KARAOKE PROFESSIONAL DIGITAL AUDIO PROCESSOR

# OWNER'S MANUAL

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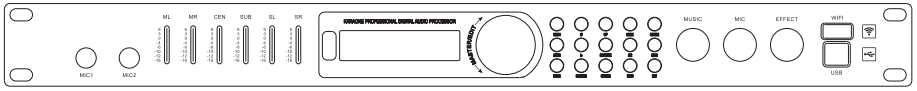


- The information in this manual has been carefully checked and made accurate. If there is any error in printing errors, the Company will not bear the consequences.
- Purchase to physical specifications prevail, schematic diagram for the image of the schematic, for reference only. The Company reserves the right of final interpretation of the contents of this information.
- The company is constantly committed to improving product quality and performance, product technology and design as updated, without notice.

**PROFESSIONAL**

**Professional karaoke OK sound manufacturers**

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## 4. Electrical characteristics

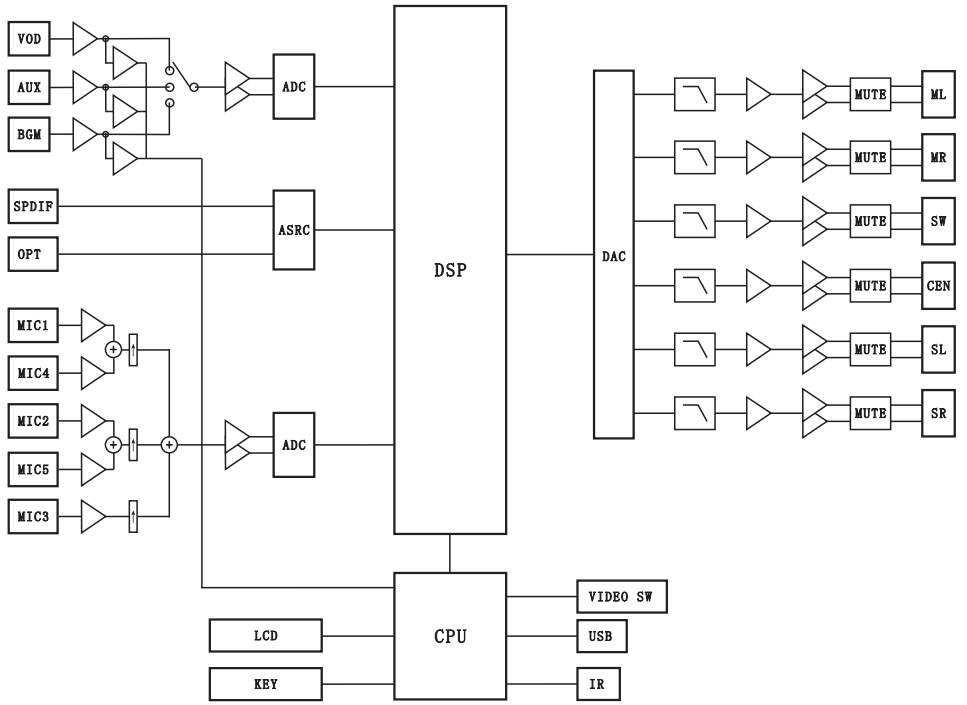
### 4.1 Microphone path part (frequency range 20Hz ~ 20KHz)

Maximum input level: -15.0dBV
Maximum output level: + 14.5dBu
SNR:> 95dB (close effect, EQ, delay, compression limit, etc., MIC channel volume is the largest)
Frequency response: +/- 1 dB 20Hz ~ 20kHz

### 4.2 Music channel part (frequency range 20Hz ~ 20KHz)

Maximum input level: + 12dBV
Maximum output level: + 14.5dBu
Signal to noise ratio (SNR):> 100dB (closed EQ, delay, compression limit, etc., MUSIC channel maximum volume)
Frequency response: +/- 1dB 20Hz ~ 20kHz

### 4.3 Hardware schematic block diagram



## 3.9 System functions（Menu）

1.Call user parameters（LOAD MODE）

| |
|---|
| LOAD MODEU1<br>MODE1 |

The left shows the current user parameter mode U1;
Press the edit key to enter the right, U0? Indicates that the user parameter mode is selected and selected;
Finally press the edit key to confirm the implementation call.

2.Store user parameter (SAVE MODE) (only available in ADMIN mode)

| |
|---|
| SAVE MODEU1<br>MODE1 |

The left shows the current user parameter mode U1;
Press the edit key to enter the right, U0? Indicates that the user parameter mode is selected and selected;
Finally press the edit key to confirm the implementation of storage.

