

Introduction







Thank you for purchasing this SHARP product. To obtain the best performance from this product, please read this manual carefully. It will guide you in operating your SHARP product.

Special Note

Supply of this product does not convey a license nor imply any right to distribute content created with this product in revenue-generating broadcast systems (terrestrial, satellite, cable and/or other distribution channels), revenue-generating streaming applications (via Internet, intranets and/or other networks), other revenue-generating content distribution systems (pay-audio or audio-on-demand applications and the like) or on revenue-generating physical media (compact discs, digital versatile discs, semiconductor chips, hard drives, memory cards and the like). An independent license for such use is required. For details, please visit <http://mp3licensing.com>
MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

Accessories

The following accessories are included.

					
AC power lead x 1	Remote control x 1 (RRCGA292AWSA)	Stand for iPad x 1	"AA" size battery (UM/SUM-3, R6, HP-7 or similar) x 1	Dock spacer x 1	Carrying Strap x 1

The illustrations printed in this operation manual are for the model GX-M10H(OR).

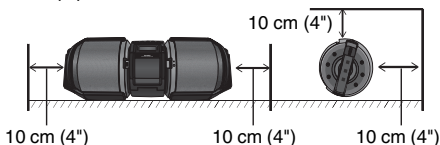
CONTENTS

	Page		Page
General Information		USB	
Precautions	1 - 2	Listening to USB mass storage device/MP3 player	13
Controls and indicators	2 - 3	Advanced USB playback	14
Preparation for Use		Radio	
System connections	4	Listening to the radio	14 - 15
Remote control	5	Advanced Features	
Carrying the unit	5	Using the Radio Data System (RDS)	15 - 17
Placing the unit	5	Connecting other equipment	18
Basic Operation		Timer and sleep operation (Remote control only)	19 - 20
General control	6	References	
Setting the clock (Remote control only)	6 - 7	Troubleshooting chart	20 - 21
iPod, iPhone and iPad		Maintenance	21
Listening to the iPod, iPhone or iPad	7 - 9	Specifications	22
CD or MP3/WMA disc Playback			
Listening to a CD or MP3/WMA disc	9 - 10		
Advanced CD or MP3/WMA disc playback	10 - 11		
MP3/WMA folder mode (only for MP3/WMA files)	12		

Precautions

General

- Please ensure that the equipment is positioned in a well ventilated area and ensure that there is at least 10 cm (4") of free space along the sides, top and back of the equipment.



- Use the unit on a firm, level surface free from vibration.
- Place the unit at least 30 cm (12") away from any CRT TV to avoid colour variations across the TV screen. If the variations persist, move the unit further away from the TV. LCD TV is not prone to such variation.
- Keep the unit away from direct sunlight, strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) which generate electrical noise.
- Do not place anything on top of the unit.
- Do not expose the unit to moisture, to temperatures higher than 60°C (140°F) or to extremely low temperatures.

Precautions (continued)

- If your system does not work properly, disconnect the AC power lead from the wall socket. Plug the AC power lead back in, and then turn on your system.
- In case of an electrical storm, unplug the unit for safety.
- Hold the AC power plug by the head when removing it from the wall socket, as pulling the lead can damage internal wires.
- The AC power plug is used as a disconnect device and shall always remain readily operable.
- **Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.**
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Attention should be drawn to the environmental aspects of battery disposal.
- This unit should only be used within the range of 5°C - 35°C (41°F - 95°F).
- The apparatus is designed for use in moderate climates.

- Do not lift the unit by holding left or right side panel and the CD door, it may cause speaker diaphragm or unit damage and broken.

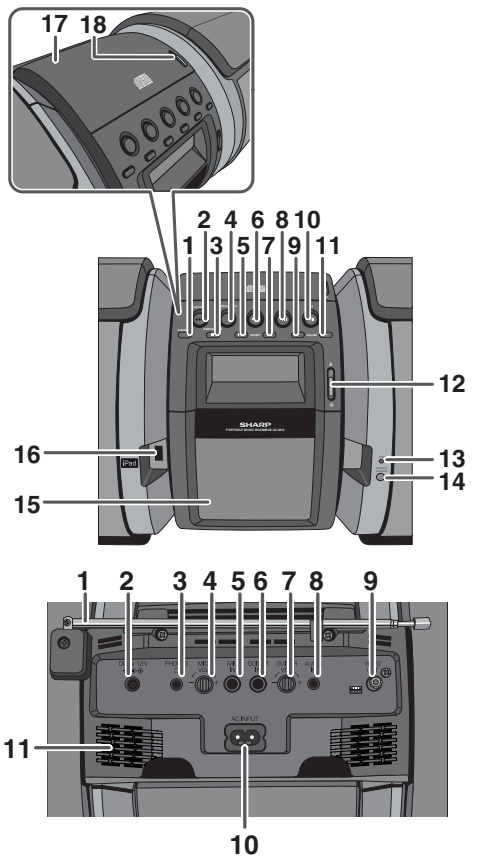
Warning:

The voltage used must be the same as that specified on this unit. Using this product with a higher voltage other than that which is specified is dangerous and may result in a fire or other type of accident causing damage. SHARP will not be held responsible for any damage resulting from use of this unit with a voltage other than that which is specified.

Volume control

The sound level at a given volume setting depends on speaker efficiency, location, and various other factors. It is advisable to avoid exposure to high volume levels. Do not turn the volume on to full at switch on. Listen to music at moderate levels. Excessive sound pressure from earphones and headphones can cause hearing loss.

Controls and indicators



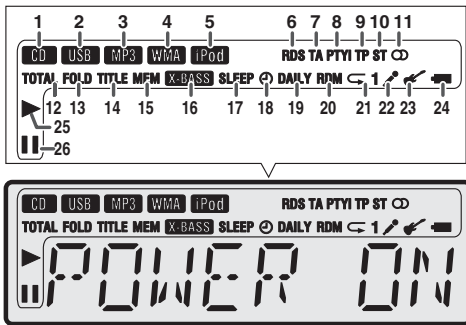
Front panel

	Page
1. Equaliser/X-Bass Button	6
2. On/Stand-by Button	6, 8, 9, 14
3. Demo/Dimmer/Stop Button	10
4. Tuner/Audio In Button	14
5. Tuner Preset Down, CD/USB Track Down, iPod/iPhone Skip Down	9, 10
6. USB Play/Pause Button	8, 13
7. Tuner Preset Up, CD/USB Track Up, iPod/iPhone Skip Up	9, 10
8. CD Play/Pause Button	10
9. Volume Down Button	6
10. iPod Play/Pause Button	8
11. Volume Up Button	6
12. iPod door open knob	
13. Timer Indicator	19
14. Remote sensor	5
15. Docking station	8
16. USB Terminal	7
17. CD compartment	10
18. CD compartment open knob	9

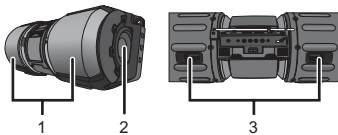
Rear panel

	Page
1. FM aerial	
2. DC 12 V input socket	4
3. Headphone socket	18
4. Microphone volume knob	18
5. Microphone input socket	18
6. Guitar input socket	18
7. Guitar volume knob	18
8. Audio input socket	18
9. Video output socket	5
10. AC input socket	4
11. Cable holder	18

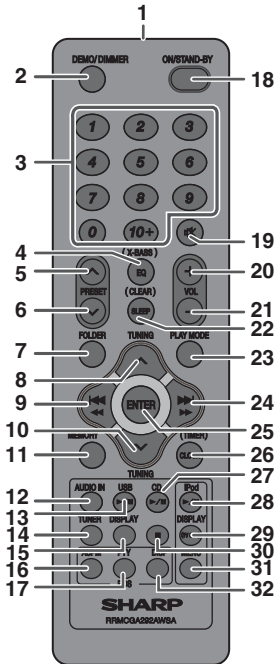
Controls and indicators (continued)



Speakers



1. Front speaker
2. Subwoofer
3. Bass Reflex Duct



Display

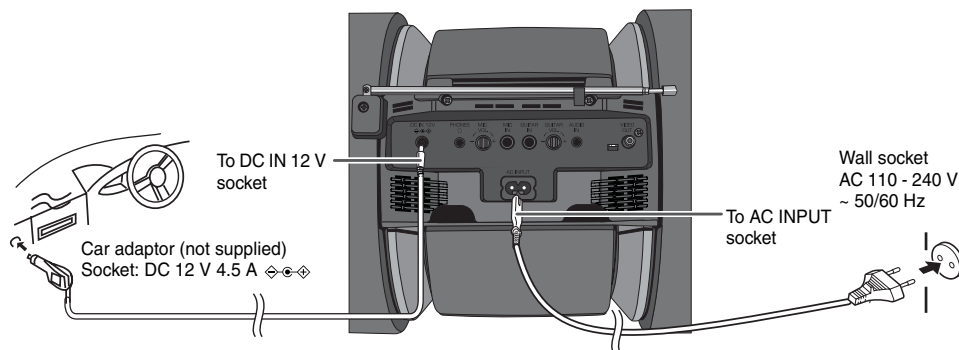
	Page
1. CD Indicator	10
2. USB Indicator	13
3. MP3 Indicator	11
4. WMA Indicator	11
5. iPod Indicator	8
6. RDS Indicator	15
7. TA Indicator	15
8. PTY Indicator	15
9. TP Indicator	15
10. FM Stereo Mode Indicator	14
11. Stereo Station Indicator	14
12. Total Indicator	12
13. Folder Indicator	12
14. Title Indicator	12
15. MEM (Memory) Indicator	11, 15
16. X-bass Indicator	6
17. Sleep Indicator	20
18. Once Timer Indicator	19
19. Daily Timer Indicator	19
20. RDM (Random) Indicator	11
21. Repeat Indicator	10
22. Microphone Indicator	
23. Guitar Indicator	
24. Battery Level Indicator	4
25. Play Indicator	9
26. Pause Indicator	9

