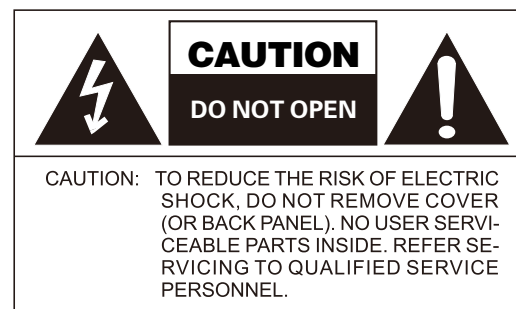


# USER'S MANUAL



## USER'S MANUAL

SE-6000

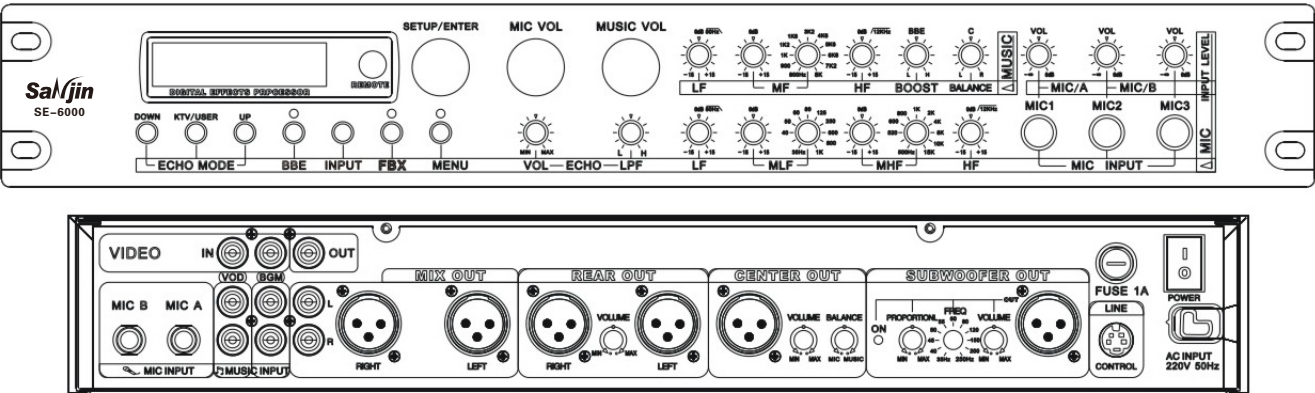


CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK PANEL). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

PROFESSIONAL DSP KARAOKE MIXER

FEATURES

- BBE BOOST to control gain of bass for BBE effect with BBE ON/OFF
- Build-in 24-bit high-speed DSP digital chip with 48KHz sampling rate
- Build-in real-time feedback eliminator processor to filter out howling feedback noise from the speakers automatically
- Supports up to 16 internal effects including 8 fixed effects and 8 programable effects
- DSP Echo & Vocal Reverb with Level control
- DSP Vocal Echo with Level, Repeat and Delay controls
- 5 microphone channels(3 front+2 rear) with individual Master volume control and LF,MLF,MHF,HF filters
- Assignable Music channel with volume, Balance, BBE BOOST control & LF,MF, HF filter
- 4-Band Equalizer for best fidelity and precision tuning for music control
- 6-Band Equalizer for best fidelity and precision tuning for microphone control
- User Lock-Down mode to prevent most user from changing any setting
- 2 switchable stereo A/V channel input and 1 A/V output
- Balance subwoofer output with Proportion Volume and Frequency controls
- Balance center output with assignable Volume & Balance Controls
- Balance rear output with Volume control
- Balanced L/R XLR Master output & Unbalanced L/R RCA Master output
- Supports external controller
- Full functions LCD display for setup menu
- 19" rack mountable



DESCRIPTIONS :

**\*Feedback Eliminator-** SE-6000's real-time feedback eliminator processor was designed to provide state-of-the-art feedback elimination processing, while maintaining a simple control interface. You just select one of the 3 room sizes and it will automatically filter out howling feedback noise from the speakers. This is a necessary function for any venue that is looking for a professional sound environment or any KJ who are looking to prolong your speakers' life.

