Pioneer

SX-N30
SX-N30DAB

Network Stereo Receiver

Bluetooth®

Wi Fi CERTIFIED

Hi·Res AUDIO

Discover the benefits of registering your product online at
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Operating Instructions
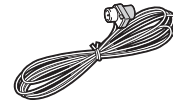
EAC

Contents

Supplied accessories

Before use, check the packaging for the main unit and the accessories below.

■ Remote control × 1

■ AAA/IEC R03 dry cell batteries × 2

■ (SX-N30) AM loop antenna × 1
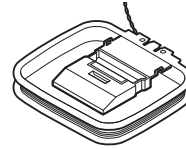
■ (SX-N30) FM wire antenna × 1

■ (SX-N30DAB) DAB/FM wire antenna × 1

■ Warranty card × 1

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

PORTABLE CART WARNING

S3125A

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Damage Requiring Service
Unplug the apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions:
A. When the power-supply cord or plug is damaged,
B. If liquid has been spilled, or objects have fallen into the apparatus,
C. If the apparatus has been exposed to rain or water,
D. If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation,
E. If the apparatus has been dropped or damaged in any way, and
F. When the apparatus exhibits a distinct change in performance this indicates a need for service.
16. Object and Liquid Entry
Never push objects of any kind into the apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.
Don't put candles or other burning objects on top of this unit.
17. Batteries
Always consider the environmental issues and follow local regulations when disposing of batteries.
18. If you install the apparatus in a built-in installation, such as a bookcase or rack, ensure that there is adequate ventilation.
Leave 20 cm (8") of free space at the top and sides and 10 cm (4") at the rear. The rear edge of the shelf or board above the apparatus shall be set 10 cm (4") away from the rear panel or wall, creating a flue-like gap for warm air to escape.

Precautions

1. **Recording Copyright**—Unless it's for personal use only, recording copyrighted material is illegal without the permission of the copyright holder.

2. **AC Fuse**—The AC fuse inside the unit is not user-serviceable. If you cannot turn on the unit, contact the dealer from whom you purchased this unit.

3. **Care**—Occasionally you should dust the unit all over with a soft cloth. For stubborn stains, use a soft cloth dampened with a weak solution of mild detergent and water. Dry the unit immediately afterwards with a clean cloth. Don't use abrasive cloths, thinners, alcohol, or other chemical solvents, because they may damage the finish or remove the panel lettering.

4. **Power**
   WARNING
   BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.
   AC outlet voltages vary from country to country. Make sure that the voltage in your area meets the voltage requirements printed on the unit's rear panel (e.g., AC 230 V, 50 Hz or AC 120 V, 60 Hz).

   The power cord plug is used to disconnect this unit from the AC power source. Make sure that the plug is readily operable (easily accessible) at all times.

   For models with [POWER] button, or with both [POWER] and [ON/STANDBY] buttons:
   Pressing the [POWER] button to select OFF mode does not fully disconnect from the mains. If you do not intend to use the unit for an extended period, remove the power cord from the AC outlet.

   For models with [ON/STANDBY] button only:
   Pressing the [ON/STANDBY] button to select Standby mode does not fully disconnect from the mains. If you do not intend to use the unit for an extended period, remove the power cord from the AC outlet.

5. **Preventing Hearing Loss**
   Caution
   Excessive sound pressure from earphones and headphones can cause hearing loss.

6. **Batteries and Heat Exposure**
   Warning
   Batteries (battery pack or batteries installed) shall not be exposed to excessive heat as sunshine, fire or the like.

7. **Never Touch this Unit with Wet Hands**—Never handle this unit or its power cord while your hands are wet or damp. If water or any other liquid gets inside this unit, have it checked by the dealer from whom you purchased this unit.

8. **Handling Notes**
   - If you need to transport this unit, use the original packaging to pack it how it was when you originally bought it.
   - Do not leave rubber or plastic items on this unit for a long time, because they may leave marks on the case.
   - This unit's top and rear panels may get warm after prolonged use. This is normal.
   - If you do not use this unit for a long time, it may not work properly the next time you turn it on, so be sure to use it occasionally.

For British models
Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.

IMPORTANT
The wires in the 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.

IMPORTANT
The plug is fitted with an appropriate fuse. If the fuse needs to be replaced, the replacement fuse must approved by ASTA or BSI to BS1362 and have the same ampere rating as that indicated on the plug. Check for the ASTA mark or the BSI mark on the body of the fuse. If the power cord's plug is not suitable for your socket outlets, cut it off and fit a suitable plug. Fit a suitable fuse in the plug.

For European Models
Declaration of Conformity

We declare, under our sole responsibility, that this product complies with the standards:

$C\epsilon$

   – Safety
   – Limits and methods of measurement of radio disturbance characteristics
   – Limits for harmonic current emissions
   – Limitation of voltage changes, voltage fluctuations and flicker
   – RoHS Directive, 2011/65/EU
   – Hereby, Onkyo & Pioneer Corporation, declares that this SX-N30/SX-N30DAB is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
   – С настоящето, Onkyo & Pioneer Corporation, декларира, че SX-N30/SX-N30DAB е в съответствие със съществените изисквания и другитеприложими разпоредби на Директива 1999/5/EC.

– Onkyo & Pioneer Corporation tímto prohlašuje, že SX-N30/SX-N30DAB splňuje základní požadavky a všechna příslušná ustanoveni Směrnice 1999/5/ES.

– Undertegnede Onkyo & Pioneer Corporation erklærer herved, at følgende udstyr SX-N30/SX-N30DAB overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

– Hiermit erklärt Onkyo & Pioneer Corporation, dass sich das Gerät SX-N30/SX-N30DAB in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

– Käesolevaga kinnitab Onkyo & Pioneer Corporation seadme SX-N30/SX-N30DAB vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

– ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Ο ΚΑΤΑΣΚΕΥΑΣΤΗΣ Onkyo & Pioneer Corporation ΔΗΛΩΝΕΙ ΟΤΙ SX-N30/SX-N30DAB ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ

– Por la presente, Onkyo & Pioneer Corporation, declara que este SX-N30/SX-N30DAB cumple con los requisites esenciales y otras exigencias relevantes de la Directiva 1999/5/EC.

– Par la présente, Onkyo & Pioneer Corporation déclare que l'appareil SX-N30/SX-N30DAB est conforme aux exigencies essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

– Con la presente Onkyo & Pioneer Corporation dichiara che questo SX-N30/SX-N30DAB è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

– Ar šo Onkyo & Pioneer Corporation deklarē, ka SX-N30/SX-N30DAB atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

– Šiuo Onkyo & Pioneer Corporation deklaruoja, kad šis SX-N30/SX-N30DAB atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

– A Onkyo & Pioneer Corporation ezzennel kijelenti, hogy a SX-N30/SX-N30DAB típusú berendezés teljesíti az alapvető követelményeket és más 1999/5/EK irányelvben meghatározott vonatkozó rendelkezéseket.

– Hierbij verklaart Onkyo & Pioneer Corporation dat het toestel l SX-N30/SX-N30DAB in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

– Niniejszym Onkyo & Pioneer Corporation deklaruje że SX-N30/SX-N30DAB jest zgodny z zasadniczymi wymaganiami i innymi właściwymi postanowieniami Dyrektywy 1999/5/EC.

– Eu, Onkyo & Pioneer Corporation, declaro que o SX-N30/SX-N30DAB cumpre os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.

– Prin prezenta, Onkyo & Pioneer Corporation, declară că aparatul SX-N30/SX-N30DAB este în conformitate cu cerinţele esenţiale şi cu alte prevederi pertinente ale Directivei 1999/5/CE.

– Onkyo & Pioneer Corporation týmto vyhlasuje, že SX-N30/SX-N30DAB a spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

– Onkyo & Pioneer Corporation izjavlja, da je ta SX-N30/SX-N30DAB v skladu z bistvenimi zahtevami in drugimi relevantnimi določili direktive 1999/5/EC.

– Onkyo & Pioneer Corporation vakuuttaa täten että SX-N30/SX-N30DAB tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

– Härmed förklarar Onkyo & Pioneer Corporation att denna SX-N30/SX-N30DAB följer de väsentliga kraven och andra relevanta stadgar i Direktiv 1999/5/EC.

– Hér með lýsir Onkyo & Pioneer Corporation því yfir að varan SX-N30/SX-N30DAB er í samræmi við grunnkröfur og aðrar kröfur sem gerðar eru í tilskipun 1999/5/EC.

– Onkyo & Pioneer Corporation erklærer herved at denne SX-N30/SX-N30DAB er i overensstemmelse med vesentlige krav og andre relevante bestemmelser i direktiv 1999/5/EC.

– Ovime Onkyo & Pioneer Corporation, potvrđuje da je SX-N30/SX-N30DAB u suglasnosti sa osnovnim zahtjevima i ostalim relevantnim odredbama Direktive 1999/5/EC.

WEEE
http://www.onkyo.com/manual/weee/weee.pdf

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Features

A wide range of playback possibilities with Network Features

Connect to the router to the network to access a vast store of music. You can connect to the network via a wireless LAN router by Wi-Fi®.

- Many of the major Internet radio services such as TuneIn Radio are preregistered in the menu
- Supports AirPlay®. You can wirelessly play music files stored on an iPhone®, iPod touch®, or iPad®
- Supports Spotify. Play music from Spotify with high sound quality
- Home network feature that allows you to play music files from your computer (DLNA, Home Media)

Plays high-quality 192 kHz/24 bit high-res sources

Hi-Res AUDIO

You can play high-res sources in formats such as WAV, FLAC, or DSD files (*) distributed over the Internet by using the home network feature or connecting a USB storage device.

- **Playback through the home network feature**

  By connecting this unit to the same router as your computer, you can play the high-res sources you downloaded to your computer using the DLNA or Home Media features with simple operations on the remote control.

- **Playback from connected USB storage devices**

  By connecting the USB storage device containing high-res sources to this unit, you can play them with simple operations on the remote control.

  * The unit supports WAV and FLAC files up to 192 kHz/24 bit (up to 96 kHz when playing WAV and FLAC files from a USB storage device). The unit can play 2.8 MHz and 5.6 MHz DSD files (only 2.8 MHz when playing from a USB storage device). See "Compatible devices/media/file formats" (⇨ 40) for details.

High-quality, fully-fledged audio design

- High-powered discrete amplifier that can drive even a large speaker system
- High-power transformer with silicon steel shielding to reduce leakage flux
- Closed loop circuit to stabilize the ground potential
- Heavy duty parts supported from below by the oval chassis
- Direct feature that outputs pure sound as it was intended by bypassing the tone control circuits during play
- Two speaker terminal systems, A and B, SUBWOOFER PRE OUT jack
- DIGITAL IN and LINE IN terminals to play external players. PHONO terminal that supports connection to a record player with a MM cartridge

Other functions

- Front USB port for playing music files on a USB storage device
- *Bluetooth* function
- SX-N30 is equipped with an AM/FM tuner capable of presetting up to 40 stations
  SX-N30DAB is equipped with a DAB/FM tuner capable of presetting up to 40 stations
- Opt1 In Wakeup feature that starts this unit when a player connected with a digital optical cable starts
- A wide variety of music files are supported, including MP3, WAV, FLAC, DSD, WMA, MPEG4 AAC (with the home network feature and connection of a USB storage device)

SX-N30 ControlApp (smartphone app)
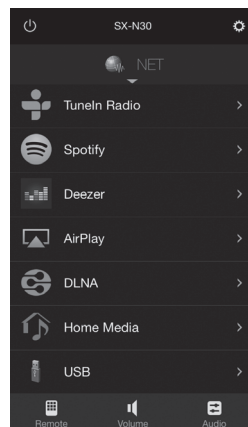
- Input source selection, volume adjustments, and other basic operations possible on your smartphone, which serves as the unit's remote control
- GUI screens that enable intuitive track selection operations on the Internet radio and DLNA
- Streaming of music data stored on your smartphone
Supports iOS and Android™ devices. You will need a wireless LAN environment to use apps. The contents of network services are subject to change.

Names and functions of parts
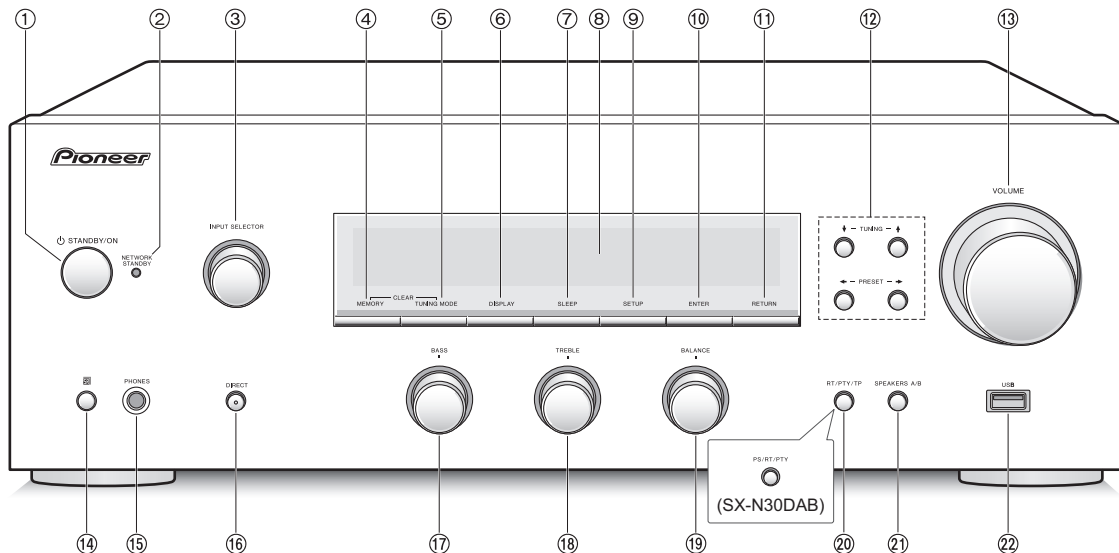
Front

① **⏻ STANDBY/ON button:** Press this button to turn the unit on or put it in standby mode.

② **NETWORK STANDBY LED:** Lights when any of Network Standby, Bluetooth Wakeup, or Opt1 In Wakeup are on.

③ **INPUT SELECTOR control:** Selects the source to playback.Turn the control to switch the source in the following order; BD/DVD → SAT/CBL → AUX → GAME → SACD/CD → PHONO → TV → AM (SX-N30), DAB (SX-N30DAB) → FM → NET → BLUETOOTH

④ **MEMORY button:** Press this button to register a AM/DAB/FM station.

⑤ **TUNING MODE button:** Press this button to switch the tuning mode for AM/FM broadcasts.
Press also to select the DAB station display order.

⑥ **DISPLAY button:** Change the information shown.

⑦ **SLEEP button:** Press this button to set the sleep timer.

⑧ **Display (⇨ 8)**

⑨ **SETUP button:** Used to display the setup menu.

⑩ **ENTER button:** Press this button to confirm the selection.