Remote control

	Page
1. Remote Control Transmitter	5
2. Demo/Dimmer Button	4, 6
3. Numeric Buttons	10
4. Equaliser (X-Bass) Button	6
5. Tuner Preset Up Button	15
6. Tuner Preset Down Button	15
7. Folder Button	12, 13
8. Tuning Up, iPod Cursor Up, Folder Up Button	11, 12, 13, 14
9. Skip Down, Fast Reverse, Time Down Button	6, 9, 12, 19
10. Tuning Down, iPod Cursor Down, Folder Down Button	11, 12, 13, 14
11. Memory Button	11, 15
12. Audio In Button	6, 18
13. USB Play/Pause Button	8, 13
14. Tuner Button	14, 16
15. Display Button	13, 14
16. RDS ASPM Button	16
17. RDS PTY Button	16
18. On/Stand-by Button	6, 8, 9, 18
19. Mute Button	6
20. Volume Up Button	6
21. Volume Down Button	6
22. Sleep (Clear) Button	11, 20
23. Play Mode Button	10, 11
24. Skip Up, Fast Forward, Time Up Button	6, 9, 12, 19
25. Enter Button	6, 8, 13, 14
26. Clock (Timer) Button	6, 19
27. CD Play/Pause Button	9, 10, 13
28. iPod Play/Pause Button	9
29. iPod Display (TV OUT) Button	8
30. CD/USB Stop Button	9, 10, 13
31. iPod Menu Button	9
32. RDS Display Button	15

System connections

Do not connect the DC or AC power to the unit at the same time.



■ AC power connection

After checking all the connections have been made correctly, plug the AC power lead of this unit into the wall socket.

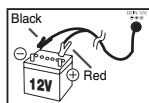
Notes:

- Remove all batteries when using AC power.
- Unplug the AC power lead from the wall socket if the unit will not be in use for a prolonged period of time.

■ DC power connection

Caution:

- During battery/DC operation, the unit will be set to Demo mode off with display and subwoofer light in MODE 2 to reduce the battery power consumption.
- When using battery/DC power, the remote control cannot be used to turn on the unit.
- Unplug the AC power lead from the unit before using the DC power. Otherwise the unit will not work.
- Use only a car adaptor with DC 12V output voltage.
- Insert the plugs firmly.
- When the unit is not in use for an extended period, remove the car adaptor from the car supply socket.



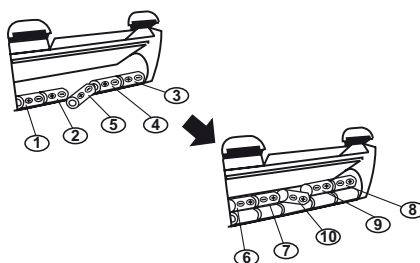
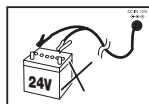
Attention: connection of DC lead and battery terminals.

⊕: Connect the red battery clip to (+) on the battery terminal.

⊖: Connect the black battery clip to (-) on the battery terminal.

DC power can only be used for a 12V battery.

Do not use any battery besides a 12V.



3 Replace the battery compartment cover.

Precautions for battery use:

- Insert the batteries according to the direction indicated on the rear panel.
- Remove the batteries if they are weak or if the unit will not be used for long periods of time. This will prevent potential damage due to battery leakage.
- Replace all old batteries with new ones at the same time.
- Do not mix old and new batteries.

Battery replacement:

- When batteries are low, battery indicator "■" will blink to show that the batteries need to be replaced. sound may become distorted and unit may automatically turn off or mute during high volume level. Reduce the volume level or replace the batteries.
- When replacing the batteries, place the unit on a cushion or soft cloth to avoid damage.

Cautions:

- Do not use rechargeable battery (nickel-cadmium battery, etc.).
- Immediately remove the discharged batteries. If the chemical leak into the unit, clean it.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

■ Operation with batteries

1 Disconnect the AC and DC power lead, and remove the battery compartment cover.

- Connection of the AC or DC power lead to the unit disconnects the batteries.



2 Insert 10 "D" size batteries (UM/SUM-1, R20, HP-2 or similar) into the battery compartment.

- When inserting or removing the batteries (5 and 10), push them towards the (-) battery terminals.
- Installing the batteries incorrectly may cause the unit to malfunction.
- Batteries are not included.

■ Demonstration mode

- The first time the unit is plugged in with AC power, the unit will enter the demonstration mode. You will see words scroll and the subwoofer light up will operate in the flashing mode.
- To cancel the demonstration mode, press the DEMO/DIMMER button (remote control) during power stand-by mode. The unit will enter the low power consumption mode. The subwoofer light will be off.
- To return to the demonstration mode, press the DEMO/DIMMER button again.
- If iPod or iPhone is docked, the unit will begin charging. "iPod CHARGING" will be displayed.

■ Connecting iPod or iPhone to TV

Photo and video files from iPod or iPhone can be viewed by connecting the system to TV/monitor.

If the TV/monitor has a video input, connect it to the VIDEO OUT socket at the back of the unit and set the TV Out on the iPod or iPhone unit to "ON" position.

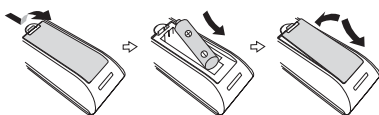
Note:

Please make sure to set iPod unit to either NTSC or PAL to match your TV signal. Please visit Apple's homepage for further information.

Remote control

■ Battery installation

- 1 Open the battery cover.
- 2 Insert the supplied battery according to the terminal indicated in the battery compartment.
When inserting or removing the battery, push it towards the (-) battery terminals.
- 3 Close the cover.



Caution:

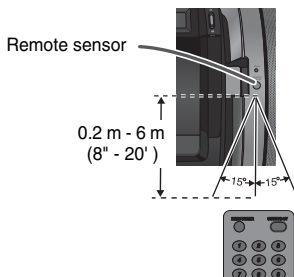
- Remove the battery if the unit will not be used for a long period of time. This will prevent potential damage due to battery leakage.
- Do not use rechargeable battery (nickel-cadmium battery, etc.).
- Installing the battery incorrectly may cause the unit to malfunction.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

Notes concerning use:

- Replace the battery if the operating distance is reduced or if the operation becomes erratic. Purchase an "AA" size battery (UM/SUM-3, R6, HP-7 or similar).
- Periodically clean the transmitter on the remote control and the sensor on the unit with a soft cloth.
- Exposing the sensor on the unit to strong light may interfere with operation. Change the lighting or the direction of the unit if this occurs.
- Keep the remote control away from moisture, heat, shock, and vibrations.

■ Test of the remote control

Check the remote control after checking all the connections. Point the remote control directly at the remote sensor on the unit. The remote control can be used within the range shown below:



Note:

Exposing the infrared remote control to direct sunlight may cause the remote control to be inoperable.

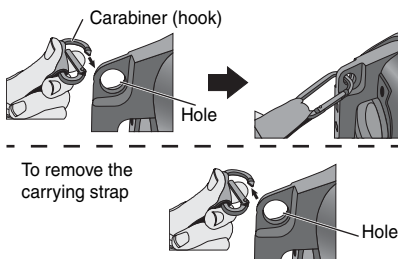
Carrying the unit

Caution:

Before transporting the unit, remove the iPod, iPhone, iPad, USB memory device and disc from the unit. Then, set the unit to the power stand-by mode. Transporting the unit with iPod, iPhone, iPad or USB memory device left connected or discs left inside might damage the unit.

■ Using the carrying strap

This unit can be carried by using a supplied carrying strap. Insert the carrying strap carabiner (hook) to each end of the unit as shown below.



Caution:

Before carrying the unit, make sure the carabiner (hook) is properly secured and closed, otherwise it will cause damage and injury.

Placing the unit

This unit can be placed in 2 positions as shown below.

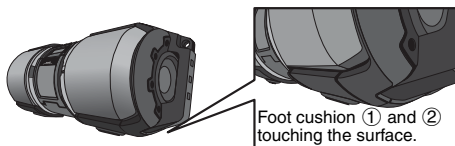
Caution:

- Make sure that the unit is placed on a flat and level surface.
- Make sure to turn the unit carefully when adjusting the position.
- Do not place the unit other than these 2 positions to avoid damage and injury.

To get the best display viewing angle, place the unit as below.

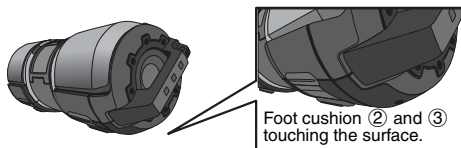
Position 1:

On the shelf/table.

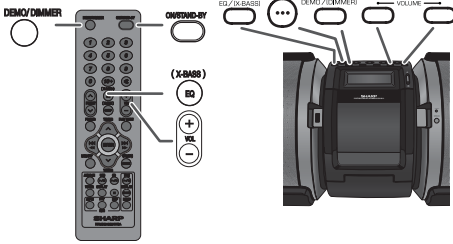


Position 2:

On the floor/ground



General control



To turn the power on

Press the ON/STAND-BY button to turn the power on.

After use:

Press the ON/STAND-BY button to enter the power stand-by mode.

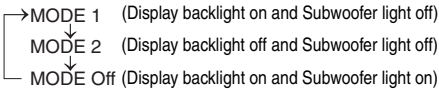
Display and Subwoofer light up control

The display and subwoofer light can be changed.

