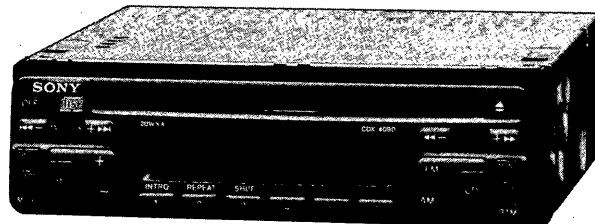


CDX-4090

SERVICE MANUAL

US Model
Canadian Model
E Model



Model Name Using Similar Mechanism	CDX-5070
CD Drive Mechanism Type	MG-205X-130
Optical Pick-Up Name	KSS-313A

SPECIFICATIONS

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 limit

Tuner section

FM

Tuning range FM tuning interval:
50 kHz/200 kHz switchable
(E Model)
87.5 – 108.0 MHz (at 50 kHz step)
(E Model)
87.5 – 107.9 MHz (at 200 kHz step)
External antenna connector
Intermediate frequency 10.7 MHz
Usable sensitivity 10 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 AM tuning interval:
9 kHz /10 kHz switchable (E Model)
531 – 1,602 kHz (at 9 kHz step)
(E Model)
530 – 1,710 kHz (at 10 kHz step)
External antenna connector
Intermediate frequency 10.71 MHz/450 kHz
Sensitivity 30 μ V

Power amplifier section

Outputs Speaker outputs
(sure seal connectors)
Speaker impedance 4 – 8 ohms
Maximum power output 20 W $\times$ 4 (at 4 ohms)

General

Output lead Power amplifier control lead
Tone controls Bass $\pm$ 8 dB at 100 Hz
Treble $\pm$ 8 dB at 10 kHz
Power requirements 12 V DC car battery
(negative ground)
Dimensions Approx. 178 $\times$ 50 $\times$ 177 mm
(w/h/d) not incl.
projecting parts and controls
Mounting dimension Approx. 178 $\times$ 50 $\times$ 154 mm
(w/h/d) not incl.
Projecting parts and controls
Mass Approx. 1.3 kg
Supplied accessories Power connection cord (1)
Mounting hardware (1 set)

Design and specifications are subject to change without notice.

FM/AM COMPACT DISC PLAYER
SONY[®]



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
Specifications		1
Servicing Notes		2
1. GENERAL		
Location and Function of Controls		3
Installation		4
Connection		5
2. TEST MODE		7
3. ELECTRICAL ADJUSTMENTS		
CD Section		10
Tuner Section		10
4. DIAGRAMS		
4-1. Block Diagram		12
4-2. Printed Wiring Boards		
— Mechanism Deck Section —		14
4-3. Schematic Diagram		
— Mechanism Deck Section —		17
4-4. Schematic Diagram — Main Section —		21
4-5. Printed Wiring Board — Main Section —		25
4-6. IC Pin Description		31
5. EXPLODED VIEWS		33
6. ELECTRICAL PARTS LIST		37

SERVICING NOTES

Laser Diode Properties

- Material: GaAlAs
 - Wavelength: 780 nm
 - Emission Duration: continuous
 - Laser Output Power: less than 44.6 μ W*
- * This output is the value measured at a distance of 200 mm 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.

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.

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.

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 GENERAL

Features

General

- Built-in power amplifier (max. output: 20 W x 4 ch) enables you to enjoy a 4 speaker.
- Line outputs for connecting an optional power amplifier.
- Provided with a digital 12-hour clock (page 5).

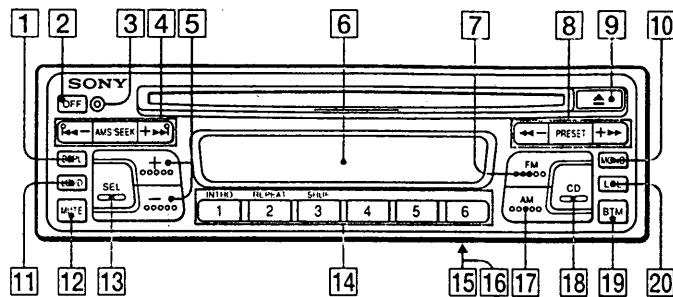
CD player section

- 1 bit DAC (Digital-to-Analog Converter) for a clear sound reproduction.
- Quick recovery mechanism for preventing sound skipping.
- Convenient functions such as the Intro Scan Function for searching a desired track, the Repeat Play Function for playing a track repeatedly, and the Shuffle Play Function for playing tracks in random order can be used.

Tuner section

- Up to 24 stations can be preset: 18 stations on FM and 6 stations on AM.
- BTM (Best Tuning Memory) function automatically searches and stores the stations with the strongest signals on the preset number buttons in order of frequency (page 7).

Location of Controls



Refer to the pages in ● for details.

- 1 DSPL (display mode change/time set) button ●
- 2 OFF button ●●
- 3 Reset button ●
- 4 AMS/SEEK (Automatic Music Sensor/automatic tuning) button ●●
- 5 (volume/bass/treble/balance/fader control) button ●●
- 6 Display window
- 7 (radio on/band select) button ●●
- 8 PRESET (preset search) button ●●●
- 9 ▲ (eject) button ●●
- 10 MONO (monaural mode) button ●
- 11 LOUD (loudness) button ●
- 12 MUTE button ●
- 13 SEL (control mode select) button ●●●

- 14 During radio reception:
Preset number buttons ●
- During CD playback:
1 INTRO (intro scan) button ●
2 REPEAT (repeat play) button ●
3 SHUF (shuffle play) button ●
- 15 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the installation/Connections manual.
- 16 Frequency Select switch (located on the bottom of the unit)
See "Frequency Select switch" in the installation/connections manual.
- 17 (radio on/band select) button ●●
- 18 CD (CD play) button ●
- 19 BTM (Best Tuning Memory function) button ●
- 20 LCL (local seek mode) button ●

When the position of switches 15 and 16 have been changed, be sure to press the reset button after connecting power.

Installation

Instalación

安裝

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°.

Precauciones

- No toque los cuatro orificios de la superficie superior de la unidad. Estos orificios son para ajustes del sintonizador que solamente deberán realizar técnicos de reparación.
- Elija cuidadosamente el lugar de montaje de forma que la unidad no interfiera las funciones normales de conducción.
- Evite instalar la unidad donde pueda quedar sometida a altas temperaturas, como a la luz solar directa o al aire de calefacción, o a polvo, suciedad, o vibraciones excesivas.
- Para realizar una instalación segura y firme, utilice solamente la ferretería de montaje suministrada.

Ajuste del ángulo de montaje

Ajuste el ángulo de montaje a menos de 20°.

使用前須知事項

- 請勿擅自觸動本機頂部的四個小孔。該孔只供專業人員調整調諧機時之用。
- 本機請放在不妨礙司機駕駛之處。
- 避免把本機放在高溫之處，如陽光直接照射、暖氣機前、或灰塵極多、靜亂或易受震動等地方。
- 為了安全起見，安裝時請使用附屬的安裝道具。

安裝角度之調整

請在20度以內調整安裝角度。

Mounting Example

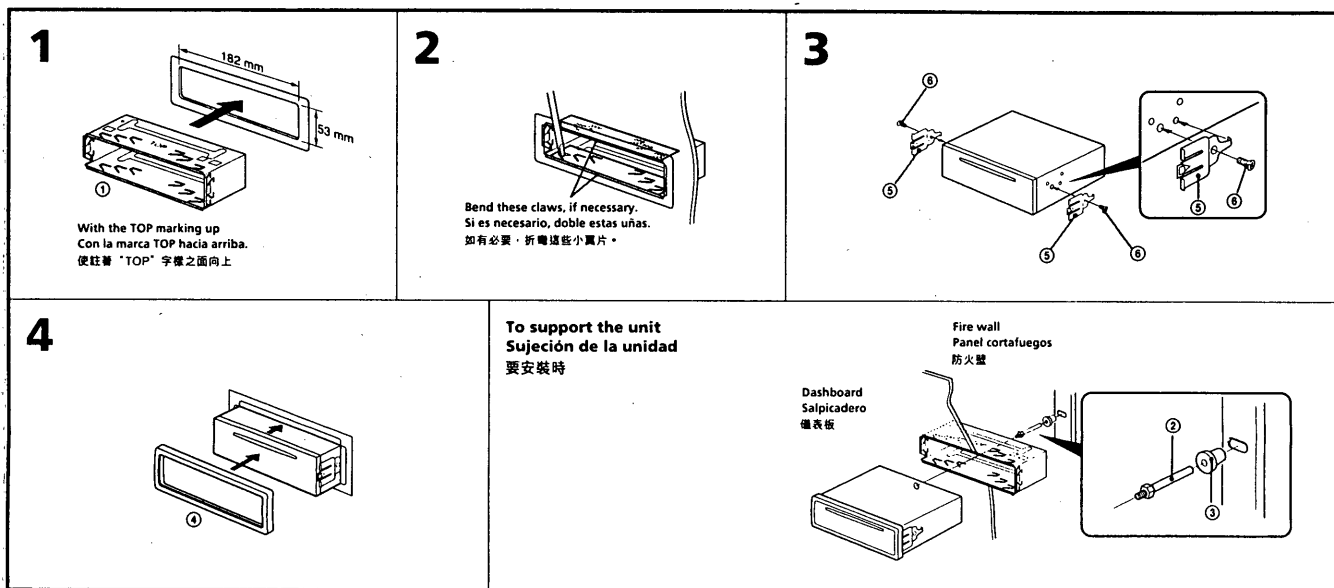
Installation in the dashboard

Ejemplo de montaje

Instalación en el salpicadero

安裝例子

安裝於儀表板上時



Mounting the Unit in a Japanese Car

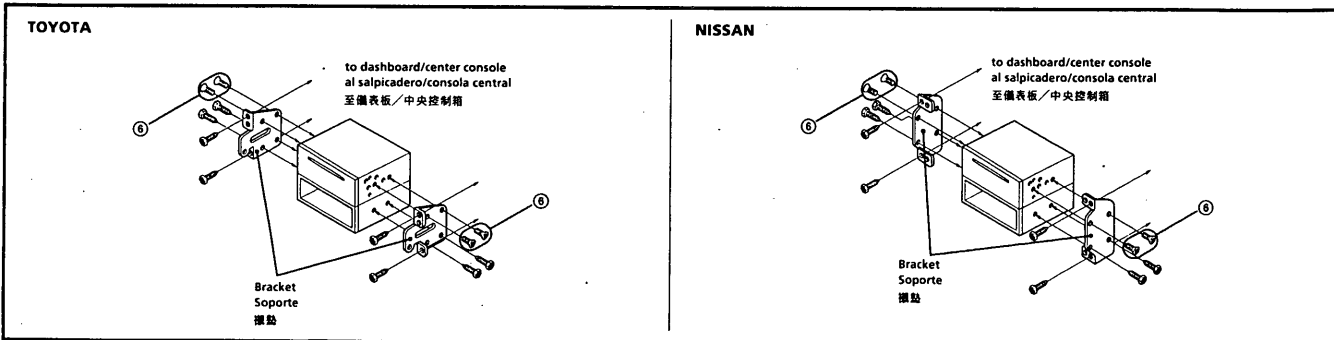
You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Montaje de la unidad en un automóvil japonés

Usted no podrá instalar esta unidad en algunos automóviles japoneses. En tal caso, consulte a su proveedor Sony.

要安裝於日本汽車裡時

有的汽車不能安裝本機。此時，請向離貴處最近的 SONY 經銷店查詢。



Note
Use the existing parts supplied to your car.

Nota
Utilice las piezas existentes suministradas con su automóvil.

註
安裝時，可以使用附屬於汽車的零件。

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.

If Your Car has no Accessory Position on the Ignition Key Switch — POWER SELECT Switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the ② position, then press the reset button. The illumination is reset to stay off while the unit is not being played.

Note

The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ② position.

Frequency Select Switch

The AM (FM) tuning interval is factory-set to the 9K (50 K) position. If the frequency allocation system of your country is based on 10 kHz (200 kHz) interval, set the switch on the bottom of the unit to the 10 K (200 K) position before making connections.

Conexiones

Precauciones

- Esta unidad ha sido diseñada para alimentarse con 12 V CC, negativo a masa, solamente.
- Antes de realizar las conexiones, desconecte el terminal de puesta a masa de la batería del automóvil a fin de evitar cortocircuitos.
- Conecte los cables conectores de alimentación amarillo y rojo solamente después de haber conectado los demás.
- Cerciórese de conectar el cable conector de alimentación rojo a un terminal de 12 V positivo que se energice al poner la llave de encendido en la posición para accesorios.
- Conecte todos los conductores de puesta a masa a un punto común.

Si el automóvil no dispone de posición para accesorios en la llave de encendido — Selector POWER SELECT

La iluminación del panel frontal ha sido ajustada en fábrica para que esté activada aunque la unidad no se encuentre en reproducción. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil si éste no dispone de posición para accesorios en la llave de encendido. Para evitar esto, ponga el selector POWER SELECT, situado en la base de la unidad, en la posición ② y, después, presione el botón de reposición. La iluminación estará desactivada cuando la unidad no se encuentre en reproducción.

Note

La alarma de precaución del panel frontal no se activará cuando el selector POWER SELECT se encuentre en la posición ②.

Selector de frecuencia

El intervalo de sintonía de AM (FM) ha sido ajustado en fábrica a la posición 9 K (50 K). Si el sistema de asignación de frecuencias de su país se basa en el intervalo de 10 kHz (200 kHz), ponga este selector, situado en la base de la unidad, en la posición 10 K (200 K) antes de realizar las conexiones.

線路之連接

注意

- 本機只可使用負極接地 12V 直流電操作。
- 連接以前，先拔取汽車電池的接地端子，以免發生短路。
- 紅色及黃色電源輸入導線必須等所有電線都連接完畢以後才可連接。
- 紅色電源輸入導線請連接到汽車發動機點火鑰匙被轉在輔助位置時才通電的正 12V 電源端子。
- 所有地線都必需連接到同一接地點才行。

若要在汽車發動機點火鑰匙開關沒具輔助位置的汽車裡使用時

— POWER SELECT 開關

前板的照明燈在未出廠以前，被設定在即使不使用時也會發亮的狀態。若要在汽車發動機點火鑰匙開關沒具輔助位置的汽車裡使用本機的話，此照明燈將會一直消耗微量的汽車電池電力。因此為了避免在這種狀態下的電池消耗，請把本機底下的 POWER SELECT 開關設定在 ② 之處，然後按壓前板的重調鍵。則不使用本機時，照明燈便不發亮。

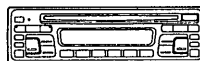
註

POWER SELECT 開關被設定在 ① 的話，前板的操作錯誤警告功能便失效。

頻率選擇開關

本裝置的 AM (FM) 調諧區間在出廠以前被設定在“9 K (50 K)”位置上。若貴地的頻率區間為“10 kHz (200 kHz)”，連接以前請先把本機機底的選擇開關設定在“10 K (200 K)”之處。

Change the position with a jeweler's screwdriver, etc.
Cambie la posición con un destornillador de relojero, etc.
以珠寶行用的先鋒尖細的螺絲起子等改變開關位置。



Reset Button

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

Botón de reposición

Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo, etc.

