PROFESSIONAL
by HARMAN

JBL CMX6208SP Software Manual

1. PC-GUI Overview

The management software allows quick parameter access, preset and configuration storage, recall and restore across multiple devices through network connection. This enables fast operation and customization, which enhances better user experience.

2. Software Installation

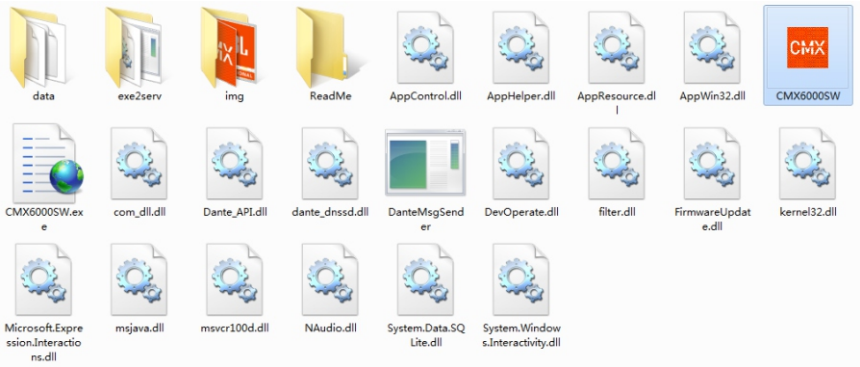
2.1. PC Window Requirements

Support any x86/x64 Windows operating system with Microsoft .NET Framework 4.0 runtime library, such as Win 7, Win 8, and Win 10 systems.

2.2 Software Installation

This software does not require installation. After download the file, decompress to a specific folder. The folder should contain the following files and folders. Do not delete or move any of the files from original position. The software does not contain the required Microsoft .NET Framework 4.0 runtime library. If it is necessary, please download and install it from the official website.

https://www.microsoft.com/zh-CN/download/details.aspx?id=17851



2.3 To Start Software Operation

Double-click the executable file 

in the folder to enter the software theme page, as shown in Figure 1.1.

Figure 1.1

3. Software UI Description

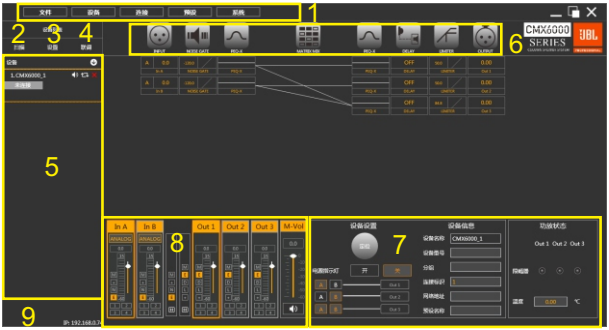


Figure 1.2

Each module as indicated by the yellow box shown in fig. 1.2 are as followed:

(1) Menu bar
(2) Scan
(3) Setting
(4) Group control
(5) Device list
(6) Module
(7) Power amplifier status
(8) Input and output channel
(9) Local IP address

3.1 Input and Output Channel

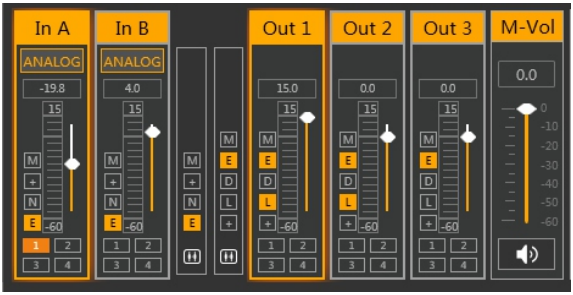


Figure 1.3

This page displays the level, gain, input mode, channel name and other information of each channel. You can control the corresponding channel gain, turn on/off DSP functions, and enable the input and output channel to be grouped for unified control, making the operations more convenient.

