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

For the United Kingdom and Ireland

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.

Model number suffix "EB" denotes UK model.

EG EB GN

Panasonic®

Operating Instructions

CD Stereo System

Model No. **SC-PMX152**
SC-PMX150

Table of contents

Safety precautions **2**
Caution for AC Mains Lead **3**
Supplied accessories **3**
Maintenance **3**
Placement of speakers **4**
Making the connections **4**
Overview of controls **5**
Preparing the remote control **5**
Network settings **6**
Streaming music over the network **9**
Using AirPlay **10**
About Bluetooth® **11**
Bluetooth® operations **11**
Media information **12**
Inserting media **12**
Media playback controls **13**
FM radio **14**
PMX152 **DAB/DAB+** **15**
Using the auxiliary input **16**
Using the PC input **16**
Sound effects **16**
Clock and timers **16**
Firmware updates **17**
Others **17**
Troubleshooting **19**
Specifications **22**

TQBJ0992-3

Do the procedures with the remote control. You can also use the buttons on the main unit if they are the same.
Your system and the illustrations can look differently. These operating instructions are applicable to the following system.

System	SC-PMX152	SC-PMX150
Main unit	SA-PMX152	SA-PMX150
Speakers	SB-PMX100	SB-PMX100

Unless otherwise indicated, illustrations in these operating instructions are of SC-PMX152.

PMX152: indicates features applicable to SC-PMX152 only.

PMX150: indicates features applicable to SC-PMX150 only.

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.

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.

CAUTION!

Unit
- 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 place sources of naked flames, such as lighted candles, on this unit.
- This unit is intended for use in moderate climates.
- The mains plug is the disconnecting device. Install this unit so that the mains plug can be unplugged from the socket outlet immediately.
- 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 utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Battery
- 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.
- 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.
- Remove the battery if you do not use the remote control for a long period of time. Keep in a cool, dark area.
- 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.

For Continental Europe, the United Kingdom and Ireland

CE 0700

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 in compliance with the radio standards of 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

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.

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

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.

Wi Fi CERTIFIED

Wi-Fi PROTECTED SETUP

The Wi-Fi CERTIFIED™ Logo is a certification mark of Wi-Fi Alliance®.
The Wi-Fi Protected Setup™ Logo 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. AllPlay is a trademark of Qualcomm Connected Experiences, Inc., registered in the United States, and other countries.
TuneIn is a trademark of TuneIn Inc., registered in the United States and other countries and used with permission.

The Spotify software is subject to third 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.

Mac, OS X, and AirPort are trademarks of Apple Inc., registered in the U.S. and other countries.

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.

Made for iPod iPhone iPad

AirPlay

"Made for iPod", "Made for iPhone", and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.
Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.
AirPlay, iPad, iPhone, iPod, iPod nano, iPod touch, iPad Air, and Retina are trademarks of Apple Inc., registered in the U.S. and other countries.
iPad mini and iPad Pro are trademarks of Apple Inc.
App Store is a service mark of Apple Inc.

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.

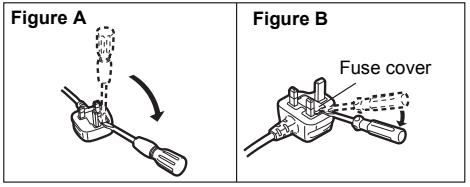
Before use

Remove the connector cover.

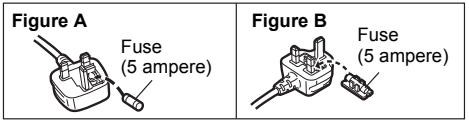
How to replace the fuse

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.



Supplied accessories

Check and identify the supplied accessories.

- ☐ **(For Continental Europe)**
  1 x AC mains lead
  (K2CQ2YY00107)
- ☐ **(For the United Kingdom and Ireland)**
  1 x AC mains lead
  (K2CT2YY00089)
- ☐ **(For Australia and New Zealand)**
  1 x AC mains lead
  (K2CJ2YY00084)
- ☐ **1 x Remote control**
  (N2QAYB001135)
- ☐ **1 x Remote control battery**
- ☐ **2 x Speaker cables**
  (REE1840)

- ☐ (PMX152) **1 x DAB antenna**
  (N1CYYY00022)

- ☐ (PMX150) **1 x FM indoor antenna**
  (RSAX0002)

- Product numbers provided in these operating instructions are correct as of January 2017. These may be subject to change.

Maintenance

- To clean the main unit, wipe with a soft, dry cloth.
- To clean the speakers, wipe with a fine-textured and dry cloth such as a microfibre cleaning 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.

Placement of speakers

Place the speakers so that the tweeter is on the inner side. To prevent damage to the speakers, do not touch the speaker cones if you remove the nets.

Use only the supplied speakers.
The combination of the main unit and speakers give the best sound. You can cause damage to the system and decrease the sound quality if you use other speakers.

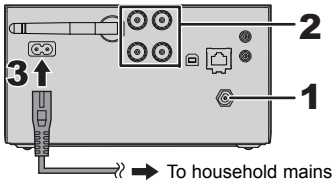
Note:
- Keep your speakers more than 10 mm from the main unit for ventilation.
- Put the speakers on a flat safe surface.
- These speakers do not have magnetic shielding. Do not put them near TVs, PCs or other equipment easily influenced by magnetism.
- When you play at high levels for a long period, it can cause damage to the system and decrease the life of the system.
- Decrease the volume in these conditions to prevent damage:
  - When you play distorted sound.
  - When you adjust the sound quality.

CAUTION!
- **Use the speakers only with the recommended system. If not, you can cause damage to the amplifier and speakers and can cause a fire. Consult an approved service personnel if damage occurs or if there is a sudden apparent change in performance.**
- **Do the procedures included in these instructions when you attach the speakers.**

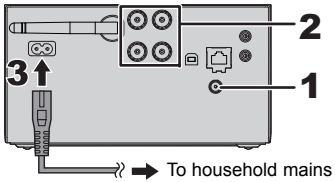
Making the connections

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

PMX152

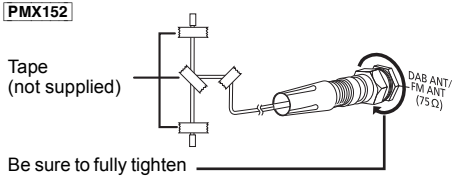


PMX150

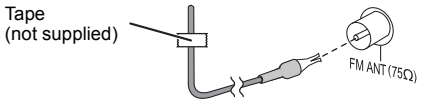


1 Connect the antenna.
Place the antenna where reception is best.

PMX152

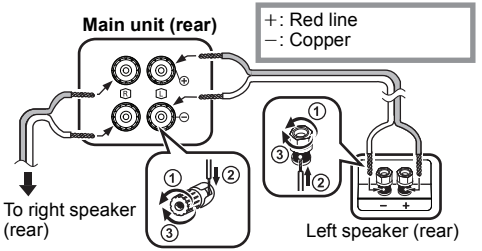


PMX150



- If radio reception is poor, use an outdoor antenna (not supplied).

2 Connect the speakers.



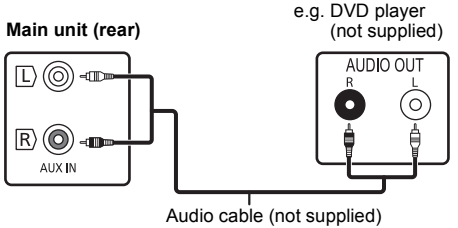
Be careful not to cross (short-circuit) or reverse the polarity of the speaker wires as doing so may damage the speakers.

3 Connect the AC mains lead.
Do not use an AC mains lead with other equipment.

Conserving power
The system consumes a small amount of power (⇨ 22), 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.

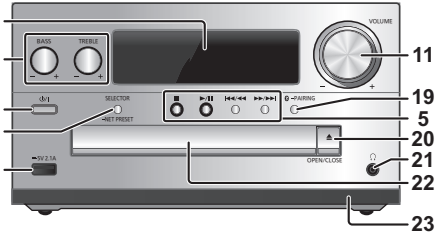
Connecting other equipment

You can connect a VCR, DVD player etc.



Note:
- Disconnect the AC mains lead before connection.
- Switch off all equipment and read the appropriate operating instructions.
- Components and cables are sold separately.
- If you want to connect equipment other than those described, refer to the audio dealer.
- Sound distortion can occur when you use an adaptor.

Overview of controls



1 Standby/on switch [⏻], [⏻/I]
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 Numeric buttons [1 to 9, 0, ≧10]
- To select a 2-digit number
  Example: 16: [≧10] → [1] → [6]
- To select a 3-digit number
  Example: 124: [≧10] → [≧10] →[1] → [2]→ [4]

3 Set the programme function/Delete a programmed track

4 Select audio source

On the remote control

[ᛒ]: “BLUETOOTH”
[CD/USB]: “CD” ⟷ “USB”*1
[RADIO, EXT-IN]:
“DAB+” (PMX152) ⟶ “FM” ⟶ “AUX”
↑ “NETWORK” ⟵ “PC” ⟵┘

On the main unit
[SELECTOR, -NET PRESET]:
“CD” → “BLUETOOTH” → “DAB+” (PMX152) ⟶ “FM”
↑ “NETWORK” ⟵“PC” ⟵“USB”*1 ⟵“AUX” ⟵┘

- “NET PRESET” function is not available.*2

5 Basic playback control
6 Select the sound effects
7 Set the play menu item
8 View content information
9 Clock and timer operation
10 This function is not available.*2
11 Adjust the volume of the system
12 Mute the sound of the system
Press the button again to cancel.
“MUTE” is also cancelled when you adjust the volume or when you switch off the system.
13 Enter setup menu
14 Set the radio menu item
15 Select the option
16 Dim the display panel
Press the button again to cancel.
17 Display panel
18 Port for iPhone/iPad/iPod and USB devices
19 Bluetooth®-pairing button
- Press to select “BLUETOOTH” as the audio source.
- Press and hold to enter pairing mode (⇨ 11) or disconnect a Bluetooth® device (⇨ 12).

20 Open or close the disc tray

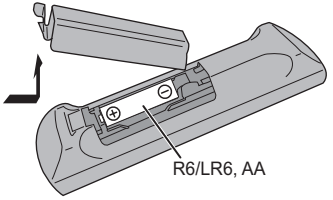
21 Headphones jack (∩)
- Plug type: 3.5 mm stereo (not supplied)
- Avoid listening for prolonged periods of time to prevent hearing damage.
- Excessive sound pressure from earphones and headphones can cause hearing loss.
- Listening at full volume for long periods may damage the user’s ears.

22 Disc tray
- Do not put any object in front of the disc tray.

23 Remote control sensor

*1: The display will automatically change to “iPod” when a compatible iPhone/iPad/iPod is connected to the port for iPhone/iPad/iPod.
*2: For details, refer to the site below.
http://panasonic.jp/support/global/cs/audio/
(This site is in English only.)