- Main unit:
- 1) Press DEMO/(DIMMER)/■ button for more than 3 seconds. The current mode will be displayed.
 - 2) Within 5 seconds, press DEMO/(DIMMER)/■ button to change the mode.

Remote control:

Press DEMO/DIMMER button to change the mode.



Notes:

- During battery/DC operation, the unit will be set to Demo mode off with display and subwoofer light in MODE 2 to reduce the battery power consumption.
- During MODE 2, press any button to light up the display backlight for a few seconds.

Volume auto fade-in

If you turn off and on the main unit with the volume set to 27 or higher, the volume starts at 16 and fades in to the last set level.

Volume control

Press VOLUME +/- buttons (on main unit) or VOL +/- (on remote control) to increase or decrease the volume.

Direct key power on function

When you press any of the following buttons, the unit turns on.

- iPod ►/⏮, CD ►/⏮, USB ►/⏮ on the main unit or the remote control: selected function is activated.
- TUNER/AUDIO IN on the main unit: last tuner or audio function is activated
- TUNER or AUDIO IN on the remote control: the unit turns on with the selected function activated.

Auto power off function

The main unit will enter the stand-by mode (when iPad, iPod, iPhone, guitar or microphone is not connected) after 15 minutes of inactivity during:

- iPod: Not docked.
- Audio In: No detection of input signal.
- CD: In the stop mode or no disc.
- USB: In the stop mode or no media.

Note:

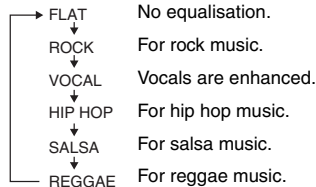
However, if iPod or iPhone is docked, the unit will begin charging. "iPod CHARGING" will be displayed.

Auto resume function

The auto resume function will resume the last function and playback, should there be a power failure or the AC power lead becomes disconnected. However, CD/MP3 programme and random mode are not memorised.

Equaliser

When the EQ/(X-BASS) button is pressed, the current mode setting will be displayed. To change to a different mode, press the EQ/(X-BASS) button repeatedly until the desired sound mode appears.



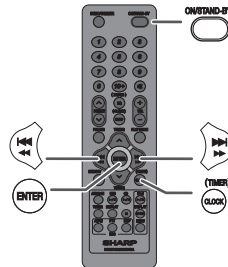
Muting

The volume is muted temporarily when pressing the MUTE button on the remote control. Press again to restore the volume.

X-Bass control

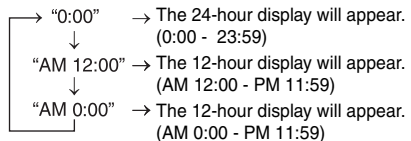
When the power is first turned on, the unit will enter the extra bass mode which emphasises the bass frequencies, and "X-BASS" will appear. To cancel the extra bass mode, press the EQ/(X-BASS) button. The last equaliser mode will turn on. To turn on the X-Bass mode again, press the EQ/(X-BASS) button for more than 2 seconds.

Setting the clock (Remote control only)



In this example, the clock is set for the 24-hour (0:00) display.

- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the CLOCK/TIMER button.
- 3 Within 10 seconds, press the ENTER button. To adjust the time, press the ◀◀◀ or ▶▶▶ button and then press the ENTER button.
- 4 Press the ◀◀◀ or ▶▶▶ button to select 24-hour or 12-hour display and then press the ENTER button.



Setting the clock (Remote control only) (continued)

- 5 To adjust the hour, press the ◀◀◀ or ▶▶▶ button and then press the ENTER button. Press the ◀◀◀ or ▶▶▶ button once to advance the time by 1 hour. Hold it down to advance continuously.
- 6 To adjust the minutes, press the ◀◀◀ or ▶▶▶ button and then press the ENTER button. Press the ◀◀◀ or ▶▶▶ button once to advance the time by 1 minute. Hold it down to advance the time by 5 minutes interval.

To confirm the time display:

Press the CLOCK/TIMER button. The time display will appear for about 5 seconds.

Notes:

- When power supply is restored after unit is plugged in again or after a power failure, confirm the clock, if required, reset the clock (pages 6 - 7).
- The clock will continue counting for 24 hours should there be a power failure or the AC power lead becomes disconnected.

To readjust the clock:

Perform "Setting the clock" from step 1. If the "CLOCK" does not appear in step 2, step 4 (for selecting the 24-hour or 12-hour display) will be skipped.

To change the 24-hour or 12-hour display:

- 1 Clear all the programmed contents. [Refer to "Factory reset, clearing all memory" on page 21 for details.]
- 2 Perform "Setting the clock" from step 1 onwards.

Listening to the iPod, iPhone or iPad

Made for:

- iPod touch (4th generation)
- iPod touch (3rd generation)
- iPod touch (2nd generation)
- iPod touch (1st generation)
- iPod classic
- iPod nano (6th generation)
- iPod nano (5th generation)
- iPod nano (4th generation)
- iPod nano (3rd generation)
- iPod nano (2nd generation)
- iPhone 4S
- iPhone 4
- iPhone 3GS
- iPhone 3G
- iPhone
- iPad (3rd generation)
- iPad 2
- iPad

Caution:

Please update your iPod, iPhone and iPad unit to the latest software version before using it. Please visit Apple's homepage to download the latest version for your iPod, iPhone and iPad.

Notes:

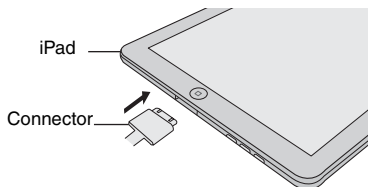
- Charging terminal for iPod, iPhone and iPad:

Condition	DOCK	USB terminal
USB function	YES	YES (without iPod or iPhone docking)
Other function (iPod / CD / Tuner / Audio In)	YES	NO
Stand-by	YES	NO

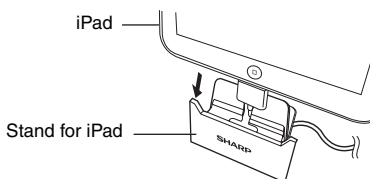
- The message "This accessory is not made to work with iPhone" or similar, may appear on the iPhone screen when:
 - battery is low.
 - the iPhone is not properly docked (eg. slanting).
 If this occurs, remove and re-dock the iPhone.
- **This product is made for iPod, iPhone and iPad. To prevent random interference when iPod, iPhone or iPad is connected, the headphone output is disabled, and "HPINVALID" will be displayed. You may also experience brief audio interference during incoming calls.**
- The headphone output is switched off during inserting iPod, iPhone and iPad unit. This is an Apple product specification.

■ iPod, iPhone and iPad connection (USB only)

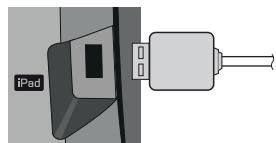
- 1 Insert the connector to the iPod, iPhone or iPad.



- 2 Place the iPad to the stand for iPad.



- 3 Connect the iPod, iPhone or iPad to the unit via USB connector.



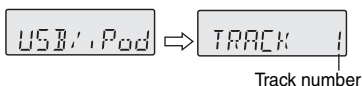
Note:

USB terminal does not support VIDEO out.

Listening to the iPod, iPhone or iPad (continued)

■ iPod, iPhone or iPad playback (USB only)

- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the USB ►/II button on the remote control or the main unit to select USB function.
- 3 Connect iPod, iPhone or iPad to the unit. "USB/iPod" will appear.



- 4 Press the USB ►/II button to start playback.

Notes:

Stop button (■) is invalid during iPod, iPhone or iPad playback.

■ iPhone playback

- Sound will only switch from iPhone to the main unit after authentication process is completed in approximately 10 seconds.
- Incoming calls will pause the playback.
- Once the calls are answered, the conversation can only be heard through the built-in iPhone speaker. Turn on the iPhone speaker or undock the iPhone to start conversation.

■ iPod and iPhone connection (Dock only)

Caution:

Unplug all accessories from the iPod or iPhone before inserting it into the dock.

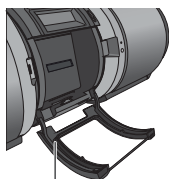
Notes:

Do not use the docking station to connect your iPad.

- 1 Open the iPod door by pushing the iPod door open knob to the area marked 'A'.

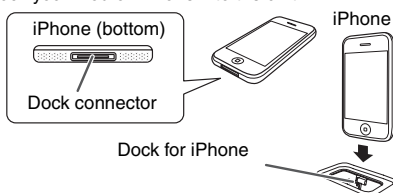
Cautions:

- Close the iPod door if not in use.
- Do not press the iPod door downwards when it is open as it may cause damage and injury.

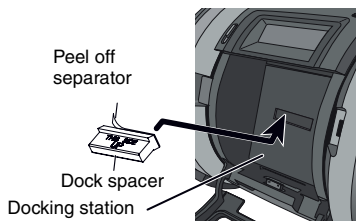


iPod door

- 2 Dock your iPod or iPhone into the unit.



For additional support, apply dock spacer (supplied) as shown.



- 1 Peel off the double sided tape separator.
- 2 Place the spacer on the space allocated inside the docking station as shown.

■ iPod or iPhone playback

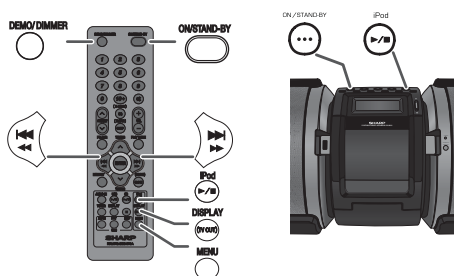
- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the iPod ►/II button on the remote control or the main unit to select iPod function.
- 3 Insert iPod or iPhone unit into the dock of main unit. "DOCK OK" will appear. Make sure to close the iPod door before playback.
- 4 Press the iPod ►/II button to start playback.

