

ZS-M35

SERVICE MANUAL

Ver 1.3 2001.07

*AEP Model
UK Model
Tourist Model*



Photo: black

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CD Section	Model Name Using Similar Mechanism	ZS-M50
	CD Mechanism Type	KSM-213CDM
	Optical Pick-up Name	KSS-213C
MD Section	Model Name Using Similar Mechanism	PMC-MD55
	MD Mechanism Type	MDM-5GA
	Base Unit Name	MBU-5A
	Optical Pick-up Name	KMS-260B

SPECIFICATIONS

CD player section

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs

Wave length: 785 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Spindle speed

200 r/min (rpm) to 500 r/min (rpm) (CLV)

Number of programme positions

2

Frequency response

20 - 20,000 Hz +1/-2 dB

Wow and flutter

Below measurable limit

Radio section

Frequency range

FM: 87.5 - 108 MHz

MW: 531 - 1,602 kHz

LW: 153 - 279 kHz

IF

FM: 10.7 MHz

MW/LW: 450 kHz

Aerials

FM: Telescopic aerial

External aerial terminal

MW/LW: External aerial terminals

MD player section

System

Minidisc digital audio system

Disc

MiniDisc

Laser diode properties

Material: GaAlAs

Wave length: 785 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Recording/playback time

Stereo recording:

Maximum 80 minutes (with MDW-80)

Monaural recording:

Maximum 160 minutes (with MDW-80)

Revolutions

400 rpm to 900 rpm (CLV)

Error correction

Advanced Cross Interleave Reed Solomon Code (ACIRC)

Sampling frequency

44.1 kHz

– Continued on next page –

PERSONAL MINIDISC SYSTEM

9-927-183-13

2001G0400-1

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Sony Corporation

Personal Audio Company

Shinagawa Tec Service Manual Production Group

SONY®

Coding

Adaptive TRansform Acoustic Coding (ATRAC)

Modulation system

EFM (Eight-to-Fourteen Modulation)

Number of programme positions

2 stereo programme positions

Frequency response

20 - 20,000 Hz +1/-2 dB

Signal-to-noise ratio

Over 80 dB (during playback)

Wow and flutter

Below measurable limit

General

Speaker

Full-range: 8 cm (3 in.) dia., 4 ohms, cone type (2)

Inputs

LINE IN (stereo minijack): Sensitivity 436 mV/
870 mV

Outputs

Headphones jack (stereo minijack) (1):

For 32 ohms impedance headphones

Maximum power output

5 W + 5 W

Power requirements

For personal minidisc system:

230 V AC, 50 Hz

For back-up memory:

4.5 V DC, 3 R6 (size AA) batteries

For remote control:

3 V DC, 2 R6 (size AA) batteries

Power consumption

24 W

Dimensions (incl. projecting parts)

approx. 498.5 × 173.5 × 227 mm (w/h/d)

(19 3/4 × 6 7/8 × 11 inches)

Mass

approx. 5.2 kg (11 lb. 7 oz)

Supplied accessories

Mains lead (1)

Remote control (RMT-CM35AD) (1)

MW/LW loop aerial (1)

Design and specifications are subject to change
without notice.

TABLE OF CONTENTS

1. SERVICING NOTES

1-1. Notes on Handling the Optical Pick-up Block or Base Unit ..	4
1-2. Notes on Laser Diode Emission Check	4
1-3. Notes on Chip Component Replacement	4
1-4. Flexible Circuit Board Repairing	4
1-5. Chuck Plate Jig on Repairing	4
1-6. Demonstration	4
1-7. Checking the Laser Diode and Focus Search Operation	4
1-8. Jig for Checking BD Board Waveform	5
1-9. Checks Prior to Parts Replacement and Adjustments	6
1-10. Change of Pulley	6

2. GENERAL

Playing a CD	7
Recording a whole CD	7
Playing an MD	8
Listening to the radio	8

3. DISASSEMBLY

3-1. Cabinet (Rear) Assy	9
3-2. Power Board	9
3-3. Cabinet (Upper) Assy	10
3-4. MD Block Assy	10
3-5. Tuner Board	11
3-6. Jack Board	11
3-7. LED Board	12
3-8. Key Board	12
3-9. Top Board	13
3-10. FL Board	13
3-11. Main board	14
3-12. CD Board	14
3-13. CD Mechanism Block	15
3-14. DG Board	15
3-15. Plate (Front), Shield	16
3-16. MD Mechanism Block-1 (MDM-5GA)	16
3-17. MD Mechanism Block-2 (Slider (Cam) Assy)	17
3-18. MD Mechanism Block-3 (BD Board)	18
3-19. MD Mechanism Block-4 (SW Board)	18

4. TEST MODE

4-1. MD section	19
-----------------------	----

5. ELECTRICAL ADJUSTMENTS

5-1. Tuner section	24
5-2. MD section	26
5-3. CD section	33

6. DIAGRAMS

6-1. IC Pin Function Descriptions	35
6-2. Circuit Boards Location	44
6-3. Block Diagram –Tuner Section–	45
6-4. Block Diagram –MD Section–	48
6-5. Block Diagram –CD Section–	51
6-6. Block Diagram –Audio Section–	53
6-7. Schematic Diagram –CD Section (1/2)–	55
6-8. Schematic Diagram –CD Section (2/2)–	57
6-9. Printed Wiring Boards –CD Section–	59
6-10. Printed Wiring Boards –Tuner Section–	61
6-11. Schematic Diagrams –Tuner Section–	63
6-12. Printed Wiring Boards –BD Section–	65
6-13. Schematic Diagram –BD Section (1/2)–	67
6-14. Schematic Diagrams –BD Section (2/2)–	69
6-15. Schematic Diagram –DG Section–	71
6-16. Schematic Diagram –DG Section–	73
6-17. Printed Wiring Board –DG Section–	75
6-18. Printed Wiring Board –Main Section–	77
6-19. Schematic Diagram –Main Section (1/3)–	79
6-20. Schematic Diagram –Main Section (2/3)–	81
6-21. Schematic Diagram –Main Section (3/3)–	83
6-22. Printed Wiring Boards –Panel Section–	85
6-23. Schematic Diagrams –Panel Section–	87
6-24. Printed Wiring Boards –Switch Section–	89
6-25. Schematic Diagrams –Switch Section–	91
6-26. Printed Wiring Boards –Power Supply Section–	93
6-27. Schematic Diagrams –Power Supply Section–	95
6-28. IC Block Diagrams	97

7. EXPLODED VIEWS

7-1. Cabinet (Rear) Section	103
7-2. Cabinet (Front) Section	104
7-3. Cabinet (Upper) Section	105
7-4. MD Block Section	106
7-5. MD Mechanism Section (MDM-5GA)	107
7-6. MD Base unit Section (MBU-5A)	108
7-7. Optical Pick-up Section (KSM-213CDM)	109

8. ELECTRICAL PARTS LIST

110

SECTION 1

SERVICING NOTES



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

CAUTION

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

1-1. 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.

1-2. 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.

1-3. 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.

1-4. FLEXIBLE CIRCUIT BOARD REPAIRING

- Keep the temperature of the 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.

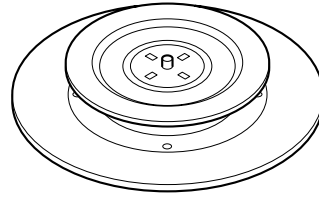
SAFETY-RELATED COMPONENT WARNING!!

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.

1-5. CHUCK PLATE JIG ON REPAIRING

On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig: X-4918-255-1



1-6. DEMONSTRATION

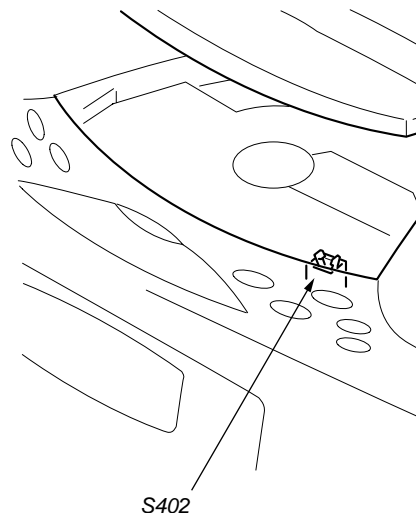
This set enters the demonstration mode about 10 seconds after the power cord is connected. The demonstration displays such as "DEMONSTRATION MODE" and "CREATE YOUR ORIGINAL MD" then appears.

When no operation is entered for one minute after the **OPERATE** button is turned on, the demonstration mode is also entered.

To release the demonstration mode, set the timer in this set or press and hold down the **NO/CANCEL** button for about 2 seconds.

1-7. CHECKING THE LASER DIODE AND FOCUS SEARCH OPERATION

1. Turn on the POWER and open the CD cover.
2. As shown below, push S402 (CD DOOR) with a screwdriver or other tool.
3. Press the CD button.
4. Check the objective lens to make sure that the laser diode is emitting light. If not so, the auto power control circuit or optical pickup would be damaged. Verify that the objective lens moves vertically three times for focus search.



1-8. JIG FOR CHECKING BD BOARD WAVEFORM

The special jig (J-2501-149-A) is useful for checking the waveform of the BD board. The names of terminals and the checking items to be performed are shown as follows.

GND : Ground

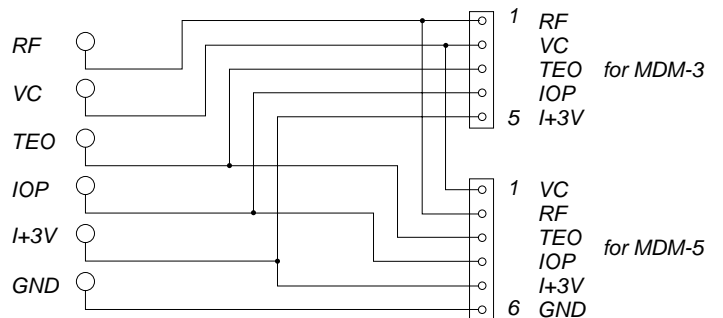
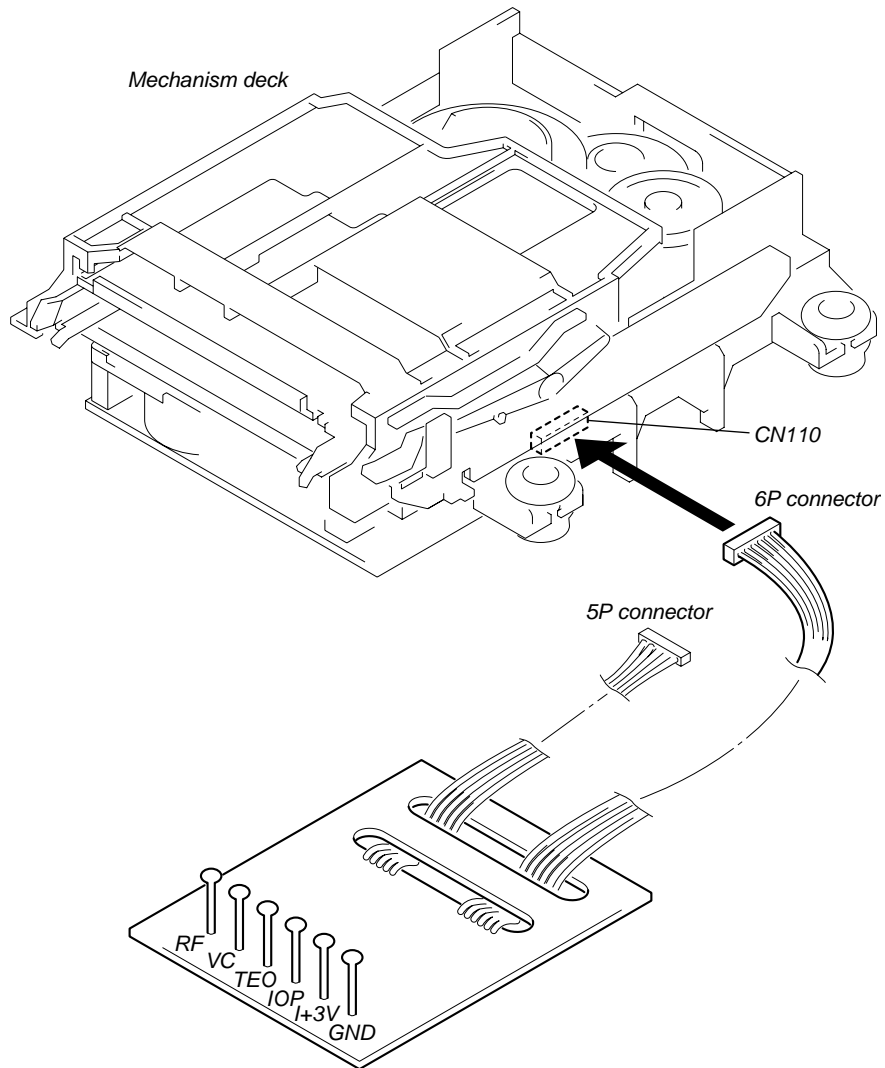
I+3V : For measuring IOP (Check the deterioration of the optical pick-up laser)

IOP : For measuring IOP (Check the deterioration of the optical pick-up laser)

TEO : TRK error signal (Traverse adjustment)

VC : Reference level for checking the signal

RF : RF signal (Check jitter)



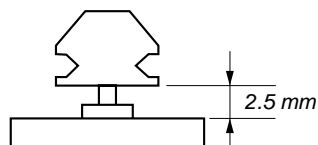
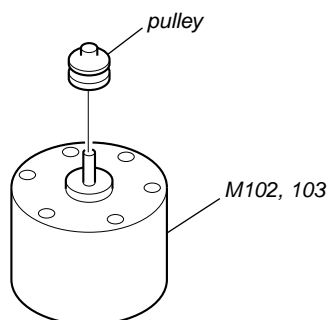
1-9. CHECKS PRIOR TO PARTS REPLACEMENT AND ADJUSTMENTS (FOR MD SECTION)

Before performing repairs, perform the following checks to determine the faulty locations up to a certain extent. Details of the procedures are described in "5 Electrical Adjustments".

	Criteria for Determination (Unsatisfactory if specified value is not satisfied)	Measure if unsatisfactory:
Laser power check (6-1 : See page 28)	<ul style="list-style-type: none"> 0.9 mW power Specified value : 0.84 to 0.92 mW 7.0 mW power Specified value : 6.8 to 7.2 mW 	<ul style="list-style-type: none"> Clean the optical pick-up Adjust again Replace the optical pick-up
	<ul style="list-style-type: none"> lop (at 7mW) Labeled on the optical pickup Iop value $\pm 10\text{mA}$ 	<ul style="list-style-type: none"> Replace the optical pick-up
Focus bias check (6-2 : See page 28)	<ul style="list-style-type: none"> Error rate check Specified value : For points a, b, and c C1 error : About 200 ADER : Below 2 	<ul style="list-style-type: none"> Replace the optical pick-up
C PLAY check (6-3 : See page 28)	<ul style="list-style-type: none"> Error rate check Specified value: <ol style="list-style-type: none"> When using test disc (MDW-74/AU-1) C1 error : Below 80 ADER : Below 2 When using check disc (TDYS-1) C1 error : Below 50 	<ul style="list-style-type: none"> Replace the optical pick-up
Self-recording/playback check (6-4 : See page 28)	<ul style="list-style-type: none"> CPLAY error rate check Specified value: C1 error : Below 80 ADER : Below 2 	If always unsatisfactory: <ul style="list-style-type: none"> Replace the overwrite head Check for disconnection of the circuits around the overwrite head
		If occasionally unsatisfactory: <ul style="list-style-type: none"> Check if the overwrite head is distorted Check the mechanism around the sled

Note:
The criteria for determination above is intended merely to determine if satisfactory or not, and does not serve as the specified value for adjustments.
When performing adjustments, use the specified values for adjustments.

1-10. CHANGE OF PULLEY

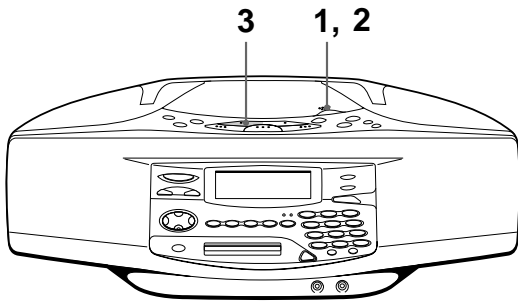


Install the pulley to the motor.

SECTION 2 GENERAL



This section is extracted from instruction manual.

Playing a CD





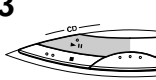
For hookup instructions, see pages 64 - 67.

- 1** Press ▲PUSH OPEN/CLOSE down to open the CD compartment and place the CD on the CD compartment.





With the label side up
- 2** Close the lid of the CD compartment.



- 3** Press CD ►II (CD ► on the remote).
The player turns on (direct power-on) and the player plays all the tracks once.

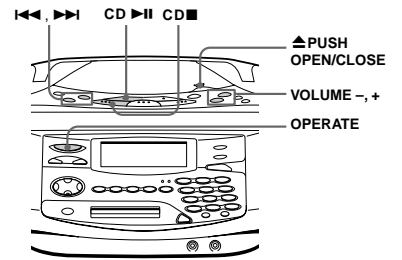


Display



Track number Playing time

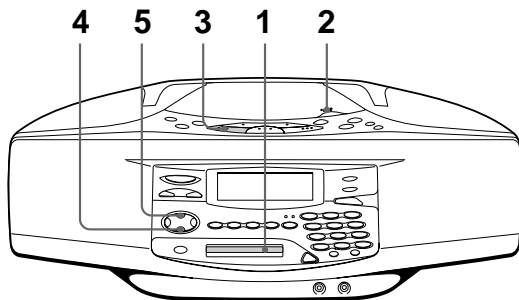
Use these buttons for additional operations



To	Press
adjust the volume	VOLUME +, - (VOL +, - on the remote)
stop playback	CD ■
pause playback	CD ►II (CD II on the remote) Press the button again to resume play after pause.
go to the next track	►►
go back to the previous track	◄◄
remove the CD	▲ PUSH OPEN/CLOSE
turn on/off the player	OPERATE

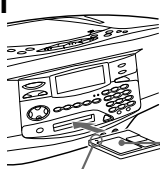
Tip
Next time you want to listen to a CD, just press CD ►II. The player turns on automatically and starts playing the CD.

Recording a whole CD (Synchronized recording)



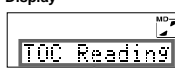
For hookup instructions, see pages 64 - 67.

- 1** Insert a recordable MD (direct power-on).





With the label side up
Insert in the direction of arrow

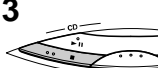
Display



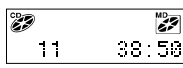
After "TOC Reading" is displayed, the disc name will be displayed if it is labelled.
- 2** Press ▲PUSH OPEN/CLOSE and place the CD on the CD compartment.
Press ▲PUSH OPEN/CLOSE again to close the CD compartment.

With the label side up
- 3** Press CD ■.





Display



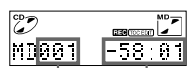
11 38:58

- 4** To record at high speed, press HIGH SPEED.
The indicator lights up.
To record at normal speed, skip this step.


- 5** Press SYNCHRO REC CD = MD.
The player starts recording automatically.
If the MD has any previous recording, recording will be made from the last recorded position.



Display



Track number of MD Remaining recording time of MD

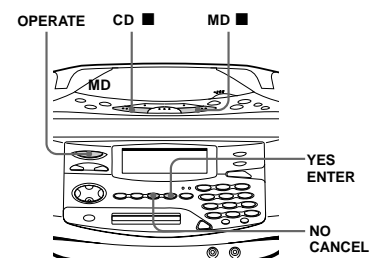
Notes

- **TOC EDIT** After you stop recording, do not disconnect the mains lead or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.
- When you record a whole CD, you cannot pause recording.

Tips

- Adjusting the volume or the audio emphasis (page 56) will not affect the recording level. Keep the volume at a moderate level so as to prevent the sound from skipping.
- To record over the previous recording, see page 40.
- Once the clock is set, the recording date and time are stamped automatically (page 57).
- You can label an MD or a track during recording (page 51).

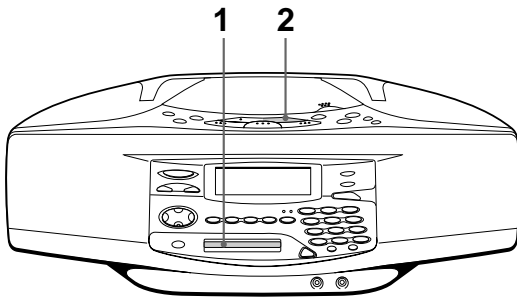
Use these buttons for additional operations



To	Press
stop recording	MD ■ or CD ■
turn on/off the player	OPERATE

If "CD>MD OK?" alternates with time display
There is not enough space on the MD to record the whole CD.
If it is all right to record as much as possible and cancel recording of some tracks, press YES+ENTER. To stop recording, press NO+CANCEL.
If any other messages are displayed, see page 80.

Playing an MD



For hookup instructions, see pages 64 - 67.

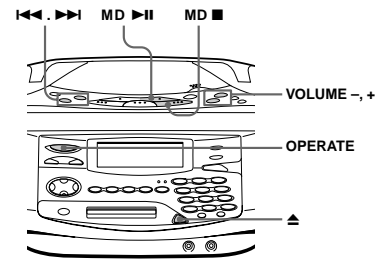
1 Insert the MD (direct power-on).
 With the label side up
 Insert in the direction of the arrow

Display
 011 SELECT 7
 After "TOC Reading" is displayed, the disc name will be displayed if it is labelled.

2 Press MD ► (MD ► on the remote).
 The player plays all the tracks once.

Track name is displayed
 011 Love So
 m
 011 00:01
 Track number Playing time

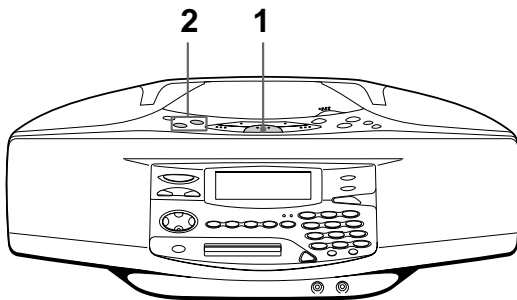
Use these buttons for additional operations



To	Press
adjust the volume	VOLUME +, - (VOL +, - on the remote)
stop playback	MD ■
pause playback MD.	MD ► (MD ► on the remote) Press the button again to resume play after pause.
go to the next track	►►
go back to the previous track	◄◄
remove the MD	▲
turn on/off the player	OPERATE

Tip
 Next time you want to listen to a MD, just press MD ►. The player turns on automatically and starts playing the

Listening to the radio



For hookup instructions, see pages 64 - 67.

1 Press RADIO BAND until the band you want appears in the display (direct power-on).

Display
 FM 87.60
 "FM1", "FM2", "MW" or "LW" appears

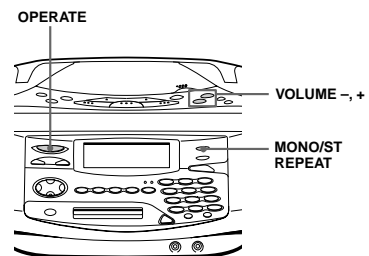
2 Hold down TUNE + or TUNE - until the frequency digits begin to change in the display.
 The player automatically scans the radio frequencies and stops when it finds a clear station.
 If you can't tune in a station, press TUNE + or TUNE - repeatedly to change the frequency step by step.

Indicates an FM stereo broadcast
 FM 89.20

Tips

- The "FM1" and "FM2" bands have the same functions. You can store the stations you want separately in "FM1" and "FM2" (page 22).
- If the FM broadcast is noisy, press MONO/ST•REPEAT (MODE on the remote) until "Mono" appears in the display and radio will play in monaural.
- Next time you want to listen to the radio, just press RADIO BAND. The player turns on automatically and starts playing the previous station.

Use these buttons for additional operations

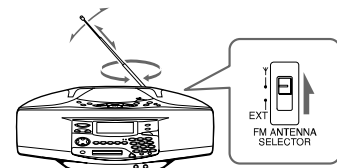


To	Press
adjust the volume	VOLUME +, - (VOL +, - on the remote)
turn on/off the radio	OPERATE

To improve broadcast reception FM:

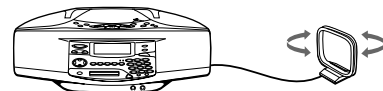
Set the FM ANTENNA SELECTOR at the rear of the player to "Y" (telescopic aerial).

Reorient the aerial for FM.



MW/LW:

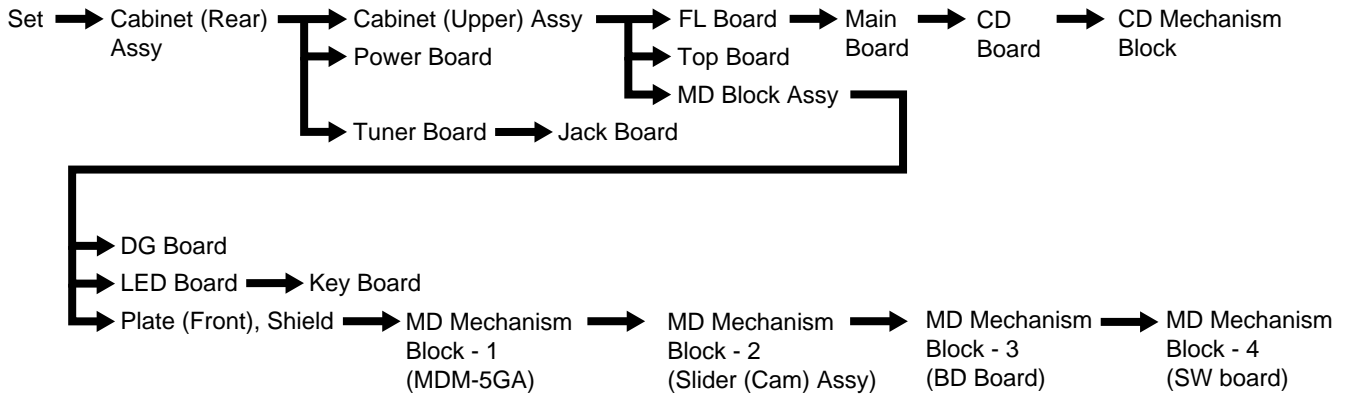
Keep the MW/LW loop aerial as far as possible from the player and reorient it.



If the broadcast is still noisy, connect the external aerial (page 67).

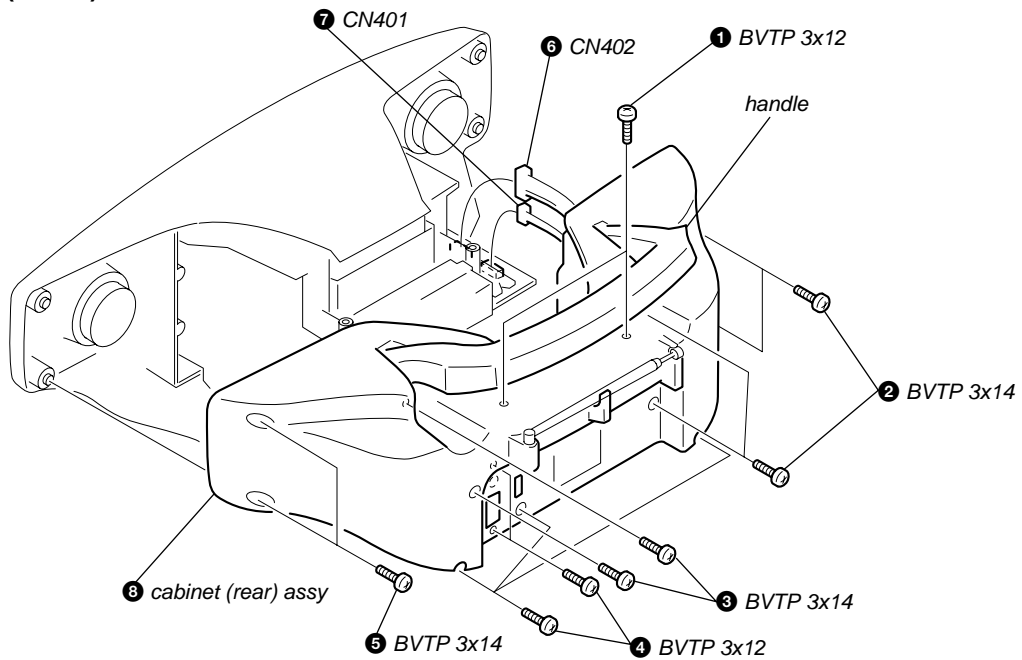
SECTION 3 DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

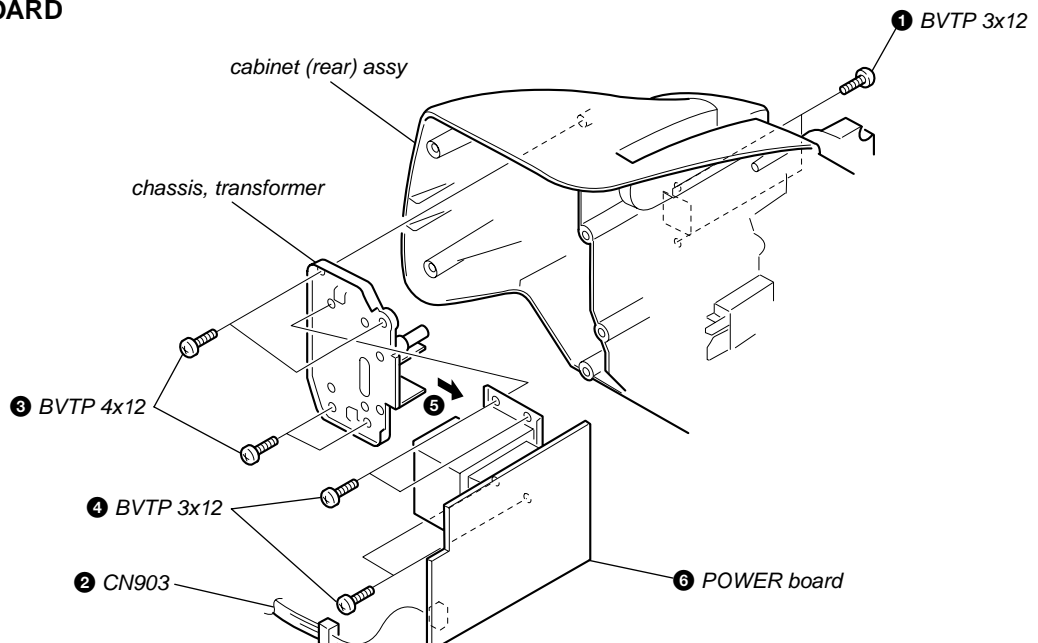


Note : Follow the disassembly procedure in the numerical order given.

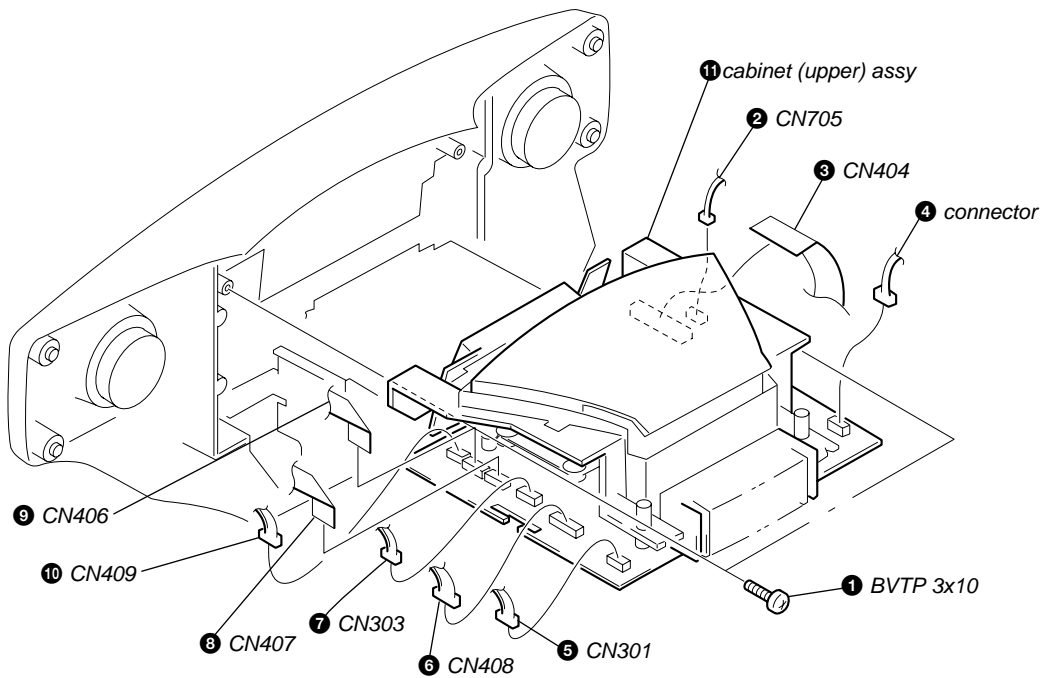
3-1. CABINET (REAR) ASSY



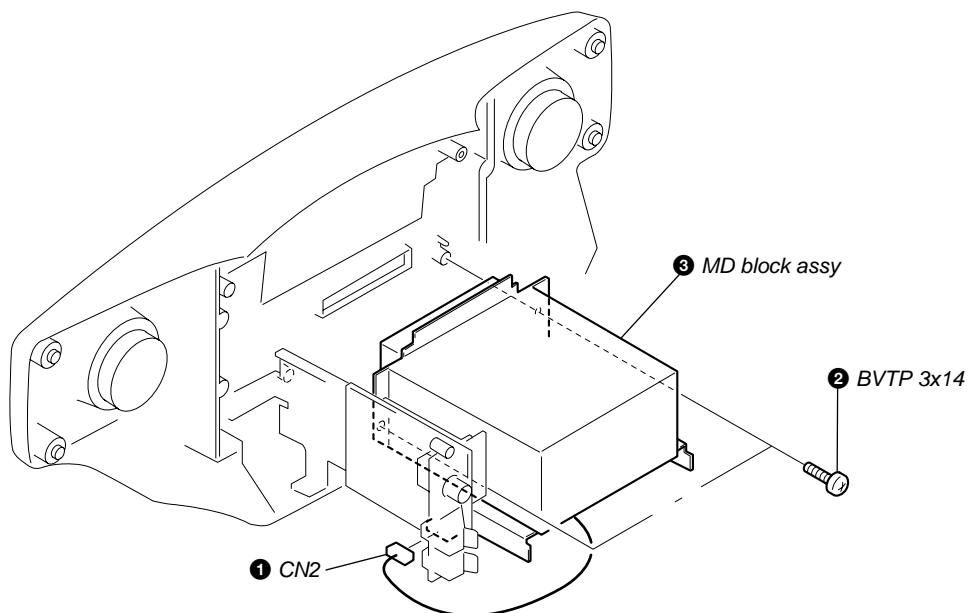
3-2. POWER BOARD



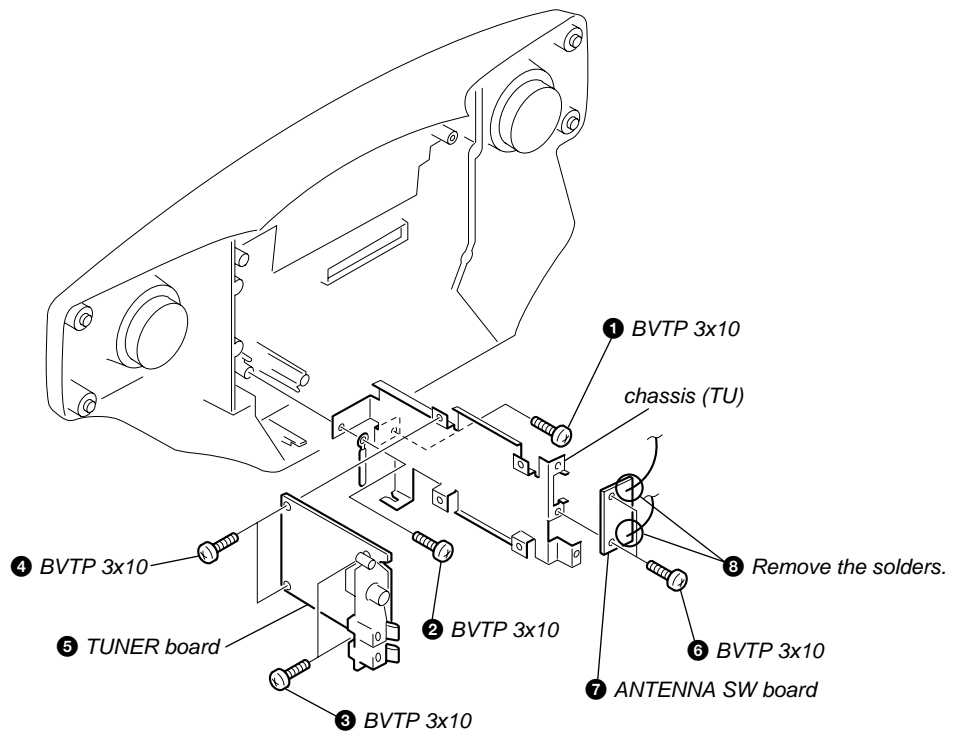
3-3. CABINET (UPPER) ASSY



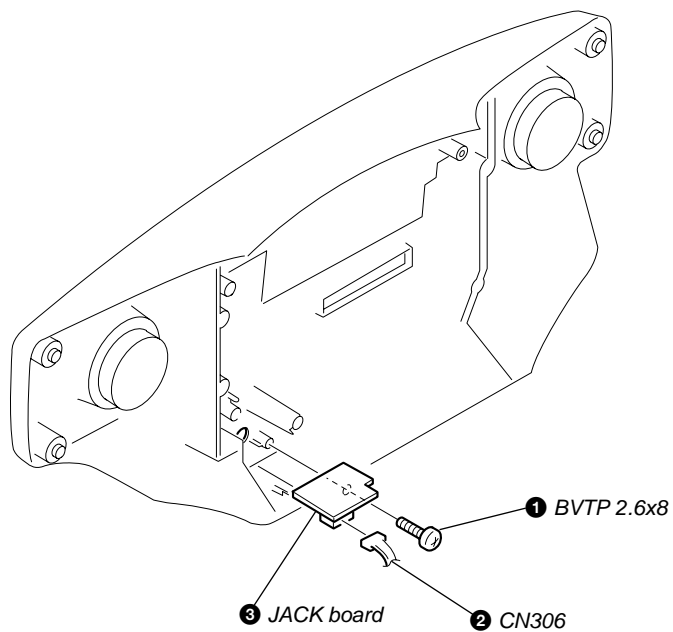
3-4. MD BLOCK ASSY



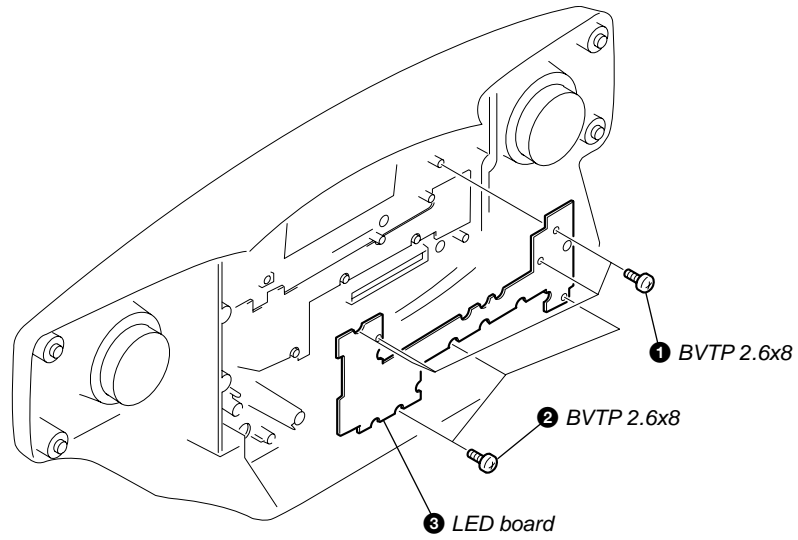
3-5. TUNER BOARD



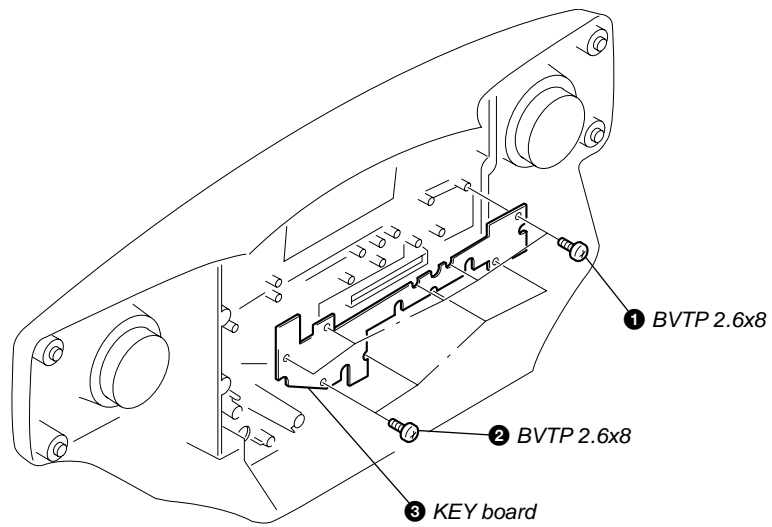
3-6. JACK BOARD



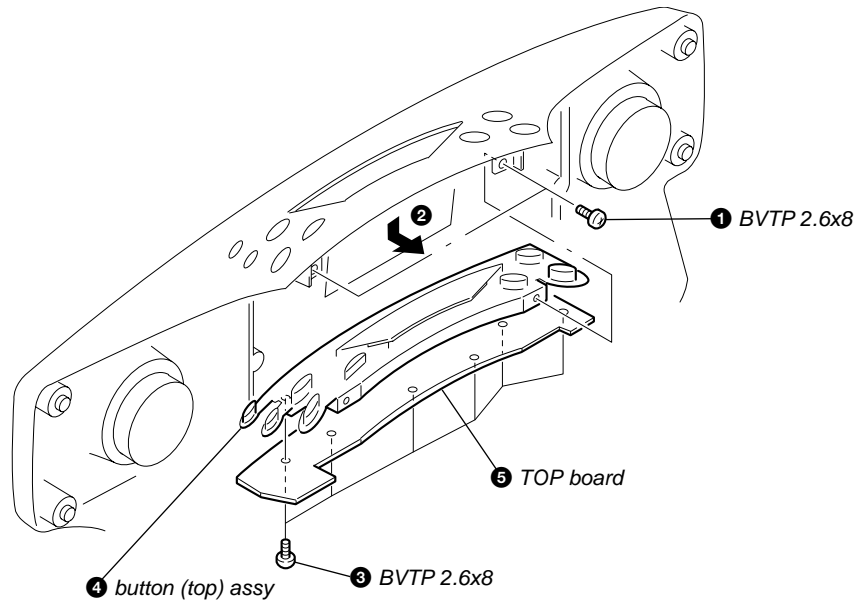
3-7. LED BOARD



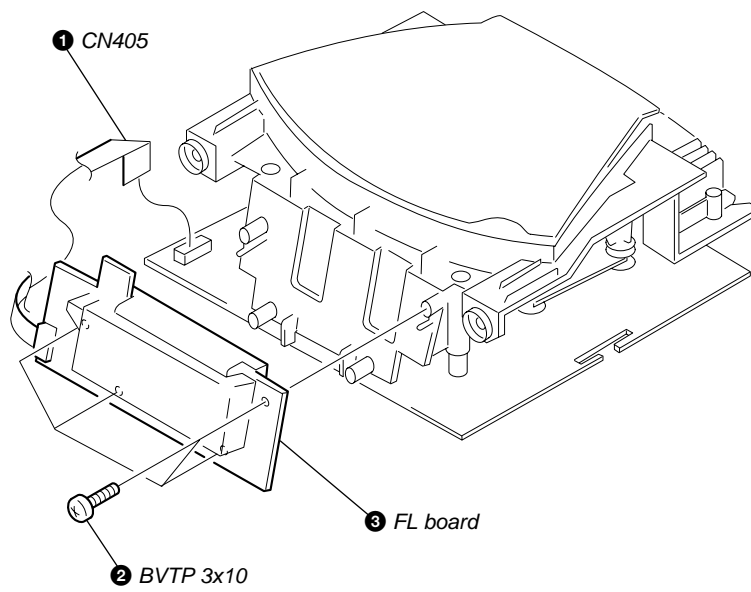
3-8. KEY BOARD



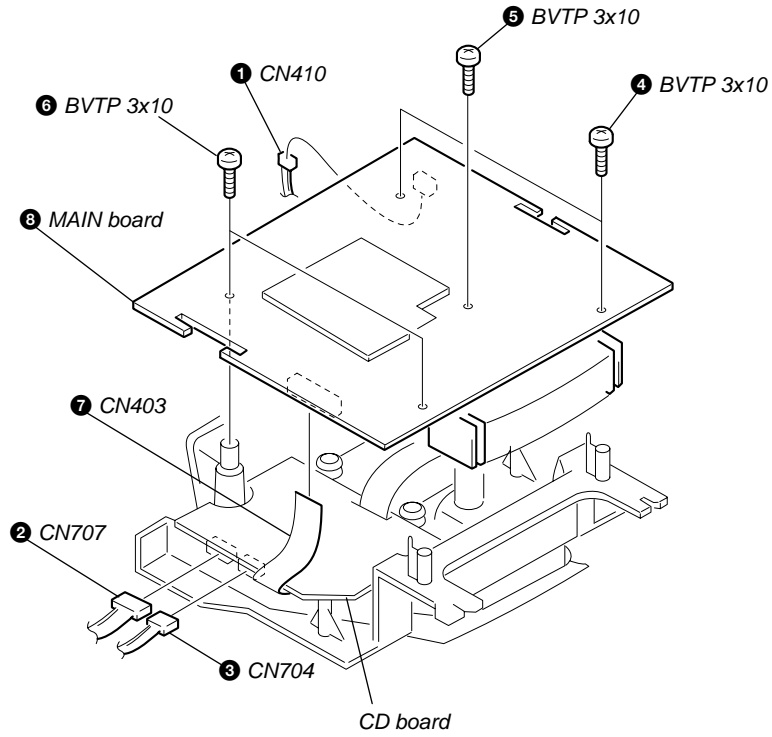
3-9. TOP BOARD



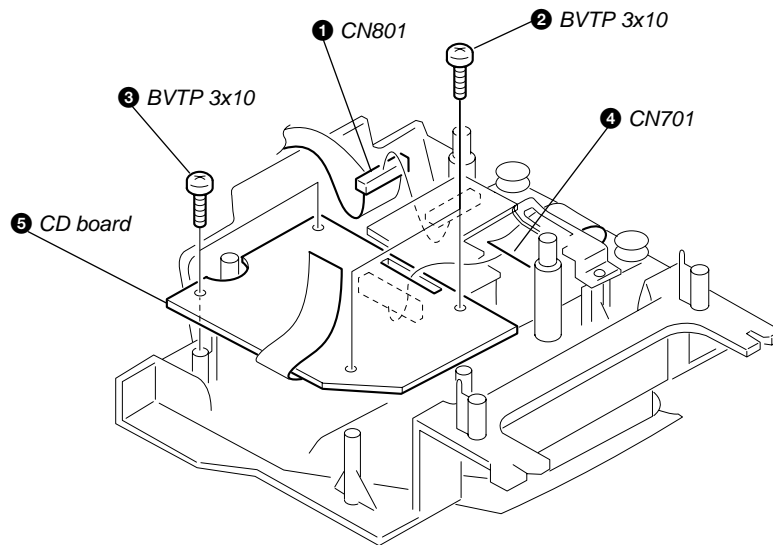
3-10. FL BOARD



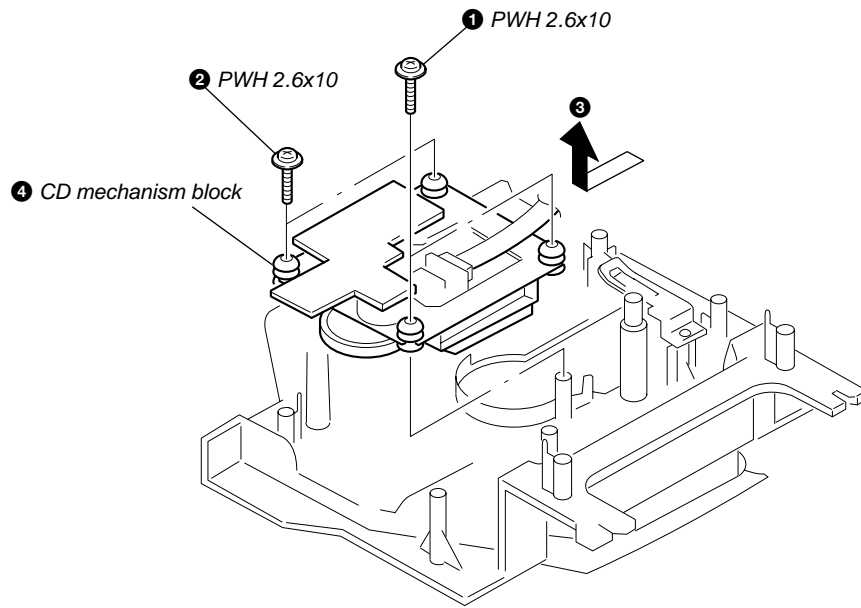
3-11. MAIN BOARD



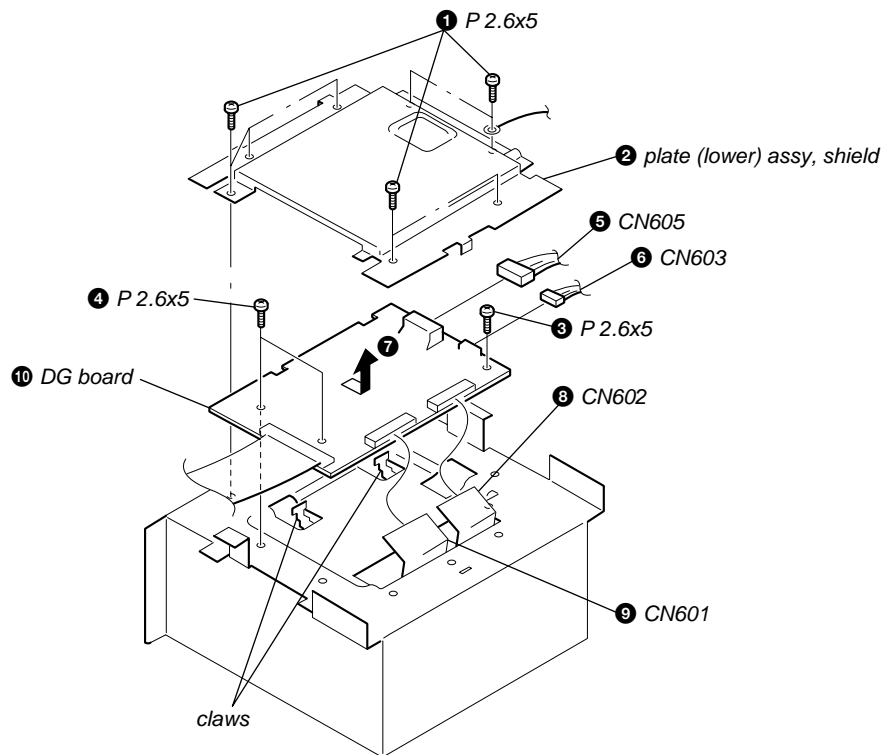
3-12. CD BOARD



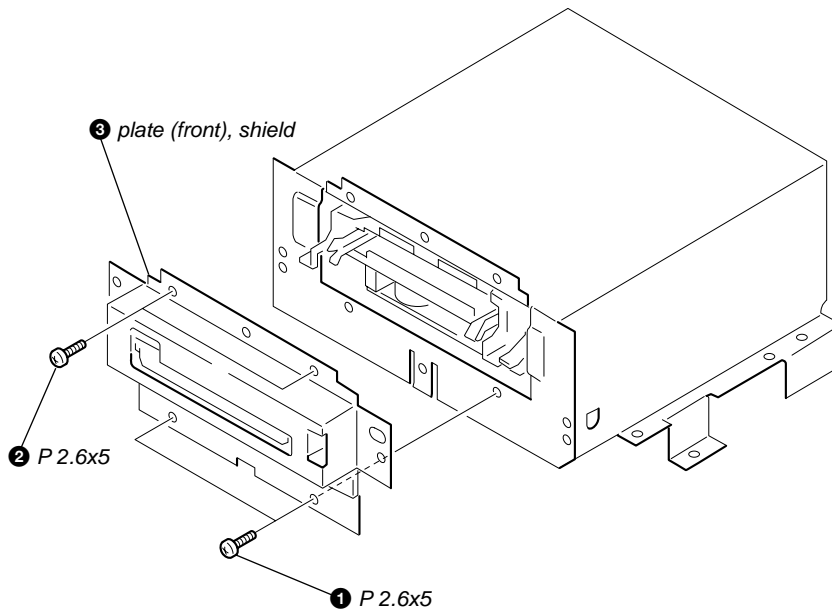
3-13. CD MECHANISM BLOCK



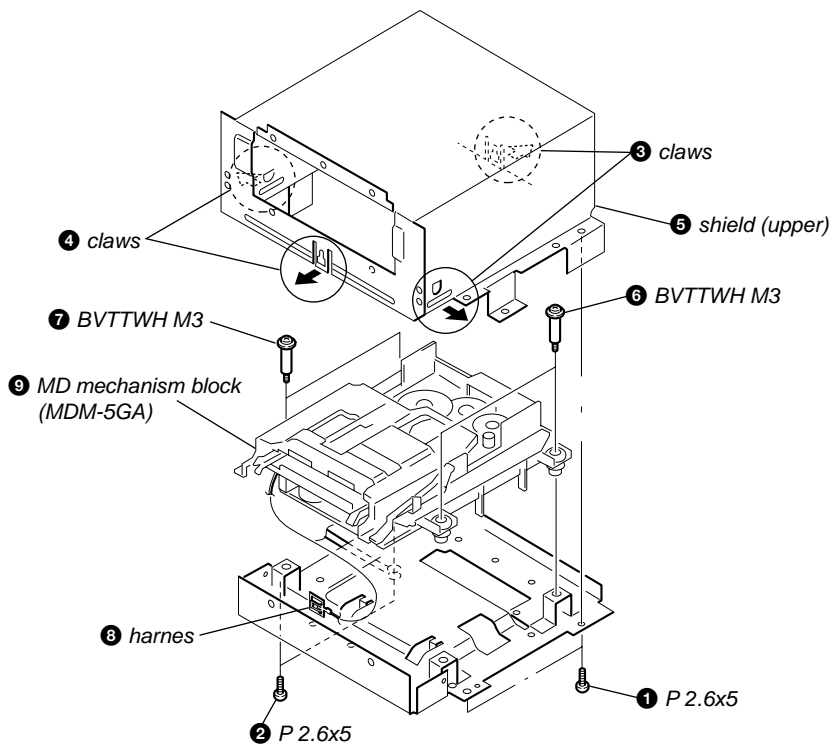
3-14. DG BOARD



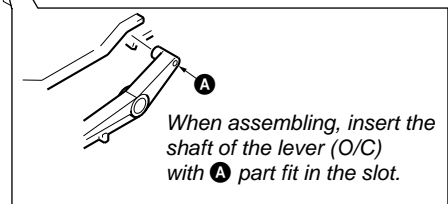
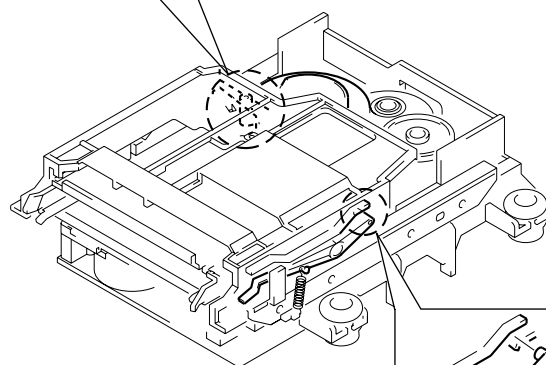
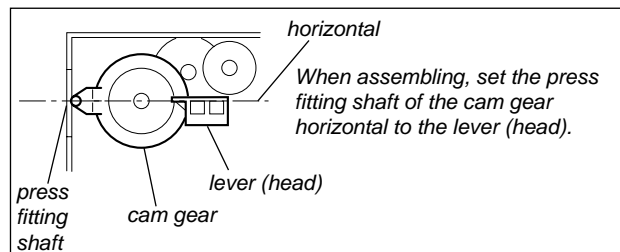
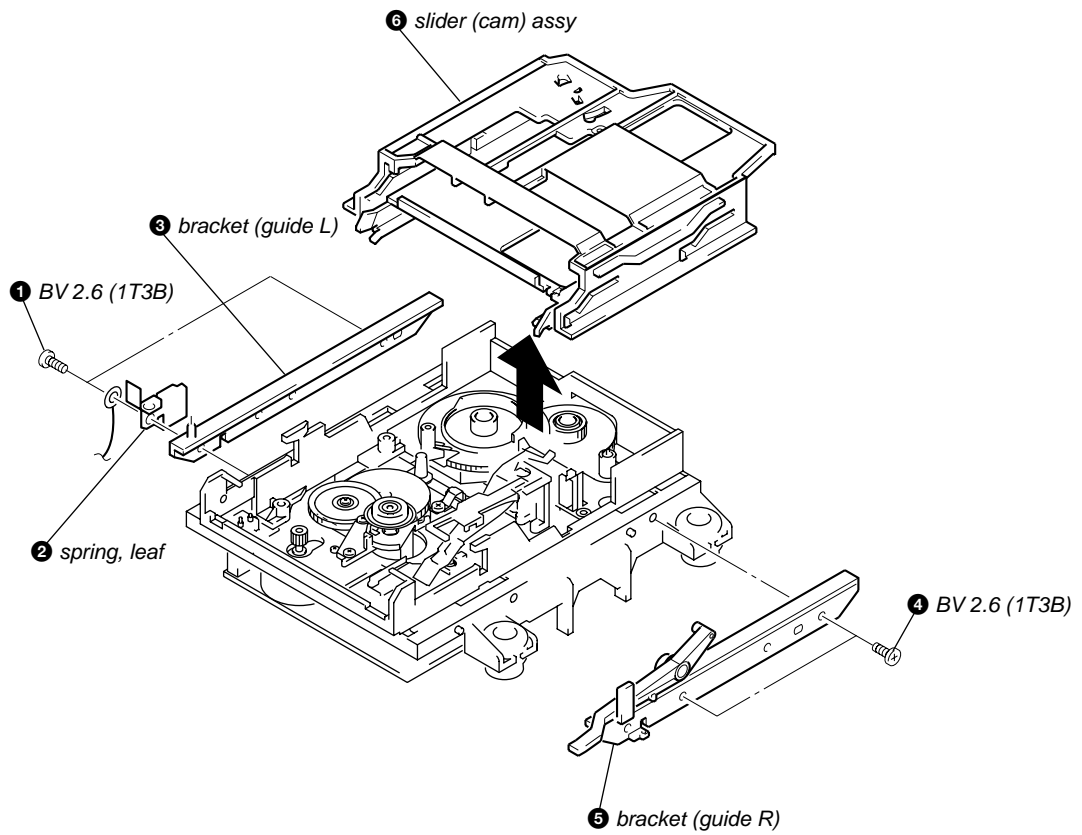
3-15. PLATE (FRONT), SHIELD



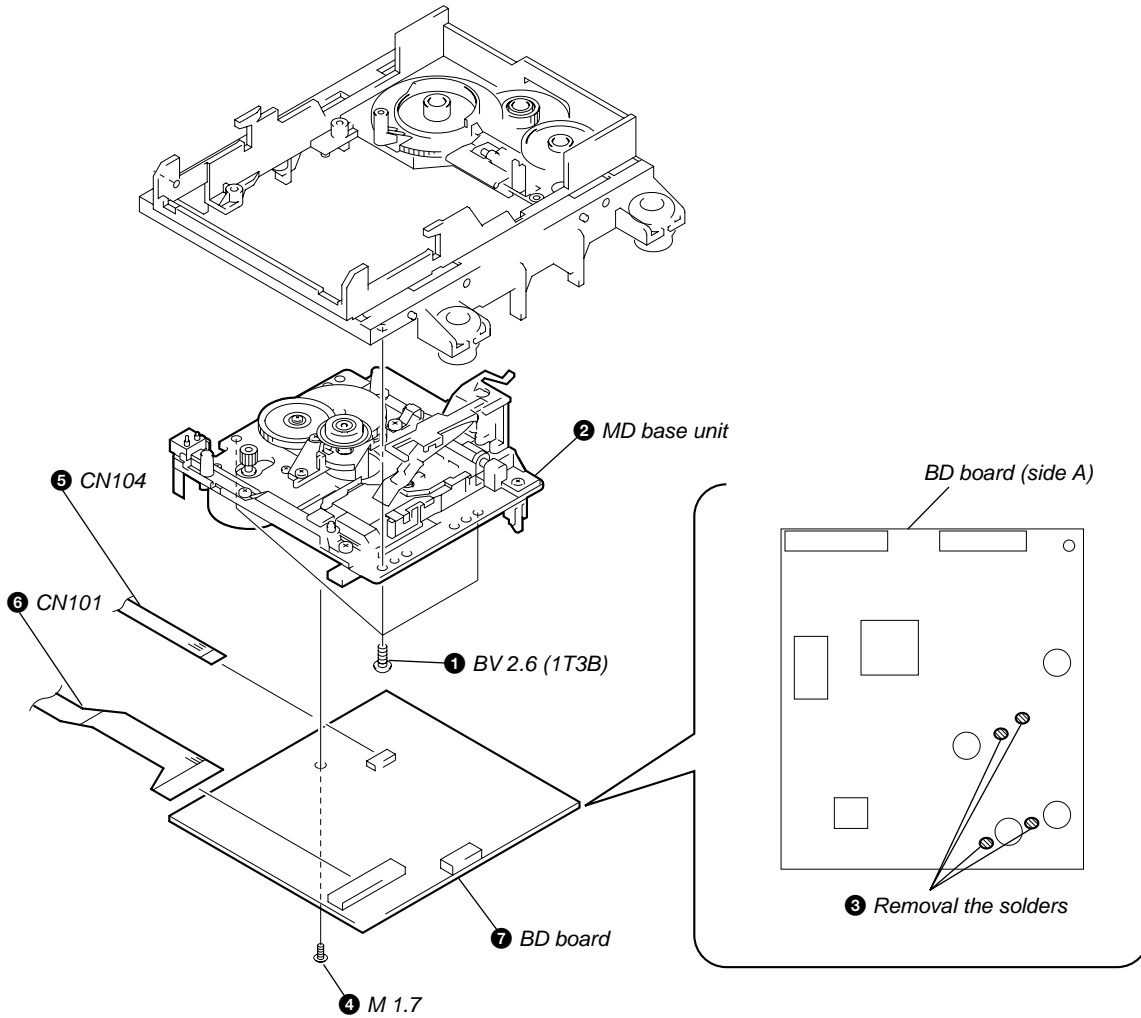
3-16. MD MECHANISM BLOCK-1 (MDM-5GA)



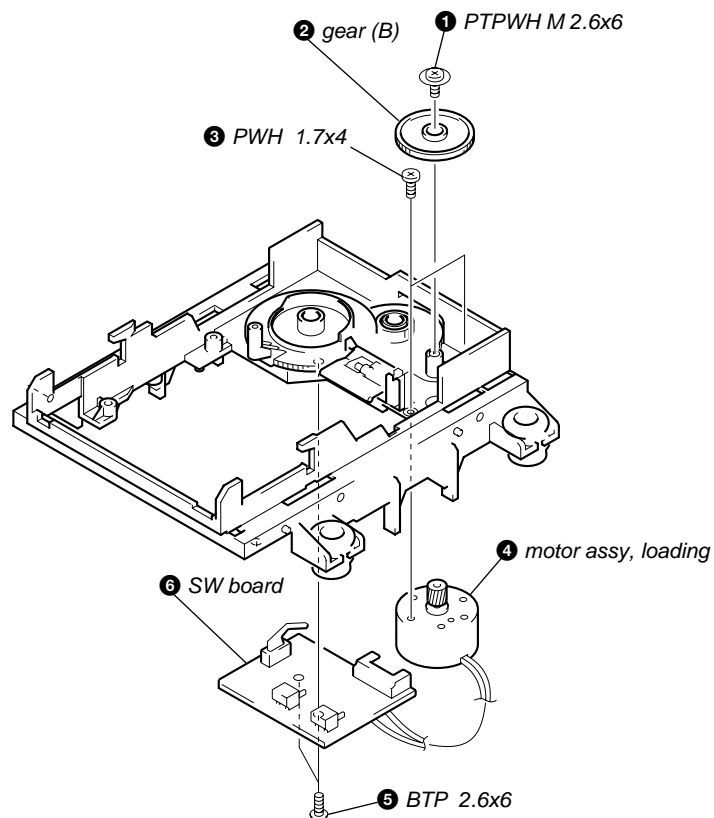
3-17. MD MECHANISM BLOCK-2 (SLIDER (CAM) ASSY)



3-18. MD MECHANISM BLOCK-3 (BD BOARD)



3-19. MD MECHANISM BLOCK-4 (SW BOARD)






SECTION 4 TEST MODE


Refer to “5. ELECTRICAL ADJUSTMENT” for the test mode of CD section.

