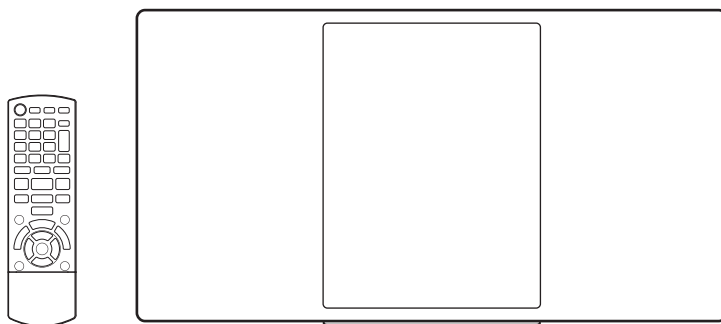


Operating Instructions

Compact Stereo System

Model No. **SC-HC2020**



Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully.

Please keep this manual for future reference.

The installation instructions are on page 2, 3 and 26, 27, 28.

Please read these instructions carefully before installing.

"EB" indicates the United Kingdom 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  or the BSI mark  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

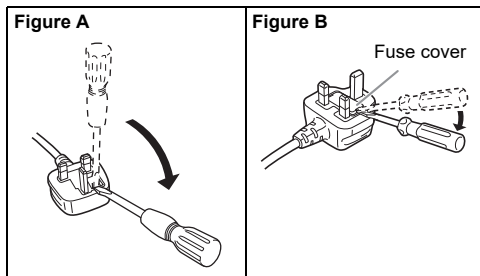
Remove the connector cover.

How to replace the fuse

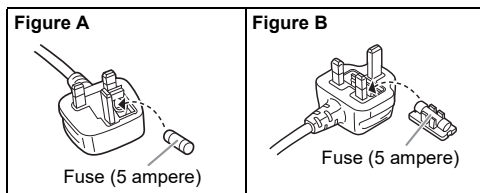
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

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

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

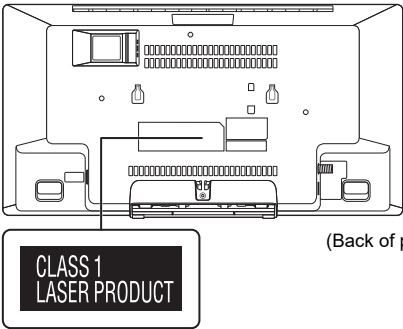
- This unit utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- Do not place sources of naked flames, such as lighted candles, on this unit.
- This unit may receive radio interference caused by mobile 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.
- When disposing of the batteries, please contact your local authorities or dealer and ask for the correct method of disposal.
- 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 break open or short-circuit the battery.
- Do not charge the alkaline or manganese battery.
- Do not use the battery if the cover has peeled off.
- Remove the battery if you do not use the remote control for a long period of time. Keep in a cool, dark area.



(Back of product)

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Supplied accessories

Check and identify the supplied accessories.

Product numbers correct as of March 2018. These may be subject to change.

- ☐ 1 AC mains lead
 - For the United Kingdom and Ireland (K2CT2YY00127)
 - For Australia and New Zealand (K2CJ2YY00116)
- ☐ 1 DAB indoor antenna (N1CYYY00022)



- ☐ 1 Remote control (N2QAYB001204)
- ☐ 1 Remote control battery

Wall mount kit

☐ 1 Safety holder (TPBDA004)

☐ 2 Wall mount brackets (RSC1262-1)

☐ 1 Wall mounting sheet
• Use this sheet for wall mounting. (→ 26)

The symbols on this product (including the accessories) represent the following:

~

AC

==

DC

Class II equipment (The construction of the product is double-insulated.)

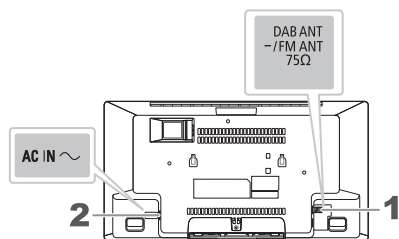
|

ON

Standby

Making the connections

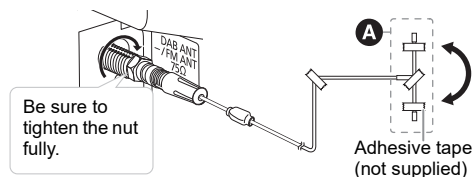
Connect the AC mains lead only after all the other connections have been made.



1 Connect the DAB indoor antenna.

This system can receive DAB/DAB+ and FM stations with the DAB antenna.

Rotate the antenna at **A** to improve reception.

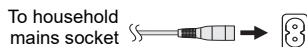


Note:

- Do not use any other DAB antenna except the supplied one.
- Do not mount the DAB antenna on metal objects such as water pipes or any metal parts of the building.

2 Connect the AC mains lead.

(For the AC mains plug of three pins)
READ THE "Caution for AC mains lead" BEFORE CONNECTION.



Do not use any other AC mains lead except the supplied one.

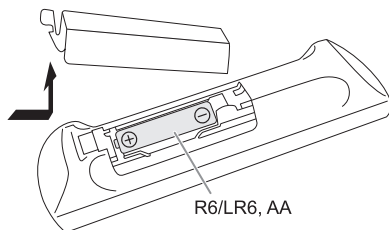
Conserving power

The system consumes a small amount of power (⇒ 24) even when it is in standby mode. Disconnect the power supply if you do not use the system. Some settings will be lost after you disconnect the system. You have to set them again.

Note:

- These speakers do not have magnetic shielding. Do not put them near TVs, PCs or other equipment easily influenced by magnetism.
- Tape the antenna to a wall with the least amount of interference.
- Use an outdoor antenna (not supplied) if reception is poor.

Preparing the remote control

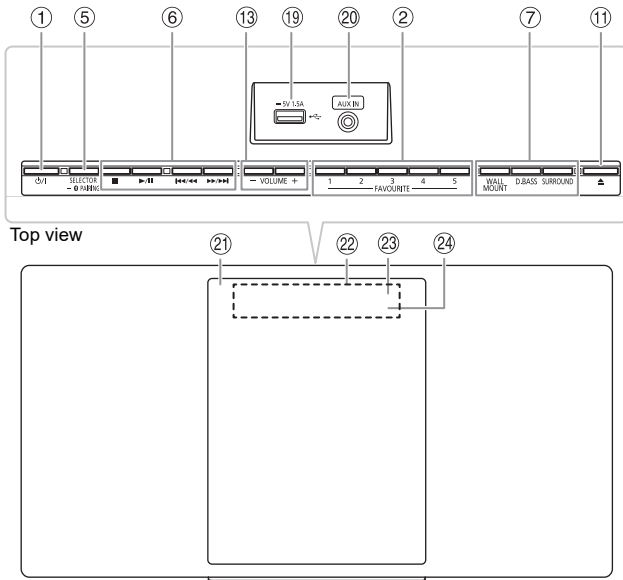
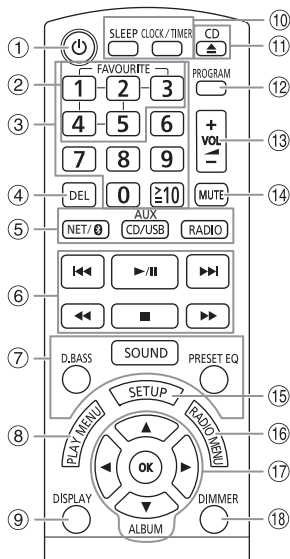


Use alkaline or manganese battery.

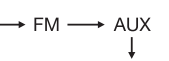
Install the battery so that the poles (+ and -) align with those in the remote control.

Overview of controls

Do the procedures with the remote control. You can also use the buttons on the unit if they are the same.



