Before connecting, operating or adjusting this product, please read the instructions completely. Please keep this manual for future reference.

Note: “EB” on the packaging indicates the United Kingdom.

Operations in these instructions are described using remote control, but you can do the operations with the main unit if the controls are the same. Your unit may not look exactly as illustrated.

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SUPPLIED ACCESSORIES

Please check and identify the supplied accessories. Use numbers indicated in parentheses when asking for replacement parts. (As of January 2007)

1 x Remote control
1 x AC mains lead
(N2QAYB000079)
(K2CT3CA00004)
1 x FM indoor antenna
1 x DAB “T” antenna
(RSA0007-L1)
(N1EADY000001)
1 x Antenna plug adaptor
2 x Remote control batteries
(K1YZ02000013)
Dear customer
Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

These operating instructions are applicable to the following system.

<table>
<thead>
<tr>
<th>System</th>
<th>SC-PM45DB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main unit</td>
<td>SA-PM45DB</td>
</tr>
<tr>
<td>Speakers</td>
<td>SB-PM45</td>
</tr>
</tbody>
</table>

**Safety precautions**

**Placement**

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life. Place it at least 15 cm away from wall surfaces to avoid distortion and unwanted acoustical effects. Do not place heavy items on the unit.

**Voltage**

Do not use high voltage power sources. This can overload the unit and cause a fire. Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other place where DC is used.

**AC mains lead protection**

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead. Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock. Do not handle the plug with wet hands. This can cause electric shock.

**Foreign matter**

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction. Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer. Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

**Service**

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons. Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

**Sales and Support Information**

(For the United Kingdom and Republic of Ireland)

Customer Care Centre
- For UK customers: 08705 357357
- For Republic of Ireland customers: 01 289 8333
- Visit our website for product information
- E-mail: customer.care@panasonic.co.uk

Direct Sales at Panasonic UK
- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Care Centre Monday-Friday 9:00am-5:30pm. (Excluding public holidays)
- Or go on line through our Internet Accessory ordering application at www.panasonic.co.uk
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK Ltd.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products, take a browse on our website for further details.

Interested in purchasing an extended guarantee? Please call 0870 240 6284 or visit our website www.panasonic.co.uk/guarantee.
Placement of speakers

- If you see this symbol –

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

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

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Caution for AC mains lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

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

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

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

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

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

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

Figure B

Fuse cover

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

Figure A

Figure B

Fuse (5 ampere)

Place the speakers so that the tweeter is on the outside.

Use only the supplied speakers.

The combination of the main unit and speakers provide the best sound. Using other speakers can damage the unit and sound quality will be negatively affected.

Note

• Keep your speakers at least 10 mm away from the system for proper ventilation.

• These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.

• To avoid damage to the speakers, do not touch the speaker cones if you have taken the nets off.

Caution

• Use the speakers only with the recommended system. Failure to do so can damage the amplifier and speakers, and can cause fire. Consult a qualified service person if damage occurs or if a sudden change in performance is apparent.

• Do not attach these speakers to walls or ceilings.
Getting started

Step 1 - Making the connections

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

1 Connect the DAB “T” antenna
The cross bar of the T should be kept firmly stretched. Find a position with good reception. There is a function on the unit to check signal quality.

For best reception
A DAB outdoor antenna is recommended (page 6).

3 Connect the speaker cables.
Incorrect connection can damage the unit.
2 Connect the FM indoor antenna.

Insertion of connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing. However there is no problem using the unit.

To household mains socket

4 Connect the AC mains lead.

READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE CONNECTION.

The included AC mains lead is for use with this unit only. Do not use it with other equipment.

Insertion of connector

Tape the antenna to a wall or column, in a position with least amount of interference.

To household mains socket
Getting started

Optional antenna connections

**FM outdoor antenna**

- 75 Ω coaxial cable (not included)
- Use the antenna plug adaptor (included).

**DAB outdoor antenna**

- DAB outdoor antenna (not included)
- Be sure to fully tighten the screw.

- Never use an outdoor antenna during a lightning storm.
- You can connect the FM outdoor antenna for better reception. Please consult your dealer for installation.
- Disconnect the FM indoor antenna if an FM outdoor antenna is installed.

