# www.philips.com/welcome

FWM416



EN User manual



# Contents

1	Important	4
	Safety	4
	Notice	5
2	Your product	6
	Introduction	6
	What's in the box	6
	Overview of the main unit	7
	Overview of the remote control	8
3	Get started	10
	Connect FM antenna	10
	Connect AM antenna	10
	Connect speakers	10
	Connect power	11
	Prepare the remote control	11
	Auto install radio stations	11
	Set clock	12
	Turn on	12
4	Play	13
	Play disc	13
	Play from USB	13
 5	Play options	14
	Repeat and random play	14
	Program tracks	14
	Display play information	14
6	Adjust volume level and sound ef	fect
		15
	Adjust volume level	15
	Mute sound	15
	Boost sound power	15
	Select a preset sound effect	15
	Enhance bass	15

7	Listen to radio Program radio stations automatically Program radio stations manually Select a preset radio station Change AM tuning grid Change FM tuning grid	16 16 16 16 16
8	Other features Set the alarm timer Set the sleep timer Listen to an external device Karaoke	18 18 18 18 18
9	Product information Specifications USB playability information Supported MP3 disc formats Maintenance	20 20 20 21 21
10	Troubleshooting	22

# 1 Important

# Safety

- (1) Read these instructions.
- (2) Keep these instructions.
- 3 Heed all warnings.
- (4) Follow all instructions.
- (5) Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- (10) Only use attachments/accessories specified by the manufacturer.
- (11) 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 tipover.



- ① Unplug this apparatus during lightning storms or when unused for long periods of time.
- (3) 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.
- (4) 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.
- (15) Apparatus shall not be exposed to dripping or splashing.
- (6) Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).
- 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.
- (8) Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

# **♠** Warning

- · Never remove the casing of this apparatus.
- Never lubricate any part of this apparatus.
- Never place this apparatus on other electrical equipment.
- Keep this apparatus away from direct sunlight, naked flames or heat.
- Never look into the laser beam inside this apparatus.
- Ensure that you always have easy access to the power cord, plug or adaptor to disconnect this apparatus from the power.



#### Caution

 Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

## Notice

Any changes or modifications made to this device that are not expressly approved by Philips Consumer Lifestyle may void the user's authority to operate the equipment.

#### **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.



Windows Media and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

#### This apparatus includes this label:



# 2 Your product

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.

# Introduction

With this unit, you can enjoy audio from discs, USB devices, external devices, or radio stations. For your convenience, you can load up to 3 discs at once.

To enrich sound, this unit offers you these sound effects:

- MAX sound for instant power boost
- Digital Sound Control (DSC)
- Dynamic Bass Boost (DBB)

The unit supports the following media formats:





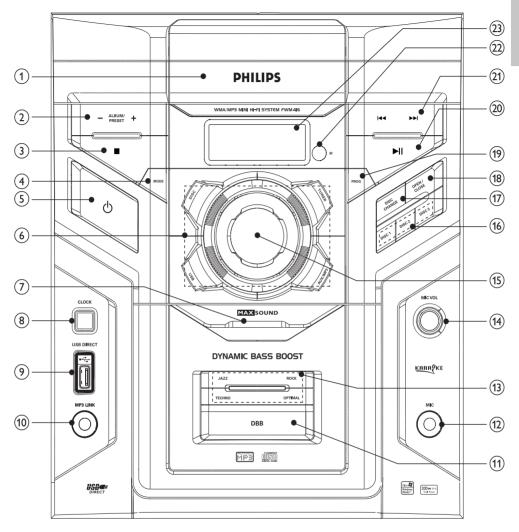


# What's in the box

Check and identify the contents of your package:

- Main unit x 1
- AC power cable x 1
- Loudspeaker box x 2
- Remote control
- FM wire antenna x 1
- AM loop antenna x 1
- MP3 link cable x 1
- Quick start guide
- User manual

# Overview of the main unit



- 1) Disc compartment door
- (2) ALBUM/PRESET+/-
  - Skip to the previous/next album.
  - Select a preset radio station.
  - Adjust time.
- (3)
  - Stop play or erase a program.
- (4) MODE
  - Select repeat play or random play.

