

# DENON

## AV SURROUND RECEIVER

# AVR-1312

### Getting Started

### Mise en route

### Antes de empezar

### Iniciação

#### Types of manual supplied and how to view them / Types de manuels fournis et manière de les consulter / Tipos de manuales suministrados y cómo visualizarlos / Tipos de manuais fornecidos e como os visualizar



#### Getting Started (This manual) / (Ce manuel) / (Este manual) / (Este manual)

- Explains from how to install, connect, and set up the 5.1-channel speakers to how to easily enjoy the home theatre system. Read this first.
- Ce manuel explique comment installer, connecter et configurer les enceintes 5.1 canaux pour profiter facilement du système de cinéma à domicile. Lisez ce document en premier.
- Explica desde cómo instalar, conectar y configurar los altavoces de 5.1-canales hasta cómo disfrutar con facilidad el sistema home theatre. Lea esto primero.
- Explica com instalar, ligar, e configurar as colunas de 5.1 canais e como desfrutar de modo fácil do sistema de cinema em casa. Leia primeiramente isto.




#### CD-ROM


- This explains the basic operations and advanced operations of this unit and other relevant information. Read this to learn how to use all of the features of this unit.  
D&M Holdings is striving to be a paperless company in order to help preserve the environment. Your cooperation and understanding is appreciated.
- Ce manuel explique les opérations de base et les opérations avancées de cet appareil et donne d'autres informations utiles. Lisez ce document pour apprendre à utiliser toutes les caractéristiques de cet appareil. D&M Holdings s'efforce d'être une société sans papier afin de contribuer à préserver l'environnement. Nous sommes sensibles à votre coopération et votre compréhension.
- Esto explica las operaciones básicas y operaciones avanzadas de esta unidad y otra información relevante. Lea esto para aprender cómo usar todas las funciones de esta unidad. D&M Holdings se esfuerza por ser una empresa sin papel para ayudar a conservar el medio ambiente. Se valora su cooperación y comprensión.
- Explica o modo de funcionamento básico e avançado desta unidade e outras informações importantes. Leia este texto para aprender a utilizar todas as funcionalidades desta unidade. A D&M Holdings é uma empresa que se empenha em não recorrer à impressão em papel como ajuda à preservação do ambiente. A sua cooperação e compreensão são apreciadas.



## SAFETY PRECAUTIONS



**CAUTION**  
**RISK OF ELECTRIC SHOCK**  
**DO NOT OPEN**



**CAUTION:**  
**TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:**  
**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

**CAUTION:**  
 To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet.  
 The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

**PRECAUTION:**  
 Pour déconnecter complètement ce produit du courant secteur, débranchez la prise de la prise murale.  
 La prise secteur est utilisée pour couper complètement l'alimentation de l'appareil et l'utilisateur doit pouvoir y accéder facilement.

**PRECAUCIÓN:**  
 Para desconectar completamente este producto de la alimentación eléctrica, desconecte el enchufe del enchufe de la pared.  
 El enchufe de la alimentación eléctrica se utiliza para interrumpir por completo el suministro de alimentación eléctrica a la unidad y debe de encontrarse en un lugar al que el usuario tenga fácil acceso.

**ATENÇÃO:**  
 Para desligar este produto completamente da tomada de alimentação, retire a ficha da tomada de alimentação.  
 A ficha da tomada de alimentação é utilizada para cortar completamente a alimentação de corrente à unidade e tem de estar facilmente acessível ao utilizador.

## 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.
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. Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.



## FCC INFORMATION (For US customers)

### 1. PRODUCT

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this product may not cause harmful interference, and (2) this product must accept any interference received, including interference that may cause undesired operation.

### 2. IMPORTANT NOTICE: DO NOT MODIFY THIS PRODUCT

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modification not expressly approved by DENON may void your authority, granted by the FCC, to use the product.

### 3. NOTE

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This product generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception, which can be determined by turning the product OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the local retailer authorized to distribute this type of product or an experienced radio/TV technician for help.

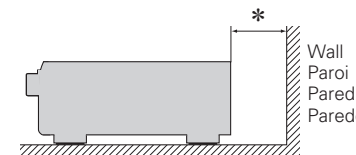
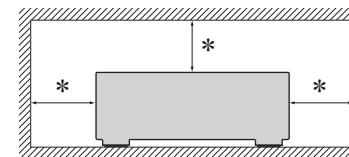
### For Canadian customers:

This Class B digital apparatus complies with Canadian ICES-003.  
 Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

