

## TECHNICAL SPECIFICATIONS

There are three ways to edit the songlist.txt as follows:

- 1) Simple Editing: You can use the notepad in the computer to edit the songlist.txt, and the edited files shall be saved in UNICODE format.
- 2) Recommended for use: You can use the songlist manager tool software (*/KTV\_SYS/Edit\_Songlist/SonglistManager.exe* in hard drive or CD disc) provided by the original manufacturer to edit the songlist.txt, and can perform such operations for songlist.txt as file creation/editing/sorting/searching/serial number replacement/SONGBOOK printout. Additionally, the powerful songlist check function makes it easy and convenient for you to check the songlist.txt.
- 3) You can use EXCEL software to edit and organize the information, and apply the function formulas and tips to create the required songlist.txt. There is a template available for use in */Software\_tools/Edit\_songlist/by\_EXCEL/* in CD disc.
  - It is recommended that you'd better use the SonglistManager.EXE to manage the songlist.txt (UNICODE).

### 5. Customize the MENU options by user:

During the operation of the karaoke player, sometimes users may find the UI menu screen not suitable to them. For example, users need the menu screen to display different languages or customize the UI menu options according to their requirements. Users can change the parameters of the KTMENUx.TXT file in */KTV\_SYS/* folder in the hard drive to customize the Menu options.

The unit has an UI interface which can be displayed in 12 preset languages. Users can use the [KTV SETUP] interface --> [General Option]--> [MENU Language] to select English /Chinese /Traditional Chinese/Spanish /Japanese/Korean/Russian /Thai/Vietnamese/Myanmar /Khmer as OSD language. The twelve configuration files corresponding to KTMENU1.ini~KTMENU12.ini are shown as follows:

e).

ENGLISH+ALL	KTMENU1. ini
CHINESE	KTMENU2. ini
CHINESE F	KTMENU3. ini
SPANISH	KTMENU4. ini
THAI	KTMENU5. ini
JAPANESE	KTMENU6. ini
KOREAN	KTMENU7. ini
VIETNAMESE	KTMENU8. ini
RUSSIAN	KTMENU9. ini
MYANMAR	KTMENUA. ini
KHMER	KTMENUB. ini
OTHER	KTMENUC. ini

Users can change any parameter in KTMENU.ini (UNICODE) configuration file according to their requirements. Take KTMENU1.ini as example: when you open KTMENU1.ini using the notepad in your computer, you will see:

```
begin
=====
[MAIN_OSD_LANGUAGE]=pic101;Language
[MAIN_OSD_SINGER]=pic102;Singer
[MAIN_OSD_POPCHART]=pic103;Ranking
[MAIN_OSD_ALBUM]=pic104;Album
[MAIN_OSD_SONGTYPE]=pic105;Song Type
[MAIN_OSD_SPELLING]=pic106;Full Search
[MAIN_OSD_FAVORITE]=pic107;Favorite
[MAIN_OSD_SELECTED]=pic108;Selected
[MAIN_OSD_USERSONG]=pic109;User Songs;15
[MAIN_OSD_KTVSETUP]=pic110;Setup
=====
[OSD_LANGUAGE]=pic201;ENGLISH;5
[OSD_LANGUAGE]=pic202;CHINESE;1
[OSD_LANGUAGE]=pic203;CANTONESE;2
[OSD_LANGUAGE]=pic204;TAIWANESE;3
[OSD_LANGUAGE]=pic205;VIETNAMESE;12
[OSD_LANGUAGE]=pic206;JAPANESE;6
[OSD_LANGUAGE]=pic207;KOREAN;11
[OSD_LANGUAGE]=pic208;THAI;7
[OSD_LANGUAGE]=pic209;SPANISH;4
[OSD_LANGUAGE]=pic210;RUSSIAN;8
[OSD_LANGUAGE]=pic211;INDONESIA;10
[OSD_LANGUAGE]=pic212;MALAY;14
[OSD_LANGUAGE]=pic213;KHMER;13

[OSD_TXT_33]=YES
[OSD_TXT_34]=BACK
[OSD_TXT_35]=REBOOT;
[OSD_TXT_36]=Please select source;
[OSD_TXT_37]=SOURCE FILE;
[OSD_TXT_38]=SONG NUMBER;
[OSD_TXT_39]=SKIP;
[OSD_TXT_40]=CANCEL;
[OSD_TXT_41]=NEXT;
[OSD_TXT_42]=YES ALL;
[OSD_TXT_43]=SONGS
[OSD_TXT_44]=SINGER
[OSD_TXT_45]=ALBUM
[OSD_TXT_46]=SELECTED SONGS
[OSD_TXT_47]=
[OSD_TXT_48]=
[OSD_TXT_49]=
[OSD_TXT_50]=
=====
[OSD_WELCOME_WORD]=Welcome to KTV
[OSD_ADVERTISE_WORD]=
[KTVUPDATE]= http://www.21av.com/singmate/lemonKTV/xxxx.apk
=====
[OSD_SPELLING_SHEET]=ABCDEFGHIJKLMNORSTUVWXYZ
=====
end
```

