SONY

COMPACT DISC PLAYER

CDP-7F

OPERATING INSTRUCTIONS Page 5

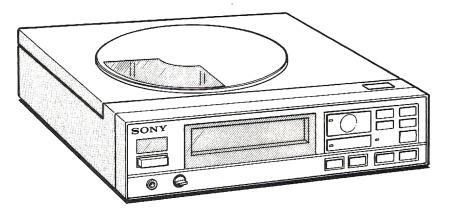
Before operating the unit, please read this manual thoroughly. This manual should be retained for future reference.

MODE D'EMPLOI page 15

Avant la mise en service de l'appareil, lire attentivement ce mode d'emploi. Conserver ce manuel pour toute référence ultérieure.

MANUAL DE INSTRUCCIONES página 24

Antes de utilizar el aparato, lea este manual detenidamente, y consérvelo para futuras referencias.





For the customers in the United States

OWNER'S RECORD

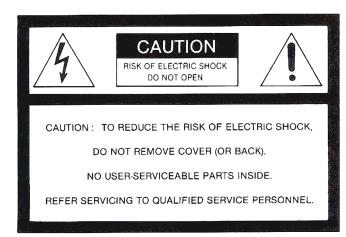
The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. CDP-7F

Serial No._____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The graphical symbols are on the bottom.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 the receiving antenna

Relocate the equipment with respect to the receiver Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

CAUTION

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

DANGER

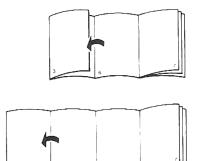
Invisible laser radiation when open and interlock defeated.

Avoid direct exposure to beam.

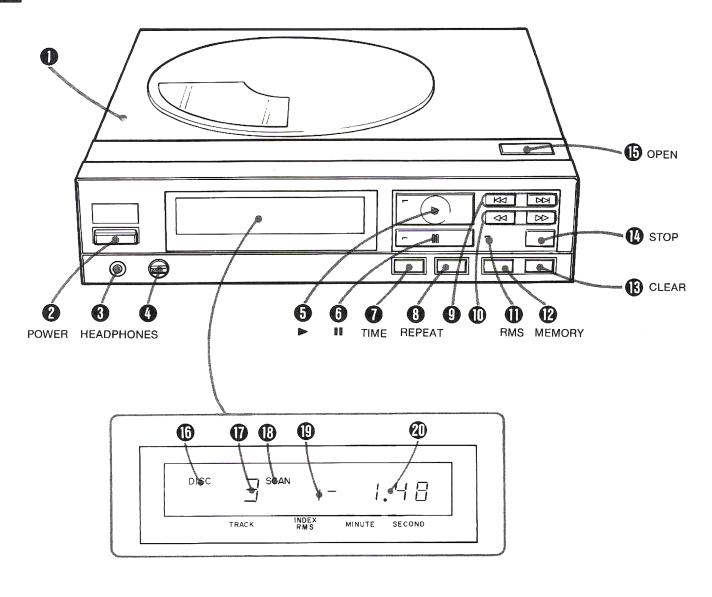
As you read, fold back this page and refer to the illustrations $\mathbf{A} - \mathbf{C}$ on pages 3-5.

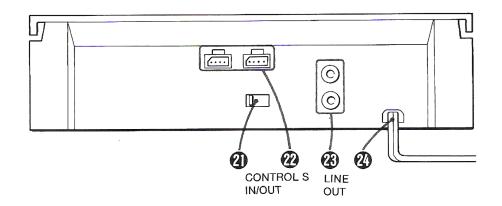
Au cours de la lecture, déplier cette page et consulter les illustrations de 🛕 à 🖸 des pages 3 à 5.

Cuando lea este manual, abra esta página y refiérase a las ilustraciones A - C de las páginas 3 a 5.

