CDX-3100

SERVICE MANUAL

US Model
Canadian Model



Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-333X-121
Optical Pick-Up Name	KSS-520A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
12 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1 % total harmonic distortion.

CD player section

System	Compact disc digital audio system
Signal-to- noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limitLaser Diode Properties
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.*

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.5 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	30 μV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	30 W × 4 (at 4 ohms)

General

Output lead	Power antenna control/ Power amplifier control lead
Tone controls	Bass ±10 dB at 100 Hz Treble ±10 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 180 mm (7 1/2 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimension	Approx. 183 × 53 × 158 mm (7 1/4 × 2 1/8 × 6 1/4 in.) (w/h/d)
Mass	Approx. 1.3 kg (2 lb 14 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

FM/AM COMPACT DISC PLAYER

SONY®

SEE ADDITIONAL INFORMATION

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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.

SERVICING NOTES

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

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

Laser Diode Properites
- 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 200mm from the objective lens surface on the Optical Pick-up Block.

CAUTION

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

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

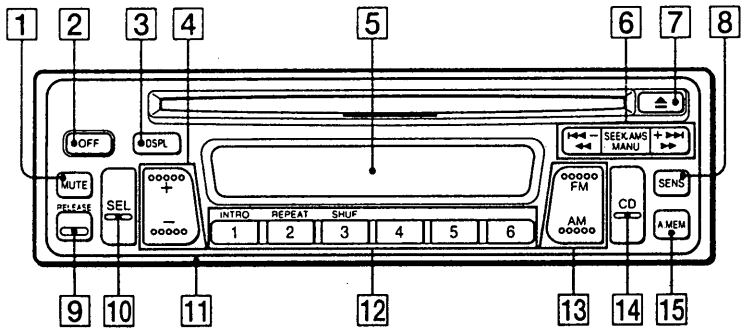
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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.

This section is extracted from instruction manual.

Location of Controls



Refer to the pages in ● for details.

1 MUTE button ❾

2 OFF button ❹❻❾

3 DSPL (display mode change/time set) button ❺

4 +/– (volume/bass/treble/balance/fader control) button ❺❾

5 Display window

6 SEEK/AMS/MANU (automatic tuning/ Automatic Music Sensor/manual search) button ❻❼❽

7 ⏏ (eject) button ❻❾

8 SENS (sensitivity adjust) button ❼

9 RELEASE (front panel release) button ❹❺❿

10 SEL (control mode select) button ❺❾

11 Reset button (located on the front side of the unit hidden by the front panel) ❹

12 During radio reception:
Preset number buttons ❽

During CD playback:
1 (INTRO) INTRO (intro scan) button ❻
2 (REPEAT) REPEAT (repeat play) button ❻
3 (SHUF) SHUF (shuffle play) button ❼

13 FM/AM (radio on/band select) button ❻❼

14 CD (CD play) button ❻

15 A.MEM (Automatic Memory function) button ❼❽❾

Installation

Precautions

- Do not tamper with the four holes on the upper surface of the unit. They are for tuner adjustments to be done only by service technicians.
- Choose the installation location carefully so that the unit will not hamper the driver during driving.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to Detach and Attach the Front Panel

Before installing the unit, detach the front panel.

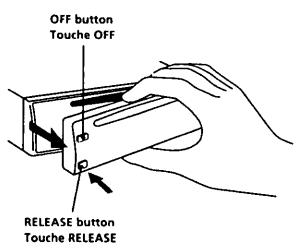
To detach

Before detaching the front panel, be sure to press the OFF button first. Then press the RELEASE button to open up the front panel by pulling it towards you as illlustrated.

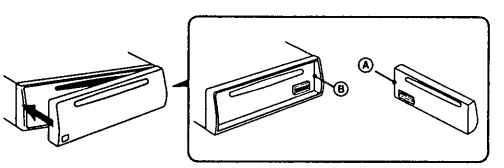
To attach

Align the parts Ⓐ and Ⓑ, and push the front

To detach
Retrait



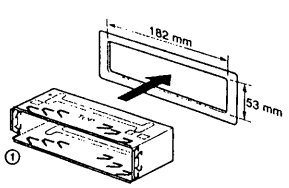
To attach
Pose



Mounting Example

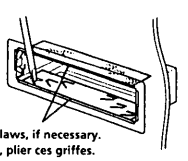
Installation in the dashboard

1



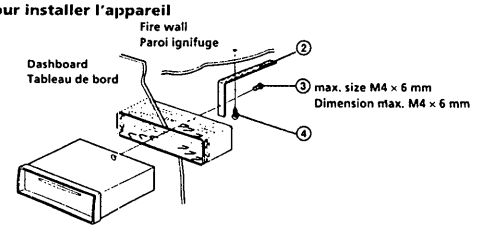
With the TOP marking up
Avec l'inscription TOP vers le haut

2



Bend these claws, if necessary.
Si nécessaire, plier ces griffes.

To support the unit
Pour installer l'appareil

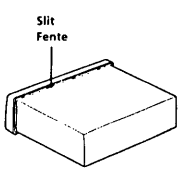


Mounting the Unit in a Japanese Car

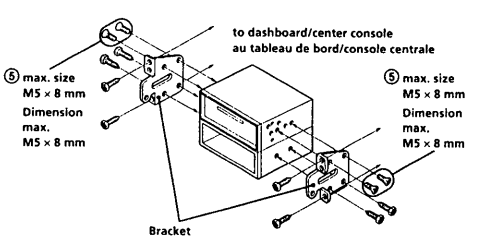
You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

1 Run a blade along the slits on the back of the front trim and cut it off the unit.

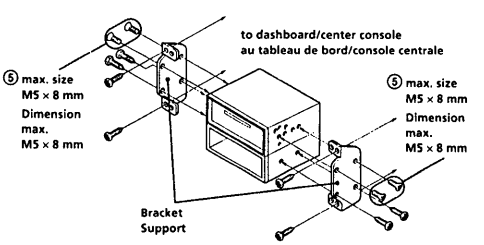
Passer une lame le long des fentes à l'arrière de la bordure et la couper.



2 TOYOTA



NISSAN



Note

To prevent malfunction, install only with the supplied screws ⑤ and use existing parts supplied to your car.

Installation

Précautions

- Ne pas toucher les quatre orifices sur le panneau supérieur de l'appareil. Ils servent aux réglages du tuner qui ne doivent être effectués que par un technicien.
- Choisir soigneusement l'emplacement de l'installation, pour que l'appareil ne gêne pas la conduite.
- Eviter d'installer l'appareil dans un endroit exposé à des températures élevées, comme en plein soleil ou à proximité d'une bouche d'air chaud, ou à de la poussière, saleté ou vibrations violentes.
- Pour garantir un montage sûr, n'utiliser que le matériel fourni.

Réglage de l'angle de montage

Ajuster l'inclinaison à un angle inférieur à 20°.

Retrait et pose du panneau avant

Avant d'installer l'appareil, déposer la panneau avant.

Retrait

Avant de détacher la façade, appuyez sur la touche OFF. Appuyez ensuite sur la touche RELEASE pour ouvrir la façade. Enlevez-la en la tirant vers vous, comme indiqué sur l'illustration.

Pose

Aligner les points Ⓐ et Ⓑ, puis pousser l'appareil jusqu'au déclic.

Exemple de montage

Installation dans le tableau de bord

Installation de l'appareil dans une voiture japonaise

Si vous ne pouvez pas installer l'appareil dans une voiture japonaise, consultez votre revendeur Sony.

Remarque

Pour éviter tout dysfonctionnement, utilisez uniquement les vis de montage fournies ⑤ ainsi que les composants existants de votre voiture.

Connections

Caution

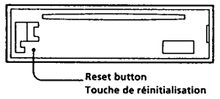
- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**
- The use of optical instruments with this product will increase eye hazard.

If Your Car has an Accessory Position on the Ignition Key Switch — Power Select Function

To turn the Power Select Function on
Press the OFF button while pressing the SEL button.
To turn the accessory position ON or OFF, the clock will be displayed or not.
To avoid battery wear, the clock is not displayed when the unit is initialization.

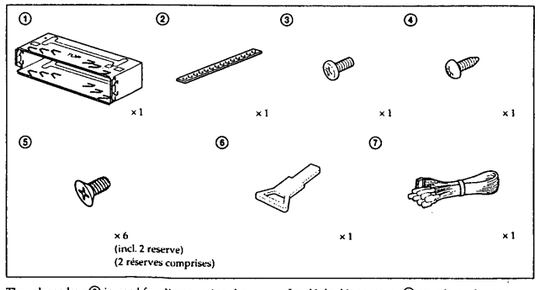
Reset Button

When the installation and connections are over, be sure to press the reset button with a ball-point pen etc.



Parts for Installation and Connections

The numbers in the list are keyed to those in the instructions.



The release key ⑥ is used for dismounting the unit. See the operating instructions manual for details.

Connexions

Précautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Avant d'effectuer les connexions, débrancher la borne de terre de la batterie du véhicule pour éviter tout court-circuit.
- Brancher les fils d'entrée d'alimentation **jaune** et **rouge** seulement après avoir terminé tous les autres branchements.
- Veiller à ne pas raccorder le fil rouge d'entrée d'alimentation à la borne positive de 12 V qui est alimentée quand la clé de contact est sur la position accessoires.
- **Rassembler tous les fils de terre en un point de masse commun.**

Si la serrure de contact de votre voiture comporte une position accessoires — Fonction de sélection d'alimentation

Pour activer la fonction de sélection d'alimentation
Appuyez sur la touche OFF tout en maintenant la touche SEL enfoncée.
Selon que vous activez (ON) ou que vous désactivez (OFF) la position accessoire, l'horloge est affichée ou ne l'est pas.
Pour éviter que les piles ne s'épuisent, l'horloge ne s'affiche pas pendant l'initialisation de l'appareil.

Touche de réinitialisation

Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo bille ou un objet pointu.

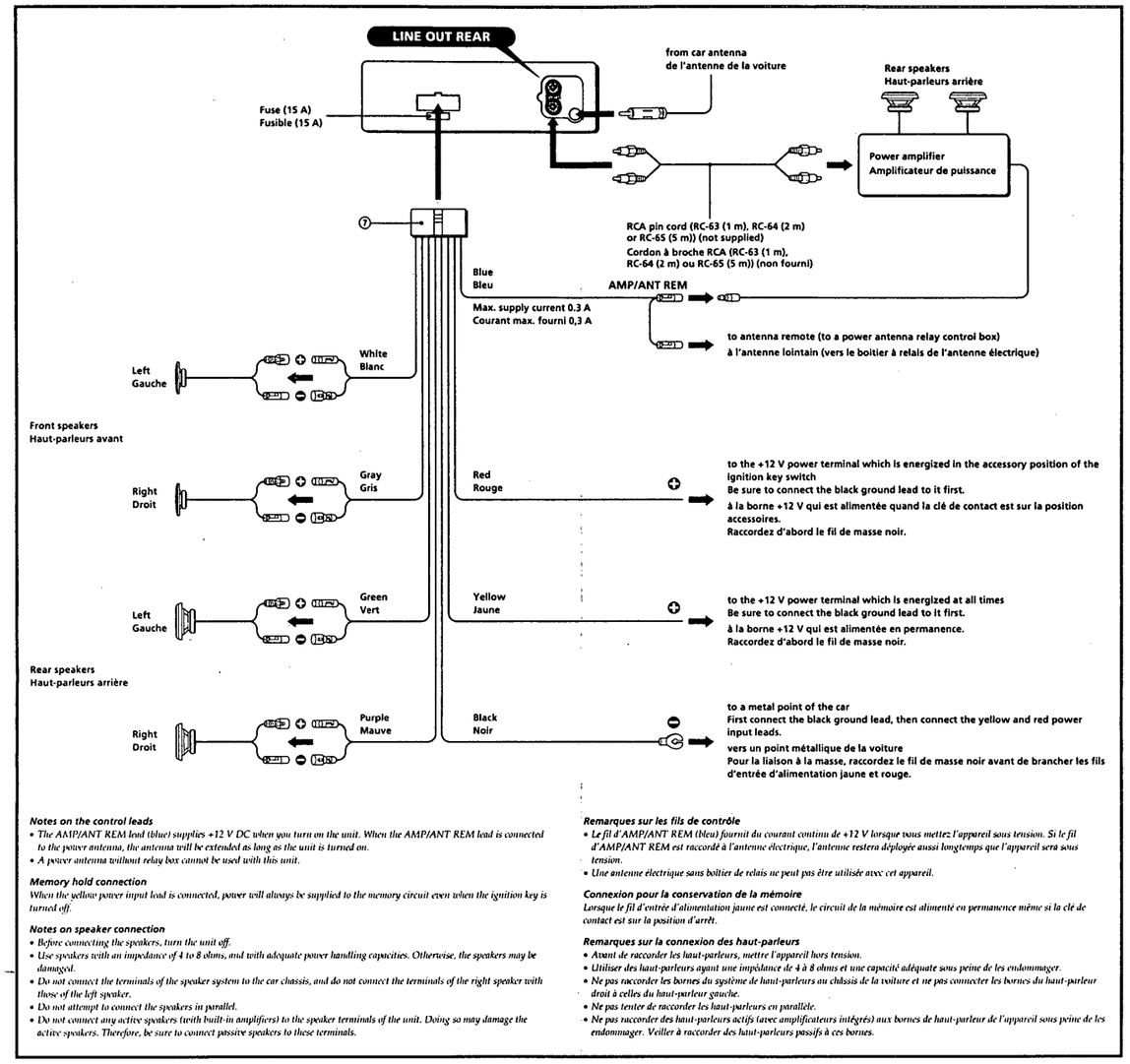
Matériel de montage fourni

Les numéros de la liste correspondent à ceux des instructions.

La clé de dégagement ⑥ est nécessaire pour démonter l'appareil. Consulter le mode d'emploi pour plus de détails.

