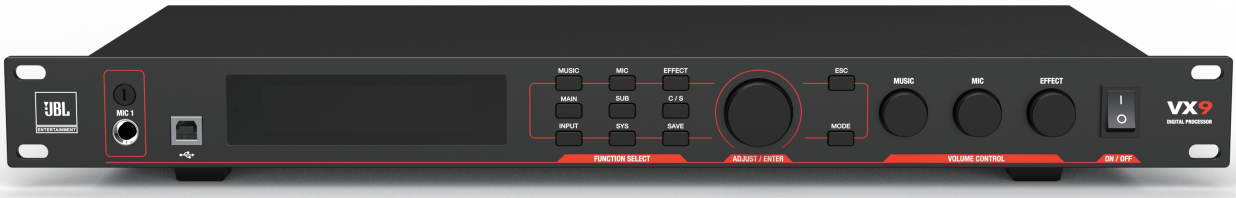
JBL ENTERTAINMENT®

VX9

DIGITAL PROCESSOR



USER MANUAL

HARMAN™

IMPORTANT SAFETY INFORMATION

WARNING FOR YOUR PROTECTION READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

The apparatus shall not be exposed to dripping or splashing liquid and no object filled with liquid, such as vases, shall be placed on the apparatus.

CLEAN ONLY WITH A DRY CLOTH.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Use only with the cart stand, tripod bracket, or table specified by the manufacture, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

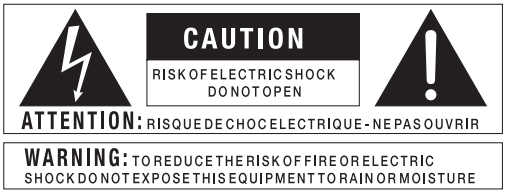
POWER ON/OFF SWITCH: If the equipment has a Power switch, the Power switch used in this piece of equipment DOES NOT break the connection from the mains.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

FOR UNITS EQUIPPED WITH EXTERNALLY ACCESSIBLE FUSE RECEPTACLE: Replace fuse with same type and rating only.

MULTIPLE-INPUT VOLTAGE: This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. Connect this equipment only to the power source indicated on the equipment rear panel. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel or equivalent.

If connected to 240V supply, a suitable CSA/UL certified power cord shall be used for this supply.



The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

IMPORTANT SAFETY INFORMATION

SAFETY INSTRUCTIONS

NOTICE FOR CUSTOMERS IF YOUR UNIT IS EQUIPPED WITH A POWER CORD.

WARNING: THIS APPLIANCE SHALL BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTHING CONNECTION.

The cores in the mains lead are coloured in accordance with the following code:

GREEN and YELLOW - Earth BLUE - Neutral BROWN - Live

As colours of the cores in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The core which is coloured green and yellow must be connected to the terminal in the plug marked with the letter E, or with the earth symbol, or coloured green, or green and yellow.
- The core which is coloured blue must be connected to the terminal marked N or coloured black.
- The core which is coloured brown must be connected to the terminal marked L or coloured red.

This equipment may require the use of a different line cord, attachment plug, or both, depending on the available power source at installation. If the attachment plug needs to be changed, refer servicing to qualified service personnel who should refer to the table below. The green/yellow wire shall be connected directly to the units chassis.

CONDUCTOR		WIRE COLOR	
		Normal	Alt
L	LIVE	BROWN	BLACK
N	NEUTRAL	BLUE	WHITE
E	EARTH GND	GREEN/ YEL	GREEN

WARNING: If the ground is defeated, certain fault conditions in the unit or in the system to which it is connected can result in full line voltage between chassis and earth ground. Severe injury or death can then result if the chassis and earth ground are touched simultaneously.



If you want to dispose this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private household in the 25 member states of the EU, in Switzerland and Norway many return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For countries not mentioned above, please contact your local authorities for a correct method of disposal. By doing so you will ensure that your disposed product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

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Section 1 - Introduction

Thank you for buying the JBL digital processor VX9 which is a powerful voice processor designed for the KTV market. VX9 not only provides multiple audio connection options, but, also incorporates JBL KTV speaker and wireless microphone presets, with operation design friendly to the KTV engineers, ultimately delivering wonderful JBL professional KTV experience.

1.1 The definition of VX9

VX9's main features:

- Professional digital audio effects processor.
- Microphone inputs feature four - level feedback suppression.
- Audio source pitch change provides a more diverse karaoke experience.
- Store up to 16 presets.
- Static reverb and echo effects can be controlled independently.
- Two pairs of RCA interfaces and one optical fiber coaxial interfaces can be used for music input.
- 20 - band parametric equalizer available for each microphone input.
- 15 - band parametric equalizer available for music input.
- Subwoofer output for active subwoofer.
- Preset with JBL Entertainment KTV speaker and microphone products.
- RS232 supports external automation control.
- PC software allows fine system tunning.

Package Contents:

- JBL VX9 Digital Processor
- User Manual
- Power Cable

(optional remote control)

1.2 Contact Info

On the World Wide Web:

www.jblpro.com

Professional Contacts, Outside the US:

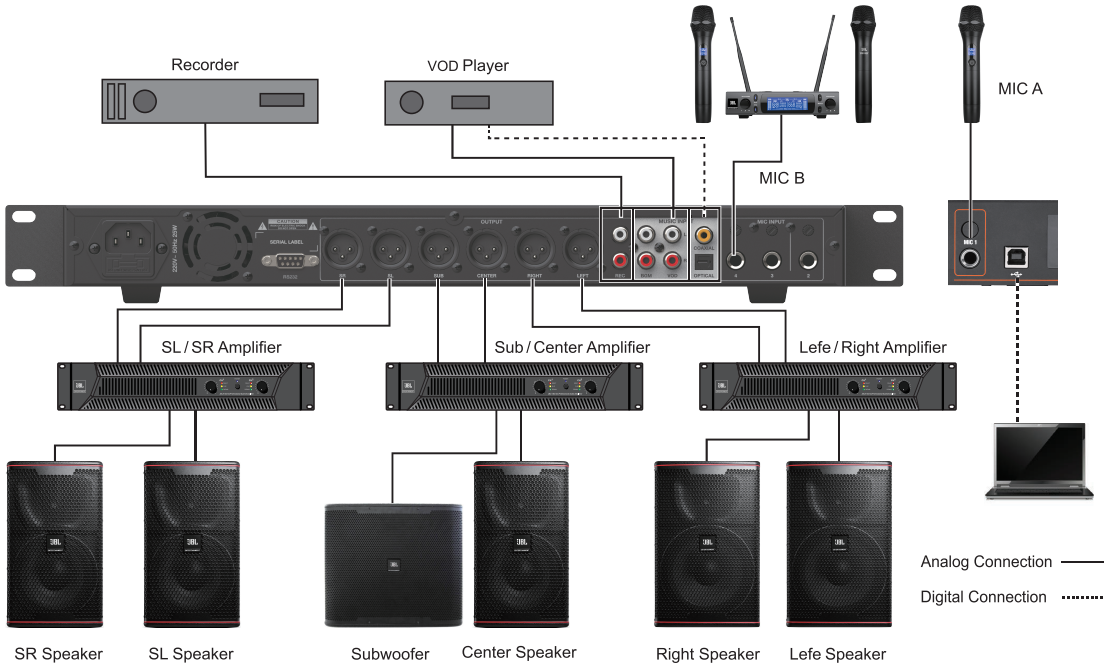
Contact the JBL Professional Distributor in your area. A complete list of JBL Professional international distributors is provided on our website @ www.jblpro.com

Section 2 - Getting Start

2.1 Quick Start

Before system connection, ensure all power is switched off. Please follow the following procedure to set up the system.

1. Connect VX9 to your system.

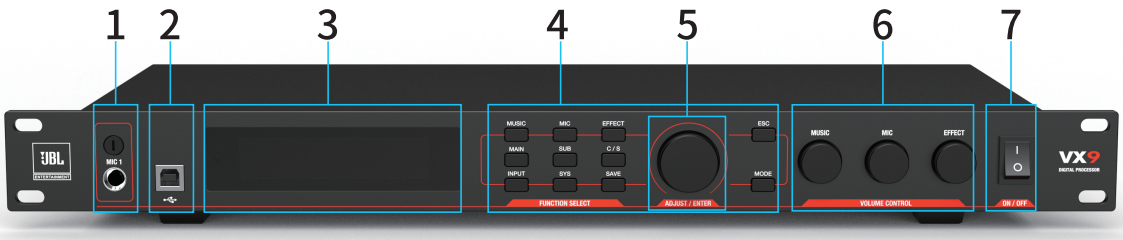


2. Ensure the external audio amplifier volume is turned to minimum.
3. Turn on VX9 before tunning the external audio amplifier on.
4. Turn on audio source and select the right input, slowly bring up the external audio amplifier volume up to desired listening level without clipping the audio amplifier.

⚠ Note:

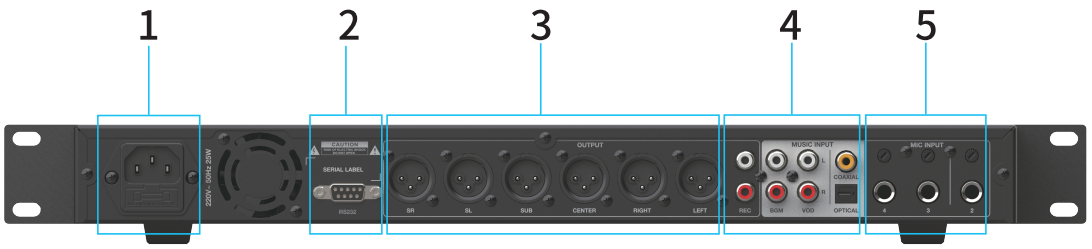
It is recommended that the volume structure of the audio system be calibrated and crossover, EQ, and limiter settings adjusted for correctly loudspeaker protection and not influence performance.