Preparing the remote control



- Use alkaline or manganese battery.
- Install the battery so that the poles (+ and –) align with those in the remote control.
- Point the remote control at the remote control sensor, away from obstacles, at a maximum range of 7 m directly in front of the main unit, within an angle of approximately 30° to the left and right.

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

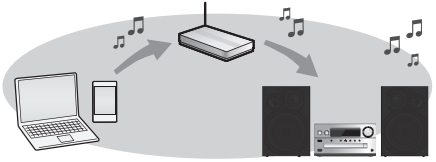
~	AC
⎓	DC
⧈	Class II equipment (The construction of the product is double-insulated.)
I	On
⏻	Standby

Network settings

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

Qualcomm® AllPlay™ is a product of Qualcomm Technologies, Inc.

- Please update the system's firmware after the network settings are complete. (⇨ 17)



Choose a network setting method from the following.

Wireless LAN connection

Method 1: "Using the WAC (Wireless Accessory Configuration)" (⇨ right)
- If you are using an iPhone/iPad/iPod touch (iOS version 7.0 or later), or Mac (OS X 10.9 or later, with AirPort Utility 6.3.1 or later), you can send its Wi-Fi configuration to this system.

Method 2: "Using the app "Panasonic Music Streaming"" (⇨ right)
- You can make the wireless network settings with the app, "Panasonic Music Streaming" (free of charge).

Method 3: "Using an Internet browser" (⇨ 7)
- You can access this unit's network settings from the Internet browser on your smartphone or PC, etc.

Method 4: "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 5: "Using a LAN cable" (⇨ 8)
- You can make a stable connection to the network with a LAN cable.

Note:
- 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.
- Point the antenna on the rear of the main unit up as shown in the figure.
- Do not perform the following:
  - Tilting the antenna forward or backwards when it is pointing up
  - Applying too much force to the antenna
  - Carrying this unit by holding the antenna

Method 1: Using the WAC (Wireless Accessory Configuration)

- The following explanations are based on an iPhone.

1 Turn this system on.

2 Connect the iPhone to your home wireless network.

3 Press [RADIO, EXT-IN] on the remote control repeatedly to select "NETWORK".
- When "WAC Mode" is indicated on the display, proceed to step 4.
  – If the display stays at "NETWORK", perform the operation for network reset. (⇨ 18)

4 Go to Wi-Fi settings on your iPhone.

5 Select "Panasonic PMX152 □□□□□□" or "Panasonic PMX150 □□□□□□" under the "SET UP NEW AIRPLAY SPEAKER...".
- " □ " stands for a character that is unique to each set.

6 The "AirPlay Setup" screen appears on your iPhone.
- This system will be displayed as "Panasonic PMX152" or "Panasonic PMX150"*.
  * To change the name, enter a new name to replace the existing one.
  You can also do the renaming after the network connection is set up. (⇨ 8, "To make network-related settings")
- You can set a password for this system under "SPEAKER PASSWORD".
  (You will need this password if you make network settings by Internet browser next time.)

7 Select "Next" to apply the settings.
- On the main unit's display, "Success" appears when the connection is established. (" W " will be displayed.)

Method 2: Using the app "Panasonic Music Streaming"

You can also refer to the supplied "Wi-Fi® QUICK SETUP GUIDE".

1 Download the app "Panasonic Music Streaming" (free of charge) on your smartphone/tablet. (Always use the latest version of the app.)
- iOS : App Store
- Android : Google Play™

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

3 Check that the connection has completed.
- On the unit's display, "Success" appears when the connection is established. (" W " will be displayed.)
  – If "Fail" is displayed press [OK], check the network name (SSID) and the password, and then try the setting again.

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/
(This site is in English only.)

Method 3: Using an Internet browser

- The following explanations are based on a smartphone.

1 **Turn this system on.**

2 **Press [RADIO, EXT-IN] on the remote control repeatedly to select “NETWORK”.**

3 **To enter “Setting” 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 “Manual” and then press [OK].
3 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.

- Alternatively, while pressing and holding down [⏏, OPEN/CLOSE] on the unit, press and hold down [►/❚❚] on the unit for at least 4 seconds.

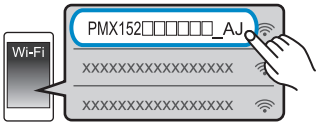
“Setting” blinks on the display.

4 **Go to Wi-Fi settings on your compatible device.**

5 **Select “PMX152□□□□□□_AJ” or “PMX150□□□□□□_AJ” to connect to this system.**

- “ □ ” 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.

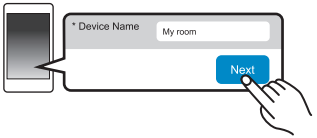
- iOS device: If “Panasonic PMX152 □□□□□□” or “Panasonic PMX150 □□□□□□” appears under “SET UP NEW AIRPLAY SPEAKER...” instead, proceed to perform steps 5 to 7 of “Method 1” to complete the network setting procedure. (⇨ 6)
- Make sure that DHCP is enabled for the network setting on your compatible device.



About the network setting page:
iOS device: The settings page will be automatically displayed in the Internet browser.
Except the iOS device: Swipe down the device's notification bar to check for "Sign in to Wi-Fi network" notification and tap on it to display the settings page.

- If there is no notification, 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.

6 **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
- Emoji characters are not supported.
- The device name is set when “Next” is selected.
- You can also change the device name after the network connection is set up. (⇨ 8, “To make network-related settings”)

7 **Select your security options for this system.**

To set the AirPlay password

1 Select “Yes” and then select “Next”.
2 Set your password and then select “Next”.

- You will need this password the next time this network setting method is used.
- If you have performed a network reset (⇨ 18) , the password will be cleared.

To skip this setting

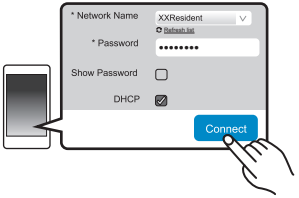
Select “No” and then select “Next”.

- You can also change this setting after the network connection is set up. (⇨ 8, “To make network-related settings”)

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.
- To update the network name (SSID) list, select “Refresh list”.

9 **Select “Connect” to apply the settings.**



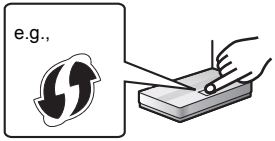
- On the main unit’s display, “Success” appears when the connection is established. (“W” will be displayed.)
  – If “Fail” is displayed press [OK], check the network name (SSID) and the password, and then try the setting again.
- Depending on the device, the connection complete screen may not be displayed.

10 **Make sure to connect your compatible device back to your home wireless network.**

Note:

- Enable Java and Cookies in your browser settings.

Method 4: Using WPS (Wi-Fi Protected Setup™)



A compatible wireless router may have the WPS identifier mark.

1 Turn this system on.

2 Press [RADIO, EXT-IN] on the remote control repeatedly to select "NETWORK".

3 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].
3 Press [◄, ►] on the remote control to select "OK? Yes" and then press [OK].

- Alternatively, while pressing and holding down [►►/►►I] on the main unit, press and hold [SELECTOR, -NET PRESET] on the main unit for at least 4 seconds.
- If the unit is already connected to a wireless LAN network, "Network Initializing" is displayed for about 1 minute.

"WPS" flashes on the display.

4 Activate the WPS button on the wireless router.

- On the main unit's display, "Success" appears when the connection is established. ("W" will be displayed.)
  – "Fail" may be displayed if the connection was not made within the set time limit. Press [OK]. Try the setting again. If "Fail" is still displayed, try other methods.

■ Using the WPS PIN code

1 Turn this system on.

2 Press [RADIO, EXT-IN] on the remote control repeatedly to select "NETWORK".

3 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, while pressing and holding down [I◄◄/◄◄] on the main unit, press and hold [SELECTOR, -NET PRESET] on the main unit for at least 4 seconds.
- If the unit is already connected to a wireless LAN network, "Network Initializing" is displayed for about 1 minute.

The PIN code is indicated on the display.

4 Enter the PIN code into the wireless router.

Note:
- 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

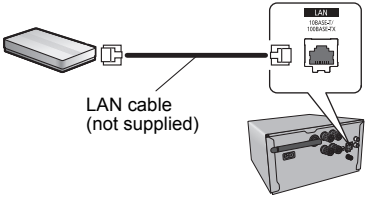
Method 5: Using a LAN cable

1 Disconnect the AC mains lead.

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

e.g.,

Broadband router, etc.



3 Connect the AC mains lead to the main unit and turn this system on.

- When the connection is established, "W" is indicated on the main unit's display.

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, the network-related settings (⇨ below) 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, change the security options for this system, 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" (⇨ 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.)

Preparation
- Complete the network settings. (⇨ 6)
- Connect your device to the same network as this system.
- Check this system's IP address (⇨ 18), and note it down.

1 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 and the security options for this system can be changed. Close the settings page after making the changes.
  – To change the device name, select "Change", and type a new device name, and then select "Apply".
  – To change the security options for this system, select "Change" for the AirPlay password setting.
  If you have set an AirPlay password previously, you will need your old password before making changes. Make the changes and then select "Apply".

2 Type a device name and then select "Next".

- Refer to the step 6 of "Using an Internet browser" (⇨ 7) for details on a device name.

3 Select your security options for this system.

- Refer to the step 7 of "Using an Internet browser" (⇨ 7) for details on security options for this system.

4 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.

5 Select "Connect" to apply the settings.

- When the connection is established, "Success" appears on the main 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 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™

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.)

Preparation

- Complete the network settings. (⇨ 6)
- 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".

1 Turn this system on.

- Check that "W" is indicated on the display.
- If it is not indicated, check the network settings. (⇨ 6)

2 Start the app "Panasonic Music Streaming".

- Always use the latest version of the app.

3 From "Speaker", select this system as the output speakers.

- If you have multiple speakers powered by AllPlay, you can enjoy synchronised sound from them.

  To group speakers, drag e.g., "8" of the desired speakers over each other.
  - – 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.

4 Select a music source.

5 Select a song.

Note:

- This system will be displayed as "Panasonic PMX152" or "Panasonic PMX150" 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.
- About supported format, refer to "Specifications" (⇨ 22).
  - – 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.

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 "W" is indicated on the display.
- If it is not indicated, check the network settings. (⇨ 6)

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 "(speaker)", 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". (⇨ left)

■ Using online music services other than Spotify

After step 2

3 From "((●))", select this system as the output speakers.

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

Note:

- This system will be displayed as "Panasonic PMX152" or "Panasonic PMX150" 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/PC source) to other speakers powered by AllPlay.

Preparation
- Complete the network settings. (⇨ 6)
- Prepare the desired audio source on this system (e.g. insert a CD, etc.)
- Install the app “Panasonic Music Streaming” on your device.
- Connect your device and your speakers powered by AllPlay to the same network as this system.

1 Turn this system on.
- Check that “ W ” is indicated on the display.
- If it is not indicated, check the network settings. (⇨ 6)

2 Start the app “Panasonic Music Streaming”.
- Always use the latest version of the app.

3 From “Speaker”, select the speaker to stream this system’s audio.
- To stream this system’s audio to other speakers powered by AllPlay, drag e.g., “ ” of the desired speakers over each other.