- (5) (b)
  - Turn on the unit or switch to standby mode.
- (6) Source selection keys
  - Select a source.
- (7) MAX SOUND
  - Turn on or off instant power boost for sound.

7

## (8) CLOCK

Set the clock.

## (9) USB DIRECT ←

Jack for a USB mass storage device.

#### (10) MP3 LINK

 Audio input jack (3.5mm) for an external audio device.

#### (11) DBB

 Turn on or off dynamic bass enhancement.

## (12) MIC

• Jack for a microphone.

## (13) DSC

Select a preset sound equalizer setting.

#### (14) MIC VOL

• Adjust microphone volume.

## (15) VOLUME

Adjust volume.

#### (16) DISC 1/2/3

Select a disc.

## (17) DISC CHANGE

Change a disc.

## (18) OPEN/CLOSE

Open or close the disc compartment.

# (19) PROG

- Program tracks.
- Program radio stations.
- Select 12 hour or 24 hour format.

# 20 ▶Ⅱ

Start or pause play.

# (21) I**◄◄/▶▶**I

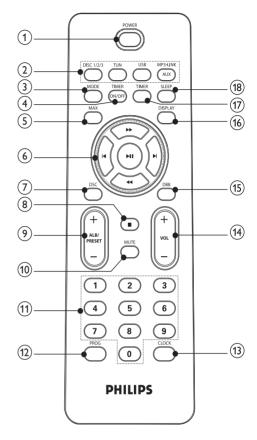
- Skip to the previous/next track.
- Search within a track/ disc/USB.
- Tune to a radio station.
- Adjust time.

# (22) iR

# 23 Display panel

Show current status.

# Overview of the remote control



# 1 POWER

• Turn on the unit, or switch to standby mode.

# 2 Source selection keys

Select a source.

#### (3) MODE

Select repeat play or random play.

#### (4) TIMER ON/OFF

Turn on or off the alarm timer.

#### (5) MAX

Turn on or off instant power boost for sound.

## **(6) ▶II**

- Start or pause play.
  - /Skip to the previous/next track.
  - /Search within a track/ disc/USB.
- Tune to a radio station.
- · Adjust time.

## (7) DSC

Select a preset sound equalizer setting.

## **(8)** ■

Stop play or erase a program.

## 9 ALB/PRESET+/-

- Skip to the previous/next album.
- Select a preset radio station.
- · Adjust time.

# (10) MUTE

Mute volume

# (11) Numeric keypad

• Select a track from a disc directly.

#### (12) PROG

- Program tracks.
- Program radio stations.
- Select 12 hour or 24 hour format.

#### (13) CLOCK

Set the clock.

#### (14) VOL +/-

Adjust volume.

## (15) DBB

• Turn on or off dynamic bass enhancement.

#### (16) DISPLAY

Select display information.

#### (17) TIMER

Set the alarm timer.

#### (18) SLEEP

Set the sleep timer.

# Get started

#### Caution

· Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

Always follow the instructions in this chapter in sequence.

If you contact Philips, you will be asked for the model and serial number of this apparatus. The model number and serial number are on the back of the apparatus. Write the numbers here: Model No.\_\_

Serial No.

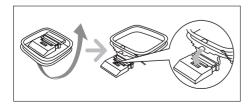
# Connect FM antenna

Connect the supplied FM antenna to the FM jack on the back of the main unit.



# Connect AM antenna

Assemble the AM loop antenna.



2 Connect the AM loop antenna to the AM jack on the back of the main unit.

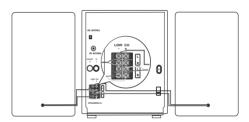


# Connect speakers



#### Caution

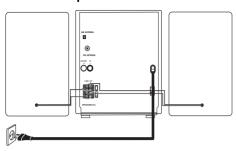
- For optimal sound, use the supplied speakers
- · Connect only speakers with impedance that is the same or higher than the supplied speakers. Refer to the Specifications section of this manual.