Connections of Example

Connexions de l'exemple



Notes on the control leads

- *The AMP/ANT REM lead (blue) supplies +12 V DC when you turn on the unit. When the AMP/ANT REM lead is connected to the power antenna, the antenna will be extended as long as the unit is turned on.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection

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

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.*

Remarques sur les fils de contrôle

- *Le fil d'AMP/ANT REM (bleu) fournit du courant continu de +12 V lorsque vous mettez l'appareil sous tension. Si le fil d'AMP/ANT REM est raccordé à l'antenne électrique, l'antenne restera déployée aussi longtemps que l'appareil sera sous tension.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Connexion pour la conservation de la mémoire

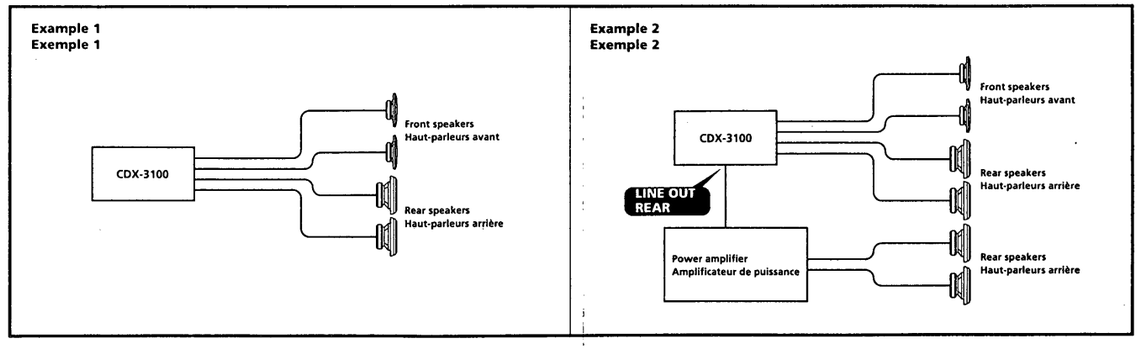
Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur la connexion des haut-parleurs

- *Avant de raccorder les haut-parleurs, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Ne pas raccorder des haut-parleurs actifs (avec amplificateurs intégrés) aux bornes de haut-parleur de l'appareil sous peine de les endommager. Veiller à raccorder des haut-parleurs passifs à ces bornes.*

Connection Diagram

Schémas de connexion

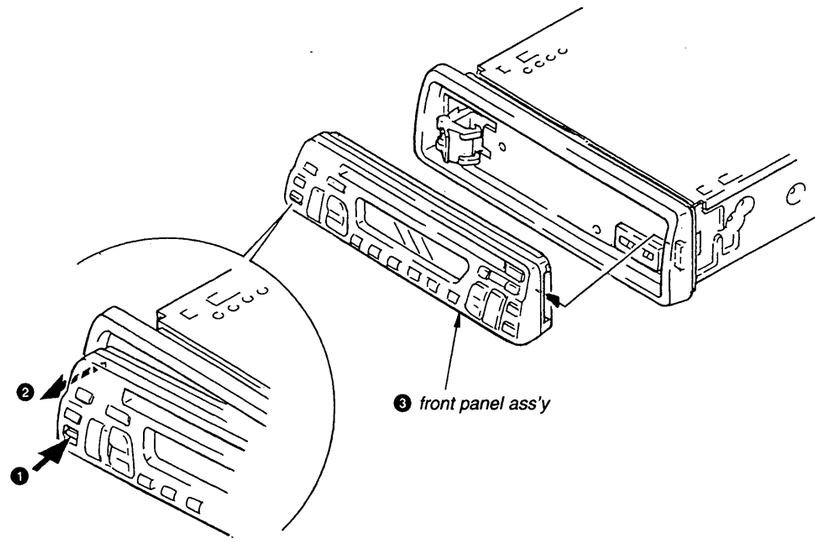


SECTION 2

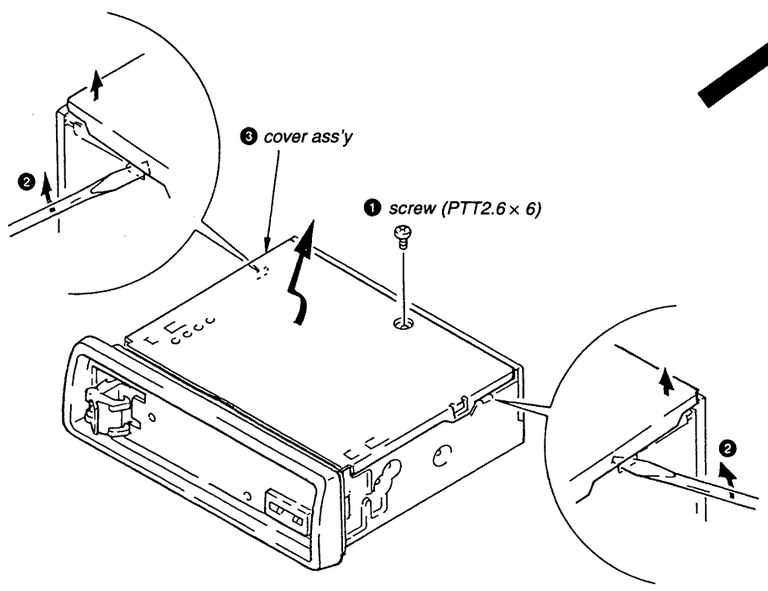
DISASSEMBLY

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

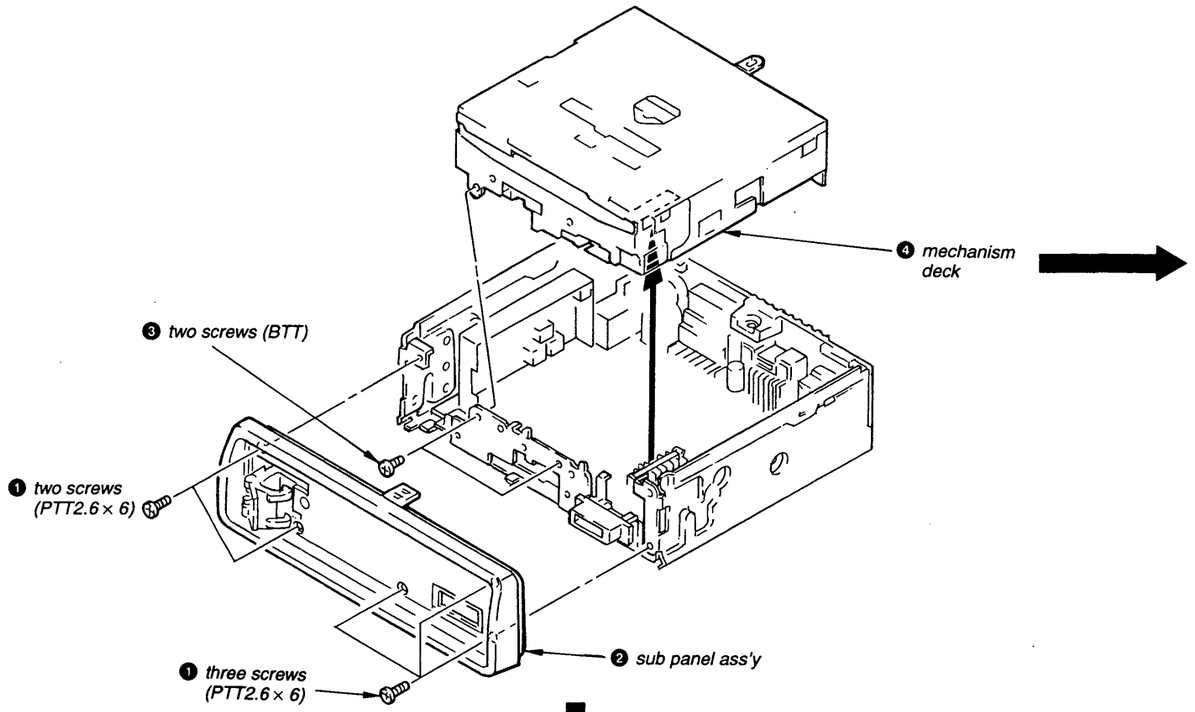
FRONT PANEL ASS'Y



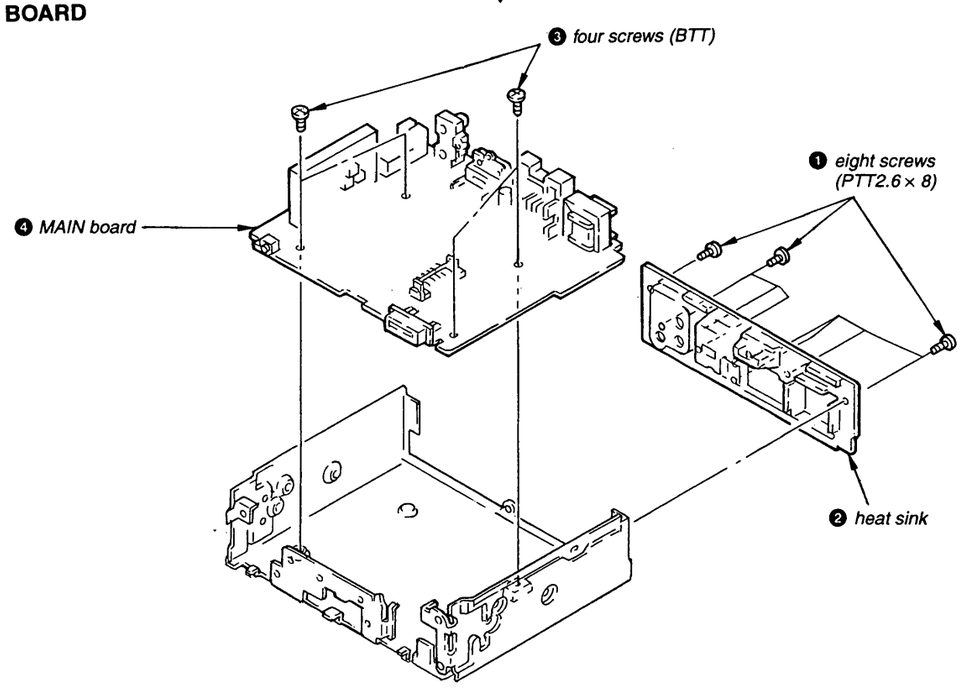
COVER ASS'Y



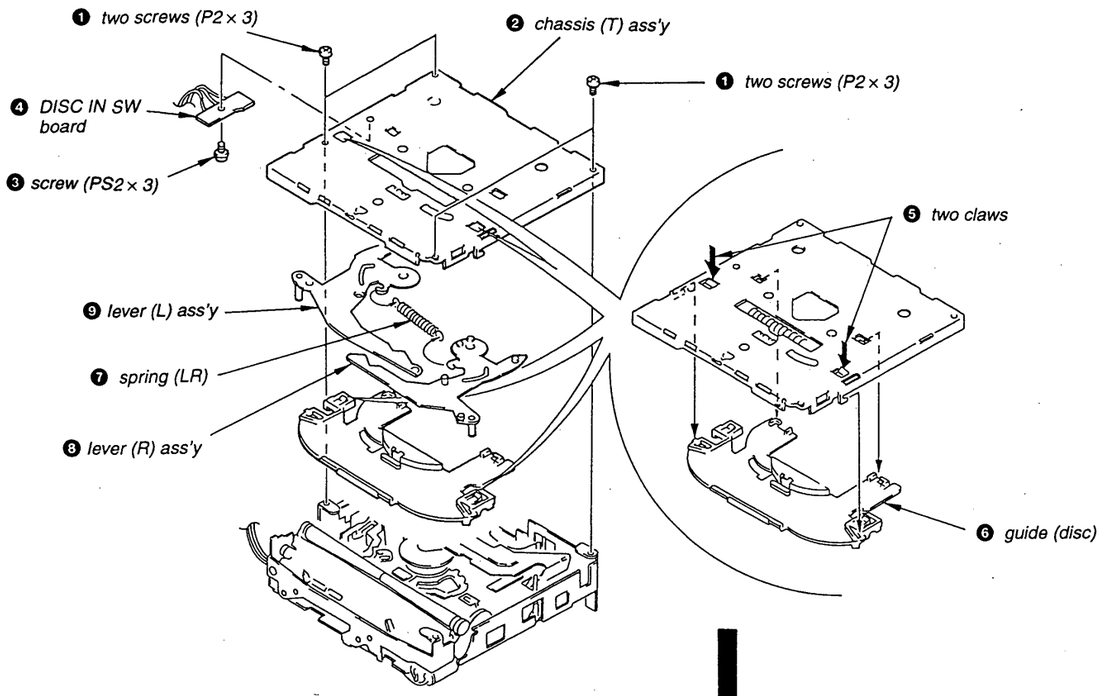
PANEL (SUB) ASS'Y, MECHANISM DECK



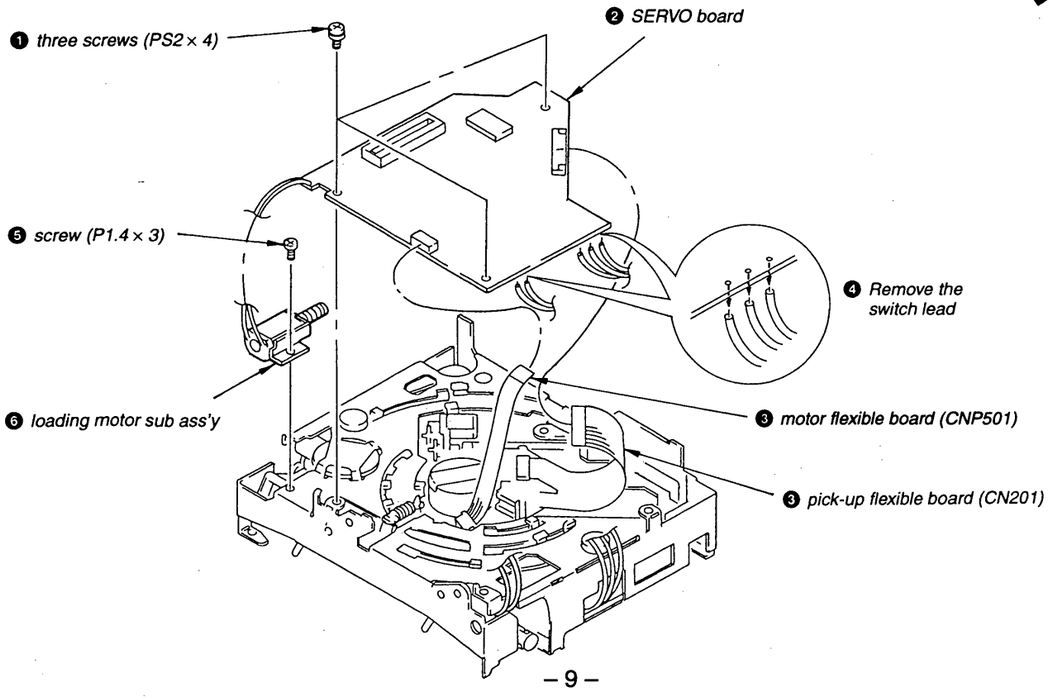
MAIN BOARD



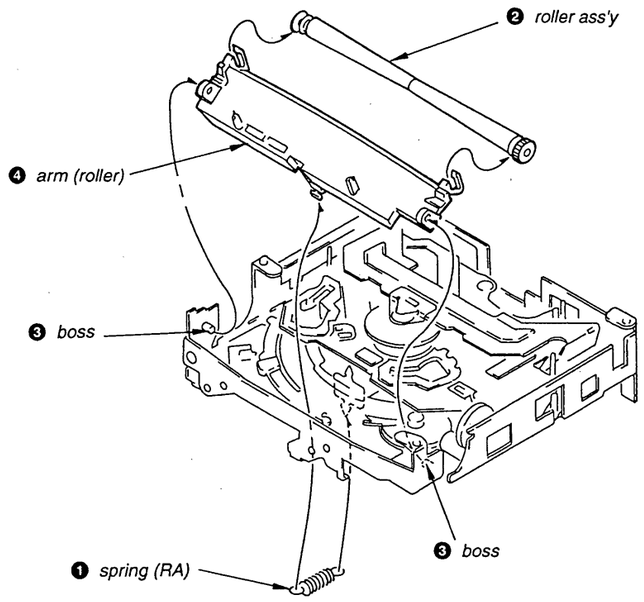
CHASSIS (T) ASS'Y



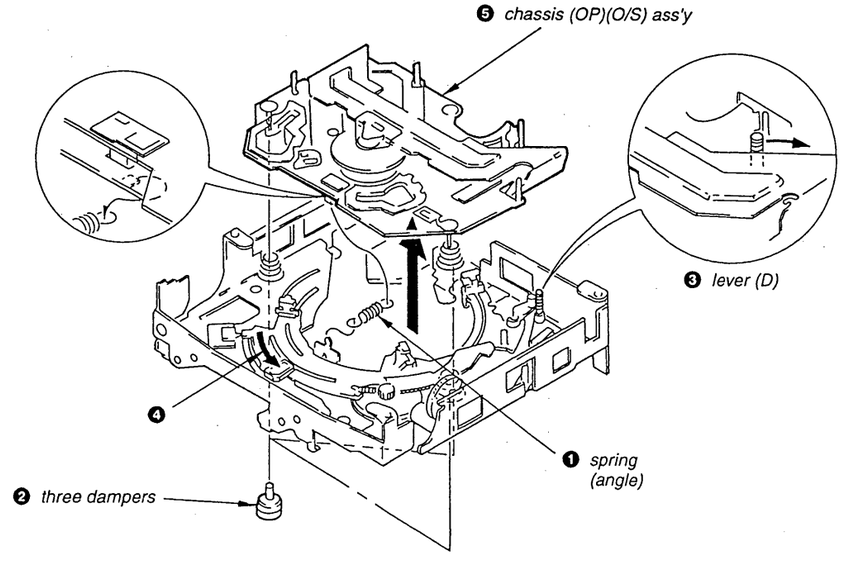
SERVO BOARD, LOADING MOTOR



ROLLER ASS'Y, ARM (ROLLER)



CHASSIS (OP)(O/S) ASS'Y



SECTION 3
TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and AM Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

Set the Test Mode

1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for two seconds.
5. Then the display indicates all lights, the test mode is set.

