

CDX-4050/EXCD-50

SERVICE MANUAL

US Model

CDX-4050/EXCD-50

Canadian Model

E Model

CDX-4050



Photo : CDX-4050

Model Name Using Similar Mechanism	CDX-5470
CD Drive Mechanism Type	MG-205A/S-130

SPECIFICATIONS

Power amplifier section

Outputs	Speaker output (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	7W × 4 (at 4 ohms)* *Measured at 14.4V

CD player section

System	Compact disc digital audio system
Frequency response	20 – 20,000 Hz
Wow and flutter	Below the measurable limit
Signal-to-noise ratio	90 dB

Tuner section

FM

Tuning range	E model only FM tuning interval: 50 kHz/200 kHz switchable 87.5 – 108.0 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step)
Antenna terminal	External antenna connector

Intermediate frequency

	10.7 MHz
Sensitivity	12 dBf
Selectivity	70 dB at 400 kHz
Signal-to-noise ratio	68 dB (mono)
Harmonic distortion at 1 kHz	0.4% (mono)
Separation	28 dB
Frequency response	30 - 15,000 Hz

AM

Tuning range	E model only AM tuning interval: 9 kHz/10 kHz switchable 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step)
Antenna terminal	External antenna connector

– Continued on page 2 –

FM/AM COMPACT DISC PLAYER
SONY®



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

Intermediate frequency

450 kHz

Sensitivity

35 μ V

General

Tone controls

Bass ± 8 dB at 100 Hz
Treble ± 8 dB at 10 kHz

Loudness

+10 dB at 100 Hz
+8 dB at 10 kHz

Power requirements

12V DC car battery
(negative ground)

Current drain

1 A (CD playback)
1.5 A (during disc
loading or eject)

Operating temperature

-10°C to 50°C

Dimensions

Approx. 178 x 50 x 176
mm (w/h/d) not incl.
projecting parts and
controls

Mounting dimensions

Approx. 182 x 53 x 155
mm (w/h/d) not incl.
projecting parts and
controls

Mass

Approx. 1.5 kg

Supplied accessories

Mounting hardware
(1 set)

Design and specifications subject to change
without notice.

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 poten-
tial difference generated by the charged electrostatic
load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-
down 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.

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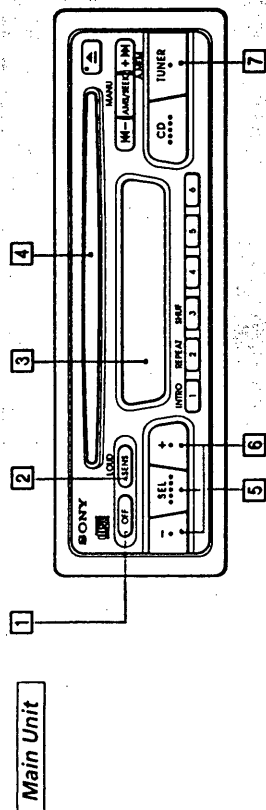
SAFETY-RELATED COMPONENT WARNING!!

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 PUB-
LISHED 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 COM-
POSANTS QUE PAR DES PIÈCES SONY DONT LES
NUMÉROS SONT DONNÉS DANS CE MANUEL OU
DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Location and Function of Controls



Refer to the pages in ● for details.

- 1 **OFF button**
Press to turn off the unit.
- 2 **SENS/LOUD (Sensitivity/loudness) button**
Press to reinforce the bass and treble especially when listening at a low volume level. To cancel the mode, press it again.
- 3 **Display window**
- 4 **Disc insertion slot**
- 5 **(control mode select) button**
Press to select the desired control mode: BAS (bass), TRE (treble), BAL (balance), FAD (fader) or VOL (volume).
- 6 **(volume/bass/treble/balance/fader control) buttons**
Press to adjust each mode.
- 7 **TUNER/A. MEM (radio on/band select) button**
At each pressing, the button changes the band cyclically as follows:

FMI → FMII → FMIII → AM → FMI

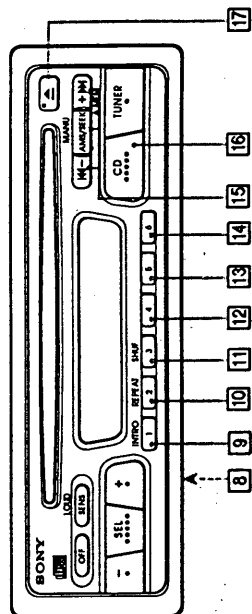
Display window	Control mode	Press	Press
Flash BAS TRE 07	Bass control	For less bass	For more bass
Flash TRE -70	Treble control	For less treble	For more treble
BALANCE 00	Balance control	To decrease the right-speakers' volume	To decrease the left-speakers' volume
FADER 00	Fader control	To decrease the rear-speakers' volume	To decrease the front-speakers' volume
VOL 40	Volume control	For less volume	For more volume

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SECTION 1 GENERAL

This section is extracted from instruction manual.

Location and Function of Controls



- 8 **Frequency select switch (located on the bottom of the unit)**
See "Frequency Select Switch" in the installation/connections manual.

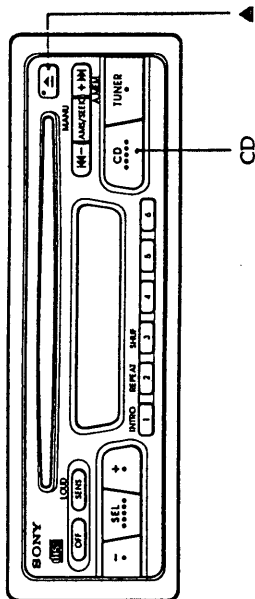
		During CD play	During radio reception
9	INTRO button	Intro scan	
10	REPEAT button	Repeat play	
11	SHUF button	Shuffle play	
12			Preset number buttons
13			
14			
15	AMS/SEEK/MANU button	AMS (Automatic Music Sensor) function	Automatic tuning
16		Manual search	Manual tuning
17			

16 CD (disc play) button

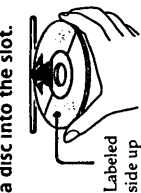
17 ▲ (eject) button

6

Playing a CD



Insert a disc into the slot.



When a disc is inserted, CD play will automatically start.

If a disc is already inserted, press the CD button.



Track number Elapsed playing time

Ejecting the Disc

Press the **▲** button.

If you press the TUNER button during CD play

The CD play will stop automatically and the tuner will be activated.

Important

Since the CD system offers a wide dynamic range, the peaks of the high level inputs are recorded with high fidelity and the noise level is very low. Do not turn up the volume while listening to a section with no audio signals or very low level inputs. If you do so, the speakers may be damaged when a section with a peak signal is played.

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CD Player Operation

Playing the Beginning of Tracks — Intro Scan Function

Press the **INTRO** button to play the first 10 seconds of each track in order.
To cancel the function, press it again.

Playing Repeatedly — Repeat Play Function

Press the **REPEAT** button to repeat the same track.
To cancel the function, press it again.

Playing in Random Order — Shuffle Play Function

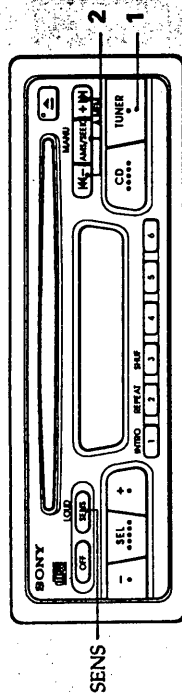
Press the **SHUFF** button to play the tracks in random order.
To cancel the function, press it again.

Note

If the **INTRO** button is pressed during shuffle play, the first 10 seconds of every track will be played randomly.

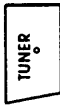
8

Tuning in a Station



Searching for the Stations Automatically

— Automatic Tuning

- 1** Select the desired band. 
- 2** Press either side of the SEEK/MANU button lightly. 

For lower frequencies

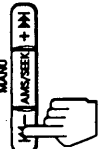
For higher frequencies

The scanning stops when a station is received. Press either side of the button repeatedly until the desired station is received.

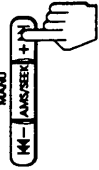
Tuning in by Adjusting the Frequency

— Manual Tuning

Select the desired band, then press and hold either side of the SEEK/MANU button.



For lower frequencies



For higher frequencies

Release the button when the desired station is received. At least two seconds after releasing the button, the system will return to Automatic Tuning.

PREVENTING ACCIDENTS!

While you are driving, the use of the Automatic Tuning and the Memory Preset Tuning is recommended instead of the Manual Tuning.

Radio Reception

Note
Make sure that you press either side of the SEEK button lightly. If you keep it pressed, the button will function as the manual tuning button.

When an FM stereo program with a sufficient signal strength is tuned in

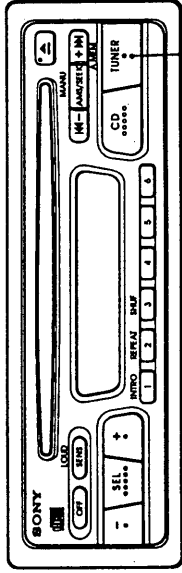


The "STEREO" indication will appear.

Avoiding the automatic tuning from stopping on stations too frequently (Local Seek Mode)
Press the SENS button lightly to get the "LOCAL" indication. Only the stations with relatively strong signals can be tuned in. The local seek mode functions only when the Automatic Tuning is in operation.

Using the Memory Preset Function

Stations with clearest reception are automatically searched and memorized on each band (FMI, FMII, FMIII and AM). Up to 6 stations on each band can be stored on the preset number buttons 1 to 6 in the order of frequency.



Memorizing the Stations Automatically

— A.MEM (Auto Memory) Function

- 1** Select the desired band. 
- 2** Press the A.MEM button for more than two seconds. 

The receivable frequencies of FMI, FMII and FMIII are the same. Therefore, 18 stations can be memorized on FM.

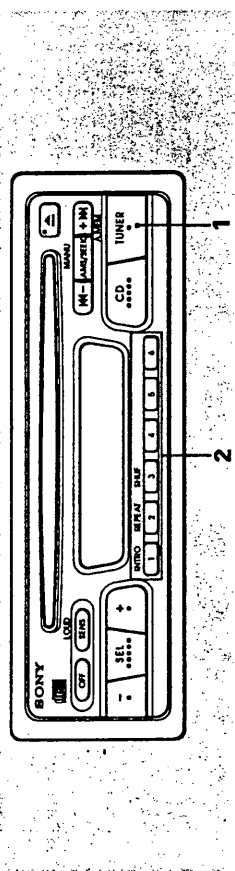
Note
There may be cases where there are not enough receivable stations due to the lack of stations in the vicinity or weak broadcasting signals. In such cases, the A.MEM operation may stop without all the buttons being occupied with memories.

The A.MEM function
The A.MEM function searches all the receivable stations within the currently selected band and memorizes the ones in good receiving conditions in sequence from the frequency at present.

How to memorize the stations on the preset number buttons

- When there is no preset number indicated on the display window, all the preset number buttons set in the currently selected band will be filled with the memories.
- When there is a preset number indicated on the display window, the unit will memorize the stations on the preset number buttons from the one currently being displayed. For example, when you choose FMI and preset number 3 is being displayed, the operation will start from the preset number 3 on FMI and stops at the preset number 6 on FMI.

Using the Memory Preset Function



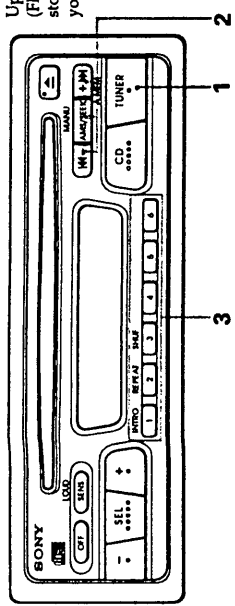
Receiving the Memorized Stations

- 1 Select the desired band.
A-MEM
TUNER
- 2 Press the desired preset number button lightly.
INTRO 1 — 6

Notes

- There may be cases in which even the stations stored in the memory cannot be received due to weak signals in the vicinity of your car.
- If you keep pressing the preset number button for more than two seconds, the currently received station will be memorized. To receive the previously memorized station, press the preset number button only lightly.

Up to 6 stations on each band (FMI, FMII, FMIII and AM) can be stored in the memory in order of your choice.



Memorizing Only the Desired Stations

For example, store a station on the preset number button 1.

- 1 Select the desired band.
A-MEM
TUNER
- 2 Tune in the station which you wish to store on the preset number button (page 9).
MANU
MEM - (AMS/SEEK) + M
- 3 Keep the preset number button pressed for about two seconds until the frequency flashes in the display window. The sound becomes mute.
FM I
PI 87.9
INTRO 1

Repeat the same procedure to store other stations.

Radio Reception

Only one station per band (FMI, FMII, FMIII and AM) can be stored in the memory on each preset number button.
If you try to store another station on the same preset number button, the previously stored station will be erased.

Installation

Precautions

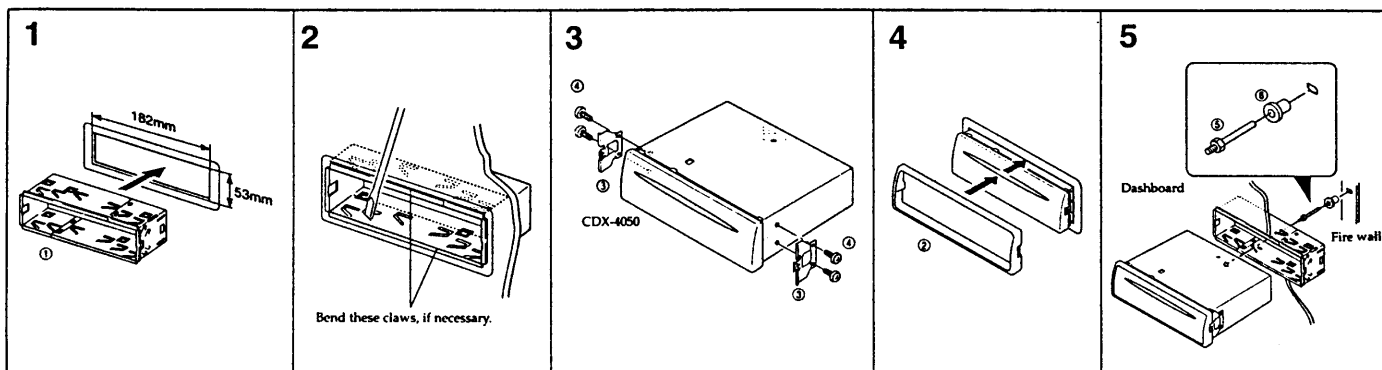
- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt, 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°.

