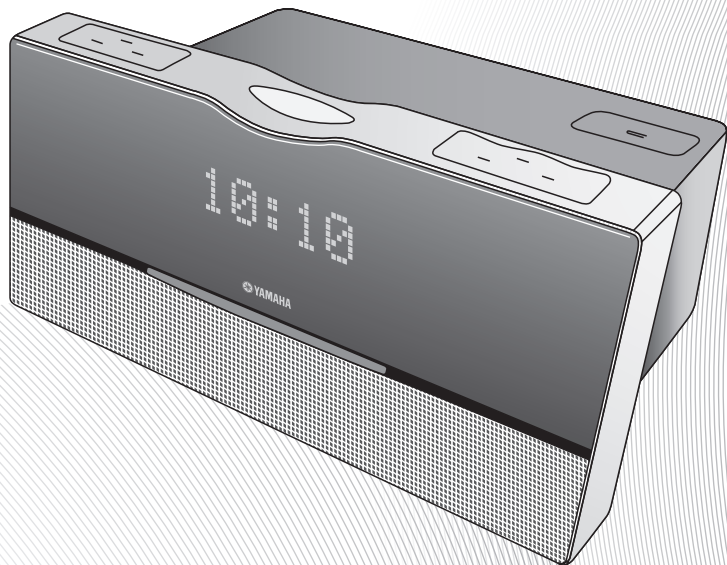


# TSX-100

## DESKTOP AUDIO SYSTEM



## Caution: Read this before operating your unit.

- 1 To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
- 2 Install this unit in a well ventilated, cool, dry, clean place with at least 10 cm on the top, 10 cm on the left and right, and 10 cm at the back of this unit — away from direct sunlight, heat sources, vibration, dust, moisture, and/or cold.
- 3 Locate this unit away from other electrical appliances, motors, or transformers to avoid humming sounds.
- 4 Do not expose this unit to sudden temperature changes from cold to hot, and do not locate this unit in an environment with high humidity (i.e. a room with a humidifier) to prevent condensation inside this unit, which may cause an electrical shock, fire, damage to this unit, and/or personal injury.
- 5 Avoid installing this unit where foreign object may fall onto this unit and/or this unit may be exposed to liquid dripping or splashing. On the top of this unit, do not place:
  - Other components, as they may cause damage and/or discoloration on the surface of this unit.
  - Burning objects (i.e. candles), as they may cause fire, damage to this unit, and/or personal injury.
  - Containers with liquid in them, as they may fall and liquid may cause electrical shock to the user and/or damage to this unit.
- 6 Do not cover this unit with a newspaper, tablecloth, curtain, etc. in order not to obstruct heat radiation. If the temperature inside this unit rises, it may cause fire, damage to this unit, and/or personal injury.
- 7 Do not plug in this unit to a wall outlet until all connections are complete.
- 8 Do not operate this unit upside-down. It may overheat, possibly causing damage.
- 9 Do not use force on switches, knobs and/or cords.
- 10 When disconnecting the power cable from the wall outlet, grasp the plug; do not pull the cable.
- 11 Do not clean this unit with chemical solvents; this might damage the finish.
- 12 Only voltage specified on this unit must be used. Using this unit with a higher voltage than specified is dangerous and may cause fire, damage to this unit, and/or personal injury. Yamaha will not be held responsible for any damage resulting from use of this unit with a voltage other than specified.
- 13 To prevent damage by lightning, keep the power cord and outdoor antennas disconnected from a wall outlet or this unit during a lightning storm.
- 14 Do not attempt to modify or fix this unit. Contact qualified Yamaha service personnel when any service is needed. The cabinet should never be opened for any reasons.
- 15 When not planning to use this unit for long periods of time (i.e. vacation), disconnect the AC power plug from the wall outlet.
- 16 Be sure to read the “Troubleshooting” section on common operating errors before concluding that this unit is faulty.
- 17 Before moving this unit, press POWER OFF to set this unit to the standby mode, and disconnect the AC power plug from the wall outlet.
- 18 Condensation will form when the surrounding temperature changes suddenly. Disconnect the power cable from the outlet, then leave this unit alone.
- 19 When using this unit for a long time, this unit may become warm. Turn the power off, then leave this unit alone for cooling.
- 20 Install this unit near the AC outlet and where the AC power plug can be reached easily.
- 21 The batteries shall not be exposed to excessive heat such as sunshine, fire or the like.
- 22 Excessive sound pressure from earphones and headphones can cause hearing loss.

This unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if this unit itself is turned off by POWER OFF. This state is called the standby mode. In this state, this unit is designed to consume a very small quantity of power.

### WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

### LASER SAFETY

This unit employs a laser. Due to possible eye injury, only a qualified service person should remove the cover or attempt to service this device.

### DANGER

This unit emits visible laser radiation when open. Avoid direct eye exposure to beam. When this unit is plugged into the wall outlet, do not place your eyes close to the opening of the disc tray and other openings to look into inside.

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

### ■ For U.K. customers

If the socket outlets in the home are not suitable for the plug supplied with this appliance, it should be cut off and an appropriate 3 pin plug fitted. For details, refer to the instructions described below.

### Note

The plug severed from the mains lead must be destroyed, as a plug with bared flexible cord is hazardous if engaged in a live socket outlet.

### ■ Special Instructions for U.K. Model

#### IMPORTANT

THE WIRES IN MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

Blue: NEUTRAL

Brown: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Make sure that neither core is connected to the earth terminal of the three pin plug.

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# Features

- Stylish compact all-in-one design
- Audio CDs, MP3 CDs, and WMA CDs playable
- USB supported
- Sophisticated FM/AM/DAB tuner
- Simple but functional remote control
- Timer and clock function

SR·Bass



“Swing Radiator Bass™” is a trademark of YAMAHA CORPORATION.

DAB

Digital Audio Broadcasting

This receiver supports DAB tuning.

## ■ About this manual

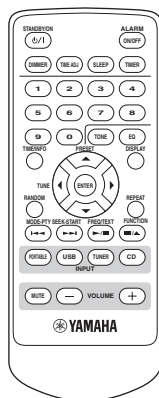
- In this manual, operations that can be performed with either this unit or its remote control are explained using the remote control.
- The symbol “ ” with page number(s) indicates the corresponding reference page(s).
-  indicates a tip for your operation.
- Notes contain important information about safety and operating instructions.
- This manual is printed prior to production. Design and specifications are subject to change in part as a result of improvements, etc.

In case of differences between the manual and the product, the product has priority.

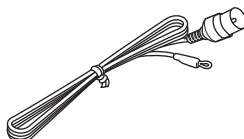
## ■ Supplied accessories

This product includes the following accessories. Make sure you have all of the following parts.

Remote control



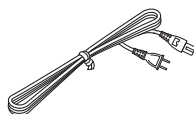
Indoor FM antenna



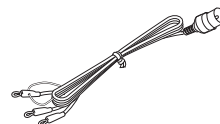
AM loop antenna



Power cable



Indoor DAB antenna

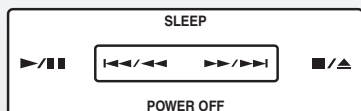


### Note

The form of the supplied accessories varies depending on the models.

# Controls and functions

## Front/top view



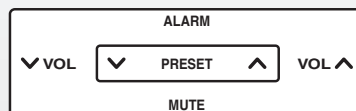
**▶/||**  
Starts and pauses playback. (☞ P. 11)

**■/▲**  
Stops playback or ejects a disc when playback is stopped. (☞ P. 11)

**◀◀/▶▶, ▶▶/▶▶**  
Skips to the beginning of the current or next track.  
Press and hold the key to search backward/forward. (☞ P. 11)

**POWER OFF**  
Sets this unit to the standby mode. (☞ P. 6)

**SLEEP**  
Sets the sleep timer. (☞ P. 26)



**VOL ^, v**  
Adjusts volume level. (☞ P. 8)

**MUTE**  
Turns off the volume. (☞ P. 8)

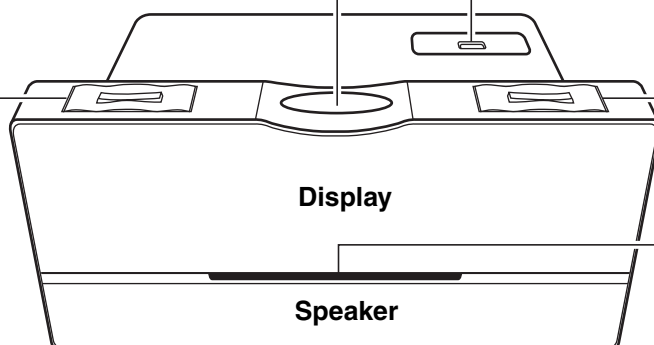
**PRESET ^, v**  
Selects the preset stations. (☞ P. 17)

**ALARM**  
Sets the alarm function. (☞ P. 25)

### INPUT/SNOOZE

Turns on this unit and selects an input source (☞ P. 6, 8), or enables the snooze function when alarm is activated. (☞ P. 25)

**USB port** (☞ P. 12)



**Disc slot** (☞ P. 11)

**Display**

**Speaker**

## Remote control

STANDBY/ON



Turns on this unit or sets it to the standby mode. (☞ P. 6)

DIMMER

Changes the brightness of the display. (☞ P. 10)

TIME/INFO



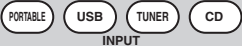
Displays the disc/USB information. (☞ P. 14)

Cursor (▲/▼/◀/▶) and ENTER

RANDOM



Sets this unit to the random playback mode. (☞ P. 15)



Select the source you want to listen to.