Notes:

iPod touch and iPhone need to be operated itself in the following operations.

1. Returning to the home screen.
2. Selecting the application on the home screen.
3. Dragging the slider.

To operate the connected iPod or iPhone, turn this unit to position 2 (refer "Placing the unit" on page 5).



■ To disconnect iPod, iPhone or iPad

It is safe to disconnect iPod, iPhone and iPad even during playback. However, attention should be drawn when removing the iPod or iPhone from docking station to avoid damage.

■ Watching videos on a TV connected to iPod or iPhone

- 1 Press the DISPLAY (TV OUT) button for more than 2 seconds until "V-OUT ON" appear on display.
- 2 Press the ENTER button to start playback.

Notes:

- If the TV Out setting is already turned on at video menu, the video is automatically displayed on the TV screen when ENTER key is pressed.
- USB terminal does not support VIDEO OUT.
- To return to watching video on iPod or iPhone screen, press the MENU button to enter video menu. Then press the DISPLAY (TV OUT) button for more than 2 seconds until "V-OUT OFF" appears.
- During iPod or iPhone video playback, pressing the DISPLAY (TV OUT) button will not toggle video out display between iPod and TV.

Caution:

- Stop button (■) is invalid during iPod function.

Listening to the iPod, iPhone or iPad (continued)

■ Navigating the iPod, iPhone or iPad menus

- 1 Press the MENU button to view the menu on iPod, iPhone or iPad unit. Press it again to go back to previous menu.
- 2 Use the TUNING (✓ or ^) button to select an item on the menu and then press ENTER button.

Note:
When navigating the iPod, iPhone or iPad menu with remote control, do not operate any of the buttons on the iPod or iPhone unit. The volume level is adjusted by pressing the VOL (+ or –) button on the main unit or the remote control. Adjusting the volume on the iPod, iPhone or iPad units give no effect.

iPod, iPhone and iPad operations:
The operations described below depend on the generation iPod, iPhone and iPad you are using.

System on operation:
When the main unit is powered on, the iPod, iPhone or iPad units will automatically power on when docked or connected in the unit.

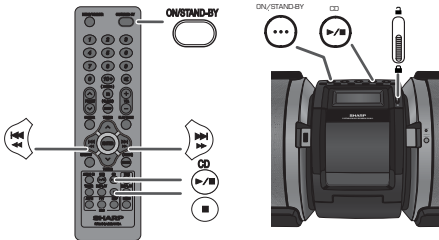
System off (stand-by operation):
When the main unit is turned to stand-by mode, the docked iPod, iPhone or connected iPad unit will automatically pause the playback.

■ Various iPod, iPhone and iPad functions

Function	Main unit	Remote control	Operation
	Dock/USB	Dock/USB	
Play			Press in the pause mode.
Pause			Press in the playback mode.
Track up/down			Press in the playback or pause mode. If you press the button in the pause mode, press the ►/■ button to start the desired track.
Fast forward/reverse			Press and hold down in the playback mode. Release the button to resume playback.
Display	—		Press to toggle display content.
Repeat	—		Press to toggle repeat mode.
Shuffle	—		Press for more than 2 seconds to toggle shuffle mode.

Function	Main unit	Remote control	Operation
	Dock/USB	Dock/USB	
Menu	—		Press to view the iPod menu during iPod function.
Enter	—		Press to confirm the selection.
Cursor Up/Down	—		Press to select the iPod menu.

Listening to a CD or MP3/WMA disc



This system can play back a standard CD, CD-R/RW in the CD format and CD-R/RW with MP3 or WMA files, but cannot record on them. Some audio CD-R and CD-RW discs may not be playable due to the state of the disc or the device that was used for recording.

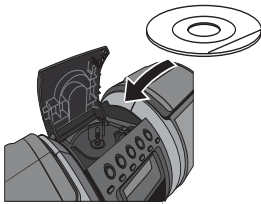
MP3:
MP3 is a form of compression. It is an acronym which stands for MPEG Audio Layer 3. MP3 is a type of audio code which is processed by significant compression from the original audio source with very little loss in sound quality.
● This system supports MPEG 1 Layer 3 and VBR files.
● During VBR file playback, time counter in the display may differ from its actual playback time.
● Bitrate which is supported by MP3 is 32 ~ 320 kbps.

WMA:
WMA files are Advanced System Format files that include audio files which are compressed with Windows Media Audio codec. WMA is developed by Microsoft as an audio format file for Windows Media Player.
● “MP3” and “WMA” indicator will light up after the unit reads information on an MP3 or WMA disc.
● Bitrate which is supported by WMA is 64 ~ 160 kbps.

■ Disc playback

- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the CD ►/■ button on the remote control or the main unit to select CD function.
- 3 Open the CD compartment by pushing the CD compartment open knob to the area marked 'A'.
- 4 Place the disc on the spindle, label side up.

Listening to a CD or MP3/WMA disc (continued)



- 5 Close the CD compartment.
- 6 Press the CD ►/II button to start playback. After the last track is played, the unit will stop automatically.

Caution:

- Do not place two discs in the spindle.
- Do not play discs of special shapes (heart, octagon, etc.). It may cause malfunctions.
- If TV or radio interference occurs during CD operation, move the unit away from the TV or radio.
- Due to the structure of the disc information, it takes longer to read an MP3/WMA disc than a normal CD (approximately 20 to 90 seconds).
- Do not open the CD compartment during playback or you may be injured.

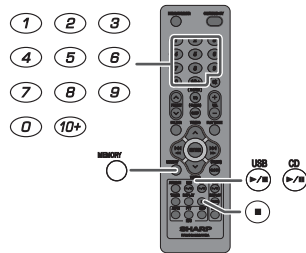
Notes for CD or MP3/WMA disc:

- When the end of the last track is reached during fast forward, "END" will appear on the display and CD operation will be paused. When the beginning of the first track is reached during fast reverse, the unit will enter the playback mode (only for CD).
- Rewritable multi-session discs with unfinished writing, can still be played.

■ Various disc functions

Function	Main unit	Remote control	Operation
Play 	CD 	CD 	Press in the stop mode.
Stop 	DEMO/(DIMMER) 		Press in the playback mode.
Pause 	CD 	CD 	Press in the playback mode. Press the ►/II button to resume playback from the paused point.
Track up/down	PRESET 		Press in the playback or stop mode. If you press the button in the stop mode, press the ►/II button to start the desired track.
Fast forward/reverse	PRESET 		Press and hold down in the playback mode. Release the button to resume playback.

Advanced CD or MP3/WMA disc playback



■ Direct track search

By using the Numeric buttons, the desired tracks on the current disc can be played.

Use the Numeric buttons on the remote control to select the desired track whilst playing the selected disc.

- The Numeric buttons allow you to select up to number 9.
- When selecting number 10 or higher, use the "10+" button.

A. For example, to choose 13

- 1 Press the "10+" button once.
- 2 Press the "1" button.
- 3 Press the "3" button.

B. For example, to choose 130

- 1 Press the "10+" button twice.
- 2 Press the "1" button.
- 3 Press the "3" button.
- 4 Press the "0" button.

Notes:

- A track number higher than the number of tracks on the disc cannot be selected.
- During random play, direct search is not possible.

To stop playback:

Press the DEMO/(DIMMER)/■ (■) button.

■ Repeat play

Repeat play can play one track, all tracks or a programmed sequence continuously.

To repeat one track:

Press the PLAY MODE button repeatedly until "REP ONE" appears. Press the CD ►/II button.

To repeat all tracks:

Press the PLAY MODE button repeatedly until "REP ALL" appears. Press the CD ►/II button.

To repeat desired tracks:

Perform steps 1 - 5 in "Programmed play" section on page 11 and then press the PLAY MODE button repeatedly until "REP ALL" appears.

To cancel repeat play:

Press the PLAY MODE button repeatedly until "NORMAL" appears and "➡" disappears.

Caution:

After performing repeat play, be sure to press the DEMO/(DIMMER)/■ (■) button. Otherwise, the disc will play continuously.

Advanced CD or MP3/WMA disc playback (continued)

■ Random play

The tracks on the disc can be played in random order automatically.

To random play all tracks:

Press and hold PLAY MODE button on the remote control until "RANDOM" appears. Press the CD ►/⏮ button.

To cancel random play:

Press the PLAY MODE button again. "RDM" indicator will disappear.

Notes:

- If you press the ►►►► button during random play, you can move to the track selected next by the random operation. On the other hand, the ◀◀◀◀ button does not allow you to move to the previous track. The beginning of the track being played will be located.
- In random play, the unit will select and play tracks automatically. (You cannot select the order of the tracks.)

■ Programmed play (CD)

You can choose up to 32 selections for playback in the order you like.

- 1 Whilst in the stop mode, press the MEMORY button on the remote control to enter the programming save mode.
- 2 Press the numeric button or ◀◀◀◀ or ►►►► buttons on the remote control to select the desired track.
- 3 Press the MEMORY button to save the track number.
- 4 Repeat steps 2 - 3 for other tracks. Up to 32 tracks can be programmed. If you want to check the programmed tracks, press the MEMORY button repeatedly. If you make a mistake, the programmed tracks can be cleared by pressing the CLEAR button for more than 2 seconds.
- 5 Press the CD ►/⏮ button to start playback.

