

HCD-V8800

SERVICE MANUAL

*E Model
Chinese Model*



HCD-V8800 is the tuner, deck, Video CD and amplifier section in LBT-V8800AV.

This stereo system is equipped with the Dolby Pro Logic Surround system* and the Dolby B-type noise reduction system.

* Manufactured under license from Dolby Laboratories Licensing Corporation.

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CD SECTION	Model Name Using Similar Mechanism	HCD-V4500
	CD Mechanism Type	CDM37L-5BD21AL
	Base Unit Type	BU-5BD21AL
	Optical Pick-up Type	KSS-213D/Q-NP
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-V4500
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

Amplifier section

Peak music power output
1,500 watts

Continuous RMS power output
FRONT SPEAKER: 100 + 100 watts
(8 ohms at 1 kHz, 10% THD)

CENTER SPEAKER: 25 watts
(8 ohms at 1 kHz, 10% THD)

REAR SPEAKER: 12.5 + 12.5 watts
(16 ohms at 1 kHz, 10% THD)

Inputs
PHONO IN (phono jacks): sensitivity 3 mV,
impedance 47 kilohms

VIDEO (AUDIO) IN (phono jacks):
sensitivity 250 mV,
impedance 47 kilohms

MIX MIC (phone jack):
sensitivity 1 mV,
impedance 10 kilohms

Outputs
VIDEO (AUDIO) OUT (phono jacks):
voltage 250 mV,
impedance 1 kilohms
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

SURROUND SPEAKER CENTER:
accepts impedance of 8 to
16 ohms

SURROUND SPEAKER REAR
accepts impedance of 16
ohms

Video CD / CD player section

System Compact disc digital
audio and video system

Laser Semiconductor laser
($\lambda = 780 \text{ nm}$)
Emission
duration: continuous
Max. $44.6 \mu\text{W}^*$
* This output is the value
measured at a distance of
200 mm from the
objective lens surface on
the Optical Pick-up Block
with 7 mm aperture.

Laser output

Wavelength 780 - 790 nm

Frequency response 2 Hz - 20 kHz ($\pm 0.5 \text{ dB}$)

Signal-to-noise ratio More than 90 dB

Dynamic range More than 90 dB

Video

Color system format: NTSC, PAL

— Continued on next page —

COMPACT DISC DECK RECEIVER



SONY®

Tape player section

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

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 – 108.0 MHz (50 kHz step)

Antenna FM wire antenna
 Antenna terminals 75 ohm unbalanced

Intermediate frequency 10.7 MHz

AM tuner section

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

Antenna AM loop antenna,
 External antenna terminals

Intermediate frequency 450 kHz

General

Power requirements
 Malaysian model: 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. 355 × 425 × 435 mm incl. projecting parts and controls

Mass Approx. 13.5 kg

Supplied accessories AM loop antenna (1)
 Remote RM-SV909 (1)
 Batteries (2)
 FM wire antenna (1)
 Speaker cords (5)
 Video cable (1)
 Center speaker feet (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.

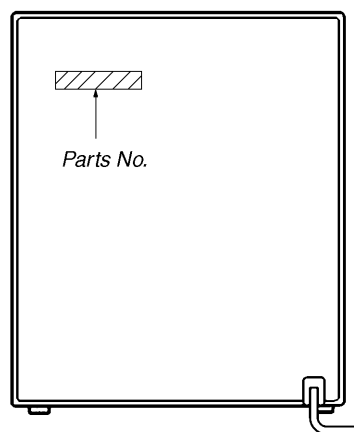
CLASS 1 LASER PRODUCT
 LUOKAN 1 LASERLAITE
 KLASS 1 LASERAPPARAT

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

CAUTION ; INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.
 ADVARSEL ; USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSÅFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
 VARO! ; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA DLET ALITAIN LASERSÄTEILYLLE.
 WARNING ; LASERSTRÅLING NÅR DENNA DEL ÅR OPPNÅD OCH SPÅRREN ÅR URKOPPLAD.
 ADVARSEL ; USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNGÅ EKSPONERING FOR STRÅLEN.

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

MODEL	PARTS No.
E, SP model	4-992-220-0 <input type="checkbox"/>
MY model	4-992-220-1 <input type="checkbox"/>
CH model	4-992-220-2 <input type="checkbox"/>
IA model	4-992-220-3 <input type="checkbox"/>

SAFETY-RELATED COMPONENT WARNING !!

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

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

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

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

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.

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SECTION 1

SERVICING NOTE

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 [SPECTRUM ANALYZER], [ENTER], 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 [SPECTRUM ANALYZER], [ENTER], 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 [SPECTRUM ANALYZER], [ENTER], 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.

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".

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 "AM 9k STEP" or "AM 10k STEP", and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode

Procedure:

1. Press three buttons [SPECTRUM ANALYZER], [ENTER], 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 1 V0J0". 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 3 trays.
 2. Select the function "CD".
 3. Press three buttons [SPECTRUM ANALYZER], [ENTER], 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 tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
2. TOC of disc is read.
3. The pick-up accesses to the last track.
4. Steps 1 through 3 are repeated.



1-3. Disc Selection Sequence

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

Disc 1 → Disc 3
 ↑ ↓
Disc 3 ← 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 **[SPECTRUM ANALYZER]**, **[ENTER]**, 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.

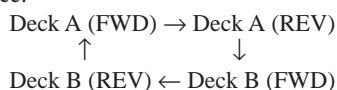
2-2. Operation during Aging Mode

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.)
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.)
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:

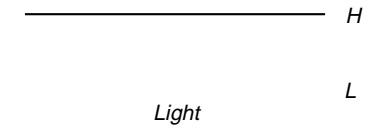
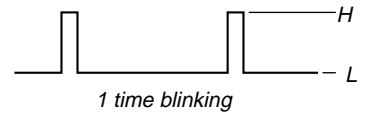

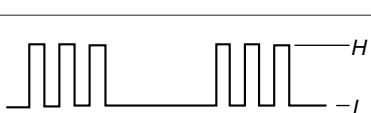


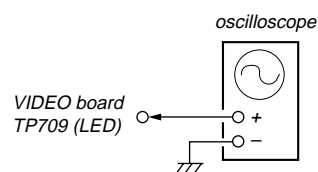
SELF-DIAGNOSIS

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 the VIDEO board.

Oscilloscope (Waveform)	Symptom
	No error
	External SRAM (IC751) error
	MPEG decoder (IC201) error
	DRAM (IC251) error

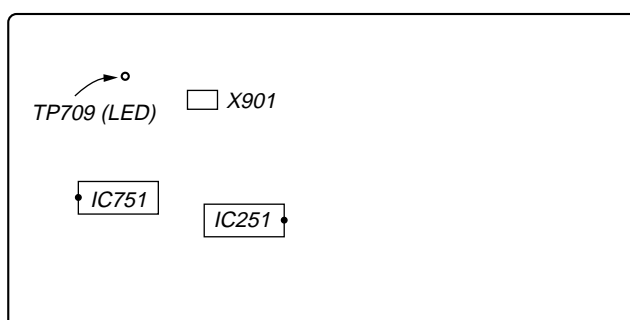


Note: The LED for check (D701) is mounted to some sets (FORMER TYPE). In this case, confirm the lighting condition of LED.

[VIDEO BOARD] (SIDE A)

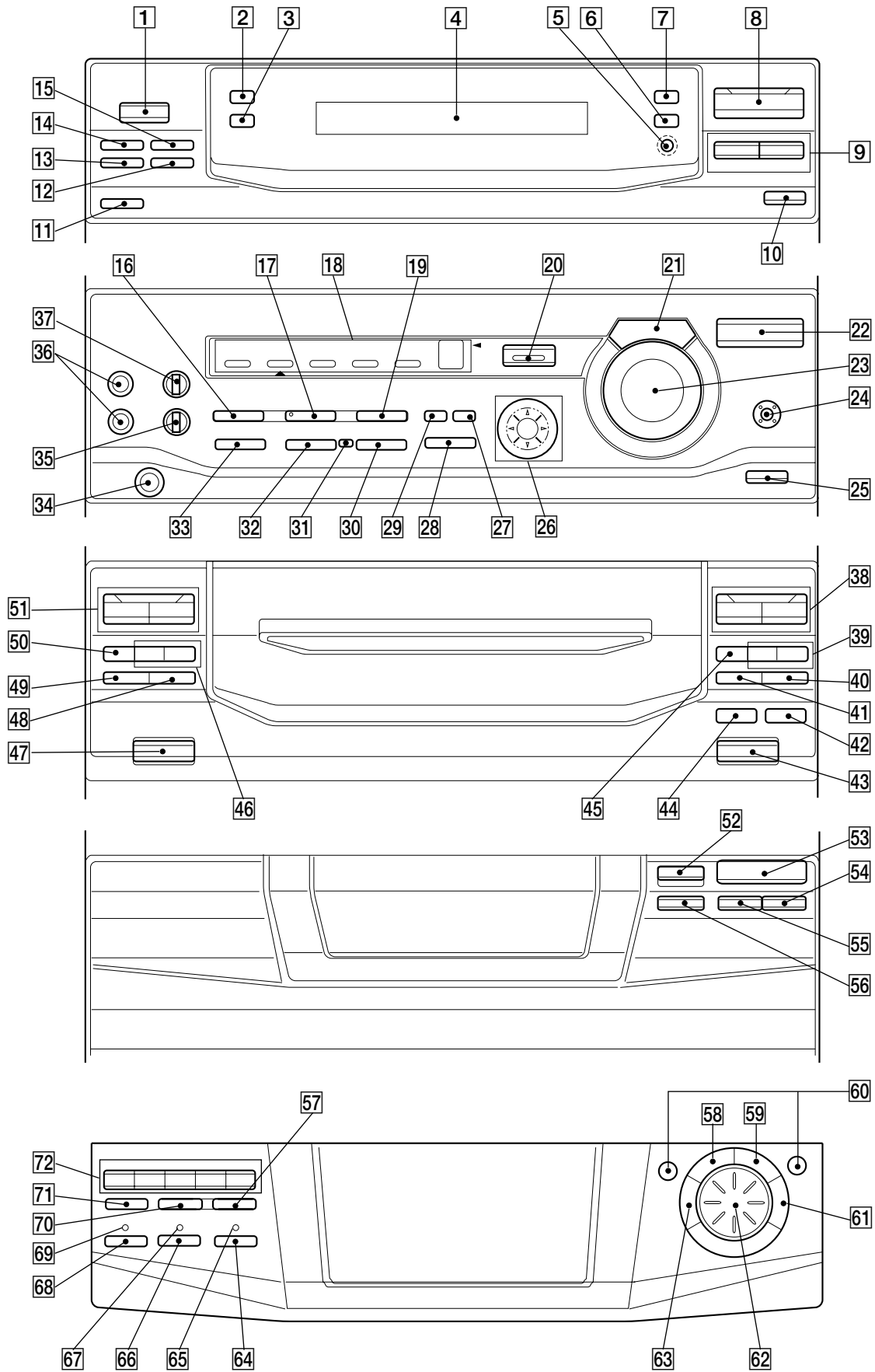


[VIDEO BOARD] (SIDE B)



SECTION 2 GENERAL

Front Panel



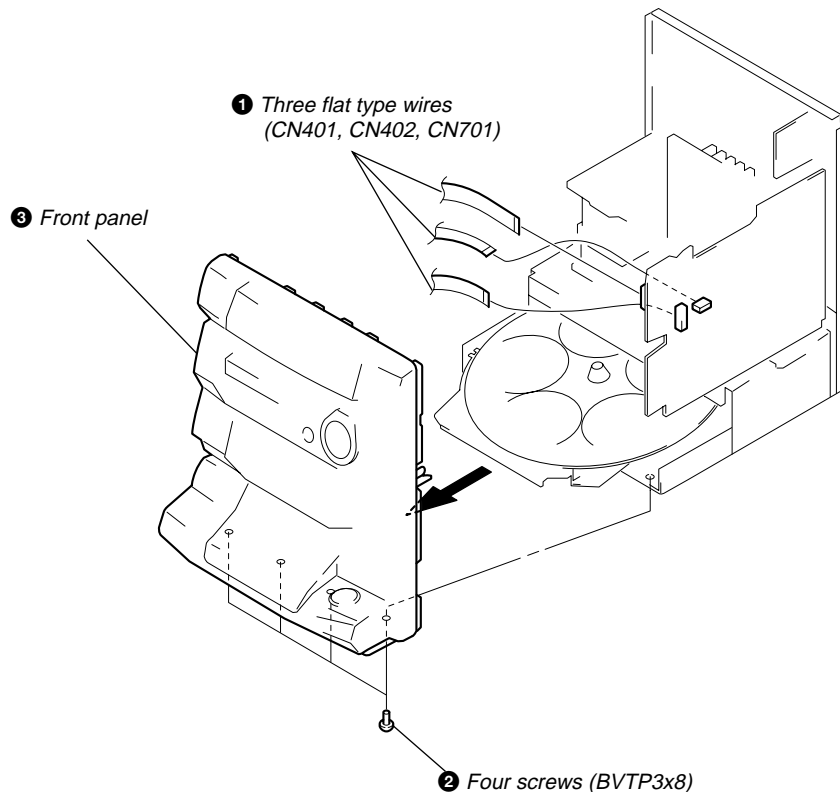
LOCATION OF PARTS AND CONTROLS

- | | | |
|-----------------------------------|----------------------------------|-------------------------------|
| 1 POWER button | 25 SUPER W MODE button | 49 DIRECTION button |
| 2 DISPLAY/DEMO button | 26 GEQ control buttons | 50 Deck A ■ button |
| 3 SPECTRUM ANALYZER button | 27 GEQ CONTROL button | 51 Deck A ◀, ▶ button |
| 4 Display Window | 28 ENTER button | 52 ▲ OPEN button |
| 5 ENTER/NEXT button | 29 P FILE MEMORY button | 53 CD ▷ button |
| 6 TUNER MEMORY button | 30 # button | 54 CD ■ button |
| 7 TUNING MODE button | 31 KEY CONTROL indicator | 55 CD ▮ button |
| 8 TUNER/BAND button | 32 ♪ button | 56 DISC SKIP button |
| 9 TUNING (+/-) button | 33 KARAOKE PON/MPX button | 57 CD FLASH button |
| 10 STEREO/MONO button | 34 PHONES jack | 58 1/ALL DISCS button |
| 11 SLEEP button | 35 ECHO LEVEL knob | 59 PLAY MODE button |
| 12 DAILY 2 button | 36 MIC 1, MIC 2 jacks | 60 CD ◀◀, ▶▶ button |
| 13 DAILY 1 button | 37 MIC LEVEL knob | 61 REPEAT button |
| 14 ⌚/CLOCK SET button | 38 Deck B ◀, ▶ button | 62 ⏮ AMS ⏭ dial |
| 15 REC button | 39 Deck B ◀◀, ▶▶ button | 63 EDIT button |
| 16 WAVE button | 40 Deck B ● REC button | 64 NEXT button |
| 17 DSP button | 41 Deck B ▮ button | 65 AUTO PBC indicator |
| 18 Equalizer indicators | 42 CD SYNC button | 66 PREV button |
| 19 PRO LOGIC button | 43 Deck B ▲ EJECT button | 67 PBC indicator |
| 20 EFFECT button | 44 H SPEED DUB button | 68 ⏪ RETURN button |
| 21 GROOVE button | 45 Deck B ■ button | 69 VCD indicator |
| 22 FUNCTION button | 46 Deck A ◀◀, ▶▶ button | 70 CD LOOP button |
| 23 VOLUME control | 47 Deck A ▲ EJECT button | 71 CD NON-STOP button |
| 24 SUPER WOOFER button | 48 DOLBY NR button | 72 DISC1-DISC5 buttons |

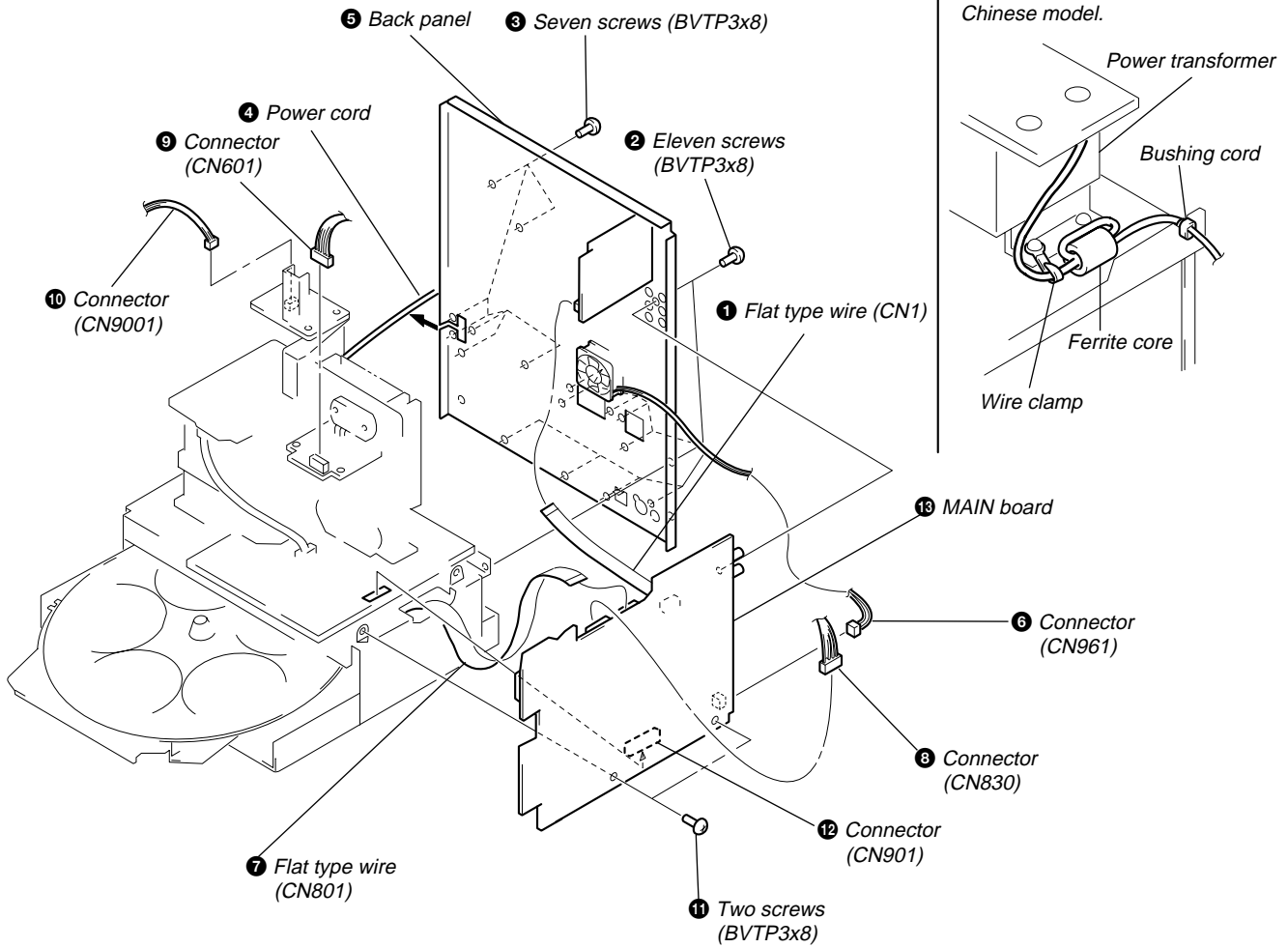
SECTION 3 DISASSEMBLY

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

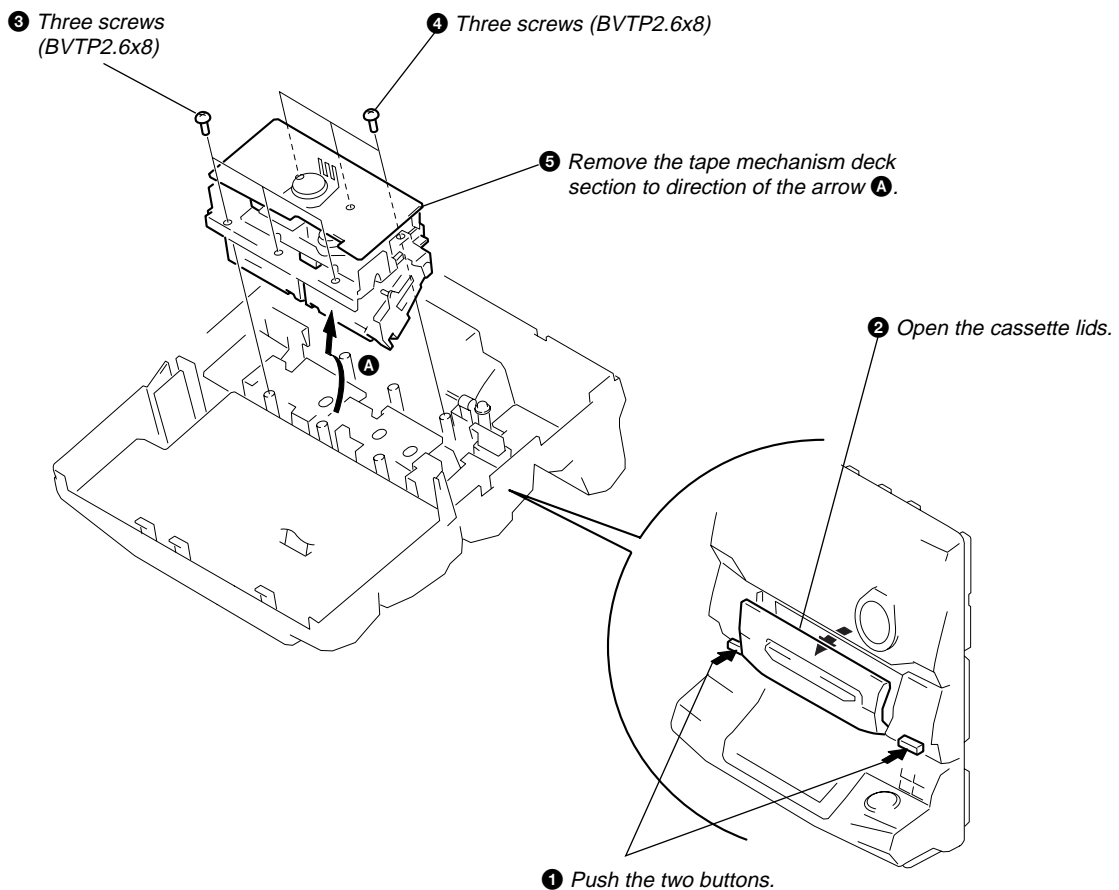
3-1. FRONT PANEL



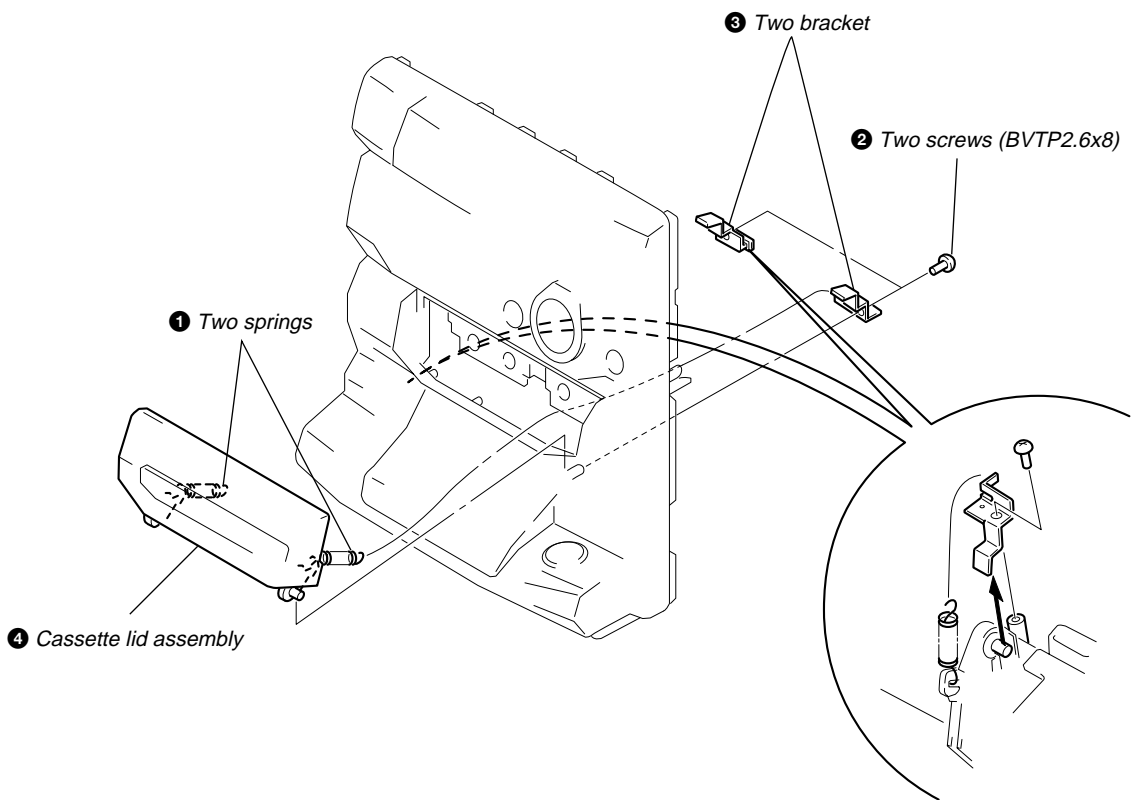
3-2. MAIN BOARD



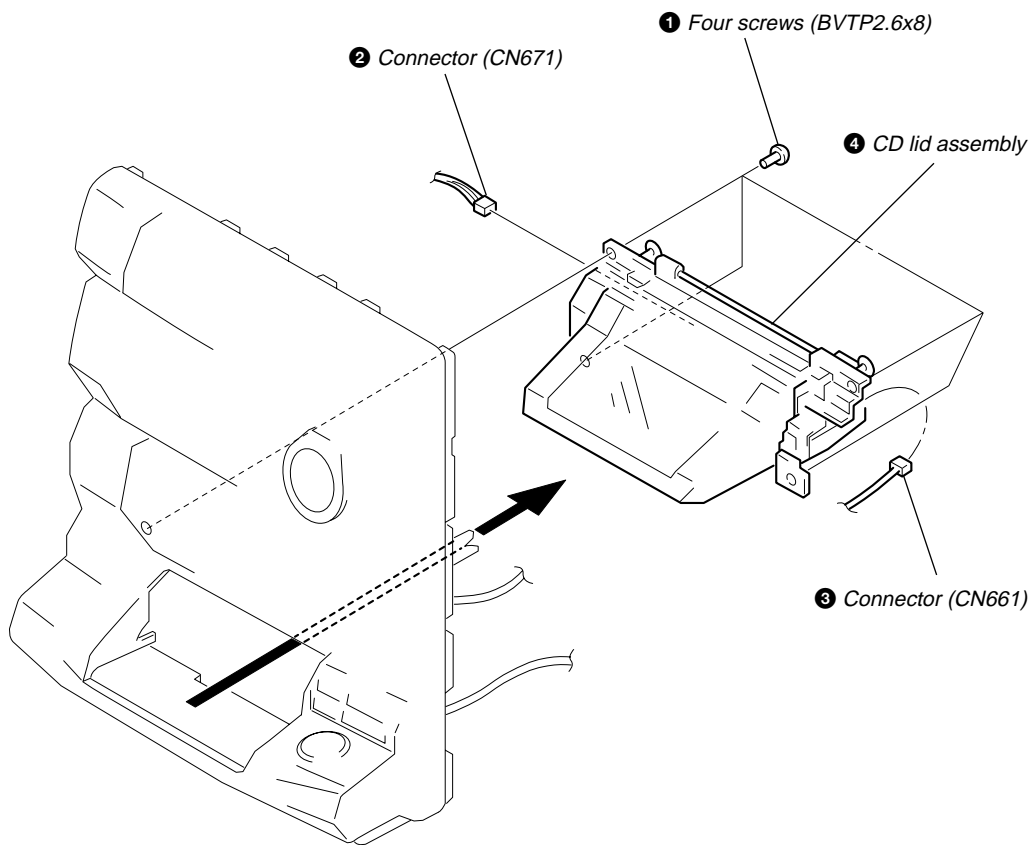
3-3. TAPE MECHANISM DECK



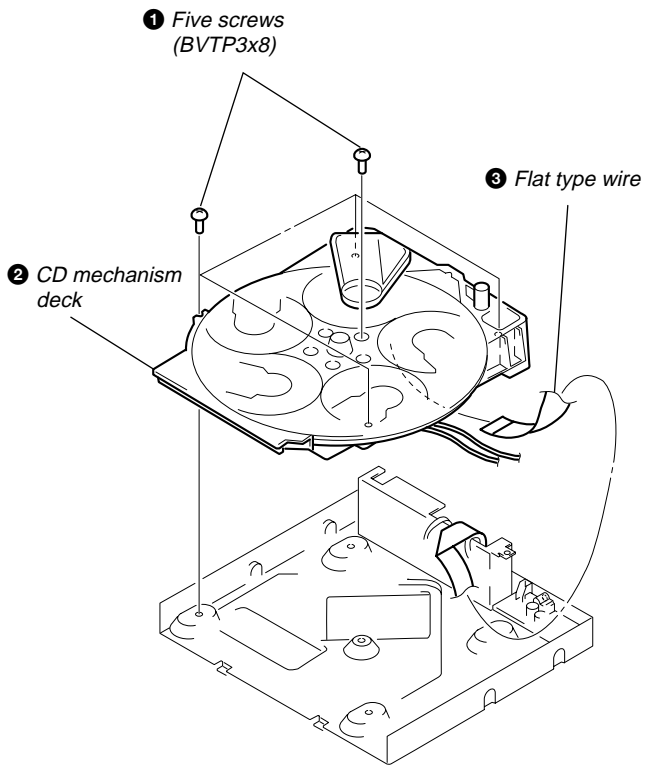
3-4. CASSETTE LID ASSEMBLY



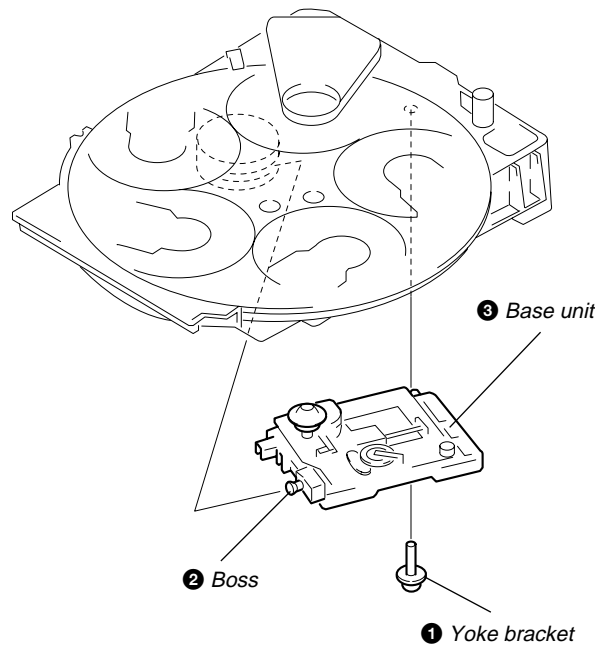
3-5. CD LID ASSEMBLY



3-6. CD MECHANISM DECK



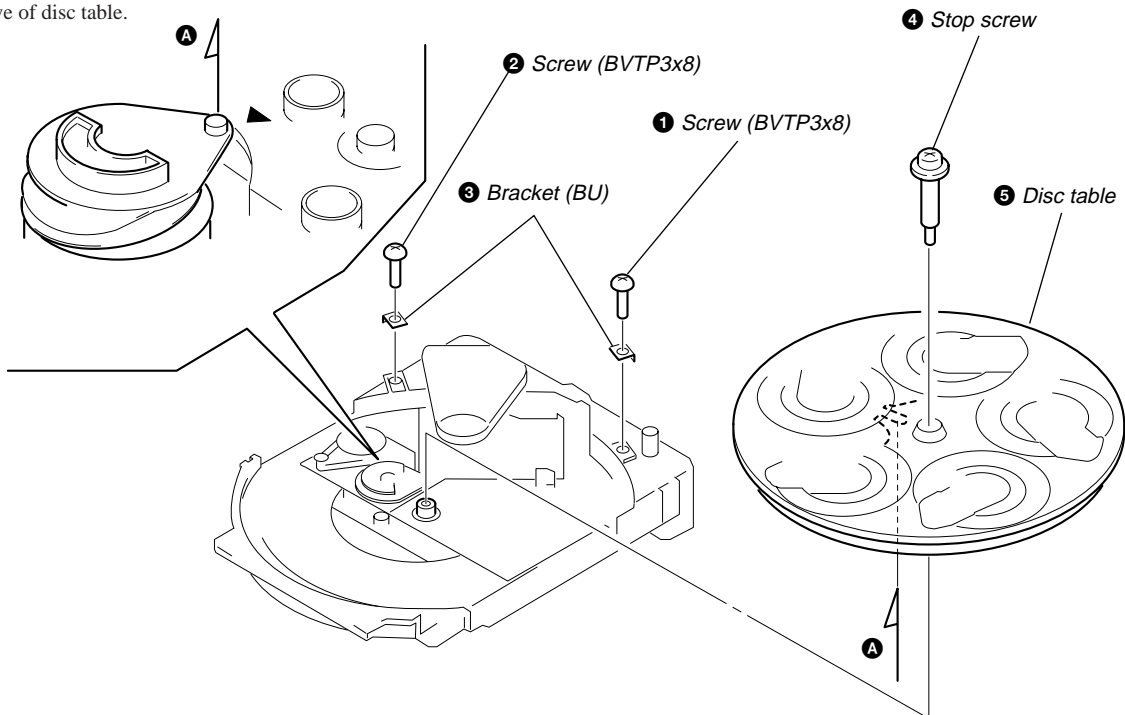
3-7. BASE UNIT



3-8. DISC TABLE

Note:

When the disc table is installed, adjust the positions of roller cam and mark ▶ as shown in the figure, then set to the groove of disc table.



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 reference, the color-bars signal can be observed at J9001 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO (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.

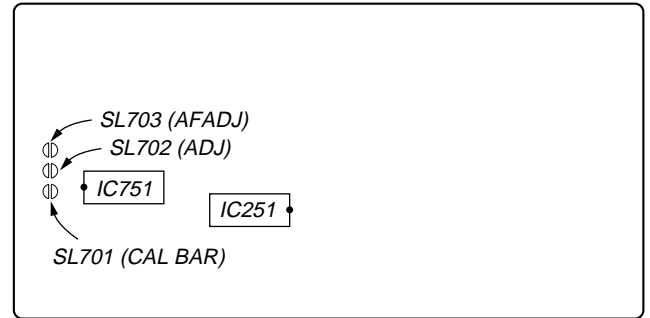
NOTE:

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

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	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 demagnetizer.
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 **SPECTRUM ANALYZER** button, **ENTER** button, and **EFFECT** button simultaneously. (The "VOLUME" on the fluorescent display tube will blink while in the test mode.)

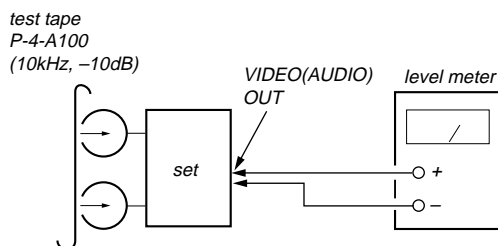
To exit the test mode, press the **POWER** button.

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

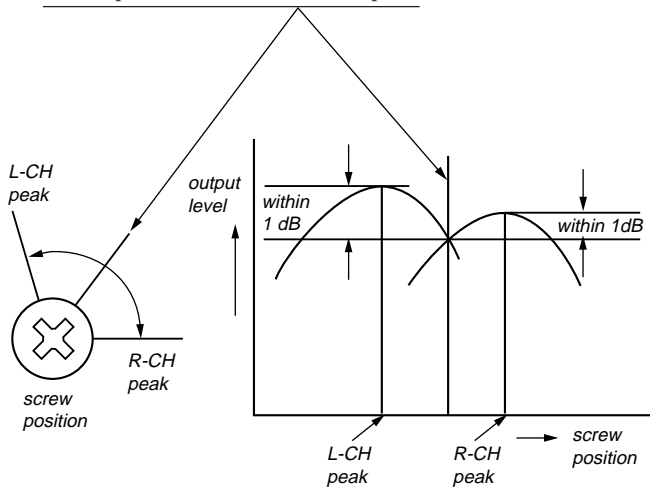
Note: Perform this adjustments for both decks.

Procedure:

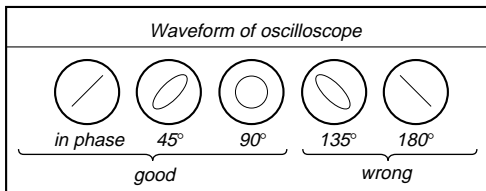
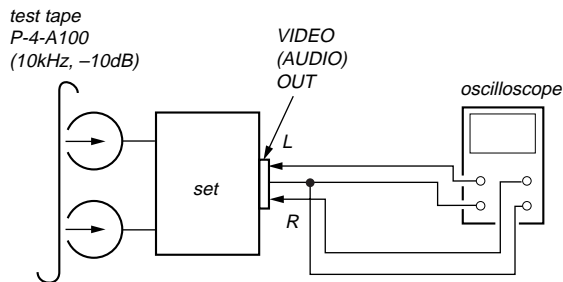
1. Mode : Playback



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

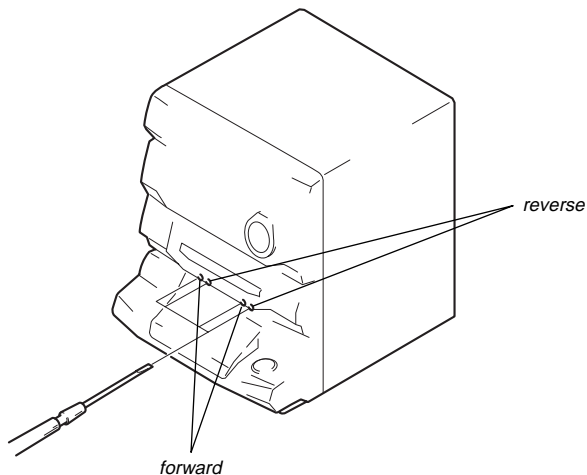


- Mode: Playback



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

Adjustment Location: 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 [H SPEED DUB] button is pressed.

