SONY

3-864-815-**11**(1)

XES

3-858-942-**31**(1)

Digital Reference Sound System

Operating Instructions

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

XES-Z50

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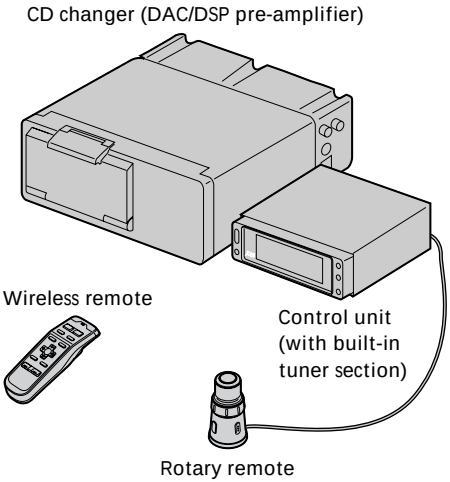
Overview

Overview of the System

This system consists of the following sections.



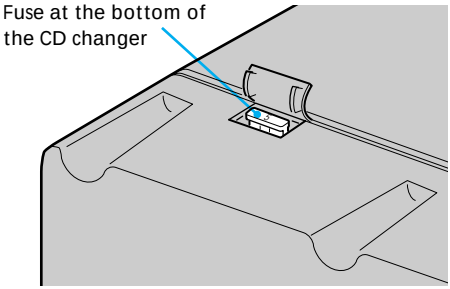
Useful tips

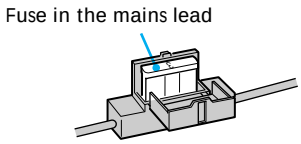
For details on connecting the XES-M50 Power Amplifier, XES-F50 Full-range Speaker, XES-H50 Ribbon Tweeter, XES-L50 Subwoofer, and the optional CD changer and MD changer, refer to the Installation / Connection Manual supplied with this system.

Precautions

Replacing fuses

When replacing a fuse, be sure the new fuse has the same power rating (amperage) as the old one. If you replace a burnt-out fuse either with a higher-rated fuse or with a wire, the system may be damaged or a fire may break out.
Fuses are located at the bottom of the CD changer and in the mains lead.





Adjusting the volume

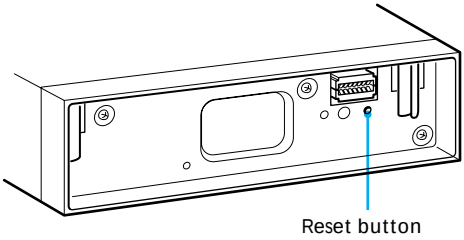
For your safety, set the volume low enough so that you can still hear the sounds in the street around you.

The display section

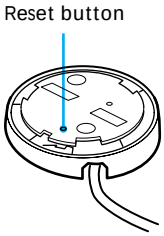
Under extremely hot or cold conditions, the display may become dim, but this is not a malfunction. The display will return to normal when the temperature becomes normal.

The reset button

After replacing the car battery, press the reset button in the control unit with a pointed object such as a ball-point pen. To detach the display section from the control unit, see “Attaching / Detaching the Electrically Operated Display Section” on page 59.

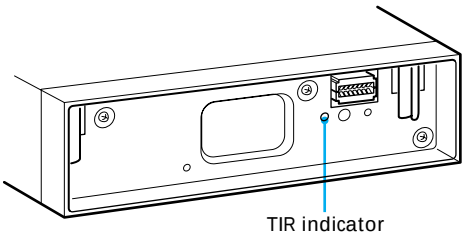


Another reset button can be found on the rotary remote holder.
When you cannot detach the display section because the system does not turn on, press the reset button on the rotary remote holder.



The TIR indicator

The system can automatically record traffic announcements even while the display section has been removed (see page 47). The TIR indicator in the control unit flashes for about ten seconds when you remove the display section while the TIR function is turned on. The TIR indicator also flashes when you turn the ignition switch to OFF while the ACC Position is set to “yes,” the TIR function is on, and the front panel has been removed.
If you have a power aerial, it automatically extends whenever the preset time comes (see page 48).
If you don’t use your car frequently, be sure to turn off the TIR function to prevent battery wear.



Notes

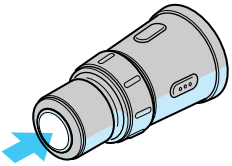
- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the system to cool off before operating it.
- If no power is being supplied to the system, check the connections first. If everything is in order, check the fuse.
- Avoid installing the CD changer, wireless remote, and rotary remote in places:
  — subject to temperatures exceeding 55°C.
  — subject to direct sunlight.
  — near heat sources (such as heaters).
  — exposed to rain or moisture.
  — exposed to excessive dust or dirt.
  — subject to excessive vibration.

Using the Rotary Remote

You can use the rotary remote for all operations except menu operations.

Basic Operations

SOURCE button

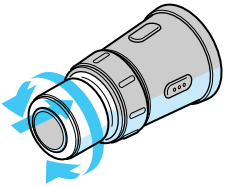


Press the button.

The system turns on. Each time you press the button, the programme source switches as follows: CD → MD (only when an MD unit is connected) → AUX (only when Source settings have been done: see page 53) → FM→ MW → LW → CD. When an external component is selected, it will be indicated as an auxiliary (AUX) component.

To turn off the system, press the OFF button on the side of the rotary remote (see page 8).

VOL/DISC/PRESET control



Rotate the control.

You can adjust the volume.

Push in and rotate the control.

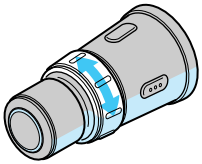
You can change the disc inside of the changer when CD or MD is selected.

You can change the preset station in the tuner when FM, MW, or LW is selected.

Push in and release the control.

The display section shows the list of discs or preset stations for a few seconds, then reverts to the previous display.

SEEK/AMS control



Rotate and release the control.

You can locate the beginning of tracks when CD or MD is selected.

When FM, MW, or LW is selected, the tuner begins searching for a station, then stops when it detects one.

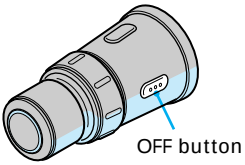
Keep the control rotated.

You can locate a specific point on a track when CD or MD is selected. Playback at normal speed resumes when you release the control.

When FM, MW, or LW is selected, manual tuning becomes possible.

Other Operations

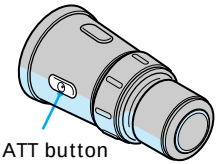
OFF button



Press this button to turn off the system.

To turn on the system again, press the SOURCE button.

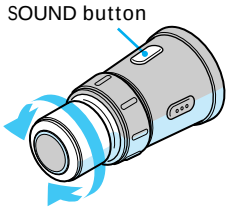
ATT button



Press this button to attenuate the sound.

To cancel the attenuation, press the button again.

SOUND button



Press this button to select sound characteristics.

Each press of the button changes the display as follows: PEQ (Parametric EQualizer) indication → CNW (Cross-over NetWork) indication → previous display.

While the PEQ or CNW indication appears, rotate the VOL / DISC / PRESET control to select 1 of 10 preset patterns.

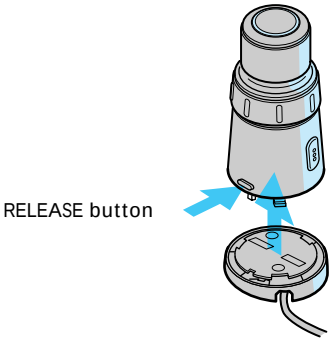
The previous display reappears when no operation has been done for several seconds.

To switch the direction of rotation of the rotary remote

See “Set up Menu” on page 51.

To detach the rotary remote

You can detach the rotary remote as a safety measure against theft.
Turn the rotary remote clockwise while pressing down the RELEASE button.



Using the Wireless Remote

Use the wireless remote to make the various menu settings. For your safety, system operations with the wireless remote should be done by a passenger. If you (the driver) want to use the wireless remote, park your car in a safe location before performing any operations.

OFF button

Press to turn off the system.

D LABEL button

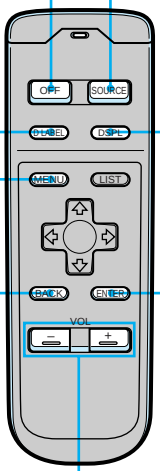
When DAB is selected, press to turn the Dynamic Label.
(Temporarily inoperable)

MENU button

Press to switch to a menu display. The menu which appears depends on the current programme source. To return to the previous display, press the button again.

BACK button

Press to return to the normal display during a menu operation.



SOURCE button

Press repeatedly to specify the source as follows:
CD → MD (only when an MD changer is connected) → AUX (only when Source settings have been done) → FM → MW → LW → CD.

DSPL (display) button

When playing a CD or MD, press to display the disc title or track title.
When the current disc or track has no title, “No Disc (or Track) Name” appears in the display.
When FM is selected, press to activate the PTY Search function (see page 49).

ENTER button

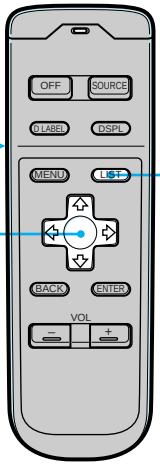
Press to carry out the selected function.

VOL buttons

Press + or – to adjust the volume.

LIGHT button

Press to light up the buttons on the wireless remote. The light turns off after a few seconds.



Cursor buttons

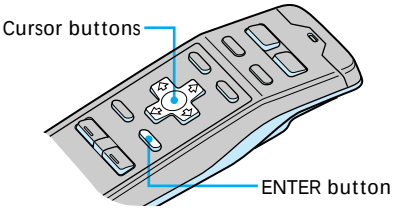
During the menu display appears, press to move the cursor in a menu display.
When CD or MD is selected, press ↑ or ↓ to change the disc and ← and → to locate a track.
When FM, MW, or LW is selected, press ↑ or ↓ to select a preset station, or ← and → to perform automatic tuning.

LIST button

When CD or MD is selected, press to display DISC NAME LIST. While the list appears in the display, press again to display TRACK NAME LIST of the current disc (see page 29).
When FM, MW, or LW is selected, press to display PRESET LIST.
To change the current selection, use the cursor buttons to make new selection, then press the ENTER button.

Initial Settings

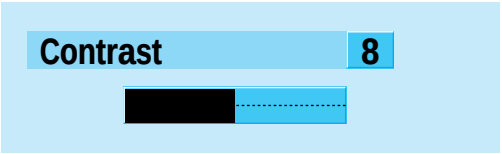
Do the following initial settings at the following times: (1) Before you operate the system for the first time, (2) after replacing the car battery, and (3) after resetting the system.



1 Press the reset button (see page 5).

The Contrast indication appears.