⑪ **RETURN button:** Returns the display to the previous state during setting or operation.

⑫ **Direction/▾ TUNING ▴ / ◂ PRESET ▸ buttons:** Used to move the cursor. When listening to AM/DAB/FM broadcasting, tune in to the station with ▾ TUNING ▴ or select the registered station with ◂ PRESET ▸ .

⑬ **VOLUME control:** Used to adjust the volume.

⑭ **Remote control signal receiver**

⑮ **PHONES terminal:** Connect headphones with a standard plug.

⑯ **DIRECT button:** Selects the listening mode. The mode changes Direct → Pure Direct → Stereo each time you press the button.
* Direct: Outputs pure sound as it was intended by bypassing the tone control circuits during play. The "DIRECT" indicator on the display lights when selected. "Bass" and "Treble" are disabled. Pure Direct: Tone control circuits are bypassed during play, and the display, which also causes noise, is turned off, enabling an even purer sound. The LED lights when selected. "Bass" and "Treble" are disabled.

⑰ **BASS control:** Adjusts the bass level.

⑱ **TREBLE control:** Adjusts the treble level.

⑲ **BALANCE control:** Adjusts the audio output balance between the left and right speakers.

⑳ **RT/PTY/TP button** (SX-N30)**, PS/RT/PTY button** (SX-N30DAB)**:** Use when receiving stations transmitting text information.

㉑ **SPEAKERS A/B button:** Select the terminals to output audio from between SPEAKERS A/B.

㉒ **USB port:** A USB storage device is connected so that music files stored in it can be played.
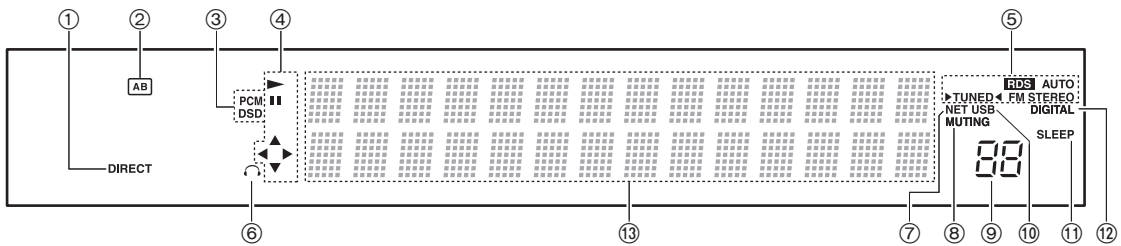
Display

① **DIRECT indicator:** This indicator appears when Direct of the audio quality setup is on.
② **Speaker selection display (A/B):** Displays the selected speaker terminals.
③ **PCM/DSD:** Lights according to the type of input digital signals.
④ **Playback/Pause/Cursor display**
⑤ **AM/DAB/FM reception statuses**
　AUTO: This indicator appears when AM/FM Auto Tuning Mode is selected.
　FM STEREO: This indicator appears when the unit is tuned into a stereo FM broadcast.
　RDS: This indicator appears when the unit receives RDS information.
　►TUNED◄: This indicator appears when the unit is tuned into a radio station.
⑥ **Headphone indicator:** Stays lit when headphones are connected.
⑦ **NET:** Lights when "NET" is selected as the input source. It will flash if the connection is not correct.
⑧ **MUTING indicator:** This indicator flashes when audio is muted temporarily.
⑨ **Volume level**
⑩ **USB:** Lights when "USB" is selected as the input source. It will flash if the connection is not correct.
⑪ **SLEEP indicator:** This indicator appears when the sleep timer is set.
⑫ **DIGITAL:** Lights when the selected input source is digital.

⑬ **Message display area:** Track information and menus appear here.
　The following icons appear.

　　⌷ : Folder
　　♫ : Track/Broadcast station name
　　► : Playing back
　　‖ : Paused
　　⫸ : Searching forward
　　⫷ : Searching backward
　　⊞ : Artist name
　　⊞ : Album name
　　⟳ : Repeat all tracks
　　1⟳ : Repeat one track
　　⌷⟳ : Repeat tracks in the folder or playlist (DLNA)
　　⤭ : Random
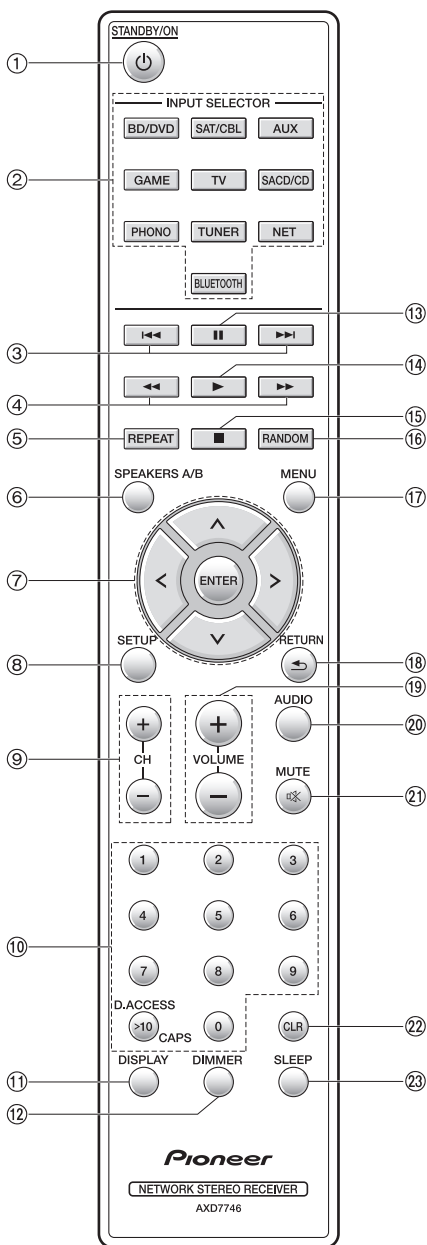
Remote control

① ⏻ **STANDBY/ON button:** Press this button to turn the unit on or put it in standby mode.
② **INPUT SELECTOR buttons:** Use these buttons to select the source to playback.
③ **Skip (|◄◄ / ►►|) buttons** (*)
④ **Search (◄◄ / ►►) buttons** (*)
⑤ **REPEAT button:** Turns repeat play on and off and selects the mode. (*)
⑥ **SPEAKERS A/B button:** Select the terminals to output audio from between SPEAKERS A/B.
⑦ **Direction (∧ / ∨ / < / >)/ENTER buttons:** Select items with the direction buttons and press the ENTER button to confirm.
⑧ **SETUP button:** Used to display the setup menu.
⑨ **CH (+/−) buttons:** Select registered stations.
⑩ **Number buttons**
⑪ **DISPLAY button:** Change the information shown.
⑫ **DIMMER button:** Use this button to switch the display's brightness between normal, moderately dark and dark.
⑬ **Pause (▌▌) button** (*)
⑭ **Playback (►) button** (*)
⑮ **Stop (■) button** (*)
⑯ **RANDOM button:** Plays tracks in the folder or playlist (DLNA) randomly. (*)
⑰ **MENU button:** Press this button to display the menu.
⑱ **RETURN button:** Returns the display to the previous state during setting or operation.
⑲ **VOLUME (+/−) button**
⑳ **AUDIO button:** Use this button to adjust sound quality, etc.
㉑ **MUTE button:** Temporarily mutes audio.
㉒ **CLR button:** Use this button to clear the characters that you have input.
㉓ **SLEEP button:** Press this button to set the sleep timer.

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* Operate with USB storage device play or the home network feature (DLNA, Home Media).

Remote control sensor

Batteries (AAA/R03)

20°
30°
30°
20°
5 m or less

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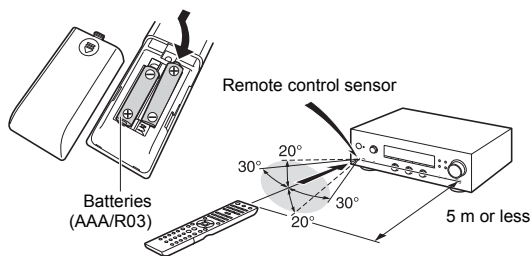
* If you do not use the remote control for a long time, remove the batteries to prevent leakage. Note that keeping consumed batteries inside may cause corrosion resulting in damage of the remote control.

9
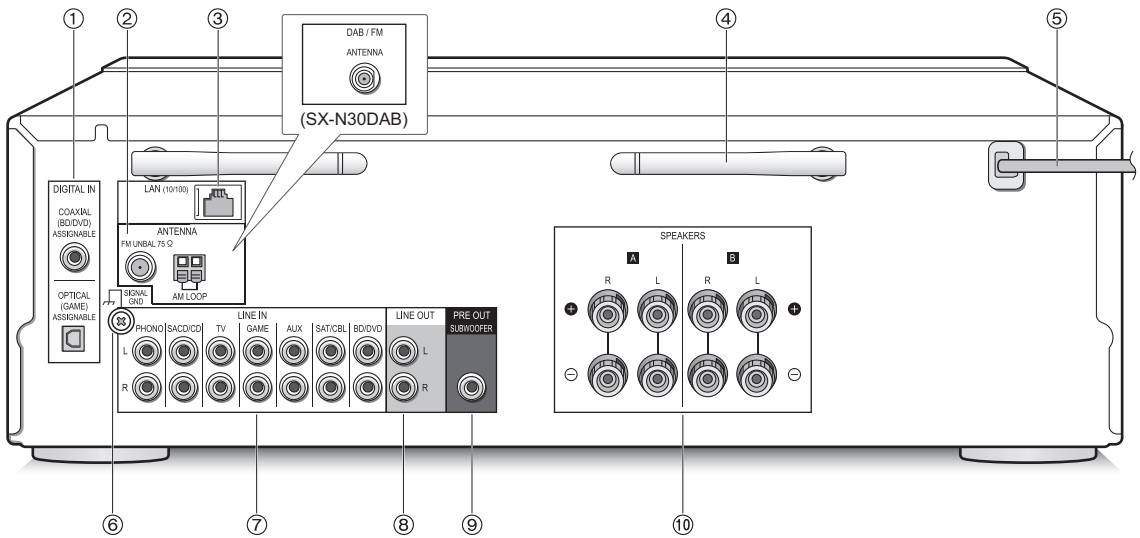
Rear

① **DIGITAL IN OPTICAL/COAXIAL terminals:**
Connected to players. Use a digital optical cable or digital coaxial cable for connection with the digital audio output jack of a player.

② **FM UNBAL 75Ω/AM LOOP ANTENNA terminals** (SX-N30)**, DAB/FM ANTENNA terminal** (SX-N30DAB)**:** The supplied antennas are connected.

③ **LAN (10/100) port:** Connect to the router with an Ethernet cable.

④ **Wireless antenna:** Used for Wi-Fi connection or when using a *Bluetooth* enabled device. Adjust their angles according to the connection status.
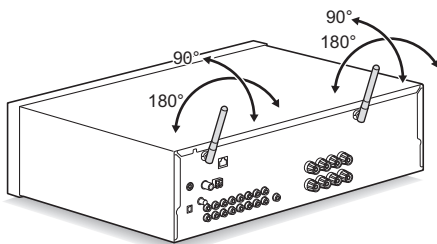
⑤ **Power cord:** Connect the power cord to an AC outlet. Disconnect the power cord only after putting the unit into standby mode.

  * Turning on the unit may cause a momentary power surge that might interfere with other electrical equipment on the same circuit. If this is a problem, plug the unit into a different branch circuit.

⑥ **SIGNAL GND terminal:** Connect if the record player has a ground wire.

⑦ **LINE IN terminals:** Connected to players. Use an RCA cable for connection with the LINE OUT terminal of a player.

⑧ **LINE OUT terminals:** Use when connecting recording devices, such as a cassette tape deck. Use an RCA cable to connect to the LINE IN terminal on a recording device.

⑨ **SUBWOOFER PRE OUT jack:** Connect a subwoofer with built-in amplifier to amplify bass output.

⑩ **SPEAKERS A/B terminals:** You can connect a set of left and right speakers to each of the A/B terminals.

Connections

● The power cord must be connected only after all other cable connections are completed.

Connecting speakers

Right speaker

Left speaker
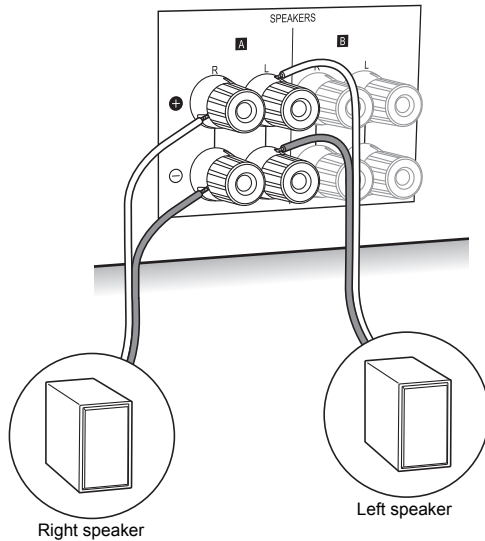
When connecting only one set of speakers, connect to the SPEAKERS A terminals as shown in the illustration. Make correct connection between the unit's jacks and speaker's jacks (+ to + and − to −) for each channel. If connection is wrong, a bass sound may become poor due to reverse phase.

• Connect speakers with 4 Ω to 16 Ω impedance. You have to change the impedance setting if any of the speakers have 4 Ω or more to less than 6 Ω impedance. See setup menu "3. Hardware" - "Speaker Impedance" (⇨ 34).

12 - 15 mm
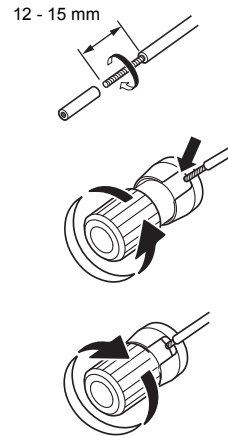
Twist the wires of the speaker cable tightly before inserting into the terminals. After inserting the cables, tighten the terminals firmly by turning to the right.

When also connecting to the SPEAKERS B terminals: Connect using the same method described for SPEAKERS A. Connect speakers with 8 Ω to 16 Ω impedance to the both A/B terminals. In this case, change the impedance setting on this unit. See setup menu "3. Hardware"-"Speaker Impedance" (⇨ 34).

• Press the SPEAKERS A/B button on the unit or the remote control to switch the speakers. (The selection changes in the order SPEAKER A→SPEAKER B→SPEAKER A+B.)

When connecting a subwoofer:
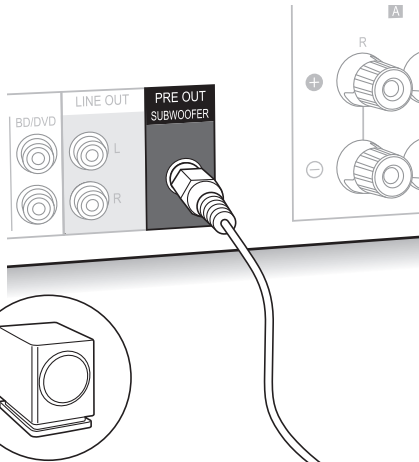
Subwoofer with built-in amplifier

Use a subwoofer cable to connect the SUBWOOFER PRE OUT jack to the LINE INPUT terminal on a subwoofer with built-in amplifier.