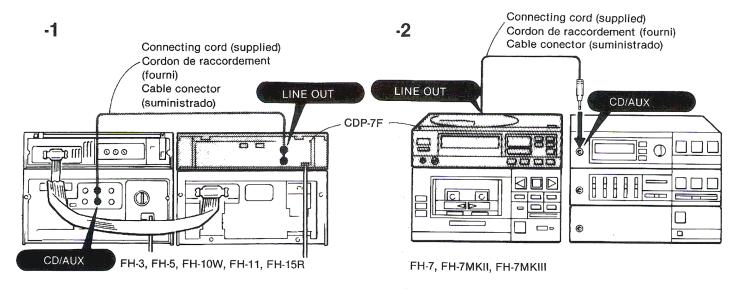


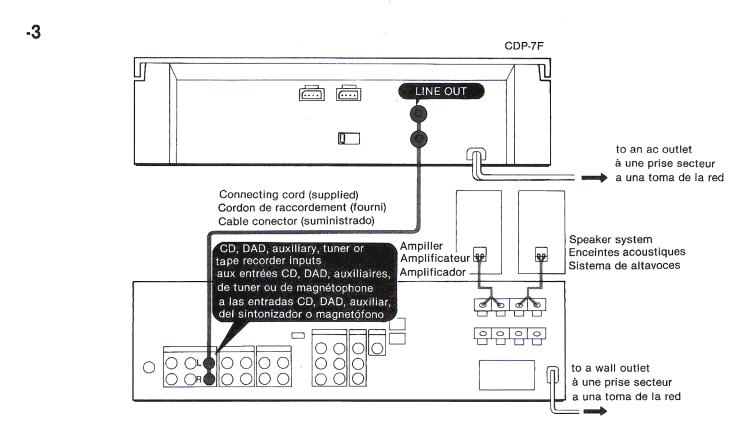






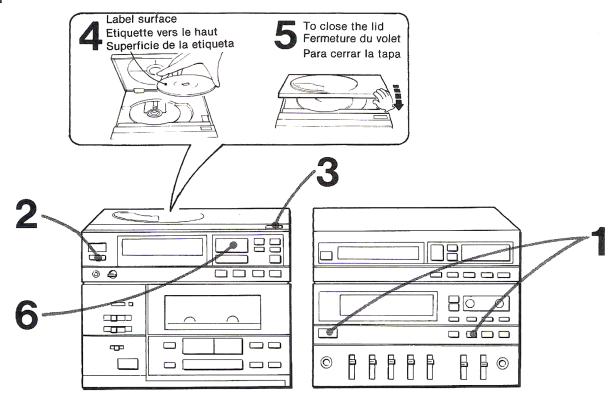


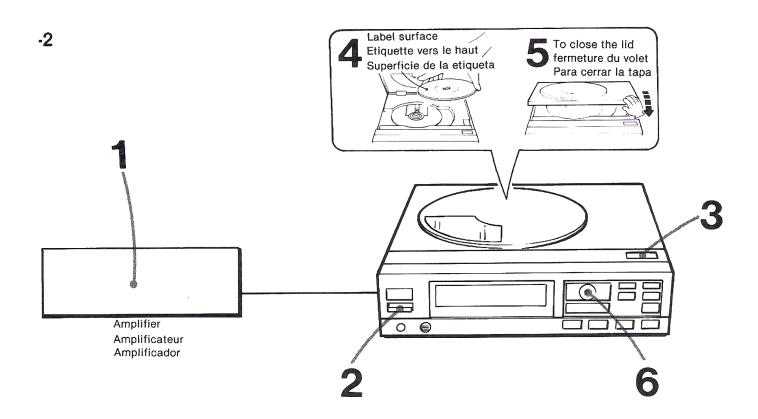






-1





WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

For the Customers in the United Kingdom

Important

The wires in the mains lead are coloured in accordance with the following code:

Blue : Neutral Brown : Live

As the colours of the wires in the mains lead of this apparatus may not correspond to the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

CAUTION

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

CLASS 1 LASER PRODUCT This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRO-DUCT label is located on the right side.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

DANGER

Invisible laser radiation when open and interlock defeated.