Release the Test Mode

1. Push the "OFF" button.

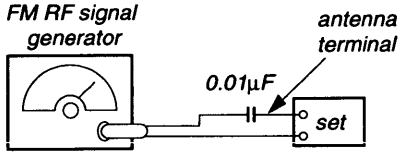
SECTION 4
ELECTRICAL ADJUSTMENTS

TUNER SECTION | **0dB=1μV**

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

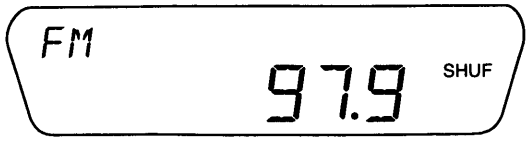
Setting:
FM button: FM



Carrier frequency : 97.9MHz
Output level : 22dB(12.6μV)
Mode : mono
Modulation : 1kHz, 75kHz deviation

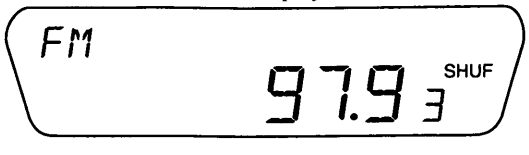
Procedure:
1. Set to the test mode.
2. Push the [FM] button and set to FM.

Display



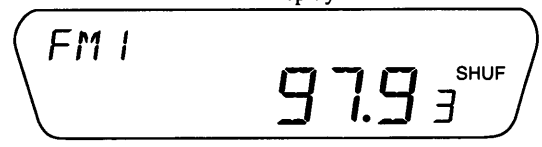
3. Push the preset [3] button.

Display



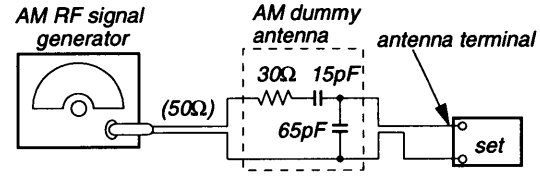
4. Adjust with the volume RV3 on TU101 so that the "FM" indication turns to "FM1" indication on the display window.
But, in case of already indicated "FM1", turn the RV3 so that put out light "1" indication and adjustment.

Display



AM Auto Scan/Stop Level Adjustment

Setting:
AM button: AM



Carrier frequency : 1000kHz
30% amplitude modulation by 1kHz signal
Output level : 35dB (56.2μV)

Procedure:
1. Set to the test mode.
2. Push the [AM] button and set to AM.

Display



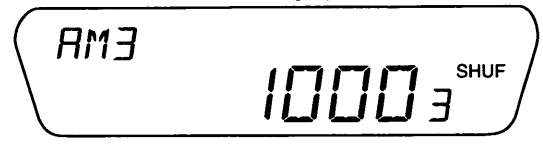
3. Push the preset [3] button.

Display



4. Adjust with the volume RV1 on TU101 so that the "AM" indication turns to "AM3" indication on the display win window.
But, in case of already indicated "AM3", turn the RV1 so that put out light "3" indication and adjustment.

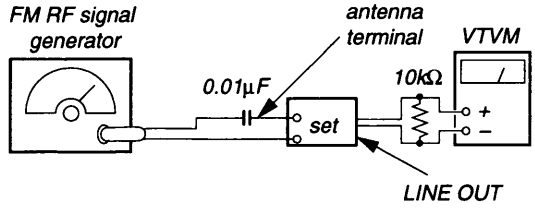
Display



High Cut Control Effect Adjustment

Setting:

FM button: FM



Carrier frequency : 97.9MHz
Output level : 60dB(1mV)
Mode : mono
Modulation : 10kHz, 40kHz deviation

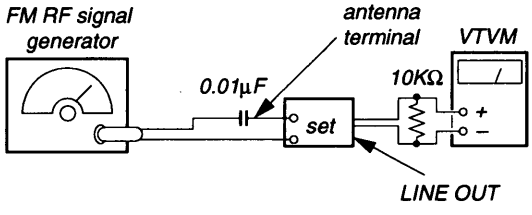
Procedure:

1. Tune the 97.9 MHz.
2. The then output level is supposing that (A) dB.
3. Adjust with the volume RV2 on TU101 so that the output level is (A) –5dB then signal generator input set to 20dB.

FM Noise Focus Adjustment

Setting:

SOURCE button: FM



Carrier frequency : 97.9MHz
Output level : 60dB(1mV)
Mode : mono
Modulation : 1kHz, 75kHz deviation

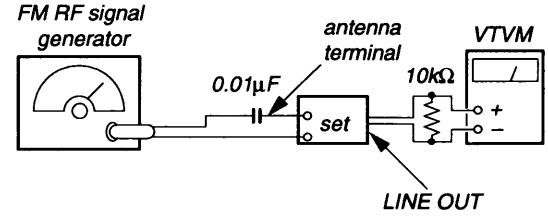
Procedure:

1. Tune the 97.9 MHz .
2. The then output level is supposing that (B) dB.
3. Adjust with the volume RV5 on TU101 so that the output level is (B) –30dB then signal generator input set to –19dB.

FM Stereo Separation Adjustment

Setting:

FM button: FM



Carrier frequency : 97.9MHz
Output level : 60dB(1mV)
Mode : stereo
Modulation : main: 1kHz, 75kHz deviation (100%)
19kHz pilot: 7.5kHz deviation (10%)

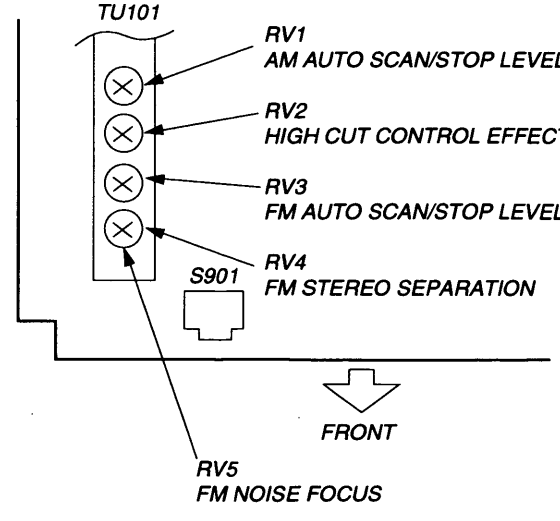
Procedure:

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TU101 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TU101 for minimum reading.

L-CH Stereo separation: Ⓐ–Ⓑ
R-CH Stereo separation: Ⓒ–Ⓓ
The separations of both channels should be equal.

Specification: Separation more than 27dB

Adjustment Location:



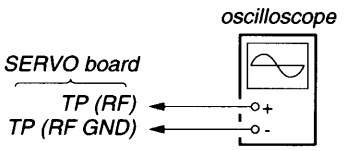
CD SECTION

Note:

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.
4. Clean an objective lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

Focus Bias Adjustment

Setting: This adjustment is performed with the set placed horizontally.

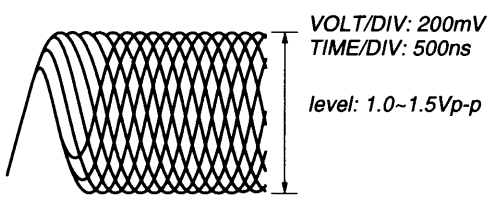


Procedure:

1. Connect an oscilloscope between TP (RF) and TP (RF GND) on the SERVO board.
2. Connect the power supply.
3. Push the RESET button (S700) on the panel (sub).
4. Insert the disc (YEDS-18) and playback.
5. Adjust RV1 so that the oscilloscope waveform is clear and check RF signal level is correct or not.

Note: Clear RF signal waveform means that the sharp "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



- When observing the eye pattern, set the oscilloscope to AC range and raise the vertical sensitivity so that it may be easily seen.

Focus Gain Adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

- Optical block
- RV4

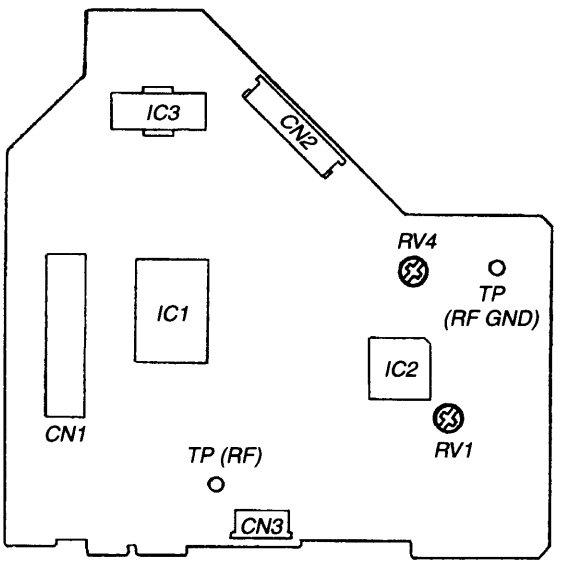
Adjustment:

1. Set RV4 to the standard position. (mechanical center)
2. Check whether operation noise (while noise type) caused by the double-axis device (lens section of the optical block) is abnormally loud.
   If the operation noise is too loud, turn RV4 slightly counterclockwise.

- If the gain is too low:
  Focus does not function and no music is selected.
- If the gain is too high:
  Noise caused by scratches and dust is heard and the operation becomes unstable.

Adjsutment Location:

– SERVO BOARD –



SECTION 5
DIAGRAMS

5-1. IC PIN FUNCTION DESCRIPTION

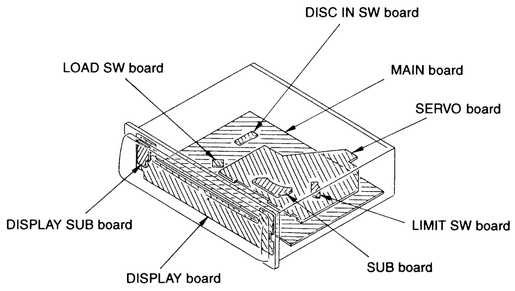
IC700 μPD17017GF-B13-3B9 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function
1	CD SO/VOL DATA	O	CD serial data and electronic volume serial data output pin.
2	VOL CLK	O	Electronic volume serial clock output pin.
3	SENS	I	CD sense signal input pin.
4	MONO	I/O	Forced monaural signal output pin and stereo detection signal input pin.
5	ACC	I	ACC voltage detection pin.
6	FOK	I	Focus OK signal input pin.
7	CD LAT	O	CD latch signal output pin.
8	SQCKO	O	Sub-code Q data reading clock output pin.
9	CD RST	O	CD reset signal output pin.
10	SQ SI	I	Sub-code Q data input pin.
11	NC	-	Not used.
12	SCOR	I	Sub-code sync detection signal input pin.
13	BU IN	I	BATT voltage detection pin.
14	CDMON	O	Mechanism deck section power supply control pin.
15	ILL ON	O	Illumination power supply control pin.
16	$\overline{\text{LD ON}}$	O	Laser power on/off control pin.
17	FM/AM	O	FM/AM select pin.
18	SEEKOUT	O	Seek out siganl output pin.
19	PW-ON	O	System power supply control pin.
20	LCL/DX	O	Local/DX select pin.
21	BEEP	O	Beep sound output pin.
22	VOL CE	O	Electronic volume serial chip enable output pin.
23	LM EJ	O	Loading motor control pin. (eject direction)
24	LM LOD	O	Loading motor control pin. (loading direction)
25	MUTE	O	Audio muting signal output pin.
26	FM IF	I	FM IF counter signal input pin.
27	AM IF	I	AM IF counter signal input pin.
28	$\overline{\text{NOSE SW}}$	I	Front panel removal or attaching detection pin.
29	SD	I	Station detection signal input pin during seek operation.
30	VDD1	-	Power supply.
31	VCOL	I	AM OSC signal input pin.
32	VCOH	I	FM OSC signal input pin.
33	GND	-	GND.
34	XOUT	O	System clock. (4.5MHz)
35	XIN	I	System clock. (4.5MHz)
36	EO0	O	Charge-pump output pin.
37	EO1	-	Not used.
38-40	NC	-	Not used.
41	VDD2	-	Power supply.
42	EMPH O	O	De-emphasis control pin.
43	COM1	O	Not used.
44	COM2	O	Not used.
45	LCDSO	O	LCD serial data output pin.

Pin No.	Pin Name	I/O	Function
46	LCDCKO	O	LCD serial clock output pin.
47	LCDINH	O	LCD control signal output pin.
48	LCDCE	O	LCD serial chip enable output pin.
49-64	-	-	Not used.
65	TEST SW	I	TEST mode direct setting pin.
66	-	-	Not used.
67	AREA2 SW	I	Destination setting pin.
68	AREA1 SW	I	Destination setting pin.
69,70	-	-	Not used.
71	SELF SW	I	SELF switch input pin.
72	IN SW	I	IN switch input pin.
73	L SW	I	LIMIT switch input pin.
74	D SW	I	Down switch input pin.
75	KEY-RETURN	I	Key return signal input pin.
76	AD2	I	Key input pin. (A/D input)
77	AD1	I	Key input pin. (A/D input)
78	AD0	I	Key input pin. (A/D input)
79	AMP MUTE	O	Power amp muting signal output pin.
80	CD CKO	O	CD serial clock output pin.

5-2. PRINTED WIRING BOARDS – MECHANISM DECK Section –

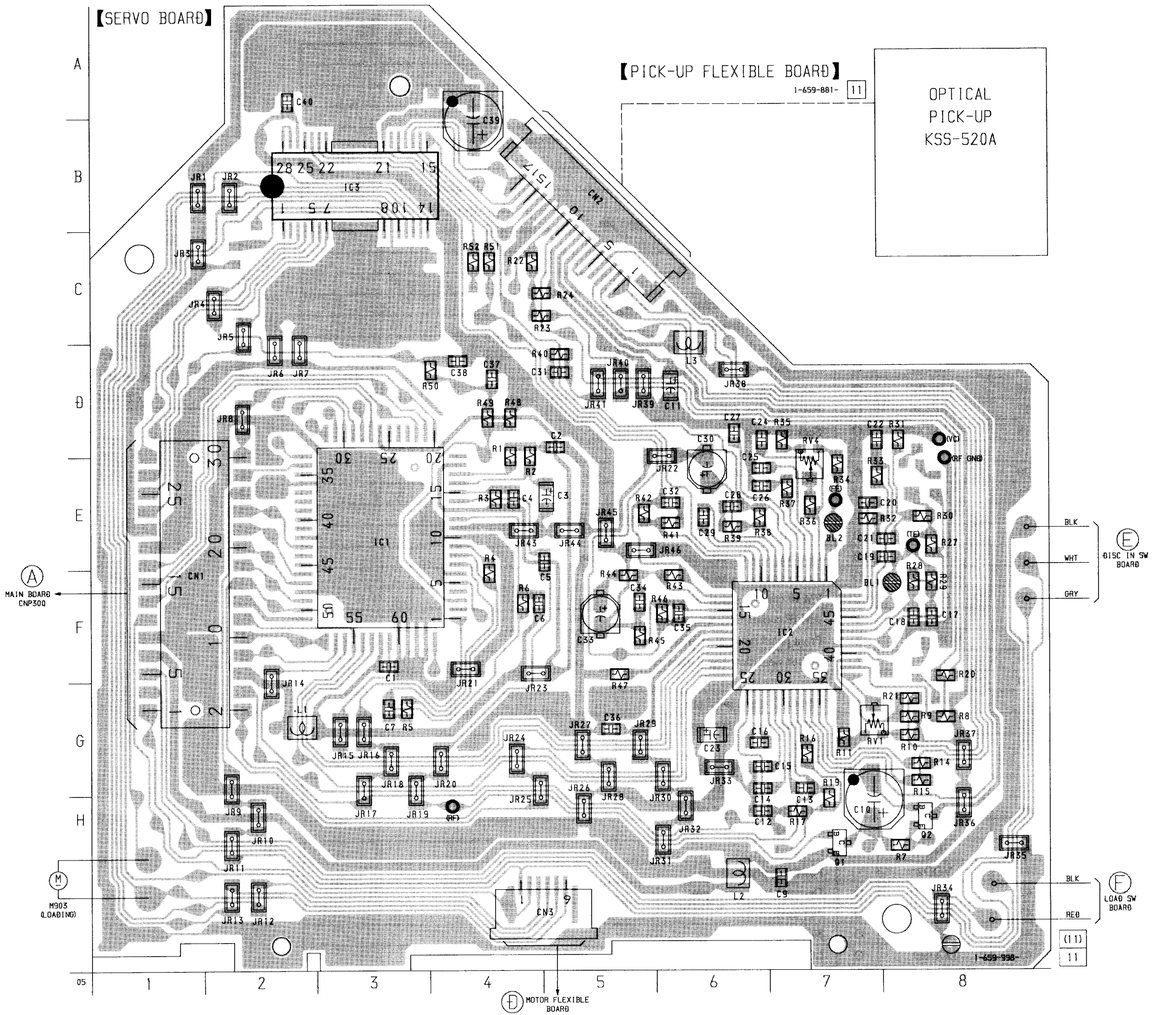
• **Circuit Boards Location**

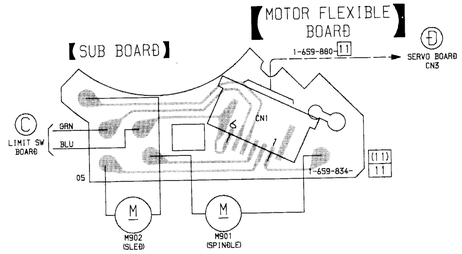


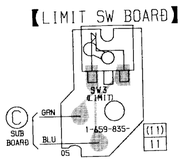
• **Semiconductor Location**

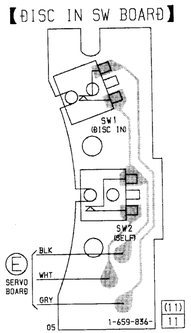
Ref. No.	Location
IC1	E-3
IC2	F-7
IC3	B-3
Q1	H-7
Q2	H-8

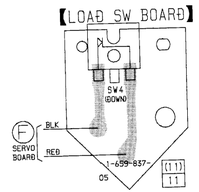
Note:
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.