Step 2 - Inserting batteries into the remote control

- **Batteries**
  - Insert so the poles (+ and –) match those in the remote control.
  - Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place.
  - Do not use rechargeable type batteries.
  - Mishandling of batteries in the remote control can cause electrolyte leakage, which may cause a fire.

- **Do not:**
  - mix old and new batteries;
  - use different types of batteries at the same time;
  - heat or expose to flame;
  - take apart or short-circuit;
  - attempt to recharge alkaline or manganese batteries;
  - use batteries if their covering has been peeled off.

- **Use**
  - Aim at the remote control sensor, avoiding obstacles, at a maximum range of 7 m directly in front of the unit.
  - Refer to page 7 for remote control signal sensor position.

Step 3 - DEMO function

When the unit is first plugged in, a demonstration of its functions may be shown on the display.

If the demo setting is off, you can show a demonstration by selecting “DEMO ON”.

**Press and hold [■, –DEMO]**.

The display changes each time the button is held down.

- DEMO OFF → DEMO ON

While in standby mode, select “DEMO OFF” to reduce power consumption.
Overview of controls

Main unit

Refer to the numbers in parentheses for page reference.

1. Standby/on switch (8, 15)
   Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

2. Disc play/pause (8, 9)
3. DAB selection (12)

3. Stop/Demo (5, 8, 17)

Remote control

Buttons such as 1 function the same as the controls on the main unit.

- Sleep (15)/Auto Off
- Program (9, 10, 12)
- Play mode (8, 10, 12, 13)
- Repeat (9)
- Stop/Clear (8, 9, 17)
- Album selection (8, 9, 17)
- Enter (9, 13, 14, 17)
- Surround (16)
- DAB menu (13, 14)
- DAB secondary (13)

This function allows you to turn off the unit in disc or USB mode only after left unused for 10 minutes.

- Press and hold the button until “A. OFF” is displayed.
- Press and hold again to cancel. “A. OFF” is cleared.

Mutes the sound.

- Press the button to activate.
- Press again to cancel.

Dims the display panel.

- Press and hold the button to dims the display panel.
- To cancel, press and hold again.
Discs

Play Mode function

1 Press [CD ▶/II].
2 Press [PLAY MODE] to select the desired mode.

<table>
<thead>
<tr>
<th>Mode</th>
<th>To play</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-TRACK</td>
<td>one selected track on the disc. Press the numeric buttons to select the track.</td>
</tr>
<tr>
<td>1-ALBUM</td>
<td>one selected album on the disc. Press [ALBUM ← or →] to select the album.</td>
</tr>
<tr>
<td>RANDOM</td>
<td>a disc randomly.</td>
</tr>
<tr>
<td>1-ALBUM RANDOM</td>
<td>all tracks in one selected album randomly.</td>
</tr>
</tbody>
</table>

Note
- During RANDOM or 1-ALBUM RANDOM play, you cannot skip to tracks that have been played.
- The current play mode is cleared when you change a disc or open the disc tray.
- During RANDOM play, you can search backward or forward only within the current track.

Display function

This function allows you to display the information of the current track.

Press [DISPLAY] repeatedly during play or pause mode.

CD
- Elapsed play time → Remaining play time

MP3
- Elapsed time → Album name → Track name

Note
- Maximum number of displayable characters: approximately 30
- This unit supports ver. 1.0 & 1.1 ID3 tags. Text data that is not supported will not be displayed.
- ID3 is a tag embedded in MP3 tracks to provide information about the track.

Basic play

1 Press [■] to turn the unit on.
2 Press [▲] to open the disc tray and then load the disc. Press [▲] again to close the tray.
3 Press [CD ▶/II] to start play.
4 Adjust the volume.

<table>
<thead>
<tr>
<th>To</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>stop the disc</td>
<td>Press [CLEAR ▼].</td>
</tr>
<tr>
<td>pause play</td>
<td>Press [CD ▶/II]. Press again to resume play.</td>
</tr>
<tr>
<td>skip tracks</td>
<td>Press [▼/◄◄] or [▲/►►] during play or pause.</td>
</tr>
<tr>
<td>search through tracks</td>
<td>Press and hold [▼/◄◄] or [▲/►►] during play or pause.</td>
</tr>
<tr>
<td>skip album</td>
<td>Press [ALBUM ← or →] in the play mode. Press [ALBUM ← or →] once and then the numeric buttons in the stop mode.</td>
</tr>
</tbody>
</table>
Advanced play

Repeat play
You can repeat program play or other selected play mode.