■ Programmed play (MP3/WMA)

- 1 Whilst in the stop mode, press the MEMORY button to enter the programming save mode.

- 2 Press the TUNING (▼ or ▲) button on the remote control to select the desired folder.

Then press the ◀◀◀◀ or ►►►► button on the remote control to select the desired tracks.

- 3 Press the MEMORY button to save the folder and track number.
- 4 Repeat steps 2 - 3 for other folder/tracks. Up to 32 tracks can be programmed.
- 5 Press the CD ►/⏮ button to start playback.

To cancel the programmed play mode:

During programmed stop mode, press the DEMO/(DIMMER)/■ button. The display will show "MEM CLR" and all the programmed contents will be cleared.

Adding tracks to the programme:

If a programme has been previously stored, the "MEM" indicator will be displayed. Press the MEMORY button. Then follow steps 2 - 3 to add tracks.

Notes:

- When a CD compartment door is opened, the programme is automatically cancelled.
- If you press the ON/STAND-BY button to enter the stand-by mode or change the function from CD to another, the programmed selections will be cleared.
- During the programme operation, random play is not possible.

MP3/WMA folder mode (only for MP3/WMA files)

To play back MP3/WMA (Windows Media Audio) file

There are many music sites on the internet that you can download MP3/WMA (Windows Media Audio) music files. Follow the instructions from the website on how to download the music files. You can then play back these downloaded music files by burning them to a CD-R/RW disc.

- Your downloaded song/files are for personal use only. Any other usage of the song without owner's permission, is against the law.

About folder playback order

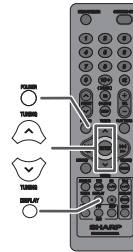
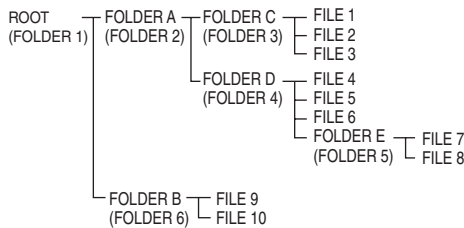
If MP3/WMA files are recorded in several folders, a folder number will be set to each folder automatically.

These folders can be selected by the FOLDER button on the remote control. If there is no supported file formats inside the selected folder, the folder is skipped and the next folder will be selected.

Example: How to set folder number if MP3/WMA format files are recorded as below figure.

- 1 ROOT folder is set as folder 1.
 - 2 As for folders inside ROOT folder (Folder A and Folder B), the folder which is recorded earlier on the disc will be set as folder 2 and folder 6.
 - 3 As for folder inside Folder A (Folder C and Folder D), the folder which is recorded earlier on the disc will be set as folder 3 and folder 4.
 - 4 Folder E that is inside Folder D will be set as folder 5.
- The folder and file order information which is recorded on the disc depends on the writing software. There maybe possibilities that this unit will playback the files not according to our expected playback order.
 - For CD MP3/WMA, 999 numbers of folders and files inclusive of the folders which have non playable files can be read.

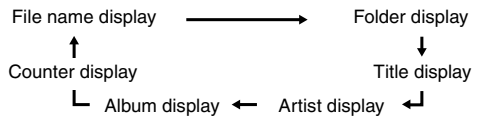
Folder mode on/off can be operated by the FOLDER button on the remote control. Files that are played when folder mode is set to the on position, may differ from those played back when folder mode is turned off.



Procedure to playback MP3/WMA disc with folder mode on

To play back CD-R/RW.

- 1 Press the CD ►/⏸ button, and load an MP3/WMA disc. Press the FOLDER button and disc info will be displayed.
- 2 Press the TUNING (✓ or ^) button to select desired playback folder. (Folder mode on)
- 3 Select desired file to be played back by pressing the ◀◀◀ or ▶▶▶ button.
- 4 Press the CD ►/⏸ button. Playback will start and file name will be displayed.
 - Title, Artist and Album name are displayed if they are recorded on the disc.
 - In case of playback with the folder mode on, press the TUNING (✓ or ^) button, and the folder can be selected even though it is in playback/pause mode. It will continue playback/pause mode in the 1st track of the selected folder.
 - Display content can be changed by pressing the DISPLAY button.



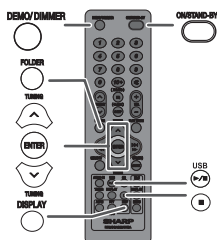
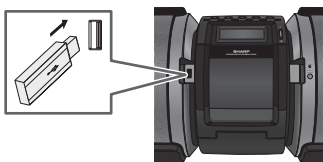
Note:

If "NOTSUPRT" is displayed, it means "Copyright protected WMA file" or "Not supported playback file" is selected.

Listening to USB mass storage device/MP3 player

Caution:

At USB mode, once the iPod or iPhone is docked onto the unit, the iPod or iPhone will automatically start charging. 'iPod CHARGING' will be displayed. In order to listen to any USB mass storage device / MP3 player, the iPod or iPhone must be removed from the docking station.



Note:

This product is not compatible with MTP and AAC file systems from USB mass storage device or MP3 player.

■ To play back USB/MP3 player with folder mode off

- 1 Press the USB ►/|| button on the remote control or the main unit to select USB function. Connect the USB memory device that has MP3/WMA format files on the unit. When the USB memory is connected to the main unit, the device information will be displayed.
- 2 Select desired file to be played back by pressing the ◀◀◀ or ▶▶▶ button.
- 3 Press the USB ►/|| button. Playback will start and the file name will be displayed.
 - Title, Artist and Album name are displayed if they are recorded in the USB memory device.
 - Display content can be changed by pressing the DISPLAY button.

Note:

To pause playback:
Press the USB ►/|| button.

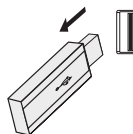
■ To play back USB/MP3 player with folder mode on

- 1 Press the USB ►/|| button on the remote control or the main unit to select USB function. Connect the USB memory device that has MP3/WMA format files on the unit. When the USB memory is connected to the main unit, the device information will be displayed.

- 2 Press the FOLDER button, and press the TUNING (▼ or ▲) button to select desired playback folder. To start playback with folder mode on, go to step 4. To change the playback folder, press the TUNING (▼ or ▲) button to select another folder.
- 3 Select desired file to be played back by pressing the ◀◀◀ or ▶▶▶ button.
- 4 Press the USB ►/|| button. Playback will start and the file name will be displayed.
 - Title, Artist and Album name are displayed if they are recorded in the USB memory device.
 - Display content can be changed by pressing the DISPLAY button.

■ To remove USB memory device

- 1 Press the DEMO/(DIMMER)/■ (■) button to stop playback.
- 2 Disconnect USB memory device from the USB terminal.



Notes:

- SHARP will not be held liable for the loss of data whilst the USB memory device is connected to the audio system.
- Files compressed in MP3 and/or WMA format can be played back when connected to the USB terminal.
- This USB memory's format supports FAT 16 or FAT 32.
- SHARP cannot guarantee that all USB memory devices will work on this audio system.
- USB cable is not recommended for use in this audio system to connect to USB memory device. Use of the USB cable will affect the performance of this audio system. iPod, iPhone and iPad is not prone to this condition.
- This USB memory cannot be operated via USB hub.
- The USB terminal in this unit is not intended for a PC connection but is used for music streaming with a USB memory device.
- External HDD-storage cannot be played back via USB terminal.
- If the data inside the USB memory is large, it may take longer time for the data to be read.
- This product can play WMA and MP3 files. It will automatically detect the file type being played. If unplayable file is played on this product, "NOTSUPRT" is indicated and the file will be automatically skipped. This will take a few seconds. If abnormal indications appear on the display due to the unspecified file, turn off the unit and then turn it on again.
- This product relates to USB mass storage devices and MP3 players. It may however face some irregularities due to various unforeseen reasons from some devices. Should this happen, turn off the unit and then turn it on again.
- During CD function, MP3 player will not be charging.

Advanced USB playback

The following functions are the same as CD operations:

	Page
Direct track search	10
Repeat play	10
Random play	11
Programmed play (MP3/WMA)	11

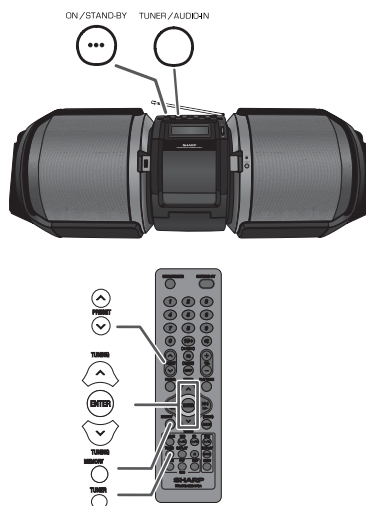
Note:

If USB memory device is not connected, "NO MEDIA" will be shown on the display.

Notes:

- This unit only supports "MPEG-1 Audio Layer-3" format. (Sampling Frequency is 32, 44.1, 48kHz)
- Playback order for MP3 files may differ depending on the writing software used during file download.
- Bitrate which is supported by MP3 is 32~320 kbps, WMA is 64~160 kbps.
- For MP3/WMA files, please put ".MP3" ".WMA" extension. Files cannot be played back if there is no MP3/WMA extension.
- Playlists are not supported on this unit.
- This unit can display Folder Name or File Name up to 32 characters.
- Maximum total number of MP3/WMA files is 65025.
- Total number of folders read is 999 including folder with non-playable file. However, the display shows only folder with MP3 files.
- The display playback time may not be displayed correctly when playing back a variable bitrate file.
- The ID3TAG information supported are TITLE, ARTIST and ALBUM only. Title name, artist name and album name can be displayed by pressing the DISPLAY button during file playback or pause mode.
- WMA meta tag also supports title, artist and album name which are recorded in WMA files. Copyright protected WMA files cannot be played back.

