CDX-R3300EE

SERVICE MANUAL

East European Model

Ver 1.0 2004. 02

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-611MA-186//Q
Optical Pick-up Name	KSS1000E

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	FM1/FM2: 87.5 – 108 MHz (at 50 kHz step) FM3: 65 – 74 MHz (at 30 kHz step)
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	531 – 1,602 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	AM: 30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (rear/sub switchable) Power aerial relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Remote controller input terminal Aerial input terminal
Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)

– Continued on next page –

FM/AM COMPACT DISC PLAYER

9-877-558-01
2004B04-1

Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

SONY®

Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 179 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (w/h/d)
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

SERVICE NOTES

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

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

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

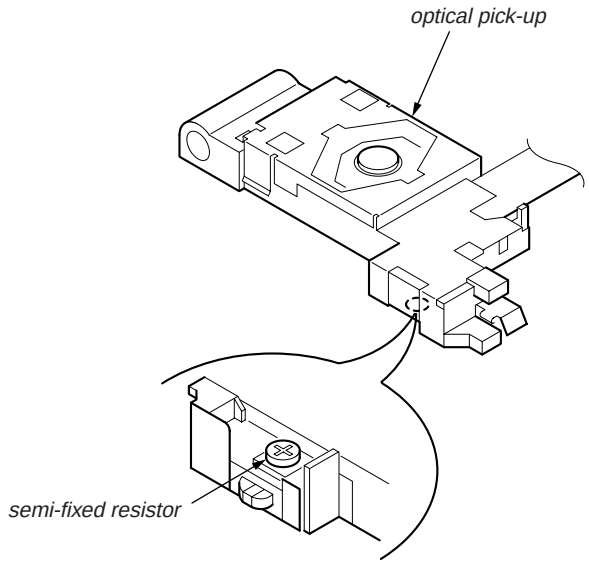
NOTES ON LASER DIODE EMISSION CHECK

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

Notes on Chip Component Replacement

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

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



TEST DISCS

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

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

Notes on CD-R/CD-RW discs

- You can play CD-Rs (recordable CDs)/CD-RWs (rewritable CDs) designed for audio use on this unit.
  Look for these marks to distinguish CD-Rs/CD-RWs for audio use.

COMPACT disc DIGITAL AUDIO Recordable

COMPACT disc DIGITAL AUDIO ReWritable

These marks denote that a disc is not for audio use.

× COMPACT disc Recordable

COMPACT disc ReWritable

- Some CD-Rs/CD-RWs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
- You cannot play a CD-R/a CD-RW that is not finalized*.

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

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.

● UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

EXTENSION CABLE AND SERVICE POSITION

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

- Connect the MAIN board (CN350) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).

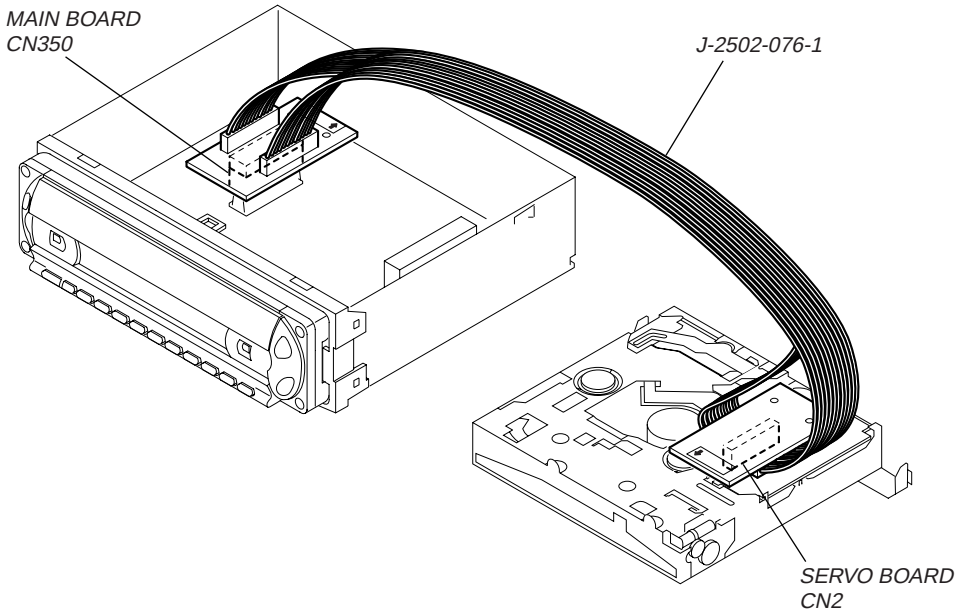


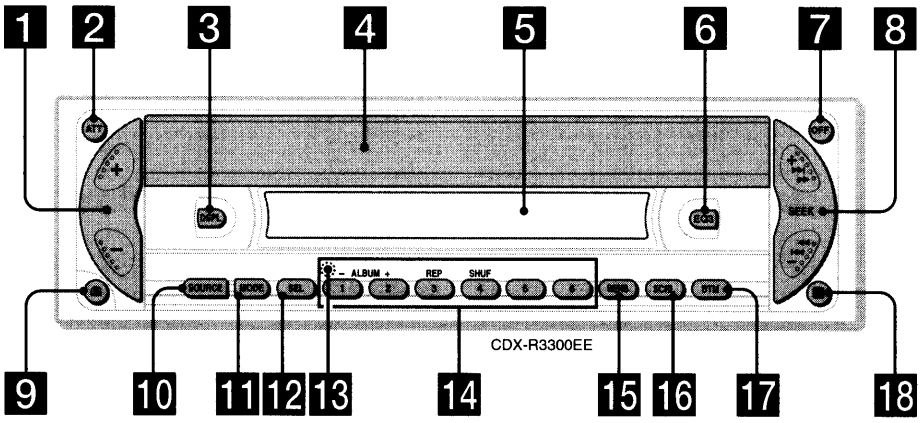
TABLE OF CONTENTS

SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls

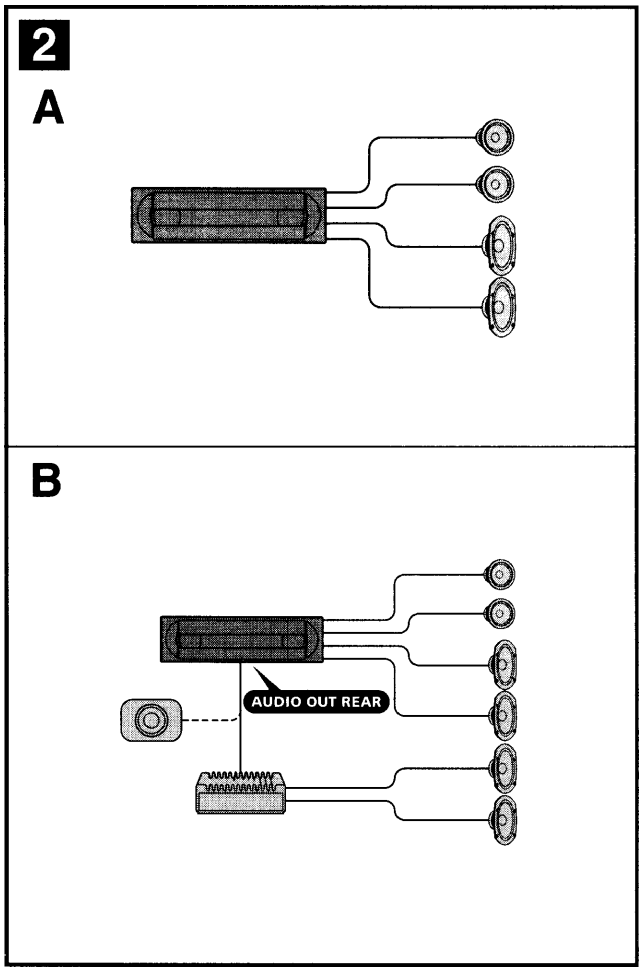
Refer to the pages listed for details.



1 **Volume +/– button**
2 **ATT (attenuate) button** 16
3 **DSPL (display mode change) button** 10, 12
4 **OPEN/EJECT shutter** 11
5 **Display window**
6 **EQ3 button** 17, 18
7 **OFF (Stop/Power off) button*** 9, 11
8 **SEEK +/– button**
Radio:
To tune in stations automatically/find a station manually.
CD (MP3 files):
To skip tracks/fast-forward, reverse a track.
9 **⏏ (front panel release) button** 9
10 **SOURCE (Power on/Radio/CD) button**
To select the source.
11 **MODE button**
To change the operation.
12 **SEL (select) button**
To select items.
13 **RESET button** (located on the front side of the unit, behind the front panel) 9
14 **Number buttons** 17
Radio:
To store the desired station on each number button.
MP3 files:
①: **ALBUM –** 11
②: **ALBUM +** 11
CD:
③: **REP** 12
④: **SHUF** 12
15 **SENS button** 13
16 **SCRL (scroll) button** 12
17 **BTM button** 13
18 **Receptor for the card remote commander**

* **Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press and hold (OFF) on the unit until the display disappears.
Otherwise, the display does not turn off and this causes battery drain.

Connections



Cautions

- This unit is designed for negative earth 12 V DC operation only.
- Do not get the leads under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the power connecting lead ⑦ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth leads to a common earth point.**
- Be sure to insulate any loose unconnected leads with electrical tape for safety.

Notes on the power supply lead (yellow)

- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Note

Before installing, make sure that the catches on both sides of the bracket ① are bent inwards 2 mm. If the catches are straight or bent outwards, the unit will not be installed securely and may spring out.

Connection example (2)

Notes (2-B)

- *Be sure to connect the earth lead before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

Connection diagram (3)

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

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

Warning

If you have a power aerial without a relay box, connecting this unit with the supplied power connecting lead ⑦ may damage the aerial.

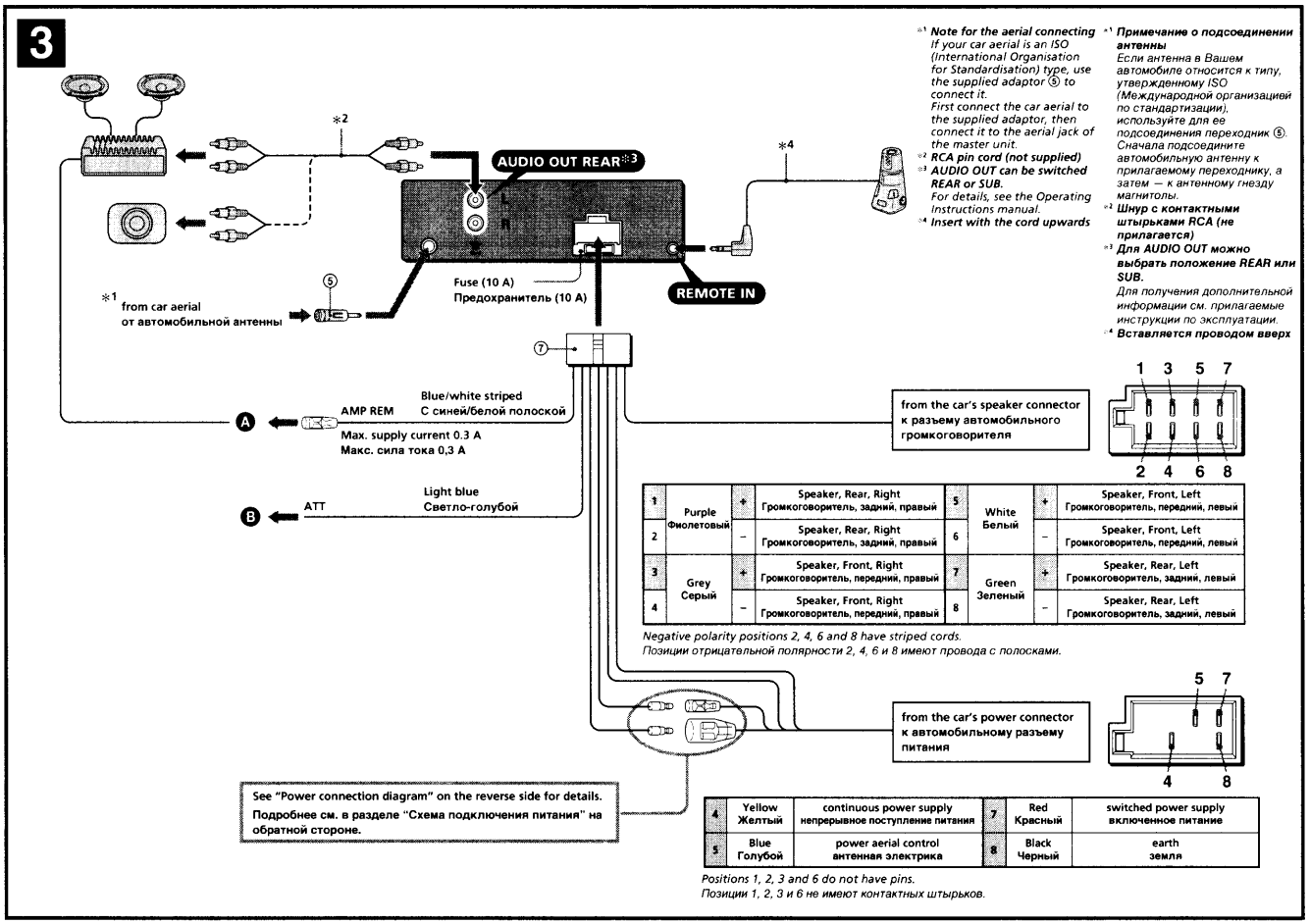
Notes on the control leads

- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner .*
- *When your car has built-in FM/AM aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a 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 switch is turned off.

3



1	Purple Фиолетовый	+	Speaker, Rear, Right Громкоговоритель, задний, правый	5	White Белый	+	Speaker, Front, Left Громкоговоритель, передний, левый
2		–	Speaker, Rear, Right Громкоговоритель, задний, правый	6		–	Speaker, Front, Left Громкоговоритель, передний, левый
3	Grey Серый	+	Speaker, Front, Right Громкоговоритель, передний, правый	7	Green Зеленый	+	Speaker, Rear, Left Громкоговоритель, задний, левый
4		–	Speaker, Front, Right Громкоговоритель, передний, правый	8		–	Speaker, Rear, Left Громкоговоритель, задний, левый

Negative polarity positions 2, 4, 6 and 8 have striped cords.
Позиции отрицательной полярности 2, 4, 6 и 8 имеют провода с полосками.

4	Yellow Желтый	continuous power supply непрерывное поступление питания		7	Red Красный	switched power supply включенное питание	
5	Blue Голубой	power aerial control антенная электрика		8	Black Черный	earth земля	

Positions 1, 2, 3 and 6 do not have pins.
Позиции 1, 2, 3 и 6 не имеют контактных штырьков.

1 **Note for the aerial connecting*
If your car aerial is an ISO (International Organisation for Standardisation) type, use the supplied adaptor ⑤ to connect it.
First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
2 **RCA pin cord (not supplied)*
3 **AUDIO OUT can be switched REAR or SUB.*
For details, see the Operating Instructions manual.
4 **Insert with the cord upwards*

1 **Примечание о подсоединении антенны*
Если антенна в Вашем автомобиле относится к типу, утвержденному ISO (Международной организацией по стандартизации), используйте для ее подсоединения переходник ⑤. Сначала подсоедините автомобильную антенну к прилагаемому переходнику, а затем — к антенному гнезду магнитолы.
2 **Шнур с контактными штырьками RCA (не прилагается)*
3 **Для AUDIO OUT можно выбрать положение REAR или SUB.*
Для получения дополнительной информации см. прилагаемые инструкции по эксплуатации.
4 **Вставляется проводом вверх*

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

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

Предостережения

- Данная автомагнитола предназначена для подключения только к 12-вольтному аккумулятору постоянного тока с отрицательным заземлением.
- Не допускайте попадания проводов под винты или между подвижными деталями (например, между направляющими сидений).
- Перед выполнением соединения выключите зажигание автомобиля во избежание короткого замыкания.
- Сначала подсоедините шнур питания ⑦ к магнитоле и громкоговорителям, а уже потом – к контактам внешнего источника питания.
- **Подведите все провода заземления к одной и той же точке заземления.**
- В целях безопасности обязательно изолируйте все свободные неподсоединенные провода изоляционной лентой.

Примечания относительно шнура питания (желтого)
- При подключении данного устройства вместе с другими стереокомпонентами номинальное значение силы тока в контуре питания автомобиля должно превышать суммарное значение силы тока, указанное на предохранителях всех компонентов.
- Если номинальное значение силы тока в контуре питания автомобиля не достаточно высокое, подсоедините устройство напрямую к аккумулятору.

Перечень деталей (1)

- Цифры в списке соответствуют цифрам, упоминаемым далее в данной инструкции.
- При поставке кронштейн ① и защитная манжета ④ прикрепляются к устройству. Перед монтажом снимите кронштейн ① и защитную манжету ④ с устройства с помощью ключей для демонтажа ⑥. Подробную информацию см. в разделе "Снятие защитной манжеты и кронштейна (4)" на обратной стороне листа.
- **Сохраните ключи для демонтажа ⑥ для использования в будущем, так как они также потребуются при демонтаже устройства из машины.**

Внимание
Обращайтесь с кронштейном ① осторожно, чтобы не повредить пальцы.

Фиксатор

Примечание
Перед установкой убедитесь, что фиксаторы по обеим сторонам кронштейна ① загнуты внутрь на 2 мм. Если фиксаторы находятся в прямом положении или выгнуты наружу, устройство не будет надежно установлено и может выпасть.

Пример подсоединения (2)

Примечания (2-B)
- *Прежде чем подключать магнитолу к усилителю, обязательно подсоедините провод заземления.*
- *Если подключается дополнительный усилитель мощности, а встроенный усилитель не используется, звуковой сигнал будет отключен.*

Схема подсоединения (3)

Ⓐ Подключение к входу AMP REMOTE IN дополнительного усилителя мощности
Этот вариант подключения используется только для усилителей. Подключение любой другой системы может привести к повреждению устройства.

Ⓑ К интерфейсному кабелю автомобильного телефона

Предостережение
Если Вы используете антенну с электрическим приводом без релейного блока, подсоединение данной магнитолы посредством прилагаемого шнура питания ⑦ может привести к повреждению антенны.

О проводах управления
- *При включении тюнера по проводу питания приемной антенны (синему) подается напряжение +12 В постоянного тока.*
- *Если на заднем/боковом стекле автомобиля установлена встроенная антенна диапазона FM/AM, подсоедините провод питания приемной антенны (синий) или провод питания устройства (красный) к клемме питания существующего усилителя антенны. Чтобы получить дополнительные сведения, обратитесь к своему дилеру.*
- *Антенна с электрическим приводом, не снабженная релейным блоком, с данной магнитолой использоваться не может.*

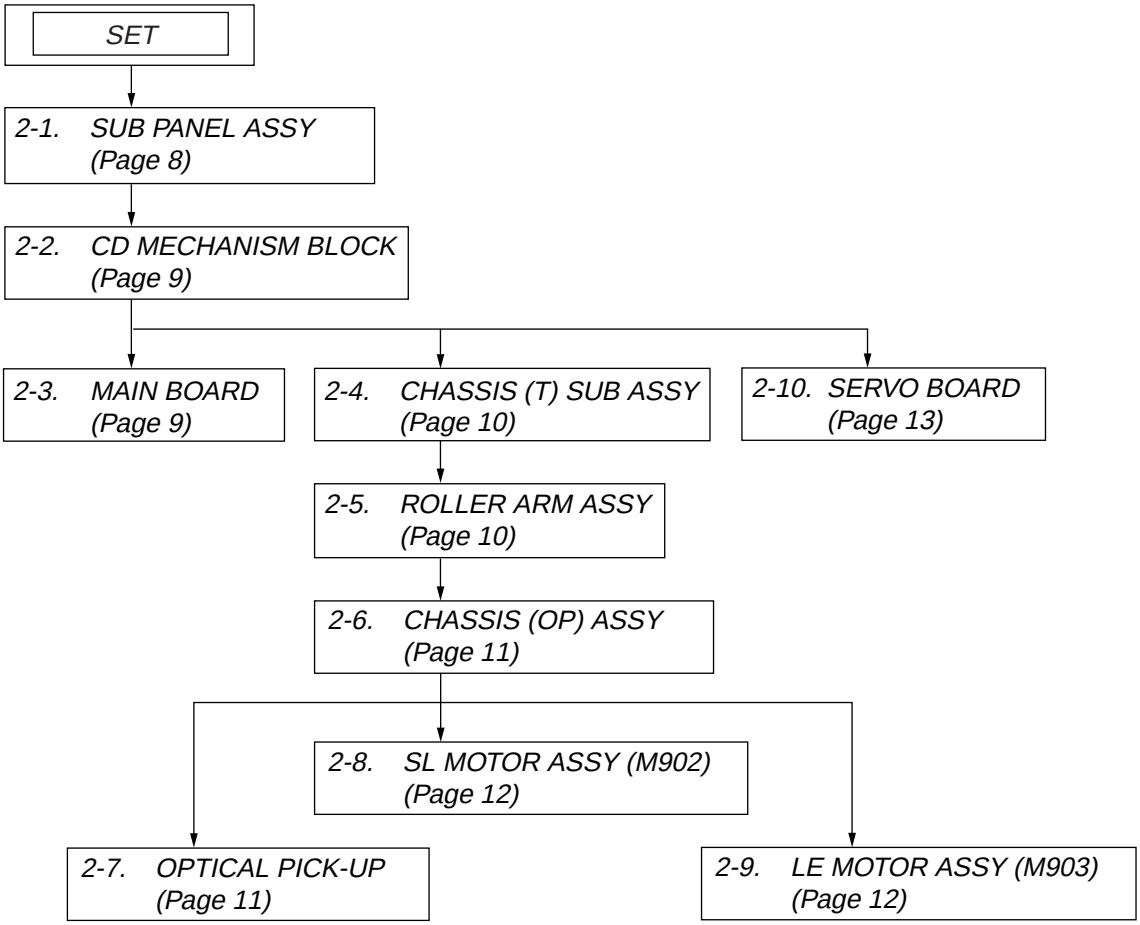
Подсоединение для поддержки памяти
Когда к магнитоле подсоединен желтый электрический провод, блок памяти будет постоянно получать питание, даже при выключенном зажигании.

