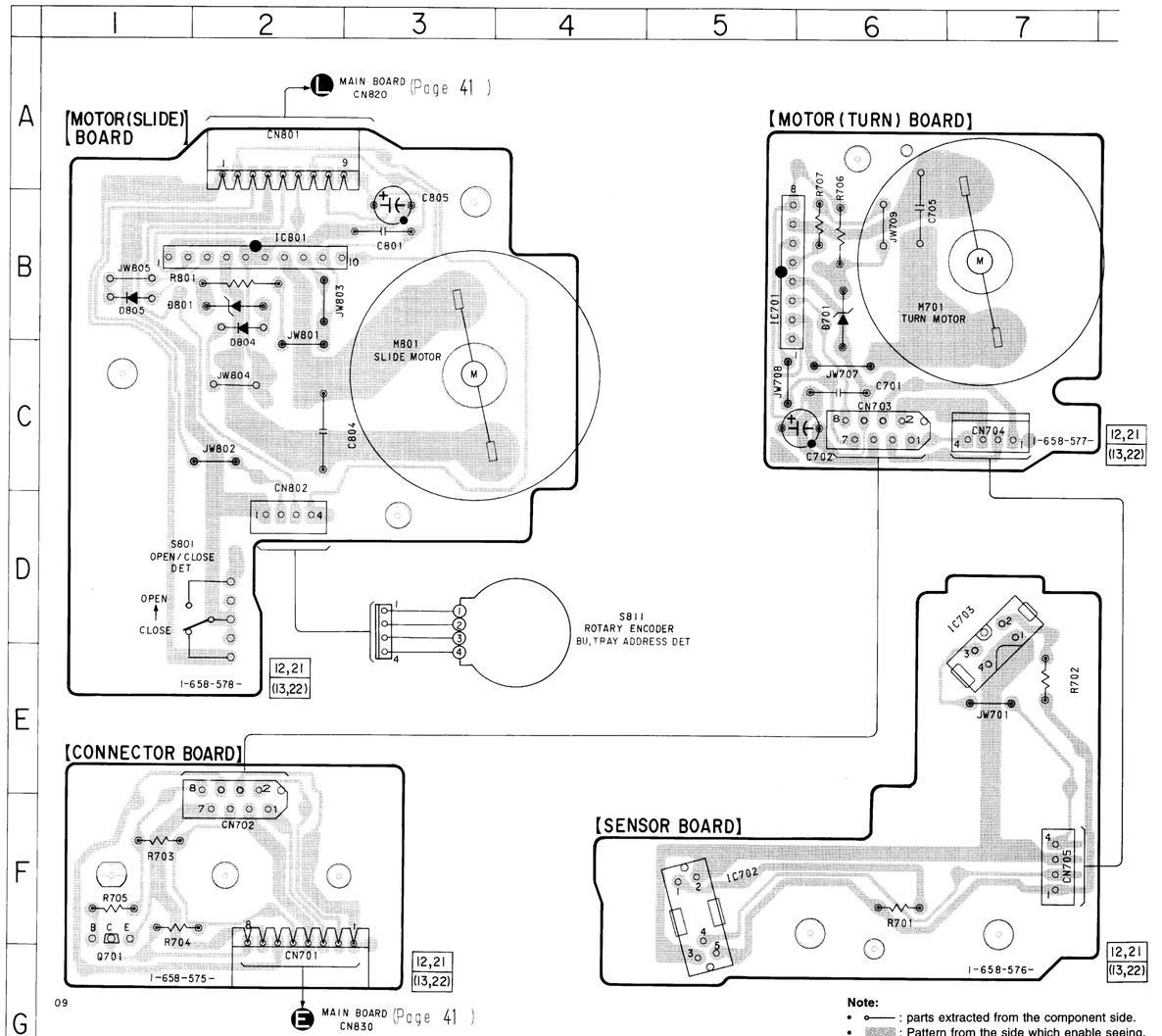


NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantaliums.
- 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 10MΩ). Voltage variations may be noted due to normal production tolerances.

7-16. PRINTED WIRING BOARD — CD MOTOR SECTION —

• See page 17 for Circuit Boards Location.

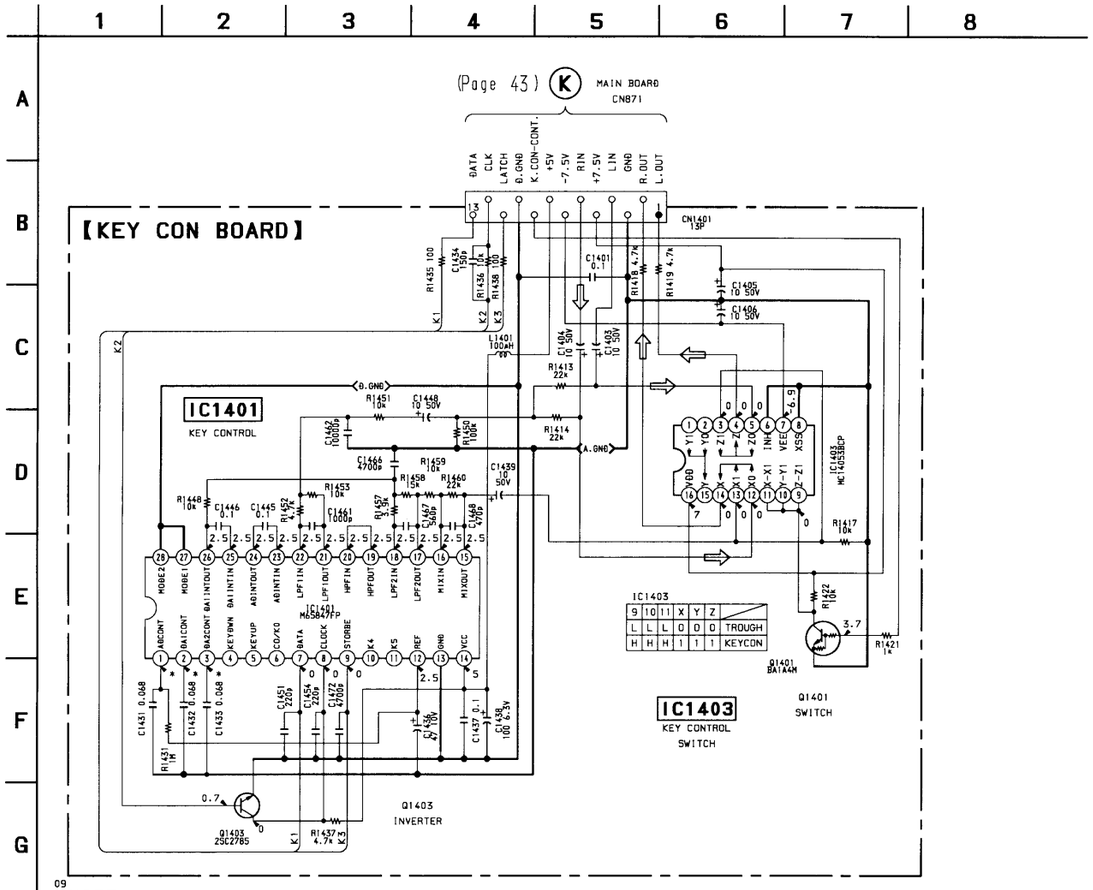


Note:

- ⟷ : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.

7-17. SCHEMATIC DIAGRAM — KEY CON SECTION —

• See page 79 for IC Block Diagrams.

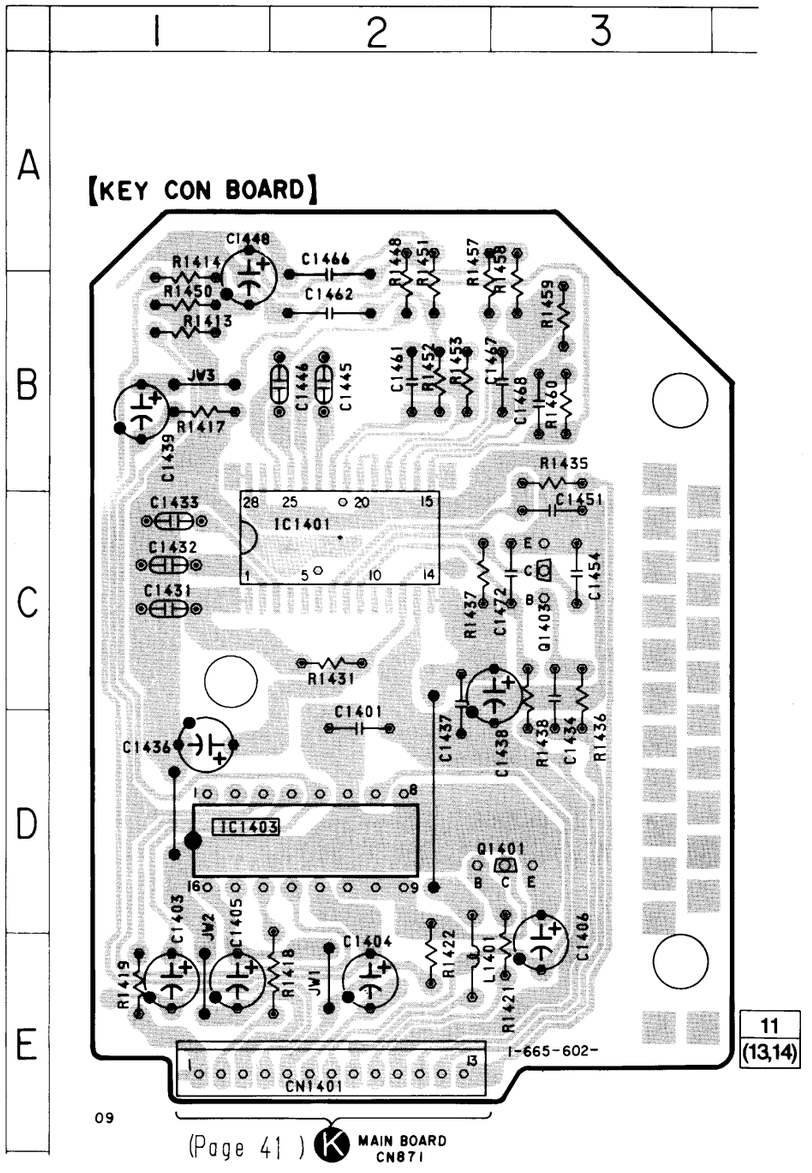


NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV 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.
- B− :B− Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: FM
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path. ⇨ :FM

7-18. PRINTED WIRING BOARD — KEY CON SECTION —

• See page 17 for Circuit Boards Location.



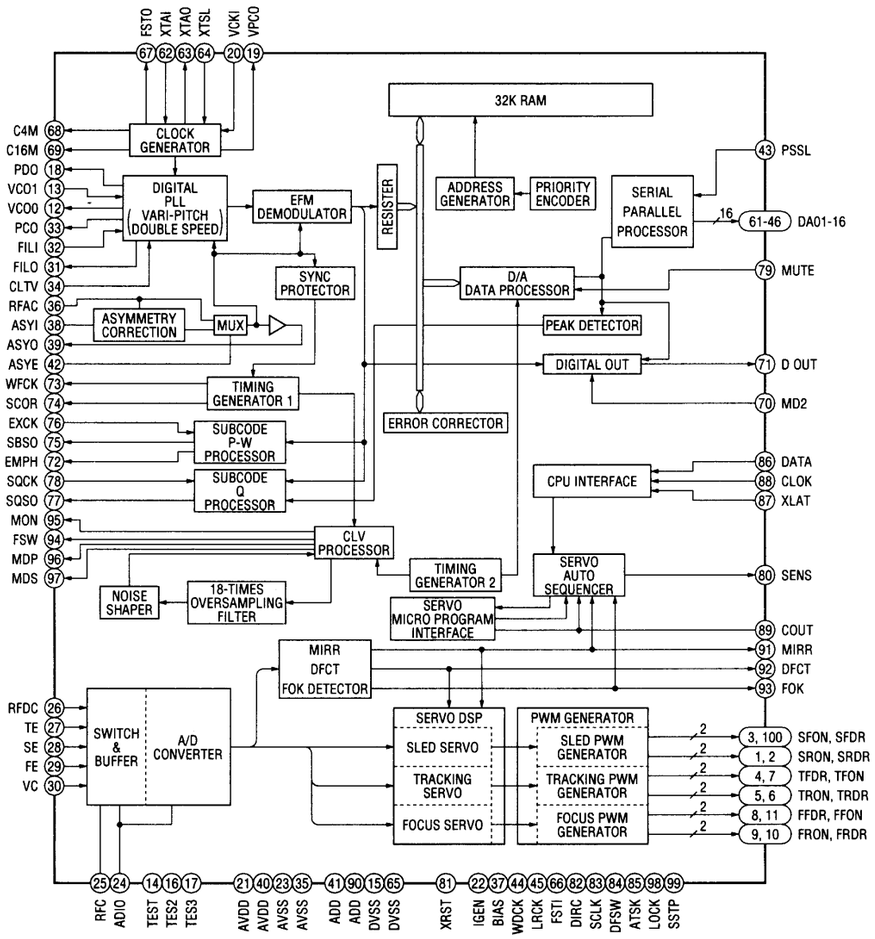
Note:

- ⟜ : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.