4 Select your desired music source from the list.

5 Select this system.
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.
- The speaker selected in step 3 and this system will be automatically grouped together.
- Depending on the selected music source, playback may start. If a content list appears on your device, select the desired content to start playback.
- 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.
- DSD 5.6 MHz file can be played on this system but cannot be streamed to other speakers in the same group.

Note:
- This system will be displayed as “Panasonic PMX152” or “Panasonic PMX150” if the device name is not set.
- When enjoying video contents with this function, the video and audio output may not be synchronised.

Streaming internet radio

Preparation
- Make sure that the network is connected to the Internet.
- Connect a device with a “Panasonic Music Streaming” app installed to the same network as this system.

1 Turn this system on.
- Check that “ W ” is indicated on the display.
- If it is not indicated, check the network settings. (⇨ 6)

2 Start the app “Panasonic Music Streaming”.
- Always use the latest version of the app.

3 From “Speaker”, select this system as the output speakers.

4 Select “airable Radio”.

5 Select a station.

Using AirPlay

AirPlay works with iPhone, iPad, and iPod touch with iOS 4.3.3 or later, Mac with OS X Mountain Lion or later, and PC with iTunes 10.2.2 or later.

Preparation
- Complete the network settings. (⇨ 6)
- Connect the iOS device or PC to the same home network as this system.

1 Turn this system on.
- Check that “ W ” is indicated on the display.
- If it is not indicated, check the network settings. (⇨ 6)

2 iOS device: Start the “Music” (or iPod) app.
PC: Start “iTunes”.
- If the Music app on your iOS device is used, select the audio file you want to play.

3 Select “Panasonic PMX152 □□□□□□” or “Panasonic PMX150 □□□□□□”*1, 2 from the AirPlay icon.
- Check the volume settings before starting the playback. (When AirPlay is used for the first time, the volume may be output at the maximum setting.)

4 Start play.
- The playback will start with a slight delay.

Note:
- This system can be set to turn on automatically when this system is selected as the output speakers. (⇨ 18, “Network standby”)
- Volume changes on the iOS device or iTunes will be applied to this system. (Refer to the iTunes Help for the required settings in iTunes.)
- With some iOS and iTunes versions, it may not be possible to restart the AirPlay playback if the selector is changed (e.g., “CD”) or this system is turned off, during the AirPlay playback.
  In this case, select a different device from the AirPlay icon of the Music App or iTunes and then re-select this system as the output speakers.
- AirPlay will not work when playing back videos on iTunes.

*1: “ □ ” stands for a character that is unique to each set.
*2: The name that is displayed for this system can be changed from “To make network-related settings”. (⇨ 8)

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 this 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).

Bluetooth® operations

By using the Bluetooth® connection, you can listen to the sound from the Bluetooth® audio device from this system wirelessly.
- Refer to the operating instructions of the Bluetooth® device for details.

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 3.

2 Press [PLAY MENU] to select "Pairing" and then press [OK].
- Alternatively, press and hold [-PAIRING] on the unit.

3 Select "SC-PMX152" or "SC-PMX150" from the Bluetooth® device's Bluetooth® menu.
- The MAC address (e.g., 6C:5A:B5:B3:1D:0F) may be displayed before "SC-PMX152" or "SC-PMX150" is displayed.
- The name of the connected device is indicated on the display for a few seconds.

4 Start playback on the Bluetooth® device.

Connecting a paired Bluetooth® device

1 Press [ ] to select "BLUETOOTH".
"Ready" is indicated on the display.

2 Select "SC-PMX152" or "SC-PMX150" 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.

Note:
- 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 for 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.

Bluetooth® transmission mode

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

Preparation
- Press [ ] to select "BLUETOOTH".
- If a Bluetooth® device is already connected, disconnect it.

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: Emphasis on sound quality

Note:
- Select "Mode 1" if the sound is interrupted.
- When enjoying video contents with this function, the video and audio output may not be synchronised. In this case, select "Mode 1".
- 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 Level".

2 Press [◀, ▶] to select the level and then press [OK].

"Level 0" ↔ "Level +1" ↔ "Level +2"

Note:
- Select "Level 0" if the sound is distorted.
- The factory default is "Level 0".

Disconnecting a Bluetooth® device

1 While a Bluetooth® device is connected: Press [PLAY MENU] repeatedly to select "Disconnect?".

2 Press [◀, ▶] to select "OK? Yes" and then press [OK].

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

Bluetooth® standby

When "SC-PMX152" or "SC-PMX150" 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].

Note:
- To turn the function off, select "Off" in step 2.
- The factory default is "Off". If this function is set to "On", the standby power consumption will increase.

Media information

- Please be aware that Panasonic accepts no responsibility for the loss of data and/or information.

Compatible iPhone/iPad/iPod

iPhone 7 Plus / iPhone 7 / iPhone SE / iPhone 6s Plus / iPhone 6s / iPhone 6 Plus / iPhone 6 / iPhone 5s / iPhone 5c / iPhone 5
iPad Pro (9.7-inch and 12.9-inch) **/ iPad Air 2 / iPad Air / iPad** (3rd and 4th generation) **/ iPad 2 / iPad mini 4 / iPad mini 3 / iPad mini 2 (iPad mini with Retina display) / iPad mini**
iPod touch (5th and 6th generation)
iPod nano (7th generation)

(as of March 2017)

- For the latest information, visit **http://panasonic.jp/support/global/cs/audio/** (This site is in English only.)

Note:
- Do not connect models not listed in the above. Unexpected behaviour may occur.
- Compatibility depends on the software version. Update your iPhone/iPad/iPod to the latest software before using it with this unit.
- Read the User Guide of the iPhone/iPad/iPod for the operating instructions.

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 High Speed.
- USB devices with storage capacity of more than 32 GB cannot work in some conditions.
- Supported file formats and extensions:
  MP3 (".mp3"), AIFF (".aiff"), FLAC (".flac"), WAV (".wav"), AAC (".m4a"), DSD (".dff", ".dsf")
- Depending on how you create the files, they may not play in the order you numbered them or may not play at all.

Note:
- Files are defined as tracks and folders are defined as albums.
- This system can access up to:
  - 800 albums (including root folder)
  - 8000 tracks
  - 999 tracks in one album

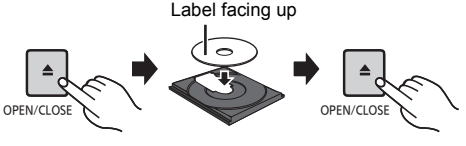
Compatible CD

- This system can play back discs that conform to the CD-DA format.
- This system can play back CD-R/RW with CD-DA or MP3 format content.
- 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.
- 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.
- Disc must conform to ISO9660 level 1 or 2 (except for extended formats).

Note:
- Some CD-R/RW cannot be played because of the condition of the recording.
- MP3 files are defined as tracks and folders are defined as albums.
- This system can access up to:
  - CD-DA: 99 tracks
  - MP3: 999 tracks, 255 albums (including root folder)
- Recordings will not necessarily be played in the order you recorded them.

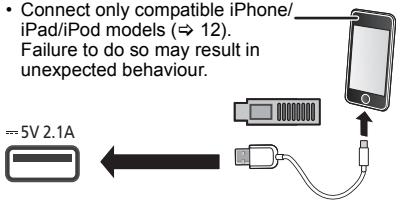
Inserting media

CD



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

iPhone/iPad/iPod or USB device



Press [CD/USB] repeatedly to select “USB”.
The display will automatically change to “iPod” when a compatible iPhone/iPad/iPod is connected to the port.

Charging an iPhone/iPad/iPod

During unit on, charging starts when an iPhone/iPad/iPod is connected to this unit.
- After the iPhone/iPad/iPod has started charging, you can turn the unit to standby mode.
- Check the iPhone/iPad/iPod to see if the battery is fully charged. (Once fully charged, remove the iPhone/iPad/iPod.)

Note:
- Remove the CD only after it stops rotating.
- When connecting an iPhone/iPad/iPod, use the dedicated USB cable (not supplied).
- 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”.

Media playback controls

The following marks indicate the availability of the feature.

CD	CD audio in CD-DA format or a CD that contains MP3 files
iPod	Compatible iPhone/iPad/iPod connected to the USB port.
USB	USB devices containing MP3/AIFF/FLAC/WAV/AAC/DSD files
Bluetooth	Connected Bluetooth® device
AirPlay	When connected to an AirPlay compatible device
Network	When connected to an AllPlay/DLNA compatible device

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

Basic controls

CD iPod USB Bluetooth AirPlay Network

Play	Press [▶/❚❚].
Stop	Press [■]. • USB: The position is memorised and “Resume” is displayed. • USB: Press [■] twice to stop the playback fully.
Pause	Press [▶/❚❚]. Press again to continue playback.
Skip	Press [⏮] or [⏭] to skip track. (main unit: [⏮/◀◀] or [▶▶/⏭])
	CD USB: Press [▲] or [▼] to skip the MP3/AIFF/FLAC/WAV/AAC/DSD album.
Search (Except AirPlay Network)	During play or pause Press and hold [◀◀] or [▶▶]. (main unit: [⏮/◀◀] or [▶▶/⏭]) • iPod: Backwards search is only within the current track.

Note:
- There will be no sound in search operation when playing DSD files at USB selector.
- 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.
- Operation results may vary depending on the iPhone/iPad/iPod models.
- Network: Some controls may not work depending on the app in use, etc.
- CD USB: Tracks can be selected by pressing the numeric buttons.

Viewing available information

CD USB Bluetooth AirPlay

You can display the track, artist, album name, file type, bit rate, and other information. (The information varies depending on the audio source.)
Press [DISPLAY] repeatedly.
e.g. USB (MP3)

“A□□□”: Album number
“T□□□”: Track number
(“ □ ” stands for a number.)
“ 🗀 ”: Album “ ♪ ”: Track

Note:
- Maximum characters that can be shown: approximately 32
- This system supports ver. 1 and 2 ID3 tags.
- Text data that the system does not support can show differently.

Play menu CD USB AirPlay Network

1 **CD USB: Press [PLAY MENU] to select "Playmode" or "Repeat".**
AirPlay Network: Press [PLAY MENU] to select "Repeat" or "Shuffle".

2 **Press [◄, ►] to select the setting and then press [OK].**

CD USB: Playmode	
Off Playmode	Cancels the play mode setting.
1-Track	Only plays the selected track. • "1TR" is displayed. (Skip to the desired track.)
1-Album	Only plays the selected MP3/AIFF/FLAC/WAV/AAC/DSD album. • Press [▲] or [▼] to select the MP3/AIFF/FLAC/WAV/AAC/DSD album. • "1ALBUM" is displayed.
Random	Plays the contents randomly. • "RND" is displayed.
1-Album Random	Plays the tracks in the selected MP3/AIFF/FLAC/WAV/AAC/DSD album randomly. • Press [▲] or [▼] to select the MP3/AIFF/FLAC/WAV/AAC/DSD album. • "1ALBUM", "RND" is displayed.
CD USB: Repeat	
On Repeat	Turns on repeat mode. • " ↻ " is displayed.
Off Repeat	Turns off repeat mode.
AirPlay Network	
Repeat	Refer to the connected device to verify the selected setting.
Shuffle	Refer to the connected device to verify the selected setting.