重調鍵

安裝和線路之連接完畢以後，請以原子筆等按壓重調鍵。取下前板時，則可看到重調鍵位於本機連接器左邊。

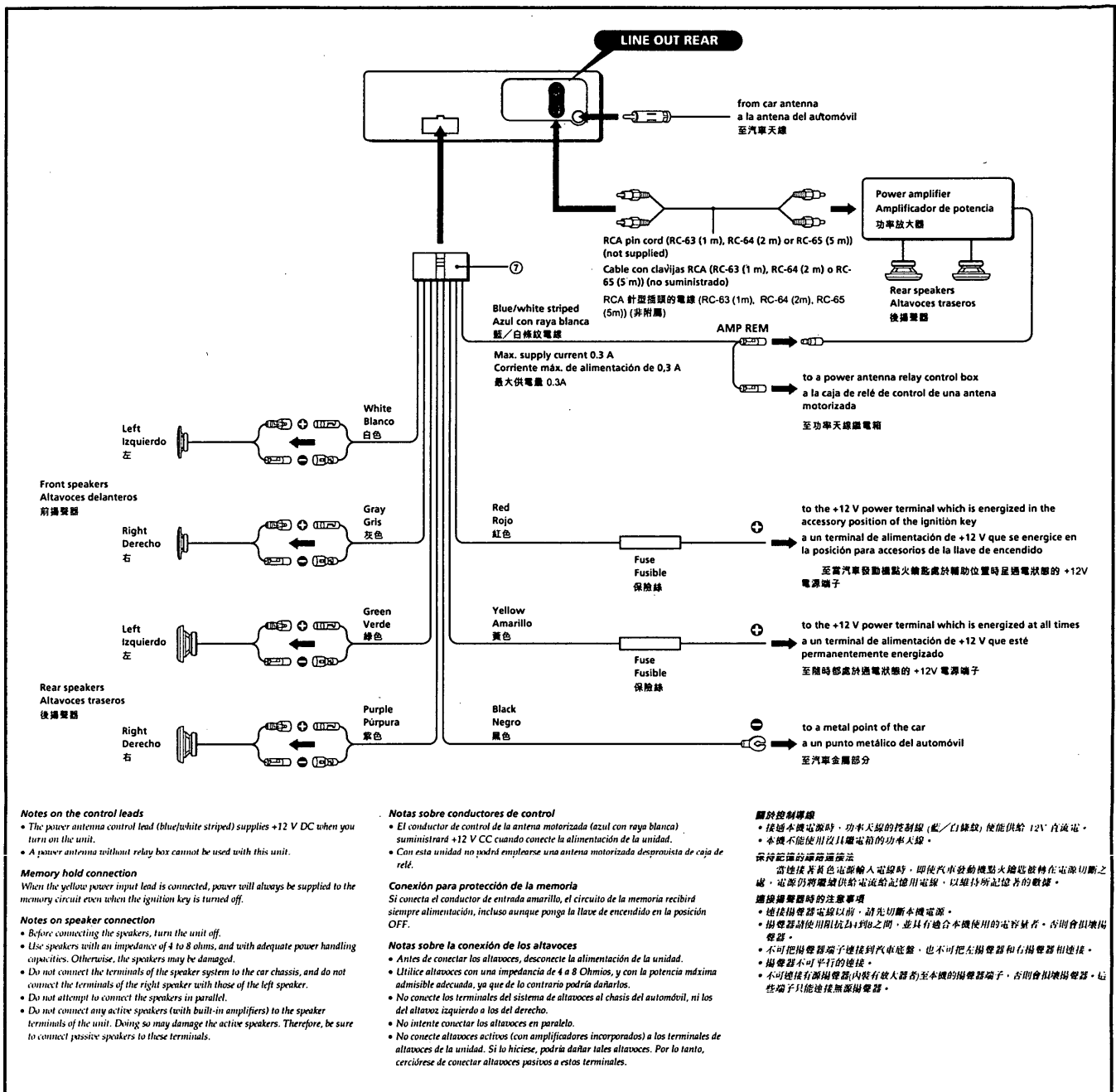
Reset button
Botón de reposición
重調鍵



Connections of Example

Ejemplo de conexiones

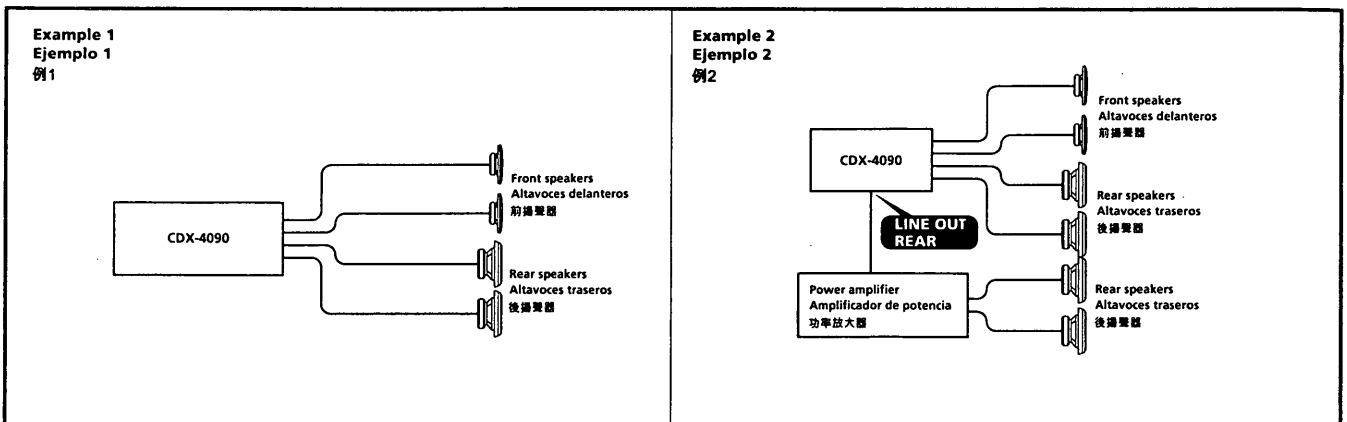
線路之連接圖例



Connection Diagram

Diagramas de conexión

線路連接方塊圖



SECTION 2

TEST MODE

Setting:

Method 1

Press keys in order of **4** → **5** → **1** for 2sec. under OFF condition.

Method 2

Pin⑦ of IC501 (SYSTEM CONTROL) → Connected to GND → **RESET** button (SW825)

Note: While the TEST MODE is set, the following will be displayed on the LCD.
Bit display "SHUF".

Releasing:

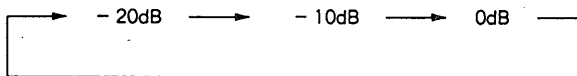
Press **OFF** key, or press **RESET** button (Open pin⑦ of IC501).

LCD display test

All segments of the display are lit up at the beginning of test mode.

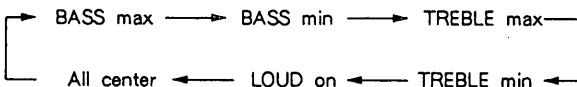
Electronic volume test

+ key :

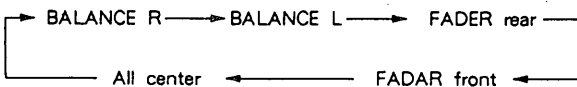


- key : normal operation

SEL key :



MUTE key :



CD SECTION

Audio Measurement Mode

When CD is played, the AUDIO MEASUREMENT MODE turns on.

When "YEDS-18" is played in the measuring mode, only the following Track No. will be played. (BANK function)
Each time the **4** key is pressed, the measuring mode turns on/off cyclically.

Note: AUDIO MEASUREMENT MODE PLAY Track No.
No. 2, 3, 6, 7, 8, 10, 12, 13, 17
(These have been set assuming that YEDS-18 will be used.)

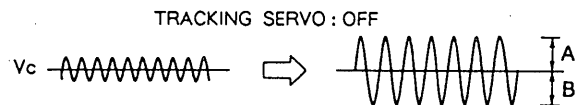
When YEDS-18 is used, the recording signals of the above tracks are as follows.

TNO	CONTENTS	EMPHASIS	PURPOSE
2	1kHz Sine Wave 0dB L & R	OFF	Reference
3	20kHz Sine Wave 0dB L & R	OFF	Frequency
6	20kHz Sine Wave 0dB L & R	OFF	Modulation Noise
7	Infinity Zero -∞dB L & R	OFF	S/N
8	1kHz Sine Wave 0dB L	OFF	Channel Separation
10	1kHz Sine Wave 0dB R		
12	5kHz Sine Wave -4.53dB L & R	ON	De emphasis
13	16kHz Sine Wave -9.04dB L & R		
17	1kHz Sine Wave -60dB L & R	OFF	Dynamic Range

Adjusting and Checking Functions

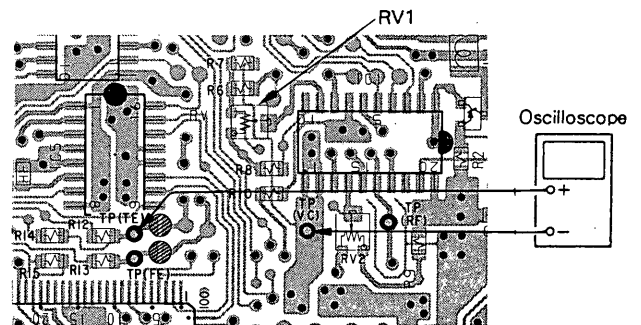
a) TRACKING OFFSET adjustment

Each time the **INTRO** key is pressed while the CD is played, the TRACKING SERVO turns on/off.
The bit display "INTRO" on the LCD will be lit while the TRACKING SERVO is off.



Adjustment Location and Measurement point:

[SERVO BOARD] (SIDE B)



Procedure:

Adjust RV1 so that the peak values of waveforms A and B become equal.

b) Focus search retry mode

Each time the **REPEAT** key is pressed while the CD is played, the FOCUS SEARCH RETRY MODE turns on/off.

When the FOCUS does not turn on in the FOCUS SEARCH RETRY MODE, the FOCUS search is repeated. Once the FOCUS turns on, the unit sets into the PLAY condition.

During the FOCUS SEARCH RETRY MODE, the "REP" bit display on the LCD will be lit.

Note: This mode is for checking the unit when FOCUS cannot be set.

CD Error Display

During CD PLAY in the TEST MODE, the following ERROR displays will be shown when CD errors occur. "E- n1 n2"

n1 to n2 are determined by ERROR symptoms as shown below.

n1	n2
1: SERVO ERROR	1: FOCUS ERROR 2: GFS ERROR 3: SLED MAX TIME OVER 4: SLED OVERRUN 5: TOC READ ERROR
3: LOADING /EJECT ERROR	1: MAX TIME OVER (When sensor is passed during loading.) 2: Loading of only 8cm CD, adaptor, etc. 3: MAX TIME OVER (Until chucking ends during loading.) 4: MAX TIME OVER (Until EJECT ends during ejecting.)
4: TRACK JUMP	1: FOCUS DOWN 2: TRACK JUMP 3: HANG UP
D: TEMP (HOT)	0
F: MD GIVE UP	7: EJT

TUNER SECTION

When the tuner is turned on in the TEST MODE, all bands will first be set to f_{center} .

SEEK STOP TEST Function

- a) When the **SEEK ►►+** key is pressed, the unit is set to a frequency - 10 steps from the f_{center} and automatically seeks up to the f_{center} .
- If the unit seek stops at the f_{center} :
The unit sets into the f_{center} reception state. Preset No. "1" will be displayed.
 - If the unit seeks up to the f_{center} and cannot seek stop:
It returns to the - 10 step frequency and seeks up again.
 - If the unit seek stops before the f_{center} :
The unit receives that frequency. Preset No. "3" will be displayed.

- b) When the **SEEK ◄◄-** key is pressed, the unit is set to a frequency + 10 steps from the f_{center} and automatically seeks down to the f_{center} . Hereafter the same as the **SEEK ►►+** key.

- c) When the **PRESET ►►+** key is pressed, the unit is set to a frequency - 10 steps from the f_{max} and seeks up. Hereafter the same as a) except that f_{center} is replaced by f_{max} .

- d) Press the **PRESET ◄◄-** key to carry out normal MANUAL search down operations.

BAND SELECT

During TEST MODE, only the single band can be selected.

AGC CUT Function

In the AM ON condition, this function activates the SEEK port (pin ⑩ of IC603) and cuts AGC.

In the AGC CUT condition, the following displays on the LCD will light up.

Bit display "BANK"

When the **BTM** key is pressed for more than two seconds, AGC CUT turns on/off cyclically.

(The BTM function is unavailable.)

Note: Set the AGC CUT condition when adjusting the AM SEEK STOP sensitivity.

If the band changes from FM to AM, be sure to turn on the AGC CUT.

SD Signal Display
(For adjusting SEEK STOP LEVEL)

If the SD signal becomes high while a certain frequency is being received, after BAND displays such as "FM", "AM", etc. are shown, the following displays will light up.

"3" display

When the SD signal is low, nothing will be shown after the BAND is displayed.

DESTINATION	BAND	fmin	fcenter	fmax	step(SEEK)	step(MANUAL)
US, CND	FM	87.5MHz	97.9MHz	107.9MHz	200kHz	200kHz
	AM	530kHz	1,000kHz	1,710kHz	10kHz	10kHz
E (9kHz step)	FM	87.50MHz	98.00MHz	108.00MHz	50kHz	50kHz
	AM	531kHz	999kHz	1,602kHz	9kHz	9kHz
E (10kHz step)	FM	87.5MHz	97.9MHz	107.9MHz	200kHz	200kHz
	AM	530kHz	1,000kHz	1,620kHz	10kHz	10kHz

Abbreviation CND : Canadian

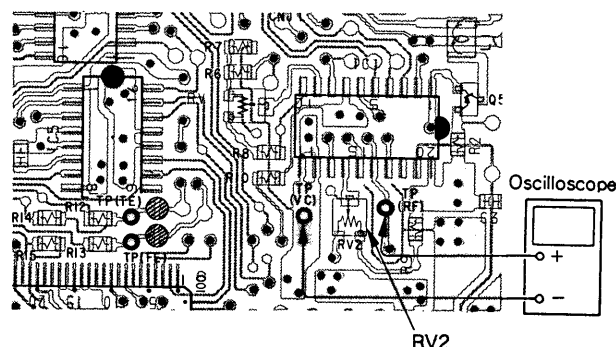
SECTION 3 ELECTRICAL ADJUSTMENTS

CD SECTION

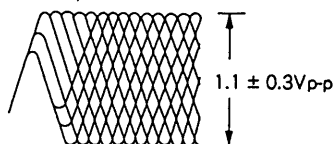
Focus Offset Adjustment

Adjustment Location and Measurement point:

[SERVO BOARD] (SIDE B)



Volt/div : 200mV
Time/div : 0.5 μ sec



Procedure:

1. Connect the oscilloscope to TP (RF) on the SERVO board.
2. Load a disc and set mode to PLAY.
3. Adjust RV2 so that the waveform on the oscilloscope (eye pattern) is maximum with good shape. "Well-shaped eye pattern" means that the mark "◇" is clearly distinguished at the center of the waveform.

Tracking Offset Adjustment

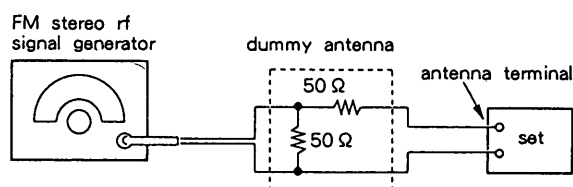
Refer to the "TEST MODE CD SECTION".

TUNER SECTION

FM Seek Stop Level Adjustment (FM SD Adjustment)

Setting:

Band : FM
Frequency : 97.9MHz (US, Canadian Model)
98MHz (E Model)

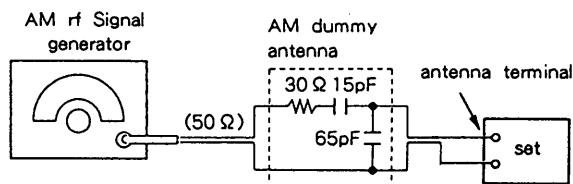


Carrier frequency : 97.9MHz (US, Canadian Model)
98MHz (E Model)
Modulation : 1kHz, 75kHz
Output level : 22dB (12.6 μ V)

AM Seek Stop Level Adjustment (AM SD Adjustment)

Setting:

Band : AM (MW)
Frequency : 1000kHz (US, Canadian Model)
999kHz (E Model)



Carrier frequency : 1000kHz (US, Canadian Model)
999kHz (E Model)
Modulation : 400Hz, 30 %
Output level : 32dB (40 μ V)

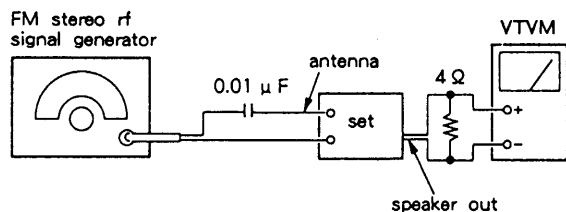
Procedure:

1. Set the "SD Signal Display" MODE of the TEST MODE.
2. Adjust RV3 (FM), RV1 (AM) of the TUNER UNIT, and erase the SD display "3" once.
3. Adjust RV3 (FM), RV1 (AM) so that a SD display lights up again.
4. Check with the "SEEK STOP TEST" function of the TEST MODE.

FM Stereo Separation Adjustment

Setting:

BAND : FM Stereo
 Frequency : 97.9MHz (US, Canadian Model)
 98MHz (E Model)



Carrier frequency : 97.9MHz (US, Canadian Model)
 98MHz (E Model)
 Modulation : Main channel : 1kHz, 33.75kHz deviation (45%)
 Pilot signal : 18kHz, 7.5kHz deviation (10%)
 Sub channel : 1kHz, 33.75kHz deviation (45%)
 Output level : 1mV (More than 35dB)

Procedure:

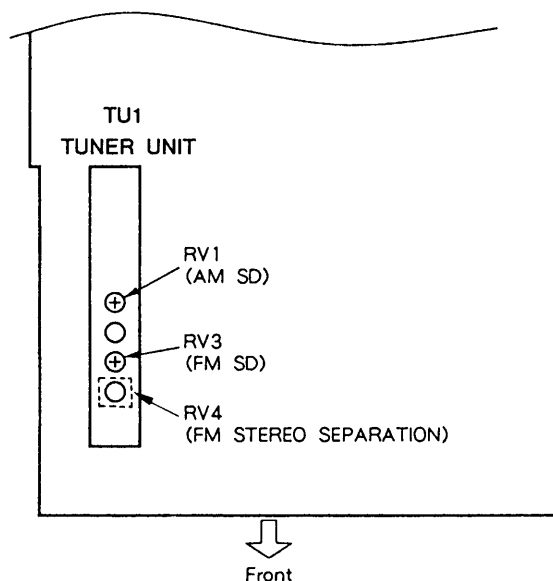
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ [ⓑ] Adjust RV4 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ [Ⓓ] Adjust RV4 for minimum reading.