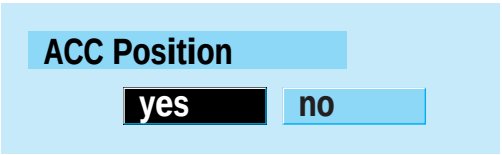
Press ← or →. The contrast is adjustable in 15 steps.



2 Press ENTER.

The ACC Position indication appears.

Press ← or →. Select “yes” if your car’s ignition switch has an ACC position; select “no” if your car’s ignition switch has no ACC position.



Note

You can specify the ACC position and cross-over network settings only in the initial setting procedure. To change these settings afterwards, press the reset button and repeat the procedure.

Note

If you have a 3-way speaker system, selecting “F/R/SUB-W” may cause damage to your tweeter.

Useful tips

To change any of the initial settings at this time, press the cursor buttons to select the item you want to change.

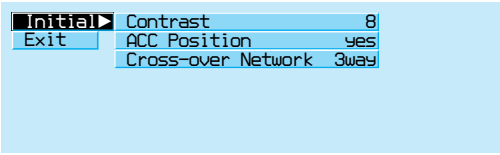
3 Press ENTER.

The Cross-over Network (output mode) indication appears.

Press ← or → to select “3way” or “F (front)/R (rear)/SUB-W (sub-woofer)” depending on your speaker system.

4 Press ENTER.

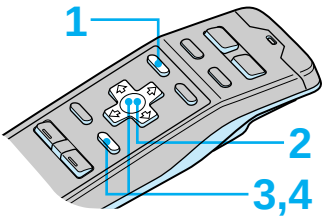
The Initial indication appears.



5 To complete the initial settings, press ↓ to select “Exit,” then press ENTER.

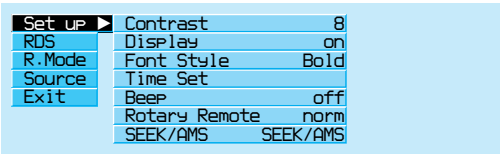
Setting the Clock

Set the clock with the wireless remote.
Turn the system on before setting the clock.

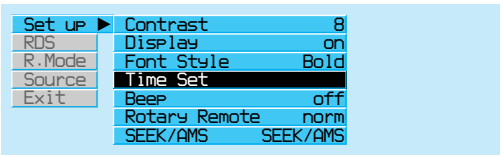


1 Press MENU.

The menu display appears.

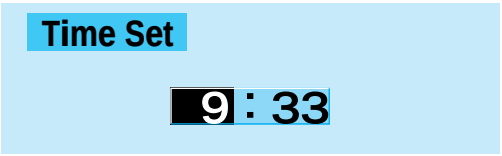


2 Select “Set up” and press ➡ to move to the sub menu, then select “Time Set.”



3 Press ENTER.

The Time Set indication appears.



Press ⬆ or ⬇ to set the hour.

Then press ➡ to move to minutes and press ⬆ or ⬇ to set the minutes.

Pressing ⬇ lowers the number and ⬆ raises the number.

Useful tips

You can press the MENU button or BACK button instead of the ENTER button to set a value.

4 After setting the time, press ENTER.

The time is stored and the menu display reappears.

To return to the normal display

Press the MENU button.

To display the current time during operation

The current time can be set to appear in the upper-right corner of the display (except when a menu is displayed). For details, see “Set up Menu” on page 51.

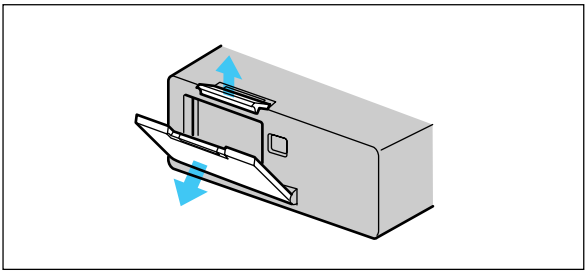
Inserting CDs

The disc magazine inside the CD changer can hold up to 10 discs.

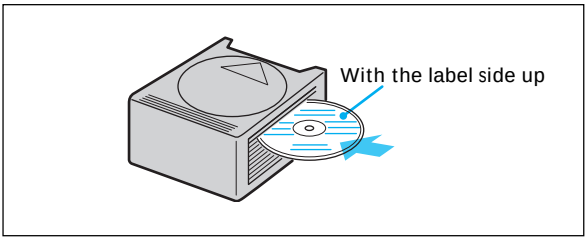
Note

To play an 8-cm CD (single CD), use the optional CSA-8 Sony Single CD Adaptor. When using the single-CD adaptor, attach the three claws to the CD securely. Note that if you use an adaptor made by another company, the CD changer may not operate properly. If you play a single CD without the adaptor, the CD changer may be damaged.

1 Lift up the lock lever and open the door of the CD changer.

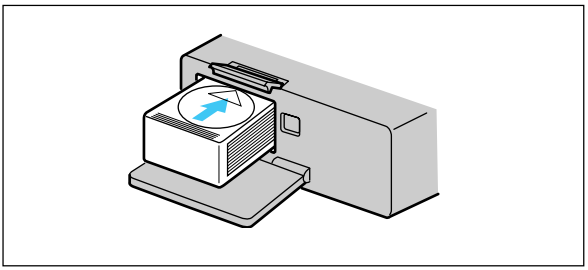


2 Insert a CD in each slot of the disc magazine.



3 Insert the disc magazine into the CD changer in the direction of the arrow until it clicks in.

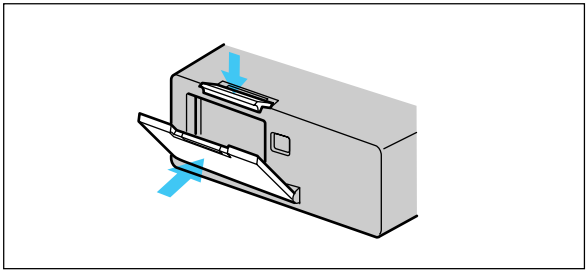
The CD changer begins verifying the CDs.



Useful tips

The CD changer verifies all the CDs one after another whenever the disc magazine is inserted. Playing a CD during this verifying operation is possible. Note, however, that disc titles are not displayed until they have been verified by the CD changer.

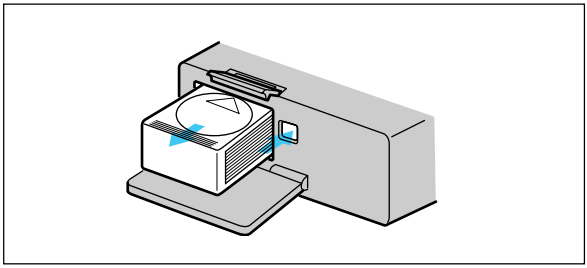
4 Close the door and lock the CD changer securely.



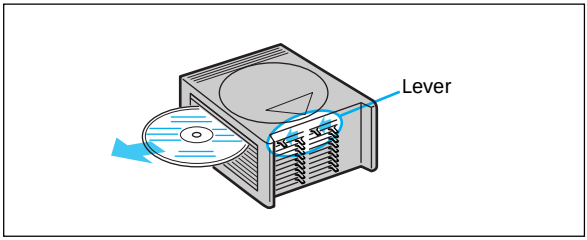
Removing CDs

1 Press ⏏.

The disc magazine comes out.

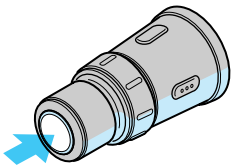


2 Slide the lever of the disc magazine.

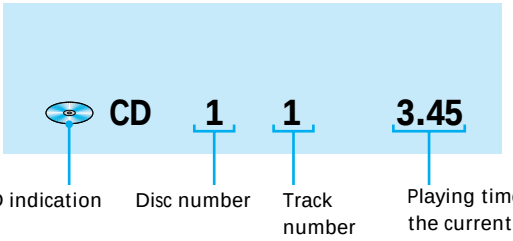


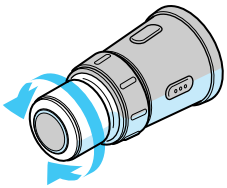
Listening to a CD

Before listening to a CD, insert one or more CDs into the disc magazine, then load the disc magazine into the CD changer (see page 16).



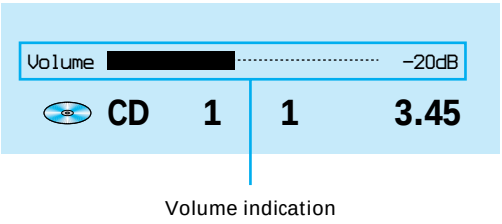
1 Press SOURCE repeatedly to select “CD.”

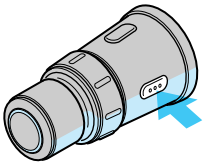




2 Rotate VOL/DISC/PRESET to adjust the volume.

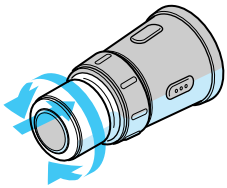
Turn the control clockwise to increase the volume; turn it counterclockwise to decrease the volume.





3 Press OFF to turn off the system.

To Select the Disc to Be Played

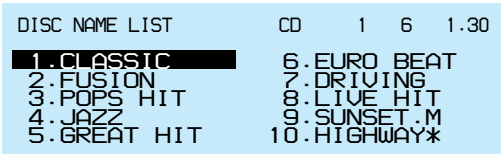


Push in and rotate VOL/DISC/PRESET.

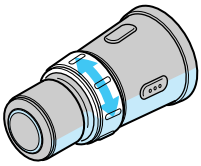
The system changes to the next or previous disc. If you keep the control rotated, the discs will continue to change.

Push in and release the control to display DISC NAME LIST.

For details on naming a disc, see “Labelling a CD (Disc Memo)” on page 25.

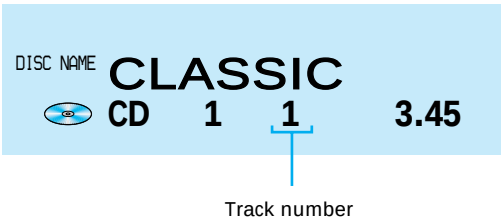


To Locate a Track

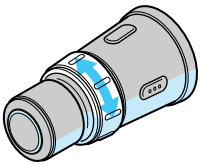


Rotate, then release SEEK/AMS.

The system locates the next or previous track.



To Locate a Specific Point on a Track



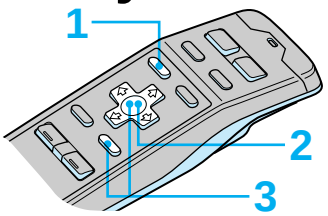
Keep SEEK/AMS rotated.

The system plays the track at high speed. When you reach the point you want, release the control.

