Owner's Record

The model and serial numbers are located on the bottom of the unit. 
Record the serial number in the space provided below. 
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. EXCD-21   Serial No. ____________________________

For installation and connections, see the supplied installation/connections manual.

EXCD-21

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Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

CAUTION

The use of optical instruments with this product will increase eye hazard.
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Precautions

- Before operating the unit for the first time or after replacing the car battery, press the reset button with a ball-point pen etc., then operate the unit.

Reset button

- If your car is parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before operating it.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers in 2-speaker systems, set the fader control to the center position.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Notes on CDs

A dirty or defective disc may cause sound dropouts during playback. To enjoy optimum sound, handle the disc as follows.
Handle the disc by its edge to keep the disc clean. Do not touch its surface.

Do not stick paper or tape on the labeled surface.

Do not expose discs to direct sunlight or heat sources such as hot air ducts. Do not leave them in a car parked in direct sunlight where there can be a considerable rise in the temperature inside the car.

Before playing, clean the discs with an optional cleaning cloth. Wipe each disc from the center of the disc outward.
Do not use solvents such as benzine, thinner, commercially available cleaners or antistatic spray intended for analog discs.

Notes on Moisture condensation

On a rainy day or in a very damp area, moisture may condense on the lenses inside the CD player. Should this occur, the unit will not operate properly. In this case, remove the disc and wait for about an hour until the moisture has evaporated.

When you play 8 cm (3 in.) CDs

To use the optional Sony compact disc single adapter (CSA-8) to protect the CD player from damage.
Setting the Clock

The clock has a 12-hour digital indication.

For example, setting it to 10:08

1 Display the time.
   (Press the \( \text{OFF} \) or \( \text{ON} \) button during unit operation.)

2 Press the \( \text{ON} \) button for more than two seconds.
   \[ \text{ON} \]
   The hour digit(s) blinks.

   Set the hour digits.
   \[ \text{00000} \]
   to go forward
   \[ \text{00000} \]
   to go back
   \[ \text{ON} \]

3 Press the SEL button momentarily.
   \[ \text{SEL} \]
   The minute digit(s) blinks.

   Set the minute digits.
   \[ \text{00000} \]
   to go forward
   \[ \text{00000} \]
   to go back
   \[ \text{SEL} \]

4 Press the \( \text{ON} \) button momentarily.
   The clock activates.

Note
If the car has no accessory position on the ignition key switch, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio, or during CD playback.

---

CD Player Operation

Playing a CD

After inserting the CD, playback will start from the first track automatically.

Label side up

If a CD is already inserted, press the CD button to start playback.

When the unit starts CD playback, the elapsed playing time will be displayed.
To display the elapsed playing time and the track number alternately, press the \( \text{ON} \) button.

Elapsed playing time

When the last track on the CD is over, the track number indication will return to “1”, and playback will continue from the first track of the CD.

Note
To play a 6 cm (3 in.) CD, use the optional Sony compact disc single adapter (CSA-8).

To stop playback,
eject the CD by pressing the \( \text{STOP} \) button or press the \( \text{OFF} \) button.
Playback stops also when you select another source (radio) by pressing the FM/AM button.

Ejecting the CD

Press the \( \text{STOP} \) button.

Note
If you leave the ejected disc in the disc insertion slot after you have pressed the \( \text{STOP} \) button, the disc will automatically retract into the unit after about 15 seconds in order to protect it.
Locating the Beginnings of Tracks — AMS (Automatic Music Sensor) Function

During playback, press either side of the SEEK/AMS/MANU button once for each track you wish to skip.

To locate previous tracks

To locate succeeding tracks

Playing Tracks in Random Order — Shuffle Play Function

Press the [ ] button during playback.
→ “SHUF” appears on the display.
All tracks on the currently selected disc are played in random order.

Locating the Desired Part of a Track — Manual Search Function

During playback, press and hold either side of the SEEK/AMS/MANU button for more than two seconds. Release the button when you have found the desired part.