Press [REPEAT] before or during play.  
“REPEAT ON” and “CD” are displayed.

To cancel
Press [REPEAT] again.  
“REPEAT OFF” is displayed and “CD” is cleared.

Program play
This function allows you to program up to 24 tracks.

1 Press [CD | ] and then [CLEAR ■].
2 Press [PROGRAM].
3 Press the numeric buttons to select your desired track.
   Repeat this step to program other tracks.
   Example:

<table>
<thead>
<tr>
<th>Track number</th>
<th>Program number</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Program indicator</td>
</tr>
</tbody>
</table>

4 Press [CD | ] to start play.

MP3

1 Press [CD | | ] and then [CLEAR ■].
2 Press [PROGRAM].
3 Press [ALBUM ← or →] to select your desired album.
4 Press [ | | | ] once and then the numeric buttons to select your desired track.
5 Press [ENTER].
Repeating steps 3 to 5 to program other tracks.
Example:

    4
   6

6 Press [CD | | ] to start play.
For two-digit track, press [10|] once then the two digit.
For three-digit track, press [10|] twice then the three digit.

<table>
<thead>
<tr>
<th>To</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>cancel program mode</td>
<td>Press [PROGRAM] in the stop mode.</td>
</tr>
<tr>
<td>replay the program</td>
<td>Press [PROGRAM] then [CD</td>
</tr>
<tr>
<td>check program contents</td>
<td>Press [</td>
</tr>
<tr>
<td>add to the program</td>
<td>Press [CD</td>
</tr>
<tr>
<td>clear the last track</td>
<td>Press [DEL] in the stop mode.</td>
</tr>
<tr>
<td>clear all programmed tracks</td>
<td>Press [CLEAR ■] in the stop mode. “CLR ALL” is displayed. Within 5 seconds, press the button again to clear all track.</td>
</tr>
</tbody>
</table>

Note
• When you try to program more than 24 tracks “PGM FULL” appears.
• The program memory is cleared when you open the disc tray.

Using DualDiscs
The “CD” sides of DualDiscs do not meet the CD-DA standard so it may not be possible to play them on this unit.

Note
• This unit can play MP3 files and CD-DA format audio CD-R/RW that have been finalized.
• It may not be able to play some CD-R/RW depending on the condition of the recording.
• Do not use irregularly shaped discs.
• Do not use discs with labels and stickers that are coming off or with adhesive exuding from under labels and stickers.
• Do not attach extra labels or stickers on the disc.
• Do not write anything on the disc.

• This unit can access up to 99 tracks.
• Choose a CD with this mark:

   COMPACT DISC DIGITAL AUDIO

   Using DualDiscs
The “CD” sides of DualDiscs do not meet the CD-DA standard so it may not be possible to play them on this unit.

Note
• Files are treated as tracks and folders are treated as albums.
• This unit can access up to 999 tracks, 255 albums and 20 sessions.
• Files must have the extension: “.MP3” or “.mp3”
• Disc must conform to ISO9660 level 1 or 2 (except for extended formats).
• To play in a certain order, prefix the folder and file names with the 3-digit numbers in the order you want to play them.
FM radio

Memory preset
Up to 20 stations can be set in the FM band.

Preparation
Press [FM].

Automatic presetting
Press and hold [PROGRAM] to start presetting.

Manual presetting
1. Press [PLAY MODE] to select “MANUAL”.

2. Press [\ or [\ to tune to the required station.

3. Press [PROGRAM].

4. Press numeric buttons to select a channel.
The station occupying a channel is erased if another station is preset in that channel.

5. Repeat steps 2 to 4 to preset more stations.

Selecting a preset station
Press numeric buttons to select the channel.
For two-digit channel, press [10], then the two digits.

OR
1. Press [PLAY MODE] to select “PRESET”.

2. Press [\ or [\ to select the channel.

Manual tuning
1. Press [FM].