2.2 Front Panel



1. MIC 1: 6.35mm TS input.
2. USB: Connect to external PC through this USB Type - B for software control and future updates.
3. LCD: Screen for parameter value status display.
4. FUNCTION SELECT Knob: The following listed the function of each of the button.
   - MUSIC: Press to enter Music Input adjustment (volume, EQ, low cut, high cut, input selection, DEQ).
   - MIC: Press to enter Microphone adjustment (volume, EQ, low cut, high cut, AFE, Limiter).
   - EFFECT: Press to enter Microphone Effect adjustment (volume, EQ, low cut, high cut, Echo, Reverb).
   - MAIN: Press to enter R and L output control (volume, EQ, delay, Limiter).
   - SUB: Press to enter subwoofer output control (volume, EQ, delay, Limiter).
   - C/S: Press to enter center and surround channel adjustment (volume, EQ, delay, Limiter).
   - INPUT: Input source selection (VOD / BGM / OPT / AUTO).
   - SYS: Press to enter System management adjustment.
   - SAVE: Press to save adjusted values.
   - ESC: Press to return home screen.
   - MODE: Press to enter mode and preset selection.
5. ADJUST / ENTER Knob: Press to enter adjustment and rotate to change value.
6. MUSIC Knob: Rotate anti-clockwise to reduce music output volume and clockwise to increase.
   MIC Knob: Rotate anti-clockwise to reduce microphone output volume and clockwise to increase.
   EFFECT Knob: Rotate anti-clockwise to reduce effect output volume and clockwise to increase.
7. POWER Switch: Press top lever portion to turn device on and bottom for off.

2.3 Rear Panel



1. POWER Socket: 220V ~ 50Hz.

2. RS232: DB9 interface socket for intelligent KTV room control.

3. SR: Surround Right channel output.

   SL: Surround Left channel output.

   SUB: Subwoofer channel output.

   CENTER: Center channel output.

   RIGHT: Main right output.

   LEFT: Main left output.

4. REC (L / R): Record RCA output.

   BGM (L / R) : Background music input port.

   VOD (L / R): VOD signal input port.

   COAXIAL: Coaxial signal input port.

   OPTICAL: Optical fiber signal input port.

5. MIC 2: 6.35mm TS input.

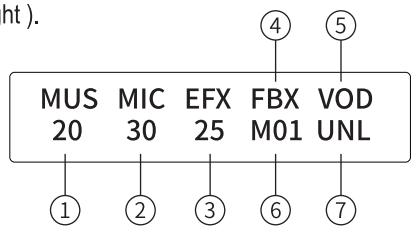
   MIC 3: 6.35mm TS input.

   MIC 4: 6.35mm TS input.

2.4 Function Menus & Navigation

Display Interface

The following main screen is displayed after the device is switched on. When operation is stopped for 20 seconds, the system automatically returns to the default screen. (As shown at right).



1. The current music volume value is 20.
2. The current Mic volume value is 30.
3. The current effect volume value is 25.
4. Feedback Exterminator is on.
5. The current music input channel is VOD.
6. The current effect mode is 01.
7. The current panel lock status: " UNL " - unlock; " ---- " - locked.

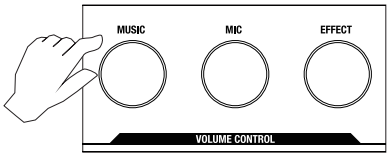
Music Input Signal Selection

The system allows four music input sources, VOD, BGM, OPT and AUTO. Press the [INPUT] button briefly, the display of source character will keep flashing, as shown in the figure on the right, press the [INPUT] button briefly again to select the desired input source channel, wait for one second after selecting the desired channel and the system will switch automatically. As shown below.



MUSIC / MIC / EFFECT Volume Adjustment

Music Volume Adjustment: At the initial screen, the volume of the sound can be adjusted by turning the [MUSIC] knob directly.
Mic Volume Adjustment: At the initial screen, the volume of the mic can be adjusted by turning the [MIC] knob directly.
Effect Volume Adjustment: At the initial screen, the volume of the effect can be adjusted by turning the [EFFECT] knob directly.



MUSIC Set

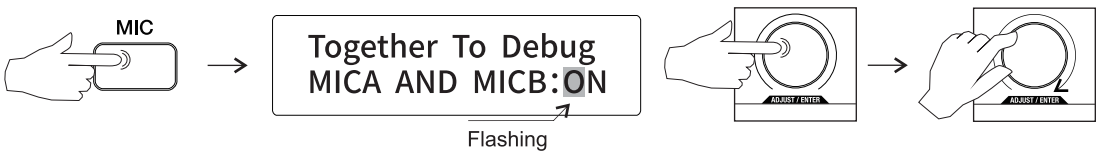
First, press the [MUSIC] key to enter the MUSIC setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the MUSIC parameters. The specific operation is as follows: Press the [ADJUST / ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.



Menu	Explanation	Value Range	Remarks
Input Gain	Set the music input gain value	-10dB~+10dB	
Input source	Select the music input source	VOD/BGM/OPT/AUTO	
HPF/LPF	Set the music HPF/LPF range	19.7Hz~20.2KHz	
HP/LP Type	Set HP/LP type	Bypass/1st/Bes/But/L-R, etc	
EQ	Music EQ settings with 15 bands		
EQ Gain	Music gain setting	-24dB~+12dB	
EQ Q	Music Q setting	0.4~128	
DEQ	Music DEQ setting with 3 bands		
	Set limit level	-60dBu~0dBu	
	Set attack time	0.5ms~400ms	
	Set release time	Atk*2~Atk*32	
	Set ratio	1.0~100	

MIC Set

First, press the [MIC] key to enter the MIC setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the MIC parameters. The specific operation is as follows: Press the [ADJUST / ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.



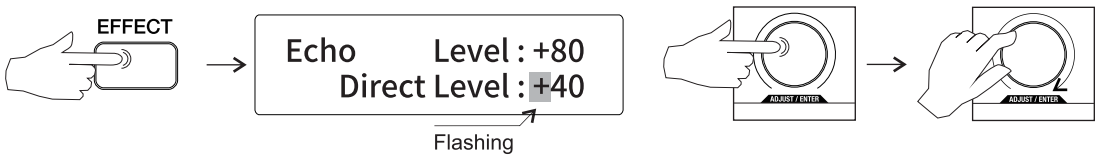
The MIC setting menu and the range of parameter values are as follows:

Menu	Explanation	Value Range	Remarks
Input Gain	Set the Mic input gain value	-10dB~+10dB	
Feedback	Set the Feedback value	0~4	
HPF/LPF	Set the Mic HPF/LPF range	19.7Hz~20.2KHz	
HP/LP Type	Set HP/LP type	Bypass/1st/Bes/But/L-R, etc	
Limit level	Set the Mic limit level value	-34dB~+0dB	
Attack time	Set the Mic attack time	0.5~400ms	
Release time	Set the Mic release time	Atk*2~Atk*32	
Ratio	Set the Mic ratio	1.0~100	

EQ	Mic EQ settings with 20 bands		
EQ Q	Mic EQ Q setting	0.4~128	
EQ Gain	Mic EQ gain setting	-24dB~+12dB	
The microphone settings are divided into two parts, MIC A and MIC B, and can be set either synchronously or separately when setting parameters.			

EFFECT Set

First, press the [EFFECT] key to enter the EFFECT setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the EFFECT parameters. The specific operation is as follows: Press the [ADJUST / ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.

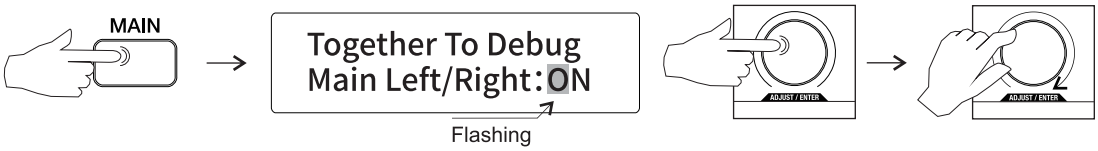


The EFFECT setting menu and the range of parameter values are as follows:

Menu	Explanation	Value Range	Remarks
Echo/Reverb Direct	Set the Echo/Reverb music level value	-200~+200	
Echo/Reverb HPF/LPF	Set the Echo/Reverb HPF/LPF range	19.7Hz~20.2KHz	
Echo/Reverb HP/LP Type	Set the Echo/Reverb HP/LP type	Bypass/1st/Bes/But/L-R, etc	
Echo/Reverb level	Set the Echo/Reverb level value	-200~+200	
Echo Pre-Delay	Set the Echo Pre-Delay time	0~250ms	
Echo Delay	Set the Echo Delay time	0~500ms	
Echo Repeat	Set the Echo Repeat value	0~90%	
Echo Right Delay	Set the Echo Right Delay time	-50%~+50%	
Echo Right Pre-Delay	Set the Echo Right Pre-Delay time	0~50%	
Echo/Reverb EQ	Echo/Reverb EQ settings with 7 bands		
Echo/Reverb EQ	Echo/Reverb EQ Q setting	0.4~128	
Echo/Reverb EQ Gain	Echo/Reverb EQ gain setting	-24dB~+12dB	
Reverb Pre-Delay	Set the Reverb Pre-Delay time	0~200ms	
Reverb time	Set the Reverb time	0~5000ms	

MAIN Set

First, press the [MAIN] key to enter the MAIN setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the MAIN parameters. The specific operation is as follows: Press the [ADJUST / ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.