Listening to the radio



Tuning

- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press the TUNER button on the remote control or TUNER/AUDIO IN button on the main unit repeatedly to select FM Stereo or FM Mono.
- 3 Press the TUNING (✓ or ^) button on the remote control to tune in to the desired station.

● Manual tuning:

Press the TUNING (✓ or ^) button repeatedly to tune in to the desired station.

● Auto tuning:

When the TUNING (✓ or ^) button is pressed for more than 0.5 seconds, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

Notes:

- When radio interference occurs, auto scan tuning may stop automatically at that point.
- Auto scan tuning will skip weak signal stations.
- To stop the auto tuning, press the TUNING (✓ or ^) button again.
- When an RDS (Radio Data System) station is tuned in, the frequency will be displayed first, and then the RDS indicator will light up. Finally, the station name will appear.
- Full auto tuning can be achieved for RDS stations "ASPM", see page 16.

To receive an FM stereo transmission:

- Press the TUNER button to select stereo mode and "ST" indicator will be displayed. "S" will appear when an FM broadcast is in stereo.
- If the FM reception is weak, press the TUNER button to extinguish the "ST" indicator. The reception changes to monaural, and the sound becomes clearer.

Listening to the radio (continued)

Memorising a station

You can store 40 FM stations in memory and recall them at the push of a button. (Preset tuning)

- 1 Perform steps 1 - 3 in "Tuning".
- 2 Press the MEMORY button.
- 3 Within 30 seconds, press the PRESET (v or ^) button to select the preset channel number. Store the stations in memory, in order, starting with preset channel 1.
- 4 Within 30 seconds, press the MEMORY button to store that station in memory. If the "MEM" indicator and preset number disappear before the station is memorised, repeat the operation from step 2.
- 5 Repeat steps 1 - 4 to set other stations, or to change a preset station. When a new station is stored in the memory, the station previously memorised for that preset channel number will be erased.

Note:

The backup function protects the memorised stations for a few days should there be a power failure or the AC power lead become disconnected.

To recall a memorised station

- 1 Press the PRESET (v or ^) button for less than 0.5 seconds to select the desired station.

To scan the preset stations

The stations saved in the memory can be scanned automatically. (Preset memory scan)

- 1 Press the PRESET (v or ^) button for more than 0.5 seconds. The preset number will flash and the programmed stations will be tuned in sequentially, for 5 seconds each.
- 2 Press the PRESET (v or ^) button again when the desired station is located.

To erase entire preset memory

- 1 Press the ON/STAND-BY button to enter the stand-by mode.
- 2 Whilst pressing down the PRESET >>> button, press the ON/STAND-BY button until "TUNCLEAR" appears.



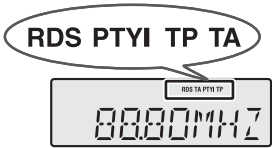
Using the Radio Data System (RDS)

RDS is a broadcasting service which a growing number of FM stations provide. These FM stations send additional signals along with their regular programme signals. They send their station names, and information about the type of programme such as sport, music, etc.

When tuned to an RDS station, "RDS" and the station name will be displayed.

"TP" (Traffic Programme) will appear on the display when the received broadcast carries traffic information, and "TA" (Traffic Announcement) will appear whilst a traffic information is on air.

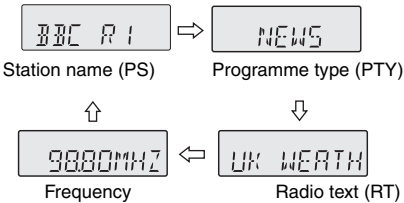
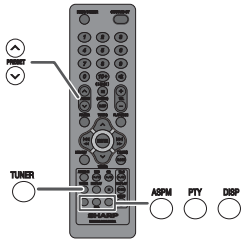
"PTY" (Dynamic PTY Indicator) will appear whilst the Dynamic PTY station is received.



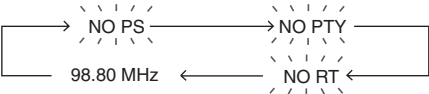
You can control the RDS by using the buttons on the remote control only.

Information provided by RDS

Each time the RDS DISP button is pressed, the display will switch as follows:



When tuning in to a station other than an RDS station or to an RDS station which sends weak signal, the display will change in the following order:



Using the Radio Data System (RDS) (continued)

■ Using the Auto Station Programme Memory (ASPM)

Whilst in the ASPM operation mode, the tuner will automatically search for new RDS stations. Up to 40 stations can be stored.

If you have already stored some stations in memory, the number of new stations you can store will be less.

- 1 Press the TUNER button on the remote control or TUNER/AUDIO IN button repeatedly on the main unit to select TUNER function.
- 2 Press and hold down the RDS ASPM button on the remote control.
 - 1 After "ASPM" has flashed for about 4 seconds, scanning will start (87.50 - 108.00 MHz).



- 2 When an RDS station is found, "RDS" will appear for a short time and the station will be stored in memory.



- 3 After scanning, the number of stations stored in memory will be displayed for 4 seconds, and then "END" will appear for 4 seconds.



To stop the ASPM operation before it is complete:

Press the RDS ASPM button whilst it is scanning for stations. The stations which are already stored in memory will be kept there.

Notes:

- Any station which has the same frequency as the one stored in memory will not be stored.
- If 40 stations have already been stored in memory, the scan will be aborted. If you want to redo the ASPM operation, erase the preset memory.
- If no station have been stored in memory, "END" will appear for about 4 seconds.
- If the RDS signals are very weak, station names may not be stored in memory.
- The same station name can be stored in different channels.
- In a certain area or during certain time periods, the station names may temporarily be different.

■ Notes for RDS operation

If any of the following events occur, it does not mean that the unit is faulty:

- "PS", "NO PS" and a station name appear alternately, and the unit does not operate properly.
- If a particular station is not broadcasting properly or a station is conducting tests, the RDS reception function may not work properly.
- When you receive an RDS station whose signal is too weak, information like the station name may not be displayed.
- "NO PS", "NO PTY" or "NO RT" will flash for about 5 seconds, and then the frequency will be displayed.

Notes for radio text:

- The first 8 characters of the radio text will appear for 4 seconds and then they will scroll across the display.
- If you tune in to an RDS station which is not broadcasting any radio text, "NO RT" will be displayed when you switch to the radio text position.
- Whilst radio text data is received or when the text contents change, "RT" will be displayed.

■ To recall stations in memory

To specify programmed types and select stations (PTY search):

You can search a station by specifying the programme type (news, sports, traffic programme, etc. ... see page 17) from the stations in memory.

- 1 Press the TUNER button on the remote control or TUNER/AUDIO IN button repeatedly on the main unit to select TUNER function.

- 2 Press the RDS PTY button on the remote control.



"SELECT" and "PTY TI" will appear alternately for about 6 seconds.

- 3 Within 6 seconds, press the PRESET (✓ or ^) button to select the programme type.



Each time the button is pressed, the programme type will appear. If the button is held down for more than 0.5 seconds, the programme type will appear continuously.

- 4 Whilst the selected programme type is flashing (within 6 seconds), press the RDS PTY button again.



After the selected programme type has been lit for 2 seconds, "SEARCH" will appear, and the search operation will start.

Notes:

- If the display has stopped flashing, start again from step 2. If the unit finds a desired programme type, the corresponding channel number will lit for about 8 seconds, and then the station name will remain it.
- If you want to listen to the same programme type of another station, press the RDS PTY button whilst the channel number or station name is flashing. The unit will look for the next station.
- If no station can be found, "NOTFOUND" will appear for 4 seconds.

If you select the traffic programme:

If you select the traffic programme (TP) in step 3, "TP" will appear.

(This does not mean that you can listen to the traffic information at that time.)

When the traffic information is broadcast, "TA" will appear.

Using the Radio Data System (RDS) (continued)

Descriptions of the PTY (Programme Type) codes, TP (Traffic Programme) and TA (Traffic Announcement)

You can search for and receive the following PTY, TP and TA signals.

NEWS	Short accounts of facts, events and publicly expressed views, reportage and actuality.
AFFAIRS	Topical programme expanding or enlarging upon the news, generally in different presentation style or concept, including debate, or analysis.
INFO	Programmes whose purpose is to impart advice in the widest sense.
SPORT	Programme concerned with any aspect of sport.
EDUCATE	Programme intended primarily to educate, of which the formal element is fundamental.
DRAMA	All radio plays and serials.
CULTURE	Programmes concerned with any aspect of national or regional culture, including language, theatre, etc.
SCIENCE	Programmes about the natural sciences and technology.
VARIED	Used for mainly speech-based programmes usually of light-entertainment nature, not covered by other categories. Examples include: quizzes, panel games, personality interviews.
POP M	Commercial music, which would generally be considered to be of current popular appeal, often featuring in current or recent record sales charts.
ROCK M	Contemporary modern music, usually written and performed by young musicians.
EASY M	Current contemporary music considered to be "easy-listening", as opposed to Pop, Rock or Classical, or one of the specialised music styles, Jazz, Folk or Country. Music in this category is often but not always, vocal, and usually of short duration.
LIGHT M	Classical music for general, rather than specialist appreciation. Examples of music in this category are instrumental music, and vocal or choral works.
CLASSICS	Performances of major orchestral works, symphonies, chamber music, etc., and including Grand Opera.
OTHER M	Musical styles not fitting into any of the other categories. Particularly used for specialist music of which Rhythm & Blues and Reggae are examples.
WEATHER	Weather reports and forecasts and meteorological information.
FINANCE	Stock Market reports, commerce, trading, etc.
CHILDREN	For programmes targeted at a young audience, primarily for entertainment and interest, rather than where the objective is to educate.
SOCIAL	Programmes about people and things that influence them individually or in groups. Includes: sociology, history, geography, psychology and society.

