CDX-M850MP

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

Ver 1.0 2003. 04

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	CDX-MP40
CD Drive Mechanism Type	MG-393MC-121//K
Optical Pick-up Name	KSS-721A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US MODEL)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

CD player section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 107.9 MHz (US, Canadian model) 87.5 – 108.0 MHz (AEP, UK, E model)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (US, Canadian model)

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

MW/LW (AEP, UK, E model)

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (front/rear) Subwoofer output (mono) Power antenna relay control terminal (US, Canadian model) Power aerial relay control terminal (AEP, UK, E model) Power amplifier control terminal

– Continued on next page –

FM/AM COMPACT DISC PLAYER

US, Canadian Model

FM/MW/LW COMPACT DISC PLAYER

AEP, UK, E Model

9-877-224-01
2003D0400-1

Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY®

Inputs	Telephone ATT control terminal Illumination control terminal BUS control input terminal BUS audio input or AUX IN terminal Remote controller input terminal Antenna input terminal (US, Canadian model) Aerial input terminal (AEP, UK, E model)
Tone controls	US, Canadian model: Bass ±10 dB at 62 Hz Treble ±10 dB at 16 kHz AEP, UK, E model: Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Loudness	+8 dB at 100 Hz +2 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 186 mm (7 1/8 × 2 × 7 3/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 163 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.5 kg (2 lb. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel cover (1) (US, Canadian model) Card remote commander RM-X110 (US, Canadian model) RM-X111 (AEP, UK, E model)

Note

This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

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

SERVICE NOTES

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

Notes on Chip Component Replacement

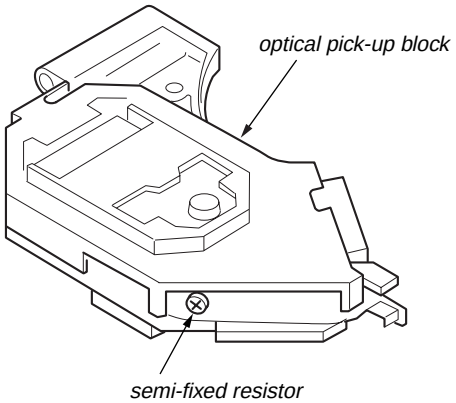
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

US, Canadian model:

CAUTION

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

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



AEP, UK, E model:

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

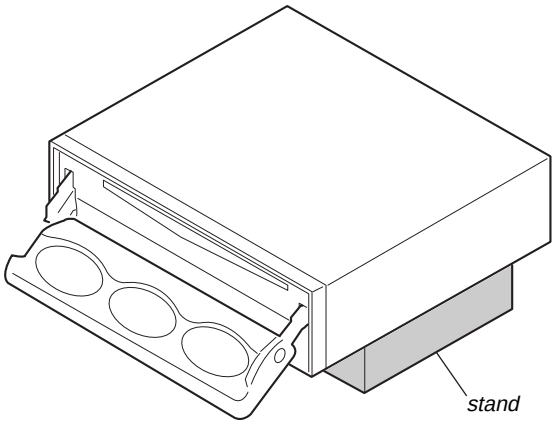
CAUTION—INVISIBLE LASER RADIATION WHEN OPEN
DO NOT STARE INTO BEAM OR
VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

This label is located on the drive unit's internal chassis.

When replacing the chassis (T) of mechanism deck which have the "CAUTION LABEL" attached, please be sure to put a new CAUTION LABEL (3-223-913-11) to the chassis (T).

NOTE FOR THE OPENING OF THE FRONT PANEL

In this set, the front panel is lowered to below the bottom face when it is opened.
When servicing the set, place it on a stand having a height of about 2 cm.



TEST DISCS

This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

Notes on CD-Rs (recordable CDs)/CD-RWs (rewritable CDs)

This unit can play the following discs:

Type of discs	Label on the disc
Audio CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 files	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

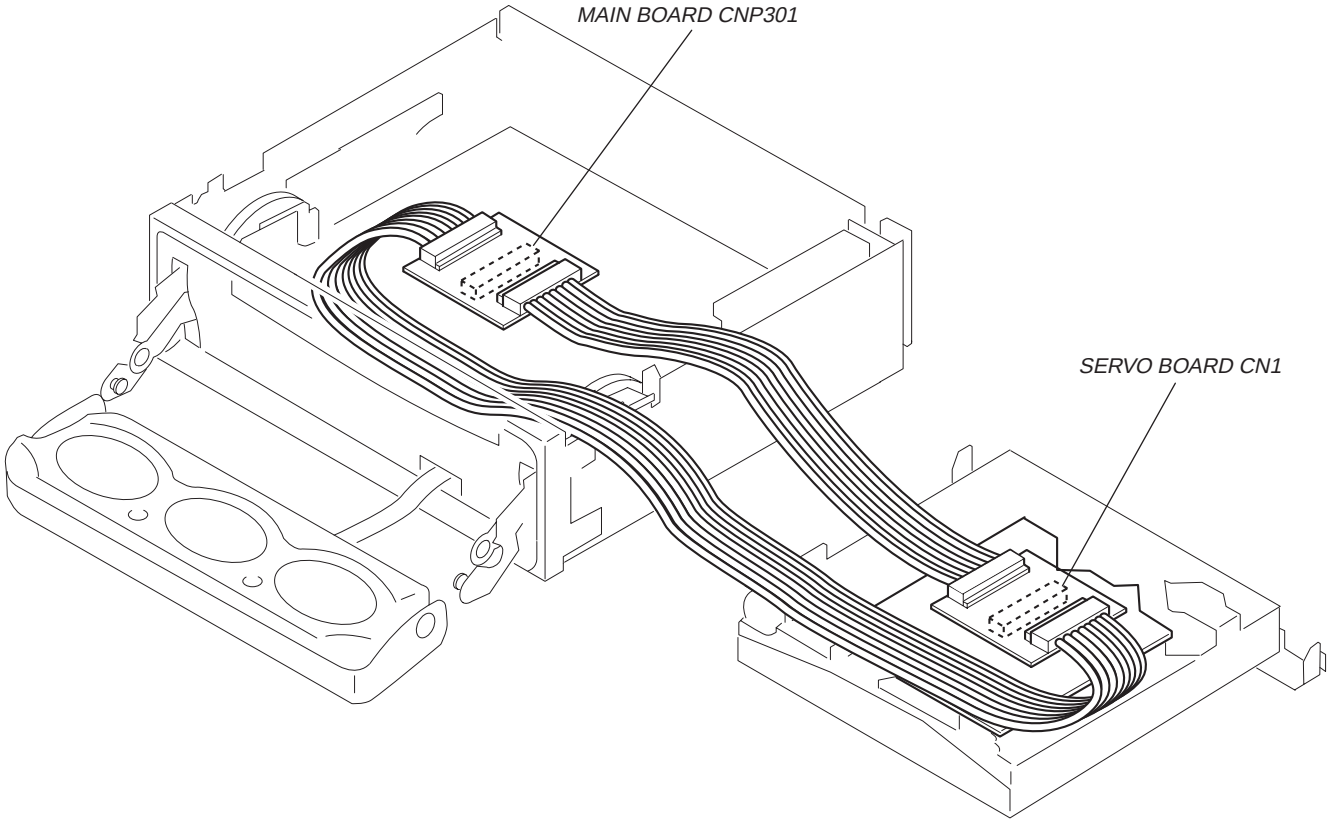
- Some CD-Rs/CD-RWs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
- You cannot play a CD-R/CD-RW that is not finalized*.
- You can play MP3 files recorded on CD-ROMs, CD-Rs, and CD-RWs.
- A CD-R/CD-RW to which a session can be added can be played.

* A process necessary for a recorded CD-R/CD-RW disc to be played on the audio CD player.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

• Connect the MAIN board (CNP301) and the SERVO board (CN1) with the extension cable (Part No. J-2502-062-1).



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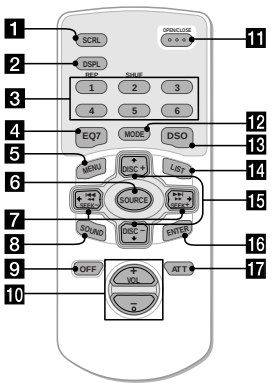
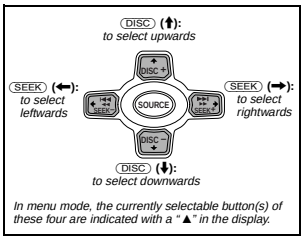
SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls (US, Canadian Model)

Card remote commander RM-X110





Note
If the display disappears by pressing (OFF), it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

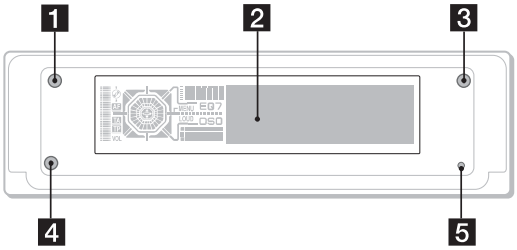
Tip
Refer to "Replacing the lithium battery" for details on how to replace the batteries (page 25).

Refer to the pages listed for details.

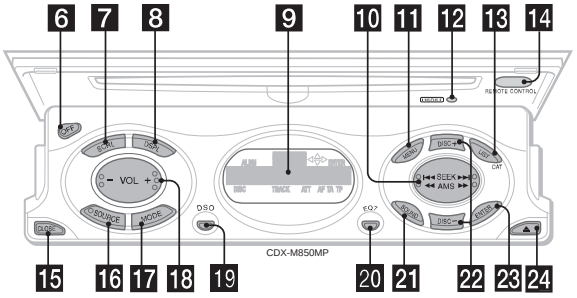
1 SCRL (scroll) button *12*
2 DSPL (display mode change) button *12, 14*
3 Number buttons
① **REP** *13*
② **SHUF** *13*
To store stations/receive stored stations.
4 EQ7 button *22*
5 MENU button
To display the menus.
6 SOURCE (Power on/Radio/CD/MD*1/AUX*2) button
To select the source.
7 SEEK/AMS (←/→) buttons
To skip tracks/fast-forward, reverse a track/tune in stations automatically, find a station manually/select a setting.
8 SOUND button *20*
9 OFF (Stop/Power off) button *11, 21, 24*
10 VOL (+/–) buttons
To turn up or down the volume.
11 OPEN/CLOSE button *10, 11*
12 MODE button
To change the operation.
13 DSO button *23*
14 LIST button *15, 18*
15 DISC/ALBUM (↑/↓) buttons
To receive preset stations/change the disc*3, skip albums*4/select a menu.
16 ENTER button
To enter a setting.
17 ATT button *20*

*1 When an optional MD unit is connected.
*2 Available only when an optional Sony portable device is connected to AUX IN terminal of the unit. You cannot connect any optional CD/MD units at the same time.
*3 When an optional CD/MD unit is connected.
*4 Available only when an MP3 file is played.

Main display side



Operation side



The buttons on the unit share the same functions as those on the card remote commander.

1 OPEN button 10, 11
2 Main display window
3 IMAGE button 23
4 14 Receptor for the card remote commander
5 12 RESET button 9
6 OFF (Stop/Power off) button*1
7 SCRL (scroll) button
8 DSPL (display mode change) button
9 Sub display window
10 SEEK/AMS (I◀◀ ◀◀/▶▶ ▶▶I) button
11 MENU button
13 LIST/CAT*2 button
15 CLOSE (front panel close) button 10
16 SOURCE button
17 MODE button
18 VOL (–/+) button
19 DSO button
20 EQ7 button
21 SOUND button
22 DISC/ALBUM (+/–) buttons
23 ENTER button
24 ⏏ (eject) button 11

continue to next page →

Connection example (US, Canadian Model)

Connection example (2)

***Notes* (2-A)**
- *Be sure to connect the ground cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

***Tip* (2-B-ⓑ)**
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Exemple de raccordement (2)

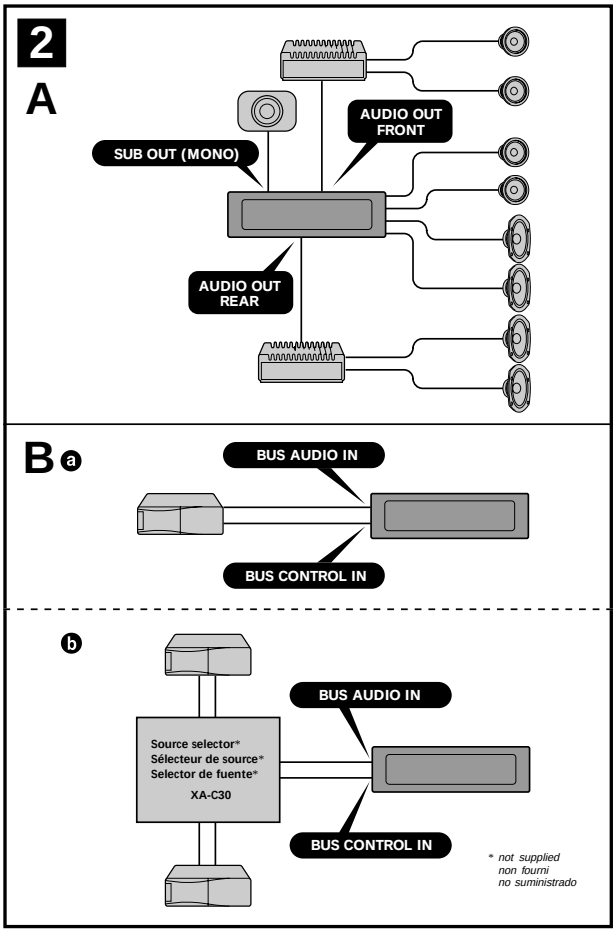
***Remarques* (2-A)**
- *Raccordez d'abord le fil de masse avant de raccorder l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance en option et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

***Conseil* (2-B-ⓑ)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est requis.

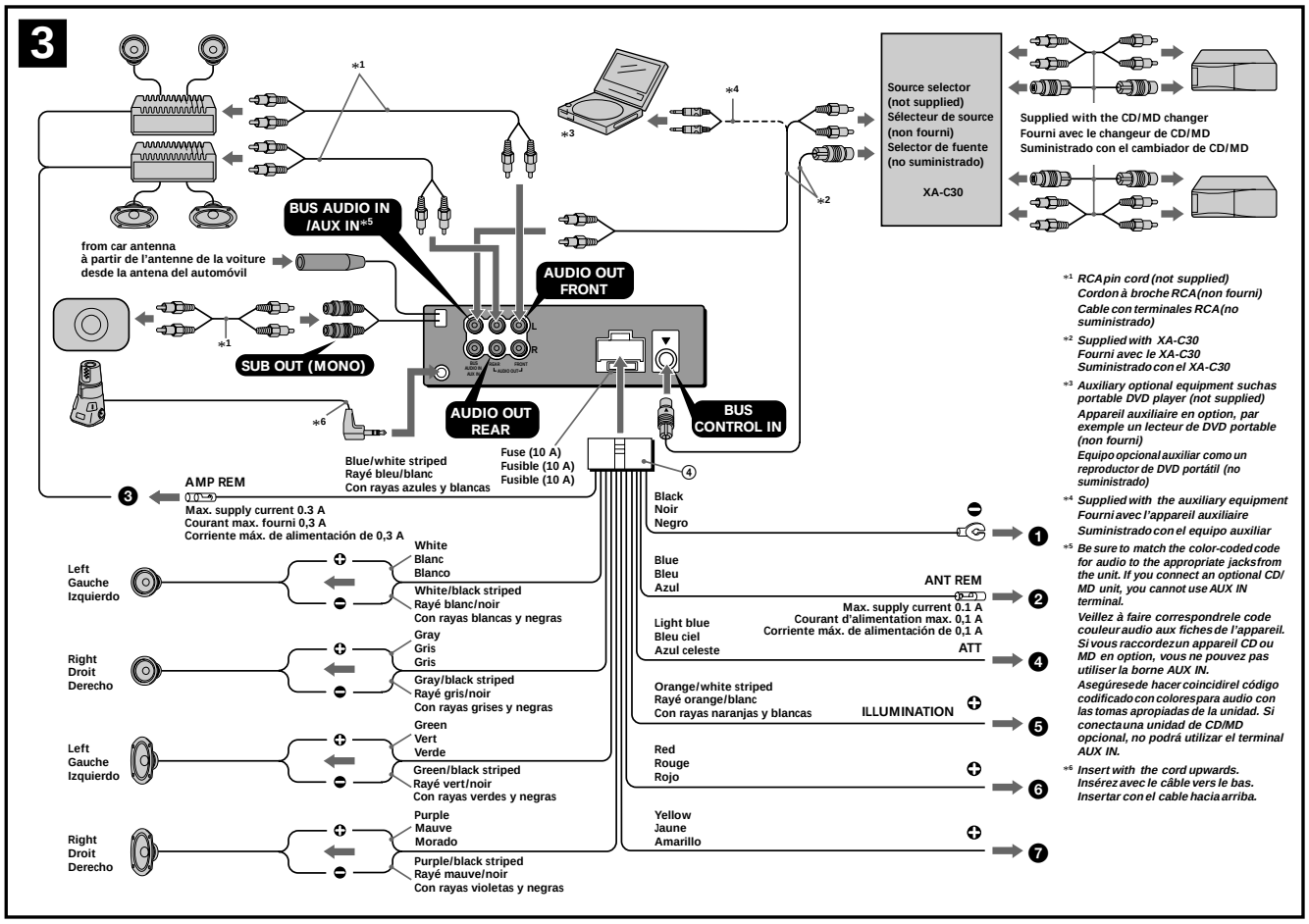
Ejemplo de conexiones (2)

***Notas* (2-A)**
- *Asegúrese de conectar primero el cable de toma a tierra antes de realizar la conexión al amplificador.*
- *Si conecta un amplificador de potencia opcional y no utiliza el incorporado, los pitidos se desactivarán.*

***Consejo* (2-B-ⓑ)**
Cuando desee conectar dos o más cambiadores de CD/MD, necesitará un selector de fuente XA-C30 (opcional).



Connections (US, Canadian Model)



Connection diagram (3)

❶ **To a metal surface of the car**
First connect the black ground lead, then connect the orange/white striped, yellow, and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**

Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the interface cable of a car telephone**

❺ **To a car's illumination signal**
Be sure to connect the black ground lead to a metal surface of the car first.

❻ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**

Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.*
  Be sure to connect the black ground lead to a metal surface of the car first.
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❼ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "Failure" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement (3)

❶ **À un point métallique de la voiture**
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation rayé orange/blanc, jaune, et rouge.

❷ **Vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne**

Remarques
- *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les fils de commande et d'alimentation ».*

❸ **Au niveau du AMP REMOTE IN de l'amplificateur de puissance en option**
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **Vers le câble d'interface d'un téléphone de voiture**

❺ **Vers le connecteur du signal d'éclairage de la voiture**
Raccordez d'abord le fil de masse noir à un point métallique du véhicule.

❻ **À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**

Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  Raccordez d'abord le fil de masse noir à un point métallique du véhicule.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les fils de commande et d'alimentation ».*

❼ **À la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le fil de masse noir à un point métallique du véhicule.

Remarques sur les fils de commande et d'alimentation
- *Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le fil de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (–) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un fil négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « Failure » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

Diagrama de conexión (3)

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de toma a tierra negro, y después los cables con raya naranja/blanca, amarillo, y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de antena**

Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **Para conectar a AMP REMOTE IN del amplificador de potencia opcional**
Esta conexión es sólo para amplificadores.
La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al cable de interfaz de un teléfono para automóvil**

❺ **A una señal de iluminación del automóvil**
Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.

❻ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**

Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero/lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❼ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará + cc cc de + 12V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su proveedor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

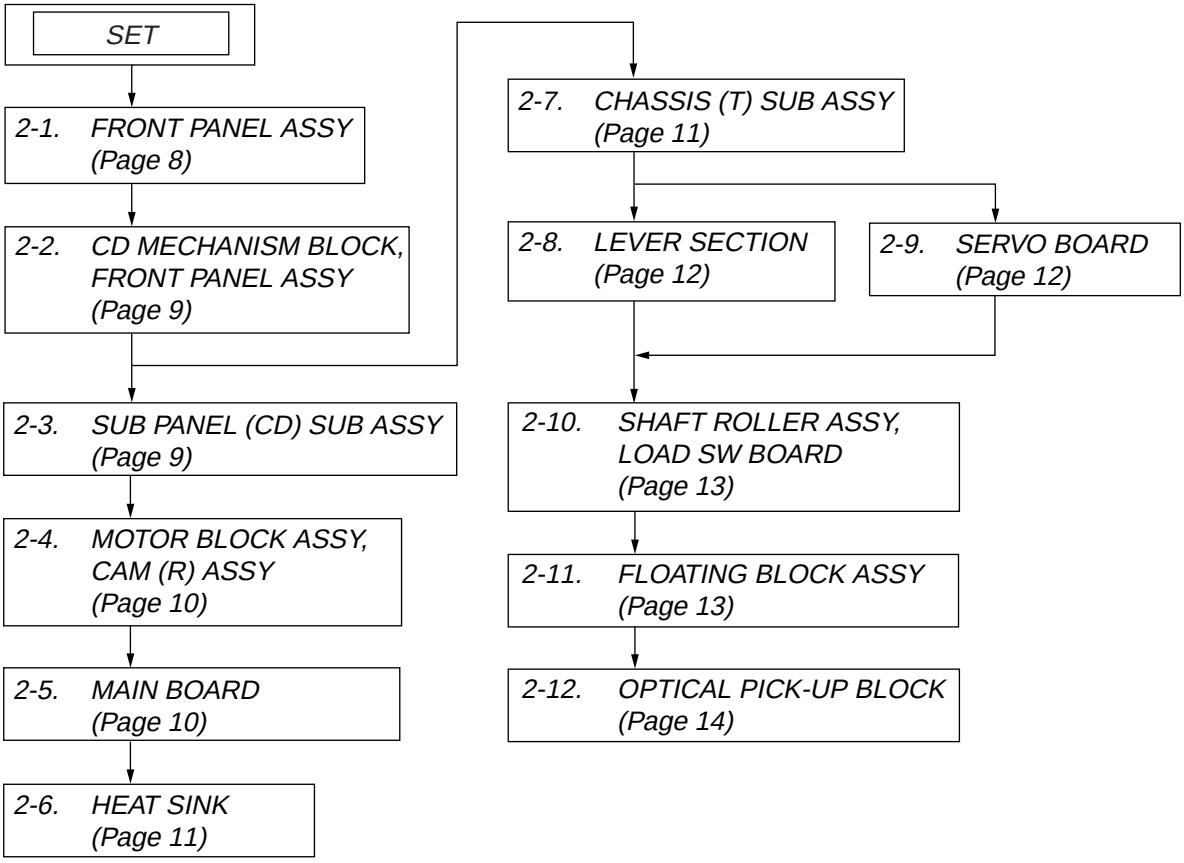
Conexión para protección de la memoria
Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, aunque ponga la llave de encendido en la posición OFF.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de toma a tierra de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "Failure" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

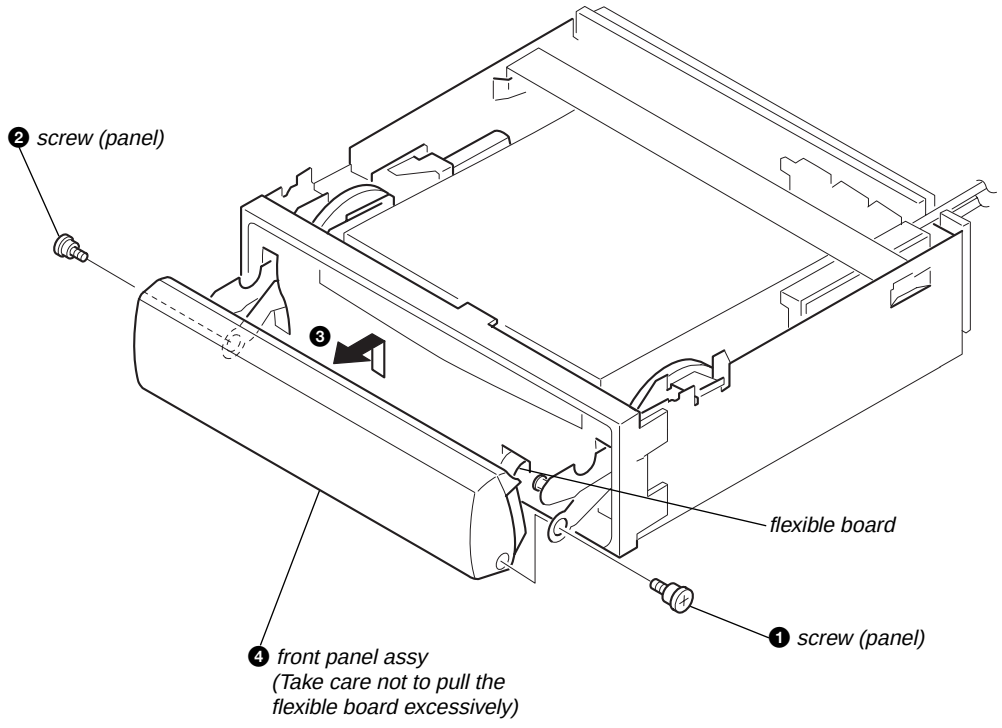
SECTION 2
DISASSEMBLY

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

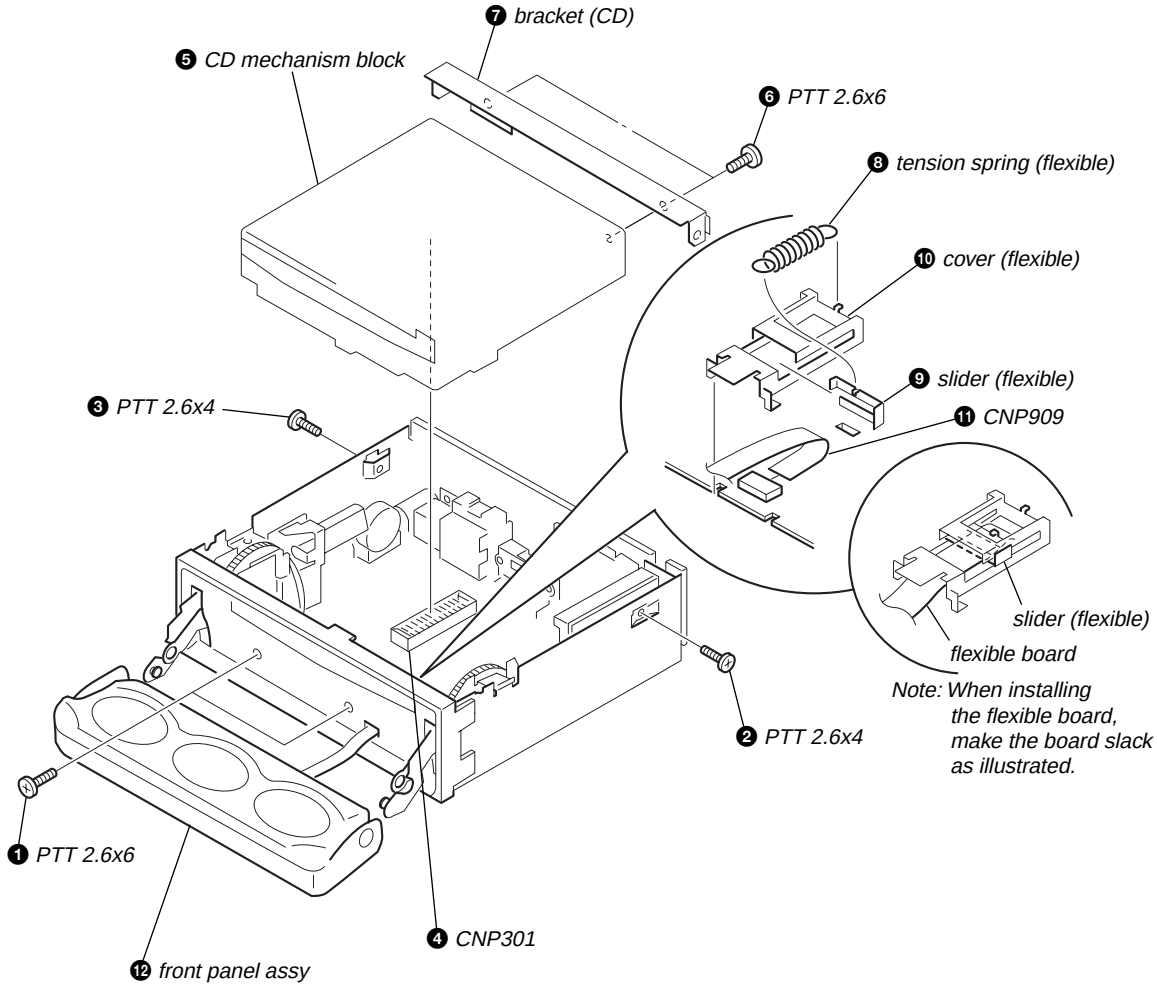


Note : Follow the disassembly procedure in the numerical order given.