In Figure 1.3, the left part shows the input channel.

a. The content from top to bottom on the input channel page includes: channel name In A, input mode ANALOG, channel gain, functional button M + N E, and group control 1 2 3 4.

b. The channel name, input mode, and channel grouping can only be viewed. Editing is not allowed.

c. In the channel gain function, you can see the level status of the input channel signal 15 -60.

d. The functional buttons from top to bottom are as follows: Mute M, Polarity +, Noise Gate N, and Equalizer Bypass E. If the mute button is red, the device is in the mute state. If the other buttons are orange, the device is in the active state.

e. The group control involves four channels by default. When the background color of the corresponding number box turns orange 1, it means that this channel has been added to the second group for group control.

The button bar in the middle of the input and output channels in Figure 1.3 is the general switch of the functional buttons corresponding to all input or output channels, which will take effect on all input or output channels simultaneously.

Click the group control button  between the input and output channels.
The channel group control page is displayed, as shown in Figure 1.4.

Figure 1.4

As shown in the figure above, the three lists from left to right are channel list, group list, and parameter list respectively:

Channel list: All the channels that can be jointly adjusted are listed. After selecting the corresponding channel, click the add button  to move it to the group list.

Group list: There are already two groups. You can directly select the corresponding group. The channel added to the channel list will be directly added to the selected group. To remove a channel from the group list, select the channel and click the remove button  below the add button to move the channel to the channel list.

Parameter list: It lists parameters that can be jointly adjusted among groups on the group list. When a parameter checked, it will be adjusted for channels in the same group.

As shown in Figure 1.3, the right part of the input and output channel list on the main page shows the output channel.

a. The content from top to bottom on the output channel page includes: channel name 

, channel gain, functional button 

and channel group control 

.

b. You can only view the channel name, digital output state, and channel group. These parameters cannot be edited. In the channel gain function, you can view the level status of the output channel signal 

. The other two parts (gain value box and gain slider) are used to adjust the gain value of this channel.

c. The functional buttons from top to bottom are as follows: Mute 

, Equalizer Bypass 

, Delay 

, limiter 

, and polarity 

. If the mute button is red, the device is in the mute state. If the other buttons are orange, the device is in the active state.

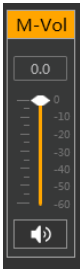
d. The group control involves four channels by default. When the background color of the corresponding number box turns orange 

, it means that this channel has been added to the second group for group control.

As shown in Figure 1.3, the rightmost part of the input and output channel list on the main page shows the total volume.

a. The content from top to bottom on the output channel page includes: channel name 

, channel gain, and mute button. When the small speaker of the mute button is red, the device is in the mute state.



3.2 Scan Button

Click the **Scan** button in the device list. A progress prompt box is displayed, showing the scan progress, as shown in Figure 1.5.

Figure 1.5

3.3 Settings Button

You can set the connection mode of the scanning device. Click **Settings**. A port connection page is displayed, as shown in Figure 1.6. Select the corresponding port and click **OK**. If the device port is changed, click the **OK** button in the lower right corner to update the port list.

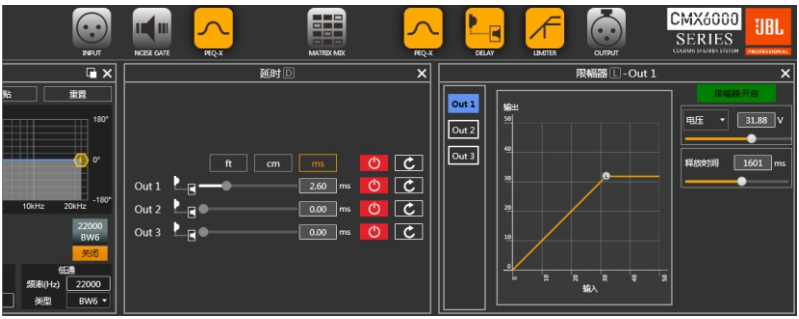
Figure 1.6

3.4 Group Control

You can set the parameters of multiple devices at the same time. Click the **Group Control** button. The group control page is displayed, as shown in Figure 1.7. Select the devices that need to be set simultaneously in the left frame, move them to the combination group in the middle frame, select the group-based setting parameters on the rightmost part, and then press the **OK** button to make the group function take effect. You can also perform the same operation to correct the network group settings.