Avoid direct exposure to beam.

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FEATURES

With the CDP-7F, flat frequency response (20 - 20,000 Hz), low wow and flutter (lower than the measurable limit), wide dynamic range (more than 90 dB), minimal distortion (0.008%) and high channel separation (more than 85 dB) are achieved. Listening to the sound reproduction of your CDP-7F is just like being in the concert half.

Quick operation

Feather-touch function keys for direct mode change.

Various functions

- AMS (Automatic Music Sensor) for quick selection location.
- RMS (Random Music Sensor) for listening order preference.
- Repeat functions for one selection and the whole disc.
- Large and clear digital display for elapsed playing time and remaining playing time.
- Using the optional Sony RM-D1K wireless remote control kit, the remote control operation of the CDP-7F is possible.

PRECAUTIONS

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- As the laser beam used in this Compact Disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.
- Do not put anything in the safety slot inside the disc compartment. If you do, the laser beam may come out when the lid is opened and your eyes may be subject to serious damage.

On installation

- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Do not install the unit in an enclosed location, nor cover the unit with a cloth or other material. If the heat dissipation is poor, internal heat will build up, which may damage the unit.

On operation

When the unit is not used, turn the power off to conserve energy and to extend the useful life of your unit.

On cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

On repacking

Do not throw away the carton and the packing material. They make an ideal container to transport the unit in. When shipping the unit for repair work or to another location, repack it as illustrated on the carton.

For the customers in the USA

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

OPERATING VOLTAGE

Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power line voltage.

The continental European model (Type 1) operates on 220 V ac.

The United Kingdom model (Type 2) operates on 240 V ac

The model for USA and Canada (Type 3) operates on 120 V ac.

The model for other countries (Type 4) operates on 110-120 or $220-240\,\mathrm{V}$ ac. The voltage selector is located at the rear. If the selector must be reset, **disconnect the ac power cord** and slide the selector to the appropriate voltage.

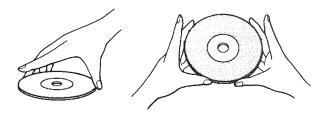
NOTES ON MOISTURE CONDEN-SATION

If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the unit.

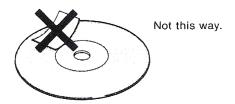
Should this occur, the player will not operate. In this case, remove the disc and leave the player turned on for about an hour to evaporate the moisture.

NOTES ON COMPACT DISCS

Handle the disc by its edge, and to keep the disc clean, do not touch the rainbow colored surface.



Do not stick paper or tape on the labeled surface.



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



Before playing, clean the disc with the optional CD cleaner.

Wipe the disc from the center out.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

After playing, store the disc in its case.

LOCATION AND FUNCTION OF CONTROLS

Before plugging in or attempting to operate this unit, it is suggested that you familiarize yourself with all its switches and controls and the purpose of each. Each number in the text is keyed to that of the illustra-

Each number in the text is keyed to that of the illustration A on page 3.

Front panel

Disc compartment lid

To open the disc compartment lid, press the OPEN button and slightly lift up the lid.

Place a compact disc in the compartment. To close the lid, lightly push the labeled portion down.

POWER switch

Depress to turn on the power (\square ON). To turn the power off, press the switch again (\square OFF).

HEADPHONES jack (stereo minijack)

Connect headphones with a stereo miniplug here.

Meadphones volume control

Adjust the headphone volume when listening with the headphones.

⑤ ► (play) key and indicator

Press to start normal disc play or RMS play. The indicator on this key will illuminate.

(pause) key and indicator

Press to pause during play. The indicator on this key will illuminate. To release the pause mode, press this key again. The indicator will go off and disc play will resume.

TIME key

The time counter normally indicates elapsed time.

When this key is pressed, the time counter shows the time remaining before the end of the last selection, preceded by a minus sign.

When this key is pressed the second time, the time counter reverts to the elapsed time.

REPEAT key

To repeat the selection currently being played, press this key once (1). To repeat all the selections on the disc, press the key again (ALL).