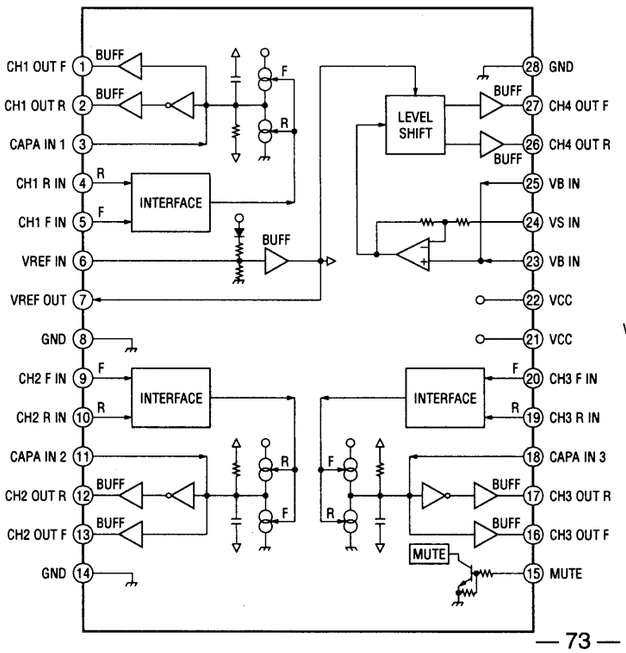
7-19. IC BLOCK DIAGRAMS

• BD section

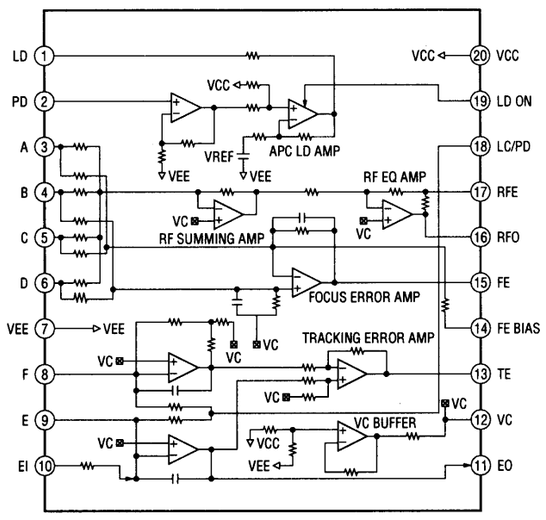
IC101 CXD2545Q



IC102 BA6392FP

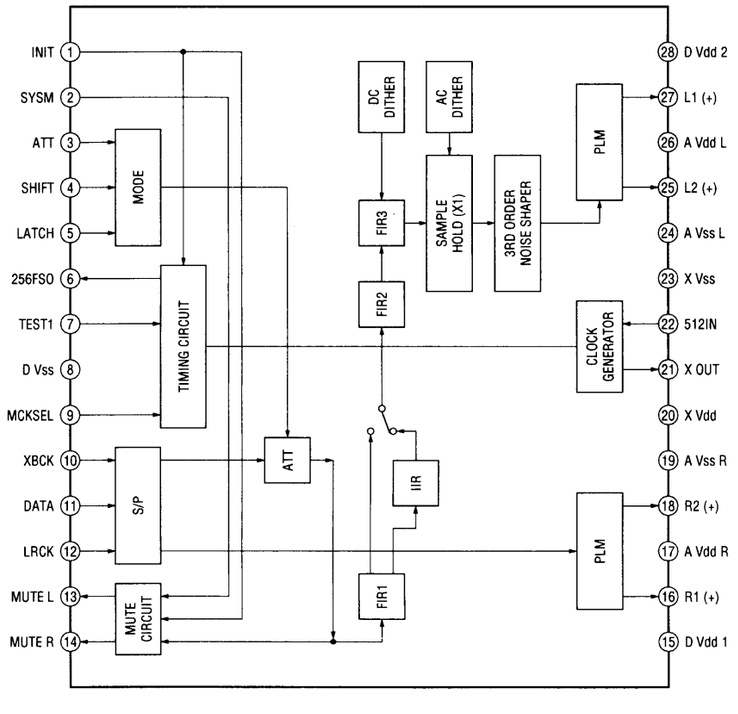


IC103 CXA1821M

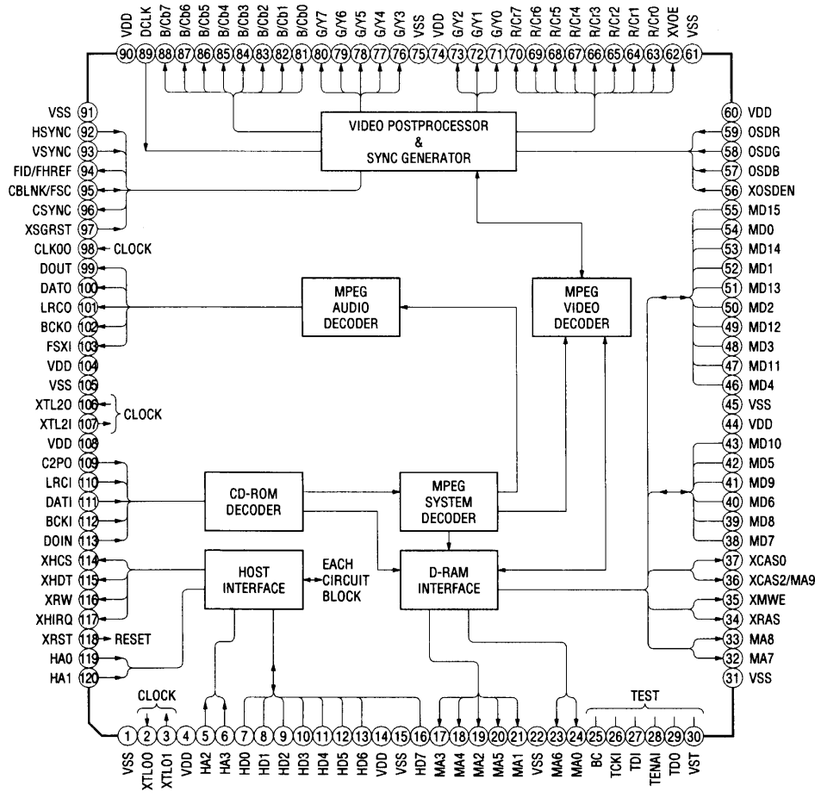


• Video section

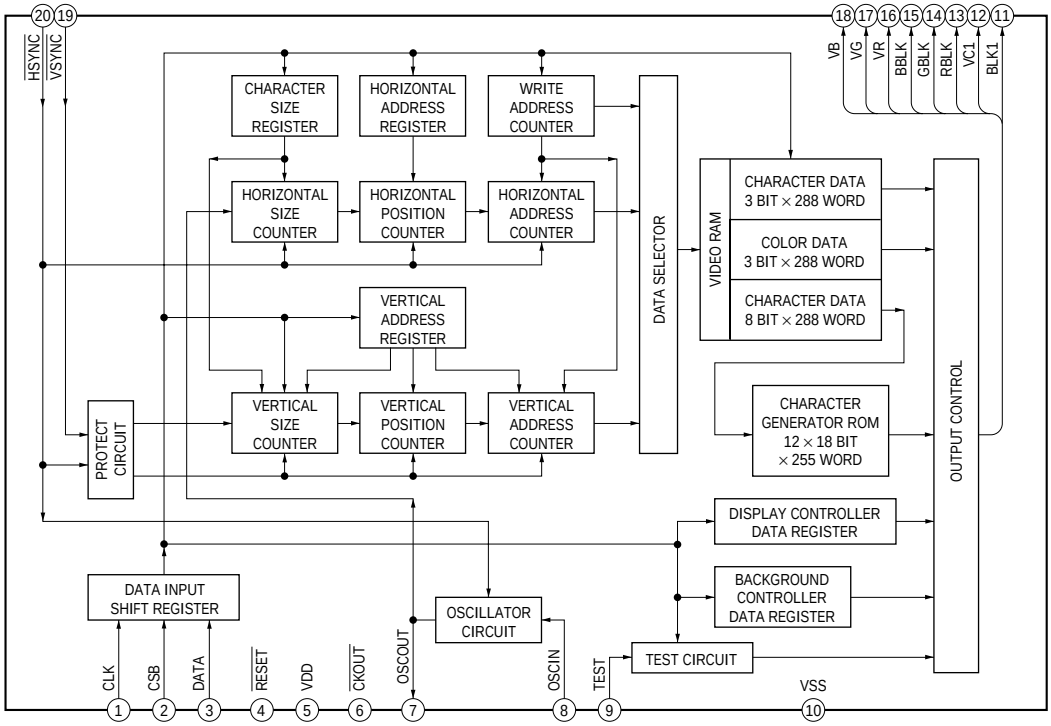
IC101 CXD8567AM



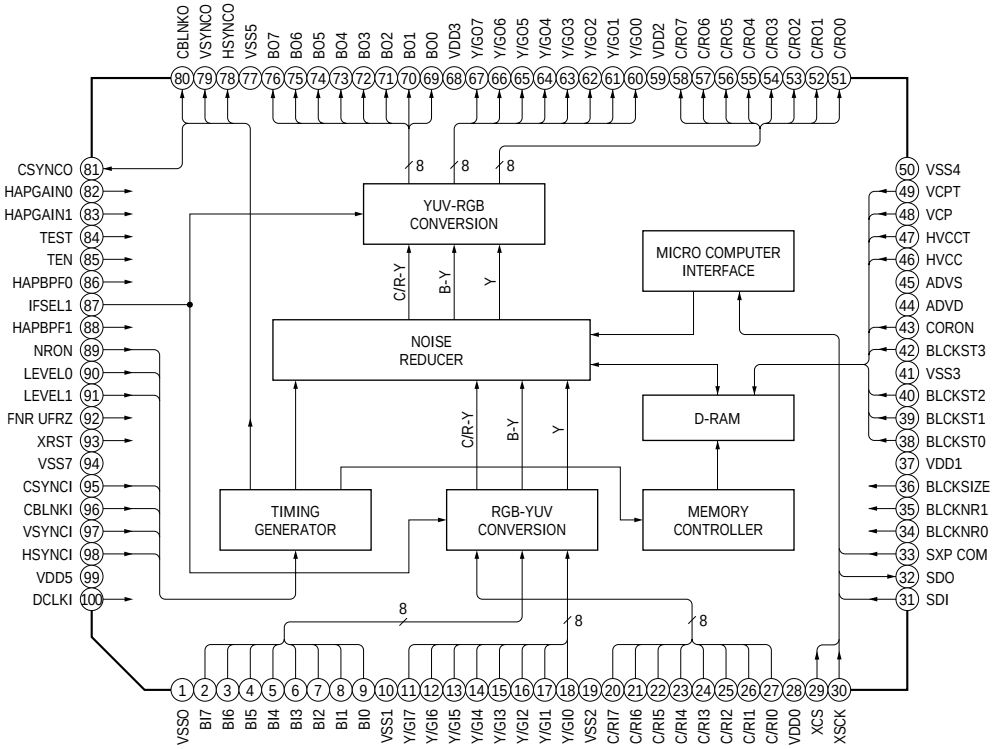
IC201 CXD1852AQ



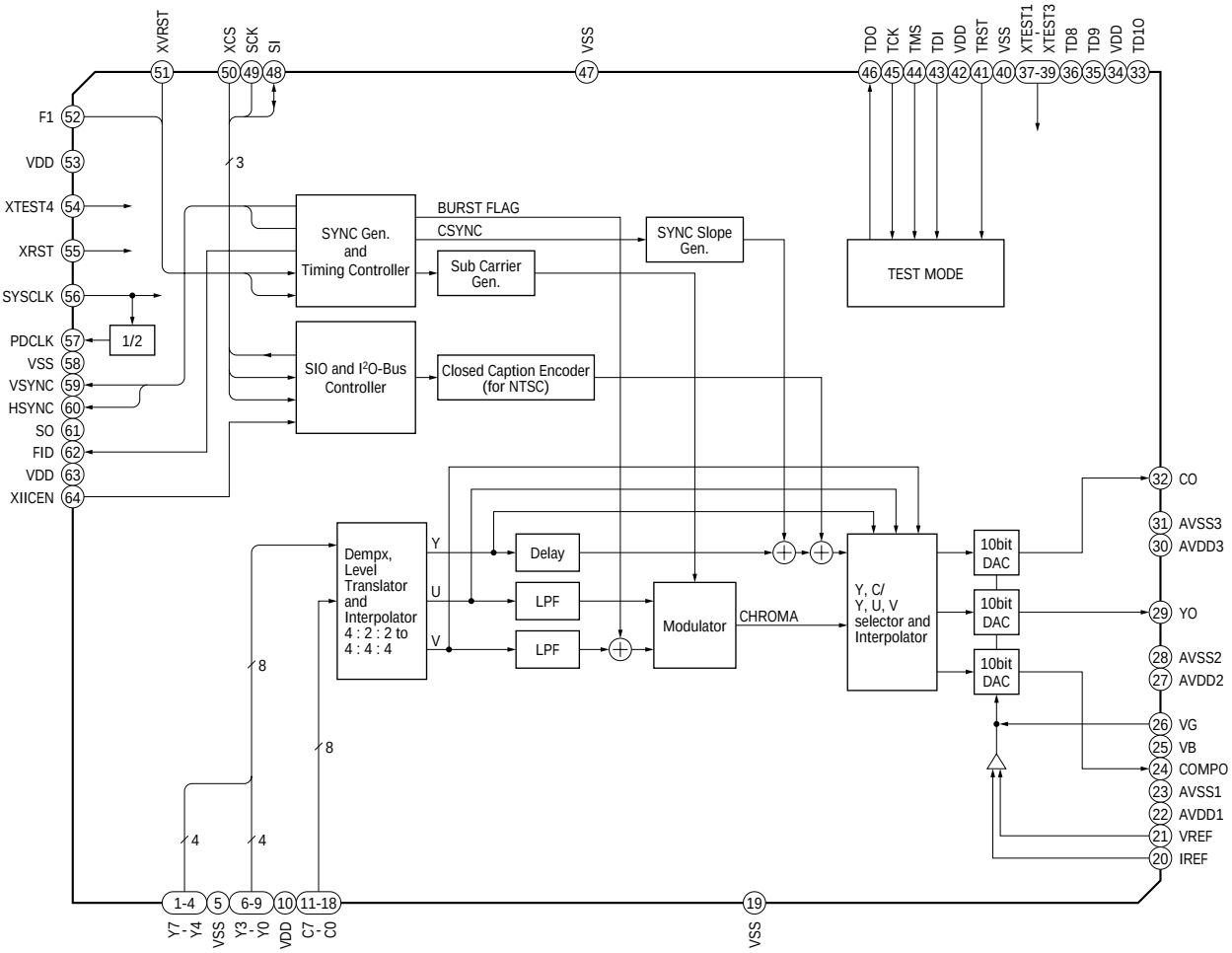
IC271 BU6257AFV



IC301 CXD1854Q

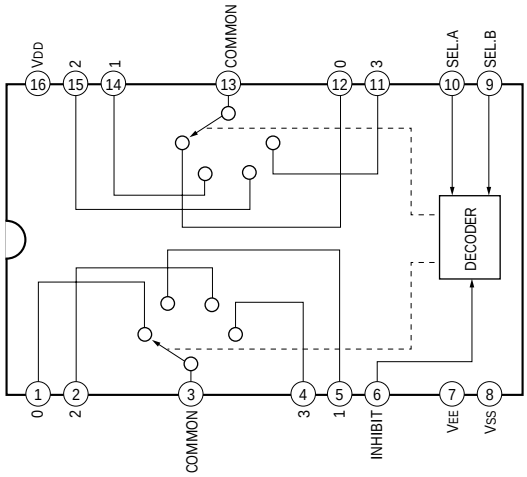


IC401 CXD1913Q

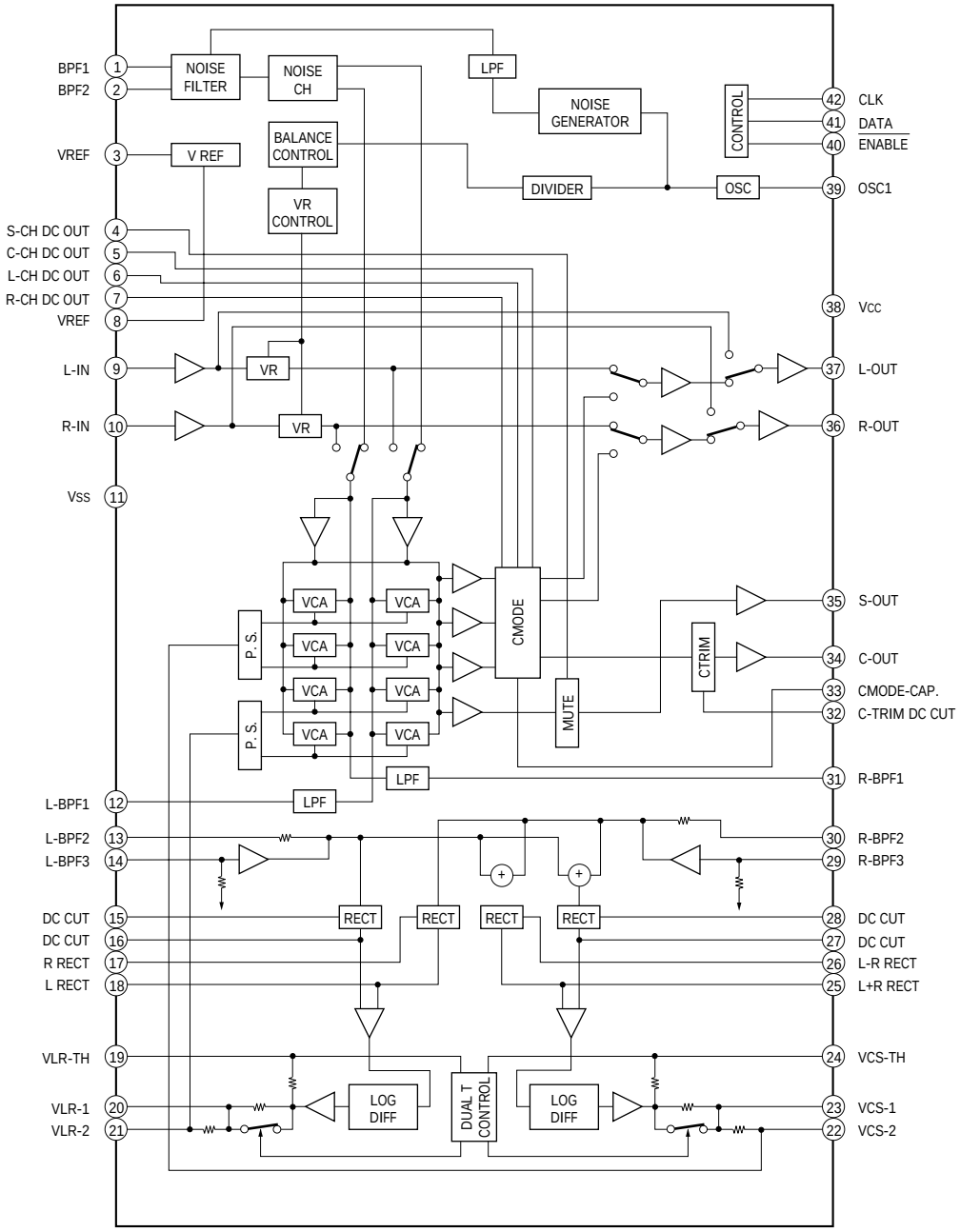


• **Main section**

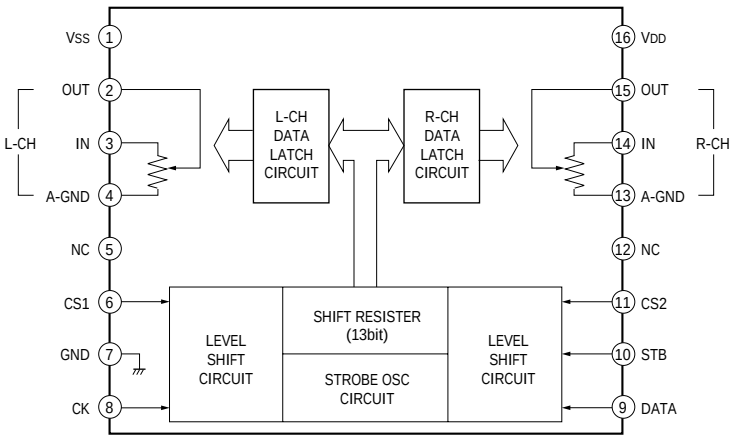
IC102 MC14052BCP



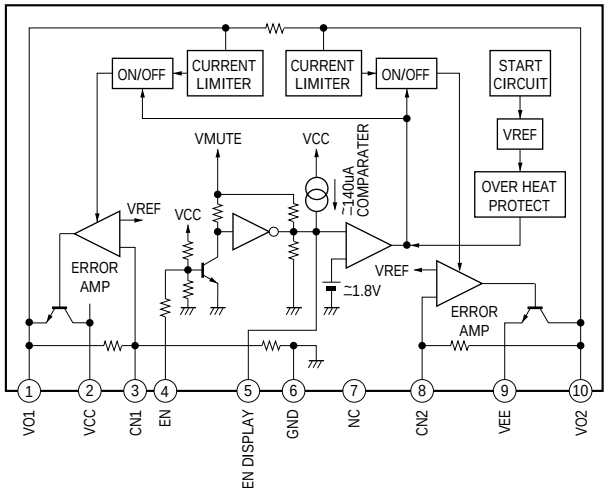
IC601 LA2786



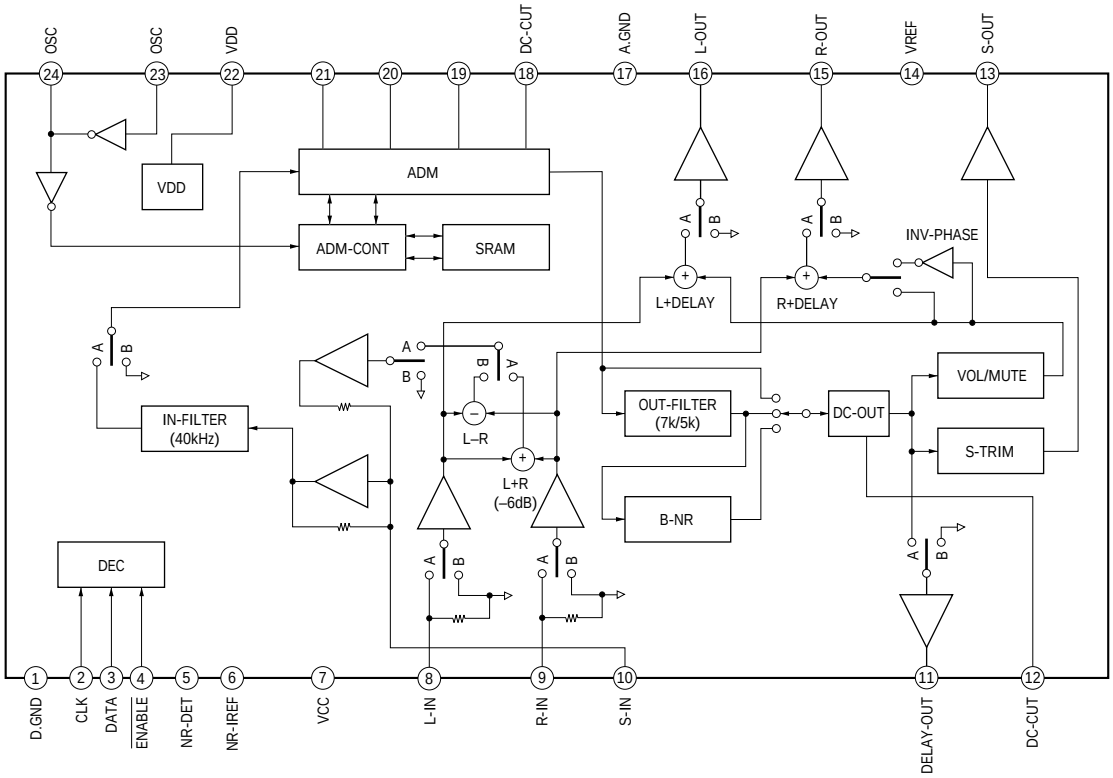
IC604 TC9210P



IC901 LA5617

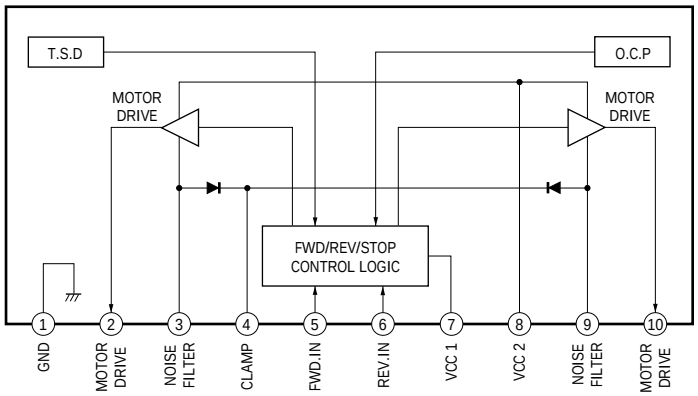


IC602 LV1016

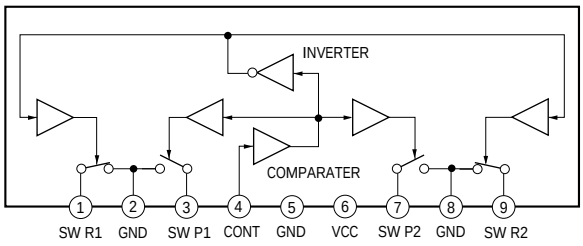


• **Deck section**

IC402 LB1641

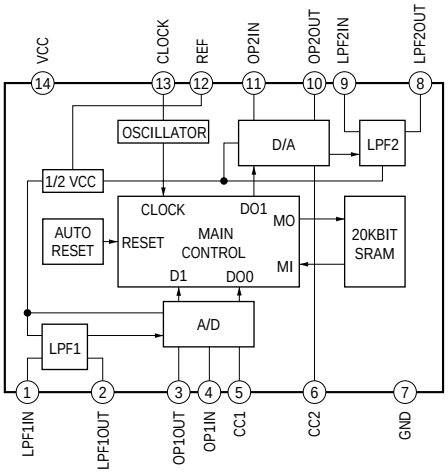


IC602 uPC1330HA



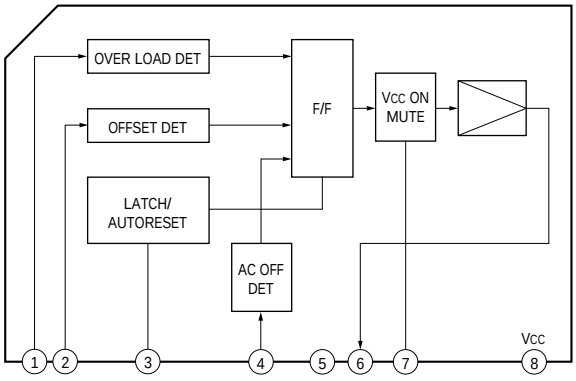
• **Panel section**

IC751 M65850P



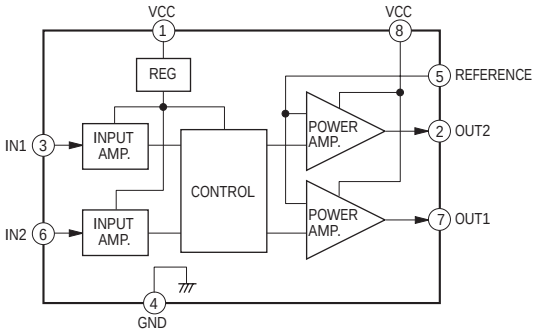
• **Power section**

IC301 uPC1237HA

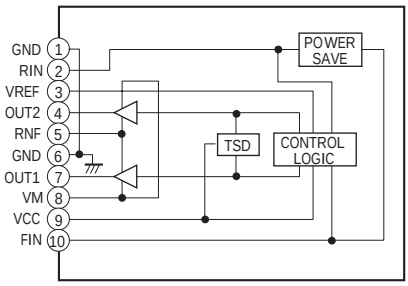


• **CD motor section**

IC701 M54641L

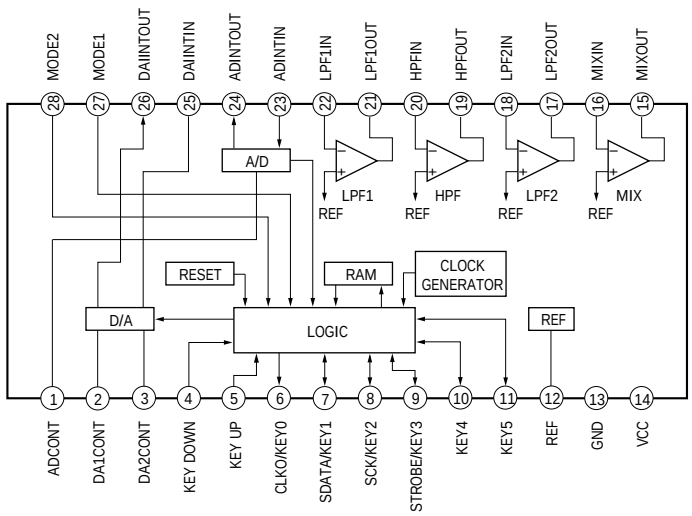


IC801 BA6286N

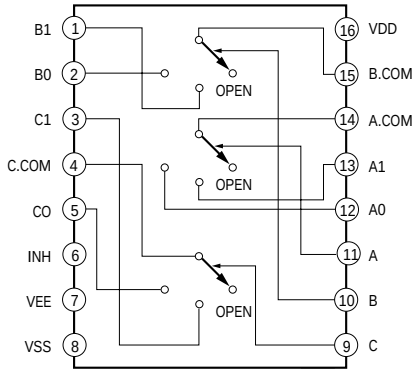


• **KEY CON section**

IC1401 M65847FP



IC1403 MC14053BCP



7-20. IC PIN FUNCTIONS

• IC101 DIGITAL SIGNAL PROCESSOR (CXD2545Q)/BD board

Pin No.	Pin Name	I/O	Function
1	SRON	O	Sled drive output (Not used)
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output (Not used)
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output (Not used)
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output (Not used)
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output (Not used)
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output (Not used)
12	VCOO	O	VCO output for analog EFM (Eight to Fourteen Modulation) PLL (Not used)
13	VCOI	I	VCO input from analog EFM PLL (Ground)
14	TEST	I	TEST pin connected normally to ground
15	DVSS	–	Digital ground
16	TES2	I	TEST pin connected normally to ground
17	TES3	I	TEST pin connected normally to ground
18	PDO	O	Charge-pump output for analog EFM PLL (Not used)
19	VPCO	O	Charge-pump output for variable pitch PLL (Not used)
20	VCKI	I	Clock input from variable pitch external VCO (Ground)
21	AVD2	–	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	–	Analog ground
24	ADIO	I	(Not used)
25	RFC	O	(Not used)
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	–	Analog ground
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry comparate voltage input
39	ASYO	O	EFM full swing output
40	AVD1	–	Analog power supply
41	DVDD	–	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input
44	WDCK	O	48-bit slot D/A interface. word clock.
45	LRCK	O	48-bit slot D/A interface. LR clock.
46	DATA	O	DA 16 output when PSSL=1. 48-bit slot serial data when PSSL=0
47	BCLK	O	DA 15 output when PSSL=1. 48-bit slot data when PSSL=0
48	64DATA	O	DA 14 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
49	64BCLK	O	DA 13 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)
50	64LRCK	O	DA 12 output when PSSL=1. 64-bit slot data when PSSL=0 (Not used)

Pin No.	Pin Name	I/O	Function
51	GTOP	O	DA 11 output when PSSL=1. GTOP output when PSSL=0 (Not used)
52	XUGF	O	DA 10 output when PSSL=1. XUGF output when PSSL=0 (Not used)
53	XPLCK	O	DA 09 output when PSSL=1. XPLCK output when PSSL=0
54	GFS	O	DA 08 output when PSSL=1. GFS output when PSSL=0
55	PFCK	O	DA 07 output when PSSL=1. RFCK output when PSSL=0
56	C2PO	O	DA 06 output when PSSL=1. C2PO output when PSSL=0 (Not used)
57	XRAOF	O	DA 05 output when PSSL=1. XRA0F output when PSSL=0
58	MNT3	O	DA 04 output when PSSL=1. MNT3 output when PSSL=0
59	MNT2	O	DA 03 output when PSSL=1. MNT2 output when PSSL=0
60	MNT1	O	DA 02 output when PSSL=1. MNT1 output when PSSL=0
61	MNT0	O	DA 01 output when PSSL=1. MNT0 output when PSSL=0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output (Not used)
64	XTSL	I	X'tal selection input pin (Ground)
65	DV_{SS}	–	Digital ground
66	FSTI	I	2/3 divider input of pins 62, 63
67	FSTO	O	2/3 divider output of pins 62, 63
68	FSOF	O	(Not used)
69	C16M	O	16.9344 MHz output (Not used)
70	MD2	I	Digital-out ON/OFF control pin (+5V)
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode (Not used)
73	WFCK	O	WFCK (Write Frame Clock) output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output (Not used)
76	EXCK	I	Clock input for SBSO read-out (Ground)
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQSO read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode (+5V)
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	Defect selection pin (Ground)
85	ATSK	I	Input pin for anti-shock (Ground)
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU
89	COUT	O	Numbers of track counted signal output (Not used)
90	DV_{DD}	–	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output (DFCT: Defect)
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter (Not used)
95	MON	O	Output to control ON/OFF of spindle motor (Not used)
96	NDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo (Not used)
98	LOCK	O	GFS (Guarded Frame Sync) is sampled by 460 Hz. H when GFS is H (Not used)
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

• **IC201 MPEG DECODER (CXD1852AQ)/VIDEO board**

Pin No.	Pin Name	I/O	Function
1	VSS	–	Ground
2	XTL0O	O	Video decoder master clock pin. Input the XTL0I clock or connect an oscillator between XTL0I and XTL0O. The recommended frequencies are 27MHz, 28.6363MHz (NTSC 8fsc), and 35.4686 MHz (PAL 8fsc).
3	XTL0I	I	
4	VDD	–	+5V power supply
5	HA2	I	Address input pin. In some cases, serves as the control signal and data input according to the setting of the control mode.
6	HA3	I	
7	HD0	I/O	Data input/output
8	HD1	I/O	
9	HD2	I/O	
10	HD3	I/O	
11	HD4	I/O	
12	HD5	I/O	
13	HD6	I/O	
14	VDD	–	+5V power supply
15	VSS	–	Ground
16	HD7	I/O	Data input/output
17	MA3	O	Address signal pin. Connect to the DRAM address pin with the same number.
18	MA4	O	
19	MA2	O	
20	MA5	O	
21	MA1	O	
22	VSS	–	Ground
23	MA6	O	Address signal pin. Connect to the DRAM address pin with the same number.
24	MA0	O	
25	BC	I	For test (Not used)
26	TCKI	I	
27	TDI	I	
28	TENAI	I	
29	TDO	I	
30	VST	I	For test (Connect to ground)
31	VSS	–	Ground
32	MA7	O	Address signal pin. Connect to the DRAM address pin with the same number.
33	MA8	O	
34	XRAS	O	RAS signal pin. Connect to the RAS pin of the DRAM. Same for the 256Kw × 16b, 256Kw × 16b × 2, and 512Kw × 8b × 2 DRAM structures.
35	XMWE	O	WE signal pin. Connect to the WE pin of the DRAM.
36	XCAS2 /MA9	O	CAS signal. Connect to the CAS pin of the DRAM so as to control the lower bytes of the upper word (256K to 512K-1) for the 256Kw × 16b × 2 DRAM structure. / Address signal pin. Connect to the DRAM address pin with the same number. (Not used)
37	XCAS0	O	CAS signal. Connect to the CAS pin of the DRAM so as to control the lower bytes (MD0 to MD7) for 256Kw × 16b and 512Kw × 8b × 2 DRAM structures, and to control the lower bytes of the lower word (0 to 256K-1) for the 256Kw × 16b × 2 DRAM structure.
38	MD7	I/O	Data input/output signal pin. Connect to the DRAM data pin so that the lower and upper bytes of the data correspond to the CAS0 to CAS3 controls.
39	MD8	I/O	
40	MD6	I/O	

Pin No.	Pin Name	I/O	Function
41	MD9	I/O	Data input/output signal pin. Connect to the DRAM data pin so that the lower and upper bytes of the data correspond to the CAS0 to CAS3 controls.
42	MD5	I/O	
43	MD10	I/O	
44	V_{DD}	–	+5V power supply
45	V_{SS}	–	Ground
46	MD4	I/O	Data input/output signal pin. Connect to the DRAM data pin so that the lower and upper bytes of the data correspond to the CAS0 to CAS3 controls.
47	MD11	I/O	
48	MD3	I/O	
49	MD12	I/O	
50	MD2	I/O	
51	MD13	I/O	
52	MD1	I/O	
53	MD14	I/O	
54	MD0	I/O	
55	MD15	I/O	
56	XOSDEN	I	OSD enable signal
57	OSDB	I	OSD data input pin. When the XOSDEN input is “L”, the color registered in the register specified by this 3 inputs (3 bits) is output as the image data.
58	OSDG	I	
59	OSDR	I	
60	V_{DD}	–	+5V power supply
61	V_{SS}	–	Ground
62	XVOE	I	Video output enable signal pin. When set to “L”, enables the image data output and DCLK output. When set to “H”, disables (high impedance). Output control can also be performed by writing in the register. (Connected to ground)
63	R/Cr0	O	Output pin of the R or Cr signal of the image data. MSB is R/Cr7. Synchronizes with DCLK.
64	R/Cr1	O	
65	R/Cr2	O	
66	R/Cr3	O	
67	R/Cr4	O	
68	R/Cr5	O	
69	R/Cr6	O	
70	R/Cr7	O	
71	G/Y0	O	Output pin of the G or Y signal of the image data. MSB is G/Y7. Synchronizes with DCLK.
72	G/Y1	O	
73	G/Y2	O	
74	V_{DD}	–	+5V power supply
75	V_{SS}	–	Ground
76	G/Y3	O	Output pin of the G or Y signal of the image data. MSB is G/Y7. Synchronizes with DCLK.
77	G/Y4	O	
78	G/Y5	O	
79	G/Y6	O	
80	G/Y7	O	

Pin No.	Pin Name	I/O	Function
81	B/Cb0	O	Output pin of the B or Cb signal of the image data. MSB is B/Cb7. Synchronizes with DCLK. (Not used)
82	B/Cb1	O	
83	B/Cb2	O	
84	B/Cb3	O	
85	B/Cb4	O	
86	B/Cb5	O	
87	B/Cb6	O	
88	B/Cb7	O	
89	DCLK	I	Dot clock (DCLK) signal pin. The DCLK frequency is normally 13.5MHz. The DCLK can be input from this pin or can be made by frequency-dividing (1/integer) the clock input from XTL0I.
90	V_{DD}	–	+5V power supply
91	V_{SS}	–	Ground
92	HSYNC	I	Horizontal sync signal pin. When using the built-in sync generator, a signal is made by frequency-dividing the dot clock (DCLK). Serves as the input when not using the built-in sync generator.
93	VSYNC	I	Vertical sync signal pin. When using the built-in sync generator, a signal is made by frequency-dividing the DCLK. Serves as the input when not using the built-in sync generator.
94	FID /FHREF	I	Field determination signal. Odd field correspond to “H” and even field correspond to “L”. Serves as an output when the built-in sync generator is used, and as an input when not. / Signal obtained by frequency-dividing the clock input from XTL0I or XTLI. When the input clock is 8 fsc, it can be used as the horizontal sync signal phase comparison reference signal.
95	CBLNK /FSC	I	Composite blanking signal pin. Serves as an output when the built-in sync generator is used, and as an input when not. / Signal obtained by frequency-dividing the clock input from XTL0I or XTLI. When the input clock is 8 fsc, it can be used as the fsc signal.
96	CSYNC	O	Composite sync signal pin. A signal is made by frequency-dividing the DCLK. Cannot be input. (Not used)
97	XSGRST	I	Sync generator reset signal pin. The signal generator is initialized by setting this pin to “L”.
98	CLK0O	O	Outputs the frequency-divided clock of the clock input to XTL0I. The frequency dividing ratio can be selected from 1/2, 1/4, and 1/8. (Not used)
99	DOUT	O	Digital output (Not used)
100	DATO	O	Audio serial data output to Audio D/A converter (IC101)
101	LRCO	O	LR clock output to Audio D/A converter (IC101)
102	BCKO	O	Bit clock output to Audio D/A converter (IC101)
103	FSXI	I	Input 384fs (16.9344MHz) or 768fs (33.8688MHz).
104	V_{DD}	–	+5V power supply
105	V_{SS}	–	Ground
106	XTL2O	O	CD-ROM decoder, audio decoder master clock. Input a clock to the XTL21 or connect an oscillator between XTL2I and XTL2O. The recommended frequency is 45 MHz. This clock is for the internal circuit. Does not synchronize with inputs and outputs.
107	XTL2I	I	
108	V_{DD}	–	+5V power supply
109	C2PO	I	C2 pointer input (CXD2545Q)
110	LRCI	I	LR clock input (CXD2545Q)

Pin No.	Pin Name	I/O	Function
111	DATI	I	Serial data input (CXD2545Q)
112	BCKI	I	Bit clock input (CXD2545Q)
113	DOIN	I	Digital input signal (Not used)
114	XHCS	I	Register access chip select signal pin.
115	XHDT	I/O	Data acknowledge/wait signal pin for DMA transmission, register access, transparent memory access.
116	HRW	I	Register access control signal pin.
117	XHIRQ	O	Interrupt request signal
118	XRST	I	Hardware reset input pin. When set to “L”, all registers and operations are reset and initialized.
119	HA0	I	Address input pin. In some cases, serves as the control signal and data input according to the setting of the control mode.
120	HA1	I	

• IC301 NOISE REDUCTION (CXD1854Q)/VIDEO board

Pin No.	Pin Name	I/O	Function
1	VSS	–	Ground
2	BI7	I	[MSB]
3	BI6	I	
4	BI5	I	
5	BI4	I	
6	BI3	I	B input 0–7 (Connect to ground)
7	BI2	I	
8	BI1	I	
9	BI0	I	[LSB]
10	VSS	–	Ground
11	Y/GI7	I	[MSB]
12	Y/GI6	I	
13	Y/GI5	I	
14	Y/GI4	I	
15	Y/GI3	I	G (Y) input 0–7
16	Y/GI2	I	
17	Y/GI1	I	
18	Y/GI0	I	[LSB]
19	VSS	–	Ground
20	C/RI7	I	[MSB]
21	C/RI6	I	
22	C/RI5	I	
23	C/RI4	I	
24	C/RI3	I	R (Cb/Cr) input 0–7
25	C/RI2	I	
26	C/RI1	I	
27	C/RI0	I	[LSB]
28	VDD	–	Power supply (+5V)
29	XCS	I	Chip select input from IIC interface (IC901)
30	XSCK	I	Serial clock input from IIC interface (IC901)
31	SDI	I	Serial data input from IIC interface (IC901)
32	SDO	O	Serial data output. (Not used)
33	SXP COM	I	Serial/parallel select
34	BLCKNR0	I	NR effect level control input
35	BLCKNR1	I	NR effect level control input
36	BLCKSIZE	I	Block size select input
37	VDD	–	Power supply (+5V)
38	BLCKST0	I	RAS signal for DRAM (Connected to ground)
39	BLCKST1	I	CAS signal for DRAM (Connected to ground)
40	BLCKST2	I	Write enable signal for DRAM (Connected to ground)
41	VSS	–	Ground
42	BLOCKST3	I	DRAM data input (Connected to ground)
43	CORON	I	DRAM data input (Connected to +5V)
44	ADVD	I	DRAM data input (Connected to +5V)
45	ADVS	I	DRAM data input (Connected to ground)
46	HVCC	I	DRAM data input (Not used)
47	HVCCT	I	DRAM data input (Connected to +5V)
48	VCP	I	DRAM data input (Not used)
49	VCPT	I	DRAM data input (Connected to ground)
50	VSS	–	Ground

