

MDX-66XLP

SERVICE MANUAL

Ver 1.0 2002. 02

US Model
Canadian Model
AEP Model
UK Model



Model Name Using Similar Mechanism	NEW
Mini Disc Mechanism Type	MG-798LP-133
Optical Pick-up Name	KMS-241C/J1N

SPECIFICATIONS

System	Mini disc digital audio system
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 × 3 3/8 × 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.
- Design and specifications are subject to change without notice.

FEATURES

- MDLP (MiniDisc Long Play) playback.
- Sony BUS system compatible with mobile MD changers.
- Direct-in system for inserting and removing MDs easily.
- 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

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Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

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.

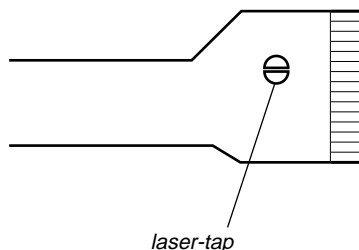
NOTES ON PICK-UP FLEXIBLE BOARD

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-241C/J1N)

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

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ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle 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.

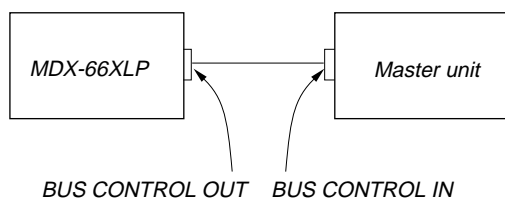
SECTION 1 SERVICE NOTE

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.)

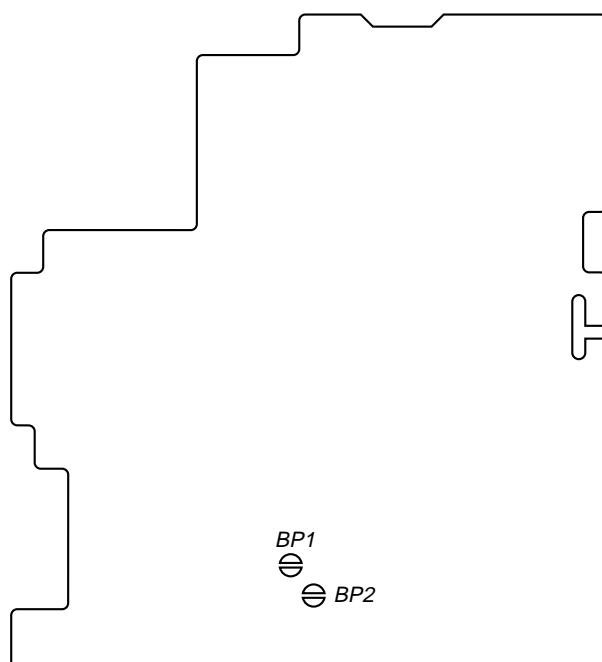
To service the this set, the set should be connected as given below:



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 9 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.

This section is extracted from instruction manual.

PREPARATIONS (US, Canadian Model)

Preparations

Préparation

1 Slide the door open until it clicks.
The built-in light inside the compartment will be lit. (If the ignition key is in the OFF position, the light automatically goes out after one minute.)
Ouvrez le panneau frontal en le faisant coulisser jusqu'à ce qu'il s'encliquette.
L'éclairage intégré s'allume à l'intérieur du compartiment. (Si la clé de contact est en position OFF, l'éclairage s'éteint automatiquement au bout d'une minute.)

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.

2 Insert an MD until it clicks.
Introduisez un MD jusqu'à ce qu'il s'encliquette.

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.

Insert an MD with the arrow and label facing up.
Introduisez un MD avec la flèche et l'étiquette orientées vers le haut.

3 Slide the door closed until it clicks.
Refermez le panneau frontal en le faisant coulisser jusqu'à ce qu'il s'encliquette.

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.

To remove an MD / Pour retirer un MD

Press the EJECT button.
Appuyez sur la touche EJECT.

You can remove MDs anytime except while one is playing.
Vous pouvez retirer des MD à tout moment sauf en cours de lecture.

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.

To remove the MD in the play position / Pour retirer le MD en position de lecture

Press the stop button.
Appuyez sur la touche STOP.

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.

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.

Note
The unit does not have the custom file function.

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.

Remarque
L'appareil ne possède pas la fonction de fichier d'utilisateur.

CONNECTIONS (US, Canadian Model)

Connections Connexions

For details, refer to the Installation/Connections manual of each product.

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

Connection diagram

Schéma de connexions

MDX-66XLP

Sony BUS compatible car audio
Autoradio compatible BUS Sony

BUS AUDIO IN

BUS CONTROL IN

• Connect the Bus cable to its terminal with unit's ▼ mark and Bus cable's ▲ mark aligned.
• Raccordez le câble Bus à son terminal en alignant le repère ▼ de l'appareil sur le repère ▲ du câble Bus.

Notes

- Be sure to insert each connector securely, as vibration through driving may cause a poor connection.
- Insert the Bus cable until you hear a click.
- When removing the cable, hold the connector. If you pull out by the cable, the cable may become loose.
- For connecting two or more changers, the source selector XA-30 (optional) is necessary.

Remarques

- Assurez-vous d'insérer correctement chaque connecteur, les vibrations lors de la conduite pouvant entraîner un mauvais contact.
- Insérez le câble Bus jusqu'à ce qu'il s'encliquette.
- Lorsque vous retirez le câble, maintenez le connecteur. Si vous tirez sur le câble, ce dernier peut lâcher.
- Pour connecter deux ou plusieurs changeurs, le sélecteur de source XA-30 (en option) est requis.

How to detach and attach the protection cover

Before connecting the cords, detach the protection cover.

Comment déposer et installer le couvercle de protection

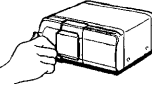
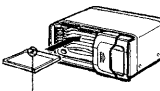
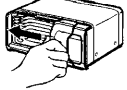
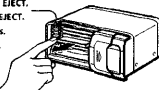
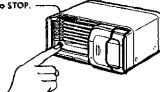
Avant de brancher les câbles, retirez le couvercle de protection.

To detach
Pour enlever

Push in and slide the protection cover off.
Enfoncez et retirez le couvercle de protection en le faisant glisser.

To attach
Pour installer

PREPARATIONS (AEP, UK Model)

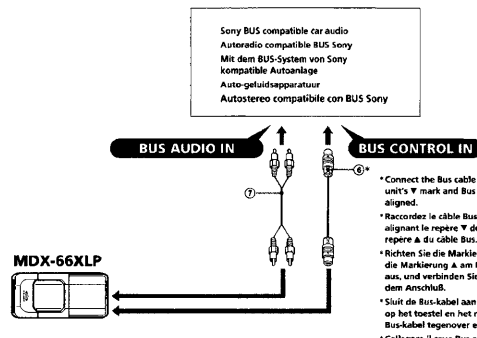
Preparations	Préparatifs	Vorbereitungen	Vorbereiding	Preparazione
<p>1 Slide the door open until it clicks. The built-in light inside the compartment will be lit. (If the ignition key is in the OFF position, the light automatically goes out after one minute.) Ouvrez le panneau frontal en le faisant coulisser jusqu'à ce qu'il s'encliquette. L'éclairage intégré s'allume à l'intérieur du compartiment. (Si la clé de contact est en position OFF, l'éclairage s'éteint automatiquement au bout d'une minute.) Öffnen Sie die Klappe, indem Sie sie zur Setze schieben, bis sie einrastet. Die im Fach eingebaute Leuchte schaltet sich ein. Wenn sich der Zündschlüssel in der Position AUS befindet, erlischt die Leuchte nach einer Minute automatisch. Schuif het lijkje open tot u een klik hoort. De ingebouwde verlichting brandt. (Met de contactsleutel in de stand OFF dooft de verlichting automatisch na een minuut.) Aprire lo sportello facendolo scorrere fino a udire uno scatto. La luce incorporata all'interno dello scomparto si accende. Se la chiave di accensione è regolata nella posizione OFF, la luce si spegne automaticamente dopo un minuto.</p> 	<p>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 dans le changeur afin d'éviter tout risque de blessures. 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. Greifen Sie nicht in den Wechsler. Andernfalls besteht Verletzungsgefahr. Warnhinweis zum Öffnen und Schließen der Klappe Wenn Sie zu stark auf das durchsichtige Fenster drücken, kann es zerbrechen und Verletzungen verursachen. Kom niet aan de binnenkant van de wisselaar, want to kan u zich verwonden. Let op bij het openen en sluiten van het lijkje Wanneer u te hard op het transparante raam drukt, kan dit breken en verwondingen veroorzaken. Non introdurre le dita all'interno del cambio MD onde evitare di ferirsi. Avvertenze per l'apertura e chiusura dello sportello Se si preme troppo forte sulla finestra trasparente, questa potrebbe rompersi o causare danni.</p>	<p>2 Insert an MD until it clicks. Introducez un MD jusqu'à ce qu'il s'encliquette. Legen Sie eine MD ein. Achten Sie darauf, daß sie einrastet. Bring een MD in tot u een klik hoort. Insère un minidisco fino a udire uno scatto.</p>  <p>Insert an MD with the arrow and label facing up. Introduisez un MD avec la flèche et l'étiquette orientées vers le haut. Legen Sie eine MD mit dem Pfeil und der Beschriftung nach oben ein. Bring een MD in met het pijltje en het label naar boven gericht. Insère un minidisco con la freccia e l'etichetta rivolte verso l'alto.</p>	<p>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. Hinweise • Legen Sie eine MD nicht mit der Beschriftung nach unten ein. • Achten Sie darauf, daß der Verschluss der MD geschlossen ist, bevor Sie sie in das Magazin einlegen. Opmerkingen • Bring de MD niet in met het label naar onderen gericht. • Controleer of de sluiters van de MD gesloten is voordat u de MD in de lader brengt. Note • Non inserire minidisco con l'etichetta rivolta verso il basso. • Accertarsi che l'otturatore del minidisco sia chiuso prima di collocarlo nel contenitore.</p>	
<p>3 Slide the door closed until it clicks. Refer to the panneau frontal en le faisant coulisser jusqu'à ce qu'il s'encliquette. Schließen Sie die Klappe, indem Sie sie wieder zurückschieben, bis sie einrastet. Schuif het lijkje dicht tot u een klik hoort. Chiudere lo sportello facendolo scorrere fino a udire uno scatto.</p> 	<p>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 the information on the MDs. After the information on all the MDs has been read, the unit is ready to play. 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 MDs. Lorsque les informations de tous les MD ont été lues, l'appareil est prêt pour la lecture.</p>	<p>Verwenden Sie das Gerät immer nur mit geschlossener Klappe. Andernfalls können Fremdkörper in das Gerät gelangen und die Linsen im Inneren des Wechslers verschmutzen. Hinweis Wenn eine MD eingelegt und die Klappe geschlossen oder die Rücksetztaste an der angeschlossenen Autoanlage gedrückt wird, wird das Gerät automatisch eingeschaltet, und die Informationen auf den MDs werden eingelesen. Wenn die Informationen aller MDs eingelesen wurden, ist das Gerät bereit für die Wiedergabe. Gebruik het toestel altijd met het lijkje dicht. Anders kunnen vreemde lichamen in het toestel terecht komen en kunnen de lenzen in de wisselaar vervuild geraken. Opmerking Wanneer een MD wordt ingebracht of wanneer de terugzetknop van het aangesloten audiosysteem wordt ingedrukt, schakelt het toestel automatisch in en wordt de informatie op de MD's gelezen. Nadat de informatie op alle MD's is gelezen, is het toestel klaar om te beginnen afspelen.</p>	<p>Utilizzare sempre l'apparecchio con lo sportello chiuso. Corpi estranei potrebbero penetrare nell'apparecchio e sporcare le lenti interne del cambio MD. Note Quando viene inserito un minidisco e lo sportello è chiuso o viene premuto il pulsante di azzeramento dell'autoradio collegata, l'apparecchio si attiva automaticamente e legge i dati dai minidisco. Al termine della lettura di tutti i dati dei minidisco, l'apparecchio è pronto per la riproduzione.</p>	
<p>To remove an MD / Pour retirer un MD / Entnehmen einer MD / Een MD uithalen / Estrazione di un minidisco Press the EJECT button. Appuyez sur la touche EJECT. Drücken Sie die Taste EJECT. Druk op de EJECT-toets. Premere il tasto EJECT.</p>  <p>You can remove MDs anytime except while one is playing. Vous pouvez retirer des MD à tout moment sauf en cours de lecture. Sie können MDs außer während der Wiedergabe einer MD jederzeit entnehmen. U kan op elk ogenblik MD's uithalen, behalve wanneer er een MD aan het afspelen is. I minidisco possono essere estratti in qualsiasi momento tranne durante la riproduzione.</p>	<p>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. Hinweise • Wenn Sie zwei oder mehr MDs entnehmen, nehmen Sie zunächst die in den oberen Kassettenfach heraus. • Drücken Sie die Taste EJECT nicht für die MD, die sich an der Wiedergabe befindet. Opmerkingen • Wanneer u twee of meer MD's wil uithalen, neem ze dan achterstevoegends van boven naar onder uit. • Druk niet op de EJECT-toets in de afspelstand. Note • Quando si estraggono due o più minidisco, procedere all'estrazione a partire dal contenitore più in alto. • Non premere il tasto EJECT quando l'MD è in posizione di riproduzione.</p>	<p>To remove the MD in the play position / Pour retirer le MD en position de lecture / Entnehmen einer MD an der Wiedergabeposition / De MD verwijderen in de weergavestand / Estrazione di un minidisco pronto per la riproduzione Press the stop button. Appuyez sur la touche STOP. Drücken Sie die Taste STOP. Druk op de STOP-toets. Premere il tasto STOP.</p>  <p>The MD goes to the loading position. Press the EJECT button, and remove the MD. You can also remove an MD in this way while it is playing. Le MD passe en position de chargement. Appuyez sur la touche EJECT et retirez le MD. Vous pouvez également retirer un MD de cette façon lorsqu'il est en cours de lecture. De MD gaat naar de ladepositie. Druk op de EJECT-toets en verwijder de MD. Zo kan u een MD verwijderen terwijl hij aan het afspelen is. Il minidisco passa alla posizione di caricamento. Premere il tasto EJECT ed estrarre il minidisco. Seguire questa procedura per estrarre un minidisco pronto per la riproduzione o in fase di riproduzione.</p>		

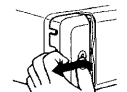
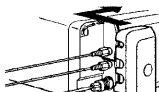
Listening to MDs	Ecoute d'un MD	Wiedergeben von MDs	MD's beluisteren	Ascolto di minidisci
<p>Operate the master unit. See the operating instructions of the master unit for details. When you select another disc to play, the volume of the MD that's playing goes down, and the disc change. Note The unit does not have the custom file function.</p>	<p>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. Note L'appareil ne possède pas la fonction de fichier d'utilisateur.</p>	<p>Starten Sie die Wiedergabe am Hauptgerät. Entschleutern dazu finden Sie in der Bedienungsanleitung zum Hauptgerät. Wenn Sie eine andere MD für die Wiedergabe auswählen, wird die Lautstärke bei der Wiedergabe der aktuellen MD heruntergedrückt, und die MD wird gewechselt. Hinweis Das Gerät verfügt nicht über die Custom File-Funktion.</p>	<p>Schakel het hoofdtoestel in. Voor meer informatie verwijzen wij u naar de handleiding van het hoofdtoestel. Wanneer u een andere disc selecteert, vermindert het volume van de MD die aan het afspelen is en worden de discs verwisseld. Opmerking Het toestel is niet uitgerust met de custom file-functie.</p>	<p>Attivare l'apparecchio centrale. Per maggiori dettagli, leggere le istruzioni d'uso relative all'apparecchio centrale. Quando si seleziona un altro disco da riprodurre, il volume del minidisco in fase di riproduzione si attenua e avviene lo scambio di dischi. Note L'apparecchio non è dotato della funzione di personalizzazione dei file.</p>

CONNECTIONS (AEP, UK Model)

Connections Connexions Anschluß Aansluitingen Collegamenti

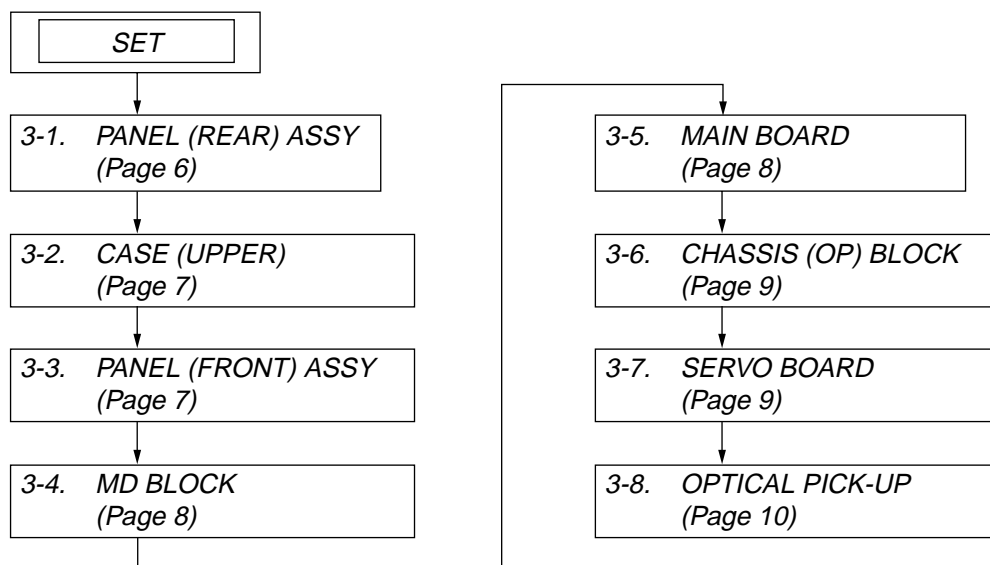
For details, refer to the installation/connections manual of each product. Pour plus de détails, consulter le manuel d'installation/connexions de chaque produit. Einzelheiten entnehmen Sie der Installations/Anschluß-Anleitung des betreffenden Geräts. Zie voor nadere bijzonderheden de gebruiksaanwijzing voor installatie en aansluitingen van de aan te sluiten apparatuur. Per i dettagli, fare riferimento al manuale di installazione/collegamenti di ciascun prodotto.