## TECHNICAL SPECIFICATIONS

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1) KTVMENU.ini is divided into two parts:

The one is used to define the UI menu options of the HDD karaoke player (various options are movable), and the second part is used to define UI menu options from the applications in the wireless mobile KTV client control.

2) On the right side of "=" are the parameters of the menu options.

For example: [MAIN\_OSD\_Option Name] is used to define the menu option;

[OSD\_LANGUAGE] is used to define the language option;

[OSD\_SONGTYPE] is used to define songtype option.

On the right side of "=" are the parameters of variable, user can modify them.

### ● Define main menu options:

[MAIN\_OSD\_Option Name] is used to define main menu options. The menu options will be displayed on the screen in this order. If users have changed this order, the menu options will be displayed on the screen in a different order. The definition rule is shown as follows:

[MAIN\_OSD\_Option Name] = Icon File Name; Menu Option Name; Item Code

\*Icon file is an image file named as ico\*\*\*.png which is located in /KTV\_SYS/ico/ folder.

### ● Define language menu options:

[OSD\_LANGUAGE] is used to define language menu options to ensure the words in multilingual languages are displayed on the same screen. These menu options will be displayed on the screen in this order. If users have changed this order or increased/decreased options (min. 1 option, max. 15 options), the menu options will be displayed on the screen in a different order. The definition rule is shown as follows:

[OSD\_LANGUAGE] = Icon Name; Song Language Name; Language code

\* Song "Language Item Code" consists of numbers from 1 to 15 and is used to define the code of 15 languages of songs. The system classifies the songs in songlist.txt by [Language item Code] field using this code, and displays the songs which are listed in different options classified by language. And the system can collect all songs from the songlist with the same parameter of [Language Code] based on the parameter of [OSD\_LANGUAGE] and then display them on the screen.

### ● Define singer menu options

[OSD\_OPTIONNAME\_SINGER] is used to define singer menu options. The menu options will be displayed on the screen in this order. The definition rule is shown as follows:

[OSD\_OPTIONNAME\_SINGER] = Icon Name; Singer Type; Type Code

\*Icon name is an image file named as ico\*\*\*.png in /KTV\_SYS/ico/ folder Singer "Type Code" consists of numbers from 1 to 3. The system classifies the songs in songlist.txt by [Singer classification] field using this code, and displays the singers which are listed in different types.

### ● Define song type options:

[OSD\_SONGTYPE] is used to define song type options to ensure the words in multilingual languages are displayed on the same screen. These menu options will be displayed on the screen in this order. If users have changed this order or increased/decreased options (min. 1 option, max. 15 options), the menu options will be displayed on the screen in a different order. The definition rule is shown as follows:

[OSD\_SONGTYPE] = Icon Name; Song Type Name; Type Code

\*Song "Type Code" consists of numbers from 1 to 15 and is used to define the code of 15 types of songs. The system classifies the songs in songlist.txt by [Song Type] field using this code, and displays the songs which are listed in different options classified by type.