О подсоединении громкоговорителей
- *Прежде чем подсоединять громкоговорители, выключите магнитолу.*
- *Используйте громкоговорители с полным сопротивлением 4 - 8 Ом, обладающие способностью принимать достаточно мощный сигнал. В противном случае они могут быть повреждены.*
- *Не подсоединяйте контактные гнезда громкоговорителей к шасси автомобиля и не соединяйте гнезда правого громкоговорителя с гнездами левого.*
- *Не подключайте провод заземления этого аппарата к отрицательному (–) контакту громкоговорителя.*
- *Не пытайтесь подсоединить громкоговорители параллельно.*
- *Не подсоединяйте к гнездам для громкоговорителей на магнитоле какие бы то ни было активные громкоговорители (со встроенными усилителями), поскольку это может привести к повреждению последних. Убедитесь в том , что подсоединяемые громкоговорители относятся к пассивному типу.*
- *Во избежание неправильной работы устройства не используйте встроенные в автомобиль провода громкоговорителей, если устройство использует общий отрицательный провод (–) для правого и левого громкоговорителей.*
- *Не замыкайте провода громкоговорителей устройства.*

Примечание относительно подсоединения
Если громкоговоритель и усилитель подсоединены неправильно, на дисплее отобразится надпись "FAILURE". В этом случае проверьте правильность подсоединения громкоговорителя и усилителя.

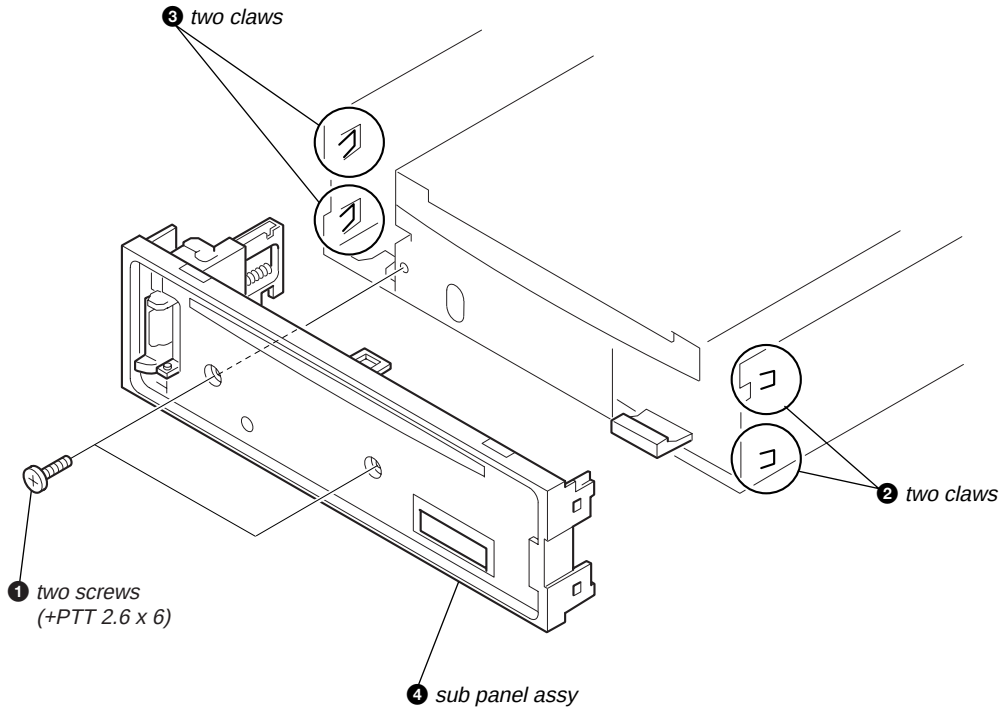
SECTION 2
DISASSEMBLY

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

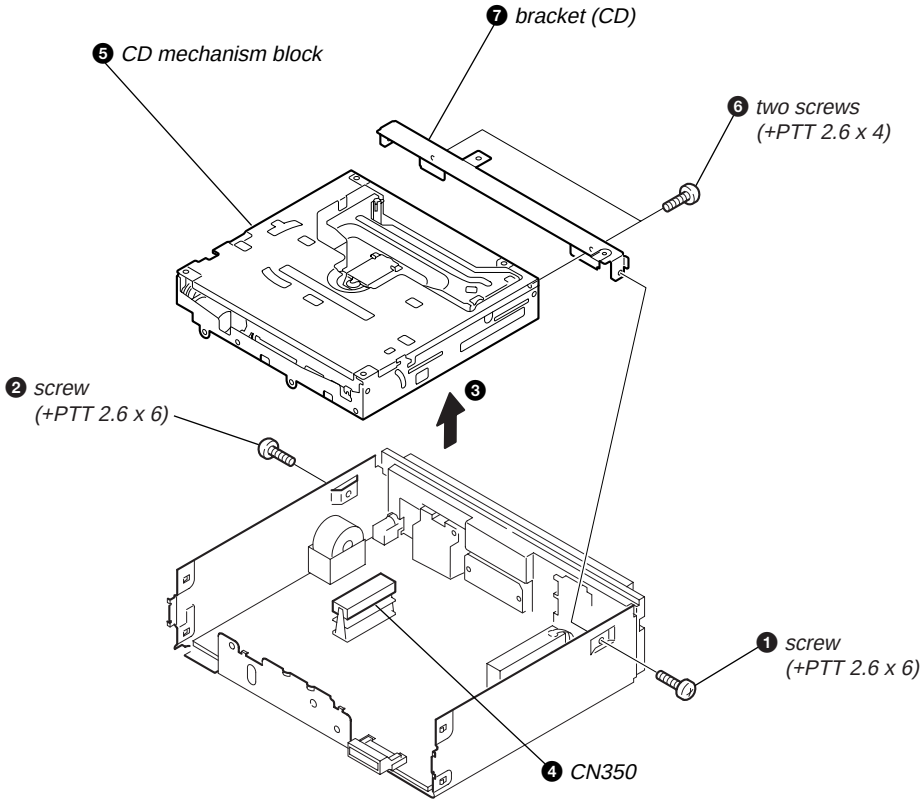


Note : Follow the disassembly procedure in the numerical order given.