4-1. MD SECTION




1. PRECAUTIONS FOR USE OF TEST MODE

- As loading related operations will be performed regardless of the test mode operations being performed, be sure to check that the disc is stopped before setting and removing it.
Even if the  (MD) button is pressed while the disc is rotating during continuous playback, continuous recording, etc., the disc will not stop rotating.
Therefore, it will be ejected while rotating.
Be sure to press the  (MD) button after pressing the  button and the rotation of disc is stopped.


1-1. Recording laser emission mode and operating buttons

- Continuous recording mode (CREC MODE)
- Laser power check mode (LDPWR CHECK)
- Laser power adjustment mode (LDPWR ADJUST)
- When pressing the  button.

2. SETTING THE TEST MODE

- Set to standby state.
- Press the buttons  and  and  (TUNE -) at the same time and then release them soon (within 100m sec). The TEST MODE is entered.



3. RELEASING THE TEST MODE

Hold down the  button and remove the power cord to reset the set.





4. BASIC OPERATIONS OF THE TEST MODE

All operations are performed with the following buttons:  (MD),  (MD), , and .

The functions of these buttons are as follows.

Function name	Function
 (MD)	Proceeds the parameter/mode change.
 (MD)	Returns to the parameter/mode change.
RADIO/BAND	Goes ahead. Determines the setting/selection.
REC/REC MODE	Suspends.

5. SELECTING THE TEST MODE



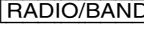
There are 9 types of test modes as shown below. The groups can be switched by press the  (MD) or  (MD) button. After selecting the group to be used, press the **RADIO/BAND** button. After setting a certain group, press the  (MD) or  (MD) button between these modes.

Display	Contents
TEMP ADJUST	Temperature compensation offset adjustment
LDPWR ADJUST	Laser power adjustment
LDPWR CHECK	Laser power check
EFBAL ADJUST	EF balance adjustment
FBIAS ADJUST	Focus bias adjustment
FBIAS CHECK	Focus bias check
CPLAY MODE	Continuous playback mode
CREC MODE	Continuous recording mode
EEP MODE	Non-volatile memory control

- For details of each adjustment mode, refer to “5. Electrical Adjustments”.
- If a different mode has been selected by mistake, press the **REC/REC MODE** button to release that mode.
- EEP MODE is not used for servicing and therefore are not described in detail. If these modes are set accidentally, press the **REC/REC MODE** button to release the mode immediately. Be especially careful this mode will overwrite the non-volatile memory and reset it, and as a result, the unit will not operate normally.

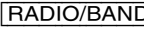
5-1. Operating the Continuous Playback Mode

1. Entering the continuous playback mode

- (1) Set the disc in the unit. (Whichever recordable discs or discs for playback only are available)
- (2) Press the  (MD) or  (MD) button to display “CPLAY MODE”.
- (3) Press the  button to change the display to “CPLAY MID”.
- (4) When access completes, the display changes to “C1 = 0000 AD = 00”.

Note: The numbers “0” displayed show you error rates and ADER.

2. Changing the parts to be played back

- (1) Press the  button during continuous playback to change the display as below.





When pressed another time, the parts to be played back can be moved.

- (2) When access completes, the display changes to “C1 = 0000 AD = 00”.

Note: The numbers “0” displayed show you error rates and ADER.

3. Ending the continuous playback mode





- (1) Press the  button. The display will change to “CPLAY MODE”.
- (2) Press the  (MD) button and take out the disc.

Note: The playback start addresses for IN, MID, and OUT are as follows.

IN : 40h cluster
MID : 300h cluster
OUT : 700h cluster

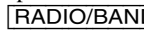
5-2. Operating the Continuous Recording Mode (Use only when performing self-recording/playback check)

1. Entering the continuous recording mode


- (1) Set a recordable disc in the unit.
- (2) Press the  (MD) or  (MD) button to display “CREC MODE”.
- (3) Press the  button to change the display to “CREC MID”.
- (4) When access completes, the display changes to “CREC (0000)” and “” lights up.


Note: The numbers “0” displayed shows you the recording position addresses.

2. Changing the parts to be recorded

- (1) When the  button is pressed during continuous recording, the display changes as below.






When pressed another time, the parts to be recorded can be changed. “” goes off.

- (2) When access completes, the display changes to “CREC (0000)” and “” lights up.

Note: The numbers “0” displayed shows you the recording position addresses.

3. Ending the continuous recording mode

- (1) Press the  button. The display changes to “CREC MODE” and “” goes off.
- (2) Press the  (MD) button and take out the disc.

Note 1: The recording start addresses for IN, MID, and OUT are as follows.

IN : 40h cluster
MID : 300h cluster
OUT : 700h cluster


Note 2: The  button can be used to stop recording anytime.

Note 3: Do not perform continuous recording for long periods of time above 5 minutes.

Note 4: During continuous recording, be careful not to apply vibration.

5-3. Non-Volatile Memory Mode (EEP MODE)

This mode reads and writes the contents of the non-volatile memory.

It is not used in servicing. If the unit entered this mode accidentally, press the  button immediately to release it.

6. FUNCTIONS OF OTHER BUTTONS

Function	Contents
▶▶ (MD) and EDIT	Sets continuous playback when pressed in the STOP state. When pressed during continuous playback, the tracking servo turns ON/OFF.
■ (MD) and EDIT	Stops continuous playback and continuous recording.
▶▶	The sled moves to the outer circumference only when this is pressed.
◀◀	The sled moves to the inner circumference only when this is pressed.
REC/REC MODE and EDIT	When pressed during continuous playback, REC ON/OFF.
■ (CD) and EDIT	Switches between the pit and groove modes when pressed.
RADIO/BAND and EDIT	When pressed during continuous playback, switches the spindle servo mode (CLV-S ↔ CLV-A).
LINE/LINE LEVEL	Switches the displayed contents each time the button is pressed
▲ (MD)	Ejects the disc
OPERATE	Releases the test mode

7. TEST MODE DISPLAYS

Each time the **LINE/LINE LEVEL** button is pressed, the display changes in the following order.

1. Mode display

Displays “TEMP ADJUST”, “CPLAYMODE”, etc.

2. Error rate display

Displays the error rate in the following way.

C1 = □□□□ AD = □□

C1 = Indicates the C1 error.

AD = Indicates ADER.

3. Address display

The address is displayed as follows. (MO: recordable disc, CD: playback only disc)

Press the **■** (CD) and **EDIT** buttons at the same time to switches between the groove display and pit display.

h = □□□□ s = □□□□ (MO pit and CD)

h = □□□□ a = □□□□ (MO groove)

h = Indicates the header address.

s = Indicates the SUBQ address.

a = Indicates the ADIP address.

Note: “-” is displayed when servo is not imposed.

4. Auto gain display (Not used in servicing)

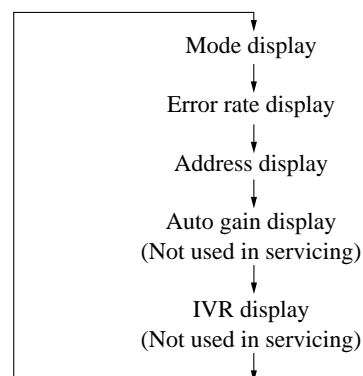
The auto gain is displayed as follows.

AG F = □□ T = □□

5. IVR display (Not used in servicing)

The IVR is displayed as follows.

[□□][□□][□□]



MEANINGS OF OTHER DISPLAYS

Display	Contents	
	When Lit	When Off
SHUF	During continuous playback (CLV: ON)	STOP (CLV: OFF)
PGM	Tracking servo OFF	Tracking servo ON
REC	Recording mode ON	Recording mode OFF
TOC EDIT	ABCD adjustment completed	
TRACK	Pit	Groove
TIMER	CLV-S	CLV-A

SECTION 5 ELECTRICAL ADJUSTMENTS

5-1. TUNER SECTION 0 dB = 1 μ V

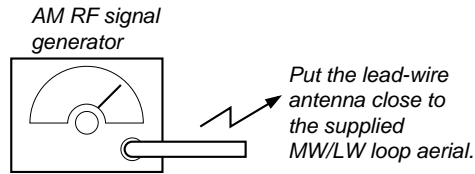
Precautions in Repairing

Note : As a tuner unit (TU1) is difficult to repair if faulty, replace it with new one.

• MW/LW Section

Setting:

BAND button: MW or LW

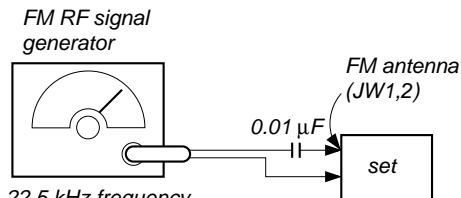


30% amplitude modulation by 400 Hz signal
output level : as low as possible

• FM Section

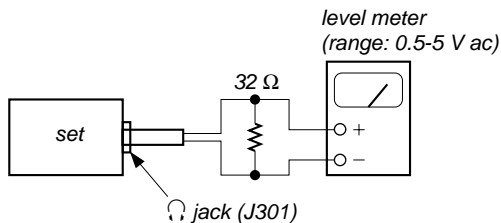
Setting:

BAND button: FM

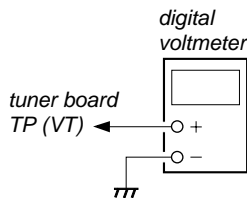


22.5 kHz frequency deviation by 400 Hz signal
output level : as low as possible

• Connecting Level Meter (FM, MW and LW)



• Connecting Digital Voltmeter (FM, MW and LW)



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter.	
T1	
450 kHz	

MW FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	531 kHz	1,611 kHz
Reading on Digital voltmeter	1.0 ± 0.3 V	5.3 ± 0.3 V
Adjustment Part	L5	CT4

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L3	CT2
621 kHz	1,404 kHz

FM FREQUENCY COVERAGE CHECK		
Frequency Display	87.5 MHz	108 MHz
Reading on Digital voltmeter	$1.4 \begin{matrix} +0.6 \\ -0.4 \end{matrix}$ V	$6.9 \begin{matrix} +1.1 \\ -1.0 \end{matrix}$ V
Adjustment Part	<confirmation>	<confirmation>

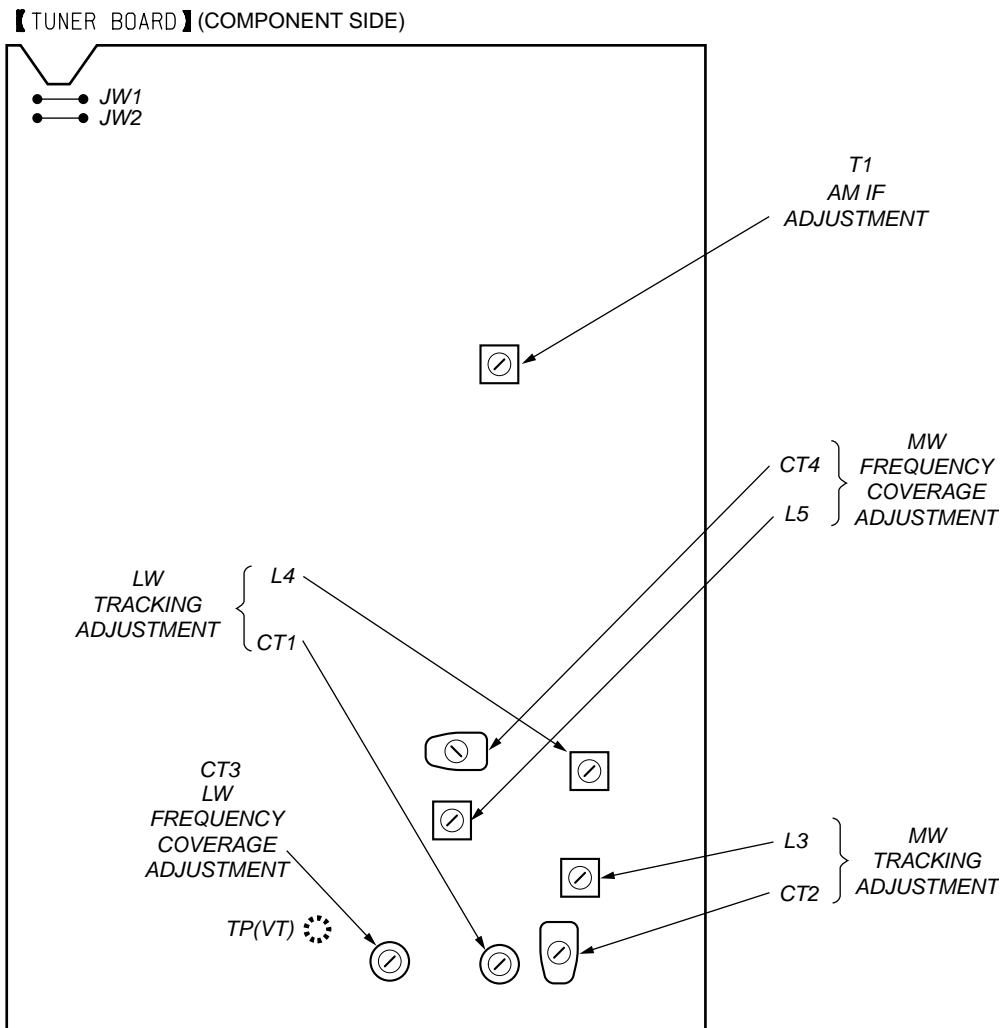
FM TRACKING CHECK	
Adjust for a maximum reading on level meter.	
<confirmation>	<confirmation>
87.5 MHz	108 MHz

LW FREQUENCY COVERAGE ADJUSTMENT		
Frequency Display	153 kHz	279 kHz
Reading on Digital voltmeter	$0.7 \begin{matrix} +0.5 \\ -0.2 \end{matrix}$ V	5.3 ± 0.2 V
Adjustment Part	<confirmation>	CT3

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L4	CT1
162 kHz	261 kHz

Adjustment Location: TUNER board (See page 25.)

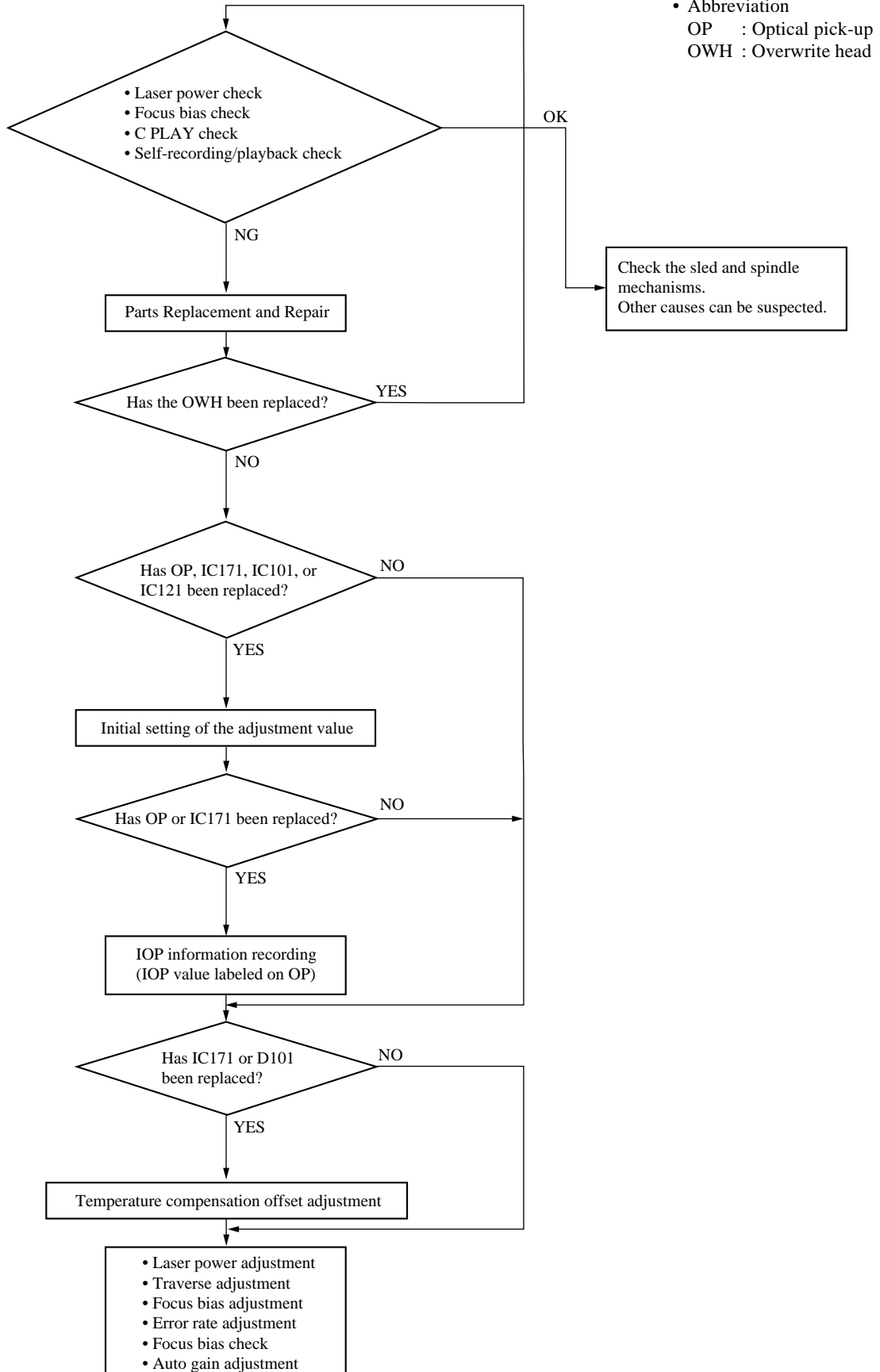
Adjustment Location:



5-2. MD SECTION

1. PARTS REPLACEMENT AND ADJUSTMENT

- Check and adjust the mechanism deck as follows.
The procedure changes according to the part replaced.

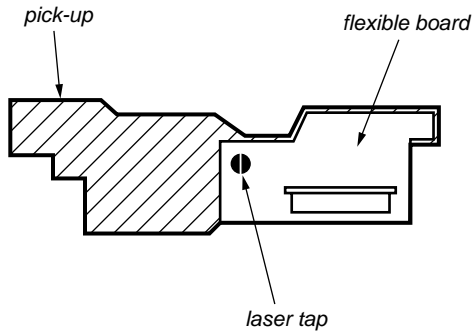


2. PRECAUTIONS FOR CHECKING LASER DIODE EMISSION

To check the emission of the laser diode during adjustments, never view directly from the top as this may lose your eye-sight.

3. PRECAUTIONS FOR USE OF OPTICAL PICK-UP (KMS-260B)

As the laser diode in the optical pick-up is easily damaged by static electricity, solder the laser tap of the flexible board when using it. Before disconnecting the connector, desolder first. Before connecting the connector, be careful not to remove the solder. Also take adequate measures to prevent damage by static electricity. Handle the flexible board with care as it breaks easily.



Optical pick-up flexible board

4. PRECAUTIONS FOR ADJUSTMENTS

- When replacing the following parts, perform the adjustments and checks with ○ in the order shown in the following table.

	Optical Pick-up	BD Board			
		IC171	D101	IC101, IC121	IC192
1. Temperature compensation offset adjustment	×	○	○	×	×
2. Laser power adjustment	○	○	×	○	○
3. EF balance adjustment	○	○	×	○	×
4. Focus bias adjustment	○	○	×	○	×
5. Error rate check	○	○	×	○	×

- Set the test mode when performing adjustments. After completing the adjustments, release the test mode. Perform the adjustments and checks in “group S” of the test mode.
- Perform the adjustments to be needed in the order shown.

- Use the following tools and measuring device.
 - Check Disc (MD) TDYS-1 (Part No. 4-963-646-01)
 - Test Disc (MDW-74/AU-1) (Part No. 8-892-341-41)
 - Laser power meter LPM-8001 (Part No. J-2501-046-A) or MD Laser power meter 8010S (Part No. J-2501-145-A)
 - Oscilloscope (Measure after performing CAL of prove)
 - Digital voltmeter
 - Thermometer
 - Jig for checking BD board waveform (Part No. : J-2501-149-A)
- When observing several signals on the oscilloscope, etc., make sure that VC and ground do not connect inside the oscilloscope. (VC and ground will become short-circuited)
- Using the above jig enables the waveform to be checked without the need to solder. (Refer to Servicing Notes on page 5)
- As the disc used will affect the adjustment results, make sure that not dusts nor fingerprints are attached to it.

Laser Power Meter

When performing laser power checks and adjustment (electrical adjustment), use of the new MD laser power meter 8010S (Part No. J-2501-145-A) instead of the conventional laser power meter is convenient.

It sharply reduces the time and trouble to set the laser power meter sensor onto the objective lens of optical pick-up.

5. CREATING CONTINUOUSLY-RECORDED DISC

* This disc is used in focus bias adjustment and error rate check. The following describes how to create a continuous recording disc.

- Insert a disc (blank disc) commercially available.
- Press the (MD) or (MD) button to display “CREC MODE”.
- Press the button again to display “CREC MID”. Display “CREC (0300)” and start to recording.
- Complete recording within 5 minutes.
- Press the button and stop recording.
- Press the (MD) button and remove the disc.

The above has been how to create a continuous recorded data for the focus bias adjustment/check and MO error rate check.

Note:

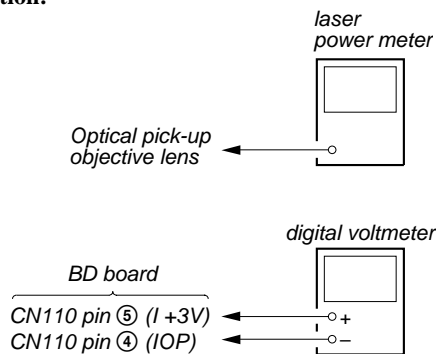
- Be careful not to apply vibration during continuous recording.

6. CHECK PRIOR TO REPAIRS

These checks are performed before replacing parts according to “approximate specifications” to determine the faulty locations. For details, refer to “Checks Prior to Parts Replacement and Adjustments” (See page 6).

6-1. Laser Power Check

Connection:



Checking Procedure:

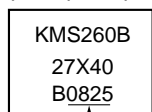
1. Set the laser power meter on the objective lens of the optical pick-up. (When it cannot be set properly, press the button or button to move the optical pick-up) Connect the digital voltmeter to CN110 pin ⑤ (I+3 V) and CN110 pin ④ (IOP) on the BD board.
2. Press the (MD) or (MD) button to display “LDPWR CHECK”.
3. Press the button once to display “LD 0.9 mW \$ ”. Check that the reading of the laser power meter become 0.84 to 0.92 mW.
4. Press the button once more to display “LD 7.0 mW \$ ”. Check that the reading the laser power meter and digital voltmeter satisfy the specified value.

Specified Value:

Laser power meter reading : 7.0 ± 0.2 mW

Digital voltmeter reading : Value on the optical pick-up label
 $\pm 10\%$

(Optical pick-up label)



$IOP=82.5$ mA in this case

IOP (mA) = Digital voltmeter reading (mV)/1 (Ω)

5. Press the button to display “LDPWR CHECK” and stop the laser emission.
 (The button is effective at all times to stop the laser emission)

Note 1: After step 4, each time the button is pressed, the display will be switched “LD 0.7 mW \$ ”, “LD 6.2 mW \$ ”, and “LD WP ホセイ \$ ”. Nothing needs to be performed here. (ホセイ = correction)

6-2. Focus Bias Check

Change the focus bias and check the focus tolerance amount.

Checking Procedure:

1. Load the test disc (MDW-74/AU-1).
2. Press the (MD) or (MD) button to display “CPLAY MODE”.
3. Press the button twice to display “CPLAY MID”.
4. Press the button when “C1 = AD = ” is displayed.
5. Turn the JOG dial to display “FBIAS CHECK”.
6. Press the button to display “/ c = ”. The first four digits indicate the C1 error rate, the two digits after [/] indicate ADER, and the 2 digits after [c =] indicate the focus bias value.
 Check that the C1 error is below 50 and ADER is below 2.
7. Press the button to display “/ b = ”. Check that the C1 error is about 200 and ADER is below 2.
8. Press the button to display “/ a = ”. Check that the C1 error is about 200 and ADER is below 2.
9. Press the button, then press the (MD) button and take out the test disc.

6-3. C PLAY Check

MO Error Rate Check

Checking Procedure:

1. Load the test disc (MDW-74/AU-1).
2. Press the (MD) or (MD) button to display “CPLAY MODE”.
3. Press the button to display “CPLAY MID”.
4. The display changes to “C1 = AD = ”.
5. If the C1 error rate is below 80, check that ADER is below 2.
6. Press the button to stop playback, then press the (MD) button and take out the test disc.

CD Error Rate Check

Checking Procedure:

1. Load the check disc (MD) TDYS-1.
2. Press the (MD) or (MD) button to display “CPLAY MODE”.
3. Press the button twice to display “CPLAY MID”.
4. The display changes to “C1 = AD = ”.
5. Check that the C1 error rate is below 50.
6. Press the button to stop playback, then press the (MD) button and take out the check disc.

6-4. Self-Recording/playback Check

Prepare a continuous recording disc using the unit to be repaired and check the error rate.

Checking Procedure:

1. Load a recordable disc (blank disc).
2. Press the (MD) or (MD) button to display “CREC MODE”.
3. Press the button to display “CREC MID”.
4. When recording starts, lights up “” and display “CREC @@@@” (@@@@ is the address).
5. About 1 minute later, press the button to stop continuous recording.
6. Turn the JOG dial to display “CPLAY MODE”.
7. Press the button to display “CPLAY MID”.
8. “C1 = AD = ” will be displayed.
9. Check that the C1 error becomes below 80 and the ADER below 2.
10. Press the button to stop play back, then press the (MD) button and take out the disc.

Note: After the TEST MODE is entered, insert the disc.

7. TEMPERATURE COMPENSATION OFFSET ADJUSTMENT

Save the temperature data at that time in the non-volatile memory as 25 °C reference data.

Note:

- Usually, do not perform this adjustment.
- Perform this adjustment in an ambient temperature of 22 °C to 28 °C. Perform it immediately after the power is turned on when the internal temperature of the unit is the same as the ambient temperature of 22 °C to 28 °C.
- When D101 has been replaced, perform this adjustment after the temperature of this part has become the ambient temperature.

Adjusting Procedure:

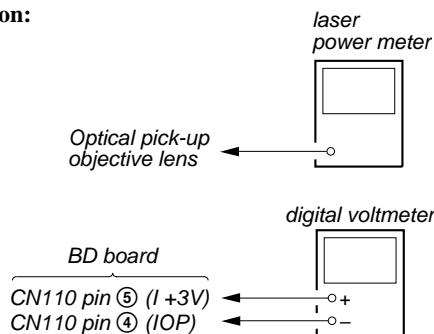
- Press the (MD) or (MD) button to display “TEMP ADJUST”.
- Press the button to select the “TEMPADJUST” mode.
- “TEMP = ” and the current temperature data will be displayed.
- To save the data, press the button.
When not saving the data, press the button.
- When the button is pressed, “TEMP = SAVE” will be displayed and turned back to “TEMP ADJUST” display then. When the button is pressed, “TEMP ADJUST” will be displayed immediately.

Specified Value:

The “TEMP = ” should be within “E0 - EF”, “F0 - FF”, “00 - 0F”, “10 - 1F” and “20 - 2F”.

8. LASER POWER ADJUSTMENT

Connection:



Adjusting Procedure:

- Set the laser power meter on the objective lens of the optical pick-up. (When it cannot be set properly, press the button or button to move the optical pick-up)
Connect the digital voltmeter to CN110 pin 5 (I+3 V) and CN110 pin 4 (IOP) on the BD board.
- Press the (MD) or (MD) button to display “LDPWR ADJUST”.
(Laser power: For adjustment)
- Press the button once to display “LD 0.9 mW \$ ”.
- Press the (MD) or (MD) button so that the reading of the laser power meter becomes 0.85 to 0.91 mW. Press the button after setting the range knob of the laser power meter, and save the adjustment results. (“LD SAVE \$ ” will be displayed for a moment)
- Then “LD 7.0 mW \$ ” will be displayed.
- Press the (MD) or (MD) button and adjust so that the reading on the laser power meter is 6.9 to 7.1 mV. Press the button to save the setting.

Note: Do not perform the emission with 7.0 mW more than 15 seconds continuously.

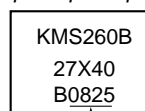
- Then, press the (MD) or (MD) to display “LDPWR CHECK”.
- Press the button once to display “LD 0.9mW \$ ”. Check that the reading of the laser power meter become 0.85 to 0.91 mW.
- Press the button once more to display “LD 7.0 mW \$ ”. Check that the reading the laser power meter and digital voltmeter satisfy the specified value.
Note down the digital voltmeter reading value.

Specified Value:

Laser power meter reading : 7.0 ± 0.2 mW

Digital voltmeter reading : Value on the optical pick-up label
 $\pm 10\%$

(Optical pick-up label)



$IOP=82.5$ mA in this case

IOP (mA) = Digital voltmeter reading (mV)/1 (Ω)

- Press the button to display “LDPWR CHECK” and stop the laser emission.

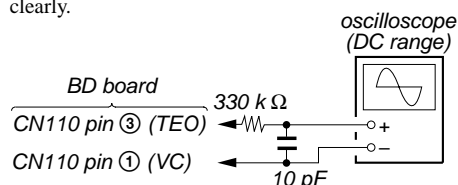
(The button is effective at all times to stop the laser emission)

Note 1: After step 9, each time the button is pressed, the display will be switched “LD 0.7 mW \$ ”, “LD 6.2 mW \$ ”, and “LD WP ホセイ \$ ”. Nothing needs to be performed here.
(ホセイ = correction)

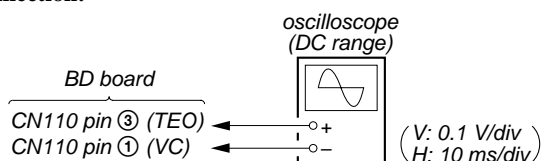
9. EF BALANCE ADJUSTMENT

Note 1: Data will be erased during MO reading if a recorded disc is used in this adjustment.

Note 2: If the traverse waveform is not clear, connect the oscilloscope as shown in the following figure so that it can be seen more clearly.



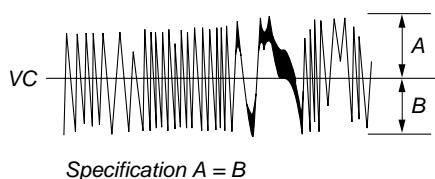
Connection:



Adjusting Procedure:

1. Connect an oscilloscope to CN110 pin ③ (TEO) and CN110 pin ① (VC) on the BD board.
2. Load a disc (any available on the market). (Refer to Note 1)
3. Press the button to move the optical pick-up outside the pit.
4. Press the (MD) or (MD) button to display "EFBAL ADJUST".
5. Press the button to display "EFB = MO-R". (Laser power READ power/Focus servo ON/tracking servo OFF/spindle (S) servo ON)
6. Press the (MD) or (MD) button so that the waveform of the oscilloscope becomes the specified value. (When the (MD) or (MD) button is pressed, the of "EFB = MO-R" changes and the waveform changes.) In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible. (Read power traverse adjustment)

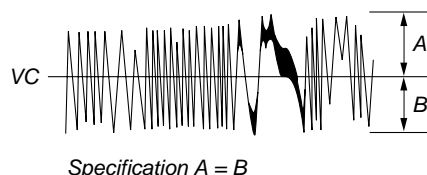
Traverse Waveform



7. Press the button and save the result of adjustment to the non-volatile memory. ("EFB = SAVE" will be displayed for a moment. Then "EFB = MO-W" will be displayed)

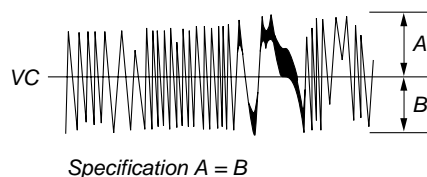
8. Press the (MD) or (MD) button so that the waveform of the oscilloscope becomes the specified value. (When the JOG dial is turned, the of "EFB = MO-R" changes and the waveform changes) In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible. (Write power traverse adjustment)

Traverse Waveform



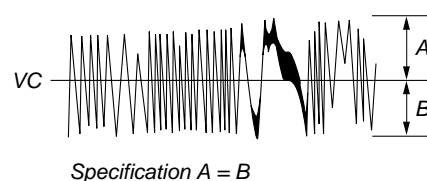
9. Press the button, and save the adjustment results in the non-volatile memory. ("EFB = SAVE" will be displayed for a moment)
10. "EFB = MO-P" will be displayed. The optical pick-up moves to the pit area automatically and servo is imposed.
11. Press the (MD) or (MD) button until the waveform of the oscilloscope moves closer to the specified value. In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible.

Traverse Waveform



12. Press the button, and save the adjustment results in the non-volatile memory. ("EFB = SABE" will be displayed for a moment) Next "EFBAL ADJUST" is displayed. The disc stops rotating automatically.
13. Press the (MD) button and take out the disc.
14. Load the check disc (MD) TDYS-1.
15. Press the button to display "EFB = CD". Servo is imposed automatically.
16. Turn the JOG dial so that the waveform of the oscilloscope moves closer to the specified value. In this adjustment, waveform varies at intervals of approx. 2%. Adjust the waveform so that the specified value is satisfied as much as possible.

Traverse Waveform



17. Press the **[RADIO/BAND]** button, display “EFB = $\square\square\square$ SAVE” for a moment and save the adjustment results in the non-volatile memory.
Next “EFBAL ADJUST” will be displayed.
18. Press the **[▲]** (MD) button and take out the disc.

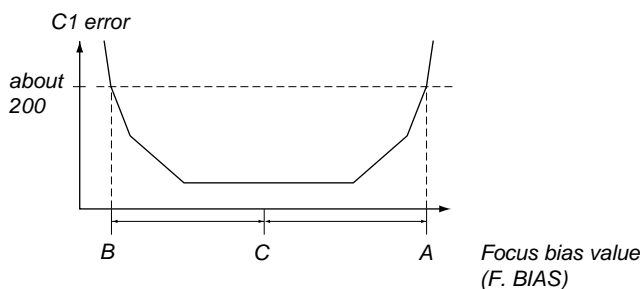
10. FOCUS BIAS ADJUSTMENT

Adjusting Procedure:

1. Load the continuously-recorded disc. (Refer to “5. CREATING CONTINUOUSLY-RECORDED DISC”)
2. Press the **[▶||]** (MD) or **[■]** (MD) button to display “CPLAY MODE”.
3. Press the **[RADIO/BAND]** button to display “CPLAY MID”.
4. Press the **[REC/REC MODE]** button when “C1 $\square\square\square$ = AD = $\square\square$ ” is displayed.
5. Press the **[▶||]** (MD) or **[■]** (MD) button to display “FBIAS ADJUST”.
6. Press the **[RADIO/BAND]** button to display “ $\square\square\square/\square$ a = $\square\square$ ”. The first four digits indicate the C1 error rate, the two digits after [/] indicate ADER, and the 2 digits after [a =] indicate the focus bias value.
7. Turn the JOG dial clockwise and find the focus bias value at which the C1 error rate becomes about 200 (Refer to Note 2).
8. Press the **[RADIO/BAND]** button to display “ $\square\square\square/\square$ b = $\square\square$ ”.
9. Press the **[▶||]** (MD) or **[■]** (MD) button counterclockwise and find the focus bias value at which the C1 error rate becomes about 200.
10. Press the **[RADIO/BAND]** button to display “ $\square\square\square/\square$ c = $\square\square$ ”.
11. Check that the C1 error rate is below 50 and ADER is 00. Then press the **[RADIO/BAND]** button.
12. If the “()” in “ $\square\square - \square\square - \square\square$ ()” is above 20, press the **[RADIO/BAND]** button.
If below 20, press the **[REC/REC MODE]** button and repeat the adjustment from step 2.
13. Press the **[▲]** (MD) button and take out the disc.

Note 1: The relation between the C1 error and focus bias is as shown in the following figure. Find points A and B in the following figure using the above adjustment. The focal point position C is automatically calculated from points A and B.

Note 2: As the C1 error rate changes, perform the adjustment using the average value.



11. ERROR RATE CHECK

11-1. CD Error Rate Check

Checking Procedure:

1. Load the check disc (MD) TDYS-1.
2. Press the **[▶||]** (MD) or **[■]** (MD) button and display “CPLAY MODE”.
3. Press the **[RADIO/BAND]** button twice and display “CPLAY MID”.
4. The display changes to “C1 $\square\square\square$ = AD = $\square\square$ ”.
5. Check that the C1 error rate is below 20.
6. Press the **[REC/REC MODE]** button to stop playback, then press the **[▲]** (MD) button and take out the check disc.

11-2. MO Error Rate Check

Checking Procedure:

1. Load the continuously-recorded disc. (Refer to “5. CREATING CONTINUOUSLY-RECORDED DISC”)
2. Press the **[▶||]** (MD) or **[■]** (MD) button to display “CPLAY MODE”.
3. Press the **[RADIO/BAND]** button to display “CPLAY MID”.
4. The display changes to “C1 $\square\square\square$ = AD = $\square\square$ ”.
5. If the C1 error rate is below 50, check that ADER is 00.
6. Press the **[REC/REC MODE]** button to stop playback, then press the **[▲]** (MD) button and take out the test disc.

12. FOCUS BIAS CHECK

Change the focus bias and check the focus tolerance amount.

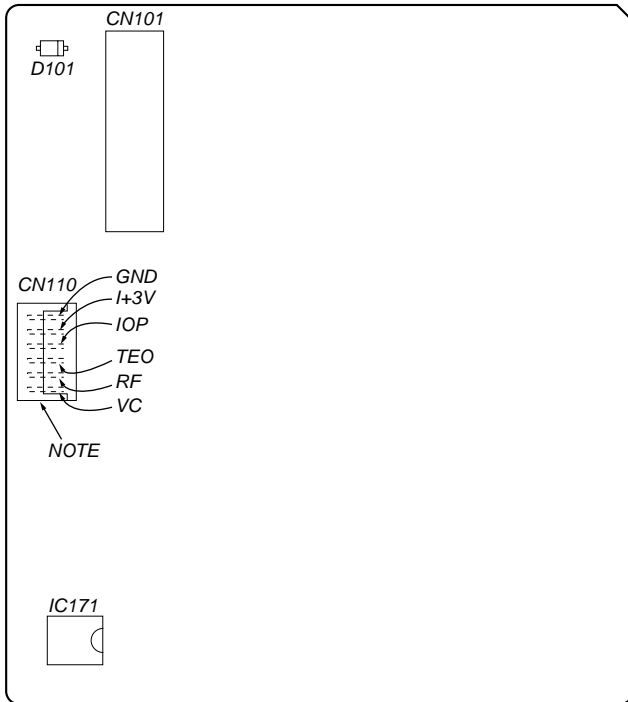
Checking Procedure:

1. Load the continuously-recorded disc. (Refer to “5. CREATING CONTINUOUSLY-RECORDED DISC”)
2. Press the **[▶||]** (MD) or **[■]** (MD) button to display “CPLAY MODE”.
3. Press the **[RADIO/BAND]** button twice to display “CPLAY MID”.
4. Press the **[REC/REC MODE]** button when “C1 $\square\square\square$ = AD = $\square\square$ ” is displayed.
5. Press the **[▶||]** (MD) or **[■]** (MD) button to display “FBIAS CHECK”.
6. Press the **[RADIO/BAND]** button to display “ $\square\square\square/\square$ c = $\square\square$ ”. The first four digits indicate the C1 error rate, the two digits after [/] indicate ADER, and the 2 digits after [c =] indicate the focus bias value.
Check that the C1 error is below 50 and ADER is below 2.
7. Press the **[RADIO/BAND]** button and display “ $\square\square\square/\square$ b = $\square\square$ ”. Check that the C1 error is about 200 and ADER is below 2.
8. Press the **[RADIO/BAND]** button and display “ $\square\square\square/\square$ a = $\square\square$ ”. Check that the C1 error is about 200 and ADER is below 2.
9. Press the **[REC/REC MODE]** button, then press the **[▲]** (MD) button and take out the disc.

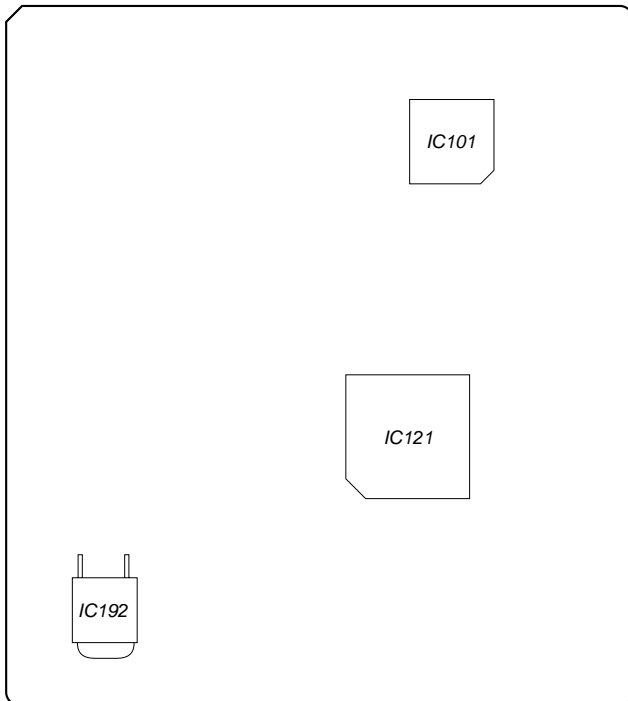
Note 1: If the C1 error and ADER are above other than the specified value at points A (step 8. in the above) or B (step 7. in the above), the focus bias adjustment may not have been carried out properly. Adjust perform the beginning again.

Adjustment Location:

– BD BOARD (COMPONENT SIDE) –



– BD BOARD (CONDUCTOR SIDE) –



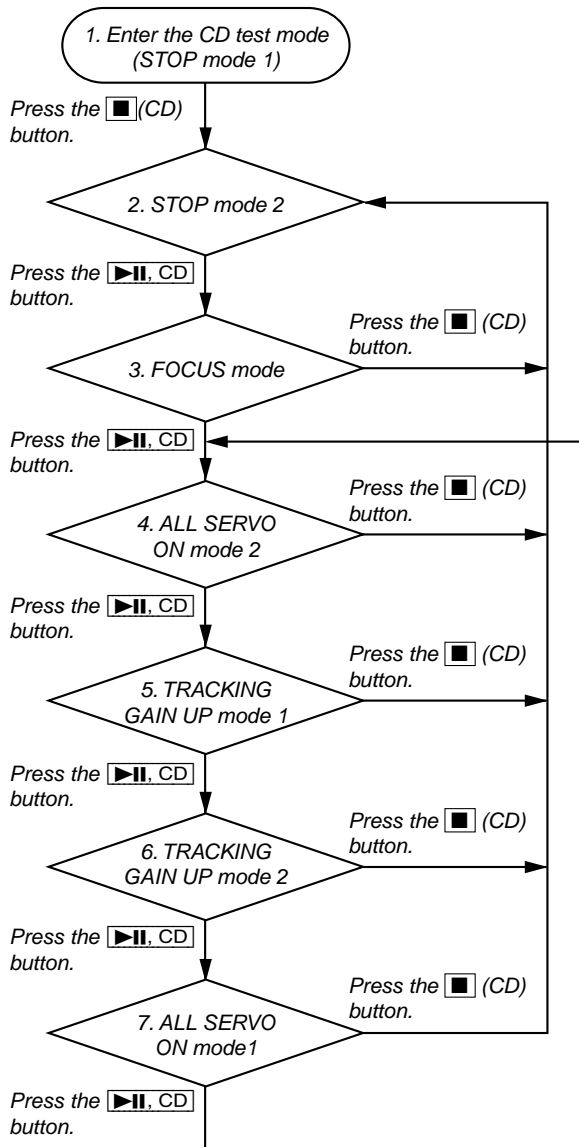
Note: It is useful to use the jig for checking the waveform. (Refer to Servicing Notes on page 5)

5-3. CD SECTION

Set the CD test mode when performing confirmations.
After completing the confirmation, release the CD test mode.

In the CD test mode, the set works as following sequence.

CD test mode sequence:



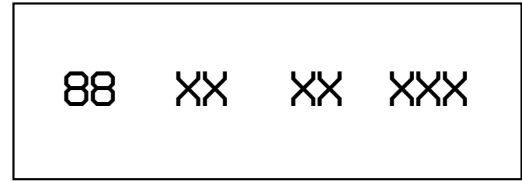
Note 1: ALL SERVO ON mode 1 and TRACKING GAIN UP mode 1:
LPC ON (lights up "ALL" indication)
ALL SERVO ON mode 2 and TRACKING GAIN UP mode 2:
LPC OFF (Does not lights up "ALL" indication)
*) LPC: Laser power control

Note 2: TRACKING GAIN UP mode 1, 2 is not used in servicing.

1. Entering the CD Test Mode

1. Press the **OPERATE** button to turn the power ON.
2. Open the disc lid, and put a disc.
3. Close the disc lid.
4. Press the **OPERATE** button to standby state.
5. Press the button **EDIT**, **SOUND** and **▶▶▶** (CD) simultaneously.
6. After display "CD" for a few seconds, enter the CD test mode (STOP mode 1), and display as below.

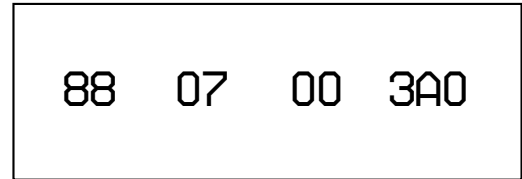
Display



2. STOP Mode 2

1. Press the **■** (CD) button to enter the STOP mode 2, and display as below.

Display

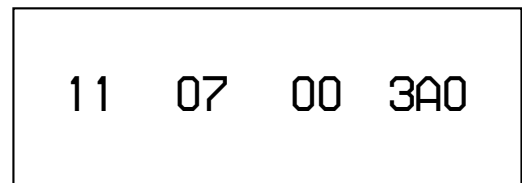


2. Press the **▶▶▶** and **◀◀◀** button to move the optical pick-up to position of the track where signal is recorded.

3. FOCUS Mode (Traverse Confirmation)

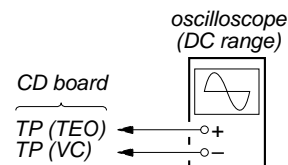
1. Press the **▶▶▶** button to enter the FOCUS mode and display as below. (Focus servo ON. CLV-S, tacking and sled servo OFF)

Display



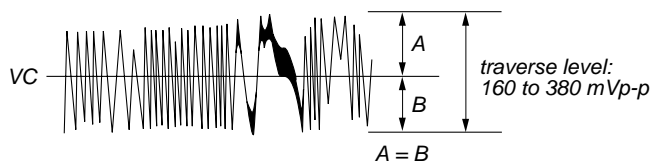
2. Connect an oscilloscope to TP (TEO) and TP (VC) on the CD board.

Connection:



3. Confirm that the traverse level of waveform satisfy specified value as follows.

Traverse Waveform




Specified Value:

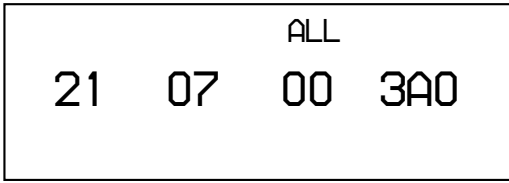
traverse level: 160 to 380 mVp-p

Connecting Location: CD board (See page 34)

**4. ALL SERVO ON Mode 1
(RF Level and Jitter Confirmation 1)**

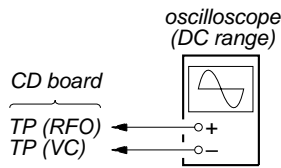
1. Press the  button four times to enter the ALL SERVO ON mode 1 (start playback the disc) and display as below.
(All servo ON. LPC ON)

Display



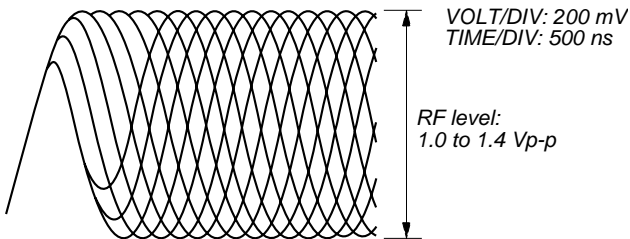
2. Connect an oscilloscope to TP (RFO) and TP (VC) on the CD board.

Connection:



3. Confirm that the RF level and jitter of waveform satisfy specified values as follows.

RF signal Waveform




Specified Values:

RF level : 1.0 to 1.4 Vp-p

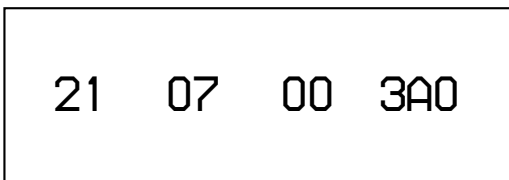
jitter : less than 9 nsec

Connecting Location: CD board

**5. ALL SERVO ON Mode 2
(RF Level and Jitter Confirmation 2)**

1. Press the  button to enter the LPC OFF mode and display as below. (All servo ON. LPC OFF)

Display



2. Confirm that the RF level and jitter of waveform satisfy specified values as follows.



Specified Values:

RF level : 0.8 to 1.4 Vp-p

jitter : less than 9 nsec

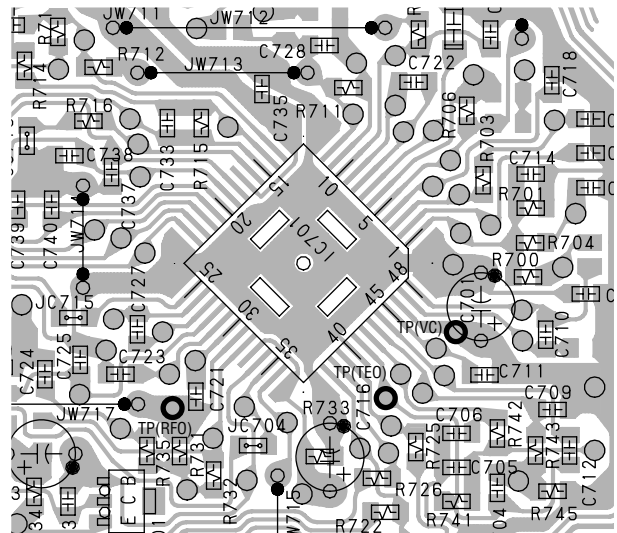
If the RF level and jitter are out of specified values, measure again after clean the object lens by an applicator with lens cleaning liquid.

6. Releasing the CD Test Mode

1. Press the  (CD) button to stop rotate the disc.
2. Press the  button to release the CD test mode and turn to standby state.

Connecting Location:

CD BOARD (CONDUCTOR SIDE)



SECTION 6 DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTIONS

• BC BOARD IC101 CXA2523AR (RF AMP, FOCUS/TRACKING ERROR AMP)

Pin No.	Pin Name	I/O	Pin Description
1	I	I	I-V converted RF signal I input from the optical pick-up block detector
2	J	I	I-V converted RF signal J input from the optical pick-up block detector
3	VC	O	Middle point voltage (+ 1.65 V) generation output terminal
4 – 9	A – F	I	Signal input from the optical pick-up detector
10	PD	I	Light amount monitor input from the optical pick-up block laser diode
11	APC	O	Laser amplifier output terminal to the automatic power control circuit
12	APCREF	I	Reference voltage input terminal for setting laser power
13	GND	—	Ground terminal
14	TEMPI	I	Connected to the temperature sensor
15	TEMPR	O	Output terminal for a temperature sensor reference voltage
16	SWDT	I	Writing serial data input from the CXD2654R (IC121)
17	SCLK	I	Serial data transfer clock signal input from the CXD2654R (IC121)
18	XLAT	I	Serial data latch pulse signal input from the CXD2654R (IC121)
19	XSTBY	I	Standby signal input terminal “L”: standby (fixed at “H” in this set)
20	F0CNT	I	Center frequency control voltage input terminal of internal circuit (BPF22, BPF3T, EQ) input from the CXD2654R (IC121)
21	VREF	O	Reference voltage output terminal Not used (open)
22	EQADJ	I	Center frequency setting terminal for the internal circuit (EQ)
23	3TADJ	I	Center frequency setting terminal for the internal circuit (BPF3T)
24	VCC	—	Power supply terminal (+3.3V)
25	WBLADJ	I	Center frequency setting terminal for the internal circuit (BPF22)
26	TE	O	Tracking error signal output to the CXD2654R (IC121)
27	CSLED	I	Connected to the external capacitor for low-pass filter of the sled error signal
28	SE	O	Sled error signal output to the CXD2654R (IC121)
29	ADFM	O	FM signal output of the ADIP
30	ADIN	I	Receives a ADIP FM signal in AC coupling
31	ADAGC	I	Connected to the external capacitor for ADIP AGC
32	ADFG	O	ADIP duplex signal (22.05 kHz \pm 1 kHz) output to the CXD2654R (IC121)
33	AUX	O	Auxiliary signal (I3 signal/temperature signal) output to the CXD2654R (IC121)
34	FE	O	Focus error signal output to the CXD2654R (IC121)
35	ABCD	O	Light amount signal (ABCD) output to the CXD2654R (IC121)
36	BOTM	O	Light amount signal (RF/ABCD) bottom hold output to the CXD264R (IC121)
37	PEAK	O	Light amount signal (RF/ABCD) peak hold output to the CXD2654R (IC121)
38	RF	O	Playback EFM RF signal output to the CXD2654R (IC121)
39	RFAGC	I	Connected to the external capacitor for RF auto gain control circuit
40	AGCI	I	Receives a RF signal in AC coupling
41	COMPO	O	User comparator output terminal Not used (open)
42	COMPP	I	User comparator input terminal Not used (fixed at “L”)
43	ADDC	I	Connected to the external capacitor for cutting the low band of the ADIP amplifier
44	OPO	O	User operational amplifier output terminal Not used (open)
45	OPN	I	User operational amplifier inversion input terminal Not used (fixed at “L”)
46	RFO	O	RF signal output terminal
47	MORFI	I	Receives a MO RF signal in AC coupling
48	MORFO	O	MO RF signal output terminal

• **BD BOARD IC121 CXD2654R**

(DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO SIGNAL PROCESSOR, EFM/ACIRC ENCODER/DECODER, SHOCK PROOF MEMORY CONTROLLER, ATRAC ENCODER/DECODER)

Pin No.	Pin Name	I/O	Pin Description
1	MNT0 (FOK)	O	Focus OK signal output to the MD mechanism controller (IC601) “H” is output when focus is on (“L”: NG)
2	MNT1 (SHOCK)	O	Track jump detection signal output to the MD mechanism controller (IC601)
3	MNT2 (XBUSY)	O	Busy monitor signal output to the MD mechanism controller (IC601)
4	MNT3 (SLOCK)	O	Spindle servo lock status monitor signal output to the MD mechanism controller (IC601)
5	SWDT	I	Writing serial data signal input from the MD mechanism controller (IC601)
6	SCLK	I (S)	Serial data transfer clock signal input from the MD mechanism controller (IC601)
7	XLAT	I (S)	Serial data latch pulse signal input from the MD mechanism controller (IC601)
8	SRDT	O (3)	Reading serial data signal output to the MD mechanism controller (IC601)
9	SENS	O (3)	Internal status (SENSE) output to the MD mechanism controller (IC601)
10	$\overline{\text{XRST}}$	I (S)	Reset signal input from the MD mechanism controller (IC601) “L”: reset
11	SQSY	O	Subcode Q sync (SCOR) output to the MD mechanism controller (IC601) “L” is output every 13.3 msec Almost all, “H” is output
12	DQSY	O	Digital In U-bit CD format subcode Q sync (SCOR) output to the MD mechanism controller (IC601) “L” is output every 13.3 msec Almost all, “H” is output
13	RECP	I	Laser power selection signal input from the MD mechanism controller (IC601) “L”: playback mode, “H”: recording mode
14	XINT	O	Interrupt status output to the MD mechanism controller (IC601)
15	TX	I	Recording data output enable signal input from the MD mechanism controller (IC601) Writing data transmission timing input (Also serves as the magnetic head on/off output)
16	OSCI	I	System clock signal (512 Fs = 22.5792 MHz) input terminal
17	OSCO	O	System clock signal (512 Fs = 22.5792 MHz) output terminal Not used (open)
18	XTSL	I	Input terminal for the system clock frequency setting “L”: 45.1584 MHz, “H”: 22.5792 MHz (fixed at “H” in this set)
19	DIN0	I	Digital audio signal input terminal when recording mode (for digital optical input) Not used
20	DIN1	I	Digital audio signal input terminal when recording mode (for digital optical input)
21	DOUT	O	Digital audio signal output terminal when playback mode (for digital optical output) Not used
22	DATAI	I	Serial data input terminal Not used (fixed at “L”)
23	LRCKI	I	L/R sampling clock signal (44.1 kHz) input terminal Not used (fixed at “L”)
24	XBCKI	I	Bit clock signal (2.8224 MHz) input terminal Not used (fixed at “L”)
25	ADDT	I	Recording data input from the A/D, D/A converter (IC603)
26	DADT	O	Playback data output to the A/D, D/A converter (IC603)
27	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the A/D, D/A converter (IC603)
28	XBCK	O	Bit clock signal (2.8224 MHz) output to the A/D, D/A converter (IC603)
29	FS256	O	Clock signal (11.2896 MHz) output terminal Not used (open)
30	DVDD	—	Power supply terminal (+3.3 V) (digital system)
31 – 34	A03 – A00	O	Address signal output to the D-RAM (IC124)
35	A10	O	Address signal output to the external D-RAM Not used (open)
36 – 40	A04 – A08	O	Address signal output to the D-RAM (IC124)
41	A11	O	Address signal output to the external D-RAM Not used (open)
42	DVSS	—	Ground terminal (digital system)
43	$\overline{\text{XOE}}$	O	Output enable signal output to the D-RAM (IC124) “L” active
44	$\overline{\text{XCAS}}$	O	Column address strobe signal output to the D-RAM (IC124) “L” active
45	A09	O	Address signal output to the D-RAM (IC124)

Pin No.	Pin Name	I/O	Pin Description
46	$\overline{\text{XRAS}}$	O	Row address strobe signal output to the D-RAM (IC124) "L" active
47	$\overline{\text{XWE}}$	O	Write enable signal output to the D-RAM (IC124) "L" active
48	D1	I/O	Two-way data bus with the D-RAM (IC124)
49	D0	I/O	
50	D2	I/O	
51	D3	I/O	
52	MVCI	I (S)	Digital in PLL oscillation input from the external VCO Not used (fixed at "L")
53	ASYO	O	Playback EFM full-swing output terminal
54	ASYI	I (A)	Playback EFM asymmetry comparator voltage input terminal
55	AVDD	—	Power supply terminal (+3.3 V) (analog system)
56	BIAS	I (A)	Playback EFM asymmetry circuit constant current input terminal
57	RFI	I (A)	Playback EFM RF signal input from the CXA2523AR (IC101)
58	AVSS	—	Ground terminal (analog system)
59	PCO	O (3)	Phase comparison output for master clock of the recording/playback EFM master PLL
60	FILI	I (A)	Filter input for master clock of the recording/playback master PLL
61	FILO	O (A)	Filter output for master clock of the recording/playback master PLL
62	CLTV	I (A)	Internal VCO control voltage input of the recording/playback master PLL
63	PEAK	I (A)	Light amount signal (RF/ABCD) peak hold input from the CXA2523AR (IC101)
64	BOTM	I (A)	Light amount signal (RF/ABCD) bottom hold input from the CXA2523AR (IC101)
65	ABCD	I (A)	Light amount signal (ABCD) input form the CXA2523AR (IC101)
66	FE	I (A)	Focus error signal input from the CXA2523AR (IC101)
67	AUX1	I (A)	Auxiliary signal (I3 signal/temperature signal) input from the CXA2523AR (IC101)
68	VC	I (A)	Middle point voltage (+1.65 V) input from the CXA2523AR (IC101)
69	ADIO	O (A)	Monitor output of the A/D converter input signal Not used (open)
70	AVDD	—	Power supply terminal (+3.3 V) (analog system)
71	ADRT	I (A)	A/D converter operational range upper limit voltage input terminal (fixed at "H" in this set)
72	ADRB	I (A)	A/D converter operational range lower limit voltage input terminal (fixed at "L" in this set)
73	AVSS	—	Ground terminal (analog system)
74	SE	I (A)	Sled error signal input from the CXA2523AR (IC101)
75	TE	I (A)	Tracking error signal input from the CXA2523AR (IC101)
76	DCHG	I (A)	Connected to the +3.3 V power supply
77	APC	I (A)	Error signal input for the laser automatic power control Not used (fixed at "H")
78	ADFG	I (S)	ADIP duplex FM signal (22.05 kHz \pm 1 kHz) input from the CXA2523AR (IC101)
79	F0CNT	O	Filter f0 control signal output to the CXA2523AR (IC101)
80	XLRF	O	Serial data latch pulse signal output to the CXA2523AR (IC101)
81	CKRF	O	Serial data transfer clock signal output to the CXA2523AR (IC101)
82	DTRF	O	Writing serial data output to the CXA2523AR (IC101)
83	APCREF	O	Control signal output to the reference voltage generator circuit for the laser automatic power control
84	LDDR	O	PWM signal output for the laser automatic power control Not used (open)
85	TRDR	O	Tracking servo drive PWM signal (-) output to the BH6511FS (IC152)
86	TFDR	O	Tracking servo drive PWM signal (+) output to the BH6511FS (IC152)
87	DVDD	—	Power supply terminal (+3.3 V) (digital system)
88	FFDR	O	Focus servo drive PWM signal (+) output to the BH6511FS (IC152)
89	FRDR	O	Focus servo drive PWM signal (-) output to the BH6511FS (IC152)
90	FS4	O	Clock signal (176.4 kHz) output terminal (X'tal system) Not used (open)

Pin No.	Pin Name	I/O	Pin Description
91	SRDR	O	Sled servo drive PWM signal (-) output to the BH6511FS (IC152)
92	SFDR	O	Sled servo drive PWM signal (+) output to the BH6511FS (IC152)
93	SPRD	O	Spindle servo drive PWM signal (-) output to the BH6511FS (IC152)
94	SPFD	O	Spindle servo drive PWM signal (+) output to the BH6511FS (IC152)
95	FGIN	I (S)	Input terminal for the test (fixed at "L")
96	TEST1	I	
97	TEST2	I	
98	TEST3	I	
99	DVSS	—	Ground terminal (digital system)
100	EFMO	O	EFM signal output terminal when recording mode

* I (S) stands for schmitt input, I (A) for analog input, O (3) for 3-state output, and O (A) for analog output in the column I/O.

