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## 1. Product Introduction

### 1.1. Overview

The QA860 HiFi lossless digital music player (hereinafter referred to as QA860) is a set of digital player, DAC, headphone amplifier in one cost-effective HiFi equipment . QLS-HiFi in its hot-selling products based on QA660 once again raise the level of the digital output, and spend more than two years developing DAC, amp circuit, a dozen times for the majority of the hardware revision and ultimately for the majority of audiophile launched a high price performance ratio HiFi products. It is an enthusiast digital player that can catch up with and even surpass most CD players, and its ultimate sound performance can play completely true potential of your system.

### 1.2. Storage Medium

SD Card: SD/SDHC/SDXC are all available, FAT32 file system, maximum storage is 128 GB SDXC.

**Note:** 1) If the SD card is used for the first time, please format it to the FAT32 file system with corresponding formatting tools.

2) The SD card along with player is usually formatted, and there are also some test tracks which can be used directly.

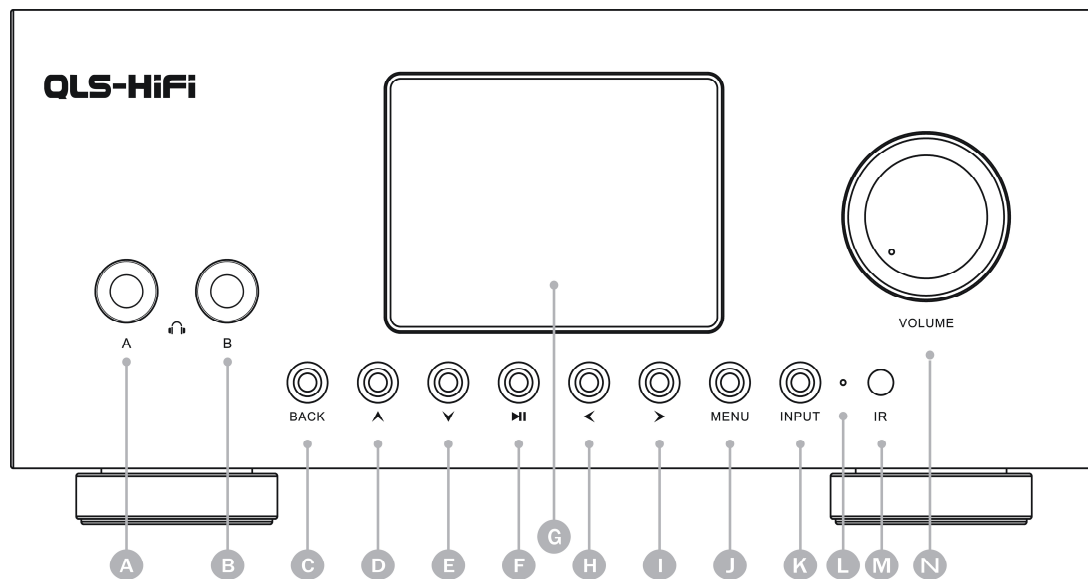
### 1.3. Audio Format

QA860 support the following audio formats:

- WAV : Support 16/24 bit, 44.1~192 KHz.
- AIFF : Support 16/24 bit, 44.1~192 KHz.
- FLAC : Support 16/24 bit, 44.1 KHz~48 KHz, compression level 0~8.
- APE : Support 16 bit, 44.1 KHz, compression level fast and normal.
- ALAC : Support 16 bit, 44.1 KHz.
- MP3 : Support 16 bit, 44.1/48 KHz, 96kbps~320kbps, CBR/VBR/ABR encoding.
- DIFF : Support DoP V1.0, DSD64, 1 bit, stereo.
- DSF : Support DoP V1.0, DSD64, 1 bit, stereo.
- SACD : Support SACD ISO file, support DoP V1.0, DSD64, 1 bit, stereo.
- CUE : Support ANSI/UNICODE/UTF-8 encoding.