● <OSD\_SPELLING\_SHEET> is used to define the initial letter, and the type code can be increased or decreased. The initial letter search interface is organized by the number of Chinese phonetic alphabets.

## TECHNICAL SPECIFICATIONS

- Add a new language to KTV menu and add a song to this option:

For example: A song name “ทำมาบ่ลง”, language is: THAI.

Users can edit /KTV\_SYS/ KTMENUx.ini configuration file.

Open KTMENUx.ini:

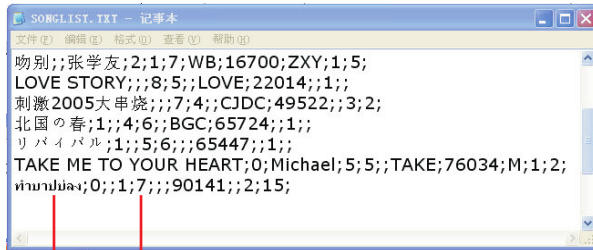
```
[OSD_LANGUAGE]=pic201;ENGLISH;5  
[OSD_LANGUAGE]=pic202;CHINESE;1  
[OSD_LANGUAGE]=pic203;CANTONESE;2  
[OSD_LANGUAGE]=pic204;TAIWANESE;3  
[OSD_LANGUAGE]=pic205;VIETNAMESE;12  
[OSD_LANGUAGE]=pic206;JAPANESE;6  
[OSD_LANGUAGE]=pic208;THAI;7
```

Language code. (You can define 1~15)

Language name

Language option

Open Songlist.txt:



```
SONGLIST.TXT - 记事本  
物别;;张学友;2;1;7;WB;16700;ZXY;1;5;  
LOVE STORY;;;8;5;;LOVE;22014;;1;;  
刺激2005大串烧;;;7;4;;CJDC;49522;;3;2;  
北国之春;1;4;6;;BGC;65724;;1;;  
リバイバル;1;;5;6;;;65447;;1;;  
TAKE ME TO YOUR HEART;0;Michael;5;5;;TAKE;76034;M;1;2;  
ทำมาบ่ลง;0;;1;7;;;90141;;2;15;
```

Fill number 7 in **Language Code** field of songlist.txt

Add song name information in Songlist.txt

The song “ทำมาบ่ลง” will be present in [Thai] option in KTV menu.

- Add a new songtype option to OSD menu and add a new song to this option:

For example: The song “MY BONNIE” is present as “CHILD Song” in the songtype option.

Users can edit /KTV\_SYS/ KTMENUx.ini configuration file.

Open KTMENUx.ini:

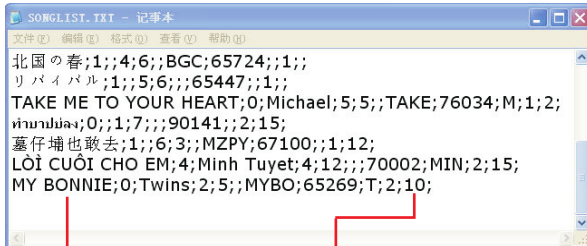
```
[OSD_SONGTYPE]=pic401;CH ORAL;1  
[OSD_SONGTYPE]=pic403;BIR THDAY;3  
[OSD_SONGTYPE]=pic404;LO VE SONGS;5  
[OSD_SONGTYPE]=pic406;BA LLAD;4  
[OSD_SONGTYPE]=pic407;FO LK SONGS;7  
[OSD_SONGTYPE]=pic405;CH ILD SONGS;10
```

SongType code. (You can define 1~15)