□ NOTES ON USE / OBSERVATIONS RELATIVES A L'UTILISATION / NOTAS SOBRE EL USO /  
NOTAS SOBRE A UTILIZAÇÃO

WARNINGS	AVERTISSEMENTS	ADVERTENCIAS	AVISOS
<ul style="list-style-type: none"> <li>• Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.</li> <li>• Handle the power cord carefully. Hold the plug when unplugging the cord.</li> <li>• Keep the unit free from moisture, water, and dust.</li> <li>• Unplug the power cord when not using the unit for long periods of time.</li> <li>• Do not obstruct the ventilation holes.</li> <li>• Do not let foreign objects into the unit.</li> <li>• Do not let insecticides, benzene, and thinner come in contact with the unit.</li> <li>• Never disassemble or modify the unit in any way.</li> <li>• Ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths or curtains.</li> <li>• Naked flame sources such as lighted candles should not be placed on the unit.</li> <li>• Observe and follow local regulations regarding battery disposal.</li> <li>• Do not expose the unit to dripping or splashing fluids.</li> <li>• Do not place objects filled with liquids, such as vases, on the unit.</li> <li>• Do not handle the mains cord with wet hands.</li> <li>• When the switch is in the OFF (STANDBY) position, the equipment is not completely switched off from MAINS.</li> <li>• The equipment shall be installed near the power supply so that the power supply is easily accessible.</li> </ul>	<ul style="list-style-type: none"> <li>• Eviter des températures élevées. Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.</li> <li>• Manipuler le cordon d'alimentation avec précaution. Tenir la prise lors du débranchement du cordon.</li> <li>• Protéger l'appareil contre l'humidité, l'eau et la poussière.</li> <li>• Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.</li> <li>• Ne pas obstruer les trous d'aération.</li> <li>• Ne pas laisser des objets étrangers dans l'appareil.</li> <li>• Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.</li> <li>• Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.</li> <li>• Ne pas recouvrir les orifices de ventilation avec des objets tels que des journaux, nappes ou rideaux. Cela entraverait la ventilation.</li> <li>• Ne jamais placer de flamme nue sur l'appareil, notamment des bougies allumées.</li> <li>• Veillez à respecter les lois en vigueur lorsque vous jetez les piles usagées.</li> <li>• L'appareil ne doit pas être exposé à l'eau ou à l'humidité.</li> <li>• Ne pas poser d'objet contenant du liquide, par exemple un vase, sur l'appareil.</li> <li>• Ne pas manipuler le cordon d'alimentation avec les mains mouillées.</li> <li>• Lorsque l'interrupteur est sur la position OFF (STANDBY), l'appareil n'est pas complètement déconnecté du SECTEUR (MAINS).</li> <li>• L'appareil sera installé près de la source d'alimentation, de sorte que cette dernière soit facilement accessible.</li> </ul>	<ul style="list-style-type: none"> <li>• Evite altas temperaturas. Permite la suficiente dispersión del calor cuando está instalado en la consola.</li> <li>• Maneje el cordón de energía con cuidado. Sostenga el enchufe cuando desconecte el cordón de energía.</li> <li>• Mantenga el equipo libre de humedad, agua y polvo.</li> <li>• Desconecte el cordón de energía cuando no utilice el equipo por mucho tiempo.</li> <li>• No obstruya los orificios de ventilación.</li> <li>• No deje objetos extraños dentro del equipo.</li> <li>• No permita el contacto de insecticidas, gasolina y diluyentes con el equipo.</li> <li>• Nunca desarme o modifique el equipo de ninguna manera.</li> <li>• La ventilación no debe quedar obstruida por haberse cubierto las aperturas con objetos como periódicos, manteles o cortinas.</li> <li>• No deberán colocarse sobre el aparato fuentes inflamables sin protección, como velas encendidas.</li> <li>• A la hora de deshacerse de las pilas, respete la normativa para el cuidado del medio ambiente.</li> <li>• No exponer el aparato al goteo o salpicaduras cuando se utilice.</li> <li>• No colocar sobre el aparato objetos llenos de líquido, como jarros.</li> <li>• No maneje el cable de alimentación con las manos mojadas.</li> <li>• Cuando el interruptor está en la posición OFF (STANDBY), el equipo no está completamente desconectado de la alimentación MAINS.</li> <li>• El equipo se instalará cerca de la fuente de alimentación de manera que resulte fácil acceder a ella.</li> </ul>	<ul style="list-style-type: none"> <li>• Evite temperaturas altas. Assegure uma suficiente dispersão do calor quando a unidade for instalada numa prateleira.</li> <li>• Manuseie o cabo de alimentação com cuidado. Puxe pela ficha quando desligar o cabo de alimentação.</li> <li>• Mantenha a unidade afastada da humidade, da água e do pó.</li> <li>• Desligue o cabo de alimentação quando não estiver a utilizar a unidade por longos períodos de tempo.</li> <li>• Não obstrua os orifícios de ventilação.</li> <li>• Não deixe objectos estranhos dentro da unidade.</li> <li>• Não permita que insecticidas, benzina e diluente entrem em contacto com a unidade.</li> <li>• Nunca desmonte ou modifique de alguma forma a unidade.</li> <li>• A ventilação não deve ser obstruída, tapando as aberturas de ventilação com objectos, como jornais, toalhas ou cortinas.</li> <li>• Não devem ser colocadas junto à unidade fontes de chama aberta, como velas acesas.</li> <li>• Respeite as regulamentações locais relativas à eliminação de pilhas.</li> <li>• Não exponha a unidade a gotejamento ou salpicos de líquidos.</li> <li>• Não coloque objectos com líquidos, como jarros, em cima da unidade.</li> <li>• Não manuseie o cabo de alimentação com as mãos molhadas.</li> <li>• Quando o interruptor se encontra na posição OFF (STANDBY), o equipamento não está completamente desligado da REDE ELÉCTRICA (MAINS).</li> <li>• O equipamento deve ser instalado junto da fonte de alimentação, para que a fonte de alimentação esteja facilmente acessível.</li> </ul>

□ CAUTIONS ON INSTALLATION  
PRÉCAUTIONS D'INSTALLATION  
EMPLAZAMIENTO DE LA INSTALACIÓN  
PRECAUÇÕES DE INSTALAÇÃO



\* For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.

- More than 12 in. (0.3 m) is recommended.
- Do not place any other equipment on this unit.

\* Pour permettre la dissipation de chaleur requise, n'installez pas cette unité dans un espace confiné tel qu'une bibliothèque ou un endroit similaire.

- Une distance de plus de 12 po (0,3 m) est recommandée.
- Ne placez aucun matériel sur cet appareil.