Playing Tracks Repeatedly

(Repeat Play)

The Repeat Play function allows you to play a track, a disc, or all the discs in the CD changer repeatedly.

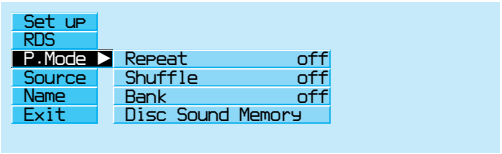


Useful tips

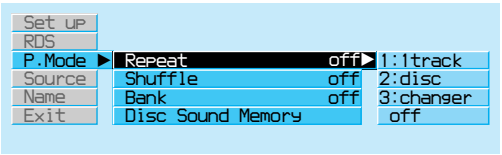
To return to previous steps (one at a time)
Press the ← button.

To return to the normal display
Press the MENU button.

1 While playing a CD, press MENU.



2 Select “P.Mode” and press → to move to the sub menu, then select “Repeat” using ↑ or ↓.



3 Press → then ↑ or ↓ to select the repeat mode, then press ENTER.

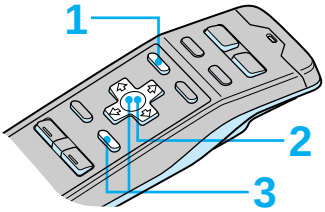
The selected repeat mode appears to the right of “Repeat” in the display.

Indication	Operation
1:1track	Repeats the current track only
2:disc	Repeats all tracks on the current disc
3:changer	Repeats all the discs in the current CD changer (in case one or more CD changers are connected)
off	Normal playback

Playing Tracks in Random Order

(Shuffle Play)

Shuffle Play plays all tracks on the current disc or all discs in the CD changer in random order.

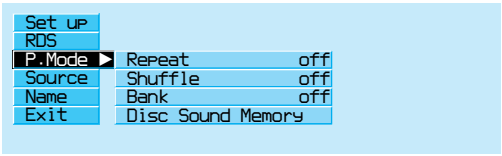


Useful tips

To return to previous steps (one at a time)
Press the ← button.

To return to the normal display
Press the MENU button.

1 While playing a CD, press MENU.



2 Select "P.Mode" and press → to move to the sub menu, then select "Shuffle" using ↑ or ↓.

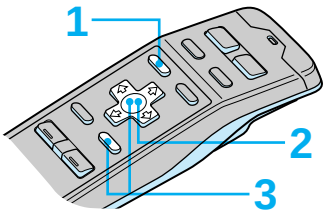
3 Press → then ↑ or ↓ to select the shuffle mode item, then press ENTER.

The selected item appears to the right of "Shuffle" in the display.

Indication	Operation
1:disc	Plays all the tracks on the current disc in random order
2:changer	Plays all the discs in the current CD changer in random order
3:all	Plays all the discs in all the CD changers in random order (in case one or more CD changers are connected)
off	Normal playback

Selecting Specific Tracks for Playback (Bank)

If you have labelled the disc (see page 25), the Bank function allows you to skip certain tracks and play only the tracks you want.



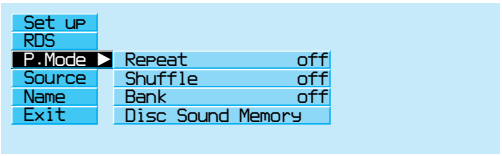
Useful tips

To return to previous steps (one at a time)
Press the ← button.

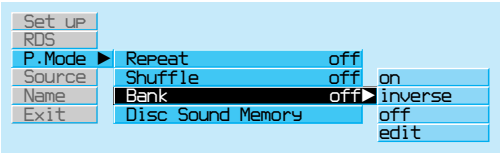
To return to the normal display
Press the MENU button.

Note
You cannot use the Bank function for discs that have not been labelled using the Disc Memo function. Be sure to label the disc in advance.

1 While playing a CD, press MENU.



2 Select “P.Mode” and press → to move to the sub menu, then select “Bank” using ↑ or ↓.



3 Press → then ↑ or ↓ to select the bank mode, then press ENTER.

The selected bank mode appears to the right of “Bank” in the display.

Indication	Operation
on	Plays all tracks set to “Play”
inverse	Plays all tracks set to “Skip”
off	Normal playback
edit	Sets tracks on the current disc to “Play” or “Skip.”

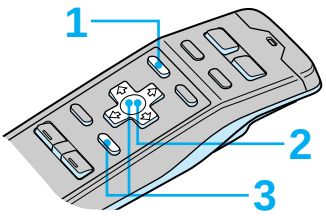
To set tracks to “Play” or “Skip”

Select “edit” in Step 3 and press the ↑ or ↓ button to select “Play” or “Skip” for a track. To move to the next track, press the → button.
Note that only tracks 1 to 24 on a disc can be set.
To complete the setting procedure, press the ENTER or BACK button.

Setting Sound Effects for Each CD/MD

(Disc Sound Memory)

You can select and memorise particular sound effects for CDs or MDs.



Note

To use this function, select the sound effect in advance (see page 55).

Useful tips

To return to previous steps (one at a time)

Press the ← button.

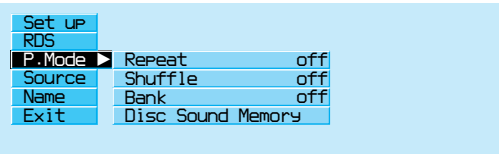
To return to the normal display

Press the MENU button.

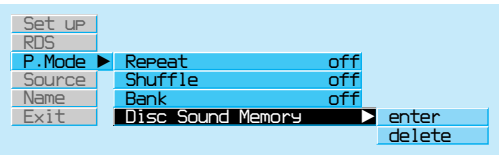
To see the current sound effect setting

Press the SOUND button on the rotary remote.

1 While playing a CD or MD, press MENU.



2 Select “P.Mode” and press → to move to the sub menu, then select “Disc Sound Memory” using ↑ or ↓.



3 Press → then ↑ or ↓ to select “enter,” then press ENTER.

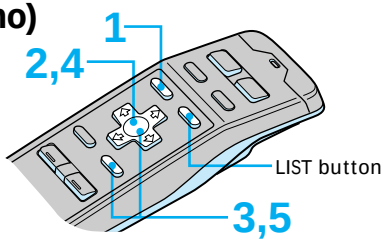
The sound effects currently specified by PEQ display are set.

To clear all sound effects on the disc

Select “delete” in Step 3 above and press the ENTER button.

Labelling a CD (Disc Memo)

You can record a title of up to 8 characters for each disc. The disc title appears in the display whenever you insert the disc and play it.



Useful tips

Hold down the LIST button for 2 seconds or more to display the Disc Memo Write indication directly.

Useful tips

To return to previous steps (one at a time)

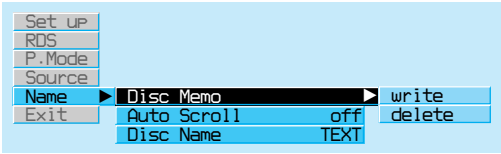
Press the ← button.

To return to the normal display

Press the MENU button.

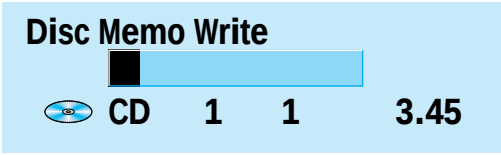
1 **While playing a CD, press MENU.**

2 **Select “Name” and press → to move to the sub menu, then select “Disc Memo” using ↑ or ↓.**



3 **Press → then ↑ or ↓ to select “write,” then press ENTER.**

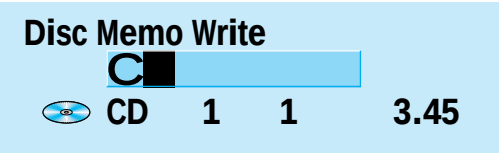
The Disc Memo Write indication appears.



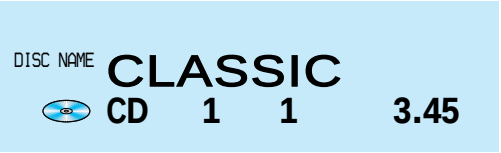
4 **Press ↑ or ↓ until the character you want to enter appears, then press →.**

Each press of the ↑ button selects the next character in the order shown below. (Press the ↓ button to move backwards.)

A → B → C → ...Z → 0 → 1 → 2 → ...9 → + → − → * → / → \ → > → < → . → (space)



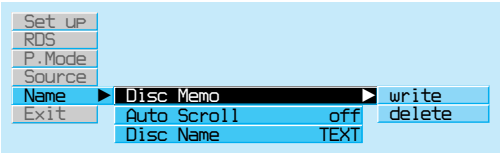
5 **Repeat Step 4 until you have entered the entire title, then press ENTER.**



Erasing a Disc Title

1 **While playing a CD, press MENU.**

2 **Select “Name” and press ➡ to move to the sub menu, then select “Disc Memo” using ↑ or ↓.**



3 **Press ➡, then ↑ or ↓ to select “delete,” then press ENTER.**

The Disc Memo Delete indication appears.

4 **Press ↑ or ↓ to select the disc title you want to erase.**

5 **Hold down ENTER for 2 seconds or more.**

The selected disc title is erased.

To quit the Disc Memo Delete function.

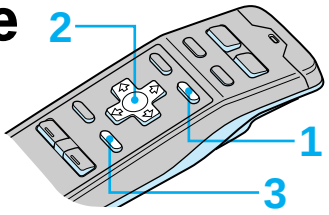
Press the BACK button.

Note

In Step 4, all the disc titles stored in the CD changer’s memory appear in the order they were entered. The last title entered will therefore appear at the end.

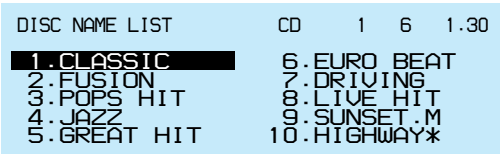
Locating a Disc by Title

Use this function to locate a disc by its title. To add titles to discs, see page 25.

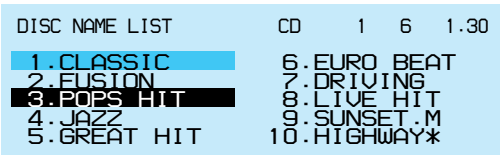


1 Press LIST.

DISC NAME LIST appears.

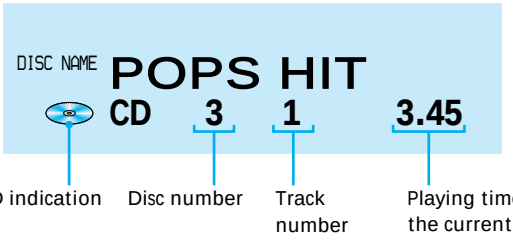


2 Press ↑, ↓, →, or ← to select the disc.



3 Press ENTER.

Playback starts from the first track of the disc.