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 playback".
- The mode is cancelled when you open the disc tray or remove the USB device.

Programme playback CD USB

This function allows you to programme up to 24 tracks.

CD (CD-DA)

1 **Press [PGM, -DEL] in the stop mode.**
"PGM" is shown.

2 **Press the numeric buttons to select the desired track.**
Do this step again to programme other tracks.

3 **Press [►/❚❚] to start playback.**

CD (MP3), USB

1 **Press [PGM, -DEL] in the stop mode.**
"PGM" is shown.

2 **Press [▲, ▼] to select the desired album.**

3 **Press [►►I] 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 [►/❚❚] to start playback.**

Check programme contents	Press [I◄◄] or [►►I] in the stop mode.
Clear the last track	Press and hold [PGM, -DEL] in the stop mode.
Cancel programme mode	Press [PGM, -DEL] in the stop mode. • "PGM" goes off.
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 disc tray or remove the USB device.

FM radio

30 FM stations can be preset.

Preparation
Press [RADIO, EXT-IN] repeatedly to select "FM".

Automatic presetting

1 **Press [RADIO MENU] to select "Auto Preset".**

2 **Press [◄, ►] to select "Lowest" or "Current" frequency.**
Lowest:
To begin auto preset with the lowest frequency ("FM 87.50MHz").
Current:
To begin auto preset with the current frequency.*1

3 **Press [OK] to start presetting.**
- The tuner starts to preset all the stations it can receive into the channels in ascending order.

To cancel, press [■].

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

Manual tuning and presetting

1 **Press [◄◄] or [►►] to tune in to the station.**
- Alternatively, press [I◄◄/◄◄] or [►►/►►I] on the main unit when "Manual" is selected as the tune mode*2.

To tune automatically, press and hold the button until the frequency starts changing quickly.

2 **Press [PGM, -DEL].**

3 **Press the numeric buttons to select a preset number.**
Do steps 1 through 3 again to preset more stations. The new station replaces any station that occupies the same preset number.

Selecting a preset station

Press the numeric buttons, [I◄◄] or [►►I] to select the preset station.
- Alternatively, press [I◄◄/◄◄] or [►►/►►I] on the main unit when "Preset" is selected as the tune mode*2.

*2: To change the tune mode
1 Press [RADIO MENU] repeatedly to select "Tune Mode".
2 Press [◄, ►] to select "Manual" or "Preset", and then press [OK].

Radio Data System broadcasting

(For Continental Europe only)

This system can show the text data transmitted by the Radio Data System available in some areas.

Press [DISPLAY] repeatedly.

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

Note:
- Radio Data System is available only when stereo works in reception.
- Radio Data System may not be available if reception is poor.

PMX152 DAB/DAB+

Preparation
Press [RADIO, EXT-IN] repeatedly to select "DAB+".

If you select "DAB+" for the first time, the system will start the "DAB Auto Scan" procedure.

Note:
- If no station is detected, "Scan Failed" is shown. Adjust the antenna and try again.

DAB/DAB+ auto scan

1 Press [RADIO MENU] to select "Auto Scan" and then press [OK].
"Start?" is shown.

2 Press [OK].
"DAB Auto Scan" is shown.

DAB/DAB+ manual tuning

To find the best antenna position, use manual tuning to search selected DAB/DAB+ frequency block.

1 Press [RADIO MENU] repeatedly to select "Manual Scan".

2 Press [◀, ▶] to select a frequency block to scan and then press [OK].

Memory presetting

You can preset up to 20 DAB/DAB+ stations.

1 Press [◀◀] or [▶▶] to select a station.
- Alternatively, press [|◀◀/◀◀] or [▶▶/▶▶|] on the main unit when "Station" is selected as the tune mode*1.

2 Press [PGM, -DEL].

3 Press the numeric buttons to select a preset number.
Do steps 1 through 3 again to preset more stations.

Note:
- A station previously stored is overwritten when another station is stored in the same preset number.
- You cannot preset a station when the station is not broadcasting or when you have selected a secondary service.
- Previous station memory is cleared during auto scan.

Selecting a preset station

Press the numeric buttons, [|◀◀] or [▶▶|] to select the preset station.
- Alternatively, press [|◀◀/◀◀] or [▶▶/▶▶|] on the main unit when "Preset" is selected as the tune mode*1.

*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].

Viewing available information

You can view information about the DAB/DAB+ broadcast, programme type, ensemble label, frequency and time.
Press [DISPLAY] to view available information.

DAB/DAB+ settings

1 Press [RADIO MENU] repeatedly to select an option.

2 Press [◀, ▶] to select the desired setting and then press [OK].

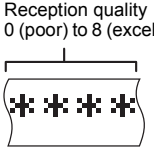
DAB Secondary	
Primary	To listen to primary service.
Secondary	To listen to secondary services. "▼" is shown.
Auto Clock Adj	
On Adjust	Start auto clock adjustment.
Off Adjust	Cancel auto clock adjustment.

DAB/DAB+ signal quality

When adjusting the antenna, you can check the reception quality.

1 Press [RADIO MENU] repeatedly to select "Signal Quality".

2 Press [◀, ▶] to select frequency.
The current frequency block is displayed and then the reception quality is indicated.



Using the auxiliary input

You can connect a VCR, DVD player etc. and listen to the audio through this system.

Preparation
Connect the external equipment.

1 Press [RADIO, EXT-IN] repeatedly to select "AUX".

2 Play the external equipment.

Using the PC input

You can play back music on the PC with this system's speakers by connecting a PC to the PC IN terminal on the main unit.
About supported format, refer to "Specifications" (⇨ 22).

Before connecting to a PC

Follow the steps below.
- Refer to the following for the recommended OS versions for your PC:
  – Windows 7, Windows 8, Windows 8.1, Windows 10
  – OS X 10.7, 10.8, 10.9, 10.10, 10.11, 10.12

① Download and install the dedicated driver to the PC. (Only for Windows OS)
Download and install the driver from the website below.
http://panasonic.jp/support/global/cs/audio/
(This site is in English only.)

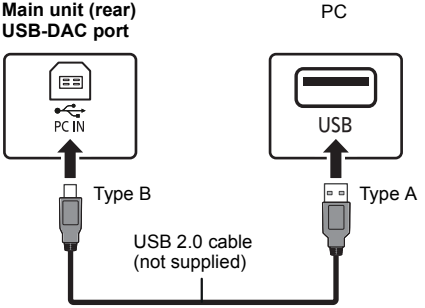
② Download and install the dedicated app "Panasonic Audio Player 2" (free of charge) on your PC. (For Windows OS and OS X)
Download and install the app from the website below.
http://panasonic.jp/support/global/cs/audio/
(This site is in English only.)

(as of January 2017)

Listening to audio from a PC

1 Disconnect the AC mains lead.

2 Connect the main unit and a PC.



3 Connect the AC mains lead to the main unit and turn this system on.

4 Press [RADIO, EXT-IN] repeatedly to select "PC".

5 Operate the PC for playback.

Note:
- When you play back high-resolution audio, it is recommended that you use a compatible USB 2.0 High Speed Cable.

Sound effects

Changing the sound quality

1 Press [SOUND] repeatedly to select a sound effect.

2 Press [◀, ▶] to select the desired setting.

Bass	-4 to +4
Treble	
Surround	"On Surround" or "Off Surround"
CD (CD-DA) CD High Res Re-Master	"On" or "Off".

By main unit only
Turn [BASS] or [TREBLE] to adjust the level.

Preset EQ

Press [PRESET EQ] repeatedly to select a setting.

Heavy	Adds punch to rock
Soft	For background music
Clear	Clarifies higher frequencies
Vocal	Adds gloss to vocal
Flat	Cancels the sound effect

Note:
- When "PRESET EQ" is selected, Bass and Treble settings will be changed to the settings in Preset EQ setting.

D.BASS

This function lets you enjoy a powerful bass effect.

Press [D.BASS] to select "On D.Bass" or "Off D.Bass".

Clock and timers

Setting the clock

This is a 24-hour clock.

Using clock information from a network device

You can stream the clock information from the device to this unit by using the app "Panasonic Music Streaming" (⇨ 9).

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

1 Turn this system on.
- Check that "W" is indicated on the display.
- If it is not indicated, check the network settings. (⇨ 6)

2 Start the app "Panasonic Music Streaming".
- Always use the latest version of the app.
- The clock information will be sent to this system.

Adjusting the clock manually

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

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

To check the time
Press [CLOCK/TIMER].

Note:
• Reset the clock regularly to maintain accuracy.

Sleep timer

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

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

"30min" → "60min" → "90min" → "120min"
↑——— "Off" (Cancel) ←———┘

To show the remaining time
Press [SLEEP].

Note:
• The sleep timer can be used together with the play timer.
• The sleep timer always comes first. Be sure not to set an overlap of timers.

Play timer

You can set the timer to come on at a certain time to wake you up.

Preparation
Set the clock.

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

2 Press [▲, ▼] to set the starting time ("On Time") and then press [OK].

3 Press [▲, ▼] to set the finishing time ("Off Time") and then press [OK].

4 Press [▲, ▼] to select the music source*1 and then press [OK].

Turning the timer on

1 Prepare the selected music source and set the desired volume.

2 Press [⏲, PLAY].
"⏲" is shown.
To cancel, press [⏲, PLAY] again.
The system must be switched off for the timer to operate.

To check the settings
Press [CLOCK/TIMER] repeatedly to select "Timer Adjust".
(During standby, press [CLOCK/TIMER] twice.)

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 switch on again while a timer is in operation, the timer will not stop at the end time.

*1: "CD", "USB", "DAB+" (PMX152), and "FM" can be set as the music source.
• For timer music source through the port for iPhone/iPad/iPod and USB devices, select "USB".

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.

You can also update the firmware from a pop-up prompting you to do so on-screen within the app "Panasonic Music Streaming" (⇨ 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.)

Downloading takes approx. 10 minutes. 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. (⇨ 6)
– 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 "FW 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. The progress is displayed as "Upd □□%" while updating. (" □ " stands for a number.)

4 After the update has finished, "Success" is displayed.
Disconnect the AC mains lead and reconnect it after 1 minute.

Note:
• If there are no updates, "No Need" is displayed.
• Downloading may take longer or may not work properly depending on the connection environment.

Checking the firmware version

Press [SETUP] repeatedly to select "FW Version" and then press [OK].
The version of the installed firmware is displayed.
• Press [OK] to exit.

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".