SongType name

Songtype option

Open Songlist.txt:



```
SONGLIST.TXT - 记事本  
北国之春;1;4;6;;BGC;65724;;1;;  
リバイバル;1;;5;6;;;65447;;1;;  
TAKE ME TO YOUR HEART;0;Michael;5;5;;TAKE;76034;M;1;2;  
ทำมาบ่ลง;0;;1;7;;;90141;;2;15;  
薑仔埔也敢去;1;;6;3;;MZPY;67100;;1;12;  
LOI CUOI CHO EM;4;Minh Tuyet;4;12;;;70002;MIN;2;15;  
MY BONNIE;0;Twins;2;5;;MYBO;65269;T;2;10;
```

Fill number 10 in **Songtype** field of songlist.txt

Add song name information in Songlist.txt

The song “MY BONNIE” will be present in [CHILD Song] option in KTV menu.

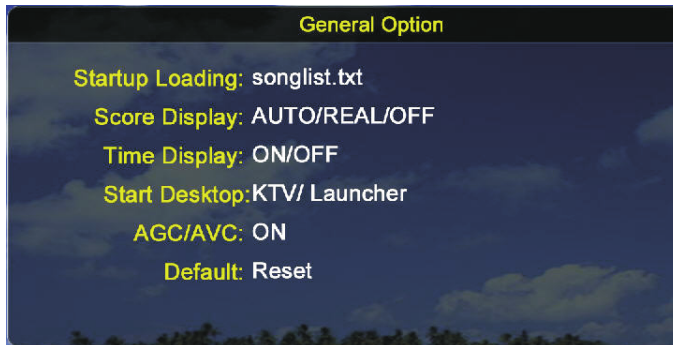
## SETUP OPTION OPERATION

### G. KTV SETUP :

In the KTV menu, you can select [KTV Setup] icon to enter the setup option.



#### 1. General Option :



**Startup loading :** Can choose to startup KTV system from different songlist files (songlist.txt, songlist1.txt, songlist2.txt, songlist3.txt).

**Score Display :**

"REAL" -----Enable real scoring function. When users sing a song by microphone, the real score will be displayed on the screen.

"AUTO" -----Enable automatic random scoring function. Whether or not users sing a song, a random score will be automatically displayed on the screen if the song is finished playing to enhance entertainment effects.

(Type I unit has not built-in MIC IN ECHO, so it can't receive signal through the built-in ECHO to display the real score. But if the microphone is connected with an amplifier, the MIC OUTPUT/AUDIO OUTPUT port on the rear panel of the amplifier can be connected with the SCORE port on the rear panel of the karaoke player to ensure the unit can display the real score.)

**Time Display :** Display the system operating time on the upper right corner of the screen.

**Start Desktop :** Set the initial operating mode after the unit is started: Select KTV options, then the unit will enter KTV interface once started. Select [Launcher] options, then the unit will enter launcher menu interface once started.

**AGC/AVC :** Set L/R audio output with auto volume level control **ON/OFF**

**Default :** Recover factory settings.

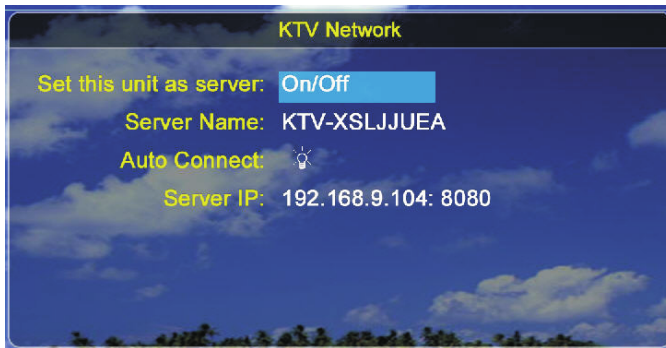
## SETUP OPTION OPERATION

### 2. Menu Language:

Switch the menu language between **English/Chinese /Cantonese /Spanish/Japanese /Korean/ Russian/Thai/Vietnamese/ Myanmar /Khmer,etc.**