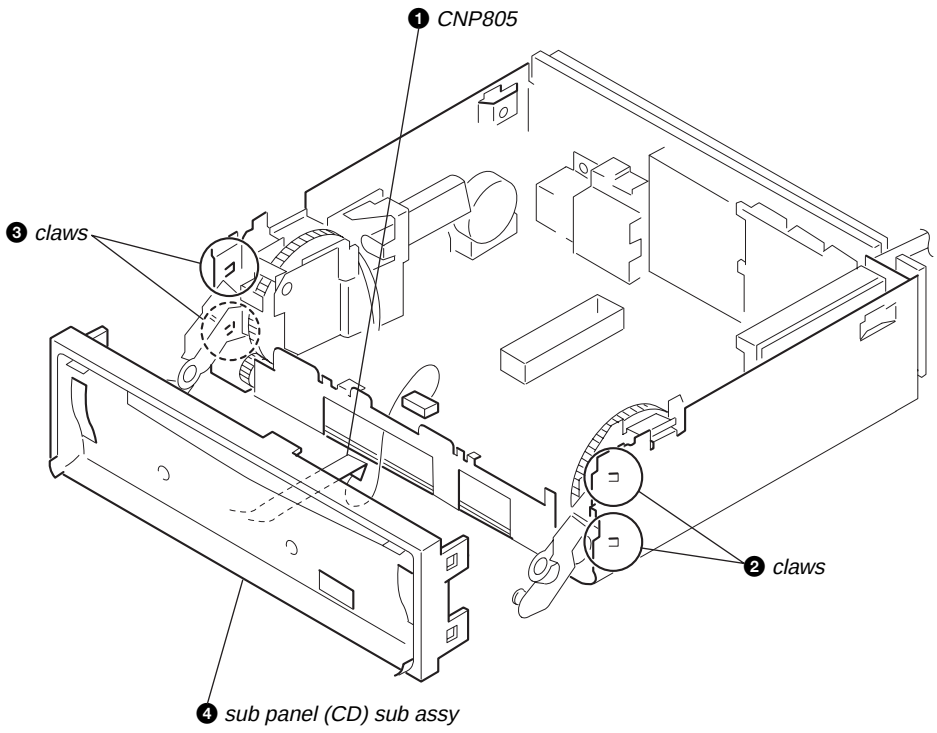
2-1. FRONT PANEL ASSY



2-2. CD MECHANISM BLOCK, FRONT PANEL ASSY

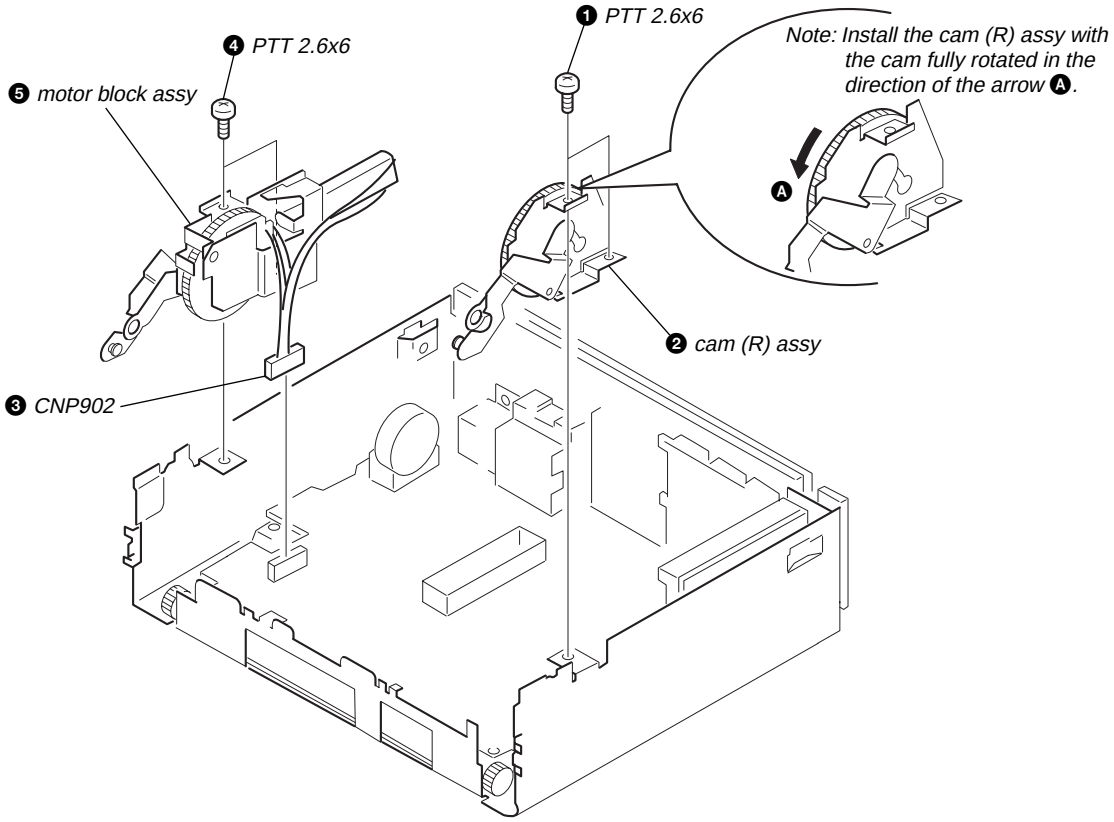


2-3. SUB PANEL (CD) SUB ASSY

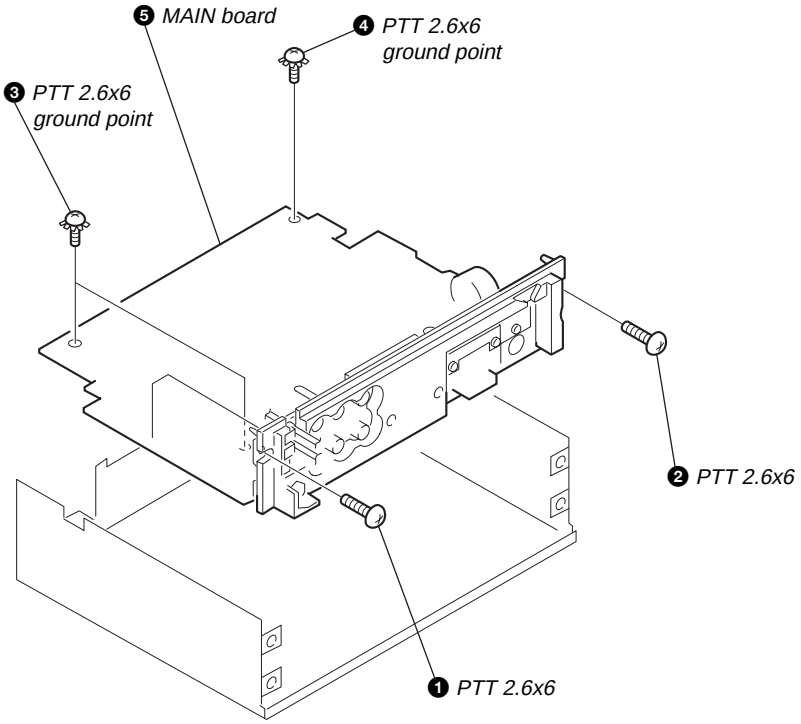


2-4. MOTOR BLOCK ASSY, CAM (R) ASSY

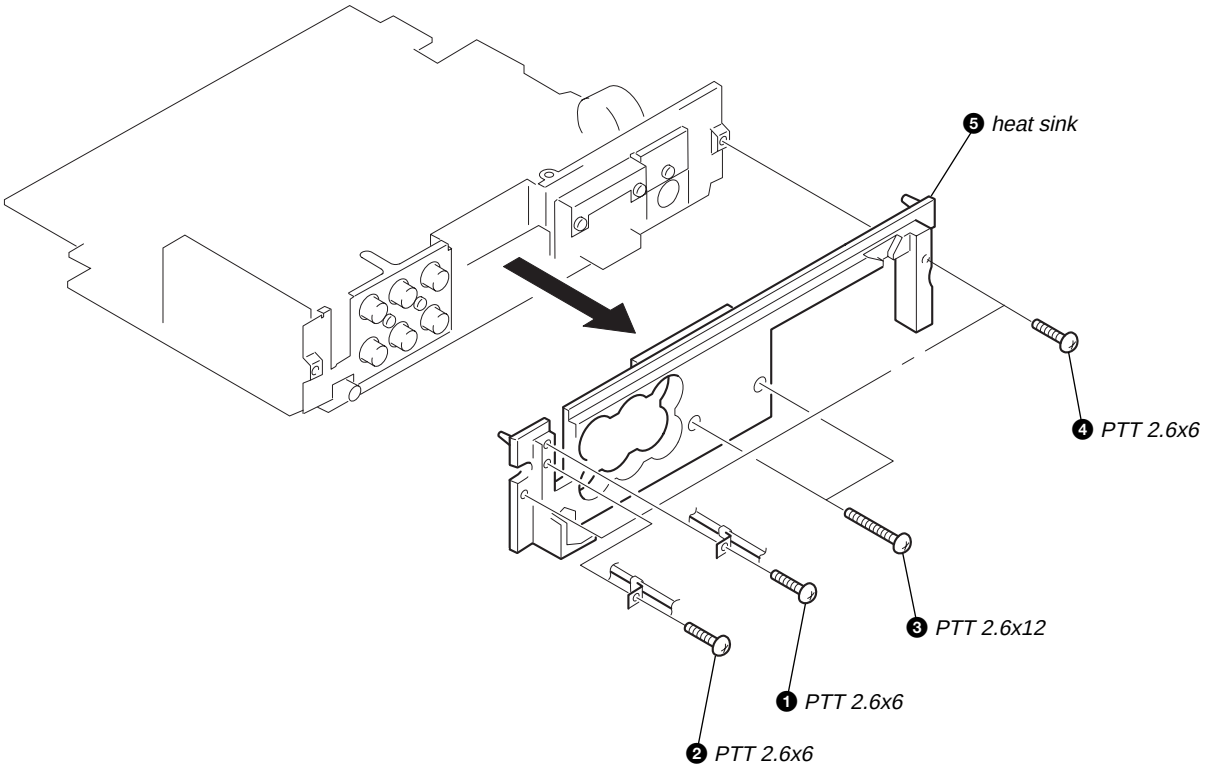
Note : Install the motor block assy and cam (R) assy in this roder.
For phase alignment between cams (L) and (R), see page 15 and 17.



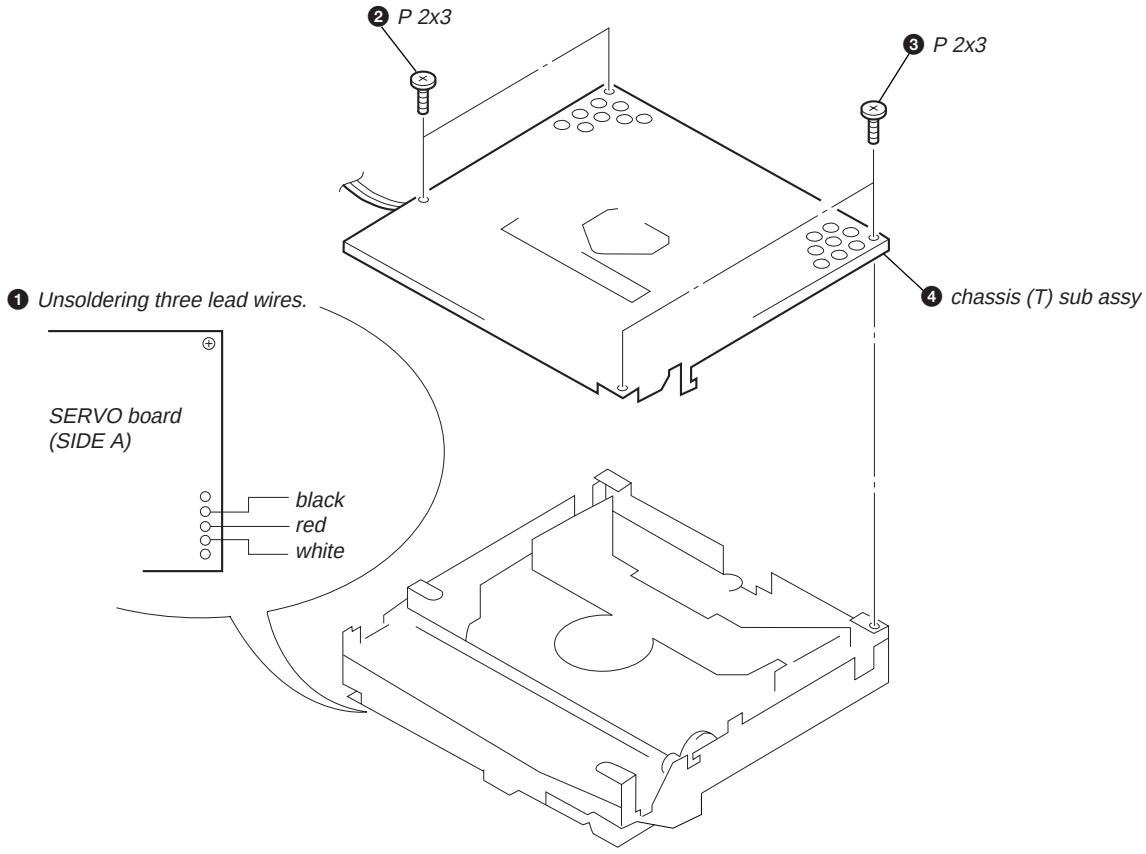
2-5. MAIN BOARD



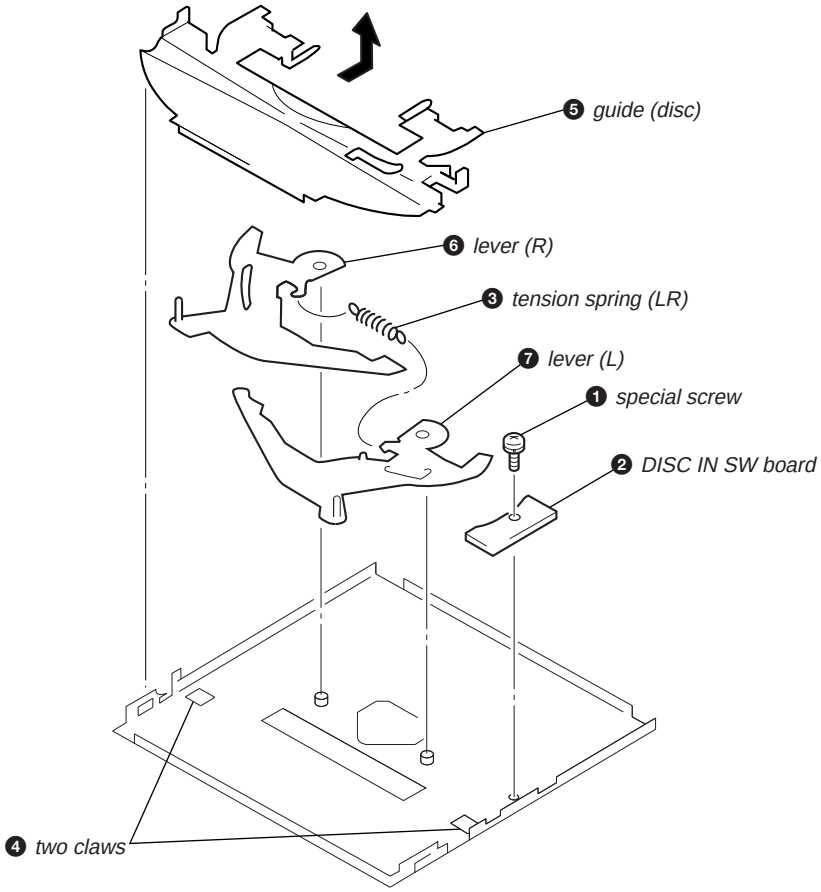
2-6. HEAT SINK



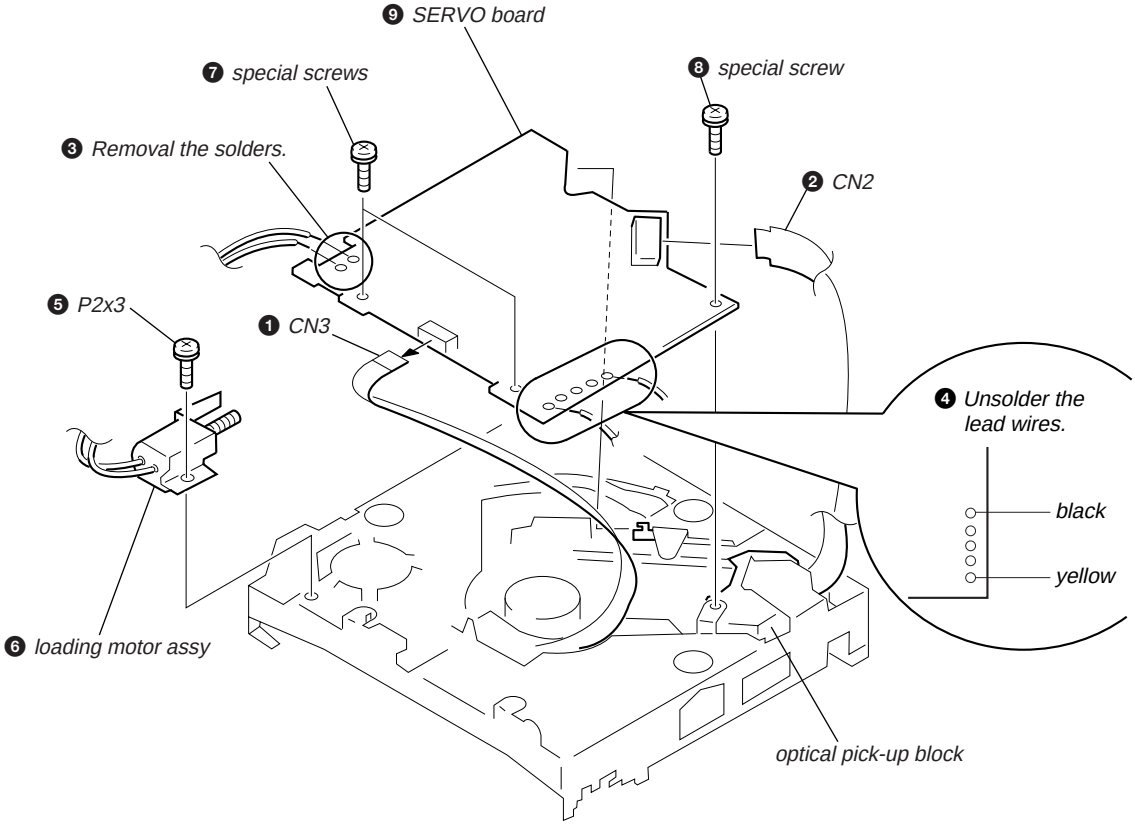
2-7. CHASSIS (T) SUB ASSY



2-8. LEVER SECTION



2-9. SERVO BOARD



2-10. SHAFT ROLLER ASSY, LOAD SW BOARD

• When installing, take note of the positions arm (roller) and washers. (Fig. 1)

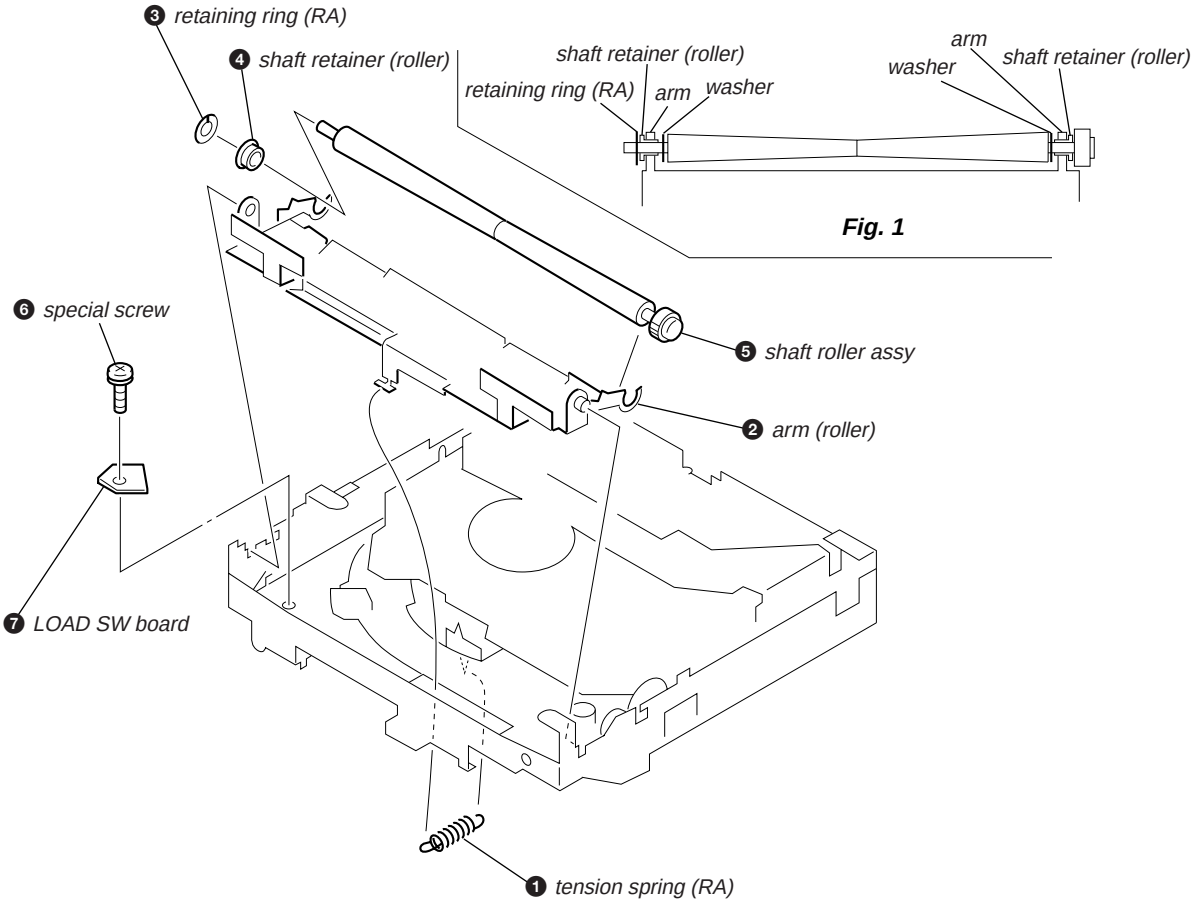
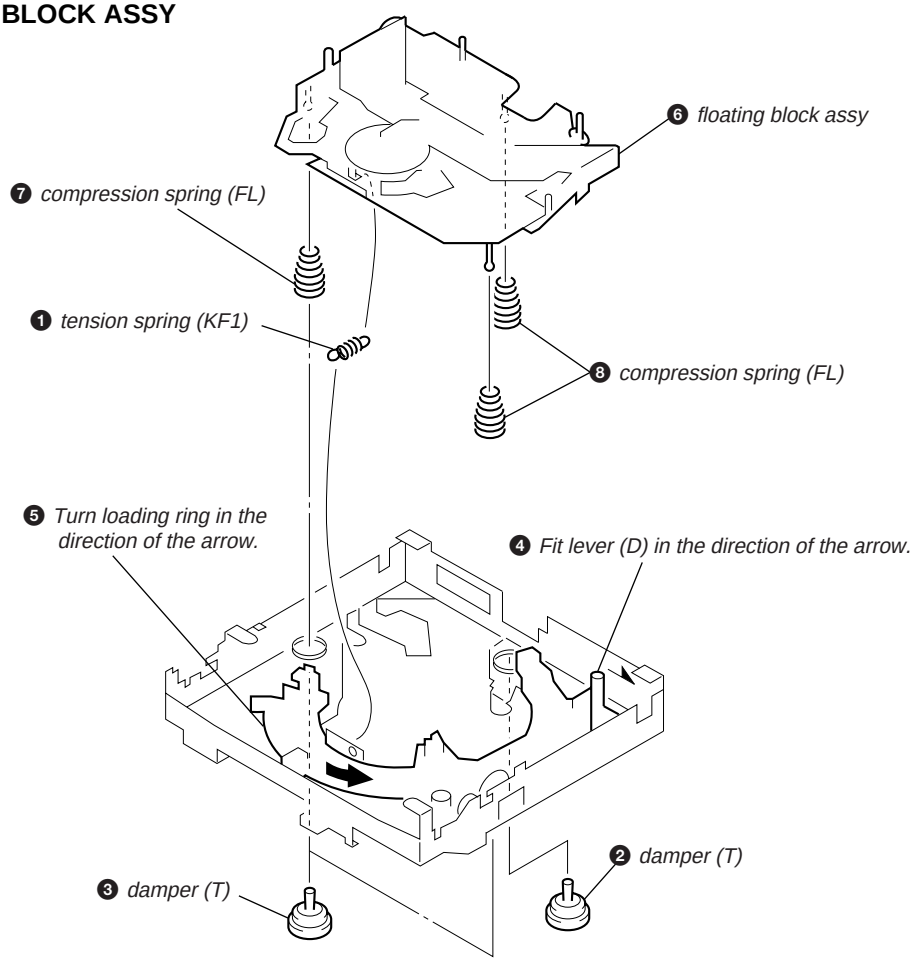
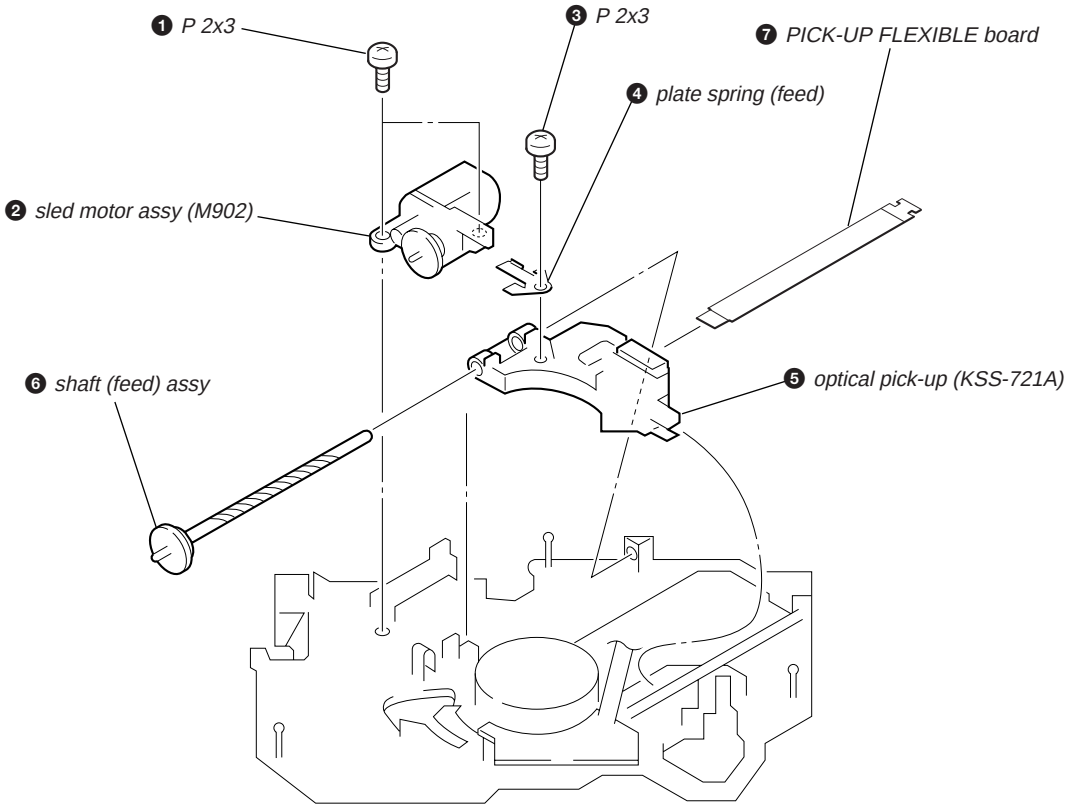


Fig. 1

2-11. FLOATING BLOCK ASSY

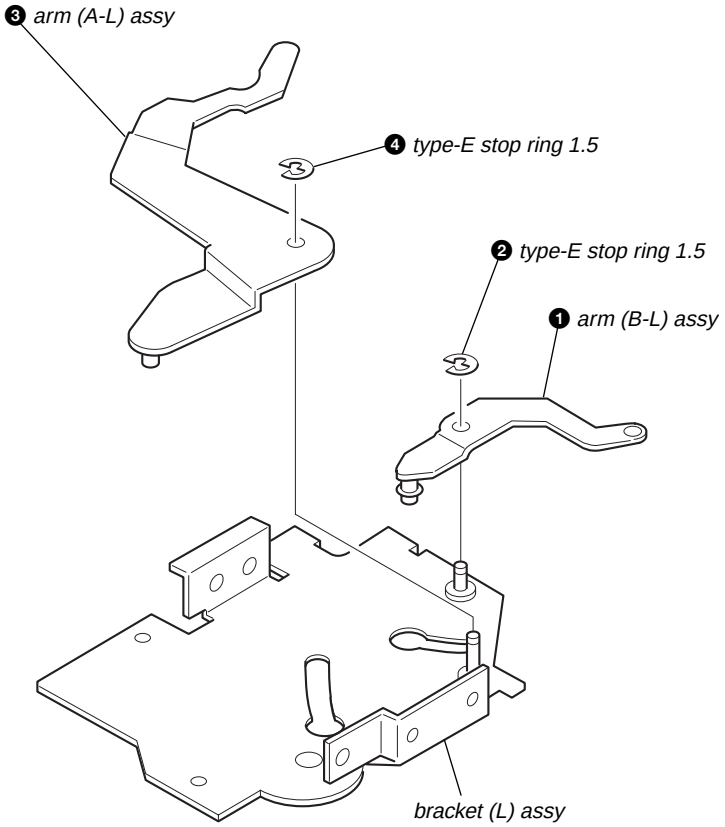


2-12. OPTICAL PICK-UP BLOCK



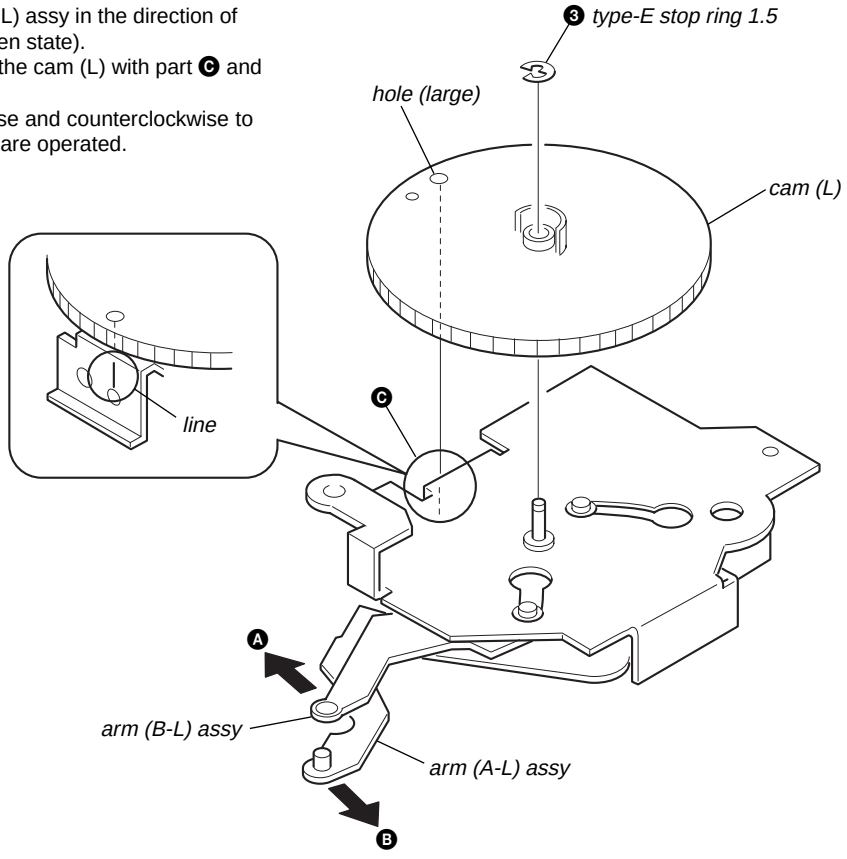
SECTION 3
PHASE ALIGNMENT

3-1. ARM (A-L) ASSY, ARM (B-L) ASSY



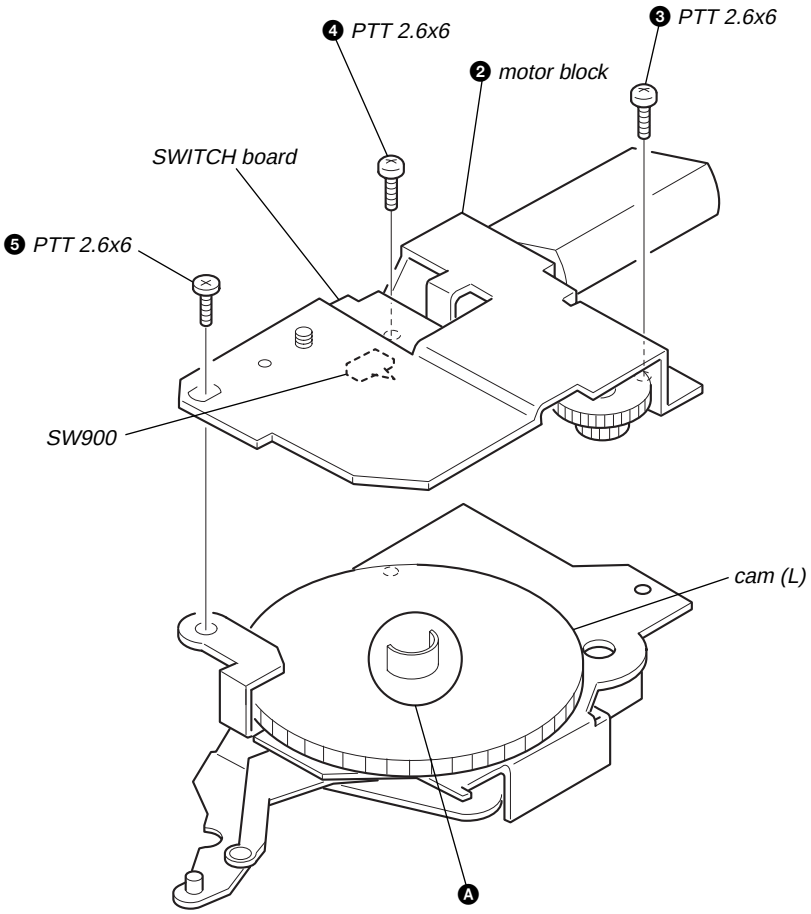
3-2. CAM (L)

❶ Move the arm (B-L) assy in the direction of the arrow Ⓐ and the arm (A-L) assy in the direction of the arrow Ⓑ fully (full open state).
❷ Align the hole (large) on the cam (L) with part Ⓒ and install the cam.
❹ Turn the cam (L) clockwise and counterclockwise to verify that both the arms are operated.