- Ensure that the colors of the speaker wires and terminals are matched.
- Hold down the socket flap.
- Insert the stripped part of the wire completely.
  - Insert the right speaker wires to "R", left speaker wires to "L".
  - Insert the red wires and blue wires to "+". black wires to "-".
  - Release the socket flap.

# Connect power





#### Caution

- Risk of product damage! Ensure that the power supply voltage corresponds to the voltage set on the voltage selector on the back of the unit.
- Before connecting the AC power cord, ensure you have completed all other connections.



#### Note

- The type plate is located on the back of the main unit.
- 1 If your power supply voltage is 110V-127V, adjust the voltage selector to 110V-127V.
- 2 Connect the AC power cable to:
  - the main unit.
  - the wall socket.

# Prepare the remote control



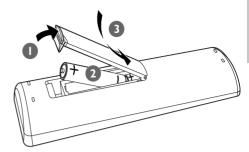
#### Caution

 Risk of explosion! Keep batteries away from heat, sunshine or fire. Never discard batteries in fire.

#### To insert the remote control battery:

- 1 Open the battery compartment.
- 2 Insert 2 AAA batteries (not supplied) with correct polarity (+/-) as indicated.

**3** Close the battery compartment.





#### Note

- If you are not going to use the remote control for a long time, remove the batteries.
- Do not use old and new or different types of batteries in combination.
- Batteries contain chemical substances, so they should be disposed of properly.

# Auto install radio stations

When you connect power and no radio stations are stored, the unit automatically begins to store radio stations.

- 1 Connect the unit to the power supply.
  - → [AUTO INSTALL PRESS PLAY] (auto install press the PLAY button) is displayed.
- Press ► II on the main unit to start installation.
  - → [AUTO] (auto) is displayed.
  - → The unit automatically stores radio stations with sufficient signal strength.
  - → When all the available radio stations are stored, the first preset radio station is broadcast automatically.

# Set clock

- In the standby mode, press CLOCK to activate the clock setting mode.
  - → The 12 hour or 24 hour format is displayed.
- Press **PROG** repeatedly to select 12 hour or 24 hour format.
- 3 Press **CLOCK** to confirm.
  - → The clock digits are displayed and begin to blink.
- Press **◄◄/▶▶** to set the hour.
- 5 Press ALB/PRESET+/- to set the minute.
- Press **CLOCK** to confirm.



• To view the clock during play, press CLOCK.

# Turn on

- Press POWER.
  - → The unit switches to the last selected source.

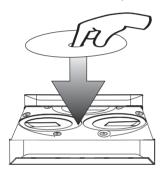
# Switch to standby

- Press **POWER** to switch the unit to standby mode.
  - → The backlight on the display panel turns off.
  - → The clock (if set) appears on the display panel.

# 4 Play

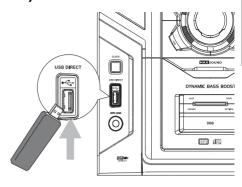
# Play disc

- 1 Press DISC 1/2/3 to select the disc source.
- Press OPEN/CLOSE on the main unit to open the disc compartment.
- 3 Load up to two discs on the disc trays, with the printed side facing up.
  - To load the third disc, press DISC CHANGE on the main unit to rotate to the disc tray.



- 4 Press OPEN/CLOSE on the main unit to close the disc compartment.
- 5 If the disc doesn't play, press ►II.
  - To select a disc, press DISC 1/2/3.
  - To pause/resume play, press ►II.
  - To stop play, press ■.
  - To select another track, press I√▶I, or press a numeric button.
  - To select an album, press ALB/ PRESET+/-.
  - To search within a track, press and hold ◀◀/▶▶, then release to resume normal play.

# Play from USB





#### Note

- Ensure that the USB device contains playable audio contents for supported formats (see "Product information" > "USB playability information").
- 1 Plug the USB device into the ← socket of this unit
- 2 Press USB to select the USB source.
- 3 Press ALB/PRESET+/- to select a folder.
- 4 Press **I**✓ ► Ito select an audio file.
- 5 If the USB device doesn't play, press ►II.
  - To pause/resume play, press ▶■.
  - To stop play, press ■.
  - To search within an audio file, press and hold ◄◄/►>, then release to resume normal play.