2 Press [◀, ▶] to select "Off" and then press [OK].

Note:
• To turn the function on, select "On" in step 2.
• This setting cannot be selected when radio is the source or when "Net Standby" is "On".
• If "Net Standby" is set to "On", this function will also be set to "On". To change the setting, set "Net Standby" to "Off". (⇨ 18)
• When connected to a Bluetooth® device, the function does not work.

Network standby

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

You can 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 turn off the network standby
Select "Off" in step 2.

- 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.

1 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. (⇨ 6)

1 Press [RADIO, EXT-IN] repeatedly to select "NETWORK".

2 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. (⇨ 20)

Wireless network name (SSID)

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

1 Press [RADIO, EXT-IN] repeatedly to select "NETWORK".

2 Press [SETUP] repeatedly to select "Net Info" and then press [OK].

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

- 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.

1 Press [RADIO, EXT-IN] repeatedly to select "NETWORK".

2 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.

Network reset

To reset the network settings.

1 Press [RADIO, EXT-IN] repeatedly to select "NETWORK".

2 Press [SETUP] repeatedly to select "Net Reset" and then press [OK].

3 Press [◀, ▶] to select "OK? Yes" and then press [OK].

- Wait for "Network Initializing" to stop scrolling.
- "WAC Mode" will be indicated on the display.
  - – "Method 1" of network setting method is available. (⇨ 6)
  - – To exit "WAC Mode", press [■].

- This function does not affect the "Wireless LAN" setting.

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. (⇨ 17)

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

Cannot turn on the unit.
- After connecting the AC mains lead, wait about 10 seconds before turning on the unit.

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, then switch the system 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.
- Ensure the speaker cables are connected correctly and securely. (⇨ 4)

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.

The unit does not work.
- One of the unit's safety devices may have been activated.
  1 Press [⏻/I] on the unit to switch the unit to standby.
    - If the unit does not turn off, disconnect the AC mains lead from the AC outlet, reconnect it to the outlet after about 30 seconds. Then wait for about 10 seconds.
  2 Press [⏻/I] on the unit to switch it on. If the unit still cannot be operated, consult the dealer.

Noise is heard.
- During "AUX" mode, when a device is connected to both the AUX IN terminals and the USB port, noise may be generated depending on the device. In this case, remove the USB 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.

Radio

Reception is poor or a beat sound is heard.
- Keep the antenna away from computers, TVs, other cables and cords.
- Use an outdoor antenna.
- Switch off the TV or move it away from the system.

If noise is excessive during FM reception.
- Change the audio to be output as monaural.
  1 Press [RADIO MENU] repeatedly to select "FM Mode".
  2 Press [◄, ►] to select "Mono" and then press [OK].
  The sound becomes monaural.
  - To cancel, select "Stereo" or change the frequency.
  In normal circumstances, select "Stereo".

iPhone/iPad/iPod

Cannot charge or operate.
- Check that the iPhone/iPad/iPod is connected properly.
- Connect the iPhone/iPad/iPod again or try to restart the iPhone/iPad/iPod.
- During standby mode, charging will not start from the USB cable connection.
  Turn this unit on and make sure the charging has started before turning this unit to standby mode.
- The battery of the iPhone/iPad/iPod is depleted.
  Charge the iPhone/iPad/iPod, and then operate again.
  – When using the port, turn this unit on. Do not turn this unit off until the iPhone/iPad/iPod becomes operational.

USB

The USB device or the contents in it cannot be read.
- The format of the USB device or the contents in it is/are not compatible with the system.

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 cannot be connected.
- The pairing of the device was unsuccessful or the registration has been replaced. Try pairing the device again.
- This system might be connected to a different device. Disconnect the other device and try pairing the device again.
- If "Mode 2" is selected in "Link Mode", select "Mode 1". (⇨ 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 system.
- For some built-in Bluetooth® devices, you have to set the audio output to "SC-PMX152" or "SC-PMX150" manually. Read the operating instructions for the device for details.

The sound is interrupted.
- The device is out of the 10 m communication range. Bring the Bluetooth® device closer to this system.
- Remove any obstacle between this system and the device.
- Other devices that use the 2.4 GHz frequency band (wireless router, microwaves, cordless phones, etc.) are interfering. Bring the Bluetooth® device closer to this system and distance it from the other devices.
- Select "Mode 1" for stable communication. (⇨ 11)

PC

The PC does not recognise this system.
- Check your operating environment. (⇨ 16)
- Restart the PC, turn off and on this system, and then reconnect the USB cable.
- Use another USB port of the connected PC.
- Install the dedicated driver if using a PC with Windows.

Cannot find music files stored on the PC.
- When you playback music files over a network, those that are not registered to its network server are not displayed. For details, refer to the operating instructions for your server. (⇨ 22)

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. (⇨ 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. (⇨ 6)
- Check the "Wireless LAN" setting. (⇨ 18)

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.
- Adjust the orientation of the wireless LAN antenna on the rear of the main unit.
- Try to place the speakers further away from the main unit.
- 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.
- With some iOS and iTunes versions, it may not be possible to restart the AirPlay playback if the selector is changed (e.g., "CD") or this system is turned off, during the AirPlay playback. In this case, select a different device from the AirPlay icon of the Music App or iTunes and then re-select this system as the output speakers. (⇨ 10)
- Try a wired LAN connection. (⇨ 8)

Main unit displays

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

"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 in a minute. Press any button to cancel it.

"Cannot Stream"
- DSD 5.6 MHz file can be played on this system but cannot be streamed to other speakers in the same group.

"Checking Connection"
- The unit is checking the connected iPhone/iPad/iPod or USB device.
- If this display keeps appearing, make sure that the battery of the iPhone/iPad/iPod is not depleted and that the iPhone/iPad/iPod is turned on and connected correctly.

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

"F□□" / "F□□□" (" □ " stands for 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 turn on the unit. If the problem still persists, disconnect the AC mains lead and consult your dealer.

"Fail"
- Updating or setting has failed. After turning 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 turn on the unit and redo the update.
- The firmware 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.

"Invalid To Preset"
- You cannot preset during Spotify playback.

"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. (⇨ 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.
- 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. (⇨ 6)

“No Device”
- The iPhone/iPad/iPod or USB device is not connected. Examine the connection.
- The battery of the iPhone/iPad/iPod is depleted. Charge the iPhone/iPad/iPod and turn it on before connecting.

“No Disc”
- You have not put in a disc or put in a disc that the system cannot play.

“No Play”
- Examine the content. You can only play supported format. (⇨ 22)
- 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 Preset”
- The selected preset channel has not been preset. Preset some channels. (⇨ 10)

“No Signal” (PMX152)
- This station cannot be received. Check your antenna.

“Device No Response”
“Hub Not Supported”
“Not Supported”
- You have connected an iPhone/iPad/iPod that cannot be played.
- If the iPhone/iPad/iPod is compatible, turn it on and connect it correctly.
- You have connected an unsupported USB device.

“PC Unlocked”
- “PC” is selected, but a PC is not connected.

“PGM Full”
- The number of programmed tracks is more than 24.

“Playerror”
- You played an unsupported file. The system will skip that track and play the next one.

“Please Wait”
- When audio switching needs longer time (e.g., when start/stop re-streaming or group and ungroup with other speakers).

“Reading”
- The unit is checking the CD information. After this display has disappeared, start operating.
- When starting playback of DSD files, it may take time to read the file. Wait until reading completes.

“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 [1] for at least 4 seconds.
  – When “Remote 2” is displayed, press and hold [OK] and [2] for at least 4 seconds.

“Scan Failed” (PMX152)
- Stations are not receivable. Check your antenna and try DAB/DAB+ manual tuning.

“USB Over Current Error”
- The iPhone/iPad/iPod or USB device is drawing too much power. Remove the iPhone/iPad/iPod or USB device. Switch the system off and on again.

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

“WAC Mode”
- “Method 1” of network setting method is available. (⇨ 6)
- To exit “WAC Mode”, press [■].

“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.

“W” blinks
- This may occur when, for instance, the network connection is interrupted.

Memory reset (initialisation)

Reset the memory when the following situations occur:
- There is no response when buttons are pressed.
- You want to clear and reset the memory contents.

1 Disconnect the AC mains lead.
Wait 30 seconds before you continue with step 2.

2 While you press and hold [⏻/I] on the main unit, connect the AC mains lead again.
Keep holding down [⏻/I] until “----------” appears on the display.

3 Release [⏻/I].
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. (⇨ 18)

Remote control code

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

To set the code to “Remote 2”

1 Press [SELECTOR, -NET PRESET] on the main unit to select “CD”.

2 Press and hold [■] on the main unit and [2] on the remote control until “Remote 2” is shown.

3 Press and hold [OK] and [2] for a minimum of 4 seconds.

- The factory default is “Remote 1”.
- To change the mode back to “Remote 1”, repeat the steps above but replace the button pressed on the remote control from [2] to [1].

Specifications

General

Power supply AC 220 V to 240 V, 50 Hz
Power consumption 45 W
Dimensions (main unit)
(W x H x D) 211 mm x 114 mm x 267 mm
Mass (main unit) Approx. 3 kg
Operating temperature range 0 °C to +40 °C
Operating humidity range
35% to 80% RH (no condensation)

Power consumption in standby mode
(When "BLUETOOTH Standby" is "Off")*1, *2
0.4 W (approx.)
(When "BLUETOOTH Standby" is "On")*1, *2
0.5 W (approx.)
(When in Network standby)*1
2 W (approx.)

Amplifier section

RMS output power
Front Ch (both ch driven)
60 W per channel (3 Ω), 1 kHz, 10% THD
Total RMS power 120 W

FM section

Preset memory 30 stations
Frequency range
87.50 MHz to 108.00 MHz (50 kHz step)
Antenna terminals 75 Ω (unbalanced)

DAB section (PMX152)

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)
NORSK (NORWAY)
Bølgelengde 790 nm (CD)
Laserstyrke Ingen farlig stråling sendes ut

Terminals section

USB Port Terminal Type: USB-A
USB port power DC OUT 5 V 2.1 A
USB standard USB 2.0 High Speed
Media file format support
MP3*3 (∗.mp3), AIFF (∗.aiff), FLAC (∗.flac), WAV (∗.wav), AAC (∗.m4a), DSD (∗.dff, ∗.dsf)
Audio support format
MP3*3/AAC*4
Sampling frequency 32/44.1/48 kHz
Audio word size 16 bits
Channel count 2 ch
AIFF/FLAC*5/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
DSD 2.8 MHz, 5.6 MHz
USB device file system FAT12, FAT16, FAT32

PC IN (EXT-IN)*6 Terminal Type: USB-B
USB standard USB 2.0 High Speed
USB Audio Class specification
USB Audio Class 2.0, Asynchronous mode
Audio support format
LPCM
Sampling frequency
32/44.1/48/88.2/96/176.4/192 kHz
Audio word size 16 bits/24 bits
Channel count 2 ch
DSD 2.8 MHz, 5.6 MHz
Ethernet interface LAN (10BASE-T/100BASE-TX)
Headphones Stereo, 3.5 mm jack
AUX IN (EXT-IN) Pin jack

Speaker section

Speaker unit(s)
Woofer 14 cm cone type x 1
Tweeter 1.9 cm dome type x 1
Super tweeter 1.2 cm piezoelectric type x 1
Impedance 3 Ω
Dimensions (W x H x D) 161 mm x 238 mm x 264 mm
Mass Approx. 3 kg

Bluetooth® section

Version Bluetooth® Ver.2.1+EDR
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

Wi-Fi/AirPlay section

Wi-Fi

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

Audio support format (AllPlay)

MP3*3/AAC

Sampling frequency	32/44.1/48 kHz
Audio word size	16 bits
Channel count	2 ch

FLAC*5/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

Note:

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

*1: No device is connected to the USB port before turning to standby mode.
*2: Network standby is inactive.
*3: MPEG-1 Layer 3, MPEG-2 Layer 3
*4: Support profile AAC-LC only.
*5: Uncompressed FLAC files may not operate correctly. Support block size from 1152 to 4096.
*6: USB-DAC port

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 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.