Connection diagram	Schéma de connexions	Anschlußdiagramm	Aansluitingsschema	Schema di collegamento
 <p>Notes • Be sure to insert each connector securely, as vibration through driving may cause a poor connection. • Insert the Bus cable until you hear a click. • When removing the cable, hold the connector. • If you pull out by the cable, the cable may become loose. • For connecting two or more changers, the source selector XA-30 (optional) is necessary. Remarques • Assurez-vous d'insérer correctement chaque connecteur, les vibrations lors de la conduite pouvant entraîner un mauvais contact. • Insérez le câble Bus jusqu'à ce qu'il s'encliquette. • Lorsque vous retirez le câble, maintenez le connecteur. Si vous tirez sur le câble, ce dernier peut lâcher. • Pour connecter deux ou plusieurs changeurs, le sélecteur de source XA-30 (en option) est requis. Hinweise • Achten Sie auf sicheren Sitz der Steckverbindungen, da sich diese durch die Vibrationen beim Fahren lösen könnten. • Stecken Sie das Bus-Kabel fest. Die es mit einem Klick einrastet. • Ziehen Sie beim Abnehmen des Kabels immer am Stecker. Wenn Sie am Kabel selbst ziehen, kann sich das Kabel vom Stecker lösen. • Zum Anschließen von zwei oder mehr Wechslern wird der geodert erhältliche Signalquellenwähler XA-30 benötigt.</p>	<p>Notes • Connect the Bus cable to its terminal with unit's Y mark and Bus cable's A mark aligned. • Raccordez le câble Bus à son terminal en alignant le repère Y de l'appareil sur le repère A du câble Bus. • Richten Sie die Markierung Y am Gerät und die Markierung A am Buskabel aneinander aus, und verbinden Sie das Bus-Kabel mit dem Anschluß. • Sluit de Bus-kabel aan met het merkteken Y op het toestel en het merkteken A op de Bus-kabel tegenover elkaar. • Collegare il cavo Bus al relativo terminale allineando il simbolo Y dell'apparecchio con il simbolo A del cavo Bus.</p>	<p>Opmerkingen • Sluit elke stekker stevig aan om te voorkomen dat hij tijdens het rijden losvalt. • Breng de Buskabel in tot u een klik hoort. • Hou de streker vast om de kabel los te koppelen. Wanneer u aan de kabel trekt, kan die loskomen. • Om twee of meer wisselaars aan te sluiten, is de bronkiezer XA-30 (als verkrijgbaar) vereist.</p>	<p>Note • Accertarsi di inserire saldamente tutti i connettori in quanto le vibrazioni dell'auto in movimento potrebbero influire negativamente sul collegamento. • Inserire il cavo Bus finché non scatta in posizione. • Per rimuovere il cavo, afferrarlo dal connettore. Diversamente, il cavo potrebbe allentarsi. • Per il collegamento di due o più cambi MD è necessario disporre del selettore di sorgente XA-30 (opzionale).</p>	

How to detach and attach the protection cover	Pose et dépose du couvercle de protection	Abnehmen und Anbringen der Schutzabdeckung	Verwijderen en bevestigen van het beschermdeksel	Rimozione e applicazione del coperchio di protezione
<p>Before connecting the cords, detach the protection cover. To detach Déposez Abnehmen Verwijderen Rimozione</p> 	<p>Avant de brancher les câbles, déposez le couvercle de protection. Enfoncez et dégagez le couvercle de protection. Drücken Sie an dieser Stelle, und ziehen Sie die Schutzabdeckung ab. Het beschermdeksel indrukken en wegschuiven. Premere e far scorrere il coperchio di protezione sino ad estrarlo.</p>	<p>Bevor Sie die Kabel anschließen, nehmen Sie die Schutzabdeckung ab. Drücken Sie an dieser Stelle, und ziehen Sie die Schutzabdeckung ab. Het beschermdeksel indrukken en wegschuiven. Premere e far scorrere il coperchio di protezione sino ad estrarlo.</p>	<p>Vooraf de kabels aansluiten, moet u het beschermdeksel verwijderen. Drücken Sie an dieser Stelle, und ziehen Sie die Schutzabdeckung ab. Het beschermdeksel indrukken en wegschuiven. Premere e far scorrere il coperchio di protezione sino ad estrarlo.</p> 	<p>Prima di collegare i cavi, rimuovere il coperchio di protezione. Enfoncez et dégagez le couvercle de protection. Drücken Sie an dieser Stelle, und ziehen Sie die Schutzabdeckung ab. Het beschermdeksel indrukken en wegschuiven. Premere e far scorrere il coperchio di protezione sino ad estrarlo.</p>

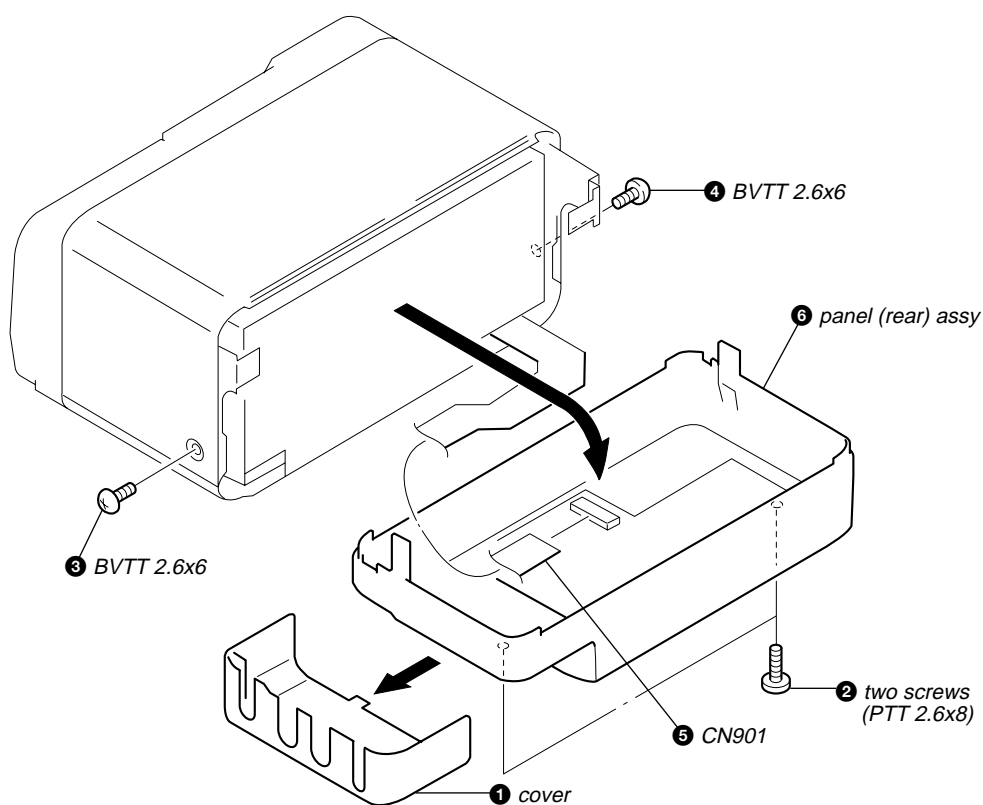
SECTION 3 DISASSEMBLY

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

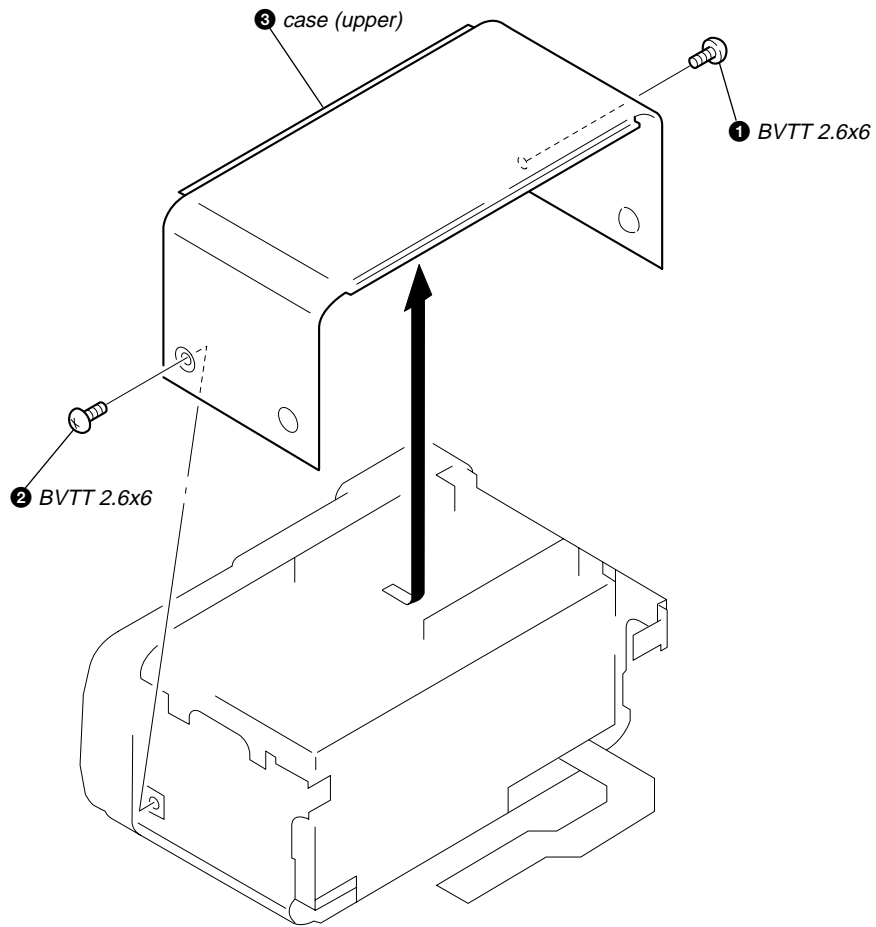


Note : Follow the disassembly procedure in the numerical order given.

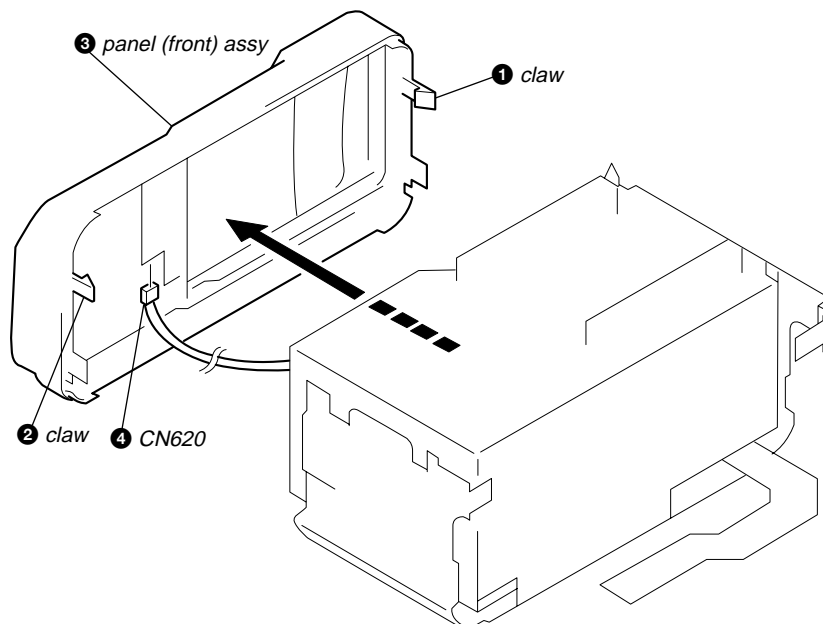
3-1. PANEL (REAR) ASSY



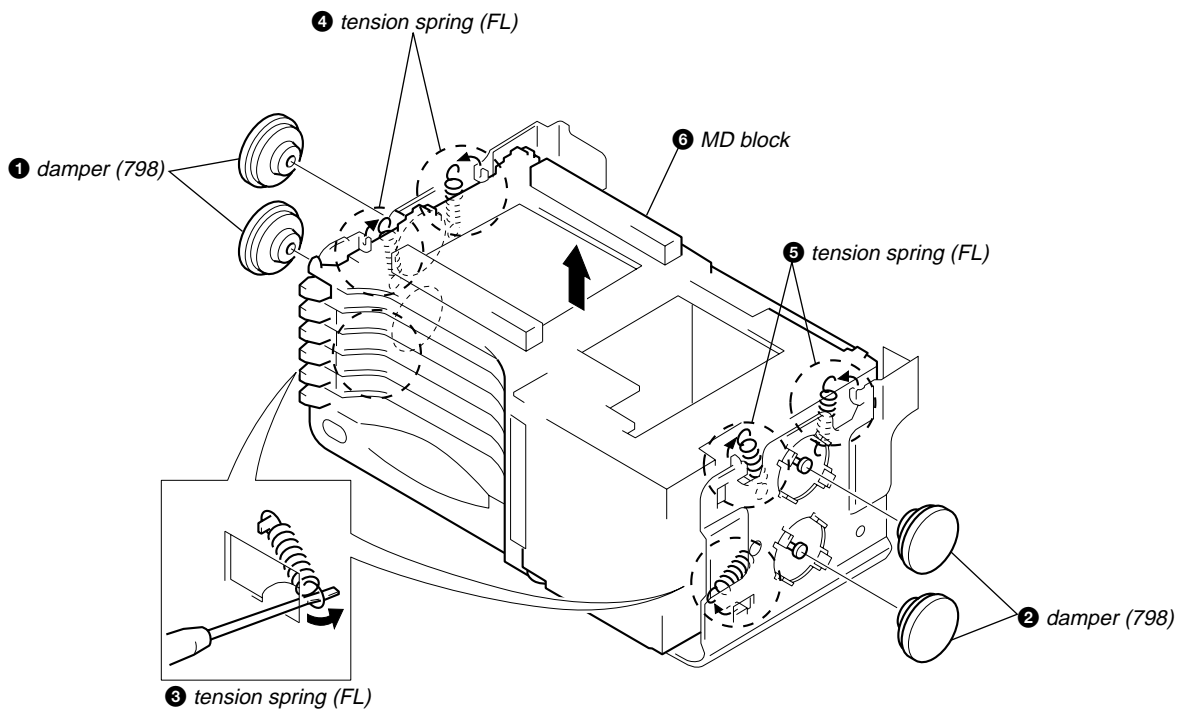
3-2. CASE (UPPER)