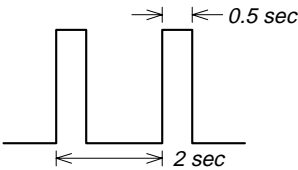
• IC401 CXP740096-043Q (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	NC	—	Not used
2	MEGA BASS	O	MEGA BASS on/off control signal output “L”: MEGA BASS on
3	LINE-LEVEL	O	Line in level control signal output “L”: normal, “H”: high
4	AU-CS	O	Chip select signal output to the electrical volume (IC301)
5	AU-DATA	O	Serial data output to the electrical volume (IC301)
6	AU-CLK	O	Serial data transfer clock signal output to the electrical volume (IC301)
7	RDS-DATA	I	RDS serial data input from the RDS decoder Used for the AEP, UK models
8	NC	—	Not used
9	RDS-CLK	I	RDS serial data transfer clock signal input from the RDS decoder Used for the AEP, UK models
10	TU-MUTE	O	Muting on/off control signal output for the tuner signal “L”: muting on
11	TU-CE	O	PLL serial chip enable signal output to the tuner PLL IC (IC2)
12	TU-DATA	O	PLL serial data output to the tuner PLL IC (IC2)
13	TU-CLK	O	PLL serial data transfer clock signal output to the tuner PLL IC (IC2)
14	TU-COUNT	I	PLL serial data input from the tuner PLL IC (IC2)
15	CD-DOOR	I	Detection signal input from the CD lid open/close detect switch (S402)
16	NC	—	Not used
17 – 21	KEY S4 – S0	I	Key input terminal (A/D input)
22	LED-CHARA-KAN	O	LED (LED board D609) on/off drive signal output
23	LED-123	O	LED (LED board D610-613) on/off drive signal output
24	LED-456	O	LED (LED board D607,615-617) on/off drive signal output
25	LED-789	O	LED (LED board D618-621) on/off drive signal output
26	LED-0	O	LED (LED board D622-625) on/off drive signal output
27	LED-CHARA-ABC	O	LED (LED board D608) on/off drive signal output
28	NC	—	Not used
29	LED-CLOCK	O	LED (LED board D602-614) on/off drive signal output
30	LED-HISPEED	O	LED (LED board D601) on/off drive signal output
31	RA-POWER	O	RA7V power supply on/off control signal output
32	NC	—	Not used
33	FL-CTR	O	FL-BU3.3V power supply on/off control signal output
34	PA-STANDBY	O	Power amplifier on/off control signal output “L”: power on L: standby, H: power on
35	LINE-MUTE	O	LINE input muting on/off control signal output
36	KEY-C2	O	Not used
37	KEY-C1	O	Not used
38	FL-DIM	O	Control signal output for the brightness of fluorescent tube display
39	TU-SFT	O	Frequency shift of the main system clock control terminal
40	RST	I	System reset signal input from the reset signal generator (IC403) “L”: reset
41	VSS	—	Ground terminal
42	XTAL	I	Main system clock input terminal (8 MHz)
43	EXTAL	O	Main system clock input terminal (8 MHz)
44	FL-RST	O	Reset signal output to the fluorescent tube display drive IC (IC601)
45	FL-CS	O	Chip enable signal output to the fluorescent tube display drive IC (IC601)
46	FL-DATA	O	Serial data output to the fluorescent tube display drive IC (IC601)
47	FL-CLK	O	Serial data transfer clock signal output to the fluorescent tube display drive IC (IC601)
48	SELECT-GND	I/O	Destination setting terminal Fixed at “H” in this set
49	SELECT	I	Destination setting terminal
50	NC	—	Not used

Pin No.	Pin Name	I/O	Pin Description
51	KEY-C4A	I	Key input terminal (A/D input)
52	AVSS	—	Ground terminal (for A/D converter)
53	AVREF	—	Reference voltage (+3.3V) input terminal (for A/D converter)
54	AVDD	—	Power supply terminal (+3.3V) (for A/D converter)
55 – 58	KEY C3A – C0A	I	Key input terminal (A/D input)
59	3.3V-SHORT	I	AU 7.5V short test pin
60 – 62	KEY AD2 – AD0	I	Key input terminal (A/D input) (TOP board)
63	MD-PDOWN	O	Power down signal output to the MD mechanism controller (IC601) “L”: remove the AC power cord
64	MD-SRTS	O	System controller busy status monitor output to the MD mechanism controller (IC601)
65	MD-SCTS	I	MD mechanism controller busy status monitor input from the MD mechanism controller (IC601)
66	MD-RST	O	Power supply on/off control signal output for the MD mechanism controller (IC601) ”H”: power on
67	MD-H	O	MD play control signal output to the A/D, D/A converter (IC603) “L”: MD playback mode
68	REC-H	O	MD REC control signal output to the A/D, D/A converter (IC603) “L”: MD recording mode
69	MD-SRXD	O	UART communication data input from the MD mechanism controller (IC601)
70	MD-STXD	I	UART communication data output to the MD mechanism controller (IC601)
71, 72	NC	—	Not used
73	CD-12/8	O	Servo setting when CD operates faster.
74	CD-HISPEED	O	CD higher speed setting
75	CD-POWER	O	CD servo system power supply on/off control signal output “L”: power on
76	CD-MUTE	O	Muting on/off control signal output for the CD playback signal “L”: muting on
77	NC	—	Not used
78	CD-CSOR	I	Subcode sync (S0+S1) detection signal input from the CD DSP IC (IC702)
79	CD-SQSO	I	Subcode Q data input from the CD DSP IC (IC702)
80	CD-XRST	O	Reset signal output to the CD RF AMP (IC701), CD DSP IC (IC702)
81	CD-SQCK	O	Subcode Q data reading clock signal output to the CD DSP IC (IC702)
82	CD-SENSE1	I	Internal status (SENSE) input from the CD DSP IC (IC702)
83	CD-DATA	O	Serial data output to the CD DSP IC (IC702)
84	CD-XLAT	O	Serial data latch pulse signal output to the CD DSP IC (IC702)
85	RMC	I	Sircs remote control signal input from the remote control receiver (IC602)
86	TEX	O	Sub system clock output terminal (32.768 kHz)
87	TX	I	Sub system clock input terminal (32.768 kHz)
88	VSS	—	Ground terminal
89	VDD	—	Power supply terminal (+3.3V)
90	NC	—	Not used
91	CD-CLK	O	Serial data transfer clock signal output to the CD DSP IC (IC702)
92	CD-SENSE2	I	Internal status (SENSE) input from the CD DSP IC (IC702)
93	CD-FOK	I	Focus OK signal input terminal Not used (open)
94	STBY-CTR	O	Power saving mode selection “H”: normal, “L”: Power saving mode
95	ACCHK	I	AC power supply detection signal input “L”: AC in
96	NC	—	Not used
97	PCON	O	Power on/off control signal output “L”: standby mode, “H”: power on
98	AMUTE	O	Audio muting on/off control signal output “H”: muting on
99	TU-LED	I	Input the signal for band tuning check from the tuner IC.
100	NC	—	Not used

• DG BOARD IC601 RU8X13MF-0102 (MD MECHANISM CONTROLLER)

Pin No.	Pin Name	I/O	Pin Description
1, 2	DAOUT0, DAOUT1	O	Not used (open)
3 – 5	KEY0 – KEY2	I	Key input terminal (A/D input) Not used (fixed at “H”)
6	CHACK-IN	I	Detection input from the disc chucking-in detect switch “L”: chucking Not used (fixed at “H”)
7	PACK-IN	I	Detection input from the loading-in detect switch “L” at a load-out position, others: “H” Not used (fixed at “H”)
8	PACK-OUT	I	Detection input from the loading-out detect switch (S602) “L” at a load-out position, others: “H”
9, 10	NC	—	Not used (fixed at “L”)
11	AVSS	—	Ground terminal
12	XINT	I	Interrupt status input from the CXD2654R (IC121)
13	PDOWN	I	Power down detection signal input terminal “L”: power down, normally: “H”
14	NC	—	Not used (fixed at “L”)
15	SQSY	I	Subcode Q sync (SCOR) input from the CXD2654R (IC121) “L” is input every 13.3 msec Almost all, “H” is input
16	DQSY	I	Digital In U-bit CD format subcode Q sync (SCOR) input from the CXD2654R (IC121) “L” is input every 13.3 msec Almost all, “H” is input
17 – 19	NC	—	Not used (fixed at “L”)
20	$\overline{\text{SYS-RST}}$	I	System reset signal input from the reset switch (Q604) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
21	TEST	I	Setting terminal for the test mode Not used (fixed at “L”)
22	+3.3V	—	Power supply terminal (+3.3V)
23	VBAT	I	Power supply for the internal real time clock and RAM
24	XOUT-T	O	Sub system clock output terminal (32.768 kHz)
25	XIN-T	I	Sub system clock input terminal (32.768 kHz)
26	GND	—	Ground terminal
27	XOUT	O	Main system clock output terminal (12 MHz)
28	XIN	I	Main system clock input terminal (12 MHz)
29	EXMEM	I	Setting terminal external ROM mode or internal ROM mode “L”: internal ROM mode (fixed at “L”)
30	S1	—	Not used (open)
31	NC	—	Not used (fixed at “L”)
32	SENS	I	Internal status (SENSE) input from the CXD2654R (IC121)
33	SHOCK	I	Track jump detection signal input from the CXD2654R (IC121)
34, 35	NC	—	Not used (fixed at “L”)
36	STB	O	Relay drive signal output for the power on/off “L”: standby mode, “H”: relay on
37	REC P	I	Detection input from the recording position detect switch (S601) “L” active
38	PB P	I	Detection input from the playback position detect switch (S604) “L” active
39	LD-LOW	O	Loading motor drive voltage control signal output for the loading motor driver (IC602) “H” active
40	NC	—	Not used (open)
41	MNT2 (XBUSY)	I	Busy status signal input from the CXD2654R (IC121)
42	MNT3 (SLOCK)	I	Spindle servo lock status monitor signal input from the CXD2654R (IC121)
43	LED0	O	LED drive signal output terminal “L”: LED on Not used (open)
44, 45	NC	—	Not used (fixed at “L”)
46	RST-LOW	—	Not used (open)
47	GND	—	Ground terminal

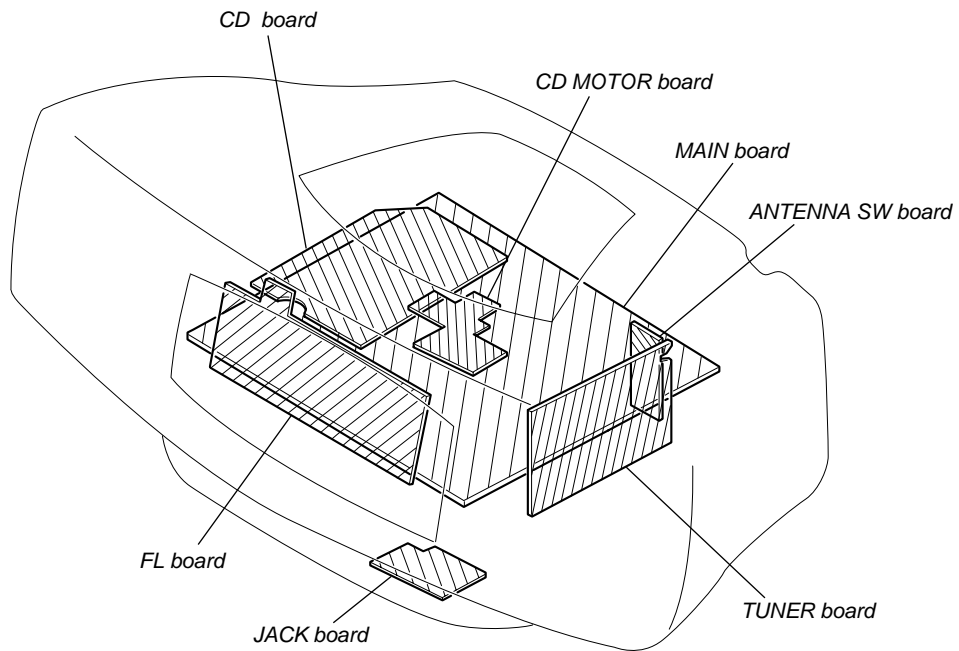
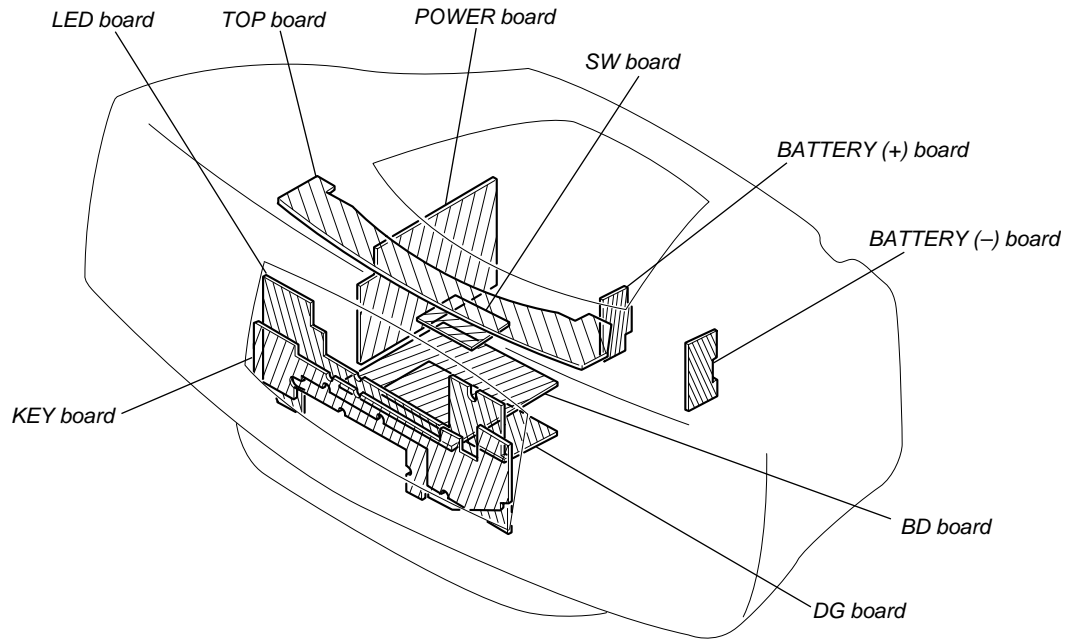
Pin No.	Pin Name	I/O	Pin Description
48	+3.3V	—	Power supply terminal (+3.3V)
49	SNG/CHG	—	Not used (fixed at “L”)
50, 51	JOG1, JOG0	I	JOG dial pulse input Not used (fixed at “L”)
52	SDA	I/O	Two-way data bus with the EEPROM (IC171)
53	SCL	O	Clock signal output to the EEPROM (IC171)
54	2M/4M	I	Select whether D-RAM capacitance 2M bit or 4M bit “L”: 4M bit (external D-RAM), “H”: 2M bit (internal D-RAM of IC121 CXD2654R) (fixed at “H” in this set)
55, 56	NC	—	Not used (fixed at “L”)
57	RXD (UART)	I	UART communication data input from the system controller (IC401)
58	TXD (UART)	O	UART communication data output to the system controller (IC401)
59	RTS	I	RTS (Request To Send) input from the system controller (IC401)
60	CTS	O	CTS (Clear To Send) output to the system controller (IC401)
61, 62	AUBIT0, AUBIT1	—	Not used (fixed at “L”)
63, 64	CLKSET0, CLKSET1	I	Clock destination setting terminal (fixed at “L”)
65	GND	—	Ground terminal
66	+3.3V	—	Power supply terminal (+3.3V)
67	SCLK	O	Serial clock signal output to the CXD2654R (IC121)
68	SWDT	O	Writing data output to the CXD2654R (IC121)
69	SRDT	I	Reading data input from the CXD2654R (IC121)
70	EMP	O	Emphasis control signal output to the A/D, D/A converter (IC603) when recording mode
71	SCK1	O	Display serial clock signal output terminal Not used (open)
72	SOUT1	O	Display serial data output terminal Not used (open)
73	SIN1	O	Chip select signal output for the display Not used (open)
74	CSB	I	Not used (fixed at “H”)
75	LDON	O	Laser diode on/off control signal output to the automatic power control circuit “H”: laser on
76	PIT/GRV	O	Pit/groove detection signal output terminal “H”: is output for the playback only disc or TOC area Not used (open)
77	FOK	I	Focus OK signal input from the CXD2654R (IC121) “H” is input when focus is on (“L”: NG)
78	NC	—	Not used (open)
79	LOCK	O	Lock signal output terminal Not used (open)
80	WRPWR	O	Laser power select signal output to the CXD2654R (IC121) and HF module switch circuit “L”: playback mode, “H”: recording mode
81	$\overline{\text{DIG-RST}}$	O	Reset signal output to the CXD2654R (IC121) and BH6511FS (IC152) “L”: reset
82	NC	—	Not used (open)
83	$\overline{\text{DA-RST}}$	O	Reset signal output to the A/D, D/A converter (IC603) “L”: reset
84	DSEL-A	—	Not used (open)
85	DSEL-B	—	Not used (open)
86	MOD	O	Laser modulation select signal output to the HF module switch circuit Stop: “L”, Playback power: “H”, Recording power: 

Pin No.	Pin Name	I/O	Pin Description
87	REC/ $\overline{\text{PB}}$	O	Not used (open)
88	NC	—	Not used (open)
89	SCTX	O	Recording data output enable signal output to the CXD2654R (IC121) and overwrite head driver (IC181) Writing data transmission timing output (Also serves as the magnetic head on/off output)
90	XLATCH	O	Serial data latch pulses signal output to the CXD2654R (IC121)
91, 92	NC	—	Not used (open)
93	AMUTE	O	Muting control signal output terminal Not used (open)
94	LDOUT	O	Motor control signal output to the loading motor driver (IC602) “L” active *1
95	LDIN	O	Motor control signal output to the loading motor driver (IC602) “L” active *1
96	LIMIT-IN	I	Detection input from the sled limit-in detect switch (S101) The optical pick-up is inner position when “L”
97	PROTECT	I	Rec-proof claw detect input from the protect detect switch (S102-2) “H”: write protect
98	REFLECT	I	Detection input from the disc reflection rate detect switch (S102-1) “L”: high reflection rate disc, “H”: low reflection rate disc
99	GND	—	Ground terminal
100	+3.3V	—	Power supply terminal (+3.3V)

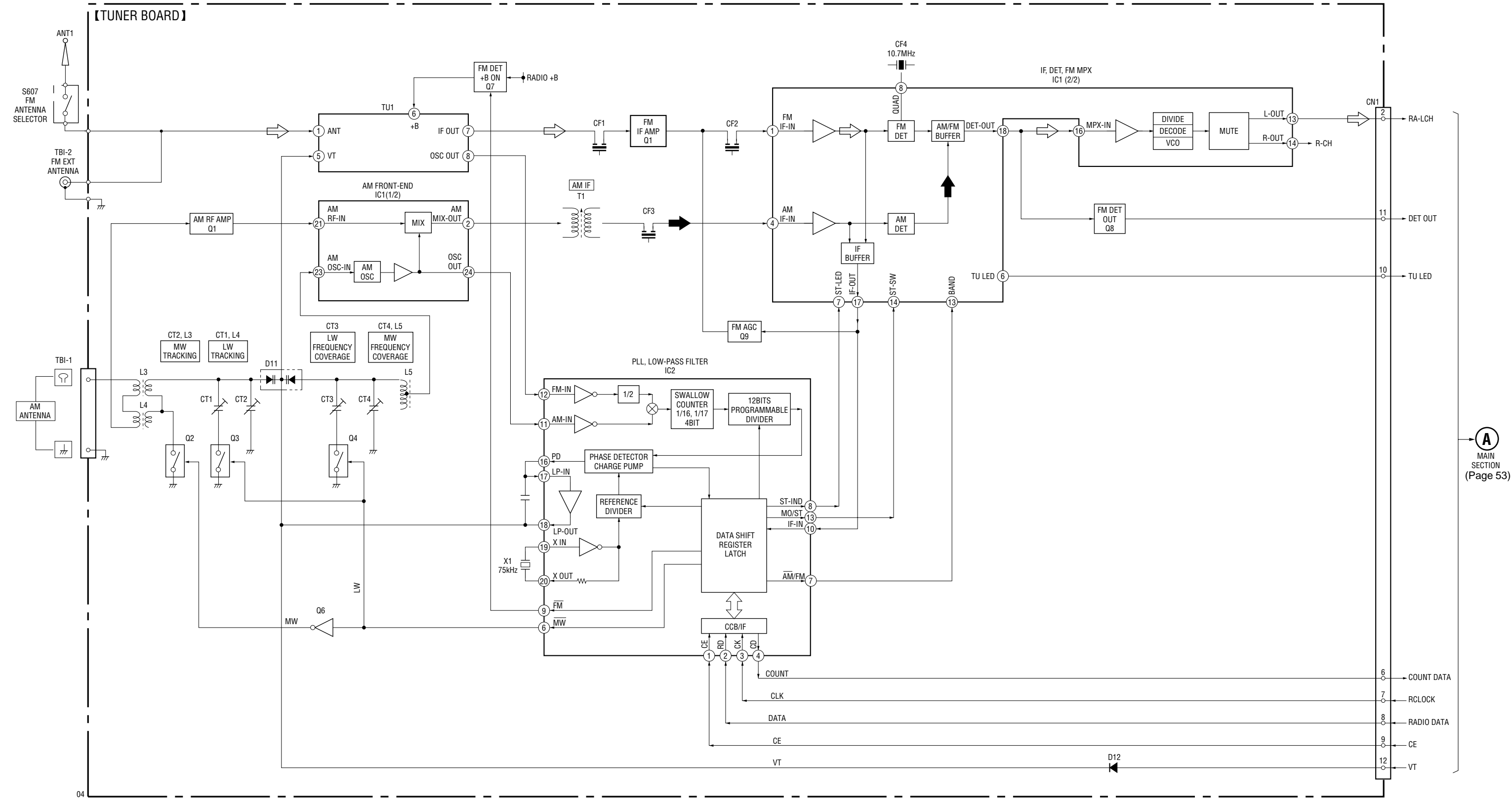
*1 Loading motor (M103) control

Terminal	Mode			
	LOADING	EJECT	BRAKE	RUN IDLE
LDIN (pin ⑨)	“L”	“H”	“L”	“H”
LDOUT (pin ⑩)	“H”	“L”	“L”	“H”

6-2. CIRCUIT BOARDS LOCATION



6-3. BLOCK DIAGRAM — TUNER SECTION —



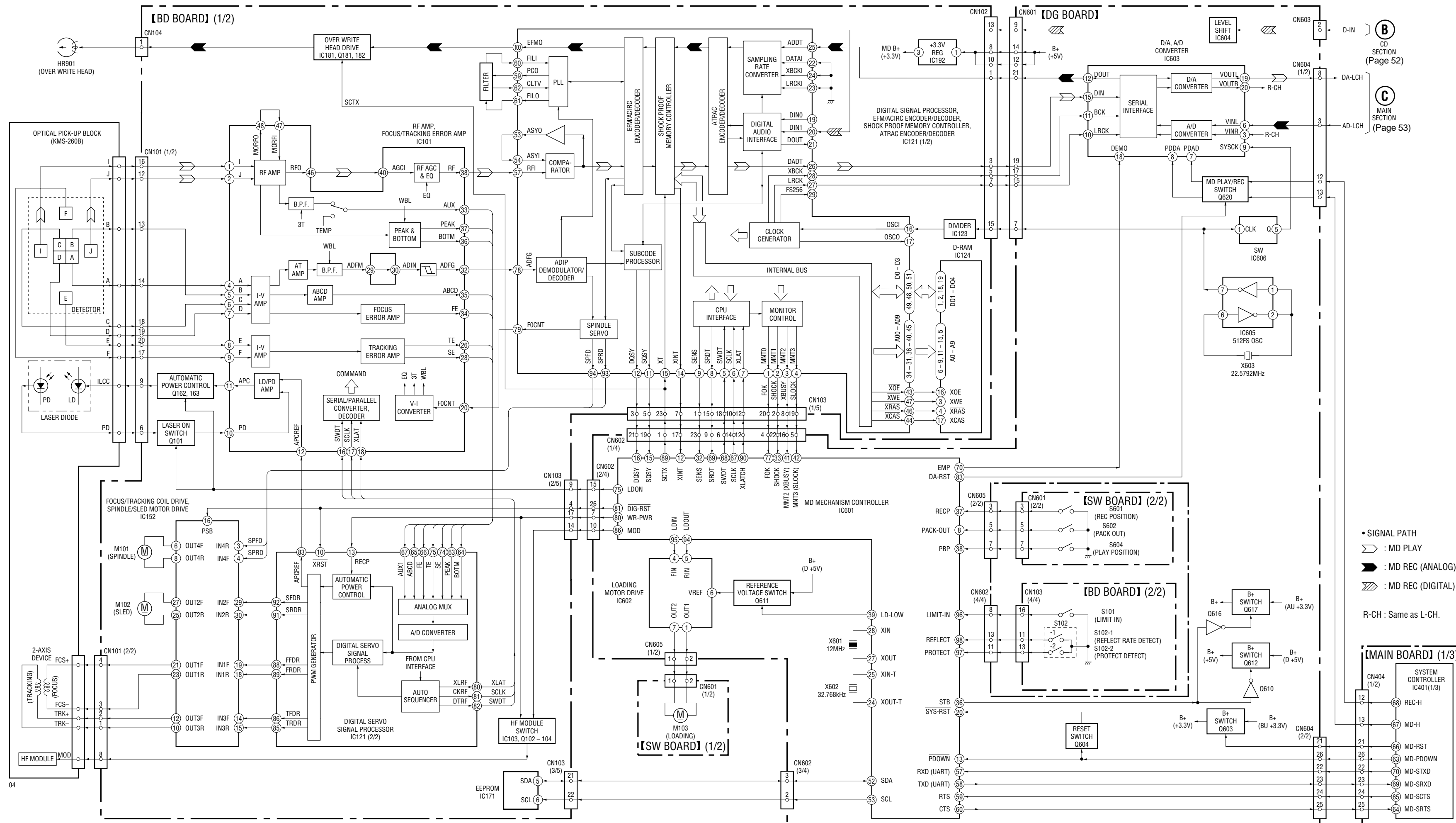
• SIGNAL PATH

◁ : FM

➡ : AM

R-CH : Same as L-CH.

6-4. BLOCK DIAGRAM — MD SECTION —



(B) CD SECTION (Page 52)

(C) MAIN SECTION (Page 53)

• SIGNAL PATH

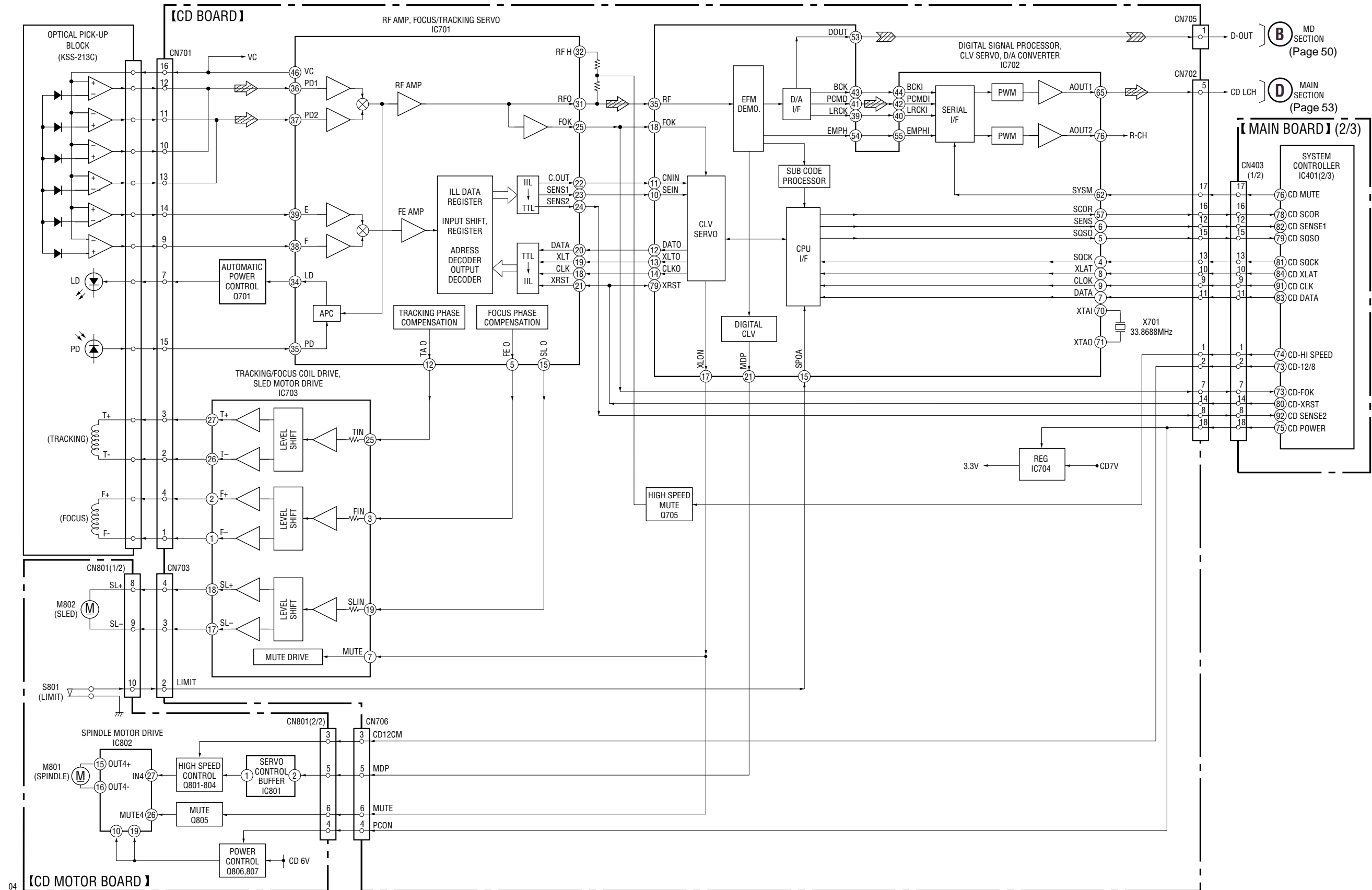
— : MD PLAY

- - - : MD REC (ANALOG)

▨ : MD REC (DIGITAL)

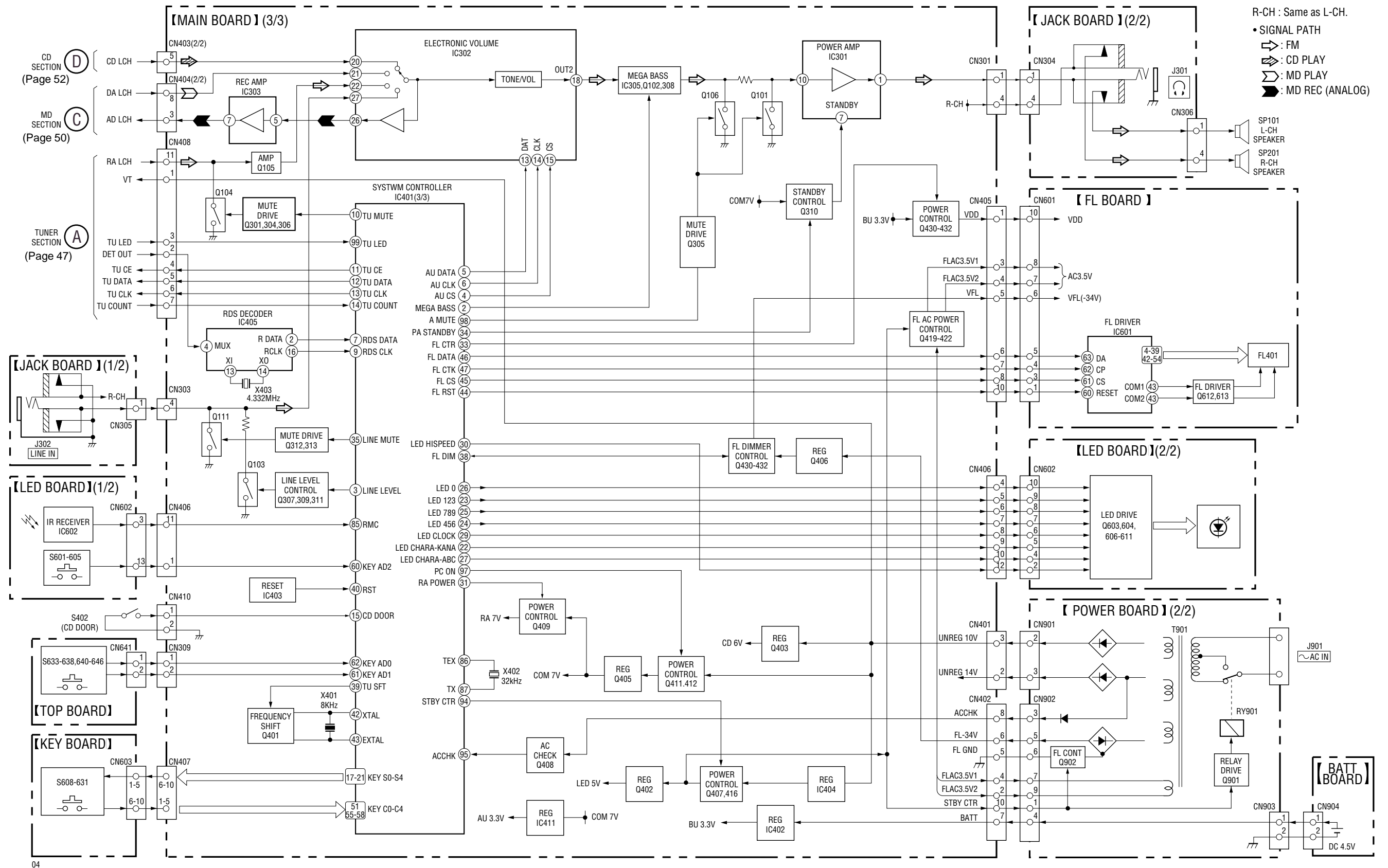
R-CH : Same as L-CH.

6-5. BLOCK DIAGRAM — CD SECTION —

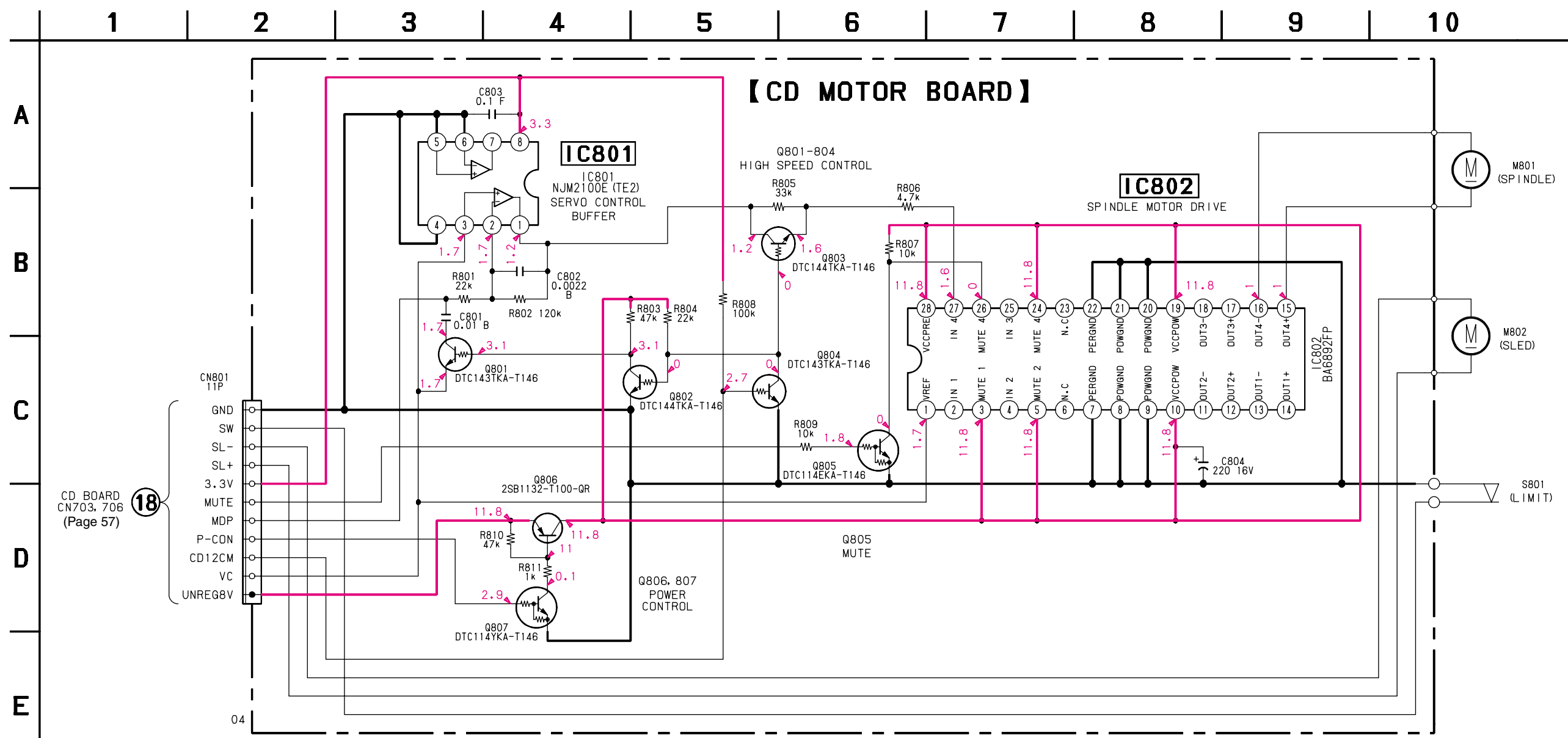


R-CH : Same as L-CH.
 • SIGNAL PATH
 ▨ : CD PLAY
 ▩ : MD REC (DIGITAL)

6-6. BLOCK DIAGRAM — AUDIO SECTION —



6-7. SCHEMATIC DIAGRAM — CD SECTION (1/2) — • Refer to page 97 for IC Block Diagrams.



- Common Note on Printed Wiring Boards:**
- : parts extracted from the component side.
 - : parts extracted from the conductor side.
 - - - : carbon pattern.
 - : parts mounted on the conductor side.
 - : Through hole.
 - ▨ : Pattern from the side which enables seeing.

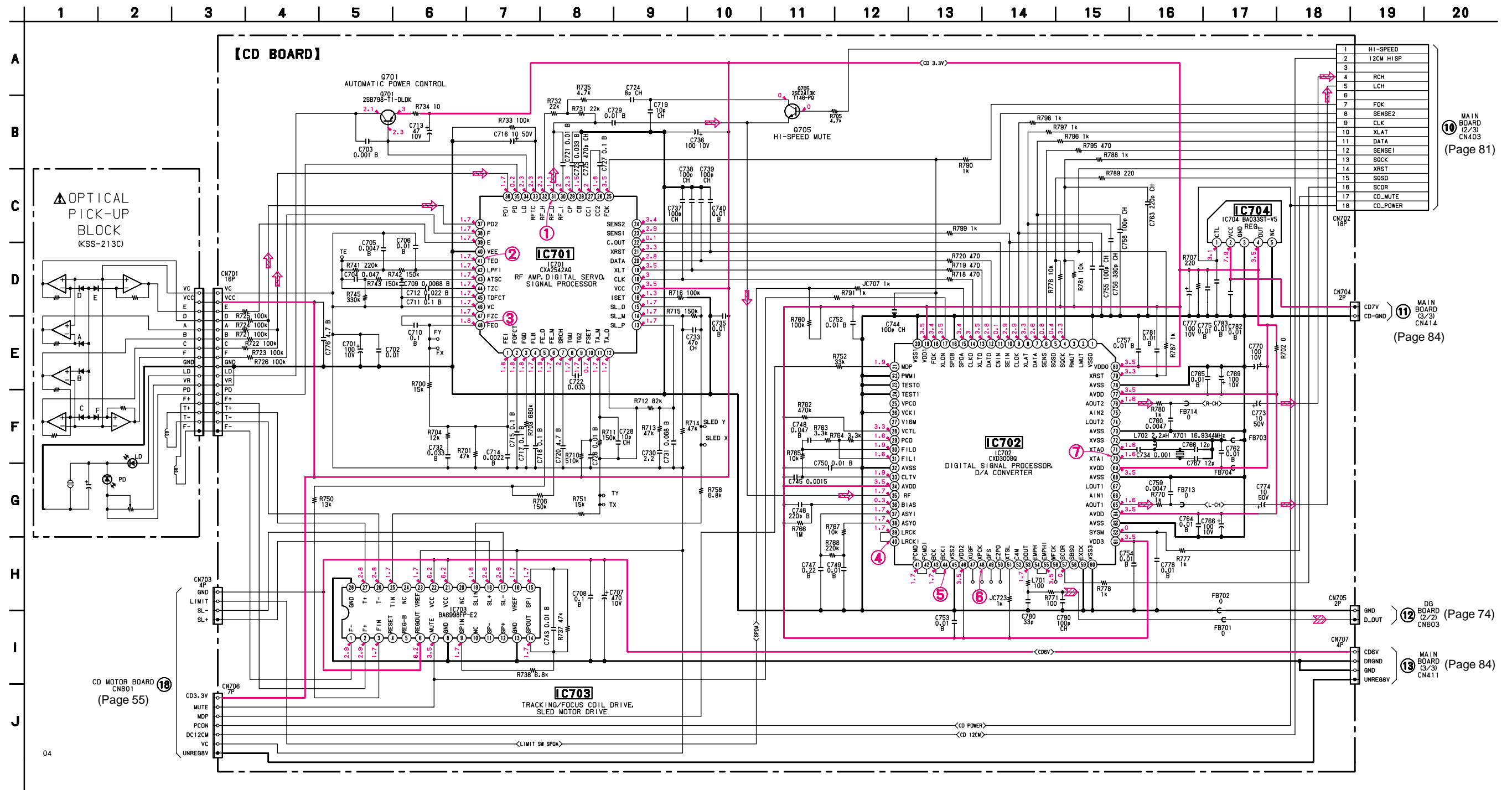
- Common Note on Schematic Diagram:**
- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - : panel designation.

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

- : B+ Line.
- - - : B- Line.
- ▨ : adjustment for repair.
- : Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- * : Impossible to measure

- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path:
 - : FM
 - : MW/LW
 - : MD PB
 - : MD REC (DIGITAL)
 - : MD REC (ANALOG)
 - : CD

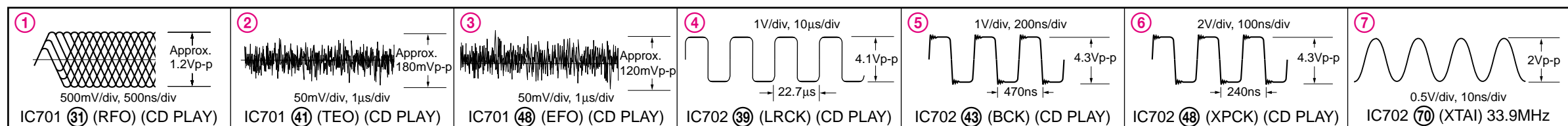
6-8. SCHEMATIC DIAGRAM — CD SECTION (2/2) — • Refer to page 97 for IC Block Diagrams.



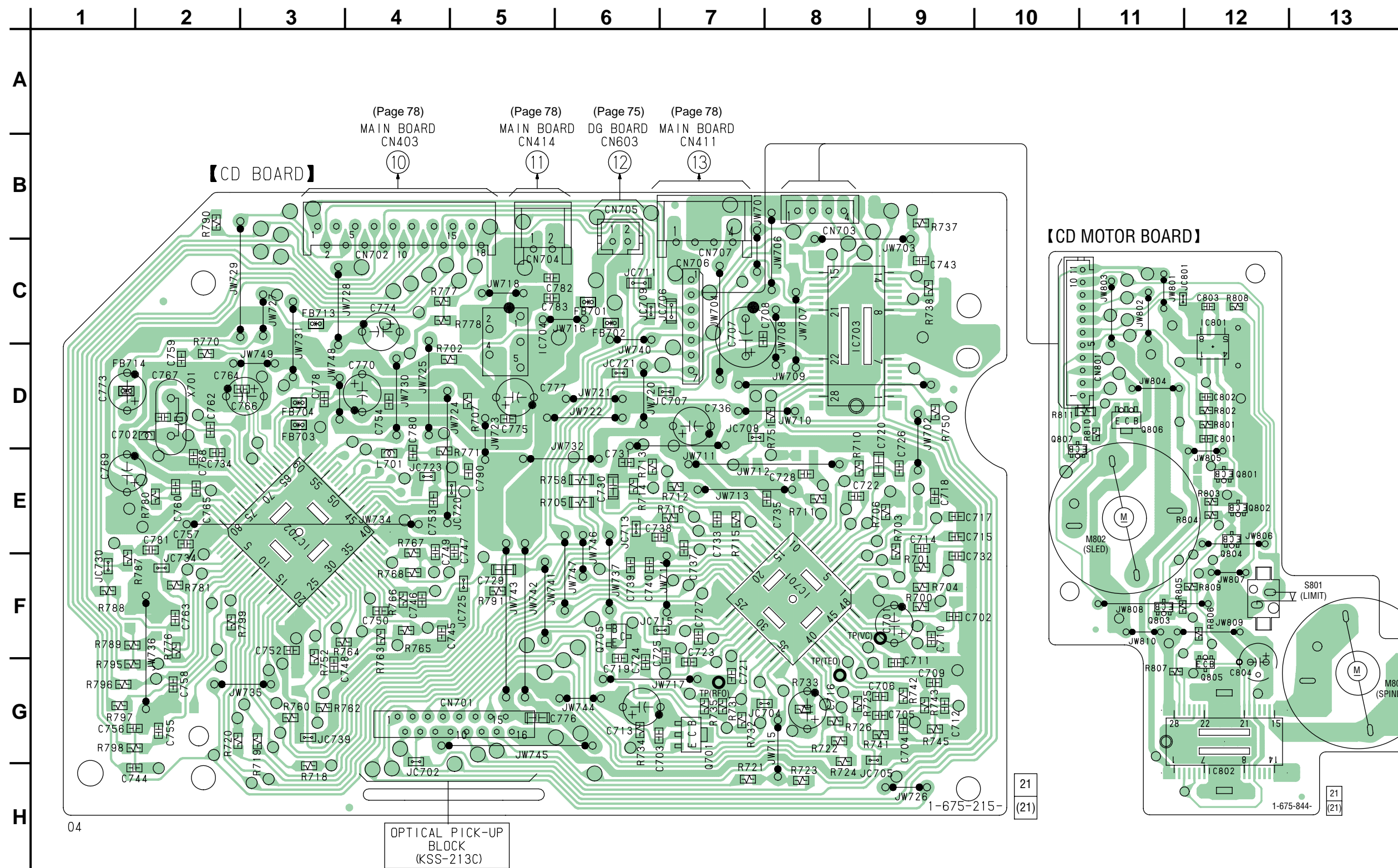
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : CD STOP

• Waveforms (CD BOARD)



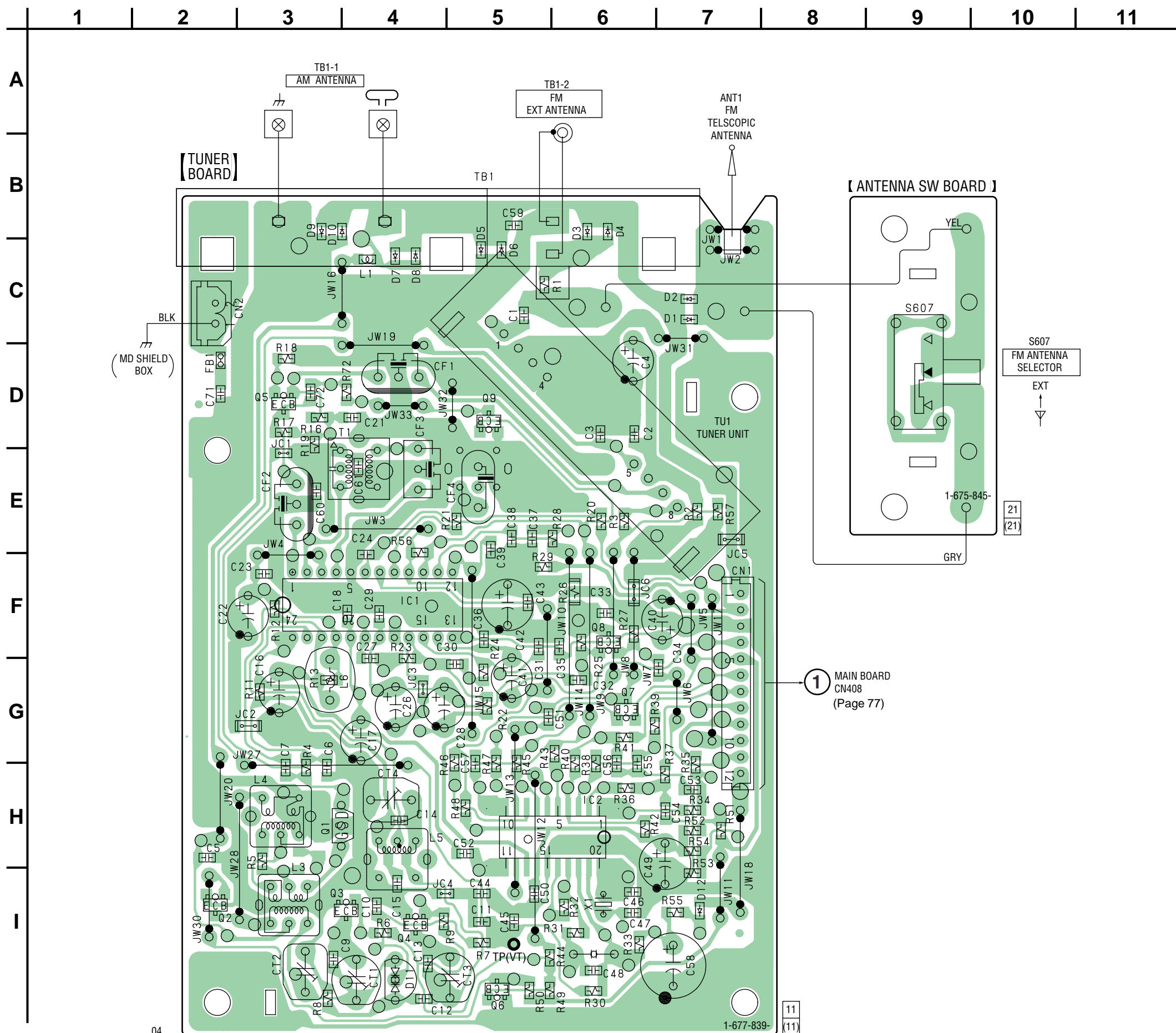
6-9. PRINTED WIRING BOARDS — CD SECTION —



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
IC701	F-8	Q705	F-6
IC702	E-3	Q801	E-12
IC703	C-8	Q802	E-12
IC704	C-5	Q803	F-11
IC801	C-12	Q804	F-12
IC802	G-12	Q805	G-12
		Q806	D-11
Q701	G-7	Q807	E-11

6-10. PRINTED WIRING BOARDS — TUNER SECTION —

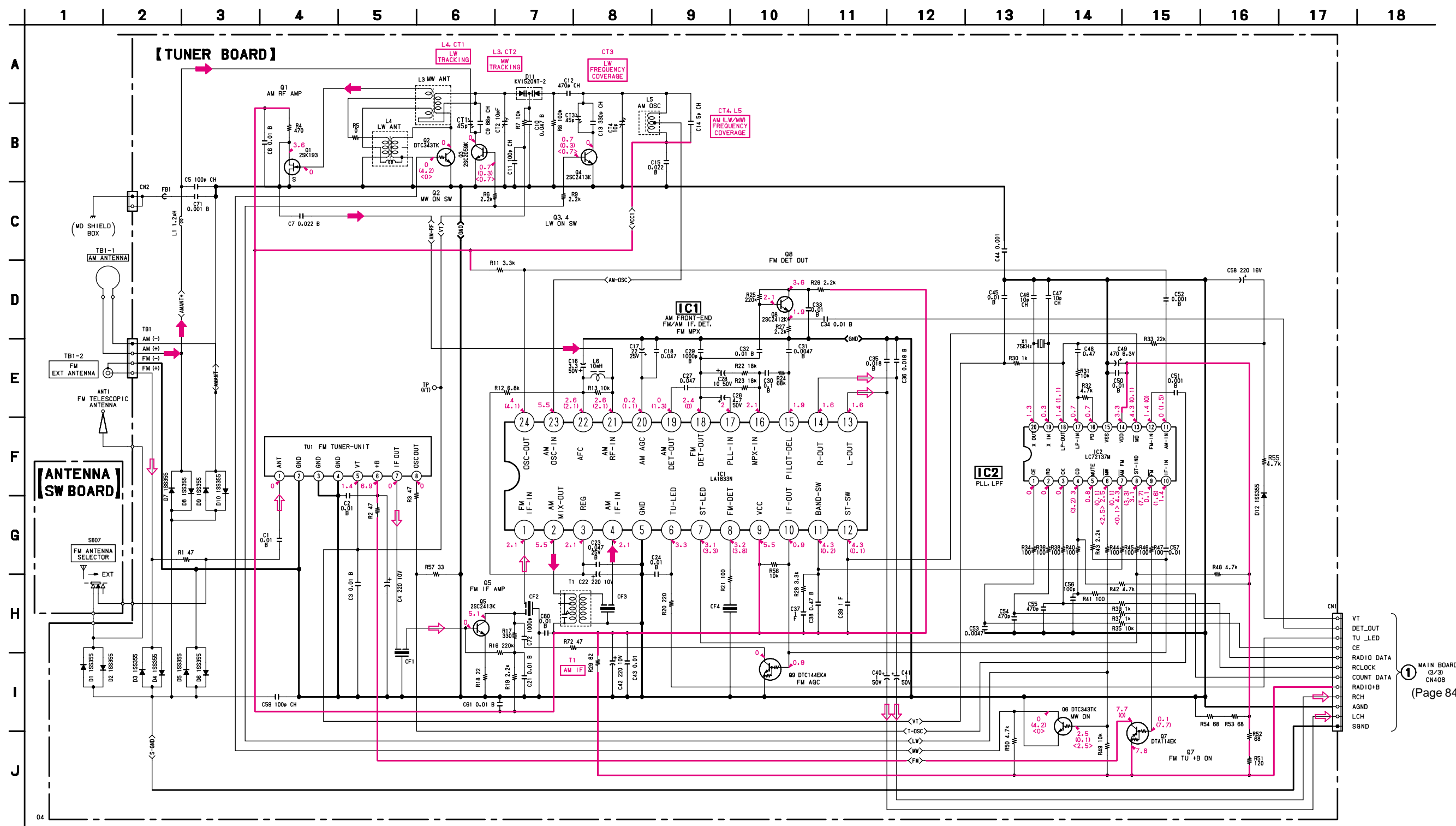


• Semiconductor Location

Ref. No.	Location
D1	C-7
D2	C-7
D3	B-6
D4	B-6
D5	C-5
D6	C-5
D7	C-4
D8	C-4
D9	B-3
D10	B-3
D11	I-4
D12	I-7
IC1	F-4
IC2	H-5
Q1	H-3
Q2	I-2
Q3	I-4
Q4	I-4
Q5	D-3
Q6	I-5
Q7	G-6
Q8	F-6
Q9	D-5

1 MAIN BOARD CN408 (Page 77)

6-11. SCHEMATIC DIAGRAMS — TUNER SECTION — • Refer to page 98 for IC Block Diagrams.