3.Automatic lock key switch（AUTO LOCK KEY）

ON is on and OFF is off

4.Change the auto lock key password（LOCK KEY PSW）

| | |
|---|---|
| LOCK KEY PSW<br>OLD PSW:---- | LOCK KEY PSW<br>NEW PSW:---- |

Press the edit key to enter, enter the system password is correct, enter the old password, the initial password is 1111, press the edit key to confirm, and then re-enter 4 new password, press the edit key to confirm.
Numeric keys are used to read the note key.

5.System management mode（SYSTEM CTRL MODE）

| | |
|---|---|
| SYSTEM CTRL MODE<br>USER | SYSTEM PSW<br>---- |

Press the edit key to enter, enter the system password is correct, then select BASIC basic / USER user / ADMIN manager, press the edit key to confirm.
Numeric keys are used to read the note key.

System mode description: ADMIN administrator for the advanced mode, you can browse the editing and storage; USER user for the intermediate mode, you can browse the editor but not
Storage; BASIC basic mode for the low-level mode, can only adjust the music master volume, the microphone master volume, the effect of the main volume, music tone, microphone
Feedback suppression of the most basic functions.

6.Change the automatic system password（SYSTEM PSW）

| | |
|---|---|
| LOCK KEY PSW<br>OLD PSW:---- | LOCK KEY PSW<br>NEW PSW:---- |

Press the edit key to enter, enter the old system password is correct, the initial password is 123456, press the edit key to confirm, and then re-enter the 6 new password, press the edit key to confirm.
Numeric keys are used to read the note key.

※Numeric key Note:Up–1，Music–2, Main/Sur–3，Cen/Sub–4，Exit–5，Dn–6，Mic–7，Reverb–8，Effect–9，Menu–0。

7.Mix mode（MIXER MODE）

SIMPLE is in simple mode, ADVANCE is advanced mode.
Simple mode continues the traditional pre-effect mode of operation, the basic link is about linkage.
Advanced mode will be given to each channel parameters of professional users, so that users can arbitrarily achieve different requirements, more convenient to achieve the sound
Frequency processor function.
In the simple mode of operation, all the left and right parameters are executed and the operation of the left parameter; when moving from the simple mode to the advanced mode, will the user choose whether or not
The left of the parameters to copy to the right, select YES is the copy, select the NO is to maintain the original right parameters, and not because of simple mode of operation and change.

8.Subwoofer dance mode（SUB DANCE MODE）

OFF is in off mode, AUTO is in automatic mode, MANUAL is in manual mode.

9.Subwoofer dance triggers the threshold（SUB MIC GATE）
Range: -60 ~ 0db; In automatic mode, when the microphone signal level is higher than the trigger threshold, the subwoofer into the singing mode.

10.Subwoofer Dance Duration（SUB MIC TIME）
Range: 1 ~ 30S; In auto mode, when the microphone's signal level is below the trigger threshold and remains at the set time, the subwoofer changes from the singing mode to the dance mode.

11.Music initial volume（MUSIC INI VOL）
Range: 0 ~ 84.
12.Maximum volume of music（MUSIC MAX VOL）
Range: 0 ~ 84.
13.Microphone initial volume（MIC INI VOL）
Range: 0 ~ 84.
14.The maximum volume of the microphone（MIC MAX VOL）
Range: 0 ~ 84.
15.Effect initial volume（EFFECT INI VOL）
Range: 0 ~ 99.
16.Effect maximum volume（EFFECT MAX VOL）
Range: 0 ~ 99.



# 1. Introduction

## 1.1 Features

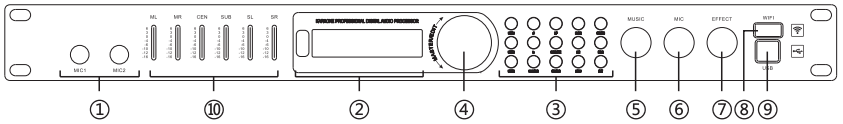
1. Using 32-bit high-performance DSP and AD / DA, 24-bit, 48K sampling pure digital professional KTV front effects.
2. Unique microphone feedback fake algorithm, there are 4 levels of intensity adjustable.
3. professional singing echo effect.
4. Variety of optional reverb effect, there are hall / room / board room three types, to meet different requirements.
5. Microphone actuators make singing easy.
6. With audio processor function, with ultra-fine delay adjustment.
7. Fiber and coaxial audio digital input interface, get a more perfect source.
8. Music tone function, at any time to meet the requirements of different singers; instant and automatic subwoofer to strengthen the dance mode.
9. Convenient two kinds of mixing mode, one for the simple mode for the traditional KTV function, the other for the advanced mode for audio processor function.
10. Enhanced switch mute function, no longer for the switch machine noise and damage the speaker and worry.