Pin No.	Pin Name	I/O	Function
51	C/RO0	O	[MSB]
52	C/RO1	O	
53	C/RO2	O	
54	C/RO3	O	
55	C/RO4	O	R (Cb/Cr) output 0–7
56	C/RO5	O	
57	C/RO6	O	
58	C/RO7	O	[LSB]
59	V_{DD}	–	Power supply (+5V)
60	Y/GO7	O	[MSB]
61	Y/GO6	O	
62	Y/GO5	O	
63	Y/GO4	O	
64	Y/GO3	O	G (Y) output 0–7
65	Y/GO2	O	
66	Y/GO1	O	
67	Y/GO0	O	[LSB]
68	V_{DD}	–	Power supply (+5V)
69	BO0	O	[MSB]
70	BO1	O	
71	BO2	O	
72	BO3	O	
73	BO4	O	B output 0–7 (Not used)
74	BO5	O	
75	BO6	O	
76	BO7	O	[LSB]
77	V_{SS}	–	Ground
78	HSYO	O	H SYNC output (Not used)
79	VSYO	O	V SYNC output (Not used)
80	CBLO	O	Composit blanking output (Not used)
81	CSYO	O	Composit SYNC output (Not used)
82	HAPGAIN0	I	Profile cooperation effect level control
83	HAPGAIN1	I	Profile cooperation effect level control
84	TEST	I	Test pin (Connect to ground)
85	TEN	I	Test pin (Connect to +5V)
86	HAPBPF0	I	Profile cooperation correction band control
87	IFSEL 1	I	Matrix select Y/C, RGB (Connect to ground)
88	HAPBPF1	I	Profile cooperation correction band control
89	NRON	I	Noise reducer on/off (Not used)
90	LEVEL 0	I	Noise reducer level select
91	LEVEL 1	I	0: weak –3: strong (Not used)
92	FNR UFRZ	I	NR feedback coefficient deser processor select (Connect to +5V)
93	XRST	I	Power on reset
94	V_{SS}	–	Ground
95	CSYI	I	Composit SYNC input (Connect to ground)
96	CBLI	I	Composit blanking input (Connect to +5V)
97	VSYI	I	V SYNC input
98	HSYI	I	H SYNC input
99	V_{DD}	–	Power supply (+5V)
100	DCLKI	I	Dot clock input (13.5MHz)

• IC401 10 BIT VIDEO D/A CONVERTER (CXD1913Q)/VIDEO board

Pin No.	Pin Name	I/O	Function
1	Y7	I	8-bit pixel data input pins (PD0 to 7).
2	Y6	I	When control register bit "PIF MODE"="0", serve as input pins for multiplexed Y, Cb, Cr
3	Y5	I	signals.
4	Y4	I	When control register bit "PIF MODE"="1", serve as input pins for Y signal
5	VSS	–	Digital ground
6	Y3	I	8-bit pixel data input pins (PD0 to 7).
7	Y2	I	When control register bit "PIF MODE"="0", serve as input pins for multiplexed Y, Cb, Cr
8	Y1	I	signals.
9	Y0	I	When control register bit "PIF MODE"="1", serve as input pins for Y signal
10	VDD	–	Digital power supply
11	C7	I	
12	C6	I	8-bit pixel data input pins/test data bus.
13	C5	I	When control register bit "PIF MODE"="0", these input pins cannot be used.
14	C4	I	When control register bit "PIF MODE"="1", serve as input pins for multiplexed Cb, Cr
15	C3	I	signals.
16	C2	I	In the test mode, used for internal circuit test data bus.
17	C1	I	The test mode is allowed to use only for device vendors
18	C0	I	
19	VSS	–	Digital ground
20	IREF	O	Reference current output pin. Connect a resistor ×16 times ("16R") of the output resistance value "R"
21	VREF	I	Voltage reference input pin. Sets the output full-scale value
22	AVDD1	–	Analog power supply
23	AVSS1	–	Analog ground
24	COMPO	O	10-bit D/A converter output. When control register bit "YC/YUV"="1", outputs the composite signal. When control register bit "YC/YUV"="0", outputs the color difference (V) signal
25	VB	I	Connect to Vss with an approx. 0.1 µF capacitor
26	VG	I	Connect to AVDD with an approx. 0.1 µF capacitor
27	AVDD2	–	Analog power supply
28	AVSS2	–	Analog ground
29	YOUT	O	10 bit D/A converter output. (Luminance (Y) signal output.)
30	AVDD3	–	Analog power supply
31	AVSS3	–	Analog ground
32	COUT	O	10-bit D/A converter output. When control register bit "YC/YUV"="1", outputs the chroma (C) signal. When control register bit "YC/YUV"="0", outputs the color difference (U) signal
33	TD10	O	Test data bus. In the test mode, used for internal circuit test data bus. The test mode is allowed to use only for device vendors (Not used)
34	VDD	–	Digital power supply

Pin No.	Pin Name	I/O	Function
35	TD9	O	Test data bus. In the test mode, used for internal circuit test data bus. The test mode is allowed to use only for device vendors (Not used)
36	TD8	O	
37	XTEST1	I	Test mode control input pin. Pulled-up. When these pins are “H”, CXD1913Q is not in the test mode. The test mode is allowed to use only for device vendors
38	XTEST2	I	
39	XTEST3	I	
40	VSS	–	Digital ground
41	TRST	I	Test mode reset input pin. During power on/reset, set to “L” for more than 40 clocks (SYSCLK) (Not used)
42	VDD	–	Digital power supply
43	TDI	I	Test mode control input pin. (Not used)
44	TMS	I	
45	TCK	I	Test mode control input pin. Fix at “H”
46	TDO	O	Test data bus pin. (Not used)
47	VSS	–	Digital ground
48	SI	I	The functions of this pin are selected by Pin 64 XIICEN. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the SI serial data input pin. When the XIICEN pin is “L”, sets into the I²C-BUS mode, and becomes the SDA input/output pin
49	SCK	I	The functions of this pin are selected by Pin 64 XIICEN. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the SCK serial clock input pin. When the XIICEN pin is “L”, sets into the I²C-BUS mode, and becomes the SCL input pin
50	XCS	I	The functions of this pin are selected by Pin 64 XIICEN. Pulled-up. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the XCK chip select input pin. When the XIICEN pin is “L”, sets into the I²C-BUS mode, and becomes the SA slave address selection input signal which selects the I²C-BUS slave address
51	XVRST	I	Active “L” vertical sync reset input pin. Pulled-up. Used for synchronizing external vertical sync and internal vertical sync. When XVRST is “L”, the internal digital sync generator is reset according to the F1 state
52	F1	I	Field ID input pin. When externally synchronizing with the XVRST signal, the field to be reset is determined by this signal. “H” indicates the first field. “L” indicates the second field
53	VDD	–	Digital power supply
54	XTEST4	I	Test mode control input pin. Pulled-up. When these pins are “H”, CXD1913Q is not s test mode. The test mode is allowed to use only for device vendors
55	XRST	I	System reset input pin when active “L”. During power on/reset, set to “L” for more than 40 clocks (SYSCLK)
56	SYSCLK	I	System clock input pin. To generate the correct sub carrier frequency, precisely 27MHz is required

Pin No.	Pin Name	I/O	Function
57	PDCLK	O	13.5MHz pixel data clock output pin. This clock is obtained by 1/2 frequency-dividing SYSCLK. Used only in the 16-bit pixel data mode
58	V_{SS}	–	Digital ground
59	VSYNC	O	V.sync signal output
60	HSYNC	O	H.sync signal output
61	SO	O	The functions of this pin are selected by Pin 64 XIICEN. When the XIICEN pin is “H”, sets into the SONY SIO mode, and becomes the S0 serial-out output pin. When the XIICEN pin is “L”, this pin is not used and sets into high impedance (Not used)
62	FID	O	Field ID output. When control register bit “FDS”=“1”, “L” indicates the first field and “H” indicates the second field. When control register bit “FDS”=“0”, “H” indicates the first field and “L” indicates the second field
63	V_{DD}	–	Digital power supply
64	XIICEN	I	Serial interface mode selection input pin. Pulled-up. When “L”, Pins 48 to 50, and 61 set into the I^2C-BUS mode. When “H”, Pins 48 to 50, and 61 set into the SONY SOP mode

• IC701 MECHANISM CONTROL (HD6433032SK12F)/VIDEO board

Pin No.	Pin Name	I/O	Function
1	CMD0	I/O	Input/output terminal exchanging data bus 0 with IIC interface (IC901)
2	CMD1	I/O	Input/output terminal exchanging data bus 1 with IIC interface (IC901)
3	CMD2	I/O	Input/output terminal exchanging data bus 2 with IIC interface (IC901)
4	CMD3	I/O	Input/output terminal exchanging data bus 3 with IIC interface (IC901)
5	SACK	O	Outputs command acknowledge to IIC interface (IC901)
6	QINT	O	Outputs command output pulses to IIC interface (IC901)
7	VDAC-XLAT	O	Serial data latch pulse output to Video D/A converter (IC401)
8	DF-XLAT	O	Serial data latch pulse output to Audio D/A converter (IC101)
9	P90/TXD	–	Not used
10	SUBQ	I	Sub Q 80bit input (CXD2545Q)
11	SQCK	O	SQSO readout clock output (CXD2545Q)
12	VSS	–	Ground
13 to 20	D0 to D7	I/O	Data bus input/output (IC201, 751)
21	VCC	–	Connect to the power supply (+5V)
22 to 29	A0 to A7	O	Address bus output (IC201, 751)
30	VSS	–	Ground
31 to 35	A8 to A12	O	Address bus output (IC201, 751)
36 to 39	A13 to A16	O	Address bus output (Not used)
40, 41	A17, A18	O	Addres bus output (IC772)
42	A19	O	Address bus output (Not used)
43	WAIT	I	BUS control wait input (IC201)
44	$\overline{\text{MD0}}$	I	Operation mode setting terminal (Connected to +5V)
45	MD1	I	Operation mode setting terminal (Connected to ground)
46	ϕ	O	System clock output (Not used)
47	$\overline{\text{STBY}}$	I	Shifts to the hardware standby mode when the standby terminal becomes “Low”. (Unable to use H level fixed) (Connected to +5V)
48	$\overline{\text{RESET}}$	I	Set into reset when the reset input pin becomes “Low”. (IC901)
49	NM1	I	Requests mask disable interruption. (Unable to use H level fixed) (Connected to +5V)
50	VSS	–	Ground
51	EXTAL	I	Connected to the Crystal oscillator. The EXTAL pin is also able to input external clocks. (10 MHz)
52	XTAL	I	Connected to the Crystal oscillator. (10 MHz)
53	VCC	–	Power supply (+5V)
54	$\overline{\text{AS}}$	O	When the address strobe pin is “Low”, indicates that address outputs on the address bus are valid. (IC772)
55	$\overline{\text{RD}}$	O	When the read pin is “Low”, indicates that the external addresses space is in the read state. (IC201, 751)
56	$\overline{\text{WR}}$	O	When the read pin is “Low”, indicates that the external addresses space is in the write state and the data bus are valid. (IC201, 751)
57	$\overline{\text{RESO}}$	O	Reset output (Not used)
58	AVSS	–	A/D converter (Pin62-69) ground
59	TEST0	I	Color-bar test input (“L” = test)
60	TEST1	I	AFADJ test input (“L” = test)
61	TE	I	ADJ test input (“L” = test)
62	SENS	I	Internal state (SENSE) monitor input (CXD2545Q)
63	DAC-SELECT	I	Audio D/A converter select mode setting terminal (Connected to +5V)
64	NPIN	I	NTSC/PAL output mode setting terminal (0V : NTSC, 1.5V : AUTO, 3V : PAL)
65	VSS	–	Ground
66	$\overline{\text{VREQ}}$	I	Not used
67	VREF	I	A/D converter (Pin62-69) reference voltage input (Connected to +5V)

Pin No.	Pin Name	I/O	Function
68	AVCC	–	A/D converter (Pin62-29) power supply (Connected to +5V)
69	CHECK-LED	O	Check LED control (Error : flashing)
70	XHIRQ	I	Interruption request input from MPEG decoder
71	SCOR	I	Subcode sync input (CXD2545Q)
72	MREQ	I	Inputs command request from IIC interface (IC901)
73	DATA	O	Serial data output
74	AMUTE	O	Mute output (“H” = mute)
75	LDON	O	Laser diode ON/OFF output
76	XLT	O	Latch output (CXD2545Q)
77	SCLK	O	SENS serial data reading clock output (CXD2545Q)
78	CLK	O	Serial data clock output
79	NR-SEL	I	Connected to +5V
80	—	–	Not used

• IC901 IIC INTERFACE (uPD780016YGF-012-3BA)/VIDEO board

Pin No.	Pin Name	I/O	Function
1 to 8	P80 to P87	I	Connected to ground
9	TEST	–	Connected to ground
10	X2	O	X' tall (5MHz)
11	X1	I	X' tall (5MHz)
12	VDD	–	Power supply +5V
13	XT2	–	Not used
14	XT1	–	Connected to +5V
15	RESET	I	System reset input
16, 17	PO0, PO1	I	Not used (Fixed at "L")
18	QINT	I	CD-BUS interrupt input
19 to 22	PO3 to PO6	I	Not used (Fixed at "L")
23	VDD	–	Power supply +5V
24	AVDD	–	Power supply +5V
25 to 32	P10 to P17	I	Connected to ground
33	AVSS	–	Ground
34	CMD0	I/O	Input/output terminal exchanging data bus 0 with mecha-con, (IC901)
35	CMD1	I/O	Input/output terminal exchanging data bus 1 with mecha-con, (IC901)
36	CMD2	I/O	Input/output terminal exchanging data bus 2 with mecha-con, (IC901)
37	CMD3	I/O	Input/output terminal exchanging data bus 3 with mecha-con, (IC901)
38, 39	P24, P25	I	Connected to ground
40	VSS	–	Ground
41, 42	P26, P27	I	Connected to ground
43	MREQ	O	Output command request to mecha-con. (IC701)
44	SACK	I	Input command acknowledge from mecha-con. (IC701)
45	CDGM	I	Not used (Fixed at "L")
46	P93	I	Connected to ground
47	MDATA	O	Serial data output (IC271, 301)
48	MCLK	O	Serial clock output (IC271, 301)
49	OS-XLAT	O	Serial latch output to OSD (IC271)
50	G-XLAT	O	Not used
51	G-XRST	O	Not used
52	CD-XRST	O	Video CD section reset output
53	CDPOW	O	Not used
54	DOUT	O	Not used
55	IIC-DATA	I	Serial data input from master control (IC701)
56	IIC-CLK	I	Serial clock input from master control (IC701)
57 to 64	P40 to P47	I	Connected to ground
65	NRON	O	Not used
66	LEVEL0	O	Not used
67	LEVEL1	O	Not used
68	NR-XCS	O	Chip select output to noise reduction (IC301)
69, 70	P54, P55	I	Connected to ground
71	VSS	I	Ground
72, 73	P56, P57	I	Connected to ground
74 to 81	P60 to P67	I	Connected to ground
82 to 85	P100 to P103	I	Connected to ground
86 to 93	P30 to P37	I	Connected to ground
94 to 100	P150 to P156	I	Connected to ground

• **IC701 MASTER CONTROL (uPD780016YGF-019-3BA)/MAIN board**

Pin No.	Pin Name	I/O	Function
1	TA-MUTE	O	Line mute signal output
2	DBFB-H/L	O	DBFB H/L select signal output
3	427-LAT	O	Latch signal output for IC201 (62427)
4	K-CON-LAT	O	Latch signal output for key control
5	K-CON-ON	O	Key control ON/OFF signal output
6	F-RELAY	O	Front speaker relay control output (Not used)
7	R-RELAY	O	Rear speaker relay control output
8	PL-RELAY	O	Not used
9	TEST	I	Connected to ground
10	X2	O	X'tal (5MHz)
11	X1	I	
12	VDD	–	Power supply (+5V)
13	XT2	O	X'tal (32.768 KHz)
14	XT1	I	
15	RESET	I	Reset signal input
16	INT/IN	I	Connected to ground
17	INT/IN/OUT	I	
18	SCOR	O	Not used
19	SOFT-TEST	O	Software test port
20	AC-CUT	I	Back up signal input
21	RDS-INT	I	Not used
22	RDS-DATA	I	Not used
23	VDD	–	Power supply (+5V)
24	AVDD	I	Analog reference voltage input.
25	ADJ	I	CD adjust point port Normal "H"
26	A-SHUT	I	A Deck reel pulse detector
27	B-SHUT	I	B Deck reel pulse detector
28	B-HALF	I	Half detector signal input
29	CLK-CHECK	I	Connected to ground
30	SPEC-IN	I	Connected to ground
31	ADJ 2	I	Connected to ground
32	DEMO-MODE	I	Connected to ground
33	AVSS	–	Ground
34	SQ-DATA-IN	I	Subcode Q data clock input (Not used)
35	NC	I	Not used
36	D.OUT ON/OFF	O	CD digital out ON/OFF control
37	SW-ON/OFF	O	Not used
38, 39	FUNC 1, 2	I	Connected to ground
40	VSS	–	Ground
41	VOL-LAT	O	Latch signal to erectrial volume (IC604)
42	PL-LAT	O	Latch signal to pro-logic (IC601, 602)
43	COM-DIN	I	Connected to ground
44	COM-DOUT	O	Common serial data output
45	COM-CLK	O	Common serial clock output
46	CD-POWER	O	CD power on signal output
47	CD-DATA	O	CD data output (Not used)
48	CD-CLK	O	CD clock output (Not used)
49	MSM-CND	O	Not used
50	MSM-BUSY	I	Connected to ground

Pin No.	Pin Name	I/O	Function
51	MSM-LAT	O	Not used
52	MSM-NAR	I	
53	MSM-CH	O	
54	INPUT-CHANGE	O	Input sensitivity switching output
55	IIC-DATA	O	Data output for IC601, 901
56	IIC-CLK	O	Clock output for IC601, 901
57	XRST	O	CD reset signal output
58	XLT	O	CD latch signal output (Not used)
59	FOCUS-SW	O	Not used
60	TBL-L	O	Table motor control output
61	TBL-R	O	
62	TRAY-LED	O	Not used
63	LOAD-OUT	O	Loading motor control signal output
64	LOAD-IN	O	
65	ST-CLK	O	Tuner clock output
66	ST-DIN	I	Tuner data input
67	ST-DOUT	O	Tuner data output
68	ST-CE	O	Tuner chip enable output
69	TUNED	I	Tuned detection for tuner
70	STEREO	I	Stereo detection for tuner
71	VSS	–	Ground
72	ST-MUTE	O	Tuner mute signal output
73	SENS2	I	BD Condition signal input (Not used)
74	SENS	I	
75	DISC-SENS	I	Slit sensor of disc table input
76	T-SENS	I	CD table detection signal input
77	UPSW	I	Up SW (S201) signal input
78	ENC 3	I	Disc tray address detect encoder input
79	ENC 2	I	
80	ENC 1	I	
81	OUT-OPEN	I	Loading out detection signal output
82	CAP-H/N	O	Capstan motor H/N speed select signal output
83	A-TRG	O	Trigger motor control output
84	B-TRG	O	Trigger motor control output
85	TRG-LOW	O	Trigger motor control output
86	CAP-M-ON/OFF	O	Capstan motor ON/OFF signal output
87	PB-A/B	O	PB Deck A/Deck B select output
88	EQ-H/N	O	Equalizer H/N select output
89	BIAS	O	Bias ON/OFF signal output
90	REC-MUTE	O	REC mute ON/OFF selection output
91	NR-ON/OFF	O	NR ON/OFF signal output
92	R/P-PASS	O	REC/PB/PASS selection output
93	TC-MUTE	O	TC mute ON/OFF selection output
94	A-PLAY-SW	I	Deck A play detect
95	B-PLAY-SW	I	Deck B play detect
96	RELAY	O	REC/PB head selection output for IC602
97	A-HALF	I	Deck A cassette detect
98	POWER	O	POWER ON/OFF signal output
99	SW-F-CON	O	Not used
100	STK-MUTE	O	Power amp ON/OFF signal output

• IC601 DISPLAY CONTROL (TMP87CM75-6564)/PANEL board

Pin No.	Pin Name	I/O	Function
1	SEG35	O	FL segment signal output
2	VLOAD	O	Power supply (–25V) for FL segment signal output
3 to 10	LED1 to LED8	O	LED driver output
11	VSS	–	Ground
12	X-OUT	O	X'tall (8MHz)
13	X-IN	I	
14	RESET	I	Reset signal input from main controller
15	LED9	O	LED driver output
16	LED10	O	LED driver output
17	TEST	I	Connected ground
18 to 22	LED11 to LED15	O	LED driver output
23	LED16	O	LED driver output
24	VOL-A	I	Rotary encoder (S602) pulse input
25	LED17	O	LED driver output
26	JOG-A	I	Rotaly encoder (S601) pulse input
27	CLOCK	I	Serial clock input from main controller
28	DATA	I	Serial data input from main controller
29	LED SELECT	O	LED select signal output
30	VDD	–	Power supply (+5V)
31	VSS	–	Ground
32	MODEL	I	Version select signal input
33 to 37	KEY1 to KEY5	I	Key input
38	EWS STANDBY	I	Not used
39	SIRCS	I	Remote commander signal input
40	VOL-B	I	Rotary encoder (S602) pulse input
41	JOG-B	I	Rotary encoder (S601) pulse input
42	SPEANA-1	I	Spectrum analyzer input
43	SPEANA-2	I	Spectrum analyzer input
44	SPEANA-3	I	Spectrum analyzer input
45	SPEANA-4	I	Spectrum analyzer input
46	L + R	I	Spectrum analyzer (high frequency) input
47	EWS SIGNAL/LED18	O	Not used
48	VASS	–	Ground
49	VAREF	I	Analog reference voltage input
50	VDD	–	Power supply (+5V)
51 to 56	GR1 to GR16	O	FL gride signal output
67 to 100	SEG1 to SEG34	O	FL segment signal output

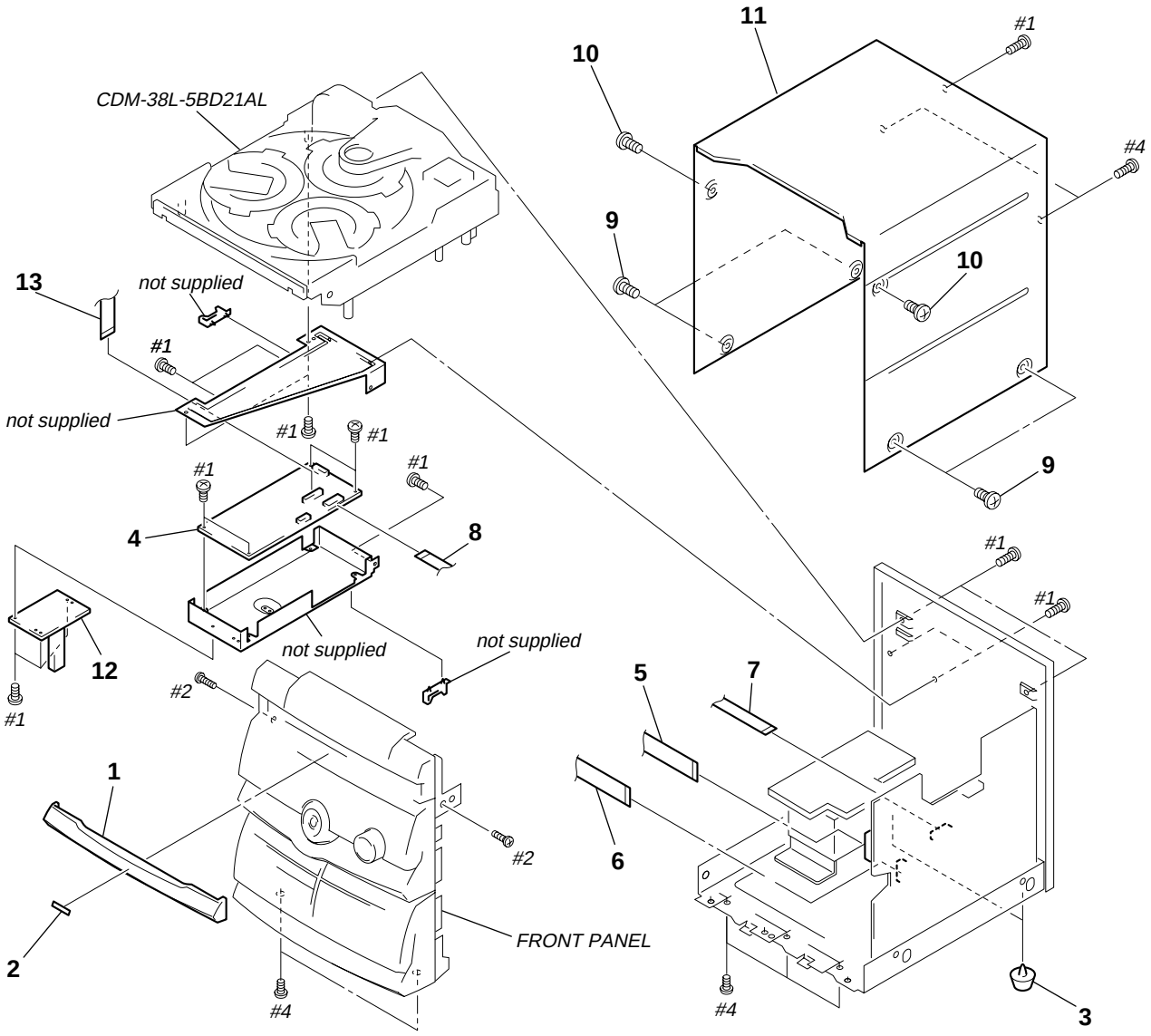
• Abbreviation
FL : Fluorescent indicator tube

SECTION 8
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  SP : Singapore model.
  IA : Indonesia model.
  MY : Malaysia model.
  TH : Thai model.
  CH : Chinese model.