### 3. KTV Network:



**Set this unit as server:** "ON"--set karaoke player as a network server.  
"OFF"--close KTV network server

This option is used to set the unit as the service terminal to facilitate the inter-connection of other devices where the client control terminal is installed (computer, mobile phone or other karaoke players) with the unit through network (Lan or WIFI). By operating the client control terminal, users can control the operation of the player. For example: If the wireless WIFI mobile KTV client applications have been installed in iphone/Android mobile phones as the client control terminal, it is necessary to set the unit's service terminal as **ON** to ensure the mobile phone applications are connected with the unit through WIFI network. Then after a song is selected through wireless WIFI mobile KTV client terminal, the unit will playback the song as per users' command. For more details, please refer to "Install and Operate iphone/Android Wireless WIFI Mobile KTV Client Application" in Page 19.

## SETUP OPTION OPERATION

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### 4. Playing Verify:

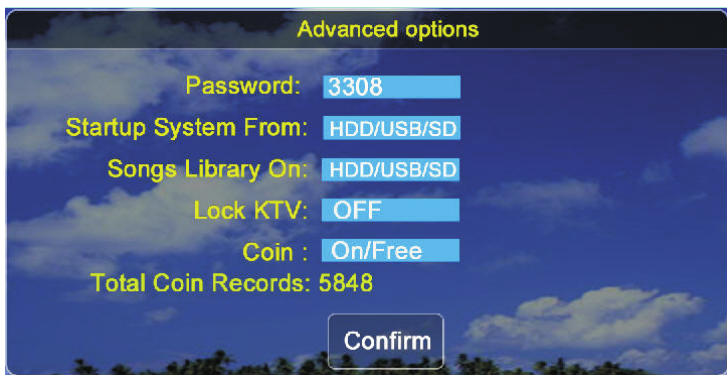
It is used to input the verify-code of encrypted songs so as to lock songs and the unit. For more details, please refer to Song Encryption Function in Page 18.

### 5. Cloud: *developping...*

### 6. Add Songs:

For more details, please refer to "How to add songs" in Page 17.

### 7. Advanced Options:



- **Password : 3308**

- **Startup System From :** Choose to enable the karaoke system through hard drive /USB/SD card.

- **Song Library On :** Select the location of the songs library.

- **Coin :** Enable/Disable INSERT-COIN Function

[ON] ---This port will be in the state of receiving the signal of inserting coin and can be connected with a coin selector. The coin selector gives a signal to indicate ready for inserting a coin, then the karaoke player will count the number of inserting coins.

The signal cable of the coin selector shall be connected to the coin port on the rear of the karaoke player. Additionally, a 12V power port is installed on the rear of the unit to provide power supply for the coin selector.

[FREE] --- This port will have output signals. When a song is playing, the port has low level output. When a song is stopped playing, the port has high level output. The port can be connected with the coin selector panel to output coin deduction signal.

[SERVICE] --- The service lamp port on the rear of the machine. When select "SERVICE" in setup menu, user can press the <SERVICE> button on remote, the port will export a 3V to illumine a lamp as call service in KTV room.

- **KTV Locked :** [ON]/[OFF] , will lock the karaoke system can't quit to desktop.

### 8. Upgrade:

Upgrade KTV app firmware online through internet when player connect to network (Lan or WIFI) .

### 9. Set Password:

Default super password: 3308

### H. HOW TO ADD SONGS:

#### 1. Add Songs from Computer:

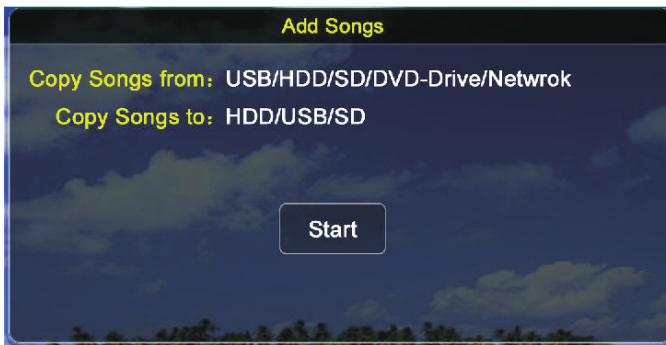
1) Plug the USB cable into the Mini USB interface on the rear of the karaoke player to connect computer.