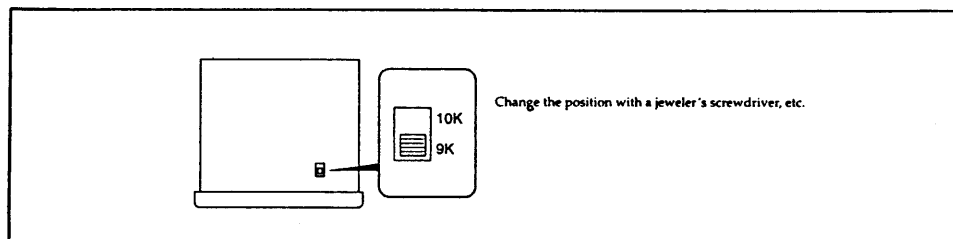
Mounting Example

Installation in the dashboard



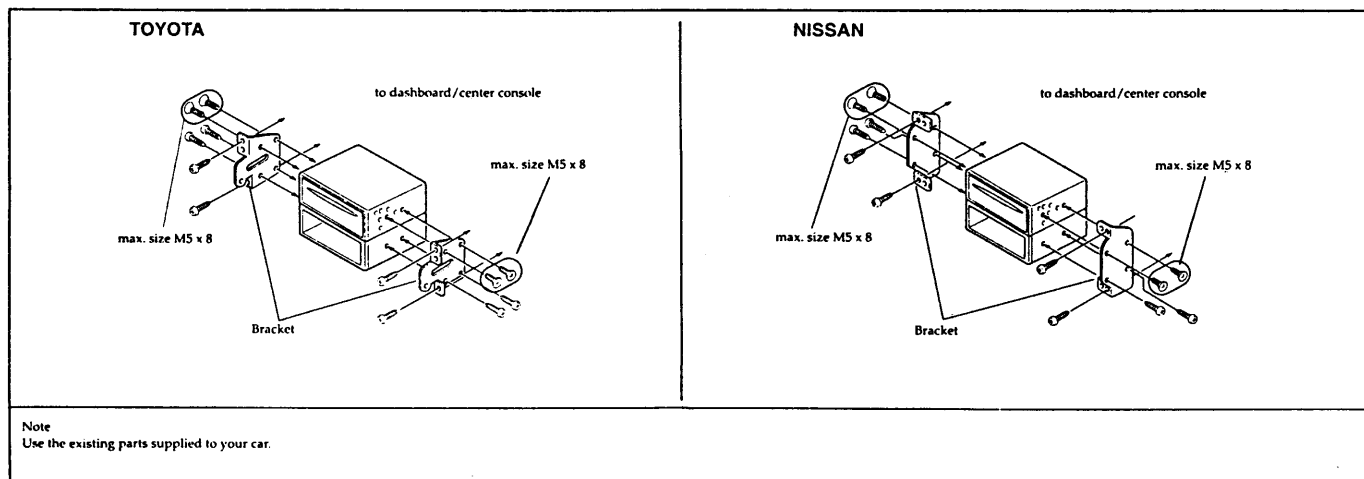
9K/10K Select Switch

The AM tuning interval is factory-set to 9 kHz. If the frequency allocation system of your country is based on 10 kHz interval, set the selector on the bottom of the unit to 10K before making connections.



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 nearest Sony dealer.

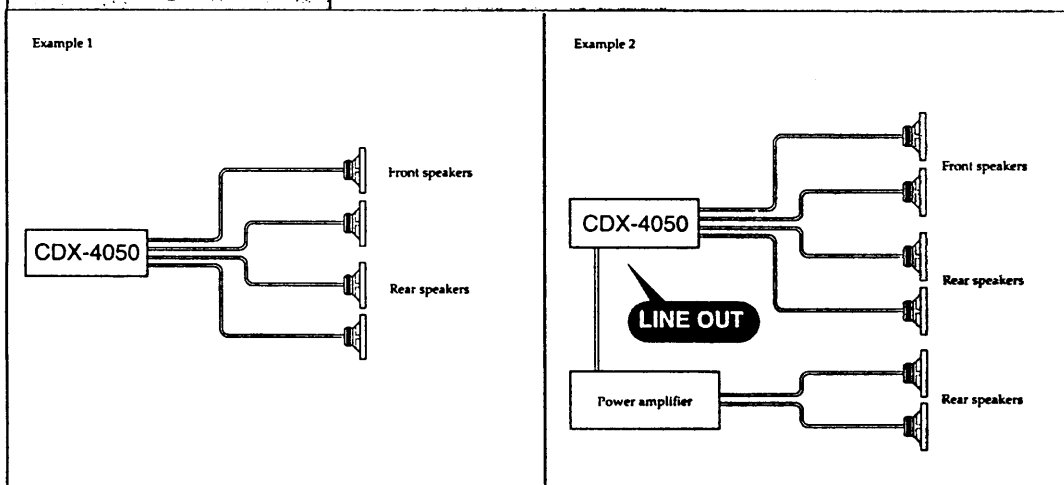


Connections

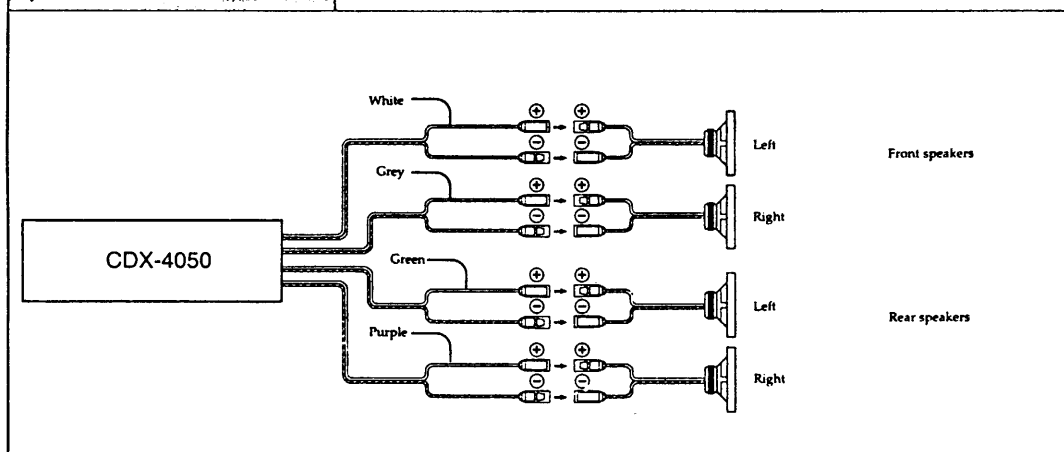
Caution

- 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 red power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal which is energized when the ignition key is set to the accessory position.
- Run all ground wires to a common ground point.

Connection Diagram



Speaker Connections

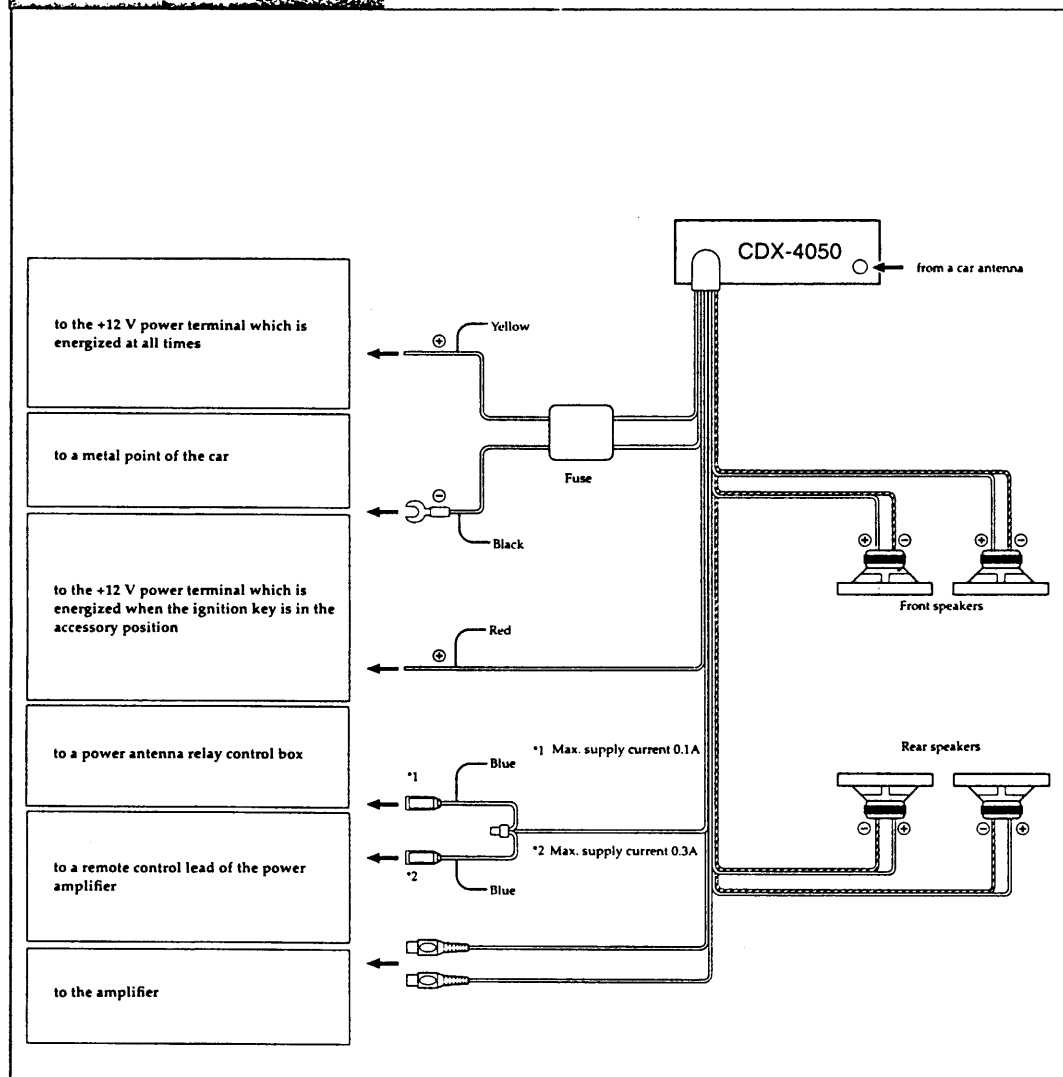


Notes on speaker connections

- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.

- Do not connect the speakers in parallel.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.

Connections of example



Notes on the control leads

- A power antenna without relay box cannot be used with this unit.

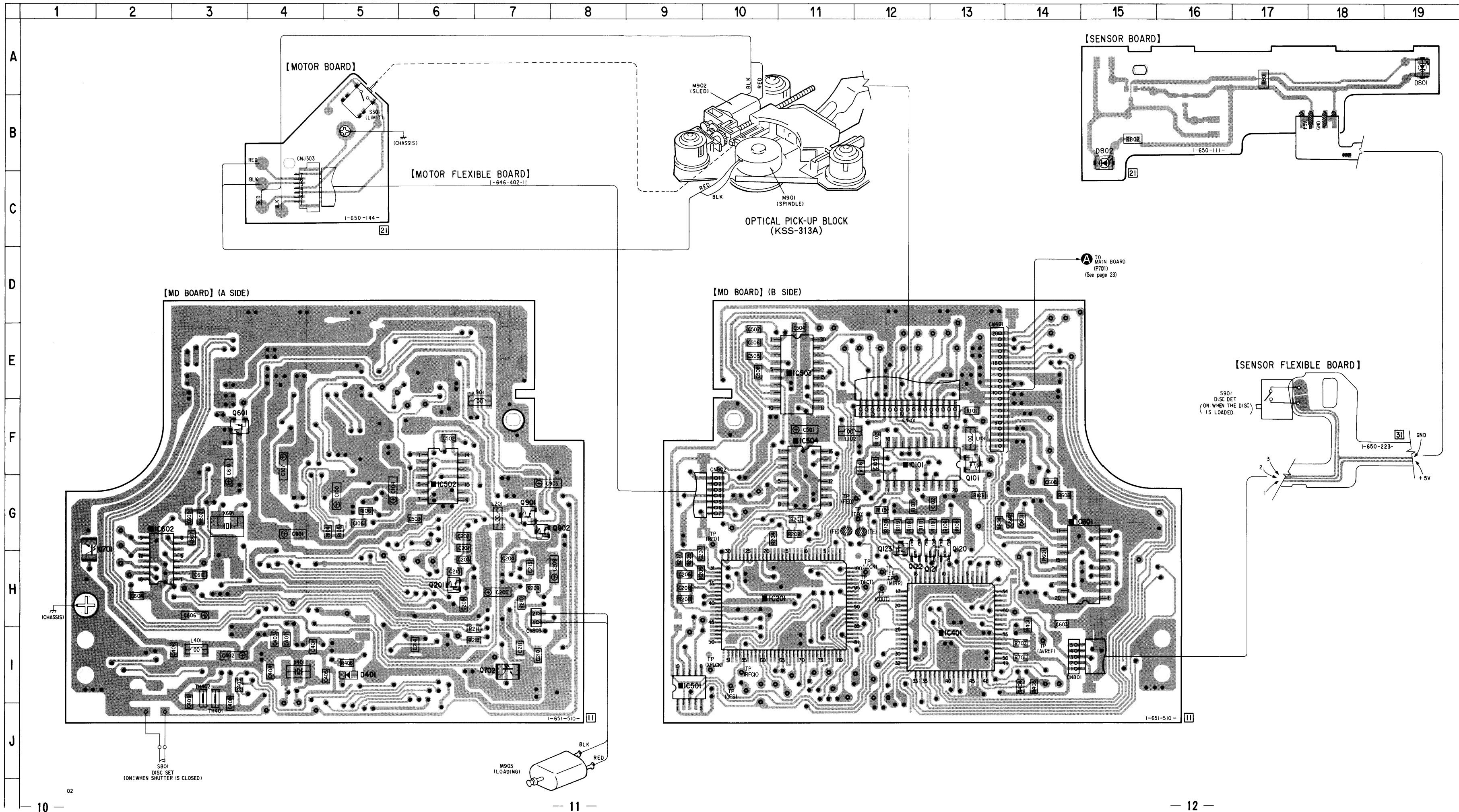
- **SEMICONDUCTOR LOCATION**

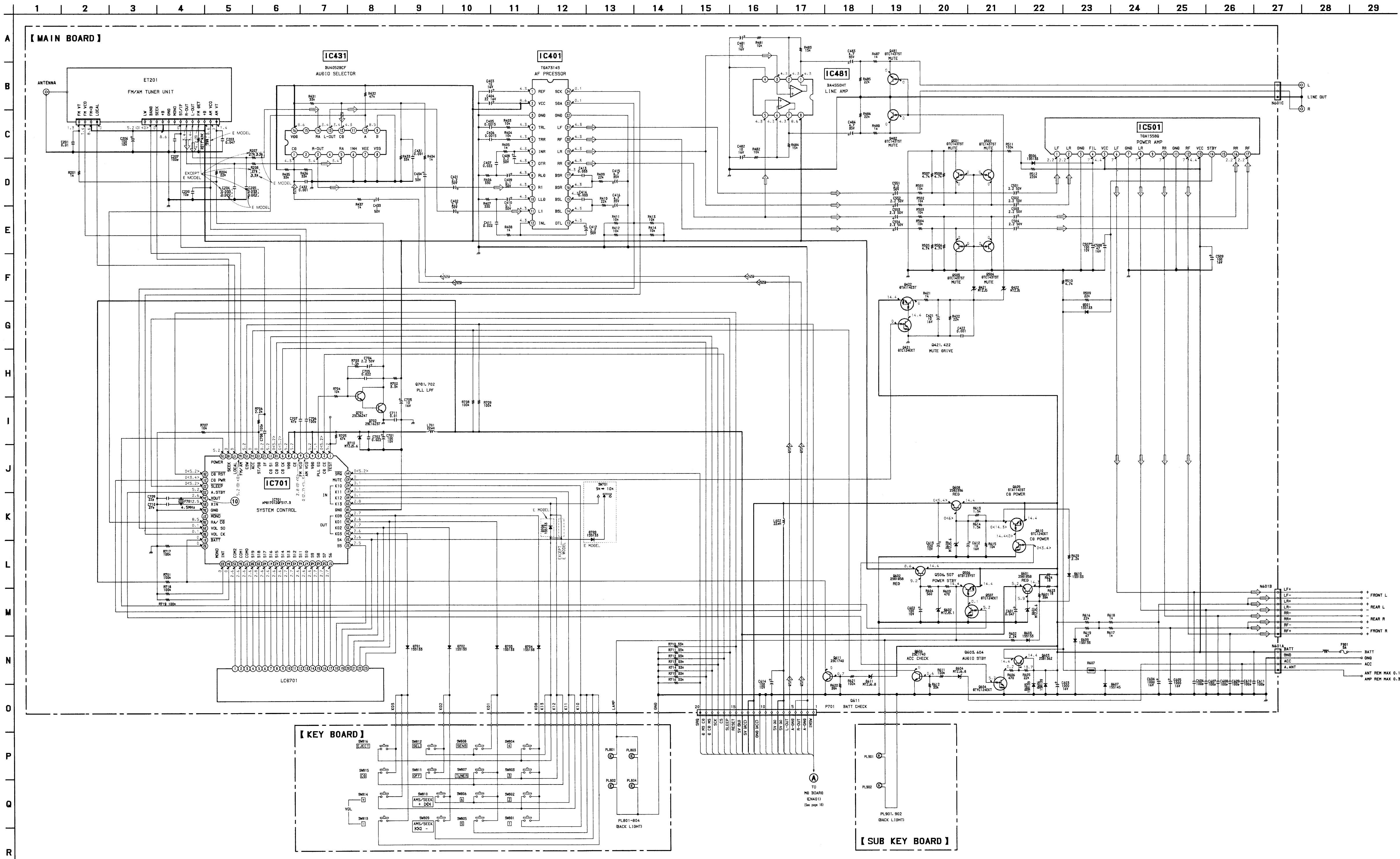
Ref. No.	Location
D401	I - 5
D801	A - 19
D802	B - 15
IC101	F - 12
IC201	H - 11
IC401	I - 13
IC501	I - 9
IC502	G - 6
IC503	E - 11
IC504	F - 11
IC601	H - 15
IC602	G - 2
Q101	F - 13
Q120	G - 13
Q121	G - 13
Q122	G - 12
Q123	G - 12
Q201	H - 6
Q601	F - 3
Q701	G - 1
Q702	I - 7
Q703	H - 5
Q704	G - 7
Q901	G - 7
Q902	G - 7