RELIGION	Any aspect of beliefs and faiths, involving a God or Gods, the nature of existence and ethics.
PHONE IN	Involving members of the public expressing their views either by phone or at a public forum.
TRAVEL	Features and programmes concerned with travel to near and far destinations, package tours and travel ideas and opportunities. Not for use for announcements about problems, delays, or roadworks affecting immediate travel where TP/TA should be used.
LEISURE	Programmes concerned with recreational activities in which the listener might participate. Examples include, Gardening, Fishing, Antique collecting, Cooking, Food & Wine, etc.
JAZZ	Polyphonic, syncopated music characterised by improvisation.
COUNTRY	Songs which originate from, or continue the musical tradition of the American Southern States. Characterised by a straightforward melody and narrative story line.
NATION M	Current Popular Music of the Nation or Region in that country's language, as opposed to International "Pop" which is usually US or UK inspired and in English.
OLDIES	Music from the so-called "golden age" of popular music.
FOLK M	Music which has its roots in the musical culture of a particular nation, usually played on acoustic instruments. The narrative or story may be based on historical events or people.
DOCUMENT	Programme concerned with factual matters, presented in an investigative style.
TEST	Broadcast when testing emergency broadcast equipment or receivers.
ALARM!	Emergency announcement made under exceptional circumstances to give warning of events causing danger of a general nature.
NONE	No programme type (receive only).
TP	Broadcasts which carry traffic announcements.
TA	Traffic announcements are being broadcast.

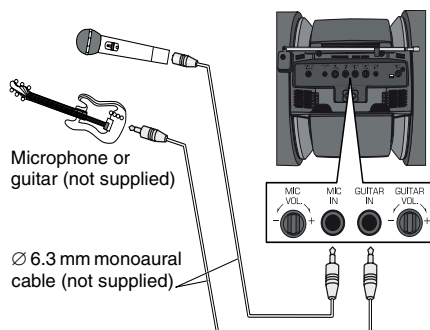
Connecting other equipment

The connection lead is not included. Purchase a commercially available lead as shown below.

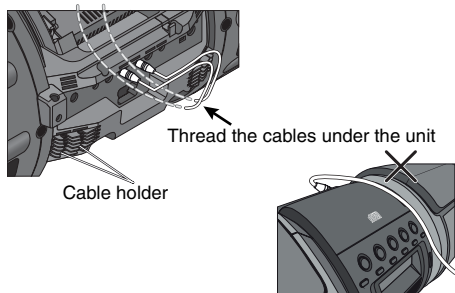
■ Connecting a guitar / microphone

Caution:

Be careful not to connect a bass guitar as it might damage this unit.



- 1 Set the guitar/microphone volume (GAIN) knob to the minimum level.
- 2 Connect a guitar/microphone to the correct input socket. Make sure that the cable has a 6.3 mm (1/4") diameter plug.
- 3 Arrange the guitar/microphone cables into the grooves of the cable holder on the left or the right side of the unit. Then, thread the cable through the bottom of the unit. **Do not let the cables be on top of the unit when using guitar/microphone as it may cause the unit to roll over causing damage and injury.**

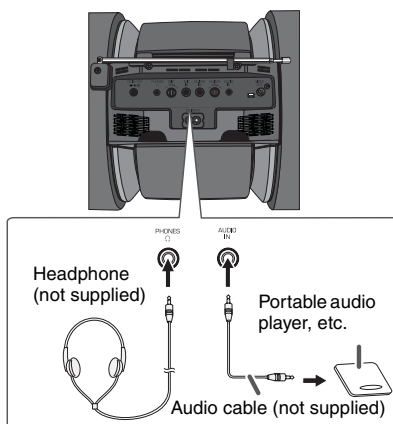


- 4 Connect the cables to a guitar/microphone.
- 5 Select a source.
 - To mix a guitar or microphone sound with a source sound, select the playback source (iPod/CD/USB/ Audio In/Tuner).
 - To play a guitar or using the microphone only, select 'AUDIO IN' function. Make sure there is no playback from Audio In connection.
- 6 Adjust the volume (GAIN) knob on the connected equipment.

Note:

Before disconnecting the guitar/microphone, set the guitar/microphone volume (GAIN) knob to the minimum level.

■ Listening to the playback sounds of portable audio player, etc.



- 1 Use a connection lead to connect the portable audio player etc. to the AUDIO IN socket. When using video equipment, connect the audio output to this unit and the video output to a television.
- 2 Press the ON/STAND-BY button to turn the power on.
- 3 Press the AUDIO IN button on the remote control or TUNER/AUDIO IN button repeatedly on the main unit to select AUDIO IN function.
- 4 Play the connected equipment. If volume level of the connected device is too high, sound distortion may occur. Should this happen, lower the volume of the connected device. If volume level is too low, increase the volume of the connected device.

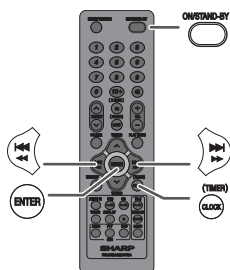
Note:

To prevent noise interference, place the unit away from the television.

■ Headphones

- Do not turn the volume on to full at switch on and listen to music at moderate levels. Excessive sound pressure from earphones and headphones can cause hearing loss.
- Before plugging in or unplugging the headphone, reduce the volume.
- Be sure your headphone has a 3.5 mm (1/8") diameter plug and impedance between 16 and 50 ohms. The recommended impedance is 32 ohms.
- Plugging in the headphone disconnects the speakers automatically. Adjust the volume using the VOLUME control.

Timer and sleep operation (Remote control only)



Timer playback:

The unit turns on and plays the desired source (CD, TUNER, USB, iPod, AUDIO IN) at a preset time.

This unit has 2 types of timer: ONCE TIMER and DAILY TIMER.

Once timer:

Once timer play works for one time only at a preset time. (“☺” indicator).

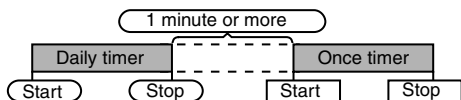
Daily timer:

Daily timer play works at the same preset time every day. For example, set the timer as a wake-up call every morning. (“DAILY” indicator).

Using the once timer and daily timer in combination:

For example, use the once timer to listen a radio programme, and use the daily timer to wake up.

- 1 Set the daily timer (pages 19 - 20).
- 2 Set the once timer (pages 19 - 20).



■ Timer playback

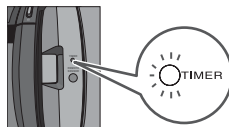
Before setting timer:

- Check that the clock is set to the correct time (refer to page 6). If it is not set, you cannot use the timer function.
- For timer playback: Plug in USB or load discs or dock iPod to be played.



- 1 Press the ON/STAND-BY button to turn the power on.
- 2 Press and hold the CLOCK/TIMER button.
- 3 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select “ONCE” or “DAILY”, and press the ENTER button.
- 4 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select “TIM.SET”, and press the ENTER button.
- 5 To select the timer playback source (CD, TUNER, USB, iPod, AUDIO IN), press the ◀◀◀ or ▶▶▶ button. Press the ENTER button.
When you select the tuner, select a station by pressing the ◀◀◀ or ▶▶▶ button, and then press the ENTER button. If a station has not been programmed, “NOPRESET” will be displayed and timer setting will be cancelled.

- 6 Press the ENTER button to adjust the hour. Press the ◀◀◀ or ▶▶▶ button and then press the ENTER button.
- 7 To adjust the minutes, press the ◀◀◀ or ▶▶▶ button and then press the ENTER button.
- 8 Set the time to finish as in steps 7 and 8 above.
- 9 Adjust the volume using the VOLUME control, and then press the ENTER button. Do not turn the volume up too high.
- 10 Press the ON/STAND-BY button to enter the power stand-by mode. The “TIMER” indicator lights up and the unit is ready for timer playback.



- 11 When the preset time is reached, playback will start. The volume will increase gradually until it reaches the preset volume. The timer indicator will blink during timer playback.
- 12 When the timer end time is reached, the system will enter the power stand-by mode automatically.
Once timer:
The timer will be cancelled.
Daily timer:
The timer operates at the same time every selected day. It will continue until the daily timer setting is cancelled. Cancel the daily timer when it is not in use.

Notes:

- When performing timer playback using another unit connected to the USB terminal or AUDIO IN socket, select “USB” or “AUDIO IN” in step 5. However, if the source is set to USB, make sure there is no iPod or iPhone docked to the unit.
- This unit will turn on or enter the power stand-by mode automatically. However, the connected unit will not turn on or off. To stop the timer playback, follow step “Cancelling the timer setting” of this page.

Checking the timer setting:

- 1 Turn the power on and press and hold down the CLOCK/TIMER button.
- 2 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select “ONCE” or “DAILY”, and press the ENTER button.
- 3 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select “TIM.CALL”, and press the ENTER button.

Cancelling the timer setting:

- 1 Turn the power on and press and hold down the CLOCK/TIMER button.
- 2 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select “ONCE” or “DAILY”, and press the ENTER button.
- 3 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select “TIM.OFF”, and press the ENTER button. Timer will be cancelled (the setting will not be cancelled).

Timer and sleep operation (Remote control only) (continued)

Reusing the memorised timer setting:

The timer setting will be memorised once it is entered. To reuse the same setting, perform the following operations.