Press **PORTABLE** to listen to the source played back on the component which is connected to the PORTABLE jack on the rear panel of this unit. (☞ P. 15)

Press **USB** to listen to the source stored in the connected USB memory. (☞ P. 12)

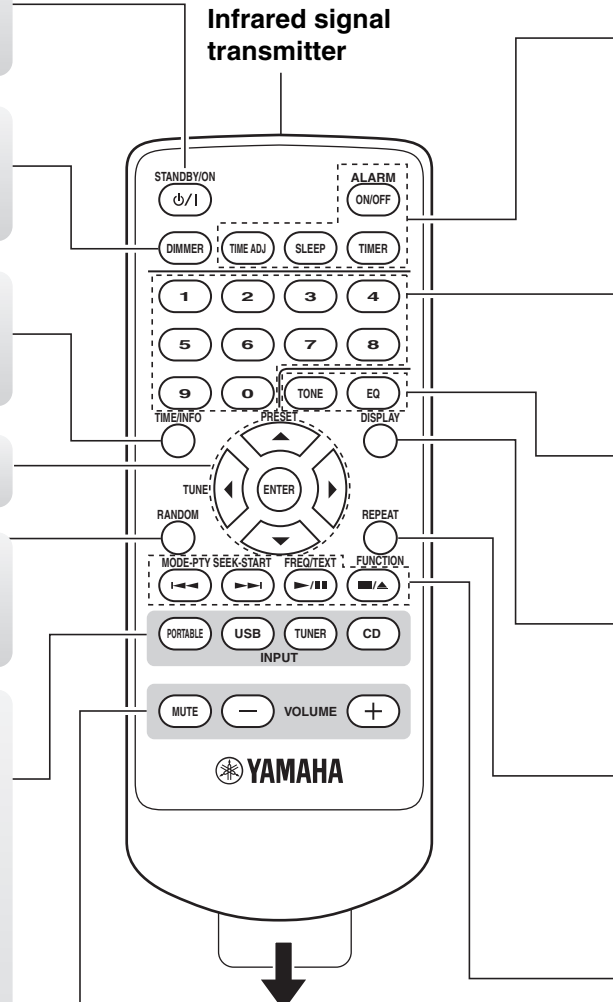
Press **TUNER** to listen to FM/AM and DAB radio broadcast. Each time you press **TUNER**, the source switches between FM, AM and DAB. (☞ P. 16)

Press **CD** to listen to a disc inserted into the disc slot. (☞ P. 11)



Adjust volume. (☞ P. 8)

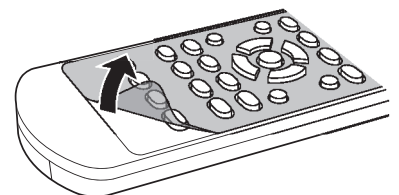
Infrared signal transmitter



Remove the insulation sheet before using the remote control.



Remove the transparent sheet before using the remote control.





**Set various timer and clock function.**

**ALARM ON/OFF:** Activates or cancels the alarm function. (☞ P. 25)

**TIME ADJ:** Adjusts the clock of this unit. (☞ P. 7)

**SLEEP:** Sets the sleep timer. (☞ P. 26)

**TIMER:** Sets the countdown timer. (☞ P. 26)



**Select the desired track or preset station directly.**

(☞ P. 11, 13, 17, 18)



**Adjust the sound.**

**TONE:** Adjusts the bass and treble balance. (☞ P. 9)

**EQ:** Selects the equalizer mode. (☞ P. 9)



**Changes the displayed information. (☞ P. 10)**



**Sets this unit to the repeat playback mode. (☞ P. 15)**

Also activates the DAB function-setting mode when this unit is in the DAB tuning mode. (☞ P. 22)



**Control playback.**

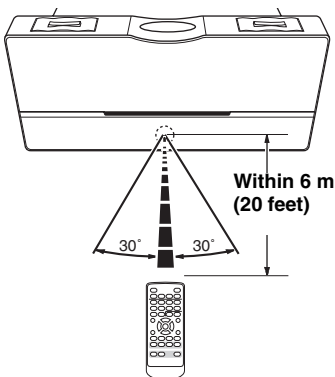
◀◀, ▶▶: Skips to the beginning of the current or next track.

Press and hold the key to search backward/forward. (☞ P. 11, 12)

▶/||: Starts and pauses playback. (☞ P. 11, 12)

■/▲: Stops playback or ejects a disc when playback is stopped. (☞ P. 11, 12)

**Using the remote control**



**Use the remote control within 6 m (20 feet) of this unit and point it toward the remote control sensor.**

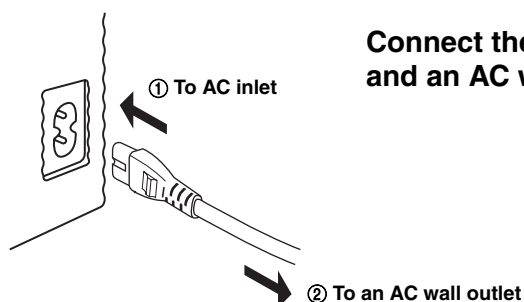
**Notes**

- Do not put obstacles between the sensor of this unit and the remote control. Doing so, you cannot operate this unit by the remote control.
- Do not spill liquid on the remote control.
- Do not drop the remote control.
- Do not leave the remote control in the following places:
  - hot or humid places such as bathroom or near a heater
  - extremely cold places
  - dusty places

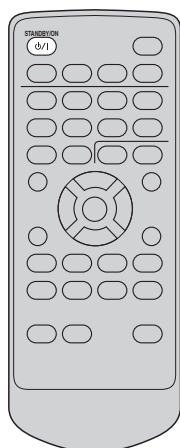
**For replacement of the battery ☞ P. 29.**

# Preparation before using this unit

## Turning on the power



Connect the power cable to the AC inlet of this unit and an AC wall outlet.



### Turn on this unit.

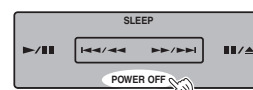
Press again to set this unit to the standby mode.

#### On the top panel

You can also perform the above operations on the top panel.



Turn on this unit.



Set this unit to the standby mode.



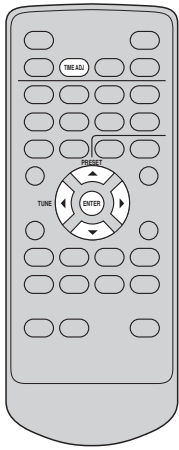
- During the standby mode, the power consumption is reduced.
- In the standby mode, you can select whether to display the date and time (in the ECO OFF mode) or not to display them (in the ECO ON mode).
  - 1 While in the standby mode, press and hold the **MUTE** on the top panel.  
→ The “ECO ON” or “ECO OFF” flashes.
  - 2 While the indicator is flashing, press the **MUTE** to select “ECO ON” or “ECO OFF”.
  - 3 Wait several seconds.  
→ The mode is set to ECO ON or ECO OFF.

	ECO ON mode	ECO OFF mode
Display in the standby mode	(Not displayed)	11:22PM 12 Oct Fri (Date and time displayed)

- The memory back-up circuit prevents the stored data from being lost even if this unit is in the standby mode. However, the stored data will be lost if the power cable is disconnected from the AC wall outlet or if the power supply is cut off for more than one week.

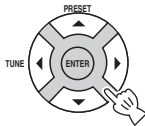


## Adjusting the clock



### Note

When the display is off, turn on the power before making this setting.



### Adjust date and time.

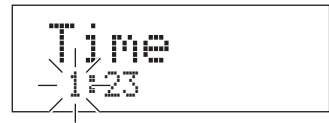
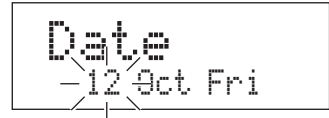


Selects year/date/hour/minute.



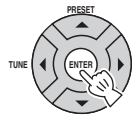
Increases or decreases the date or time.

### Examples



### Note

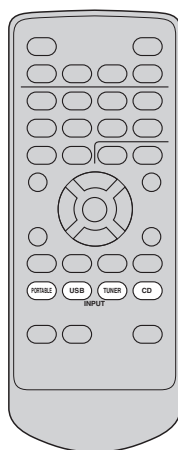
Time appears in 12-hour notation (AM/PM) depending on the model. For example, "4:00PM".



### Confirm.

# Basic operation

## Selecting the input source



To listen to music played on a portable audio device



To listen to MP3/WMA files stored on your USB device



To listen to radio stations (FM/AM/DAB)



To listen to a CD

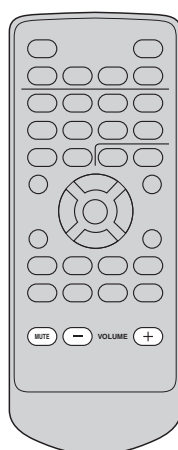


**On the top panel**



Press repeatedly.

## Adjusting the volume level



To increase or decrease the volume level



If the power is turned off with the volume set to a level of 41 or more, the volume level is automatically set to 20 when the power is turned back on.

Volume 41 | → 20

To turn off the sound

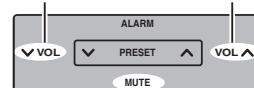


Press again to resume the volume level.

**On the top panel**

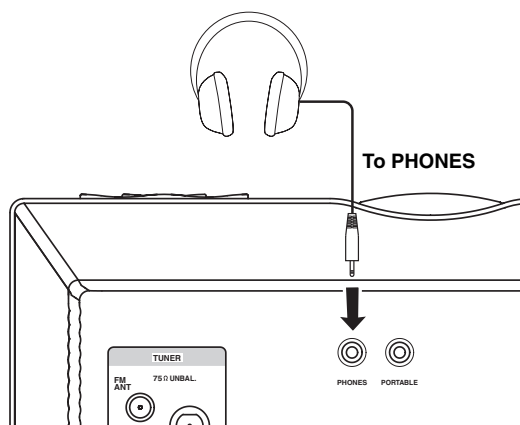
Decreases the volume level.

Increases the volume level.



Turns off the sound.

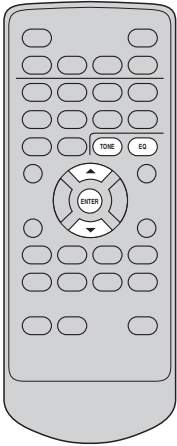
## Using the headphones



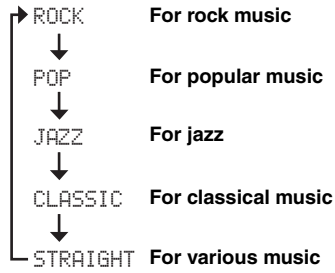
Even when you connect your headphones, the alarm sound is output through the speaker.

## Adjusting sounds

### ■ Adjusting the total sound balance

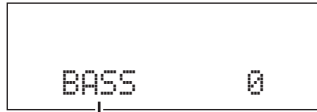


  
Press repeatedly.

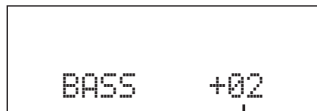
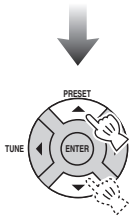


### ■ Adjusting bass/treble balance

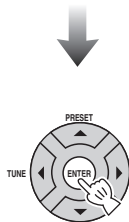
  
Press repeatedly.



Select "BASS" (low frequency range)  
or "TREBLE" (high frequency range).



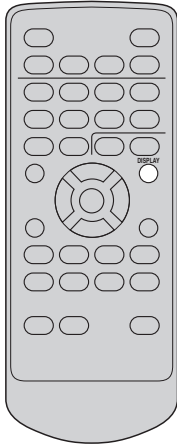
Adjust the level (-10 to +10 dB).



