

FM/AM Cassette Car Stereo

Operating Instructions _____

EN

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. XR-C620 Serial No. _____

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

XR-C620

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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.

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

CAUTION

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

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Features

General

- Supplied with the **rotary commander** which can be operated like a wiper or headlight switch of your car while driving.
- **Detachable front panel** enables you to take the front panel away with you when you leave your car (page 5).
- **Caution alarm** will be activated if you turn off the ignition key without removing the front panel from the unit.
- Switchable **two color (amber and green) illumination** (page 12).
- Provided with a **digital 12-hour clock** (page 6).
- **Telephone-mute function** for decreasing the volume automatically with a telephone call.
- **Built-in power amplifier (max. output: 30 W × 4 ch)** enables you to enjoy a 4-speaker system.
- Optional wireless remote commander can be used.
- The **STM (Source Tone Memory) function** allows it to put the tone of each program source into memory (page 13).
- Line outputs for connecting an optional power amplifier.

Cassette player section

- **Dolby B and C NR* system** reduces hiss noise during tape playback (page 7).
- **Auto metal function** for automatic detection of a metal or CrO₂ tape.
- **Intro scan function** for playing the first 10 seconds of each track (page 7).
- **Repeat play function** for playing back a track repeatedly (page 8).
- **ATA (Automatic Tuner Activation)** for automatically turning on the tuner while fast-forwarding or rewinding a tape (page 8).
- **Blank skip function** for automatically skipping blanks during tape playback (page 8).

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Tuner section

- Up to 40 stations can be preset: 20 stations each on FM and AM.
- **BTM (Best Tuning Memory) function** automatically searches and stores the stations with the strongest signals on the preset number buttons in order of frequency (page 9).
- **List-up function** for display for displaying the frequencies of the stations memorized on the preset number buttons (page 10).
- **Station memo function** for displaying the names of the radio stations stored in the memory (page 11).

Optional CD/MD changers can be used.

- Several Sony CD changers (not supplied) and Sony MD changers (not supplied) can be connected and controlled with the unit by using the Sony source selector(s) (not supplied).
- Convenient functions such as the **Intro Scan Function** for searching a desired track, the **Repeat Play Function** for playing a track repeatedly, and the **Shuffle Play Function** for playing tracks in random order can be used.
- **List-up function** for displaying the names of the discs in the changer in order (page 16).
- **Program memory function*** for preselecting your favorite tracks from the discs in the changer, and playing them back in the desired order (page 18).
- **Custom file function*** for displaying the title of each disc and setting a PLAY/SKIP mode on each track (page 21).

* When the optional CD changer(s) with program memory function is (are) connected

Optional Digital Pre-amplifier XDP-U50D can be used.

- **Surround menu** enables you to select different soundfields inside your car.
- **Listening position control function** enables you to adjust the center of the soundfield in accordance with the number of occupants (page 26).
- **DSP custom file function** enables the discs to be played in the customized DSP modes (page 28).
- **LSM function** enables the programs to be played with the preset surround menu (page 29).

Optional TV monitor and TV tuner unit can be used.

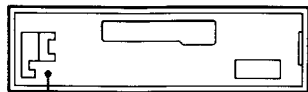
- When a TV tuner unit and a TV monitor are connected to this unit, you can preset up to 10 TV stations.
- **Station memo function** for displaying the names of TV stations on the TV monitor (page 11).
- **List-up function** enables CD or MD titles and the contents of the preset memory to be displayed on the TV monitor (page 10 and 17).
- **Simultaneous play function** for watching TV or video while listening to tape, CD or MD (page 30).

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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., and then start operating the unit.

Pressing the reset button will erase the memorized program and clear the memory of the CD program memory function.



Reset button

- 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 2-speaker system, 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 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 on the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures or moisture.
- When the tape is played back for a long period, the cassette shell may become warm because of the built-in power amplifier. However, this is not a sign of a malfunction.

Cassettes longer than 90 minutes

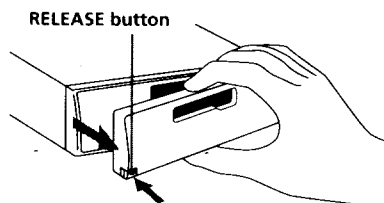
The use of cassettes longer than 90 minutes is not recommended except for long continuous play. The tapes used for these cassettes are very thin and tend to be stretched easily. Frequent playing and stopping of these tapes may cause them to be pulled into the cassette deck mechanism.

Detaching and Attaching the Front Panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

Detaching the Front Panel

Before detaching the front panel, be sure to press the **[OFF]** button first. Then press the **RELEASE** button to open up the front panel, and detach the panel by pulling it towards you as illustrated.

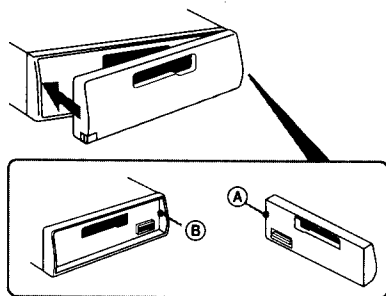


Be sure not to drop the panel when detaching it from the unit.

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Attaching the Front Panel

Apply the right hand side of the front panel to the unit by attaching part **(A)** of the front panel to part **(B)** of the unit as illustrated and push until it clicks.



Notes

- Make sure that the front panel is the right way up when attaching it to the unit as it cannot be attached upside down.
- Do not press the front panel hard against the unit when attaching it to the unit. It can easily be attached by pressing it lightly against the unit.
- When you carry the front panel with you, put it in the supplied front panel case.
- Do not press hard or exert excessive pressure on the display windows of the front panel.
- Before removing the front panel, be sure to turn the power off. However, if you press the **RELEASE** button to detach the panel while the unit is still turned on, the power will be automatically turned off in order to protect the speakers from being damaged.

continue to next page →

- Do not expose the front panel to direct sunlight, heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard etc. of a car parked in direct sunlight where there may be a considerable rise in temperature inside the car.

Caution alarm

If you turn the ignition key to the OFF position without removing the front panel, the caution alarm will be activated and a beep tone will be heard for a few seconds (only when the POWER SELECT switch is set to the **(A)** position).

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Setting the Clock

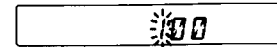
The clock has a 12-hour digital indication.

For example, setting it to 10:08

1 Display the time.

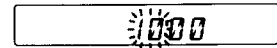
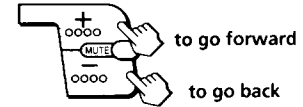
(Press the **[OFF]** or the **[DSPL]** button during unit operation.)

2 Press the **[DSPL]** button for more than two seconds.

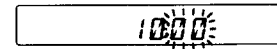


The hour digit blinks.

Set the hour digits.

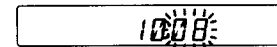
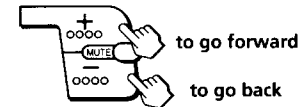


3 Press the **[SEL]** button momentarily.

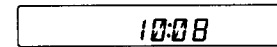


The minute digit blinks.

Set the minute digits.



4 Press the **[DSPL]** button momentarily.



The clock activates.

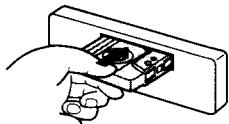
Note

If the POWER SELECT switch on the bottom of the unit is set to the **(B)** position, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio, or started CD, MD or tape playback.

Cassette Player Operation

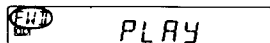
Listening to Tape Playback

After inserting the cassette, playback will start automatically.

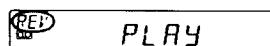


If a cassette is already inserted, press the **TAPE** button to start playback. If you press during playback, the tape transport direction will change.

Indication of Tape Transport Direction



The side facing up is being played.



The side facing down is being played.

To stop playback, eject the cassette by pressing the **EJECT** button or press the **OFF** button.

Playback stops also when you select another source (radio, TV, CD or MD) by pressing the **TUNER**, **TV** or **MD/CD** button.

Ejecting the Cassette

Press the **EJECT** button.

To Fast-wind the Tape



To start playback during rewinding or fast-forwarding, press the **TAPE** button.

Playing a Tape Recorded in the Dolby B-NR or C-NR System

Press the **DOLBY** button when you want to listen to a tape recorded in Dolby B-NR or C-NR system. → "B" or "C" appears on the display.

Each time you press the **DOLBY** button, the mode changes as follow:

→ Dolby B-NR → Dolby C-NR → Cancel

Locating the Beginnings of the Tracks

— AMS (Automatic Music Sensor) Function

During playback, press either side of the **SEEK/AMS** button the number of times you wish to skip the tracks.