2) Turn on the karaoke player to confirm the built-in hard drive of the player works normally.

Once the new device is identified by the computer, it means the hard drive of the player is regarded as a mobile hard drive. Now, you can add/modify/delete the song file in the hard drive of the player through the computer.

For example: Add a new song (Andy, MY BONNIE, a VOB file), with song number of 63006. Create a new folder named /63/ in the hard drive, copy the song file into it and name the file as 006.VOB. Now, you can use the remote control to input the number 63006 to select the song for playback. If you want to select this song through KTV menu, you can open songlist.txt with SonglistManager.EXE management tool, then add into it song name "MY BONNIE", singer-"Andy", Language code-5 (Means English), song number: 63006 and save this file as a new songlist.txt file. Copy the new songlist.txt file into the /KTV\_SYS/ folder. Till then, the operation of adding songs is completed.

#### 2. Add Songs from USB Device/SD Card/DVD/ VCD Disc directly:



1) Organize the new song file and songlist.txt in U Disk or USB Mobile Disk according to the stipulated rule.

For example: For /63/006.VOB and /KTV\_SYS/songlist.txt, they will overwrite the original songlist.txt in the hard drive.

2) Plug the U Disk into the HOST USB port on the rear of the unit and press <Start> key in this interface, then you will see the file in the U-disk is being copied to the hard drive of the unit, and the file copying progress will be displayed on the screen at the same time. Turn off the unit, then turn it on, you will see the operation of adding song is completed.

3) The method of adding songs from SD Card is the same as above.

4) Add a song from DVD/VCD disc: Follow the on-screen prompts to add the song file in DVD/VCD disc to the hard drive of the karaoke player by the input song serial number.

5) Other multimedia files (You can choose to change the song name or not, and the playback in Video player status is supported) can also be copied into the unit in the same way as above.

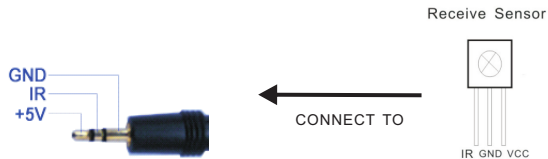
## ATTACHED EXPLANATION

### I. ADDITIONAL DESCRIPTION:

#### 1. Automatic Random Playback Function:

Press <Random Play> key on the remote control, then the karaoke player will automatically playback the MTV songs. Press <STOP> key to exit the random playback mode.

#### 2. The Way to Connect External IR Remote Control Receiver (Infra-red):



The external IR port can be connected with the remote control receiver module using the extended line, and can also be connected with the simulator remote control keyboard.

#### 3. How to Print Songbook:

Load the Songlist.txt using `/Software_tools/Edit_songlist/SonglistManager.EXE` software tool, then press <Print SONGBOOK TO Excel file> key to create a SONG-BOOK.XLS file. Then open this file using Windows EXCEL, organize the file according to your needs, and finally print it out as SONGBOOK.

#### 4. Encryption Function

##### 1) Songlist.txt Encryption :

Load the Songlist.txt file using `/KTV_SYS/SonglistManager.EXE` software, then select <Save As> key to save the file as a songlist.IDK(Encrypted) file to replace the original Songlist.txt file in the unit.

##### 2) Song Files Encryption:

Use the encryption software tool in `/Software_tools/Encrypt_songs/` folder of CD disc provided by the original manufacturer to open the song file that needs to be encrypted. For example: load a `***.VOB` file, input [Verify Code] (any eight numbers, such as 12345678), encrypt the song file and create a new file (`***.~OB`), then copy the new file into the karaoke player to replace the original song file.

