

Radio Cassette-Corder

CFS-720

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

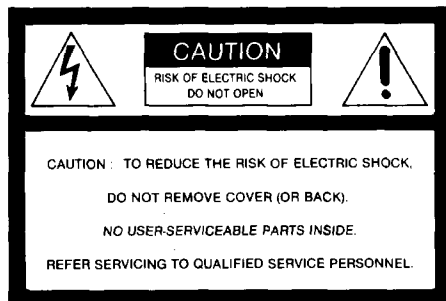
The model number is located at the rear and the serial number is located in the battery compartment.

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. CFS-720 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.

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.

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Precautions

Notes on Power Source

- Operate the unit only on 120 V AC or 9 V DC.
For AC operation, use the supplied AC power cord; do not use any other type.
For battery operation, use six size D (R20) batteries.
- Remove batteries when not in use to avoid damage from battery leakage.

Handling the Unit

- Avoid exposure to temperature extremes, direct sunlight, dust, or mechanical shock.
- Should anything fall into the unit, immediately unplug the unit (or remove batteries) and have it checked by qualified personnel before operating it again.
- When the unit has not been used for a long time, set it in the playback mode for several minutes before inserting a cassette.
- Unplug the unit from the wall outlet when it is not to be used for an extended period of time.

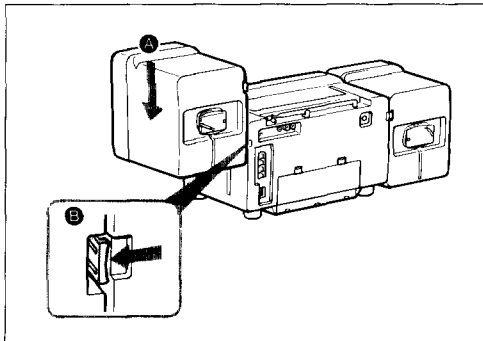
Note on Cassette

Use of cassettes longer than 90 minutes is not recommended except for long continuous recording or playback.

Whether you are going to operate the unit on AC power or on batteries, make sure to insert two size AA (R6) batteries for the tuner memory function.

If you have any question or problem concerning your unit please consult the nearest Sony dealer.

Connecting Speakers

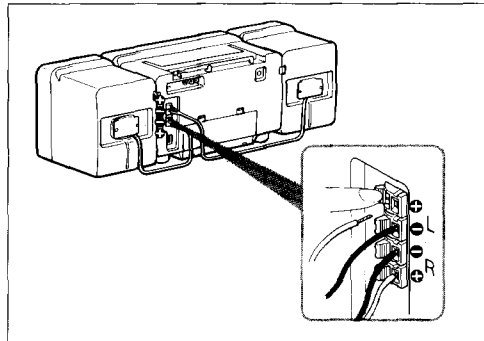


To attach speakers A

Align the grooves and slide the speaker box down.

To detach speakers B

Pressing the speaker lock to unlock it, slide the speaker box all the way up and away from the main unit.



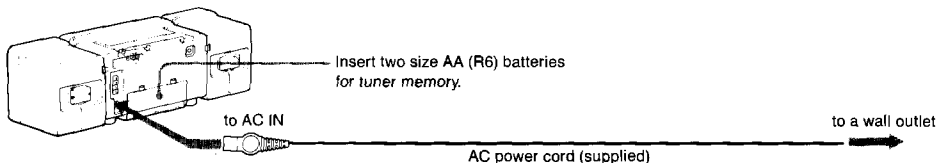
To connect the speaker wire

- Turn off the power before connecting or disconnecting the speaker cords.
- Connect the speaker cord of the right speaker to the R connectors and left speaker to the L connectors.
- Connect black wires to – terminals and red wires to + terminals.