Figure 1.7

4. Description of Function Pages



Double-click the control button to open or close a page. When multiple function pages are opened at the same time, you can move the cursor to the top row of the function page. At this time, the cursor becomes a hand shape, and you can press and hold the left mouse button to drag an item left and right.

To facilitate the interaction of different parameters of the device, the software is divided into multiple modules according to the functional sequence. If you need to operate the corresponding modules, you can use this module control button to open, close, and locate the module pages. You can double-click to open/close a page, and click to locate a page.

4.1 Main Page of Input Channel Module

Double-click 

input button. The input channel module is displayed, as shown in Figure 3.1.

Figure 3.1

As shown in Figure 3.1, you can configure the polarity, mute, and input gain of the corresponding input channel. The adjustable range of the gain is 15 dB to -60 dB.

4.2 Test Signal Functions

Select sine wave, pink noise, and white noise in the input source, and then set the corresponding parameters in the test signal settings page according to your requirements to test the channel.

In the test signal generation settings, you can set the device to generate 3 types of test signal. The switch on the right side of each test signal can enable or disable the test signal. When the switch is green, the signal is enabled. When the switch is red, the signal is disabled. In addition, you can set the frequency of the sine wave.

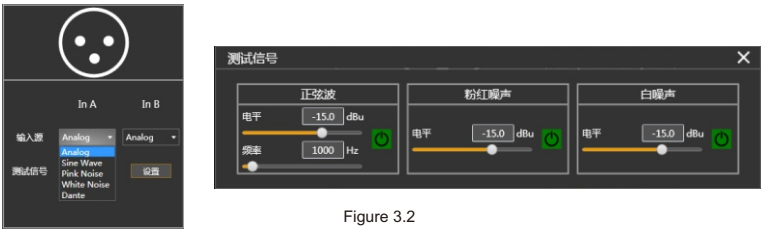


Figure 3.2

4.3 Input Noise Gate

Double-click 

module button. The input noise gate setting module is displayed, as shown in Figure 3.3.

Click **InA** or **InB** to set the noise gate of channels A and B respectively.

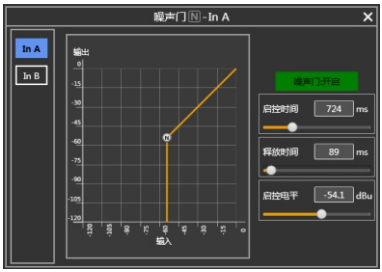


Figure 3.3

As shown in Figure 3.3, click the noise gate switch 

in the upper right corner to enable or disable the noise gate function of the input signal of the channel. When the switch is green, the function is enabled. When the switch is red, the function is disabled. You can drag the slider  or type in the value in the corresponding value box 

to set the noise gate parameters such as start control time, release time, and start control level. When the noise gate function is enabled, the point  in the graph on the left can be dragged diagonally to adjust the start control level.

4.4 Input Equalizer (EQ)

Double-click 

module button. The input equalizer setting module is displayed, as shown in Figure 3.4. Click the  button in the upper right corner to zoom in the module, so that the page will become clearer.

Figure 3.4

4.4.1 Functional Buttons

As shown in Figure 3.4, the functional buttons in the top part are as follows:

Phase curve: Shows the phase curve of the current channel.

Show control point: Shows or hides all EQ control points.

Full bypass: Enables or disables all EQs for the current channel at the same time.

Archive EQ: Saves the current EQ parameters to the computer, or recalls a previously saved preset EQ.

Copy: Copies the current EQ parameter value, which can be pasted to other input channels.

Paste: Used in combination with the **Copy** button to paste the EQ parameter value to the current channel.

Reset: Resets the EQ parameters to the default values.