To locate the succeeding tracks

To locate the previous tracks

Up to nine tracks can be skipped.

If the blanks between the tracks are shorter than four seconds, or if there are noises, the AMS function will not work. Also, the unit may read long sections of low volume music or quiet sections on a track as blanks between tracks.

Searching the Desired Track — Intro Scan Function

Press the **INTRO** 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 the normal playback mode.

EN

Cassette Player Operation

Playing Tracks Repeatedly

— Repeat Play Function

Press the  button during playback.

→ "REP" 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 during Fast-forwarding or Rewinding of a Tape

— ATA (Automatic Tuner Activation) Function

Press the  button during playback.

→ "ATA" appears on the display.

When fast-forwarding or rewinding with the PRST/DISC button, the tuner will turn on automatically.

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Skipping Blanks Automatically during Tape Playback — Blank Skip Function

Press the  button during playback.

→ "BL.SKIP" appears on the display.

Blanks longer than eight seconds will be automatically skipped during tape playback.

Radio/TV Reception

TV reception can be made only when the optional TV tuner unit is connected to optional TV monitor.

Searching for the Stations Automatically

— Automatic Tuning

1 Select the desired band.



FM1 → FM2 → AM1 → AM2
→ FM1



TV → VIDEO1 → VIDEO2*
→ TV

* Only when the TV monitor is connected and "VIDEO2" mode is selected.

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

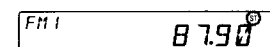


For higher frequencies

For lower frequencies

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

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



the "ST" indication will appear.

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

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

If FM Stereo Reception is

Poor — Monaural Mode

Press the  button momentarily.
→ "MONO" appears on the display.

The sound will improve, but it will become monaural.

Tuning in by Adjusting the Frequency (Channel)

— Manual Tuning

- 1 Select the desired band.



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



For higher frequencies

For lower frequencies

PREVENTING ACCIDENTS!

When tuning in during driving, use the automatic tuning and the memory preset tuning instead of the manual tuning.

Memorizing Stations Automatically

— BTM (Best Tuning Memory) Function

This function selects from the currently received band the stations with the strongest signals and memorizes them in order of their frequency.

- 1 Select the desired band.



- 2 Press the  button for more than two seconds.

- When there is no preset number indicated on the display window, stations will be stored on all preset number buttons on the currently selected band.
- When there is a preset number indicated on the display window, the unit will store stations on all preset number buttons from the one currently displayed.

For example, when you select FM2 and preset number 3 is displayed, the operation will start from preset number 3 on FM2, and will stop at preset number 10 on FM2.

Note

During TV reception, the unit memorizes up to ten receivable stations in order of the channel numbers.

Memorizing Only the Desired Stations

- 1 Select the desired band.



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

- 3 Keep the desired preset number button ( to ) pressed for about two seconds until you hear a beep tone.

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

Up to 10 stations on each band (FM1, FM2, AM1, AM2 and TV) can be stored on the preset number buttons in order of your choice. Therefore, 20 stations can be memorized each on FM and AM.

If you try to store another station on the same preset number button, the previously stored station will be erased.

EN

Cassette Player Operation/Radio/TV Reception

Receiving the Memorized Stations

- 1 Select the desired band.



- 2 Press momentarily 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 again. To receive the previously memorized station, make sure that the preset number button is pressed only momentarily.

Press either side of the PRST/DISC button momentarily to receive in order the stations stored in the memory (Preset Search Function).

EN



Press momentarily

1 → 2 → → 9 → 10 → 1 → ...



Press momentarily

1 → 10 → 9 → → 2 → 1 → ...

Searching for the Memorized Stations

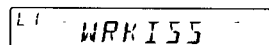
— List-up Function

Displaying on the display window of the master unit:

Note

When the optional TV monitor is connected, the information will be displayed only on the monitor.

- 1 Press the **LIST** button momentarily.



Note

If the name of a station is registered, that name will be displayed. If the name of a station is not registered, the frequency of that station will be displayed. Refer to "Storing the Station Names in the Memory of the Tuner" for details.

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- 2 Pressing the **LIST** button continuously will display in order the names of the stations on the currently received band. Once the station name or the frequency has been displayed for over five seconds, the list-up function will be cancelled.

Turning off the Display

Press the DSPL button again.

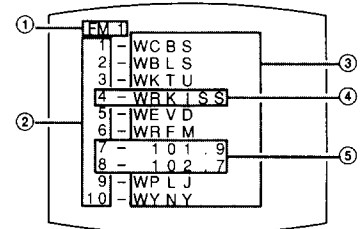
- 3 When you have found the desired station, press the PRST/DISC button to tune in the desired station.

Displaying the Contents of the Preset Memory

(with the optional TV tuner unit and TV monitor are connected)

Press the **LIST** button momentarily during radio/TV reception.

Example: When receiving the FM1 band



- 1 Band name
- 2 Preset number
- 3 Registered station names*1
- 4 Currently tuned in station*2
- 5 Frequencies*1

*1 If the name of a station is registered, that name will be displayed. If the name of a station is not registered, the frequency of that station will be displayed.

*2 The name of the currently tuned in station will be displayed in magenta.

Notes

- It may take some time before all indications appear on the display.
- The TV screen does not come on during list display.
- The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode (page 30).

Turning off the Display

During radio reception, press the **LIST** button again.

During TV reception, the list display on the TV monitor will automatically turn off after a few seconds.

Station Memo Function

You can assign a name to each radio or TV station and store it in memory. The name of the station currently tuned in can be displayed on the display window. The steps below describe radio operation, but can be applied to TV operation as well.

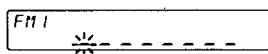
Storing the Station Names in the Memory of the Tuner

- 1 Tune in a station whose name you wish to register.



- 2 Press the **LIST** button for more than two seconds.

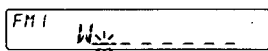
Enter the name edit mode.



- 3 Press either the **▲** or **▼** button to select the desired characters.



- 4 Press the **SEL** button after locating the desired character.



The flashing part moves to the next space on the right. Repeat steps 3 and 4 to enter the entire title. Up to eight characters can be used per station.

Notes

- If you press the **SEL** button when the eighth character (farthest right character) is flashing, the flashing part goes back to the first character (farthest left character).
- If you wish to put a blank space after a character, select " " (under-bar).

- 5 ① To continue to the put titles onto the stations,

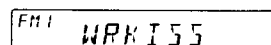
- press either side of the **SEEK/AMS** button momentarily to go to another station.
- press the **TUNER** button to select the next band.

- ② To return to the normal radio/TV reception mode,

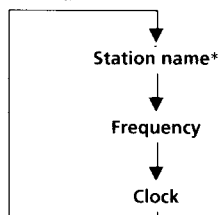
press the **LIST** button for more than two seconds.

Displaying the Registered Names

Press the **OSPL** button during radio/TV reception.



Each time you press the **OSPL** button during radio/TV reception, the display on the display window changes as follows:



* If the name of a station is not registered, "NO NAME" will appear on the display window.

Changing a Registered Name

Tune in a station whose name you wish to change, and perform steps 2 to 5 on this page to enter the name edit mode.

Erasing a Registered Name

- 1 Tune in any station.
- 2 Press the **LIST** button for more than two seconds.
Enter the name edit mode.
- 3 Press the **ATA 5** button while pressing the **SEL** button.

continue to next page →

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Radio/TV Reception/Station Memo Functions

- 4 Press either the  or  button to select the name that you wish to erase.
- 5 Press the  button for more than two seconds.
Repeat step 4 and step 5 if necessary.
- 6 Press the  button for more than two seconds.
The unit returns to the normal radio/TV reception mode.

The alternative method to erase a name

You can erase a title by selecting eight "_"s (under-bar) as described in step 3 of "Storing the Station Name in the Memory of the Tuner" (page 11).

EN

Other Functions

Adjusting the Sound Characteristics

- 1 Select the item you want to adjust by pressing the  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 again serve as volume control button.)

Notes

- When another digital pre-amplifier than XDP-U50D or a graphic equalizer is connected and the LINE-OUT/IN SELECT switch is set to ②, "FAD" will not be displayed even with the SEL button pressed.
- When the optional XDP-U50D is connected, the fader settings can be set separately for the DSP on mode and DSP off mode.
- When you use a stereo graphic equalizer (not supplied), set the fader control to the center position and adjust the level with the equalizer.