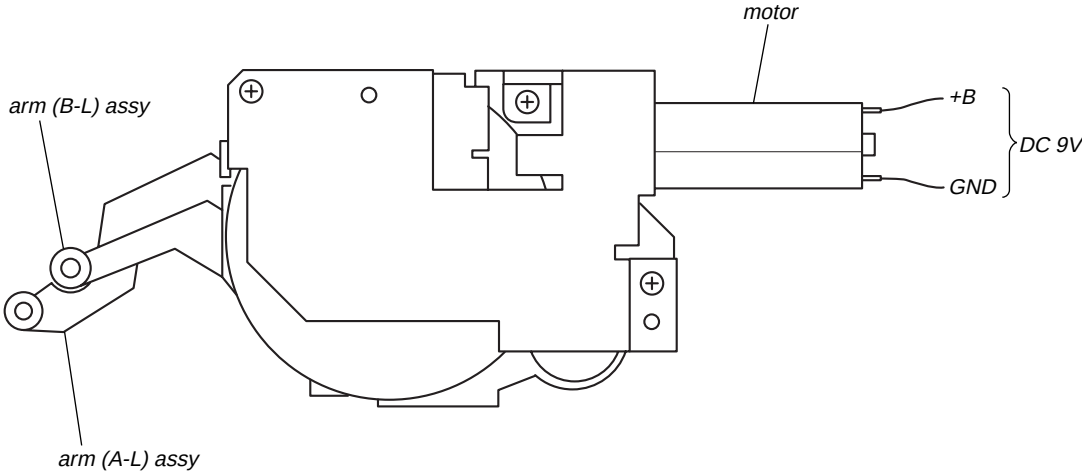
3-3. MOTOR BLOCK

❶ Turn the cam (L) and position the cam so that part Ⓐ does not touch the SW board SW900.

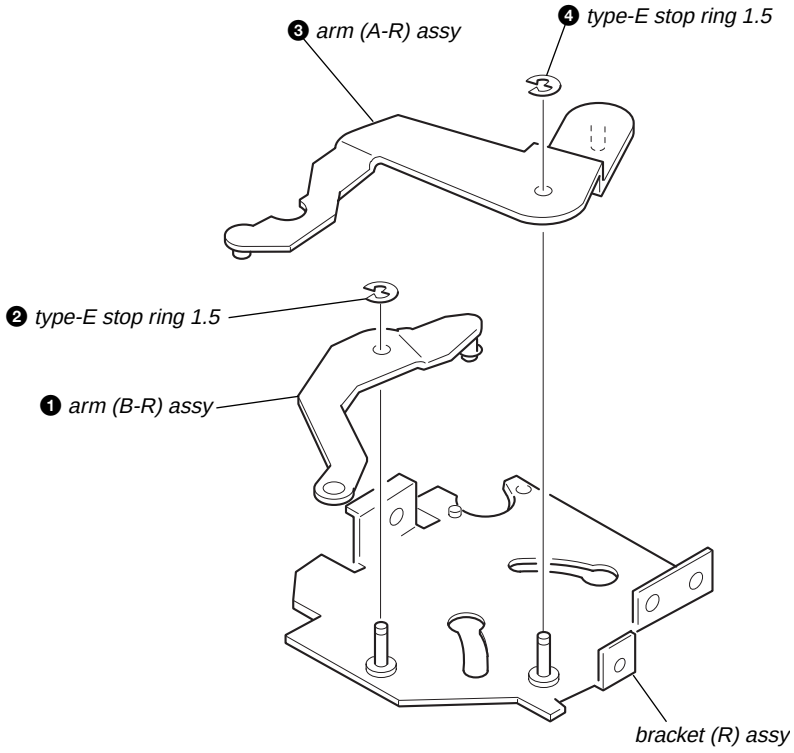


3-4. ALIGNMENT BETWEEN ARM (A-L) ASSY AND ARM (B-L) ASSY

❶ Input 9V DC to the motor terminal until the cam (L) stops rotating.
Take care to avoid overload of the motor.
❷ Verify that the arm (A-L) assy and arm (B-L) assy are positioned as shown below (full open).

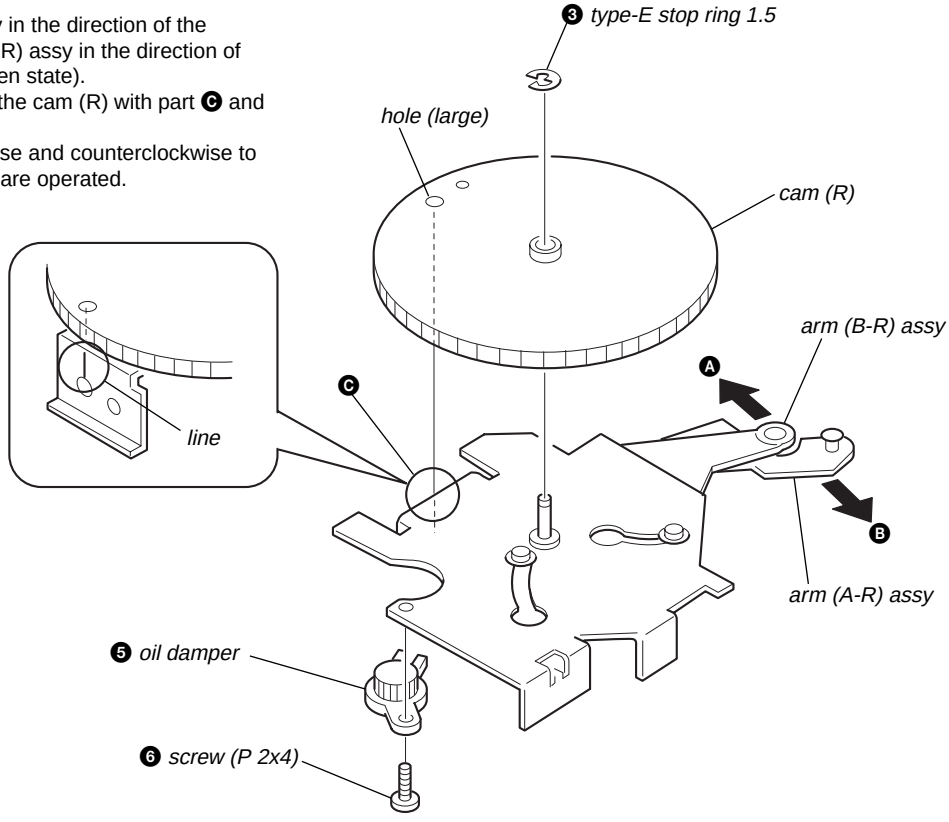


3-5. ARM (A-R) ASSY, ARM (B-R) ASSY



3-6. CAM (R)

❶ Move the arm (B-R) assy in the direction of the arrow Ⓐ and the arm (A-R) assy in the direction of the arrow Ⓑ fully (full open state).
❷ Align the hole (large) on the cam (R) with part Ⓒ and install the cam.
❹ Turn the cam (R) clockwise and counterclockwise to verify that both the arms are operated.



SECTION 4
DIAGRAMS

4-1. IC PIN DESCRIPTIONS

• IC3 HD6432238RWN35TEI (CD MASTER CONTROL) (SERVO Board (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	$\overline{\text{TEST}}$	I	Test mode selection pin Not used. (Open)
2	DECXRST	O	Reset signal output to the DSP IC "L": reset
3	DECSTBY	O	Standby mode control signal output to the DSP IC "H": standby
4 – 7	NC	O	Not used. (Open)
8	PH3	I	CD PH3 photo sensor detection signal input Not used. (Open)
9	INSW/PH2	I	CD mechanism disc in switch detection signal input
10	$\overline{\text{LIMIT\_SW}}$	I	CD mechanism in-limit switch detection signal input
11	$\overline{\text{D\_SW}}$	I	CD mechanism down switch detection signal input
12	CVCC	—	System power supply pin (+3.3 V)
13	NC	O	Not used. (Open)
14	VSS	—	Ground pin
15	NC	O	Not used. (Open)
16	$\overline{\text{PH1}}$	I	CD PH1 photo sensor detection signal input Not used. (Open)
17	EJECT	O	CD mechanism loading motor control signal output (eject operation)
18	LOAD	O	CD mechanism loading motor control signal output (load operation)
19 – 26	NC	O	Not used. (Open)
27	FLAG	I	Correction unable detection signal input
28	RFOK	I	RFOK signal input from the servo IC
29, 30	NC	O	Not used. (Open)
31	TXD	O	UART TXD PC connection output Not used. (Open)
32	RXD	I	UART RXD PC connection input Not used. (Open)
33	XTALEN	O	Crystal oscillation control signal output to the servo IC
34	TSTB	O	CD text parameter strobe signal output to the servo IC
35	STB	O	Data strobe signal output to the servo IC
36	A0	O	Command/parameter identification signal output to the servo IC "L": command, "H": parameter
37	CD_RST	O	Reset signal output to the servo IC
38	$\overline{\text{PACK}}$	I	CD text pack sync signal input from the servo IC
39	NC	O	Not used. (Open)
40	$\overline{\text{SELF\_SW}}$	I	CD mechanism self load position detection switch signal input
41	NC	O	Not used. (Open)
42	AVSS	—	Ground for A/D converter
43, 44	NC	O	Not used. (Open)
45, 46	NC	I	Not used. (Open)
47	KEY0	I	Key switch signal input in the test mode Not used. (Open)
48	KEY1	I	Mode switch signal input in the test mode Not used. (Open)
49 – 52	NC	I	Not used. (Open)
53	AVREF	—	Reference voltage for A/D converter
54	AVCC	—	Power supply for A/D converter
55	MD0	—	CPU operation mode setting pin Connecting to +3.3 V in this set.
56	MD1	—	CPU operation mode setting pin Connecting to +3.3 V in this set.
57	X1A	—	Sub clock oscillator terminal Not used. (Open)
58	X0A	—	Sub clock oscillator terminal Not used. (Open)
59	RSTX	I	Microcomputer reset signal input
60	NMI	—	Not used. (Fixed at "H")
61	STBY	—	Not used. (Fixed at "H")
62	VCC	—	Power supply pin (+3.3 V)
63	XTAL	—	Main clock oscillator pin (12.288 MHz)
64	VSS	—	Ground pin
65	XTEAL	—	Main clock oscillator pin (12.288 MHz)
66	FWE	I	Flash write enable signal input

Pin No.	Pin Name	I/O	Pin Description
67	MD2	—	CPU operation mode setting pin
68	$\overline{\text{FL\_BOOT}}$	I	Flash write selection signal input (“L”: flash write mode)
69	FL_W	O	Flash write control signal output connected to pin 66 (FWE)
70	NC	O	Not used. (Open)
71	CDMON	O	CD mechanism power supply control signal output
72	DECINT	I	Interrupt signal input from the DSP IC
73	CLOSE	O	Front panel operation request output (Close)
74	OPEN	O	Front panel oparation request output (Open)
75	LINKOFF	O	LINK OFF signal output for UNI_LINK “H”: link off, “L”: link on
76	UNI_SO	O	Sony-Bus serial data output to the bus interface
77	UNI_SI	I	Sony-Bus serial data input from the bus interface
78	UNI_CK	I	Sony-Bus serial clock input from the bus interface
79	NC	O	Not used. (Open)
80	SDA	I/O	I2C interface data input/output
81	SCL	O	I2C interface clock output
82	NC	O	Not used. (Open)
83	TSO	O	Serial data output to the servo IC
84	TSI	I	Serial data input from the servo IC
85	TSCK	O	Serial clock output to the servo IC
86	LEDDAT	O	LED data output for the jig
87	LEDCLK	O	LED clock output for the jig
88	LEDLAT	O	LED latch signal output for the jig
89, 90	NC	O	Not used. (Open)
91	$\overline{\text{BUSON}}$	I	Sony-Bus BUS ON signal input from the bus interface
92	$\overline{\text{BUCHK}}$	I	Back up power supply detection signal input
93	A-ATT	O	Audio muting control signal output
94	CDON	O	Power control signal output for the CD servo “H”: servo on, “L”: during loading
95	NC	O	Not used. (Open)
96	U/J_SEL	I	Destination setting pin
97	$\overline{\text{TEXTSEL}}$	I	CD text function setting pin
98	NC	O	Not used. (Open)
99	$\overline{\text{CFSEL}}$	I	Custom file function setting pin
100	DOUT SEL	I	Digital output selection setting pin “H”: digital output available

• IC5 CXD9684R-005 (DSP) (SERVO Board (1/2))

Pin No.	Pin Name	I/O	Pin Description
1	/RESET	I	Reset input pin "L": reset
2	MIMD	I	Microcomputer interface mode selection input "H": I2C, "L": TSB
3, 4	AD0, AD1	O	External SRAM address signal output
5	MIDIO (I2C_SDA)	I/O	Serial data input/output
6	MICK (I2C_SCL)	I	Serial clock input
7	AD2	O	External SRAM address signal output
8	VDDT (3.3V)	—	Power supply (3.3 V) for digital circuit
9	SDO	O	Data output
10, 11	AD3, AD4	O	External SRAM address signal output
12	SDI0	I	Data input 0
13	BCKIA	I	Bit clock input A
14	LRCKIA	I	LR clock input A
15	AD5	O	External SRAM address signal output
16	CE	O	External SRAM chip enable signal output
17	OE	O	External SRAM output enable signal output
18	VDD (2.5V)	—	Power supply pin (2.5 V) for digital circuit
19	STANDBY	I	Standby mode control signal input "H": STB, "L": normal
20	VSS (2.5VGND)	—	Ground pin for digital circuit
21	VSSL (2.5VGND)	—	Ground pin for DAC Lch
22	VRAL	—	Reference voltage pin for DAC Lch
23	LO	O	DAC Lch signal output (Open)
24	VDAL (2.5V)	—	Power supply pin (2.5 V) for DAC Lch
25	VDAR (2.5V)	—	Power supply pin (2.5 V) for DAC Rch
26	RO	O	DAC Rch signal output (Open)
27	VRAR	—	Reference voltage pin for DAC Rch
28	VSSR (2.5VGND)	—	Ground pin for DAC Rch
29	TESTP	I	Pin for test "H": test mode, "L": normal (fixed at "L")
30	CKS	I	VCO selection input "H": VCO, "L": X1 input
31 – 34	AD12 to AD9	O	External SRAM address signal output
35	VDDT (3.3V)	—	Power supply pin (3.3 V) for digital circuit
36 – 38	AD8 to AD6	O	External SRAM address signal output
39	REQ	O	Interrupt request signal output to the CD master control
40	VSS	—	Ground pin for digital circuit
41, 42	AD13, AD14	O	External SRAM address signal output
43	WR	O	External SRAM write signal output
44, 45	AD16, AD15	O	External SRAM address signal output
46, 47	IO0, IO1	I/O	External SRAM data input/output
48	VSS	—	Ground pin for digital circuit
49 – 51	IO2 to IO4	I/O	External SRAM data input/output
52	VDD (2.5V)	—	Power supply pin (2.5 V) for digital circuit
53 – 55	IO5 to IO7	I/O	External SRAM data input/output
56	VSSP	—	Ground pin for VCO circuit
57	PDO	O	PLL phase error detection signal output
58	VCOI	I	VCO control voltage input
59	VDDP	—	Power supply pin for VCO circuit
60	XRDE	I/O	External clock input, audio clock output Not used. (Open)
61	VDDX (2.5V)	—	Power supply pin for oscillation circuit
62	XI	I	Resonator pin
63	XO	O	Resonator pin
64	VSSX	—	Ground pin for oscillation circuit

• IC303 M30626FHPGP-054 (SYSTEM CONTROL) (MAIN Board (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	SIRCS	I	Remote control data input
2	FP CTRL	O	Front panel open/close speed control signal
3	CD SO/TSO	O	CD servo serial data output
4	CD SI/TSI	I	CD servo serial data input Not used. (Open)
5	CD CKO/TCKO	O	CD servo serial clock output Not used. (Open)
6	BYTE	I	L fixed terminal
7	CNVSS	I	Flash write-in signal input
8	XIN	I	Sub clock signal input (32kHz)
9	XOUT	O	Sub clock signal output (32kHz)
10	RESET	I	CPU reset signal input
11	OSC OUT	O	Main clock signal output (6MHz)
12	VSS	—	Ground
13	OSC IN	I	Main clock signal input (6MHz)
14	VCC1	—	Power supply pin (+5V)
15	NMI	I	Non maskable interrupt signal input
16	CD PACK	I	CD text pack synchronized signal input
17	DAVN	I	RDS data acquisition detect signal
18	BU IN	I	Back-up power detect signal
19	NS MASK	O	Noise mask signal output
20	BEEP	O	Beep signal output
21	FLW IN	I	OSC frequency shift signal for DC/DC conv. Not used. (Open)
22	NCO	O	Not used. (Open)
23	SA CLK	O	Spectrum analyzer clock signal output
24	TEL ATT	I	telephone mute detect signal input
25	ATT	O	Mute signal output
26	VOL ATT	O	Electronic volume mute signal output
27	I2C CKO	O	Tuner/E-volume BUS clock output
28	I2C SIO	O	Tuner/E-volume BUS data output
29	UNI SO	O	SONY BUS data output
30	UNI SI	I	SONY BUS data input
31	UNI CKO	O	SONY BUS clock output
32	TUNER ATT	O	Tuner attenuate signal output
33	EESIO	I/O	EEPROM data input/output
34	EECKO	O	EEPROM clock output
35	NCO	O	Not used. (Open)
36	ADSO1	O	Not used. (Open)
37	ADSO2	O	Not used. (Open)
38	NCO	O	Not used. (Open)
39	HOLD	I	Flash write-in signal input
40	AMP DIAG	I	Amplifier diagnosis signal input
41	AMP STB	O	Amplifier strobe signal output
42	AMP ON	O	Not used. (Open)
43	TUNER ON	O	Not used. (Open)
44	WRI/WR	I	Flash write-in signal input
45	CD LIMIT	I	CD limit detect signal input Not used. (Open)
46	CD D SW	I	CD disc SW detect signal input Not used. (Open)
47	CD PH1	I	CD PH1 detect signal input
48	CD INSW/PH2	I	CD IN SW/PH2 detect signal input Not used. (Open)
49	PH3	I	CD PH3 detect signal input Not used. (Open)
50	DST SEL1	I	Destination select signal input
51	DST SEL2	I	Destination select signal input Not used. (Open)
52	CD LM LO	O	CD loading motor control signal output Not used. (Open)

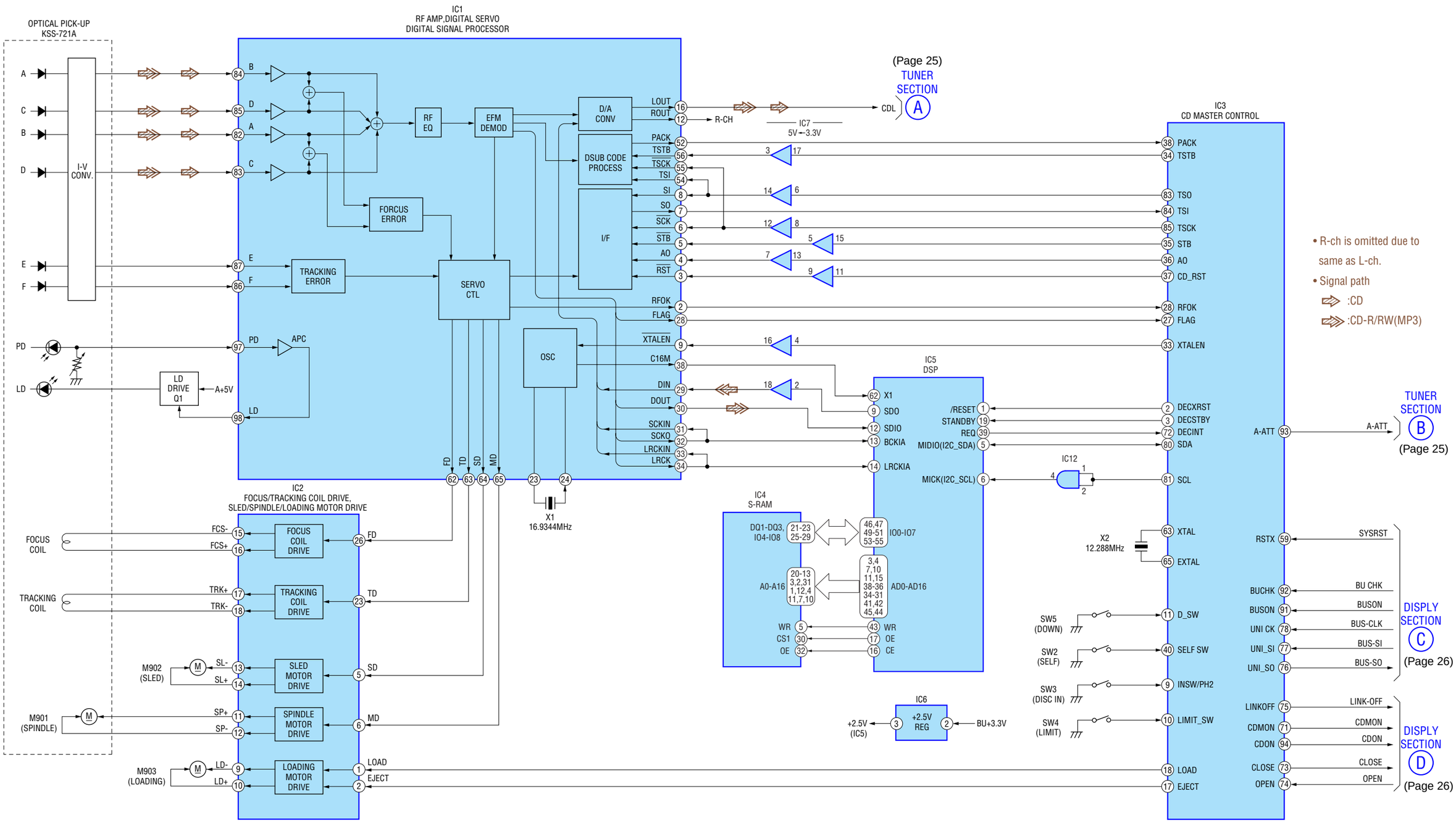
Pin No.	Pin Name	I/O	Pin Description
53	CD LM EJ	O	CD eject motor control signal output Not used. (Open)
54	CD RST	O	CD servo reset signal output
55	CD AO	O	CD servo command/parameter discri. output Not used. (Open)
56	CD STB	O	CD servo data strobe signal output Not used. (Open)
57	CD TSTB	O	CD servo text strobe signal output Not used. (Open)
58	CD RFOK	I	CD servo RFOK signal input
59	CD XTALEN	O	CD servo crystal OSC control signal output Not used. (Open)
60	VCC2	—	Power supply pin (+5V)
61	RESET OUT	O	Display CPU reset signal output
62	VSS	—	Ground
63	TEST IN	I	Test mode setting detect signal input
64	BUS ON	O	BUS ON control signal output
65	SYS RST	O	System reset signal output
66	BUS/AUX	O	BUS/AUX select control signal output
67	LINK OFF	O	Link OFF control signal output
68	ACC IN	I	Accessory key ON detect signal input
69	ILL IN	I	Ilumination line detect signal input
70	RC IN1	I	Rotary commander signal input 1
71	NCO	O	Not used. (Open)
72	CD SELF SW	I	CD self SW detect signal input
73	TU ATT IN	I	Tuner mute control signal input
74	CLOSE SW	I	Front panel close detect signal input
75	OPEN SW	I	Front panel open detect signal input
76	I-DET	I	Front panel current detect signal input
77	MOT–	O	Front panel open/close control signal output
78	MOT+	O	Front panel open/close control signal output
79	ROMC EN	I	ROM correction enable signal input
80	QUALITY	I	Tuner noise detect signal input
81	MPTH	I	Tuner multi-path signal input
82	VSM	I	S-meter signal input
83	SA IN	I	SA data input
84	KEY IN1	I	Key signal input 1
85	KEY IN0	I	Key signal input 0
86	RC IN0	I	Rotary commander signal input 0
87	KEY ACK2	I	Key acknowledge detect signal input 2
88	KEY ACK0	I	Key acknowledge detect signal input 0
89	KEY ACK1	I	Key acknowledge detect signal input 1
90	OPEN KEY	I	Open key detect signal input
91	RAM BU	I	RAM reset detect signal input
92	FLD ON	O	FL driver power supply ON/OFF signal output
93	FL ON	O	FL power supply ON/OFF signal
94	AVSS	—	Ground
95	DISP CE	O	Display CPU chip enable output
96	VREF	—	A/D converter reference voltage (+5V)
97	AVCC	—	Power supply pin (+5V)
98	DISP SI/RX	I	Display CPU BUS data input
99	DISP SO/TX	O	Display CPU BUS data output
100	DISP CKO	O	Display CPU BUS clock output

• IC2 M30833FJGP-073 (DISPLAY SYSTEM CONTROL) (DISPLAY Board)

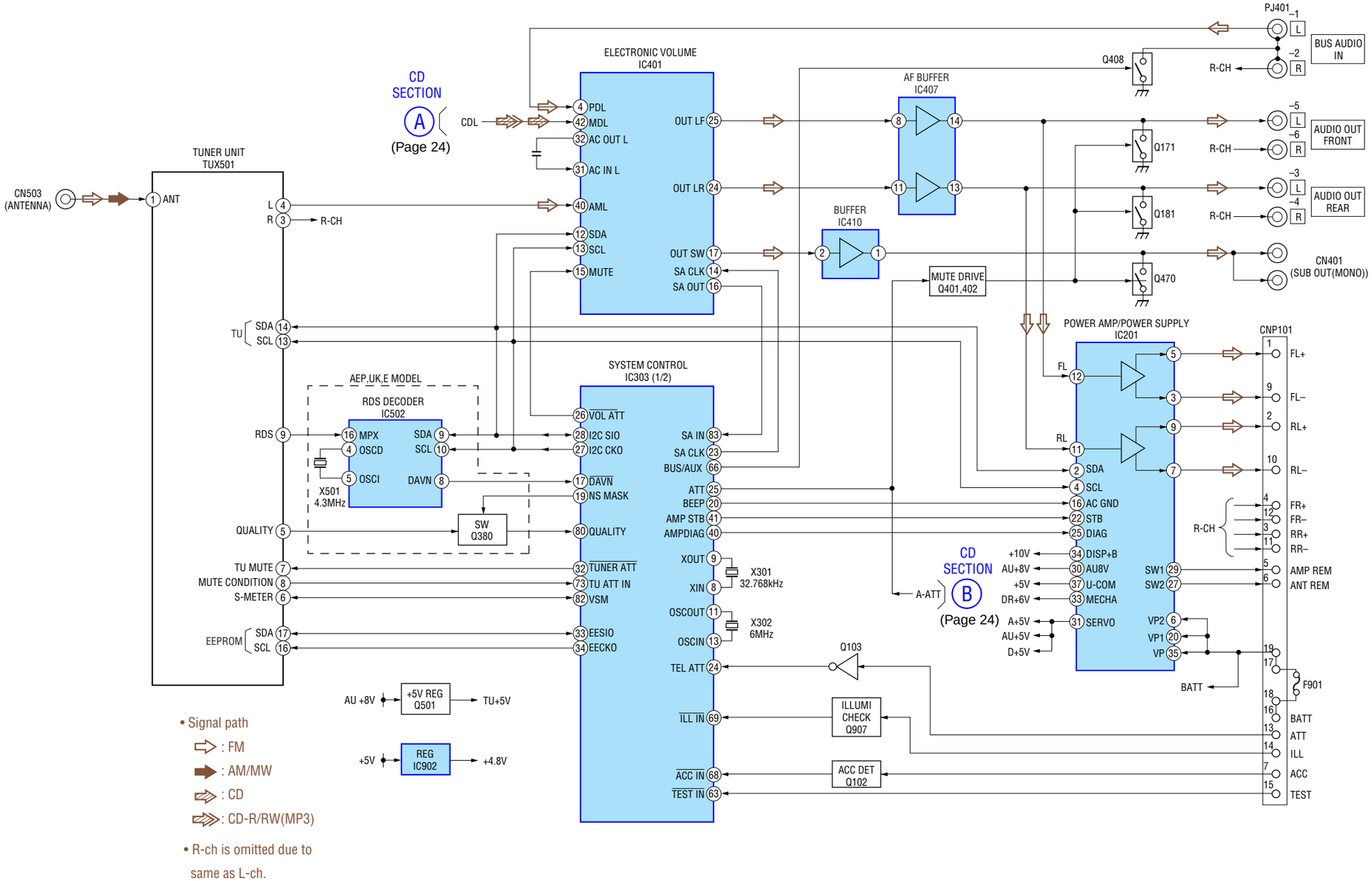
Pin No.	Pin Name	I/O	Pin Description
1	SYS CE	I	Main chip enable input
2	NC	I	Not used. (Open)
3	FL DAT3	O	FL serial data output
4	NC	O	Not used. (Open)
5	FL CLK IN	I	FL serial clock input
6	BYTE	I	L fixed terminal
7	CNVSS	I	Flash write-in signal input
8	NC	O	Not used. (Open)
9	NC	O	Not used. (Open)
10	RESET	I	CPU reset signal input
11	XOUT	O	Main clock signal output (30MHz)
12	VSS	—	Ground
13	XIN	I	Main clock signal input (30MHz)
14	VCC	—	Power supply pin (+5V)
15	NMI	I	Non maskable interrupt signal input
16	NC	O	Not used. (Open)
17	NC	O	Connecting to pin 20.
18	NC	O	Not used. (Open)
19	NC	O	Not used. (Open)
20	NC	O	Connecting to pin 17.
21	LAT	O	FL data LAT output
22	BK	O	FL BK output
23	GCP2	O	FL GCP2 outpit
24	NC	O	Not used. (Open)
25	GCP1	O	FL GCP1 output
26	NC	O	Not used. (Open)
27	GCP4	O	FL GCP4 output
28	GCP3	O	FL GCP3 output
29	SYS SO	O	Main BUS data output
30	SYS SI	I	CPU BUS data input
31	SYS CLK	O	Main BUS clock input
32	NC	O	Not used. (Open)
33	FL DAT1	O	FL serial data output
34	NC	O	Not used. (Open)
35	FL CLK	O	FL serial clock output
36	LCD CE	O	LCD driver chip enble output
37	LCD INH	O	LCD driver inhibit output
38	NC	O	Not used. (Open)
39	HOLD	I	Flash write-in signal input
40 – 43	NC	O	Not used. (Open)
44	WRI/WR	I	Flash write-in signal input
45 – 59	NC	O	Not used. (Open)
60	VCC	O	Power supply pin (+5V)
61	NC	O	Not used. (Open)
62	VSS	O	Ground
63 – 93	NC	O	Not used. (Open)
94	AVSS	—	Ground
95	NC	O	Not used. (Open)
96	VREF	—	Power supply pin (+5V)
97	AVCC	—	Power supply pin (+5V)
98	RXD1	—	Not used. (Open)
99	FL DAT2	O	FL serial data output
100	FL CLK IN	I	FL serial clock input