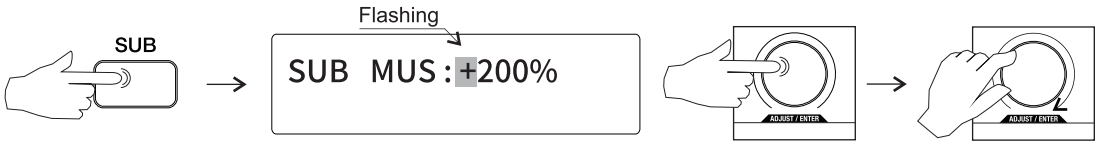


The MAIN setting menu and the range of parameter values are as follows:

Menu	Explanation	Value Range	Remarks
Volume	Set the Main volume value	0~80	
Music Level	Set the Main music level value	-200%~+200%	
Mic Level	Set the Main Mic level	-200%~+200%	
HPF/LPF	Set the Main Echo/Reverb HPF/LPF range	19.7Hz~20.2KHz	
HP/LP Type	Set the Main HP/LP type	Bypass/1st/Bes/But/L-R, etc	
Echo Level	Set the Main Echo level value	-200%~+200%	
Reverb Level	Set the Main Reverb level value	-200%~+200%	
Right Delay	Set the Main right channel delay time	0~50ms	
Limit Level	Set the Main limit level value	-16dBu~+18dBu	
Attack Time	Set the Main attack time	0.5~400ms	
Release Level	Set the Main release time	Atk*2~Atk*32	
Ratio	Set the Main ratio	1.0~100	
EQ	Main EQ settings with 10 bands		
EQ Q	Main EQ Q setting	0.4~128	
EQ Gain	Main EQ gain setting	-24dB~+12dB	
The main output is set in the same way as above for left and right channels			

SUB Set

First, press the [SUB] key to enter the SUB setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the SUB parameters. The specific operation is as follows: Press the [ADJUST / ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.

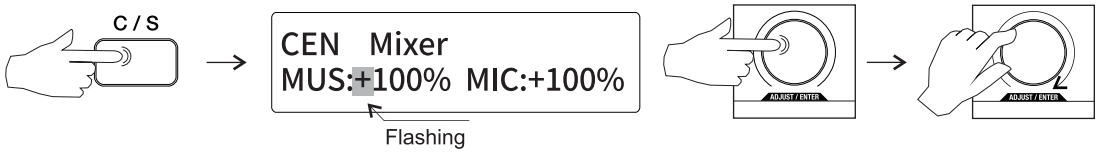


The SUB setting menu and the range of parameter values are as follows:

Menu	Explanation	Value Range	Remarks
Volume	Set the SUB volume value	0~80	
Music Level	Set the SUB music level value	-400%~+400%	
HPF/LPF	Set the SUB HPF/LPF range	19.7Hz~303Hz	
HP/LP Type	Set the SUB HP/LP type	Bypass/1st/Bes/But/L-R, etc	
Delay	Set the SUB delay time	0~50ms	
Limit Level	Set the SUB limit level value	-16dBu~+18dBu	
Attack Time	Set the SUB attack time	0.5~400ms	
Release Level	Set the SUB release time	Atk*2~Atk*32	
Ratio	Set the SUB ratio	1.0~100	
EQ	SUB EQ settings with 10 bands		
EQ Q	SUB EQ Q setting	0.4~128	
EQ Gain	SUB EQ gain setting	-24dB~+12dB	

C/S Set

First, press the [C/S] key to enter the C/S setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the C/S parameters. The specific operation is as follows: Press the [ADJUST / ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.



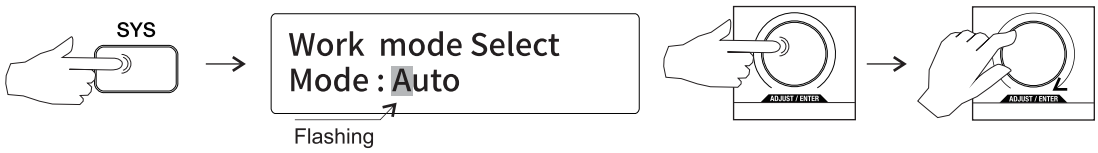
The C/S setting menu and the range of parameter values are as follows:

Menu	Explanation	Value Range	Remarks
Volume	Set the C/S volume value	0-80	
Music Level	Set the C/S music level value	-200%~+200%	
Mic Level	Set the C/S Mic level	-200%~+200%	
HPF/LPF	Set the C/S HPF/LPF range	19.7Hz~20.2KHz	
HP/LP Type	Set the C/S HP/LP type	Bypass/1st/Bes/But/L-R: etc	
Echo Level	Set the C/S Echo level value	-200%~+200%	
Reverb Level	Set the C/S Reverb level value	-200%~+200%	
Delay	Set the C/S delay time	0~50ms	
Limit Level	Set the C/S limit level value	-16dBu~+18dBu	
Attack Time	Set the C/S attack time	0.5~400ms	

Release Level	Set the C/S release time	Atk*2~Atk*32	
Ratio	Set the C/S ratio	1.0~100	
EQ	C/S EQ settings with 10 bands		
EQ Q	C/S EQ Q setting	0.4~128	
EQ Gain	C/S EQ gain setting	-24dB~+12dB	

SYS Set

First, press the [SYS] key to enter the SYS setting menu. Second, press it again to select the item you want to set. Finally, press and rotate the [ADJUST / ENTER] button to adjust the SYS parameters. The specific operation is as follows: Press the [ADJUST/ENTER] button to select the parameter to be adjusted, then rotate the [ADJUST / ENTER] button to adjust the parameter. After confirming the adjustment parameter, wait for 1 second for the system to arrive to the desired effect. (When adjusting parameters, press [ADJUST / ENTER] button, the cursor will be displayed at the parameter adjustment point on the display screen, if you need to change different parameters, just press [ADJUST / ENTER] button again.) As shown below.



The SYS setting menu and the range of parameter values are as follows:

Menu	Explanation	Value Range	Remarks
Music Mode	Set the music mode	Sing/Dance/Auto	
Panel Lock	Optional panel lock function to prevent others from modifying parameters	ON : Locked OFF : Unlock	Default Password: 1111
Initial Music	Set the music volume value after power on	0~Max volume on	
Max Music Volume	Set the Max music volume value after power on	0~80	
Initial Mic Volume	Set the Mic volume value after power on	0~Max volume on	
Max Mic Volume	Set the Max Mic volume value after power on	0~80	
Initial Effect Volume	Set the Effector volume value after power on	0~Max volume on	
Max Effect Volume	Set the Max Effect volume value after power on	0~80	
Tone	Set the tone function on and off, adjust the tone range	OFF ON : -7~+7	
Infrared Receiver	On: IR reception on; Off: IR reception off	ON/OFF	
System Info	Display of the internal ID code of the device and the program version number		

SAVE Set

First, press the [SAVE] key to enter the SAVE setting menu. Second, press and rotate the [ADJUST / ENTER] button to select and edit the SAVE mode. After confirming the edit, press [SAVE] again to enter the SAVE confirmation. Finally, press and rotate the [ADJUST / ENTER] knob to confirm the save settings, as shown below.



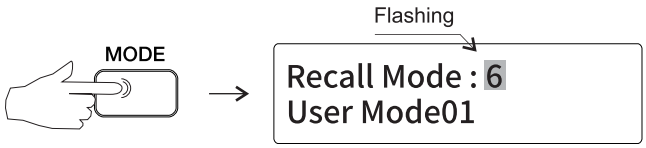
ESC Set

Press [ESC] to return Home screen, as shown below.



MODE Set

First, press the [MODE] key to enter the mode selection and recall interface.Second, press and rotate the [ADJUST / ENTER] button to select the mode stored in the system. Then press [MODE] again to enter the recall confirmation interface. Finally, press and rotate the [ADJUST / ENTER] knob to confirm the setting, as shown below.



Section 3 - Appendix

3.1 USB Port/Software GUI/Firmware Update

The USB port is used for connecting the VX9 to the software and for updating the VX9 firmware. VX9 operating software can control the device directly.
Follow these steps for installing the Software GUI of the VX9 processor:

1. Log in to Harman professional official website: https://jblpro.com/zh, enter the JBL entertainment product category, find the processor VX9, and click the download operation software.
2. Connect the VX9 to your computer via USB cable.
3. Launch the VX9 Software GUI.

Follow these steps for updating the firmware of the VX9 processor:

1. Log in to Harman professional official website: https://jblpro.com/zh, enter the JBL entertainment product category, find the processor VX9, and click to download the firmware update tool and latest. bin file.
2. Connect the VX9 to your computer via USB cable.
3. Save all presets to PC by PC-GUI.
4. Run the firmware update tool and update the firmware according to the prompts.
5. After the update is completed, reboot VX9.

3.2 Factory Preset

The factory preset will delete all User Presets and set all parameters back to the factory default state. Please follow these steps:

1. Press and hold the **MUSIC** and **EFFECT** buttons on the VX9 panel at the same time, while the device is off.
2. Then turn on the VX9 power supply.
3. Wait until the display shows "FACTORY RECOVERY: NO? YES?" Release the buttons.
4. Use the ADJUST/ENTER to select YES.
5. Wait till the reset is finished.
6. Reboot the VX9.