\* Para la dispersión del calor adecuadamente, no instale este equipo en un lugar confinado tal como una librería o unidad similar.

- Se recomienda dejar más de 12 pulg. (0,3 m) alrededor.
- No coloque ningún otro equipo sobre la unidad.

\* Para uma correcta dispersão do calor, não instale esta unidade num espaço confinado, como uma estante de livros ou uma estrutura semelhante.

- São recomendados mais de 0,3 m.
- Não coloque qualquer outro equipamento sobre esta unidade.

# Read before use

Thank you for purchasing this DENON product.  
This manual explains the removal of the product from its packaging box and how to easily enjoy the home theatre system.

## Contents

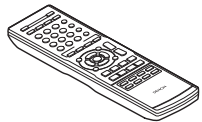
<b>Read before use</b> .....	1
<b>Accessories</b> .....	1
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## Accessories


Check that the following parts are supplied with the product.

① Getting Started .....	1
② CD-ROM (Owner's manual) .....	1
③ Warranty (for North America model only) .....	1
④ Service network list .....	1
⑤ Remote control unit (RC-1158) .....	1
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⑤



⑦



⑧






## About this manual

### ❑ Operation buttons

The operations described in this manual are based mainly on remote control operation.

### ❑ Symbols

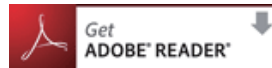
-  This symbol indicates a reference page on which related information is described.
-  This mark indicates the page of the owner's manual on the CD-ROM provided.
-  This symbol indicates a supplementary information and tips for operations.

**NOTE** This symbol indicates points to remember operations or function limitations.

### ❑ Illustrations

Note that the illustrations in this manual is for explanation purposes and may differ from the actual unit.

### ❑ About the CD-ROM (Getting Started / Owner's manual)



You need to have Adobe Reader® installed on your computer to view the owner's manuals on the CD-ROM. Click the Adobe Reader® banner in the CD-ROM menu to download the latest version of Adobe Reader®. Your computer must be connected to the Internet in order to download Adobe Reader®.

## Cautions on handling

### • Before turning the power switch on

Check once again that all connections are correct and that there are no problems with the connection cables.

- Power is supplied to some of the circuitry even when the unit is set to the standby mode. When going on vacation or leaving home for long periods of time, be sure to unplug the power cord from the power outlet.

### • About Condensation

If there is a major difference in temperature between the inside of the unit and the surroundings, condensation (dew) may form on the operating parts inside the unit, causing the unit not to operate properly.

If this happens, let the unit sit for an hour or two with the power turned off and wait until there is little difference in temperature before using the unit.

### • Cautions on using mobile phones

Using a mobile phone near this unit may result in noise. If that occurs, move the mobile phone away from this unit when it is in use.

### • Moving the unit

Turn off the power and unplug the power cord from the power outlet. Next, disconnect the connection cables to other system units before moving the unit.

### • About Care

- Wipe the cabinet and control panel clean with a soft cloth.
- Follow the instructions when using a chemical cleaner.
- Benzene, paint thinner or other organic solvents as well as insecticide may cause material changes and discoloration if brought into contact with the unit, and should therefore not be used.

# Connecting the speakers

This unit can perform 2.0/2.1 to 7.1-channel surround playback.

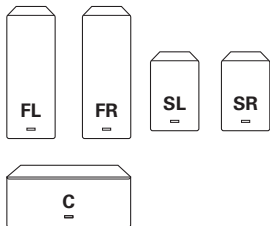
Here, we explain the installation and connection procedure when using 5.1-channel speakers.

For the installation procedure when using other than 5.1-channel, see   page 23 "Speaker installation/connection (Advanced connection)".

- Do not plug the power plug of the main unit into the wall socket until these preparations are complete.
- For operation of the connected devices, refer to the user manuals for each device.

## What you need for this step

### Speaker (sold separately)

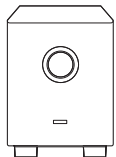


### Speaker cable (sold separately)

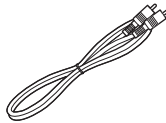


- Prepare enough for the number of speakers you will use.

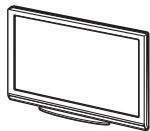
### Subwoofer (with built-in amplifier) (sold separately)



### Audio cable (sold separately)



### TV (sold separately)



### HDMI cable (sold separately)



### Remote control unit (supplied)

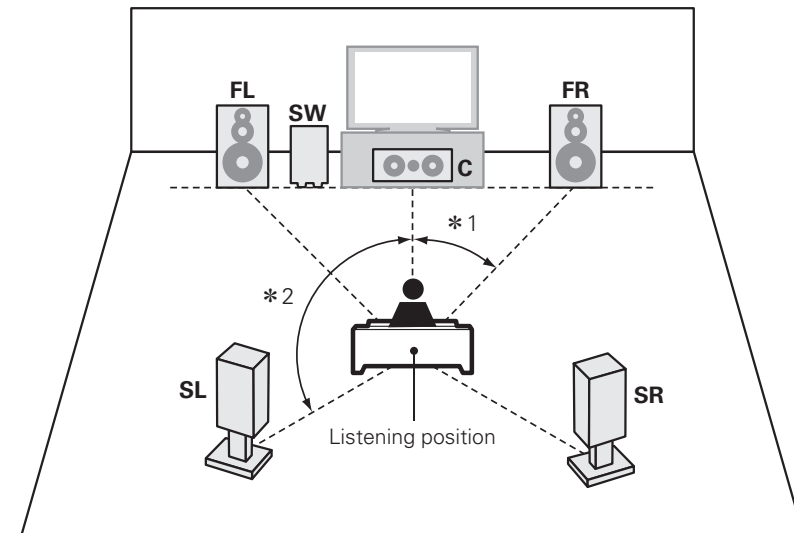


### R03/AAA batteries (supplied)



## Install

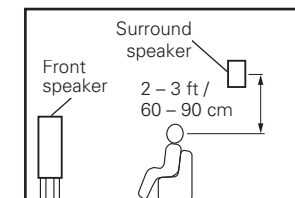
### When 5.1-channel installed



\*1 22° - 30°    \*2 120°

**FL** Front speaker (L)  
**FR** Front speaker (R)  
**C** Center speaker  
**SW** Subwoofer  
**SL** Surround speaker (L)  
**SR** Surround speaker (R)

