WAS6050/05

WAS6050/12

PHILIPS

Contents

1 Important

Safety

Know these safety symbols

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

This 'bolt of lightning' indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

The 'exclamation point' calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, fully insert.

a Read these instructions.

b Keep these instructions.

c Heed all warnings.

d Follow all instructions.

e Do not use this apparatus near water.

f Clean only with dry cloth.

g Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

h Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

i For countries with a polarized mains, do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. Caution: To prevent electric shock, match the wide blade of the plug to the wide slot, fully insert.
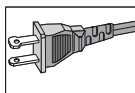
j Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

k Only use attachments/accessories specified by the manufacturer.

l Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

m Unplug this apparatus during lightning storms or when unused for long periods of time.

n Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

o Battery usage CAUTION – To prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:
  - Install all batteries correctly, + and - as marked on the unit.
  - Do not mix batteries (old and new or carbon and alkaline, etc.).
  - Remove batteries when the unit is not used for a long time.

p Apparatus shall not be exposed to dripping or splashing.

q Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).

r This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

⚠ **Warning**

- Never remove the casing of this Music Station.
- Never lubricate any part of this Music Station.
- Place this Music Station on a flat, hard and stable surface.
- Never place this Music Station on other electrical equipment.
- Only use this Music Station indoors. Keep this Music Station away from water, moisture and liquid-filled objects.
- Keep this Music Station away from direct sunlight, naked flames or heat.

How to connect a plug

The wires in the mains lead are coloured with the following code: blue = neutral (N), brown = live (L).

As these colours may not correspond with the colour markings identifying the terminals in your plug, proceed as follows:

- Connect the blue wire to the terminal marked N or coloured black.
- Connect the brown wire to the terminal marked L or coloured red.
- Do not connect either wire to the earth terminal in the plug, marked E (or e) or coloured green (or green and yellow). Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the two wires.

Mains plug

This apparatus is fitted with an approved 13 Amp plug. To change a fuse in this type of plug proceed as follows:

a Remove fuse cover and fuse.

b Fix new fuse which should be a BS1362 5 Amp, A.S.T.A. or BSI approved type.

c Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5 Amp. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5 Amp.

The severed plug must be disposed off to avoid a possible shock hazard should it be inserted into a 13 Amp socket elsewhere.

Norge

Typeskilt finnes på apparatens bakside.
Observer: Nettbryteren er sekundert innkoplet. Den innebygde netdelen er derfor ikke fraktoplet nettet så lenge apparatet er tilsluttet nettkontakten.
For å redusere faren for brann eller elektrisk støt, skal apparatet, ikke utsettes for regn eller fuktighet.

Notice

Notice of compliance

For USA:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

For Canada:
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference

Regulations of the Canadian Department of Communications. This Class B digital apparatus complies with Canadian ICES-003.

This product complies with the radio interference requirements of the European Community.
This product complies with the requirements of the following directives and guidelines: 73/23/ EEC + 89/336/EEC + 93/68/EEC

Class II equipment symbol

This symbol indicates that the unit has a double insulation system.

Disposal of product and packing material

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.
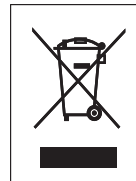
When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2002/96/EC. Please be informed about the local separate collection system for electrical and electronic products.
Please act according to your local rules and do not dispose of your old product with your normal household waste. The correct disposal of your old product will help prevent potential

negative consequences to the environment and human health.

All redundant packing material has been omitted. We have done our utmost to make the packaging easily separable into mono materials. Please observe the local regulations regarding the disposal of packing materials.

Environmental information

All unnecessary packaging has been omitted. We have tried to make the packaging easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet.)

Your system consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Battery disposal information

Batteries (including built-in rechargeable batteries) contain substances that may pollute the environment. Always hand the appliance in at an official collection point to remove any built-in batteries before you discard the appliance. All batteries must be disposed of at an official collection point.

$\mathsf{C}\mathsf{E}$ 0678 ! **R&TTE Directive 1999/5/EC**

BE	✓	DK	✓	GR	✓	ES	✓	FR	✓
IE	✓	IT	✓	LU	✓	NL	✓	AT	✓
PT	✓	FI	✓	SE	✓	UK	✓	NO	✓
DE	✓	CH	✓	PL	✓	HU	✓	SK	✓
CZ	✓	CY	✓	IS	✓				

2 Your Wireless Music Station

Congratulations on your purchase and welcome to Philips!

To fully benefit from the support that Philips offers, register your product at **www.Philips.com/welcome**.

What you can do with the Wireless Music Station

- Listen to FM radio or Internet radio.
- Play music from a Center (Centers WAC3500, WAC7000, WAC7500 are sold separately).
- Transfer and play music from your PC.

Overview

Top panel

The top panel features sensor buttons that are sensitive to touch and moisture.
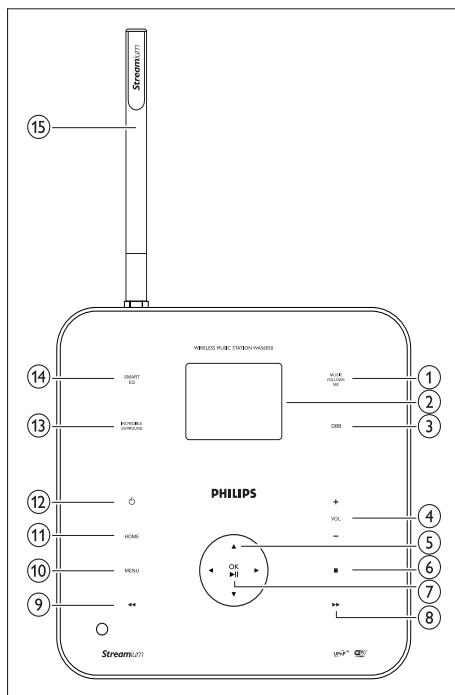
a **MUSIC FOLLOWS ME**

b **LCD / display**

c **DBB Digital Bass Boost**

d **+ VOL - volume down / up**

e **NAVIGATION KEYS** ▲▼◄►

f **STOP**

g **OK / ►II confirm / play pause**

h **►► skip forward**

i **◄◄ skip back**

j **MENU**

k **HOME**

l ⏻ **on / standby / eco standby**

m **INCR.SURR. Incredible Surround sound**

n **SMART EQ smart equalizer**

o **Wi-Fi antenna**

Rear panel
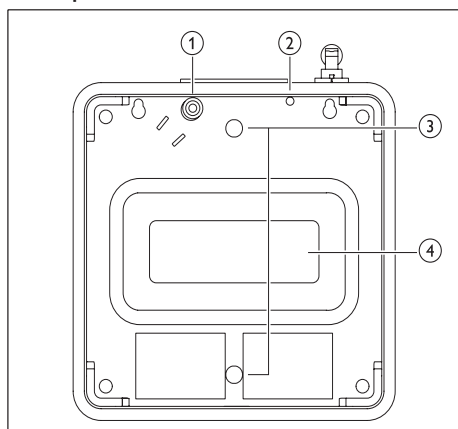
a Power supply socket

b FM antenna

c Holes for support attachment screws

d Subwoofer

Remote control

a ⏻

b FM TUNER radio

c HOME

d SEARCH

e VIEW

f MENU
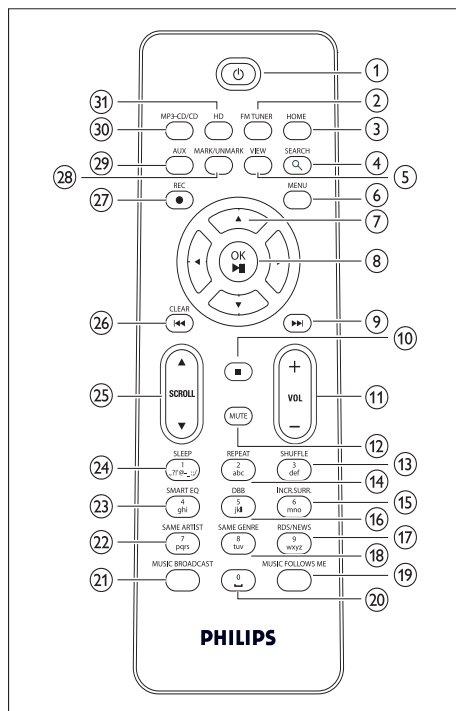
g NAVIGATION KEYS ▲▼◄► navigate

h OK/► II confirm / play pause

i ►► skip forward

j ■

k - VOL + volume down / up

l MUTE

m SHUFFLE (3 def) random play

n REPEAT (2 abc)