4.4.2 Display of Multi-channel EQ Curve

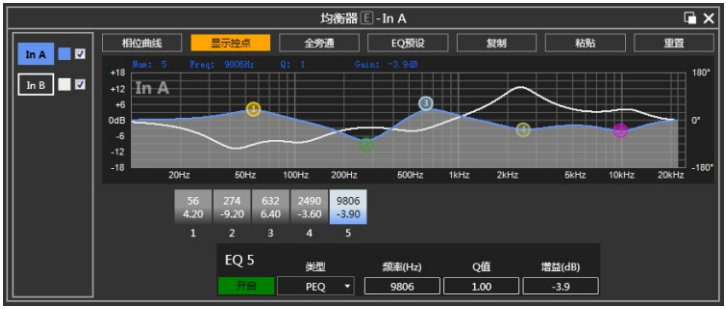
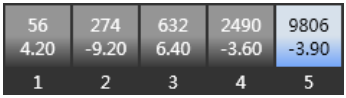


Figure 3.5

As shown in Figure 3.5, there is an EQ curve display switch for each channel on the left. After all of them are checked, the EQ curves of all channels will be displayed.

4.4.3 EQ Controls

As shown in Figure 3.5, below the curve graph 

, all EQ controls and specific values are displayed, where you can locate the positions of the controls. Combined with the following EQ parameter adjustment items, the EQ controls can precisely adjust parameter values of each EQ.

4.4.4 EQ Parameter Adjustment Item

As shown in Figure 3.5, the EQ parameter adjustment item is displayed below the EQ control, which can be used to precisely control the EQ switch, type, frequency, Q value, gain and other parameters.

4.4.5 EQ Preset Button

As shown in Figure 3.5, when you click the EQ preset button, the EQ preset items shown in Figure 3.6 are displayed.

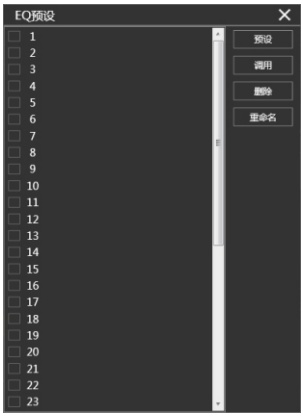


Figure 3.6

Select the item corresponding to the level list on the left, and then click the functional button on the right to implement the preset, recall, delete, and rename functions of the EQ parameters.

4.5 Matrix Audio Mixing

Double-click 

module button. The matrix audio mixing setting module is displayed, as shown in Figure 3.7.

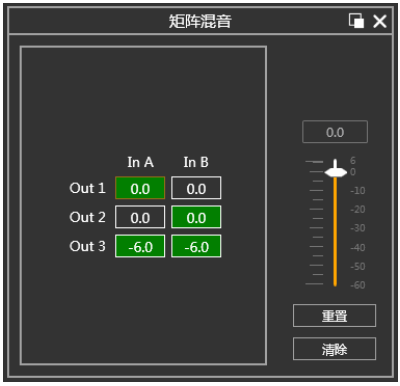


Figure 3.7

As shown in Figure 3.7, the left part shows the output channels, and the upper part shows the input channels. The value box with a value shows the input and output channel mapping key. When the mapping key is on (double-click the value box to switch the state), the signals of the input channel and output channel are mapped.

The right part includes the gain, **Reset** button, and **Clear** button of the matrix mapping. Click the value box on the left, and then drag the slider of the matrix mapping gain or enter a value in the value box to adjust the gain value in the matrix block. Click the **Reset** button to reset the matrix audio mixing function to the initial one-to-one state. Click the **Clear** button to clear all the matrix mapping functions, and there will be no mapping between the input and output of the device.

4.6 Output Equalizer (EQ)

Double-click 

module button. The input EQ setting module is displayed, as show in Figure 6.1. The functions and operation methods are the same as those for the input EQ in section 3.4.

4.7 Output Delay

Double-click 

module button. The input delay setting module is displayed, as shown Figure 3.8.

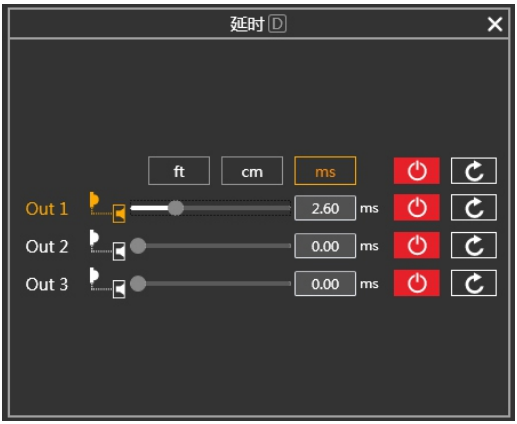


Figure 3.8

As shown in Figure 3.8, the page lists the delay control content of all input channels. Drag the slider  on the left to intuitively adjust the delay value of the corresponding channel, or enter the corresponding value in the value box 

. The right side is the switch of the delay function. When the switch is green, the function is enabled. When the switch is red, the function is disabled. The rightmost is the reset button  , with which you can directly reset the default value of the channel delay.