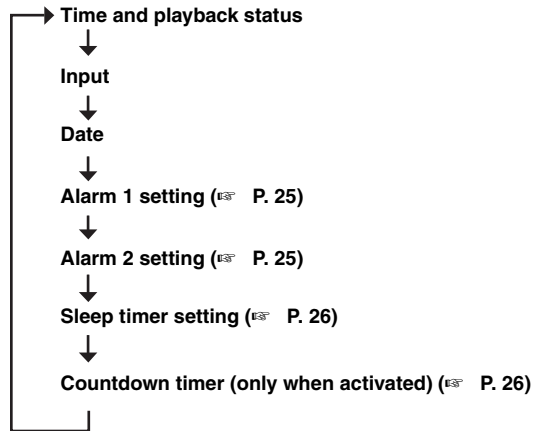
Confirm.

## Useful operations for the display

### ■ Switching the display information

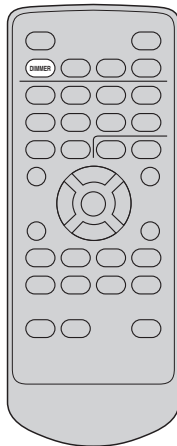


  
Press repeatedly.

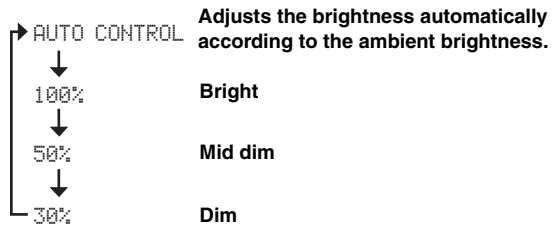


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### ■ Dimming the display

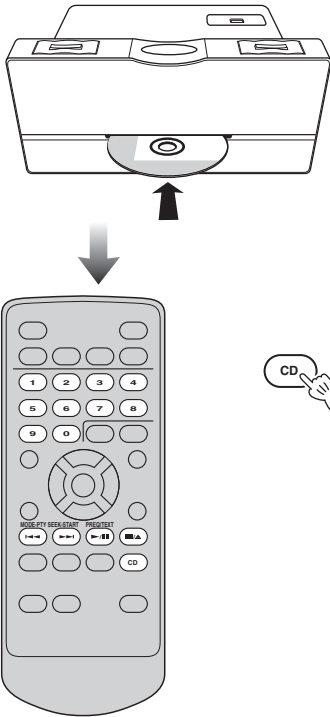


  
Press repeatedly.



# Listening to CDs, MP3/WMA files, and external sources

## Listening to CDs

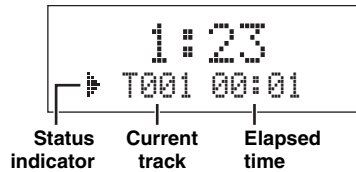


### Insert your disc.

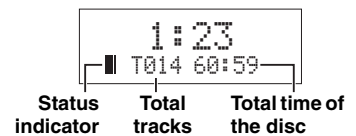


You can also play back MP3/WMA files recorded on a disc. For operation instruction, refer to "Listening to MP3/WMA files stored on your USB device" (P. 12).

### Playback starts.

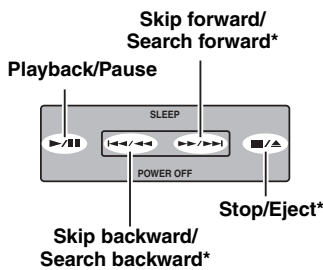


### When the playback is stopped



- You can switch the playback information display (P. 14).
- You can also play back MP3/WMA files recorded on a disc. Refer to "Listening to MP3/WMA files stored on your USB device" (P. 12).

### On the top panel



\* Press and hold while in playback or pause.

### To pause playback



To cancel pause, press ►/|| again.

### To skip tracks

Backward



Forward



### To search backward/forward

Backward

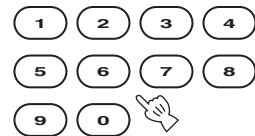


Press and hold

Forward



### To specify a track



Enter the track number you want to listen to.

### To stop playback



### To eject a disc

While playback is stopped



Press

While in playback or pause

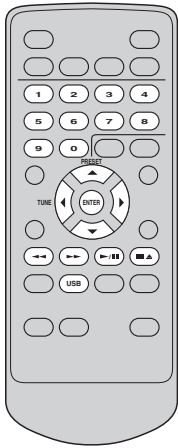
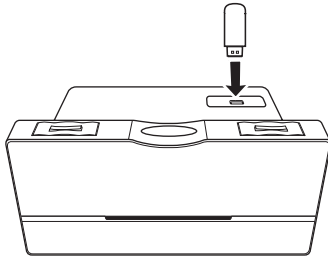


Press and hold

### Note

No sound is heard when you search during pause.

## Listening to MP3/WMA files stored on your USB device



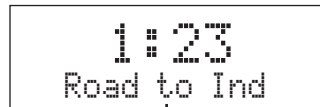
### Connect a USB device.

This unit supports USB mass storage class devices (e.g., flash memories or portable audio players) using FAT16 or FAT32 format.

#### Notes

- Some devices may not work properly even if they meet the requirements.
- Do not connect devices other than USB mass storage class devices (such as USB chargers or USB hubs), PCs, card readers, external HDD, etc.
- Yamaha will not be held responsible for any damage to or data loss on the USB device occurring while the device is connected to this unit.
- Playability of and power supply to all kind of USB devices are not guaranteed.

### Playback starts.



Song title/artist name/album name

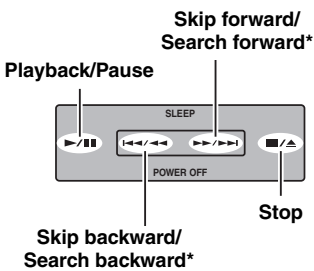


You can switch the playback information display (P. 14).

#### Notes

- The reading time may exceed 30 seconds depending on the number of files/folders.
- This unit can only show alphanumeric characters.

#### On the top panel



\* Press and hold

#### To stop playback



#### To pause playback



To cancel pause, press ►/|| again.

#### To skip tracks

##### Backward



##### Forward



#### To search backward/forward

##### Backward



##### Forward

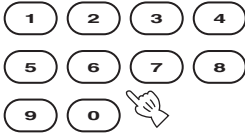


Press and hold

#### Note

Pause will be canceled when you start searching.

■ To specify a track for playback

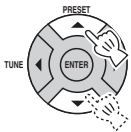


Enter the track number you want to listen to.

**Notes**

- Depending on the conditions of recording such as software recording setting, this unit may not be able to play a disc or USB device in the order of recording.
- For an MP3 or WMA disc/USB device, the number assigned to each file corresponds to the file sequence in the disc/USB device, not in the individual folders.

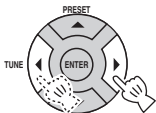
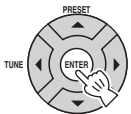
■ To select a folder/file for an MP3 or WMA format file



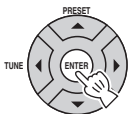
Select a folder.



Only when MP3/WMA disc playback



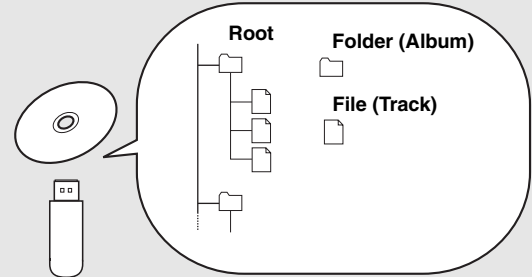
Select a file.



Start playback.

**About MP3 or WMA files**

You can play back MP3 or WMA files recorded on your CD-R, CD-RW, or USB device. This unit regards folders in a disc/USB device as albums, and files as tracks as shown below. Folder hierarchy is disregarded.



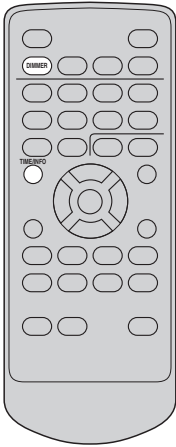
**Notes**

- This unit can display up to 255 files and 255 folders. However, less than 255 files/folders may be displayed if some files/folders are not playable on this unit.
- If the USB device is partitioned, only the first partition is displayed.
- Some files may not work properly depending on the USB device specification.
- Copyright-protected files cannot be played back.
- This unit can play back files of 4 GB in size or less.

OPERATION

English

## Switching the playback information display



Press repeatedly

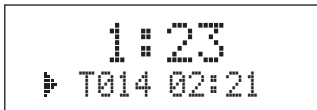
Each time you press the key, the information display changes.

### Note

Some special characters may not be shown properly.

### Audio CDs

#### Elapsed time of the current track (Default)



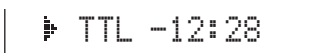
#### Remaining time of the current track



#### Total time of the disc



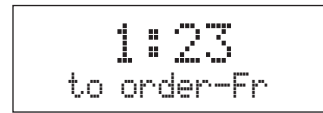
#### Remaining time of the disc



#### Back to the default display

### MP3/WMA files

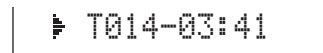
#### Scrolling display\* (Default)



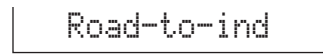
#### Elapsed time of the current file



#### Remaining time of the current file



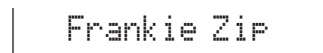
#### File name



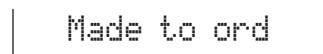
#### Song title



#### Artist name



#### Album name



#### Year



#### Comment

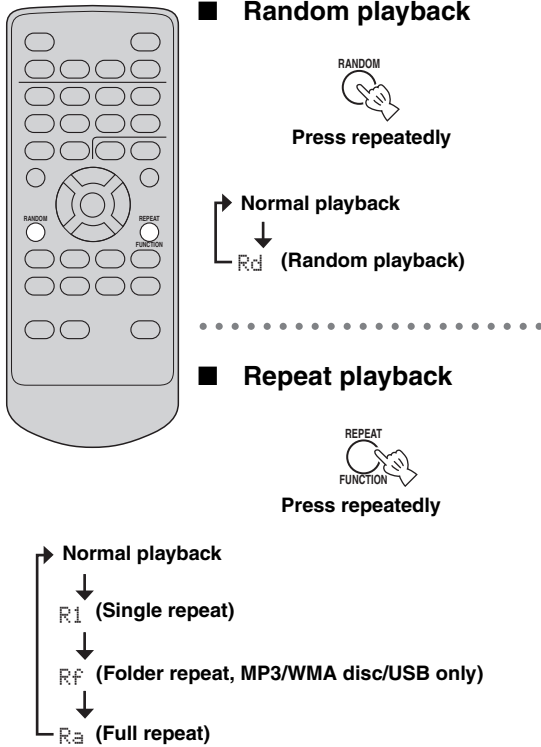


#### Back to the default display

\* Scrolling display shows the song title, artist name, and album name of the selected item in sequence.