Procedure :

With the power turned ON, press the [SPECTRUM ANALYZER] button, [ENTER] button, and [EFFECT] 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.

- Load WS-48B into deck A and a recordable tape into deck B.
- Press the [REC] button, and press the [] button of deck B to set deck B into the recording state.
- Play deck A.
- While pressing the [H SPEED DUB] button, set double speed play.
- Adjust RV652 of the AUDIO board so that the reading of the frequency counter becomes 6000 ± 90 Hz.
- Release the [H SPEED DUB] button to set normal speed play.
- Adjust RV651 of the AUDIO board so that the reading of the frequency counter becomes 3000 ± 90 Hz.

Adjustment Location: AUDIO board

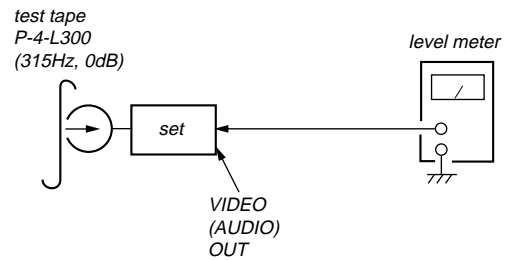
Sample Value of Wow and flutter

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:

CN403 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)

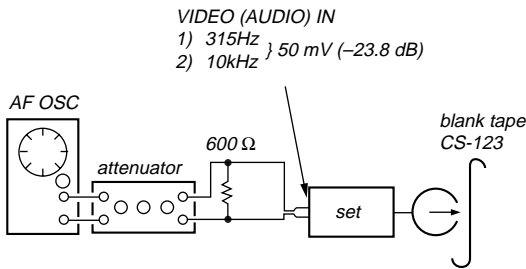
Procedure:

INTRODUCTION

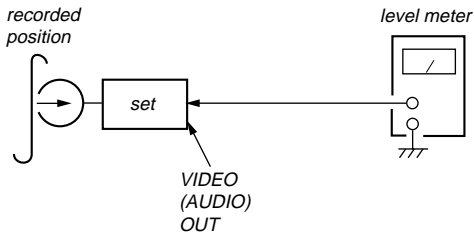
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

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

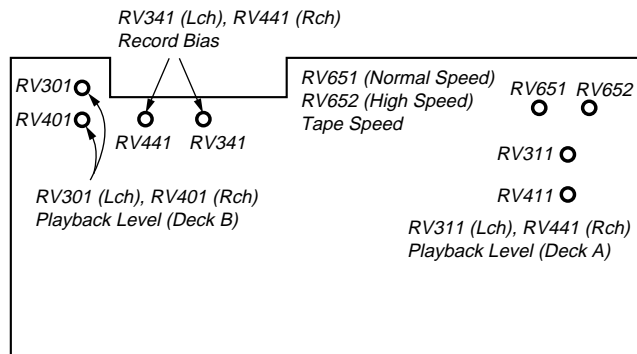


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 3 and 4.

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

Adjustment Location: AUDIO board

Adjustment Location [AUDIO BOARD] (Conductor Side)



Record Level Adjustment (Deck B)

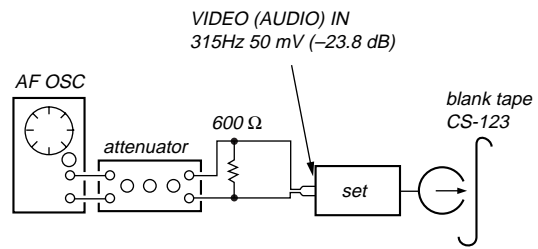
Procedure:

INTRODUCTION

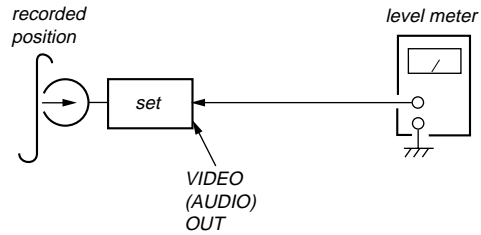
When set to the test mode performed in **Tape Speed Adjustment**, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set.

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

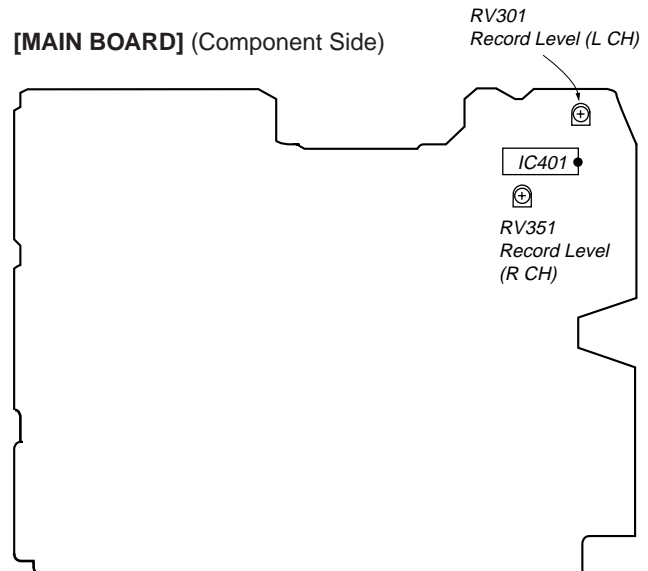


5. Confirm playback the signal recorded in step 2 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 3 and 4.

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

Adjustment Location: MAIN board

[MAIN BOARD] (Component Side)

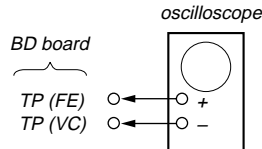


CD SECTION

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 $10M\Omega$ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

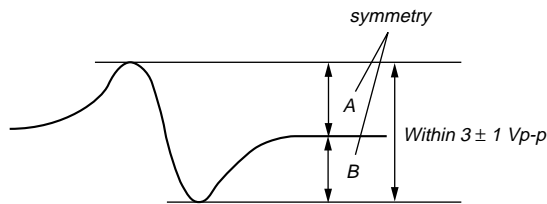
S Curve Check



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

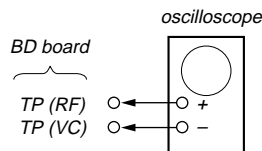


6. After check, remove the lead wire connected in step 2.

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

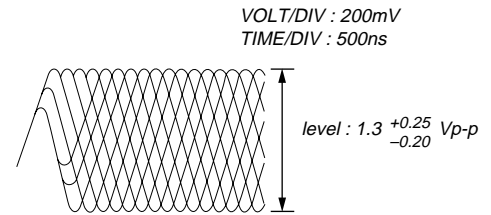


Procedure :

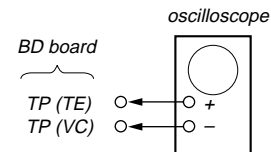
1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : A clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.

RF signal waveform



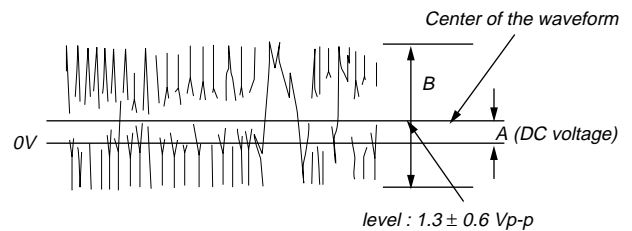
E-F Balance (Traverse) Check



Procedure :

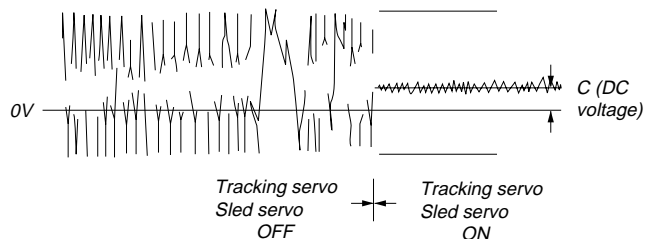
1. Connect oscilloscope to test point TP (TE) on BD board.
2. Connect the lead wire to both ends of the land of SL702 (ADJ) and SL703 (AFADJ) of the VIDEO board.
3. Turned Power switch on. Press **[FUNCTION]** button to select CD.
4. Short the lead wire.
5. Put disc (YEDS-18) in to play the number five track.
6. Press the **[REPEAT]** button. (The tracking servo and the sledding servo are turned OFF.)
7. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
Confirm the following :
 $A/B \times 100 = \text{less than } \pm 22\%$

Traverse waveform



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.

Traverse waveform

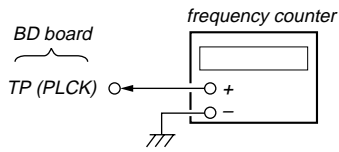


9. Remove the lead wire connected step 1.

RF PLL Free-run Frequency Check

Procedure :

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

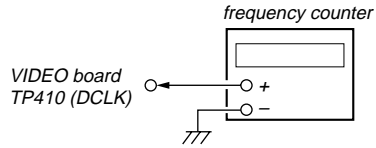


2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track.
Confirm that reading on frequency counter is 4.3218MHz.

VIDEO SECTION

Frequency adjustment

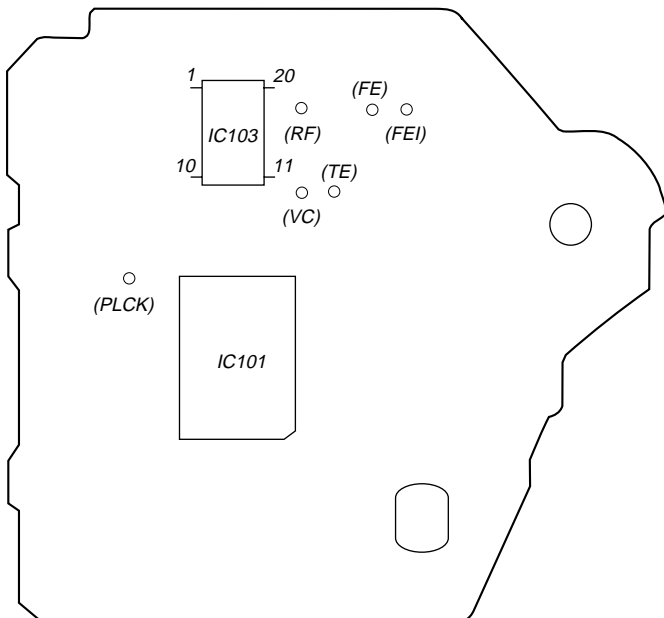
1. Connect the frequency counter to check point of the VIDEO board.



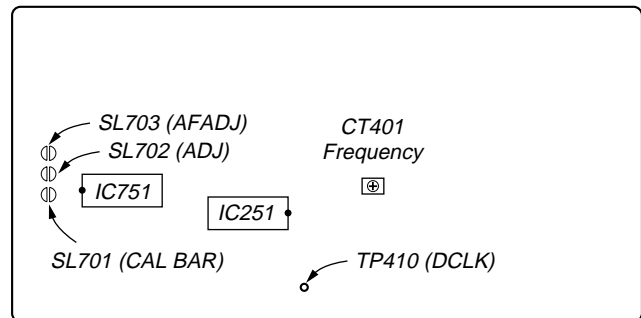
2. Adjust CT401 of the VIDEO board so that the frequency counter read $13.5\text{MHz} \pm 40\text{Hz}$ at STOP condition.

Adjustment Location :

[BD BOARD] — SIDE A —

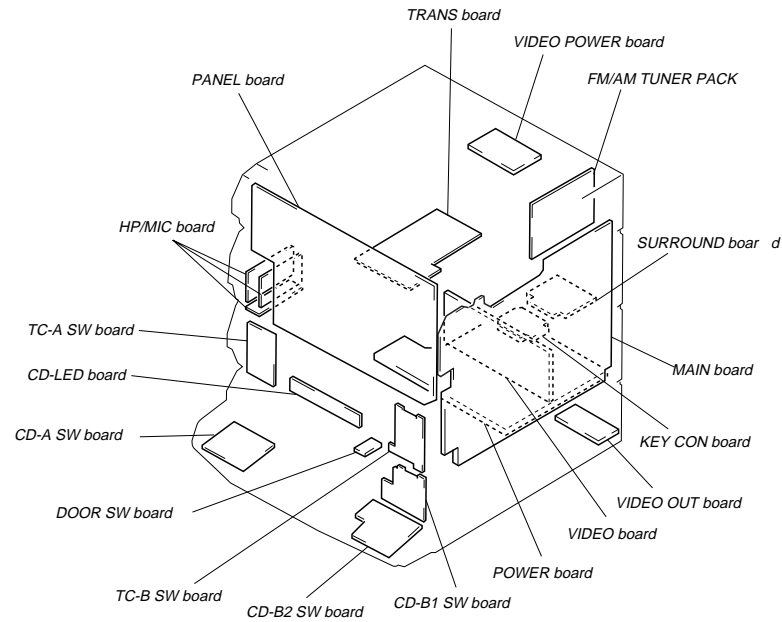


[VIDEO BOARD] — SIDE B —

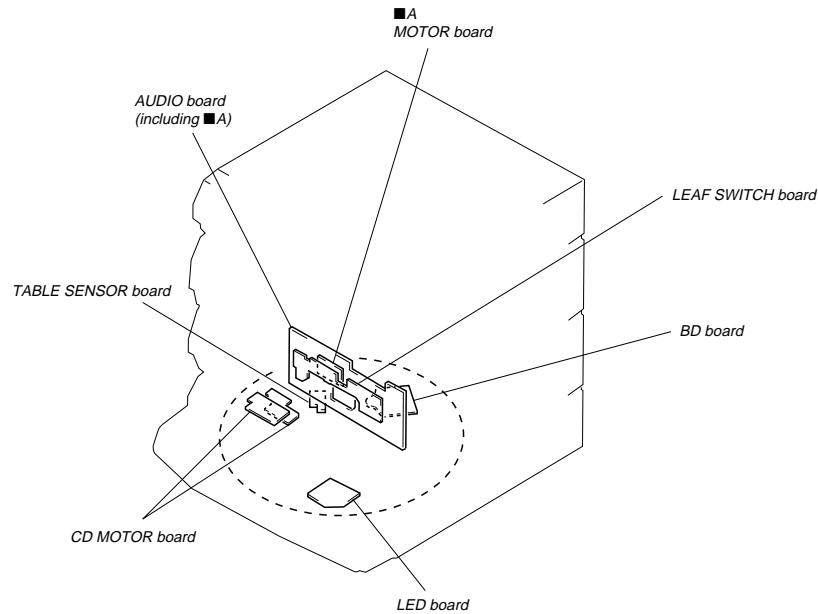


**SECTION 7
DIAGRAMS**

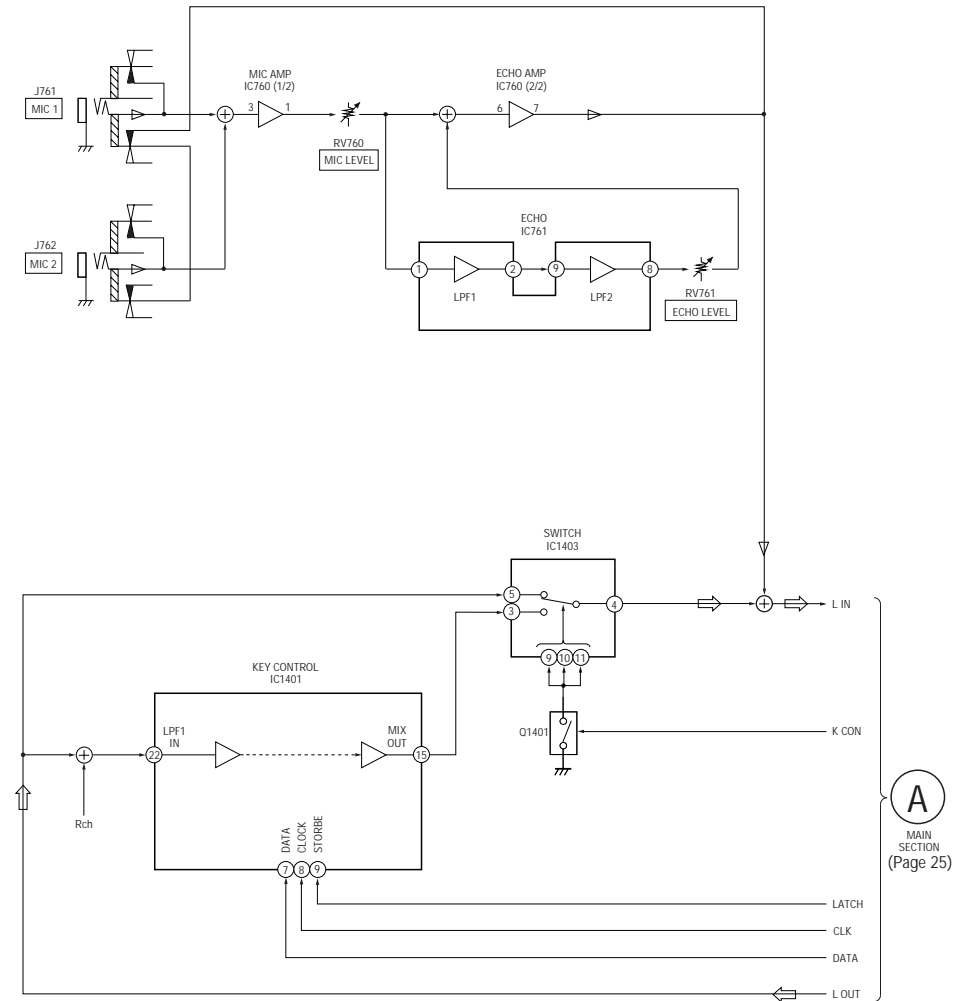
7-1. CIRCUIT BOARDS LOCATION



Note: ■A is including in AUDIO board.



**7-2. BLOCK DIAGRAMS
— KEY CON SECTION —**

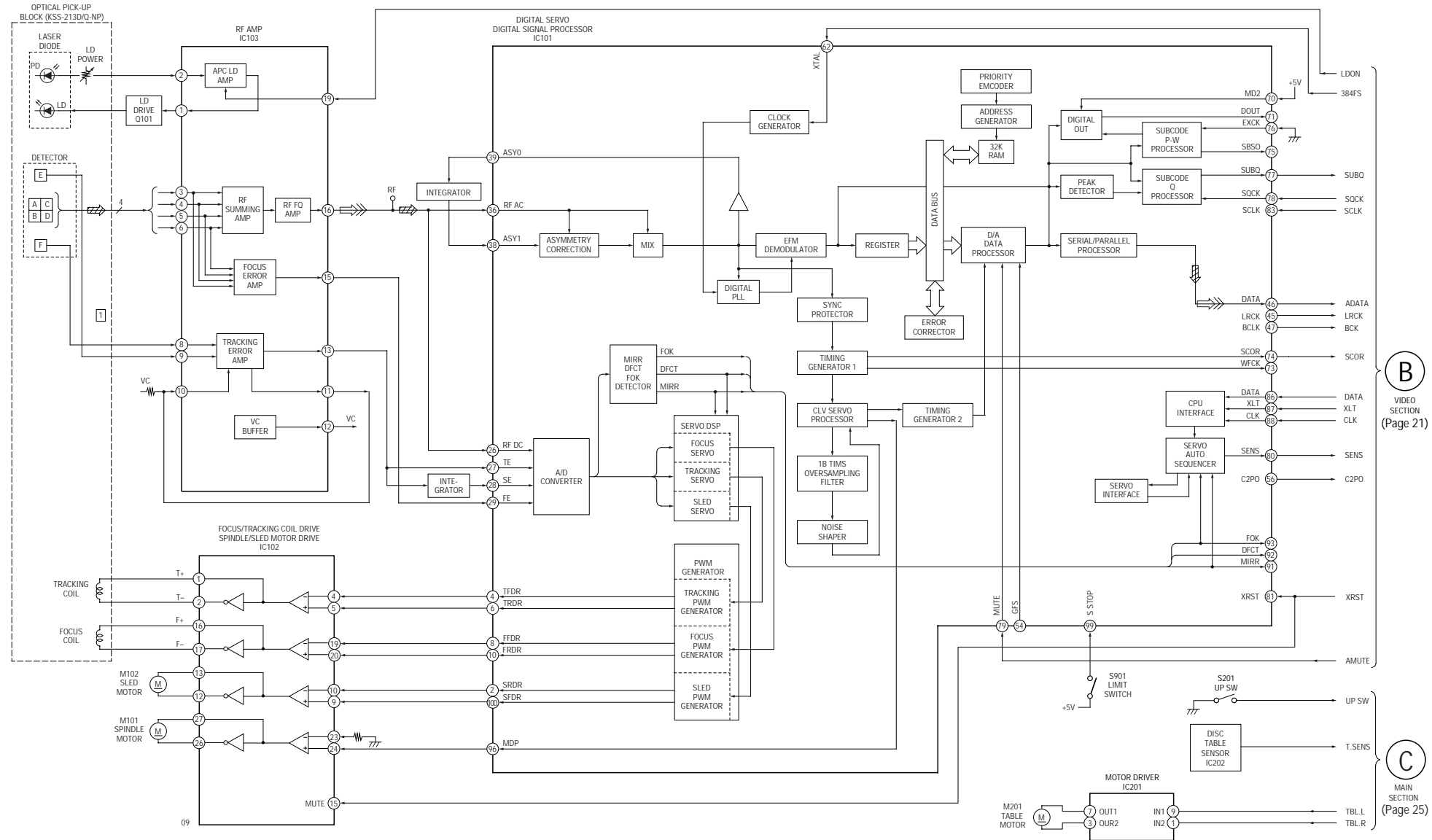


09

- R CH : Same as Lch
- Signal path
- : FM
- △ : MIC

A
MAIN SECTION
(Page 25)

— CD SECTION —

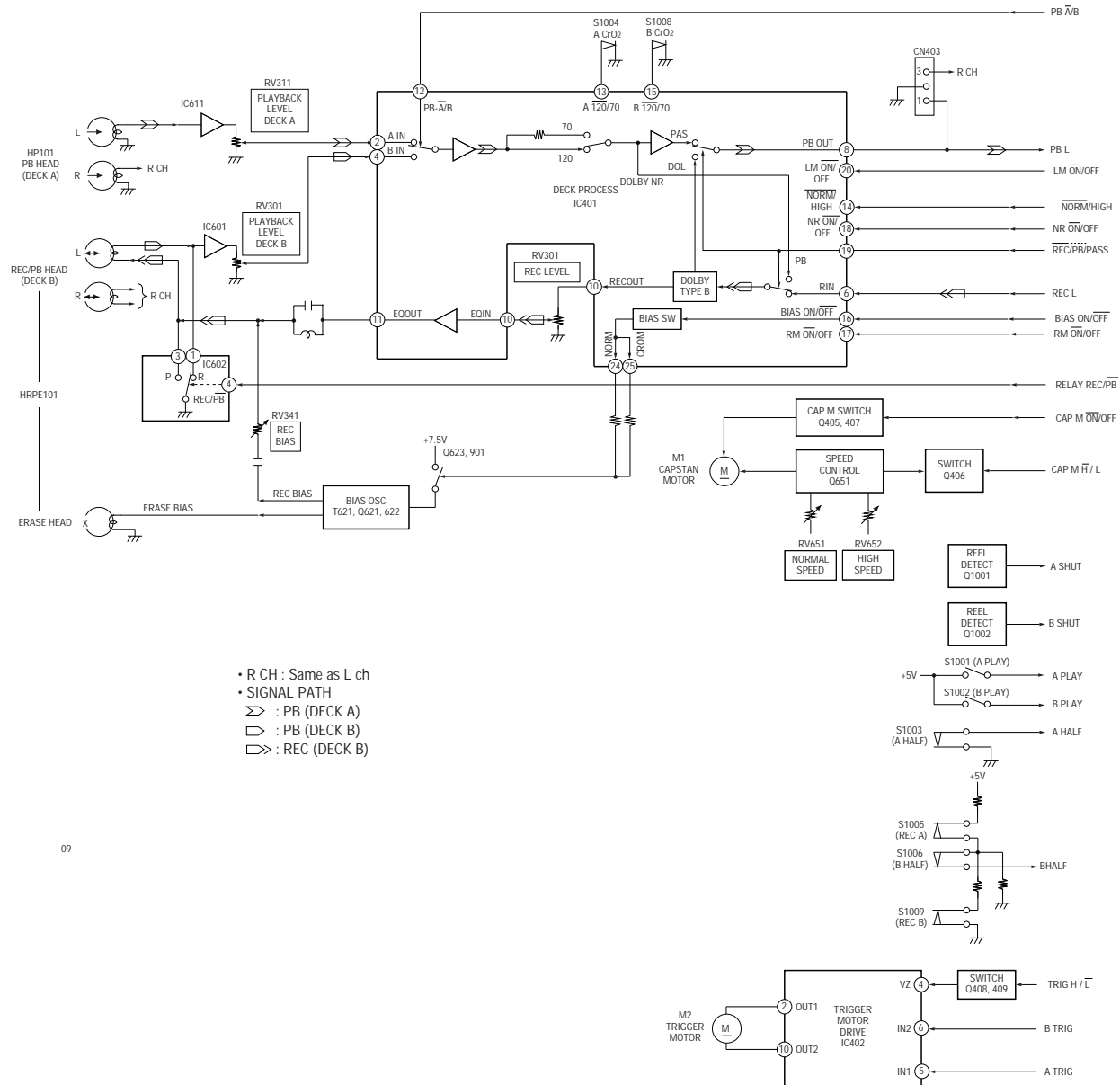


B
VIDEO SECTION
(Page 21)

C
MAIN SECTION
(Page 25)

- R CH: Same as L ch
- SIGNAL PATH
- ▬▬▬ : CD
- ▬▬▬▬ : VIDEO

— 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 —

KEY CON SECTION
(A)
(Page 18)

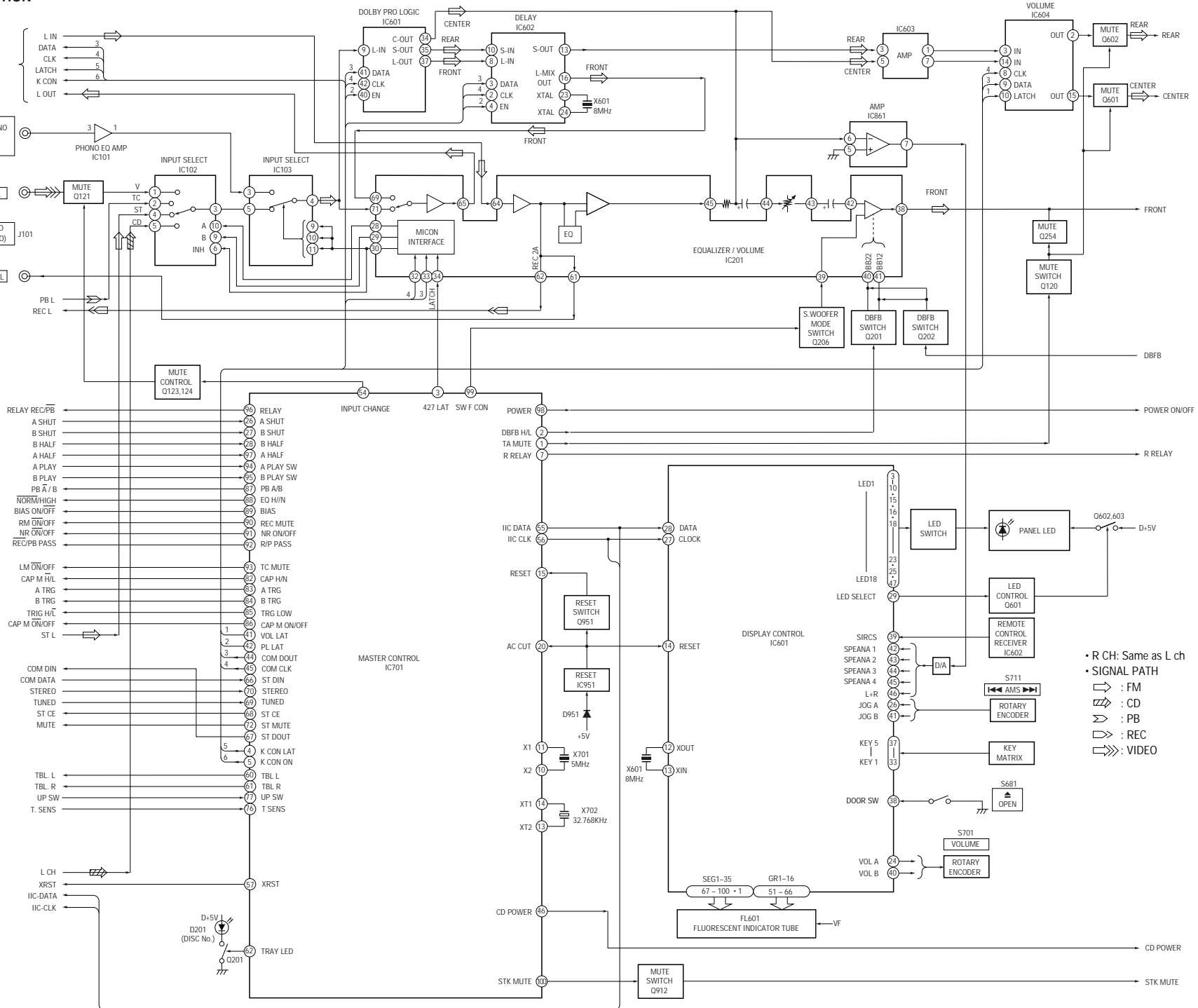
PHONO IN L
VIDEO (AUDIO) J101
OUT L

(E)
DECK SECTION
(Page 24)

FM/AM TUNER PACK ENCAPSULATED COMPONENT

(C)
CD SECTION
(Page 20)

(D)
VIDEO SECTION
(Page 22)

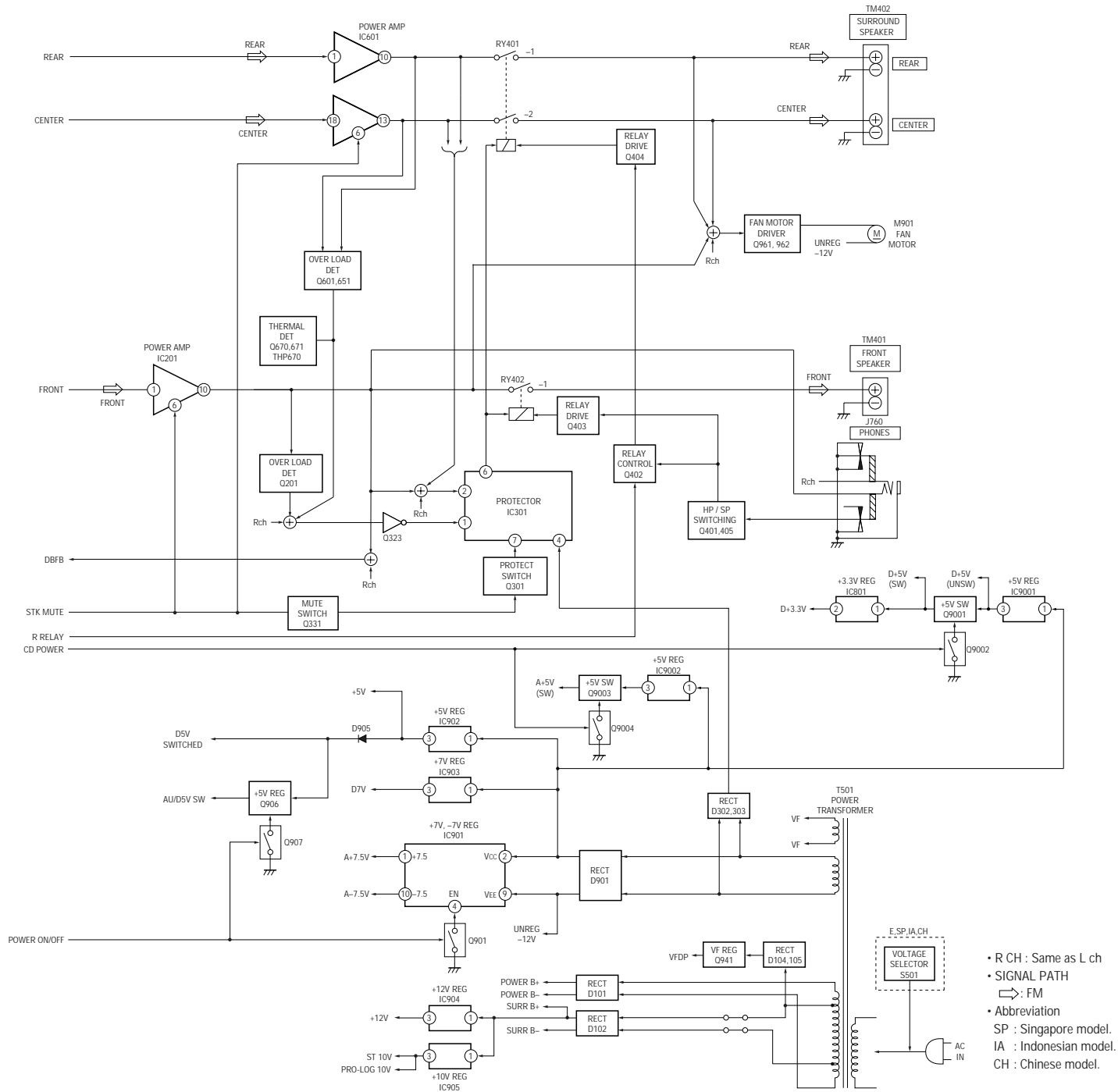


(F)
POWER SECTION
(Page 27)

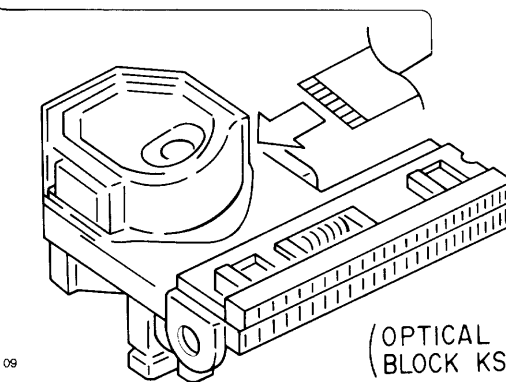
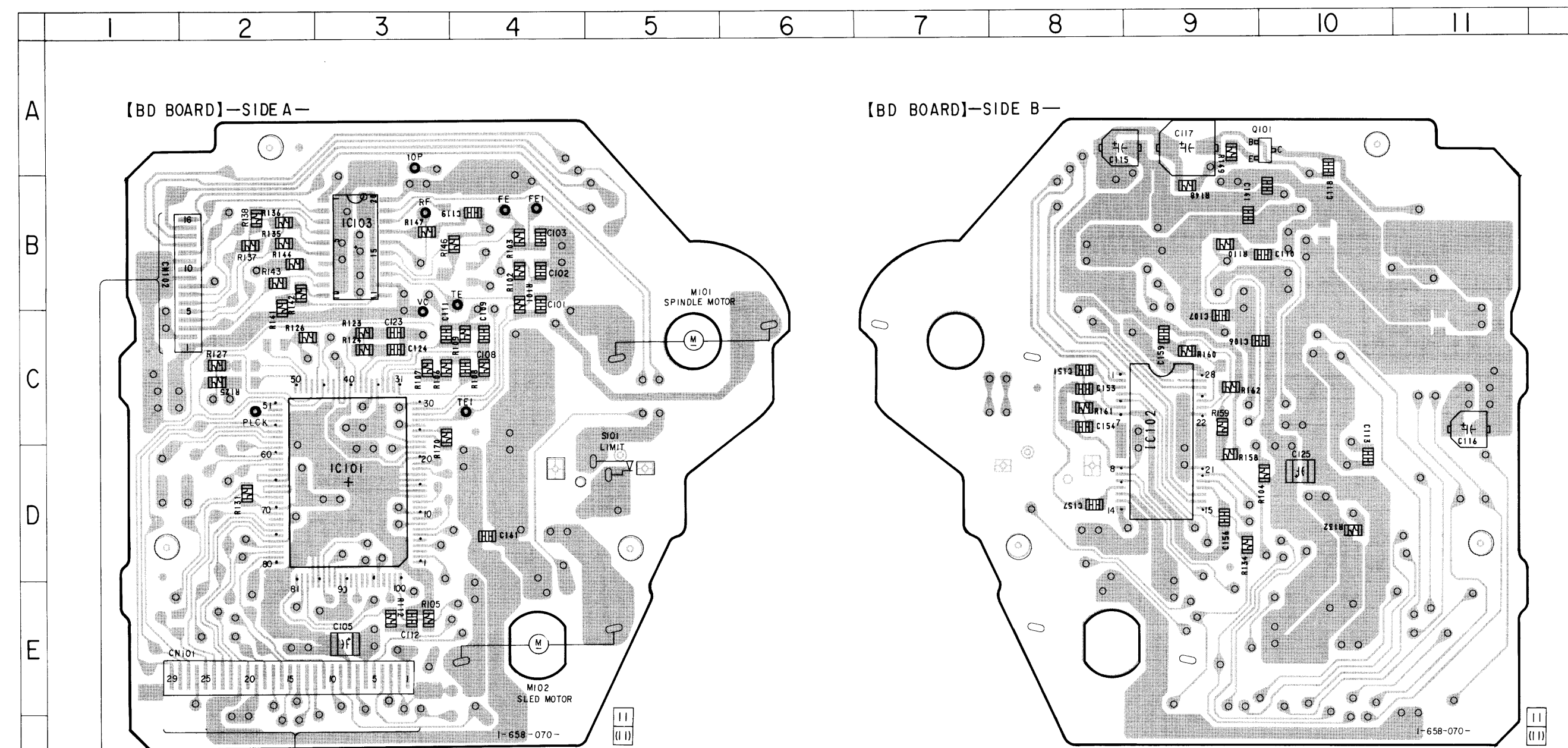
- R CH: Same as L ch
- SIGNAL PATH
- : FM
- ⇄ : CD
- ⇄ : PB
- ⇄ : REC
- ⇄ : VIDEO

— POWER SECTION —

F
MAIN SECTION
(Page 26)



7-3. PRINTED WIRING BOARD — CD SECTION —
• See page 17 for Circuit Boards Location.