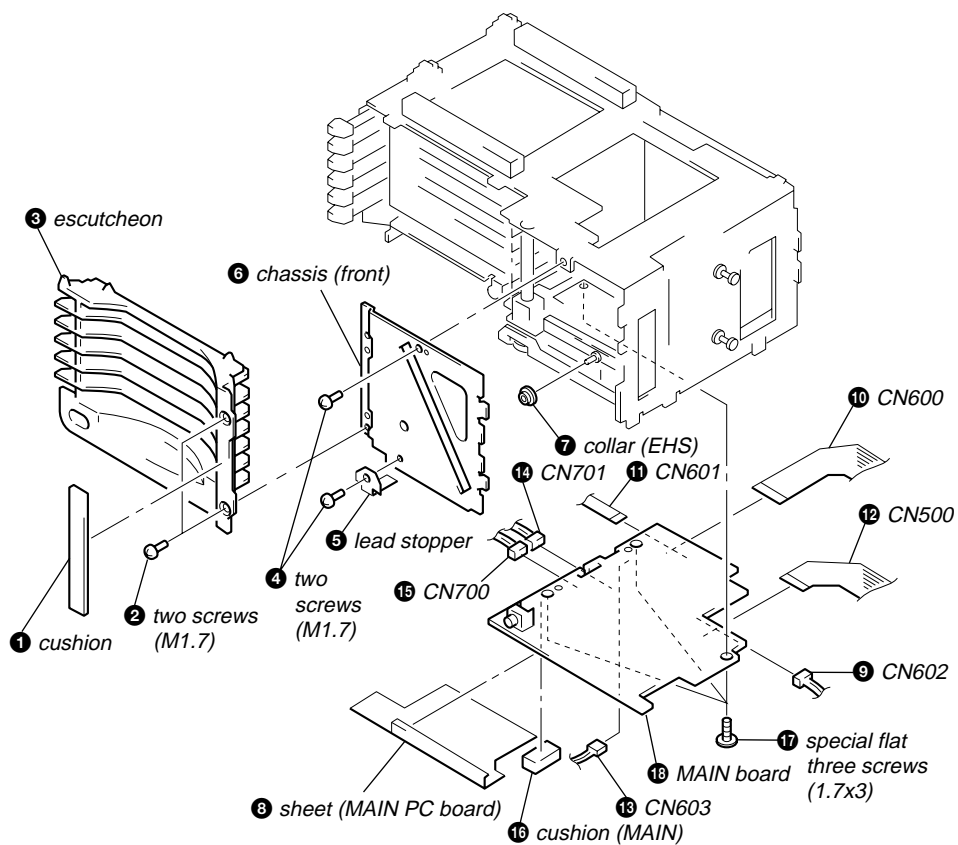
3-3. PANEL (FRONT) ASSY



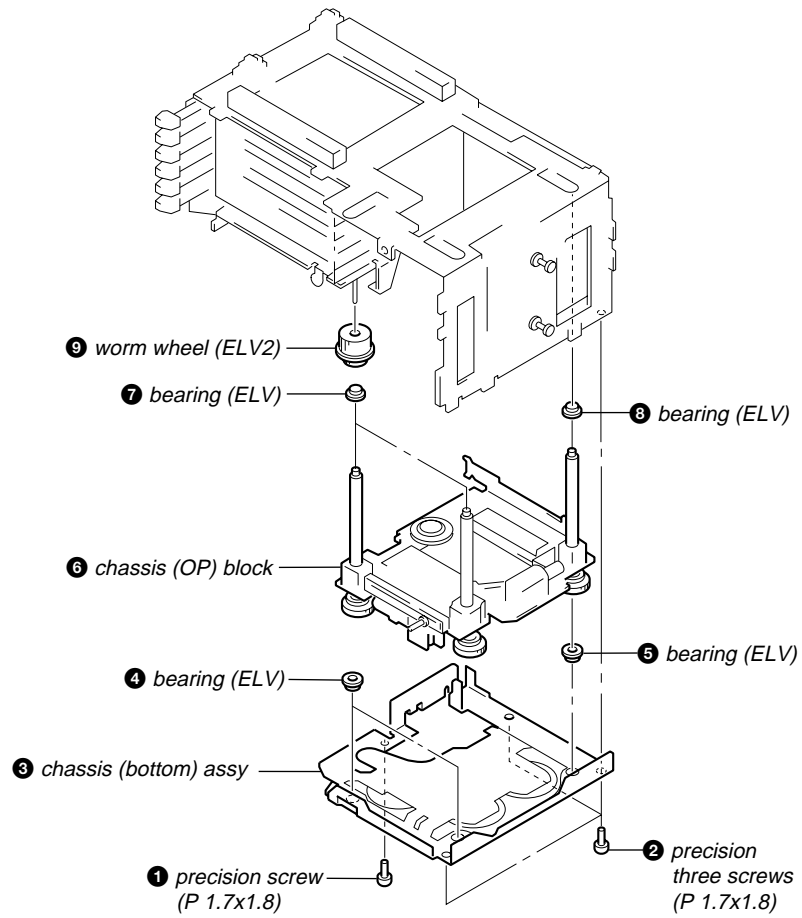
3-4. MD BLOCK



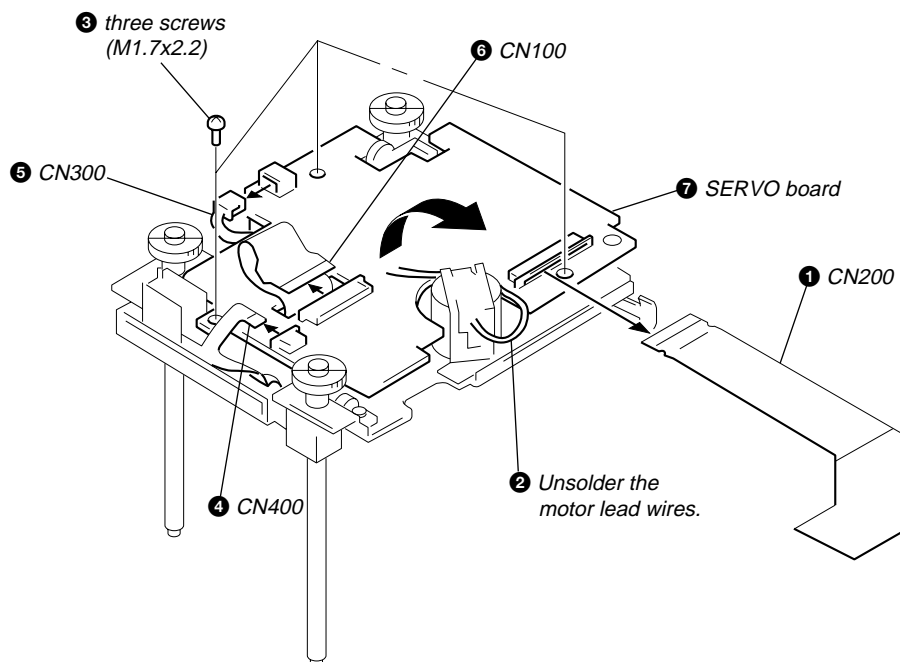
3-5. MAIN BOARD



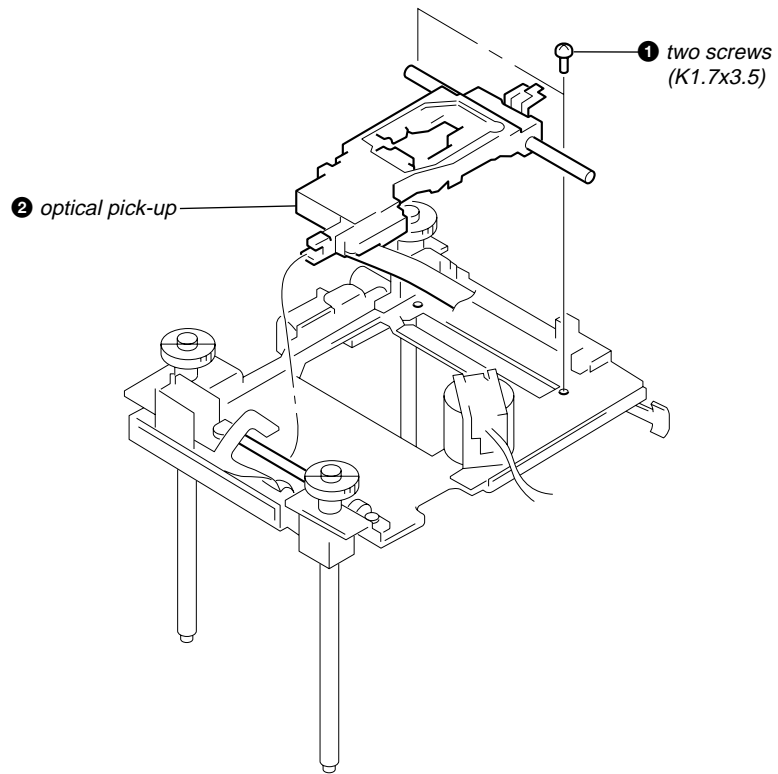
3-6. CHASSIS (OP) BLOCK



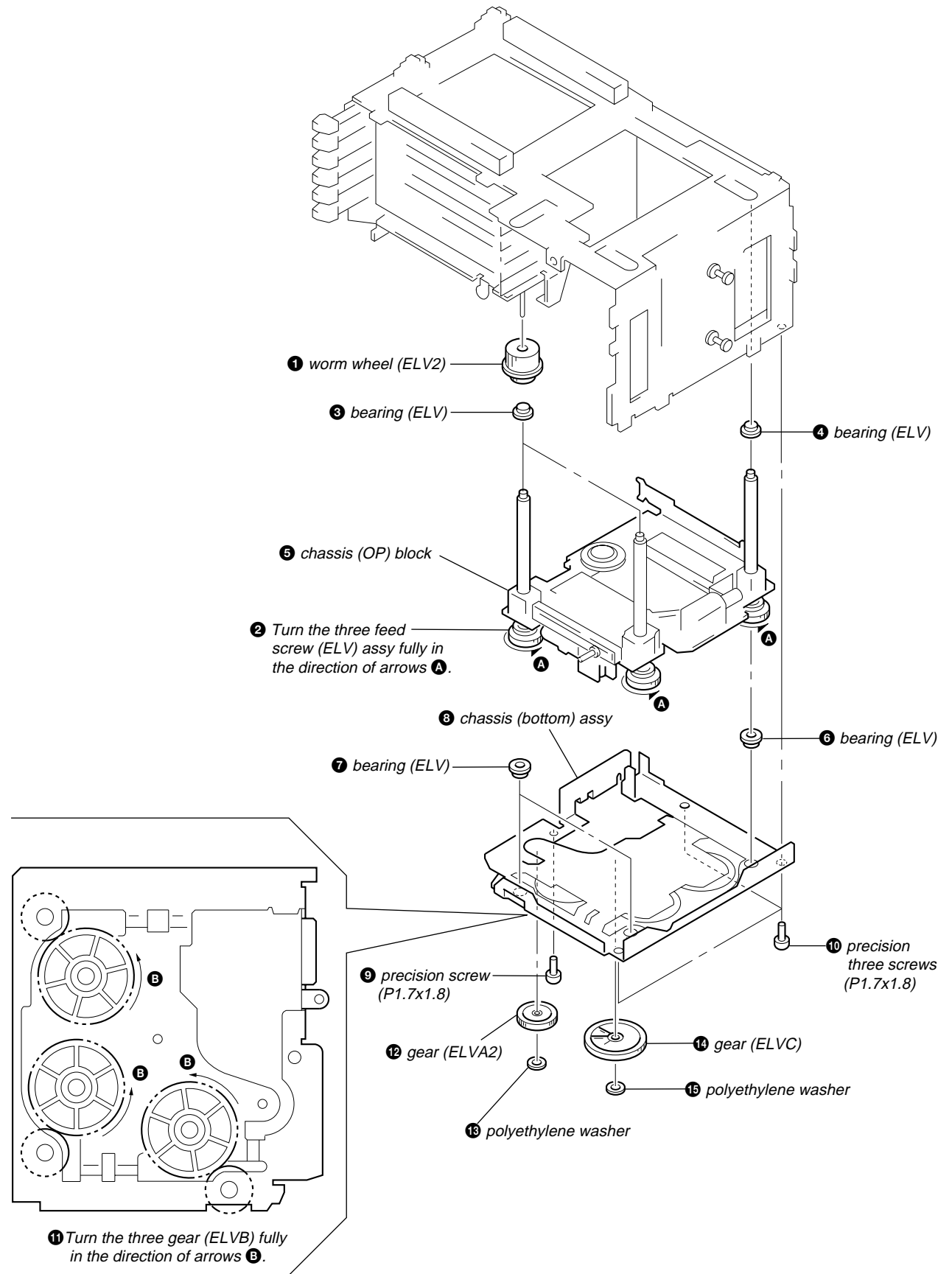
3-7. SERVO BOARD



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	—	Ground pin
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 CXD2662R (IC200)
27	CSLED	I	Connecting pin for low pass filter condenser of sled error signal
28	SE	O	Sled error signal output to CXD2662R (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 CXD2662R (IC200)
33	AUX	O	Support signal (I3 signal/temperature signal) output (Not used in this set.)
34	FE	O	Focus error signal output to CXD2662R (IC200)
35	ABCD	O	Quantity signal output of light to CXD2662R (IC200)
36	BOTM	O	Bottom hold signal output of quantity signal (RF/ABCD) of light to CXD2662R (IC200)
37	PEAK	O	Peak hold signal output of quantity signal (RF/ABCD) of light to CXD2662R (IC200)
38	RF	O	Playback EFM RF signal output to CXD2662R (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

• SERVO BOARD IC200 CXD2662R (DIGITAL SERVO SIGNAL PROCESSOR, DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Pin Description
1	MNT0 (FOK)	O	Focus OK signal output to the MD mechanism controller (IC600) “H” is output when focus is on (“L”: NG)
2	MNT1 (SHOCK)	O	Track jump detection signal output to the MD mechanism controller (IC600)
3	MNT2 (XBUSY)	O	Busy monitor signal output to the MD mechanism controller (IC600)
4	MNT3 (SLOCK)	O	Spindle servo lock status monitor signal output to the MD mechanism controller (IC600)
5	SWDT	I	Writing serial data signal input from the MD mechanism controller (IC600)
6	SCLK	I (S)	Serial data transfer clock signal input from the MD mechanism controller (IC600)
7	XLAT	I (S)	Serial data latch pulse signal input from the MD mechanism controller (IC600)
8	SRDT	O (3)	Reading serial data signal output to the MD mechanism controller (IC600)
9	SENS	O (3)	Internal status (SENSE) output to the MD mechanism controller (IC600)
10	$\overline{\text{XRST}}$	I (S)	Reset signal input from the MD mechanism controller (IC600) “L”: reset
11	SQSY	O	Subcode Q sync (SCOR) output to the MD mechanism controller (IC600) “L” is output every 13.3 msec Almost all, “H” is output
12	DQSY	O	Digital In U-bit CD format subcode Q sync (SCOR) output “L” is output every 13.3 msec Almost all, “H” is output Not used (open).
13	RECP	I	Laser power selection signal input “L”: playback mode, “H”: recording mode Not used (fixed at “L”).
14	XINT	O	Interrupt status output to the MD mechanism controller (IC600)
15	TX	I	Recording data output enable signal input Writing data transmission timing input (Also serves as the magnetic head on/off output) Not used (fixed at “L”).
16	OSCI	I	System clock signal (512 Fs = 22.5792 MHz) input terminal
17	OSCO	O	System clock signal (512 Fs = 22.5792 MHz) output terminal Not used (open)
18	XTSL	I	Input terminal for the system clock frequency setting “L”: 45.1584 MHz, “H”: 22.5792 MHz (fixed at “L” in this set.)
19	DIN0	I	Digital audio signal input terminal when recording mode (for digital optical input) Not used.
20	DIN1	I	Digital audio signal input terminal when recording mode (for digital optical input) Not used.
21	DOUT	O	Digital audio signal output terminal when playback mode (for digital optical output)
22	DATAI	I	Serial data input terminal Not used (fixed at “L”).
23	LRCKI	I	L/R sampling clock signal (44.1 kHz) input terminal Not used (fixed at “L”).
24	XBCKI	I	Bit clock signal (2.8224 MHz) input terminal Not used (fixed at “L”).
25	ADDT	I	Recording data input Not used (fixed at “L”).
26	DADT	O	Playback data output to the A/D, D/A converter (IC500)
27	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the A/D, D/A converter (IC500)
28	XBCK	O	Bit clock signal (2.8224 MHz) output to the A/D, D/A converter (IC500)
29	FS256	O	Clock signal (11.2896 MHz) output to the A/D, D/A converter (IC500)
30	DVDD	—	Power supply terminal (+3.3 V) (digital system)
31 – 34	A03 – A00	O	Address signal output to the D-RAM (IC201)
35	A10	O	Address signal output to the external D-RAM Not used (open).
36 – 40	A04 – A08	O	Address signal output to the D-RAM (IC201)
41	A11	O	Address signal output Not used (open).
42	DVSS	—	Ground terminal (digital system)
43	XOE	O	Output enable signal output to the D-RAM (IC201) “L” active
44	XCAS	O	Column address strobe signal output to the D-RAM (IC201) “L” active
45	A09	O	Address signal output to the D-RAM (IC201)

MDX-66XLP

Pin No.	Pin Name	I/O	Pin Description
46	XRAS	O	Row address strobe signal output to the D-RAM (IC201) "L" active
47	XWE	O	Write enable signal output to the D-RAM (IC201) "L" active
48	D1	I/O	Two-way data bus with the D-RAM (IC201)
49	D0	I/O	
50	D2	I/O	
51	D3	I/O	
52	MDDT1	I (S)	Digital in PLL oscillation input from the external VCO Not used (fixed at "L").
53	ASYO	O	Playback EFM full-swing output terminal
54	ASYI	I (A)	Playback EFM asymmetry comparator voltage input terminal
55	AVDD	—	Power supply terminal (+3.3 V) (analog system)
56	BIAS	I (A)	Playback EFM asymmetry circuit constant current input terminal
57	RFI	I (A)	Playback EFM RF signal input from the CXA2523AR (IC100)
58	AVSS	—	Ground terminal (analog system)
59	PCO	O (3)	Phase comparison output for master clock of the recording/playback EFM master PLL
60	FILI	I (A)	Filter input for master clock of the recording/playback master PLL
61	FILO	O (A)	Filter output for master clock of the recording/playback master PLL
62	CLTV	I (A)	Internal VCO control voltage input of the recording/playback master PLL
63	PEAK	I (A)	Light amount signal (RF/ABCD) peak hold input from the CXA2523AR (IC100)
64	BOTM	I (A)	Light amount signal (RF/ABCD) bottom hold input from the CXA2523AR (IC100)
65	ABCD	I (A)	Light amount signal (ABCD) input form the CXA2523AR (IC100)
66	FE	I (A)	Focus error signal input from the CXA2523AR (IC100)
67	AUX1	I (A)	Auxiliary signal (I3 signal/temperature signal) input from the CXA2523AR (IC100)
68	VC	I (A)	Middle point voltage (+1.65 V) input from the CXA2523AR (IC100)
69	ADIO	O (A)	Monitor output of the A/D converter input signal Not used (open).
70	AVDD	—	Power supply terminal (+3.3 V) (analog system)
71	ADRT	I (A)	A/D converter operational range upper limit voltage input terminal (fixed at "H" in this set)
72	ADRB	I (A)	A/D converter operational range lower limit voltage input terminal (fixed at "L" in this set)
73	AVSS	—	Ground terminal (analog system)
74	SE	I (A)	Sled error signal input from the CXA2523AR (IC100)
75	TE	I (A)	Tracking error signal input from the CXA2523AR (IC100)
76	DCHG	I (A)	Connected to the +3.3 V power supply
77	APC	I (A)	Error signal input for the laser automatic power control Not used (fixed at "H").
78	ADFG	I (S)	ADIP duplex FM signal (22.05 kHz \pm 1 kHz) input from the CXA2523AR (IC100)
79	F0CNT	O	Filter f0 control signal output Not used (open).
80	XLRF	O	Serial data latch pulse signal output Not used (open).
81	CKRF	O	Serial data transfer clock signal output Not used (open).
82	DTRF	O	Writing serial data output Not used (open).
83	APCREF	O	Control signal output to the reference voltage generator circuit for the laser automatic power control
84	LDDR	O	PWM signal output for the laser automatic power control Not used (open).
85	TRDR	O	Tracking servo drive PWM signal (-) output to the MPC17A36VMEL (IC300)
86	TFDR	O	Tracking servo drive PWM signal (+) output to the MPC17A36VMEL (IC300)
87	DVDD	—	Power supply terminal (+3.3 V) (digital system)
88	FFDR	O	Focus servo drive PWM signal (+) output to the MPC17A36VMEL (IC300)
89	FRDR	O	Focus servo drive PWM signal (-) output to the MPC17A36VMEL (IC300)
90	FS4	O	Clock signal (176.4 kHz) output terminal (X'tal system) Not used (open).

Pin No.	Pin Name	I/O	Pin Description
91	SRDR	O	Sled servo drive PWM signal (-) output to the MPC17A36VMEL (IC300)
92	SFDR	O	Sled servo drive PWM signal (+) output to the MPC17A36VMEL (IC300)
93	SPRD	O	Spindle servo drive PWM signal (-) output to the MPC17A36VMEL (IC300)
94	SPFD	O	Spindle servo drive PWM signal (+) output to the MPC17A36VMEL (IC300)
95	FGIN	I (S)	Input terminal for the test (fixed at "L".)
96	TEST1	I	
97	TEST2	I	
98	TEST3	I	
99	DVSS	—	Ground terminal (digital system)
100	EFMO	O	EFM signal output terminal when recording mode Not used (open).

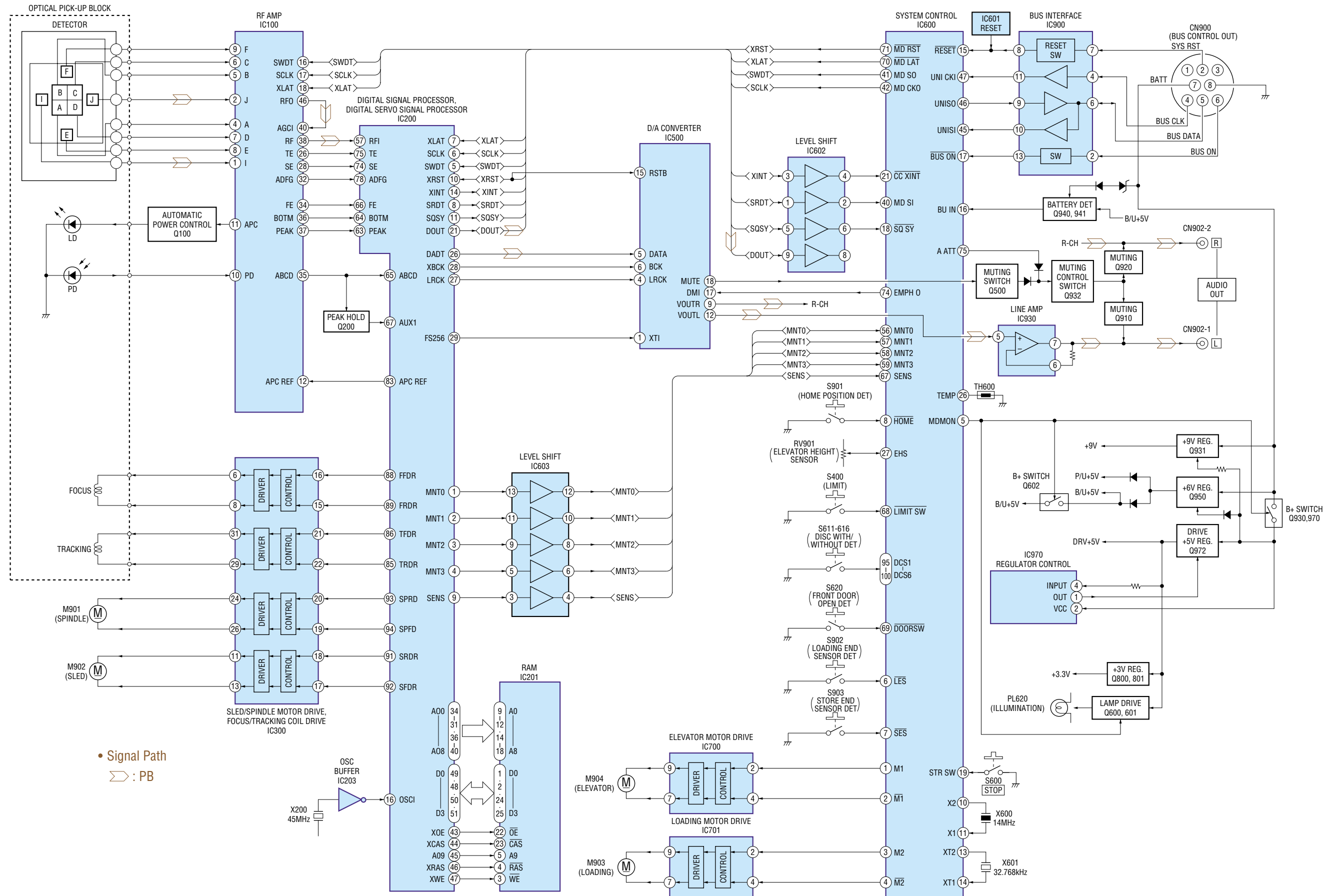
* I (S) stands for schmitt input, I (A) for analog input, O (3) for 3-state output, and O (A) for analog output in the column I/O.