## Repeat and random playback



**Note**

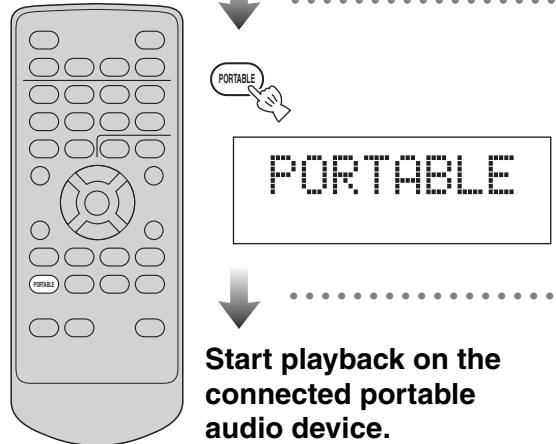
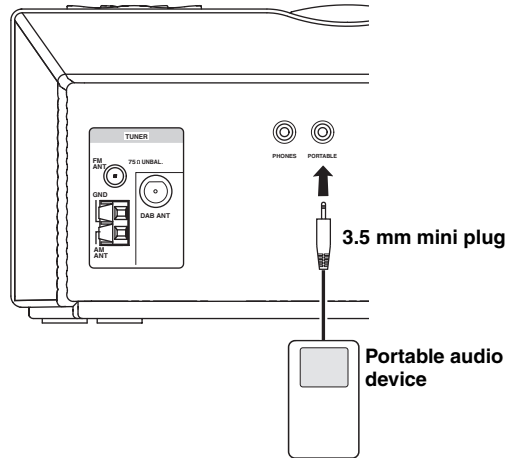
Repeat and random play modes are canceled when the playback is stopped or the disc/USB device is removed.

## Playing back external sources

**Note**

Turn down the volume of this unit and your portable audio device before connection.

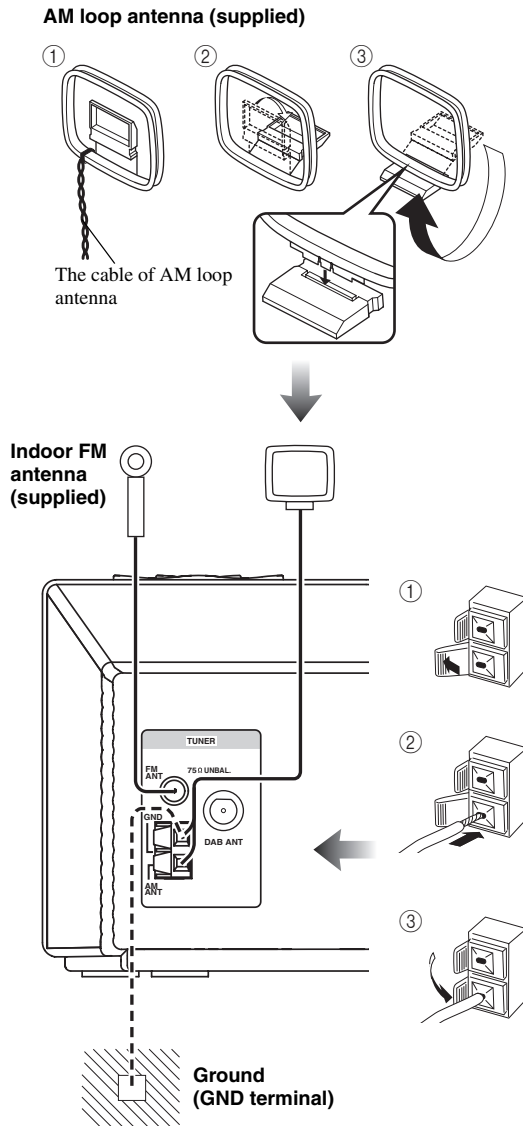
### Connect your portable audio device.



For operations of the portable audio device, refer to the instruction manual of the device.

# Listening to FM and AM radio stations

## Connecting antennas



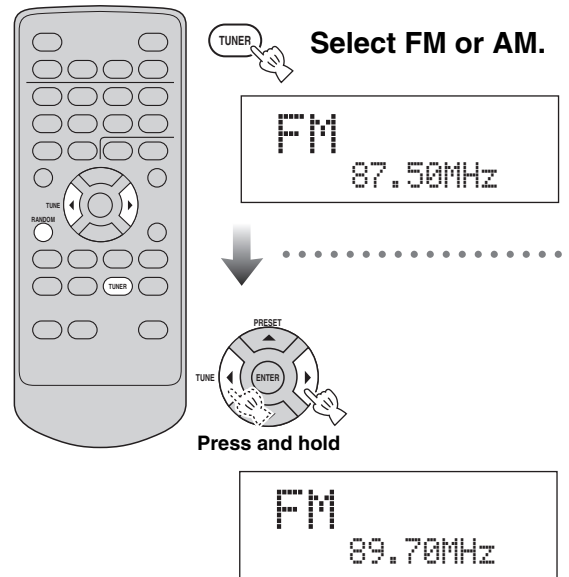
### Note

The wire of the AM loop antenna is shield type. Connect the white wire to AM ANT terminal and connect the black wire to GND terminal.

### About grounding

For the maximum safety and minimum interference, connect the antenna GND terminal to a good earth ground. A good earth ground is a metal stake driven into the moist earth.

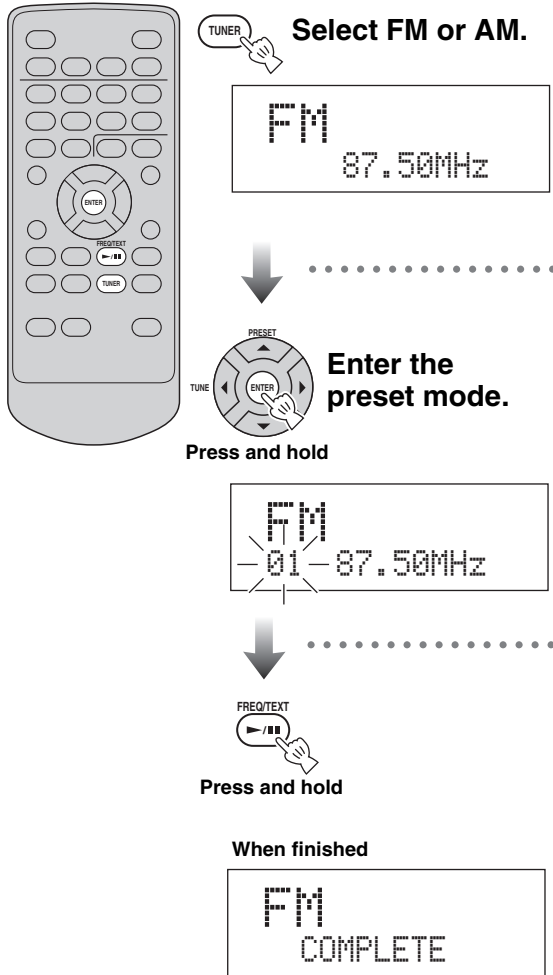
## Tuning radio stations



- While listening to the AM radio station, rotate the antenna head to find the best angle for reception.
- You can also tune radio stations manually by pressing **TUNE** repeatedly.
- To increase the quality of the FM sound under the weak radio wave, press and hold **RANDOM** on the remote control to change the FM radio wave reception mode of this unit to the monaural mode.

## Presetting radio stations automatically (Auto preset)

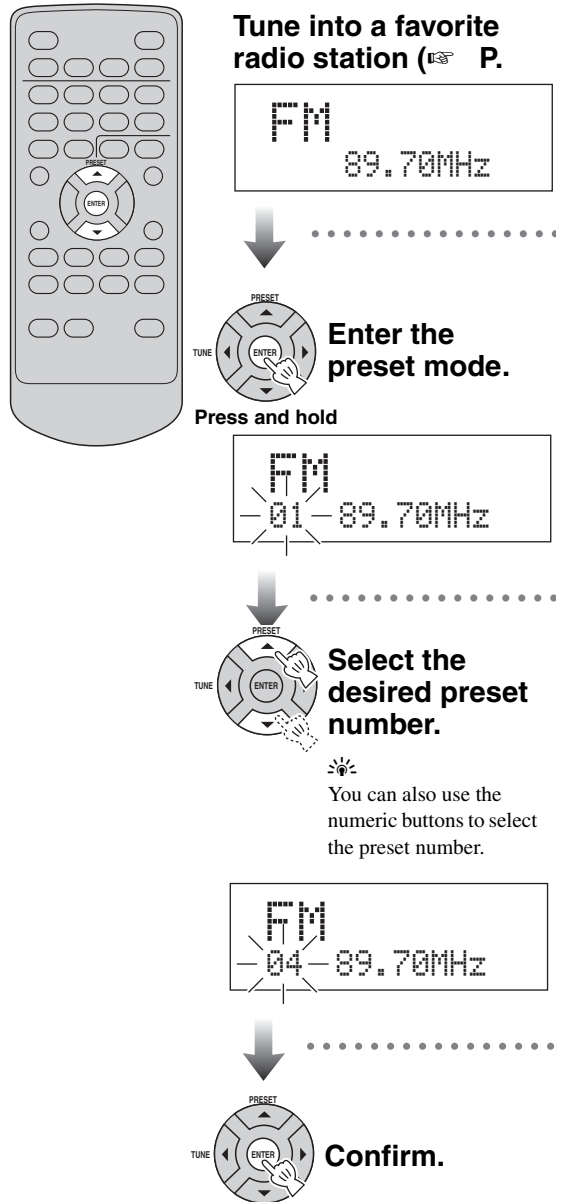
After switching to the preset setting display (while part of the display is flashing), perform this operation while it is still flashing.



- You can delete a preset station by pressing **■/▲**.
- You can delete all the preset stations by pressing and holding **■/▲** for 3 seconds or longer.

## Presetting radio stations manually (Manual preset)

After switching to the preset setting display (while part of the display is flashing), perform this operation while it is still flashing.



- You can preset up to 30 FM stations and 20 AM stations.
- You can delete a preset station by pressing **■/▲**.
- You can delete all the preset stations by pressing and holding **■/▲** for 3 seconds or longer.

## Selecting preset radio stations (Preset tuning)

**Select FM or AM.**

**Select the preset radio station.**

You can also use the numeric buttons to select the station.

**On the top panel**

## Receiving Radio Data System stations

### Selecting stations by program type

**While receiving an FM, select "PRG TYPE".**

Press repeatedly

**MODE-PTY SEEK**

**Select a program type (P. 19).**

**Initiate scan.**

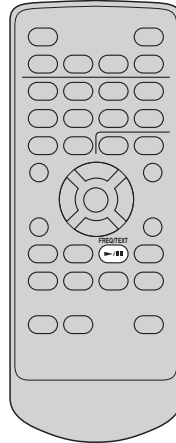


To cancel program type seek, press **PTY SEEK START** again.