- : parts extracted from the component side.
- : Through hole.
- ▒ : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated)

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

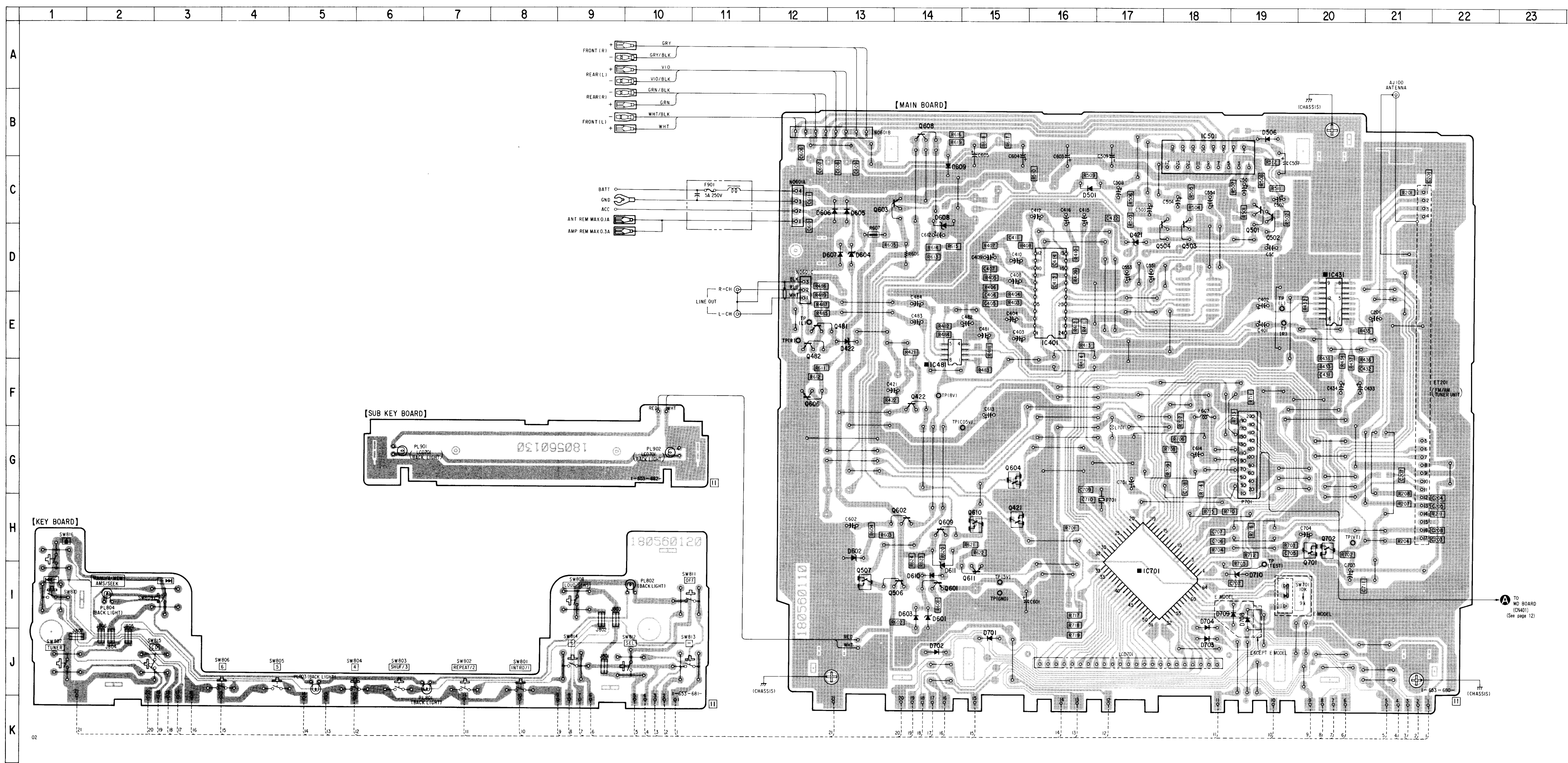
Parts face side : Parts on the parts face side seen from the
(Component side) parts face are indicated.





Note :

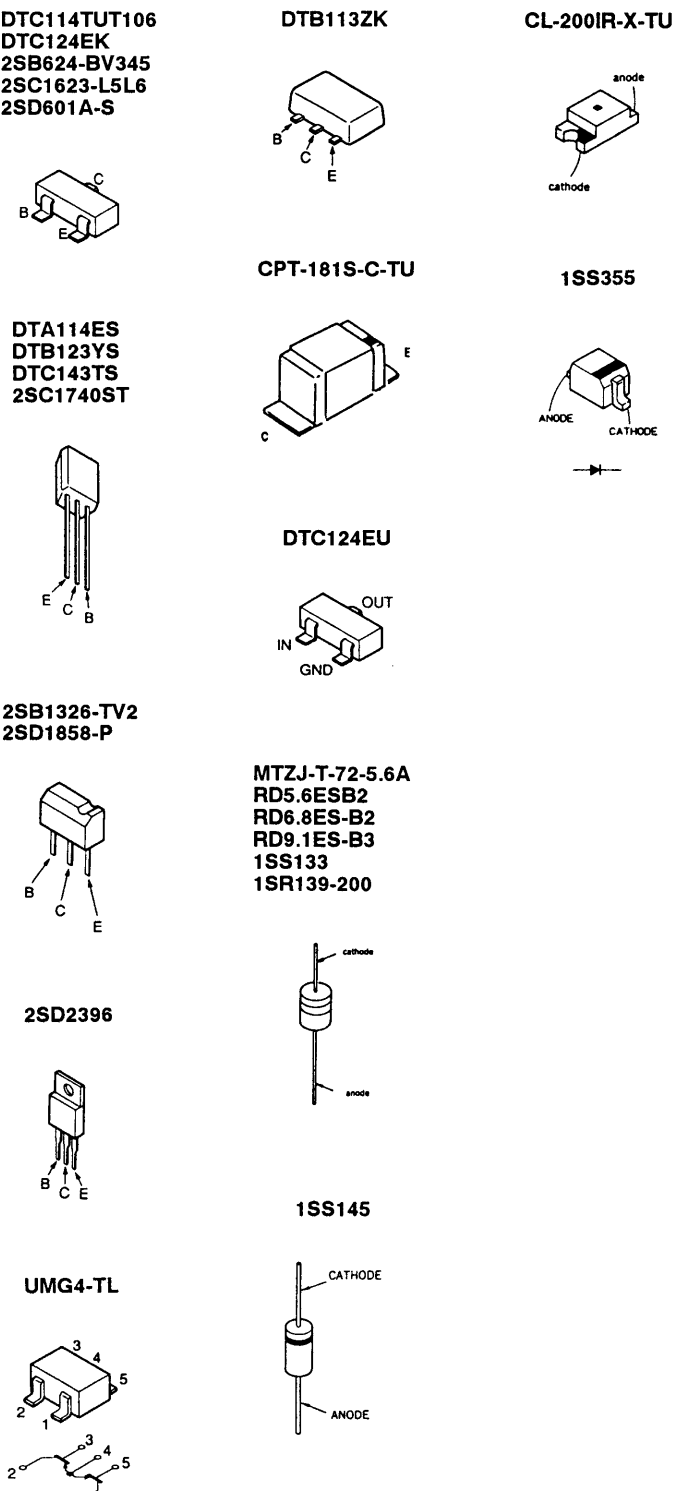
- All capacitors are in μ F unless otherwise noted. pF: μ μ F 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- — : B+ Line
- □ : Panel designation.
- □ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from BATT and ACC terminals.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- () : AM
- () : CD
- Voltages are taken with a VOM (Input impedance 10M Ω). 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.
- $\Rightarrow$: FM $\Rightarrow$: CD



● SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D421	D - 17	Q421	H - 15
D422	E - 13	Q422	F - 14
D501	C - 16	Q481	E - 12
D506	B - 19	Q482	E - 12
D601	I - 14	Q501	D - 19
D602	H - 13	Q502	D - 19
D603	I - 14	Q503	D - 18
D604	D - 13	Q504	D - 18
D605	C - 13	Q506	I - 14
D606	C - 13	Q507	I - 13
D607	D - 13	Q601	I - 14
D608	C - 14	Q602	H - 14
D609	C - 14	Q603	C - 14
D610	I - 14	Q604	G - 15
D611	H - 14	Q606	F - 12
D701	J - 15	Q608	B - 14
D702	J - 14	Q609	H - 14
D703	J - 18	Q610	H - 15
D704	I - 18	Q611	I - 15
D708	I - 19	Q701	H - 20
D709	I - 19	Q702	H - 20
D710	I - 19		
IC401	E - 16		
IC431	E - 20		
IC481	E - 14		
IC501	C - 18		
IC701	I - 17		

● SEMICONDUCTOR LEAD LAYOUTS

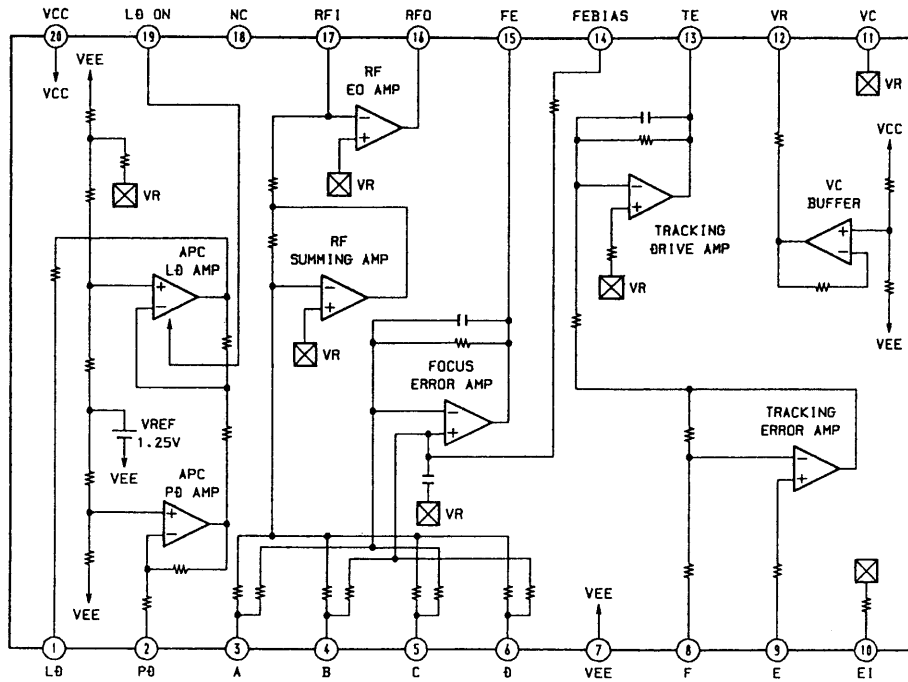


Note:

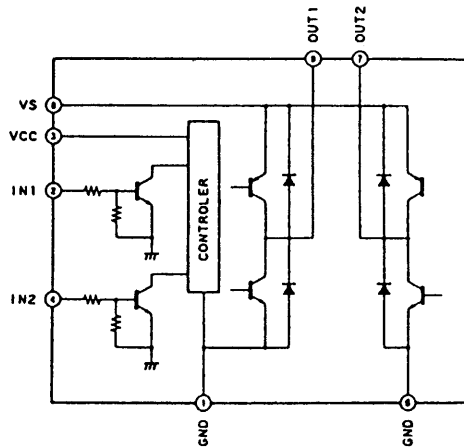
- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : Pattern on the side which is seen.
- : Chip components extracted from the rear side.