Useful tips

To cancel the selection

Press the LIST button twice or the BACK button once.

You can also use the SEEK / AMS control on the rotary remote to select an item in the list (see page 52).

Note

The following indications appear in DISC NAME LIST.

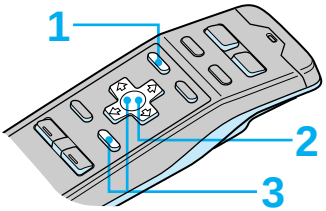
- "NO DISC" : There is no disc in the given disc magazine slot.
- "********": The disc is not labelled.
- "?": The system has not verified the disc information.

On TRACK NAME LIST

If you press the LIST button again in Step 1, TRACK NAME LIST appears. This list displays track names contained on CD TEXT discs and MDs with labelled tracks. Since this system does not support track labelling, when playing non-CD TEXT discs or MDs with unlabelled tracks, "********" appears instead of the track title in TRACK NAME LIST.

Viewing CD TEXT Information

You can view text information contained on a CD TEXT disc during playback.



What is a CD TEXT disc?

A CD TEXT disc is a music CD that also contains text data such as album title, track titles, and artist name. This text data is recorded in areas normally unused on conventional music CDs. Text data contained on the CD TEXT discs can be displayed in the XES-Z50.

When playing a CD TEXT disc

Each time you press the DSPL / PTY button, the displayed information changes as follows: disc title / artist name* → track name.

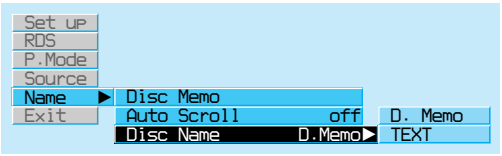
* The artist name appears automatically after the disc title.

Selecting the Disc Title Display

When playing CD TEXT discs that have been labelled using the Disc Memo function (see page 25), you can specify the disc title that appears whenever you press the DSPL / PTY or LIST button.

1 **While playing a CD, press MENU.**

2 **Select “Name,” press ➡ to move to the sub menu, then select “Disc Name” using ↑ or ↓.**



3 **Press ➡, then ↑ or ↓ to select “D.Memo” or “TEXT,” then ENTER.**

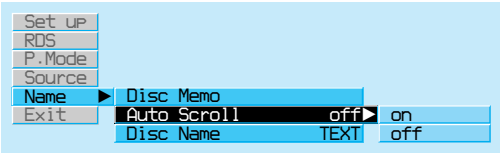
Indication	Operation
D.Memo	Displays disc titles entered by the Disc Memo function
TEXT	Displays CD TEXT information

Scrolling Titles Automatically

When playing CD TEXT discs or MDs using an optional MD changer, the track or disc title appears automatically whenever a new disc or track is played. Follow the procedure below to specify the automatic scrolling of titles of more than 10 characters.

1 **While playing a CD, press MENU.**

2 **Select “Name,” press ➡ to move to the sub menu, then select “Auto Scroll” using ↑ or ↓.**



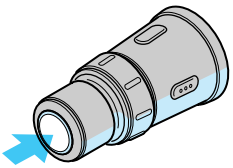
3 **Press ➡, then ↑ or ↓ to select “on,” then ENTER.**

To cancel the scrolling of titles

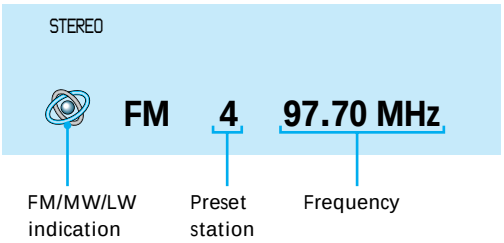
Select “off” in Step 3 and press the ENTER button.

Listening to the Radio

Before using the radio, you can store your favourite radio stations in the system's memory for instant tuning at a later time (see "Presetting Radio Stations with the Strongest Signals (BTM)" on page 37).



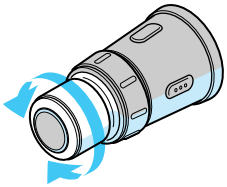
1 Press SOURCE repeatedly to select FM, MW, or LW.



When you tune in an FM station that transmits RDS data, the station name appears in the display.

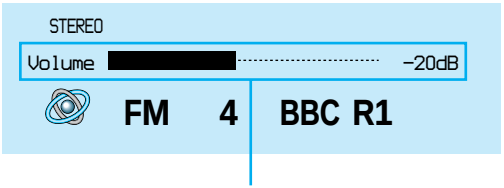
Note

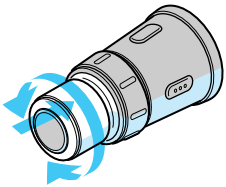
"No name" appears if the received station does not transmit RDS data.

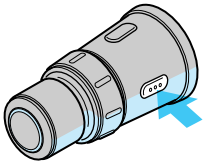


2 Rotate VOL/DISC/PRESET to adjust the volume.

Turn the remote clockwise to increase the volume; turn it counterclockwise to decrease the volume.







3 To change the preset station, push in and rotate VOL/DISC/PRESET.

4 Press OFF to turn off the system.

Using the Radio Data System (RDS)

Note

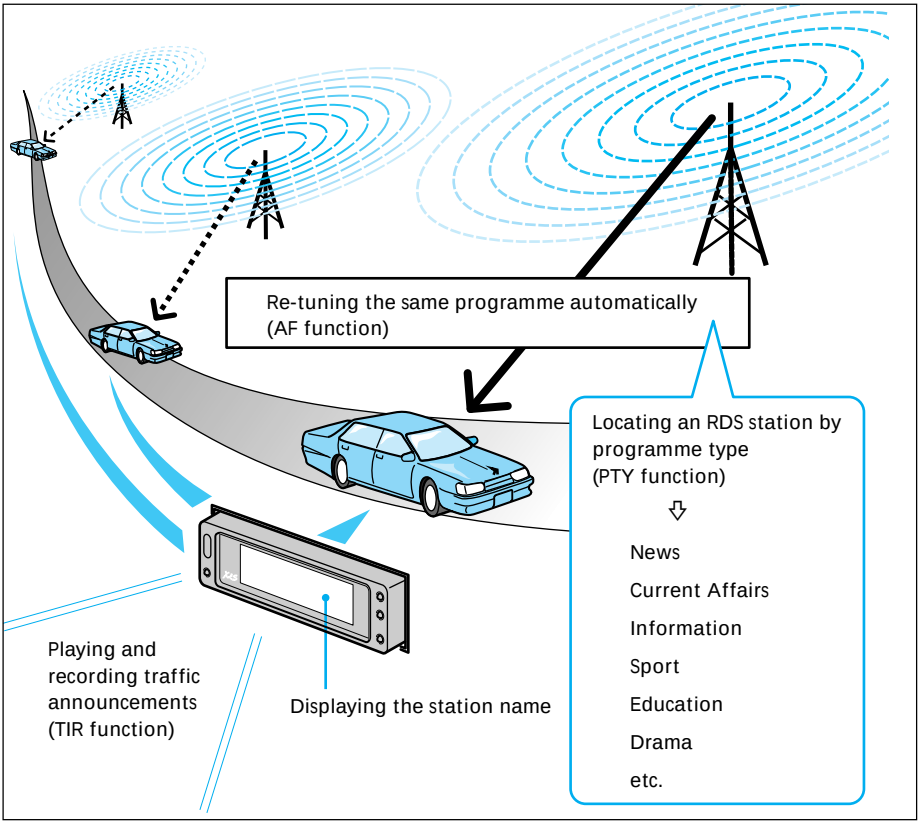
- Depending on the country or region, not all of the RDS functions are available.
- RDS may not work properly if the signal strength is weak or if the station you are tuned to is not transmitting RDS data.

Overview of the RDS function

The Radio Data System (RDS) is a broadcasting service that allows FM stations to send additional digital information along with the regular radio programme signal.

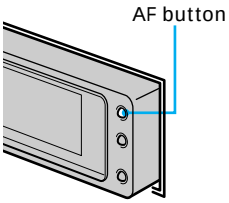
This system offers you the following convenient RDS features:

- Displaying the station name
- Re-tuning the same programme automatically —Alternative Frequencies (AF)
- Listening to traffic, news, or information programmes
- Recording traffic announcements —Traffic Information Replay (TIR)
- Locating an RDS station by programme type —Programme Type selection (PTY) function



Re-tuning the Same Programme Automatically (Alternative Frequencies (AF))

The Alternative Frequencies (AF) function automatically selects and re-tunes the station with the strongest signal in a network. By using the function, you can listen to the same programme continuously during a long-distance drive without having to re-tune the station manually.



Notes

- When there is no alternative station in the area and you do not need to search for an alternative station, turn the AF function off by pressing the AF button again.
- "NO AF" and the station name light up alternately if the system cannot find an alternative station in the network.
- If the station name changes to white after tuning to a station with the AF function on, this means that no alternative station is available. If this happens, rotate the SEEK / AMS control on the rotary remote while the station name is still displayed in white. The system starts searching for another frequency with the same PI (programme Identification) data. "PI seek" appears in the display and no sound is heard at this time. If the system cannot find another frequency, "NO PI" appears and the system returns to the originally selected frequency.

1 **Press SOURCE repeatedly to select FM.**

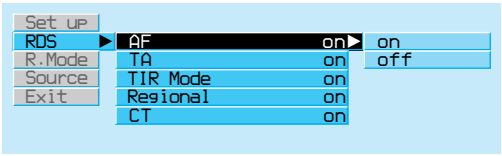
2 **Press AF on the Display Section.**

The system starts searching for an alternative station with a stronger signal in the same network.

To Turn the AF Function On or Off by Menu Operation

1 **While listening to an FM broadcast, press MENU.**

2 **Select "RDS," then press ➡ to move to the sub menu, then select "AF" using ⬆ or ⬇.**



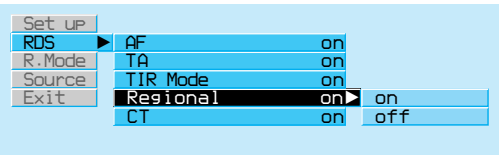
3 Press ➡, then ⬆ or ⬇ to select “on” or “off,” then ENTER.

Listening to a Regional Programme

The Regional function lets you stay tuned to a regional programme without being switched to another regional station.

1 While listening to an FM broadcast, press MENU.

2 Select “RDS,” then press ➡ to move to the sub menu, then select “Regional” using ⬆ or ⬇.



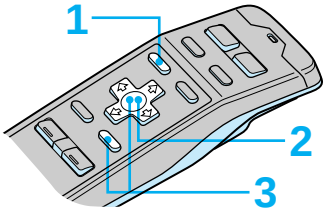
3 Press ➡, then ⬆ or ⬇ to select “on,” then ENTER.