## 1.2 Product Features

1. 4-group microphone input, microphone high-pass filter and low-pass filter with dual microphone input, MIC A and MIC B, dual independent 15-segment parametric equalization.
2. Stereo analog music input, 15-segment parametric equalization, high-pass filter and low-pass filter.
3. 3 groups of audio and video automatically priority input, background music BGM function.
4. 6 independent channel output, each channel can be independent of the mix, high and low frequency divider, the main output and surround the 7-segment parametric equalization, the home 7 and ultra low
Tone 5 segment parameter balance, delay, pressure limit, polarity change, volume adjustment, mute.
5. Manager, user and primary mode, password management; password key lock function.
6. Has 10 groups of user parameters stored and called.
7. VOD VOD control interface, wireless infrared remote control and wire control function.
8. WIFI wireless connection (optional), free drive USB interface, real-time through the PC software to control all parameters.

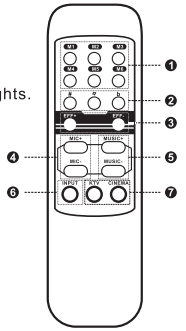
# 2.Quick entry

## 2.1 Front panel instructions



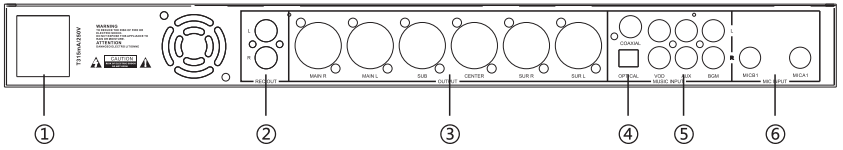

1.2 way microphone input jack.
2.16 × 2 character LCD display for displaying information of various parameters; infrared remote control receiving window.
3. Function button area
USER1: Mode 1
USER2: Mode 2
USER3: Mode 3
#:Rising tone
b: downgrade
MAIN/SUR: Main output function menu button / surround output function menu button
UP: Upward key
DOWN/FBE: Downshift key/microphone feedback suppression setting shortcut
CEN/SUB: Center output function menu button / subwoofer output function menu button
MUSIC: Music function menu button
MIC: Microphone function menu button
MENU: System function menu button
REVERB: Microphone reverb function menu button
ECHO: Microphone echo function menu button
EXIT: Exit button
4. MASTER/EDIT: main control / editing with button knob
5. MUSIC: Music volume
6. MIC: microphone volume
7. EFFECT: The microphone effect volume.
8. WIFI: WIFI expansion interface.
9. USB: USB communication control interface.
10. ML, MR, CEN, SUB, SL, SR: LED balanced display lights.

## Remote control Description:




| | | |
|---|---|---|
| ❶ | M1~M6 | Mode selection key |
| ❷ | # ♮ b | Music up and down tone |
| ❸ | EFF+ EFF- | Effect volume adjustment |
| ❹ | MIC+ MIC- | Microphone volume adjustment |
| ❺ | MUSIC+ MUSIC- | Music volume adjustment |
| ❻ | INPUT | Signal input selection key |
| ❼ | KTV CINEMA | The machine is useless |

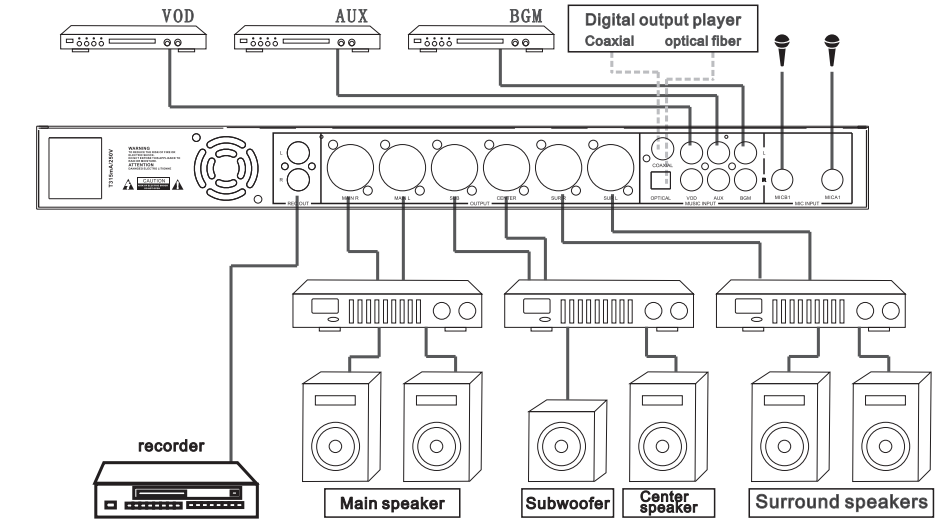
## 2.2 Rear panel instructions

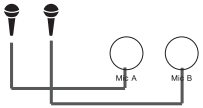



1. Power supply socket and fuse (size 220VAC / 50Hz, F2AL / 250VAC)
2. Recording output interface, easy to connect other equipment.
3. 6-channel audio output interface (MAIN L / R, CENTER, SUB, SUR L / R)
4. Optical fiber and coaxial digital audio input interface (OPTICAL, COAXIAL)
5. 3-channel stereo audio input interface (VOD, AUX, BGM)
6. 2-way microphone balanced input jack (MIC A1 / MIC B1)

## 2.3 Connection method

1. Before connecting, make sure to turn off the front effect and all power amplifier power. Connect the front effects and related equipment. Make sure that the connection is in good condition.