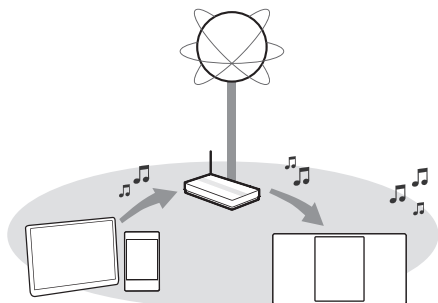
- ① Standby/on switch** [⏻], [🔌]
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② Store or select favourite radio stations**
(⇒ 9, 13, 14)
- ③ Numeric buttons**
To select a 2-digit number
Example: 16: [≧10] → [1] → [6]
- ④ Delete a programmed track**
- ⑤ Select the audio source**
On the remote control:
Press the corresponding button to select the source.
[NET/📶]: NETWORK ↔ BLUETOOTH
[CD/USB, AUX]: CD → USB → AUX

[RADIO]: DAB+ ↔ FM
On the unit:
CD → DAB+ → FM → AUX

Select "BLUETOOTH" as the audio source
To start Bluetooth® pairing or disconnect a Bluetooth® device, press and hold the corresponding button.
- ⑥ Basic playback control**
- ⑦ Select the sound effects**
- ⑧ View the play menu**
- ⑨ View the content information**
- ⑩ Set the clock and timers**
- ⑪ Open or close the sliding door**
- ⑫ Set the programme play**
- ⑬ Adjust the volume level**
- ⑭ Mute the sound**
To cancel, press the button again.
"MUTE" is also cancelled when you adjust the volume or when you switch off the system.
- ⑮ Enter setup menu**
- ⑯ Select the functions in the radio menu**
- ⑰ Select or confirm the option**
- ⑱ Dim the display panel and indicator**
Press again to cancel.
- ⑲ USB port** (↔)
- ⑳ AUX IN terminal** (⇒ 17)
- ㉑ Sliding door**
- ㉒ Display panel**
- ㉓ Remote control sensor**
Distance: Within approximately 7 m
Angle: Approximately 20° up and down, 30° left and right
- ㉔ Network indicator**

Network settings

You can stream online music service or music stored on your devices to this system. To use these features, this system must join the same internet-connected network as the compatible device.

- Please update the system's firmware after the network settings are complete. (⇒ 18)



Choose a network setting method from the following.

Wireless LAN connection

Method 1: Using the "Google Home" app
(⇒ right)

You can establish the wireless network settings with the "Google Home" app (free of charge).

Wired LAN connection

Method 2: Using a LAN cable (⇒ 7)

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

Note:

The setting will be cancelled after the set time limit. Redo the setup.

Wireless LAN connection

This system has a 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.
- Make sure your smartphone or tablet is connected to the same network as this system.

Method 1:

Using the "Google Home" app

- 1 Press [NET/ ⓘ] repeatedly to select "NETWORK".
- 2 Download the "Google Home" app (free of charge) onto your smartphone or tablet.
 - To download the "Google Home" app, visit: <https://www.google.com/cast/setup/>



- 3 Start the app and follow the on-screen instructions.

- 4 Check that the connection has completed.

The network indicator lights up.

- If connection failed, the network indicator blinks. Do the setup again.

Note:

- "Panasonic HC2020-□□□□" is shown if the device name is not set.
("□" represents a character that is unique to each set.)
- You can check your network information (SSID, MAC address and IP address) from the "Google Home" app or "Panasonic Music Control" app. (⇒ 8)
- Certain on-screen display items, etc. of the "Google Home" app may not apply to this system.
- Availability and performance of certain features, services and applications are device- and network-dependent and may not be available in all countries/regions; subscription(s) may be required, and additional terms, conditions and/or changes may apply.

Wired LAN connection

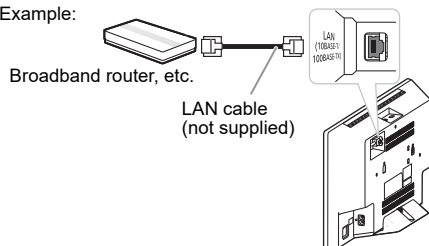
Method 2:

Using a LAN cable

1 Disconnect the AC mains lead.

2 Connect the unit to a broadband router, etc. using a LAN cable.

Example:



3 Connect the AC mains lead to the unit and switch on the system.

When the connection is established, the network indicator lights up.

Note:

- 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, redo the network settings.
- When a LAN cable is connected, the Wi-Fi function will be disabled.

Streaming music over the network

You can stream online music services or music files from your smartphone/tablet to this system.

Streaming online music

This system is compatible with Chromecast-enabled apps. For the list of Chromecast-enabled apps, visit g.co/cast/apps

Preparation

- Complete the network settings. (⇒ 6)
- Make sure that the network is connected to the Internet.

- 1 Connect the device by Wi-Fi to the same network as that of this system.**
- 2 Install the Chromecast-enabled app to the mobile device.**
- 3 Start the Chromecast-enabled app, tap the cast icon “”, and select this system or group which this system is included.**
Use the “Google Home” app to group speakers when streaming online music to other compatible speakers.
- 4 Select and play the desired music on your Chromecast-enabled app.**
“CASTING” is shown.

Note:

- “Panasonic HC2020-□□□□” is shown if the device name is not set.
 (“□” represents a character that is unique to each set.)
- Not all music services are available in all countries/regions. Registration/subscription required. Fees may apply. Services subject to change. For details, visit the individual music service’s website.

Streaming music on network devices

You can stream music files from the device on your network to this system’s speakers by using the “Panasonic Music Control” app (free of charge).

Preparation

- Complete the network settings. (⇒ 6)
- Connect the following devices to the same network as this system.
 - Device with “Panasonic Music Control” app installed.
 - Device containing music.

- 1 Download “Panasonic Music Control” app (free of charge) on your smartphone/tablet.**



- **Android:** Google Play™



- **iOS:** App Store



- 2 Start the app.**
Always use the latest version of the app.
- 3 Select this system as the output speaker.**
- 4 Select a music source.**
- 5 Select a music file.**

- If playback music from your device or Deezer or TIDAL, “NETWORK” is shown.
- If playback from Radio, “NET RADIO” is shown.
- If playback from Podcasts, “PODCAST” is shown.

Enhancing the sound

When using the “Panasonic Music Control” app, you can change the sound functions as below from the app settings.

- Equalizer
- D.Bass (powerful bass effect)
- Surround
- Clear Mode Dialog
- Wall Mount

Note:

- "Panasonic HC2020-□□□□" is shown if the device name is not set.
("□" represents a character that is unique to each 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.
- About supported format, refer to "Specifications". (⇒ 24)
- Depending on the contents and the connected equipment, playback may not be performed properly.
- Ensure to stop playback on your device before switching it off.

The operations and on-screen display items, etc. of the "Panasonic Music Control" app are subject to change.

For the latest information, visit

<http://panasonic.jp/support/global/cs/audio/app/>

(This site is in English only.)

Important notice:

Before you dispose or transfer this system to a third party, log out your TIDAL/Deezer account to prevent unauthorized use of your account.

■ Listening to a stored station

Press one of [1] to [5].

You can also select the preset station using the "Panasonic Music Control" app. For details on the app, refer to the site below.

<http://panasonic.jp/support/global/cs/audio/app/>

(This site is in English only.)

Note:

- If the selected preset channel has not been preset, "NO PRESET" is shown.
- This service may be discontinued without notice.
- Not all music services are available in all countries/regions. Registration/subscription required. Fees may apply. Services subject to change. For details, visit the individual music service's website.

Storing stations under [FAVOURITE]**[1] to [5]****(Select Radio and Podcasts from****"Panasonic Music Control" app menu)**

You can store up to 5 stations under [FAVOURITE] [1] to [5].

- A station previously stored is overwritten when another station is stored under the same [FAVOURITE] [1] to [5].

Preparation

- Make sure that the network is connected to the Internet.
- Connect a device with the "Panasonic Music Control" app installed to the same network as this system.

1 Start the "Panasonic Music Control" app and select Radio and Podcasts to playback.

Always use the latest version of the app.

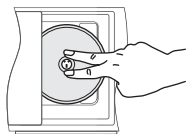
2 Press and hold one of [1] to [5] until "P □" is shown.

("□" represents a number.)