Note: The separation values in the two channels should be identical.

$$\text{Ⓐ} - \text{Ⓑ} = \text{Ⓒ} - \text{Ⓓ}$$

Adjustment Location:

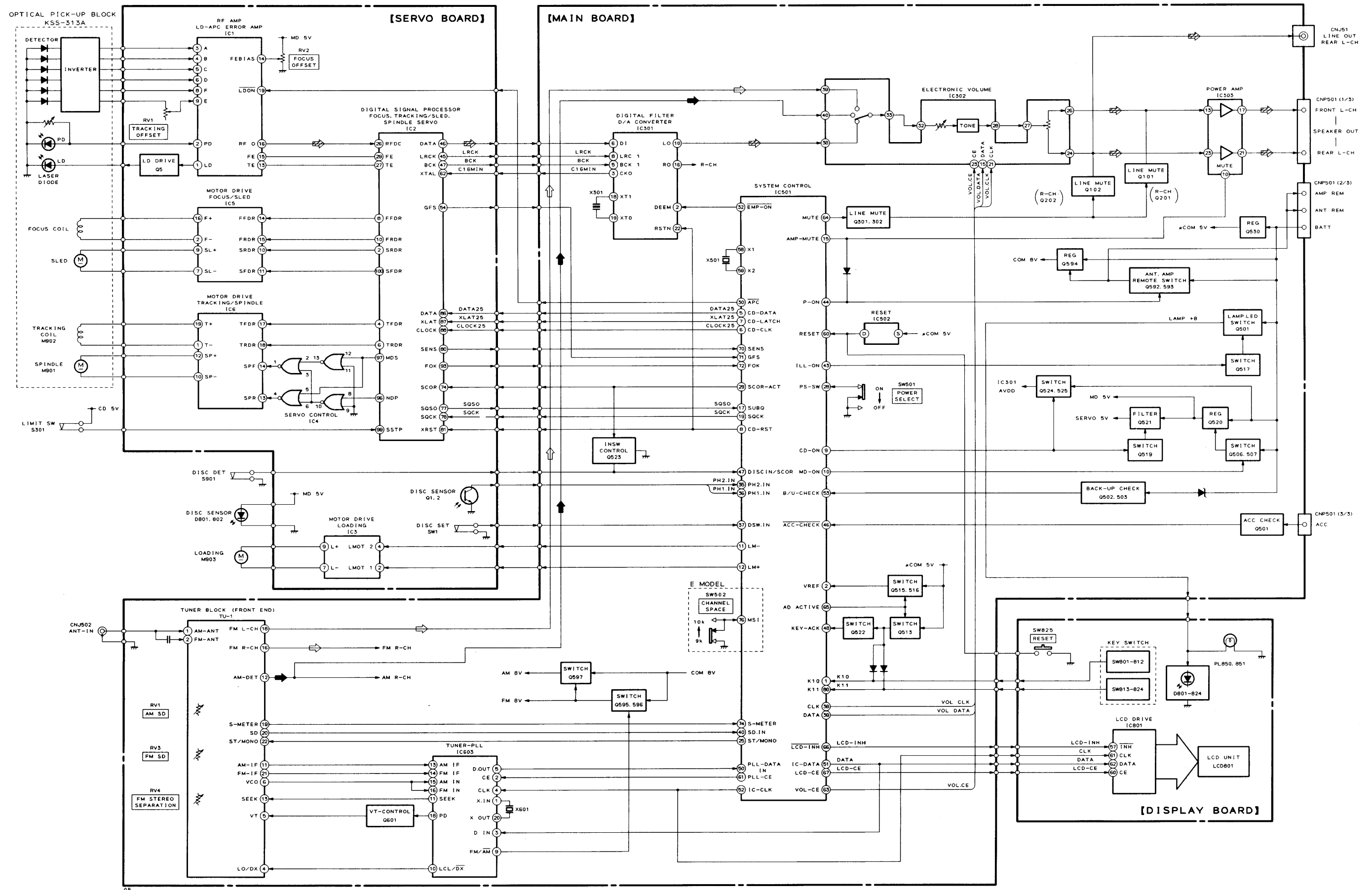
[MAIN BOARD] (SIDE A)



SECTION 4

DIAGRAMS

4-1. BLOCK DIAGRAM



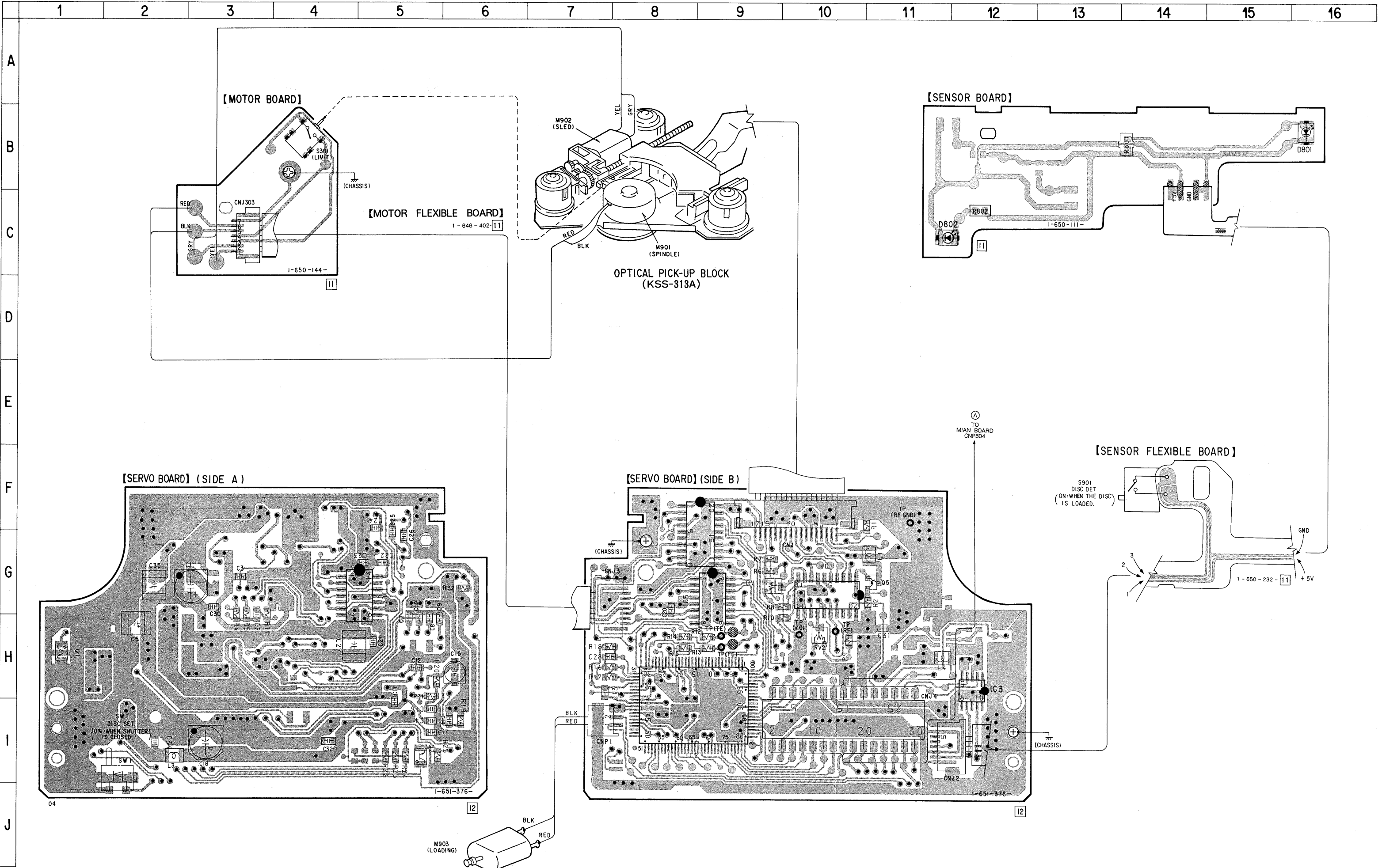
4-2. PRINTED WIRING BOARDS – MECHANISM DECK Section –
• See page 20 for Semiconductor Lead Layouts.

• Semiconductor Location

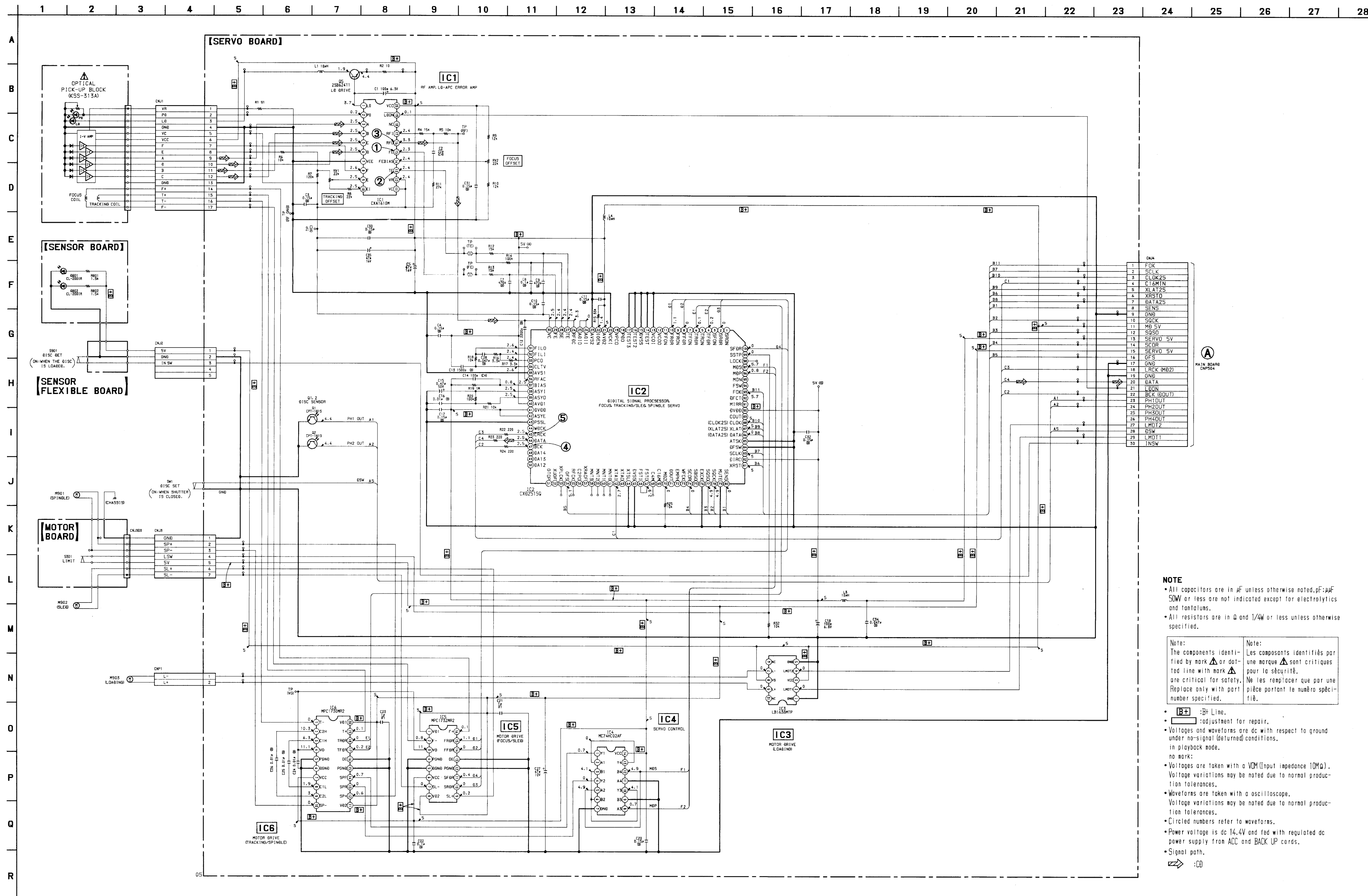
Ref. No.	Location
D801	B-16
D802	C-11
IC1	G-10
IC2	I-8
IC3	H-12
IC4	G-5
IC5	G-9
IC6	G-8
Q1	H-1
Q2	I-5
Q5	G-11

Note:
○ — : parts extracted from the component side.
● : Through hole.
▨ : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

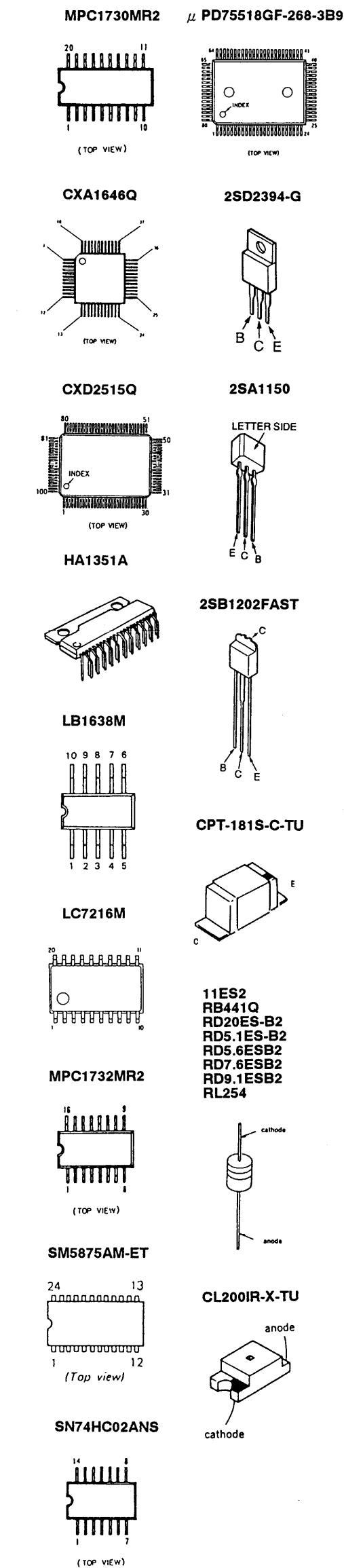
Caution:
Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.
(Conductor Side)
Parts face side: Parts on the parts face side seen from the parts face are indicated.
(Component Side)



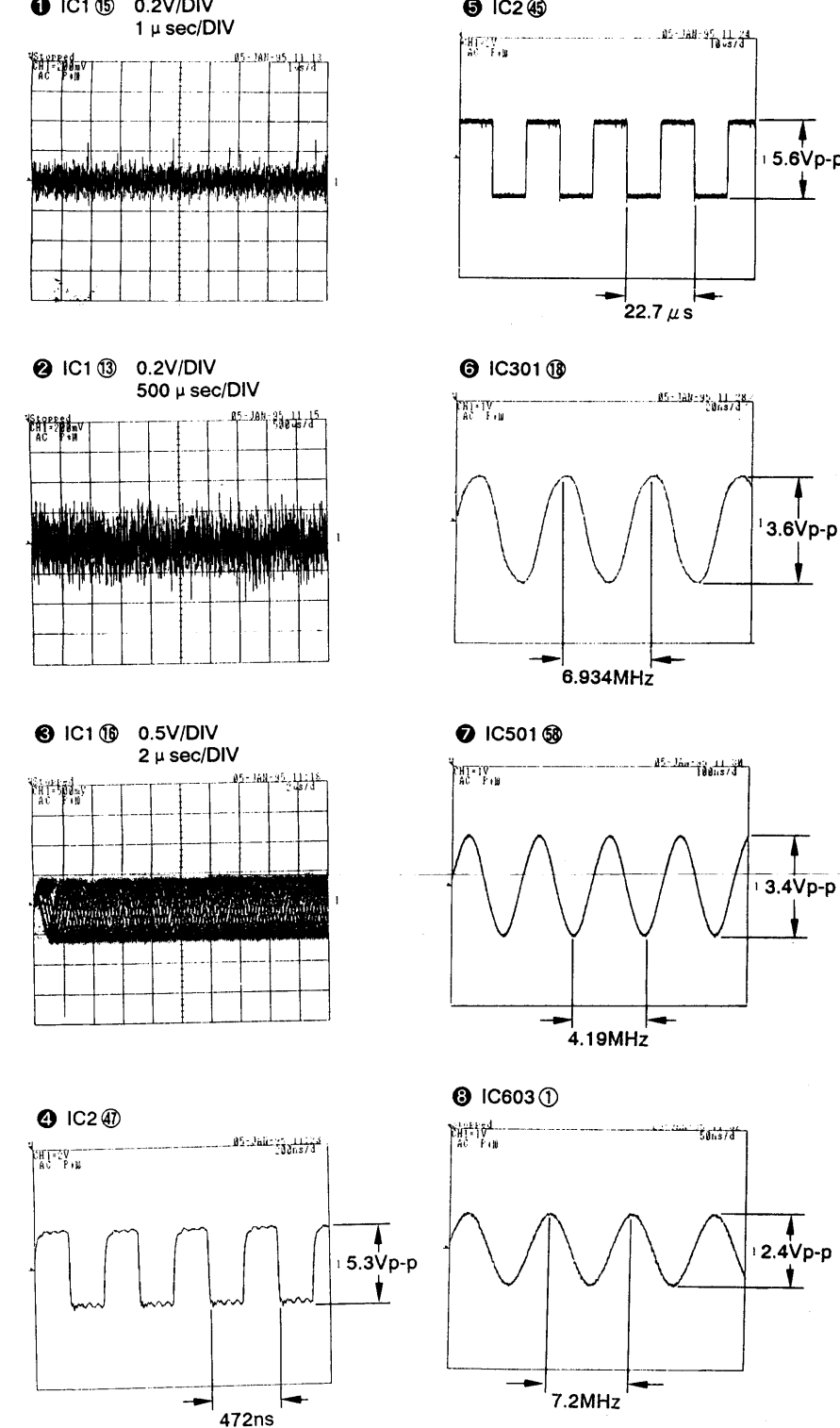
4-3. SCHEMATIC DIAGRAM — MECHANISM DECK Section —
• See page 28 for IC Block Diagrams and page 20 for Waveforms.