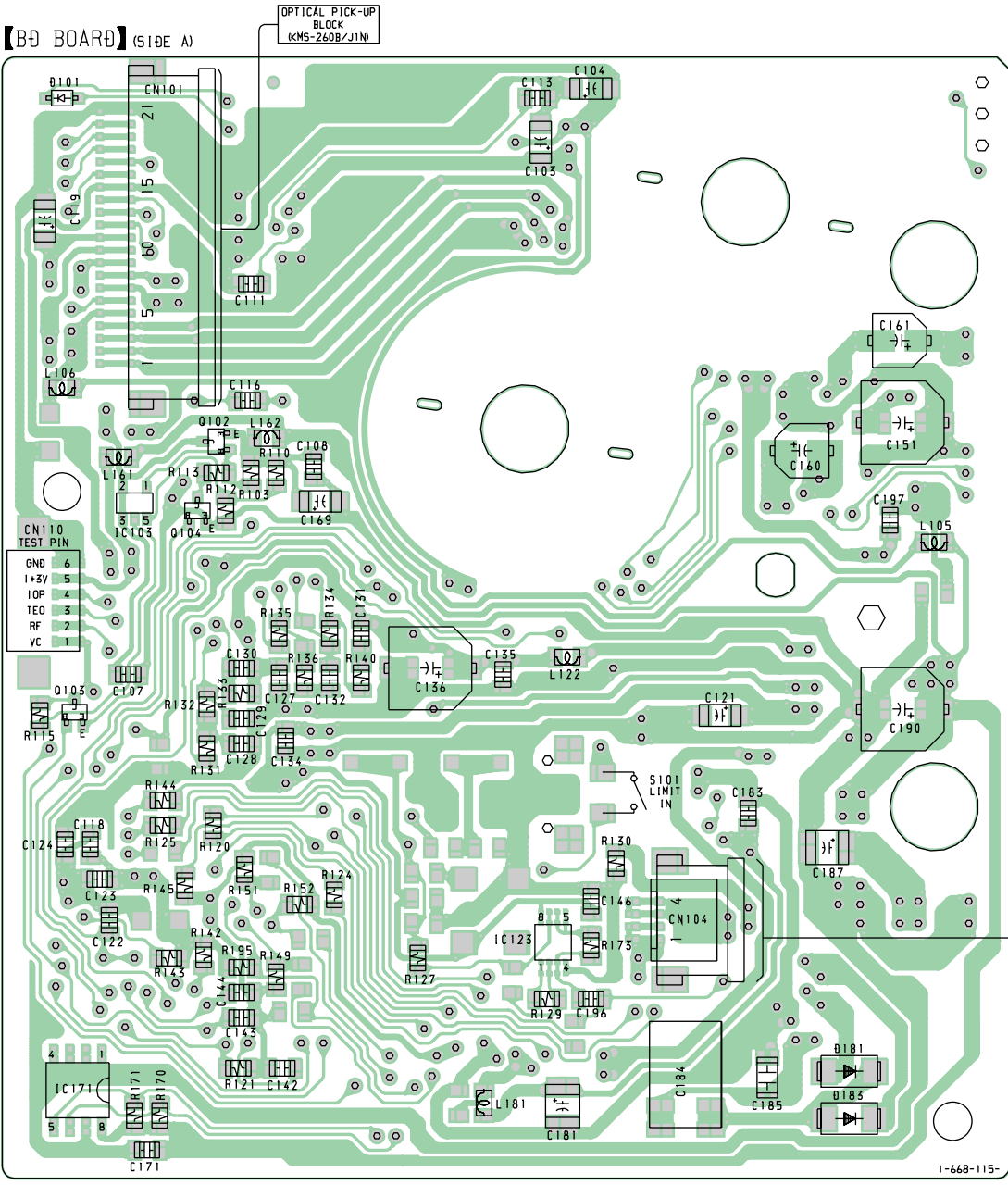
• Voltage is dc with respect to ground under no-signal (detuned) condition.
 no mark : FM
 () : MW/LW

① MAIN BOARD (3/3) CN408 (Page 84)

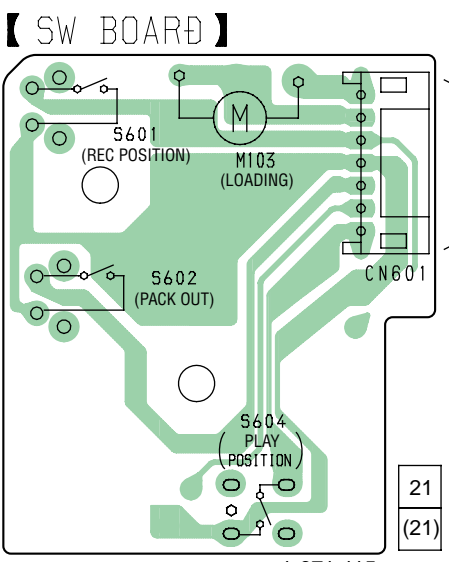
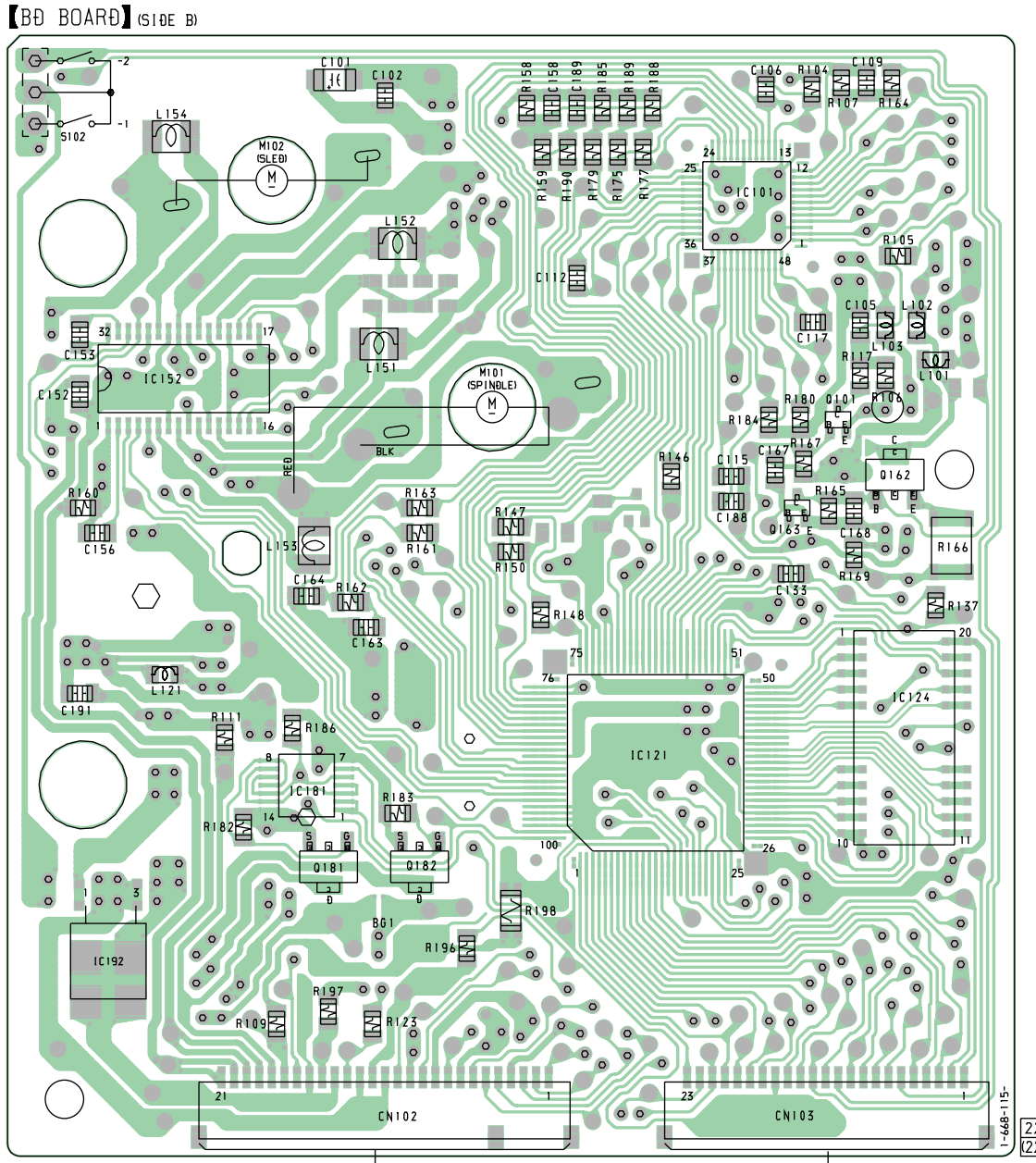
6-12. PRINTED WIRING BOARDS — BD SECTION —

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

A
B
C
D
E
F
G
H
I
J



S102-2 (PROJECT DETECT)
S102-1 (REFLECT RATE DETECT)



17 DG BOARD CN605 (Page 75)

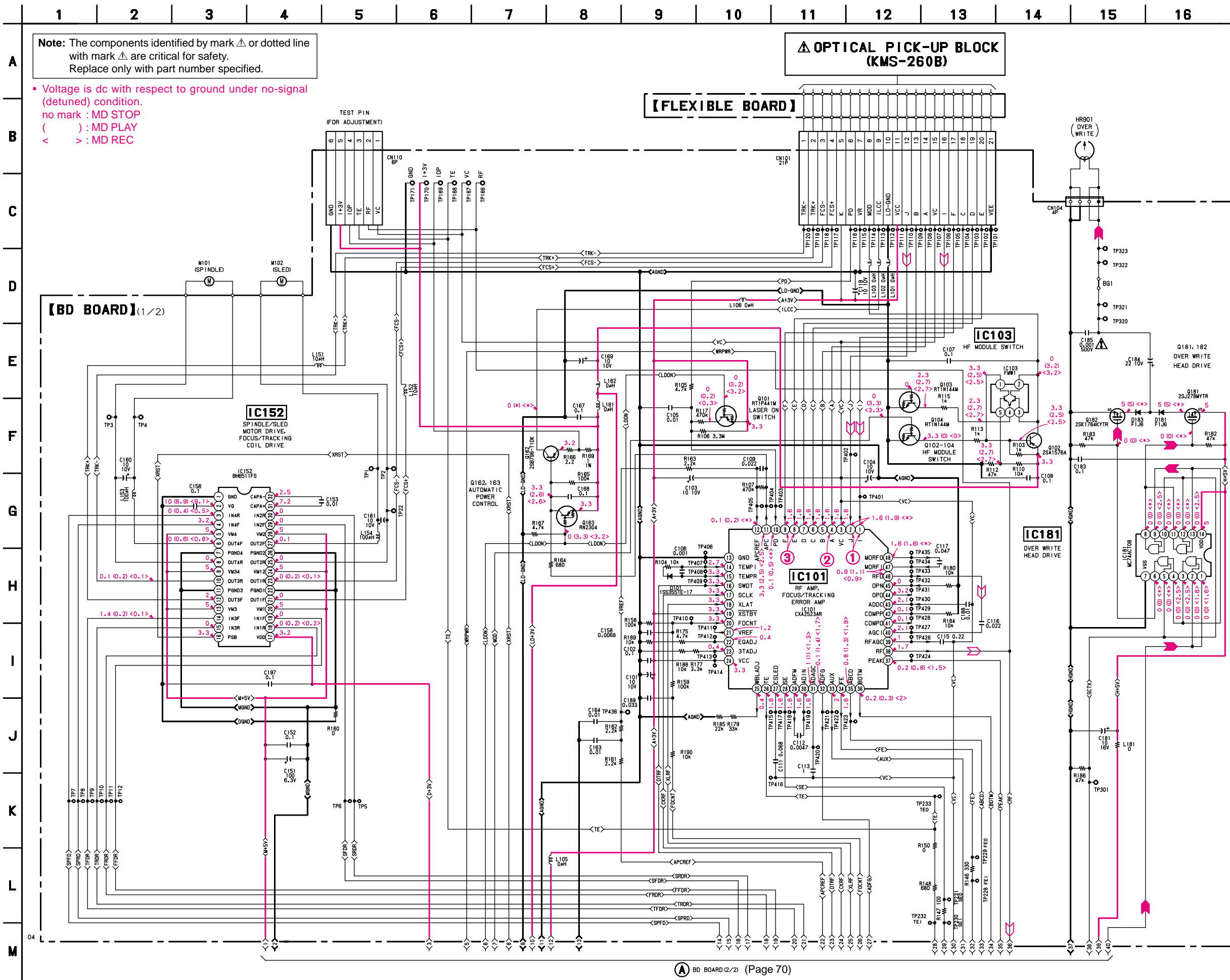
15 DG BOARD CN601 (Page 75)

16 DG BOARD CN602 (Page 75)

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	A-1	IC181	F-10
D181	G-6	IC192	F-9
D183	G-6	Q101	C-13
IC101	B-12	Q102	C-2
IC103	D-2	Q103	E-1
IC121	E-12	Q104	D-2
IC123	F-4	Q162	C-13
IC124	E-13	Q163	D-13
IC152	C-9	Q181	F-10
IC171	G-1	Q182	F-11

6-13. SCHEMATIC DIAGRAM — BD SECTION (1/2) — • Refer to page 100 for IC Block Diagrams.



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

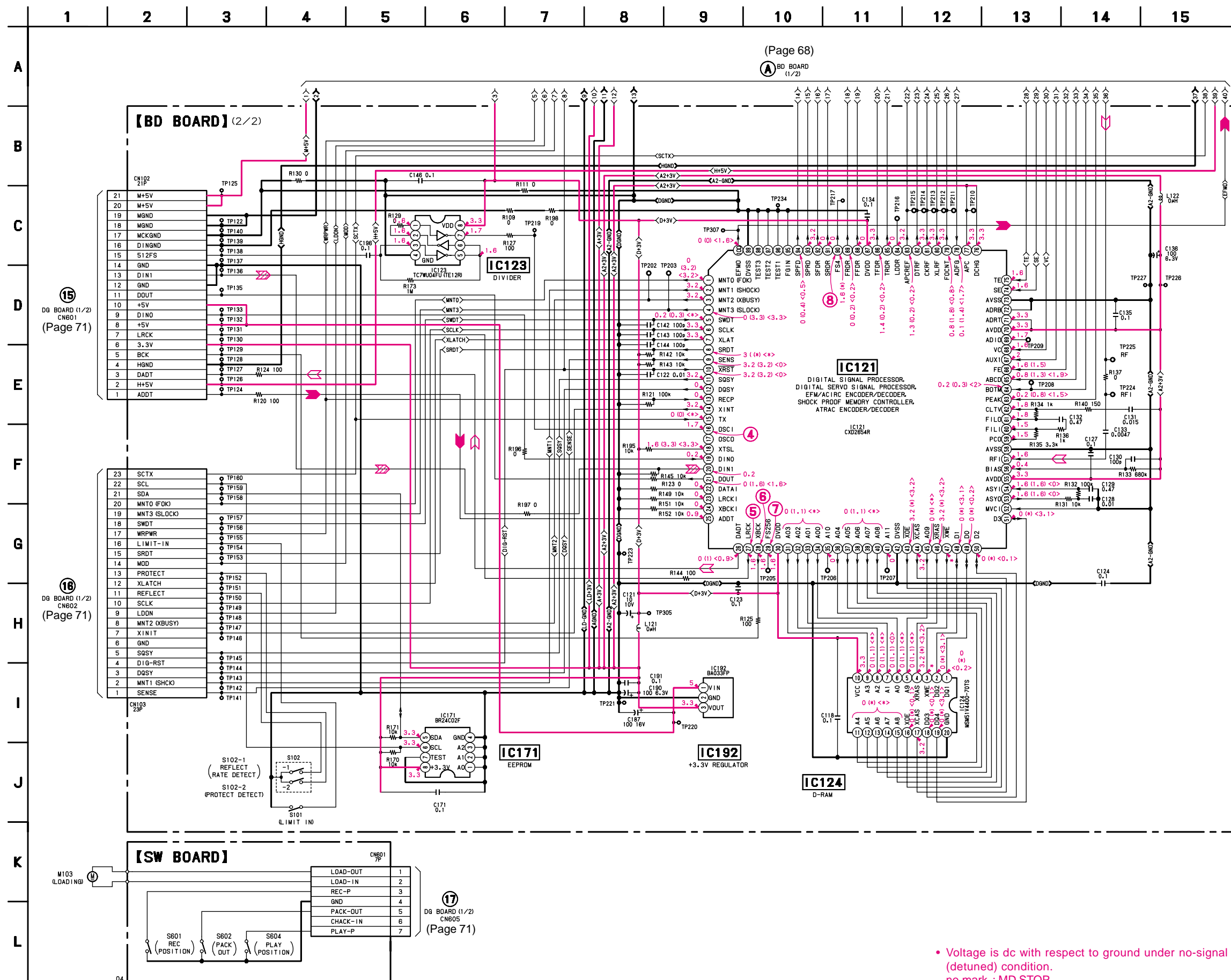
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- no mark : MD STOP
- () : MD PLAY
- < > : MD REC

OPTICAL PICK-UP BLOCK (KMS-260B)

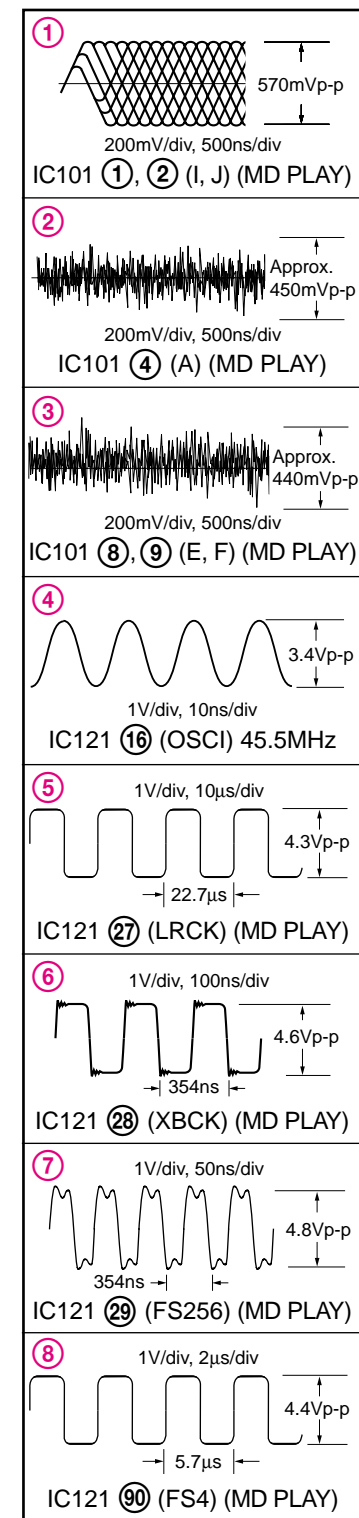
[FLEXIBLE BOARD]

[BD BOARD] (1/2)

6-14. SCHEMATIC DIAGRAMS — BD SECTION (2/2) — • Refer to page 100 for IC Block Diagrams.

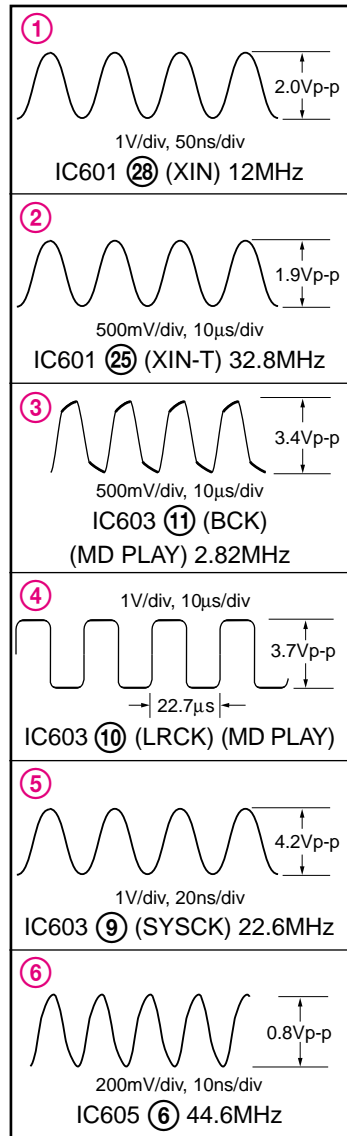


• Waveforms (BD BOARD)

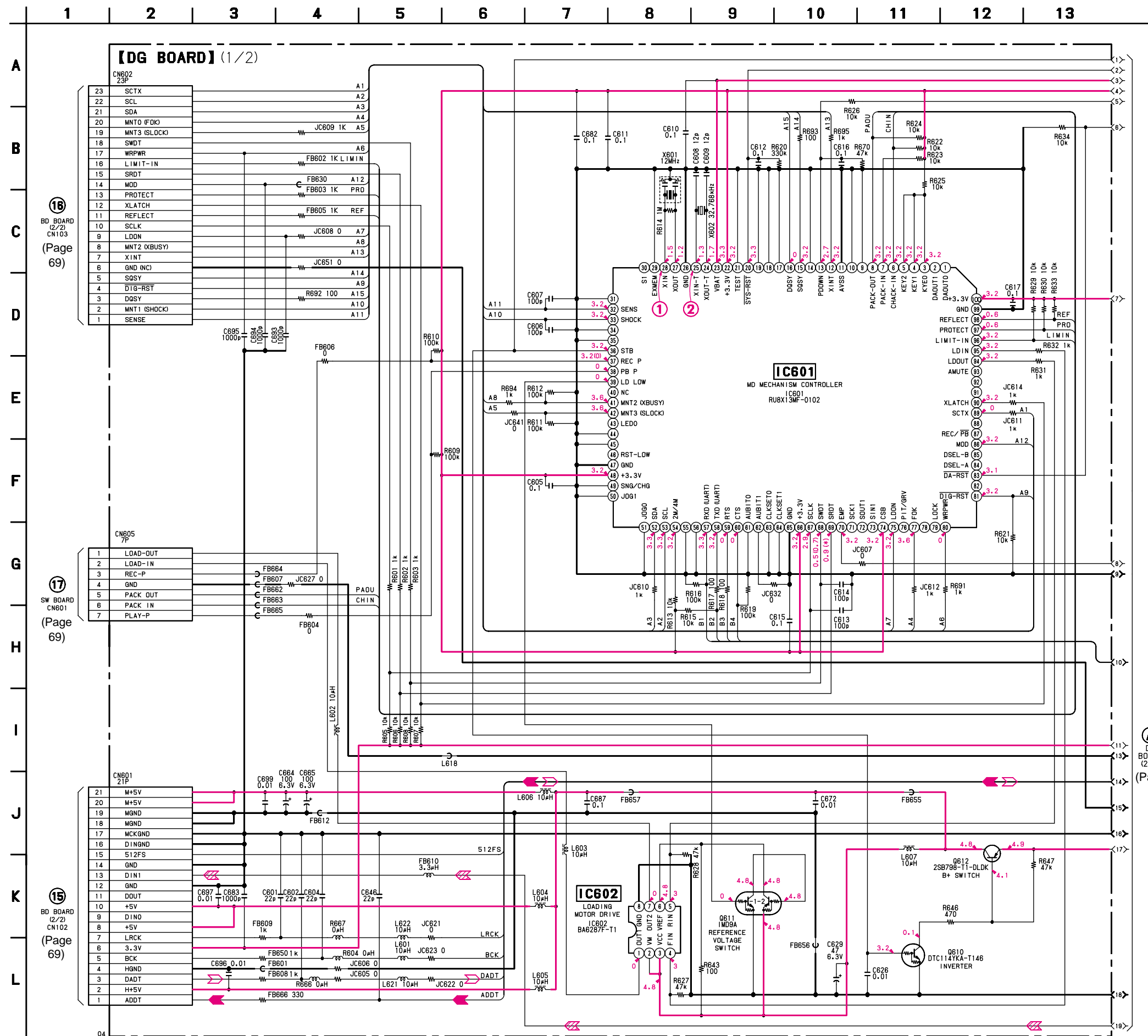


6-15. SCHEMATIC DIAGRAM — DG SECTION (1/2) — • Refer to page 101 for IC Block Diagrams.

• Waveforms (DG BOARD)

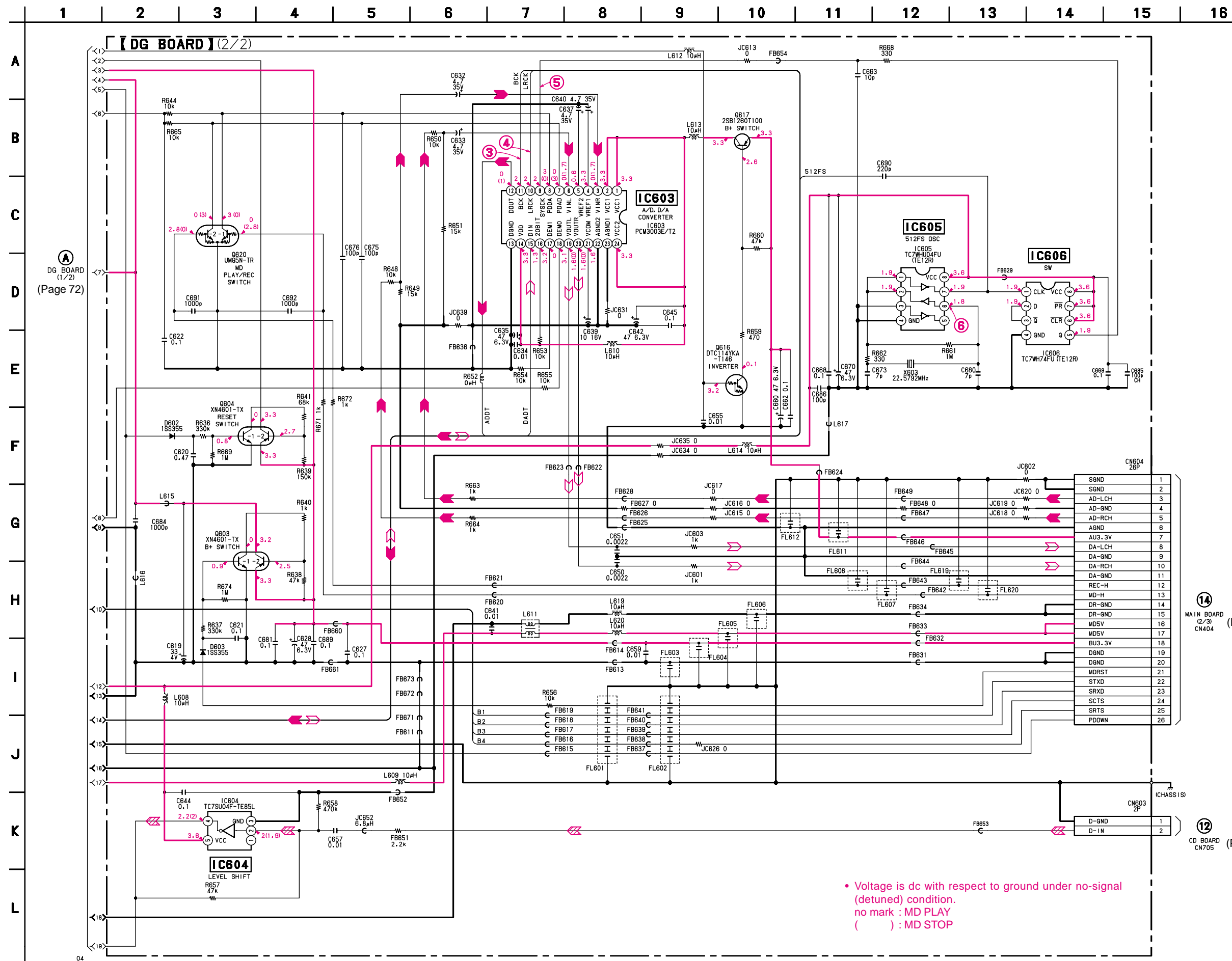


• Voltage is dc with respect to ground under no-signal (detuned) condition.
 no mark : MD PLAY
 (): MD STOP



(A)
 DG BOARD
 (2/2)
 (Page 73)

6-16. SCHEMATIC DIAGRAM — DG SECTION (2/2) — • Refer to page 102 for IC Block Diagrams.

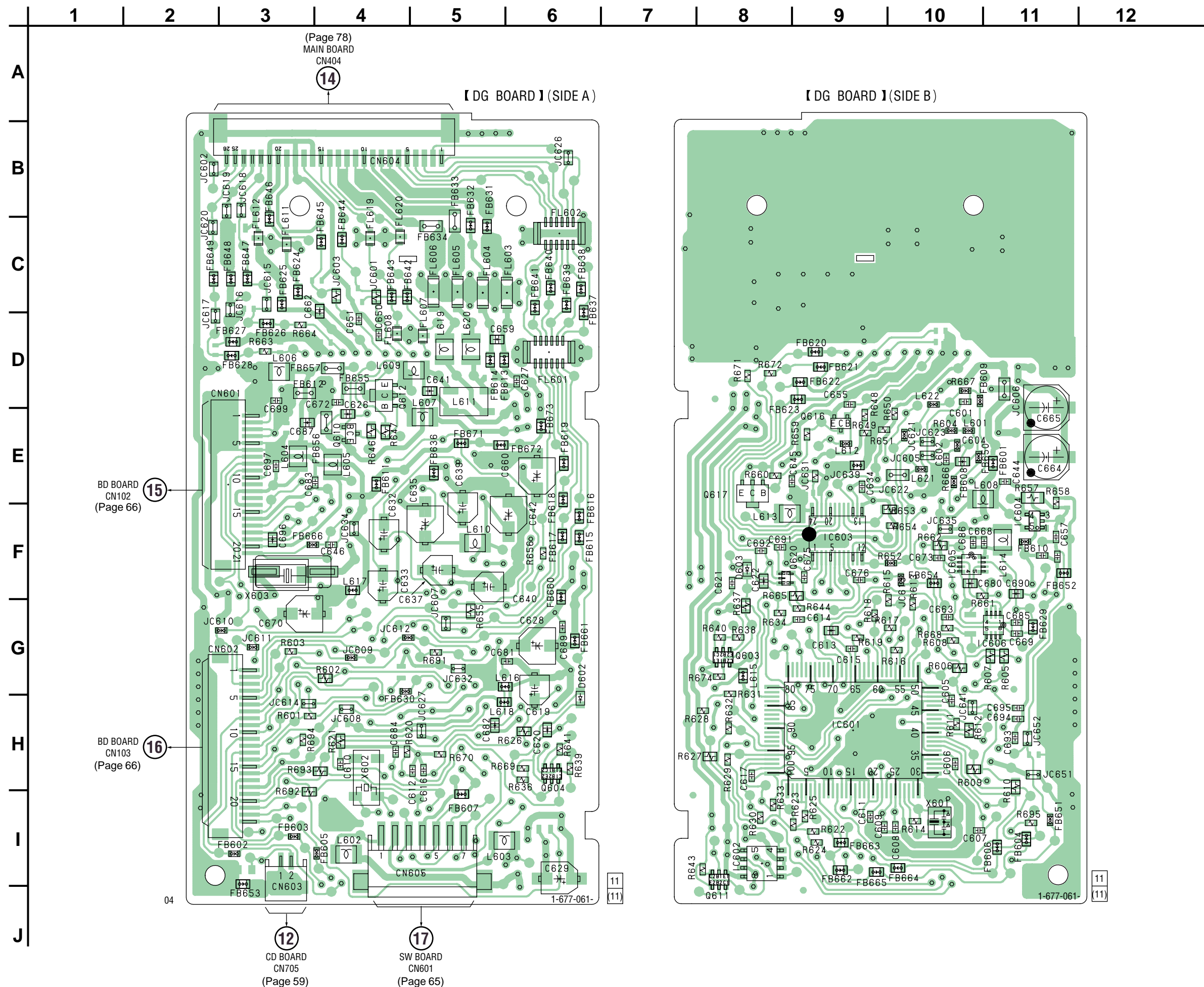


14 MAIN BOARD (2/3) CN404 (Page 81)

12 CD BOARD CN705 (Page 58)

• Voltage is dc with respect to ground under no-signal (detuned) condition.
 no mark : MD PLAY
 () : MD STOP

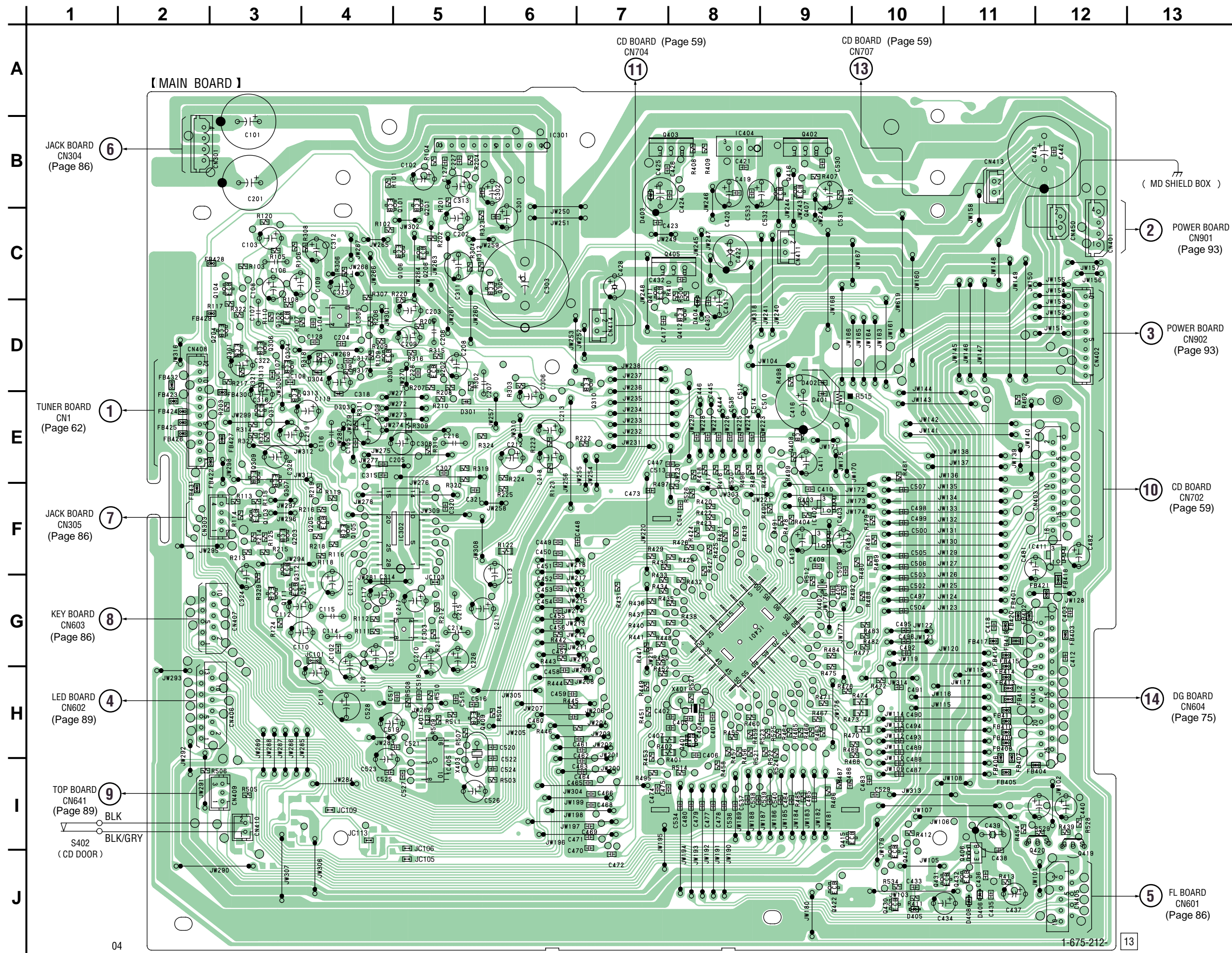
6-17. PRINTED WIRING BOARD — DG SECTION —



• Semiconductor Location

Ref. No.	Location
D602	G-6
D603	F-8
IC601	H-9
IC602	I-8
IC603	F-9
IC604	F-11
IC605	F-10
IC606	G-11
Q603	G-8
Q604	H-6
Q610	E-4
Q611	I-8
Q612	D-4
Q616	E-9
Q617	E-8
Q620	F-8

6-18. PRINTED WIRING BOARD — MAIN SECTION —

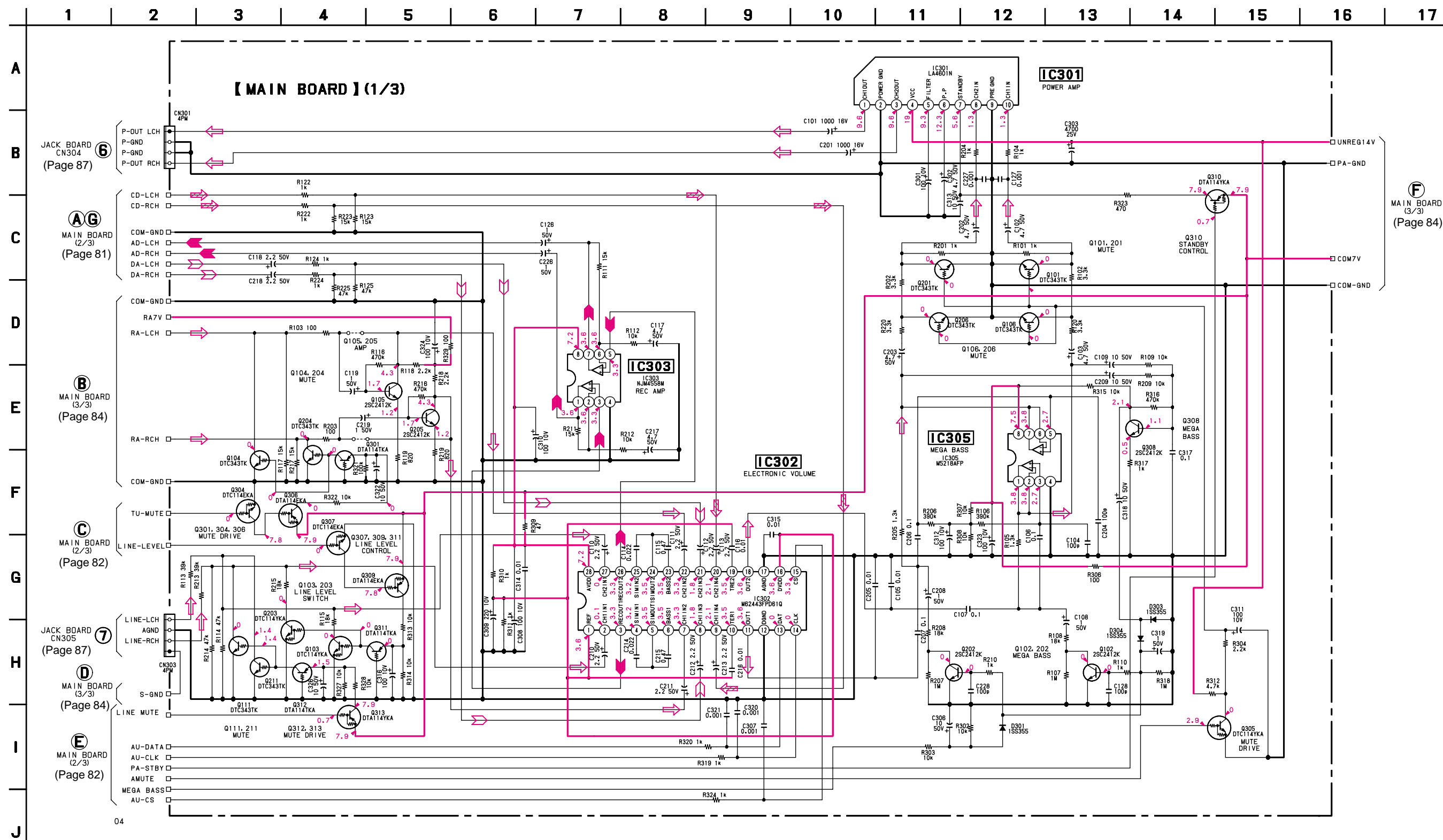


04

1-675-212

13

6-19. SCHEMATIC DIAMGRAM — MAIN SECTION (1/3) — • Refer to page 102 for IC Block Diagrams.

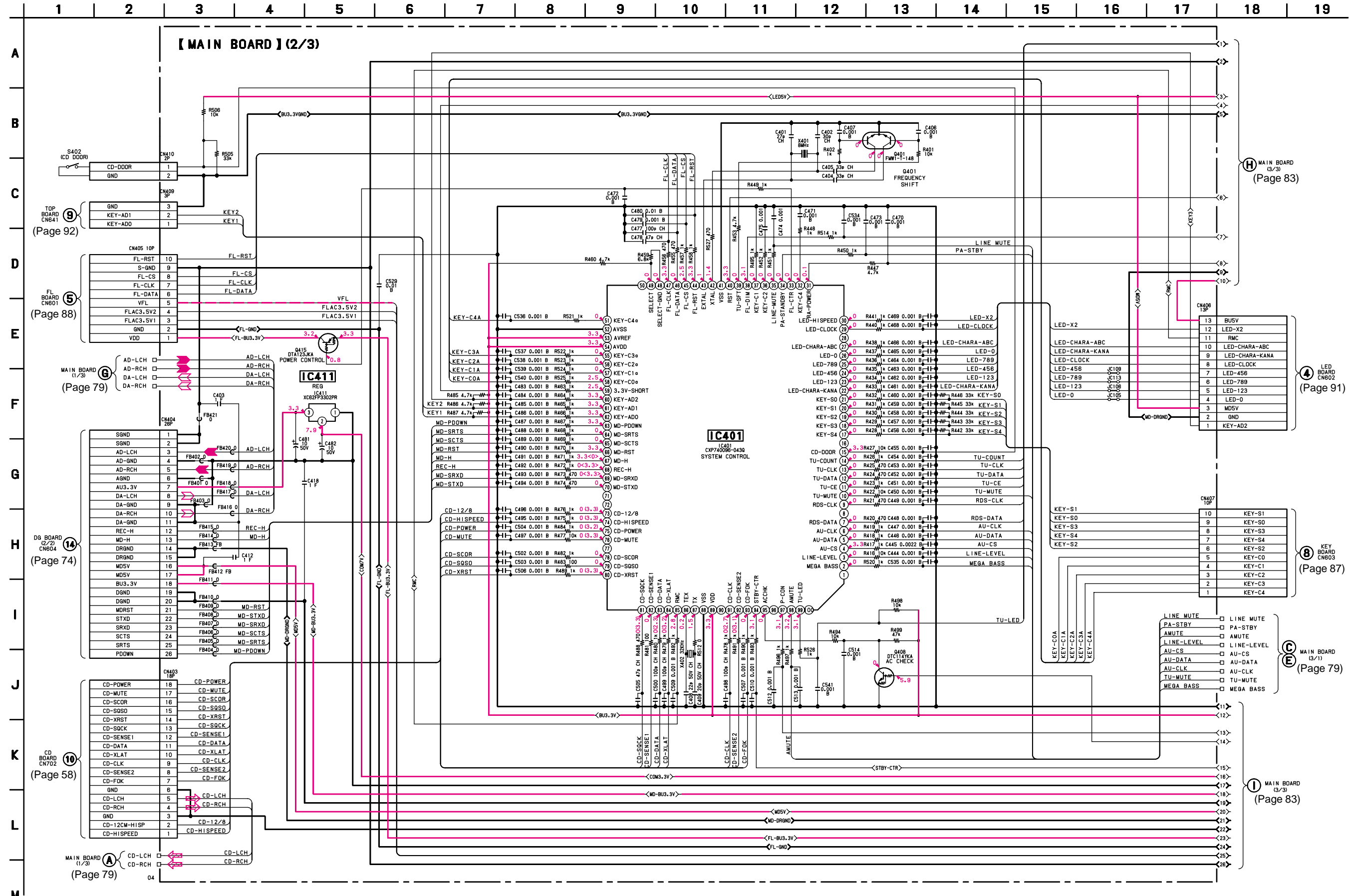


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	D-5	IC301	B-6	Q101	B-5	Q205	F-4	Q311	E-3	Q411	C-7
D303	D-4	IC302	F-5	Q102	D-3	Q206	C-5	Q312	F-3	Q412	C-8
D304	D-4	IC303	G-5	Q103	F-3	Q211	G-3	Q313	D-3	Q415	I-9
D401	D-9	IC401	D-4	Q104	C-3	Q301	D-3	Q401	H-8	Q416	B-9
D402	D-9	IC402	G-8	Q105	F-4	Q304	D-3	Q402	B-9	Q419	I-12
D403	B-7	IC403	F-9	Q106	C-5	Q305	C-6	Q403	B-8	Q420	I-11
D404	C-8	IC404	F-9	Q111	G-3	Q306	D-3	Q405	C-8	Q421	I-10
D405	J-10	IC404	B-8	Q201	B-5	Q307	E-3	Q406	I-11	Q422	J-9
D406	J-11	IC405	H-5	Q202	D-5	Q308	D-4	Q407	B-9	Q430	J-10
D408	J-11	IC411	F-12	Q203	F-3	Q309	E-3	Q408	E-9	Q431	J-10
				Q204	D-3	Q310	D-7	Q409	H-5	Q432	J-11

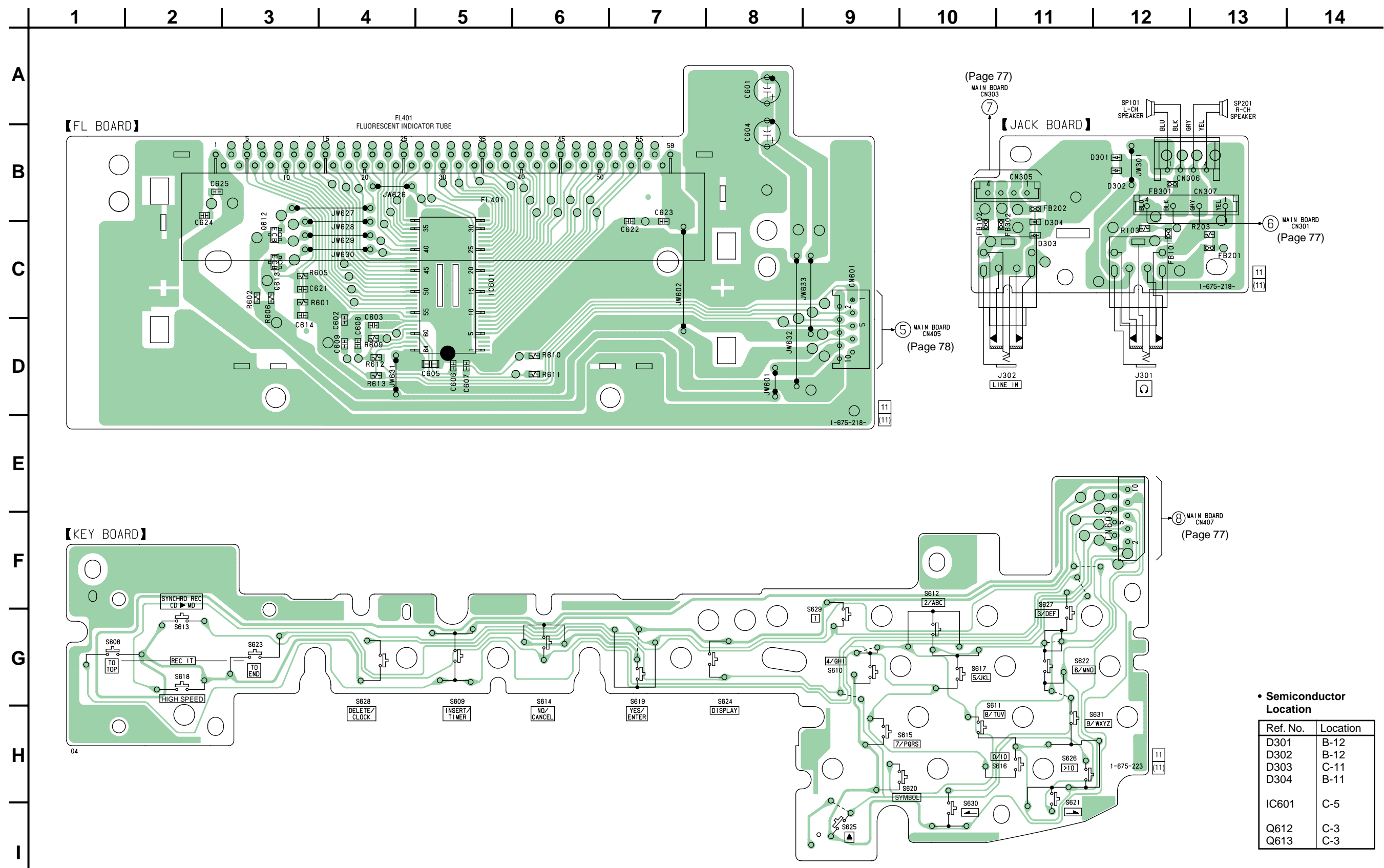
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM

6-20. SCHEMATIC DIAMGRAM — MAIN SECTION (2/3) — • Refer to page 102 for IC Block Diagrams.



• Voltage is dc with respect to ground under no-signal (detuned) condition.
 no mark : FM
 () : MD STOP
 < > : CD STOP

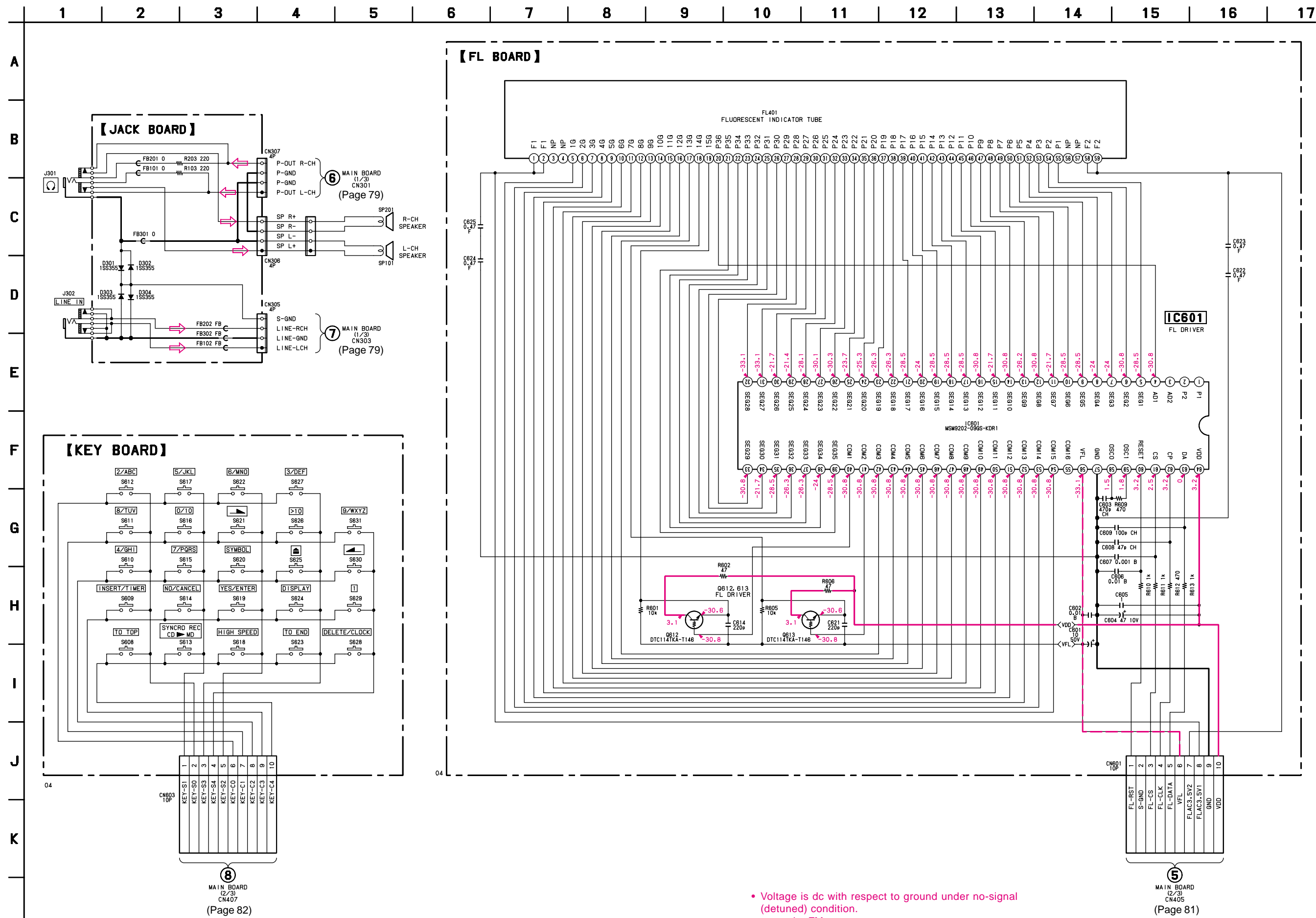
6-22. PRINTED WIRING BOARDS — PANEL SECTION —



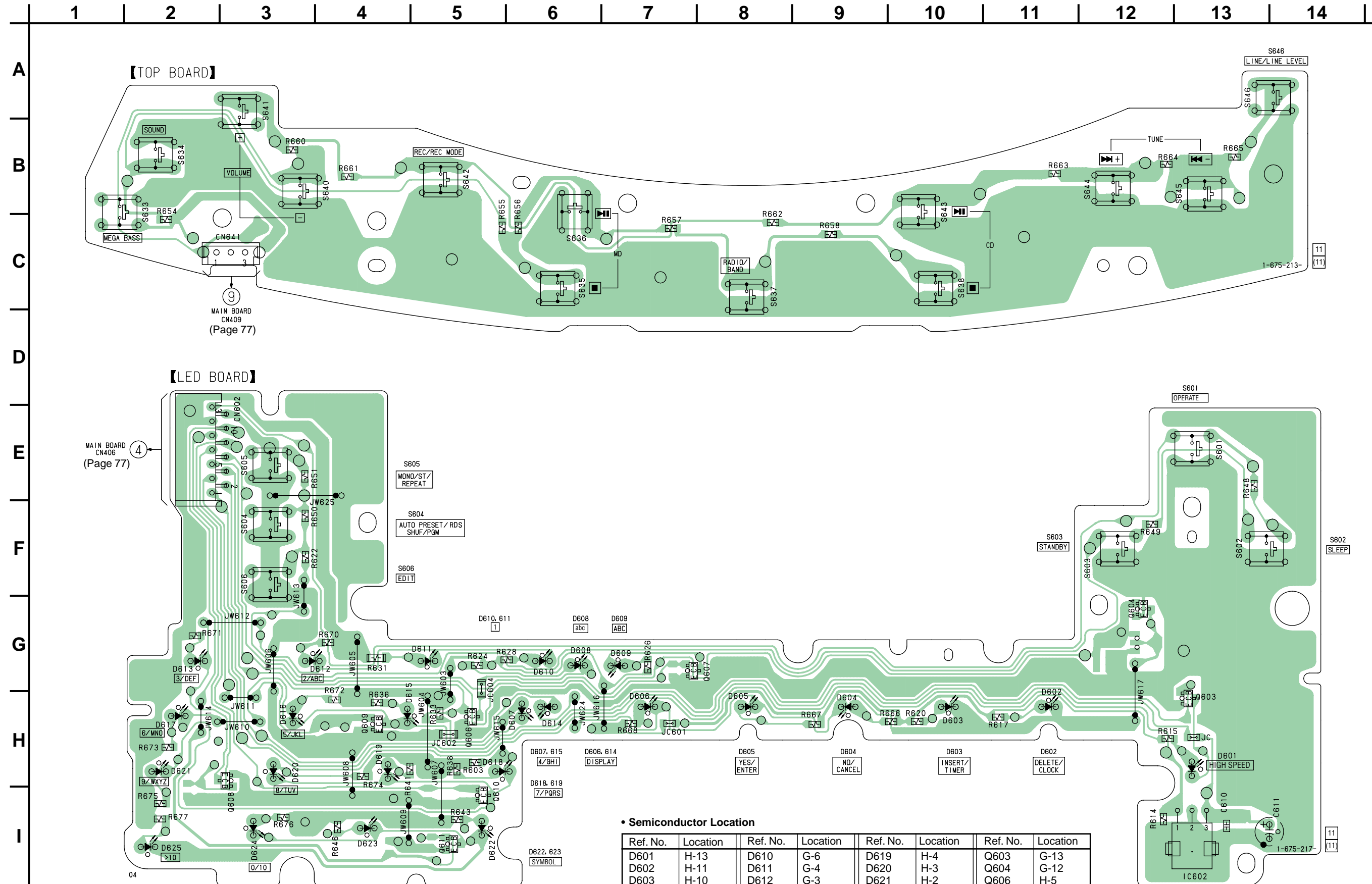
• Semiconductor Location

Ref. No.	Location
D301	B-12
D302	B-12
D303	C-11
D304	B-11
IC601	C-5
Q612	C-3
Q613	C-3

6-23. SCHEMATIC DIAGRAMS — PANEL SECTION — • Refer to page 101 for IC Block Diagrams.



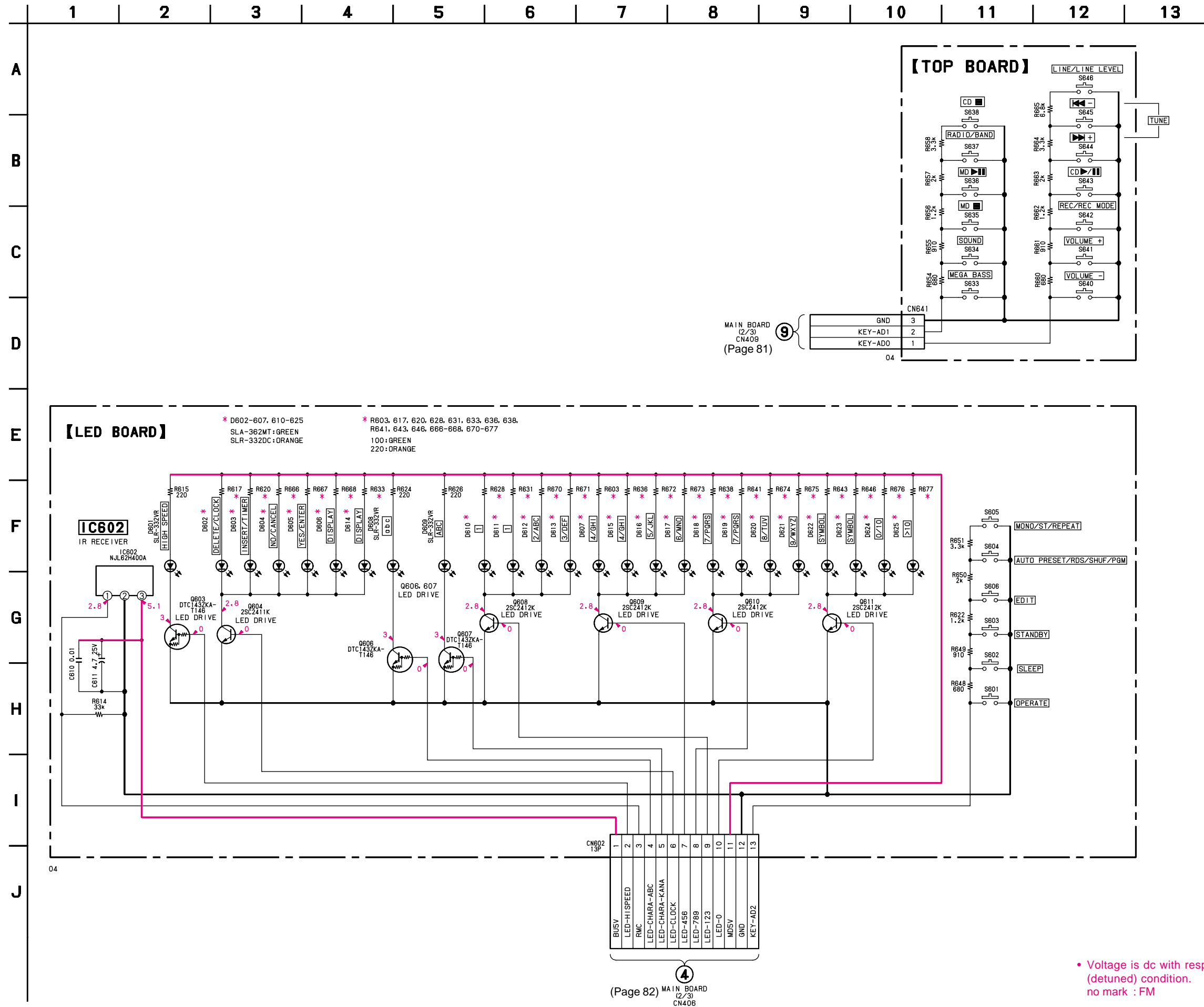
6-24. PRINTED WIRING BOARDS — SWITCH SECTION —



• Semiconductor Location

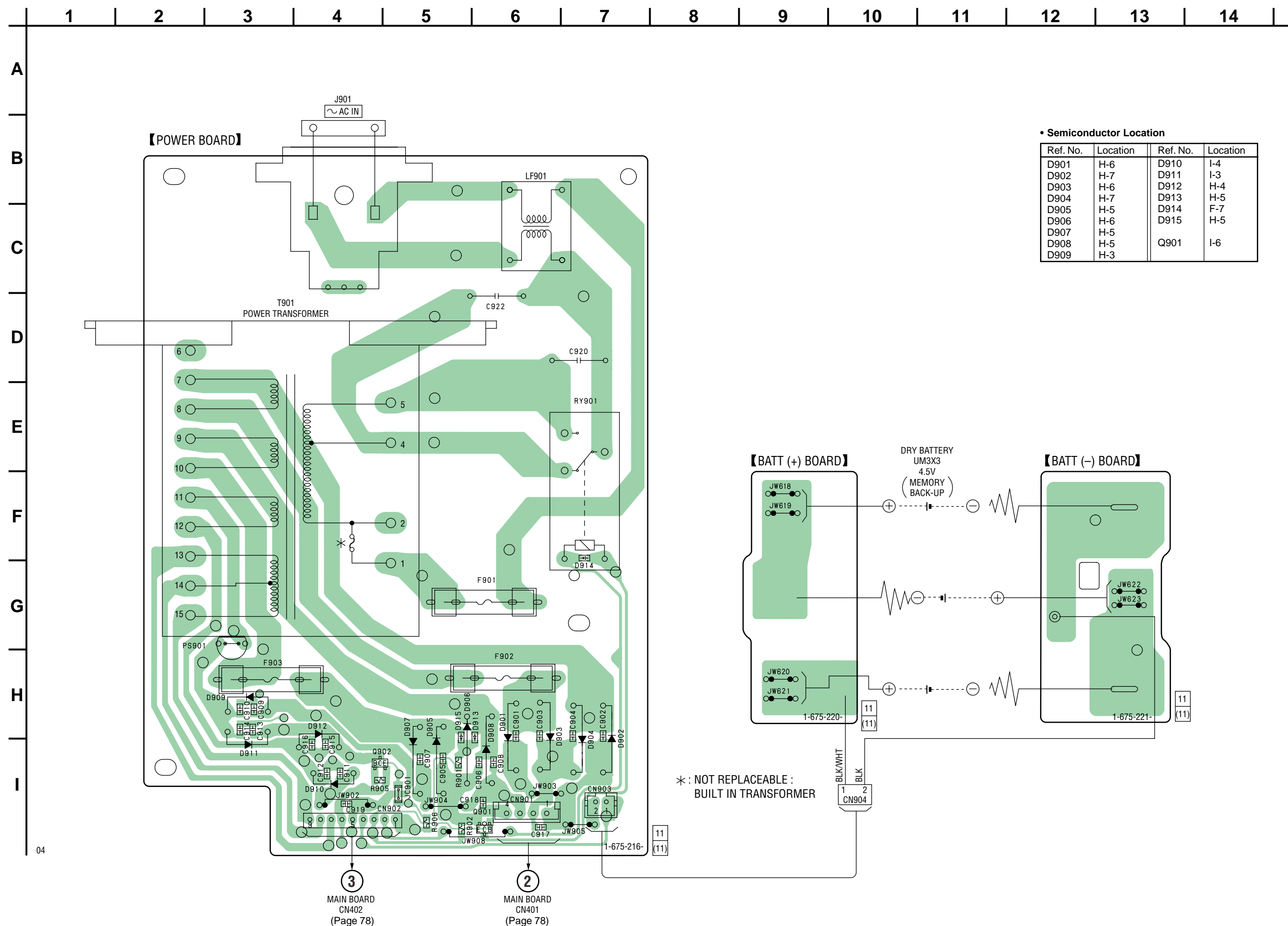
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D601	H-13	D610	G-6	D619	H-4	Q603	G-13
D602	H-11	D611	G-4	D620	H-3	Q604	G-12
D603	H-10	D612	G-3	D621	H-2	Q606	H-5
D604	H-9	D613	G-2	D622	I-5	Q607	G-7
D605	H-8	D614	H-6	D623	I-4	Q608	H-3
D606	H-7	D615	H-4	D624	I-3	Q609	H-4
D607	H-5	D616	H-3	D625	I-2	Q610	H-5
D608	G-6	D617	H-2			Q611	I-5
D609	G-7	D618	H-5	IC602	I-13		

6-25. SCHEMATIC DIAGRAMS — SWITCH SECTION —



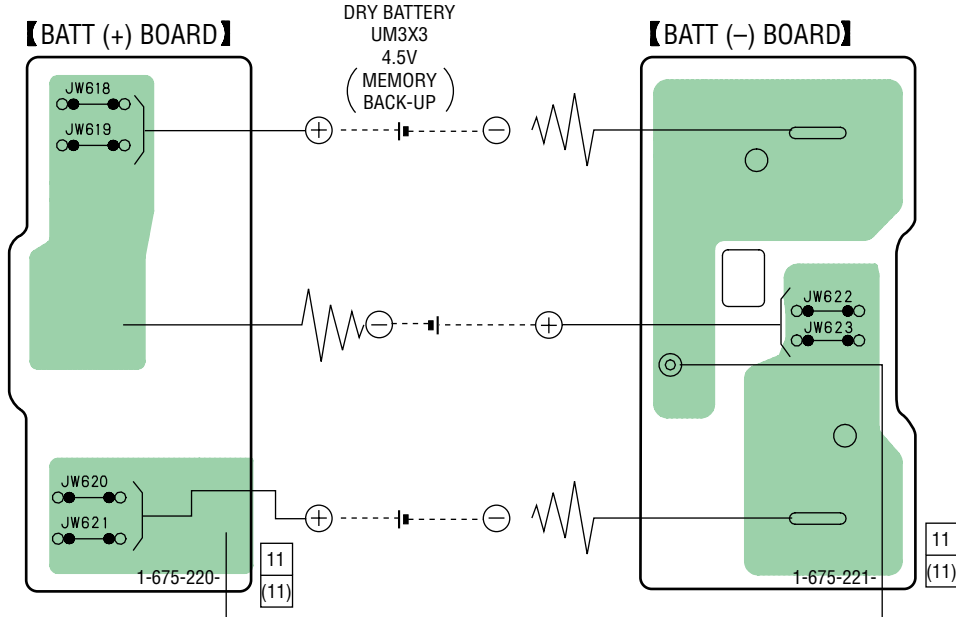
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM

6-26. PRINTED WIRING BOARDS — POWER SUPPLY SECTION —



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D901	H-6	D910	I-4
D902	H-7	D911	I-3
D903	H-6	D912	H-4
D904	H-7	D913	H-5
D905	H-5	D914	F-7
D906	H-6	D915	H-5
D907	H-5		
D908	H-5	Q901	I-6
D909	H-3		