Preparing the media

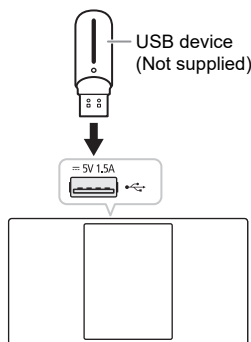
Disc

- 1 Press [CD/USB, AUX] repeatedly to select "CD".
- 2 Press [CD ▲] (unit: [▲]) to open the sliding door.
Put in a disc with the label facing towards you.



- 3 Press [CD ▲] (unit: [▲]) again to close the sliding door.
Keep fingers away from the sliding door when it is closing.

USB



Press [CD/USB, AUX] repeatedly to select "USB".

Note:

Do not use a USB extension cable. The system cannot recognise USB device connected through a cable.

Bluetooth®

You can connect and play an audio device wirelessly through Bluetooth®.

Preparation

- Switch on the unit.
- Switch on the Bluetooth® feature of the device and put the device near the system.
- Read the operating instructions of the device for details.

Pairing a device

Preparation

If this system is connected to a Bluetooth® device, disconnect it. (⇒ 11)

- 1 Press [NET/ Ⓜ] repeatedly to select "BLUETOOTH".
If "PAIRING" is shown, continue with step 3.
- 2 Press [PLAY MENU] to select "PAIRING".
Or press and hold [SELECTOR/ - Ⓜ] PAIRING] on the unit until "PAIRING" is shown.
- 3 Select this system from the Bluetooth® menu of the device.
If prompted for a passkey, input "0000".
The device connects with this system automatically after pairing is complete.
The MAC address (example: 6C:5A:B5:B3:1D:0F) may be shown before this system is shown.
The name of the connected device is shown for a few seconds.

Note:

You can pair up to 8 devices with this system. If a 9th device is paired, the device that has not been used for the longest time will be replaced.

Connecting a device

Preparation

If this system is connected to a Bluetooth® device, disconnect it. (⇒ 11)

- 1 Press [NET/ Ⓜ] repeatedly to select "BLUETOOTH".
"BLUETOOTH READY" is shown.
- 2 Select this system from the Bluetooth® menu of the device.
The name of the connected device is shown for a few seconds.
- 3 Start playback on the device.

Note:

- "Panasonic HC2020-□□□□" is shown if the device name is not set.
("□" represents a character that is unique to each set.)
- If the speaker name is changed by using the "Panasonic Music Control" app or during the network setup, the speaker name for Bluetooth® will be also changed.
- A device must be paired to connect.
- This system can only connect to one device at a time.
- When "BLUETOOTH" is selected as the source, this system will automatically try to connect to the last connected device. ("LINKING" is shown during this process.)

Disconnecting a device

While a Bluetooth® device is connected

- 1 Press [PLAY MENU] repeatedly to select "DISCONNECT?".
- 2 Press [◀, ▶] to select "OK? YES" and then press [OK].

Note:

A device is disconnected when you:

- Select a different source.
- Move the device out of the maximum range.
- Disable the Bluetooth® transmission of the device.
- Switch off the system or the device.
- Press and hold [SELECTOR/ –] + [PAIRING] on the unit.

Link mode

You can change the link mode to suit the connection type.

Preparation

If this system is connected to a Bluetooth® device, disconnect it. (⇒ above)

- 1 Press [PLAY MENU] repeatedly to select "LINK MODE".
- 2 Press [◀, ▶] to select the mode and then press [OK].

MODE 1	Emphasis on connectivity.
MODE 2 (default)	Emphasis on sound quality.

Note:

- Depending on the device, the playback image and sound may not be synchronised. In this case, select "MODE 1".
- Select "MODE 1" if the sound is interrupted.
- You can change the setting by "Panasonic Music Control" app. (⇒ 8)

Media playback

The following marks indicate the availability of the feature.

- CD**: CD-R/RW in CD-DA format or with MP3 files. (⇒ 12)
- USB**: USB device with MP3 files. (⇒ 12)
- BLUETOOTH**: Bluetooth® device. (⇒ 10)
- NETWORK**: When connected to Wi-Fi/DLNA compatible device. (⇒ 8)

Basic playback

Play	Press [▶/II].
Stop	Press [■]. USB The position is memorised. "RESUME" is shown. Press again to stop fully.
Pause	Press [▶/II]. Press again to continue playback.
Skip	Press [◀◀] or [▶▶] (unit: [◀◀/▶▶] or [▶▶/▶▶]) to skip track. CD USB Press [▲, ▼] to skip MP3 album.
Search	Press and hold [◀◀] or [▶▶] (unit: [◀◀/▶▶] or [▶▶/▶▶]). (Except BLUETOOTH)

Note:

- 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 Bluetooth® device, some operations may not work.
- **CD**, **USB**: Track can be selected by pressing the numeric buttons.

Viewing available information

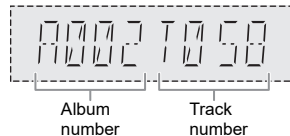
CD **USB** **BLUETOOTH** **NETWORK**

You can view the available information on the display panel.

Press [DISPLAY] repeatedly.

Note:

- Maximum characters that can be shown: Approximately 32
- This system supports ver. 1.0, 1.1 and 2.3 ID3 tags.
- Text data that the system does not support can show differently.
- Example: MP3 album and track number display.



Play menu

CD **USB**

- 1 Press [PLAY MENU] repeatedly to select "PLAYMODE" or "REPEAT".
- 2 Press [◀, ▶] to select the setting and then press [OK].

PLAYMODE

OFF PLAYMODE	Cancel the setting.
1-TRACK 1	Play one selected track. Press [◀◀] or [▶▶] to select the track.
1-ALBUM 1	Play one selected MP3 album. Press [▲, ▼] to select the MP3 album.
RANDOM RND	Play all tracks randomly.
1-ALBUM RANDOM 1 RND	Play all tracks in one selected MP3 album randomly. Press [▲, ▼] to select the MP3 album.

REPEAT

OFF REPEAT	Cancel the setting.
ON REPEAT 	Repeat playback.

Note:

- During random playback, you cannot skip to tracks which have been played or press the numeric buttons.
- "PLAYMODE" function does not work with "Programme play".
- The setting is cancelled when you open the sliding door or disconnect the USB device.

Programme play

CD **USB**

This function allows you to programme up to 24 tracks.

CD (CD-DA)

- 1 Press [PROGRAM] in the stop mode.
"PROGRAM" is shown.
- 2 Press the numeric buttons to select the desired track.
Do this step again to programme other tracks.
- 3 Press [▶/II] to start playback.

CD (MP3), **USB**

- 1 Press [PROGRAM] in the stop mode.
"PROGRAM" is shown.
- 2 Press [▲, ▼] to select the desired album.
- 3 Press [▶▶] and then press the numeric buttons to select the desired track.
- 4 Press [OK].
Do steps 2 through 4 again to programme other tracks.
- 5 Press [▶/II] to start playback.

Check programme contents	Press [◀◀] or [▶▶] in the stop mode.
Clear the last track	Press [DEL] in the stop mode.
Cancel programme mode	Press [PROGRAM] in the stop mode. "PGM OFF" is shown.
Clear all programmed tracks	Press [■] in the stop mode. "CLEAR ALL" is shown. Within 5 seconds, press [■] again.

Note:

The programme memory is cleared when you open the sliding door or disconnect the USB device.

Note on disc

- This system can play CD-R/RW with CD-DA or MP3 format content.
- This system can access up to:
 - CD-DA: 99 tracks
- Before playback, finalise the disc on the device it was recorded on.
- Some CD-R/RW cannot be played because of the condition of the recording.

Note on USB device

- This system does not guarantee connection with all USB devices.
- This system supports USB 2.0 full speed.
- This system can support USB devices of up to 32 GB.
- Only FAT 12/16/32 file system is supported.

Note on MP3 file

- Files are defined as tracks and folders are defined as albums.
- Tracks must have the extension ".mp3" or ".MP3".
- Tracks will not necessarily be played in the order you recorded them.
- Some files can fail to work because of the sector size.

MP3 file on disc

- This system can access up to:
 - 255 albums (including root folder)
 - 999 tracks
 - 20 sessions
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).