Software Licenses

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.

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/

GNU LESSER GENERAL PUBLIC LICENSE
Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

GNU LESSER GENERAL PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License").
Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License.
Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.
Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.
Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein.
You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time.
Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW.
EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is 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. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

That's all there is to it!

GNU GENERAL PUBLIC LICENSE
Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.,
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
Everyone is permitted to copy and distribute verbatim copies
of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their
rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

GNU GENERAL PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program).
Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein.
You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is 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. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA.

Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License.

This document contains certain notices that Qualcomm Connected Experiences, Inc.
("QCE") is required to provide you regarding software components included with the software provided herein. Notwithstanding anything in the notices in this file, your use of these software components together with the QCE software (hereinafter referred to as "Software") is subject to the terms of your license from QCE or its affiliates, as the case may be. Compliance with all copyright laws and license terms included in the notice section of this file are the responsibility of the user. Except as may be granted under a copyright license by separate express written agreement, this file provides no rights under or license to any QCE or its affiliate's patents, trademarks, copyrights, or other intellectual property.
No part of the Software is a Contribution and QCE has made no Contribution under the Apache 2.0 license. Notifications and licenses are retained for attribution purposes only.

If the version of this software you are using is for running on iOS, it is developed using unmodified iOS SDK header files included in Apple's iOS SDK and such use is not a Modification.

Copyright (c) 2013-2014 Qualcomm Connected Experiences, Inc.
All rights reserved. Confidential and Proprietary.
QUALCOMM is a trademark of Qualcomm Incorporated. Other trademarks are the property of their respective owners.
==========

==========
Copyright AllSeen Alliance. All rights reserved.

Permission to use, copy, modify, and/or distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

THE SOFTWARE IS PROVIDED "AS IS" AND THE AUTHOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.
==========

==========
Boost Software License - Version 1.0 - August 17th, 2003

Permission is hereby granted, free of charge, to any person or organization obtaining a copy of the software and accompanying documentation covered by this license (the "Software") to use, reproduce, display, distribute, execute, and transmit the Software, and to prepare derivative works of the Software, and to permit third-parties to whom the Software is furnished to do so, all subject to the following:

The copyright notices in the Software and this entire statement, including the above license grant, this restriction and the following disclaimer, must be included in all copies of the Software, in whole or in part, and all derivative works of the Software, unless such copies or derivative works are solely in the form of machine-executable object code generated by a source language processor.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLE FOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
==========

==========
// Copyright (c) 2001-2009 Peter Dimov
//
// Distributed under the Boost Software License, Version 1.0.
// See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt
//
// See http://www.boost.org/libs/smart_ptr/weak_ptr.htm for documentation.
//
==========

==========
// Copyright Douglas Gregor 2001-2004. Use, modification and
// distribution is subject to the Boost Software License, Version
// 1.0. (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
==========

==========
// Copyright (C) 2007, 2008 Steven Watanabe, Joseph Gauterin, Niels Dekker
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
// For more information, see http://www.boost.org
==========

==========
// Copyright (C) 2003, Fernando Luis Cacciola Carballal.
// Copyright (C) 2007, Tobias Schwinger.
//
// Use, modification, and distribution is subject to the Boost Software
// License, Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
==========

==========
// Copyright 2003 (c) The Trustees of Indiana University.

// Use, modification, and distribution is subject to the Boost Software
// License, Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
==========

==========
/ Copyright (C) 2003, Fernando Luis Cacciola Carballal.
// Copyright (C) 2007, Tobias Schwinger.
//
// Use, modification, and distribution is subject to the Boost Software
// License, Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
// See http://www.boost.org/libs/optional for documentation.
//
// You are welcome to contact the author at:
// fernando_cacciola@hotmail.com
//
==========

==========
// Copyright 2010 Vicente J. Botet Escriba

// Distributed under the Boost Software License, Version 1.0.
// See http://www.boost.org/LICENSE_1_0.txt
==========

==========
// Copyright (C) 2003, 2008 Fernando Luis Cacciola Carballal.
//
// Use, modification, and distribution is subject to the Boost Software
// License, Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
// See http://www.boost.org/libs/optional for documentation.
//
// You are welcome to contact the author at:
// fernando_cacciola@hotmail.com
//
==========

