MDX-65

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

Model Name Using Similar Mechanism	MDX-62
Mini Disc Mechanism Type	MG-798K-133
Optical Pick-up Name	KMS-241A/J2N

SPECIFICATIONS

System Mini disc digital audio system
Laser Diode Properties
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: Continuous
Laser output Power: Less than 44.6 µW*

* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.*

Frequency response
10 – 20,000 Hz
Wow and flutter Below measurable limit
Signal-to-noise ratio
95 dB
Outputs Bus control output (8 PIN)
Analog audio output (RCA PIN)
Current drain 300 mA (MD playback)
600 mA (during loading or ejecting a disc)
Dimensions Approx. 176 × 83.5 × 142 mm ($7 \times 3\ ^3/_8 \times 5\ ^{18}/_{32}$ in.) (w/h/d) not incl. projecting parts and controls
Mass Approx. 1.1 kg (2 lb. 7 oz.)
Power requirement
12 V DC car battery (negative ground)
Supplied accessories
Mounting hardware (1 set)
Bus cable 5.5 m (1)
RCA pin cord 5.5 m (1)

- *U.S. and foreign patents licensed from Dolby Laboratories Licensing Corporation.*
- *Design and specifications subject to change without notice.*

FEATURES

- Sony BUS system compatible with **mobile MD changers**.
- **Direct-in system** for inserting and removing MDs easily.
- **No waiting time to change discs** in continuous play.
- The MD changer compartment has a built in light for easy use even in the dark.
- 1 bit Digital/Analog converter for high quality sound reproduction.

MINIDISC CHANGER

MICROFILM

SONY®

SERVICE NOTE

CAUTION

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

Notes on Chip Component Replacement

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

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

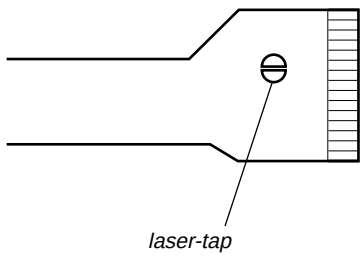
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

NOTES ON PICK-UP FLEXIBLE BOARD

The pick-up flexible board in this set is secured to the optical pick-up with an adhesive tape. Once the tape is removed, an adhering force becomes weak, and it cannot be reused.
Therefore, if the optical pick-up is replaced, replace also the pick-up flexible board with a new one.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK (KMS-241A/J2N)

The laser diode in the optical pick-up block may suffer electrostatic break-down easily. When handling it, perform soldering bridge to the laser-tap on the flexible board. Also perform measures against electrostatic break-down sufficiently before the operation. The flexible board is easily damaged and should be handled with care.



OPTICAL PICK-UP FLEXIBLE BOARD

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!!

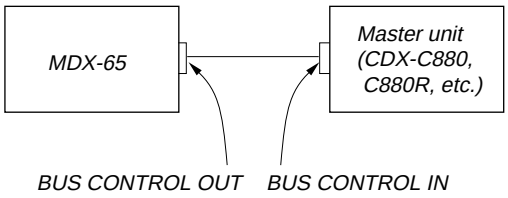
LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

SECTION 1
SERVICE NOTE

1-1. TO PLACE THE SET INTO PLAYBACK MODE

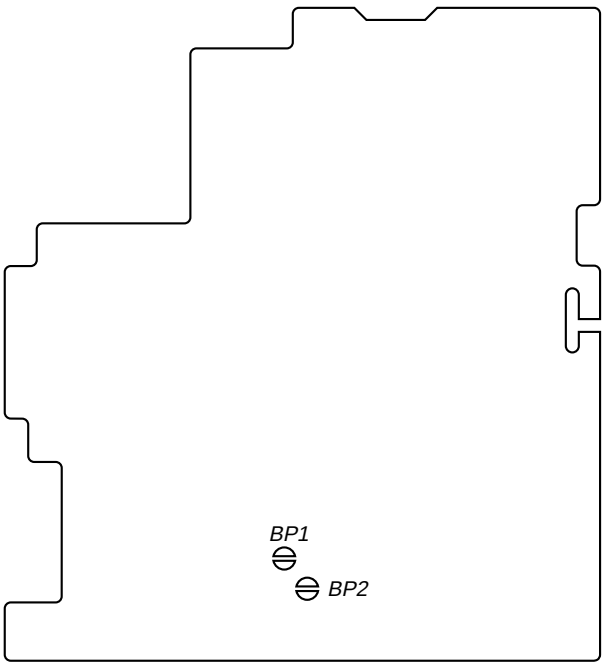
The this set has no key control function and cannot be placed into the Playback mode alone.
For key control, the this set is controlled through serial communication with a master unit (car audio player, TV tuner or source selector compatible with the Sony BUS system.)
To service the this set, the set should be connected as given below:



1-2. HOW TO CHECK THE SERVO BOARD WAVEFORMS

1. Remove the panel (rear) assy, case (upper) and panel (front) assy. Then, remove the main board from the mechanism deck. (See page 8 of “SECTION 3. DISASSEMBLY”.)
2. Remove the chassis (OP) block from the mechanism deck. (See page 10 of “SECTION 3. DISASSEMBLY”.)
3. Short each bridge points BP1 and BP2 on the main board by solder bridge.

– main board (conductor side) –



4. Connect the power board with the main board by the main flexible board. Connect the main board with the servo board by the servo flexible board.
5. Connect to a master unit. With the master unit OFF, press the preset buttons [4] → [5] → [1] (2 seconds or more each) in this turn to enter the TEST mode.
6. Open the doors and insert a disc in the chassis (OP) assy. Use the [SOURCE] button on the master unit to select to MD to playback.
7. Check the waveforms at each point on the servo board.

Note: After this check is completed, remove solder between shorted bridge points BP1 and BP2 and open these points.

SECTION 2
GENERAL

This section extracted from US, Canadian, E model's instruction manual.

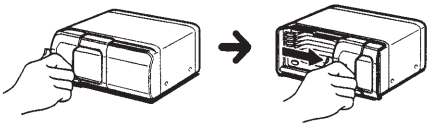
Preparations — Préparation — Preparativos — 準備

1 **Slide the door open until it clicks.**
About one minute after opening the door, the inside compartment will be lit.

Ouvrez le panneau frontal en le faisant coulisser jusqu'à ce qu'il s'encliquette.
Le compartiment intérieur s'éclaire environ une minute après avoir ouvert le panneau frontal.

Deslice la tapa para abrirla hasta oír un chasquido.
Transcurrido un minuto aproximadamente tras abrir la tapa, el compartimiento interior se iluminará.

推開磁碟蓋門直至聽到"喀勒"聲為止。
磁碟室門推開 1 分鐘以後，裏面的磁碟室燈便亮起來。



Do not reach into the changer to avoid injury.

Cautionary notice for opening and closing the door
If you press on the transparent window too hard, it may break or cause injury.

N'introduisez pas les doigts à l'intérieur du changeur de manière à éviter tout risque de blessure.

Précaution pour l'ouverture et la fermeture du panneau frontal
Si vous appuyez trop fort sur la fenêtre transparente, vous risquez de la briser ou de vous blesser.

Con el fin de evitar lesiones, no introduzca los dedos en el cambiador.

Aviso de precaución para abrir y cerrar la tapa
Si ejerce excesiva presión sobre la ventana transparente, puede romperse o causar heridas.

不可把手指伸入換碟器裏，以免受傷。

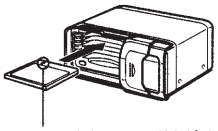
打開和關閉磁碟室門的注意事項
若您過份按壓此透明窗口，它可能會破裂或損傷。

2 **Insert an MD until it clicks.**

Introduisez un MD jusqu'à ce qu'il s'encliquette.

Inserte un MD hasta oír un chasquido.

插入一張磁碟直至聽到"喀勒"聲為止。



Insert an MD with the arrow and label facing up.

Introduisez un MD avec la flèche et l'étiquette orientées vers le haut.

Inserte el MD con la flecha y la etiqueta orientadas hacia arriba.

裝入磁碟時，箭頭及標籤都必須向上才行。

Notes
- *Do not insert an MD with the label facing downwards.*
- *Make sure the MD's shutter is closed before inserting it into the magazine.*

Remarques
- *N'introduisez pas un MD avec l'étiquette vers le bas.*
- *Assurez-vous que le volet du MD est fermé avant de l'introduire dans le magasin.*

Notas
- *No inserte el MD con la etiqueta orientada hacia abajo.*
- *Compruebe que el obturador del MD esté cerrado antes de insertarlo en el cargador.*

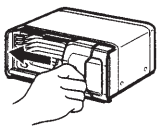
註
- *插入時，不可使磁碟有標籤之面向下。*
- *在把磁碟放進磁碟匣以前，必須確認磁碟卡盒的光匣是否關著。*

3 **Slide the door closed until it clicks.**

Refermez le panneau frontal en le faisant coulisser jusqu'à ce qu'il s'encliquette.

Deslice la tapa para cerrarla hasta oír un chasquido.

關上磁碟室門直至聽到"喀勒"聲為止。



Always use the unit with the door closed.
Otherwise, foreign matter may enter the unit and contaminate the lenses inside the changer.

Note
When an MD is inserted and the door is closed, or the reset button of the connected car audio is pressed, the unit will be automatically activated and read the information on the MDs. After the information on all of the MDs has been read, the unit is ready to play.

Le panneau frontal doit toujours être fermé en cours d'utilisation.
Sinon, des corps étrangers risquent de pénétrer à l'intérieur et de souiller les lentilles du changeur.

Remarque
Lorsqu'un MD est inséré et le volet refermé ou que la touche de réinitialisation de l'autoradio connecté est enfoncée, l'appareil est automatiquement activé et entame la lecture des informations contenues sur les MD. Lorsque les informations de tous les MD ont été lues; l'appareil est prêt pour la lecture.

Utilice siempre la unidad con la tapa cerrada.
De lo contrario, es posible que se introduzcan elementos extraños en la unidad y ensucien las lentes del interior del cambiador.

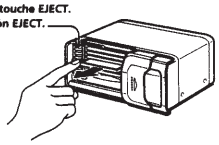
Nota
Si hay un MD insertado y la tapa está cerrada, o si presiona el botón de restauración del sistema de audio de automóvil conectado, la unidad se activará de forma automática y leerá la información de los minidiscos. Una vez leída la información de todos los minidiscos, la unidad estará preparada para iniciar la reproducción.

每次使用本機時磁碟室門都必須關好。
以防任何異物掉入機內，弄髒轉換器裏的透鏡。

註
當把磁碟插入并關上磁碟室門時，或所連接著的汽車音響裝置的重置按鍵被按下，本機將自動起動並解讀微型磁碟裏的信息。所有磁碟之信息都解讀完畢以後，本機便進入隨時都可播放的狀態。

To remove an MD / Pour retirer un MD / Para extraer un MD / 如何取出微型磁碟

Press the EJECT button.
Appuyez sur la touche EJECT.
Presione el botón EJECT.
按壓 EJECT 鍵。



You can remove MDs anytime except while one is playing.
Vous pouvez retirer des MD à tout moment sauf en cours de lecture.
Es posible extraer los minidiscos en cualquier momento, excepto durante la reproducción.
除了在播放微型磁碟以外，隨時都可以取出微型磁碟。

Notes
- *When removing two or more MDs, remove them in order from the upper tray.*
- *Never press the EJECT button for the MD which is in the play position.*

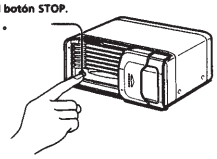
Remarques
- *Si vous retirez deux MD ou plus, commencez par le plateau supérieur.*
- *N'appuyez jamais sur la touche EJECT pour le MD qui se trouve en position de lecture.*

Notas
- *Si extrae dos o más minidiscos, realícelo a partir de la bandeja superior.*
- *No presione el botón EJECT del minidisco que esté en la posición de reproducción.*

註
- *要取出兩張以上的微型磁碟時，請從上面的碟盤開始按順序往下取。*
- *微型磁碟位於播放位置時切勿按壓 EJECT 鍵。*

To remove the MD in the play position / Pour retirer le MD en position de lecture / Para extraer el MD que se encuentra en la posición de reproducción / 要取出處於播放位置的微型磁碟時

Press the stop button.
Appuyez sur la touche STOP.
Presione el botón STOP.
按壓停止鍵。



The MD goes to the loading position.
Press the EJECT button, and remove the MD.
You can remove an MD in this way while it's playing or in the play position.

Le MD se met en position de chargement.
Appuyez sur la touche EJECT et retirez le MD.
Vous pouvez retirer un MD de cette façon lorsqu'il est en cours de lecture ou dans la position de lecture.

El MD pasa a la posición de carga.
Presione el botón EJECT y extraiga el MD.
Es posible extraer un MD de esta forma mientras se reproduce o se encuentra en la posición de reproducción.

微型磁碟即進到安裝位置。
然後按壓 EJECT 鍵則可取出磁碟。
即使該微型磁碟正被播放著，或處於播放狀態，都可以此方法取出磁碟。

Listening to MDs

Operate the master unit. See the operating instructions of the master unit for details.When you select another disc to play, the volume of the MD that's playing goes down, and the discs change.

Master unit without an MD button

This unit is operated in the same way as when playing CDs.
"CD" is displayed by the master unit, and MD play starts.

When you connect the master unit containing a custom file function but no MD button to a CD changer (If your master unit has the SOURCE button, see the master unit's manual Operating Instructions)

Even if you try to label the disc using the custom file function, "FULL" appears and you cannot label discs with personalized names.

Notes
- *The MDX-100 has an MD button, but the MDX-65 is operated with the CD button.*
- *The MDX-U1 cannot be connected.*

Ecoute d'un MD

Utilisez l'appareil principal. Pour plus de détails, consultez le mode d'emploi de l'appareil principal.
Si vous sélectionnez la reproduction d'un autre disque, le volume du MD en cours de lecture baisse et les disques sont changés.

Si l'appareil n'a pas de touche MD

Cet appareil s'utilise de la même façon qu'un lecteur CD.
L'indication "CD" est affichée sur l'appareil principal et la lecture du MD démarre.

Si vous raccordez un appareil principal doté de la fonction de personnalisation de lecture mais sans touche MD à un changeur CD (Si votre appareil principal comporte une touche SOURCE, reportez-vous au mode d'emploi de l'appareil principal.)

Même si vous essayez d'identifier le disque à l'aide de la fonction de personnalisation de lecture, l'indication "FULL" s'affiche et vous ne pouvez pas attribuer de titre personnalisé aux disques.

Remarques
- *Le MDX-100 est doté d'une touche MD, mais le MDX-65 s'utilise avec la touche CD.*
- *Le MDX-U1 ne peut être raccordé.*

Escucha de minidiscos

Emplee la unidad principal. Para obtener más información, consulte el manual de instrucciones de dicha unidad.
Si selecciona la reproducción de otro disco, el volumen del MD en reproducción disminuirá y los discos cambiarán.

Unidad principal sin botón de MD

Esta unidad se emplea de la misma forma que para reproducir discos compactos.
La unidad principal muestra "CD" y la reproducción del MD se inicia.

Cuando conecte la unidad principal que incluye la función de archivo personal sin botón de MD a un cambiador de CD (Si la unidad principal dispone del botón SOURCE, consulte el manual de instrucciones de dicha unidad.)

Aunque intente etiquetar el disco utilizando la función de archivo personal, aparece "FULL" y no es posible etiquetar los discos con nombres personalizados.

Notas
- *La unidad MDX-100 dispone de un botón de MD. Sin embargo, la unidad MDX-65 se emplea con el botón de CD.*
- *No es posible conectar la unidad MDX-U1.*

如何收聽微型磁碟

請操作主機。詳細請參看主機的使用說明書。當您選擇下一張要放的磁碟時，正在播放之中的磁碟音量會降低下來，然後磁碟便被更換了。

若使用沒具備微型磁碟操作用按鍵的主機

你仍然可按照播放普通雷射唱片的方法操作。
主機的螢幕上將出現"CD"，然後微型磁碟便開始播放了。

將具有慣用檔案功能但不具有微型磁碟操作用按鍵的主機連接到雷射唱片轉換器時 (若主機有 SOURCE 按鍵，請參看主機的使用說明書)

即使您試圖用慣用檔案功能標示磁碟，"FULL"會出現，而您也無法用自己的名稱標示磁碟。

註
- *MDX-100 具有微型磁碟操作用的按鍵，但 MDX-65 則須以雷射唱片用的按鍵操作。*
- *MDX-U1 不能和本機連接著使用。*

Connections

For details, refer to the installation/connections manual of each product.

Connexions

Pour plus de détails, consulter le manuel d'installation/connexions de chaque produit.

Conexiones

Con respecto a los detalles, consulte el manual de instalación/conexiones de cada producto.

連接

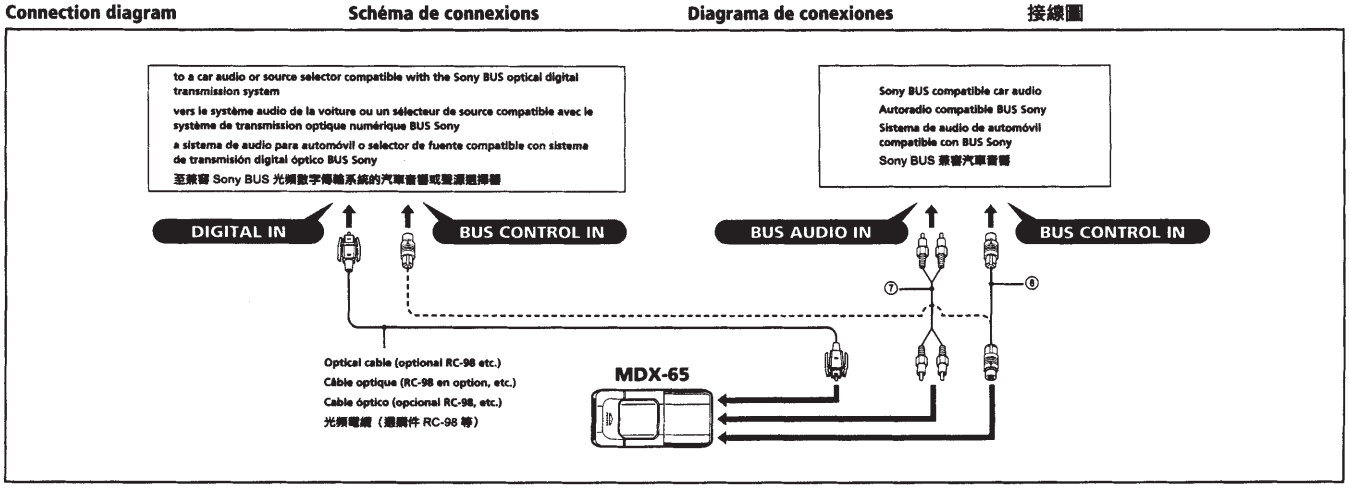
詳細請參考各產品的安裝／連接說明。

Connection diagram

Schéma de connexions

Diagrama de conexiones

接線圖



How to detach and attach the protection cover

Before connecting the cords, detach the protection cover.

Comment déposer et installer le couvercle de protection

Avant de brancher les câbles, retirez le couvercle de protection.

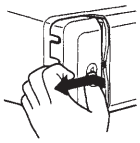
Forma de extraer y fijar la cubierta protectora

Antes de conectar los cables, extraiga la cubierta protectora.

如何拆卸和安裝保護蓋

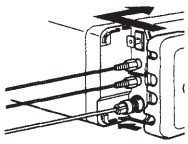
連接導線前，請先拆下保護蓋。

To detach
Pour enlever
Extracción
要拆卸時



Push in and slide the protection cover off.
Enfoncez et retirez le couvercle de protection en le faisant glisser.
Ejerza presión y deslice la cubierta protectora hacia fuera.
按入並滑動保護蓋把它拆下。

To attach
Pour installer
Fijación
要安裝時



Connecting the optional optical cable

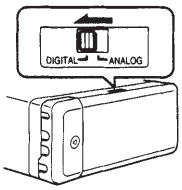
Connexion du câble optique en option

Conexión del cable óptico opcional

連接選購件的光頻電纜

1

Set the DIGITAL/ANALOG switch on the side of the MD changer to DIGITAL.
Mettre le commutateur DIGITAL/ANALOG sur le côté du changeur de MD sur DIGITAL.
Ajuste el selector DIGITAL/ANALOG, situado en el lateral posterior del cambiador de MD, en la posición DIGITAL.
將在 MD 換碟器側的 DIGITAL/ANALOG（數字／模擬）開關設定於 DIGITAL。



After changing the position of the switch, be sure to press the reset button on the main unit.

Notes
- *This switch is factory-set to the ANALOG position.*
- *Improper setting of the switch may prevent any sound from being reproduced even when the MD changer is activated.*

Après avoir modifié la position du commutateur, veiller à appuyer sur la touche de réinitialisation de l'appareil principal.