**\*Digital Effect Processor-** The SE-6000 has a powerful built-in Reverb and Echo Effects that can dramatically increase the quality of your performance. A “reverb” is created when a sound is produced in an enclosed space causing a large number of echoes to build up and the slowly decay. Reverb is most noticeable when the sound source stops but the reflections continue, decreasing in amplitude, until they can no longer be heard. The SE-6000 enables you to adjust the reverb time, reverb level, echo repeat and echo delay to optimize your sound effects.

**\*13-Band Music and 22-Band Microphone Equalizer (EQ)-** The SE-6000 has two independent 13 band equalizers for the music and microphone volume. Using a powerful EQ, it can compensate for your music or singer's shortcomings or when you would like to add more treble or bass to your performance. For music, the 13 band frequencies are at 80Hz, 800Hz, 900Hz, 1kHz 1.2kHz,1.6 kHz,3.2 kHz,4.6 kHz,5.6 kHz,6.8 kHz, 7.2 kHz,8 kHz and 12 kHz. For the microphone, the frequency bands are at 35Hz-1kHz(10-Band in MLF), 500Hz-15 kHz(10-Band in MHF), 80Hz and 12kHz. You can fine tune each frequency to your desired level.

**\*Multiple-Channel Surround Sound Configuration-** The SE-6000 has additional audio signal outputs for center speaker (C), sub-woofer (S), and 2 rear speakers (SR). You can configure the mixer using one of the many types of settings from 2.0 (L+R), 3.0(L+C+R), 2.1(L+R+S), 3.1 (L+C+R+S) AND 5.1(L+C+R+SR+SL+S). Using one of the many surround sound configurations will help you create the enveloping effect inside of a concert hall.

**\*Microphone Noise Gate-** This powerful auto-mute function enables your mixer to automatically turn off the microphone when it is not in-use. The powerful noise gate function allows a microphone signal to pass through only when it is above the preset threshold value from 1 to 40. The mixer utilizes an advanced fading technique to cut in and out of sound so you will not hear your microphone abruptly cut off once it has fallen below the threshold or hear a loud click when the noise gate re-opens from mute.

**\*5 Microphone Inputs with 2 XLR Input Connectors-** The SE-6000 includes 3 microphone inputs in the front and 2 balanced audio connectors (XLR) for high quality microphone signal inputs from the rear. This XLR connector allows for the use of long cables while reducing susceptibility to external noise. You can ensure to transmit the upmost vocal signal to your SE-6000 Mixer using the XLR inputs. The rear inputs also enable you to connect to most wireless microphone units while reducing the messy cables going from the front.

## FEATURES

**\*User Lock-Down Mode-** The mixer has built-in 'user lock' feature that can prevent most users from changing any SE-6000's setting. You can also define the maximum allowed volume for the music or microphone to prevent users from blowing out speakers. The SE-6000 is designed to be used in public places including bars or karaoke rooms. This useful function will help you preserve the best sound quality on all occasions.

**\*Center Speakers and Rear Speakers Signal Control-** When you enable the center speakers and surround speakers, not only can you independently control its volume, but you can also independently control the balance between the music and vocal. Using the turning knob, you can fine tune if you want to hear only the music, only the vocal, or a mix of music+ vocal from the center speaker or from the rear speakers.

**\*Subwoofer Signal Control-** SE-6000 has 3 powerful subwoofer settings to fine tune your subwoofer's performance. You can adjust 1) Subwoofer Volume 2) Subwoofer LPF: the low-pass-filter ranges from 40 to 150 Hz enable you to decide how much of the low frequency signal should be coming from the subwoofer 3) Subwoofer Volume Reducer: this function helps you reduce subwoofer volume when you are singing. This dynamic feature comes handy when a singer has low vocal range. SE-6000 will automatically reduce the subwoofer volume to let the singer's voice come out loud enough to be heard.