- Audio is not output from the SUBWOOFER PRE OUT jack when you set SPEAKER B as the speakers to output audio.

The following connections can cause damage so please be careful.
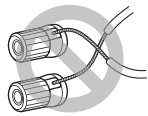
Short-circuiting the + cable and − cable

Contacting the cable core to the rear panel of the unit
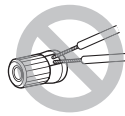
Connecting two or more cables to one speaker terminal of this unit
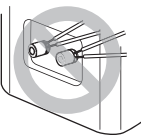
Connecting two or more cables to one terminal of a speaker

Connecting a player

You can enjoy the audio from players such as televisions, Blu-ray disc players, and game consoles.

DIGITAL IN connection

If the player has an optical or coaxial digital output terminal, connect using either a digital optical cable or digital coaxial cable to one of the DIGITAL IN terminals. To play, select the terminal name with the INPUT SELECTOR.
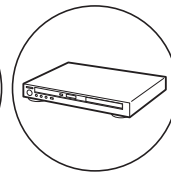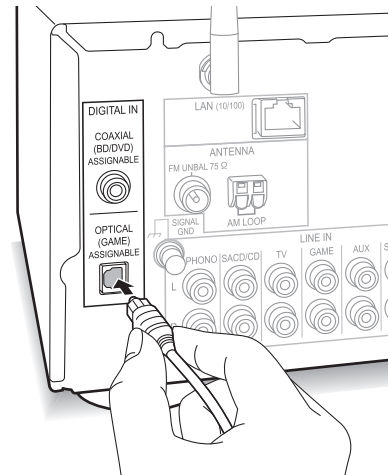
Note that this unit is equipped with an "Opt1 In Wakeup feature" so that when play starts on a player connected to the OPTICAL (GAME) terminal, this unit comes on and the INPUT SELECTOR automatically changes. (⇨ 34)

- The DIGITAL IN terminals can only handle PCM signals.
- As the digital in optical jack of the unit has a cover, push in the cable straight against the cover as it is turned inside.

LINE IN connection

Use an RCA cable to connect to the LINE OUT terminal on the player to one of the LINE IN terminal on this unit. To play, select the terminal name with the INPUT SELECTOR.
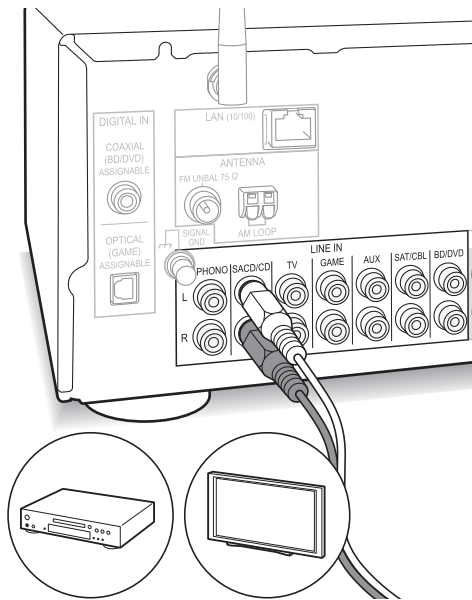
• Connect the record player (MM cartridge) to the LINE IN PHONO terminal. If the record player has a ground wire, connect it to the SIGNAL GND terminal of this unit. Note that if the connected record player has a built-in audio equalizer, connect it to a LINE IN terminal other than PHONO.

Antenna connections

Connect the antennas to listen to AM/DAB/FM broadcast.
• You may be unable to receive radio transmissions in some areas even if you connect an antenna.

AM antenna (SX-N30)
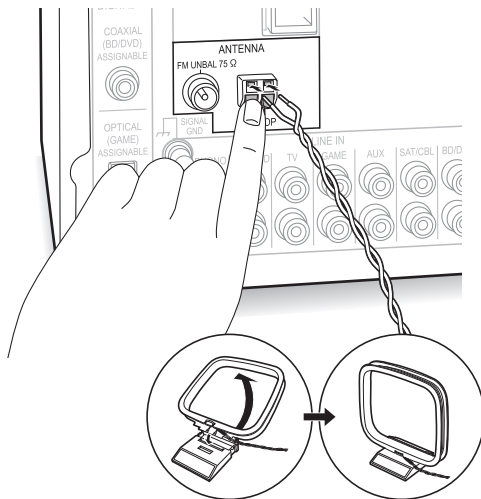
Assemble the AM loop antenna (supplied) and connect it to the AM LOOP terminal.

FM antenna (SX-N30)
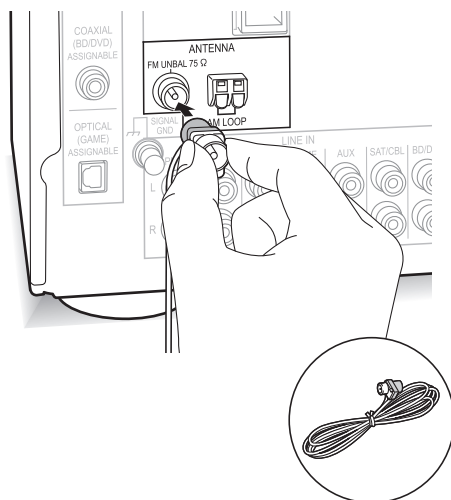
Connect the supplied FM antenna to the FM UNBAL 75Ω terminal. Make sure the plug is pushed in all the way. Use a tack or similar to fix the antenna to a wall.

DAB/FM antenna (SX-N30DAB)
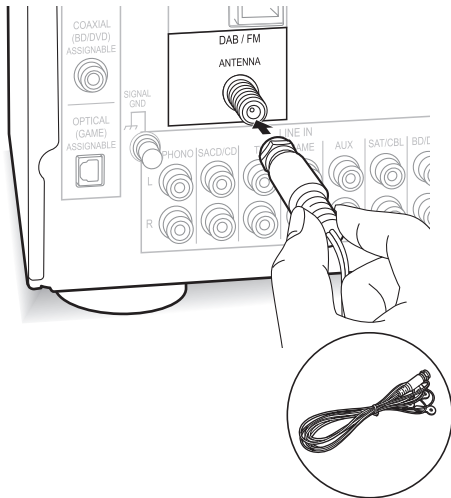
Connect the supplied DAB/FM antenna to the DAB/FM terminal. Make sure the plug is pushed in all the way, then fix in place by turning the nut to the right. Use a tack or similar to fix the antenna to a wall.
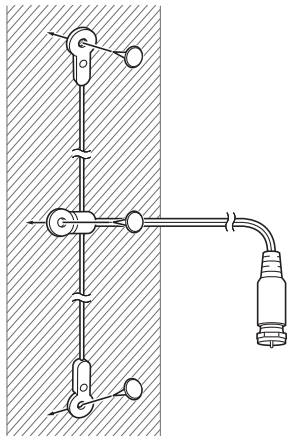
Network connection

This enables you to enjoy Internet radio services (*), AirPlay, Spotify, and the home network features. Connect to the same router as the smartphone, computer, or NAS you are going to use.

* You need to be able to connect to the Internet.

Wired connection
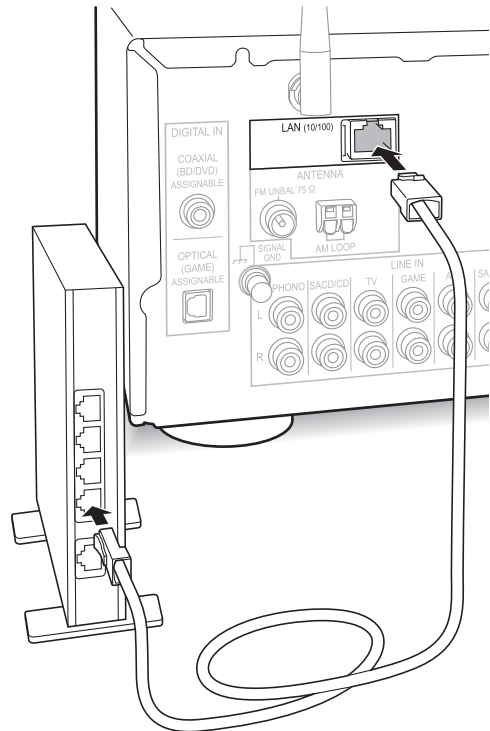
Connect to the router to this unit's LAN (10/100) port with an Ethernet cable (*).

* Use a shielded CAT5 Ethernet cable (straight-type).

Wi-Fi® connection

Set up the Wi-Fi connection with the access point (a wireless LAN router, for example). Set with the remote control while watching the display on the main unit.

> **Make the following preparations.**
> Write down the SSID and password (key) of the access point if they are shown in the label of the main body.
> * The unit supports Wi-Fi connection with 2.4 GHz access point.

STANDBY/ON

∧, ∨, <, >, ENTER

SETUP

RETURN
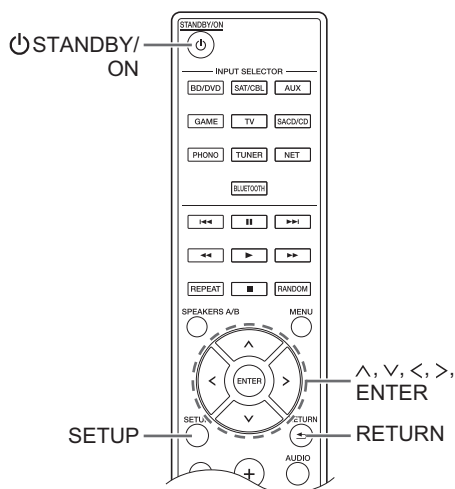
1. Turn on the unit.
2. Press the SETUP button.
   The setup menu appears on the display.
3. Use the direction (∧/∨) buttons to select "5. Network" on the display and press the ENTER button.
   • If it is not displayed, wait for a moment until the network feature starts.

```
5.Network
```

4. Use the direction (∧/∨) buttons to select "Wi-Fi" on the display, and then use the direction (</>) buttons to select "On".

```
Wi-Fi
     :     On
```

5. Use the direction (∧/∨) buttons to select "Wi-Fi Setup", and then press the ENTER button when "Start" is displayed.

```
Wi-Fi  Setup
[Enter]:Start
```

6. Use the direction (∧/∨) buttons to select the method of Wi-Fi connection and press the ENTER button.
   Scan Networks: Use this unit to search for and connect to a wireless LAN router or other access point.
   Use iOS Device: If you are using a device using iOS 7 or later, you can connect easily with Wi-Fi just by sharing the iOS device's Wi-Fi settings with this unit.

■ **If you selected "Scan Networks"**
7. Use the direction (∧/∨) buttons to select the SSID of the access point and press the ENTER button.

SSID

```
XXXXX
[Enter]:Select
```

   • If you changed the initial setting of the access point to skip password entry, step 8 is unnecessary.
   • If you changed the initial setting of the access point to hide the SSID, see "When the access point is not displayed".
8. Press the direction (∧/∨) buttons to select an authentication method from the following and press the ENTER button.

   Enter Password: Enter the password of the access point to establish connection.
   Enter the password on the display.
   • For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".

   Push Button: Use the automatic setting button of the access point to establish connection.
   Hold down the automatic setting button of the access point for the necessary seconds, select "OK" on the display and press the ENTER button.

   PIN code: Select this method when the automatic setting button of the access point is beyond the reach. The 8-digit PIN code is displayed. Register the displayed PIN code to the access point, select "OK" on the display and press the ENTER button. For how to register the PIN code to the access point, refer to its instruction manual.

15

When the access point is not displayed
Use the direction (＞) button to select the "Other..." on the display and press the ENTER button. Input the SSID. When "Security" is displayed on the display, make the following settings according to the router setting.
• For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".

■ **WPA/WPA2 method**
Use the direction (∧ / ∨) buttons to select the "WPA" or "WPA2" on the display and press the ENTER button. Input the password.

■ **WEP method**
Use the direction (∧ / ∨) buttons to select the "WEP" on the display and press the ENTER button. Input the password. When "Default Key" is displayed on the display, select the Default Key ID and press the ENTER button.
• If encryption setting has not been made on the wireless LAN router, use the direction (∧ / ∨) buttons to select the "None" on the "Security" display and press the ENTER button.

■ **If you selected "Use iOS Device"**
7. On the iOS device, go to "Settings"-"Wi-Fi" and turn on the setting, then select this unit in "SETUP NEW AIRPLAY SPEAKER".
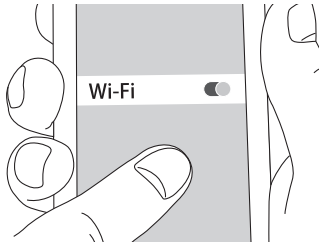
8. Tap "Next".

When connection is successful: The setup menu ends automatically.
• You can confirm the connection status by pressing the SETUP button and selecting "5. Network"-"Status".

```
Status
     :Connected
```

Listening to Internet radio

Router

This unit
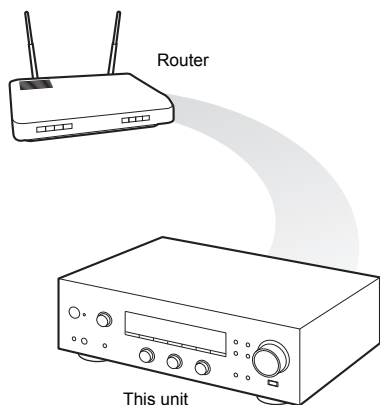
Some Internet radio services are registered to the unit by default. You can display the desired service, menu or radio station on the display and play the radio with simple remote control operation.

```
 NET
   TuneIn Radio
```

```
 NET
   Deezer
```
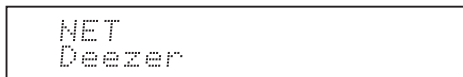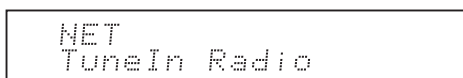
• Services available may vary depending on the region. If service from the service provider stops, use of that network services and contents might cease to be possible.

You can also listen to broadcast stations that are not included in the preset services by registering them to "My Favorites", which appears when you press the NET button.

```
 NET
   My Favorites
```
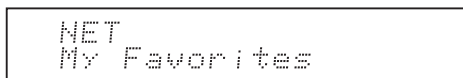
TuneIn Radio

With the radio stations and the on-demand programs registered, TuneIn Radio is a service where you can enjoy music, sports and news from all over the world.