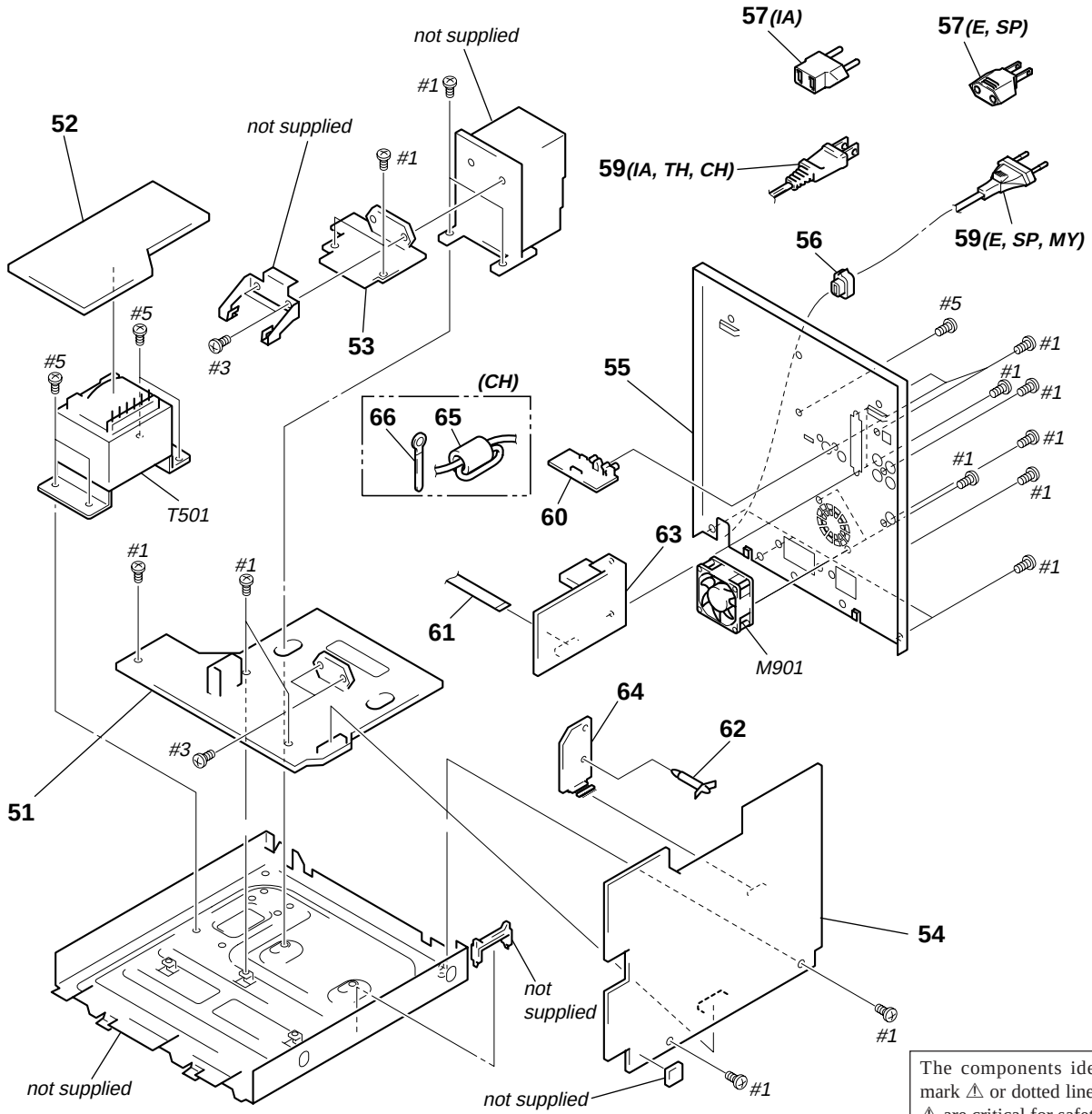
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. CASE SECTION



Ref. No.	Part No.	Description	Remark
1	4-991-782-21	PANEL, LOADING	
2	4-991-781-01	EMBLEM (VCD)	
3	4-965-822-01	FOOT	
4	A-4398-587-A	VIDEO BOARD, COMPLETE	
5	1-773-158-11	WIRE (FLAT TYPE) (21 CORE)	
6	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
7	1-769-948-11	WIRE (FLAT TYPE) (11 CORE)	
8	1-782-653-11	WIRE (FLAT TYPE) (13 CORE)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	3-363-099-41	SCREW (CASE 3 TP2)	
* 11	4-988-767-21	CASE (CH)	
* 11	4-988-767-61	CASE (EXCEPT CH)	
* 12	1-666-126-11	VIDEO POWER BOARD	
13	1-782-654-11	WIRE (FLAT TYPE) (29 CORE)	

8-2. MAIN BOARD SECTION

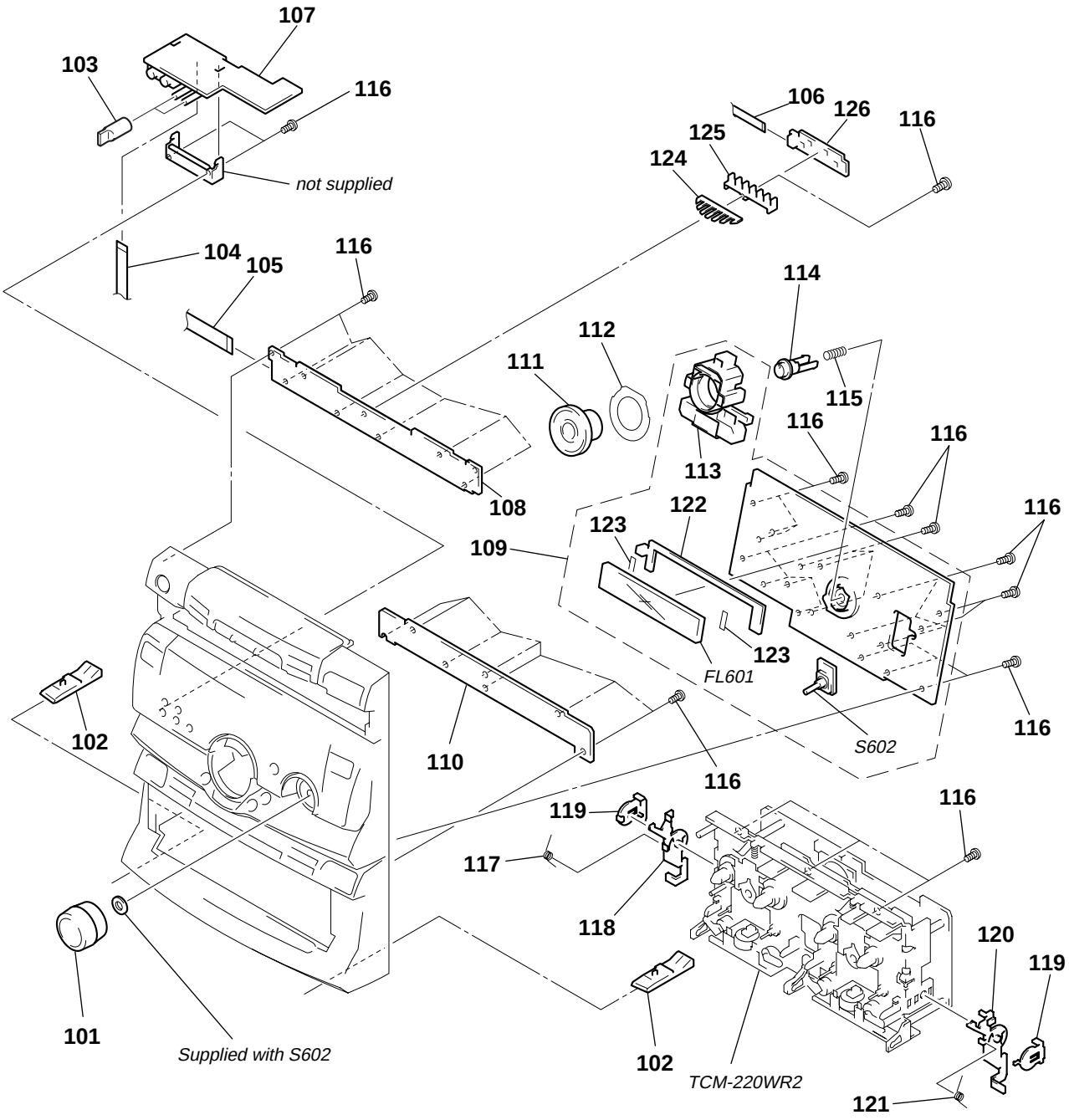


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 51	A-4403-749-A	POWER BOARD, COMPLETE (EXCEPT CH)	
* 51	A-4403-677-A	POWER BOARD, COMPLETE (CH)	
* 52	1-663-994-11	TRANS BOARD	
* 53	A-4392-662-A	SURROUND BOARD, COMPLETE (EXCEPT CH)	
* 53	A-4392-663-A	SURROUND BOARD, COMPLETE (CH)	
* 54	A-4398-964-A	MAIN BOARD, COMPLETE	
* 55	4-991-753-01	PANEL, BACK (E, SP)	
* 55	4-991-753-11	PANEL, BACK (CH)	
* 55	4-991-753-21	PANEL, BACK (IA)	
* 55	4-991-746-41	PANEL, BACK (MY)	
* 55	4-991-746-91	PANEL, BACK (TH)	
56	3-703-244-00	BUSHING (FBS001), CORD (E, SP, MY, CH)	
56	3-703-571-11	BUSHING (S) (4516), CORD (TH)	
56	4-966-266-01	BUSHING (S) (FSB002), CORD (IA)	
⚠57	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
⚠57	1-569-008-11	ADAPTOR, CONVERSION 2P (E,SP)	

Ref. No.	Part No.	Description	Remark
* 58	4-988-533-11	HOLDER, PCB	
⚠59	1-575-651-21	CORD, POWER (E, SP, MY)	
⚠59	1-575-653-11	CORD, POWER (IA)	
⚠59	1-751-326-21	CORD, POWER (TH)	
⚠59	1-782-464-21	CORD, POWER (CH)	
* 60	1-665-406-11	VIDEO OUT BOARD	
61	1-773-012-11	WIRE (FLAT CABLE) (15 CORE)	
* 62	4-924-098-81	HOLDER, PC BOARD	
63	1-233-545-11	ENCAPSULATED COMPONENT (TH)	
63	1-233-546-11	ENCAPSULATED COMPONENT (E, SP, MY, IA, CH)	
* 64	A-4398-962-A	KEY CON BOARD, COMPLETE	
65	1-500-386-11	FERRITE CORE (CH)	
* 66	3-703-150-11	WIRE CLAMP (CH)	
M901	1-698-792-11	FAN, DC	
⚠T501	1-431-553-11	TRANSFORMER, POWER (E, SP, IA, CH)	
⚠T501	1-431-418-11	TRANSFORMER, POWER (MY, TH)	

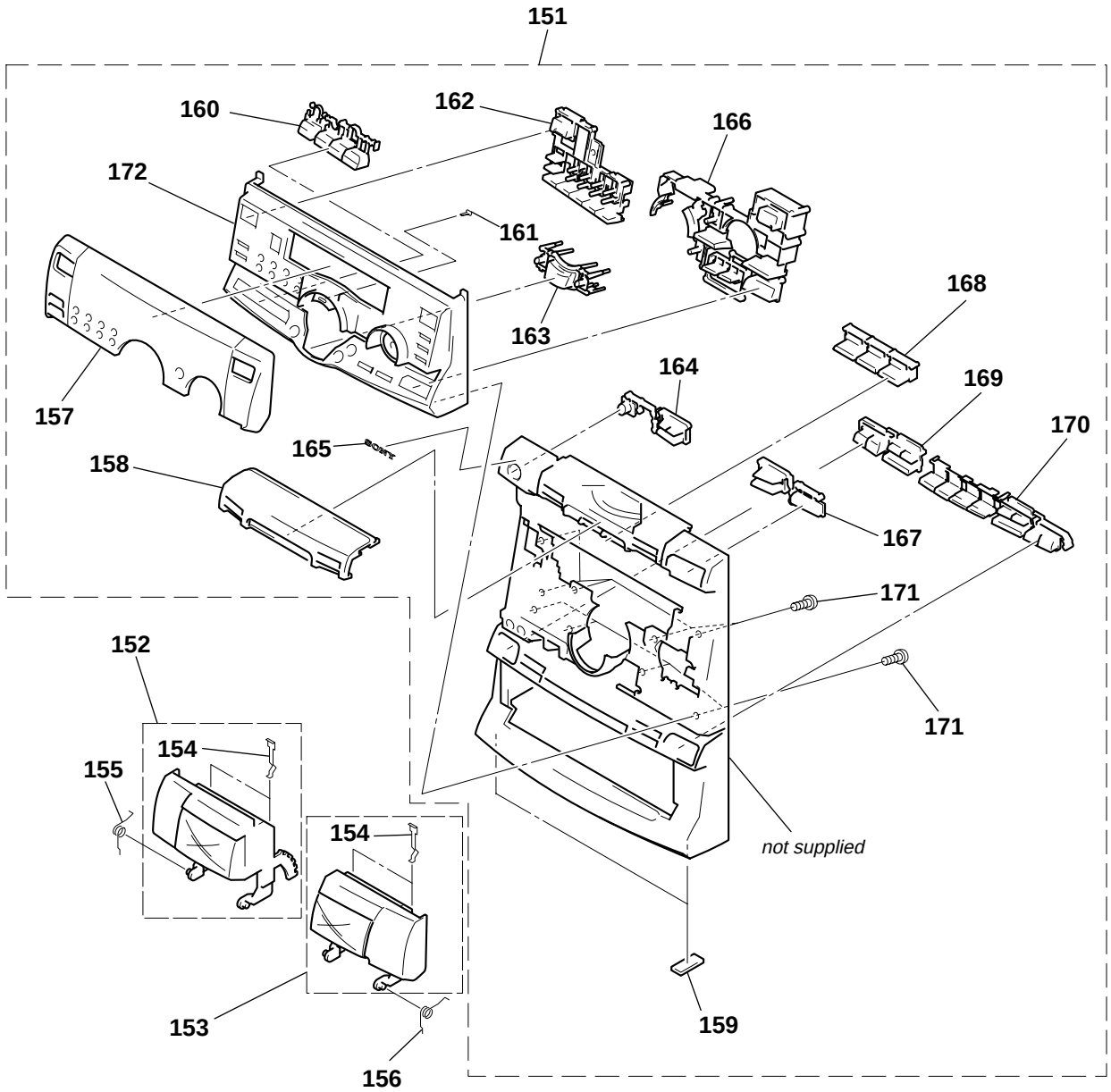
8-3. PANEL BOARD SECTION



Ref. No.	Part No.	Description	Remark
101	4-986-877-31	KNOB (VOL)	
102	4-986-843-31	BUTTON (EJECT)	
103	4-986-893-31	KNOB (MICROPHONE)	
104	1-769-909-11	WIRE (FLAT TYPE) (9 CORE)	
105	1-777-869-11	WIRE (FLAT TYPE) (10 CORE)	
106	1-777-936-11	WIRE (FLAT TYPE) (5 CORE)	
* 107	A-4398-961-A	HP/MIC BOARD, COMPLETE	
* 108	A-4392-650-A	CD SW BOARD, COMPLETE	
* 109	A-4398-959-A	PANEL BOARD, COMPLETE	
* 110	A-4392-652-A	TC SW BOARD, COMPLETE	
111	X-4948-113-1	KNOB (JOG) ASSY	
112	4-986-881-11	JOG (PLATE)	
* 113	4-986-880-11	HOLDER (JOG)	
114	X-4948-120-1	BUTTON (E/N) ASSY	
115	4-984-085-11	SPRING (ENTER), COMPRESSION	

Ref. No.	Part No.	Description	Remark
116	4-951-620-01	SCREW (2.6X8), +BVTP	
117	4-990-130-11	SPRING (OPEN B)	
118	3-354-953-01	LEVER (LOCK LEVER L)	
119	3-354-957-01	JOINT (LOCK LEVER)	
120	3-354-954-01	LEVER (LOCK LEVER R)	
121	4-990-129-11	SPRING (OPEN A)	
* 122	4-986-870-11	HOLDER, FL TUBE	
* 123	4-932-810-11	CUSHION (FL)	
124	4-986-863-11	INDICATOR (CD)	
* 125	4-986-865-11	HOLDER (LED)	
* 126	1-664-007-11	DECO BOARD	
FL601	1-517-618-11	INDICATOR, TUBE FLUORESCENT	
S602	1-467-869-11	ENCODER, ROTARY	

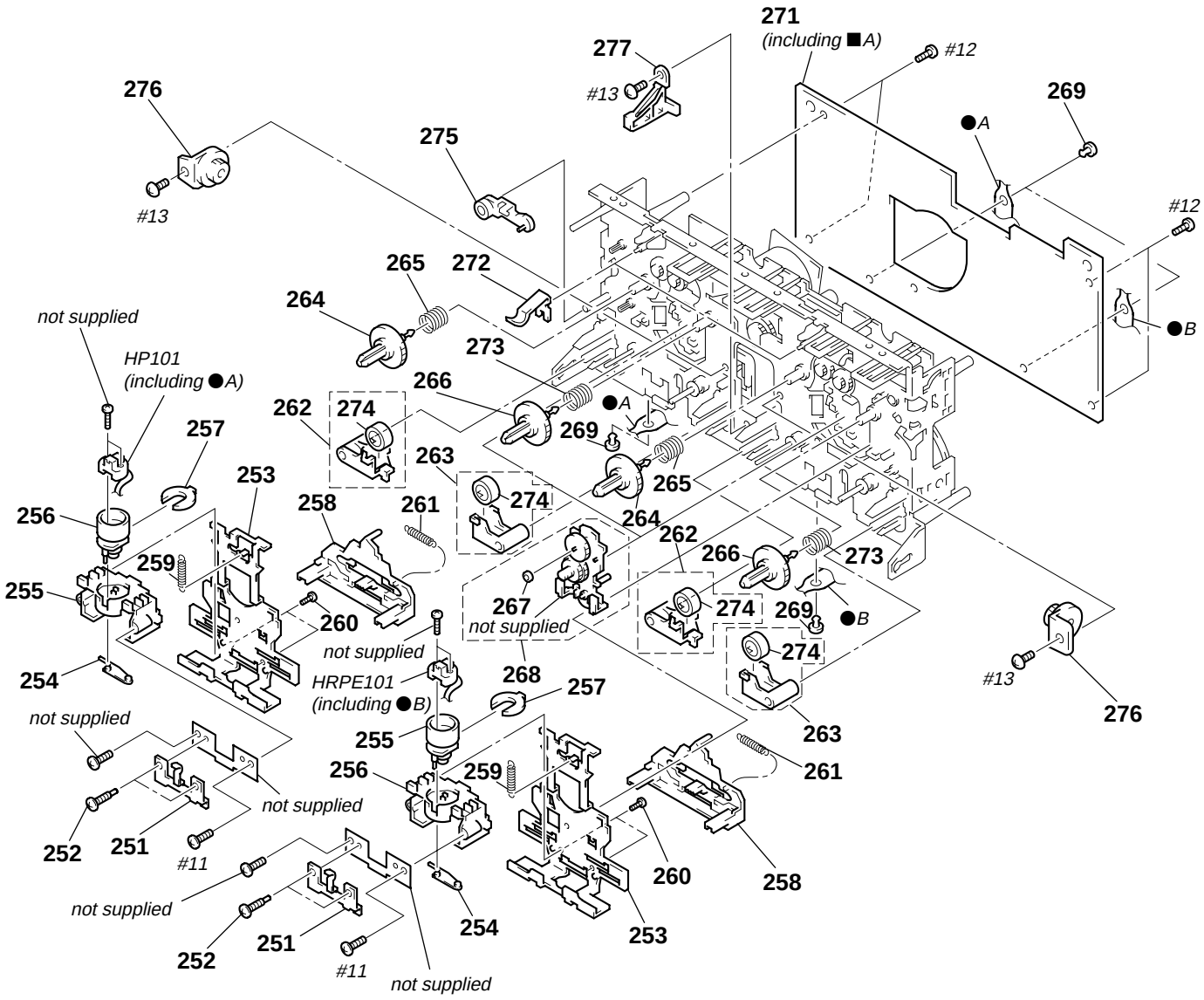
8-4. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
151	X-4948-757-1	PANEL ASSY, FRONT	
152	X-4948-118-1	LID (A) ASSY, CASSETTE	
153	X-4948-119-1	LID (B) ASSY, CASSETTE	
154	4-959-229-11	DETENT, CASSETTE	
155	4-989-903-11	SPRING (A DECK)	
156	4-989-904-11	SPRING (B DECK)	
157	4-991-783-21	WINDOW (STR)	
158	4-986-859-11	WINDOW (CD)	
159	4-988-663-01	FOOT (FELT)	
160	X-4948-683-1	BUTTON (DJ) ASSY	
161	4-986-883-11	INDICATOR (JOG)	

Ref. No.	Part No.	Description	Remark
162	4-986-872-51	BUTTON (TIMER)	
163	4-986-897-11	BUTTON (BPM)	
164	4-986-860-31	BUTTON (POWER)	
165	4-962-708-21	EMBLEM (4-A), SONY	
166	X-4948-108-1	BUTTON (T/B) ASSY	
167	4-986-861-31	BUTTON (PLAY)	
168	4-986-862-11	BUTTON (CD)	
169	4-986-901-31	BUTTON (A DECK)	
170	4-986-902-31	BUTTON (B DECK)	
171	4-951-620-01	SCREW (2.6X8), +BVTP	
172	4-991-784-11	PANEL, SUB	

8-5. TC MECHANISM SECTION 1 (TCM-220WR2)

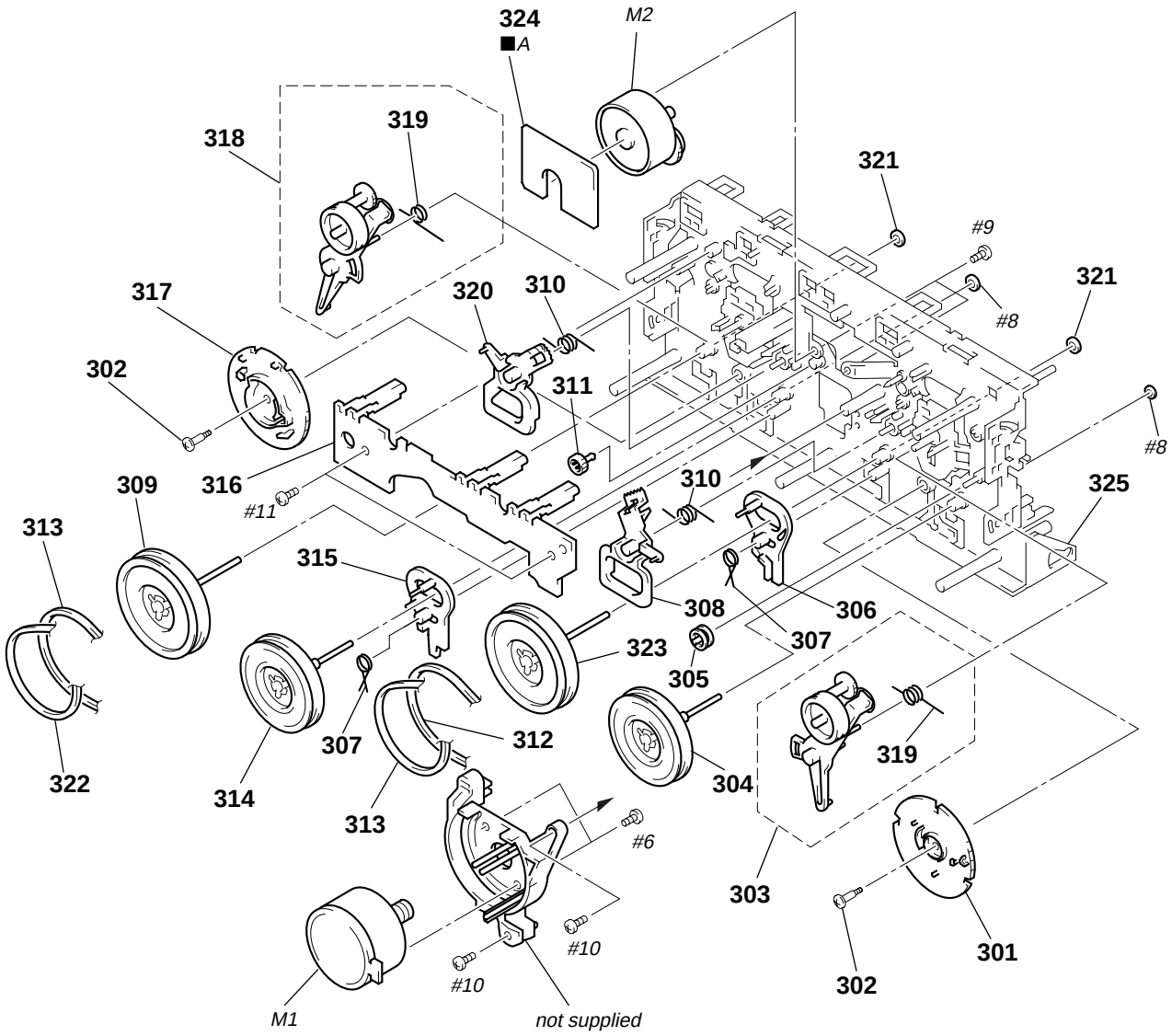


Ref. No.	Part No.	Description	Remark
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT	
* 253	X-3373-113-1	SLIDER (HEAD) ASSY	
254	3-009-956-01	SPRING, HEAD TOGGLE	
255	3-908-558-02	FITTING BLOCK, HEAD	
256	3-908-557-02	ROTARY BLOCK, HEAD	
* 257	3-908-559-01	STOPPER, AZIMUTH	
258	3-908-555-01	SLIDER (REV SLIDER)	
259	3-917-143-11	SPRING, TENSION	
260	3-388-848-01	SCREW (P2X6)(B TIGHT)	
261	3-939-371-01	SPRING (1), TENSION	
262	X-3369-909-1	PINCH LEVER (REV) ASSY	
263	X-3369-908-1	PINCH LEVER (FWD) ASSY	
264	3-908-613-01	GEAR (S), REEL	
265	3-917-141-01	SPRING, COMPRESSION	

Ref. No.	Part No.	Description	Remark
266	X-3371-305-1	REEL (T) ASSY	
267	3-669-465-01	WASHER (1.5), STOPPER	
268	X-3370-173-1	TU ASSY	
269	3-939-862-01	CLIP	
* 271	A-2007-131-A	AUDIO BOARD, COMPLETE	
272	3-930-972-01	DETENT, HALF	
273	3-917-142-01	SPRING, COMPRESSION	
274	3-355-808-02	PINCH ROLLER	
275	3-938-863-01	STOPPER	
276	3-354-963-01	DAMPER	
* 277	4-980-439-01	FULCRUM, HOLDER	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	

8-6. TC MECHANISM SECTION 2 (TCM-220WR2)

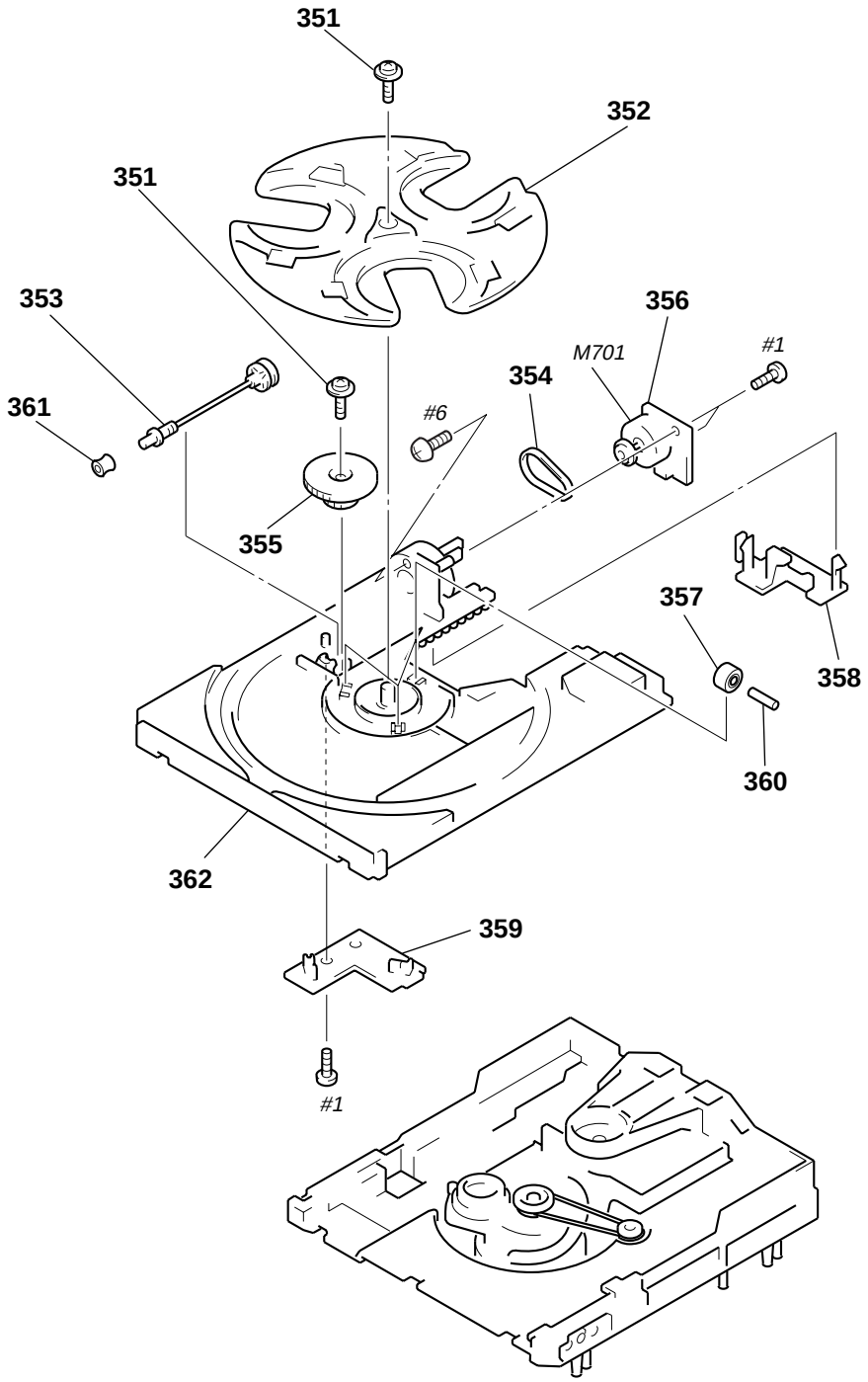
■A: MOTOR board (Suppplied with AUDIO board)