- Install the surround speakers in a position 2 to 3 ft (60 to 90 cm) higher than ear level.



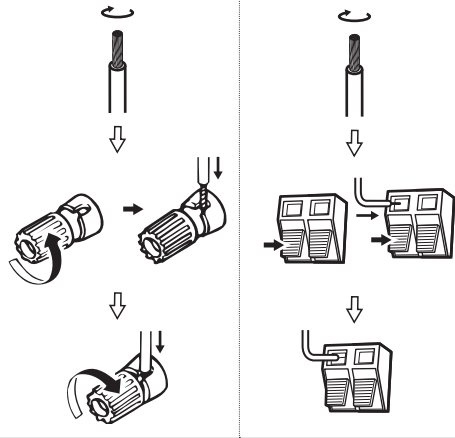
[Viewed from the side]

## Preparation

Carefully check the left (L) and right (R) channels and + (red) and - (black) polarities on the speakers being connected to this unit, and be sure to interconnect the channels and polarities correctly.

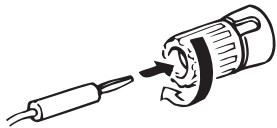
### Connecting the speaker cables

Peel off about 0.03 ft/10 mm of sheathing from the tip of the speaker cable, then either twist the core wire tightly or terminate it.



### When using a banana plug

Tighten the speaker terminal firmly before inserting the banana plug.

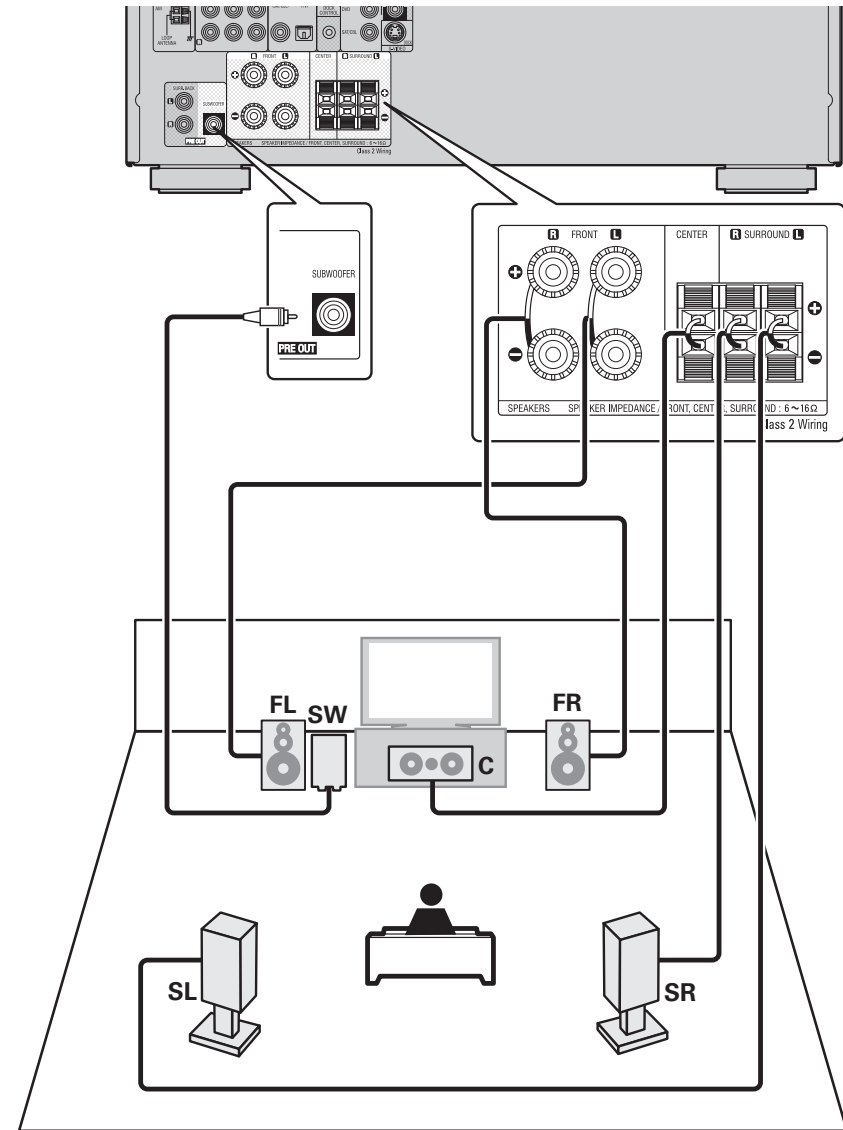


### NOTE

- Connect so that the speaker cable core wires do not protrude from the speaker terminal. The protection circuit may be activated if the core wires touch the rear panel or if the + and - sides touch each other (see page 54 "Protection Circuit").
- Never touch the speaker terminals while the power supply is connected. Doing so could result in electric shock.
- Use speakers with the speaker impedances shown below.