2. Press [PLAY MODE] to select “MANUAL”.

3. Press [\ or [\ to select the frequency of the required station.

“ST” is displayed when a stereo FM broadcast is being received.

To tune automatically
Press [\ or [\ for a moment until the frequency starts changing rapidly. The unit begins auto tuning, stopping when it finds a station.
- Auto tuning may not function when there is excessive interference.
- To cancel auto tuning, press [\ or [\ once again.

To improve FM sound quality
Press and hold [PLAY MODE] to display “MONO”.

To cancel
Press and hold [PLAY MODE] again until “MONO” disappears.
- MONO is also cancelled if the frequency is changed.
- Turn off “MONO” for normal listening.
DAB stands for digital audio broadcasting. It is a new form of radio that is broadcast digitally. Unlike regular analogue broadcasting, digital radio deteriorates less, and is thus able to provide quality sound close to that of a disc.

**DAB structure**

**Bands**
There are two types of DAB bands, “BAND III” (Receivable in this unit) and “L BAND” (Not broadcast in the United Kingdom, and not receivable on this unit).

**Frequencies**
There are 41 frequencies on BAND III. Among those frequencies, 7 are used in the United Kingdom (current as of January, 2007).

**Ensemble, station and service**
The number of stations that make up one frequency differ between DAB and analogue radio. Analogue stations all broadcast on different frequencies, even if it is the same company doing the broadcasting. With DAB however, it is possible to broadcast a number of stations on the same frequency.
In DAB terminology, a group of stations on the same frequency is called an ensemble.

As shown in the diagram, an ensemble consists of a group of stations which have primary services, they can also have secondary services. This means, for example, that commentary on sports events from different areas can all be broadcast at once.

**DAB reception method on this unit**
Depending on the region there is a difference between broadcast frequency and stations broadcast along the same frequency. For this reason, a memory of receivable stations should first be created and then select from those memorized stations as the reception method.

**DAB Auto Scan**
This function searches for currently receivable stations and inputs them into unit memory.
When DAB is selected for the first time, this function starts automatically.

**Note**
Even if the station is stored into memory, some stations may not broadcast depending on the time of day etc. If this occurs, “NO SERVICE” is displayed.

**Station Memory Updating**
When there is a station name change, or a new station begins broadcasting, the unit memory is automatically updated when:
- The previous station name is displayed by selecting “STATION TUNE”;
- One of the stations already broadcasting on the same frequency with the new station is displayed by selecting “STATION TUNE”.

**Note**
- Deleting stations that are no longer broadcasting is not automatic. If you want to delete a station, perform Auto scan again and the new memory is created.
- When a new frequency begins broadcasting, stations on that new frequency are not automatically added to memory. Perform Auto scan to add them to memory. Also, you may need to change the Auto scan range if the new frequency is outside the factory set Auto scan range (page 14).

**STATION TUNE**
You can select stations from the memory created as shown above in alphanumeric order. You can easily select your favorite stations by using presets (page 12).
DAB operation

1 Press [DAB] to enter DAB mode.
The unit comes on.

If you are selecting DAB for the first time, “DAB Auto Scan...” is displayed, stations that are currently receivable are memorized.

When a frequency is tuned the ensemble corresponding to the frequency is displayed.

The station first in alphanumeric order is broadcast.

Note
"Scan Failed." appears if no stations are memorized. If this occurs, adjust the antenna and try Auto scanning or change the Auto scan frequency range. (⇒ page 14)

2 Press [PLAY MODE] to select “STATION TUNE”.
Each time you press the button:

“STATION TUNE” → “PRESET TUNE”

3 Press [⬅➡] or [➡➡] to select a station.
The station name changes in alphanumeric order.

DAB Auto Scan

Press and hold [PLAY MODE] until “DAB Auto Scan” appears.
When a frequency is tuned by Auto scanning on this unit, the ensemble corresponding to the frequency is displayed for approximately 2 seconds.

Note
• When updating memory with Auto scan, preset stations are not erased or changed.
• When a frequency cannot be received, the previous memory is restored.
• Total stations received is displayed for approximately 2 seconds.

Presetting

Presetting channel

Up to 20 channels can be set.