o (15) INCR.SURR. (6 mno) Incredible Surround sound

o (16) DBB (5 jkl) Digital Bass Boost

o (17) RDS/NEWS (9 wxyz)

o (18) SAME GENRE (8 tuv)

o (19) MUSIC FOLLOWS ME

o (20) (0)

o (21) MUSIC BROADCAST

o (22) SAME ARTIST (7 pqrs)

o (23) SMART EQ (4 ghi)

o (24) SLEEP (1 .,?!'@-_:;/) standby timer

o (25) SCROLL▲▼

o (26) CLEAR / ◄◄ skip back

o (27) REC● record

o (28) MARK/UNMARK

o (29) AUX portable audio source

o (30) CD/MP3-CD

o (31) HD hard disk

3 Prepare

Install remote control batteries

! Caution

- Risk of explosion! Keep batteries away from heat, sunshine or fire. Never discard batteries in fire.
- Risk of decreased battery life! Never mix different brands or types of batteries.
- Risk of product damage! When the remote control is not used for long periods, remove the batteries.

1 Open the battery compartment.
2 Insert 2 AAA batteries with correct polarity (+/-) as indicated.
3 Close the battery compartment.
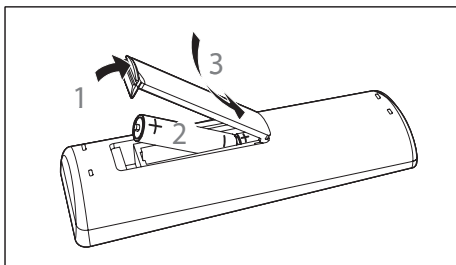
Position your Music Station

! Caution

- Risk of product damage! Place the Music Station on a surface that is level, flat, and strong enough to support the Music Station.
- Risk of interference! Keep the Music Station away from TVs, VCRs, and other radiation sources.

Mount the Music Station to a wall

! Caution

- Risk of product damage! Always consult professional personnel to safely mount the product to a wall.

⚠ Warning

- Risk of injury! Ensure that no supply ducts such as gas, water or electricity are harmed when you drill the holes.

Items you need to mount the Music Station to a wall (not supplied):
- electric drill
- two suitable wall mounting pegs and screws
- screwdriver
- pencil

1 Hold the support (note the direction of angle) against the wall where you want to mount the Music Station.
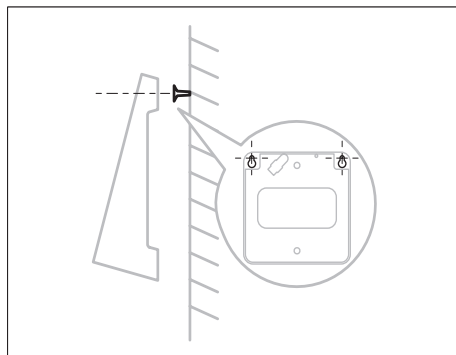
2 Mark the position of the drill holes on the wall.

3 Drill the holes.

4 Insert suitable wall mounting pegs and screws.

5 Attach angled support to the Music Station.

6 Fasten the angled support on the screws.
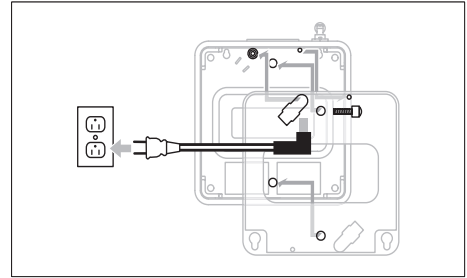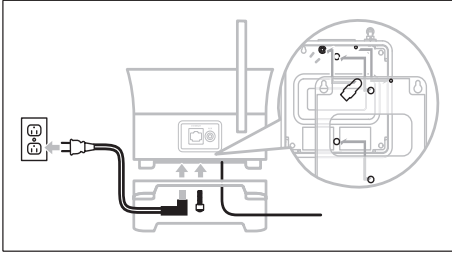
Note

• The angle direction is different when you mount the Music Station to a wall.
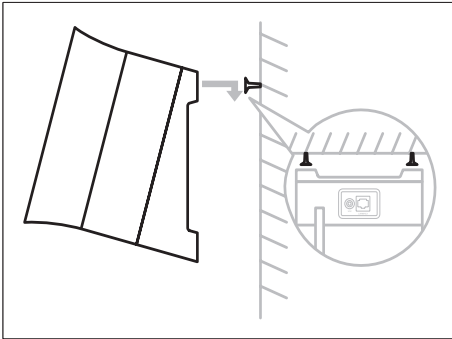
Attach the support for table top installation

You can attach the angled support (supplied) for easy access to the top panel.

1 Attach the angled support:

4 Connect

Connect AC power

> ⚠️ **Warning**
>
> - Risk of product damage! Ensure that the power supply voltage corresponds to the voltage printed on the back or the underside of the Music Station.
> - The type plate is located on the rear of the product.

1 Connect the Music Station to the power supply
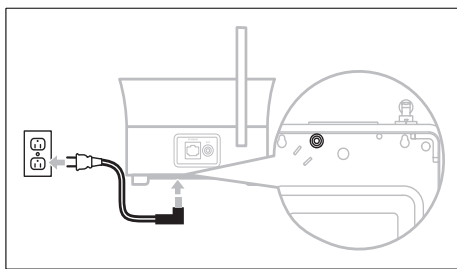
» Your Music Station turns on and is ready for use.

Connect a portable audio device (AUX)

1 Connect an audio cable (not supplied) from the AUX jack to the portable audio device.
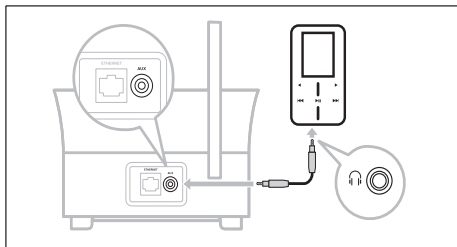
Connect a PC

Before you connect the Music Station to a PC:
- Ensure that the PC meets the minimum requirements. (see 'PC connection requirements' on page 30)
- Install the WADM (Philips Wireless Audio Device Manager) on the PC. (see 'Install WADM' on page 11)
  You can choose among two different modes of connection:
- Wired connection (see 'Create wired connection' on page 11)
- Wireless connection (see 'Create wireless connection' on page 12)

Install WADM

This chapter shows you how to install the WADM (Philips Wireless Audio Device Manager) software. The WADM is necessary to search and download software updates for the Music Station.

1 Insert the PC Suite CD into the PC.

2 Follow the instructions on the PC to install WADM.

3 When the security alert message (Microsoft Windows Firewall) pops up, press 'Unblock' to allow the WADM application to run on the PC.
   » The firewall is still effective and only allows the WADM to run.

