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1 Product Introduction

1.1 Overview

The QA-660 master-tape grade digital transport /player (hereinafter referred to as QA660) is a HI-END product produced for enthusiastic fans. Its software was developed for three years and its hardware was upgraded multiple times by QLS-HiFi. It is an enthusiast digital player that can catch up with and even surpass most CD players; its extremely perfect sound performance can completely show the real potential of your system. the complex power supply, most real-time software structure, ultra-low Jitter clock and digital processing circuit can ensure its HI-END grade ultra-low jitter digital output characteristic.

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.

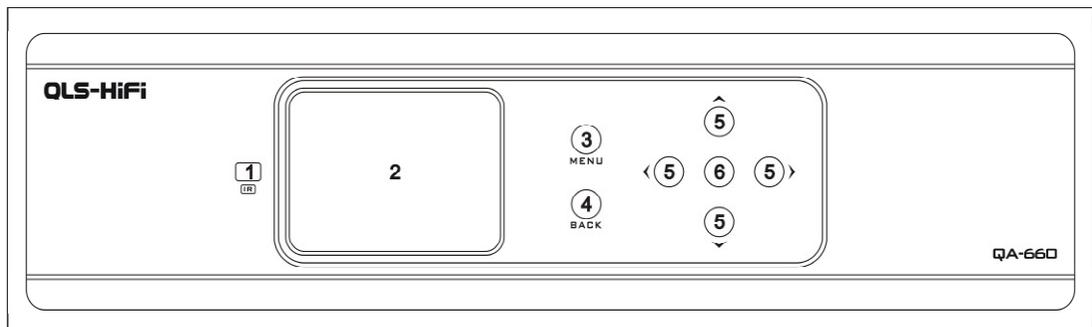
1.3 Audio Format

QA660 Support the following audio formats:

- WAV : Support 16/24bit, 44.1~192 kHz.
- FLAC : Support 16/24bit, 44.1 kHz~48 kHz, compression level 0~8.
- APE : Support 16 bit, 44.1 kHz, compression level fast and normal.
- WAVPack : Support 16 bit, 44.1 kHz, compression level fast mode and high quality.
- MP3 : Support 16bit, 44.1/48 kHz, 96k bps~320k bps, CBR/VBR/ABR encoding.
- CUE : Support ANSI / UNICODE / UTF-8 Encoding.

1.4 Functional Interface

1.4.1 Front Panel



1- Infrared Receive

3- Function-Setting Key (such as random play mode)

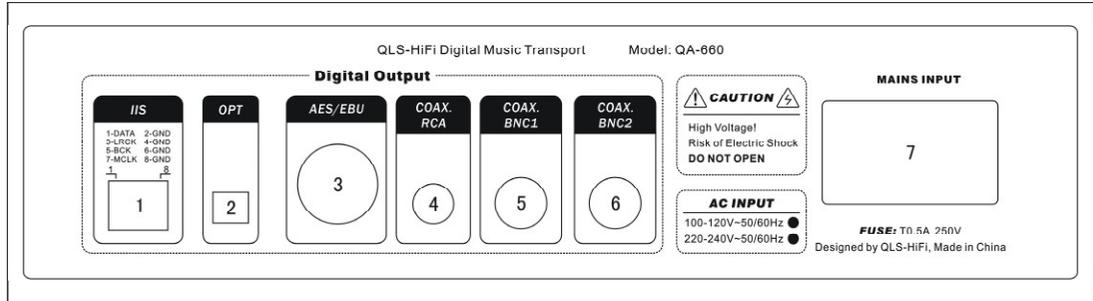
5- Navigation Keys (Up/Down/Left/Right)

2- OLED Display Area

4- Back Key

6- Play/Pause/Enter/Upgrade Key

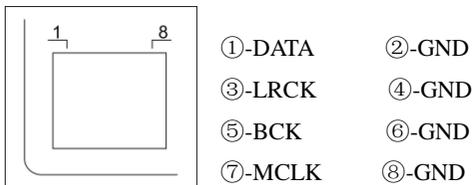
1.4.2 Rear Panel



- 1- IIS/I2S Digital Output.
- 2- Optical Digital Output.
- 3- EBU/AES Digital Output.
- 4- RCA Coaxial Digital Output.
- 5- BNC1 Coaxial Digital Output.
- 6- BNC2 Coaxial Digital Output (Current Mode Output).
- 7- Power Input Interface (Including fuse, Power switch).