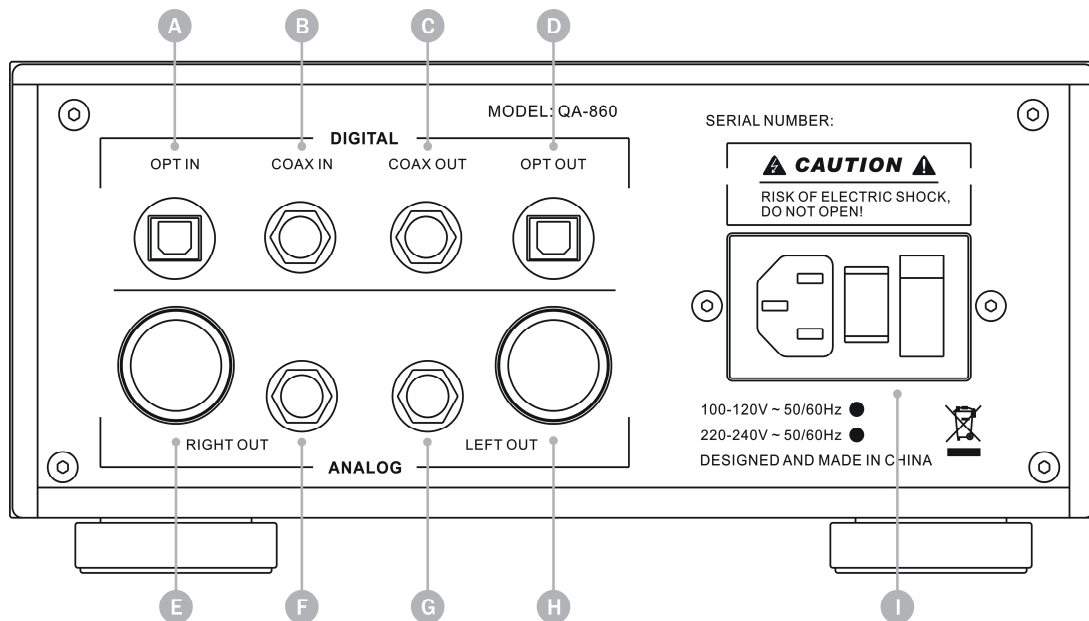
### 1.4. Functional Interface

#### 1.4.1. Front Panel



Interface	Functional Description
A	6.35 output headphone jack (Direct output, for big headphones)
B	6.35 output headphone jack (Increased resistance output, for small headphones)
C	Back key-switch to main/folder list/song list/CUE list/favorites list/play interface
D	Arrow key-cursor up/previous song
E	Arrow key-cursor down/next song
F	Enter/Play/Pause/Upgrade key
G	3.2-inch TFT display
H	Arrow key-page up/toggle fullscreen/fast backward
I	Arrow key-page down/toggle fullscreen/fast forward
J	Setting key
K	DAC input signal selection key
L	LED function indicator
M	Remote control transmitter signal receiver window
N	Headphone Amp volume control knob

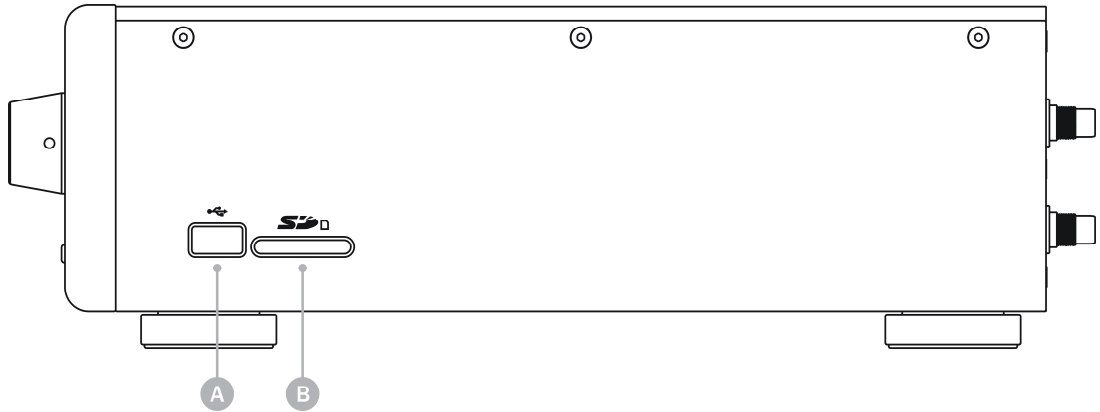
**1.4.2. Rear Panel**



Interface	Functional Description
A	Digital signal optical input port
B	Digital signal coaxial input port
C	Digital signal coaxial output port
D	Digital signal optical output port
E	Right channel balanced (XLR) output port
F	Right channel unbalanced (RCA) output port
G	Left channel unbalanced (RCA) output port
H	Left channel balanced (XLR) output port
I	110V/220V AC power input port (power switch, fuse)

