

FM/AM Cassette Car Stereo

Operating Instructions _____

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

XR-1790

Welcome!

Thank you for purchasing this Sony Cassette Car Stereo. This unit lets you enjoy a variety of features.

Features

General

- **Built-in power amplifier (max. output: 35 W × 4 ch)** enables you to enjoy a 4-speaker system.
- **Digital 12-hour clock** (page 5).

Cassette player section

ATA (Automatic Tuner Activation) automatically turns on the tuner while fast-forwarding or rewinding a tape (page 6).

Tuner section

- Up to 18 stations can be preset: 12 stations on FM and 6 on AM.
- **Automatic memory function** conveniently stores a total of 18 stations in memory (page 7).

Precautions

- If your car was 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 of a two-speaker system, set the fader control to the centre position.
- If your car is equipped with a power aerial, note that it will be automatically extended when the unit's power is turned on.

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

To maintain high quality sound

If you have drink holders near your audio equipment, be careful not to splash juice or other soft drinks onto the car audio. Sugary residues on this unit or cassette tapes may contaminate the playback heads, reduce the sound quality, or prevent sound reproduction altogether.

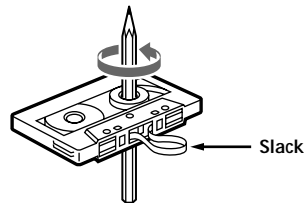
Cassette cleaning kits cannot remove sugar from the tape heads.



Notes on cassettes

Cassette care

- Do not touch the tape surface of a cassette, as any dirt or dust will contaminate the heads.
- Keep cassettes away from equipment with built-in magnets such as speakers and amplifiers, as erasure or distortion of the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures, or moisture.
- When a tape is played back for a long period, the cassette may become warm because of the built-in power amplifier. This is not a sign of malfunction.
- Slack in the tape may cause the tape to be caught in the machine. Before you insert the tape, use a pencil or similar object to turn the tape reel and take up any slack.



- Distorted cassettes and loose labels can cause problems when inserting or ejecting tapes. Remove or replace loose labels.



- The sound may become distorted while playing a cassette. The cassette player head should be cleaned after each 50 hours of use.

Notes on cassette deck tape heads

- Use of cassette tapes over time contaminates the tape head causing poor sound quality or complete sound dropout. Therefore, we recommend cleaning the tape head once a month or so with the separately available Sony Cassette Cleaning Set. If the sound does not improve after using a cleaning cassette, please consult your nearest Sony dealer.
- In the case of old or inferior cassette tapes, the tape head becomes contaminated much more quickly. Depending on the condition of the tape, as few as one or two playbacks may cause poor sound.

Cassettes longer than 90 minutes

The use of cassettes longer than 90 minutes is not recommended except for long continuous play. The tape used in these cassettes is very thin and tends to stretch easily. Frequent playing and stopping of these tapes may cause them to become entangled in the cassette deck mechanism.



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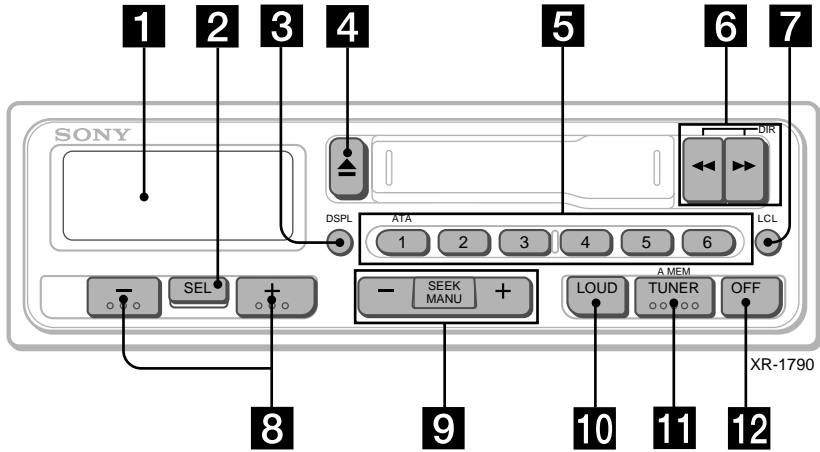
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Location of controls



Refer to the pages listed for further details.

- 1** Display window
- 2** SEL (control mode select) button 5, 8
- 3** DSPL (display mode change/time set) button 5
- 4** ▲ (eject) button 6
- 5** During radio reception:
Preset number buttons 8
During tape playback:
 - 1** ^{ATA} ATA (Automatic Tuner Activation) button 6
- 6** ◀▶ (fast-winding)/DIR (tape transport direction change) buttons 6
- 7** LCL (local seek) button 7
- 8** (volume/bass/treble/balance/fader control) buttons 5, 8
- 9** SEEK/MANU button 7
- 10** LOUD (loudness) button 8
- 11** TUNER/A MEM (radio on • band select/automatic memory) button 7, 8
- 12** OFF button

Getting Started

4 Press the  button.



The clock activates.