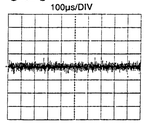




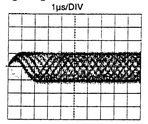


• Waveforms

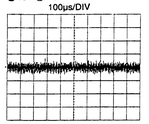
❶ IC2 ① 200mV/DIV 100µs/DIV



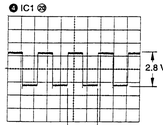
❷ IC1 ⑰ 0.5V/DIV 1µs/DIV



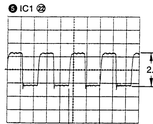
❸ IC1 ㉘ 200mV/DIV 100µs/DIV



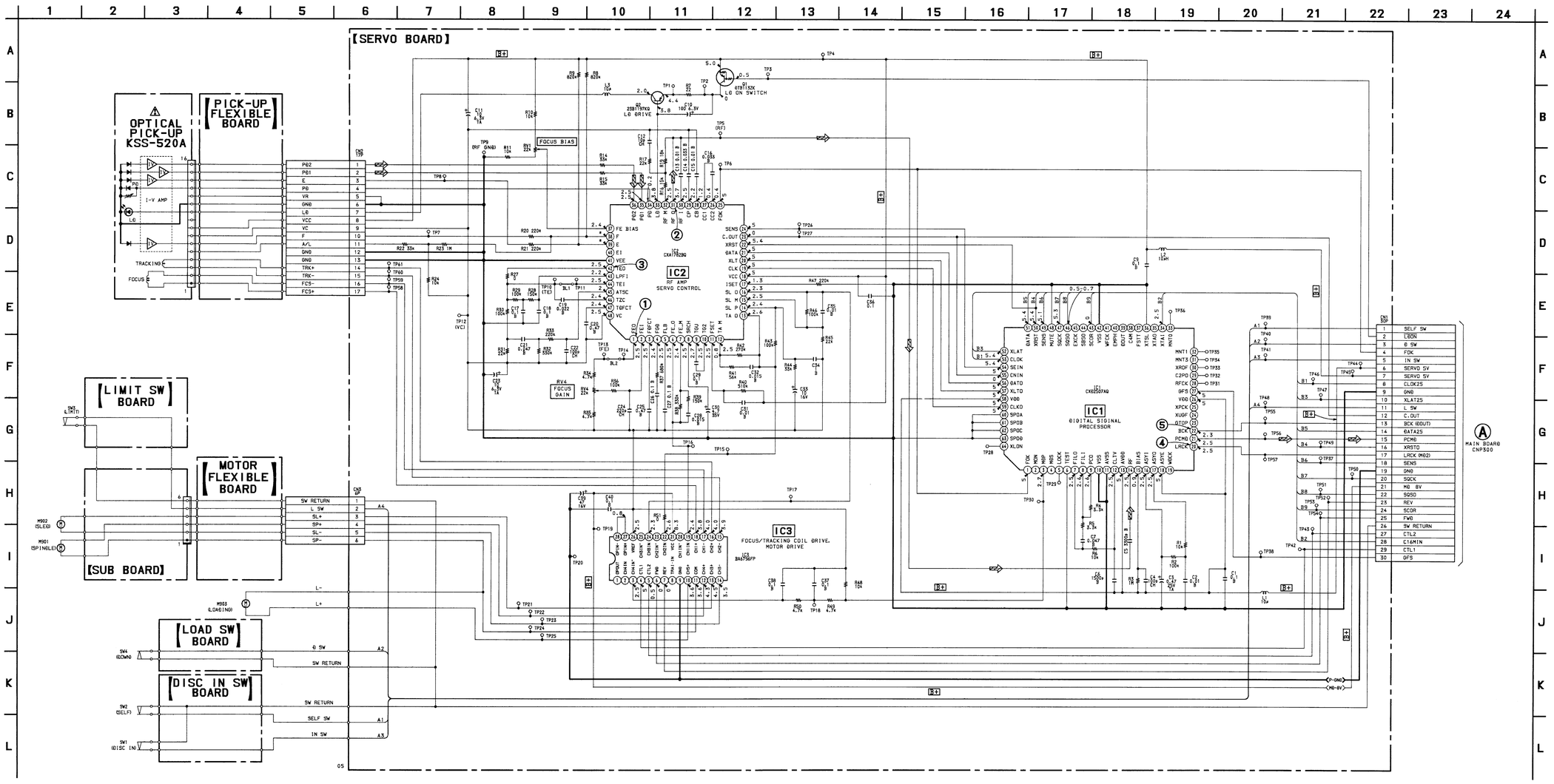
❹ IC1 ㉘



❺ IC1 ㉒



5-3. SCHEMATIC DIAGRAM – MECHANISM DECK Section – • See page 30 for IC Block Diagrams.



Note:

- 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 ¼ W or less unless otherwise specified.

Note:	**Note:**
The components identified by mark ⚠ or otted 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.

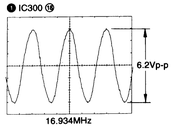
- B+ : B+ Line.
- : adjustment for repair.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD
  * : Impossible to measure
- Voltages are taken with a VOM (10 MΩ/V).
  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.
  ⇨ :CD

5-4. SCHEMATIC DIAGRAM – MAIN, DISPLAY Section –

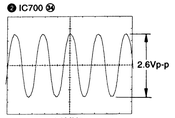
• See page 32 for IC Block Diagrams.

• Waveforms

❶ IC300 ⑰

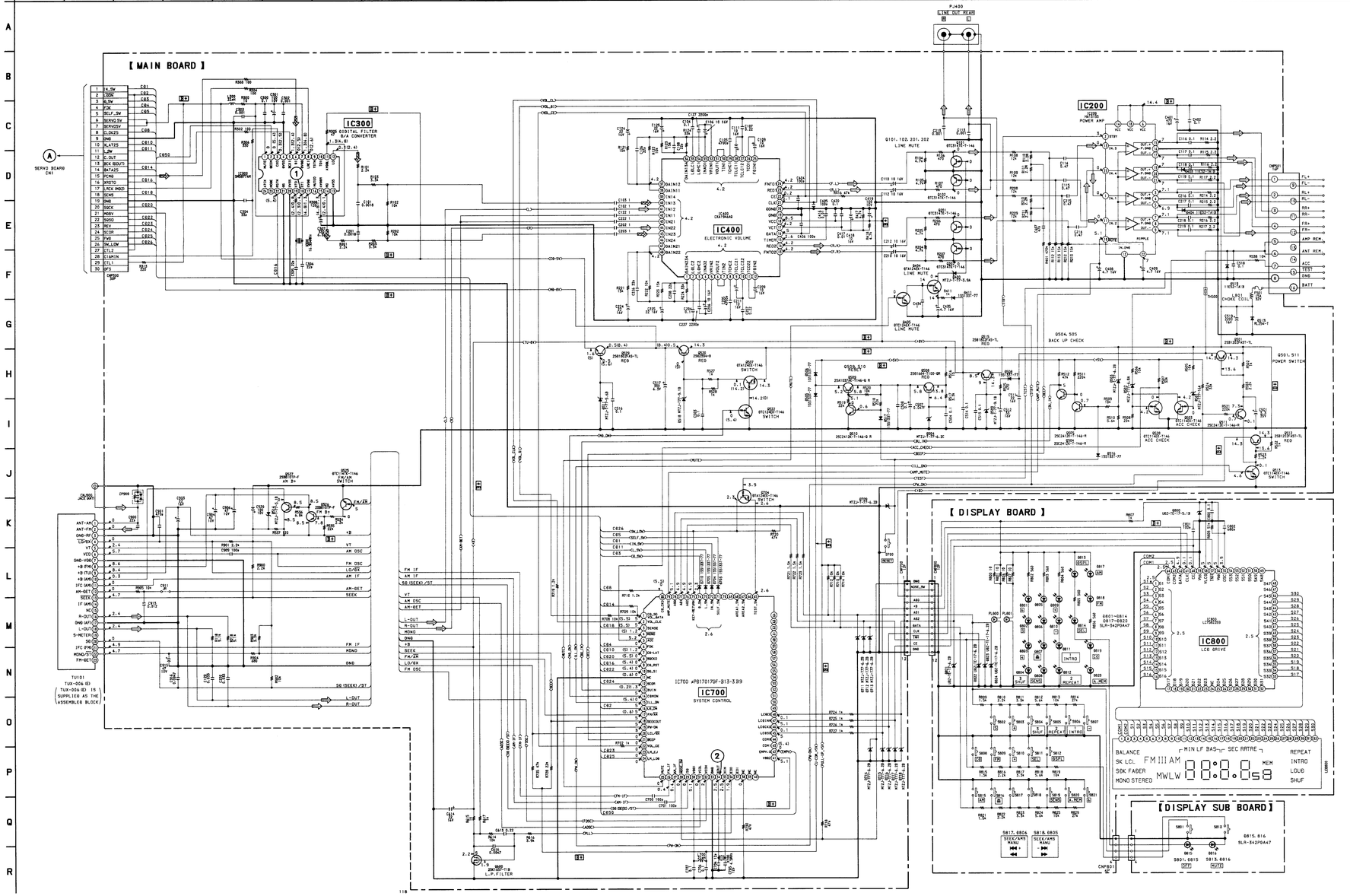


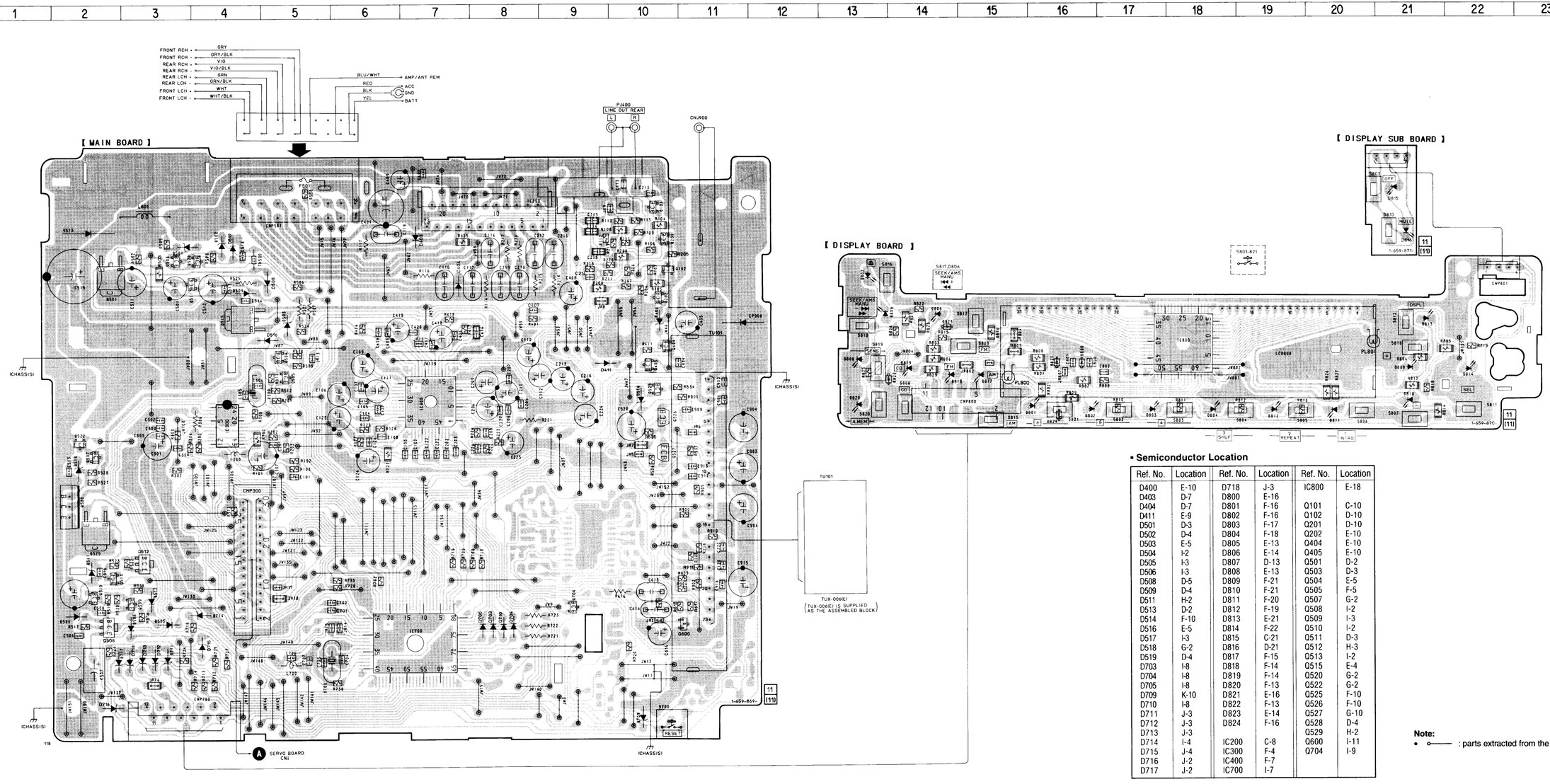
❷ IC700 ㉘



Note:

- 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 ¼ W or less unless otherwise specified.
- B+ : B+ Line.
- ▭ : panel designation.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from ACC and BATT terminals.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : CD
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : CD





• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D400	E-10	D718	J-3	IC800	E-18
D403	D-7	D800	E-16		
D404	D-7	D801	F-16	Q101	C-10
D411	E-9	D802	F-16	Q102	D-10
D501	D-3	D803	F-17	Q201	D-10
D502	D-4	D804	F-18	Q202	E-10
D503	E-5	D805	E-13	Q404	E-10
D504	I-2	D806	E-14	Q405	E-10
D505	I-3	D807	D-13	Q501	D-2
D506	I-3	D808	E-13	Q503	D-3
D508	D-5	D809	F-21	Q504	E-5
D509	D-4	D810	F-21	Q505	F-5
D511	H-2	D811	F-20	Q507	G-2
D513	D-2	D812	F-19	Q508	I-2
D514	F-10	D813	E-21	Q509	I-3
D516	E-5	D814	F-22	Q510	I-2
D517	I-3	D815	C-21	Q511	D-3
D518	G-2	D816	D-21	Q512	H-3
D519	D-4	D817	F-15	Q513	I-2
D703	I-8	D818	F-14	Q515	E-4
D704	I-8	D819	F-14	Q520	G-2
D705	I-8	D820	F-13	Q522	G-2
D709	K-10	D821	E-16	Q525	F-10
D710	I-8	D822	F-13	Q526	F-10
D711	J-3	D823	E-14	Q527	G-10
D712	J-3	D824	F-16	Q528	D-4
D713	J-3			Q529	H-2
D714	I-4	IC200	C-8	Q600	I-11
D715	J-4	IC300	F-4	Q704	I-9
D716	J-2	IC400	F-7		
D717	J-2	IC700	I-7		

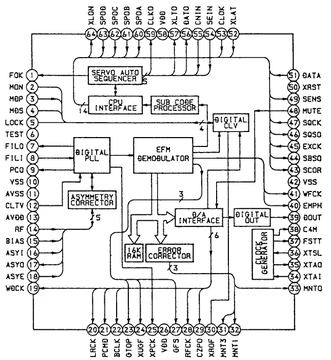
Note:

• ○—— : parts extracted from the component side.