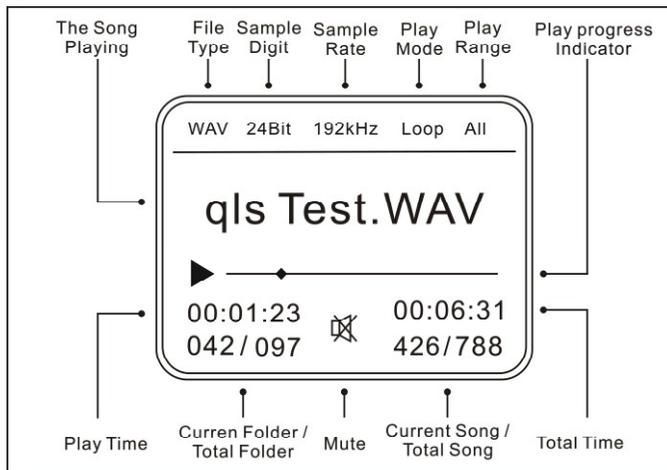
Note: BNC2 coaxial digital output belongs to current output mode; it needs 75 ohms resistance to ground from receiving end which can restore current into voltage signal. Therefore, maybe there are less than 10% DAC cannot lock signals normally due to the absence of such input resistance. If your equipment belongs to this type, you can choose the other two coaxial output. There are subtle differences among the three coaxial output in tones, you can choose the port you like after comparison.