3.3 Control Codes

RS232 Control Code

RS232 Setting (Baud rate: 115200 Data bits: 8 Parity bit: None Stop bit: 1)

//1- Set Program Return Correctly: EE BB Return Wrongly: EE AA			
Music Vol+	F5 C0 06 B7 60 00 5A 43 A9	Music Vol-	F5 C0 06 B7 60 01 5A 43 AA
MIC Vol+	F5 C0 06 B7 60 02 5A 43 AB	MIC Vol-	F5 C0 06 B7 60 03 5A 43 AC
Effect Vol+	F5 C0 06 B7 60 04 5A 43 AD	Effect Vol-	F5 C0 06 B7 60 05 5A 43 AE
Mute	F5 C0 06 B7 19 0A 01 00 D0	Unmute	F5 C0 06 B7 19 0A 00 00 CF
Key Down	F5 C0 06 B7 60 06 5A 43 AF	Original Key	F5 C0 06 B7 60 07 5A 43 B0
Key Up	F5 C0 06 B7 60 08 5A 43 B1		
Music Input Switch			
Auto	F5 C0 06 B7 60 09 5A 43 B2	VOD	F5 C0 06 B7 60 0A 5A 43 B3
BGM	F5 C0 06 B7 60 0B 5A 43 B4	OPT	F5 C0 06 B7 60 0C 5A 43 B5
Mode			
Model 1	F5 C0 06 B7 1E 02 00 00 CC	Model 2	F5 C0 06 B7 1E 02 01 00 CD
Model 3	F5 C0 06 B7 1E 02 02 00 CE	Model 4	F5 C0 06 B7 1E 02 03 00 CF
Model 5	F5 C0 06 B7 1E 02 04 00 D0	Model 6	F5 C0 06 B7 1E 02 05 00 D1

//2- Read Program ## means verified data, ** means correct data			
Send	F5 C0 04 B0 60 00 05	Return	F5 C0 06 B0 60 00 ** 00 ##
Music Vol			
Send	F5 C0 04 B0 60 01 06	Return	F5 C0 06 B0 60 01 ** 00 ##
MIC Vol			
Send	F5 C0 04 B0 60 02 07	Return	F5 C0 06 B0 60 02 ** 00 ##
Effect Vol			
Send	F5 C0 04 B0 60 03 08	Return	F5 C0 06 B0 60 03 ** 00 ##
Music Input			
Send	F5 C0 04 B0 60 04 09	Return	F5 C0 06 B0 60 04 ** 00 ##
Return Data Definition：00 - AUTO、01 - VOD、02 - BGM、03 - OPT			

Key Control			
Send	F5 C0 04 B0 60 05 0A	Return	F5 C0 06 B0 60 05 ** 00 ##
Return Data**Definition：00-06 -->Key Down：b7-b1； 07-->Original Key：0； 08-0E-->Key Up：#1-#7			

Music -3 Equilibrium	
Bass	Type：F5 C0 06 B7 15 01 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+01+XX）Get the last 8 digital Gain：F5 C0 06 B7 15 03 XX 00 YY[XX ---(5A)-6dB、(5F)-5dB、(64)-4dB、(69)-3dB、(6E)-2dB、(73)-1dB、(78) 0dB、(7D)+1dB、(82)+2dB、(87)+3dB、(8C)+4dB、(91)+5dB、(96)+6dB] YY=（F5+B7+15+03+XX）Get the last 8 digital
Middle	Type：F5 C0 06 B7 15 06 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+06+XX）Get the last 8 digital Gain：F5 C0 06 B7 15 08 XX 00 YY（XX Refer to bass gain） YY=（F5+B7+15+08+XX）Get the last 8 digital
Treble	Type：F5 C0 06 B7 15 0B XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+0B+XX）Get the last 8 digital Gain：F5 C0 06 B7 15 0D XX 00 YY（XX Refer to bass gain） YY=（F5+B7+15+0D+XX）Get the last 8 digital

MIC-3 Equilibrium	
Bass	Type：F5 C0 06 B7 15 10 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+10+XX）Get the last 8 digital Gain：F5 C0 06 B7 15 12 XX 00 YY（XX Refer to bass gain） YY=（F5+B7+15+12+XX）Get the last 8 digital
Middle	Type：F5 C0 06 B7 15 15 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+15+XX）Get the last 8 digital Gain：F5 C0 06 B7 15 17 XX 00 YY（XX Refer to bass gain） YY=（F5+B7+15+17+XX）Get the last 8 digital
Treble	Type：F5 C0 06 B7 15 1A XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+1A+XX）Get the last 8 digital Gain：F5 C0 06 B7 15 1C XX 00 YY（XX Refer to bass gain） YY=（F5+B7+15+1C+XX）Get the last 8 digital

3.4 Infrared Remote Control Codes

IRDA: based on standard IRDA protocol

User Code: 9F



VOL			
MIC-	18 E7 0E F1	MUSIC-	18 E7 0C F3
MIC+	18 E7 06 F9	MUSIC+	18 E7 04 FB
EFX-	18 E7 0F F0	SUB-	18 E7 21 DE
EFX+	18 E7 0D F2	SUB+	18 E7 0A F5
MUSIC			
Treble+	18 E7 1C E3	Middle+	18 E7 1D E2
Treble-	18 E7 1F E0	Middle-	18 E7 5C A3
Bass+	18 E7 1E E1		
Bass-	18 E7 11 EE		
MIC			
Treble+	18 E7 15 EA	Middle+	18 E7 19 E6
Treble-	18 E7 16 E9	Middle-	18 E7 1B E4
Bass+	18 E7 1A E5		
Bass-	18 E7 12 ED		
OTHER			
KTV1	18 E7 01 FE	KTV2	18 E7 07 F8
KTV3	18 E7 02 FD	MUSIC	18 E7 17 E8
BGM	18 E7 13 EC	VOD	18 E7 22 DD
OPT	18 E7 23 DC	AUTO	18 E7 24 DB
MUTE	18 E7 0B F4	ON/OFF	18 E7 05 FA
-♭	18 E7 14 EB	♮	18 E7 18 E7
+#	18 E7 10 EF	HOME	18 E7 20 DF

3.5 Specifications

Digital Inputs

Connector:	OPTICAL / COAXIAL
Formats:	S / PDIF (24 bit) , EIAJ CP - 340, IEC 958
System Delay:	1.7 ms

Analog Inputs

MIC Inputs:	4 × 1 / 4 " TS
MUSIC Inputs:	2 stereo pairs RCA
MIC Inputs Impedance:	8 kΩ
MUSIC Inputs Impedance:	10 kΩ
Max Input Level:	> 18 dBu

Analog Outputs

Connectors:	6 × XLR unbalanced
REC Connectors:	1 stereo pair RCA
Impedance:	300 ohm
Max. Output Level:	> 18 dBu
THD + N:	≤ 0.05 % @ 20 Hz - 20 kHz
Crosstalk:	≤ - 90 dB
S / N Ratio:	> 100 dB @ A - weight
Noise Floor:	< 80 uV @ A - weight , Gain to Max

Environment

Operating Temperature:	0 °C - 45 °C
Storage Temperature:	- 20 °C - 60 °C
Humidity:	Max. 90 % non - condensing

Control Interface

USB:	USB 2.0 Type - B
RS232:	DB9

General

Display:	DOT MATRIX LCD
Dimensions:	482 × 204 × 44 mm
Net Weight:	3.6 Kg
Mains Voltage:	AC 220 V / 50 Hz
Power Consumption:	≤ 25 W

The design and specifications are subject to change without notice.



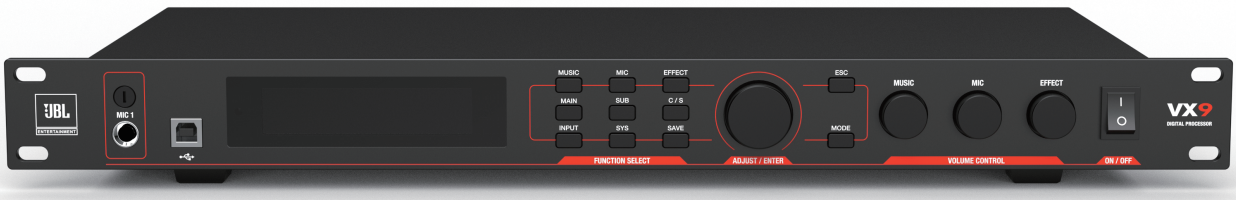
HARMAN Professional, inc.
8500 Balboa Blvd.
Northridge, CA 91325, USA
Phone: 021-2306-0000
Hotline: 400-166-7806
Fax: (818) 830-7801
Intl. Fax(818) 830-7802

如有任何建议与问题
请访问www.jblpro.com

JBL ENTERTAINMENT®

VX9

DIGITAL PROCESSOR



用户手册

HARMAN™

重要安全说明

安全操作警示

妥善保管本安全须知。

留意所有警示信息。

遵守所有操作规范。

严禁在设备周围喷洒液体。请勿在设备上方摆放盛有液体的容器，如花瓶等。

仅使用干布清洁本设备。

严禁堵塞散热口。根据厂商相关说明安装本设备。

严禁在热源附近安装本设备，如散热器、热调节器、热炉或其它制热设备（包括功放）等。

必须使用厂商指定的附件与配件。

雷暴天气或设备长时间停机，请拔下电源插头。

请遵守极性插头或接地插头的安全使用规范。极性插头由两片宽度不一的金属片构成。接地插头则由两极插片与具有安全保护功能的接地插片构成。如所提供的插头与电源插座不兼容，请更换电源插座。有关电源插座的更换事宜，请咨询电气工程师。