> ✳️ **Tip**
>
> - You can also consult the user manual of the PC and manually add the WADM application to your list of programs that are safe to run.

Create wired connection

1 Ensure that the Ethernet port on the PC is enabled.

2 Ensure that the WADM (Philips Wireless Audio Device Manager) software is

installed on the PC to enable search and download of updates. (see 'Install WADM' on page 11)

3 Use the supplied Ethernet cable to connect the Music Station
- directly to the PC.
- to the router that is connected to the PC.
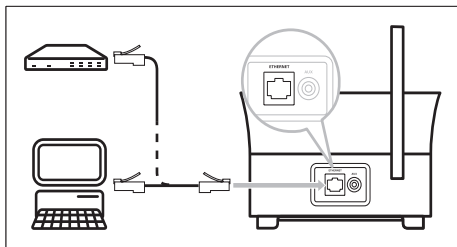
4 Follow the instructions 'Launch WADM (see 'Launch WADM' on page 12)' to complete the connection process.

Create wireless connection

1 Ensure that your wireless access point or wireless router is enabled.

2 Ensure that the WADM (Philips Wireless Audio Device Manager) is installed on the PC (see 'Install WADM' on page 11) to enable search and download of updates. (see 'Install WADM' on page 11)

3 Ensure that the Music Station is turned on.

4 On the Music Station, configure the network:

5 Press **HOME**.

6 Press **MENU**.

7 Select **[Settings]** > **[Network]** > **[Wireless]**.

8 Select network.

9 Enter encryption key (if required).

10 Select **[Automatic]** > **[Apply settings?]** > **[Yes]**.

Launch WADM

1 Before you try to launch the WADM, ensure you have installed the WADM software on the PC. (see 'Install WADM' on page 11)

2 On the PC, double click the WADM icon

3 Continue with the launch, depending on the status of your PC:
- If the Music Station is found:
  - (A) Select the Music Station from the list.
  - (B) Click **Connect now**.
- If the Music Station is not found:
  - (A) Select **Connection Wizard**.
  - (B) In the Connection Wizard menu, select **Express Mode.**
  - (C) Click **Next**.
  - (D) Follow the on-screen instructions.
  - (E) Select the Music Station from the list.
  - (F) Click **Connect now**.

5 First-time installation

When you connect the Music Station to the power supply, the automatic installation process starts. You must select the language (see 'Select language' on page 13) before you can continue.

Select language

1 When you connect the Music Station to the power supply for the first time, wait for the language selection menu to select your language.

2 Press ▲▼ to select, then press ▶.
   » After you set the language, the Music Station starts the search for a Center (sold separately).

> ✳ **Tip**
>
> • After the first-time language set-up, you can change the language in the Settings menu (see 'Change language' on page 999).

Set-up with a Center (sold separately)

You can stream your audio to the Music Station from a Philips Center of the WAC series, such as WAC3500D, WAC7000, or WAC7500.
You can connect the Music Station to the Center in two different modes:
• Infrastructure
• Ad-hoc (if you do not have an Internet connection / PC)

1 Place the Music Station and the Center side by side on a flat and level surface that is strong enough to support the two units.

2 Complete the set-up process: Consult the user manual of the Center how to add a Station to the Center.

3 Position the Music Station in a suitable location (within reach of a power socket).

4 Position the Music Station where it is separated from the Center by no more than one wall.

> ▤ **Note**
>
> • Connections that include a router require that the router is switched on at all times.

Turn on / switch to standby

You can select from the following status options:
*   On
*   Standby
    *   Active standby. The ⏻ button on the remote control can turn on the Music Station.
    *   The Music Station remembers the last audio source you selected.
*   Eco standby
    *   Passive standby. Only the ⏻ button on the top panel can turn on the Music Station.

Note

*   In stop mode, if no buttons are pressed for 20 minutes, the Music Station switches to standby.

1   To turn on the Music Station, press ⏻.
2   To switch the Music Station to standby, press ⏻.
3   To switch the Music Station to eco standby, press and hold the ⏻ button on the top panel.

Note

*   When the Music Station is in eco standby mode, the remote control is inactive.

6 Play

Play HD music from a Center

You can wirelessly stream music to the Music Station from a connected Center. The HD play feature offers the following options:

- **[Playlists]**: Customizable collection of audio files sorted by playlist name in alphanumeric order.
- **[Artists]**: Collection of albums sorted by artist name in alphanumeric order.
- **[Albums]**: Collection of albums sorted by album name in alphanumeric order.
- **[Genres]**: Collection of albums sorted by music style (if album information is available).
- **[All tracks]**: All audio files sorted by name in alphanumeric order.

1 Ensure that the Center is
   - turned on.
   - switched to standby (active).
2 Ensure that the Music Station is turned on.
3 Press **HOME**.
   » The display shows the options.
4 Press ▲▼ to select, then press ►.
   - To return to the Home menu, press **HOME**.

Playlists

When you connect the Music Station to a Center you can sort audio files on the HD (hard disk) of the Center into playlists.

Create a playlist

You can create up to 99 playlists on the hard disk of a connected Center.

1 Ensure the Music Station is connected to a Center (sold separately). (see 'Set-up with a Center (sold separately)' on page 13)
2 Ensure that the Center is

- turned on.
- switched to standby (active).
3 Ensure that the Music Station is turned on.
4 Press **HOME**.
5 Select **[HD]**.
6 Press **MENU** to enter the HD menu.
7 Press ▲▼ to select **[Create playlist]**, then press ►.
   » A new playlist with a default album name, such as Playlist_001, is created.
   » To return to the Home menu, press **HOME**.

Add audio files to a playlist

You can add up to 300 audio files to a playlist.

1 Ensure the Music Station is connected to a Center (sold separately). (see 'Set-up with a Center (sold separately)' on page 13)
2 Ensure that the Center is
   - turned on.
   - switched to standby (active).
3 Ensure that the Music Station is turned on.
4 Press **HOME**.
5 Select **[HD]**.
6 Press **MENU** to enter the HD menu.
7 Press ▲▼ to select **[Playlists]**, then press ►.
8 Press ▲▼ to select audio file, then press ►.
9 Select **[Add to playlist]**.
10 Press **MENU** to enter the playlist menu.
   » The added audio files are displayed.
   » To return to the Home menu, press **HOME**.

Play from a portable audio device (AUX)

If you connect a portable audio device (AUX) to the Music Station (see 'Connect a portable

audio device (AUX)' on page 11), you can play the music from the device on the Music Station.

1 Start play on the portable audio device.
 » You hear the audio from the device through the Music Station.

Music follows me

As you move around at home, you can let the music move with you between a Center (sold separately) and the Music Station. You can start to listen to a song in one room, the move to the next room and continue to listen to the song there.

1 On the source unit where the music is playing, press **MUSIC FOLLOWS ME** to stop play from that unit and activate the function.
 » The display shows the icon ⊡.

2 On the destination unit, where you want to listen, press **MUSIC FOLLOWS ME** to continue the play.
 • To deactivate the function press **STOP** on the destination unit.

✳ Tip

• Any selected play modes such as repeat or shuffle are retained on the destination unit.

Wirelessly stream music from a PC

You can wirelessly stream music to the Music Station from a connected PC, if you install the Windows Media Player 11 on the PC (see 'Install Windows Media Player 11' on page 16) and configure the PC to share your music (see 'Configure a PC to share music' on page 16).

Install Windows Media Player 11

1 On the PC, insert the supplied PC Suite CD.
 » Autorun starts.
 » If Autorun does not start, click on the **WAC_Installer** icon in your Explorer program.

2 Follow the instructions on the PC to install the **Windows Media Player 11**.

Configure a PC to share music

You can share music from a PC with the Music Station. This chapter shows you how to configure the PC to share music.