23

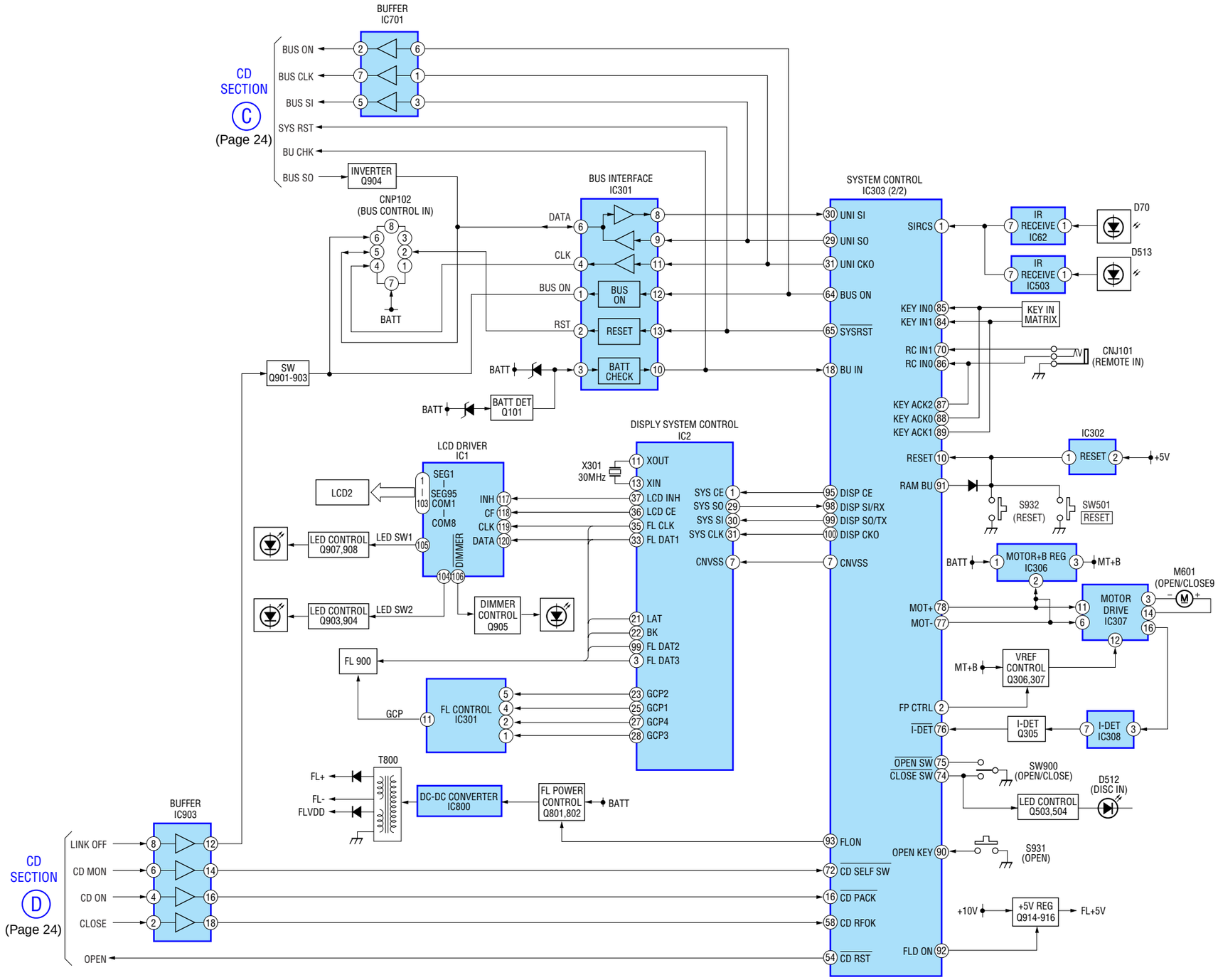
4-2. BLOCK DIAGRAM — CD SECTION —



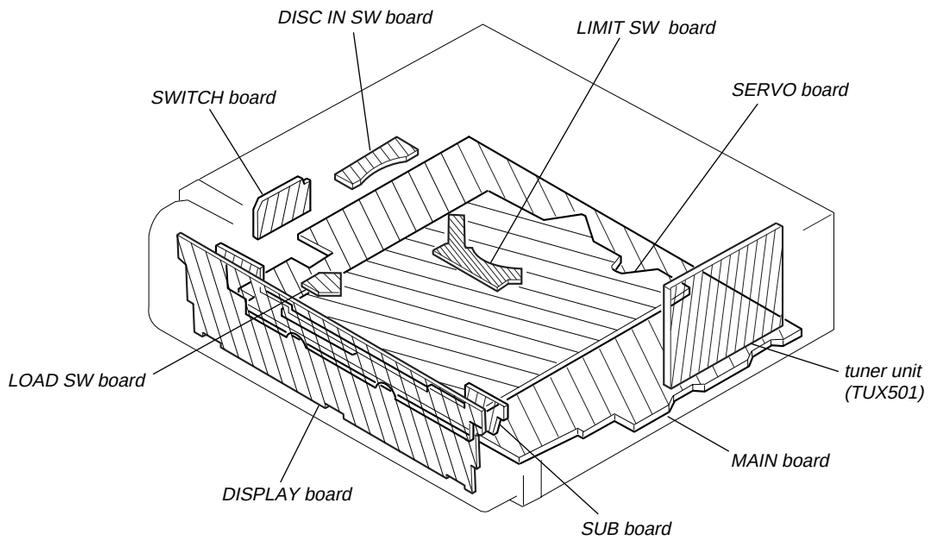
4-3. BLOCK DIAGRAM — TUNER SECTION —



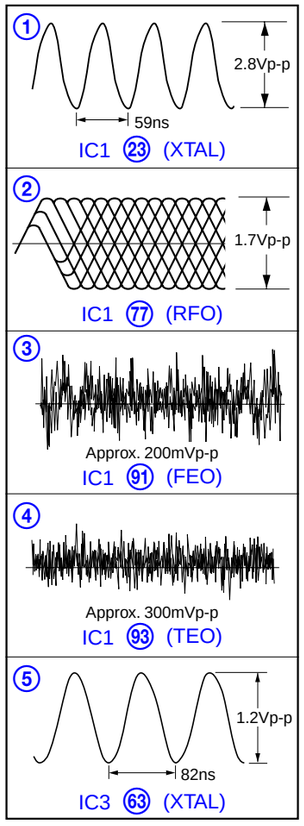
4-4. BLOCK DIAGRAM — DISPLAY SECTION —



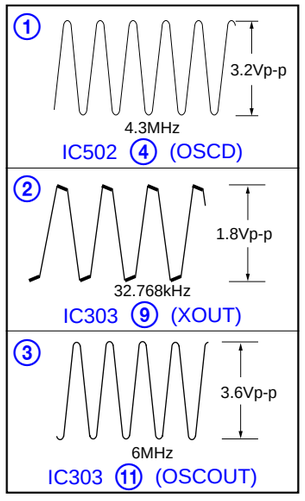
4-5. CIRCUIT BOARDS LOCATION



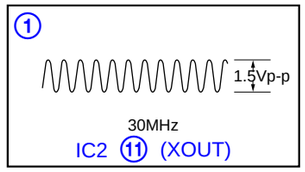
• Waveforms
— SERVO Board —
(MODE: CD PLAY)



• Waveforms
— MAIN Board —
(MODE: FM)



• Waveform
— DISPLAY Board —
(MODE: FM)



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

for schematic diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). 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.
  ⇨ : FM
  ➡ : AM/MW/LW
  ⇛ : CD
  ⇛ : CD-R/RW (MP3)
- Abbreviation
  CND : Canadian model

for printed wiring boards:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  CND : Canadian model

4-6. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 27 for Circuit Boards Location.

14 13 12 11 10 9 8 7 6 5 4 3 2 1

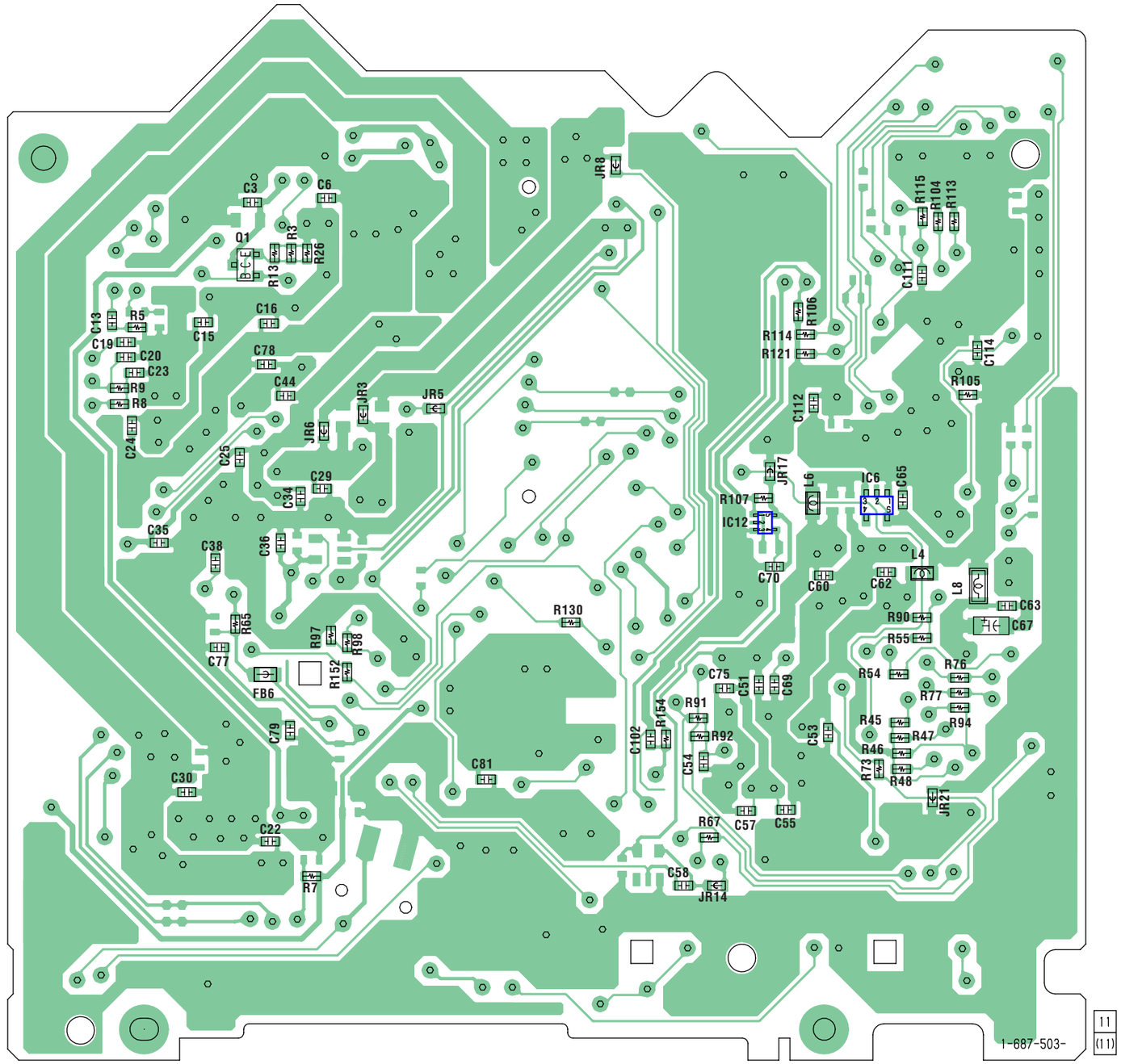
A B C D E F G H I

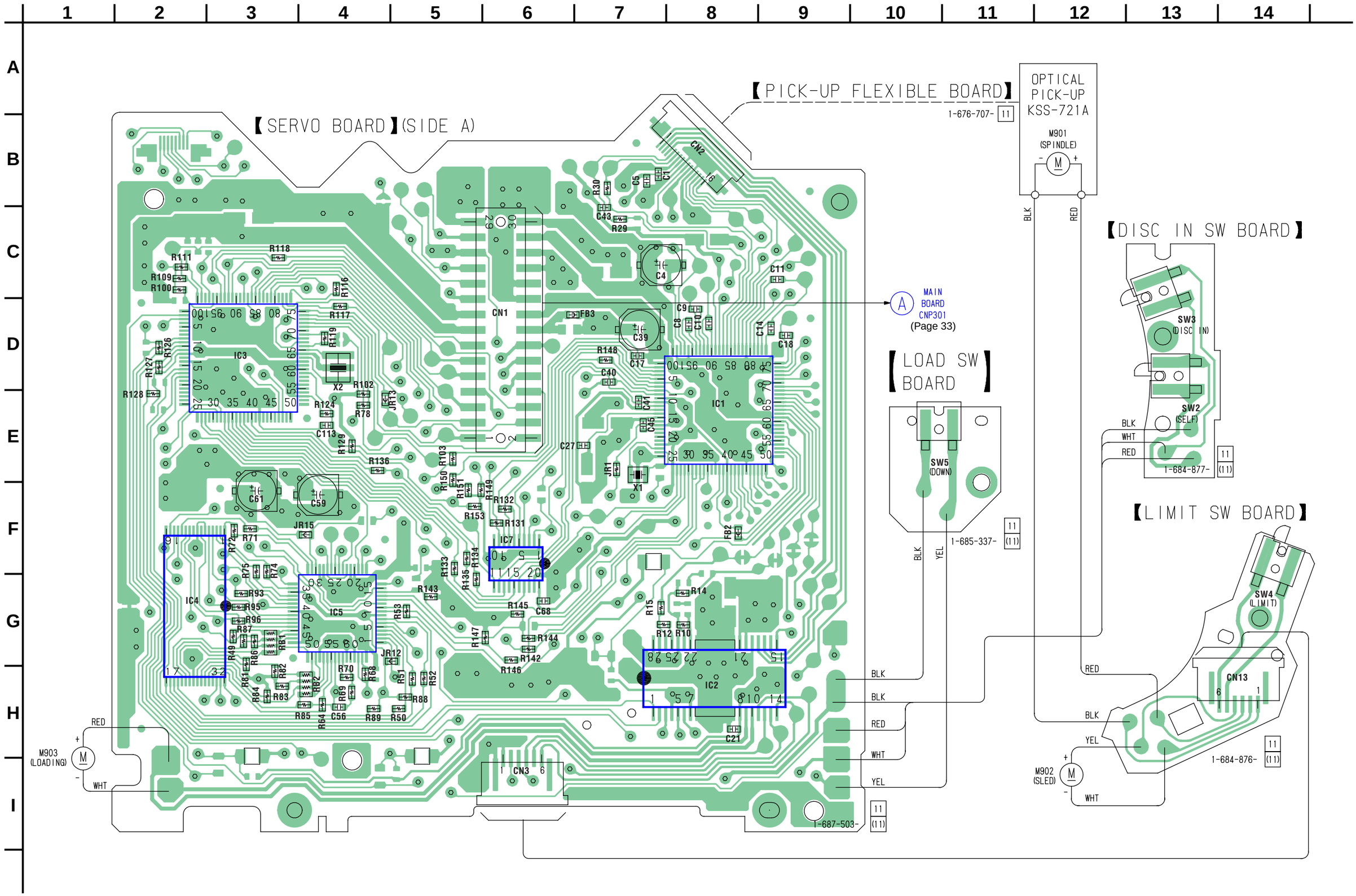
• **Semiconductor Location**

Ref. No.	Location
IC1	E-8
IC2	H-8
IC3	D-3
IC4	G-2
IC5	G-4
(IC6)	E-3
IC7	F-6
(IC12)	E-4
(Q1)	C-8

( ): SIDE B

【SERVO BOARD】(SIDE B)



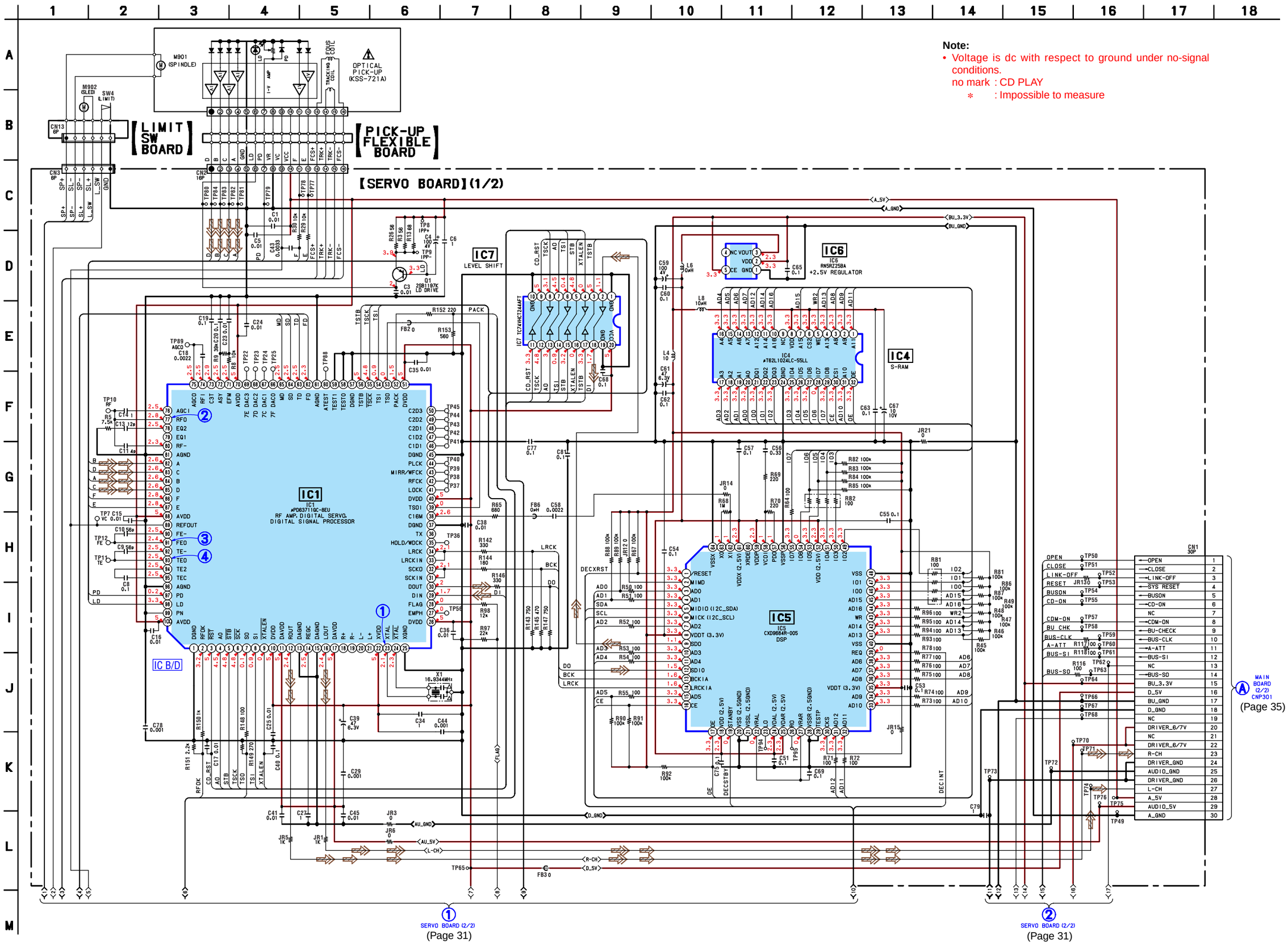

【SERVO BOARD】(SIDE A)
【PICK-UP FLEXIBLE BOARD】
1-676-707- 11
OPTICAL PICK-UP KSS-721A
M901 (SPINDLE)
BLK
RED
【DISC IN SW BOARD】
SW3 (DISC IN)
SW2 (SELF)
BLK
WHT
RED
1-684-877- 11 (11)
A MAIN BOARD CNP301 (Page 33)
【LOAD SW BOARD】
SW5 (DOWN)
1-685-337- 11 (11)
【LIMIT SW BOARD】
SW4 (LIMIT)
CN13
1-684-876- 11 (11)
M902 (SLED)
M903 (LOADING)
WHT
YEL
CN1
CN2
CN3
IC1
IC2
IC3
IC4
IC5
IC7
X1
X2
1-687-503- 11 (11)

• Refer to page 27 for Waveforms.

4-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) —

• Refer to page 40 for IC Block Diagram.

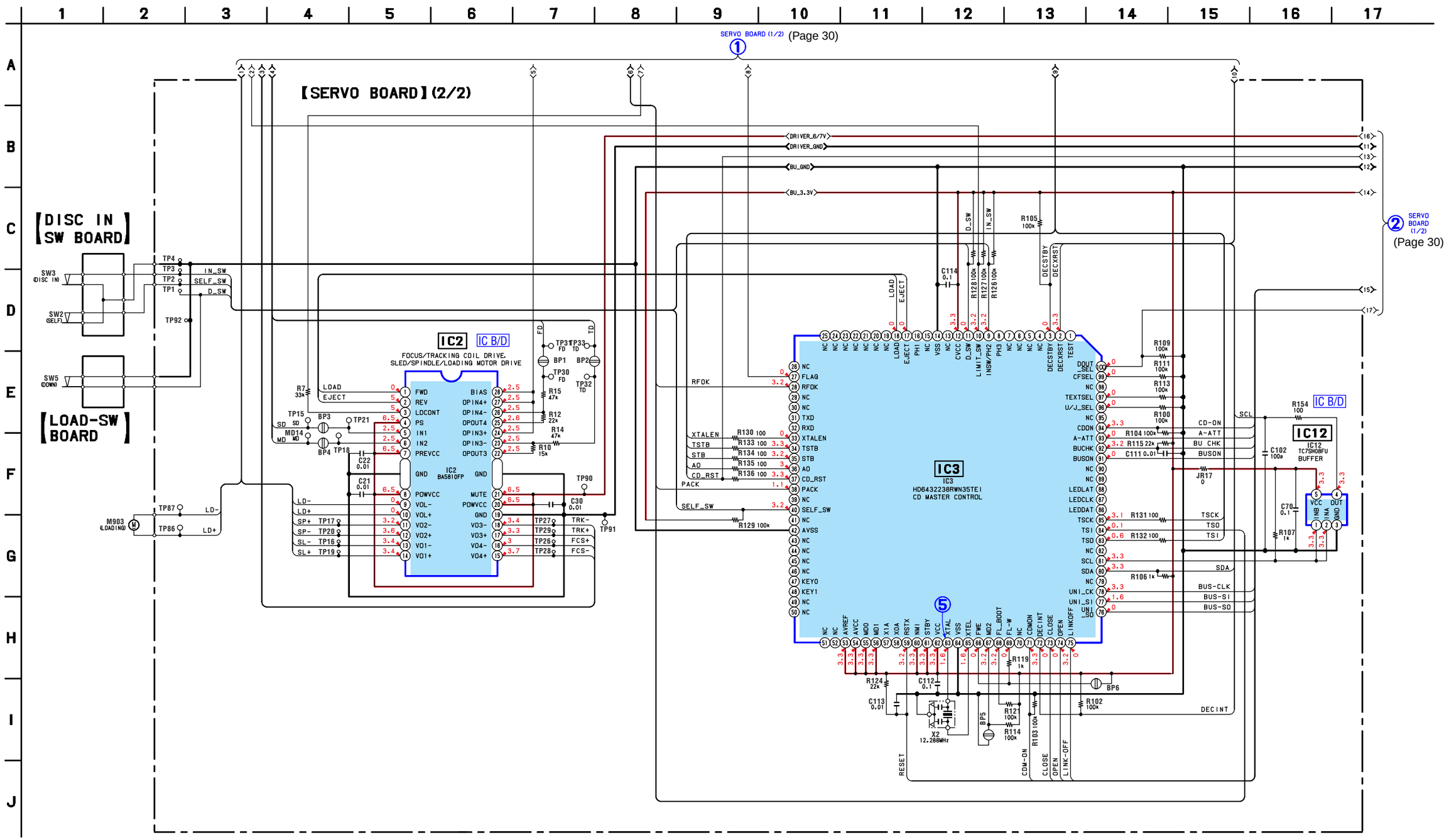
Note:
- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ✻ : Impossible to measure



• Refer to page 27 for Waveform.

4-8. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) —

• Refer to page 40 for IC Block Diagrams.



Note:

- Voltage is dc with respect to ground under no-signal conditions.
  no mark : CD PLAY
  ✻ : Impossible to measure

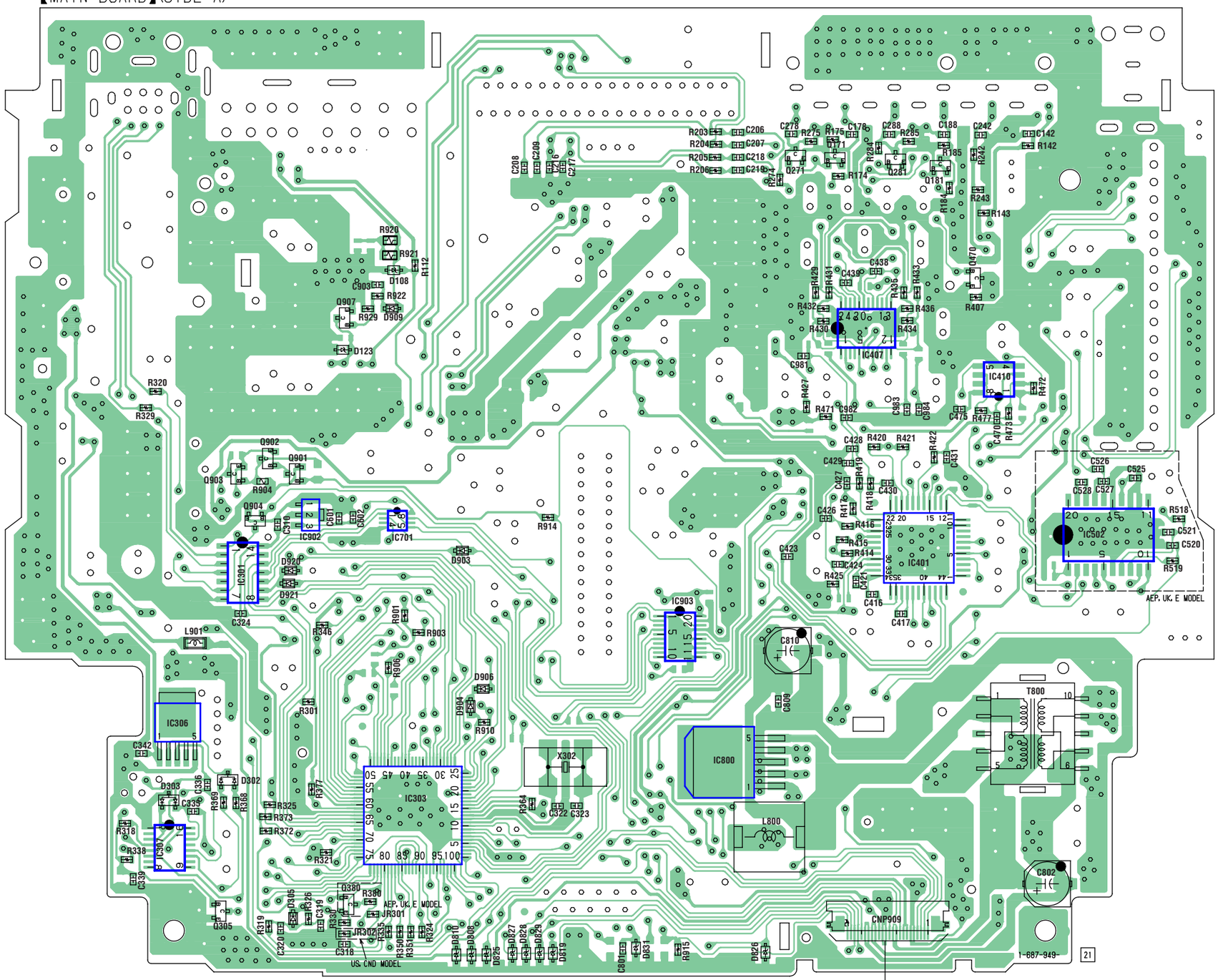
4-9. PRINTED WIRING BOARDS — MAIN SECTION — • Refer to page 27 for Circuit Boards Location.

• **Semiconductor Location**

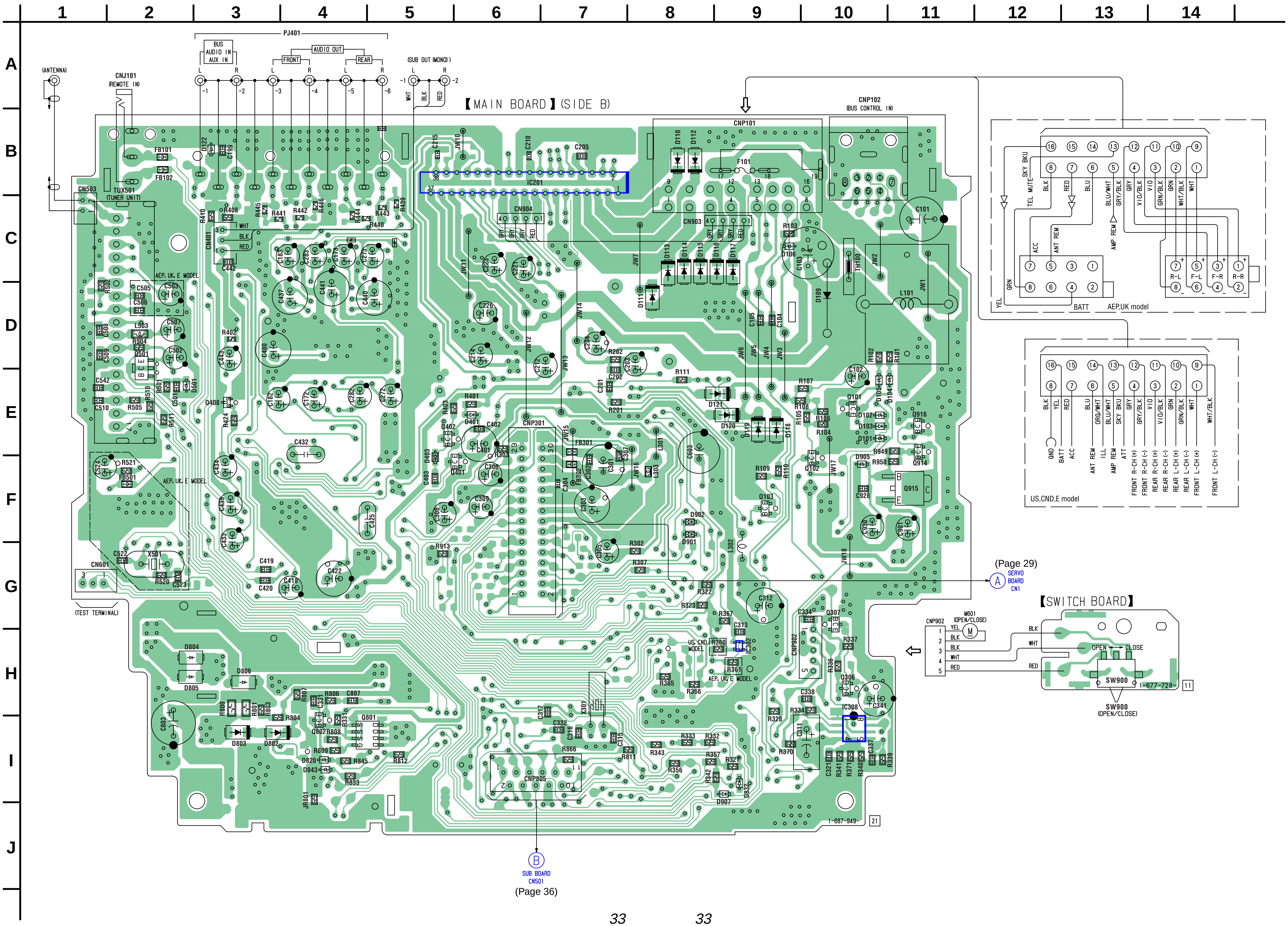
Ref. No.	Location	Ref. No.	Location
(D101)	E-10	(D905)	F-10
(D102)	E-10	D906	G-7
(D103)	E-10	(D907)	I-9
(D104)	E-11	D909	D-8
(D105)	E-10	D920	F-9
(D106)	C-9	D921	G-9
D108	D-8		
(D109)	D-10	(IC201)	B-6
(D110)	B-8	IC301	F-9
(D111)	D-8	(IC302)	H-9
(D112)	B-8	IC303	H-8
(D113)	C-8	IC306	H-10
(D114)	C-8	IC307	I-10
(D115)	C-8	(IC308)	I-10
(D116)	C-9	IC401	F-3
(D117)	C-9	IC407	D-4
(D118)	E-9	IC410	E-3
(D119)	E-9	IC502	F-2
(D120)	E-9	IC701	F-8
(D121)	E-9	IC800	H-5
(D122)	B-3	IC902	F-9
D123	E-9	IC903	G-6
D302	H-9		
D303	H-10	(Q101)	E-10
D305	I-9	(Q102)	F-10
(D401)	E-6	(Q103)	F-9
(D403)	F-5	Q171	C-4
(D501)	E-2	Q181	C-3
(D802)	I-3	Q271	C-5
(D803)	I-3	Q281	C-4
(D804)	H-2	Q305	J-9
(D805)	H-2	(Q306)	H-10
(D806)	H-3	(Q307)	G-10
D808	J-7	Q380	I-9
D810	J-8	(Q401)	F-6
D819	J-7	(Q402)	E-5
(D820)	I-4	(Q408)	E-3
D825	J-7	Q470	D-3
D826	J-5	(Q501)	D-2
D827	J-7	(Q801)	I-4
D828	J-7	(Q802)	I-4
D829	J-7	Q901	F-9
D831	J-6	Q902	E-9
(D832)	I-9	Q903	F-9
(D843)	I-4	Q904	F-9
(D901)	F-8	Q907	D-8
(D902)	F-8	(Q914)	F-11
D903	F-8	(Q915)	F-11
D904	H-8	(Q916)	E-11