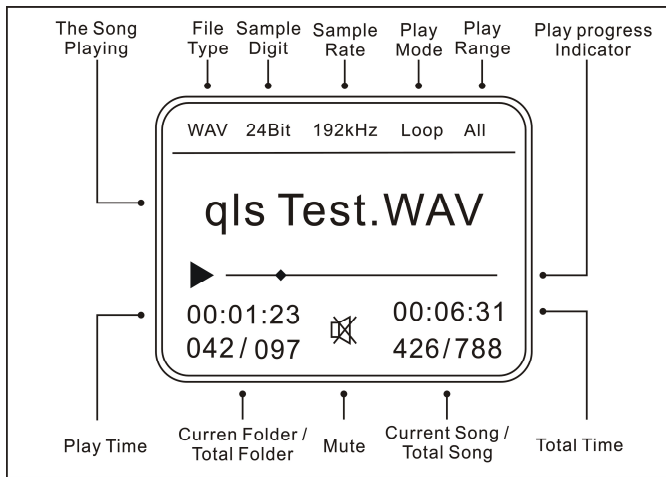
**Note:** In order to avoid misuse and damage to the machine, 110V/220V select switch is set inside the machine. If you need to change the input voltage, you only need to open the machine cover, the power panel selector switch is set to the appropriate voltage range can be.

**1.4.3. Right panel**



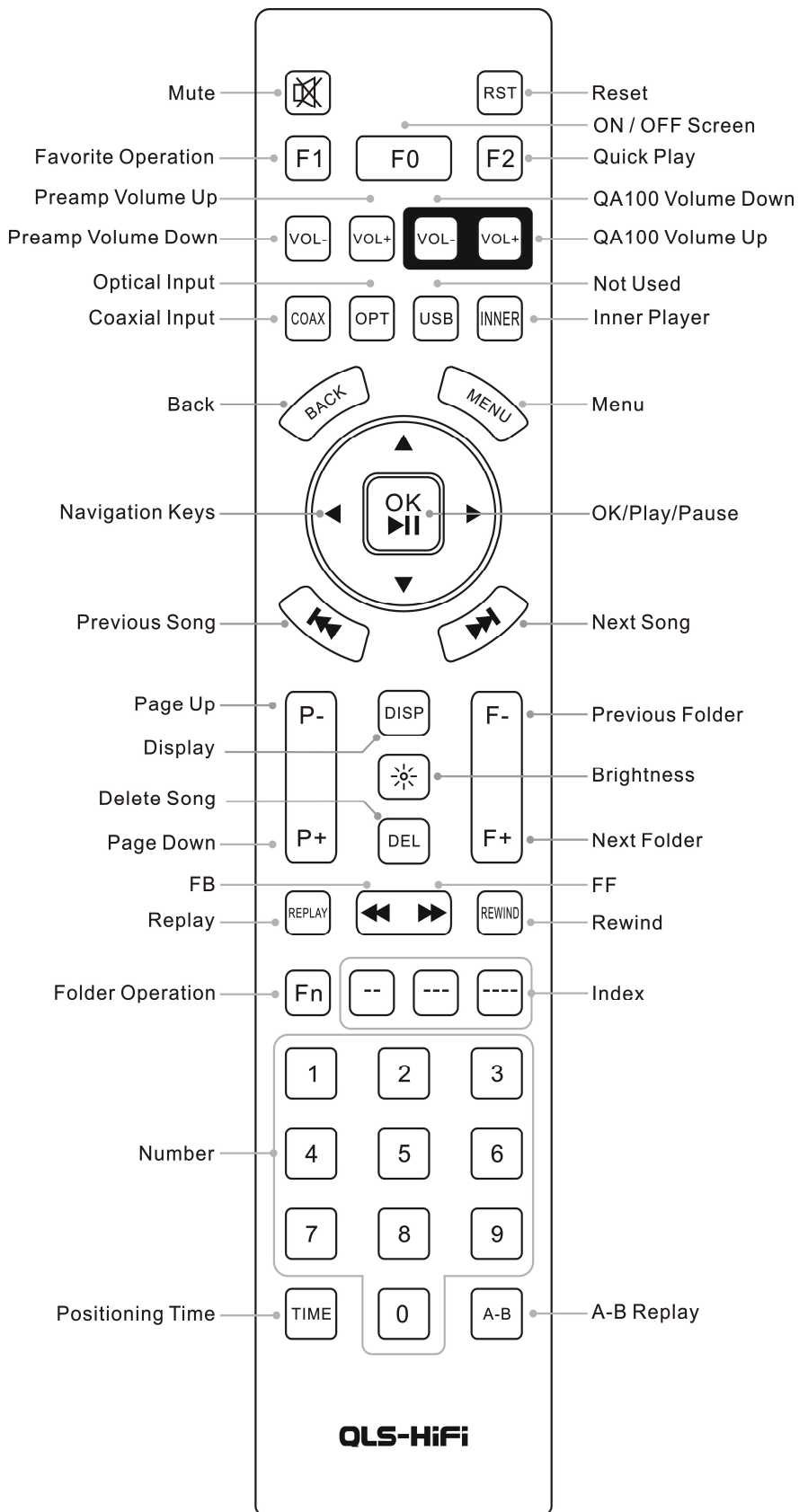
Interface	Functional Description
A	USB device input interface (reserved function)
B	SD card interface