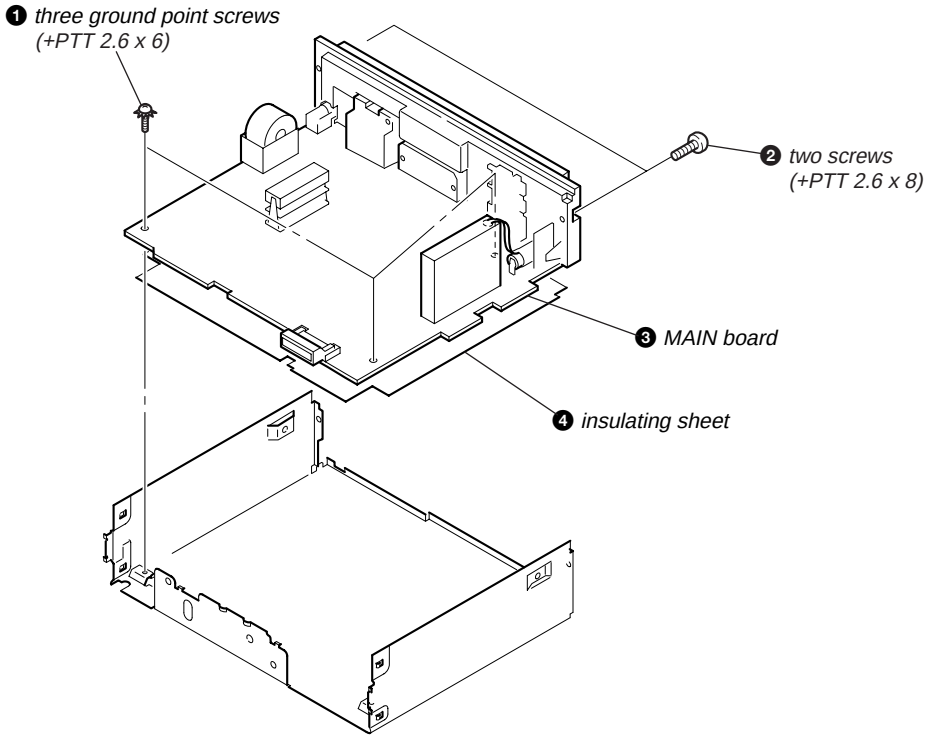
2-1. SUB PANEL ASSY



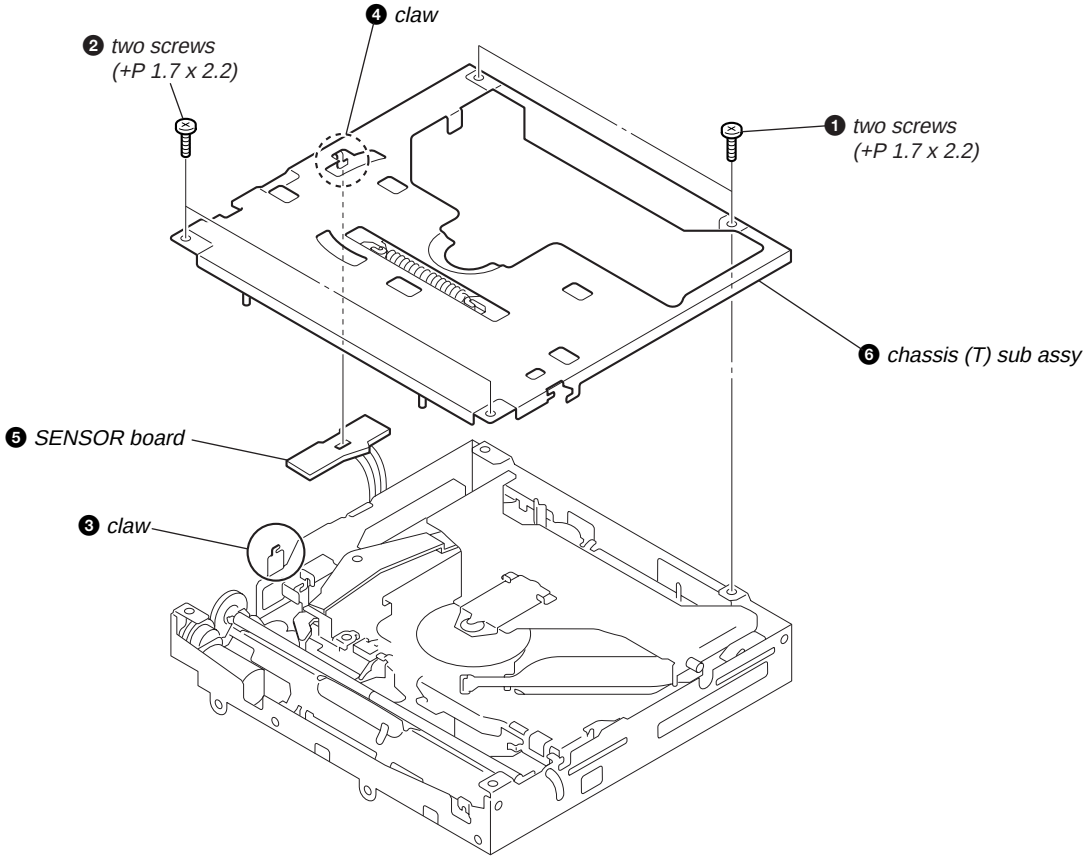
2-2. CD MECHANISM BLOCK



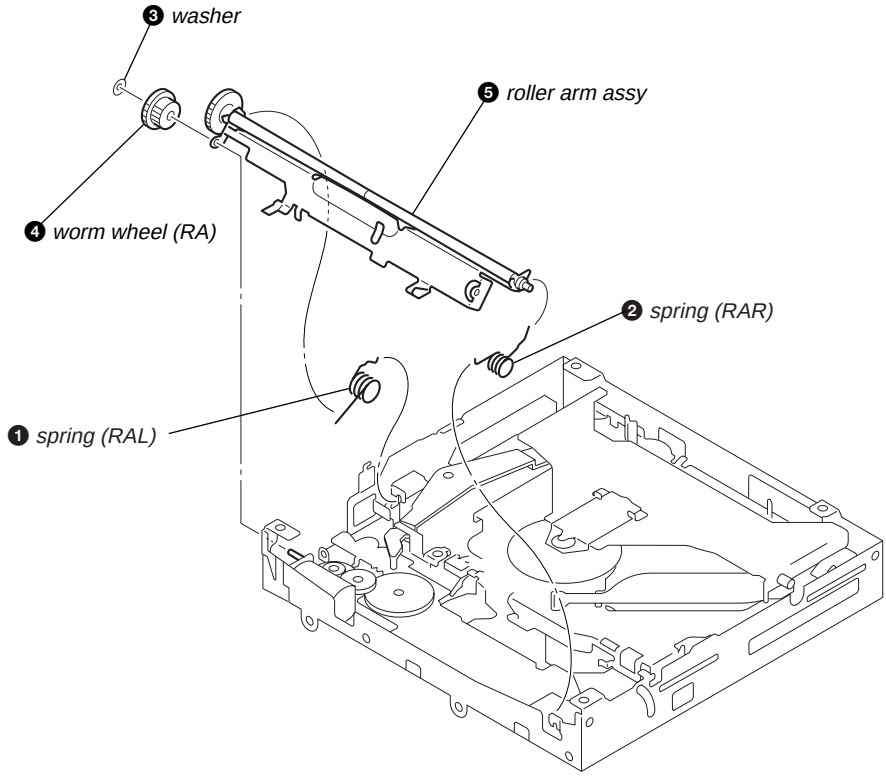
2-3. MAIN BOARD



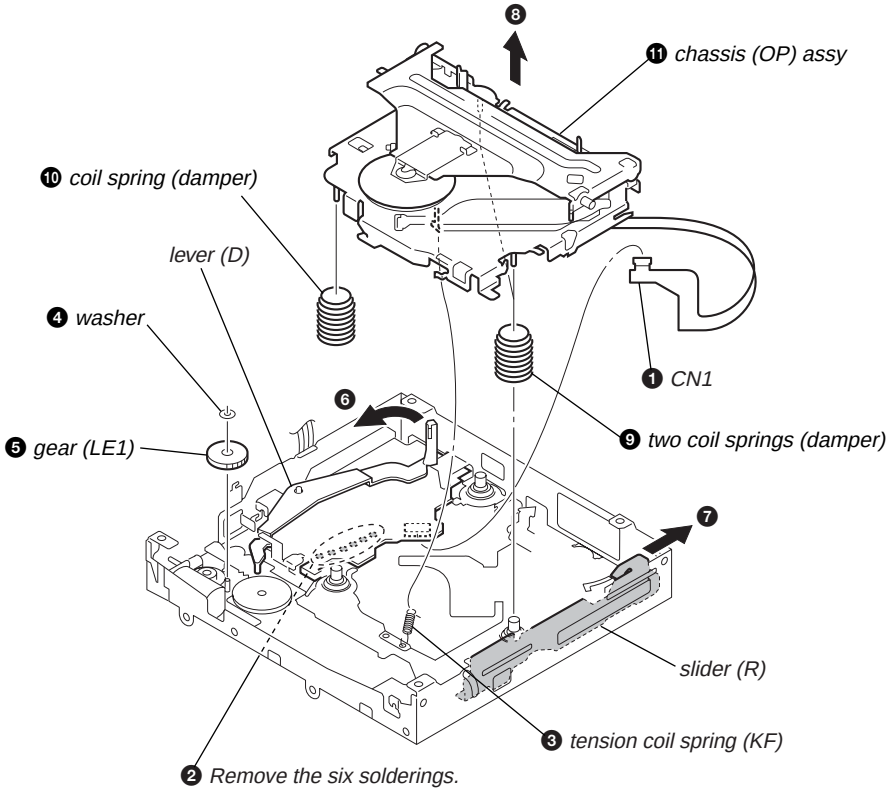
2-4. CHASSIS (T) SUB ASSY



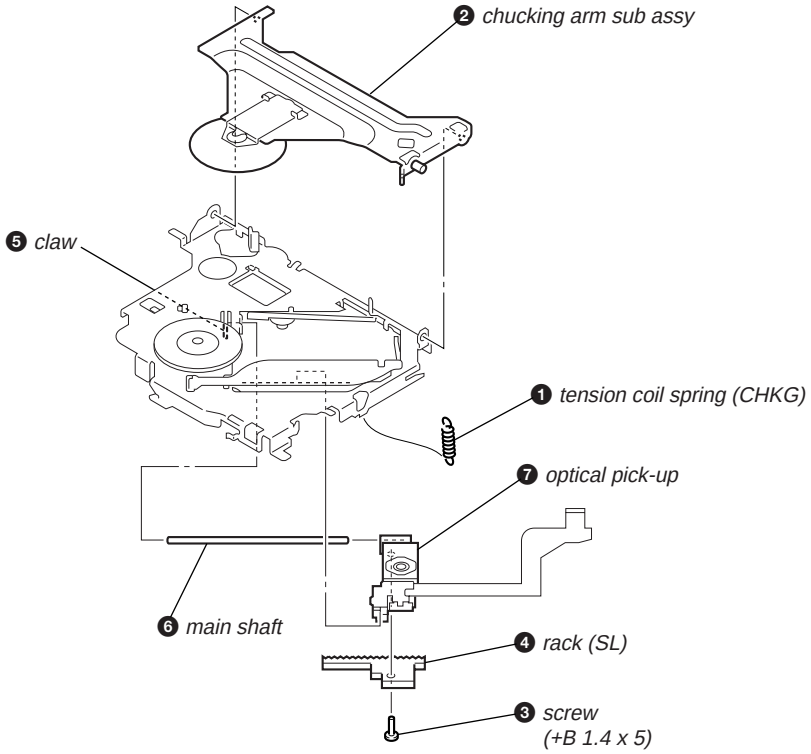
2-5. ROLLER ARM ASSY



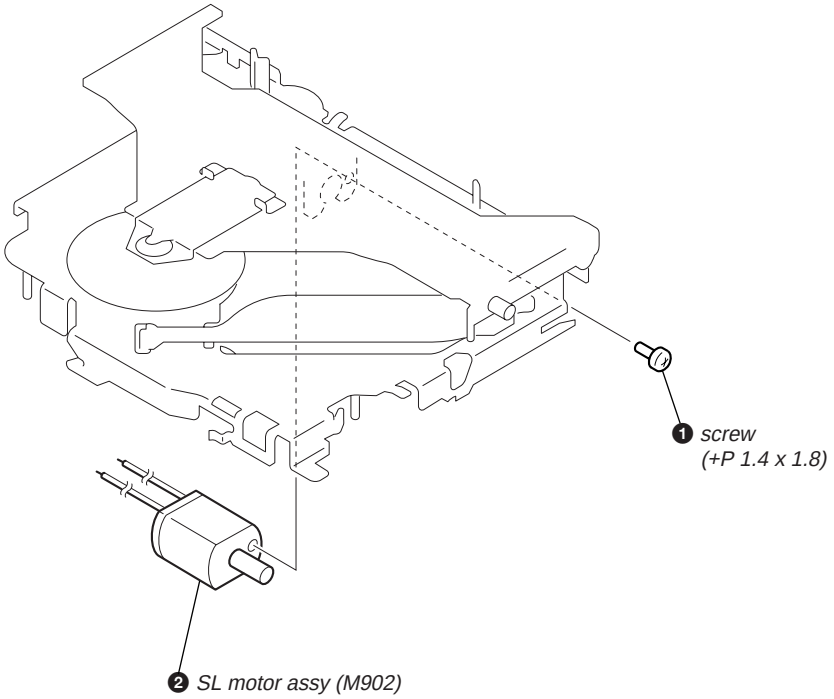
2-6. CHASSIS (OP) ASSY



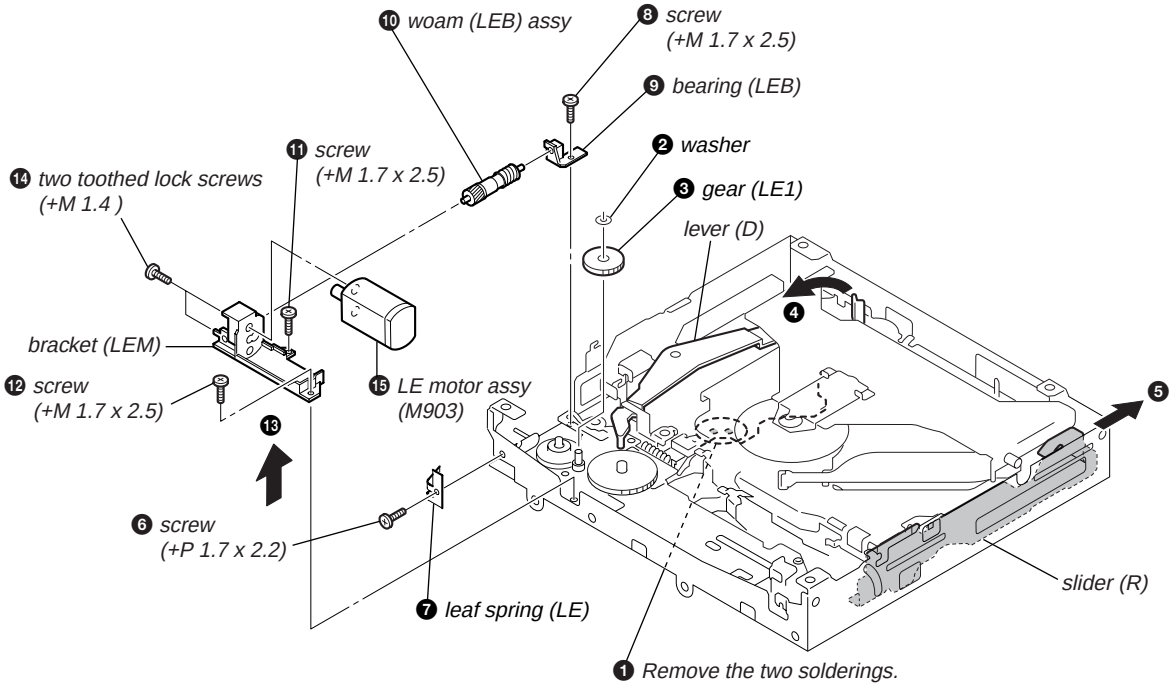
2-7. OPTICAL PICK-UP



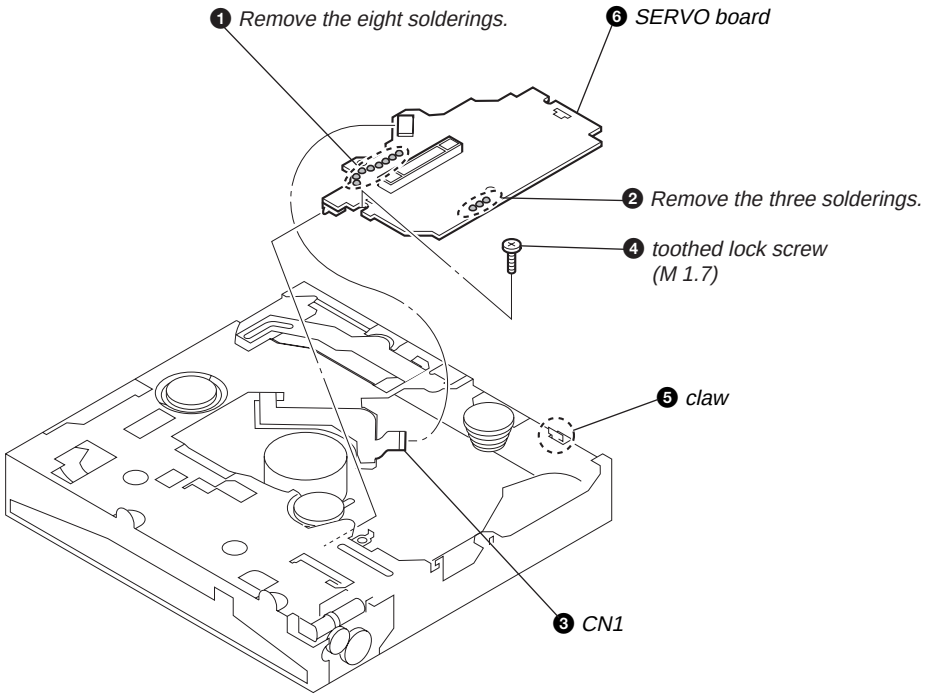
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)



2-10. SERVO BOARD



SECTION 3
DIAGRAMS

3-1. IC PIN DESCRIPTIONS

• IC3 CXD3059AR (DIGITAL SERVO/DIGITAL SIGNAL PROCESSOR) (SERVO BOARD (1/2))

Pin No.	Pin Name	I/O	Pin Description
1	MIRR	I/O	Mirror signal input/output (Not used in this set)
2	DFCT	I/O	Defect signal input/output (Not used in this set)
3	FOK	I/O	Focus OK signal input/output
4	VSS	—	Ground
5	LOCK	I/O	Lock signal input/output (Not used in this set)
6	MDP	O	Spindle motor servo control signal output
7	SSTP	I	Disc most inner detection signal input (Fixed at L in this set)
8	IOVSS1	—	Digital ground
9	SFDR	O	Sled drive signal output (FWD direction)
10	SRDR	O	Sled drive signal output (REV direction)
11	TFDR	O	Tracking drive signal output (FWD direction)
12	TRDR	O	Tracking drive signal output (REV direction)
13	FFDR	O	Focus drive signal output (FWD direction)
14	FRDR	O	Focus drive signal output (REV direction)
15	IOVDD1	—	Digital power supply pin (+3.3 V)
16	AVDD0	—	Analog power supply pin (+3.2 V)
17	AVSS0	—	Analog ground
18	NC	—	Not used. (Open)
19	E	I	E signal input
20	F	I	F signal input
21	TEI	I	Tracking error signal input
22	TEO	O	Tracking error signal output
23	FEI	I	Focus error signal input
24	FEO	O	Focus error signal output
25	VC	I/O	VC voltage output/Center voltage input
26	A	I	A signal input
27	B	I	B signal input
28	C	I	C signal input
29	D	I	D signal input
30	NC	—	Not used. (Open)
31	AVDD4	—	Analog power supply pin (+3.2 V)
32	RFDCO	I/O	RFDC signal input/output (Not used in this set)
33	PDSENS	I	Reference voltage input (Fixed at L in this set)
34	AC_SUM	O	RFAC summing amplifier signal output
35	EQ_IN	I	Equalizer circuit signal input
36	LD	O	APC amplifier signal output
37	PD	I	APC amplifier signal input
38	NC	—	Not used. (Open)
39	RFC	I	EQ cut off frequency adjustment input
40	AVSS4	—	Analog ground
41	RFACO	O	RFAC signal output
42	RFACI	I	RFAC signal input
43	AVDD3	—	Analog power supply pin (+3.2 V)
44	BIAS	I	Asymmetry circuit constant current input
45	ASYI	I	Asymmetry comparate voltage input
46	ASYO	O	EFM full swing signal output
47	VPCO	O	Charge pump output
48	VCTL	I	VCO2 control voltage input
49	AVSS3	—	Analog ground
50	CLTV	I	VCO1 control voltage input
51	FILO	O	Filter signal output

Pin No.	Pin Name	I/O	Pin Description
52	FILI	I	Filter signal input
53	PCO	O	Charge pump output
54	AVDD5	—	Analog power supply pin (+3.3 V)
55	DDVROUT	O	DC/DC converter output
56	DDVRSEN	I	DC/DC converter output voltage monitor signal input
57	AVSS5	—	Analog ground
58	DDCR	I	Reset signal input
59	NC	—	Not used. (Open)
60	BCKI	I	D/A interface bit clock signal input
61	PCMDI	I	D/A interface serial data signal input
62	LRCKI	I	D/A interface LR clock signal input
63	LRCK	O	D/A interface LR clock signal output
64	VSS	—	Ground
65	PCMD	O	D/A interface serial data signal output
66	BCK	O	D/A interface bit clock signal output
67	VDD	—	Power supply pin (+2.6 V)
68	EMPH	O	Not used. (Open)
69	EMPHI	I	Not used. (Fixed at L in this set)
70	IOVDD2	—	Digital power supply pin (+3.3 V)
71	DOUT	—	Digital out signal output (Not used in this set)
72, 73	TEST	I	Test pin (Normally, fixed at L)
74	IOVSS2	—	Digital ground
75	NC	—	Not used. (Open)
76	XVSS	—	Ground
77	XTAO	O	Master clock signal output (16.9344 MHz)
78	XTAI	I	Master clock signal input (16.9344 MHz)
79	XVDD	—	Power supply pin (+2.6 V)
80	AVDD1	—	Analog power supply pin (+3.3 V)
81	AOUT1	O	L channel analog signal output
82	VREFL	O	L channel reference voltage output
83, 84	AVSS1,AVSS2	—	Analog ground
85	VREFR	O	R channel reference voltage output
86	AOUT2	O	R channel analog signal output
87	AVDD2	—	Analog power supply pin (+3.3 V)
88	NC	—	Not used. (Open)
89	IOVDD0	—	Digital power supply pin (+3.3 V)
90	RMUT	O	R channel “0” detection flug output
91	LMUT	O	L channel “0” detection flug output
92	NC	—	Not used. (Open)
93	XTSL	I	Sub clock signal input (Fixed at L in this set)
94	IOVSS0	—	Digital ground
95	XTACN	I	Oscillation circuit control signal input (Fixed at H in this set)
96	SQSO	O	Sub 80 bit, PCM peak and level data signal output
97	SQCK	I	Clock signal input
98	SBSO	O	Sub P-W serial data signal output (Not used in this set)
99	EXCK	I	Clock signal input (Not used in this set)
100	XRST	I	System reset signal input
101	SYSM	I	Mute signal input (Fixed at L in this set)
102	DATA	I	Serial data signal input
103	VSS	—	Ground
104	XLAT	I	Latch signal input
105	CLOK	I	Serial data transfer clock signal input
106	VDD	—	Power supply pin (+2.6 V)

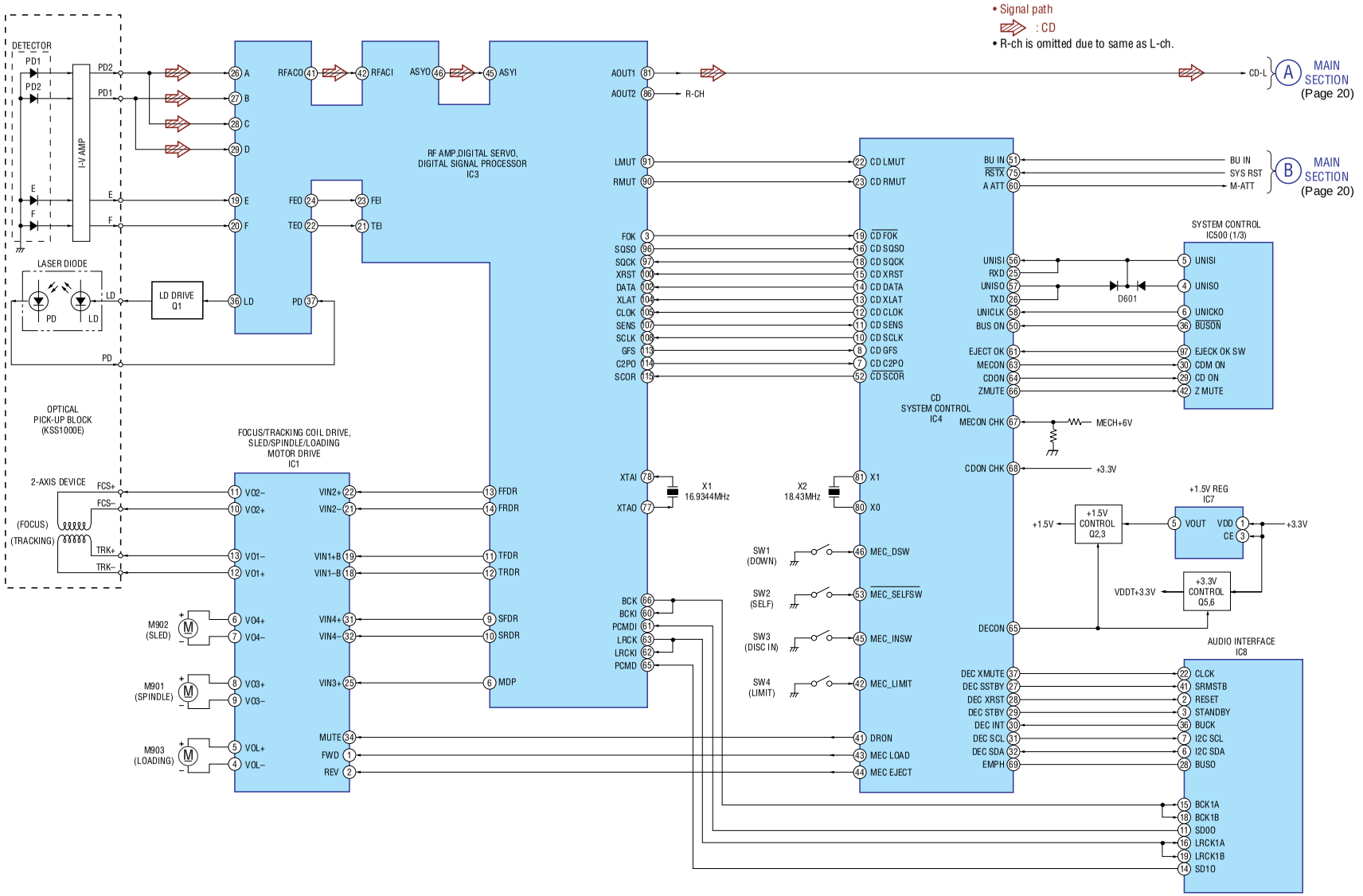
Pin No.	Pin Name	I/O	Pin Description
107	SENS	O	SENS signal output
108	SCLK	I	Clock signal input
109	ATSK	I/O	Input/output for anti-shock. (Fixed at L in this set)
110	WFCK	O	WFCK signal output (Not used in this set)
111	XUGF	O	XUGF signal output (Not used in this set)
112	XPCK	O	XPCK signal output (Not used in this set)
113	GFS	O	GFS signal output
114	C2PO	O	C2PO signal output
115	SCOR	O	Sub code sync signal output
116	VDD	—	Power supply pin (+2.6 V)
117	C4M	O	4.2366 MHz signal output (Not used in this set)
118	WDCK	O	Word clock signal output (Not used in this set)
119	COUT	I/O	Track count signal output/output (Not used in this set)
120	NC	—	Not used. (Open)

• IC500 MN101E01KDK (SYSTEM CONTROL) (MAIN BOARD (2/2))

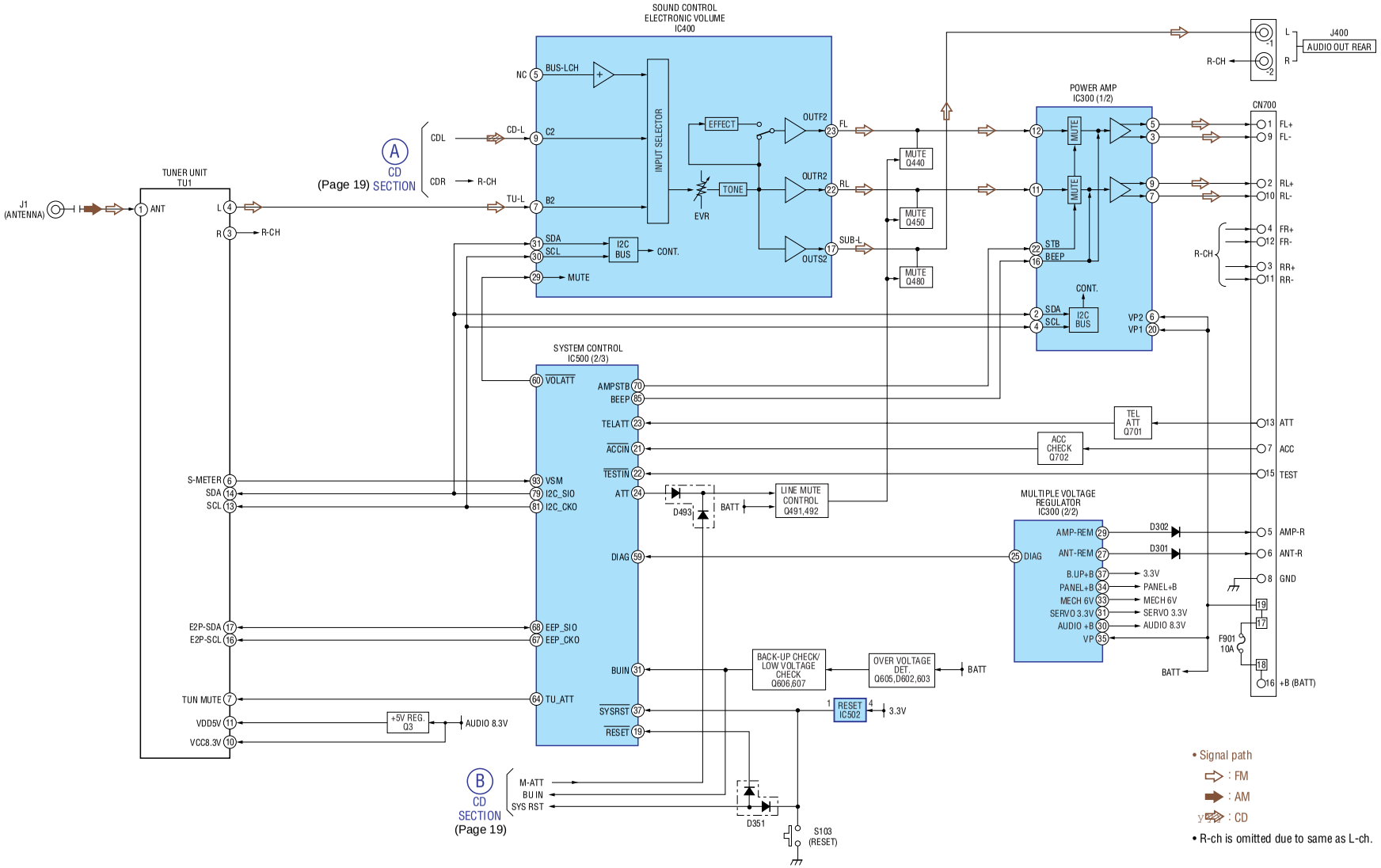
Pin No.	Pin Name	I/O	Pin Description
1	DAVDD	—	D/A converter power supply (+) pin (+3.3 V)
2	NCO	O	Not used. (Open)
3	DAVSS	—	D/A converter power supply (–) pin
4	UNISO	O	SONY-BUS data output (Not used in this set)
5	UNISI	I	SONY-BUS data input (Not used in this set)
6	UNICKO	O	SONY-BUS clock output (Not used in this set)
7	RETRA_SW	I	Retractable CD door open/close detection switch input (L: CD door open, H: CD door close)
8, 9	NCO	O	Not used. (Open)
10	VDD1	—	Power supply pin (+3.3 V)
11	MMOD	I	Not used. (Fixed at L in this set)
12	OSCOUT	O	Main clock output (27.648 MHz)
13	OSCIN	I	Main clock input (27.648 MHz)
14	VSS1	—	Ground
15	XIN	I	Sub clock input (32.768 kHz)
16	XOUT	O	Sub clock output (32.768 kHz)
17	VDD2	—	Power supply pin (+3.3 V)
18	MOD1	—	Not used. (Fixed at H in this set)
19	$\overline{\text{RESET}}$	I	Microcomputer reset input
20	RCIN1	I	Rotary commander SHIFT key input
21	$\overline{\text{ACCIN}}$	I	Accessory power supply detection input
22	$\overline{\text{TESTIN}}$	I	Test mode detection input
23	TELATT	I	Telephone attenuator detection input
24	ATT	O	Audio mute control output
25	$\overline{\text{ADON}}$	O	A/D converter power supply control output
26	NCO	O	Not used. (Open)
27	KEYACK	I	Key acknowledge detection input
28	TUATTIN	I	Not used. (Fixed at L in this set)
29	CDON	I	Servo power supply control input from CD system control IC.
30	CDMON	I	Loading 6V power supply control input from CD system control IC.
31	BUIN	I	Backup power supply detection input
32 to 35	NCO	O	Not used. (Open)
36	$\overline{\text{BUSON}}$	O	BUS ON output to CD system control IC.
37	$\overline{\text{SYSRST}}$	O	System reset output to CD system control IC.
38 to 41	NCO	O	Not used. (Open)
42	Z_MUTE	I	Mute zero cross detection input from CD system control IC.
43 to 49	NCO	O	Not used. (Open)
50	BBESEL	I	Fixed at H in this set.
51	NCO	O	Not used. (Open)
52	AREASEL1	I	Destination area initial setting input (Fixed at L in this set)
53	AREASEL0	I	Destination area initial setting input (Fixed at H in this set)
54 to 56	NCO	O	Not used. (Open)
57	EJECT_OK_SW	O	Eject OK output
58	$\overline{\text{PANELSW}}$	I	Front panel detach detection input (L: with front panel, H: without front panel)
59	DIAG	I	Mode input from power amp IC.
60	$\overline{\text{VOLATT}}$	O	Attenuator control output to electronic volume IC.
61	$\overline{\text{NOSESW}}$	O	Not used. (Open)
62	NCO	O	Not used. (Open)
63	VSS2	—	Ground
64	TUATT	O	Tuner mute control output
65	NCO (TUON)	O	Not used. (Open)
66	NSMASK	O	Not used. (Open)

