Panasonic

Operating Instructions Compact Stereo System

Model No. SC-ALL5CD



Thank you for purchasing this product.

Please read these instructions carefully before using this product, and save this manual for future use.

Included Installation Instructions (→ 2, 3 and 26, 27)

The installation work should be done by a qualified installation specialist.

Before commencing work, carefully read these installation instructions and the operating instructions to ensure that installation is performed correctly.

(Please keep these instructions. You may need them when maintaining or moving this unit.)

Model number suffix "EB" denotes UK model.



Caution for AC Mains Lead

(For the AC mains plug of three pins)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark a or the BSI mark b on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

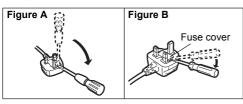
Before use

Remove the connector cover.

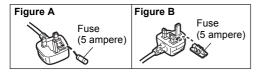
How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below. Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.



Safety precautions

WARNING

Unit

- To reduce the risk of fire, electric shock or product damage,
 - Do not expose this unit to rain, moisture, dripping or splashing.
 - Do not place objects filled with liquids, such as vases, on this unit.
- Use only the recommended accessories.
- Do not remove covers.
- Do not repair this unit by yourself. Refer servicing to qualified service personnel.
- Do not let metal objects fall inside this unit.
- Do not place heavy items on this unit.

AC mains lead

- To reduce the risk of fire, electric shock or product damage,
- Ensure that the power supply voltage corresponds to the voltage printed on this unit.
- Insert the mains plug fully into the socket outlet.
- Do not pull, bend, or place heavy items on the lead.
- Do not handle the plug with wet hands.
- Hold onto the mains plug body when disconnecting the plug.
- Do not use a damaged mains plug or socket outlet.
- The mains plug is the disconnecting device.
 Install this unit so that the mains plug can be unplugged from the socket outlet immediately.

CAUTION

Unit

- This unit utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- Do not place sources of naked flames, such as lighted candles, on this unit.
- This unit may receive radio interference caused by mobile telephones during use. If such interference occurs, please increase separation between this unit and the mobile telephone
- This unit is intended for use in moderate climates.

Placement

- Place this unit on an even surface.
- To reduce the risk of fire, electric shock or product damage,
 - Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure this unit is well ventilated.
 - Do not obstruct this unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.
 - Do not expose this unit to direct sunlight, high temperatures, high humidity, and excessive vibration.

Battery

- Danger of explosion if battery is incorrectly replaced. Replace only with the type recommended by the manufacturer.
- · Mishandling of batteries can cause electrolyte leakage and may cause a fire.
 - Remove the battery if you do not intend to use the remote control for a long period of time. Store in a cool, dark place.
 - Do not heat or expose to flame.
 - Do not leave the battery(ies) in a car exposed to direct sunlight for a long period of time with doors and windows closed.
 - Do not take apart or short circuit.
 - Do not recharge alkaline or manganese batteries.
 - Do not use batteries if the covering has been peeled off.
- When disposing of the batteries, please contact your local authorities or dealer and ask for the correct method of disposal.

Product Identification Marking is located on the bottom of the

Table of contents

Caution for AC Mains Lead	2
Safety precautions	2
Accessories	
Control reference guide	4
Connections	
Inserting media	6
Network settings	
Streaming music over the network	
Bluetooth® operations	
Media playback controls	
Listening to DAB+	14
Listening to FM radio	16
Sound adjustment	17
Clock and Timer	
Others	18
Troubleshooting	20
Unit and media care	
About Bluetooth®	
Playable media	24
Licenses	24
Attaching the unit to a wall (optional)	26
Specifications	28
. Limited Warranty (ONLY FOR AUSTRALIA)	

About descriptions in these operating instructions

- Pages to be referred to are indicated as "→ ○○".
- Unless otherwise indicated, operations are described using the remote control.

Accessories

Check the supplied accessories before using this unit.

- ☐ 1 Remote control (N2QAYB001050)
- ☐ 1 Battery for remote control
- (For the United Kingdom and Ireland)
 - 1 AC mains lead (K2CT2YY00097)
- (For Continental Europe)
 - 1 AC mains lead (K2CQ2YY00119)
- (For Australia and New Zealand)
 - 1 AC mains lead (K2CJ2YY00101)
- ☐ 1 DAB indoor antenna

(RFA3664)



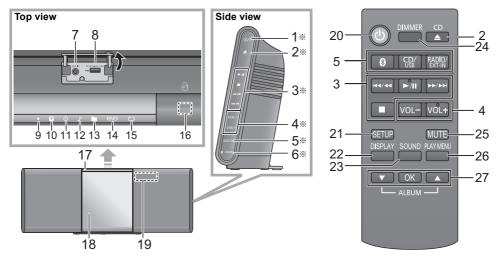
Wall mounting accessories

- ☐ 1 Safety holder (RSC1308)
- 2 Wall mount brackets (RSC1262-1)



- ☐ 1 Screw (XTB3+8JFJK-J)
- Do not use AC mains lead with other equipment.
- · Product numbers provided in these operating instructions are correct as of March 2015. These may be subject to change.

Control reference guide



1 Standby/on switch (也/I)

Touch to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

- 2 Open or close the sliding door
- 3 Basic playback control buttons
- 4 Adjust the volume (0 (min) to 50 (max))
- 5 Select the audio source

On this unit:

"CD"
$$\longrightarrow$$
 "BLUETOOTH" \longrightarrow "DAB+" \uparrow "NETWORK" \leftarrow "USB" \leftarrow "AUX" \leftarrow "FM"

On the remote control:

- 6 Bluetooth®-pairing button
 - Touch to select "BLUETOOTH" as the audio source.
 - Touch and hold to enter pairing mode (→ 11) or disconnect a Bluetooth® device (→ 12).
- 7 AUX IN jack (→ 5)
- 8 Port for USB devices / DC OUT terminal (→ 6)
- 9 " ": Network indicator
- 10 "

 ■": Secondary service indicator
- 11 "@": Play timer indicator

- 12 ">": 1-TRACK indicator
- 13 "■": 1-ALBUM indicator
- 14 "RND": RANDOM indicator
- 15 " > ": ON REPEAT indicator
- 16 NFC sensor (→ 11)
- 17 Remote control signal sensor Distance: Within approx. 7 m directly in front Angle: Approx. 30° left and right
- 18 Sliding door
- 19 Display
- 20 Turn the unit on or off
- 21 Enter setup menu
- 22 Change the displayed information
- 23 Enter sound menu
- 24 Dim the display panel and indicators Press again to cancel.
- 25 Mute the sound

Press again to cancel. "MUTE" is also cancelled when the volume is adjusted or the unit is turned off.

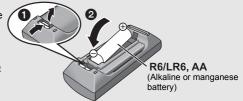
- 26 Enter playback menu
- 27 Selection/OK
- * These switches work just by touching the marks. Each time you touch the switch, there will be a beep sound. The beep sound can be set to off. (→ 18)
 - To avoid operating these switches unintentionally when moving the unit, turn the unit off before moving it.

Using the remote control

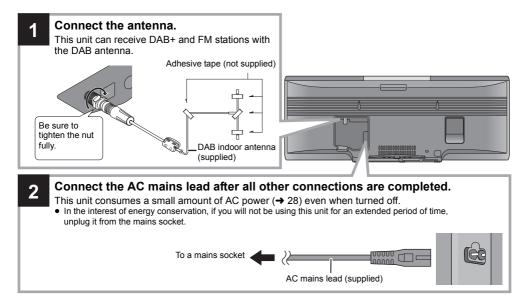
Insert the battery so the terminals (+ and -) match those in the remote control.

Point it at the remote control signal sensor on this unit.

- To avoid interference, please do not put any objects in front of signal sensor.
- When the sliding door is opened, operate the remote control at around the same level as the remote control signal sensor.



Connections





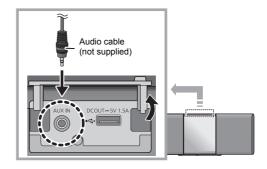
- These speakers do not have magnetic shielding. Do not place them near a TV, personal computer or other magnetic devices.
- Tape the antenna to a wall or column in a position with the least amount of interference.
- If radio reception is poor, use a DAB outdoor antenna (not supplied).

Connect an external music device

- Connect an external music device using an audio cable (not supplied).
 - Plug type: Ø3.5 mm stereo
- Press [RADIO/EXT-IN] repeatedly to select "AUX" and start playback on the connected device.

■ To select the sound input level of the external device

- 1 While in AUX mode, press [SOUND] repeatedly to select "INPUT LEVEL".
- 2 Press [▲, ▼] to select "NORMAL" or "HIGH" and then press [OK].
 - The factory default is "NORMAL".

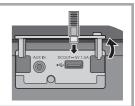


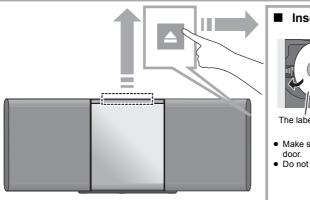
- To improve sound distortion when "HIGH" is selected, select "NORMAL".
- Switch the equalizer off or turn the volume of the external device down to reduce the input signal. High level of input signal will distort the sound.
- For details, refer to the operating instructions of the device.

Inserting media

Connecting a USB device

- Insert the USB device directly. Do not use any USB extension cable.
- Please disconnect the USB device if you finish using.
- Before removing the USB device, select a source other than "USB".







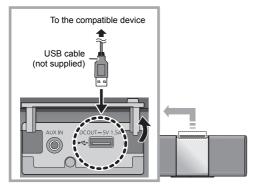
The label side

- . Make sure to tilt the disc so as not to touch the sliding
- Do not open the sliding door manually.

Charging a device

Charging starts when a device (rated value: 5 V/1.5 A) is connected to the DC OUT terminal of this unit.

- Turn the unit on.
- Connect a device.
 - → Confirm from the screen of the connected device, etc. to make sure charging has started.



- A cable compatible with your device is required. Use the cable that comes with your device.
- Even if you connect a cable compatible with the DC OUT terminal of this unit, your device may not be charged. In that case, use the charger that comes with the device.
- . Depending on your device, using other chargers may not work. Check the operating instructions of your device before
- Do not connect a device with a rated value higher than 5 V/ 1.5 A to this unit.
- To check if charging is complete, look at the screen of the connected device, etc.
- Once fully charged, remove the USB cable from the DC OUT
- To continue charging during standby mode, make sure the device has started charging before turning the unit to standby
 - When charging a depleted device, do not turn the unit to standby mode until the device becomes operational.

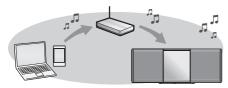
- . Make sure that the unit does not fall when inserting or removing media.
- When moving this unit, be sure to remove all media and turn this unit to standby mode.

Network settings

You can stream music from an iOS device (iPhone/ iPad/iPod), an Android™ device or a PC (Windows) to this system's speakers by using the Qualcomm® AllPlay™ smart media platform or DLNA feature. To use these features, this system must join the same network as the compatible device.

Qualcomm® AllPlay™ smart media platform is a product of Qualcomm Connected Experiences, Inc.

 Please update the system's software after the network settings are complete. (→ 18)



Choose a network setting method from the following.

<u>Wireless LAN connection</u> Method 1: "Using an Internet browser" (→ below)

 You can access this unit's network settings from the Internet browser on your smartphone or PC, etc.

Method 2: "Using WPS (Wi-Fi Protected Setup™)" (→ 8)

 If your wireless router supports WPS, you can set up a connection by either pressing the WPS button, or entering the WPS PIN code.