• IC600 μ PD784216AGC-151-8EU (SYSTEM CONTROL)

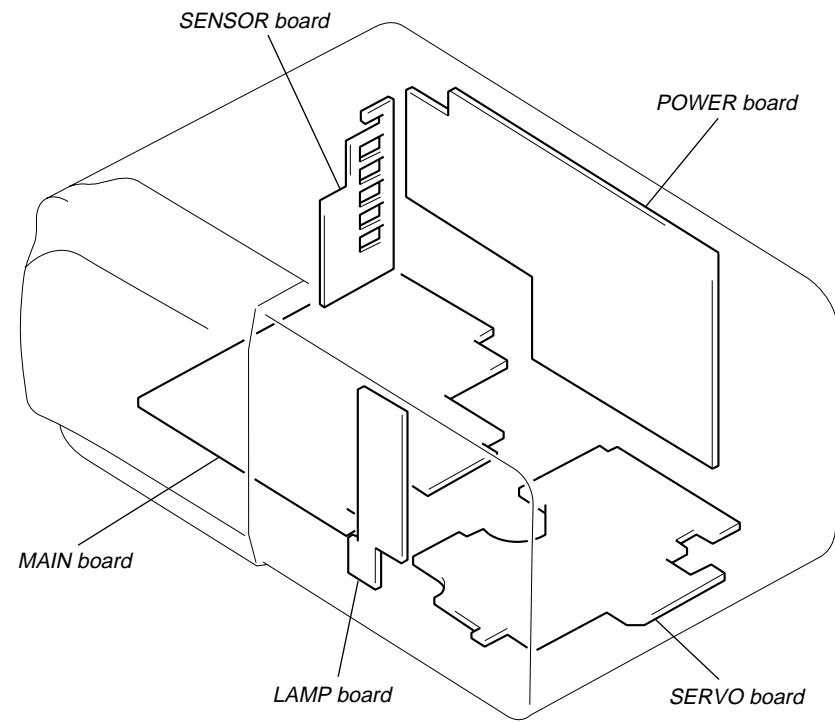
Pin No.	Pin Name	I/O	Pin Description
1	M1	O	Elevator motor (M904) drive signal output
2	$\overline{M1}$	O	Elevator motor (M904) drive signal output
3	M2	O	Loading motor (M903) drive signal output
4	$\overline{M2}$	O	Loading motor (M903) drive signal output
5	MDMON	O	Mechanism deck system power control output (“H” : Power ON)
6	\overline{LES}	I	Loading end sensor detection switch (S902) input
7	\overline{SES}	I	Store end sensor detection switch (S903) input
8	\overline{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	—	Ground pin
13	XT2	—	Sub system clock connecting pin (32.768 kHz)
14	XT1	—	Sub system clock connecting pin (32.768 kHz)
15	\overline{RESET}	—	System reset input
16	BU IN	I	Backup OFF detection input (“L” : Backup OFF)
17	$\overline{BUS ON}$	I	BUS OFF detection of SONY BUS (“H” : BUS OFF)
18	$\overline{SQ SY}$	I	Sub code Q sync input from CXD2662R (IC200)
19	STR SW	I	STOP switch (S600) input
20	—	O	Not used.
21	$\overline{CC XINT}$	I	Interruption status input from CXD2662R (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 (Not used in this set.)
26	TEMP	I	Thermistor connecting pin for temperature detection
27	EHS	I	Elevator height position detection input
28, 29	—	I	Connect to ground.
30 – 32	—	I	Connect to ground.
33	AVSS	—	Analog ground
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	—	O	Not used.
40	MD SI	I	Read data signal input from CXD2662R (IC200)
41	MD SO	O	Write data signal output to CXA2523AR (IC100) and CXD2662R (IC200)
42	MD CKO	O	Serial clock signal output to CXA2523AR (IC100) and CXD2662R (IC200)
43	—	O	Not used.
44	—	O	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) (Not used in this set.)
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	I	Monitor 0 – 3 signal input from CXD2662R (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/output to EEPROM (Not used in this set.)
67	SENS	I	Internal status input from CXD2662R (IC200)
68	LIMIT SW	I	Optical pick-up innermost track limit position detection switch (S400) input
69	DOORSW	I	Front door open detection switch (S620) input (“L” : Open complete)
70	MD LAT	O	Serial latch signal output to CXA2523AR (IC100) and CXD2662R (IC200)
71	MD RST	O	Reset signal output to CXD2662R (IC200)
72	VSS	—	Ground pin
73	MD ON	O	Servo system power control output (“H” : Power ON) (Not used in this set.)
74	EMPH O	O	De-emphasis circuit control output (“H” : De-emphasis ON)
75	A ATT	O	Analog mute control output (“H” : Mute ON)
76	ILLON	O	Illumination lamp light-up control output (“H” : Lamp light-up) (Not used in this set.)
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. BLOCK DIAGRAM



4-3. CIRCUIT BOARDS LOCATION



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: $\mu\mu\text{F}$ 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- % : indicates tolerance.
- : panel designation.

Note:

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

Note:

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

- — : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from Master unit.
- Voltages 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 $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 Σ : PB

for printed wiring boards:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Through hole. (Servo and Power Sections)
- : Through hole. (Main Section)
- : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

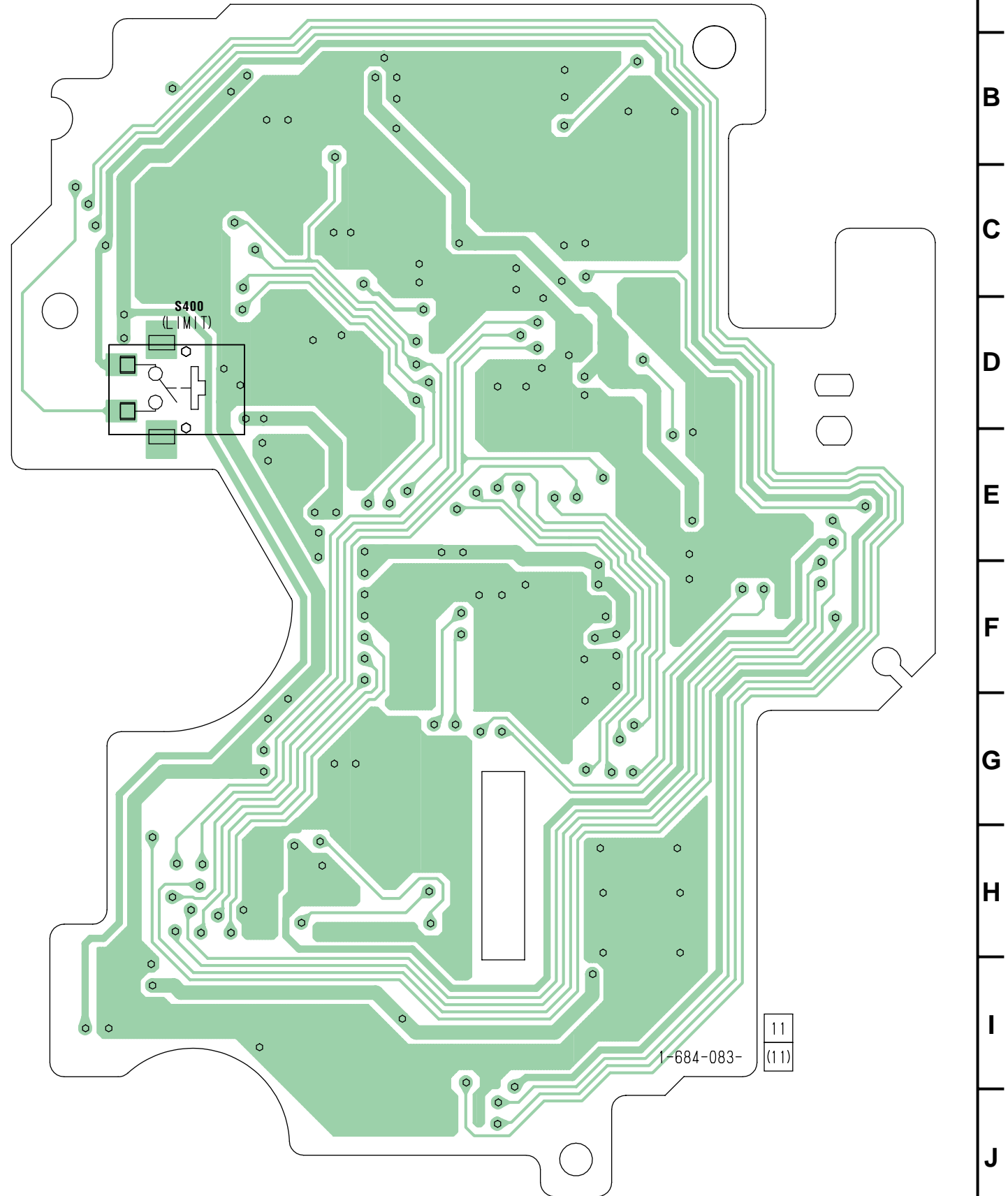
Caution:

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

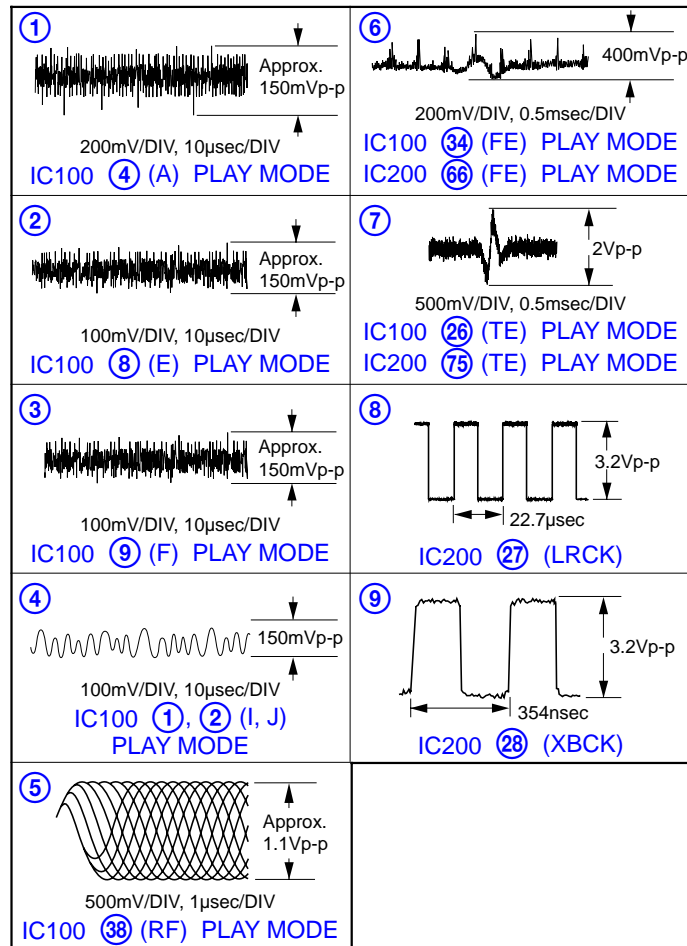
4-4. PRINTED WIRING BOARD — SERVO SECTION — • Refer to page 19 for Circuit Boards Location.

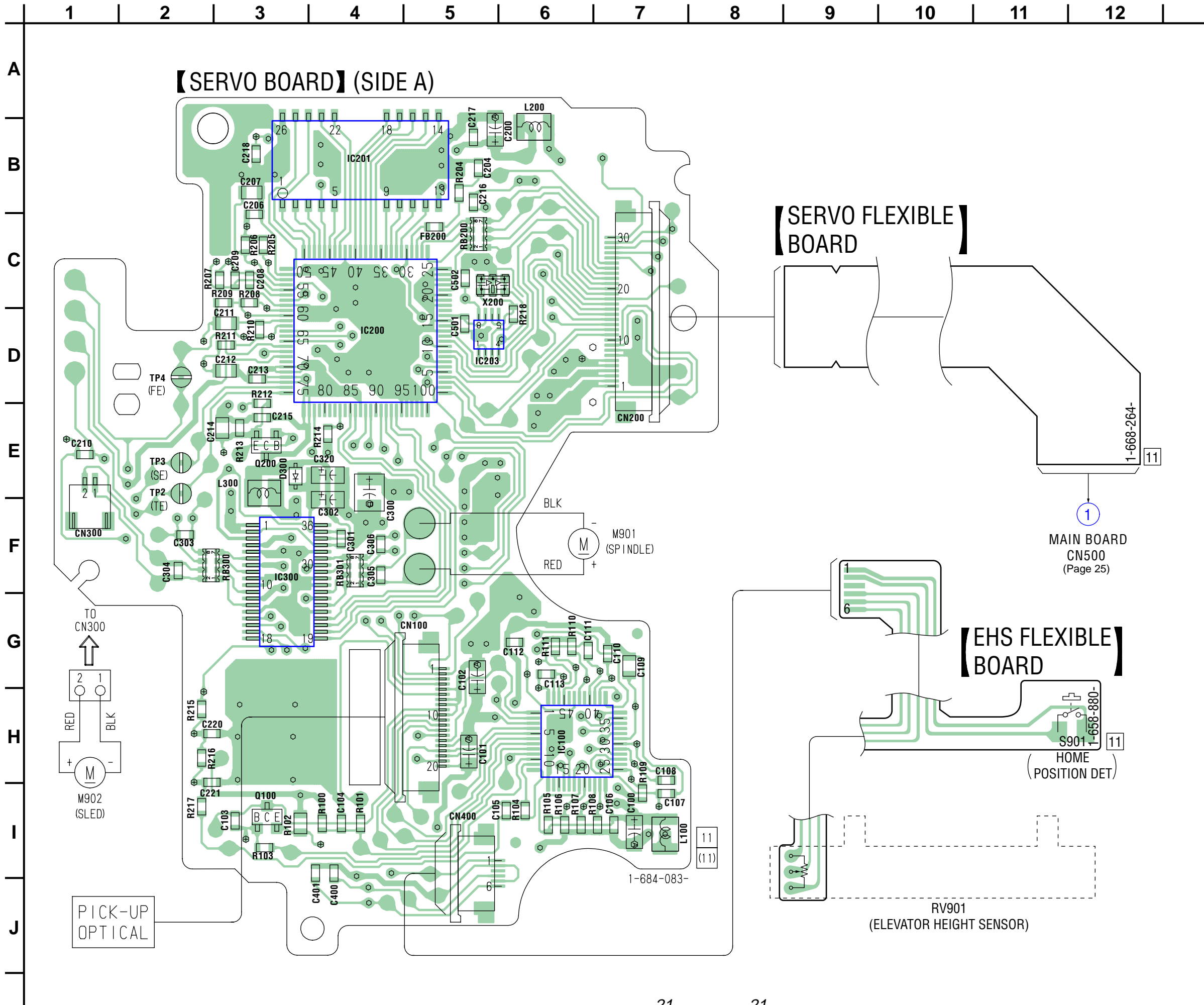


【SERVO BOARD】 (SIDE B)



• Waveforms — Servo Board —



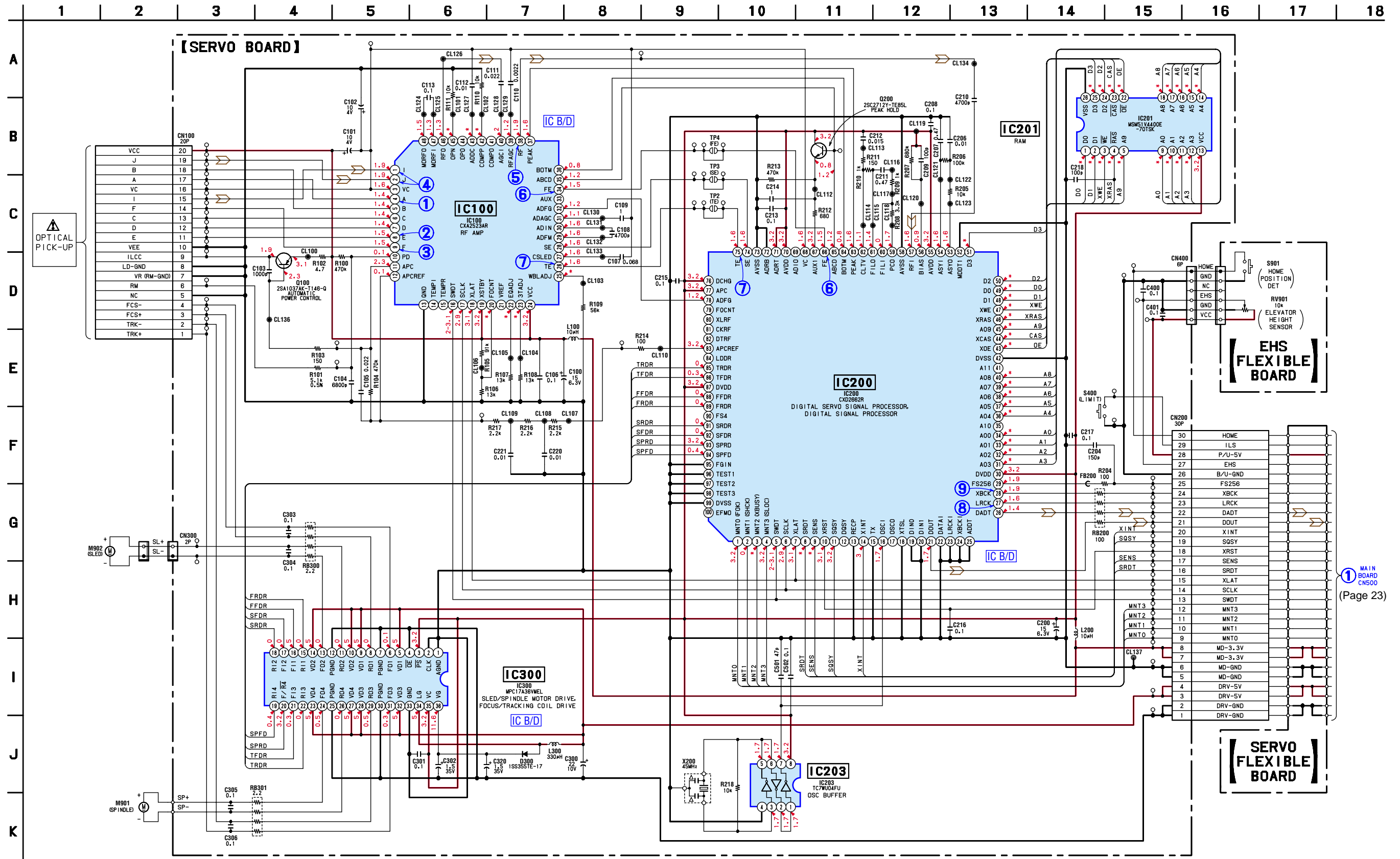


• Semiconductor Location

Ref. No.	Location
D300	E-3
IC100	H-6
IC200	D-4
IC201	B-4
IC203	D-5
IC300	F-3
Q100	I-3
Q200	E-3

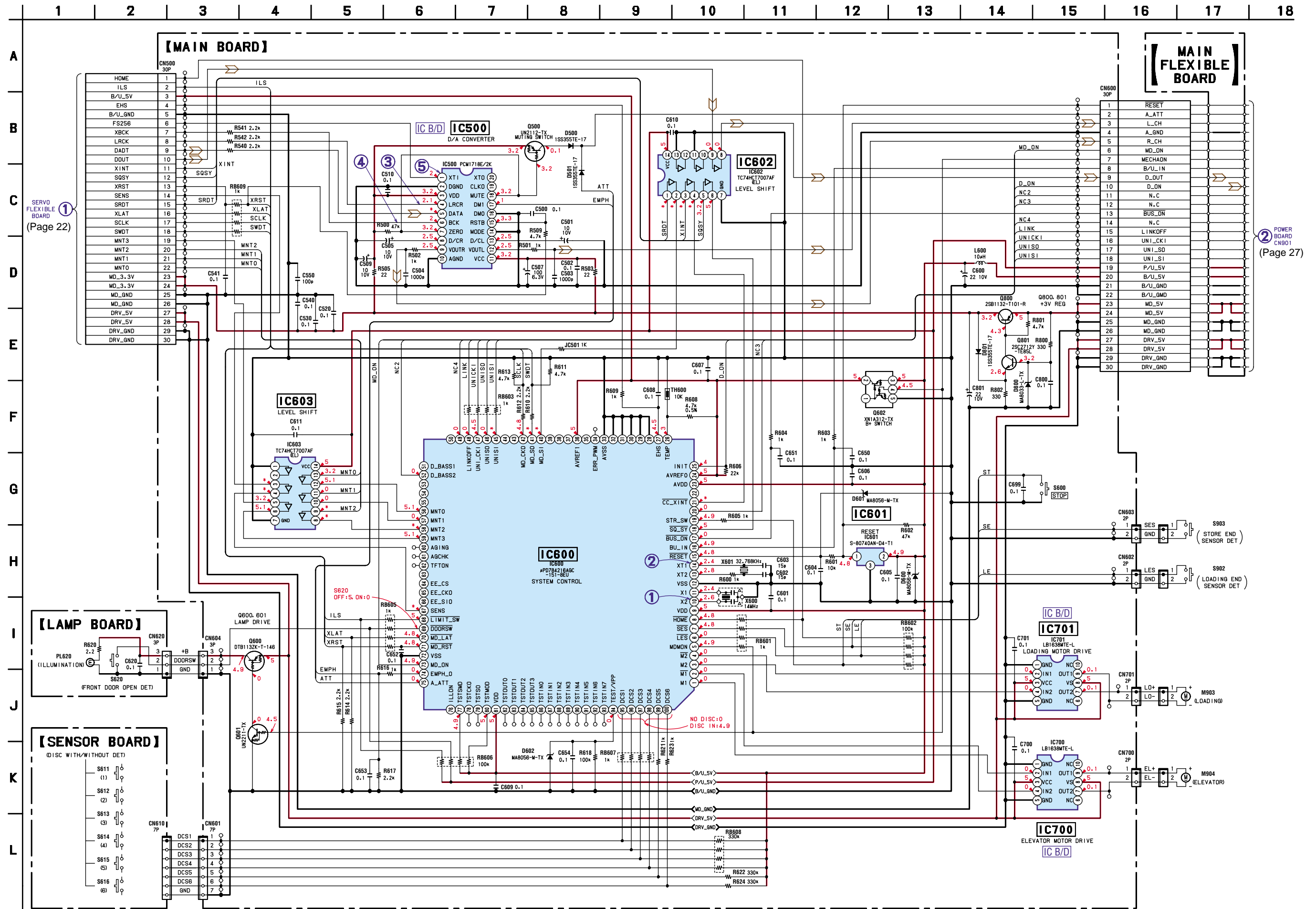
• Refer to page 20 for Waveforms.