To reverse

To forward

If you reverse to the beginning of the disc, “00:00” appears on the display. Forwarding to the end of the disc causes “---” to be displayed.

In either case, you can neither proceed to the previous nor the following track.

 Searching for the Desired Track — Intro Scan Function

Press the [ ] button during playback.
→ “INTRO” appears on the display.
The first 10 seconds of all the tracks are played. When you find the desired track, press the button once more. The unit returns to normal playback mode.

Playing Tracks Repeatedly — Repeat Play Function

Press the [ ] button during playback.
→ “REPEAT” appears on the display.
When the currently played track is over, it will be played again from the beginning.
To cancel this mode, press the button again.
Radio Reception

Searching for Stations Automatically — Automatic Tuning

1 Select the desired band.

2 Press either side of the SEEK/AMS/MANU button once to search for the next station (automatic tuning).

For lower frequencies
For higher frequencies

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

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

the "STEREO" indication appears.

To keep the automatic tuning from stopping on stations too frequently (local seek mode), press the SEEK button momentarily to get the "LOCAL" indication.

Only the stations with relatively strong signals will be tuned in. The local seek mode functions only when automatic tuning is in operation.

Memorizing Stations Automatically
— Automatic Memory Function

Stations with the clearest reception are automatically searched and memorized on each band (FM 1, FM 2, FM 3, and AM). Up to 6 stations on each band can be stored on the preset number buttons 1 to 6 in the order of band frequency.

1 Select the desired band.

2 Press the AMS button for more than two seconds.

The unit will be start scanning the selected band and memorize the tuned stations on the preset number button 1 through 6 automatically.

If FM Stereo Reception is Poor — Monaural Mode

Press the AMS button momentarily. "MONO" appears on the display. The sound will improve, but it will be monaural.

By pressing the AMS button, you can change the displayed items as follows:

- LOCAL —> MONO —> Normal mode —

Tuning in by Adjusting the Frequency — Manual Tuning

1 Select the desired band.

2 Press and hold either side of the SEEK/AMS/MANU button. Release the button when the desired station is received.

For lower frequencies
For higher frequencies

PREVENT ACCIDENTS!
When tuning in during driving, use automatic tuning.
Memorizing Only the Desired Stations

1 Select the desired band (page 7).

2 Tune in the station which you wish to store on a preset number button.

3 Press and hold the desired preset number button (\text{1} to \text{6}) for about two seconds until you hear a beep tone.

The number of the pressed preset number button appears in the display window.

(Up to 6 stations on each band (FM 1, FM 2, FM 3 and AM) can be stored on the preset number buttons in the order of your choice. Therefore, 18 stations can be memorized on FM. If you try to store another station on the same preset number button, the previously stored station will be erased.)

Other Functions

Adjusting the Sound Characteristics

1 Select the item you want to adjust by pressing the SEL button repeatedly.

\[ \text{VOL (volume) \rightarrow BAS (bass) \rightarrow TRE (treble) \rightarrow BALANCE \rightarrow FADER \rightarrow VOL (volume) \rightarrow ...} \]

2 Adjust the selected item by pressing either side of the +/- button.

Adjust within three seconds after selecting (After three seconds the buttons will again serve as volume control buttons.)

Receiving the Memorized Stations

1 Select the desired band (page 7).

2 Press momentarily the preset number button (\text{1} to \text{6}) on which the desired station is stored.

Note

If you press the preset number button for more than two seconds, the currently received station will be memorized. To receive the previously memorized station, make sure that the preset number button is pressed only momentarily.

Enjoying Bass and Treble at Low Volume

— Loudness Function

Press the [LOUD] button. — “LOUD” will appear on the display. The bass and treble will be boosted. To cancel, press again.

Muting the Sound Quickly

— Mute Function

Press the [MUTE] button. — The “MUTE” indication flashes. The sound is muted at once. To restore the previous volume level, press again.