Notes

- You must turn the AF function on.
- The regional function does not work in certain areas such as the United Kingdom.

Presetting Radio Stations with the Strongest Signals (BTM)

The BTM (Best Tuning Memory) is a function that selects the radio stations with the strongest signals and automatically sets them to preset station numbers.
If you activate the BTM function while listening to an FM broadcast with the AF function (see page 35) turned on and TA function (see page 45) turned off, the system presets only the FM RDS stations.
If the TA function is on, the stations that broadcast traffic announcements only are preset. When both the AF and TA functions are set to off or while you're listening to the MW or LW broadcast, the system presets the stations with the strongest signals in your area.
If you activate the BTM function while listening to a preset station, the system replaces only the contents of preset numbers higher than the current one.
If you activate the function while tuning to a station which is not preset, all the contents of the preset memory will be replaced.

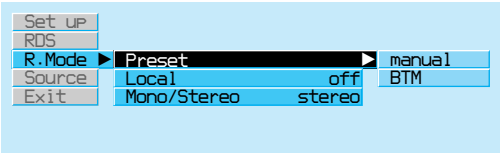


Notes

- If the radio can only tune in a few stations or only weak frequencies, the BTM function may not assign frequencies to all the preset station numbers.
- When you preset the RDS stations, the system stores the AF and TA data as well as the frequency (see page 40). To cancel this, see pages 40 and 41.

1 **While listening to an FM, MW, or LW broadcast, press MENU.**

2 **Select "R.Mode," press ➡ to move to the sub menu, then select "Preset" using ⬆ or ⬇.**

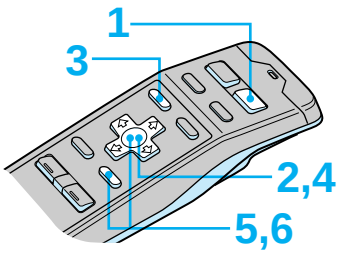


3 **Press ➡, then ⬆ or ⬇ to select "BTM," then ENTER.**

The Best Tuning Memory function is activated.

Specifying the Station Frequency

(Manual Preset Memory)



Useful tips

To return to previous steps (one at a time)
Press the ← button.

To return to the normal display
Press the MENU button.

Useful tips

Keep the SEEK / AMS control on the rotary remote rotated to continue searching, then release the control when the frequency you want appears.

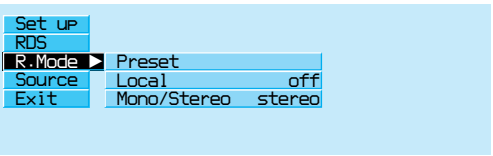
Note

If you selected MW or LW in Step 1, the "Mono / Stereo" sub menu will not appear in the display.

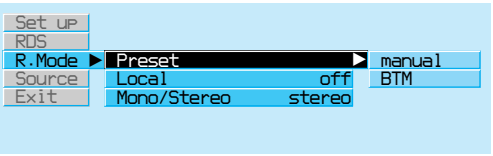
1 **Press SOURCE repeatedly to select FM, MW, or LW.**

2 **Hold down ← or → until the frequency you want appears in the display, then release the button.**

3 **Press MENU.**



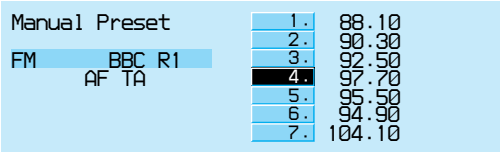
4 **Select "R.Mode" and press → to move to the sub menu, then select "Preset" using ↑ or ↓.**



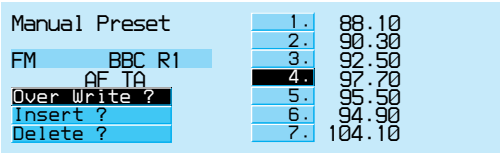
Useful tips

You can preset up to 20 FM stations, 10 MW stations, and 10 LW stations.

5 Press →, then ↑ or ↓ to select “manual,” then ENTER.



6 Press ↑ or ↓ to select the preset station number to which the frequency will be stored (the selected preset station number is highlighted), then press ENTER.



7 Do the following to store the frequency.

To replace the contents of the preset station number with the current frequency, select “Over Write ?,” then press ENTER.

To add the current frequency to the Manual Preset list, select “Insert ?,” then press ENTER.

Useful tips

You can start Automatic Tuning by momentarily rotating the SEEK / AMS control on the rotary remote, then releasing it.

To delete the frequency stored to the selected number

Select “Delete ?,” then press ENTER in Step 7.

To quit the Manual Preset Memory function

Press the BACK button.

To receive a station automatically (Automatic Tuning)

Press and release the ← or → button.
“Seek Up” or “Seek Down” appears until the system detects a station.

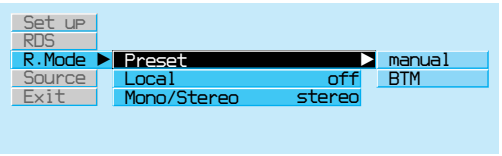
Presetting the RDS Stations with AF and TA Data

When you preset RDS stations, the system stores each station's data as well as its frequency, so you don't have to turn on the AF or TA function every time you tune in these preset stations. You can select a different setting (AF, TA, or both) for each preset station, or the same setting for all preset stations.

Making the Same Setting for All Preset Stations

1 **While listening to an FM broadcast, press MENU.**

2 **Select "R.Mode," then press ➡ to move to the sub menu, then select "Preset" using ⬆ or ⬇.**



3 **Press ➡, then ⬆ or ⬇ to select "BTM," then ENTER.**

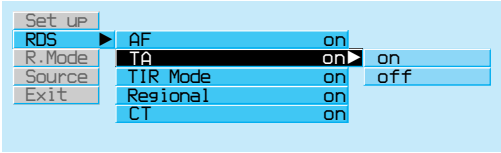
Note

You can change the AF or TA setting for any preset station that you are listening to.

Making Different Settings for Each Preset Station

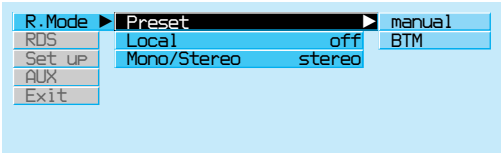
1 **While listening to the desired FM broadcast, press MENU.**

2 **Select “RDS,” then press ➡ to move to the sub menu, then select “AF” or “TA” using ↑ or ↓.**



3 **Press ➡, then ↑ or ↓ to select “on” or “off,” then ENTER.**

4 **Select “R.Mode,” then press ➡ to move to the sub menu, then select “Preset” using ↑ or ↓.**



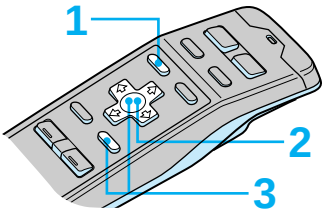
5 **Press ➡, then ↑ or ↓ to select “BTM,” then ENTER.**

Note

If you want to change the preset AF and/or TA setting after you tune in the preset station, you can do so by turning on/off the AF or TA function.

Specifying Monaural/Stereo Mode

If the FM stereo reception is poor, you can select "mono" to improve the sound.

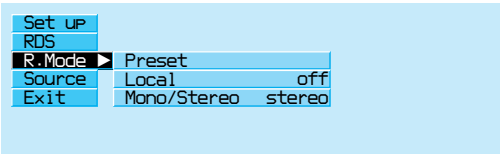


Useful tips

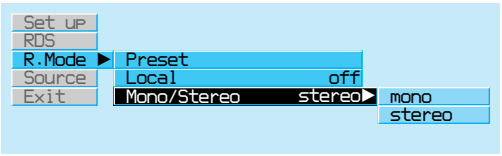
To return to previous steps (one at a time)
Press the ← button.

To return to the normal display
Press the MENU button.

1 While listening to an FM broadcast, press MENU.



2 Select "R.Mode," press → to move to the sub menu, then select "Mono/Stereo" using ↑ or ↓.

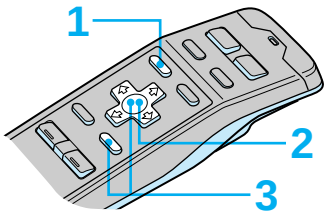


3 Press →, then ↑ or ↓ to select "mono," then ENTER.

The selected FM mode appears to the right of "Mono/Stereo" in the display.

Receiving Only the Strongest Signals (Local On/Off)

The Automatic Tuning function may stop frequently when there are many radio stations in the area. If this happens, you can reduce the sensitivity of the tuner so that only the strongest signals are tuned in.

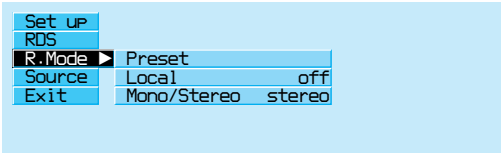


Useful tips

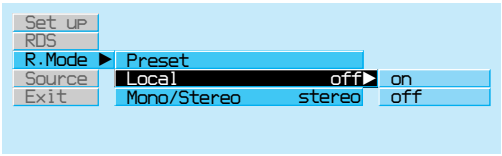
To return to previous steps (one at a time)
Press the ← button.

To return to the normal display
Press the MENU button.

1 While listening to an FM, MW, or LW broadcast, press MENU.



2 Select “R.Mode,” then press → to move to the sub menu, then select “Local” using ↑ or ↓.

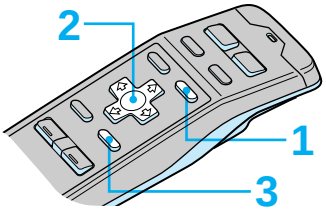


3 Press →, then ↑ or ↓ to select “on,” then ENTER.

The selected mode appears to the right of “Local” in the display.

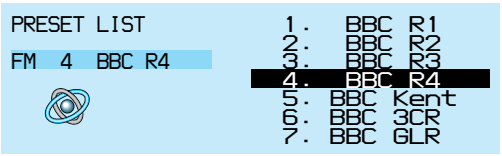
Selecting a Station on the List

You can use this function to select a preset station from the list.



1 Press LIST.

PRESET LIST appears.



2 Press ↑ or ↓ to select the station.

To search up or down the station, press and release ← or →.

3 Press ENTER.

To select a station using the rotary remote

Push in and release the VOL / DISC / PRESET control to display PRESET LIST.
Push and rotate the control to select the station from the list. After about 5 seconds, the normal display reappears.

Local Link Function (United Kingdom only)

When you select a preset station, the system automatically tunes to the available local station in a network.

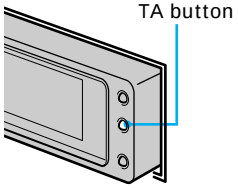
Useful tips

To cancel the selection
Press the LIST button.