The selected repeat mode is displayed in the display window.

To release repeat play, press the key again. The displayed indication will disappear.

AMS/RMS keys

- (back selection): Press to go back to a previous selection.
- (forward selection): Press to skip ahead to a later selection.

Manual search keys

Keep the appropriate key pressed to search for a particular point on the disc during either play or pause. You can monitor the disc sound reproduced in forward or in reverse at a high speed while searching during play.

When you release this key, normal-speed play will resume (during play) or the player will return to the pause mode (during pause).

To go backwards at a high speed (several times higher than the normal playing speed).

To skip ahead at a high speed (several times higher than the normal playing speed).

In the pause mode, the search speed is tripled.

10 RMS play indicator

This indicator lights during RMS play.

@ MEMORY key

Press this key to memorize the track number of the displayed selection for the RMS play.

® CLEAR key

While memorizing the track numbers for the RMS play, press this key to clear the track number of the selection which was memorized last.

© STOP key

When this key is pressed, disc play is reset to the very beginning of the first selection and the player stands by.

(B) OPEN button

With one touch of this button, the disc compartment lid opens.

Display window

@ DISC indicator

The indicator flickers when the disc compartment lid is opened.

The indicator illuminates steadily, when the disc compartment lid is closed with a disc in place (in the standby mode), or when the disc is playing.

TRACK indicator

When the disc is placed in the disc compartment and the disc compartment lid is closed, this indicator shows for a few seconds the total number of the selections recorded on the disc.

During play, this indicator shows the track number of the selection being played.

® SCAN indicator

This indicator illuminates while the player is searching for the point on the disc you have programmed.

@ INDEX/RMS indicator

If index signals are recorded on the disc being played, the index numbers are shown here.

While memorizing selections for the RMS play, this indicator shows the order of memory.

@ Time counter

When the disc is placed in the disc compartment and the disc compartment lid is closed, this indicator shows for a few seconds the total playing time of the disc.

During play, this time counter shows the location in a particular selection by means of actual elapsed time. When the TIME key is pressed, the time counter shows how much playing time is left on the disc. The first two digits of the counter show playing time of the selection in minutes, and the last two digits show the seconds.

Rear panel

② Voltage selector (only for type 4 model)

Set the selector to the appropriate voltage (110 - 120 or 220 - 240 V ac).

@ CONTROL S connectors (4-pin)

OUT: Connect to the CONTROL S IN of other Sony audio equipment for the remote control of the total audio system.

IN: Connect to the CONTROL S OUT of an optional Sony system control tuner or receiver for the remote control of the total audio system.

The optional Sony RM-D1K remote control kit can also be connected here to remotely operate the CDP-7F. For details, read the instruction manual of the RM-D1K.

LINE OUT jacks (phono jacks)

These jacks can be connected to the CD or auxiliary input jacks of an amplifier using the supplied connecting cord.

2 AC power cord

CONNECTIONS

For hooking up, see the connection diagram **B** on page 4.

To connect the CDP-7F to the Sony FH series stereo component system such as the FH-3, FH-5, FH-10W, FH-11 or FH-15R, see Fig. **B**-1.

To connect the CDP-7F to the Sony FH-7, FH-7MKII, FH-7MKIII or FH-9 stereo component system, see Fig. **B** -2.

Notes

- Do not connect the CDP-7F in other way than shown in Fig. B.
- When listening to the tuner program source, turn off the power of the CDP-7F. Otherwise an interference may occur.

To connect the CDP-7F to an amplifier or receiver , see Fig. \blacksquare -3.

Notes on connection

- Turn off the amplifier before making connections.
- Be sure to insert the cable connectors firmly into the jacks.

Loose connections may cause hum and noise.

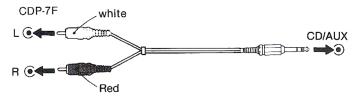
• Connect the red plug of the supplied connecting cord to the right-channel jack (R) of the amplifier and the white plug to the left-channel jack (L). Otherwise, the right and left channels will be reversed.