1 Follow the instructions to install the Windows Media Player 11 (see 'Install Windows Media Player 11' on page 16).

2 On the PC, click **Start** > **Programs** > **Windows Media Player**.

3 In the Windows Media Player interface, click on the **Library** pull-down menu and select **More Options...**.

4 In the **Media Sharing** pop-up window, check **Share my media**, then confirm with **OK**.
 » When the Music Station is connected to your home network, the display shows the Music Station with an alert icon: ⚠

5 Click on the Music Station.

6 Select **Allow**, then confirm with **OK**.

7 On the Music Station, press **HOME**.

8 Press ▲▼ to select UPnP mode, then press ▶.
 » The display shows **[Searching for
UPnP servers…]**, followed by the list of media servers.

9 Press ▲▼ to select the PC, then press ▶.

More play options

You can choose between various play options:

- Repeat play (see 'Repeat play' on page 17)
- Shuffle play (see 'Shuffle play' on page 17)
- Play by artist (see 'Play by artist' on page 17)
- Play by genre (see 'Play by genre' on page 17)

Repeat play

You can repeat one or all audio files of the current selection.

1 In play mode, press **REPEAT** to toggle the repeat function as follows:
- **[Repeat 1]**
- The current audio file is continuously repeated until another mode or setting is selected.
- **[Repeat all]**
- All audio files of the current selection are continuously repeated until another mode or setting is selected.
- **[Off]** (default)

Shuffle play

You can play the audio files of the current selection in random order (shuffled).

1 During play, press **SHUFFLE** to toggle shuffle on and off.
  » When you turn shuffle on, the current selection of audio files is played in random order.

Play by artist

You can play all audio files of the same artist from the HD of the Center.

1 When you play HD audio, press **SAME ARTIST**.

Play by genre

You can play all audio files of the same artist from the HD of the Center.

1 When you play HD audio, press **SAME GENRE**.

7 Radio

FM radio

You can listen to FM radio with the Music Station.

Listen to FM radio

1 Ensure that the Music Station is turned on.
2 Ensure that you fully extend the connected FM antenna.
3 Press **HOME**.
4 Select **[Radio]** > **[FM Tuner]**.
   » The current frequency is displayed.
   » To return to the Home menu, press **HOME**.

✻ Tips
- You can optimize the reception when you rotate the FM antenna.
- You can use the automatic search & store function (see 'Automatic channel search 999) to store channels under presets.

Change frequency

To fine tune the reception of a channel, you can adjust the channel frequency.
1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Radio]** > **[FM Tuner]**.
   » The current frequency is displayed.
4 Press ▲▼ to adjust the frequency.
   • To return to the Home menu, press **HOME**.

✻ Tip
- You can store channel frequencies under a preset channel number (see 'Manual search 999).

Manual search

You can manually search and store channels.
1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Radio]** > **[FM Tuner]**.
   » The current frequency is displayed.
4 Press ▲▼to change the frequency.
5 Press **MENU**.
6 Select **[Save to preset]**.
7 Press ▲▼ to select, then press ▶.
   » The frequency is stored under the selected preset number.
   » To return to the Home menu, press **HOME**.

✻ Tip
- You can overwrite preset channel numbers with new frequencies.

Automatic channel search

The Music Station can automatically search available channels.
1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Radio]** > **[FM Tuner]**
   » The current frequency is displayed.
4 Press and hold ▲▼ to start automatic search function.
   » When a channel is found, the search stops.
   » To return to the Home menu, press **HOME**.

Automatic channel search

The Music Station can automatically search and store up to 60 channels under the preset numbers.

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Radio]** > **[FM Tuner]**.
   ↳ The current frequency is displayed.
   ↳ Press **MENU**.
4 Select **[Autostore function active…]**.
   ↳ The Music Station searches and stores channels.
   ↳ When all available channels are stored, the search stops.
   ↳ To return to the Home menu, press **HOME**.

Select preset channels

You can find your preset channels in the preset channel list.

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Radio]** > **[FM Tuner]**.
   ↳ The current frequency is displayed.
4 Press ▶ to display preset channel numbers.
5 Press ▲▼ to select, then press ▶.
   • To return to the Home menu, press **HOME**.

Internet radio

If you register the Internet radio feature with Philips, you can listen to Internet radio stations that have a link on the Philips web service. The Philips web service maintains and updates links to Internet radio stations that are active. You have to register once when using the Internet feature for the first time (see 'First-time Internet radio registration' on page 19). Additional listeners can register separately (see 'Register

users for Internet radio' on page 20) under a different user name.

Note

• Internet radio features require broadband Internet access.

First-time Internet radio registration

For first-time Internet radio registration you need a valid email address to register with Philips. The following steps show you how to register the Internet radio feature.

1 Ensure that the Music Station is turned on.
2 Ensure that the Music Station is connected to the Internet.
3 Ensure you have a valid email address.
4 Ensure that you use the 1-way remote control of the Music Station for the registration process.
5 On the Music Station, press **HOME**.
6 Select **[Radio]** > **[Internet Radio]**.
   ↳ The Internet radio registration display is shown.
7 Press **ALPHANUMERIC BUTTONS** on the 1-way remote control to enter the valid email address.
8 Press ▶.
   ↳ The display confirms the automated email dispatch to your mailbox.
9 On the PC, check the email inbox for a message from **ConsumerCare@Philips.com** with the subject **Your Streamium Registration...**.
10 Follow the instructions in the email to complete your registration process on the Philips website.
   ↳ The display of the Music Station returns to the Radio menu.
   ↳ The email address is stored in the memory.

» To return to the Home menu, press **HOME**.

> ✱ Tip
>
> • You can register additional users to the Internet radio (see 'Register users for Internet radio' on page 999).

Register users for Internet radio

The Music Station allows to your register additional users under a separate email address and password.

1 Ensure that the Music Station is turned on.

2 Ensure that the Music Station is connected to the Internet.

3 Press **HOME**.

4 Select **[Radio]** > **[Internet Radio]** > **[Add user]**.
   » The Internet radio registration display is shown.

5 Press **ALPHANUMERIC BUTTONS** on the 1-way remote control to enter the valid email address.

6 Press ▶.
   » The display confirms the automated email dispatch to your mailbox.

7 On the PC, check the email inbox for a message from **ConsumerCare@Philips. com** with the subject **Your Streamium Registration...**.

8 Follow the instructions in the email to complete your registration process on the Philips website.
   » The display of the Music Station returns to the Radio menu.
   » The email address is stored in the memory.
   » To return to the Home menu, press **HOME**.

Listen to Internet radio

When you have registered the Internet radio feature (see 'First-time Internet radio registration' on page 19), you can listen to the Internet radio.

1 Ensure that the Music Station is turned on.

2 Ensure that the Music Station is connected to the Internet.

3 Press **HOME**.

4 Select **[Radio]** > **[Internet Radio]** > **[User]** > **[Services]**.
   » The service list is displayed.

5 Press ▲▼ to select from the list:
   • **[RadioIO]**
   • **[Live365]**

6 Press ▶.

7 Press ▲▼ to select the station, then press ▶.
   • To return to the Home menu, press **HOME**.

> ▭ Note
>
> • Internet radio features require broadband Internet access.

Place bookmarks for radio stations

You can place bookmarks for Internet radio stations so next time you want to listen to a station, it is easy to find.

1 Ensure that the Music Station is turned on.

2 Ensure that the Music Station is connected to the Internet.

3 When you listen to Internet radio (see 'Listen to Internet radio' on page 20), press ▶ to place a bookmark for the station.
   • To return to the Home menu, press **HOME**.
   • The next time you connect to the Internet radio, the radio station is shown in the Favorite Stations (see

'Listen to Favorite Stations' on page 21) menu.