4-5. SCHEMATIC DIAGRAM — SERVO SECTION — • Refer to page 28 for IC Block Diagrams.



• Refer to page 24 for Waveforms.

4-6. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 28 for IC Block Diagrams.

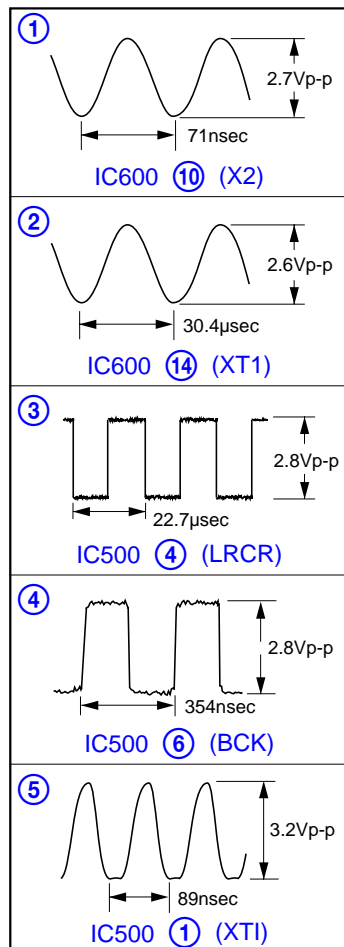


4-7. PRINTED WIRING BOARDS — MAIN SECTION — • Refer to page 19 for Circuit Boards Location.

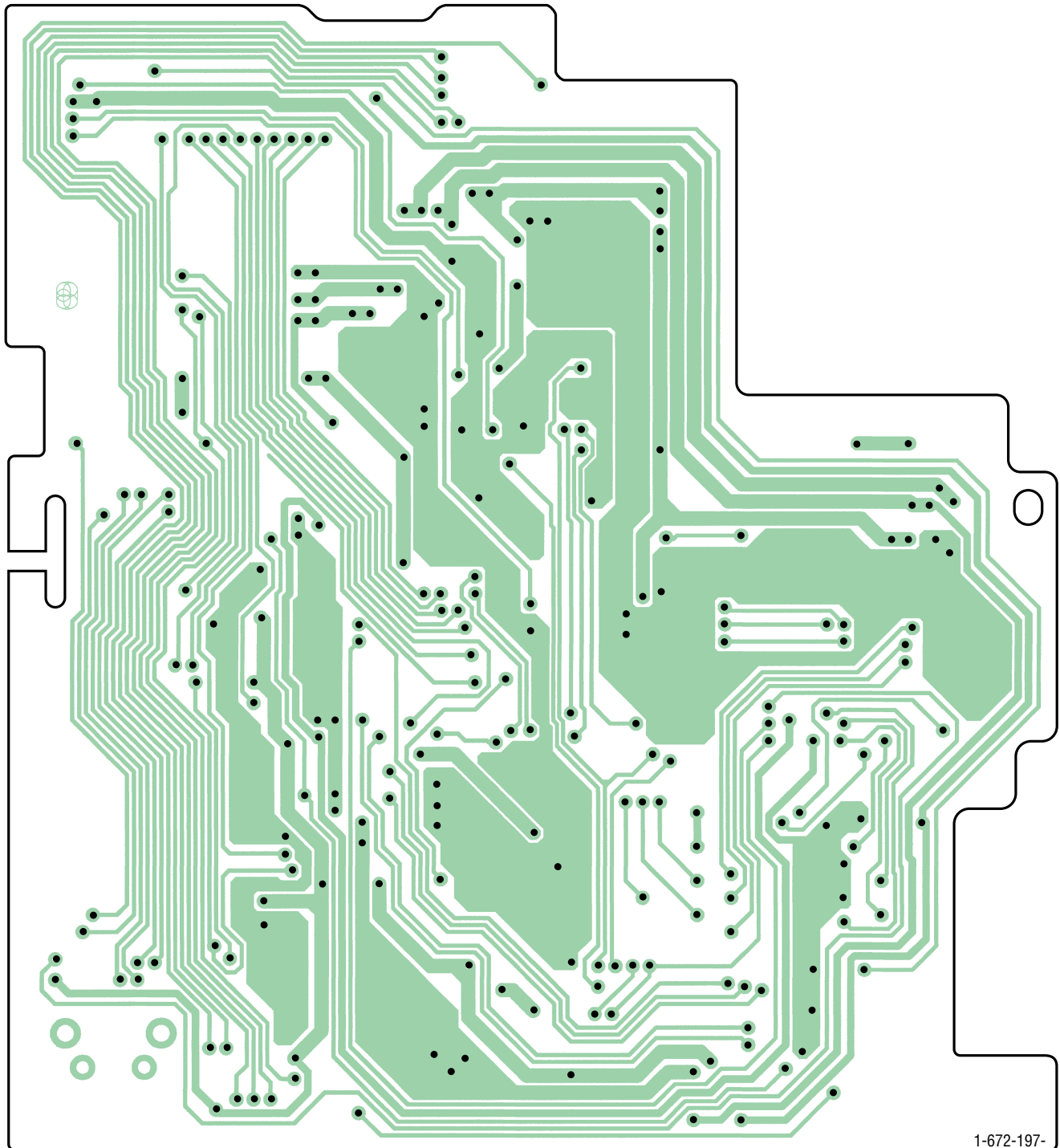
14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

A
B
C
D
E
F
G
H
I
J

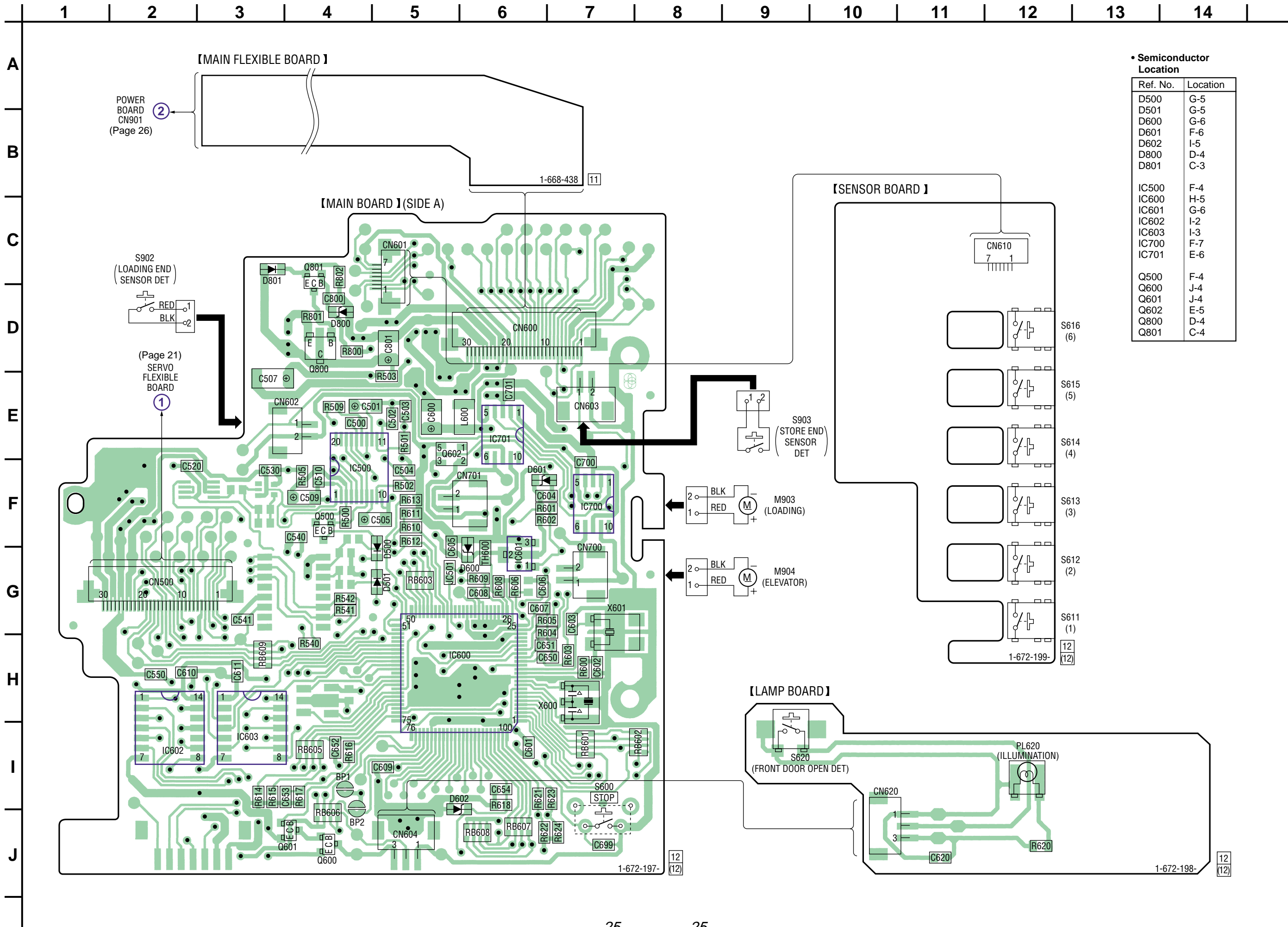
• Waveforms
— Main Board —



【MAIN BOARD】(SIDE B)



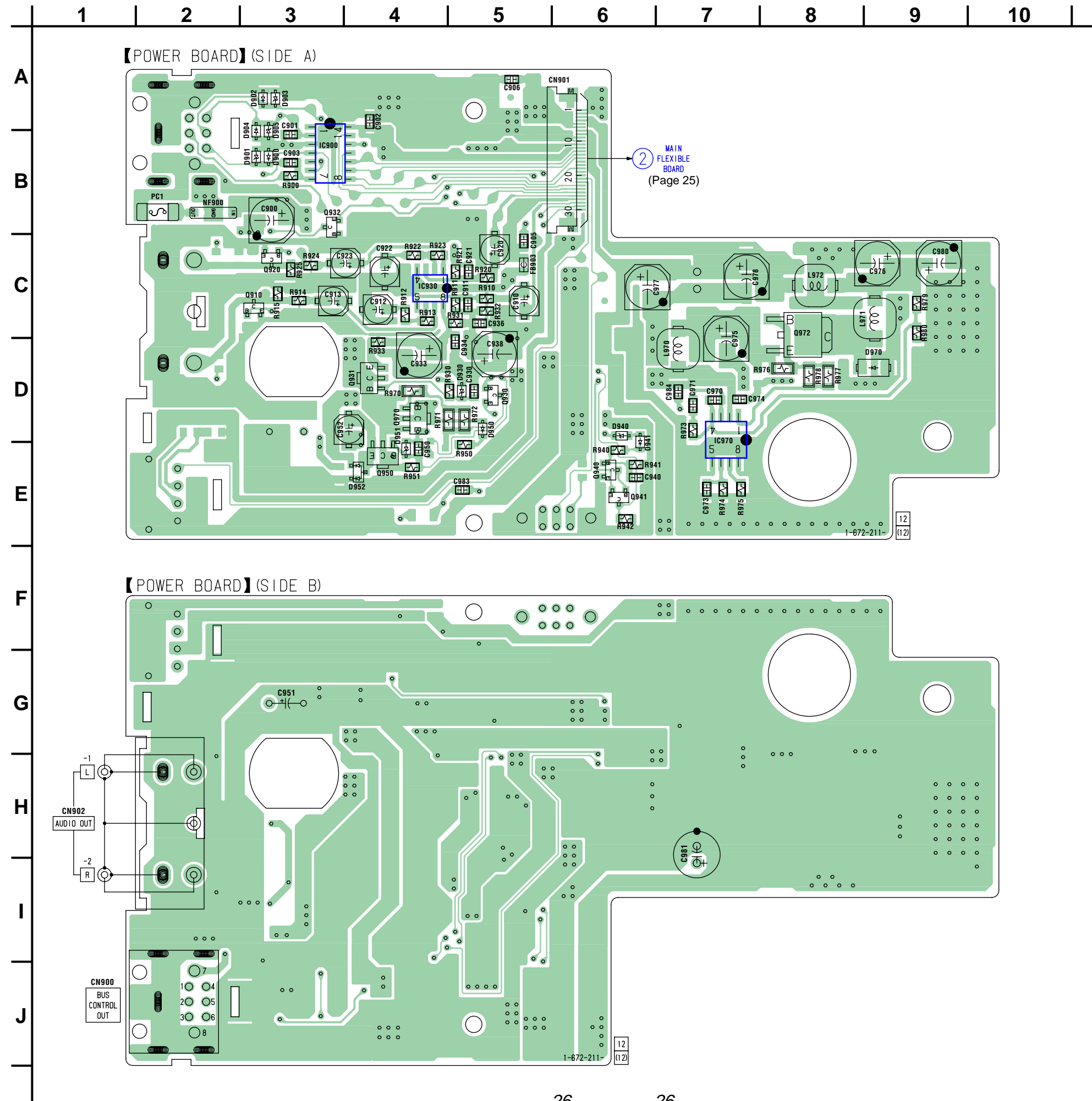
1-672-197-12
12



• Semiconductor Location

Ref. No.	Location
D500	G-5
D501	G-5
D600	G-6
D601	F-6
D602	I-5
D800	D-4
D801	C-3
IC500	F-4
IC600	H-5
IC601	G-6
IC602	I-2
IC603	I-3
IC700	F-7
IC701	E-6
Q500	F-4
Q600	J-4
Q601	J-4
Q602	E-5
Q800	D-4
Q801	C-4

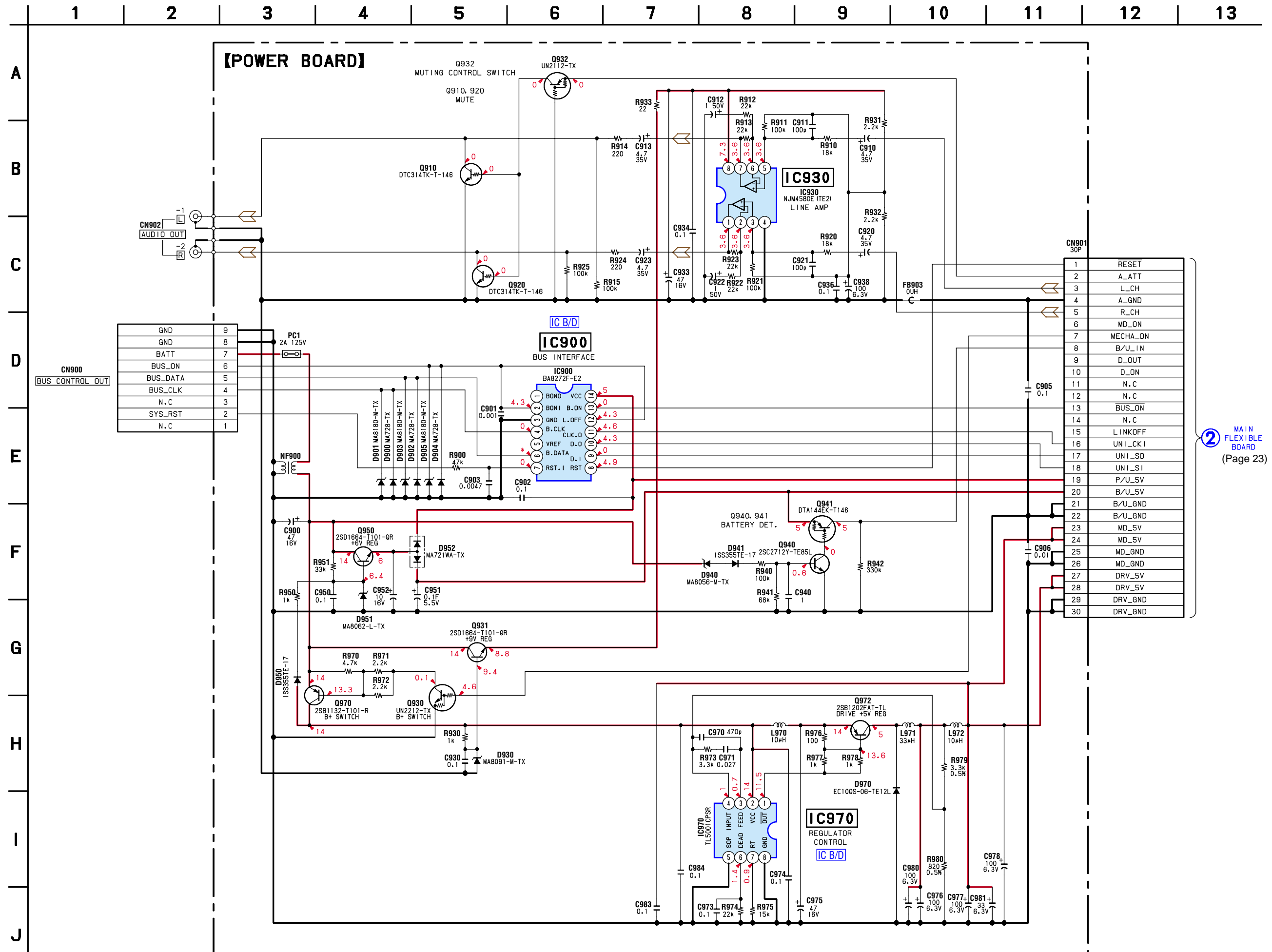
4-8. PRINTED WIRING BOARD — POWER SECTION — • Refer to page 19 for Circuit Boards Location.



• Semiconductor Location

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

4-9. SCHEMATIC DIAGRAM — POWER SECTION — • Refer to page 29 for IC Block Diagrams.