Note


The clock cannot be set unless the power is turned on. Set the clock after you turn on the radio, or during tape playback.

Setting the clock

The clock has a 12-hour digital indication.

Example: To set the clock to 10:08

1 Display the time.

(Press the  button during unit operation.)

2 Press the button for more than two seconds.



The hour digits blink.

Set the hour.



(to go backward)

(to go forward)



3 Press the button.



The minute digits blink.

Set the minute.



(to go backward)

(to go forward)

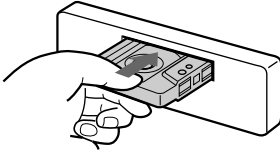


Cassette Player

Listening to a tape

Insert a cassette.

Playback starts automatically.



To change the tape direction, press both the ◀◀ and the ▶▶ buttons at the same time.



The tape direction is changed.



The side facing up is played.




The side facing down is played.

At the end of the tape, the playing direction will change automatically.





Note

Before turning off the unit, eject the tape to avoid tape damage.

Ejecting the cassette

Press the  button to stop playback and eject the cassette.

Fast-winding the tape

Direction indicator*	To fast-forward	To rewind
▶		
◀		

To resume playback, press the other fast-winding button partially until the locked button is released.

* The ◀ or ▶ indicator will flash while fast-winding the tape.

Radio reception while fast-winding a tape

— ATA (Automatic Tuner Activation) function

Press the  button during playback.

→ “ATA” appears on the display.

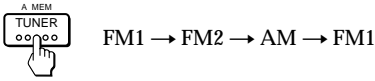
When fast-forwarding or rewinding with the ◀◀ or ▶▶ button, the tuner will turn on automatically.

Radio

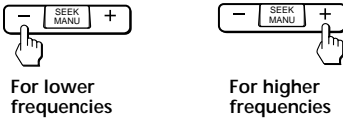
Searching for stations automatically

— Automatic tuning

- 1 Select the desired band.

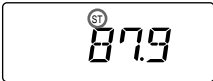


- 2 Press either side of the SEEK/MANU button to search for the next station (automatic tuning).



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

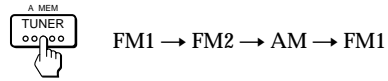
When an FM stereo programme with sufficient signal strength is tuned in, the "ST" indication will appear.



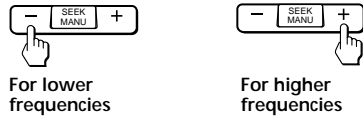
If the automatic tuning stops too frequently, press the LCL button so that the "LCL" indication appears in the display window (local seek mode). Only the stations with relatively strong signals will be tuned in. The local seek mode functions only when the automatic tuning is in operation.

Tuning in by adjusting the frequency — Manual tuning

- 1 Select the desired band.



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



PREVENT ACCIDENTS!

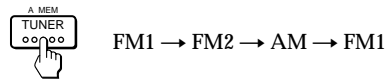
While driving, use automatic tuning and memory preset tuning instead of manual tuning.

Memorizing stations automatically

— Automatic memory function

Stations with the clearest reception are automatically searched and memorized on each band (FM1, FM2, 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 TUNER/A MEM button for more than two seconds.



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

Memorizing only the desired stations

- 1 Select the desired band.



FM1 →FM2 →AM →FM1

- 2 Tune in the station which you wish to store on the preset number button.
- 3 Press and hold the desired preset number button ($\overset{ATA}{\text{1}}$ to 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 from each band (FM1, FM2 and AM) can be stored on the preset number buttons in the order of your choice (6 from FM1, 6 from FM2, 6 from AM).

If you try to store another station on a preset number button, the previously stored station will be replaced by the newly selected station.

Receiving the memorized stations

- 1 Select the desired band.



FM1 →FM2 →AM →FM1

- 2 Press the preset number button 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 currently memorized station, be sure to press the preset number button and release quickly.

Other Functions

Adjusting the sound characteristics

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

VOL (volume) →BAS (bass)
→TRE (treble) →BAL (balance)
→FAD (fader) →VOL (volume)

- 2 Adjust the selected item by pressing either the -- or + button.

Adjust within three seconds after selecting. (After three seconds the button will revert to volume control.)

Enjoying bass and treble at low volume

— Loudness Function

Press the LOUD button. →“LOUD” will appear on the display.

Bass and treble will be boosted. To cancel, press again.