Speaker terminals	Speaker impedance
FRONT	6 - 16 Ω
CENTER	
SURROUND	

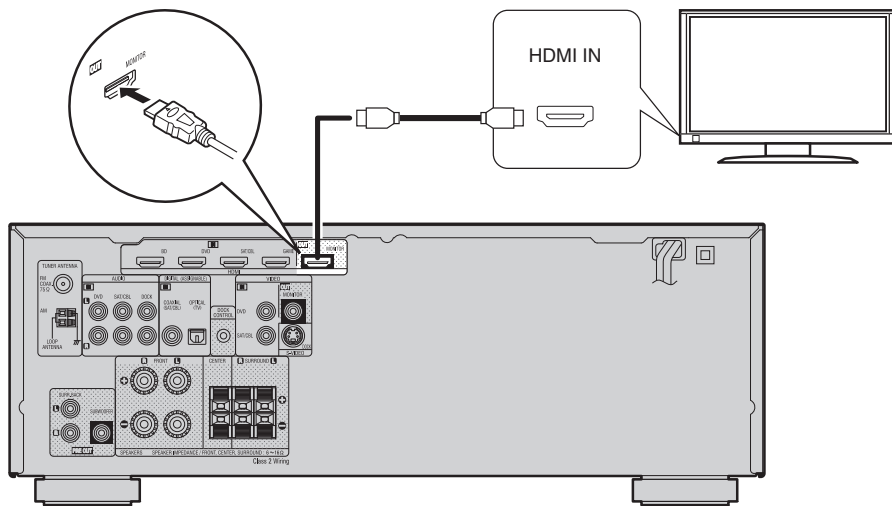
## Connect



# Before setting up the speakers

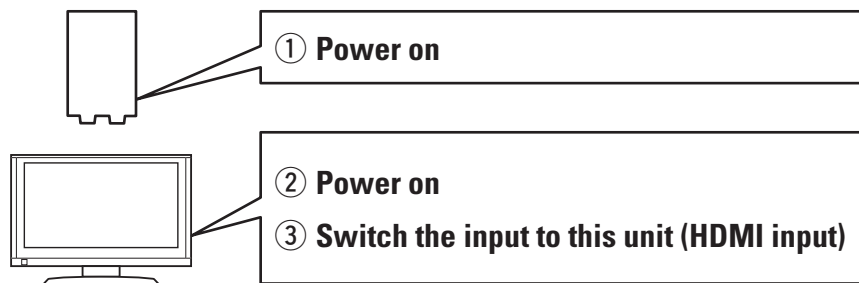
## 1 Connect this unit to the television using an HDMI cable (sold separately)

When a device supporting Deep Color signal transfer is connected, use a cable compatible "High Speed HDMI cable" or "High Speed HDMI cable with Ethernet".

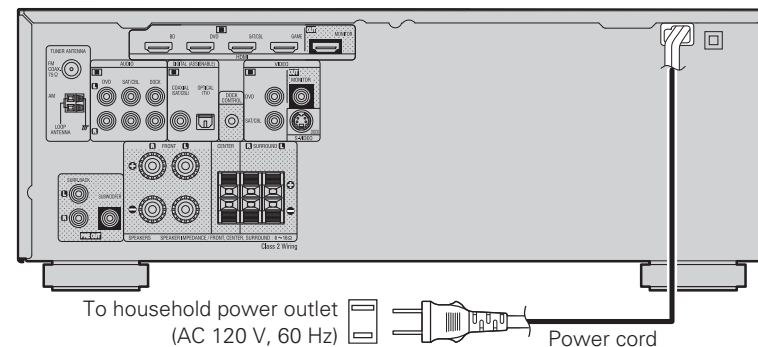


## 2 Turn the television and subwoofer power on, and switch the video input to this unit (HDMI input)

For details on how to operate the television and subwoofer, see the television and subwoofer instruction manual.

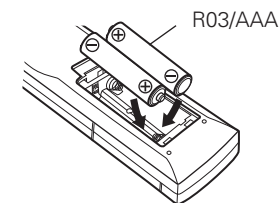
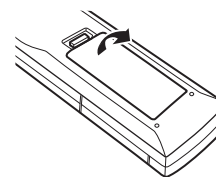


## 3 Insert the main unit power plug into the wall socket



## 4 Insert the provided batteries into the remote control unit

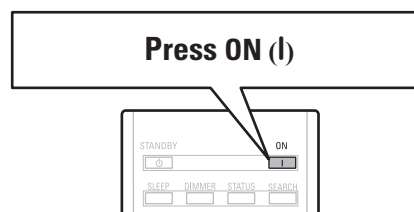
- 1 Remove the rear lid in the direction of the arrow and remove it.
- 2 Load the two batteries properly as indicated by the marks in the battery compartment.



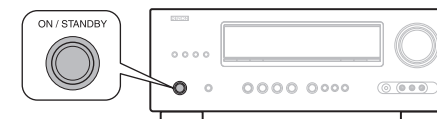
- 3 Put the rear cover back on.

## 5 Turn on power to the unit

The power indicator flashes green and the power turns on.



- You can also switch the power to standby by pressing **ON/STANDBY** on the main unit.





# Set up speakers

For optimum surround playback, adjustment of the distance of speakers and sound level of each channel, using the test tone, are required, depending on the environment for speakers to be used.

The settings for the following 5 items should be made:

## Speaker Config.

Select speaker configuration and size (bass reproduction capability).