Note

• Internet radio features require broadband Internet access.

Tip

• You can also place bookmarks for Internet radio stations when you log on at www.philips.com/welcome and on the registered product site click the link Streamium Management.

Listen to Favorite Stations

When you place bookmarks for Internet radio stations (see 'Place bookmarks for radio stations' on page 20), you can find them under Favorite Stations.

1 Ensure that the Music Station is turned on.
2 Ensure that the Music Station is connected to the Internet.
3 Press HOME.
4 Select [Radio] > [Internet Radio] > [User] > [Favorite Stations].
5 Press ▲▼ to select, then press ▶.
   • To return to the Home menu, press HOME.

Note

• Internet radio features require broadband Internet access.

Manually add Internet radio stations

You can manually enter the URL address of Internet radio stations that are not listed on the Philips website. You can choose from the following options to enter a URL address:
• on the Music Station (see 'Add URL address on the Music Station' on page 21)

• on the PC (see 'Add URL address on the PC' on page 21)

Note

• Internet radio features require broadband Internet access.

Add URL address on the Music Station

You can add individual URL addresses for Internet radio stations on the Music Station.

1 On your PC, log on at www.philips.com/welcome.
   • Register the Music Station, if you have not done so already.
2 Search for the Music Station.
3 On the registered product site, click the link Streamium Management.
4 Follow the online instructions to enter the URL address of Internet radio station.

Notes

• If the manually added Internet radio station is available and broadcast in a compatible format, you can listen to it on the Music Station.
• You can find the manually added Internet radio stations in the My Media list on the Music Station.

Add URL address on the PC

You can add individual URL addresses for Internet radio stations on the PC.

1 On your PC, log on at www.philips.com/welcome.
   • Register the Music Station, if you have not done so already.
2 Search for the Music Station.
3 On the registered product site, click the link Streamium Management.
4 Follow the online instructions to enter the URL address of Internet radio station.

Listen to My Media

When you manually enter the URL address, you can listen to Internet radio stations that are not listed on the Philips website.

1 Ensure that the Music Station is turned on.

2 Ensure that the Music Station is connected to the Internet.

3 Press **HOME**.

4 Select **[Radio]** > **[Internet Radio]** > **[User]** > **[My Media]**.

5 Press ▲▼ to select, then press ▶.
   - To return to the Home menu, press **HOME**.

8 Search for audio files (music)

You can choose between the following options to search for specific audio files:

- Scroll at high speed (see 'Scroll at high speed' on page 23)
- Alphanumeric search (see 'Alphanumeric search' on page 23)

Scroll at high speed

You can find a file with fast scroll, which scrolls through all files in the current list. Scroll speed depends on the length of the list.

1 Ensure that the Music Station is turned on.

2 When a list is displayed, press and hold **SCROLL** to scroll through the list at high speed.

3 Let go of the button, to stop the scroll.

Alphanumeric search

You can search for specific audio files on
- the HD of a connected Center,
- a connected UPnP device.

1 Ensure that the Music Station is turned on.

2 Press **HOME**.

3 Press ▲▼ to select
- [HD]
- [UPnP]

4 Press ▶.

5 Press **SEARCH**.
  » The display shows a text box.

6 Press the **ALPHANUMERIC BUTTONS** to enter the search word.

7 Press **OK** to start the search.
  » The Music Station shows the closest alphabetical match.

8 To stop the search, press ■.
- To return to the Home menu, press **HOME**.

9 Settings

Change sound settings

You can adjust the following sound settings:
- Volume (see 'Adjust volume' on page 24)
- Dynamic Bass Boost (DBB) (see 'Set Dynamic Bass Boost (DBB)' on page 25)
- Equalizer (see 'Adjust Equalizer (EQ)' on page 24)
- Bass / Treble (see 'Adjust bass / treble' on page 24)

Adjust volume

1 During play, press **- VOL +** to adjust the volume.

Mute

You can turn off the sound of your audio.

1 During play, press **MUTE**.
- To turn the sound back on, press **MUTE** again.

Adjust Equalizer (EQ)

You can adjust the audio sound with the following equalizer settings:
- **[Rock]**
- **[Pop]** (default)
- **[Jazz]**
- **[Neutral]** (flat)
- **[Techno]**
- **[Classical]**

1 Ensure that the Music Station is turned on.
2 Press **MENU**.
3 Press ▲▼ to select **[Equalizer]**, then press ▶.
4 Press ▲▼ to adjust the settings, then press ▶.
- To return to the Home menu, press **HOME**.

Activate Smart EQ

Note

- When you activate the Smart EQ function, you can manually deactivate the function.

1 Ensure that the Music Station is turned on.
2 Press **SMART EQ**.
- ↳ The Smart EQ function automatically selects equalizer settings according to the genre that is associated with the audio file.
- ↳ If no genre is associated with the audio file, the default setting is Pop.

Tip

- You can manually associate your audio files with a genre to ensure that the Smart EQ function matches the genre of your audio files.

Deactivate Smart EQ

1 Ensure that the Music Station is turned on.
2 Press **MENU**.
3 Select Equalizer.
4 Adjust equalizer settings (see 'Adjust Equalizer (EQ)' on page 24).
- ↳ The new equalizer settings deactivate the Smart EQ feature.

Adjust bass / treble

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Settings]** > **[Bass/Treble]**.
4 Press ▲▼ to select, then press ▶.
5 Press ▲▼ to adjust the settings, then press ▶.
- To return to the Home menu, press HOME.

Set Dynamic Bass Boost (DBB)

You can choose from the following DBB settings:

- **[DBB1]**
- **[DBB2]**
- **[DBB3]**
- **[Off]** (default)

1 To toggle between the settings, press **DBB**.

Adjust display

You can change the following settings of the display:

- Backlight (see 'Switch backlight on/off' on page 25)
- Contrast (see 'Change display contrast' on page 25)

Switch backlight on/off

1 Ensure that the Music Station is turned on.
2 Press **MENU**.
3 Select **[Settings]** > **[Display]** > **[Backlight]**.
4 Press ▲▼ to toggle Backlight **[On]** and **[Off]**.
- To return to the Home menu, press **HOME**.

Change display contrast

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Settings]** > **[Display]** > **[Contrast]**.
4 Press ▲▼ to adjust the contrast.
- To return to the Home menu, press **HOME**.

Clock / alarm settings

You can set the clock and alarm of the player.

Set the clock

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Settings]** > **[Time]** > **[Set time]**.
4 Press ▲▼ to change the time.
5 Press ◄ to return to the Time menu.
- To return to the Home menu, press **HOME**.

Change the time format

You can choose between 12-hr or 24-hr time display format.

1 Before you change the time format, set the clock (see 'Set the clock' on page 25).
2 Ensure that the Music Station is turned on.
3 Press **HOME**.
4 Select **[Settings]** > **[Time]** > **[Time format]**.
5 Press ▲▼ to select, then press ►.
6 Press ◄ to return to the Time menu.
- To return to the Home menu, press **HOME**.

Set the alarm time

- Before you set the alarm time, ensure that you set the correct current time on the clock (see 'Set the clock' on page 25).

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Settings]** > **[Alarm]** > **[Alarm on/off]**.
4 Select **[Alarm on]**.
5 Press ▲▼ to change the alarm time.
6 Press ► to enter the Alarm on/off menu.
7 Press ▲▼ to select, then press ►.
- ↳ If the alarm is activated, the header displays an alarm icon for 3 seconds.
- ↳ To switch off the alarm, select **[Alarm off]**.