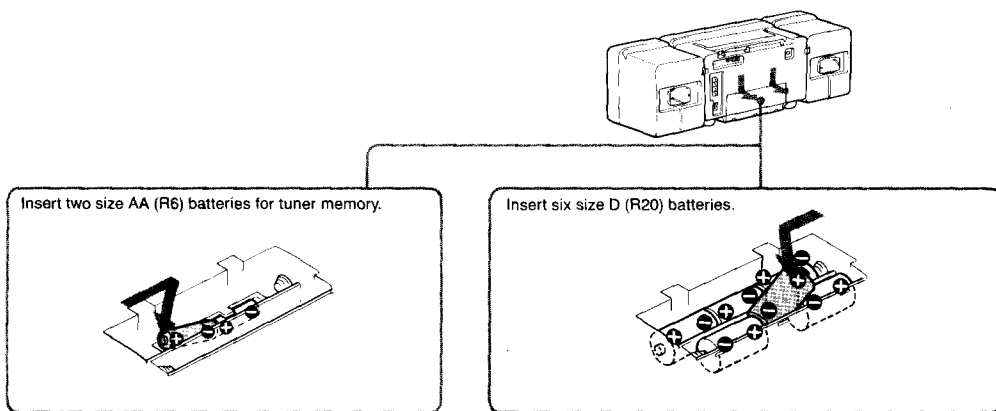
Power Sources

Two separate power sources are needed to operate this unit: one for the unit itself and one for the tuner memory. You can use the unit either with house current, or batteries. In either case, **be sure to insert batteries for the tuner memory.**

House Current



Batteries



Battery replacement

Batteries for tuner memory

- In normal operation, battery life is up to approx. one year. Replace the batteries with new ones before the batteries become weak. When the batteries become weak, a malfunction will occur in the tuner memory section.
- When you replace the batteries for tuner memory, be sure to connect the AC power cord to the unit and to the wall outlet before you remove the batteries. The FUNCTION selector should be set to RADIO.
- If the tuner memory fails to function after battery replacement, set the stations again. (See page 4).

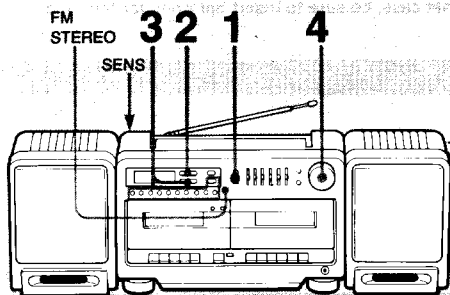
Batteries for operation of the radio cassette-corder

- When the batteries become weak, the OPR/BATT (operation/battery) indicator will glow faintly. In this case, replace all batteries with new ones.

Notes

- The unit cannot be operated on the internal batteries when the AC power cord is connected to the unit.
- For critical recording, operating the unit on AC power source is recommended.

Listening to Radio Programs

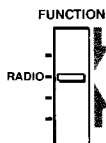


To Turn off the radio
Set FUNCTION to TAPE/RADIO OFF.

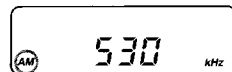
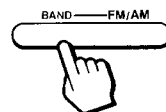
When an FM stereo program is tuned in
FM STEREO indicator lights up.

If the received FM stereo is too weak
The reception becomes monaural, and the FM STEREO indicator will go off.

1 Set FUNCTION to "RADIO".



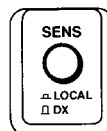
2 Select the band desired, FM or AM.



AM or FM

(If the station desired is preset, skip this step.)

To eliminate noise when broadcast source is nearby
Set SENS (sensitivity) to LOCAL. (Generally, set it to DX.)

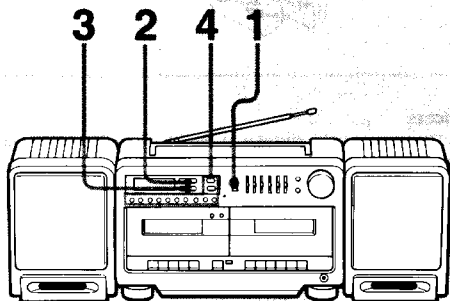


For private listening, connect stereo headphones to PHONES jack.