**1.4.4. Display Screen**



**Note:** When the MP3 playback, the sample bit is displayed as the current bit rate of the MP3 file. When the DSD playback, the sample rate is shown as "DSD64", which means that the sample rate is 2.8224MHz.

1.4.5. Remote Control



## **2. Play Operation**

### **2.1. Starting Up**

Plug in the power cord, turn on the power supply, then you can start up.

### **2.2. Mute**

When you press the remote control to the upper left corner of the MUTE button, the player will enter silent mode and mute icon appears on the display, press it again to exit.

### **2.3. Back**

The player is divided into the main interface, folder list, song list, cue list, favorites list and play interface, use the BACK key to switch interfaces between them.

### **2.4. Play/Pause/Enter**

Press the PLAY/PAUSE/ENTER key on the front panel or remote control to start playing. Press again, it would be pause.

Select the track you needed from the song list, press the PLAY/PAUSE/ENTER key to start playing.

### **2.5. FB/FF**

Long press the LEFT/RIGHT keys on the front panel or the "◀/▶" keys on the remote control can fast backward or fast forward current track in the play interface.

### **2.6. Replay**

If you press the REPLAY key on the remote control, it would replay the current track regardless of the position it played to.

### **2.7. Rewind**

If you press the REWIND key on the remote control, it would replay the previous track. For example, the previous track is A.WAV, the current track is B.WAV, if you press the REWIND key, it would play A.WAV.

### **2.8. Page Up/Down**

Press the LEFT/RIGHT keys on the front panel or the P-/P+ keys on the remote control can quickly flip over in folder/track/cue/favorites list interface.

### **2.9. Previous/Next Folder**

In the folder/track/play interface, use the F-/F+ keys on the remote control can quickly switch to the previous/next folder (album).

### 2.10. Choose Track

You can choose what you want play track with the following methods:

By pressing the "◀" or "▶" keys to choose previous or next track.

Press the BACK key to return to song list, press up/down navigation keys to choose other tracks in the current folder (album); Press the BACK key again, you would return to folder (album) list, Press the UP/DOWN navigation keys to choose your folder (album), then, press the PAUSE/PLAY/ENTER key to enter this folder (album), press the UP/DOWN navigation keys to choose the track you want. After that, press the PAUSE/PLAY/ENTER key to start playing.

### 2.11. Seek Track

Press a digital key from 1 to 9, corresponding indexed tracks can be located directly.

Press the "\_\_\_"/"\_\_\_\_"/"\_\_\_\_\_" number index on remote control, and then input track number, to quickly seek track you want.

You can choose to search tracks within the folder or the whole card, depending on the play range of the track.

### 2.12. Seek Folder

"Fn" + numbers is use to located the folder, please press the "Fn" key on remote control, and then enter a number.

- Use "Fn" + number keys (1-9) to located corresponding indexed folders ranging from 1 to 9.
- Use "Fn" + "\_\_\_" keys to located corresponding indexed folders ranging from 1 to 99.
- Use "Fn" + "\_\_\_\_" keys to located corresponding indexed folders ranging from 1 to 999.