Remarques
- *Ce sélecteur est préréglé en usine sur la position ANALOG (analogique).*
- *Un réglage incorrect du sélecteur peut empêcher la reproduction du son même quand le changeur de MD fonctionne.*

Una vez cambiada la posición del selector, asegúrese de presionar el botón de restauración de la unidad principal.

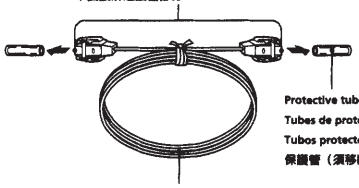
Notas
- *Este selector ha sido ajustado en fábrica a ANALOG.*
- *El ajuste inadecuado del selector podría impedir la reproducción de sonido incluso aunque el cambiador de minidiscos compactos estuviese activado.*

切換了開關位置之後，一定要按下主機上的重調按鈕。

註
- *本開關的工廠設定是設定在 ANALOG（模擬位置）。*
- *開關如果設定不對，即使已激活（打開）了 MD 換碟器，仍可能不能再現任何聲音。*

2

Do not touch the coupler parts.
Ne pas toucher les pièces du coupleur.
No toque las partes de acoplamiento.
不要接觸連接器部分。

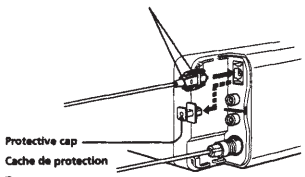


Protective tubes (to be removed)
Tubes de protection (à enlever)
Tubos protectores (a quitar)
保護管（須移除）

Optical cable (optional RC-98 etc.)
Câble optique (RC-98 en option, etc.)
Cable óptico (opcional RC-98, etc.)
光頻電纜（選購件 RC-98 等）

3

Remove the protective cap, and firmly plug in the connector.
Retirez le bouchon de protection et enfichez correctement le connecteur.
Retire la tapa protectora y enchufe firmemente el conector.
移除保護罩穩固地插到接頭上。



Protective cap
Cache de protection
Tapa protectora
保護罩

Notes
- *When you wish to disconnect the cable, simply push in on both sides of the connector and pull.*
- *Be sure to keep the protective cap in a safe place for future use.*

Remarques
- *Pour déconnecter le câble, appuyez simplement sur les deux côtés du connecteur et tirez.*
- *Garder le capuchon de protection dans un endroit sûr pour une utilisation ultérieure.*

Notas
- *Cuando desee desconectar el cable, bastará con ejercer presión sobre ambos lados del conector y tirar de él.*
- *Asegúrese de guardar la tapa protectora en un lugar seguro para utilizarla en el futuro.*

註
- *要卸下連接電纜時，只要按下插頭的兩側並把它拉出即可。*
- *保護罩應妥為保存供將來使用。*

Notes on the optical cable
Observe the following when connecting the cable:
- *Do not bend the cable too much. If the bent part (arc) is less than 10 cm (4 in.) in diameter, sound may not be reproduced.*
- *Make sure the cable does not get compressed or constricted in any way by objects around it.*
- *Never let the coupler parts of the connectors get scratched or become contaminated with dirt.*
- *If this unit is not connected to a car audio compatible with the Sony BUS optical digital transmission system, reinstall the protective cap to its original position.*
- *Use an optical cable designed for Sony car audio systems.*
- *Not all optical cables can be used with this MD changer.*

Remarques sur le câble optique
Lors de la connexion du câble:
- *Ne pas forcer le câble en le pliant. Si la partie courbée (coude) fait moins de 10 cm (4 po.) de diamètre, il est possible que le son ne soit pas reproduit.*
- *Vérifier que le câble n'est pas coincé ou écrasé par des objets environnants.*
- *Protéger les pièces du coupleur des égratignures et de la saleté.*
- *Si cet appareil n'est pas raccordé à un autoradio compatible avec le système de transmission numérique optique BUS Sony digital, réinstaller le capuchon de protection dans sa position d'origine.*
- *Utilisez un câble optique conçu pour les systèmes audio pour voiture Sony.*
- *Tous les câbles optiques ne peuvent pas être utilisés avec ce changeur de MD.*

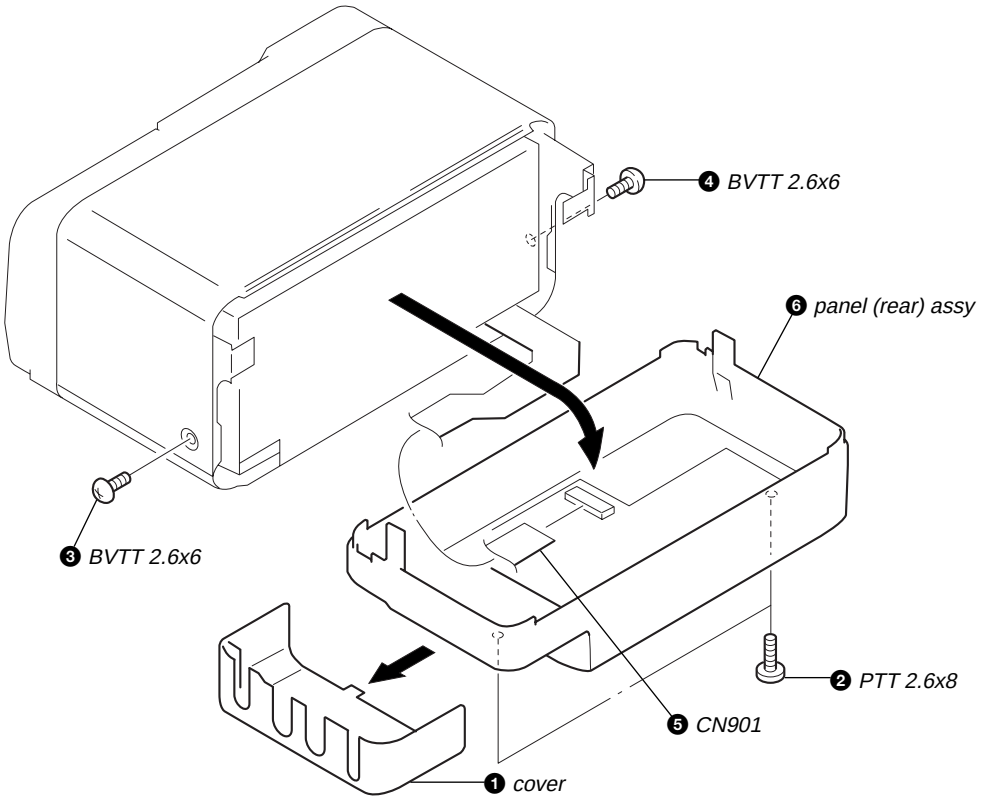
Notas sobre el cable óptico
Tenga en cuenta lo siguiente cuando conecte el cable:
- *No doble el cable excesivamente. Si el diámetro de la parte doblada (arco) es inferior a 10 cm, es posible que el sonido no se reproduzca.*
- *Compruebe que el cable no quede oprimido por objetos que se encuentren a su alrededor.*
- *No deje nunca que las partes de acoplamiento de los conectores se rayen ni se ensucien.*
- *Si esta unidad no se conecta a un sistema de audio de automóvil compatible con el sistema de transmisión digital óptico BUS de Sony, vuelva a instalar la tapa protectora en su posición original.*
- *Utilice un cable óptico diseñado para los sistemas de audio para automóvil Sony.*
- *No todos los cables ópticos pueden utilizarse con este cambiador de MD.*

光頻電纜須知
連接電纜時，請參照以下事項：
- *不要過度折彎電纜。彎曲部分的曲率直徑小於 10 cm 時，聲音可能不能再現。*
- *確認電纜是否沒被周圍物體擠壓著。*
- *別讓接頭的連接部分開裂或污染。*
- *本機不連接於兼容 Sony BUS 光頻數字傳輸系統的汽車音響時，請將保護罩重新原位置上。*
- *請用 Sony 汽車音響系統專用的光頻電纜。*
- *本 MD 換碟器並不是所有光頻電纜都可以利用的。*

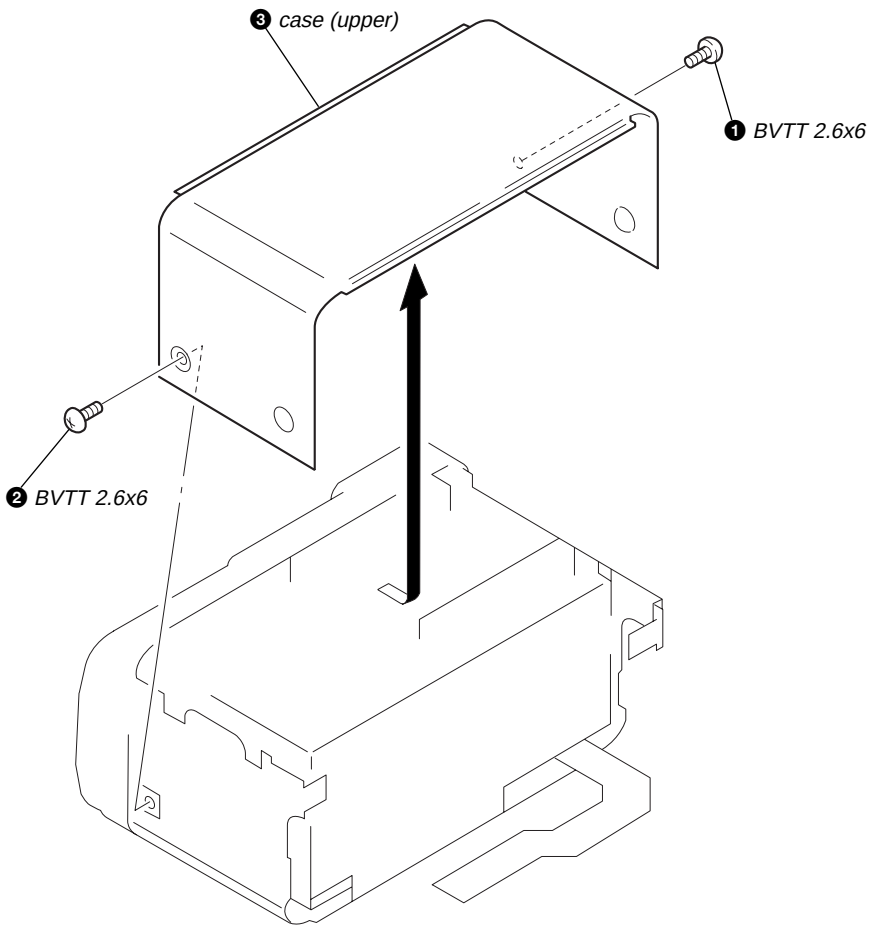
SECTION 3
DISASSEMBLY

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

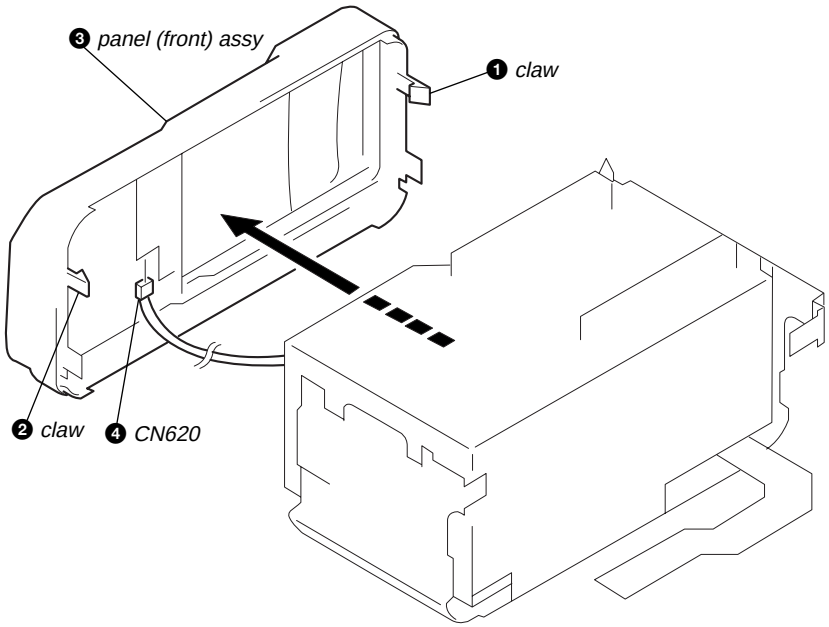
3-1. PANEL (REAR) ASSY



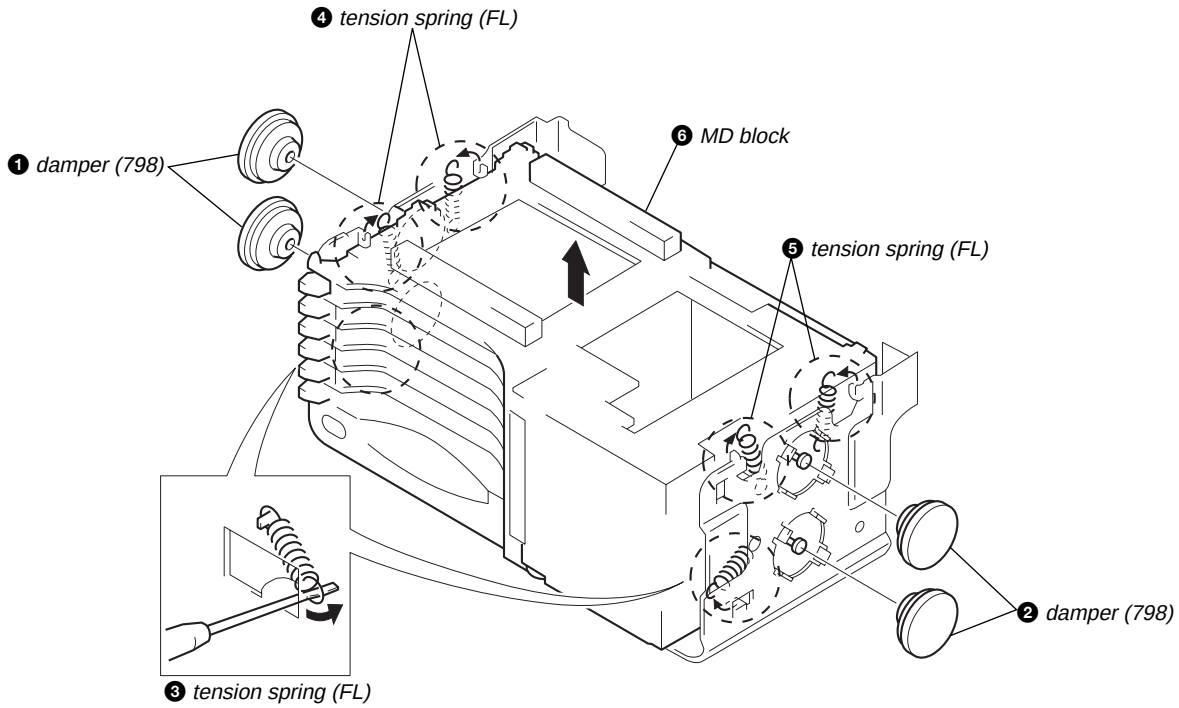
3-2. CASE (UPPER)