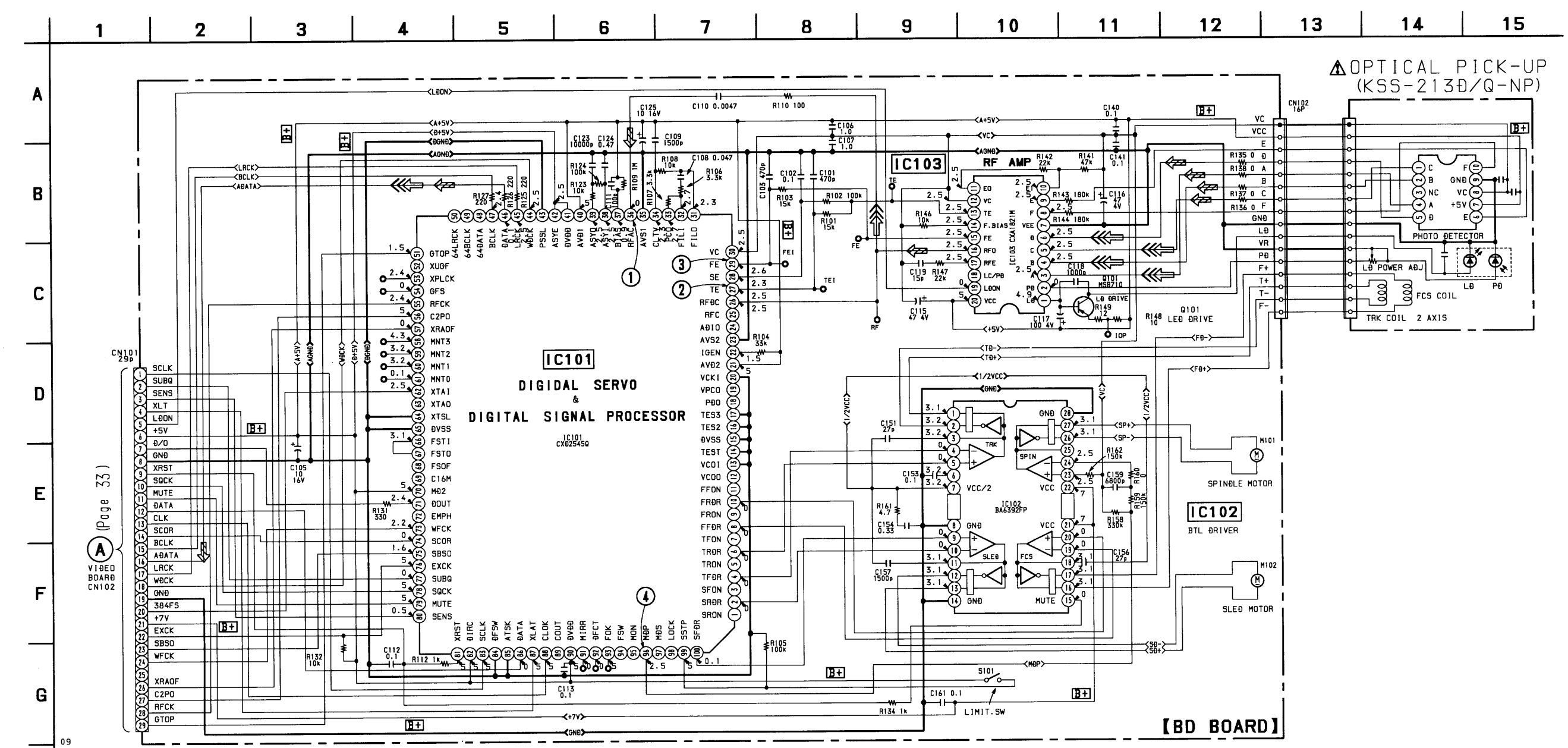
(OPTICAL PICK-UP BLOCK KSS-213D/Q-NP)

• 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

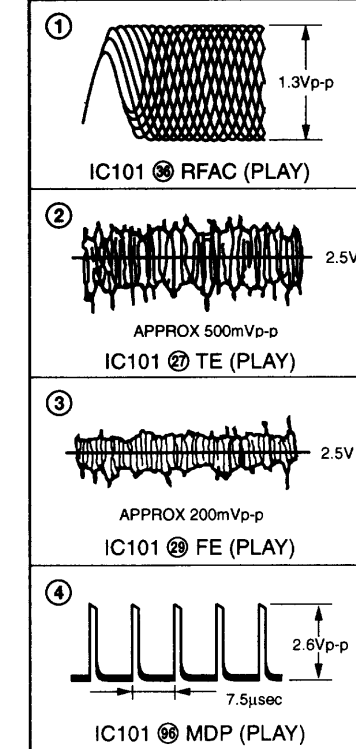
- All capacitors are in μF unless otherwise noted; pF: μF 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

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

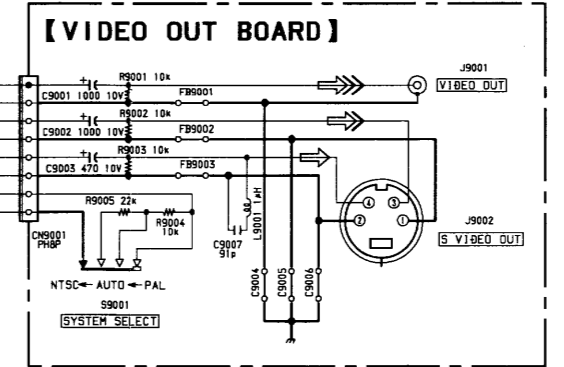
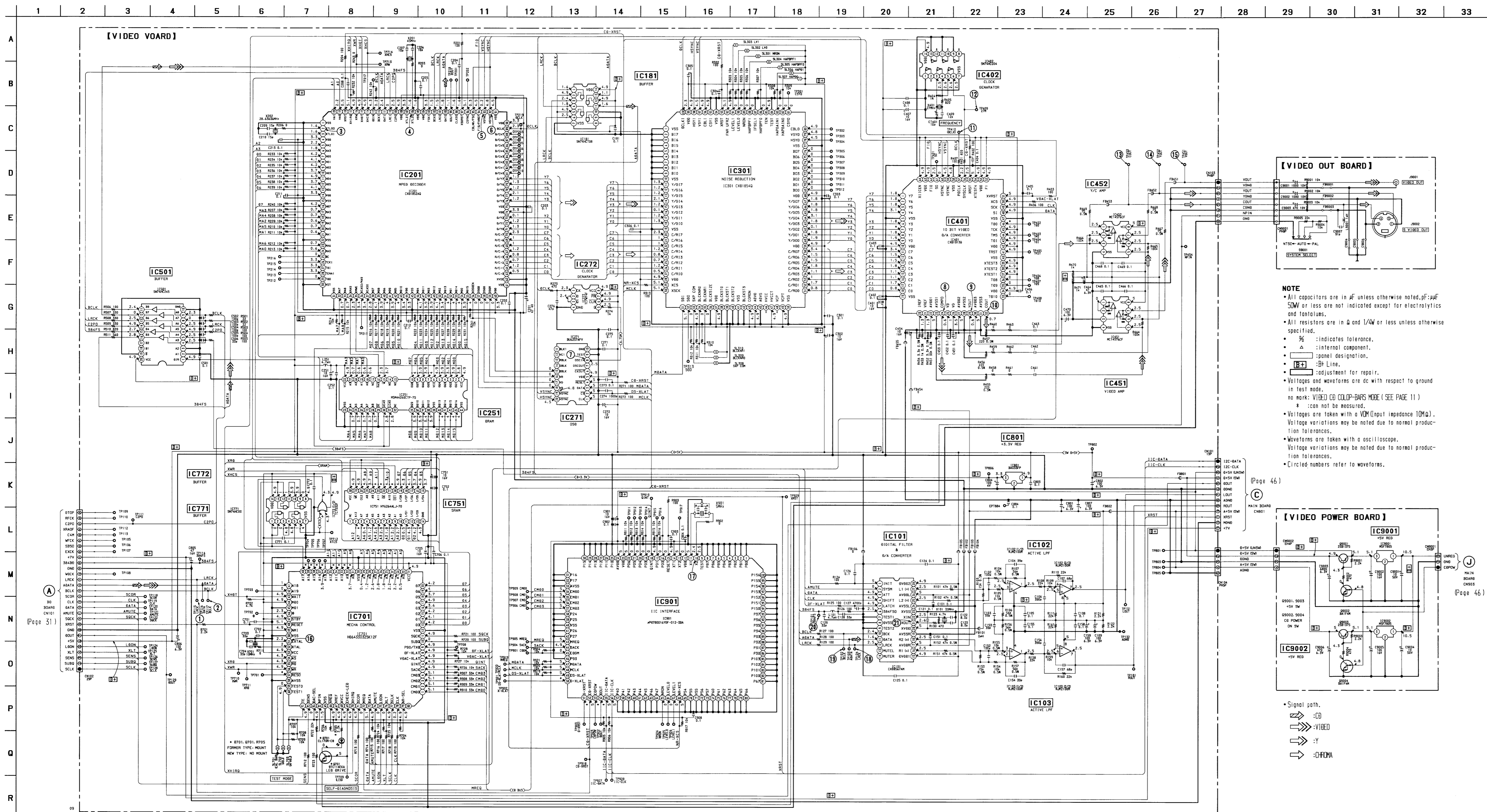
• [B+] : B+ Line.

• Signal path.
 ⇨ : CB
 ⇨⇨ : VIDEO

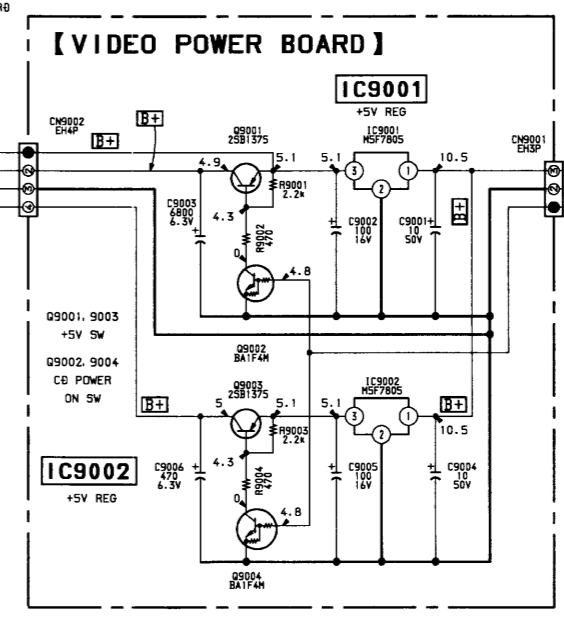
• Waveforms



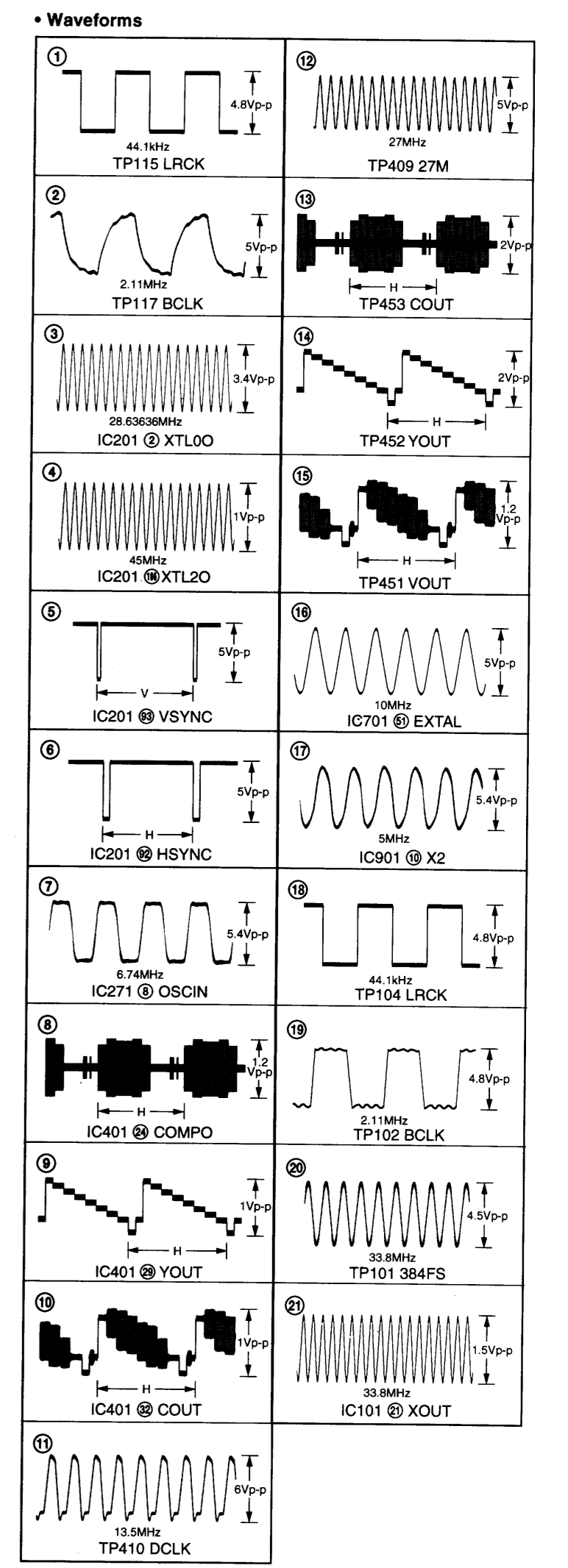
7-5. SCHEMATIC DIAGRAM — VIDEO SECTION —
• See page 74 for IC Block Diagrams.
• See page 82 for IC Pin Functions.



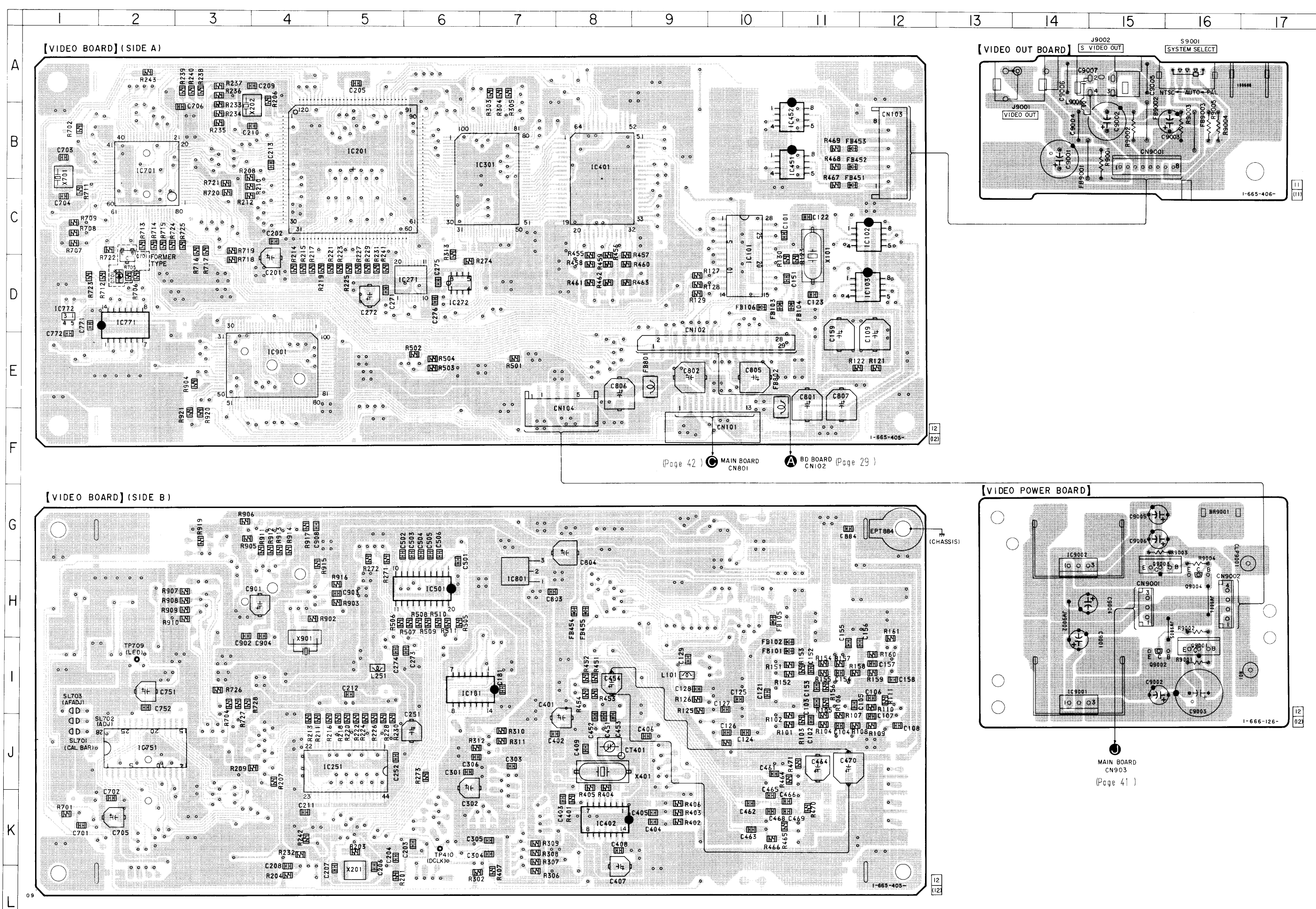
NOTE
 • All capacitors are in μF unless otherwise noted; pF = pF.
 • 50W or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 • Δ indicates tolerance.
 • \triangle internal component.
 • \square panel designation.
 • $\text{---} \text{---}$ \oplus Line.
 • $\text{---} \text{---}$ adjustment for repair.
 • Voltages and waveforms are dc with respect to ground in test mode.
 • no mark: VIDEO CD COLOP-BARS MODE (SEE PAGE 11)
 • * can not be measured.
 • Voltages are taken with a VOM (input impedance 10M Ω).
 • Voltage variations may be noted due to normal production tolerances.
 • Waveforms are taken with an oscilloscope.
 • Voltage variations may be noted due to normal production tolerances.
 • Circled numbers refer to waveforms.



• Signal path.
 \Rightarrow : CD
 \Rightarrow : Y
 \Rightarrow : CHROMA



7-6. PRINTED WIRING BOARD — VIDEO SECTION —
 • See page 17 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D701	D-2
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
Q701	D-2
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] : Pattern from the side which enable seeing.
 (The other layer's patterns are not indicated.)

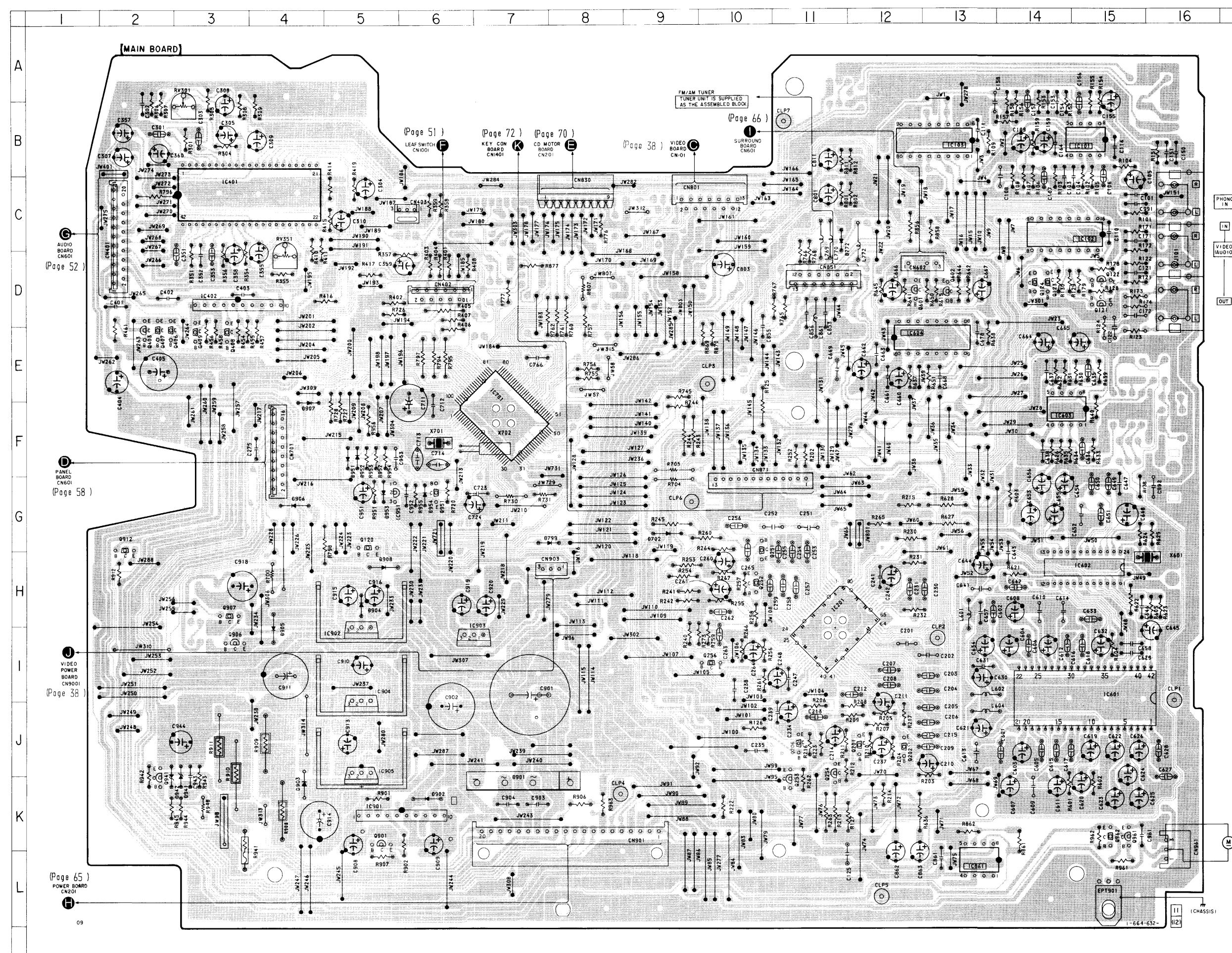
7-7. PRINTED WIRING BOARD — MAIN SECTION —
 • See page 17 for Circuit Boards Location.

• 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	F-3
Q409	F-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

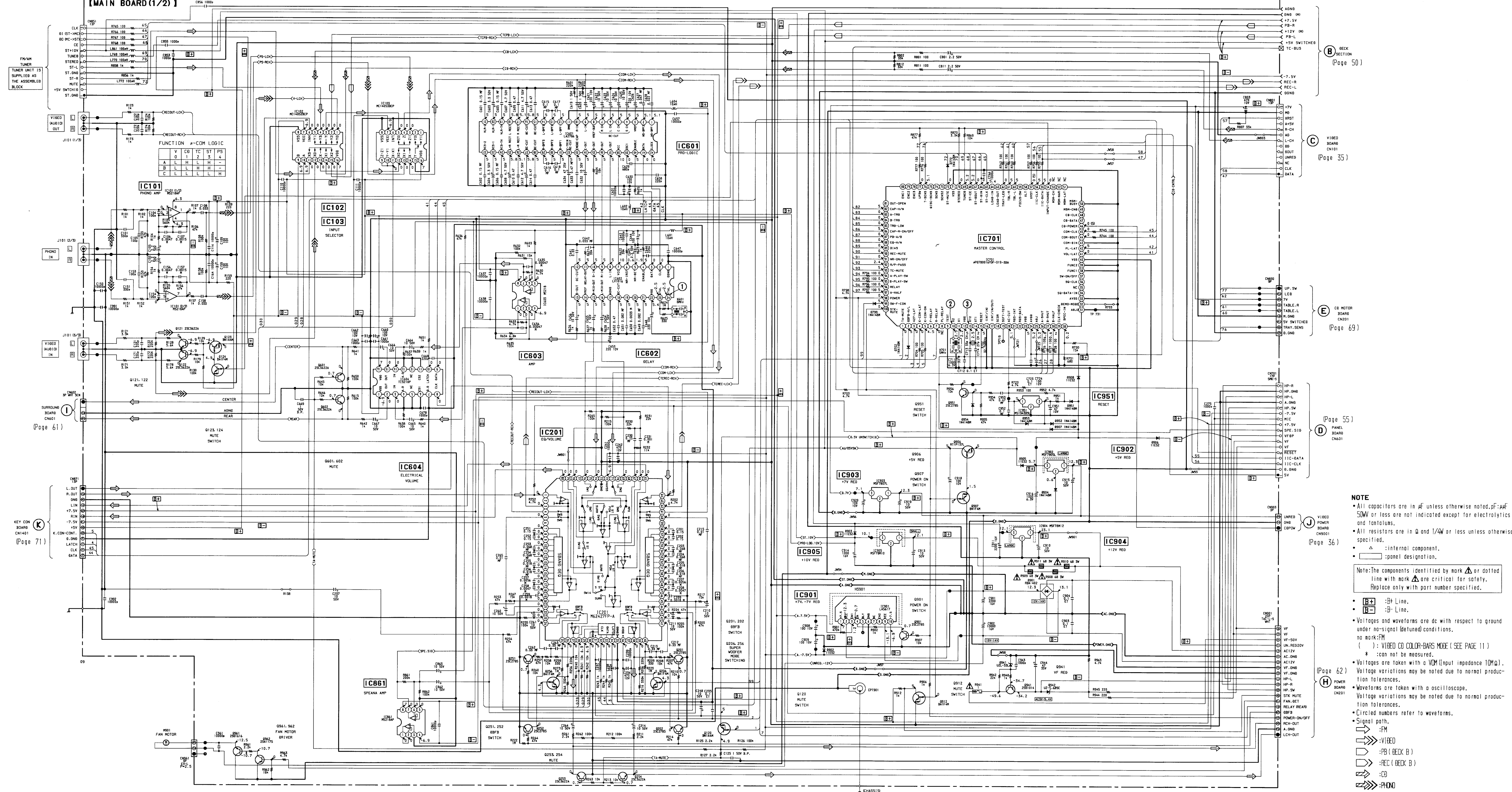
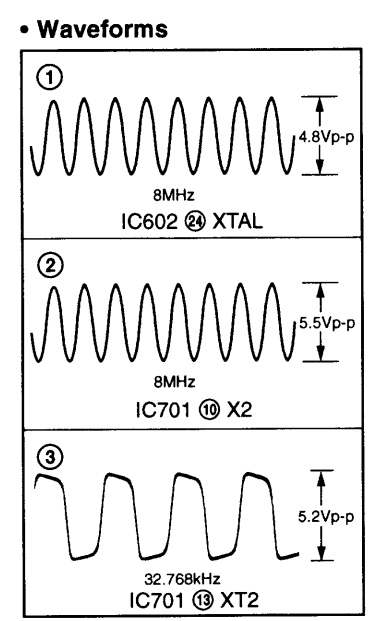
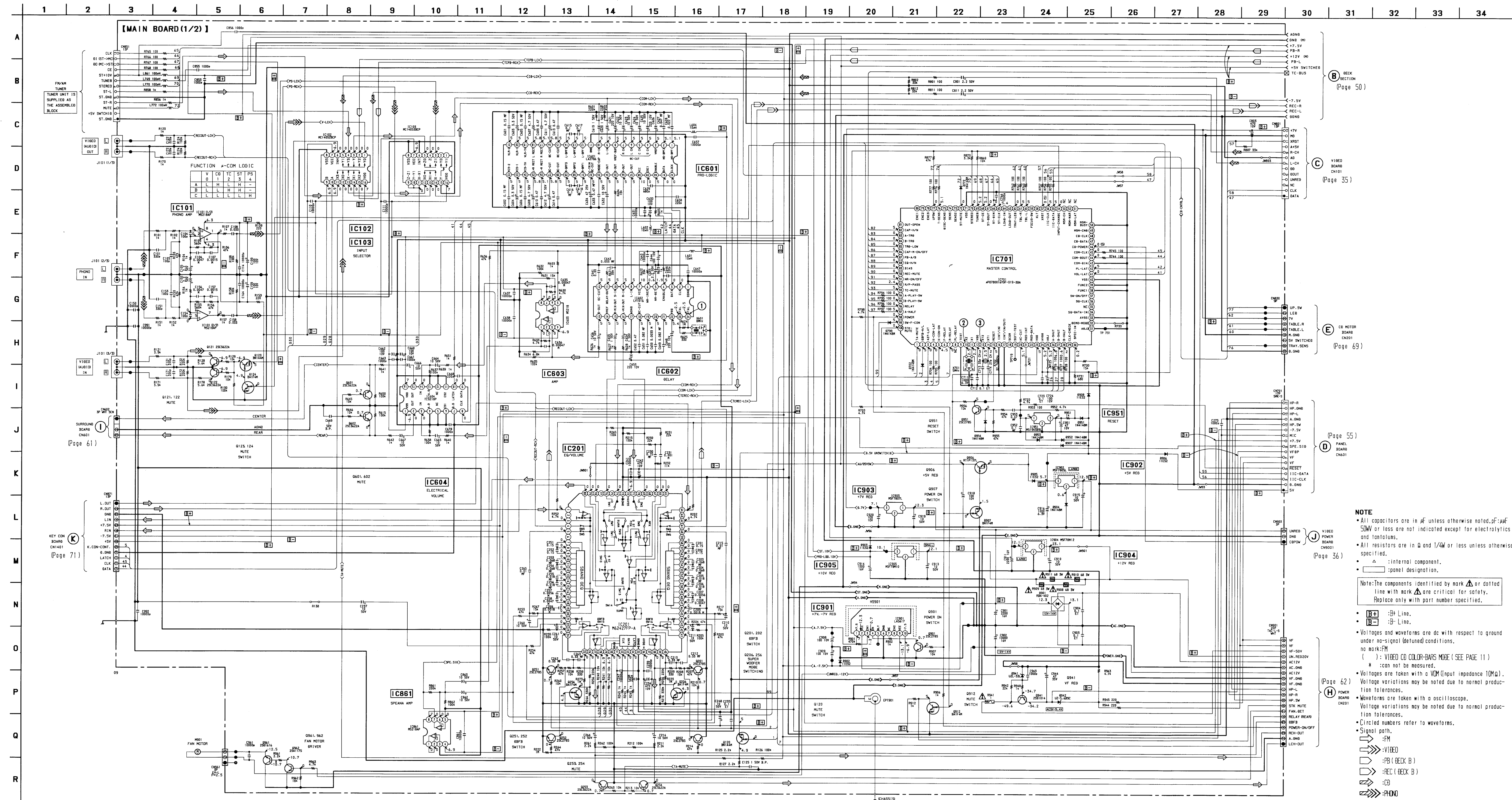
Note:

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



7-8. SCHEMATIC DIAGRAM — MAIN SECTION —

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



BECK SECTION (Page 50)

VIBED BOARD CN101 (Page 35)

CR MOTOR BOARD CN201 (Page 69)

PANEL BOARD CN401 (Page 55)

VIBED BOARD CN501 (Page 36)

POWER BOARD CN601 (Page 62)

BOARD CN201 (Page 62)

NOTE

- All capacitors are in μF unless otherwise noted; pF: pF
- 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/W$ or less unless otherwise specified.
- \square : internal component.
- Δ : panel designation.

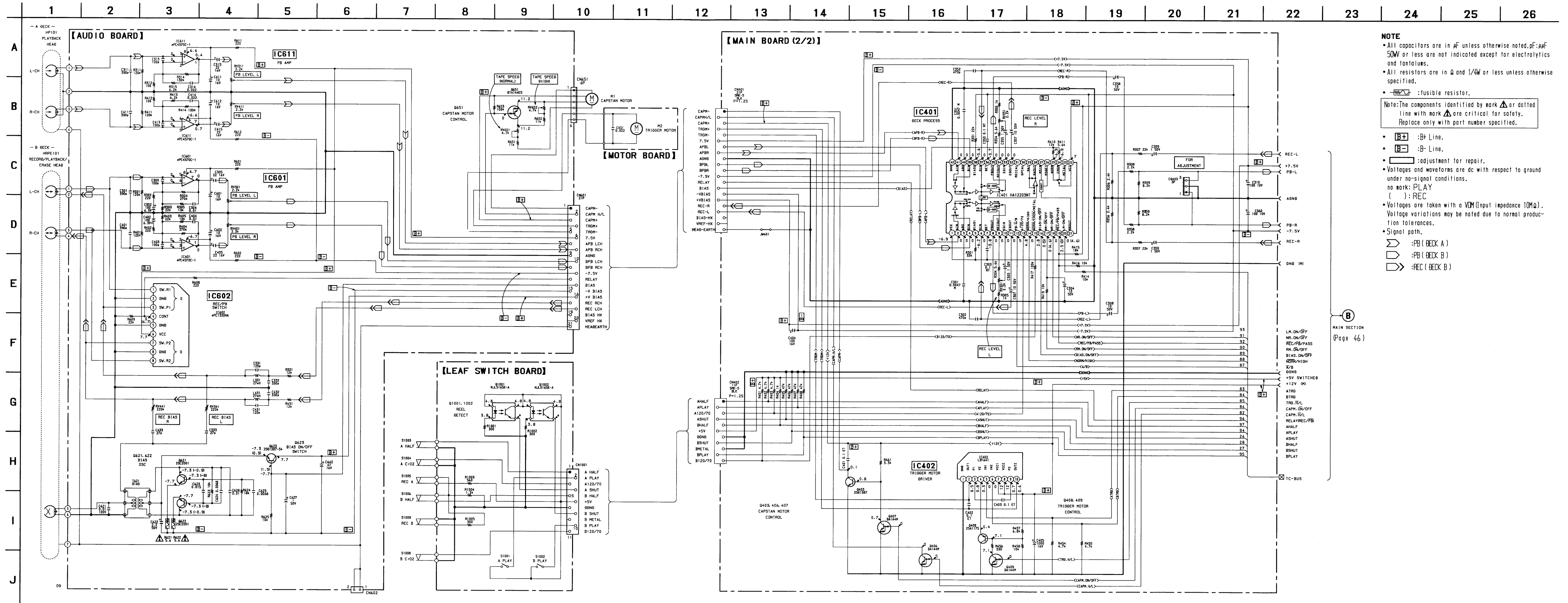
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- \square : B+ Line.
- \square : B- Line.

- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- (): VIBED CB COLOR-BARS MODE (SEE PAGE 11)
- * : can not be measured.
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
- Circled numbers refer to waveforms.
- \rightarrow : FM
- \rightarrow : VIBED
- \rightarrow : FB (BECK B)
- \rightarrow : REC (BECK B)
- \rightarrow : CD
- \rightarrow : AUDIO

7-9. SCHEMATIC DIAGRAM — DECK SECTION —

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

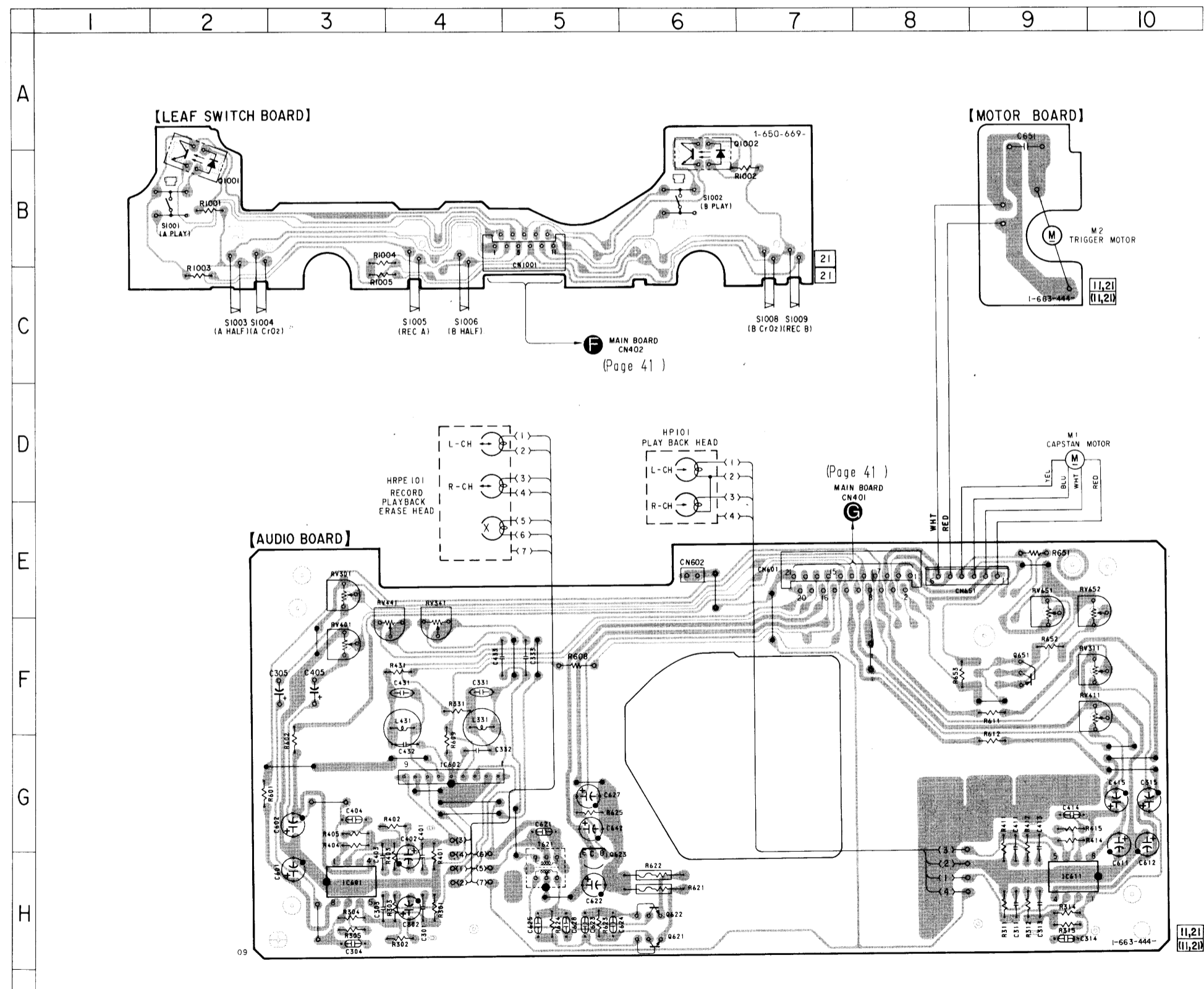


NOTE

- All capacitors are in μF unless otherwise noted, μF : μF , mF : mF , nF : nF , pF : pF .
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- --- : fusible resistor.
- Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.
- --- : B+ Line.
- --- : B- Line.
- --- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- () : REC
- Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- --- : PB (BECK A)
- --- : PB (BECK B)
- --- : REC (BECK B)

(B) MAIN SECTION (Page 46)

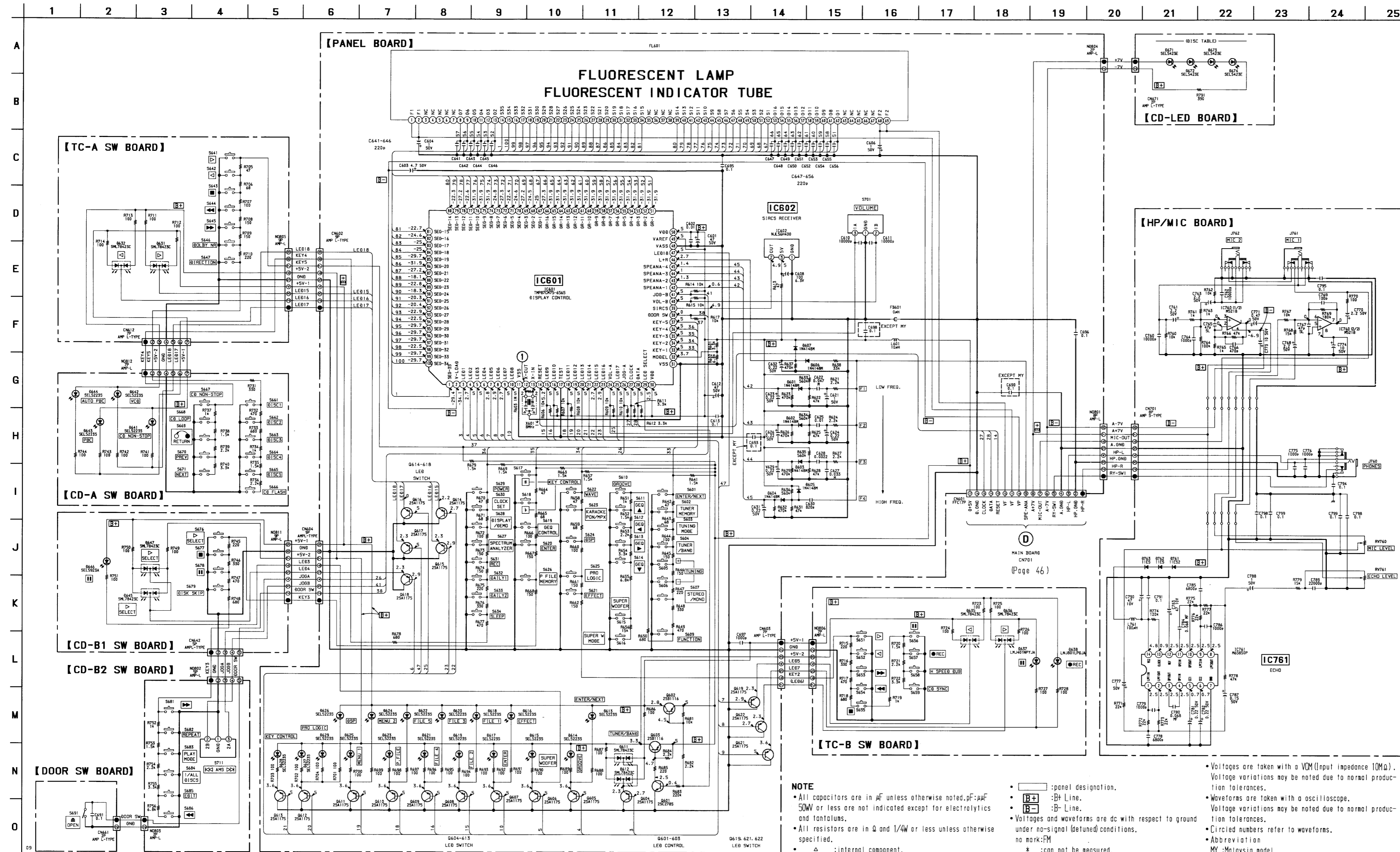
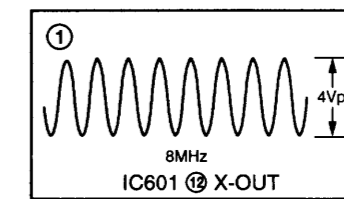
7-10. PRINTED WIRING BOARD — DECK SECTION —
 • See page 17 for Circuit Boards Location.



7-11. SCHEMATIC DIAGRAM — PANEL SECTION —

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

• Waveform



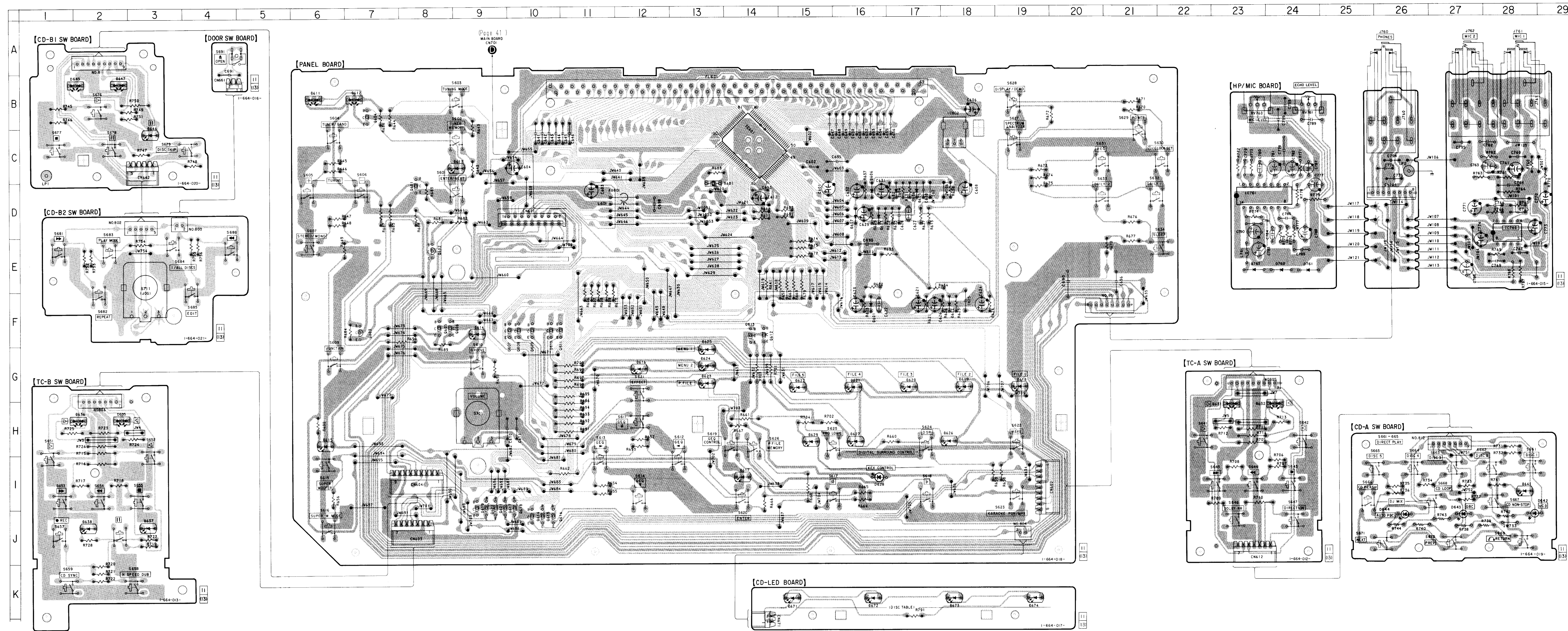
NOTE

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

- \square : panel designation.
- \square : B+ Line.
- \square : 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 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation MY : Malaysia model.

7-12. PRINTED WIRING BOARD — PANEL SECTION —
 • See page 17 for Circuit Boards Location.



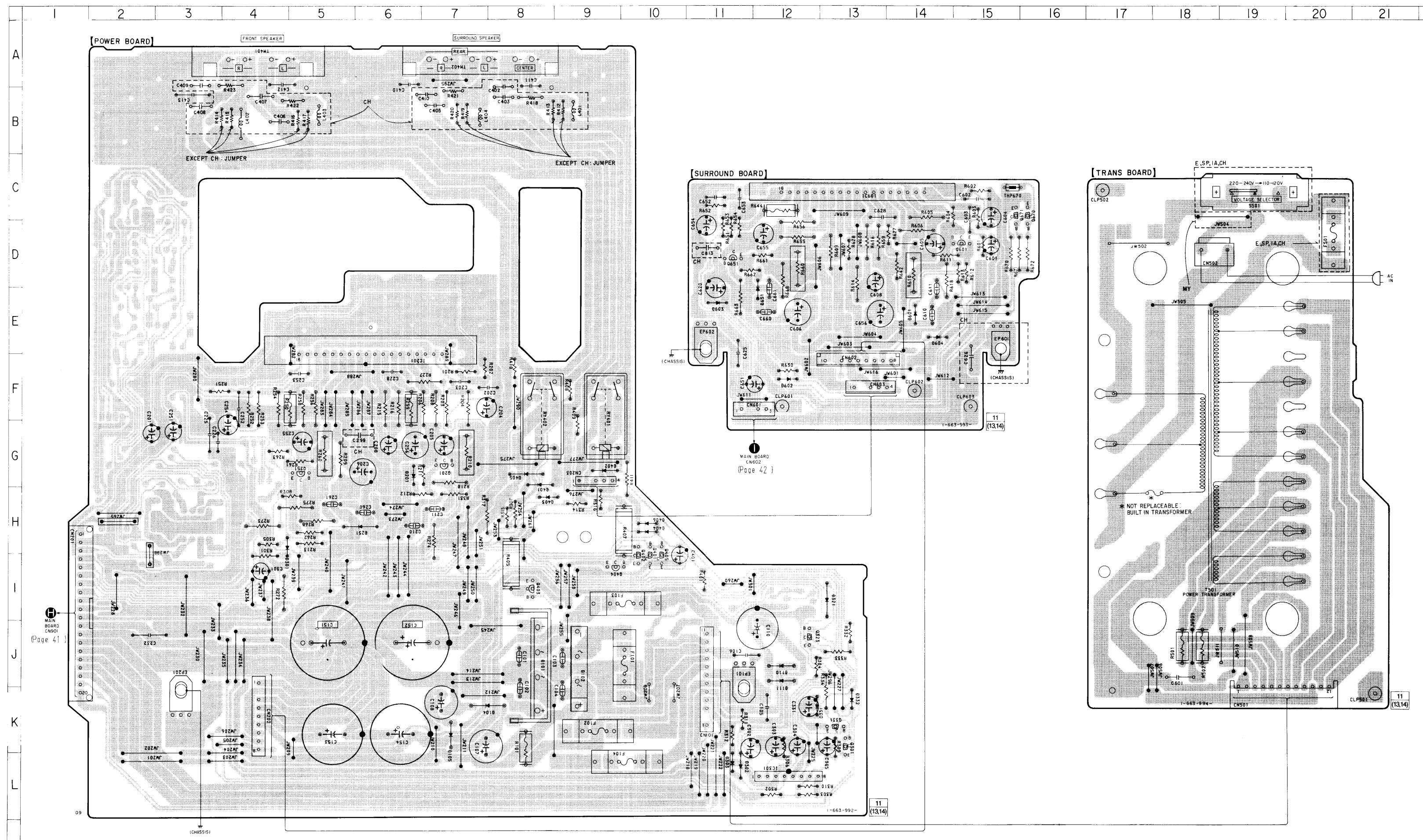
• Semiconductor Location

Ref. No.	Location
D601	F-16
D602	F-18
D603	D-16
D604	D-17
D605	D-17
D606	C-16
D607	D-16
D611	B-6
D612	B-7
D613	C-9
D614	F-9
D615	H-6
D616	G-12
D617	I-14
D618	G-19
D619	G-18
D620	G-17
D621	G-16
D622	G-15
D623	G-13
D624	G-13
D625	G-13
D626	H-18
D627	H-16
D628	I-16
D629	H-15
D631	H-23
D632	H-23
D635	H-2
D636	H-2
D637	J-3
D638	J-2
D641	I-28
D642	J-28
D643	J-27
D644	J-26
D645	B-2
D646	C-3
D647	B-2
D671	K-15
D672	K-16
D673	K-18
D674	K-19
D761	E-24
D762	E-24
D763	E-23
IC601	C-14
IC602	B-18
IC760	D-28
IC761	D-23
Q601	D-7
Q602	E-7
Q603	F-7
Q604	B-7
Q605	F-7
Q606	F-9
Q607	G-10
Q608	G-10
Q609	G-10
Q610	G-10
Q611	G-10
Q612	F-14
Q613	F-14
Q614	J-10
Q615	J-10
Q616	J-10
Q617	J-10
Q618	J-10
Q619	J-9
Q621	J-9
Q622	J-9

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

7-14. PRINTED WIRING BOARD — POWER SECTION —

• See page 17 for Circuit Boards Location.



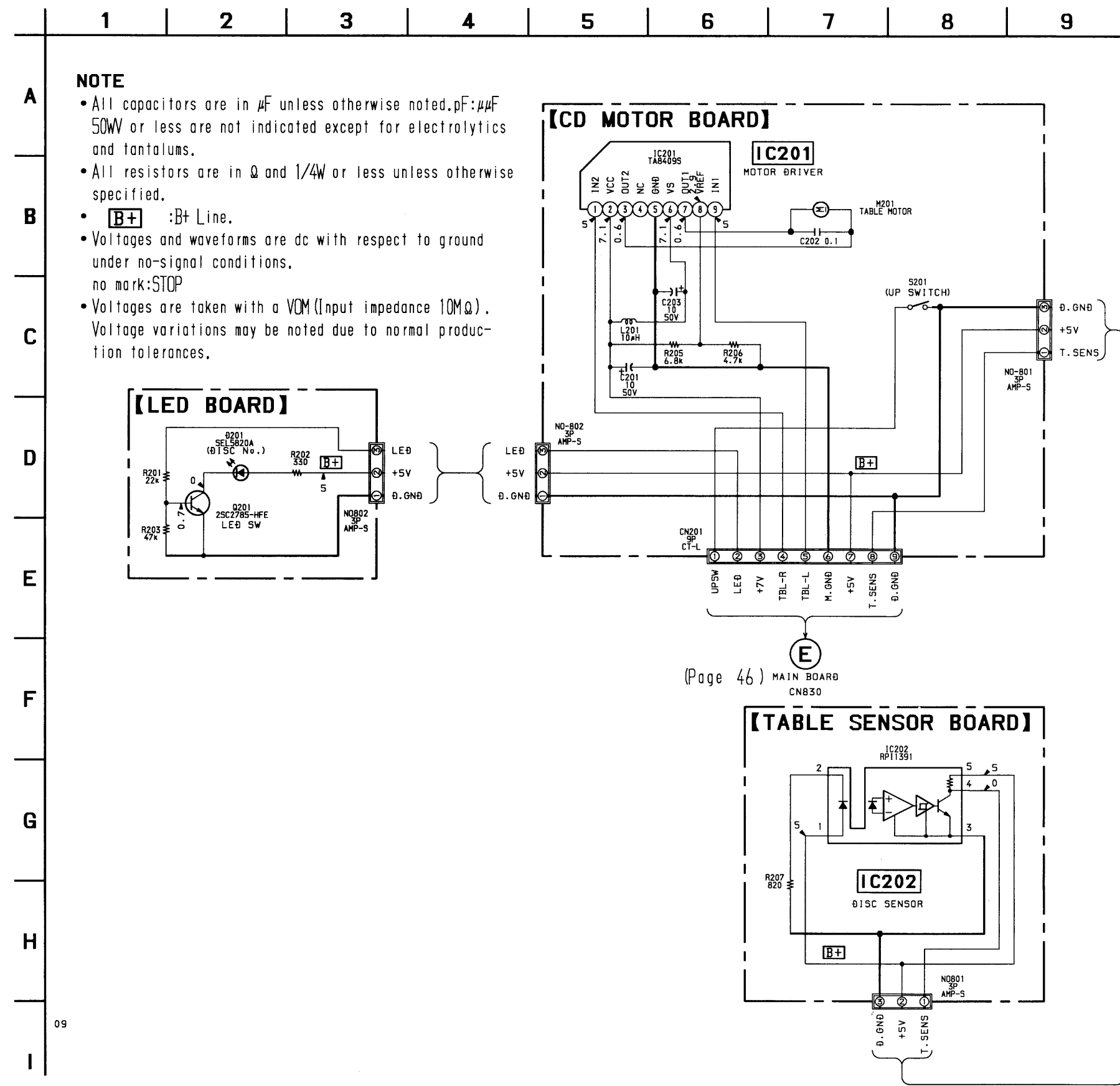
• Semiconductor Location

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

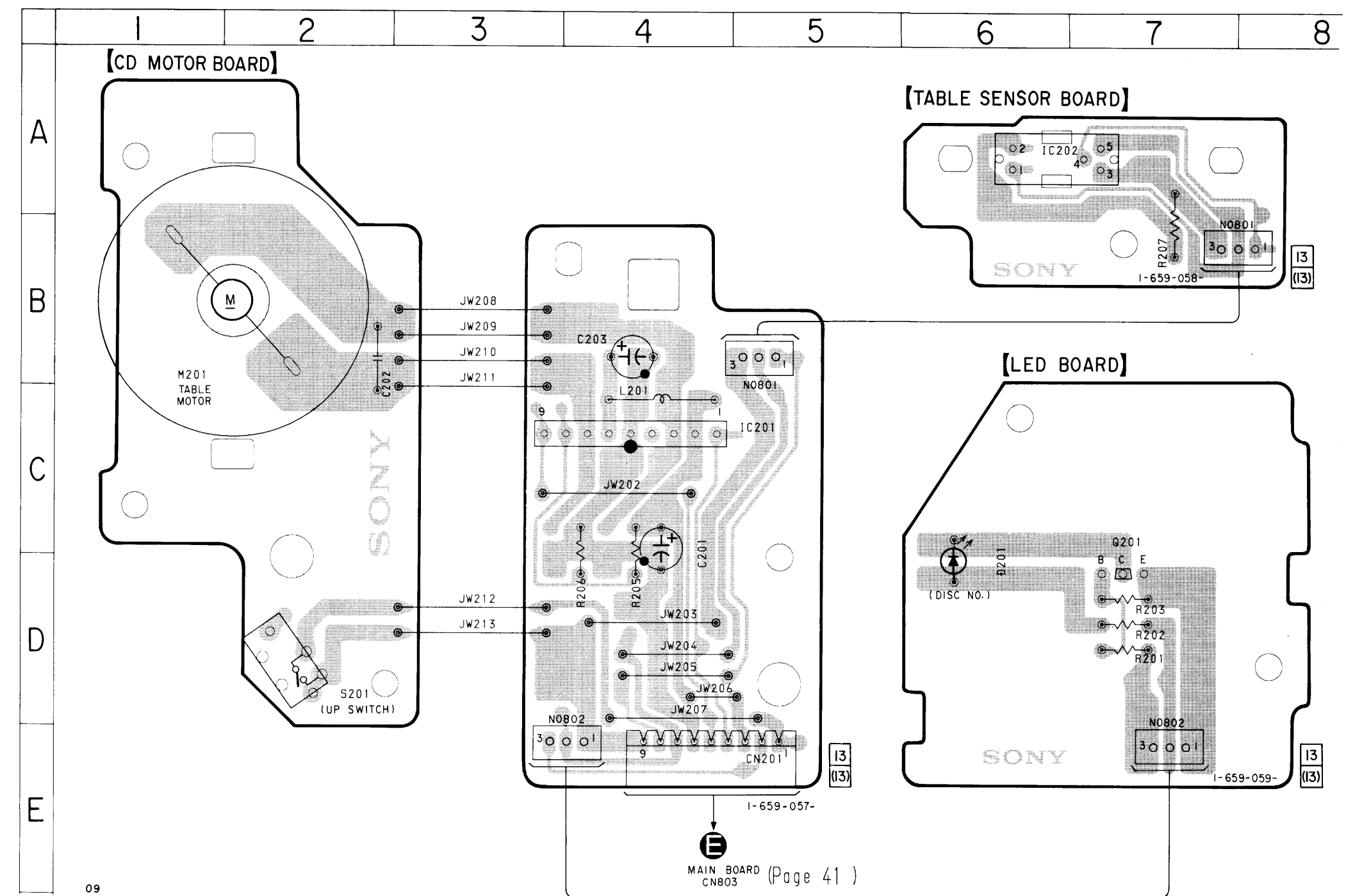
Note:

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

7-15. SCHEMATIC DIAGRAM — CD MOTOR SECTION —
 • See page 79 for IC Block Diagrams.



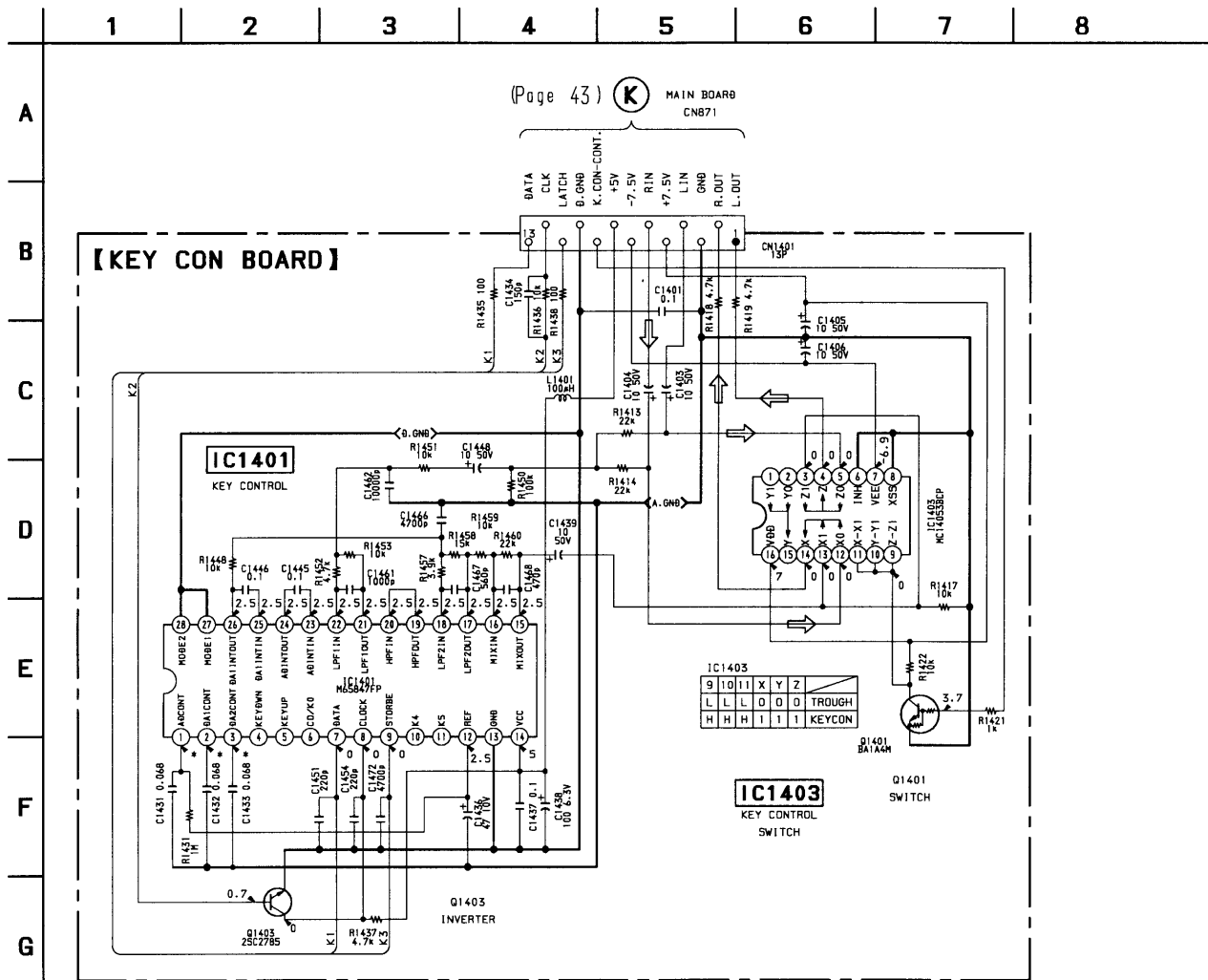
7-16. PRINTED WIRING BOARD — CD MOTOR SECTION —
 • See page 17 for Circuit Boards Location.



Note:

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

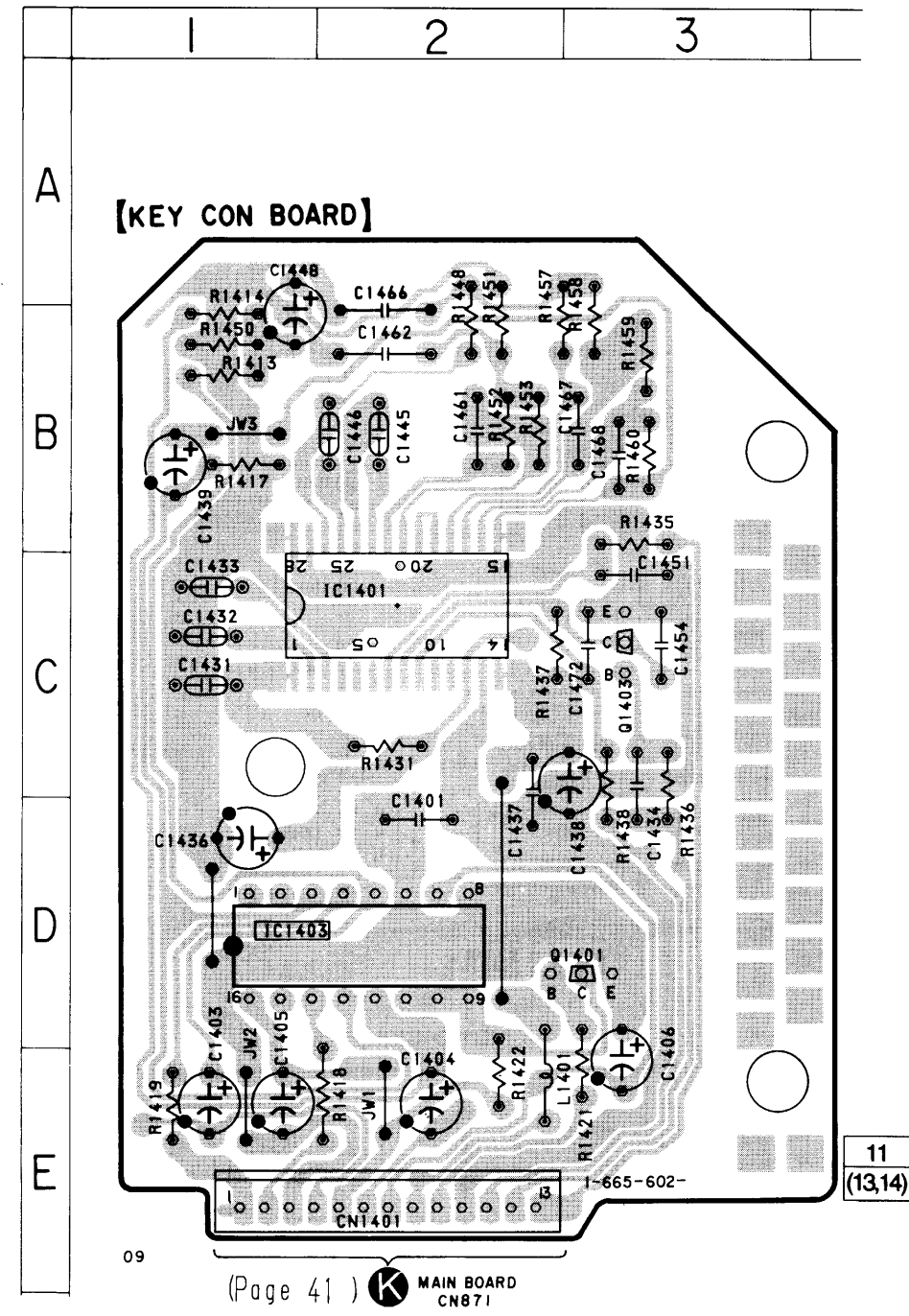
7-17. SCHEMATIC DIAGRAM — KEY CON SECTION —
• See page 79 for IC Block Diagrams.



NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF}:\mu\text{F}$ 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- **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 $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path. \Rightarrow :FM

7-18. PRINTED WIRING BOARD — KEY CON SECTION —
• See page 17 for Circuit Boards Location.



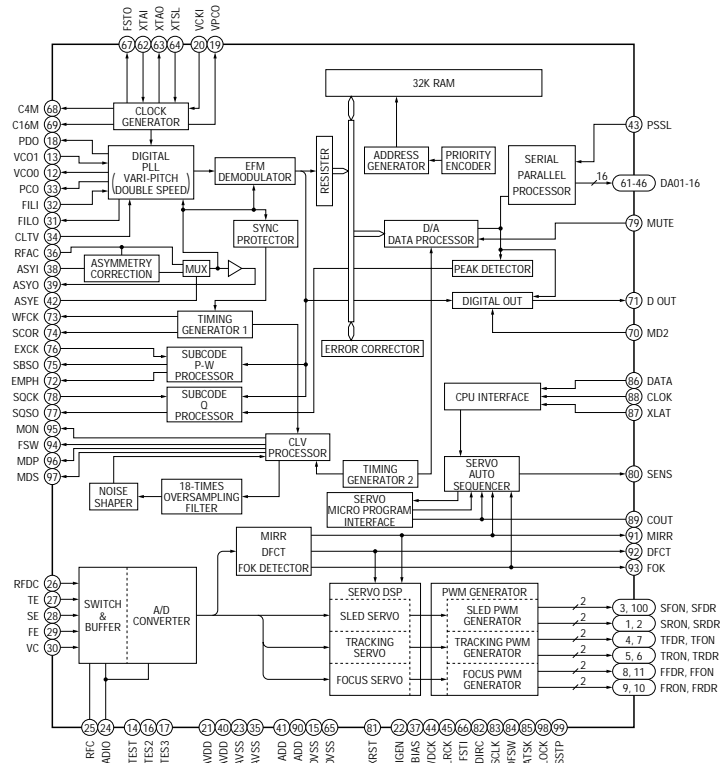
Note:

- \circ : parts extracted from the component side.
- \square : Pattern from the side which enable seeing.