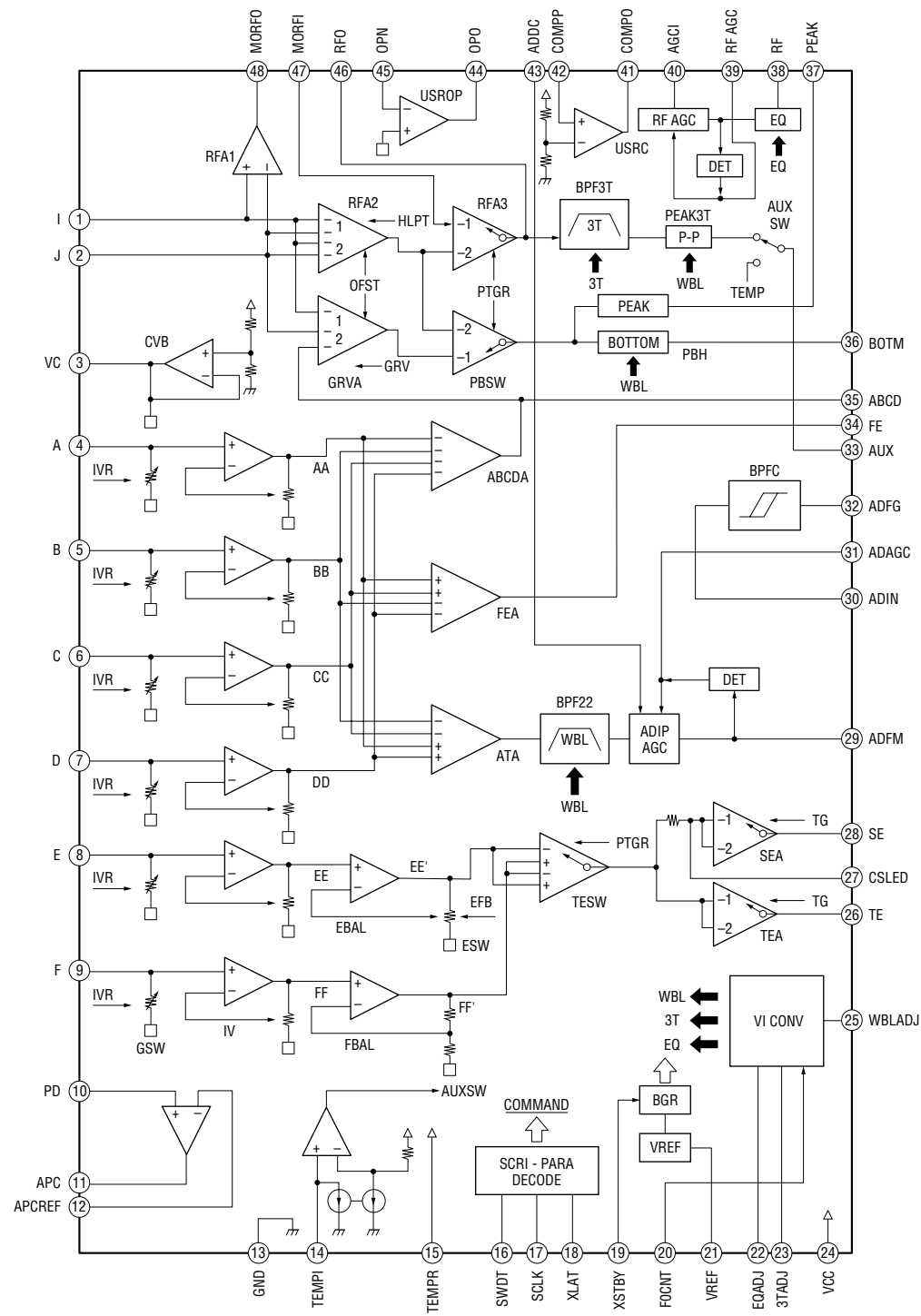


1	RESET
2	A_ATT
3	L_CH
4	A_GND
5	R_CH
6	MD_ON
7	MECHA_ON
8	B/U_IN
9	D_OUT
10	D_ON
11	N.C
12	N.C
13	BUS_ON
14	N.C
15	LINKOFF
16	UNI_CHK1
17	UNI_SD
18	UNI_SI
19	P/U_SV
20	B/U_SV
21	B/U_GND
22	B/U_GND
23	MD_SV
24	MD_GND
25	MD_GND
26	MD_GND
27	DRV_SV
28	DRV_SV
29	DRV_GND
30	DRV_GND

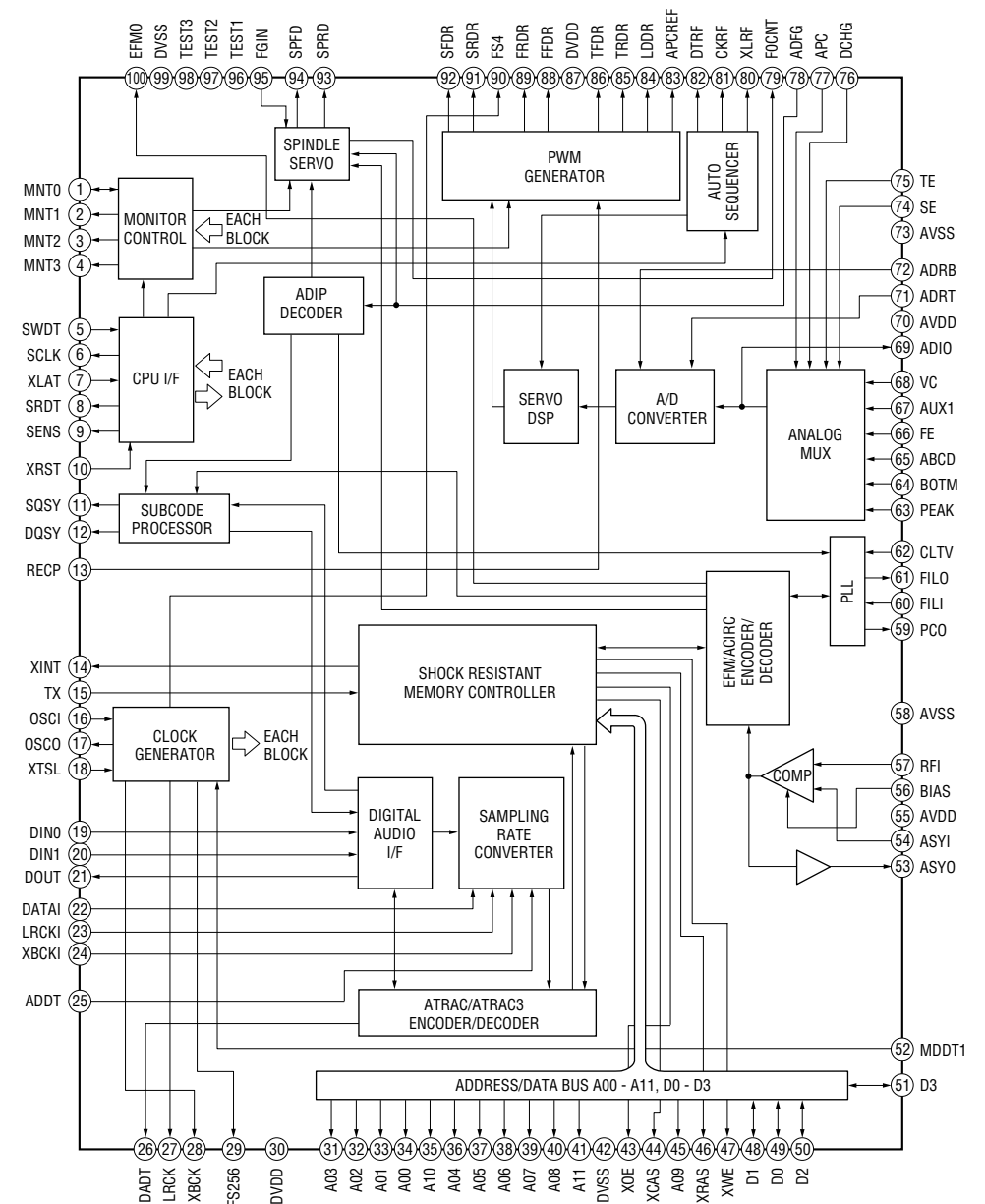
2 MAIN FLEXIBLE BOARD (Page 23)

• IC BLOCK DIAGRAMS

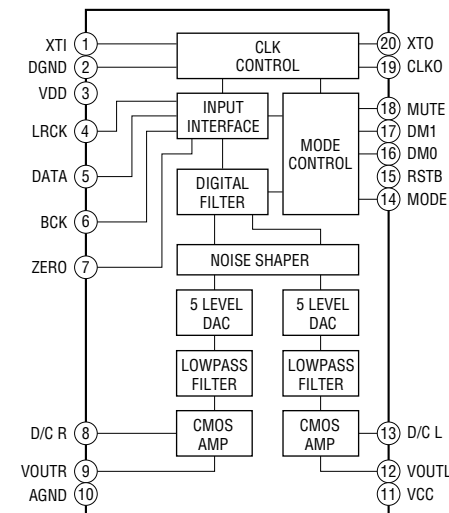
IC100 CXA2523AR



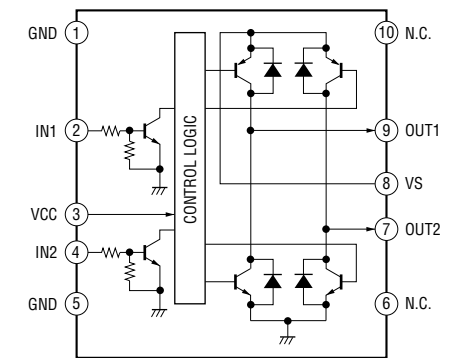
IC200 CXA262R



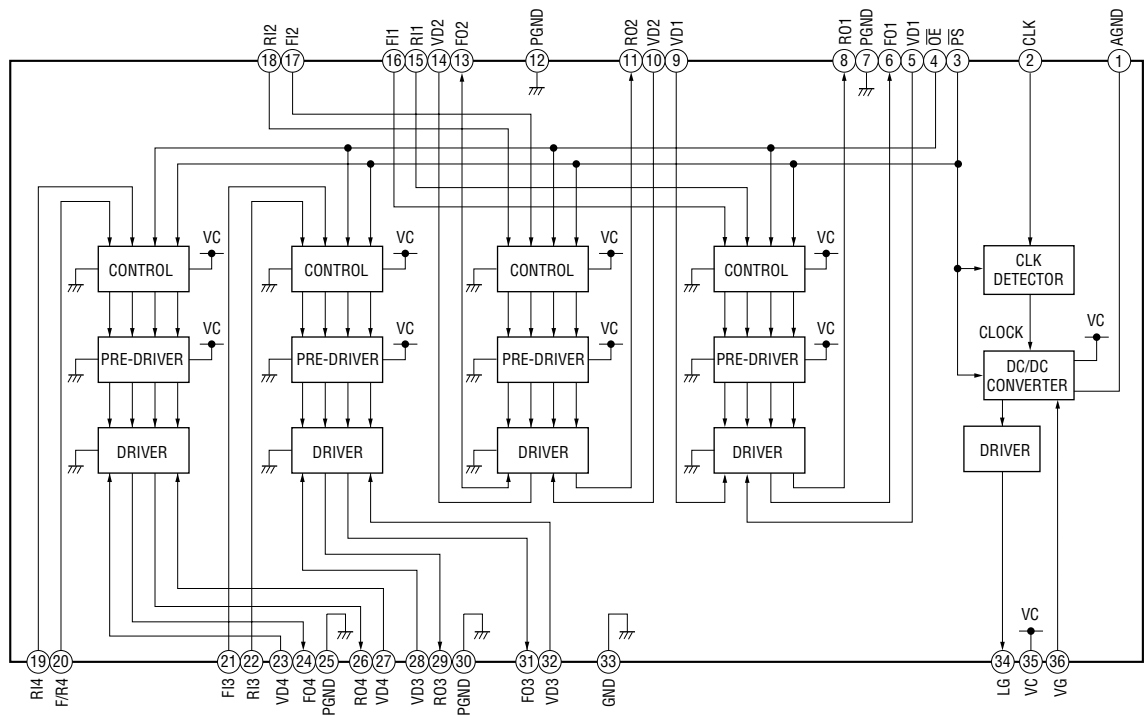
IC500 PCM1718E/2K



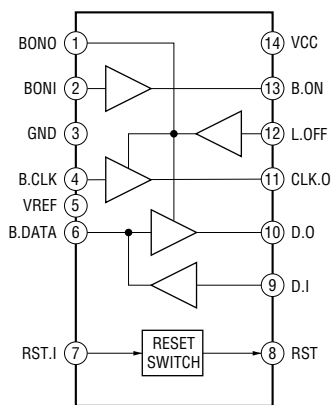
IC700 LB1638MTE-L
IC701 LB1638MTE-L



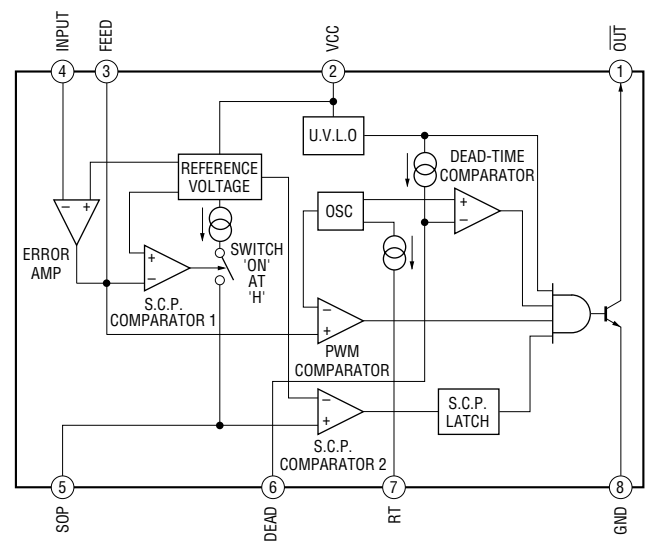
IC300 MPC17A36VMEL



IC900 BA8272F-E2



IC970 TL5001CPSR



**SECTION 5
EXPLODED VIEWS**

NOTE:

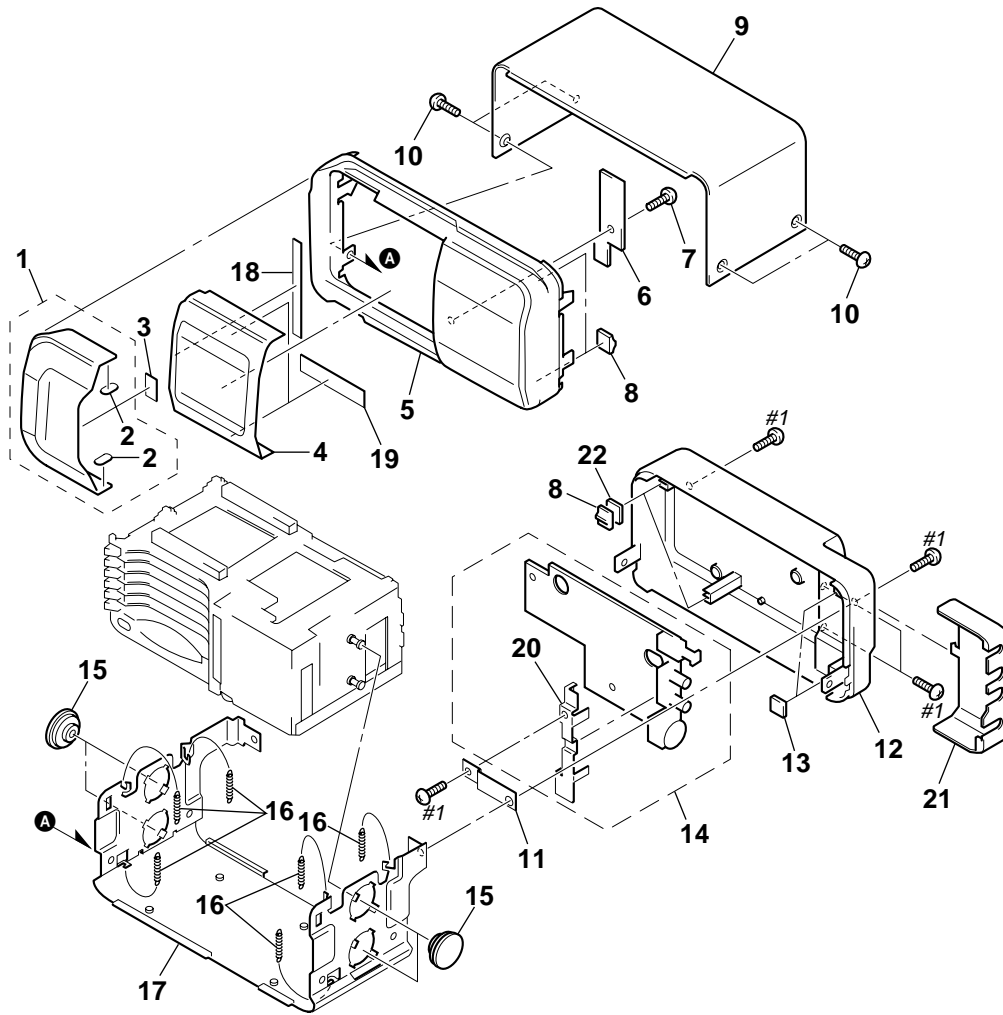
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference 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 \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

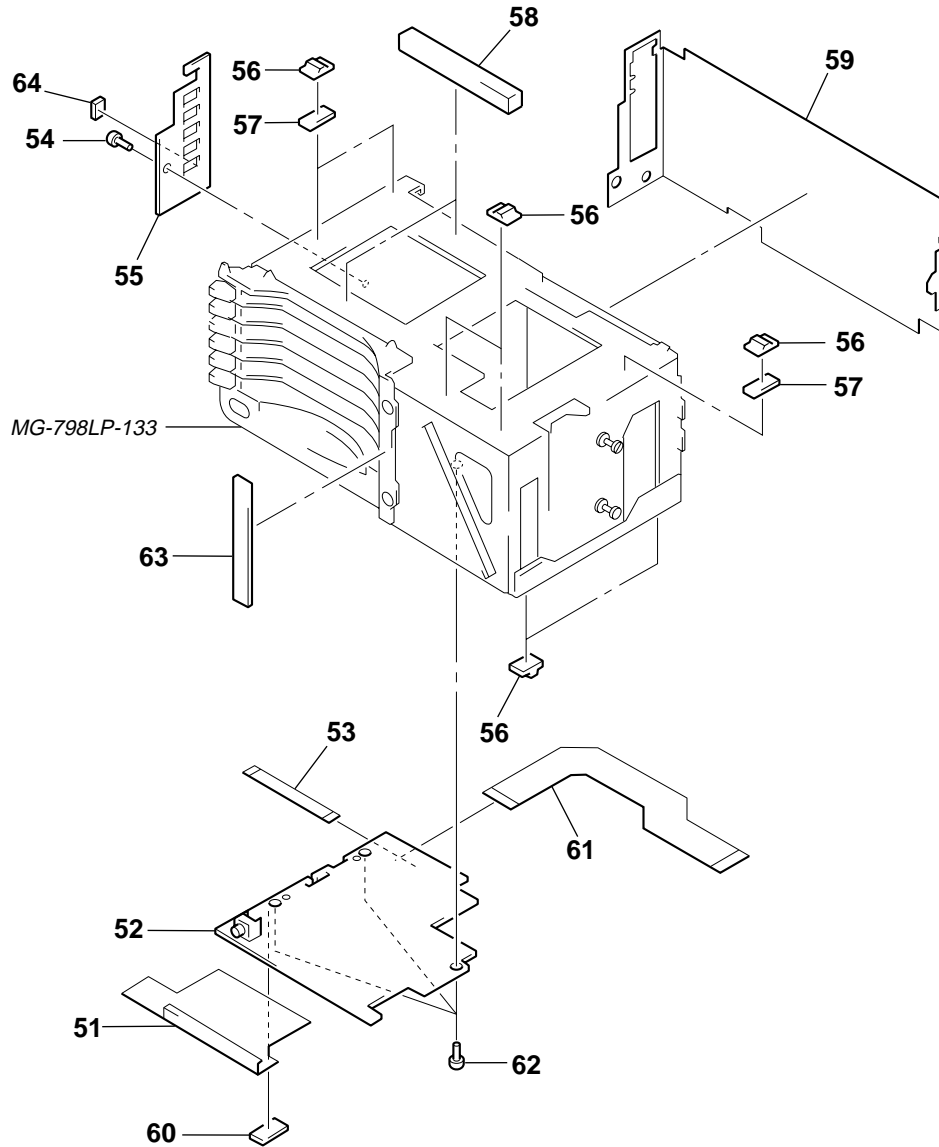
Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. CASE SECTION