Muting the Sound Quickly

— Mute Function

Press the  button. → The "MUTE" indication flashes.

The sound is muted at once. To restore the previous volume level, press again.

This function will be also canceled when:

- the  or  button is pressed.
- ejecting a cassette by pressing the  button during tape playback.

Changing the Illumination Color

Press the  button while pressing the  button.

You can choose the color between amber and green.

Storing the Sound Characteristics of each Source

— Source Tone Memory Function

Press the  button while pressing the  button. → "STM" will appear on the display.

This function memorizes the adjusted sound characteristics (the bass and treble) of each program source. With this function, you can listen to the same source always in the same sound characteristics even after changing the program source or tuning the unit off and on again.

To cancel the STM function, press these buttons again.

Note

When the optional XDP-U50D is connected, the STM function will not work.

Muting the Beep Tone

Press the  button while pressing the  button.

To obtain the beep tone again, press these buttons once more.

Enjoying Bass and Treble even at Low Volume

— Loudness Function

Press the  button while pressing the  button. → "LOUD" will appear on the display.

Bass and treble will be reinforced. To cancel, press these buttons again.

Note

When the optional XDP-U50D is connected, the loudness function will not work.

Changing the Line Output Level

(when the optional XDP-U50D and a graphic equalizer are connected)

Press the  button while pressing the  button.

To cancel the mode, press these buttons again.

EN

Radio/TV Reception/Other Functions

CD/MD Changer Operation

With the optional CD/MD changer(s) connected

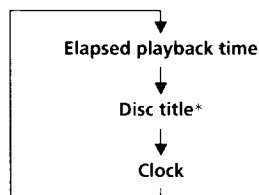
Playing a CD/MD

Press the  button.
CD/MD playback starts.

Each time you press the  button momentarily during CD/MD playback, the display on the display window changes as follows:

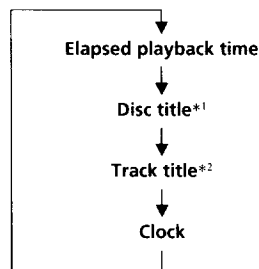
During CD playback:

EN



* If the title has not been registered on the CD changer with the CD custom file function, "NO NAME" will appear on the display window.

During MD playback:



*1 If there is no prerecorded title for MD, "NO NAME" will appear on the display.

*2 If the track title is not prerecorded, "NO NAME" will appear on the display.

If the title is too long (more than 8 characters), it will be scrolled automatically.

Displaying the Title of the Currently Played MD or Track Manually

Press the  button until the desired display appears on the display window.

If these data are not prerecorded on the currently played MD, "NO NAME" will appear for one second.

If the title is too long, you can scroll it across the display window by pressing the  button momentarily.

Displaying the Recording Date of the Currently Selected MD

Press the  button for more than two seconds during MD playback. → The recording date of the track will be displayed for about three seconds.

This applies only if these titles are prerecorded on the MD.

Locating the Beginnings of the Tracks

— AMS (Automatic Music Sensor) Function

During playback, press either side of the SEEK/AMS button the number of times you wish to skip the tracks.



To locate the succeeding tracks

To locate the previous tracks

Locating the Desired Part of a Track — Manual Search

During playback, press and hold either side of the PRST/DISC button. Release the button when you have found the desired part.



To forward

To reverse

Selecting a Desired Disc

— Direct Disc Selection Function

Press the button whose number corresponds with the desired disc number for more than one second.

The desired disc in the currently selected changer playback start.

For CD changers: -

For MD changers: -

Changing Discs

During playback, press either side of the PRST/DISC button momentarily.



To advance to the next disc

To return to the previous disc

Selecting CD/MD Changers

(with several CD/MD changers connected)

Press the button during CD/MD playback.

Each time you press, another CD/MD changer will be selected.

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 on the currently selected disc are played in order. After the first disc is over, the next disc is played. When two or more CD/MD changers are connected, after the last disc is played, CD/MD playback moves on to the next CD/MD changer.

When you find the desired track, press again. The unit returns to the normal CD/MD playback mode.

Note

When both CD changer(s) and MD changer(s) are connected, they will function separately as an MD or as a CD changer, respectively.

Playing Repeatedly

— Repeat Play Functions

Playing the currently selected track repeatedly

— Track repeat

Press the button during CD/MD playback to get the "REP 1" indication.

Playing the currently selected disc repeatedly

— Disc repeat

Press the button during CD/MD playback to get the "REP 2" indication.

When the last track on the currently selected disc is over, CD/MD playback is repeated from the beginning of that disc.

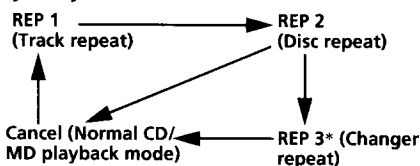
Playing the discs in the currently selected CD/MD changer repeatedly

— Changer repeat (when CD/MD changer(s) is(are) connected)

Press the button during CD/MD playback to get the "REP 3" indication.

When the last disc in the currently selected CD/MD changer has been played, CD/MD playback will be repeated from the first disc in this changer.

The function of the button changes cyclically as follows:



* Changer repeat (REP 3) mode functions only when two or more CD/MD changers are connected to the unit.

When only one CD/MD changer is connected, the "REP 3" indication will not be displayed. In case you press the button again while the "REP 2" indication is being displayed, the repeat mode will be canceled.

Note

When both CD changer(s) and MD changer(s) are connected, they will function separately as an MD or as a CD changer, respectively.

EN

CD/MD Changer Operation

Playing Tracks Randomly

— Shuffle Play Functions

Playing the tracks on the currently selected disc randomly

— Disc shuffle play

Press the  button during CD/MD playback to get the "SHUF 1" indication.

All tracks on the currently selected disc are played in random order. After each track has been played once, shuffle play will continue with the next disc.

Playing each track on each disc in the currently selected CD/MD changer randomly

— Changer shuffle play

Press the  button during CD/MD playback to get the "SHUF 2" indication.

All tracks on each disc in the currently selected disc changer are played in random order.

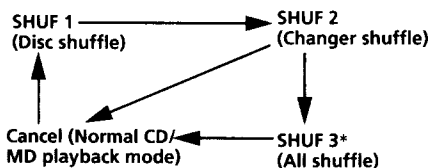
Playing each track on each disc in all connected CD/MD changers randomly

— All shuffle play (when two or more CD/MD changers are connected)

Press the  button during CD/MD playback to get the "SHUF 3" indication.

All tracks on each disc in each CD/MD changer connected are played in random order.

The function of the  button changes cyclically as follows:



* The all-shuffle (SHUF 3) mode functions only when two or more changers are connected to the unit. When only one changer is connected, the "SHUF 3" indication will not be displayed. In case you press the  button again while "SHUF 2" is displayed, the shuffle play will be canceled.

If you press the  button during shuffle play, the first 10 seconds of all tracks will be played randomly.

Note

When both CD changer(s) and MD changer(s) are connected, they will function separately as an MD or as a CD changer, respectively.

Searching for a Desired Disc by Title — List-up Function

(with separately available MD changer(s) or CD changer(s) with custom file function connected)

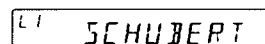
This function can be performed after discs have been assigned a custom title. For more information on disc titles, refer to page 21.

Displaying on the display window of the master unit:

Note

When the optional TV monitor is connected, the information will be displayed only on the monitor.

1 Press the button momentarily.



The name assigned to the disc currently playing will appear on the display.

Note

This function may not work when (a) changer(s) without list-up feature is (are) connected.

2 Pressing the button continuously will display in order the titles of the discs in the currently selected changer.

Once a disc name has been displayed for over five seconds, the display window returns to its normal display.

Turning off the Display

Press the DSPL button again.

Notes

- The track titles cannot be displayed (during MD playback).
- If there are no discs in the magazine, "NO DISC" will appear on the display.
- If a disc has not been assigned a custom name, "*****" will appear on the display.
- If the disc information has not been read in by the unit, "NOT READ" will appear on the display. If the disc information has not been loaded into the unit, "NOT READ" will appear on the display. To execute loading, first push the PRST/DISC button, then choose the disc that has not been loaded.
- The information will be displayed only in capital letters. There are also some letters which cannot be displayed (during MD playback)

3 When you have found the desired disc, press the PRST/DISC button to playback the disc (Direct Search Function).

EN

Note

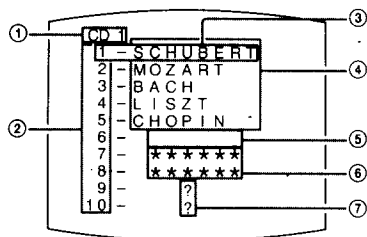
You can still execute the direct search function even if the "*****" message appears on the display (unnamed disc).