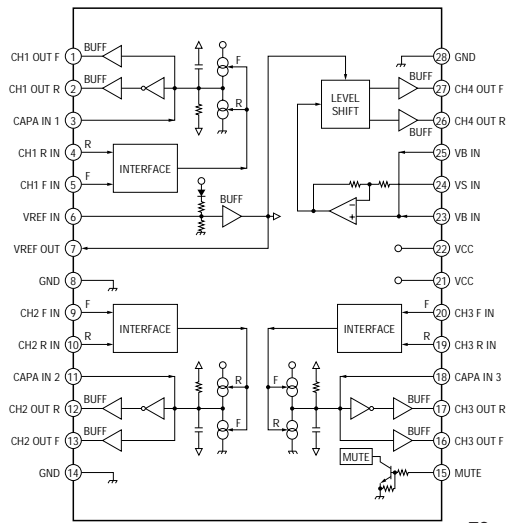
7-19. IC BLOCK DIAGRAMS

• BD section

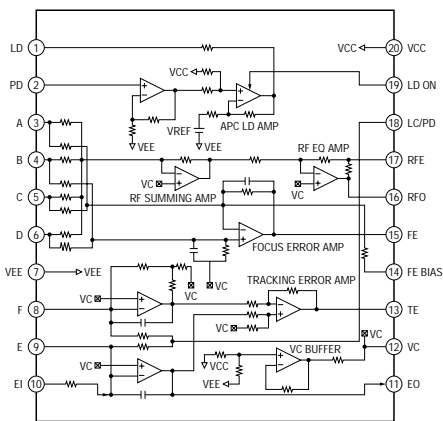
IC101 CXD2545Q



IC102 BA6392FP

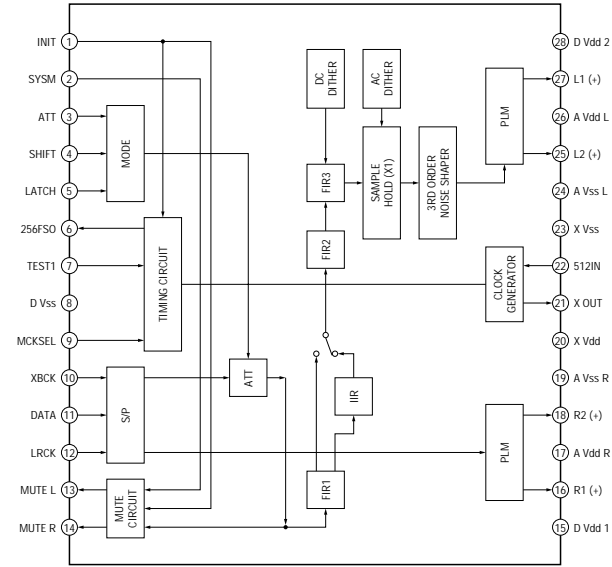


IC103 CXA1821M

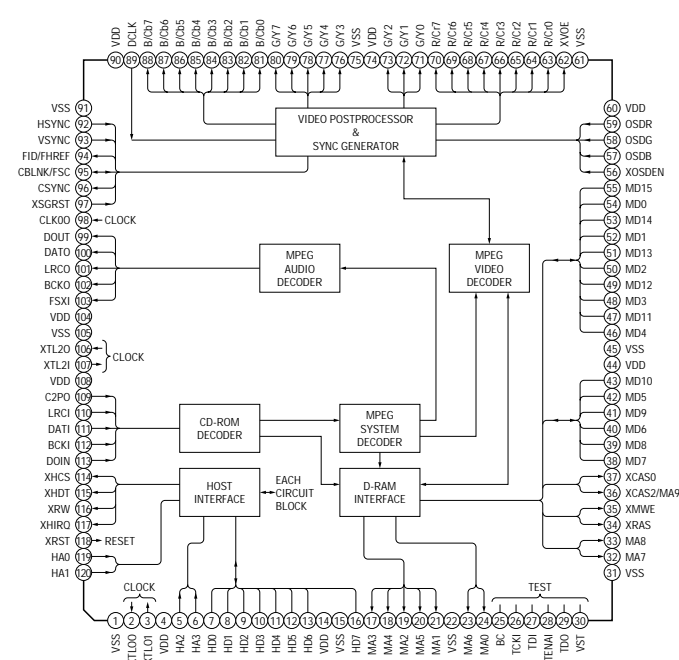


• Video section

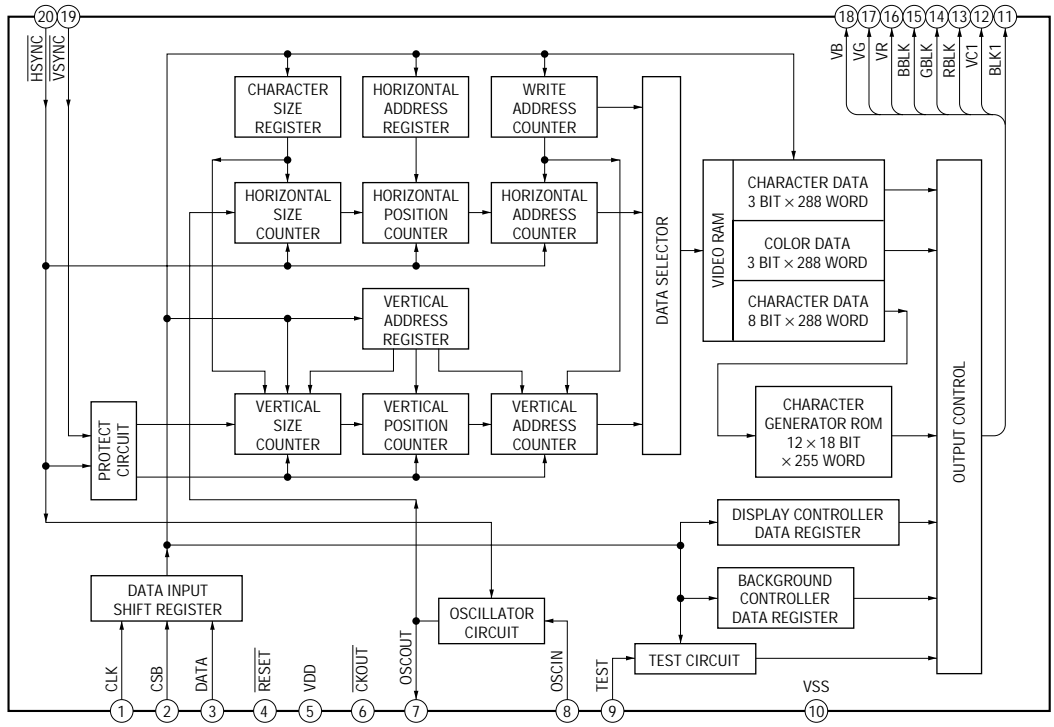
IC101 CXD8567AM



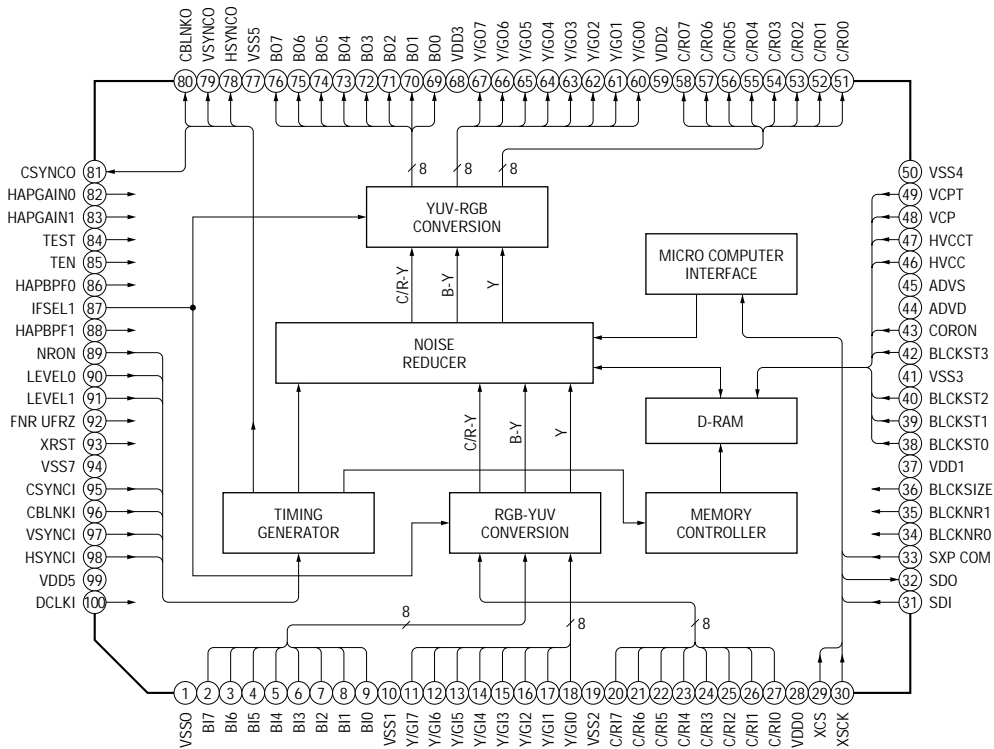
IC201 CXD1852AQ



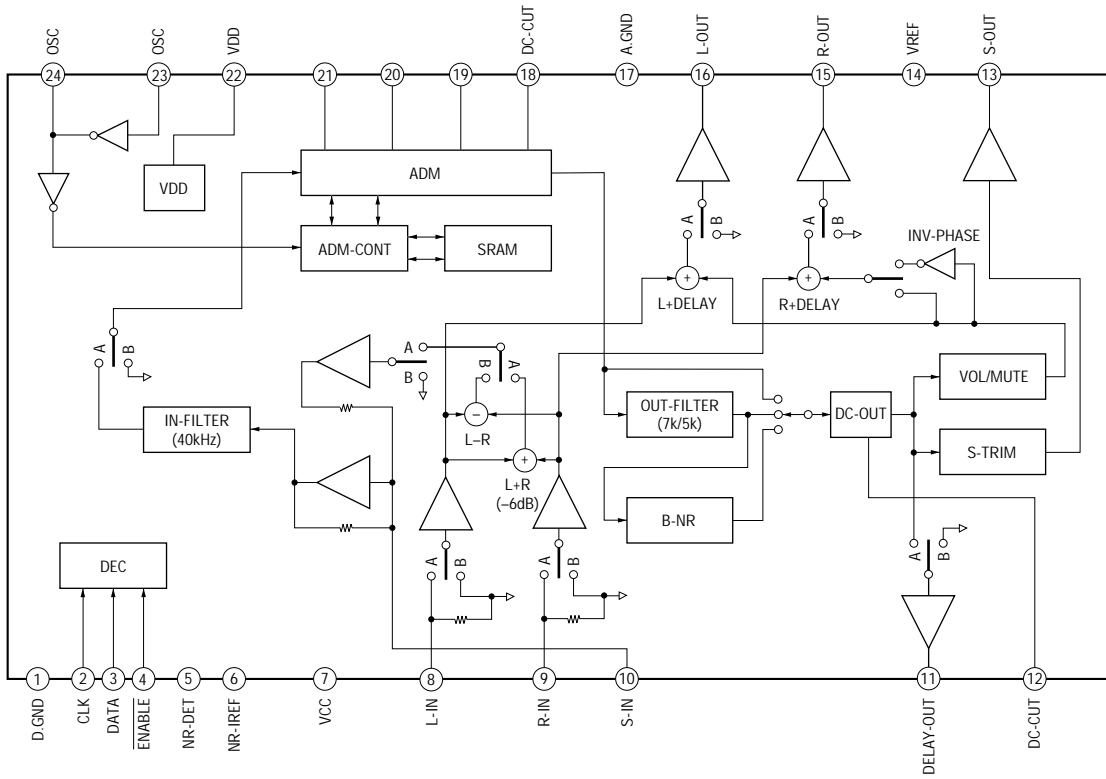
IC271 BU6257AFV



IC301 CXD1854Q

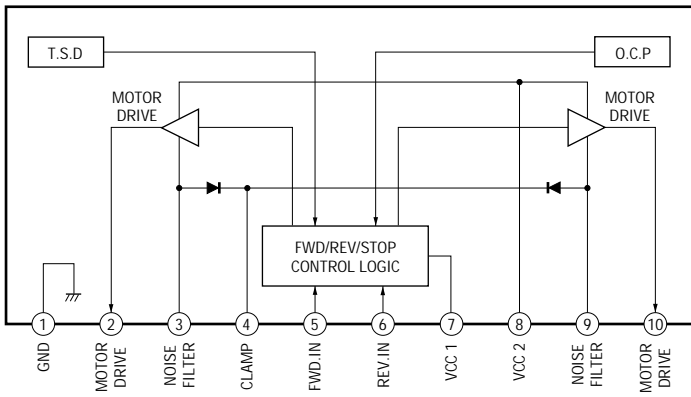


IC602 LV1016



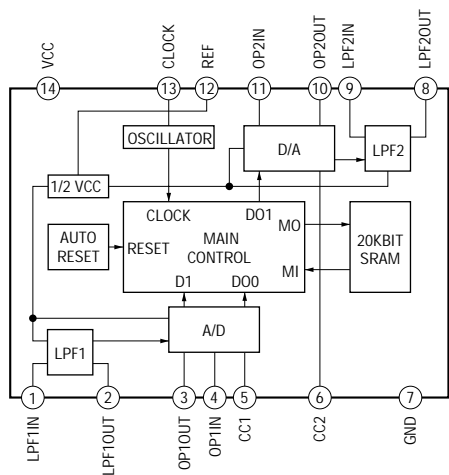
• Deck section

IC402 LB1641

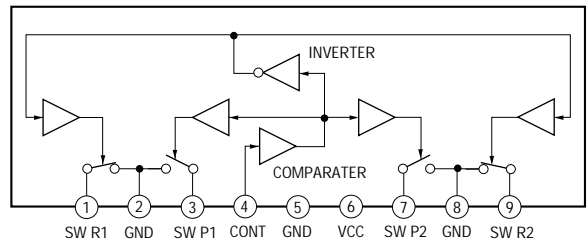


• Panel section

IC761 M65850P

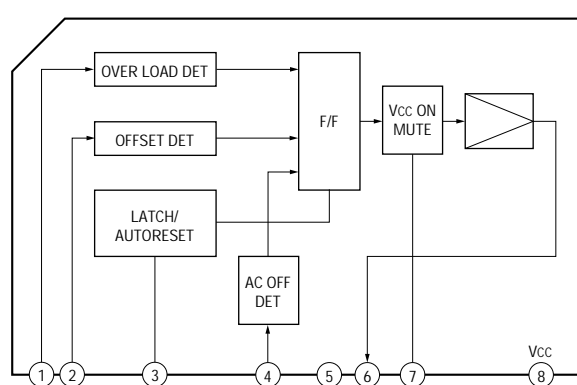


IC602 uPC1330HA



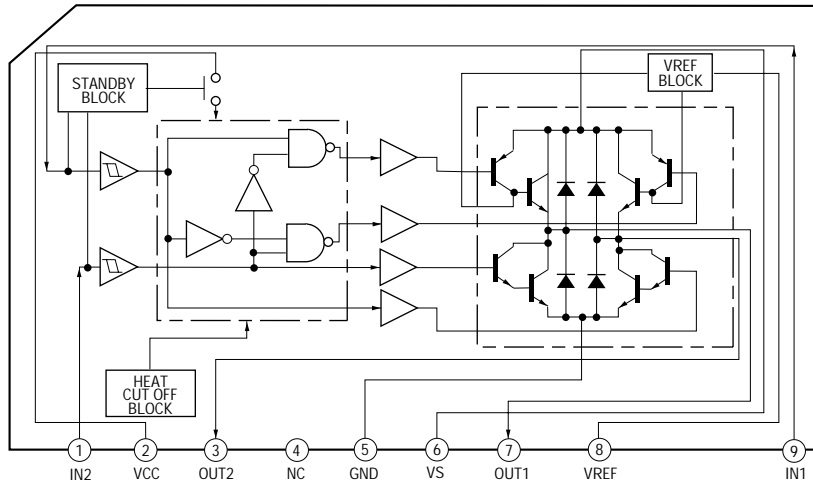
• Power section

IC301 uPC1237HA



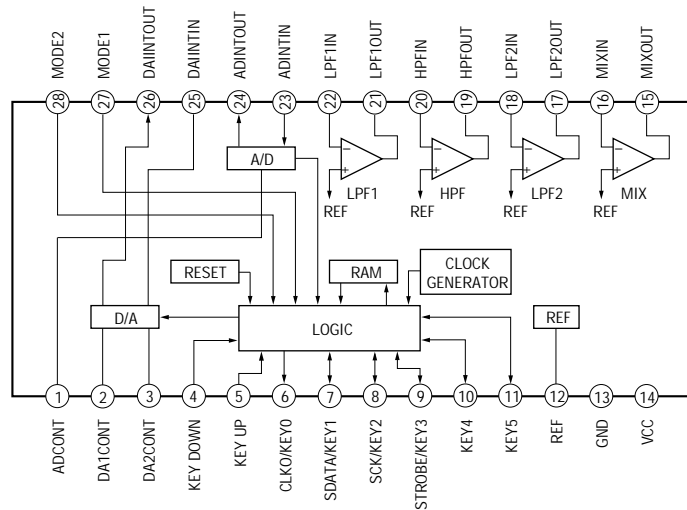
• CD motor section

IC201 TA8409S

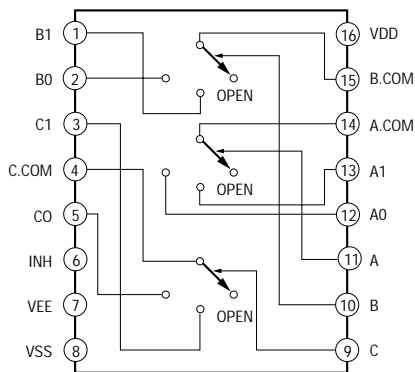


• KEY CON section

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 (Eight to Fourteen Modulation) 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 (Eight to Fourteen Modulation) 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 (Eight to Fourteen Modulation) signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry compare voltage input
39	ASYO	O	EFM (Eight to Fourteen Modulation) 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	DVss	-	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	DVDD	-	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output
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 (Guarded Frame Sync) 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	XTL00	O	Video decoder master clock pin. Input the XTL0I clock or connect an oscillator between XTL0I and XTL00. 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	VDD	–	+5V power supply
45	VSS	–	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	VDD	–	+5V power supply
61	VSS	–	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	VDD	–	+5V power supply
75	VSS	–	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	VDD	–	+5V power supply
91	VSS	–	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	CLK00	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	VDD	–	+5V power supply
105	VSS	–	Ground
106	XTL20	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	VDD	–	+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	B input 0–7 (Connect to ground)	
4	BI5	I		
5	BI4	I		
6	BI3	I		
7	BI2	I		
8	BI1	I		
9	BI0	I		[LSB]
10	Vss	–		Ground
11	Y/GI7	I	[MSB]	
12	Y/GI6	I	G (Y) input 0–7	
13	Y/GI5	I		
14	Y/GI4	I		
15	Y/GI3	I		
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	R (Cb/Cr) input 0–7	
22	C/RI5	I		
23	C/RI4	I		
24	C/RI3	I		
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	ADV D	I	DRAM data input (Connected to +5V)	
45	ADV S	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	R (Cb/Cr) output 0-7
53	C/RO2	O	
54	C/RO3	O	
55	C/RO4	O	
56	C/RO5	O	
57	C/RO6	O	
58	C/RO7	O	
59	VDD	-	Power supply (+5V)
60	Y/GO7	O	[MSB]
61	Y/GO6	O	G (Y) output 0-7
62	Y/GO5	O	
63	Y/GO4	O	
64	Y/GO3	O	
65	Y/GO2	O	
66	Y/GO1	O	
67	Y/GO0	O	
68	VDD	-	Power supply (+5V)
69	BO0	O	[MSB]
70	BO1	O	B output 0-7 (Not used)
71	BO2	O	
72	BO3	O	
73	BO4	O	
74	BO5	O	
75	BO6	O	
76	BO7	O	
77	VSS	-	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 (L: off, H: on)
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	VSS	-	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	VDD	-	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 signals.
3	Y5	I	
4	Y4	I	
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 signals.
8	Y1	I	
9	Y0	I	
10	VDD	–	Digital power supply
11	C7	I	8-bit pixel data input pins/test data bus. When control register bit "PIF MODE"="0", these input pins cannot be used. When control register bit "PIF MODE"="1", serve as input pins for multiplexed Cb, Cr signals. In the test mode, used for internal circuit test data bus. The test mode is allowed to use only for device vendors
12	C6	I	
13	C5	I	
14	C4	I	
15	C3	I	
16	C2	I	
17	C1	I	
18	C0	I	
19	Vss	–	Digital ground
20	IREF	O	Reference current output pin. Connect a resistor $\times 16$ 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 μ F capacitor
26	VG	I	Connect to AVDD with an approx. 0.1 μ F 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.
36	TD8	O	The test mode is allowed to use only for device vendors (Not used)
37	XTEST1	I	Test mode control input pin. Pulled-up.
38	XTEST2	I	When these pins are “H”, CXD1913Q is not in the test mode.
39	XTEST3	I	The test mode is allowed to use only for device vendors
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 I ² C-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 I ² C-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 I ² C-BUS mode, and becomes the SA slave address selection input signal which selects the I ² C-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	Vss	–	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	VDD	–	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 ² C-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	Address bus output (IC772)
42	A19	O	Address bus output (Not used)
43	$\overline{\text{WAIT}}$	I	BUS control wait input (IC201)
44	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 outputA
2	DBFB-H/L	O	DBFB H/L select signal output
3	427-LT	O	Latch signal output for IC201 (62427)
4	KCON-LT	O	Latch signal output for key control
5	KCON-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	Subcode data request signal output (Connected to ground)
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	Version select signal input
31	ADJ 2	I	Connected to ground
32	DEMO-CHANGE	I	DEMO H/L select signal input (Fixed at fixed at "L")
33	AVSS	–	Ground
34	SQ-DATA-IN	I	Subcode Q data clock input (Not used)
35	—	I	Not used
36	SQ-CLK	I	Sub code Q data clock input (Not used)
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-CMD	O	Not used
50	MSM-BUSY	I	Connected to ground

Pin No.	Pin Name	I/O	Function
51	MSM-LT	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	FOUCUS-SW	O	Not used
60	TBL-L	O	Table motor control output
61	TBL-R	O	
62	TRAY-LED	O	CD tray LED ON/OFF output
63	LOAD-OUT	O	Not used
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	Not used
76	T-SENS	I	CD table detection signal input
77	UP-SW	I	Up SW (S201) signal input
78	ENC 3	I	Not used
79	ENC 2	I	
80	ENC 1	I	
81	OUT-OPEN	I	Not used
82	CAP-M-H/N	O	Capstan motor H/N speed select signal output
83	B-TRG	O	Trigger motor control output
84	A-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	TC-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-CHG	O	Super woofer mode signal output
100	STK-MUTE	O	Power amp ON/OFF signal output

• **IC601 DISPLAY CONTROL (TMP87CM75-6565)/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	LED 9	O	Connected ground
16	LED10	O	
17	TEST	I	
18 to 23	LED11 to LED16	O	LED driver output
24	VOL-A	I	Rotary encoder (S701) pulse input
25	LED17	O	LED driver output
26	JOG-A	I	Rotary encoder (S711) 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	DOOR SW	I	DOOR SW (S691) ON/OFF signal input
39	SIRCS	I	Remote commander signal input
40	VOL-B	I	Rotary encoder (S701) pulse input
41	JOG-B	I	Rotary encoder (S711) 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	LED18	O	LED driver output
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:

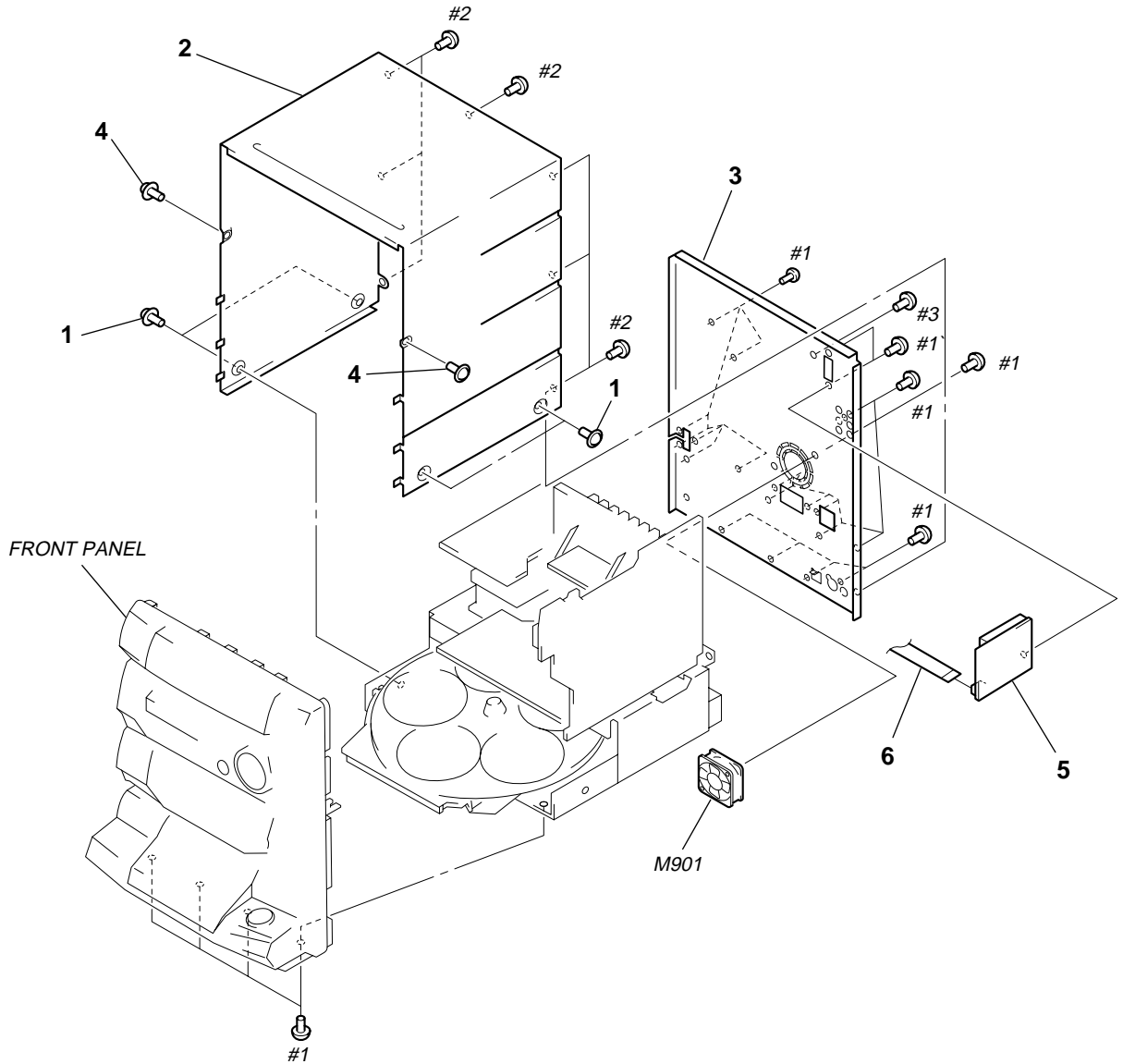
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are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

• Abbreviation

- SP : Singapore model
- MY : Malaysia model
- IA : Indonesia model
- CH : Chinese model

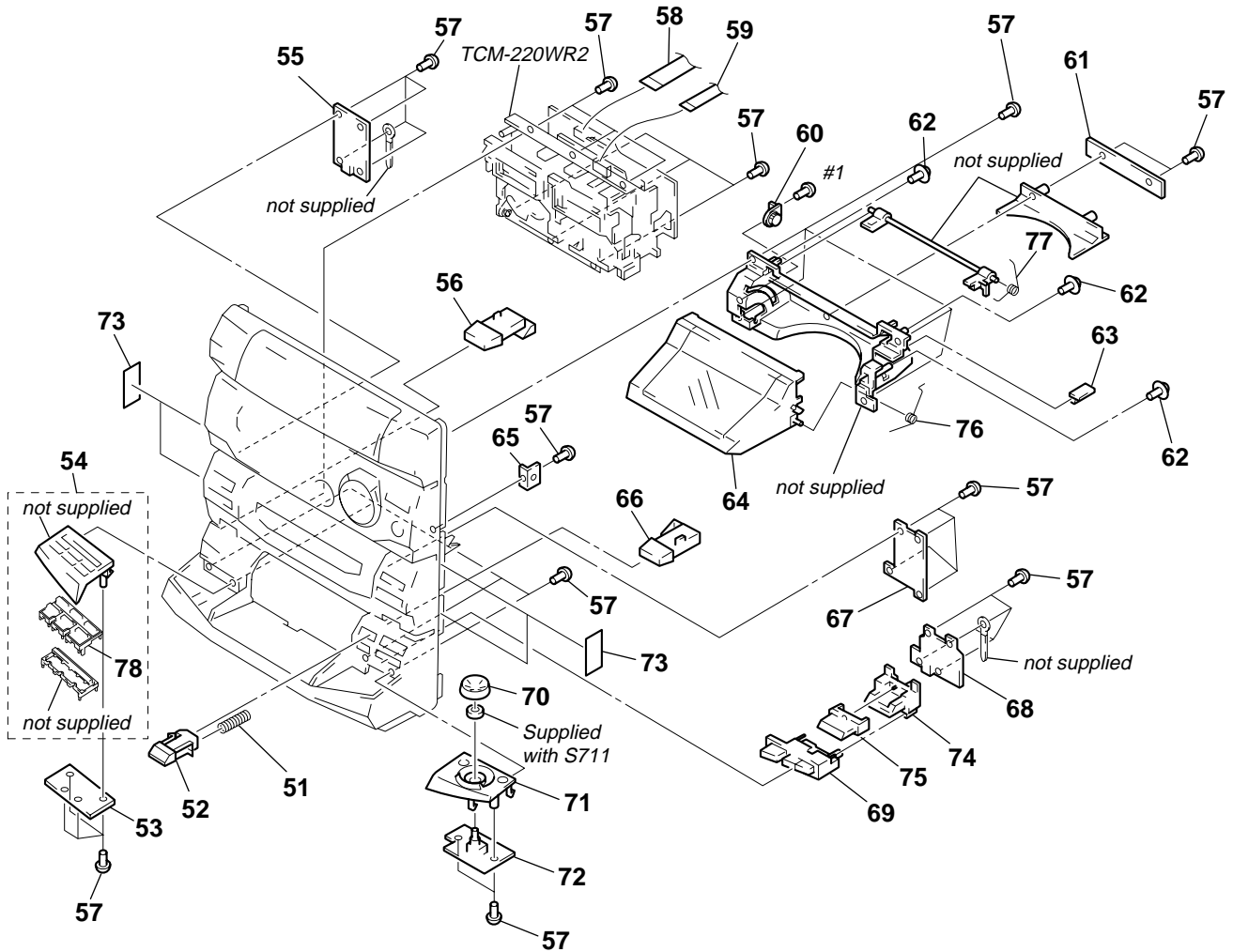
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

8-1. CASE AND BACK PANEL SECTION



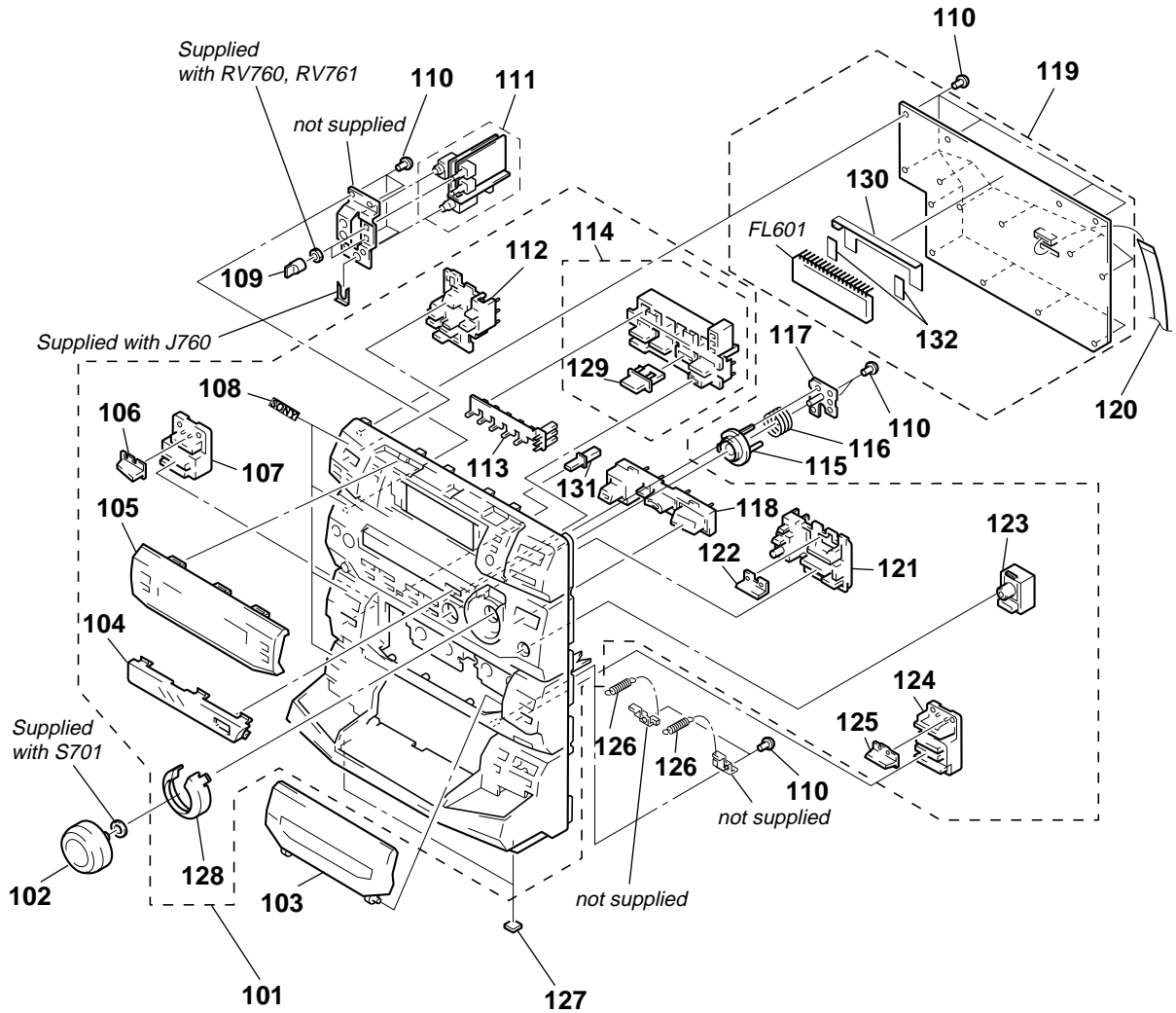
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-929-973-01	SCREW (CASE, 3 POINT)		* 3	4-992-220-31	PANEL, BACK (IA)	
* 2	4-987-052-31	CASE		4	3-363-099-01	SCREW (CASE 3 TP2)	
* 3	4-992-220-01	PANEL, BACK (E,SP)		5	1-233-545-11	ENCAPSULATED COMPONENT	
* 3	4-992-220-11	PANEL, BACK (MY)		6	1-769-974-11	WIRE (FLAT TYPE)(13 CORE)	
* 3	4-992-220-21	PANEL, BACK (CH)		M901	1-698-792-11	FAN, DC	

8-2. FRONT PANEL SECTION 1



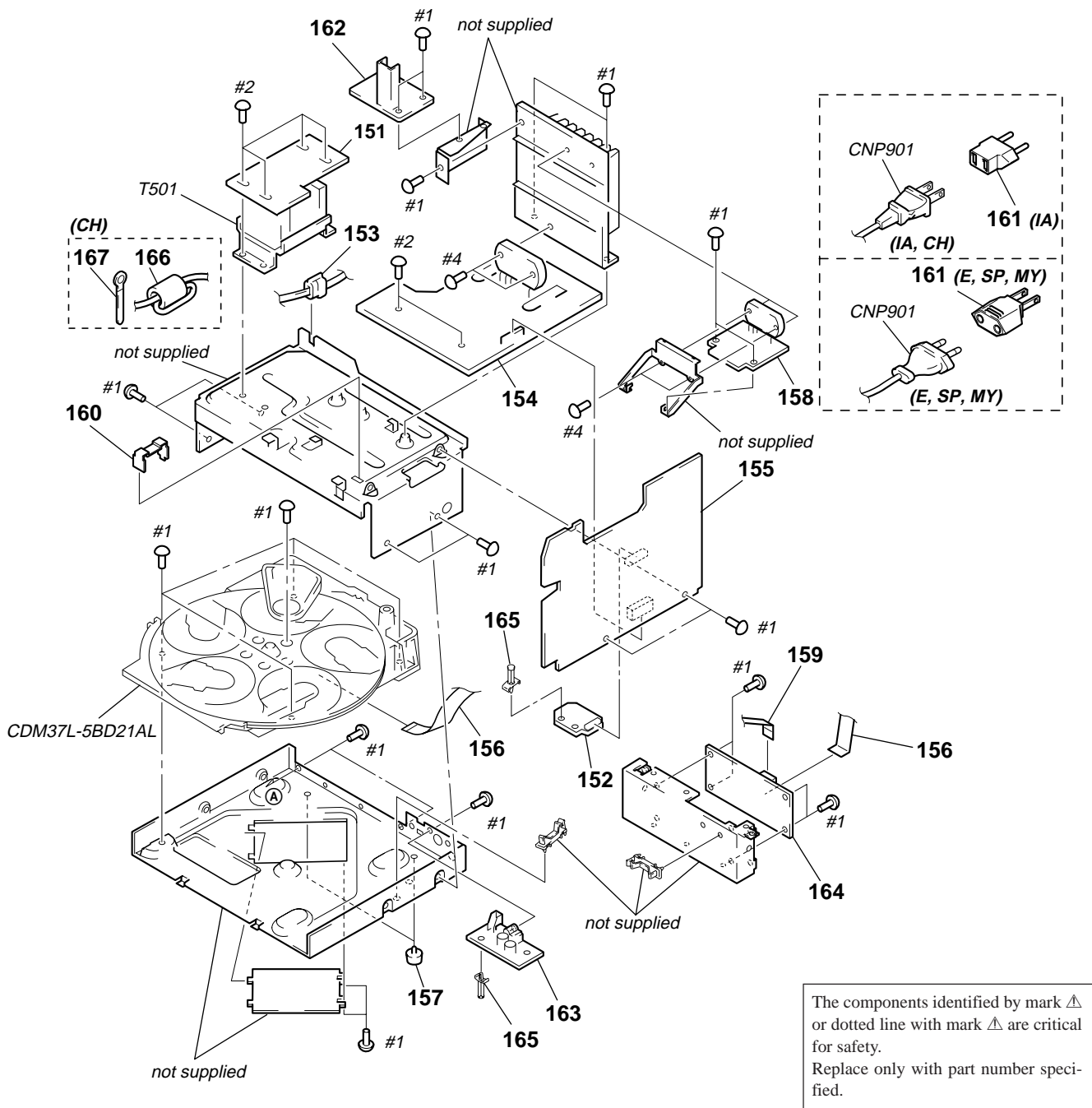
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-987-995-01	SPRINAG (CD EJECT), COMPRESSION		* 65	4-987-933-01	BRACKET (TA)	
52	4-987-001-01	BUTTON (EJECT CD)		66	4-987-000-01	BUTTON (EJECT B)	
* 53	1-664-019-11	CD-A SW BOARD		* 67	1-664-013-11	TC-B SW BOARD	
54	X-4948-663-1	PANEL (A) SUB ASSY		* 68	1-664-020-11	CD-B1 SW BOARD	
* 55	1-664-012-11	TC-A SW BOARD		69	X-4947-969-1	BUTTON (CD STOP) ASSY	
56	4-986-999-01	BUTTON (EJECT A)		70	4-987-037-01	KNOB (JOG)	
57	4-951-620-01	SCREW (2.6X8), +BVTP		71	X-4948-296-1	PANEL (B) SUB ASSY	
58	1-773-163-11	WIRE (FLAT TYPE)(21 CORE)		* 72	1-664-021-11	CD-B2 SW BOARD	
59	1-769-949-11	WIRE (FLAT TYPE)(11 CORE)		73	3-568-749-00	CUSHION, ECM	
60	3-354-963-01	DAMPER		74	4-987-002-01	BUTTON (CD PLAY)	
* 61	1-664-017-11	CD-LED BOARD		75	4-987-014-01	INDICATOR (CD)	
62	4-957-577-01	SCREW PTP WH (2.6X8)(DIA. 10)		76	4-987-997-01	SPRING (CD, LID), TORSION	
* 63	1-664-016-11	DOOR SW BOARD		77	4-987-998-01	SPRING (LOCK SHAFT), TORSION	
64	4-987-038-21	LID, DISC		78	X-4948-664-1	BUTTON (LOOP) ASSY	

8-3. FRONT PANEL SECTION 2



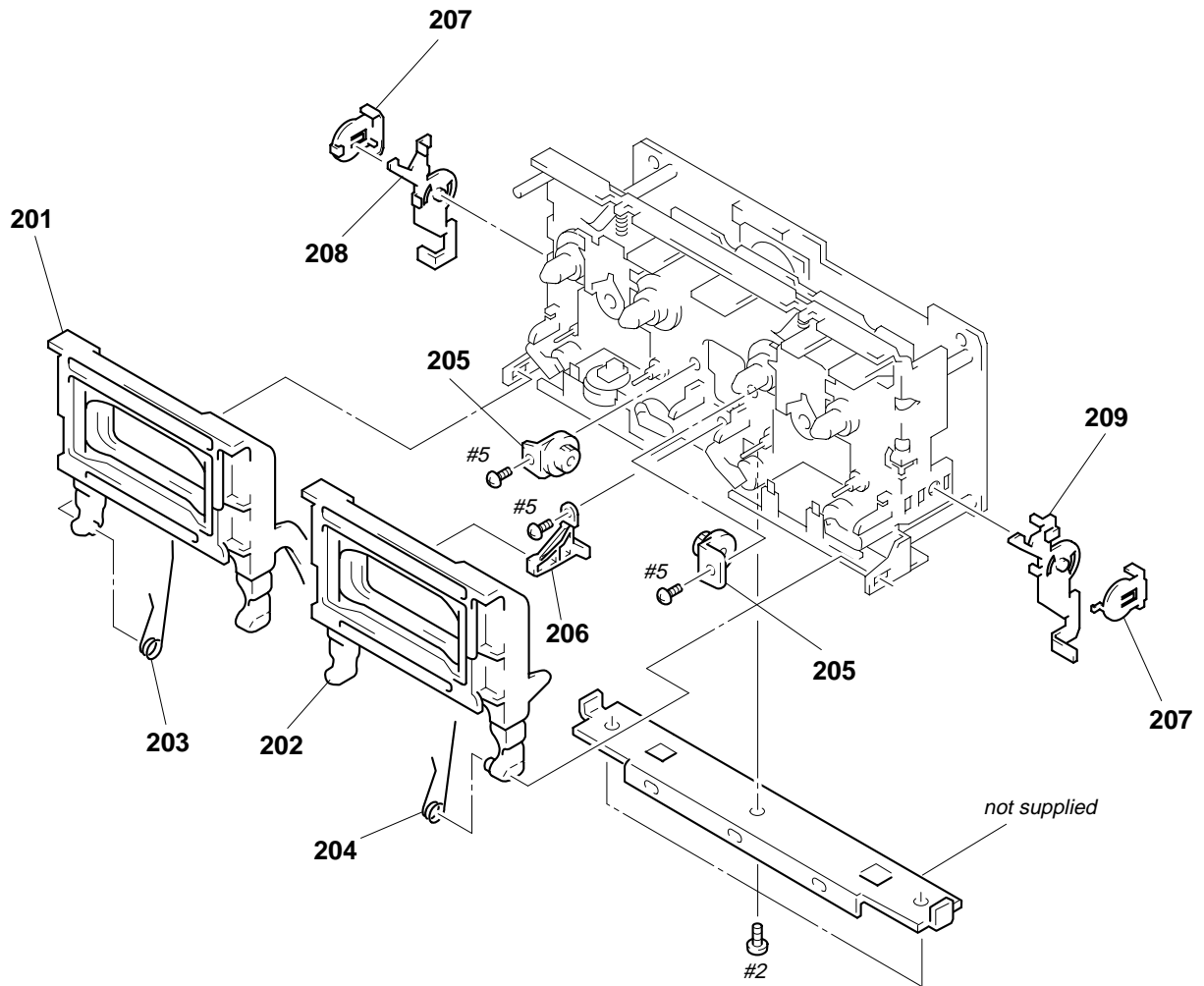
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-4948-662-1	PANEL ASSY		118	X-4947-963-1	BUTTON (FUNCTION) ASSY	
102	4-987-036-01	KNOB (VOL)		* 119	A-4398-986-A	PANEL BOARD, COMPLETE	
103	X-4947-961-1	LID ASSY, CASSETTE		120	1-773-051-11	WIRE (FLAT TYPE)(17 CORE)	
104	4-987-032-01	DISPLAY (TA)		121	X-4947-962-1	BUTTON (TUNER) ASSY	
105	4-987-028-01	DISPLAY (ST)		122	4-987-013-01	INDICATOR (TUNER)	
106	4-987-021-01	INDICATOR (TC A)		123	X-4947-968-1	BUTTON (WOOFER) ASSY	
107	4-986-997-01	BUTTON (DECK.A)		124	X-4947-967-1	BUTTON (DECK B) ASSY	
108	4-963-404-21	EMBLEM (5-A), SONY		125	4-987-022-01	INDICATOR (TC B)	
109	4-973-644-01	KNOB (MIC)		126	4-987-996-01	SPRING (TC LID), TENSION	
110	4-951-620-01	SCREW (2.6X8), +BVTP		127	4-948-236-01	CUSHION (107)	
* 111	A-4392-486-A	HP/MIC BOARD, COMPLETE		128	4-987-930-01	PLATE (VOL), ORNAMENTAL	
112	4-986-986-01	BUTTON (POWER)		129	4-988-219-01	BUTTON (DOLBY)	
113	4-987-012-01	INDICATOR (TA)		* 130	4-986-870-11	HOLDER, FL TUBE	
114	X-4947-990-1	BUTTON (SOUND) ASSY		131	4-987-017-01	INDICATOR (KEY.CON)	
115	4-986-990-01	BUTTON (CURSOR)		* 132	4-949-935-81	CUSHION (FL)	
116	4-978-683-01	SPRING, COMPRESSION		FL601	1-517-617-11	INDICATOR TUBE, FLUORESCENT	
* 117	4-987-041-01	COVER, CURSOR					