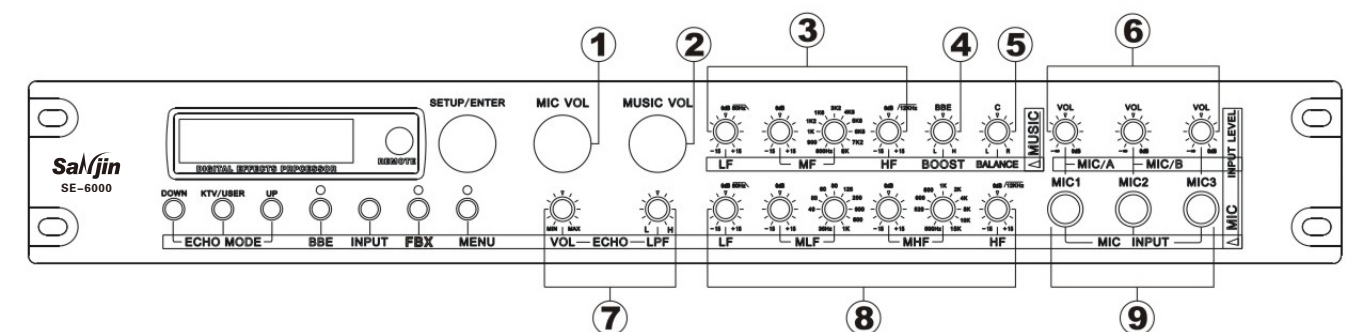
**\*Music and Microphone Balance-** This powerful feature is designed for you to compensate for your irregular room configuration or when your speakers are not placed symmetrically from the audiences. Using this function, you can easily adjust both the music level and echo delay for each speaker to compensate for speakers that are further away from audiences.

**\*Auto -Source Detection-** The SE-6000 has a built-in auto-source selection function that enables the mixer to automatically play music and video from one of the 3 available inputs. When the music stops, it will automatically play the background A/V source (BGM) until the next song begins. This useful function will keep your entertainment alive even when the performance ended and DJ is changing the disc for the next singer.

**\*8 Preset Memory Recall Program-** You can save all of your optimal settings to preset memory inside. Audio effects such as echo, reverb, music volume, and microphone volume can be recalled by either pressing the button on the remote control or on the front panel. Once you have tuned and saved your favorite settings, you will never need to adjust the mixer again.

**\*XLR Line Outputs-** All of the SE-6000's line outputs including Left, Right, Center and Subwoofer audio signals are using XLR Balanced Audio Connectors to preserve the cleanest signal to your professional amplifier.

## FRONT PANEL DESCRIPTION



### 1. MIC VOL

Master Microphone Volume Control –To control the master volume of microphone input from -70dB-+10dB

### 2. MUSIC VOL

Master Music Volume Control –To control the master volume of music input from -70dB-+10dB

### 3. MUSIC EQ

Equalizer for adjustment of music

LF : To adjust the gain of frequency below 80Hz , range is +-15dB.

MF: To adjust the gain of middle frequency, range is +-15dB.

MF: To adjust the point of middle frequency, range is 800Hz-8KHz.

HF: To adjust the gain of frequency upper 12KHz , range is +-15dB.

### 4. BBE BOOST

To adjust the gain of bass of BBE effects.

### 5. MUSIC BALANCE

To adjust the balance of volume of LEFT and RIGHT music channel.

### 6. MIC LEVEL (1/A, 2/ B, 3)

1/A: use for adjusting the microphone volume of MIC 1 and MIC A on rear panel.

2/B: use for adjusting the microphone volume of MIC 2 and MIC B on rear panel.

3: use for adjusting the microphone volume of MIC 3 on front panel.

### 7. ECHO VOL / LPF

VOL: This knob is used for adjusting the master echo effect volume of microphone

LPF: This knob is used for adjusting the low pass filter of echo.

### 8. MIC EQ

1. LF: To adjust the gain of frequency below 80Hz , range is +-15dB.

2. MLF : To adjust the gain of selected middle-low frequency, range is +-15dB.

3. MLF: To adjust the point of middle-high frequency, range is 35Hz-1KHz.

4. MHF: To adjust the gain of corresponding middle-high frequency point, range is +-15dB.

5. MHF: To adjust the point of middle-high frequency, range is 500Hz-15KHz.

6. HF: To adjust the gain of frequency upper 12KHz, range is +-15dB.

### 9. MIC INPUT JACKS (1,2,3)

Microphone jacks for MIC1, MIC2, MIC3

## DISPLAY SCREEN FUNCTION DESCRIPTION

### 1. LCD screen

The screen to show the setting and information.