Displaying Information Stored on Discs

(with the optional TV tuner unit and TV monitor are connected)

Press the **LIST** button momentarily during CD/MD playback.

Example: When CD changer 1 is selected.



① CD/MD changer number

② Disc numbers

③ Currently playing disc*¹

④ Titles registered on the custom file

⑤ No disc is loaded*²

⑥ No registered titles*³

⑦ TOC information has not been identified yet*⁴

*¹ The name of the currently playing disc will be displayed in yellow (other information in white).

*² A blank space will be displayed if there is a disc number representing an empty slot in the disc magazine.

*³ During CD playback:

If a title is registered on the custom file, that name will be displayed. If not, "*****" will be displayed in its place.

During MD playback:

If a title is prerecorded on MD, that name will be displayed. If not, "*****" will be displayed in its place.

*⁴ During CD playback:

"?" will be displayed if the TOC information of the disc has not been collated with the custom file.

During MD playback:

If the disc information has not been read yet, "?" will be displayed.

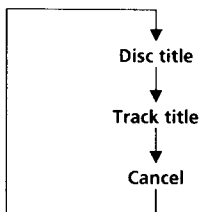
Notes

- The information will be displayed only in capital letters. There are also some letters which cannot be displayed. (During MD playback)
- It may take some time until all indications appear on the screen.
- The TV screen does not come on during list display.
- The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode (page 29).

Turning off the Display

Press the **LIST** button again.

Each time you press the LIST button during MD playback, the indications changes as follows:



EN

CD/MD Changer Operation

CD Program Memory Function

With the optional CD changer(s) connected you can preselect the tracks you want to hear and the order in which you want them to be played back (from the discs in the changer connected to the unit). This function is divided into Program 1 and Program 2, each allowing you to preselect up to 12 tracks. Furthermore, once a program is registered, the track order is preserved. Changing the disc order in the changer will not affect the order in which the tracks have been set for playback.

Notes

- This function works only when CD changers with program memory function are connected.
- When a CD changer without program memory function is connected, pressing the PGM button for at least two seconds will not cause the system to enter the program edit mode. Instead, "SORRY" will appear in the display.
- If you press the DSPL button momentarily when the program edit mode is engaged, the disc number, track number, and elapsed playing time of the currently played track will be displayed for one second.
- If you press the MD/CD, PRST/DISC and AMS buttons when the program edit mode is engaged, the selected disc number and track number, and the elapsed playing time will be displayed for 1.5 seconds.



Current Program Initial Program 1 Indicator

Configuring a Program

(with tracks you want to hear)

- 1** Press the **PGM** button for more than two seconds.

The system will enter the program edit mode.

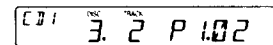


Program 1 Configuration Indicator

To configure Program 2, press the **PGM** button again, momentarily.

- 2** Play the track that you wish to enter into memory.

- 3** Press the **PGM** button momentarily.



- 4** **A** To continue entering tracks, repeat steps 2 and 3.
B To return to the normal playback mode, press the **PGM** button for more than two seconds.

Notes

- Configuration has been completed but the program will not play.
- "***WAIT**" appears on the display when the input track's data has not yet been read into the memory, or when a disc has not been put into the unit.
- "***FULL**" appears on the display when you try to input more than 12 tracks into a program at one time.

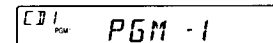
Playing an Arranged Program

By pressing the **PGM** button momentarily you can designate the program(s) you wish to play.

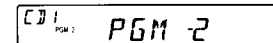
The program will begin playing two seconds later.

If you press either side of the PRST/DISC button during program memory play, program memory play will be interrupted, and playback of the selected disc starts.

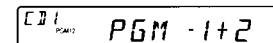
Program 1 Playback



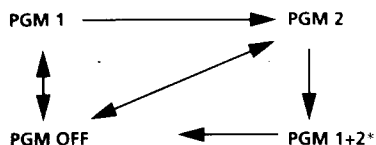
Program 2 Playback



Program 1 and 2 Playback



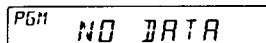
The function of the PGM button changes cyclically as follows:



* Only when tracks are programmed into both "PGM1" and "PGM2", "PGM1+2" will be displayed.

Note

If a program has not been configured, it will not appear on the display.



Furthermore, if neither Program 1 nor Program 2 have been input in memory, "NO DATA" will appear on the display.

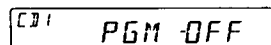
Notes

- If a track stored into program memory is not contained in the disc magazine, this track will be skipped and the next track will be played.
- If the information about a track stored into program memory has not been loaded yet, this track will not be played.
- When the disc magazine in the CD contains not a single track stored into program memory, or when information about program memory-stored tracks has not been loaded yet, "NO READY" will be displayed.

Cancelling from Program Mode

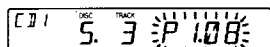
Press the **PGM** button momentarily during Program Mode playback. → "PGM OFF" appears on the display.

Once the Program Mode has been cancelled, the unit returns to normal playback mode.



Erasing Input Tracks

- 1 Press the **PGM** button for more than two seconds.
The unit will enter the program edit mode.



Program 1
Configuration
Indicator

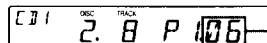
To erase tracks in Program 2, press the **PGM** button momentarily to prompt the Program 2 Configuration Indicator.

Notes

- When entering Program Edit Mode from Program Memory Playback Mode, the slot number of the track currently playing will appear on the display.
- Entering Program Edit Mode from Normal Playback Mode:
 - When all 12 track slots are filled in the program, the number 12 appears on the display.
 - When less than 12 tracks have been filled, the number of the first available slot appears on the display. For example, if only 7 tracks have been input, the number 8 will appear on the display.

- 2 Press the **+** or **-** button to designate which track you wish to erase (shown on the display).

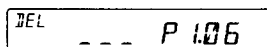
The track currently registered in the 6 slot of Program 1.



The track slot number

- 3 Once designated, press the **SEL** button for more than two seconds. → The track will be erased.

New track in slot 6



Once the track in the 6 slot has been erased, tracks in the 7-12 slots will move up one slot.

Note

In the case where all 12 track slots are filled in a program, erasing one track causes the 12 slot to become empty (for every erased track, another slot becomes vacant).

- 4 **A** To continue erasing tracks, repeat steps 2 and 3.
B To finish erasing tracks, press the **PGM** button for more than two seconds.

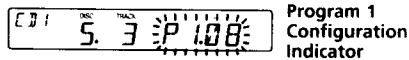
EN

CD Program Memory Function

Inserting Tracks into a Program

- 1 Press the **PGM** button for more than two seconds.

The system will enter the program edit mode.



If you wish to insert tracks into Program 2, prompt the Program 2 Configuration Indicator by pressing the PGM button momentarily.

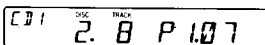
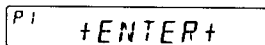
- 2 Press the or button to designate to which track slot number you wish to insert a track.



EN

- 3 Play the track you wish to insert.

- 4 Press the **SEL** button momentarily to enter the track.



The newly entered track will fill the 6 track slot, and tracks 7 and up will move down one slot.

Note

Once all 12 slots have been filled, "***FULL**" will appear on the display, and it will not be possible to insert more tracks.

- 5
 - A To continue inserting tracks into the program, repeat steps 2 through 4.
 - B To finish inserting tracks, press the **PGM** button for more than two seconds.

Erasing a Program Completely

For example, to delete Program 1.

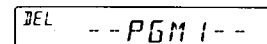
- 1 Press the **PGM** button for more than two seconds.

The system will enter the program edit mode.



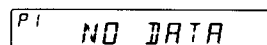
To delete Program 2, press the PGM button once, momentarily.

- 2 Press the button to get following indication.



If no track is stored into PGM1, this indication will not appear.