● IC BLOCK DIAGRAMS – MD SECTION –

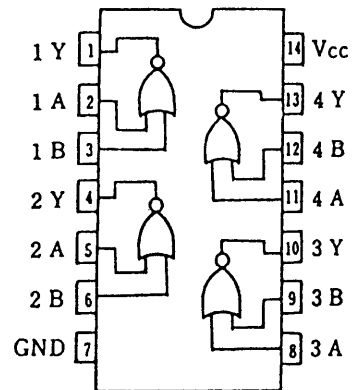
IC101 CXA1610M



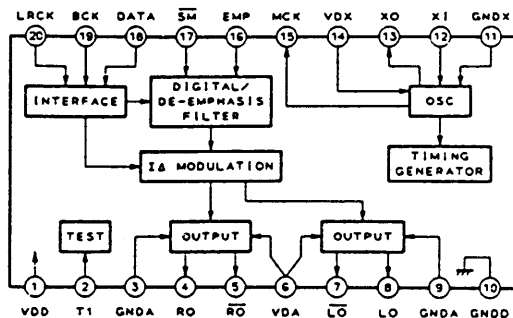
IC501 LB1638M



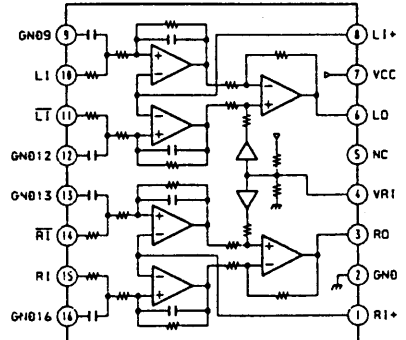
IC502 SN74HC02ANS



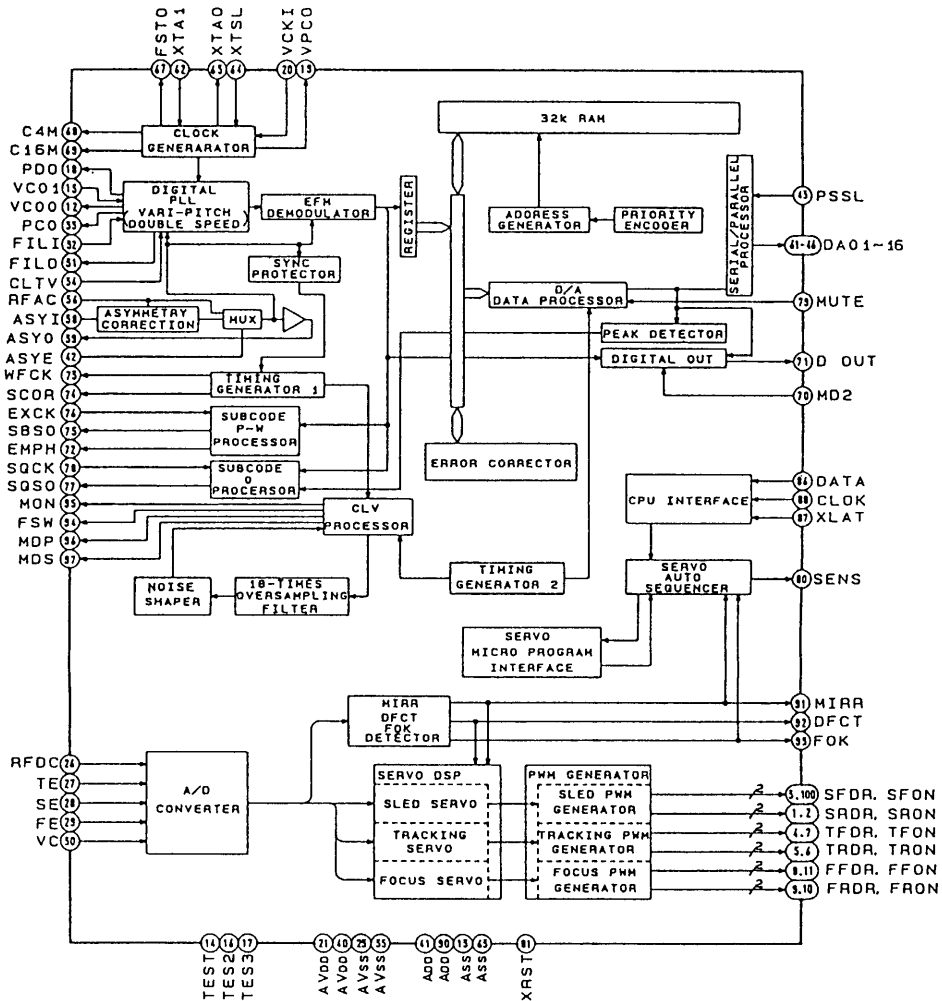
IC601 TC9276F-EL



IC602 TA2009F

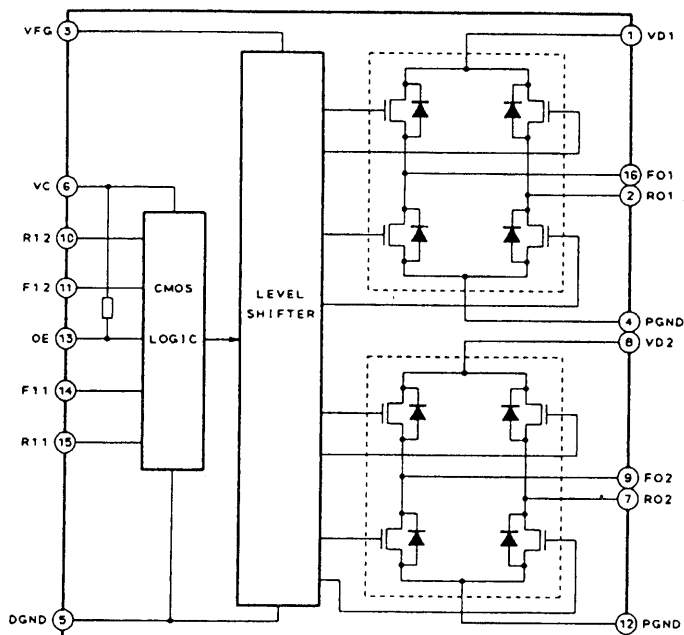


IC201 CXD2515Q



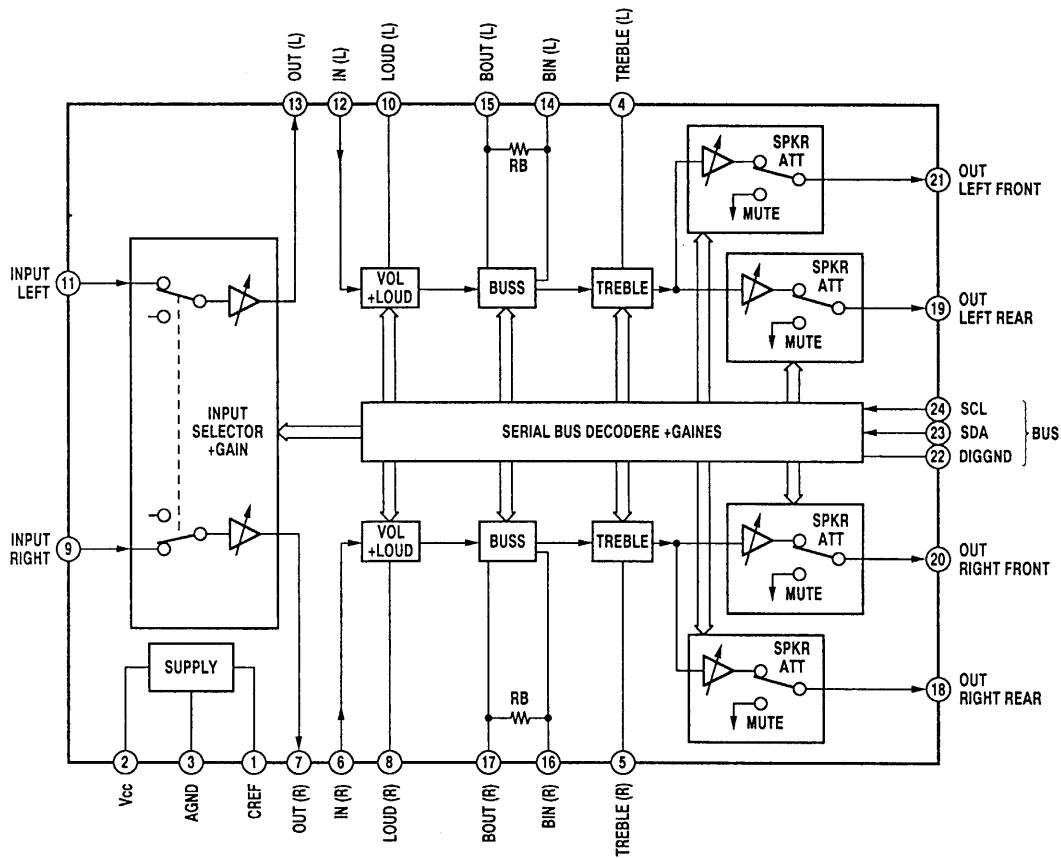
IC503 MPC1732MR2

IC504 MPC1730MR2

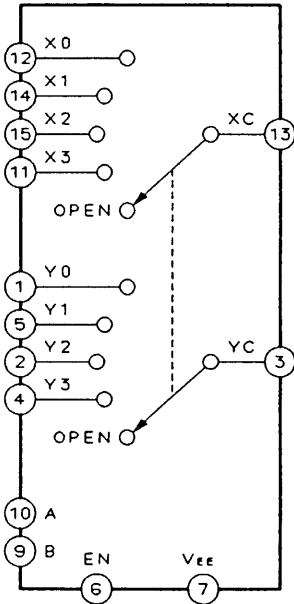


● IC BLOCK DIAGRAMS – MAIN SECTION –

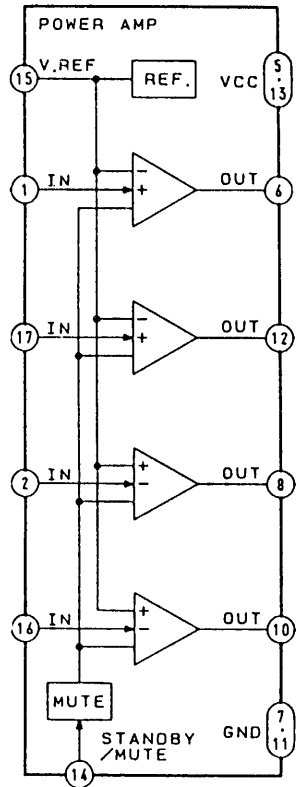
IC401 TDA7314S



IC431 BU4052BCF



IC501 TDA1558Q



SECTION 3 EXPLODED VIEWS

NOTE:

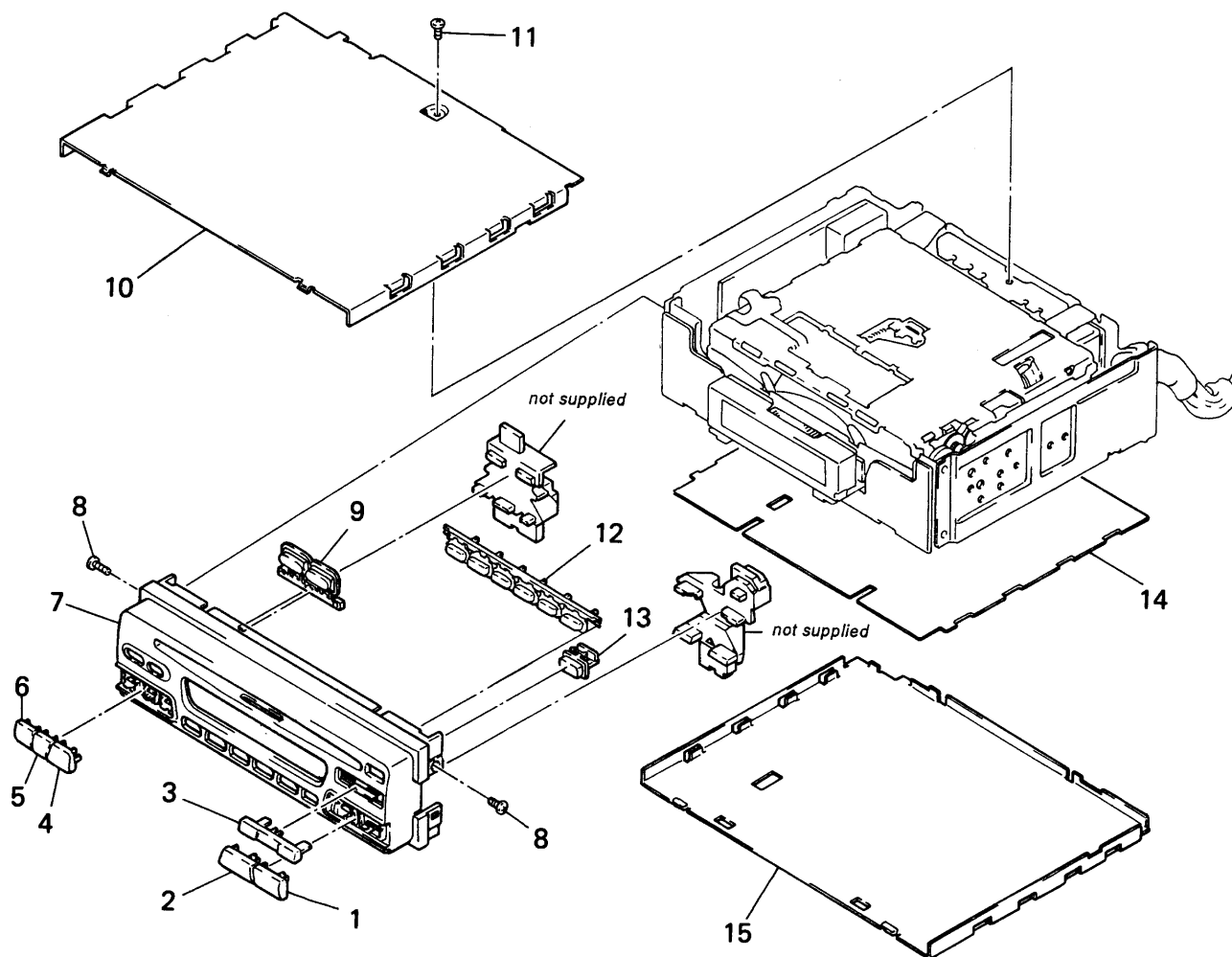
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

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

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

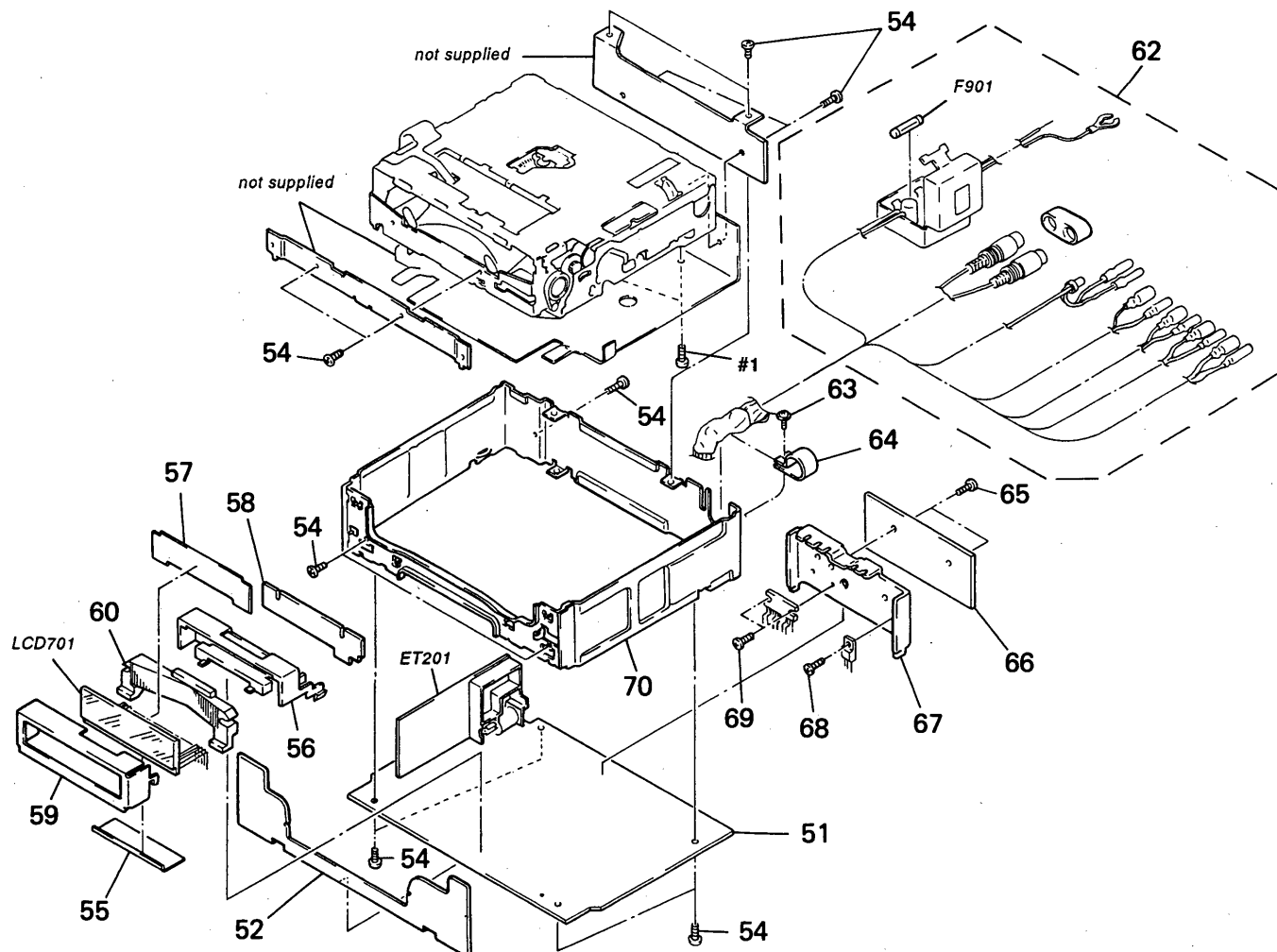
3-1. FRONT PANEL SECTION



Ref.No.	Part No.	Description	Remark
1	3-915-207-01	BUTTON (TUNER)	
2	3-915-208-01	BUTTON (CD)	
3	3-915-203-01	BUTTON (AMS/SEEK)	
4	3-915-206-01	BUTTON (+)	
5	3-915-205-01	BUTTON (SEL)	
6	3-915-204-01	BUTTON (-)	
7	3-915-200-01	PANEL, FRONT (CDX-4050)	
7	3-915-200-11	PANEL, FRONT (EXCD-50)	