Wired LAN connection

Method 3: "Using a LAN cable" (→ 8)

 You can make a stable connection to the network with a LAN cable.

 The setting will be cancelled after the set time limit. In that case, try the setting again.

To cancel this setting in the middle, press [■].

Wireless LAN connection

This system has built-in Wi-Fi® and can be connected to a wireless router.

Preparation

- Place this system as close to the wireless router as possible.
- Do not connect a LAN cable. Doing so will disable the Wi-Fi® function.
- **1** Turn this system on.
- **2** Proceed to "Method 1" or "Method 2".

Method 1:

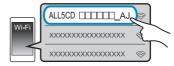
Using an Internet browser

• The following explanations are based on a smartphone.

- 1 Press [RADIO/EXT-IN] on the remote control repeatedly to select "NETWORK".
- Press [SETUP] on the remote control repeatedly to select "NET SETUP" and then press [OK].
- 3 Press [▲, ▼] on the remote control to select "MANUAL" and then press [OK].
- 4 Press [▲, ▼] on the remote control to select "OK? YES" and then press [OK].
 - After pressing [OK] to confirm "OK? YES", the previous network connection you have set with this unit will be cleared.
 - "SETTING" blinks on the display.
- **5** Go to Wi-Fi settings on your compatible device.



6 Select "ALL5CD DDDDDAJ" to connect to this system.



- " \(\sigma\) " stands for a character that is unique to each set.
- This can take up to 1 minute to appear in your Wi-Fi list.
- If this operation does not work correctly, please repeat it several times.
- Make sure that DHCP is enabled for the network setting on your compatible device.
- iOS device: The settings page will be automatically displayed in the Internet browser.
- Except iOS device: Open the Internet browser and refresh the page to display the settings page.
- If the settings page is not displayed, type "http://172.19.42.1/" into the URL address field.
- Type a device name and then select "Next".



- The device name will be displayed as this system's name on the network.
- Maximum characters that can be shown: 32
- The device name is set when "Next" is selected.
- **8** Select your network name (SSID) and type the password.
 - Check the wireless router for the network name (SSID) and the password.
 - A list of network names (SSIDs) will be appeared when you select the "Network Name" box.
 - To show the characters typed in the "Password" box, select "Show Password".
 - If your network requires specific settings, deselect "DHCP" to disable DHCP.
 - You can use specific IP address, subnet mask, default gateway, primary DNS, etc.

9 Select "Connect" to apply the settings.



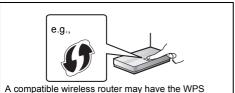
- On the unit's display, "SUCCESS" appears when the connection is established. (The network indicator "

 "
 lights up.)
 - If "FAIL" is displayed press [OK], check the network name (SSID) and the password, and then try the setting again.
- Depending on the device, the connection complete screen may not be displayed.
- 10 Make sure to connect your compatible device back to your home wireless network.



• Enable Java and Cookies in your browser settings.

Method 2: Using WPS (Wi-Fi Protected Setup™)



- identifier mark.
- **1** Press [RADIO/EXT-IN] on the remote control repeatedly to select "NETWORK".
- **2** To enter "WPS PUSH" mode
 - 1 Press [SETUP] on the remote control repeatedly to select "NET SETUP" and then press [OK]. "WPS PUSH" is indicated on the display.
 - 2 Press [OK].
 - Alternatively, touch and hold [►►/►►I] on the unit for at least 4 seconds.
 - "WPS" flashes on the display.
- **3** Activate the WPS button on the wireless router.
 - On the unit's display, "SUCCESS" appears when the connection is established. (The network indicator " ● " lights up.)
 - "FAIL" may be displayed if the connection was not made within the set time limit. Try the setting again. If "FAIL" is still displayed, try other methods.
- 4 Press [OK] on the remote control to exit the setting.

■ Using the WPS PIN code

- 1 Press [RADIO/EXT-IN] on the remote control repeatedly to select "NETWORK".
- 2 To enter "WPS PIN" mode
 - 1 Press [SETUP] on the remote control repeatedly to select "NET SETUP" and then press [OK].
 - 2 Press [▲, ▼] on the remote control to select "WPS PIN" and then press [OK].
 - Alternatively, touch and hold [I◄◄/◄◄] on the unit for at least 4 seconds.

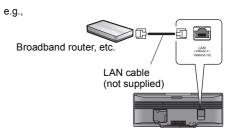
The PIN code is indicated on the display.

3 Enter the PIN code into the wireless router.

- Once the system enters WPS PIN code mode, you cannot set up using the WPS button. To use the WPS button, turn the system off and then on, and redo the network settings.
- Depending on a router, other connected devices may temporarily lose their connection.
- For details, refer to the operating instructions of the wireless router.

Wired LAN connection

Method 3: Using a LAN cable



- 1 Disconnect the AC mains lead.
- **2** Connect the unit to a broadband router, etc. using a LAN cable.
- Connect the AC mains lead to the unit and turn this system on.
 - When the connection is established, the network indicator " " lights up.

- Use category 5 or above straight LAN cables (STP) when connecting to peripheral devices.
- The LAN cable must be connected or disconnected while the AC mains lead is disconnected.
- Inserting any cable other than a LAN cable in the LAN port can damage the system.
- If the LAN cable is disconnected, the network-related settings (→ 9) will be initialized. In that case, make the settings again.
- When a LAN cable is connected, the Wi-Fi function will be disabled.

To make network-related settings

You can change this system's name on the network, and use specific IP address, subnet mask, default gateway, primary DNS, etc.

You can also change the name of this system by changing a setting in the app "Panasonic Music Streaming" (version 2.0.8 or later) (→ right). For details on the app, refer to the site below. http://panasonic.jp/support/global/cs/audio/app/ (This site is in English only.)

Preparation

- Complete the network settings. (→ 7)
- Connect your device to the same network as this system.
- Check this system's IP address (→ 20), and note it down.
- Start an Internet browser on your device and then type this system's IP address into the address field to display the settings page.
 - It may take a few minutes until the settings page is displayed depending on the environment. In that case, reload the browser.
 - If the unit is connected with Wi-Fi, only a device name can be changed. Close the settings page after changing the device name.
 - To change the device name, select "Change", and type a new device name, and then select "Apply".
- 2 Type a device name and then select "Next".
 - Refer to the step 7 of "Using an Internet browser" (→ 7) for details on a device name.
- 3 Select and input the details.
 - If your network requires specific settings, deselect "DHCP" to disable DHCP.
 - You can use specific IP address, subnet mask, default gateway, primary DNS, etc.
- 4 Select "Connect" to apply the settings.
 - When the connection is established, "SUCCESS" appears on the unit's display.

Streaming music over the network

You can stream music from your devices or online music services to this system's speakers and other speakers powered by AllPlay.

You can also stream music source of this system to other speakers powered by AllPlay.

Streaming music on network devices

You can use the AllPlay or the DLNA function to stream music from the device on the network to this system's speakers by using the app "Panasonic Music Streaming" (free of charge), etc.

- ios : App Store
- Android : Google Play™

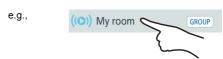


Preparation

- Complete the network settings. (→ 7)
- Connect the following devices to the same network as this system.
 - Device with "Panasonic Music Streaming", etc. installed
 - Device containing music

The following steps are based on "Panasonic Music Streaming".

- Turn this system on.
 - Check that the network indicator " " lights up.
 - If it does not light up, check the network settings. (→ 7)
- 2 Start the app "Panasonic Music Streaming".
 - Always use the latest version of the app.
- 3 Select a music source.
 - To add music source, select "My Music Network" and then select the device containing music.
 - The added music source is numbered in order from 1.
- 4 Select a song.
- **5** From "Select Speaker", select this system as the output speakers.



- If you have multiple speakers powered by AllPlay, you can enjoy synchronised sound from them. Select
 - "GROUP" and then select the speakers to group.
 - You can also play different songs on other speakers powered by AllPlay at the same time.
 - The number of speakers powered by AllPlay that can perform playback at the same time differs depending on the situation of use.
 - When you turn off one of the speakers powered by AllPlay, other speakers in the same group may stop the playback.



- This system will be displayed as "Panasonic ALL5CD" if the device name is not set.
- When playing back music from the DLNA server (PC with Windows 7 or later installed, smartphone, Network Attached Storage (NAS) device, etc.), add the contents and folder to the libraries of the Windows Media® Player, the smartphone, or the NAS device, etc.
- Playlist of Windows Media® Player can play back only the contents that are stored in the libraries.
- When this system is selected as DLNA speakers ():
 - The volume control on the unit may not apply to the app.
 - Playback control using a progress bar on playback screen may not work.
 - The volume level applied to speakers powered by AllPlay will not be reflected.
 - If the system is selected as output speakers by another device, the music source is changed to the new device.
 However the former device's display may not change.
- About supported format, refer to "Specifications" (→ 28).
- File formats that are not supported by your DLNA server cannot be played.
- Depending on the contents and the connected equipment, playback may not be performed properly.
- · Ensure to stop playback on your device before turning it off.

The operations and on-screen display items, etc. of the app "Panasonic Music Streaming" are subject to change. For the latest information, visit

http://panasonic.jp/support/global/cs/audio/app/ More apps are available. For details, visit

www.panasonic.com/global/consumer/homeav/allseries/service

(These sites are in English only.)

Streaming online music

This system is compatible with several online music services.

Visit the following website for the compatibility information.

www.panasonic.com/global/consumer/homeav/allseries/service

Preparation

- Make sure that the network is connected to the Internet.
- Connect a device with a compatible app installed to the same network as this system.
- 1 Turn this system on.
 - Check that the network indicator " " lights up.
 - If it does not light up, check the network settings. (→ 7)
- 2 Start the app, and select a song to playback.

Using Spotify

You will need Spotify Premium. For details, visit the following website.

www.spotify.com/connect/

After step 2

- 3 Select the square image of the song's cover art in the bottom left of the playback screen.
- **4** From " , select this system as the output speakers.
 - To enjoy synchronised sound from the multiple speakers powered by AllPlay, you need to group the speakers using the app "Panasonic Music Streaming".
 (→ 9)

Using online music services other than Spotify

After step 2

- From " (((C)))", select this system as the output speakers.
 - Depending on the service, you might need to open full screen player to display "((C))".
 - If you have multiple speakers powered by AllPlay, you can enjoy synchronised sound from them. Select "Group" and then select the speakers to group.

- This system will be displayed as "Panasonic ALL5CD" if the device name is not set.
- Registration/subscription is required.
- Fees may apply.
- Services, icons, and specifications are subject to change.
- For details, visit the individual music service's website.

Streaming music on this system

You can use the app "Panasonic Music Streaming" (→ 9) to stream this system's music source (radio/CD/Bluetooth®/AUX/USB source) to other speakers powered by AllPlay.

Preparation

- Complete the network settings. (→ 7)
- Prepare the desired audio source on this system (e.g. insert a CD, etc.)
- Install your device with the app "Panasonic Music Streaming".
- Connect your device and your speakers powered by AllPlay to the same network as this system.
- 1 Turn this system on.
 - Check that the network indicator " " lights up.
 - If it does not light up, check the network settings. (→ 7)
- 2 Start the app "Panasonic Music Streaming".
- Always use the latest version of the app.
- Go to the "Music Source".
 - The available music sources from this system will be listed on your device, under the device name for this system.
- 4 Select your desired music source from the list.
 - The device will start to read the selected music source's information from this system.
 - This system will change to the selector mode for the selected music source.
 - Depending on the selected music source, playback may start. If a content list appears on your device, select the
- desired content to start playback.