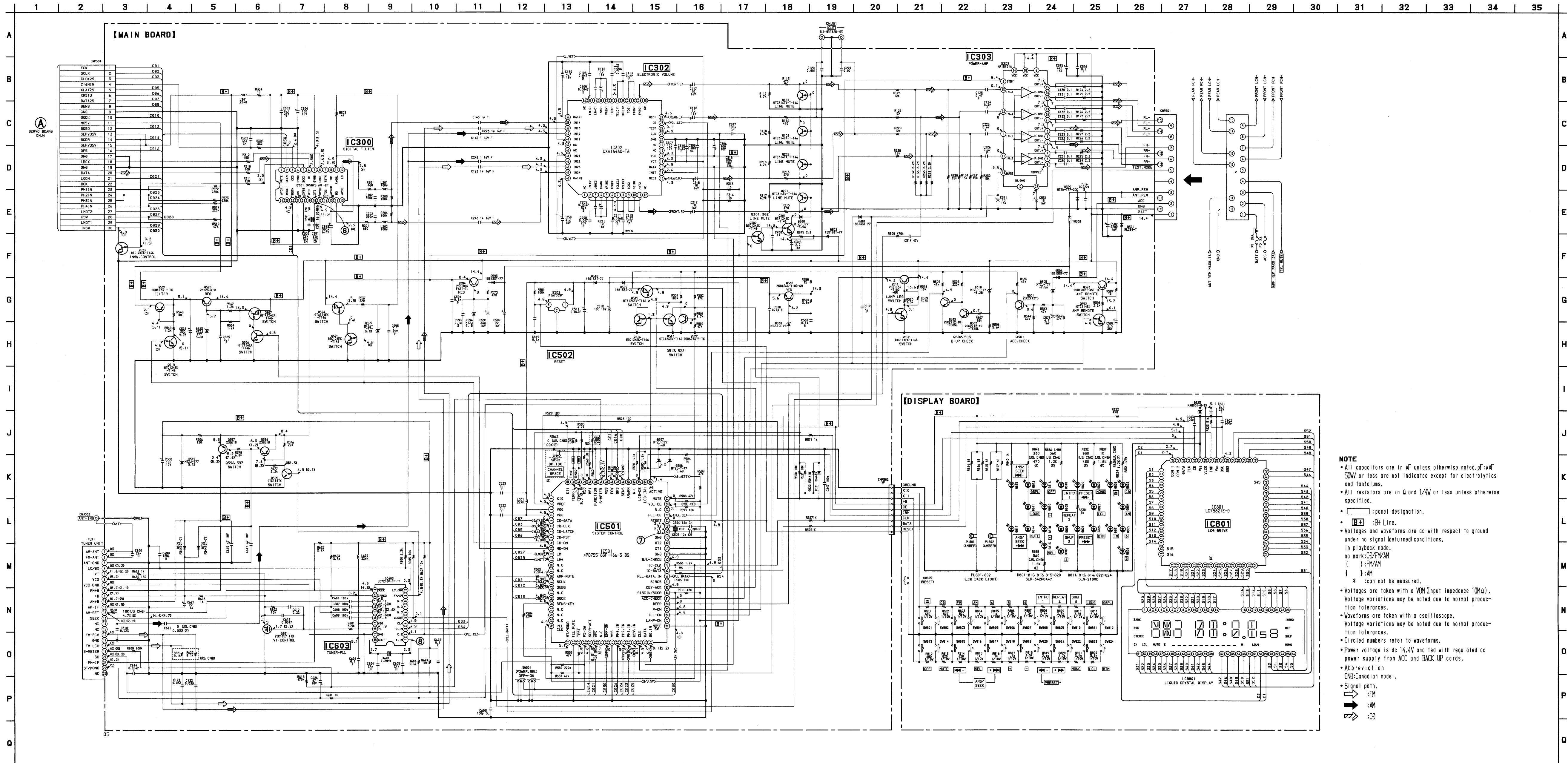
• Semiconductor Lead Layouts



• Waveforms



4-4. SCHEMATIC DIAGRAM — MAIN Section —
• See page 28 for IC Block Diagrams and page 20 for Waveforms.

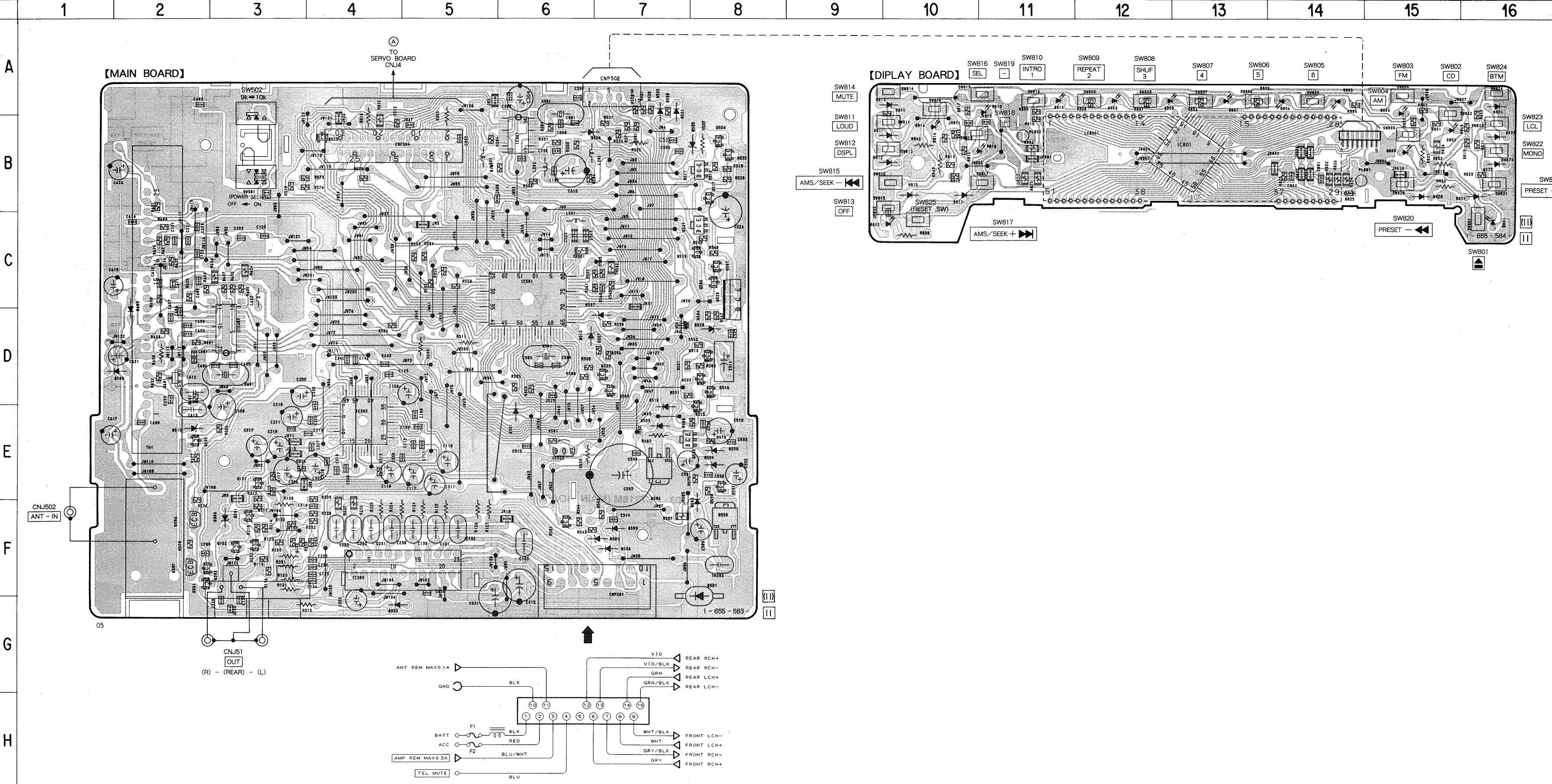


4-5. PRINTED WIRING BOARD – MAIN Section –
• See page 20 for Semiconductor Lead Layouts.

• Semiconductor Location

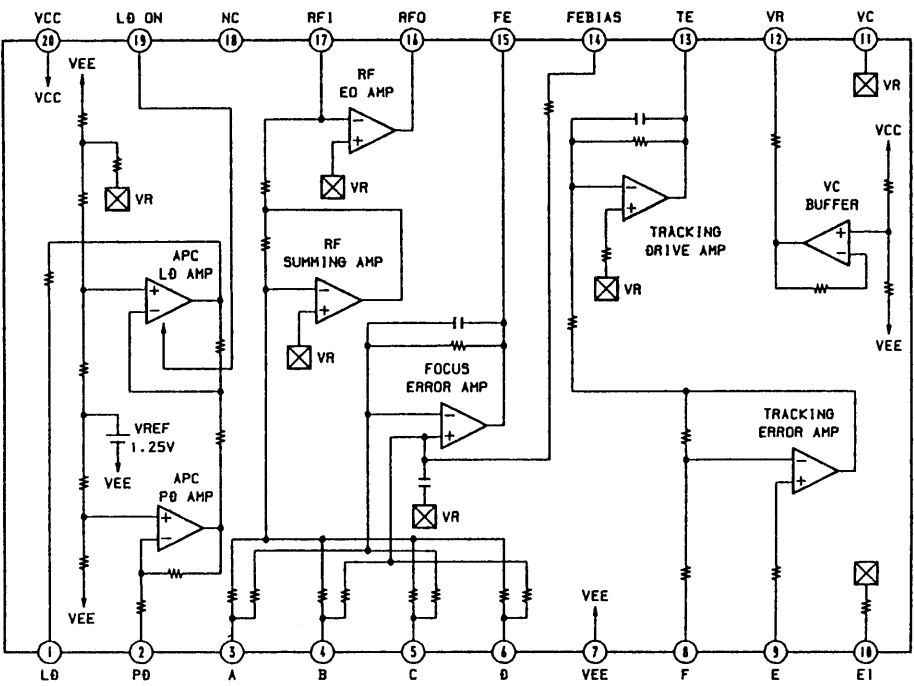
Ref. No.	Location	Ref. No.	Location
D300	F-3	IC301	B-6
D301	E-6	IC302	E-4
D310	D-6	IC303	F-4
D501	G-8	IC501	C-6
D505	F-7	IC502	E-6
D506	F-7	IC603	D-3
D507	D-7	IC801	B-13
D508	B-6		
D509	E-7	Q101	E-3
D510	E-7	Q102	F-3
D512	E-2	Q201	F-3
D521	A-7	Q202	F-3
D522	A-7	Q301	F-2
D523	D-8	Q302	F-2
D530	E-8	Q501	F-6
D593	F-8	Q502	D-7
D594	E-8	Q503	D-7
D599	F-7	Q506	C-8
D699	D-2	Q507	C-8
D700	D-2	Q511	B-8
D801	C-16	Q513	D-8
D802	B-15	Q515	E-8
D803	B-15	Q516	D-8
D804	A-15	Q517	B-8
D805	A-14	Q519	C-8
D806	A-14	Q520	C-8
D807	A-13	Q521	C-8
D808	A-12	Q522	D-8
D809	A-12	Q523	B-4
D810	A-11	Q530	E-7
D811	B-10	Q592	E-8
D812	B-10	Q593	F-8
D813	C-10	Q594	E-7
D814	A-10	Q595	E-2
D815	B-10	Q596	F-2
D816	B-10	Q597	F-2
D817	B-10	Q601	D-2
D818	B-11		
D819	A-11		
D820	B-15		
D821	B-16		
D822	B-16		
D823	B-16		
D824	A-16		
D825	B-14		

Note:
• : parts extracted from the component side.

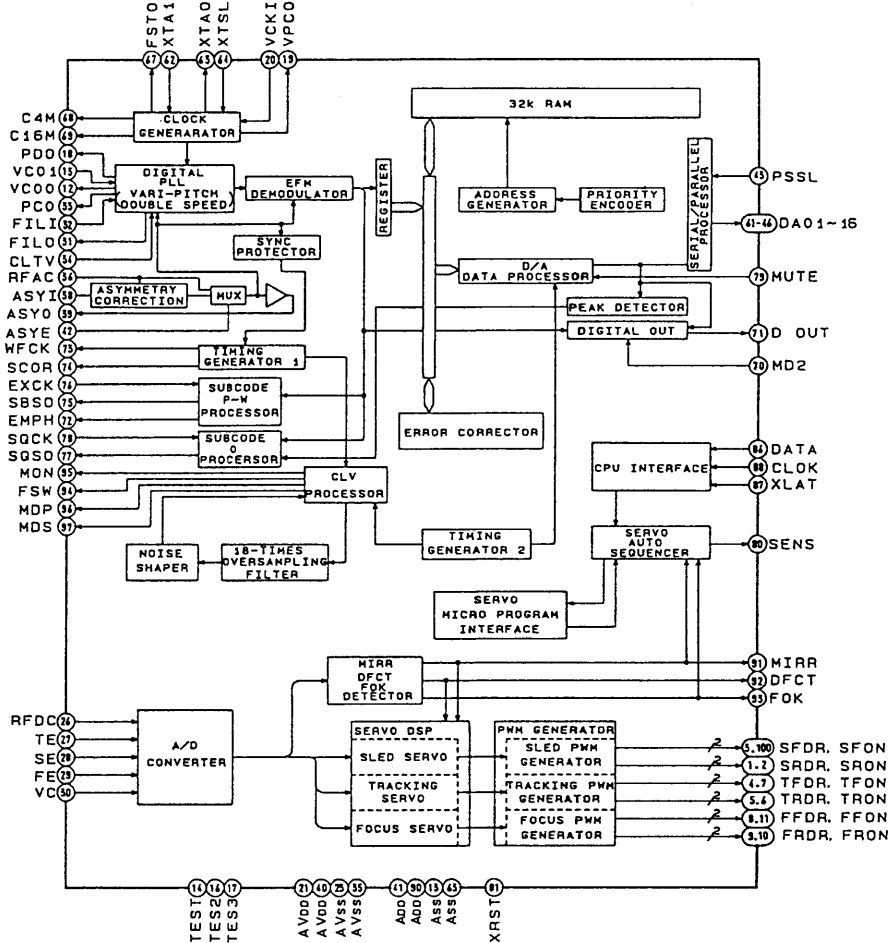


• IC Block Diagrams

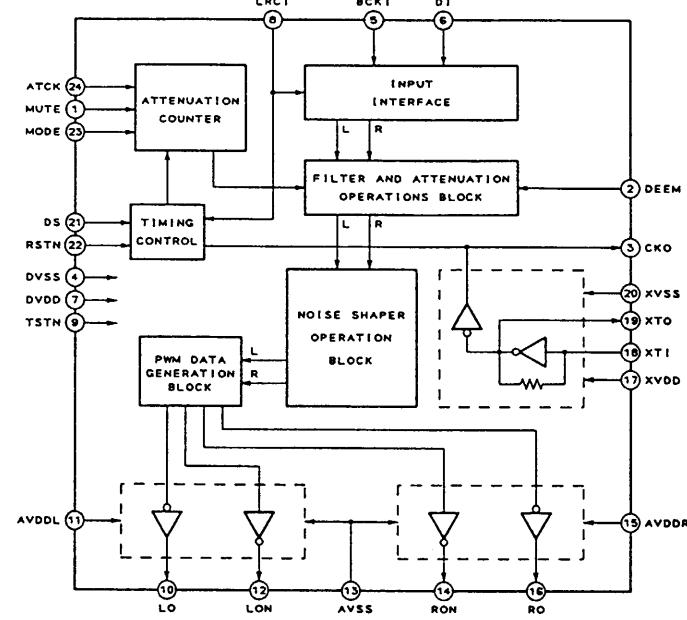
IC1 CXA1610M (SERVO BOARD)