Pin No.	Pin Name	I/O	Pin Description
67	E2P_CKO	O	Serial clock output to EEPROM communication.
68	E2P_SIO	I/O	Serial data input/output with EEPROM communication.
69	DOORIND	O	Not used. (Open)
70	AMPSTB	O	Standby control output to power amp IC.
71	NCO	O	Not used. (Open)
72	FLS.SO/LCDSO	O	Serial data output to LCD driver IC.
73	FLS.SI/LCDCE	O	Chip enable output to LCD driver IC.
74	LCDCKO	O	Serial clock output to LCD driver IC.
75 to 78	NCO	O	Not used. (Open)
79	I2C_SIO	I/O	I2C bus serial data input/output
80	NCO	O	Not used. (Open)
81	I2C_CKO	O	I2C bus serial clock output
82	DAVN	I	Not used. (Fixed at L in this set)
83	SIRCS	I	SIRCS signal input
84	NCO	O	Not used. (Open)
85	BEEP	O	Beep output to power amp IC.
86 to 88	NCO	O	Not used. (Open)
89	VDD3	—	Power supply pin (+3.3 V)
90	NCO	O	Not used. (Open)
91	VSS3	—	Ground
92	QUALITY	I	Not used. (Fixed at L in this set)
93	VSM	I	S-meter voltage detection input
94, 95	KEYIN1, 0	I	Key input 1, 0
96	RCIN0	I	Rotary commander key input
97 to 99	NCO	O	Not used. (Open)
100	VREF+	—	A/D converter power supply (+) pin (+3.3 V)

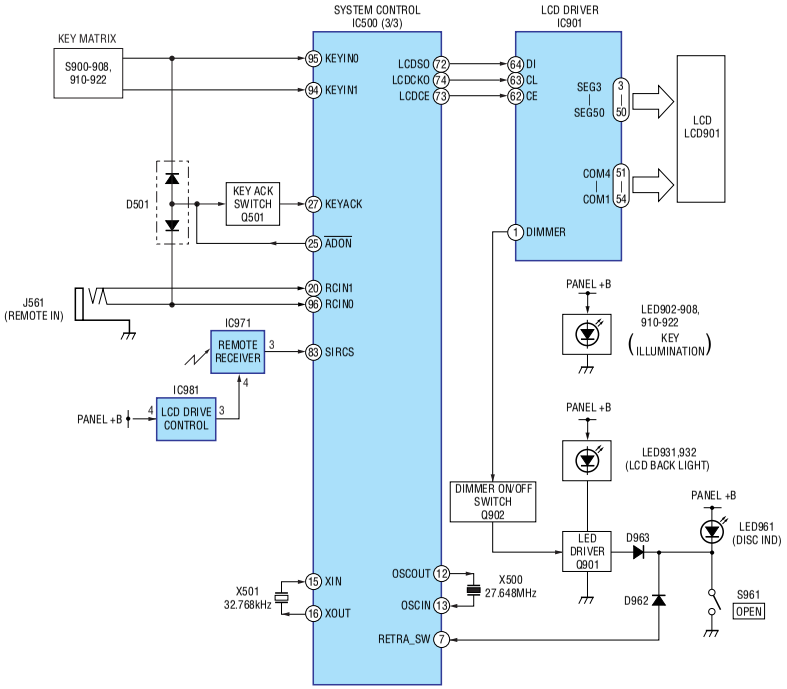
3-2. BLOCK DIAGRAM — CD SECTION —



3-3. BLOCK DIAGRAM — TUNER SECTION —



3-4. BLOCK DIAGRAM — DISPLAY SECTION —



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

for schematic diagram:

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

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

- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇛ : CD

for printed wiring boards:

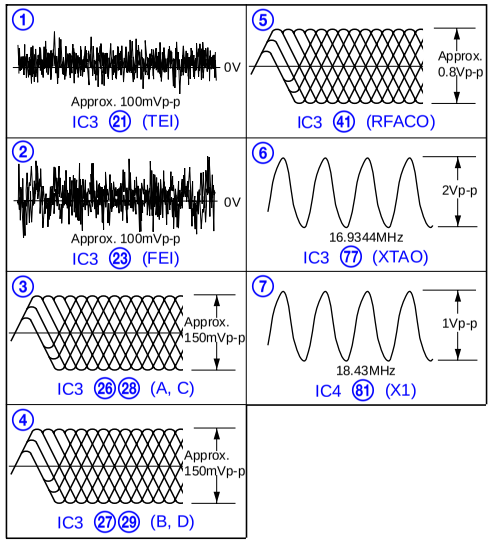
- ○—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing. (The other layer's patterns are not indicated.)

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

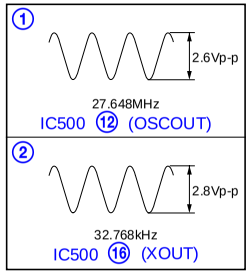
• Waveforms

— Servo Board —

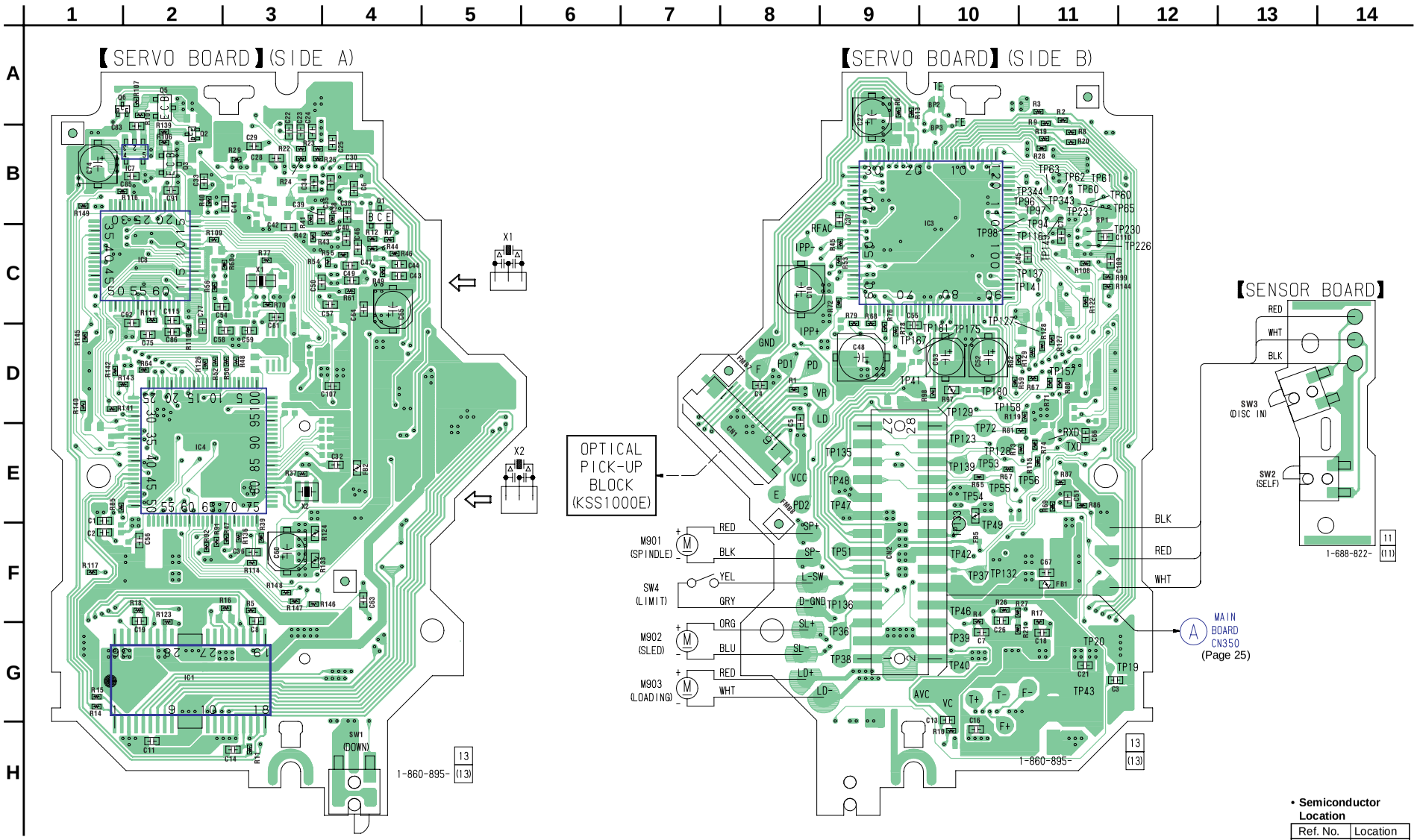
(MODE: CD PLAY)



— Main Board —



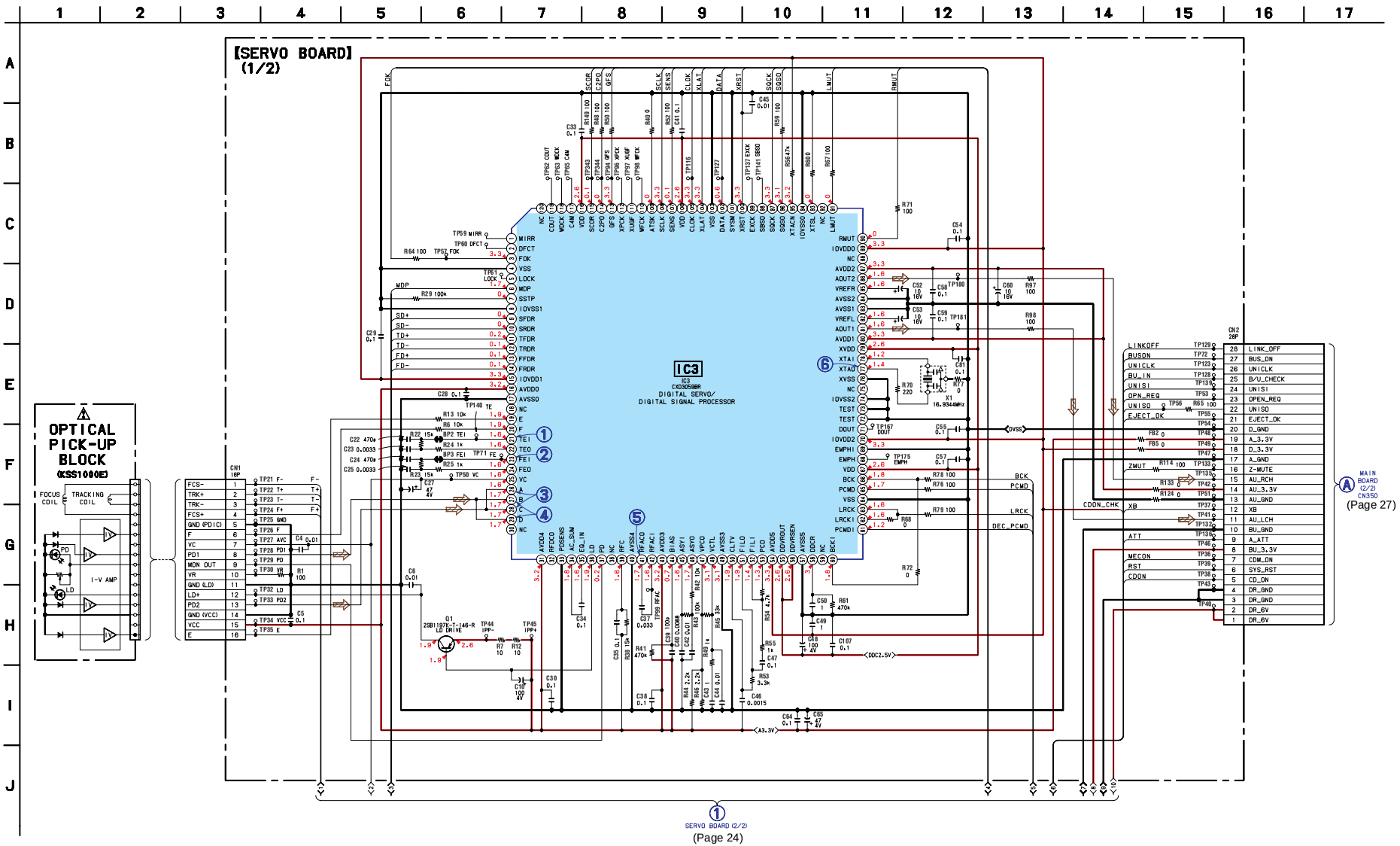
3-5. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 21 for Common Note for Printed Wiring Boards. **: Uses unleaded solder.**



- **Semiconductor Location**

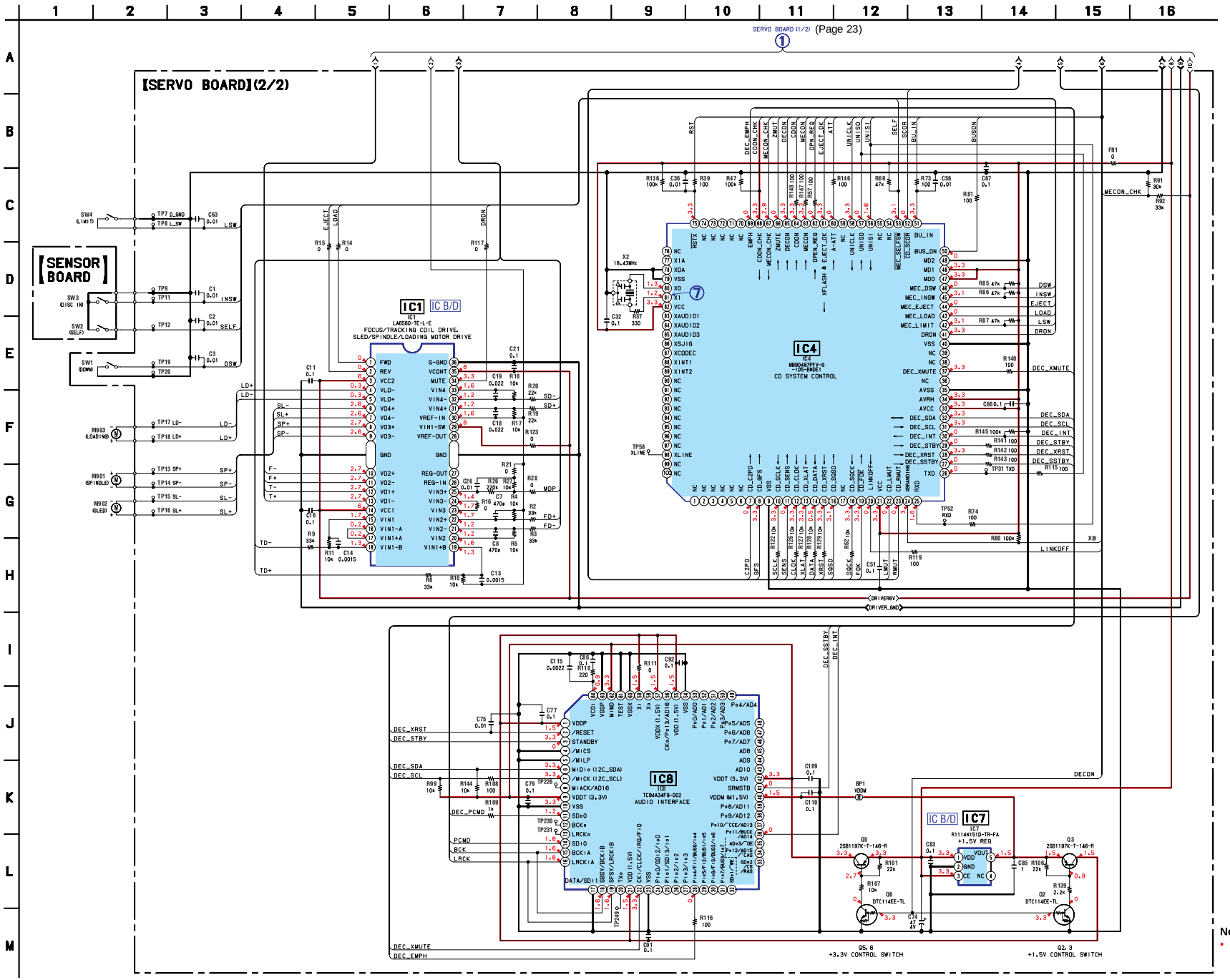
Ref. No.	Location
IC1	G-2
IC3	C-10
IC4	E-2
IC7	B-2
IC8	C-2
Q1	C-4
Q2	B-2
Q3	B-2
Q5	A-2
Q6	A-2

3-6. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 21 for Common Note on Schematic Diagram and Waveforms.



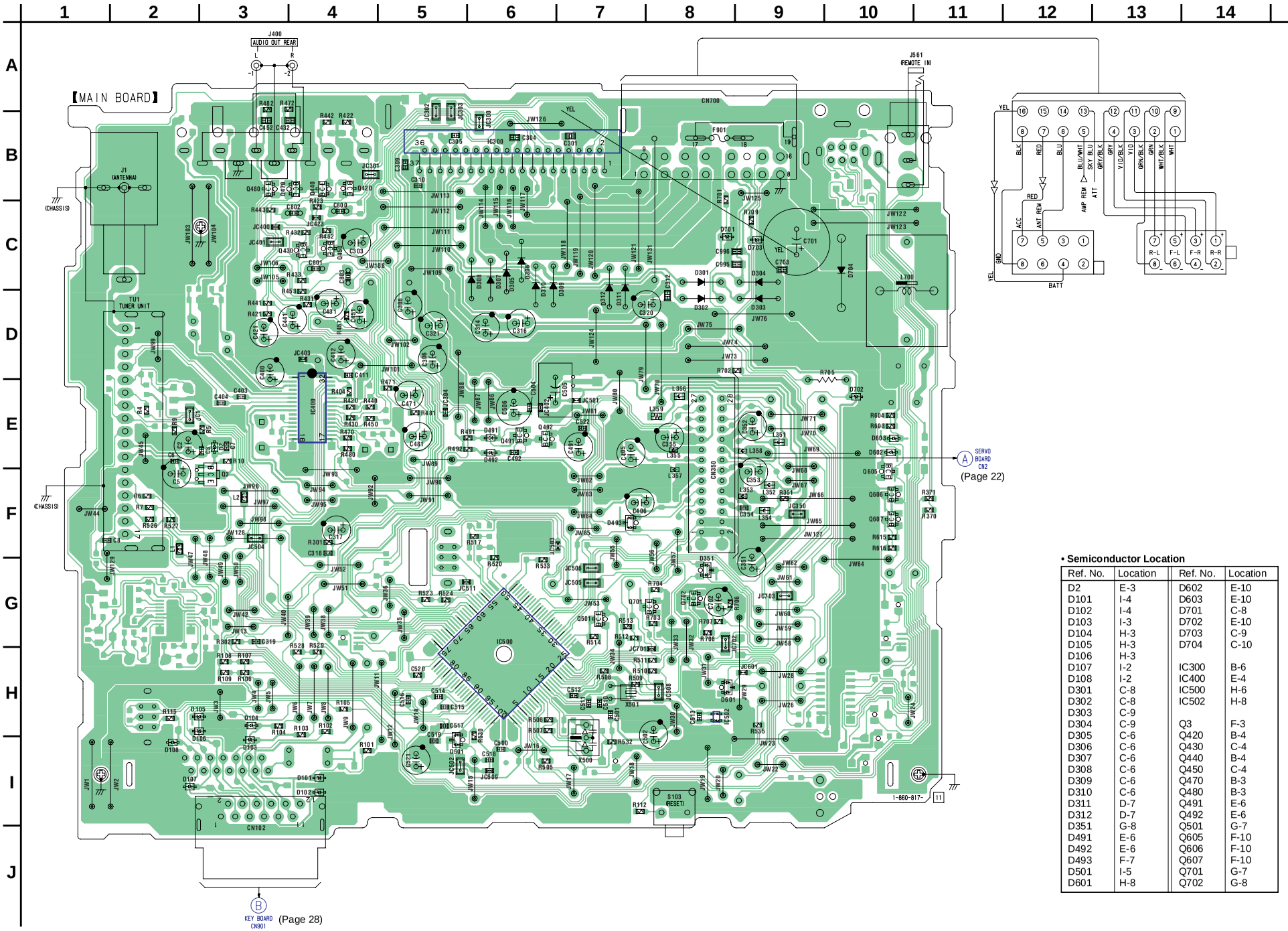
Note:
• Voltage is dc with respect to ground under no-signal conditions.
no mark : CD PLAY

3-7. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) — • Refer to page 21 for Common Note on Schematic Diagram and Waveforms.
• Refer to page 30 for IC Block Diagrams.