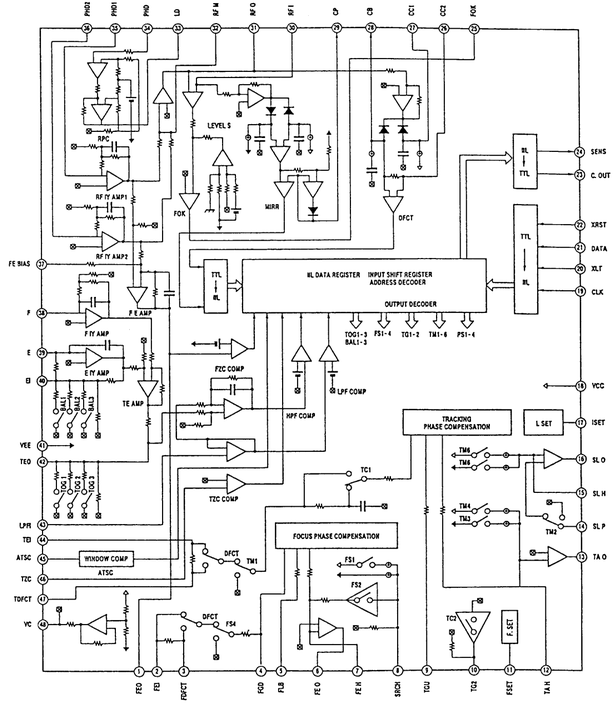
• IC Block Diagrams

– MECHANISM DECK Section –

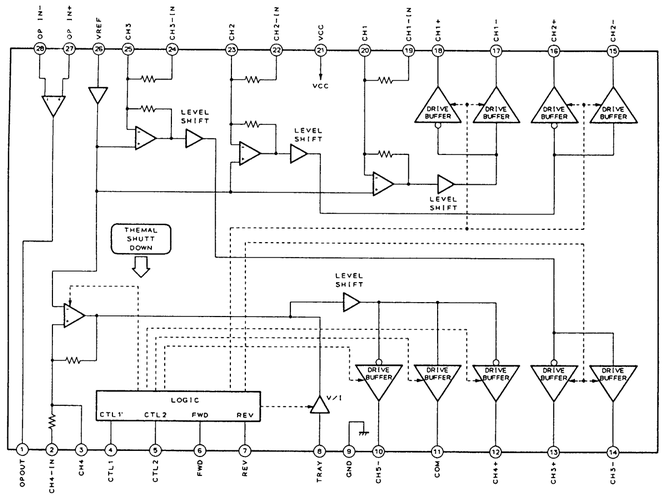
IC1 CXD2507AQ



IC2 CXA1782BQ

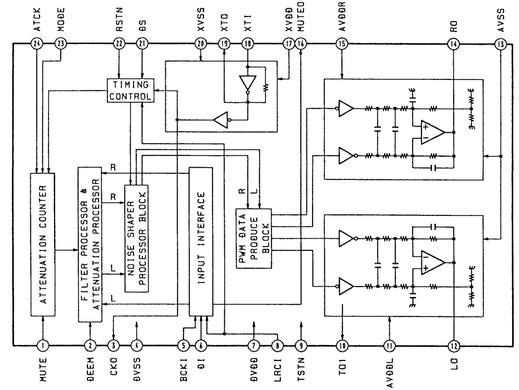


IC3 BA6995FP

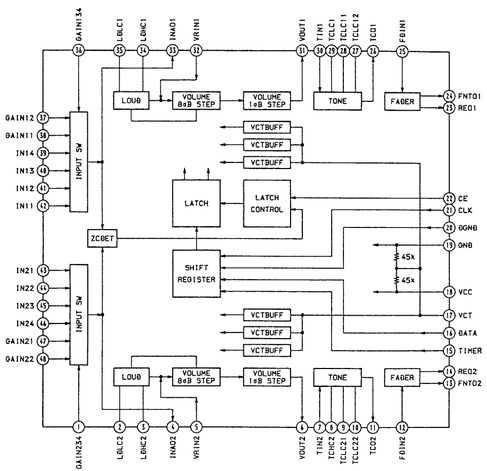


– MAIN, DISPLAY Section –

IC300 SM5877AM



IC400 CXA1946AQ



SECTION 6
EXPLODED VIEWS

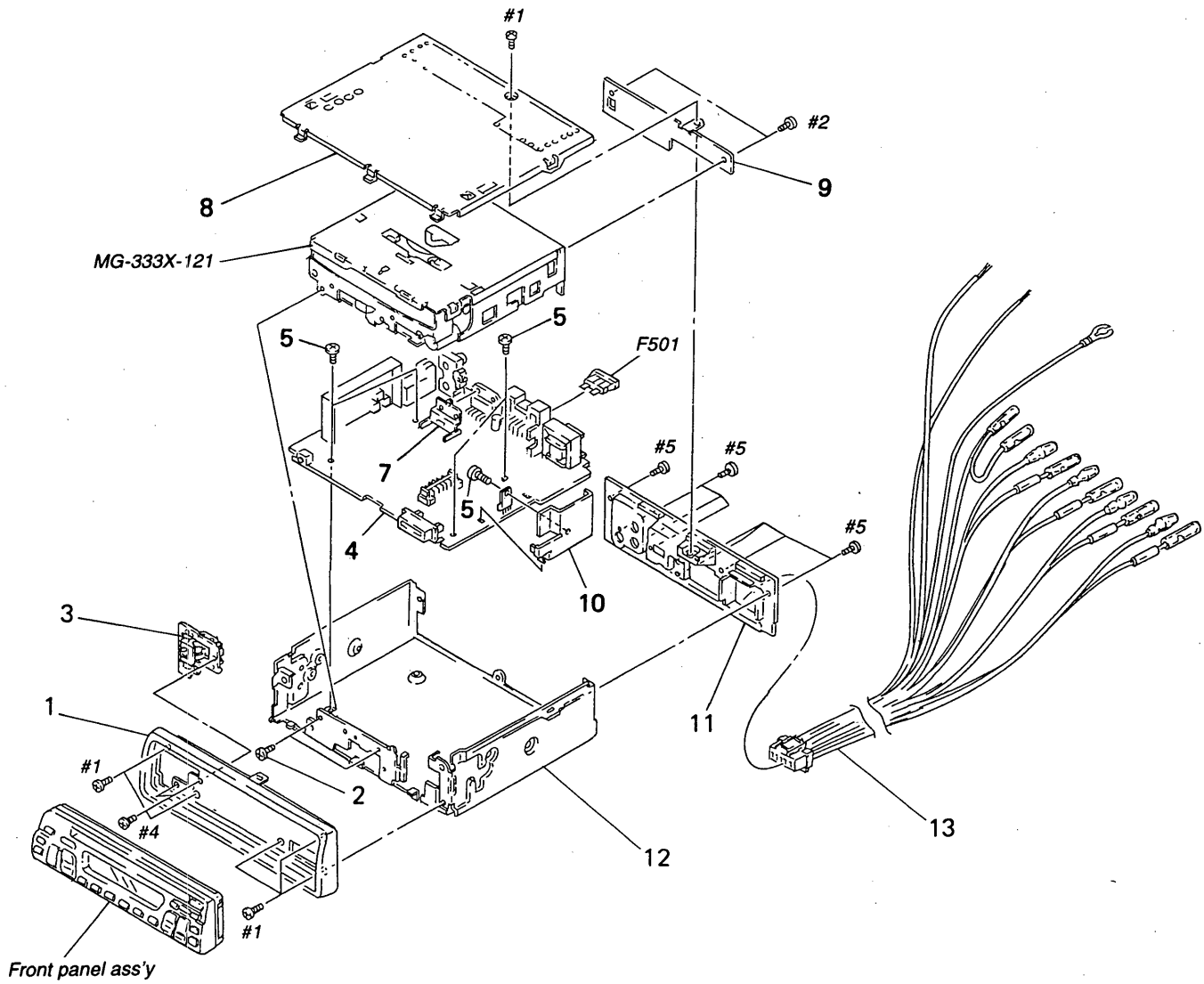
NOTE:
- -XX and -X mean standardized parts, so they may have some diffrebce from the orginal one.
- Color Indication of Appearance Parts Example:

  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list and accessories and packing materials are given in the last of the electrcal parts list.

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

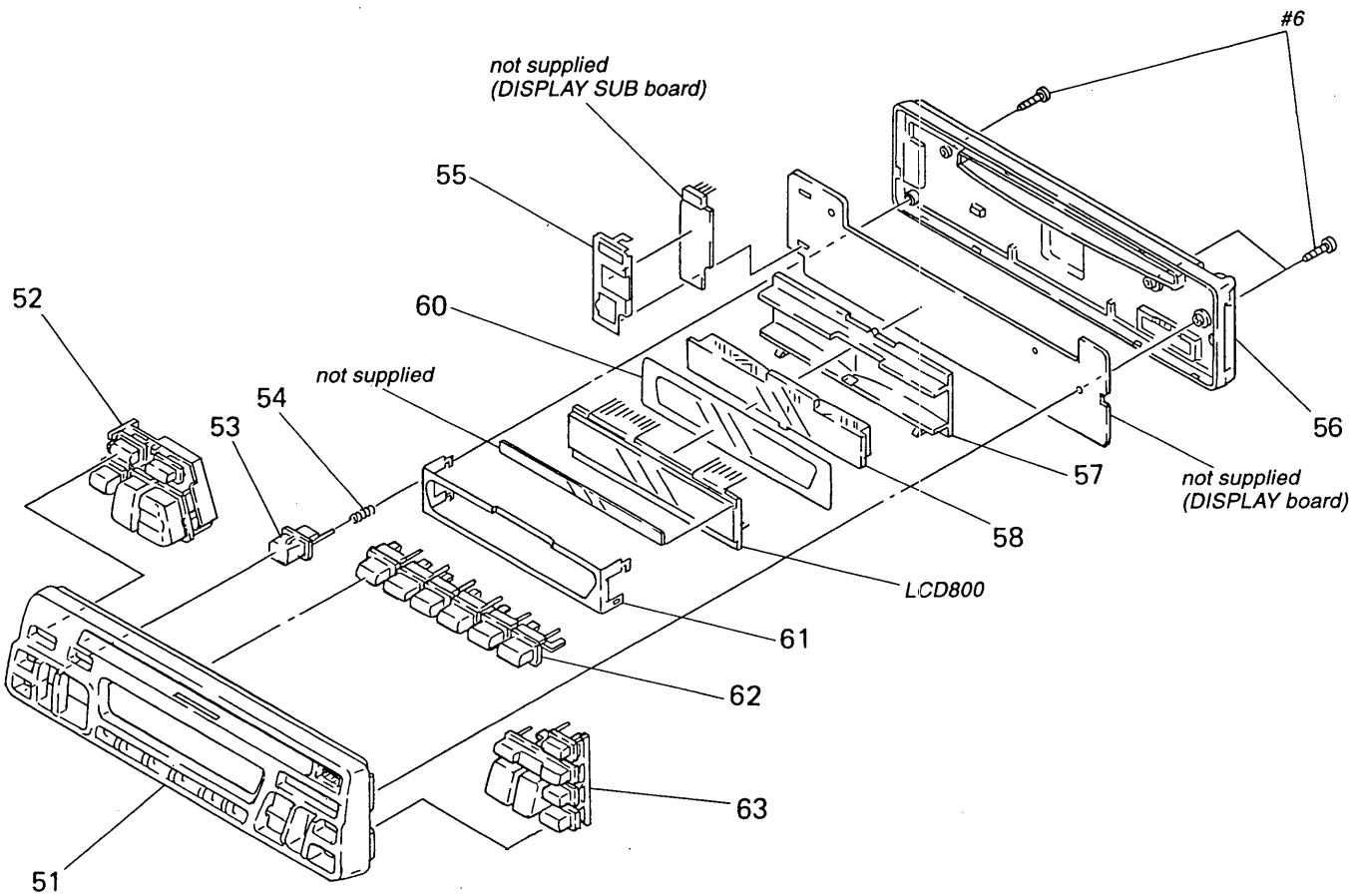
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une piéce portant le neméro spécifié.