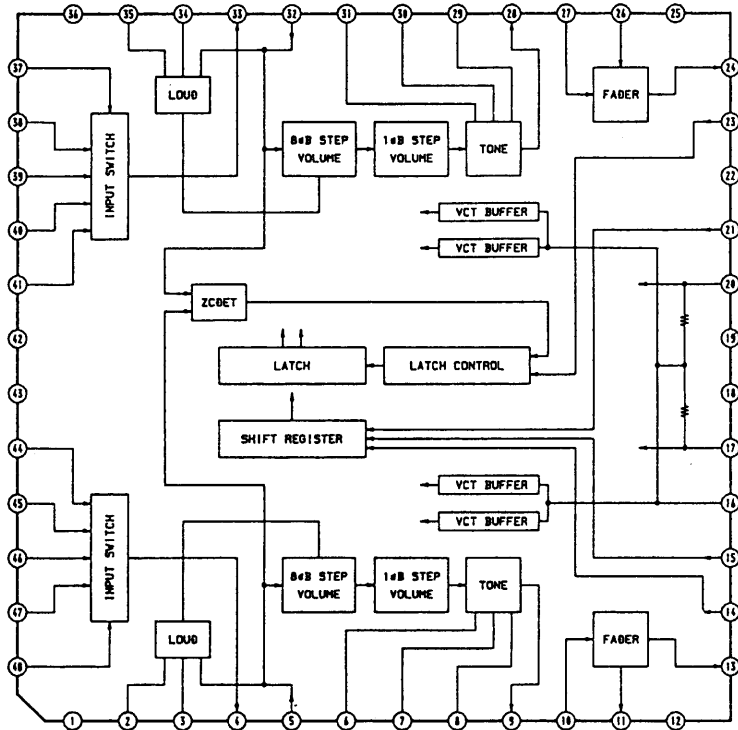
IC2 CXD2515Q (SERVO BOARD)



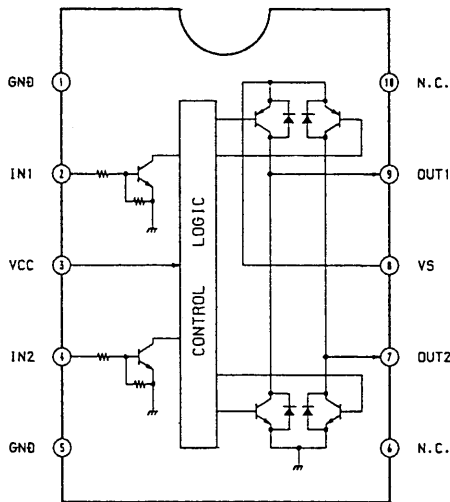
IC301 SM5875AM-ET (MAIN BOARD)



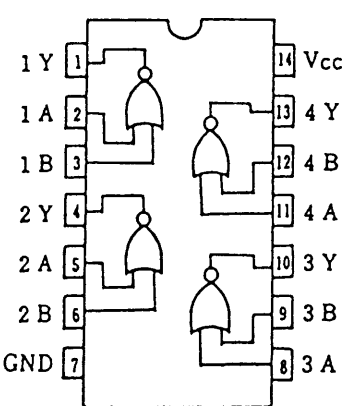
IC302 CXA1646Q (MAIN BOARD)



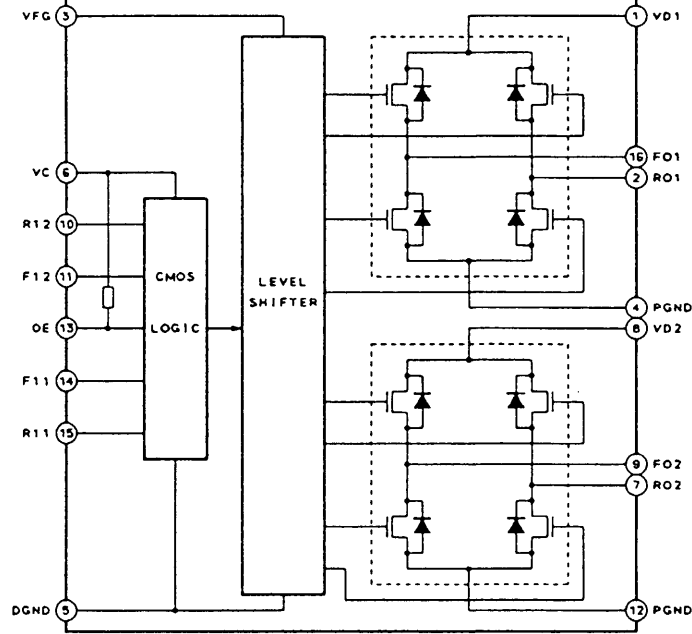
IC3 LB1638M (SERVO BOARD)



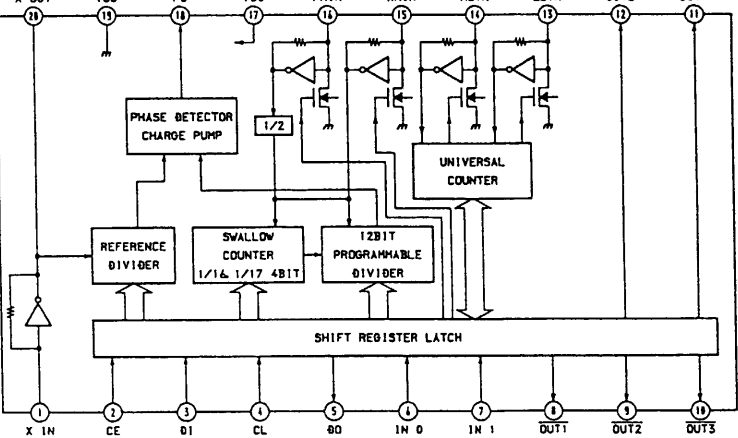
IC4 SN74HC02ANS (SERVO BOARD)



IC5 MPC1732MR2 (SERVO BOARD)
IC6 MPC1730MR2 (SERVO BOARD)



IC603 LC7216M (MAIN BOARD)



4-6. IC PIN DESCRIPTION

• IC501 SYSTEM CONTROL (μ PD75518GF-166-3B9)

Pin No.	Pin Name	I / O	Description									
1	KI0	I	Key input pin. (A/D conversion input.)									
2	VREF	I	Reference voltage input pin of A/D conversion pins.									
3	VDD	I	Power supply input. (5V)									
4	VDD	I										
5	CD DATA	O	SERIAL DATA output pin for the CD servo IC.									
6	CD CLK	O	SERIAL CLOCK output pin for the CD servo IC.									
7	CD LATCH	O	SERIAL DATA LATCH output pin for the CD servo IC.									
8	CD RST	O	CD servo IC resetting output pin.									
9	CD ON	O	Power supply ON/OFF control output pin. (CD servo IC)									
10	MD ON	O	Power supply ON/OFF control output pin. (Mechanism deck section)									
11	LM -	O	Loading motor control output pins. <table><tr><td></td><td>LM -</td><td>LM +</td></tr><tr><td>FWD (Loading)</td><td>L</td><td>H</td></tr><tr><td>REV (Eject)</td><td>H</td><td>L</td></tr></table>		LM -	LM +	FWD (Loading)	L	H	REV (Eject)	H	L
	LM -		LM +									
FWD (Loading)	L		H									
REV (Eject)	H	L										
12	LM +											
13	N.C	-	Not used.									
14	N.C	-										
15	AMP MUTE	O	MUTE output pin for power amp IC.									
16	SCLK	O	SERIAL CLOCK output pin.									
17	SUBQ	I	Q DATA input pin.									
18	N.C	-	Not used.									
19	SQCK	O	CLOCK output pin for reading the Q DATA.									
20	SENS KEY	-	Not used.									
21	N.C	-	Not used.									
22	N.C	-										
23	N.C	-										
24	PLL CLK	O	SERIAL CLOCK output pin for the LCD driver.									
25	ST/MONO	O	Output pin for switching control STEREO/MONO.									
26	TEL MUTE	-	Connected to GND.									
27	TEST	I	When dropped to "L", TEST MODE will be set.									
28	PS SW	I	Power select SW input pin.									
29	SCOR ACT	I	Activate for SCOR line.									
30	APC	O	CD pick-up laser power ON/OFF control output.									
31	N.C	-	Not used.									
32	EMP ON	O	Outputs "L" when a DISC which has been pre-emphasized is played back.									
33	VSS	-	Connected to GND.									
34	PH4 IN	I	Not used.									
35	PH2 IN	I	Mechanism deck sensor (loading/eject) input pin.									
36	PH1 IN	I	Mechanism deck sensor (loading/eject) input pin.									
37	DSW IN	I	Mechanism deck sensor input pin. Detects the completion of the DISC chucking operation.									
38	CLK	O	Electronic volume serial clock output.									
39	DATA	O	Electronic volume serial data output.									

Pin No.	Pin Name	I / O	Description
40	SD IN	I	SD input pin.
41	NOSE SW	—	Connected to GND.
42	LAMP ON	—	Not used.
43	ILL ON	O	Illumination control output pin.
44	P ON	O	ON/OFF control pin of the power supply.
45	BEEP	O	Alarm drive output pin.
46	ACC CHECK	I	ACC line ON/OFF detection.
47	DISC IN /SCOR	I	CD PLAY : SCOR input pin. Others : MD roller open/close detect input.
48	KEY ACK	I	Front panel key detecton.
49	SIRCS	—	Not used.
50	PLL DATA IN	I	SERIAL DATA input pin.
51	IC DATA	O	SERIAL DATA output pin for the LCD driver.
52	IC CLK	O	SERIAL CLOCK output pin for the LCD driver.
53	B/U CHECK	I	BATT line ON/OFF detection.
54	GND	—	Connected to GND.
55	XT1	—	Connected to GND.
56	XT2	—	Not used.
57	GND	—	Connected to GND.
58	X1	—	The SYSTEM CLOCK (4.19 MHz) for system control IC.
59	X2	—	
60	RESET	I	Input pin for system reset.
61	PLL CE	O	CLOCK enable output pin for the PLL IC.
62	N.C	—	Not used.
63	VOL CE	O	CE output pin to the electronic VOL IC.
64	MUTE	O	Audio MUTE output pin.
65	AD ACTIVE	O	VREF control pin of A/D conversion pins.
66	LCD INH	O	Pin which outputs INH to the LCD driver IC.
67	LCD CE	O	Pin which outputs CE to the LCD driver IC.
68	N.C	—	Not used.
69	ALARM	—	Connected to GND.
70	SENS	I	SENS input pin from CD servo IC.
71	GFS	I	GFS input pin from CD servo IC.
72	FOK	I	FOK input pin fromt CD servo IC.
73	Vss	—	Connected to GND.
74	SMETER	I	S meter voltage detection pin.
75	FUNCTION	I	Connected to GND.
76	MS1	I	MODE select input pin.
77	MS0	I	
78	TEMP-H	I	Temperature detection (High)
79	TEMP-L	I	Temperature detection (Low)
80	KI1	I	Key input pin (A/D conversion input)

SECTION 5 EXPLODED VIEWS

NOTE:

- -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

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

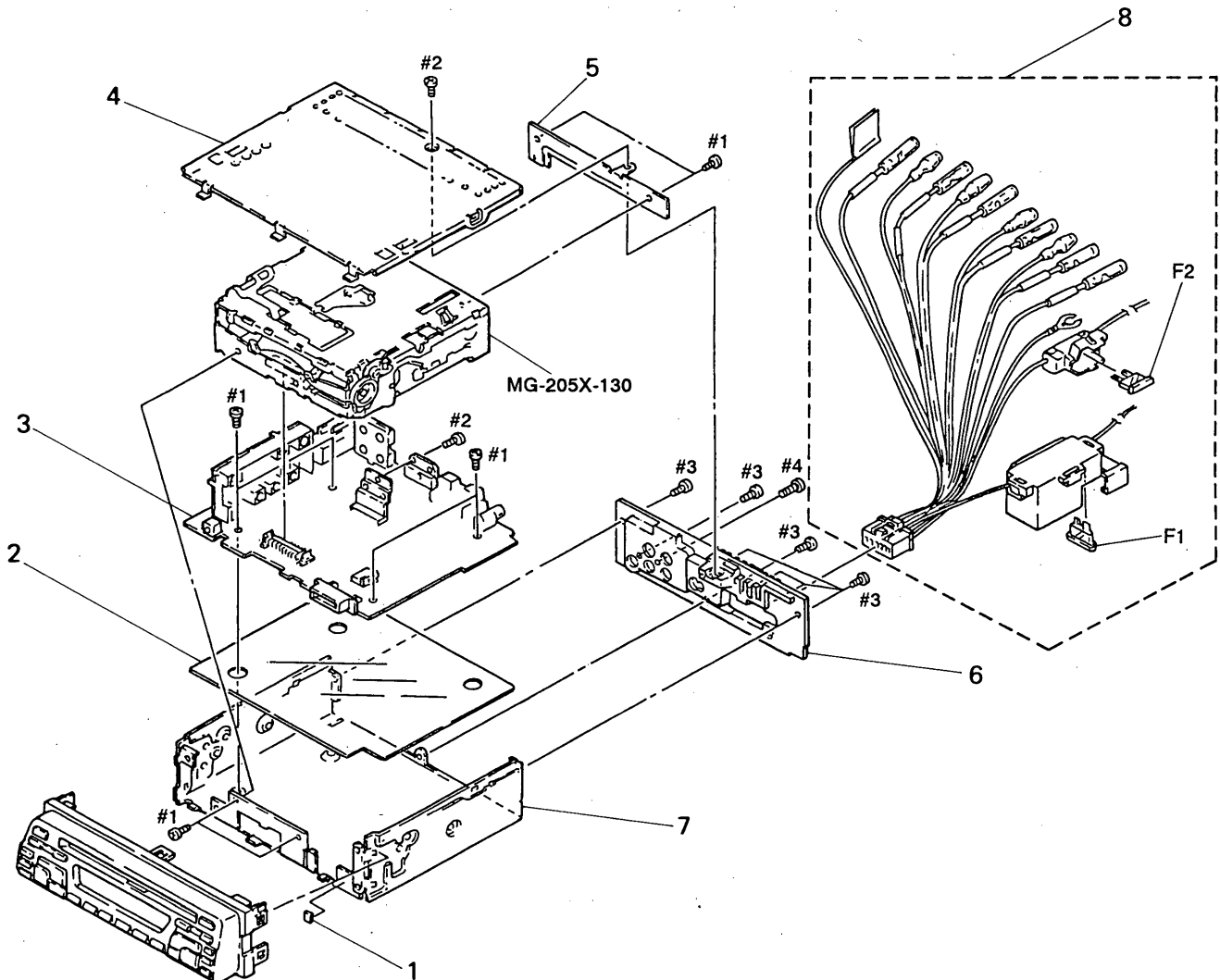
- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list is given in the last of this parts list.