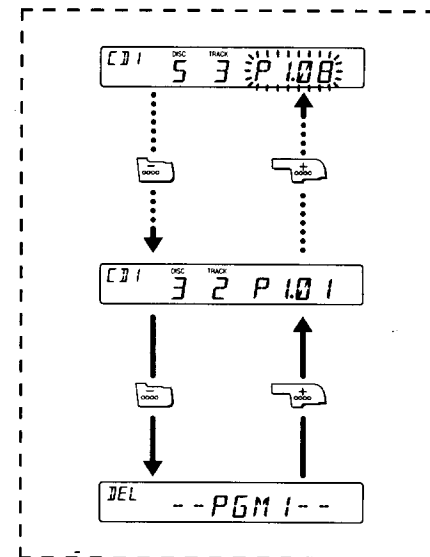
- 3 Press the **SEL** button for more than two seconds.



One second after "NO DATA" appeared on the display, the program edit mode for program 1 will be displayed.

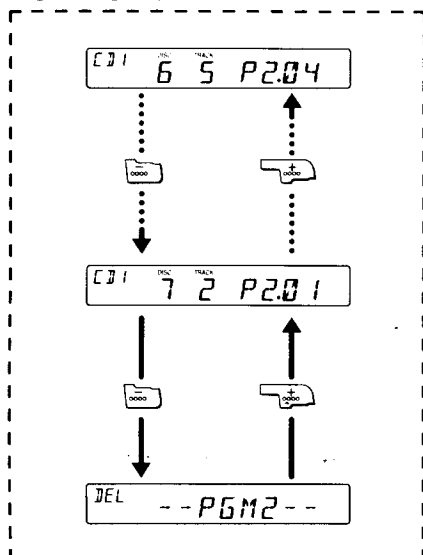
The function of the buttons changes cyclically as follows:

Program 1 group



Press the PGM button when any of above indications is displayed, the display will change to program 2.

Program 2 group



Press the PGM button when any of above indications is displayed; the display will change to program 1.

Note

If a program has not been configured, it will not appear on the display.

- 4 To finish erasing programs, press the **PGM** button for more than two seconds.

CD Custom File Function

With the optional CD changer(s) connected

When (a) CD changer(s) with custom file function* is (are) connected, you can display the customized titles (Disc Memo Function) and play selected tracks (Bank Function) on the discs.

These settings are stored in the memory of the CD changer. Therefore, even if you take a custom-filed disc out of the CD changer, you can still use the same custom file function the next time you play that disc in the same CD changer. (You can register the customized titles and the PLAY/SKIP settings on up to 110 discs** per CD changer.)

* If your system has several CD changers connected, you can play that disc in another CD changer and can still use the same custom file function, provided that the CD changers are inter-connected with the BUS cables.

** If you try to register more than 110 discs, the unit will display the "FULL" indication and will not accept the command for custom-filing. In this case, you will have to erase other discs from the CD changer memory before you enter the new ones.

EN

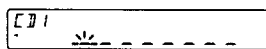
CD Program Memory Function/CD Custom File Function

Putting Your Personalized Titles onto the CDs

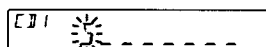
— Disc Memo Function

- 1 Play the disc that you wish to title (page 14).

- 2 Press the **LIST** button for more than two seconds.
Enter the name edit mode.

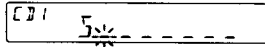


- 3 Press either the **+** or **-** button to select the desired characters.



continue to next page →

- 4 Press the  button after locating the desired character.



The flashing part moves to the next space on the right. Repeat steps 3 and 4 to enter the entire title. Up to eight characters can be used per disc.

Notes

- If you press the SEL button when the eighth character (farthest right character) is flashing, the flashing part goes back to the first character (farthest left character).
- If you wish to put a blank space after a character, select " " (under-bar).

- 5 ① To continue to the put titles onto the discs,

press either side of the PRST/DISC button momentarily to go to another disc.

EN

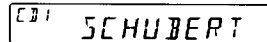
- ② To return to the normal CD playback mode,

— press the  button for more than two seconds.

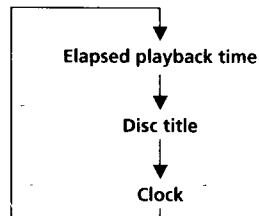
— press the  button to select the next CD changer (when two or more CD changers are connected).

Displaying the Registered Titles — Disc Memo Function

Press the  button during CD playback.

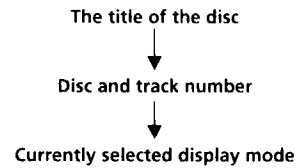


Each time you press the  button during CD playback, the display on the display window changes as follows:



Title display modes

While loading the discs, whatever display mode the unit is in, the indication on the display window automatically changes as follows:



Changing a Registered Title — Disc Memo Function

Play the disc whose title you wish to change, and perform steps 2 on page 21 to 5 to enter the name edit mode.

Erasing a Registered Title — Disc Memo Function

— Disc Memo Function

- 1 Select the CD changer, and play any disc.
- 2 Press the  button for more than two seconds.
Enter the name edit mode.
- 3 Press the  button while pressing the  button.
- 4 Press either the  or  button to select the title that you wish to erase.
- 5 Press the  button for more than two seconds.
Now, the title and the PLAY/SKIP settings of the bank function are erased.
Repeat step 4 and step 5 if necessary.
- 6 Press the  button for more than two seconds.
The unit returns to the normal CD playback mode.

The alternative method to erase a title

You can erase a title by selecting eight " "s (under-bar) as described in step 3 of "Putting Your Personalized Titles onto the CDs" (page 21).

Setting the Play and Skip Modes on the CDs

— Bank Function

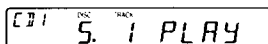
- 1 Play the disc to which you wish to set these modes.

- 2 Press the **LIST** button for more than two seconds.

Enter name edit mode.

See page 21 for details about registering a title. If the title has already been registered, go to step 3.

- 3 Press the **LIST** button momentarily.
Enter the PLAY/SKIP edit mode.



Note

When the title is not registered, you cannot enter the PLAY/SKIP edit mode even if you press the LIST button.

- 4 Press either side of the SEEK/AMS button to select the track number you wish to skip and press the **SEL** button.



The indication changes from "PLAY" to "SKIP". If you wish to return to "PLAY", press the SEL button again.

Repeat the operation in this step to set either the "PLAY" or "SKIP" mode on all the tracks.

Note

You can set the "SKIP" mode only onto up to 24 tracks. If a disc has more than 24 tracks, you will not be able to set the "SKIP" mode on the tracks after the 24th track.

- 5 Press the **LIST** button for more than two seconds.

The unit returns to the normal CD playback mode.

The unit starts playing the tracks with "PLAY" settings which have been set by the PLAY/SKIP edit mode.

Playing the tracks with "SKIP" settings.

Press the **BANK 4** button several times until you get the "BANK INV" indication.

The unit starts playing the tracks with "SKIP" settings which have been set by the PLAY/SKIP edit mode.

To go back to the normal playing mode, press the **BANK 4** button several times until you get the "BANK OFF" indication.

Each time you press the **BANK 4** button, the display on the display window changes as follows:

→ BANK ON → BANK INV → BANK OFF →

Note

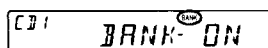
Even when you play a disc with the PLAY/SKIP settings, if the "BANK" indication has not appeared on the display window, the disc will not be played according to the settings.

EN

CD Custom File Function

Playing Selected Tracks on the CDs — Bank Function

Press the **BANK 4** button. → "BANK" appears on the display.



DSP Function

With the optional XDP-U50D connected

If you connect the optional XDP-U50D, you can add some effects to the soundfield of the currently selected program source.

Overview of the Digital Signal Processor (DSP) Function

The DSP can digitalize and process the audio signal with high speed thus enabling you to adjust the acoustic characteristics of the source sound without losing the sound quality. With the DSP unit you can control the audio output and adjust the acoustic characteristics according to your preference.

EN

Notes

- When the optional XDP-U50D and a graphic equalizer are connected, the reproduced sound may become distorted if the audio output signal of the graphic equalizer is boosted too much. In this case, press **preset number button 8** while pressing the **SEL** button. This will reduce the volume, but the distorted sound can be suppressed. To cancel the mode, press these buttons once again. (In case the optional XDP-U50D is connected by the optical cable, the volume will not get reduced even if you press preset number button 8 and the SEL button.)
- To improve the efficiency of the listening position setting, the volume of the output sound from the rear speakers is lowered automatically.
- When the optional XDP-U50D is connected, the loudness function and STM function will not work.