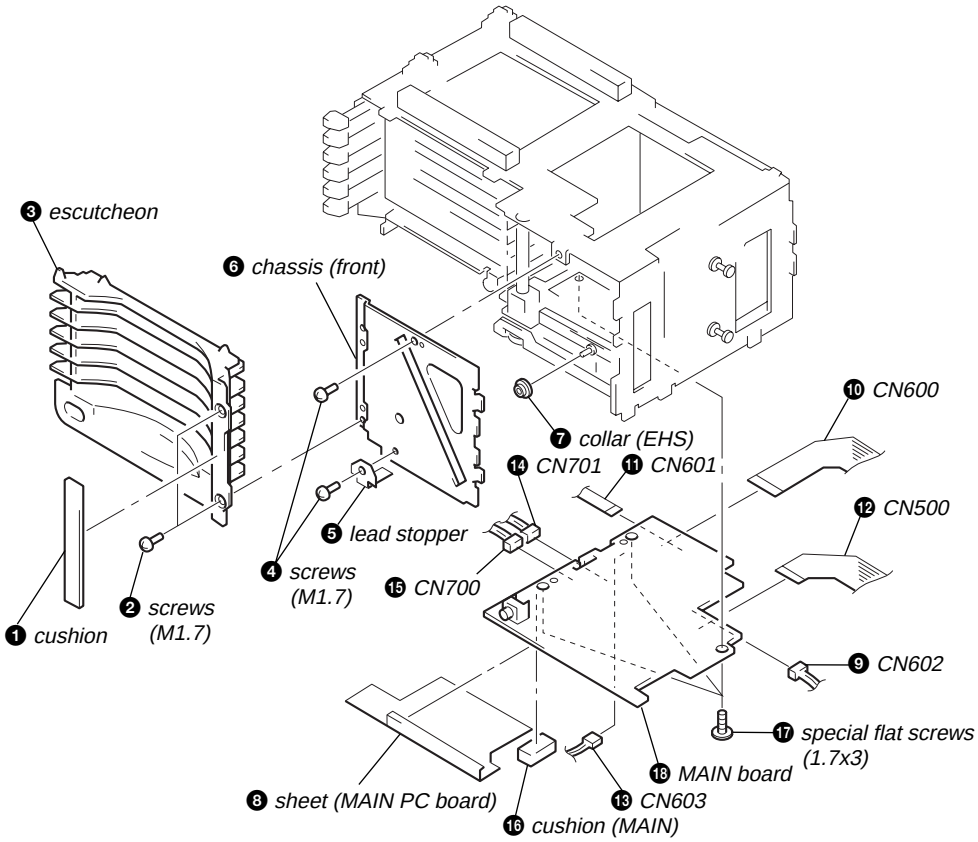
3-3. PANEL (FRONT) ASSY



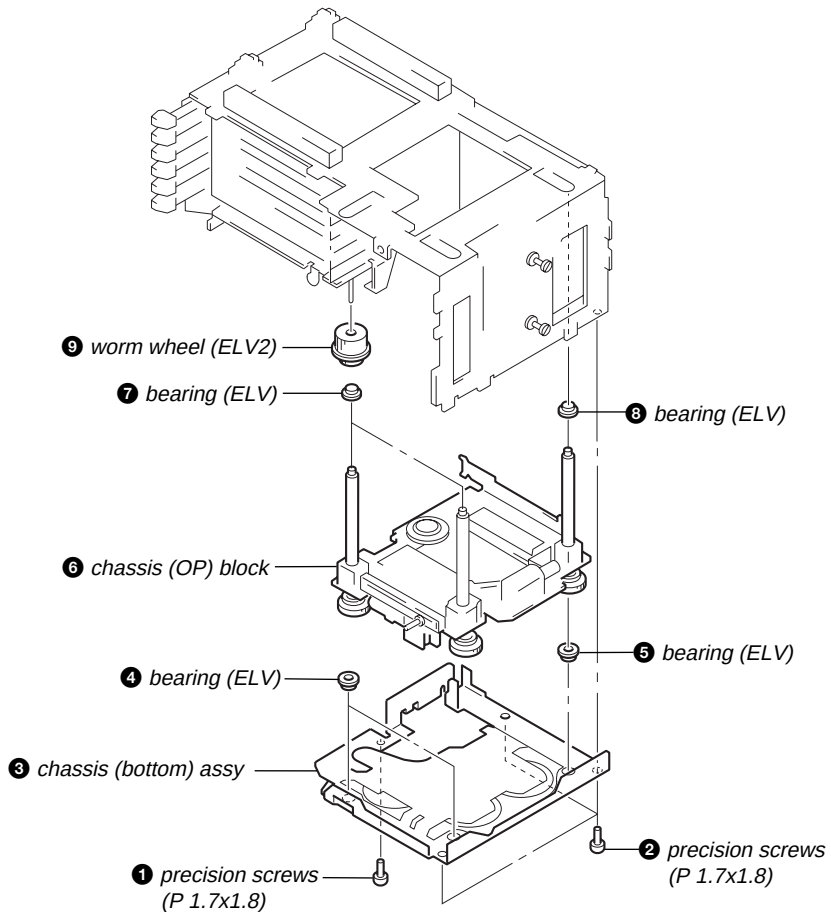
3-4. MD BLOCK



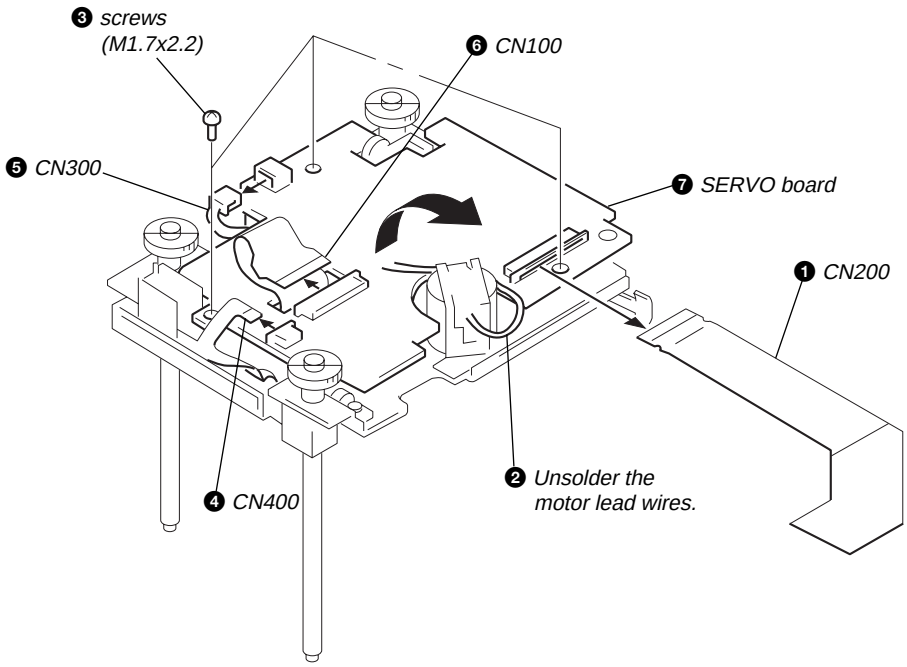
3-5. MAIN BOARD



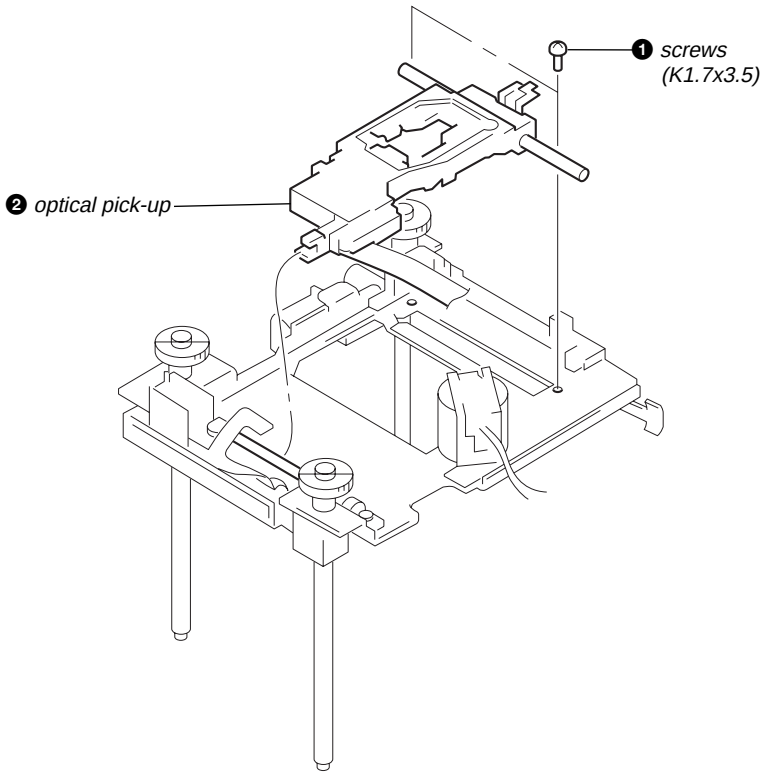
3-6. CHASSIS (OP) BLOCK



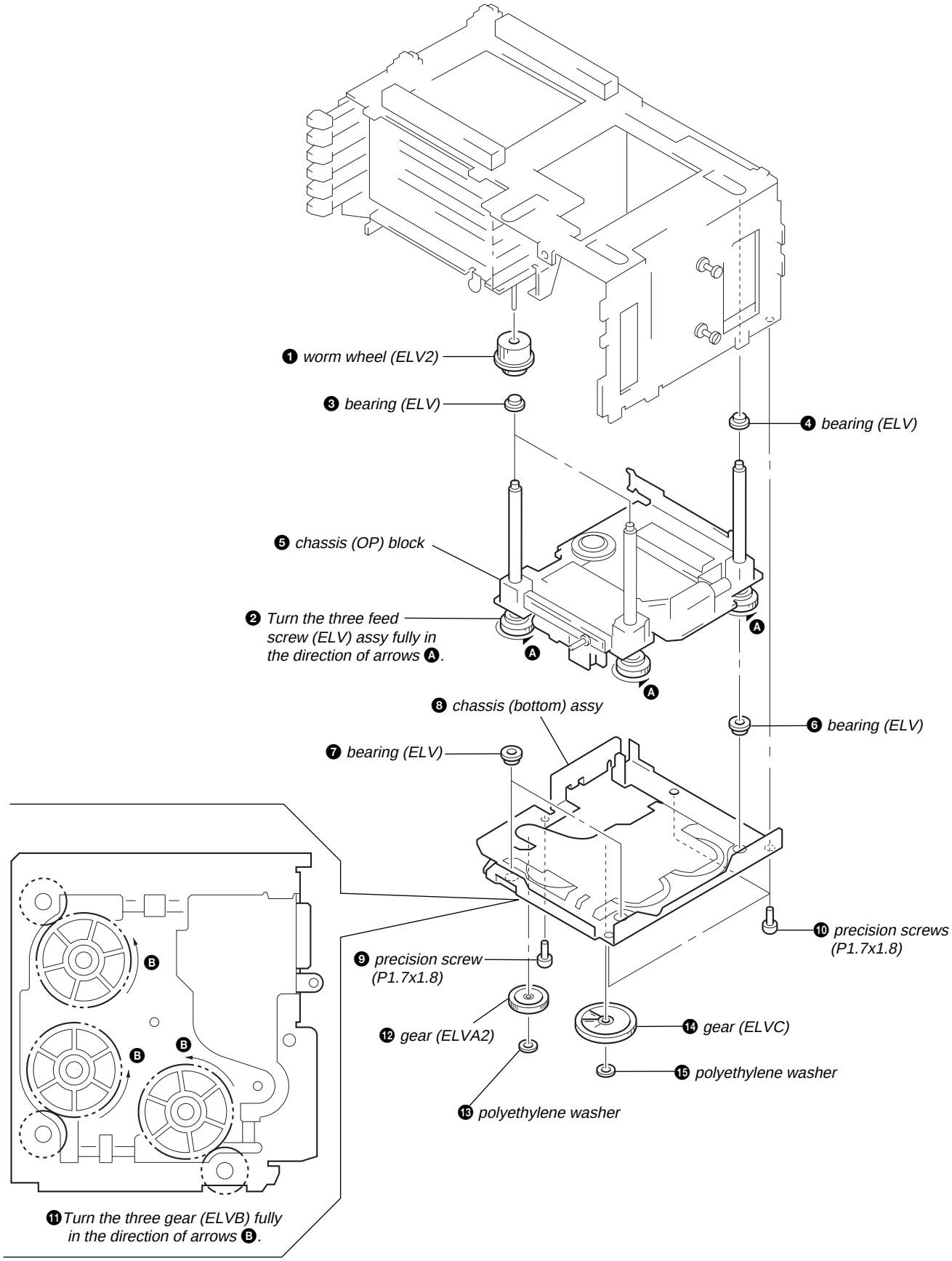
3-7. SERVO BOARD



3-8. OPTICAL PICK-UP



3-9. NOTE ON ASSEMBLY FOR THE CHASSIS (OP) BLOCK



SECTION 4
DIAGRAMS

4-1. IC PIN DESCRIPTIONS

• IC100 CXA2523AR (RF AMP)

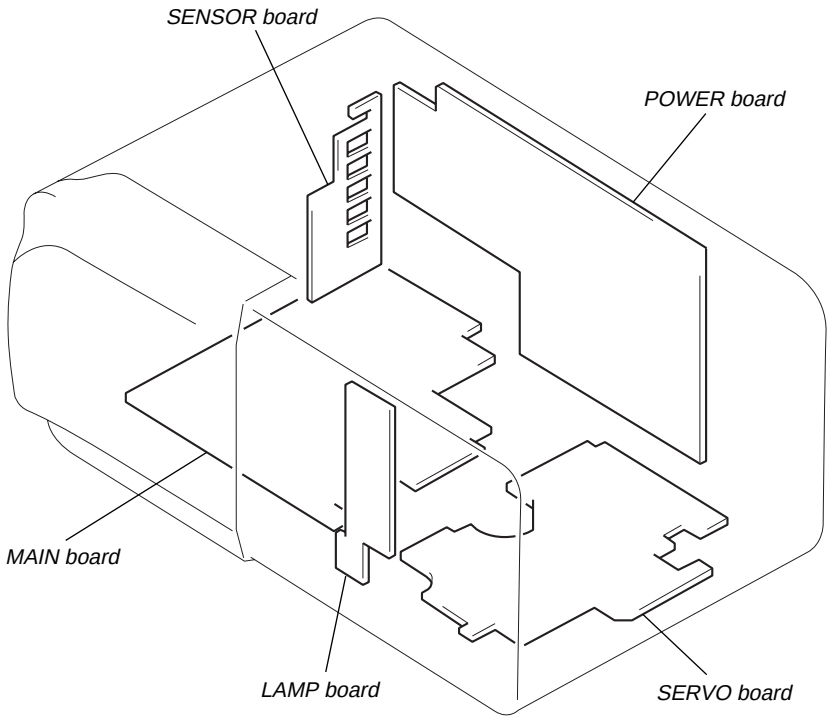
Pin No.	Pin Name	I/O	Pin Description
1	I	I	I-V converted RF signal input (I) from detector of optical pick-up.
2	J	I	I-V converted RF signal input (J) from detector of optical pick-up.
3	VC	O	Center voltage (+1.65 V) generation output
4 – 9	A – F	I	Signal input (A to F) from detector of optical pick-up.
10	PD	I	Quantity monitor input of light from laser diode of optical pick-up.
11	APC	O	Laser amplifier output to automatic power control circuit.
12	APCREF	I	Reference voltage input for laser power setting.
13	GND	—	GND
14	TEMPI	I	Temperature sensor connecting pin (Not used in this set.)
15	TEMPR	O	Reference voltage output for temperature sensor. (Not used in this set.)
16	SWDT	I	Write data signal input from System controller (IC600).
17	SCLK	I	Serial clock signal input from System controller (IC600).
18	XLAT	I	Serial latch signal input from System controller (IC600).
19	XSTBY	I	Standby signal input (“L” : Standby) (Fixed at “H” in this set.)
20	FOCNT	I	Center frequency control voltage input of internal circuit filter (BPF22, BPF3T and EQ).
21	VREF	O	Reference voltage output (Not used in this set.)
22	EQADJ	I	Center frequency setting input of internal circuit filter (EQ).
23	3TADJ	I	Center frequency setting input of internal circuit filter (BPF3T).
24	VCC	—	Power supply pin (+3.3 V)
25	WBLADJ	I	Center frequency setting input of internal circuit filter (BPF22).
26	TE	O	Tracking error signal output to CXD2652AR (IC200).
27	CSLED	I	Connecting pin for low pass filter condenser of sled error signal.
28	SE	O	Sled error signal output to CXD2652AR (IC200).
29	ADFM	O	FM signal output of ADIP.
30	ADIN	I	FM signal input of ADIP by AC combination.
31	ADAGC	I	External condenser connecting pin for AGC of ADIP.
32	ADFG	O	ADIP double FM signal output (22.05 kHz ± 1 kHz) to CXD2652AR (IC200).
33	AUX	O	Support signal (I3 signal/temperature signal) output (Not used in this set.)
34	FE	O	Focus error signal output to CXD2652AR (IC200).
35	ABCD	O	Quantity signal output of light to CXD2652AR (IC200).
36	BOTM	O	Bottom hold signal output of quantity signal (RF/ABCD) of light to CXD2652AR (IC200).
37	PEAK	O	Peak hold signal output of quantity signal (RF/ABCD) of light to CXD2652AR (IC200).
38	RF	O	Playback EFM RF signal output to CXD2652AR (IC200).
39	RFAGC	I	External condenser connecting pin of AGC circuit for RF.
40	AGCI	I	RF signal input by AC combination.
41	COMPO	O	User comparator output pin (Not used in this set.)
42	COMPP	I	User comparator input pin (Fixed at “L” in this set.)
43	ADDC	I	External condenser connecting pin for low frequency interception of ADIP amplifier.
44	OPO	O	External condenser connect pin for lower cut of ADIP amplifier.
45	OPN	I	User operational amplifier inversion input pin (Fixed at “L” in this set.)
46	RFO	O	RF signal output
47	MORFI	I	RF signal input of MO by AC combination.
48	MORFO	O	RF signal output of MO.

• IC600 μPD784216GC-027-8EU (SYSTEM CONTROLLER)

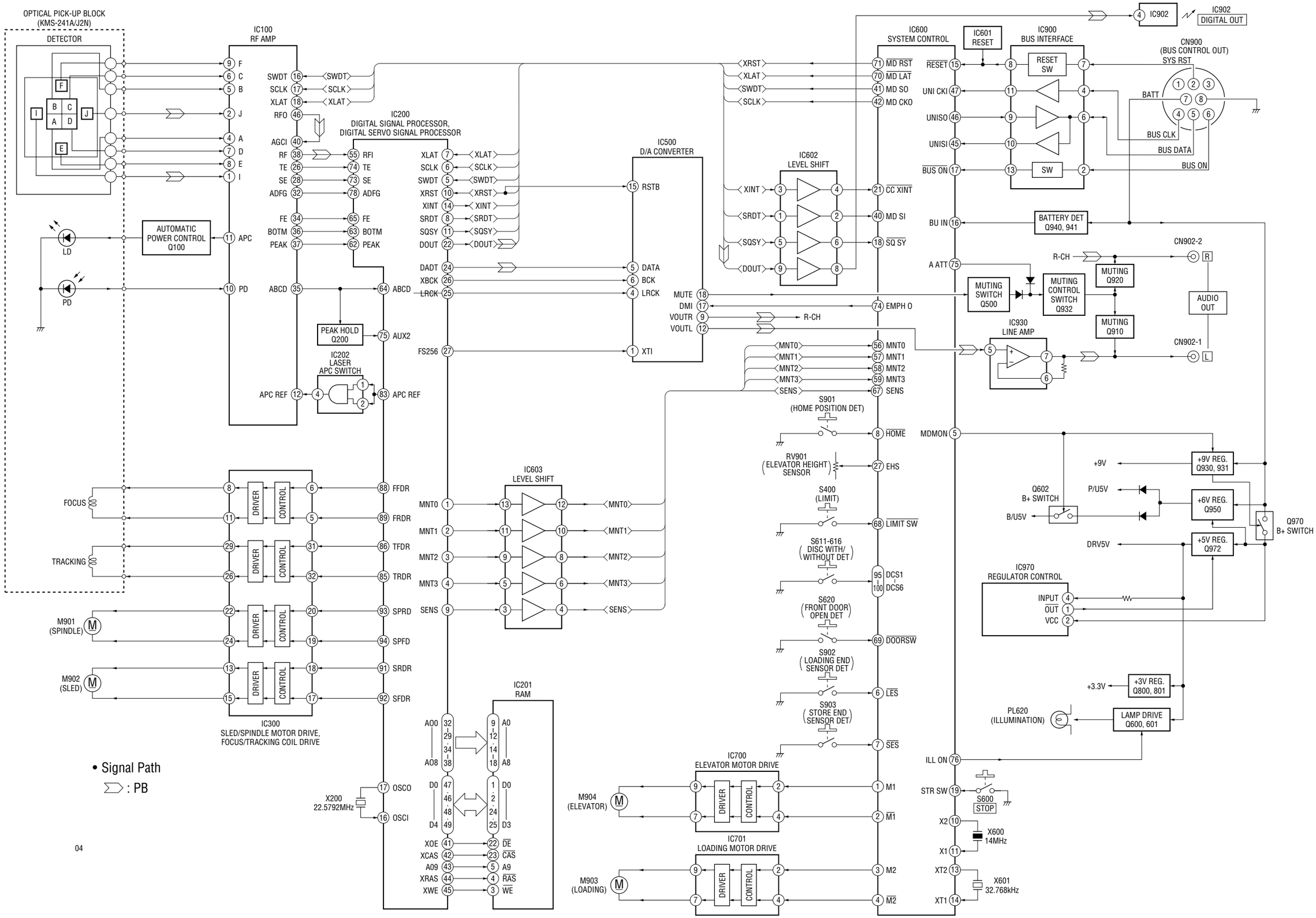
Pin No.	Pin Name	I/O	Pin Description
1	M1	O	Elevator motor (M904) drive signal output
2	$\overline{\text{M1}}$	O	Elevator motor (M904) drive signal output
3	M2	O	Loading motor (M903) drive signal output
4	$\overline{\text{M2}}$	O	Loading motor (M903) drive signal output
5	MDMON	O	Mechanism deck system power control output (“H” : Power ON)
6	$\overline{\text{LES}}$	I	Loading end sensor detection switch (S902) input
7	$\overline{\text{SES}}$	I	Store end sensor detection switch (S903) input
8	$\overline{\text{HOME}}$	I	Home position detection switch (S901) input (“L” : Home position)
9	VDD	—	Power supply pin (+5 V)
10	X2	—	Main system clock connecting pin (14 MHz)
11	X1	—	Main system clock connecting pin (14 MHz)
12	VSS	—	GND
13	XT2	—	Sub system clock connecting pin (32.768 kHz)
14	XT1	—	Sub system clock connecting pin (32.768 kHz)
15	$\overline{\text{RESET}}$	—	System reset input
16	BU IN	I	Backup OFF detection input (“L” : Backup OFF)
17	$\overline{\text{BUS ON}}$	I	BUS OFF detection of SONY BUS. (“H” : BUS OFF)
18	$\overline{\text{SQ SY}}$	I	Sub code Q sync input from CXD2652AR (IC200).
19	STR SW	I	STOP switch (S600) input
20	—	O	Not used.
21	$\overline{\text{CC XINT}}$	I	Interruption status input from CXD2652AR (IC200).
22	—	O	Not used.
23	AVDD	—	Power supply for A/D converter. (+5 V)
24	AVREF0	—	Reference voltage for A/D converter.
25	INIT	I	Initial input pin at reset.
26	TEMP	I	Thermistor connecting pin for temperature detection.
27	EHS	I	Elevator height position detection input
28, 29	—	I	Connect to GND.
30 – 32	—	O	Connect to GND.
33	AVSS	—	Analog GND
34	ERR PWM	O	Error data output (Not used in this set.)
35	—	O	Not used.
36	AVREF1	—	Reference voltage for D/A converter.
37, 38	—	O	Not used.
39	—	—	Not used.
40	MD SI	I	Read data signal input from CXD2652AR (IC200).
41	MD SO	O	Write data signal output to CXA2523AR (IC100) and CXD2652AR (IC200).
42	MD CKO	O	Serial clock signal output to CXA2523AR (IC100) and CXD2652AR (IC200).
43	—	O	Not used.
44	—	—	Not used.
45	UNISI	I	Serial data input for SONY BUS.
46	UNISO	O	Serial data output for SONY BUS.
47	UNI CKI	I	Serial clock input for SONY BUS.
48	LINKOFF	O	Link control signal output for SONY BUS. (“H” : Link OFF)
49	—	O	Not used.
50	—	I	Not used.
51, 52	D-BASS1, 2	O	Digital D-BASS select output 1, 2 (Not used in this set.)
53 – 55	—	O	Not used.
56 – 59	MNT0 – 3	O	Monitor 0 – 3 signal input from CXD2652AR (IC200).
60	AGING	O	Not used.
61	AGCHK	O	Not used.
62	TFTON	O	Not used.

Pin No.	Pin Name	I/O	Pin Description
63	—	O	Not used.
64	EE CS	O	Chip select output to EEPROM. (Not used in this set.)
65	EE CKO	O	Serial clock output to EEPROM. (Not used in this set.)
66	EE SIO	I/O	Data input from/output to EEPROM. (Not used in this set.)
67	SENS	I	Internal status input from CXD2652AR (IC200).
68	$\overline{\text{LIMIT SW}}$	I	Optical pick-up innermost track limit position detection switch (S400) input
69	$\overline{\text{DOORSW}}$	I	Front door open detection switch (S620) input (“L” : Open complete)
70	$\overline{\text{MD LAT}}$	O	Serial latch signal output to CXA2523AR (IC100) and CXD2652AR (IC200).
71	$\overline{\text{MD RST}}$	O	Reset signal output to CXD2652AR (IC200).
72	VSS	—	GND
73	MD ON	O	Servo system power control output (“H” : Power ON)
74	EMPH O	O	De-emphasis circuit control output (“H” : De-emphasis ON)
75	A ATT	I	Analog mute control input (“H” : Mute ON)
76	ILLON	O	Illumination lamp (PL620) light-up control output (“H” : Lamp light-up)
77	TSTSMD	I	Single mode setting pin (“L” : Single mode)
78	TSTCKO	O	Serial clock output to LED for TEST mode display. (Not used in this set.)
79	TSTSO	O	Serial data output to LED for TEST mode display. (Not used in this set.)
80	TSTMOD	I	TEST mode setting pin (“L” : TEST mode)
81	VDD	—	Power supply pin (+5 V)
82 – 85	TSTOUT0 – 3	O	TEST key output pin of 4 × 8 matrix. (Not used in this set.)
86 – 93	TSTIN0 – 7	I	TEST key input pin of 4 × 8 matrix. (Not used in this set.)
94	TEST/VPP	—	Fixed at “L” in this set.
95	DCS1	I	Disc with/without detection 1 switch (S611) input (“H” : with disc)
96	DCS2	I	Disc with/without detection 2 switch (S612) input (“H” : with disc)
97	DCS3	I	Disc with/without detection 3 switch (S613) input (“H” : with disc)
98	DCS4	I	Disc with/without detection 4 switch (S614) input (“H” : with disc)
99	DCS5	I	Disc with/without detection 5 switch (S615) input (“H” : with disc)
100	DCS6	I	Disc with/without detection 6 switch (S616) input (“H” : with disc)

4-2. CIRCUIT BOARDS LOCATION



4-3. BLOCK DIAGRAM



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

for schematic diagrams

- 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.
- ▭ : 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.