[Password: 3308]

Turn on the karaoke player, follow [SETUP KTV]-->[Playing Verify]-->[VERIFY CODE] options in the setup menu to input the verify code that is filled when the song file is encrypted (for example, 12345678), then exit the setup menu. Then the karaoke player will playback the encrypted song file. The encrypted song file can only be played back by the karaoke player with the reserved code which is consistent with the verify code. Users shall keep the verify code in confidential to avoid songs being used without authorization.

Note: If users have forgotten or wrongly modified the verify code in the karaoke player containing the encrypted songs library, and the songs library vendor may not provide the verify code directly, please follow [SETUP KTV]-->[Playing Verify]-->[RECOVER] options in the setup menu, can recover the reserved correct verify code. But if a karaoke player never use the encrypted songs library with authorization, then can not recover any correct verify code. Will display "Verify code invalid! songs library without authorization." on screen.





**5. Display Speech of Welcome/Advertising Slogans:**

Edit /KTV\_SYS/KTVMENUx.TXT, and type the speech of welcome on the right of “[OSD\_WELCOME\_WORD]=”.

For example:

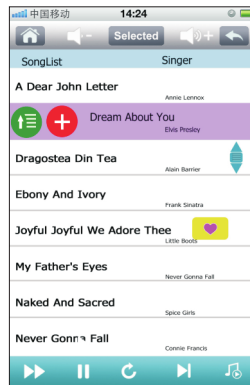
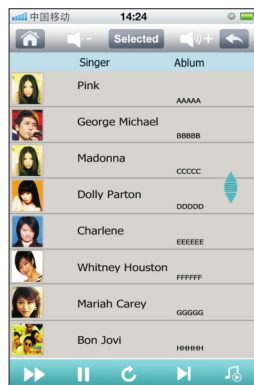
[OSD\_WELCOME\_WORD]= Welcome to KTV

Then “Welcome to KTV” will be displayed with scroll bars in the status bar on the screen.

**J. INSTALL AND OPERATE WIRELESS AIR KTV CLIENT APPLICATION IN IPHONE/ANDROID MOBILE PHONE**

Wireless Karaoke System for iPhone/Android phone :

Users can install our lemon air KTV client applications in their iphone/android phones which can be connected with the karaoke player through WIFI network to ensure the mobile phones act as a wireless KTV client control to directly select songs through the mobile phone.



# WIRELESS AIR KTV CLIENT

## Installation client app step by step:

### 1: Set karaoke player as a network sever,

- \* Confirm there is a WiFi network router in your home.
- \* Startup the karaoke player to work normally.
- \* Select [**Android**] icon -->[**Settings**]-->[**WiFi**]-->[**On**], setup the unit connect to WIFI/Lan network. (Page 21)
- \*. Press <**Home**> button, come back launcher interface, select [**Karaoke**] icon runing KTV system.
- \* Enter [**Setup KTV**] menu to [**KTV NETWORK**] option, set the karaoke player as a server. (Page 15)

### 2: Download/Install client app in mobile phone,

- \* For iPhone users, they can download "Lemon KTV" app from apple store to install client in their iPhones, or scan the QR code of right side to do.



- \* For Android mobile phone users, they can install the /android apps/lemonKTV\_client.apk (accompanied with the system DVD disc) to their android phones, or download "lemon KTV" app from Google Play Store to install, or scan the QR code of right side to do.



\* When users place the mobile phones and the karaoke player in the same LAN (Wifi) network and enable the client terminal **lemonKTV** in mobile phone, Go into [**Setup**] search and connect with KTV Network Server(karaoke player) or input the IP address of server, Then go to [**Update Data**] update the MENU/songlist/Singer Photo data from Karaoke player, login... the mobile phones will act as a wireless Air KTV client control easy to operate.

### Select songs via WiFi with iphone/android mobile phone



## K. ANDROID BOX APPLICATIONS

### 1. Function Description:

This system is an intelligent computerized KTV box built based on Android 4.0 operating system. It not only can act as a professional karaoke system, but also can enter the following function modules from the start-up interface (Launcher) :

(1). Network Browser Function:

In the launcher interface, users can click on [**Internet**] icon to surf the internet after connecting the karaoke player to Internet. For more setup details, please refer to the user manual for internet setup. For convenient use, users can also plug USB keyboard and mouse to the unit, or press <MOUSE> ON/OFF key on the remote control to simulate the remote control as a mouse.