 To stream this system's audio to the other speakers powered by AllPlay
 - 1 From "Select Speaker", select "GROUP" next to the device name for this system.
 - 2 Select the speakers to group.
 - The number of speakers powered by AllPlay that can perform playback at the same time differs depending on the situation of use.
 - When you turn off one of the speakers powered by AllPlay, other speakers in the same group may stop the playback.



- This system will be displayed as "Panasonic ALL5CD" if the device name is not set.
- When enjoying video contents with this function, the video and audio output may not be synchronised.
- If music is streamed to other speakers powered by AllPlay for more than 8 hours, the other speakers powered by AllPlay will automatically stop playing the music. (The specifications are subject to change without notice.)

Bluetooth® operations

You can listen to the sound from the Bluetooth® audio device from this unit wirelessly.

- Refer to the operating instructions of the Bluetooth® device for details.
- If you intend to use an NFC (Near Field Communication)-compatible Bluetooth® device, proceed to "One-Touch Connection (Connecting by NFC)".

Connecting via Bluetooth® menu

Preparation

 Turn on the Bluetooth® feature of the device and place the device near this unit.

■ Pairing with Bluetooth® devices

1 Press [♠] to select "BLUETOOTH".

→ If "PAIRING" is indicated on the display, go to step 4.

To enter pairing mode*

- **2** Press [PLAY MENU] to select "PAIRING".
- 3 Press [▲, ▼] to select "OK? YES" and then press [OK].

To pair with a device

- 4 Select "SC-ALL5CD" from the Bluetooth® device's Bluetooth® menu.
 - → The MAC address (e.g., 6C:5A:B5:B3:1D:0F) may be displayed before "SC-ALL5CD" is displayed.
 - → The name of the connected device is indicated on the display for a few seconds.
- 5 Start playback on the Bluetooth® device.
- * You can also enter pairing mode by touching and holding

 [§ -PAIRING] on the unit.

■ Connecting a paired Bluetooth® device

- 1 Press [3] to select "BLUETOOTH".
 - → "READY" is indicated on the display.
- 2 Select "SC-ALL5CD" from the Bluetooth® device's Bluetooth® menu.
 - The name of the connected device is indicated on the display for a few seconds.
- 3 Start playback on the Bluetooth® device.

- If prompted for the passkey, input "0000".
- You can register up to 8 devices with this unit. If a 9th device is paired, the device that has not been used the longest will be replaced.
- This unit can only be connected to one device at a time.
- When "BLUETOOTH" is selected as the source, this unit will automatically try and connect to the last connected Bluetooth® device. ("LINKING" is indicated on the display during this process.) If the connection attempt fails, try to establish a connection again.

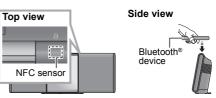
One-Touch Connection (Connecting by NFC)

For NFC-compatible Bluetooth® devices (Android devices) only

Simply by touching an NFC (Near Field Communication)-compatible Bluetooth® device on the unit, you can complete all preparations, from registering a Bluetooth® device to establishing a connection.

Preparation

- Turn on the NFC feature of the device.
- Android device version lower than 4.1 requires the installation of the app "Panasonic Music Streaming" (free of charge).
 - 1 Enter "Panasonic Music Streaming" in the search box of Google Play to search, and then select "Panasonic Music Streaming".
 - 2 Start the app "Panasonic Music Streaming" on the device.
 - Follow on-screen instructions on your device.
 - Always use the latest version of the app.
- Press [] to select "BLUETOOTH".
- Touch and hold your device on the NFC sensor of this unit as illustrated below.



Do not move the Bluetooth® device until it beeps, displays a message or reacts in some way.

Once the Bluetooth® device has reacted, move the device away from this unit.

- When the registration and connection of the Bluetooth® device is complete, the name of the connected device is indicated on the display for a few seconds.
- The location of the NFC touch area differs depending on the device. When a connection cannot be established even if your Bluetooth® device has touched the NFC touch area of this unit, change the position of the device. The condition may also improve if you download the dedicated app "Panasonic Music Streaming" and start it up.
- 3 Start playback on the Bluetooth® device.

- If you touch another device to this unit, you can update the Bluetooth® connection. The previously connected device will be disconnected automatically.
- When the connection is established, playback may start automatically depending on the type of device being used.
- The One-Touch Connection may not work properly depending on the type of device being used.

Bluetooth® transmission mode

You can change the transmission mode to prioritise transmission quality or sound quality.

Preparation

- Press [3] to select "BLUETOOTH".
- If a Bluetooth® device is already connected, disconnect it.
- 1 Press [PLAY MENU] repeatedly to select "LINK MODE".
- Press [▲, ▼] to select the mode and then press [OK].

MODE 1: Emphasis on connectivity **MODE 2:** Emphasis on sound quality



- Select "MODE 1" if the sound is interrupted.
- The factory default is "MODE 2".

Bluetooth® input level

If the sound input level from the Bluetooth® device is too low, change the input level setting.

Preparation

- Connect a Bluetooth® device.
- 1 Press [PLAY MENU] repeatedly to select "INPUT I EVEL"
- **2** Press [▲, ▼] to select the level and then press [OK].

"LEVEL 0" ↔ "LEVEL +1" ↔ "LEVEL +2"

↑______



- · Select "LEVEL 0" if the sound is distorted.
- . The factory default is "LEVEL 0".

Disconnecting a Bluetooth® device

- While a Bluetooth® device is connected: Press [PLAY MENU] repeatedly to select "DISCONNECT?".
- **2** Press [▲, ▼] to select "OK? YES" and then press [OK].



- You can also disconnect the Bluetooth® device by touching and holding [§] -PAIRING] on the unit.
- The Bluetooth device will be disconnected if a different audio source (e.g., "CD") is selected.

Media playback controls

The following marks indicate the availability of the feature.

CD: CD audio in CD-DA format and a CD that

contains MP3 files (→ 24)

USB: USB devices containing MP3 files (→ 24)

Bluetooth: Connected Bluetooth® device (→ 11)

Network: When connected to an AllPlay/DLNA

compatible device (→ 9)

Preparation

- Turn the unit on.
- Insert the media or connect the Bluetooth®/AllPlay/ DLNA compatible device. (→ 6, 9, 11)
- Press [CD/USB] or [3] to select the audio source.
 Network: When this system is selected as the output
 - Network: When this system is selected as the output speakers, the audio source will change to the network source.

Basic controls

(CD, USB, Bluetooth, Network)

Play	Press [►/II].
Stop	Press []. • [UsB]: The position is memorised and "RESUME" is displayed. • [UsB]: Press [] two times to stop the playback fully.
Pause	Press [►/II]. Press again to restart play.
Skip	Press [I◀◀/◀◀] or [▶▶/▶▶I] to skip track.
	CD , USB Press [▲] or [▼] to skip the MP3 album.
Search (Except Network)	During play or pause, press and hold [I◄◄/◄◄] or [▶▶/▶▶I].

■ To display information (CD, USB, Bluetooth)

Press [DISPLAY] repeatedly.

e.g., MP3



"A _ _ _": MP3 album number.

"T _ _ _": MP3 track number.

"_" stands for the album or track number.



- To use this unit's remote control with a Bluetooth® device, the Bluetooth® device must support AVRCP (Audio Video Remote Control Profile).
 - Depending on the status of the device, some controls may not work.
- Network: Some controls may not work depending on the app in use, or when using the DLNA feature, etc.
- Maximum number of displayable characters: approx. 32
- This unit supports ver. 1.0, 1.1 and 2.3 ID3 tags. Text data that is not supported will not be displayed or will be shown differently.
- Bluetooth: When enjoying video contents with this function, the video and audio output may not be synchronised.

Playback modes (CD, USB)

Select the playback mode.

- Press [PLAY MENU] to select "PLAYMODE" or "REPEAT".
- 2 Press [▲, ▼] to select the setting and then press [OK].

PLAYMODE OFF PLAYMODE 1-TRACK Only plays the selected track. • The 1-TRACK indicator "" lights up. (Skip to the desired track.) 1-ALBUM Only plays the selected MP3 album. • The 1-ALBUM indicator "" lights up. RANDOM Plays the contents randomly. • The RANDOM indicator "RND" lights up.

	 The 1-ALBUM indicator " ^{**} and the RANDOM indicator "RND" light up.
REPEAT	
ON REPEAT	Turns on repeat mode. ● The ON REPEAT indicator " → " lights up.
OFF REPEAT	Turns off repeat mode.

MP3 album randomly.

• Press [▲] or [▼] to select the MP3

Plays the tracks in the selected



1-ALBUM

RANDOM

- During random play, you cannot skip to the previous track.
- The mode is cancelled when you open the sliding door or remove the USB device.

Listening to DAB+

Preparation

- Make sure that the DAB antenna is connected. (→ 5)
- Turn the unit on.
- Press [RADIO/EXT-IN] repeatedly to select "DAB+".

Memorising stations

To listen to DAB+ broadcasts, the available stations need to be memorised in this unit.

 This unit will automatically start the "DAB AUTO SCAN" and memorise the stations that are available in your region if the memory is empty.



 "SCAN FAILED" is displayed when the auto scan is unsuccessful. Locate the position with the best reception (→ 15, "To verify or improve the signal reception quality") and then re-scan DAB+ stations.

■ To re-scan DAB+ stations

When new stations are added or when the antenna has been moved, reperform the auto scan.

- 1 Press [PLAY MENU] to select "AUTOSCAN" and then press [OK].
- While "START?" is flashing, Press [OK].



 When updating the memory with the auto scan, preset stations will be erased. Preset them again (→ right).

Listening to the memorised stations

Preparation*

- ① Press [PLAY MENU] repeatedly to select "TUNEMODE".
- ② Press [▲, ▼] to select "STATION" and then press [OK].
- 1 Press [RADIO/EXT-IN] repeatedly to select "DAB+".
- 2 Press [I◄◄/◄◄] or [▶▶/▶▶I] to select the station.

Presetting DAB+ stations

You can preset up to 20 DAB+ stations.

- 1 While listening to a DAB broadcast Press [OK].
- Press [▲, ▼] to select the desired preset channel number and then press [OK].

- You cannot preset stations when the station is not broadcasting or when the secondary service is selected.
- The station occupying a channel is erased if another station is preset in that channel.

■ Listening to preset DAB+ stations Preparation*

- Press [PLAY MENU] repeatedly to select "TUNEMODE".
- ② Press [▲, ▼] to select "PRESET" and then press [OK].
- Press [RADIO/EXT-IN] repeatedly to select "DAB+".
- 2 Press [I◀◀/◀◀] or [▶▶/▶▶I] to select the station.

- To select by preset, make sure that stations have already been preset manually.
- To add additional preset stations, select the station using the method mentioned in "Listening to the memorised stations" (→ left).

Listening to the secondary service

Some DAB+ stations provide a secondary service as well as the primary service. If the station you are listening to is providing secondary service, the secondary service indicator " " ilghts up.

- While the secondary service indicator "▼" lights up. Press [PLAY MENU] repeatedly to select "DAB SECONDARY"
- **2** Press [▲, ▼] to select the secondary service and press [OK].

- The setting will go back to primary service when changes are made (e.g. the station is changed).
- * The "TUNEMODE" setting is memorised until it is changed.

Display

Press [DISPLAY] to change the display.

The information will scroll through the display. Each time you press the button:

Dynamic label:	Information about the broadcast
PTY display:	Programme type
Ensemble label:	The name of the ensemble
Frequency display:	The frequency block and frequency is displayed.
Time display:	Current time

Automatic clock adjustment

If the DAB broadcast includes time information, this unit's clock will be automatically updated.