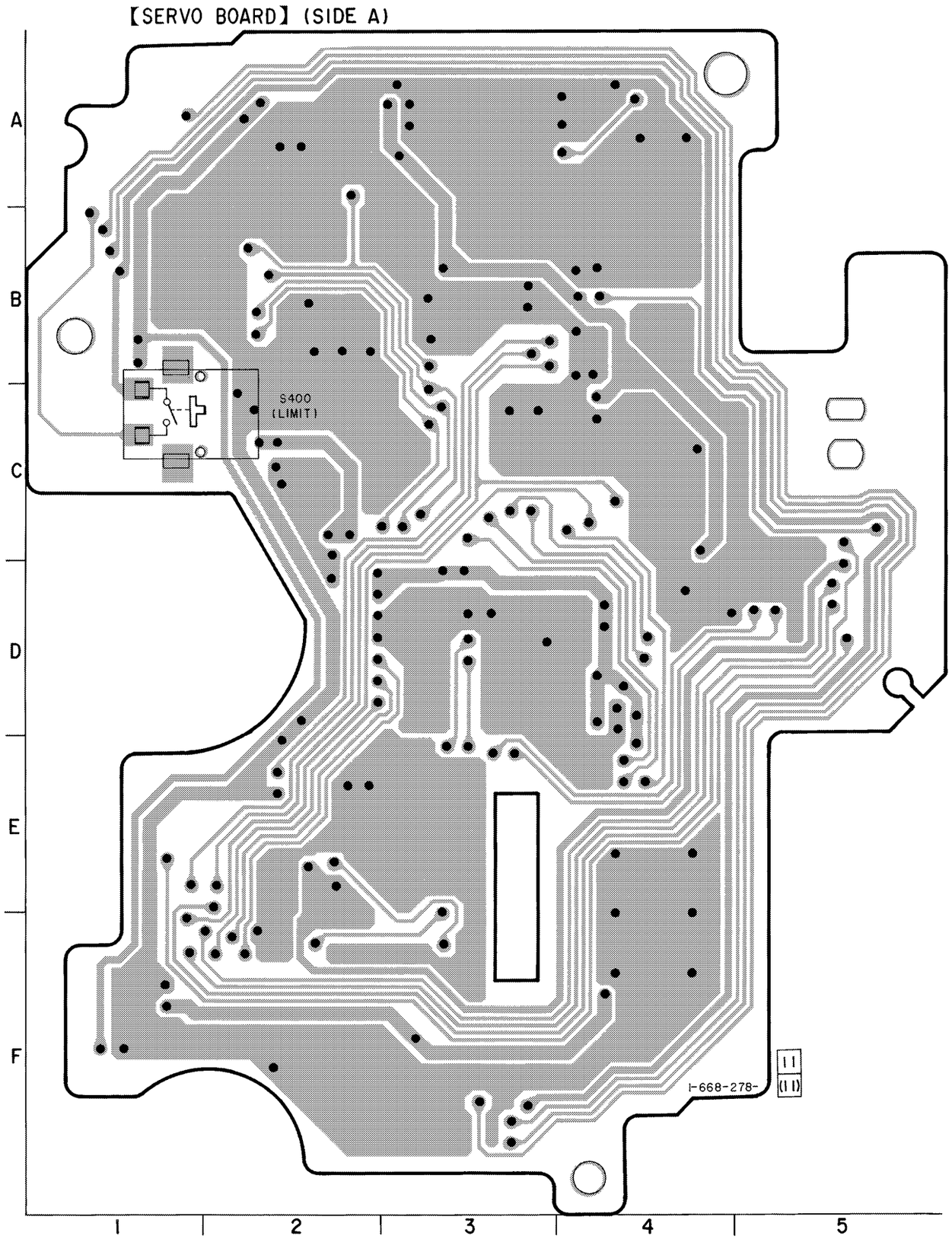
- B+ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from Master unit.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PB
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations 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.
  Σ : PB

for printed wiring boards

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

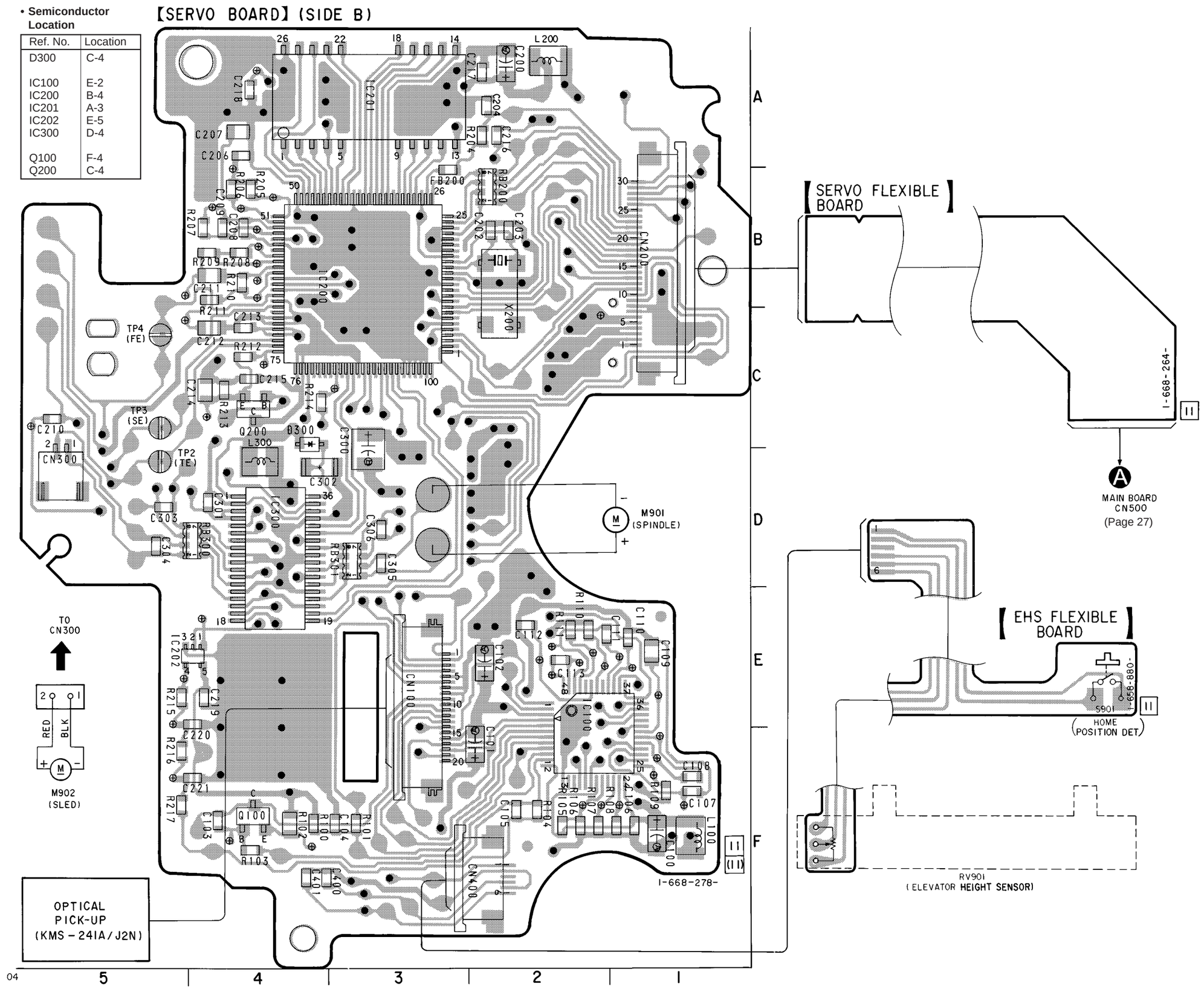
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.

4-4. PRINTED WIRING BOARDS — SERVO SECTION —

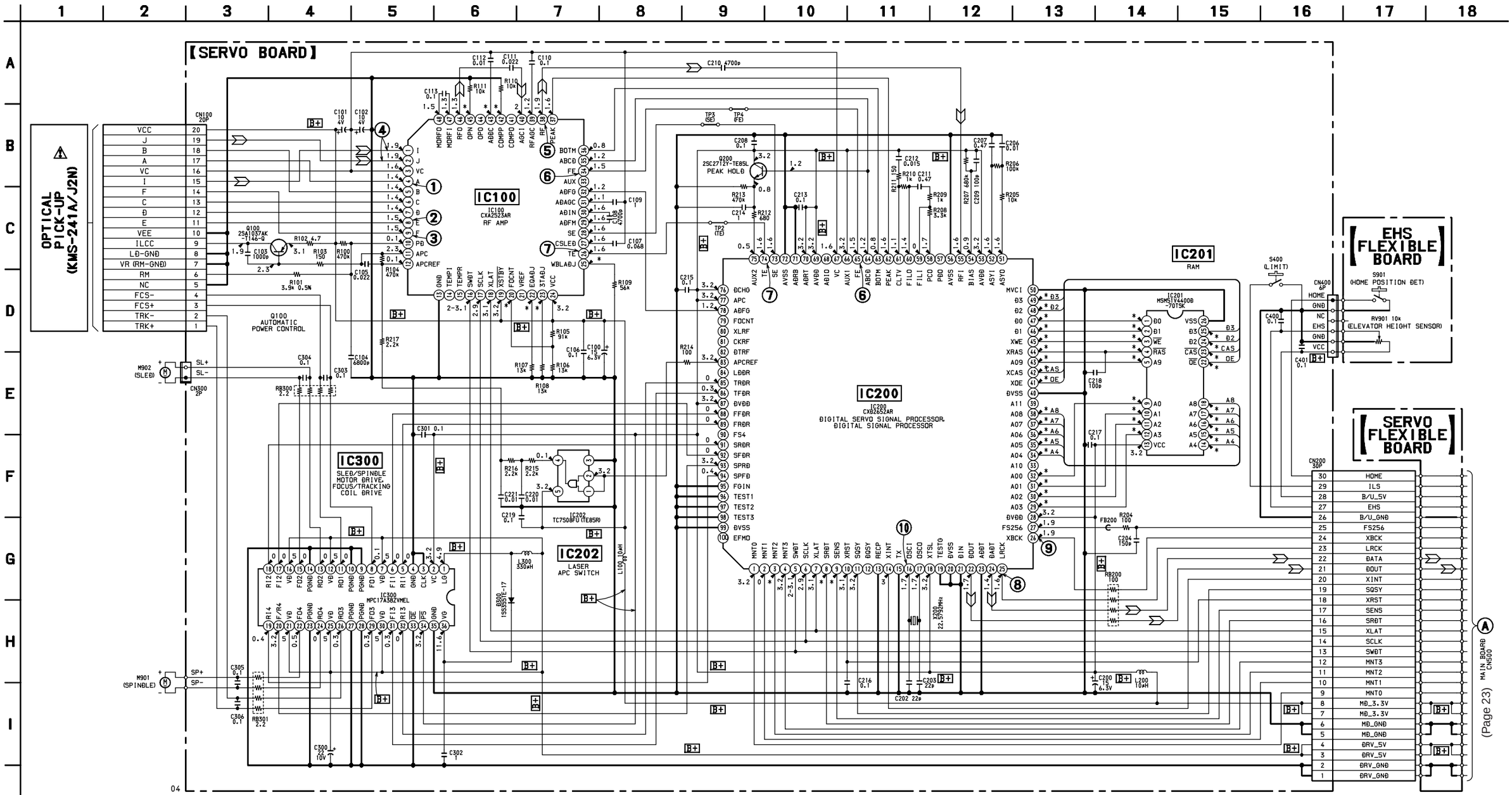


• **Semiconductor Location**

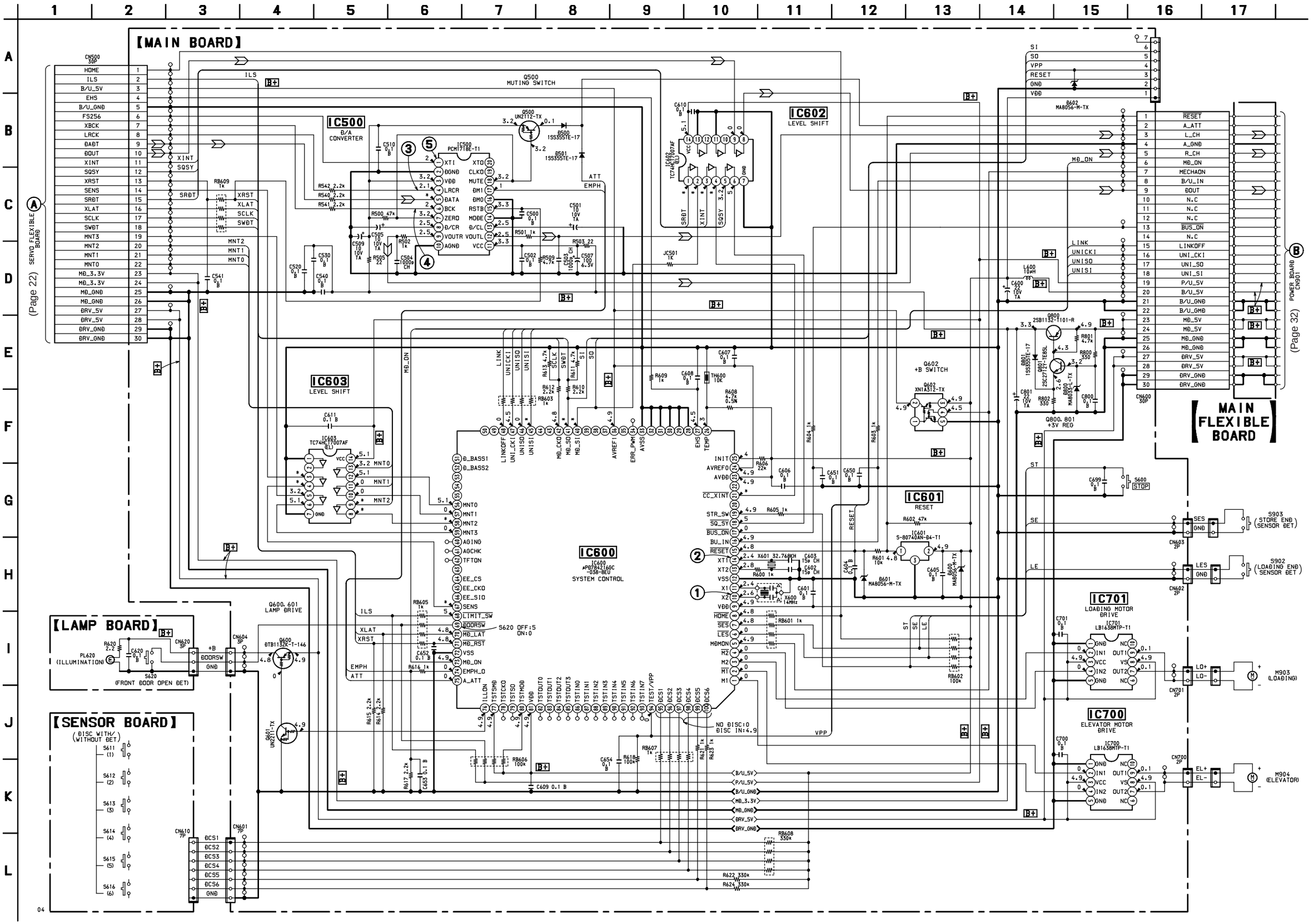
Ref. No.	Location
D300	C-4
IC100	E-2
IC200	B-4
IC201	A-3
IC202	E-5
IC300	D-4
Q100	F-4
Q200	C-4



4-5. SCHEMATIC DIAGRAM — SERVO SECTION — • Refer to page 33 for Waveforms and page 35 for IC Block Diagrams.



4-6. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 34 for Waveforms and page 37 for IC Block Diagrams.