Ref.No.	Part No.	Description	Remark
8	3-916-976-01	SCREW (+BTT) (2.6X5)	
9	3-915-202-01	BUTTON (OFF/SENS)	
* 10	3-917-061-01	COVER (TOP)	
11	3-916-973-01	SCREW (+BTT) (2.6X6)	
12	3-915-209-01	BUTTON (1-6)	
13	3-915-201-01	BUTTON (EJ)	
* 14	3-917-066-01	INSULATOR (PCB)	
* 15	3-917-062-01	COVER (BOTTOM)	

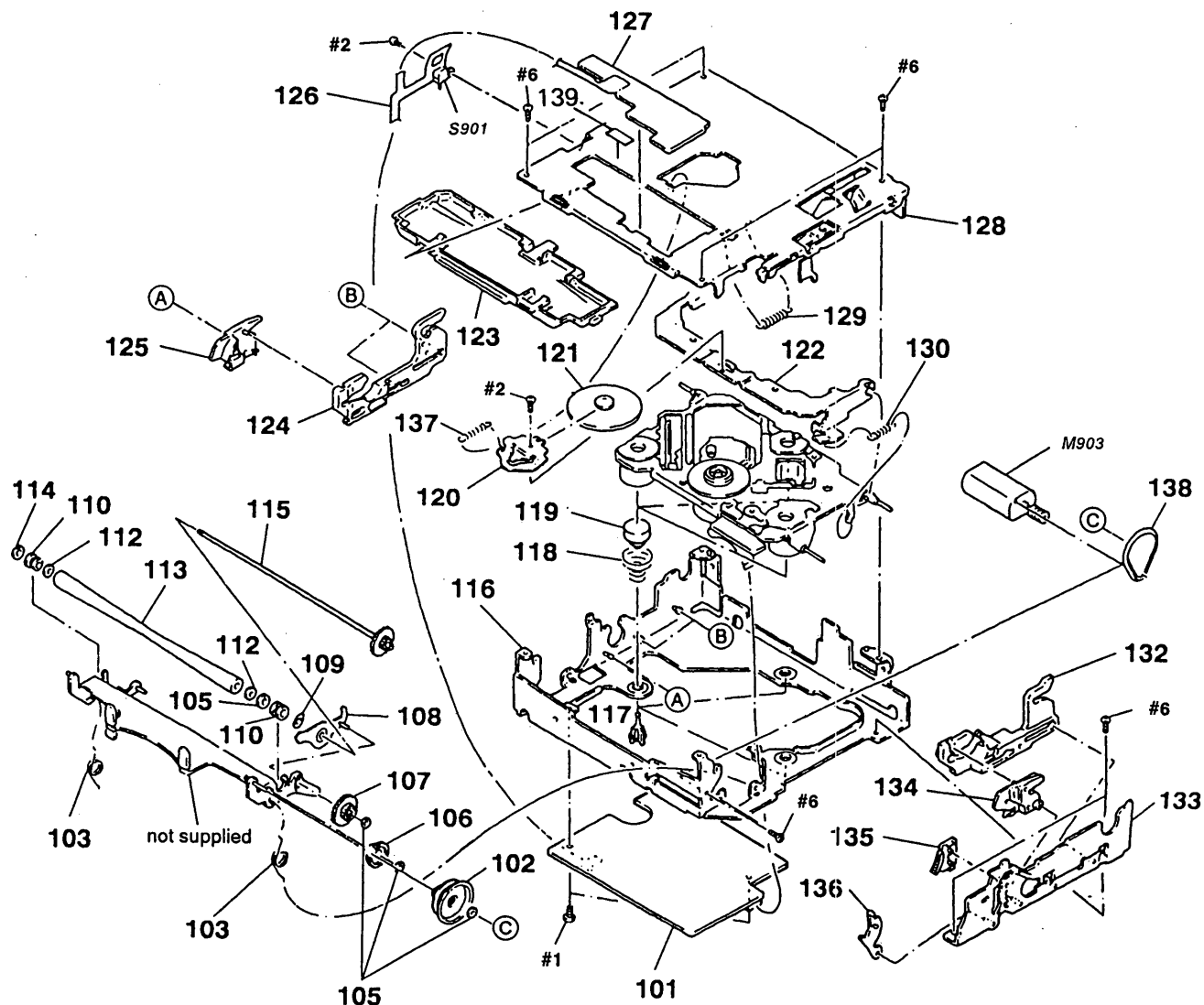
3-2. GENERAL SECTION



Ref.No.	Part No.	Description	Remark
* 51	A-3298-295-A	MAIN BOARD, COMPLETE (CDX-4050:US, Canadian, EXCD-50)	
* 51	A-3298-296-A	MAIN BOARD, COMPLETE(CDX-4050:E)	
* 52	1-653-681-11	KEY BOARD	
54	3-916-976-01	SCREW (+BTT) (2.6X5)	
* 55	3-917-071-01	INSULATOR (LCD)	
* 56	3-917-067-01	HOLDER (LCD)	
* 57	3-917-070-01	REFLECTOR (LCD)	
* 58	1-653-682-11	SUB KEY BOARD	
* 59	3-917-069-01	PLATE (LCD), GROUND	
* 60	3-917-068-01	PLATE (LCD), LIGHT GUIDE	
62	1-765-563-31	CORD (WITH CONNECTOR)	

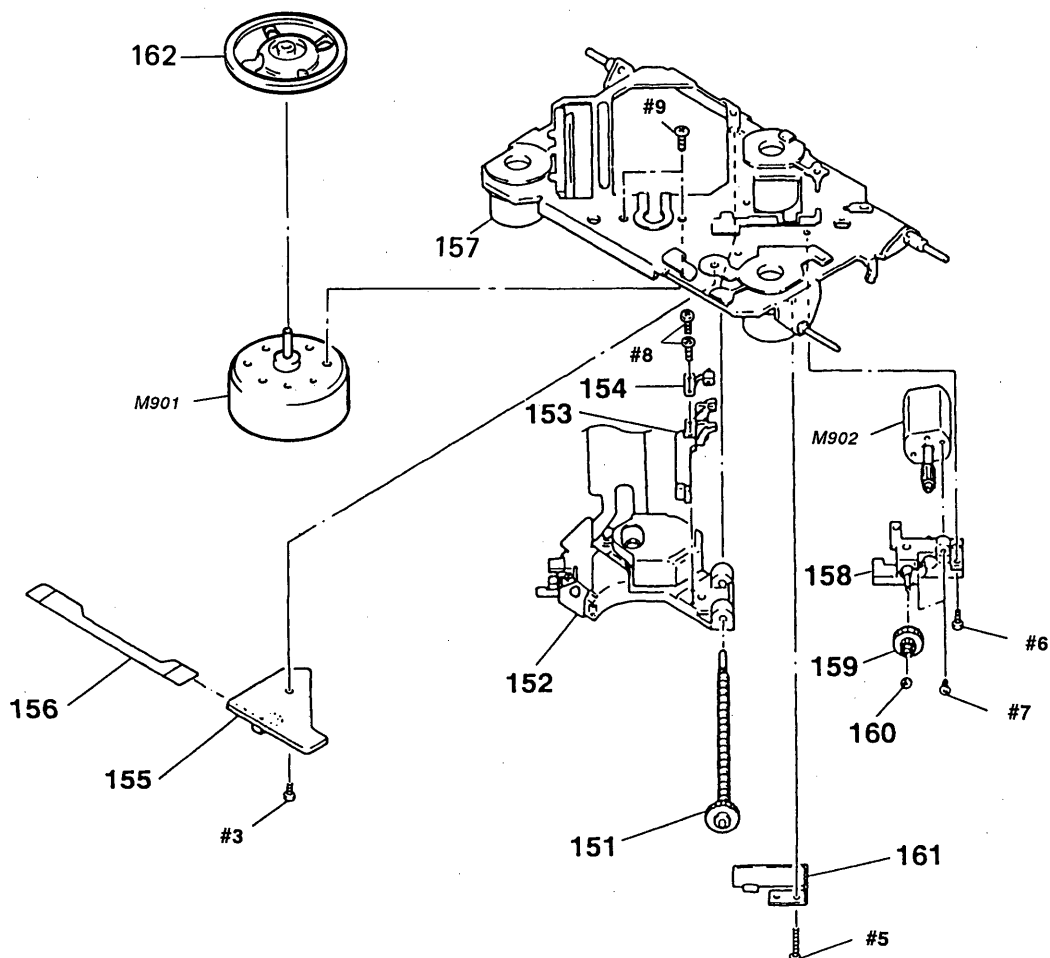
Ref.No.	Part No.	Description	Remark
63	3-917-075-01	SCREW (2.6X10X7), +BTT	
64	3-915-683-01	CLAMP	
65	3-917-076-01	SCREW (2.6X8), +KTT	
* 66	3-917-073-01	HEAT SINK (REAR)	
* 67	3-917-072-01	HEAT SINK	
68	3-917-077-01	SCREW (3X8), +BTT	
69	3-916-974-01	SCREW (+BTT) (3X10)	
* 70	X-3369-005-1	CHASSIS ASSY	
ET201	A-3222-798-A	FM/AM BOARD, COMPLETE(FRONT END)	
F901	1-532-421-00	FUSE(5A)	
LCD701	1-810-569-11	DISPLAY PANEL, LIQUID CRYSTAL	

3-3. MECHANISM DECK SECTION (1)
(MG-205A/S-130)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	A-3222-680-A	MD BOARD, COMPLETE		122	3-384-908-11	ARM, CHUCKING	
102	3-384-894-02	GEAR (R1)		123	3-906-923-03	GUIDE (DISK)	
103	3-384-900-01	SPRING (PRESS)		124	3-384-888-06	SLIDER (L)	
105	3-578-242-11	WASHER		125	3-384-887-03	LEVER (L)	
106	3-384-895-01	GEAR (R2)		* 126	1-650-223-11	SENSOR FLEXIBLE BOARD	
107	3-384-896-02	GEAR (DOWN)		* 127	A-3222-525-A	SENSOR BOARD, COMPLETE	
108	X-3366-858-3	ARM ASSY, FRICTION		128	X-3366-854-6	CHASSIS (T) ASSY	
109	3-384-899-01	SPRING (FRICTION)		129	3-384-881-02	SPRING (12)	
110	3-384-892-02	BEARING (ROLLER)		130	3-384-917-01	SPRING (CH)	
112	3-701-438-11	WASHER, 2.5		132	X-3366-102-6	SLIDER (R) ASSY	
113	3-909-408-01	ROLLER (T)		133	X-3366-853-3	CHASSIS (R) ASSY	
114	3-386-150-01	RING (ROLLER), RETAINING		134	3-384-889-03	LEVER (R)	
115	A-3252-591-A	GEAR ASSY, ROLLER		135	3-384-897-01	GEAR (RACK)	
116	X-3366-852-4	CHASSIS (M) ASSY		136	3-384-891-04	LEVER (ST)	
117	3-384-923-02	SHAFT (DAMPER)		137	3-388-331-01	SPRING (T)	
118	3-384-916-01	SPRING (FL)		138	3-387-776-01	BELT (L)	
119	3-384-814-01	DAMPER		* 139	3-704-132-01	LABEL (K), SELF	
120	3-384-915-11	BRACKET (CP)		S901	1-692-441-11	SWITCH, MICRO(DISC DET)	
121	3-384-918-01	RETAINER (DISC)		M903	A-3352-580-A	MOTOR (L) ASSY(LOADING)	

3-4. MECHANISM DECK SECTION (2)
(MG-205A/S-130)



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

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

Ref. No.	Part No.	Description	Remark
151	A-3252-886-A	SHAFT (SL) ASSY	
$\triangle$ 152	8-848-283-11	DEVICE, OPTICAL KSS-313A	
153	3-384-922-02	GEAR (SL FEED)	
154	3-384-920-01	RETAINER (SL FEED)	
* 155	1-650-144-11	MOTOR BOARD	
156	1-646-402-21	PC BOARD, MOTOR FLEXIBLE	
157	X-3366-855-5	CHASSIS (OPT) ASSY (OUTSERT)	

Ref. No.	Part No.	Description	Remark
158	X-3366-100-4	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)	
162	3-384-919-11	TABLE, DISK	
M901	X-3367-484-1	MOTOR (SPINDL) ASSY	
M902	A-3252-585-A	MOTOR (SL) ASSY	

KEY**MAIN**

SECTION 4 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, -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
*	1-653-681-11	KEY BOARD *****	
		< PILOT LAMP >	
PL801	1-517-339-11	LAMP, PILOT(BACK LIGHT) (CDX-4050)	
PL801	1-517-340-11	LAMP, PILOT(BACK LIGHT) (EXCD-50)	
PL802	1-517-339-11	LAMP, PILOT(BACK LIGHT) (CDX-4050)	
PL802	1-517-340-11	LAMP, PILOT(BACK LIGHT) (EXCD-50)	
PL803	1-517-339-11	LAMP, PILOT(BACK LIGHT) (CDX-4050)	
PL803	1-517-340-11	LAMP, PILOT(BACK LIGHT) (EXCD-50)	
PL804	1-517-339-11	LAMP, PILOT(BACK LIGHT) (CDX-4050)	
PL804	1-517-340-11	LAMP, PILOT(BACK LIGHT) (EXCD-50)	
		< SWITCH >	
SW801	1-554-813-41	SWITCH, KEY BOARD(1)	
SW802	1-554-813-41	SWITCH, KEY BOARD(2)	
SW803	1-554-813-41	SWITCH, KEY BOARD(3)	
SW804	1-554-813-41	SWITCH, KEY BOARD(4)	
SW805	1-554-813-41	SWITCH, KEY BOARD(5)	
SW806	1-554-813-41	SWITCH, KEY BOARD(6)	
SW807		(TUNER)	
SW808		(LOUD/SENS)	
SW809		(+ $\gg$)	
SW810		($\ll$ -)	
SW811		(OFF)	
SW812		(SEL)	
SW813		(+)	
SW814		(-)	
SW815		(CD)	
SW816		(EJECT)	

Ref. No.	Part No.	Description	Remark
*	A-3298-295-A	MAIN BOARD, COMPLETE (CDX-4050:US, Canadian, EXCD-50)	
*	A-3298-296-A	MAIN BOARD, COMPLETE(CDX-4050:E) *****	
		< CAPACITOR >	
C201	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C203	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C204	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
		(CDX-4050:E)	
C204	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
		(CDX-4050:US, Canadian, EXCD-50)	
C205	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
		(CDX-4050:E)	
C205	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
		(CDX-4050:US, Canadian, EXCD-50)	
C206	1-124-584-00	ELECT 100uF	20% 10V
C207	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C208	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C401	1-124-257-00	ELECT 2.2uF	20% 50V
C402	1-124-257-00	ELECT 2.2uF	20% 50V
C403	1-126-157-11	ELECT 10uF	20% 16V
C404	1-124-234-00	ELECT 22uF	20% 16V
C405	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C406	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C407	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
C408	1-124-257-00	ELECT 2.2uF	20% 50V
C409	1-124-463-00	ELECT 0.1uF	20% 50V
C410	1-124-463-00	ELECT 0.1uF	20% 50V
C411	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
C412	1-124-257-00	ELECT 2.2uF	20% 50V
C413	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V