# 5 Play options

# Repeat and random play

- 1 Press MODE repeatedly to select:
  - the current track is played repeatedly.
  - ALL: all tracks are played repeatedly.
  - CALB: (for MP3/WMA only) the current album is played randomly.
- To return to normal play, press MODE repeatedly until play mode is no longer displayed.



 Shuffle play cannot be selected when you play programmed tracks.

# Program tracks

You can program a maximum of 40 tracks.

- 1 At CD/USB mode, in the stop position, press PROG to activate the program mode.
  - → [PROG] (program) is displayed.
- 2 For MP3/WMA tracks, press ALB/ PRESET+/- to select an album.
- 3 Press I√►I to select a track number, then press PROG to confirm.
- 4 Repeat steps 2 to 3 to select and store all tracks to program.
- 5 Press ►II to play the programmed tracks.
  - → During play, [PROG] (program) is displayed.
  - To erase the program, in the stop position, press ■.

# Display play information

1 During play, press **DISPLAY** repeatedly to select different play information.

# 6 Adjust volume level and sound effect



 MAX sound and DSC (Digital Sound Control) cannot be activated at the same time.

# Adjust volume level

During play, press **VOL** +/- to increase/ decrease the volume level.

# Mute sound

1 During play, press **MUTE** to mute/unmute sound.

# Boost sound power

MAX gives an instant boost to the sound power .

1 Press MAX to turn on or off the instant power boost.

# Select a preset sound effect

The DSC (Digital Sound Control) enables you to enjoy special sound effects.

- During play, press DSC repeatedly to select:
  - [|AZZ] (jazz)
  - [ROCK] (rock)
  - [TECHNO] (techno)
  - [OPTIMAL] (optimal)

# Enhance bass

The best DBB (Dynamic Bass Enhancement) setting is generated automatically for each DSC selection. You can manually select the DBB setting that best suits your listening environment.

- 1 During play, press **DBB** repeatedly to select:
  - DBB 1
  - DBB 2
  - DBB 3
  - DBB off
  - → If DBB is activated, **DBB** is displayed.

# Listen to radio

- Press **TUN** repeatedly to select FM or AM.
- Press and hold **◄/>>** for more than 2 seconds
  - → [SEARCH] (search) is displayed.
  - → The radio tunes to a station with strong reception automatically.
- Repeat step 2 to tune to more stations.
  - To tune to a weak station, press ◀◀/ ▶► repeatedly until you find optimal reception.

# Program radio stations automatically

You can program a maximum of 40 (FM + AM) preset radio stations.

- In the tuner mode, press and hold PROG more than 2 seconds to activate automatic program mode.
  - → [AUTO] (auto) is displayed.
  - → All available stations are programmed in the order of waveband reception strength.
  - → The first programmed radio station is broadcast automatically.

# Program radio stations manually

You can program a maximum of 40 (FM + AM) preset radio stations.

- 1 Tune to a radio station.
- Press **PROG** to activate program mode. → [PROG] (program) is displayed.
- Press ALB/PRESET+/- to allocate a number to this radio station, then press PROG to confirm.
- Repeat the above steps to program other stations.



• To overwrite a programmed station, store another station in its place.

# Select a preset radio station

In tuner mode, press ALB/PRESET -/+ to select a preset number.



- Position the antenna as far as possible from TV, VCR or other radiation source.
- · For optimal reception, fully extend and adjust the position of the antenna.

# Change AM tuning grid

In some countries, the AM radio frequency step between adjacent channels is 9 kHz (10 kHz in some areas).

- 1 Select the AM tuner source.
- Press and hold on the main unit for more than 5 seconds.
  - → The frequency step is changed to 9 kHz or 10 kHz.
  - → All preset stations are erased and need to be re-programmed.

# Change FM tuning grid

In some countries, the FM radio frequency step between adjacent channels is 50 kHz (100 kHz in some areas).

- 1 Select the FM tuner source.
- Press and hold ►II on the main unit for more than 5 seconds.
  - → The frequency step is changed to 50 kHz or 100 kHz.
  - → All preset stations are erased and need to be re-programmed.