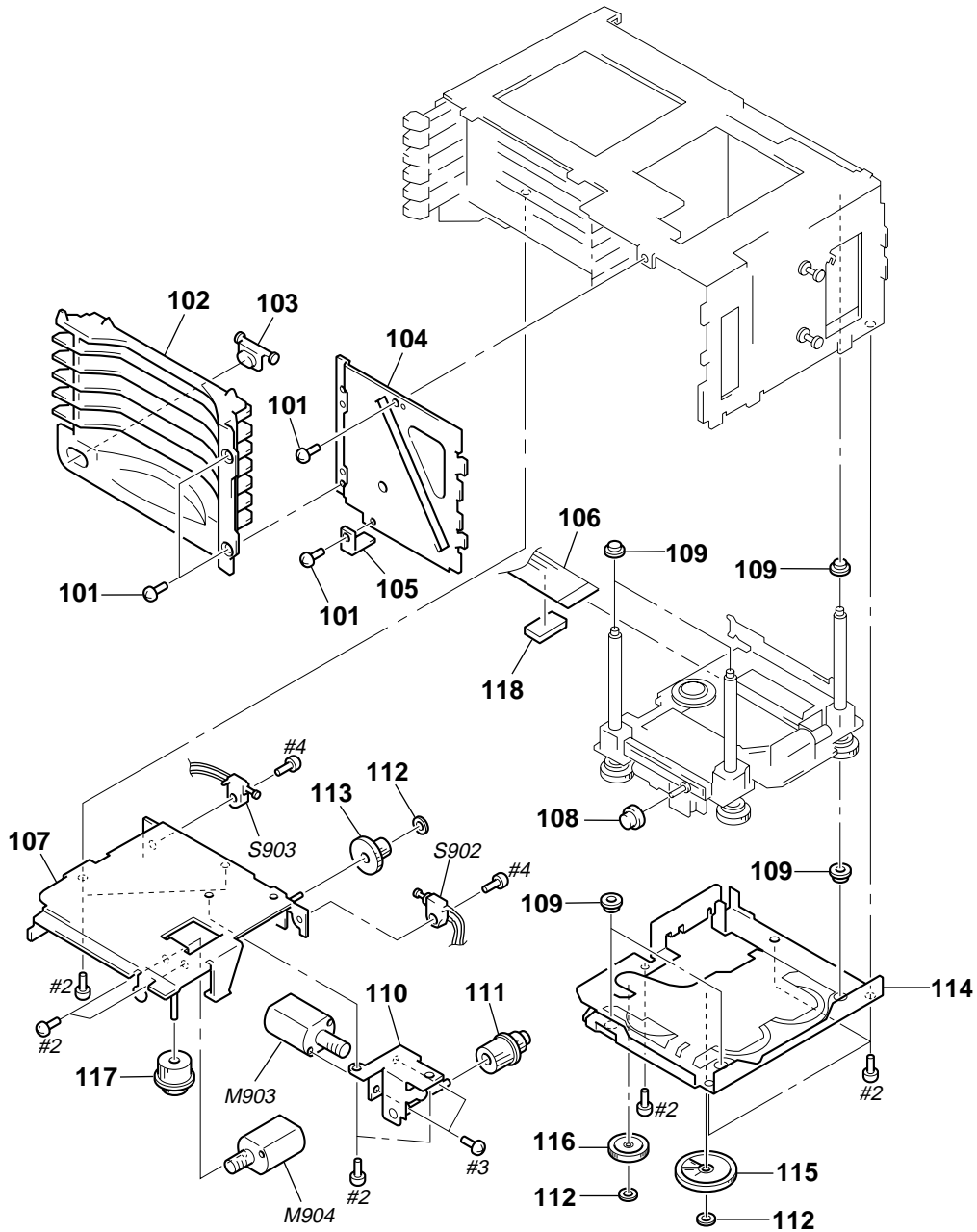
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3381-687-1	DOOR (P) ASSY		13	3-931-697-01	CUSHION (STOPPER)	
2	3-930-744-01	SPACER (DOOR)		* 14	A-3294-938-A	POWER BOARD, COMPLETE	
3	3-831-441-11	CUSHION, RATTLE ABSORBER		15	3-930-176-01	DAMPER (798)	
4	X-3381-688-1	DOOR (S) ASSY		16	3-930-177-01	SPRING (FL), TENSION	
5	X-3381-685-1	PANEL (FRONT) ASSY		17	3-031-482-21	CASE (LOWER)	
* 6	1-672-198-12	LAMP BOARD		18	3-025-283-01	SHEET (DOOR S1)	
7	3-909-607-01	SCREW		19	3-242-774-01	SHEET (DOOR S2)	
8	3-348-750-01	CUSHION (DAMPER)		* 20	3-031-503-01	BRACKET	
9	3-031-481-21	CASE (UPPER)		21	3-031-483-21	COVER	
10	3-912-956-11	SCREW (2.6X6) (CU), +BVTT		* 22	3-036-154-01	CUSHION (FP)	
* 11	3-031-489-01	PLATE, GROUND		#1	7-685-793-09	SCREW +PTT 2.6X8 (S)	
12	X-3381-686-1	PANEL (REAR) ASSY					

5-2. MAIN BOARD SECTION



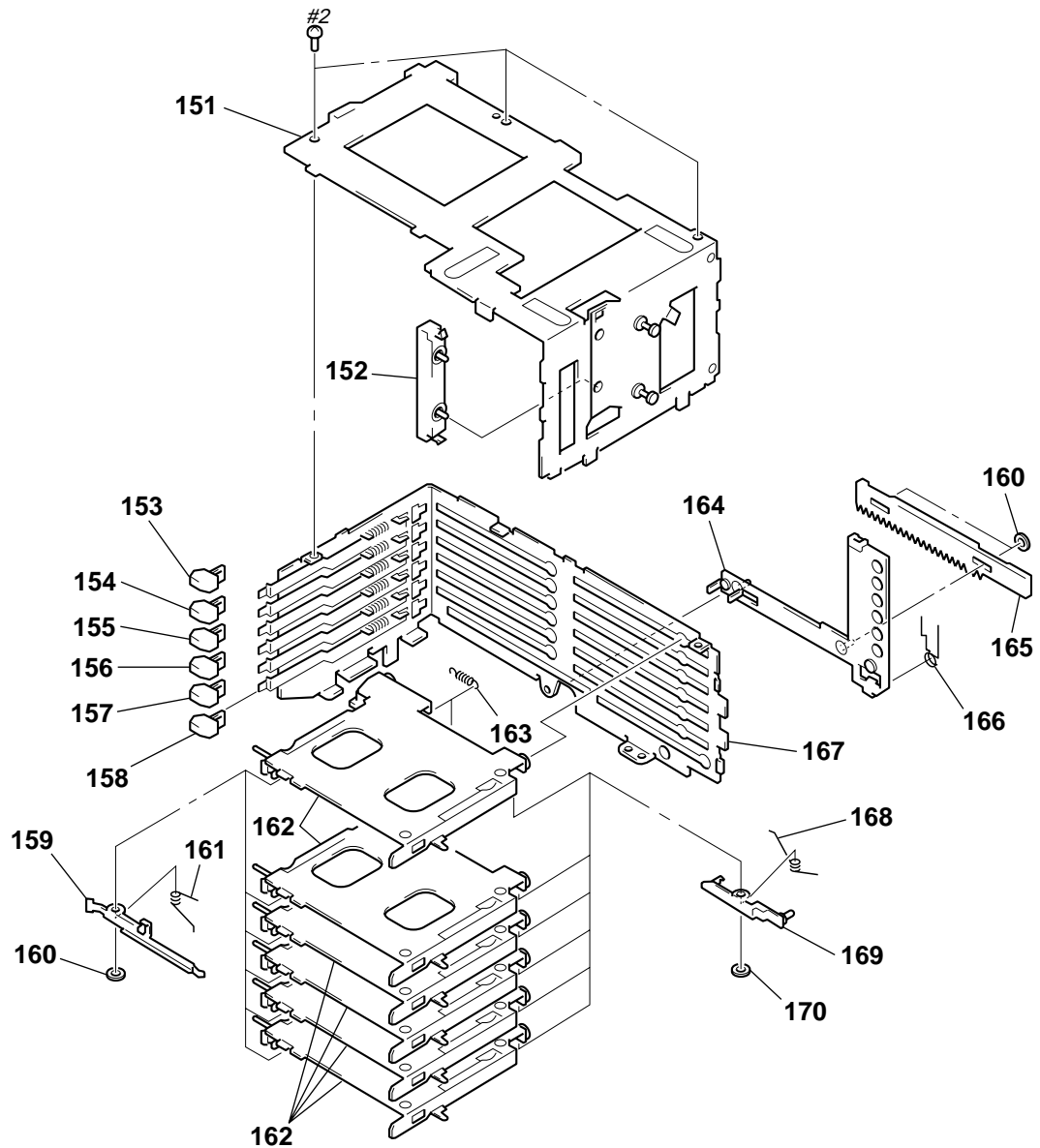
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51	3-931-149-02	SHEET (MAIN PC BOARD)		58	3-931-699-01	CUSHION (ROLL H)	
52	A-3283-298-A	MAIN BOARD, COMPLETE		* 59	3-931-025-21	SHEET (MECHANICAL DECK)	
53	1-776-474-11	CABLE, FLAT 7P		* 60	3-021-073-01	CUSHION (MAIN)	
54	3-909-412-01	SCREW (+P) (1.7X2) (TYPE 3)		61	1-668-438-11	MAIN FLEXIBLE BOARD	
55	A-3340-373-A	SENSOR BOARD, COMPLETE		62	3-880-990-00	SCREW (1.7X3), FLAT, (+) SPECIAL	
56	3-348-750-01	CUSHION (DAMPER)		* 63	3-024-303-01	CUSHION (F)	
* 57	3-715-973-01	CUSHION		64	3-036-154-11	CUSHION (FP)	

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



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-317-552-71	SCREW (M1.7)		* 114	X-3374-670-1	CHASSIS (BOTTOM) ASSY	
102	3-930-314-01	ESCUTCHEON		115	3-930-313-01	GEAR (ELVC)	
103	3-930-319-01	BUTTON (STOP)		116	3-020-386-01	GEAR (ELVA2)	
* 104	3-930-320-01	CHASSIS (FRONT)		117	3-020-363-01	WHEEL (ELV2), WORM	
105	3-931-366-01	STOPPER, LEAD		* 118	3-741-875-01	SHEET, RUBBER	
106	1-668-264-11	SERVO FLEXIBLE BOARD		M903	X-3371-508-2	MOTOR ASSY, LD (LOADING)	
* 107	X-3374-669-1	CHASSIS (MOTOR) ASSY		M904	X-3374-812-1	MOTOR ASSY, ELV (ELEVATOR)	
108	3-930-310-01	COLLAR (EHS)		S902	1-570-771-11	SWITCH (LOADING END SENSOR DET)	
109	3-930-312-02	BEARING (ELV)		S903	1-570-771-21	SWITCH (STORE END SENSOR DET)	
110	X-3374-673-1	BRACKET (LD2) ASSY		#2	7-627-852-37	SCREW, PRECISION +P 1.7X1.8 TYPE3	
111	3-930-365-01	WHEEL (LD), WORM		#3	7-627-554-07	SCREW, PRECISION +P 2X2.2	
112	3-377-719-11	WASHER, POLYETHYLENE		#4	7-627-855-07	SCREW, PRECISION +P 2X5.5 TYPE3	
113	3-930-317-01	GEAR (LD)					

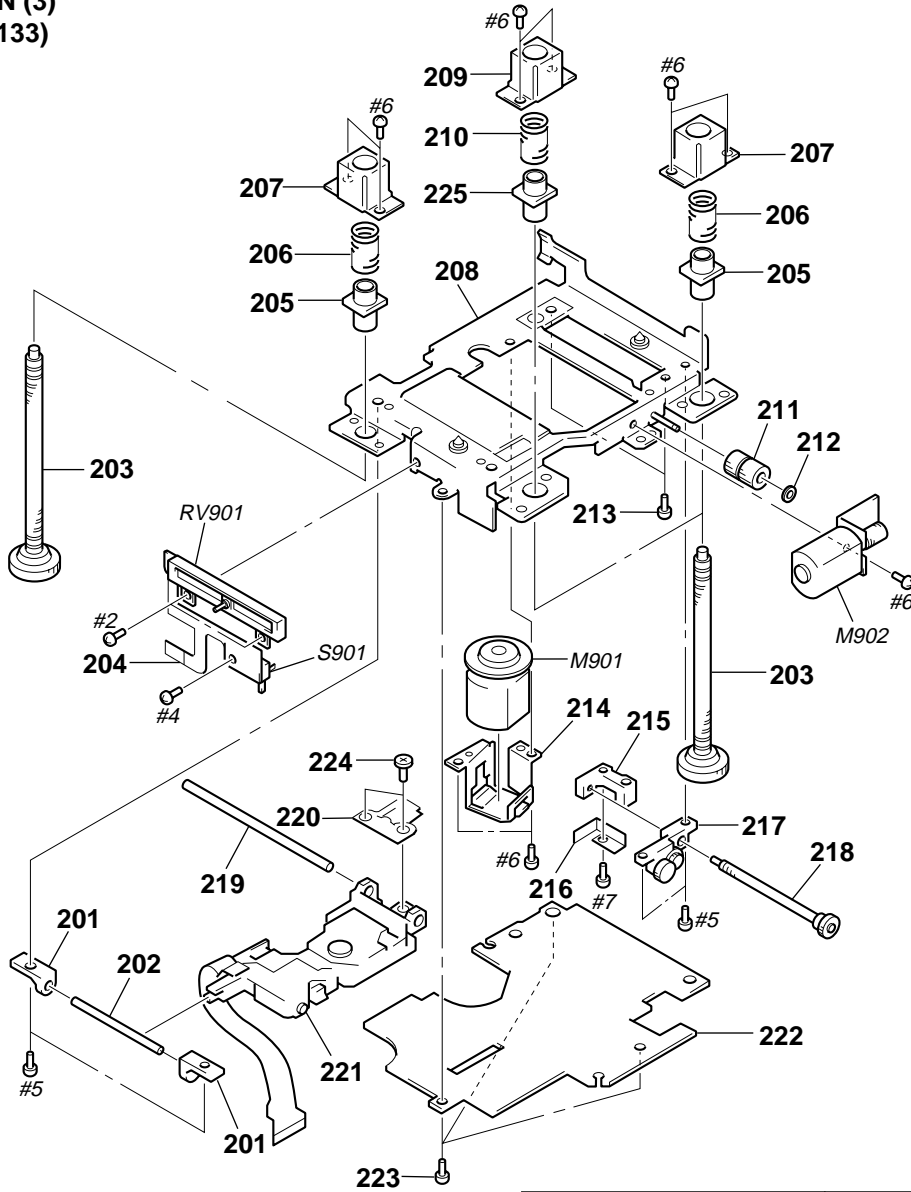
5-4. MD SECTION (2)
(MG-798LP-133)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	X-3371-209-3	CHASSIS (TOP) ASSY		162	X-3378-169-1	HOLDER (CADDIE) ASSY	
* 152	3-020-388-01	GUIDE (HOLDER 2)		163	3-930-352-01	SPRING (D LOCK), TENSION	
153	3-930-318-01	BUTTON (EJECT)		164	X-3375-509-1	SLIDER (3) ASSY, LOADING	
154	3-930-318-11	BUTTON (EJECT)		165	3-930-366-01	RACK (LOADING)	
155	3-930-318-21	BUTTON (EJECT)		166	3-930-360-01	SPRING (LIMITER), TORSION	
156	3-930-318-31	BUTTON (EJECT)		167	X-3374-671-1	CHASSIS (REAR 2) ASSY	
157	3-930-318-41	BUTTON (EJECT)		168	3-930-349-01	SPRING (LOCK), TORSION	
158	3-930-318-51	BUTTON (EJECT)		169	X-3378-251-1	PLATE (HOLDER) ASSY, LOCK	
159	3-040-662-02	LEVER, DISC EJECT		170	3-021-511-01	WASHER	
160	3-377-719-11	WASHER, POLYETHYLENE		#2	7-627-852-37	SCREW, PRECISION +P 1.7X1.8 TYPE3	
161	3-930-350-01	SPRING (EJ), TORSION					

MDX-66XLP

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



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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-930-338-01	HOLDER (OP GUIDE B)		219	3-930-331-01	GUIDE (OPA)	
202	3-930-332-01	GUIDE (OPB)		220	3-020-346-01	SPRING (SL OUT 2), FEED	
203	X-3371-212-1	SCREW (ELV) ASSY, FEED		\triangle 221	X-3379-728-1	PICK-UP, OPTICAL KMS-241C/J1N	
204	1-658-880-11	EHS FLEXIBLE BOARD		222	A-3283-295-A	SERVO BOARD, COMPLETE	
205	3-020-351-01	SLEEVE (ELV2)		223	3-932-755-01	SCREW (M1.7X2.2)	
206	3-930-334-01	SPRING (ELV), COMPRESSION		224	3-703-816-32	SCREW (M1.4X1.6), SPECIAL HEAD	
207	3-930-345-01	PLATE (B), ELV LIMITER		225	3-930-333-01	SLEEVE (ELV)	
* 208	X-3371-215-1	CHASSIS (OP) ASSY		M901	A-3291-507-A	MOTOR BLOCK ASSY, SP (SPINDLE)	
209	3-930-344-01	PLATE (A), ELV LIMITER		M902	A-3291-508-A	MOTOR BLOCK ASSY, SL (SLED)	
210	3-930-711-01	SPRING (ELV2), COMPRESSION		RV901	1-223-817-11	RES, VAR, SLIDE 10K (ELEVATOR HEIGHT SENSOR)	
211	3-930-339-01	WHEEL (SL), WORM		S901	1-570-771-21	SWITCH (HOME POSITION DET)	
212	3-338-645-31	WASHER (0.8-2.5)		#2	7-627-852-37	SCREW, PRECISION +P 1.7X1.8 TYPE3	
213	3-930-343-01	SCREW (K1.7X3.5)		#4	7-627-855-07	SCREW, PRECISION +P 2X5.5 TYPE3	
214	3-930-342-01	RETAINER (SP)		#5	7-627-852-27	SCREW, PRECISION +P 1.7X3	
215	3-930-336-01	HOLDER (SLB)		#6	7-627-552-18	SCREW, PRECISION +P 1.7X1.6	
216	3-930-335-01	DETENT, SL		#7	7-627-852-58	SCREW, PRECISION +P 1.7X5 TYPE3	
217	X-3371-213-1	HOLDER (SLA) ASSY					
218	X-3371-214-1	SCREW (SL) ASSY, FEED					