注意保护电源线，避免踩踏或碾压。特别注意保护插头端、插座端与设备端线缆。

必须使用厂商指定或随同设备出售的活动机柜、底座、三脚架、支架与作业台。使用活动机柜时，请小心谨慎以防机柜与设备侧翻。如需维护检修，请咨询相关有资质的维修人员。如有以下情形出现，必须对设备进行检修：电缆或插头损坏、液体溅入、异物掉入、淋雨受潮、无法正常运行或设备摔落等。



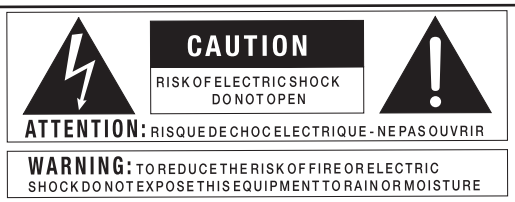
电源开关：对于设有电源开关的设备，关闭电源开关并未完全断开设备与电源的连接。

电源断路设置：电源插头应保持随时可用。对于采用机柜安装或无法采用插头连接的设备，应在设备机柜或建筑物中配备触点开距不小于3mm的全极电源开关。

对于保险丝接口外置的设备：必须更换同类型同规格的保险丝。

多种输入电压：根据安装现场的供电情况，本设备可能需要使用不同的电源线或连接插头。确保接入电源符合设备后面板所标示的电源类型要求。有关电力方面信息或服务，请咨询相关有资质人员，以免火灾或触电危险。

如设备需连接240V电源，应使用符合CSA/UL认证要求的电源线缆。



以上符号为国际通用的电子产品危险警示标识。带箭头闪电的三角形标识用于提示用户注意设备中存在 “危险电压”，可导致触电。感叹号三角形符号用来提示用户留意并遵守手册中重要操作与维护（维修）说明。

此类标识用于警示用户本设备内不含用户可自行维修零件。本设备不得擅自开启。请勿擅自对本设备实施任何维修操作。如需维护检修，请咨询相关资质的专业人员。擅自开启设备机箱可导致保修条款失效。本设备严禁淋雨受潮。如有液体渗入，应立即关停设备并送返至代理商处维护。如遇雷暴天气，应断开设备电源，以防设备损坏。

重要安全说明

安全须知

使用带电源线设备的用户，请注意此处安全须知！

警告：本设备必须接入具有接地保护的电源插座！

电源线中线缆按以下颜色区分：

黄绿色-地线　　蓝色-零线　　棕色-火线

如设备电源线中线缆颜色标识与所需连接电源插头中接线端颜色标识不一致，请按以下步骤操作：

- 将设备电源线中黄绿色线缆连接至电源插头中标有E、或接地符号、或绿色或黄绿色的接线端；
- 将设备电源线中蓝色线缆连接至电源插头中标有N或黑色的接线端；
- 将设备电源线中棕色线缆连接至电源插头中标有L或红色的接线端。

根据安装现场的供电情况，本设备可能需要使用不同的电源线或连接插头。如需更换连接插头，请咨询相关有资质的专业人员，并参照下表中相关信息。黄绿线必须与设备机壳相连。

导线		线缆颜色	
		通用标准	其它标准
L	火线	棕色	黑色
N	零线	蓝色	白色
E	地线	绿色/黄色	绿色

警告：如接地保护不良，连接使用的设备或系统可出现故障，并导致设备机箱与大地间产生满载线电压。一旦有人员同时接触机箱与大地，可导致严重伤害甚至死亡。



本产品不得作为生活垃圾抛弃。根据相关法律规定，电子类废弃物应通过独立的回收系统进行妥善处理、回收与再利用。

位于欧盟25国、瑞士与挪威境内的私人用户可将电子类废弃物送至指定回收站或产品零售商（于购买同类新产品时），并享受免费的回收处理服务。

如用户不在上述国家境内，请联系当地机构咨询相关回收处理事宜。

以上回收处理机制旨在确保相关电子废弃物得以妥善处理、回收与再利用，防止对环境或人体健康造成损害。



此标识适用于在中华人民共和国销售的电器电子产品。标识中间的数字为环保使用期限的年数。

部件名称	有毒有害物质或元素					
	铅 Pb及其化合物	汞 Hg及其化合物	镉 Cd及其化合物	六价铬 Cr^{6+}及其化合物	多溴联苯 PBB	多溴二苯醚 PBDE
印制电路板	X	O	O	O	O	O
显示屏	O	O	O	O	O	O
塑料和聚合物部件	O	O	O	O	O	O
金属件	O	O	O	O	O	O

“O”表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572-2011规定的限量要求以下。
“X”表示该有毒有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572-2011规定的限量要求。
根据中国电子行业标准SJ/T 11364-2014和相关的中国政府法规,本产品及其某些内部或外部组件上可能带有环保使用期限标识。取决于组件和组件制造商。产品及其组件上的使用期限标识可能有所不同。组件上的使用期限标识优先于产品上任何与之相冲突的或不同的环保使用期期限标识。

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第1章 - 简介

感谢您购买了JBL®品牌数字处理器VX9。VX9是一款专为KTV市场设计的、功能强大的语音处理器。VX9不仅提供多种音频连接方式，而且还融合了JBL扬声器和话筒出厂预设。VX9提供各种必要的连接方式和语音处理，贴近市场习惯的操作界面，带来JBL美妙的KTV体验。

1.1 VX9的定义

VX9的主要功能：

- 专业级数字音频效果处理器
- 麦克风输入设有四级反馈抑制
- 升降调功能提供更多样化的卡拉OK体验
- 可存储多达16种预设
- 混响与回声效果可独立控制
- 两对RCA接口与一路光纤、同轴接口可用于音乐输入
- 麦克风输入配置20段参量均衡器
- 音乐输入配置15段参量均衡器
- 超低音输出端子可用于连接有源超低音音箱
- 搭载JBL娱乐专业音箱和麦克风产品的KTV预设系统
- 提供RS232接口，用于连接KTV房间中控系统和智能家居系统
- 电脑端控制软件帮助专业级用户对系统进行专业而精细的调试

单套包装包括：

- 一台JBL VX9数字处理器
- 一本用户手册
- 一条电源线

（遥控器选配）

1.2 联系信息

网址:
www.jblpro.com

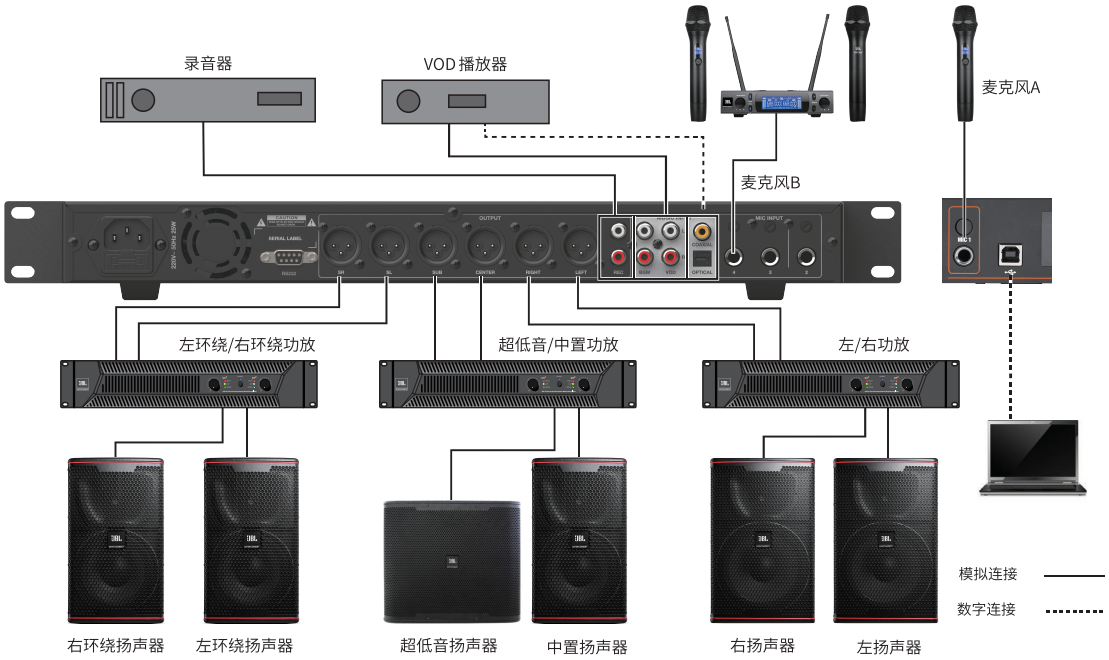
专业产品联系方式(美国以外):
请联系您本区域JBL专业产品经销商。我们的网站 www.jblpro.com 提供了JBL专业产品全球经销商一览表。