# 8 Other features

# Set the alarm timer

This unit can be used as an alarm clock. The disc, radio or USB is activated to play at a preset time.

- 1 Ensure that you have set the clock correctly (see "Get started" > "Set clock").
- Press POWER to switch to standby mode.
- 3 Press TIMER.
  - → A prompt to select the source is displayed.
- 4 Press DISC 1/2/3 or TUN, or USB to select a source.
- 5 Press TIMER to confirm.
  - → The clock digits are displayed and begin to blink.
- 6 Press **◄◄/▶** to set the hour.
- 7 Press ALB/PRESET -/+ to set the minute.
- **8** Press **TIMER** to confirm.
  - → The timer is set and activated.

#### To deactivate or re-activate a alarm timer

- 1 Press TIMER ON/OFF repeatedly.
  - → If the timer is activated, ⊕ is displayed.
  - → If the timer is deactivated, ⓐ disappears.

# **₩** Tip

- In the MP3 link or AUX mode, the alarm timer cannot be set.
- If disc is selected but no audio file can be played, radio is activated automatically.

# Set the sleep timer

This unit can switch to standby automatically after a set period of time.

- 1 When the unit is turned on, press **SLEEP** repeatedly to select a set period of time (in minutes).
  - When sleep timer is activated, ₂z² is displayed.

#### To deactivate sleep timer

- 1 Press SLEEP repeatedly until [OFF] (off) is displayed.
  - When sleep timer is deactivated, ₂z² disappears on the display.

# Listen to an external device

You can listen to an external audio device through this unit.

#### For audio players with headphone jacks

- 1 Press MP3-LINK/AUX repeatedly to select the MP3 link source.
- 2 Connect the supplied MP3 link cable to:
  - the MP3 LINK jack (3.5mm) on the main unit.
  - the headphone jack on an external device.
- 3 Start to play the device (see the device user manual).

# For audio players with red/white audio output jacks

- 1 Press MP3-LINK/AUX repeatedly to select the AUX source.
- 2 Connect the audio cables (white/red, not supplied) to:
  - the AUX IN (L/R) jacks on the back of the main unit.
  - the AUDIO OUT jacks on an external device.
- 3 Start to play the device (see the device user manual).

# Karaoke

You can connect a microphone (not supplied) and sing along with a music source.

- 1 Turn MIC VOL to the minimum level.
- 2 Connect a microphone to the MIC jack on the main unit.
- 3 Press DISC 1/2/3, or TUN, or USB, or MP3-LINK/AUX to select a source, and start play.
- **4** Sing through the microphone.
  - To adjust the volume of the source, press VOL +/-.
  - To adjust the volume of the microphone, turn MIC VOL.

# Product information



• Product information is subject to change without prior notice.

# **Specifications**

Amplifier	
Total output power	200W RMS
Signal-to-noise ratio	≥60dB A (IEC)
Frequency response	50 - 16000Hz
AUX input	2000mV

Disc	
Laser type	Semiconductor
Disc diameter	12cm/8cm
Support disc	CD-DA, CD-R, CD- RW, MP3-CD, WMA- CD
Audio DAC	24Bits / 44.1kHz
Total harmonic distortion	<0.6%
Frequency response	50Hz -16kHz (44.1kHz)
Signal-to-noise ratio	≥60dBA

Tuner	
Tuning range	FM: 87.5 - 108MHz
	AM: 531 - 1602kHz (9kHZ);
	530 - 1700kHz (10kHZ)
Tuning grid	50KHz/100KHz (FM);
	9KHz/10KHz (AM)
Number of	40 (FM + AM)
presets	
FM	75ohm wire
AM	Loop antenna
	-

Speakers	
Speaker Impedance	6ohm
Woofer	1 × 5"
Tweeter	1 × 1.5"
Dimensions $(W \times H \times D)$	207 × 309 × 214mm
Weight	2.8kg each

Genaral	
AC power	110 - 127/220 - 240V, 50/60Hz
Operation power consumption	100W
Standby power consumption	<20W
Dimensions Main Unit (W x H x D)	265 × 310 × 403mm
Weight (without speakers)	5.9kg