### 2.13. Delete Track

In the track list or play interface, select the track you need to remove, and then press the DEL key on the remote control to enter the deleting interface, select "Yes" to delete, select "No" to exit.

**Note:** Delete operation is physical deletion, deleted tracks are unrecoverable, please be caution.

### 2.14. Positioning Time

Press the TIME key on the remote control, enter the time you want to locate, then can jump directly to a specified point in time to play.

### 2.15. A-B Replay

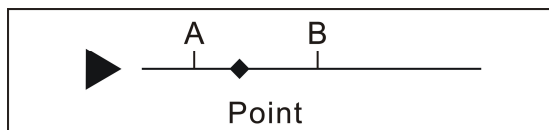
This function is used to replay a certain section of track repeatedly.

Press the "A-B" key on remote control, choose the starting point A, and when it reaches the end of the section, press the key again to choose final point B.

When point A and B are set, the section between A and B would be repeated again and again until you press the "A-B" key again.

The play progress indicators of point A and point B on display screen are marked with a tiny

vertical bar, shown as the following picture.



**Note:** Point A and B do not really exist on display screen, here are for explanation.

## 2.16. CUE Play Operation

Select the cue file to enter the cue list, and choose the cue index to play. It supports loop, random, play once and one cycle playing mode, but the play range is limited to the current cue list and displayed as "ALBUM" in player interface.

Note: CUE files and track files must be stored in the same file folder.

## 2.17. Favorites Play Operation

Favorites play operations are divided into adding and removing certain indexed tracks of the Favorites.

Enter the tracks list or play interface in SD card playback mode, press the custom function key F1 on the remote control or long press the front panel key PLAY/PAUSE 1 to 2 seconds, then release the key, when prompted "Add to favorites", select "Yes" to add the current track to favorites, select "No" to exit;

Enter the favorites list or play interface in Favorites playback mode, press the custom function key F1 on the remote control or long press the front panel key PLAY/PAUSE 1 to 2 seconds, then release the key, when prompted "Del from Favorites", select "Yes" to delete, select "No" to exit. (Delete operation only removes the tracks in the favorites, not physically deleting the tracks in the SD card).

Note: In favorites play operation, it also supports loop, random, play once, one cycle playback mode, but the playback range is limited within the current list of favorites and displayed as "FAVORITE" in play interface.

## 2.18. Full-screen

In player interface, press the LEFT/RIGHT keys on the front panel or the P-/P+ keys on remote control to switch to full-screen interface.

Note: Locating folders, locating tracks, positioning time and A-B truncated playback operation are not supported in full-screen.

## 3. Function Settings

### 3.1. Approaches Of Function Settings

Press the MENU key on the front panel or remote control to enter the SETTING menu interface. Press the UP/DOWN keys on the front panel or remote control to choose the function item you want to set.

Press the LEFT/RIGHT keys on the front panel or remote control to set the function parameter you want.

After setting, Press the MENU key on front panel or remote control to save and exit the SETTING Menu interface.

### 3.2. Play Mode

Play mode can be set as: LOOP, RANDOM, ONE, ONCE, INVERT.

### 3.3. Play Range

l ALL: All the tracks in SD card are effective files.

l FOLDER: Only the tracks in the current folder are effective, the selection of tracks is also limited within this folder.

**Note:** Please store one album tracks in one folder.

### 3.4. Memory Play/Auto Play

l AUTO : Memory playback, play the track automatically before power failure after startup.

l PAUSE: Boot into the player interface, waiting for the user to press Enter to start playing the song.

l OFF: Enter Folder List after startup, ready for next operation.

### 3.5. Language

The word stock adopts GBK encoding which can support more than 20,000 GB code, the languages available are as follows:

l Simplified Chinese

l Traditional Chinese

l English

### 3.6. Progress Indicator

The available progress indicators are as follows:

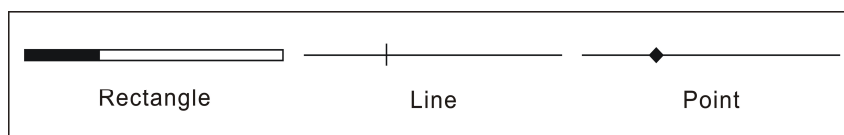
l Rectangle

l Line 01

l Line 02

l Point 01

l Point 02



**Note:** The difference between line 01 and line 02 is only in color, so as that in point 01 and point 02.

### 3.7. Cursor Color

The cursor colors available are as follows: RED, PINK, GREEN, BLUE, YELLOW, WHITE.