NET

MENU

∧, ∨, <, >, ENTER

RETURN
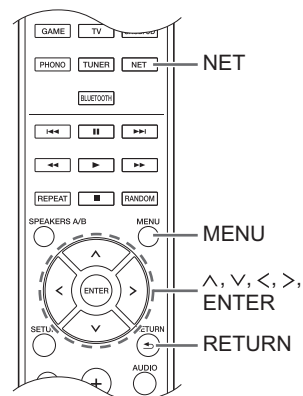
Playing back

1. Press the NET button.
2. Use the direction (∧/∨) buttons to select "TuneIn Radio" on the display and press the ENTER button.

```
 NET
   TuneIn Radio
```
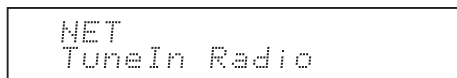
3. Press the direction (∧/∨) buttons to select a folder or menu item from the "TuneIn Radio" top list, and press the ENTER button.
   • The folders and menu items displayed on the top list are provided by the Internet radio service and categorised by genre, etc.
4. Use the direction (∧/∨) buttons to select a radio station and press the ENTER button.
   Playback starts.

• If there are more than 10 items when you select a folder or menu, you can move through the list numbers 10 at a time each time you press the direction (</>) buttons.

TuneIn Radio Menu
If you press the MENU button or ENTER button while playing TuneIn Radio, the following TuneIn Radio menu items appear. To use each function, use the direction (∧/∨) buttons to select a menu item on the display, and press the ENTER button. Menu items to be displayed differ depending on the broadcast station you are playing.

Add to My Presets: Registers radio stations and programs in your "My Presets" folder within TuneIn Radio. (When an item has been registered, the "My Presets" folder will be added to the "TuneIn Radio" top list.)
Remove from My Presets: Deletes a radio station or program from your "My Presets" folder.
Clear recents: Clears all radio stations and programs from the "Recents" folder within "TuneIn Radio" top list.
Add to My Favorites: Registers radio stations and programs in "My Favorites".
• Other menu items include "View Schedule", which displays the program guide of radio stations and "Report a problem".

Regarding the TuneIn Radio Account
Creating an account on the TuneIn Radio website (tunein.com) and logging in it from the unit allows you to automatically add radio stations and programs to your "My Presets" folder on the unit as you follow them on the website.
To log in from the unit: Select "Login" - "I have a TuneIn account" in the "TuneIn Radio" top list on the unit, and then enter your user name and password. If you select "Login" - "Login with a registration code" to display a registration code, access My Info on the TuneIn Radio website, and specify the device identity with the registration code, you will stay logged into the website until you log out from the unit.
• For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".

Registering your favorite radio stations (My Favorites)

You can listen to your favorite radio stations by registering them to "My Favorites", which appears when you press the NET button. "My Favorites" allows you to register up to 40 stations.

```
NET
My Favorites
```
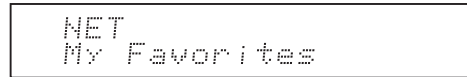
• This unit supports Internet radio stations that use the PLS, M3U and podcast (RSS) formats. Even if an Internet radio station uses one of these formats, playback might not always be possible depending on the type of data and playback format.
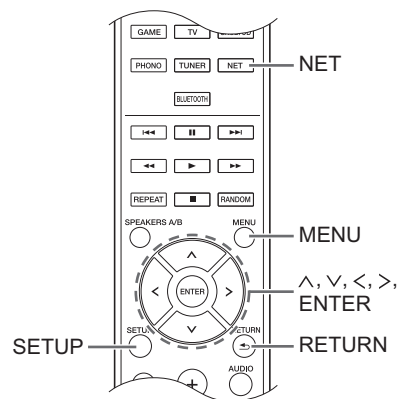
■ Registering a station in the "My Favorites"
There are two ways to register your favorite radio stations to "My Favorites": you can either use a PC or operate the unit.

Registering a station with PC

You will need the name and URL of the radio station to add during the storing procedure, so check them in advance. You have to connect your PC and this unit to the same network.

Input the IP address of the unit into an Internet browser on the PC to access Web Setup and register a station.

1. Press the SETUP button.
2. Use the direction (∧/∨) buttons to select "5. Network" on the display and press the ENTER button.

```
5.Network
```
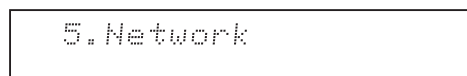
3. Use the direction (∧/∨) buttons to display "IP Address".

```
IP Address
:192168xxxyyy
```
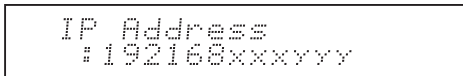
Make a note of the IP address.

4. Turn the PC on and open Internet Explorer or another Internet browser.

5. Input this unit's IP address into the Internet browser URL field. If the IP address displayed on the unit is "1 9 2 1 6 8 x x x y y y", input "192.168.xxx.yyy" into the URL field.
If the IP address is "1 9 2 1 6 8   x x y y y", input "192.168.xx.yyy" into the URL field.
If the IP address is "1 9 2 1 6 8   x y y y", input "192.168.x.yyy" into the URL field.
This unit's Web Setup information screen will open in the Internet browser.
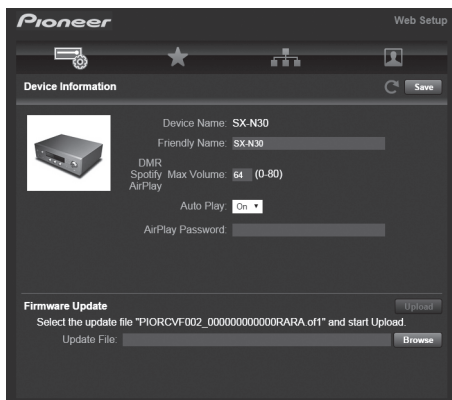
6. Click the "★" tab and input the name and URL of the Internet radio station.

7. Click "Save" to finish registering that Internet radio station.

Registering a station by operating the unit

You will need the name and URL of the radio station to add during the storing procedure, so check them in advance.

Input radio station information directly into "My Favorites" of the unit.

1. Press the NET button.

2. Use the direction (∧/∨) buttons to select "My Favorites" on the display and press the ENTER button.

```
NET
My Favorites
```
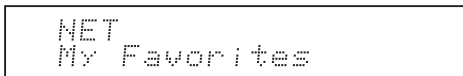
3. Press the direction (∧/∨/</>) buttons to select a number to which a radio station is not registered, and press the MENU button.

```
My Favor 1/40
```
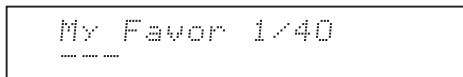
4. Use the direction (∧/∨) buttons to select "Create new station" and press the ENTER button.
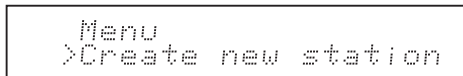
```
Menu
>Create new station
```

5. Input the name of the radio station.
   • For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".

6. Input the URL of the radio station.

■ Playing a registered radio station

1. Press the NET button.

2. Use the direction (∧/∨) buttons to select "My Favorites" on the display and press the ENTER button.

```
NET
My Favorites
```
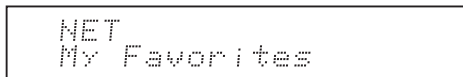
3. Use the direction (∧/∨/</>) buttons to select a radio station and press the ENTER button.
Playback starts.

To remove a radio station that has been added:
1. Select the radio station in the "My Favorites" and press the MENU button.
2. Use the direction (∧/∨) buttons to select "Delete from My Favorites" and press the ENTER button.
A message requesting confirmation appears.
3. Press the ENTER button.

To change the name of a radio station that has been added:
1. Select the radio station in the "My Favorites" and press the MENU button.
2. Use the direction (∧/∨) buttons to select "Rename this station" and press the ENTER button.
3. Input the name of the radio station.
   • For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".

19

Playing music with *Bluetooth*® functions

You can wirelessly enjoy music files stored in a smartphone or other *Bluetooth* enabled device. The coverage area is 48 feet (15 meters).

Pairing
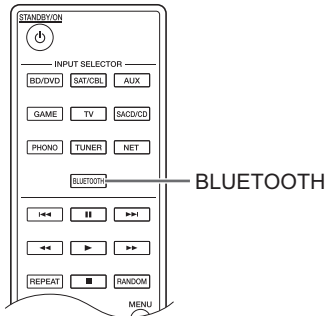
BLUETOOTH

Pairing is necessary when connecting the *Bluetooth* enabled device for the first time. Before starting the procedure, learn how to enable the *Bluetooth* setting function and to connect with other devices on the *Bluetooth* enabled device.

1. Press the BLUETOOTH button of the remote control. The unit begins pairing and "Now Pairing..." is displayed.
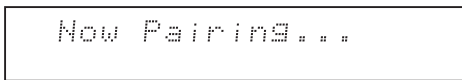
    Now Pairing...

2. While "Now Pairing..." is on the display, complete connection on the *Bluetooth* enabled device in the nearby area within about 2 minutes.
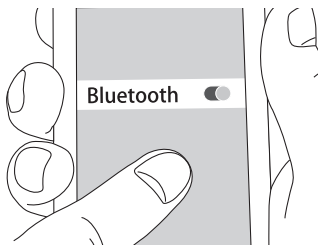
Bluetooth

If the name of this unit is displayed on the *Bluetooth* enabled device's display, select this unit. Paring will end after a short time.
• If a password is requested, enter "0000".
• You can pair with another *Bluetooth* enabled device by pressing and holding the ENTER button of the unit until "Now Pairing..." is on the display. This unit can store the data of up to 8 paired devices.

Playback
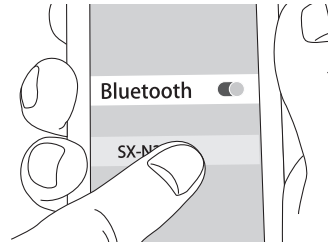
Bluetooth
SX-N

If the unit is on and the *Bluetooth* enabled device is connected, the input will be automatically switched to "BLUETOOTH". Play music in this state.
If the volume setting on the *Bluetooth* enabled device is low, the sound will not be output from this unit, so adjust the volume to an appropriate level.

If "3. Hardware"-"Bluetooth Wakeup" (⇨ 34) is set to "On" in the setup menu, then once you start connection on a *Bluetooth* enabled device, this unit switches on automatically.

• It may take about a minute until connection is established when the unit is on since the *Bluetooth* function takes some time to start up.
• Due to the characteristics of *Bluetooth* wireless technology, the sound produced on this unit may slightly be behind the sound played on the *Bluetooth* enabled device.

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Playing music with AirPlay®

Router

iOS device
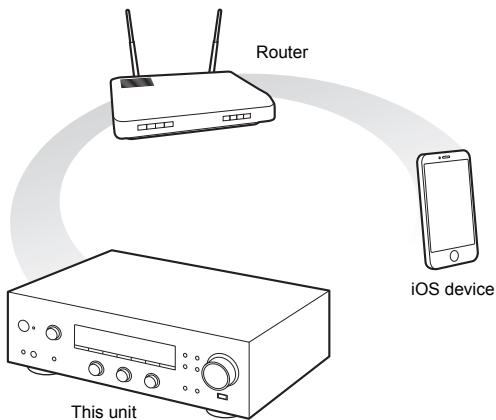
This unit

You can wirelessly enjoy music files stored on an iPhone, iPod touch, or iPad. You can also play back music files on the computer with iTunes.
- This unit needs to be connected to the network through the same router as the iOS terminal or PC.

NET
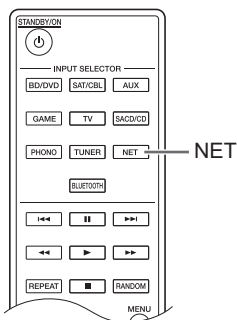
Playing music files from an iPhone, iPod touch, or iPad

Update the OS version on your iOS device to the latest version before connecting it to this unit.

1. Press the NET button.
2. Switch the Wi-Fi setting on the iPhone, iPod touch, or iPad on and then tap the AirPlay icon. Select this unit from the list of devices displayed, and tap "Done".
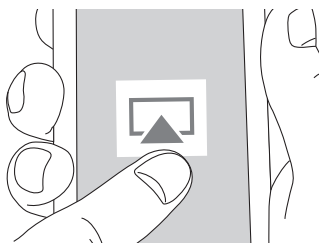
- The AirPlay icon is displayed in the control center if you are using iOS 7 and later. To display the control center, swipe from the bottom of the screen of the iOS device.
  - If the AirPlay icon is not displayed, confirm that this unit and the iOS device are both connected to the router correctly.
3. Play music files from an iPhone, iPod touch, or iPad.
   If the volume setting on the AirPlay enabled device is low, the sound will not be output from this unit, so adjust the volume to an appropriate level.

Playback music files from a computer

- AirPlay is compatible with iTunes 10.2 or later.

1. Press the NET button.
2. Turn on your computer and start iTunes.
3. Click the AirPlay icon of iTunes and select this unit from the list of devices displayed.
4. Play iTunes music files.
   If the volume setting on the AirPlay enabled device is low, the sound will not be output from this unit, so adjust the volume to an appropriate level.

If "3. Hardware"-"Network Standby" (⇨ 34) is set to "On" in the setup menu, then once AirPlay starts, this unit switches on automatically and the "NET" input source is selected. Even if this setting is "Off", if the unit is already on then the "NET" input source is selected.

- Due to the characteristics of AirPlay wireless technology, the sound produced on this unit may slightly be behind the sound played on the AirPlay-enabled device.
- There may be some differences in how operations are performed depending on the iOS or iTunes version.

Playing music with Spotify

Router

Spotify enabled
device

This unit
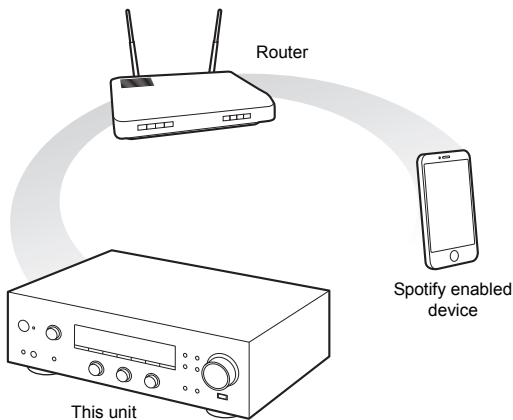
To use Spotify, you must install the Spotify app on your smartphone or tablet and create a Spotify Premium account.
• The unit and smartphone or tablet must be connected to the same router.
• Information on how to set up Spotify can be found here:
  www.spotify.com/connect/
• The Spotify software is subject to third party licenses found here:
  www.spotify.com/connect/third-party-licenses

Playback

1. Switch the Wi-Fi setting on the smartphone or tablet on and start the Spotify app.
2. On the track playback screen, click the Connect icon and select the unit. Spotify's streaming will start.
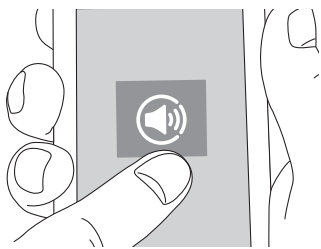
If the volume setting on the Spotify enabled device is low, the sound will not be output from this unit, so adjust the volume to an appropriate level.