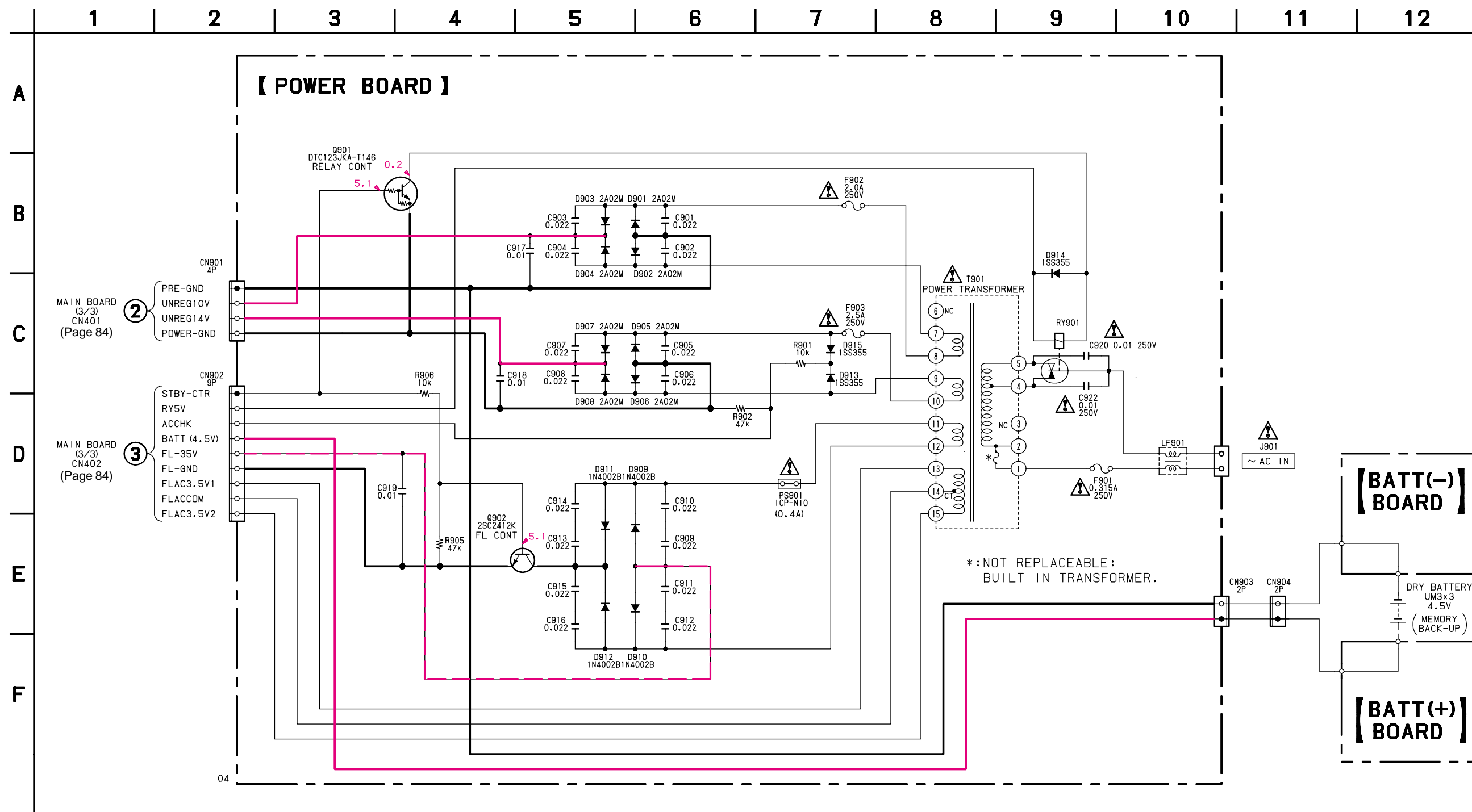
* : NOT REPLACEABLE :
BUILT IN TRANSFORMER

3
MAIN BOARD
CN402
(Page 78)

2
MAIN BOARD
CN401
(Page 78)

04

6-27. SCHEMATIC DIAGRAMS — POWER SUPPLY SECTION —

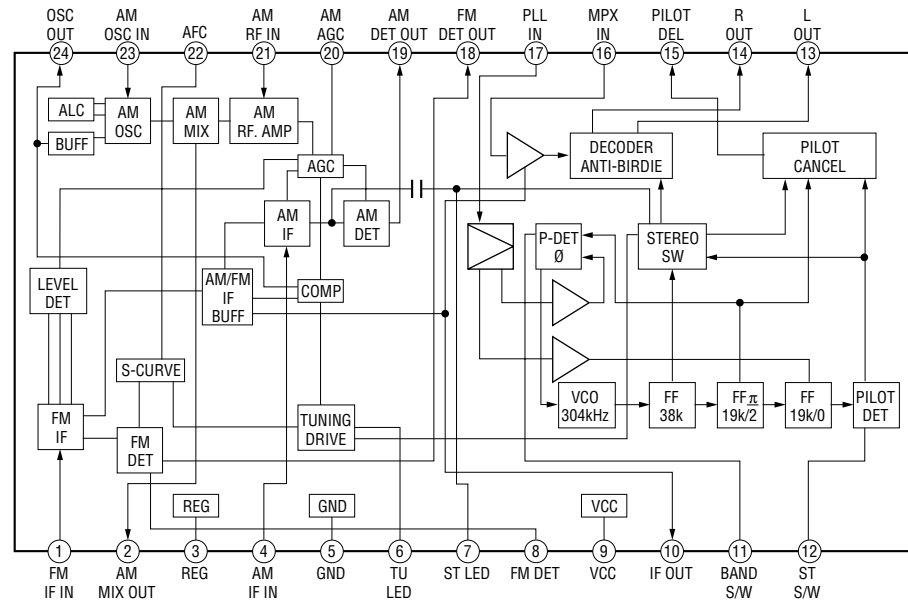


Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

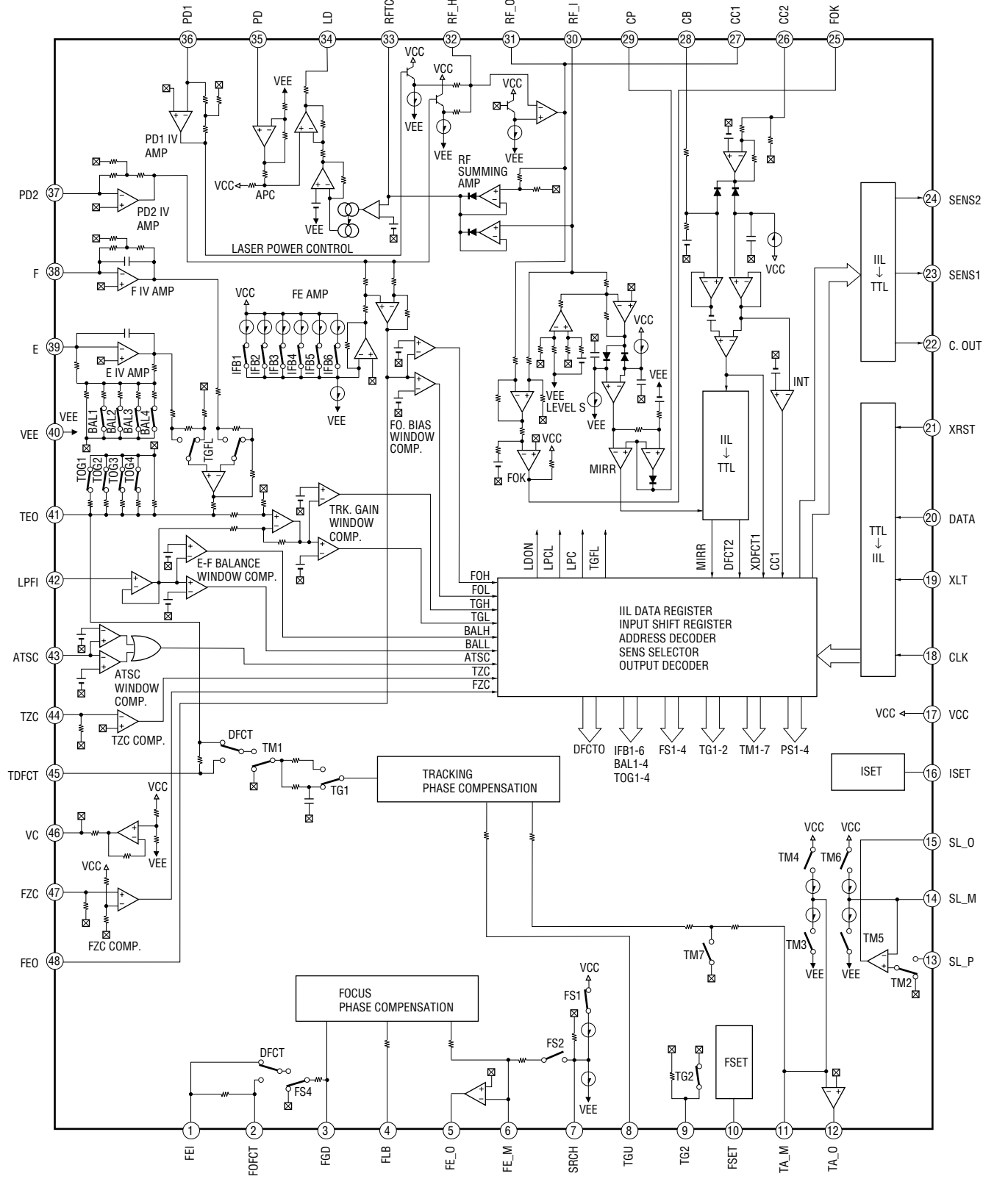
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM

6-28. IC BLOCK DIAGRAMS

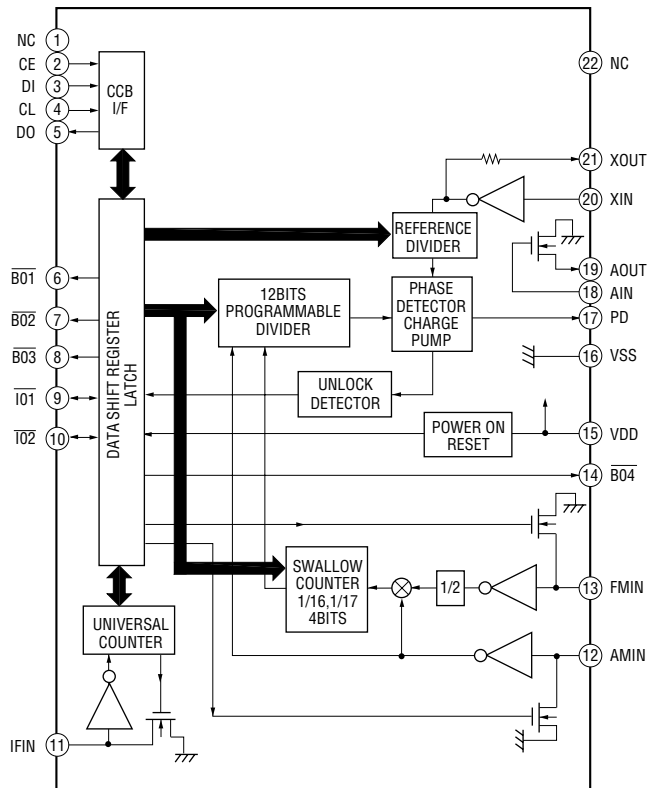
IC1 LA1833N



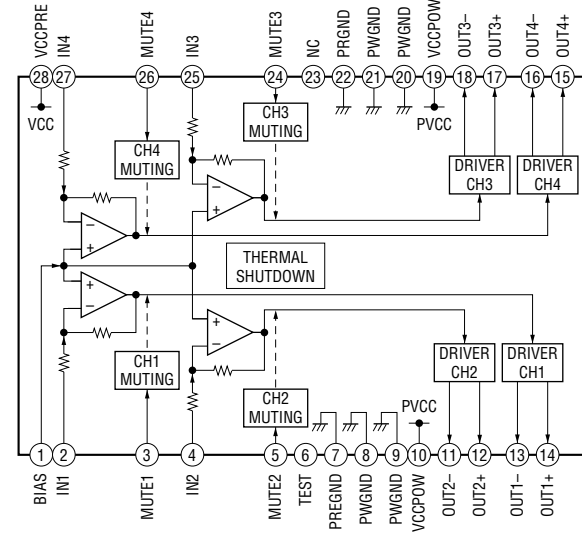
IC701 CXA2542AQ



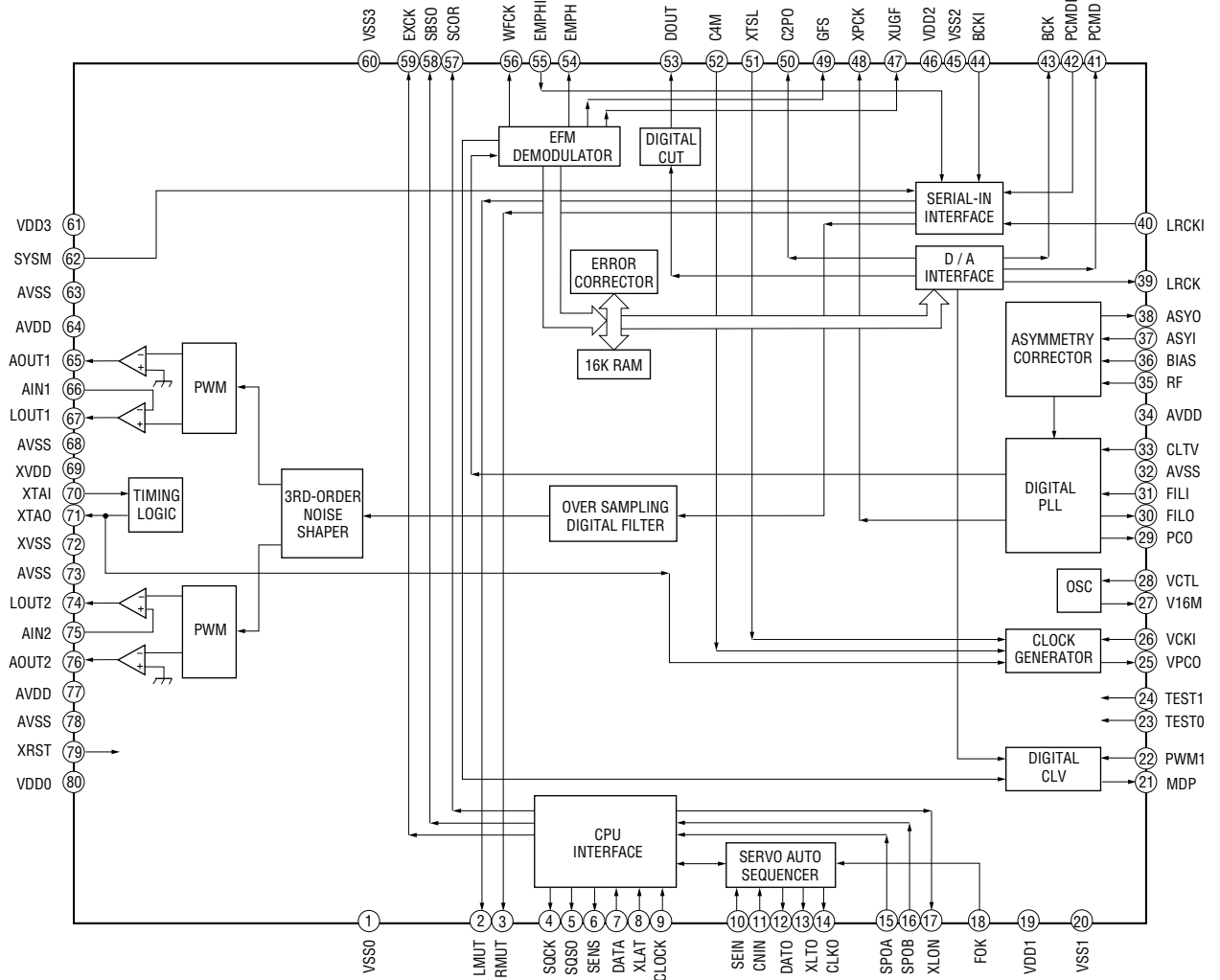
IC2 LC72137M-TLM



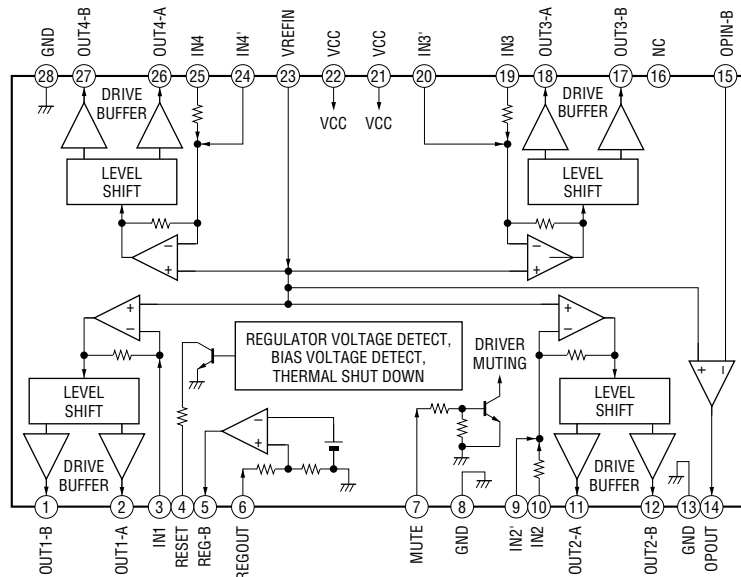
IC802 BA6892FP-E2



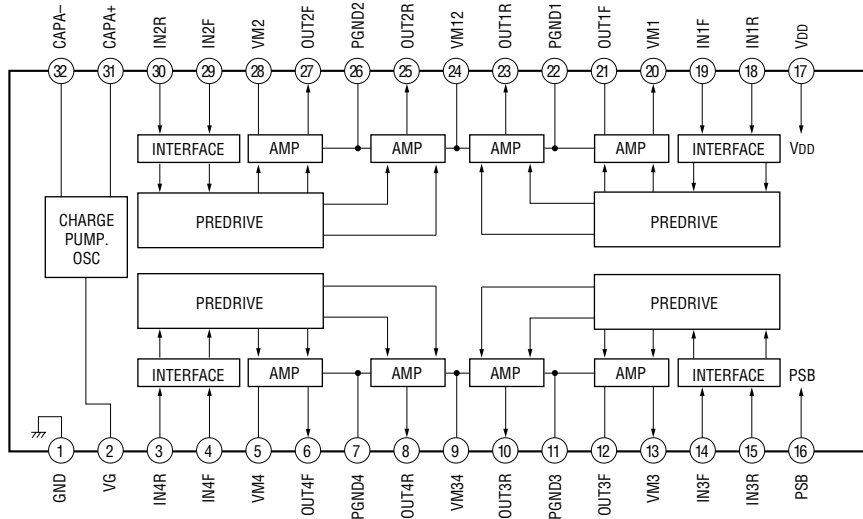
IC702 CXD3009Q



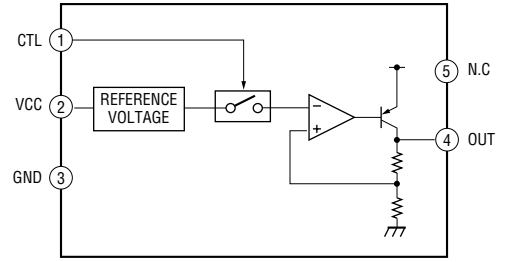
IC703 BA6998FP-E2



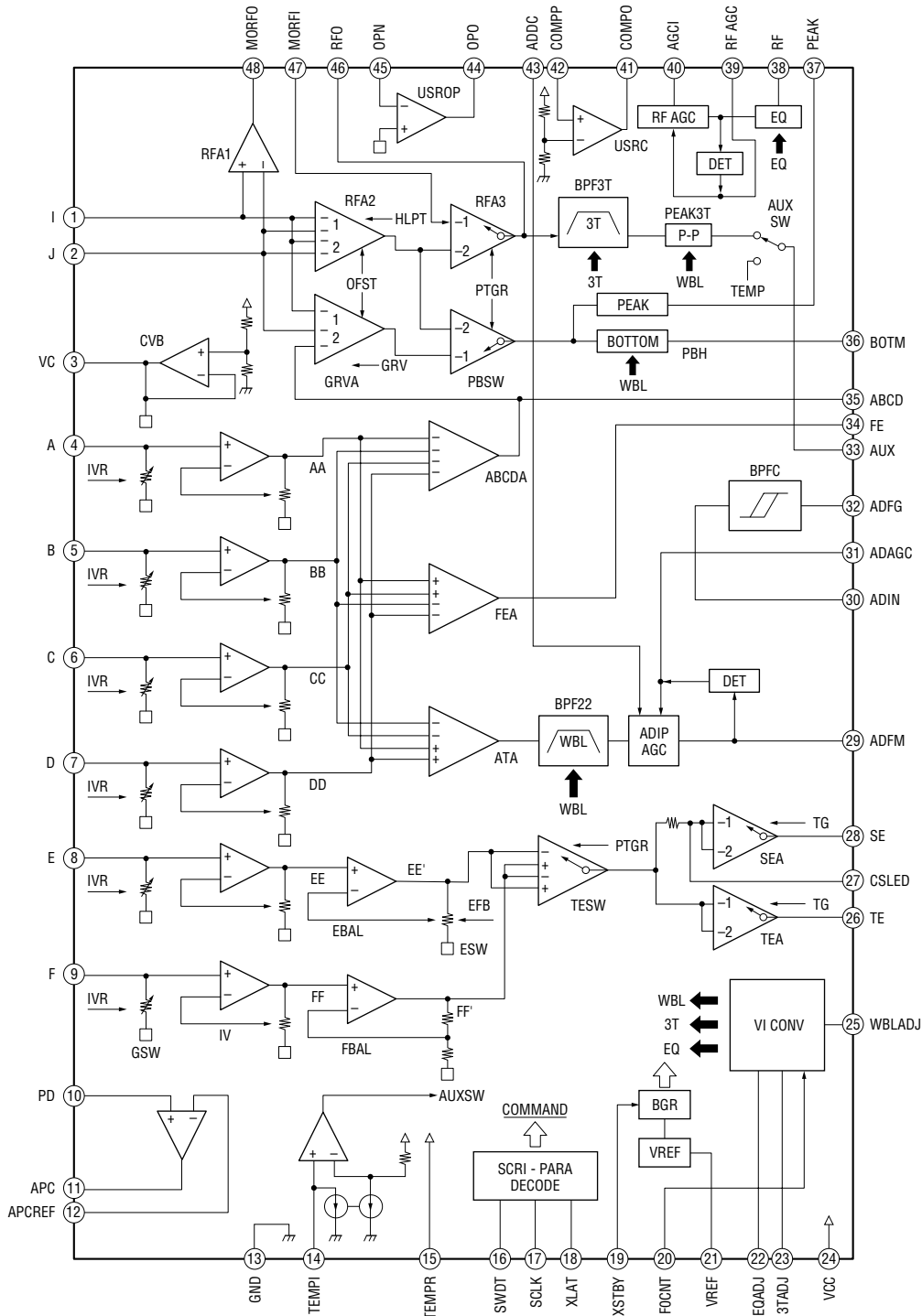
IC152 BH6511FS



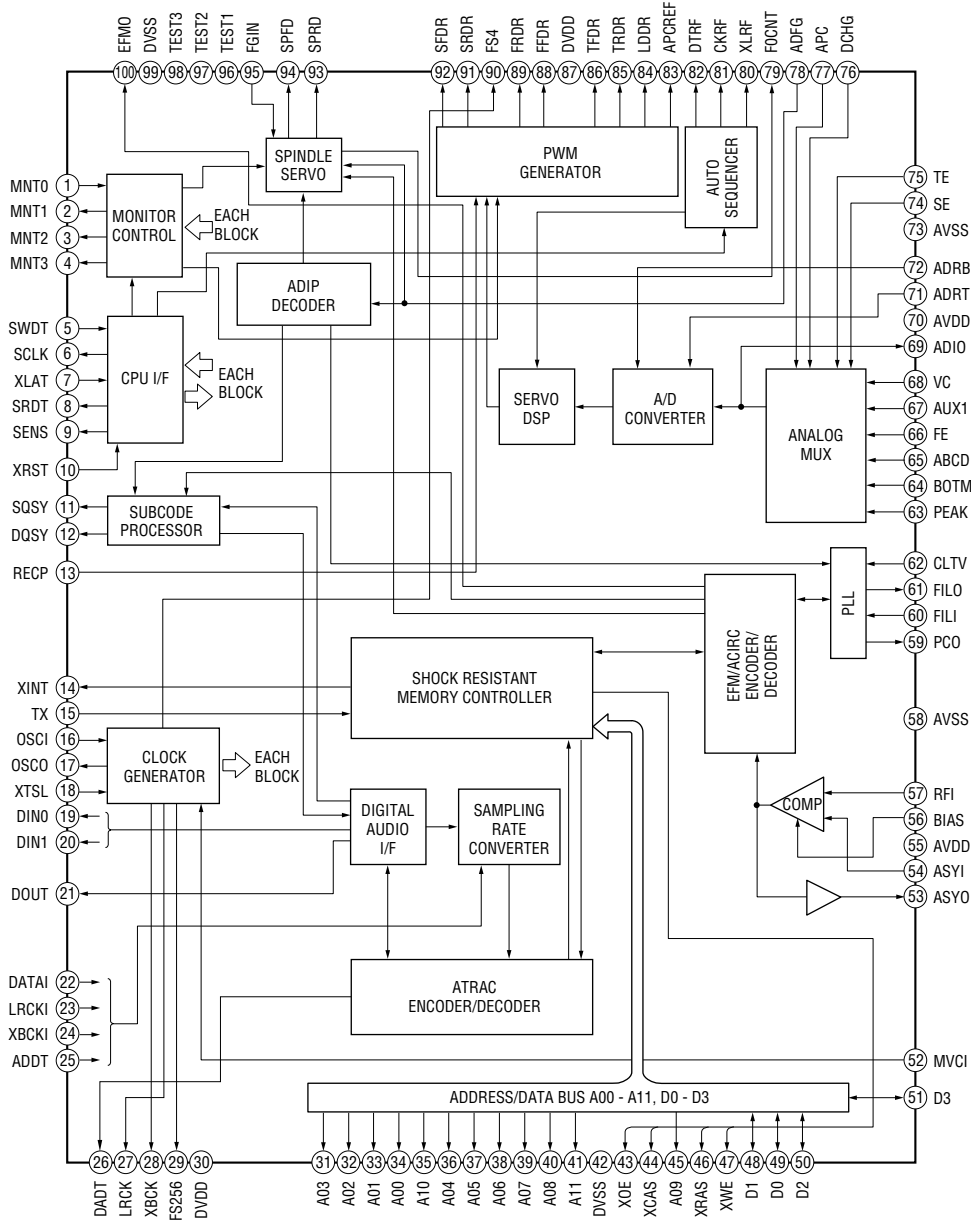
IC192 BA033FP-E2



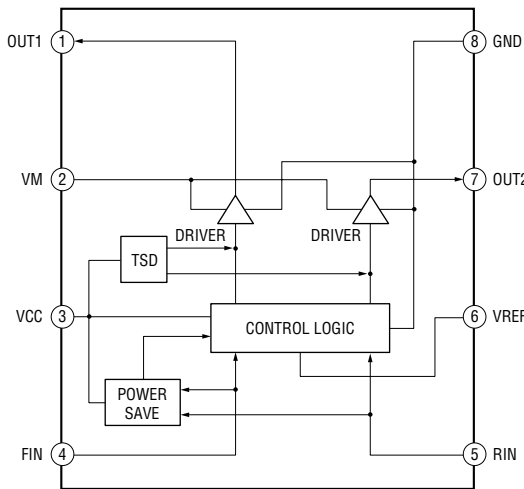
IC101 CXA2523AR



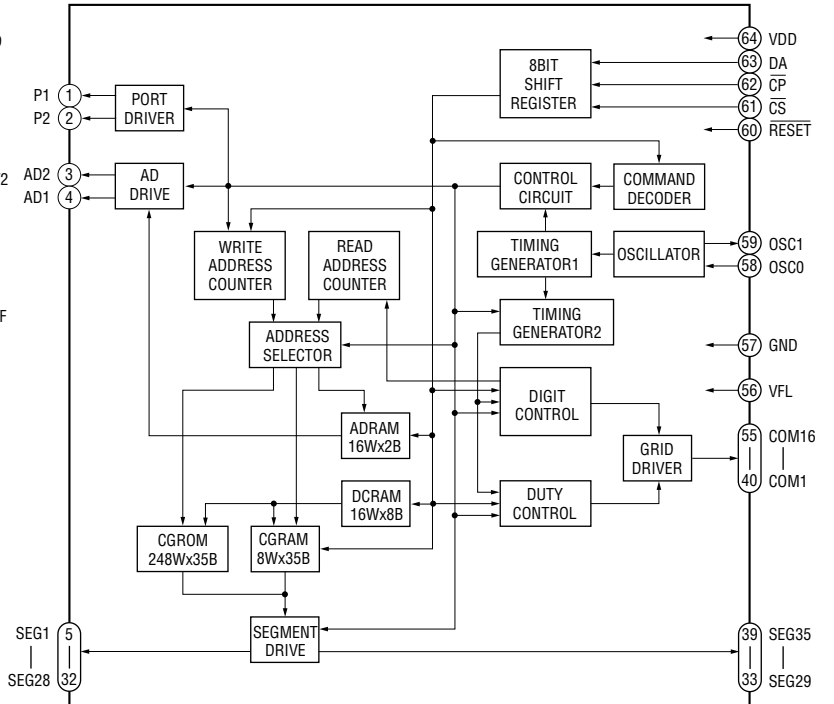
IC121 CXD2654R



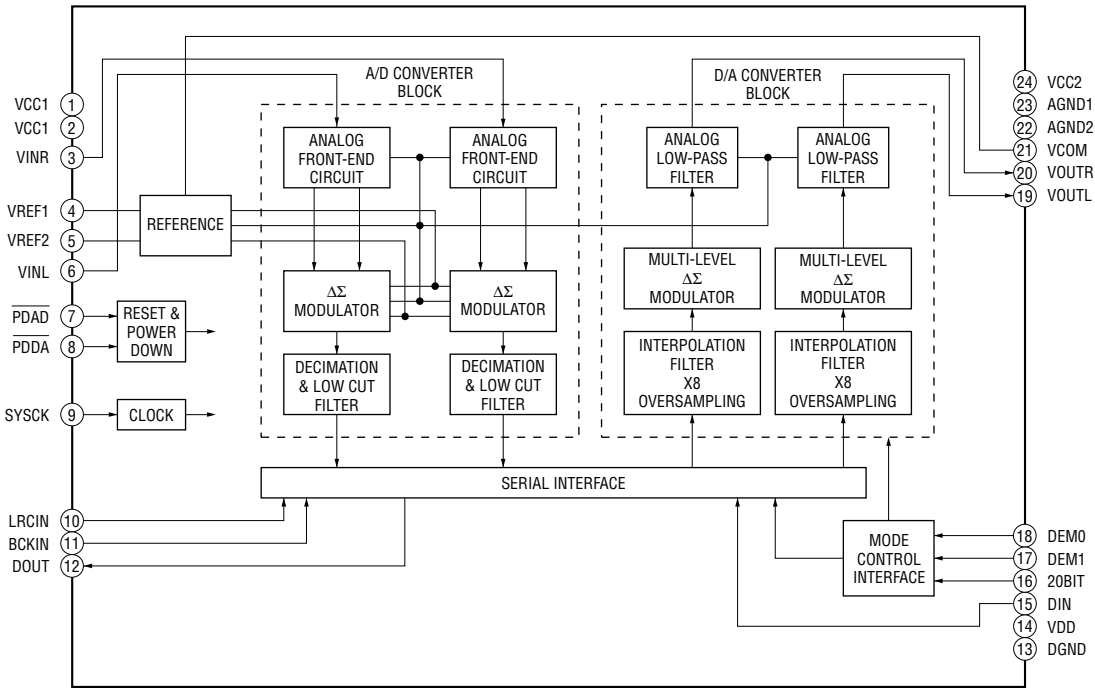
IC602 BA6287F



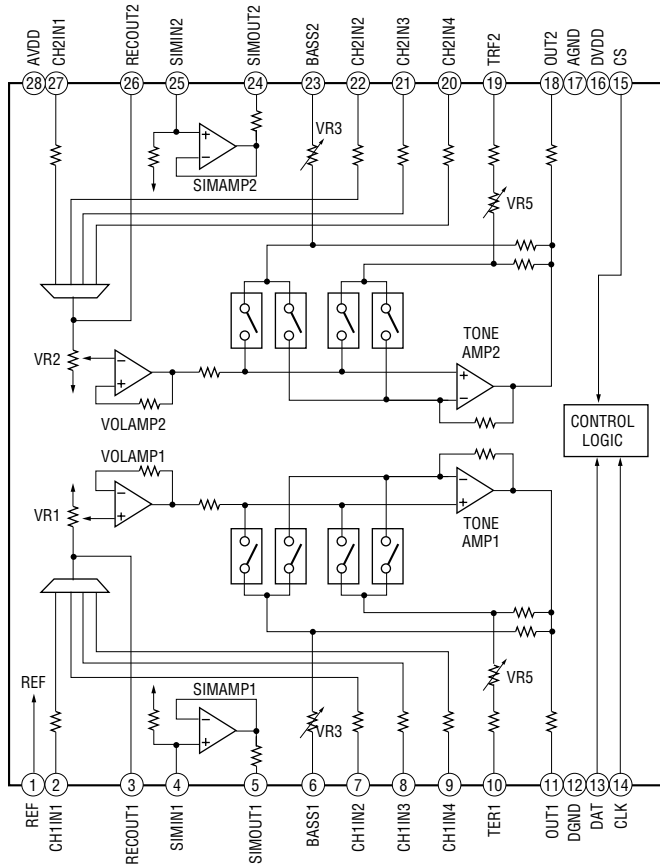
IC601 MSM-9202-09GS-KDR1 (FL BOARD)



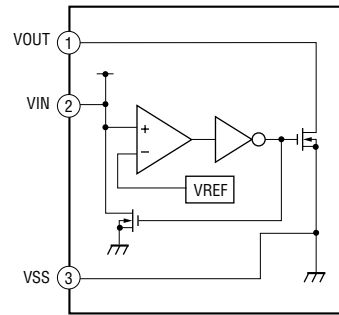
IC603 PCM3003E/T2



IC302 M62443FPD61Q



IC411 XC62FP3302PR



SECTION 7 EXPLODED VIEWS

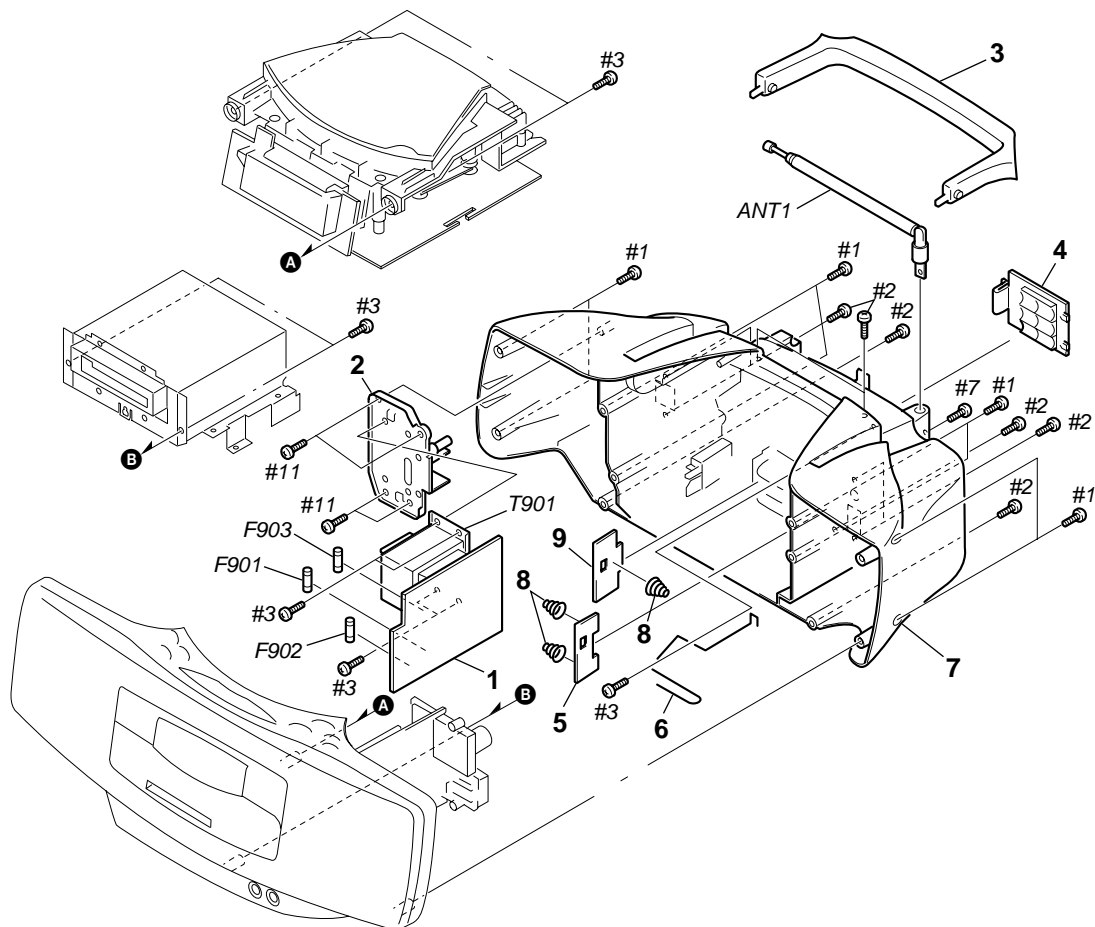
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE) ... (RED)
↑ ↑
Parts Color Cabinet's Color
- Accessories and packing materials are given in the last of this parts list.

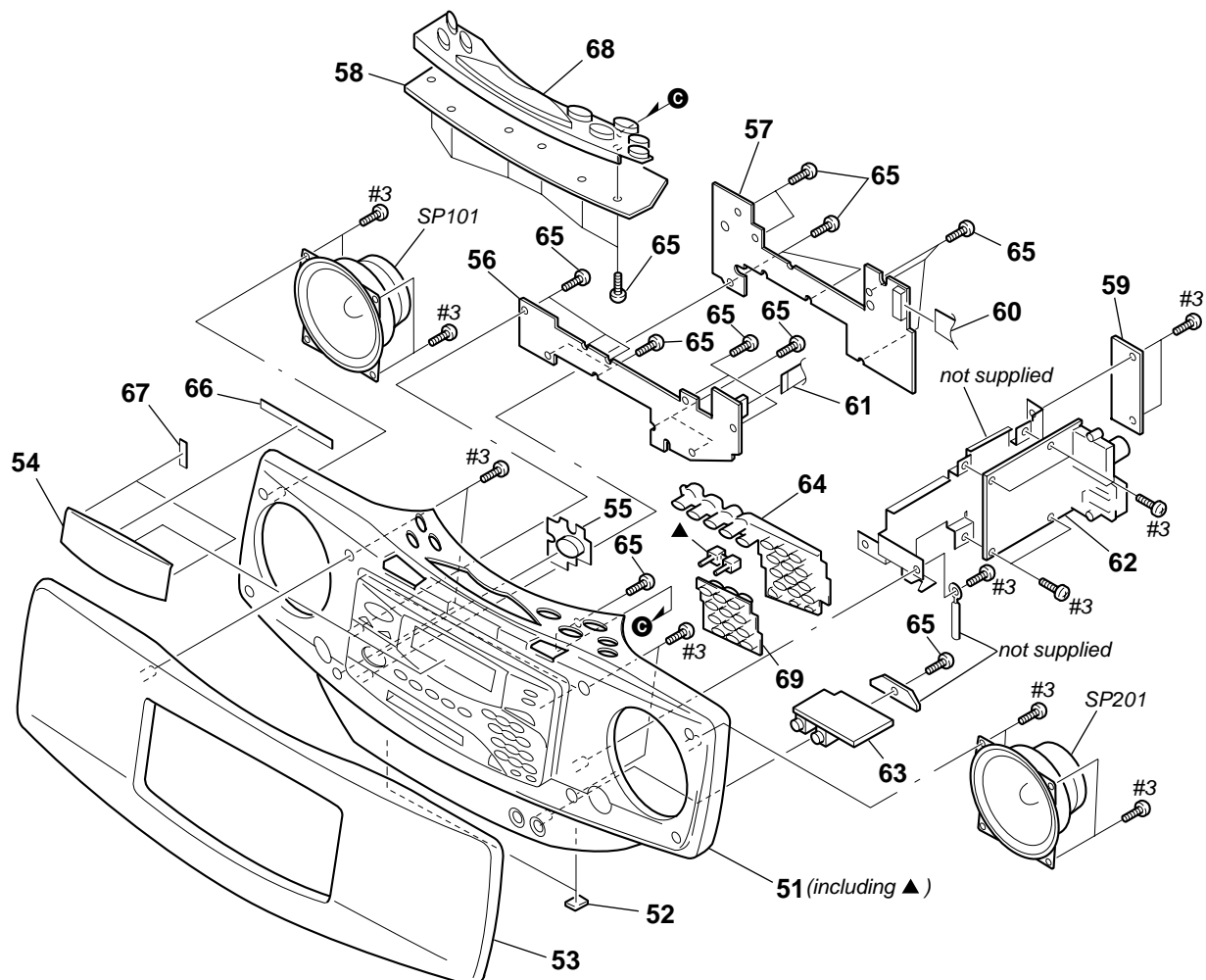
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

7-1. CABINET (REAR) SECTION



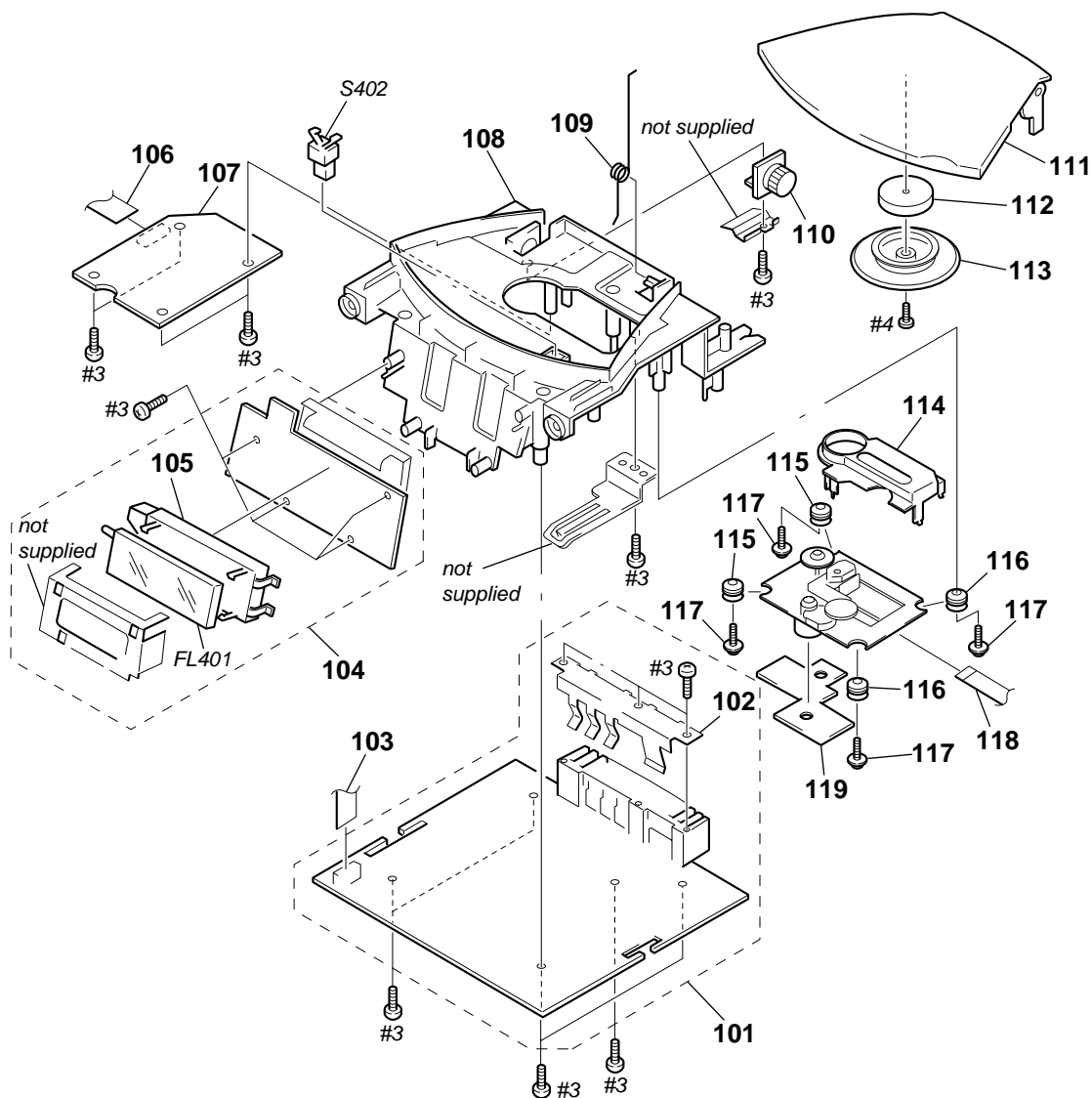
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	A-3322-536-A	POWER BOARD, COMPLETE		7	3-039-971-41	CABINET (REAR) (BLACK)	
* 2	3-039-987-01	CHASSIS, TRANSFORMER		7	3-039-971-61	CABINET (REAR) (BLUE)	
3	3-039-974-01	HANDLE (BLACK)		7	3-039-971-71	CABINET (REAR) (WHITE)	
3	3-039-974-11	HANDLE (WHITE)		7	3-039-971-81	CABINET (REAR) (ORANGE)	
3	3-039-974-21	HANDLE (BLUE)		8	3-039-967-01	TERMINAL (BATT -), BATTERY	
3	3-039-974-31	HANDLE (ORANGE)		* 9	1-675-220-21	BATT (+) BOARD	
4	3-039-976-01	LID, BATTERY CASE (BLACK)		ANT1	1-501-452-11	ANTENNA, TELESCOPIC	
4	3-039-976-11	LID, BATTERY CASE (WHITE)		Δ F901	1-532-467-51	FUSE (315mA/250V)	
4	3-039-976-21	LID, BATTERY CASE (BLUE)		Δ F902	1-532-388-51	FUSE (2A/250V)	
4	3-039-976-31	LID, BATTERY CASE (ORANGE)		Δ F903	1-532-464-51	FUSE (2.5A/250V)	
* 5	1-675-221-21	BATT (-) BOARD		Δ T901	1-435-321-11	TRANSFORMER, POWER	
6	3-039-958-01	TERMINAL, ANTENNA					

7-2. CABINET (FRONT) SECTION



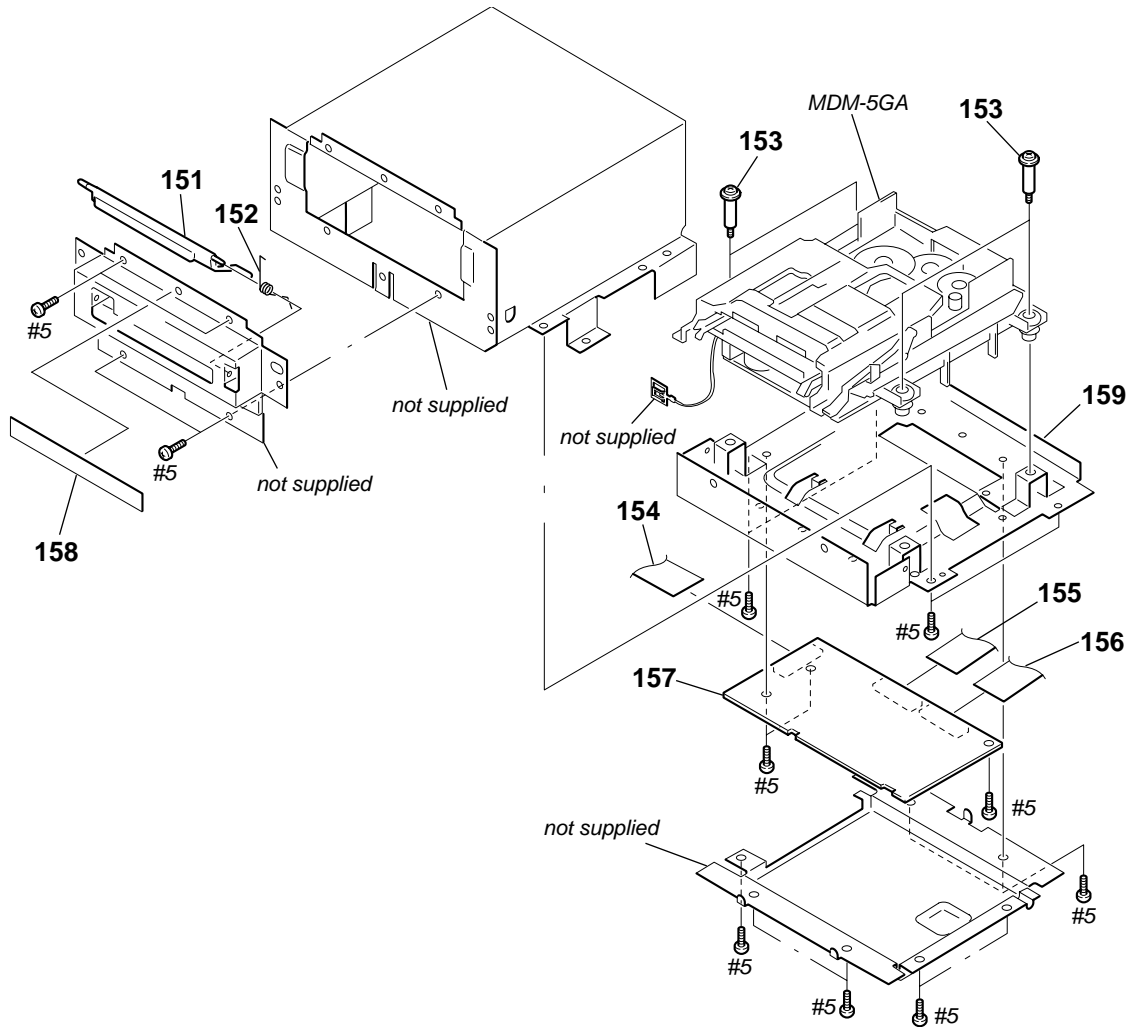
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3378-656-1	CABINET FRONT (SUB) ASSY		60	1-791-523-11	WIRE, PARALLEL (FFC) (13 CORE)	
52	3-040-916-01	FOOT (F), RUBBER		61	1-791-522-11	WIRE, PARALLEL (FFC) (10 CORE)	
53	X-3377-977-1	CHASSIS ASSY, NET (BLACK)		* 62	A-3322-527-A	TUNER BOARD, COMPLETE	
53	X-3378-002-1	CHASSIS ASSY, NET (WHITE)		* 63	1-675-219-21	JACK BOARD	
53	X-3378-003-1	CHASSIS ASSY, NET (BLUE)		64	3-039-979-01	BUTTON (10 KEY)	
53	X-3378-052-1	CHASSIS ASSY, NET (ORANGE)		65	4-951-620-01	SCREW (2.6X8), +BVTP	
54	3-039-977-02	WINDOW (FL)		66	3-041-800-01	SHEET (A), ADHESIVE	
55	3-040-704-01	BUTTON (REC) (4P)		67	3-041-801-01	SHEET (B), ADHESIVE	
* 56	1-675-223-21	KEY BOARD		68	X-3378-404-1	BUTTON (TOP) ASSY	
* 57	A-3322-525-A	LED BOARD, COMPLETE (GREEN)		69	3-039-954-01	PLATE (10KEY), LIGHT GUIDE	
* 57	A-3322-977-A	LED BOARD, COMPLETE (ORANGE)		SP101	1-529-463-11	SPEAKER (8cm) (L-CH)	
* 58	1-675-213-11	TOP BOARD		SP201	1-529-463-11	SPEAKER (8cm) (R-CH)	
* 59	1-675-845-21	ANTENNA SW BOARD					

7-3. CABINET (UPPER) SECTION



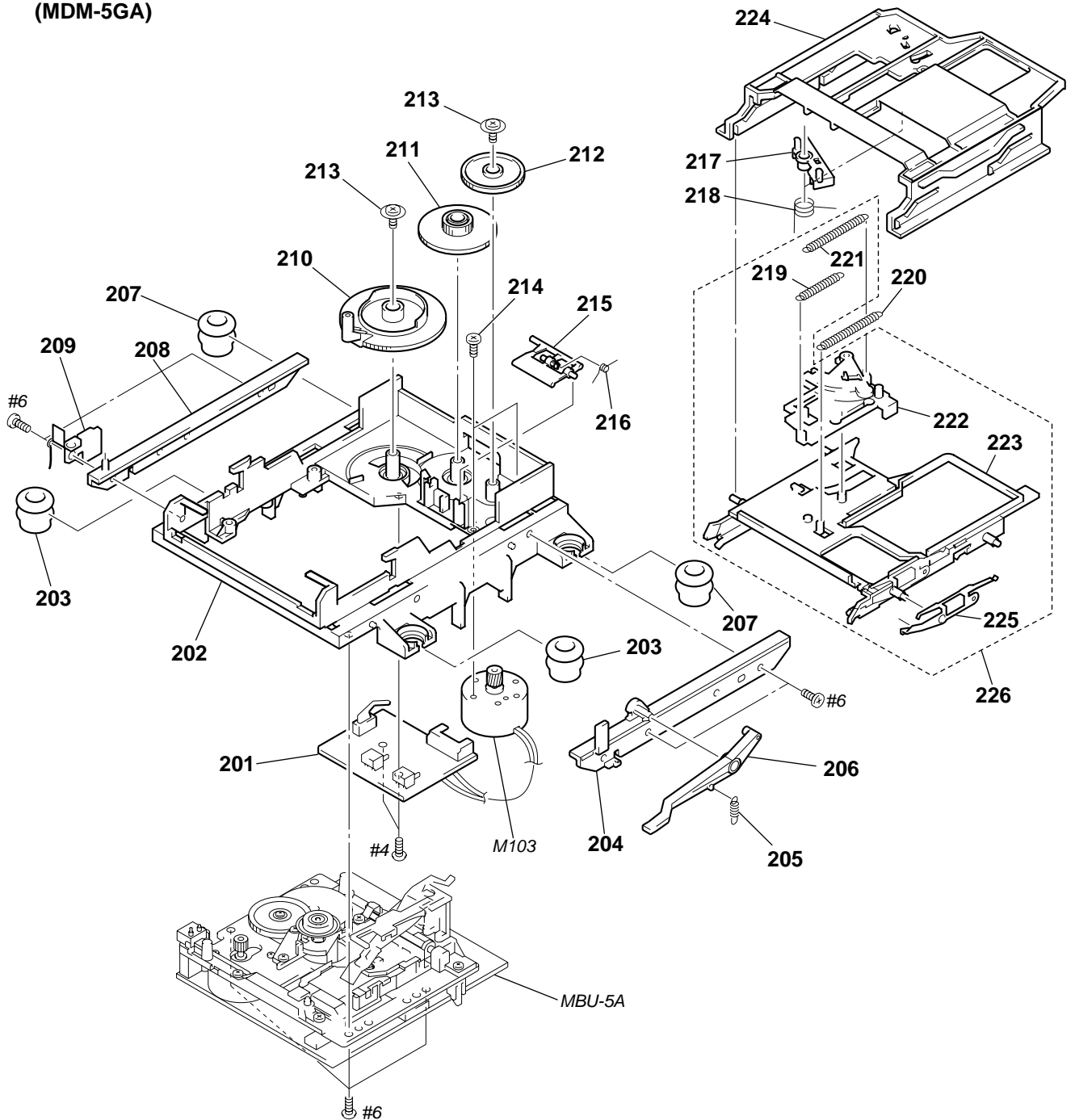
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	A-3322-530-A	MAIN BOARD, COMPLETE		112	1-452-899-11	MAGNET	
102	3-039-961-01	SPRING (IC)		113	3-036-467-01	PLATE, CHUCKING	
103	1-791-521-11	WIRE, PARALLEL (FFC) (10 CORE)		114	3-923-736-01	COVER, CD	
* 104	A-3322-528-A	FL BOARD, COMPLETE		115	3-931-379-31	RUBBER, VIBRATION PROOF	
105	3-039-978-01	HOLDER (FL)		116	3-931-379-21	RUBBER, VIBRATION PROOF	
106	1-791-520-11	WIRE, PARALLEL (FFC) (18 CORE)		117	3-921-725-01	SCREW (2.6X10), +PWH	
* 107	A-3322-529-A	CD BOARD, COMPLETE		118	1-791-518-11	WIRE, PARALLEL (FFC) (16 CORE)	
108	3-039-972-01	CABINET (UPPER)		* 119	A-3322-538-A	CD MOTOR BOARD, COMPLETE	
109	3-039-957-01	SPRING (CD UP)		FL401	1-517-916-11	INDICATOR TUBE, FLUORESCENT	
110	3-922-112-31	DAMPER		S402	1-692-960-11	SWITCH, PUSH (1 KEY) (CD DOOR)	
111	3-039-975-11	LID, CD					

7-4. MD BLOCK SECTION



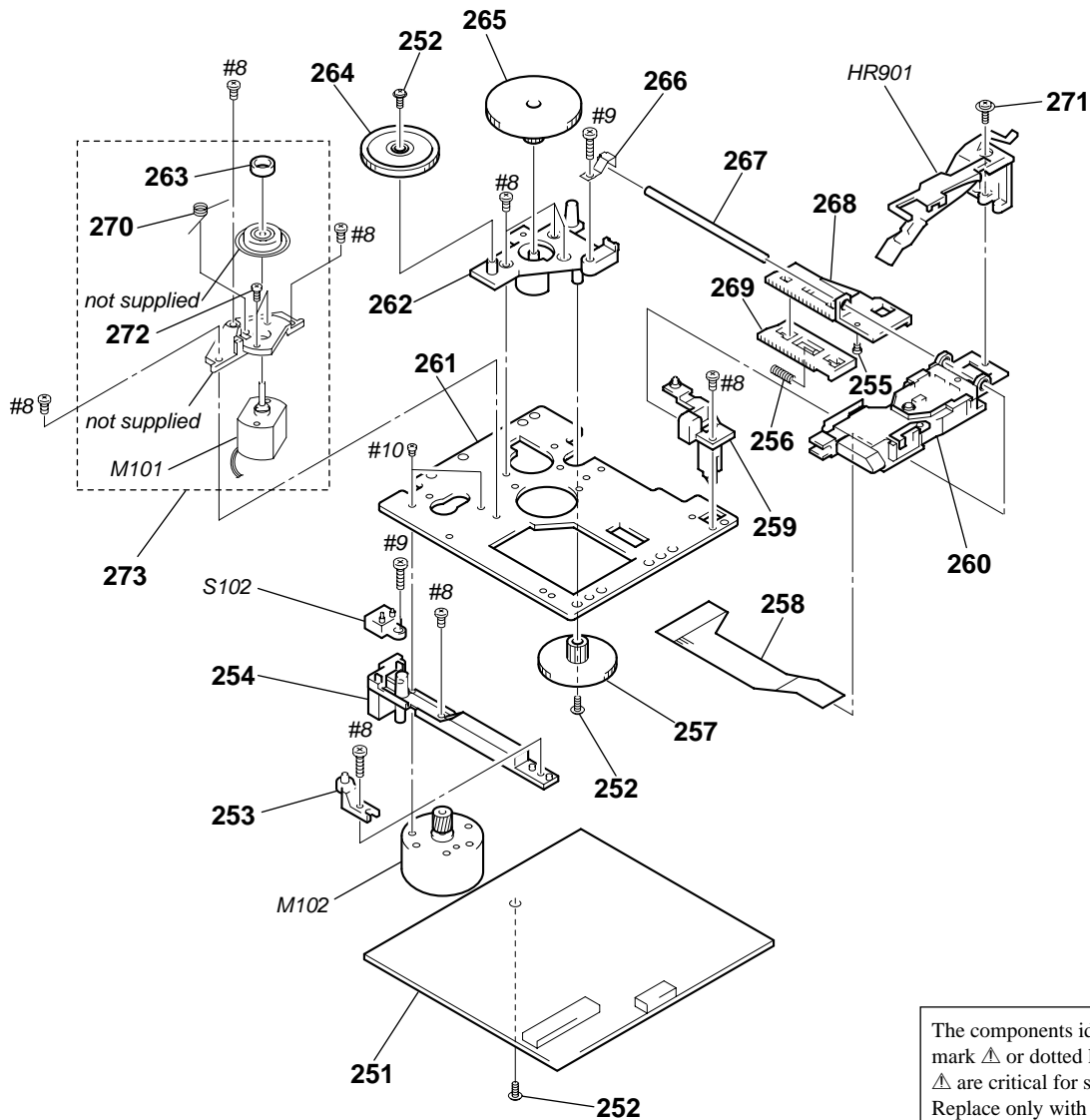
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
151	3-036-318-11	CARTRIDGE, LID		156	1-791-532-21	WIRE, PARALLEL (FFC) (23 CORE)	
152	3-036-311-01	SPRING (MD LID)		* 157	A-3322-531-A	DG BOARD, COMPLETE	
153	3-042-390-01	SCREW (+BVTTWH M3), STEP		158	3-041-799-01	SHEET, INSULATING	
154	1-791-519-11	WIRE, PARALLEL (FFC) (26 CORE)		159	X-3378-454-1	PLATE (LOWER) ASSY, SHIELD	
155	1-791-531-21	WIRE, PARALLEL (FFC) (21 CORE)					