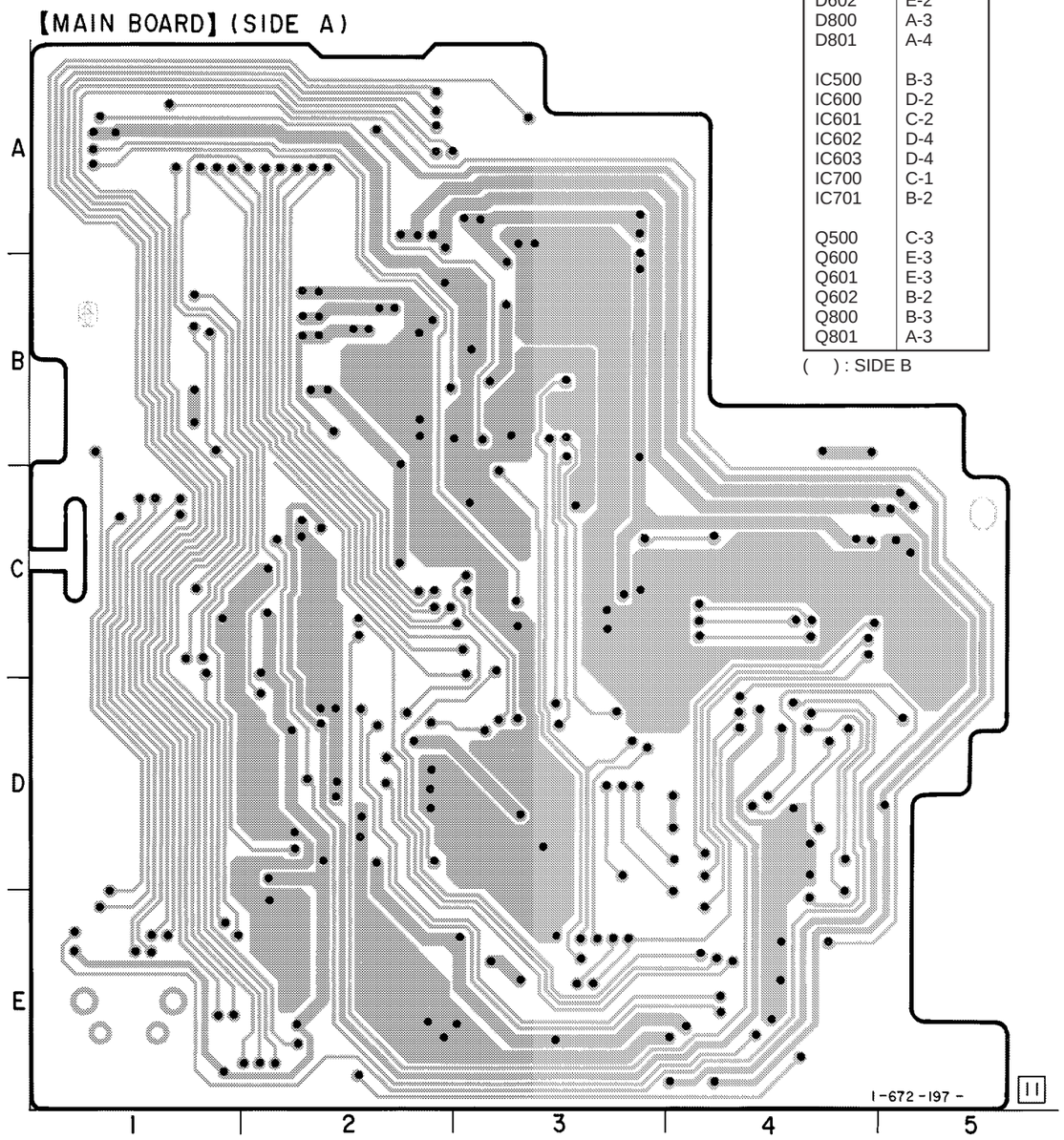


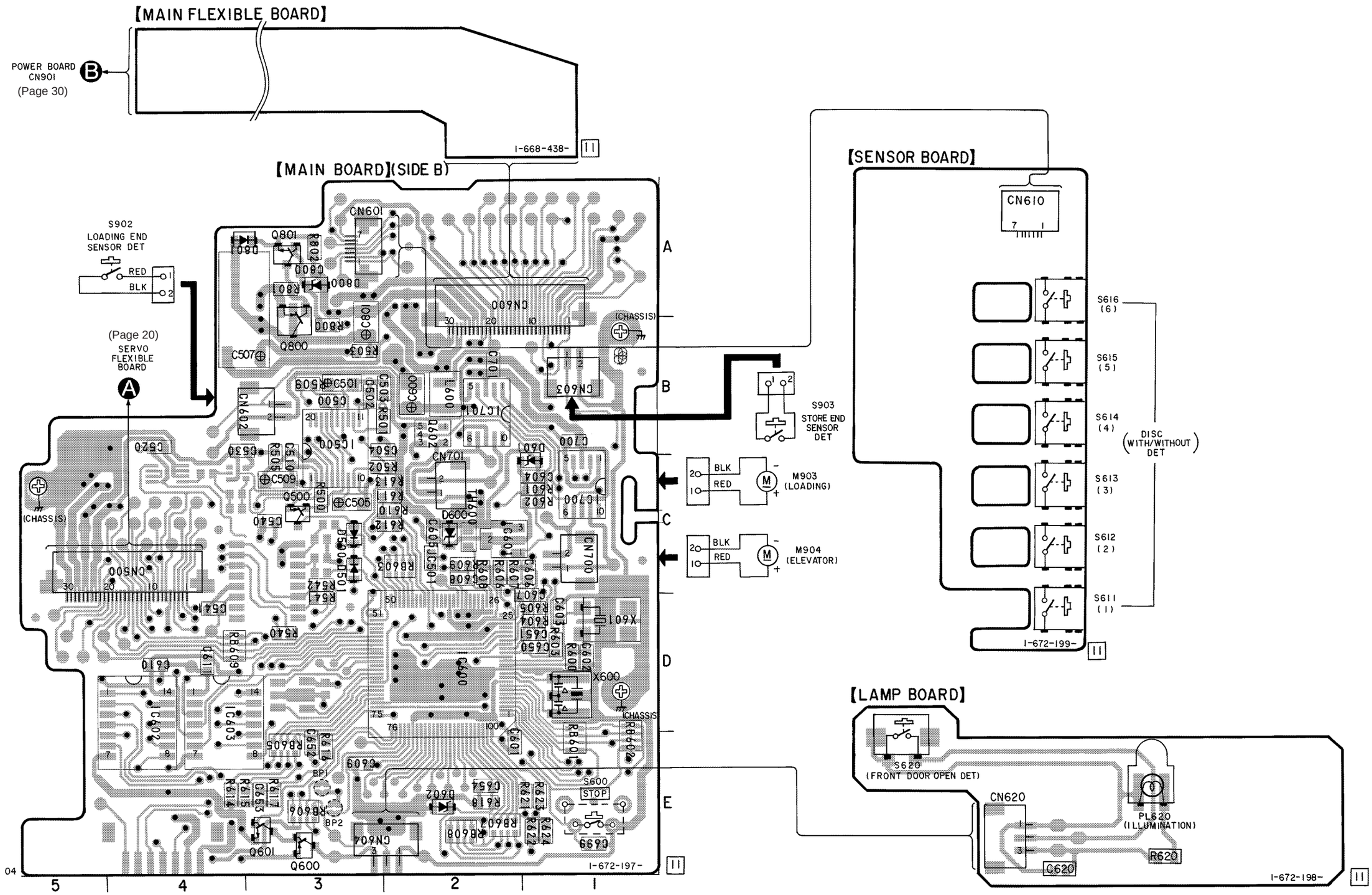
4-7. PRINTED WIRING BOARDS — MAIN SECTION —

• **Semiconductor Location**

Ref. No.	Location
D500	C-3
D501	C-3
D600	C-2
D601	B-2
D602	E-2
D800	A-3
D801	A-4
IC500	B-3
IC600	D-2
IC601	C-2
IC602	D-4
IC603	D-4
IC700	C-1
IC701	B-2
Q500	C-3
Q600	E-3
Q601	E-3
Q602	B-2
Q800	B-3
Q801	A-3

( ) : SIDE B



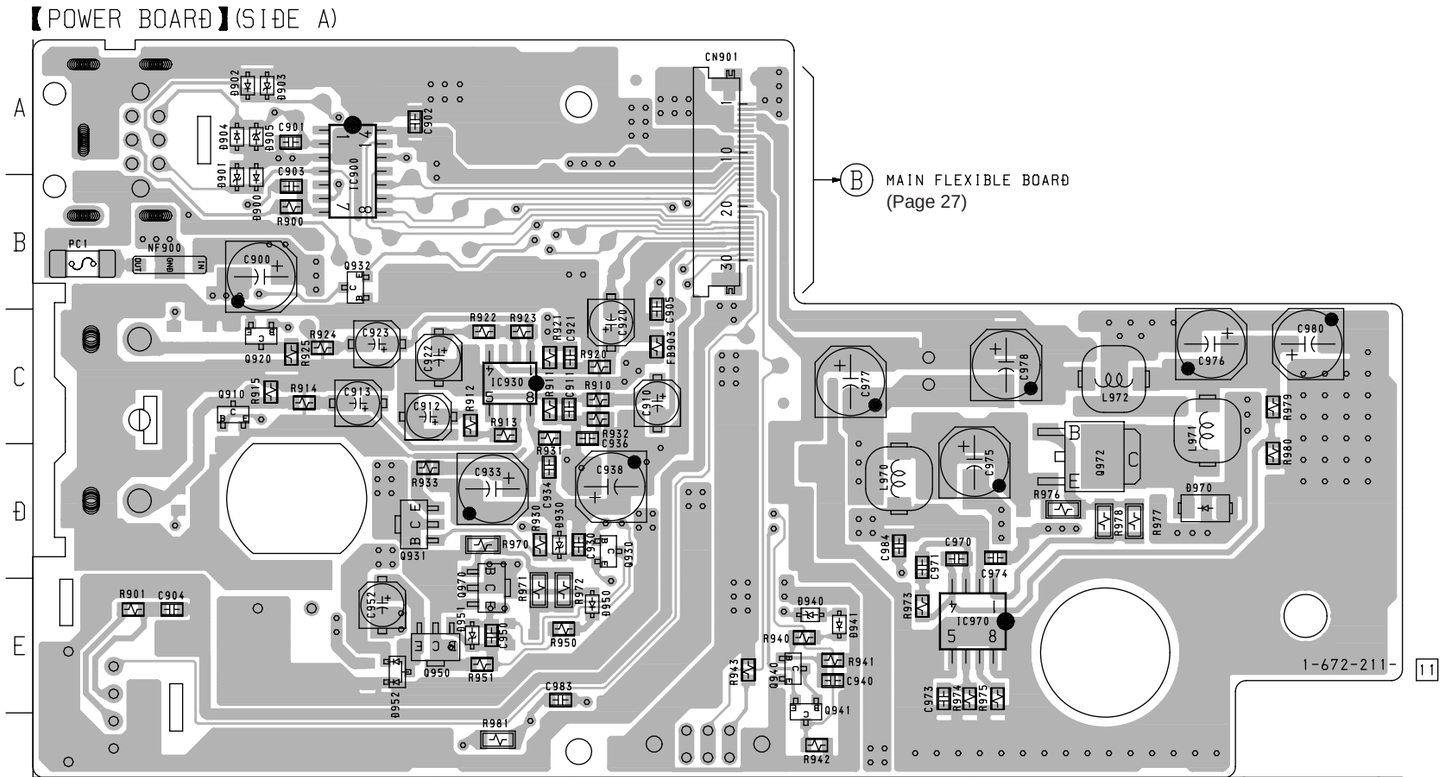


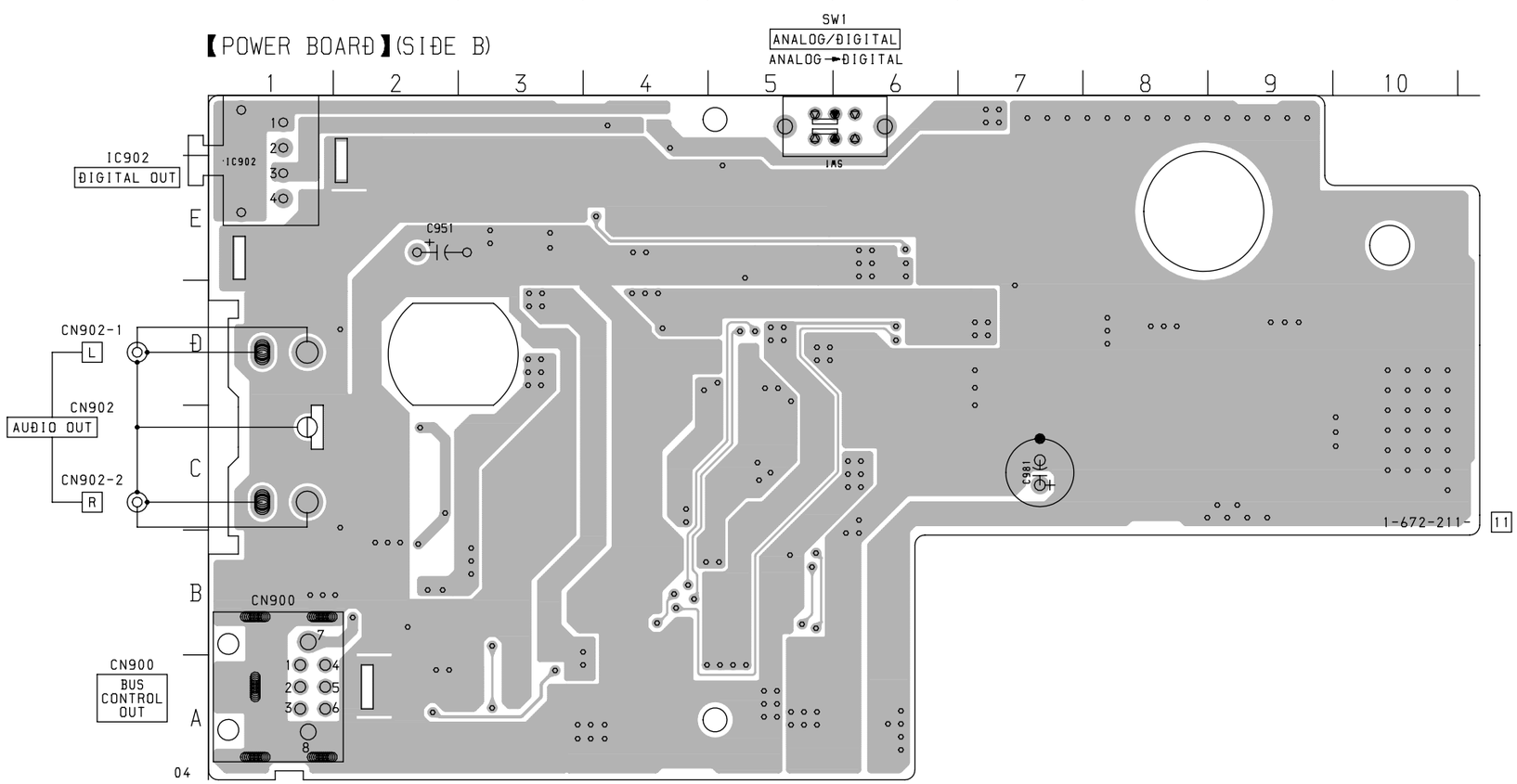
4-8. PRINTED WIRING BOARD — POWER BOARD —

• **Semiconductor Location**

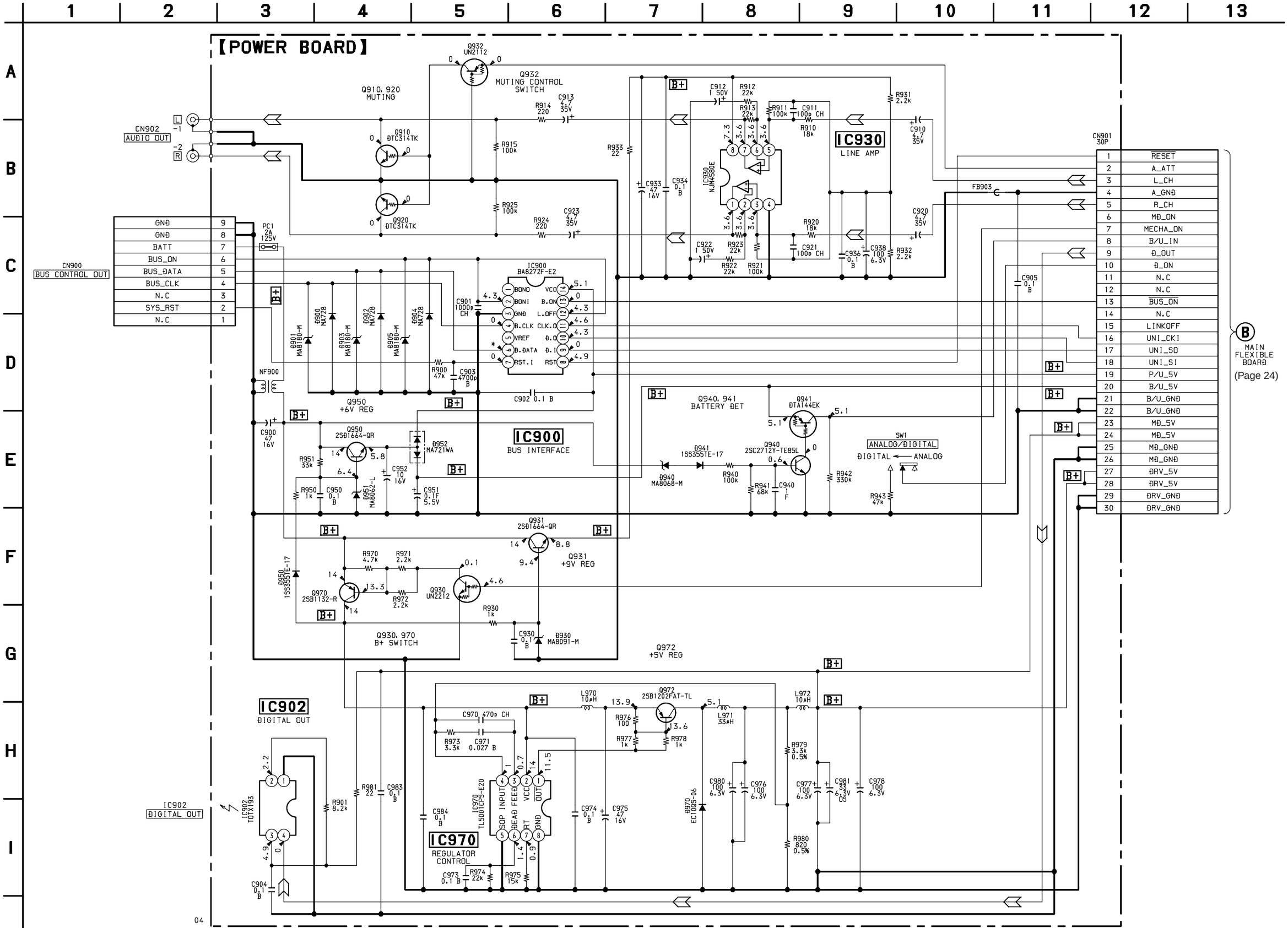
Ref. No.	Location
D900	B-2
D901	B-2
D902	A-2
D903	A-2
D904	A-2
D905	A-2
D930	D-4
D940	E-6
D941	E-7
D950	E-5
D951	E-4
D952	E-3
D970	D-9
IC900	B-3
(IC902)	E-1
IC930	C-4
IC970	E-7
Q910	C-2
Q920	C-2
Q930	D-5
Q931	D-3
Q932	B-3
Q940	E-6
Q941	E-6
Q950	E-3
Q970	E-4
Q972	D-8

( ) : SIDE B





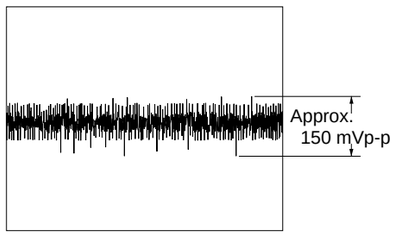
4-9. SCHEMATIC DIAGRAM — POWER SECTION — • Refer to page 37 for IC Block Diagrams.



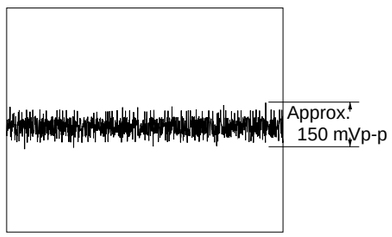
• Waveforms

– Servo Section –

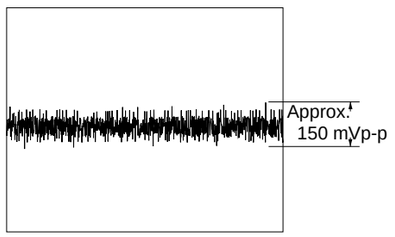
❶ IC100 ④ (A) PLAY MODE
200 mV/DIV, 10 µsec/DIV



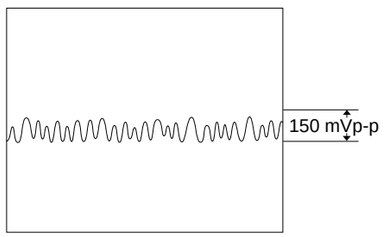
❷ IC100 ⑧ (E) PLAY MODE
100 mV/DIV, 10 µsec/DIV



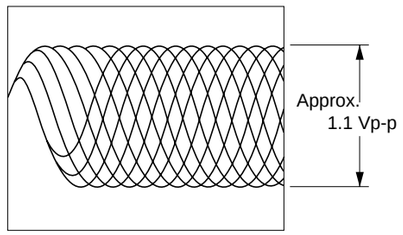
❸ IC100 ⑨ (F) PLAY MODE
100 mV/DIV, 10 µsec/DIV



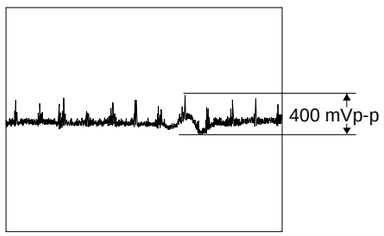
❹ IC100 ①, ② (I, J) PLAY MODE
100 mV/DIV, 10 µsec/DIV



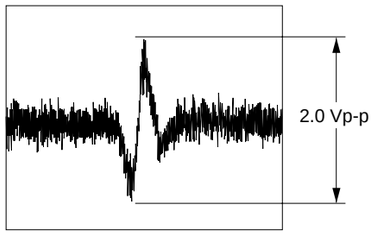
❺ IC100 ㊳ (RF) PLAY MODE
500 mV/DIV, 1 µsec/DIV



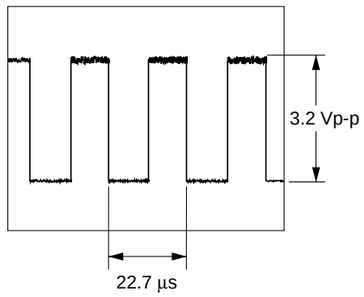
❻ IC100 ㉞, IC200 ⑥ (FE) PLAY MODE
200 mV/DIV, 0.5 msec/DIV



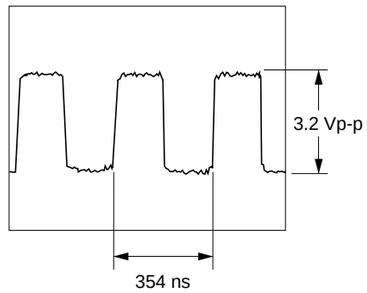
❼ IC100 ㉖, IC200 ㉞ (TE) PLAY MODE
500 mV/DIV, 0.5 msec/DIV



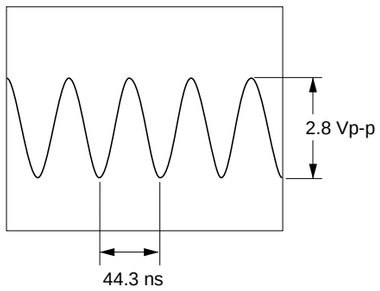
❽ IC200 ㉘ (LRCK)



❾ IC200 ㉖ (XBCK)

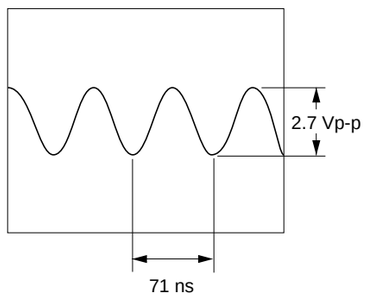


❿ IC200 ⑯ (OSCI)