4.8 Output Limiter

Double-click 

module button. The output limiter setting module is displayed, as shown in Figure 3.9.

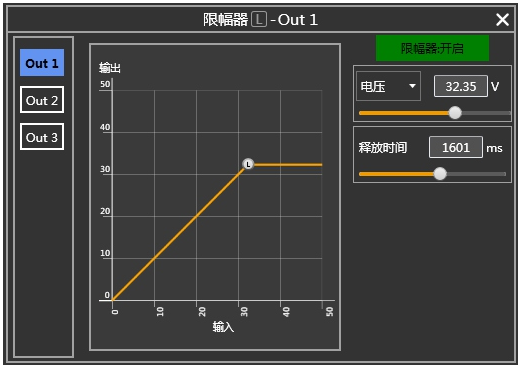


Figure 3.9

4.9 Output Module

Double-click 

module button. The output setting module is displayed, as shown in Figure 3.10.

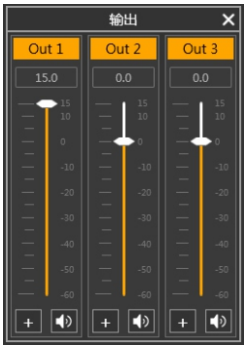


Figure 3.10

As shown in the figure above, you can set the polarity, gain and mute state of the corresponding output channel.

4.10 Device List

The device list shown in Figure 3.11 is the same as that displayed on the main page of the software (Figure 1.2).

Figure 3.11

As shown in the figure above, 2. indicates the ID of the connected device, CMX6000 indicates the device name, and CMX6000 indicates the factory name (not configurable).
If the TCP connection mode is made, the network IP address of the device will be displayed if the left side of the factory name is empty after connection is setup. If the USB connection mode is made, USB is displayed.
indicates the mute button, status refresh button, and device remove button from left to right. The mute button can be used to directly mute all input and output channels of the entire device, and the status button can be used to instantly refresh the status of the device.
If the device is online, the frame of the corresponding device in the device list on the left will turn orange, and the remove button can be used to directly remove the device from the software.
If you need to operate different devices, you can click to select the target device, and the function page will be refreshed to display the functions of the corresponding device.

5. Menu Bar

5.1. File

Figure 4.1 shows the **File** menu.

Figure 4.1

1. **New**: You can create a model of each device in this menu when the device is not connected.
2. **Virtual Device**: You can add a virtual device, and the virtual device will not affect the existing device.
3. **Open**: You can open an existing device management project in the computer disk.
4. **Save**: You can save the current device management project in the computer disk.
5. **Save as**: You can save the current device management project as a new file.

5.1.1 Adding a Device

On the main page, choose **File** > **Virtual Device**, as shown in Figure 1.2. The page for adding a device is displayed, as shown in Figure 4.2. Select virtual device CMX6000 to add it to the device list. Note: Virtual devices will not connect to real devices.

Figure 4.2

5.2 Device

Figure 4.3

Figure 4.3 shows the **Device** menu.

1. **Device Management**: You can view or modify the device information, device name and device IP address of the upper and lower computers.
2. **Channel Name**: You can set the name of each input and output channel.
3. **Copy Channel**: You can copy parameters of a channel of the same type.

5.2.1 Device Management

On the main page, choose **Device** > **Device Management**, as shown in Figure 1.2. The device management page is displayed, as shown in Figure 4.5.