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

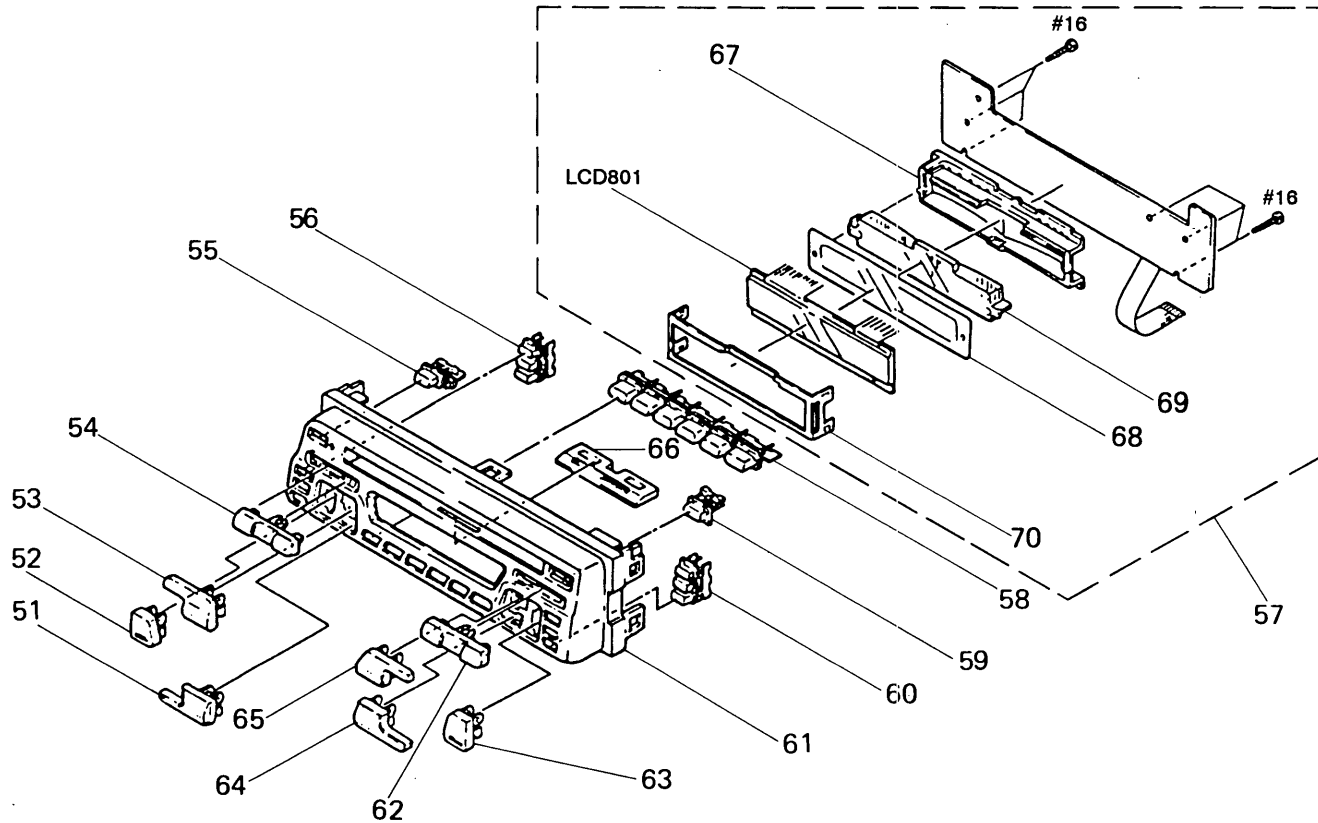
Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(1) GENERAL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 1	4-918-544-11	SPACER (T)		* 5	3-920-525-01	BRACKET (MD)	
* 2	3-920-527-01	SHEET, INSULATING		* 6	3-920-524-01	HEAT SINK	
* 3	A-3222-870-A	MAIN BOARD, COMPLETE (E)		* 7	3-920-521-01	CHASSIS (MAIN)	
* 3	A-3222-851-A	MAIN BOARD, COMPLETE (US, Canadian)		8	1-765-082-11	CORD (WITH CONNECTOR)	
* 4	3-920-522-01	COVER		F1	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
				F2	1-533-326-11	FUSE (BLADE TYPE) (AUTO FUSE) 3A	

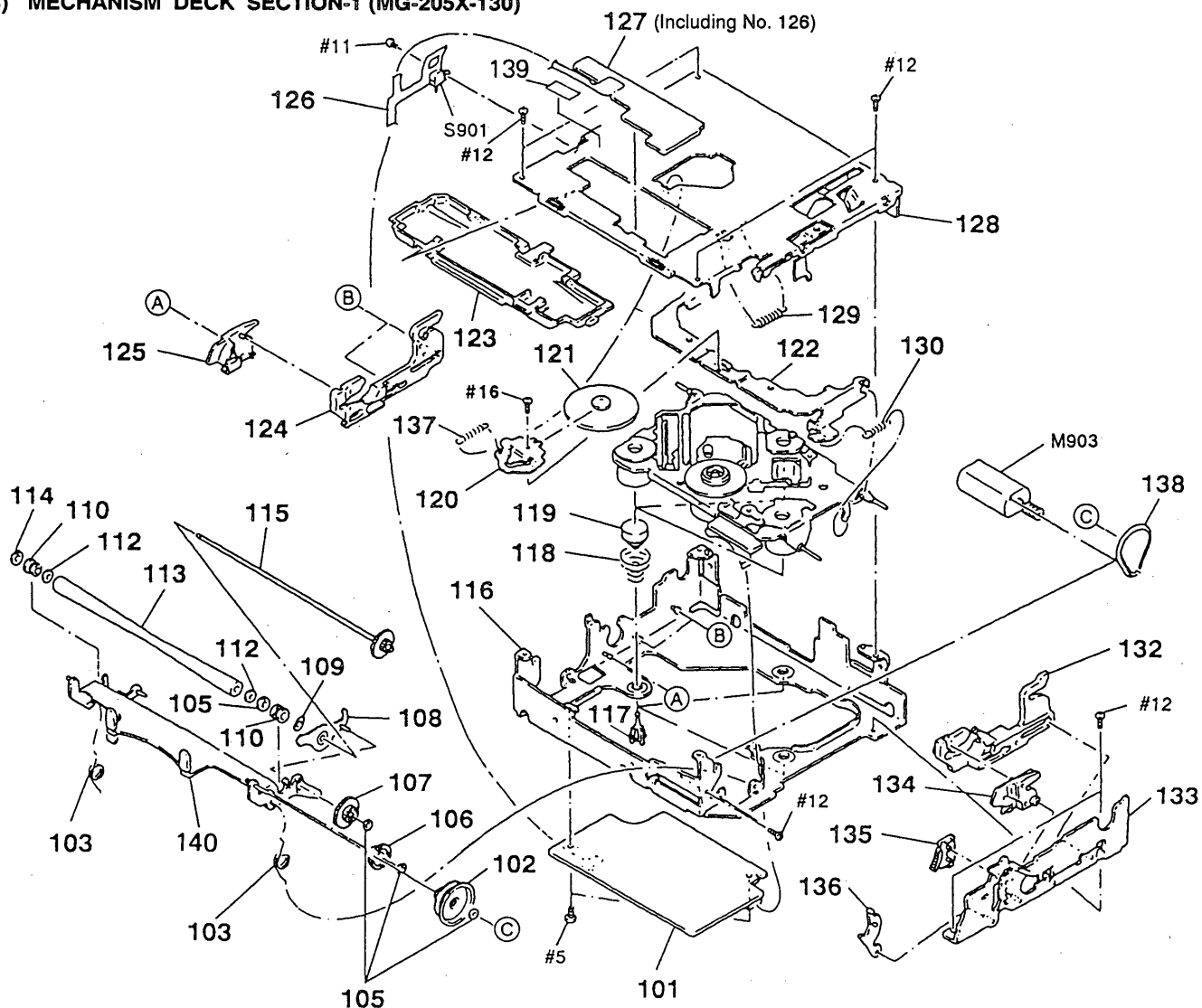
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-920-509-01	BUTTON (-)	
52	3-920-510-01	BUTTON (SEL)	
53	3-920-511-01	BUTTON (+)	
54	3-920-504-01	BUTTON (AMS/SEEK)	
55	3-920-506-01	BUTTON (OFF)	
56	3-920-516-01	BUTTON (DSPL)	
* 57	A-3222-889-A	DISPLAY BOARD, COMPLETE (E)	
* 57	A-3222-852-A	DISPLAY BOARD, COMPLETE (US, Canadian)	
58	3-920-503-01	BUTTON (1-6)	
59	3-920-502-01	EJECT, CD	
60	3-920-517-01	BUTTON (MONO)	

Ref. No.	Part No.	Description	Remark
61	X-3369-828-1	PANEL SUB ASSY, FRONT	
62	3-920-505-01	BUTTON (PRESET)	
63	3-920-514-01	BUTTON (CD)	
64	3-920-512-01	BUTTON (AM)	
65	3-920-513-01	BUTTON (FM)	
* 66	3-920-508-01	PLATE (C), LIGHT GUIDE	
* 67	3-920-519-01	HOLDER, LCD	
* 68	3-920-528-01	SHEET, LCD	
* 69	3-920-520-01	PLATE, LIGHT, LCD	
* 70	3-920-515-01	BRACKET (LCD)	
LCD801 1-810-407-31 DISPLAY PANEL, LIQUID CRYSTAL			

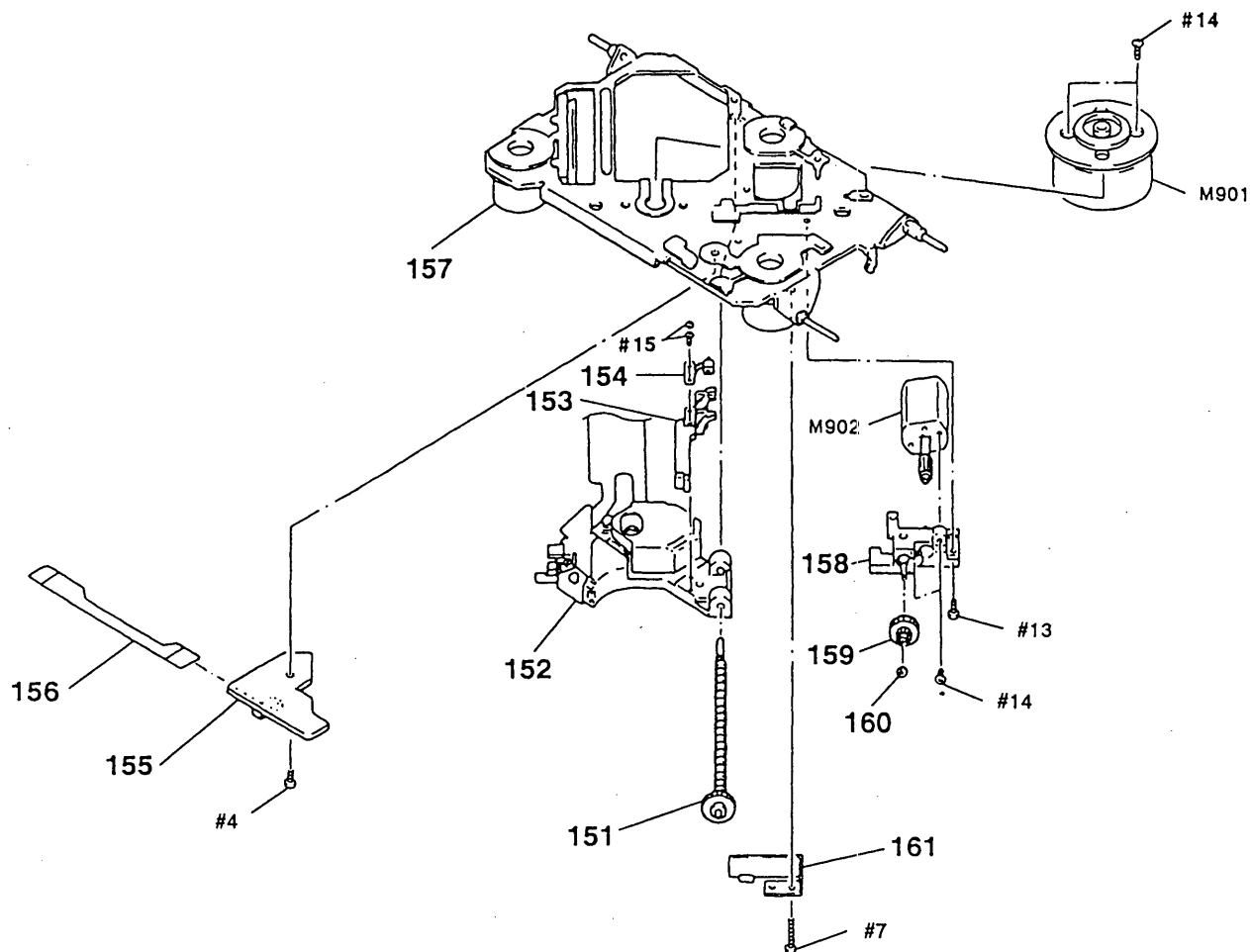
(3) MECHANISM DECK SECTION-1 (MG-205X-130)



Ref. No.	Part No.	Description	Remark
101	A-3295-950-A	SERVO BOARD, COMPLETE	
102	3-384-894-01	GEAR (R1)	
103	3-384-900-01	SPRING (PRESS)	
105	3-578-242-11	WASHER	
106	3-384-895-01	GEAR (R2)	
107	3-384-896-01	GEAR (DOWN)	
108	X-3366-858-3	ARM ASSY, FRICTION	
109	3-384-899-01	SPRING (FRICTION)	
110	3-384-892-01	BEARING (ROLLER)	
112	3-701-438-11	WASHER, 2.5	
113	3-909-408-01	ROLLER (T)	
114	3-386-150-01	RING (ROLLER), RETAINING	
115	A-3252-591-A	GEAR ASSY, ROLLER	
116	X-3366-852-1	CHASSIS (M) ASSY	
117	3-384-923-01	SHAFT (DAMPER)	
118	3-384-916-01	SPRING (FL)	
119	3-384-914-01	DAMPER	
120	3-384-915-11	BRACKET (CP)	
121	3-384-918-01	RETAINER (DISC)	
122	3-384-908-11	ARM, CHUCKING	

Ref. No.	Part No.	Description	Remark
123	3-906-923-03	GUIDE (DISC)	
124	3-384-888-01	SLIDER (L)	
125	3-384-887-01	LEVER (L)	
126	1-650-223-11	SENSOR FLEXIBLE BOARD	
127	A-3222-525-A	SENSOR BOARD, COMPLETE	
128	X-3366-854-1	CHASSIS (T) ASSY	
129	3-384-881-02	SPRING (12)	
130	3-384-917-01	SPRING (CH)	
132	X-3366-102-1	SLIDER (R) ASSY	
133	X-3366-853-1	CHASSIS (R) ASSY	
134	3-384-889-01	LEVER (R)	
135	3-384-897-01	GEAR (RACK)	
136	3-384-891-01	LEVER (ST)	
137	3-388-331-01	SPRING (T)	
138	3-387-776-01	BELT (L)	
* 139	3-704-132-01	LABEL (K), SELF	
140	X-3366-857-1	ARM ASSY, ROLLER	
M903	A-3252-580-A	MOTOR (L) ASSY (LOADING)	
S901	1-692-441-11	SWITCH, MICROPHONE (DISC DET)	

(4) MECHANISM DECK SECTION-2 (MG-205X-130)



Ref. No.	Part No.	Description	Remark
151	A-3252-586-A	SHAFT (SL) ASSY	
△152	8-848-283-11	DEVICE, OPTICAL KSS-313A	
153	3-384-922-01	GEAR (SL FEED)	
154	3-384-920-01	RETAINER (SL FEED)	
* 155	1-650-144-11	MOTOR BOARD	
156	1-646-402-11	MOTOR FLEXIBLE BOARD	
157	X-3366-855-1	CHASSIS (OPT) ASSY (OUTSERT)	

Ref. No.	Part No.	Description	Remark
158	X-3366-100-1	BASE (DRIVING) ASSY	
159	3-384-912-01	GEAR (K2)	
160	3-570-615-00	POLY-WASHER (DIA. 1.2)	
161	3-384-913-11	SPRING (THRUST RETAINER)	
M901	X-3367-484-1	MOTOR (SPINDLE) ASSY	
M902	A-3252-585-A	MOTOR (SLED) ASSY	

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

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

SECTION 6 ELECTRICAL PARTS LIST

DISPLAY

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

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

Les composants identifiés par une marque Δ 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
*	A-3222-889-A	DISPLAY BOARD, COMPLETE (E) *****	
*	A-3222-852-A	DISPLAY BOARD, COMPLETE (US, Canadian) *****	
	1-769-446-11	WIRE (FLAT TYPE) (11 CORE)	
*	3-920-515-01	BRACKET (LCD)	
*	3-920-519-01	HOLDER, LCD	
*	3-920-520-01	PLATE, LIGHT, LCD	
*	3-920-528-01	SHEET, LCD	
	< CAPACITOR >		
C801	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C802	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
	< DIODE >		
D801	8-719-052-61	DIODE SLR-342PGA47	
D802	8-719-052-61	DIODE SLR-342PGA47	
D803	8-719-052-61	DIODE SLR-342PGA47	
D804	8-719-052-61	DIODE SLR-342PGA47	
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	
D809	8-719-052-61	DIODE SLR-342PGA47	
D810	8-719-052-61	DIODE SLR-342PGA47	
D811	8-719-052-66	DIODE SLN-210MC-T12	
D812	8-719-052-66	DIODE SLN-210MC-T12	
D813	8-719-052-61	DIODE SLR-342PGA47	
D814	8-719-052-66	DIODE SLN-210MC-T12	
D815	8-719-052-61	DIODE SLR-342PGA47	
D816	8-719-052-61	DIODE SLR-342PGA47	
D817	8-719-052-61	DIODE SLR-342PGA47	
D818	8-719-052-61	DIODE SLR-342PGA47	
D819	8-719-052-61	DIODE SLR-342PGA47	
D820	8-719-052-61	DIODE SLR-342PGA47	
D821	8-719-052-61	DIODE SLR-342PGA47	
D822	8-719-052-66	DIODE SLN-210MC-T12	
D823	8-719-052-66	DIODE SLN-210MC-T12	
D824	8-719-052-66	DIODE SLN-210MC-T12	
D825	8-719-422-43	DIODE MA8051-H	