To connect the CDP-7F to the FH-3, FH-5, FH-10W, FH-11 or FH-15R





To connect the CDP-7F to the FH-7, FH-7MKII, FH-7MKIII or FH-9



- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.
- Be sure not to connect the CD player to the PHONO input jacks of the amplifier.
- If the CD player causes interference to radio and television reception, turn off the power of the CD player or move the player away from the receiver.

DISC PLAYING

Operate the set, following illustration on page 5.

- When connecting the CDP-7F to the Sony FH series system, press the POWER switch of the system and select the CD for input program source. (Q-1) When connecting the CDP-7F to an amplifier, turn the amplifier on and set the input selector to the CD (CD/AUX) position. (C-2)
- 2 Depress the POWER switch (= ON).
- 3 Press the OPEN button. The DISC indicator flickers and the disc compartment lid opens.
- 4 Put the disc in place with the label surface up.
- 5 Lightly push down the labeled portion on the lid to close it.
- 6 Press the ► key. Play begins from the beginning of the disc.

When the disc compartment is closed, the total selection number and total playing time are displayed in the display window. During play, the time counter displays the elapsed playing time of the selection being played.

When the player reaches the end of the last selection of the disc, it is automatically reset to standby mode. To open the compartment lid, press the OPEN button.

TO STOP DURING PLAY

To open the compartment

First, press the STOP key and then press the OPEN button. The disc will stop rotating after a few seconds.

To pause for a moment during play

Press the **||** key. The **||** indicator will illuminate. To release pause and restart play from the same point, press the **||** key again.

To reset to the beginning of the first selection Press the STOP key. The player will stand by.

Note

Do not press the OPEN button while playing the disc. If you do so, the disc may slip.

An important point to remember

In the CD system, a wider dynamic range is achieved than that of the conventional analog system, and the peaks of high level inputs are recorded with high-fidelity. In addition, the noise level is very low.

If you turn up the volume inadvertently while listening to a portion where no audio signals or very low level inputs are recorded, the speakers may be damaged when the portion with peak levels is played.

SEARCH OPERATION

TO SEARCH FOR A PARTICULAR SELECTION —AMS (Automatic Music Sensor) function

Using the or key, you can quickly locate a desired selection ahead or back. When the key is pressed, the player searches the selection data recorded at the beginning of each selection and play will start from the beginning of the selection.

To search for a previous selection

Press the key during play or pause.

When the key is pressed once, the beginning of the selection being played is searched for.

When the key is continuously pressed, the previous selection is searched for.

Keep the | ✓ key pressed until the desired music number is displayed.

If you press the ◄ key after the first selection on the disc is located, the TRACK indicator will not change.

To search for a selection ahead

Press the key during play or pause.

When the key is pressed once, the next selection after that being played is searched for.

When the key is continuously pressed, the selection ahead is searched for.

Keep the key pressed until the desired music number is displayed.

If you press the $\blacktriangleright \blacktriangleright$ key after the last selection on the disc is located, the TRACK indicator will not change.

TO SEARCH FOR A PARTICULAR POINT IN A SELECTION—Manual Search

Using the boot (manual search) keys, you can locate a particular point of a selection during play or pause. While one of the boot (manual search) keys is pressed, the disc playing goes ahead or back. Release the key at the desired point found by observing the time counter or monitoring the high-speed sound (only during play).

In the pause mode, the search speed is tripled.

Manual search keys

To go back at a high speed. To go ahead at a high speed.

When the $\triangleleft \triangleleft$ or $\triangleright \triangleright$ key is kept pressed during repeat play and repeat play end is reached, the "SCAN" indicator will light in the display window and repeat play resumes.

What are these indications?



This indication is displayed when you have passed the end of the disc by keeping the key pressed. The indication returns to normal display when the key or key is pressed.