- Press [PLAY MENU] repeatedly to select "AUTO CLOCK ADJ".
- Press [▲, ▼] to select "ON ADJUST" and then press [OK].



 Select "OFF ADJUST" to turn the automatic clock adjustment function off.

T

To verify or improve the signal reception quality

To check the signal reception quality, at least 1 frequency block needs to be successfully memorised.

- If "SCAN FAILED" is displayed after "DAB+" is selected or after an auto scan, proceed to "Manually tuning 1 frequency block" (→ below)
- If stations have already been memorised to this unit, proceed to "Checking the DAB+ signal reception quality" (→ right)

Manually tuning 1 frequency block

Use this function to scan 1 frequency block after adjusting the position of the DAB antenna.

Preparation

Note down a frequency block that can be received in your region (e.g., 12B 225.648 MHz).

- While "SCAN FAILED" is displayed.
 Adjust the position of the DAB antenna.
- Press [PLAY MENU] repeatedly to select "MANUAL SCAN".
- 3 Press [▲, ▼] to select the frequency block that is receivable in your region and then press [OK].



- If broadcasting stations are memorised, proceed to "To re-scan DAB+ stations" to memorise stations on other frequency blocks. (→ 14)
- If "SCAN FAILED" is still displayed, repeat steps 1 to 3 until a station is memorised. If the situation does not improve, try using an outdoor DAB antenna or consult your dealer.

Checking the DAB+ signal reception quality

- While listening to the DAB broadcast: Press [PLAY MENU] repeatedly to select "SIGNAL QUALITY" and then press [OK].
 - The current frequency block is displayed and then the reception quality is indicated.

Reception quality 0 (poor) – 8 (excellent)



- 2 If the signal reception quality is poor, move the antenna to a position where the reception quality improves.
- To continue checking the quality of other frequency blocks:

Press [▲, ▼] again and select the desired frequency.

4 Press [OK] to exit.



 If the antenna has been adjusted, perform auto scanning and update the station memory. (→ 14)

Listening to FM radio

You can preset up to 30 channels.

Preparation

- Make sure that the antenna is connected. (→ 5)
- Turn the unit on.
- Press [RADIO/EXT-IN] repeatedly to select "FM".



 A station previously stored is overwritten when another station is stored in the same channel preset.

Presetting stations automatically

- **1** Press [PLAY MENU] to select "A.PRESET".
- 2 Press [▲, ▼] to select "LOWEST" or "CURRENT" and then press [OK].

LOWEST:

To begin auto preset with the lowest frequency (FM 87.50).

CURRENT:

To begin auto preset with the current frequency.*

The tuner starts to preset all the stations it can receive into the channels in ascending order.

 To change the frequency, refer to "Manual tuning and presetting".

Listening to a preset channel

- 1 Press [PLAY MENU] repeatedly to select "TUNEMODE".
- Press [▲, ▼] to select "PRESET" and then press [OK].
- 3 Press [I◄◄/◄◄] or [►►/►►] to select the channel

■ Manual tuning and presetting

Select a radio broadcast.

- 1 Press [PLAY MENU] repeatedly to select "TUNEMODE".
- 2 Press [▲, ▼] to select "MANUAL" and then press [OK].
- 3 Press [I◀◀/◀◀] or [▶▶/▶▶I] to tune to the required station.
 - To start automatic tuning, press and hold [I◀◀/◀◀] or [▶►/▶►] until the frequency starts scrolling. Tuning stops when a station is found.

To preset the channel

- 4 While listening to the radio broadcast, press [OK].
- 5 Press [▲, ▼] to select the channel and then press [OK].

■ To improve FM sound quality

- 1 While receiving FM broadcasts, press [PLAY MENU] repeatedly to select "FM MODE".
- 2 Press [▲, ▼] to select "MONO" and then press [OK].
- This setting can be preset and memorised. To do so, continue to step 4 of "Manual tuning and presetting".

- Select "STEREO" in step 2 to return to stereo broadcasts.
- "MONO" is cancelled if the frequency is changed.

■ To display the current FM signal status Press [DISPLAY].

For Continental Europe:

Press [DISPLAY] repeatedly to select "FM STATUS".

"FM ST": The FM signal is tuned and in stereo.

"FM - - - -": There is no tuned signal or the FM signal

is in monaural.

"FM MONO": "MONO" is selected in step 2 of "To improve FM sound quality" (→ above).



 "STEREO" is displayed when this unit tunes to a stereo broadcast.

■ To display RDS text data (For Continental Europe only)

This system can show the text data transmitted by the radio data system (RDS) available in some areas.

Press [DISPLAY] repeatedly.

"PS": Programme service
"PTY": Programme type
"FREQ": Frequency

- RDS is available only when stereo works in reception.
- RDS may not be available if reception is poor.

Sound adjustment

The following sound effects can be added to the audio output.

- 1 Press [SOUND] repeatedly to select the effect.
- 2 Press [▲, ▼] to select the setting and then press [OK].

"PRESET EQ" (Preset Equalizer)	"HEAVY" (heavy), "SOFT" (soft), "CLEAR" (clear), "VOCAL" (vocal) or "FLAT" (flat/off). • The factory default is "HEAVY".
"BASS" (Bass) or "TREBLE" (Treble)	Adjust the level $(-4 \text{ to } +4)$.
"D.BASS" (Dynamic Bass)	"ON D.BASS" or "OFF D.BASS". • The factory default is "ON D.BASS".
"SURROUND" (Surround)	"ON SURROUND" or "OFF SURROUND". • The factory default is "OFF SURROUND".

- You may experience a reduction in sound quality when these effects are used with some sources. If this occurs, turn the sound effects off.
- When "AUX" is selected as the source, you can select "INPUT LEVEL" to adjust the sound input level of the external device. (→ 5)

Clock and Timer

Se

Setting the clock

This is a 24-hour clock.

- 1 Press [SETUP] repeatedly to select "CLOCK".
- **2** Press [▲, ▼] to set the time and then press [OK].

- To display the clock, press [SETUP] repeatedly to select "CLOCK" and then press [OK] once. The time is displayed for 10 seconds.
 - (During standby, press [DISPLAY] once. The time is displayed for approx. 10 seconds and then the display disappears.)
- The clock is reset when there is a power failure or when the AC mains lead is removed.
- Reset the clock regularly to maintain accuracy.

Play timer

You can set the timer so this unit turns on at a certain time every day.

Preparation

Set the clock.

- 1 Press [SETUP] repeatedly to select "TIMER ADJ".
- 2 Press [▲, ▼] to set the starting time ("ON TIME") and then press [OK].
- 3 Press [A, ▼] to set the finishing time ("OFF TIME") and then press [OK].
- 4 Press [▲, ▼] to select the music source* and then press [OK].

Turning the timer on

- Prepare the selected music source and set the desired volume.
- Press [SETUP] repeatedly to select "TIMER SET".
- **3** Press [▲, ▼] to select "SET" and then press [OK].
 - The play timer indicator "@" lights up.
 - To turn the timer off, select "OFF".
 - Press [0] to turn the unit to standby mode.

- To display the timer settings, press [SETUP] repeatedly to select "TIMER ADJ" and then press [OK] once.
 The music source and volume will also be displayed if the timer is turned on.
- During standby, if the timer is turned on, press [DISPLAY] twice to display the settings.
- This unit can be used as normal after the timer is set, however:
 - Turn the unit to standby mode before the timer start time.
 - Even if the audio source or the volume is changed, the timer will still use the audio source and volume that was set when the timer was turned on.
- * "CD", "USB", "DAB+" and "FM" can be set as the music source.

Sleep timer

The sleep timer can turn the unit off after a set time.

- 1 Press [SETUP] to select "SLEEP".
- 2 Press [▲, ▼] to set the time (in minutes) and then press [OK].

- The remaining time is indicated on the unit's display except when other operations are performed.
- The play timer and sleep timer can be used together. The sleep timer is always the main timer on the unit.

Others



Auto off function

As a factory default, this unit will turn to standby mode automatically if there is no sound and it is not being used for approximately 20 minutes.

To cancel this function

1 Press [SETUP] repeatedly to select "AUTO OFF".

Press [▲, ▼] to select "OFF" and then press [OK].



- To turn the function on, select "ON" in step 2.
- This setting cannot be selected when radio is the source.
- When connected to a Bluetooth® device, the function does not work.
- When playing AllPlay/DLNA, the function does not work.
- If "NET STANDBY" is set to "ON", this function will also be set to "ON". To change the setting, set "NET STANDBY" to "OFF". (→ 19)

Bluetooth® standby

When "SC-ALL5CD" is selected from a paired Bluetooth® device's Bluetooth® menu, this unit will turn on automatically from standby mode and establish a Bluetooth® connection.

- 1 Press [SETUP] repeatedly to select "BLUETOOTH STANDBY".
- **2** Press [▲, ▼] to select "ON" and then press [OK].



• To turn the function off, select "OFF" in step 2.

● To t

Changing the unit and remote control code

When other Panasonic equipment responds to the supplied remote control, change the remote control code.

- 1 Press [CD/USB] to select "CD".
- While touching and holding [SELECTOR] on the unit, press and hold [CD/USB] on the remote control until the unit's display shows "REMOTE 2".
- 3 Press and hold [OK] and [CD/USB] on the remote control for at least 4 seconds.



To change the mode back to "REMOTE 1", press [CD/USB] to select "CD" and then repeat the step 2 and 3 but replace [CD/USB] with [].

Beep sound setting

As a factory default, there will be a beep sound when you touch the switch on the unit.

To cancel this function

- 1 Press [SETUP] repeatedly to select "BUZZER".
- **2** Press [▲, ▼] to select "OFF" and then press [OK].

- To turn the function on, select "ON" in step 2.
- · The function works during muting as well.

Software update

Occasionally, Panasonic may release updated software for this system that may add or improve the way a feature operates. These updates are available free of charge.

You can also update the software from a pop-up prompting you to do so on-screen within the app "Panasonic Music Streaming" (version 2.0.8 or later) (→ 9). For details on the app, refer to the site below. http://panasonic.jp/support/global/cs/audio/app/ (This site is in English only.)



DO NOT DISCONNECT the AC mains lead while one of the following messages is displayed.

"UPDATING" or "UPD□□%" (" □ " stands for a number.)

 During the update process, no other operations can be performed.

Preparation

- Turn this system on.
- Connect this system to the home network. (→ 7)
 - Make sure that the network is connected to the Internet.
- **1** Press [RADIO/EXT-IN] repeatedly to select "NETWORK".
- 2 Press [SETUP] repeatedly to select "SW UPDATE" and then press [OK].
- 3 Press [▲, ▼] to select "OK? YES" and then press [OK] to start the update.
 - Select "OK? NO" to cancel the update.

When the update begins, "UPDATING" is displayed. After the update has finished, "SUCCESS" is displayed.

4 Disconnect the AC mains lead and reconnect it after 1 minute.

- If there are no updates, "NO NEED" is displayed.
- Downloading will require several minutes. It may take longer or may not work properly depending on the connection environment.

Checking the software version

Press [SETUP] repeatedly to select "SW VER." and then press [OK].

The version of the installed software is displayed.

• Press [OK] to exit.



Network standby

This system can turn on automatically from standby mode when this system is selected as the network device's output speakers.

As a factory default, the network standby is off before you connect this system to the home network. When you connect it to the home network for the first time, this function will automatically switch to on.