MP3 file on USB device

- This system can access up to:
 - 800 albums (including root folder)
 - 8000 tracks
 - 999 tracks in one album

Radio

Preparation

Press [RADIO] repeatedly to select “FM”.

Manual tuning

- 1 Press [RADIO MENU] repeatedly to select “TUNE MODE”.
- 2 Press [◀, ▶] to select “MANUAL” and then press [OK].
- 3 Press [◀◀] or [▶▶] (unit: [◀◀/◀◀] or [▶▶/▶▶]) to tune in to the station.
To tune automatically, press and hold the button until the frequency starts changing quickly.
“STEREO” is shown when a stereo broadcast is being received.

Memory presetting

You can preset up to 30 FM stations.

Channel 1 to 5 will be set as the favourite stations under “Changing the stations stored under [FAVOURITE] [1] to [5]”. (⇒ right)

Automatic presetting

- 1 Press [RADIO MENU] to select “A.PRESET”.
- 2 Press [◀, ▶] to select “LOWEST” or “CURRENT” and then press [OK].
The tuner presets all the stations it can receive into the channels in ascending order.
To cancel, press [■].

LOWEST	Tuning begins from the lowest frequency.
CURRENT	Tuning begins from the current frequency.

Manual presetting

While listening to the radio broadcast

- 1 Press [PROGRAM].
- 2 Press the numeric buttons to select a preset number.
Do steps 1 through 2 again to preset more stations.
The new station replaces any station that occupies the same preset number.

Selecting a preset station

- 1 Press [RADIO MENU] repeatedly to select “TUNE MODE”.
- 2 Press [◀, ▶] to select “PRESET” and then press [OK].
- 3 Press the numeric button, [◀◀] or [▶▶] (unit: [◀◀/◀◀] or [▶▶/▶▶]) to select the preset station.
You can select channel 1 to 5 by pressing one of [FAVOURITE] [1] to [5].

Changing the stations stored under [FAVOURITE] [1] to [5]

You can easily change the stations stored under [FAVOURITE] [1] to [5].

While listening to the radio broadcast

Press and hold one of [1] to [5] until “P □” is shown. (“□” represents a number.)

Note:

When you change the station stored under [FAVOURITE] [1] to [5], channel 1 to 5 are also changed to the same corresponding stations.

Improving the sound quality

- 1 Press [RADIO MENU] repeatedly to select “FM MODE”.
- 2 Press [◀, ▶] to select “MONO” and then press [OK].
To cancel, select “STEREO”.
“MONO” is also cancelled when you change the frequency.

Checking the signal status

Press [DISPLAY].

FM - - -	The FM signal is weak. The system is not tuned in to a station.
FM ST	The FM signal is in stereo.
FM MONO	“MONO” is selected as the “FM MODE”. The FM signal is in monaural.

DAB/DAB+

Preparation

Press [RADIO] repeatedly to select "DAB+".

Note:

If you select "DAB+" for the first time, the system will tune automatically.

Manual tuning

- 1 Press [RADIO MENU] repeatedly to select "MANUAL SCAN".
- 2 Press [◀, ▶] to select the frequency block and then press [OK].
If no station is detected, "SCAN FAILED" is shown. Adjust the antenna and try again.

To tune automatically

- 1 Press [RADIO MENU] to select "AUTO SCAN" and then press [OK].
"START?" is shown.
- 2 Press [OK] to start tuning.
"DAB AUTO SCAN" is shown.
If no station is detected, "SCAN FAILED" is shown. Do manual tuning.

Selecting a station

Press [◀◀] or [▶▶] to select a station.

- Or press [◀◀/◀◀] or [▶▶/▶▶] on the unit when "STATION" is selected as the tune mode*1.

Note:

Preset frequencies are erased after you do automatic tuning.

Memory presetting

You can preset up to 20 stations.

Channel 1 to 5 will be set as the favourite stations under "Changing the stations stored under [FAVOURITE] [1] to [5]". (⇒ right)

While listening to a DAB/DAB+ broadcast

- 1 Press [PROGRAM].
- 2 Press the numeric buttons to select a preset number.
Do steps 1 through 2 again to preset more stations. The new station replaces any station that occupies the same preset number.

Note:

You cannot preset a station when the station is not broadcasting or when you have selected a secondary service.

Selecting a preset station

Press the numeric buttons, [◀◀] or [▶▶] to select the preset station.

- Or press [◀◀/◀◀] or [▶▶/▶▶] on the unit when "PRESET" is selected as the tune mode*1.
- You can select channel 1 to 5 by pressing one of [FAVOURITE] [1] to [5] on the unit.

*1: To change the tune mode

- 1 Press [RADIO MENU] repeatedly to select "TUNE MODE".
- 2 Press [◀, ▶] to select "STATION" or "PRESET" and then press [OK].

Changing the stations stored under [FAVOURITE] [1] to [5]

You can easily change the stations stored under [FAVOURITE] [1] to [5].

While listening to the radio broadcast

Press and hold one of [1] to [5] until "P □" is shown. ("□" represents a number.)

Note:

When you change the station stored under [FAVOURITE] [1] to [5], channel 1 to 5 are also changed to the same corresponding stations.

Secondary service

You can listen to secondary services when "▼" is shown.

- 1 Press [RADIO MENU] repeatedly to select "DAB SECONDARY".
- 2 Press [◀, ▶] to select the secondary service and then press [OK].
To cancel, select "PRIMARY".

Note:

The setting is cancelled when you select other stations.

Viewing available information

You can view the following information on the display panel:

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

Press [DISPLAY].

Automatic clock adjustment

You can set the clock to update automatically.

- 1 Press [RADIO MENU] repeatedly to select "AUTO CLOCK ADJ".
- 2 Press [◀, ▶] to select "ON ADJUST" and then press [OK].
To cancel, select "OFF ADJUST".

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 "Manual tuning". (⇒ 14)
- If stations have already been memorised to this unit, proceed to "Checking the signal quality". (⇒ below)

Checking the signal quality

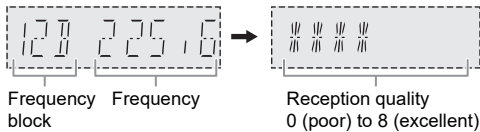
You can check the signal quality when adjusting the antenna.

1 Press [RADIO MENU] repeatedly to select "SIGNAL QUALITY".

2 Press [OK].

The frequency block followed by the reception quality is shown.

To select other frequency blocks, press [◀, ▶].



3 Press [OK] again to exit.

Clock and timers

Setting the clock

This is a 24-hour clock.

Using network device

This system can receive the clock information from the device by using the "Panasonic Music Control" app. (⇒ 8)

Preparation

- Complete the network settings. (⇒ 6)
- Install the "Panasonic Music Control" app on your device.
- Connect your device to the same network as this system.

1 Switch on this system.

Check that the network indicator (⇒ 5) lights up. If it does not light up, check the network settings. (⇒ 6)

2 Start the app.

Always use the latest version of the app. The clock information will be sent to this system.

Manual setting

1 Press [CLOCK/TIMER] repeatedly to select "CLOCK".

2 Press [▲, ▼] to set the time and then press [OK].

To check the time

Press [CLOCK/TIMER].

In standby mode, press [CLOCK/TIMER].

Note:

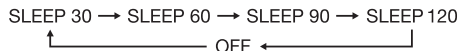
- Reset the clock regularly to maintain accuracy.
- The clock is reset when there is a power failure or when the AC mains lead is disconnected.

Sleep timer

The sleep timer switches off the system after the set time.

Press [SLEEP] to select the setting (in minutes).

To cancel, select "OFF".



Note:

- The remaining time is shown at every minute except when other operations are being performed. "SLEEP 1" will always be shown when only 1 minute remains.
- The sleep timer always comes first. Be sure not to set an overlap of timers.

Play timer

You can set the timer to switch on this system at a certain time to wake you up.

Preparation

Set the clock.

- 1 Press [CLOCK/TIMER] repeatedly to select "TIMER ADJ".
- 2 Press [▲, ▼] to set the start time and then press [OK].
- 3 Do step 2 again to set the end time.
- 4 Press [▲, ▼] to select the music source you want to play and then press [OK].