( ): SIDE B

【MAIN BOARD】(SIDE A)

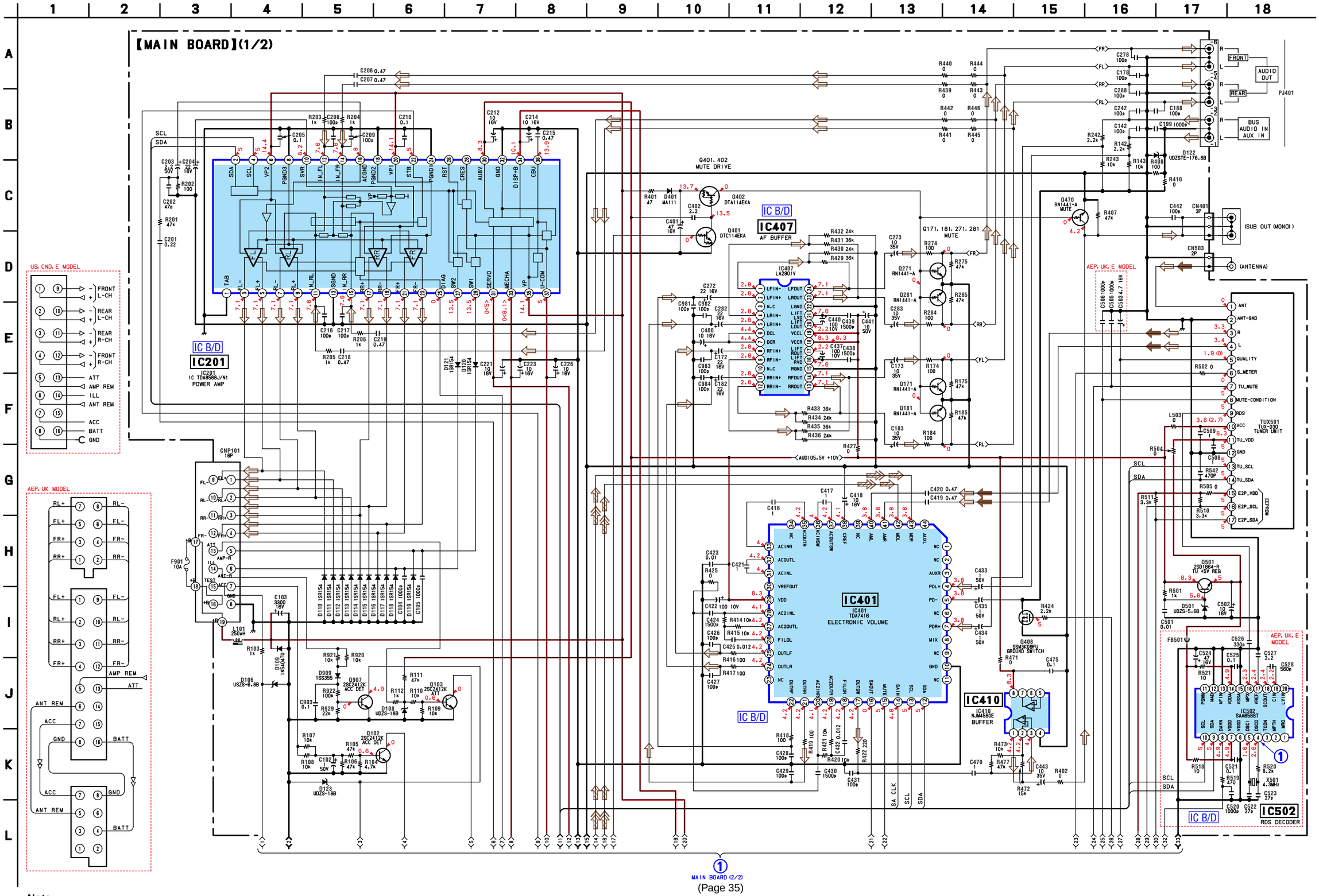


(Page 38)


【MAIN BOARD】(SIDE B)
(ANTENNA)
CNJ101
(REMOTE IN)
PJ401
BUS AUDIO IN
AUX IN
AUDIO OUT
FRONT
REAR
(SUB OUT (MONO))
CNP102
(BUS CONTROL IN)
CNP101
IC201
CN503
TUX501
(TUNER UNIT)
CNP301
CN601
(TEST TERMINAL)
CNP805
AEP, UK, E MODEL
US, CND, E model
AEP,UK model
BATT
(Page 29)
SERVO BOARD CN1
SUB BOARD CN501
(Page 36)
1-687-949-
21
【SWITCH BOARD】
CNP902
M601
(OPEN/CLOSE)
OPEN
CLOSE
SW900
(OPEN/CLOSE)
1-677-728-
11

4-10. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) —

• Refer to page 27 for Waveform.
• Refer to page 40 for IC Block Diagrams.



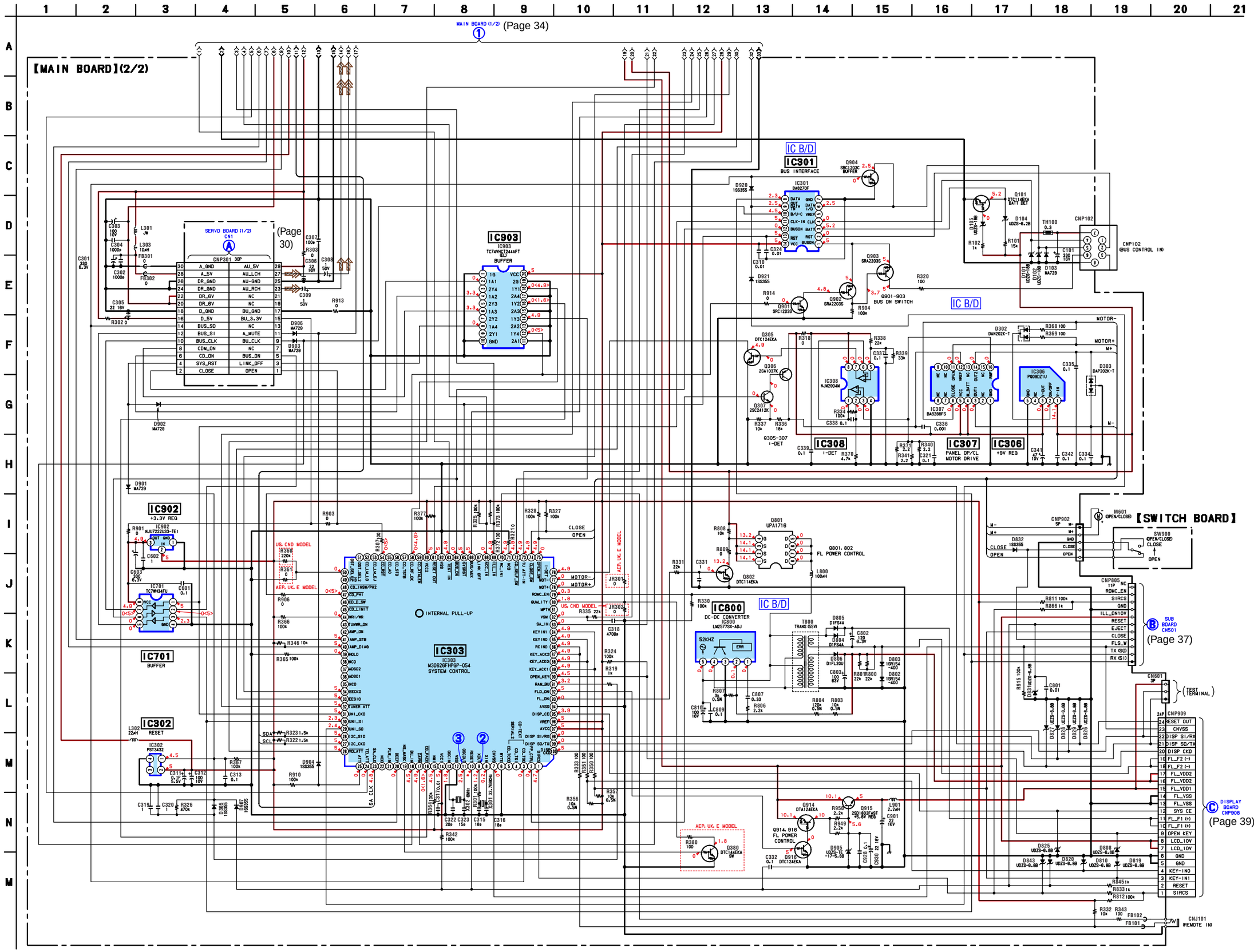
Note:

- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM
  ( ) : AM/MW/LW
  < > : CD PLAY

• Refer to page 27 for Waveform.

4-11. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) —

• Refer to page 40 for IC Block Diagrams.

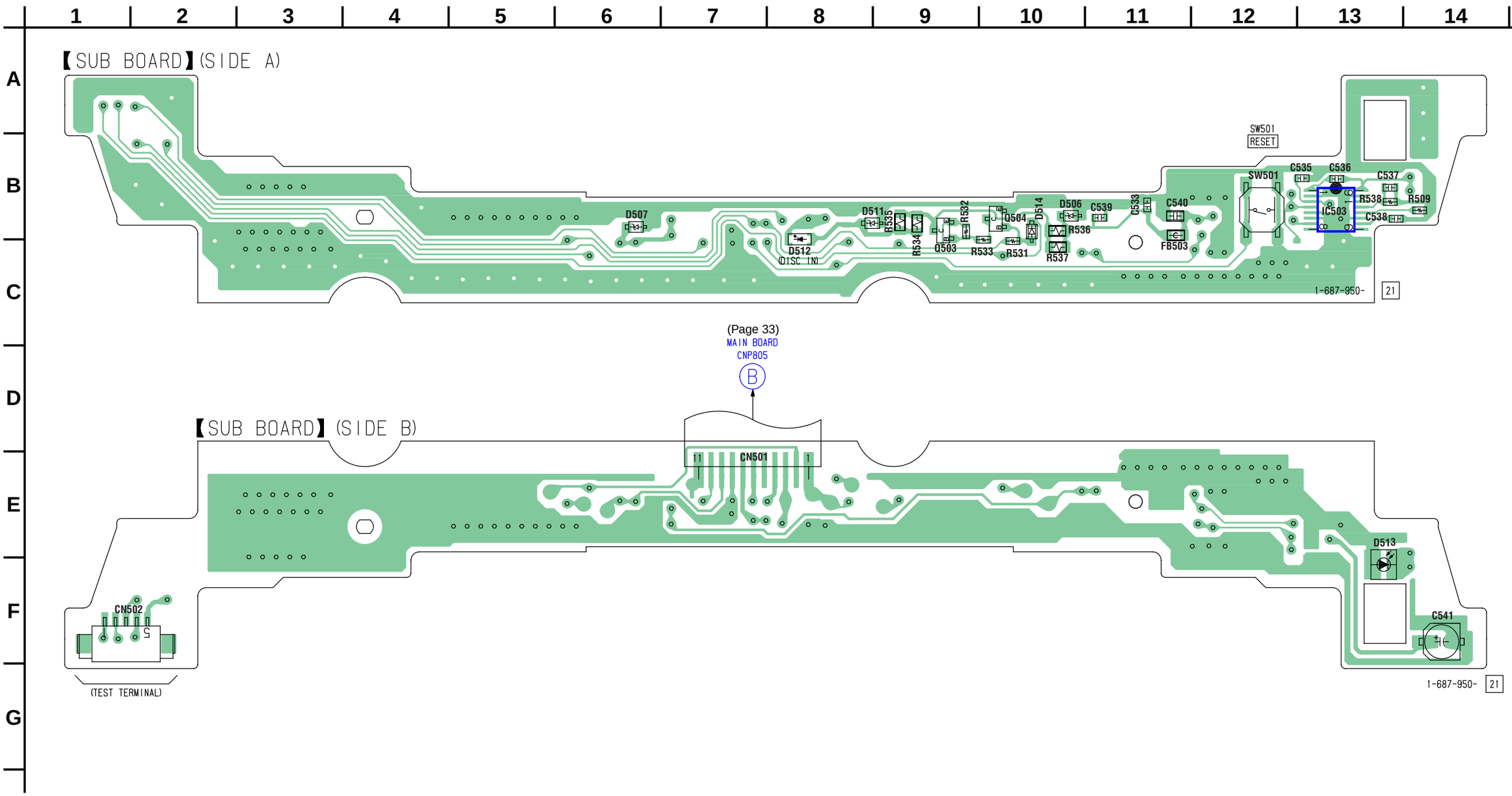


Note:

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

( ) : AM/MW/LW
< > : CD PLAY
* : Impossible to measure

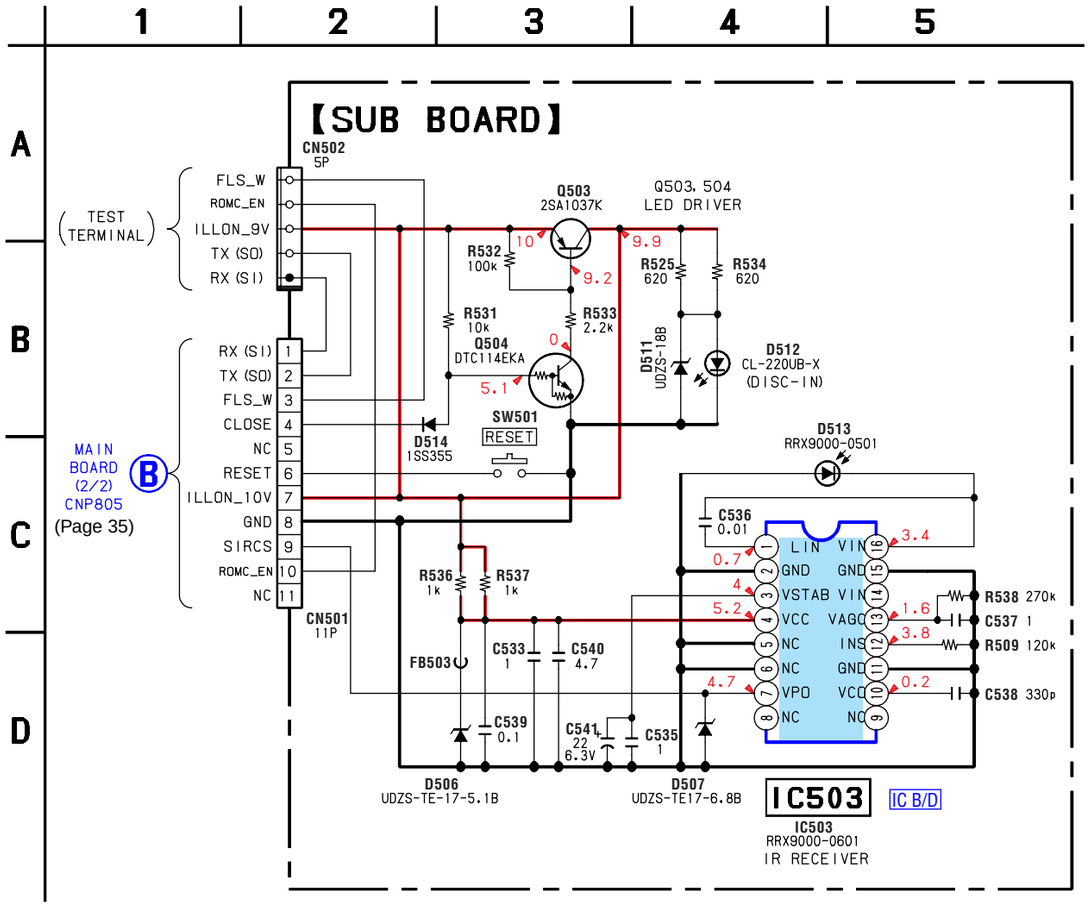
4-12. PRINTED WIRING BOARD — SUB SECTION — • Refer to page 27 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D506	B-10
D507	B-6
D511	B-8
D512	C-8
D513	E-13
D514	B-10
IC503	B-13
Q503	C-9
Q504	B-10

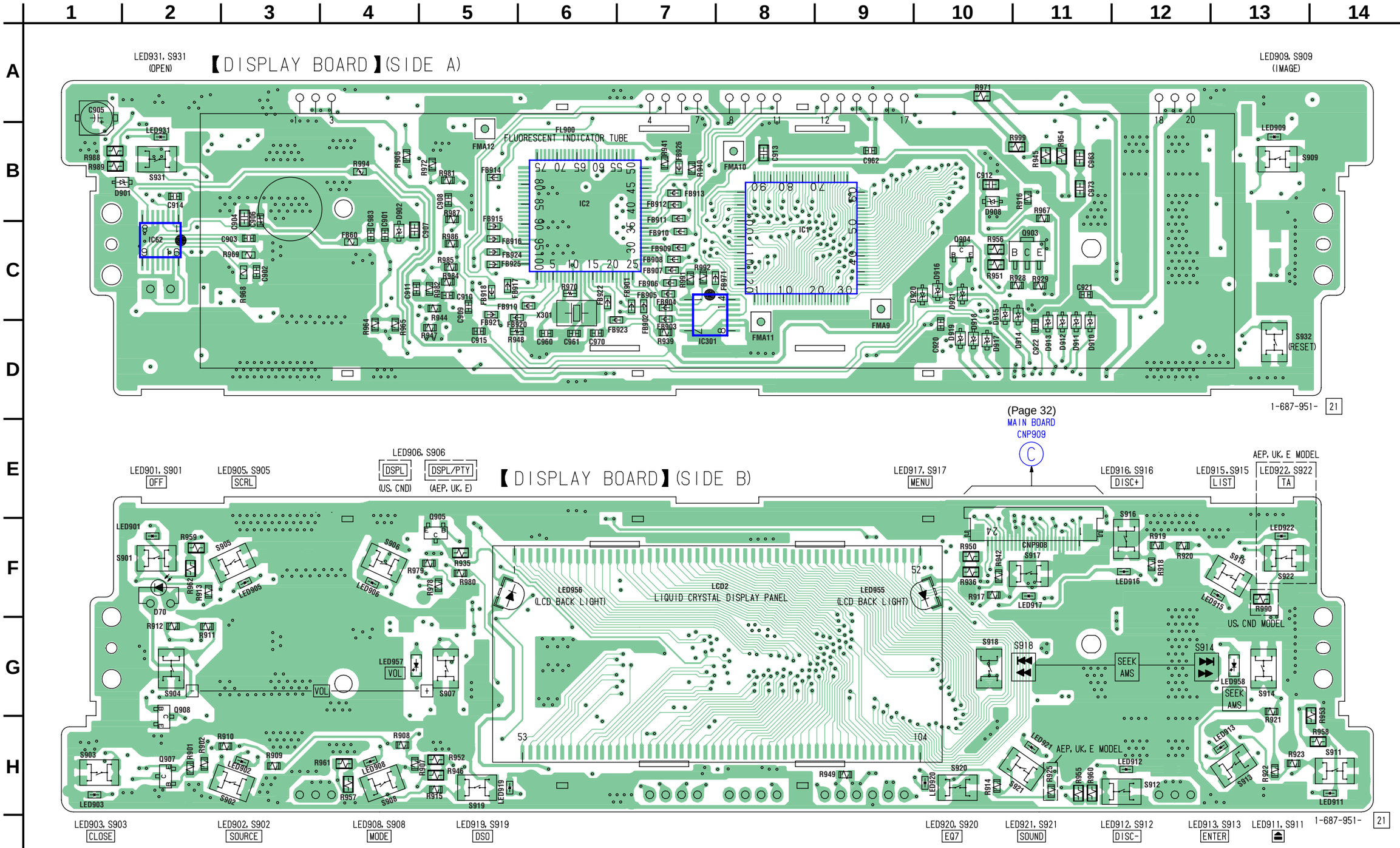
4-13. SCHEMATIC DIAGRAM — SUB SECTION — • Refer to page 41 for IC Block Diagrams.



Note:

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

4-14. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 27 for Circuit Boards Location.

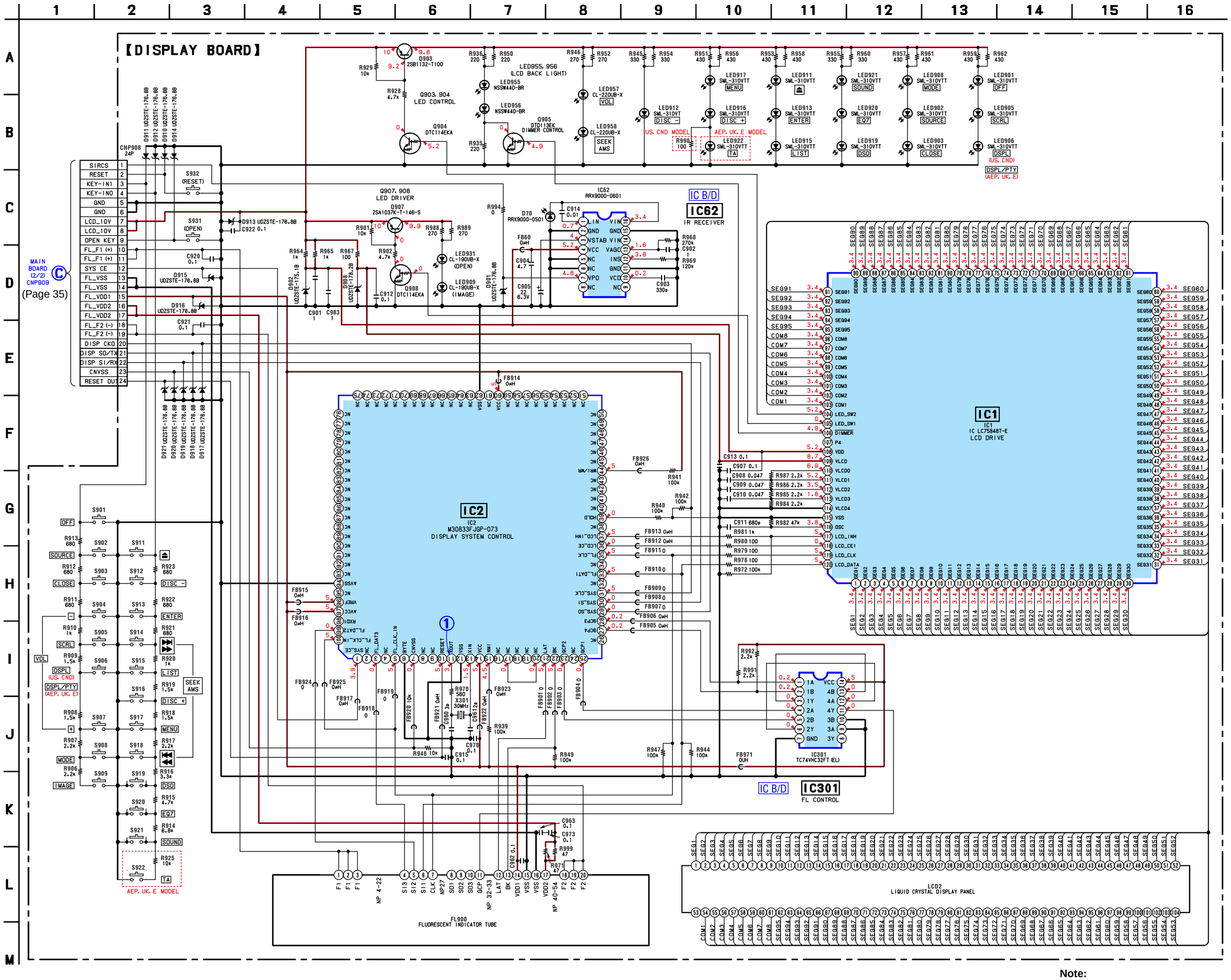


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D70	F-2	D916	C-10	IC301	C-7	LED912	H-12	LED955	F-9
D901	B-1	D917	D-10			LED913	H-13	LED956	F-6
D902	B-4	D918	D-10	LED901	F-2	LED915	F-13	LED957	G-4
D908	B-10	D919	D-10	LED902	H-3	LED916	F-12	LED958	G-13
D910	D-11	D920	C-10	LED903	H-1	LED917	F-11		
D911	D-11	D921	C-10	LED905	F-3	LED919	H-5	Q903	C-11
D912	D-11			LED906	F-4	LED920	H-9	Q904	C-10
D913	D-11	IC1	C-8	LED908	H-4	LED921	H-11	Q905	F-4
D914	D-11	IC2	B-6	LED909	B-13	LED922	F-13	Q907	H-2
D915	C-10	IC62	C-2	LED911	H-14	LED931	B-2	Q908	G-2

4-15. SCHEMATIC DIAGRAM — DISPLAY SECTION —

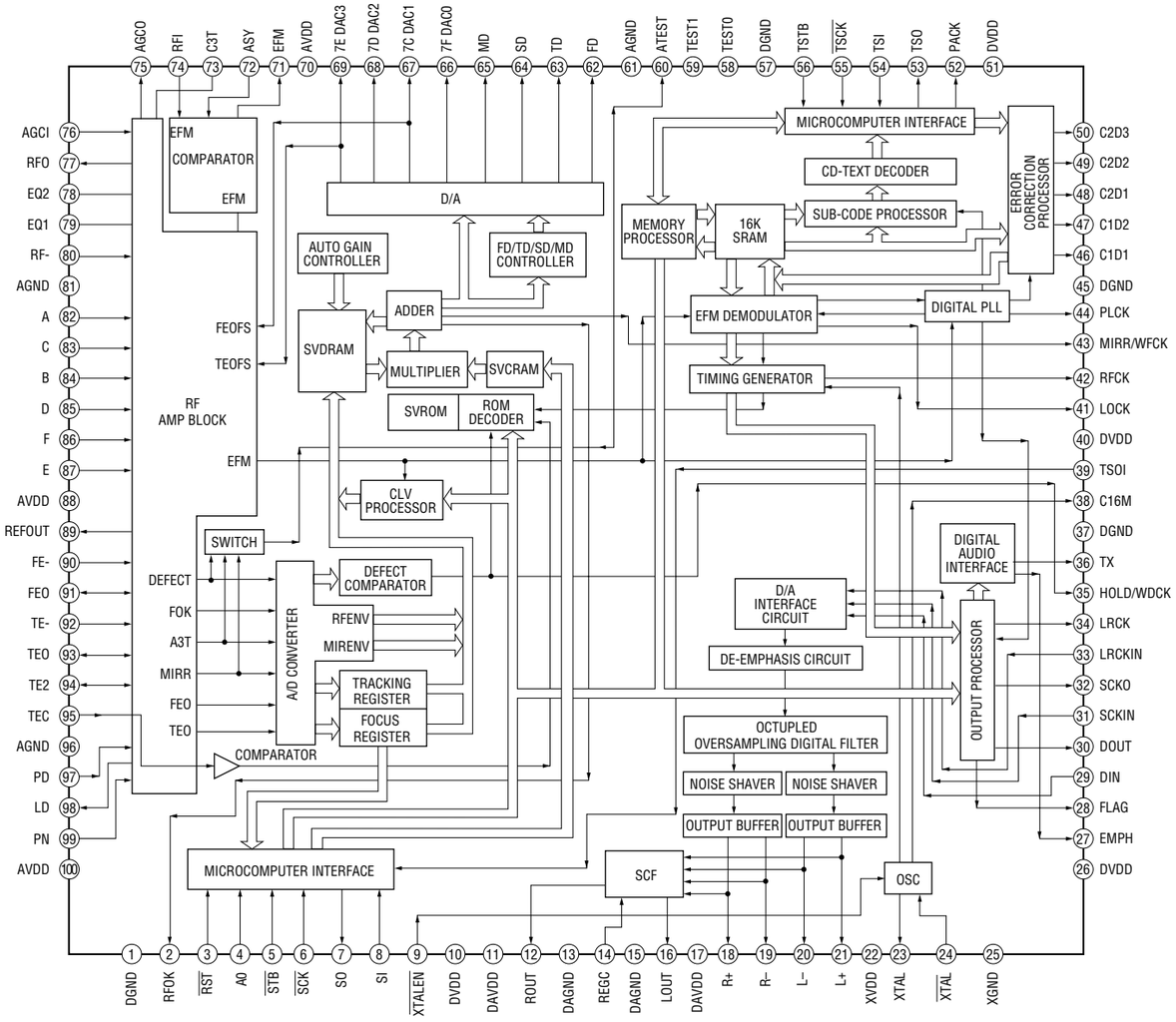
• Refer to page 27 for Waveform.
• Refer to page 41 for IC Block Diagrams.