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
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.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-672-198-12	LAMP BOARD *****		C604	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< CAPACITOR >		C605	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C620	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C606	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< CONNECTOR >		C607	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
* CN620	1-580-056-21	PIN, CONNECTOR (SMD) 3P		C608	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< PILOT LAMP >		C609	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
PL620	1-517-630-41	LAMP, PILOT (ILLUMINATION)		C610	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< RESISTOR >		C611	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
R620	1-216-298-00	METAL CHIP 2.2 5%	1/10W	C650	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< SWITCH >		C651	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
S620	1-692-532-21	SWITCH, PUSH (1 KEY) (FRONT DOOR OPEN DET)		C652	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
*****				C653	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
	A-3283-298-A	MAIN BOARD, COMPLETE *****		C654	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
	3-034-614-02	PAPER, SHIELD		C699	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< CAPACITOR >		C700	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C500	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C701	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C501	1-104-851-11	TANTAL. CHIP 10uF 20%	10V	C800	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C502	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C801	1-104-852-11	TANTAL. CHIP 22uF 20%	10V
C503	1-115-416-11	CERAMIC CHIP 0.001uF 5%	25V	< CONNECTOR >			
C504	1-115-416-11	CERAMIC CHIP 0.001uF 5%	25V	CN500	1-573-370-21	CONNECTOR, FFC/FPC 30P	
C505	1-104-851-11	TANTAL. CHIP 10uF 20%	10V	* CN600	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P	
C507	1-110-450-11	ELECT CHIP 100uF 20%	6.3V	CN601	1-573-916-11	CONNECTOR, FFC/FPC (ZIF) 7P	
C509	1-104-851-11	TANTAL. CHIP 10uF 20%	10V	* CN602	1-580-055-21	PIN, CONNECTOR (SMD) 2P	
C510	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	* CN603	1-580-055-21	PIN, CONNECTOR (SMD) 2P	
C520	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	* CN604	1-580-056-21	PIN, CONNECTOR (SMD) 3P	
C530	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	CN700	1-580-055-21	PIN, CONNECTOR (SMD) 2P	
C540	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	* CN701	1-580-055-21	PIN, CONNECTOR (SMD) 2P	
C541	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	< DIODE >			
C550	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	D500	8-719-988-61	DIODE 1SS355TE-17	
C600	1-104-852-11	TANTAL. CHIP 22uF 20%	10V	D501	8-719-988-61	DIODE 1SS355TE-17	
C601	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	D600	8-719-977-03	DIODE DTZ5.6B	
C602	1-162-917-11	CERAMIC CHIP 15PF 5%	50V	D601	8-719-977-03	DIODE DTZ5.6B	
C603	1-162-917-11	CERAMIC CHIP 15PF 5%	50V	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	6-801-399-01	IC uPD784216AGC-151-8EU	
				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)	

MDX-66XLP

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	METAL CHIP 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	8-729-200-13	TRANSISTOR 2SC2712-Y	
< RESISTOR >			
R500	1-216-841-11	METAL CHIP 47K	5% 1/16W
R501	1-216-821-11	METAL CHIP 1K	5% 1/16W
R502	1-216-821-11	METAL CHIP 1K	5% 1/16W
R503	1-216-801-11	METAL CHIP 22	5% 1/16W
R505	1-216-801-11	METAL CHIP 22	5% 1/16W
R509	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R540	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R541	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R542	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R600	1-216-821-11	METAL CHIP 1K	5% 1/16W
R601	1-216-833-11	METAL CHIP 10K	5% 1/16W
R602	1-216-841-11	METAL CHIP 47K	5% 1/16W
R603	1-216-821-11	METAL CHIP 1K	5% 1/16W
R604	1-216-821-11	METAL CHIP 1K	5% 1/16W
R605	1-216-821-11	METAL CHIP 1K	5% 1/16W
R606	1-216-837-11	METAL CHIP 22K	5% 1/16W
R608	1-218-708-11	METAL CHIP 4.7K	0.5% 1/16W
R609	1-216-821-11	METAL CHIP 1K	5% 1/16W
R610	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R611	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R612	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R613	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R614	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R615	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R616	1-216-821-11	METAL CHIP 1K	5% 1/16W
R617	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
R618	1-216-845-11	METAL CHIP 100K	5% 1/16W
R621	1-216-821-11	METAL CHIP 1K	5% 1/16W
R622	1-216-851-11	METAL CHIP 330K	5% 1/16W
R623	1-216-821-11	METAL CHIP 1K	5% 1/16W
R624	1-216-851-11	METAL CHIP 330K	5% 1/16W
R800	1-216-815-11	METAL CHIP 330	5% 1/16W
R801	1-216-829-11	METAL CHIP 4.7K	5% 1/16W
R802	1-216-815-11	METAL CHIP 330	5% 1/16W

Ref. No.	Part No.	Description	Remark
< NETWORK RESISTOR >			
RB601	1-233-412-11	RES, CHIP NETWORK 1.0KX4 (3216)	
RB602	1-233-810-21	RES, CHIP NETWORK 100KX4 (3216)	
RB603	1-233-412-11	RES, CHIP NETWORK 1.0KX4 (3216)	
RB605	1-233-412-11	RES, CHIP NETWORK 1.0KX4 (3216)	
RB606	1-233-810-21	RES, CHIP NETWORK 100KX4 (3216)	
RB607	1-233-412-11	RES, CHIP NETWORK 1.0KX4 (3216)	
RB608	1-239-446-11	RES, CHIP NETWORK 330KX4	
RB609	1-233-412-11	RES, CHIP NETWORK 1.0KX4 (3216)	
< SWITCH >			
S600	1-571-914-21	SWITCH, KEYBOARD (STOP)	
< THERMISTOR >			
TH600	1-804-497-21	THERMISTOR, CHIP	
< VIBRATOR >			
X600	1-760-607-11	VIBRATOR, CERAMIC (14MHz)	
X601	1-579-886-21	VIBRATOR, CRYSTAL (32.768kHz)	

*	A-3294-938-A	POWER BOARD, COMPLETE	*****

*	3-031-503-01	BRACKET	
< CAPACITOR >			
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	
C905	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C906	1-163-021-00	CERAMIC CHIP 0.01uF 10% 50V	
C910	1-126-603-11	ELECT CHIP 4.7uF 20% 35V	
C911	1-164-162-11	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	1-164-162-11	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 10% 16V	
C950	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C951	1-125-710-11	DOUBLE LAYERS 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	

POWER

SENSOR

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C973	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V			< TRANSISTOR >	
C974	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V				
C975	1-126-204-11	ELECT CHIP	47uF 20% 16V	Q910	8-729-920-21	TRANSISTOR DTC314TK-T-146	
C976	1-128-590-11	ELECT CHIP	100uF 20% 6.3V	Q920	8-729-920-21	TRANSISTOR DTC314TK-T-146	
C977	1-128-590-11	ELECT CHIP	100uF 20% 6.3V	Q930	8-729-424-59	TRANSISTOR UN2212	
C978	1-128-590-11	ELECT CHIP	100uF 20% 6.3V	Q931	8-729-920-85	TRANSISTOR 2SD1664-QR	
C980	1-128-590-11	ELECT CHIP	100uF 20% 6.3V	Q932	8-729-424-12	TRANSISTOR UN2112	
C981	1-127-485-00	ELECT	33uF 20% 6.3V	Q940	8-729-200-13	TRANSISTOR 2SC2712-Y	
C983	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q941	8-729-027-38	TRANSISTOR DTA144EK-T146	
C984	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	Q950	8-729-920-85	TRANSISTOR 2SD1664-QR	
		< CONNECTOR >		Q970	8-729-106-60	TRANSISTOR 2SB1115A	
CN900	1-580-907-12	PLUG, CONNECTOR 9P (BUS CONTROL OUT)		Q972	8-729-822-84	TRANSISTOR 2SB1202FAST	
* CN901	1-573-939-11	CONNECTOR, FFC/FPC (ZIF) 30P				< RESISTOR >	
		< JACK >		R900	1-216-089-11	RES-CHIP 47K 5% 1/10W	
CN902	1-580-441-11	JACK, PIN 2P (AUDIO OUT)		R910	1-216-079-00	METAL CHIP 18K 5% 1/10W	
		< DIODE >		R911	1-216-097-11	RES-CHIP 100K 5% 1/10W	
D900	8-719-421-27	DIODE MA728		R912	1-216-081-00	METAL CHIP 22K 5% 1/10W	
D901	8-719-057-80	DIODE MA8180-M-TX		R913	1-216-081-00	METAL CHIP 22K 5% 1/10W	
D902	8-719-421-27	DIODE MA728		R914	1-216-033-00	METAL CHIP 220 5% 1/10W	
D903	8-719-057-80	DIODE MA8180-M-TX		R915	1-216-097-11	RES-CHIP 100K 5% 1/10W	
D904	8-719-421-27	DIODE MA728		R920	1-216-079-00	METAL CHIP 18K 5% 1/10W	
D905	8-719-057-80	DIODE MA8180-M-TX		R921	1-216-097-11	RES-CHIP 100K 5% 1/10W	
D930	8-719-422-97	DIODE MA8091-M		R922	1-216-081-00	METAL CHIP 22K 5% 1/10W	
D940	8-719-977-03	DIODE DTZ5.6B		R923	1-216-081-00	METAL CHIP 22K 5% 1/10W	
D941	8-719-988-61	DIODE 1SS355TE-17		R924	1-216-033-00	METAL CHIP 220 5% 1/10W	
D950	8-719-988-61	DIODE 1SS355TE-17		R925	1-216-097-11	RES-CHIP 100K 5% 1/10W	
D951	8-719-422-62	DIODE MA8062-L-TX		R930	1-216-049-11	RES-CHIP 1K 5% 1/10W	
D952	8-719-041-79	DIODE MA721WA-TX		R931	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
D970	8-719-210-43	DIODE EC10QS-06		R932	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
		< FERRITE BEAD >		R933	1-216-009-11	RES-CHIP 22 5% 1/10W	
FB903	1-414-235-22	INDUCTOR, FERRITE BEAD		R940	1-216-097-11	RES-CHIP 100K 5% 1/10W	
		< IC >		R941	1-216-093-11	RES-CHIP 68K 5% 1/10W	
IC900	8-759-444-86	IC BA8272F-E2		R942	1-216-109-00	METAL CHIP 330K 5% 1/10W	
IC930	8-759-385-17	IC NJM4580E(TE2)		R950	1-216-049-11	RES-CHIP 1K 5% 1/10W	
IC970	8-759-983-96	IC TL5001CPS		R951	1-216-085-11	RES-CHIP 33K 5% 1/10W	
		< COIL >		R970	1-216-214-00	RES-CHIP 4.7K 5% 1/8W	
L970	1-409-640-21	COIL, CHIP CHOKE 10uH		R971	1-216-206-00	RES-CHIP 2.2K 5% 1/8W	
L971	1-403-584-11	COIL, CHIP CHOKE 33uH		R972	1-216-206-00	RES-CHIP 2.2K 5% 1/8W	
L972	1-409-640-21	COIL, CHIP CHOKE 10uH		R973	1-216-061-11	RES-CHIP 3.3K 5% 1/10W	
		< FILTER >		R974	1-216-081-00	METAL CHIP 22K 5% 1/10W	
NF900	1-239-466-21	FILTER, EMI		R975	1-216-077-11	RES-CHIP 15K 5% 1/10W	
		< FUSE >		R976	1-216-174-00	RES-CHIP 100 5% 1/8W	
PC1	1-533-351-11	FUSE, CHIP (2A/125V)		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	METAL CHIP 3.3K 0.5% 1/10W	
				R980	1-216-649-11	METAL CHIP 820 0.5% 1/10W	

				A-3340-373-A	SENSOR BOARD, COMPLETE (When replacing any parts in the SENSOR board, the whole mounted board should be replaced.)		

MDX-66XLP

SERVO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-3283-295-A	SERVO BOARD, COMPLETE *****				< DIODE >	
		< CAPACITOR >					
C100	1-107-685-11	TANTAL. CHIP	15uF 20% 6.3V	D300	8-719-988-61	DIODE 1SS355TE-17	
C101	1-135-201-11	TANTALUM CHIP	10uF 20% 4V			< FERRITE BEAD >	
C102	1-135-201-11	TANTALUM CHIP	10uF 20% 4V	FB200	1-414-594-11	INDUCTOR, FERRITE BEAD	
C103	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V			< IC >	
C104	1-162-969-11	CERAMIC CHIP	0.0068uF 10% 25V	IC100	8-752-080-95	IC CXA2523AR	
C105	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	IC200	8-752-404-64	IC CXD2662R	
C106	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	IC201	8-759-671-27	IC MSM51V4400E-70TS-K	
C107	1-110-563-11	CERAMIC CHIP	0.068uF 10% 16V	IC203	8-759-096-87	IC TC7WU04FU(TE12R)	
C108	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	IC300	8-759-682-72	IC SC111236VMEL	
C109	1-109-982-11	CERAMIC CHIP	1uF 10% 10V			< COIL >	
C110	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	L100	1-412-058-11	INDUCTOR CHIP 10uH	
C111	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	L200	1-412-058-11	INDUCTOR CHIP 10uH	
C112	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	L300	1-412-034-11	INDUCTOR CHIP 330uH	
C113	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V			< TRANSISTOR >	
C200	1-107-685-11	TANTAL. CHIP	15uF 20% 6.3V	Q100	8-729-216-22	TRANSISTOR 2SA1162-G	
C204	1-164-217-11	CERAMIC CHIP	150PF 5% 50V	Q200	8-729-200-13	TRANSISTOR 2SC2712-Y	
C206	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V			< RESISTOR >	
C207	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	R100	1-216-853-11	METAL CHIP 470K 5% 1/16W	
C208	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R101	1-218-709-11	METAL CHIP 5.1K 0.5% 1/16W	
C209	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R102	1-216-308-00	METAL CHIP 4.7 5% 1/10W	
C210	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	R103	1-216-811-11	METAL CHIP 150 5% 1/16W	
C211	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	R104	1-216-853-11	METAL CHIP 470K 5% 1/16W	
C212	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V	R105	1-218-739-11	RES-CHIP 91K 5% 1/10W	
C213	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R106	1-216-994-11	RES-CHIP 13K 5% 1/10W	
C214	1-109-982-11	CERAMIC CHIP	1uF 10% 10V	R107	1-216-994-11	RES-CHIP 13K 5% 1/10W	
C215	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R108	1-216-994-11	RES-CHIP 13K 5% 1/10W	
C216	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R109	1-216-842-11	METAL CHIP 56K 5% 1/16W	
C217	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R110	1-216-833-11	METAL CHIP 10K 5% 1/16W	
C218	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R111	1-216-833-11	METAL CHIP 10K 5% 1/16W	
C220	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R204	1-216-809-11	METAL CHIP 100 5% 1/16W	
C221	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R205	1-216-833-11	METAL CHIP 10K 5% 1/16W	
C300	1-104-852-11	TANTAL. CHIP	22uF 20% 10V	R206	1-216-845-11	METAL CHIP 100K 5% 1/16W	
C301	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R207	1-216-855-11	METAL CHIP 680K 5% 1/16W	
C302	1-113-984-11	TANTAL. CHIP	1.5uF 20% 35V	R208	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
C303	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R209	1-216-821-11	METAL CHIP 1K 5% 1/16W	
C304	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R210	1-216-821-11	METAL CHIP 1K 5% 1/16W	
C305	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R211	1-216-811-11	METAL CHIP 150 5% 1/16W	
C306	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R212	1-216-819-11	METAL CHIP 680 5% 1/16W	
C320	1-113-984-11	TANTAL. CHIP	1.5uF 20% 35V	R213	1-216-853-11	METAL CHIP 470K 5% 1/16W	
C400	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R214	1-216-809-11	METAL CHIP 100 5% 1/16W	
C401	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R215	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
C501	1-162-923-11	CERAMIC CHIP	47PF 5% 50V	R216	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
C502	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	R217	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
		< CONNECTOR >		R218	1-216-833-11	METAL CHIP 10K 5% 1/16W	
CN100	1-573-929-21	CONNECTOR, FFC/FPC (ZIF) 20P					
CN200	1-573-370-21	CONNECTOR, FFC/FPC 30P					
* CN300	1-770-619-11	PIN, CONNECTOR 2P					
CN400	1-573-346-21	CONNECTOR, FFC/FPC 6P					

SERVO

Ref. No.	Part No.	Description	Remark
		< NETWORK RESISTOR >	
RB200	1-233-576-11	RES, CHIP NETWORK 100X4	
RB300	1-233-600-11	RES, CHIP NETWORK 2.2X4 (3216)	
RB301	1-233-600-11	RES, CHIP NETWORK 2.2X4 (3216)	
		< SWITCH >	
S400	1-692-532-21	SWITCH, PUSH (1 KEY) (LIMIT)	
		< VIBRATOR >	
X200	1-795-144-21	VIBRATOR, CERAMIC (45MHz)	

		MISCELLANEOUS	

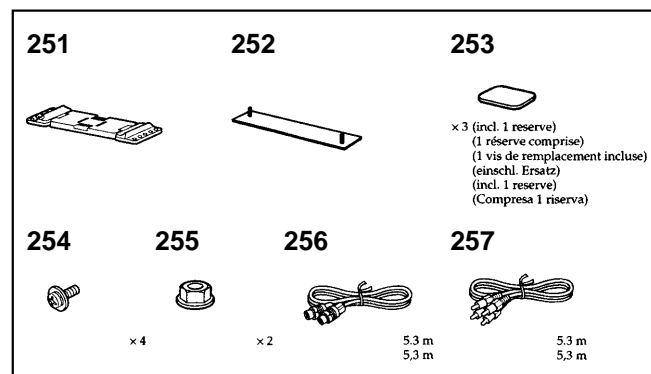
53	1-776-474-11	CABLE, FLAT 7P	
61	1-668-438-11	MAIN FLEXIBLE BOARD	
106	1-668-264-11	SERVO FLEXIBLE BOARD	
204	1-658-880-11	EHS FLEXIBLE BOARD	
△ 221	X-3379-728-1	PICK-UP, OPTICAL KMS-241C/J1N	
M901	A-3291-507-A	MOTOR BLOCK ASSY, SP (SPINDLE)	
M902	A-3291-508-A	MOTOR BLOCK ASSY, SL (SLED)	
M903	X-3371-508-2	MOTOR ASSY, LD (LOADING)	
M904	X-3374-812-1	MOTOR ASSY, ELV (ELEVATOR)	
RV901	1-223-817-11	RES, VAR, SLIDE 10K (ELEVATOR HEIGHT SENSOR)	
S901	1-570-771-21	SWITCH (HOME POSITION DET)	
S902	1-570-771-11	SWITCH (LOADING END SENSOR DET)	
S903	1-570-771-21	SWITCH (STORE END SENSOR DET)	

		ACCESSORIES	

	3-240-563-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (US,CND)	
	3-240-563-21	MANUAL, INSTRUCTION (ENGLISH,FRENCH, GERMAN,DUTCH,ITALIAN) (AEP,UK)	

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	

251	3-930-163-21	BASE (FITTING)	
252	X-3371-178-1	BRACKET ASSY	
253	3-930-166-01	CUSHION (FITTING)	
254	7-682-961-01	SCREW +PSW 4X8	
255	4-304-511-00	NUT (M5), FLANGE	
256	1-590-519-21	CORD (WITH CONNECTOR) (BUS CABLE) (5.5m)	
257	1-590-874-11	CORD, CONNECTION (RCA PIN CORD) (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 pièce portant le numéro spécifié.
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