To start the timer

- 1 Press [CLOCK/TIMER] repeatedly to select "TIMER SET".
- 2 Press [▲, ▼] to select "SET" and then press [OK].
"⊙" is shown.
To cancel, select "OFF".
The system must be switched off for the timer to operate.

To check the setting

Press [CLOCK/TIMER] repeatedly to select "TIMER ADJ".

In standby mode, press [CLOCK/TIMER] two times.

Note:

- The timer starts at a low volume and increases gradually to the preset level.
- The timer comes on at the set time every day if the timer is on.
- If you switch off the system and then switch on again while a timer is in operation, the timer will not stop at the end time.
- "CD", "USB", "DAB+" and "FM" can be set as the music source.

Sound effects

- 1 Press [SOUND] repeatedly to select the sound effect.
- 2 Press [◀, ▶] to select the setting and then press [OK].

MY SOUND	"SOUND 1", "SOUND 2" or "SOUND 3" (⇒ below)
BASS	-4 to +4
TREBLE	-4 to +4
SURROUND	"ON SURROUND" or "OFF SURROUND" Or press [SURROUND] on the unit.
CLEAR-MODE DIALOG	"ON CLEAR-MODE DIALOG" or "OFF CLEAR-MODE DIALOG"
WALL MOUNT	"MODE 1 WALL MOUNT", "MODE 2 WALL MOUNT" or "OFF WALL MOUNT" Or press [WALL MOUNT] on the unit.

- Sound quality may be reduced when these effects are used with some sources. If this occurs, switch off the sound effects.
- When "AUX" is selected as the source, you can select "INPUT LEVEL" to adjust the sound input level of the external device. (⇒ 17)

Saving the sound settings

You can save the current sound effects (up to 3 combinations).

Preparation

Select the sound effects.

- 1 Press [SETUP] to select "SAVE MY SOUND".
- 2 Press [◀, ▶] to select a sound setting number and then press [OK].
"SAVED" is shown.
The new setting replaces the one existing in the same sound setting number.

To recall the setting

- 1 Press [SOUND] to select "MY SOUND".
- 2 Press [◀, ▶] to select the sound setting number and then press [OK].

D.Bass

Press [D.BASS] repeatedly to select "ON D.BASS" or "OFF D.BASS".

Note:

The default setting is "ON D.BASS".

Preset EQ

Press [PRESET EQ] repeatedly to select "HEAVY", "SOFT", "CLEAR", "VOCAL" or "FLAT".

Note:

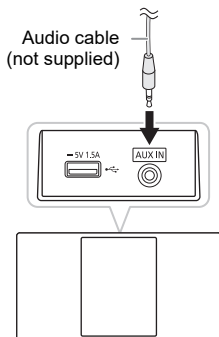
- When "PRESET EQ" is selected, Bass and Treble settings will be changed to the settings as in the Preset EQ.
- The default setting is "HEAVY".

External music device

You can play music from an external music device.

Preparation

- Switch off the equaliser (if any) of the external music device to prevent sound distortion.
- Decrease the volume of the system and the external music device before you connect or disconnect the external music device.



- 1 Connect the external music device.**
Plug type: Ø 3.5 mm stereo (not supplied)
- 2 Press [CD/USB, AUX] repeatedly to select "AUX".**
- 3 Play the external music device.**

To adjust the input level

- 1 Press [SOUND] repeatedly to select "INPUT LEVEL".**
- 2 Press [◀, ▶] to select "LOW" or "HIGH" and then press [OK].**

Note:

- The default setting is "HIGH".
- Select "LOW" if the sound is distorted during "HIGH" input level.
- Read the operating instructions of the external music device for details.
- Components and cables are sold separately.

Firmware updates

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



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

“UPDATING” or “UPD□□%”

(“□” represents a number.)

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

Checking the firmware version

Press [SETUP] repeatedly to select “FW VER.” and then press [OK].

The version of the installed firmware is shown. Press [OK] again to exit.

Automatic updates

When a new update is available, this system will update the firmware automatically after midnight if it is not in use.

- Connect this system to the network. (⇒ 6)
 - Make sure that the network is connected to the Internet.

Note:

- If an update is detected during the network settings, updating will be performed as a part of the network settings.
- If a critical update is detected while the system is in use, updating will be prioritised.
- Updating may take longer or may not work properly depending on the connection environment.

Manual updates

Preparation

- Connect this system to the home network. (⇒ 6)
 - Make sure that the network is connected to the Internet.

1 Press [NET/] repeatedly to select “NETWORK”.

2 Press [SETUP] repeatedly to select “FW UPDATE”.

3 Press [◀, ▶] to select “OK? YES” and then press [OK] to start the update.

To cancel, select “OK? NO”.

While updating, “UPDATING” or “UPD□□%” is shown.

(“□” represents a number.)

4 After the update has finished, “SUCCESS” is shown for a few seconds and the system may automatically switch off.

Note:

- If there are no updates, “NO NEED” is shown.
- Downloading may take longer or may not work properly depending on the connection environment.

Others

Auto off

This system automatically switches off when you do not use it for approximately 20 minutes.

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

2 Press [◀, ▶] to select "ON" and then press [OK].
To cancel, select "OFF".

Note:

- This function does not work when you are in radio source or when a Bluetooth® device is connected or when "STANDBY MODE" is "ON".
- If "STANDBY MODE" is set to "ON", this function will also be set to "ON". To change the setting, set "STANDBY MODE" to "OFF". (⇒ below)

Standby mode

This function automatically switches on the system when you establish a Bluetooth® connection from a paired device or when this system is selected as the network device's output speakers.

Select "NETWORK" or "BLUETOOTH" before switch off this system to use this feature.

When you connect it to the home network for the first time, this function will automatically switch to on.

You can also switch on the network standby using the following steps:

1 Press [SETUP] repeatedly to select "STANDBY MODE" and then press [OK].

2 Press [◀, ▶] to select "ON" and then press [OK].
When "STANDBY MODE" is "ON"
– The network (wired LAN/Wi-Fi) and Bluetooth® will be active even in standby mode.
– The power consumption in standby mode will increase. To reduce the power consumption in standby mode, switch off the "STANDBY MODE".

To switch off the standby mode

Select "OFF" in step 2.

When you have switched "STANDBY MODE" to "OFF",
– Network and Bluetooth® standby will be active if the system is switched to standby mode at "NETWORK" and "BLUETOOTH" selector mode and this system is connected to the network.
– To keep the "STANDBY MODE" switched off, select a source other than "NETWORK" and "BLUETOOTH" before switching the system to standby mode.

Note:

- This function will return to default setting if you have performed the operation for reset. (⇒ 20)
- When the system is switched 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 be switched on even when selected as the output speakers. Start playback.

Charging a device

This system can supply power to a device, such as Android™ smartphone, connected to the USB port.

Note:

- Use a cable compatible with the device.
- Use the charger supplied with the device if power is not supplied to the device.
- Do not use a cable or connect a device that exceeds the rated value of 5 V, 1.5 A.
- Examine the screen of the device to check if charging is complete. Disconnect the device after charging.
- Depending on the device, power may not be supplied to it.
- Read the operating instructions of the device for details.

Wi-Fi signal strength

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

Preparation

Connect this system to the wireless network. (⇒ 6)

1 Press [NET/ ⓘ] repeatedly to select "NETWORK".

2 Press [SETUP] repeatedly to select "SIGNAL LEVEL" and then press [OK].
Press [OK] again to exit.

Note:

- 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 shown, this system cannot establish a link with the wireless router. (⇒ 21)

Wireless network name (SSID)

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

1 Press [NET/ ⓘ] repeatedly to select "NETWORK".

2 Press [SETUP] repeatedly to select "NET INFO".

3 Press [◀, ▶] repeatedly to select "SSID" and then press [OK].
Press [OK] again to exit.

Note:

- If "NO CONNECT" is shown on this system, it is not connected to a wireless network.
- Characters that cannot be shown are replaced with "x".