**7-5. MD MECHANISM SECTION
(MDM-5GA)**



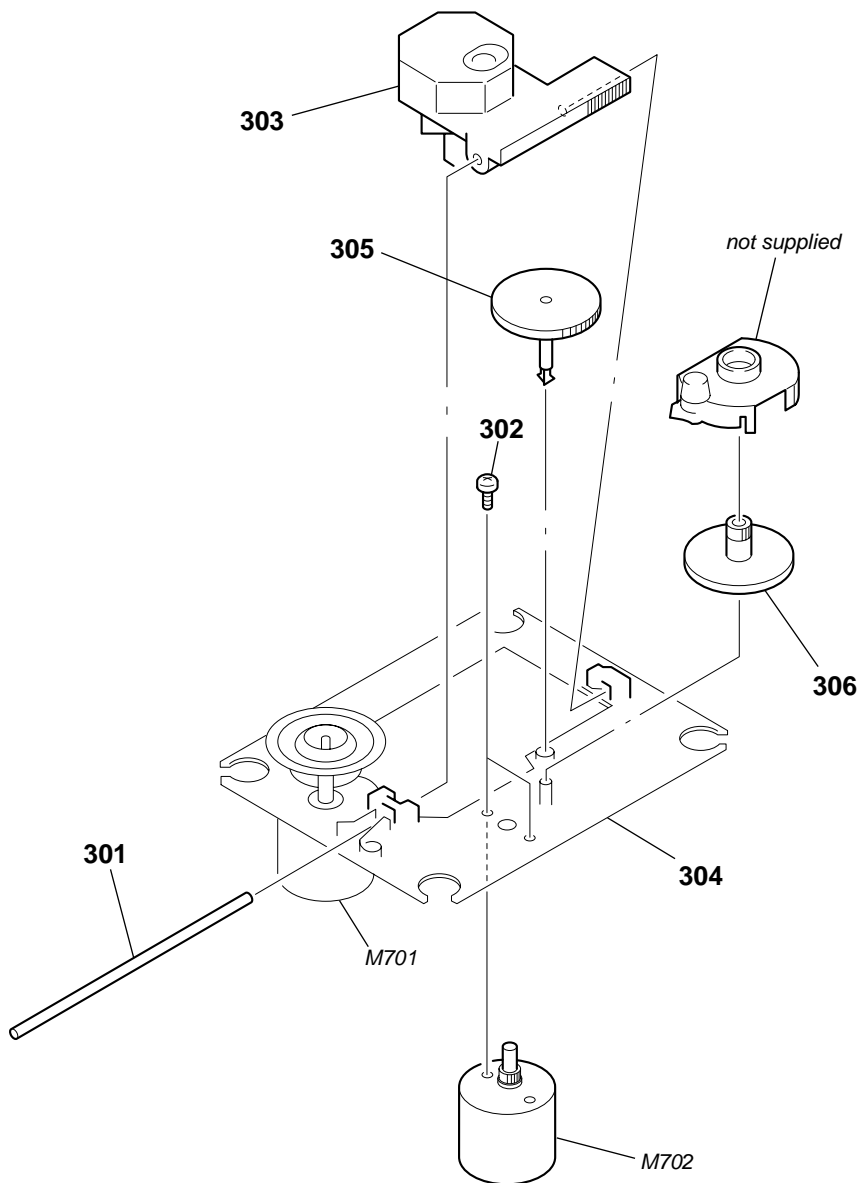
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 201	1-671-115-21	SW BOARD		215	4-996-227-11	LEVER (HEAD)	
* 202	4-996-217-01	CHASSIS		216	4-996-229-01	SPRING (HEAD LEVER), TORSION	
203	4-996-223-11	INSULATOR (F)		217	4-996-212-01	LEVER (LIMITER)	
* 204	4-996-218-01	BRACKET (GUIDE R)		218	4-996-213-01	SPRING (LIMITER), TORSION	
205	4-996-277-01	SPRING (O/C), TENSION		219	4-996-214-01	SPRING (SLIDER), TENSION	
206	4-996-226-01	LEVER (O/C)		220	4-996-216-01	SPRING (HOLDER), TENSION	
207	4-999-347-01	INSULATOR (R)		221	4-996-215-11	SPRING (LOCK LEVER), TENSION	
* 208	4-996-225-01	BRACKET (GUIDE L)		222	X-4949-668-3	SLIDER ASSY	
209	4-988-466-11	SPRING (ELECTROSTATIC), LEAF		223	X-4949-667-4	HOLDER ASSY	
210	4-996-219-01	GEAR (CAM GEAR)		* 224	4-996-211-11	SLIDER (CAM)	
211	4-996-220-01	GEAR (A)		225	4-998-763-03	SPRING (SHUTTER), LEAF	
212	4-996-221-01	GEAR (B)		226	A-4680-200-G	HOLDER COMPLETE ASSY	
213	4-933-134-01	SCREW (+PTPWH M2.6X6)		M103	X-4949-264-1	MOTOR ASSY, LOADING (LOADING) (MD)	
214	4-996-224-01	SCREW (1.7X3), +PWH					

**7-6. MD BASE UNIT SECTION
(MBU-5A)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	A-4699-893-A	BD BOARD, COMPLETE		265	4-996-261-01	GEAR (SL-B)	
252	3-372-761-01	SCREW (M1.7), TAPPING		266	4-996-264-01	SPRING (SHAFT), LEAF	
* 253	4-996-267-01	BASE (BU-D)		267	4-996-265-01	SHAFT, MAIN	
* 254	4-996-255-01	BASE (BU-C)		268	4-996-256-11	SL (BASE)	
255	4-900-590-01	SCREW, PRECISION SMALL		269	4-996-257-01	RACK (SL)	
256	4-996-258-01	SPRING, COMPRESSION		270	4-996-263-01	SPRING (CLV), TORSION	
257	4-996-262-01	GEAR (SL-C)		271	4-988-560-01	SCREW (+P 1.7X6)	
* 258	1-667-954-11	FLEXIBLE BOARD		272	4-211-036-01	SCREW (1.7X2.5), +PWH	
* 259	4-210-664-11	BASE (BU-A)		273	A-4672-475-A	MOTOR ASSY, SPINDLE (SPINDLE)	
Δ 260	A-4672-541-A	PICK-UP ASSY, OPTICAL KMS-260B (MD)				(INCLUDING M101) (MD)	
* 261	4-996-252-01	CHASSIS, BU		HR901	1-500-502-11	HEAD, OVER WRITE	
* 262	4-996-254-01	BASE (BU-B)		M102	A-4672-474-A	MOTOR ASSY, SLED (SLED) (MD)	
263	4-967-688-11	MAGNET, ABSORPTION		S102	1-762-148-21	SWITCH, PUSH (2 KEY) (REFLECT RATE DETECT, PROTECT DETECT)	
264	4-996-260-01	GEAR (SL-A)					

**7-7. OPTICAL PICK-UP SECTION
(KSM-213CDM)**



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
301	2-626-908-01	SHAFT, SLED		305	2-626-907-01	GEAR (A)	
302	3-713-786-51	SCREW +P 2X3		306	2-627-003-02	BEAR (B) (RP)	
\triangle 303	8-848-483-05	PICK-UP, OPTICAL KSS-213C (CD)		M702	X-2625-769-1	GEAR ASSY, MOTOR (MB) (RP) (SLED) (CD)	
304	X-2626-202-1	CHASSIS ASSY, MOTOR (MB) (SPINDLE) (INCLUDING M701) (CD)					

ANTENNA SW**BATT (+)****BATT (-)****BD****SECTION 8
ELECTRICAL PARTS LIST****NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
CET : East European & CIS model
JE : Turist model

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-675-845-21	ANTENNA SW BOARD ***** < SWITCH >		C130	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
S607	1-771-672-11	SWITCH, SLIDE (FM ANTENNA SELECTOR) *****		C131	1-163-023-00	CERAMIC CHIP 0.015uF 5%	50V
*	1-675-220-21	BATT (+) BOARD *****		C132	1-107-823-11	CERAMIC CHIP 0.47uF 10%	16V
	3-039-967-01	TERMINAL (BATT -), BATTERY *****		C133	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
*	1-675-221-21	BATT (-) BOARD *****		C134	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	3-039-967-01	TERMINAL (BATT -), BATTERY *****		C135	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	A-4699-893-A	BD BOARD, COMPLETE ***** < CAPACITOR >		C136	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
C101	1-125-822-11	TANTALUM 10uF 20%	10V	C142	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C102	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C143	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C103	1-125-822-11	TANTALUM 10uF 20%	10V	C144	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C104	1-125-822-11	TANTALUM 10uF 20%	10V	C146	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C105	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	C151	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
C106	1-163-275-11	CERAMIC CHIP 0.001uF 5%	50V	C152	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C107	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C153	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C108	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C156	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C109	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V	C158	1-163-019-00	CERAMIC CHIP 0.0068uF 10%	50V
C111	1-164-344-11	CERAMIC CHIP 0.068uF 10%	25V	C160	1-104-601-11	ELECT CHIP 10uF 20%	10V
C112	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V	C161	1-104-601-11	ELECT CHIP 10uF 20%	10V
C113	1-109-982-11	CERAMIC CHIP 1uF 10%	10V	C163	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C115	1-164-489-11	CERAMIC CHIP 0.22uF 10%	16V	C164	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C116	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V	C167	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C117	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V	C168	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C118	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C169	1-125-822-11	TANTALUM 10uF 20%	10V
C119	1-125-822-11	TANTALUM 10uF 20%	10V	C171	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C121	1-125-822-11	TANTALUM 10uF 20%	10V	C181	1-104-913-11	TANTAL. CHIP 10uF 20%	16V
C122	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	C183	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C123	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C184	1-117-970-11	ELECT CHIP 22uF 20%	10V
C124	1-163-038-00	CERAMIC CHIP 0.1uF	25V	Δ C185	1-164-611-11	CERAMIC CHIP 0.001uF 10%	500V
C127	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C187	1-104-913-11	TANTAL. CHIP 10uF 20%	16V
C128	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	C188	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C129	1-107-823-11	CERAMIC CHIP 0.47uF 10%	16V	C189	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
				C190	1-126-206-11	ELECT CHIP 100uF 20%	6.3V
				C191	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C196	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C197	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				< CONNECTOR >			
				CN101	1-569-479-51	CONNECTOR, FPC 21P	
				CN102	1-784-833-21	CONNECTOR, FFC (LIF(NON-ZIF)) 21P	
				CN103	1-784-834-21	CONNECTOR, FFC (LIF(NON-ZIF)) 23P	
				CN104	1-770-687-11	CONNECTOR, FFC/FPC 4P	
				CN110	1-695-440-21	PIN, CONNECTOR (PC BOARD) 6P	
				< DIODE >			
				D101	8-719-988-61	DIODE 1SS355TE-17	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D181	8-719-046-86	DIODE F1J6TP		R120	1-216-025-11	RES-CHIP 100	5% 1/10W
D183	8-719-046-86	DIODE F1J6TP		R121	1-216-097-11	RES-CHIP 100K	5% 1/10W
		< IC >		R123	1-216-295-00	SHORT 0	
IC101	8-752-080-95	IC CXA2523AR		R124	1-216-025-11	RES-CHIP 100	5% 1/10W
IC103	8-729-903-10	TRANSISTOR FMW1-T-148		R125	1-216-025-11	RES-CHIP 100	5% 1/10W
IC121	8-752-389-44	IC CXD2654R		R127	1-216-025-11	RES-CHIP 100	5% 1/10W
IC123	8-759-096-87	IC TC7WU04FU(TE12R)		R129	1-216-295-00	SHORT 0	
IC124	8-759-334-38	IC MN41V4400TT-08		R130	1-216-295-00	SHORT 0	
IC152	8-759-430-25	IC BH6511FS-E2		R131	1-216-073-00	METAL CHIP 10K	5% 1/10W
IC171	8-759-487-04	IC BR24C02F-E2		R132	1-216-097-11	RES-CHIP 100K	5% 1/10W
IC181	8-759-481-17	IC MC74ACT08DTR2		R133	1-216-117-00	METAL CHIP 680K	5% 1/10W
IC192	8-759-460-72	IC BA033FP-E2		R134	1-216-049-11	RES-CHIP 1K	5% 1/10W
		< COIL >		R135	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
L101	1-414-813-11	FERRITE BEAD INDUCTOR		R136	1-216-049-11	RES-CHIP 1K	5% 1/10W
L102	1-414-813-11	FERRITE BEAD INDUCTOR		R137	1-216-295-00	SHORT 0	
L103	1-414-813-11	FERRITE BEAD INDUCTOR		R140	1-216-029-00	METAL CHIP 150	5% 1/10W
L105	1-414-813-11	FERRITE BEAD INDUCTOR		R142	1-216-073-00	METAL CHIP 10K	5% 1/10W
L106	1-414-813-11	FERRITE BEAD INDUCTOR		R143	1-216-073-00	METAL CHIP 10K	5% 1/10W
L121	1-414-813-11	FERRITE BEAD INDUCTOR		R144	1-216-025-11	RES-CHIP 100	5% 1/10W
L122	1-414-813-11	FERRITE BEAD INDUCTOR		R145	1-216-073-00	METAL CHIP 10K	5% 1/10W
L151	1-412-029-11	INDUCTOR CHIP 10uH		R146	1-216-037-00	METAL CHIP 330	5% 1/10W
L152	1-412-029-11	INDUCTOR CHIP 10uH		R147	1-216-025-11	RES-CHIP 100	5% 1/10W
L153	1-412-032-11	INDUCTOR CHIP 100uH		R148	1-216-045-00	METAL CHIP 680	5% 1/10W
L154	1-412-032-11	INDUCTOR CHIP 100uH		R149	1-216-073-00	METAL CHIP 10K	5% 1/10W
L161	1-414-813-11	FERRITE BEAD INDUCTOR		R150	1-216-295-00	SHORT 0	
L162	1-414-813-11	FERRITE BEAD INDUCTOR		R151	1-216-073-00	METAL CHIP 10K	5% 1/10W
L181	1-216-295-00	SHORT 0		R152	1-216-073-00	METAL CHIP 10K	5% 1/10W
		< TRANSISTOR >		R158	1-216-097-11	RES-CHIP 100K	5% 1/10W
Q101	8-729-403-35	TRANSISTOR UN5113-TX		R159	1-216-097-11	RES-CHIP 100K	5% 1/10W
Q102	8-729-026-53	TRANSISTOR 2SA1576A-T106-QR		R160	1-216-295-00	SHORT 0	
Q103	8-729-402-93	TRANSISTOR UN5214-TX		R161	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
Q104	8-729-402-93	TRANSISTOR UN5214-TX		R162	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
Q162	8-729-101-07	TRANSISTOR 2SB798-T1DK		R163	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
Q163	8-729-403-35	TRANSISTOR UN5113-TX		R164	1-216-045-00	METAL CHIP 680	5% 1/10W
Q181	8-729-018-75	TRANSISTOR 2SJ278MYTR		R165	1-216-097-11	RES-CHIP 100K	5% 1/10W
Q182	8-729-017-65	TRANSISTOR 2SK1764KYTR		R166	1-216-298-00	METAL CHIP 2.2	5% 1/10W
		< RESISTOR >		R167	1-216-065-11	RES-CHIP 4.7K	5% 1/10W
R103	1-216-049-11	RES-CHIP 1K	5% 1/10W	R169	1-219-724-11	METAL CHIP 1	1% 1/4W
R104	1-216-073-00	METAL CHIP 10K	5% 1/10W	R170	1-216-073-00	METAL CHIP 10K	5% 1/10W
R105	1-216-065-11	RES-CHIP 4.7K	5% 1/10W	R171	1-216-073-00	METAL CHIP 10K	5% 1/10W
R106	1-216-133-00	METAL CHIP 3.3M	5% 1/10W	R173	1-216-121-11	RES-CHIP 1M	5% 1/10W
R107	1-216-113-00	METAL CHIP 470K	5% 1/10W	R175	1-216-065-11	RES-CHIP 4.7K	5% 1/10W
R109	1-216-295-00	SHORT 0		R177	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
R110	1-216-073-00	METAL CHIP 10K	5% 1/10W	R179	1-216-085-00	METAL CHIP 33K	5% 1/10W
R111	1-216-295-00	SHORT 0		R180	1-216-073-00	METAL CHIP 10K	5% 1/10W
R112	1-216-089-11	RES-CHIP 47K	5% 1/10W	R182	1-216-089-11	RES-CHIP 47K	5% 1/10W
R113	1-216-049-11	RES-CHIP 1K	5% 1/10W	R183	1-216-089-11	RES-CHIP 47K	5% 1/10W
R115	1-216-049-11	RES-CHIP 1K	5% 1/10W	R184	1-216-073-00	METAL CHIP 10K	5% 1/10W
R117	1-216-113-00	METAL CHIP 470K	5% 1/10W	R185	1-216-081-00	METAL CHIP 22K	5% 1/10W
				R186	1-216-089-11	RES-CHIP 47K	5% 1/10W
				R188	1-216-073-00	METAL CHIP 10K	5% 1/10W
				R189	1-216-073-00	METAL CHIP 10K	5% 1/10W
				R190	1-216-073-00	METAL CHIP 10K	5% 1/10W

BD**CD**

Ref. No.	Part No.	Description	Remark
R195	1-216-073-00	METAL CHIP 10K 5%	1/10W
R196	1-216-295-00	SHORT 0	
R197	1-216-295-00	SHORT 0	
R198	1-216-296-00	SHORT 0	
< SWITCH >			
S101	1-762-596-21	SWITCH, PUSH (1 KEY) (LIMIT IN)	
S102	1-762-148-21	SWITCH, PUSH (2 KEY) (REFLECT RATE DETECT, PROTECT DETECT)	

*	A-3322-529-A	CD BOARD, COMPLETE *****	
< CAPACITOR >			
C701	1-104-665-11	ELECT 100uF 20%	10V
C702	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C703	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
C704	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
C705	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
C706	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C707	1-126-925-11	ELECT 470uF 20%	10V
C708	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C709	1-163-019-00	CERAMIC CHIP 0.0068uF 10%	50V
C710	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C711	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C712	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V
C713	1-104-664-11	ELECT 47uF 20%	10V
C714	1-164-161-11	CERAMIC CHIP 0.0022uF 10%	100V
C715	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C716	1-126-964-11	ELECT 10uF 20%	50V
C717	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C718	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C719	1-163-227-11	CERAMIC CHIP 10PF 0.50PF	50V
C720	1-115-566-11	CERAMIC CHIP 4.7uF 10%	10V
C721	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C722	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
C723	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
C724	1-163-091-00	CERAMIC CHIP 8PF	50V
C725	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C726	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C727	1-107-725-11	CERAMIC CHIP 0.1uF 10%	16V
C728	1-163-227-11	CERAMIC CHIP 10PF 0.50PF	50V
C729	1-163-059-11	CERAMIC CHIP 0.01uF 10%	50V
C730	1-125-838-11	CERAMIC CHIP 2.2uF 10%	6.3V
C731	1-164-344-11	CERAMIC CHIP 0.068uF 10%	25V
C732	1-163-989-11	CERAMIC CHIP 0.033uF 10%	25V
C733	1-163-243-11	CERAMIC CHIP 47PF 5%	50V
C734	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
C735	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C736	1-104-665-11	ELECT 100uF 20%	10V
C737	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C738	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C739	1-163-251-11	CERAMIC CHIP 100PF 5%	50V

Ref. No.	Part No.	Description	Remark
C740	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C743	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C744	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C745	1-163-011-11	CERAMIC CHIP 0.0015uF 10%	50V
C746	1-163-001-11	CERAMIC CHIP 220PF 10%	50V
C747	1-164-489-11	CERAMIC CHIP 0.22uF 10%	16V
C748	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
C749	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C750	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C752	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C753	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C754	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C755	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C756	1-163-263-11	CERAMIC CHIP 330PF 5%	50V
C757	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C758	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C759	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
C760	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
C762	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C763	1-163-259-11	CERAMIC CHIP 220PF 5%	50V
C764	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C765	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C766	1-104-665-11	ELECT 100uF 20%	10V
C767	1-163-229-11	CERAMIC CHIP 12PF 5%	50V
C768	1-163-229-11	CERAMIC CHIP 12PF 5%	50V
C769	1-104-665-11	ELECT 100uF 20%	10V
C770	1-104-665-11	ELECT 100uF 20%	10V
C773	1-126-964-11	ELECT 10uF 20%	50V
C774	1-126-964-11	ELECT 10uF 20%	50V
C775	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C776	1-115-566-11	CERAMIC CHIP 4.7uF 10%	10V
C777	1-104-665-11	ELECT 100uF 20%	10V
C778	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C780	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C781	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C782	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C783	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
C790	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
< CONNECTOR >			
CN701	1-770-646-11	CONNECTOR, FFC/FPC 16P	
* CN702	1-691-077-21	HOUSING, CONNECTOR 18P	
CN704	1-569-614-11	PLUG, CONNECTOR 2P	
* CN705	1-785-654-11	PIN, CONNECTOR (PC BOARD) 2P	
* CN707	1-573-455-11	PLUG, CONNECTOR 4P	
< FERRITE BEAD >			
FB701	1-216-295-00	SHORT 0	
FB702	1-216-295-00	SHORT 0	
FB703	1-469-180-22	FERRITE BEAD INDUCTOR	
FB704	1-469-180-22	FERRITE BEAD INDUCTOR	
FB713	1-216-295-00	SHORT 0	
FB714	1-216-295-00	SHORT 0	

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark				
< IC >						R721	1-216-097-11	RES-CHIP	100K	5%	1/10W			
IC701	8-752-083-24	IC CXA2542AQ				R722	1-216-097-11	RES-CHIP	100K	5%	1/10W			
IC702	8-752-387-78	IC CXD3009Q				R723	1-216-097-11	RES-CHIP	100K	5%	1/10W			
IC703	8-759-591-62	IC BA6998FP-E2				R724	1-216-097-11	RES-CHIP	100K	5%	1/10W			
IC704	8-759-652-44	IC BA033ST-V5				R725	1-216-097-11	RES-CHIP	100K	5%	1/10W			
< JUMPER RESISTOR >						R726	1-216-097-11	RES-CHIP	100K	5%	1/10W			
JC702	1-216-295-00	SHORT	0			R731	1-216-081-00	METAL CHIP	22K	5%	1/10W			
JC704	1-216-295-00	SHORT	0			R732	1-216-081-00	METAL CHIP	22K	5%	1/10W			
JC705	1-216-295-00	SHORT	0			R733	1-216-097-11	RES-CHIP	100K	5%	1/10W			
JC706	1-216-296-00	SHORT	0			R734	1-216-001-00	METAL CHIP	10	5%	1/10W			
JC707	1-216-049-11	RES-CHIP	1K	5%	1/10W	R735	1-216-065-11	RES-CHIP	4.7K	5%	1/10W			
JC708	1-216-295-00	SHORT	0			R737	1-216-089-11	RES-CHIP	47K	5%	1/10W			
JC709	1-216-295-00	SHORT	0			R738	1-216-069-00	METAL CHIP	6.8K	5%	1/10W			
JC711	1-216-296-00	SHORT	0			R741	1-216-105-11	RES-CHIP	220K	5%	1/10W			
JC713	1-216-295-00	SHORT	0			R742	1-216-101-00	METAL CHIP	150K	5%	1/10W			
JC715	1-216-295-00	SHORT	0			R743	1-216-101-00	METAL CHIP	150K	5%	1/10W			
JC720	1-216-295-00	SHORT	0			R745	1-216-109-00	METAL CHIP	330K	5%	1/10W			
JC721	1-216-295-00	SHORT	0			R750	1-216-076-00	METAL CHIP	13K	5%	1/10W			
JC723	1-216-049-11	RES-CHIP	1K	5%	1/10W	R751	1-216-077-11	RES-CHIP	15K	5%	1/10W			
JC725	1-216-295-00	SHORT	0			R752	1-216-085-00	METAL CHIP	33K	5%	1/10W			
JC730	1-216-295-00	SHORT	0			R758	1-216-218-00	RES-CHIP	6.8K	5%	1/8W			
JC734	1-216-295-00	SHORT	0			R760	1-216-097-11	RES-CHIP	100K	5%	1/10W			
JC739	1-216-295-00	SHORT	0			R762	1-216-113-00	METAL CHIP	470K	5%	1/10W			
< COIL >						R763	1-216-061-00	METAL CHIP	3.3K	5%	1/10W			
L701	1-216-025-11	RES-CHIP	100	5%	1/10W	R764	1-216-061-00	METAL CHIP	3.3K	5%	1/10W			
L702	1-410-997-22	INDUCTOR CHIP	2.2uH			R765	1-216-073-00	METAL CHIP	10K	5%	1/10W			
< TRANSISTOR >						R766	1-216-121-11	RES-CHIP	1M	5%	1/10W			
Q701	8-729-101-07	TRANSISTOR	2SB798-T1-DLDK			R767	1-216-073-00	METAL CHIP	10K	5%	1/10W			
Q705	8-729-931-02	TRANSISTOR	2SC2413KT146-PQ			R768	1-216-105-11	RES-CHIP	220K	5%	1/10W			
< RESISTOR >						R770	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R700	1-216-077-11	RES-CHIP	15K	5%	1/10W	R771	1-216-025-11	RES-CHIP	100	5%	1/10W			
R701	1-216-089-11	RES-CHIP	47K	5%	1/10W	R776	1-216-073-00	METAL CHIP	10K	5%	1/10W			
R702	1-216-295-00	SHORT	0			R777	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R703	1-216-117-00	METAL CHIP	680K	5%	1/10W	R778	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R704	1-216-075-00	METAL CHIP	12K	5%	1/10W	R780	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R705	1-216-214-00	RES-CHIP	4.7K	5%	1/8W	R781	1-216-073-00	METAL CHIP	10K	5%	1/10W			
R706	1-216-101-00	METAL CHIP	150K	5%	1/10W	R787	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R707	1-216-033-00	METAL CHIP	220	5%	1/10W	R788	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R710	1-216-114-00	RES-CHIP	510K	5%	1/10W	R789	1-216-033-00	METAL CHIP	220	5%	1/10W			
R711	1-216-101-00	METAL CHIP	150K	5%	1/10W	R790	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R712	1-216-095-00	METAL CHIP	82K	5%	1/10W	R791	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R713	1-216-089-11	RES-CHIP	47K	5%	1/10W	R795	1-216-041-00	METAL CHIP	470	5%	1/10W			
R714	1-216-089-11	RES-CHIP	47K	5%	1/10W	R796	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R715	1-216-101-00	METAL CHIP	150K	5%	1/10W	R797	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R716	1-216-097-11	RES-CHIP	100K	5%	1/10W	R798	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R718	1-216-041-00	METAL CHIP	470	5%	1/10W	R799	1-216-049-11	RES-CHIP	1K	5%	1/10W			
R719	1-216-041-00	METAL CHIP	470	5%	1/10W	< VIBRATOR >								
R720	1-216-041-00	METAL CHIP	470	5%	1/10W	X701	1-781-462-41	VIBRATOR, CRYSTAL (16.9344MHz)						

CD MOTOR

DG

Ref. No.	Part No.	Description	Remark		
*	A-3322-538-A	CD MOTOR BOARD, COMPLETE *****			
		< CAPACITOR >			
C801	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C802	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C803	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C804	1-126-934-11	ELECT	220uF	20%	16V
		< CONNECTOR >			
* CN801	1-785-677-11	PIN, CONNECTOR (PC BOARD) 11P			
		< IC >			
IC801	8-759-344-00	IC NJM2100E(TE2)			
IC802	8-759-591-65	IC BA6892FP-E2			
		< JUMPER RESISTOR >			
JC801	1-216-295-00	SHORT	0		
		< TRANSISTOR >			
Q801	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q802	8-729-027-60	TRANSISTOR	DTC144TKA-T146		
Q803	8-729-027-60	TRANSISTOR	DTC144TKA-T146		
Q804	8-729-027-56	TRANSISTOR	DTC143TKA-T146		
Q805	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q806	8-729-903-46	TRANSISTOR	2SB1132-T100-QR		
Q807	8-729-027-46	TRANSISTOR	DTC114YKA-T146		
		< RESISTOR >			
R801	1-216-081-00	METAL CHIP	22K	5%	1/10W
R802	1-216-099-00	METAL CHIP	120K	5%	1/10W
R803	1-216-089-11	RES-CHIP	47K	5%	1/10W
R804	1-216-081-00	METAL CHIP	22K	5%	1/10W
R805	1-216-085-00	METAL CHIP	33K	5%	1/10W
R806	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R807	1-216-073-00	METAL CHIP	10K	5%	1/10W
R808	1-216-097-11	RES-CHIP	100K	5%	1/10W
R809	1-216-073-00	METAL CHIP	10K	5%	1/10W
R810	1-216-089-11	RES-CHIP	47K	5%	1/10W
R811	1-216-198-11	RES-CHIP	1K	5%	1/8W
		< SWITCH >			
S801	1-762-812-11	SWITCH, LEAF (LIMIT)			

*	A-3322-531-A	DG BOARD, COMPLETE *****			
		< CAPACITOR >			
C601	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C602	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C604	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description	Remark		
C605	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C606	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C607	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C608	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C609	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C610	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C611	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C612	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C613	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C614	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C615	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C616	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C617	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C619	1-126-207-11	ELECT CHIP	33uF	20%	4V
C620	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C621	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C622	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C626	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C627	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C628	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C629	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C632	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C633	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C634	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C635	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C637	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C639	1-124-779-00	ELECT CHIP	10uF	20%	16V
C640	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C641	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C642	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C644	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C645	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C646	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C650	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C651	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C655	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C657	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C659	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C660	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C662	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C663	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C664	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C665	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C668	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C669	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C670	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C672	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C673	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C675	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C676	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C680	1-163-224-11	CERAMIC CHIP	7PF	0.25PF	50V
C681	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C682	1-163-038-00	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C683	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB626	1-500-445-21	FERRITE, EMI (SMD)	
C684	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB627	1-216-295-00	SHORT 0	
C685	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	FB628	1-500-445-21	FERRITE, EMI (SMD)	
C686	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	FB629	1-500-445-21	FERRITE, EMI (SMD)	
C687	1-163-038-00	CERAMIC CHIP 0.1uF	25V	FB630	1-469-125-21	FERRITE, EMI (SMD)	
C689	1-164-156-11	CERAMIC CHIP 0.1uF	25V	FB631	1-500-445-21	FERRITE, EMI (SMD)	
C690	1-163-259-11	CERAMIC CHIP 220PF 5%	50V	FB632	1-500-445-21	FERRITE, EMI (SMD)	
C691	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB633	1-469-185-11	FERRITE BEAD INDUCTOR	
C692	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB634	1-469-185-11	FERRITE BEAD INDUCTOR	
C693	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB636	1-500-445-21	FERRITE, EMI (SMD)	
C694	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB637	1-500-445-21	FERRITE, EMI (SMD)	
C695	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V	FB638	1-500-445-21	FERRITE, EMI (SMD)	
C696	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	FB639	1-500-445-21	FERRITE, EMI (SMD)	
C697	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	FB640	1-500-445-21	FERRITE, EMI (SMD)	
C699	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	FB641	1-500-445-21	FERRITE, EMI (SMD)	
< CONNECTOR >				FB642	1-500-445-21	FERRITE, EMI (SMD)	
* CN601	1-793-115-21	CONNECTOR, FFC/FPC 21P		FB643	1-500-445-21	FERRITE, EMI (SMD)	
* CN602	1-793-116-21	CONNECTOR, FFC/FPC 23P		FB644	1-500-445-21	FERRITE, EMI (SMD)	
* CN603	1-580-055-21	PIN, CONNECTOR (SMD) 2P		FB645	1-500-445-21	FERRITE, EMI (SMD)	
* CN604	1-785-370-21	CONNECTOR, FFC/FPC 26P		FB646	1-500-445-21	FERRITE, EMI (SMD)	
CN605	1-784-687-41	PIN, CONNECTOR (PC BOARD) 7P		FB647	1-500-445-21	FERRITE, EMI (SMD)	
< DIODE >				FB648	1-216-295-00	SHORT 0	
D602	8-719-988-61	DIODE 1SS355TE-17		FB649	1-500-445-21	FERRITE, EMI (SMD)	
D603	8-719-988-61	DIODE 1SS355TE-17		FB650	1-216-821-11	METAL CHIP 1K	5% 1/16W
< FERRITE BEAD >				FB651	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
FB601	1-500-445-21	FERRITE, EMI (SMD)		FB652	1-216-295-00	SHORT 0	
FB602	1-216-821-11	METAL CHIP 1K	5% 1/16W	FB653	1-216-295-00	SHORT 0	
FB603	1-216-821-11	METAL CHIP 1K	5% 1/16W	FB654	1-500-445-21	FERRITE, EMI (SMD)	
FB604	1-216-295-00	SHORT 0		FB655	1-469-185-11	FERRITE BEAD INDUCTOR	
FB605	1-216-821-11	METAL CHIP 1K	5% 1/16W	FB656	1-469-185-11	FERRITE BEAD INDUCTOR	
FB606	1-216-295-00	SHORT 0		FB657	1-469-185-11	FERRITE BEAD INDUCTOR	
FB607	1-500-445-21	FERRITE, EMI (SMD)		FB660	1-500-445-21	FERRITE, EMI (SMD)	
FB608	1-216-821-11	METAL CHIP 1K	5% 1/16W	FB661	1-500-445-21	FERRITE, EMI (SMD)	
FB609	1-216-821-11	METAL CHIP 1K	5% 1/16W	FB662	1-500-445-21	FERRITE, EMI (SMD)	
FB610	1-412-985-11	INDUCTOR 3.3uH		FB663	1-500-445-21	FERRITE, EMI (SMD)	
FB611	1-500-445-21	FERRITE, EMI (SMD)		FB664	1-500-445-21	FERRITE, EMI (SMD)	
FB612	1-469-185-11	FERRITE BEAD INDUCTOR		FB665	1-500-445-21	FERRITE, EMI (SMD)	
FB613	1-500-445-21	FERRITE, EMI (SMD)		FB666	1-216-815-11	METAL CHIP 330	5% 1/16W
FB614	1-500-445-21	FERRITE, EMI (SMD)		FB671	1-500-445-21	FERRITE, EMI (SMD)	
FB615	1-500-445-21	FERRITE, EMI (SMD)		FB672	1-500-445-21	FERRITE, EMI (SMD)	
FB616	1-500-445-21	FERRITE, EMI (SMD)		FB673	1-500-445-21	FERRITE, EMI (SMD)	
FB617	1-500-445-21	FERRITE, EMI (SMD)		< FILTER >			
FB618	1-500-445-21	FERRITE, EMI (SMD)		FL601	1-239-901-21	FILTER, CHIP EMI	
FB619	1-500-445-21	FERRITE, EMI (SMD)		FL602	1-239-901-21	FILTER, CHIP EMI	
FB620	1-500-445-21	FERRITE, EMI (SMD)		FL603	1-239-899-21	FILTER, CHIP EMI	
FB621	1-500-445-21	FERRITE, EMI (SMD)		FL604	1-239-899-21	FILTER, CHIP EMI	
FB622	1-500-445-21	FERRITE, EMI (SMD)		FL605	1-239-899-21	FILTER, CHIP EMI	
FB623	1-500-445-21	FERRITE, EMI (SMD)		FL606	1-239-899-21	FILTER, CHIP EMI	
FB624	1-500-445-21	FERRITE, EMI (SMD)		* FL607	1-125-971-21	FILTER, 3 TERMINAL NOISE	
FB625	1-500-445-21	FERRITE, EMI (SMD)		* FL608	1-125-971-21	FILTER, 3 TERMINAL NOISE	
				* FL611	1-125-971-21	FILTER, 3 TERMINAL NOISE	
				* FL612	1-125-971-21	FILTER, 3 TERMINAL NOISE	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* FL619	1-125-971-21	FILTER, 3 TERMINAL NOISE		L607	1-414-398-11	INDUCTOR 10uH	
* FL620	1-125-971-21	FILTER, 3 TERMINAL NOISE		L608	1-414-398-11	INDUCTOR 10uH	
		< IC >		L609	1-414-398-11	INDUCTOR 10uH	
IC601	8-759-670-32	IC RU8X13MF-0102		L610	1-414-398-11	INDUCTOR 10uH	
IC602	8-759-040-83	IC BA6287F-T1		L611	1-416-107-21	COIL, COMMON MODE CHOKE	
IC603	8-759-561-36	IC PCM3003E/T2		L612	1-414-521-21	INDUCTOR CHIP 10uH	
IC604	8-759-243-19	IC TC7SU04F-TE85L		L613	1-414-398-11	INDUCTOR 10uH	
IC605	8-759-591-61	IC TC7WHU04FU(TE12R)		L614	1-414-398-11	INDUCTOR 10uH	
IC606	8-759-447-77	IC TC7WH74FU(TE12R)		L615	1-500-445-21	FERRITE, EMI (SMD)	
		< JUMPER RESISTOR >		L616	1-500-445-21	FERRITE, EMI (SMD)	
JC601	1-216-049-11	RES-CHIP 1K	5% 1/10W	L617	1-414-766-22	FERRITE BEAD INDUCTOR	
JC602	1-216-295-00	SHORT 0		L618	1-500-445-21	FERRITE, EMI (SMD)	
JC603	1-216-049-11	RES-CHIP 1K	5% 1/10W	L619	1-414-398-11	INDUCTOR 10uH	
JC605	1-216-295-00	SHORT 0		L620	1-414-398-11	INDUCTOR 10uH	
JC606	1-216-296-00	SHORT 0		L621	1-414-521-21	INDUCTOR CHIP 10uH	
JC607	1-216-295-00	SHORT 0		L622	1-414-521-21	INDUCTOR CHIP 10uH	
JC608	1-216-295-00	SHORT 0				< TRANSISTOR >	
JC609	1-216-821-11	METAL CHIP 1K	5% 1/16W	Q603	8-729-402-84	TRANSISTOR XN4601-TX	
JC610	1-216-821-11	METAL CHIP 1K	5% 1/16W	Q604	8-729-402-84	TRANSISTOR XN4601-TX	
JC611	1-216-821-11	METAL CHIP 1K	5% 1/16W	Q610	8-729-027-46	TRANSISTOR DTC114YKA-T146	
JC612	1-216-821-11	METAL CHIP 1K	5% 1/16W	Q611	8-729-031-43	TRANSISTOR IMD9A-T108	
JC613	1-216-295-00	SHORT 0		Q612	8-729-101-07	TRANSISTOR 2SB798-T1-DLDK	
JC614	1-216-049-11	RES-CHIP 1K	5% 1/10W	Q616	8-729-027-46	TRANSISTOR DTC114YKA-T146	
JC615	1-216-295-00	SHORT 0		Q617	8-729-019-72	TRANSISTOR 2SB1260T100	
JC616	1-216-295-00	SHORT 0		Q620	8-729-046-16	TRANSISTOR UMG5NTR	
JC617	1-216-295-00	SHORT 0				< RESISTOR >	
JC618	1-216-295-00	SHORT 0		R601	1-216-821-11	METAL CHIP 1K 5% 1/16W	
JC619	1-500-445-21	FERRITE, EMI (SMD)		R602	1-216-049-11	RES-CHIP 1K 5% 1/10W	
JC620	1-216-295-00	SHORT 0		R603	1-216-821-11	METAL CHIP 1K 5% 1/16W	
JC621	1-216-864-11	METAL CHIP 0	5% 1/16W	R604	1-500-329-11	FERRITE BEAD INDUCTOR	
JC622	1-216-296-00	SHORT 0		R605	1-216-073-00	METAL CHIP 10K 5% 1/10W	
JC623	1-216-295-00	SHORT 0		R606	1-216-073-00	METAL CHIP 10K 5% 1/10W	
JC626	1-216-295-00	SHORT 0		R607	1-216-073-00	METAL CHIP 10K 5% 1/10W	
JC627	1-216-295-00	SHORT 0		R608	1-216-833-11	RES-CHIP 10K 5% 1/16W	
JC631	1-216-864-11	METAL CHIP 0	5% 1/16W	R609	1-216-097-11	RES-CHIP 100K 5% 1/10W	
JC632	1-216-295-00	SHORT 0		R610	1-216-097-11	RES-CHIP 100K 5% 1/10W	
JC633	1-216-295-00	SHORT 0		R611	1-216-845-11	METAL CHIP 100K 5% 1/16W	
JC634	1-216-295-00	SHORT 0		R612	1-216-097-11	RES-CHIP 100K 5% 1/10W	
JC635	1-216-295-00	SHORT 0		R613	1-216-833-11	RES-CHIP 10K 5% 1/16W	
JC639	1-500-445-21	FERRITE, EMI (SMD)		R614	1-216-857-11	METAL CHIP 1M 5% 1/16W	
JC641	1-216-295-00	SHORT 0		R615	1-216-833-11	RES-CHIP 10K 5% 1/16W	
JC651	1-216-295-00	SHORT 0		R616	1-216-845-11	METAL CHIP 100K 5% 1/16W	
JC652	1-412-989-11	INDUCTOR 6.8uH		R617	1-216-809-11	METAL CHIP 100 5% 1/16W	
		< COIL >		R618	1-216-809-11	METAL CHIP 100 5% 1/16W	
L601	1-414-521-21	INDUCTOR CHIP 10uH		R619	1-216-845-11	METAL CHIP 100K 5% 1/16W	
L602	1-414-398-11	INDUCTOR 10uH		R620	1-216-851-11	METAL CHIP 330K 5% 1/16W	
L603	1-414-398-11	INDUCTOR 10uH		R621	1-216-073-00	METAL CHIP 10K 5% 1/10W	
L604	1-414-398-11	INDUCTOR 10uH		R622	1-216-833-11	RES-CHIP 10K 5% 1/16W	
L605	1-414-398-11	INDUCTOR 10uH		R623	1-216-833-11	RES-CHIP 10K 5% 1/16W	
L606	1-414-398-11	INDUCTOR 10uH		R624	1-216-833-11	RES-CHIP 10K 5% 1/16W	
				R625	1-216-833-11	RES-CHIP 10K 5% 1/16W	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R626	1-216-073-00	METAL CHIP	10K 5%	1/10W	X602	1-781-183-11	VIBRATOR, CRYSTAL (32.768kHz)
R627	1-216-089-11	RES-CHIP	47K 5%	1/10W	X603	1-760-173-11	VIBRATOR, CRYSTAL (22.5792MHz)
R628	1-216-841-11	METAL CHIP	47K 5%	1/16W	*****		
R629	1-216-833-11	RES-CHIP	10K 5%	1/16W	*	A-3322-528-A	FL BOARD, COMPLETE
R630	1-216-833-11	RES-CHIP	10K 5%	1/16W	*****		
R631	1-216-821-11	METAL CHIP	1K 5%	1/16W			
R632	1-216-821-11	METAL CHIP	1K 5%	1/16W		3-039-978-01	HOLDER (FL)
R633	1-216-833-11	RES-CHIP	10K 5%	1/16W		3-042-764-01	SHEET (FL), ADHESIVE
R634	1-216-833-11	RES-CHIP	10K 5%	1/16W		3-846-312-01	SPACER
R636	1-216-851-11	METAL CHIP	330K 5%	1/16W			< CAPACITOR >
R637	1-216-109-00	METAL CHIP	330K 5%	1/10W	C601	1-126-964-11	ELECT 10uF 20% 50V
R638	1-216-841-11	METAL CHIP	47K 5%	1/16W	C602	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V
R639	1-216-847-11	METAL CHIP	150K 5%	1/16W	C603	1-163-133-00	CERAMIC CHIP 470PF 5% 50V
R640	1-216-821-11	METAL CHIP	1K 5%	1/16W	C604	1-104-664-11	ELECT 47uF 20% 10V
R641	1-216-843-11	METAL CHIP	68K 5%	1/16W	C605	1-107-682-11	CERAMIC CHIP 1uF 10% 16V
R643	1-216-809-11	METAL CHIP	100 5%	1/16W	C606	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V
R644	1-216-833-11	RES-CHIP	10K 5%	1/16W	C607	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V
R646	1-216-041-00	METAL CHIP	470 5%	1/10W	C608	1-163-243-11	CERAMIC CHIP 47PF 5% 50V
R647	1-216-089-11	RES-CHIP	47K 5%	1/10W	C609	1-163-251-11	CERAMIC CHIP 100PF 5% 50V
R648	1-216-833-11	RES-CHIP	10K 5%	1/16W	C614	1-163-259-11	CERAMIC CHIP 220PF 5% 50V
R649	1-216-835-11	METAL CHIP	15K 5%	1/16W	C621	1-163-259-11	CERAMIC CHIP 220PF 5% 50V
R650	1-216-833-11	RES-CHIP	10K 5%	1/16W	C622	1-164-005-11	CERAMIC CHIP 0.47uF 25V
R651	1-216-835-11	METAL CHIP	15K 5%	1/16W	C623	1-164-005-11	CERAMIC CHIP 0.47uF 25V
R652	1-500-329-11	FERRITE BEAD INDUCTOR			C624	1-164-005-11	CERAMIC CHIP 0.47uF 25V
R653	1-216-073-00	METAL CHIP	10K 5%	1/10W	C625	1-164-005-11	CERAMIC CHIP 0.47uF 25V
R654	1-216-833-11	RES-CHIP	10K 5%	1/16W			< CONNECTOR >
R655	1-216-073-00	METAL CHIP	10K 5%	1/10W	CN601	1-695-371-31	CONNECTOR, FFC/FPC 10P
R656	1-216-833-11	RES-CHIP	10K 5%	1/16W			< FILTER >
R657	1-216-238-11	RES-CHIP	47K 5%	1/8W			
R658	1-216-853-11	METAL CHIP	470K 5%	1/16W	FL401	1-517-916-11	INDICATOR TUBE, FLUORESCENT
R659	1-216-817-11	METAL CHIP	470 5%	1/16W			< IC >
R660	1-216-841-11	METAL CHIP	47K 5%	1/16W	IC601	8-759-648-76	IC MSM9202-09GS-KDR1
R661	1-216-857-11	METAL CHIP	1M 5%	1/16W			< TRANSISTOR >
R662	1-216-037-00	METAL CHIP	330 5%	1/10W	Q612	8-729-027-44	TRANSISTOR DTC114TKA-T146
R663	1-216-821-11	METAL CHIP	1K 5%	1/16W	Q613	8-729-027-44	TRANSISTOR DTC114TKA-T146
R664	1-216-821-11	METAL CHIP	1K 5%	1/16W			< RESISTOR >
R665	1-216-073-00	METAL CHIP	10K 5%	1/10W	R601	1-216-073-00	METAL CHIP 10K 5% 1/10W
R666	1-500-329-11	FERRITE BEAD INDUCTOR			R602	1-216-017-11	RES-CHIP 47 5% 1/10W
R667	1-500-329-11	FERRITE BEAD INDUCTOR			R605	1-216-073-00	METAL CHIP 10K 5% 1/10W
R668	1-216-815-11	METAL CHIP	330 5%	1/16W	R606	1-216-017-11	RES-CHIP 47 5% 1/10W
R669	1-216-857-11	METAL CHIP	1M 5%	1/16W	R609	1-216-041-00	METAL CHIP 470 5% 1/10W
R670	1-216-841-11	METAL CHIP	47K 5%	1/16W			
R671	1-216-821-11	METAL CHIP	1K 5%	1/16W	R610	1-216-049-11	RES-CHIP 1K 5% 1/10W
R672	1-216-821-11	METAL CHIP	1K 5%	1/16W	R611	1-216-049-11	RES-CHIP 1K 5% 1/10W
R674	1-216-857-11	METAL CHIP	1M 5%	1/16W	R612	1-216-041-00	METAL CHIP 470 5% 1/10W
R691	1-216-821-11	METAL CHIP	1K 5%	1/16W	R613	1-216-049-11	RES-CHIP 1K 5% 1/10W
R692	1-216-025-11	RES-CHIP	100 5%	1/10W	*****		
R693	1-216-025-11	RES-CHIP	100 5%	1/10W			< VIBRATOR >
R694	1-216-821-11	METAL CHIP	1K 5%	1/16W	X601	1-767-179-21	VIBRATOR, CERAMIC (12MHz)
R695	1-216-821-11	METAL CHIP	1K 5%	1/16W			

JACK **KEY** **LED**

Ref. No.	Part No.	Description	Remark
*	1-675-219-21	JACK BOARD *****	
		< CONNECTOR >	
* CN306	1-573-455-11	PLUG, CONNECTOR 4P	
		< DIODE >	
D301	8-719-988-61	DIODE 1SS355TE-17	
D302	8-719-988-61	DIODE 1SS355TE-17	
D303	8-719-988-61	DIODE 1SS355TE-17	
D304	8-719-988-61	DIODE 1SS355TE-17	
		< FERRITE BEAD >	
FB101	1-216-295-00	SHORT 0	
FB102	1-469-152-11	FERRITE, EMI (SMD)	
FB201	1-216-295-00	SHORT 0	
FB202	1-469-152-11	FERRITE, EMI (SMD)	
FB301	1-216-295-00	SHORT 0	
FB302	1-469-152-11	FERRITE, EMI (SMD)	
		< JACK >	
J301	1-779-050-11	JACK (⊘)	
J302	1-779-050-11	JACK (LINE IN)	
		< RESISTOR >	
R103	1-216-033-00	METAL CHIP 220 5% 1/10W	
R203	1-216-033-00	METAL CHIP 220 5% 1/10W	

*	1-675-223-21	KEY BOARD *****	
		< CONNECTOR >	
* CN603	1-695-333-41	PIN, CONNECTOR (PC BOARD) 10P	

*	A-3322-525-A	LED BOARD, COMPLETE (GREEN)	
*	A-3322-977-A	LED BOARD, COMPLETE (ORANGE) *****	
		< CAPACITOR >	
C611	1-126-794-11	ELECT 4.7uF 20% 25V	
		< CONNECTOR >	
* CN602	1-695-374-31	PIN, CONNECTOR (PC BOARD) 13P	
		< DIODE >	
D601	8-719-077-79	LED SLR-332VRT32 (HIGH SPEED)	
D602	8-719-078-08	LED SLA-362MT-T31XFG (DELETE/CLOCK) (GREEN)	
D602	8-719-078-09	LED SLR-332DC-T32MN (DELETE/CLOCK) (ORANGE)	

Ref. No.	Part No.	Description	Remark
D603	8-719-078-08	LED SLA-362MT-T31XFG (INSERT/TIMER) (GREEN)	
D603	8-719-078-09	LED SLR-332DC-T32MN (INSERT/TIMER) (ORANGE)	
D604	8-719-078-08	LED SLA-362MT-T31XFG (NO/CANCEL) (GREEN)	
D604	8-719-078-09	LED SLR-332DC-T32MN (NO/CANCEL) (ORANGE)	
D605	8-719-078-08	LED SLA-362MT-T31XFG (YES/ENTER) (GREEN)	
D605	8-719-078-09	LED SLR-332DC-T32MN (YES/ENTER) (ORANGE)	
D606	8-719-078-08	LED SLA-362MT-T31XFG (DISPLAY) (GREEN)	
D606	8-719-078-09	LED SLR-332DC-T32MN (DISPLAY) (ORANGE)	
D607	8-719-078-08	LED SLA-362MT-T31XFG (4/GHI) (GREEN)	
D607	8-719-078-09	LED SLR-332DC-T32MN (4/GHI) (ORANGE)	
D608	8-719-077-79	LED SLR-332VRT32 (abc)	
D609	8-719-077-79	LED SLR-332VRT32 (ABC)	
D610	8-719-078-08	LED SLA-362MT-T31XFG (1) (GREEN)	
D610	8-719-078-09	LED SLR-332DC-T32MN (1) (ORANGE)	
D611	8-719-078-08	LED SLA-362MT-T31XFG (1) (GREEN)	
D611	8-719-078-09	LED SLR-332DC-T32MN (1) (ORANGE)	
D612	8-719-078-08	LED SLA-362MT-T31XFG (2/ABC) (GREEN)	
D612	8-719-078-09	LED SLR-332DC-T32MN (2/ABC) (ORANGE)	
D613	8-719-078-08	LED SLA-362MT-T31XFG (3/DEF) (GREEN)	
D613	8-719-078-09	LED SLR-332DC-T32MN (3/DEF) (ORANGE)	
D614	8-719-078-08	LED SLA-362MT-T31XFG (DISPLAY) (GREEN)	
D614	8-719-078-09	LED SLR-332DC-T32MN (DISPLAY) (ORANGE)	
D615	8-719-078-08	LED SLA-362MT-T31XFG (4/GHI) (GREEN)	
D615	8-719-078-09	LED SLR-332DC-T32MN (4/GHI) (ORANGE)	
D616	8-719-078-08	LED SLA-362MT-T31XFG (5/JKL) (GREEN)	
D616	8-719-078-09	LED SLR-332DC-T32MN (5/JKL) (ORANGE)	
D617	8-719-078-08	LED SLA-362MT-T31XFG (6/MNO) (GREEN)	
D617	8-719-078-09	LED SLR-332DC-T32MN (6/MNO) (ORANGE)	
D618	8-719-078-08	LED SLA-362MT-T31XFG (7/PQRS) (GREEN)	
D618	8-719-078-09	LED SLR-332DC-T32MN (7/PQRS) (ORANGE)	
D619	8-719-078-08	LED SLA-362MT-T31XFG (7/PQRS) (GREEN)	
D619	8-719-078-09	LED SLR-332DC-T32MN (7/PQRS) (ORANGE)	
D620	8-719-078-08	LED SLA-362MT-T31XFG (8/TUV) (GREEN)	
D620	8-719-078-09	LED SLR-332DC-T32MN (8/TUV) (ORANGE)	
D621	8-719-078-08	LED SLA-362MT-T31XFG (9/WXYZ) (GREEN)	
D621	8-719-078-09	LED SLR-332DC-T32MN (9/WXYZ) (ORANGE)	
D622	8-719-078-08	LED SLA-362MT-T31XFG (SYMBOL) (GREEN)	
D622	8-719-078-09	LED SLR-332DC-T32MN (SYMBOL) (ORANGE)	
D623	8-719-078-08	LED SLA-362MT-T31XFG (SYMBOL) (GREEN)	
D623	8-719-078-09	LED SLR-332DC-T32MN (SYMBOL) (ORANGE)	
D624	8-719-078-08	LED SLA-362MT-T31XFG (0/10) (GREEN)	
D624	8-719-078-09	LED SLR-332DC-T32MN (0/10) (ORANGE)	
D625	8-719-078-08	LED SLA-362MT-T31XFG (>10) (GREEN)	
D625	8-719-078-09	LED SLR-332DC-T32MN (>10) (ORANGE)	
		< IC >	
IC602	8-749-016-97	IC NJL62H400A	

NOTE: There are two different colors of LEDs on the LED board.
 In service, check the color of the set before replacing parts.
 Color of the set Color of LEDs
 BLACK GREEN
 WHITE GREEN
 BLUE GREEN
 ORANGE ORANGE

LED

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< JUMPER RESISTOR >				R641	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
JC601	1-216-295-11	SHORT 0		R641	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
JC602	1-216-296-91	SHORT 0		R643	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
JC603	1-216-295-11	SHORT 0		R643	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
JC604	1-216-295-11	SHORT 0		R646	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
< TRANSISTOR >				R646	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
Q603	8-729-027-58	TRANSISTOR DTC143ZKA-T146		R648	1-216-045-00	METAL CHIP 680 5%	1/10W
Q604	8-729-901-88	TRANSISTOR 2SC2411K-CR		R649	1-216-048-00	METAL CHIP 910 5%	1/10W
Q606	8-729-027-58	TRANSISTOR DTC143ZKA-T146		R650	1-216-056-00	RES-CHIP 2K 5%	1/10W
Q607	8-729-027-58	TRANSISTOR DTC143ZKA-T146		R651	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
Q608	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R666	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
Q609	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R666	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
Q610	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R667	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
Q611	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R667	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
< RESISTOR >				R668	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R603	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)	R668	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R603	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)	R670	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R614	1-216-085-00	METAL CHIP 33K 5%	1/10W	R670	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R615	1-216-033-00	METAL CHIP 220 5%	1/10W	R671	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R617	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)	R671	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R617	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)	R672	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R620	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)	R672	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R620	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)	R673	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R622	1-216-051-00	METAL CHIP 1.2K 5%	1/10W	R673	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R624	1-216-033-00	METAL CHIP 220 5%	1/10W	R674	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R626	1-216-033-00	METAL CHIP 220 5%	1/10W	R674	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R628	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)	R675	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R628	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)	R675	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R631	1-216-174-00	RES-CHIP 100 5%	1/8W (GREEN)	R676	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)
R631	1-216-182-00	RES-CHIP 220 5%	1/8W (ORANGE)	R676	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)
R633	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)				
R633	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)				
R636	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)				
R636	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)				
R638	1-216-025-11	RES-CHIP 100 5%	1/10W (GREEN)				
R638	1-216-033-00	METAL CHIP 220 5%	1/10W (ORANGE)				

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 BLACK GREEN
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LED **MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R677	1-216-025-11	RES-CHIP	100 5%	C202	1-126-963-11	ELECT	4.7uF 20% 50V
			(GREEN)	C203	1-126-963-11	ELECT	4.7uF 20% 50V
R677	1-216-033-00	METAL CHIP	220 5%	C204	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
			(ORANGE)	C205	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
		< SWITCH >		C206	1-136-165-00	MYLAR	0.1uF 5% 50V
S601	1-692-014-11	SWITCH, KEY BOARD (OPERATE) (GREEN)		C207	1-136-165-00	MYLAR	0.1uF 5% 50V
S601	1-762-798-11	SWITCH, KEY BOARD (OPERATE) (ORANGE)		C208	1-126-960-11	ELECT	1uF 20% 50V
S602	1-692-014-11	SWITCH, KEY BOARD (SLEEP) (GREEN)		C209	1-126-964-11	ELECT	10uF 20% 50V
S602	1-762-798-11	SWITCH, KEY BOARD (SLEEP) (ORANGE)		C210	1-126-961-11	ELECT	2.2uF 20% 50V
S603	1-692-014-11	SWITCH, KEY BOARD (STANDBY) (GREEN)		C211	1-126-961-11	ELECT	2.2uF 20% 50V
S603	1-762-798-11	SWITCH, KEY BOARD (STANDBY) (ORANGE)		C212	1-126-961-11	ELECT	2.2uF 20% 50V
S604	1-692-014-11	SWITCH, KEY BOARD (AUTO PRESET/RDS/SHUF/PGM) (GREEN)		C213	1-126-961-11	ELECT	2.2uF 20% 50V
S604	1-762-798-11	SWITCH, KEY BOARD (AUTO PRESET/RDS/SHUF/PGM) (ORANGE)		C214	1-136-157-00	MYLAR	0.022uF 5% 50V
S605	1-692-014-11	SWITCH, KEY BOARD (MONO/ST/REPEAT) (GREEN)		C215	1-136-173-00	MYLAR	0.47uF 5% 50V
S605	1-762-798-11	SWITCH, KEY BOARD (MONO/ST/REPEAT) (ORANGE)		C216	1-136-153-00	FILM	0.01uF 5% 50V
S606	1-692-014-11	SWITCH, KEY BOARD (EDIT) (GREEN)		C217	1-126-963-11	ELECT	4.7uF 20% 50V
S606	1-762-798-11	SWITCH, KEY BOARD (EDIT) (ORANGE)		C218	1-126-961-11	ELECT	2.2uF 20% 50V
*****				C219	1-126-960-11	ELECT	1uF 20% 50V
*	A-3322-530-A	MAIN BOARD, COMPLETE	*****	C226	1-126-960-11	ELECT	1uF 20% 50V
	3-039-961-01	SPRING (IC)		C227	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
	3-831-441-99	CUSHION (A)		C228	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		C301	1-104-665-11	ELECT	100uF 20% 10V
		< CAPACITOR >		C302	1-126-963-11	ELECT	4.7uF 20% 50V
C101	1-126-767-11	ELECT	1000uF 20% 16V	C303	1-115-877-11	ELECT(BLOCK)	4700uF 20% 25V
C102	1-126-963-11	ELECT	4.7uF 20% 50V	C306	1-126-964-11	ELECT	10uF 20% 50V
C103	1-126-963-11	ELECT	4.7uF 20% 50V	C307	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C104	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C308	1-104-665-11	ELECT	100uF 20% 10V
C105	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V	C309	1-126-934-11	ELECT	220uF 20% 10V
C106	1-136-165-00	MYLAR	0.1uF 5% 50V	C310	1-104-665-11	ELECT	100uF 20% 10V
C107	1-136-165-00	MYLAR	0.1uF 5% 50V	C311	1-104-665-11	ELECT	100uF 20% 10V
C108	1-126-960-11	ELECT	1uF 20% 50V	C312	1-104-665-11	ELECT	100uF 20% 10V
C109	1-126-964-11	ELECT	10uF 20% 50V	C313	1-126-964-11	ELECT	10uF 20% 50V
C110	1-126-961-11	ELECT	2.2uF 20% 50V	C314	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
C111	1-126-961-11	ELECT	2.2uF 20% 50V	C315	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
C112	1-126-961-11	ELECT	2.2uF 20% 50V	C316	1-104-665-11	ELECT	100uF 20% 10V
C113	1-126-961-11	ELECT	2.2uF 20% 50V	C317	1-107-725-11	CERAMIC CHIP	0.1uF 10% 16V
C114	1-136-157-00	MYLAR	0.022uF 5% 50V	C318	1-126-964-11	ELECT	10uF 20% 50V
C115	1-136-173-00	MYLAR	0.47uF 5% 50V	C319	1-126-960-11	ELECT	1uF 20% 50V
C116	1-136-153-00	FILM	0.01uF 5% 50V	C320	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C117	1-126-963-11	ELECT	4.7uF 20% 50V	C321	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C118	1-126-961-11	ELECT	2.2uF 20% 50V	C322	1-126-964-11	ELECT	10uF 20% 50V
C119	1-126-960-11	ELECT	1uF 20% 50V	C323	1-104-665-11	ELECT	100uF 20% 10V
C126	1-126-960-11	ELECT	1uF 20% 50V	C324	1-104-665-11	ELECT	100uF 20% 10V
C127	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V	C326	1-126-964-11	ELECT	10uF 20% 50V
C128	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C401	1-163-237-11	CERAMIC CHIP	27PF 5% 50V
C201	1-126-767-11	ELECT	1000uF 20% 16V	C402	1-163-104-00	CERAMIC CHIP	30PF 5% 50V
				C403	1-164-346-11	CERAMIC CHIP	1uF 16V
				C404	1-163-239-11	CERAMIC CHIP	33PF 5% 50V
				C405	1-163-239-11	CERAMIC CHIP	33PF 5% 50V
				C406	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
				C407	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
				C408	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
				C409	1-163-234-11	CERAMIC CHIP	20PF 5% 50V

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Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C410	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	C466	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C411	1-104-665-11	ELECT	100uF	20%	10V	C468	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C412	1-164-346-11	CERAMIC CHIP	1uF		16V	C469	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C413	1-104-664-11	ELECT	47uF	20%	10V	C470	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C414	1-126-964-11	ELECT	10uF	20%	50V	C471	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C416	1-126-919-11	ELECT	6800uF	20%	6.3V	C472	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C417	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C473	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C418	1-164-346-11	CERAMIC CHIP	1uF		16V	C474	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C419	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C475	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C420	1-126-933-11	ELECT	100uF	20%	16V	C477	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C421	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	C478	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C422	1-126-925-11	ELECT	470uF	20%	10V	C479	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C423	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C480	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C424	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C481	1-126-964-11	ELECT	10uF	20%	50V
C425	1-126-934-11	ELECT	220uF	20%	10V	C482	1-126-964-11	ELECT	10uF	20%	50V
C426	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C483	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C428	1-104-664-11	ELECT	47uF	20%	10V	C484	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C430	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C485	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C431	1-126-934-11	ELECT	220uF	20%	10V	C486	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C432	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C487	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C433	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C488	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C434	1-126-964-11	ELECT	10uF	20%	50V	C489	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C435	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C490	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C436	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C491	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C437	1-126-964-11	ELECT	10uF	20%	50V	C492	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C438	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C493	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C439	1-126-968-11	ELECT	100uF	20%	50V	C494	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C440	1-126-960-11	ELECT	1uF	20%	50V	C495	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C441	1-126-960-11	ELECT	1uF	20%	50V	C496	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C442	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C497	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C443	1-126-937-11	ELECT	4700uF	20%	16V	C498	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C444	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C499	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C445	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	C500	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C446	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C502	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C447	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C503	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C448	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C504	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C449	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C505	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C450	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C506	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C451	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C507	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C452	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C509	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C453	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C510	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C454	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C512	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C455	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C513	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C456	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C514	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C457	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C515	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C458	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C516	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C459	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C517	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C460	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C518	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C461	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C519	1-126-961-11	ELECT	2.2uF	20%	50V
C462	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C520	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C463	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C521	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C464	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C522	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C465	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C523	1-128-551-11	ELECT	22uF	20%	25V