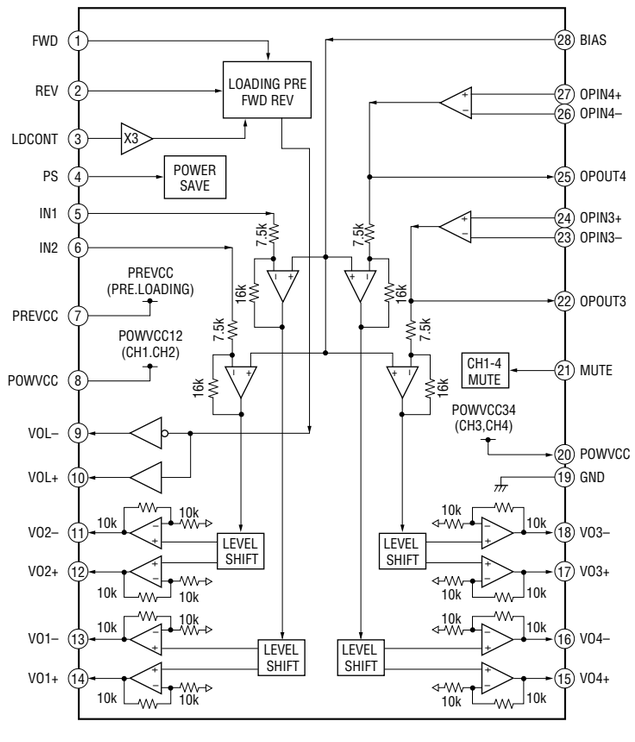
Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

4-16. IC BLOCK DIAGRAMS

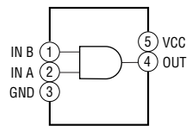
IC1 µPD63711GC-8EU (SERVO Board (1/2))



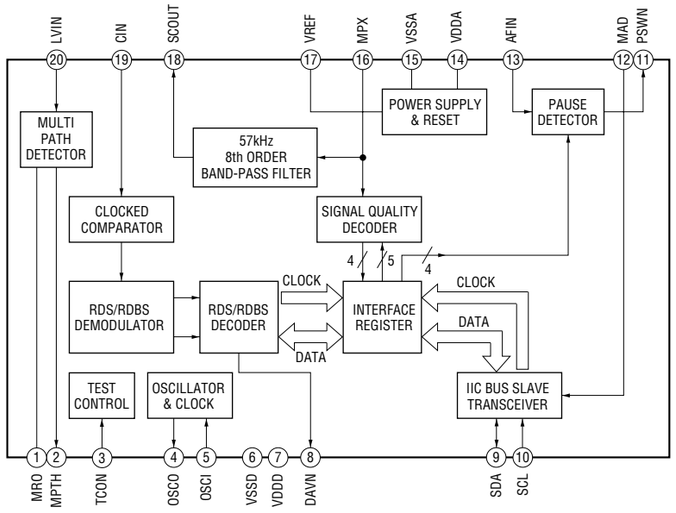
IC2 BA5810FP (SERVO Board (2/2))



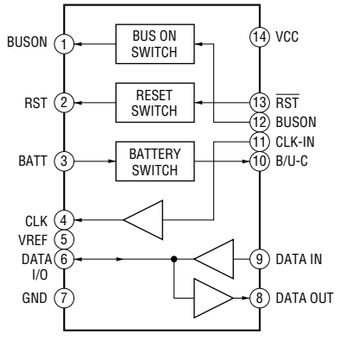
IC12 TC7SH08FU (SERVO Board (2/2))



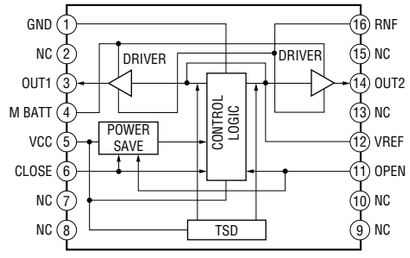
IC502 SAA6588T (MAIN Board (1/2))



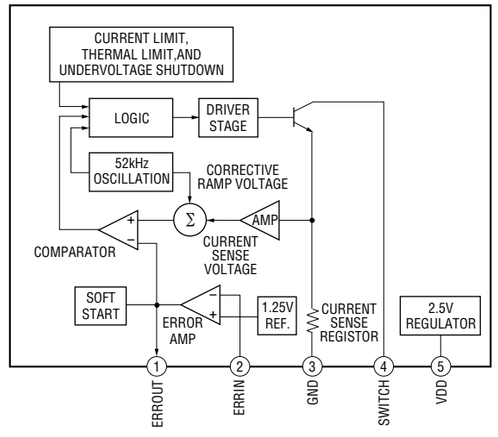
IC301 BA8270F (MAIN Board (2/2))



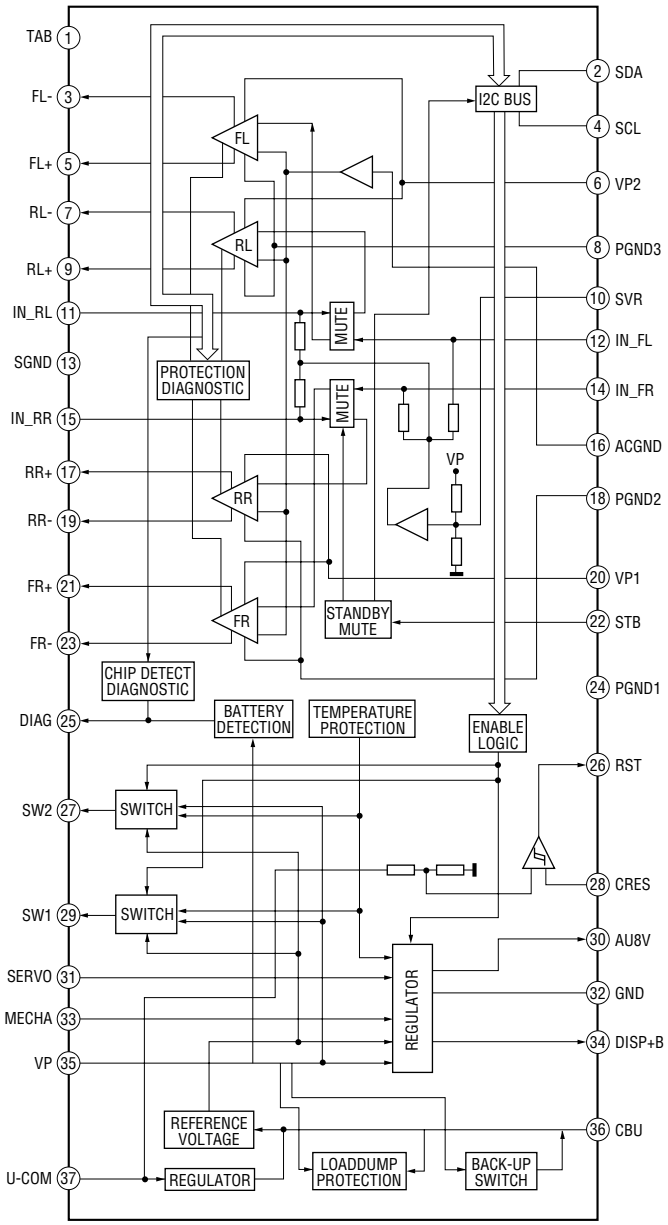
IC307 BA6288FS (MAIN Board (2/2))



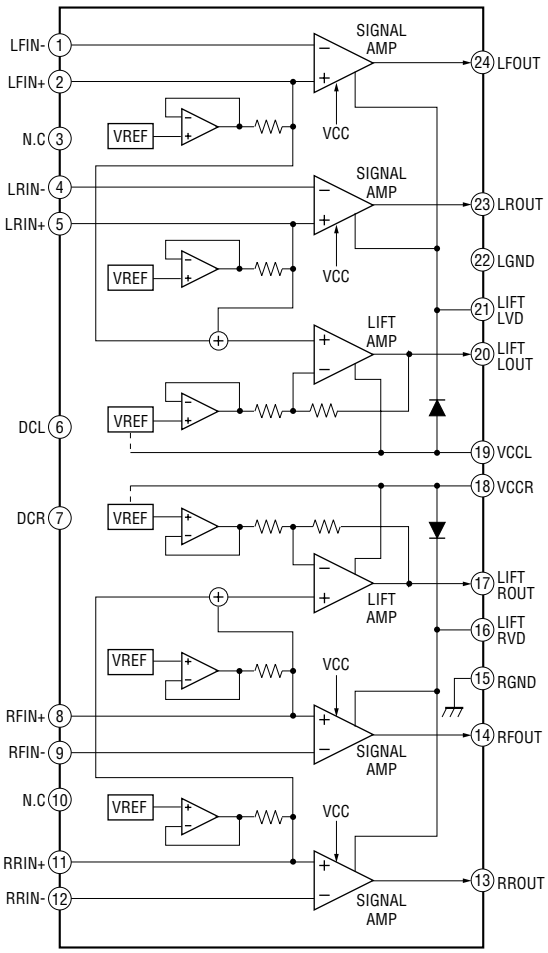
IC800 LM2577SX-ADJ (MAIN Board (2/2))



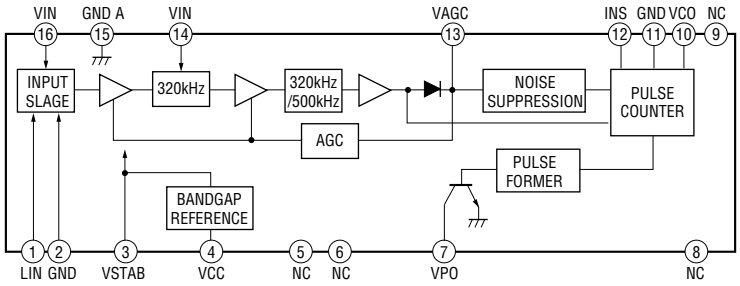
IC201 TDA8588J/N1 (MAIN Board (1/2))



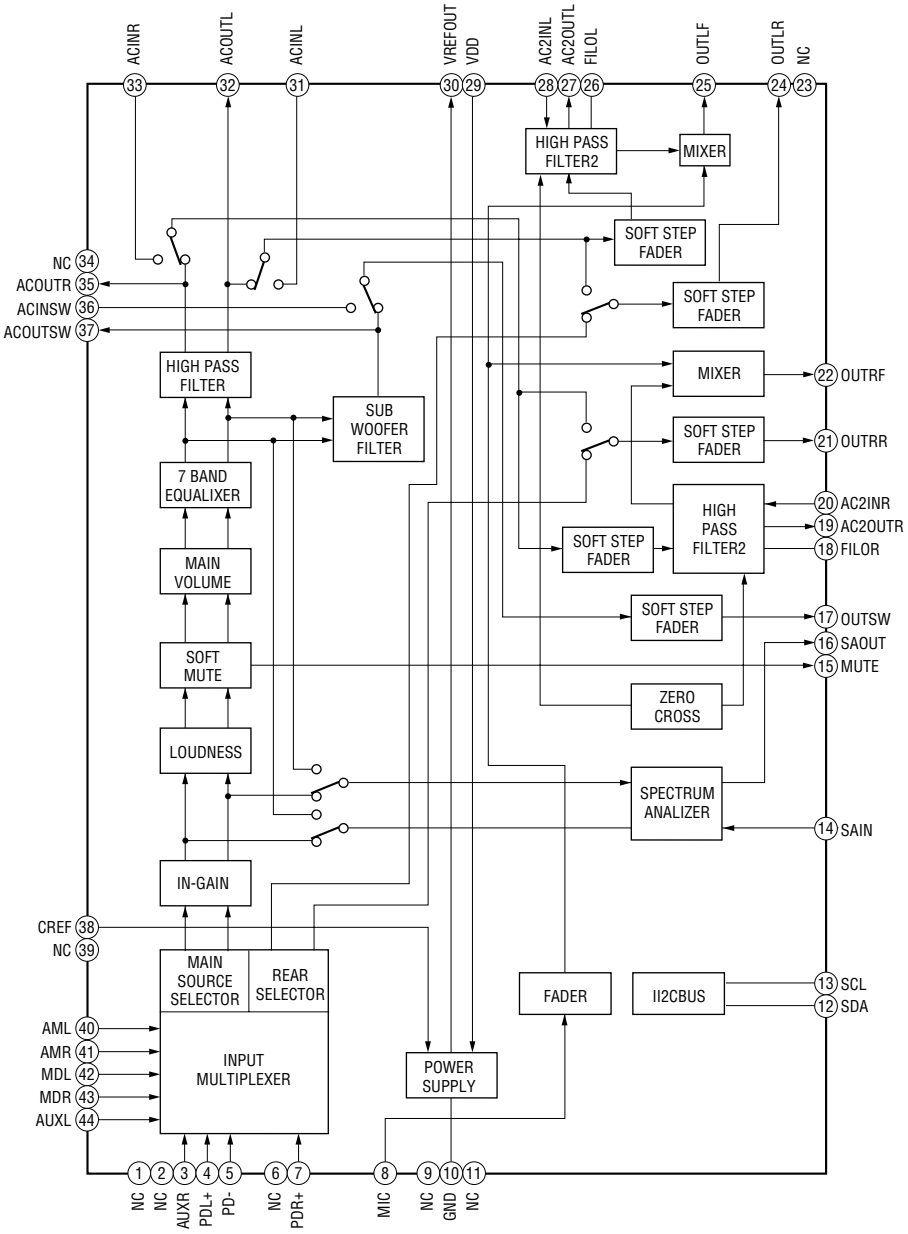
IC407 LA2901V-TLM (MAIN Board (1/2))



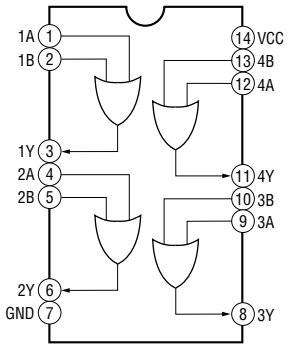
IC503 RRX9000-0601 (SUB Board)
IC62 RRX9000-0601 (DISPLAY Board)



IC401 TDA7416 (MAIN Board (1/2))



IC301 TC74VHC32FT(EL) (DISPLAY Board)



SECTION 5
EXPLODED VIEWS

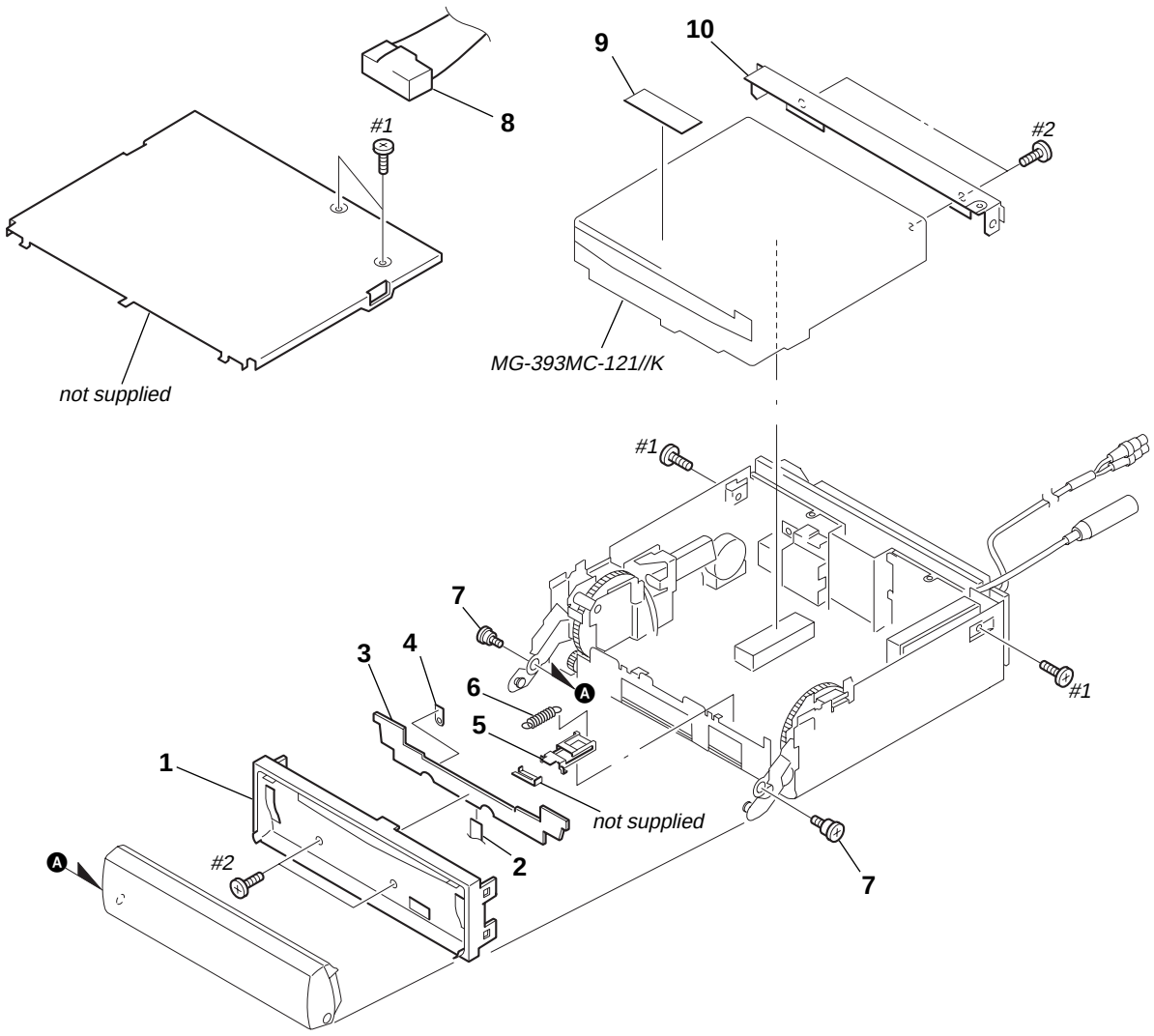
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some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

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

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

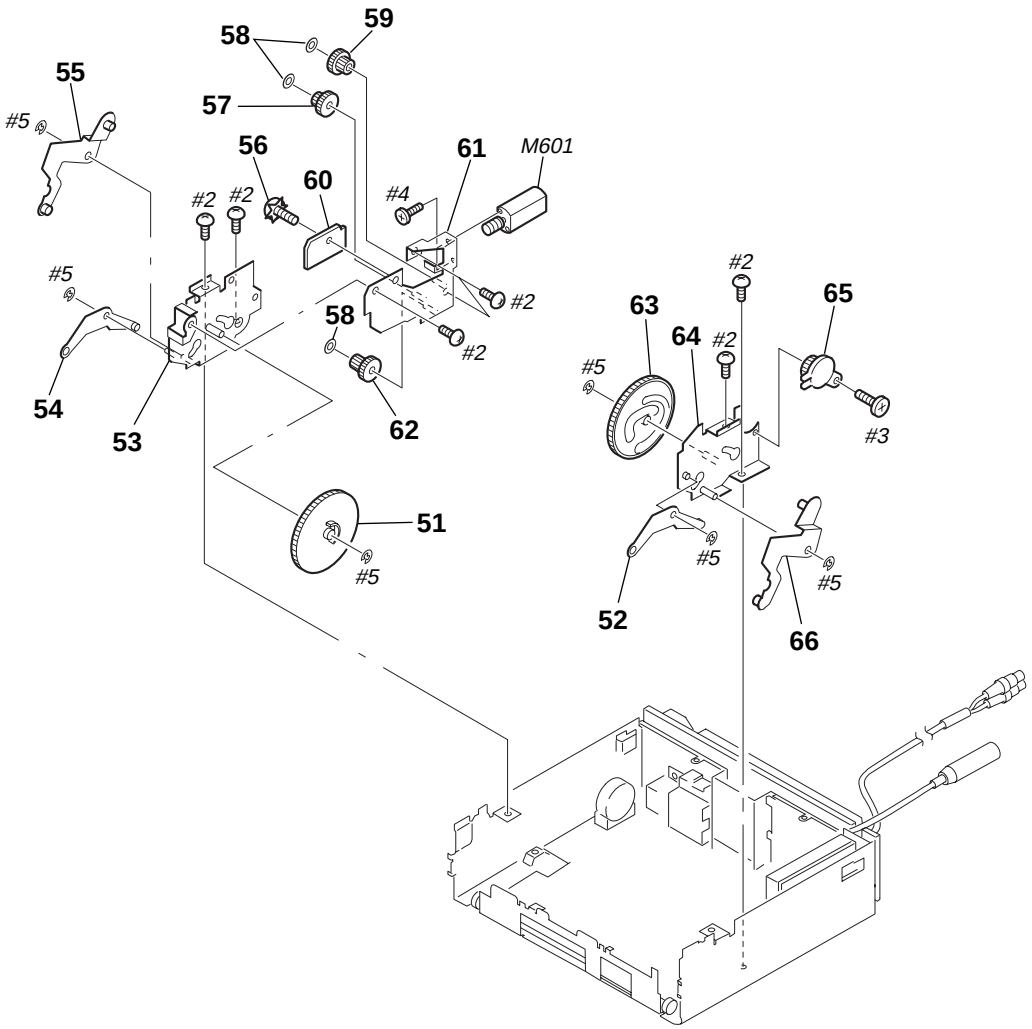
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

5-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	X-3383-098-1	PANEL (CD) SUB ASSY, SUB (US,CND)	
1	X-3383-101-1	PANEL (CD) SUB ASSY, SUB (AEP,UK,E)	
2	1-783-268-11	CABLE, FLAT (FFC) 11P	
3	1-687-950-11	SUB BOARD	
4	3-232-857-01	SHEET (SUB PANEL), ELECTROSTATIC	
5	3-248-826-01	COVER (FLEXIBLE)	
6	3-230-516-01	SPRING (FLEXIBLE), TENSION	
7	3-045-756-01	SCREW (PANEL)	
8	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	(US,CND,E)
8	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
9	3-223-913-11	LABEL (OP CAUTION) (AEP,UK,E)	
10	3-248-858-01	BRACKET (CD)	
#1	7-685-790-09	SCREW +PTT 2.6X4 (S)	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	

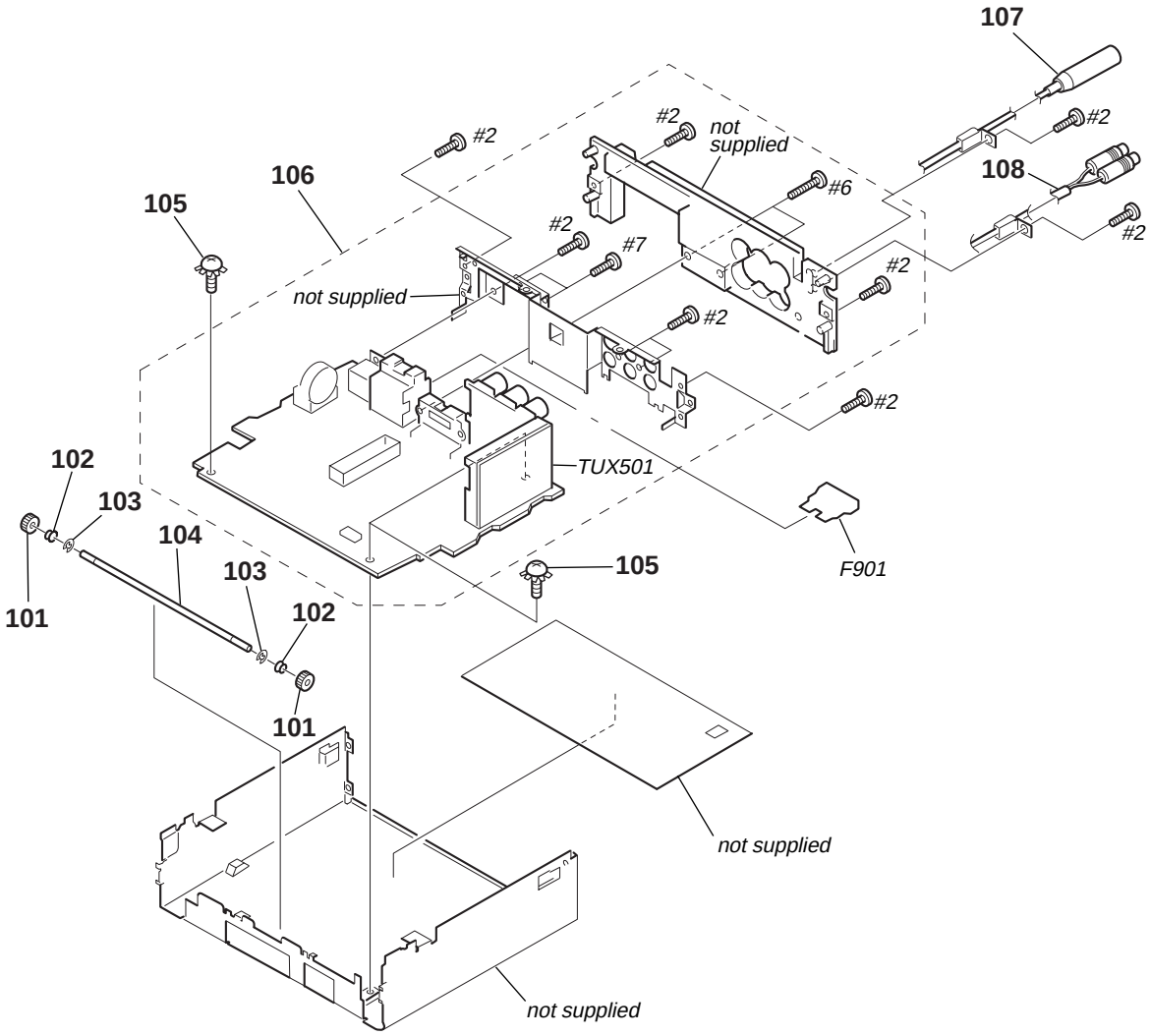
5-2. CAM SECTION



Ref. No.	Part No.	Description	Remark
51	3-230-495-01	CAM (L)	
52	X-3380-549-1	ARM (B-R) ASSY	
53	X-3380-544-2	BRACKET (L) ASSY	
54	X-3380-548-1	ARM (B-L) ASSY	
55	X-3382-822-1	ARM (A-L) ASSY	
56	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
57	3-045-714-01	GEAR (B)	
58	3-342-940-01	WASHER (M)	
59	3-045-713-01	GEAR (A)	
60	A-3326-298-A	SWITCH BOARD, COMPLETE	
* 61	X-3378-711-4	BRACKET (MOTOR) ASSY	

Ref. No.	Part No.	Description	Remark
62	3-230-494-01	GEAR (C)	
63	3-230-496-01	CAM (R)	
64	X-3380-545-2	BRACKET (R) ASSY	
65	3-030-909-11	DAMPER, OIL	
66	X-3382-823-1	ARM (A-R) ASSY	
M601	X-3378-769-1	MOTOR ASSY (OPEN/CLOSE)	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#3	7-621-772-18	SCREW +P 2X4	
#4	7-627-553-28	SCREW, PRECISION +P 2X2.5	
#5	7-624-102-04	STOP RING 1.5, TYPE -E	

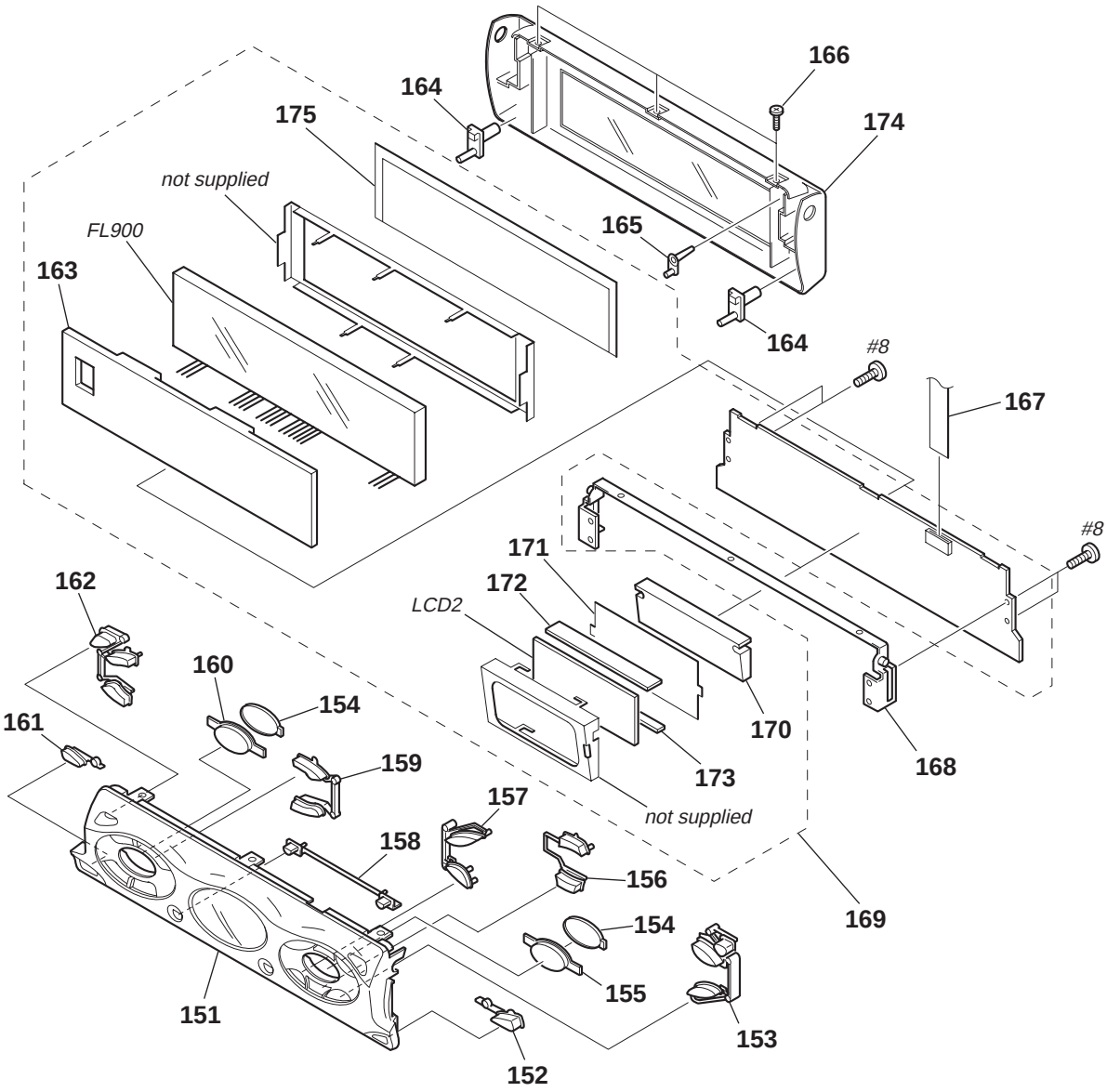
5-3. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
101	3-230-493-01	GEAR (DRIVE SHAFT)	
102	3-230-444-01	GUIDE (DRIVE SHAFT)	
103	3-040-692-01	RING, CE TYPE RETAINING	
104	3-045-721-01	SHAFT, DRIVE	
105	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
106	A-3274-933-A	MAIN BOARD, COMPLETE (US,CND)	
106	A-3274-934-A	MAIN BOARD, COMPLETE (AEP,UK,E)	

Ref. No.	Part No.	Description	Remark
107	1-777-246-41	CORD (WITH CONNECTOR) (ANTENNA)	
108	1-790-375-32	CORD (WITH CONNECTOR) (SUB OUT (MONO))	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX501	A-3220-887-A	TUNER UNIT (TUX-030)	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#6	7-685-795-09	SCREW +PTT 2.6X12 (S)	
#7	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	

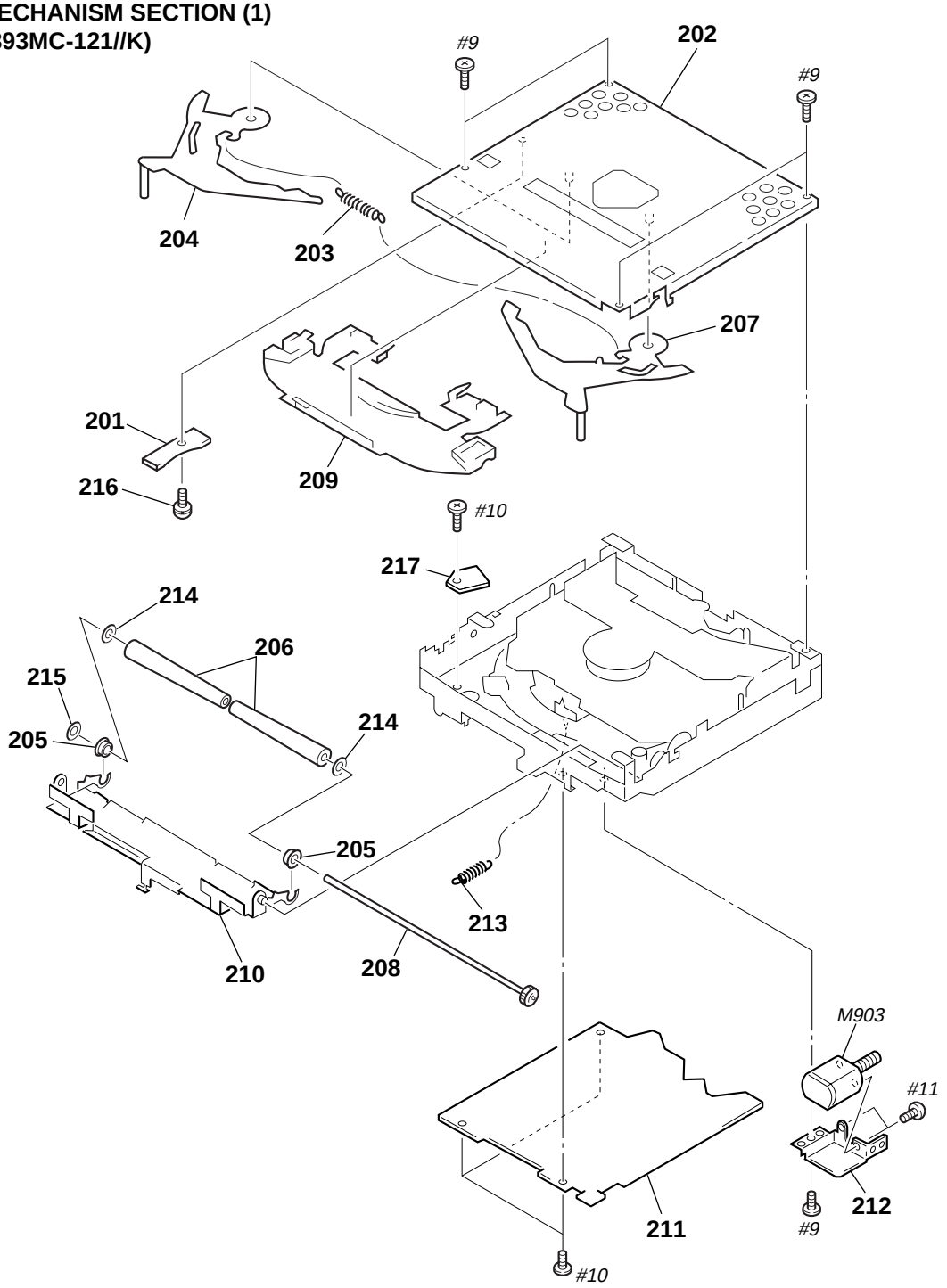
5-4. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
151	X-3383-766-1	PANEL (KEY) ASSY (S), FRONT (US,CND)	
151	X-3383-768-1	PANEL (KEY) ASSY (S), FRONT (AEP,UK,E)	
152	3-238-816-01	BUTTON (EJECT)	
153	3-238-820-01	BUTTON (ENTER) (US,CND)	
153	3-238-820-11	BUTTON (ENTER) (AEP,UK,E)	
154	3-238-814-01	HOLDER (REFLECTION), BUTTON	
155	X-3381-650-1	BUTTON (SEEK/AMS) ASSY	
156	3-238-821-01	BUTTON (DISC)	
157	3-238-819-01	BUTTON (SOUND)	
158	3-238-817-01	BUTTON (DSO)	
159	3-238-818-01	BUTTON (MODE) (US,CND)	
159	3-238-818-11	BUTTON (MODE) (AEP,UK,E)	
160	X-3381-649-1	BUTTON (VOL) ASSY	
161	3-238-815-01	BUTTON (CLOSE)	
162	3-239-338-01	BUTTON (SOURCE)	
163	3-248-825-01	PLATE (FL), GUIDE	
164	3-248-791-01	BUTTON (OPEN)	