IP/MAC Address

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

- 1 Press [NET/ ] repeatedly to select "NETWORK".
- 2 Press [SETUP] repeatedly to select "NET INFO".
- 3 Press [◀, ▶] repeatedly to select "IP ADDR." or "MAC ADDR."
The IP address or the MAC address is partially shown.
- 4 Press [◀, ▶] to show the rest of the IP address or the MAC address.
Press [OK] to exit.
The "—" shown on the top or bottom left of the display indicates the first and last units respectively.

Reset

To return all settings to the factory defaults. This function will reset all memory contents and network settings.

- 1 Press [NET/ ] repeatedly to select "NETWORK".
- 2 Press [SETUP] repeatedly to select "RESET".
- 3 Press [◀, ▶] to select "OK? YES" and then press [OK].
"RESET" blinks. When the display returns to "CD", the settings are reset.

Troubleshooting

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the solutions indicated do not solve the problem, consult your dealer for instructions.

Do you have the latest firmware installed?

Panasonic is constantly improving the system's firmware to ensure that our customers are enjoying the latest technology. (⇒ 18)

For further dedicated help, support and advice about your product please visit:
<http://panasonic.jp/support/global/cs/audio/>
(This site is in English only.)

Common problems

The unit cannot be switched on.

- Connect the AC mains lead and wait for a minimum of 10 seconds before switching on the unit.

The unit does not work.

- The safety device has been activated. Do the following:
 1. Press [⏻/|] on the unit to switch the unit to standby mode.
If the unit does not switch to standby mode, disconnect the AC mains lead and connect it again.
 2. Press [⏻/|] again to switch on the unit. If the problem persists, consult your dealer.

No operations can be done with the remote control.

- Examine that the battery is installed correctly.

Sound is distorted or no sound.

- Adjust the volume of the system.
- Switch off the system, determine and correct the cause, and then switch on again. It can be caused by straining of the speakers through excessive volume or power, and when using the system in a hot environment.

A humming sound can be heard during playback.

- An AC mains lead or fluorescent light is near the cables. Keep other appliances and cords away from the cables of this system.

Noise is heard.

- Depending on the device, noise may be heard if the device is connected to the AUX IN terminal and USB port at the same time. Disconnect the cable from the USB port.

Disc

Display not shown correctly.

Playback does not start.

- You have not put in the disc correctly. Put it in correctly.
- Disc is dirty. Clean the disc.
- Replace the disc if it is scratched, warped, or non-standard.
- There is condensation. Let the system dry for 1 to 2 hours.

The total number of tracks shown is incorrect.

The disc cannot be read.

Distorted sound is heard.

- You put in a disc that the system cannot play. Change to a playable disc.
- You put in a disc that has not been finalised.

USB

No response when you press [▶/III].

- Disconnect the USB device and then connect it again. Alternatively, switch the unit off and on again.

The USB device or the contents in it cannot be read.

- The format of the USB device or the contents in it are not compatible with the system.
- USB devices with storage capacity of more than 32 GB cannot work in some conditions.

Slow operation of the USB device.

- Large content size or large memory USB device takes longer time to read.

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

- Transfer the data to another USB device or backup the data and reformat the USB device.

Bluetooth®

Pairing cannot be done.

- Check the Bluetooth® device condition.
- The device is out of the 10 m communication range. Move the device nearer to the system.

The device cannot be connected.

- The pairing of the device was unsuccessful. Do pairing again.
- The pairing of the device has been replaced. Do pairing again.
- This system might be connected to a different device. Disconnect the other device and try connecting the device again.
- The system may have a problem. Switch off the system and then switch on again.
- If "MODE 2" is selected in "LINK MODE", select "MODE 1". (⇒ 11)

The device is connected but audio cannot be heard through the system.

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

Sound from the device is interrupted.

- The device is out of the 10 m communication range. Move the device nearer to the system.
- Remove any obstacle between the system and the device.
- Other devices that use the 2.4 GHz frequency band (wireless router, microwaves, cordless phones, etc.) are interfering. Move the device nearer to the system and distance it from the other devices.
- Select "MODE 1" for stable communication. (⇒ 11)

Network

Cannot connect to the network.

- Confirm the network connection and settings. (⇒ 6)
- 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. (⇒ 7)
- This unit's Wi-Fi security does not support WPA2-Enterprise. For details on the security supported by your router and how to change the settings, please refer to the operating instructions for the router or contact your Internet service provider.
- Make sure that the multicast function on the wireless router is enabled.

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.
- Switch the wireless router off and then on.
- Switch 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 (⇒ 6). Make sure to select your network name (SSID) for the 5 GHz band during the setup.
- 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 switching 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.
- Switch the wireless router off and then on.
- Try a wired LAN connection. (⇒ 7)

The network indicator (⇒ 5) blinks.

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

Radio, DAB/DAB+

Sound is distorted or static is heard.

- Check that the antenna is properly connected. (⇒ 4)
- Adjust the position of the antenna.
- Keep a certain amount of distance between the antenna and the AC mains lead.
- Use an outdoor antenna if there are buildings or mountains nearby.
- Switch off the TV or other audio players or separate it from the system.
- Keep the system away from mobile phones if there is interference.

If there is excessive noise during FM reception.

- Change the audio output to monaural. (⇒ 13)

DAB/DAB+ reception is poor.

- Keep the antenna away from computers, TV, other cables and cords.

Unit displays

"--:--"

- You connected the AC mains lead for the first time or there was a power failure recently. Set the clock.

"ADJUST CLOCK"

- The clock is not set. Adjust the clock.

"ADJUST TIMER"

- The play timer is not set. Adjust the play timer.

"AUTO OFF"

- The system has not been used for 20 minutes and will switch off within a minute. To cancel, press any button.

"BLUETOOTH INITIALIZING"

"NETWORK INITIALIZING"

- 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.

"ERROR"

- An incorrect operation was done. Read the instructions and try again.

"F□□" / "F□□□" ("□" represents a number.)

- There is a problem with this unit.
Disconnect the AC mains lead from the AC outlet, reconnect it to the outlet after about 30 seconds. Wait for about 10 seconds, then switch on the unit. If the problem still persists, disconnect the AC mains lead and consult your dealer.

"FAIL"

- Updating or setting has failed. After switching off the unit, disconnect the AC mains lead from the AC outlet, reconnect it to the outlet after about 30 seconds. Wait for about 10 seconds, then switch on the unit and redo the update.
- The firmware download has failed. Press any button to exit. Try again later.
- The server cannot be found. Press any button to exit. Make sure that the wireless network is connected to the Internet.

"ILLEGAL OPEN"

- The sliding door is not in a correct position. Switch off the system and then switch on again.

"INVALID TO PRESET"

- You cannot preset an online music service.

"LEVEL 0"

- There is no link between this system and the wireless router. Try the following operations:
 - Check that the wireless router is switched on.
 - Switch this system off and on again.
 - Reset the wireless network settings. (⇒ 6)
 - If the problem persists, consult your dealer.

"LINKING"

- This system is trying to connect to the last connected Bluetooth® device when "BLUETOOTH" is selected.

"NO CONNECT"

- This system cannot connect to the network.
Check the network connection. (⇒ 6)

"NO DEVICE"

- The USB device is not connected. Examine the connection.

"NO DISC"

- You have not put in a disc.

"NO PLAY"

- Examine the content. You can only play supported format.
- The files in the USB device may be corrupted. Format the USB device and try again.
- The system may have a problem. Switch off the system and then switch on again.

"NO PRESET"

- DAB memory presetting has not been done.

"NO SIGNAL"

- The station cannot be received. Adjust the antenna.

"NOT SUPPORTED"

- You have connected an unsupported USB device.

"PGM FULL"

- The number of programmed tracks is more than 24.

"PLAYERERROR"

- An unsupported MP3 file has been played. 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 1"

"REMOTE 2"

- The remote control and this unit are using different codes. Change the code of the remote control.
 - When "REMOTE 1" is shown, press and hold [OK] and [1] for a minimum of 4 seconds.
 - When "REMOTE 2" is shown, press and hold [OK] and [2] for a minimum of 4 seconds.