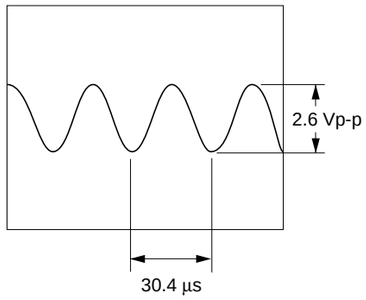


– Main Section –

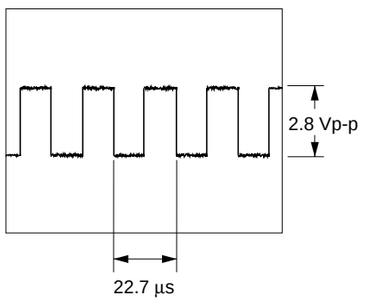
❶ IC600 ⑩ (X2)



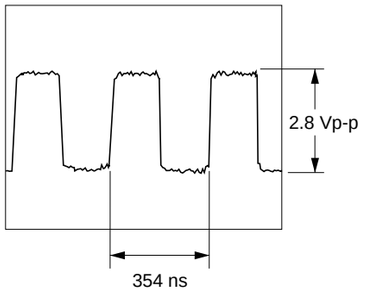
❷ IC600 ⑭ (XT1)



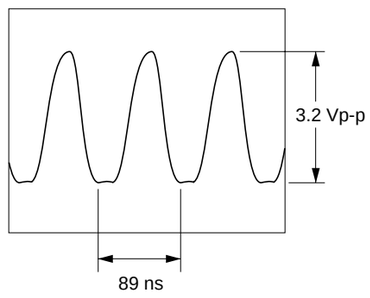
❸ IC500 ④ (LRCK)



❹ IC500 ⑥ (BCK)



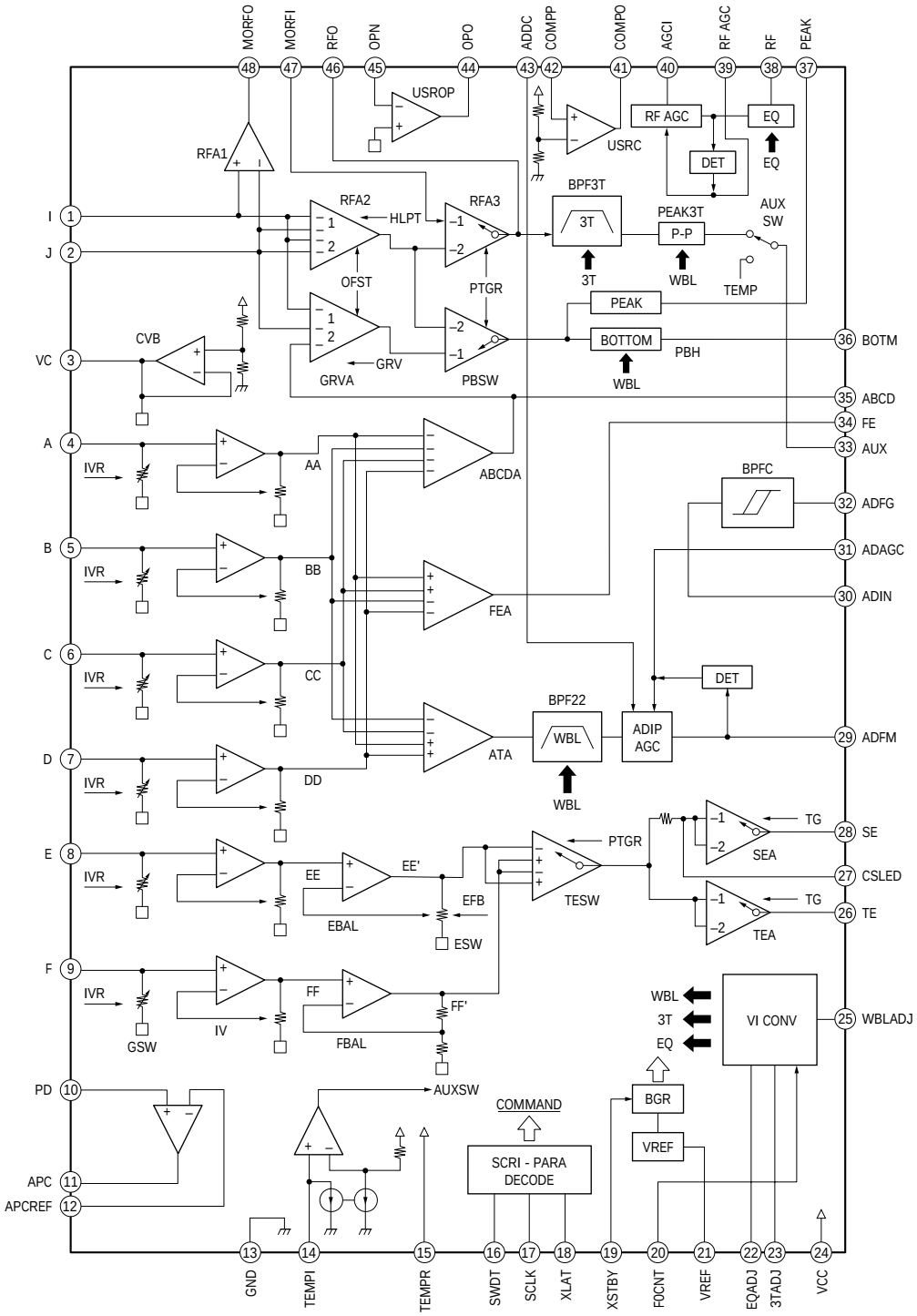
❺ IC500 ① (XT1)



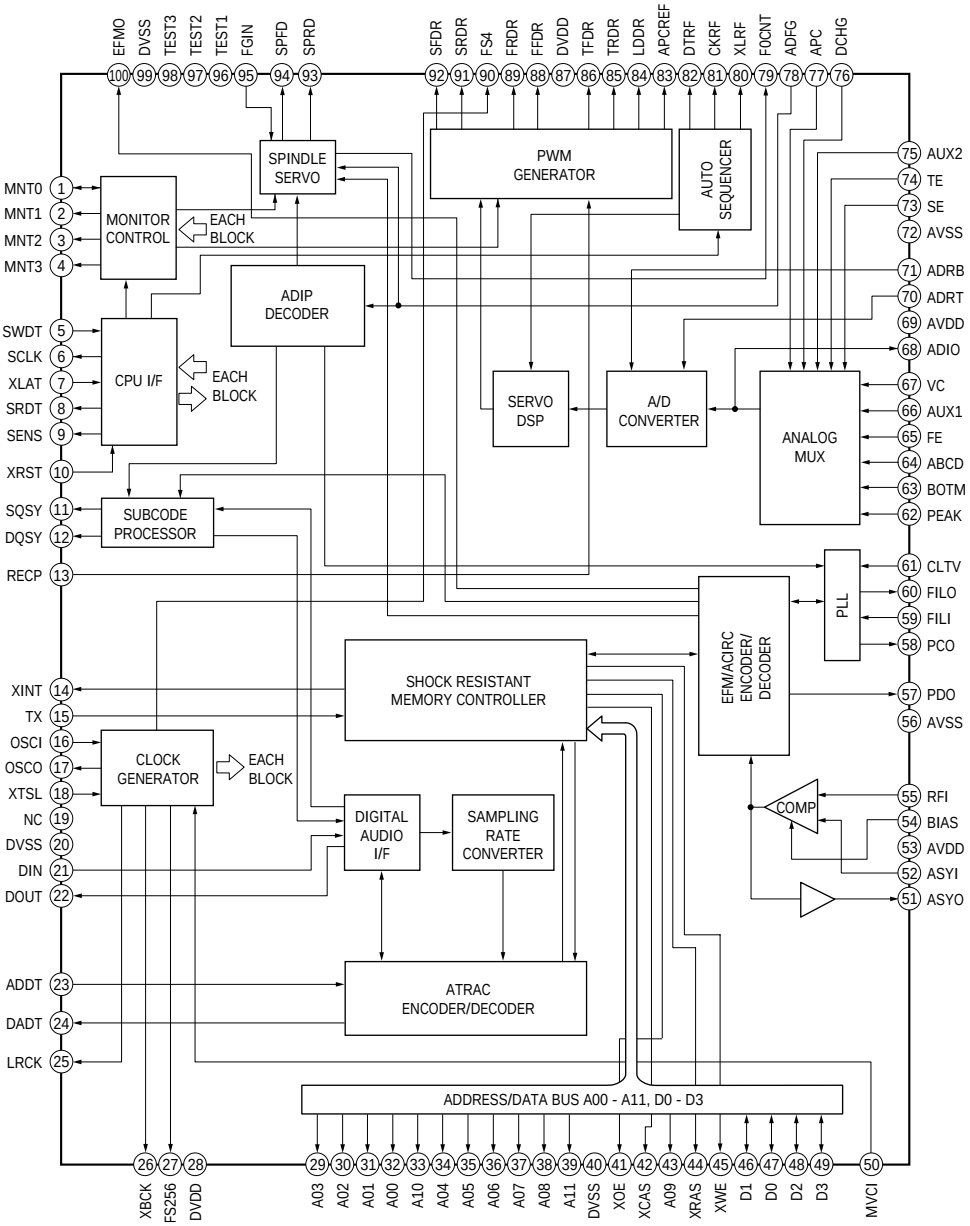
• IC Block Diagrams

– Servo Section –

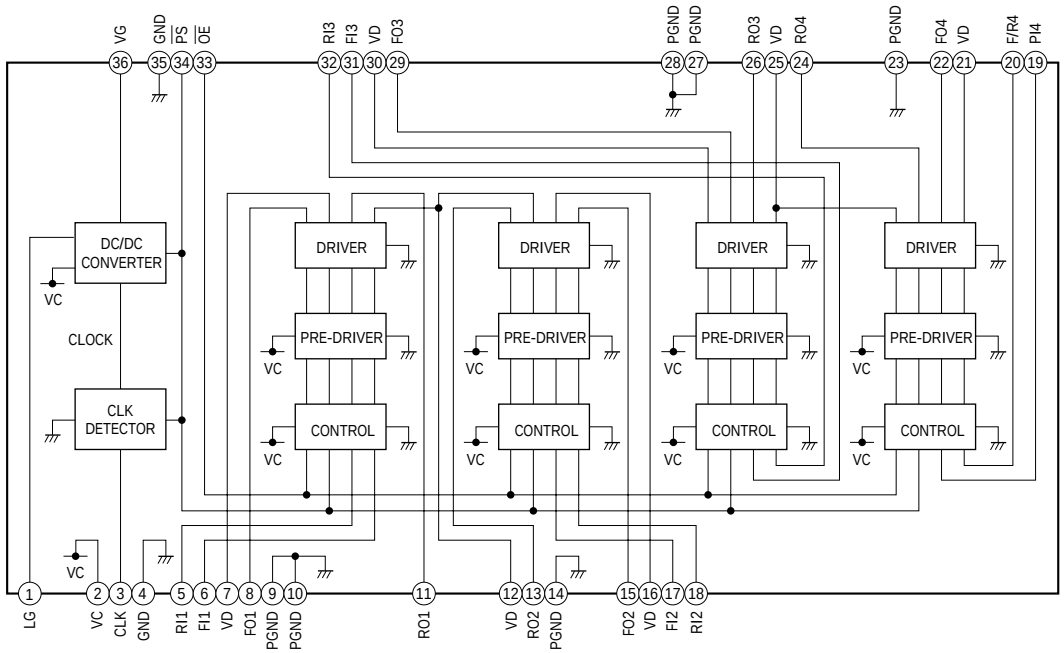
IC100 CXA2523AR



IC200 CXD2652AR

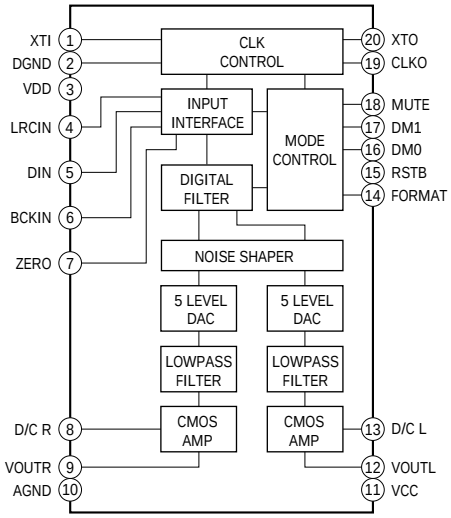


IC300 MPC17A38ZVMEL

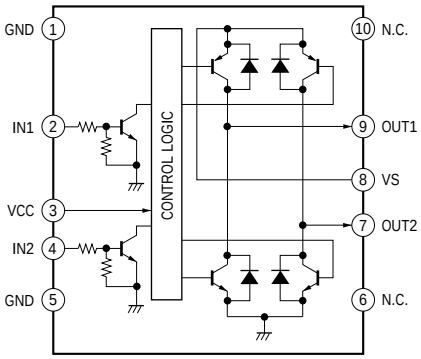


– Main Section –

IC500 PCM1718E-T1

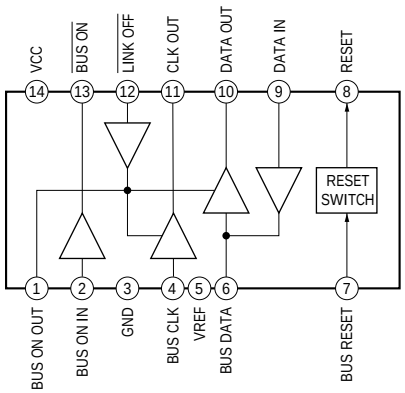


IC700, 701 LB1638MTP-T1

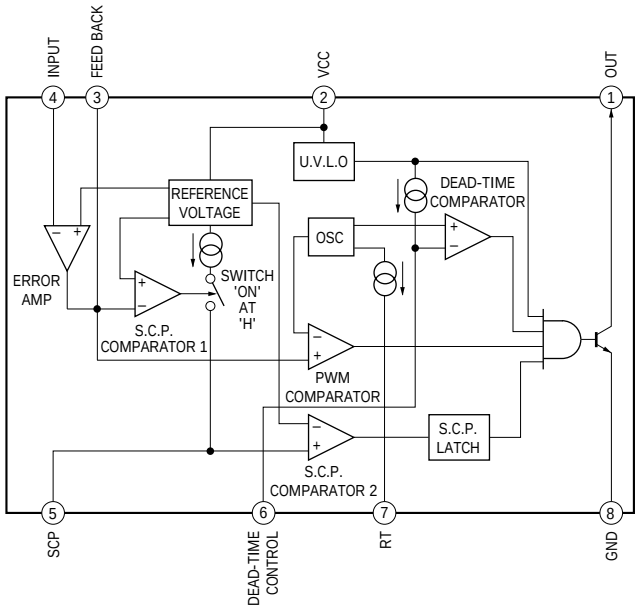


– Power Section –

IC900 BA8272F-E2



IC970 TL5001CPS-E20



SECTION 5
EXPLODED VIEWS

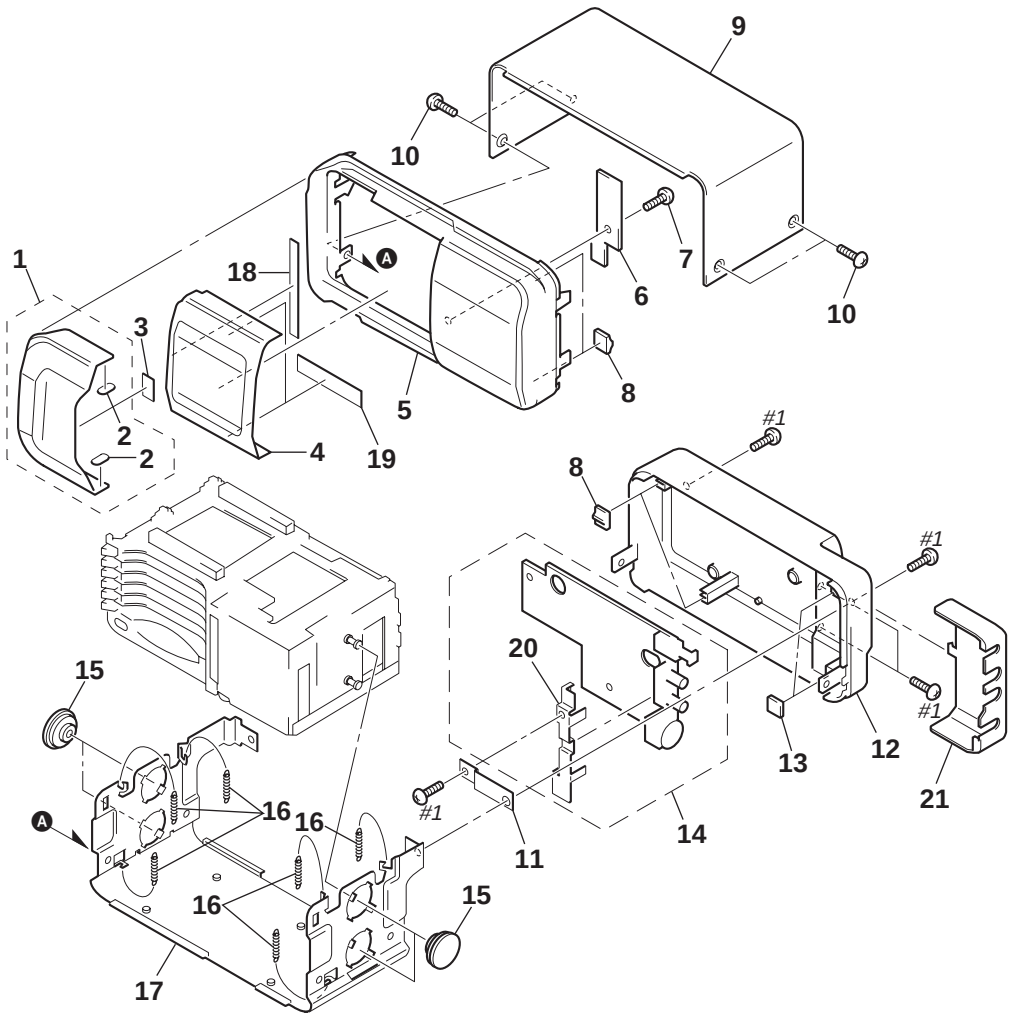
NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some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

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

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

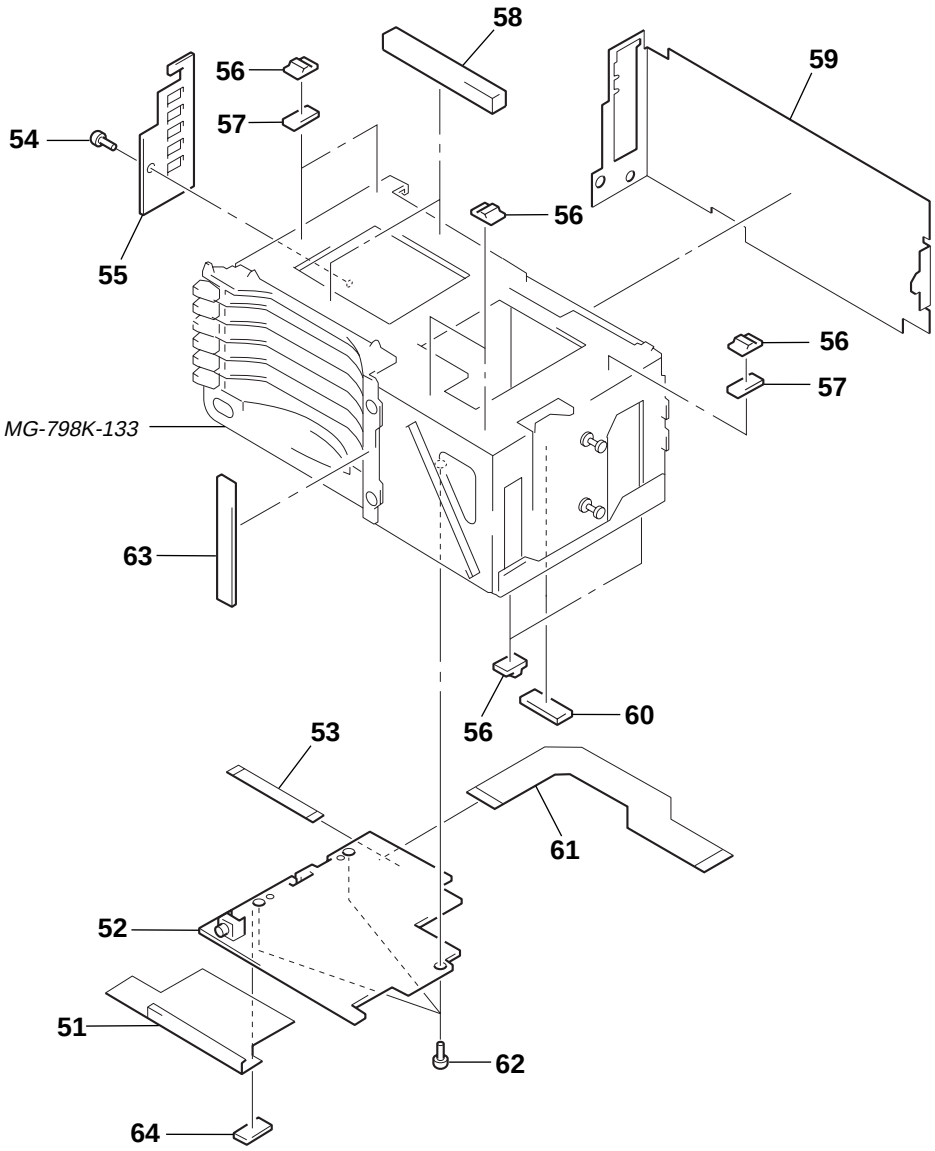
Les composants identifiés par une marque ⚠sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le numéro spécifié.