## Bass Setting

Set subwoofer and LFE signal range playback.

## Distance

Set distance from listening position to speakers. Measure beforehand the distance from the listening position to each speaker.

## Channel Level

Set the volume of the test tone to be the same when it is output from each speaker.

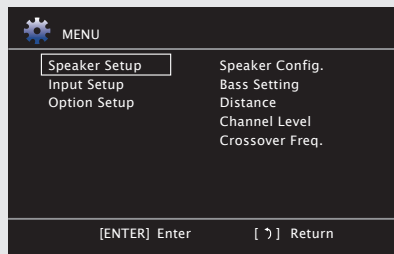
## Crossover Freq.

Set the maximum frequency of the bass signal output from each channel to the subwoofer. Set the Crossover Frequency to suit the bass reproduction capability of the speaker being used.

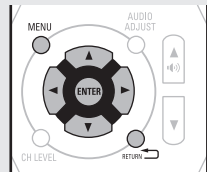
## Menu operation

### 1 Press MENU.

The menu is displayed on the TV screen of this unit.



### 2 Press ENTER.



### 3 Use $\Delta$ / $\nabla$ to select the menu to be set or operated, and then press ENTER.

### 4 Use $\triangleleft$ / $\triangleright$ to select a detailed setting, and then press ENTER.

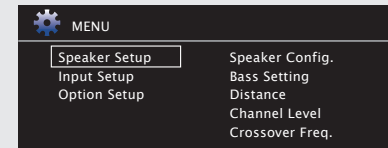
- To return to the previous item, press **RETURN**  $\leftarrow$ .
- Exiting the Menu, press **MENU** while the menu is displayed. The menu display disappears.

## Speaker Config.

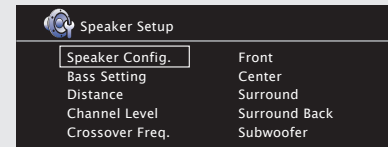
Default settings are underlined.

### 1 Press MENU.

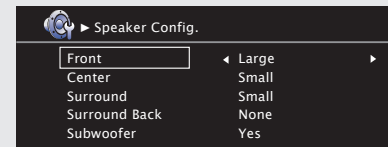
The menu is displayed on the TV screen of this unit.



### 2 Use $\Delta$ / $\nabla$ to select "Speaker Setup", and then press ENTER.



### 3 Use $\Delta$ / $\nabla$ to select "Speaker Config.", and then press ENTER.



### NOTE

Do not use the outward shape of the speaker to determine selection of a "Large" or "Small" speaker. Instead, use the frequencies set in "Crossover Freq." (page 8) as the standard for determining bass reproduction capability.

### 4 Use $\Delta$ / $\nabla$ to select a speaker, and use $\triangleleft$ / $\triangleright$ to select a detailed setting. Items to be set are shown below.

**Front** Set the front speaker size.

- **Large** : Use a large speaker that can adequately play back low frequencies.
- **Small** : Use a small speaker that has inadequate playback capacity for low frequencies.



- When "Subwoofer" is set to "No", "Front" is automatically set to "Large".
- When "Front" is set to "Small", "Center", "Surround" and "Surround Back" can not be set to "Large".

**Center** Set the presence and size of the center speaker.

- **Large** : Use a large speaker that can adequately play back low frequencies.
- **Small** : Use a small speaker that has inadequate playback capacity for low frequencies.
- **None** : Select when a center speaker is not connected.



- "Large" is not displayed when "Front" is set to "Small".

**Surround** Set the presence and size of the surround speakers.

- **Large** : Use a large speaker that can adequately play back low frequencies.
- **Small** : Use a small speaker that has inadequate playback capacity for low frequencies.
- **None** : Select when the surround speakers are not connected.



- When "Surround" is set to "Large", "Surround Back" can be set to "Large".
- When "Surround" is set to "None", "Surround Back" can automatically be set to "None".

See overleaf

## Speaker Config. (Cont.)

**Surround Back** Set the presence, size and number of surround back speakers.

- **Large** : Use a large speaker that can adequately play back low frequencies.
- **Small** : Use a small speaker that has inadequate playback capacity for low frequencies.
- **None** : Select when the surround back speakers are not connected.

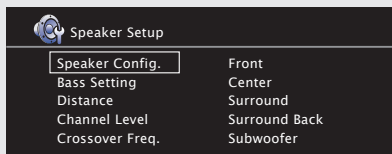
Even when the "Surround Back" setting is other than "None", sound may not be emitted from the surround back speaker, depending on the playback source. In this case, make "Surround Parameter" – "SB CH OUT" (page 36 "Adjusting the sound field effects") setting other than "OFF".

**Subwoofer** Set the presence of a subwoofer.

- **Yes** : Use a subwoofer.
- **No** : Select when a subwoofer is not connected.

When "Front" is set to "Small", "Subwoofer" is automatically set to "Yes".

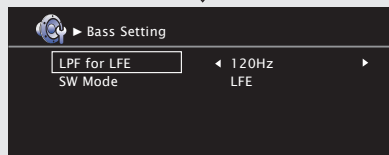
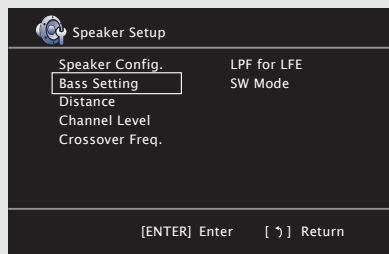
**5 Press ENTER to enter the setting.**



## Bass Setting

Default settings are underlined>.