You can also turn the network standby on by the following steps:

- 1 Press [SETUP] repeatedly to select "NET STANDBY" and then press [OK].
- **2** Press [▲, ▼] to select "ON" and then press [OK].
- When "NET STANDBY" is "ON"
 - The network (wired LAN/Wi-Fi) will be active even in standby mode.
 - The power consumption in standby mode will increase. To reduce the power consumption in standby mode, turn off the network standby.

To turn off the network standby

Select "OFF" in step 2.

- When you have turned "NET STANDBY" to "OFF"
 - The network (wired LAN/Wi-Fi) will be disabled in standby mode if the system is switched to standby mode at a source other than "NETWORK".
 The network (wired LAN/Wi-Fi) will be enabled when the system is turned on.
 - Network standby will be active if the system is switched to standby mode at "NETWORK" selector mode and this system is connected to the network.
 - To keep the network standby turned off, select a source other than "NETWORK" before switching the unit to standby mode.



- This function will return to default setting if you have performed the operation for network reset. (→ 20)
- When the system is turned on by this feature, the beginning part of the music may not be played back.
- Depending on the app, the conditions for activating this function may differ.
- The system may not turn on even when selected as the output speakers. In that case, start playback.

Wireless LAN setting

The wireless LAN function can be enabled or disabled.

- Press [RADIO/EXT-IN] repeatedly to select "NETWORK".
- 2 Press [SETUP] repeatedly to select "WIRELESS LAN" and then press [OK].
- **3** Press [▲, ▼] to select "ON" or "OFF" and then press [OK].



• The factory default is "ON".

....

Wi-Fi signal strength

To check the Wi-Fi signal strength where this system is located.

Preparation

Connect this system to the wireless network. (→ 7)

- **1** Press [RADIO/EXT-IN] repeatedly to select "NETWORK".
- Press [SETUP] repeatedly to select "SIGNAL LEVEL" and then press [OK].

 "LEVEL □" is indicated on the display.

 ("□" stands for a number.)
 - · Press [OK] to exit this display mode.



- It is recommended to have a signal strength of "3". Change the position or angle of your wireless router or this system if the indication is "2" or "1" and see if the connection improves.
- If "LEVEL 0" is displayed, this system cannot establish a link with the wireless router. (→ 22)

Wireless network name (SSID)

Display the name for the connected wireless network (SSID).

- 1 Press [RADIO/EXT-IN] repeatedly to select "NETWORK".
- Press [SETUP] repeatedly to select "NET INFO" and then press [OK].
- 3 Press [▲, ▼] repeatedly to select "SSID" and then press IOKI.
 - Press [OK] to exit.



- If "NO CONNECT" is displayed this system is not connected to a wireless network.
- Characters that cannot be displayed are replaced with "*".

IP/MAC Address

To check this system's IP address or the Wi-Fi MAC address.

- Press [RADIO/EXT-IN] repeatedly to select "NETWORK".
- Press [SETUP] repeatedly to select "NET INFO" and then press [OK].
- 3 Press [▲, ▼] repeatedly to select "IP ADDR." or "MAC ADDR." and then press [OK].
 - The IP address or the MAC address is partially displayed.
- 4 Press [▲, ▼] on the remote control to show the rest of the IP address or the MAC address.
 - Press [OK] to exit.
 - The "-" displayed on the top or bottom left of the display indicate the first and last units respectively.

1

Network reset

To reset the network settings.

- 1 Press [RADIO/EXT-IN] repeatedly to select "NETWORK".
- Press [SETUP] repeatedly to select "NET RESET" and then press [OK].
- 3 Press [▲, ▼] to select "OK? YES" and then press [OK].
 - "NETWORK INITIALIZING" is indicated on the display.
 When the display returns to "NETWORK", the network settings are reset.



This function does not affect the "WIRELESS LAN" setting.

Troubleshooting

Before requesting service, make the following checks. If you are uncertain about some of the check points, or if the solutions indicated in the following guide does not resolve the issue, then consult your dealer for instructions.

To return all settings to the factory defaults

When the following situations occur, reset the memory:

- You want to clear and reset the memory contents.
- Touch and hold [₺/l] on the unit until "RESET?" appears on the display.
- While touching and holding down [⁽¹⁾/₁] on the unit, touch [SELECTOR] on the unit. "RESET" appears on the display and all the indicators

flash. After "-----" is displayed, the unit will turn off.

- The settings are returned to the factory defaults. It is necessary to set the memory items again.
- To reset the network settings, perform the operation for network reset. (→ left)



General

Humming heard during playback.

 If an AC mains lead or fluorescent lights are near the cords, then keep other appliances and cords away from the cables.

The unit does not work.

- One of the unit's safety devices may have been activated.
 Reset the unit as follows:
 - ① Touch [也/I] on the unit to switch the unit to standby.
 - If the unit does not switch to standby, touch [II] on the unit for approximately 10 seconds. The unit is forcibly switched to standby. Alternatively, disconnect the AC mains lead, wait for at least 3 minutes, then reconnect it.
 - ② Touch [⁽⁾/₁] on the unit to switch it on. If the unit still cannot be operated, consult the dealer.

MP3 cannot be read.

- You may not be able to play MP3 if you have copied a multi-session disc that has no data between sessions.
- When creating a multi-session disc, it is necessary to close the session
- The amount of data on the disc is too small. Set the amount of data to above 5 MB.

Charging does not start during standby mode.

 Turn the unit on. Check the charging has started, and then turn the unit to standby mode. (→ 6)

Noise is heard.

 When a device is connected to both the AUX IN jack and the DC OUT terminal, noise may be generated depending on the device.
 In this case, remove the USB cable from the DC OUT terminal.

The switches on the unit do not work.

 The switches on the unit are touch keys. Touch the switches with your finger. They may not work if operated with your fingernails or hands wearing gloves.

Remote control

The remote control does not work properly.

• The battery is depleted or inserted incorrectly. (→ 4)



Disc

Incorrect display or play does not start.

- Make sure that the disc is compatible with this unit. (→ 24)
- There is moisture on the lens. Wait for about an hour and then try again.



USB

No response when [►/II] is pressed.

 Disconnect the USB device and then reconnect it. Alternatively, turn the unit off and on again.

The USB drive or its contents cannot be read.

- The USB drive format or its contents is/are not compatible with the unit (→ 24)
- The USB host function of this product may not work with some USB devices.

Slow operation of the USB flash drive.

 Large file size or high memory USB flash drive takes longer time to read

The elapsed time displayed is different from the actual play time.

 Copy the data to another USB device or backup the data and reformat the USB device.



Radio

DAB+ reception is poor.

- Keep the antenna away from computers, televisions, other cables and cords.
- Use an outdoor antenna (→ 5).

Static or noisy reception is heard while listening to a radio broadcast.

- Confirm the antenna is properly connected. (→ 5)
- Adjust the position of the antenna.
- Try to keep a certain amount of distance between the antenna and AC mains lead.
- Try using an outdoor antenna if there are buildings or mountains nearby. (→ 5)
- Turn the TV or other audio players off or separate it from this unit.
- Keep this unit away from mobile phones if there is interference.



Bluetooth®

Pairing cannot be completed.

Check the Bluetooth® device condition.

The device cannot be connected.

- The pairing of the device was unsuccessful or the registration has been replaced. Try re-pairing the device. (→ 11)
- This unit might be connected to a different device. Disconnect the other device and try re-pairing the device. (→ 11)
- If the problem persists, turn the unit off and on, then try again.

The device is connected, but audio cannot be heard through this unit.

 For some built-in Bluetooth® devices, you have to set the audio output to "SC-ALL5CD" manually. Read the operating instructions for the device for details.

The sound is interrupted.

- The device is out of the 10 m communication range. Place the Bluetooth® device closer to this unit.
- · Remove any interference between this unit and the device.
- Other devices that use the 2.4 GHz frequency band, such as wireless routers, microwaves, cordless phones, etc. are interfering. Place the Bluetooth® device closer to this unit and distance it from the other devices.
- Select "MODE 1" for stable communication. (→ 12)

The One-Touch Connection (NFC feature) is not working.

 Make sure the unit and the NFC feature of the device are turned on. (→ 11)



Network

Cannot connect to the network.

- Confirm the network connection and settings. (→ 7)
- If the network is set to be invisible, make the network visible while you set up the network for this unit or make a wired LAN connection. (→ 8)
- This system's Wi-Fi security supports WPA2™ only. Your wireless router must therefore be WPA2™ compatible. For details on the security supported by your router and how to change the settings, please refer to the operating instructions or contact your Internet service provider.
- Make sure that the multicast function on the wireless router is enabled.
- Depending on the routers, WPS button may not work. Try other methods. (→ 7)
- Check the "WIRELESS LAN" setting. (→ 19)

Cannot select this system as the output speakers.

- Make sure that the devices are connected to the same network as this system.
- Reconnect the devices to the network.
- Turn the wireless router off and then on.
- Turn this system off and on, and then select this system as the output speakers again.

Playback does not start. The sound is interrupted.

- If using the 2.4 GHz band on the wireless router, simultaneous use with other 2.4 GHz devices, such as microwaves, cordless telephones, etc., may result in connection interruptions. Increase the distance between this unit and these devices.
 - If your wireless router supports 5 GHz band, try using the 5 GHz band.
 - To change to the 5 GHz band, redo the network settings using an Internet browser (→ 7). On the step 8, make sure to select your network name (SSID) for the 5 GHz band.
- Do not place this system inside a metal cabinet, for it might block the Wi-Fi signal.
- Place this system closer to the wireless router.
- If several wireless devices are simultaneously using the same wireless network as this system, try turning off the other devices or reducing their wireless network usage.
- If the playback stops, check the playback status on the device.
- Reconnect the devices to the network.
- Turn the wireless router off and then on.
- Try a wired LAN connection. (→ 8)

Messages

The following messages or service numbers may appear on the unit's display.

"--:--"

 You plugged the AC mains lead in for the first time or there was a power failure recently. Set the time (→ 17).

"ADJUST CLOCK"

· Clock is not set. Adjust the clock accordingly.

"ADJUST TIMER"

· Play timer is not set. Adjust the play timer accordingly.

"AUTO OFF"

 The unit has been left unused for about 20 minutes and will shut down within a minute. Press any button to cancel it.

"DL ERROR"

- The software download has failed. Press any button to exit. Please try again later.
- The server cannot be found. Press any button to exit. Make sure that the wireless network is connected to the Internet.

"ERROR"

 Incorrect operation is performed. Read the instructions and try again.

"F□□" / "F□□□" (" □ " stands for a number.)

 There is a problem with this unit.
 Write down the displayed number, disconnect the AC mains lead and consult your dealer.

"FAIL"

Updating or setting has failed. Read the instructions and try again.

"ILLEGAL OPEN"

 Sliding door is in the wrong position. Turn the unit off and on again. If this display appears again, consult the dealer.

"LEVEL 0"

- There is no link between this system and the wireless router.
 Try the following operations:
 - Check that the wireless router is turned on.
 - Turn this system off and on again.
 - Reset the wireless network settings. (→ 7)

If the problem persists, consult your dealer,

"LINKING"

- This system is trying to connect to the last connected Bluetooth® device when "BLUETOOTH" is selected.
- This system is communicating with the wireless router to complete the network settings.

Depending on the wireless router this process may take a few minutes. Try moving this system closer to the wireless router.

"NETWORK INITIALIZING"

"SETUP IN PROGRESS, TRY AGAIN"

- · The system is carrying out an internal process.
 - Wait for approximately 3 minutes.
 - Do not disconnect the AC mains lead. Doing so may cause malfunction.