Ref. No.	Part No.	Description	Remark
165	3-248-789-01	BUTTON (RESET-DSPL)	
166	2-626-869-01	SCREW (M2X3), SERRATION	
167	1-687-952-11	FLEXIBLE BOARD	
168	X-3381-646-1	BRACKET (PANEL) ASSY	
169	A-3274-766-A	DISPLAY BOARD, COMPLETE (AEP,UK,E)	
169	A-3274-979-A	DISPLAY BOARD, COMPLETE (US,CND)	
170	3-238-827-01	PLATE (LCD KEY), LIGHT GUIDE	
171	3-238-826-01	SHEET (KEY), DIFFUSION	
172	1-694-925-11	CONDUCTIVE BOARD, CONNECTION	
173	1-694-926-11	CONDUCTIVE BOARD, CONNECTION	
174	X-3383-210-1	PANEL (MAIN) ASSY, FRONT (AEP,UK,E)	
174	X-3383-692-1	PANEL (MAIN) ASSY, FRONT (US,CND)	
175	3-249-076-01	FILTER (FL) (US,CND)	
175	3-249-076-21	FILTER (FL) (AEP,UK,E)	
FL900	1-518-879-11	INDICATOR TUBE, FLUORESCENT	
LCD2	1-804-636-21	DISPLAY PANEL, LIQUID CRYSTAL	
#8	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	

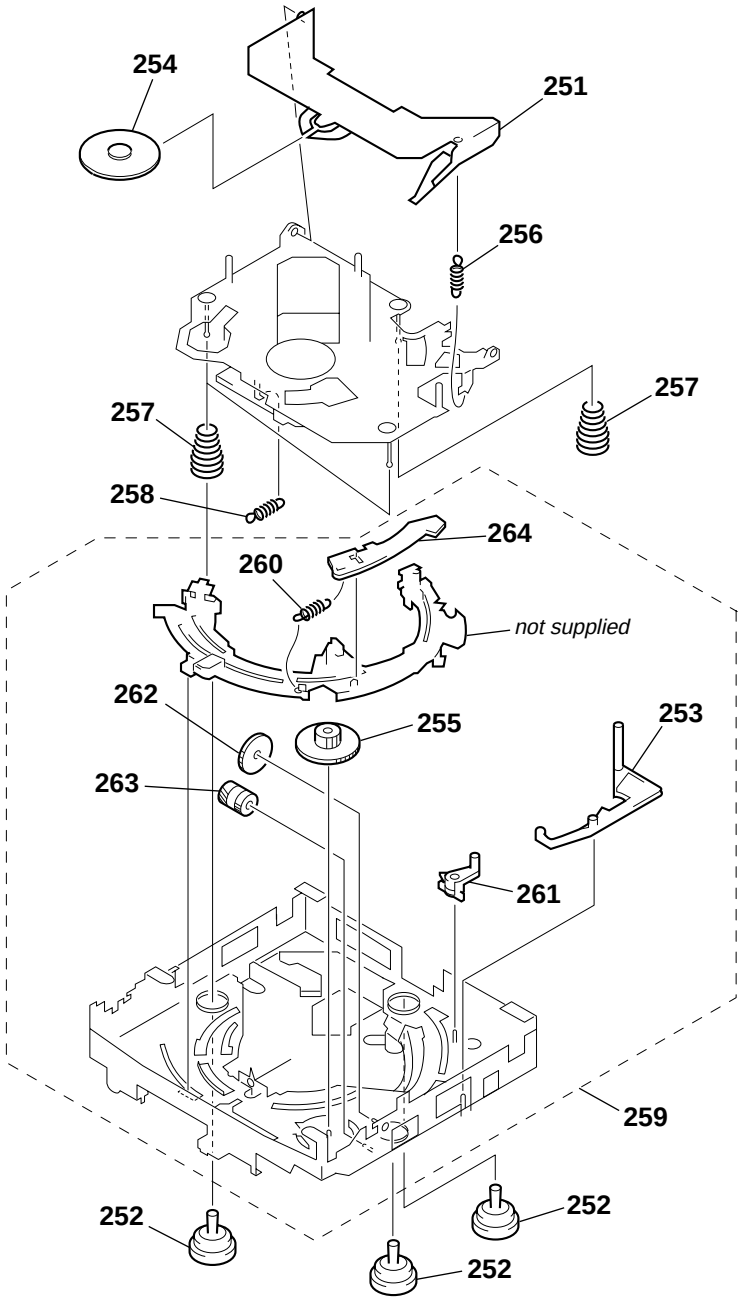
5-5. CD MECHANISM SECTION (1)
(MG-393MC-121//K)



Ref. No.	Part No.	Description	Remark
201	A-3274-253-A	DISC IN SW BOARD, COMPLETE	
202	3-040-039-03	CHASSIS (T)	
203	3-040-038-01	SPRING (LR), TENSION	
204	3-040-050-01	LEVER (L)	
205	3-040-022-01	RETAINER (ROLLER), SHAFT	
206	3-040-044-01	ROLLER (S)	
207	3-040-067-01	LEVER (R)	
208	A-3301-980-A	SHAFT ROLLER ASSY	
209	3-040-037-01	GUIDE (DISC)	
210	3-040-040-03	ARM (ROLLER)	
211	A-3274-698-A	SERVO BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
212	3-221-779-02	BRACKET (MOTOR)	
213	3-040-034-01	SPRING (RA), TENSION	
214	3-040-042-01	WASHER	
215	3-043-880-01	RING (RA), RETAINING	
216	3-044-206-11	SCREW, SPECIAL	
217	1-685-337-11	LOAD SW BOARD	
M903	A-3315-039-A	MOTOR SUB ASSY, LO (LOADING)	
#9	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	
#10	7-628-253-00	SCREW, SPECIAL	
#11	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE3	

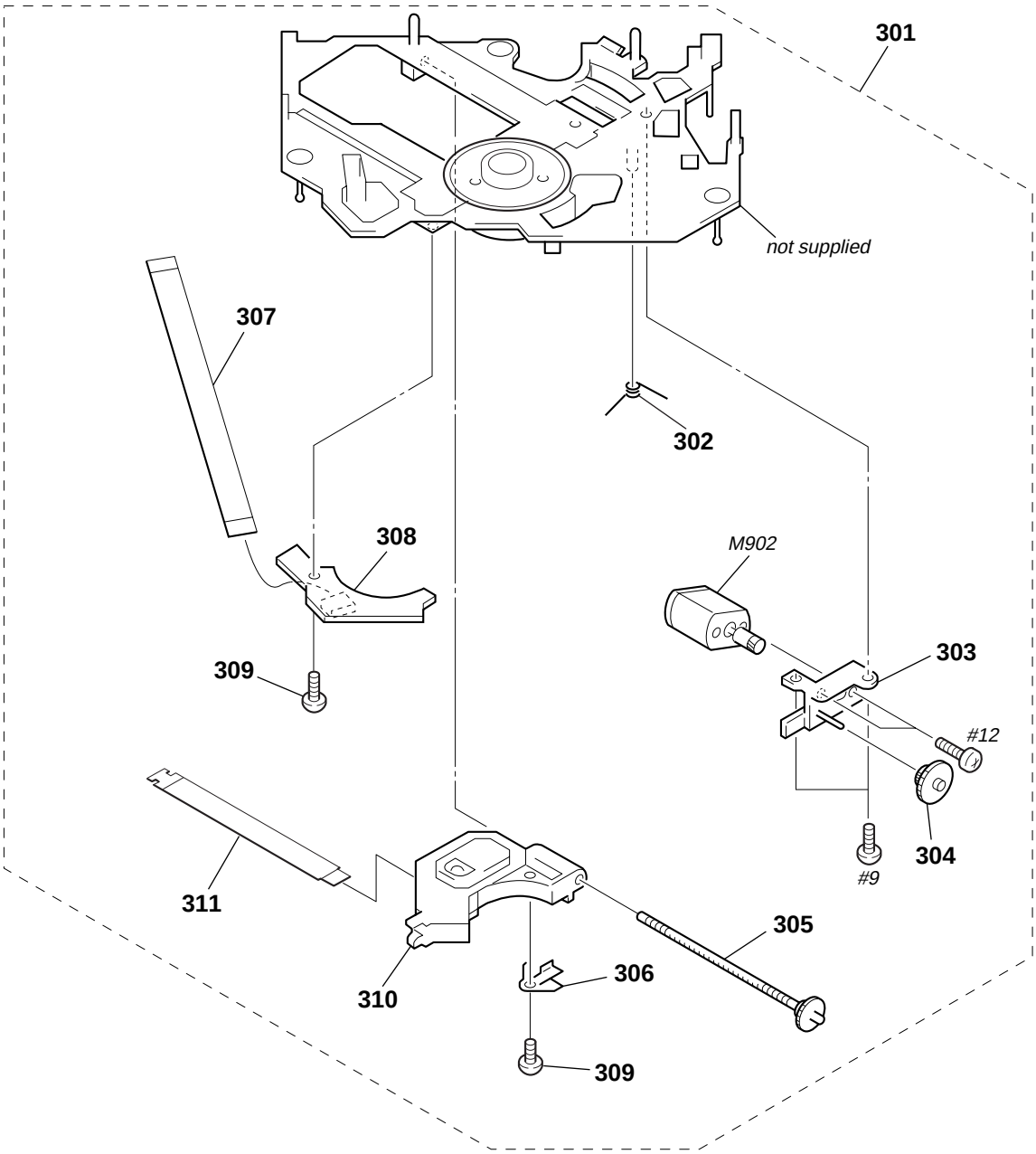
5-6. CD MECHANISM SECTION (2)
(MG-393MC-121//K)



Ref. No.	Part No.	Description	Remark
251	3-040-025-02	ARM, CHUCKING	
252	3-040-031-01	DAMPER (T)	
253	3-040-056-01	LEVER (D)	
254	3-040-024-01	RETAINER (DISC)	
255	3-040-054-01	WHEEL (LW), WORM	
256	3-040-026-01	SPRING (CH), TENSION	
257	3-040-032-01	SPRING (FL), COMPRESSION	

Ref. No.	Part No.	Description	Remark
258	3-040-033-01	SPRING (KF1), TENSION	
259	A-3307-422-A	CHASSIS (M) COMPLETE ASSY	
260	3-040-059-01	SPRING (TR), TENSION	
261	3-040-057-01	LEVER (LOCK)	
262	3-040-058-01	GEAR (MDL)	
263	3-040-052-01	WHEEL (U), WORM	
264	3-040-051-02	LEVER (TR)	

5-7. CD MECHANISM SECTION (3)
(MG-393MC-121//K)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
301	A-3337-193-A	FLOATING BLOCK ASSY (including M901)	
302	3-040-029-01	SPRING (SL), TORSION	
303	3-040-045-01	BASE (DRIVING)	
304	3-040-194-01	GEAR (MIDWAY)	
305	A-3301-983-A	SHAFT (FEED) ASSY	
306	3-040-030-01	SPRING (FEED), PLATE	
307	1-823-951-11	CABLE, FLEXIBLE FLAT (16 CORE)	
308	A-3274-254-A	LIMIT SW BOARD, COMPLETE	
309	3-909-607-01	SCREW	
⚠310	8-820-165-06	OPTICAL PICK-UP KSS-721A/C-RP	
311	1-676-707-11	PICK-UP FLEXIBLE BOARD	
M902	A-3301-985-A	MOTOR ASSY, SLED (SLED)	
#9	7-627-553-37	SCREW, PRECISION +P 2X3 TYPE3	
#12	7-627-850-28	SCREW, PRECISION +P 1.4X3	

DISC IN SW | DISPLAY

SECTION 6
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
  CND: Canadian 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.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH

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

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

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

Ref. No.	Part No.	Description			Remark
	A-3274-253-A	DISC IN SW BOARD, COMPLETE			
		**********			
**********					
	A-3274-766-A	DISPLAY BOARD, COMPLETE (AEP,UK,E)			
	A-3274-979-A	DISPLAY BOARD, COMPLETE (US,CND)			
		**********			
	1-694-925-11	CONDUCTIVE BOARD, CONNECTION			
	1-694-926-11	CONDUCTIVE BOARD, CONNECTION			
	3-238-826-01	SHEET (KEY), DIFFUSION			
	3-238-827-01	PLATE (LCD KEY), LIGHT GUIDE			
	3-248-825-01	PLATE (FL), GUIDE			
		< CAPACITOR >			
C901	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C902	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C903	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C904	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C905	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C907	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C908	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C909	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C910	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C911	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C912	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C913	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C914	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C915	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C920	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C921	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C922	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C960	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C961	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C962	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C963	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C970	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C973	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C983	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
		< CONNECTOR >			
CNP908	1-774-678-21	CONNECTOR, FPC (ZIF) 24P			
		< PHOTO SENSOR >			
D70	8-719-083-14	PHOTO SENSOR RRX9000-0501			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D901	8-719-978-33	DIODE DTZ-TT11-6.8B			
D902	8-719-069-54	DIODE UDZS-TE17-5.1B			
D908	8-719-056-85	DIODE UDZ-TE-17-8.2B			
D910	8-719-978-33	DIODE DTZ-TT11-6.8B			
D911	8-719-978-33	DIODE DTZ-TT11-6.8B			
D912	8-719-978-33	DIODE DTZ-TT11-6.8B			
D913	8-719-083-66	DIODE UDZS-TE17-18B			
D914	8-719-978-33	DIODE DTZ-TT11-6.8B			
D915	8-719-978-33	DIODE DTZ-TT11-6.8B			
D916	8-719-978-33	DIODE DTZ-TT11-6.8B			
D917	8-719-978-33	DIODE DTZ-TT11-6.8B			
D918	8-719-978-33	DIODE DTZ-TT11-6.8B			
D919	8-719-978-33	DIODE DTZ-TT11-6.8B			
D920	8-719-978-33	DIODE DTZ-TT11-6.8B			
D921	8-719-978-33	DIODE DTZ-TT11-6.8B			
		< FERRITE BEAD >			
FB60	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB901	1-216-864-11	METAL CHIP	0	5%	1/10W
FB902	1-216-864-11	METAL CHIP	0	5%	1/10W
FB903	1-216-864-11	METAL CHIP	0	5%	1/10W
FB904	1-216-864-11	METAL CHIP	0	5%	1/10W
FB905	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB906	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB907	1-216-864-11	METAL CHIP	0	5%	1/10W
FB908	1-216-864-11	METAL CHIP	0	5%	1/10W
FB909	1-216-864-11	METAL CHIP	0	5%	1/10W
FB910	1-216-864-11	METAL CHIP	0	5%	1/10W
FB911	1-216-864-11	METAL CHIP	0	5%	1/10W
FB912	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB913	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB914	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB915	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB916	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB917	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB918	1-216-864-11	METAL CHIP	0	5%	1/10W
FB919	1-216-864-11	METAL CHIP	0	5%	1/10W
FB920	1-216-833-11	METAL CHIP	10K	5%	1/10W
FB921	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB922	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB923	1-500-329-21	INDUCTOR, FERRITE BEAD			
FB924	1-216-864-11	METAL CHIP	0	5%	1/10W
FB925	1-500-329-21	INDUCTOR, FERRITE BEAD			

Ref. No.	Part No.	Description	Remark
FB926	1-500-329-21	INDUCTOR, FERRITE BEAD	
FB971	1-500-329-21	INDUCTOR, FERRITE BEAD	
		< FLUORESCENT INDICATOR >	
FL900	1-518-879-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC1	6-701-630-01	IC LC75848T-E	
IC2	6-803-157-01	IC M30833FJGP-073	
IC62	8-759-830-18	IC RRX9000-0601#1	
IC301	8-759-523-94	IC TC74VHC32FT(EL)	
		< LIQUID CRYSTAL DISPLAY >	
LCD2	1-804-636-21	DISPLAY PANEL, LIQUID CRYSTAL	
		< DIODE >	
LED901	8-719-053-09	LED SML-310VT-T86 (OFF)	
LED902	8-719-053-09	LED SML-310VT-T86 (SOURCE)	
LED903	8-719-053-09	LED SML-310VT-T86 (CLOSE)	
LED905	8-719-053-09	LED SML-310VT-T86 (SCRL)	
LED906	8-719-053-09	LED SML-310VT-T86 (DSPL) (US,CND)	
LED906	8-719-053-09	LED SML-310VT-T86 (DSPL/PTY) (AEP,UK,E)	
LED908	8-719-053-09	LED SML-310VT-T86 (MODE)	
LED909	8-719-080-04	LED CL-190UB-X-T (IMAGE)	
LED911	8-719-053-09	LED SML-310VT-T86 (⏏)	
LED912	8-719-053-09	LED SML-310VT-T86 (DISC –)	
LED913	8-719-053-09	LED SML-310VT-T86 (ENTER)	
LED915	8-719-053-09	LED SML-310VT-T86 (LIST)	
LED916	8-719-053-09	LED SML-310VT-T86 (DISC +)	
LED917	8-719-053-09	LED SML-310VT-T86 (MENU)	
LED919	8-719-053-09	LED SML-310VT-T86 (DSO)	
LED920	8-719-053-09	LED SML-310VT-T86 (EQ7)	
LED921	8-719-053-09	LED SML-310VT-T86 (SOUND)	
LED922	8-719-053-09	LED SML-310VT-T86 (TA) (AEP,UK,E)	
LED931	8-719-080-04	LED CL-190UB-X-T (OPEN)	
LED955	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)	
LED956	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)	
LED957	8-719-079-10	LED CL-220UB-X-TS (VOL)	
LED958	8-719-079-10	LED CL-220UB-X-TS (SEEK/AMS)	
		< TRANSISTOR >	
Q903	8-729-903-46	TRANSISTOR 2SB1132-P	
Q904	8-729-900-53	TRANSISTOR DTC114EK	
Q905	8-729-904-66	TRANSISTOR DTD113EK-T-146	
Q907	8-729-216-22	TRANSISTOR 2SA1162-G	
Q908	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R901	1-216-833-11	METAL CHIP 10K 5%	1/10W
R902	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R906	1-218-855-11	RES-CHIP 2.2K 2%	1/16W
R907	1-218-855-11	RES-CHIP 2.2K 2%	1/16W
R908	1-218-851-11	RES-CHIP 1.5K 2%	1/16W
R909	1-218-851-11	RES-CHIP 1.5K 2%	1/16W
R910	1-218-847-11	RES-CHIP 1K 2%	1/16W
R911	1-219-286-11	RES-CHIP 680 2%	1/16W
R912	1-219-286-11	RES-CHIP 680 2%	1/16W
R913	1-219-286-11	RES-CHIP 680 2%	1/16W

Ref. No.	Part No.	Description	Remark
R914	1-218-867-11	RES-CHIP 6.8K 2%	1/16W
R915	1-218-863-11	RES-CHIP 4.7K 2%	1/16W
R916	1-218-859-11	RES-CHIP 3.3K 2%	1/16W
R917	1-218-855-11	RES-CHIP 2.2K 2%	1/16W
R918	1-218-851-11	RES-CHIP 1.5K 2%	1/16W
R919	1-218-851-11	RES-CHIP 1.5K 2%	1/16W
R920	1-218-847-11	RES-CHIP 1K 2%	1/16W
R921	1-219-286-11	RES-CHIP 680 2%	1/16W
R922	1-219-286-11	RES-CHIP 680 2%	1/16W
R923	1-219-286-11	RES-CHIP 680 2%	1/16W
R925	1-218-871-11	RES-CHIP 10K 2%	1/16W (AEP,UK,E)
R928	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R929	1-216-833-11	METAL CHIP 10K 5%	1/10W
R935	1-216-033-00	METAL CHIP 220 5%	1/10W
R936	1-216-033-00	METAL CHIP 220 5%	1/10W
R939	1-216-845-11	METAL CHIP 100K 5%	1/10W
R940	1-216-845-11	METAL CHIP 100K 5%	1/10W
R941	1-216-845-11	METAL CHIP 100K 5%	1/10W
R942	1-216-845-11	METAL CHIP 100K 5%	1/10W
R944	1-216-845-11	METAL CHIP 100K 5%	1/10W
R945	1-216-037-00	METAL CHIP 330 5%	1/10W
R946	1-216-035-00	METAL CHIP 270 5%	1/10W
R947	1-216-845-11	METAL CHIP 100K 5%	1/10W
R948	1-216-833-11	METAL CHIP 10K 5%	1/10W
R949	1-216-845-11	METAL CHIP 100K 5%	1/10W
R950	1-216-033-00	METAL CHIP 220 5%	1/10W
R951	1-216-040-00	RES-CHIP 430 5%	1/10W
R952	1-216-035-00	METAL CHIP 270 5%	1/10W
R953	1-216-040-00	RES-CHIP 430 5%	1/10W
R954	1-216-037-00	METAL CHIP 330 5%	1/10W
R955	1-216-037-00	METAL CHIP 330 5%	1/10W
R956	1-216-040-00	RES-CHIP 430 5%	1/10W
R957	1-216-040-00	RES-CHIP 430 5%	1/10W
R958	1-216-040-00	RES-CHIP 430 5%	1/10W
R959	1-216-040-00	RES-CHIP 430 5%	1/10W
R960	1-216-037-00	METAL CHIP 330 5%	1/10W
R961	1-216-040-00	RES-CHIP 430 5%	1/10W
R962	1-216-040-00	RES-CHIP 430 5%	1/10W
R964	1-216-821-11	METAL CHIP 1K 5%	1/10W
R965	1-216-821-11	METAL CHIP 1K 5%	1/10W
R967	1-216-809-11	METAL CHIP 100 5%	1/10W
R968	1-216-850-11	METAL CHIP 270K 5%	1/10W
R969	1-216-846-11	METAL CHIP 120K 5%	1/10W
R970	1-216-818-11	METAL CHIP 560 5%	1/10W
R971	1-216-017-11	RES-CHIP 47 5%	1/10W
R972	1-216-845-11	METAL CHIP 100K 5%	1/10W
R978	1-216-809-11	METAL CHIP 100 5%	1/10W
R979	1-216-809-11	METAL CHIP 100 5%	1/10W
R980	1-216-809-11	METAL CHIP 100 5%	1/10W
R981	1-216-821-11	METAL CHIP 1K 5%	1/10W
R982	1-216-841-11	METAL CHIP 47K 5%	1/10W
R984	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R985	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R986	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R987	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R988	1-216-035-00	METAL CHIP 270 5%	1/10W
R989	1-216-035-00	METAL CHIP 270 5%	1/10W

DISPLAY | **LIMIT SW** | **LOAD SW** | **MAIN**

Ref. No.	Part No.	Description			Remark
R990	1-216-025-11	RES-CHIP	100	5%	1/10W (US,CND)
R991	1-218-855-11	RES-CHIP	2.2K	2%	1/16W
R992	1-218-855-11	RES-CHIP	2.2K	2%	1/16W
R994	1-216-864-11	METAL CHIP	0	5%	1/10W
R999	1-216-017-11	RES-CHIP	47	5%	1/10W
		< SWITCH >			
S901	1-771-884-31	SWITCH, TACTILE (WITH LED) (OFF)			
S902	1-771-884-31	SWITCH, TACTILE (WITH LED) (SOURCE)			
S903	1-771-884-31	SWITCH, TACTILE (WITH LED) (CLOSE)			
S904	1-771-884-31	SWITCH, TACTILE (WITH LED) (VOL –)			
S905	1-771-884-31	SWITCH, TACTILE (WITH LED) (SCRL)			
S906	1-771-884-31	SWITCH, TACTILE (WITH LED) (DSPL) (US,CND)			
S906	1-771-884-31	SWITCH, TACTILE (WITH LED) (DSPL/PTY) (AEP,UK,E)			
S907	1-771-884-31	SWITCH, TACTILE (WITH LED) (VOL +)			
S908	1-771-884-31	SWITCH, TACTILE (WITH LED) (MODE)			
S909	1-771-884-31	SWITCH, TACTILE (WITH LED) (IMAGE)			
S911	1-771-884-31	SWITCH, TACTILE (WITH LED) (⏏)			
S912	1-771-884-31	SWITCH, TACTILE (WITH LED) (DISC –)			
S913	1-771-884-31	SWITCH, TACTILE (WITH LED) (ENTER)			
S914	1-771-884-31	SWITCH, TACTILE (WITH LED) (▶▶I ▶▶ SEEK/AMS)			
S915	1-771-884-31	SWITCH, TACTILE (WITH LED) (LIST)			
S916	1-771-884-31	SWITCH, TACTILE (WITH LED) (DISC +)			
S917	1-771-884-31	SWITCH, TACTILE (WITH LED) (MENU)			
S918	1-771-884-31	SWITCH, TACTILE (WITH LED) (I◀◀ ◀◀ SEEK/AMS)			
S919	1-771-884-31	SWITCH, TACTILE (WITH LED) (DSO)			
S920	1-771-884-31	SWITCH, TACTILE (WITH LED) (EQ7)			
S921	1-771-884-31	SWITCH, TACTILE (WITH LED) (SOUND)			
S922	1-771-884-31	SWITCH, TACTILE (WITH LED) (TA) (AEP,UK,E)			
S931	1-771-884-31	SWITCH, TACTILE (WITH LED) (OPEN)			
S932	1-771-884-31	SWITCH, TACTILE (WITH LED) (RESET)			
		< VIBRATOR >			
X301	1-795-918-21	VIBRATOR, CRYSTAL (30MHz)			
**********					
	A-3274-254-A	LIMIT SW BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN13	1-816-275-21	CONNECTOR, FFC/FPC 6P			
**********					
	1-685-337-11	LOAD SW BOARD			
		**********			

Ref. No.	Part No.	Description			Remark
	A-3274-933-A	MAIN BOARD, COMPLETE (US,CND)			
	A-3274-934-A	MAIN BOARD, COMPLETE (AEP,UK,E)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-792-09	SCREW +PTT 2.6X6 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C101	1-126-940-11	ELECT	330uF	20%	16V
C102	1-104-942-11	ELECT	1uF	20%	50V
C103	1-135-473-21	ELECT	3300uF	20%	16V
C104	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C105	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C142	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C172	1-124-234-00	ELECT	22uF	20%	16V
C173	1-128-428-11	ELECT	10uF	20%	35V
C178	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C182	1-124-234-00	ELECT	22uF	20%	16V
C183	1-128-428-11	ELECT	10uF	20%	35V
C188	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C199	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C202	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C203	1-124-257-00	ELECT	2.2uF	20%	50V
C204	1-124-234-00	ELECT	22uF	20%	16V
C205	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C206	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C207	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C208	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C209	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C210	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C212	1-104-396-11	ELECT	10uF	20%	16V
C214	1-104-396-11	ELECT	10uF	20%	16V
C215	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C217	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C218	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C219	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C221	1-104-396-11	ELECT	10uF	20%	16V
C223	1-104-396-11	ELECT	10uF	20%	16V
C226	1-104-396-11	ELECT	10uF	20%	16V
C242	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C272	1-124-234-00	ELECT	22uF	20%	16V
C273	1-128-428-11	ELECT	10uF	20%	35V
C278	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C282	1-124-234-00	ELECT	22uF	20%	16V
C283	1-128-428-11	ELECT	10uF	20%	35V
C288	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C301	1-128-057-11	ELECT	330uF	20%	6.3V
C302	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C303	1-124-584-00	ELECT	100uF	20%	10V
C304	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C305	1-124-234-00	ELECT	22uF	20%	16V
C306	1-124-234-00	ELECT	22uF	20%	16V
C307	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C308	1-104-942-11	ELECT	1uF	20%	50V
C309	1-104-942-11	ELECT	1uF	20%	50V
C310	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

Ref. No.	Part No.	Description			Remark
C311	1-128-647-11	DOUBLE LAYERS	0.1F		5.5V
C312	1-124-584-00	ELECT	100uF	20%	10V
C313	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C315	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C316	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C319	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C320	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C321	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C322	1-164-160-11	CERAMIC CHIP	20PF	5%	50V
C323	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C324	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C332	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C334	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C335	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C336	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C337	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C338	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C339	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C341	1-124-589-11	ELECT	47uF	20%	16V
C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C400	1-104-396-11	ELECT	10uF	20%	16V
C401	1-124-589-11	ELECT	47uF	20%	16V
C402	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C403	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C416	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C417	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C418	1-104-396-11	ELECT	10uF	20%	16V
C419	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C420	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C421	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C422	1-124-584-00	ELECT	100uF	20%	10V
C423	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C424	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C425	1-136-154-00	FILM	0.012uF	5%	50V
C426	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C427	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C428	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C429	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C430	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C431	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C432	1-136-154-00	FILM	0.012uF	5%	50V
C433	1-104-942-11	ELECT	1uF	20%	50V
C434	1-104-942-11	ELECT	1uF	20%	50V
C435	1-104-942-11	ELECT	1uF	20%	50V
C437	1-104-665-11	ELECT	100uF	20%	10V
C438	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C439	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C440	1-104-665-11	ELECT	100uF	20%	10V
C441	1-126-795-11	ELECT	10uF	20%	50V
C442	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C443	1-128-428-11	ELECT	10uF	20%	35V
C470	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C475	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-104-396-11	ELECT	10uF	20%	16V
C503	1-124-259-11	ELECT	4.7uF	20%	16V (AEP,UK,E)
C505	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C506	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C507	1-124-584-00	ELECT	100uF	20%	10V
C508	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C509	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C510	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C520	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP,UK,E)
C521	1-164-156-11	CERAMIC CHIP	0.1uF		25V (AEP,UK,E)
C522	1-162-920-11	CERAMIC CHIP	27PF	5%	50V (AEP,UK,E)
C523	1-162-920-11	CERAMIC CHIP	27PF	5%	50V (AEP,UK,E)
C524	1-126-786-11	ELECT	47uF	20%	16V (AEP,UK,E)
C525	1-164-156-11	CERAMIC CHIP	0.1uF		25V (AEP,UK,E)
C526	1-162-959-11	CERAMIC CHIP	330PF	5%	50V (AEP,UK,E)
C527	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V (AEP,UK,E)
C528	1-164-739-11	CERAMIC CHIP	560PF	5%	50V (AEP,UK,E)
C542	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C601	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C602	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C603	1-128-057-11	ELECT	330uF	20%	6.3V
C801	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C802	1-165-874-21	ELECT CHIP	120uF	20%	6.3V
C803	1-128-576-11	ELECT	100uF	20%	63V
C807	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C809	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C810	1-128-416-11	ELECT CHIP	100uF	20%	16V
C901	1-124-234-00	ELECT	22uF	20%	16V
C903	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C928	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C930	1-124-234-00	ELECT	22uF	20%	16V
C981	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C982	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C983	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C984	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

< CONNECTOR >

*	CN401	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
*	CN503	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
*	CN601	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
	CNP101	1-774-701-21	PIN, CONNECTOR 16P
	CNP102	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)
	CNP301	1-815-260-11	CONNECTOR, BOARD TO BOARD 30P
	CNP805	1-563-614-31	CONNECTOR, FLEXIBLE 11P
*	CNP902	1-568-954-11	PIN, CONNECTOR 5P
	CNP909	1-774-677-21	CONNECTOR, FPC (ZIF) 24P