**1 Use  $\Delta$ / $\nabla$  to select "Bass Setting", and then press ENTER.**

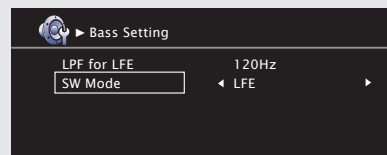


**2 Use  $\triangleleft$ / $\triangleright$  to select the frequency.**

**LPF for LFE** Set LFE signal playback range.

- 80Hz / 90Hz / 100Hz / 110Hz / 120Hz / 150Hz / 200Hz / 250Hz

**3 Use  $\Delta$ / $\nabla$  to select "SW Mode", and use  $\triangleleft$ / $\triangleright$  to select a detailed setting.**



**SW Mode** Select low range signals to be reproduced by subwoofer.

- **LFE** : The low range signal of the channel set to "Small" speaker size is added to the LFE signal output from the subwoofer.
- **LFE+Main** : The low range signal of all channels is added to the LFE signal output from the subwoofer.

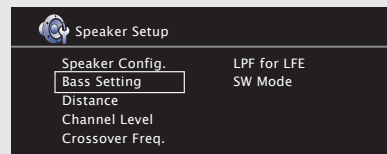
"SW Mode" can be set when "Speaker Config." – "Subwoofer" (page 5) is set to "Yes".

- Play music or a movie source and select the mode offering the strongest bass.
- Select "LFE+Main" if you want the bass signals to always be produced from the subwoofer.

### NOTE

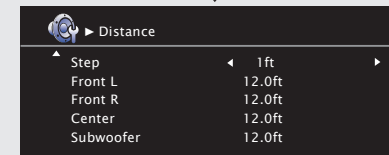
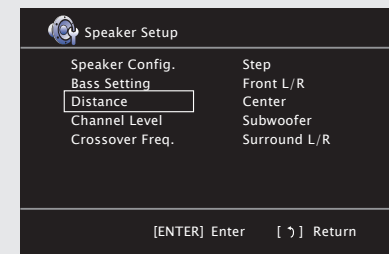
If "Front" and "Center" for "Speaker Config." are set to "Large", and "SW Mode" is set to "LFE", no sound may be output from the subwoofers, depending on the input signal or selected surround mode.

**4 Press ENTER to enter the setting.**



## Distance

**1 Use  $\Delta$ / $\nabla$  to select "Distance", and then press ENTER.**



**2 Use  $\triangleleft$ / $\triangleright$  to change the step (minimum variable distance).**

1ft : For changing in 1-foot steps.

**0.1ft** : For changing in 0.1-foot steps.

Default settings are underlined.

## Channel Level

Default settings are underlined.

### 3 Use $\Delta$ / $\nabla$ to select a speaker, and use $\triangleleft$ / $\triangleright$ to select distance.

**Front L / Front R / Center / Subwoofer / Surround L / Surround R / Surround Back L\* / Surround Back R\***

Select the speaker.

\* When the "Speaker Config." – "Surround Back" (page 5) setting is set to "None", "Surround Back L" and "Surround Back R" is not displayed.

- **0.0ft – 60.0ft** : Set the distance.

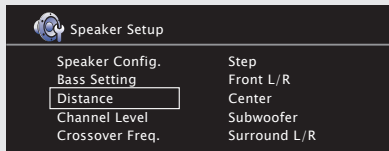


- The speakers that can be selected differ depending on the "Speaker Config." (page 5) settings.
- Default settings :  
Front L / Front R / Center / Subwoofer : 12.0 ft  
Surround L / Surround R /  
Surround Back L / Surround Back R : 10.0 ft
- Set the difference in the distance between the speakers to less than 20 ft.

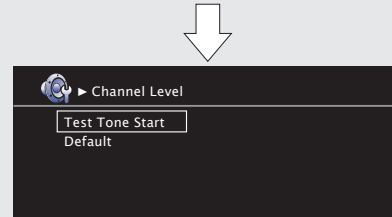
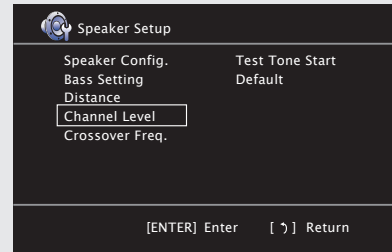
#### NOTE

Speakers set to "None" in "Speaker Config." (page 5) are not displayed.

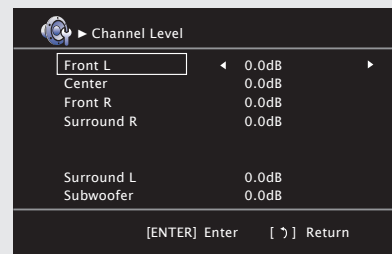
### 4 Press ENTER to enter the setting.



### 1 Use $\Delta$ / $\nabla$ to select "Channel Level", and then press ENTER.



### 2 Press ENTER. Output test tone.



### 3 Use $\Delta$ / $\nabla$ to select a speaker, and use $\triangleleft$ / $\triangleright$ to adjust the sound volume of each speaker to be equal.

**Front L / Center / Front R / Surround R / Surround Back R\* / Surround Back L\* / Surround L / Subwoofer**

Select the speaker.

\* When the "Speaker Config." – "Surround Back" (page 5) setting is set to "None", "Surround Back L" and "Surround Back R" is not displayed.

- **-12.0dB – +12.0dB (0.0dB)** : Adjust the volume.