8 To return to the Home menu, press **HOME**.

> ✳ **Tip**
>
> • If you switch the Music Station to eco standby, the alarm is deactivated.

Set the alarm repeat

1 Ensure to set the alarm time (see 'Set the alarm time' on page 25) before you set the alarm occurrence.

2 Ensure that the Music Station is turned on.

3 Press **HOME**.

4 Select **[Settings]** > **[Alarm]** > **[Alarm time]** > **[Repeat]**.

5 Press ▲▼ to select
  • **[Once]**
  • **[Daily]**

6 Press ▶to confirm.

7 To return to the Home menu, press **HOME**.

Automatic time update

You can synchronize the current clock time with a
  • radio station that is RDS (Radio Data System) (see 'Synchronize with RDS' on page 26) enabled.
  • computer that is NTP (Network Time Protocol) (see 'Synchronize with NTP' on page 26) enabled.

Synchronize with RDS

RDS (Radio Data System) is a service that allows FM stations to send additional information along with the FM radio signal. Automatic time synchronization is one of the RDS features.

1 Ensure that the radio station you select for synchronization has RDS.

2 Ensure that the Music Station is turned on.

3 Press **HOME**.

4 Select **[Settings]** > **[Time]** > **[Auto time sync]**.

5 Press ▲▼ to select, then press ▶.

6 To return to the Home menu, press **HOME**.

Synchronize with NTP

1 Ensure that the Music Station is turned on.

2 Press **HOME**.

3 Select **[Settings]** > **[Time]** > **[Auto time sync]**.

4 Press ▲▼ to select, then press ▶.

5 To return to the Home menu, press **HOME**.

Set standby timer

You can select a set time period after which the Music Station automatically switches to standby. The timer offers the following options:
  • **[15]**
  • **[30]**
  • **[45]**
  • **[60]**
  • **[90]**
  • **[120]** minutes
  • **[Off]**

1 Ensure that the Music Station is turned on.

2 Press SLEEP one or more times to select a time period.
  ↳ When you set the timer, the display shows the sleep icon: 💤
  ↳ To view the remaining countdown time to standby, press **SLEEP** anytime.

Change language

You can change the language that you have set during the first installation (see 'First-time installation' on page 13).

1 Ensure that the Music Station is turned on.
2 Press **HOME**.
3 Select **[Settings]** > **[Language]**.
4 Press ▲▼ to select, then press ▶.
5 To return to the Home menu, press **HOME**.

10 Maintenance

Cleaning

1 Clean the Music Station only with a soft dry cloth.

Update

When the Music Station is connected to a PC, you can download new firmware updates with the help of the Wireless Audio Device Manager (WADM) (see 'Install WADM' on page 11) that is on the supplied PC Suite CD.

1 On the PC, to search for new firmware updates, launch the WADM (see 'Launch WADM' on page 12).

2 Follow the instructions to update the firmware.

Restore the default settings

You can restore the default settings (including network settings) of the Music Station, if you want to change the way the Music Station connects to

• a Center
• a home network / PC

1 Ensure that the Music Station is turned on.

2 Press **MENU** to enter the menu display.

3 Press ▲▼ to select **[Settings]** > **[Restore factory settings]**.

4 Press ▶.

5 Press ▲▼ to select **[Yes]**, then press ▶.
 » The language selection display is shown.

11 Technical data

General

AC Power	Voltage information is printed on the back or the underside of the Music Station.
Dimensions (w × h × d)	158 × 103 × 158 mm
Weight (net)	approx. 0.92kg

Power consumption

On	< 36W
Standby (active	< 5W
Eco standby (passive)	< 1W

Amplifier

Output power	2 × 7.5W
Frequency response	80 - 20,000Hz (-3dB)
Signal-to-noise ratio	72 dBA (IEC)

Speakers
Full range:

Power	2x7.5W (RMS)
Frequency response	4 kHz - 20 kHz (-6dB)
Sensitivity	83 dB / m / W
Impedance	2x4 Ohms in series = 8 Ohms
Dimensions (w × h)	50 × 43 mm

wOOx bass radiator:

Dimensions	100mm × 50mm

Input sensitivity

AUX IN	500mV

Wireless

Wireless standard	802.11g, backwards compatible to 802.11b
Wireless security	WEP (64 or 128 bit),WPA/ WPA2 (8-63 characters)
Frequency range	2412 - 2462MHz (CH1-CH11)

Wired (LAN / Ethernet)

Wired standard	802.3 / 802.3u
Speed	10 / 100MBit/s
Mode	half / full duplex
Crossover detection (Auto MDIX)	Yes

Tuner

FM wave range	87.5 - 108.0 MHz
Number of presets	60
FM antenna/cable	Pigtail

HD play

Frequency range	60 - 20,000Hz (-3dB)
Signal-to-noise ration	72dBA (IEC)
M4A (AAC) bit rate	16 - 320kbps, CBR/VBR
MP3 bit rate	32 - 320kbps, CBR/VBR
WMA bit rate	up to 192kbps, CBR/VBR
Sampling frequencies	32, 44.1, 48kHz

Specifications and external appearance are subject to change without notice.

Supported audio file formats

The Music Station supports the following audio file formats:
- MP3 (8-320kbps and VBR)
- WMA (up to 160kbps)
- AAC (MPEG4 AA LC raw format, .m4a/. m4b files)

Supplied accessories

- Remote control
- 2 AAA batteries
- AC power adapter with cable
- Angled support (for use as table stand or wall mount)
- 2 screws to attach angled support

PC connection requirements

The minimum requirements for PC connections are:

- Windows 2000 SP4 (or above) / XP SP2 / Vista
- Pentium III 500MHz processor or higher
- 256MB RAM
- CD-ROM drive
- Adapter
  - Ethernet enabled (for wired connection)
  - Wireless network 802.11 b/g (for wireless connection)
- 500MB free hard disk space

12 Troubleshooting

I cannot hear any sound or the sound is poor, what do I do?
- Press **- VOL +** to increase the volume.
- Press the **MUTE** button again to reactivate the sound output.

The radio reception is poor, what do I do?
- Adjust the antenna for better reception.
- Increase the distance between the Music Station and TV or VCR devices.

Is there a maximum distance of transmission between a Center and the Music Station for effective streaming?
Yes. The maximum distance of Wi-Fi transmission is 250m measured in open spaces. However, in a home environment, where solid obstacles such as walls and doors are present, the effective transmission distance is reduced to 50-100m. Reposition the devices if you experience transmission problems.

During the first time set-up, the display on the Music Station shows [Searching for Center…], what do I do?
- Follow the instructions for the set-up with a Center (see 'Select language' on page 13).

How do I avoid Wi-Fi interferences from other devices that operate in the same (2.4GHz) frequency spectrum, such as Dect phones or bluetooth devices?
- Move the Music Station (and the Center, if applicable) at least 3m away from such devices.
- Use a WEP/WPA encryption key when you create the wireless connection your PC / home network (see 'Create wireless connection' on page 12).
- Change the operating channel on the interfering devices.
- Turn the devices in different directions to minimize interference.

The wireless firmware update failed, what do I do?
1. Ensure that the PC is connected to the Internet.

2. Use an Ethernet cable (sold separately) to connect the Music Station to the PC.

3. On the PC, launch the WADM on the PC to update the firmware (see 'Update' on page 28).

I have problems installing WADM or launching WADM after installation, what do I do?
- Ensure that the operating system of the PC meets the requirements (see 'PC connection requirements' on page 30).
- Ensure that the Microsoft Windows Media Player is installed on the PC (see 'Install Windows Media Player 11' on page 16).
- Ensure that the PC is virus-free.