MAIN

Ref. No.	Part No.	Description	Remark
		< JACK >	
CNJ101	1-764-270-21	JACK, STEREO MINIATURE (DIA.3.5)	(REMOTE IN)
		< DIODE >	
D101	8-719-083-66	DIODE UDZS-TE17-18B	
D102	8-719-083-66	DIODE UDZS-TE17-18B	
D103	8-719-420-51	DIODE MA729	
D104	8-719-069-56	DIODE UDZS-TE17-6.2B	
D105	8-719-083-66	DIODE UDZS-TE17-18B	
D106	8-719-978-33	DIODE DTZ-TT11-6.8B	
D108	8-719-083-66	DIODE UDZS-TE17-18B	
D109	8-719-049-38	DIODE 1N5404TU	
D110	8-719-053-18	DIODE 1SR154-400TE-25	
D111	8-719-053-18	DIODE 1SR154-400TE-25	
D112	8-719-053-18	DIODE 1SR154-400TE-25	
D113	8-719-053-18	DIODE 1SR154-400TE-25	
D114	8-719-053-18	DIODE 1SR154-400TE-25	
D115	8-719-053-18	DIODE 1SR154-400TE-25	
D116	8-719-053-18	DIODE 1SR154-400TE-25	
D117	8-719-053-18	DIODE 1SR154-400TE-25	
D118	8-719-053-18	DIODE 1SR154-400TE-25	
D119	8-719-053-18	DIODE 1SR154-400TE-25	
D120	8-719-053-18	DIODE 1SR154-400TE-25	
D121	8-719-053-18	DIODE 1SR154-400TE-25	
D122	8-719-978-33	DIODE DTZ-TT11-6.8B	
D123	8-719-083-66	DIODE UDZS-TE17-18B	
D302	8-719-914-43	DIODE DAN202K	
D303	8-719-914-44	DIODE DAP202K	
D305	8-719-988-61	DIODE 1SS355TE-17	
D401	8-719-404-50	DIODE MA111-TX	
D403	8-719-069-55	DIODE UDZS-TE17-5.6B	
D501	8-719-069-55	DIODE UDZS-TE17-5.6B	
D802	8-719-053-18	DIODE 1SR154-400TE-25	
D803	8-719-053-18	DIODE 1SR154-400TE-25	
D804	8-719-055-30	DIODE D1FS4A-TA	
D805	8-719-055-30	DIODE D1FS4A-TA	
D806	8-719-055-33	DIODE D1FL40	
D808	8-719-978-33	DIODE DTZ-TT11-6.8B	
D810	8-719-978-33	DIODE DTZ-TT11-6.8B	
D819	8-719-978-33	DIODE DTZ-TT11-6.8B	
D820	8-719-978-33	DIODE DTZ-TT11-6.8B	
D825	8-719-978-33	DIODE DTZ-TT11-6.8B	
D826	8-719-978-33	DIODE DTZ-TT11-6.8B	
D827	8-719-978-33	DIODE DTZ-TT11-6.8B	
D828	8-719-978-33	DIODE DTZ-TT11-6.8B	
D829	8-719-978-33	DIODE DTZ-TT11-6.8B	
D831	8-719-978-33	DIODE DTZ-TT11-6.8B	
D832	8-719-988-61	DIODE 1SS355TE-17	
D843	8-719-978-33	DIODE DTZ-TT11-6.8B	
D901	8-719-420-51	DIODE MA729	
D902	8-719-420-51	DIODE MA729	
D903	8-719-420-51	DIODE MA729	
D904	8-719-988-61	DIODE 1SS355TE-17	
D905	8-719-069-55	DIODE UDZS-TE17-5.6B	
D906	8-719-420-51	DIODE MA729	
D907	8-719-988-61	DIODE 1SS355TE-17	
D909	8-719-988-61	DIODE 1SS355TE-17	
D920	8-719-988-61	DIODE 1SS355TE-17	
D921	8-719-988-61	DIODE 1SS355TE-17	
		< FERRITE BEAD >	
FB101	1-414-813-11	FERRITE, EMI (SMD)	
FB102	1-414-813-11	FERRITE, EMI (SMD)	
FB301	1-216-295-11	SHORT CHIP 0	
FB302	1-216-295-11	SHORT CHIP 0	
FB501	1-414-813-11	FERRITE, EMI (SMD) (AEP,UK,E)	
		< IC >	
IC201	6-703-375-01	IC TDA8588J/N1	
IC301	8-759-449-89	IC BA8270F-E2	
IC302	8-759-658-25	IC PST3432UL	
IC303	6-802-886-01	IC M30626FHPGP-054	
IC306	8-759-668-14	IC PQ09DZ1U	
IC307	8-759-580-33	IC BA6288FS-E2	
IC308	8-759-701-01	IC NJM2904M	
IC401	6-703-303-01	IC TDA7416	
IC407	6-703-419-01	IC LA2901V-TLM-E	
IC410	8-759-385-17	IC NJM4580E(TE2)	
IC502	6-703-809-01	IC SAA6588T/V2-518 (AEP,UK,E)	
IC701	8-759-679-05	IC TC7WH34FU(TE12R)	
IC800	8-759-598-63	IC LM2577SX-ADJ	
IC902	6-703-986-01	IC NJU7222U33-TE1	
IC903	8-759-491-50	IC TC74VHCT244AFT(EL)	
		< JUMPER RESISTOR >	
JR301	1-216-864-11	METAL CHIP 0 5%	1/10W (AEP,UK,E)
JR302	1-216-864-11	METAL CHIP 0 5%	1/10W (US,CND)
JR801	1-216-864-11	METAL CHIP 0 5%	1/10W
		< COIL >	
L101	1-419-476-31	COIL, CHOKE 250uH	
L302	1-414-185-51	INDUCTOR 22uH	
L303	1-412-006-31	INDUCTOR 10uH	
L503	1-216-296-11	SHORT CHIP 0	
L800	1-424-911-11	COIL, POWER 100uH	
L901	1-414-394-41	INDUCTOR 2.2uH	
		< JACK >	
PJ401	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN/AUX IN, AUDIO OUT REAR/FRONT)	
		< TRANSISTOR >	
Q101	8-729-900-53	TRANSISTOR DTC114EK	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q171	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q181	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q271	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q281	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q305	8-729-901-00	TRANSISTOR DTC124EK	
Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q307	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	

Ref. No.	Part No.	Description			Remark
Q380	1-801-806-11	TRANSISTOR DTC144EKA (AEP,UK,E)			
Q401	8-729-900-53	TRANSISTOR DTC114EK			
Q402	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q408	8-729-053-84	FET SSM3KO9FU(T5LSONY1)			
Q470	8-729-021-95	TRANSISTOR RN1441-A(TE85L)			
Q501	8-729-106-68	TRANSISTOR 2SD1615A-GP			
Q801	8-729-054-36	FET UPA1716G-E2			
Q802	8-729-900-53	TRANSISTOR DTC114EK			
Q901	8-729-055-96	TRANSISTOR SRC1203SF			
Q902	8-729-055-92	TRANSISTOR SRA2203SF			
Q903	8-729-055-92	TRANSISTOR SRA2203SF			
Q904	8-729-055-96	TRANSISTOR SRC1203SF			
Q907	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
Q914	8-729-027-31	TRANSISTOR DTA124EKA-T146			
Q915	8-729-015-11	TRANSISTOR 2SD1802FAST-TL			
Q916	8-729-901-00	TRANSISTOR DTC124EK			
		< RESISTOR >			
R101	1-216-835-11	METAL CHIP	15K	5%	1/10W
R102	1-216-821-11	METAL CHIP	1K	5%	1/10W
R103	1-216-821-11	METAL CHIP	1K	5%	1/10W
R104	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W
R107	1-216-073-00	RES-CHIP	10K	5%	1/10W
R108	1-216-073-00	RES-CHIP	10K	5%	1/10W
R109	1-216-833-11	METAL CHIP	10K	5%	1/10W
R110	1-216-833-11	METAL CHIP	10K	5%	1/10W
R111	1-216-841-11	METAL CHIP	47K	5%	1/10W
R112	1-216-821-11	METAL CHIP	1K	5%	1/10W
R142	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R143	1-216-833-11	METAL CHIP	10K	5%	1/10W
R174	1-216-809-11	METAL CHIP	100	5%	1/10W
R175	1-216-841-11	METAL CHIP	47K	5%	1/10W
R184	1-216-809-11	METAL CHIP	100	5%	1/10W
R185	1-216-841-11	METAL CHIP	47K	5%	1/10W
R201	1-216-841-11	METAL CHIP	47K	5%	1/10W
R202	1-216-809-11	METAL CHIP	100	5%	1/10W
R203	1-216-821-11	METAL CHIP	1K	5%	1/10W
R204	1-216-821-11	METAL CHIP	1K	5%	1/10W
R205	1-216-821-11	METAL CHIP	1K	5%	1/10W
R206	1-216-821-11	METAL CHIP	1K	5%	1/10W
R242	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R243	1-216-833-11	METAL CHIP	10K	5%	1/10W
R274	1-216-809-11	METAL CHIP	100	5%	1/10W
R275	1-216-841-11	METAL CHIP	47K	5%	1/10W
R284	1-216-809-11	METAL CHIP	100	5%	1/10W
R285	1-216-841-11	METAL CHIP	47K	5%	1/10W
R301	1-216-845-11	METAL CHIP	100K	5%	1/10W
R302	1-216-864-11	METAL CHIP	0	5%	1/10W
R303	1-216-864-11	METAL CHIP	0	5%	1/10W
R307	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R318	1-216-864-11	METAL CHIP	0	5%	1/10W
R319	1-216-821-11	METAL CHIP	1K	5%	1/10W
R320	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-864-11	METAL CHIP	0	5%	1/10W
R322	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R323	1-216-823-11	METAL CHIP	1.5K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
R325	1-216-845-11	METAL CHIP	100K	5%	1/10W
R326	1-216-853-11	METAL CHIP	470K	5%	1/10W
R327	1-216-845-11	METAL CHIP	100K	5%	1/10W
R328	1-216-845-11	METAL CHIP	100K	5%	1/10W
R329	1-216-809-11	METAL CHIP	100	5%	1/10W
R330	1-216-845-11	METAL CHIP	100K	5%	1/10W
R331	1-216-837-11	METAL CHIP	22K	5%	1/10W
R332	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R333	1-216-809-11	METAL CHIP	100	5%	1/10W
R334	1-216-097-11	RES-CHIP	100K	5%	1/10W
R335	1-216-837-11	METAL CHIP	22K	5%	1/10W
R336	1-216-836-11	METAL CHIP	18K	5%	1/10W
R337	1-216-073-00	RES-CHIP	10K	5%	1/10W
R338	1-216-837-11	METAL CHIP	22K	5%	1/10W
R339	1-216-085-11	RES-CHIP	33K	5%	1/10W
R340	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R341	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R342	1-216-845-11	METAL CHIP	100K	5%	1/10W
R343	1-216-809-11	METAL CHIP	100	5%	1/10W
R346	1-216-833-11	METAL CHIP	10K	5%	1/10W
R350	1-216-809-11	METAL CHIP	100	5%	1/10W
R351	1-216-809-11	METAL CHIP	100	5%	1/10W
R356	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R357	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R360	1-216-849-11	METAL CHIP	220K	5%	1/10W
R361	1-216-864-11	METAL CHIP	0	5%	1/10W (AEP,UK,E)
R364	1-216-845-11	METAL CHIP	100K	5%	1/10W
R365	1-216-845-11	METAL CHIP	100K	5%	1/10W
R366	1-216-845-11	METAL CHIP	100K	5%	1/10W
R367	1-216-845-11	METAL CHIP	100K	5%	1/10W
R368	1-216-809-11	METAL CHIP	100	5%	1/10W
R369	1-216-809-11	METAL CHIP	100	5%	1/10W
R370	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R371	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R372	1-216-809-11	METAL CHIP	100	5%	1/10W
R373	1-216-845-11	METAL CHIP	100K	5%	1/10W
R377	1-216-845-11	METAL CHIP	100K	5%	1/10W
R380	1-216-809-11	METAL CHIP	100	5%	1/10W (AEP,UK,E)
R401	1-216-017-11	RES-CHIP	47	5%	1/10W
R402	1-216-864-11	METAL CHIP	0	5%	1/10W
R403	1-216-864-11	METAL CHIP	0	5%	1/10W
R407	1-216-841-11	METAL CHIP	47K	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-295-11	SHORT CHIP	0		
R414	1-216-833-11	METAL CHIP	10K	5%	1/10W
R415	1-216-833-11	METAL CHIP	10K	5%	1/10W
R416	1-216-809-11	METAL CHIP	100	5%	1/10W
R417	1-216-809-11	METAL CHIP	100	5%	1/10W
R418	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-833-11	METAL CHIP	10K	5%	1/10W
R421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R422	1-216-813-11	METAL CHIP	220	5%	1/10W
R424	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R425	1-216-864-11	METAL CHIP	0	5%	1/10W

MAIN **SERVO**

Ref. No.	Part No.	Description			Remark
R427	1-216-864-11	METAL CHIP	0	5%	1/10W
R429	1-202-926-11	METAL CHIP	36K	5%	1/10W
R430	1-218-725-11	METAL CHIP	24K	5%	1/10W
R431	1-202-926-11	METAL CHIP	36K	5%	1/10W
R432	1-218-725-11	METAL CHIP	24K	5%	1/10W
R433	1-202-926-11	METAL CHIP	36K	5%	1/10W
R434	1-218-725-11	METAL CHIP	24K	5%	1/10W
R435	1-202-926-11	METAL CHIP	36K	5%	1/10W
R436	1-218-725-11	METAL CHIP	24K	5%	1/10W
R439	1-216-864-11	METAL CHIP	0	5%	1/10W
R440	1-216-864-11	METAL CHIP	0	5%	1/10W
R441	1-216-864-11	METAL CHIP	0	5%	1/10W
R442	1-216-864-11	METAL CHIP	0	5%	1/10W
R443	1-216-864-11	METAL CHIP	0	5%	1/10W
R444	1-216-864-11	METAL CHIP	0	5%	1/10W
R445	1-216-864-11	METAL CHIP	0	5%	1/10W
R446	1-216-864-11	METAL CHIP	0	5%	1/10W
R471	1-216-864-11	METAL CHIP	0	5%	1/10W
R472	1-216-835-11	METAL CHIP	15K	5%	1/10W
R473	1-216-833-11	METAL CHIP	10K	5%	1/10W
R477	1-216-841-11	METAL CHIP	47K	5%	1/10W
R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-864-11	METAL CHIP	0	5%	1/10W
R504	1-216-864-11	METAL CHIP	0	5%	1/10W
R505	1-216-864-11	METAL CHIP	0	5%	1/10W
R510	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R511	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R518	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP,UK,E)
R519	1-216-817-11	METAL CHIP	470	5%	1/10W (AEP,UK,E)
R520	1-216-832-11	METAL CHIP	8.2K	5%	1/10W (AEP,UK,E)
R521	1-216-797-11	METAL CHIP	10	5%	1/10W (AEP,UK,E)
R800	1-216-230-00	RES-CHIP	22K	5%	1/8W
R801	1-216-230-00	RES-CHIP	22K	5%	1/8W
R802	1-216-295-11	SHORT CHIP	0		
R803	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R804	1-218-754-11	METAL CHIP	120K	0.5%	1/10W
R806	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R807	1-218-703-11	METAL CHIP	3K	0.5%	1/10W
R808	1-216-833-11	METAL CHIP	10K	5%	1/10W
R809	1-216-864-11	METAL CHIP	0	5%	1/10W
R811	1-216-845-11	METAL CHIP	100K	5%	1/10W
R812	1-216-845-11	METAL CHIP	100K	5%	1/10W
R833	1-216-821-11	METAL CHIP	1K	5%	1/10W
R845	1-216-821-11	METAL CHIP	1K	5%	1/10W
R866	1-216-821-11	METAL CHIP	1K	5%	1/10W
R901	1-216-864-11	METAL CHIP	0	5%	1/10W
R903	1-216-845-11	METAL CHIP	100K	5%	1/10W
R904	1-216-845-11	METAL CHIP	100K	5%	1/10W
R906	1-216-864-11	METAL CHIP	0	5%	1/10W
R910	1-216-845-11	METAL CHIP	100K	5%	1/10W
R913	1-216-864-11	METAL CHIP	0	5%	1/10W
R914	1-216-864-11	METAL CHIP	0	5%	1/10W
R915	1-216-845-11	METAL CHIP	100K	5%	1/10W
R920	1-216-073-00	RES-CHIP	10K	5%	1/10W
R921	1-216-073-00	RES-CHIP	10K	5%	1/10W
R922	1-216-845-11	METAL CHIP	100K	5%	1/10W
R929	1-216-837-11	METAL CHIP	22K	5%	1/10W
R949	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R950	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
		< TRANSFORMER >			
T800	1-439-812-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR (POSITIVE) >			
TH100	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER >			
TUX501	A-3220-887-A	TUNER UNIT (TUX-030)			
		< VIBRATOR >			
X301	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X302	1-767-419-21	VIBRATOR, CRYSTAL (6MHz)			
X501	1-579-900-21	VIBRATOR, CRYSTAL (4.3MHz) (AEP,UK,E)			
**********					
	A-3274-698-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-104-609-11	ELECT CHIP	100uF	20%	4V
C5	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C6	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C8	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C9	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C10	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C11	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C13	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C14	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C16	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C17	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C18	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C19	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C21	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C22	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C24	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C25	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C27	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C29	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C36	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C39	1-126-391-11	ELECT CHIP	47uF	20%	6.3V
C40	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C41	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C43	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C44	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C45	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C51	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C53	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C54	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C55	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C56	1-128-934-11	CERAMIC CHIP	0.33uF	20%	10V
C57	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C58	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C59	1-104-609-11	ELECT CHIP	100uF	20%	4V
C60	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C61	1-126-391-11	ELECT CHIP	47uF	20%	6.3V
C62	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C63	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C65	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C67	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C68	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C69	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C70	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C75	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C77	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C78	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C79	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C81	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C102	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C111	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C112	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN1	1-815-352-11	CONNECTOR, BOARD TO BOARD 30P			
CN2	1-794-153-21	CONNECTOR, FPC (ZIF) 16P			
CN3	1-816-275-21	CONNECTOR, FFC/FPC 6P			
		< FERRITE BEAD >			
FB2	1-216-864-11	METAL CHIP	0	5%	1/10W
FB3	1-216-864-11	METAL CHIP	0	5%	1/10W
FB6	1-469-144-21	FERRITE, EMI (SMD)			
		< IC >			
IC1	8-759-699-98	IC uPD63711GC-8EU			
IC2	8-759-658-87	IC BA5810FP-E2			
IC3	6-703-905-01	IC HD6432238RWN35TEI			
IC4	6-702-661-01	IC UT62L1024LC-55LLI			
IC5	6-702-153-01	IC CXD9684R-005			
IC6	8-759-645-31	IC RN5RZ25BA-TL-FA			
IC7	8-759-491-50	IC TC74VHCT244AFT(EL)			
IC12	8-759-196-96	IC TC7SH08FU-TE85R			
		< JUMPER RESISTOR >			
JR1	1-216-821-11	METAL CHIP	1K	5%	1/10W
JR3	1-216-864-11	METAL CHIP	0	5%	1/10W
JR5	1-216-821-11	METAL CHIP	1K	5%	1/10W
JR6	1-216-864-11	METAL CHIP	0	5%	1/10W
JR12	1-216-864-11	METAL CHIP	0	5%	1/10W
JR13	1-216-864-11	METAL CHIP	0	5%	1/10W
JR14	1-216-864-11	METAL CHIP	0	5%	1/10W
JR15	1-216-864-11	METAL CHIP	0	5%	1/10W

Ref. No.	Part No.	Description			Remark
JR17	1-216-864-11	METAL CHIP	0	5%	1/10W
JR21	1-216-864-11	METAL CHIP	0	5%	1/10W
		< COIL >			
L4	1-216-001-00	METAL CHIP	10	5%	1/10W
L6	1-469-144-21	FERRITE, EMI (SMD)			
L8	1-414-398-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR	2SB1197K-R		
		< RESISTOR >			
R3	1-216-806-11	METAL CHIP	56	5%	1/10W
R5	1-218-344-11	METAL CHIP	7.5K	5%	1/10W
R7	1-216-839-11	METAL CHIP	33K	5%	1/10W
R8	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9	1-216-840-11	METAL CHIP	39K	5%	1/10W
R10	1-216-835-11	METAL CHIP	15K	5%	1/10W
R12	1-216-837-11	METAL CHIP	22K	5%	1/10W
R13	1-216-807-11	METAL CHIP	68	5%	1/10W
R14	1-216-841-11	METAL CHIP	47K	5%	1/10W
R15	1-216-841-11	METAL CHIP	47K	5%	1/10W
R26	1-216-806-11	METAL CHIP	56	5%	1/10W
R29	1-216-833-11	METAL CHIP	10K	5%	1/10W
R30	1-216-833-11	METAL CHIP	10K	5%	1/10W
R45	1-216-845-11	METAL CHIP	100K	5%	1/10W
R46	1-216-845-11	METAL CHIP	100K	5%	1/10W
R47	1-216-845-11	METAL CHIP	100K	5%	1/10W
R48	1-216-845-11	METAL CHIP	100K	5%	1/10W
R49	1-216-845-11	METAL CHIP	100K	5%	1/10W
R50	1-216-809-11	METAL CHIP	100	5%	1/10W
R51	1-216-809-11	METAL CHIP	100	5%	1/10W
R52	1-216-809-11	METAL CHIP	100	5%	1/10W
R53	1-216-809-11	METAL CHIP	100	5%	1/10W
R54	1-216-809-11	METAL CHIP	100	5%	1/10W
R55	1-216-809-11	METAL CHIP	100	5%	1/10W
R64	1-216-809-11	METAL CHIP	100	5%	1/10W
R65	1-216-819-11	METAL CHIP	680	5%	1/10W
R67	1-216-845-11	METAL CHIP	100K	5%	1/10W
R68	1-216-857-11	METAL CHIP	1M	5%	1/10W
R69	1-216-813-11	METAL CHIP	220	5%	1/10W
R70	1-216-813-11	METAL CHIP	220	5%	1/10W
R71	1-216-809-11	METAL CHIP	100	5%	1/10W
R72	1-216-809-11	METAL CHIP	100	5%	1/10W
R73	1-216-809-11	METAL CHIP	100	5%	1/10W
R74	1-216-809-11	METAL CHIP	100	5%	1/10W
R75	1-216-809-11	METAL CHIP	100	5%	1/10W
R76	1-216-809-11	METAL CHIP	100	5%	1/10W
R77	1-216-809-11	METAL CHIP	100	5%	1/10W
R78	1-216-809-11	METAL CHIP	100	5%	1/10W
R81	1-216-845-11	METAL CHIP	100K	5%	1/10W
R82	1-216-845-11	METAL CHIP	100K	5%	1/10W
R83	1-216-845-11	METAL CHIP	100K	5%	1/10W
R84	1-216-845-11	METAL CHIP	100K	5%	1/10W
R85	1-216-845-11	METAL CHIP	100K	5%	1/10W
R86	1-216-845-11	METAL CHIP	100K	5%	1/10W
R87	1-216-845-11	METAL CHIP	100K	5%	1/10W

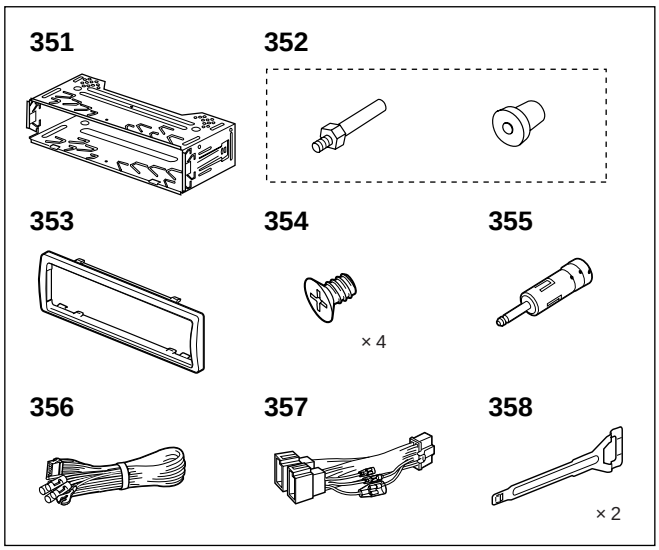
SERVO **SUB** **SWITCH**

Ref. No.	Part No.	Description			Remark
R88	1-216-845-11	METAL CHIP	100K	5%	1/10W
R89	1-216-845-11	METAL CHIP	100K	5%	1/10W
R90	1-216-845-11	METAL CHIP	100K	5%	1/10W
R91	1-216-845-11	METAL CHIP	100K	5%	1/10W
R92	1-216-845-11	METAL CHIP	100K	5%	1/10W
R93	1-216-809-11	METAL CHIP	100	5%	1/10W
R94	1-216-809-11	METAL CHIP	100	5%	1/10W
R95	1-216-809-11	METAL CHIP	100	5%	1/10W
R96	1-216-809-11	METAL CHIP	100	5%	1/10W
R97	1-216-837-11	METAL CHIP	22K	5%	1/10W
R98	1-216-834-11	METAL CHIP	12K	5%	1/10W
R100	1-216-845-11	METAL CHIP	100K	5%	1/10W
R102	1-216-845-11	METAL CHIP	100K	5%	1/10W
R103	1-216-845-11	METAL CHIP	100K	5%	1/10W
R104	1-216-845-11	METAL CHIP	100K	5%	1/10W
R105	1-216-845-11	METAL CHIP	100K	5%	1/10W
R106	1-216-821-11	METAL CHIP	1K	5%	1/10W
R107	1-216-821-11	METAL CHIP	1K	5%	1/10W
R109	1-216-845-11	METAL CHIP	100K	5%	1/10W
R111	1-216-845-11	METAL CHIP	100K	5%	1/10W
R113	1-216-845-11	METAL CHIP	100K	5%	1/10W
R114	1-216-845-11	METAL CHIP	100K	5%	1/10W
R115	1-216-837-11	METAL CHIP	22K	5%	1/10W
R116	1-216-809-11	METAL CHIP	100	5%	1/10W
R117	1-216-809-11	METAL CHIP	100	5%	1/10W
R118	1-216-809-11	METAL CHIP	100	5%	1/10W
R121	1-216-845-11	METAL CHIP	100K	5%	1/10W
R124	1-216-837-11	METAL CHIP	22K	5%	1/10W
R126	1-216-845-11	METAL CHIP	100K	5%	1/10W
R127	1-216-845-11	METAL CHIP	100K	5%	1/10W
R128	1-216-845-11	METAL CHIP	100K	5%	1/10W
R129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R130	1-216-809-11	METAL CHIP	100	5%	1/10W
R131	1-216-809-11	METAL CHIP	100	5%	1/10W
R132	1-216-809-11	METAL CHIP	100	5%	1/10W
R133	1-216-809-11	METAL CHIP	100	5%	1/10W
R134	1-216-809-11	METAL CHIP	100	5%	1/10W
R135	1-216-809-11	METAL CHIP	100	5%	1/10W
R136	1-216-809-11	METAL CHIP	100	5%	1/10W
R142	1-216-815-11	METAL CHIP	330	5%	1/10W
R143	1-218-484-11	METAL CHIP	750	5%	1/10W
R144	1-216-812-11	METAL CHIP	180	5%	1/10W
R145	1-216-817-11	METAL CHIP	470	5%	1/10W
R146	1-216-815-11	METAL CHIP	330	5%	1/10W
R147	1-218-484-11	METAL CHIP	750	5%	1/10W
R148	1-216-809-11	METAL CHIP	100	5%	1/10W
R149	1-216-814-11	METAL CHIP	270	5%	1/10W
R150	1-216-821-11	METAL CHIP	1K	5%	1/10W
R151	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R152	1-216-813-11	METAL CHIP	220	5%	1/10W
R153	1-216-818-11	METAL CHIP	560	5%	1/10W
R154	1-216-809-11	METAL CHIP	100	5%	1/10W
		< NETWORK RESISTOR >			
RB1	1-233-576-11	RES, CHIP NETWORK 100X4			
RB2	1-233-576-11	RES, CHIP NETWORK 100X4			

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X1	1-795-520-11	VIBRATOR, CERAMIC (16.9344MHz)			
X2	1-795-127-21	VIBRATOR, CERAMIC (12.288MHz)			
**********					
	1-687-950-11	SUB BOARD			
		**********			
	1-783-268-11	CABLE, FLAT (FFC) 11P (CN501)			
		< CAPACITOR >			
C533	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C535	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C536	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C537	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C538	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C539	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C540	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C541	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
		< DIODE >			
D506	8-719-069-54	DIODE UDZS-TE17-5.1B			
D507	8-719-978-33	DIODE DTZ-TT11-6.8B			
D511	8-719-083-66	DIODE UDZS-TE17-18B			
D512	8-719-079-10	LED CL-220UB-X-TS (DISC IN)			
D513	8-719-083-14	PHOTO SENSOR RRX9000-0501			
D514	8-719-988-61	DIODE 1SS355TE-17			
		< FERRITE BEAD >			
FB503	1-500-329-21	INDUCTOR, FERRITE BEAD			
		< IC >			
IC503	8-759-830-18	IC RRX9000-0601#1			
		< TRANSISTOR >			
Q503	8-729-216-22	TRANSISTOR 2SA1162-G			
Q504	8-729-900-53	TRANSISTOR DTC114EK			
		< RESISTOR >			
R509	1-216-846-11	METAL CHIP	120K	5%	1/10W
R531	1-216-833-11	METAL CHIP	10K	5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R534	1-216-044-00	METAL CHIP	620	5%	1/10W
R535	1-216-044-00	METAL CHIP	620	5%	1/10W
R536	1-216-049-11	RES-CHIP	1K	5%	1/10W
R537	1-216-049-11	RES-CHIP	1K	5%	1/10W
R538	1-216-850-11	METAL CHIP	270K	5%	1/10W
		< SWITCH >			
SW501	1-692-135-21	SWITCH, KEYBOARD (RESET)			
**********					
	A-3326-298-A	SWITCH BOARD, COMPLETE (including SW900)			
		**********			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
8	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	(US,CND,E)
8	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
107	1-777-246-41	CORD (WITH CONNECTOR) (ANTENNA)	
108	1-790-375-32	CORD (WITH CONNECTOR) (SUB OUT (MONO))	
167	1-687-952-11	FLEXIBLE BOARD	
301	A-3337-193-A	FLOATING BLOCK ASSY (including M901)	
307	1-823-951-11	CABLE, FLEXIBLE FLAT (16 CORE)	
⚠310	8-820-165-06	OPTICAL PICK-UP KSS-721A/C-RP	
311	1-676-707-11	PICK-UP FLEXIBLE BOARD	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M601	X-3378-769-1	MOTOR ASSY (OPEN/CLOSE)	
M902	A-3301-985-A	MOTOR ASSY, SLED (SLED)	
M903	A-3315-039-A	MOTOR SUB ASSY, LO (LOADING)	
**********			
		ACCESSORIES	
		**********	
	1-476-546-12	REMOTE COMMANDER (RM-X111) (AEP,UK,E)	
	1-476-546-22	REMOTE COMMANDER (RM-X110) (US,CND)	
	3-230-549-01	LID, BATTERY CASE (for RM-X110/X111)	
	3-251-114-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH) (US,CND)	
	3-251-114-21	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH) (AEP,UK)	
	3-251-114-31	MANUAL, INSTRUCTION (ENGLISH, TRADITIONAL CHINESE) (E)	
	3-251-115-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH,SPANISH) (US,CND)	
	3-251-115-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH) (AEP,UK)	
	3-251-115-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, TRADITIONAL CHINESE) (E)	
	X-3383-449-1	COVER (PANEL) ASSY (US,CND)	
**********			

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
351	X-3382-647-1	FRAME ASSY, FITTING	
352	X-3366-405-1	SCREW ASSY (EXP), FITTING (AEP,UK,E)	
353	X-3382-821-1	COLLAR ASSY	
354	3-934-325-01	SCREW (+K 5X8 TP) (US,CND,E)	
355	1-465-459-21	ADAPTOR, ANTENNA (AEP,UK)	
356	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	(US,CND,E)
357	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	(AEP,UK)
358	3-246-471-01	KEY (FRAME)	



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2003. 04	New