### 3.8. Main Color

The main colors available are as follows: RED, PINK, GREEN, BLUE, YELLOW, WHITE.

### 3.9. Font Size

The font sizes available are as follows:

- | 16 font.
- | 32 font.

### 3.10. Display Screen Brightness

The brightness of display screen can be set as: 50, 100, 150, 200, 250.

### 3.11. Key Speed Setting

The key speed mainly means the processing speed setting after long-pressing of key. It can be set as: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

### 3.12. Gap between tracks

Set the gap between the track and the track mute time:

Settable parameters: 0,500,1000,1500,2000 milliseconds.

### 3.13. Track Name Scroll

Set the long track name (refer to more than one screen display range) display scroll frequency:

Settable parameters: none, 1S, 2S, 3S, in units of seconds.

### 3.14. Full Screen Layout

Set Full Screen mode layout display:

- | T: Only displays the file name and playback time.
- | A/T: Displays the file name, album name and playback time

### 3.15. Signal Selection

- | INNER: Internal music player.
- | COAX: Select the external signal input coaxial interface.
- | OPT: Select the external signal input optical interface.

### 3.16. Preamp Function

- | ON: Preamp function turn on.
- | OFF: Preamp function turn off.

### 3.17. Preamp Volume

Set the preamp volume, adjustable from 0 to 100. If you set 0 is mute, set 100 is the maximum volume.

**Note:** Only open preamp function, you can adjust the preamp volume.

### 3.18. Automatic Off-screen

Set automatic off-screen time, without any operation within the set time will turn off the LCD display:

Can set the parameters as follows: no, 10S, 20S, 30S, in units of seconds.

**Note:** Turn off the display on the sound quality has certainly improved. Meanwhile, you can simply press the remote control F0 key to turn off the display, press again to wake up the screen.

### 3.19. System Info

This function is mainly used to check the current system information, such as:

l Product Name : QA860  
l Firmware Version : APP-V1.00  
l Firmware Date : 2013.XX.XX

## 4. DAC Function

QA860 can be used as a separate DAC used, there are three ways to choose a different audio input, support for left/right channel balanced outputs and unbalanced outputs. It supports preamp to facilitate users to connect high-powered speakers or no volume control pure power amp, you can open this function in the SETTING menu. Analog output volume can be adjusted using the remote control.

### 4.1. Select Signal Input

Internal digital music transport input.

External coaxial digital signal input.

External optical digital signal input.

### 4.2. Select Input Method

Through the SETTING menu selection, method reference 3.16.

Through the button on the remote control to directly select.

Through the front panel INPUT button to select.

### 4.3. Preamp Volume Adjustment

Through the SETTING menu adjusted by reference to 3.18.

Through the remote control keys F3 or F4 to adjust.

**Note:** Due to AD1955 chip design problems can only be fixed output level in the DSD mode, the prevamp volume control does not work. If the device has no volume control, please convert the DSD files into WAV file.

## **5. Upgrade Firmware**

Upgrade operation includes the upgrade of master control program, word stock, etc.

Copy the upgrade documents into SD card root directory through card reader.

Plug in the SD card which has upgrade documents, keep pressing the PLAY/PAUSE/ENTER key and turn on the power supply or reset the host machine, then you can enter the operation of upgrade mode.

Select the upgrade documents from the upgrade documents list, press the PLAY/PAUSE/ENTER key, and then the upgrade would get started. When it is finished, restart the power supply or reset the host machine, then the upgrade is completed.

For the latest upgrade document information and downloads, please visit our website (<http://en.qlshifi.com>)

**Note:**

## Appendix: Product Warranty Card

When the product has problems, please fill this form, tear it down and deliver it to us along with the product.

<b>Product Name</b>	QA860 Digital Player	<b>Serial Number</b>	
<b>Purchase Date</b>	(DD-MM-YY)		
<b>Name</b>		<b>Zip/Postal Code</b>	
<b>Phone No.</b>		<b>E-mail</b>	
<b>Shipping Address</b>			
<b>Feedback of Abnormal Situation</b>			
<b>Cause Analysis and Solution</b>	(This part should be filled by the manufacturer.)		
<b>Note</b>			

Shenzhen QLS Electronic Technology Co., Ltd (QLS-HiFi)

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