1. Turn on the relevant player and start playback.
2. Turn all the power amplifiers to a minimum, then turn on the front power and turn on the power amplifier.
3. Slowly adjust the volume of the power amplifier until you are satisfied.
4. Start the commissioning system with PC software or key press.



## 3.7Center output function (Cen)

1.Center output volume（CEN VOL）
Polarity: +/-; Range: off ~ 12dB.
2.Center output mute（CEN MUTE）
ON is on and OFF is off.
3.Music to center output mix ratio（MUSIC TO CEN）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent sound source around, respectively, adjust the parameters. (L: +/- XX% R: +/- XX%)
4.The microphone is up to the center of the output mix ratio（MIC DIR TO CEN）
Polarity: +/-; Range: 0 ~ 100%.
5.Reverberize to the center of the output mix ratio（REVERB TO CEN）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent sound source around, respectively, adjust the parameters. The (L: +/- XX% R: +/- XX%)
6.Echo to center output mix ratio（ECHO TO CEN）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent sound source around, respectively, adjust the parameters. (L: +/- XX% R: +/- XX%)
7.Center output delay（CEN DELAY）
Range: 0 ~ 50ms, step: 0.02ms.
8.Center output parameter equalizer switch（CEN EQ）
ON is on and OFF is off.
9.Center output parameter equalizer（CENEQ01 F:25）
Bandwidth: 1 ~ 7; Frequency: 20 ~ 20000Hz; Type: PEQ / LS / HS; Gain: -24dB ~ +24dB; Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 to 2.
10.Center output high-pass filter（CEN HIGHPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
11.Center output low-pass filter（CEN LOWPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
12.Center output compression limiter switch（CEN COMP）
ON is on and OFF is off.
13.Center output compression limiter setting（CEN COMP SET）
parameter:
THRES (start relative level), range: -50 ~ 0db; (CEN COMP THRES)
RATE (compression ratio), range: 1: 2 ~ 1: 100; (CEN COMP RATE)
ATT (start time), range: 1 ~ 90ms; (CEN COMP ATT)
RELS (start time), range: 0.1 ~ 2.5s; (CEN COMP RELS)

## 3.8Subwoofer output function（Sub）

1.Subwoofer output volume（SUB VOL）
Polarity: +/-; Range: off ~ 12dB.
2.Subwoofer output mute（SUB MUTE）
ON is on and OFF is off.
3.Music to bass output mix ratio（MUSIC TO SUB）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent sound source around, respectively, adjust the parameters. (L: +/- XX% R: +/- XX%)
4.The microphone goes straight to the subwoofer output mix ratio（MIC DIR TO SUB）
Polarity: +/-; Range: 0 ~ 100%.
5.Reverb to the subwoofer output mix ratio（REVERB TO SUB）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent sound source around, respectively, adjust the parameters. (L: +/- XX% R: +/- XX%)
6.Echo to subwoofer output mix ratio（ECHO TO SUB）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent sound source around, respectively, adjust the parameters. (L: +/- XX% R: +/- XX%)
7.Subwoofer output delay（SUB DELAY）
Range: 0 ~ 50ms, step: 0.02ms.
8.Subwoofer output parametric equalizer switch（SUB EQ）
ON is on and OFF is off.
9.Subwoofer output gauges equalizer（SUBEQ01 F:25）
Band: 1 ~ 5; frequency: 20 ~ 20000Hz; type: PEQ / LS / HS; gain: -24dB ~ +24 dB;
Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.
10.Subwoofer output high-pass filter（SUB HIGHPASS）
Subwoofer output high-pass filter
11.Subwoofer output low pass filter（SUB LOWPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
12.Subwoofer output compression limiter switch（SUB COMP）
ON is on and OFF is off.
13.Subwoofer Output Compression Limit Set（SUB COMP SET）
Parameters:
THRES (start relative level), range: -50 ~ 0db; (SUB COMP THRES)
RATE (compression ratio), range: 1: 2 ~ 1: 100; (SUB COMP RATE)
ATT (start time), range: 1 ~ 90ms; (SUB COMP ATT)
RELS (start time), range: 0.1 ~ 2.5s; (SUB COMP RELS)