第2章 - 入门

2.1 快速入门

请按如下步骤完成快速安装和启动。操作之前请确保已关闭VX9和所有功率放大器的电源。

1.连接VX9和系统。



2.先启动VX9,再启动功率放大器。

3.在以上操作过程中,将所有功率放大器的音量调至最低,然后接通功率放大器电源。

4.信号通过VX9时,在确保功率放大器不削波的前提下,慢慢调高功率放大器的音量到理想收听效果。

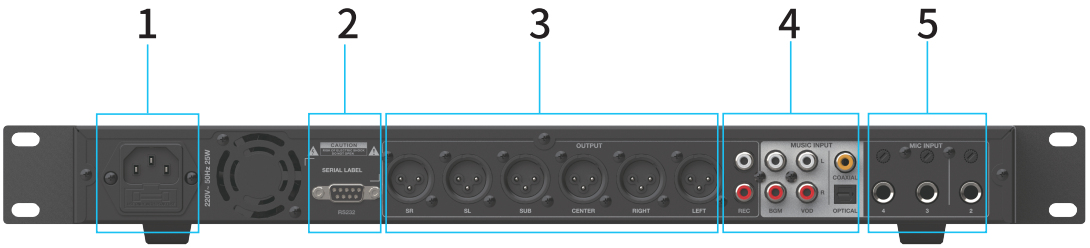
⚠ **注意:为了正确地保护扬声器而不影响其性能,建议您调整音频系统的音量结构并且调节分频器,均衡器和限幅器的设置。**

2.2 前面板



1. MIC1：TS6.35插入口。
2. USB：用于与PC的连接，通过PC-GUI进行控制，程序升级等。
3. LCD：显示屏，蓝底白字；显示音量、频率、模式等信息。
4. FUNCTION SELECT（功能选择）按键：在VX9中，通过这些按键调试对应的功能参数。
   以下是对这些按键的基本描述：
   - MUSIC（音乐）：音乐调节按键，用于进入音乐调节（音量、均衡器、低切、高切、输入选择）；
   - MIC（话筒）：麦克风调节按键，用于进入麦克风调整（音量、均衡器、低切、高切、AFE）；
   - EFFECT（效果）：用于进入音乐效果调整（音量、均衡器、低切、高切、回声、混响）；
   - MAIN（主输出）：用于R和L输出控制（均衡器、音量、延迟）；
   - SUB（超低音）：用于低音输出控制（EQ、Vol、延迟）；
   - C/S（中置/环绕）：用于调节环绕及中置声道参数；
   - INPUT（输入）：输入音源切换键，用于切换各输入的音源信号（VOD/BGM/OPT/AUTO）；
   - SYS（系统）：系统设置按键，用于系统管理（密码、限制音量设置和初始音量设置、初始预设设置、JBL扬声器预设选择）；
   - SAVE（保存）：按该按键，用于保存各种调整好的数据 ；
   - ESC（返回）：按返回主屏幕；
   - MODE（模式）：模式选择，预设调用。
5. ADJUST/ ENTER （调整/确认）：导航旋钮，短按确定。
6. MUSIC旋钮：输出音乐音量调节旋钮，左旋音量减小，右旋音量增大；
   MIC旋钮：输出麦克风音量调节旋钮，左旋音量减小，右旋音量增大；
   EFFECT旋钮：输出效果音量调节旋钮，左旋音量减小，右旋音量增大。
7. POWER：电源开关键，往上拨动开机，往下拨动关机。

2.3 后面板



1. 电源插座：接入220V交流电。
2. RS232：9针RS232插座，用于智能KTV房间控制。
3. SR - 环绕右声道非平衡信号XLR输出口；

   SL - 环绕左声道非平衡信号XLR输出口；

   SUB - 超低音声道非平衡信号XLR输出口；

   CENTER - 中置声道非平衡信号XLR输出口；

   RIGHT - 右主声道非平衡信号XLR输出口；

   LEFT - 左主声道非平衡信号XLR输出口。
4. REC（L/R）- 用于录音RCA 输出；

   BGM（L/R）- 背景音乐输入口；

   VOD(L/R) - 视频点播信号输入口；

   COAXIAL - 同轴信号输入口；

   OPTICAL - 光纤信号输入口。
5. MIC2 – TS6.35插入口；

   MIC3 – TS6.35插入口；

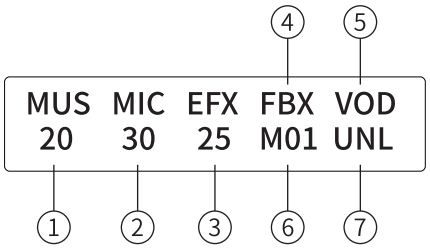
   MIC4 – TS6.35插入口。

2.4 功能菜单和导航

初始显示界面

设备开机后主界面。当停止操作20秒后,系统自动返回初始界面。如右图所示。

1、当前音乐音量值为20
2、当前麦克风音量值为30
3、当前效果音量值为25
4、啸叫抑制功能打开时,显示FBX,关闭时,此处为空
5、当前的音乐输入通道为VOD
6、当前的效果模式为01
7、当前面板锁状态:“UNL” - 未锁定;“----” - 锁定



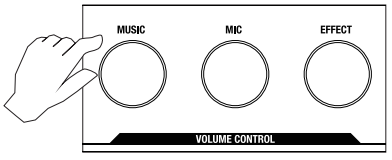
音乐输入信号选择

本系统共有四种音乐输入音源选择,分别为VOD、BGM、OPT、AUTO。按[INPUT]按键,显示界面音源显示字符会不停闪烁,如右图,再次按[INPUT]按键选择所需的输入音源通道,当选择所需的输入音源通道后等待1S系统将自动切换。如下图所示。



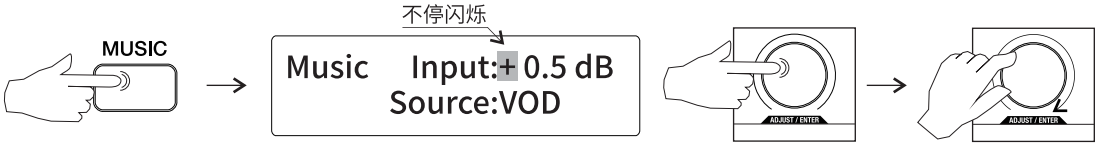
音乐/麦克风/效果音量调节

音乐音量调节:初始界面下,直接旋转[MUSIC]旋钮可以调节音乐的音量;
麦克风音量调节:初始界面下,直接旋转[MIC]旋钮可以调节麦克风的音量;
效果音量调节:初始界面下,直接旋转[EFFECT]旋钮可以调节效果的音量。



音乐设置

按[MUSIC]按键,进入音乐设置菜单,再次按[MUSIC]按键可选择所要设置的音乐菜单项,按并旋转[ADJUST/ENTER]旋钮可调节音乐参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ ENTER]旋钮后,显示界面参数调节处会有光标闪烁,调节同一显示界面其他参数只需再次按[ADJUST/ ENTER]旋钮切换即可。)如下图所示。



音乐设置菜单及参数取值范围如下:

菜单	说明	取值范围	备注
输入增益	设置音乐输入增益数值	-10dB~+10dB	
输入音源	选择音乐输入音源	VOD/BGM/OPT/自动	
高低通频率	设置音乐低通频率范围	19.7Hz~20.2KHz	
高低通类型	设置高低通类型	Bypass/1st/Bes/But/L-R等	
均衡	音乐均衡设置，共15段		
均衡增益	音乐增益设置	-24dB~+12dB	
均衡 Q值	音乐 Q值设置	0.4~128	
动态均衡	音乐动态均衡设置，共 3 段		
	设置启动电平	-60dBu~0dBu	
	设置启动时间	0.5ms~400ms	
	设置释放时间	Atk*2~Atk*32	
	设置压缩比例	1.0~100	

麦克风设置

按[MIC]按键,进入麦克风设置菜单,再次按[MIC]按键可选择所要设置的麦克风菜单项,按并旋转[ADJUST/ ENTER]旋钮可调节麦克风参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ ENTER]旋钮后,显示界面参数调处会有光标闪烁,调节同一显示界面其他参数需再次按[ADJUST/ ENTER]旋钮切换即可。)如下图所示。



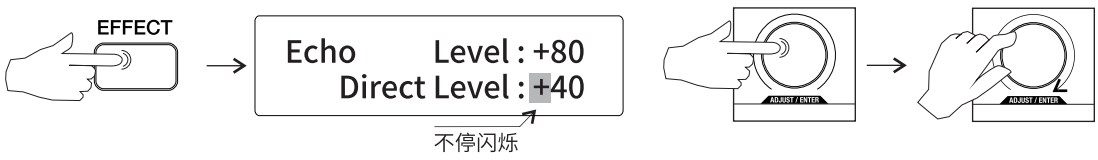
麦克风设置菜单及参数取值范围如下:

菜单	说明	取值范围	备注
输入增益	设置麦克风输入增益值	-10dB~+10dB	
啸叫抑制	设置啸叫抑制大小	0~4	
高低通频率	设置麦克风高低通频率范围	19.7Hz~20.2KHz	
高低通类型	设置高低通类型	Bypass/1st/Bes/But/L-R等	
压限启动电平	设置麦克风压限启动电平值	-34dB~+0dB	
压限启动时间	设置麦克风压限启动时间	0.5~400ms	
压限释放时间	设置麦克风压限释放时间	Atk*2~Atk*32	
压缩比例	设置麦克风压缩比例	1.0~100	

均衡	麦克风均衡设置，共20段		
均衡Q值	麦克风均衡Q值设置	0.4~128	
均衡增益	麦克风均衡增益设置	-24dB~+12dB	
麦克风设置分MIC A和MIC B两部分，在设置参数时可选择同步设置，也可单独设置			