## ■ Available program types

Program type	Descriptions
NEWS	News
AFFAIRS	Current affairs
INFO	General information
SPORT	Sports
EDUCATE	Education
DRAMA	Drama
CULTURE	Cultures
SCIENCE	Science
VARIED	Varied Speech
POP M	Pop Music
ROCK M	Rock Music
EASY M	Easy Listening
LIGHT M	Light Classical
CLASSICS	Serious Classical
OTHER M	Other Music
WEATHER	Weather & Meteorology
FINANCE	Finance
CHILDREN	Children's Program
SOCIAL	Social Affairs
RELIGION	Religion
PHONE IN	Phone In
TRAVEL	Travel & Touring
LEISURE	Leisure & Hobby
JAZZ	Jazz Music
COUNTRY	Country Music
NATION M	National Music
OLDIES	Other Music
FOLK M	Folk Music
DOCUMENT	Documentary
TEST	Alarm Test
ALARM	Alarm-Alarm!

## ■ Switching the information display of Radio Data System



Press repeatedly

### Station name



FM  
PRG SERVICE

### Program type



FM  
PRG TYPE

### Text information related to the station



FM  
RADIO TEXT

### Current time



FM  
CLOCK TIME

### Original display

#### Note

If the signal transmission of the Radio Data System station is too weak, this unit may not be able to receive Radio Data System information completely. In particular, RT (Radio Text) information uses a lot of bandwidth, so it may be less available compared to other types of information.

# Listening to DAB (Digital Audio Broadcasting)

## About DAB

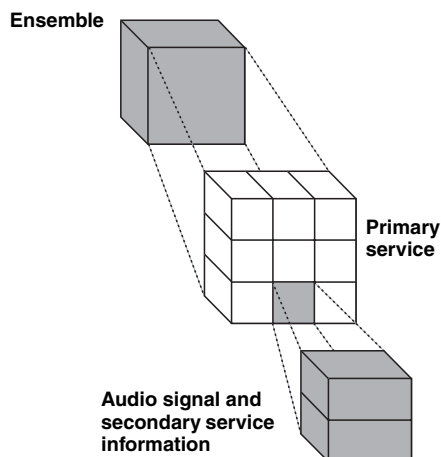


Digital Audio Broadcasting

DAB (Digital Audio Broadcasting), also known as digital radio, is a new way of radio broadcasting. DAB is broadcast using digital signals instead of analog signals, resulting in near CD-quality sound. Analog signals (i.e. AM/FM) are susceptible to interference (i.e. distortion and noise) caused by electrical equipment, weather conditions, tall buildings, mountains, etc.; digital signals are not. Thus, with DAB, there is virtually interference-free reception and no hiss or crackle.

Another advantage of DAB is that a large amount of information can be carried within the digital signal. DAB is broadcast in blocks of data called ensembles (also known as multiplexes). Several radio programs (called services) can be broadcast simultaneously in each ensemble. This means that you can choose between several radio programs within one frequency.

In addition to the audio signal, service information is also broadcast and displayed in the front panel display of this unit. Part of the service information is text data information called DLS (Dynamic Label Segment). For more information, see page 24.



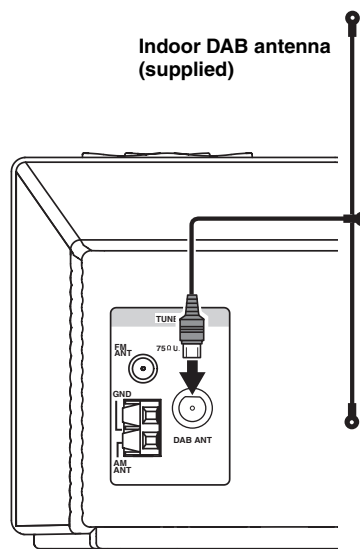
With DAB, there is no need to remember channel frequencies, either. All broadcasts are selected by simply selecting the service name.

### Notes

- Be sure to check the DAB coverage in your area – not all areas are presently covered. For a list of country DAB statuses and worldwide DAB frequencies, visit WorldDAB online at “<http://www.worlddab.org>”.
- The sound quality and service information are controlled by the DAB broadcaster, not this unit. Not all DAB broadcasters transmit PAD/SI information.
- DAB signals are broadcast in Band-III (174 – 240 MHz).

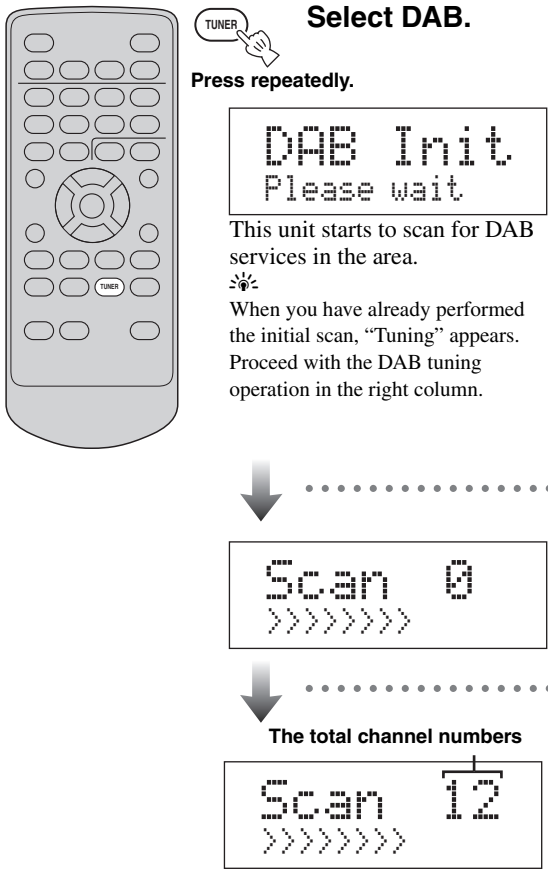
## Connecting the DAB antenna

Connect the supplied indoor DAB antenna to the DAB ANT. terminal on the rear panel of this unit and attach it vertically on a wall.



## Preparing the DAB tuning

Before tuning into DAB services, you must perform the initial scan. This unit creates a channel list during the initial scan.



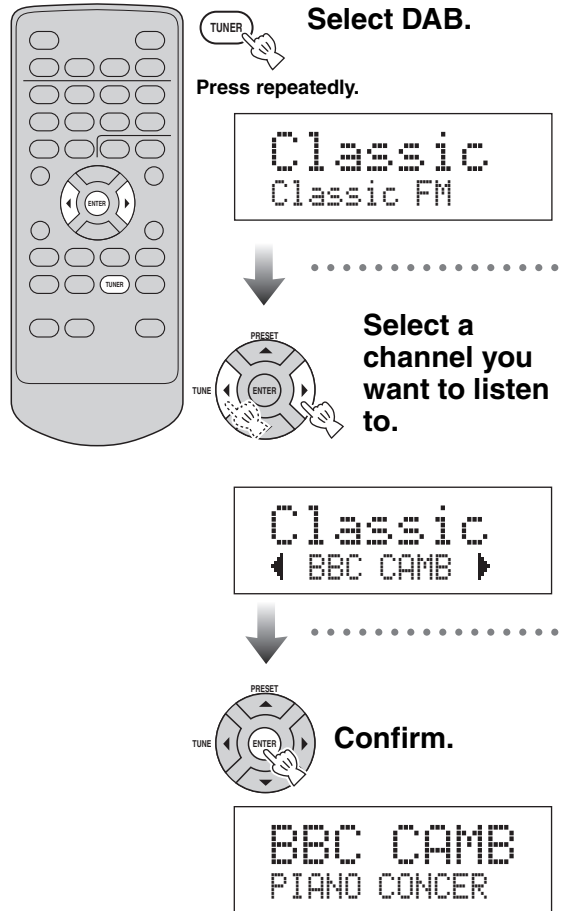
Once the initial scan is completed and DAB channel list created, the channels are listed in alphanumeric order.

### Notes

- If the initial scan operation is not successful, "No stations" appears.
- When you select "Tune aid" instead of "Auto scan", you can select channel and frequency by pressing ◀▶ (P. 22).

## DAB tuning

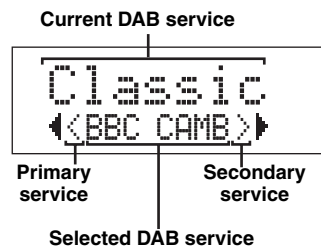
Follow procedures below to tune into the channels found by this unit.



### Notes

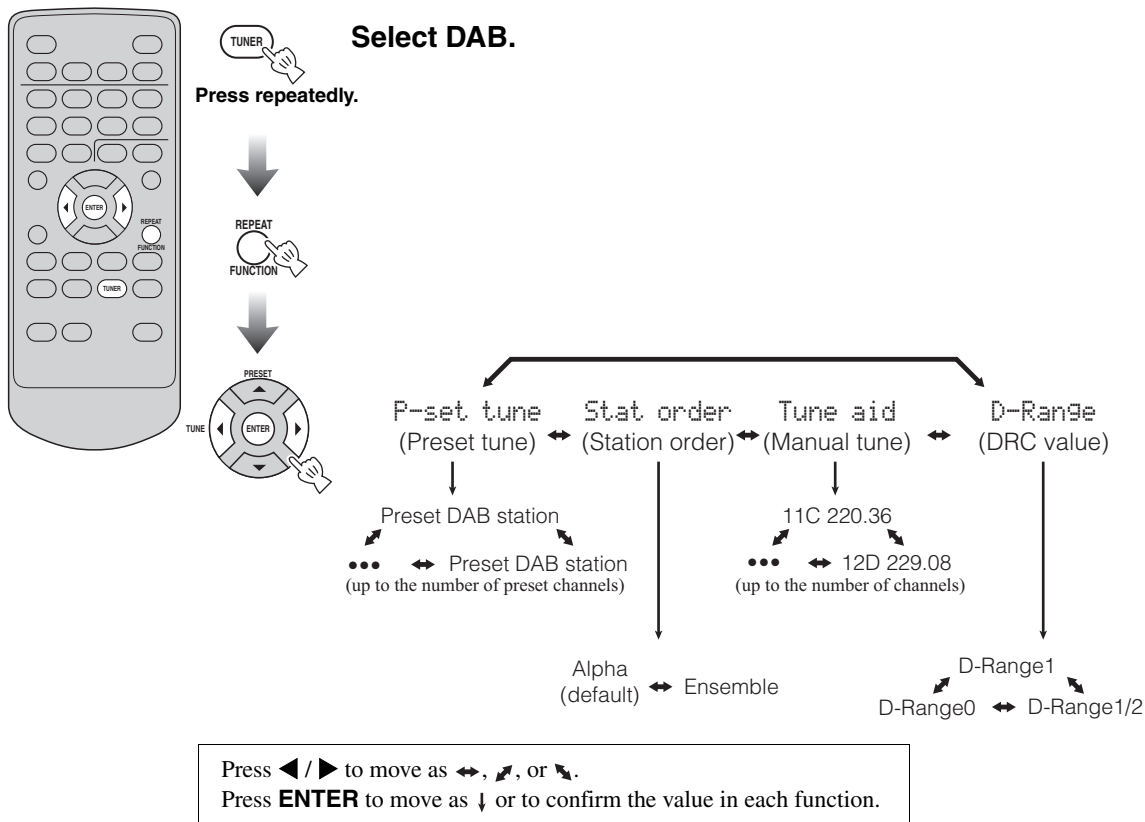
- When the selected DAB service has a secondary service, the 2nd indicator flashes in the front panel for 5 seconds, and the selected DAB service is a secondary DAB service, the 2nd indicator lights up. This unit returns to the corresponding primary service when the secondary service becomes timed out.
- "Off air" appears when this unit can not receive specified DAB service.