You can also use the SEEK / AMS control on the rotary remote to select an item in the list (see page 52).

Listening to Traffic Announcements

Traffic Announcement (TA) and Traffic Programme (TP) are broadcast data that allow you to automatically tune in an FM station that is broadcasting traffic announcements even though you are listening to other programme sources. If the traffic announcement starts while you are listening to another programme source, the system automatically switches to the announcement; it then goes back to the original source when the announcement is over.



Note

"NO TP" lights up for five seconds if the received station does not broadcast traffic announcements. Then the system starts searching for a station that broadcasts traffic announcements.

1 **Press SOURCE repeatedly to select FM.**

2 **Press TA on the Display Section.**

The system starts searching for traffic information stations. "TP" appears in the display when the system finds a station broadcasting traffic announcements. When the traffic announcement starts, "AF" flashes. The flashing stops when the traffic announcement is over.

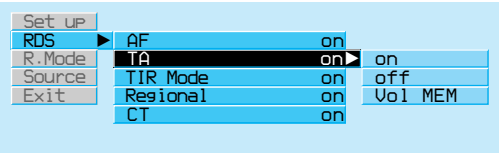
To end the current traffic announcement

Press the TA button again.

To Set TA Function

1 **While listening to an FM broadcast, press MENU.**

2 **Select “RDS,” then press ➡ to move to the sub menu, then select “TA” using ⬆ or ⬇.**



3 **Press ➡, then ⬆ or ⬇ to select TA mode item, then ENTER.**

The selected item appears to the right of “TA” in the display.

Indication	Operation
on	Turns the TA function on.
off	Turns the TA function off.
Vol MEM	Memorises the current volume level for listening to the traffic announcements. Whenever a traffic announcement starts while you are listening to the radio, the memorised volume level is applied automatically. Note that this setting applies to both the TA and TIR functions.

Receiving emergency announcements

If an emergency announcement is broadcast while you are listening to the radio, the system will automatically switch to the announcement. If you are listening to a source other than the radio, the system will play the emergency announcements if you have set AF or TA to on. With this setting, the system will automatically switch to these announcements no matter what you are listening to at the time.

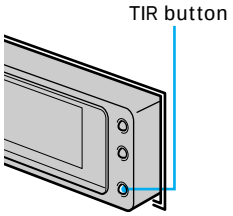
Useful tips

You can also set the volume level for the traffic announcements by holding down the TA button on the Display Section for about 2 seconds. TA VOL indication appears momentarily and the current volume level is memorised.

Recording Traffic Announcements

(Traffic Information Replay (TIR))

You can listen to the latest traffic announcements by recording them. The system automatically records and stores up to eight traffic announcements. The TIR function turns the system on automatically and records traffic announcements for up to one hour before and after a preset time.



Useful tips

- The system will detect and record traffic programmes in the background even while you are listening to stations that do not broadcast such announcements.
- The system automatically records and stores up to eight traffic announcements (or the recording time reaches 6.5 minutes) and the system will erase the oldest recording every time it records a new one.
- ◷ mark lights up orange when the TIR function is turned on, red while the system is recording a traffic announcement, and blue when there are recorded traffic announcements that you have not listened to yet.

Note

"No Data" appears if no traffic announcements were recorded.

To Turn On the TIR Function

1 Press SOURCE repeatedly to select FM.

2 Hold down TIR on the Display Section until ◷ mark lights up orange.

The system turns on automatically and stands by for traffic announcements for two hours (one hour before and after the preset time).

To turn off the TIR function

Press the TIR button again until ◷ mark turns off.

Playing Back the Recorded Traffic Announcements

◷ changes to blue when there are recorded traffic announcements you have not listened to yet.

1 Press TIR on the Display Section.

The recorded traffic announcements are played back.

2 Press TIR to go back to the programme you were listening to.

After you have listened to all the traffic announcements, ◷ returns to orange.

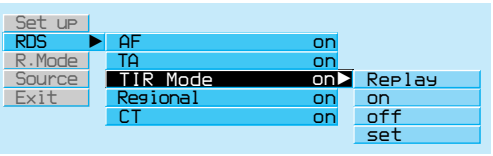
Notes

- The system also stands by for traffic announcements for two hours after you turn off the engine, as long as the TIR function is on.
- If you have a power aerial, it automatically extends every time the system searches for a traffic programme station. If you have a manual aerial, make sure that the aerial is fully extended.
- If you do not use your car for about a week and the TIR function is on, the TIR function will turn off automatically to prevent battery wear.

To Set the TIR Function

1 **While listening to an FM broadcast, press MENU.**

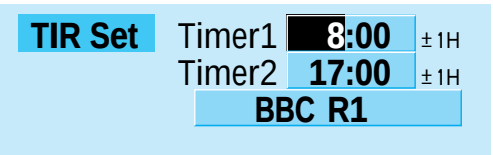
2 **Select “RDS,” then press ➡ to move to the sub menu, then select “TIR Mode” using ⬆ or ⬇.**



3 **Press ➡, then ⬆ or ⬇ to select TIR mode item, then ENTER.**

Indication	Operation
Replay	Plays back the recorded TA.
on	Turns the TIR function on.
off	Turns the TIR function off.
set	Sets the TIR preset time. (See below).

4 **To set the preset time, select “set,” then ENTER.**



Press ENTER to select setting item (Timer1, Timer2, or Station).

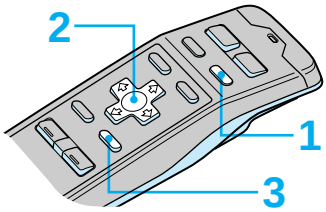
Press ⬇ or ⬆ to set the hour. Then press ➡ to move to minutes and press ⬆ or ⬇ to set the minutes.

For Station setting, press ⬇ or ⬆ to select the preset station. While the cursor is on the station name indication, press ➡ or ⬅ to tune to a station manually.

5 **After setting, press BACK.**

Locating an RDS Station by Programme Type (Programme Type Selection (PTY) Function)

You can locate the station you want by selecting one of the programme types shown below.



PTY LIST

No.	Indication
1.	News
2.	Current Affairs
3.	Information
4.	Sport
5.	Education
6.	Drama
7.	Cultures
8.	Science
9.	Varied Speech
10.	Pop Music
11.	Rock Music
12.	Easy Listening
13.	Light Classics M
14.	Serious Classics
15.	Other Music
16.	Weather & Metr
17.	Finance
18.	Children's Progs
19.	Social Affairs
20.	Religion
21.	Phone In
22.	Travel & Touring
23.	Leisure & Hobby
24.	Jazz Music
25.	Country Music
26.	National Music
27.	Oldies Music
28.	Folk Music
29.	Documentary

Selecting a Programme Type

1 **While listening to an FM broadcast, press DSPL.**

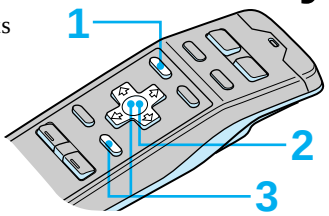
PTY LIST appears.

2 **Press ↑ or ↓ to select the programme type.**

3 **Press ENTER.**

Setting the Clock Automatically

The CT (Clock Time) data broadcast by RDS sets the clock automatically.

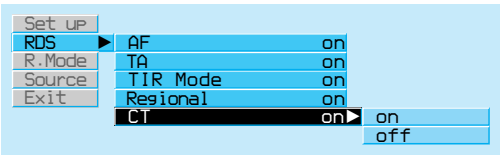


Notes

- The CT function may not work even though an RDS station is being received.
- There might be a difference between the time set by the CT function and the actual time.

1 **While listening to an FM broadcast, press MENU.**

2 **Select “RDS,” then press ➡ to move to the sub menu, then select “CT” using ⬆ or ⬇.**



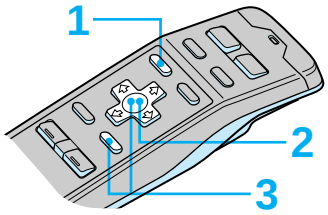
3 **Press ➡, then ⬆ or ⬇ to select “on,” then press ENTER.**

To cancel the CT function

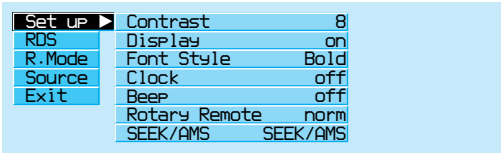
Select “off,” then press ENTER.

Set up Menu

Use the Set up menu to set the contrast, clock, beep, and rotary remote.

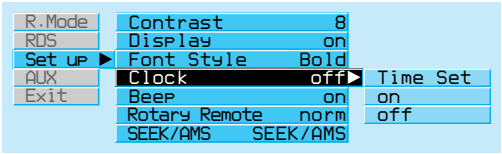


1 Press MENU and select “Set up.”



2 Press ➡ to move to the sub menu, then select an item using ⬆ or ⬇.

The current setting appears to the right of the sub menu item.



3 Change the setting and press ENTER.

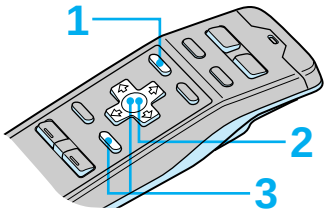
The new setting appears to the right of the sub menu item.

Sub menu items and their settings are explained in the table on the next page.

Sub Menu item	Function
Contrast	Selects 1 of 15 contrast levels for the display. Select “Contrast,” then press the ENTER button. You can change the current setting by using the ⬅ or ➡ button. Press the ENTER button again to change the setting.
Display	Select “off” to turn off the display. After you exit the menu operation and five seconds elapse, the display turns off automatically. Press any button on the wireless remote or on the display section to turn the display back on. When ACC Position is set to “no” (see page 12), the display does not turn off even if you set Display to “off.”
Font Style	Select the font style on the display. You can select “Regular” or “Bold.”
Clock	Select “on” to display the current time in the upper-right corner of the display at all times. If you select “off,” the time is displayed only when the system is turned off. Select “Time Set” to set the clock (see page 14).
Beep	Specifies whether a beep sounds when an operation button is pressed.
Rotary Remote	Reverses the rotational direction of the rotary remote for controlling operations. Select “normal” for increasing volume, frequency, track numbers, etc. by rotating the control clockwise; select “reverse” for increasing the same parameters by rotating the control counterclockwise.
SEEK / AMS	Switches the SEEK / AMS control function of the rotary remote. Select “SEEK / AMS” for normal use (see page 8). If you select “Item sel,” rotating the SEEK / AMS control selects an item in the list.