Attenuating the beep sound

Press the 5 button while pressing the SEL button.

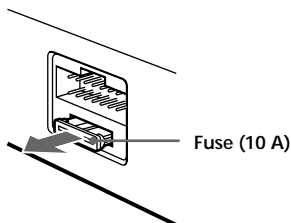
To reactivate the beep sound, press these buttons once more.

Additional Information

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.

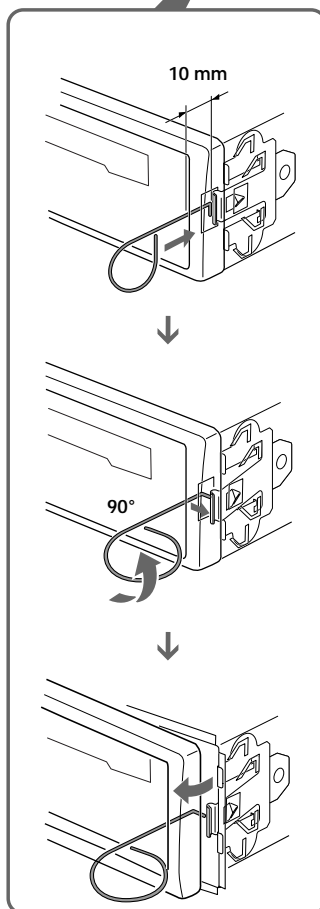
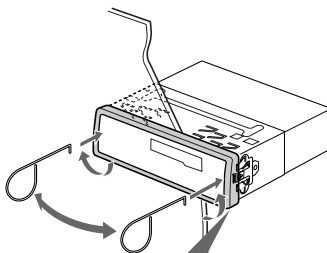


Warning

Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Dismounting the unit

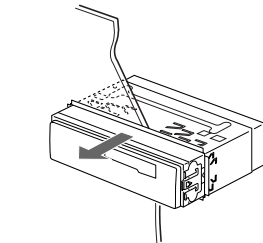
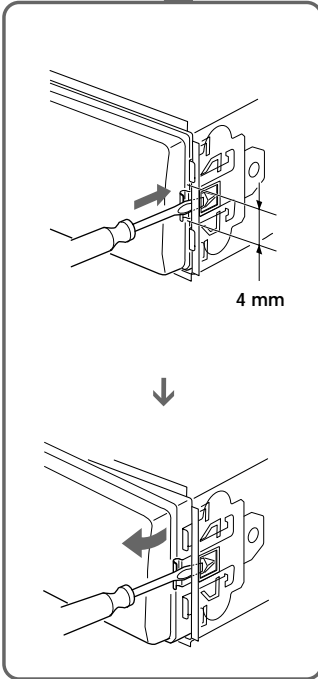
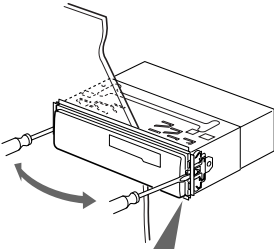
- 1 Insert the supplied tool between the unit and the frame, and rotate 90° to release the hidden mounting spring. Repeat on the opposite side and remove the frame.



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Radio/Other Functions/Additional Information

- 2 Insert a flathead screwdriver between the bracket and mounting spring. Gently pry the spring toward the unit while pulling the unit out a little. Repeat on the opposite side and remove the unit.



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Specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.13 % (WRMS)
Frequency response	30 – 15,000 Hz
Signal-to-noise ratio	55 dB

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7% (stereo), 0.4% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	531 – 1,602 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz / 450 kHz
Sensitivity	30 μ V

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	35 W \times 4 (at 4 ohms)

General

Output lead	Power aerial relay control lead
Tone controls	Bass \pm 8 dB at 100 Hz Treble \pm 8 dB at 10 kHz
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 186 \times 57 \times 176 mm (w/h/d) not incl. projecting parts and controls
Mounting dimension	Approx. 182 \times 53 \times 163 mm (w/h/d) not incl. projecting parts and controls
Mass	Approx. 1.2 kg
Supplied accessories	Parts for installation and connections (1 set)

Design and specifications are subject to change without notice.

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
Additional Information

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

Problem	Cause/Solution
No sound	<ul style="list-style-type: none">• Adjust the volume with the  button.• Set the fader control to the centre position for two-speaker systems.

Tape playback

Problem	Cause/Solution
The sound is distorted.	<p>The tape head is contaminated. → Clean the head with a commercially available dry-type cleaning cassette.</p>

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Radio reception

Problem	Cause/Solution
Preset tuning is not possible.	<ul style="list-style-type: none">• Memorize the correct frequency.• The broadcast signal is too weak.
Automatic tuning is not possible.	The broadcast signal is too weak. → Use manual tuning.