### 2. REMOTE SENSOR

Please always face the remote sensor while using remote controller.

### 3. SETUP/ ENTER

Function key: Press to confirm to enter in the next functions. Turn left or right to adjust the gain (-70dB to +10dB) or state (ON/ OFF).

Press ⑧ MENU to make indicator lighting first before operation.

### 4. ECHO MODE

DOWN: Used the previous Echo mode.

KTV/USER: used the KTV fixed echo modes (8 kinds of none- programmable mode) or use USER to edit echo modes (8 kinds of programmable mode).

UP: Use the next Echo mode.

### 5. BBE BUTTON

Press this button to on or off BBE. Light on is ON BBE, light off is OFF BBE.

### 6. INPUT: audio input.

VOD: select to VOD audio input.

BGM: select to BGM audio input.

AUTO: select to VOD audio or BGM audio input automatically.

### 7. FBX

Press this button to on or off FBX(Feedback eliminator) . Light on is ON FBX, light off is OFF FBX.

### 8. MENU

Press this button to get into the menu edition mode.

Press ⑧ MENU then rotate ③ SETUP/ENTER to left or right to change the setting ,push to enter the sub-menu.

Model No. of the player will be displayed first. once power on, music volume, music input, mic volume and echo mode will be displayed after system self-checking. Please follow the below instructions if you want to change the settings:

#### MENU SETUP/ENTER

Press ⑧

#### MENU A (Volume setup)

- A1. Defaulted music volume setup.
- A2. Max. music volume setup.
- A3. Defaulted microphone volume setup.
- A4. Max. microphone volume setup.

Press ⑧ again

#### MENU B (Echo setup)

- B1. Echo volume adjustment.
- B2. Left channel delay adjustment.
- B3. Right channel delay adjustment.
- B4. Repeat times adjustment.
- B5. Effects mix echo adjustment.

Press ⑧ again

#### MENU C (Effects setup)

- C1. To adjust the strength of effect
- C2. Pre-delay adjustment, to adjust the first interval time of effect and vocal
- C3. To adjust the wide of effect.
- C4. To adjust the deep of effect.
- C5. To adjust attenuation of effect.

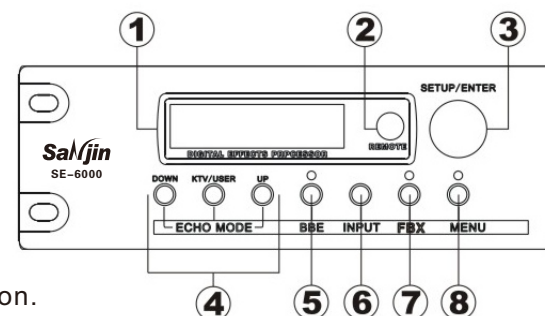
Press ⑧ again

#### MENU D (Setting of lock)

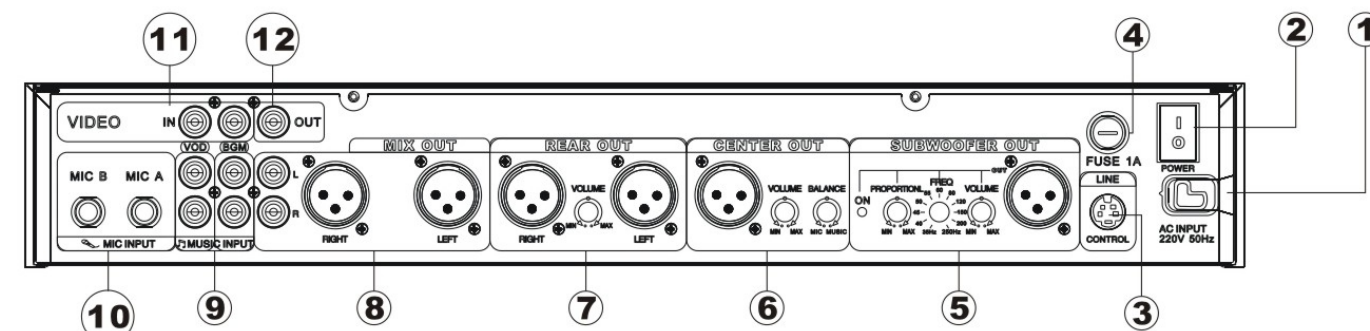
- D1. Switch of Lock and unlock..
- If Menu Lock is ON then you need to input passwords if you want to change the setting next time.