I cannot use all the WADM functions, what do I do?
Temporarily disable the antivirus software on the PC, as it may affect the WADM functions.

13 Glossary

A

AAC (Advanced Audio Coding)

An audio compression scheme defined as part of the MPEG-2 standard (also known as MPEG-2 AAC or MPEG-2 NBC, or Not Backwards Compatible). It offers better sound and a compression ratio that is superior by roughly 30 percent compared to the MPEG-1 MP3 format.

AC (alternating current)

An alternating current is an electrical current whose magnitude and direction vary cyclically, as opposed to DC (direct current), whose direction remains constant. The usual waveform of an AC power circuit is a sine wave, as this results in the most efficient transmission of energy. However certain applications use different waveforms, such as triangular or square waves.

Amplifier

A device, either a single stage or a large scale circuit with multiple stages for creating gain, i.e. it makes small signals larger.

Antenna

A device, such as a rod or wire, which picks up a received radio frequency signal or radiates a transmitted RF signal.

Audio output

High-level (speaker) or line-level (RCA) signals sent from one system component to another; or the high-level signal from an amplifier to the system speakers.

AUX

Auxiliary input that allows you to connect portable audio devices.

B

Bass

The lowest three octaves of the audio band. Low bass is the bottom octave (20-40Hz), mid-bass is the middle octave (40-80Hz), and upper bass is the 80-160Hz octave.

Bluetooth

A short-range wireless protocol that is meant to allow mobile devices to share information and applications without the worry of cables or interface incompatibilities. The name refers to a Viking King who unified Denmark. Operates at 2.4 GHz. For more information, see bluetooth.com.

C

CBR (constant bit rate)

With CBR the encoder spends the same amount of bits on each frame, regardless of how much it may really need. Disadvantage of CBR: Bits are wasted in case of absolute blackness of a picture or complete silence in an audio frame. And pictures or audio frames with a lot of elements may need those bits.

CD (Compact Disc)

Format developed by Phillips, Sony, and Pioneer for conveying music and data. CDs record information by deforming the inner metal foil on the disc with tiny micro pits burned in by a laser.

CDDB

A centralized database of CDs, CD tracks, and artists on the Web, now known as Gracenote. The audio player or burner program can log on to CDDB. It uploads the ID of the CD being played, and then downloads the title, artist, and track list.

Coaxial

A single copper conductor, surrounded with a layer of insulation, covered by a surrounding copper shield and finally, an insulating jacket. An unbalanced transmission line with constant impedance. In audio, this type is commonly used for low level, line signals terminated in RCA connectors.

Compression

In audio terms, this is a process of temporarily or permanently reducing audio data for more efficient storage or transmission. A temporary reduction in file size is called 'non-lossy' compression, and no information is lost. A permanent reduction in file size (such as with MP3 files) is called 'lossy' compression, and involves discarding unnecessary information which is irretrievably lost.

D

dB (Decibel)

A unit of measure used to express relative difference in power or intensity of sound.

D

DC (direct current)

Direct current or continuous current is the constant flow of electric charge. This is typically in a conductor such as a wire. In direct current, the electric charges flow in the same direction, distinguishing it from AC (alternating current).

Digital

A method to encode information using a binary code of 0s and 1s. Many wireless phones and networks use digital technology.

Digital Audio

Digital Audio is a sound signal that has been converted into numerical values. Digital sound can be transmitted through multiple channels. Analog sound can only be transmitted through two channels.

Duplex (half/full)

- Full duplex is the ability to send and receive data simultaneously. Duplex is synonymous with full duplex. Example: when a modem operates in full-duplex mode, it can transmit data in two directions simultaneously. In half-duplex mode it can transmit data in two directions, but not simultaneously.

E

Eco (Eco Standby)

Eco Standby is the most 'economic' mode of the Music Station and consumes less than 1W. It is 'economic' and environmentally friendly to use this mode during longer times of non-usage of the Music Station.

EQ (Equalizer)

A class of electronic filter circuits designed to augment or adjust electronic or acoustic systems. Equalizers can be fixed or adjustable, active or passive. Many equalizers divide the spectrum into 3 to 12 bands. This allows each section to be either increased or decreased in amplitude without changing the response of the rest.

F

Fidelity

A term used to describe the accuracy of recording, reproduction, or general quality of audio processing. "High Fidelity" (Hi-Fi) is the goal of every designer.

FM (Frequency Modulation)

In radio broadcasting: a method of modulation in which the frequency of the carrier voltage is varied with the frequency of the modulation voltage.

Frequency

The property or condition of occurring at frequent intervals. In sound, this simply refers to the regular occurrence of compression and rarification of air that we experience as sound.

Frequency Response

Is the range of frequencies that a speaker reproduces, lowest frequency to the highest. While the optimal normal is 20-20,000 Hz (Hertz), the range of human hearing for individuals is often much more restricted. A good full-range speaker system however, reproduces as much of this range as possible to cover all variations. Individual drivers are limited to reproduce only that part of the spectrum

for which they were made, so their response is limited, but still a necessary point to consider when designing a complete sound system.

H

Hi-Fi (High Fidelity)
A method of sound reproduction that emphasizes the highest possible adherence to the exact character of the original sound. This is a principal that must be paramount in every stage of the recording, transportation, and recreation of the signal to be fully operational. It is usually the listener's equipment wherein this objective is most seriously compromised.

Hz (Hertz)
Cycles per second, named after Heinrich Hertz.

I

Impedance
The resistance to the flow of an electric current in a circuit. This is effectively the electrical load that a loudspeaker presents to the amplifier which drives it and is measured in ohms.

Incredible Surround Sound (Incr.Surr.)
An improved system that creates realistic, three-dimensional sound fields. These sound fields are usually achieved with multiple speakers that are arranged around the listener.

Input sensitivity
SPL (sound pressure level) a speaker produces, given one watt of power, measured from a one-meter distance at a typical input frequency (usually 1kHz unless otherwise noted on the speaker).

Interface
A device or protocol which facilitates the linking of any two devices or systems; or when used as a verb ('to interface'), the process of linking.

K

Kbps

Kilobits per second. A digital-data-rate measurement system which is often used with highly compressed formats such as AAC, DAB, MP3 etc. The higher the amount, the better the quality generally is.

K

kHz (kilo Hertz)
1000Hz or 1000 cycles per second.

L

LCD (Liquid Crystal Display)
Probably the most common way to show visual information on non-computer electronic equipment.

Lossless compression
A system for reducing the number of data bits (density) in a musical signal without corrupting the original.

M

M4A
The audio file format used by Apple in their iTunes Music Store often appears on your system with the '.m4a' filename extension. M4A can produce better audio quality than MP3 using less physical space for the files.

MHz (Mega Hertz)
One million cycles per second.

Midrange
The middle three octaves (more or less) of the audio band, where the ear is most sensitive, usually between 160Hz-3kHz.

Mono (monaural)
The operation of an amplifier in one channel for both input and output. Can refer to an amplifier with only one channel of amplification or operating in bridged mode. For low-frequency amplification applications, it provides better phase coherence and less distortion than stereo operation.

MP3

A file format with a sound data compression system. MP3 is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. With the MP3 format, one CD-R or CD-RW can contain about 10 times more data than a regular CD.

Mute

A control found on receivers, and some mixers or signal processing units that silences (mutes) a signal path, or output.

O

Ohm

Measure of resistance to current (impedance). The lower the impedance of a speaker, the harder it is to drive.

P

PCM (Pulse Code Modulation)

Pioneering form of digital recording.