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

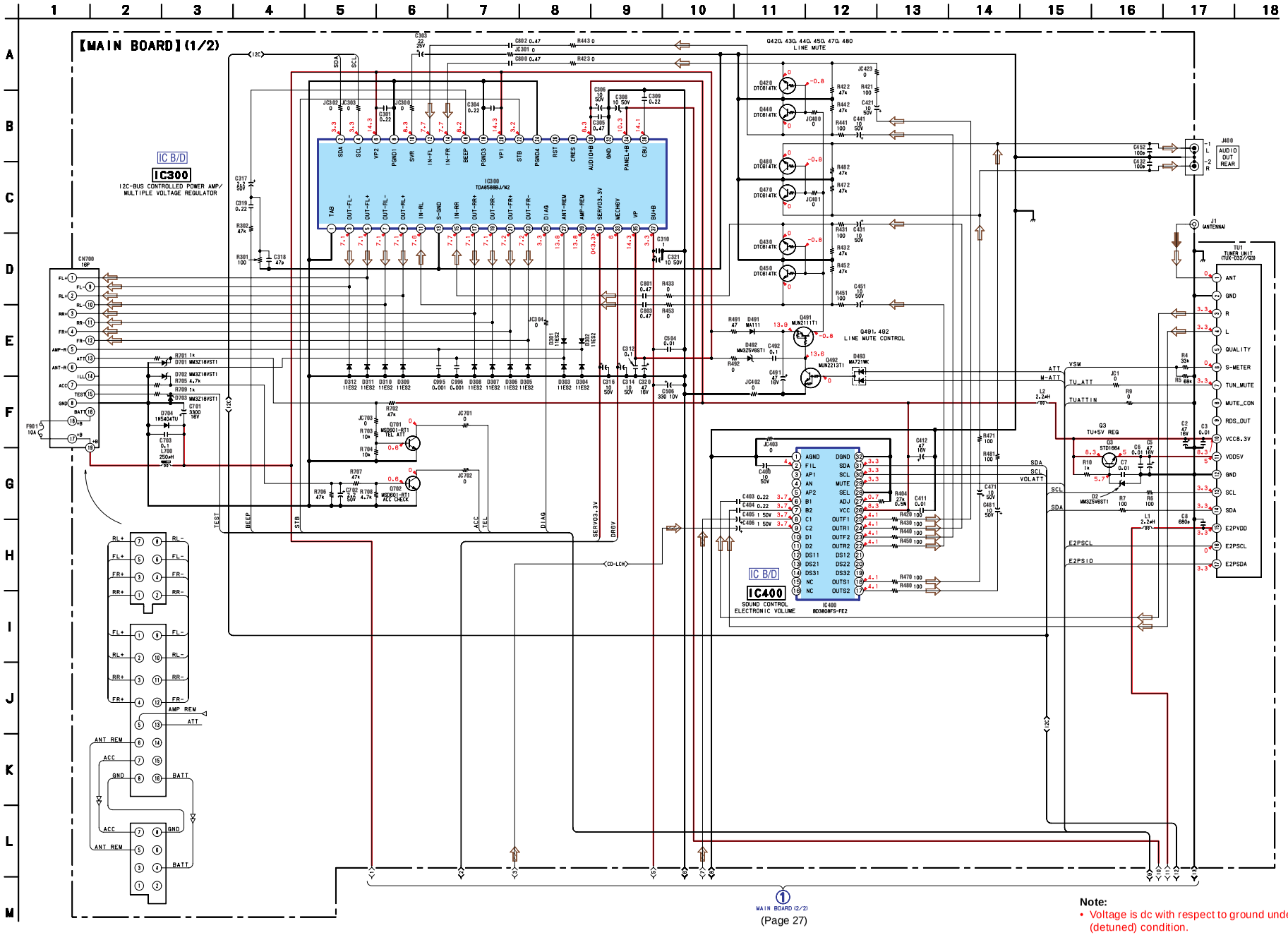
3-8. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 21 for Common Note on Printed Wiring Boards. : Uses unleaded solder.



• Semiconductor Location

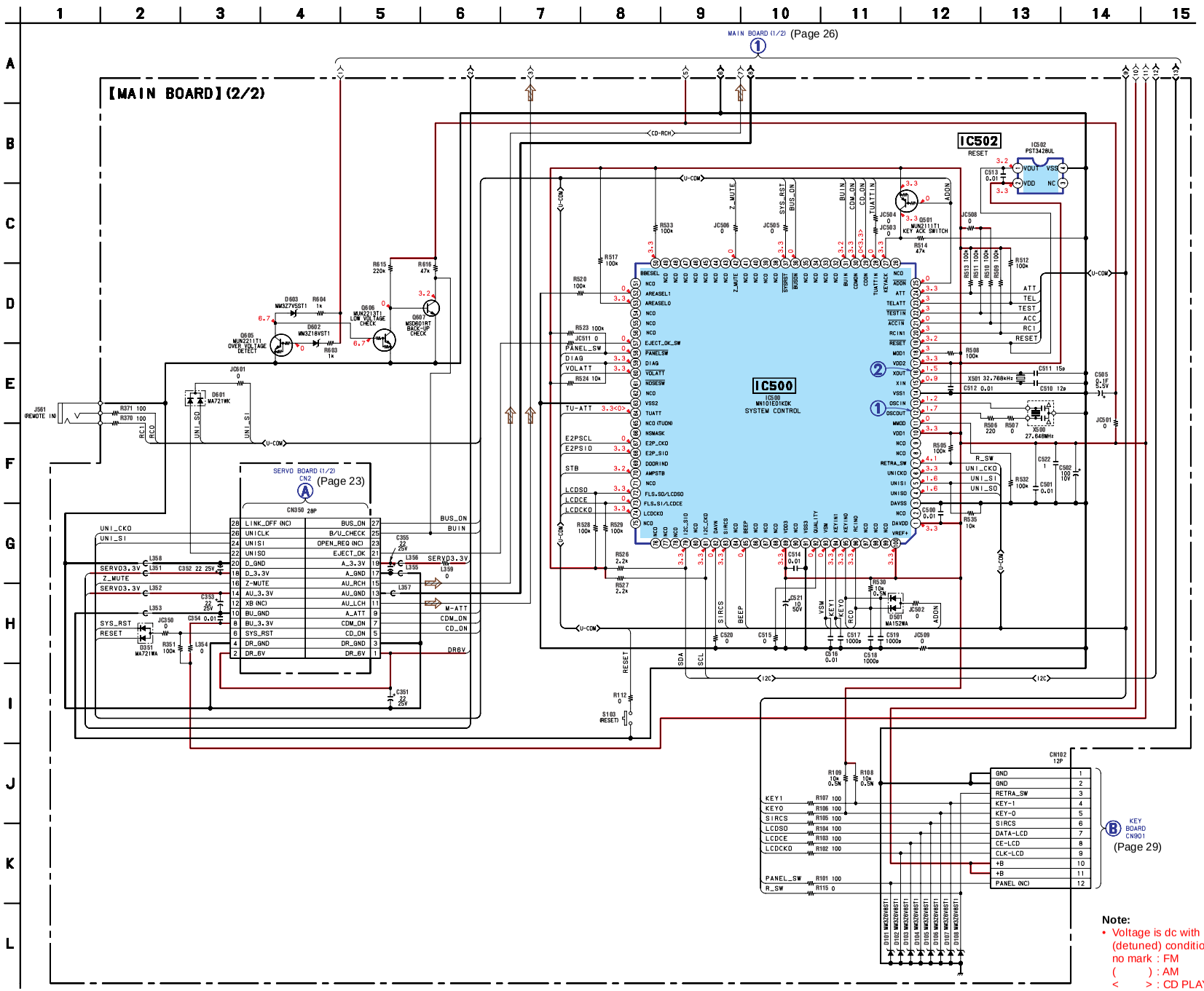
Ref. No.	Location	Ref. No.	Location
D2	E-3	D602	E-10
D101	I-4	D603	E-10
D102	I-4	D701	C-8
D103	I-3	D702	E-10
D104	H-3	D703	C-9
D105	H-3	D704	C-10
D106	H-3		
D107	I-2	IC300	B-6
D108	I-2	IC400	E-4
D301	C-8	IC500	H-6
D302	C-8	IC502	H-8
D303	C-9		
D304	C-9	Q3	F-3
D305	C-6	Q420	B-4
D306	C-6	Q430	C-4
D307	C-6	Q440	B-4
D308	C-6	Q450	C-4
D309	C-6	Q470	B-3
D310	C-6	Q480	B-3
D311	D-7	Q491	E-6
D312	D-7	Q492	E-6
D351	G-8	Q501	G-7
D491	E-6	Q605	F-10
D492	E-6	Q606	F-10
D493	F-7	Q607	F-10
D501	I-5	Q701	G-7
D601	H-8	Q702	G-8

3-9. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 21 for Common Note on Schematic Diagram and Waveforms.
• Refer to page 30 for IC Block Diagrams.

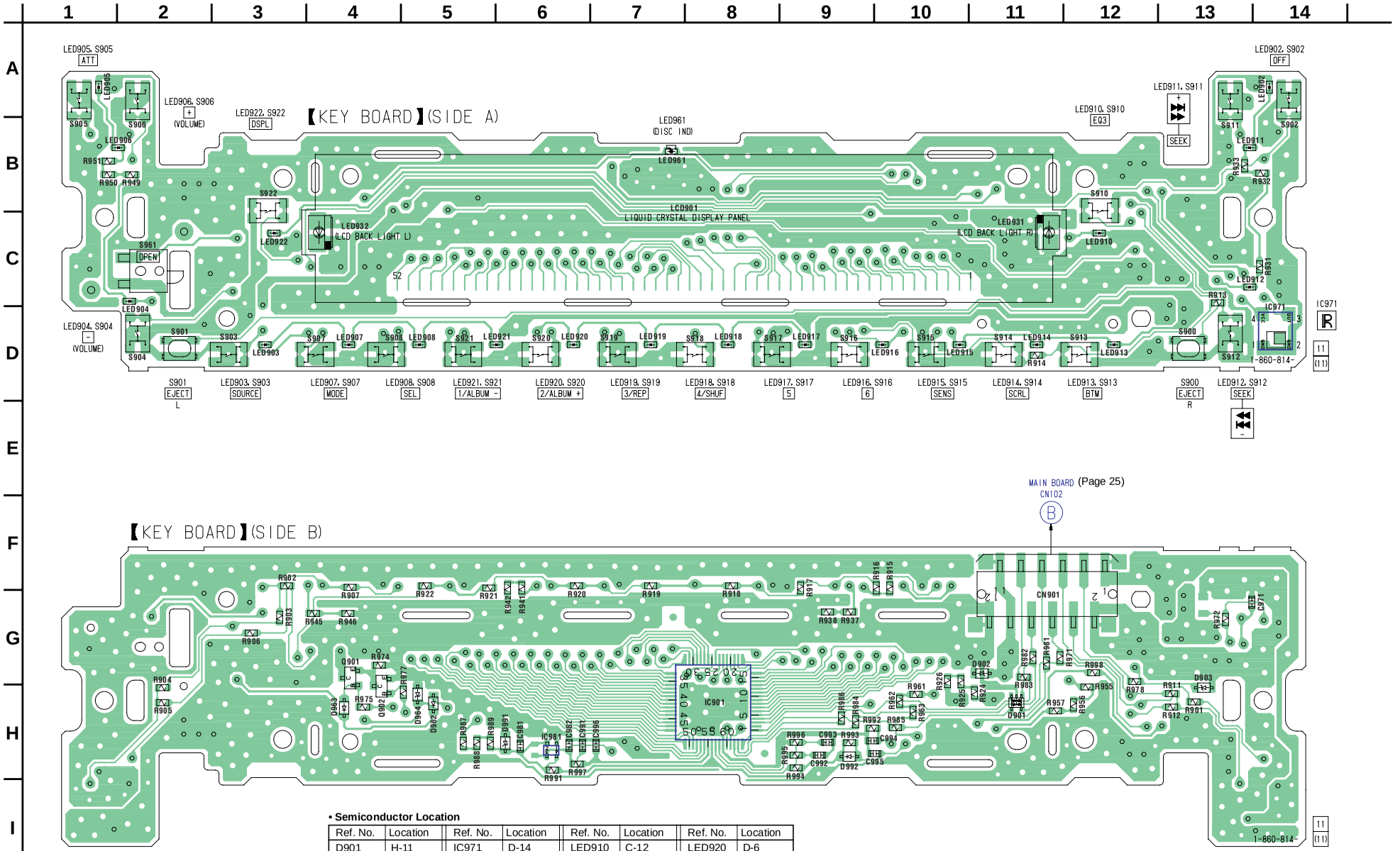


Note:
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM
( ) : AM
< > : CD PLAY

3-10. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 21 for Common Note on Schematic Diagram and Waveforms.



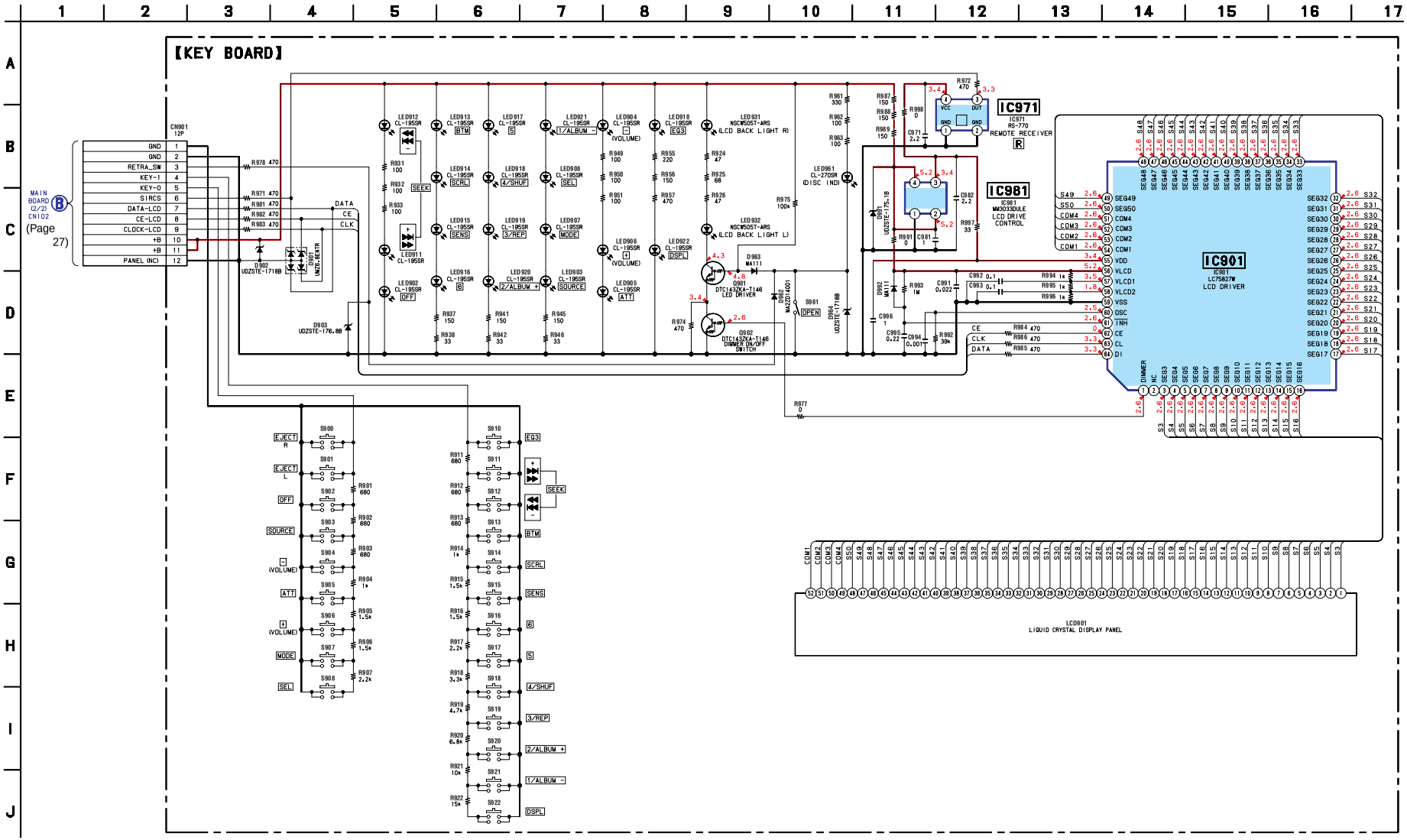
3-11. PRINTED WIRING BOARD — KEY SECTION — • Refer to page 21 for Common Note on Printed Wiring Boards. : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D901	H-11	IC971	D-14	LED910	C-12	LED920	D-6
D902	G-11	IC981	H-6	LED911	B-13	LED921	D-6
D903	G-13			LED912	C-13	LED922	C-3
D962	H-5	LED902	A-14	LED913	D-12	LED931	C-11
D963	H-4	LED903	D-3	LED914	D-11	LED932	C-4
D964	H-5	LED904	D-2	LED915	D-10	LED961	B-7
D991	H-6	LED905	A-1	LED916	D-10		
D992	H-9	LED906	B-1	LED917	D-9	Q901	G-4
		LED907	D-4	LED918	D-8	Q902	H-4
IC901	H-8	LED908	D-5	LED919	D-7		

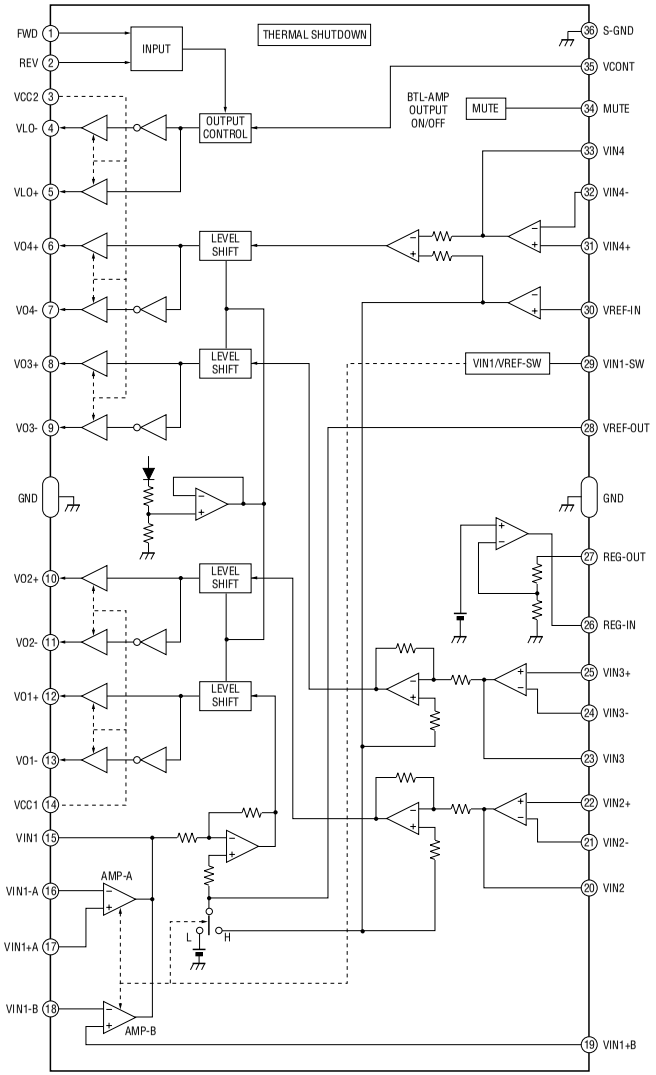
3-12. SCHEMATIC DIAGRAM — KEY SECTION — • Refer to page 21 for Common Note on Schematic Diagram.