效果设置

按[EFFECT]按键,进入效果设置菜单,再次按[EFFECT]按键可选择所要设置的效果菜单项,按并旋转[ADJUST/ ENTER]旋钮可调节效果参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ ENTER]旋钮后,显示界面参数调节处会有光标闪烁,调节同一显示界面其他参数只需再次按[ADJUST/ ENTER]旋钮切换即可。)如下图所示。



效果设置菜单及参数取值范围如下:

菜单	说明	取值范围	备注
回声/混响直达	设置回声/混响音乐电平值	-200~+200	
回声/混响高低通频率	设置回声/混响高低通频率范围	19.7Hz~20.2KHz	
回声/混响高低通类型	设置回声/混响高低通类型	Bypass/1st/Bes/But/L-R等	
回声/混响电平	设置回声/混响回声电平值	-200~+200	
回声预延时	设置回声预延时时间	0~250ms	
回声延时	设置回声延时时间	0~500ms	
回声重复比例	设置回声重复比例值	0~90%	
回声右通道延迟	设置回声右通道延迟时间	-50%~+50%	
回声右通道预延迟	设置回声右通道预延迟时间	0~50%	
回声/混响均衡	回声/混响均衡设置，共7段		
回声/混响均衡Q值	回声/混响均衡Q值设置	0.4~128	
回声/混响均衡增益	回声/混响均衡增益设置	-24dB~+12dB	
混响预延时	设置混响预延时时间	0~200ms	
混响时间	设置混响时间	0~5000ms	

主输出设置

按[MAIN]按键,进入主输出设置菜单,再次按[MAIN]按键可选择所要设置的主输出菜单项,按并旋转[ADJUST/ ENTER]旋钮可调节主输出参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ ENER]旋钮后,显示界面参数调节处会有光标闪烁,调节同一显示界面其他参数需再次按[ADJUST/ ENTER]旋钮切换即可。)如下图所示。

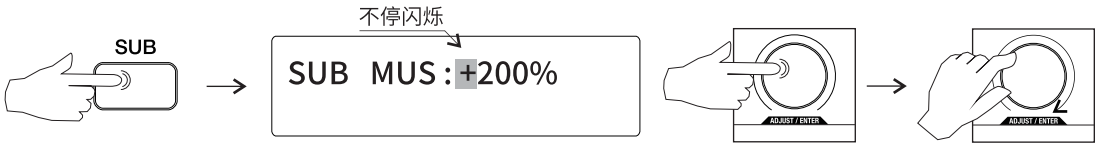


主输出设置菜单及参数取值范围如下:

菜单	说明	取值范围	备注
音量	设置主输出音量值	0~80	
音乐电平	设置主输出音乐电平值	-200%~+200%	
麦克风电平	设置主输出麦克风电平	-200%~+200%	
高低通频率	设置主输出高低通频率范围	19.7Hz~20.2KHz	
高低通类型	设置主输出高低通类型	Bypass/1st/Bes/But/L-R等	
回声电平	设置主输出回声电平值	-200%~+200%	
混响电平	设置主输出混响电平值	-200%~+200%	
左右声道延时	设置主输出左右声道延时时间	0~50ms	
压限启动电平	设置主输出压限启动电平值	-16dBu~+18dBu	
压限启动时间	设置主输出压限启动时间	0.5~400ms	
压限释放时间	设置主输出压限释放时间	Atk*2~Atk*32	
压缩比例	设置主输出压缩比例	1.0~100	
均衡	主输出均衡设置，共 10 段		
均衡Q值	主输出均衡Q值设置	0.4~128	
均衡增益	主输出均衡增益设置	-24dB~+12dB	
以上设置主输出设置方式左右声道相同			

超低音输出设置

按[SUB]按键,进入超低音设置菜单,再次按[SUB]按键可选择所要设置的超低音菜单项,按并旋转[ADJUST/ENTER]旋钮可调节超低音参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ENER]旋钮后,显示界面参数调节处会有光标闪烁,调节同一显示界面其他参数只需再次按[ADJUST/ ENTER]旋钮切换即可。)如下图所示。

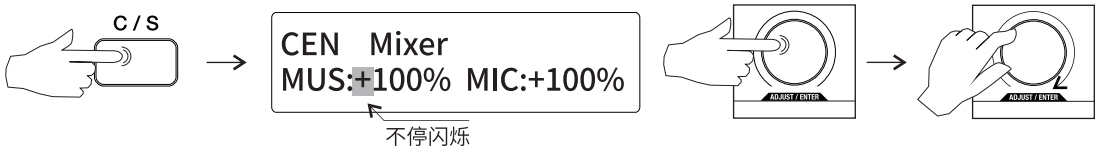


超低音输出设置菜单及参数取值范围如下：

菜单	说明	取值范围	备注
输出音量	设置超低音输出音量值	0~80	
音乐电平	设置超低音输出音乐电平值	-400%~+400%	
高低通频率	设置超低音高低通频率范围	19.7Hz~303Hz	
高低通类型	设置超低音高低通类型	Bypass/1st/Bes/But/L-R等	
延时	设置超低音延时时间	0~50ms	
压限启动电平	设置超低音压限启动电平值	-16dBu~+18dBu	
压限启动时间	设置超低音压限启动时间	0.5~400ms	
压限释放时间	设置超低音压限释放时间	Atk*2~Atk*32	
压缩比例	设置超低音压缩比例	1.0~100	
均衡	超低音均衡设置，共10段		
均衡Q值	超低音均衡Q值设置	0.4~128	
均衡增益	超低音均衡增益设置	-24dB~+12dB	

中置/环绕输出设置

按[C/S]按键,进入中置/环绕设置菜单,再次按[C/S]按键可选择所要设置的中置/环绕菜单项,按并旋转[ADJUST/ ENTER]旋钮可调节中置/环绕参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ ENTER]旋钮后,显示界面参数调节处会有光标闪烁,调节同一显示界面其他参数需再次按[ADJUST/ ENTER]旋钮切换即可。) 如下图所示。



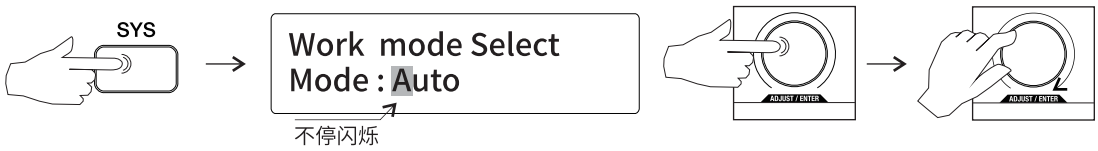
中置/环绕输出设置菜单及参数取值范围如下：

菜单	说明	取值范围	备注
输出音量	设置中置/环绕输出音量值	0~80	
音乐电平	设置中置/环绕输出音乐电平值	-200%~+200%	
麦克风电平	设置中置/环绕输出麦克风电平	-200%~+200%	
高低通频率	设置中置/环绕高低通频率范围	19.7Hz~20.2KHz	
高低通类型	设置高低通类型	Bypass/1st/Bes/But/L-R等	
回声电平	设置中置/环绕回声电平值	-200%~+200%	
混响电平	设置中置/环绕混响电平值	-200%~+200%	
延时	设置中置/环绕延时时间	0~50ms	
压限启动电平	设置中置/环绕压限启动电平值	-16dBu~+18dBu	
压限启动时间	设置中置/环绕压限启动时间	0.5~400ms	

压限释放时间	设置中置/环绕压限释放时间	Atk*2~Atk*32	
压缩比例	设置中置/环绕压缩比例	1.0~100	
均衡	中置/环绕均衡设置，共10段		
均衡Q值	中置/环绕均衡Q值设置	0.4~128	
均衡增益	中置/环绕均衡增益设置	-24dB~+12dB	

系统设置

按[SYS]按键,进入系统设置菜单,再次按[SYS]按键可选择所要设置的系统菜单项,按并旋转[ADJUST/ ENTER]旋钮可调节系统参数,具体操作为:按[ADJUST/ ENTER]旋钮选中所需调节的参数项,然后旋转[ADJUST/ ENTER]旋钮进行参数调节,调整好参数后等待1S系统将确认修改的参数。(调节参数时,按[ADJUST/ ENTER]旋 钮后,示界面参数调处会有光标闪烁,调节同一显示界面其他参数只需再次按[ADJUST/ ENTER]旋钮切换即可。)如下图所示。



系统设置菜单及参数取值范围如下:

菜单	说明	取值范围	备注
音乐模式	设置运行音乐模式	唱歌/热舞/自动	
面板锁	防止其他人修改参数，可选择使用面板锁功	ON:锁定，密码为四位数 OFF:开锁	初始密码:1111
开机音乐音量	设置开机后的音乐音量大小	0~开机最大音量	
最大音乐音量	设置开机后的音乐最大音量值	0~80	
开机麦克风音量	设置开机后的麦克风音量大小	0~开机最大音量	
最大麦克风音量	设置开机后的麦克风最大音量值	0~80	
开机效果音量	设置开机后的效果器音量大小	0~开机最大音量	
最大效果音量	设置开机后的效果最大音量值	0~80	
变调	设置变调功能的开和关，调节变调的幅度	OFF ON: -7~+7	
红外接收	开:红外接收功能打开;关:红外接收功能关闭	ON/OFF	
系统信息	显示设备内部ID码以及程序版本号		

保存设置

按[SAVE]按键进入保存设置界面,然后按并旋转[ADJUST/ ENTER]旋钮可对保存模式进行选择和编辑,编辑确认后再次按[SAVE]进入保存确认界面,此时通过按并旋转[ADJUST/ ENTER]旋钮进行确认即可。如下图所示。