### Display information (Example)



## Function mode

Use this feature to set the DAB functions.



### ■ Preset tune

Use this option to select preset DAB stations.  
To preset DAB stations, See “Preset memory” on page 23.

### ■ Station order

To set the order in which stations are listed, use station order. There are 2 items:

#### • Alpha (Default)

Channels are listed in alphanumeric order (0-9, A-Z) by the first letter of the station name.

#### • Ensemble

This option will list active stations (stations that can be received by this unit) at the top of the channel list. Channels that are in the list but have no service in your area are listed at the bottom of the channel list.

### ■ Tune aid

Use this feature to adjust the positioning of the DAB antenna and this unit. It is effective at maximizing the DAB reception capability.

### ■ DRC (Dynamic range control) value

Dynamic range is the decibel (dB) range between the highest and lowest sounds in a broadcast. Some DAB broadcasters transmit a wide dynamic range (enabling high quality sound), accompanied by Dynamic Range Control (DRC) data. The DRC can be used to compress the dynamic range of the broadcast, making softer sounds easier to hear. This is especially useful when listening to a DAB service in a noisy environment or at a low volume (such as at night).

There are 3 items:

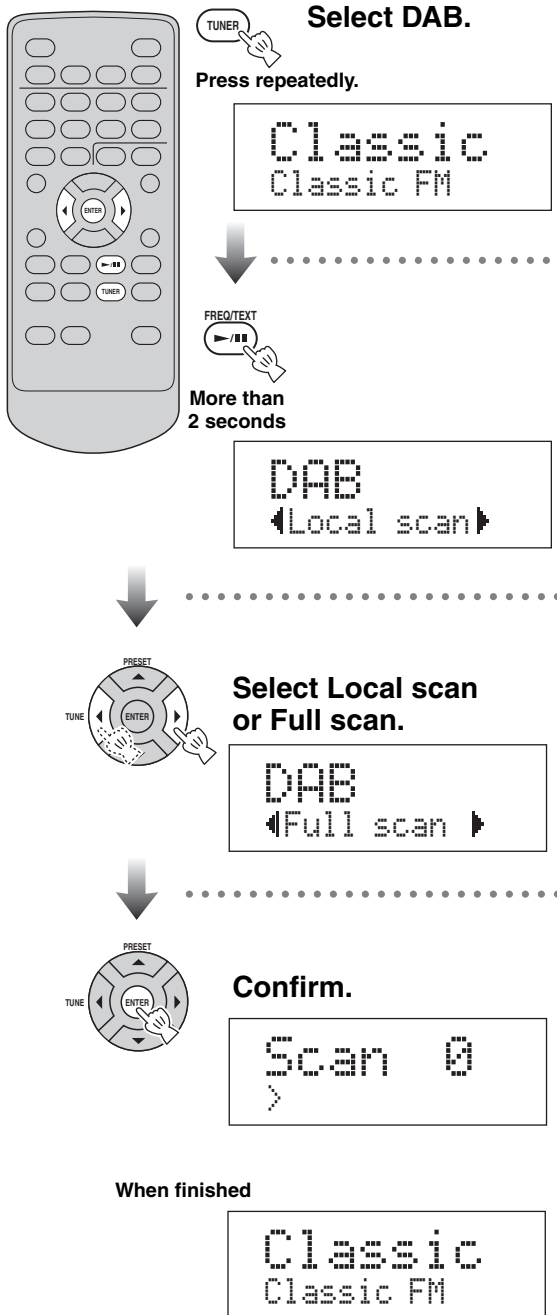
- **D-Range1 (Maximum)**
- **D-Range1/2 (Medium)**
- **D-Range0 (None)**



## Auto tuning

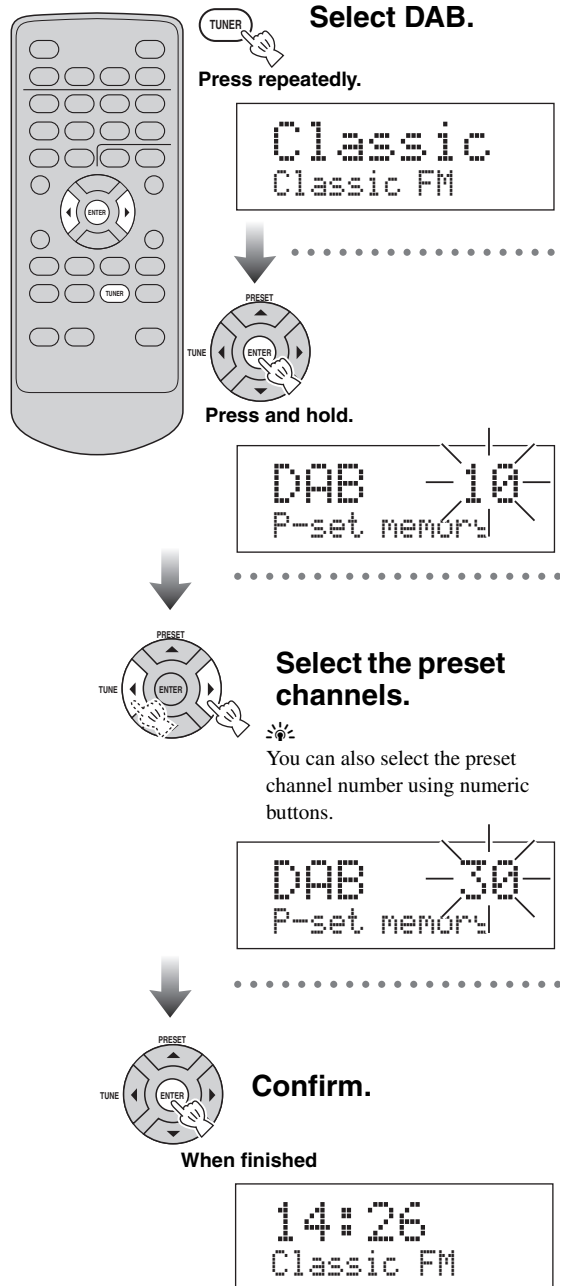
If the unit is moved to a new area or you want to check if there are new DAB channels available in your area, you can perform a scan.

- **Local scan:** Use it to scan specified ranges in band III.
- **Full scan:** Use it to scan all ranges in band III.



## Preset memory

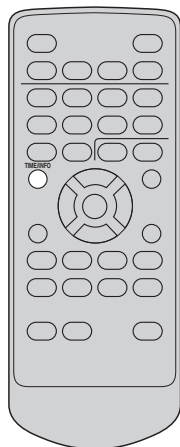
This mode is used to assign up to 99 preset numbers to DAB service.



- When you want to delete the desired preset station, follow the steps below (with the remote control only).
  1. Select the preset stations and then press **■/▲**.
  2. Press **■/▲** during the preset channel number is flashing. The preset station is deleted.
- You can delete all the preset stations by pressing and holding **■/▲** for 3 seconds or longer after you select certain preset station.

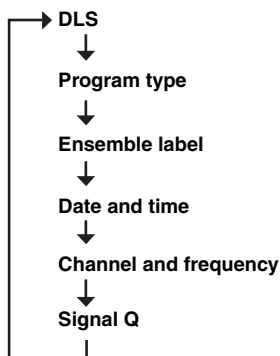
## Changing DAB service information

Use this feature to display various information about the DAB service currently being received.



Press repeatedly.

The information are displayed as follows:



### ■ DLS

The Dynamic Label Segment (DLS) is the scrolling text label supplied by the radio station. It may be information about the song or program being broadcasted.

### ■ Program type

Displays the type of broadcast supplied by the DAB station, such as Pop, Rock or Classical music.

### ■ Ensemble label

Displays the name of the current ensemble that is broadcasting the program.

### ■ Date and time

Displays the current date and time. The clock setting is automatically adjusted to the clock time data being broadcast by the DAB station.

### ■ Channel and frequency

Displays the channel and frequency of the currently playing broadcast.

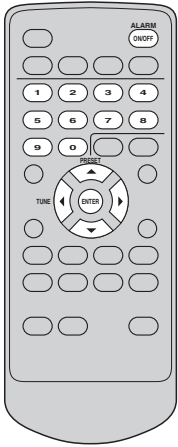
### ■ Signal Q (Signal quality)

Displays the digital signal reception quality rate (0-100, i.e. Q:100) of the currently playing broadcast. This is for information only; no adjustment is available. The higher the figure, the better the quality of the received broadcast.

# Using the timer functions

Use this feature to wake up with your favorite CD or radio program, etc. Also use this feature to automatically set this unit to the standby mode after a certain amount of time.

## ■ Setting the wake-up timer



### Note

When the display is off, turn on the power before making this setting.



### Adjust the alarm settings.



Moves through the alarm parameters.



Changes the alarm parameters.

- ① Select alarm 1/2.
- ② Select on/off.

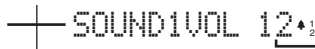
- ③ Select the repetition.  
M-F: Monday to Friday  
Daily: Every day  
Once: Only once



Shows the active alarm.

- ④ Set the alarm time.

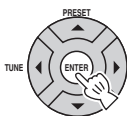
- ⑤ Select alarm sound from CD, FM, AM, USB, DAB, SOUND1 (beep), and SOUND2 (beep).



- ⑥ Adjust the volume.



You can also use the numeric buttons to enter time.



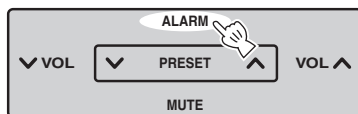
Once you have set the alarm, you can turn on/off the alarm using **ALARM ON/OFF**.