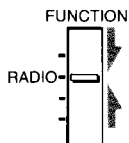
Memory Preset Tuning

Once you preset the stations, you can listen to the station desired just by pressing the number buttons. You can preset up to 20 stations at random.

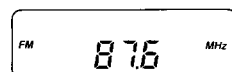
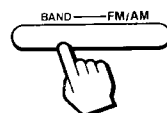
Ex. To memorize 89.2 MHz FM at preset 2.



1 Set FUNCTION to "RADIO".



2 Select the band desired, FM or AM.



To tune in a preset station

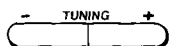
After memorizing in the example above: press the preset tuning button 2. Memorized station FM 89.2 MHz will be tuned.

To erase the previous station

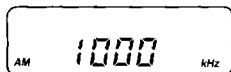
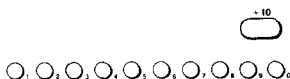
Enter a new station on the preset button, and the previous station will be erased automatically.

3

Tune in a station desired, or press the number button if the stations are preset.



or



The frequency increases (or decreases) by 10 kHz for AM and by 0.1 MHz for FM each time you press + (or -) of TUNING.

If a preset number is more than 10

Ex. Preset number: 15

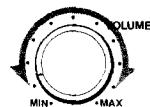
Press + 10, then press 5.

Ex. Preset number: 20

Press + 10 twice, then press 0.

4

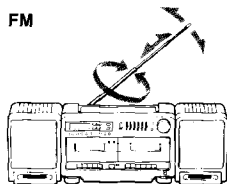
Adjust VOLUME.



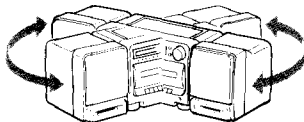
Adjust GRAPHIC EQUALIZER, if necessary. (See page 7).

Antenna adjustment

FM

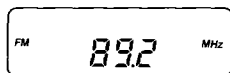
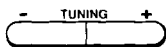


AM



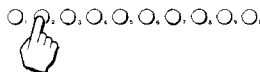
3

Tune in a station desired.



4

While keeping MEMORY pressed, press a preset number desired.



"2" appears.

If a preset number desired is more than 10

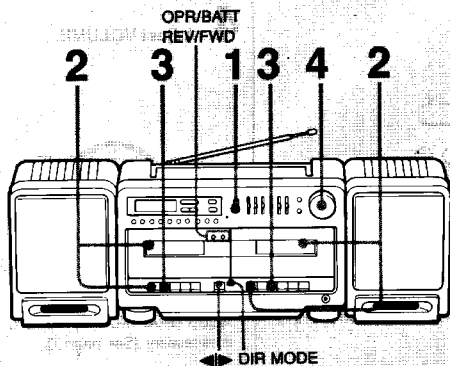
Ex. Preset number desired: 15

While keeping MEMORY pressed, press + 10, then press 5.

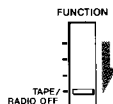
Ex. Preset number desired: 20

While keeping MEMORY pressed, press + 10 twice, then press 0.

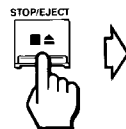
Playing Back Tapes (on either deck)



1 Set FUNCTION to "TAPE/RADIO OFF".



2 Insert a cassette into deck A or B.



Tape operating buttons

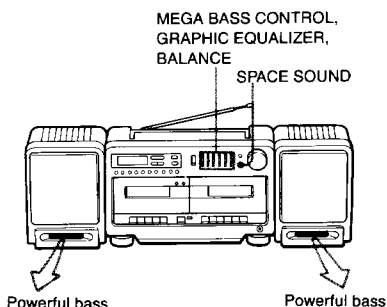
If you want	Press
play	▶
wind tape rapidly for ▶ direction	▶▶
wind tape rapidly for ◀ direction	◀◀
stop play	■▲
pause for a moment	
resume play after pause	
remove a cassette	■▲ (twice)

After winding with ◀◀ or ▶▶, press ■▲ to release ◀◀ or ▶▶.