返回

按[ESC]按键，系统返回初始显示界面。如下图所示。



模式选择及调用

按[MODE]按键进入模式选择及调用界面,然后按并旋转[ADJUST/ ENTER]旋钮可对系统存储的模式进行选择,再次按[MODE]按键进入确认调用确认界面,此时通过按并旋转[ADJUST/ ENTER]旋钮进行确认即可。如下图所示。



第3章 - 附录

3.1 USB接口/电脑操作软件/更新固件

通过USB接口将VX9与电脑连接后，可使用VX9操作软件对设备进行控制，亦可对VX9固件进行更新。
遵循以下步骤安装操作软件：
1. 登入哈曼专业官方网站：https://jblpro.com/zh，进入JBL娱乐产品分类，找到处理器VX9，点击下载操作软件。
2. 连接VX9到电脑的USB接口。
3. 登入VX9操作软件界面。

遵循以下步骤更新固件：
1. 登入哈曼专业官方网站：https://jblpro.com/zh，进入JBL娱乐产品分类，找到处理器VX9，点击下载固件更新工具和最新的bin文件。
2. 连接VX9到电脑的USB接口。
3. 通过PC-GUI将所有预设保存到PC。
4. 运行固件更新工具，并根据提示更新固件。
5. 更新完成后，重启VX9。

3.2 恢复出厂预设

恢复出厂预设将删除所有的User Presets(用户自定义预设)以及参数，系统恢复到出厂默认状态。遵循以下步骤执行恢复出厂预设：

1. 同时按住VX9面板上的MUSIC与EFFECT按键，不松开。
2. 然后开启VX9电源。
3. 等待显示屏上显示“FactoryRecovery: NO? YES? ”松开按键。
4. 利用旋钮按键(ADJUST/ENTER)选择 YES
5. 请耐心等待至重设完成。
6. 重启VX9。

3.3 中控代码

RS232中控代码

RS232 串口设置 (波特率: 115200　数据位: 8　校验位: None　停止位: 1)

//1-数据设置命令,正确返回:EE BB,错误返回:EE AA			
音乐音量+	F5 C0 06 B7 60 00 5A 43 A9	音乐音量-	F5 C0 06 B7 60 01 5A 43 AA
话筒音量+	F5 C0 06 B7 60 02 5A 43 AB	话筒音量-	F5 C0 06 B7 60 03 5A 43 AC
效果音量+	F5 C0 06 B7 60 04 5A 43 AD	效果音量-	F5 C0 06 B7 60 05 5A 43 AE
音乐静音	F5 C0 06 B7 19 0A 01 00 D0	取消静音	F5 C0 06 B7 19 0A 00 00 CF
降调	F5 C0 06 B7 60 06 5A 43 AF	原调	F5 C0 06 B7 60 07 5A 43 B0
升调	F5 C0 06 B7 60 08 5A 43 B1		
音乐输入切换			
自动	F5 C0 06 B7 60 09 5A 43 B2	BGM	F5 C0 06 B7 60 0A 5A 43 B3
VOD	F5 C0 06 B7 60 0B 5A 43 B4	光纤	F5 C0 06 B7 60 0C 5A 43 B5
调用模式			
模式1	F5 C0 06 B7 1E 02 00 00 CC	模式2	F5 C0 06 B7 1E 02 01 00 CD
模式3	F5 C0 06 B7 1E 02 02 00 CE	模式4	F5 C0 06 B7 1E 02 03 00 CF
模式5	F5 C0 06 B7 1E 02 04 00 D0	模式6	F5 C0 06 B7 1E 02 05 00 D1

//2-数据读取命令 ##为校验值可忽略　**为读取的数值			
发送	F5 C0 04 B0 60 00 05	返回	F5 C0 06 B0 60 00 ** 00 ##
音乐音量			
发送	F5 C0 04 B0 60 01 06	返回	F5 C0 06 B0 60 01 ** 00 ##
话筒音量			
发送	F5 C0 04 B0 60 02 07	返回	F5 C0 06 B0 60 02 ** 00 ##
效果音量			
发送	F5 C0 04 B0 60 03 08	返回	F5 C0 06 B0 60 03 ** 00 ##
音乐输入源			
发送	F5 C0 04 B0 60 04 09	返回	F5 C0 06 B0 60 04 ** 00 ##
返回值定义:00 - AUTO、01 - VOD、02 - BGM、03 - OPT			

变调			
发送	F5 C0 04 B0 60 05 0A	返回	F5 C0 06 B0 60 05 ** 00 ##
返回值 ** 定义：00 - 06 ---> 降调：b7 - b1； 07 ---> 原调：0； 08 - 0E --->升调：#1 - #7			

音乐三段用户均衡	
低音	类型：F5 C0 06 B7 15 01 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+01+XX）取后八位 增益：F5 C0 06 B7 15 03 XX 00 YY [XX ---(5A)-6dB、(5F)-5dB、(64)-4dB、(69)-3dB、(6E)-2dB、(73)-1dB、(78) 0dB、(7D)+1dB、(82)+2dB、(87)+3dB、(8C)+4dB、(91)+5dB、(96)+6dB] YY=（F5+B7+15+03+XX）取后八位
中音	类型：F5 C0 06 B7 15 06 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+06+XX）取后八位 增益：F5 C0 06 B7 15 08 XX 00 YY（XX 参考音乐低音增益） YY=（F5+B7+15+08+XX）取后八位
高音	类型：F5 C0 06 B7 15 0B XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+0B+XX）取后八位 增益：F5 C0 06 B7 15 0D XX 00 YY（XX 参考音乐低音增益） YY=（F5+B7+15+0D+XX）取后八位

话筒三段用户均衡	
低音	类型：F5 C0 06 B7 15 10 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+10+XX）取后八位 增益：F5 C0 06 B7 15 12 XX 00 YY（XX 参考音乐低音增益） YY=（F5+B7+15+12+XX）取后八位
中音	类型：F5 C0 06 B7 15 15 XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS） YY=（F5+B7+15+15+XX）取后八位 增益：F5 C0 06 B7 15 17 XX 00 YY（XX 参考音乐低音增益） YY=（F5+B7+15+17+XX）取后八位
高音	类型：F5 C0 06 B7 15 1A XX 00 YY（XX：0-bypass , 1-PEQ , 2-LS , 3-HS YY=（F5+B7+15+1A+XX）取后八位 增益：F5 C0 06 B7 15 1C XX 00 YY（XX 参考音乐低音增益） YY=（F5+B7+15+1C+XX）取后八位

3.4 红外远程控制码

IRDA:基于标准IRDA协议
用户码:9F



音量			
MIC-	18 E7 0E F1	MUSIC-	18 E7 0C F3
MIC+	18 E7 06 F9	MUSIC+	18 E7 04 FB
EFX-	18 E7 0F F0	SUB-	18 E7 21 DE
EFX+	18 E7 0D F2	SUB+	18 E7 0A F5
音乐			
Treble+	18 E7 1C E3	Middle+	18 E7 1D E2
Treble-	18 E7 1F E0	Middle-	18 E7 5C A3
Bass+	18 E7 1E E1		
Bass-	18 E7 11 EE		
麦克风			
Treble+	18 E7 15 EA	Middle+	18 E7 19 E6
Treble-	18 E7 16 E9	Middle-	18 E7 1B E4
Bass+	18 E7 1A E5		
Bass-	18 E7 12 ED		
其他			
KTV1	18 E7 01 FE	KTV2	18 E7 07 F8
KTV3	18 E7 02 FD	MUSIC	18 E7 17 E8
BGM	18 E7 13 EC	VOD	18 E7 22 DD
OPT	18 E7 23 DC	AUTO	18 E7 24 DB
MUTE	18 E7 0B F4	ON/OFF	18 E7 05 FA
-♭	18 E7 14 EB	♮	18 E7 18 E7
+#	18 E7 10 EF	HOME	18 E7 20 DF

3.5 产品规格

数字输入	
接口	OPTICAL / COAXIAL
格式	S / PDIF (24 bit) , EIAJ CP - 340, IEC 958
系统延迟	1.7 ms
模拟输入	
麦克风输入接口	4 × 1 / 4 " TS
音乐输入接口	2 stereo pairs RCA
麦克风输入阻抗	8 kΩ
音乐输入阻抗	10 kΩ
最大输入电平	> 18 dBu
模拟信号输出	
接口	6 × XLR unbalanced
录音接口	1 stereo pair RCA
输出阻抗	300 ohm
最大输出电平	> 18 dBu
总谐波失真	≤ 0.05 % @ 20 Hz - 20 kHz
串扰	≤ - 90 dB
信噪比	> 100 dB @ A - weight
本底噪声	< 80 uV @ A - weight , Gain to Max
环境要求	
工作温度	0 ℃ - 45 ℃
储存温度	- 20 ℃ - 60 ℃
湿度	Max. 90 % non - condensing
控制界面	
USB	USB 2.0 Type - B
RS232	DB9
概述	
显示方式	DOT MATRIX LCD
外形尺寸	482 × 204 × 44 mm
净重	3.6 Kg
电源电压	AC 220 V / 50 Hz
功率消耗	≤ 25 W

备注:JBL不断致力于作改进产品相关的研究。JBL会将新材料、新生产方法、及新设计改良应用到现有产品上而不需另行通知。因此,任何当前JBL产品在某种程度上将不同于之前发布之产品,如无特别说明,这些产品仍等同于或优良于原始设计的规格。



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