This function will be also cancelled when:

— +/- side of the +/- or OFF button is pressed.
— changing a CD by pressing the \text{E} button during CD play back.
Muting the Beep Tone

Press the button while pressing the SEL button.
To reactivate the beep tone, press these buttons once more.

Note
When connecting an optional power amplifier to the LINE OUT, the beep tone is disabled.

Dismounting the Unit

1 While pushing in on the left side of the front cover, insert the tip of a thin screwdriver as shown in the illustration, then pry off the front cover.
Thin screwdriver
(Be careful to not break the front cover.)

2 Repeat step 1 on the right side. Then the front cover will be removed.

3 Use a thin screwdriver to push in the clip on the left side of the unit, then pull out the left side of the unit until the catch clears the mounting.

4 Repeat step 3 on the right side.

5 Slide the unit out of the mounting.

Turning on the Clock Display — Power Select Function

Only for cars with accessory position on the ignition key switch

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

Maintenance

Fuse Replacement
When replacing the fuse, be sure to use one matching the amperage rating stated on the fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

Fuse (15 A)

Warning
Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.
Refer to the pages in ( ) for details.

1. LOUD (loudness) button ( )
2. OFF button ( )
3. Reset button ( )
4. DSPL (display mode change/time set) button ( )
5. +/- (volume/bass/treble/balance/fader control) button ( )
6. Display window
7. SEEK/AMS/MANU (automatic tuning/Automatic Music Sensor/manual search) button ( )
8. ▲ (eject) button ( )
9. SENS (sensitivity adjust) button ( )
10. MUTE button ( )
11. SEL (control mode select) button ( )

12. During radio reception:
   Preset number buttons ( )

   During CD playback:
   - INTRO (intro scan) button ( )
   - REPEAT (repeat play) button ( )
   - SHUF (shuffle play) button ( )

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

14. CD (CD play) button ( )

15. A.MEM (Automatic Memory function) button ( )
Specifications

Audio Power Specifications
Power Output and Total Harmonic Distortion
7 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1% total harmonic distortion.

Other Specifications

CD Player Section
System: Compact disc digital audio system
Signal-to-noise ratio: 90 dB
Frequency response: 10 – 20,000 Hz
Wow and flutter: Below measurable limit
Laser Diode Properties
Material: GaAlAs
Wavelength: 780 nm
Emission Duration: Continuous
Laser output power: Less than 44.6 μW
* This output value is measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

Tuner Section
FM
Tuning range: 87.5 – 107.9 MHz
Antenna terminal: External antenna connector
Intermediate frequency: 10.7 MHz
Usable sensitivity: 13 dB
Selectivity: 70 dB at 400 kHz
Signal-to-noise ratio: 65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz: 0.5% (stereo), 0.3% (mono)
Separation: 33 dB at 1 kHz
Frequency response: 30 – 15,000 Hz
Capture ratio: 2 dB

AM
Tuning range: 530 – 1,710 kHz
Antenna terminal: External antenna connector
Intermediate frequency: 450 kHz
Sensitivity: 32 μV

Power Amplifier Section
Outputs: Speaker outputs (sure seal connectors)
Speaker impedance: 4 – 8 ohms
Maximum power output: 20 W x 4 (at 4 ohms)

General
Output lead: Power antenna control/Power amplifier control lead
Tone controls: Bass ±10 dB at 100 Hz
Treble ±10 dB at 10 kHz
Power requirements: 12 V DC car battery
Dimensions: Approx. 178 x 50 x 180 mm
(7 1/8 x 2 x 7 1/8 in)
(w/h/d)
Mounting dimension: Approx. 183 x 53 x 159 mm
(7 1/8 x 2 1/8 x 6 1/8 in)
(w/h/d)
Mass: Approx. 1.2 Kg (2 lb 10 oz)
Supplied accessories: Parts for installation and connections (1 set)
Optional accessories: RCA pin cord
RC-63 (1 m), RC-64 (2 m),
RC-65 (5 m)
Cleaning cloth XP-CD1
Compact disc single
adaptor CSA-8

Design specifications are subject to change without notice.