(2). Video Playback Function:

In the launcher interface, users can click on [**Video Player**] icon to display on the screen the directory of files saved in the hard drive/DVD/U disk/SD card. Then users can playback the HD movies, video clips and other various formats of multimedia files in the hard drive, DVD-ROM, U disk or SD card using the remote control.

(3). Photo Viewer Function

In the launcher interface, users can click on [**Photo**] icon to display on the screen the directory of files saved in the hard drive/U disk/SD card. Then users can view and enjoy the HD photos, pictures and other appropriate files in the hard drive, U disk or SD card using the remote control.

(4). Music Playback Function:

In the launcher interface, users can click on [Music] icon to display on the screen the directory of files saved in the hard drive/U disk/SD card. Then users can enjoy the music files in the hard drive, U disk or SD card using the remote control.

(5). Android Applications:

In the launcher interface, users can click on [**Android**] icon to display Android desktop on the screen. Then users can install and use various applications to bring into full play the potential of the intelligent system.

### 2. Android System Setup:

In Android desktop, press <SETUP> key on the remote control to enter the [**Settings**] menu:

(1) . **Network Setup**: It is used to set the device to allow it to be connected to WiFi and LAN.

(2) . **Date/Time**: It is used to set time zone.

(3) . **Simulate Mouse Using Remote Control**:

Turn **ON** <MOUSE> key on the remote control, and press the direction keys on

(4) Select[**Android**]--->[**settings**]--->[**display**]-->[**output**]-->1080P )

*Note: if your TV can't support 1080P, screen will can't display, you can press [title] button on remote control will reset video to 720P .*

## ANDROID SYSTEM SETUP

the remote control, then the mouse arrow will be displayed on the screen. Then press the direction keys to move the mouse arrow. Press <ENTER> key or [L] key to simulate the left key of the mouse. Press [R] key to simulate the right key of the mouse.

Turn off the MOUSE by pressing <MOUSE> key again to disable the mouse event simulation and return to the normal operating status of the remote control.

(4) . **Desktop Wallpaper Setup:** Users can select different photos as the wallpaper of Launcher interface. (Use **Gallery** app to do)

### 3. Install and use various Android applications, games and peripherals.

- Users can click on Android icon in Launcher interface to enter Android desktop where they can install, update and uninstall various applications by themselves. The system has preinstalled some common applications for your use, such as Google Play, Google Search, Google Map, Google Earth, Google Play Movies & TV, PPTV, YouTube, Facebook, Dropbox, Twitter, BBC news, News Online USA, Online Newspaper US, QQ chat tools, Micro-message, Skype, Plants vs. Zombies, Angry Birds Rio, Bubble Shooter, Vietnamese IME etc.

*Note: Please uninstall the old application before installing the new version.*

- This unit operates on the Android system, so users can configure the following peripherals by themselves:  
USB keyboard/Mouse, wireless mouse, Bluetooth, Camera, 3G adapter, USB microphone.



**L. TECHNOLOGICAL LIMITATIONS:**

- **CPU:** ARM A9 800MHz
- **Memory :** 1G DDR3
- **Operating system:** Android 4. 04
- Select songs by KTV menu, over 100,000 songs records in the songlist.txt .
- **Huge HDD:** Hard drive support maximum 2TB capacity with FAT32/NTFS format. and support over 3TB max 16TB capacity with GPT format with windows 7/Vista.
- **HDMI&YPbPr** video max. resolution is 1080P (1920\*1080)
- **CVBS** Video max. resolution :720\*576.
- **Power Supply:**AC 90~240V, 50/60hz.
- **Weight:** 4.5kg

**FCC STATEMENT:**

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference.
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**FCC Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.