Tape Transport Direction (Deck A)

- When you press PLAY, playback of the tape always starts from the front side.
- If you want to listen to the reverse side, press ◀◀ during playback to change the tape transport direction.

Adjusting Sound



To obtain powerful bass sound

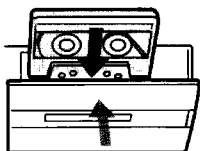
The "MEGA BASS" system produces powerful bass through the bass reflex system added to a normal speaker system. To increase the bass, slide MEGA BASS CONTROL toward MAX.

Note on setting the MEGA BASS CONTROL

The super woofer's output is so powerful that the sound may be cracked or distorted if you set the volume too high with the MEGA BASS CONTROL set at its maximum (MAX). If this happens, turn down the VOLUME control, or slide down the MEGA BASS CONTROL so that a better sound quality can be obtained.

Use TYPE I (normal) tape.

Tape side down



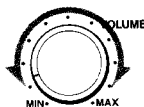
Close the holder.

3 Press PLAY.



On the deck with the tape inside

4 Adjust VOLUME.



Adjust GRAPHIC EQUALIZER, if necessary.

To Select the Playback Mode (Deck A)

Press the DIR MODE selecting button to select the position desired.

To play back both sides of a cassette continuously	↔
To play back both sides of a cassette once starting from the front side to the reverse side of a cassette*	↔

*To listen to the both sides of a cassette

Both-side-playback should be started from the front side. Be sure to set the tape transport direction indicators to FWD. If not, playback will stop when the playback of the reverse side is finished even though the DIR MODE selecting button is released (↔).

When both decks A and B are in playback mode

- The tape transport direction indicators show the tape transport direction of deck A.
- When both decks are in playback mode, only playback from deck B will be audible.

Note

If you press ► and ◀◀ (or ►►) simultaneously, the buttons pressed cannot be released. Press ■▲ to release them.

For private listening,

connect stereo headphones to PHONES jack.

To equalize the reproduced sound

Slide each GRAPHIC EQUALIZER toward +10 or -10. When the equalizer is not used, set the controls to 0 (center position).

Frequency coverage of each equalizer control

400 Hz: Adjusts the middle frequency range such as a human voice and the middle frequencies of instrumental music.

1 kHz: Provides more presence of vocals.

4 kHz: Adjusts the brightness of sound.

10 kHz: Effects general treble. To reduce high frequency noise such as tape hiss, slide toward -10.

BALANCE control

Use to adjust stereo imaging, especially when speakers are not symmetrically placed.

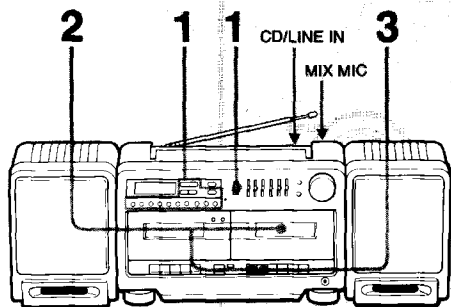
To Enjoy Surround Effect

Press SPACE SOUND, for a rich and spacious effect added to the original sound.

The SPACE SOUND button is useful when the stereo image is diminished because your speakers are too close together or your listening room is small.

The effect differs depending on the selection. In monaural this effect does not operate.

Recording (deck B only)



1 From radio

FUNCTION
RADIO

Select the band.

BAND — FM/AM

Tune in a station desired.

TUNING — +

OR —10

From microphone

FUNCTION
TAPE / RADIO OFF

MIX MIC

From other stereo equipment

FUNCTION
CD/LINE IN

RK-C74 (not supplied)

to line outputs

CD/LINE IN

To stop recording

Press ■▲.

After recording,

set FUNCTION to TAPE/RADIO OFF.