1.4.3. IIS/I2S Interface

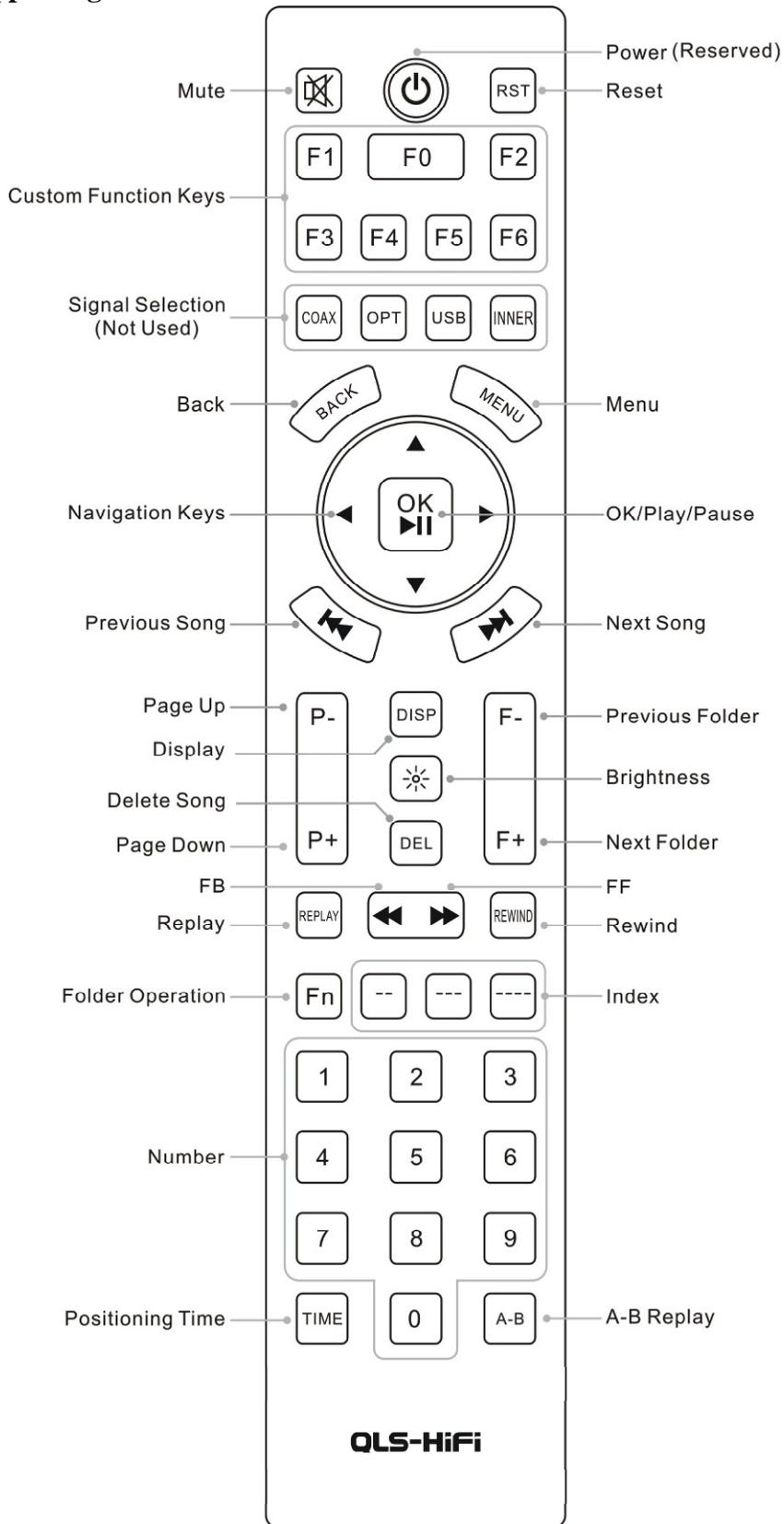


Note: When you homemade IIS cable, super 5 category twisted pair cable is recommended, every signal line should be twisted together with one GND. At the same time, we do not recommend the length of I2S line more than 50CM.

1.4.4 Display Screen



1.4.5 Supporting 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

Press the Mute key on the top left corner of remote control, then the player would enter mute mode, there is a mute icon on the display screen, If you press the Mute key once again, the host machine would exit Mute mode.

2.3 Back

Player is divided into the main interface, folder list, track 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 play track you needed from the track 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

Replay means 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 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 F-/F+ 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 your track with the following methods:

By pressing the “◀” or “▶” keys to choose previous or next track;

Press the Back key to return to track list, press Up/Down navigation key to choose other tracks in the current folder (Album); press the Back key again, you would return to folder (Album) list, press Up/Down navigation key to choose your folder (Album), then, press the Pause/Play/ Enter key to enter this folder (Album), press Up/Down navigation key 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 tracks 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

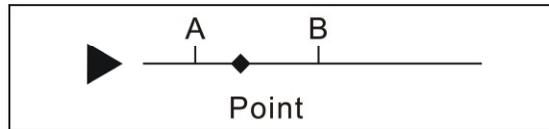
This function is used to replay a certain section of track repeatedly.

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 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 exit 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 support 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 track 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 remove the tracks in the favorites, not physically delete the tracks in the SD card).

Note: In favorites play operation, it also support loop, random, play once, one cycle playback mode, but the playback range is limited within current list of favorites and displayed as “Favorites” 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 Setup Menu interface.

Press the Up/Down key on the front panel or remote control to choose the function item you want to set.

Press the Left/Right key 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 Setup Menu interface.

3.2. Play Mode

Play mode can be set as:

Loop, Random, One cycle, Once.

3.3 Play Range

Play range can be set as:

All Card: all the tracks in SD card are effective files.

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

This function can be set as:

- I ON : Play the track automatically before power failure after startup.
- I OFF: Enter Folder List after startup, ready for next operation.

3.5 Language

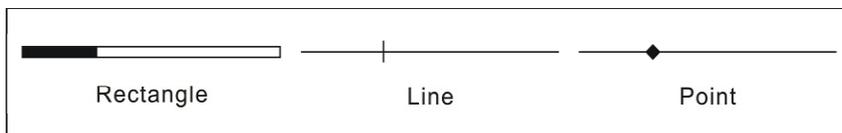
The word stock adopts GBK encoding which can support more than 20, 000 GB code, the languages available are as follows:

- I Simplified Chinese.
- I Traditional Chinese.
- I English.

3.6 Progress Indicator

The available progress indicators are as follows:

- I Rectangle.
- I Line 01.
- I Line 02.
- I Point 01.
- I 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 colors available are as follows:

- l Red, Pink, Green, Blue, Yellow, White.

3.8 Main Color

The colors available are as follows:

- l Red, Pink, Green, Blue, Yellow, White.

3.9 Font Size

The font sizes available are as follows:

- l 16 font.
- l 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 System Info

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

- l Product Name : QA660
- l Firmware Version : APP-V1.00
- l Firmware Date : 2012.8.20

4. 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 Pause/Play/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 Pause/Play/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://www.qlshifi.com>)

Note:

Appendix 1: Product Warranty Card

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

Product Name	QA660 Digital Player	Serial Number	
Purchase Date	(DD-MM-YY)		
Name		Zip/Postal Code	
Phone No.		E-mail	
Shipping Address			
Feedback of Abnormal Situation			
Cause Analysis and Solution	(This part should be filled by the manufacturer.)		
Note			

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

Address: Room A1502, NiuLanQian Building, Longhua, Shenzhen, Chian 518131

Contact: Chen Xue Qian (Clark)

Email: cxqmcu@cxqmcu.com