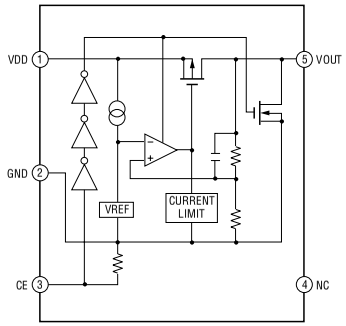
Note:
- Voltage is dc with respect to ground under no-signal (detuned) condition.
  no mark : FM

3-13. IC BLOCK DIAGRAMS

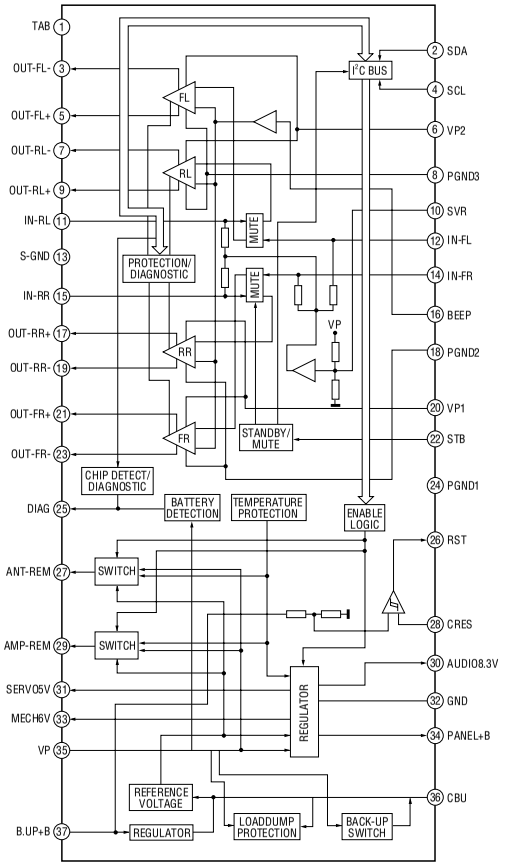
IC1 LA6560-TE-L-E



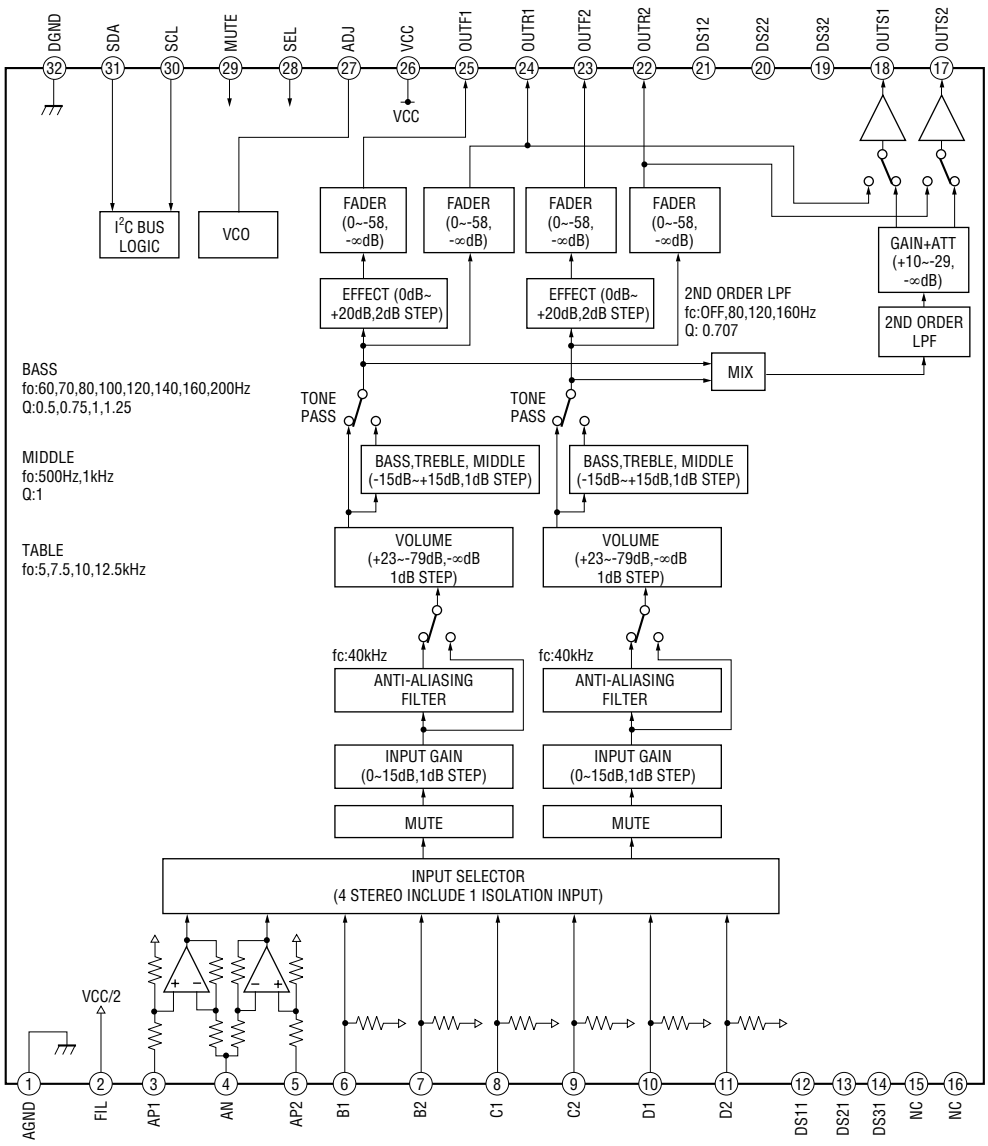
IC7 R1114N151D-TR-FA



IC300 TDA8588BJ/N2



IC400 BD3808FS-FE2



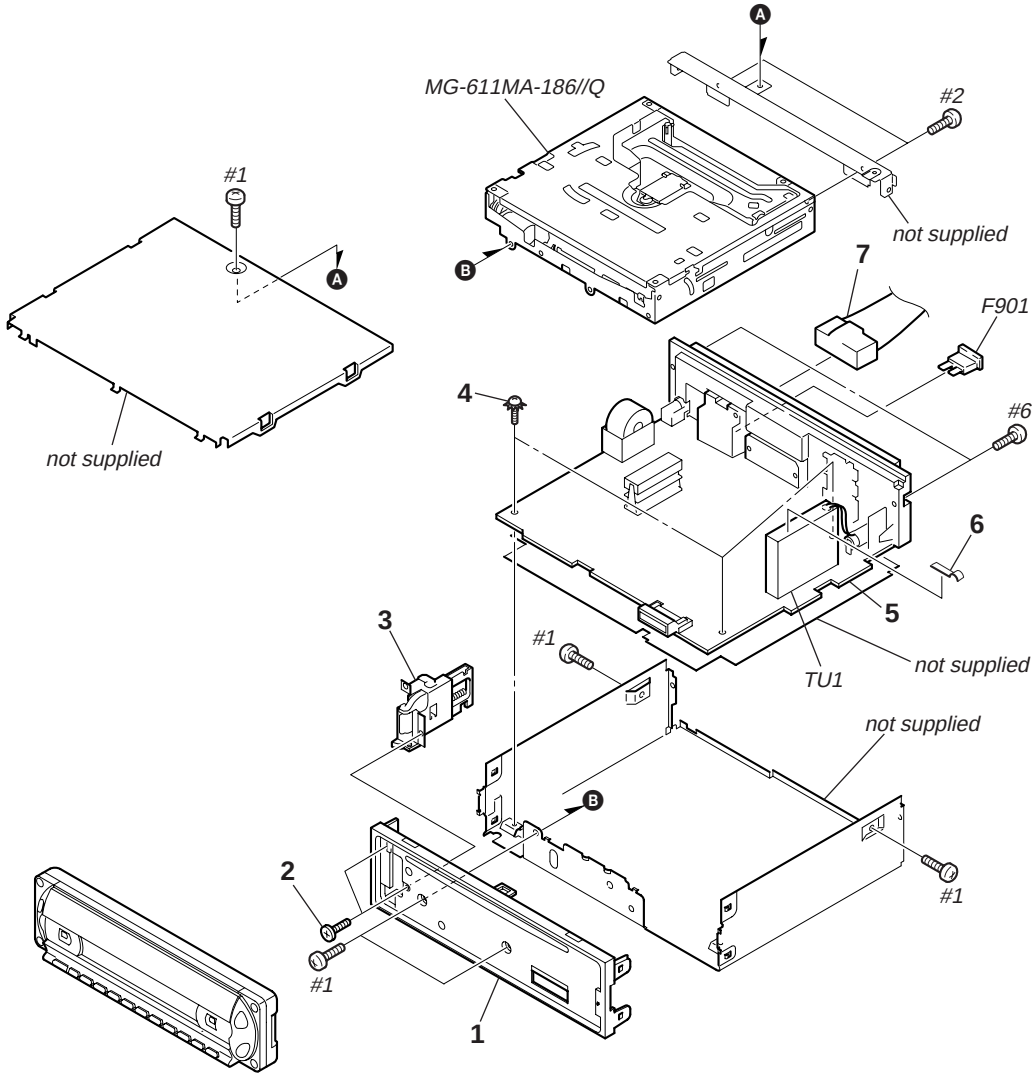
SECTION 4
EXPLODED VIEWS

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

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

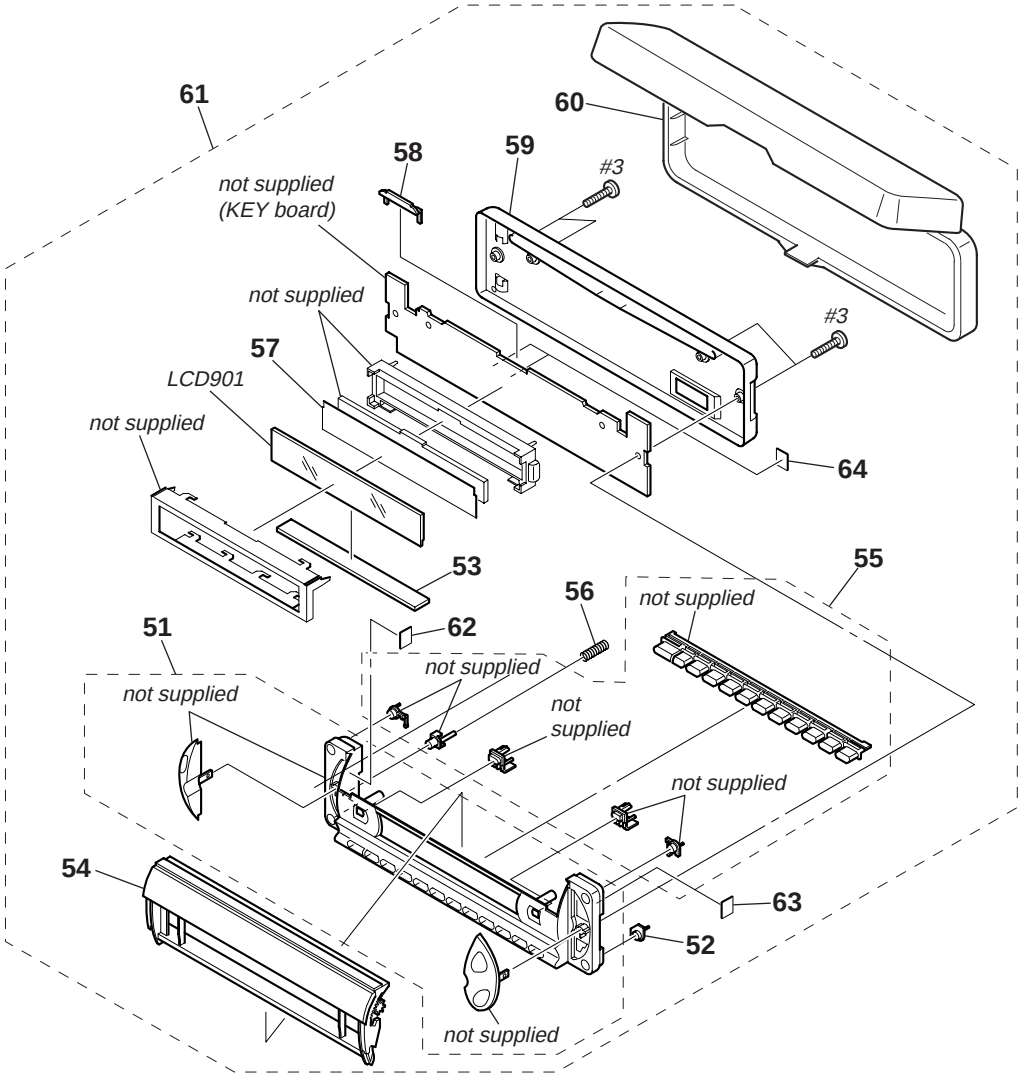
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

4-1. MAIN SECTION



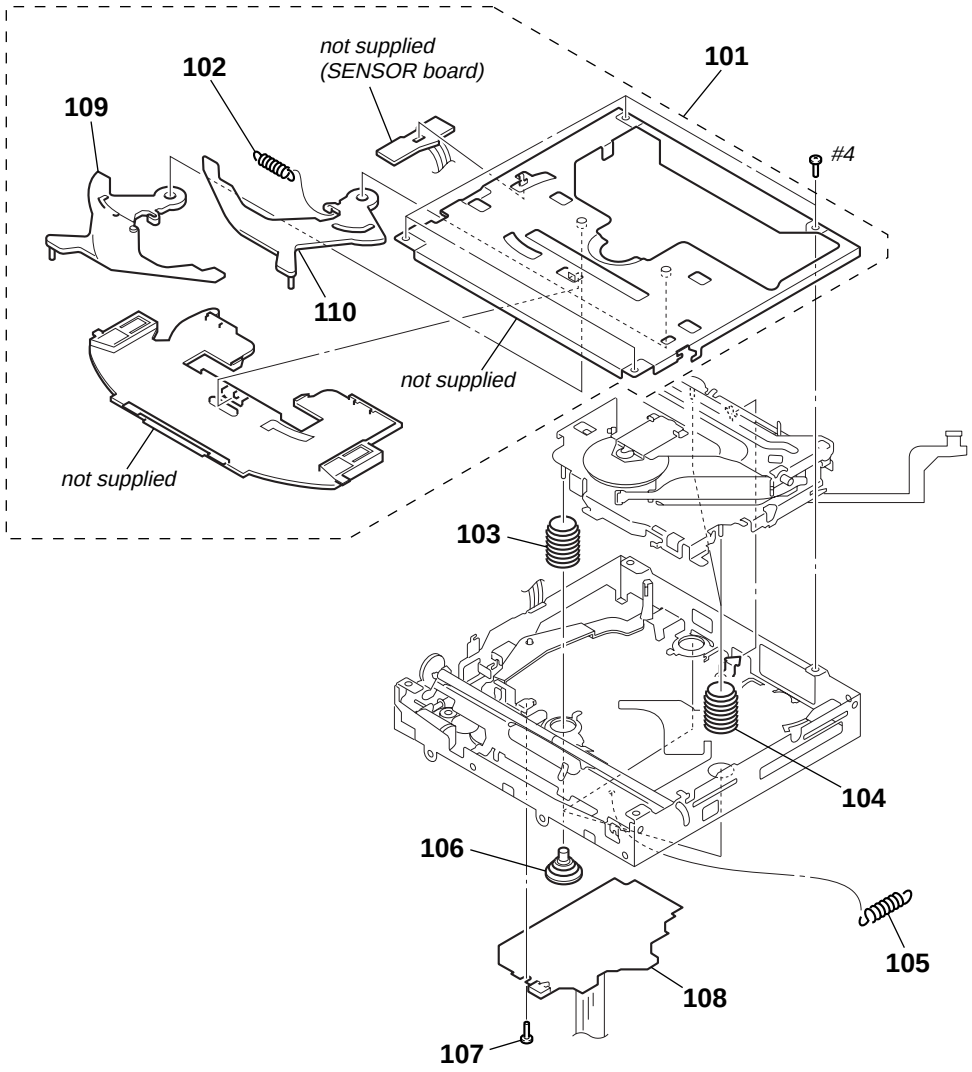
Ref. No.	Part No.	Description	Remark
1	X-3384-176-2	PANEL SUB ASSY, SUB	
2	3-042-244-11	SCREW (T)	
3	X-3383-739-1	LOCK ASSY (S)	
4	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
5	A-3283-513-A	MAIN BOARD, COMPLETE	
6	3-246-481-01	PLATE (TU), GROUND	
7	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-A	TUNER UNIT (TUX-032//Q3)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#6	7-685-793-09	SCREW +PTT 2.6X8 (S)	

4-2. FRONT PANEL SECTION



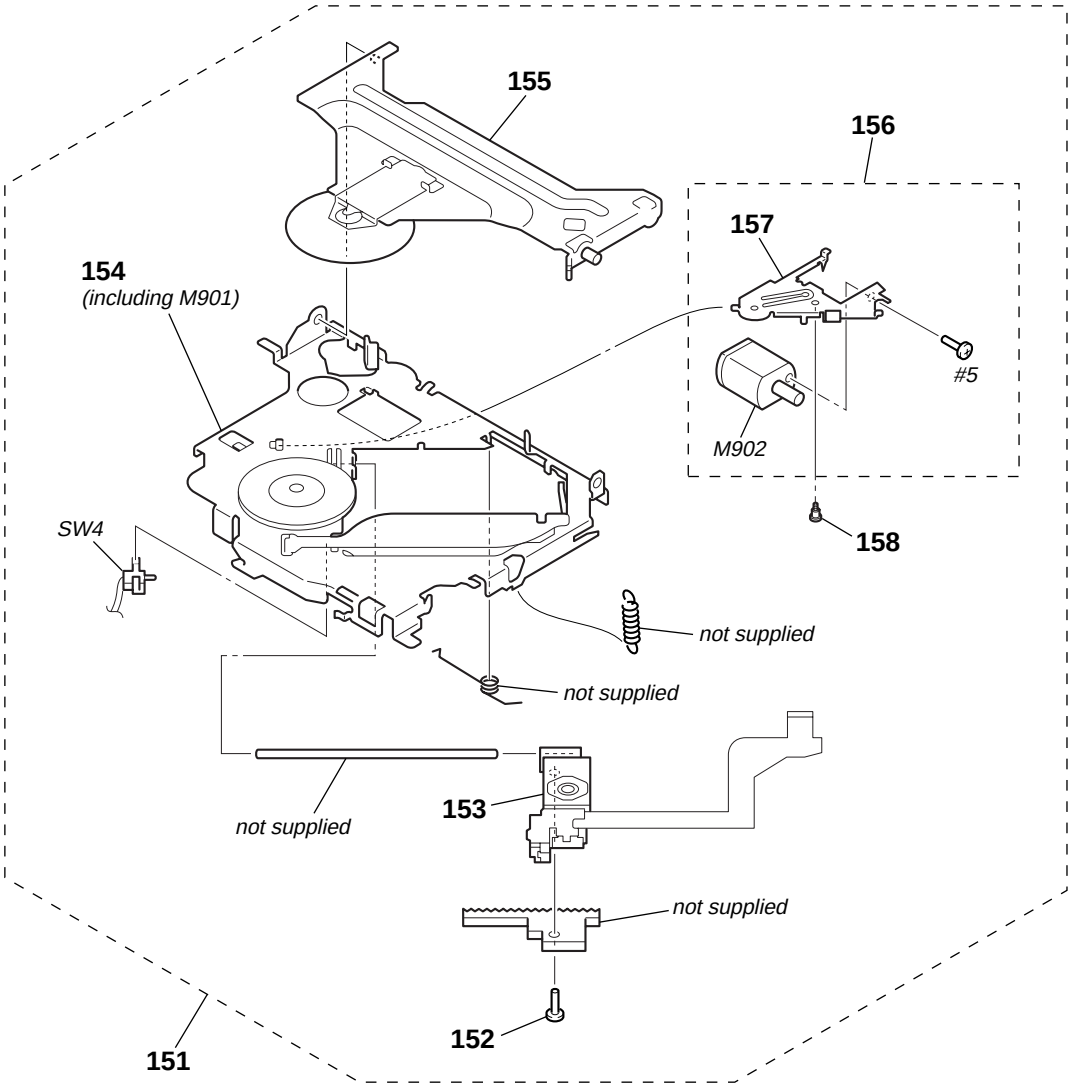
Ref. No.	Part No.	Description	Remark
51	X-3384-683-2	PANEL SUB ASSY, FRONT	
52	3-258-947-01	FILTER (IR)	
53	1-780-096-11	CONDUCTIVE BOARD, CONNECTION	
54	A-3372-541-A	RETRACTABLE ASSY	
55	X-3384-380-1	BUTTON ASSY (S)	
56	3-246-479-01	SPRING (RELEASE)	
57	3-258-952-01	SHEET (ILLUMINATOR)	
58	3-258-948-01	PLATE (CD), LIGHT GUIDE	
59	3-258-937-01	PANEL, FRONT BACK	
60	X-3383-264-2	CASE ASSY (for FRONT PANEL)	
61	A-3372-774-A	PANEL COMPLETE ASSY, FRONT	
62	3-266-165-01	SPACER (B)	
63	3-266-163-01	SPACER (A)	
64	3-253-896-11	SHEET (H), ADHESIVE	
LCD901	1-805-451-11	DISPLAY PANEL, LIQUID CRYSTAL	
#3	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	