6.Echo to the main output mix ratio（ECHO TO MAIN）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent main output is left and right and the sound source is left and right, respectively, to adjust the parameters.
(ECHO TO MAIN_L / R; L: +/- XX% R: +/- XX%)
7.Main output delay（MAIN DELAY）
Range: 0 ~ 50ms, step: 0.02ms. The main output of the left and right, respectively, adjust the parameters. (MAIN_L DELAY / MAIN_R DELAY)
8.Main output parametric equalizer switch（MAIN EQ）
ON is on and OFF is off. In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters. (MAIN_L EQ / MAIN_R EQ)
9.Main output parametric equalizer（MA_EQ01 F:25）
Band: 1 ~ 7; frequency: 20 ~ 20000Hz; type: PEQ / LS / HS; gain: -24dB ~ +24dB;
Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.
In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters. (ML_EQXX F: XXXXX / MR_EQXX F: XXXXX)
10.The main output high-pass filter（MAIN HIGHPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters. (MAIN_L HIGHPASS / MAIN_R HIGHPSS)
11.Main output low-pass filter（MAIN LOWPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters. (MAIN_L LOWPASS / MAIN_R LOWPASS)
12.The main output compression limiter switch（MAIN COMP）
ON is on and OFF is off. Separate the main output of the left and right, respectively, to adjust the parameters. (MAIN_L COMP / MAIN_R COMP)
13. Main Output Compression Limiter Settings (MAIN COMP SET)
Parameters: THRES (start relative level), range: -50 ~ 0db; (MA_L COMP THRES / MA_R COMP THRES)
RATE (compression ratio), range: 1: 2 to 1: 100; (MA_L COMP RATE / MA_R COMP RATE)
ATT (start time), range: 1 ~ 90ms; (MA_L COMP ATT / MA_R COMP ATT)
RELS (start time), range: 0.1 ~ 2.5s; (MA_L COMP RELS / MA_R COMP RELS)
In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters.In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters.

## 3.6Surround output function（Sur）

1.Surround the output volume（SUR VOL）
Polarity: +/-; Range: off ~ 12dB.
2.Surround output mute（SUR MUTE）
ON is on and OFF is off. In the mix of advanced mode, independent around the output of the left and right, respectively, adjust the parameters. (SUR_L MUTE / SUR_R MUTE)
3.Music to surround output mix ratio（MUSIC TO SUR）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent surround output and left and right, respectively, to adjust the parameters.
(MUSIC TO MAIN_L / R; L: +/- XX% R: +/- XX%)
4.The microphone is straight to the surround output mix ratio（MIC DIR TO SUR）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent surround output around, respectively, adjust the parameters. (MIC DIR TO MAIN_L / R; +/- XX%)
5.Reverberate to surround the output mix ratio（REVERB TO SUR）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent surround output and left and right, respectively, to adjust the parameters.
(REVERB TO MAIN_L / R; L: +/- XX% R: +/- XX%)
6.Echo to surround output mix ratio（ECHO TO SUR）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent surround output and left and right, respectively, to adjust the parameters.
(ECHO TO MAIN_L / R; L: +/- XX% R: +/- XX%)
7.Surround output delay（SUR DELAY）
Range: 0 ~ 50.00ms, step: 0.02ms. Surround the output left and right, respectively, adjust the parameters. (SUR_L DELAY / SUR_R DELAY)
8.Surround output parameter equalizer switch（SUR EQ）
ON is on and OFF is off. In the complete mode of mixing, the independent surround output is left and right, respectively, to adjust the parameters. (SUR_L EQ / SUR_R EQ)
9.Surround output parameter equalizer（SUREQ01 F:25）
Band: 1 ~ 7; frequency: 20 ~ 20000Hz; type: PEQ / LS / HS; gain: -24dB ~ +24dB;
Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.
In the mix of advanced mode, the independent surround output around, respectively, adjust the parameters. (SL_EQXX F: XXXXX / SR_EQXX F: XXXXX)
10.Surround output compression limiter switch（SUR COMP）
ON is on and OFF is off. In the mix of advanced mode, the independent surround output around, respectively, adjust the parameters. (SUR_L COMP / SUR_R COMP)
11.Surround output high pass filter（SUR HIGHPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
In the mix of advanced mode, the independent surround output around, respectively, adjust the parameters. (SUR_L HIGHPASS / SUR_R HIGHPSS)
12.Surround output low pass filter（SUR LOWPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.
In the mix of advanced mode, the independent surround output around, respectively, adjust the parameters. (SUR_L LOWPASS / SUR_R LOWPASS)
13.Surround output compression limiter setting（SUR COMP SET）
Parameters:
THRES (start relative level), range: -50 to 0db; (SUR_L COMP THRES / SUR_R COMP THRES)
RATE (compression ratio), range: 1: 2 to 1: 100; (SUR_L COMP RATE / SUR_R COMP RATE)
ATT (start time), range: 1 ~ 90ms; (SUR_L COMP ATT / SUR_R COMP ATT)
RELS (start time), range: 0.1 ~ 2.5s; (SUR_L COMP RELS / SUR_R COMP RELS)
In the mix of advanced mode, the independent surround output around, respectively, adjust the parameters.