1 Press [⬅➡] or [➡➡] to select a station.
2 Press [PROGRAM].
3 Press the numeric buttons to select a channel.
4 To preset more stations, press [PLAY MODE] to select “STATION TUNE” and then repeat steps 1 to 3.

Note
You cannot preset stations when the station is not broadcasting or when you are selecting a secondary service.
Selecting a preset channel

1 Press [PLAY MODE] to select “PRESET TUNE”.
2 Press \[ \] or \[ \] or numeric buttons to select a channel.

Listening to the secondary service

Press the [DAB SECONDARY] to select the secondary service.
“ ” is displayed if there is a secondary service broadcast.
The secondary services are selected each time the button is pressed. The primary service is returned to after the last secondary service.

Display

Press [DISPLAY] to select the display.
The information scroll through the display.
Each time you press the button:

<table>
<thead>
<tr>
<th>Dynamic label</th>
<th>PTY display</th>
<th>Ensemble label</th>
<th>Frequency display</th>
<th>Time display</th>
</tr>
</thead>
<tbody>
<tr>
<td>(information about the broadcast)</td>
<td>(program type)</td>
<td>(the name of the ensemble)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Turning automatic clock adjustment function on

To adjust the time information during DAB broadcasting and automatic time adjustment.

1 Press [DAB MENU] to enter menu mode.
2 Within 10 seconds, press [ALBUM ← or →] to select “AUTO CLOCK ADJ.” and then press [ENTER].

3 Within 10 seconds, press [ALBUM ← or →] to select “ADJUST ON” and then press [ENTER].

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

To exit
Press [DAB MENU] again.

Checking the DAB signal quality

To improve reception by adjusting the antenna while monitoring signal quality on the display.

1 Press [DAB MENU] to enter menu mode.
   Note
   “Scan Failed.”appears if no stations are memorized. If this occurs, adjust the antenna and try Auto scanning or change the Auto scan frequency range. (page 14)
2 Within 10 seconds, press [ALBUM ← or →] to select “SIGNAL QUALITY” and then press [ENTER].
3 Press [ALBUM ← or →] to select the frequency.

To exit
Press [DAB MENU] again.

Note
In order to enjoy the new stations after adjusting the antenna, it is necessary to perform Auto scanning to update the station memory.
Changing the Auto scan frequency range

Only the frequencies currently used in the UK as of June 2006 on BAND III are Auto scanned (“United Kingdom”, factory setting).

Select “ALL BAND III” when you want to store stations on other frequencies to memory.

1 Press [DAB MENU] to enter menu mode.

2 Within 10 seconds, press [ALBUM ← or →] to select “DAB SCAN MODE” and then press [ENTER].

3 Within 10 seconds, press [ALBUM ← or →] to select “UNITED KINGDOM” or “ALL BAND III” and then press [ENTER].

Auto scan begins automatically after the change has been made.

To exit
Press [DAB MENU] again

Note
When the “DAB SCAN MODE” is changed, the DAB preset channels are erased and if the DAB play timer has been set the timer switches to off.
**Timer**

### Setting the clock

This is a 24-hour clock.

1. Press [CLOCK/TIMER] to select “CLOCK”.
   - Each time you press the button:
     - \(\text{CLOCK} \rightarrow \text{PLAY}\)
   - Original display

2. Within 5 seconds, press \([\downarrow/\leftarrow] \text{ or } [\uparrow/\rightarrow]\) to set the time.


**Displaying the clock**

Press [CLOCK/TIMER] to display the clock for few seconds.

**Note**

The clock may lose or gain minutes over a period of time. Readjust as necessary.

### Using the sleep timer

This function enables you to turn off the unit automatically after the set time.

Press [SLEEP] repeatedly to select your desired time.

\[
30\text{MIN} \rightarrow 60\text{MIN} \rightarrow 90\text{MIN} \rightarrow \text{OFF} \rightarrow 120\text{MIN}
\]

**To cancel**

Press [SLEEP] to select “OFF”.

**Changing the remaining time**

Press [SLEEP] to show the remaining time, and press [SLEEP] again to select your desired time.

**Note**

- The play and sleep timer can be used together.
- The sleep timer always has priority. Be sure not to overlap timer settings.