# USB playability information

#### Compatible USB devices:

- USB flash memory (USB 2.0 or USB 1.1)
- USB flash players (USB 2.0 or USB 1.1)
- memory cards (requires an additional card reader to work with this unit)

#### Supported formats:

- USB or memory file format FAT12, FAT16, FAT32 (sector size: 512 bytes)
- MP3 bit rate (data rate): 32-320 Kbps and variable bit rate
- WMA v9 or earlier
- Directory nesting up to a maximum of 8 levels
- Number of albums/ folders: maximum 99
- Number of tracks/titles: maximum 999
- ID3 tag v2.0 or later
- File name in Unicode UTF8 (maximum length: 128 bytes)

#### Unsupported formats:

- Empty albums: an empty album is an album that does not contain MP3/WMA files, and is not be shown in the display.
- Unsupported file formats are skipped.
   For example, Word documents (.doc) or MP3 files with extension .dlf are ignored and not played.
- AAC, WAV, PCM audio files
- DRM protected WMA files (.wav, .m4a, .m4p, .mp4, .aac)
- WMA files in Lossless format

# Supported MP3 disc formats

- ISO9660, Joliet
- Maximum title number: 999 (depending on file name length)
- Maximum album number: 99
- Supported sampling frequencies: 32 kHz, 44.1kHz, 48 kHz
- Supported Bit-rates: 32-320 (kbps), variable bit rates
- ID3 tag v2.0 or later
- Directory nesting up to a maximum of 8 levels

# Maintenance

#### Clean the cabinet

 Use a soft cloth slightly moistened with a mild detergent solution. Do not use a solution containing alcohol, spirits, ammonia or abrasives.

#### Clean discs

 When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the centre out.



 Do not use solvents such as benzene, thinner, commercially available cleaners, or antistatic spray intended for analogue records.

#### Clean the disc lens

 After prolonged use, dirt or dust may accumulate at the disc lens. To ensure good play quality, clean the disc lens with Philips CD lens cleaner or any commercially available cleaner. Follow the instructions supplied with cleaner.

21

# 10 Troubleshooting

# A

#### Warning

• Never remove the casing of this apparatus.

To keep the warranty valid, never try to repair the system yourself.

If you encounter problems when using this apparatus, check the following points before requesting service. If the problem remains unsolved, go to the Philips web site www. philips.com/welcome. When you contact Philips, ensure that the apparatus is nearby and the model number and serial number are available.

#### No power

- Ensure that the AC power plug of the unit is connected properly.
- Ensure that there is power at the AC outlet.
- To save power, the unit switches to standby automatically 15 minutes after a play reaches the end and no control is operated.

#### No sound or poor sound

- Adjust the volume.
- Check that the speakers are connected correctly.
- Check if the stripped speaker wires are clamped.

#### Left and right sound outputs reversed

• Check the speaker connections and location.

#### No response from the unit

 Disconnect and reconnect the AC power plug, then turn on the unit again.

#### Remote control does not work

- Before you press any function button, first select the correct source with the remote control instead of the main unit.
- Reduce the distance between the remote control and the unit.
- Insert the batteries with their polarities (+/- signs) aligned as indicated.

- Replace the batteries.
- Aim the remote control directly at the sensor on the front of the main unit.

#### No disc detected

- Insert a disc.
- Check if the disc is inserted upside down.
- Wait until the moisture condensation at the lens has cleared.
- Replace or clean the disc.
- Use a finalized CD or correct format disc.

#### Cannot display some files in USB device

- The number of folders or files in the USB device has exceeded a certain limit. This phenomenon is not a malfunction.
- The formats of these files are not supported.

#### USB device not supported

• The USB device is incompatible with the unit. Try another one.

#### Poor radio reception

- Increase the distance between the unit and your TV or VCR.
- If the signal is too weak, adjust the antenna or connect an external antenna for better reception.

#### Clock/timer setting erased

- Power has been interrupted or the power cord has been disconnected.
- Reset the clock/timer.

#### Timer does not work

- Set the clock correctly.
- Switch on the timer.