This indication is displayed when you have passed the beginning of the disc by keeping the ◀ key pressed. When the player is in the play mode, the indication automatically returns to the normal display. In the pause mode, press the ▶ key or ▶ key.

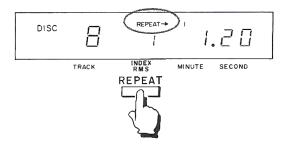
REPEAT PLAY

Using the REPEAT key, you can repeat the selection being played or the whole disc.

TO REPEAT ONLY THE SELECTION BEING PLAYED

Press the REPEAT key once during play. The indicator in the display window will illuminate. When the disc reaches the end of the selection, it will automatically go back to the beginning of the selection and play will restart.

To release the repeat mode, press the REPEAT key twice.

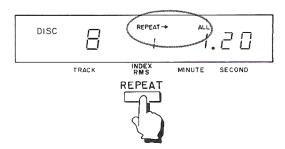


TO REPEAT THE WHOLE DISC

Press the REPEAT key twice. The indicator in the display window will illuminate.

When the disc reaches the end of the last selection, the player will automatically go back to the beginning of the first selection, and play will restart.

To release the repeat mode, press the REPEAT key.



TO CANCEL THE REPEAT PLAY

The 1 or ALL repeat play continues until the key is pressed again.

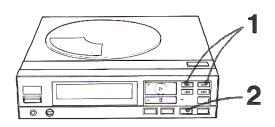
Any repeat program is also cancelled when the STOP key is pressed.

RMS PLAY

With the RMS feature, up to 16 selections can be played in the order you prefer.

HOW TO MEMORIZE SELECTIONS

Make sure that the set is in the stand-by mode.



- Select the track number of the selection you want to play first with the ▶ or ⋈ key.
- 2 Press the MEMORY key. The INDEX/RMS indicator shows / to indicate that the selection of the displayed track number is memorized as the first selection.

The indicator on the ▶ key flickers while memorizing the track numbers.

Repeat the above procedures to memorize up to 16 other selections.

When a selection has been memorized, the INDEX/RMS indicator shows the order it will be played in the memorized sequence.

To change the memorized selection

Press the CLEAR key. The track number of the selection which was memorized last (i. e. displayed on the display window) is cleared. Press this key as many times as required.

To clear all the memorized selections, press the STOP key

To memorize a new selection, follow the steps above.

HOW TO START RMS PLAY

Press the ▶ key while the indicator on this key flickers. The RMS indicator and the indicator on the ▶ key light and the selections are played in the memorized order.

The indicator on the ▶ key flickers for about 20 seconds long. If the indicator on the ▶ key stops flickering, memorize the selections again following the above procedure.

To stop the RMS play, press the STOP key.

 During the RMS play, the time counter displays the elapsed playing time of the selection being played.
 When the TIME key is pressed, the counter will change to -----.

- Repeat functions can be activated during the RMS play.
- During the RMS play, the INDEX/RMS indicator shows the index number recorded in the selection being played.
- To go ahead or back to the next or previous memorized selection, press either of the |◄◄ or ▶►| keys.

When all the selections memorized have been played back, the memory is cleared and the player stands by. The TRACK indicator displays \Box .

Note

As the RMS searches for the next memorized selection very quickly, there may be little blank between selections. When the selections played with the RMS feature are recorded on the tape, the AMS function of the cassette player may not be activated.

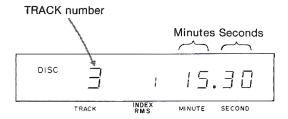
USING THE TIME COUNTER

TO MONITOR THE ELAPSED PLAYING TIME

Generally, the time counter shows the elapsed playing time from the beginning of the selection in minutes and seconds.

When a new selection starts, the counter is reset to "0.00" and then starts counting time again.