Ref. No.	Part No.	Description	Remark
	< IC >		
IC801	8-759-287-79	IC LC75821E-D	
	< JUMPER RESISTOR >		
JR801	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR802	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR803	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR804	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR805	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR806	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR807	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR808	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR809	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR810	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR811	1-216-295-00	CONDUCTOR, CHIP	
JR812	1-216-295-00	CONDUCTOR, CHIP	
JR813	1-216-295-00	CONDUCTOR, CHIP	
	< LIQUID CRYSTAL DISPLAY >		
LCD801	1-810-407-31	DISPLAY PANEL, LIQUID CRYSTAL	
	< PILOT LAMP >		
PL801	1-517-156-71	LAMP, PILOT	
PL802	1-517-156-71	LAMP, PILOT	
	< RESISTOR >		
R800	1-208-800-11	METAL GLAZE 5.6K 2% 1/10W	
R801	1-216-647-11	METAL CHIP 680 0.5% 1/10W	
R802	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R803	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R804	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R805	1-216-651-11	METAL CHIP 1K 0.5% 1/10W	
R806	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R807	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W	
R808	1-208-791-11	METAL GLAZE 2.4K 2% 1/10W	
R809	1-216-661-11	METAL CHIP 2.7K 0.5% 1/10W	
R810	1-216-665-11	METAL CHIP 3.9K 0.5% 1/10W	

DISPLAY

MAIN

Ref. No.	Part No.	Description	Remark		
R811	1-208-800-11	METAL GLAZE	5.6K	2%	1/10W
R812	1-216-647-11	METAL CHIP	680	0.5%	1/10W
R813	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R814	1-216-649-11	METAL CHIP	820	0.5%	1/10W
R815	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R816	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R817	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R818	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R819	1-208-791-11	METAL GLAZE	2.4K	2%	1/10W
R820	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W
R821	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R822	1-216-041-00	METAL CHIP	470	5%	1/10W
R823	1-216-090-00	METAL CHIP	51K	5%	1/10W
R824	1-216-021-00	METAL CHIP	68	5%	1/10W
R825	1-249-399-11	CARBON	33	5%	1/4W F
R826	1-216-021-00	METAL CHIP	68	5%	1/10W
R830	1-249-417-11	CARBON	1K	5%	1/4W F
R832	1-247-822-11	CARBON	430	5%	1/4W (E)
R832	1-249-411-11	CARBON	330	5%	1/4W (US, Canadian)
R834	1-216-043-00	METAL CHIP	560	5%	1/10W (US, Canadian)
R834	1-216-051-00	METAL CHIP	1.2K	5%	1/10W (E)
R836	1-216-043-00	CARBON	560	5%	1/10W (US, Canadian)
R836	1-216-051-00	CARBON	1.2K	5%	1/10W (E)
R837	1-249-417-11	CARBON	1K	5%	1/4W (US, Canadian)
R837	1-249-420-11	CARBON	1.8K	5%	1/4W (E)
R838	1-216-043-00	CARBON	560	5%	1/10W (US, Canadian)
R838	1-216-051-00	CARBON	1.2K	5%	1/10W (E)
R840	1-249-417-11	CARBON	1K	5%	1/4W F
R842	1-249-411-11	CARBON	330	5%	1/4W (US, Canadian)
R842	1-247-822-11	CARBON	430	5%	1/4W (E)
< SWITCH >					
SW801	1-762-305-11	SWITCH, KEY BOARD (▲)			
SW802	1-762-305-11	SWITCH, KEY BOARD (CD)			
SW803	1-762-305-11	SWITCH, KEY BOARD (FM)			
SW804	1-762-305-11	SWITCH, KEY BOARD (AM)			
SW805	1-762-305-11	SWITCH, KEY BOARD (6)			
SW806	1-762-305-11	SWITCH, KEY BOARD (5)			
SW807	1-762-305-11	SWITCH, KEY BOARD (4)			
SW808	1-762-305-11	SWITCH, KEY BOARD (3/SHUF)			
SW809	1-762-305-11	SWITCH, KEY BOARD (2/REPEAT)			
SW810	1-762-305-11	SWITCH, KEY BOARD (1/INTRO)			
SW811	1-762-305-11	SWITCH, KEY BOARD (LOUD)			
SW812	1-762-305-11	SWITCH, KEY BOARD (DSPL)			
SW813	1-762-305-11	SWITCH, KEY BOARD (OFF)			
SW814	1-762-305-11	SWITCH, KEY BOARD (MUTE)			

Ref. No.	Part No.	Description	Remark		
SW815	1-762-305-11	SWITCH, KEY BOARD (AMS/SEEK ◀◀-)			
SW816	1-762-305-11	SWITCH, KEY BOARD (SEL)			
SW817	1-762-305-11	SWITCH, KEY BOARD (AMS/SEEK ▶▶+)			
SW818	1-762-305-11	SWITCH, KEY BOARD (+)			
SW819	1-762-305-11	SWITCH, KEY BOARD (-)			
SW820	1-762-305-11	SWITCH, KEY BOARD (PRESET ◀◀-)			
SW821	1-762-305-11	SWITCH, KEY BOARD (PRESET ▶▶+)			
SW822	1-762-305-11	SWITCH, KEY BOARD (MONO)			
SW823	1-762-305-11	SWITCH, KEY BOARD (LCL)			
SW824	1-762-305-11	SWITCH, KEY BOARD (BTM)			
SW825	1-762-305-11	SWITCH, KEY BOARD (RESET)			

*	A-3222-870-A	MAIN BOARD, COMPLETE (E)			

*	A-3222-851-A	MAIN BOARD, COMPLETE (US, Canadian)			

*	3-920-526-01	BRACKET (IC)			
*	3-920-529-01	BRACKET, REG IC			
	7-621-770-67	SCREW +PTT 2.6X6 (S)			
	7-621-770-XX	SCREW +PTT 2.6X8 (S)			
< CAPACITOR >					
C102	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C108	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C109	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C110	1-126-157-11	ELECT	10uF	20%	16V
C111	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C113	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C117	1-126-157-11	ELECT	10uF	20%	16V
C118	1-126-157-11	ELECT	10uF	20%	16V
C120	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C121	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C122	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C123	1-164-346-11	CERAMIC CHIP	1uF		16V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C130	1-136-165-00	FILM	0.1uF	5%	50V
C131	1-136-165-00	FILM	0.1uF	5%	50V
C132	1-136-165-00	FILM	0.1uF	5%	50V
C133	1-136-165-00	FILM	0.1uF	5%	50V
C142	1-164-346-11	CERAMIC CHIP	1uF		16V
C143	1-164-346-11	CERAMIC CHIP	1uF		16V
C150	1-131-363-00	TANTALUM	4.7uF	10%	20V
C202	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C208	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C209	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C210	1-126-157-11	ELECT	10uF	20%	16V

Ref.No.	Part No.	Description	Remark
C211	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V
C213	1-164-222-11	CERAMIC CHIP	0.22uF 25V
C217	1-126-157-11	ELECT	10uF 20% 16V
C218	1-126-157-11	ELECT	10uF 20% 16V
C220	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C223	1-164-346-11	CERAMIC CHIP	1uF 16V
C224	1-164-005-11	CERAMIC CHIP	0.47uF 25V
C225	1-164-005-11	CERAMIC CHIP	0.47uF 25V
C230	1-136-165-00	FILM	0.1uF 5% 50V
C231	1-136-165-00	FILM	0.1uF 5% 50V
C232	1-136-165-00	FILM	0.1uF 5% 50V
C233	1-136-165-00	FILM	0.1uF 5% 50V
C242	1-164-346-11	CERAMIC CHIP	1uF 16V
C243	1-164-346-11	CERAMIC CHIP	1uF 16V
C250	1-131-363-00	TANTALUM	4.7uF 10% 20V
C300	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C301	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C302	1-163-239-11	CERAMIC CHIP	33PF 5% 50V
C303	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C304	1-124-584-00	ELECT	100uF 20% 10V
C305	1-124-234-00	ELECT	22uF 20% 16V
C306	1-124-584-00	ELECT	100uF 20% 10V
C307	1-124-584-00	ELECT	100uF 20% 10V
C308	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C310	1-164-222-11	CERAMIC CHIP	0.22uF 25V
C311	1-126-157-11	ELECT	10uF 20% 16V
C313	1-124-584-00	ELECT	100uF 20% 10V
C314	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C315	1-126-935-11	ELECT	470uF 20% 16V
C316	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C317	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C318	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C502	1-126-768-11	ELECT	2200uF 20% 16V
C504	1-163-229-11	CERAMIC CHIP	12PF 5% 50V
C505	1-163-229-11	CERAMIC CHIP	12PF 5% 50V
C508	1-124-584-00	ELECT	100uF 20% 10V
C509	1-124-234-00	ELECT	22uF 20% 16V
C510	1-124-584-00	ELECT	100uF 20% 10V
C511	1-110-654-11	CAP, DOUBLE LAYER	
C511	1-125-701-11	CAP, DOUBLE LAYER	0.047F
C512	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C514	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
C519	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C522	1-163-077-00	CERAMIC CHIP	0.1uF 50V
C523	1-163-077-00	CERAMIC CHIP	0.1uF 50V
C525	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C526	1-128-057-11	ELECT	330uF 20% 6.3V
C527	1-128-057-11	ELECT	330uF 20% 6.3V
C530	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V

Ref.No.	Part No.	Description	Remark
C531	1-126-157-11	ELECT	10uF 20% 16V
C532	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C576	1-126-288-11	ELECT	4.7uF 20% 16V
C591	1-104-792-51	ELECT	33uF 20% 16V
C592	1-126-162-11	ELECT	3.3uF 20% 50V
C593	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C594	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C600	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C601	1-163-077-00	CERAMIC CHIP	0.1uF 50V
C602	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C603	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
C604	1-163-237-11	CERAMIC CHIP	27PF 5% 50V
C605	1-163-237-11	CERAMIC CHIP	27PF 5%
C606	1-163-117-00	CERAMIC CHIP	100PF 5%
C607	1-163-117-00	CERAMIC CHIP	100PF 5%
C608	1-163-117-00	CERAMIC CHIP	100PF 5%
C609	1-163-117-00	CERAMIC CHIP	100PF 5%
C610	1-163-989-11	CERAMIC CHIP	0.033uF 1%
C611	1-216-295-00	CERAMIC CHIP (US, Canadian)	
C611	1-163-989-11	CERAMIC CHIP	0.033uF 1% (E)
C612	1-136-169-00	FILM	0.22uF 5%
C613	1-130-479-00	MYLAR	0.0047uF 5%
C614	1-163-017-00	CERAMIC CHIP	0.0047uF 5%
C617	1-126-803-11	ELECT	47uF 2
C619	1-126-803-11	ELECT	47uF 2
C621	1-124-234-00	ELECT	22uF 2
C626	1-126-803-11	ELECT	47uF 2
C699	1-163-005-11	CERAMIC CHIP	470PF 1
< JACK >			
CNJ51	1-764-424-31	JACK, PIN 2P	
< CONNECTOR >			
CNP501	1-764-426-11	PLUG, CONNECTOR 15P	
CNP502	1-563-614-31	CONNECTOR, FLEXIBLE 11P	
CNP504	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P	
< DIODE >			
D300	8-719-109-71	DIODE	RD3.9ES-B1
D301	8-719-901-33	DIODE	1SS133
D310	8-719-109-93	DIODE	RD6.2ESB2
D501	8-719-989-62	DIODE	RL254
D505	8-719-110-03	DIODE	RD7.5ESB2
D506	8-719-901-33	DIODE	1SS133
D507	8-719-109-89	DIODE	RD5.6ESB2
D508	8-719-109-89	DIODE	RD5.6ESB2
D509	8-719-901-33	DIODE	1SS133
D510	8-719-901-33	DIODE	1SS133

MAIN

Ref. No.	Part No.	Description	Remar
D511	8-719-200-82	DIODE 11ES2	
D512	8-719-109-85	DIODE RD5.1ES-B2	
D521	8-719-986-73	DIODE RB441Q	
D522	8-719-986-73	DIODE RB441Q	
D523	8-719-109-89	DIODE RD5.6ESB2	
D530	8-719-109-93	DIODE RD6.2ESB2	
D593	8-719-901-33	DIODE 1SS133	
D594	8-719-110-13	DIODE RD9.1ESB2	
D599	8-719-110-53	DIODE RD20ES-B2	
D699	8-719-986-73	DIODE RB441Q	
D700	8-719-986-73	DIODE RB441Q	
< IC >			
IC301	8-759-283-60	IC SM5875AM-ET	
IC302	8-752-063-44	IC CXA1646Q	
IC303	8-759-279-87	IC HA13151A	
IC501	8-759-336-74	IC uPD75518GF-268-3B9	
IC502	8-749-010-99	IC KIA7039P-TP	
IC603	8-759-823-81	IC LC7216M	
< JUMPER RESISTOR >			
JR3	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR5	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR6	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR8	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR9	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR10	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR11	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR13	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR23	1-216-295-00	CONDUCTOR, CHIP	
JR26	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR27	1-216-295-00	CONDUCTOR, CHIP	
JR28	1-216-295-00	CONDUCTOR, CHIP	
JR562	1-216-295-00	CONDUCTOR, CHIP	
< COIL >			
L201	1-410-521-11	INDUCTOR 100uH	
L202	1-410-521-11	INDUCTOR 100uH	
L301	1-410-513-11	INDUCTOR 22uH	
L501	1-410-513-11	INDUCTOR 22uH	
L602	1-410-513-11	INDUCTOR 22uH	
< 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	
Q301	8-729-901-05	TRANSISTOR DTA124EK	

Ref. No.	Part No.	Description	Remark
Q302	8-729-901-00	TRANSISTOR DTC124EK	
Q501	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q502	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q503	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q506	8-729-901-00	TRANSISTOR DTC124EK	
Q507	8-729-901-05	TRANSISTOR DTA124EK	
Q511	8-729-903-46	TRANSISTOR 2SB1132-P	
Q513	8-729-901-00	TRANSISTOR DTC124EK	
Q515	8-729-901-05	TRANSISTOR DTA124EK	
Q516	8-729-901-00	TRANSISTOR DTC124EK	
Q517	8-729-901-00	TRANSISTOR DTC124EK	
Q519	8-729-901-00	TRANSISTOR DTC124EK	
Q520	8-729-019-00	TRANSISTOR 2SD2394-G	
Q521	8-729-422-87	TRANSISTOR 2SB1073-R	
Q522	8-729-422-29	TRANSISTOR 2SD601A-S	
Q523	8-729-901-00	TRANSISTOR DTC124EK	
Q530	8-729-920-85	TRANSISTOR 2SD1664-QR	
Q592	8-729-900-53	TRANSISTOR DTC114EK	
Q593	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q594	8-729-015-11	TRANSISTOR 2SD1802FAST-TL	
Q595	8-729-902-99	TRANSISTOR DTC114TK	
Q596	8-729-205-02	TRANSISTOR 2SA1150	
Q597	8-729-205-02	TRANSISTOR 2SA1150	
Q601	8-729-021-94	TRANSISTOR 2SK1657-T1B	
< RESISTOR >			
R101	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R115	1-216-041-00	METAL CHIP 470 5% 1/10W	
R116	1-216-041-00	METAL CHIP 470 5% 1/10W	
R117	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R118	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R124	1-249-385-11	CARBON 2.2 5% 1/6W F	
R125	1-249-385-11	CARBON 2.2 5% 1/6W F	
R126	1-249-385-11	CARBON 2.2 5% 1/6W F	
R127	1-249-385-11	CARBON 2.2 5% 1/6W F	
R128	1-249-430-11	CARBON 12K 5% 1/4W	
R129	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R130	1-249-431-11	CARBON 15K 5% 1/4W	
R131	1-249-431-11	CARBON 15K 5% 1/4W	
R132	1-216-129-00	METAL CHIP 2.2M 5% 1/10W	
R133	1-216-129-00	METAL CHIP 2.2M 5% 1/10W	
R201	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R203	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R204	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R215	1-216-041-00	METAL CHIP 470 5% 1/10W	
R216	1-216-041-00	METAL CHIP 470 5% 1/10W	
R217	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R218	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R224	1-249-385-11	CARBON 2.2 5% 1/6W F	