- When  $\triangleleft$  is pressed while the subwoofer volume is set to "-12 dB", the "Subwoofer" setting switches to "OFF".
- When "Channel Level" is adjusted, the adjusted values are set for all the surround modes. To adjust the channel level separately for the different surround modes, use the operation see page 26 "Adjusting the volume of the speakers".

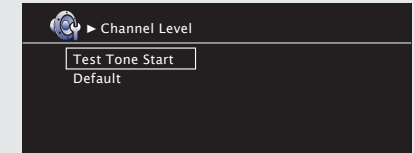
#### NOTE

- Speakers set to "None" in the "Speaker Config." (page 5) settings are not displayed.
- When a headphones jack is inserted in the PHONES jack of this unit, the "Channel Level" is not displayed.

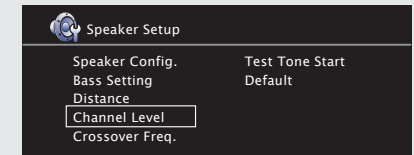
**Default** The "Channel Level" settings are returned to the default settings.

- **Yes** : Reset to the defaults.
- **No** : Do not reset to the defaults.

### 4 Press ENTER to enter the setting.



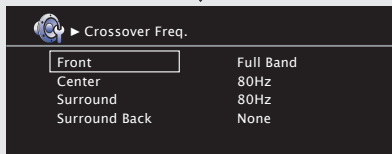
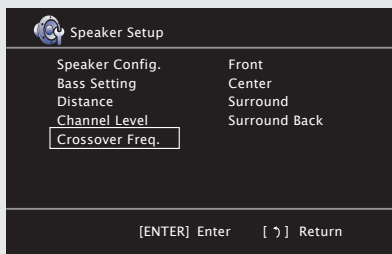
### 5 Press RETURN.



## Crossover Freq.

Default settings are underlined.

**1** Use  $\Delta/\nabla$  to select “Crossover Freq.,” and then press **ENTER**.



**2** Use  $\Delta/\nabla$  to select a speaker, and use  $\triangleleft/\triangleright$  to select the frequency.

**Front / Center / Surround / Surround Back**

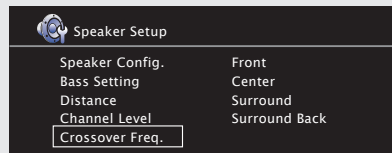
Specify crossover frequency for each speaker.

- **40Hz / 60Hz / 80Hz / 90Hz / 100Hz / 110Hz / 120Hz / 150Hz / 200Hz / 250Hz** : Set the crossover frequency.



- “Crossover Freq.” can be set when the “Bass Setting” – “SW Mode” (page 6) setting is “LFE+Main”, or when you have a speaker that is set to “Small”.
- Always set the crossover frequency to “80Hz”. When using small speakers, however, we recommend setting the crossover frequency to a higher frequency.
- For speakers set to “Small”, sound below the crossover frequency is cut from the sound output. The cut bass sound is output from the subwoofer or front speakers.
- The “SW Mode” setting (page 6) determines which speakers can be set.
  - When “LPF for LFE” is selected, speakers set to “Small” at “Speaker Config.” can be set. If the speakers are set to “Large”, “Full Band” is displayed and the setting cannot be made.
  - If set to “LFE+Main”, this setting can be made regardless of the speaker size.

**3** Press **ENTER** to enter the setting.



**4** Press **MENU**.  
The menu display disappears.

## Playing a Blu-ray Disc player

This section explains the basic operations for surround playback using a Blu-ray Disc player connected to this unit.

For details, see the included CD-ROM (Owner’s manual).

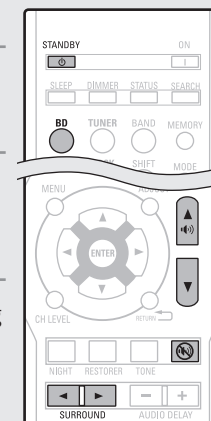
**1** Press **BD** to switch an input source for a player used for playback.

**2** Play the component connected to this unit.  
Make the necessary settings on the player (language setting, subtitles setting, etc.) beforehand.

**3** Adjust the sound volume.  
 $\text{Speaker icon} \Delta/\nabla$  ..... Volume up /down  
 $\text{Mute icon}$  ..... Muting

**4** Press **SURROUND**  $\triangleleft$  or **SURROUND**  $\triangleright$  to select a listening mode.  
The listening mode is displayed on the display or TV screen.

- Each time **SURROUND**  $\triangleleft$  or **SURROUND**  $\triangleright$  is pressed, the listening mode is switched. Select the desired listening mode.



### When power is switched to standby

Press **STANDBY** (power icon).

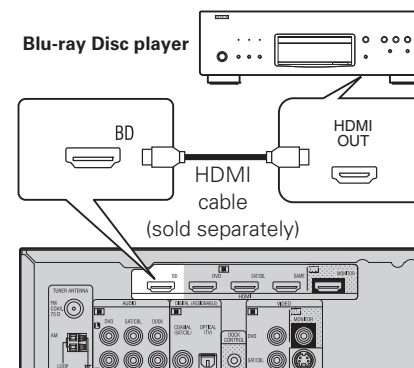
**Power indicator status in standby mode**

- Normal standby : Off

#### NOTE

During power standby, a minimal amount of power is consumed. To totally cut off the power, remove the power cord from the power outlet.

### [Connecting a Blu-ray Disc player]



### Other operations

See the following items on the included CD-ROM (Owner’s manual).

- Playing a Blu-ray Disc player/DVD player
- Tuning in radio stations
- Playing a portable player
- Convenient functions
- Playing an iPod®
- How to make detailed settings







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