8-4. CHASSIS SECTION



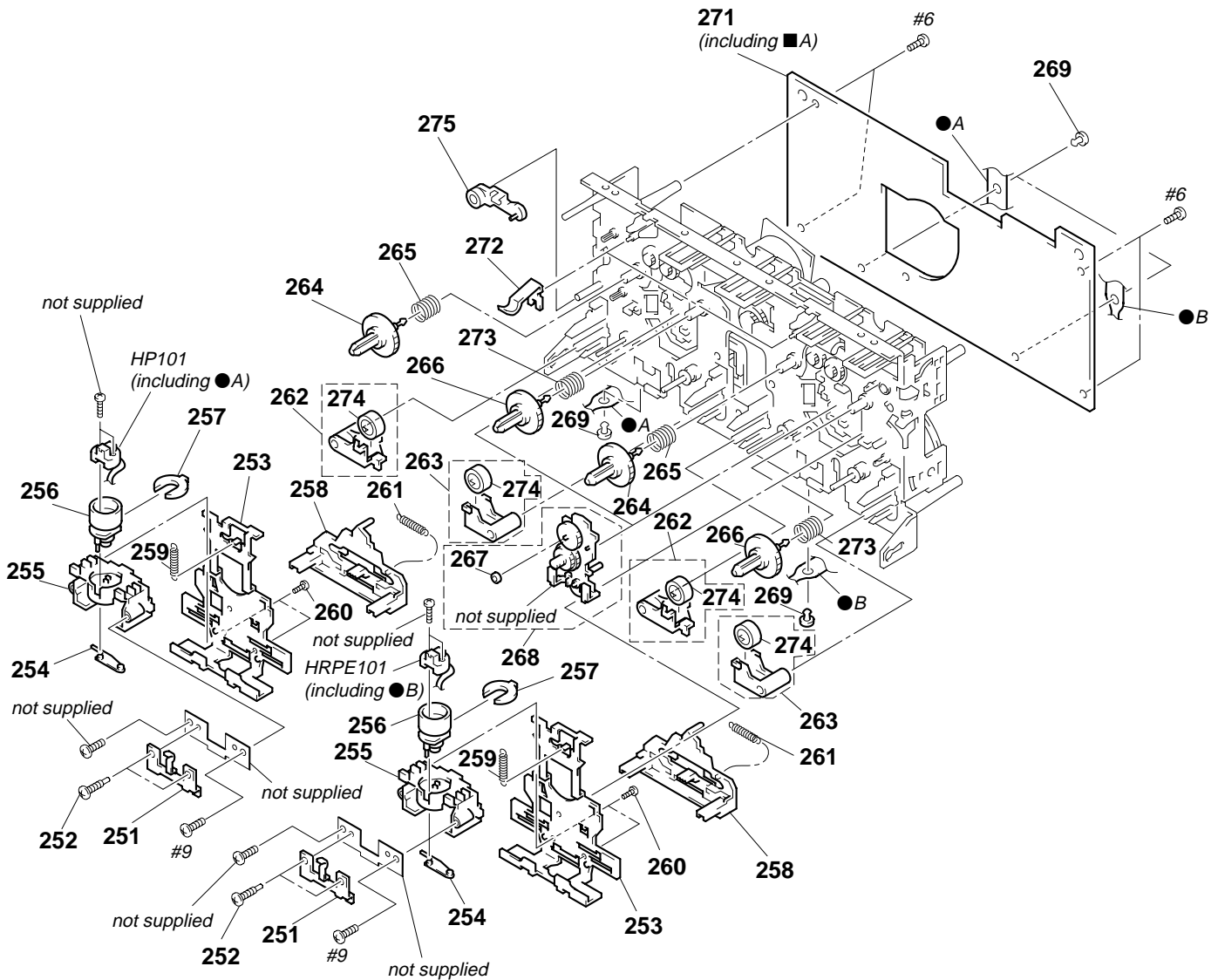
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	1-663-994-11	TRANS BOARD		\triangle 161	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
* 152	A-4398-049-A	KEY CON BOARD, COMPLETE		\triangle 161	1-569-008-11	ADAPTOR, CONVERSION 2P (E,SP,MY)	
153	3-703-244-00	BUSHING (FBS001), CORD (E,SP,MY,CH)		* 162	1-666-126-11	VIDEO POWER BOARD	
153	4-966-266-01	BUSHING (S)(FBS002), CORD (IA)		* 163	1-665-406-11	VIDEO OUT BOARD	
* 154	A-4392-679-A	POWER BOARD, COMPLETE (E,SP,MY,IA)		* 164	A-4398-587-A	VIDEO BOARD, COMPLETE	
* 154	A-4403-679-A	POWER BOARD, COMPLETE (CH)		165	4-944-316-01	HOLDER, PC BOARD	
* 155	A-4398-990-A	MAIN BOARD, COMPLETE		166	1-500-386-11	FERRITE CORE (CH)	
156	1-782-563-11	WIRE (FLAT TYPE)(29 CORE)		* 167	3-703-150-11	WIRE CLAMP (CH)	
157	X-4941-228-1	FOOT (F22125H-M)		\triangle CNP901	1-558-943-41	CORD, POWER (IA)	
* 158	A-4392-662-A	SURROUND BOARD, COMPLETE (E,SP,MY,IA)		\triangle CNP901	1-575-651-21	CORD, POWER (E,SP,MY)	
* 158	A-4392-663-A	SURROUND BOARD, COMPLETE (CH)		\triangle CNP901	1-782-510-11	CORD, POWER (CH)	
* 159	1-782-562-11	WIRE (FLAT TYPE)(13 CORE)		\triangle T501	1-431-418-11	TRANSFORMER, POWER	
* 160	4-988-533-11	HOLDER, PCB					

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



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-4947-943-1	HOLDER (L) ASSY, CASSETTE		* 206	4-980-439-01	FULCLUM, HOLDER	
202	X-4947-944-1	HOLDER (R) ASSY, CASSETTE		207	3-354-957-01	JOINT (LOCK LEVER)	
203	4-959-231-11	SPRING (L), TORSION		208	3-354-953-01	LEVER (LOCK LEVER L)	
204	4-959-232-11	SPRING (R), TORSION		209	3-354-954-01	LEVER (LOCK LEVER R)	
205	3-354-963-01	DAMPER					

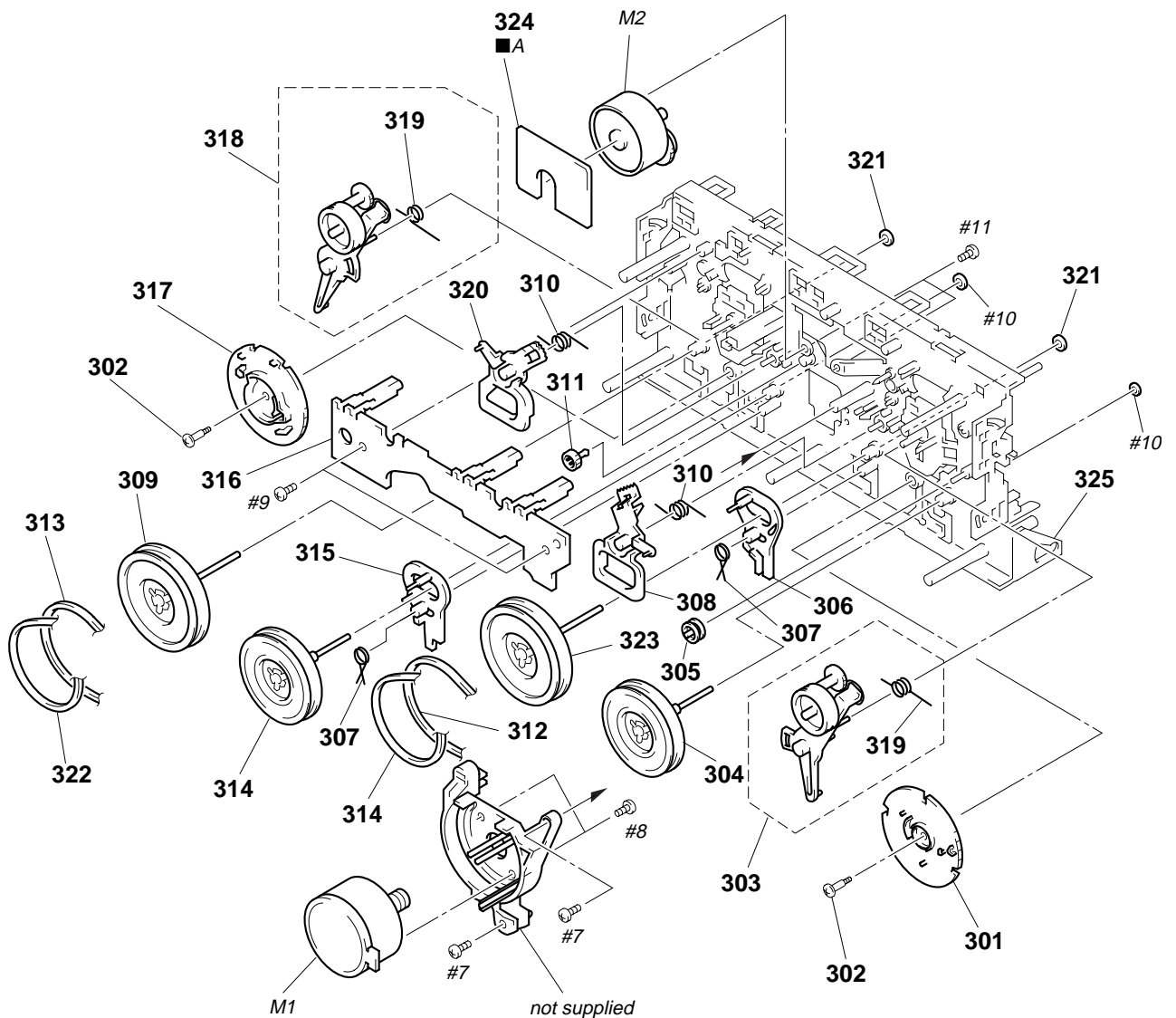
8-6. TC MECHANISM SECTION-2 (TCM-220WR2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT		265	3-917-141-01	SPRING, COMPRESSION	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT		266	X-3371-305-1	REEL (T) ASSY	
253	X-3373-113-1	SLIDER (HEAD) ASSY		267	3-669-465-01	WASHER (1.5), STOPPER	
254	3-009-956-01	SPRING, HEAD TOGGLE		268	X-3370-173-1	TU ASSY	
255	3-908-558-02	FITTING BLOCK, HEAD		269	3-939-862-01	CLIP	
256	3-908-557-02	ROTARY BLOCK, HEAD		* 271	A-2007-131-A	AUDIO BOARD, COMPLETE	
* 257	3-908-559-01	STOPPER, AZIMUTH		272	3-930-972-01	DETENT, HALF	
258	3-908-555-01	SLIDER (REV SLIDER)		273	3-917-142-01	SPRING, COMPRESSION	
259	3-917-143-11	SPRING, TENSION		274	3-355-808-02	PINCH ROLLER	
260	3-388-848-01	SCREW (P2X6)(B TIGHT)		275	3-938-863-01	STOPPER	
261	3-939-371-01	SPRING (1), TENSION		HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK)	
262	X-3369-909-1	PINCH LEVER (REV) ASSY		HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE)	
263	X-3369-908-1	PINCH LEVER (FWD) ASSY					
264	3-908-613-01	GEAR (S), REEL					

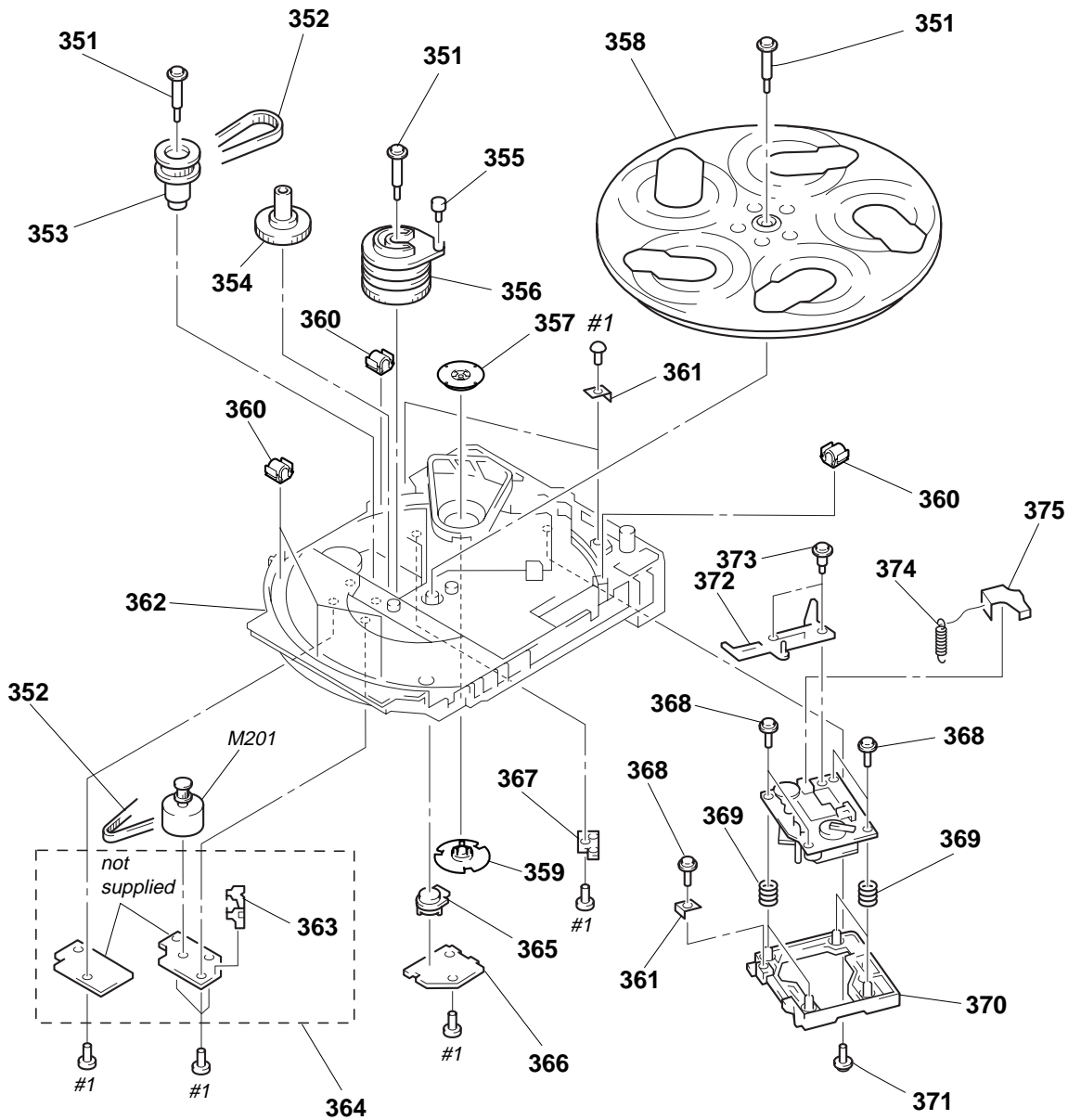
8-7. TC MECHANISM SECTION-3 (TCM-220WR2)

■A: MOTOR board (Supplied with AUDIO board)



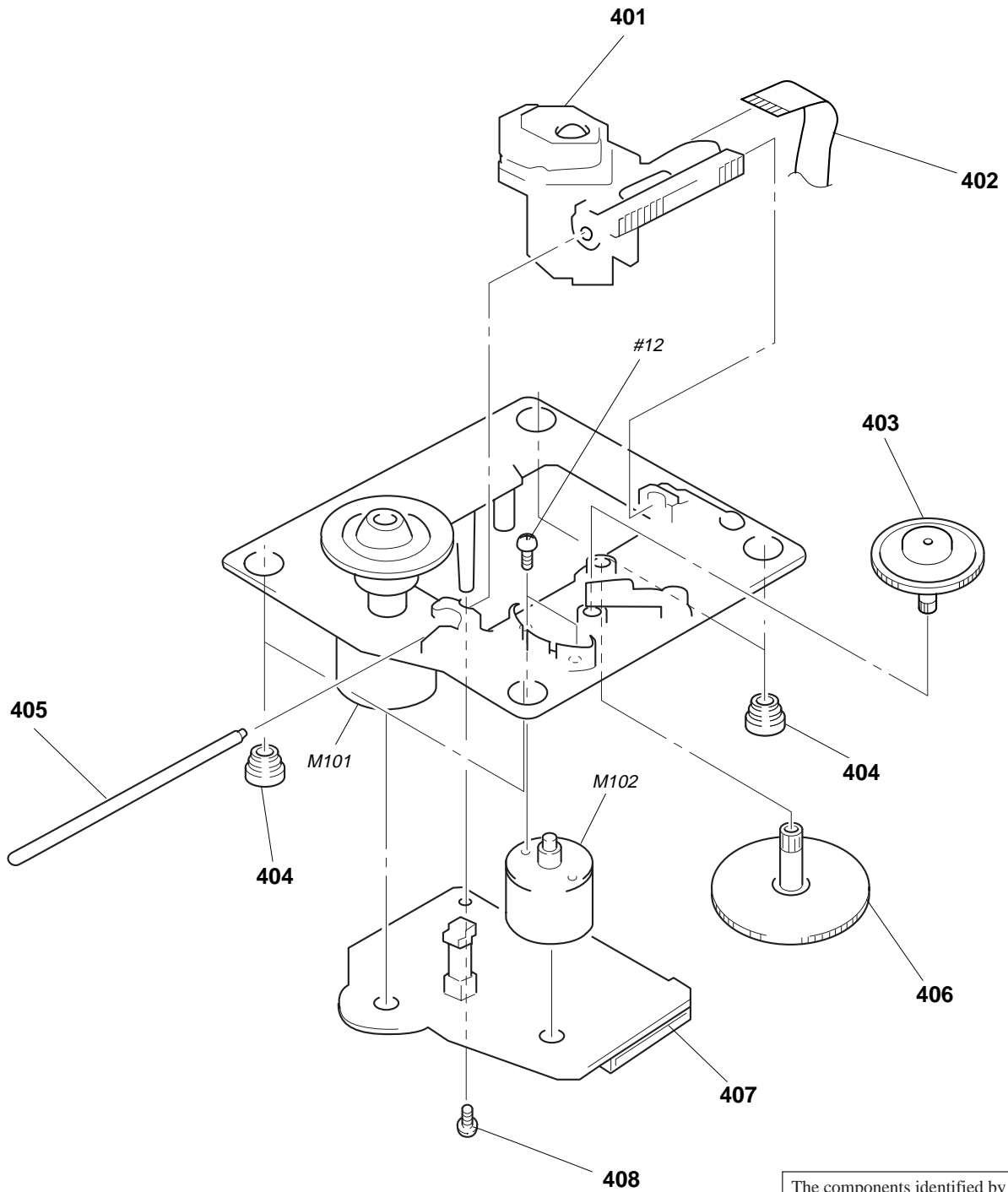
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-908-597-01	CAM (A)		315	3-908-600-01	LEVER (REV-B)	
302	3-908-608-11	SCREW, STEP		* 316	1-650-669-11	LEAF SWITCH BOARD	
303	X-3372-930-3	ARM (A) ASSY, FR		317	3-908-598-01	CAM (B)	
304	X-3370-169-1	FLYWHEEL (AR) ASSY		318	X-3372-931-3	ARM (B) ASSY, FR	
305	3-928-047-01	PULLEY, TENSION		319	3-911-114-12	SPRING (FR), TORSION	
306	3-908-599-01	LEVER (REV-A)		320	3-908-604-01	LEVER (TRIGGER B)	
307	3-908-601-01	SPRING (REV LEVER), TORSION		321	3-911-115-01	WASHER, STOPPER	
308	3-908-603-01	LEVER (TRIGGER A)		322	3-917-176-11	BELT (B)	
309	X-3367-593-1	FLYWHEEL (BF) ASSY		323	X-3370-172-1	FLYWHEEL (AF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION		* 324	A-2007-131-A	AUDIO BOARD, COMPLETE	
311	3-908-609-01	GEAR, TRIGGER		325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
312	3-913-845-11	BELT (A)		M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
313	3-913-846-11	BELT (FR)		M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
314	X-3370-171-1	FLYWHEEL (BR) ASSY					

8-8. CD MECHANISM SECTION (CDM37L-5BD21AL)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-987-976-01	SCREW, STEP		365	4-978-426-01	INDICATOR (NO.)	
352	4-944-490-01	BELT (TIMING)		* 366	1-659-059-13	LED BOARD	
353	A-4660-978-A	GEAR (PULLEY) ASSY		* 367	1-659-058-13	TABLE SENSOR BOARD	
354	4-978-421-01	GEAR (MID)		368	4-933-134-01	SCREW (+PTPWH M2.6X6)	
355	4-978-425-01	ROLLER (CAM)		369	4-958-593-01	SPRING (BU), COMPRESSION	
356	4-978-420-01	CAM (HOLDER)		* 370	4-978-419-01	HOLDER (BU-5)	
* 357	1-452-925-11	MAGNET ASSY		371	4-917-583-71	BRACKET, YOKE	
358	4-978-417-01	TABLE, DISC		372	4-989-493-01	SLIDER (37)	
359	4-993-142-01	PULLEY (L), PRESS		373	4-989-494-01	SCREW (SLIDER), STEP	
360	X-4947-960-1	ROLLER ASSY		374	4-989-819-01	SPRING, TENSION	
* 361	4-978-583-01	BRACKET (BU)		375	4-989-491-21	COVER, LENS	
* 362	4-978-418-01	CHASSIS		M201	A-4660-977-A	MOTOR ASSY (TABLE)	
* 363	4-980-385-01	HOLDER (SW)					
* 364	A-4673-765-A	CD MOTOR BOARD, COMPLETE					

8-9. BASE UNIT SECTION (BU-5BD21AL)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
\triangle 401	8-820-020-03	OPTICAL PICK-UP KSS-213D/Q-NP		406	4-917-564-01	GEAR (P), FLATNESS	
402	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)		* 407	A-4673-557-A	BD BOARD, COMPLETE	
403	4-917-567-01	GEAR (M)		408	4-951-620-01	SCREW (2.6X8), +BVTP	
404	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
405	4-917-565-01	SHAFT, SLED		M102	X-4917-504-1	MOTOR ASSY (SLED)	

AUDIO

SECTION 9 ELECTRICAL PARTS LIST

Note:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- 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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-131-A	AUDIO BOARD, COMPLETE ***** (including MOTOR board)				< CONNECTOR >	
		< CAPACITOR >		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	
						< IC >	
C301	1-162-289-31	CERAMIC	390PF 10% 50V	IC601	8-759-111-44	IC uPC4570C-1	
C302	1-126-968-11	ELECT	100uF 20% 6.3V	IC602	8-759-143-54	IC uPC1330HA	
C303	1-162-282-31	CERAMIC	100PF 10% 50V	IC611	8-759-111-44	IC uPC4570C-1	
C304	1-130-483-00	MYLAR	0.01uF 5% 50V			< COIL >	
C305	1-107-715-11	ELECT	22uF 20% 16V				
				L331	1-410-780-11	INDUCTOR 27mH	
C311	1-162-289-31	CERAMIC	390PF 10% 50V	L431	1-410-780-11	INDUCTOR 27mH	
C313	1-162-282-31	CERAMIC	100PF 10% 50V			< MOTOR >	
C314	1-130-487-00	MYLAR	0.022uF 5% 50V	M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	
C315	1-126-233-11	ELECT	22uF 20% 50V			< TRANSISTOR >	
C331	1-137-427-11	FILM	120PF 5% 50V	Q621	8-729-142-46	TRANSISTOR 2SC2001-LK	
				Q622	8-729-142-46	TRANSISTOR 2SC2001-LK	
C332	1-162-288-31	CERAMIC	330PF 10% 50V	Q623	8-729-801-93	TRANSISTOR 2SD1387	
C333	1-162-209-31	CERAMIC	27PF 5% 50V	Q651	8-729-900-65	TRANSISTOR DTA144ES	
C401	1-162-289-31	CERAMIC	390PF 10% 50V			< RESISTOR >	
C402	1-126-968-11	ELECT	100uF 20% 6.3V	R301	1-247-881-00	CARBON 120K 5% 1/4W	
C403	1-162-282-31	CERAMIC	100PF 10% 50V	R302	1-249-409-11	CARBON 220 5% 1/4W F	
				R303	1-249-433-11	CARBON 22K 5% 1/4W	
C404	1-130-483-00	MYLAR	0.01uF 5% 50V	R304	1-247-889-00	CARBON 270K 5% 1/4W	
C405	1-107-715-11	ELECT	22uF 20% 16V	R305	1-247-858-11	CARBON 13K 5% 1/4W	
C411	1-162-289-31	CERAMIC	390PF 10% 50V				
C413	1-162-282-31	CERAMIC	100PF 10% 50V	R311	1-247-881-00	CARBON 120K 5% 1/4W	
C414	1-130-487-00	MYLAR	0.022uF 5% 50V	R312	1-247-807-31	CARBON 100 5% 1/4W	
				R314	1-247-882-11	CARBON 130K 5% 1/4W	
C415	1-126-233-11	ELECT	22uF 20% 50V	R315	1-247-850-11	CARBON 6.2K 5% 1/4W	
C431	1-137-427-11	FILM	120PF 5% 50V	R331	1-249-430-11	CARBON 12K 5% 1/4W	
C432	1-162-288-31	CERAMIC	330PF 10% 50V				
C433	1-162-209-31	CERAMIC	27PF 5% 50V	R401	1-247-881-00	CARBON 120K 5% 1/4W	
C601	1-104-396-11	ELECT	10uF 20% 16V	R402	1-249-409-11	CARBON 220 5% 1/4W F	
				R403	1-249-433-11	CARBON 22K 5% 1/4W	
C602	1-104-396-11	ELECT	10uF 20% 16V	R404	1-247-889-00	CARBON 270K 5% 1/4W	
C611	1-124-907-11	ELECT	10uF 20% 50V	R405	1-247-858-11	CARBON 13K 5% 1/4W	
C612	1-124-907-11	ELECT	10uF 20% 50V				
C621	1-137-150-11	FILM	0.01uF 5% 100V	R411	1-247-881-00	CARBON 120K 5% 1/4W	
C622	1-126-961-11	ELECT	2.2uF 20% 50V	R412	1-247-807-31	CARBON 100 5% 1/4W	
				R414	1-247-882-11	CARBON 130K 5% 1/4W	
C623	1-136-155-00	FILM	0.015uF 5% 50V	R415	1-247-850-11	CARBON 6.2K 5% 1/4W	
C624	1-130-481-00	MYLAR	0.0068uF 5% 50V	R431	1-249-430-11	CARBON 12K 5% 1/4W	
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				

BD	CD-A SW	CD-B1 SW	CD-B2 SW	CD-LED	CD MOTOR
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Ref. No.	Part No.	Description	Remark
R162	1-216-101-00	METAL CHIP 150K 5%	1/10W
		< SWITCH >	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

*	1-664-019-11	CD-A SW BOARD *****	
		< DIODE >	
D641	8-719-058-04	DIODE SEL5223S-TP15 (CD NON-STOP)	
D642	8-719-058-04	DIODE SEL5223S-TP15 (VCD)	
D643	8-719-058-04	DIODE SEL5223S-TP15 (PBC)	
D644	8-719-058-04	DIODE SEL5223S-TP15 (AUTO PBC)	
		< RESISTOR >	
R731	1-249-411-11	CARBON 330 5%	1/4W
R732	1-249-413-11	CARBON 470 5%	1/4W F
R733	1-249-415-11	CARBON 680 5%	1/4W F
R734	1-249-417-11	CARBON 1K 5%	1/4W F
R735	1-249-419-11	CARBON 1.5K 5%	1/4W F
R736	1-249-421-11	CARBON 2.2K 5%	1/4W F
R737	1-249-417-11	CARBON 1K 5%	1/4W F
R738	1-249-419-11	CARBON 1.5K 5%	1/4W F
R739	1-249-421-11	CARBON 2.2K 5%	1/4W
R740	1-247-843-11	CARBON 3.3K 5%	1/4W
R741	1-247-807-31	CARBON 100 5%	1/4W
R742	1-247-807-31	CARBON 100 5%	1/4W
R743	1-247-807-31	CARBON 100 5%	1/4W
R744	1-247-807-31	CARBON 100 5%	1/4W
		< SWITCH >	
S661	1-554-303-21	SWITCH, TACTILE (DISC 1)	
S662	1-554-303-21	SWITCH, TACTILE (DISC 2)	
S663	1-554-303-21	SWITCH, TACTILE (DISC 3)	
S664	1-554-303-21	SWITCH, TACTILE (DISC 4)	
S665	1-554-303-21	SWITCH, TACTILE (DISC 5)	
S666	1-554-303-21	SWITCH, TACTILE (CD FLASH)	
S667	1-554-303-21	SWITCH, TACTILE (CD NON-STOP)	
S668	1-554-303-21	SWITCH, TACTILE (CD LOOP)	
S669	1-554-303-21	SWITCH, TACTILE (↺ RETURN)	
S670	1-554-303-21	SWITCH, TACTILE (PREV)	
S671	1-554-303-21	SWITCH, TACTILE (NEXT)	

*	1-664-020-11	CD-B1 SW BOARD *****	
		< CONNECTOR >	
* CN642	1-568-943-11	PIN, CONNECTOR 5P	
		< DIODE >	
D645	8-719-057-29	DIODE SML78423C-TP15 (▷ SELECT)	
D646	8-719-057-97	DIODE SEL5923A-TP15 (■)	
D647	8-719-057-29	DIODE SML78423C-TP15 (▷ SELECT)	

Ref. No.	Part No.	Description	Remark
		< RESISTOR >	
R745	1-247-815-91	CARBON 220 5%	1/4W
R746	1-249-411-11	CARBON 330 5%	1/4W
R747	1-249-413-11	CARBON 470 5%	1/4W F
R748	1-249-415-11	CARBON 680 5%	1/4W F
R749	1-247-807-31	CARBON 100 5%	1/4W
R750	1-247-807-31	CARBON 100 5%	1/4W
R751	1-247-807-31	CARBON 100 5%	1/4W
		< SWITCH >	
S676	1-554-303-21	SWITCH, TACTILE (▷ SELECT)	
S677	1-554-303-21	SWITCH, TACTILE (■)	
S678	1-554-303-21	SWITCH, TACTILE (■)	
S679	1-554-303-21	SWITCH, TACTILE (DISC SKIP)	

*	1-664-021-11	CD-B2 SW BOARD *****	
		< RESISTOR >	
R752	1-249-417-11	CARBON 1K 5%	1/4W F
R753	1-249-419-11	CARBON 1.5K 5%	1/4W F
R754	1-249-421-11	CARBON 2.2K 5%	1/4W F
R755	1-247-843-11	CARBON 3.3K 5%	1/4W
R756	1-249-427-11	CARBON 6.8K 5%	1/4W F
		< SWITCH >	
S681	1-554-303-21	SWITCH, TACTILE (▶▶)	
S682	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S683	1-554-303-21	SWITCH, TACTILE (PLAY MODE)	
S684	1-554-303-21	SWITCH, TACTILE (1/ALL DISCS)	
S685	1-554-303-21	SWITCH, TACTILE (EDIT)	
S686	1-554-303-21	SWITCH, TACTILE (◀◀)	
S711	1-467-968-11	ENCODER, ROTARY (I◀◀ AMS ▶▶I)	

*	1-664-017-11	CD-LED BOARD *****	
		< CONNECTOR >	
CN671	1-506-481-11	PIN, CONNECTOR 2P	
		< DIODE >	
D671	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)	
D672	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)	
D673	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)	
D674	8-719-058-03	DIODE SEL5423E-TP15 (DISC TABLE)	
		< RESISTOR >	
R791	1-249-412-11	CARBON 390 5%	1/4W F

*	A-4673-765-A	CD MOTOR BOARD, COMPLETE *****	
*	4-980-385-01	HOLDER (SW)	

CD MOTOR

DOOR SW

HP/MIC

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CAPACITOR >					
C201	1-124-907-11	ELECT	10uF 20% 50V	C773	1-126-964-11	ELECT 10uF 20% 50V	
C202	1-164-159-21	CERAMIC	0.1uF 50V	C774	1-126-964-11	ELECT 10uF 20% 50V	
C203	1-124-907-11	ELECT	10uF 20% 50V	C775	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		< CONNECTOR >					
* CN201	1-568-947-11	PIN, CONNECTOR 9P		C776	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		< IC >		C777	1-126-960-11	ELECT 1uF 20% 50V	
IC201	8-759-365-94	IC TA8409S		C778	1-162-305-11	CERAMIC 0.0068uF 30% 16V	
		< COIL >		C779	1-162-294-31	CERAMIC 0.001uF 10% 50V	
L201	1-408-117-00	INDUCTOR 10uH		C780	1-136-495-11	FILM 0.068uF 5% 50V	
		< MOTOR >					
M201	A-4660-977-A	MOTOR ASSY (TABLE)		C781	1-126-957-11	ELECT 0.22uF 20% 50V	
		< RESISTOR >		C782	1-126-957-11	ELECT 0.22uF 20% 50V	
R205	1-249-427-11	CARBON 6.8K 5% 1/4W F		C783	1-126-967-11	ELECT 47uF 20% 10V	
R206	1-249-425-11	CARBON 4.7K 5% 1/4W F		C784	1-136-495-11	FILM 0.068uF 5% 50V	
		< SWITCH >		C785	1-162-305-11	CERAMIC 0.0068uF 30% 16V	
S201	1-762-587-11	SWITCH, PUSH (1 KEY)(UP)					

* 1-664-016-11	DOOR SW BOARD	*****					
		< CAPACITOR >					
C691	1-164-159-21	CERAMIC 0.1uF 50V					
		< CONNECTOR >					
CN661	1-506-481-11	PIN, CONNECTOR 2P					
		< SWITCH >					
S691	1-771-057-11	SWITCH, PUSH (1 KEY)(▲ OPEN)					

* A-4392-486-A	HP/MIC BOARD, COMPLETE	*****					
		< CAPACITOR >					
C760	1-162-306-11	CERAMIC 0.01uF 20% 16V					
C761	1-126-961-11	ELECT 2.2uF 20% 50V					
C762	1-162-306-11	CERAMIC 0.01uF 20% 16V					
C763	1-126-961-11	ELECT 2.2uF 20% 50V					
C764	1-162-294-31	CERAMIC 0.001uF 10% 50V					
C765	1-162-215-31	CERAMIC 47PF 5% 50V					
C766	1-162-290-31	CERAMIC 470PF 10% 50V					
C767	1-162-215-31	CERAMIC 47PF 5% 50V					
C768	1-126-961-11	ELECT 2.2uF 20% 50V					
C769	1-162-282-31	CERAMIC 100PF 10% 50V					
C770	1-126-961-11	ELECT 2.2uF 20% 50V					
C771	1-126-959-11	ELECT 0.47uF 20% 50V					
		< CONNECTOR >					
* CN701	1-568-935-11	PIN, CONNECTOR 8P					
		< DIODE >					
D761	8-719-200-82	DIODE 11ES2					
D762	8-719-200-82	DIODE 11ES2					
D763	8-719-200-82	DIODE 11ES2					
		< IC >					
IC760	8-759-634-51	IC M5218AP					
IC761	8-759-450-96	IC M65850P					
		< JACK >					
J760	1-770-226-41	JACK (LARGE TYPE)(PHONES)					
J761	1-770-226-41	JACK (LARGE TYPE)(MIC 1)					
J762	1-770-226-41	JACK (LARGE TYPE)(MIC 2)					
		< COIL >					
L761	1-410-521-11	INDUCTOR 100uH					
		< BASE POST >					
* LP2	1-690-880-21	LEAD (WITH CONNECTOR)					
		< RESISTOR >					
R760	1-249-429-11	CARBON 10K 5% 1/4W					
R761	1-249-417-11	CARBON 1K 5% 1/4W F					
R762	1-249-429-11	CARBON 10K 5% 1/4W					
R763	1-249-417-11	CARBON 1K 5% 1/4W F					
R764	1-249-441-11	CARBON 100K 5% 1/4W					
R765	1-249-417-11	CARBON 1K 5% 1/4W F					
R766	1-249-437-11	CARBON 47K 5% 1/4W					
R767	1-249-429-11	CARBON 10K 5% 1/4W					
R768	1-249-431-11	CARBON 15K 5% 1/4W					