Ref. No.	Part No.	Description	Remark		
R225	1-249-385-11	CARBON	2.2	5%	1/6W F
R226	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R227	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R228	1-216-075-00	METAL CHIP	12K	5%	1/10W
R229	1-216-075-00	METAL CHIP	12K	5%	1/10W
R230	1-249-431-11	CARBON	15K	5%	1/4W
R231	1-249-431-11	CARBON	15K	5%	1/4W
R232	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R233	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R300	1-216-113-00	METAL CHIP	470K	5%	1/10W
R301	1-216-027-00	METAL CHIP	120	5%	1/10W
R302	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R303	1-216-017-00	METAL CHIP	47	5%	1/10W
R304	1-216-001-00	METAL CHIP	10	5%	1/10W
R305	1-249-411-11	CARBON	330	5%	1/4W
R306	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R307	1-216-079-00	METAL CHIP	18K	5%	1/10W
R308	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R309	1-216-089-00	METAL CHIP	47K	5%	1/10W
R310	1-247-807-31	CARBON	100	5%	1/4W
R311	1-216-174-00	METAL GLAZE	100	5%	1/8W
R312	1-216-025-00	METAL GLAZE	100	5%	1/10W
R313	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R314	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R315	1-249-385-11	CARBON	2.2	5%	1/6W F
R501	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R502	1-216-089-00	METAL CHIP	47K	5%	1/10W
R503	1-216-070-00	METAL CHIP	7.5K	5%	1/10W
R504	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R505	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R506	1-216-027-00	METAL CHIP	120	5%	1/10W
R507	1-216-101-00	METAL CHIP	150K	5%	1/10W
R510	1-216-089-00	METAL CHIP	47K	5%	1/10W
R511	1-249-437-11	CARBON	47K	5%	1/4W
R518	1-216-073-00	METAL CHIP	10K	5%	1/10W
R519	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R520	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R524	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R525	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R527	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R528	1-216-174-00	METAL GLAZE	100	5%	1/8W
R529	1-216-025-00	METAL GLAZE	100	5%	1/10W
R530	1-216-073-00	METAL CHIP	10K	5%	1/10W
R531	1-216-073-00	METAL CHIP	10K	5%	1/10W
R534	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R535	1-249-437-11	CARBON	47K	5%	1/4W
R541	1-249-437-11	CARBON	47K	5%	1/4W
R542	1-216-089-00	METAL CHIP	47K	5%	1/10W
R543	1-216-089-00	METAL CHIP	47K	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R544	1-216-089-00	METAL CHIP	47K	5%	1/10W
R547	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R548	1-216-073-00	METAL CHIP	10K	5%	1/10W
R549	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R550	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R551	1-216-097-00	METAL CHIP	100K	5%	1/10W
R552	1-216-089-00	METAL CHIP	47K	5%	1/10W
R553	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R557	1-216-089-00	METAL CHIP	47K	5%	1/10W
R558	1-216-089-00	METAL CHIP	47K	5%	1/10W
R560	1-216-295-00	CONDUCTOR CHIP			
R562	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R562	1-216-295-00	CONDUCTOR CHIP	(US, Canadian)		
R563	1-216-097-00	METAL CHIP	100K	5%	1/10W (E)
R570	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R571	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R572	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R573	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R574	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R575	1-216-041-00	METAL CHIP	470	5%	1/10W
R576	1-216-081-00	METAL CHIP	22K	5%	1/10W
R577	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R578	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R580	1-249-395-11	CARBON	15	5%	1/4W F
R581	1-216-097-00	METAL CHIP	100K	5%	1/10W
R582	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R585	1-249-429-11	CARBON	10K	5%	1/4W
R586	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R588	1-216-089-00	METAL CHIP	47K	5%	1/10W
R589	1-249-437-11	CARBON	47K	5%	1/4W
R590	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R591	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R593	1-216-073-00	METAL CHIP	10K	5%	1/10W
R597	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R598	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R600	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R601	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R602	1-216-073-00	METAL CHIP	10K	5%	1/10W
R603	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R604	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R605	1-216-073-00	METAL CHIP	10K	5%	1/10W
R606	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R607	1-216-073-00	METAL CHIP	10K	5%	1/10W
R608	1-216-065-00	METAL CHIP	4.7K	5%	1/10W (E)
R608	1-216-073-00	METAL CHIP	10K	5%	1/10W (US, Canadian)
R609	1-216-097-00	METAL CHIP	100K	5%	1/10W
R615	1-216-113-00	METAL CHIP	470K	5%	1/10W

MAIN

SENSOR

SERVO

SEE ADDITIONAL
INFORMATION

Ref. No.	Part No.	Description	Remark
R621	1-216-072-00	METAL CHIP 9.1K 5% 1/10W (US, Canadian)	
R622	1-216-072-00	METAL CHIP 9.1K 5% 1/10W (US, Canadian)	
R624	1-216-222-00	METAL GLAZE 10K 5% 1/8W	
R625	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R630	1-247-811-31	CARBON 150 5% 1/4W	
R631	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R632	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

< SWITCH >

SW501	1-571-478-11	SWITCH, SLIDE (POWER SELECT)	
SW502	1-571-478-11	SWITCH, SLIDE (9K/10K, 50K/200K)	

< THERMISTOR >

TH501	1-806-715-11	THERMISTOR	
TH502	1-806-715-11	THERMISTOR	

< TUNER >

TU1	A-3282-003-A	TUNER UNIT (TUX-001A)	
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< VIBRATOR >

X301	1-579-345-11	VIBRATOR, CERAMIC (6.934MHz)	
X501	1-760-096-31	VIBRATOR, CRYSTAL (4.19MHz)	
X601	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)	

A-3222-525-A SENSOR BOARD, COMPLETE

1-650-223-11	SENSOR FLEXIBLE BOARD	
1-692-441-11	SWITCH, MICROPHONE (S901 ON SENSOR FLEXIBLE BOARD)	

< DIODE >

D801	8-719-045-75	DIODE CL-200IR-X-TU	
D802	8-719-045-75	DIODE CL-200IR-X-TU	

< RESISTOR >

R801	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R802	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	

* A-3295-950-A SERVO BOARD, COMPLETE

< CAPACITOR >

C1	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C2	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C3	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	

Ref. No.	Part No.	Description	Remark
C4	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	
C5	1-126-204-11	ELECT CHIP 47uF 20% 16V	
C7	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C8	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C9	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C10	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	
C11	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	
C12	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C13	1-163-011-11	CERAMIC CHIP 0.0015uF 10% 50V	
C14	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	

C15	1-126-191-11	ELECT 0.47uF 20% 50V	
C16	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C17	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	
C18	1-126-206-11	ELECT CHIP 100uF 20% 6.3V	
C20	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	

C21	1-164-346-11	CERAMIC CHIP 1uF 16V	
C22	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C23	1-164-346-11	CERAMIC CHIP 1uF 16V	
C24	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C25	1-164-232-11	CERAMIC CHIP 0.01uF 50V	

C26	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C27	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C28	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C30	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	
C31	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	

C32	1-164-492-11	CERAMIC CHIP 0.15uF 10% 16V	
C34	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C35	1-126-204-11	ELECT CHIP 47uF 20% 16V	

< JACK >

CNJ1	1-565-728-11	CONNECTOR, FPC 17P	
* CNJ2	1-750-159-21	CONNECTOR, FPC 5P	
* CNJ3	1-750-160-21	CONNECTOR, FPC 7P	
CNJ4	1-764-616-12	HOUSING, CONNECTOR(PC BOARD) 30P	

< CONNECTOR >

* CNP1	1-580-055-21	PIN, CONNECTOR 2P	
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< IC >

IC1	8-752-059-30	IC CXA1610M	
IC2	8-752-351-94	IC CXD2515Q	
IC3	8-759-823-87	IC LB1638M	
IC4	8-759-925-72	IC SN74HC02ANS	
IC5	8-759-087-55	IC MPC1732MR2	

IC6	8-759-087-53	IC MPC1730MR2	
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< COIL >

L1	1-412-058-11	INDUCTOR CHIP 10uH	
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Ref. No.	Part No.	Description	Remark		
L3	1-412-058-11	INDUCTOR CHIP	10uH		
L4	1-412-058-11	INDUCTOR CHIP	10uH		
< TRANSISTOR >					
Q1	8-729-024-26	PHOTO TRANSISTOR CPT-181S-C-TU			
Q2	8-729-024-26	PHOTO TRANSISTOR CPT-181S-C-TU			
Q5	8-729-141-48	TRANSISTOR	2SB624-BV345		
< RESISTOR >					
R1	1-216-024-00	METAL GLAZE	91	5%	1/10W
R2	1-216-001-00	METAL CHIP	10	5%	1/10W
R4	1-216-077-00	METAL CHIP	15K	5%	1/10W
R5	1-216-073-00	METAL CHIP	10K	5%	1/10W
R6	1-216-073-00	METAL CHIP	10K	5%	1/10W
R7	1-216-099-00	METAL CHIP	120K	5%	1/10W
R8	1-216-081-00	METAL CHIP	22K	5%	1/10W
R9	1-216-075-00	METAL CHIP	12K	5%	1/10W
R10	1-216-075-00	METAL CHIP	12K	5%	1/10W
R11	1-216-083-00	METAL CHIP	27K	5%	1/10W
R12	1-216-077-00	METAL CHIP	15K	5%	1/10W
R13	1-216-077-00	METAL CHIP	15K	5%	1/10W
R14	1-216-097-00	METAL CHIP	100K	5%	1/10W
R15	1-216-085-00	METAL CHIP	33K	5%	1/10W
R16	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R17	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W
R19	1-216-121-00	METAL CHIP	1M	5%	1/10W
R20	1-216-097-00	METAL CHIP	100K	5%	1/10W
R21	1-216-073-00	METAL CHIP	10K	5%	1/10W
R22	1-216-033-00	METAL CHIP	220	5%	1/10W
R23	1-216-033-00	METAL CHIP	220	5%	1/10W
R24	1-216-033-00	METAL CHIP	220	5%	1/10W
R25	1-216-073-00	METAL CHIP	10K	5%	1/10W
R32	1-216-073-00	METAL CHIP	10K	5%	1/10W
< VARIABLE RESISTOR >					
RV1	1-238-091-11	RES, ADJ, CERMET	22K		
RV2	1-238-091-11	RES, ADJ, CERMET	22K		
< SWITCH >					
SW1	1-571-754-31	SWITCH, PUSH (1 KEY) (DISC SET)			

	1-650-144-11	MOTOR BOARD			

< JACK >					
* CNJ303 1-750-160-21 CONNECTOR, FPC 7P					

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S301	1-572-467-21	SWITCH, PUSH (1 KEY) (LIMIT)	

MISCELLANEOUS			

8	1-765-082-11	CORD (WITH CONNECTOR)	
△152	8-848-283-11	DEVICE, OPTICAL KSS-313A	
F1	1-533-331-11	FUSE (BLADE TYPE) (AUTO FUSE) 15A	
F2	1-533-326-11	FUSE (BLADE TYPE) (AUTO FUSE) 3A	
M901	X-3367-484-1	MOTOR (SPINDLE) ASSY	
M902	A-3252-585-A	MOTOR (SLED) ASSY	
M903	A-3252-580-A	MOTOR (L) ASSY (LOADING)	
S901	1-692-441-11	SWITCH, MICROPHONE (DISC DET)	

HARDWARE LIST			

#1	7-621-255-25	SCREW +PTT 2X4 (S)	
#2	7-621-770-67	SCREW +PTT 2.6X6 (S)	
#3	7-621-770-XX	SCREW +PTT 2.6X8 (S)	
#4	7-621-775-50	SCREW +PTT 2.6X10 (S)	
#7	7-621-772-60	SCREW +B 2X12	
#9	7-627-852-07	SCREW, PRECISION +P 1.7X2.5	
#10	7-627-852-17	+P 1.7X4	
#11	7-627-553-18	SCREW, PRECISION +P 2X2	
#13	7-627-553-37	SCREW, PRECISION +P 2X3	
#14	7-627-553-67	SCREW, PRECISION +P 2X5	
#16	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	
	7-628-253-15	SCREW +PS 2X5	

ACCESSORIES & PACKING MATERIALS			

3-798-180-21	MANUAL,	INSTRUCTION (ENGLISH, FRENCH) (US, Canadian)	
3-798-180-51	MANUAL,	INSTRUCTION (ENGLISH, SPANISH, CHINESE) (E)	
3-798-181-21	MANUAL,	INSTRUCTION, INSTALL (ENGLISH, FRENCH) (US, Canadian)	
3-798-181-51	MANUAL,	INSTRUCTION, INSTALL (ENGLISH, SPANISH, CHINESE) (E)	

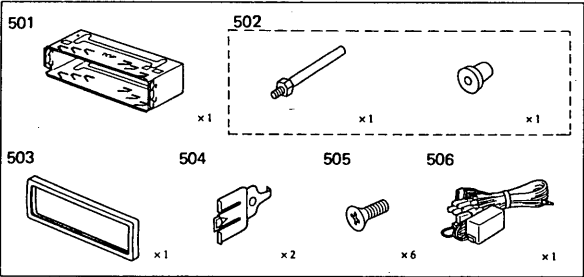
The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remark
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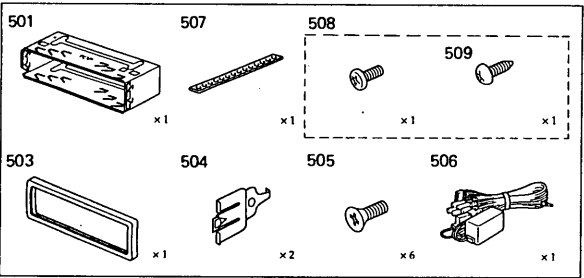
MOUNTING HARDWARE

501	X-3366-235-1	FRAME ASSY, FITTING	
502	X-3366-405-1	SCREW ASSY (EXP), FITTING (E)	
503	3-920-507-01	FRAME	
504	X-3369-814-1	PLATE ASSY, LOCK	
505	X-3369-934-1	SCREW ASSY (J), FITTING	
506	1-765-082-11	CORD (WITH CONNECTOR)	
507	3-916-012-01	BRACKET (ND), FITTING ASSIST (US, Canadian)	
508	X-3368-725-1	SCREW ASSY, FITTING (US, Canadian)	
509	7-682-560-04	SCREW +P 4X6 (US, Canadian)	

• E Model



• US, Canadian Model



English

95B057043-1

Printed in Singapore

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CDX-4090

SONY SERVICE MANUAL

US Model
Canadian Model
E model

CORRECTION-1

Correct your service manual as shown below.

____ (Under line) : indicates corrected portion.

Page	INCORRECT			CORRECT		
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
42	D801	8-719-052-61	DIODE SLR-342PGA47	D801	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D801	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D802	8-719-052-61	DIODE SLR-342PGA47	D802	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D802	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D803	8-719-052-61	DIODE SLR-342PGA47	D803	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D803	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D804	8-719-052-61	DIODE SLR-342PGA47	D804	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D804	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D805	8-719-052-61	DIODE SLR-342PGA47	D805	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D805	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D806	8-719-052-61	DIODE SLR-342PGA47	D806	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D806	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D807	8-719-052-61	DIODE SLR-342PGA47	D807	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D807	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D808	8-719-052-61	DIODE SLR-342PGA47	D808	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D808	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D809	8-719-052-61	DIODE SLR-342PGA47	D809	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D809	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D810	8-719-052-61	DIODE SLR-342PGA47	D810	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D810	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D811	8-719-052-66	DIODE SLN-210MC-T12	D811	<u>8-719-053-63</u>	DIODE <u>SG2321(T) (US.Canadian)</u>
				D811	<u>8-719-053-77</u>	DIODE <u>SY2321-(T) (E)</u>
	D812	8-719-052-66	DIODE SLN-210MC-T12	D812	<u>8-719-053-63</u>	DIODE <u>SG2321(T) (US.Canadian)</u>
				D812	<u>8-719-053-77</u>	DIODE <u>SY2321-(T) (E)</u>
	D813	8-719-052-61	DIODE SLR-342PGA47	D813	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D813	<u>8-719-059-92</u>	DIODE <u>SLR-342YYA47 (E)</u>
	D814	8-719-052-66	DIODE SLN-210MC-T12	D814	<u>8-719-053-63</u>	DIODE <u>SG2321(T) (US.Canadian)</u>
				D814	<u>8-719-053-77</u>	DIODE <u>SY2321-(T) (E)</u>

Page	INCORRECT			CORRECT		
42	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
	D815	8-719-052-61	DIODE SLR-342PGA47	D815	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D815	8-719-053-77	DIODE SY2321-(T) (E)
	D816	8-719-052-61	DIODE SLR-342PGA47	D816	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D816	8-719-059-92	DIODE SLR-342YYA47 (E)
	D817	8-719-052-61	DIODE SLR-342PGA47	D817	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D817	8-719-053-77	DIODE SY2321-(T) (E)
	D818	8-719-052-61	DIODE SLR-342PGA47	D818	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D818	8-719-059-92	DIODE SLR-342YYA47 (E)
	D819	8-719-052-61	DIODE SLR-342PGA47	D819	8-719-052-61	DIODE SLR-342PGA47 (US.Canadian)
				D819	8-719-059-92	DIODE SLR-342YYA47 (E)
	D820	8-719-052-61	DIODE SLR-342PGA47	D820	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D820	8-719-053-77	DIODE SY2321-(T) (E)
	D821	8-719-052-61	DIODE SLR-342PGA47	D821	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D821	8-719-053-77	DIODE SY2321-(T) (E)
	D822	8-719-052-66	DIODE SLN-210MC-T12	D822	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D822	8-719-053-77	DIODE SY2321-(T) (E)
	D823	8-719-052-66	DIODE SLN-210MC-T12	D823	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D823	8-719-053-77	DIODE SY2321-(T) (E)
	D824	8-719-052-66	DIODE SLN-210MC-T12	D824	8-719-053-63	DIODE SG2321(T) (US.Canadian)
				D824	8-719-053-77	DIODE SY2321-(T) (E)
	PL801	1-517-156-71	LAMP, PILOT	PL801	1-517-156-51	LAMP, PILOT (US.Canadian)
				PL801	1-517-156-61	LAMP, PILOT (E)
	PL802	1-517-156-71	LAMP, PILOT	PL802	1-517-156-51	LAMP, PILOT (US.Canadian)
				PL802	1-517-156-61	LAMP, PILOT (E)

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