Ref. No.	Part No.	Description	Remark
301	3-908-597-01	CAM (A)	
302	3-908-608-11	SCREW, STEP	
303	X-3372-930-1	ARM (A) ASSY, FR	
304	X-3370-169-1	FLYWHEEL (AR) ASSY	
305	3-928-047-01	PULLEY, TENSION	
306	3-908-599-01	LEVER (REV-A)	
307	3-908-601-01	SPRING (REV LEVER), TORSION	
308	3-908-603-01	LEVER (TRIGGER A)	
309	X-3370-170-1	FLYWHEEL (BF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION	
311	3-908-609-01	GEAR, TRIGGER	
312	3-913-845-11	BELT (A)	
313	3-913-846-11	BELT (FR)	
314	X-3370-171-1	FLYWHEEL (BR) ASSY	

Ref. No.	Part No.	Description	Remark
315	3-908-600-01	LEVER (REV-B)	
* 316	1-650-669-11	LEAF SWITCH BOARD	
317	3-908-598-01	CAM (B)	
318	X-3372-931-3	ARM (B) ASSY, FR	
319	3-911-114-12	SPRING (FR), TORSION	
320	3-908-604-01	LEVER (TRIGGER B)	
321	3-911-115-01	WASHER, STOPPER	
322	3-917-176-11	BELT (B)	
323	X-3370-172-1	FLYWHEEL (AF) ASSY	
* 324	A-2007-131-A	AUDIO BOARD, COMPLETE	
325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	

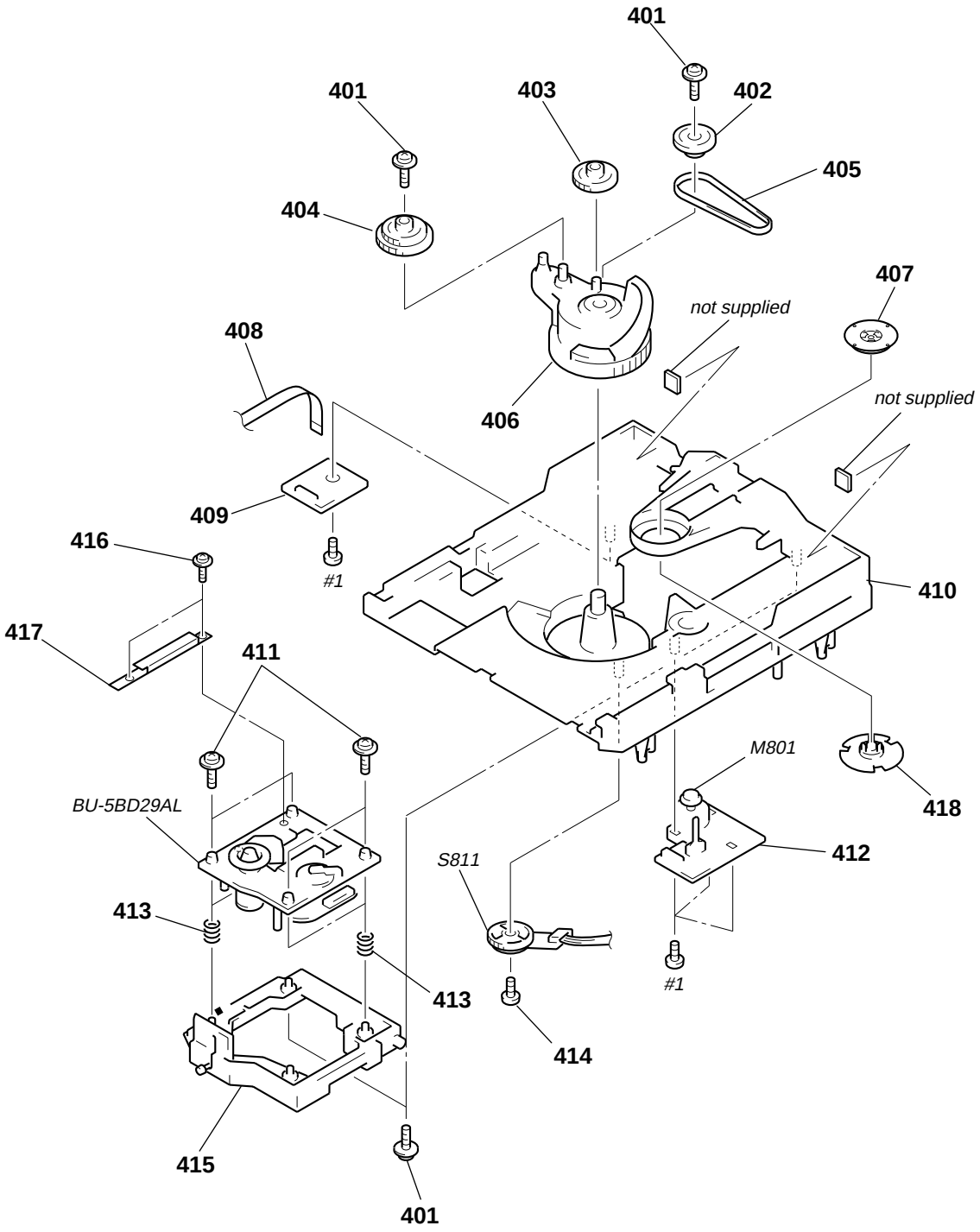
8-7. CD MECHANISM SECTION 1 (CDM38L-5BD29AL)



Ref. No.	Part No.	Description	Remark
351	4-981-789-01	BLACKET (2), YOKE	
352	4-977-945-01	TRAY (TURN)	
353	X-4946-665-1	SHAFT ASSY, WORM	
354	4-977-943-01	BELT (TURN) (1.2)	
355	4-977-956-01	WHEEL, WORM	
* 356	1-658-577-11	MOTOR (TURN) BOARD	
357	4-988-162-01	ROLLER	

Ref. No.	Part No.	Description	Remark
358	4-977-941-01	BEARING (WORM)	
* 359	1-658-576-11	SENSOR BOARD	
360	4-934-376-01	SHAFT (ROLLER)	
361	4-981-187-01	COLLAR (WORM)	
362	4-977-944-01	TRAY (SLIDE)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	

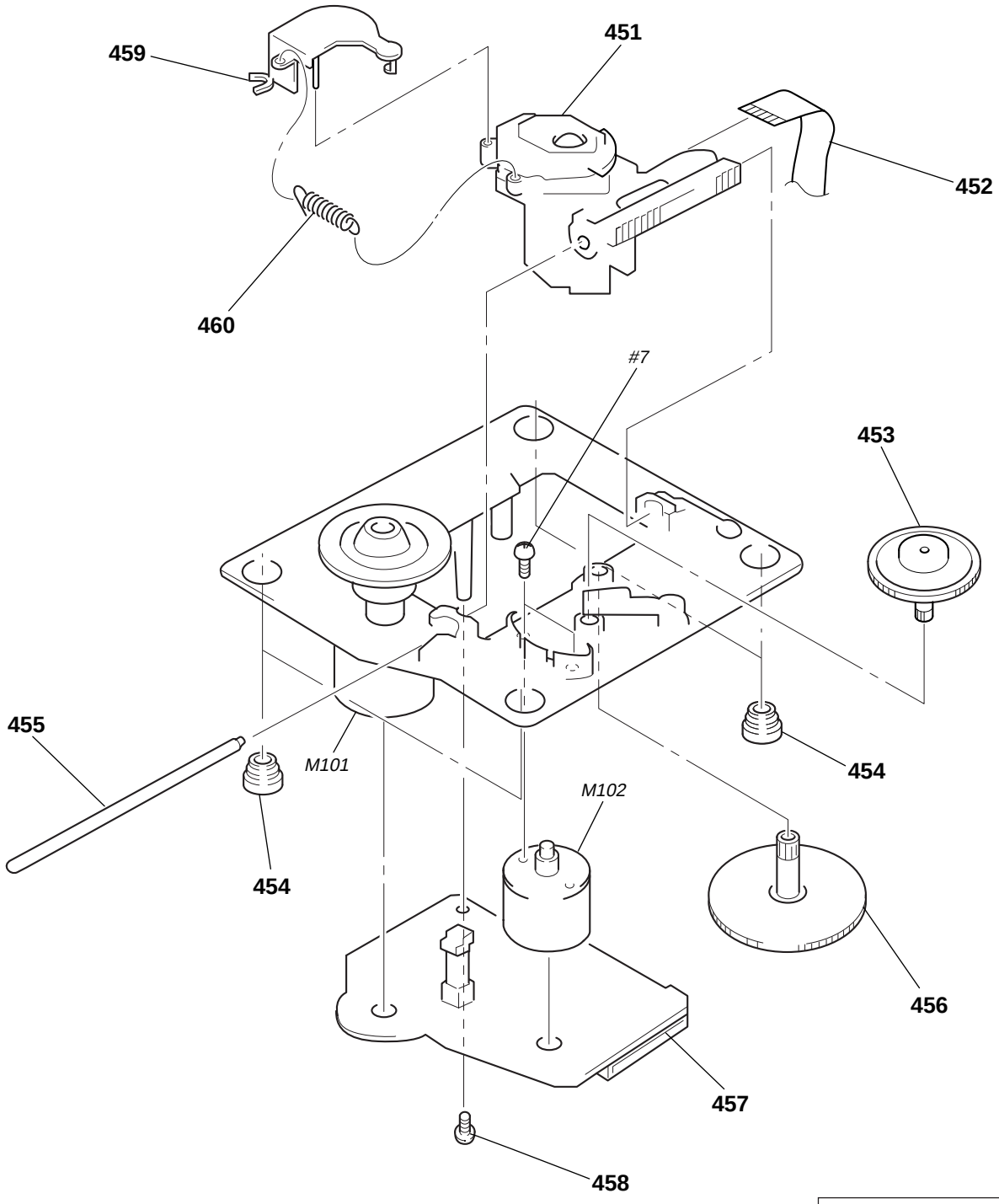
8-8. CD MECHANISM SECTION 2 (CDM38L-5BD29AL)



Ref. No.	Part No.	Description	Remark
401	4-917-583-71	BRACKET, YOKE	
402	4-977-954-01	PULLEY (SL)	
403	4-977-953-01	GEAR (SL-A)	
404	4-977-955-01	GEAR (SL-B)	
405	4-977-942-01	BELT (SL) (1.4)	
406	X-4946-667-1	CAM ASSY, BU	
407	1-452-925-11	MAGNET ASSY	
408	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
* 409	1-658-575-11	CONNECTOR BOARD	
* 410	X-4946-668-1	CHASSIS (CDM) ASSY	

Ref. No.	Part No.	Description	Remark
411	4-985-672-01	SCREW (+PTPWH M2.6X6), FLOATING	
* 412	1-658-578-11	MOTOR (SLIDE) BOARD	
413	4-982-447-01	SPRING (BU), COMPRESSION	
414	4-951-620-41	SCREW (2.6), +BVTP	
* 415	X-4946-666-1	HOLDER (BU) ASSY	
416	4-985-672-01	SCREW (SLIDER), STEP	
417	4-989-492-11	SLIDER (38) (EXCEPT INDONESIA PRODUCT)	
417	4-989-492-21	SLIDER (38) (INDONESIA PRODUCT)	
418	4-994-963-01	PULLEY (LBT), PRESS	
M801	A-4672-004-A	MOTOR ASSY (SLIDE)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	

8-9. BASE UNIT SECTION (BU-5BD29AL)



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

Ref. No.	Part No.	Description	Remark
⚠451	8-820-020-03	OPTICAL PICK-UP BLOCK KSS-213D/Q-NP	
452	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
453	4-912-567-01	GEAR (M)	
454	4-951-940-01	INSULATOR (BU)	
455	4-917-565-01	SHAFT, SLED	
456	4-917-564-01	GEAR (P), FLATNESS	

Ref. No.	Part No.	Description	Remark
* 457	A-4673-557-A	BD BOARD, COMPLETE	
458	4-951-620-01	SCREW (2.6X8), +BVTP	
459	4-989-491-21	COVER, LENS	
460	4-989-819-02	SPRING, TENSION	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

AUDIO

SECTION 9
ELECTRICAL PARTS LIST

Note:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- 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
  SP : Singapore model
  MY : Malaysia model
  IA : Indonesia model
  CH : Chinese model
  TH : Thai model

Ref. No.	Part No.	Description			Remark
*	A-2007-131-A	AUDIO BOARD, COMPLETE			
		**********			
		(including MOTOR board)			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-124-907-11	ELECT	10uF	20%	50V
C612	1-124-907-11	ELECT	10uF	20%	50V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
C651	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CN601	1-695-382-31	PIN, CONNECTOR (PC BOARD) 21P			
CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN651	1-564-521-11	PLUG, CONNECTOR 6P			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC601	8-759-111-44	IC uPC4570C-1			
IC602	8-759-143-54	IC uPC1330HA			
IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR 27mH			
L431	1-410-780-11	INDUCTOR 27mH			
		< MOTOR >			
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)			
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q623	8-729-801-93	TRANSISTOR 2SD1387			
Q651	8-729-900-65	TRANSISTOR DTA144ES			
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W F
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W F
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W F
R602	1-249-409-11	CARBON	220	5%	1/4W F
R608	1-249-409-11	CARBON	220	5%	1/4W F
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W F
R612	1-249-409-11	CARBON	220	5%	1/4W F
⚠R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
⚠R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-247-856-00	CARBON	11K	5%	1/4W
R652	1-247-856-00	CARBON	11K	5%	1/4W
R653	1-249-441-11	CARBON	100K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-238-551-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-238-551-11	RES, ADJ, CARBON 220K			
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K			
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
*	A-4673-557-A	BD BOARD, COMPLETE **********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C140	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-774-115-11	CONNECTOR, (FFC/FPC) 29P			
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-369-78	IC CXD2545Q			
IC102	8-759-176-09	IC BA6392FP			
IC103	8-752-072-45	IC CXA1821M-T6			
		< 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			
		< RESISTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R110	1-216-025-91	METAL GLAZE	100	5%	1/10W
R112	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R125	1-216-033-00	METAL CHIP	220	5%	1/10W
R126	1-216-033-00	METAL CHIP	220	5%	1/10W
R127	1-216-033-00	METAL CHIP	220	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W
R134	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R135	1-216-295-91	CONDUCTOR, CHIP (2012)			
R136	1-216-295-91	CONDUCTOR, CHIP (2012)			
R137	1-216-295-91	CONDUCTOR, CHIP (2012)			
R138	1-216-295-91	CONDUCTOR, CHIP (2012)			
R141	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R146	1-216-073-00	METAL CHIP	10K	5%	1/10W
R147	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	METAL GLAZE	12	5%	1/10W
R158	1-216-109-00	METAL CHIP	330K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R160	1-216-295-91	CONDUCTOR, CHIP (2012)			
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
**********					

CD SW | CONNECTOR | DECO | HP/MIC

Ref. No.	Part No.	Description				Remark
*	A-4392-650-A	CD SW BOARD, COMPLETE				
		**********				
		< CONNECTOR >				
* CN602	1-568-824-11	SOCKET, CONNECTOR 5P				
CN606	1-568-853-11	SOCKET, CONNECTOR 10P				
		< DIODE >				
D626	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)				
D627	8-719-056-13	DIODE SML79423C-TP15 (DISC 1)				
D628	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)				
D629	8-719-056-13	DIODE SML79423C-TP15 (DISC 2)				
D630	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)				
D631	8-719-056-13	DIODE SML79423C-TP15 (DISC 3)				
D632	8-719-058-03	DIODE SEL5423E-TP15 (▷)				
D633	8-719-063-91	DIODE SLR325DC-P-T32 (▯▯)				
		< TRANSISTOR >				
Q612	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q613	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q614	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q616	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R709	1-249-401-11	CARBON	47	5%	1/4W	F
R710	1-249-413-11	CARBON	470	5%	1/4W	F
R711	1-247-815-91	CARBON	220	5%	1/4W	
R712	1-249-411-11	CARBON	330	5%	1/4W	
R713	1-249-413-11	CARBON	470	5%	1/4W	F
R714	1-249-415-11	CARBON	680	5%	1/4W	F
R715	1-249-417-11	CARBON	1K	5%	1/4W	F
R716	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R717	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R718	1-247-804-11	CARBON	75	5%	1/4W	
R719	1-247-804-11	CARBON	75	5%	1/4W	
R720	1-247-804-11	CARBON	75	5%	1/4W	
R721	1-247-804-11	CARBON	75	5%	1/4W	
R722	1-247-804-11	CARBON	75	5%	1/4W	
R723	1-247-804-11	CARBON	75	5%	1/4W	
R724	1-247-807-31	CARBON	100	5%	1/4W	
R725	1-247-807-31	CARBON	100	5%	1/4W	
R791	1-247-804-11	CARBON	75	5%	1/4W	
R792	1-247-804-11	CARBON	75	5%	1/4W	
R793	1-247-804-11	CARBON	75	5%	1/4W	
R794	1-247-804-11	CARBON	75	5%	1/4W	
R795	1-247-804-11	CARBON	75	5%	1/4W	
R796	1-247-804-11	CARBON	75	5%	1/4W	
		< SWITCH >				
S645	1-762-196-21	SWITCH, TACT (POWER)				
S646	1-762-196-21	SWITCH, TACT (◀◀)				
S647	1-762-196-21	SWITCH, TACT (▶▶)				
S648	1-762-196-21	SWITCH, TACT (DISC SKIP EX-CHANGE)				
S649	1-762-196-21	SWITCH, TACT (DISC 1)				
S650	1-762-196-21	SWITCH, TACT (DISC 2)				
S651	1-762-196-21	SWITCH, TACT (DISC 3)				
S652	1-762-196-21	SWITCH, TACT (■)				
S653	1-762-196-21	SWITCH, TACT (⏏ OPN/CLOSE)				
S654	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
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*	1-664-007-11	DECO BOARD				
		**********				
		< CONNECTOR >				
* CN605	1-568-848-11	SOCKET, CONNECTOR 5P				
		< DIODE >				
D619	8-719-058-04	DIODE SEL5223S-TP15 (RIGHT)				
D620	8-719-058-04	DIODE SEL5223S-TP15 (RIGHT)				
D621	8-719-058-04	DIODE SEL5223S-TP15 (CENTER)				
D622	8-719-058-03	DIODE SEL5423E-TP15 (CENTER)				
D623	8-719-058-04	DIODE SEL5223S-TP15 (CENTER)				
D624	8-719-058-04	DIODE SEL5223S-TP15 (LEFT)				
D625	8-719-058-04	DIODE SEL5223S-TP15 (LEFT)				
		< TRANSISTOR >				
Q610	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q611	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R706	1-247-807-31	CARBON	100	5%	1/4W	
R707	1-247-807-31	CARBON	100	5%	1/4W	
R708	1-247-807-31	CARBON	100	5%	1/4W	
R746	1-247-807-31	CARBON	100	5%	1/4W	
**********						
*	A-4398-961-A	HP/MIC BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C750	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C752	1-164-159-21	CERAMIC	0.1uF		50V	
C753	1-164-159-21	CERAMIC	0.1uF		50V	
C754	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C755	1-126-961-11	ELECT	2.2uF	20%	50V	
C756	1-162-294-31	CERAMIC	0.001uF	10%	50V	

Ref. No.	Part No.	Description			Remark
C757	1-162-215-31	CERAMIC	47PF	5%	50V
C758	1-126-964-11	ELECT	10uF	20%	50V
C759	1-126-959-11	ELECT	0.47uF	20%	50V
C760	1-162-215-31	CERAMIC	47PF	5%	50V
C761	1-162-282-31	CERAMIC	100PF	10%	50V
C762	1-126-961-11	ELECT	2.2uF	20%	50V
C764	1-126-964-11	ELECT	10uF	20%	50V
C765	1-126-960-11	ELECT	1uF	20%	50V
C766	1-162-305-11	CERAMIC	0.0068uF	20%	16V
C767	1-162-294-31	CERAMIC	0.001uF	10%	50V
C768	1-136-495-11	FILM	0.068uF	5%	50V
C769	1-126-957-11	ELECT	0.22uF	20%	50V
C770	1-126-957-11	ELECT	0.22uF	20%	50V
C771	1-126-967-11	ELECT	47uF	20%	10V
C772	1-164-159-21	CERAMIC	0.1uF		50V
C773	1-104-664-11	ELECT	47uF	20%	25V
C774	1-136-495-11	FILM	0.068uF	5%	50V
C775	1-162-305-11	CERAMIC	0.0068uF	20%	16V
C776	1-162-294-31	CERAMIC	0.001uF	10%	50V
C777	1-136-167-00	FILM	0.15uF	5%	50V
C778	1-126-960-11	ELECT	1uF	20%	50V
C779	1-161-494-00	CERAMIC	0.022uF		25V
C780	1-126-961-11	ELECT	2.2uF	20%	50V
C782	1-162-290-31	CERAMIC	470PF	10%	50V
		< COIL >			
L751	1-410-521-11	INDUCTOR	100uH		
		< CONNECTOR >			
* CN750	1-568-828-11	SOCKET, CONNECTOR 9P			
		< DIODE >			
D751	8-719-200-82	DIODE 11ES2			
D752	8-719-200-82	DIODE 11ES2			
D753	8-719-200-82	DIODE 11ES2			
		< IC >			
IC750	8-759-634-51	IC M5218AP			
IC751	8-759-450-96	IC M65850P			
		< JACK >			
J750	1-569-112-21	JACK, LARGE TYPE (PHONES)			
J751	1-569-112-21	JACK, LARGE TYPE (MIX MIC)			
		< RESISTOR >			
R750	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W F
R752	1-249-441-11	CARBON	100K	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W F
R754	1-247-863-91	CARBON	22K	5%	1/4W
R755	1-249-429-11	CARBON	10K	5%	1/4W
R756	1-247-885-00	CARBON	180K	5%	1/4W
R757	1-247-807-31	CARBON	100	5%	1/4W
R758	1-247-863-91	CARBON	22K	5%	1/4W
R759	1-247-863-91	CARBON	22K	5%	1/4W
R760	1-247-863-91	CARBON	22K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R761	1-247-881-00	CARBON	120K	5%	1/4W
R762	1-247-863-91	CARBON	22K	5%	1/4W
R763	1-247-863-91	CARBON	22K	5%	1/4W
R764	1-247-863-91	CARBON	22K	5%	1/4W
R765	1-249-437-11	CARBON	47K	5%	1/4W
R766	1-249-431-11	CARBON	15K	5%	1/4W
R767	1-249-431-11	CARBON	15K	5%	1/4W
		< VARIABLE RESISTOR >			
RV750	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)			
RV751	1-223-983-11	RES, VAR, CARBON 50K (ECHO LEVEL)			

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*	A-4398-962-A	KEY CON BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1401	1-164-159-21	CERAMIC	0.1uF		50V
C1403	1-126-964-11	ELECT	10uF	20%	50V
C1404	1-126-964-11	ELECT	10uF	20%	50V
C1405	1-126-964-11	ELECT	10uF	20%	50V
C1406	1-126-964-11	ELECT	10uF	20%	50V
C1431	1-130-493-00	MYLAR	0.068uF	5%	50V
C1432	1-130-493-00	MYLAR	0.068uF	5%	50V
C1433	1-130-493-00	MYLAR	0.068uF	5%	50V
C1434	1-162-284-31	CERAMIC	150PF	10%	50V
C1436	1-126-967-11	ELECT	47uF	20%	10V
C1437	1-164-159-21	CERAMIC	0.1uF		50V
C1438	1-126-933-11	ELECT	100uF	20%	10V
C1439	1-124-261-00	ELECT	10uF	20%	50V
C1445	1-136-165-00	FILM	0.1uF	5%	50V
C1446	1-136-165-00	FILM	0.1uF	5%	50V
C1448	1-124-161-00	ELECT	10uF	20%	50V
C1451	1-162-286-21	CERAMIC	220PF	10%	50V
C1454	1-162-286-21	CERAMIC	220PF	10%	50V
C1461	1-162-294-31	CERAMIC	0.001uF	10%	50V
C1462	1-162-306-11	CERAMIC	0.01uF	20%	16V
C1466	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C1467	1-162-291-31	CERAMIC	560PF	10%	50V
C1468	1-162-290-31	CERAMIC	470PF	10%	50V
C1472	1-162-600-11	CERAMIC	0.0047uF	20%	16V
		< CONNECTOR >			
CN1401	1-774-783-11	PIN, CONNECTOR (PC BOARD) 13P			
		< IC >			
IC1401	8-759-370-84	IC M65847FP-TP			
IC1403	8-759-140-53	IC uPD4053BC			
		< COIL >			
L1401	1-410-521-11	INDUCTOR 100uH			
		< TRANSISTOR >			
Q1401	8-729-900-80	TRANSISTOR DTC114ES			
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE			

KEY CON **LEAF SWITCH** **MAIN**

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R1413	1-247-863-91	CARBON	22K	5%	1/4W	
R1414	1-247-863-91	CARBON	22K	5%	1/4W	
R1417	1-249-429-11	CARBON	10K	5%	1/4W	
R1418	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1419	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1421	1-249-417-11	CARBON	1K	5%	1/4W	F
R1422	1-249-429-11	CARBON	10K	5%	1/4W	
R1431	1-247-903-00	CARBON	1M	5%	1/4W	
R1435	1-247-807-31	CARBON	100	5%	1/4W	
R1436	1-249-429-11	CARBON	10K	5%	1/4W	
R1437	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1438	1-247-807-31	CARBON	100	5%	1/4W	
R1448	1-249-429-11	CARBON	10K	5%	1/4W	
R1450	1-249-441-11	CARBON	100K	5%	1/4W	
R1451	1-249-429-11	CARBON	10K	5%	1/4W	
R1452	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1453	1-249-429-11	CARBON	10K	5%	1/4W	
R1457	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R1458	1-249-431-11	CARBON	15K	5%	1/4W	
R1459	1-249-429-11	CARBON	10K	5%	1/4W	
R1460	1-247-863-91	CARBON	22K	5%	1/4W	
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*	1-650-669-11	LEAF SWITCH BOARD				
		**********				
		< CONNECTOR >				
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P				
		< TRANSISTOR >				
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H2				
Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H2				
		< RESISTOR >				
R1001	1-247-818-11	CARBON	300	5%	1/4W	
R1002	1-247-820-11	CARBON	360	5%	1/4W	
R1003	1-249-414-11	CARBON	560	5%	1/4W	F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
R1005	1-247-818-11	CARBON	300	5%	1/4W	
		< SWITCH >				
S1001	1-692-832-11	SWITCH, PUSH (1 KEY)(A PLAY)				
S1002	1-692-832-11	SWITCH, PUSH (1 KEY)(B PLAY)				
S1003	1-572-248-11	SWITCH, LEAF (A HALF)				
S1004	1-571-281-21	SWITCH, LEAF (A CrO2)				
S1005	1-571-281-21	SWITCH, LEAF (REC A)				
S1006	1-572-248-11	SWITCH, LEAF (B HALF)				
S1008	1-571-281-21	SWITCH, LEAF (B CrO2)				
S1009	1-571-281-21	SWITCH, LEAF (REC B)				
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Ref. No.	Part No.	Description			Remark
*	A-4398-964-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C110	1-162-306-11	CERAMIC	0.01uF	20%	16V
C121	1-162-286-21	CERAMIC	220PF	10%	50V
C122	1-162-286-21	CERAMIC	220PF	10%	50V
C125	1-109-889-11	ELECT	1uF	20%	50V
C127	1-162-306-11	CERAMIC	0.01uF	20%	16V
C128	1-162-306-11	CERAMIC	0.01uF	20%	16V
C129	1-162-292-31	CERAMIC	680PF	10%	50V
C130	1-126-964-11	ELECT	10uF	20%	50V
C131	1-162-286-21	CERAMIC	220PF	10%	50V
C171	1-162-286-21	CERAMIC	220PF	10%	50V
C172	1-162-286-21	CERAMIC	220PF	10%	50V
C201	1-126-957-11	ELECT	0.22uF	20%	50V
C202	1-126-957-11	ELECT	0.22uF	20%	50V
C203	1-136-495-11	FILM	0.068uF	5%	50V
C204	1-136-495-11	FILM	0.068uF	5%	50V
C205	1-136-156-00	FILM	0.018uF	5%	50V
C206	1-136-156-00	FILM	0.018uF	5%	50V
C207	1-130-480-00	MYLAR	0.0056uF	5%	50V
C208	1-130-479-00	MYLAR	0.0047uF	5%	50V
C209	1-130-474-00	MYLAR	0.0018uF	5%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V
C211	1-126-964-11	ELECT	10uF	20%	50V
C212	1-136-165-00	FILM	0.1uF	5%	50V
C213	1-136-165-00	FILM	0.1uF	5%	50V
C214	1-126-964-11	ELECT	10uF	20%	50V
C215	1-136-153-00	FILM	0.01uF	5%	50V
C230	1-136-167-00	FILM	0.15uF	5%	50V
C231	1-130-471-00	MYLAR	0.001uF	5%	50V
C234	1-126-925-11	ELECT	470uF	20%	10V
C235	1-164-159-21	CERAMIC	0.1uF		50V
C237	1-126-964-11	ELECT	10uF	20%	50V
C238	1-162-286-21	CERAMIC	220PF	10%	50V
C239	1-162-306-11	CERAMIC	0.01uF	20%	16V
C241	1-162-306-11	CERAMIC	0.01uF	20%	16V
C242	1-126-925-11	ELECT	470uF	20%	10V
C247	1-162-306-11	CERAMIC	0.01uF	20%	16V
C248	1-126-964-11	ELECT	10uF	20%	50V
C251	1-126-957-11	ELECT	0.22uF	20%	50V
C252	1-126-957-11	ELECT	0.22uF	20%	50V
C253	1-136-495-11	FILM	0.068uF	5%	50V
C254	1-136-495-11	FILM	0.068uF	5%	50V
C255	1-136-156-00	FILM	0.018uF	5%	50V
C256	1-136-156-00	FILM	0.018uF	5%	50V
C257	1-130-480-00	MYLAR	0.0056uF	5%	50V
C258	1-130-479-00	MYLAR	0.0047uF	5%	50V
C259	1-130-474-00	MYLAR	0.0018uF	5%	50V
C260	1-126-964-11	ELECT	10uF	20%	50V
C261	1-126-964-11	ELECT	10uF	20%	50V
C262	1-136-165-00	FILM	0.1uF	5%	50V
C263	1-136-165-00	FILM	0.1uF	5%	50V
C264	1-126-964-11	ELECT	10uF	20%	50V
C265	1-136-153-00	FILM	0.01uF	5%	50V
C275	1-162-294-31	CERAMIC	0.001uF	10%	50V
C301	1-130-479-00	MYLAR	0.0047uF	5%	50V