If "3. Hardware"-"Network Standby" (⇨ 34) is set to "On" in the setup menu, then once Spotify starts, this unit switches on automatically and the "NET" input source is selected. Even if this setting is "Off", if the unit is already on then the "NET" input source is selected.

Playing tracks stored on a USB storage device

You can connect a USB storage device to the USB port on the front panel and play music files on it.
 • You can play high-res sources in formats such as WAV, FLAC, or DSD files distributed over the Internet. For information on supported devices and file formats, see "Compatible devices/media/file formats" ($\Rightarrow$ 40).

1. Press the NET button.
2. Use the direction ($\wedge$/$\vee$) buttons to select "USB" on the display and press the ENTER button.

```
NET
USB
```

3. Connect a USB storage to the USB port.
   When a USB storage is detected, "USB" appears on the display. If "USB" indicator flashes, check whether the USB storage device is plugged in properly.
   • Depending on the USB storage device, reading data from it may take some time.
   • If the media you connect is not supported or cannot be connected properly, the message "No storage" will be displayed.
4. Press the ENTER button.
   The name of the track or folder appears.
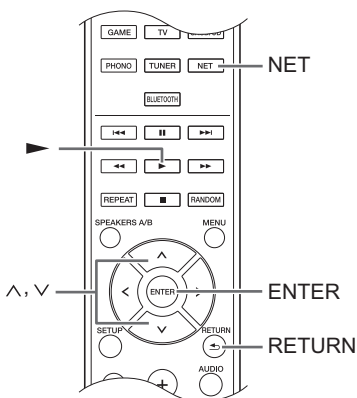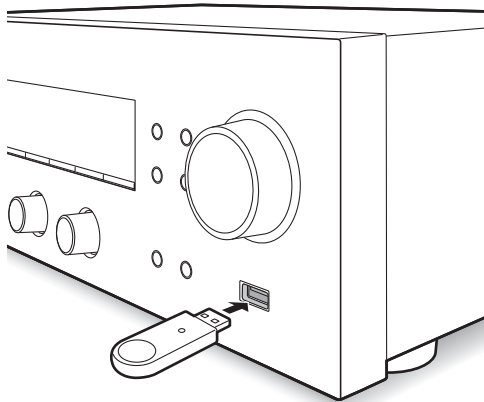
5. Use the direction ($\wedge$/$\vee$) buttons to select a track and press the playback ($\blacktriangleright$) button.
   • If you have selected a folder, when you press the playback ($\blacktriangleright$) button, play starts from the first track in the folder. You can select tracks inside the folder by pressing the ENTER button.
   • Only the music files in the same level of the folder are played. You can also set repeat playback mode to Full and play all tracks stored on the USB storage device.
   • The USB port of this unit conforms to the USB 1.1 standard. Depending on the content being played, the transfer rate may not be sufficient, which can cause interruptions.

Home network functions

Playing music stored on DLNA-compatible devices

Router

PC/NAS

This unit
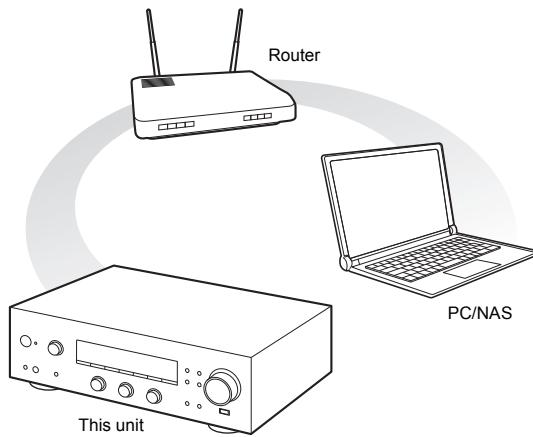
The unit allows you to use DLNA (*) to play music files stored on a PC or a NAS device. You can play high-res sources in formats such as WAV, FLAC, or DSD files distributed over the Internet. For information on supported devices and file formats, see "Compatible devices/media/file formats" (⇨ 40).
- You must connect the unit and PC or NAS to the same router.

  * The Digital Living Network Alliance (DLNA) can be referred to as a technology standard or the industry group to develop the technology standard to interconnect and use AV components, PCs and other devices in a home network.

■ Setting up Windows Media® Player
Windows Media® Player 11
1. Turn on your PC and start Windows Media® Player 11.
2. In the "Library" menu, select "Media Sharing" to open a dialog box.
3. Select the "Share my media" check box and click "OK" to display the compatible devices.
4. Select this unit and click "Allow".
   - The icon of this unit is checked when you click it.
5. Click "OK" to close the dialog box.

Windows Media® Player 12
1. Turn on your PC and start Windows Media® Player 12.
2. In the "Stream" menu, select "Turn on media streaming" to open a dialog box.
   - If media streaming is already turned on, select "More streaming options..." in the "Stream" menu to list players in the network, and then go to step 4.
3. Click "Turn on media streaming" to list players in the network.
4. Select this unit in "Media streaming options" and check that it is set to "Allowed".
5. Click "OK" to close the dialog box.
6. When using the Play To feature, open the "Stream" menu and check that "Allow remote control of my Player..." is checked.

■ Playing music files by operating the unit

NET

ENTER

RETURN

∧, ∨
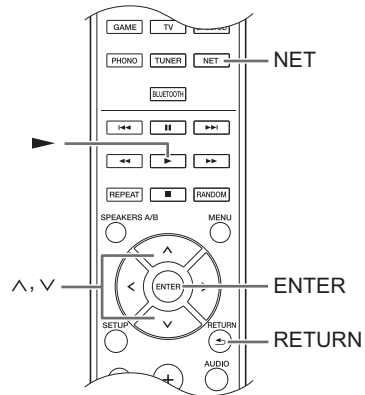
You can play music files stored on a server by operating the unit.

1. Start the server (Windows Media® Player 11, Windows Media® Player 12, or NAS device) containing the music files to play.
2. Press the NET button.
3. Use the direction (∧/∨) buttons to select "DLNA" on the display and press the ENTER button.

```
NET
DLNA
```
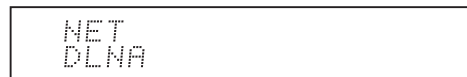
4. Use the direction (∧/∨) buttons to select the server and press the ENTER button.
   The server folder will be shown.
   - You can check the server name of your PC from the PC properties.
   - Depending on server functions or sharing settings, some contents might not be shown.
5. Use the direction (∧/∨) buttons to select the audio file that you want to play, and press the ENTER button or playback (▶) button.
   - If information cannot be retrieved from a server, "No Item" will appear on the display. If this occurs, check the server and network connections.

■ **Using the Play To feature**

Using a controller device or PC that complies with the DLNA standard, you can play music files stored on a server.

In this section, we explain the steps to perform remote playback with Windows Media® Player 12.

1. Turn this unit on.
2. Turn on your PC and start Windows Media® Player 12.
3. Select the file that you want to play in Windows Media® Player 12 and right-click it.
   This opens a pop-up menu.
   • To use the Play To feature with audio files on a different server, open that server from the list that appears under "Other Libraries" and select the audio file that you want to play.
4. Click the "Play to" and select this unit from the Play To list.
   Open the Windows Media® Player 12 "Play To" dialog box, and start playback from this unit.
   Use the "Play To" dialog box to control remote playback.
   • Remote playback is not possible when you are performing a different operation that uses the network on the unit or playing a music file stored on a USB storage on the unit.
   • If your PC is running on Windows® 8, click "Play To", and then select this unit.
5. Adjust the volume using the volume bar on the "Play To" dialog box.
   • The default maximum volume level is 64. You can change the level using Web Setup. For information on how to access Web Setup, see "Registering your favorite radio stations (My Favorites)" (⇨ 18) under "Listening to Internet radio".
   • Some times, the volume displayed on the "Play To" dialog box may differ from that appeared on the display of the unit.
   • When the volume is adjusted from the unit, the value is not reflected in the "Play To" dialog box.

• Depending on the version of Windows Media® Player, the names of the items you need to select may differ from the explanation here.

Music streaming from a shared folder (Home Media)
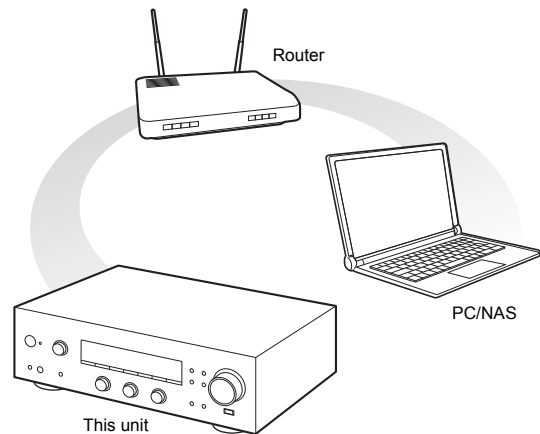
A shared folder is configured in a network device such as a PC or a NAS device for access from other users. You can play music files in a shared folder on your PC or NAS device connected to the same home network as that of this unit. You can play high-res sources in formats such as WAV, FLAC, or DSD files distributed over the Internet. For information on supported devices and file formats, see "Compatible devices/media/file formats" (⇨ 40).
• You must connect the unit and PC or NAS to the same router.
• You must configure the relevant settings of the PC or NAS in advance. For information on the setup, see the instruction manual for each device. In this section, we explain the setup with Windows® 7 and Windows® 8.

■ **Setting up Windows**
Configuring the sharing options
1. Turn the PC on.
2. Select "Choose homegroup and sharing options" in the "Control Panel".
   • If the menu is not displayed, check that "View by" is set to "Category".
3. Select "Change advanced sharing settings".
4. Check that the following radio buttons are selected in the "Home or Work" (Windows 7) or "Private" and "All Networks" (Windows 8):
   "Turn on network discovery"
   "Turn on file and printer sharing"
   "Turn on sharing so anyone with network access can read and write files in the Public folders"
   "Turn off password protected sharing"
5. Select "Save Changes" and click "OK" in the dialog box.

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Creating a shared folder

1. Select and right-click the folder to share.
2. Select "Properties".
3. Select "Advanced Sharing" on the "Sharing" tab.
4. Select the "Share this folder" check box and click "OK".
5. Click "Share" for "Network File and Folder Sharing".
6. Select "Everyone" from the pull-down menu. Click "Add" and click "Share".
   • To set a user name and password to a shared folder, set "Permissions" in "Advanced Sharing" in the "Sharing" tab.
   • Check that a workgroup is set.

■ **Playing back**
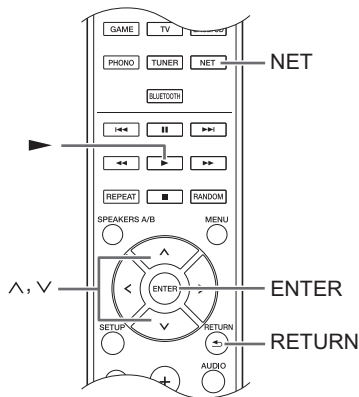
You can play music files in a shared folder stored on each device by operating the unit.

1. Press the NET button.
2. Use the direction (∧/∨) buttons to select "Home Media" on the display and press the ENTER button.

```
NET
Home Media
```
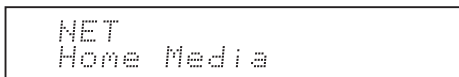
3. Use the direction (∧/∨) buttons to select the server that you want to use and press the ENTER button.
   • You can check the server name of your PC from the PC properties.
4. Use the direction (∧/∨) buttons to select the shared folder that you want to use and press the ENTER button.
5. When a user name and password are required, input the necessary account information.
   • For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".
   • Use the account information set when you created the shared folder. After inputting the account information once, it is saved, so you will not need to input it the next time.
6. Press the direction (∧/∨) buttons to select the music file to play and press the ENTER button or playback (▶) button.

Listening to the sound from a connected player
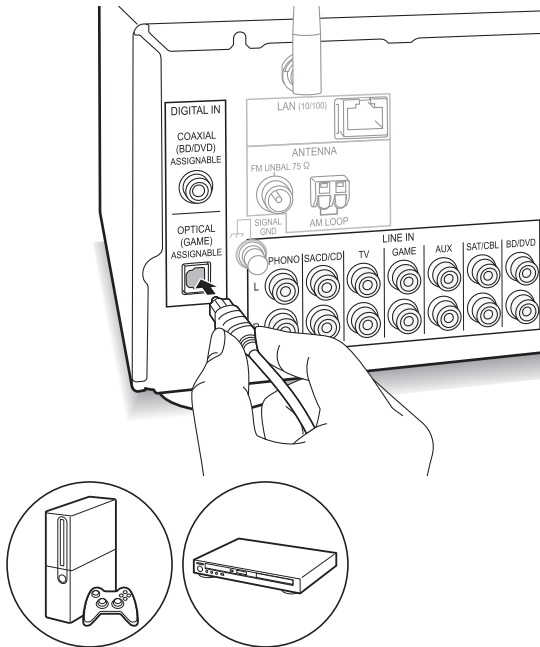
You can enjoy the audio from players such as televisions, Blu-ray disc players, and game consoles. See "Connecting a player" (⇨ 12) for connection.
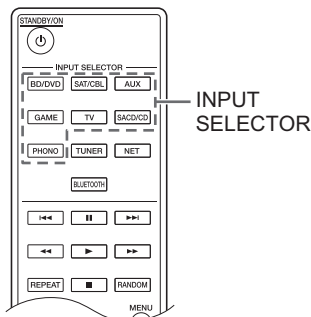
1. Switch the input source with the INPUT SELECTOR button to match the terminals you have connected the players to. (If you connected to the BD/DVD terminal, select "BD/DVD".)
2. Start play on the player.
   If "3. Hardware"-"Opt1 In Wakeup" (⇨ 34) is set to "On" in the setup menu, then once play starts on a device connected to the OPTICAL terminal, this unit switches on automatically and the input source is selected.
   • While playing an analog source, if a digital signal is input to the input source with the same name, play switches to the digital signal.

Listening to radio

● SX-N30 : You can listen to AM/FM radio.
  SX-N30DAB : You can listen to DAB/FM radio.

Tuning into AM/FM radio station
(AM available only on SX-N30)

INPUT SELECTOR   ▼ TUNING ▲

TUNING MODE

TUNER

D.ACCESS

Number buttons
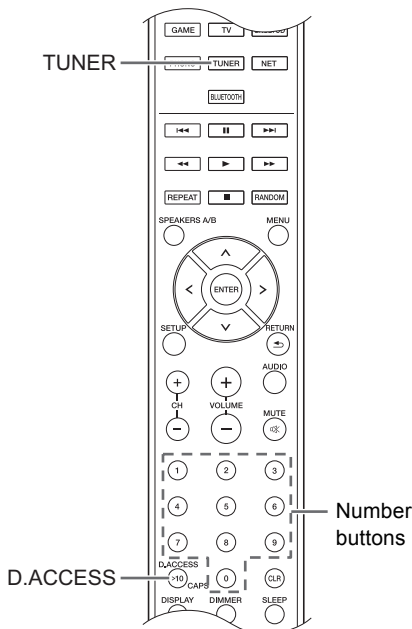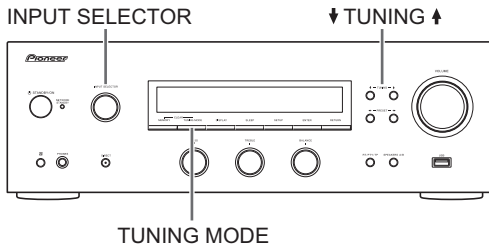
■ Tuning into stations automatically
1. Turn the INPUT SELECTOR control on the main unit to select "AM" or "FM" on the display.
2. Press the TUNING MODE button so that the "AUTO" indicator on the display lights.
3. Press the ▼ TUNING ▲ buttons to start automatic tuning.
   • Searching automatically stops when a station is found. When tuned into a radio station, the "▶TUNED◀" indicator on the display lights. When tuned into a stereo FM radio station, the "FM STEREO" indicator lights.