Source Settings

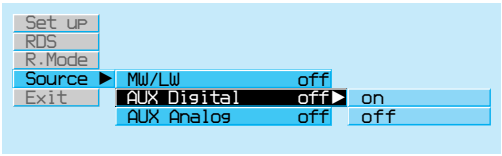
Use the Source menu to make settings for the tuner. You can also use this menu to change the selectable source. When you set the AUX Digital and Analog settings to “on,” the AUX indication appears when you press the SOURCE button to select the programme source.



1 Press MENU and select “Source.”

2 Press ➡ to move to the sub menu, then select the item you want to set using ↑ or ↓.

The current sub menu setting appears to the right of the item.



3 Change the setting and press ENTER.

The new setting appears to the right of the item.

For an explanation of the sub menu items, see the table on the next page.

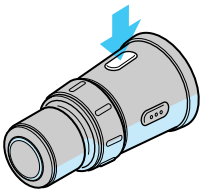
Sub menu item	Function
MW / LW	Set to “off” to eliminate MW and LW from the source.
AUX Digital	Set to “on” when a Sony product that does not support the audio bus connection or a non-Sony component (e.g., a CD or MD player) is connected to the digital input connector of the system. When set to “on,” the “AUX Digital Audio” indication appears when you press the SOURCE button on the rotary remote or the wireless remote.
AUX Analog	Set to “on” when a Sony product that does not support the audio bus connection or a non-Sony component (e.g., a CD or MD player) is connected to the analogue input connectors of the system. When set to “on,” the “AUX Analog Audio” indication appears when you press the SOURCE button on the rotary remote or the wireless remote.
GND floating	Selects the ground setting when “AUX Analog” is set to “on.” When set to “off,” the control panel and the CD changer / pre-amplifier share a common ground; when set to “on,” they are grounded separately.
Remote in	When the AMP REM connector of an external component is connected to the REM IN (AUX) connector of the system, the programme source automatically switches to AUX when the connected component is turned on. When both “AUX Digital” and “AUX Analog” are set to “on,” set this item to “digital” or “analog” to specify the source signal input connector (external component) when a control signal is detected at the REM IN (AUX) connector. To switch to the other programme source, press the SOURCE button on the rotary remote or the wireless remote.

Selecting the Parametric Equalizer Pattern

Useful tips

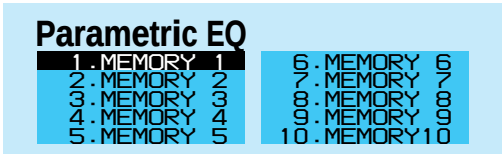
To change the contents of the preset parametric equalizer patterns, consult your Sony dealer.

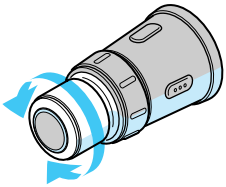
You can use the built-in parametric equalizer to customise the sound characteristics to suit the acoustics of your car by adjusting the median frequency, level, and slope (Q, or the extent of each characteristic) of each band.
You can select a parametric equalizer pattern for each programme source from the 10 patterns that are included in the system's memory.



1 Press SOUND on the rotary remote to display the Parametric EQ list.

Each press of the button changes the display as follows: Parametric EQ list → Cross-over Network list → previous display.





2 With the list displayed, rotate VOL/DISC/PRESET on the rotary remote to select a preset pattern.

After appearing for 10 seconds, the list is replaced by the normal display.

Source sound memory

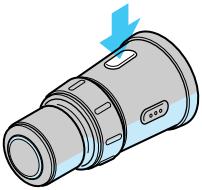
The parametric equalizer pattern is memorised in the system for each programme source, and is activated whenever you select that source thereafter. Turning off power has no effect on the memorised settings.

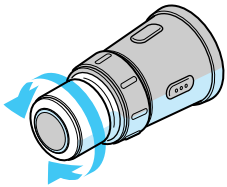
Selecting the Cross-over Network Pattern

Your system comes with 10 cross-over network patterns.

Useful tips

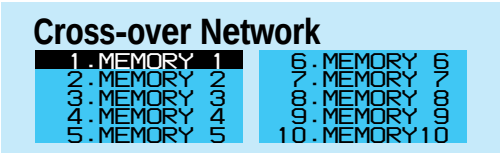
To change the contents of the preset cross-over network patterns consult your Sony dealer.





1 Press SOUND on the rotary commander twice to display the Cross-over Network list.

Each press of the button changes the display as follows: Parametric EQ list → Cross-over Network list → previous display.

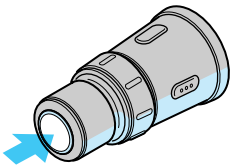


2 With the list displayed, rotate VOL/DISC/PRESET on the rotary remote to select a preset pattern.

After appearing for 10 seconds, the list is replaced by the normal display.

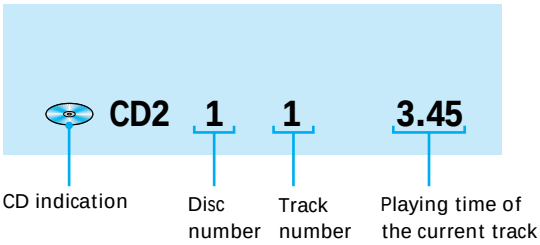
Listening to an Optional CD/MD Changer

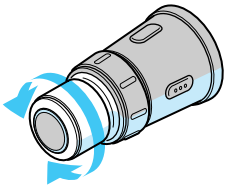
If an optional CD or MD changer is connected to your system, you can locate and listen to discs in that changer in the same way that you can with the system's CD changer.



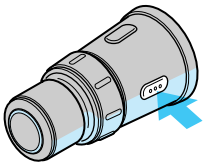
1 Press SOURCE repeatedly to select "CD2" or "MD."

Pressing the button changes the programme source as follows:
CD1 → CD2 → MD → FM → MW → LW.





2 Rotate VOL/DISC/PRESET to adjust the volume.



3 Press OFF to turn off the system.

Useful tips

- You can connect multiple CD or MD changers through the optional XA-C30 Source Selector.
- When a non-Sony digital component is connected to the optical input connector of the system, be sure to set the “AUX Digital” sub menu in the Source menu to “on” (see page 54).
- When a non-Sony analogue component is connected to the analogue input connectors of the system, be sure to set the “AUX Analog” sub menu in the Source menu to “on” (see page 54).

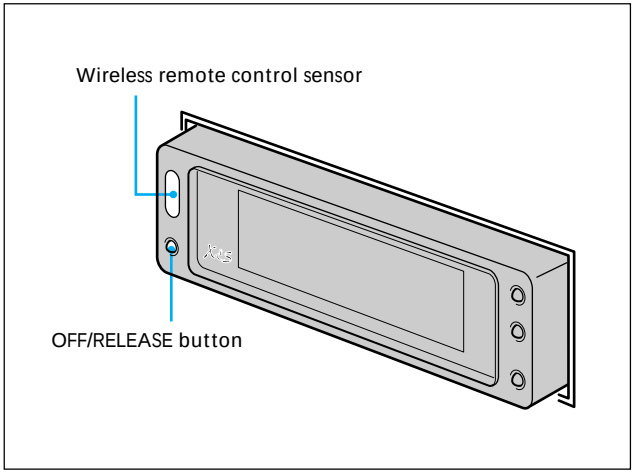
Notes

- The Disc Sound Memory function (see page 24) is supported only when a CD changer capable of programme play is connected to the system. The system can memorise sound effects for CDs or MDs.
- The display of CD TEXT disc information is possible only when a CD TEXT disc is played.

Attaching/Detaching the Electrically Operated Display Section

The display section can be detached from the control unit as a safety measure against theft.

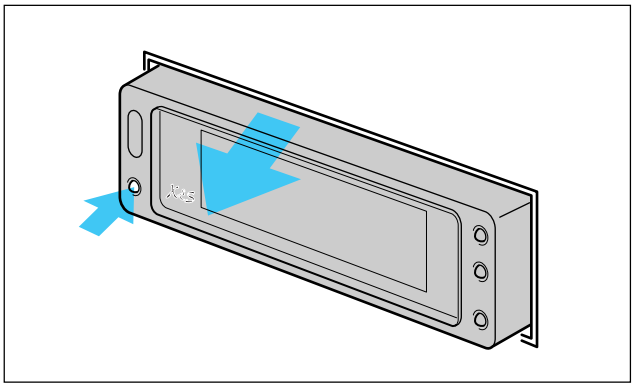
Name of parts



Detaching the Display Section

1 Press OFF/RELEASE at the bottom left of the display section.

The system turns off and the left side of the display section pops out.



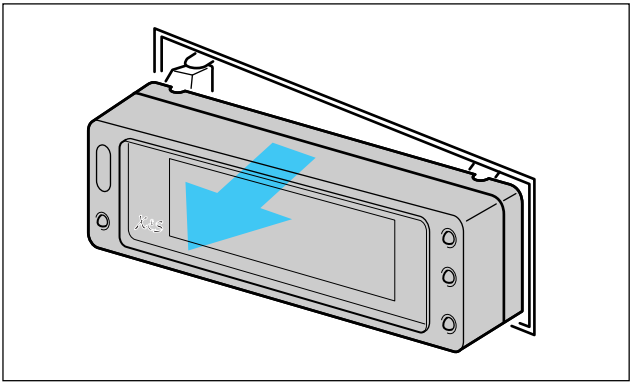
Note

When the system turns on, press the OFF/RELEASE button twice.

Note

Do not touch the connector at the rear of the display section. After you have detached the display section, keep it in the supplied case.

2 Grasp the left side of the display section and pull it out.



If you do not remove the display section at this time, the display section will automatically return to its original position to prevent the unit from falling off.

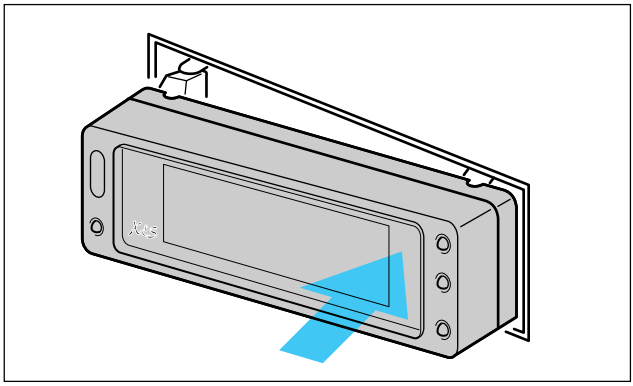
Do not press the OFF / RELEASE button at this time. If you do, the display section will fall off.

Note

The front part of the display section is made of glass. Do not drop or press down on the display section with excessive force.

Attaching the Display Section

1 Align the right side of the display section with the control unit.



2 Press the left side against the display section and push in lightly.

An automatic electrically operated mechanism in the control unit catches the display section.

Procedure when the control panel is installed on the dashboard, etc.