## 2.4 Menu Description

**1. Function key menu table. In the full mix mode, the corresponding parameter adjustments are added to provide more flexible and professional settings.**

| Music | Reverb | Main/Sur | Cen/Sub | Menu |
|---|---|---|---|---|
| MUSIC INPUT | REV VOL | MAIN VOL | CEN VOL | LOAD MODE |
| MUSIC NOISE GATE | REV TYPE | MAIN MUTE | CEN MUTE | SAVE MODE |
| INPUT GAIN | REV DECAY | MUSIC TO MAIN | MUSIC TO CEN | AUTO LOCK KEY |
| MUSIC HIGHPASS | REV PREDELAY | MIC DIR TO MAIN | MIC DIR TO CEN | LOCK KEY PSW |
| MUSIC LOWHPASS | REV LIVELINESS | REV TO MAIN | REV TO CEN | SYSTEM CTRL MODE |
| MUSIC EQ | REV HIGHPASS | ECHO TO MAIN | ECHO TO CEN | SYSTEM PSW |
| MUSEQ01 F:25 | REV LOWPASS | MAIN DELAY | CEN DELAY | SING DANCE MODE |
| MUSIC PITCH | REVERB EQ | MAIN EQ | CEN EQ | SUB MIC GATE |
| | REVEQ01 F:125 | MA_EQ01 F:31 | CENEQ01 F:31 | SUB MIC TIME |
| | | MAIN HIGHPASS | CEN HIGHPASS | REC VOL |
| | | MAIN LOWPASS | CEN LOWPASS | MUSIC TO REC |
| | | MAIN COMP | CEN COMP | MUSIC INI VOL |
| | | MAIN COMP SET | CEN COMP SET | MUSIC MAX VOL |
| | | SUR VOL | SUB VOL | MIC INI VOL |
| | | SUR MUTE | SUB MUTE | MIC MAX VOL |
| | | MUSIC TO SUR | MUSIC TO SUB | EFFECT INI VOL |
| | | MIC_D TO SUR | MIC DIR TO SUB | EFFECT MAX VOL |
| | | REV TO SUR | REV TO SUB | |
| | | ECHO TO SUR | ECHO TO SUB | |
| | | SUR DELAY | SUB DELAY | |
| | | SUR EQ | SUB EQ | |
| | | SUR_EQ01 F:31 | SUB_EQ01 F:31 | |
| | | SUR HIGHPASS | SUB HIGHPASS | |
| | | SUR LOWPASS | SUB LOWPASS | |
| | | SUR COMP | SUB COMP | |
| | | SUR COMP SET | SUB COMP SET | |

| Mic | Echo |
|---|---|
| MIC FEB LEVEL | ECHO VOL |
| MIC NOISE GATE | ECHO DELAY |
| MIC EXCITER | ECHO R DELAY |
| MIC HIGHPASS | ECHO REPEAT |
| MIC LOWPASS | ECHO PREDELAY |
| MIC1 VOL | ECHO DIR VOL |
| MIC1/2 EQ LINK | ECHO HIGHPASS |
| MIC1EQ | ECHO LOWPASS |
| MIC1EQ01 F:40 | ECHO EQ |
| MIC2/5 VOL | ECHOEQ01 F:125 |
| MIC2/5 EQ | |
| MIC2EQ01 F:40 | |

## 2. Other function key instructions

Master/Edit: In the function menu, use Master / Edit to navigate through the menu, use the Master / Edit button to enter the editing state;
And then use Master / Edit to change the parameter value, use the Master / Edit button to exit the editing state.

Music Vol: At the main interface, the master volume of the music is adjusted.

Mic Vol: At the main interface, the microphone's master volume is adjusted.

Effect Vol: At the main interface, the microphone's master volume is adjusted.

Up/Pitch: In the main interface, press the Up / FBE button, you can quickly enter the music tone function, and then master rotation selection, with Master / Edit
Press the key to determine. In the function menu, when editing the status, it is used to move the flashing character and change the edited parameter position.

Dn/FBE: In the main interface, press the DOWN key, you can quickly enter the feedback suppression setting function, and then master rotation selection, with Master / Edit button to determine.
In the function menu, when editing the status, it is used to move the flashing character and change the edited parameter position.