"NO CONNECT"

This system cannot connect to the network.
 Check the network connection. (→ 7)

"NODEVICE"

 The USB device is not inserted correctly. Read the instructions and try again (→ 6).

"NO DISC"

Insert the disc to be played (→ 6).

"NO MEMORY"

 There are no preset DAB+ stations to select. Preset some channels. (→ 14)

"NO PLAY"

- A CD that is not in CD-DA or MP3 format is inserted. It cannot be played.
- Examine the content. You can only play supported format. (→ 24)
- The files in the USB device can be corrupted. Format the USB device and try again.
- The unit may have a problem. Turn the unit off and then on again.

"NO SIGNAL"

This station cannot be received. Check your antenna (→ 5).

"PLAYERROR"

 You played an unsupported MP3 file. The system will skip that track and play the next one.

"READING"

 The unit is checking the CD/USB information. After this display has disappeared, start operating.

"REMOTE □" (" □ " stands for a number.)

- The remote control and this unit are using different codes. Change the code on the remote control.
 - When "REMOTE 1" is displayed, press and hold [OK] and [§] for at least 4 seconds.
 - When "REMOTE 2" is displayed, press and hold [OK] and [CD/USB] for at least 4 seconds.

"SCAN FAILED"

 Stations are not receivable. Check your antenna and try Auto scanning (→ 14).
 If "SCAN FAILED" is still displayed find the best signal reception with the "MANUAL SCAN" tuning function. (→ 15)

"USB OVER CURRENT ERROR"

 The USB device is drawing too much power. Select a source other than "USB", remove the USB and turn the unit off.

"VBR"

 The system cannot show the remaining play time for variable bit rate (VBR) tracks.

"WAIT"

- . This is displayed, for example, when this unit is turning off.
- This is flashing when the system is trying to enter a network setting mode.

The network indicator " ● " blinks

 This may occur when, for instance, the network connection is interrupted.

Unit and media care

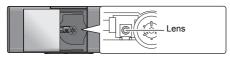
Pull out the AC mains lead from the outlet before maintenance.

■ Clean this unit with a soft, dry cloth

- When dirt is heavy, wring a wet cloth tightly to wipe the dirt, and then wipe it with a dry cloth.
- When cleaning the speaker covers, use a fine cloth.
 Do not use tissues or other materials that can fall apart.
 Small pieces may get stuck inside the speaker cover.
- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, carefully read the cloth's instructions.

Maintenance of the lens

- Clean the lens regularly to prevent malfunctions. Use a dust blower to remove dust and a cotton swab if it is extremely dirty.
- You cannot use a CD type lens cleaner.
- Do not leave the sliding door open for prolonged periods of time. This will cause the lens to get dirty.
- · Be careful not to touch the lens with your fingers.



■ Clean discs





Wipe with a damp cloth and then wipe dry.

Disc handling precautions

- Handle discs by the edges to avoid inadvertent scratches or fingerprints on the disc.
- · Do not attach labels or stickers to discs.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use the following discs:
 - Discs with exposed adhesive from removed stickers or labels (rented discs etc.).
 - Discs that are badly warped or cracked.
 - Irregularly shaped discs, such as heart shapes.

■ To dispose or transfer this unit

The unit may keep the user settings information in the unit. If you discard this unit either by disposal or transfer, then follow the procedure to return all the settings to the factory defaults to delete the user settings.

- (→ 20, "To return all settings to the factory defaults")
- The operation history may be recorded in the memory of this unit.

About Bluetooth®

Panasonic bears no responsibility for data and/or information that is compromised during a wireless transmission.

Frequency band used

• This system uses the 2.4 GHz frequency band.

Certification of this device

- This system conforms to frequency restrictions and has received certification based on frequency laws. Thus, a wireless permit is not necessary.
- The actions below are punishable by law in some countries:
 - Taking apart or modifying the system.
 - Removing specification indications.

Restrictions of use

- Wireless transmission and/or usage with all Bluetooth® equipped devices is not guaranteed.
- All devices must conform to standards set by Bluetooth SIG. Inc.
- Depending on the specifications and settings of a device, it can fail to connect or some operations can be different.
- This system supports Bluetooth® security features. But depending on the operating environment and/or settings, this security is possibly not sufficient. Transmit data wirelessly to this system with caution.
- This system cannot transmit data to a Bluetooth® device.

Range of use

 Use this device at a maximum range of 10 m. The range can decrease depending on the environment, obstacles or interference

Interference from other devices

- This system may not function properly and troubles such as noise and sound jumps may arise due to radio wave interference if this system is located too close to other Bluetooth® devices or the devices that use the 2.4 GHz band.
- This system may not function properly if radio waves from a nearby broadcasting station, etc. is too strong.

■ Intended usage

- This system is for normal, general use only.
- Do not use this system near an equipment or in an environment that is sensitive to radio frequency interference (example: airports, hospitals, laboratories, etc).

Playable media

П

Compatible CD

· A disc with the CD Logo.



- This unit can play back discs that conform to the CD-DA format
- The unit may not be able to play some discs due to the condition of the recording.
- Before playback, finalise the disc on the device it was recorded on.
- This system can access up to: 99 tracks

Compatible USB devices

- This unit does not guarantee connection with all USB devices.
- FAT12, FAT16 and FAT32 file systems are supported.
- This unit supports USB 2.0 full speed.
- USB devices with storage capacity of more than 32 GB cannot work in some conditions.



Compatible MP3 files

- Supported format: Files with the extension ".mp3" or ".MP3".
- Depending on how you create the MP3 files, they may not play in the order you numbered them or may not play at all.

CD-R/RW

- This system can access up to: 999 tracks and 255 albums (including root folder)
- Disc formats: ISO9660 level 1 and level 2 (except for extended formats).
- If the disc includes both MP3 and normal audio data (CD-DA), the unit plays the type recorded in the inner part of the disc.
- This unit cannot play files recorded using packet write.

USB device

- This system can access up to: 8000 tracks, 800 albums (including root folder) and 999 tracks in one album
- Only one memory card will be selected when connecting a multiport USB card reader, typically the first memory card inserted.

Licenses

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Panasonic Corporation is under license.

Other trademarks and trade names are those of their respective owners.





The Wi-Fi CERTIFIED™ Logo is a certification mark of Wi-Fi Alliance®.

The Wi-Fi Protected Setup™ Identifier mark is a certification mark of Wi-Fi Alliance®.

"Wi-Fi®" is a registered trademark of Wi-Fi Alliance®. "Wi-Fi Protected Setup™", "WPA™", and "WPA2™" are trademarks of Wi-Fi Alliance®.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States, and other countries and used with permission.

AllPlay is a trademark of Qualcomm Connected Experiences, Inc., and used with permission.

This product incorporates Spotify software which is subject to 3rd party licenses found here: www.spotify.com/connect/third-party-licenses

DLNA, the DLNA Logo and DLNA CERTIFIED are trademarks, service marks, or certification marks of the Digital Living Network Alliance.

Windows is a trademark or a registered trademark of Microsoft Corporation in the United States and other countries.

Google Play and Android are trademarks of Google Inc.

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

iPad, iPhone, iPod, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

App Store is a service mark of Apple Inc.

FLAC Decoder

Copyright (C) 2000,2001,2002,2003,2004,2005,2006,2007,

2008,2009 Josh Coalson

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the Xiph.org Foundation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES, OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE FOUNDATION OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAWAGES (INCLUDING BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION; HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product incorporates the following software:

- (1) the software developed independently by or for Panasonic Corporation
- (2) the software owned by third party and licensed to Panasonic Corporation,
- (3) the software licensed under the GNU General Public License, Version 2.0 (GPL V2.0),
- (4) the software licensed under the GNU LESSER General Public License. Version 2.1 (LGPL V2.1), and/or
- (5) open source software other than the software licensed under the GPL V2.0 and/or LGPL V2.1.

The software categorized as (3) - (5) are distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

Please refer to the detailed terms and conditions thereof shown in our website below

http://panasonic.jp/support/global/cs/audio/oss/all8_3_1c.html

At least three (3) years from delivery of this product, Panasonic will give to any third party who contacts us at the contact information provided below, for a charge no more than our cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code covered under GPL V2.0, LGPL V2.1 or the other licenses with the obligation to do so, as well as the respective copyright notice thereof.

Contact Information: oss-cd-request@gg.jp.panasonic.com

The source code and the copyright notice are also available for free in our website below.

http://panasonic.net/avc/oss/

Disposal of Old Equipment and Batteries Only for European Union and countries with recycling systems



These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any

potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local municipality.

Penalties may be applicable for incorrect disposal of

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.



Note for the battery symbol (bottom symbol):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Safety information for customers in Norway

NORSK



ADVARSEL

Produkt

- For å redusere faren for brann, elektrisk støt eller skade på apparatet:
 - Utsett ikke produktet for regn, fukt, drypping eller sprut.
 - Ikke plasser objekter som er fylt med væske, som vaser, på apparatet.
 - Bruk kun anbefalt tilbehør.
 - Fiern ikke deksler.
 - Reparer ikke denne enheten selv, overlat service til kvalifisert servicepersonell.

Vekselstrømnett

Nettstøpselet er trukket ut fra denne enheten.
 Installer denne enheten slik at nettstøpselet umiddelbart kan trekkes fra stikkontakten.

FORSIKTIG

Produkt

- Dette produktet anvender en laser. Betjening av kontroller eller justering eller andre inngrep enn de beskrevet i denne bruksanvisning kan føre til farlig bestråling.
- Plasser ikke åpen ild, slik som levende lys, oppå apparatet.
- Dette apparatet er beregnet for bruk under moderate klimaforhold.

Plassering

- For å redusere faren for brann, elektrisk støt eller skade på apparatet:
 - Ikke plasser apparatet i en bokhylle, et innebygget kabinett eller et annet lukket sted. Pass på at produktet er godt ventilert
 - Apparatets ventilasjonsåpninger må ikke dekkes til med aviser, duker, gardiner eller lignende.

Attaching the unit to a wall (optional)

This unit can be wall mounted using the supplied wall mount brackets, etc. Make sure that the wall and the screws used for securing to the wall are capable of supporting at least 33 kg. The screws and other items are not supplied as the type and size will vary with each installation.

- Refer to step 5 of "Wall mount instructions" for details about the required screws.
- As an additional protective measure, attach the unit to the wall with the fall prevention cord.

Installation accessories

■ Supplied accessories

- 1 Safety holder
- 1 Screw
- · 2 Wall mount brackets

Additionally required accessories (commercially available)

- 4 Wall mount bracket fixing screws
- 1 Safety holder fixing screw
- 1 Fall prevention cord*
- 1 Screw eye
- Use a cord that is capable of supporting over 33 kg (with a diameter of about 1.5 mm).
- Keep the safety holder out of reach of children to prevent swallowing.
- Keep the screws out of reach of children to prevent swallowing.
- Keep the wall mount brackets out of reach of children to prevent swallowing.

Safety precautions

Professional installation is required.
The installation should never be done by any other than a qualified installation specialist.
PANASONIC DISCLAIMS ANY PROPERTY DAMAGE AND/OR SERIOUS INJURY, INCLUDING DEATH RESULTING FROM IMPROPER INSTALLATION OR INCORRECT HANDLING.

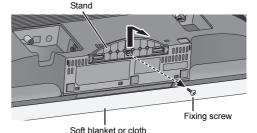
WARNING:

To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.