5-1. CASE SECTION



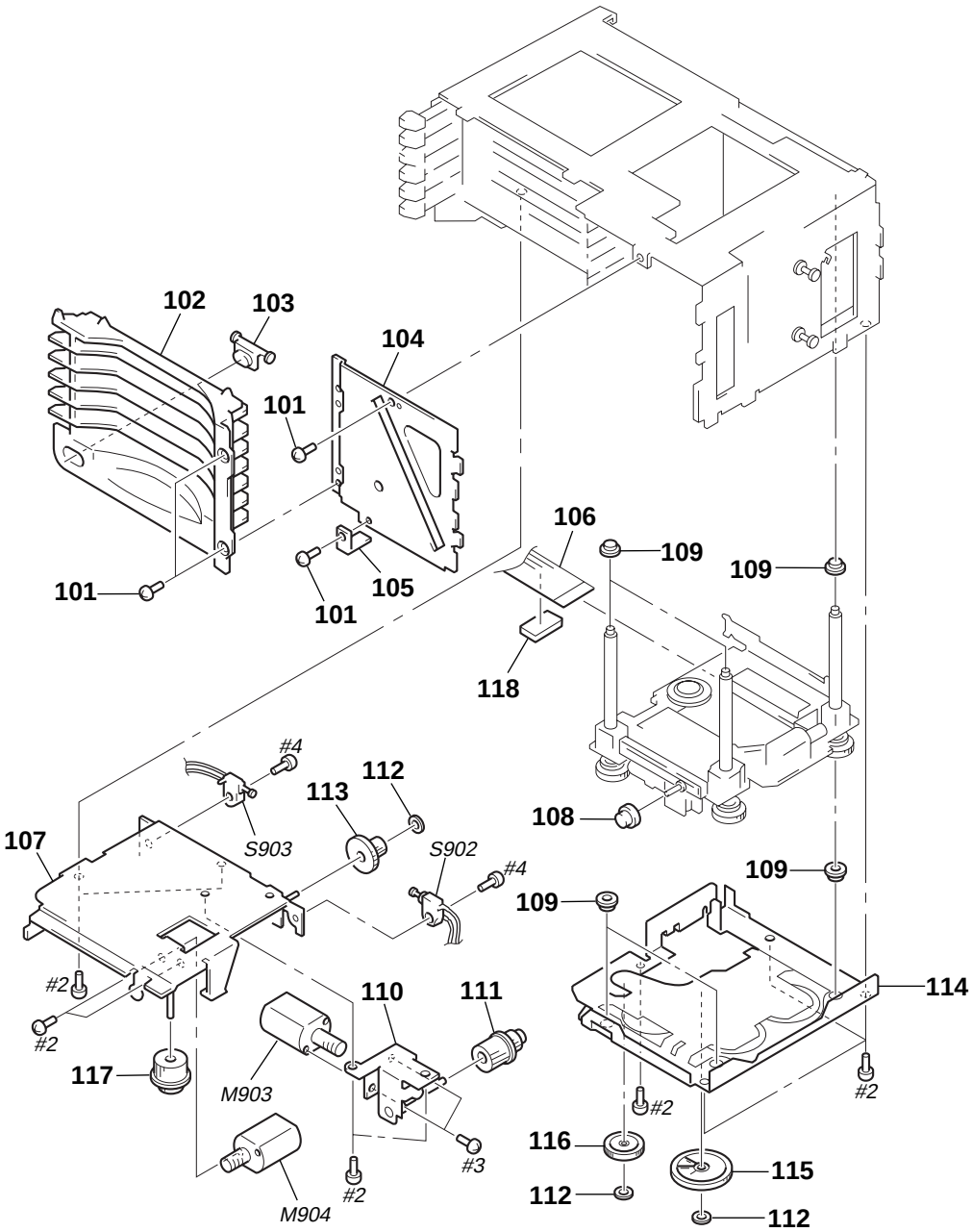
Ref. No.	Part No.	Description	Remark
1	X-3376-846-1	DOOR (P) ASSY	
2	3-930-744-01	SPACER (DOOR)	
3	3-831-441-11	CUSHION, RATTLE ABSORBER	
4	X-3376-863-1	DOOR (S) ASSY	
5	X-3376-845-1	PANEL (FRONT) ASSY	
* 6	1-672-198-11	LAMP BOARD	
7	3-909-607-01	SCREW	
8	3-348-750-01	CUSHION (DAMPER)	
* 9	3-031-481-11	CASE (UPPER)	
10	3-912-956-11	SCREW (2.6X6) (CU), +BVTT	
* 11	3-031-489-01	PLATE, GROUND	
12	X-3376-847-1	PANEL (REAR) ASSY	
13	3-931-697-01	CUSHION (STOPPER)	
* 14	A-3294-566-A	POWER BOARD, COMPLETE (US, Canadian, E)	
* 14	A-3294-668-A	POWER BOARD, COMPLETE (AEP, UK)	
15	3-930-176-01	DAMPER (798)	
16	3-930-177-01	SPRING (FL), TENSION	
* 17	3-031-482-11	CASE (LOWER)	
18	3-025-283-01	SHEET (DOOR S1)	
19	3-025-284-01	SHEET (DOOR S2)	
* 20	3-031-503-01	BRACKET	
* 21	3-031-483-11	COVER	

5-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
* 51	3-931-149-02	SHEET (MAIN PC BOARD)	
* 52	A-3294-565-A	MAIN BOARD, COMPLETE (US, Canadian, E)	
* 52	A-3294-667-A	MAIN BO ARD , COMPLETE (AEP ,UK)	
53	1-776-474-11	CABLE, FLA T7P	
54	3-909-412-01	SCREW (+P) (1.7X2) (TYPE 3)	
55	A-3317-382-A	SENSOR BOARD, COMPLETE	
56	3-348-750-01	CUSHION (DAMPER)	
* 57	3-715-973-01	CUSHION	
58	3-931-699-01	CUSHION (ROLL H)	
* 59	3-931-025-11	SHEET (MECHANISM DECK)	
60	3-931-698-01	CUSHION (ROLL L)	
61	1-668-438-11	MAIN FLEXIBLE BOARD	
62	3-880-990-00	SCREW (1.7X3), FLA T, (+) SPECIAL	
* 63	4-952-141-01	CUSHION (SPEAKER)	
* 64	3-021-073-01	CUSHION (MAIN)	

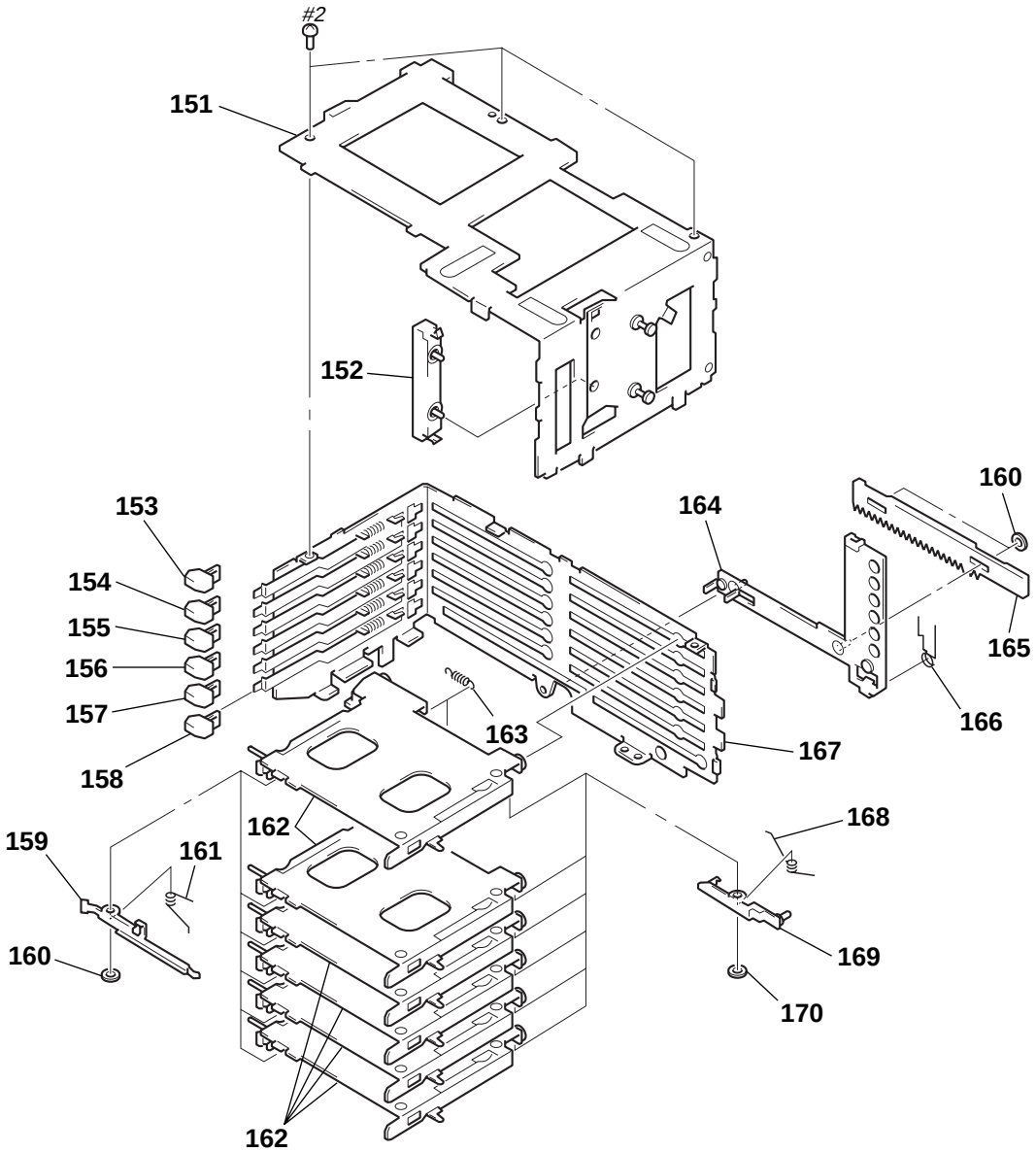
5-3. MD SECTION (1)
(MG-798K-133)



Ref. No.	Part No.	Description	Remark
101	3-317-552-71	SCREW (M1.7)	
102	3-930-314-01	ESCUTCHEON	
103	3-930-319-01	BUTTON (STOP)	
* 104	3-930-320-01	CHASSIS (FRONT)	
105	3-931-366-01	STOPPER, LEAD	
106	1-668-264-11	SERVO FLEXIBLE BOARD	
* 107	X-3374-669-1	CHASSIS (MOTOR) ASSY	
108	3-930-310-01	COLLAR (EHS)	
109	3-930-312-02	BEARING (EL V)	
110	X-3374-673-1	BRACKET (LD2) ASSY	
111	3-930-365-01	WHEEL (LD), WORM	

Ref. No.	Part No.	Description	Remark
112	3-377-719-11	WASHER, POLYETHYLENE	
113	3-930-317-01	GEAR (LD)	
* 114	X-3374-670-1	CHASSIS (BOTTOM) ASSY	
115	3-930-313-01	GEAR (EL VC)	
116	3-020-386-01	GEAR (EL VA2)	
117	3-020-363-01	WHEEL (EL V2), WORM	
* 118	3-741-875-01	SHEET, RUBBER	
M903	X-3371-508-2	MOTOR ASSY, LD (LOADING)	
M904	X-3374-812-1	MOTOR ASSY, ELV (ELEVATOR)	
S902	1-570-771-11	SWITCH (LOADING END SENSOR DET)	
S903	1-570-771-21	SWITCH (STORE END SENSOR DET)	

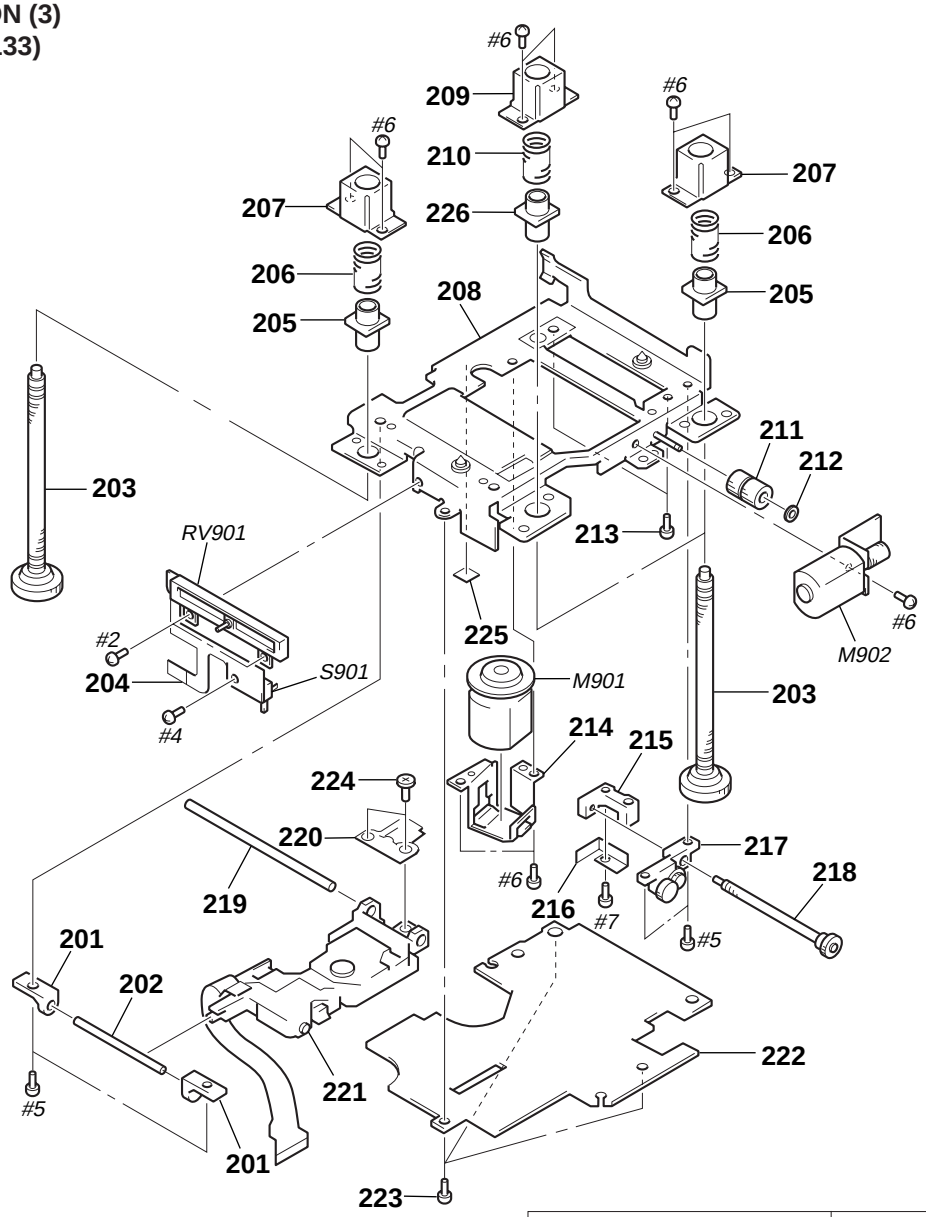
5-4. MD SECTION (2)
(MG-798K-133)



Ref. No.	Part No.	Description	Remark
* 151	X-3371-209-3	CHASSIS(TOP)ASSY	
* 152	3-020-388-01	GUIDE(HOLDER2)	
153	3-930-318-01	BUTTON(EJECT)(≜1)	
154	3-930-318-11	BUTTON(EJECT)(≜2)	
155	3-930-318-21	BUTTON(EJECT)(≜3)	
156	3-930-318-31	BUTTON(EJECT)(≜4)	
157	3-930-318-41	BUTTON(EJECT)(≜5)	
158	3-930-318-51	BUTTON(EJECT)(≜6)	
159	3-930-354-01	LEVER,DISCEJECT	
160	3-377-719-11	WASHER, POL YETHYLENE	

Ref. No.	Part No.	Description	Remark
161	3-930-350-01	SPRING(EJ),TORSION	
162	X-3371-216-1	HOLDER(CADDIE)ASSY	
163	3-930-352-01	SPRING(DLOCK),TENSION	
164	X-3375-509-1	SLIDER(3)ASSY ,LO ADING	
165	3-930-366-01	RACK(LOADING)	
166	3-930-360-01	SPRING(LIMITER),TORSION	
167	X-3374-671-1	CHASSIS(REAR2)ASSY	
168	3-930-349-01	SPRING(LOCK),TORSION	
169	X-3371-219-5	PLA TE(HOLDER)ASSY ,LOCK	
170	3-021-511-01	WASHER	

5-5. MD SECTION (3)
(MG-798K-133)



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
201	3-930-338-01	HOLDER(OPGUIDEB)	
202	3-930-332-01	GUIDE(OPB)	
203	X-3371-212-1	SCREW(EL V)ASSY ,FEED	
204	1-658-880-11	EHSFLEXIBLEBOARD	
205	3-020-351-01	SLEEVE(EL V2)	
206	3-930-334-01	SPRING(EL V), COMPRESSION	
207	3-930-345-01	PLA TE(B), EL V LIMITER	
* 208	X-3371-215-1	CHASSIS(OP)ASSY	
209	3-930-344-01	PLA TE(A), EL V LIMITER	
210	3-930-711-01	SPRING(EL V2), COMPRESSION	
211	3-930-339-01	WHEEL(SL), WORM	
212	3-338-645-31	WASHER(0.8-2.5)	
213	3-930-343-01	SCREW(K1.7X3.5)	
214	3-930-342-01	RET AINER(SP)	
215	3-930-336-01	HOLDER(SLB)	
216	3-930-335-01	DETENT ,SL	

Ref. No.	Part No.	Description	Remark
217	X-3371-213-1	HOLDER(SLA)ASSY	
218	X-3371-214-1	SCREW(SL)ASSY ,FEED	
219	3-930-331-01	GUIDE(OP A)	
220	3-020-346-01	SPRING(SL OUT 2), FEED	
⚠ 221	8-583-037-02	PICK-UP ,OPTICAL KMS-241A/J2N	
* 222	A-3294-337-A	SERVOBOARD,COMPLETE	
223	3-932-755-01	SCREW(M1.7X2.2)	
224	3-703-816-32	SCREW(M1.4X1.6), SPECIAL HEAD	
* 225	3-018-070-01	SHEET(TT)	
226	3-930-333-01	SLEEVE(EL V)	
M901	A-3291-507-A	MO TOR BLOCK ASSY ,SP(SPINDLE)	
M902	A-3291-508-A	MO TOR BLOCK ASSY ,SL(SLED)	
RV901	1-223-817-11	RES, VAR, SLIDE 10K(ELEV ATOR HEIGHT SENSOR)	
S901	1-570-771-21	SWITCH(HOME POSITION DET)	

SECTION 6
ELECTRICAL PARTS LIST

LAMP **MAIN**

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
  G : German 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
*	1-672-198-11	LAMPBOARD			
		**********			
		<CAPACITOR>			
C620	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
		<CONNECTOR>			
* CN620	1-580-056-21	PIN,CONNECTOR(SMD)3P			
		<PILOTLAMP>			
PL620	1-517-630-41	LAMP ,PILOT(ILLUMINATION)			
		<RESISTOR>			
R620	1-216-298-00	METALCHIP	2.2	5%	1/10W
		<SWITCH>			
S620	1-692-532-21	SWITCH,PUSH(1KEY)(FRONTDOOROPEN DET)			
**********					
*	A-3294-565-A	MAINBOARD,COMPLETE(US,Canadian,E)			
*	A-3294-667-A	MAINBOARD ,COMPLETE(AEP ,UK)			
		**********			
	3-034-614-01	PAPER, SHIELD			
		<CAPACITOR>			
C500	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C501	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C502	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C503	1-115-416-11	CERAMICCHIP	1000PF	5%	25V
C504	1-115-416-11	CERAMICCHIP	1000PF	5%	25V
C505	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C507	1-110-450-11	ELECTCHIP	100uF	20%	6.3V
C509	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C510	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C520	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C530	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C540	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C541	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C600	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C601	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C602	1-162-917-11	CERAMICCHIP	15PF	5%	50V
C603	1-162-917-11	CERAMICCHIP	15PF	5%	50V