Exit/ESC: In the function menu, press Exit to exit the key to quickly exit to the main interface.

**3.Edit method description**

First enter the function menu, use Master / Edit to rotate or press the current function button to navigate the menu, then use the Master / Edit button to enter the editing state;
And then use the Master / Edit rotation to change the parameter value, use the Master / Edit button to exit the edit state, continue to the menu, or exit with the Exit button
To the main interface.

## 3.Function parameter operation introduction

### 3.1Music function（Music）

1.Music input selection（MUSIC INPUT）
Music input Select the analog source, there are AUTO / M_VOD / M_AUX / M_BGM four modes; digital sound source selection, SPDIF and OPTCIAL
Two kinds. The video selection input is synchronized with the analog audio input.

**AUTO Mode Description:** Analog audio input will be in accordance with BGM → AUX → VOD priority order when no audio signal, such as AUX has an audio signal, access to AUX; when the playback of audio stop for 40 seconds, will automatically switch to BGM audio channel; When the BGM → AUX in accordance with the priority order to detect an audio signal, will automatically switch to an audio channel.

2.Music input pre-gain（INPUT GAIN）
VOD / AUX / BGM / SPDIF can be pre-adjusted, the range: -12dB ~ 0dB; step: 1dB.

3.Music high-pass filter（MUSIC HIGHPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.

4.Music low pass filter（MUSIC LOWPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.

5.Music parametric equalizer switch（MUSIC EQ）
ON is on and OFF is off.

6.Music parametric equalizer（MUSEQ01 F：25）
Bandwidth: 1 ~ 15; Frequency: 20 ~ 20000Hz; Type: PEQ / LS / HS; Gain: -24dB ~ +24dB; Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.

7.Music tone（MUSIC PITCH）
Range: b1 ~ b7,0, # 1 ~ # 7; b1 ~ b7 for the down, 0 off the tone effect; # 1 ~ # 7 for the tune.

### 3.2 Microphone function（Mic）

1.Microphone feedback suppression（MIC FBE LEVEL）
Range: 0 ~ 4; O is OFF, 1 ~ 4 for the microphone feedback suppression series, the greater the value of the greater the feedback suppression. Set, back to the main interface will have F1 /F2 / F3 and so on.

2.Microphone noise door（MIC NOISE GATE）
Range: 0FF, -80 ~ -40db; noise gate to open the relative level, higher than the set level of the signal can be passed below the set level of the signal is attenuated.

3.Microphone actuator（MIC EXCITER）
Range: 0 ~ 6; O is OFF, 1 ~ 6 for the microphone excitation level, the greater the value of the more obvious excitation.

4.Microphone High Pass Filter（MIC HIGHPASS）
Type: FLAT / 12/24; Frequency: 20 ~ 20000Hz.

5.Microphone Low Pass Filter（MIC LOWPASS）
Type: FLAT / 12/24; Frequency: 20 / ~ 20000Hz.

6. Microphone A Enter the volume (MIC1 VOL)
Range: 0 ~ 100.

7.Microphone A parametric equalizer switch（MIC1 EQ）
ON is on and OFF is off

8.Microphone A parametric equalizer（MIC1EQ01 F：40）
Bandwidth: 1 ~ 15; Frequency: 20 ~ 20000Hz; Type: PEQ / LS / HS; Gain: -24dB ~ +24dB; Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.

9.Microphone B Enter the volume（MIC2 VOL）
Range: 0 ~ 100.

10.Microphone B parametric equalizer switch（MIC2 EQ）
ON is on and OFF is off.

11.Microphone B parametric equalizer（MIC2EQ01 F：40）
Bandwidth: 1 ~ 15; Frequency: 20 ~ 20000Hz; Type: PEQ / LS / HS; Gain: -24dB ~ +24dB; Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.

### 3.3Microphone reverb function（Reverb）

1.Reverb volume（REV VOL）
Range: 0 ~ 100; adjust the reverberation effect to increase the number of the source signal, the greater the value of the effect is more obvious.

2.Reverberation model（REV TYPE）
Range: 3 models, HALL / ROOM / PLATE.



3.Reverberation decay time（REV DECAY）
Range: 200 ~ 5000ms. The larger the value, the more efficient the space is.

4.Reverb pre-delay（REV PREDELAY）
Range: 0 ~ 100ms; Reverb effect is heard by the delay time, the greater the value of the reverb effect occurs later, resulting in a more spacious effect.

5.Reverberation reflection level（REFLECTION LEVEL）
Range: 0 ~ 100; adjust the reverberation reflection effect to increase the number of the source signal, the greater the value of the more obvious reflection effect.

6.Reverberation scene（REV LIVELINESS）
Range: 20 ~ 99; adjust the reverberation of high-frequency signal late echo, the greater the value the higher the higher the response, resulting in a brighter or clearer reverberation, the more the value
Small frequency response worse, low frequency will be more prominent, resulting in more dim or fuzzy reverberation.