- 1 Turn the power on and press and hold down the CLOCK/TIMER button.
- 2 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select "ONCE" or "DAILY", and press the ENTER button.
- 3 Within 10 seconds, press the ◀◀◀ or ▶▶▶ button to select "TIM.ON", and press the ENTER button.
- 4 Press the ON/STAND-BY button to enter the power stand-by mode.

Sleep operation

The radio, compact disc, iPod, USB, and Audio In function can all be turned off automatically.

- 1 Play back the desired sound source.
- 2 Press the SLEEP button.
- 3 Within 5 seconds, press the Numeric button to set the time. (1 minute ~ 99 minutes)
- 4 "SLEEP" will appear.
- 5 The unit will enter the power stand-by mode automatically after the preset time has elapsed. The volume will be turned down 1 minute before the sleep operation finishes.

To confirm the remaining sleep time:

- 1 Whilst "SLEEP" is indicated, press the SLEEP button.

To cancel the sleep operation:

Press the ON/STAND-BY button whilst "SLEEP" is indicated. To cancel the sleep operation without setting the unit to the stand-by mode, proceed as follows.

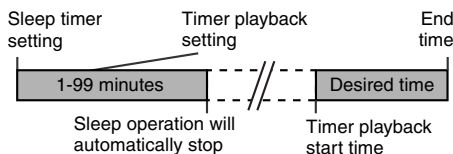
- 1 Whilst "SLEEP" is indicated, press the SLEEP button.
- 2 Within 5 seconds, press the "0" button twice until "SLEEP 00" appears.

To use timer and sleep operation together

Sleep and timer playback:

For example, you can fall asleep listening to the radio and wake up to CD in the next morning.

- 1 Set the sleep time (see above, steps 1 - 5).
- 2 Whilst the sleep timer is set, set the timer playback (steps 2 - 9, page 19).



Troubleshooting chart

Many potential problems can be resolved by the owner without calling a service technician.

If something is wrong with this product, check the following before calling your authorised SHARP dealer or service centre.

General

Symptom	Possible cause
● The clock is not set to the correct time.	● A power failure occurred. Reset the clock. (Refer page 6)
● When a button is pressed, the unit does not respond.	● Set the unit to the power stand-by mode and then turn it back on. ● If the unit still malfunctions, reset it. (Refer page 21)
● No sound is heard.	● The volume level is set to "MIN". ● The headphones are connected.
● Sound too low or distorted. ● Power suddenly shuts down.	● The batteries are depleted. Change the batteries.

CD player

Symptom	Possible cause
● Playback does not start. ● Playback stops in the middle or is not performed properly.	● The disc is loaded upside down. ● The disc does not satisfy the standards. ● The disc is distorted or scratched.
● Playback sounds are skipped, or stopped in the middle of a track.	● The unit is located near excessive vibrations. ● A very dirty disc has been used. ● Condensation has formed inside the unit. ● Volume level is too high. Adjust to lower volume.

Remote control

Symptom	Possible cause
● The remote control does not operate.	● The AC power lead of the unit is not plugged in. ● Wrong battery polarity. ● The batteries are exhausted. ● The distance or angle is incorrect. ● The remote control sensor receives strong light or sunlight.

Tuner

Symptom	Possible cause
● The radio makes unusual noises continuously.	● The unit is placed near the TV or computer. ● The FM aerial is not properly extended or positioned.

Troubleshooting chart (continued)

■ USB

Symptom	Possible cause
● Device cannot be detected.	<ul style="list-style-type: none"> ● There is no MP3/WMA file inside the device. ● The device is not properly connected. ● A MTP device is connected. ● The device contains AAC file only.
● Playback does not start.	● A copyright-protected WMA or false MP3 file is being played back.
<ul style="list-style-type: none"> ● Wrong time display. ● Wrong file name display. 	<ul style="list-style-type: none"> ● A Variable Bitrate files are being played back. ● The File Name was written in other than English characters.

■ iPod, iPhone or iPad

Symptom	Possible cause
<ul style="list-style-type: none"> ● No sound is produced. ● No image appears on the TV/monitor. 	<ul style="list-style-type: none"> ● The iPod, iPhone or iPad is not playing. ● The iPod, iPhone or iPad is not properly connected to the unit. ● The AC power lead of the unit is not plugged in. ● The video cable is not properly connected. ● The TV/monitor's input selection is not properly set. ● The iPod TV out feature has not been set to output video. ● USB terminal do not support video.
● iPod, iPhone or iPad will not charge.	<ul style="list-style-type: none"> ● The iPod, iPhone or iPad is not making full contact with the connector. ● Using iPod (3rd generation). ● The iPod or iPhone is not supported. Refer to page 7 for compatible models.
<ul style="list-style-type: none"> ● "This accessory is not made to work with iPhone" or "This accessory is not supported by iPhone" appears on iPhone screen. 	<ul style="list-style-type: none"> ● The iPhone battery is low. Please charge the iPhone. ● iPhone is not properly docked.

■ Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (CD pickup, etc.) or on the transmitter on the remote control. Condensation can cause the unit to malfunction. If this happens, leave the power on with no disc in the unit until normal playback is possible (about 1 hour). Wipe off any condensation on the transmitter with a soft cloth before operating the unit.

■ If problem occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:

- 1 Set the unit to the stand-by mode and turn the power on again.
- 2 If the unit is not restored in the previous operation, unplug and plug in the unit again, and then turn the power on.

Note:

If neither operation above restores the unit, clear all the memory by resetting it.

■ Factory reset, clearing all memory

- 1 Press the ON/STAND-BY button to enter the power stand-by mode.
- 2 Whilst pressing down the VOLUME + button, press the ON/STAND-BY button until "RESET" appears.



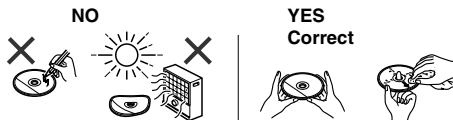
Caution:

This operation will erase all data stored in memory including clock, timer settings and tuner preset.

■ Care of compact discs

Compact discs are fairly resistant to damage, however mistracking can occur due to an accumulation of dirt on the disc surface. Follow the guidelines below for maximum enjoyment from your CD collection and player.

- Do not write on either side of the disc, particularly the non-label side from which signals are read. Do not mark this surface.
- Keep your discs away from direct sunlight, heat, and excessive moisture.
- Always hold the CDs by the edges. Fingerprints, dirt, or water on the CDs can cause noise or mistracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the centre, along the radius.



Maintenance

■ Cleaning the cabinet

Periodically wipe the cabinet with a soft cloth and a diluted soap solution, then with a dry cloth.

Caution:

- Do not use chemicals for cleaning (petrol, paint thinner, etc.). It may damage the cabinet.
- Do not apply oil to the inside of the unit. It may cause malfunctions.

Specifications

As part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

General

Power source	AC 110 - 240 V ~ 50/60 Hz 15 V === (UM/SUM-1, R20) x 10 DC IN 12 V === (for car use only)
Power consumption (AC power)	AC: Power on: 30 W Power stand-by: 0.4 W (*) DC 12 V: 4.5 A ◆◆◆
Dimensions	Width: 750 mm (29 - 1/2") Height: 275 mm (10 - 13/16") Depth: 280 mm (11 - 1/16")
Weight	7.6 kg (16.8 lbs.) (without batteries and accessories)

(*) This power consumption value is obtained when the demonstration mode is cancelled in the power stand-by mode. Refer to page 4 to cancel the demonstration mode.

Amplifier

Output power	PMPO: 1250 W Front speaker: MPO: 37 W (18.5 W + 18.5 W) RMS: 34 W (17 W + 17 W) (10% T.H.D.) RMS: 28 W (14 W + 14 W) (1% T.H.D.) Subwoofer: MPO: 78 W RMS: 66 W (10% T.H.D.) RMS: 38 W (1% T.H.D.)
Output terminals	Video output: 1 Vp-p Headphones: 16 Ω - 50 Ω (recommended: 32 Ω)
Input terminals	Audio In (audio signal): 500 mV/47 k ohms Mic Input: 200 Ω - 2 kΩ ∅ 6.3 mm Guitar: 100 kΩ - 1 MΩ ∅ 6.3 mm

CD player

Type	Single disc multi-play compact disc player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	Multi bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 dB (1 kHz)

USB (MP3 / WMA)

USB host interface	<ul style="list-style-type: none"> Complies with USB 1.1 (Full Speed)/2.0 Mass Storage Class. Support Bulk only and CBI protocol.
Support file	<ul style="list-style-type: none"> MPEG 1 Layer 3 WMA (Non DRM)
Bitrate support	<ul style="list-style-type: none"> MP3 (32 ~ 320 kbps) WMA (64 ~ 160 kbps)
Other	<ul style="list-style-type: none"> Maximum total number of MP3/WMA files is 65025. Maximum total number of folders is 999 INCLUSIVE of root directory. The ID3TAG information supported are TITLE, ARTIST and ALBUM only. Supports ID3TAG version 1 and version 2.
File system support	<ul style="list-style-type: none"> Support USB devices with Microsoft Windows/DOS/FAT 12/FAT 16/ FAT 32. 2 kbyte block length for sector.

Tuner

Frequency range	FM: 87.5 - 108 MHz
Preset	40 (FM station)

Speaker

Type	2-way type speaker system Front Speakers: 8 cm (3-1/8") - 3 Ω - Full Range Subwoofer: 13 cm (5- 1/8") - 6 Ω - Woofer (light-up)
Maximum input power	Front Speakers: 34W / Channel Subwoofer: 66W / Channel
Rated input power	Front Speakers: 17W / Channel Subwoofer: 33W / Channel