Ref. No.	Part No.	Description			Remark
C604	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C605	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C606	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C607	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C608	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C609	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C610	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C611	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C650	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C651	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C652	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C653	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C654	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C699	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C700	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C701	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C800	1-107-826-11	CERAMICCHIP	0.1uF	10%	16V
C801	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
		<CONNECTOR>			
CN500	1-573-370-21	CONNECTOR,FFC/FPC30P			
* CN600	1-573-939-11	CONNECTOR,FFC/FPC(ZIF)30P			
CN601	1-573-916-11	CONNECTOR,FFC/FPC(ZIF)7P			
* CN602	1-580-055-21	PIN,CONNECTOR(SMD)2P			
* CN603	1-580-055-21	PIN,CONNECTOR(SMD)2P			
* CN604	1-580-056-21	PIN,CONNECTOR(SMD)3P			
CN700	1-580-055-21	PIN,CONNECTOR(SMD)2P			
* CN701	1-580-055-21	PIN,CONNECTOR(SMD)2P			
		<DIODE>			
D500	8-719-988-61	DIODE 1SS355TE-17			
D501	8-719-988-61	DIODE 1SS355TE-17			
D600	8-719-977-03	DIODE DTZ5.6B			
D601	8-719-977-03	DIODE DTZ5.6B			
D602	8-719-977-03	DIODE DTZ5.6B			
D800	8-719-421-18	DIODE MA8033-L-TX			
D801	8-719-988-61	DIODE 1SS355TE-17			
		<IC>			
IC500	8-759-571-84	IC PCM1718E/2K			
IC600	8-759-537-17	IC uPD784216GC-038-8EU			
IC601	8-759-503-60	IC S-80740AN-D4-S			
IC602	8-759-238-47	IC TC74HCT7007AF(EL)			
IC603	8-759-238-47	IC TC74HCT7007AF(EL)			

MAIN POWER

Ref. No.	Part No.	Description			Remark
IC700	8-759-823-87	IC LB1638M			
IC701	8-759-823-87	IC LB1638M			
		<RESISTOR>			
JC501	1-216-821-11	MET ALCHIP	1K	5%	1/16W
		<COIL>			
L600	1-412-058-11	INDUCTOR CHIP	10uH		
		<TRANSISTOR>			
Q500	8-729-424-12	TRANSISTOR UN2112			
Q600	8-729-904-60	TRANSISTOR DTB113ZK			
Q601	8-729-421-22	TRANSISTOR UN2211			
Q602	8-729-020-67	TRANSISTOR XN1A312-TX			
Q800	8-729-106-60	TRANSISTOR 2SB1115A			
Q801	8-729-230-49	TRANSISTOR 2SC2712-YG			
		<RESISTOR>			
R500	1-216-841-11	MET ALCHIP	47K	5%	1/16W
R501	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R502	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R503	1-216-801-11	MET ALCHIP	22	5%	1/16W
R505	1-216-801-11	MET ALCHIP	22	5%	1/16W
R509	1-216-829-11	MET ALCHIP	4.7K	5%	1/16W
R540	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R541	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R542	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R600	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R601	1-216-833-11	MET ALCHIP	10K	5%	1/16W
R602	1-216-841-11	MET ALCHIP	47K	5%	1/16W
R603	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R604	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R605	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R606	1-216-837-11	MET ALCHIP	22K	5%	1/16W
R608	1-218-708-11	MET ALCHIP	4.7K	0.50%	1/16W
R609	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R610	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R611	1-216-829-11	MET ALCHIP	4.7K	5%	1/16W
R612	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R613	1-216-829-11	MET ALCHIP	4.7K	5%	1/16W
R614	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R615	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R616	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R617	1-216-825-11	MET ALCHIP	2.2K	5%	1/16W
R618	1-216-845-11	MET ALCHIP	100K	5%	1/16W
R621	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R622	1-216-851-11	MET ALCHIP	330K	5%	1/16W
R623	1-216-821-11	MET ALCHIP	1K	5%	1/16W
R624	1-216-851-11	MET ALCHIP	330K	5%	1/16W
R800	1-216-815-11	MET ALCHIP	330	5%	1/16W
R801	1-216-829-11	MET ALCHIP	4.7K	5%	1/16W
R802	1-216-815-11	MET ALCHIP	330	5%	1/16W

Ref. No.	Part No.	Description			Remark
		<NETWORK RESISTOR>			
RB601	1-233-412-11	RES, CHIP NETWORK 1.0K	(3216)		
RB602	1-233-810-21	RES, CHIP NETWORK 100K	(3216)		
RB603	1-233-412-11	RES, CHIP NETWORK 1.0K	(3216)		
RB605	1-233-412-11	RES, CHIP NETWORK 1.0K	(3216)		
RB606	1-233-810-21	RES, CHIP NETWORK 100K	(3216)		
RB607	1-233-412-11	RES, CHIP NETWORK 1.0K	(3216)		
RB608	1-239-446-11	RES, CHIP NETWORK 330K	(3216)		
RB609	1-233-412-11	RES, CHIP NETWORK 1.0K	(3216)		
		<SWITCH>			
S600	1-571-914-21	SWITCH, KEYBOARD (STOP)			
		<THERMISTOR>			
TH600	1-810-421-11	THERMISTOR NTH5G36B103K01TE			
		<VIBRA TOR>			
X600	1-760-607-11	VIBRA TOR, CERAMIC (14MHz)			
X601	1-579-886-21	VIBRA TOR, CR YST AL (32.768kHz)			
**********					
*	A-3294-566-A	POWER BOARD, COMPLETE (US, Canadian, E)			
*	A-3294-668-A	PO WER BO ARD , COMPLETE (AEP ,UK)			
		**********			
*	3-031-503-01	BRACKET			
		<CAP ACIT OR>			
C900	1-126-204-11	ELECT CHIP	47uF	20%	16V
C901	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C902	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C903	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C904	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C905	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C910	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C911	1-162-569-11	CERAMIC CHIP	100PF	2%	50V
C912	1-126-193-11	ELECT	1uF	20%	50V
C913	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C920	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C921	1-162-569-11	CERAMIC CHIP	100PF	2%	50V
C922	1-126-193-11	ELECT	1uF	20%	50V
C923	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C930	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C933	1-126-204-11	ELECT CHIP	47uF	20%	16V
C934	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C936	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C938	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
C940	1-164-346-11	CERAMIC CHIP	1uF		16V
C950	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C951	1-125-710-11	DOUBLE LA YERS	0.1F		5.5V
C952	1-124-779-00	ELECT CHIP	10uF	20%	16V
C970	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C971	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V

Ref. No.	Part No.	Description			Remark
C973	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C974	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C975	1-126-204-11	ELECT CHIP	47uF	20%	16V
C976	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
C977	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
C978	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
C980	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
C981	1-127-485-00	ELECT	33uF	20%	6.3V
C983	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C984	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		<CONNECTOR>			
CN900	1-580-907-12	PLUG, CONNECTOR (BUS CONTROL OUT)			
* CN901	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P			
		<JACK>			
CN902	1-580-441-11	JACK, PIN 2P (AUDIO OUT)			
		<DIODE>			
D900	8-719-421-27	DIODE MA728			
D901	8-719-057-80	DIODE MA8160-M-TX			
D902	8-719-421-27	DIODE MA728			
D903	8-719-057-80	DIODE MA8160-M-TX			
D904	8-719-421-27	DIODE MA728			
D905	8-719-057-80	DIODE MA8160-M-TX			
D930	8-719-422-97	DIODE MA8091-M			
D940	8-719-977-12	DIODE DTZ6.8B			
D941	8-719-988-61	DIODE 1SS355TE-17			
D950	8-719-988-61	DIODE 1SS355TE-17			
D951	8-719-422-62	DIODE MA8062-L-TX			
D952	8-719-041-79	DIODE MA721W A-TX			
D970	8-719-210-43	DIODE EC10QS-06			
		<JUMPER RESISTOR>			
FB903	1-216-295-00	SHOR T 0			
		<IC>			
IC900	8-759-444-86	IC BA8272F-E2			
IC902	8-749-923-53	IC TOTX193 (DIGIT AL OUT)			
IC930	8-759-711-82	IC NJM4580E			
IC970	8-759-983-96	IC TL5001CPS			
		<COIL>			
L970	1-409-640-21	INDUCTOR	10uH		
L971	1-403-584-11	INDUCTOR	33uH		
L972	1-409-640-21	INDUCTOR	10uH		
		<FIL TER>			
NF900	1-239-466-21	FIL TER, EMI			
		<FUSE>			
FC1	1-533-351-11	FUSE, CHIP (2A/125V)			

Ref. No.	Part No.	Description			Remark
		<TRANSISTOR>			
Q910	8-729-920-21	TRANSISTOR DTC314TKH04			
Q920	8-729-920-21	TRANSISTOR DTC314TKH04			
Q930	8-729-424-59	TRANSISTOR UN2212			
Q931	8-729-920-85	TRANSISTOR 2SD1664-QR			
Q932	8-729-424-12	TRANSISTOR UN2112			
Q940	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q941	8-729-901-06	TRANSIST OR DT A144EK			
Q950	8-729-920-85	TRANSISTOR 2SD1664-QR			
Q970	8-729-106-60	TRANSISTOR 2SB1115A			
Q972	8-729-822-84	TRANSIST OR 2SB1202F AST			
		<RESISTOR>			
R900	1-216-089-00	RES, CHIP	47K	5%	1/10W
R901	1-216-071-00	MET AL CHIP	8.2K	5%	1/10W
R910	1-216-079-00	MET AL CHIP	18K	5%	1/10W
R911	1-216-097-00	RES, CHIP	100K	5%	1/10W
R912	1-216-081-00	MET AL CHIP	22K	5%	1/10W
R913	1-216-081-00	MET AL CHIP	22K	5%	1/10W
R914	1-216-033-00	MET AL CHIP	220	5%	1/10W
R915	1-216-097-00	RES, CHIP	100K	5%	1/10W
R920	1-216-079-00	MET AL CHIP	18K	5%	1/10W
R921	1-216-097-00	RES, CHIP	100K	5%	1/10W
R922	1-216-081-00	MET AL CHIP	22K	5%	1/10W
R923	1-216-081-00	MET AL CHIP	22K	5%	1/10W
R924	1-216-033-00	MET AL CHIP	220	5%	1/10W
R925	1-216-097-00	RES, CHIP	100K	5%	1/10W
R930	1-216-049-11	RES, CHIP	1K	5%	1/10W
R931	1-216-057-00	MET AL CHIP	2.2K	5%	1/10W
R932	1-216-057-00	MET AL CHIP	2.2K	5%	1/10W
R933	1-216-009-00	RES, CHIP	22	5%	1/10W
R940	1-216-097-00	RES, CHIP	100K	5%	1/10W
R941	1-216-093-00	RES, CHIP	68K	5%	1/10W
R942	1-216-109-00	MET AL CHIP	330K	5%	1/10W
R943	1-216-089-00	RES, CHIP	47K	5%	1/10W
R950	1-216-049-11	RES, CHIP	1K	5%	1/10W
R951	1-216-085-00	RES, CHIP	33K	5%	1/10W
R970	1-216-214-00	RES, CHIP	4.7K	5%	1/8W
R971	1-216-206-00	RES, CHIP	2.2K	5%	1/8W
R972	1-216-206-00	RES, CHIP	2.2K	5%	1/8W
R973	1-216-061-00	MET AL CHIP	3.3K	5%	1/10W
R974	1-216-081-00	MET AL CHIP	22K	5%	1/10W
R975	1-216-077-00	MET AL CHIP	15K	5%	1/10W
R976	1-216-174-00	RES, CHIP	100	5%	1/8W
R977	1-216-198-00	RES, CHIP	1K	5%	1/8W
R978	1-216-198-00	RES, CHIP	1K	5%	1/8W
R979	1-216-663-11	MET AL CHIP	3.3K	0.5%	1/10W
R980	1-216-649-11	MET AL CHIP	820	0.5%	1/10W
R981	1-216-158-00	RES, CHIP	22	5%	1/8W
		<SWITCH>			
SW1	1-572-552-11	SWITCH, SLIDE (ANALOG/DIGIT AL)			

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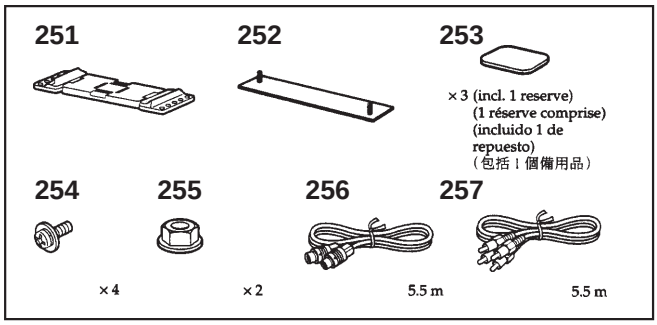
SENSOR SERVO

Ref. No.	Part No.	Description			Remark
	A-3317-382-A	SENSOR BOARD,COMPLETE			
		**********			
		When replacing any parts in the SENSOR board,			
		the whole mounted board should be replaced.			
**********					
*	A-3294-337-A	SERVO BOARD,COMPLETE			
		**********			
		<CAPACITOR>			
C100	1-107-685-11	TANT AL. CHIP	15uF	20%	6.3V
C101	1-135-201-11	TANT ALUM CHIP	10uF	20%	4V
C102	1-135-201-11	TANT ALUM CHIP	10uF	20%	4V
C103	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C104	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C105	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C106	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C107	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C108	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C109	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C110	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C111	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C112	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C113	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C200	1-107-685-11	TANT AL. CHIP	15uF	20%	6.3V
C202	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C203	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C204	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C206	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C207	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C208	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C209	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C210	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C211	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C212	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C213	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C214	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C215	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C216	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C217	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C218	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C219	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C220	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C221	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C300	1-104-852-11	TANT AL. CHIP	22uF	20%	10V
C301	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C302	1-107-682-11	CERAMIC CHIP	1uF	10%	16V
C303	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C304	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C306	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C400	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C401	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
		<CONNECTOR>			
CN100	1-573-929-11	CONNECTOR,FFC/FPC(ZIF)20P			
CN200	1-573-370-21	CONNECTOR,FFC/FPC30P			
* CN300	1-770-619-11	PIN,CONNECTOR 2P			
CN400	1-573-346-21	CONNECTOR,FFC/FPC6P			
		<DIODE>			
D300	8-719-988-61	DIODE 1SS355TE-17			
		<FERRITE BEAD>			
FB200	1-414-594-11	INDUCTOR,FERRITE BEAD			
		<IC>			
IC100	8-752-080-95	IC CXA2523AR			
IC200	8-752-384-47	IC CXD2652AR			
IC201	8-759-498-44	IC MSM51V4400-70TS-K			
IC202	8-759-058-62	IC TC7S08FU(TE85R)			
IC300	8-759-442-80	IC MPC17A38ZV/MEL			
		<COIL>			
L100	1-412-058-11	INDUCTOR CHIP	10uH		
L200	1-412-058-11	INDUCTOR CHIP	10uH		
L300	1-412-034-11	INDUCTOR CHIP	330uH		
		<TRANSISTOR>			
Q100	8-729-216-22	TRANSISTOR 2SA1162-G			
Q200	8-729-230-49	TRANSISTOR 2SC2712-YG			
		<RESISTOR>			
R100	1-216-853-11	MET AL CHIP	470K	5%	1/16W
R101	1-218-706-11	MET AL CHIP	3.9K	0.50%	1/16W
R102	1-216-308-00	MET AL CHIP	4.7	5%	1/10W
R103	1-216-811-11	MET AL CHIP	150	5%	1/16W
R104	1-216-853-11	MET AL CHIP	470K	5%	1/16W
R105	1-218-739-11	RES,CHIP	91K	5%	1/16W
R106	1-216-994-11	RES,CHIP	13K	5%	1/16W
R107	1-216-994-11	RES,CHIP	13K	5%	1/16W
R108	1-216-994-11	RES,CHIP	13K	5%	1/16W
R109	1-216-842-11	MET AL CHIP	56K	5%	1/16W
R110	1-216-833-11	MET AL CHIP	10K	5%	1/16W
R111	1-216-833-11	MET AL CHIP	10K	5%	1/16W
R204	1-216-809-11	MET AL CHIP	100	5%	1/16W
R205	1-216-833-11	MET AL CHIP	10K	5%	1/16W
R206	1-216-845-11	MET AL CHIP	100K	5%	1/16W
R207	1-216-855-11	MET AL CHIP	680K	5%	1/16W
R208	1-216-827-11	MET AL CHIP	3.3K	5%	1/16W
R209	1-216-821-11	MET AL CHIP	1K	5%	1/16W
R210	1-216-821-11	MET AL CHIP	1K	5%	1/16W
R211	1-216-811-11	MET AL CHIP	150	5%	1/16W
R212	1-216-819-11	MET AL CHIP	680	5%	1/16W
R213	1-216-853-11	MET AL CHIP	470K	5%	1/16W
R214	1-216-809-11	MET AL CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R215	1-216-825-11	METALCHIP	2.2K	5%	1/16W
R216	1-216-825-11	METALCHIP	2.2K	5%	1/16W
R217	1-216-825-11	METALCHIP	2.2K	5%	1/16W
		<NETWORKRESISTOR>			
RB200	1-233-576-11	RES,CHIPNETWORK 100			
RB300	1-233-600-11	RES,CHIPNETWORK 2.2			
RB301	1-233-600-11	RES,CHIPNETWORK 2.2			
		<SWITCH>			
S400	1-692-532-21	SWITCH,PUSH(1KEY)(LIMIT)			
		<VIBRATOR>			
X200	1-767-429-21	VIBRATOR,CRYSTAL(22.5792MHz)			
**********					
		MISCELLANEOUS			
		**********			
53	1-776-474-11	CABLE, FLAT7P			
61	1-668-438-11	MAINFLEXIBLEBOARD			
106	1-668-264-11	SERVOFLEXIBLEBOARD			
204	1-658-880-11	EHSFLEXIBLEBOARD			
⚠221	8-583-037-02	PICK-UP,OPTICALKMS-241A/J2N			
M901	A-3291-507-A	MOTORBLOCKASSY,SP(SPINDLE)			
M902	A-3291-508-A	MOTORBLOCKASSY,SL(SLED)			
M903	X-3371-508-2	MOTORASSY,LD(LOADING)			
M904	X-3374-812-1	MOTORASSY,ELV(ELEVATOR)			
RV901	1-223-817-11	RES,VAR,SLIDE 10K(ELEVATORHEIGHT SENSOR)			
S901	1-570-771-21	SWITCH(HOMEPOSITIONDET)			
S902	1-570-771-11	SWITCH(LOADINGENDSENSORDET)			
S903	1-570-771-21	SWITCH(STOREENDSENSORDET)			
**********					
		ACCESSORIES&PACKINGMATERIALS			
		**********			
	3-865-667-11	MANUAL,INSTRUCTION,INSTALL(ENGLISH, FRENCH,SPANISH,CHINESE)(US,Canadian,E)			
	3-865-928-11	MANUAL,INSTRUCTION(ENGLISH,SPANISH, SWEDISH,PORTUGUESE)(AEP,UK)			
	3-865-928-21	MANUAL,INSTRUCTION(FRENCH,GERMAN, DUTCH,ITALIAN)(AEP,UK)			
	3-865-928-31	MANUAL,INSTRUCTION(GERMAN,RUSSIAN)(G)			
**********					

Ref. No.	Part No.	Description	Remark
		**********	
		HARDWARELIST	
		**********	
#1	7-685-793-09	SCREW+PTT2.6X8(S)	
#2	7-627-554-07	SCREW,PRECISION+P2X2.2	
#3	7-627-852-37	SCREW,PRECISION+P1.7X1.8	TYPE3
#4	7-627-855-07	SCREW,PRECISION+P2X5.5	TYPE3
#5	7-627-852-27	+P1.7X3	
#6	7-627-552-18	SCREW,PRECISION+P1.7X1.6	
#7	7-627-852-58	SCREW,PRECISION+P1.7X5	TYPE3
**********			
		PARTSFORINSTALLATIONANDCONNECTIONS	
		**********	
251	3-930-163-21	BASE(FITTING)	
252	X-3371-178-1	BRACKETASSY	
253	3-930-166-01	CUSHION(FITTING)	
254	7-682-961-01	SCREW+PSW4X8	
255	4-304-511-00	NUT(M5),FLANGE	
256	1-590-519-21	CORD(WITHCONNECTOR)(BUSCABLE)(5.5m)	
257	1-777-284-11	CORD,CONNECTION(RCAPINCORD)(5.5m)	



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.

Sony Corporation
Personal & Mobile Communication Company

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