7.Reverb high-pass filter（REV HIGHPASS）
Range: 20 ~ 1000HZ; set the reverberation high-pass filter frequency, the greater the value will produce a more bright or clear reverb effect, the smaller the value
Will produce a more dim or blurred reverberation effect.

8.Reverb low pass filter（REV LOWPASS）
Range: 4000 ~ 16000HZ; set the reverberation low-pass filter frequency, the greater the value will produce a more thin reverberation effect, the smaller the value will produce more full or dark reverberation effect.

9.Reverb parametric equalizer switch（REV EQ）
ON is on and OFF is off.

10.Reverb parametric equalizer（REVEQ01 F：125）
Band: 1 ~ 5; frequency: 20 ~ 20000Hz; type: PEQ / LS / HS; gain: -24dB ~ +24 dB;
Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.

### 3.4 Microphone echo function（Echo）

1.Echo volume（ECHO VOL）
Range: 0 ~ 100; adjust the echo effect to increase the number of the source signal, the greater the value of the effect the more obvious. (ECHO_L VOL / ECHO_R VOL)

2.Echo delay（ECHO DELAY）
Range: 0 ~ 500ms; echo effect of the two echo spacing of the time, the greater the value of the longer the echo interval. (ECHO_L DELAY / ECHO_R DELAY)

3.Echo left channel delay ratio（ECHO R DELAY）
Range: -50 ~ 50%; echo right channel delay value, the greater the value of echo stereo effect is more obvious. The formula is ECHO R DELAY TIME = ECHO DELAY (1 + A).

4.Number of echo repetitions（ECHO REPEAT）
Range: 0 ~ 90; echo effect repeat the number of times, the greater the value of the number of echo more. (ECHO_L REPEAT / ECHO_R REPEAT)

5.Echo pre-delay（ECHO PREDELAY）
Range: 0 ~ 100ms; direct sound to echo the first sound appears between the delay time, the greater the value of the reverb effect occurs later, to produce a more spacious effect.
（ECHO_L PREDELAY/ ECHO_R PREDELAY）

6.Echo pre-delay（ECHO LIVELINESS）
Range: 0 ~ 100; adjust the echo high-frequency signal late echo. The greater the value, the greater the high-frequency response, resulting in a brighter or clearer echo; the smaller the value the higher the high-frequency response, the lower frequency will be more prominent, resulting in more dim or blurred echo.

7.Echo high-pass filter（ECHO HIGHPASS）
Range: 20 ~ 1000HZ; set the echo high-pass filter frequency, the greater the value will produce a brighter or clear echo effect, the smaller the value will produce more dark or fuzzy echo effect.

8.Echo low pass filter（ECHO LOWPASS）
Range: 4000 ~ 16000HZ; set the echo low-pass filter frequency, the greater the value will produce a more thin echo effect, the smaller the value will produce more full or dark echo effect.

9.Echo parametric equalizer switch（ECHO EQ）
ON is on and OFF is off.

10.Echo parametric equalizer（ECHOEQ01 F：125）
Band: 1 ~ 5; frequency: 20 ~ 20000Hz; type: PEQ / LS / HS; gain: -24dB ~ +24 dB;
Bandwidth: PEQ mode 0.5 ~ 100, LSEQ / HSEQ mode 0.5 ~ 2.

### 3.5 Main output function（Main）

1.Main output volume（MAIN VOL）
Polarity:+/-;Range:off~12dB.Inthemixofadvancedmode,theindependentmainoutputoftheleftandright,respectively,adjusttheparameters.(MAIN_LVOL/MAIN_RVOL)

2.The main output is muted（MAIN MUTE）
ON is on and OFF is off. In the mix of advanced mode, the independent main output of the left and right, respectively, adjust the parameters. (MAIN_L MUTE / MAIN_R MUTE)

3.Music to the main output mix ratio（MUSIC TO MAIN）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent main output is left and right and the sound source is left and right, respectively, to adjust the parameters.
(MUSIC TO MAIN_L / R; L: +/- XX% R: +/- XX%)

4.The microphone is directly connected to the main output mix ratio（MIC DIR TO MAIN）
Polarity: +/-; Range: 0 ~ 100%. In the mix advanced mode, the independent main output is left and right, respectively, to adjust the parameters. (MIC DIR TO MAIN_L / R; +/- XX%)

5.Reverberate to the main output mix ratio（REV TO MAIN）
Polarity: +/-; Range: 0 ~ 100%. In the mix of advanced mode, the independent main output is left and right and the sound source is left and right, respectively, to adjust the parameters.
(REV TO MAIN_L / R; L: +/- XX% R: +/- XX%)