==========
// Copyright 2001, 2003, 2004 Daryle Walker. Use, modification, and
// distribution are subject to the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or a copy at
// <http://www.boost.org/LICENSE_1_0.txt>.)
==========

```
================================================================
// Copyright (C) 2002 Brad King (brad.king@kitware.com)
//                    Douglas Gregor (gregod@cs.rpi.edu)
//
// Copyright (C) 2002, 2008 Peter Dimov
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)

// For more information, see http://www.boost.org
================================================================


================================================================
//  (C) Copyright John Maddock 2000.
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
//  See http://www.boost.org/libs/type_traits for most recent version including
documentation.
================================================================


================================================================
//  (C) Copyright Steve Cleary, Beman Dawes, Howard Hinnant & John
Maddock 2000.
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
//  See http://www.boost.org/libs/type_traits for most recent version including
documentation.
================================================================


================================================================


//  (C) Copyright Dave Abrahams, Steve Cleary, Beman Dawes, Howard
//  Hinnant & John Maddock 2000.
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
//  See http://www.boost.org/libs/type_traits for most recent version including
documentation.
================================================================


================================================================
//  (C) Copyright Dave Abrahams, Steve Cleary, Beman Dawes,
//     Howard Hinnant and John Maddock 2000-2003.
//  (C) Copyright Mat Marcus, Jesse Jones and Adobe Systems Inc 2001

//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
//  See http://www.boost.org/libs/type_traits for most recent version including
documentation.
================================================================


================================================================
//  Copyright 2000 John Maddock (john@johnmaddock.co.uk)
//  Copyright 2002 Aleksey Gurtovoy (agurtovoy@meta-comm.com)
//
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
================================================================


================================================================
// Copyright 2000 John Maddock (john@johnmaddock.co.uk)
// Copyright 2000 Jeremy Siek (jsiek@lsc.nd.edu)
// Copyright 1999, 2000 Jaakko Jarvi (jaakko.jarvi@cs.utu.fi)
//
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
================================================================


================================================================
//
//  (C) Copyright 2002 Rani Sharoni (rani_sharoni@hotmail.com) and Robert Ramey
//  Use, modification and distribution is subject to the Boost Software
//  License, Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
//
================================================================


================================================================
//  (C) Copyright John Maddock and Steve Cleary 2000.
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
================================================================


================================================================
// Copyright Aleksey Gurtovoy 2001-2008
//
// Distributed under the Boost Software License, Version 1.0.
// (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
================================================================


================================================================
//  Copyright David Abrahams 2001-2002.
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
================================================================


================================================================
//  (C) Copyright John Maddock & Thorsten Ottosen 2005.
//  Use, modification and distribution are subject to the Boost Software License,
//  Version 1.0. (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt).
//
================================================================


================================================================
//  Copyright 2010 Vicente J. Botet Escriba

//  Distributed under the Boost Software License, Version 1.0.
//  See http://www.boost.org/LICENSE_1_0.txt
================================================================


================================================================
//  Copyright (c) 2002 Peter Dimov and Multi Media Ltd.
//  Copyright (c) 2008-2009 Emil Dotchevski and Reverge Studios, Inc.
//
//  Distributed under the Boost Software License, Version 1.0. (See
//  accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
//
================================================================


================================================================
//  Copyright Beman Dawes 1999-2003, 2006, 2010

//  Distributed under the Boost Software License, Version 1.0. (See accompanying
//  file LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
================================================================


================================================================
//  Copyright Beman Dawes 2006, 2007
//  Copyright Christoper Kohlhoff 2007

//  Distributed under the Boost Software License, Version 1.0. (See
accompanying
//  file LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
================================================================


================================================================
//  (C) Copyright Greg Colvin and Beman Dawes 1998, 1999.
//  Copyright (c) 2001-2008 Peter Dimov
//
//  Distributed under the Boost Software License, Version 1.0. (See
//  accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
================================================================


================================================================
//  Copyright (c) 2001, 2002, 2003 Peter Dimov and Multi Media Ltd.
//  Copyright 2004-2005 Peter Dimov
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
================================================================


================================================================
//  Copyright (c) 2009, Spirent Communications, Inc.
//
//  Distributed under the Boost Software License, Version 1.0. (See
//  accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
//
================================================================


================================================================
//  Copyright (c) 2001, 2002, 2003 Peter Dimov and Multi Media Ltd.
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
================================================================


================================================================
//  Copyright (C) 1999, 2000 Jaakko Jarvi (jaakko.jarvi@cs.utu.fi)
//  Copyright (C) 2001, 2002 Peter Dimov
//  Copyright (C) 2002 David Abrahams
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
================================================================
```

```
============================================================
# /* ***************************************************************************
# *                                                                           *
# *    (C) Copyright Edward Diener 2011.                                      *
# *    (C) Copyright Paul Mensonides 2011.                                    *
# *    Distributed under the Boost Software License, Version 1.0. (See        *
# *    accompanying file LICENSE_1_0.txt or copy at                           *
# *    http://www.boost.org/LICENSE_1_0.txt)                                  *
# *                                                                           *
# *************************************************************************** */
#
============================================================


============================================================
# /* Copyright (C) 2001
# * Housemarque Oy
# * http://www.housemarque.com
# *
# * Distributed under the Boost Software License, Version 1.0. (See
# * accompanying file LICENSE_1_0.txt or copy at
# * http://www.boost.org/LICENSE_1_0.txt)
# */
#
# /* Revised by Paul Mensonides (2002-2011) */
# /* Revised by Edward Diener (2011) */
#
============================================================


============================================================
# /* ***************************************************************************
# *                                                                           *
# *    (C) Copyright Paul Mensonides 2002-2011.                               *
# *    (C) Copyright Edward Diener 2011.                                      *
# *    Distributed under the Boost Software License, Version 1.0. (See        *
# *    accompanying file LICENSE_1_0.txt or copy at                           *
# *    http://www.boost.org/LICENSE_1_0.txt)                                  *
# *                                                                           *
# *************************************************************************** */
#
============================================================


============================================================
# /* ***************************************************************************
# *                                                                           *
# *    (C) Copyright Paul Mensonides 2002.                                    *
# *    Distributed under the Boost Software License, Version 1.0. (See        *
# *    accompanying file LICENSE_1_0.txt or copy at                           *
# *    http://www.boost.org/LICENSE_1_0.txt)                                  *
# *                                                                           *
# *************************************************************************** */
#
============================================================


============================================================


//  (C) Copyright David Abrahams, Jeremy Siek, Daryle Walker 1999-2001.
//  Distributed under the Boost Software License, Version 1.0. (See
//  accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// Copyright Peter Dimov 2001-2003
// Copyright Aleksey Gurtovoy 2001-2004
//
// Distributed under the Boost Software License, Version 1.0.
// (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// Copyright Aleksey Gurtovoy 2002-2006
// Copyright David Abrahams 2002-2003
// Copyright Daniel Walker 2007
//
// Distributed under the Boost Software License, Version 1.0.
// (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// Copyright Aleksey Gurtovoy 2002-2004
// Copyright David Abrahams 2002-2003
//
// Distributed under the Boost Software License, Version 1.0.
// (See accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
============================================================


============================================================
//  (C) Copyright John maddock 1999.
//  (C) David Abrahams 2002.  Distributed under the Boost
//  Software License, Version 1.0. (See accompanying file
//  LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
//
============================================================


============================================================
// (C) Copyright David Abrahams 2002.
// (C) Copyright Jeremy Siek    2002.
// (C) Copyright Thomas Witt    2002.
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// (C) Copyright Jeremy Siek 2002.
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// (C) Copyright Thomas Witt    2002.
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
//  Copyright 2002, 2005 Daryle Walker.  Use, modification, and distribution are
subject
//  to the Boost Software License, Version 1.0.  (See accompanying file
//  LICENSE_1_0.txt or a copy at <http://www.boost.org/LICENSE_1_0.txt>.)

============================================================
/* boost integer_traits.hpp header file
 *
 * Copyright Jens Maurer 2000
 * Distributed under the Boost Software License, Version 1.0. (See
 * accompanying file LICENSE_1_0.txt or copy at
 * http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// (C) Copyright Dave Abrahams and Daryle Walker 2001. Distributed under the
Boost
//  Software License, Version 1.0. (See accompanying file
//  LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)

============================================================


============================================================
//  Copyright Beman Dawes and Daryle Walker 1999.  Distributed under the
Boost
//  Software License, Version 1.0. (See accompanying file
//  LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
// Copyright Peter Dimov and David Abrahams 2002.
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)

============================================================


============================================================
// Copyright 2005-2009 Daniel James.
// Distributed under the Boost Software License, Version 1.0. (See
accompanying
// file LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)

============================================================


============================================================
//  Copyright Douglas Gregor 2004.
//  Copyright 2005 Peter Dimov

//  Use, modification and distribution is subject to
//  the Boost Software License, Version 1.0.
//  (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
//  Copyright Douglas Gregor 2001-2006
//  Copyright Emil Dotchevski 2007
//  Use, modification and distribution is subject to the Boost Software License,
Version 1.0.
//  (See accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
============================================================


============================================================
//  Copyright Samuel Krempp 2003. Use, modification, and distribution are
//  subject to the Boost Software License, Version 1.0. (See accompanying
//  file LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)

============================================================


============================================================
//  Copyright Beman Dawes 2002-2005, 2009
//  Copyright Vladimir Prus 2002

//  Distributed under the Boost Software License, Version 1.0.
//  See http://www.boost.org/LICENSE_1_0.txt

============================================================
```

```
//  Copyright Beman Dawes 2002-2009
//  Copyright Jan Langer 2002
//  Copyright Dietmar Kuehl 2001
//  Copyright Vladimir Prus 2002

//  Distributed under the Boost Software License, Version 1.0.
//  See http://www.boost.org/LICENSE_1_0.txt
```

```
//Copyright (c) 2006-2009 Emil Dotchevski and Reverge Studios, Inc.

//Distributed under the Boost Software License, Version 1.0. (See
accompanying
//file LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
```

```
// Copyright (c) 2003
// Eric Friedman
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
```

```
// (C) Copyright 2004 Pavel Vozenilek.
// Use, modification and distribution is subject to the Boost Software
// License, Version 1.0. (See accompanying file LICENSE_1_0.txt
// or copy at http://www.boost.org/LICENSE_1_0.txt)
/
```

```
//  (C) Copyright Beman Dawes 1999.
//  (C) Copyright Jens Mauer 2001
//  (C) Copyright John Maddock 2001
//  Distributed under the Boost
//  Software License, Version 1.0. (See accompanying file
//  LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
```

```
//  Copyright (c) 2001-2003 John Maddock
//  Copyright (c) 2001 Darin Adler
//  Copyright (c) 2001 Peter Dimov
//  Copyright (c) 2002 Bill Kempf
//  Copyright (c) 2002 Jens Maurer
//  Copyright (c) 2002-2003 David Abrahams
//  Copyright (c) 2003 Gennaro Prota
//  Copyright (c) 2003 Eric Friedman
//  Copyright (c) 2010 Eric Jourdanneau, Joel Falcou
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
```

```
//  (C) Copyright John Maddock 2001-2003.
//  (C) Copyright Jens Maurer 2001-2002.
//  Use, modification and distribution are subject to the
//  Boost Software License, Version 1.0. (See accompanying file
//  LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
```

```
//  (C) Copyright John Maddock 2001 - 2003.
//  (C) Copyright Martin Wille 2003.
//  (C) Copyright Guillaume Melquiond 2003.
//
```

```
//  (C) Copyright John Maddock 2001 - 2003.
//  (C) Copyright Darin Adler 2001 - 2002.
//  (C) Copyright Jens Maurer 2001 - 2002.
//  (C) Copyright Beman Dawes 2001 - 2003.
//  (C) Copyright Douglas Gregor 2002.
//  (C) Copyright David Abrahams 2002 - 2003.
//  (C) Copyright Synge Todo 2003.
//  Use, modification and distribution are subject to the
//  Boost Software License, Version 1.0. (See accompanying file
//  LICENSE_1_0.txt or copy at http://www.boost.org/LICENSE_1_0.txt)
```

```
/  Copyright (c) 2002, 2003 Peter Dimov
//  Copyright (c) 2003 Daniel Frey
//  Copyright (c) 2003 Howard Hinnant
//
//  Distributed under the Boost Software License, Version 1.0. (See
//  accompanying file LICENSE_1_0.txt or copy at
//  http://www.boost.org/LICENSE_1_0.txt)
//
```

```
//  Copyright (c) 2001-2004 Peter Dimov and Multi Media Ltd.
//  Copyright (c) 2001 David Abrahams
//  Copyright (c) 2003-2005 Peter Dimov
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
```

```
//  Copyright (c) 2001, 2002 Peter Dimov and Multi Media Ltd.
//  Copyright (c) 2007 Peter Dimov
//  Copyright (c) Beman Dawes 2011
//
// Distributed under the Boost Software License, Version 1.0. (See
// accompanying file LICENSE_1_0.txt or copy at
// http://www.boost.org/LICENSE_1_0.txt)
//
```

```
www.sourceforge.net/projects/tinyxml
Original code (2.0 and earlier )copyright (c) 2000-2006 Lee Thomason
(www.grinninglizard.com)

This software is provided 'as-is', without any express or implied warranty. In no
event will the authors be held liable for any damages arising from the use of this
software.

Permission is granted to anyone to use this software for any purpose, including
commercial applications, and to alter it and redistribute it freely, subject to the
following restrictions:

1. The origin of this software must not be misrepresented; you must not claim
that you wrote the original software. If you use this software in a product, an
acknowledgment in the product documentation would be appreciated but is not
required.

2. Altered source versions must be plainly marked as such, and must not be
misrepresented as being the original software.

3. This notice may not be removed or altered from any source distribution.
```

```
libxml2-2.7.8/Copyright

Except where otherwise noted in the source code (e.g. the files hash.c, list.c
and the trio files, which are covered by a similar licence but with different
Copyright notices) all the files are:

 Copyright (C) 1998-2003 Daniel Veillard.  All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of
this software and associated documentation files (the "Software"), to deal in the
Software without restriction, including without limitation the rights to use, copy,
modify, merge, publish, distribute, sublicense, and/or sell copies of the
Software, and to permit persons to whom the Software is fur-nished to do so,
subject to the following conditions:

The above copyright notice and this permission notice shall be included in all
copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY
KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE
WARRANTIES OF MERCHANTABILITY, FIT-NESS FOR A PARTICULAR
PURPOSE AND NONINFRINGEMENT.  IN NO EVENT SHALL THE DANIEL
VEILLARD BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,
WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE,
ARISING FROM, OUT OF OR IN CON-NECTION WITH THE SOFTWARE OR
THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of Daniel Veillard shall not be used
in advertising or otherwise to promote the sale, use or other deal-ings in this
Software without prior written authorization from him
```

```
 LICENSE ISSUES
 ==============

 The OpenSSL toolkit stays under a dual license, i.e. both the conditions of
 the OpenSSL License and the original SSLeay license apply to the toolkit.
 See below for the actual license texts. Actually both licenses are BSD-style
 Open Source licenses. In case of any license issues related to OpenSSL
 please contact openssl-core@openssl.org.

 OpenSSL License
 ---------------

/* ====================================================================
 * Copyright (c) 1998-2011 The OpenSSL Project.  All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 *
 * 1. Redistributions of source code must retain the above copyright
 *    notice, this list of conditions and the following disclaimer.
 *
 * 2. 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.
 *
```

* 3. All advertising materials mentioning features or use of this
*   software must display the following acknowledgment:
*   "This product includes software developed by the OpenSSL Project
*   for use in the OpenSSL Toolkit. (http:www.openssl.org/)"
*
* 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to
*   endorse or promote products derived from this software without
*   prior written permission. For written permission, please contact
*   openssl-core@openssl.org.
*
* 5. Products derived from this software may not be called "OpenSSL"
*   nor may "OpenSSL" appear in their names without prior written
*   permission of the OpenSSL Project.
*
* 6. Redistributions of any form whatsoever must retain the following
*   acknowledgment:
*   "This product includes software developed by the OpenSSL Project
*   for use in the OpenSSL Toolkit (http:www.openssl.org/)"
*
* THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY
* EXPRESSED 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 OpenSSL PROJECT OR
* ITS 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.
*==
*
* This product includes cryptographic software written by Eric Young
* (eay@cryptsoft.com). This product includes software written by Tim
* Hudson (tjh@cryptsoft.com).
*
*/