The DSP edit mode

The DSP function includes following select/adjust modes:

- Surround (SUR) menu select/effect level control mode (see page 24)
- Listening position (LP) adjust mode (see page 26)
- Subwoofer (SUB) cut-off frequency/volume control mode (see page 27)
- Bass (BAS) adjust mode (see page 27)
- Treble (TRE) adjust mode (see page 27)
- Fader (FAD) adjust mode (see page 28)

Display window	Selected mode	Adjustment of
SUR	Surround menu	Effect Level
LP1-LP5	Listening position	Left, right, front and rear listening position
SUB	Cut-off frequency	Subwoofer volume
BAS	Bass turn-over frequency	Bass volume
TRE	Treble turn-over frequency	Treble volume

In addition, there are also following DSP-related functions:

- DSP custom file function (see page 28)
- Last sound memory function (see page 29)

Selecting the Surround Mode

This unit features ten preset surround modes. You can select your desired surround mode to suit the source audio. These modes can simulate different soundfields so that you can enjoy the sensation of being close to the music source or being at a live concert etc.

Surround Menu

HALL	Concert hall
JAZZ	Jazz club
DISCO	Disco with thick walls
THEATER	Movie theater/cinema
PARK	Big open space
LIVE	Live concert
OPERA	Opera house
CHURCH	Church/chapel with a lot of reverberation
STADIUM	Open-air concert in a stadium
CELLAR	Cellar with a lot of reverberation
DEFEAT	Normal mode without any DSP effects*

* The surround mode will be canceled. However, other preset levels of the DSP function menu can be adjusted.

- 1 Select a program source (tape, radio, CD or MD) by pressing the button.

- 2 Press the button for more than one second.
Enter the surround menu select mode.

SUR - DEFEAT -

- 3 Press either the or button to select the desired surround menu.

HALL → JAZZ → DISCO → →
DEFEAT → HALL
CELLAR → STADIUM → CHURCH →
..... → DEFEAT → CELLAR

Note

If the "DEFEAT" mode is selected, the sound will be restored to the original state without any effects. (The "DSP" indication will disappear.)

- 4 Press the button for more than one second.
You can continue to listen with the selected surround menu.

To cancel, press the button momentarily. → "DSP" disappears from the display.

Adjusting the Effect Level

Balance and level of the reflections and of the reverberation of the selected surround mode can be adjusted.

- 1 Select the surround mode by performing steps 1 to 3 noted above.

- 2 Press the button momentarily.
Enter the effect level adjust mode.

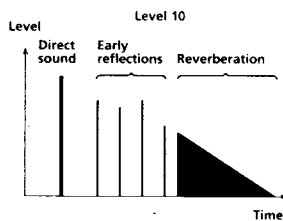
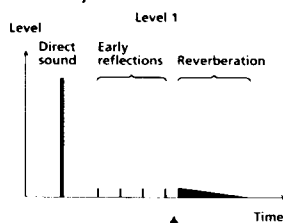
SUR^{DSP} EFFECT 1

- 3 Press either the or button to select the desired level.

SUR^{DSP} EFFECT 8

You can adjust from 0 to 10. The higher the percentage, the more resembles the sound a live performance.

Effect Level Adjustment Guide



- 4 **A** To continue to adjust the effect level of another surround menu, press the button momentarily.
The unit returns to the effect level adjust mode.

- B** To cancel the effect level adjust mode, press the button for more than one second.

To stop the setting procedure,

Press the DSP button for more than one second.

To change the effect level to the original (factory-set) setting,

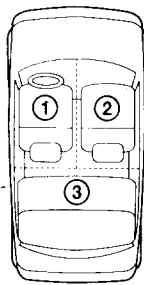
Press the SEL button for more than two seconds.

EN

DSP Function

Selecting the Listening Position

The time it takes for the sound from the speakers to the listener can be selected. Even in an imperfect listening environment, such as inside a car, it is possible to simulate a natural soundfield so that a listener can feel as if he is in the center of the soundfield wherever he sits in the car.



Display window	Center of soundfield
LP1 ALL	Normal setting (① + ② + ③)
LP2 FRONT	Front part (① + ②)
LP3 FRONT R	Right front (②)
LP4 FRONT L	Left front (①)
LP5 REAR	Rear part (③)

EN

- 1 Select a program source (tape, radio, CD or MD) by pressing the , or button.

- 2 Press the button for more than one second.

- 3 Press the button momentarily several times until you get the "LP1" indication. Enter the listening position adjust mode.

LP1^{DSP} ALL

- 4 Press either the or button to select the desired level.

By pressing either the or button repeatedly, the listening position indication in the display window will change as follows:

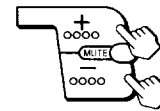
ALL (LP1) → FRONT (LP2) → → REAR (LP5) → ALL (LP1)
 ALL (LP1) → REAR (LP5) → → FRONT (LP2) → ALL (LP1)

- 5 To cancel the listening position adjust mode, press the button for more than one second.

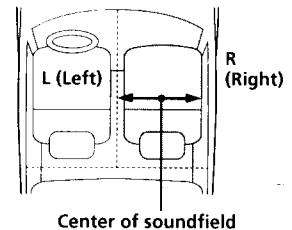
Setting the listening position more specifically

- 1 After selecting the listening position by performing steps 1 to 3, press the button.
Enter the left/right balance adjust mode.

- 2 Press either the or button to set the center of the soundfield.

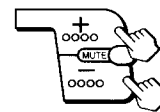


For example, adjustment of the left/right balance of "LP3"

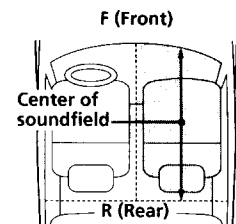


- 3 Press the button.
Enter the front/rear balance adjust mode.

- 4 Press either the or button to set the center of the soundfield.



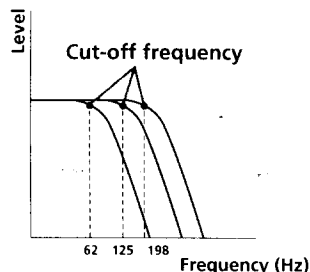
For example, adjustment of the front/rear balance of "LP3"



- 5 ① To continue to adjust another the listening position, press the button momentarily.
 ② To cancel the balance adjust mode, press the button for more than one second.

Adjusting the Cut-off Frequency and Volume of the Subwoofer(s)

To match the characteristics of the connected subwoofer(s), you can cut the unwanted high and middle frequency audio signal entering the subwoofer(s). The frequency at which the audio signal is cut off is called the cut-off frequency. By setting the cut-off frequency, the subwoofer(s) will output only low frequency signals so that a clearer sound image can be created.



- 1 Select a program source (tape, radio, CD or MD) by pressing the or button.

- 2 Press the button for more than one second.

- 3 Press the button momentarily several times until you get the "SUB" indication. Enter the cut-off frequency adjust mode.

- 4 Press either the or button to select the desired cut-off frequency.

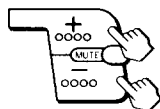
By pressing either the + or - button repeatedly, the listening position indication in the display window will change as follows:

62 Hz → 78 Hz → 99 Hz → 125 Hz* → 157 Hz → 198 Hz
 198 Hz → 157 Hz → 125 Hz* → 99 Hz → 78 Hz → 62 Hz

* Factory-set frequency

- 5 Press the button momentarily. Enter the volume control mode.

- 6 Press either the or button to adjust the volume.



Subwoofer volume increases.

Subwoofer volume decreases.

Note

At the lowest volume setting the subwoofer sound will be completely cut out (submute).

- 7
 - A To continue to select another the cut-off frequency, press the button momentarily. The unit returns to the cut-off frequency adjust mode.
 - B To cancel the cut-off frequency adjust mode, press the button for more than one second.

Stopping the setting procedure

Press the DSP button for more than one second.

Changing the cut-off frequency to the original (factory-set) setting

Press the SEL button for more than two seconds.

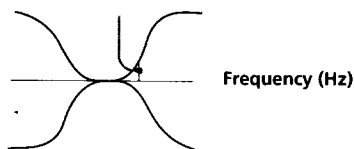
EN

DSP Function

Adjusting the Bass and Treble

When the bass or treble frequency is changed, the original frequency is called the turn-over frequency. By selecting the bass or treble turn-over frequencies, you can control the volume thus matching the acoustic characteristics inside your car.

Turn-over frequency



- 1 Select a program source (tape, radio, CD or MD) by pressing the or button.

- 2 Press the button for more than one second.

continue to next page →

- 3 Press the **[DSP]** button momentarily several times to get the "BAS" or "TRE" indication.

Enter the bass or treble adjust mode.

BAS ~ FREQ 314

Bass adjust mode

TRE ~ FREQ 3.1K

Treble adjust mode

- 4 Press either the  or  button to select the turn-over frequency.