Band   Frequency

FM 87.50MHz
      Stereo
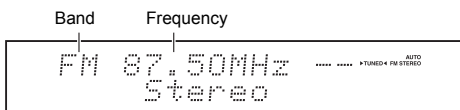
When the reception of FM broadcasts is poor: If the radio wave reception is weak or there is excess noise in your location, refer to "Tuning into stations manually" on the next section to change the reception setting to monaural. This can minimise the noise and audio interruptions.

■ Tuning into stations manually
If you tune into an FM radio station manually, it will be received in monaural sound.

1. Turn the INPUT SELECTOR control on the main unit to select "AM" or "FM" on the display.
2. Press the TUNING MODE button so that the "AUTO" indicator on the display goes off.
3. Press the ▼ TUNING ▲ buttons to select the desired radio station.
   • The frequency changes by 1 step each time you press the button. The frequency changes continuously if the button is held down and stops when the button is released.
   • (SX-N30) You can change the AM frequency step. See "3. Hardware"-"AM Freq Step" (⇨ 34) of the Setup menu.

■ Tuning into stations by frequency
It allows you to directly enter the frequency of the radio station you want to listen to.

1. Press the TUNER button of the remote control repeatedly to select either "AM" or "FM" on the display.
2. Press D.ACCESS button.
3. Using the number buttons, enter the frequency of the radio station within 8 seconds.
   • To enter 87.50 (FM), for example, press [8], [7], [5], [0]. If the entered number is incorrect, press the D.ACCESS button again and re-enter the number.

• (SX-N30DAB) For other settings (⇨ 34, FM Search Lvl)

Receiving RDS (SX-N30/SX-N30DAB)

DISPLAY   ENTER   ← PRESET →

RT/PTY/TP (SX-N30),
PS/RT/PTY (SX-N30DAB)
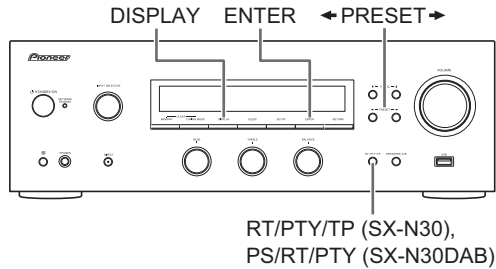
RDS stands for Radio Data System and is a method of transmitting data in FM radio signals.
• RDS works only in areas where RDS broadcasts are available.
• In some cases, the text information appeared on the display is not identical to the content transmitted by the RDS station. Furthermore, unexpected characters may be displayed when the unit receives unsupported characters. However, this is not a malfunction.
• If the signal from an RDS station is weak, the RDS data may be displayed continuously or not at all.

PS (Program Service): Tuning into a radio station distributing Program Service information displays the radio station name. Pressing the DISPLAY button displays the frequency for 3 seconds.
RT (Radio Text): Tuning into a radio station transmitting Radio Text information displays text on the display of the unit.
PTY (Program Type): Allows you to search for RDS stations by program type.
TP (Traffic Program) (SX-N30)**:** Allows you to search for radio stations transmitting traffic information.

Displaying Radio Text (RT)

1. Press the RT/PTY/TP button / PS/RT/PTY button of the unit once.
   The Radio Text (RT) is displayed scrolling across the display. "No Text Data" is displayed when no text information is available.

Searching by Type (PTY)

1. Press the RT/PTY/TP button / PS/RT/PTY button of the unit twice.
   The current program type appears on the display.
2. Press the ← PRESET → buttons to select the type of program to search for.
   The following RDS station types are displayed:
   None
   News (News reports)
   Affairs (Current affairs)
   Info (Information)
   Sport
   Educate (Education)
   Drama
   Culture
   Science (Science and technology)
   Varied
   Pop M (Pop music)

Rock M (Rock music)
Easy M (Middle of the road music)
Light M (Light classics)
Classics (Serious classics)
Other M (Other music)
Weather
Finance
Children (Children's programmes)
Social (Social affairs)
Religion
Phone In
Travel
Leisure
Jazz (Jazz music)
Country (Country music)
Nation M (National music)
Oldies (Oldies music)
Folk M (Folk music)
Document (Documentary)

3. Press the ENTER button to search the radio stations of the selected type.
4. When such a radio station is found, the indication on the display flashes. Then, press the ENTER button again.
   • If no stations are found, the message "Not Found" is displayed.

Listening to Traffic Information (TP) (SX-N30)

1. Press the RT/PTY/TP button of the unit three times. "[TP]" will be displayed if traffic information is transmitted by the radio station you are tuned in. "TP" only is displayed if no traffic information is available.
2. Press the ENTER button to search a radio station distributing traffic information.
3. When a radio station is found, searching stops and traffic information is received.
   • If no stations are found, the message "Not Found" is displayed.

Listening to DAB digital radio (SX-N30DAB)

INPUT SELECTOR   ♦ TUNING ♠

TUNING MODE   DISPLAY
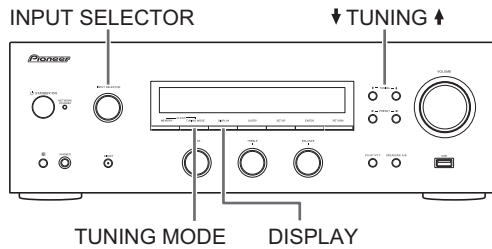
■ Tuning into stations

With the built-in tuner, you can enjoy DAB digital radio.

1. Turn the INPUT SELECTOR control on the main unit to select "DAB" on the display.
   The very first time you select DAB, the Auto Tuning function automatically scans the DAB Band 3 for the multiplexes (i.e., stations) available in your area. Once the scanning process is complete, the first station that was detected is selected.
   • To scan again, run the scan from "DAB Scan" (⇨ 34) in the setup menu.
2. Press the ♦ TUNING ♠ buttons to select the desired radio station.

Sorting stations

You can sort the available stations alphabetically, by multiplex, or active stations.

1. Press the TUNING MODE button repeatedly to set the method for sorting the display order from the following.
   Alphabet (default setting): Sort stations alphabetically.
   Multiplex: Sort stations by multiplex.
   Active ST: Sort by active stations. Receivable stations appear at the top of the list. Stations that cannot be received properly appear at the bottom of the list.

Displaying DAB Radio Information

1. Press the DISPLAY button repeatedly to display more information about the selected DAB station.

Station name   Information
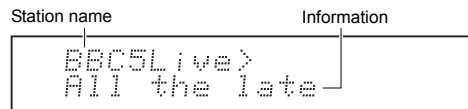
DLS (Dynamic Label Segment): When tuned to a station that's broadcasting DLS text data, the text will scroll across the display.
Program Type: Displays the type of program.
Bit Rate and Audio Mode: Displays the station's bit rate and audio mode (stereo, mono, or joint stereo).
Signal Quality: Displays the signal quality.
    0 - 59: Poor reception
    60 - 79: Good reception
    80 - 100: Excellent reception
Multiplex Name: Displays the name of the current multiplex.
Multiplex Number and Frequency: Displays the number and frequency of the current multiplex.

• For other settings (⇨ 34, DAB DRC)

Presetting a radio station (SX-N30/SX-N30DAB)

← PRESET →

MEMORY   TUNING MODE

TUNER

∧, ∨   ENTER

SETUP

CH (+/−)

Number buttons
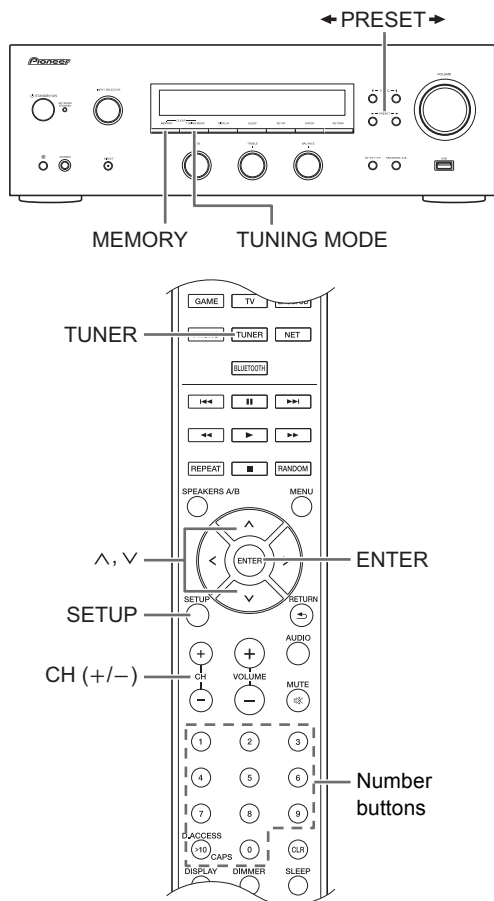
It allows you to register up to 40 of your favorite radio stations. Registering radio stations in advance allows you to tune into your radio station of choice directly.

■ Registering radio stations

1. Tune into the radio station you want to register.
2. Press the MEMORY button on the unit.
3. Press the ← PRESET → buttons several times to select a number between 1 and 40 while the preset number is flashing (about 8 seconds).
4. Press the MEMORY button again to register the station.
   The preset number stops flashing and lights to indicate that the station is registered.

■ Selecting preset stations

1. Press the TUNER button of the remote control repeatedly to select "AM", "DAB" or "FM" on the display.
2. Press CH (+/−) buttons to select a preset number.
   • You can also select by directly entering the preset number with the number buttons. Alternatively you can press the ← PRESET → buttons on the unit.

Naming a preset radio station:

1. Press the SETUP button of the remote control while a preset number is displayed, use the direction (∧/∨) buttons to select "4. Source", and press the ENTER button.
2. Use the direction (∧/∨) buttons to select "Name Edit" and press the ENTER button.
3. Enter a name up to 10 characters long.
   • For information on how to input characters, see "Inputting characters" (⇨ 33) under "Various settings".

Erasing a preset radio station:

1. Press and hold the MEMORY button on the main unit and press the TUNING MODE button to delete the preset number.
   The preset number is deleted, and the number on the display goes off.

Various settings

Adjusting sound quality, etc.

∧, ∨, <, >
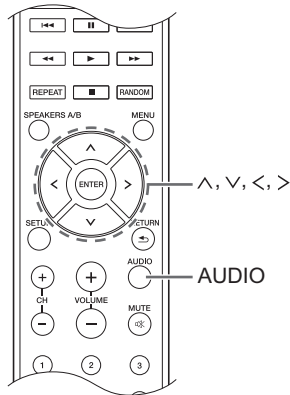
AUDIO

1. Press the AUDIO button.
2. Press the direction (∧/∨) buttons to select the setting you want to adjust.
3. Press the direction (</>) buttons to adjust the setting.

■ Direct
You can use the Direct feature that outputs pure sound as it was intended by bypassing the tone control circuits during play.
> **On**
> **Off** (default setting)
- "DIRECT" appears on the display when "On" is selected.
- "Bass" and "Treble" are disabled when "On" is selected.

■ Bass
Adjusts the bass level.
> Select between **−10 dB** and **+10 dB** in 2 dB increments. (default setting: 0 dB)

■ Treble
Adjusts the treble level.
> Select between **−10 dB** and **+10 dB** in 2 dB increments. (default setting: 0 dB)

■ Balance
Adjusts the audio output balance between the left and right speakers.
> Select between **L+10** and **R+10** in 2 steps increments. (default setting: 0)

Sleep timer
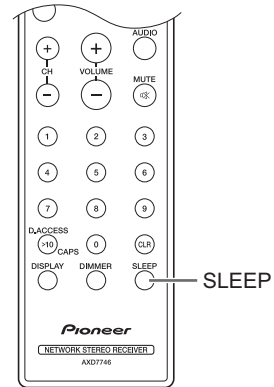
SLEEP

With the sleep timer, you can set the unit so that it automatically turns off after a specified period.

1. Press the SLEEP button repeatedly to select the time.
   - With the SLEEP button, you can set the sleep time from 90 to 10 minutes in 10 minute increments.
   The setting is complete 5 seconds after you have displayed the desired time.
   - When the sleep timer has been set, "SLEEP" appears on the display.

■ Checking the remaining time: If you press the SLEEP button, the remaining time until the unit will be put into standby mode appears.

■ To cancel the sleep timer: Press the SLEEP button repeatedly until "SLEEP" disappears.

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Inputting characters
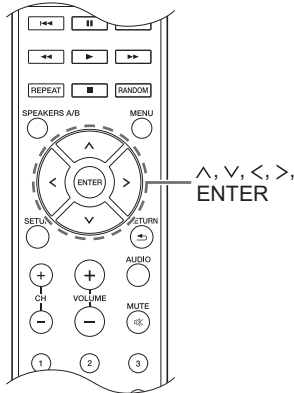
While performing network settings or in the Internet radio menu, etc., when the following appears on the display, you can enter characters. Enter characters using the following procedure.

```
        <          >
  abcdefghijklm
```
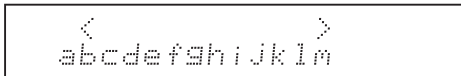
1. Use the direction (∧/∨/＜/＞) buttons to select a character or symbol and press the ENTER button. Repeat this procedure to input more.
The following characters can be used.

a

a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
1	2	3	4	5	6	7	8	9	0	-	^	\
,	.	/	;	:	@	[	]	S	p	a	c	e
	A / a			<-	->	B	S	O	K			

b

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
!	"	#	$	%	&	'	(	)	_	=	~		
<	>	?	+	*	`	{	}	S	p	a	c	e
	A / a			<-	->	B	S	O	K			

- **A/a***: Changes the characters shown. (a → b)
- **Space**: Inputs a blank space that is one character wide.
- **← (left) / → (right)**: Moves the cursor in the text input area.
- **BS (backspace)****: Deletes characters to the left of the cursor. Move the cursor left.
- **aä:** When this is displayed, you can select it to change the characters shown to umlaut characters.
- * You can also change them by pressing the [>10] button.
- **You can press the CLR button to delete all the input characters at once.