HP/MIC

KEY CON

LEAF SWITCH

Ref. No.	Part No.	Description			Remark
R769	1-247-885-00	CARBON	180K	5%	1/4W
R770	1-247-807-31	CARBON	100	5%	1/4W
R771	1-247-863-91	CARBON	22K	5%	1/4W
R772	1-247-863-91	CARBON	22K	5%	1/4W
R773	1-247-863-91	CARBON	22K	5%	1/4W
R774	1-247-881-00	CARBON	120K	5%	1/4W
R775	1-247-863-91	CARBON	22K	5%	1/4W
R776	1-247-863-91	CARBON	22K	5%	1/4W
R777	1-247-863-91	CARBON	22K	5%	1/4W
R778	1-249-437-11	CARBON	47K	5%	1/4W
R779	1-249-431-11	CARBON	15K	5%	1/4W
R782	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV760	1-225-366-11	RES, VAR, CARBON 50K (MIC LEVEL)			
RV761	1-225-366-11	RES, VAR, CARBON 50K (ECHO LEVEL)			

*	A-4398-049-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	1-126-964-11	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	1-126-964-11	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	1-566-999-11	PIN, CONNECTOR 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			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1401	8-729-900-80	TRANSISTOR DTC114ES			
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		< 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

*	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)			

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
*	1-659-059-13	LED BOARD *****				C213	1-136-171-00	FILM	0.33uF	5%	50V
		< DIODE >				C214	1-126-964-11	ELECT	10uF	20%	50V
D201	8-719-032-98	DIODE SEL5820A (DISC No.)				C215	1-136-153-00	FILM	0.01uF	5%	50V
		< TRANSISTOR >				C230	1-136-167-00	FILM	0.15uF	5%	50V
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE				C231	1-130-471-00	MYLAR	0.001uF	5%	50V
		< RESISTOR >				C234	1-126-925-11	ELECT	470uF	20%	10V
R201	1-247-863-91	CARBON	22K	5%	1/4W	C235	1-164-159-21	CERAMIC	0.1uF		50V
R202	1-249-411-11	CARBON	330	5%	1/4W	C237	1-126-964-11	ELECT	10uF	20%	50V
R203	1-249-437-11	CARBON	47K	5%	1/4W	C238	1-162-286-21	CERAMIC	220PF	10%	50V

*	A-4398-990-A	MAIN BOARD, COMPLETE *****				C239	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CAPACITOR >				C241	1-162-306-11	CERAMIC	0.01uF	20%	16V
C101	1-162-288-31	CERAMIC	330PF	10%	50V	C242	1-126-925-11	ELECT	470uF	20%	10V
C103	1-162-282-31	CERAMIC	100PF	10%	50V	C247	1-162-306-11	CERAMIC	0.01uF	20%	16V
C104	1-162-282-31	CERAMIC	100PF	10%	50V	C248	1-126-964-11	ELECT	10uF	20%	50V
C105	1-126-961-11	ELECT	2.2uF	20%	50V	C251	1-136-167-00	FILM	0.15uF	5%	50V
C106	1-130-479-00	MYLAR	0.0047uF	5%	50V	C252	1-136-167-00	FILM	0.15uF	5%	50V
C107	1-130-473-00	MYLAR	0.0015uF	5%	50V	C253	1-136-495-11	FILM	0.068uF	5%	50V
C108	1-136-159-00	FILM	0.033uF	5%	50V	C254	1-136-495-11	FILM	0.068uF	5%	50V
C109	1-126-933-11	ELECT	100uF	20%	10V	C255	1-136-156-00	FILM	0.018uF	5%	50V
C110	1-162-306-11	CERAMIC	0.01uF	20%	16V	C256	1-136-156-00	FILM	0.018uF	5%	50V
C111	1-162-306-11	CERAMIC	0.01uF	20%	16V	C257	1-130-480-00	MYLAR	0.0056uF	5%	50V
C114	1-162-306-11	CERAMIC	0.01uF	20%	16V	C258	1-130-479-00	MYLAR	0.0047uF	5%	50V
C121	1-162-286-21	CERAMIC	220PF	10%	50V	C259	1-130-474-00	MYLAR	0.0018uF	5%	50V
C122	1-162-286-21	CERAMIC	220PF	10%	50V	C260	1-126-964-11	ELECT	10uF	20%	50V
C125	1-109-889-11	ELECT	1uF	20%	50V	C261	1-126-964-11	ELECT	10uF	20%	50V
C150	1-162-306-11	CERAMIC	0.01uF	20%	16V	C262	1-136-171-00	FILM	0.33uF	5%	50V
C151	1-162-288-31	CERAMIC	330PF	10%	50V	C263	1-136-171-00	FILM	0.33uF	5%	50V
C153	1-162-282-31	CERAMIC	100PF	10%	50V	C264	1-126-964-11	ELECT	10uF	20%	50V
C154	1-162-282-31	CERAMIC	100PF	10%	50V	C265	1-136-153-00	FILM	0.01uF	5%	50V
C155	1-126-961-11	ELECT	2.2uF	20%	50V	C275	1-162-294-31	CERAMIC	0.001uF	10%	50V
C156	1-130-479-00	MYLAR	0.0047uF	5%	50V	C301	1-130-479-00	MYLAR	0.0047uF	5%	50V
C157	1-130-473-00	MYLAR	0.0015uF	5%	50V	C302	1-162-290-31	CERAMIC	470PF	10%	50V
C158	1-136-159-00	FILM	0.033uF	5%	50V	C303	1-130-495-00	MYLAR	0.1uF	5%	50V
C159	1-126-933-11	ELECT	100uF	20%	10V	C304	1-126-964-11	ELECT	10uF	20%	50V
C164	1-162-306-11	CERAMIC	0.01uF	20%	16V	C305	1-126-960-11	ELECT	1uF	20%	50V
C171	1-162-286-21	CERAMIC	220PF	10%	50V	C307	1-126-964-11	ELECT	10uF	20%	50V
C172	1-162-286-21	CERAMIC	220PF	10%	50V	C308	1-126-964-11	ELECT	10uF	20%	50V
C201	1-136-167-00	FILM	0.15uF	5%	50V	C309	1-126-960-11	ELECT	1uF	20%	50V
C202	1-136-167-00	FILM	0.15uF	5%	50V	C310	1-126-933-11	ELECT	100uF	20%	10V
C203	1-136-495-11	FILM	0.068uF	5%	50V	C351	1-130-479-00	MYLAR	0.0047uF	5%	50V
C204	1-136-495-11	FILM	0.068uF	5%	50V	C352	1-162-290-31	CERAMIC	470PF	10%	50V
C205	1-136-156-00	FILM	0.018uF	5%	50V	C353	1-130-495-00	MYLAR	0.1uF	5%	50V
C206	1-136-156-00	FILM	0.018uF	5%	50V	C355	1-126-960-11	ELECT	1uF	20%	50V
C207	1-130-480-00	MYLAR	0.0056uF	5%	50V	C357	1-126-964-11	ELECT	10uF	20%	50V
C208	1-130-479-00	MYLAR	0.0047uF	5%	50V	C358	1-126-964-11	ELECT	10uF	20%	50V
C209	1-130-474-00	MYLAR	0.0018uF	5%	50V	C359	1-126-960-11	ELECT	1uF	20%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V	C360	1-126-933-11	ELECT	100uF	20%	10V
C211	1-126-964-11	ELECT	10uF	20%	50V	C401	1-164-159-21	CERAMIC	0.1uF		50V
C212	1-136-171-00	FILM	0.33uF	5%	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

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Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C606	1-136-167-00	FILM	0.15uF	5%	50V	C667	1-126-964-11	ELECT	10uF	20%	50V
C607	1-126-963-11	ELECT	4.7uF	20%	50V	C668	1-162-286-21	CERAMIC	220PF	10%	50V
C608	1-126-963-11	ELECT	4.7uF	20%	50V	C669	1-109-889-11	ELECT	1uF	20%	50V
C609	1-136-173-00	FILM	0.47uF	5%	50V	C678	1-162-294-31	CERAMIC	0.001uF	10%	50V
C610	1-136-173-00	FILM	0.47uF	5%	50V	C711	1-126-916-11	ELECT	1000uF	20%	6.3V
C611	1-126-963-11	ELECT	4.7uF	20%	50V	C712	1-164-159-21	CERAMIC	0.1uF		50V
C612	1-126-963-11	ELECT	4.7uF	20%	50V	C713	1-102-518-11	CERAMIC	33PF	5%	50V
C613	1-136-173-00	FILM	0.47uF	5%	50V	C714	1-102-516-11	CERAMIC	27PF	5%	50V
C614	1-136-173-00	FILM	0.47uF	5%	50V	C723	1-164-159-21	CERAMIC	0.1uF		50V
C615	1-136-165-00	FILM	0.1uF	5%	50V	C724	1-126-933-11	ELECT	100uF	20%	10V
C616	1-136-165-00	FILM	0.1uF	5%	50V	C766	1-162-294-31	CERAMIC	0.001uF	10%	50V
C617	1-136-165-00	FILM	0.1uF	5%	50V	C801	1-126-961-11	ELECT	2.2uF	20%	50V
C618	1-136-165-00	FILM	0.1uF	5%	50V	C803	1-126-925-11	ELECT	470uF	20%	10V
C619	1-126-960-11	ELECT	1uF	20%	50V	C811	1-126-961-11	ELECT	2.2uF	20%	50V
C620	1-126-960-11	ELECT	1uF	20%	50V	C853	1-162-294-31	CERAMIC	0.001uF	10%	50V
C621	1-126-923-11	ELECT	220uF	20%	10V	C855	1-162-294-31	CERAMIC	0.001uF	10%	50V
C622	1-126-964-11	ELECT	10uF	20%	50V	C856	1-162-294-31	CERAMIC	0.001uF	10%	50V
C623	1-126-964-11	ELECT	10uF	20%	50V	C861	1-162-306-11	CERAMIC	0.01uF	20%	16V
C624	1-126-964-11	ELECT	10uF	20%	50V	C862	1-126-964-11	ELECT	10uF	20%	50V
C625	1-126-964-11	ELECT	10uF	20%	50V	C863	1-126-964-11	ELECT	10uF	20%	50V
C626	1-126-923-11	ELECT	220uF	20%	10V	C901	1-126-939-11	ELECT	10000uF	20%	16V
C627	1-136-161-00	FILM	0.047uF	5%	50V	C902	1-126-768-11	ELECT	2200uF	20%	16V
C628	1-136-157-00	FILM	0.022uF	5%	50V	C903	1-164-159-21	CERAMIC	0.1uF		50V
C629	1-162-292-31	CERAMIC	680PF	10%	50V	C904	1-164-159-21	CERAMIC	0.1uF		50V
C630	1-126-933-11	ELECT	100uF	20%	10V	C908	1-126-933-11	ELECT	100uF	20%	10V
C631	1-162-306-11	CERAMIC	0.01uF	20%	16V	C909	1-126-933-11	ELECT	100uF	20%	10V
C632	1-126-964-11	ELECT	10uF	20%	50V	C910	1-126-964-11	ELECT	10uF	20%	50V
C633	1-136-173-00	FILM	0.47uF	5%	50V	C911	1-126-768-11	ELECT	2200uF	20%	16V
C634	1-104-664-11	ELECT	47uF	20%	25V	C913	1-126-964-11	ELECT	10uF	20%	50V
C635	1-130-467-00	MYLAR	470PF	5%	50V	C914	1-126-767-11	ELECT	1000uF	20%	16V
C636	1-130-467-00	MYLAR	470PF	5%	50V	C915	1-126-964-11	ELECT	10uF	20%	50V
C637	1-162-306-11	CERAMIC	0.01uF	20%	16V	C916	1-126-916-11	ELECT	1000uF	20%	6.3V
C638	1-162-306-11	CERAMIC	0.01uF	20%	16V	C918	1-126-933-11	ELECT	100uF	20%	10V
C641	1-136-171-00	FILM	0.33uF	5%	50V	C919	1-126-964-11	ELECT	10uF	20%	50V
C642	1-136-159-00	FILM	0.033uF	5%	50V	C920	1-126-933-11	ELECT	100uF	20%	10V
C643	1-162-306-11	CERAMIC	0.01uF	20%	16V	C943	1-162-294-31	CERAMIC	0.001uF	10%	50V
C644	1-126-933-11	ELECT	100uF	20%	10V	C944	1-126-947-11	ELECT	47uF	20%	35V
C645	1-126-961-11	ELECT	2.2uF	20%	50V	C951	1-126-967-11	ELECT	47uF	20%	10V
C646	1-162-286-21	CERAMIC	220PF	10%	50V	C952	1-136-165-00	FILM	0.1uF	5%	50V
C647	1-162-306-11	CERAMIC	0.01uF	20%	16V	C953	1-136-173-00	FILM	0.47uF	5%	50V
C648	1-126-923-11	ELECT	220uF	20%	10V	C961	1-162-306-11	CERAMIC	0.01uF	20%	16V
C649	1-136-164-00	FILM	0.082uF	5%	50V	C991	1-162-306-11	CERAMIC	0.01uF	20%	16V
C650	1-130-477-00	MYLAR	0.0033uF	5%	50V	C992	1-162-306-11	CERAMIC	0.01uF	20%	16V
C651	1-136-164-00	FILM	0.082uF	5%	50V			< CONNECTOR >			
C652	1-136-173-00	FILM	0.47uF	5%	50V	CN401	1-568-838-11	SOCKET, CONNECTOR 21P			
C653	1-126-923-11	ELECT	220uF	20%	10V	* CN402	1-568-830-11	SOCKET, CONNECTOR 11P			
C654	1-126-960-11	ELECT	1uF	20%	50V	* CN403	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P			
C655	1-126-960-11	ELECT	1uF	20%	50V	* CN701	1-568-836-11	SOCKET, CONNECTOR 17P			
C656	1-126-964-11	ELECT	10uF	20%	50V	CN801	1-568-832-11	SOCKET, CONNECTOR 13P			
C657	1-162-306-11	CERAMIC	0.01uF	20%	16V	* CN830	1-568-936-11	PIN, CONNECTOR 9P			
C658	1-162-286-21	CERAMIC	220PF	10%	50V	* CN851	1-568-832-11	SOCKET, CONNECTOR 13P			
C660	1-126-933-11	ELECT	100uF	20%	10V	* CN901	1-770-734-11	CONNECTOR, BOARD TO BOARD 20P			
C661	1-162-294-31	CERAMIC	0.001uF	10%	50V	* CN961	1-564-518-11	PLUG, CONNECTOR 3P			
C662	1-126-933-11	ELECT	100uF	20%	10V			< DIODE >			
C663	1-162-294-31	CERAMIC	0.001uF	10%	50V	D702	8-719-987-63	DIODE 1N4148M			
C664	1-126-964-11	ELECT	10uF	20%	50V	D772	8-719-987-63	DIODE 1N4148M			
C665	1-126-964-11	ELECT	10uF	20%	50V						
C666	1-126-964-11	ELECT	10uF	20%	50V						

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D799	8-719-987-63	DIODE 1N4148M		Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D901	8-719-025-23	DIODE RBA-402-SL		Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D902	8-719-200-82	DIODE 11ES2		Q206	8-729-900-36	TRANSISTOR DTC124ES	
D903	8-719-200-82	DIODE 11ES2		Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D904	8-719-987-63	DIODE 1N4148M		Q252	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D905	8-719-200-82	DIODE 11ES2		Q253	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D906	8-719-200-82	DIODE 11ES2		Q254	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D907	8-719-987-63	DIODE 1N4148M		Q256	8-729-900-36	TRANSISTOR DTC124ES	
D908	8-719-200-82	DIODE 11ES2		Q403	8-729-801-93	TRANSISTOR 2SD1387	
D941	8-719-002-60	DIODE UZL-33L		Q406	8-729-900-80	TRANSISTOR DTC114ES	
D942	8-719-010-43	DIODE UZ-5.6BSC		Q407	8-729-900-80	TRANSISTOR DTC114ES	
D951	8-719-987-63	DIODE 1N4148M		Q408	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D952	8-719-987-63	DIODE 1N4148M		Q409	8-729-900-80	TRANSISTOR DTC114ES	
D953	8-719-987-63	DIODE 1N4148M		Q601	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D954	8-719-987-63	DIODE 1N4148M		Q602	8-729-141-26	TRANSISTOR 2SC3622A-LK	
		< GROUND TERMINAL >		Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
* EPT901	1-537-738-21	TERMINAL, EARTH		Q906	8-729-040-20	TRANSISTOR RT1P137L-TP	
		< IC >		Q907	8-729-900-63	TRANSISTOR DTA124ES	
IC101	8-759-634-51	IC M5218AP		Q912	8-729-900-36	TRANSISTOR DTC124ES	
IC102	8-759-000-48	IC MC14052BCP		Q941	8-729-118-01	TRANSISTOR 2SB1116-K	
IC103	8-759-140-53	IC uPD4053BC		Q951	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC201	8-759-460-02	IC M62427FP-A		Q961	8-729-111-29	TRANSISTOR 2SD1616A-K	
IC401	8-759-460-02	IC HA12203NT		Q962	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC402	8-759-822-09	IC LB1641				< RESISTOR >	
IC601	8-759-442-96	IC LA2786		R101	1-249-417-11	CARBON 1K 5%	1/4W F
IC602	8-759-442-97	IC LV1016		R102	1-249-417-11	CARBON 1K 5%	1/4W F
IC603	8-759-634-51	IC M5218AP		R103	1-249-437-11	CARBON 47K 5%	1/4W
IC604	8-759-281-42	IC TC9210P		R104	1-249-417-11	CARBON 1K 5%	1/4W F
IC701	8-759-486-11	IC uPD780016YGF-019-3BA		R105	1-247-897-11	CARBON 560K 5%	1/4W
IC861	8-759-634-51	IC M5218AP		R106	1-249-437-11	CARBON 47K 5%	1/4W
IC901	8-759-288-53	IC LA5617		R107	1-249-417-11	CARBON 1K 5%	1/4W F
IC902	8-759-231-53	IC TA7805S		R108	1-249-441-11	CARBON 100K 5%	1/4W
IC903	8-759-604-86	IC M5F7807L		R109	1-247-815-91	CARBON 220 5%	1/4W
IC904	8-759-604-39	IC M5F78M12		R121	1-249-424-11	CARBON 3.9K 5%	1/4W F
IC905	8-759-604-38	IC M5F78M10L		R122	1-247-887-00	CARBON 220K 5%	1/4W
IC951	8-759-635-63	IC M51943BSL		R123	1-249-417-11	CARBON 1K 5%	1/4W F
		< JACK >		R124	1-249-441-11	CARBON 100K 5%	1/4W
J101	1-774-411-11	JACK, PIN 6P (VIDEO(AUDIO) IN/OUT, PHONO IN)		R125	1-249-421-11	CARBON 2.2K 5%	1/4W F
		< COIL >		R126	1-249-441-11	CARBON 100K 5%	1/4W
L601	1-410-509-11	INDUCTOR 10uH		R127	1-249-421-11	CARBON 2.2K 5%	1/4W F
L602	1-410-509-11	INDUCTOR 10uH		R128	1-249-426-11	CARBON 5.6K 5%	1/4W
L604	1-410-509-11	INDUCTOR 10uH		R129	1-249-429-11	CARBON 10K 5%	1/4W
L769	1-410-521-11	INDUCTOR 100uH		R130	1-249-441-11	CARBON 100K 5%	1/4W
L770	1-410-521-11	INDUCTOR 100uH		R151	1-249-417-11	CARBON 1K 5%	1/4W F
L772	1-410-521-11	INDUCTOR 100uH		R152	1-249-417-11	CARBON 1K 5%	1/4W F
L861	1-410-521-11	INDUCTOR 100uH		R153	1-249-437-11	CARBON 47K 5%	1/4W
		< TRANSISTOR >		R154	1-249-417-11	CARBON 1K 5%	1/4W F
Q120	8-729-422-57	TRANSISTOR UN4111		R155	1-247-897-11	CARBON 560K 5%	1/4W
Q121	8-729-141-26	TRANSISTOR 2SC3622A-LK		R156	1-249-437-11	CARBON 47K 5%	1/4W
Q122	8-729-141-26	TRANSISTOR 2SC3622A-LK		R157	1-249-417-11	CARBON 1K 5%	1/4W F
Q123	8-729-422-57	TRANSISTOR UN4111		R158	1-249-441-11	CARBON 100K 5%	1/4W
Q124	8-729-900-36	TRANSISTOR DTC124ES		R159	1-247-815-91	CARBON 220 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

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R179	1-249-429-11	CARBON	10K	5%	1/4W	R358	1-249-421-11	CARBON	2.2K	5%	1/4W F
R202	1-249-425-11	CARBON	4.7K	5%	1/4W F	R359	1-249-428-11	CARBON	8.2K	5%	1/4W F
R203	1-249-437-11	CARBON	47K	5%	1/4W	R401	1-249-425-11	CARBON	4.7K	5%	1/4W F
R204	1-249-437-11	CARBON	47K	5%	1/4W	R402	1-249-425-11	CARBON	4.7K	5%	1/4W F
R205	1-249-441-11	CARBON	100K	5%	1/4W	R403	1-249-425-11	CARBON	4.7K	5%	1/4W F
R206	1-247-887-00	CARBON	220K	5%	1/4W	R404	1-249-417-11	CARBON	1K	5%	1/4W F
R207	1-249-437-11	CARBON	47K	5%	1/4W	R405	1-249-437-11	CARBON	47K	5%	1/4W
R208	1-249-429-11	CARBON	10K	5%	1/4W	R406	1-249-437-11	CARBON	47K	5%	1/4W
R209	1-249-411-11	CARBON	330	5%	1/4W	R407	1-249-437-11	CARBON	47K	5%	1/4W
R210	1-249-429-11	CARBON	10K	5%	1/4W	R408	1-249-437-11	CARBON	47K	5%	1/4W
R211	1-249-421-11	CARBON	2.2K	5%	1/4W F	R410	1-249-430-11	CARBON	12K	5%	1/4W
R212	1-249-441-11	CARBON	100K	5%	1/4W	R411	1-249-426-11	CARBON	5.6K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W	R414	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-437-11	CARBON	47K	5%	1/4W	R415	1-249-432-11	CARBON	18K	5%	1/4W
R215	1-249-441-11	CARBON	100K	5%	1/4W	R416	1-249-429-11	CARBON	10K	5%	1/4W
R216	1-247-891-00	CARBON	330K	5%	1/4W	R417	1-249-441-11	CARBON	100K	5%	1/4W
R217	1-249-431-11	CARBON	15K	5%	1/4W	R419	1-249-429-11	CARBON	10K	5%	1/4W
R222	1-247-903-00	CARBON	1M	5%	1/4W	R454	1-249-425-11	CARBON	4.7K	5%	1/4W F
R223	1-247-903-00	CARBON	1M	5%	1/4W	R455	1-249-425-11	CARBON	4.7K	5%	1/4W F
R230	1-247-863-91	CARBON	22K	5%	1/4W	R456	1-249-411-11	CARBON	330	5%	1/4W
R231	1-247-863-91	CARBON	22K	5%	1/4W	R457	1-249-427-11	CARBON	6.8K	5%	1/4W F
R232	1-247-856-00	CARBON	11K	5%	1/4W	R458	1-249-429-11	CARBON	10K	5%	1/4W
R240	1-249-429-11	CARBON	10K	5%	1/4W	R461	1-247-843-11	CARBON	3.3K	5%	1/4W
R241	1-249-429-11	CARBON	10K	5%	1/4W	R601	1-247-887-00	CARBON	220K	5%	1/4W
R242	1-249-429-11	CARBON	10K	5%	1/4W	R602	1-247-887-00	CARBON	220K	5%	1/4W
R243	1-249-417-11	CARBON	1K	5%	1/4W F	R603	1-249-417-11	CARBON	1K	5%	1/4W F
R244	1-249-417-11	CARBON	1K	5%	1/4W F	R604	1-249-432-11	CARBON	18K	5%	1/4W
R245	1-249-417-11	CARBON	1K	5%	1/4W F	R605	1-249-417-11	CARBON	1K	5%	1/4W F
R252	1-249-425-11	CARBON	4.7K	5%	1/4W F	R615	1-249-441-11	CARBON	100K	5%	1/4W
R253	1-249-437-11	CARBON	47K	5%	1/4W	R621	1-249-436-11	CARBON	39K	5%	1/4W
R254	1-249-437-11	CARBON	47K	5%	1/4W	R622	1-249-436-11	CARBON	39K	5%	1/4W
R255	1-249-441-11	CARBON	100K	5%	1/4W	R623	1-249-417-11	CARBON	1K	5%	1/4W F
R256	1-247-887-00	CARBON	220K	5%	1/4W	R624	1-247-903-00	CARBON	1M	5%	1/4W
R257	1-249-437-11	CARBON	47K	5%	1/4W	R625	1-249-411-11	CARBON	330	5%	1/4W
R258	1-249-429-11	CARBON	10K	5%	1/4W	R626	1-249-417-11	CARBON	1K	5%	1/4W F
R259	1-249-411-11	CARBON	330	5%	1/4W	R627	1-249-417-11	CARBON	1K	5%	1/4W F
R260	1-249-429-11	CARBON	10K	5%	1/4W	R628	1-249-417-11	CARBON	1K	5%	1/4W F
R261	1-249-421-11	CARBON	2.2K	5%	1/4W F	R630	1-249-425-11	CARBON	4.7K	5%	1/4W F
R262	1-249-441-11	CARBON	100K	5%	1/4W	R631	1-249-431-11	CARBON	15K	5%	1/4W
R263	1-249-429-11	CARBON	10K	5%	1/4W	R632	1-249-441-11	CARBON	100K	5%	1/4W
R264	1-249-437-11	CARBON	47K	5%	1/4W	R633	1-249-425-11	CARBON	4.7K	5%	1/4W F
R265	1-249-441-11	CARBON	100K	5%	1/4W	R634	1-249-427-11	CARBON	6.8K	5%	1/4W F
R266	1-247-891-00	CARBON	330K	5%	1/4W	R635	1-249-441-11	CARBON	100K	5%	1/4W
R267	1-249-431-11	CARBON	15K	5%	1/4W	R636	1-249-437-11	CARBON	47K	5%	1/4W
R273	1-247-903-00	CARBON	1M	5%	1/4W	R637	1-249-441-11	CARBON	100K	5%	1/4W
R301	1-249-435-11	CARBON	33K	5%	1/4W	R638	1-249-441-11	CARBON	100K	5%	1/4W
R304	1-249-426-11	CARBON	5.6K	5%	1/4W	R639	1-249-417-11	CARBON	1K	5%	1/4W F
R305	1-249-417-11	CARBON	1K	5%	1/4W F	R640	1-249-417-11	CARBON	1K	5%	1/4W F
R306	1-247-840-00	CARBON	2.4K	5%	1/4W	R641	1-249-417-11	CARBON	1K	5%	1/4W F
R307	1-247-863-91	CARBON	22K	5%	1/4W	R642	1-249-417-11	CARBON	1K	5%	1/4W F
R308	1-249-421-11	CARBON	2.2K	5%	1/4W F	R645	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-428-11	CARBON	8.2K	5%	1/4W F	R646	1-249-429-11	CARBON	10K	5%	1/4W
R351	1-247-863-91	CARBON	22K	5%	1/4W	R650	1-249-441-11	CARBON	100K	5%	1/4W
R354	1-249-426-11	CARBON	5.6K	5%	1/4W	R651	1-249-417-11	CARBON	1K	5%	1/4W F
R355	1-249-417-11	CARBON	1K	5%	1/4W F	R700	1-249-425-11	CARBON	4.7K	5%	1/4W F
R356	1-247-840-00	CARBON	2.4K	5%	1/4W	R704	1-247-807-31	CARBON	100	5%	1/4W
R357	1-247-863-91	CARBON	22K	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

Ref. No.	Part No.	Description	Quantity	Tolerance	Power	Remark	Ref. No.	Part No.	Description	Quantity	Tolerance	Power	Remark
R726	1-247-807-31	CARBON	100	5%	1/4W		R961	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R727	1-247-807-31	CARBON	100	5%	1/4W		R962	1-249-432-11	CARBON	18K	5%	1/4W	
R728	1-247-807-31	CARBON	100	5%	1/4W		R963	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R730	1-249-431-11	CARBON	15K	5%	1/4W				< VARIABLE RESISTOR >				
R731	1-249-415-11	CARBON	680	5%	1/4W		RV301	1-238-598-11	RES, ADJ, CARBON	2.2K			
R744	1-247-807-31	CARBON	100	5%	1/4W		RV351	1-238-598-11	RES, ADJ, CARBON	2.2K			
R745	1-247-807-31	CARBON	100	5%	1/4W				< VIBRATOR >				
R755	1-247-807-31	CARBON	100	5%	1/4W		X601	1-579-125-11	VIBRATOR, CERAMIC	(8MHz)			
R756	1-247-807-31	CARBON	100	5%	1/4W		X701	1-579-233-11	VIBRATOR, CERAMIC	(5MHz)			
R757	1-247-807-31	CARBON	100	5%	1/4W		X702	1-567-098-41	VIBRATOR, CRYSTAL	(32.768kHz)			
R760	1-247-807-31	CARBON	100	5%	1/4W				*****				
R761	1-247-807-31	CARBON	100	5%	1/4W								
R762	1-247-807-31	CARBON	100	5%	1/4W		*	A-4398-986-A	PANEL BOARD, COMPLETE				
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		*	4-986-870-11	HOLDER, FL TUBE				
R768	1-247-807-31	CARBON	100	5%	1/4W				< CAPACITOR >				
R776	1-247-807-31	CARBON	100	5%	1/4W		C601	1-126-967-11	ELECT	47uF	20%	50V	
R777	1-247-807-31	CARBON	100	5%	1/4W		C602	1-162-306-11	CERAMIC	0.01uF	20%	16V	
R794	1-247-807-31	CARBON	100	5%	1/4W		C603	1-126-963-11	ELECT	4.7uF	20%	50V	
R795	1-247-807-31	CARBON	100	5%	1/4W		C604	1-126-960-11	ELECT	1uF	20%	50V	
R796	1-247-807-31	CARBON	100	5%	1/4W		C606	1-126-960-11	ELECT	1uF	20%	50V	
R797	1-247-807-31	CARBON	100	5%	1/4W		C608	1-124-584-00	ELECT	100uF	20%	10V	
R798	1-249-425-31	CARBON	4.7K	5%	1/4W	F	C610	1-162-306-11	CERAMIC	0.01uF	20%	16V	
R801	1-247-807-11	CARBON	100	5%	1/4W	F	C611	1-162-306-11	CERAMIC	0.01uF	20%	16V	
R802	1-249-435-11	CARBON	33K	5%	1/4W		C612	1-126-967-11	ELECT	47uF	20%	50V	
R807	1-249-435-11	CARBON	33K	5%	1/4W		C613	1-164-159-21	CERAMIC	0.1uF		50V	
R811	1-247-807-31	CARBON	100	5%	1/4W	F	C621	1-126-960-11	ELECT	1uF	20%	50V	
R812	1-249-435-11	CARBON	33K	5%	1/4W		C622	1-136-161-00	FILM	0.047uF	5%	50V	
R856	1-249-417-11	CARBON	1K	5%	1/4W	F	C623	1-126-957-11	ELECT	0.22uF	20%	50V	
R858	1-249-417-11	CARBON	1K	5%	1/4W	F	C624	1-126-957-11	ELECT	0.22uF	20%	50V	
R861	1-247-886-11	CARBON	200K	5%	1/4W		C625	1-162-306-11	CERAMIC	0.01uF	20%	16V	
R862	1-249-441-11	CARBON	100K	5%	1/4W		C626	1-126-957-11	ELECT	0.22uF	20%	50V	
R869	1-249-429-11	CARBON	10K	5%	1/4W		C627	1-136-159-00	FILM	0.033uF	5%	50V	
R870	1-247-843-11	CARBON	3.3K	5%	1/4W		C628	1-162-302-11	CERAMIC	0.0022uF	30%	16V	
R877	1-249-437-11	CARBON	47K	5%	1/4W		C629	1-126-957-11	ELECT	0.22uF	20%	50V	
R901	1-247-895-91	CARBON	470K	5%	1/4W		C630	1-162-293-31	CERAMIC	820PF	10%	50V	
R902	1-249-417-11	CARBON	1K	5%	1/4W	F	C631	1-126-957-11	ELECT	0.22uF	20%	50V	
R906	1-249-417-11	CARBON	1K	5%	1/4W	F	C632	1-126-957-11	ELECT	0.22uF	20%	50V	
R907	1-249-429-11	CARBON	10K	5%	1/4W		C641	1-162-286-21	CERAMIC	220PF	10%	50V	
△R908	1-215-910-00	METAL	68	5%	3W	F	C642	1-162-286-21	CERAMIC	220PF	10%	50V	
△R909	1-215-910-00	METAL	68	5%	3W	F	C643	1-162-286-21	CERAMIC	220PF	10%	50V	
△R910	1-215-910-00	METAL	68	5%	3W	F	C644	1-162-286-21	CERAMIC	220PF	10%	50V	
△R911	1-215-910-00	METAL	68	5%	3W	F	C645	1-162-286-21	CERAMIC	220PF	10%	50V	
R912	1-249-417-11	CARBON	1K	5%	1/4W	F	C646	1-162-286-21	CERAMIC	220PF	10%	50V	
△R941	1-217-637-11	FUSIBLE	1	5%	1/4W	F	C647	1-162-286-21	CERAMIC	220PF	10%	50V	
R942	1-247-863-91	CARBON	22K	5%	1/4W	F	C648	1-162-286-21	CERAMIC	220PF	10%	50V	
R943	1-249-425-11	CARBON	4.7K	5%	1/4W	F	C649	1-162-286-21	CERAMIC	220PF	10%	50V	
R944	1-247-815-91	CARBON	220	5%	1/4W		C650	1-162-286-21	CERAMIC	220PF	10%	50V	
R945	1-247-815-91	CARBON	220	5%	1/4W		C651	1-162-286-21	CERAMIC	220PF	10%	50V	
R948	1-249-417-11	CARBON	1K	5%	1/4W	F	C652	1-162-286-21	CERAMIC	220PF	10%	50V	
R951	1-249-417-11	CARBON	1K	5%	1/4W	F	C653	1-162-286-21	CERAMIC	220PF	10%	50V	
R952	1-249-425-11	CARBON	4.7K	5%	1/4W	F	C654	1-162-286-21	CERAMIC	220PF	10%	50V	
R953	1-247-807-31	CARBON	100	5%	1/4W		C655	1-162-286-21	CERAMIC	220PF	10%	50V	
R954	1-249-437-11	CARBON	47K	5%	1/4W		C656	1-162-286-21	CERAMIC	220PF	10%	50V	
R955	1-249-437-11	CARBON	47K	5%	1/4W								
R956	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.