(1) GENERAL SECTION



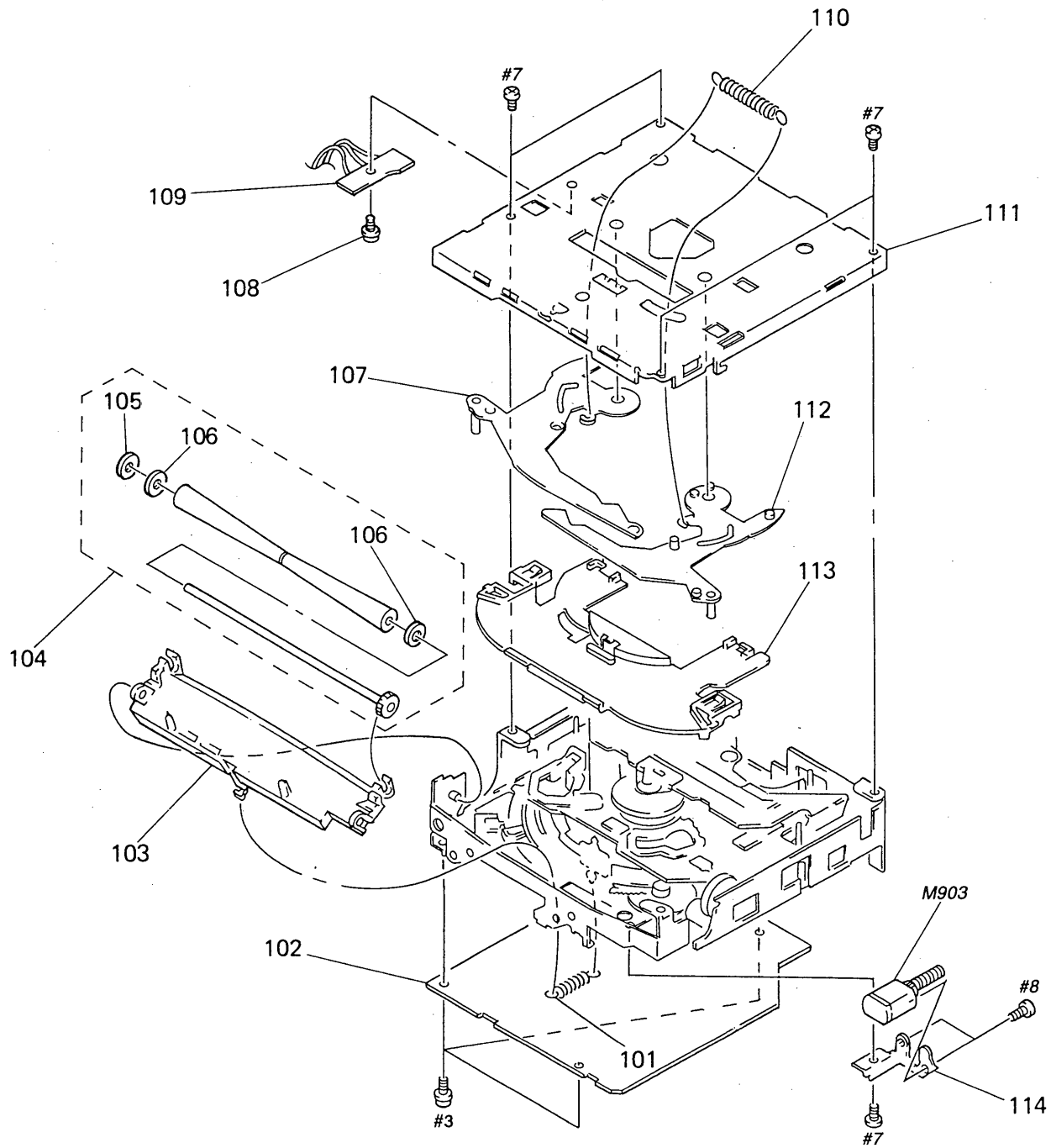
Ref. No.	Part No.	Description	Remark
1	X-3371-528-1	PANEL (1) ASSY, SUB	
2	3-922-535-01	SCREW (+BTT)	
3	X-3367-636-1	LOCK ASSY	
* 4	A-3294-011-A	MAIN BOARD, COMPLETE	
5	3-922-535-11	SCREW (+BTT)	
* 7	3-931-260-01	BRACKET (IC)	
* 8	X-3371-549-1	COVER ASSY	
* 9	3-932-397-01	BRACKET (M/D)	
* 10	3-920-529-01	BRACKET (REG) (IC)	
* 11	3-931-965-01	HEAT SINK	
* 12	3-931-286-01	CHASSIS (MAIN)	
13	1-769-786-51	CORD (WITH CONNECTOR) (POWER)	
F501	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) (15A, 32V)	

(2) FRONT PANEL SECTION



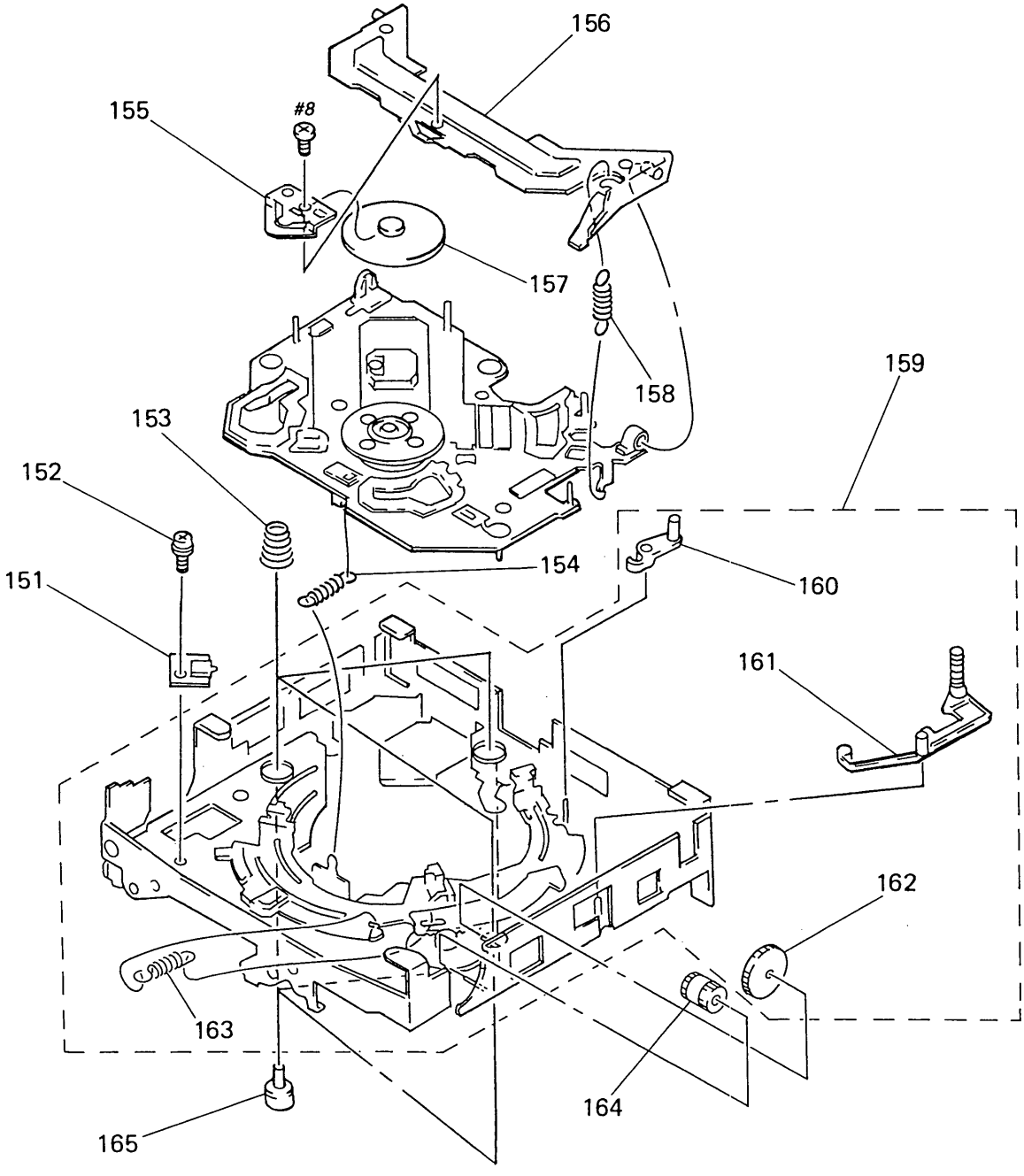
Ref. No.	Part No.	Description	Remark
51	X-3371-529-1	PANEL SUB ASSY, FRONT	
52	3-932-021-01	BUTTON (OFF) (OFF. DSPL. MUTE. SEL. +. -)	
53	3-931-969-01	BUTTON (RELEASE)	
54	3-914-590-01	SPRING (R2)	
* 55	3-931-978-01	BRACKET (DISPLAY PC BOARD)	
56	3-931-967-01	PANEL, FRONT BACK	
* 57	3-931-972-01	HOLDER (LCD)	
* 58	3-931-971-01	PLATE (LCD), LIGHT GUIDE	
* 60	3-931-973-01	SHEET (LCD)	
* 61	3-932-018-01	BLACKET (LCD)	
62	3-920-503-02	BUTTON (1. 2. 3. 4. 5. 6)	
63	3-931-961-01	BUTTON (CD EJECT) (⏏ ⏮ +. SEEK/AMS. - ⏭. ◀◀. MANU. ▶▶. FM. AM. CD. SENS. A MEM)	
LCD800	1-801-182-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MECHANISM DECK SECTION-1 (MG-333X-121)



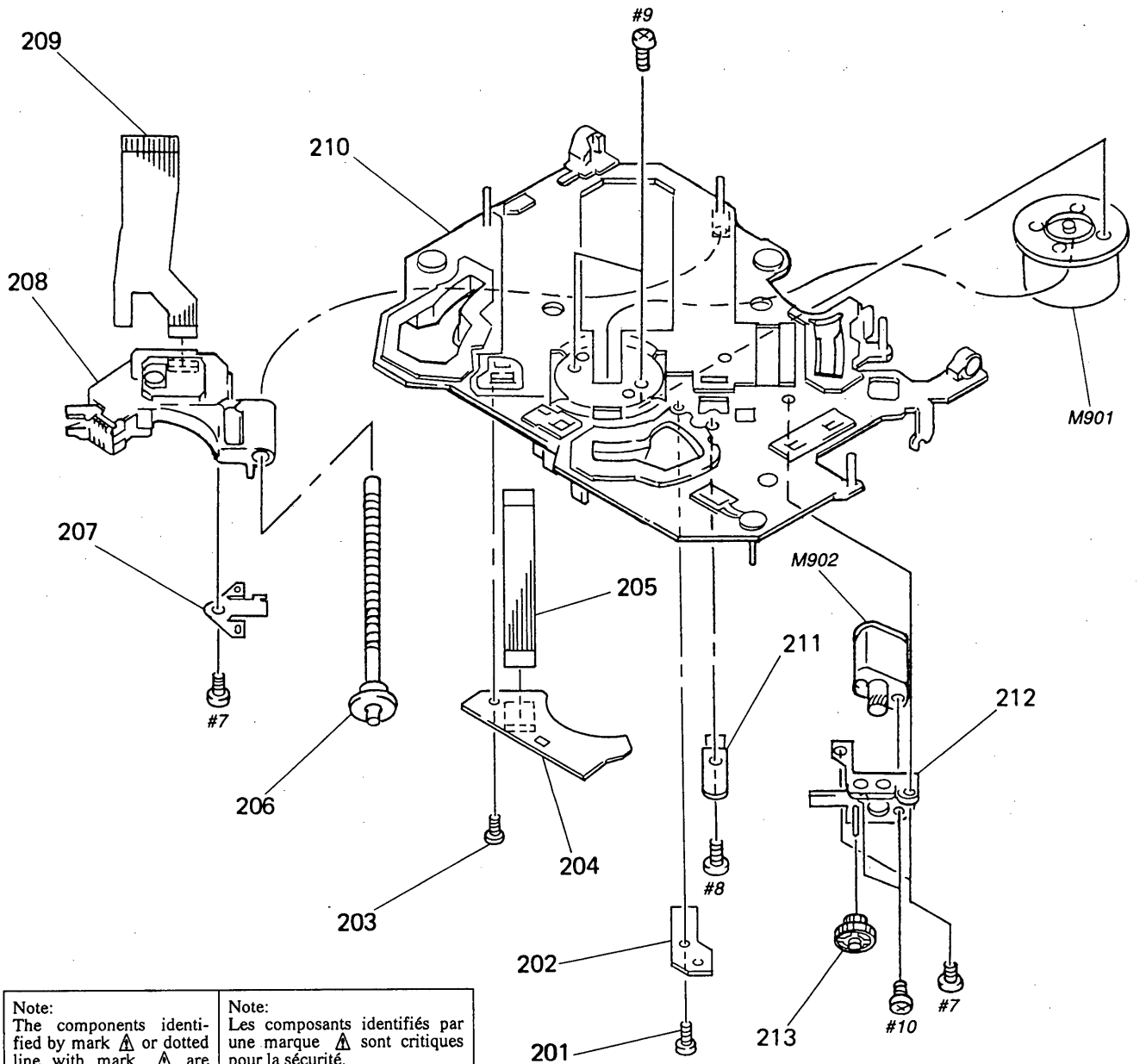
Ref. No.	Part No.	Description	Remark
101	3-931-916-01	SPRING (RA), TENSION	
* 102	A-3309-021-A	SERVO BOARD, COMPLETE	
103	3-931-902-01	ARM (ROLLER)	
104	A-3291-567-A	ROLLER ASSY	
105	3-701-439-11	WASHER	
* 106	3-322-413-01	SPACER, INSULATING	
* 107	X-3371-501-1	LEVER (L) ASSY	
108	3-338-737-01	SCREW (2X3), +PS	
* 109	1-659-836-11	DISC IN SW BOARD	
110	3-931-909-02	SPRING (LR), TENSION	
* 111	3-931-903-01	CHASSIS (T)	
* 112	X-3371-502-1	LEVER (R) ASSY	
* 113	3-931-908-01	GUIDE (DISC)	
* 114	3-931-899-01	BRACKET (MOTOR)	
M903	A-3291-576-A	MOTOR SUB ASSY, LO (LOADING)	

(4) MECHANISM DECK SECTION-2 (MG-333X-121)



Ref. No.	Part No.	Description	Remark
* 151	1-659-837-11	LOAD SW BOARD	
152	3-338-737-01	SCREW (2X3),+PS	
153	3-931-898-01	SPRING (FL), COMPRESSION	
154	3-931-914-01	SPRING (ANGLE), TENSION	
155	3-931-894-01	BRACKET (CP)	
156	3-931-893-01	ARM, CHUCKING	
* 157	3-384-918-01	RETAINER (DISC)	
158	3-931-895-01	SPRING (CH), TENSION	
159	A-3291-568-A	CHASSIS (M) ASSY BOARD, COMPLETE	
160	3-931-881-01	LEVER (LOCK)	
161	3-931-879-02	LEVER (D)	
162	3-931-882-02	GEAR (MDL)	
163	3-931-883-01	SPRING (TR), TENSION	
164	3-934-879-01	WHEEL (U), WORM	
165	3-931-897-01	DAMPER (T)	

(5) MECHANISM DECK SECTION-3 (MG-333X-121)



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 pièce portant le neméro spécifié.

Ref. No.	Part No.	Description	Remark
201	3-338-737-01	SCREW (2X3), +PS	
* 202	1-659-835-11	LIMIT SW BOARD	
203	3-909-607-01	SCREW	
* 204	1-659-834-11	SUB BOARD	
205	1-659-880-11	MOTOR FLEXIBLE BOARD	
206	A-3291-571-A	SHAFT (FEED) ASSY	
207	3-931-834-01	SPRING (FEED), PLATE	
⚠208	8-848-402-03	OPTICAL PICK-UP KSS-520A/J-N	

Ref. No.	Part No.	Description	Remark
209	1-659-881-11	PICK-UP FLEXIBLE BOARD	
* 210	X-3371-503-1	CHASSIS (OP) (O/S) ASSY	
211	3-931-829-01	SPRING (SL), PLATE	
212	X-3371-504-1	BASE (DRIVING) ASSY	
213	3-931-832-01	GEAR (SL MIDWAY)	
M901	X-3371-664-1	MOTOR ASSY (SPINDLE)	
M902	A-3291-574-A	MOTOR ASSY, SLED	

DISC IN SW **DISPLAY**

SECTION 7
ELECTRICAL PARTS LIST

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

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

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.