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C524	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	FB407	1-216-295-00	SHORT	0
C525	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	FB408	1-216-295-00	SHORT	0
C526	1-128-551-11	ELECT 22uF 20%	25V	FB409	1-216-295-00	SHORT	0
C527	1-163-135-00	CERAMIC CHIP 560PF 5%	50V	FB410	1-216-295-00	SHORT	0
C528	1-104-665-11	ELECT 100uF 20%	10V	FB411	1-216-295-00	SHORT	0
C529	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	FB412	1-469-185-11	FERRITE BEAD INDUCTOR	
C530	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	FB413	1-469-185-11	FERRITE BEAD INDUCTOR	
C531	1-126-933-11	ELECT 100uF 20%	16V	FB414	1-216-295-00	SHORT	0
C532	1-126-933-11	ELECT 100uF 20%	16V	FB415	1-216-295-00	SHORT	0
C533	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	FB416	1-216-295-00	SHORT	0
C534	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB417	1-216-295-00	SHORT	0
C535	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB418	1-216-296-00	SHORT	0
C536	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB419	1-216-296-00	SHORT	0
C537	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB420	1-216-295-00	SHORT	0
C538	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB421	1-216-295-00	SHORT	0
C539	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB422	1-216-295-00	SHORT	0
C540	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB423	1-216-295-00	SHORT	0
C541	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V	FB424	1-216-295-00	SHORT	0
< CONNECTOR >				FB425	1-216-295-00	SHORT	0
* CN301	1-564-778-11	PLUG, CONNECTOR (2.5mm) 4P		FB426	1-216-295-00	SHORT	0
* CN303	1-785-656-11	PIN, CONNECTOR (PC BOARD) 4P		FB427	1-216-295-00	SHORT	0
* CN401	1-564-778-11	PLUG, CONNECTOR (2.5mm) 4P		FB428	1-216-073-00	METAL CHIP 10K	5% 1/10W
* CN402	1-785-662-11	PIN, CONNECTOR (PC BOARD) 10P		FB429	1-216-295-00	SHORT	0
* CN403	1-568-468-11	PIN, CONNECTOR (PC BOARD) 18P		FB430	1-216-073-00	METAL CHIP 10K	5% 1/10W
CN404	1-568-931-11	PIN, CONNECTOR (PC BOARD) 26P		FB431	1-216-295-00	SHORT	0
* CN405	1-695-333-41	PIN, CONNECTOR (PC BOARD) 10P		FB432	1-216-295-00	SHORT	0
CN406	1-695-336-31	PIN, CONNECTOR (PC BOARD) 13P		< IC >			
* CN407	1-695-333-41	PIN, CONNECTOR (PC BOARD) 10P		IC301	8-759-543-56	IC LA4601N	
* CN408	1-785-664-11	PIN, CONNECTOR (PC BOARD) 12P		IC302	8-759-652-74	IC M62443FPD61Q	
* CN409	1-785-655-11	PIN, CONNECTOR (PC BOARD) 3P		IC303	8-759-100-96	IC NJM4558M-TE2	
* CN410	1-785-654-11	PIN, CONNECTOR (PC BOARD) 2P		IC305	8-759-636-55	IC M5218AFP-T1	
CN412	1-566-690-11	PLUG, CONNECTOR (2.5mm) 2P		IC401	8-752-914-58	IC CXP740096-043Q	
< DIODE >				IC402	8-759-486-73	IC XC62FP3302PR	
D301	8-719-988-61	DIODE 1SS355TE-17		IC403	8-759-649-23	IC XC61CN2802PR	
D303	8-719-988-61	DIODE 1SS355TE-17		IC404	8-759-450-47	IC BA05T	
D304	8-719-988-61	DIODE 1SS355TE-17		IC405	8-759-557-36	IC BU1924F-E2	
D401	8-719-988-61	DIODE 1SS355TE-17		IC411	8-759-486-73	IC XC62FP3302PR	
D402	8-719-988-61	DIODE 1SS355TE-17		< JUMPER RESISTOR >			
D403	8-719-056-84	DIODE UDZ-TE-17-7.5B		JC101	1-216-296-00	SHORT	0
D404	8-719-056-85	DIODE UDZ-TE-17-8.2B		JC102	1-216-295-00	SHORT	0
D405	8-719-056-82	DIODE UDZ-TE-17-6.2B		JC103	1-216-295-00	SHORT	0
D406	8-719-977-81	DIODE UDZ-TE-17-33B		JC104	1-216-296-00	SHORT	0
D408	8-719-056-97	DIODE UDZ-TE-17-27B		JC105	1-216-295-00	SHORT	0
< FERRITE BEAD >				JC106	1-216-295-00	SHORT	0
FB401	1-216-295-00	SHORT	0	JC107	1-216-295-00	SHORT	0
FB402	1-216-295-00	SHORT	0	JC108	1-216-295-00	SHORT	0
FB403	1-216-295-00	SHORT	0	JC109	1-216-295-00	SHORT	0
FB404	1-216-295-00	SHORT	0	JC113	1-216-295-00	SHORT	0
FB405	1-216-295-00	SHORT	0	< COIL >			
FB406	1-216-295-00	SHORT	0	L401	1-216-017-11	RES-CHIP 47	5% 1/10W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >					
				R106	1-216-111-00	METAL CHIP 390K	5% 1/10W
				R107	1-216-121-11	RES-CHIP 1M	5% 1/10W
Q101	8-729-920-31	TRANSISTOR DTC343TK-T-146		R108	1-216-079-00	METAL CHIP 18K	5% 1/10W
Q102	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR		R109	1-216-073-00	METAL CHIP 10K	5% 1/10W
Q103	8-729-027-46	TRANSISTOR DTC114YKA-T146		R110	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q104	8-729-920-31	TRANSISTOR DTC343TK-T-146					
Q105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR		R111	1-216-077-11	RES-CHIP 15K	5% 1/10W
				R112	1-216-073-00	METAL CHIP 10K	5% 1/10W
Q106	8-729-920-31	TRANSISTOR DTC343TK-T-146		R113	1-216-689-11	METAL CHIP 39K	0.5% 1/10W
Q111	8-729-920-31	TRANSISTOR DTC343TK-T-146		R114	1-216-089-11	RES-CHIP 47K	5% 1/10W
Q201	8-729-920-31	TRANSISTOR DTC343TK-T-146		R115	1-216-079-00	METAL CHIP 18K	5% 1/10W
Q202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR					
Q203	8-729-027-46	TRANSISTOR DTC114YKA-T146		R116	1-216-113-00	METAL CHIP 470K	5% 1/10W
				R117	1-216-077-11	RES-CHIP 15K	5% 1/10W
Q204	8-729-920-31	TRANSISTOR DTC343TK-T-146		R118	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
Q205	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR		R119	1-216-047-11	RES-CHIP 820	5% 1/10W
Q206	8-729-920-31	TRANSISTOR DTC343TK-T-146		R120	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
Q211	8-729-920-31	TRANSISTOR DTC343TK-T-146					
Q301	8-729-027-24	TRANSISTOR DTA114TKA-T146		R122	1-216-198-11	RES-CHIP 1K	5% 1/8W
				R123	1-216-077-11	RES-CHIP 15K	5% 1/10W
Q304	8-729-900-53	TRANSISTOR DTC114EKA-T146		R124	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q305	8-729-027-46	TRANSISTOR DTC114YKA-T146		R125	1-216-089-11	RES-CHIP 47K	5% 1/10W
Q306	8-729-027-23	TRANSISTOR DTA114EKA-T146		R201	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q307	8-729-900-53	TRANSISTOR DTC114EKA-T146					
Q308	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR		R202	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
				R203	1-216-025-11	RES-CHIP 100	5% 1/10W
Q309	8-729-027-23	TRANSISTOR DTA114EKA-T146		R204	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q310	8-729-027-26	TRANSISTOR DTA114YKA-T146		R205	1-216-052-00	METAL CHIP 1.3K	5% 1/10W
Q311	8-729-027-24	TRANSISTOR DTA114TKA-T146		R206	1-216-111-00	METAL CHIP 390K	5% 1/10W
Q312	8-729-027-24	TRANSISTOR DTA114TKA-T146					
Q313	8-729-027-26	TRANSISTOR DTA114YKA-T146		R207	1-216-121-11	RES-CHIP 1M	5% 1/10W
				R208	1-216-079-00	METAL CHIP 18K	5% 1/10W
Q401	8-729-903-10	TRANSISTOR FMW1-T-148		R209	1-216-073-00	METAL CHIP 10K	5% 1/10W
Q402	8-729-018-99	TRANSISTOR 2SD2394-F		R210	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q403	8-729-021-82	TRANSISTOR 2SD2396K		R211	1-216-077-11	RES-CHIP 15K	5% 1/10W
Q405	8-729-021-82	TRANSISTOR 2SD2396K					
Q406	8-729-903-46	TRANSISTOR 2SB1132-T100-QR		R212	1-216-073-00	METAL CHIP 10K	5% 1/10W
				R213	1-216-689-11	METAL CHIP 39K	0.5% 1/10W
Q407	8-729-027-26	TRANSISTOR DTA114YKA-T146		R214	1-216-089-11	RES-CHIP 47K	5% 1/10W
Q408	8-729-027-46	TRANSISTOR DTC114YKA-T146		R215	1-216-079-00	METAL CHIP 18K	5% 1/10W
Q409	8-729-904-86	TRANSISTOR 2SB1197K-T-146-Q		R216	1-216-113-00	METAL CHIP 470K	5% 1/10W
Q411	8-729-027-26	TRANSISTOR DTA114YKA-T146					
Q412	8-729-027-46	TRANSISTOR DTC114YKA-T146		R217	1-216-077-11	RES-CHIP 15K	5% 1/10W
				R218	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
Q415	8-729-027-29	TRANSISTOR DTA123JKA-T146		R219	1-216-047-11	RES-CHIP 820	5% 1/10W
Q416	8-729-027-46	TRANSISTOR DTC114YKA-T146		R220	1-216-061-00	METAL CHIP 3.3K	5% 1/10W
Q419	8-729-012-83	FET 2SK679A-T		R222	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q420	8-729-012-83	FET 2SK679A-T					
Q421	8-729-027-26	TRANSISTOR DTA114YKA-T146		R223	1-216-077-11	RES-CHIP 15K	5% 1/10W
				R224	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q422	8-729-027-46	TRANSISTOR DTC114YKA-T146		R225	1-216-089-11	RES-CHIP 47K	5% 1/10W
Q430	8-729-027-26	TRANSISTOR DTA114YKA-T146		R302	1-216-073-00	METAL CHIP 10K	5% 1/10W
Q431	8-729-027-46	TRANSISTOR DTC114YKA-T146		R303	1-216-073-00	METAL CHIP 10K	5% 1/10W
Q432	8-729-027-26	TRANSISTOR DTA114YKA-T146					
		< RESISTOR >		R304	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
R101	1-216-049-11	RES-CHIP 1K	5% 1/10W	R306	1-216-025-11	RES-CHIP 100	5% 1/10W
R102	1-216-061-00	METAL CHIP 3.3K	5% 1/10W	R307	1-216-073-00	METAL CHIP 10K	5% 1/10W
R103	1-216-025-11	RES-CHIP 100	5% 1/10W	R308	1-216-073-00	METAL CHIP 10K	5% 1/10W
R104	1-216-049-11	RES-CHIP 1K	5% 1/10W	R309	1-216-166-00	RES-CHIP 47	5% 1/8W
R105	1-216-052-00	METAL CHIP 1.3K	5% 1/10W				
				R310	1-216-049-11	RES-CHIP 1K	5% 1/10W
				R311	1-216-049-11	RES-CHIP 1K	5% 1/10W
				R312	1-216-065-11	RES-CHIP 4.7K	5% 1/10W

MAIN

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
R313	1-216-073-00	METAL CHIP	10K	5%	1/10W	R443	1-216-085-00	METAL CHIP	33K	5%	1/10W		
R314	1-216-073-00	METAL CHIP	10K	5%	1/10W	R444	1-216-085-00	METAL CHIP	33K	5%	1/10W		
R315	1-216-073-00	METAL CHIP	10K	5%	1/10W	R445	1-216-085-00	METAL CHIP	33K	5%	1/10W		
R316	1-216-113-00	METAL CHIP	470K	5%	1/10W	R446	1-216-085-00	METAL CHIP	33K	5%	1/10W		
R317	1-216-049-11	RES-CHIP	1K	5%	1/10W	R447	1-216-065-11	RES-CHIP	4.7K	5%	1/10W		
R318	1-216-121-11	RES-CHIP	1M	5%	1/10W	R448	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R319	1-216-049-11	RES-CHIP	1K	5%	1/10W	R449	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R320	1-216-049-11	RES-CHIP	1K	5%	1/10W	R450	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R321	1-216-097-11	RES-CHIP	100K	5%	1/10W	R451	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R322	1-216-073-00	METAL CHIP	10K	5%	1/10W	R452	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R323	1-216-041-00	METAL CHIP	470	5%	1/10W	R453	1-216-065-11	RES-CHIP	4.7K	5%	1/10W		
R324	1-216-049-11	RES-CHIP	1K	5%	1/10W	R454	1-216-113-00	METAL CHIP	470K	5%	1/10W		
R327	1-216-073-00	METAL CHIP	10K	5%	1/10W	R455	1-216-041-00	METAL CHIP	470	5%	1/10W		
R328	1-216-073-00	METAL CHIP	10K	5%	1/10W	R456	1-216-041-00	METAL CHIP	470	5%	1/10W		
R329	1-216-025-11	RES-CHIP	100	5%	1/10W	R457	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R401	1-216-222-00	RES-CHIP	10K	5%	1/8W	R458	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R402	1-216-198-11	RES-CHIP	1K	5%	1/8W	R459	1-216-069-00	METAL CHIP	6.8K	5%	1/10W		
R403	1-216-049-11	RES-CHIP	1K	5%	1/10W	R460	1-216-065-11	RES-CHIP	4.7K	5%	1/10W		
R404	1-216-025-11	RES-CHIP	100	5%	1/10W	R461	1-216-081-00	METAL CHIP	22K	5%	1/10W		
R407	1-216-017-11	RES-CHIP	47	5%	1/10W	R462	1-216-089-11	RES-CHIP	47K	5%	1/10W		
R408	1-216-047-11	RES-CHIP	820	5%	1/10W	R463	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R409	1-216-047-11	RES-CHIP	820	5%	1/10W	R464	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R410	1-216-041-00	METAL CHIP	470	5%	1/10W	R465	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R411	1-216-077-11	RES-CHIP	15K	5%	1/10W	R466	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R412	1-216-295-00	SHORT	0			R467	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R413	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	R468	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R416	1-216-073-00	METAL CHIP	10K	5%	1/10W	R469	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R417	1-216-049-11	RES-CHIP	1K	5%	1/10W	R470	1-216-198-11	RES-CHIP	1K	5%	1/8W		
R418	1-216-049-11	RES-CHIP	1K	5%	1/10W	R471	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R419	1-216-049-11	RES-CHIP	1K	5%	1/10W	R472	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R420	1-216-041-00	METAL CHIP	470	5%	1/10W	R473	1-216-190-00	RES-CHIP	470	5%	1/8W		
R421	1-216-041-00	METAL CHIP	470	5%	1/10W	R474	1-216-190-00	RES-CHIP	470	5%	1/8W		
R422	1-216-073-00	METAL CHIP	10K	5%	1/10W	R475	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R423	1-216-049-11	RES-CHIP	1K	5%	1/10W	R476	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R424	1-216-041-00	METAL CHIP	470	5%	1/10W	R477	1-216-073-00	METAL CHIP	10K	5%	1/10W		
R425	1-216-041-00	METAL CHIP	470	5%	1/10W	R478	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R426	1-216-049-11	RES-CHIP	1K	5%	1/10W	R479	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R427	1-216-073-00	METAL CHIP	10K	5%	1/10W	R480	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R428	1-216-049-11	RES-CHIP	1K	5%	1/10W	R481	1-216-025-11	RES-CHIP	100	5%	1/10W		
R429	1-216-049-11	RES-CHIP	1K	5%	1/10W	R482	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R430	1-216-049-11	RES-CHIP	1K	5%	1/10W	R483	1-216-025-11	RES-CHIP	100	5%	1/10W		
R431	1-216-049-11	RES-CHIP	1K	5%	1/10W	R484	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R432	1-216-049-11	RES-CHIP	1K	5%	1/10W	R485	1-216-065-11	RES-CHIP	4.7K	5%	1/10W		
R433	1-216-049-11	RES-CHIP	1K	5%	1/10W	R486	1-216-065-11	RES-CHIP	4.7K	5%	1/10W		
R434	1-216-049-11	RES-CHIP	1K	5%	1/10W	R487	1-216-065-11	RES-CHIP	4.7K	5%	1/10W		
R435	1-216-049-11	RES-CHIP	1K	5%	1/10W	R488	1-216-041-00	METAL CHIP	470	5%	1/10W		
R436	1-216-049-11	RES-CHIP	1K	5%	1/10W	R489	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R437	1-216-049-11	RES-CHIP	1K	5%	1/10W	R490	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R438	1-216-049-11	RES-CHIP	1K	5%	1/10W	R491	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R439	1-216-113-00	METAL CHIP	470K	5%	1/10W	R492	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R440	1-216-049-11	RES-CHIP	1K	5%	1/10W	R493	1-216-049-11	RES-CHIP	1K	5%	1/10W		
R441	1-216-049-11	RES-CHIP	1K	5%	1/10W	R494	1-216-073-00	METAL CHIP	10K	5%	1/10W		
R442	1-216-085-00	METAL CHIP	33K	5%	1/10W	R495	1-216-049-11	RES-CHIP	1K	5%	1/10W		

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R496	1-216-049-11	RES-CHIP	1K 5% 1/10W	C913	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
R497	1-216-049-11	RES-CHIP	1K 5% 1/10W	C914	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
R498	1-216-073-00	METAL CHIP	10K 5% 1/10W	C915	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
R499	1-216-089-11	RES-CHIP	47K 5% 1/10W	C916	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
R500	1-216-041-00	METAL CHIP	470 5% 1/10W	C917	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
R503	1-216-043-11	RES-CHIP	560 5% 1/10W	C918	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
R504	1-216-089-11	RES-CHIP	47K 5% 1/10W	C919	1-163-021-11	CERAMIC CHIP 0.01uF 10% 50V	
R505	1-216-085-00	METAL CHIP	33K 5% 1/10W	△C920	1-113-925-11	CERAMIC 0.01uF 20% 250V	
R506	1-216-073-00	METAL CHIP	10K 5% 1/10W	△C922	1-113-925-11	CERAMIC 0.01uF 20% 250V	
R507	1-216-049-11	RES-CHIP	1K 5% 1/10W			< CONNECTOR >	
R508	1-216-049-11	RES-CHIP	1K 5% 1/10W	* CN903	1-785-654-11	PIN, CONNECTOR (PC BOARD) 2P	
R509	1-216-037-00	METAL CHIP	330 5% 1/10W			< DIODE >	
R510	1-216-041-00	METAL CHIP	470 5% 1/10W	D901	8-719-046-07	DIODE 2A02M	
R511	1-216-025-11	RES-CHIP	100 5% 1/10W	D902	8-719-046-07	DIODE 2A02M	
R512	1-216-295-00	SHORT	0	D903	8-719-046-07	DIODE 2A02M	
R513	1-216-049-11	RES-CHIP	1K 5% 1/10W	D904	8-719-046-07	DIODE 2A02M	
R514	1-216-049-11	RES-CHIP	1K 5% 1/10W	D905	8-719-046-07	DIODE 2A02M	
△R515	1-260-300-11	RES,CARBON	4.7 5% 1/2W	D906	8-719-046-07	DIODE 2A02M	
R520	1-216-049-11	RES-CHIP	1K 5% 1/10W	D907	8-719-046-07	DIODE 2A02M	
R521	1-216-049-11	RES-CHIP	1K 5% 1/10W	D908	8-719-046-07	DIODE 2A02M	
R522	1-216-049-11	RES-CHIP	1K 5% 1/10W	D909	8-719-063-79	DIODE 1N4002B	
R523	1-216-049-11	RES-CHIP	1K 5% 1/10W	D910	8-719-063-79	DIODE 1N4002B	
R524	1-216-049-11	RES-CHIP	1K 5% 1/10W	D911	8-719-063-79	DIODE 1N4002B	
R525	1-216-049-11	RES-CHIP	1K 5% 1/10W	D912	8-719-063-79	DIODE 1N4002B	
R526	1-216-049-11	RES-CHIP	1K 5% 1/10W	D913	8-719-988-61	DIODE 1SS355TE-17	
R527	1-216-041-00	METAL CHIP	470 5% 1/10W	D914	8-719-988-61	DIODE 1SS355TE-17	
R528	1-216-097-11	RES-CHIP	100K 5% 1/10W	D915	8-719-988-61	DIODE 1SS355TE-17	
R529	1-216-097-11	RES-CHIP	100K 5% 1/10W			< FUSE >	
R534	1-216-097-11	RES-CHIP	100K 5% 1/10W	△F901	1-532-467-51	FUSE (315mA/250V)	
		< VIBRATOR >		△F902	1-532-388-51	FUSE (2A/250V)	
X401	1-781-598-11	VIBRATOR, CERAMIC (8MHz)		△F903	1-532-464-51	FUSE (2.5A/250V)	
X402	1-767-697-11	VIBRATOR, CRYSTAL (32kHz)				< JACK >	
X403	1-760-556-41	VIBRATOR, CRYSTAL (4.332MHz)		△J901	1-526-838-11	INLET, AC 2P (～ AC IN)	
*****						< LINE FILTER >	
* A-3322-536-A	POWER BOARD, COMPLETE			△LF901	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)	
	*****					< IC LINK >	
1-533-233-31	HOLDER, FUSE			△PS901	1-532-605-00	LINK, IC (ICP-N10) 0.4A	
	< CAPACITOR >					< TRANSISTOR >	
C901	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	Q901	8-729-027-50	TRANSISTOR DTC123JKA-T146	
C902	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	Q902	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
C903	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V			< RESISTOR >	
C904	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R901	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C905	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R902	1-216-089-11	RES-CHIP 47K 5% 1/10W	
C906	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	R905	1-216-089-11	RES-CHIP 47K 5% 1/10W	
C907	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V				
C908	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V				
C909	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V				
C910	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V				
C911	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V				
C912	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V				

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

POWER **SW** **TOP** **TUNER**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R906	1-216-073-00	METAL CHIP 10K 5%	1/10W	*	A-3322-527-A	TUNER BOARD, COMPLETE *****	
		< RELAY >				< CAPACITOR >	
RY901	1-755-363-11	RELAY		C1	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
		< TRANSFORMER >		C2	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
△ T901	1-435-321-11	TRANSFORMER, POWER		C3	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
*****				C4	1-126-934-11	ELECT 220uF 20%	10V
*	1-671-115-21	SW BOARD *****		C5	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
		< CONNECTOR >		C6	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
* CN601	1-506-486-11	PIN, CONNECTOR 7P		C7	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V
		< SWITCH >		C9	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
S601	1-572-126-21	SWITCH, PUSH (1 KEY) (REC POSITION)		C10	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
S602	1-572-126-21	SWITCH, PUSH (1 KEY) (PACK OUT)		C11	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
S604	1-771-264-11	SWITCH, PUSH (DETECTION) (1 KEY) (PLAY POSITION)		C12	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
*****				C13	1-163-263-11	CERAMIC CHIP 330PF 5%	50V
*	1-675-213-11	TOP BOARD *****		C14	1-163-222-11	CERAMIC CHIP 5PF 0.25PF	50V
		< RESISTOR >		C15	1-163-037-11	CERAMIC CHIP 0.022uF 10%	25V
R654	1-216-045-00	METAL CHIP 680 5%	1/10W	C16	1-126-962-11	ELECT 3.3uF 20%	50V
R655	1-216-048-00	METAL CHIP 910 5%	1/10W	C17	1-128-551-11	ELECT 22uF 20%	25V
R656	1-216-051-00	METAL CHIP 1.2K 5%	1/10W	C18	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
R657	1-216-056-00	RES-CHIP 2K 5%	1/10W	C21	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
R658	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	C22	1-126-934-11	ELECT 220uF 20%	10V
R660	1-216-045-00	METAL CHIP 680 5%	1/10W	C23	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
R661	1-216-048-00	METAL CHIP 910 5%	1/10W	C24	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
R662	1-216-051-00	METAL CHIP 1.2K 5%	1/10W	C26	1-126-963-11	ELECT 4.7uF 20%	50V
R663	1-216-056-00	RES-CHIP 2K 5%	1/10W	C27	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
R664	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	C28	1-126-964-11	ELECT 10uF 20%	50V
R665	1-216-069-00	METAL CHIP 6.8K 5%	1/10W	C29	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
		< SWITCH >		C30	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
S633	1-762-798-11	SWITCH, KEY BOARD (MEGA BASS)		C31	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V
S634	1-762-798-11	SWITCH, KEY BOARD (SOUND)		C32	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
S635	1-762-798-11	SWITCH, KEY BOARD (MD ■)		C33	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
S636	1-762-798-11	SWITCH, KEY BOARD (MD ►)		C34	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
S637	1-762-798-11	SWITCH, KEY BOARD (RADIO/BAND)		C35	1-163-024-00	CERAMIC CHIP 0.018uF 10%	50V
S638	1-762-798-11	SWITCH, KEY BOARD (CD ■)		C36	1-163-024-00	CERAMIC CHIP 0.018uF 10%	50V
S640	1-762-798-11	SWITCH, KEY BOARD (VOLUME-)		C37	1-164-346-11	CERAMIC CHIP 1uF 16V	
S641	1-762-798-11	SWITCH, KEY BOARD (VOLUME+)		C38	1-107-823-11	CERAMIC CHIP 0.47uF 10%	16V
S642	1-762-798-11	SWITCH, KEY BOARD (REC/REC MODE)		C39	1-164-346-11	CERAMIC CHIP 1uF 16V	
S643	1-762-798-11	SWITCH, KEY BOARD (CD ►)		C40	1-126-960-11	ELECT 1uF 20%	50V
S644	1-762-798-11	SWITCH, KEY BOARD (TUNE ►► +)		C41	1-126-960-11	ELECT 1uF 20%	50V
S645	1-762-798-11	SWITCH, KEY BOARD (TUNE ◀◀ -)		C42	1-126-934-11	ELECT 220uF 20%	10V
S646	1-762-798-11	SWITCH, KEY BOARD (LINE/LINE LEVEL)		C43	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
*****				C44	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
				C45	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
				C46	1-163-227-11	CERAMIC CHIP 10PF 0.50PF	50V
				C47	1-163-227-11	CERAMIC CHIP 10PF 0.50PF	50V
				C48	1-107-823-11	CERAMIC CHIP 0.47uF 10%	16V
				C49	1-126-935-11	ELECT 470uF 20%	6.3V
				C50	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V
				C51	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
				C52	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V
				C53	1-163-017-00	CERAMIC CHIP 0.0047uF 5%	50V

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

TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C54	1-163-133-00	CERAMIC CHIP 470PF 5%	50V	JC6	1-216-296-00	SHORT 0	
C55	1-163-133-00	CERAMIC CHIP 470PF 5%	50V				
C56	1-163-251-11	CERAMIC CHIP 100PF 5%	50V			< COIL >	
C57	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V				
C58	1-126-934-11	ELECT 220uF 20%	16V	L1	1-410-994-22	INDUCTOR CHIP 1.2uH	
				L3	1-416-991-11	COIL, MW ANT	
C59	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	L4	1-416-129-11	COIL, LW ANT	
C60	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	L5	1-411-959-11	COIL, MW OSC	
C61	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V	L6	1-410-071-11	INDUCTOR 10mH	
C71	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V			< TRANSISTOR >	
C72	1-163-009-11	CERAMIC CHIP 0.001uF 10%	50V				
		< FILTER >		Q1	8-729-119-32	FET 2SK193TP-E	
CF1	1-781-407-11	FILTER, CERAMIC		Q2	8-729-920-31	TRANSISTOR DTC343TK-T-146	
CF2	1-781-407-11	FILTER, CERAMIC		Q3	8-729-920-38	TRANSISTOR 2SC2059K-T146-N	
CF3	1-781-344-11	FILTER, MW CERAMIC		Q4	8-729-931-02	TRANSISTOR 2SC2413KT146-PQ	
CF4	1-781-817-11	DISCRIMINATOR, CERAMIC		Q5	8-729-931-02	TRANSISTOR 2SC2413KT146-PQ	
		< CONNECTOR >		Q6	8-729-920-31	TRANSISTOR DTC343TK-T-146	
CN2	1-566-690-11	PLUG, CONNECTOR (2.5mm) 2P		Q7	8-729-027-23	TRANSISTOR DTA114EKA-T146	
		< TRIMMER >		Q8	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
CT1	1-141-459-11	CAP, TRIMMER (SEAL TYPE) 45PF		Q9	1-801-806-11	TRANSISTOR DTC144EKA-T146	
CT2	1-141-601-11	CAP, ADJ 10PF				< RESISTOR >	
CT3	1-141-459-11	CAP, TRIMMER (SEAL TYPE) 45PF		R1	1-216-017-11	RES-CHIP 47 5% 1/10W	
CT4	1-141-601-11	CAP, ADJ 10PF		R2	1-216-017-11	RES-CHIP 47 5% 1/10W	
		< DIODE >		R3	1-216-017-11	RES-CHIP 47 5% 1/10W	
D1	8-719-988-61	DIODE 1SS355TE-17		R4	1-216-041-00	METAL CHIP 470 5% 1/10W	
D2	8-719-988-61	DIODE 1SS355TE-17		R5	1-216-295-00	SHORT 0	
D3	8-719-988-61	DIODE 1SS355TE-17		R6	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
D4	8-719-988-61	DIODE 1SS355TE-17		R7	1-216-073-00	METAL CHIP 10K 5% 1/10W	
D5	8-719-988-61	DIODE 1SS355TE-17		R8	1-216-097-11	RES-CHIP 100K 5% 1/10W	
D6	8-719-988-61	DIODE 1SS355TE-17		R9	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
D7	8-719-988-61	DIODE 1SS355TE-17		R11	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
D8	8-719-988-61	DIODE 1SS355TE-17		R12	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
D9	8-719-988-61	DIODE 1SS355TE-17		R13	1-216-073-00	METAL CHIP 10K 5% 1/10W	
D10	8-719-988-61	DIODE 1SS355TE-17		R16	1-216-105-11	RES-CHIP 220K 5% 1/10W	
D11	8-719-050-69	DIODE KV1520NT-2		R17	1-216-037-00	METAL CHIP 330 5% 1/10W	
D12	8-719-988-61	DIODE 1SS355TE-17		R18	1-216-009-11	RES-CHIP 22 5% 1/10W	
		< FERRITE BEAD >		R19	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
FB1	1-500-445-21	FERRITE, EMI (SMD)		R20	1-216-033-00	METAL CHIP 220 5% 1/10W	
		< IC >		R21	1-216-025-11	RES-CHIP 100 5% 1/10W	
IC1	8-759-663-31	IC LA1833N		R22	1-216-079-00	METAL CHIP 18K 5% 1/10W	
IC2	8-759-483-40	IC LC72137M-TLM		R23	1-216-079-00	METAL CHIP 18K 5% 1/10W	
		< JUMPER RESISTOR >		R24	1-216-093-11	RES-CHIP 68K 5% 1/10W	
JC1	1-216-295-00	SHORT 0		R25	1-216-105-11	RES-CHIP 220K 5% 1/10W	
JC2	1-216-296-00	SHORT 0		R26	1-216-206-00	RES-CHIP 2.2K 5% 1/8W	
JC3	1-216-295-00	SHORT 0		R27	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
JC4	1-216-295-00	SHORT 0		R28	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
JC5	1-216-296-00	SHORT 0		R29	1-216-023-00	METAL CHIP 82 5% 1/10W	
				R30	1-216-049-11	RES-CHIP 1K 5% 1/10W	
				R31	1-216-073-00	METAL CHIP 10K 5% 1/10W	
				R32	1-216-065-11	RES-CHIP 4.7K 5% 1/10W	
				R33	1-216-081-00	METAL CHIP 22K 5% 1/10W	
				R34	1-216-025-11	RES-CHIP 100 5% 1/10W	
				R35	1-216-073-00	METAL CHIP 10K 5% 1/10W	

TUNER

Ref. No.	Part No.	Description	Quantity	Percentage	Remark
R36	1-216-025-11	RES-CHIP	100	5%	1/10W
R37	1-216-049-11	RES-CHIP	1K	5%	1/10W
R38	1-216-025-11	RES-CHIP	100	5%	1/10W
R39	1-216-049-11	RES-CHIP	1K	5%	1/10W
R40	1-216-025-11	RES-CHIP	100	5%	1/10W
R41	1-216-025-11	RES-CHIP	100	5%	1/10W
R42	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R43	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R44	1-216-025-11	RES-CHIP	100	5%	1/10W
R45	1-216-025-11	RES-CHIP	100	5%	1/10W
R46	1-216-025-11	RES-CHIP	100	5%	1/10W
R47	1-216-025-11	RES-CHIP	100	5%	1/10W
R48	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R49	1-216-073-00	METAL CHIP	10K	5%	1/10W
R50	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R51	1-216-027-00	METAL CHIP	120	5%	1/10W
R52	1-216-021-00	METAL CHIP	68	5%	1/10W
R53	1-216-021-00	METAL CHIP	68	5%	1/10W
R54	1-216-021-00	METAL CHIP	68	5%	1/10W
R55	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R56	1-216-073-00	METAL CHIP	10K	5%	1/10W
R57	1-216-013-00	METAL CHIP	33	5%	1/10W
R72	1-216-017-11	RES-CHIP	47	5%	1/10W
< TRANSFORMER >					
T1	1-433-741-11	TRANSFORMER, IF			
< TERMINAL >					
TB1	1-537-489-21	TERMINAL BOARD (ANT)			
< TUNER >					
TU1	1-693-495-11	TUNER UNIT			
< VIBRATOR >					
X1	1-760-130-11	VIBRATOR, CRYSTAL (75kHz)			

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			

60	1-791-523-11	WIRE, PARALLEL (FFC) (13 CORE)	
61	1-791-522-11	WIRE, PARALLEL (FFC) (10 CORE)	
103	1-791-521-11	WIRE, PARALLEL (FFC) (10 CORE)	
106	1-791-520-11	WIRE, PARALLEL (FFC) (18 CORE)	
118	1-791-518-11	WIRE, PARALLEL (FFC) (16 CORE)	
154	1-791-519-11	WIRE, PARALLEL (FFC) (26 CORE)	
155	1-791-531-21	WIRE, PARALLEL (FFC) (21 CORE)	
156	1-791-532-21	WIRE, PARALLEL (FFC) (23 CORE)	
* 258	1-667-954-11	FLEXIBLE BOARD	
△ 260	A-4672-541-A	PICK-UP ASSY, OPTICAL KMS-260B (MD)	
273	A-4672-475-A	MOTOR ASSY, SPINDLE (SPINDLE) (INCLUDING M101) (MD)	
△ 303	8-848-483-05	PICK-UP, OPTICAL KSS-213C (CD)	
304	X-2626-202-1	CHASSIS ASSY, MOTOR (MB) (SPINDLE) (INCLUDING M701) (CD)	
ANT1	1-501-452-11	ANTENNA, TELESCOPIC	
△ F901	1-532-467-51	FUSE (315mA/250V)	
△ F902	1-532-388-51	FUSE (2A/250V)	
△ F903	1-532-464-51	FUSE (2.5A/250V)	
HR901	1-500-502-11	HEAD, OVER WRITE	
M102	A-4672-474-A	MOTOR ASSY, SLED (SLED) (MD)	
M103	X-4949-264-1	MOTOR ASSY, LOADING (LOADING) (MD)	
M702	X-2625-769-1	GEAR ASSY, MOTOR (MB) (RP) (SLED) (CD)	
S102	1-762-148-21	SWITCH, PUSH (2 KEY) (REFLECT RATE DETECT, PROTECT DETECT)	
S402	1-692-960-11	SWITCH, PUSH (1 KEY) (CD DOOR)	
SP101	1-529-463-11	SPEAKER (8cm) (L-CH)	
SP201	1-529-463-11	SPEAKER (8cm) (R-CH)	
△ T901	1-435-321-11	TRANSFORMER, POWER	

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

Ref. No.	Part No.	Description	Remark
	ACCESSORIES & PACKING MATERIALS		

	1-754-102-21	ANTENNA, LOOP (MW/LW) (ANT2)	
△	1-769-412-11	CORD, POWER	
△	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)	
	3-027-153-21	LID, BATTERY CASE (for RMT-CM35AD)	(BLACK)
	3-027-153-41	LID, BATTERY CASE (for RMT-CM35AD)	(BLUE)
	3-027-153-31	LID, BATTERY CASE (for RMT-CM35AD)	(WHITE)
	3-027-153-51	LID, BATTERY CASE (for RMT-CM35AD)	(ORANGE)
	3-867-609-21	MANUAL, INSTRUCTION (ENGLISH,SPANISH)	(AEP,UK,JE)
	3-867-609-31	MANUAL, INSTRUCTION (FRENCH,GERMAN)	(AEP,JE)
	3-867-609-41	MANUAL, INSTRUCTION (DUTCH,PORTUGUESE)	(AEP,JE)
	3-867-609-51	MANUAL, INSTRUCTION (ITALIAN) (AEP,JE)	
	3-867-609-61	MANUAL, INSTRUCTION (SWEDISH,FINNISH)	(CET)
	3-867-609-71	MANUAL, INSTRUCTION	(POLISH,CZECH,HUNGARIAN) (CET)
	3-867-609-81	MANUAL, INSTRUCTION (RUSSIAN,SLOVAKIAN)	(CET)
	X-3379-566-1	REMOTE CONTROLLER (RMT-CM35AD)	(BLACK)
	X-3379-567-1	REMOTE CONTROLLER (RMT-CM35AD)	(BLUE)
	X-3379-630-1	REMOTE CONTROLLER (RMT-CM35AD)	(WHITE)
	X-3379-631-1	REMOTE CONTROLLER (RMT-CM35AD)	(ORANGE)

HARDWARE LIST

#1	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S
#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#4	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S
#5	7-621-770-87	SCREW +P 2.6X5
#6	7-685-133-19	SCREW (DIA.2.6) (IT3B)
#7	7-682-549-04	SCREW +B 3X10
#8	7-621-772-20	SCREW +B 2X5
#9	7-621-772-40	SCREW +B 2X8
#10	7-627-852-08	SCREW, PRECISION +P 1.7X2.5
#11	7-685-661-79	SCREW +BVTP 4X12 TYPE2 N-S

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

MEMO

ZS-M35

SONY®

SERVICE MANUAL

Ver 1.3 2001.07

AEP Model
UK Model
Tourist Model

SUPPLEMENT-3

File this supplement with the service manual.

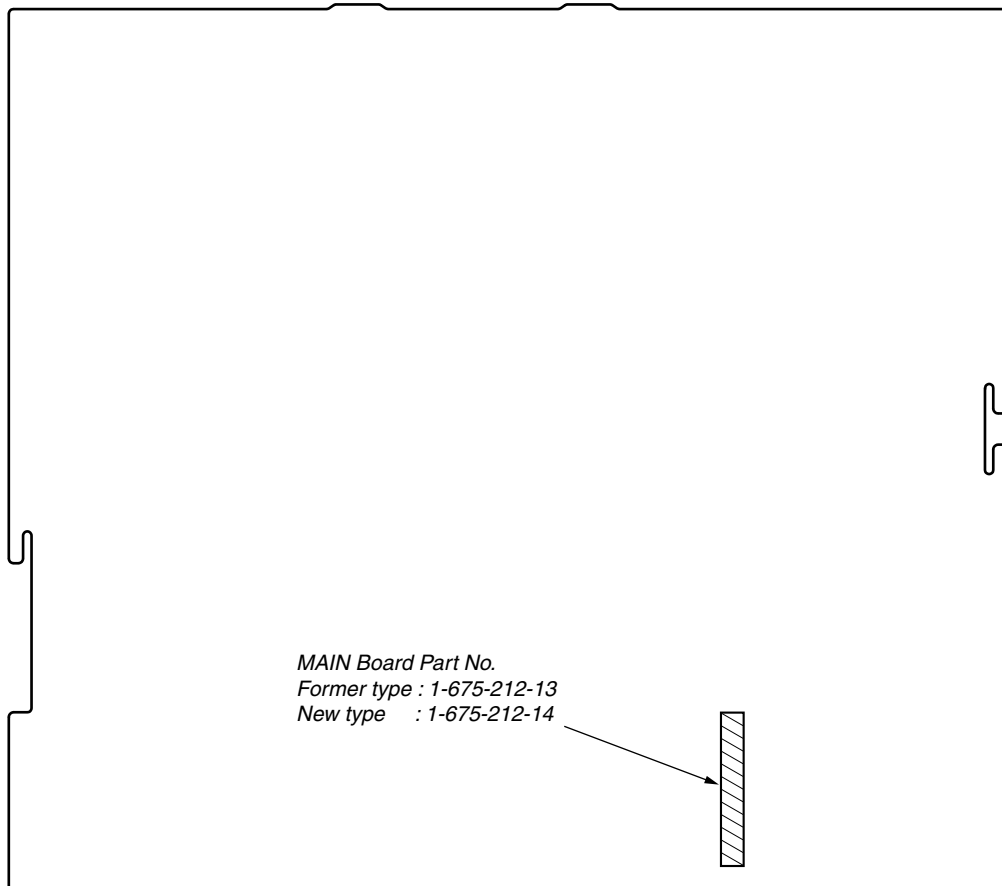
Subject : Change of PC Boards

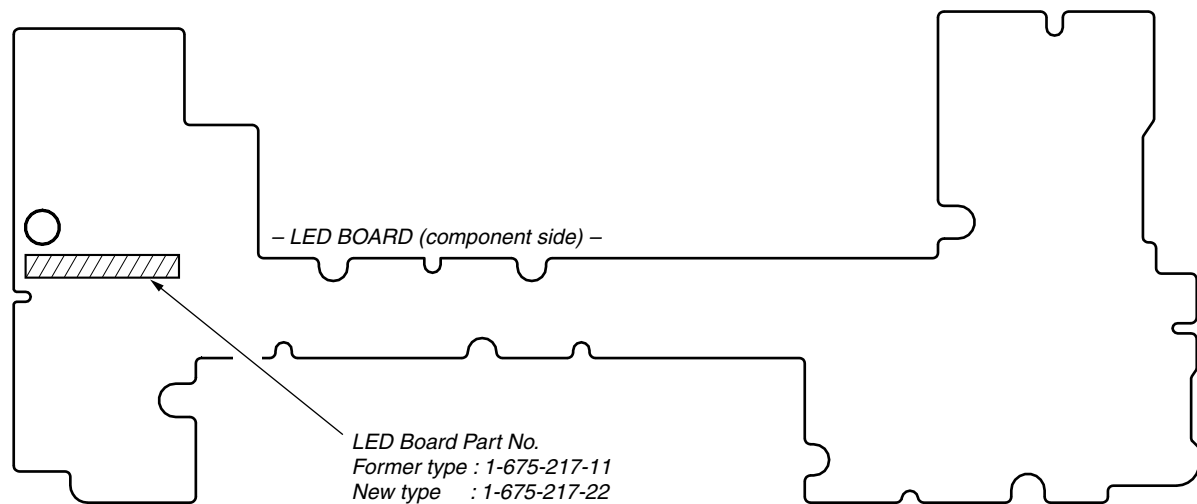
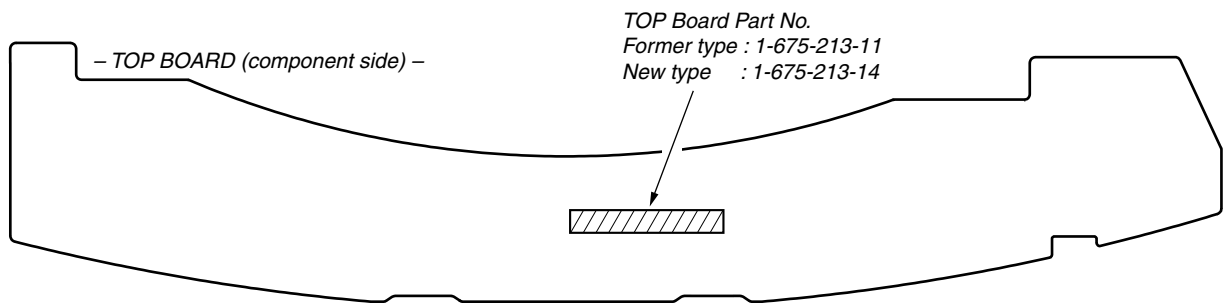
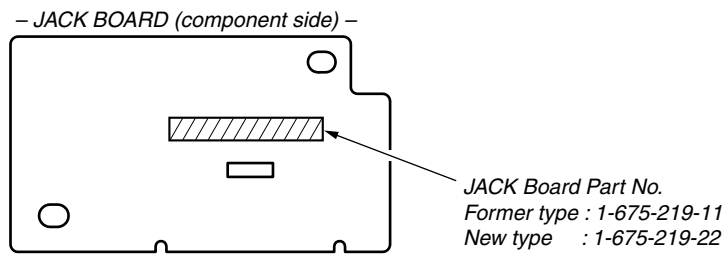
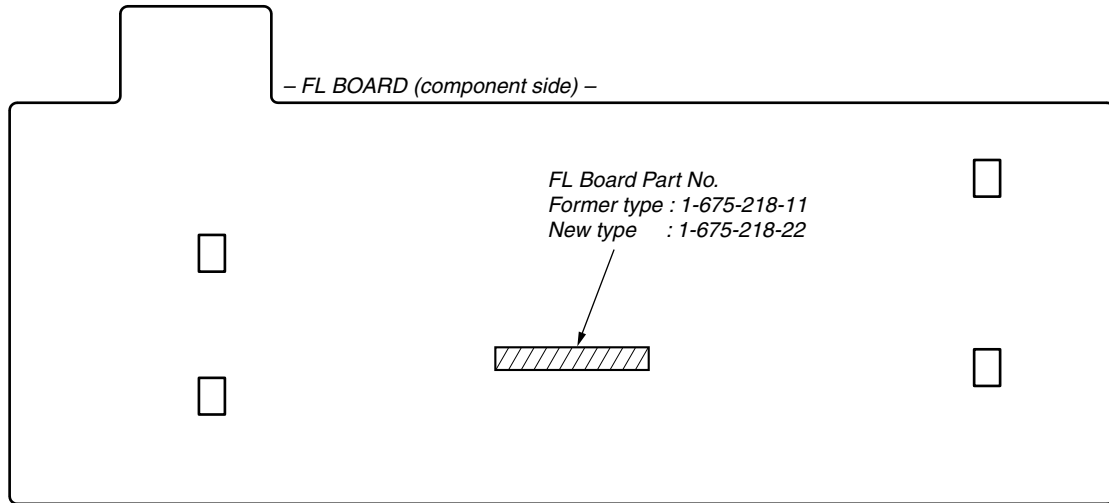
(ECN-RCA01727, RCA01728)

Printed wiring board and schematic diagram of new type, and changed parts list are described in this Supplement-1.

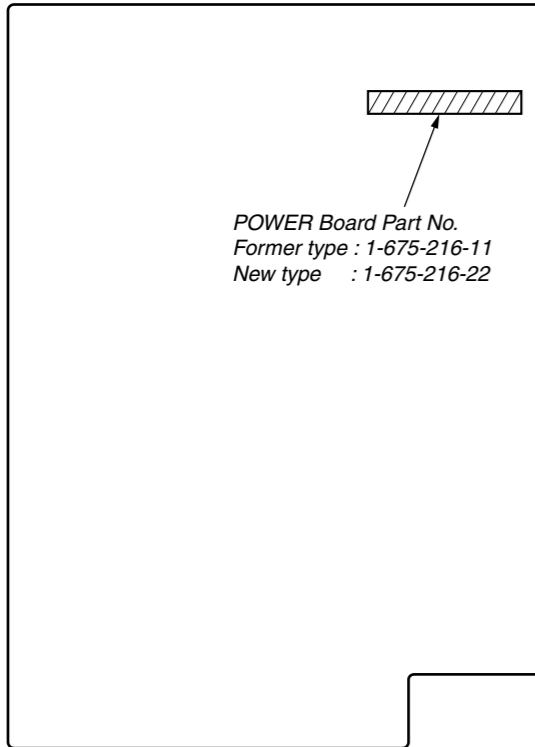
When performing service and inspection, check the suffix of the part number of the MAIN, FL, JACK, TOP, LED, POWER, BATT (+) and BATT (-) boards.

– MAIN BOARD (component side) –





– POWER BOARD (component side) –



1. Common Note on Schematic Diagram and Printed Wiring Boards

Common Note on Schematic Diagram:

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

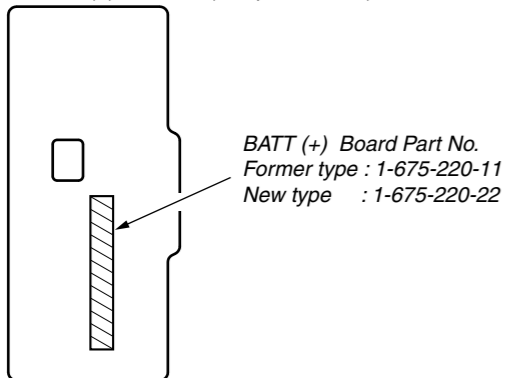
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Common Note on Printed Wiring Boards:

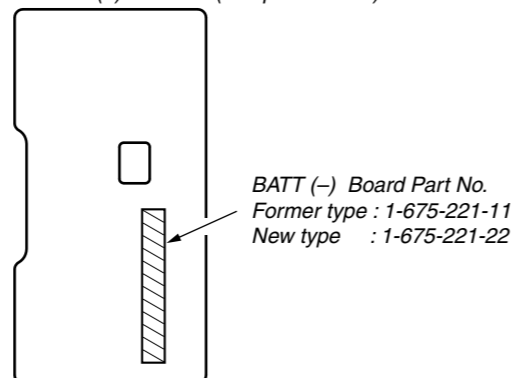
- \circ : parts extracted from the component side.
- --- : parts extracted from the conductor side.
- \blacksquare : parts mounted on the conductor side.
- \circ : Through hole.
- Pattern : Pattern from the side which enables seeing.

- --- : B+ Line.
- --- : B- Line.
- \square : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - \Rightarrow : FM
 - \Rightarrow : AM
 - \Rightarrow : MD PB
 - \Rightarrow : MD REC (DIGITAL)
 - \Rightarrow : MD REC (ANALOG)
 - \Rightarrow : CD
- () : Page of service manual
- (()) : Page of service manual supplement-3

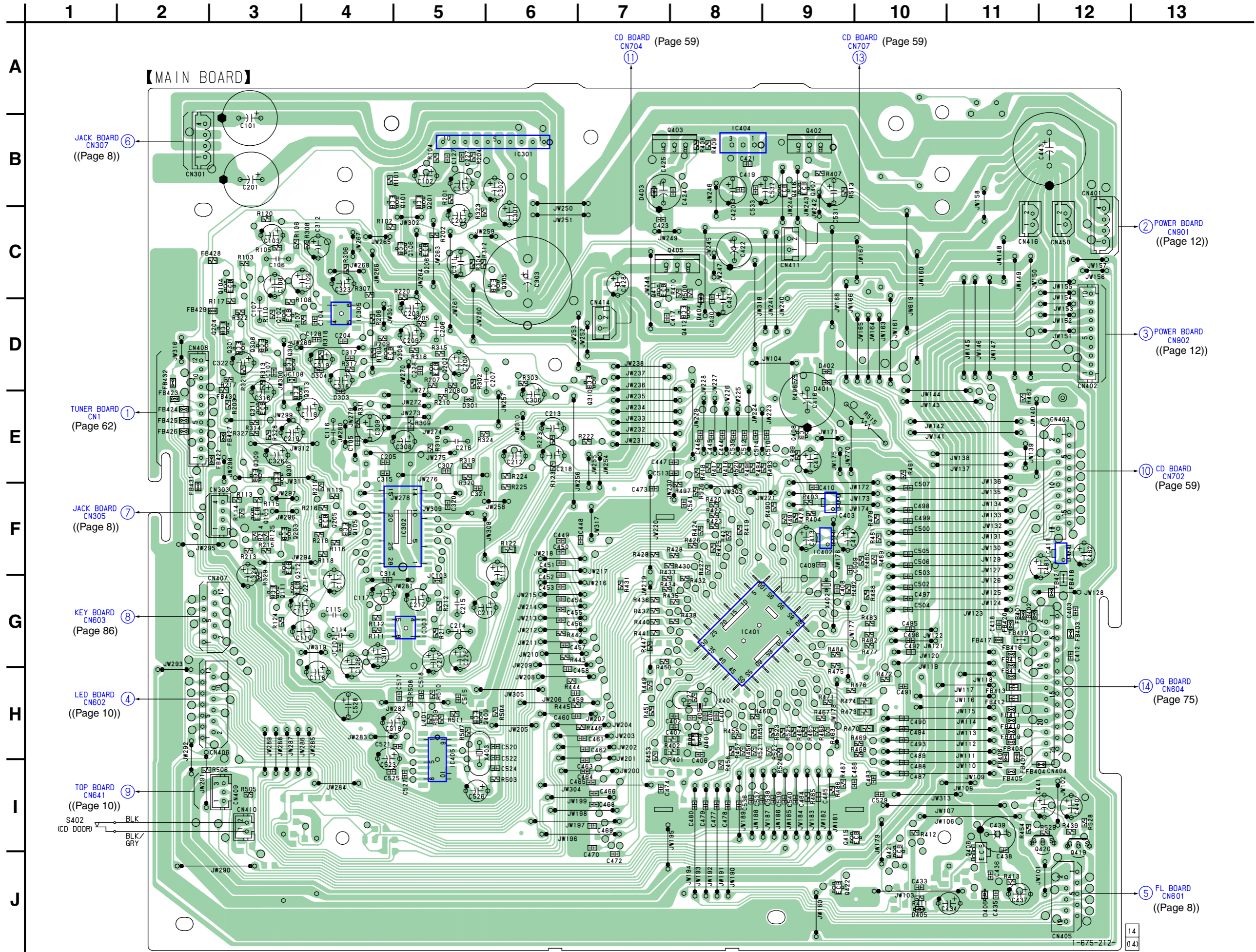
– BATT (+) BOARD (component side) –



– BATT (-) BOARD (component side) –

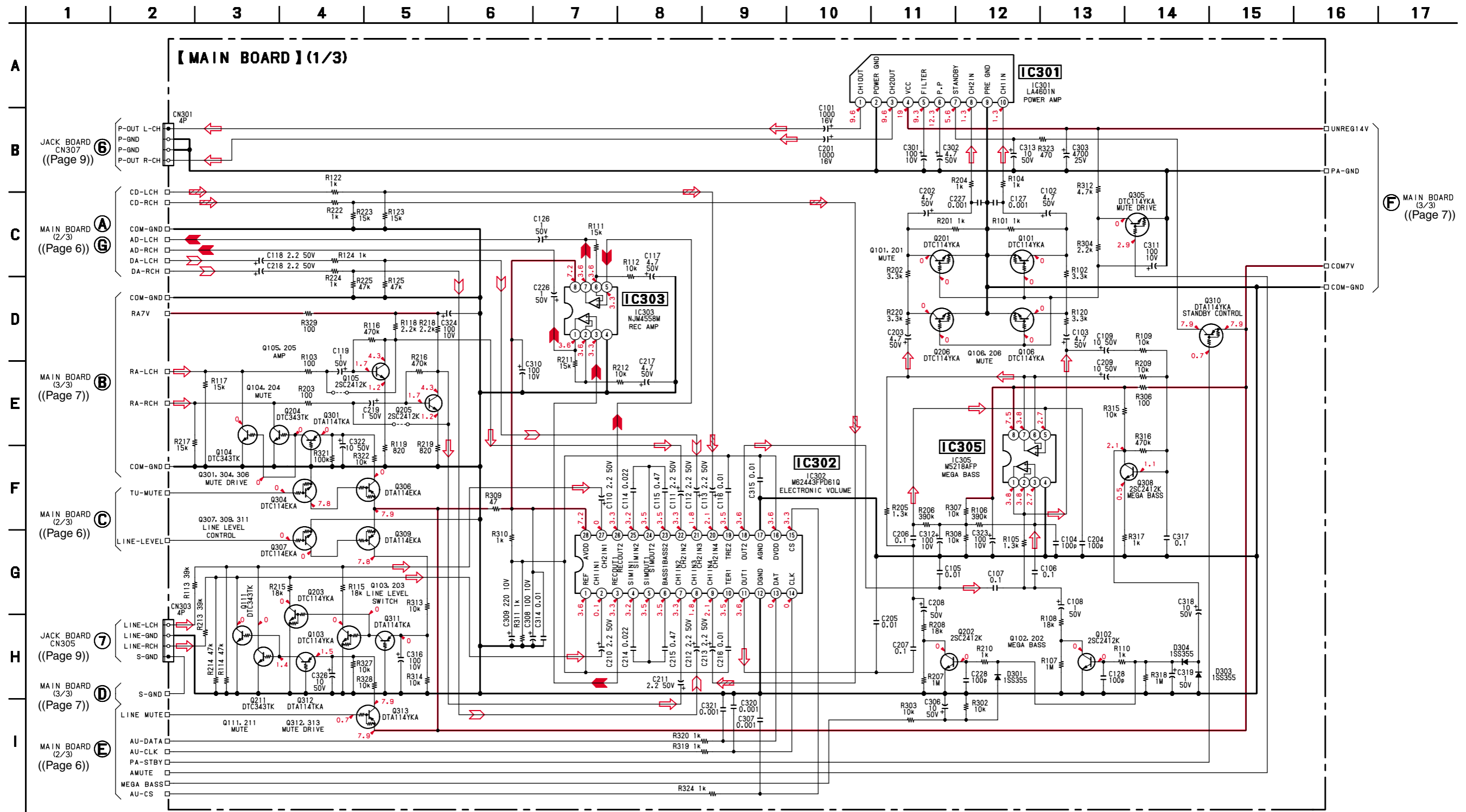


2. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 3 for Note.