By pressing either the + or - button repeatedly, the turn-over frequencies in the bass adjust mode will change as follows:

 198 Hz → 250 Hz → 314 Hz* → 396 Hz
 396 Hz → 314 Hz* → 250 Hz → 198 Hz

* Factory-set frequency

By pressing either the + or - button repeatedly, the turn-over frequencies in the treble adjust mode will change as follows:

 2.0 kHz → 3.1 kHz* → 4.0 kHz → 5.0 kHz
 5.0 kHz → 4.0 kHz → 3.1 kHz* → 2.0 kHz

* Factory-set frequency

- 5 Press the **[SEL]** button momentarily. Enter the volume control mode.

- 6 Press either the  or  button to adjust the volume.

 Bass or treble volume is boosted.
 Bass or treble volume is cut.

- 7 ① To continue to select another the turn-over frequency, press the **[SEL]** button momentarily. The unit returns to the bass or treble adjust mode.
- ② To cancel the bass or treble adjust mode, press the **[DSP]** button for more than one second.

To stop the setting procedure
 Press the DSP button for more than one second.

To change the bass or treble to the original (factory-set) setting
 Press the SEL button for more than two seconds.

Fader (FAD) Adjustment

The fader can be adjusted separately for the DSP on mode and DSP off mode. Normally, with the DSP mode on, the volume of the output sound from the rear speakers is lowered automatically to improve the efficiency of the listening position setting. If you want to raise the rear speaker volume, adjust the fader.

For this operation, refer to page 12.

DSP Custom File Function

(With Optional CD changer(s) connected)

Registering Surround Modes onto Discs

Once you have registered the desired surround modes onto the discs, you can enjoy the same surround modes every time you play these discs. (With one CD changer, you can register surround modes onto a maximum of 110 discs. See page 21 for more details.)

Note

Before registering the DSP custom file, make sure that you have titled the discs (page 21).

- 1 Play the disc whose surround mode you wish to register.
- 2 Press the **[LIST]** button for more than two seconds.
 Enter the name edit mode.

Note

If the disc has no title, "-----" will appear in the display window. Refer to "Putting Your Personalized Titles onto the CDs" on page 21.

- 3 Press the **[LIST]** button momentarily twice.
 Enter the DSP file registering mode.

[DSP] - DEF -

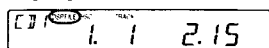
- 4 Press either the  or  button to select the surround menu.

 HALL → JAZZ → DISCO → →
 DEFEAT → HALL
 CELLAR → STADIUM → CHURCH →
 → DEFEAT → CELLAR

- 5 Press the **LIST** button for more than two seconds.
Enter the normal CD playback mode.

Playing in the DSP Custom File Mode

Press the **DSP** button while pressing the **SEL** button during CD playback.
→ "DSP" and "FILE" appears on the display.



To cancel, press these buttons again.

Notes

- When you press the DSP button during CD playback in the DSP custom file mode, the surround mode will be canceled. However, if you change the disc, the new disc will be played in the surround mode registered in the DSP custom file.
- If no surround mode is registered on a disc, the "DSP" indication will not appear.

Changing the registered surround mode

Play the disc whose surround mode you wish to change, and repeat from step 2 on page 28 to step 5.

Erasing the registered surround mode

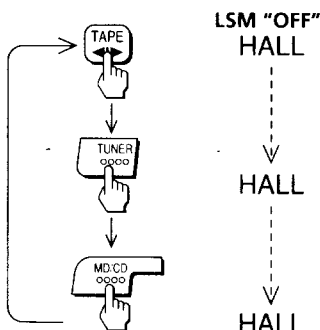
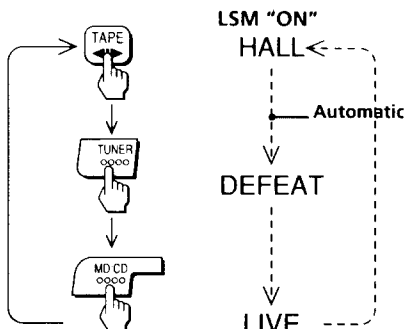
Select the DEFEAT mode in step 4 on page 28.

Listening to each Program Source in its Registered Surround Mode

— LSM (Last Sound Memory) Function

This function memorizes the last-selected surround mode of each program source. With this function, you can listen to the same source always in the same surround mode even after changing the program source or turning the unit off and on again.

For example, if you listen in following order to a MD in the "HALL" mode, to the radio in the "DEFEAT" mode, to a CD in the "LIVE" mode and change then to MD playback, the surround mode will automatically change to "HALL". If you change then to radio, the surround mode will change to "DEFEAT".

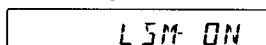


Note

Even with the LSM function off, it is possible to change the surround mode manually.

Playback with the LSM Function

Press the **10** button while pressing the **SEL** button. → "LSM" appears on the display.



To cancel, press these buttons again.

Note

When you play a CD in the DSP custom file mode, the various surround modes registered on the discs will change automatically even when the LSM function is on.

EN

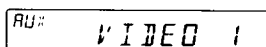
DSP function

Watching Video/ Simultaneous Play Function

With the optional TV tuner and TV monitor connected

Watching Video

Press the  button to get the "VIDEO 1" (or "VIDEO 2") indication. → Playback the video.



Note

You can only get the "VIDEO 2" indication if the VIDEO 2 terminal of the TV monitor is selected.

EN

Watching TV or Video while Listening to Tape or CD/MD

— Simultaneous Play Function

There are two ways by which simultaneous play can be activated.

1 A During TV reception or video playback:

Press the  or  button on the master unit for more than two seconds.

The sound from the TV or video is turned off and the sound from the tape, CD or MD can be heard instead. However, you can continue to watch the picture on the monitor screen.

B During tape, CD or MD playback:

Press the  button for more than two seconds.

The TV picture appears on the monitor and you can continue to listen to the sound from the tape, CD or MD.

Notes

- The simultaneous play function will not work while you are listening to the radio.
- When the unit is in the simultaneous play mode, you can still listen to the sound from the TV or video through headphones plugged into the monitor.

2 A To select a desired track

Use the buttons on the master unit or the controls on the rotary commander.

B To select a desired TV picture or the channel

Use the buttons on the wireless remote commander.

Notes

- The ATA function will not work when the unit is in the simultaneous play mode.
- The contents of the preset memories or CD/MD information cannot be listed on the TV monitor when the unit is in the simultaneous play mode.
- If you wish to listen to tape playback, make sure that the tape deck is loaded with cassette. If the deck is not loaded, the simultaneous play function will not work.
- When the unit is in the simultaneous play mode, tape, CD and MD playback cannot be controlled by the wireless remote commander.

Returning to the normal mode by canceling the simultaneous play mode

Use the buttons on the master unit.

To listen to tape, CD or MD

Press the  or  button for more than two seconds.

To listen to the radio

Press the  button.

To watch TV or video

Press the  button.

Note

You cannot cancel the simultaneous play mode with the rotary commander and the wireless remote commander.

The simultaneous play mode is canceled and the unit returns to the TV reception or video playback mode in the following cases

- In the case where the  button is pressed when the unit is in the simultaneous play mode with tape playback.
- In the case where the EJECT button on a CD/MD changer is pressed when the unit is in the simultaneous play mode with CD/MD playback.

Maintenance

Fuse Replacement

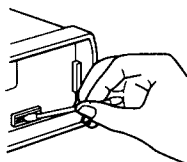
When replacing the fuse, be sure to use one with the correct amperage which is stated on the fuse case. Never use a fuse whose amperage rating exceeds the one supplied to the unit as this could cause a malfunction of the unit.

Warning

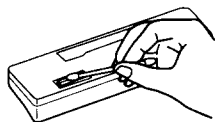
Use a fuse with the specified amperage. Use of a fuse with higher amperage may cause serious damage.

Cleaning the Connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing the RELEASE button, then detach it and clean with a cotton swab which was dipped in alcohol. Do not apply too much force. Otherwise, the connector may get damaged.