Ref. No.	Part No.	Description			Remark
*	1-659-836-11	DISC IN SW BOARD			
		**********			
		< SWITCH >			
SW1	1-572-288-11	SWITCH, PUSH (DISC IN)			
SW2	1-572-288-11	SWITCH, PUSH (SELF)			
**********					
		DISPLAY BOARD			
		**********			
*	3-931-971-01	PLATE (LCD), LIGHT GUIDE			
*	3-931-972-01	HOLDER (LCD)			
*	3-931-973-01	SHEET (LCD)			
*	3-931-978-01	BRACKET (DISPLAY PC BOARD)			
*	3-932-018-01	BRACKET (LCD)			
		< CAPACITOR >			
C800	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C801	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C802	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
		< CONNECTOR >			
CNP800	1-764-423-11	PIN, CONNECTOR 12P			
CNP801	1-774-798-11	PIN, CONNECTOR (PC BOARD) 4P			
		< DIODE >			
D800	8-719-976-99	DIODE	DTZ5.1B		
D801	8-719-052-61	DIODE	SLR-342PGA47 (6)		
D802	8-719-052-61	DIODE	SLR-342PGA47 (5)		
D803	8-719-052-61	DIODE	SLR-342PGA47 (4)		
D804	8-719-052-61	DIODE	SLR-342PGA47 (3/SHUF)		
D805	8-719-052-61	DIODE	SLR-342PGA47 (- ⏭ / ⏭)		
D806	8-719-052-61	DIODE	SLR-342PGA47 (⏮ + / ⏮)		
D807	8-719-052-61	DIODE	SLR-342PGA47 (⏏)		
D808	8-719-052-61	DIODE	SLR-342PGA47 (SENS)		
D809	8-719-052-61	DIODE	SLR-342PGA47 (+)		
D810	8-719-052-61	DIODE	SLR-342PGA47 (-)		
D811	8-719-052-61	DIODE	SLR-342PGA47 (1/INTRO)		
D812	8-719-052-61	DIODE	SLR-342PGA47 (2/REPEAT)		
D813	8-719-052-61	DIODE	SLR-342PGA47 (DSPL)		
D814	8-719-052-61	DIODE	SLR-342PGA47 (SEL)		
D817	8-719-052-61	DIODE	SLR-342PGA47 (AM)		
D818	8-719-052-61	DIODE	SLR-342PGA47 (FM)		
D819	8-719-052-61	DIODE	SLR-342PGA47 (CD)		
D820	8-719-052-61	DIODE	SLR-342PGA47 (A.MEM)		
D821	8-719-105-99	DIODE	RD6.2M-B1		
D822	8-719-105-99	DIODE	RD6.2M-B1		
D823	8-719-105-99	DIODE	RD6.2M-B1		
D824	8-719-105-99	DIODE	RD6.2M-B1		
		< IC >			
IC800	8-759-369-90	IC	LC75822ED		
		< CHIP CONDUCTOR >			
JR802	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR804	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR805	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR806	1-216-295-00	CONDUCTOR, CHIP			(2012)
JR807	1-216-295-00	CONDUCTOR, CHIP			(2012)
		< LIQUID CRYSTAL DISPLAY >			
LCD800	1-801-182-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< PILOT LAMP >			
PL800	1-517-534-11	LAMP, PILOT			
PL801	1-517-534-11	LAMP, PILOT			
		< RESISTOR >			
R800	1-216-150-00	METAL GLAZE	10	5%	1/8W
R801	1-216-150-00	METAL GLAZE	10	5%	1/8W
R802	1-216-192-00	METAL CHIP	560	5%	1/8W
R803	1-216-192-00	METAL CHIP	560	5%	1/8W
R804	1-216-192-00	METAL CHIP	560	5%	1/8W
R805	1-216-192-00	METAL CHIP	560	5%	1/8W
R806	1-216-192-00	METAL CHIP	560	5%	1/8W
R807	1-216-198-00	METAL GLAZE	1K	5%	1/8W

Ref. No.	Part No.	Description			Remark
R808	1-216-090-00	METAL CHIP	51K	5%	1/10W
R809	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R810	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R811	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R812	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R813	1-216-073-00	METAL CHIP	10K	5%	1/10W
R814	1-216-232-00	METAL GLAZE	27K	5%	1/8W
R815	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R816	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R817	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R818	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R819	1-216-073-00	METAL CHIP	10K	5%	1/10W
R821	1-216-202-00	METAL GLAZE	1,5K	5%	1/8W
R822	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R823	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R824	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R825	1-216-073-00	METAL CHIP	10K	5%	1/10W
R826	1-216-150-00	METAL GLAZE	10	5%	1/8W
R827	1-216-150-00	METAL GLAZE	10	5%	1/8W
R829	1-216-232-00	METAL GLAZE	27K	5%	1/8W
		< SWITCH >			
S802	1-572-704-31	SWITCH, KEY BOARD (5)			
S803	1-572-704-31	SWITCH, KEY BOARD (4)			
S804	1-572-704-31	SWITCH, KEY BOARD (3/SHUF)			
S805	1-572-704-31	SWITCH, KEY BOARD (2/REPEAT)			
S806	1-572-704-31	SWITCH, KEY BOARD (1/INTRO)			
S807	1-572-704-31	SWITCH, KEY BOARD (-)			
S808	1-572-704-31	SWITCH, KEY BOARD (CD)			
S809	1-572-704-31	SWITCH, KEY BOARD (FM)			
S810	1-572-704-31	SWITCH, KEY BOARD (+)			
S811	1-572-704-31	SWITCH, KEY BOARD (SEL)			
S812	1-572-704-31	SWITCH, KEY BOARD (DSPL)			
S815	1-572-704-31	SWITCH, KEY BOARD (AM)			
S816	1-572-704-31	SWITCH, KEY BOARD (⏏)			
S817	1-572-704-31	SWITCH, KEY BOARD (⏮ + / ⏪)			
S818	1-572-704-31	SWITCH, KEY BOARD (- ⏭ / ⏩)			
S819	1-572-704-31	SWITCH, KEY BOARD (SENS)			
S820	1-572-704-31	SWITCH, KEY BOARD (A.MEM)			
S821	1-572-704-31	SWITCH, KEY BOARD (6)			
**********					
		DISPLAY SUB BOARD			
		**********			
		< DIODE >			
D815	8-719-052-61	DIODE SLR-342PGA47 (OFF)			
D816	8-719-052-61	DIODE SLR-342PGA47 (MUTE)			

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S801	1-572-704-31	SWITCH, KEY BOARD (OFF)			
S813	1-572-704-31	SWITCH, KEY BOARD (MUTE)			
**********					
*	1-659-835-11	LIMIT SW BOARD			
		**********			
		< SWITCH >			
SW3	1-572-688-11	SWITCH, PUSH (1 KEY) (LIMIT)			
**********					
*	1-659-837-11	LOAD SW BOARD			
		**********			
		< SWITCH >			
SW4	1-572-288-11	SWITCH, PUSH (DOWN)			
**********					
*	A-3294-011-A	MAIN BOARD, COMPLETE			
		**********			
*	3-920-529-01	BRACKET (REG) (IC)			
	3-922-535-11	SCREW (+BTT)			
*	3-931-260-01	BRACKET (IC)			
		< CAPACITOR >			
C101	1-163-211-00	CERAMIC CHIP	0.0018uF	5%	50V
C102	1-164-346-11	CERAMIC CHIP	1uF		16V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C104	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C105	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C106	1-126-157-11	ELECT	10uF	20%	16V
C107	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C108	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C109	1-126-157-11	ELECT	10uF	20%	16V
C110	1-126-157-11	ELECT	10uF	20%	16V
C111	1-126-157-11	ELECT	10uF	20%	16V
C112	1-126-157-11	ELECT	10uF	20%	16V
C113	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C114	1-162-637-11	CERAMIC CHIP	0.47uF		16V
C115	1-162-637-11	CERAMIC CHIP	0.47uF		16V
C116	1-136-165-00	FILM	0.1uF	5%	50V
C117	1-136-165-00	FILM	0.1uF	5%	50V
C118	1-136-165-00	FILM	0.1uF	5%	50V
C119	1-136-165-00	FILM	0.1uF	5%	50V
C120	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C122	1-164-346-11	CERAMIC CHIP	1uF		16V
C124	1-124-234-00	ELECT	22uF	20%	16V
C125	1-124-234-00	ELECT	22uF	20%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C126	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C127	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C201	1-163-211-00	CERAMIC CHIP	0.0018uF	5%	50V
C202	1-164-346-11	CERAMIC CHIP	1uF		16V
C203	1-164-346-11	CERAMIC CHIP	1uF		16V
C204	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C205	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C206	1-126-157-11	ELECT	10uF	20%	16V
C207	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C208	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C209	1-126-157-11	ELECT	10uF	20%	16V
C210	1-126-157-11	ELECT	10uF	20%	16V
C211	1-126-157-11	ELECT	10uF	20%	16V
C212	1-126-157-11	ELECT	10uF	20%	16V
C213	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C214	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C215	1-162-637-11	CERAMIC CHIP	0.47uF		16V
C216	1-136-165-00	FILM	0.1uF	5%	50V
C217	1-136-165-00	FILM	0.1uF	5%	50V
C218	1-136-165-00	FILM	0.1uF	5%	50V
C219	1-136-165-00	FILM	0.1uF	5%	50V
C220	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C222	1-164-346-11	CERAMIC CHIP	1uF		16V
C224	1-124-234-00	ELECT	22uF	20%	16V
C225	1-124-234-00	ELECT	22uF	20%	16V
C226	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C227	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C300	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C301	1-124-584-00	ELECT	100uF	20%	10V
C302	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C303	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C304	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C305	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C306	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C307	1-128-057-11	ELECT	330uF	20%	6.3V
C401	1-126-935-11	ELECT	470uF	20%	16V
C402	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C404	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C405	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C406	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C407	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C408	1-126-288-11	ELECT	4.7uF	20%	16V
C409	1-126-288-11	ELECT	4.7uF	20%	16V
C416	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C417	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C418	1-126-157-11	ELECT	10uF	20%	16V
C419	1-124-584-00	ELECT	100uF	20%	10V
C420	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V

Ref. No.	Part No.	Description			Remark
C434	1-164-346-11	CERAMIC CHIP	1uF		16V
C435	1-126-288-11	ELECT	4.7uF	20%	16V
C501	1-126-162-11	ELECT	3.3uF	20%	50V
C503	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C504	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C507	1-110-654-11	DOUBLE LAYER	0.047F		
C508	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C509	1-124-584-00	ELECT	100uF	20%	10V
C511	1-124-234-00	ELECT	22uF	20%	16V
C512	1-104-663-11	ELECT	33uF	20%	16V
C513	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C514	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C516	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C517	1-128-057-11	ELECT	330uF	20%	6.3V
C518	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C519	1-124-556-11	ELECT	2200uF	20%	16V
C520	1-124-584-00	ELECT	100uF	20%	10V
C613	1-136-169-00	CERAMIC CHIP	0.22uF	5%	50V
C614	1-124-234-00	ELECT	22uF	20%	16V
C616	1-130-479-00	CERAMIC CHIP	0.0047uF	5%	50V
C700	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C701	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C704	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C705	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C706	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C707	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C900	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C901	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C903	1-124-234-00	ELECT	22uF	20%	16V
C904	1-104-664-11	ELECT	47uF	20%	10V
C906	1-104-664-11	ELECT	47uF	20%	10V
C909	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C911	1-216-295-00	CONDUCTOR, CHIP			(2012)
C913	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C915	1-104-664-11	ELECT	47uF	20%	10V
C916	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V

< JACK >

CNJ900	1-764-808-11	JACK (ANT)

< CONNECTOR >

CNP300	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P
CNP501	1-774-701-11	PIN, CONNECTOR 16P
CNP700	1-764-422-11	PLUG, CONNECTOR 12P

< DISCHARGE GAP >

CP900	1-519-504-11	GAP, DISCHARGE

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D400	8-719-109-71	DIODE RD3.9ESB1	
D403	8-719-200-82	DIODE 11ES2	
D404	8-719-200-82	DIODE 11ES2	
D411	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-923-91	DIODE MTZJ-T-77-16A	
D502	8-719-109-97	DIODE RD6.8ESB2	
D503	8-719-109-93	DIODE RD6.2ESB2	
D504	8-719-109-93	DIODE RD6.2ESB2	
D505	8-719-991-33	DIODE 1SS133T-77	
D506	8-719-991-33	DIODE 1SS133T-77	
D508	8-719-991-33	DIODE 1SS133T-77	
D509	8-719-110-13	DIODE RD9.1ESB2	
D511	8-719-109-89	DIODE RD5.6ESB2	
D513	8-719-989-62	DIODE RL254	
D514	8-719-109-85	DIODE RD5.1ESB2	
D516	8-719-991-33	DIODE 1SS133T-77	
D517	8-719-991-33	DIODE 1SS133T-77	
D518	8-719-110-13	DIODE RD9.1ESB2	
D519	8-719-200-82	DIODE 11ES2	
D703	8-719-991-33	DIODE 1SS133T-77	
D704	8-719-991-33	DIODE 1SS133T-77	
D705	8-719-991-33	DIODE 1SS133T-77	
D709	8-719-109-93	DIODE RD6.2ESB2	
D710	8-719-991-33	DIODE 1SS133T-77	
D711	8-719-109-93	DIODE RD6.2ESB2	
D712	8-719-109-93	DIODE RD6.2ESB2	
D713	8-719-109-93	DIODE RD6.2ESB2	
D714	8-719-109-93	DIODE RD6.2ESB2	
D715	8-719-109-93	DIODE RD6.2ESB2	
D716	8-719-109-93	DIODE RD6.2ESB2	
D717	8-719-109-93	DIODE RD6.2ESB2	
D718	8-719-109-93	DIODE RD6.2ESB2	
		< FUSE >	
F501	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) (15A, 32V)	
		< IC >	
IC200	8-759-369-41	IC HA13155	
IC300	8-759-364-34	IC SM5877AM	
IC400	8-752-075-48	IC CXA1946AQ-T6	
IC700	8-759-395-49	IC uPD17017GF-B13-3B9	
		< CHIP CONDUCTOR >	
JR1	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR5	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR6	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR7	1-216-296-00	CONDUCTOR, CHIP (3216)	
JR8	1-216-296-00	CONDUCTOR, CHIP (3216)	
JR9	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR10	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR13	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR14	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR15	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR16	1-216-296-00	CONDUCTOR, CHIP (3216)	
JR17	1-216-295-00	CONDUCTOR, CHIP (2012)	
JR18	1-216-296-00	CONDUCTOR, CHIP (3216)	
JR21	1-216-296-00	CONDUCTOR, CHIP (3216)	
		< COIL >	
L300	1-410-513-11	INDUCTOR 22uH	
L700	1-410-513-11	INDUCTOR 22uH	
L801	1-411-823-21	COIL, CHOKE	
		< JACK >	
PJ400	1-764-424-11	JACK, PIN 2P (LINE OUT REAR)	
		< TRANSISTOR >	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04	
Q404	8-729-901-05	TRANSISTOR DTA124EK	
Q405	8-729-901-00	TRANSISTOR DTC124EK	
Q501	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q503	8-729-900-53	TRANSISTOR DTC114EK	
Q504	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q505	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q507	8-729-901-05	TRANSISTOR DTA124EK	
Q508	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q509	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-920-74	TRANSISTOR 2SC2412K-T-146-R	
Q512	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q513	8-729-900-53	TRANSISTOR DTC114EK	
Q515	8-729-820-68	TRANSISTOR 2SD1802FA-S	
Q520	8-729-019-00	TRANSISTOR 2SD2394-G	
Q522	8-729-901-00	TRANSISTOR DTC124EK	
Q525	8-729-902-99	TRANSISTOR DTC114TK	
Q526	8-729-205-02	TRANSISTOR 2SA1150-Y	
Q527	8-729-205-02	TRANSISTOR 2SA1150-Y	
Q528	8-729-900-53	TRANSISTOR DTC114EK	
Q529	8-729-820-68	TRANSISTOR 2SD1802FA-S	
Q600	8-729-021-94	TRANSISTOR 2SK1657-T1B	
Q704	8-729-901-05	TRANSISTOR DTA124EK	