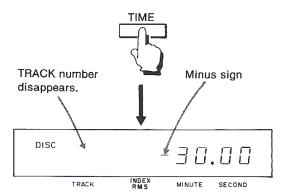
If the selection has a blank space at its beginning, the counter is reset to the time preceded by the minus sign such as "-0.02", "-0.01", etc.



shows 15 minutes 30 seconds have elapsed from the beginning of the third selection

TO MONITOR THE REMAINING PLAYING TIME

When the TIME key is pressed, the counter shows the remaining time, preceded by a minus sign, before the end of the last selection.



shows 30 minutes 00 seconds remaining before the end of the disc

The digits will change, for example, from -30.00 to -29.59, -29.58... as the play goes on, and you can monitor the remaining playing time at any point of the disc.

To return the counter to the elapsed time, press the TIME key again.

MAINTENANCE

CLEANING THE CASING

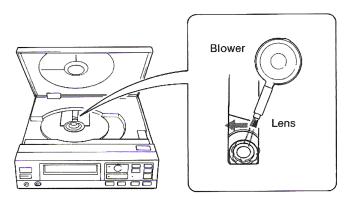
Clean the casing with a soft cloth slightly moistened with water or mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine as they may mar the finish of the casing.

CLEANING THE LENS

If you have accidentally touched the lens with a dirty finger or the dust on the lens prevents the set from operating properly, open the disc compartment lid with the OPEN button and clean the lens.

To remove dust

Blow on the lens a few times with a commercially available blower, brush the dust away in the direction of the arrow, then blow on the lens again.



In the lens is still dirty after you have followed the above instruction and the set still does not function properly, consult the nearest Sony dealer.

SPECIFICATIONS

COMPACT DISC PLAYER

System Compact disc digital audio system

Disc Compact disc

Laser diode properties

Material : GaAlAs Wavelength : 780 nm

Emission duration: Continuous
Laser output: Max. 0.6 mW*

*This output is the value measured at a
distance of about 1.6 mm from the objective
lens surface on the optical pick-up block.

Spindle speed 200 r.p.m. to 500 r.p.m. (CLV)

Scan velocity 1.2 - 1.4 m/sec.

Error correction Sony Super Strategy Cross Interleave

Reed Solomon Code

Number of channels 2

D-A conversion 16-bit linear

Frequency response $20 - 20,000 \text{ Hz } ^{+0}_{-4} \text{ dB}$ Harmonic distortion Less than 0.008 % (1 kHz)

Dynamic range More than 90 dB
Channel separation More than 85 dB
Wow and flutter Below measurable limit

Outputs Line outputs

Output level 2 V rms (at MSB) Load impedance over 50 kilohms

Headphones 10 mW at 32 ohms

Disc

Track pitch 1.6 μ m Sampling frequency 44.1 kHz

Quantization 16 bit linear quantizing/channel

Modulation system EFM

Transfer rate 2.03 Mbit/sec. (before modulation)

General

Power requirements Type 1: 220 V ac

Type 2: 240 V ac Type 3: 120 V ac

Type 4: 110 - 120 or 220 - 240 V ac

adjustable, 50/60 Hz

Power consumption

12 W

Dimensions Approx. $215 \times 55 \times 250 \text{ mm (w/h/d)}$

 $(8^{1/2} \times 2^{1/4} \times 9^{7/8} \text{ in.})$

including projecting parts and controls

Weight Approx. 2 kg (4 lbs 7 oz)

Supplied accessories

Connecting cords (2 phono plugs \leftrightarrow 2 phono plugs, phone plug \leftrightarrow 2 phono

plugs)

OPTIONAL ACCESSORY

CD cleaner XP-CD1

Wireless remote control kit RM-D1K

While the information given is correct at the time of printing, small production changes in the course of our company's policy of improvement through research and design might not necessarily be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

Note

This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

TROUBLE CHECKS

The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problems persist after you have made these checks, consult your nearest Sony service facility. Before going through the check list below, first refer back to the connection and operating procedures.

Play does not begin.

- The disc is inserted with the labelled surface downwards.
- The disc is incorrectly inserted.
- Dusty or defective disc.
- The II key is engaged.

Moisture condensation (see page 7).

No audio from one or both channels.

Incorrect connections.