### Using the play timer

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

**Preparation**

Turn the unit on and set the clock. Prepare the music source you want to listen to; disc, radio, USB or music port source, and set the volume.

1. Press [CLOCK/TIMER] repeatedly to select play timer.
   - Original display

2. Within 5 seconds, press \([\downarrow/\leftarrow] \text{ or } [\uparrow/\rightarrow]\) to set the starting time.


4. Repeat steps 2 and 3 to set the finishing time.

**To activate the timer**

5. Press \([\text{PLAY}]\) to turn on the timer.
   - “\(\text{PLAY}\)” is displayed.

6. Press \([\text{ON}]\) to turn off the unit.
   - The unit must be off for the timer to operate.

**To change the settings**

Repeat steps 1 to 4 and 6.

**To check the settings**

When the unit is on or in standby mode, press [CLOCK/TIMER] repeatedly to select “\(\text{PLAY}\)”.

**To cancel**

Press \([\text{PLAY}]\) to clear the timer indicators from the display.

**Note**

- The play timer will start at the preset time, with the volume increasing gradually to the preset level.
- The timer comes on at the set time every day if the timer is on.
- The unit must be in the standby mode for the timer to function.
- If you turn the unit off and on again while a timer is functioning, the finish time setting will not be activated.
- If MUSIC PORT is selected as the source when the timer comes on, the system turns on and engages MUSIC PORT as the source. If you wish to playback from the portable audio equipment, activate the equipment's play mode and increase the volume. (See the portable audio equipment’s instruction manual.)
Sound adjustment

Selecting sound effects
You can change the sound effect by selecting Preset EQ or adjusting the bass or treble effect.

Preset EQ
Press [PRESET EQ] repeatedly to select your desired setting.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEAVY</td>
<td>Adds punch to rock</td>
</tr>
<tr>
<td>CLEAR</td>
<td>Clarifies higher frequencies</td>
</tr>
<tr>
<td>SOFT</td>
<td>For background music</td>
</tr>
<tr>
<td>VOCAL</td>
<td>Adds gloss to vocal</td>
</tr>
<tr>
<td>EQ-OFF</td>
<td>No effect</td>
</tr>
</tbody>
</table>

Bass or treble
Enable you to enjoy the lower or higher pitch sound.

1 Press [BASS/TREBLE] repeatedly to select your desired setting.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASS</td>
<td>For lower pitch sound</td>
</tr>
<tr>
<td>TREBLE</td>
<td>For higher pitch sound</td>
</tr>
</tbody>
</table>

2 Press [ ] or [ ] to adjust the level.

Note
The tone level can be varied within -4 to +4.

Enjoying surround sound
Enable you to add natural width and depth to the stereo sound.

To activate
Press [SURROUND] to display “indicator.

To cancel
Press [SURROUND] again to clear “indicator.

Note
• Surround sound is less discernible when listening through headphones.
• If interference in FM stereo reception increases, cancel the surround sound effect.
External unit

Connecting and playing a USB mass storage class device

**Preparation**
Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

**It is not recommended to use a USB extension cable.** The USB device is not recognised by this unit.

**USB enabled device**
(not included)
It is not recommended to use a USB extension cable. The device connected via the cable will not be recognised by this unit.

1. Reduce the volume and connect the USB mass storage device.

<table>
<thead>
<tr>
<th>To</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>pause play</td>
<td>Press [USB ►/II]. Press again to resume play.</td>
</tr>
<tr>
<td>skip track</td>
<td>Press [◄ ►] or [▼ ▲].</td>
</tr>
<tr>
<td>skip album</td>
<td>Press [ALBUM◄ or ►] in the play mode. Press [ALBUM◄ or ►] once and then the numeric buttons in the stop mode.</td>
</tr>
</tbody>
</table>

**Display function**
Press [DISPLAY] repeatedly during play or pause mode.

- Elapsed time ➔ Remaining time ➔ Album name ➔ Track name ➔ ID3 (Artist) ➔ ID3 (Track) ➔ ID3 (Album)

For other operating functions, they are similar as those described in “Discs” (page 8 and 9).