MAIN

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R101	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R102	1-216-073-00	METAL CHIP	10K	5%	1/10W
R103	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R104	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R105	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R106	1-216-041-00	METAL CHIP	470	5%	1/10W
R107	1-216-041-00	METAL CHIP	470	5%	1/10W
R108	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R109	1-216-075-00	METAL CHIP	12K	5%	1/10W
R110	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R111	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R112	1-216-077-00	METAL CHIP	15K	5%	1/10W
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W
R114	1-249-385-11	CARBON	2.2	5%	1/4W
R115	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R116	1-249-385-11	CARBON	2.2	5%	1/4W
R117	1-249-385-11	CARBON	2.2	5%	1/4W
R118	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R121	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R122	1-216-073-00	METAL CHIP	10K	5%	1/10W
R123	1-216-077-00	METAL CHIP	15K	5%	1/10W
R124	1-216-085-00	METAL CHIP	33K	5%	1/10W
R201	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R202	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R204	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R205	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R206	1-216-041-00	METAL CHIP	470	5%	1/10W
R207	1-216-041-00	METAL CHIP	470	5%	1/10W
R208	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R209	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R210	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R211	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R212	1-216-077-00	METAL CHIP	15K	5%	1/10W
R213	1-216-077-00	METAL CHIP	15K	5%	1/10W
R214	1-249-385-11	CARBON	2.2	5%	1/4W
R215	1-249-385-11	CARBON	2.2	5%	1/4W
R216	1-249-385-11	CARBON	2.2	5%	1/4W
R217	1-249-385-11	CARBON	2.2	5%	1/4W
R218	1-216-072-00	METAL CHIP	9.1K	5%	1/10W
R221	1-249-431-11	CARBON	15K	5%	1/4W
R222	1-216-073-00	METAL CHIP	10K	5%	1/10W
R223	1-216-077-00	METAL CHIP	15K	5%	1/10W
R224	1-216-085-00	METAL CHIP	33K	5%	1/10W
R300	1-216-150-00	METAL GLAZE	10	5%	1/8W
R302	1-216-025-00	METAL GLAZE	100	5%	1/10W
R303	1-216-025-00	METAL GLAZE	100	5%	1/10W
R304	1-216-025-00	METAL GLAZE	100	5%	1/10W
R305	1-216-017-00	METAL GLAZE	47	5%	1/10W
R306	1-249-411-11	CARBON	330	5%	1/4W
R308	1-216-027-00	METAL CHIP	120	5%	1/10W
R313	1-216-033-00	METAL CHIP	220	5%	1/10W
R401	1-216-113-00	METAL CHIP	470K	5%	1/10W
R411	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R416	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R417	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R418	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R502	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R503	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R505	1-216-073-00	METAL CHIP	10K	5%	1/10W
R506	1-216-073-00	METAL CHIP	10K	5%	1/10W
R507	1-249-435-11	CARBON	33K	5%	1/4W
R508	1-216-080-00	METAL CHIP	20K	5%	1/10W
R509	1-216-079-00	METAL CHIP	18K	5%	1/10W
R510	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R511	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R512	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R516	1-216-005-00	METAL CHIP	15	5%	1/10W
R517	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R518	1-216-081-00	METAL CHIP	22K	5%	1/10W
R519	1-216-081-00	METAL CHIP	22K	5%	1/10W
R520	1-216-073-00	METAL CHIP	10K	5%	1/10W
R521	1-247-887-00	CARBON	220K	5%	1/4W
R522	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R523	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R524	1-216-085-00	METAL CHIP	33K	5%	1/10W
R525	1-249-413-11	CARBON	470	5%	1/4W
R527	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R528	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R534	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R535	1-216-081-00	METAL CHIP	22K	5%	1/10W
R536	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R537	1-216-027-00	METAL CHIP	120	5%	1/10W
R538	1-216-073-00	METAL CHIP	10K	5%	1/10W
R614	1-216-073-00	METAL CHIP	10K	5%	1/10W
R615	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R616	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R617	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R702	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R708	1-216-073-00	METAL CHIP	10K	5%	1/10W
R709	1-216-073-00	METAL CHIP	10K	5%	1/10W
R710	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R712	1-216-073-00	METAL CHIP	10K	5%	1/10W
R713	1-216-073-00	METAL CHIP	10K	5%	1/10W
R714	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R718	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R719	1-249-418-11	CARBON	1.2K	5%	1/4W
R720	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R721	1-249-419-11	CARBON	1.5K	5%	1/4W
R722	1-249-419-11	CARBON	1.5K	5%	1/4W
R723	1-249-419-11	CARBON	1.5K	5%	1/4W
R724	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R725	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R726	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R727	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R728	1-216-081-00	METAL CHIP	22K	5%	1/10W
R730	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R735	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R900	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R901	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R902	1-216-073-00	METAL CHIP	10K	5%	1/10W
R903	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R904	1-216-045-00	METAL CHIP	680	5%	1/10W
R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S700	1-762-638-11	SWITCH, TACTILE (RESET)			
		< THERMISTOR >			
TH500	1-809-148-11	THERMISTOR PTH8L07AR2R0M1B510			
		< TUNER >			
TU101	A-3282-012-A	TUNER UNIT TUX-006 (E)			
		< VIBRATOR >			
X300	1-579-345-11	VIBRATOR, CERAMIC (16.934MHz)			
X700	1-760-223-11	VIBRATOR, CRYSTAL (4.5MHz)			

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*	A-3309-021-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C2	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3	1-135-145-11	TANTALUM CHIP	0.47uF	10%	35V
C4	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C5	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C6	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C7	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C9	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C10	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C11	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C12	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C13	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C14	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C15	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C16	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C17	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C18	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C19	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C20	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C21	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C22	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C23	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C24	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C25	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C26	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C27	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C28	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C29	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C30	1-126-603-11	ELECT CHIP	4.7uF	20%	35V
C31	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C32	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C33	1-124-779-00	ELECT CHIP	10uF	20%	16V
C34	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C35	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C36	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C37	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C38	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C39	1-126-204-11	ELECT CHIP	47uF	20%	16V
C40	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN1	1-764-616-12	HOUSING, CONNECTOR (PC BOARD) 30P			
CN2	1-565-728-11	CONNECTOR, FPC 17P			
CN3	1-770-347-21	CONNECTOR, FPC 6P			
		< IC >			
IC1	8-752-372-94	IC CXD2507AQ			
IC2	8-752-069-56	IC CXA1782BQ			
IC3	8-759-354-16	IC BA6796FP-T1			
		< CHIP CONDUCTOR >			
JR1	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR2	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR3	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR4	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR5	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR6	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR7	1-216-296-00	CONDUCTOR, CHIP			(3216)
JR8	1-216-296-00	CONDUCTOR, CHIP			(3216)

SERVO

Ref. No.	Part No.	Description		Remark
JR9	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR10	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR11	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR12	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR13	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR14	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR15	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR16	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR17	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR18	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR19	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR20	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR21	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR22	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR23	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR24	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR25	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR26	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR27	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR28	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR29	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR30	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR31	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR32	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR33	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR34	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR35	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR36	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR37	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR38	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR39	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR40	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR41	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR42	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR43	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR44	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR45	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR46	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR47	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR48	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR49	1-216-296-00	CONDUCTOR, CHIP	(3216)	
JR50	1-216-296-00	CONDUCTOR, CHIP	(3216)	
		< COIL >		
L1	1-412-058-11	INDUCTOR CHIP	10uH	
L2	1-412-058-11	INDUCTOR CHIP	10uH	
L3	1-412-058-11	INDUCTOR CHIP	10uH	

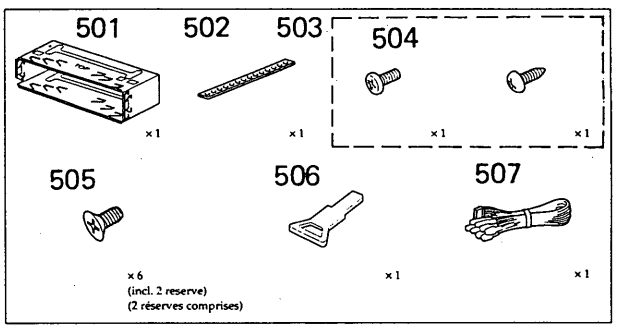
Ref. No.	Part No.	Description				Remark
		< TRANSISTOR >				
Q1	8-729-904-60	TRANSISTOR	DTB113ZK			
Q2	8-729-904-86	TRANSISTOR	2SB1197K-Q			
		< RESISTOR >				
R1	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R2	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R4	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R5	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R6	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R7	1-216-009-00	METAL CHIP	22	5%	1/10W	
R8	1-216-119-00	METAL CHIP	820K	5%	1/10W	
R9	1-216-119-00	METAL CHIP	820K	5%	1/10W	
R10	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R11	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R14	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R15	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R16	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R17	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R19	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R20	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R21	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R22	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R23	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R24	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R27	1-216-295-00	CONDUCTOR, CHIP			(2012)	
R28	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R29	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R30	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R31	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R32	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R33	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R35	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R36	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R37	1-216-117-00	METAL CHIP	680K	5%	1/10W	
R38	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R39	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R40	1-216-114-00	METAL GLAZE	510K	5%	1/10W	
R41	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R42	1-216-107-00	METAL CHIP	270K	5%	1/10W	
R43	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R44	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R45	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R46	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R47	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R48	1-216-073-00	METAL CHIP	10K	5%	1/10W	

SEE ADDITIONAL INFORMATION

SERVO SUB

Ref. No.	Part No.	Description	Remark
R49	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R50	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R51	1-216-295-00	CONDUCTOR, CHIP (2012)	
		< VARIABLE RESISTOR >	
RV1	1-238-091-11	RES, ADJ, CERMET 22K	
RV4	1-238-091-11	RES, ADJ, CERMET 22K	
*	1-659-834-11	SUB BOARD	
		*********	
		< CONNECTOR >	
CN1	1-770-347-21	CONNECTOR, FPC 6P	
		MISCELLANEOUS	
		**********	
13	1-769-786-51	CORD (WITH CONNECTOR) (POWER)	
205	1-659-880-11	MOTOR FLEXIBLE BOARD	
⚠208	8-848-402-03	OPTICAL PICK-UP KSS-520A/J-N	
209	1-659-881-11	PICK-UP FLEXIBLE BOARD	
M901	X-3371-664-1	MOTOR ASSY (SPINDLE)	
M902	A-3291-574-A	MOTOR ASSY, SLED	
M903	A-3291-576-A	MOTOR SUB ASSY, LO (LOADING)	
		**********	
		HARDWARE LIST	
		**********	
#1	7-621-773-95	SCREW +PTT 2.6X6 (S)	
#2	7-685-782-01	SCREW +PTT 2X5 (S)	
#3	7-628-253-00	SCREW +PS 2X4	
#4	7-621-772-10	SCREW +B 2X4	
#5	7-621-770-XX	SCREW +PTT 2.6X8 (S)	
#6	7-658-106-01	SCREW +P 2X10 TYPE 4	
#7	7-627-553-37	PRECISION SCREW +P 2X3 TYPE 3	
#8	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3	
#9	7-627-000-00	SCREW, PRECISION +P 1.7X2.2 TYPE3	
#10	7-627-850-28	SCREW, PRECISION +P 1.4X3	
		ACCESSORIES & PACKING MATERIALS	
		**********	
	3-810-605-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-810-605-21	MANUAL, INSTRUCTION (FRENCH) (Canadian)	
	3-810-606-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	
*	X-3371-377-1	CASE ASSY (for FRONT PANEL)	

Ref. No.	Part No.	Description	Remark
		MOUNTING HARDWARE	
		**********	
501	3-931-986-11	FRAME, FITTING	
502	3-916-012-01	BRACKET (ND), FITTING ASSIST	
503	X-3368-725-1	SCREW ASSY, FITTING	
504	7-682-560-04	SCREW +P 4X6	
505	3-932-020-01	SCREW (+K) (5X8) (TP)	
506	3-388-078-01	KEY	
507	1-769-786-51	CORD (WITH CONNECTOR) (POWER)	



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.

English
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Quality Engineering Dept.

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Sony Corporation
Mobile Electronics Company

CDX-3100

SONY

SERVICE MANUAL

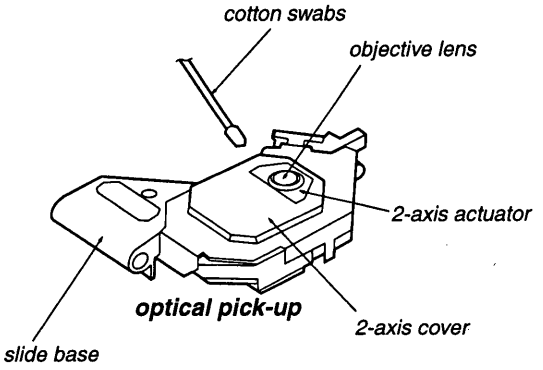
US Model
Canadian Model

SUPPLEMENT-1

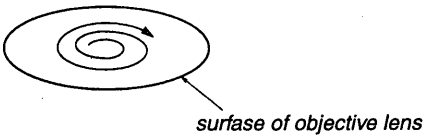
File this supplement with the service manual.

Subject : Notes on Cleaning The Objective Lens

NOTES ON CLEANING THE OBJECTIVE LENS



Apply CD lens cleaner B-4 (Part No.: J-2501-000-A) to cotton swabs (narrow type) (Part No.: J-2501-023-A) to be lightly wet. Use a force (about 5 g (0.18 oz)) to make the objective lens in contact with the bottom lightly, and clean the lens by spirals as following below.
Replace the cotton swab and repeat this cleaning two or three times.



Notes:
Do not force to push the objective lens. Otherwise, the plate spring supporting the objective lens will be bent, causing a deteriorated RF waveform.
Never touch anything other than the objective lens. Otherwise, a significant deterioration occurs in the RF waveform.

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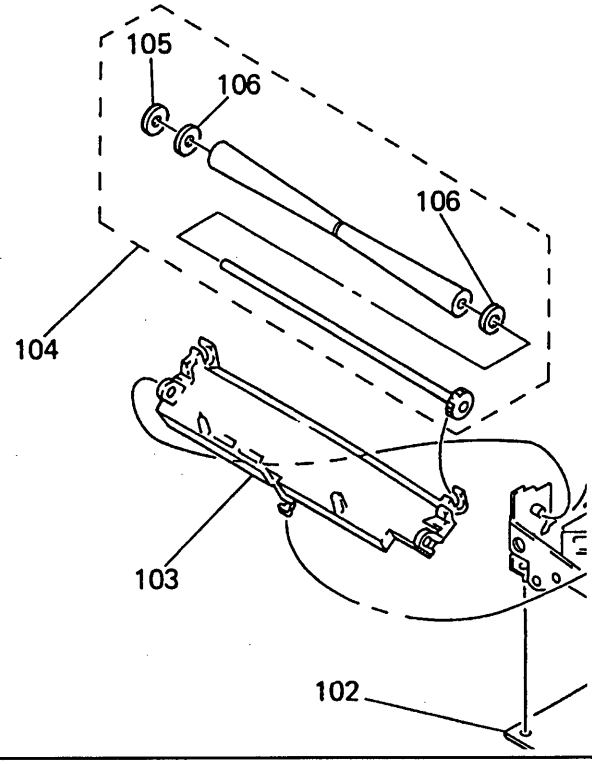
US Model
Canadian Model

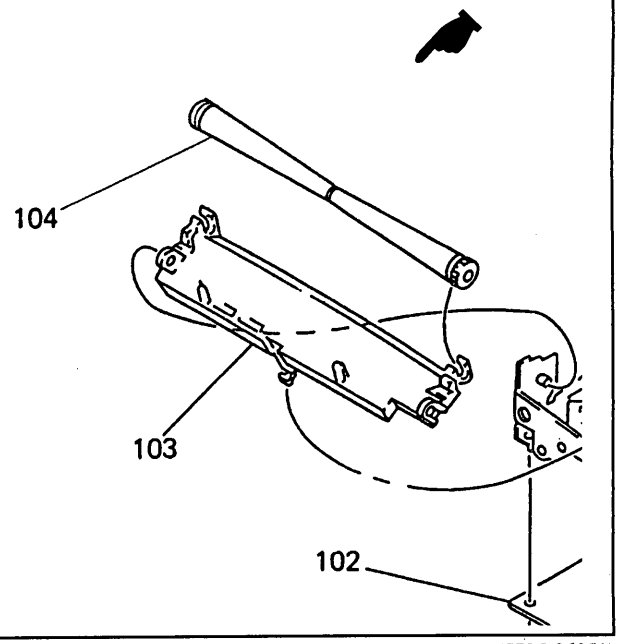
CORRECTION-1

Correct your service manual as shown below.

☛ : indicates corrected portion.

Page	INCORRECT			CORRECT		
	No.	Part No.	Description	No.	Part No.	Description
35	105	3-701-439-11	WASHER			
	*106	3-322-413-01	SPACER, INSULATING			





(SPM-96051)

9-923-481-91

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Canadian Model

SERVICE MANUAL

CORRECTION-2

Correct your service manual as shown below.

☛ : **indicates corrected portion.**

Page	INCORRECT			CORRECT		
	No.	Part No.	Description	No.	Part No.	Description
45	501	3-931-986-11	FRAME, FITTING	501	3-931-986-41 ☛	FRAME, FITTING

(ENG-97010)

9-923-481-93

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