2. After completing input, use the direction (∧/∨/＜/＞) buttons to select "OK" and press the ENTER button.

Setup menu
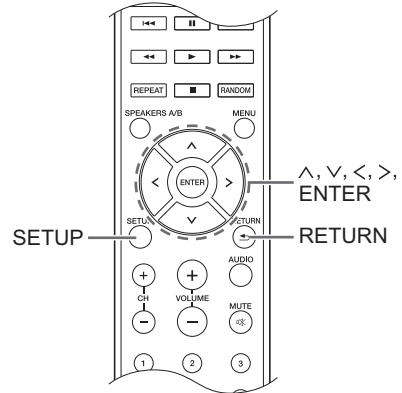
The unit allows you to configure advanced settings to provide you with an even better experience. Set using the following procedure.

1. Press the SETUP button.
2. Use the direction (∧/∨) buttons to select the setting you want to change and press the ENTER button.
   - To cancel the operation, press the SETUP button.
3. Use the direction (∧/∨) buttons to select the sub menu you want to change.
4. Use the direction (＜/＞) buttons to change setting values.
5. After you complete making settings, press the SETUP button to quit the menu.

■ 1. Digital Audio Input

You can change input assignment between the input selectors and DIGITAL IN COAXIAL/OPTICAL jacks. If you do not assign a jack, select "-----".
The default setting is as follows:

COAXIAL1 : **BD/DVD**
OPTICAL1 : **GAME**

- Sampling rates for PCM signals (stereo, mono) from a digital input are 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz/16 bit, 20 bit, and 24 bit.

■ 2. Main Volume

Make the volume setting.

Maximum Volume: Set the maximum volume for the volume control.
   Off (default setting)
   30 to **79**

PowerOn Volume: Set the volume for when the unit is turned on.
   Last (default setting): The volume is the same as it was when the unit was last switched to standby.
   Min to **Max**

HeadphoneLevel: Set the volume level for when headphones are used.
   −12 dB to **+12 dB** (default setting: 0 dB)

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■ 3. Hardware

Speaker Impedance: If any of the connected speakers have 4 Ω or more to less than 6 Ω impedance, or if you have connected a different set of left and right speakers to the SPEAKERS A/B terminals, set the impedance to 4 Ω.
- Reduce the volume to minimum before setting.
  6Ω (default setting)
  4Ω

AutoPowerDown: The unit will automatically enter standby mode (*) if there is no operation for 20 minutes with no audio signal input.
  On (default setting)
  Off
  * Becomes the NETWORK STANDBY mode, which keeps the increase in power consumption to a minimum, when any of Network Standby, Bluetooth Wakeup, or Opt1 In Wakeup are on.

Network Standby: You can turn on the power of the unit via network using an application such as SX-N30 ControlApp.
  On
  Off (default setting)
- When "Network Standby" is used, the power consumption increases even when the unit is on standby. However, the increase in power consumption is kept to a minimum by automatically entering the NETWORK STANDBY mode, where only the essential circuit is operating.
- If it is not displayed, wait for a moment until the network feature starts.

Bluetooth Wakeup: This function wakes up the unit on standby by connecting a *Bluetooth* enabled device.
  On
  Off (default setting)
- Setting to "On" increases the power consumption even when the unit is on standby. However, the increase in power consumption is kept to a minimum by automatically entering the NETWORK STANDBY mode, where only the essential circuit is operating.
- This setting is fixed to "Off" if "6. Bluetooth"-"Auto In Change" (⇨ 35) is set to "Off".
- If it is not displayed, wait for a moment until the network feature starts.

Opt1 In Wakeup: When an audio signal is input through the OPTICAL terminal while this unit is in standby, this feature automatically detects it.
  Off (default setting)
  On: This unit is turned on and outputs the audio.
- When a cable is connected to the OPTICAL terminal and this setting is enabled, power consumption increases even when the unit is on standby, however, the increase in power consumption is kept to a minimum by automatically entering the NETWORK STANDBY mode, where only essential circuits are operating.

AM Freq Step (SX-N30)**:** Changes the AM radio frequency step.
  9kHz (default setting): The frequency is adjusted in increments of 9 kHz.
  10kHz: The frequency is adjusted in increments of 10 kHz.

DAB Scan (SX-N30DAB)**:** This setting determines which DAB bands are scanned by the Auto Tuning function. To start scanning, select the item and press the ENTER button.
  World Wide (default setting): Band III (5A - 13F)
  UK: Band III (11B - 12D)

DAB DRC (SX-N30DAB)**:** With the DRC (Dynamic Range Control) setting, you can reduce the dynamic range of DAB digital radio so that you can still hear quiet parts even when listening at low volume levels - ideal for listening to the radio late at night when you don't want to disturb anyone.
  0 (default setting): DRC off
  1: Large reduction in dynamic range
  1/2: Small reduction in dynamic range

FM Search Lvl (SX-N30DAB)**:** You can choose to have only those FM stations with strong reception selected when tuning into stations automatically if tuning regularly stops on FM stations with weak reception. Select "FM" as the input source to make this setting.
  Normal (default setting)
  Strong: Select only stations with strong reception.

■ 4. Source

IntelliVolume: Even when the volume control is the same on this unit, there may be differences in the volume depending on the connected devices. Adjust this when you want to alleviate this difference. To set, select each input source.
  −12 dB to **+12 dB** (default setting: 0 dB)

Name Edit: Enter a simple name of up to 10 characters in length for the input sources or preset AM/DAB/FM stations. To set, select each input source or select the preset number of the registered station.
- For information on how to input characters, see "Inputting characters" (⇨ 33).

■ 5. Network

Make the network setting.
- If it is not displayed, wait for a moment until the network feature starts.
- When LAN is configured with a DHCP, set "DHCP" to "Enable" to configure the setting automatically. ("Enable" is set by default) To assign fixed IP addresses to each components, you must set "DHCP" to "Disable" and assign an address to this unit in "IP Address" as well as set information related to your LAN, such as Subnet Mask and Gateway.

Wi-Fi: Connect the unit to network via wireless LAN router.
  On: Wireless LAN connection
  Off (Wired) (default setting): Wired LAN connection

Wi-Fi Setup: You can configure wireless LAN settings by pressing the ENTER button when "Start" is displayed. For details, see "Wi-Fi® connection" (⇨ 15).

SSID: The SSID of the connected access point will be displayed.

Signal: The signal strength of the connected access point will be displayed.

Status: The status of the connected access point will be displayed.

MAC Address: View this unit's MAC address.

DHCP:
 Enable (default setting)
 Disable

IP Address: View/set the IP address.

Subnet Mask: View/set the subnet mask.

Gateway: View/set the default gateway.

DNS Server: View/set the DNS server address.

Proxy URL: Set the proxy server address.

Proxy Port: Set the proxy port number.
• This only appears when Proxy URL has been set.

Friendly Name: Change the name for this unit to a simple one for display on the equipment connected by network. Press the ENTER button and input 31 or less characters.
• For information on how to input characters, see "Inputting characters" (⇨ 33).

AirPlay PW: You can enter a password so that only the entered user can use AirPlay. Press the ENTER button and input 31 or less characters.
• For information on how to input characters, see "Inputting characters" (⇨ 33).

Network Check: You can check the network connection. Press the ENTER button when "Start" is displayed.

■ 6. Bluetooth
Make the *Bluetooth* setting.
• If it is not displayed, wait for a moment until the network feature starts.

Bluetooth: Select whether or not to use the *Bluetooth* function.
 On (default setting)
 Off
• Select "On" when making following *Bluetooth* settings.

Auto In Change: The input of the unit will automatically be switched to "BLUETOOTH" when connection is made from a *Bluetooth* enabled device to the unit.
 On (default setting)
 Off
• If the input is not switched automatically, set to "Off" and change the input manually.

Auto Reconnect: This function automatically reconnects to the *Bluetooth* enabled device connected last when you change the input selector to "BLUETOOTH".
 On (default setting)
 Off
• This may not work with some *Bluetooth* enabled devices.

Pairing Info: The information of the previous pairing stored in this unit will be initialized. Pressing the ENTER button when "Clear" is displayed initializes the pairing information stored in this unit.
• This function does not initialize the pairing information on the *Bluetooth* enabled device. When pairing the unit again with the device, be sure to clear the pairing information on the *Bluetooth* enabled device in advance. For information on how to clear the pairing information, refer to the *Bluetooth* enabled device's instruction manual.

Device: Displays the name of the *Bluetooth* enabled device connected to the unit.
• The name is not displayed when "Status" is "Ready" or "Pairing".

Status: Displays the status of the *Bluetooth* enabled device connected to the unit.
 Ready: Not paired
 Pairing: Pairing
 Connected: Successfully connected

■ 7. Firmware Update
Make the firmware update setting.
• If it is not displayed, wait for a moment until the network feature starts.

Update Notice: Availability of a firmware update will be notified via network.
 Enable (default setting)
 Disable

Version: The current firmware version will be displayed.

Update via NET: Press the ENTER button to select when you want to update the firmware via network.
• You will not be able to select this setting if you do not have Internet access or there is nothing to update.

Update via USB: Press the ENTER button to select when you want to update the firmware via USB.
• You will not be able to select this setting if a USB storage device is not connected or there is nothing to update in the USB storage device.

■ 8. Lock
SetupParameter: The Setup menu will be locked to protect the settings.
 Locked
 Unlocked (default setting)

Firmware update
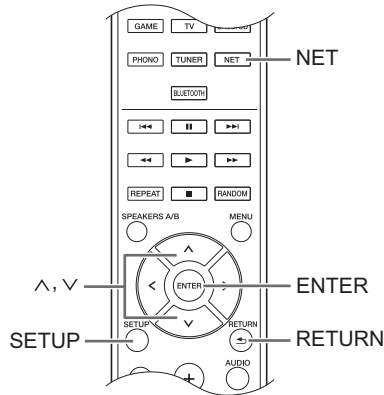
Update the firmware via network or USB connection. Visit the our website to download the latest firmware. (If no firmware is listed, no firmware update is available.)

Limitation of liability

The program and accompanying online documentation are furnished to you for use at your own risk. Our company will not be liable and you will have no remedy for damages for any claim of any kind whatsoever concerning your use of the program or the accompanying online documentation, regardless of legal theory, and whether arising in tort or contract. In no event will our company be liable to you or any third party for any special, indirect, incidental, or consequential damages of any kind, including, but not limited to, compensation, reimbursement or damages on account of the loss of present or prospective profits, loss of data, or for any other reason whatsoever.

■ Updating the firmware via network

You can update the firmware by connecting the unit to a network.

Precautions when updating the firmware
- Confirm that the unit is on and connected to a network.
- Before starting an update, stop the Internet radio, USB device, server or any other device that is playing audio.
- While updating, never disconnect or turn off this unit.
- While updating, never disconnect and reconnect the Ethernet cable.
- While updating, never disconnect and reconnect the power cord.
- Do not access this unit from a PC while updating.
- Updating takes about 30 minutes to be completed.
- Settings you made are retained after updating.

Update procedures

1. Press the SETUP button.
2. Use the direction ($\wedge$/$\vee$) buttons to select "7. Firmware Update" and press the ENTER button.
   - If it is not displayed, wait for a moment until the network feature starts.
3. Use the direction ($\wedge$/$\vee$) buttons to select "Update via NET" and press the ENTER button.
   - The option does not appear when no firmware update is available.
4. Press the ENTER button with "Update" selected to start update.
   "Completed!" appears on the display when updating is completed.
5. Press the ⏻ STANDBY/ON button on the front panel to put the unit into standby.
   - Do not use the ⏻ STANDBY/ON button on the remote control for this operation.
   The update is complete. The unit's firmware has been updated to the latest version.

When an error message appears

When an error occurs, "*-** Error!" appears on the display of this unit. (Characters and numbers appear in place of the asterisks.) Refer to the descriptions below to check the meaning.

Error code
*-01, *-10: The Ethernet cable could not be recognized. Connect the Ethernet cable properly.

-02,-03,*-04,*-05,*-06,*-11,*-13,*-14,*-16,*-17,*-18, *-20,*-21: Internet connection could not be established. Check the following points.
- Whether the router is turned on
- Whether this unit and router are connected to the network

Try to disconnect and then connect again the power to the unit and router. This may solve the problem. If you are still unable to connect to the Internet, the DNS server or proxy server may be temporarily down. Check the service status with your ISP provider.

Others: Disconnect and reconnect the power cord, and retry updating.

■ Updating the firmware via USB connection

You need a 64 MB or larger capacity USB storage for updating.

> **Precautions when updating the firmware**
> - Before updating, stop playback and disconnect anything connected to the USB port.
> - While updating, never put the unit into standby mode, or disconnect the power cord or the USB storage being used for the update.
> - Do not access this unit from a PC while updating.
> - Updating takes about 30 minutes to be completed.
> - Settings you made are retained after updating.

Update procedures

1. Connect a USB storage to the PC that you are using and delete any files on it.
2. Download the firmware file to the PC from our website. Decompress the downloaded file on the PC. The number of unzipped files and folders varies depending on the model.
3. Copy the decompressed files and folders to the root folder of the USB storage.
   - Do not copy any files other than the decompressed files. Do not copy the compressed file.
4. Press the NET button.
5. Use the direction (∧/∨) buttons to select "USB" on the display and press the ENTER button.
6. Connect the USB storage with the decompressed files to the USB port.
   - Loading the USB storage takes about 20 to 30 seconds.
7. Press the SETUP button.
8. Use the direction (∧/∨) buttons to select "7. Firmware Update" and press the ENTER button.
   - If it is not displayed, wait for a moment until the network feature starts.
9. Use the direction (∧/∨) buttons to select "Update via USB" and press the ENTER button.
   - The option does not appear when no firmware update is available.

10. Press the ENTER button with "Update" selected to start update.
    "Completed!" is displayed when the update is complete.
11. Disconnect the USB storage from the unit.
12. Press the ⏻ STANDBY/ON button on the front panel to put the unit into standby.
    - Do not use the ⏻ STANDBY/ON button on the remote control for this operation.
    The update is complete. The unit's firmware has been updated to the latest version.

When an error message appears

When an error occurs, "*-** Error!" appears on the display of this unit. (Characters and numbers appear in place of the asterisks.) Refer to the descriptions below to check the meaning.

Error code

*-01, *-10: USB storage device not found. Check whether the USB storage device or USB cable is correctly inserted to the USB port of the unit. Connect the USB storage device to an external power source if it has its own power supply.

*-05, *-13, *-20, *-21: The firmware file is not present in the root folder of the USB storage device, or the firmware file is for another model. Retry from the download of the firmware file.

Others: Disconnect and reconnect the power cord, and retry updating.

Troubleshooting

Before starting the procedure
Problems may be solved by simply turning the power on/off or disconnecting/connecting the power cord, which is easier than working on the connection, setting and operating procedure. Try the simple measures on both the unit and the connected device.

● **Resetting the unit**

Resetting the unit to the status at the time of shipment may solve the problem. If the measures mentioned in the troubleshooting do not solve the problem, reset the unit with the following procedure.