R

RDS (Radio Data System)

RDS tuners can automatically tune in stations according to the types of music (or talk) they broadcast. RDS also enables a receiver to display text messages and even graphics (usually call letters and format information) that many FM stations include on a sub-carrier signal within their normal broadcast signal. Some RDS equipped tuners can even override with traffic alerts or emergency broadcasts, during playback of other media - CD MD, or cassette. There are other useful features too, many of which are offered by the growing number of RDS stations.

RF (radio frequency)

An alternating current or voltage with a frequency (or carrier wave) above about 100kHz. It is called radio frequency because these frequencies have a capacity to be radiated as electromagnetic waves by radio (and television) stations.

Rip (ripping)

Using a software program that "grabs" digital audio from a compact disc and transfers it to a computer hard drive. The integrity of the data is preserved, because the signal does not pass through the computer sound card, and need not be converted to an analog format. The digital-to-digital transfer creates a WAV file that can then be converted into an MP3 file.

RMS (Root Mean Square)

A formula that provides a reasonably accurate means to measure and compare continuous AC power. The use of this measure is preferred when matching system components, like amplifiers and receivers.

S

S/PDIF (SPDIF) (Sony/Philips Digital Interface)

A standard audio-file transfer-format that was developed jointly by Sony and Philips. S/PDIF allows the transfer of digital audio signals from one device to another, without the need to convert first to analog. This prevents the quality of the digital signal degrading during transfer to analog.

Sampling rate

The precision with which a digital file describes the analog sound it represents. Basically, a lower rate produces files that sound worse and take up less drive space than those with a higher rate. CDs have a sampling rate of 44.1kHz, and DAT machines have a sampling rate of 48kHz. MiniDisc player/recorders with a built-in sampling rate converter can handle both rates.

Sensitivity

Volume that a speaker offers for a specific voltage input, expressed in decibels per watt (dB/W).

Shuffle

A feature that plays audio files (tracks) in random order.

Signal to noise ratio
Represents the difference between the level of the audio signal, and any interference. The larger the figure, the purer the sound.

SPL (sound pressure level)
An acoustic measurement of sound energy. 1 dB SPL is the smallest increment in sound level to which the average human is sensitive. Theoretically, 0 dB SPL is the threshold of human hearing while approximately 120 dB is the threshold of pain.

Stereo
Literally means solid. Usually taken to refer to two channel stereo, though developments in digital audio facilitate multichannel stereo.

Streaming
A technique for transferring data such that it can be processed as a steady and continuous stream. Streaming technologies are often used on the Internet because many users do not have fast enough access to download large multimedia files quickly, so the client browser or plug-in can start displaying the data before the entire file has been transmitted.

Subwoofer
The extra-low frequency drive-unit (loudspeaker) that can be used to augment both stereo and surround system.

T

Treble
High frequencies at the top end of the audio band i.e. above 3kHz.

Tweeter
The drive unit (loudspeaker) that reproduces high frequency sounds.

U

UPnP (Universal Plug and Play)
Universal Plug and Play is a networking architecture developed by a consortium of companies to ensure easy connectivity between products from different vendors. UPnP devices should be able to connect to a network automatically, handling identification and other processes on the fly. The standards developed by the UPnP Forum are media-, platform-, and device-independent.

USB (universal serial bus)
A hardware interface used to connect devices such as computer audio players, digital cameras, and more. USB is UPnP enabled (also called hot-swappable), meaning that a computer does not need to be turned off when new devices are plugged in and the devices do not need to be configured. USB supports data transfer rates of up to 60MB per second (in USB 2.0).

V

VBR (variable bit rate)
With VBR, the encoder takes as much bits as it needs. So black pictures get few bits and complex pictures get as much as they need. While this provides the best quality the final size cannot be predicted at all.

Volume
Volume is the most common word used to specify the control of relative loudness of sounds. It also pertains to the function on many electronic devices that is used to control the loudness.

W

W (wattage)
A measurement of power. In speakers, wattage is a term that indicates power-handling characteristics in dealing with electrical voltage inputs from the amplifier.

WAP (Wireless Application Protocol)
Global protocol used in some wireless devices that allows the user to view and interact with data services. Generally used as a means to view Internet web pages using the limited transmission capacity and small display screens of portable wireless devices.

WAV

A format for sound files developed jointly by Microsoft and IBM. Built into Windows 95 to XP, which made it the de facto standard for sound on PCs. WAV sound files end with a '.wav' extension and works with nearly all Windows applications that support sound.

WEP (Wired Equivalent Privacy)

All 802.11b (Wi-Fi / wireless) networks use WEP as their basic security protocol. WEP secures data transmissions using 64-bit or 128-bit encryption; however, it does not offer complete security and is usually used in conjunction with other security measures such as EAP.

Wi-Fi

Wi-Fi (Wireless Fidelity) is a wireless technology brand owned by the Wi-Fi Alliance intended to improve the interoperability of wireless local area network products based on the IEEE 802.11 standards. Common applications for Wi-Fi include Internet and VoIP phone access, gaming, and network connectivity for consumer electronics such as televisions, DVD players, and digital cameras.

Wireless

Telecommunications using electromagnetic waves rather than wires or cable to transmit information. Wireless communication can be used for free-ranging mobile systems such as cell phones and global positioning systems (GPS), which use satellite technology. Wireless systems can also be fixed, such as LANs that provide wireless communications within a limited area (such as an office), or wireless peripherals such as mice and keyboards.

WMA (Windows Media Audio)

An audio format owned by Microsoft, is a part of Microsoft Windows Media technology. Includes Microsoft Digital Rights Management tools, Windows Media Video encoding technology, and Windows Media Audio encoding technology.

Woofer

The drive unit (loudspeaker) that reproduces the bass (low) frequencies.

WPA / WPA2 (Wi-Fi Protected Access)

A Wi-Fi standard that was designed to improve upon the security features of WEP. The technology is designed to work with existing Wi-Fi products that have been enabled with WEP (i.e. as a software upgrade to existing hardware), but the technology includes two improvements over WEP.

Contact information

United States and Canada (Francophone)
1-800-661-6162

United States and Canada (English-speaking)
1-888-744-5477

Argentina	(54-11) 4544-2047
Australia	1300-363-391
Austria	810000205 (€0.20/min)
Belgium	78250145 (€0.16/min)
Brazil	0800-701-02-03
Bulgaria	2-976-9996
Chile	600-744-5477 (600-PHILIPS)
China	4008-800-008 (local tariff)
Colombia	01-800-700-7445
Czech Republic	800142840
Denmark	3525-8759
Finland	09-2311-3415
France	0821 611655 (€0.23/min)
Germany	01803 386 852 (€0.14/min)
Greece	0-0800-3122-1280
Hong Kong	852-2619-9663
Hungary	680018189
India	1901-180-1111
Ireland	01-601-1777
Israel	9-9600-900
Italy	840320086 (€0.25/minute)
Japan	0570-07-6666
Korea	080-600-6600
Luxembourg	40 6661 5644
Malaysia	1800-880-180
Mexico	01-800-504-6200
Netherlands	0900-8407 (€0.20/min)
New Zealand	0800-658-224
Norway	2270-8111
Pakistan	051-580-902-3
Peru	0800-00100
Philippines	632-8164416
Poland	223491504
Portugal	2-1359-1442
Romania	1-203-2060
Russia Federation	495-961-1111; (8-800-200-0880)
Singapore	65-6882-3999
Slovakia	0800-004537
South Africa	(011) 471-5194
Spain	902-888-784 (€0.10/min)
Sweden	08-5792-9100
Switzerland	0844-800-544
Taiwan	0800-231-099
Thailand	66-2-652-8652
Turkey	0800-261-3302
Ukraine	044-254-2392
United Kingdom	0870 900 9070 (£0.15/min)
Uruguay	(598-2) 619-6666
Venezuela	0800-100-4888