Ref. No.	Part No.	Description	Remark
C414	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V
C415	1-126-163-11	ELECT	4.7uF 20% 50V
C416	1-126-163-11	ELECT	4.7uF 20% 50V
C421	1-126-157-11	ELECT	10uF 20% 16V
C422	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C431	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C432	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C433	1-126-301-11	ELECT	1uF 20% 50V
C434	1-126-301-11	ELECT	1uF 20% 50V
C481	1-126-157-11	ELECT	10uF 20% 16V
C482	1-126-157-11	ELECT	10uF 20% 16V
C483	1-126-163-11	ELECT	4.7uF 20% 50V
C484	1-126-163-11	ELECT	4.7uF 20% 50V
C501	1-124-257-00	ELECT	2.2uF 20% 50V
C502	1-124-257-00	ELECT	2.2uF 20% 50V
C503	1-124-257-00	ELECT	2.2uF 20% 50V
C504	1-124-257-00	ELECT	2.2uF 20% 50V
C507	1-124-584-00	ELECT	100uF 20% 10V
C508	1-124-589-11	ELECT	47uF 20% 16V
C509	1-126-952-11	ELECT	1000uF 20% 16V
C551	1-124-257-00	ELECT	2.2uF 20% 50V
C552	1-124-257-00	ELECT	2.2uF 20% 50V
C553	1-124-257-00	ELECT	2.2uF 20% 50V
C554	1-124-257-00	ELECT	2.2uF 20% 50V
C601	1-125-701-11	CAP, DOUBLE LAYER	0.047F
C602	1-124-584-00	ELECT	100uF 20% 10V
C603	1-126-952-11	ELECT	1000uF 20% 16V
C604	1-126-952-11	ELECT	1000uF 20% 16V
C605	1-126-952-11	ELECT	1000uF 20% 16V
C606	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C607	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C608	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C609	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C610	1-164-162-11	CERAMIC CHIP	100PF 5% 100V
C611	1-164-162-11	CERAMIC CHIP	100PF 5% 100V
C612	1-126-157-11	ELECT	10uF 20% 16V
C613	1-126-949-11	ELECT	220uF 20% 10V
C614	1-124-584-00	ELECT	100uF 20% 10V
C701	1-124-584-00	ELECT	100uF 20% 10V
C702	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
C703	1-126-157-11	ELECT	10uF 20% 16V
C704	1-124-257-00	ELECT	2.2uF 20% 50V
C705	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
C706	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C707	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C708	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C709	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C710	1-163-237-11	CERAMIC CHIP	27PF 5% 50V
C711	1-164-232-11	CERAMIC CHIP	0.01uF 50V

Ref. No.	Part No.	Description	Remark
< DIODE >			
D421	8-719-947-20	DIODE	MTZJ-T-72-5.6A
D422	8-719-947-20	DIODE	MTZJ-T-72-5.6A
D501	8-719-901-33	DIODE	1SS133
D506	8-719-901-33	DIODE	1SS133
D601	8-719-109-89	DIODE	RD5.6ESB2
D602	8-719-110-14	DIODE	RD9.1ES-B3
D603	8-719-901-33	DIODE	1SS133
D604	8-719-109-97	DIODE	RD6.8ES-B2
D605	8-719-984-80	DIODE	1SR139-200
D606	8-719-984-80	DIODE	1SR139-200
D607	8-719-032-29	DIODE	1SS145
D608	8-719-109-89	DIODE	RD5.6ESB2
D609	8-719-901-33	DIODE	1SS133
D610	8-719-901-33	DIODE	1SS133
D611	8-719-109-97	DIODE	RD6.8ES-B2
D701	8-719-901-33	DIODE	1SS133
D702	8-719-901-33	DIODE	1SS133
D703	8-719-901-33	DIODE	1SS133
D704	8-719-901-33	DIODE	1SS133
D708	8-719-901-33	DIODE	1SS133(CDX-4050:E)
D709	8-719-901-33	DIODE	1SS133(CDX-4050:E)
D710	8-719-109-89	DIODE	RD5.6ESB2
< VIBRATOR >			
F701	1-567-713-31	VIBRATOR, CRYSTAL	
< IC >			
IC401	8-759-161-19	IC	TDA7314S
IC431	8-759-932-64	IC	BU4052BF
IC481	8-759-909-71	IC	BA4558F
IC501	8-759-248-34	IC	TDA1558Q
IC701	8-759-287-31	IC	uPD17012GF-517-3BE
< COIL >			
L602	1-410-513-11	INDUCTOR	22uH
L701	1-410-513-11	INDUCTOR	22uH
< LIQUID CRYSTAL DISPLAY >			
LCD701	1-810-569-11	DISPLAY PANEL, LIQUID CRYSTAL	
< CONNECTOR >			
P701	1-566-520-11	CONNECTOR, FPC (ZIF) 20P	
< TRANSISTOR >			
Q421	8-729-901-00	TRANSISTOR	DTC124EK
Q422	8-729-900-61	TRANSISTOR	DTA114ES

MAIN

Ref.No.	Part No.	Description	Remark
Q481	8-729-900-74	TRANSISTOR DTC143TS	
Q482	8-729-900-74	TRANSISTOR DTC143TS	
Q501	8-729-900-74	TRANSISTOR DTC143TS	
Q502	8-729-900-74	TRANSISTOR DTC143TS	
Q503	8-729-900-74	TRANSISTOR DTC143TS	
Q504	8-729-900-74	TRANSISTOR DTC143TS	
Q506	8-729-925-67	TRANSISTOR DTB123YS	
Q507	8-729-901-00	TRANSISTOR DTC124EK	
Q601	8-729-931-10	TRANSISTOR 2SD1858-P	
Q602	8-729-931-10	TRANSISTOR 2SD1858-P	
Q603	8-729-027-63	TRANSISTOR 2SB1326-TV2	
Q604	8-729-901-00	TRANSISTOR DTC124EK	
Q606	8-729-900-93	TRANSISTOR 2SC1740ST	
Q608	8-729-021-82	TRANSISTOR 2SD2396	
Q609	8-729-900-61	TRANSISTOR DTA114ES	
Q610	8-729-901-00	TRANSISTOR DTC124EK	
Q611	8-729-900-93	TRANSISTOR 2SC1740ST	
Q701	8-729-422-29	TRANSISTOR 2SD601A-S	
Q702	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
< RESISTOR >			
R201	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R204	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R207	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R207	1-216-083-00	METAL CHIP 27K 5% 1/10W	(CDX-4050:E)
R208	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(CDX-4050:E)
R208	1-216-083-00	METAL CHIP 27K 5% 1/10W	(CDX-4050:US, Canadian, EXCD-50)
R211	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	(CDX-4050:E)
R211	1-216-089-91	METAL GLAZE 47K 5% 1/10W	(CDX-4050:US, Canadian, EXCD-50)
R403	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R404	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R405	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R406	1-216-037-00	METAL CHIP 330 5% 1/10W	
R407	1-216-037-00	METAL CHIP 330 5% 1/10W	
R408	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R409	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R410	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R411	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R412	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R413	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R414	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R421	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R422	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R431	1-216-085-00	METAL CHIP 33K 5% 1/10W	

Ref.No.	Part No.	Description	Remark
R432	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R433	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R434	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R435	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R436	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R437	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R481	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R482	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R483	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R484	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R485	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R486	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R487	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R489	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R501	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R502	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R503	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R504	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R505	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R506	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R507	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R508	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R509	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R510	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R511	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R512	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R601	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R602	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R603	1-216-041-00	METAL CHIP 470 5% 1/10W	
R604	1-216-043-00	METAL CHIP 560 5% 1/10W	
R605	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R606	1-247-747-11	CARBON 470 5% 1/2W	
R611	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R612	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R613	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R614	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R615	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R616	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R617	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R618	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R619	1-216-017-00	METAL CHIP 47 5% 1/10W	
R620	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R621	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R622	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R623	1-216-007-00	METAL CHIP 18 5% 1/10W	
R624	1-216-007-00	METAL CHIP 18 5% 1/10W	
R701	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R702	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R703	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	

Ref.No.	Part No.	Description	Remark			
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R705	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R706	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R708	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R709	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R710	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R711	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R712	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R713	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R714	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R715	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R716	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R717	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R718	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R719	1-216-097-00	METAL CHIP	100K	5%	1/10W	
< TERMISTER >						
R607	1-809-148-11	THERMISTOR, POSITIVE				
< SWITCH >						
SW701	1-553-510-00	SWITCH, SLIDE(10k/9k)(CDX-4050:E)				

*	A-3222-680-A	MD BOARD, COMPLETE				

< CAPACITOR >						
C100	1-135-162-21	TANTALUM CHIP	33uF	20%	6.3V	
C102	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V	
C104	1-135-162-21	TANTALUM CHIP	33uF	20%	6.3V	
C105	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V	
C106	1-163-235-11	CERAMIC CHIP	22PF	5%	50V	
C107	1-126-206-11	ELECT CHIP	100uF	20%	6.3V	
C200	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V	
C201	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C202	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C203	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C204	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C205	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V	
C206	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V	
C207	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C208	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C209	1-126-191-11	ELECT	0.47uF	20%	50V	
C210	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C211	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	
C213	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	
C214	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	

Ref.No.	Part No.	Description	Remark		
C215	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C401	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C402	1-126-217-11	ELECT	15uF	20%	10V
C403	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C404	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C405	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C406	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C407	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C408	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C409	1-163-025-11	CERAMIC CHIP	0.001uF		50V
C501	1-135-166-21	TANTALUM CHIP	47uF	10%	10V
C502	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C503	1-164-346-11	CERAMIC CHIP	1uF		16V
C504	1-164-346-11	CERAMIC CHIP	1uF		16V
C505	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C506	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C507	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C508	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C601	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C602	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C603	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C604	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C606	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C607	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C608	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C609	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C610	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C612	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C901	1-128-361-11	ELECT CHIP	470uF	20%	10V
C903	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
< CONNECTOR >					
CN101	1-565-728-11	CONNECTOR, FPC 17P			
* CN401	1-580-802-21	SOCKET, CONNECTOR 20P			
* CN801	1-750-898-11	SOCKET, CONNECTOR 5P			
CN802	1-566-523-11	SOCKET, CONNECTOR 7P			
* CN803	1-580-055-21	PIN, CONNECTOR 2P			
< DIODE >					
D401	8-719-988-62	DIODE 1SS355			
< IC >					
IC101	8-752-059-30	IC CXA1610M			
IC201	8-752-361-90	IC CXD2515Q			
IC401	8-759-198-51	IC uPD78012GC-546-AB8(FORMER TYPE)			
IC401	8-759-288-58	IC uPD78013GC-603-AB8(NEW TYPE)			
IC501	8-759-823-87	IC LB1638M			
IC502	8-759-925-72	IC SN74HC02ANS			
IC503	8-759-087-53	IC MPC1730MR2			

MD MOTOR SENSOR

Ref. No.	Part No.	Description	Remark
IC504	8-759-087-55	IC MPC1732MR2	
IC601	8-759-260-21	IC TC9276F-K-ELP	
IC602	8-759-073-85	IC TA2009F	
< COIL >			
L101	1-412-058-11	INDUCTOR CHIP 10uH	
L102	1-412-058-11	INDUCTOR CHIP 10uH	
L201	1-412-058-11	INDUCTOR CHIP 10uH	
L401	1-412-058-11	INDUCTOR CHIP 10uH	
L901	1-412-058-11	INDUCTOR CHIP 10uH	
< TRANSISTOR >			
Q101	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q120	8-729-929-64	TRANSISTOR UMG4-TL	
Q121	8-729-929-64	TRANSISTOR UMG4-TL	
Q122	8-729-929-64	TRANSISTOR UMG4-TL	
Q123	8-729-905-99	TRANSISTOR DTC114TUT106	
Q201	8-729-905-99	TRANSISTOR DTC114TUT106	
Q601	8-729-904-60	TRANSISTOR DTB113ZK	
Q701	8-729-024-26	PHOTO TRANSISTOR CPT-181S-C-TU	
Q702	8-729-024-26	PHOTO TRANSISTOR CPT-181S-C-TU	
Q901	8-729-904-60	TRANSISTOR DTB113ZK	
Q902	8-729-905-61	TRANSISTOR DTC124EU	
< RESISTOR >			
R101	1-216-001-00	METAL CHIP 10 5% 1/10W	
R102	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R103	1-216-001-00	METAL CHIP 10 5% 1/10W	
R104	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R105	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R106	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R107	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R108	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R109	1-216-109-00	METAL CHIP 330K 5% 1/10W	
R110	1-216-102-00	METAL GLAZE 160K 5% 1/10W	
R111	1-216-095-00	METAL CHIP 82K 5% 1/10W	
R115	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R116	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R118	1-216-106-00	METAL CHIP 240K 5% 1/10W	
R119	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R120	1-216-092-00	METAL GLAZE 62K 5% 1/10W	
R201	1-236-426-11	NETWORK, RES 15K	
R202	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R204	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R205	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R206	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R207	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R208	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R209	1-216-845-11	METAL CHIP 100K 5% 1/16W	

Ref. No.	Part No.	Description	Remark
R210	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R211	1-236-408-11	NETWORK, RES 470	
R213	1-216-817-11	METAL CHIP 470 5% 1/16W	
R401	1-216-025-00	METAL CHIP 100 5% 1/10W	
R403	1-236-428-11	NETWORK, RES 22K	
R404	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R405	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R406	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R601	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R602	1-216-025-00	METAL CHIP 100 5% 1/10W	
R603	1-216-025-00	METAL CHIP 100 5% 1/10W	
R604	1-216-823-11	METAL CHIP 1.5K 5% 1/16W	
R701	1-236-440-11	NETWORK, RES 220K	
R702	1-236-440-11	NETWORK, RES 220K	
< SWITCH >			
S801	1-571-754-31	SWITCH, PUSH (1 KEY) (DISC SET)	
< THERMISTOR >			
TH401	1-806-715-11	THERMISTOR	
TH402	1-806-715-11	THERMISTOR	
< VIBRATOR >			
X401	1-579-938-21	VIBRATOR, CERAMIC(8MHz)	
X601	1-760-023-11	VIBRATOR, CRYSTAL	

*	1-650-144-11	MOTOR BOARD	

< CONNECTOR >			
* CNJ303	1-750-160-21	CONNECTOR, FPC 7P	
< SWITCH >			
S301	1-572-467-21	SWITCH, PUSH (1 KEY) (LIMIT)	

*	A-3222-525-A	SENSOR BOARD, COMPLETE	

(including 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	

SENSOR FLEXIBLE

SUB KEY

Ref.No.	Part No.	Description	Remark
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*	1-650-223-11	SENSOR FLEXIBLE BOARD *****	
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< SWITCH >

S901	1-692-441-11	SWITCH, MICRO(DISC DET)	
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*	1-653-682-11	SUB KEY BOARD *****	
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< PILOT LAMP >

PL901	1-517-339-11	LAMP, PILOT(BACK LIGHT) (CDX-4050)	
PL901	1-517-340-11	LAMP, PILOT(BACK LIGHT) (EXCD-50)	
PL902	1-517-339-11	LAMP, PILOT(BACK LIGHT) (CDX-4050)	
PL902	1-517-340-11	LAMP, PILOT(BACK LIGHT) (EXCD-50)	

MISCELLANEOUS

62	1-765-563-31	CORD (WITH CONNECTOR)	
△152	8-848-283-11	DEVICE, OPTICAL KSS-313A	
156	1-646-402-21	PC BOARD, MOTOR FLEXIBLE	
ET201	A-3222-798-A	FM/AM BOARD, COMPLETE(FRONT END)	
F901	1-532-421-00	FUSE(5A)	
M901	X-3367-484-1	MOTOR(SPINDL) ASSY	
M902	A-3252-585-A	MOTOR (SL) ASSY	
M903	A-3352-580-A	MOTOR (L) ASSY(LOADING)	

ACCESSORIES & PACKING MATERIALS

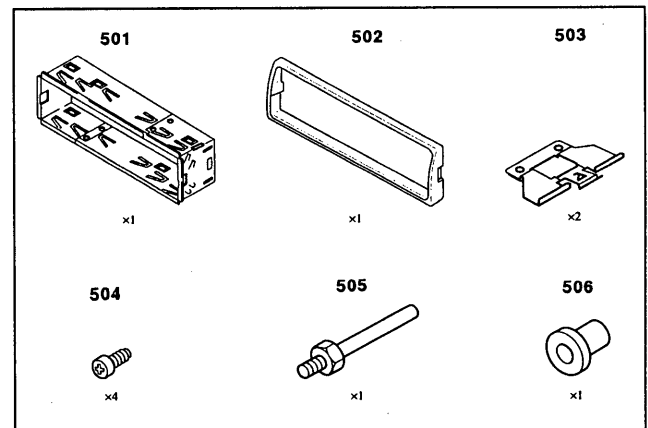
3-758-695-21	MANUAL, INSTRUCTION(ENGLISH/FRENCH) (CDX-4050:US, Canadian)
3-758-695-41	MANUAL, INSTRUCTION (ENGLISH/SPANISH/CHINESE) (CDX-4050:E)
3-758-696-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH/FRENCH) (CDX-4050:US, Canadian)
3-758-696-41	MANUAL, INSTRUCTION, INSTALL (ENGLISH/SPANISH/CHINESE) (CDX-4050:E)
3-758-697-21	MANUAL, INSTRUCTION(ENGLISH) (EXCD-50)
3-758-698-21	MANUAL, INSTRUCTION, INSTALL(ENGLISH) (ENGLISH) (EXCD-50)

Ref.No.	Part No.	Description	Remark
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HARDWARE LIST

#1	7-621-772-08	SCREW +B 2X3	
#2	7-627-553-18	SCREW, PRECISION +P 2X2	
#3	7-628-253-15	SCREW +PS 2X5	
#5	7-621-772-60	SCREW +B 2X12	
#6	7-627-553-37	SCREW, PRECISION +P 2X3	
#7	7-627-553-67	SCREW, PRECISION +P 2X5	
#8	7-627-552-47	+P 1.7X4	
#9	7-627-552-07	SCREW, PRECISION +P 1.7X2.5	

MOUNTING HARDWARE



* 501	X-3366-235-1	FRAME ASSY, FITTING
503	3-339-403-01	SPRING
502	3-917-788-01	COLLAR
504	3-916-979-01	SCREW
505	3-386-828-01	SCREW, FITTING
506	3-349-410-01	BUSHING

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.