Ref. No.	Part No.	Description			Remark
C302	1-162-290-31	CERAMIC	470PF	10%	50V
C303	1-130-495-00	MYLAR	0.1uF	5%	50V
C304	1-126-964-11	ELECT	10uF	20%	50V
C305	1-126-960-11	ELECT	1uF	20%	50V
C307	1-126-964-11	ELECT	10uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-126-960-11	ELECT	1uF	20%	50V
C310	1-126-933-11	ELECT	100uF	20%	10V
C351	1-130-479-00	MYLAR	0.0047uF	5%	50V
C352	1-162-290-31	CERAMIC	470PF	10%	50V
C353	1-136-495-00	MYLAR	0.1uF	5%	50V
C355	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-964-11	ELECT	10uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-126-960-11	ELECT	1uF	20%	50V
C360	1-126-933-11	ELECT	100uF	20%	10V
C401	1-164-159-21	CERAMIC	0.1uF		50V
C402	1-164-159-21	CERAMIC	0.1uF		50V
C403	1-164-159-21	CERAMIC	0.1uF		50V
C404	1-126-933-11	ELECT	100uF	20%	16V
C405	1-126-767-11	ELECT	1000uF	20%	16V
C601	1-136-167-00	FILM	0.15uF	5%	50V
C602	1-136-167-00	FILM	0.15uF	5%	50V
C603	1-126-962-11	ELECT	3.3uF	20%	50V
C604	1-126-962-11	ELECT	3.3uF	20%	50V
C605	1-136-167-00	FILM	0.15uF	5%	50V
C606	1-136-167-00	FILM	0.15uF	5%	50V
C607	1-126-963-11	ELECT	4.7uF	20%	50V
C608	1-126-963-11	ELECT	4.7uF	20%	50V
C609	1-136-173-00	FILM	0.47uF	5%	50V
C610	1-136-173-00	FILM	0.47uF	5%	50V
C611	1-126-963-11	ELECT	4.7uF	20%	50V
C612	1-126-963-11	ELECT	4.7uF	20%	50V
C613	1-136-173-00	FILM	0.47uF	5%	50V
C614	1-136-173-00	FILM	0.47uF	5%	50V
C615	1-136-165-00	FILM	0.1uF	5%	50V
C616	1-136-165-00	FILM	0.1uF	5%	50V
C617	1-136-165-00	FILM	0.1uF	5%	50V
C618	1-136-165-00	FILM	0.1uF	5%	50V
C619	1-126-960-11	ELECT	1uF	20%	50V
C620	1-126-960-11	ELECT	1uF	20%	50V
C621	1-126-923-11	ELECT	220uF	20%	10V
C622	1-126-964-11	ELECT	10uF	20%	50V
C623	1-126-964-11	ELECT	10uF	20%	50V
C624	1-126-964-11	ELECT	10uF	20%	50V
C625	1-126-964-11	ELECT	10uF	20%	50V
C626	1-126-923-11	ELECT	220uF	20%	10V
C627	1-136-161-00	FILM	0.047uF	5%	50V
C628	1-136-157-00	FILM	0.022uF	5%	50V
C629	1-162-292-31	CERAMIC	680PF	10%	50V
C630	1-126-933-11	ELECT	100uF	20%	10V
C631	1-162-306-11	CERAMIC	0.01uF	20%	16V
C632	1-126-964-11	ELECT	10uF	20%	50V
C633	1-136-173-00	FILM	0.47uF	5%	50V
C634	1-104-664-11	ELECT	47uF	20%	25V
C635	1-130-467-00	MYLAR	470PF	5%	50V
C636	1-130-467-00	MYLAR	470PF	5%	50V
C637	1-162-306-11	CERAMIC	0.01uF	20%	16V
C638	1-162-306-11	CERAMIC	0.01uF	20%	16V
C641	1-136-171-00	FILM	0.33uF	5%	50V
C642	1-136-159-00	FILM	0.033uF	5%	50V
C643	1-162-306-11	CERAMIC	0.01uF	20%	16V
C644	1-126-933-11	ELECT	100uF	20%	10V
C645	1-126-961-11	ELECT	2.2uF	20%	50V
C646	1-162-286-21	CERAMIC	220PF	10%	50V
C647	1-162-306-11	CERAMIC	0.01uF	20%	16V
C648	1-126-923-11	ELECT	220uF	20%	10V
C649	1-136-164-00	FILM	0.082uF	5%	50V
C650	1-130-477-00	MYLAR	0.0033uF	5%	50V
C651	1-136-164-00	FILM	0.082uF	5%	50V
C652	1-136-173-00	FILM	0.47uF	5%	50V
C653	1-126-923-11	ELECT	220uF	20%	10V
C654	1-126-960-11	ELECT	1uF	20%	50V
C655	1-126-960-11	ELECT	1uF	20%	50V
C656	1-126-964-11	ELECT	10uF	20%	50V
C657	1-162-306-11	CERAMIC	0.01uF	20%	16V
C658	1-162-286-21	CERAMIC	220PF	10%	50V
C660	1-126-933-11	ELECT	100uF	20%	10V
C661	1-162-294-31	CERAMIC	0.001uF	10%	50V
C662	1-126-933-11	ELECT	100uF	20%	10V
C663	1-162-294-31	CERAMIC	0.001uF	10%	50V
C664	1-126-964-11	ELECT	10uF	20%	50V
C665	1-126-964-11	ELECT	10uF	20%	50V
C666	1-126-964-11	ELECT	10uF	20%	50V
C667	1-126-964-11	ELECT	10uF	20%	50V
C668	1-162-286-21	CERAMIC	220PF	10%	50V
C669	1-109-889-11	ELECT	1uF	20%	50V
C678	1-162-294-31	CERAMIC	0.001uF	10%	50V
C711	1-126-916-11	ELECT	1000uF	20%	6.3V
C712	1-164-159-21	CERAMIC	0.1uF		50V
C713	1-102-518-11	CERAMIC	33PF	5%	50V
C714	1-102-516-11	CERAMIC	27PF	5%	50V
C723	1-164-159-21	CERAMIC	0.1uF		50V
C724	1-126-933-11	ELECT	100uF	20%	10V
C766	1-162-294-31	CERAMIC	0.001uF	10%	50V
C801	1-126-961-11	ELECT	2.2uF	20%	50V
C803	1-126-925-11	ELECT	470uF	20%	10V
C804	1-164-159-21	CERAMIC	0.1uF		50V
C805	1-162-282-31	CERAMIC	100PF	10%	50V
C811	1-126-961-11	ELECT	2.2uF	20%	50V
C841	1-164-159-21	CERAMIC	0.1uF		50V
C842	1-126-933-11	ELECT	100uF	20%	50V
C853	1-162-294-31	CERAMIC	0.001uF	10%	50V
C855	1-162-294-31	CERAMIC	0.001uF	10%	50V
C856	1-162-294-31	CERAMIC	0.001uF	10%	50V
C861	1-162-306-11	CERAMIC	0.01uF	20%	16V
C862	1-126-964-11	ELECT	10uF	20%	50V
C863	1-126-964-11	ELECT	10uF	20%	50V
C901	1-126-939-51	ELECT	10000uF	20%	16V
C902	1-126-768-11	ELECT	2200uF	20%	16V
C903	1-164-159-21	CERAMIC	0.1uF		50V
C904	1-164-159-21	CERAMIC	0.1uF		50V
C908	1-126-933-11	ELECT	100uF	20%	10V
C909	1-126-933-11	ELECT	100uF	20%	10V
C910	1-126-964-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C911	1-126-768-11	ELECT	2200uF	20%	16V
C913	1-126-964-11	ELECT	10uF	20%	50V
C914	1-126-767-11	ELECT	1000uF	20%	16V
C915	1-126-964-11	ELECT	10uF	20%	50V
C916	1-126-916-11	ELECT	1000uF	20%	6.3V
C918	1-126-933-11	ELECT	100uF	20%	10V
C919	1-126-964-11	ELECT	10uF	20%	50V
C920	1-126-933-11	ELECT	100uF	20%	10V
C943	1-162-294-31	CERAMIC	0.001uF	10%	50V
C944	1-126-947-11	ELECT	47uF	20%	35V
C951	1-126-967-11	ELECT	47uF	20%	10V
C952	1-136-165-00	FILM	0.1uF	5%	50V
C953	1-136-173-00	FILM	0.47uF	5%	50V
C961	1-162-306-11	CERAMIC	0.01uF	20%	16V
C991	1-162-306-11	CERAMIC	0.01uF	20%	16V
C992	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN401	1-568-838-11	SOCKET, CONNECTOR 21P			
* CN402	1-568-830-11	SOCKET, CONNECTOR 11P			
* CN403	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P			
* CN701	1-568-836-11	SOCKET, CONNECTOR 17P			
* CN801	1-568-856-11	SOCKET, CONNECTOR 13P			
* CN820	1-568-947-11	PIN, CONNECTOR 9P			
* CN830	1-568-946-11	PIN, CONNECTOR 8P			
CN851	1-568-834-11	SOCKET, CONNECTOR 15P			
CN871	1-778-325-21	SOCKET, CONNECTOR 13P			
* CN901	1-770-734-11	CONNECTOR, BOARD TO BOARD 20P			
* CN961	1-564-518-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D702	8-719-987-63	DIODE 1N4148M			
D772	8-719-987-63	DIODE 1N4148M			
D901	8-719-025-23	DIODE RBA-402-SL			
D902	8-719-200-82	DIODE 11ES2			
D903	8-719-200-82	DIODE 11ES2			
D904	8-719-987-63	DIODE 1N4148M			
D905	8-719-200-82	DIODE 11ES2			
D906	8-719-200-82	DIODE 11ES2			
D907	8-719-987-63	DIODE 1N4148M			
D908	8-719-200-82	DIODE 11ES2			
D941	8-719-002-60	DIODE UZL-33L			
D942	8-719-010-43	DIODE UZ-5.6BSC			
D951	8-719-987-63	DIODE 1N4148M			
D952	8-719-987-63	DIODE 1N4148M			
D953	8-719-987-63	DIODE 1N4148M			
D954	8-719-987-63	DIODE 1N4148M			
		< GROUND TERMINAL >			
* EPT901	1-537-738-21	TERMINAL, EARTH			
		< IC >			
IC102	8-759-000-48	IC MC14052BCP			
IC105	8-759-634-51	IC M5218AP			
IC201	8-759-460-02	IC M62427FP-A			
IC401	8-759-363-21	IC HA12203NT			
IC402	8-759-822-09	IC LB1641			

Ref. No.	Part No.	Description	Remark
IC601	8-759-442-96	IC LA2786	
IC602	8-759-442-97	IC LV1016	
IC603	8-759-634-51	IC M5218AP	
IC604	8-759-281-42	IC TC9210P	
IC701	8-759-486-11	IC uPD780016YGF-019-3BA	
IC841	8-749-923-04	IC TOTX178 (CD DIGITAL OUT OPTICAL)	
IC861	8-759-634-51	IC M5218AP	
IC901	8-759-288-53	IC LA5617	
IC902	8-759-231-53	IC TA7805S	
IC903	8-759-604-86	IC M5F7807L	
IC904	8-759-604-39	IC M5F78M12	
IC905	8-759-604-38	IC M5F78M10L	
IC951	8-759-635-63	IC M51943BSL	
		< JACK >	
J101	1-695-188-31	JACK, PIN 4P (VIDEO/MD (AUDIO) IN/OUT)	
J102	1-774-785-11	JACK, PIN 1P (SUPER WOOFER)	
		< COIL >	
L601	1-410-509-11	INDUCTOR 10uH	
L602	1-410-509-11	INDUCTOR 10uH	
L604	1-410-509-11	INDUCTOR 10uH	
L769	1-410-521-11	INDUCTOR 100uH	
L770	1-410-521-11	INDUCTOR 100uH	
L772	1-410-521-11	INDUCTOR 100uH	
L841	1-410-521-11	INDUCTOR 100uH	
L861	1-410-521-11	INDUCTOR 100uH	
		< TRANSISTOR >	
Q120	8-729-422-57	TRANSISTOR UN4111	
Q121	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q122	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q123	8-729-422-57	TRANSISTOR UN4111	
Q124	8-729-900-36	TRANSISTOR DTC124ES	
Q130	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q252	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q253	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q254	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q403	8-729-801-93	TRANSISTOR 2SD1387	
Q406	8-729-900-80	TRANSISTOR DTC114ES	
Q407	8-729-900-80	TRANSISTOR DTC114ES	
Q408	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q409	8-729-900-80	TRANSISTOR DTC114ES	
Q601	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q602	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q841	8-729-422-57	TRANSISTOR UN4111	
Q842	8-729-900-80	TRANSISTOR DTC114ES	
Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q906	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q907	8-729-900-63	TRANSISTOR DTA124ES	
Q912	8-729-900-36	TRANSISTOR DTC124ES	
Q941	8-729-118-01	TRANSISTOR 2SB1116-K	
Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q961	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q962	8-729-119-76	TRANSISTOR 2SA1175-HFE	

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R121	1-249-424-11	CARBON	3.9K	5%	1/4W F
R122	1-247-887-00	CARBON	220K	5%	1/4W
R123	1-249-417-11	CARBON	1K	5%	1/4W F
R124	1-249-441-11	CARBON	100K	5%	1/4W
R125	1-249-421-11	CARBON	2.2K	5%	1/4W F
R126	1-249-441-11	CARBON	100K	5%	1/4W
R127	1-249-421-11	CARBON	2.2K	5%	1/4W F
R128	1-249-426-11	CARBON	5.6K	5%	1/4W
R129	1-249-429-11	CARBON	10K	5%	1/4W
R130	1-249-441-11	CARBON	100K	5%	1/4W
R131	1-249-437-11	CARBON	47K	5%	1/4W
R132	1-247-843-11	CARBON	3.3K	5%	1/4W
R133	1-249-429-11	CARBON	10K	5%	1/4W
R134	1-249-417-11	CARBON	1K	5%	1/4W
R135	1-249-441-11	CARBON	100K	5%	1/4W
R136	1-249-417-11	CARBON	1K	5%	1/4W
R137	1-249-429-11	CARBON	10K	5%	1/4W
R138	1-249-441-11	CARBON	100K	5%	1/4W
R171	1-249-424-11	CARBON	3.9K	5%	1/4W F
R172	1-247-887-00	CARBON	220K	5%	1/4W
R173	1-249-417-11	CARBON	1K	5%	1/4W F
R174	1-249-441-11	CARBON	100K	5%	1/4W
R178	1-249-426-11	CARBON	5.6K	5%	1/4W
R179	1-249-429-11	CARBON	10K	5%	1/4W
R202	1-249-425-11	CARBON	4.7K	5%	1/4W F
R203	1-249-437-11	CARBON	47K	5%	1/4W
R204	1-249-437-11	CARBON	47K	5%	1/4W
R205	1-249-441-11	CARBON	100K	5%	1/4W
R206	1-247-903-00	CARBON	1M	5%	1/4W
R207	1-247-887-00	CARBON	220K	5%	1/4W
R208	1-247-863-91	CARBON	22K	5%	1/4W
R209	1-249-420-11	CARBON	1.8K	5%	1/4W F
R210	1-249-429-11	CARBON	10K	5%	1/4W
R211	1-249-421-11	CARBON	2.2K	5%	1/4W F
R212	1-249-441-11	CARBON	100K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-437-11	CARBON	47K	5%	1/4W
R215	1-249-441-11	CARBON	100K	5%	1/4W
R217	1-249-431-11	CARBON	15K	5%	1/4W
R222	1-247-903-00	CARBON	1M	5%	1/4W
R223	1-247-903-00	CARBON	1M	5%	1/4W
R230	1-247-863-91	CARBON	22K	5%	1/4W
R231	1-247-863-91	CARBON	22K	5%	1/4W
R232	1-247-856-00	CARBON	11K	5%	1/4W
R240	1-249-429-11	CARBON	10K	5%	1/4W
R241	1-249-429-11	CARBON	10K	5%	1/4W
R242	1-249-429-11	CARBON	10K	5%	1/4W
R243	1-249-417-11	CARBON	1K	5%	1/4W F
R244	1-249-417-11	CARBON	1K	5%	1/4W F
R245	1-249-417-11	CARBON	1K	5%	1/4W F
R252	1-249-425-11	CARBON	4.7K	5%	1/4W F
R253	1-249-437-11	CARBON	47K	5%	1/4W
R254	1-249-437-11	CARBON	47K	5%	1/4W
R255	1-249-441-11	CARBON	100K	5%	1/4W
R256	1-247-903-00	CARBON	1M	5%	1/4W
R257	1-247-887-00	CARBON	220K	5%	1/4W
R258	1-247-863-91	CARBON	22K	5%	1/4W
R259	1-249-420-11	CARBON	1.8K	5%	1/4W F
R260	1-249-429-11	CARBON	10K	5%	1/4W
R261	1-249-421-11	CARBON	2.2K	5%	1/4W F
R262	1-249-441-11	CARBON	100K	5%	1/4W
R263	1-249-429-11	CARBON	10K	5%	1/4W
R264	1-249-437-11	CARBON	47K	5%	1/4W
R265	1-249-441-11	CARBON	100K	5%	1/4W
R267	1-249-431-11	CARBON	15K	5%	1/4W
R273	1-247-903-00	CARBON	1M	5%	1/4W
R301	1-249-435-11	CARBON	33K	5%	1/4W
R304	1-249-426-11	CARBON	5.6K	5%	1/4W
R305	1-249-417-11	CARBON	1K	5%	1/4W F
R306	1-247-840-00	CARBON	2.4K	5%	1/4W
R307	1-247-863-91	CARBON	22K	5%	1/4W
R308	1-249-421-11	CARBON	2.2K	5%	1/4W F
R309	1-249-428-11	CARBON	8.2K	5%	1/4W F
R351	1-247-863-91	CARBON	22K	5%	1/4W
R354	1-249-426-11	CARBON	5.6K	5%	1/4W
R355	1-249-417-11	CARBON	1K	5%	1/4W F
R356	1-247-840-00	CARBON	2.4K	5%	1/4W
R357	1-247-863-91	CARBON	22K	5%	1/4W
R358	1-249-421-11	CARBON	2.2K	5%	1/4W F
R359	1-249-428-11	CARBON	8.2K	5%	1/4W F
R401	1-249-425-11	CARBON	4.7K	5%	1/4W F
R402	1-249-425-11	CARBON	4.7K	5%	1/4W F
R403	1-249-425-11	CARBON	4.7K	5%	1/4W F
R404	1-249-417-11	CARBON	1K	5%	1/4W F
R405	1-249-437-11	CARBON	47K	5%	1/4W
R406	1-249-437-11	CARBON	47K	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R408	1-249-437-11	CARBON	47K	5%	1/4W
R410	1-249-430-11	CARBON	12K	5%	1/4W
R411	1-249-426-11	CARBON	5.6K	5%	1/4W
R414	1-249-429-11	CARBON	10K	5%	1/4W
R415	1-249-432-11	CARBON	18K	5%	1/4W
R416	1-249-429-11	CARBON	10K	5%	1/4W
R417	1-249-441-11	CARBON	100K	5%	1/4W
R419	1-249-429-11	CARBON	10K	5%	1/4W
R454	1-249-425-11	CARBON	4.7K	5%	1/4W F
R455	1-249-425-11	CARBON	4.7K	5%	1/4W F
R456	1-249-411-11	CARBON	330	5%	1/4W
R457	1-249-427-11	CARBON	6.8K	5%	1/4W F
R458	1-249-429-11	CARBON	10K	5%	1/4W
R461	1-247-843-11	CARBON	3.3K	5%	1/4W
R601	1-247-887-00	CARBON	220K	5%	1/4W
R602	1-247-887-00	CARBON	220K	5%	1/4W
R603	1-249-417-11	CARBON	1K	5%	1/4W F
R604	1-249-432-11	CARBON	18K	5%	1/4W
R605	1-249-417-11	CARBON	1K	5%	1/4W F
R615	1-249-441-11	CARBON	100K	5%	1/4W
R621	1-249-436-11	CARBON	39K	5%	1/4W
R622	1-249-436-11	CARBON	39K	5%	1/4W
R623	1-249-417-11	CARBON	1K	5%	1/4W F
R624	1-247-903-00	CARBON	1M	5%	1/4W
R625	1-249-411-11	CARBON	330	5%	1/4W
R626	1-249-417-11	CARBON	1K	5%	1/4W F
R627	1-249-417-11	CARBON	1K	5%	1/4W F

MAIN MOTOR (SLIDE)

Ref. No.	Part No.	Description			Remark
R628	1-249-417-11	CARBON	1K	5%	1/4W F
R630	1-249-425-11	CARBON	4.7K	5%	1/4W F
R631	1-249-428-11	CARBON	8.2K	5%	1/4W
R632	1-249-441-11	CARBON	100K	5%	1/4W
R633	1-249-425-11	CARBON	4.7K	5%	1/4W F
R634	1-249-427-11	CARBON	6.8K	5%	1/4W F
R635	1-249-441-11	CARBON	100K	5%	1/4W
R636	1-249-437-11	CARBON	47K	5%	1/4W
R637	1-249-441-11	CARBON	100K	5%	1/4W
R638	1-249-441-11	CARBON	100K	5%	1/4W
R639	1-249-417-11	CARBON	1K	5%	1/4W F
R640	1-249-417-11	CARBON	1K	5%	1/4W F
R641	1-249-417-11	CARBON	1K	5%	1/4W F
R642	1-249-417-11	CARBON	1K	5%	1/4W F
R645	1-249-429-11	CARBON	10K	5%	1/4W
R646	1-249-429-11	CARBON	10K	5%	1/4W
R650	1-249-441-11	CARBON	100K	5%	1/4W
R651	1-249-417-11	CARBON	1K	5%	1/4W F
R700	1-249-425-11	CARBON	4.7K	5%	1/4W F
R704	1-247-807-31	CARBON	100	5%	1/4W
R705	1-247-807-31	CARBON	100	5%	1/4W
R720	1-249-425-11	CARBON	4.7K	5%	1/4W F
R726	1-247-807-31	CARBON	100	5%	1/4W
R727	1-247-807-31	CARBON	100	5%	1/4W
R728	1-247-807-31	CARBON	100	5%	1/4W
R734	1-247-807-31	CARBON	100	5%	1/4W
R744	1-247-807-31	CARBON	100	5%	1/4W
R745	1-247-807-31	CARBON	100	5%	1/4W
R755	1-247-807-31	CARBON	100	5%	1/4W
R756	1-247-807-31	CARBON	100	5%	1/4W
R757	1-247-807-31	CARBON	100	5%	1/4W
R760	1-247-807-31	CARBON	100	5%	1/4W
R761	1-247-807-31	CARBON	100	5%	1/4W
R763	1-247-807-31	CARBON	100	5%	1/4W
R764	1-247-807-31	CARBON	100	5%	1/4W
R765	1-247-807-31	CARBON	100	5%	1/4W
R766	1-247-807-31	CARBON	100	5%	1/4W
R767	1-247-807-31	CARBON	100	5%	1/4W
R768	1-247-807-31	CARBON	100	5%	1/4W
R775	1-247-807-31	CARBON	100	5%	1/4W
R776	1-247-807-31	CARBON	100	5%	1/4W
R778	1-247-807-31	CARBON	100	5%	1/4W
R779	1-247-807-31	CARBON	100	5%	1/4W
R780	1-247-807-31	CARBON	100	5%	1/4W
R781	1-247-807-31	CARBON	100	5%	1/4W
R794	1-247-807-31	CARBON	100	5%	1/4W
R795	1-247-807-31	CARBON	100	5%	1/4W
R796	1-247-807-31	CARBON	100	5%	1/4W
R797	1-247-807-31	CARBON	100	5%	1/4W
R798	1-249-425-11	CARBON	4.7K	5%	1/4W F
R801	1-247-807-31	CARBON	100	5%	1/4W F
R802	1-249-435-11	CARBON	33K	5%	1/4W
R807	1-249-435-11	CARBON	33K	5%	1/4W
R811	1-247-807-31	CARBON	100	5%	1/4W F
R812	1-249-435-11	CARBON	33K	5%	1/4W
R815	1-247-807-31	CARBON	100	5%	1/4W
R856	1-249-417-11	CARBON	1K	5%	1/4W F

Ref. No.	Part No.	Description			Remark
R858	1-249-417-11	CARBON	1K	5%	1/4W F
R861	1-247-886-11	CARBON	200K	5%	1/4W
R862	1-249-441-11	CARBON	100K	5%	1/4W
R869	1-249-429-11	CARBON	10K	5%	1/4W
R870	1-247-843-11	CARBON	3.3K	5%	1/4W
R878	1-249-437-11	CARBON	47K	5%	1/4W
R879	1-249-437-11	CARBON	47K	5%	1/4W
R880	1-249-437-11	CARBON	47K	5%	1/4W
R881	1-249-437-11	CARBON	47K	5%	1/4W
R901	1-247-895-91	CARBON	470K	5%	1/4W
R902	1-249-417-11	CARBON	1K	5%	1/4W F
R906	1-249-417-11	CARBON	1K	5%	1/4W F
R907	1-249-429-11	CARBON	10K	5%	1/4W
⚠R908	1-215-910-00	METAL	68	5%	3W F
⚠R909	1-215-910-00	METAL	68	5%	3W F
⚠R910	1-215-910-00	METAL	68	5%	3W F
⚠R911	1-215-910-00	METAL	68	5%	3W F
R912	1-249-417-11	CARBON	1K	5%	1/4W F
⚠R941	1-217-637-00	FUSIBLE	1	5%	1/4W F
R942	1-247-863-91	CARBON	22K	5%	1/4W F
R943	1-249-425-11	CARBON	4.7K	5%	1/4W F
R944	1-247-815-91	CARBON	220	5%	1/4W
R945	1-247-815-91	CARBON	220	5%	1/4W
R948	1-249-417-11	CARBON	1K	5%	1/4W F
R951	1-249-417-11	CARBON	1K	5%	1/4W F
R952	1-249-425-11	CARBON	4.7K	5%	1/4W F
R953	1-247-807-31	CARBON	100	5%	1/4W
R954	1-249-437-11	CARBON	47K	5%	1/4W
R955	1-249-437-11	CARBON	47K	5%	1/4W
R956	1-249-429-11	CARBON	10K	5%	1/4W
R961	1-249-421-11	CARBON	2.2K	5%	1/4W F
R962	1-249-432-11	CARBON	18K	5%	1/4W
R963	1-249-425-11	CARBON	4.7K	5%	1/4W F