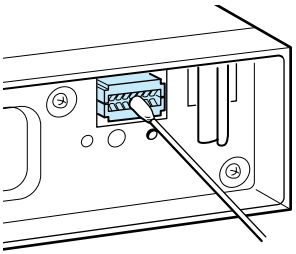
Follow the same procedures; i.e., detach it by pressing the OFF / RELEASE button and attach it by pressing it into the display holder until it clicks and is caught by the display holder.

Precautions and Maintenance

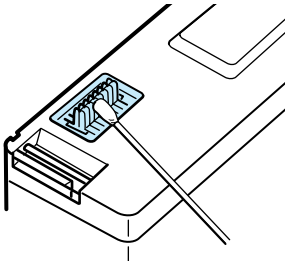
On cleaning the front panel connectors

If the front panel connectors are dirty, the system may not function properly. Use a cotton swab slightly moistened with a mild detergent solution to clean the connectors.

Connector on the control unit



Connector at the rear of the display section



Handling CDs

- Scratches, dust, or disc warping may result in sound drop-out or other problems. Follow the precautions below to keep discs clean for maximum listening pleasure.
  - — Handle discs by their edges. Do not touch the surface.
  - — Do not stick paper or tape onto a disc.
    Should you encounter a CD with a sticker on it, remove it and wipe off any residual adhesive before listening to it.
  - — Do not scratch discs.
- Do not expose discs to high heat, such as direct sunlight, or to high humidity.
- Before playing a disc, clean it with cleaning cloth (not supplied). Wipe the disc from the centre towards the edge.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static sprays intended for analogue discs.

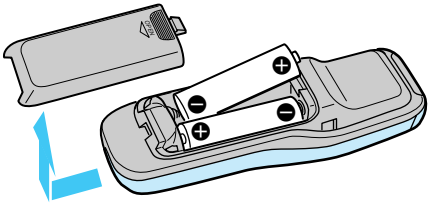
About the LCD display on the display section

When the temperature is extremely high or low, the display may become dim and hard to see. This is due to the characteristics of the LCD and is not a malfunction. The display will return to normal when the temperature becomes normal.

Wireless Remote

Installing batteries in the wireless remote

Insert two size-AA (R6) batteries with the correct polarity orientation.



On batteries

Battery life

When the batteries become weak, you will not be able to operate the system with the wireless remote. Battery life is about six months (or shorter, depending on the way the remote is used). If the remote becomes inoperative, replace the batteries, then verify that it can operate the system.

If the red indicator no longer flashes when you press an operation button on the remote, it means the batteries are weak.

Notes on battery use

To avoid damage from battery leakage and corrosion:

— Make sure the polarity of the batteries match the + and – markings in the battery compartment.

— Do not use an old battery with a new one, or different types of batteries together.

— Remove the batteries when the system will not be used for a long period of time.

— Do not charge the batteries.

If any battery leakage occurs, replace both batteries after cleaning the battery compartment.

Notes on the wireless remote

- To prevent deformation due to heat, do not place the remote in a place subject to direct sunlight.
- Direct sunlight may affect the system's ability to receive infrared signals from the remote. If this happens, move the remote closer to the remote control sensor of the system.
- When parking your car, put the remote in the glove compartment or another such place that is away from direct sunlight to prevent deformation due to heat.

Troubleshooting Guide

The following checklist will help you remedy most problems you may encounter with your system. Before going through the checklist, check the connections and the operating procedures. Should a problem persist even after trying the remedy, consult your Sony dealer.

General

Problem	Cause/Remedy
No sound.	• Check the connection. • Turn up the volume.
The clock does not appear when the power is turned off.	The system is installed in a car with an accessory power supply, and "ACC Position" in the initial settings is set to "no." → If your car has an accessory power supply, set "ACC Position" to "yes."
The beep does not sound when you press an operation button on the wireless remote.	"Beep" in the set up menu is set to "off." → Set "Beep" to "on."

CD/MD

Problem	Cause/Remedy
The sound skips, drops, or breaks.	• The disc is dirty. → Clean the disc. • The disc is damaged.
The sound skips.	The CD or MD changer is not installed at a stable location.

Radio

Problem	Cause/Remedy
The system cannot tune in a radio broadcast; only noise is heard.	• Check the connection of the car aerial. • Power is not being supplied to the power aerial. → Connect the power aerial control lead to the REM ANT wire (blue) of the system. • Make sure the frequency is the one you want.
The Automatic Tuning function frequently stops.	Set "Local" in the R.Mode menu to "on."
The Automatic Tuning function does not stop at the station you want.	• Only the strongest signals are received when "Local" in the R.Mode menu is set to "on." → Set "Local" in the R.Mode menu to "off." • Keep rotating the SEEK / AMS control until you find the station.

Error Messages on the CD/MD Discs

When a malfunction occurs in a CD or MD changer, an alarm is sounded and one of the following error messages flashes for about five seconds.

Message	Cause	Remedy
Blank*	The MD is blank.	Replace with a recorded MD.
Error*	The CD is inserted upside down.	Insert the CD correctly.
	The CD is dirty.	Clean the CD.
	The MD does not play for some reason.	Replace the MD.
High Temp	The surrounding temperature has risen to 50°C and playback becomes impossible.	Wait until the temperature falls.
NO Disc	There is no disc in the magazine.	Insert a disc or discs into the magazine.
NG Discs	None of the discs in the magazine can be played.	Replace the discs with others.
No Magazine	There is no magazine in the changer.	Insert discs into the magazine and load the magazine.
Not Ready	The door of the MD changer is not locked.	Lock the changer door.
	There is no CD or MD.	Insert CDs or MDs.
Push Reset	The changer does not operate for some reason.	Push the reset button on the control panel or on the rotary commander holder.

Specifications

Tuner section

FM

Tuning range	87.5 - 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz 50 dB at 200 kHz
Signal-to-noise ratio	62 dB (stereo) 65 dB (monaural)
Harmonic distortion at 1 kHz	0.9% (stereo) 0.5% (monaural)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz
Capture ratio	2 dB

MW/LW

Tuning range	MW: 531-1,602 kHz LW: 153-281 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz / 450 kHz
Sensitivity	MW: 20 µV LW: 30 µV

CD Changer section

Signal-to-noise ratio	106 dB
Frequency response	5 - 20,000 Hz

Digital pre-amplifier section

Frequency response (+0, –1 dB)
5 - 20,000 Hz

Signal-to-noise ratio 106 dB

Harmonic distortion at 1 kHz, 20 bit
0.002%

Dynamic range at 20 bit
100 dB

Channel separation at 1 kHz
100 dB

Maximum power output
8 V rms

Maximum power input (AUX analogue audio)
1.2 Vrms

Sampling frequency (AUX digital audio)
44.1 kHz

Audio inputs
Analogue (RCA-type) ×1
Digital (optical) ×1

Audio outputs
Analogue (RCA-type) ×3

General

Power requirements
12 V DC car battery (negative ground)

Power consumption
Control unit: 1.2 A
CD changer: 1.5 A

Mass
Control unit: 1.9 kg
CD changer: 6.5 kg

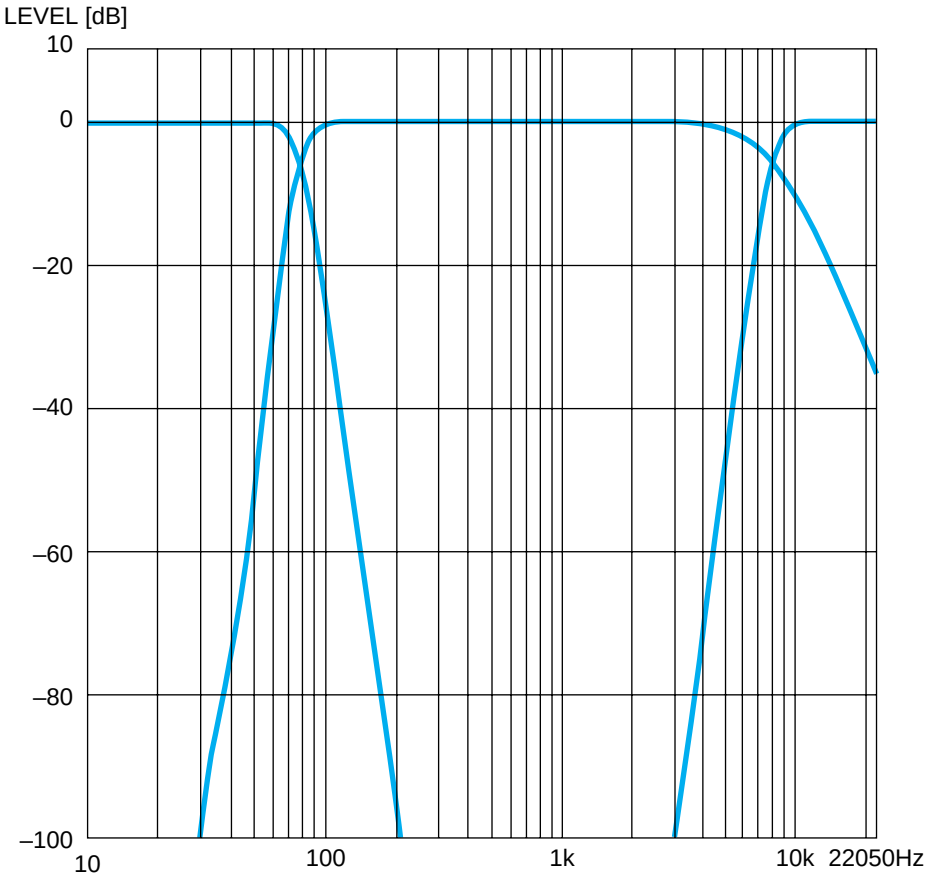
Dimensions (w / h / d)
Control unit: 178 × 50 × 170 mm
CD changer: 318 × 106 × 259 mm

Supplied accessories

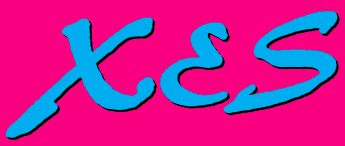
- Wireless remote (1)
- Wired rotary remote (1)
- Disc magazine (1)
- SUM-3 batteries (2)
- Case for holding the front panel and rotary commander (1)
- Installation accessories (1 set)

Design and specifications are subject to change without notice.

Sample Frequency Response Table for the FIR Filter (4095 tap)



The table above shows the frequency response of the FIR filter (4095 tap) for the following settings:
Low: Cut-off frequency 78 Hz, Slope –72 dB / oct.
Mid-L: Cut-off frequency 78 Hz, Slope –72 dB / oct.
Mid-H: Cut-off frequency 8 kHz, Slope –24 dB / oct.
High: Cut-off frequency 8 kHz, Slope –72 dB / oct.



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