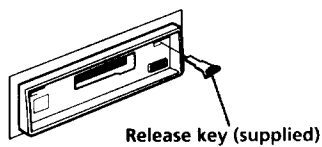
Main unit



Back of the front panel

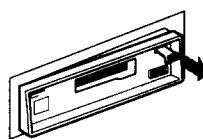
Dismounting the Unit

1

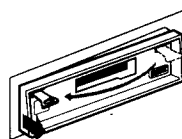


Release key (supplied)

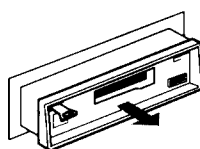
2



3



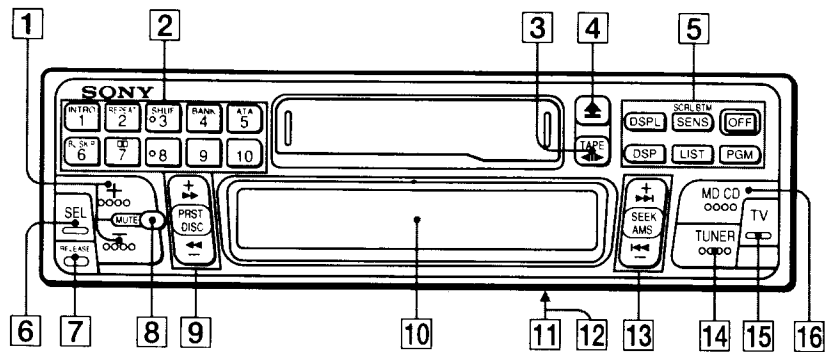
4



EN

Watching Video/Simultaneous Play Function

Button Locations



EN

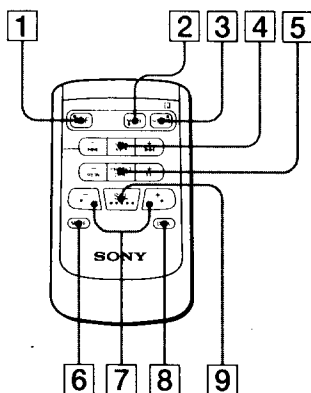
Refer to the pages in ● for details.

- 1 (volume/bass/treble/balance/fader control) button
6 11 12 19 20 21 22 25 26 27 28
- 2 During radio reception:
Preset number buttons 9
- During tape/CD/MD playback:
- INTRO button 7 12 15 16
- REPEAT button 8 15
- SHUF button 16
- BANK button 13 23
- ATA (Automatic Tuner Activation) button 8 11 22
- BL.SKIP button 8 15
- (Dolby B NR or C NR) button 7 13
- During CD/MD playback:
- Direct disc selection button 15
- For CD changers: - 10
- For MD changers: - 4
- 3 (playback/transport direction change) button 7 25 26 27 29 30
- 4 (eject) button 7 12 30
- 5 (display mode change/time set) button 6 11 14 22
- (Sensitivity adjust/Scroll/Best Tuning Memory Function) button 8 9 14

- (OFF) button 5 6 7 12
- (DSP mode on • off/select) button 25 26 27 28 29
- (custom file mode select • set/list up) button 10 11 12 16 17 21 22 23 28 29
- (program memory function) button 18 19 20
- 6 SEL (control mode select) button 6 11 12 13 18 19 20 22 23 25 26 27 28 29
- 7 RELEASE (front panel release) button 5 31
- 8 MUTE button 12
- 9 PRST (preset) /DISC button 7 9 10 14 15 16
- 10 Display window
- 11 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the installation/Connections manual.
- 12 LINE-OUT/IN SELECT switch (located on the bottom of the unit)
See "LINE-OUT/IN SELECT Switch" in the Installation/Connections manual.
- 13 SEEK/AMS button 7 8 14
- 14 TUNER (radio on/band select) button 7 8 9 10 11 25 26 27 29 30
- 15 TV (television/video Select) button 7 8 9 10 11 30
- 16 MD/CD (disc play • MD/CD changer select) button 7 14 15 22 25 26 27 29 30

Location of Controls

**Optional Wireless
Remote Commander
(RM-X40)**



Buttons with the same function as those on the master unit

- 1 OFF button**
- 4 SEEK/AMS button**
- 5 PRESET/DISC button**
You cannot do the manual search and manual tuning with the remote commander.
- 6 MUTE button**
- 7 button**
- 8 DSPL button**
- 9 SEL button**

Different function buttons

EN

2 MODE button

During Tape playback:
Changes the playback side of the cassette.

During CD/MD playback:
Selects CD/MD changers when several CD/MD changers are connected.

During radio/TV reception:
Changes preset groups within band received.
FM1 ↔ FM2 AM1 ↔ AM2

→ TV → VIDEO1 → VIDEO2*

** Only when the rear TV monitor is connected and the "VIDEO2" mode is selected.*

3 SOURCE button

Press to select program sources.
Each time the button is pressed, the program source mode changes as follows:

→ FM → AM → CD → MD
← TV* ← TAPE ←

** When the TV tuner unit is connected.*

When the POWER SELECT switch is set to the **ⓑ** position, the unit cannot be operated with the wireless remote commander unless the MD/CD, TUNER or TV button on the unit is pressed or a cassette is inserted to activate the unit first.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

12 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

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 - 20,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby C NR	Dolby NR off
TYPE II, IV	67 dB	73 dB	61 dB
TYPE I	64 dB	70 dB	58 dB

Tuner section

FM

Tuning range	87.5 - 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 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	35 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	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	30 W $\times$ 4 (at 4 ohms)

General

Output lead	Power antenna relay control lead Power amplifier 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 ground)
Dimensions	Approx. 188 $\times$ 58 $\times$ 176 mm (7 $\frac{1}{2}$ $\times$ 2 $\frac{1}{8}$ $\times$ 7 in) (w/h/d)
Mounting dimension	Approx. 182 $\times$ 53 $\times$ 156 mm (7 $\frac{1}{4}$ $\times$ 2 $\frac{1}{8}$ $\times$ 6 $\frac{1}{4}$ in) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Supplied accessories	Power connecting cord (1) Cord with connector (AUDIO) (1) Mounting hardware (1 set) Front panel case (1) Rotary Commander RM-X2S
Optional accessories	Wireless remote commander RM-X40 BUS cable (supplied with an RCA pin cord) RC-61 (1 m), RC-62 (2 m) RCA pin cord RC-63 (1 m), RC-64 (2 m), RC-65 (5 m)
Optional equipment	CD changer CDX-71 (10 discs), CDX-91 (10 discs), CDX-T60 (6 discs) MD changer MDX-40 Source selector XA-U20, XA-U40 Digital preamplifier XDP-U50D TV tuner XT-40V etc.

Design and specifications are subject to change without notice.

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Troubleshooting Guide

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

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

General

Problem	Cause/Solution
No sound	• Adjust the volume with the  button. • Set the fader control to the center position on the 2-speaker system.
Indications do not appear on the display window.	Remove the front panel and clean the connectors. See "Cleaning the Connectors" of "Maintenance" for details.

Tape playback

Problem	Cause/Solution
Playback sound is distorted.	Contamination of the tape head. → Clean the head.
The AMS does not operate correctly.	• There is a noise in the space between tracks. • A blank space is too short (less than four seconds). •  on the SEEK/AMS button is pressed immediately before the following tracks. •  on the SEEK/AMS button is pressed immediately after the track starts. • A long pause, or a passage of low frequencies or very low sound level is treated as a blank space.

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Radio/TV reception

Problem	Cause/Solution
Preset tuning is not possible.	• Memorize the correct frequency. • The broadcast is too weak.
Automatic tuning is not possible.	The broadcast is too weak. → Use the manual tuning.
The "ST" indication flashes.	• Tune in precisely. • The broadcast is too weak. → Press the SENS button to enter the MONO mode.

Disc play

Problem	Cause/Solution
Playback sound skips.	A dusty or defective disc.

Error displays (with the optional CD/MD changer(s) connected)

The following indications will flash for about five seconds and an alarm sound will be heard.

Display	Cause	Solution
NO MAG	The disc magazine is not inserted in the CD/MD changer.	Insert the disc magazine with discs into the CD/MD changer.
NO DISC	No disc is inserted in the disc magazine.	Take out the magazine and insert the discs.
ERROR	The disc is dirty.	Clean the disc*.
	The disc is inserted upside down.	Insert the disc correctly.
RESET	The CD/MD changer cannot be operated because of some problem.	Press the reset button of the unit.
NO READY	The lid of the MD changer is open or MDs are not inserted properly.	Close the lid or inserted the MDs properly.
BLANK	No tracks have been recorded on the MD.	Play a MD with recorded tracks on it.
HI TEMP	The ambient temperature is more than 50°C.	Wait until the temperature goes down below 50°C.

* In case of a MD, insert another MD.

If the above-mentioned solutions do not help to improve the situation, consult your nearest Sony dealer.