

CDX-GT220/GT227EE

SERVICE MANUAL

Russian Model

Ver. 1.0 2007. 09



(Photo: CDX-GT227EE)

- The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-101TC-188//C
Optical Pick-up Name	DAX-25A

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 CDX-GT227EE:
FM1/FM2: 87.5 – 108.0 MHz
(at 50 kHz step)
FM3: 65 – 74 MHz
(at 30 kHz step)
CDX-GT220:
87.5 – 108.0 MHz

Antenna terminal External antenna 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

MW/LW

Tuning range MW: 531 – 1,602 kHz
LW: 153 – 279 kHz

Antenna (aerial) terminal External antenna (aerial) connector
Intermediate frequency 10.7 MHz/450 kHz
Sensitivity MW: 30 μ V, LW: 40 μ V

Power amplifier section

Outputs Speaker outputs (sure seal connectors)
Speaker impedance 4 – 8 ohms
Maximum power output 45 W $\times$ 4 (at 4 ohms)

General

Output Audio outputs terminal (sub/rear switchable)
Power antenna (aerial) relay control terminal
Power amplifier control terminal
Inputs Telephone ATT control terminal
Antenna (aerial) input terminal
AUX input jack (stereo mini jack)
Tone controls Low: ± 10 dB at 60 Hz (XPLOD)
Mid: ± 10 dB at 1 kHz (XPLOD)
High: ± 10 dB at 10 kHz (XPLOD)
Loudness +4 dB at 100 Hz
+2 dB at 10 kHz

– Continued on next page –

FM/MW/LW COMPACT DISC PLAYER

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Sony Corporation
eVehicle Division
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SONY®

CDX-GT220/GT227EE

Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 179 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 11 oz.)
Supplied accessories	Parts for installation and connections (1 set)

MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

Design and specifications are subject to change without notice.

SERVICE NOTES

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

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

The flexible board is easily damaged and should be handled with care.

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.

TEST DISCS

Please use the following test discs for the check on the CD section.

YDES-18 (Part No. 3-702-101-01)

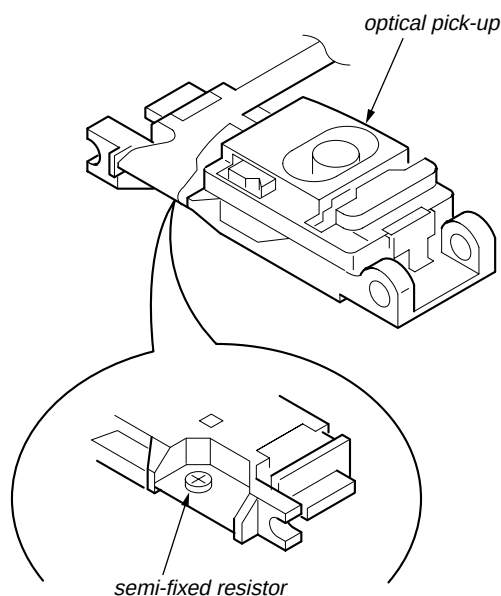
PATD-012 (Part No. 4-225-203-01)

CAUTION

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

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.



SAFETY-RELATED COMPONENT WARNING!!

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

This compact disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the exterior.

**CLASS 1
LASER PRODUCT**

This label is located on the bottom of the chassis.

• CD Playback

You can play CD-DA (also containing CD TEXT) and CD-R/CD-RW (MP3/WMA files).

Type of discs	Label on the disc
CD-DA	 
MP3 WMA	   

● 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.

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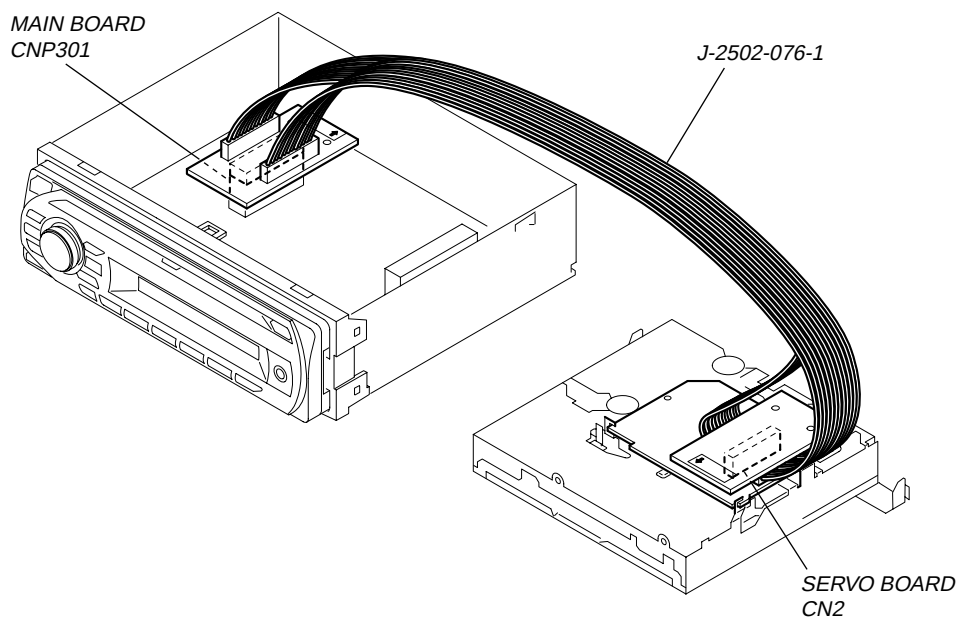
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SECTION 1 SERVICE NOTE

EXTENSION CABLE AND SERVICE POSITION

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

- Connect the MAIN board (CNP301) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



NOTE FOR REPLACEMENT OF THE SERVO BOARD

When repairing, the complete SERVO board (A-1201-631-A) should be replaced since any parts in the SERVO board cannot be repaired.

NOTE FOR REPLACEMENT OF THE AUX JACK (J901)

To replace the AUX jack requires alignment.

1. Insert the AUX jack into the KEY board.
2. Place the KEY board on the front panel.
3. Solder the three terminals of the jack.