==========

==========

Original SSLeay License

/* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)
 * All rights reserved.
 *
 * This package is an SSL implementation written
 * by Eric Young (eay@cryptsoft.com).
 * The implementation was written so as to conform with Netscapes SSL.
 *
 * This library is free for commercial and non-commercial use as long as
 * the following conditions are aheared to. The following conditions
 * apply to all code found in this distribution, be it the RC4, RSA,
 * lhash, DES, etc., code; not just the SSL code. The SSL documentation
 * included with this distribution is covered by the same copyright terms
 * except that the holder is Tim Hudson (tjh@cryptsoft.com).
 *
 * Copyright remains Eric Young's, and as such any Copyright notices in
 * the code are not to be removed.
 * If this package is used in a product, Eric Young should be given attribution
 * as the author of the parts of the library used.
 * This can be in the form of a textual message at program startup or
 * in documentation (online or textual) provided with the package.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the copyright
 *   notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 *   notice, this list of conditions and the following disclaimer in
 *   documentation and/or other materials provided with the distribution.
 * 3. All advertising materials mentioning features or use of this software
 *   must display the following acknowledgement:
 *   "This product includes cryptographic software written by
 *   Eric Young (eay@cryptsoft.com)"
 *   The word 'cryptographic' can be left out if the rouines from the library
 *   being used are not cryptographic related :-).
 * 4. If you include any Windows specific code (or a derivative thereof) from
 *   the apps directory (application code) you must include an acknowledgement:
 *   "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"
 *
 * THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``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 AUTHOR 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.
 *
 * The licence and distribution terms for any publically available version or
 * derivative of this code cannot be changed. i.e. this code cannot simply be
 * copied and put under another distribution licence
 * [including the GNU Public Licence.]
 */

==========

==========

==========

Apache License
Version 2.0, January 2004
http:www.apache.org/licenses/

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

(a) You must give any other recipients of the Work or Derivative Works a copy of this License; and

(b) You must cause any modified files to carry prominent notices stating that You changed the files; and

(c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and

(d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

==========

==========
generated automatically by aclocal 1.11.3 Autoconf
Copyright (C) 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011 Free Software Foundation,Inc.
This file is free software; the Free Software Foundation
gives unlimited permission to copy and/or distribute it,
with or without modifications, as long as this notice is preserved.
This program is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY, to the extent permitted by law; without
even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

==========

==========
Copyright 2013 jQuery Foundation and other contributors
http:jquery.com/
Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to
the following conditions: The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.
THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

==========

==========
LuCI - Lua Configuration Interface
Copyright 2008 Steven Barth <steven@midlink.org>
Copyright 2008-2011 Jo-Philipp Wich <xm@leipzig.freifunk.net>
Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at
http:www.apache.org/licenses/LICENSE-2.0

==========

==========
LuCI - Lua Configuration Interface
Copyright 2009 Jo-Philipp Wich <xm@subsignal.org>

Licensed under the Apache License, Version 2.0 (the "License");
you may not use this file except in compliance with the License.
You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0
==========

==========
COPYRIGHT:
2002 Joseph M. O'Leary. This code is 100% free. Use it anywhere you want. Rewrite it, restructure it, whatever. If you can write software that makes money off of it, good for you. I kinda like capitalism. Please don't blame me if it causes your $30 billion dollar satellite explode in orbit. If you redistribute it in any form, I'd appreciate it if you would leave this notice here. MIT-Style Notice.

==========

==========
ConfigFile.h
Class for reading named values from configuration files
Richard J. Wagner v2.1 24 May 2004 wagnerr@umich.edu
Copyright (c) 2004 Richard J. Wagner

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
==========

==========
Copyright (c) 1990, 1993
 *	The Regents of the University of California. All rights reserved.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 *   notice, this list of conditions and the following disclaimer.
 * 2. 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.
 * 3. All advertising materials mentioning features or use of this software
 *   must display the following acknowledgement:
 *   This product includes software developed by the University of
 *   California, Berkeley and its contributors.
 * 4. Neither the name of the University 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 REGENTS 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 REGENTS 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.
 *
 *	@(#)if_dl.h	8.1 (Berkeley) 6/10/93
 * $FreeBSD: src/sys/net/if_dl.h,v 1.12 2002/05/07 22:14:06 kbyanc Exp $
 */
==========

```
============================================================
Disclaimer: IMPORTANT:  This Apple software is supplied to you by Apple Inc.
("Apple") in consideration of your agreement to the following terms, and your
use, installation, modification or redistribution of this Apple software constitutes
acceptance of these terms.  If you do not agree with these terms, please do not
use, install, modify or redistribute this Apple software.

In consideration of your agreement to abide by the following terms, and subject
to these terms, Apple grants you a personal, non-exclusive license, under
Apple's copyrights in this original Apple software (the "Apple Software"), to use,
reproduce, modify and redistribute the Apple Software, with or without
modifications, in source and/or binary forms;
provided that if you redistribute the Apple Software in its entirety and without
modifications, you must retain this notice and the following text and disclaimers
in all such redistributions of the Apple Software.
Neither the name, trademarks, service marks or logos of Apple Inc. may be
used to endorse or promote prxoducts derived from the Apple Software without
specific prior written permission from Apple.  Except as expressly stated in this
notice, no other rights or licenses, express or implied, are granted by Apple
herein, including but not limited to any patent rights that may be infringed by
your derivative works or by other works in which the Apple Software may be
incorporated.

The Apple Software is provided by Apple on an "AS IS" basis.  APPLE
MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT
LIMITATION THE IMPLIED WARRANTIES OF NON-INFRINGEMENT,
MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE,
REGARDING THE APPLE SOFTWARE OR ITS USE AND OPERATION
ALONE OR IN COMBINATION WITH YOUR PRODUCTS.

IN NO EVENT SHALL APPLE BE LIABLE FOR ANY SPECIAL, INDIRECT,
INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT
LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
ARISING IN ANY WAY OUT OF THE USE, REPRODUCTION, MODIFICATION
AND/OR DISTRIBUTION OF THE APPLE SOFTWARE, HOWEVER CAUSED
AND WHETHER UNDER THEORY OF CONTRACT, TORT (INCLUDING
NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, EVEN IF APPLE HAS
BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 2012 Apple Inc. All Rights Reserved.
============================================================


============================================================#
Copyright (C) 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004,
# 2005, 2006, 2007, 2008, 2009, 2010, 2011 Free Software Foundation,
# Inc.
# This file is free software; the Free Software Foundation
# gives unlimited permission to copy and/or distribute it,
# with or without modifications, as long as this notice is preserved.

# This program is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY, to the extent permitted by law; without
# even the implied warranty of MERCHANTABILITY or FITNESS FOR A
# PARTICULAR PURPOSE.
============================================================
```

```
============================================================
/**
 * \file spotify_embedded.h
 * \brief The public Spotify Embedded API
 * \copyright Copyright 2015 Spotify AB. All rights reserved.
 *
 * Licensed to the Apache Software Foundation (ASF) under one
 * or more contributor license agreements. See the NOTICE file
 * distributed with this work for additional information
 * regarding copyright ownership. The ASF licenses this file
 * to you under the Apache License, Version 2.0 (the
 * "License"); you may not use this file except in compliance
 * with the License. You may obtain a copy of the License at
 *
 * http://www.apache.org/licenses/LICENSE-2.0
 *
 * Unless required by applicable law or agreed to in writing,
 * software distributed under the License is distributed on an
 * "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY
 * KIND, either express or implied. See the License for the
 * specific language governing permissions and limitations
 * under the License.
 */
============================================================


============================================================
COPYRIGHT:
2002 Joseph M. O'Leary.  This code is 100% free.  Use it anywhere you want.
Rewrite it, restructure it, whatever.  If you can write software that makes money
off of it, good for you.  I kinda like capitalism.
Please don't blame me if it causes your $30 billion dollar satellite explode in
orbit.
If you redistribute it in any form, I'd appreciate it if you would leave this notice
here.
============================================================



============================================================
Copyright (c) 2004 Richard J. Wagner

Permission is hereby granted, free of charge, to any person obtaining a copy of
this software and associated documentation files (the "Software"), to deal in the
Software without restriction, including without limitation the rights to use, copy,
modify, merge, publish, distribute, sublicense, and/or sell copies of the
Software, and to permit persons to whom the Software is furnished to do so,
subject to the following conditions:

The above copyright notice and this permission notice shall be included in all
copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY
KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE
WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR
PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS
OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR
OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR
OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE
SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.
============================================================


============================================================

*-
 * Copyright (c) 2000 The NetBSD Foundation, Inc.
 * All rights reserved.
 *
 * This code is derived from software contributed to The NetBSD Foundation
 * by Dieter Baron and Thomas Klausner.
 *
```

```
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the above copyright
 *    notice, this list of conditions and the following disclaimer.
 * 2. 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.
 * 3. All advertising materials mentioning features or use of this software
 *    must display the following acknowledgement:
 *        This product includes software developed by the NetBSD
 *        Foundation, Inc. and its contributors.
 * 4. Neither the name of The NetBSD 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 NETBSD FOUNDATION, INC. 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.
 */
============================================================

Copyright (c) 2015,  Randall Stewart and Michael Tuexen
All rights reserved.

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 usrsctp 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 COPYRIGHT HOLDER 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.
============================================================
```

For Australia

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, it's 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, 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.

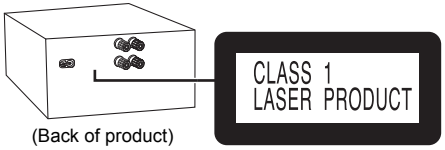
THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

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
www.panasonic.com.au

PRO-031-F11 Issue: 5.0 23-01-2018



(Back of product)

Safety information for customers in Norway

NORSK

ADVARSEL!

Produkt

- For å redusere faren for brann, elektrisk støt eller skade på apparatet:
  - Dette apparatet må ikke utsettes for regn, fuktighet, drypp eller sprut.
  - Ikke plasser objekter som er fylt med væske, som vaser, på apparatet.
  - Bruk kun anbefalt tilbehør.
  - Fjern ikke deksler.
  - Dette apparatet må ikke repareres på egen hånd. Overlat servicearbeider til kvalifisert servicepersonell.

FORSIKTIG!

Produkt

- 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 apparatet er godt ventilert.
  - Apparatets ventilasjonsåpninger må ikke dekkes til med aviser, duker, gardiner eller lignende.
  - Plasser ikke åpen ild, slik som levende lys, oppå apparatet.
- Dette apparatet er beregnet for bruk under moderate klimaforhold.
- Nettstøpselet er trukket ut fra denne enheten. Installer denne enheten slik at nettstøpselet umiddelbart kan trekkes fra stikkontakten.
- Dette apparatet anvender en laser. Betjening av kontroller, justeringer eller andre inngrep enn de som er beskrevet i denne bruksanvisning, kan føre til farlig bestråling.

Manufactured by: Panasonic Corporation
Kadoma, Osaka, Japan
Importer for Europe: Panasonic Marketing Europe GmbH
Panasonic Testing Centre
Winsbergring 15, 22525 Hamburg, Germany

EU

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

En

© Panasonic Corporation 2017

TQBJ0992-3
F0117YM4020