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C690	1-164-159-21	CERAMIC	0.1uF 50V (EXCEPT MY)			< TRANSISTOR >	
C693	1-164-159-21	CERAMIC	0.1uF 50V (EXCEPT MY)	Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C695	1-164-159-21	CERAMIC	0.1uF 50V	Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
C696	1-164-159-21	CERAMIC	0.1uF 50V	Q603	8-729-118-00	TRANSISTOR 2SB1116-L	
C697	1-162-294-31	CERAMIC	0.001uF 10% 50V	Q604	8-729-119-77	TRANSISTOR 2SA1175-FEK	
C698	1-136-165-00	FILM	0.1uF 5% (EXCEPT MY)	Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK	
		< CONNECTOR >		Q606	8-729-119-77	TRANSISTOR 2SA1175-FEK	
* CN601	1-568-836-11	SOCKET, CONNECTOR 17P		Q607	8-729-119-77	TRANSISTOR 2SA1175-FEK	
* CN602	1-568-947-11	PIN, CONNECTOR 9P		Q608	8-729-119-77	TRANSISTOR 2SA1175-FEK	
CN603	1-506-486-11	PIN, CONNECTOR 7P		Q609	8-729-119-77	TRANSISTOR 2SA1175-FEK	
* CN604	1-568-947-11	PIN, CONNECTOR 9P		Q610	8-729-119-77	TRANSISTOR 2SA1175-FEK	
		< DIODE >		Q611	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D601	8-719-987-63	DIODE	1N4148M	Q612	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D602	8-719-987-63	DIODE	1N4148M	Q613	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D603	8-719-987-63	DIODE	1N4148M	Q614	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D604	8-719-987-63	DIODE	1N4148M	Q615	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D605	8-719-987-63	DIODE	1N4148M	Q616	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D606	8-719-987-63	DIODE	1N4148M	Q617	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D607	8-719-987-63	DIODE	1N4148M	Q618	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D611	8-719-057-29	DIODE	SML78423C-TP15 (TUNER/BAND)	Q619	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D612	8-719-057-29	DIODE	SML78423C-TP15 (TUNER/BAND)	Q621	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D613	8-719-058-04	DIODE	SEL5223S-TP15 (ENTER/NEXT)	Q622	8-729-119-77	TRANSISTOR 2SA1175-FEK	
D614	8-719-058-04	DIODE	SEL5223S-TP15 (GROOVE)			< RESISTOR >	
D615	8-719-058-04	DIODE	SEL5223S-TP15 (SUPER WOOFER)	R601	1-247-843-11	CARBON	3.3K 5% 1/4W
D616	8-719-058-04	DIODE	SEL5223S-TP15 (EFFECT)	R602	1-249-427-11	CARBON	6.8K 5% 1/4W F
D617	8-719-058-04	DIODE	SEL5223S-TP15 (ENTER)	R603	1-247-903-00	CARBON	1M 5% 1/4W
D618	8-719-058-04	DIODE	SEL5223S-TP15 (FILE 1)	R606	1-249-429-11	CARBON	10K 5% 1/4W
D619	8-719-058-04	DIODE	SEL5223S-TP15 (FILE 2)	R607	1-249-429-11	CARBON	10K 5% 1/4W
D620	8-719-058-04	DIODE	SEL5223S-TP15 (FILE 3)	R608	1-249-429-11	CARBON	10K 5% 1/4W
D621	8-719-058-04	DIODE	SEL5223S-TP15 (FILE 4)	R609	1-249-429-11	CARBON	10K 5% 1/4W
D622	8-719-058-04	DIODE	SEL5223S-TP15 (FILE 5)	R610	1-249-429-11	CARBON	10K 5% 1/4W
D623	8-719-058-04	DIODE	SEL5223S-TP15 (P.FILE)	R611	1-247-843-11	CARBON	3.3K 5% 1/4W
D624	8-719-058-04	DIODE	SEL5223S-TP15 (MENU 2)	R612	1-247-843-11	CARBON	3.3K 5% 1/4W
D625	8-719-058-04	DIODE	SEL5223S-TP15 (MENU 1)	R613	1-249-401-11	CARBON	47 5% 1/4W F
D626	8-719-058-04	DIODE	SEL5223S-TP15 (DSP)	R614	1-249-429-11	CARBON	10K 5% 1/4W
D627	8-719-058-04	DIODE	SEL5223S-TP15 (PRO LOGIC)	R615	1-249-429-11	CARBON	10K 5% 1/4W
D628	8-719-058-04	DIODE	SEL5223S-TP15 (KEY CONTROL)	R617	1-249-429-11	CARBON	10K 5% 1/4W
D629	8-719-058-04	DIODE	SEL5223S-TP15 (PRO LOGIC)	R621	1-249-421-11	CARBON	2.2K 5% 1/4W F
		< FERRITE BEAD >		R622	1-249-437-11	CARBON	47K 5% 1/4W
FB601	1-412-473-21	INDUCTOR 0UH		R623	1-247-895-91	CARBON	470K 5% 1/4W
		< FLUORESCENT INDICATOR >		R624	1-249-421-11	CARBON	2.2K 5% 1/4W F
FL601	1-517-617-11	INDICATOR TUBE, FLUORESCENT		R625	1-249-437-11	CARBON	47K 5% 1/4W
		< IC >		R626	1-247-895-91	CARBON	470K 5% 1/4W
IC601	8-759-468-17	IC TMP87CM75-6565		R627	1-249-421-11	CARBON	2.2K 5% 1/4W F
IC602	8-759-459-84	IC NJL56H400		R628	1-249-437-11	CARBON	47K 5% 1/4W
		< COIL >		R629	1-247-895-91	CARBON	470K 5% 1/4W
L601	1-410-509-11	INDUCTOR 10uH		R631	1-249-437-11	CARBON	47K 5% 1/4W
				R632	1-247-895-91	CARBON	470K 5% 1/4W
				R633	1-247-897-11	CARBON	560K 5% 1/4W
				R634	1-247-897-11	CARBON	560K 5% 1/4W
				R635	1-247-897-11	CARBON	560K 5% 1/4W
				R636	1-247-897-11	CARBON	560K 5% 1/4W
				R637	1-247-895-91	CARBON	470K 5% 1/4W
				R638	1-249-435-11	CARBON	33K 5% 1/4W
				R641	1-249-419-11	CARBON	1.5K 5% 1/4W F
				R642	1-249-401-11	CARBON	47 5% 1/4W F

PANEL

POWER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R643	1-249-403-11	CARBON	68 5% 1/4W F	R701	1-247-807-31	CARBON	100 5% 1/4W
R644	1-247-807-31	CARBON	100 5% 1/4W	R702	1-247-807-31	CARBON	100 5% 1/4W
R645	1-249-407-11	CARBON	150 5% 1/4W F	R703	1-247-807-31	CARBON	100 5% 1/4W
R646	1-249-407-11	CARBON	150 5% 1/4W F	R704	1-247-807-31	CARBON	100 5% 1/4W
R647	1-247-815-91	CARBON	220 5% 1/4W			< SWITCH >	
R648	1-249-411-11	CARBON	330 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)	
R649	1-249-413-11	CARBON	470 5% 1/4W F	S602	1-554-303-21	SWITCH, TACTILE (TUNER MEMORY)	
R650	1-249-415-11	CARBON	680 5% 1/4W F	S603	1-554-303-21	SWITCH, TACTILE (TUNING MODE)	
R651	1-249-417-11	CARBON	1K 5% 1/4W F	S604	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)	
R652	1-249-419-11	CARBON	1.5K 5% 1/4W F	S605	1-554-303-21	SWITCH, TACTILE (TUNING +)	
R653	1-249-421-11	CARBON	2.2K 5% 1/4W F	S606	1-554-303-21	SWITCH, TACTILE (TUNING -)	
R654	1-247-843-11	CARBON	3.3K 5% 1/4W	S607	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R655	1-249-427-11	CARBON	6.8K 5% 1/4W F	S609	1-554-303-21	SWITCH, TACTILE (FUNCTION)	
R656	1-249-431-11	CARBON	15K 5% 1/4W	S610	1-554-303-21	SWITCH, TACTILE (GROOVE)	
R657	1-249-419-11	CARBON	1.5K 5% 1/4W F	S611	1-554-303-21	SWITCH, TACTILE (GEO ▲)	
R658	1-249-401-11	CARBON	47 5% 1/4W F	S612	1-554-303-21	SWITCH, TACTILE (GEO ◀)	
R659	1-249-403-11	CARBON	68 5% 1/4W F	S613	1-554-303-21	SWITCH, TACTILE (GEO ▶)	
R660	1-247-807-31	CARBON	100 5% 1/4W	S614	1-554-303-21	SWITCH, TACTILE (GEO ▼)	
R661	1-249-407-11	CARBON	150 5% 1/4W F	S615	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER)	
R662	1-249-407-11	CARBON	150 5% 1/4W F	S616	1-554-303-21	SWITCH, TACTILE (SUPER W MODE)	
R663	1-249-419-11	CARBON	1.5K 5% 1/4W F	S617	1-554-303-21	SWITCH, TACTILE (KEY CONTROL #)	
R664	1-249-401-11	CARBON	47 5% 1/4W F	S618	1-554-303-21	SWITCH, TACTILE (KEY CONTROL b)	
R665	1-249-403-11	CARBON	68 5% 1/4W F	S619	1-554-303-21	SWITCH, TACTILE (GEO CONTROL)	
R666	1-247-807-31	CARBON	100 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (ENTER)	
R667	1-249-407-11	CARBON	150 5% 1/4W F	S621	1-554-303-21	SWITCH, TACTILE (EFFECT)	
R668	1-249-407-11	CARBON	150 5% 1/4W F	S622	1-554-303-21	SWITCH, TACTILE (WAVE)	
R669	1-249-419-11	CARBON	1.5K 5% 1/4W F	S623	1-554-303-21	SWITCH, TACTILE (KARAOKE PON/MPX)	
R670	1-249-401-11	CARBON	47 5% 1/4W F	S624	1-554-303-21	SWITCH, TACTILE (DSP)	
R671	1-249-403-11	CARBON	68 5% 1/4W F	S625	1-554-303-21	SWITCH, TACTILE (PRO LOGIC)	
R672	1-247-807-31	CARBON	100 5% 1/4W	S626	1-554-303-21	SWITCH, TACTILE (P FILE, MEMORY)	
R673	1-249-407-11	CARBON	150 5% 1/4W F	S627	1-554-303-21	SWITCH, TACTILE (SPECTRUM ANALYZER)	
R674	1-249-407-11	CARBON	150 5% 1/4W F	S628	1-554-303-21	SWITCH, TACTILE (DISPLAY/DEMO)	
R675	1-247-815-91	CARBON	220 5% 1/4W	S629	1-554-303-21	SWITCH, TACTILE (POWER)	
R676	1-249-411-11	CARBON	330 5% 1/4W	S630	1-554-303-21	SWITCH, TACTILE (⊙/CLOCK SET)	
R677	1-249-413-11	CARBON	470 5% 1/4W F	S631	1-554-303-21	SWITCH, TACTILE (REC)	
R678	1-249-415-11	CARBON	680 5% 1/4W F	S632	1-554-303-21	SWITCH, TACTILE (DAILY 1)	
R679	1-249-419-11	CARBON	1.5K 5% 1/4W F	S633	1-554-303-21	SWITCH, TACTILE (DAILY 2)	
R681	1-249-429-11	CARBON	10K 5% 1/4W	S634	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R682	1-249-421-11	CARBON	2.2K 5% 1/4W F	S701	1-467-869-11	ENCODER, ROTARY (VOLUME)	
R683	1-247-887-00	CARBON	220K 5% 1/4W			< VIBRATOR >	
R684	1-249-421-11	CARBON	2.2K 5% 1/4W F	X601	1-579-125-11	VIBRATOR, CERAMIC (8MHZ)	
R685	1-247-815-91	CARBON	220 5% 1/4W			*****	
R686	1-247-807-31	CARBON	100 5% 1/4W			* A-4392-679-A POWER BOARD, COMPLETE (E,MY,SP,IA)	
R687	1-247-807-31	CARBON	100 5% 1/4W			*****	
R688	1-247-807-31	CARBON	100 5% 1/4W			* A-4403-679-A POWER BOARD, COMPLETE (CH)	
R689	1-247-807-31	CARBON	100 5% 1/4W			*****	
R690	1-247-807-31	CARBON	100 5% 1/4W			< CAPACITOR >	
R691	1-247-807-31	CARBON	100 5% 1/4W	C101	1-130-781-00	FILM	0.22uF 10% 100V
R692	1-247-807-31	CARBON	100 5% 1/4W	C102	1-130-781-00	FILM	0.22uF 10% 100V
R693	1-247-807-31	CARBON	100 5% 1/4W	C103	1-136-169-00	FILM	0.22uF 5% 50V
R694	1-247-807-31	CARBON	100 5% 1/4W	C104	1-136-169-00	FILM	0.22uF 5% 50V
R695	1-247-807-31	CARBON	100 5% 1/4W	C105	1-162-294-31	CERAMIC	0.001uF 10% 50V
R696	1-247-807-31	CARBON	100 5% 1/4W	C106	1-162-294-31	CERAMIC	0.001uF 10% 50V
R697	1-247-807-31	CARBON	100 5% 1/4W				
R698	1-247-807-31	CARBON	100 5% 1/4W				
R699	1-247-807-31	CARBON	100 5% 1/4W				
R700	1-247-807-31	CARBON	100 5% 1/4W				

POWER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C107	1-128-576-11	ELECT	100uF 20% 63V			< DIODE >	
C108	1-128-563-11	ELECT	100uF 20% 100V				
C110	1-104-665-11	ELECT	100uF 20% 50V	D101	8-719-510-68	DIODE D5SBA20F01	
C151	1-128-493-11	ELECT	4700uF 20% 71V	D102	8-719-025-03	DIODE RBA-402-SL	
				D104	8-719-200-82	DIODE 11ES2	
C152	1-128-493-11	ELECT	4700uF 20% 71V	D105	8-719-200-82	DIODE 11ES2	
C153	1-128-550-11	ELECT	2200uF 20% 50V	D110	8-719-200-82	DIODE 11ES2	
C154	1-128-550-11	ELECT	2200uF 20% 50V				
C201	1-128-582-11	ELECT	10uF 20% 100V	D111	8-719-200-82	DIODE 11ES2	
C202	1-162-292-31	CERAMIC	680PF 10% 50V	D201	8-719-815-85	DIODE 1S1585	
				D251	8-719-815-85	DIODE 1S1585	
C203	1-162-286-21	CERAMIC	220PF 10% 50V	D301	8-719-987-63	DIODE 1N4148M	
C204	1-126-967-11	ELECT	47uF 20% 50V	D302	8-719-987-63	DIODE 1N4148M	
C205	1-126-967-11	ELECT	47uF 20% 50V				
C206	1-128-560-11	ELECT	22uF 20% 100V	D303	8-719-987-63	DIODE 1N4148M	
C208	1-126-965-11	ELECT	22uF 20% 50V	D321	8-719-815-85	DIODE 1S1585	
				D331	8-719-987-63	DIODE 1N4148M	
C210	1-130-493-00	MYLAR	0.068uF 5% 50V	D332	8-719-987-63	DIODE 1N4148M	
C211	1-130-493-00	MYLAR	0.068uF 5% 50V	D401	8-719-987-63	DIODE 1N4148M	
C225	1-162-284-31	CERAMIC	150PF 10% 50V				
C226	1-162-284-31	CERAMIC	150PF 10% 50V	D402	8-719-987-63	DIODE 1N4148M	
C228	1-164-159-21	CERAMIC	0.1uF 50V	D403	8-719-815-85	DIODE 1S1585	
				D404	8-719-815-85	DIODE 1S1585	
C232	1-162-284-31	CERAMIC	150PF 10% 50V	D405	8-719-815-85	DIODE 1S1585	
C251	1-128-582-11	ELECT	10uF 20% 100V	D406	8-719-815-85	DIODE 1S1585	
C252	1-162-292-31	CERAMIC	680PF 10% 50V			< EARTH TERMINAL >	
C253	1-162-286-21	CERAMIC	220PF 10% 50V	* EP101	1-537-738-21	TERMINAL, EARTH	
C254	1-126-967-11	ELECT	47uF 20% 50V	* EP201	1-537-738-21	TERMINAL, EARTH	
						< FUSE >	
C255	1-126-967-11	ELECT	47uF 20% 50V	△ F101	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)	
C256	1-128-560-11	ELECT	22uF 20% 100V	△ F102	1-532-464-31	FUSE, TIME-LAG (2.5A/250V)	
C260	1-130-493-00	MYLAR	0.068uF 5% 50V	△ F103	1-532-506-31	FUSE, TIME-LAG (6.3A/250V)	
C261	1-130-493-00	MYLAR	0.068uF 5% 50V	△ F104	1-532-506-31	FUSE, TIME-LAG (6.3A/250V)	
C299	1-161-494-00	CERAMIC	0.022uF 25V (CH)			< FUSE HOLDER >	
				FH101	1-533-233-21	HOLDER, FUSE	
C301	1-126-959-11	ELECT	0.47uF 20% 50V	FH102	1-533-233-21	HOLDER, FUSE	
				FH103	1-533-233-21	HOLDER, FUSE	
C302	1-126-923-11	ELECT	220uF 20% 10V	FH104	1-533-233-21	HOLDER, FUSE	
C303	1-126-933-11	ELECT	100uF 20% 10V	FH105	1-533-233-21	HOLDER, FUSE	
C304	1-126-961-11	ELECT	2.2uF 20% 50V				
C305	1-126-933-11	ELECT	100uF 20% 10V	FH106	1-533-233-21	HOLDER, FUSE	
C331	1-126-924-11	ELECT	330uF 20% 10V	FH107	1-533-233-21	HOLDER, FUSE	
				FH108	1-533-233-21	HOLDER, FUSE	
C401	1-126-963-11	ELECT	4.7uF 20% 50V			< IC >	
C402	1-164-159-21	CERAMIC	0.1uF 50V (CH)	IC201	8-749-922-65	IC STK-4221MK2	
C403	1-164-159-21	CERAMIC	0.1uF 50V (CH)	IC301	8-759-111-68	IC uPC1237HA	
C404	1-164-159-21	CERAMIC	0.1uF 50V (CH)			< TRANSISTOR >	
C405	1-164-159-21	CERAMIC	0.1uF 50V (CH)	Q201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
				Q251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C406	1-164-159-21	CERAMIC	0.1uF 50V (CH)	Q301	8-729-900-89	TRANSISTOR DTC144ES	
C407	1-164-159-21	CERAMIC	0.1uF 50V (CH)	Q323	8-729-900-63	TRANSISTOR DTA124ES	
C408	1-164-159-21	CERAMIC	0.1uF 50V (CH)	Q331	8-729-900-89	TRANSISTOR DTC144ES	
C409	1-164-159-21	CERAMIC	0.1uF 50V (CH)				
C410	1-161-494-00	CERAMIC	0.022uF 25V	Q401	8-729-900-80	TRANSISTOR DTC114ES	
				Q402	8-729-904-39	TRANSISTOR DTC114TS	
C411	1-161-494-00	CERAMIC	0.022uF 25V	Q403	8-729-040-20	TRANSISTOR RT1P137L-TP	
C412	1-161-494-00	CERAMIC	0.022uF 25V	Q404	8-729-040-20	TRANSISTOR RT1P137L-TP	
C413	1-161-494-00	CERAMIC	0.022uF 25V	Q405	8-729-900-80	TRANSISTOR DTC114ES	
		< 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)					
		< CONNECTOR >					
* CN201	1-766-957-11	CONNECTOR, BOARD TO BOARD 20P					

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

SURROUND

TABLE SENSOR

TC-A SW

Ref. No.	Part No.	Description			Remark
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			
< 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

Ref. No.	Part No.	Description			Remark
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			

*	1-659-058-13	TABLE SENSOR BOARD			

< IC >					
IC202	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391			
< RESISTOR >					
R207	1-249-416-11	CARBON	820	5%	1/4W F

*	1-664-012-11	TC-A SW BOARD			

< CONNECTOR >					
CN612	1-506-486-11	PIN, CONNECTOR 7P			
< DIODE >					
D631	8-719-057-29	DIODE SML78423C-TP15 (▷)(DECK A)			
D632	8-719-057-29	DIODE SML78423C-TP15 (◁)(DECK A)			
< RESISTOR >					
R705	1-249-401-11	CARBON	47	5%	1/4W F
R706	1-249-403-11	CARBON	68	5%	1/4W F
R707	1-247-807-31	CARBON	100	5%	1/4W
R708	1-249-407-11	CARBON	150	5%	1/4W F
R709	1-249-407-11	CARBON	150	5%	1/4W F
R710	1-247-815-91	CARBON	220	5%	1/4W
R711	1-247-807-31	CARBON	100	5%	1/4W
R712	1-247-807-31	CARBON	100	5%	1/4W
R713	1-247-807-31	CARBON	100	5%	1/4W
R714	1-247-807-31	CARBON	100	5%	1/4W
< SWITCH >					
S641	1-554-303-21	SWITCH, TACTILE (▷)(DECK A)			
S642	1-554-303-21	SWITCH, TACTILE (◁)(DECK A)			
S643	1-554-303-21	SWITCH, TACTILE (■)(DECK A)			
S644	1-554-303-21	SWITCH, TACTILE (◀◀)(DECK A)			
S645	1-554-303-21	SWITCH, TACTILE (▶▶)(DECK A)			
S646	1-554-303-21	SWITCH, TACTILE (DOLBY NR)			

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

TC-A SW

TC-B SW

TRANS

VIDEO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
S647	1-554-303-21	SWITCH, TACTILE (DIRECTION)				< SWITCH >	
*****				△ S501	1-762-753-11	SWITCH, VOLTAGE SELECTION (VOLTAGE SELECTOR)(E,SP,IA,CH)	
*	1-664-013-11	TC-B SW BOARD *****				< TRANSFORMER >	
		< DIODE >		△ T501	1-431-418-11	TRANSFORMER, POWER	
D635	8-719-057-29	DIODE SML78423C-TP15 (<∟)(DECK B)		*****			
D636	8-719-057-29	DIODE SML78423C-TP15 (▷)(DECK B)		*	A-4398-587-A	VIDEO BOARD, COMPLETE *****	
D637	8-719-058-17	DIODE LNJ401NPYJA (■)(DECK B)				< CAPACITOR >	
D638	8-719-057-09	DIODE LNJ801LPDJA (● REC)(DECK B)					
		< RESISTOR >		C101	1-163-038-91	CERAMIC CHIP 0.1uF	25V
R715	1-247-815-91	CARBON 220 5% 1/4W		C102	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
R716	1-249-411-11	CARBON 330 5% 1/4W		C103	1-163-241-11	CERAMIC CHIP 39PF 5%	50V
R717	1-249-413-11	CARBON 470 5% 1/4W F		C104	1-163-241-11	CERAMIC CHIP 39PF 5%	50V
R718	1-249-415-11	CARBON 680 5% 1/4W F		C105	1-163-038-91	CERAMIC CHIP 0.1uF	25V
R719	1-249-417-11	CARBON 1K 5% 1/4W F		C106	1-163-131-00	CERAMIC CHIP 390PF 5%	50V
R720	1-249-419-11	CARBON 1.5K 5% 1/4W F		C107	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
R721	1-249-421-11	CARBON 2.2K 5% 1/4W F		C108	1-163-038-91	CERAMIC CHIP 0.1uF	25V
R722	1-247-843-11	CARBON 3.3K 5% 1/4W		C109	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
R723	1-247-807-31	CARBON 100 5% 1/4W		C121	1-163-038-91	CERAMIC CHIP 0.1uF	25V
R724	1-247-807-31	CARBON 100 5% 1/4W		C122	1-163-091-00	CERAMIC CHIP 8PF	50V
R725	1-247-807-31	CARBON 100 5% 1/4W		C123	1-163-091-00	CERAMIC CHIP 8PF	50V
R726	1-247-807-31	CARBON 100 5% 1/4W		C124	1-163-038-91	CERAMIC CHIP 0.1uF	25V
R727	1-247-807-31	CARBON 100 5% 1/4W		C125	1-163-038-91	CERAMIC CHIP 0.1uF	25V
R728	1-247-807-31	CARBON 100 5% 1/4W		C126	1-163-038-91	CERAMIC CHIP 0.1uF	25V
		< SWITCH >		C127	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
S651	1-554-303-21	SWITCH, TACTILE (▷)(DECK B)		C128	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
S652	1-554-303-21	SWITCH, TACTILE (<∟)(DECK B)		C129	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
S653	1-554-303-21	SWITCH, TACTILE (▶▶)(DECK B)		C151	1-163-038-91	CERAMIC CHIP 0.1uF	25V
S654	1-554-303-21	SWITCH, TACTILE (<<)(DECK B)		C152	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
S655	1-554-303-21	SWITCH, TACTILE (■)(DECK B)		C153	1-163-241-11	CERAMIC CHIP 39PF 5%	50V
S656	1-554-303-21	SWITCH, TACTILE (■)(DECK B)		C154	1-163-241-11	CERAMIC CHIP 39PF 5%	50V
S657	1-554-303-21	SWITCH, TACTILE (● REC)(DECK B)		C155	1-163-038-91	CERAMIC CHIP 0.1uF	25V
S658	1-554-303-21	SWITCH, TACTILE (H SPEED DUB)		C156	1-163-131-00	CERAMIC CHIP 390PF 5%	50V
S659	1-554-303-21	SWITCH, TACTILE (CD SYNC)		C157	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
*****				C158	1-163-038-91	CERAMIC CHIP 0.1uF	25V
*	1-663-994-11	TRANS BOARD *****		C159	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
		< CONNECTOR >		C181	1-163-038-91	CERAMIC CHIP 0.1uF	25V
* CN501	1-564-527-11	PLUG, CONNECTOR 12P		C201	1-126-607-11	ELECT CHIP 47uF 20%	4V
CN502	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P		C202	1-163-038-91	CERAMIC CHIP 0.1uF	25V
		< FUSE >		C203	1-163-038-91	CERAMIC CHIP 0.1uF	25V
△ F501	1-532-504-31	FUSE, TIME-LAG (4A/250V)(E,SP,IA,CH)		C204	1-163-038-91	CERAMIC CHIP 0.1uF	25V
		< FUSE HOLDER >		C205	1-163-038-91	CERAMIC CHIP 0.1uF	25V
FH501	1-533-233-21	HOLDER, FUSE (E,SP,IA,CH)		C206	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V
FH502	1-533-233-21	HOLDER, FUSE (E,SP,IA,CH)		C207	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V
		< RESISTOR >		C208	1-163-038-91	CERAMIC CHIP 0.1uF	25V
△ R501	1-219-120-11	FUSIBLE 0.15 5% 1/4W F		C209	1-163-231-11	CERAMIC CHIP 15PF 5%	50V
△ R502	1-219-120-11	FUSIBLE 0.15 5% 1/4W F		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

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

VIDEO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
C273	1-163-038-91	CERAMIC CHIP	0.1uF	25V	C903	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
C274	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	C904	1-163-038-91	CERAMIC CHIP 0.1uF 25V
C275	1-163-038-91	CERAMIC CHIP	0.1uF	25V				
C276	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C908	1-163-038-91	CERAMIC CHIP 0.1uF 25V
C301	1-163-038-91	CERAMIC CHIP	0.1uF	25V				
						< CONNECTOR >		
C302	1-124-779-00	ELECT CHIP	10uF	20%	16V	CN101	1-779-416-11	CONNECTOR,FFC(LIF(NON-ZIF))13P
C303	1-163-038-91	CERAMIC CHIP	0.1uF	25V		CN102	1-766-942-11	CONNECTOR, FFC/FPC 29P
C304	1-163-038-91	CERAMIC CHIP	0.1uF	25V		CN103	1-774-863-11	PIN, CONNECTOR (PC BOARD) 8P
C305	1-163-038-91	CERAMIC CHIP	0.1uF	25V		CN104	1-774-731-21	PIN, CONNECTOR (PC BOARD) 5P
C306	1-163-038-91	CERAMIC CHIP	0.1uF	25V				
						< TRIMMER >		
C401	1-124-779-00	ELECT CHIP	10uF	20%	16V	CT401	1-141-539-11	CAP, ADJ 10PF
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				
						< DIODE >		
C406	1-163-038-91	CERAMIC CHIP	0.1uF	25V	D701	8-719-018-51	DIODE CL-170R-CD	
C407	1-124-779-00	ELECT CHIP	10uF	20%	16V			
C408	1-163-038-91	CERAMIC CHIP	0.1uF	25V			< GROUND TERMINAL >	
C409	1-163-229-11	CERAMIC CHIP	12PF	5%	50V	* EPT884	4-870-539-00	PLATE, GROUND
C451	1-163-038-91	CERAMIC CHIP	0.1uF	25V				
						< FERRITE BEAD >		
C452	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB101	1-500-445-21	INDUCTOR 0UH	
C453	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB102	1-543-961-11	BEAD, FERRITE (CHIP)	
C454	1-124-779-00	ELECT CHIP	10uF	20%	16V	FB103	1-543-961-11	BEAD, FERRITE (CHIP)
C461	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	FB104	1-543-961-11	BEAD, FERRITE (CHIP)
C462	1-109-982-11	CERAMIC CHIP	1uF	10%	10V	FB105	1-543-961-11	BEAD, FERRITE (CHIP)
C463	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB106	1-216-295-91	CONDUCTOR, CHIP (2012)	
C464	1-126-205-11	ELECT CHIP	47uF	20%	6.3V	FB451	1-543-961-11	BEAD, FERRITE (CHIP)
C465	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB452	1-543-961-11	BEAD, FERRITE (CHIP)	
C466	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB453	1-543-961-11	BEAD, FERRITE (CHIP)	
C468	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB454	1-216-295-91	CONDUCTOR, CHIP (2012)	
C469	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB455	1-216-295-91	CONDUCTOR, CHIP (2012)	
C470	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	FB801	1-500-184-11	BEAD, FERRITE
C501	1-163-038-91	CERAMIC CHIP	0.1uF	25V	FB802	1-500-184-11	BEAD, FERRITE	
C502	1-163-101-00	CERAMIC CHIP	22PF	5%	50V			
C503	1-163-101-00	CERAMIC CHIP	22PF	5%	50V			
						< IC >		
C504	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	IC101	8-759-362-47	IC CXD8567AM
C505	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	IC102	8-759-701-39	IC NJM3404AM
C506	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	IC103	8-759-701-39	IC NJM3404AM
C701	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC181	8-759-269-14	IC SN74HCT08ANS-E20	
C702	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC201	8-752-389-31	IC CXD1852AQ	
C703	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	IC251	8-759-368-97	IC M5M44260CTP-7S
C704	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	IC271	8-759-479-44	IC BU6257AFV
C705	1-124-779-00	ELECT CHIP	10uF	20%	16V	IC272	8-759-180-84	IC TC7W74F
C706	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC301	8-752-384-09	IC CXD1854Q	
C751	1-124-779-00	ELECT CHIP	10uF	20%	16V	IC401	8-752-380-71	IC CXD1913Q
C752	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC402	8-759-269-92	IC SN74HCU04ANS-E20	
C771	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC451	8-759-262-00	IC MC14576CF	
C772	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC452	8-759-262-00	IC MC14576CF	
C801	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	IC501	8-759-926-49	IC SN74HC245ANS
C802	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	IC701	8-759-468-15	IC HD6433032SK12F
C803	1-163-038-91	CERAMIC CHIP	0.1uF	25V	IC751	8-759-462-71	IC HY6264ALJ-70-TR	
C804	1-126-209-11	ELECT	100uF	20%	4V	IC771	8-759-927-72	IC TL1591CP
C805	1-126-204-11	ELECT CHIP	47uF	20%	16V	IC772	8-759-035-93	IC SC7S32F
C806	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	IC801	8-759-460-72	IC BA033FP
C807	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	IC901	8-759-467-59	IC uPD780016YGF-012-3BA
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				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< COIL >		R220	1-216-073-00	METAL CHIP 10K 5%	1/10W
L101	1-410-377-31	INDUCTOR CHIP 4.7uH		R221	1-216-073-00	METAL CHIP 10K 5%	1/10W
L251	1-410-377-31	INDUCTOR CHIP 4.7uH		R222	1-216-073-00	METAL CHIP 10K 5%	1/10W
		< TRANSISTOR >		R223	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q701	8-729-900-53	TRANSISTOR DTC114EK		R224	1-216-073-00	METAL CHIP 10K 5%	1/10W
		< RESISTOR >		R225	1-216-073-00	METAL CHIP 10K 5%	1/10W
R101	1-216-691-11	METAL CHIP 47K 0.5%	1/10W	R226	1-216-073-00	METAL CHIP 10K 5%	1/10W
R102	1-216-691-11	METAL CHIP 47K 0.5%	1/10W	R227	1-216-073-00	METAL CHIP 10K 5%	1/10W
R103	1-216-679-11	METAL CHIP 15K 0.5%	1/10W	R228	1-216-073-00	METAL CHIP 10K 5%	1/10W
R104	1-216-675-11	METAL CHIP 10K 0.5%	1/10W	R229	1-216-073-00	METAL CHIP 10K 5%	1/10W
R105	1-216-675-11	METAL CHIP 10K 0.5%	1/10W	R230	1-216-073-00	METAL CHIP 10K 5%	1/10W
R106	1-216-693-11	METAL CHIP 56K 0.5%	1/10W	R231	1-216-073-00	METAL CHIP 10K 5%	1/10W
R107	1-216-693-11	METAL CHIP 56K 0.5%	1/10W	R232	1-216-073-00	METAL CHIP 10K 5%	1/10W
R108	1-216-081-00	METAL CHIP 22K 5%	1/10W	R233	1-216-073-00	METAL CHIP 10K 5%	1/10W
R109	1-216-073-00	METAL CHIP 10K 5%	1/10W	R234	1-216-073-00	METAL CHIP 10K 5%	1/10W
R110	1-216-081-00	METAL CHIP 22K 5%	1/10W	R235	1-216-073-00	METAL CHIP 10K 5%	1/10W
R111	1-216-081-00	METAL CHIP 22K 5%	1/10W	R236	1-216-073-00	METAL CHIP 10K 5%	1/10W
R121	1-216-057-00	METAL CHIP 2.2K 5%	1/10W	R237	1-216-073-00	METAL CHIP 10K 5%	1/10W
R122	1-216-057-00	METAL CHIP 2.2K 5%	1/10W	R238	1-216-073-00	METAL CHIP 10K 5%	1/10W
R123	1-216-065-00	METAL CHIP 4.7K 5%	1/10W	R239	1-216-073-00	METAL CHIP 10K 5%	1/10W
R124	1-216-025-91	METAL GLAZE 100 5%	1/10W	R240	1-216-073-00	METAL CHIP 10K 5%	1/10W
R125	1-216-025-91	METAL GLAZE 100 5%	1/10W	R241	1-216-073-00	METAL CHIP 10K 5%	1/10W
R126	1-216-025-91	METAL GLAZE 100 5%	1/10W	R242	1-216-073-00	METAL CHIP 10K 5%	1/10W
R127	1-216-025-91	METAL GLAZE 100 5%	1/10W	R243	1-216-295-91	CONDUCTOR, CHIP (2012)	
R128	1-216-025-91	METAL GLAZE 100 5%	1/10W	R271	1-216-025-91	METAL GLAZE 100 5%	1/10W
R129	1-216-025-91	METAL GLAZE 100 5%	1/10W	R272	1-216-025-91	METAL GLAZE 100 5%	1/10W
R130	1-216-041-00	METAL CHIP 470 5%	1/10W	R273	1-216-041-00	METAL CHIP 470 5%	1/10W
R151	1-216-691-11	METAL CHIP 47K 0.5%	1/10W	R274	1-216-049-91	METAL GLAZE 1K 5%	1/10W
R152	1-216-691-11	METAL CHIP 47K 0.5%	1/10W	R302	1-216-025-91	METAL GLAZE 100 5%	1/10W
R153	1-216-679-11	METAL CHIP 15K 0.5%	1/10W	R303	1-216-073-00	METAL CHIP 10K 5%	1/10W
R154	1-216-675-11	METAL CHIP 10K 0.5%	1/10W	R304	1-216-073-00	METAL CHIP 10K 5%	1/10W
R155	1-216-675-11	METAL CHIP 10K 0.5%	1/10W	R305	1-216-073-00	METAL CHIP 10K 5%	1/10W
R156	1-216-693-11	METAL CHIP 56K 0.5%	1/10W	R306	1-216-073-00	METAL CHIP 10K 5%	1/10W
R157	1-216-693-11	METAL CHIP 56K 0.5%	1/10W	R307	1-216-073-00	METAL CHIP 10K 5%	1/10W
R158	1-216-081-00	METAL CHIP 22K 5%	1/10W	R308	1-216-073-00	METAL CHIP 10K 5%	1/10W
R159	1-216-073-00	METAL CHIP 10K 5%	1/10W	R309	1-216-073-00	METAL CHIP 10K 5%	1/10W
R160	1-216-081-00	METAL CHIP 22K 5%	1/10W	R310	1-216-073-00	METAL CHIP 10K 5%	1/10W
R161	1-216-081-00	METAL CHIP 22K 5%	1/10W	R311	1-216-073-00	METAL CHIP 10K 5%	1/10W
R201	1-216-025-91	METAL GLAZE 100 5%	1/10W	R312	1-216-073-00	METAL CHIP 10K 5%	1/10W
R203	1-216-295-91	CONDUCTOR, CHIP (2012)		R313	1-216-025-91	METAL GLAZE 100 5%	1/10W
R204	1-216-025-91	METAL GLAZE 100 5%	1/10W	R401	1-216-047-91	METAL GLAZE 820 5%	1/10W
R206	1-216-295-91	CONDUCTOR, CHIP (2012)		R402	1-216-025-91	METAL GLAZE 100 5%	1/10W
R207	1-216-073-00	METAL CHIP 10K 5%	1/10W	R403	1-216-025-91	METAL GLAZE 100 5%	1/10W
R208	1-216-073-00	METAL CHIP 10K 5%	1/10W	R404	1-216-121-91	METAL GLAZE 1M 5%	1/10W
R209	1-216-073-00	METAL CHIP 10K 5%	1/10W	R405	1-216-047-91	METAL GLAZE 820 5%	1/10W
R210	1-216-073-00	METAL CHIP 10K 5%	1/10W	R406	1-216-025-91	METAL GLAZE 100 5%	1/10W
R211	1-216-073-00	METAL CHIP 10K 5%	1/10W	R407	1-216-025-91	METAL GLAZE 100 5%	1/10W
R212	1-216-073-00	METAL CHIP 10K 5%	1/10W	R451	1-216-687-11	METAL CHIP 33K 0.5%	1/10W
R213	1-216-073-00	METAL CHIP 10K 5%	1/10W	R452	1-216-663-11	METAL CHIP 3.3K 0.5%	1/10W
R214	1-216-073-00	METAL CHIP 10K 5%	1/10W	R453	1-216-651-11	METAL CHIP 1K 0.5%	1/10W
R215	1-216-073-00	METAL CHIP 10K 5%	1/10W	R454	1-216-663-11	METAL CHIP 3.3K 0.5%	1/10W
R216	1-216-073-00	METAL CHIP 10K 5%	1/10W	R455	1-216-635-11	METAL CHIP 220 0.5%	1/10W
R217	1-216-073-00	METAL CHIP 10K 5%	1/10W	R456	1-216-635-11	METAL CHIP 220 0.5%	1/10W
R218	1-216-073-00	METAL CHIP 10K 5%	1/10W	R457	1-216-635-11	METAL CHIP 220 0.5%	1/10W
R219	1-216-073-00	METAL CHIP 10K 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)	

VIDEO

VIDEO OUT

VIDEO POWER

Ref. No.	Part No.	Description	Remark		
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	1-216-025-00	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
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

Ref. No.	Part No.	Description	Remark			
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	91PF	5%	50V	
< 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)				
< COIL >						
L9001	1-408-397-00	MICRO INDUCTOR 1uH				
< 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	

Ref. No.	Part No.	Description	Remark
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	
< 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	1-233-545-11	ENCAPSULATED COMPONENT	
6	1-769-974-11	WIRE (FLAT TYPE)(13 CORE)	
58	1-773-163-11	WIRE (FLAT TYPE)(21 CORE)	
59	1-769-949-11	WIRE (FLAT TYPE)(11 CORE)	
120	1-773-051-11	WIRE (FLAT TYPE)(17 CORE)	
156	1-782-563-11	WIRE (FLAT TYPE)(29 CORE)	
△ 161	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
△ 161	1-569-008-11	ADAPTOR, CONVERSION 2P (E,SP,MY)	
166	1-500-386-11	FERRITE CORE (CH)	
* 357	1-452-879-11	MAGNET	
△ 401	8-820-020-03	OPTICAL PICK-UP KSS-213D/Q-NP	
402	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)	
△ CNP901	1-558-943-41	CORD, POWER (IA)	
△ CNP901	1-575-651-21	CORD, POWER (E,SP,MY)	
△ CNP901	1-782-510-11	CORD, POWER (CH)	
FL601	1-517-617-11	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)	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	
M901	1-698-792-11	FAN, DC	
△ T501	1-431-418-11	TRANSFORMER, POWER	

Ref. No.	Part No.	Description	Remark
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)	
	3-860-240-11	MANUAL, INSTRUCTION (ENGLISH) (IA)	
	3-860-240-31	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	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-872-09	SCREW +BVTT 3X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
#5	7-685-862-09	SCREW +BVTT 2.6X6 (S)	
#6	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
#7	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#8	7-621-775-10	SCREW +B 2.6X4	
#9	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#10	7-623-921-01	RING, RETAINING, CAPSTAN	
#11	7-621-775-00	SCREW +B 2.6X3	
#12	7-621-255-15	SCREW +P 2X3	

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