## ■ To stop the alarm



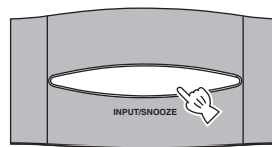
or

*On the top panel*

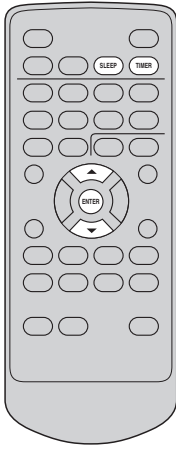


## ■ Using the snooze function

*On the top panel*



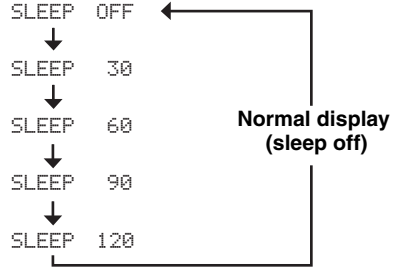
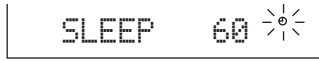
Playback resumes after 5 minutes.



### ■ Setting the sleep timer

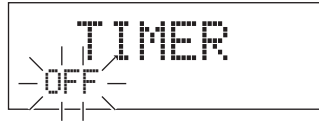


Press repeatedly.



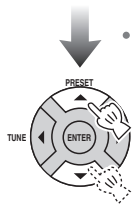
### ■ Setting the countdown timer

An easy to use countdown timer. Let simple timer remind you of timely matters, such as cooking or hundreds of other uses.



**Note**

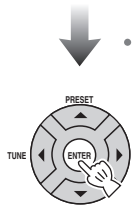
When the display is off, turn on the power before making this setting.



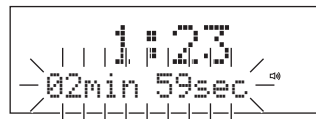
### Adjust the countdown timer setting.



Set the countdown time (1 to 60 minutes).



### Confirm.



Countdown starts.



To cancel the countdown timer, press **TIMER** twice to select "OFF".

Short beeps are sounded once the countdown is over.



- The beeps gets louder every 10 seconds.
- The volume of the beeps depends on the volume of this unit (P. 8).

### ■ To stop the alarm



or

**On the top panel**



# Troubleshooting

In case of a problem with this unit, check the following list first. If you cannot solve your problem with the suggested solutions or if your problem is not listed below, turn off and unplug this unit, and consult the nearest authorized Yamaha dealer or service center.

## General

Problem	Cause	Solution
<b>Power turns on but immediately shuts off.</b>	The power cable may be connected improperly.	Make sure the power cable is plugged into the outlet firmly (☞ P. 6).
	This unit may have received a strong electrical shock such as lightning or excessive static electricity.	Set this unit to the standby mode, and disconnect the power cable. Wait about 30 seconds, reconnect the power cable, and turn on this unit.
<b>The speakers make no sound.</b>	The volume may be set to minimum level.	Adjust the volume level (☞ P. 8).
	The mute function may be on.	Cancel the mute function (☞ P. 8).
	The input source may be incorrect.	Select the correct input source (☞ P. 8).
	The disc loaded into this unit may not be compatible.	Use a disc supported by this unit (☞ P. 30).
<b>Sound suddenly turns off.</b>	The sleep timer (☞ P. 26) may be set.	Turn on this unit and play the source again.
<b>This unit does not operate properly.</b>	This unit may have received a strong electrical shock such as lightning or excessive static electricity, or power supply may have dropped.	Set this unit to the standby mode, and disconnect the power cable. Wait about 30 seconds, connect the power cable, and turn on this unit.
<b>A digital or high-frequency equipment produces noises.</b>	This unit may be placed close to the digital or high-frequency equipment.	Place this unit away from the equipment.
<b>The clock setting has been cleared.</b>	The power to this unit may have been lost for more than a week.	Plug the power cable into the outlet firmly, and set the clock again (☞ P. 7).

## Disc playback

Problem	Cause	Solution
<b>Some button operations do not work.</b>	The disc loaded into this unit may not be compatible.	Remove the disc and then check whether this unit supports the disc or not (☞ P. 30).
<b>Playback does not start immediately after pressing ▶/II.</b>	The disc may be dirty.	Wipe the disc clean.
	The disc loaded into this unit may not be compatible.	Use a disc supported by this unit (☞ P. 30).
	When this unit was moved from a cold to warm place, condensation may have formed on the disc reading lens.	Wait for an hour or two, and try again.

<p><b>“No Disc” appears in the display even though a disc is in the disc slot, or “Disc Error” appears in the display.</b></p>	<p>The disc loaded into this unit may not be compatible.</p>	<p>Use a disc supported by this unit (P. 30).</p>
	<p>The disc may be dirty or foreign substance is stuck on it.</p>	<p>Remove the disc and then wipe the disc clean or remove the foreign substance.</p>
	<p>Disc is loaded upside-down.</p>	<p>Remove the disc and then load the disc with the labeled side facing up.</p>

## MP3/WMA file playback

Problem	Cause	Solution
<b>MP3/WMA file in the USB device is not played.</b>	The USB device is not recognized.	Set this unit to the standby mode, and turn it on again (☞ P. 6). Disconnect the device while this unit is in the standby mode. Then connect the device again and turn on this unit (☞ P. 6). Connect an AC adapter if supplied with the device.
	If the solutions above do not resolve the problem, the USB device is not playable on this unit.	Try another USB device.

## Radio reception

### ■ FM/AM

Problem	Cause	Solution
<b>The preset selecting function (☞ P. 16) does not work.</b>	The preset (memory) may have been erased.	Preset radio stations again (☞ P. 17).
<b>The preset station settings have been cleared.</b>	The power to this unit may have been lost more than a week.	Plug the power cable into the outlet firmly, and preset the stations again (☞ P. 6).

### ■ FM

Problem	Cause	Solution
<b>Too much noise during stereo broadcast.</b>	The FM antenna may be connected improperly.	Make sure the FM antenna is connected properly (☞ P. 16).
	The radio station you selected may be far from your area, or the radio wave reception is weak in your area.	Try manual tuning to improve the signal quality (☞ P. 17) or use a multi-channel outdoor antenna.
<b>Even with an outdoor antenna, radio wave reception is weak. (Sound is distorted.)</b>	Multipath reflection or other radio interferences may have occurred.	Change the height, direction, or placement of the antenna.

### ■ AM

Problem	Cause	Solution
<b>Too much noise during broadcast.</b>	The noise may be caused by atmospheric electricity, lightning, fluorescent lights, motors, or thermostat electric devices.	Connect an outdoor antenna and establish a better grounding to decrease the noise. However, it is difficult to eliminate these types of noise.
	If this unit is placed near a TV, the noise may be generated especially in the evening.	Place this unit away from a TV.
<b>The auto tuning function (☞ P. 18) does not work.</b>	The AM loop antenna may be connected improperly.	Make sure the AM loop antenna is connected properly (☞ P. 16).

## ■ DAB

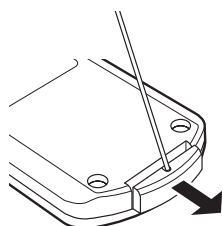
Problem	Cause	Solution
<b>Cannot tune into any DAB stations.</b>	There is no DAB coverage in your area.	
<b>The service reception is weak.</b>	The positioning of the indoor DAB antenna and/or this unit is not optimal for DAB reception.	Use “Tune aid” (☞ P. 22) to locate the best position of DAB antenna.
	The DAB signals are too weak.	Use a high-quality outdoor DAB antenna.

## Remote control

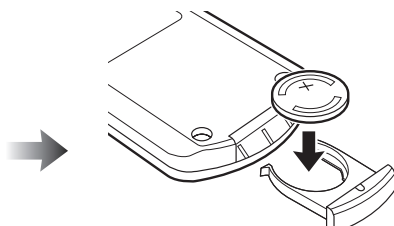
Problem	Cause	Solution
<b>The remote control does not work properly.</b>	The remote control may be operated outside its operation range.	For information on the remote control operation range, refer to “Using the remote control” (☞ P. 5).
	The remote control sensor on this unit may be exposed to direct sunlight or lighting (inverted fluorescent lamps).	Change the lighting or orientation of this unit.
	The battery may be worn out.	Replace the battery with new one (see below).
	There are obstacles between the sensor of this unit and the remote control.	Remove the obstacles.

## ■ Replacing the battery in the remote control

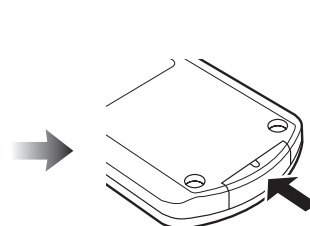
Change the battery when the operation range of the remote control decreases.



Use a straight pin to remove the cover.



Replace the battery with a new CR2025 battery.



Close the cover.

### Notes

- Insert the battery according to the polarity markings (+ and –).
- If the battery runs out, immediately remove them from the remote control to prevent an explosion or acid leak.
- If a battery starts leaking, dispose of it immediately. Be careful not to let the leaking battery acid touch your skin or clothing.
- Before inserting a new battery, wipe the compartment clean.
- Dispose of a battery according to your regional regulations.



# Notes on discs

## Disc information

This unit is designed for use with audio CD, CD-R, and CD-RW. Also, this unit can play back 8 cm (3 inch) compact discs.



This unit can play back discs bearing any of the logo marks above. A disc logo mark is printed on the disc and the disc jacket.

### Note

Do not load any other type of disc into this unit. Doing so may damage this unit.

**This unit can play back the following data discs (For MP3 and WMA files, the parenthetic words represent the compatible sampling rate and bit rate):**

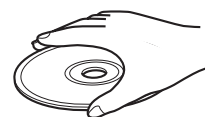
- MP3 files, recorded on CD-R/RW (fs 44.1, 48 kHz/ 32, 64, 96, 128, 192, 256, or 320 kbps and variable bit encoded MP3 files (CBR and VBR))
- WMA files, recorded on CD-R/RW (fs 44.1 kHz/ 192 kbps or less and variable bit encoded WMA files (CBR and VBR))
- ISO 9660 for CD-R/RW

### Notes

- CD-R/RW cannot be played back unless finalized.
- Some discs cannot be played back depending on the disc characteristics or recording conditions.
- Do not use any non-standard shaped discs such as a heart-shaped disc.
- Do not use discs with many scratches on their surface.
- Copyright-protected WMA files cannot be played back on this unit.
- The sampling rate 48 kHz is downsampled to 44.1 kHz for playback.