4-3. CD MECHANISM SECTION (1)
(MG-611MA-186//Q)



Ref. No.	Part No.	Description	Remark
101	A-3372-444-A	CHASSIS (T) SUB ASSY	
102	3-253-729-11	SPRING (LTR), TENSION COIL	
103	3-257-892-11	SPRING (DAMPER), COIL	
104	3-257-892-01	SPRING (DAMPER), COIL	
105	3-253-695-11	SPRING (KF), TENSION COIL	
106	3-259-033-01	DAMPER (S)	
107	3-352-758-31	SCREW (M1.7), TOOTHED LOCK	
108	A-3283-357-A	SERVO BOARD, COMPLETE	
109	X-3384-088-1	LEVER (L) ASSY	
110	X-3384-089-1	LEVER (R) ASSY	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-4. CD MECHANISM SECTION (2)
(MG-611MA-186//Q)

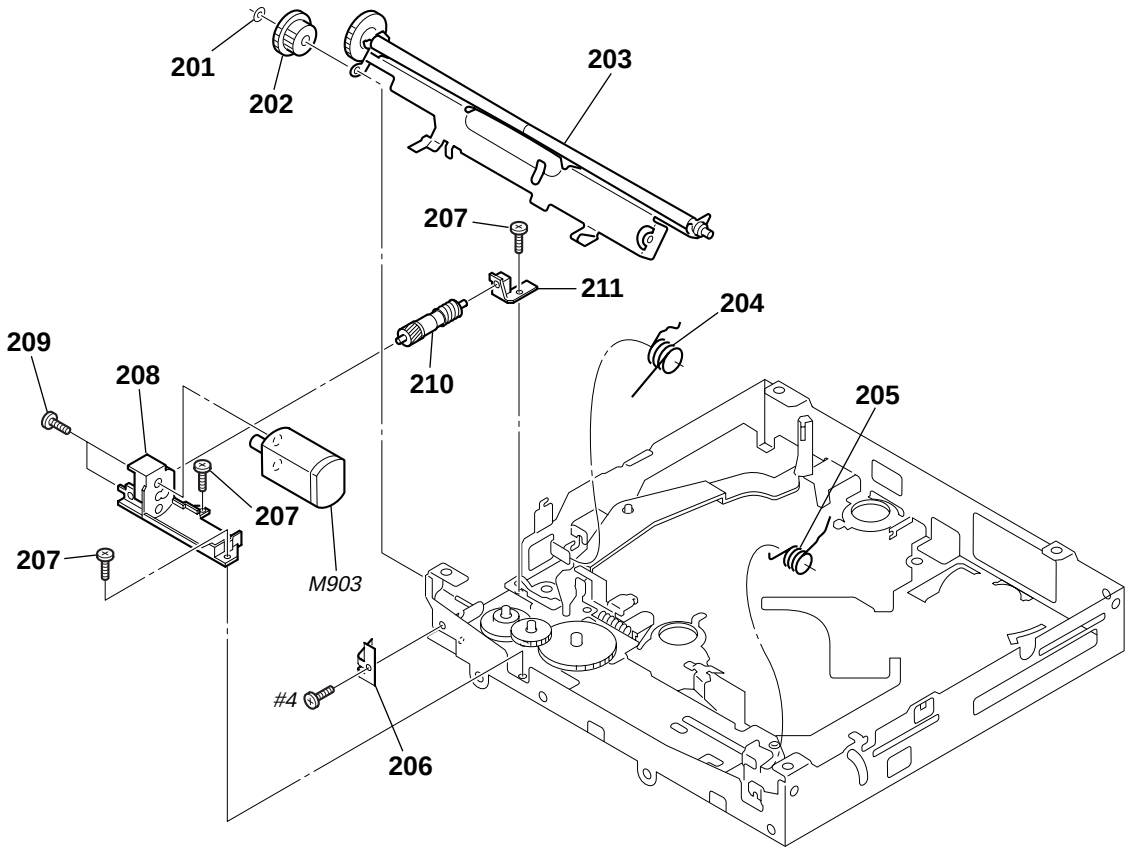


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
151	A-3372-445-A	CHASSIS (OP) COMPLETE ASSY	
152	3-316-938-91	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-02	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-3372-448-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3372-449-A	ARM SUB ASSY, CHUCKING	
156	A-3372-446-A	LEVER (SL) SUB ASSY	

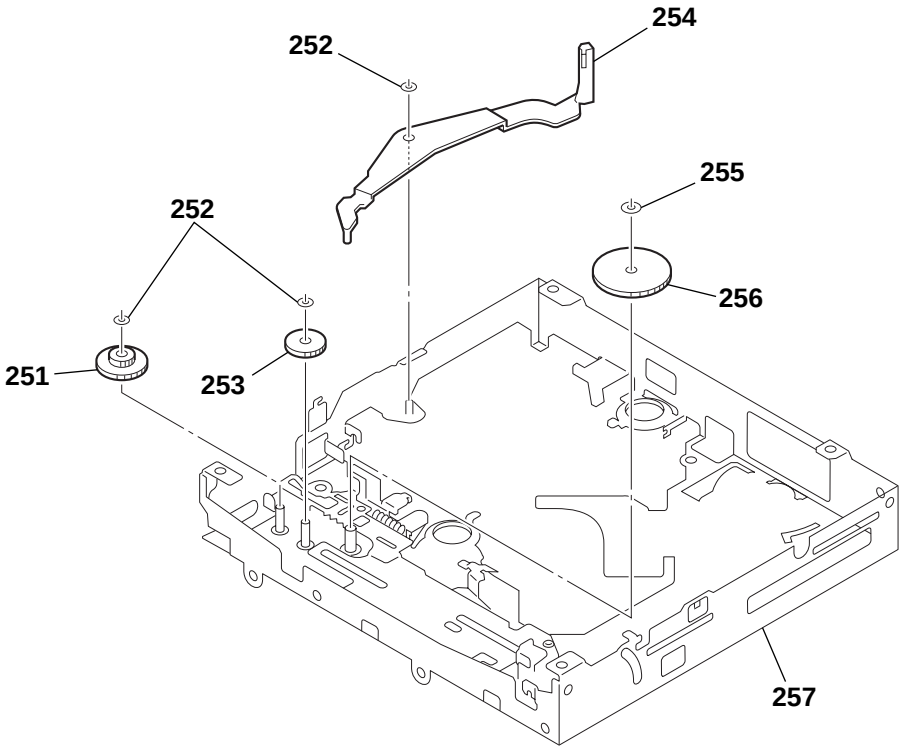
Ref. No.	Part No.	Description	Remark
157	X-3384-090-2	LEVER (SL) ASSY	
158	3-264-165-12	SCREW	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3)
(MG-611MA-186//Q)



Ref. No.	Part No.	Description	Remark
201	3-348-993-01	WASHER	
202	3-259-024-01	WHEEL (RA), WORM	
203	A-3372-441-A	ARM ASSY, ROLLER	
204	3-259-455-11	SPRING (RAL)	
205	3-253-713-11	SPRING (RAR)	
206	3-259-469-11	SPRING (LE), LEAF	
207	2-134-636-21	SCREW (M1.7X2.5)	
208	3-259-467-11	BRACKET (LEM)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-3372-450-A	WORM (LEB) ASSY	
211	3-259-468-11	BEARING (LEB)	
M903	A-3372-443-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611MA-186//Q)



Ref. No.	Part No.	Description	Remark
251	3-259-429-11	WHEEL (LE), WORM	
252	3-344-223-01	WASHER	
253	3-259-470-11	GEAR (LE1)	
254	3-253-755-12	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	3-259-032-01	GEAR (LE2)	
257	A-3337-998-A	CHASSIS (M) BLOCK ASSY	

KEY

SECTION 5
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

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

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

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-780-096-11	CONDUCTIVE BOARD, CONNECTION			
	3-258-952-01	SHEET (ILLUMINATOR)			
		< CAPACITOR >			
C971	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C981	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C982	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C991	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C992	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C993	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C994	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C995	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C996	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
		< CONNECTOR >			
CN901	1-794-312-11	PIN, CONNECTOR 12P			
		< DIODE >			
D901	8-719-085-72	DIODE UMZ6.8ENTR			
D902	8-719-083-66	DIODE UDZS-TE17-18B			
D903	8-719-978-33	DIODE DTZ-TT11-6.8B			
D962	8-719-072-70	DIODE MA2ZD14001S0			
D963	8-719-404-50	DIODE MA111-TX			
D964	8-719-083-66	DIODE UDZS-TE17-18B			
D991	8-719-069-54	DIODE UDZS-TE17-5.1B			
D992	8-719-404-50	DIODE MA111-TX			
		< IC >			
IC901	6-705-180-01	IC LC75827W			
IC971	6-600-163-01	IC RS-770 (IR)			
IC981	6-705-374-01	IC MM3033DULE			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-805-451-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED902	6-500-450-01	LED CL-195SR-CD-T (OFF)			
LED903	6-500-450-01	LED CL-195SR-CD-T (SOURCE)			
LED904	6-500-450-01	LED CL-195SR-CD-T (– (VOLUME))			
LED905	6-500-450-01	LED CL-195SR-CD-T (ATT)			
LED906	6-500-450-01	LED CL-195SR-CD-T (+ (VOLUME))			

Ref. No.	Part No.	Description			Remark
LED907	6-500-450-01	LED CL-195SR-CD-T (MODE)			
LED908	6-500-450-01	LED CL-195SR-CD-T (SEL)			
LED910	6-500-450-01	LED CL-195SR-CD-T (EQ3)			
LED911	6-500-450-01	LED CL-195SR-CD-T (SEEK +/▶▶I/▶▶)			
LED912	6-500-450-01	LED CL-195SR-CD-T (SEEK –/I◀◀/◀◀)			
LED913	6-500-450-01	LED CL-195SR-CD-T (BTM)			
LED914	6-500-450-01	LED CL-195SR-CD-T (SCRL)			
LED915	6-500-450-01	LED CL-195SR-CD-T (SENS)			
LED916	6-500-450-01	LED CL-195SR-CD-T (6)			
LED917	6-500-450-01	LED CL-195SR-CD-T (5)			
LED918	6-500-450-01	LED CL-195SR-CD-T (4/SHUF)			
LED919	6-500-450-01	LED CL-195SR-CD-T (3/REP)			
LED920	6-500-450-01	LED CL-195SR-CD-T (2/ALBUM +)			
LED921	6-500-450-01	LED CL-195SR-CD-T (1/ALBUM –)			
LED922	6-500-450-01	LED CL-195SR-CD-T (DSPL)			
LED931	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT R)			
LED932	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT L)			
LED961	8-719-082-38	LED CL-270SR-C-TS (DISC IND)			
		< TRANSISTOR >			
Q901	8-729-027-58	TRANSISTOR DTC143ZKA-T146			
Q902	8-729-027-58	TRANSISTOR DTC143ZKA-T146			
		< RESISTOR >			
R901	1-216-819-11	METAL CHIP	680	5%	1/10W
R902	1-216-819-11	METAL CHIP	680	5%	1/10W
R903	1-216-819-11	METAL CHIP	680	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R911	1-216-819-11	METAL CHIP	680	5%	1/10W
R912	1-216-819-11	METAL CHIP	680	5%	1/10W
R913	1-216-819-11	METAL CHIP	680	5%	1/10W
R914	1-216-821-11	METAL CHIP	1K	5%	1/10W
R915	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R916	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R917	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R918	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R919	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R920	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R921	1-216-833-11	METAL CHIP	10K	5%	1/10W
R922	1-216-835-11	METAL CHIP	15K	5%	1/10W
R924	1-216-805-11	METAL CHIP	47	5%	1/10W

Ref. No.	Part No.	Description			Remark
R925	1-216-807-11	METAL CHIP	68	5%	1/10W
R926	1-216-805-11	METAL CHIP	47	5%	1/10W
R931	1-216-809-11	METAL CHIP	100	5%	1/10W
R932	1-216-809-11	METAL CHIP	100	5%	1/10W
R933	1-216-809-11	METAL CHIP	100	5%	1/10W
R937	1-216-811-11	METAL CHIP	150	5%	1/10W
R938	1-216-803-11	METAL CHIP	33	5%	1/10W
R941	1-216-811-11	METAL CHIP	150	5%	1/10W
R942	1-216-803-11	METAL CHIP	33	5%	1/10W
R945	1-216-811-11	METAL CHIP	150	5%	1/10W
R946	1-216-803-11	METAL CHIP	33	5%	1/10W
R949	1-216-809-11	METAL CHIP	100	5%	1/10W
R950	1-216-809-11	METAL CHIP	100	5%	1/10W
R951	1-216-809-11	METAL CHIP	100	5%	1/10W
R955	1-216-813-11	METAL CHIP	220	5%	1/10W
R956	1-216-811-11	METAL CHIP	150	5%	1/10W
R957	1-216-817-11	METAL CHIP	470	5%	1/10W
R961	1-216-815-11	METAL CHIP	330	5%	1/10W
R962	1-216-809-11	METAL CHIP	100	5%	1/10W
R963	1-216-809-11	METAL CHIP	100	5%	1/10W
R971	1-216-817-11	METAL CHIP	470	5%	1/10W
R972	1-216-817-11	METAL CHIP	470	5%	1/10W
R974	1-216-817-11	METAL CHIP	470	5%	1/10W
R975	1-216-845-11	METAL CHIP	100K	5%	1/10W
R977	1-216-864-11	METAL CHIP	0	5%	1/10W
R978	1-216-817-11	METAL CHIP	470	5%	1/10W
R981	1-216-817-11	METAL CHIP	470	5%	1/10W
R982	1-216-817-11	METAL CHIP	470	5%	1/10W
R983	1-216-817-11	METAL CHIP	470	5%	1/10W
R984	1-216-817-11	METAL CHIP	470	5%	1/10W
R985	1-216-817-11	METAL CHIP	470	5%	1/10W
R986	1-216-817-11	METAL CHIP	470	5%	1/10W
R987	1-216-811-11	METAL CHIP	150	5%	1/10W
R988	1-216-811-11	METAL CHIP	150	5%	1/10W
R989	1-216-811-11	METAL CHIP	150	5%	1/10W
R991	1-216-864-11	METAL CHIP	0	5%	1/10W
R992	1-216-840-11	METAL CHIP	39K	5%	1/10W
R993	1-216-857-11	METAL CHIP	1M	5%	1/10W
R994	1-216-821-11	METAL CHIP	1K	5%	1/10W
R995	1-216-821-11	METAL CHIP	1K	5%	1/10W
R996	1-216-821-11	METAL CHIP	1K	5%	1/10W
R997	1-216-803-11	METAL CHIP	33	5%	1/10W
R998	1-216-864-11	METAL CHIP	0	5%	1/10W

< SWITCH >

S900	1-786-653-11	SWITCH, TACTILE (EJECT (R))
S901	1-786-653-11	SWITCH, TACTILE (EJECT (L))
S902	1-771-884-31	SWITCH, TACTILE (OFF)
S903	1-771-884-31	SWITCH, TACTILE (SOURCE)
S904	1-771-884-31	SWITCH, TACTILE (– (VOLUME))
S905	1-771-884-31	SWITCH, TACTILE (ATT)
S906	1-771-884-31	SWITCH, TACTILE (+ (VOLUME))
S907	1-771-884-31	SWITCH, TACTILE (MODE)
S908	1-771-884-31	SWITCH, TACTILE (SEL)
S910	1-771-884-31	SWITCH, TACTILE (EQ3)
S911	1-771-884-31	SWITCH, TACTILE (SEEK +/▶▶I/▶▶)
S912	1-771-884-31	SWITCH, TACTILE (SEEK –/I◀◀/◀◀)
S913	1-771-884-31	SWITCH, TACTILE (BTM)
S914	1-771-884-31	SWITCH, TACTILE (SCRL)
S915	1-771-884-31	SWITCH, TACTILE (SENS)
S916	1-771-884-31	SWITCH, TACTILE (6)
S917	1-771-884-31	SWITCH, TACTILE (5)
S918	1-771-884-31	SWITCH, TACTILE (4/SHUF)
S919	1-771-884-31	SWITCH, TACTILE (3/REP)
S920	1-771-884-31	SWITCH, TACTILE (2/ALBUM +)
S921	1-771-884-31	SWITCH, TACTILE (1/ALBUM –)
S922	1-771-884-31	SWITCH, TACTILE (DSPL)
S961	1-529-566-61	SWITCH, PUSH (1 KEY) (OPEN)

****

	A-3283-513-A	MAIN BOARD, COMPLETE
		**********
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT
	7-685-793-09	SCREW +PTT 2.6X8 (S)
	7-685-795-09	SCREW +PTT 2.6X12 (S)

< CAPACITOR >

C2	1-126-947-11	ELECT	47uF	20%	16V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5	1-126-947-11	ELECT	47uF	20%	16V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C301	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C303	1-128-551-11	ELECT	22uF	20%	25V
C304	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C305	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C306	1-126-964-11	ELECT	10uF	20%	50V
C308	1-126-964-11	ELECT	10uF	20%	50V
C309	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C310	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C312	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C314	1-126-964-11	ELECT	10uF	20%	50V
C316	1-126-964-11	ELECT	10uF	20%	50V
C317	1-126-961-11	ELECT	2.2uF	20%	50V
C318	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C319	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C320	1-126-947-11	ELECT	47uF	20%	16V
C321	1-126-964-11	ELECT	10uF	20%	50V
C351	1-128-551-11	ELECT	22uF	20%	25V
C352	1-128-551-11	ELECT	22uF	20%	25V
C353	1-128-551-11	ELECT	22uF	20%	25V
C354	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C355	1-128-551-11	ELECT	22uF	20%	25V
C400	1-126-964-11	ELECT	10uF	20%	50V
C403	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-126-960-11	ELECT	1uF	20%	50V
C406	1-126-960-11	ELECT	1uF	20%	50V
C411	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C412	1-126-947-11	ELECT	47uF	20%	16V
C421	1-126-964-11	ELECT	10uF	20%	50V
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C441	1-126-964-11	ELECT	10uF	20%	50V
C451	1-126-964-11	ELECT	10uF	20%	50V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C471	1-126-964-11	ELECT	10uF	20%	50V
C481	1-126-964-11	ELECT	10uF	20%	50V
C491	1-126-947-11	ELECT	47uF	20%	16V
C492	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C500	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-104-665-11	ELECT	100uF	20%	10V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C505	1-125-710-11	DOUBLE LAYERS	0.1F		5.5V
C506	1-126-924-11	ELECT	330uF	20%	10V
C510	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C511	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C513	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C514	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C515	1-216-864-11	METAL CHIP	0	5%	1/10W
C516	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C517	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C518	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C519	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C520	1-216-864-11	METAL CHIP	0	5%	1/10W
C521	1-126-964-11	ELECT	10uF	20%	50V
C522	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C701	1-131-868-81	ELECT	3300uF	20%	16V
C702	1-126-961-11	ELECT	2.2uF	20%	50V
C703	1-163-038-11	CERAMIC CHIP	0.1uF		25V
C800	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C801	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C802	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C803	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C995	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C996	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN102	1-794-311-21	PLUG, CONNECTOR 12P			
CN350	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
CN700	1-774-701-21	PIN, CONNECTOR 16P			
		< DIODE >			
D2	8-719-036-94	DIODE RD5.6SB-T1			
D101	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D102	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D103	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D104	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D105	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D106	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D107	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D108	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D301	8-719-200-82	DIODE 11ES2			
D302	8-719-200-82	DIODE 11ES2			
D303	8-719-200-82	DIODE 11ES2			
D304	8-719-200-82	DIODE 11ES2			
D305	8-719-200-82	DIODE 11ES2			
D306	8-719-200-82	DIODE 11ES2			
D307	8-719-200-82	DIODE 11ES2			
D308	8-719-200-82	DIODE 11ES2			
D309	8-719-200-82	DIODE 11ES2			
D310	8-719-200-82	DIODE 11ES2			