Figure 4.5

As shown in the figure above, in the device list at the top, you can select the device information displayed on the target device management page. The device management page is divided into the following four parts:

1. **Software Information**: Displays the PC GUI version, DSP firmware version, and DSP hardware version of the current device.
2. **Device Information**: Displays the name and group of the current device. You can enter a new device name and save it.
3. **Device IP Information**: If the current device is connected by network information, the IP address, gateway, and MAC address of the device will be displayed here. You can enter new IP address and gateway and click **OK** to save and restart the device network module. Then, the entered network information will take effect immediately.
4. **Software Logo**: Logo of the brand

5.2.2 Channel name Management

On the main page, choose **Device** > **Channel Name**, as shown in Figure 1.2. The channel name management page is displayed, as shown in Figure 4.6.

Figure 4.6

As shown in the figure above, after entering the new name of a channel, click **OK** to save and update the name of the channel immediately. Note that the length of the channel name is limited to 6 English letters and digits.

5.2.3 Copying Channel

On the main page, choose **Device** > **Copy Channel**, as shown in Figure 1.2. The channel copying page is displayed, as shown in Figure 4.7.

Figure 4.7

As shown in the figure above, select the channel parameters of a source device. Copy the parameters to the target device. The parameters of the input channel and output channel cannot be mutually copied. The left part shows the channel, and the right part shows the copied parameter. You can switch the type of channel using the Input and Output buttons on the top of the page.

5.3 Connection

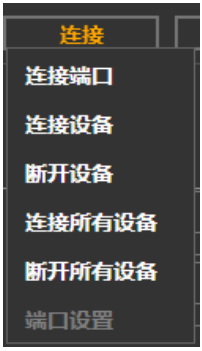


Figure 4.8

Figure 4.8 shows the **Connection** menu.

1. **Connect Port**: You can set the connection method, port number and baud rate.
2. **Connect Device**: You can connect to the device and download device parameters.
3. **Disconnect Device**: You can disconnect a connected device.
4. **Connect All Devices**: You can connect to all devices on the device list and download device parameters.
5. **Disconnect All Devices**: You can disconnect all connected devices on the device list.

5.4 Preset Device

On the main page, click **Preset** in the menu bar, as shown in Figure 1.2. The preset device page is displayed, as shown in Figure 4.9.

Figure 4.9

As shown in the figure above, the left side of the preset device page shows the device level, among which "0 automatic preset" represents the system level, which cannot be used directly; "1 (default)" represents the default level of the device, which can only be recalled, but cannot be deleted or overwritten. After it is recalled, the device parameters will be restored to the factory defaults. Other levels can be freely saved, called, and deleted.
The buttons on the right side of the preset device page include:

1. **Save**: You can save the existing device parameters to the selected archive.
2. **Call**: You can call the selected archive to the parameters of the current device.
3. **Delete**: You can delete the selected archived parameter.
4. **Clear**: You can clear all non-archived parameter records from the system.
5. **Set as Boot Archive**: You can set the selected archive as the archive that will be automatically called for operating when the device is turned on next time.
6. **Import Archive**: You can import a single device parameter file in the computer system to directly overwrite the existing parameter file.
7. **Export Archive**: You can save the parameters of the current device to the computer system to generate a single device parameter archive.
8. I**mport Archive Package**: You can import multiple archived parameter packages in the computer system.
9. **Export Archive Package**: You can save the parameters at all levels to the computer system to generate multiple archived parameter packages.

5.5 System

Figure 4.10

Figure 4.10 shows the **System** menu.

1. **Language**: You can switch the system language.
2. **About**: You can view the PC GUI version, DSP firmware version, and DSP hardware version.
3. **Firmware Update**: You can update the device firmware.
4. **Help**

5.5.1 Firmware Update

On the main page, **choose System** > **Firmware Update**, as shown in Figure 1.2. The firmware update page is displayed, as shown in Figure 4.11.

Figure 4.10

When the device firmware has an update, you can open the firmware update page after obtaining the update file. In the **Update File** drop-down list box, select the update file and click **Start Update** in the upper right corner. The system automatically transfers the update file to the lower computer for update and shows the operation log in the lower progress box. After the update is complete, the system automatically restarts or manually restart the system to complete the update.

CMX6000 SERIES

COLUMN SPEAKER SYSTEM

HARMAN Professional 8500 Balboa Blvd. Northridge, CA 91329 USA

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