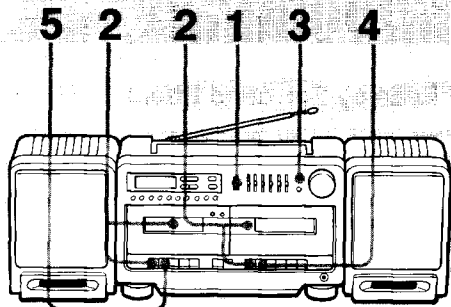
When the tape reaches the end, depressed ● and ► will automatically be released (Auto Shut-off function).

The recording level is automatically adjusted.

Settings of VOLUME, MEGA BASS CONTROL and GRAPHIC EQUALIZER controls will not affect recording level.

Tape Dubbing (deck A to deck B)

Playback on deck A will be recorded on deck B.



1 Set FUNCTION to "DUBBING".

FUNCTION
DUBBING

2 Insert a recorded cassette into deck A.

Cassette to be played back.

Deck A

Use TYPE I (normal) tape.

To stop dubbing

Press ■▲ of deck A and then deck B.

After dubbing

Set FUNCTION to TAPE/RADIO OFF.

To record on both sides of a cassette

When deck B's tape finishes, press ■ of deck A. Remove deck B's cassette and turn it over. Close the holder and press ■ of deck A. Dubbing will be resumed.

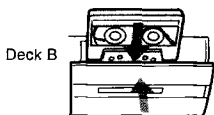
2 Insert a blank cassette into deck B.



Deck B



Use TYPE I (normal) tape.



Close the holder.

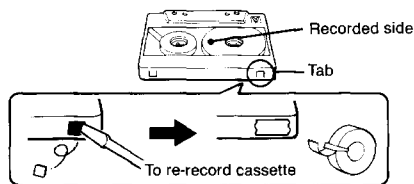
3 Press REC.



► is pressed automatically.

To prevent accidental erasure

Break off tab corresponding to side which has been recorded. Recording will be protected.



Insert a blank cassette into deck B.

Cassette to be recorded.



Deck B

3 Select the dubbing speed.



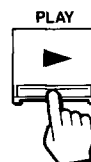
4 Press REC.



► is pressed automatically.
The unit will stand by.

5 Press ► on deck A.

Deck A



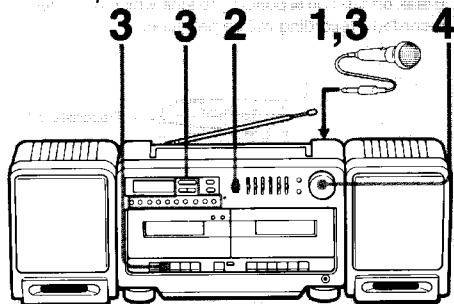
Recording standby is automatically released and dubbing starts.
(synchronized starting system)

No volume adjustment is necessary during dubbing

Recording level is automatically set. So turn down the volume if you do not want to hear the high speed sound during high speed dubbing.

Microphone Mixing

Microphone sounds can be mixed with CD, radio or the tape.



1

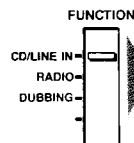
Connect a microphone (not supplied) to MIX MIC.

If the microphone has a power switch, set it to on.

Use a monaural microphone.

2

Select the sound source desired.



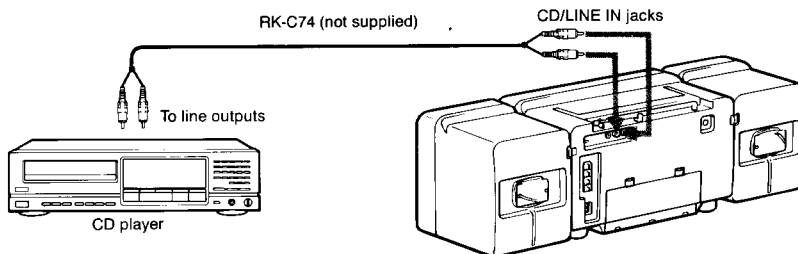
To record mixed sounds

Insert a cassette into deck B and press the ● REC button.