CDX-4050/EXCD-50

SONY SERVICE MANUAL

US Model
CDX-4050/EXCD-50

Canadian Model
E Model
CDX-4050

SUPPLEMENT-1

File this Supplement with the Service Manual.

Subject :

1. EXPLANATION OF IC TERMINALS
2. ELECTRICAL ADJUSTMENTS
3. BLOCK DIAGRAM
- CORRECTION

TABLE OF CONTENTS

<i>Title</i>	<i>Page</i>
1. EXPLANATION OF IC TERMINALS	2
2. ELECTRICAL ADJUSTMENTS	4
3. BLOCK DIAGRAM	5
• CORRECTION	8

SECTION 1

EXPLANATION OF IC TERMINALS

IC701 (μ PD17012GF-517-3BE)

Pin No.	Pin name	I/O	Description
1	TEST	I	Test Mode Terminal.
2	CD CE	O	Serial latch output terminal to IC401. (μ PD78012GC)
3	PLL EO	O	PLL error output terminal.
4	VDD	—	Power Supply terminal. (+5V)
5	AM VCO	I	Input terminal of AM local oscillator frequency.
6	FM VCO	I	Input terminal of FM local oscillator frequency.
7	CE	—	Not used. (VDD connetion, in this device)
8	VDD	—	Power Supply terminal. (+5V)
9	CD CK	O	Serial clock output terminal to IC401. (μ PD78012GC)
10	CD SO	O	Serial data output terminal to IC401. (μ PD78012GC)
11	CD SI	I	Serial data input terminal to IC401. (μ PD78012GC)
12	IF	I	Input pin of FM (10.7MHz) /AM (450kHz) IF COUNT.
13	ST/SD	—	Not used.
14	$\overline{\text{ACC}}$	I	ACC DETECT terminal.
15	CSW	I	DISC SW input terminal.
16	FM/AM	O	FM/AM BAND Select terminal.
17	LOCAL	O	Local output terminal.
18	SEEK	O	Seek operation terminal.
19	POWER	O	Power control output.
20	$\overline{\text{CD RST}}$	O	CD Servo IC Reseting output terminal.
21	CD PWR	O	CD Power control terminal.
22	$\overline{\text{SLEEP}}$	O	CD Servo IC Sleep output terminal.
23	A • STBY	O	Power amplifier Standby control.
24	X OUT	O	Crystal oscillator connection terminal. (4.5MHz)
25	X IN	I	Crystal oscillator connection terminal. (4.5MHz)
26	GND	—	Power Supply terminal. (GND)
27	$\overline{\text{MONO}}$	—	Monoaural control terminal. (not used)
28	RA/ $\overline{\text{CD}}$	O	Radio/CD Select output terminal.
29	VOL SO	O	Serial data output terminal to AF processor.
30	VOL CK	O	Serial clock output terminal to AF processor.
31	$\overline{\text{BATT}}$	I	BATT line on/off detection.
32	NC	—	Not used. (GND connection, in this device)
33	MONO INT	—	Not used. (GND connection, in this device)
34	NC	—	Not used. (GND connection, in this device)
35	COM 2	O	LCD COM 2 drive.
36	COM 1	O	LCD COM 1 drive.
37	COM 0	O	LCD COM 0 drive.
38	S19	O	LCD Segment drive.
39	S18	O	LCD Segment drive.
40	S17	O	LCD Segment drive.

Pin No.	Pin name	I/O	Description
41	S16	O	LCD Segment drive.
42	S15	O	LCD Segment drive.
43	S14	O	LCD Segment drive.
44	S13	O	LCD Segment drive.
45	S12	O	LCD Segment drive.
46	S11	O	LCD Segment drive.
47	S10	O	LCD Segment drive.
48	S9	O	LCD Segment drive.
49	S8	O	LCD Segment drive.
50	S7	O	LCD Segment drive.
51	S6	O	LCD Segment drive.
52	S5	O	LCD Segment drive.
53	S4	O	LCD Segment drive.
54	K03	O	Key scan output terminal.
55	K02	O	Key scan output terminal.
56	K01	O	Key scan output terminal.
57	K08	O	Key scan output terminal.
58	GND	—	Power Supply terminal. (GND)
59	K13	I	Key scan input terminal.
60	K12	I	Key scan input terminal.
61	K11	I	Key scan input terminal.
62	K10	I	Key scan input terminal.
63	MUTE	O	AUDIO Mute output terminal.
64	$\overline{\text{SRQ}}$	I	CD Servo IC SRQ input terminal.

SECTION 2 ELECTRICAL ADJUSTMENTS

TUNER SECTION 0dB=1 μ V

Cautions during repair

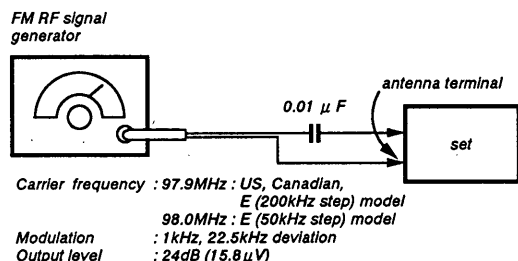
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM

FM Seek Stop Level Adjustment

Setting :

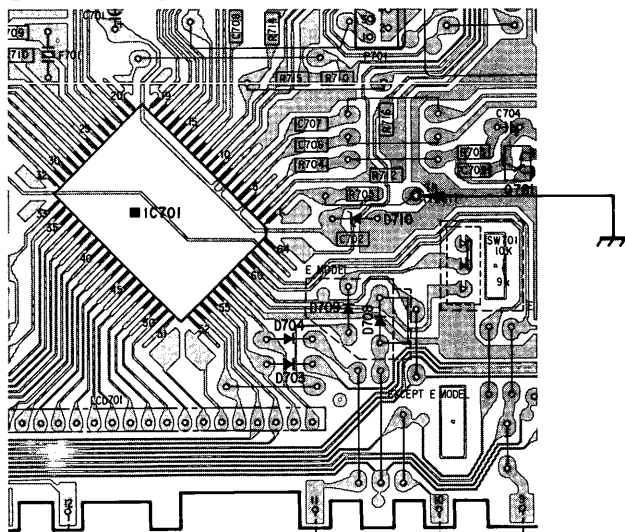
TUNER button : FM



Procedure :

1. Momentarily short-circuit of the TEST terminal (IC701 ① pin) to the GND with the POWER turned ON. All LCDs will light and the test mode will be activated.
2. Press the **[SEL]** button once. The LCDs that were lit will change to display "1".
3. Adjust R131 inside ET201 so that "STEREO" lights or blinks in the LCD.
4. Check that the LCD changes to "STEREO" with the RF level of the signal generator at 22dB.

[MAIN BOARD]



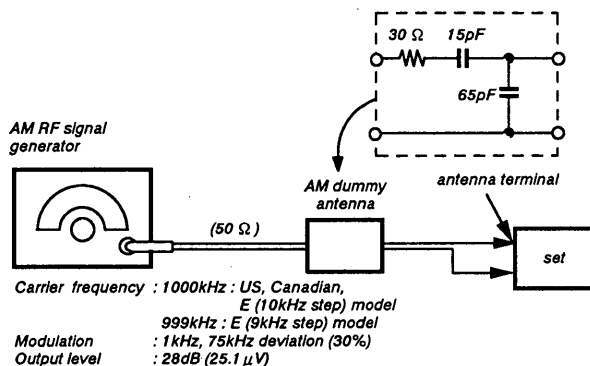
Adjustment Location : ET201 (FM/AM board)

AM

AM Seek Stop Level Adjustment

Setting :

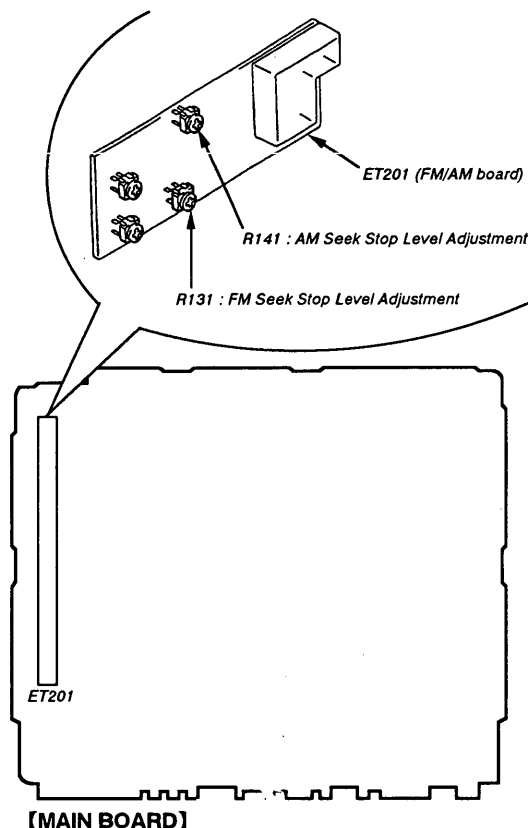
TUNER button : AM



Procedure :

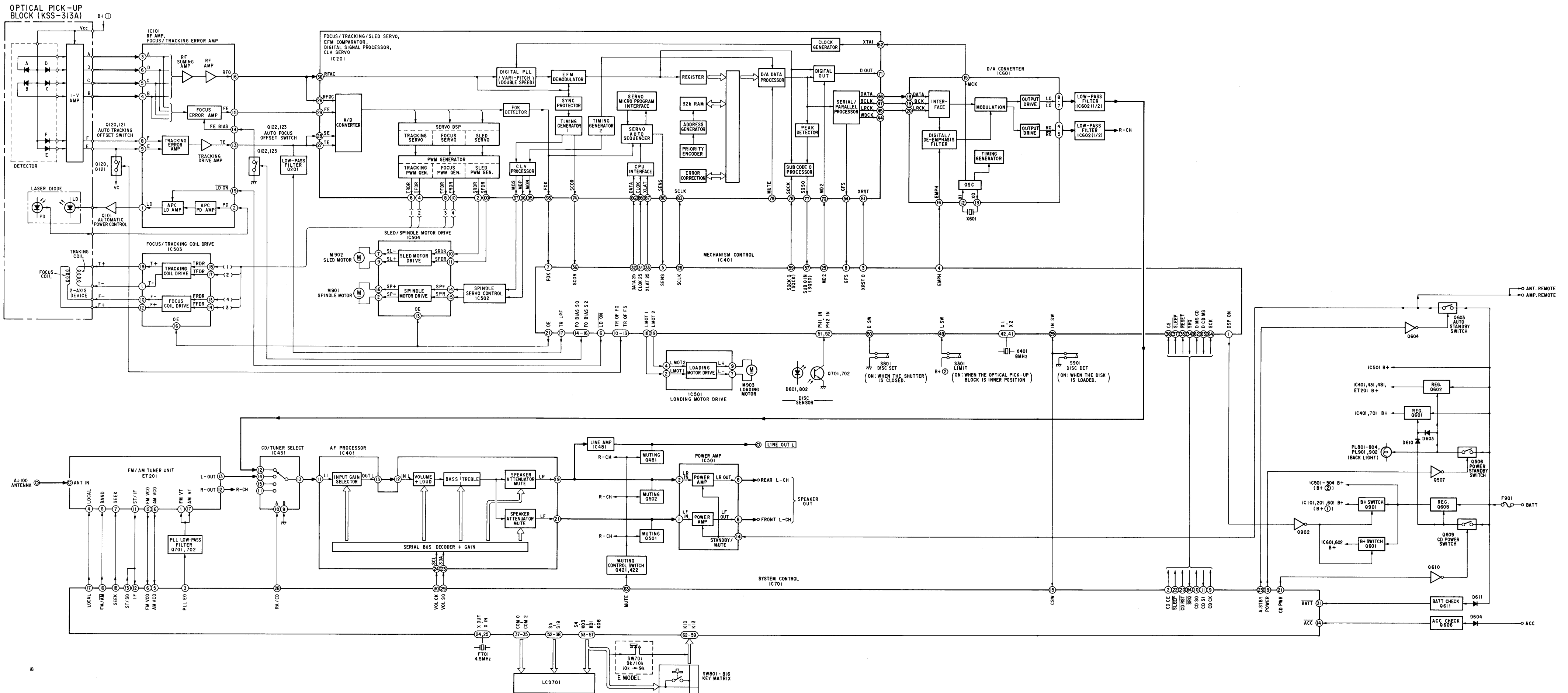
1. Momentarily short-circuit of the TEST terminal (IC701 ① pin) to the GND with the POWER turned ON. All LCDs will light and the test mode will be activated.
2. Press the **[SEL]** button once. The LCDs that were lit will change to display "1".
3. Adjust R141 inside ET201 so that "STEREO" lights or blinks in the LCD.
4. Check that the LCD changes to "STEREO" with the RF level of the signal generator at 26dB.