< VARIABLE RESISTOR >

RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV351	1-238-598-11	RES, ADJ, CARBON 2.2K			

< VIBRATOR >

X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
X701	1-579-233-11	VIBRATOR, CERAMIC (5MHz)			
X702	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			

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*	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			

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

Ref. No.	Part No.	Description			Remark
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)			
		< RESISTOR >			
R706	1-249-411-11	CARBON	330	5%	1/4W
R707	1-249-401-11	CARBON	47	5%	1/4W F
**********					
*	A-4398-959-A	PANEL BOARD, COMPLETE **********			
*	4-932-810-11	CUSHION (FL)			
*	4-986-870-11	HOLDER, FL TUBE			
*	4-986-880-11	HOLDER (JOG)			
		< CAPACITOR >			
C601	1-162-294-31	CERAMIC	0.001uF	10%	50V
C602	1-164-159-21	CERAMIC	0.1uF	20%	16V
C603	1-124-589-11	ELECT	47uF	20%	16V
C604	1-126-163-11	ELECT	4.7uF	20%	50V
C605	1-162-294-31	CERAMIC	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C606	1-126-160-11	ELECT	1uF	20%	50V
C607	1-126-160-11	ELECT	1uF	20%	50V
C608	1-162-294-31	CERAMIC	0.001uF	10%	50V
C609	1-162-282-31	CERAMIC	100PF	10%	50V
C610	1-162-282-31	CERAMIC	100PF	10%	50V
C611	1-162-282-31	CERAMIC	100PF	10%	50V
C612	1-162-282-31	CERAMIC	100PF	10%	50V
C613	1-162-282-31	CERAMIC	100PF	10%	50V
C614	1-162-282-31	CERAMIC	100PF	10%	50V
C615	1-162-282-31	CERAMIC	100PF	10%	50V
C616	1-162-282-31	CERAMIC	100PF	10%	50V
C617	1-162-282-31	CERAMIC	100PF	10%	50V
C618	1-162-282-31	CERAMIC	100PF	10%	50V
C619	1-162-282-31	CERAMIC	100PF	10%	50V
C620	1-162-282-31	CERAMIC	100PF	10%	50V
C621	1-162-282-31	CERAMIC	100PF	10%	50V
C622	1-162-282-31	CERAMIC	100PF	10%	50V
C623	1-162-282-31	CERAMIC	100PF	10%	50V
C624	1-162-282-31	CERAMIC	100PF	10%	50V
C625	1-162-294-31	CERAMIC	0.001uF	10%	50V
C626	1-124-589-11	ELECT	47uF	20%	16V
C627	1-162-306-11	CERAMIC	0.01uF	20%	16V
C628	1-162-306-11	CERAMIC	0.01uF	20%	16V
C629	1-162-306-11	CERAMIC	0.01uF	20%	16V
C630	1-162-306-11	CERAMIC	0.01uF	20%	16V
C636	1-126-160-11	ELECT	1uF	20%	50V
C637	1-136-161-00	FILM	0.047uF	5%	50V
C638	1-124-464-11	ELECT	0.22uF	20%	50V
C639	1-124-464-11	ELECT	0.22uF	20%	50V
C640	1-162-306-11	CERAMIC	0.01uF	20%	16V
C641	1-124-464-11	ELECT	0.22uF	20%	50V
C642	1-136-159-00	FILM	0.033uF	5%	50V
C643	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C644	1-124-464-11	ELECT	0.22uF	20%	50V
C646	1-130-470-00	MYLAR	820PF	5%	50V
C647	1-124-464-11	ELECT	0.22uF	20%	50V
C648	1-164-159-21	CERAMIC	0.1uF	20%	16V
C649	1-124-589-11	ELECT	47uF	20%	16V
C650	1-124-464-11	ELECT	0.22uF	20%	50V
C652	1-162-306-11	CERAMIC	0.01uF	20%	16V
C653	1-164-159-21	CERAMIC	0.1uF		50V
C654	1-162-294-31	CERAMIC	0.001uF		50V
		< CONNECTOR >			
CN601	1-568-860-11	SOCKET, CONNECTOR 17P			
CN603	1-568-853-11	SOCKET, CONNECTOR 10P			
CN609	1-691-645-11	SOCKET, CONNECTOR 9P			
		< DIODE >			
D601	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)			
D602	8-719-057-44	DIODE HLMF-K305-2UP (DSP)			
D604	8-719-058-04	DIODE SEL5223S-TP15 (EFFECT ON/OFF)			
D605	8-719-058-04	DIODE SEL5223S-TP15 (JOG)			
D606	8-719-057-44	DIODE HLMF-K305-2UP (+)			
D607	8-719-057-44	DIODE HLMF-K305-2UP (–)			
D608	8-719-057-44	DIODE HLMF-K305-2UP (▶▶I)			
D609	8-719-057-44	DIODE HLMF-K305-2UP (I◀◀)			
D610	8-719-057-30	DIODE HLMF-K205-2UL (ENTER/NEXT)			

PANEL

Ref. No.	Part No.	Description	Remark
D611	8-719-057-97	DIODE SEL5923A-TP15 (PROLOGIC)	
D612	8-719-057-97	DIODE SEL5923A-TP15 (PROLOGIC)	
D614	8-719-057-44	DIODE HLMF-K305-2UP (GROOVE)	
D615	8-719-058-04	DIODE SEL5223S-TP15 (NON-STOP)	
D616	8-719-057-97	DIODE SEL5923A-TP15 (VCD)	
D617	8-719-057-97	DIODE SEL5923A-TP15 (PBC)	
D618	8-719-057-97	DIODE SEL5923A-TP15 (AUTO PBC)	
D650	8-719-987-63	DIODE 1N4148M	
D651	8-719-987-63	DIODE 1N4148M	
D652	8-719-987-63	DIODE 1N4148M	
D653	8-719-987-63	DIODE 1N4148M	
D654	8-719-987-63	DIODE 1N4148M	
D655	8-719-987-63	DIODE 1N4148M	
D656	8-719-987-63	DIODE 1N4148M	
		< FERRITE BEAD >	
FB601	1-412-473-21	INDUCTOR 0UH	
		< FLUORESCENT INDICATOR >	
FL601	1-517-618-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-468-16	IC TMP87CM75-6564	
IC602	8-759-332-18	IC GP1U27XB	
		< COIL >	
L601	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q601	8-729-118-00	TRANSISTOR 2SB1116-L	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q604	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q605	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q606	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q607	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q608	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q615	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R601	1-247-903-00	CARBON 1M 5% 1/4W	
R602	1-247-807-31	CARBON 100 5% 1/4W	
R603	1-249-429-11	CARBON 10K 5% 1/4W	
R604	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-429-11	CARBON 10K 5% 1/4W	
R606	1-249-429-11	CARBON 10K 5% 1/4W	
R607	1-249-429-11	CARBON 10K 5% 1/4W	
R608	1-247-843-11	CARBON 3.3K 5% 1/4W	
R609	1-247-843-11	CARBON 3.3K 5% 1/4W	
R610	1-247-807-31	CARBON 100 5% 1/4W	
R611	1-247-807-31	CARBON 100 5% 1/4W	
R612	1-249-429-11	CARBON 10K 5% 1/4W	
R613	1-247-843-11	CARBON 3.3K 5% 1/4W	
R614	1-249-427-11	CARBON 6.8K 5% 1/4W	
R615	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description			Remark
R616	1-249-429-11	CARBON	10K	5%	1/4W
R617	1-247-804-11	CARBON	75	5%	1/4W
R618	1-247-804-11	CARBON	75	5%	1/4W
R619	1-249-401-11	CARBON	47	5%	1/4W F
R620	1-249-419-11	CARBON	1.5K	5%	1/4W F
R621	1-249-419-11	CARBON	1.5K	5%	1/4W F
R622	1-249-401-11	CARBON	47	5%	1/4W F
R623	1-249-403-11	CARBON	68	5%	1/4W F
R624	1-247-807-31	CARBON	100	5%	1/4W
R625	1-249-407-11	CARBON	150	5%	1/4W F
R626	1-249-407-11	CARBON	150	5%	1/4W F
R627	1-247-815-91	CARBON	220	5%	1/4W
R628	1-249-411-11	CARBON	330	5%	1/4W
R629	1-249-413-11	CARBON	470	5%	1/4W F
R630	1-249-415-11	CARBON	680	5%	1/4W F
R631	1-249-417-11	CARBON	1K	5%	1/4W F
R632	1-249-419-11	CARBON	1.5K	5%	1/4W F
R633	1-249-421-11	CARBON	2.2K	5%	1/4W F
R634	1-249-419-11	CARBON	1.5K	5%	1/4W F
R635	1-249-401-11	CARBON	47	5%	1/4W F
R636	1-249-403-11	CARBON	68	5%	1/4W F
R637	1-247-826-00	CARBON	620	5%	1/4W
R639	1-249-411-11	CARBON	330	5%	1/4W
R640	1-249-413-11	CARBON	470	5%	1/4W F
R641	1-249-415-11	CARBON	680	5%	1/4W F
R642	1-249-417-11	CARBON	1K	5%	1/4W F
R643	1-249-419-11	CARBON	1.5K	5%	1/4W F
R644	1-249-421-11	CARBON	2.2K	5%	1/4W F
R645	1-249-419-11	CARBON	1.5K	5%	1/4W F
R646	1-249-401-11	CARBON	47	5%	1/4W F
R647	1-249-403-11	CARBON	68	5%	1/4W F
R648	1-247-807-31	CARBON	100	5%	1/4W
R650	1-249-407-11	CARBON	150	5%	1/4W F
R651	1-249-407-11	CARBON	150	5%	1/4W F
R652	1-247-815-91	CARBON	220	5%	1/4W
R653	1-249-411-11	CARBON	330	5%	1/4W
R654	1-249-413-11	CARBON	470	5%	1/4W F
R655	1-249-415-11	CARBON	680	5%	1/4W F
R656	1-249-417-11	CARBON	1K	5%	1/4W F
R657	1-249-419-11	CARBON	1.5K	5%	1/4W F
R658	1-249-434-11	CARBON	27K	5%	1/4W
R659	1-247-843-11	CARBON	3.3K	5%	1/4W
R661	1-249-419-11	CARBON	1.5K	5%	1/4W F
R663	1-249-429-11	CARBON	10K	5%	1/4W
R664	1-249-421-11	CARBON	2.2K	5%	1/4W F
R665	1-247-887-00	CARBON	220K	5%	1/4W
R666	1-249-421-11	CARBON	2.2K	5%	1/4W F
R667	1-247-815-91	CARBON	220	5%	1/4W
R668	1-247-815-91	CARBON	220	5%	1/4W
R669	1-247-807-31	CARBON	100	5%	1/4W
R671	1-247-815-91	CARBON	220	5%	1/4W
R672	1-247-815-91	CARBON	220	5%	1/4W
R673	1-247-807-31	CARBON	100	5%	1/4W
R674	1-247-807-31	CARBON	100	5%	1/4W
R675	1-247-807-31	CARBON	100	5%	1/4W
R676	1-247-807-31	CARBON	100	5%	1/4W
R677	1-247-815-91	CARBON	220	5%	1/4W
R680	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remark
R681	1-247-815-91	CARBON	220	5%	1/4W
R682	1-249-406-11	CARBON	120	5%	1/4W
R683	1-249-406-11	CARBON	120	5%	1/4W
R684	1-249-406-11	CARBON	120	5%	1/4W
R685	1-249-419-11	CARBON	1.5K	5%	1/4W F
R686	1-247-897-11	CARBON	560K	5%	1/4W
R687	1-249-437-11	CARBON	47K	5%	1/4W
R688	1-247-895-91	CARBON	470K	5%	1/4W
R689	1-249-419-11	CARBON	1.5K	5%	1/4W F
R690	1-247-897-11	CARBON	560K	5%	1/4W
R691	1-249-437-11	CARBON	47K	5%	1/4W
R692	1-247-895-91	CARBON	470K	5%	1/4W
R693	1-249-419-11	CARBON	1.5K	5%	1/4W F
R694	1-247-897-11	CARBON	560K	5%	1/4W
R695	1-249-437-11	CARBON	47K	5%	1/4W
R696	1-247-895-91	CARBON	470K	5%	1/4W
R698	1-247-897-11	CARBON	560K	5%	1/4W
R699	1-249-437-11	CARBON	47K	5%	1/4W
R700	1-247-895-91	CARBON	470K	5%	1/4W
R748	1-249-435-11	CARBON	33K	5%	1/4W
R749	1-247-895-91	CARBON	470K	5%	1/4W
		< SWITCH >			
S601	1-762-874-11	SWITCH, JOG			
S602	1-467-869-11	ENCODER, ROTARY (VOLUME)			
S604	1-762-196-21	SWITCH, TACT (TIMER SELECT)			
S605	1-762-196-21	SWITCH, TACT (CLOCK/TIMER SET)			
S606	1-762-196-21	SWITCH, TACT (PREV)			
S607	1-762-196-21	SWITCH, TACT (NEXT)			
S608	1-762-196-21	SWITCH, TACT (RETURN)			
S609	1-762-196-21	SWITCH, TACT (SELECT)			
S610	1-762-196-21	SWITCH, TACT (PLAY MODE)			
S611	1-762-196-21	SWITCH, TACT (1/ALL DISCS)			
S612	1-762-196-21	SWITCH, TACT (DIRECTION)			
S613	1-762-196-21	SWITCH, TACT (DISPLAY/DEMO)			
S614	1-762-196-21	SWITCH, TACT (SLEEP)			
S615	1-762-196-21	SWITCH, TACT (P FILE MEMORY)			
S616	1-762-196-21	SWITCH, TACT (NON-STOP)			
S617	1-762-196-21	SWITCH, TACT (LOW FREQUENCY)			
S618	1-762-196-21	SWITCH, TACT (HIGH FREQUENCY)			
S619	1-762-196-21	SWITCH, TACT (ENTER/NEXT)			
S620	1-762-196-21	SWITCH, TACT (PROLOGIC)			
S621	1-762-196-21	SWITCH, TACT (GROOVE)			
S622	1-762-196-21	SWITCH, TACT (GAME)			
S623	1-762-196-21	SWITCH, TACT (MOVIE)			
S624	1-762-196-21	SWITCH, TACT (MUSIC)			
S625	1-762-196-21	SWITCH, TACT (P FILE)			
S626	1-762-196-21	SWITCH, TACT (WAVE)			
S631	1-762-196-21	SWITCH, TACT (DSP)			
S632	1-762-196-21	SWITCH, TACT (DBFB)			
S633	1-762-196-21	SWITCH, TACT (TUNING MODE)			
S634	1-762-196-21	SWITCH, TACT (STEREO/MONO)			
S635	1-762-196-21	SWITCH, TACT (EFFECT ON/OFF)			
S636	1-762-196-21	SWITCH, TACT (KARAOKE PON/MPX)			
S637	1-762-196-21	SWITCH, TACT (TUNER/BAND)			
S638	1-762-196-21	SWITCH, TACT (LOOP)			
S639	1-762-196-21	SWITCH, TACT (FLASH)			
S640	1-762-196-21	SWITCH, TACT (TUNER MEMORY)			

Ref. No.	Part No.	Description			Remark
S642	1-762-196-21	SWITCH, TACT (FUNCTION)			
		< VIBRATOR >			
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)			
**********					
*	A-4403-677-A	POWER BOARD, COMPLETE (CH)			
		**********			
*	A-4403-749-A	POWER BOARD, COMPLETE (EXCEPT CH)			
		**********			
		< CAPACITOR >			
C101	1-130-781-00	FILM	0.22uF	10%	100V
C102	1-130-781-00	FILM	0.22uF	10%	100V
C103	1-136-169-00	FILM	0.22uF	5%	50V
C104	1-136-169-00	FILM	0.22uF	5%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V
C106	1-162-294-31	CERAMIC	0.001uF	10%	50V
C107	1-128-576-11	ELECT	100uF	20%	63V
C108	1-128-563-11	ELECT	100uF	20%	100V
C110	1-104-665-11	ELECT	100uF	20%	50V
C151	1-128-493-11	ELECT	4700uF	20%	71V
C152	1-128-493-11	ELECT	4700uF	20%	71V
C153	1-128-550-11	ELECT	2200uF	20%	50V
C154	1-128-550-11	ELECT	2200uF	20%	50V
C201	1-128-582-11	ELECT	10uF	20%	100V
C202	1-162-292-31	CERAMIC	680PF	10%	50V
C203	1-162-286-21	CERAMIC	220PF	10%	50V
C204	1-126-967-11	ELECT	47uF	20%	50V
C205	1-126-967-11	ELECT	47uF	20%	50V
C206	1-128-560-11	ELECT	22uF	20%	100V
C208	1-126-965-11	ELECT	22uF	20%	50V
C210	1-130-493-00	MYLAR	0.068uF	5%	50V
C211	1-130-493-00	MYLAR	0.068uF	5%	50V
C225	1-162-284-31	CERAMIC	150PF	10%	50V
C226	1-162-284-31	CERAMIC	150PF	10%	50V
C228	1-164-159-21	CERAMIC	0.1uF		50V
C232	1-162-284-31	CERAMIC	150PF	10%	50V
C251	1-128-582-11	ELECT	10uF	20%	100V
C252	1-162-292-31	CERAMIC	680PF	10%	50V
C253	1-162-286-21	CERAMIC	220PF	10%	50V
C254	1-126-967-11	ELECT	47uF	20%	50V
C255	1-126-967-11	ELECT	47uF	20%	50V
C256	1-128-560-11	ELECT	22uF	20%	100V
C260	1-130-493-00	MYLAR	0.068uF	5%	50V
C261	1-130-493-00	MYLAR	0.068uF	5%	50V
C299	1-161-494-00	CERAMIC	0.022uF		25V
C301	1-126-959-11	ELECT	0.47uF	20%	50V
C302	1-126-923-11	ELECT	220uF	20%	10V
C303	1-126-933-11	ELECT	100uF	20%	10V
C304	1-126-961-11	ELECT	2.2uF	20%	50V
C305	1-126-933-11	ELECT	100uF	20%	10V
C331	1-126-924-11	ELECT	330uF	20%	10V
C401	1-126-963-11	ELECT	4.7uF	20%	50V
C402	1-164-159-21	CERAMIC	0.1uF		50V (CH)
C403	1-164-159-21	CERAMIC	0.1uF		50V (CH)

POWER

Ref. No.	Part No.	Description		Remark
C404	1-164-159-21	CERAMIC	0.1uF	50V (CH)
C405	1-164-159-21	CERAMIC	0.1uF	50V (CH)
C406	1-164-159-21	CERAMIC	0.1uF	50V (CH)
C407	1-164-159-21	CERAMIC	0.1uF	50V (CH)
C408	1-164-159-21	CERAMIC	0.1uF	50V (CH)
C409	1-164-159-21	CERAMIC	0.1uF	50V (CH)
C410	1-161-494-00	CERAMIC	0.022uF	25V
C411	1-161-494-00	CERAMIC	0.022uF	25V
C412	1-161-494-00	CERAMIC	0.022uF	25V
C413	1-161-494-00	CERAMIC	0.022uF	25V
		< CONNECTOR >		
* CN201	1-766-957-11	CONNECTOR, BOARD TO BOARD 20P		
		< COIL >		
L401	1-420-872-00	COIL, AIR-CORE (CH)		
L402	1-420-872-00	COIL, AIR-CORE (CH)		
L403	1-420-872-00	COIL, AIR-CORE (CH)		
L404	1-420-872-00	COIL, AIR-CORE (CH)		
		< DIODE >		
D101	8-719-510-68	DIODE	D5SBA20F01	
D102	8-719-025-03	DIODE	RBA-402-SL	
D104	8-719-200-82	DIODE	11ES2	
D105	8-719-200-82	DIODE	11ES2	
D110	8-719-200-82	DIODE	11ES2	
D111	8-719-200-82	DIODE	11ES2	
D201	8-719-815-85	DIODE	1S1585	
D251	8-719-815-85	DIODE	1S1585	
D301	8-719-987-63	DIODE	1N4148M	
D302	8-719-987-63	DIODE	1N4148M	
D303	8-719-987-63	DIODE	1N4148M	
D321	8-719-815-85	DIODE	1S1585	
D331	8-719-987-63	DIODE	1N4148M	
D332	8-719-987-63	DIODE	1N4148M	
D401	8-719-987-63	DIODE	1N4148M	
D402	8-719-987-63	DIODE	1N4148M	
D403	8-719-815-85	DIODE	1S1585	
D404	8-719-815-85	DIODE	1S1585	
D405	8-719-815-85	DIODE	1S1585	
D406	8-719-815-85	DIODE	1S1585	
		< EARTH TERMINAL >		
* EP101	1-537-738-21	TERMINAL, EARTH		
* EP201	1-537-738-21	TERMINAL, EARTH		
		< FUSE >		
⚠F101	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)		
⚠F102	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)		
⚠F103	1-532-506-31	FUSE, TIME-LAG (6.3A/250V)		
⚠F104	1-532-506-31	FUSE, TIME-LAG (6.3A/250V)		
		< FUSE HOLDER >		
FH101	1-533-233-21	HOLDER, FUSE		
FH102	1-533-233-21	HOLDER, FUSE		
FH103	1-533-233-21	HOLDER, FUSE		
FH104	1-533-233-21	HOLDER, FUSE		
FH105	1-533-233-21	HOLDER, FUSE		
FH106	1-533-233-21	HOLDER, FUSE		
FH107	1-533-233-21	HOLDER, FUSE		
FH108	1-533-233-21	HOLDER, FUSE		
		< IC >		
IC201	8-749-922-65	IC	STK-4221MK2	
IC301	8-759-111-68	IC	uPC1237HA	
		< TRANSISTOR >		
Q201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA	
Q251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA	
Q301	8-729-900-89	TRANSISTOR	DTC144ES	
Q323	8-729-900-63	TRANSISTOR	DTA124ES	
Q331	8-729-900-89	TRANSISTOR	DTC144ES	
Q401	8-729-900-80	TRANSISTOR	DTC114ES	
Q402	8-729-904-39	TRANSISTOR	DTC114TS	
Q403	8-729-040-20	TRANSISTOR	RT1P137L-TP	
Q404	8-729-040-20	TRANSISTOR	RT1P137L-TP	
Q405	8-729-900-80	TRANSISTOR	DTC114ES	
		< RESISTOR >		
⚠R101	1-219-122-91	FUSIBLE	0.33	5% 1/4W F
R201	1-249-417-11	CARBON	1K	5% 1/4W F
R202	1-249-437-11	CARBON	47K	5% 1/4W
R203	1-249-413-11	CARBON	470	5% 1/4W F
R204	1-249-437-11	CARBON	47K	5% 1/4W
R206	1-260-107-11	CARBON	4.7K	5% 1/2W
R208	1-260-107-11	CARBON	4.7K	5% 1/2W
⚠R209	1-212-881-11	FUSIBLE	100	5% 1/4W F
⚠R210	1-217-156-00	METAL PLATE	0.22	10% 5W
R211	1-249-417-11	CARBON	1K	5% 1/4W F
R212	1-249-431-11	CARBON	15K	5% 1/4W F
R213	1-249-441-11	CARBON	100K	5% 1/4W
R215	1-260-103-11	CARBON	2.2K	5% 1/2W
R216	1-260-103-11	CARBON	2.2K	5% 1/2W
R218	1-260-076-11	CARBON	10	5% 1/2W
R227	1-249-425-11	CARBON	4.7K	5% 1/4W F
⚠R250	1-217-637-00	FUSIBLE	1	5% 1/4W F
R251	1-249-417-11	CARBON	1K	5% 1/4W F
R252	1-249-437-11	CARBON	47K	5% 1/4W
R253	1-249-413-11	CARBON	470	5% 1/4W F
R254	1-249-437-11	CARBON	47K	5% 1/4W
R256	1-260-107-11	CARBON	4.7K	5% 1/2W
R258	1-260-107-11	CARBON	4.7K	5% 1/2W
⚠R259	1-212-881-11	FUSIBLE	100	5% 1/4W F
⚠R260	1-217-156-00	METAL PLATE	0.22	10% 5W
R261	1-249-417-11	CARBON	1K	5% 1/4W F
R262	1-249-431-11	CARBON	15K	5% 1/4W F
R263	1-249-441-11	CARBON	100K	5% 1/4W
R268	1-260-076-11	CARBON	10	5% 1/2W
R272	1-260-093-11	CARBON	330	5% 1/2W
R273	1-260-093-11	CARBON	330	5% 1/2W
R274	1-260-093-11	CARBON	330	5% 1/2W
R275	1-260-093-11	CARBON	330	5% 1/2W
R301	1-249-441-11	CARBON	100K	5% 1/4W
R302	1-247-854-11	CARBON	9.1K	5% 1/4W
R303	1-247-854-11	CARBON	9.1K	5% 1/4W
R304	1-249-429-11	CARBON	10K	5% 1/4W

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

Ref. No.	Part No.	Description			Remark
R305	1-249-415-11	CARBON	680	5%	1/4W F
R306	1-249-441-11	CARBON	100K	5%	1/4W
R307	1-247-863-91	CARBON	22K	5%	1/4W
R308	1-247-863-91	CARBON	22K	5%	1/4W
R309	1-247-791-91	CARBON	22	5%	1/4W
R310	1-249-437-11	CARBON	47K	5%	1/4W
R311	1-249-429-11	CARBON	10K	5%	1/4W
R312	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-249-439-11	CARBON	68K	5%	1/4W
R315	1-249-439-11	CARBON	68K	5%	1/4W
R316	1-249-437-11	CARBON	47K	5%	1/4W
R317	1-249-437-11	CARBON	47K	5%	1/4W
R331	1-247-890-11	CARBON	300K	5%	1/4W
R332	1-249-429-11	CARBON	10K	5%	1/4W
R333	1-249-431-11	CARBON	15K	5%	1/4W
R334	1-249-417-11	CARBON	1K	5%	1/4W F
R401	1-249-429-11	CARBON	10K	5%	1/4W
⚠R405	1-215-886-11	METAL OXIDE	100	5%	2W F
⚠R407	1-215-886-11	METAL OXIDE	100	5%	2W F
R408	1-249-437-11	CARBON	47K	5%	1/4W
R409	1-249-440-11	CARBON	82K	5%	1/4W
R410	1-249-437-11	CARBON	47K	5%	1/4W
R411	1-249-437-11	CARBON	47K	5%	1/4W
R412	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R413	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R414	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R415	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R416	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R417	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R418	1-249-393-11	CARBON	10	5%	1/4W F (CH)
R419	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R420	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R421	1-249-393-11	CARBON	10	5%	1/4W F (CH)
R422	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
R423	1-249-389-11	CARBON	4.7	5%	1/4W F (CH)
		< RELAY >			
RY401	1-755-142-11	RELAY			
RY402	1-755-141-11	RELAY			
		< TERMINAL >			
TM401	1-537-842-11	TERMINAL BOARD (FRONT SPEAKER)			
TM402	1-537-510-11	TERMINAL BOARD (SPEAKER)(6P) (SURROUND SPEAKER)			

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Ref. No.	Part No.	Description			Remark
*	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