**Supported Format**
Files must have the extension “.mp3” or “.MP3”.

- CBI (Control/Bulk/Interrupt) is not supported.
- A device using NTFS file system is not supported (Only FAT 16/32 File Allocation Table 16/32 file system is supported).
- Depending on the sector size, some files may not work.
- This unit can access up to 255 albums (including blank folders) and 2500 tracks.
- The maximum number of tracks in a folder are 999 tracks.
- Only one memory card will be selected when connecting a multiport USB card reader. Typically the first memory card inserted.
- Disconnect the USB card reader from the unit when you remove the memory card. Failure to do so may cause malfunction to the device.
- When you connect your digital audio player to the USB jack, it charges all the time except in standby mode.

**Connecting and playing a portable audio equipment**
This feature enables you to enjoy music from portable audio equipment.

1. Plug the audio cord into the MUSIC PORT jack and press [MUSIC PORT].
2. Play the portable audio equipment. (See the portable audio equipment’s instruction manual.)

**Note**
All peripheral components and cables are sold separately.

**Changing the remote control code**
Change the code if you find the remote control unintentionally also controls other equipments.

**Change the main unit’s code**
Press and hold [MUSIC P.] on the main unit and then press and hold [2] (or [1]) on the remote control. “REMOTE 2” is displayed.

**Change the remote control’s code**
Press and hold [ENTER] and [2] (or [1]) on the remote control for at least 2 second.

If the remote control and main unit are using different codes, a message appears on the main unit’s display showing the main unit’s current code. Follow the above step to change the remote control’s code to match it.
Troubleshooting guide

Before requesting service, make the below checks. If you can’t fix the system as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

Common problems

| No sound. | Turn the volume up. The speaker cords may not be connected properly. Turn the unit off, check and correct the connections and turn the unit on (➡ page 4). |
| Sounds unfixed, reversed or come from one speaker only. | Check the speaker connections (➡ page 4). |
| Humming heard during play. | An AC mains lead or fluorescent light is near the cables. Keep other appliances and leads away from this unit’s cables. If possible in your area, turn the AC mains lead’s plug or connector over to reverse the lead’s polarity. |
| “ERROR” is displayed. | Incorrect operation performed. Read the instructions and try again. |
| “- -:- -” appears on the display. | You plugged the AC mains lead in for the first time or there was a power failure recently. Set the time (➡ page 11). |
| “F76” is displayed. | Check and correct the speaker cord connections (➡ page 4). If this does not fix the problem, there is a power supply problem. Consult the dealer. |

Listening to the radio

| Noise is heard. The stereo indicator flickers or doesn’t light. Sound is distorted. A beat sound is heard. | Use an outdoor antenna (➡ page 6). Turn the TV off or separate it from the unit. |

When there is a television set nearby

| The picture on the TV disappears or stripes appear on the screen. | The location and direction of the antenna are incorrect. If you are using an indoor antenna, change to an outdoor antenna (➡ page 6). The TV antenna wire is too close to the unit. Separate the antenna wire of the TV set from the unit. |

Listening to DAB

| DAB reception is poor | Keep the antenna away from computers, televisions, other cables and cords. Use an outdoor antennas (➡ page 6). |
| DATA | Data broadcast being received over the DAB broadcast signal. Cannot be used on this unit. |
| SCRAMBLED | The broadcast station being received cannot be accessed. |
| NO SERVICE | The station is currently not broadcasting. |
| NO SIGNAL | This station cannot be received. Check your antenna (➡ page 6). |
| Scan Failed | Stations are not receivable. Check your antenna and try Auto scanning (➡ page 6 and 12). |

Playing discs

| The display is wrong or play won’t start. | The disc may be upside down (➡ page 8). Wipe the disc. Replace the disc if it is scratched, warped, or non-standard. Condensation may have formed inside the unit due to a sudden change in temperature. Wait about an hour for it to clear and try again. |

The remote control

| Remote control doesn’t work. | Check that the batteries are inserted correctly (➡ page 6). Replace the batteries if they are worn. |