Ref. No.	Part No.	Description			Remark
D311	8-719-200-82	DIODE 11ES2			
D312	8-719-200-82	DIODE 11ES2			
D351	8-719-041-79	DIODE MA721WA-TX			
D491	8-719-404-50	DIODE MA111-TX			
D492	8-719-036-94	DIODE RD5.6SB-T1			
D493	8-719-040-04	DIODE MA721WK-(TX)			
D501	8-719-820-05	DIODE 1SS181			
D601	8-719-040-04	DIODE MA721WK-(TX)			
D602	8-719-056-93	DIODE UDZ-TE-17-18B			
D603	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D701	8-719-056-93	DIODE UDZ-TE-17-18B			
D702	8-719-056-93	DIODE UDZ-TE-17-18B			
D703	8-719-056-93	DIODE UDZ-TE-17-18B			
D704	8-719-049-38	DIODE 1N5404TU			
		< IC >			
IC300	6-705-360-01	IC TDA8588BJ/N2			
IC400	6-705-372-01	IC BD3808FS-FE2			
IC500	6-804-050-01	IC MN101E01KDK			
IC502	8-759-659-13	IC PST3428UL			
		< JACK >			
J1	1-815-185-13	JACK (ANTENNA)			
J400	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)			
J561	1-566-822-41	JACK (REMOTE IN)			
		< JUMPER RESISTOR >			
JC1	1-216-296-11	SHORT CHIP	0		
JC300	1-216-296-11	SHORT CHIP	0		
JC301	1-216-296-11	SHORT CHIP	0		
JC302	1-216-296-11	SHORT CHIP	0		
JC303	1-216-296-11	SHORT CHIP	0		
JC304	1-216-864-11	METAL CHIP	0	5%	1/10W
JC350	1-216-296-11	SHORT CHIP	0		
JC400	1-216-864-11	METAL CHIP	0	5%	1/10W
JC401	1-216-296-11	SHORT CHIP	0		
JC402	1-216-864-11	METAL CHIP	0	5%	1/10W
JC403	1-216-864-11	METAL CHIP	0	5%	1/10W
JC423	1-216-864-11	METAL CHIP	0	5%	1/10W
JC501	1-216-864-11	METAL CHIP	0	5%	1/10W
JC502	1-216-296-11	SHORT CHIP	0		
JC503	1-216-864-11	METAL CHIP	0	5%	1/10W
JC504	1-216-296-11	SHORT CHIP	0		
JC505	1-216-296-11	SHORT CHIP	0		
JC506	1-216-296-11	SHORT CHIP	0		
JC508	1-216-296-11	SHORT CHIP	0		
JC509	1-216-864-11	METAL CHIP	0	5%	1/10W
JC511	1-216-864-11	METAL CHIP	0	5%	1/10W
JC601	1-216-864-11	METAL CHIP	0	5%	1/10W
JC701	1-216-864-11	METAL CHIP	0	5%	1/10W
JC702	1-216-296-11	SHORT CHIP	0		
JC703	1-216-296-11	SHORT CHIP	0		
		< COIL >			
L1	1-469-844-11	INDUCTOR	2.2uH		
L2	1-469-844-11	INDUCTOR	2.2uH		
L351	1-500-245-11	INDUCTOR, FERRITE BEAD			
L352	1-500-245-11	INDUCTOR, FERRITE BEAD			
L353	1-469-876-11	INDUCTOR, FERRITE BEAD			

Ref. No.	Part No.	Description			Remark
L354	1-500-245-11	INDUCTOR, FERRITE BEAD			
L355	1-469-876-11	INDUCTOR, FERRITE BEAD			
L356	1-500-245-11	INDUCTOR, FERRITE BEAD			
L357	1-469-876-11	INDUCTOR, FERRITE BEAD			
L358	1-469-876-11	INDUCTOR, FERRITE BEAD			
L359	1-216-295-11	SHORT CHIP	0		
L700	1-456-617-11	COIL, CHOKE	250uH		
		< TRANSISTOR >			
Q3	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q420	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q430	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q440	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q450	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q470	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q480	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q491	8-729-424-08	TRANSISTOR	UN2111		
Q492	8-729-421-19	TRANSISTOR	UN2213		
Q501	8-729-424-08	TRANSISTOR	UN2111		
Q605	8-729-421-22	TRANSISTOR	UN2211		
Q606	8-729-421-19	TRANSISTOR	UN2213		
Q607	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q701	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q702	8-729-010-25	TRANSISTOR	MSD601-RT1		
		< RESISTOR >			
R4	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5	1-216-843-11	METAL CHIP	68K	5%	1/10W
R6	1-216-809-11	METAL CHIP	100	5%	1/10W
R7	1-216-809-11	METAL CHIP	100	5%	1/10W
R9	1-216-864-11	METAL CHIP	0	5%	1/10W
R10	1-216-821-11	METAL CHIP	1K	5%	1/10W
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R106	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R108	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R109	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R112	1-216-864-11	METAL CHIP	0	5%	1/10W
R115	1-216-864-11	METAL CHIP	0	5%	1/10W
R301	1-216-809-11	METAL CHIP	100	5%	1/10W
R302	1-216-841-11	METAL CHIP	47K	5%	1/10W
R351	1-216-845-11	METAL CHIP	100K	5%	1/10W
R370	1-216-809-11	METAL CHIP	100	5%	1/10W
R371	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-218-881-11	METAL CHIP	27K	0.5%	1/10W
R420	1-216-809-11	METAL CHIP	100	5%	1/10W
R421	1-216-809-11	METAL CHIP	100	5%	1/10W
R422	1-216-841-11	METAL CHIP	47K	5%	1/10W
R423	1-216-864-11	METAL CHIP	0	5%	1/10W
R430	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R432	1-216-841-11	METAL CHIP	47K	5%	1/10W
R433	1-216-864-11	METAL CHIP	0	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-864-11	METAL CHIP	0	5%	1/10W
R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-841-11	METAL CHIP	47K	5%	1/10W
R453	1-216-864-11	METAL CHIP	0	5%	1/10W
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-841-11	METAL CHIP	47K	5%	1/10W
R480	1-216-809-11	METAL CHIP	100	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-841-11	METAL CHIP	47K	5%	1/10W
R491	1-216-805-11	METAL CHIP	47	5%	1/10W
R492	1-216-864-11	METAL CHIP	0	5%	1/10W
R505	1-216-845-11	METAL CHIP	100K	5%	1/10W
R506	1-216-813-11	METAL CHIP	220	5%	1/10W
R507	1-216-864-11	METAL CHIP	0	5%	1/10W
R508	1-216-845-11	METAL CHIP	100K	5%	1/10W
R509	1-216-845-11	METAL CHIP	100K	5%	1/10W
R510	1-216-845-11	METAL CHIP	100K	5%	1/10W
R511	1-216-845-11	METAL CHIP	100K	5%	1/10W
R512	1-216-845-11	METAL CHIP	100K	5%	1/10W
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-841-11	METAL CHIP	47K	5%	1/10W
R517	1-216-845-11	METAL CHIP	100K	5%	1/10W
R520	1-216-845-11	METAL CHIP	100K	5%	1/10W
R523	1-216-845-11	METAL CHIP	100K	5%	1/10W
R524	1-216-833-11	METAL CHIP	10K	5%	1/10W
R526	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R527	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R532	1-216-845-11	METAL CHIP	100K	5%	1/10W
R533	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R603	1-216-821-11	METAL CHIP	1K	5%	1/10W
R604	1-216-821-11	METAL CHIP	1K	5%	1/10W
R615	1-216-849-11	METAL CHIP	220K	5%	1/10W
R616	1-216-841-11	METAL CHIP	47K	5%	1/10W
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-216-841-11	METAL CHIP	47K	5%	1/10W
R703	1-216-833-11	METAL CHIP	10K	5%	1/10W
R704	1-216-833-11	METAL CHIP	10K	5%	1/10W
R705	1-249-425-11	CARBON	4.7K	5%	1/4W
R706	1-216-841-11	METAL CHIP	47K	5%	1/10W
R707	1-216-841-11	METAL CHIP	47K	5%	1/10W
R708	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R709	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< SWITCH >			
S103	1-692-431-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TU1	A-3220-961-A	TUNER UNIT (TUX-032//Q3)			

MAIN **SENSOR** **SERVO**

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X500	1-813-160-11	VIBRATOR, CERAMIC (27.648MHz)			
X501	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-3283-357-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C2	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C4	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C8	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C10	1-104-609-11	ELECT CHIP	100uF	20%	4V
C11	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C13	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C14	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C16	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C18	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C19	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C21	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C22	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C23	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C24	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C25	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C26	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C27	1-126-208-21	ELECT CHIP	47uF	20%	4V
C28	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C29	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C30	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C32	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C33	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C34	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C35	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C36	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C37	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C38	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C39	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C40	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C41	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C42	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C43	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C44	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C45	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C46	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C47	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C48	1-104-609-11	ELECT CHIP	100uF	20%	4V
C49	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C50	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C51	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C52	1-100-381-11	ELECT CHIP	10uF	20%	16V
C53	1-100-381-11	ELECT CHIP	10uF	20%	16V
C54	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C55	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C56	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C57	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C58	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C59	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C60	1-100-381-11	ELECT CHIP	10uF	20%	16V
C63	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C64	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C65	1-126-208-21	ELECT CHIP	47uF	20%	4V
C66	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C67	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C74	1-126-208-21	ELECT CHIP	47uF	20%	4V
C75	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C77	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C79	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C81	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C83	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C85	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C86	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C91	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C92	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C107	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C110	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C115	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
		< CONNECTOR >			
CN1	1-794-153-21	CONNECTOR, FPC (ZIF) 16P			
CN2	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
		< JUMPER RESISTOR >			
FB1	1-216-864-11	METAL CHIP	0	5%	1/10W
FB2	1-216-864-11	METAL CHIP	0	5%	1/10W
FB5	1-216-864-11	METAL CHIP	0	5%	1/10W
		< IC >			
IC1	6-705-366-01	IC LA6560-TE-L-E			
IC3	8-753-216-86	IC CXD3059BR			
IC4	6-804-028-01	IC MB90487PFV-G-105-BNDE1			
IC7	6-705-364-01	IC R1114N151D-TR-FA			
IC8	6-705-365-01	IC TC94A34FG-002			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q2	8-729-928-90	TRANSISTOR DTC114EE			
Q3	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q5	8-729-904-87	TRANSISTOR 2SB1197K-R			
Q6	8-729-928-90	TRANSISTOR DTC114EE			
		< RESISTOR >			
R1	1-218-941-81	RES-CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remark
R2	1-218-971-11	RES-CHIP	33K	5%	1/16W
R3	1-218-971-11	RES-CHIP	33K	5%	1/16W
R4	1-218-965-11	RES-CHIP	10K	5%	1/16W
R5	1-218-965-11	RES-CHIP	10K	5%	1/16W
R6	1-218-965-11	RES-CHIP	10K	5%	1/16W
R7	1-208-635-11	RES-CHIP	10	5%	1/16W
R8	1-218-971-11	RES-CHIP	33K	5%	1/16W
R9	1-218-971-11	RES-CHIP	33K	5%	1/16W
R10	1-218-965-11	RES-CHIP	10K	5%	1/16W
R11	1-218-965-11	RES-CHIP	10K	5%	1/16W
R12	1-208-635-11	RES-CHIP	10	5%	1/16W
R13	1-218-965-11	RES-CHIP	10K	5%	1/16W
R14	1-218-990-11	SHORT CHIP	0		
R15	1-218-990-11	SHORT CHIP	0		
R16	1-218-990-11	SHORT CHIP	0		
R17	1-218-965-11	RES-CHIP	10K	5%	1/16W
R18	1-218-965-11	RES-CHIP	10K	5%	1/16W
R19	1-218-969-11	RES-CHIP	22K	5%	1/16W
R20	1-218-969-11	RES-CHIP	22K	5%	1/16W
R21	1-218-990-11	SHORT CHIP	0		
R22	1-218-967-11	RES-CHIP	15K	5%	1/16W
R23	1-218-967-11	RES-CHIP	15K	5%	1/16W
R24	1-218-953-11	RES-CHIP	1K	5%	1/16W
R25	1-218-953-11	RES-CHIP	1K	5%	1/16W
R26	1-218-981-11	RES-CHIP	220K	5%	1/16W
R27	1-218-965-11	RES-CHIP	10K	5%	1/16W
R28	1-218-990-11	SHORT CHIP	0		
R29	1-218-977-11	RES-CHIP	100K	5%	1/16W
R37	1-218-947-11	RES-CHIP	330	5%	1/16W
R38	1-218-967-11	RES-CHIP	15K	5%	1/16W
R39	1-218-941-81	RES-CHIP	100	5%	1/16W
R40	1-218-990-11	SHORT CHIP	0		
R41	1-218-985-11	RES-CHIP	470K	5%	1/16W
R42	1-218-965-11	RES-CHIP	10K	5%	1/16W
R43	1-218-977-11	RES-CHIP	100K	5%	1/16W
R44	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R45	1-218-971-11	RES-CHIP	33K	5%	1/16W
R46	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R47	1-218-977-11	RES-CHIP	100K	5%	1/16W
R48	1-218-941-81	RES-CHIP	100	5%	1/16W
R49	1-218-953-11	RES-CHIP	1K	5%	1/16W
R50	1-218-941-81	RES-CHIP	100	5%	1/16W
R52	1-218-941-81	RES-CHIP	100	5%	1/16W
R53	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R54	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R55	1-218-953-11	RES-CHIP	1K	5%	1/16W
R56	1-218-973-11	RES-CHIP	47K	5%	1/16W
R57	1-218-941-81	RES-CHIP	100	5%	1/16W
R59	1-218-941-81	RES-CHIP	100	5%	1/16W
R60	1-218-990-11	SHORT CHIP	0		
R61	1-218-985-11	RES-CHIP	470K	5%	1/16W
R62	1-218-965-11	RES-CHIP	10K	5%	1/16W
R64	1-218-941-81	RES-CHIP	100	5%	1/16W
R65	1-218-941-81	RES-CHIP	100	5%	1/16W
R67	1-218-941-81	RES-CHIP	100	5%	1/16W
R68	1-218-990-11	SHORT CHIP	0		
R69	1-218-973-11	RES-CHIP	47K	5%	1/16W
R70	1-218-945-11	RES-CHIP	220	5%	1/16W
R71	1-218-941-81	RES-CHIP	100	5%	1/16W
R72	1-218-990-11	SHORT CHIP	0		
R73	1-218-941-81	RES-CHIP	100	5%	1/16W
R74	1-218-941-81	RES-CHIP	100	5%	1/16W
R76	1-218-941-81	RES-CHIP	100	5%	1/16W
R77	1-218-990-11	SHORT CHIP	0		
R78	1-218-941-81	RES-CHIP	100	5%	1/16W
R79	1-218-941-81	RES-CHIP	100	5%	1/16W
R80	1-218-977-11	RES-CHIP	100K	5%	1/16W
R81	1-218-941-81	RES-CHIP	100	5%	1/16W
R85	1-218-973-11	RES-CHIP	47K	5%	1/16W
R86	1-218-973-11	RES-CHIP	47K	5%	1/16W
R87	1-218-973-11	RES-CHIP	47K	5%	1/16W
R91	1-220-200-81	RES-CHIP	30K	5%	1/16W
R92	1-218-971-11	RES-CHIP	33K	5%	1/16W
R97	1-218-941-81	RES-CHIP	100	5%	1/16W
R98	1-218-941-81	RES-CHIP	100	5%	1/16W
R99	1-218-965-11	RES-CHIP	10K	5%	1/16W
R101	1-218-969-11	RES-CHIP	22K	5%	1/16W
R106	1-218-969-11	RES-CHIP	22K	5%	1/16W
R107	1-218-965-11	RES-CHIP	10K	5%	1/16W
R108	1-218-941-81	RES-CHIP	100	5%	1/16W
R109	1-218-953-11	RES-CHIP	1K	5%	1/16W
R110	1-218-945-11	RES-CHIP	220	5%	1/16W
R111	1-218-990-11	SHORT CHIP	0		
R114	1-218-941-81	RES-CHIP	100	5%	1/16W
R115	1-218-941-81	RES-CHIP	100	5%	1/16W
R116	1-218-941-81	RES-CHIP	100	5%	1/16W
R117	1-218-990-11	SHORT CHIP	0		
R119	1-218-941-81	RES-CHIP	100	5%	1/16W
R122	1-218-965-11	RES-CHIP	10K	5%	1/16W
R123	1-218-990-11	SHORT CHIP	0		
R124	1-216-864-11	METAL CHIP	0	5%	1/10W
R126	1-218-965-11	RES-CHIP	10K	5%	1/16W
R127	1-218-965-11	RES-CHIP	10K	5%	1/16W
R128	1-218-965-11	RES-CHIP	10K	5%	1/16W
R129	1-218-965-11	RES-CHIP	10K	5%	1/16W
R133	1-216-864-11	METAL CHIP	0	5%	1/10W
R136	1-218-977-11	RES-CHIP	100K	5%	1/16W
R139	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R140	1-218-941-81	RES-CHIP	100	5%	1/16W
R141	1-218-941-81	RES-CHIP	100	5%	1/16W
R142	1-218-941-81	RES-CHIP	100	5%	1/16W
R143	1-218-941-81	RES-CHIP	100	5%	1/16W
R144	1-218-965-11	RES-CHIP	10K	5%	1/16W
R145	1-218-977-11	RES-CHIP	100K	5%	1/16W
R146	1-218-941-81	RES-CHIP	100	5%	1/16W
R147	1-218-941-81	RES-CHIP	100	5%	1/16W
R148	1-218-941-81	RES-CHIP	100	5%	1/16W
R149	1-218-941-81	RES-CHIP	100	5%	1/16W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-795-561-21	VIBRATOR, CERAMIC (16.9344MHz)			
X2	1-795-822-21	VIBRATOR, CERAMIC (18.43MHz)			

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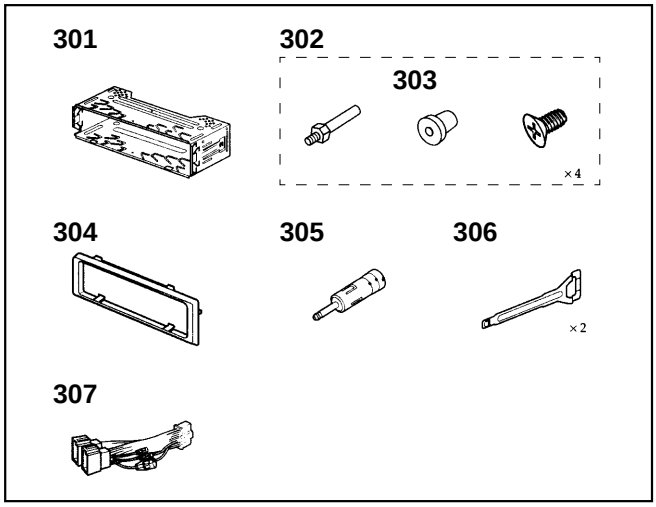
Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
7	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	
⚠153	8-820-207-02	OPTICAL PICK-UP (KSS1000E/K1RP)	
154	A-3372-448-A	CHASSIS (OP) SUB ASSY (including M901)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M902	A-3372-447-A	MOTOR ASSY, SL (SLED)	
M903	A-3372-443-A	MOTOR ASSY, LE (LOADING)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
**********			
		ACCESSORIES	
		**********	
	3-263-513-11	MANUAL, INSTRUCTION (ENGLISH,RUSSIAN)	
	3-263-514-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, RUSSIAN)	
	X-3383-264-2	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	X-3381-154-1	SCREW ASSY (BS4), FITTING	
303	3-349-410-11	BUSHING	
304	3-261-542-01	COLLAR	
305	1-465-459-21	ADAPTOR, ANTENNA	
306	3-246-471-01	KEY (FRAME)	
307	1-776-527-61	CORD (WITH CONNECTOR) (ISO) (POWER)	



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