Wall mount instructions

Before installation, turn the unit off and disconnect the AC mains lead from the mains socket.

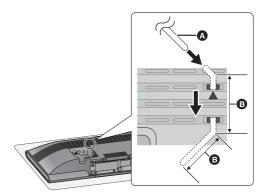
- 1 Detach the stand from the unit.
 - Unscrew the fixing screw at the bottom of the unit.
 - . Gently pull the stand off the unit as illustrated.
 - Keep the removed screw and the stand in a safe place.



- **2** Fix the safety holder onto the unit with the screw (supplied).
 - Screw tightening torque: 50 N•cm to 70 N•cm.



3 Attach the fall prevention cord (not supplied) to this unit.

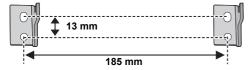


♠ Fall prevention cord (not supplied)

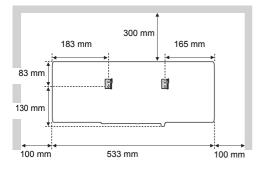
- Bend the cord twice from the tip, each at 45° and 5 mm apart for it to go through the holes.
- 6 5 mm

- 4 Measure and mark the position of both sides of the wall mount brackets.
 - Use figures below to identify the screwing positions.

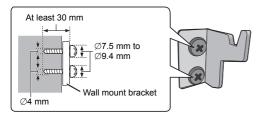
The position to attach the wall mount brackets



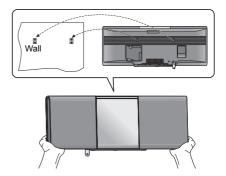
Space required



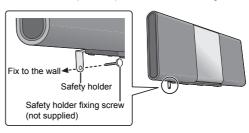
- **5** Attach the wall mount bracket to both sides of the wall with two screws (not supplied).
 - Use a level to ensure both wall mount brackets are level.



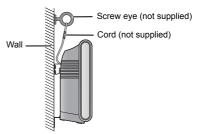
- **6** Hook the unit securely onto the wall mount brackets with both hands.
 - Connect the antenna and the AC mains lead to the unit before hanging the unit onto the wall. (→ 5)
 - After hanging the unit, release your hands carefully to confirm the unit sits securely on the wall mount brackets.



- 7 Drive the safety holder fixing screw (not supplied) to secure the safety holder onto the wall.
 - Refer to step 5 for requirements before screwing.



- Attach the fall prevention cord (not supplied) to the wall.
 - Make sure that the slack of the cord is minimal.



Specifications

■ GENERAL

Power consumption 25 W

Power consumption in standby mode

(When "BLUETOOTH STANDBY" is "OFF")*1,2

Approx. 0.3 W

(When "BLUETOOTH STANDBY" is "ON")*1,2

Approx. 0.4 W

(When "NET STANDBY" is "ON")*1 Approx. 3.5 W Power supply AC 220 V to 240 V, 50 Hz

Dimensions (W×H×D)

533 mm×203 mm×98 mm

Approx. 2.7 kg Mass Operating temperature range 0 °C to +40 °C

Operating humidity range

35 % to 80 % RH (no condensation)

■ AMPLIFIER SECTION

Output power

RMS Output Power

Front Ch (both ch driven)

20 W per channel (8 Ω), 1 kHz, 10 % THD

Total RMS power

40 W

■ TUNER SECTION

Preset Memory FM 30 stations Frequency Modulation (FM)

Frequency range

87.50 MHz to 108.00 MHz (50 kHz step)

Antenna terminals 75 Ω (unbalanced)

■ DAB SECTION

DAB memories 20 channels

Frequency Band (Wavelength)

5A to 13F **Band III**

(174.928 MHz to 239.200 MHz)

Sensitivity *BER 4x10-4

Min Requirement -98 dBm

DAB External Antenna

Terminal F - Connector (75 Ω)

■ DISC SECTION

Disc played (8 cm or 12 cm)

CD, CD-R/RW (CD-DA, MP3*3)

Pick up

Wavelength 790 nm (CD) NORSK (NORWAY)

Bølgelengde 790 nm (CD)

Laserstyrke Ingen farlig stråling sendes ut (med sikkerhets-beskyttelse)

■ SPEAKER SECTION

Speaker unit(s)

Full Range 6.5 cm Cone type×1 per channel **Passive Radiator** 8 cm×2 per channel

Impedance 8Ω

■ TERMINAL SECTION

USB Port DC OUT 5 V 1.5 A **USB Standard** USB 2.0 full speed Media file format support MP3 (*.mp3) USB device file system FAT12, FAT16, FAT32 Ethernet interface LAN (10BASE-T/100BASE-TX) AUX IN Stereo, 3.5 mm jack

■ BLUETOOTH® SECTION

Version Bluetooth® Ver.2.1+EDR Class Class 2 Supported Profiles A2DP, AVRCP 2.4 GHz band FH-SS Frequency band Operation Distance 10 m Line of sight SBC Supported Codec

■ Wi-Fi SECTION

Wi-Fi

WLAN Standard IEEE802.11a/b/q/n 2.4 GHz band/5 GHz band Frequency range Security WPA2™ WPS version Version 2.0

Audio support format (AllPlay)

MP3/AAC

Sampling frequency 32/44.1/48 kHz Audio word size 16 bits Channel count 2 ch FLAC*4/ALAC/WAV

Sampling frequency

32/44.1/48/88.2/96/176.4/192 kHz Audio word size 16 bits/24 bits

Channel count 2 ch

Audio support format (DLNA)

MP3

Sampling frequency 32/44 1/48 kHz Audio word size 16 bits Channel count 2 ch

FLAC*4/WAV

Sampling frequency

32/44.1/48/88.2/96/176.4/192 kHz

Audio word size 16 bits/24 bits Channel count 2 ch

- Specifications are subject to change without notice.
- Mass and dimensions are approximate.
- Total harmonic distortion is measured by a digital spectrum analyzer.
- *1: No device is connected to the USB port before turning to standby mode.
- Network standby is inactive.
- *3: MPEG-1 Layer 3, MPEG-2 Layer 3
- *4: Uncompressed FLAC files may not operate correctly.

Safety information for customers in the EU

C € 0700 ①

English

Declaration of Conformity (DoC)

Hereby, "Panasonic Corporation" declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Customers can download a copy of the original DoC to our R&TTE

products from our DoC server: http://www.doc.panasonic.de

Contact to Authorised Representative: Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Germany

This product is intended to be used in the following countries GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

This product is intended for general consumer. (Category 3) The WLAN feature of this product shall exclusively be used inside buildings. This product on purpose to connect to access point of 2.4 GHz or 5 GHz WLAN.

Δήλωση συμμόρφωσης (DoC)

Με την παρούσα, η "Panasonic Corporation" δηλώνει ότι το προϊόν αυτό είναι σύμφωνο με τις βασικές απαιτήσεις και άλλες σχετικές διατάξεις της οδηγίας 1999/5/ΕС.

Οι πελάτες μπορούν να κατεβάσουν ένα αντίγραφο του πρωτοτύπου DoC για τα R&TTE προϊόντα μας από τον DoC server μας: http://www.doc.panasonic.de

Στοιχεία επικοινωνίας Εξουσιοδοτημένου Αντιπροσώπου: Panasonic Marketing Europe GmbH,

Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Γερμανία

Αυτό το προϊόν προορίζεται να χρησιμοποιηθεί στις ακόλουθες χώρες. GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Αυτό το προϊόν προορίζεται για καταναλωτές. (Κατηγορία 3) Το χαρακτηριστικό WLAN του προϊόντος αυτού πρέπει να χρησιμοποιείται αποκλειστικά και μόνο στο εσωτερικό κτιρίων. Το προϊόν αυτό αποσκοπεί στη σύνδεση με σημείο πρόσβασης (access point) των 2,4 GHz ή 5 GHz WLAN.

Português

Declaração de Conformidade (DoC)

Com o presente documento, a "Panasonic Corporation" declara que este produto é conforme os requisitos específicos e demais especificações referentes à Directriz 1999/5/EC

Os clientes podem baixar uma cópia da declaração de conformidade (DoC) para nossos produtos R&TTE do Server DoC: http://www.doc.panasonic.de

Contacte o representante autorizado: Panasonic Marketing Europe GmbH. Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Alemanha

Este produto deve ser usado nos seguintes países

GB. DE. AT. BE. DK. SE. FR. IT. ES. NL. FI. GR. PT. PL. HU. CZ SK. EE. LV. LT. SI. BG. RO. MT. CY. IE. LU. HR. NO. CH. IS. LI. TR

Este produto destina-se ao consumador geral. (Categoria 3) A característica WLAN deste produto pode ser usada exclusivamente na estrutura interna.

Este produto deve ser ligado somente a conexões 2,4 GHz ou 5 GHz WLAN.

Polski

Deklaracja zgodności

Niniejszym "Panasonic Corporation" deklaruje, że ten produkt jest zgodny z istotnymi wymaganiami i innymi odnośnymi postanowieniami dyrektywy 1999/5/WE

Klienci mogą pobrać oryginalną deklarację zgodności naszych produktów z serwera deklaracji zgodności: http://www.doc.panasonic.de

Kontakt się z autoryzowanym przedstawicielem:

Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Niemcy

Niniejszy produkt jest przeznaczony do użycia w poniższych krajach. GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CŻ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR Niniejszy produkt jest przeznaczony dla ogółu klientów. (Kategoria 3) Funkcja WLAN niniejszego produktu może być używana wyłącznie wewnątrz budynków.

Ten produkt służy do podłączenia punktu dostępowego WLAN 2.4 GHz lub 5 GHz

Prohlášení o shodě

Společnost "Panasonic Corporation" tímto prohlašuje, že tento výrobek je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/EC

Zákazníci si mohou stáhnout kopii originálu prohlášení o shodě pro naše produkty R&TTE z našeho serveru:

http://www.doc.panasonic.de

Oprávněný zástupce:

Panasonic Marketing Europe GmbH, Panasonic Testing Centre,

Winsbergring 15, 22525 Hamburg, Německo

Tento výrobek je určen k užívání v následujících zemích. GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Tento výrobek je určen k užívání běžným zákazníkům. (Kategorie 3) Funkce WLAN tohoto výrobku bude využívána výhradně uvnitř budov. Tento výrobek lze připojit k přístupovému bodu 2,4 GHz nebo 5 GHz WLAN.

Deklaracija o podobnosti (DoC)

Ovime, "Panasonic Corporation" izjavljuje da je ovaj proizvod udovoljava osnovnim zahtjevima i ostalim relevantnim uvjetima Smjernice 1999/5/EC.

Kupci mogu preuzeti kopiju originalne DoC za naše R&TTE proizvode s našeg DoC poslužitelja: http://www.doc.panasonic.de

Adresa ovlaštenog predstavništva: Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Njemačka

Ovaj proizvod je predviđen za upotrebu u sledećim zemljama. GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Ovaj proizvod je namijenjen za opću potrošnju. (kategorija 3) Funkcija bežične mreže ovog proizvoda treba biti korištena jedino u zatvorénim prostorima.

Ovaj proizvod se spaja na pristupne tačke bežične mreže od 2,4 GHz ili 5 GHz.

Lietuviškai

Atitikties deklaracija (AD)

Bendrovë "Panasonic Corporation" patvirtina, kad šis gaminys tenkina direktyvos 1999/5/EB esminius reikalavimus ir kitas taikytinas nuostatas.

Mūsų R&TTE gaminių originalios atitikties deklaracijos kopiją klientai gali atsisiųsti iš mūsų AD serverio:

http://www.doc.panasonic.de

Igaliotojo atstovo adresas: "Panasonic Marketing Europe GmbH", Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Vokietija.