USB

| The USB drive or its contents cannot be read. | The USB drive format or its contents is/are not compatible with the system (➡ page 17). The USB host function of this product may not work with some USB devices. USB devices with storage capacity of more than 8 gigabytes may not work in some instances. |
| Slow operation of the USB flash drive. | Large file size or high memory USB flash drive takes longer time to read. |
| “USB OVER CURRENT ERROR” | The USB mass storage device rating exceeds 500mA. Disconnect the USB device. Turn the unit off and then back on. |
| “NO PLAY” | Check the content. Only MP3 format files can be played. |
Specifications

**AMPLIFIER SECTION**
RMS OUTPUT POWER both channel driven simultaneously
10 % Total harmonic distortion
20 W per channel (4 Ω)

Input impedance
MUSIC PORT 250 mV 12 kΩ
Output impedance
HEADPHONE 16 to 32 Ω
Phone jack
Terminal Stereo, 3.5 mm
Music Port jack
Terminal Stereo, 3.5 mm

**FM TUNER SECTION**
Frequency range 87.50 to 108.00 MHz (50 kHz step)
Sensitivity 0.10 dBµV (IHF)
S/N 30 dB
Antenna terminal(s) 75 Ω (unbalanced)
Preset station FM 20 stations

**DAB SECTION**
Frequency Band (Wavelength)
<table>
<thead>
<tr>
<th>Band</th>
<th>III (UK Only)</th>
<th>III (Europe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11B to 12D</td>
<td>174.928 MHz to 239.200 MHz</td>
<td>174.928 MHz to 239.200 MHz</td>
</tr>
</tbody>
</table>
Intermediate frequency 1st : 38.912 MHz, 2nd : 2.048 MHz
Sensitivity *BER 4x10⁻⁴
MAX. input power 0 dBm
Min requirement -98 dBm
Selectivity
Adjacent channel (Band III) 33 dB
Far-Off channel (Band III) 45 dB
DAB memories 20 channels

**CD SECTION**
Disc played [8 cm or 12 cm]
(1) CD-Audio (CD-DA)
(2) CD-R/RW (CD-DA, MP3)
(3) MP3
Sampling frequency
CD 44.1 kHz
MP3 32 kHz, 44.1 kHz, 48 kHz
Bit rate MP3 32 kbps to 384 kbps
Decoding 16/20/24 bit linear
Pickup
Wavelength 785 nm
Laser power CLASS 1
Audio output (Disc)
Number of channels 2 channel
Frequency response 20 Hz to 20 kHz (+1, -2 dB)
Wow and flutter Below measurable limit
Digital filter 8 fs
D/A converter MASH (1 bit DAC)

**USB SECTION**
Playable USB Storage Media
(1) HDD
(2) USB MP3 player/Digital audio player
(3) USB thumbdrives
Supported audio file format MP3
USB memory port
Maximum current 500 mA
Bit rate MP3 32 kbps to 320 kbps
Audio output (MP3) Number of channels 2 channel
Frequency response (MP3) 20 Hz to 20 kHz

**SPEAKER SECTION**
Type 2 way, 2 speaker system
Speaker(s)
WOOFER 10 cm Cone type 4 Ω
TWEETER 6 cm Cone type 4 Ω
Impedance 4 Ω
Input power (IEC) 20 W (MAX)
Output sound pressure 76.56 dB/W (1.0 m)
Cross over frequency 4.3 kHz
Frequency range 43 Hz to 42 kHz (-16 dB)
52 Hz to 22 kHz (-10 dB)
Dimensions (W x H x D) 138 mm x 227 mm x 141 mm
Mass 1.4 kg

**GENERAL**
Power supply AC 230 to 240V, 50 Hz
Power consumption 67 W
Dimensions (W x H x D) 164 mm x 227 mm x 314 mm
Mass 3.0 kg
Operating temperature range +5˚C to +35˚C
Operating humidity range 5% to 90% RH (no condensation)

**Power consumption in standby mode 0.4 W (approx.)**

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

**Maintenance**

If the surfaces are dirty
To clean this unit, wipe with a soft, dry cloth.
- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.
This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

The socket outlet shall be installed near the equipment and easily accessible. The mains plug of the power supply cord shall remain readily operable. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from AC receptacle.

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

WARNING:
TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,
• DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
• USE ONLY THE RECOMMENDED ACCESSORIES.
• DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!
• DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.
• DO NOT OBSTRUCT THE UNIT’S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
• DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
• DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.