⏻ STANDBY/ON   TUNING MODE
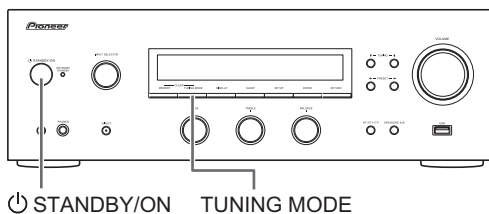
While the unit is on, press and hold the TUNING MODE button and press the ⏻ STANDBY/ON button. "Clear" is displayed on the display, the unit enters standby mode, and the unit is reset to the state it was in at the time of purchase.

Cannot turn on the unit.
• Make sure that the power cord is properly plugged into the wall outlet.
• Unplug the power cord from the wall outlet, wait 5 seconds or more, then plug it in again.

The unit turns off unexpectedly.
• The receiver will automatically enter standby mode when AutoPowerDown or Sleep Timer is set and launched.

There is no sound, or it is very quiet.
• Make sure the speaker set A or B is on. (⇨ 11)
• Make sure the correct input source is selected.
• If the MUTING indicator is shown on the display, press the MUTE button of the remote control to unmute the receiver.
• The PCM signal can be input only to digital input terminals. Make sure that PCM is selected on the playback component.
• Check the digital audio output setting on the connected component. On some game consoles, such as those that support DVD, the default setting is off.
• Make sure that the polarity of the speaker cables is correct, and that no bare wires are in contact with the metal part of speaker terminals.
• Make sure that the speaker cables are not shorting.

• If your record player uses an MC cartridge, you must connect an audio equalizer and either an MC head amp or an MC transformer.

Noise can be heard.
• Using cable ties to bundle audio cables with power cords, speaker cables, etc. may degrade the audio performance, so refrain from doing it.
• An audio cable may be picking up interference. Try repositioning your cables.

Remote control does not work.
• Make sure that the batteries are installed with the correct polarity.
• If the remote control doesn't work reliably, try replacing the batteries. Don't mix new and old batteries or different types of batteries.
• Do not place obstructions between the main unit and the remote control. The remote control might not work if the remote control signal receiver on the unit is exposed to direct sunlight or bright light. If this occurs, try moving the unit.
• Beware that use of this remote control could cause the unintentional operation of other devices that can be controlled by infrared rays.
• If the unit is installed in a rack or cabinet with colored glass doors or if the doors are closed, the remote control may not work reliably.

The display does not work.
• The display is turned off when the Pure Direct mode is selected.

Cannot access to Wi-Fi (Wireless LAN) network.
• Try plugging/unplugging the power supply of wireless LAN router and the unit, check the wireless LAN router power-on status, and try reboot of the wireless LAN router.
• The wireless LAN router setting may be switched to Manual. Return the setting to Auto.
• Try the manual set-up. The connection may succeed.
• When the wireless LAN router setting is at stealth mode (mode to hide the SSID key) or when ANY connection is off, the SSID is not displayed. Change the setting and try again.
• Cannot receive signals due to a bad connection. Shorten the distance from wireless LAN access point or remove obstacles for a good visibility, and try again. Place the unit away from microwave ovens or other access points. It is recommended to place the Wi-Fi router (access point) and the unit in the same room.
• If there is a metallic object near the unit, wireless LAN connection may not be possible as the metal can effect on the radio wave.

- When other wireless LAN devices are used near the unit, several issues such as interrupted playback and communication may occur. You can avoid these issues by changing the channel of your Wi-Fi router. For instructions on changing channels, see the instruction manual provided with your Wi-Fi router.

Cannot access the Internet radio.

- Certain network service or contents available through the unit may not be accessible in case the service provider terminates its service.
- Make sure that connecting to Internet from other components is possible. If connecting is not possible, turn off all components connected to the network, wait for a while, and then turn on the components again.
- If a specific radio station is unavailable for listening, make sure the registered URL is correct, or whether the format distributed from the radio station is supported by this unit.

Bluetooth functions

- Try plugging/unplugging the power of the unit and try turning on/off the *Bluetooth* enabled device. Re-startup of the *Bluetooth* enabled device may be effective.
- When the audio volume of your *Bluetooth* enabled device is set low, the playback of audio may be unavailable. Increase the volume of the *Bluetooth* enabled device.
- Near components such as microwave oven or cordless phone, which use the radio wave in the 2.4 GHz range, a radio wave interference may occur, which disables the use of this unit.
- If there is a metallic object near the unit, *Bluetooth* connection may not be possible as the metal can effect on the radio wave.
- Depending on the *Bluetooth* enabled device, Send/ Receive selector switch may be provided. Select Send mode.
- Depending on the characteristics or specifications of your *Bluetooth* enabled device, playback on the unit is not guaranteed.

USB storage device is not displayed.

- Check whether the USB storage device or USB cable is correctly inserted to the USB port of the unit.
- Remove the USB storage device from the receiver once, and then try re-connecting.
- USB storage devices with security functions may not be played.

Cannot access the network server.

- This unit needs to be connected to the same router as the network server.
- Make sure your network server has been started up.
- Make sure your network server is properly connected to the home network.
- Make sure your network server is correctly set.
- Make sure that the router LAN side port is properly connected to the receiver.

Playback stops while listening to music files on the network server.

- Make sure the network server is compatible with this unit.
- When the PC is serving as the network server, try quitting any application software other than the server software (Windows Media® Player 12 etc.).
- If the PC is downloading or copying large files, the playback may be interrupted.

WARNING: If smoke, smell or abnormal noise is produced by the unit, unplug the power cord from the wall outlet immediately and contact the dealer or our support.

The unit contains a microcomputer for signal processing and control functions. In very rare situations, severe interference, noise from an external source, or static electricity may cause it to lockup. In the unlikely event that this should happen, unplug the power cord, wait at least 5 seconds, and then plug it again.

Our company is not responsible for damages (such as CD rental fees) due to unsuccessful recordings caused by the unit's malfunction. Before you record important data, make sure that the material will be recorded correctly.

Compatible devices/media/file formats

Compatible devices/media

■ USB storage device

The unit supports USB storage devices that support the USB Mass Storage Class.
- FAT16 and FAT32 formats are supported for USB storage devices.
- If a USB storage device is divided into multiple partitions, this unit will recognize them as separate volumes.
- This unit supports up to 20,000 files and 16 folder levels within a single folder.
- This unit does not support USB hubs or devices with USB hub functions. Never connect such devices to this unit.
- This unit cannot play back audio files if copyright protection is used.
- If you connect an audio player that supports USB devices to the unit, information on the audio player's screen may differ from information on the unit's display. In addition, the unit does not support management functions provided by the audio player (music file classification, sorting, supplementary information, etc.).
- Do not connect PCs to this unit's USB ports. Audio from PCs cannot be input through this unit's USB ports.
- This unit might not be able to use media that is loaded into a USB card reader.
- Depending on the USB storage device, the unit might not be able to read its data correctly or supply power properly.
- During the use of USB storage devices, please be aware that our company will take no responsibility should data be lost or changed, a USB storage device become damaged or other harm occur.
- We recommend backing up data saved on a USB storage device before using it with this unit.
- Performance of the hard disk that receives power from the USB port of the unit is not guaranteed.
- If your AC adapter is supplied with your USB storage device, connect the AC adapter to an AC outlet to use the device.
- When using an audio player powered by a battery, check that its remaining capacity is sufficient.
- This unit does not support USB flash drives with security functions.

■ Network server

This unit supports the following network server.
Windows Media® Player 11
Windows Media® Player 12
Servers that comply with DLNA
- This unit supports up to 20,000 files and 16 folder levels within a single folder.
- The Digital Living Network Alliance (DLNA) is a group that is advancing the standardization of reciprocal connections and the exchange of audio, image, video and other data among PCs, game devices and digital household appliances over ordinary home networks (LAN). This unit complies with version 1.5 of the DLNA guidelines.
- Depending on the type of media server, this unit might not recognize it or be able to play audio files saved on it.

File format

This unit can play the following types of audio files over a USB or network connection.
- This unit supports gapless playback of a USB storage device in the following conditions.
  When WAV, FLAC and Apple Lossless files are consecutively played back and they have the same format, sampling frequency, channels and quantization bit rate
- The Play To feature does not support the following:
  Gapless playback
  FLAC, Ogg Vorbis, DSD
- Variable bit-rate (VBR) files are supported. However, playback times may not be displayed correctly.
- For playback via wireless LAN, the sampling rate of 88.2 kHz or higher and DSD are not supported.

MP3

Extension	.mp3, .MP3
Standard	MPEG-1/MPEG-2 Audio Layer-3
Sampling Frequency	8 k/11.025 k/12 k/16 k/22.05 k/24 k/32 k/ 44.1 k/48 kHz
Bit rate	8 kbps–320 kbps or VBR

WMA

Extension	.wma, .WMA
Sampling Frequency	8 k/11.025 k/16 k/22.05 k/32 k/44.1 k/ 48 kHz
Bit rate	5 kbps–320 kbps or VBR

- WMA Pro and Voice are not supported.

WMA Lossless

Extension	.wma, .WMA
Sampling Frequency	44.1 k/48 k/88.2 k/96 kHz
Quantization bit rate	16/24-bit

WAV

Extension	.wav, .WAV
Sampling Frequency	8 k/11.025 k/12 k/16 k/22.05 k/24 k/32 k/ 44.1 k/48 k/64 k/88.2 k/96 k/176.4k/ 192 kHz
Quantization bit rate	8/16/24-bit

- WAV files contain uncompressed PCM digital audio.
- For playback from a USB storage device, sampling rates of 176.4 kHz and 192 kHz are not supported.

AAC

Extension	.aac, .m4a, .mp4, .3gp, .3g2, AAC, M4A, .MP4, .3GP, .3G2
Standard	MPEG-2/MPEG-4 Audio
Sampling Frequency	8 k/11.025 k/12 k/16 k/22.05 k/24 k/32 k/ 44.1 k/48 k/64 k/88.2 k/96 kHz
Bit rate	8 kbps–320 kbps or VBR

FLAC

Extension	.flac, .FLAC
Sampling Frequency	8 k/11.025 k/12 k/16 k/22.05 k/24 k/32 k/ 44.1 k/48 k/64 k/88.2 k/96 k/176.4 k/ 192 kHz
Quantization bit rate	8/16/24-bit

- For playback from a USB storage device, sampling rates of 176.4 kHz and 192 kHz are not supported.

Ogg Vorbis

Extension	.ogg, .OGG
Sampling Frequency	8 k/11.025 k/16 k/22.05 k/32 k/44.1 k/ 48 kHz
Bit rate	32 kbps–500 kbps or VBR

- Incompatible files cannot be played back.

LPCM (Linear PCM)

Sampling Frequency	44.1 k/48 kHz
Quantization bit rate	16-bit

- Playback only supported over DLNA.

Apple Lossless

Extension	.m4a, .mp4, .M4A, .MP4
Sampling Frequency	8 k/11.025 k/12 k/16 k/22.05 k/24 k/32 k/ 44.1 k/48 k/64 k/88.2 k/96 kHz
Quantization bit rate	16/24-bit

DSD

Extension	.dsf, .DSF
Sampling Frequency	2.8224 M/5.6448 MHz

- Only sampling rates of 2.8224 MHz is supported for playback from USB.

Specifications

■ Amplifier section

Rated power output (*):

(Both channel driven at 20 Hz to 20 kHz)
85 W+85 W (THD 1 %, 8 Ω)

* Power output specification is for when power supply is 230 V.

■ Audio section

Input (Sensitivity/Impedance)
LINE: 200 mV/47 kΩ
PHONO (MM): 3.5 mV/47 kΩ
Output (Level/Impedance)
LINE OUT: 200 mV/2.2 kΩ
PRE OUT (SUBWOOFER): 1 V/680 Ω
Frequency response
LINE (Direct, Pure Direct): 10 Hz to 100 kHz, $^{+1}_{-3}$ dB
RIAA Deviation
PHONO (MM): 20 Hz to 20 kHz, ±0.5 dB
Tone Control
Bass: ±10 dB (100 Hz)
Treble: ±10 dB (10 kHz)
Signal-to-Noise Ratio (IHF SHORTED, A-NETWORK)
LINE: 100 dB
PHONO (MM): 80 dB
Total Harmonic Distortion
LINE: 0.03 % or less (1 kHz, half power, 8 Ω)
Guaranteed speaker Impedance
A, B: 4 Ω to 16 Ω
A+B: 8 Ω to 16 Ω

■ Tuner section

Frequency Range (FM): 87.5 MHz to 108.0 MHz
Frequency Range (DAB)
(SX-N30DAB): 174.928 MHz to 239.200 MHz
Antenna Input (FM/DAB): 75 Ω unbalanced
Frequency Range (AM)
(SX-N30): 522/530 kHz to 1611/1710 kHz
Antenna (AM) (SX-N30): Loop antenna (balanced)

■ Network section

Wired
LAN terminal: 10BASE-T/100BASE-TX
Wireless
WLAN standards: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
Frequency band
2.4 GHz band
(2.412 GHz to 2.472 GHz): Channel 1 to Channel 13
10 - 11 ch (Spain)
10- 13 ch (France)
1 - 13 ch (Others)

■ *Bluetooth* section

Version: *Bluetooth* Specification Ver. 2.1 +EDR
Estimated line-of-sight transmission distance (*):
Approx. 15 m

* The line-of-sight transmission distance is an estimate. Actual transmission distances supported may differ depending on surrounding conditions.

Frequency range: 2.4 GHz
Supported *Bluetooth* profiles: A2DP, AVRCP
Supported Codec: SBC (Subband Codec)

■ Miscellaneous

Power requirements: AC 220 V to 230 V, 50 Hz/60 Hz
Power consumption: 220 W
In standby: 0.2 W
In standby (Network Standby on): 2.9 W
In standby (Bluetooth Wakeup on): 2.9 W
In standby (Opt1 In Wakeup on): 1.2 W
In standby (Network Standby on, Bluetooth
Wakeup on, Opt1 In Wakeup on): 3.1 W
Auto power down: 20 min, off (default)
Dimensions (W × H × D): 435 mm × 148 mm × 326.5 mm
Weight (without package): 8.5 kg

■ Accessories

Remote control: 1
AAA/IEC R03 dry cell batteries: 2
FM wire antenna (SX-N30): 1
AM loop antenna (SX-N30): 1
DAB/FM wire antenna (SX-N30DAB): 1
Warranty card: 1

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Package List

linux	uClibc	busybox
libgcc	libstdc++	libmms
compat-wireless	wpa_supplicant	dnsmasq
libiconv	bluez	dbus
iperf	faad	

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(11) popt

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(13) thttpd 2.25b

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(14) zlib

zlib.h -- interface of the `zlib' general purpose compression library version 1.1.4, March 11th, 2002

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files ftp://ds.internic.net/rfc/rfc1950.txt (zlib format), rfc1951.txt (deflate format) and rfc1952.txt (gzip format).

(15) Apple Lossless

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(18) FastDelegate

http://www.codeproject.com/KB/cpp/FastDelegate.aspx

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