11
**Troubleshooting Guide**

The following checklist will assist in the correction of most problems which you may encounter with your unit.

Before going through the checklist below, refer to the connection and operating procedures.

### General

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause/Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound</td>
<td>• Adjust the volume with + side of the +/- button.</td>
</tr>
<tr>
<td></td>
<td>• Set the fader control to the center position for 2-speaker systems.</td>
</tr>
</tbody>
</table>

| The contents of the memory        | • The power cord or battery has been disconnected.                             |
| have been erased.                 | • The reset button has been pressed.                                          |
|                                   | → Store stations into memory again.                                           |

| Indications do not appear in the  | Press the reset button.                                                        |
| display window.                   |                                                                               |

| Antenna does not retract.         | When the AMP/ANT REM lead is connected to the power antenna, the antenna will be extended as long as the unit is turned on. |

| No beep tone.                     | • An optional power amplifier is connected to the LINE OUT.                    |
|                                   | • The beep tone is muted (page 9).                                             |

### CD playback

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause/Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD cannot be loaded.</td>
<td>• Another CD is already loaded.</td>
</tr>
<tr>
<td></td>
<td>• The CD was forcibly inserted upside down.</td>
</tr>
</tbody>
</table>

| Play does not begin.              | Dusty disc.                                                                    |

| CD is automatically ejected.      | The ambient temperature is more than 50°C.                                    |

| CD will not eject.                | Press the \[ button for more than two seconds.                                 |

| The operation buttons do not      | Press the reset button.                                                        |
| function.                         |                                                                               |

| The sound skips due to vibration. | • The unit is installed at an angle of more than 20º.                         |
|                                   | • The unit is not installed in a sturdy part of the car.                      |

### Radio reception

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause/Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preset tuning is not possible.</td>
<td>• Memorize the correct frequency.</td>
</tr>
<tr>
<td></td>
<td>• The broadcast is too weak.</td>
</tr>
</tbody>
</table>

| Automatic tuning is not possible. | The broadcast is too weak. → Use manual tuning.                              |

| The “STEREO” indication flashes.  | • Tune in precisely.                                                          |
|                                   | • The broadcast is too weak.                                                  |
|                                   | → Press the [MONO] button to enter the MONO mode.                             |
## Error displays

The following indications will flash for about five seconds.

<table>
<thead>
<tr>
<th>Display</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>E - 04</td>
<td>CD is dirty or inserted upside down.</td>
<td>Clean or insert the CD correctly.</td>
</tr>
<tr>
<td>E - 99</td>
<td>The CD player cannot be operated because of some problem.</td>
<td>Press the reset or button.</td>
</tr>
</tbody>
</table>

If the above-mentioned solutions do not help to improve the situation, consult your nearest Sony dealer.
FM/AM Compact Disc Player

Installation/Connections

EXCD-21

Sony Corporation © 1995  Printed in Korea
Connections

Caution

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

If Your Car has an Accessory Position on the Ignition Key Switch

— Power Select Function

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

Reset Button

When the installation and connections are over, be sure to press the reset button with a ball-point pen etc.
Parts for Installation and Connections
The numbers in the list are keyed to those in the instructions.

1. Part A: 1
2. Part B: 1
3. Part C: 1
4. Part D: 1
5. Part E: 1 (incl. 2 reserve)
6. Part F: 2 (2 réserves comprises)
7. Part G: 1
Installation

Precautions

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

Mounting Example

Installation in the dashboard

1. With the TOP marking up
2. Bend these claws, if necessary.
Mounting angle adjustment
Adjust the mounting angle to less than 20°.

To support the unit

Fire wall

Dashboard

max. size M4 × 6 mm
Mounting the Unit in a Japanese Car

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

**TOYOTA**

![Diagram of mounting unit](image)

**Bracket**

1. max. size
   M5 × 8 mm

2. max. size
   M5 × 8 mm

*to dashboard/center console*

**Note**

To prevent malfunction, install only with the supplied screws 1 and use existing parts supplied to your car.