## Handling a disc

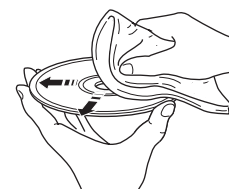
- Do not touch the surface of the disc. Hold a disc by its edge (and the center hole).
- Do not leave a disc in the disc tray when not playing.
- Do not use a pencil or pointed marker to write on the disc.
- Do not put a tape, seal, glue, or other attachments on a disc.
- Do not use a protective cover to prevent scratches.
- Do not use a disc that has a printable surface using a commercially available label printer.
- Do not expose a disc under direct sunlight, high temperature, high humidity, or a lot of dust.



Caution



- If a disc becomes dirty, wipe it with a clean, dry cloth from the center out to the edge. Do not use record cleaner or paint thinner.
- To avoid malfunction, do not use a commercially available lens cleaner.
- Do not insert more than one disc into the disc slot at one time. This can cause damages to both this unit and the discs.
- When you listen to 8 cm disc, insert the disc without 8-cm adapter.
- Do not insert any foreign objects into the disc slot.
- Do not insert a cracked, warped, or glued disc.



# DAB frequency information

## ■ Band III

### Note

When you perform the local range scanning, this unit scans only within the frequencies marked with an asterisk (\*) in the following table (see page 21).

Frequency	Channel label		
174.928 MHz	5A		209.936 MHz
176.640 MHz	5B		211.648 MHz
178.352 MHz	5C		213.360 MHz
180.064 MHz	5D		215.072 MHz
181.936 MHz	6A		216.928 MHz
183.648 MHz	6B	*	218.640 MHz
185.360 MHz	6C	*	220.352 MHz
187.072 MHz	6D	*	222.064 MHz
188.928 MHz	7A	*	223.936 MHz
190.640 MHz	7B	*	225.648 MHz
192.352 MHz	7C	*	227.360 MHz
194.064 MHz	7D	*	229.072 MHz
195.936 MHz	8A		230.784 MHz
197.648 MHz	8B		232.496 MHz
199.360 MHz	8C		234.208 MHz
201.072 MHz	8D		235.776 MHz
202.928 MHz	9A		237.488 MHz
204.640 MHz	9B		239.200 MHz
206.352 MHz	9C		
208.064 MHz	9D		
			10A
			10B
			10C
			10D
			11A
			11B
			11C
			11D
			12A
			12B
			12C
			12D
			13A
			13B
			13C
			13D
			13E
			13F

# Glossary

## ■ MP3 (MPEG-1 Audio Layer-3)

One of the audio compression methods used by MPEG. It employs the irreversible compression method, which achieves a high compression rate by thinning out the data of hardly audible part to human ears. It is said to be capable of compressing the data quantity by about 1/11 (128 kbps) while maintaining a similar audio quality to music CD.

## ■ WMA (Windows Media Audio)

An audio compression method developed by Microsoft Corporation. It employs the irreversible compression method, which achieves a high compression rate by thinning out the data of hardly audible part to human ears. It is said to be capable of compressing the data quantity by about 1/22 (64 kbps) while maintaining a similar audio quality to music CD.

## ■ Sampling frequency

The number of sampling (process for digitalizing analog signals) per second. In principle, the higher the sampling rate, the wider the frequency range that can be played back, and the higher the quantized bit rate, the finer the sound that can be reproduced.

## ■ PCM (Pulse Code Modulation)

A signal that is changed to digital format without compression. A CD is recorded with 16-bit sound at 44.1 kHz.

## ■ Track

A CD can be divided into a number of segments (tracks). Each division is called a track number.

# Specifications

## ■ PLAYER SECTION

### Playback system

- CD, CD-R/RW

### Laser

- Type..... GaAlAs
- Wave length..... 780 nm
- Emission duration..... continuous
- Laser output..... max. 44.6  $\mu$ W\*

\*This output is the value measured at a distance of about 200 mm (7.9 in) from the objective lens surface on the Optical Pick-up Block.

## ■ AMPLIFIER SECTION

- Minimum RMS output power per channel..... 10 W + 10 W
- Input sensitivity/Impedance  
PORTABLE ..... 300 mV/47 k $\Omega$
- Output level/Impedance  
PHONES (volume max)..... 470 mV/32  $\Omega$

## ■ TUNER SECTION

### FM

- Tuning range  
U.S.A. and Canada models..... 87.5 to 108.0 MHz  
Other models ..... 87.50 to 108.00 MHz

### AM

- Tuning Range  
U.S.A. and Canada models..... 530 to 1700 kHz  
Other models ..... 522 to 1629 kHz

### DAB

- Tuning Range (BAND III)..... 174 MHz to 240 MHz  
Sensitivity ..... -95 dB  
Selectivity (for adjacent channel)..... 40 dB  
Antenna input (unbalanced)..... 50  $\Omega$

## ■ GENERAL

- Power Supply  
U.S.A. and Canada models..... AC 120 V, 60 Hz  
Other models ..... AC 100 to 240 V, 50/60 Hz
- Power consumption ..... 20 W
- Standby Power consumption ..... 1.0 W or less
- Dimensions (W x H x D)..... 300 x 141.5 x 200 mm  
(11-13/16 x 5-9/16 x 7-7/8 in)
- Weight..... 2.7 kg (5.95 lbs)

Specifications are subject to change without notice.

### Taking care of the unit

When you wipe this unit, use a clean dry cloth. For heavy dirt, dampen a soft cloth in the water, wring it out, and then clean this unit up with the cloth.



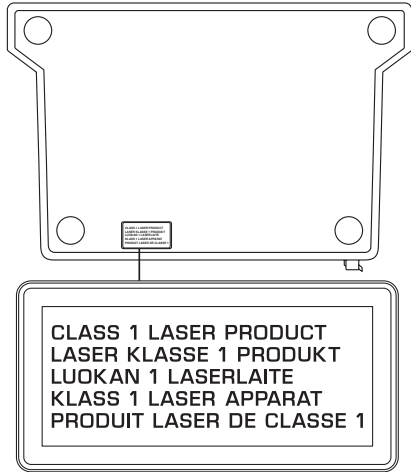
This symbol mark is according to the EU directive 2002/96/EC.

This symbol mark means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please act according to your local rules and do not dispose of your old products with your normal household waste.

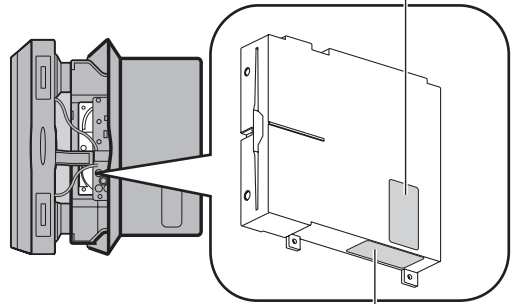
**CAUTION**

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

**CAUTION INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.**



CAUTION	- INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED, AVOID EXPOSURE TO BEAM.
VORSICHT!	UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST, NICHT DEM STRAHL AUSSETZEN!
VARNING	- OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.



ADVARSEL	- USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VAROITUS!	- SUOJAKOTEL OA EI SAA AVATA, LAITE SISÄLTÄÄ LASERDIODIN, JOKA LÄHETTÄÄ (NÄKYMÄTÖNTÄ) SILMILLE VAARALLISTA LASERSÄTELYÄ.
ADVARSEL	- USYNLIG LASERBESTRÅLING NÅR DENNE DELEN ER ÅPEN OG SIKKERHETSSPERRER ER UTKOBLET, UNNGÅ UTSETTELSE FOR STRÅLING.

**Limited Guarantee for European Economic Area (EEA) and Switzerland**

Thank you for having chosen a Yamaha product. In the unlikely event that your Yamaha product needs guarantee service, please contact the dealer from whom it was purchased. If you experience any difficulty, please contact Yamaha representative office in your country. You can find full details on our website (<http://www.yamaha-hifi.com/> or <http://www.yamaha-uk.com/> for U.K. resident).

The product is guaranteed to be free from defects in workmanship or materials for a period of two years from the date of the original purchase. Yamaha undertakes, subject to the conditions listed below, to have the faulty product or any part(s) repaired, or replaced at Yamaha's discretion, without any charge for parts or labour. Yamaha reserves the right to replace a product with that of a similar kind and/or value and condition, where a model has been discontinued or is considered uneconomic to repair.

**Conditions**

1. The original invoice or sales receipt (showing date of purchase, product code and dealer's name) **MUST** accompany the defective product, along with a statement detailing the fault. In the absence of this clear proof of purchase, Yamaha reserves the right to refuse to provide free of charge service and the product may be returned at the customer's expense.
2. The product **MUST** have been purchased from an **AUTHORISED** Yamaha dealer within the European Economic Area (EEA) or Switzerland.
3. The product must not have been the subject of any modifications or alterations, unless authorised in writing by Yamaha.
4. The following are excluded from this guarantee:
  - a. Periodic maintenance and repair or replacement of parts due to normal wear and tear.
  - b. Damage resulting from:
    - (1) Repairs performed by the customer himself or by an unauthorised third party.
    - (2) Inadequate packaging or mishandling, when the product is in transit from the customer. Please note that it is the customer's responsibility to ensure the product is adequately packaged when returning the product for repair.
    - (3) Misuse, including but not limited to (a) failure to use the product for its normal purpose or in accordance with Yamaha's instructions on the proper use, maintenance and storage, and (b) installation or use of the product in a manner inconsistent with the technical or safety standards in force in the country where it is used.
    - (4) Accidents, lightning, water, fire, improper ventilation, battery leakage or any cause beyond Yamaha's control.
    - (5) Defects of the system into which this product is incorporated and/or incompatibility with third party products.
    - (6) Use of a product imported into the EEA and/or Switzerland, not by Yamaha, where that product does not conform to the technical or safety standards of the country of use and/or to the standard specification of a product sold by Yamaha in the EEA and/or Switzerland.
    - (7) Non AV (Audio Visual) related products.  
(Products subject to "Yamaha AV Guarantee Statement" are defined in our website at <http://www.yamaha-hifi.com/> or <http://www.yamaha-uk.com/> for U.K. resident.)
5. Where the guarantee differs between the country of purchase and the country of use of the product, the guarantee of the country of use shall apply.
6. Yamaha may not be held responsible for any losses or damages, whether direct, consequential or otherwise, save for the repair or replacement of the product.
7. Please backup any custom settings or data, as Yamaha may not be held responsible for any alteration or loss to such settings or data.
8. This guarantee does not affect the consumer's statutory rights under applicable national laws in force or the consumer's rights against the dealer arising from their sales/purchase contract.



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**YAMAHA CANADA MUSIC LTD.** 135 MILNER AVE., SCARBOROUGH, ONTARIO M1S 3R1, CANADA  
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