• () : Page of service manual
 (()) : Page of service manual supplement-3

3. SCHEMATIC DIAGRAM — MAIN SECTION (1/3) — • Refer to page 3 for Note.

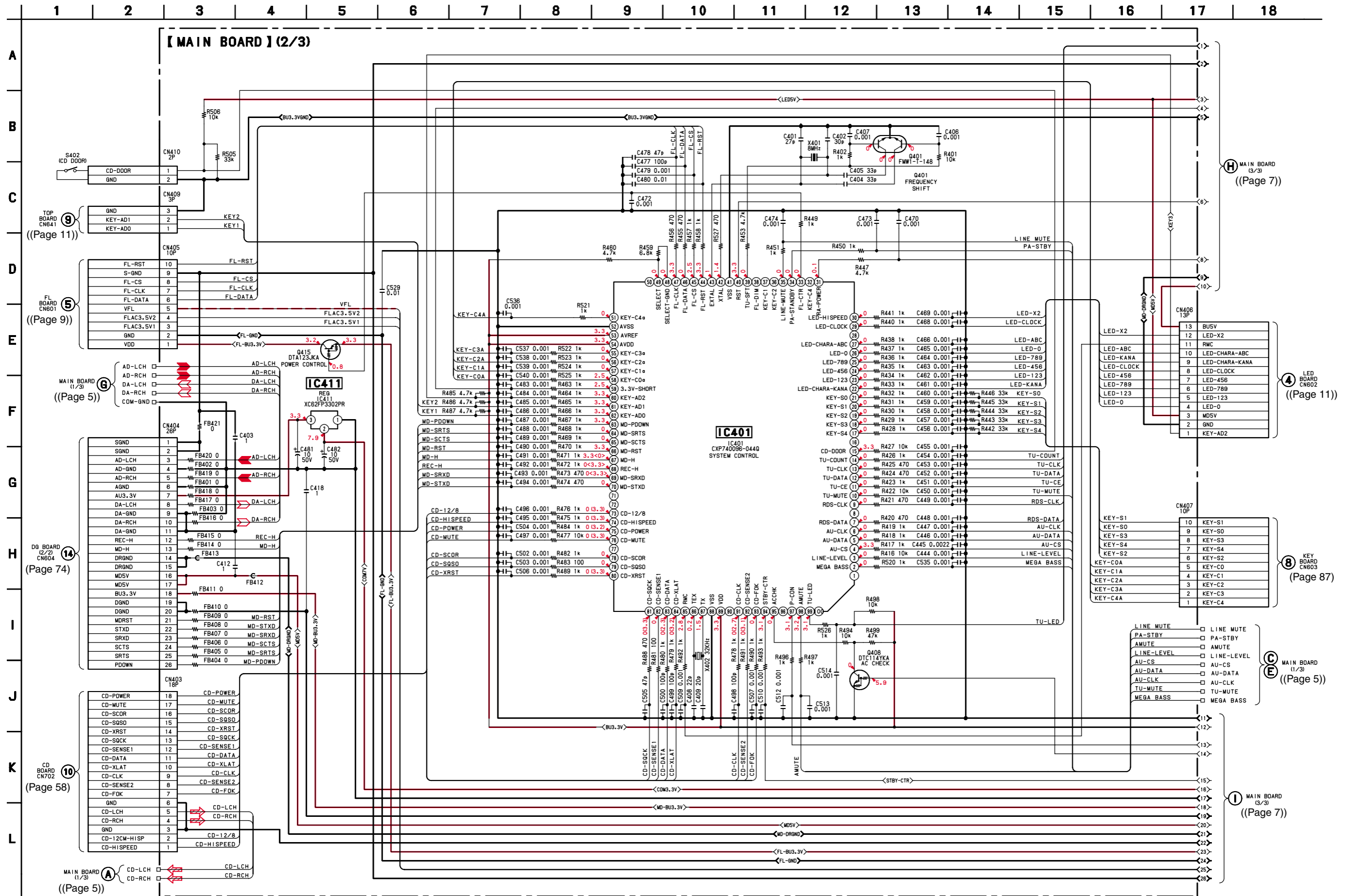


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	E-5	IC302	F-5	Q102	D-3	Q206	C-5	Q312	F-4	Q412	D-8
D303	E-4	IC303	F-5	Q103	D-3	Q211	G-3	Q313	E-4	Q415	I-10
D304	D-4	IC305	D-4	Q104	C-3	Q301	D-3	Q401	H-8	Q416	B-9
D401	D-9	IC401	G-8	Q105	F-4	Q304	D-3	Q402	B-9	Q419	J-12
D402	D-9	IC402	F-9	Q106	C-5	Q305	C-6	Q403	B-8	Q420	J-12
D403	B-7	IC403	F-9	Q111	G-3	Q306	D-3	Q405	C-8	Q421	J-10
D404	D-8	IC404	B-8	Q201	B-5	Q307	E-3	Q406	J-11	Q422	J-9
D405	J-10	IC405	I-5	Q202	D-5	Q308	D-5	Q407	B-9		
D406	J-11	IC411	F-12	Q203	F-3	Q309	E-3	Q408	E-9		
				Q204	D-3	Q310	E-7	Q409	H-6		
				Q205	F-4	Q311	E-3	Q411	C-8		
IC301	B-6	Q101	B-5								

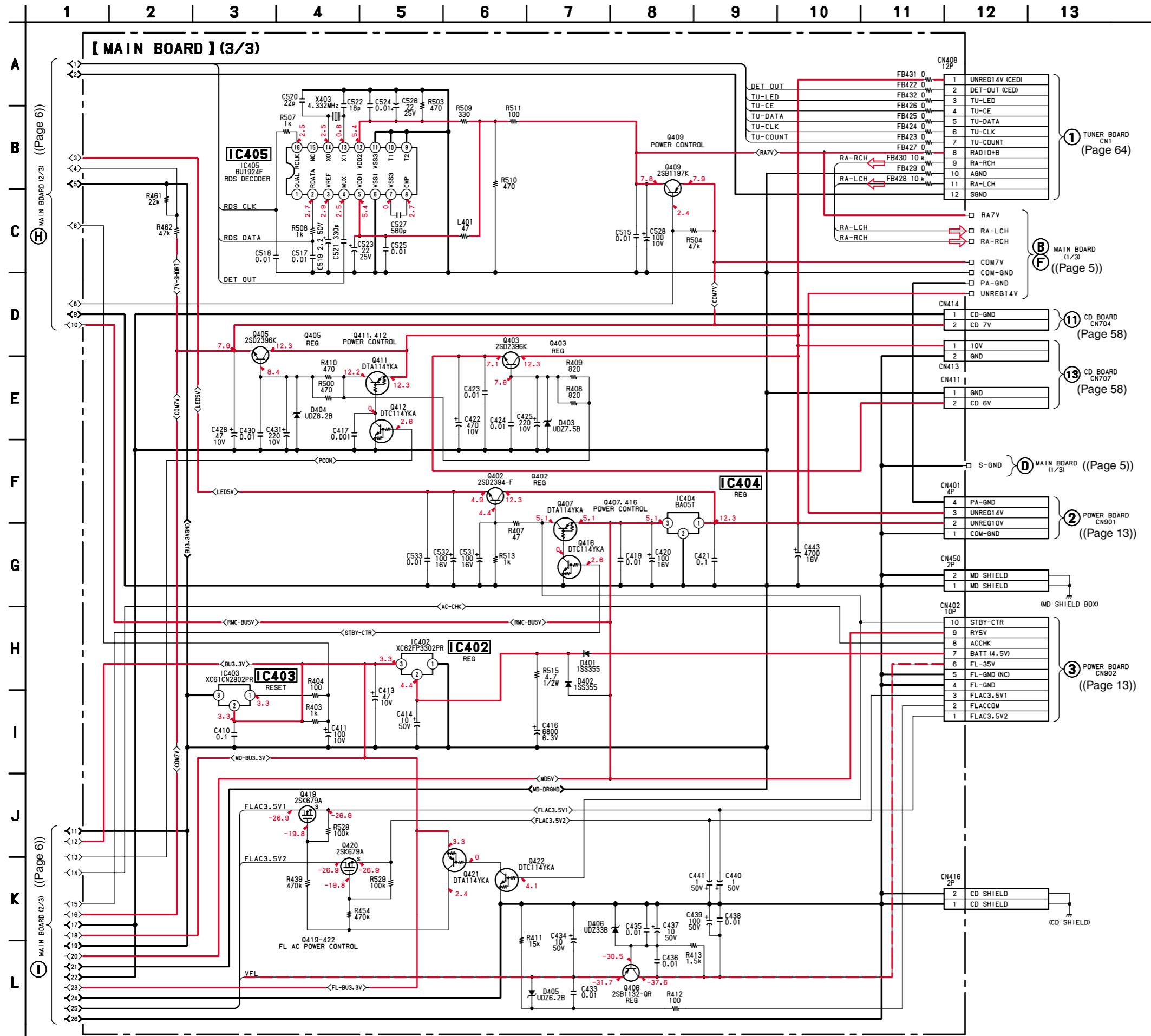
• Voltage is dc with respect to ground under no-signal (detuned) condition.
 no mark : FM
 • (()) : Page of service manual supplement-3

4. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) — • Refer to page 3 for Note.



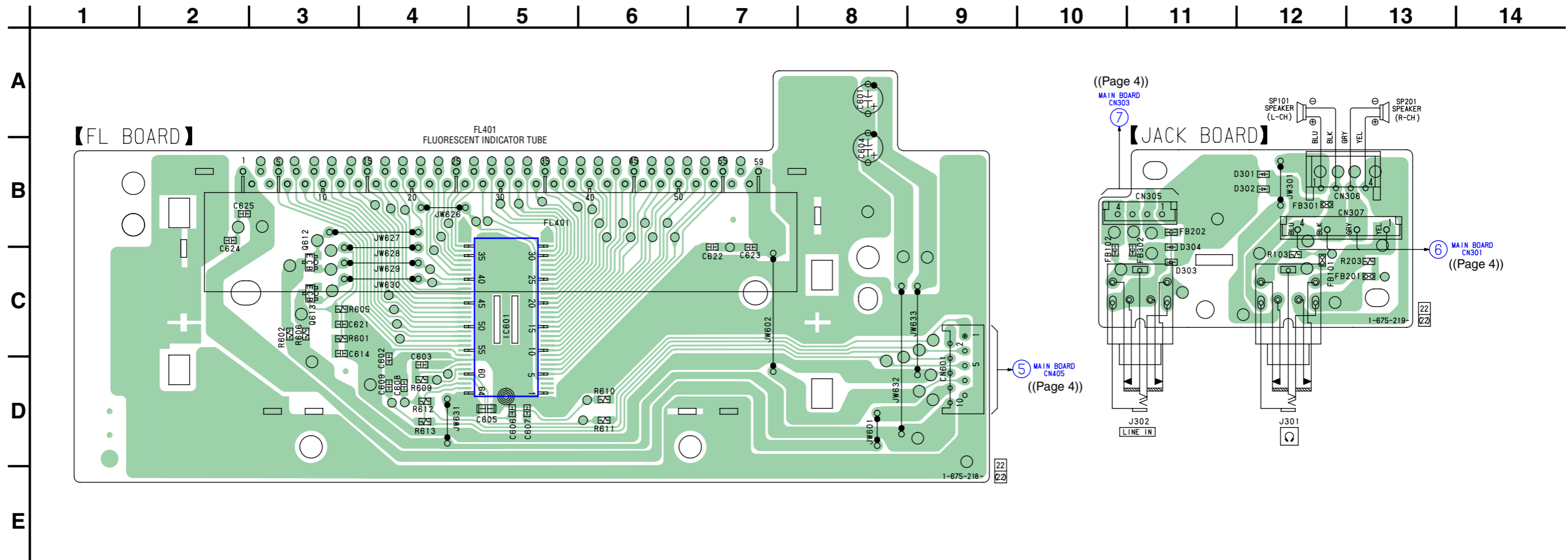
• Voltage is dc with respect to ground under no-signal (detuned) condition.
 () : MD STOP
 < > : CD STOP
 () : Page of service manual
 (()) : Page of service manual supplement-3

5. SCHEMATIC DIAGRAM — MAIN SECTION (3/3) — • Refer to page 3 for Note.



• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM
• () : Page of service manual
(()) : Page of service manual supplement-3

6. PRINTED WIRING BOARDS — PANEL SECTION — • Refer to page 3 for Note.

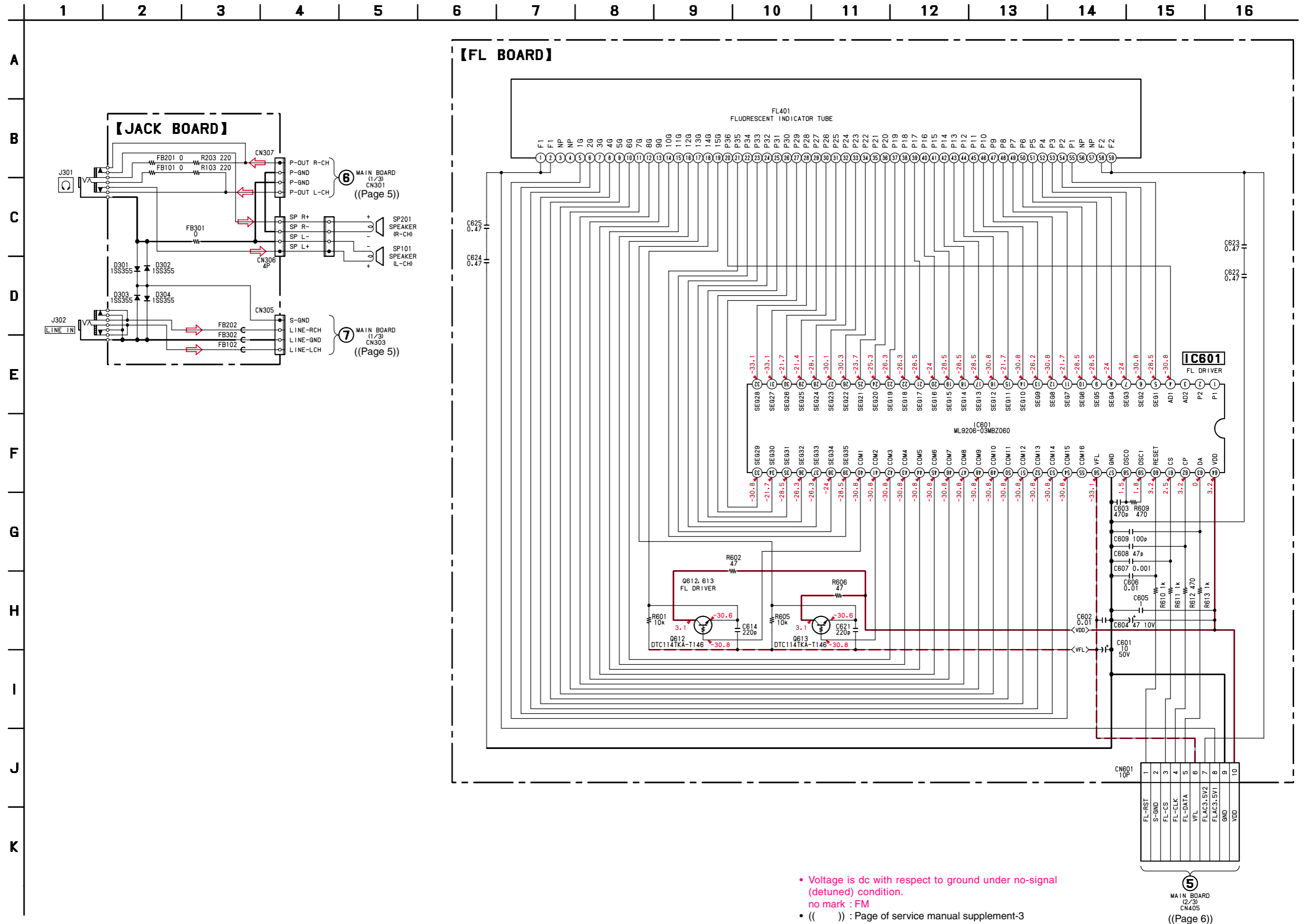


• (()) : Page of service manual supplement-3

• Semiconductor Location

Ref. No.	Location
D301	B-12
D302	B-12
D303	C-11
D304	C-11
IC601	C-5
Q612	C-3
Q613	C-3

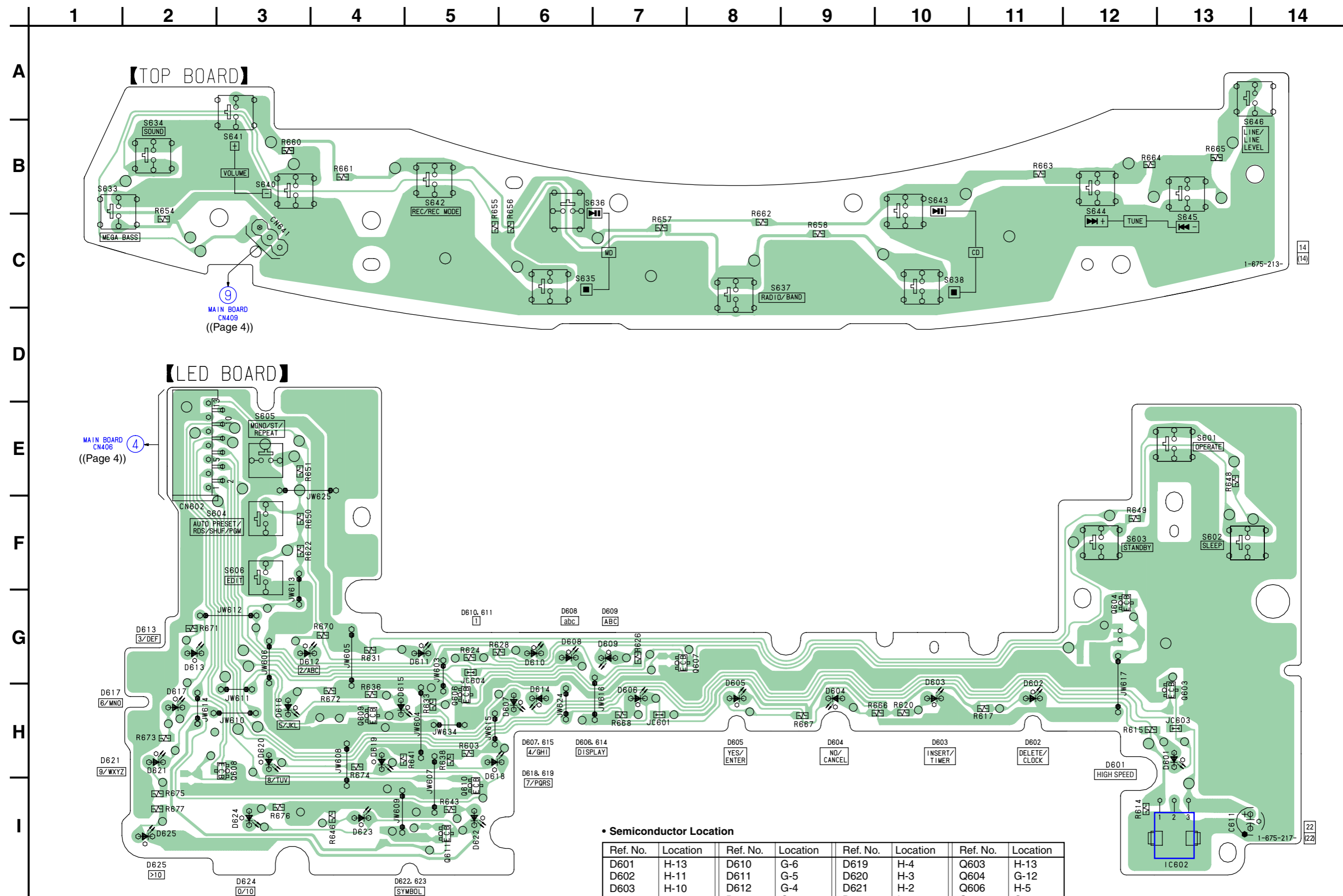
7. SCHEMATIC DIAGRAMS — PANEL SECTION — • Refer to page 3 for Note.



- Voltage is dc with respect to ground under no-signal (detuned) condition.
- no mark : FM
- (()) : Page of service manual supplement-3

5
MAIN BOARD
(2/3)
CN405
((Page 6))

8. PRINTED WIRING BOARDS — SWITCH SECTION — • Refer to page 3 for Note.

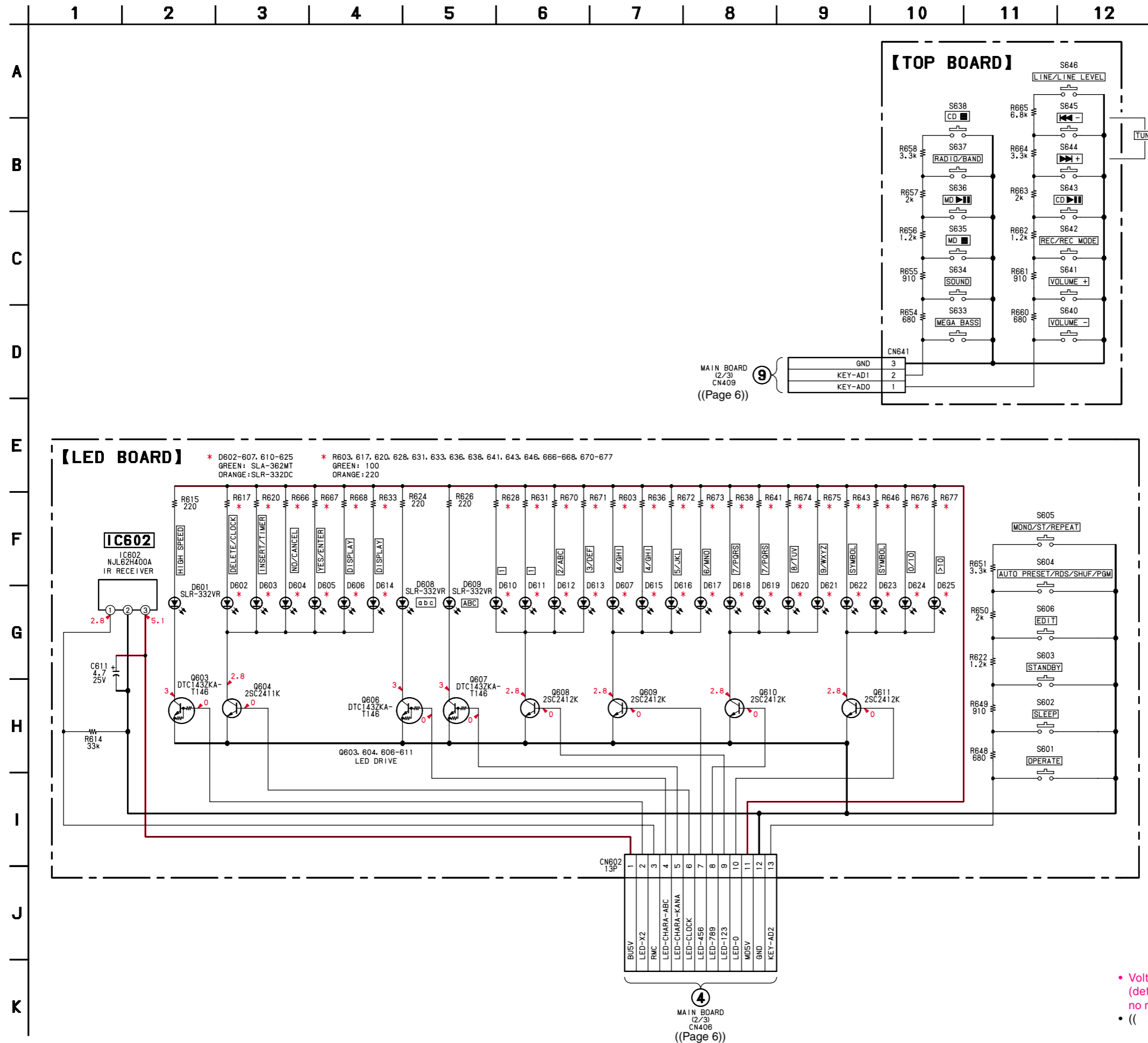


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D601	H-13	D610	G-6	D619	H-4	Q603	H-13
D602	H-11	D611	G-5	D620	H-3	Q604	G-12
D603	H-10	D612	G-4	D621	H-2	Q606	H-5
D604	H-9	D613	G-2	D622	I-5	Q607	G-7
D605	H-8	D614	H-6	D623	I-4	Q608	H-3
D606	H-7	D615	H-5	D624	I-3	Q609	H-4
D607	H-6	D616	H-3	D625	I-2	Q610	I-5
D608	G-6	D617	H-2			Q611	I-5
D609	G-7	D618	H-5	IC602	I-13		

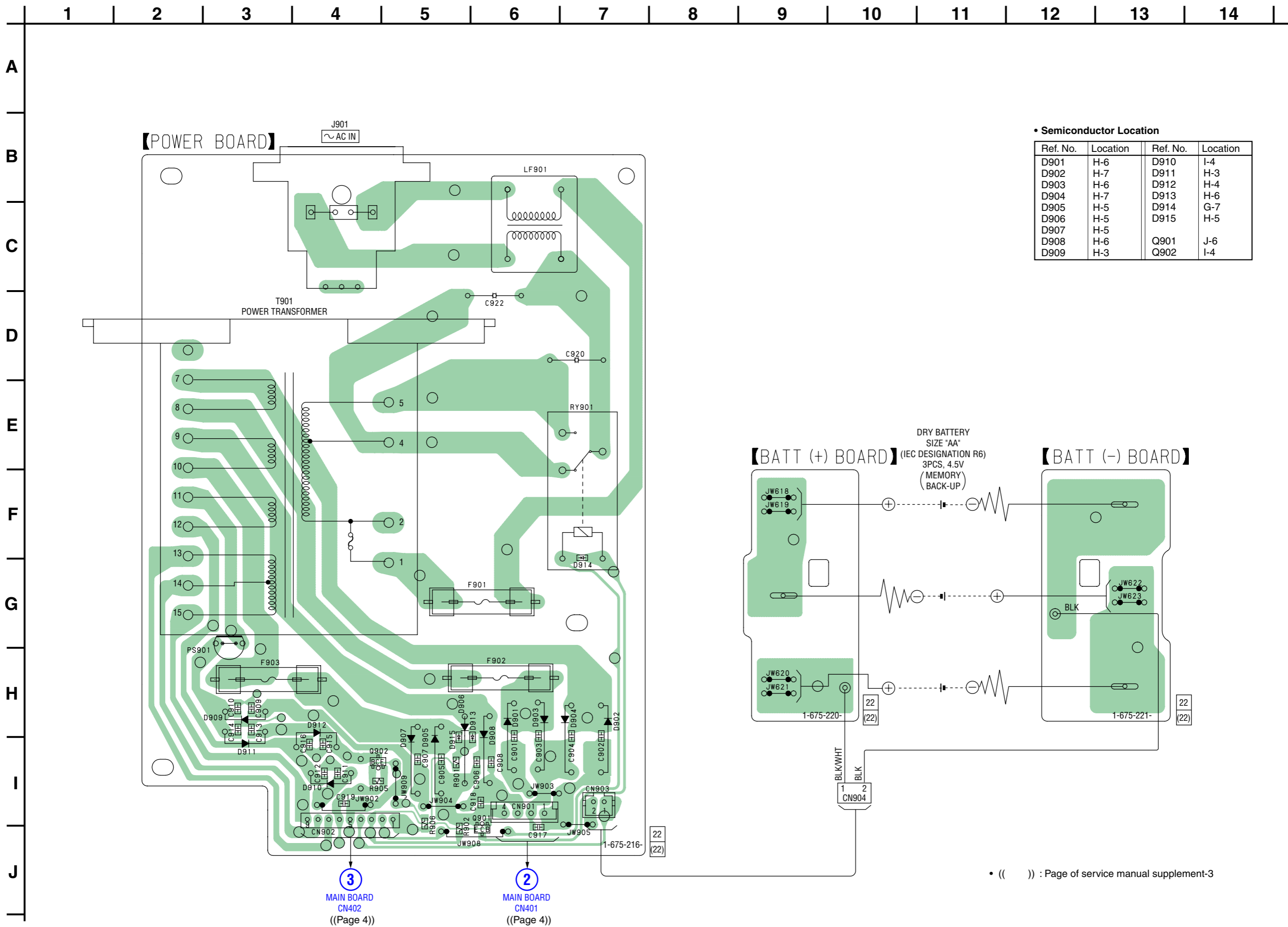
• (()) : Page of service manual supplement-3

9. SCHEMATIC DIAGRAMS — SWITCH SECTION — • Refer to page 3 for Note.



• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM
• (()) : Page of service manual supplement-3

10. PRINTED WIRING BOARDS — POWER SUPPLY SECTION — • Refer to page 3 for Note.



• Semiconductor Location

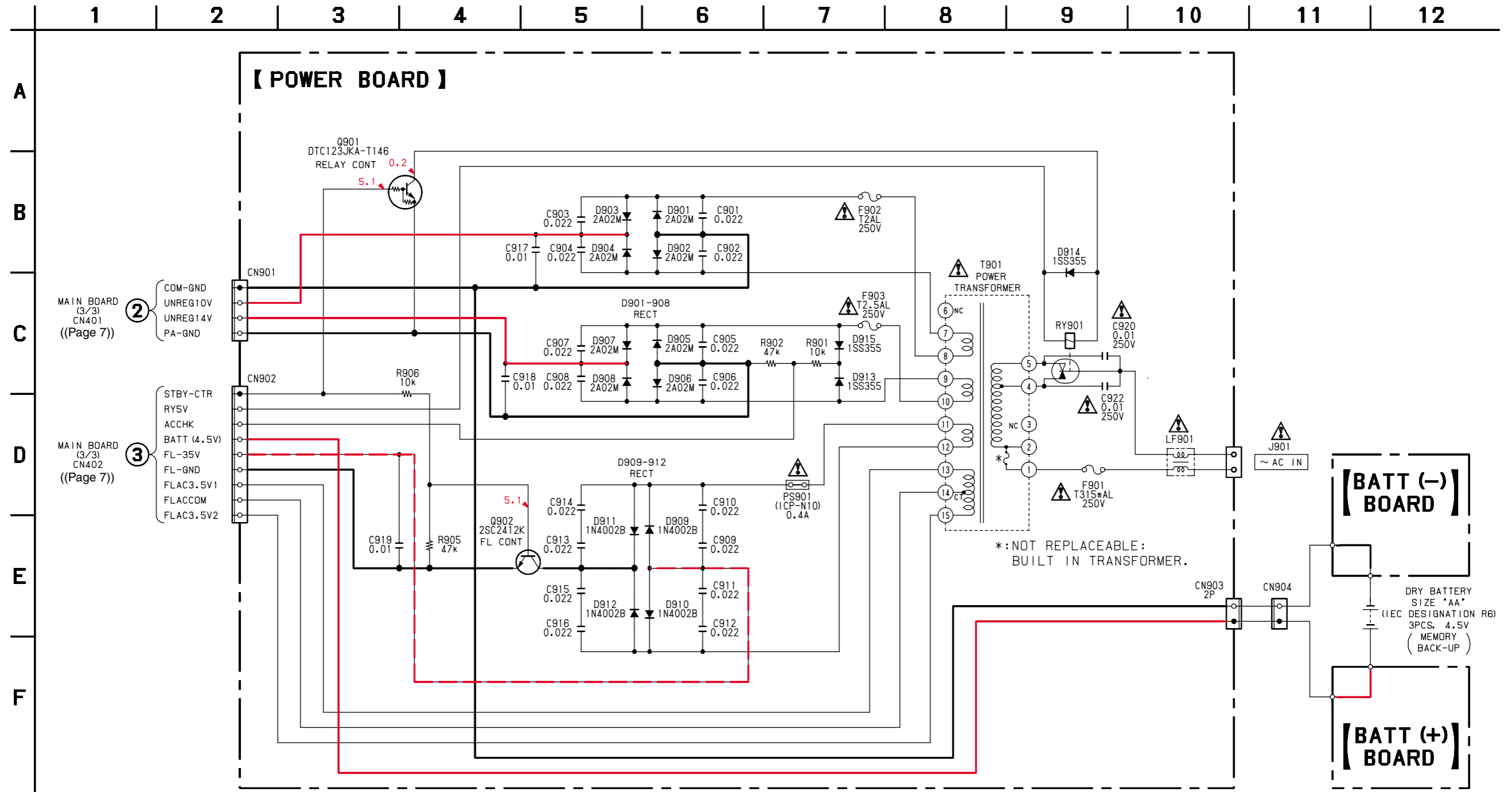
Ref. No.	Location	Ref. No.	Location
D901	H-6	D910	I-4
D902	H-7	D911	H-3
D903	H-6	D912	H-4
D904	H-7	D913	H-6
D905	H-5	D914	G-7
D906	H-5	D915	H-5
D907	H-5		
D908	H-6	Q901	J-6
D909	H-3	Q902	I-4

3 MAIN BOARD CN402 ((Page 4))

2 MAIN BOARD CN401 ((Page 4))

• (()) : Page of service manual supplement-3

11. SCHEMATIC DIAGRAMS — POWER SUPPLY SECTION — • Refer to page 3 for Note.



LED

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R631	1-216-174-00	RES-CHIP	100 5% 1/8W (GREEN)	R673	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)
R631	1-216-182-00	RES-CHIP	220 5% 1/8W (ORANGE)	R673	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)
R633	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	R674	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)
R633	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	R674	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)
R636	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	R675	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)
R636	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	R675	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)
R638	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	R676	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)
R638	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	R676	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)
R641	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	R677	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)
R641	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	R677	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)
R643	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)			< SWITCH >	
R643	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	S601	1-554-937-11	SWITCH, KEYBOARD (OPERATE)	(ORANGE)
R646	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	S601	1-692-014-11	SWITCH, KEYBOARD (OPERATE)	(GREEN)
R646	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	S602	1-554-937-11	SWITCH, KEYBOARD (SLEEP)	(ORANGE)
R648	1-216-045-00	METAL CHIP	680 5% 1/10W	S602	1-692-014-11	SWITCH, KEYBOARD (SLEEP)	(GREEN)
R649	1-216-048-00	METAL CHIP	910 5% 1/10W	S603	1-554-937-11	SWITCH, KEYBOARD (STANDBY)	(ORANGE)
R650	1-216-056-00	RES-CHIP	2K 5% 1/10W	S603	1-692-014-11	SWITCH, KEYBOARD (STANDBY)	(GREEN)
R651	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	S604	1-554-937-11	SWITCH, KEYBOARD (AUTO PRESET/RDS/SHUF/PGM)	(ORANGE)
R666	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	S604	1-692-014-11	SWITCH, KEYBOARD (AUTO PRESET/RDS/SHUF/PGM)	(GREEN)
R666	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	S605	1-554-937-11	SWITCH, KEYBOARD (MONO/ST/REPEAT)	(ORANGE)
R667	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	S605	1-692-014-11	SWITCH, KEYBOARD (MONO/ST/REPEAT)	(GREEN)
R667	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	S606	1-554-937-11	SWITCH, KEYBOARD (EDIT)	(ORANGE)
R668	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	S606	1-692-014-11	SWITCH, KEYBOARD (EDIT)	(GREEN)
R668	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	*****			
R670	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)	*	A-3322-530-A	MAIN BOARD, COMPLETE	*****
R670	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)		3-039-961-01	SPRING (IC)	
R671	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)		3-831-441-99	CUSHION (A)	
R671	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)		7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
R672	1-216-025-11	RES-CHIP	100 5% 1/10W (GREEN)			< CAPACITOR >	
R672	1-216-033-00	METAL CHIP	220 5% 1/10W (ORANGE)	C101	1-126-767-11	ELECT	1000uF 20% 16V
				C102	1-126-963-11	ELECT	4.7uF 20% 50V
				C103	1-126-963-11	ELECT	4.7uF 20% 50V
				C104	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
				C105	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
				C106	1-136-165-00	MYLAR	0.1uF 5% 50V
				C107	1-136-165-00	MYLAR	0.1uF 5% 50V
				C108	1-126-960-11	ELECT	1uF 20% 50V
				C109	1-126-964-11	ELECT	10uF 20% 50V

NOTE: There are two different colors of LEDs on the LED board. In service, check the color of the set before replacing parts.

Color of the set	Color of LEDs
BLACK	GREEN
WHITE	GREEN
BLUE	GREEN
ORANGE	ORANGE

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C110	1-126-961-11	ELECT	2.2uF	20%	50V	C321	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C111	1-126-961-11	ELECT	2.2uF	20%	50V	C322	1-126-964-11	ELECT	10uF	20%	50V
C112	1-126-961-11	ELECT	2.2uF	20%	50V	C323	1-104-665-11	ELECT	100uF	20%	10V
C113	1-126-961-11	ELECT	2.2uF	20%	50V	C324	1-104-665-11	ELECT	100uF	20%	10V
C114	1-136-157-00	MYLAR	0.022uF	5%	50V	C326	1-126-964-11	ELECT	10uF	20%	50V
C115	1-136-173-00	MYLAR	0.47uF	5%	50V	C401	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C116	1-136-153-00	FILM	0.01uF	5%	50V	C402	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C117	1-126-963-11	ELECT	4.7uF	20%	50V	C403	1-164-346-11	CERAMIC CHIP	1uF		16V
C118	1-126-961-11	ELECT	2.2uF	20%	50V	C404	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C119	1-126-960-11	ELECT	1uF	20%	50V	C405	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C126	1-126-960-11	ELECT	1uF	20%	50V	C406	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C127	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C407	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C128	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C408	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C201	1-126-767-11	ELECT	1000uF	20%	16V	C409	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C202	1-126-963-11	ELECT	4.7uF	20%	50V	C410	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C203	1-126-963-11	ELECT	4.7uF	20%	50V	C411	1-104-665-11	ELECT	100uF	20%	10V
C204	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C412	1-164-346-11	CERAMIC CHIP	1uF		16V
C205	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C413	1-126-947-11	ELECT	47uF	20%	10V
C206	1-136-165-00	MYLAR	0.1uF	5%	50V	C414	1-126-964-11	ELECT	10uF	20%	50V
C207	1-136-165-00	MYLAR	0.1uF	5%	50V	C416	1-126-919-11	ELECT	6800uF	20%	6.3V
C208	1-126-960-11	ELECT	1uF	20%	50V	C417	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C209	1-126-964-11	ELECT	10uF	20%	50V	C418	1-164-346-11	CERAMIC CHIP	1uF		16V
C210	1-126-961-11	ELECT	2.2uF	20%	50V	C419	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C211	1-126-961-11	ELECT	2.2uF	20%	50V	C420	1-126-933-11	ELECT	100uF	20%	16V
C212	1-126-961-11	ELECT	2.2uF	20%	50V	C421	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V
C213	1-126-961-11	ELECT	2.2uF	20%	50V	C422	1-126-935-11	ELECT	470uF	20%	10V
C214	1-136-157-00	MYLAR	0.022uF	5%	50V	C423	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C215	1-136-173-00	MYLAR	0.47uF	5%	50V	C424	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C216	1-136-153-00	FILM	0.01uF	5%	50V	C425	1-126-934-11	ELECT	220uF	20%	10V
C217	1-126-963-11	ELECT	4.7uF	20%	50V	C428	1-126-947-11	ELECT	47uF	20%	10V
C218	1-126-961-11	ELECT	2.2uF	20%	50V	C430	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C219	1-126-960-11	ELECT	1uF	20%	50V	C431	1-126-934-11	ELECT	220uF	20%	10V
C226	1-126-960-11	ELECT	1uF	20%	50V	C433	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C227	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C434	1-126-964-11	ELECT	10uF	20%	50V
C228	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C435	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C301	1-104-665-11	ELECT	100uF	20%	10V	C436	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C302	1-126-963-11	ELECT	4.7uF	20%	50V	C437	1-126-964-11	ELECT	10uF	20%	50V
C303	1-115-877-11	DOUBLE LAYERS	4700uF	20%	25V	C438	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C306	1-126-964-11	ELECT	10uF	20%	50V	C439	1-126-968-11	ELECT	100uF	20%	50V
C307	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C440	1-126-960-11	ELECT	1uF	20%	50V
C308	1-104-665-11	ELECT	100uF	20%	10V	C441	1-126-960-11	ELECT	1uF	20%	50V
C309	1-126-934-11	ELECT	220uF	20%	10V	C443	1-126-937-11	ELECT	4700uF	20%	16V
C310	1-104-665-11	ELECT	100uF	20%	10V	C444	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C311	1-104-665-11	ELECT	100uF	20%	10V	C445	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C312	1-104-665-11	ELECT	100uF	20%	10V	C446	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C313	1-126-964-11	ELECT	10uF	20%	50V	C447	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C314	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C448	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C315	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C449	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C316	1-104-665-11	ELECT	100uF	20%	10V	C450	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C317	1-107-725-11	CERAMIC CHIP	0.1uF	10%	16V	C451	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C318	1-126-964-11	ELECT	10uF	20%	50V	C452	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C319	1-126-960-11	ELECT	1uF	20%	50V	C453	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C320	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C454	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C455	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C515	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C456	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C517	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C457	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C518	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C458	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C519	1-126-961-11	ELECT	2.2uF	20%	50V
C459	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C520	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C460	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C521	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C461	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C522	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C462	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C523	1-128-551-11	ELECT	22uF	20%	25V
C463	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C524	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C464	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C525	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C465	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C526	1-128-551-11	ELECT	22uF	20%	25V
C466	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C527	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C468	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C528	1-104-665-11	ELECT	100uF	20%	10V
C469	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C529	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C470	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C531	1-126-933-11	ELECT	100uF	20%	16V
C472	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C532	1-126-933-11	ELECT	100uF	20%	16V
C473	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C533	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C474	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C535	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C477	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C536	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C478	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C537	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C479	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	C538	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C480	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V	C539	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C481	1-126-964-11	ELECT	10uF	20%	50V	C540	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C482	1-126-964-11	ELECT	10uF	20%	50V	C541	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C483	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V						
C484	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V			< CONNECTOR >			
C485	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN301	1-564-778-11	PLUG, CONNECTOR (2.5mm) 4P			
C486	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN303	1-785-656-11	PIN, CONNECTOR (PC BOARD) 4P			
C487	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN401	1-564-778-11	PLUG, CONNECTOR (2.5mm) 4P			
C488	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN402	1-785-662-11	PIN, CONNECTOR (PC BOARD) 10P			
C489	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN403	1-568-468-11	PIN, CONNECTOR (PC BOARD) 18P			
C490	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	CN404	1-568-931-11	PIN, CONNECTOR (PC BOARD) 26P			
C491	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN405	1-695-333-41	PIN, CONNECTOR (PC BOARD) 10P			
C492	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	CN406	1-695-336-31	PIN, CONNECTOR (PC BOARD) 13P			
C493	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN407	1-695-333-41	PIN, CONNECTOR (PC BOARD) 10P			
C494	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN408	1-785-664-11	PIN, CONNECTOR (PC BOARD) 12P			
C495	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN409	1-785-655-11	PIN, CONNECTOR (PC BOARD) 3P			
C496	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN410	1-785-654-11	PIN, CONNECTOR (PC BOARD) 2P			
C497	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	* CN416	1-566-690-11	PLUG, CONNECTOR (2.5mm) 2P			
C498	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	CN450	1-566-690-11	PLUG, CONNECTOR (2.5mm) 2P			
C499	1-163-251-11	CERAMIC CHIP	100PF	5%	50V			< DIODE >			
C500	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	D301	8-719-988-61	DIODE 1SS355TE-17			
C502	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D303	8-719-988-61	DIODE 1SS355TE-17			
C503	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D304	8-719-988-61	DIODE 1SS355TE-17			
C504	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D401	8-719-988-61	DIODE 1SS355TE-17			
C505	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	D402	8-719-988-61	DIODE 1SS355TE-17			
C506	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V						
C507	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D403	8-719-056-84	DIODE UDZ-TE-17-7.5B			
C509	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D404	8-719-056-85	DIODE UDZ-TE-17-8.2B			
C510	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D405	8-719-056-82	DIODE UDZ-TE-17-6.2B			
C512	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	D406	8-719-977-81	DIODE DTZ33B			
C513	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V						
C514	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V						

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
< FERRITE BEAD >				< RESISTOR >				
FB401	1-216-295-11	SHORT	0	L401	1-216-017-11	RES-CHIP 47 5%	1/10W	
FB402	1-216-295-11	SHORT	0	< TRANSISTOR >				
FB403	1-216-295-11	SHORT	0	Q101	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB404	1-216-295-11	SHORT	0	Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
FB405	1-216-295-11	SHORT	0	Q103	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB406	1-216-295-11	SHORT	0	Q104	8-729-920-31	TRANSISTOR DTC343TK		
FB407	1-216-295-11	SHORT	0	Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
FB408	1-216-295-11	SHORT	0	Q106	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB409	1-216-295-11	SHORT	0	Q111	8-729-920-31	TRANSISTOR DTC343TK		
FB410	1-216-295-11	SHORT	0	Q201	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB411	1-216-295-11	SHORT	0	Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
FB412	1-469-185-11	FERRITE BEAD INDUCTOR		Q203	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB413	1-469-185-11	FERRITE BEAD INDUCTOR		Q204	8-729-920-31	TRANSISTOR DTC343TK		
FB414	1-216-295-11	SHORT	0	Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
FB415	1-216-295-11	SHORT	0	Q206	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB416	1-216-295-11	SHORT	0	Q211	8-729-920-31	TRANSISTOR DTC343TK		
FB417	1-216-295-11	SHORT	0	Q301	8-729-027-24	TRANSISTOR DTA114TKA-T146		
FB418	1-216-296-11	SHORT	0	Q304	8-729-900-53	TRANSISTOR DTC114EK		
FB419	1-216-296-11	SHORT	0	Q305	8-729-027-46	TRANSISTOR DTC114YKA-T146		
FB420	1-216-295-11	SHORT	0	Q306	8-729-027-23	TRANSISTOR DTA114EKA-T146		
FB421	1-216-295-11	SHORT	0	Q307	8-729-900-53	TRANSISTOR DTC114EK		
FB422	1-216-295-11	SHORT	0	Q308	8-729-120-28	TRANSISTOR 2SC1623-L5L6		
FB423	1-216-295-11	SHORT	0	Q309	8-729-027-23	TRANSISTOR DTA114EKA-T146		
FB424	1-216-295-11	SHORT	0	Q310	8-729-027-26	TRANSISTOR DTA114YKA-T146		
FB425	1-216-295-11	SHORT	0	Q311	8-729-027-24	TRANSISTOR DTA114TKA-T146		
FB426	1-216-295-11	SHORT	0	Q312	8-729-027-24	TRANSISTOR DTA114TKA-T146		
FB427	1-216-295-11	SHORT	0	Q313	8-729-027-26	TRANSISTOR DTA114YKA-T146		
FB428	1-216-073-00	RES-CHIP	10K 5%	1/10W	Q401	8-729-903-10	TRANSISTOR FMW1	
FB429	1-216-295-11	SHORT	0	Q402	8-729-018-99	TRANSISTOR 2SD2394-F		
FB430	1-216-073-00	RES-CHIP	10K 5%	1/10W	Q403	8-729-021-82	TRANSISTOR 2SD2396K	
FB431	1-216-295-11	SHORT	0	Q405	8-729-021-82	TRANSISTOR 2SD2396K		
FB432	1-216-295-11	SHORT	0	Q406	8-729-903-46	TRANSISTOR 2SB1132-P		
< IC >				Q407	8-729-027-26	TRANSISTOR DTA114YKA-T146		
IC301	8-759-543-56	IC LA4601N		Q408	8-729-027-46	TRANSISTOR DTC114YKA-T146		
IC302	8-759-652-74	IC M62443FPD61Q		Q409	8-729-904-86	TRANSISTOR 2SB1197K-Q		
IC303	8-759-100-96	IC NJM4558M-TE2		Q411	8-729-027-26	TRANSISTOR DTA114YKA-T146		
IC305	8-759-636-55	IC M5218AFP-T1		Q412	8-729-027-46	TRANSISTOR DTC114YKA-T146		
IC401	8-752-915-75	IC CXP740096-044Q		Q415	8-729-027-29	TRANSISTOR DTA123JKA-T146		
IC402	8-759-486-73	IC XC62FP3302PR		Q416	8-729-027-46	TRANSISTOR DTC114YKA-T146		
IC403	8-759-649-23	IC XC61CN2802PR		Q419	8-729-012-83	FET 2SK679A		
IC404	8-759-450-47	IC BA05T		Q420	8-729-012-83	FET 2SK679A		
IC405	8-759-557-36	IC BU1924F-E2		Q421	8-729-027-26	TRANSISTOR DTA114YKA-T146		
IC411	8-759-486-73	IC XC62FP3302PR		Q422	8-729-027-46	TRANSISTOR DTC114YKA-T146		
< JUMPER RESISTOR >				< RESISTOR >				
JC102	1-216-295-11	SHORT	0	R101	1-216-049-11	RES-CHIP 1K 5%	1/10W	
JC103	1-216-295-11	SHORT	0	R102	1-216-061-00	RES-CHIP 3.3K 5%	1/10W	
JC107	1-216-295-11	SHORT	0	R103	1-216-025-11	RES-CHIP 100 5%	1/10W	
JC108	1-216-295-11	SHORT	0	R104	1-216-049-11	RES-CHIP 1K 5%	1/10W	
				R105	1-216-052-00	METAL CHIP 1.3K 5%	1/10W	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R106	1-216-111-00	METAL CHIP	390K	5%	1/10W	R313	1-216-073-00	RES-CHIP	10K	5%	1/10W
R107	1-216-121-11	RES-CHIP	1M	5%	1/10W	R314	1-216-073-00	RES-CHIP	10K	5%	1/10W
R108	1-216-079-00	METAL CHIP	18K	5%	1/10W	R315	1-216-073-00	RES-CHIP	10K	5%	1/10W
R109	1-216-073-00	RES-CHIP	10K	5%	1/10W	R316	1-216-113-00	METAL CHIP	470K	5%	1/10W
R110	1-216-049-11	RES-CHIP	1K	5%	1/10W	R317	1-216-049-11	RES-CHIP	1K	5%	1/10W
R111	1-216-077-11	RES-CHIP	15K	5%	1/10W	R318	1-216-121-11	RES-CHIP	1M	5%	1/10W
R112	1-216-073-00	RES-CHIP	10K	5%	1/10W	R319	1-216-049-11	RES-CHIP	1K	5%	1/10W
R113	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	R320	1-216-049-11	RES-CHIP	1K	5%	1/10W
R114	1-216-089-11	RES-CHIP	47K	5%	1/10W	R321	1-216-097-11	RES-CHIP	100K	5%	1/10W
R115	1-216-079-00	METAL CHIP	18K	5%	1/10W	R322	1-216-073-00	RES-CHIP	10K	5%	1/10W
R116	1-216-113-00	METAL CHIP	470K	5%	1/10W	R323	1-216-041-00	METAL CHIP	470	5%	1/10W
R117	1-216-077-11	RES-CHIP	15K	5%	1/10W	R324	1-216-049-11	RES-CHIP	1K	5%	1/10W
R118	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R327	1-216-073-00	RES-CHIP	10K	5%	1/10W
R119	1-216-047-11	RES-CHIP	820	5%	1/10W	R328	1-216-073-00	RES-CHIP	10K	5%	1/10W
R120	1-216-061-00	RES-CHIP	3.3K	5%	1/10W	R329	1-216-025-11	RES-CHIP	100	5%	1/10W
R122	1-216-198-11	RES-CHIP	1K	5%	1/8W	R401	1-216-222-00	RES-CHIP	10K	5%	1/8W
R123	1-216-077-11	RES-CHIP	15K	5%	1/10W	R402	1-216-198-11	RES-CHIP	1K	5%	1/8W
R124	1-216-049-11	RES-CHIP	1K	5%	1/10W	R403	1-216-049-11	RES-CHIP	1K	5%	1/10W
R125	1-216-089-11	RES-CHIP	47K	5%	1/10W	R404	1-216-025-11	RES-CHIP	100	5%	1/10W
R201	1-216-049-11	RES-CHIP	1K	5%	1/10W	R407	1-216-017-11	RES-CHIP	47	5%	1/10W
R202	1-216-061-00	RES-CHIP	3.3K	5%	1/10W	R408	1-216-047-11	RES-CHIP	820	5%	1/10W
R203	1-216-025-11	RES-CHIP	100	5%	1/10W	R409	1-216-047-11	RES-CHIP	820	5%	1/10W
R204	1-216-049-11	RES-CHIP	1K	5%	1/10W	R410	1-216-041-00	METAL CHIP	470	5%	1/10W
R205	1-216-052-00	METAL CHIP	1.3K	5%	1/10W	R411	1-216-077-11	RES-CHIP	15K	5%	1/10W
R206	1-216-111-00	METAL CHIP	390K	5%	1/10W	R412	1-216-025-11	RES-CHIP	100	5%	1/10W
R207	1-216-121-11	RES-CHIP	1M	5%	1/10W	R413	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R208	1-216-079-00	METAL CHIP	18K	5%	1/10W	R416	1-216-073-00	RES-CHIP	10K	5%	1/10W
R209	1-216-073-00	RES-CHIP	10K	5%	1/10W	R417	1-216-049-11	RES-CHIP	1K	5%	1/10W
R210	1-216-049-11	RES-CHIP	1K	5%	1/10W	R418	1-216-049-11	RES-CHIP	1K	5%	1/10W
R211	1-216-077-11	RES-CHIP	15K	5%	1/10W	R419	1-216-049-11	RES-CHIP	1K	5%	1/10W
R212	1-216-073-00	RES-CHIP	10K	5%	1/10W	R420	1-216-041-00	METAL CHIP	470	5%	1/10W
R213	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	R421	1-216-041-00	METAL CHIP	470	5%	1/10W
R214	1-216-089-11	RES-CHIP	47K	5%	1/10W	R422	1-216-073-00	RES-CHIP	10K	5%	1/10W
R215	1-216-079-00	METAL CHIP	18K	5%	1/10W	R423	1-216-049-11	RES-CHIP	1K	5%	1/10W
R216	1-216-113-00	METAL CHIP	470K	5%	1/10W	R424	1-216-041-00	METAL CHIP	470	5%	1/10W
R217	1-216-077-11	RES-CHIP	15K	5%	1/10W	R425	1-216-041-00	METAL CHIP	470	5%	1/10W
R218	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R426	1-216-049-11	RES-CHIP	1K	5%	1/10W
R219	1-216-047-11	RES-CHIP	820	5%	1/10W	R427	1-216-073-00	RES-CHIP	10K	5%	1/10W
R220	1-216-061-00	RES-CHIP	3.3K	5%	1/10W	R428	1-216-049-11	RES-CHIP	1K	5%	1/10W
R222	1-216-049-11	RES-CHIP	1K	5%	1/10W	R429	1-216-049-11	RES-CHIP	1K	5%	1/10W
R223	1-216-077-11	RES-CHIP	15K	5%	1/10W	R430	1-216-049-11	RES-CHIP	1K	5%	1/10W
R224	1-216-049-11	RES-CHIP	1K	5%	1/10W	R431	1-216-049-11	RES-CHIP	1K	5%	1/10W
R225	1-216-089-11	RES-CHIP	47K	5%	1/10W	R432	1-216-049-11	RES-CHIP	1K	5%	1/10W
R302	1-216-073-00	RES-CHIP	10K	5%	1/10W	R433	1-216-049-11	RES-CHIP	1K	5%	1/10W
R303	1-216-073-00	RES-CHIP	10K	5%	1/10W	R434	1-216-049-11	RES-CHIP	1K	5%	1/10W
R304	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R435	1-216-049-11	RES-CHIP	1K	5%	1/10W
R306	1-216-025-11	RES-CHIP	100	5%	1/10W	R436	1-216-049-11	RES-CHIP	1K	5%	1/10W
R307	1-216-073-00	RES-CHIP	10K	5%	1/10W	R437	1-216-049-11	RES-CHIP	1K	5%	1/10W
R308	1-216-073-00	RES-CHIP	10K	5%	1/10W	R438	1-216-049-11	RES-CHIP	1K	5%	1/10W
R309	1-216-166-00	RES-CHIP	47	5%	1/8W	R439	1-216-113-00	METAL CHIP	470K	5%	1/10W
R310	1-216-049-11	RES-CHIP	1K	5%	1/10W	R440	1-216-049-11	RES-CHIP	1K	5%	1/10W
R311	1-216-049-11	RES-CHIP	1K	5%	1/10W	R441	1-216-049-11	RES-CHIP	1K	5%	1/10W
R312	1-216-065-11	RES-CHIP	4.7K	5%	1/10W	R442	1-216-085-00	RES-CHIP	33K	5%	1/10W

ZS-M35

MAIN	POWER
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Ref. No.	Part No.	Description			Remark
R443	1-216-085-00	RES-CHIP	33K	5%	1/10W
R444	1-216-085-00	RES-CHIP	33K	5%	1/10W
R445	1-216-085-00	RES-CHIP	33K	5%	1/10W
R446	1-216-085-00	RES-CHIP	33K	5%	1/10W
R447	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R449	1-216-049-11	RES-CHIP	1K	5%	1/10W
R450	1-216-049-11	RES-CHIP	1K	5%	1/10W
R451	1-216-049-11	RES-CHIP	1K	5%	1/10W
R453	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R454	1-216-113-00	METAL CHIP	470K	5%	1/10W
R455	1-216-041-00	METAL CHIP	470	5%	1/10W
R456	1-216-041-00	METAL CHIP	470	5%	1/10W
R457	1-216-049-11	RES-CHIP	1K	5%	1/10W
R458	1-216-049-11	RES-CHIP	1K	5%	1/10W
R459	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R460	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R461	1-216-081-00	METAL CHIP	22K	5%	1/10W
R462	1-216-089-11	RES-CHIP	47K	5%	1/10W
R463	1-216-049-11	RES-CHIP	1K	5%	1/10W
R464	1-216-049-11	RES-CHIP	1K	5%	1/10W
R465	1-216-049-11	RES-CHIP	1K	5%	1/10W
R466	1-216-049-11	RES-CHIP	1K	5%	1/10W
R467	1-216-049-11	RES-CHIP	1K	5%	1/10W
R468	1-216-049-11	RES-CHIP	1K	5%	1/10W
R469	1-216-049-11	RES-CHIP	1K	5%	1/10W
R470	1-216-198-11	RES-CHIP	1K	5%	1/8W
R471	1-216-049-11	RES-CHIP	1K	5%	1/10W
R472	1-216-049-11	RES-CHIP	1K	5%	1/10W
R473	1-216-190-00	RES-CHIP	470	5%	1/8W
R474	1-216-190-00	RES-CHIP	470	5%	1/8W
R475	1-216-049-11	RES-CHIP	1K	5%	1/10W
R476	1-216-049-11	RES-CHIP	1K	5%	1/10W
R477	1-216-073-00	RES-CHIP	10K	5%	1/10W
R478	1-216-049-11	RES-CHIP	1K	5%	1/10W
R479	1-216-049-11	RES-CHIP	1K	5%	1/10W
R480	1-216-049-11	RES-CHIP	1K	5%	1/10W
R481	1-216-025-11	RES-CHIP	100	5%	1/10W
R482	1-216-049-11	RES-CHIP	1K	5%	1/10W
R483	1-216-025-11	RES-CHIP	100	5%	1/10W
R484	1-216-049-11	RES-CHIP	1K	5%	1/10W
R485	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R486	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R487	1-216-065-11	RES-CHIP	4.7K	5%	1/10W
R488	1-216-041-00	METAL CHIP	470	5%	1/10W
R489	1-216-049-11	RES-CHIP	1K	5%	1/10W
R490	1-216-049-11	RES-CHIP	1K	5%	1/10W
R491	1-216-049-11	RES-CHIP	1K	5%	1/10W
R492	1-216-049-11	RES-CHIP	1K	5%	1/10W
R493	1-216-049-11	RES-CHIP	1K	5%	1/10W
R494	1-216-073-00	RES-CHIP	10K	5%	1/10W
R496	1-216-049-11	RES-CHIP	1K	5%	1/10W
R497	1-216-049-11	RES-CHIP	1K	5%	1/10W
R498	1-216-073-00	RES-CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R499	1-216-089-11	RES-CHIP	47K	5%	1/10W
R500	1-216-041-00	METAL CHIP	470	5%	1/10W
R503	1-216-041-00	METAL CHIP	470	5%	1/10W
R504	1-216-089-11	RES-CHIP	47K	5%	1/10W
R505	1-216-085-00	RES-CHIP	33K	5%	1/10W
R506	1-216-073-00	RES-CHIP	10K	5%	1/10W
R507	1-216-049-11	RES-CHIP	1K	5%	1/10W
R508	1-216-049-11	RES-CHIP	1K	5%	1/10W
R509	1-216-037-00	METAL CHIP	330	5%	1/10W
R510	1-216-041-00	METAL CHIP	470	5%	1/10W
R511	1-216-025-11	RES-CHIP	100	5%	1/10W
R513	1-216-049-11	RES-CHIP	1K	5%	1/10W
R515	1-260-300-11	CARBON	4.7	5%	1/2W
R520	1-216-049-11	RES-CHIP	1K	5%	1/10W
R521	1-216-049-11	RES-CHIP	1K	5%	1/10W
R522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R524	1-216-049-11	RES-CHIP	1K	5%	1/10W
R525	1-216-049-11	RES-CHIP	1K	5%	1/10W
R526	1-216-049-11	RES-CHIP	1K	5%	1/10W
R527	1-216-041-00	METAL CHIP	470	5%	1/10W
R528	1-216-097-11	RES-CHIP	100K	5%	1/10W
R529	1-216-097-11	RES-CHIP	100K	5%	1/10W
< VIBRATOR >					
X401	1-781-598-21	VIBRATOR, CERAMIC (8MHz)			
X402	1-767-697-11	VIBRATOR, CRYSTAL (32kHz)			
X403	1-760-556-41	VIBRATOR, CRYSTAL (4.332MHz)			

*	A-3322-536-A	POWER BOARD, COMPLETE			

	1-533-233-31	HOLDER, FUSE			
< CAPACITOR >					
C901	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C902	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C903	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C904	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C905	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C906	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C907	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C908	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C909	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C910	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C911	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C912	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C913	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C914	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C915	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C916	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C917	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C918	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

Ref. No.	Part No.	Description	Remark		
C919	1-163-021-11	CERAMIC CHIP 0.01uF 10%	50V		
<u>△</u> C920	1-113-925-11	CERAMIC 0.01uF 20%	250V		
<u>△</u> C922	1-113-925-11	CERAMIC 0.01uF 20%	250V		
		< CONNECTOR >			
* CN903	1-785-654-11	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D901	8-719-046-07	DIODE 2A02M			
D902	8-719-046-07	DIODE 2A02M			
D903	8-719-046-07	DIODE 2A02M			
D904	8-719-046-07	DIODE 2A02M			
D905	8-719-046-07	DIODE 2A02M			
D906	8-719-046-07	DIODE 2A02M			
D907	8-719-046-07	DIODE 2A02M			
D908	8-719-046-07	DIODE 2A02M			
D909	8-719-063-79	DIODE 1N4002B			
D910	8-719-063-79	DIODE 1N4002B			
D911	8-719-063-79	DIODE 1N4002B			
D912	8-719-063-79	DIODE 1N4002B			
D913	8-719-988-61	DIODE 1SS355TE-17			
D914	8-719-988-61	DIODE 1SS355TE-17			
D915	8-719-988-61	DIODE 1SS355TE-17			
		< FUSE >			
<u>△</u> F901	1-532-467-51	FUSE (T315mAL/250V)			
<u>△</u> F902	1-532-388-51	FUSE (T2AL/250V)			
<u>△</u> F903	1-532-464-51	FUSE (T2.5AL/250V)			
		< AC INLET >			
<u>△</u> J901	1-526-838-11	INLET, AC 2P (~ AC IN)			
		< LINE FILTER >			
<u>△</u> LF901	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)			
		< IC LINK >			
<u>△</u> PS901	1-532-605-00	LINK, IC (ICP-N10) 0.4A			
		< TRANSISTOR >			
Q901	8-729-027-50	TRANSISTOR DTC123JKA-T146			
Q902	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		< RESISTOR >			
R901	1-216-073-00	RES-CHIP 10K 5%	1/10W		
R902	1-216-089-11	RES-CHIP 47K 5%	1/10W		
R905	1-216-089-11	RES-CHIP 47K 5%	1/10W		
R906	1-216-073-00	RES-CHIP 10K 5%	1/10W		
		< RELAY >			
RY901	1-755-363-11	RELAY			

Ref. No.	Part No.	Description	Remark		
		< TRANSFORMER >			
<u>△</u> T901	1-435-321-11	TRANSFORMER, POWER			

*	1-675-213-14	TOP BOARD			

		< RESISTOR >			
R654	1-216-045-00	METAL CHIP 680 5%	1/10W		
R655	1-216-048-00	METAL CHIP 910 5%	1/10W		
R656	1-216-051-00	METAL CHIP 1.2K 5%	1/10W		
R657	1-216-056-00	RES-CHIP 2K 5%	1/10W		
R658	1-216-061-00	RES-CHIP 3.3K 5%	1/10W		
R660	1-216-045-00	METAL CHIP 680 5%	1/10W		
R661	1-216-048-00	METAL CHIP 910 5%	1/10W		
R662	1-216-051-00	METAL CHIP 1.2K 5%	1/10W		
R663	1-216-056-00	RES-CHIP 2K 5%	1/10W		
R664	1-216-061-00	RES-CHIP 3.3K 5%	1/10W		
R665	1-216-069-00	METAL CHIP 6.8K 5%	1/10W		
		< SWITCH >			
S633	1-692-014-11	SWITCH, KEYBOARD (MEGA BASS)			
S634	1-692-014-11	SWITCH, KEYBOARD (SOUND)			
S635	1-692-014-11	SWITCH, KEYBOARD (MD ■)			
S636	1-692-014-11	SWITCH, KEYBOARD (MD ▶ ■■)			
S637	1-692-014-11	SWITCH, KEYBOARD (RADIO/BAND)			
S638	1-692-014-11	SWITCH, KEYBOARD (CD ■)			
S640	1-692-014-11	SWITCH, KEYBOARD (VOLUME -)			
S641	1-692-014-11	SWITCH, KEYBOARD (VOLUME +)			
S642	1-692-014-11	SWITCH, KEYBOARD (REC/REC MODE)			
S643	1-692-014-11	SWITCH, KEYBOARD (CD ▶ ■■)			
S644	1-692-014-11	SWITCH, KEYBOARD (TUNE ▶▶▶ +)			
S645	1-692-014-11	SWITCH, KEYBOARD (TUNE ◀◀◀ -)			
S646	1-692-014-11	SWITCH, KEYBOARD (LINE/LINE LEVEL)			

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