Passwords Input buttons: Press "UP" twice then press "FBX" twice.

Press ⑧ to exit menu , system will save all setting data automatically.



## REAR PANNEL DESCRIPTION



### 1. AC INPUT

AC power input

### 2. POWER SWITCH

Switch power on/off, I is power on, 0 is power off.

### 3. CONTROL

Line control input for external controller.

### 4. FUSE HOLDER

### 5. SUBWOOFER OUT

On : switch of bass output on/off, press this button ON then there will be not bass signal output from MIX OUT terminal.

PROPORTIONAL: To adjust attenuation proportion of bass, used to adjust attenuation proportion of bass when there is microphone input.

FREQ: to adjust the frequency of bass, frequency division range is 35Hz-250Hz.

VOLUME: to adjust the volume output of bass.

### 6. CENTER OUT

Output terminal of the center channel.

Volume: to adjust the level of center output volume.

Balance: to adjust the music and microphone mixing level output

### 7. REAR OUT

Volume: to adjust the level of rear output channel volume.

### 8. MIX OUT

Main channel output.

### 9. MUSIC INPUT

There are two sets of RCA input jack for VOD and BGM input.

### 10. MIC INPUT JACKS (A,B)

Jacks for microphone input

### 11. VIDEO IN

There are two sets of input jack (VOD, BGM) for video input.

### 12. VIDEO OUT

Video output for connecting TV.



DISPLAY SCREEN FUNCTION DESCRIPTION

Line Out				
	LEFT	RIGHT	CENTER	BASS
SNR (dB)	90	90	88	87
Distortion(%)	0.01	0.01	0.02	0.03
Standard input-signal level(V)	0.775	0.775		
Standard output-signal level(V)	0.8	0.8	0.775	0.8
MAX. input-signal level(V)	3.5	3.5		
MAX. output-signal level(V)	4.2	4.2	4.2	4.5
Difference of gain (L/R)	less than 0.1			
Channel Separation	75dB			
Input impedance(Ω)	47K(Imbalance)			
Output impedance(Ω)	300(Balance)\1K(Imbalance)			
Frequency response	10Hz-30KHz			
Pitch adjustment range	80Hz(15dB), 12KHz(15dB)			
Remote control/Line control	Yes			
MICROPHONE				
Sensitivity	25mV			
SNR (dB)	87dB			
Distortion(%)	0.03%			
Frequency response	20Hz-20KHz			
Pitch adjustment range	80Hz(15dB), 12KHz(15dB)			
Muting threshold level	AGC			
OTHERS				
Power Consumption	<25W			
Packing dimension(W*D*H)	520*210*115(MM)			
Product dimension(W*D*H)	483*180*66(MM)			
Net Weigh (N.W)	3Kg			
Gross Weigh (G.W)	3.2Kg			

WARNING

Before using this equipment, please read through this handbook. For safe purpose, please observe all the operation and usage warning which are written here and on the equipment.

1. Power: only the power source that indicated in the specification or the equipment can be used.
2. Power cord protect: pay attention to the usage of power cord, do not push, extrusion the cord.
3. Water and moisture: water cups, flower vases and other cases with water are not allowed to put on this equipment and should not be sued near water placed such as bathtub, washing pool, kitchen sink, washtub, wet basement, swimming pool and so on.
4. Heat: this equipment should be put far from heat source such as radiators, heating resistances, different furnace and other heating equipment.
5. Electric shock: Prevent the matters and water get into the machines or it will case the inner electric shock.
6. Disassembly of cabinet: never dismantle, if you touch inner part of this equipment carelessly, serious electric shock will happen.
7. Keep it clean: Clean the equipment by soft and dry cloth, if the equipment is very dirty, please clean by gentle cleaning agent but never clean by diluent paint, otherwise the top paint will be damaged.
8. Unusual odor: Unusual odor or smother found, please cut off power and take out the plug, please connect with Supplier for repaired.
9. Operate the machine follow by the user manual.
10. If do not use it for a long time, please pull out the power cord.