Adjustment Location :



[MAIN BOARD]

SECTION 3 BLOCK DIAGRAM



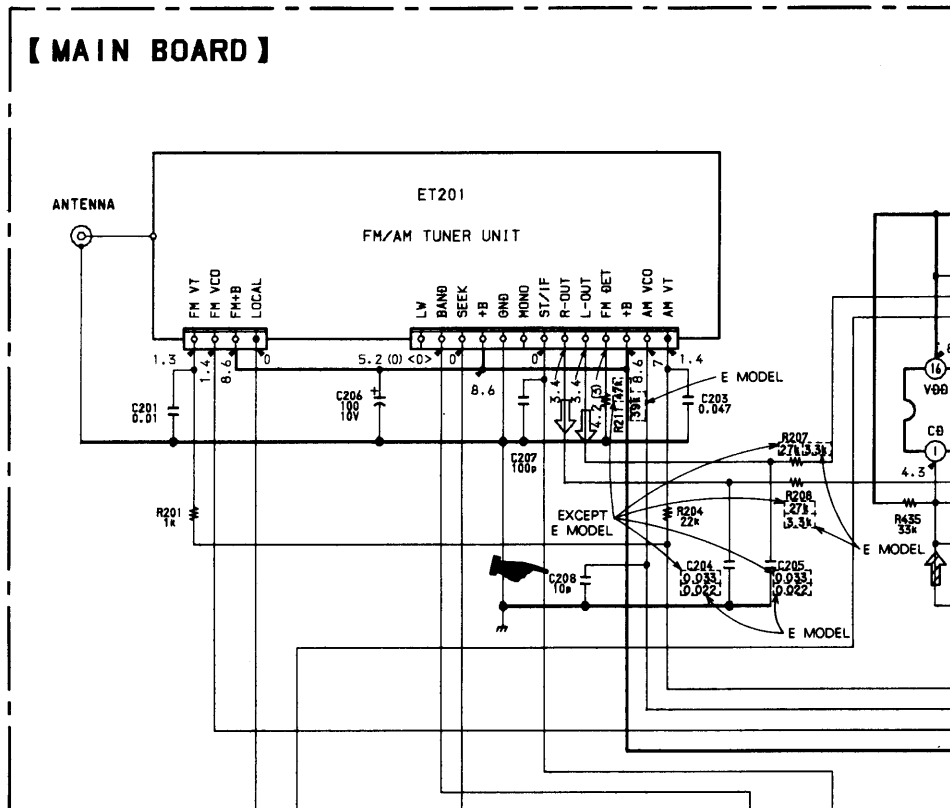
CORRECTION

✎ : Corrected portion

● SCHEMATIC DIAGRAM – MAIN SECTION –

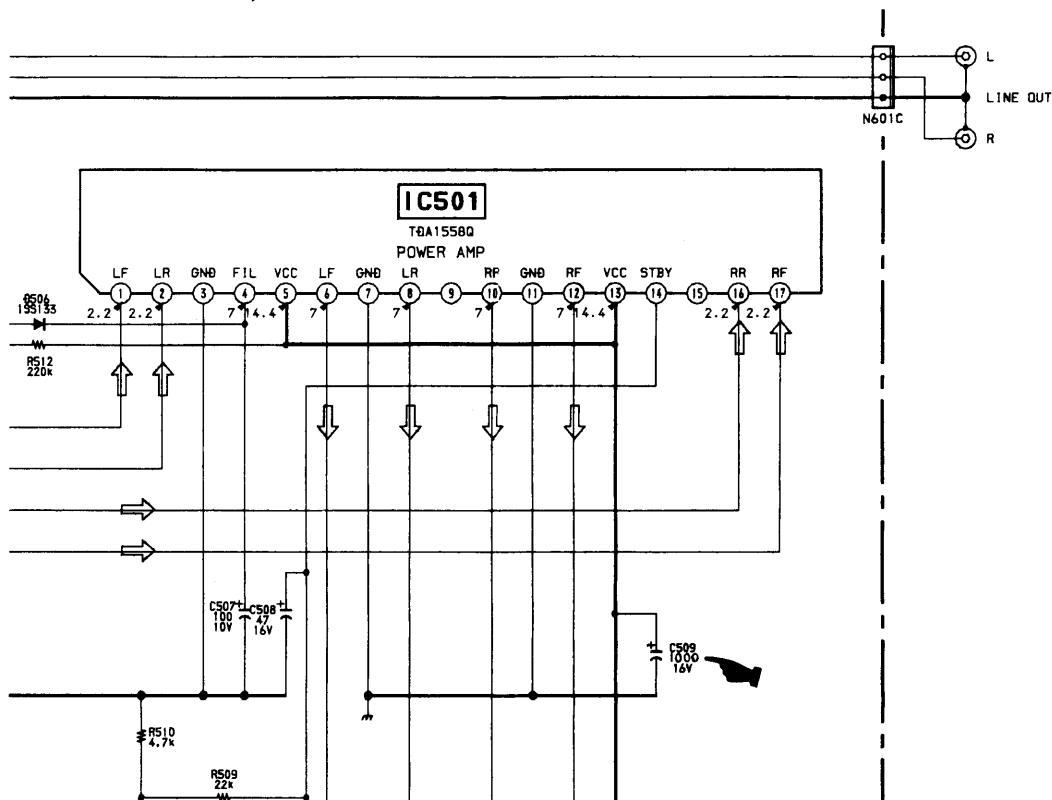
(Service Manual See page 17)

(Location A – E, 1 – 6)

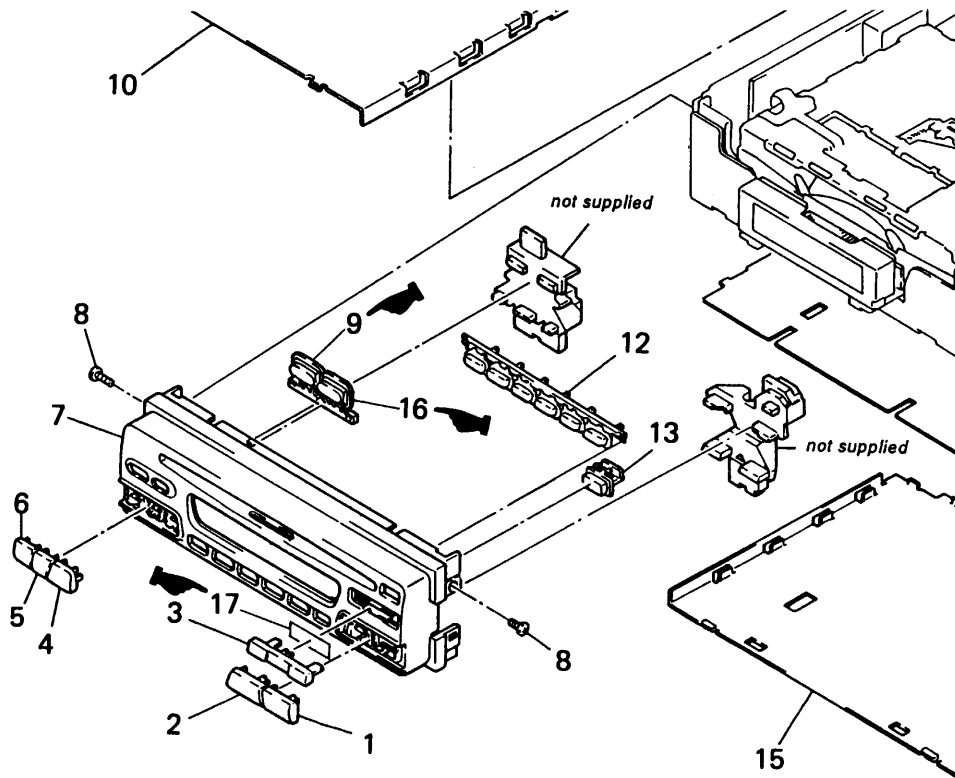


(Service Manual See page 20)

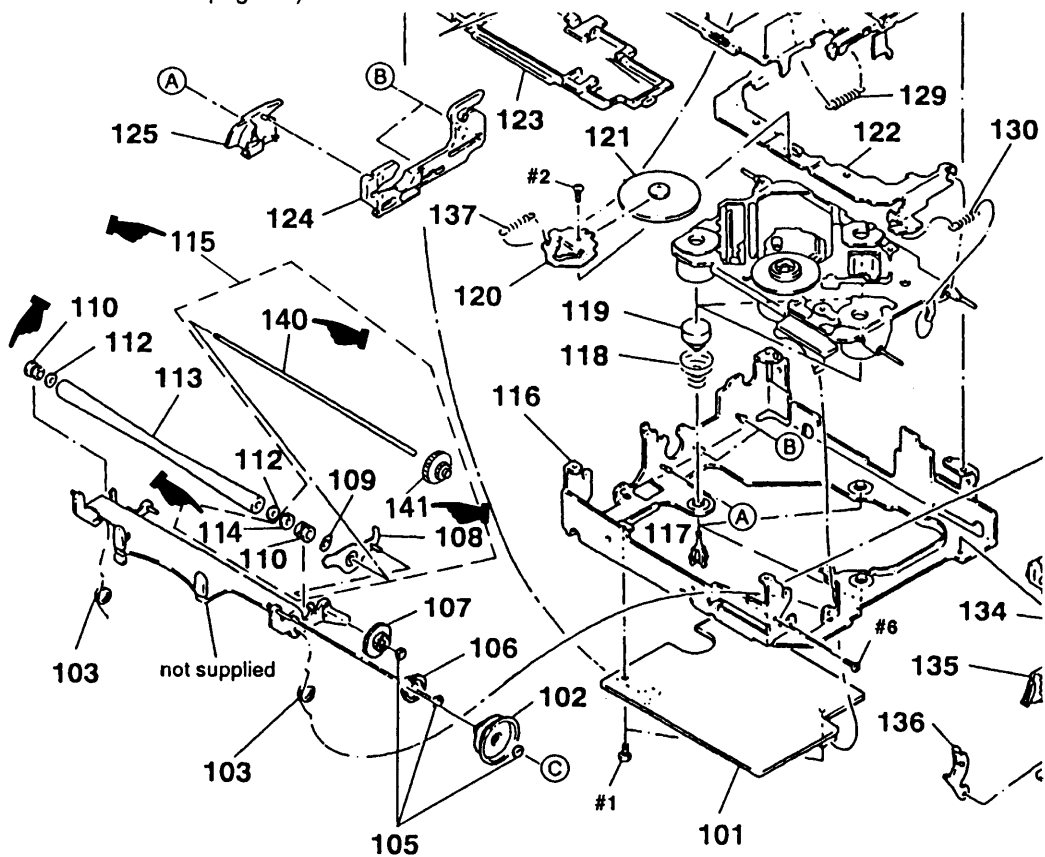
(Location B – F, 22 – 28)



● **EXPLODED VIEWS**
FRONT PANEL SECTION
 (Service Manual See page 28)



MECHANISM DECK SECTION (1)
 (MG-205A/S-130)
 (Service Manual See page 30)



● **EXPLODED VIEWS** (Service Manual See page 28 – 31)

Former Parts



New Parts

Ref. No.	Part No.	Description	Part No.	Description	Remarks
9 (Page 28)	3-915-202-01	BUTTON (OFF/SENS)	3-915-202-01	BUTTON (OFF)	Changed
11 (Page 28)	3-916-973-01	SCREW (+BTT) (2.6X6)	7-685-133-19	SCREW +BTT 2.6X6	Changed
16 (Page 28)			3-917-790-01	BUTTON (SENS)	Added
17 (Page 28)			* 3-917-797-01	SHEET (AMS/SEEK)	Added
62 (Page 29)	1-765-563-31	CORD (WITH CONNECTOR)	1-765-563-31	CORD (POWER/LINE OUT/SPEAKER OUT)	Changed
102 (Page 30)	3-384-894-02	GEAR (R1)	3-384-894-01	GEAR (R1)	Changed
110 (Page 30)	3-384-892-02	BEARING (ROLLER)	3-384-892-01	BEARING (ROLLER)	Changed
116 (Page 30)	X-3366-852-4	CHASSIS (M) ASSY	X-3366-852-1	CHASSIS (M) ASSY	Changed
117 (Page 30)	3-384-923-02	SHAFT (DAMPER)	3-384-923-01	SHAFT (DAMPER)	Changed
119 (Page 30)	3-384-814-01	DAMPER	3-384-914-01	DAMPER	Changed
124 (Page 30)	3-384-888-06	SLIDER (L)	3-384-888-01	SLIDER (L)	Changed
125 (Page 30)	3-384-887-03	LEVER (L)	3-384-887-01	LEVER (L)	Changed
128 (Page 30)	X-3366-854-6	CHASSIS (T) ASSY	X-3366-854-1	CHASSIS (T) ASSY	Changed
132 (Page 30)	X-3366-102-6	SLIDER (R) ASSY	X-3366-102-1	SLIDER (R) ASSY	Changed
133 (Page 30)	X-3366-853-3	CHASSIS (R) ASSY	X-3366-853-1	CHASSIS (R) ASSY	Changed
134 (Page 30)	3-384-889-03	LEVER (R)	3-384-889-01	LEVER (R)	Changed
M903 (Page 30)	A-3352-580-A	MOTOR (L) ASSY (LOADING)	A-3252-580-A	MOTOR (L) ASSY (LOADING)	Changed
140 (Page 30)			3-384-901-06	SHAFT (ROLLER)	Added
141 (Page 31)			3-384-902-02	GEAR (ROLLER)	Added
151 (Page 31)	A-3252-886-A	SHAFT (SL) ASSY	A-3252-586-A	SHAFT (SL) ASSY	Changed
153 (Page 31)	3-384-922-02	GEAR (SL FEED)	3-384-922-01	GEAR (SL FEED)	Changed
156 (Page 31)	1-646-402-21	PC BOARD, MOTOR FLEXIBLE	1-646-402-11	MOTOR FLEXIBLE BOARD	Changed
157 (Page 31)	X-3366-855-5	CHASSIS (OPT) ASSY (OUTSERT)	X-3366-855-1	CHASSIS (OPT) ASSY (OUTSERT)	Changed
158 (Page 31)	X-3366-100-4	BASE (DRIVING) ASSY	X-3366-100-1	BASE (DRIVING) ASSY	Changed

● ELECTRICAL PARTS LIST (Service Manual See page 32, 37)

Former Parts

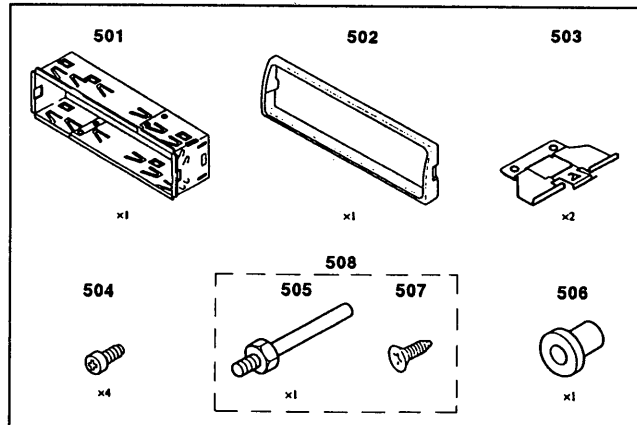


New Parts

Ref. No.	Part No.	Description	Part No.	Description	Remarks
SW807 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (TUNER)	Added
SW808 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (LOUD/SENS)	Added
SW809 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (+ ►►)	Added
SW810 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (◄◄ -)	Added
SW811 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (OFF)	Added
SW812 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (SEL)	Added
SW813 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (+)	Added
SW814 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (-)	Added
SW815 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (CD)	Added
SW816 (Page 32)			1-554-980-31	SWITCH, KEY BOARD (EJECT)	Added
M903 (Page 37)	A-3352-580-A	MOTOR (L) ASSY (LOADING)	A-3252-580-A	MOTOR (L) ASSY (LOADING)	Changed
62 (Page 37)	1-765-563-31	CORD (WITH CONNECTOR)	1-765-563-31	CORD (WITH CONNECTOR) (POWER/LINE OUT /SPEAKER OUT)	Changed
156 (Page 37)	1-646-402-21	PC BOARD, MOTOR FLEXIBLE	1-646-402-11	PC BOARD, MOTOR FLEXIBLE	Changed

(Service Manual see page 37)

Ref.No.	Part No.	Description	Remark
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MOUNTING HARDWARE

- | | | |
|-------|--------------|---|
| * 501 | X-3368-734-1 | FRAME ASSY, FITTING |
| 502 | 3-917-788-01 | COLLAR |
| 503 | 3-917-787-01 | SPRING, FITTING |
| 504 | 3-916-979-01 | SCREW |
| 505 | 3-386-828-01 | SCREW, FITTING (CDX-4050:E) |
| 505 | 3-915-917-01 | SCREW (4X12), +T
(CDX-4050:US, Canadian, EXCD-50) |
| 506 | 3-349-410-01 | BUSHING (CDX-4050:E) |
| 507 | 7-682-560-04 | SCREW +P 4X6
(CDX-4050:US, Canadian, EXCD-50) |
| 508 | X-3368-725-1 | SCREW ASSY, FITTING
(CDX-4050:US, Canadian, EXCD-50) |