"SCAN FAILED"

- Stations cannot be received. Adjust the antenna or perform the "AUTO SCAN" tuning function. (⇒ 14)
If "SCAN FAILED" is still shown, find the best signal reception with the "MANUAL SCAN" tuning function. (⇒ 14)

"SOUND 1 NOT SET"

"SOUND 2 NOT SET"

"SOUND 3 NOT SET"

- You have not saved the sound effects into the sound setting number.

"USB OVER CURRENT ERROR"

- The USB device is drawing too much power. Disconnect the USB device, switch off the system and then switch on again.
- Check the connection, it may be caused by a faulty USB cable.

"VBR"

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

"WAIT"

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

Remote control code

When other Panasonic equipment responds to the remote control of this system, change the remote control code for this system.

Preparation

Press [CD/USB, AUX] repeatedly to select "CD".

To set the code to "REMOTE 2"

- 1 Press and hold **[■]** on the unit and **[2]** on the remote control.
"REMOTE 2" is shown.
- 2 Press and hold **[OK]** and **[2]** for a minimum of 4 seconds.

To set the code to "REMOTE 1"

- 1 Press and hold **[■]** on the unit and **[1]** on the remote control.
"REMOTE 1" is shown.
- 2 Press and hold **[OK]** and **[1]** for a minimum of 4 seconds.

Maintenance

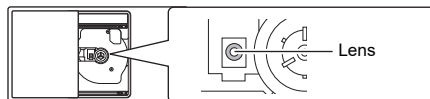
Disconnect the AC mains lead before maintenance.

Clean this system with a soft, dry cloth.

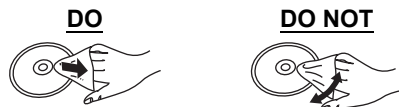
- When dirt is heavy, wring a cloth moistened in water tightly to wipe the dirt, and then wipe it with a dry cloth.
- Never use alcohol, paint thinner or benzine to clean this system.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

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 of or transfer this system.

- This system 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 presets to delete the user settings. (→ 20)
- The operation history may be recorded in the memory of this unit.

Specifications

General

Power supply	AC 220 V to 240 V, 50 Hz
Power consumption	27 W
Power consumption in standby mode ^{*1}	
When "STANDBY MODE" ^{*2} is "OFF"	Approx. 0.2 W
When "STANDBY MODE" ^{*2} is "ON"	Approx. 2 W

Dimensions (W x H x D)	420 mm x 225 mm x 102 mm
Mass (approximate)	2.5 kg
Operating temperature range	0°C to +40°C
Operating humidity range	35% to 80% RH (no condensation)

Amplifier section

RMS output power	
Front Ch (both ch driven)	20 W per channel (8 Ω), 1 kHz, 10% THD
Total RMS power	40 W

Speaker section

Speaker unit(s)	
Full range	8 cm cone type x 2 pieces

Tuner, terminals section

Preset memory	FM 30 stations
Frequency modulation (FM)	
Frequency range	87.50 MHz to 108.00 MHz (50 kHz step)
Antenna terminal	75 Ω (unbalanced)
Ethernet interface	LAN (10BASE-T/100BASE-TX)
AUX input	
Terminal	Stereo, 3.5 mm jack

DAB section

DAB memories	20 channels
Frequency band (wavelength)	
Band III	5A to 13F (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)

USB section

USB port power	DC OUT 5 V, 1.5 A
USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3)
Audio support format	MP3 ^{*3}
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Audio word size	16 bits
Channel count	2 ch
USB device file system	FAT12, FAT16, FAT32

Bluetooth® section

Version	Bluetooth® Ver. 4.2
Class	Class 2
Supported profiles	A2DP, AVRCP
Frequency band	2.4 GHz band FH-SS
Operation distance	10 m line of sight
Supported codec	AAC, SBC

For the United Kingdom and Ireland

Operating frequency	2402 MHz to 2480 MHz
Maximum power (EIRP)	4 dBm

Wi-Fi section

Wi-Fi	
WLAN Standard	IEEE802.11ac/a/b/g/n
Security	WPA™ / WPA2™
Frequency range	2.4 GHz band / 5 GHz band

For the United Kingdom and Ireland

Operating frequency, Maximum power (EIRP)	
2412 MHz to 2472 MHz,	19 dBm
5180 MHz to 5320 MHz,	19 dBm
5500 MHz to 5700 MHz,	19 dBm

Audio support format (Panasonic Music Control)

MP3 ^{*3}	
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Audio word size	16 bits
Channel count	2 ch
Bit-rate	32-320 kbps
AAC	
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Audio word size	16 bits
Channel count	2 ch
Bit-rate	8-320 kbps

FLAC*/WAV/AIFF/ALAC

Sampling frequency

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

Audio word size

16 bits, 24 bits

Channel count

2 ch

Note:

- Specifications are subject to change without notice. Mass and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyser.

*1 No device is connected to the USB port before switching to standby mode.

*2 "STANDBY MODE" is standby settings for both network and Bluetooth®. (⇒ 19)

*3 MPEG-1 Layer 3, MPEG-2 Layer 3

*4 Uncompressed FLAC files may not operate correctly.

For the United Kingdom and Ireland



Declaration of Conformity (DoC)

Hereby, "Panasonic Corporation" declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Customers can download a copy of the original DoC to our RE products from our DoC Server:

<http://www.ptc.panasonic.eu>

Contact to Authorised Representative:

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

Type of wireless	Frequency band	Maximum power (dBm EIRP)
WLAN	2412 – 2472 MHz	19 dBm
	5180 – 5320 MHz	19 dBm
	5500 – 5700 MHz	19 dBm
Bluetooth®	2402 – 2480 MHz	4 dBm

5.15 – 5.35 GHz band is restricted to indoor operations only in the following countries.

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

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.

Sales and Support Information

For the United Kingdom and Ireland

Customer Communications Centre

- For customers within the UK: 0344 844 3899
- For customers within Ireland: 01 289 8333
- Monday – Friday 9:00am – 5:00pm (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 9:00am – 5:00pm (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.

Attaching the unit to a wall (optional)

This unit can be wall mounted using the supplied wall mount brackets, safety holder, etc. Make sure that the wall and the screws used for securing to the wall are capable of supporting at least 36 kg. The screws and other items are not supplied as the type and size will vary with each installation.

- Refer to step 6 and step 7 of "Installation 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

- ☐ 2 Wall mount brackets
- ☐ 1 Safety holder
- ☐ 1 Wall mounting sheet

Additional accessories (commercially available)

- ☐ 4 Wall mount bracket fixing screws
- ☐ 2 Safety holder fixing screws
- ☐ 1 Screw eye
- ☐ 1 Fall prevention cord

Use a cord that is capable of supporting over 36 kg (with a diameter of about 1.5 mm)

- Keep the screws out of reach of children to prevent swallowing.
- Keep the wall mount brackets out of reach of children to prevent swallowing.
- Keep the screws eye 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:

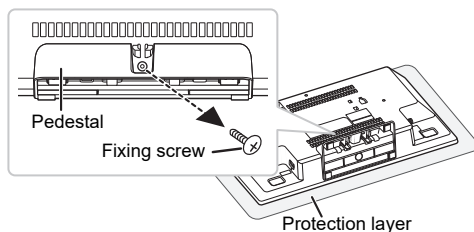
To prevent injury, this apparatus must be securely attached to the wall in accordance with the installation instructions.

Installation instructions

Preparation

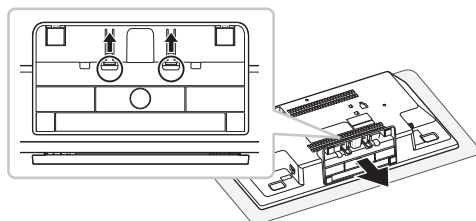
- Disconnect the antenna and the AC mains lead.
- Put a protection layer below the unit to prevent scratches.