Šis gaminys skirtas naudoti toliau išvardytose valstybėse GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Šis gaminys skirtas bendrajam vartojimui. (3 kategorija.) Šio gaminio WLAN savybės naudojamos išskirtinai pastatų viduje.

Šis gaminys yra skirtas prisijungti prie 2,4 GHz arba 5 GHz WLAN.

Izjava o skladnosti (DoC)

S pričujočo izjavo podjetje "Panasonic Corporation" izjavlja, da so svoji izdelki skladni s poglavitnimi zahtevami in drugimi odgovarjajočimi predpisi direktive 1999/5/ES.

Stranka lahko naloži izvod izvirnega DoC o naših izdelkih R&TTE s strežnika DoC:

http://www.doc.panasonic.de

Pooblaščeni zastopnik: Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Nemčija

Ta izdelek je namenjen uporabi v naslednjih državah: GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Izdelek je namenjen splošni uporabi. (Razred 3)

Povezava WLAN tega izdelka je namenjena izključno uporabi v objektih. Izdelek je namenjen priključitví pri dostopni točkí 2,4 GHz ali 5 GHz WLAN.

Slovensky

Vyhlásenie o zhode (DoC)

"Panasonic Corporation" týmto prehlasuje, že tento výrobok je v zhode so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice 1999/5/ES.

Zákazníci si môžu stiahnuť kópiu pôvodného DoC na naše R&TTE výrobky z nášho servera DoC:

http://www.doc.panasonic.de

Kontakt na splnomocneného zástupcu: Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Nemecko

Tento produkt je určený pre použitie v týchto krajinách: GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Tento produkt je určený pre všeobecného spotrebiteľa. (Kategória 3) WLAN funkcia tohto výrobku musí byť používaná výhradne vo vnútri budov. Tento výrobok používa na pripojenie k prístupovému bodu 2,4 GHz alebo 5 GHz WLAN

Norsk

Samsvarserklæring (DoC)

"Panasonic Corporation" erklærer at utstyret er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF. Kundene kan laste ned en kopi av den originale samsvarserklæringen (DoC) for vårt R&TTE utstyr fra vår DoC server:

http://www.doc.panasonic.de

Kontakt vår autoriserte representant: Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Tyskland

Utstyret er ment til bruk i følgende land.

GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Utstyret er beregnet på den vanlige forbruker (klasse 3). Utstyrets WLAN-funksjon er utelukkende til innendørsbruk. Utstyret kan kobles til et tilgangspunkt på 2,4 GHz eller 5 GHz WLAN.

Eesti keel

Vastavusdeklaratsioon (DoC)

"Panasonic Corporation" kinnitab käesolevaga, et see toode on vastavuses põhiliste nõuete ja muude direktiivi 1999/5/EÜ asjakohaste sätetega.

Kliendid saavad koopia meie R&TTE toodetele kehtiva originaalvastavusdeklaratsiooni koopia alla laadida meie DoC-serverist:

http://www.doc.panasonic.de

Võtke ühendust volitatud esindajaga: Panasonic Marketing Europe GmbH,

Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Saksamaa

See toode on mõeldud kasutamiseks järgnevates riikides. GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR See toode on mõeldud tavakasutajale. (III kategooria)

Selle toote WLAN-funktsiooni tohib kasutada vaid hoonete sees. See toode on mõeldud 2,4 GHz või 5 GHz WLAN-pääsupunktiga ühenduse loomiseks.

Български

Декларация за съответствие (DoC)

"Panasonic Corporation" декларира, че този продукт съответства на съществените изисквания и другите приложими разпоредби на Директива 1999/5/EC.

Потребителите могат да свалят копие от оригиналните DoC към нашите продуктите от типа R&TTE от сървъра, на който се съхраняват DoC:

http://www.doc.panasonic.de

За контакт с оторизиран представител: Panasonic Marketing Europe GmbH,

Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Германия

Този продукт е предназначен за използване в следните държави:

GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Този продукт е предназначен за обща употреба. (Категория 3) Функцията WLAN на продукта може да се използва единствено в закрити помещения.

Този продукт е предназначен за свързване към точки за достъп от 2.4 GHz или 5 GHz WLAN.

Latviski

Atbilstības deklarācija (DoC)

Kompānija "Panasonic Corporation" ar šo paziņo, ka šis izstrādājums atbilst būtiskām prasībām un citām saistošām Direktīvas 1999/5/EK prasībām. Pircēji var lejupielādēt oriģinālo DoC kopiju mūsu R&TTE izstrādājumos no mūsu DoC servera:

http://www.doc.panasonic.de

Lūdzam sazināties ar pilnvaroto parstāvi

Panasonic Marketing Europe GmbH, Panasonic Testing Centre,

Winsbergring 15, 22525 Hamburg, Vācijā

Šo izstrādājumu paredzēts lietots šādās valstīs.

GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Šis izstrādājums ir paredzēts parastam patērētājam. (3. kategorija) Šī izstrādājuma WLAN funkciju atļauts lietot tikai iekštelpās. Šo izstrādājumu ir paredzēts savienot ar 2,4 GHz vai 5 GHz WLAN piekļuves punktu.

Român

Declarație de Conformitate (DoC)

Prin prezenta, societatea "Panasonic Corporation" declară că produsul este conform cu cerințele esențiale și cu alte norme corespunzătoare Directivei 1999/5/EC.

Clienții pot descărca o copie a DoC-ului original al produselor noastre R&TTE de la adressa noastră DoC din Internet: http://www.doc.panasonic.de

Contact la Reprezentanța autorizată: Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Germania

Acest produs a fost proiectat pentru a fi utilizat în următoarele țări: GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

Acest produs a fost proiectat pentru clientela generală. (Categoria 3) Funcția WLAN a acestui produs trebuie să fie folosită numai în interiorul clădirilor.

Acest produs a fost proiectat pentru a fi contecta la access point WLAN 2,4 GHz sau 5 GHz.

Magyar

Megfelelőségi Nyilatkozat (DoC)

Ezennel a ""Panasonic Corporation" kijelenti, hogy a jelen termék kielégíti az 1999/5/EK Irányelv létfontosságú követelményeit és más vonatkozó rendelkezéseit.

A vásárlók letölthetik az R&TTE termékek eredeti DoC másolatát a DoC szerverünkről:

http://www.doc.panasonic.de

Forduljon a hivatalos márkaképviselethez: Panasonic Marketing Europe GmbH,

Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Németország

A terméket az alábbi országokban való használatra szánták. GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

A terméket általános fogyasztóknak szánták. (3-as kategória) A termék WLAN jellemzője kizárólag épületen belül használható. A termék rendeltetése a 2,4 GHz-es vagy 5 GHz-es WLAN hozzáférési ponthoz kapcsolódás.

Türkce

Uygunluk Beyanı (DoC)

"Panasonic Corporation" işbu belge ile bu ürünün 1999/5/EC sayılı Direktifin temel gereklerine ve diğer ilgili hükümlerine uygun olduğunu beyan etmektedir.

Müşterilerimiz R&TTE ürünlerimizle ilgili orijinal DoC belgesinin bir kopyasını DoC sunucumuzdan indirebilir:

http://www.doc.panasonic.de

Yetkili Temsilci ile temasa geçin:

Panasonic Marketing Europe GmbH, Panasonic Testing Centre, Winsbergring 15, 22525 Hamburg, Almanya

İşbu ürün aşağıda belirtilen ülkelerde kullanılmak üzere imal edilmiştir.

GB, DE, AT, BE, DK, SE, FR, IT, ES, NL, FI, GR, PT, PL, HU, CZ, SK, EE, LV, LT, SI, BG, RO, MT, CY, IE, LU, HR, NO, CH, IS, LI, TR

İşbu ürün genel tüketicilere yöneliktir. (Kategori 3)

İşbu ürünün WLAN özelliği sadece ve sadece binaların içerisinde kullanılmalıdır.

Bu ürün talep üzerine 2,4 GHz veya 5 GHz WLAN erişim noktasına bağlanabilir.

Limited Warranty (ONLY FOR AUSTRALIA)

Panasonic Warranty

- 1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or its Authorised Service Centre will perform necessary service on the product without charge for parts or labour, if in the opinion of Panasonic, the product is found to be faulty within the warranty period.
- 2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or it's territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.
- 3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
- 4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:
 - (a) Cabinet Part(s)

- (e) DVD, Blu-ray or Recordable Discs
- (b) Video or Audio Tapes

PRO-031-F11 Issue: 4.0

- (f) Video / Audio Heads from wear and tear in normal use
- (c) SD cards or USB devices(d) User replaceable Batteries
- (g) Information stored on Hard Disk Drive, USB stick or SD card (h) DTV reception issues caused by TV Aerial / Cabling / Wall socket(s)

- etc.
- 5. Some products may be supplied with Ethernet connection hardware. The warranty is limited on such products and will not cover
 - (a) Internet and or DLNA connection / setup related problems
 - (b) Access fees and or charges incurred for internet connection
 - (c) The use of incompatible software or software not specifically stipulated in the product operations manual;
- (d) Any indirect or consequential costs associated with the incorrect use or misuse of the hardware, its connection to the internet or any other device.
- 6. To claim warranty service, when required, you should:
 - Telephone Panasonic's Customer Care Centre on 132600 or visit our website referred to below and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
 - Send or take the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of
 purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged
 by you.
 - Note that home or pick-up/delivery service is available for the following products in the major metropolitan areas of Australia or the normal operating areas of the nearest Authorised Service Centres:
 - Plasma/LCD televisions / displays (screen size greater than 103 cm)
- 7. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

In addition to your rights under this warranty, Panasonic products come with consumer guarantees that cannot be excluded under the Australian Consumer Law. If there is a major failure with the product, you can reject the product and elect to have a refund or to have the product replaced or if you wish you may elect to keep the goods and be compensated for the drop in value of the goods. You are also entitled to have the product repaired or replaced if the product fails to be of acceptable quality and the failure does not amount to a major failure.

If there is a major failure in regard to the product which cannot be remedied then you must notify us within a reasonable period by contacting the Panasonic Customer Care Centre. If the failure in the product is not a major failure then Panasonic may choose to repair or replace the product and will do so in a reasonable period of time from receiving notice from you.

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE)
SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please visit the **Panasonic Australia**website **www.panasonic.com.au** or contact by phone on **132 600**If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited

ACN 001 592 187 ABN 83 001 592 187

1 Innovation Road, Macquarie Park NSW 2113

01-01-2011

For the United Kingdom and Ireland customers

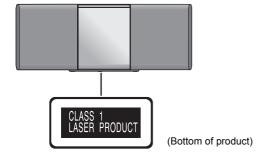
Sales and Support Information

Customer Communications Centre

- For customers within the UK: 0344 844 3899
- For customers within Ireland: 01 289 8333
- Monday–Friday 9:00 am 5:00 pm (Excluding public holidays).
- For further support on your product, please visit our website: www.panasonic.co.uk

Direct Sales at Panasonic UK

- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Communications Centre Monday–Friday 9:00 am - 5:00 pm (Excluding public holidays).
- Or go on line through our Internet Accessory ordering application at www.pas-europe.com.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products. Take a
 browse on our website for further details.



Manufactured by: Panasonic Corporation

Kadoma, Osaka, Japan

Importer for Europe: Panasonic Marketing Europe GmbH

Panasonic Testing Centre

Winsbergring 15, 22525 Hamburg, Germany

Panasonic Corporation

Web Site: http://www.panasonic.com