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*	A-4392-662-A	SURROUND BOARD, COMPLETE (EXCEPT CH)			
		**********			
*	A-4392-663-A	SURROUND BOARD, COMPLETE (CH)			
		**********			
		< CAPACITOR >			
C601	1-126-963-11	ELECT	4.7uF	20%	50V
C602	1-162-292-31	CERAMIC	680PF	10%	50V
C603	1-162-286-21	CERAMIC	220PF	10%	50V
C604	1-126-967-11	ELECT	47uF	20%	50V
C605	1-126-967-11	ELECT	47uF	20%	50V
C606	1-126-968-11	ELECT	100uF	20%	50V
C608	1-126-965-11	ELECT	22uF	20%	50V
C610	1-130-493-00	MYLAR	0.068uF	5%	50V
C611	1-130-493-00	MYLAR	0.068uF	5%	50V
C613	1-161-494-00	CERAMIC	0.022uF		25V (CH)
C620	1-126-923-11	ELECT	220uF	20%	10V
C625	1-162-284-31	CERAMIC	150PF	10%	50V
C626	1-162-284-31	CERAMIC	150PF	10%	50V (CH)
C628	1-164-159-21	CERAMIC	0.1uF		50V
C651	1-126-963-11	ELECT	4.7uF	20%	50V
C652	1-162-292-31	CERAMIC	680PF	10%	50V
C653	1-162-286-21	CERAMIC	220PF	10%	50V
C654	1-126-967-11	ELECT	47uF	20%	50V
C655	1-126-967-11	ELECT	47uF	20%	50V
C656	1-126-968-11	ELECT	100uF	20%	50V
C660	1-130-493-00	MYLAR	0.068uF	5%	50V
C661	1-130-493-00	MYLAR	0.068uF	5%	50V
		< CONNECTOR >			
CN601	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN602	1-691-770-11	PLUG (MICRO CONNECTOR) 8P			
CN603	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
		< DIODE >			
D601	8-719-987-63	DIODE 1N4148M			
D602	8-719-987-63	DIODE 1N4148M			
D603	8-719-987-63	DIODE 1N4148M			
D604	8-719-987-63	DIODE 1N4148M			
D651	8-719-987-63	DIODE 1N4148M			
		< EARTH TERMINAL >			
* EP601	1-537-738-21	TERMINAL, EARTH (CH)			
* EP602	1-537-738-21	TERMINAL, EARTH			

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

SURROUND | TC SW | TRANS

Ref. No.	Part No.	Description				Remark
		< IC >				
IC601	8-749-900-96	IC STK-4142MK2				
		< TRANSISTOR >				
Q601	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q651	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q670	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q671	8-729-900-36	TRANSISTOR DTC124ES				
		< RESISTOR >				
R601	1-249-417-11	CARBON	1K	5%	1/4W	F
R602	1-249-437-11	CARBON	47K	5%	1/4W	
R603	1-249-415-11	CARBON	680	5%	1/4W	F
R604	1-249-437-11	CARBON	47K	5%	1/4W	
R605	1-260-103-11	CARBON	2.2K	5%	1/2W	
R606	1-260-103-11	CARBON	2.2K	5%	1/2W	
⚠R609	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R610	1-217-151-00	METAL PLATE	0.22	10%	2W	
R611	1-249-417-11	CARBON	1K	5%	1/4W	F
R612	1-249-431-11	CARBON	15K	5%	1/4W	
R613	1-249-441-11	CARBON	100K	5%	1/4W	
R614	1-260-099-11	CARBON	1K	5%	1/2W	
R616	1-260-099-11	CARBON	1K	5%	1/2W	
R618	1-260-076-11	CARBON	10	5%	1/2W	
R627	1-249-429-11	CARBON	10K	5%	1/4W	
R628	1-247-881-00	CARBON	120K	5%	1/4W	
R630	1-249-429-11	CARBON	10K	5%	1/4W	
R642	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R644	1-217-637-00	FUSIBLE	1	5%	1/4W	F
R651	1-249-417-11	CARBON	1K	5%	1/4W	F
R652	1-249-437-11	CARBON	47K	5%	1/4W	
R653	1-249-415-11	CARBON	680	5%	1/4W	F
R654	1-249-437-11	CARBON	47K	5%	1/4W	
R655	1-260-103-11	CARBON	2.2K	5%	1/2W	
R656	1-260-103-11	CARBON	2.2K	5%	1/2W	
⚠R659	1-212-881-11	FUSIBLE	100	5%	1/4W	F
⚠R660	1-217-151-00	METAL PLATE	0.22	10%	2W	
R661	1-249-417-11	CARBON	1K	5%	1/4W	F
R662	1-249-431-11	CARBON	15K	5%	1/4W	
R663	1-249-441-11	CARBON	100K	5%	1/4W	
R668	1-260-076-11	CARBON	10	5%	1/2W	
R670	1-249-441-11	CARBON	100K	5%	1/4W	
R671	1-249-441-11	CARBON	100K	5%	1/4W	
R672	1-249-436-11	CARBON	39K	5%	1/4W	
		< THERMISTOR >				
THP670	1-807-796-11	THERMISTOR				
**********						
*	A-4392-652-A	TC SW BOARD, COMPLETE				
		**********				
		< CONNECTOR >				
CN607	1-506-486-11	PIN, CONNECTOR 7P				

Ref. No.	Part No.	Description				Remark
		< DIODE >				
D634	8-719-063-92	DIODE SLR325MC-M-T31-NP (▷)(DECK B)				
D635	8-719-063-92	DIODE SLR325MC-M-T31-NP (◁)(DECK B)				
D636	8-719-063-91	DIODE SLR325DC-P-T32 (❚❚ PAUSE)				
D637	8-719-063-93	DIODE SLR325VC-N-T32 (● REC)				
D638	8-719-063-92	DIODE SLR325MC-M-T31-NP (▷)(DECK A)				
D639	8-719-063-92	DIODE SLR325MC-M-T31-NP (◁)(DECK A)				
		< TRANSISTOR >				
Q617	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q619	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R726	1-249-401-11	CARBON	47	5%	1/4W	F
R727	1-249-403-11	CARBON	68	5%	1/4W	F
R728	1-247-807-31	CARBON	100	5%	1/4W	
R729	1-249-407-11	CARBON	150	5%	1/4W	F
R730	1-249-407-11	CARBON	150	5%	1/4W	F
R731	1-247-815-91	CARBON	220	5%	1/4W	
R732	1-249-411-11	CARBON	330	5%	1/4W	
R733	1-249-413-11	CARBON	470	5%	1/4W	F
R734	1-249-415-11	CARBON	680	5%	1/4W	F
R735	1-249-417-11	CARBON	1K	5%	1/4W	F
R736	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R737	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R738	1-247-843-11	CARBON	3.3K	5%	1/4W	
R739	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R740	1-247-807-31	CARBON	100	5%	1/4W	
R741	1-247-807-31	CARBON	100	5%	1/4W	
R742	1-247-807-31	CARBON	100	5%	1/4W	
R743	1-247-815-91	CARBON	220	5%	1/4W	
R744	1-247-807-31	CARBON	100	5%	1/4W	
R745	1-247-807-31	CARBON	100	5%	1/4W	
		< SWITCH >				
S655	1-762-196-21	SWITCH, TACT (▷)(DECK B)				
S656	1-762-196-21	SWITCH, TACT (◁)(DECK B)				
S657	1-762-196-21	SWITCH, TACT (▶▶)(DECK B)				
S658	1-762-196-21	SWITCH, TACT (◀◀)(DECK B)				
S659	1-762-196-21	SWITCH, TACT (■)(DECK B)				
S660	1-762-196-21	SWITCH, TACT (❚❚ PAUSE)				
S661	1-762-196-21	SWITCH, TACT (● REC)				
S662	1-762-196-21	SWITCH, TACT (CD SYNCHRO)				
S663	1-762-196-21	SWITCH, TACT (HIGH SPEED DUBBING)				
S664	1-762-196-21	SWITCH, TACT (▶▶)(DECK A)				
S665	1-762-196-21	SWITCH, TACT (◀◀)(DECK A)				
S666	1-762-196-21	SWITCH, TACT (■)(DECK A)				
S667	1-762-196-21	SWITCH, TACT (▷)(DECK A)				
S668	1-762-196-21	SWITCH, TACT (◁)(DECK A)				
**********						
*	1-663-994-11	TRANS BOARD				
		**********				
		< CAPACITOR >				
C501	1-164-159-11	CERAMIC	0.1uF		50V	

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

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
* CN501	1-564-527-11	PLUG, CONNECTOR 12P			
CN502	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
		< FUSE >			
⚠F501	1-532-504-31	FUSE, TIME-LAG (4A/250V)(E,SP,IA,CH)			
		< FUSE HOLDER >			
FH501	1-533-233-21	HOLDER, FUSE (E,SP,IA,CH)			
FH502	1-533-233-21	HOLDER, FUSE (E,SP,IA,CH)			
		< RESISTOR >			
⚠R501	1-219-120-11	FUSIBLE	0.15	5%	1/4W F
⚠R502	1-219-120-11	FUSIBLE	0.15	5%	1/4W F
		< SWITCH >			
⚠S501	1-762-753-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR)(E,SP,IA,CH)			
		< TRANSFORMER >			
⚠T501	1-431-418-11	TRANSFORMER, POWER (MY,TH)			
⚠T501	1-431-553-11	TRANSFORMER, POWER (E,SP,IA,CH)			
**********					
*	A-4398-587-A	VIDEO BOARD, COMPLETE **********			
		< CAPACITOR >			
C101	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C103	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C104	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C107	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C108	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C109	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-163-091-00	CERAMIC CHIP	8PF		50V
C123	1-163-091-00	CERAMIC CHIP	8PF		50V
C124	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C125	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C128	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C129	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C151	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C152	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C153	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C154	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C155	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C156	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C157	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C158	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C159	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C181	1-163-038-91	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C201	1-126-607-11	ELECT CHIP	47uF	20%	4V
C202	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C203	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C204	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C205	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C206	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C207	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C208	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C209	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C210	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C211	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C212	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C213	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C251	1-124-779-00	ELECT CHIP	10uF	20%	16V
C252	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C271	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C272	1-124-779-00	ELECT CHIP	10uF	20%	16V
C273	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C274	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C275	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C276	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C301	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C302	1-124-779-00	ELECT CHIP	10uF	20%	16V
C303	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C304	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C305	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C306	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C401	1-124-779-00	ELECT CHIP	10uF	20%	16V
C402	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C403	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C404	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C405	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C406	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C407	1-124-779-00	ELECT CHIP	10uF	20%	16V
C408	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C409	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C451	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C452	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C453	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C454	1-124-779-00	ELECT CHIP	10uF	20%	16V
C461	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C462	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C463	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C464	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C465	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C466	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C468	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C469	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C470	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C501	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C502	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C503	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C504	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C505	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C506	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C701	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C702	1-163-038-91	CERAMIC CHIP	0.1uF		25V

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Replace only with part number specified.

VIDEO

Ref. No.	Part No.	Description			Remark
C703	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C704	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C705	1-124-779-00	ELECT CHIP	10uF	20%	16V
C706	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C751	1-124-779-00	ELECT CHIP	10uF	20%	16V
C752	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C771	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C772	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C801	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C802	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C803	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C804	1-126-209-11	ELECT	100uF	20%	4V
C805	1-126-204-11	ELECT CHIP	47uF	20%	16V
C806	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C807	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C884	1-163-038-91	CERAMIC, CHIP	0.1		25V
C901	1-124-779-00	ELECT CHIP	10uF	20%	16V
C902	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C904	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C908	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-779-416-11	CONNECTOR,FFC(LIF(NON-ZIF))13P			
CN102	1-766-942-11	CONNECTOR, FFC/FPC 29P			
CN103	1-774-863-11	PIN, CONNECTOR (PC BOARD) 8P			
CN104	1-774-731-21	PIN, CONNECTOR (PC BOARD) 5P			
		< TRIMMER >			
CT401	1-141-539-11	CAP, ADJ 10PF			
		< DIODE >			
D701	8-719-018-51	DIODE CD-170R-CD			
		< GROUND TERMINAL >			
* EPT884	4-870-539-00	PLATE, GROUND			
		< FERRITE BEAD >			
FB101	1-500-445-21	INDUCTOR 0UH			
FB102	1-543-961-11	BEAD, FERRITE (CHIP)			
FB103	1-543-961-11	BEAD, FERRITE (CHIP)			
FB104	1-543-961-11	BEAD, FERRITE (CHIP)			
FB105	1-543-961-11	BEAD, FERRITE (CHIP)			
FB106	1-216-295-91	CONDUCTOR, CHIP (2012)			
FB451	1-543-961-11	BEAD, FERRITE (CHIP)			
FB452	1-543-961-11	BEAD, FERRITE (CHIP)			
FB453	1-543-961-11	BEAD, FERRITE (CHIP)			
FB454	1-216-295-91	CONDUCTOR, CHIP (2012)			
FB455	1-216-295-91	CONDUCTOR, CHIP (2012)			
FB801	1-500-184-11	BEAD, FERRITE			
FB802	1-500-184-11	BEAD, FERRITE			
		< IC >			
IC101	8-759-362-47	IC CXD8567AM			
IC102	8-759-701-39	IC NJM3404AM			
IC103	8-759-701-39	IC NJM3404AM			
IC181	8-759-269-14	IC SN74HCT08ANS-E20			

Ref. No.	Part No.	Description			Remark
IC201	8-752-389-31	IC CXD1852AQ			
IC251	8-759-368-97	IC M5M44260CTP-7S			
IC271	8-759-479-44	IC BU6257AFV			
IC272	8-759-180-84	IC TC7W74F			
IC301	8-752-384-09	IC CXD1854Q			
IC401	8-752-380-71	IC CXD1913Q			
IC402	8-759-269-92	IC SN74HCU04ANS-E20			
IC451	8-759-262-00	IC MC14576CF			
IC452	8-759-262-00	IC MC14576CF			
IC501	8-759-926-49	IC SN74HC245ANS			
IC701	8-759-468-15	IC HD6433032SK12F			
IC751	8-759-462-71	IC HY6264ALJ-70-TR			
IC771	8-759-927-72	IC TL1591CP			
IC772	8-759-035-93	IC SC7S32F			
IC801	8-759-460-72	IC BA033FP			
IC901	8-759-467-59	IC uPD780016YGF-012-3BA			
		< COIL >			
L101	1-410-377-31	INDUCTOR CHIP 4.7uH			
L251	1-410-377-31	INDUCTOR CHIP 4.7uH			
		< TRANSISTOR >			
Q701	8-729-900-53	DTC114EK			
		< RESISTOR >			
R101	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R102	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R103	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R104	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R105	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R106	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R107	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R108	1-216-081-00	METAL CHIP	22K	5%	1/10W
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W
R110	1-216-081-00	METAL CHIP	22K	5%	1/10W
R111	1-216-081-00	METAL CHIP	22K	5%	1/10W
R121	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R122	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R123	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R124	1-216-025-91	METAL GLAZE	100	5%	1/10W
R125	1-216-025-91	METAL GLAZE	100	5%	1/10W
R126	1-216-025-91	METAL GLAZE	100	5%	1/10W
R127	1-216-025-91	METAL GLAZE	100	5%	1/10W
R128	1-216-025-91	METAL GLAZE	100	5%	1/10W
R129	1-216-025-91	METAL GLAZE	100	5%	1/10W
R130	1-216-041-00	METAL CHIP	470	5%	1/10W
R151	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R152	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R153	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R154	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R155	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R156	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R157	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R158	1-216-081-00	METAL CHIP	22K	5%	1/10W
R159	1-216-073-00	METAL CHIP	10K	5%	1/10W
R160	1-216-081-00	METAL CHIP	22K	5%	1/10W
R161	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R201	1-216-025-91	METAL GLAZE	100	5%	1/10W
R203	1-216-295-91	CONDUCTOR, CHIP (2012)			
R204	1-216-025-91	METAL GLAZE	100	5%	1/10W
R206	1-216-295-91	CONDUCTOR, CHIP (2012)			
R207	1-216-073-00	METAL CHIP	10K	5%	1/10W
R208	1-216-073-00	METAL CHIP	10K	5%	1/10W
R209	1-216-073-00	METAL CHIP	10K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R211	1-216-073-00	METAL CHIP	10K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-073-00	METAL CHIP	10K	5%	1/10W
R214	1-216-073-00	METAL CHIP	10K	5%	1/10W
R215	1-216-073-00	METAL CHIP	10K	5%	1/10W
R216	1-216-073-00	METAL CHIP	10K	5%	1/10W
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W
R218	1-216-073-00	METAL CHIP	10K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-073-00	METAL CHIP	10K	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-073-00	METAL CHIP	10K	5%	1/10W
R223	1-216-073-00	METAL CHIP	10K	5%	1/10W
R224	1-216-073-00	METAL CHIP	10K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	10K	5%	1/10W
R227	1-216-073-00	METAL CHIP	10K	5%	1/10W
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R229	1-216-073-00	METAL CHIP	10K	5%	1/10W
R230	1-216-073-00	METAL CHIP	10K	5%	1/10W
R231	1-216-073-00	METAL CHIP	10K	5%	1/10W
R232	1-216-073-00	METAL CHIP	10K	5%	1/10W
R233	1-216-073-00	METAL CHIP	10K	5%	1/10W
R234	1-216-073-00	METAL CHIP	10K	5%	1/10W
R235	1-216-073-00	METAL CHIP	10K	5%	1/10W
R236	1-216-073-00	METAL CHIP	10K	5%	1/10W
R237	1-216-073-00	METAL CHIP	10K	5%	1/10W
R238	1-216-073-00	METAL CHIP	10K	5%	1/10W
R239	1-216-073-00	METAL CHIP	10K	5%	1/10W
R240	1-216-073-00	METAL CHIP	10K	5%	1/10W
R241	1-216-073-00	METAL CHIP	10K	5%	1/10W
R242	1-216-073-00	METAL CHIP	10K	5%	1/10W
R243	1-216-295-91	CONDUCTOR, CHIP (2012)			
R271	1-216-025-91	METAL GLAZE	100	5%	1/10W
R272	1-216-025-91	METAL GLAZE	100	5%	1/10W
R273	1-216-041-00	METAL CHIP	470	5%	1/10W
R274	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R302	1-216-025-91	METAL GLAZE	100	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-073-00	METAL CHIP	10K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-025-91	METAL GLAZE	100	5%	1/10W
R401	1-216-047-91	METAL GLAZE	820	5%	1/10W

Ref. No.	Part No.	Description			Remark
R402	1-216-025-91	METAL GLAZE	100	5%	1/10W
R403	1-216-025-91	METAL GLAZE	100	5%	1/10W
R404	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R405	1-216-047-91	METAL GLAZE	820	5%	1/10W
R406	1-216-025-91	METAL GLAZE	100	5%	1/10W
R407	1-216-025-91	METAL GLAZE	100	5%	1/10W
R451	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R452	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R453	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R454	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R455	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R456	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R457	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R458	1-216-295-91	CONDUCTOR, CHIP (2012)			
R459	1-216-295-91	CONDUCTOR, CHIP (2012)			
R460	1-216-295-91	CONDUCTOR, CHIP (2012)			
R461	1-216-295-91	CONDUCTOR, CHIP (2012)			
R462	1-216-295-91	CONDUCTOR, CHIP (2012)			
R463	1-216-295-91	CONDUCTOR, CHIP (2012)			
R464	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R465	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R466	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R467	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R468	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R469	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R470	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R471	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R501	1-216-009-91	METAL GLAZE	22	5%	1/10W
R502	1-216-009-91	METAL GLAZE	22	5%	1/10W
R503	1-216-025-91	METAL GLAZE	100	5%	1/10W
R504	1-216-025-91	METAL GLAZE	100	5%	1/10W
R505	1-216-025-91	METAL GLAZE	100	5%	1/10W
R506	1-216-025-91	METAL CHIP	100	5%	1/10W
R507	1-216-037-00	METAL CHIP	330	5%	1/10W
R508	1-216-037-00	METAL CHIP	330	5%	1/10W
R509	1-216-037-00	METAL CHIP	330	5%	1/10W
R510	1-216-047-91	METAL GLAZE	820	5%	1/10W
R511	1-216-043-91	METAL GLAZE	560	5%	1/10W
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R702	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
R705	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R706	1-216-073-00	METAL CHIP	10K	5%	1/10W
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W
R708	1-216-073-00	METAL CHIP	10K	5%	1/10W
R709	1-216-073-00	METAL CHIP	10K	5%	1/10W
R711	1-216-295-91	CONDUCTOR, CHIP (2012)			
R712	1-216-025-91	METAL GLAZE	100	5%	1/10W
R713	1-216-025-91	METAL GLAZE	100	5%	1/10W
R714	1-216-025-91	METAL GLAZE	100	5%	1/10W
R715	1-216-025-91	METAL GLAZE	100	5%	1/10W
R716	1-216-025-91	METAL GLAZE	100	5%	1/10W
R717	1-216-025-91	METAL GLAZE	100	5%	1/10W
R718	1-216-025-91	METAL GLAZE	100	5%	1/10W
R719	1-216-025-91	METAL GLAZE	100	5%	1/10W
R720	1-216-025-91	METAL GLAZE	100	5%	1/10W
R721	1-216-025-91	METAL GLAZE	100	5%	1/10W
R722	1-216-081-00	METAL CHIP	22K	5%	1/10W

VIDEO | VIDEO OUT | VIDEO POWER

Ref. No.	Part No.	Description			Remark
R723	1-216-025-91	METAL GLAZE	100	5%	1/10W
R724	1-216-073-00	METAL CHIP	10K	5%	1/10W
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W
R726	1-216-073-00	METAL CHIP	10K	5%	1/10W
R727	1-216-073-00	METAL CHIP	10K	5%	1/10W
R728	1-216-073-00	METAL CHIP	10K	5%	1/10W
R902	1-216-295-91	CONDUCTOR, CHIP (2012)			
R903	1-216-025-91	METAL GLAZE	100	5%	1/10W
R904	1-216-073-00	METAL CHIP	10K	5%	1/10W
R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
R906	1-216-073-00	METAL CHIP	10K	5%	1/10W
R907	1-216-085-00	METAL CHIP	33K	5%	1/10W
R908	1-216-085-00	METAL CHIP	33K	5%	1/10W
R909	1-216-085-00	METAL CHIP	33K	5%	1/10W
R910	1-216-085-00	METAL CHIP	33K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-073-00	METAL CHIP	10K	5%	1/10W
R913	1-216-073-00	METAL CHIP	10K	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-073-00	METAL CHIP	10K	5%	1/10W
R916	1-216-073-00	METAL CHIP	10K	5%	1/10W
R917	1-216-073-00	METAL CHIP	10K	5%	1/10W
R919	1-216-073-00	METAL CHIP	10K	5%	1/10W
R920	1-216-073-00	METAL CHIP	10K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X101	1-767-518-11	VIBRATOR, CRYSTAL (33MHz)			
X201	1-767-055-11	VIBRATOR, CERAMIC (45MHz)			
X202	1-767-361-11	VIBRATOR, CERAMIC (28.63636MHz)			
X401	1-767-519-11	VIBRATOR, CRYSTAL (27MHz)			
X701	1-767-211-11	VIBRATOR, CERAMIC (10MHz)			
X901	1-767-144-21	VIBRATOR, CERAMIC (5MHz)			
**********					
*	1-665-406-11	VIDEO OUT BOARD **********			
		< CAPACITOR >			
C9001	1-126-926-11	ELECT	1000uF	20%	10V
C9002	1-126-926-11	ELECT	1000uF	20%	10V
C9003	1-126-925-11	ELECT	470uF	20%	10V
C9007	1-102-972-00	CERAMIC	91P	5%	50V
		< COIL >			
L9001	1-408-397-00	MICRO INDUCTOR 1uH			
		< CONNECTOR >			
* CN9001	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
		< JACK >			
J9001	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
J9002	1-778-773-11	TERMINAL, S (S VIDEO OUT)			
		< RESISTOR >			
R9001	1-249-429-11	CARBON	10K	5%	1/4W
R9002	1-249-429-11	CARBON	10K	5%	1/4W
R9003	1-249-429-11	CARBON	10K	5%	1/4W
R9004	1-249-429-11	CARBON	10K	5%	1/4W
R9005	1-247-863-91	CARBON	22K	5%	1/4W
		< SWITCH >			
S9001	1-571-589-11	SWITCH, SLIDE (SYSTEM SELECT)			
**********					
*	1-666-126-11	VIDEO POWER BOARD **********			
		< CAPACITOR >			
C9001	1-126-964-11	ELECT	10uF	20%	50V
C9002	1-126-933-11	ELECT	100uF	20%	16V
C9003	1-126-919-11	ELECT	6800uF	20%	6.3V
C9004	1-126-964-11	ELECT	10uF	20%	50V
C9005	1-126-935-11	ELECT	470uF	20%	6.3V
C9006	1-126-933-11	ELECT	100uF	20%	16V
		< CONNECTOR >			
CN9001	1-564-506-11	PLUG, CONNECTOR 3P			
* CN9002	1-564-507-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D9001	8-719-200-82	DIODE 11ES2			
		< IC >			
IC9001	8-759-231-53	IC TA7805S			
IC9002	8-759-231-53	IC TA7805S			
		< TRANSISTOR >			
Q9001	8-729-141-83	TRANSISTOR 2SB1094-LK			
Q9002	8-729-900-36	TRANSISTOR DTC124ES			
Q9003	8-729-141-83	TRANSISTOR 2SB1094-LK			
Q9004	8-729-900-36	TRANSISTOR DTC124ES			
		< RESISTOR >			
R9001	1-249-421-11	CARBON	2.2K	5%	1/4W F
R9002	1-249-413-11	CARBON	470	5%	1/4W F
R9003	1-249-421-11	CARBON	2.2K	5%	1/4W F
R9004	1-249-413-11	CARBON	470	5%	1/4W F
**********					
		MISCELLANEOUS **********			
5	1-773-158-11	WIRE (FLAT TYPE) (21 CORE)			
6	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)			
7	1-769-948-11	WIRE (FLAT TYPE) (11 CORE)			
8	1-782-653-11	WIRE (FLAT TYPE) (13 CORE)			
13	1-782-654-11	WIRE (FLAT TYPE) (29 CORE)			
⚠57	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)			
⚠57	1-569-008-11	ADAPTOR, CONVERSION 2P (E,SP)			
⚠59	1-575-651-21	CORD, POWER (E, SP, MY)			
⚠59	1-575-653-11	CORD, POWER (IA)			
⚠59	1-751-326-21	CORD, POWER (TH)			

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

Ref. No.	Part No.	Description	Remark
⚠59	1-782-464-21	CORD, POWER (CH)	
61	1-773-012-11	WIRE (FLAT CABLE) (15 CORE)	
63	1-233-545-11	ENCAPSULATED COMPONENT (TH)	
63	1-233-546-11	ENCAPSULATED COMPONENT	(E, SP, MY, IA, CH)
65	1-500-386-11	FERRITE CORE (CH)	
104	1-769-909-11	WIRE (FLAT TYPE) (9 CORE)	
105	1-777-869-11	WIRE (FLAT TYPE) (10 CORE)	
106	1-777-936-11	WIRE (FLAT TYPE) (5 CORE)	
407	1-452-538-11	MAGNET	
408	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
⚠451	8-820-020-01	OPTICAL PICK-UP BLOCK KSS-213D/Q-NP	
452	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
FL601	1-517-618-11	INDICATOR, TUBE FLUORESCENT	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
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	1-698-792-11	FAN, DC	
S602	1-467-869-11	ENCODER, ROTARY	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
⚠T501	1-431-553-11	TRANSFORMER, POWER (E, SP, IA, CH)	
⚠T501	1-418-138-21	TRANSFORMER, POWER (MY, TH)	

****

ACCESSORIES & PACKING MATERIALS
****

	1-475-166-11	COMMANDER, STANDARD (RM-SV909)
	1-501-374-11	ANTENNA, LOOP (IA)
	1-501-659-41	ANTENNA (FM) (IA)
	1-751-619-11	CORD, CONNECTION (VIDEO, 1.5m)
	3-860-316-11	MANUAL, INSTRUCTION (ENGLISH)(IA)
	3-860-316-31	MANUAL, INSTRUCTION (CHINESE)(IA)
	4-983-536-01	COVER, BATTERY (for RM-SV909)

****
HARDWARE LIST
****

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#4	7-685-871-01	SCREW +BVTT 3X6 (S)
#5	7-685-872-09	SCREW +BVTT 3X8 (S)
#6	7-621-775-10	SCREW +B2.6X4
#7	7-621-255-15	SCREW +P2X3
#8	7-623-921-01	RING, RETAINING, CAPSTAN
#9	7-621-775-00	SCREW +B2.6X3
#10	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
#11	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#12	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S
#13	7-685-862-09	SCREW +BVTT 2.6X6 (S)

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Replace only with part number specified.

Sony Corporation
Home A&V Products Company

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(SP)

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