1 Remove the fixing screw at the rear of the unit.



2 Detach the pedestal from the unit while pressing the catches upward.

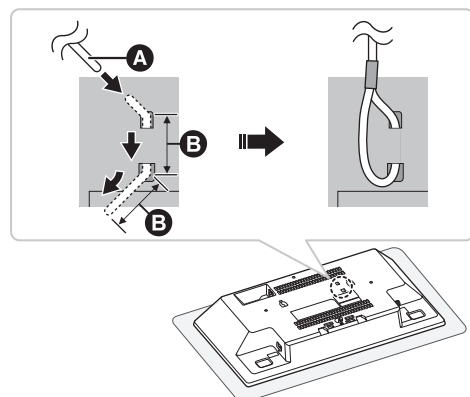
While lifting the catches upwards, gently pull the pedestal forward.



Keep the removed screw and pedestal for future use.

- When using the unit in a non-wall-mounted position again, be sure to reattach the pedestal to the unit and secure it with its screw.

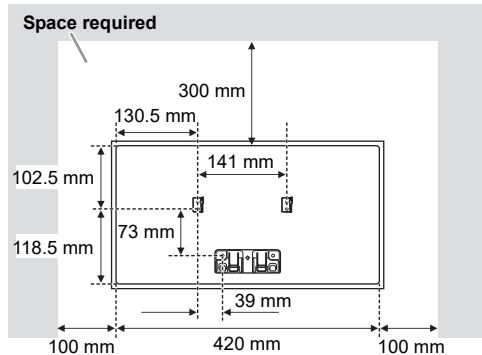
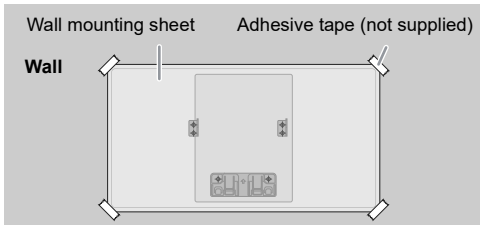
3 Attach the fall prevention cord to the unit to prevent the unit from falling.



- A** 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.
- B** 5 mm

4 Put up the wall mounting sheet on the wall where the unit is to be mounted.

- Before deciding the location to place the unit, be sure to check that the Wi-Fi signal strength is sufficient. (⇒ 19)
- Spread out the wall mounting sheet when tapping it to the wall.

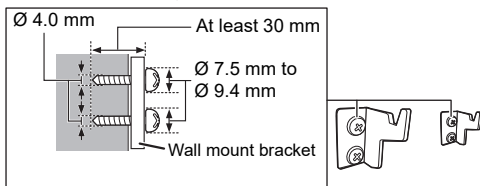


5 Make holes on the wall at the center of each cross mark on the sheet.

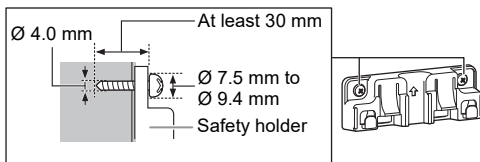
Take the sheet away from the wall after its use.

6 Attach each wall mount bracket to the wall with two screws (not supplied).

Use a level to align the wall mount brackets.



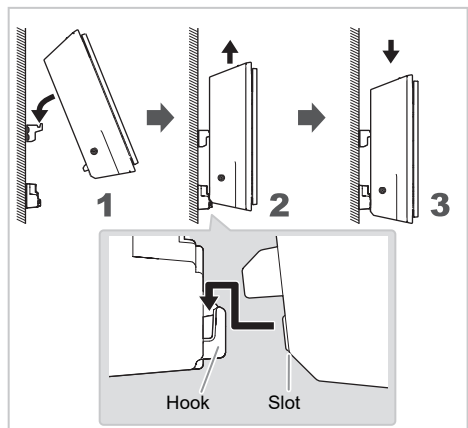
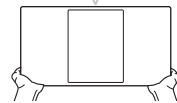
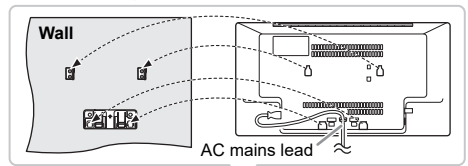
7 Attach the safety holder with two screws (not supplied) to the wall.



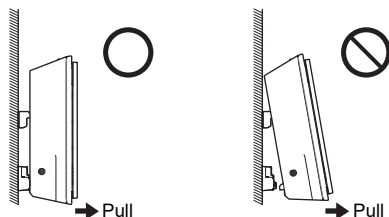
8 Attach the unit.

Connect the antenna and the AC mains lead. (⇒ 4)

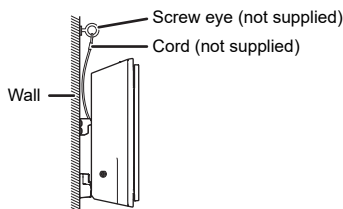
1. Hook the unit securely onto the wall mount brackets with both hands.
2. Slightly lift up the unit vertically until the hook reaches the hook of the safety holder.
3. Push down until the unit is hooked and locked onto the safety holder with a click sound.



- After hanging the unit, slightly pull the unit carefully to confirm that the unit sits securely on the wall mount brackets and the safety holder.

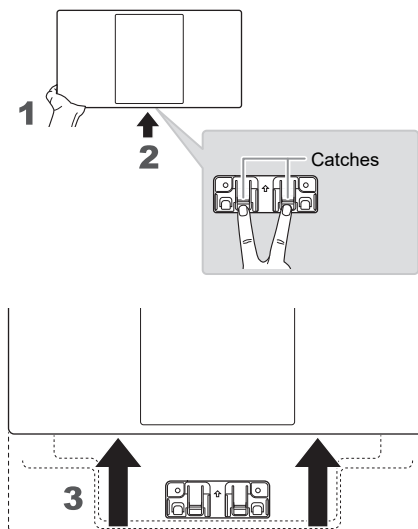


9 Attach the fall prevention cord to the wall.



To release the unit from the safety holder

1. Hold the unit firmly with one hand.
2. Insert two fingers and press the two catches of the safety holder with the other hand.
3. While pressing the two catches, slightly lift up the unit vertically until the slot released from the hook of the safety holder.



References

About Bluetooth®

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

Frequency band

- This system uses the 2.4 GHz frequency band.

Certification

- This system conforms to the 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 unit.
 - 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 the 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.).

Licenses

 The Wi-Fi CERTIFIED™ Logo is a certification mark of Wi-Fi Alliance®. “Wi-Fi®” is a registered trademark of Wi-Fi Alliance® “WPA™” and “WPA2™” are trademarks of Wi-Fi Alliance®.
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.
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., registered in the U.S. and other countries.
The Bluetooth® word mark and logos are registered trademarks owned by the 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.
Google, Google Home, Android, Google Play, Chromecast, Chromecast built-in and other related marks and logos are trademarks of Google LLC.
FLAC Decoder Copyright (C) Copyright (C) 2000-2009 Josh Coalson Copyright (C) 2011-2014 Xiph.Org Foundation 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 DAMAGES (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.

Panasonic Warranty

1. 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 have a manufacturing defect within one (1) year or (12 months) (the "warranty period") from the date of purchase appearing on your purchase receipt.
2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia, its Authorised Distributors, or Dealers, and only where the products are used and serviced within Australia or its territories. Warranty cover only applies to the services that are carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when the warranty service is requested.
3. This warranty only applies if the product has been installed and/or 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 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), 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) Consumable parts
 - (b) Cosmetic parts
 - (c) Worn or damaged parts
 - (d) Information stored on Hard Disk Drives, Optical Discs, USB Devices, SD Cards, Tapes
 - (e) DTV reception issues caused by TV Aerial / Cabling / Wall socket(s)
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) Incompatible software or software not specifically stipulated in the product operations manual; and
 - (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:
 - Contact Panasonic's Customer Care Centre on 132 600 for Service Centre information.
 - Confirm the opening and acceptance times with the Authorised Service Centre that you choose.
 - Then send or take the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt.
 - Any freight and insurance costs associated with the transport of the product to and/or from your nearest Authorised Service Centre must be arranged and paid for by you.
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, freight, 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 132 600 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
www.panasonic.com.au

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 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.

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>