Note

If a howling (acoustic feedback) occurs, move the microphone away from the speakers or turn down the VOLUME.

Listening to or Recording from Various Sources



- 1 Connect as illustrated.
- 2 Set FUNCTION to CD/LINE IN.
- 3 Play the connected source.
- 4 To listen to the source, adjust the volume.
To record, start recording on deck B.

Notes on connection

- Set the FUNCTION selector to TAPE/RADIO OFF before making connection.
- The connection cords should be fully inserted into the jacks.
- Note that the red plug of the connecting cord is for the R (right) channel and the white plug for the L (left) channel.

3

Play the sound source
and speak or sing into
the microphone.

4

Adjust VOLUME.

Sound source	FUNCTION selector
The sound of the equipment connected to the CD/LINE IN jacks	CD/LINE IN
Radio programs	RADIO
Tape sound*	DUBBING

*Insert the recorded cassette into deck A.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 6 ohms loads, both channels driven from 70 – 15,000 Hz; rated 5 watts per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

OTHER SPECIFICATIONS

Frequency range	FM 87.6 – 108 MHz AM 530 – 1710 kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar
Recording system	4-track, 2-channel stereo
Frequency response	70 – 10,000Hz
Speakers	Full-range: 12cm (4¾ inches) dia. x 2
Power outputs (Canada model)	Full-range speakers: 5W + 5W (at 10% harmonic distortion) in DC operation
Inputs	MIX MIC input jack (mono minijack) (1) sensitivity 3.9mV for low impedance microphone CD/LINE IN jack (stereo phono) (2) input impedance 50 kilohms, sensitivity 0.43V
Outputs	Headphones jack (stereo minijack) for 16 – 68 ohm impedance headphones
Power requirements	120V AC, 60 Hz 9V DC, six size D (R20) batteries Tuner memory: 3V DC, two size (R6) batteries
Power consumption	USA model: 22W in AC operation Canada model: 25W in AC operation

Battery life

Batteries	FM recording
Sony New Super SUM-1 (NS)	Approx. 5.5 hours
Sony AM1 (N) alkaline	Approx. 11 hours

Dimensions

For tuner memory: Approx. 1 year
Approx. 681 × 215 × 225 mm (w/h/d)
(26⅞ × 8½ × 8⅞ inches)

not incl. projecting parts and controls
Approx. 6.5 kg (14 lb 5 oz) incl. batteries

Weight

Accessory supplied

Optional accessory

AC power cord (1)
Stereo headphones Sony "MDR" headphone series
Cassette eraser BE-A200, BE-9H
Head demagnetizer HE-5C
Head cleaning stick CLH-5
Cleaning kit KK-4
Sony "Dynamic Microphone" series
Discman D-11

Design and specifications subject to change without notice.

Troubleshooting Guide

The unit does not operate.

- The AC power cord is not connected.
- No batteries in battery compartment.
- Batteries installed incorrectly.

Cassette cannot be inserted.

- Improper tape insertion. (Insert with exposed tape side down)
- ► PLAY is depressed.

● REC cannot be depressed.

- No cassette in deck B.
- The cassette inserted has tab removed. If so, cover with plastic tape.
- ◀◀ or ▶▶ has been depressed.

Tape doesn't move.

- || PAUSE is depressed.

No sound from speakers.

- Headphones are plugged in.
- The VOLUME control is turned down completely.
- The FUNCTION selector setting is incorrect.
- Speaker cords are not connected.

A preset station cannot be tuned in.

- The batteries for tuner memory become weak. Replace them with new ones.

Poor playback, recording or erase quality.

- Dirty heads. Clean the heads and tape path with cotton swab lightly moistened with cleaning fluid or denatured alcohol.

Loss of high frequencies and hiss

- Demagnetize the heads and all metal parts in the tape path with a commercially available head demagnetizer.

