

AUDIOPHILE ACOUSTICS

RAGE FIC0

31 BAND 8 CH DSP

SWEET LIKE DANISH

OWNERS MANUAL



DSP AMPLIFIER

- We greatly appreciate your purchase of the unit.
- Be sure to take maximum advantage of the unit offered, read the instructions carefully and use the set properly. Be Sure to keep this manual for future reference should any questions or problems arise.

PLUG & PLAY DSP AMPLIFIER

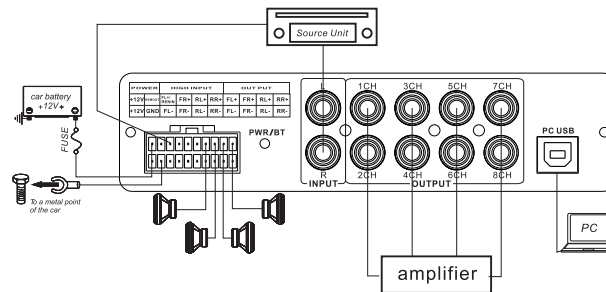
2. Technical Parameters:

Model number	RAGE FiEo Active DSP
Power Supply	9.8V-16V
Input mode	Low level input and HI INPUT, Bluetooth and USB
Output mode	High Level Input 4CH*40W, 8CH RCA Low level input
Control mode	PC or APP (optional for DSP controller)
Filter mode	HPF/LPF
HPF	20-20KHZ, 1/6 oct step
LPF	20-20KHZ, 1/6 oct step
Filter slope	0dB/oct-48dB/oct
EQ band	31 band for CH1 to CH6, 15 band for CH7-CH8
EQ gain	-15dB~+15dB
EQ Q Factor	0.3~+50
S/N Ratio	102dB
Time delay	8MS per channel 0.021 ms step
Dimension	170X112X45 MM

1. Product connection diagram:

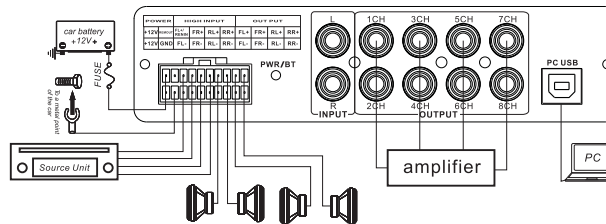
1-1. When using low level input (RCA):

- 1) 、 Connect to the positive power supply;
- 2) 、 Connect to the negative power supply and vehicle chassis.
- 3) 、 Connect the REM of the head unit to the “FL+ / R E M I N ” of this unit.
- 4) 、 Wiring all speakers and insert RCA input, fix the DSP unit and optimize wiring.
- 5) 、 Finally, start the car and turn on the DSP unit



1-2. When using HI INPUT,

- 1) 、 Connect to the positive power supply;
- 2) 、 Connect to the negative power supply and vehicle chassis.
- 3) 、 Wiring all speakers and insert RCA input, fix the DSP unit and optimize wiring.
- 4) 、 Finally, start the car and turn on the DSP unit



3. Software Operation Instruction:

The PC software supply a friendly and convenient user's interface environment that you can save the various setting parameters from machine to the PC disk files, switch or recovery setting parameters for different various machine or car.

3.1. How to get software

Please download the latest software and more optimal upgrade files from our company website, also include the practical application cases.

3.2. How to install software

Operation systems : Windows XP/Vista/WIN 7/WIN8/WIN 10 operation system

This software as a standard WIN32, which can be operated directly in any disc and path, if there have any tips of the missing files during the operation, please check the integrity of the operation system and download the relevant operation missing files.

3.3. Software operation

Please find the "DSP.AUDIO.exe" executable file (or download this file from our website), and copy to the PC where operate the software(suggest to create a new specific folder to save), then double click this file to open it(when operate the software, it will create a folder named "DataFile" automatically in the same folder to save user's program documents). The opened main interface as below:

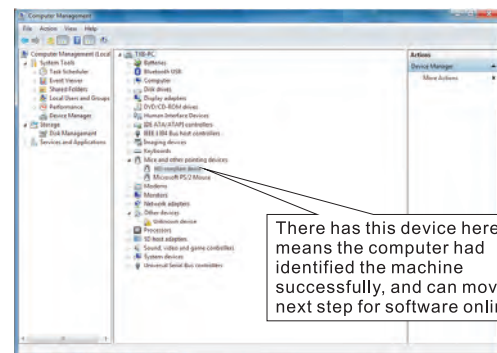


3.4. Software online

Make sure the machine is power on before the software online connection

3.4.1. USB interface connection

(1) Connect to the PC via USB cable USB interface, and the computer will find new devices, install and upgrade the new device automatically. After few seconds finish the installation, then you can see there added one more device named "HID-compliant device" in the computer setting manager. That means the hardware already connected successfully. As below figure:



(1) Operation software (e.g 3.3 software operation), the button color is red color if there show "OFFLINE" in the software main interface. The software will connect the machine automatically once detected the machine in few seconds. Meanwhile, there pop-up a message box (connecting to data) and the "OFFLINE" buttons will change to "ONLINE" in green color. Then the connection is successful.

(1) Output channel corresponding to the sound field position display

This area display CH1-CH6 output channels settings, and you can click the mouse in the corresponding output channel speaker for presetting. When the current editable channel in white color that you can set the parameters accordingly.

(2) Time delay

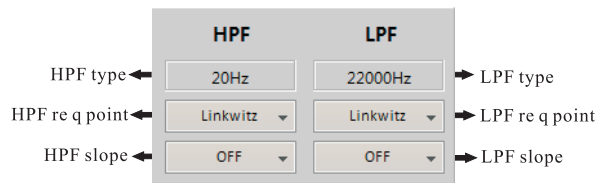
This area display CH1-CH8 output channels time delay, and you can left click the mouse directly in the speakers to finish adjustment, There have MS,CM, INCH unit buttons for time delay and distance delay setting. Click the white letter in editing area, and you can input number, roll the mouse or use the keyboard arrow keys to finish the delay setting. The parameters range as below

A. MS:0.000MS-20.000MS

B. CM:0.00CM-692.00CM

C. INCH: 0.00INCH-272.37INCH

3.5.3.Crossover area



(1) Type setting

Left-click the drop-down button of the HPF and chose filter type, below:

- (A) (Butterworth)
- (B) (Linkwitz-Riley)
- (C) (Bessel)

(2)Frequency setting

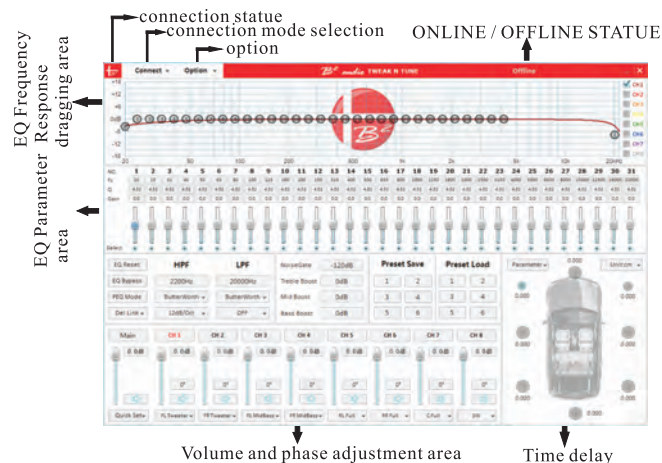
Via input the numbers, roll the mouse or use the keyboard arrow keys to set the frequency Adjustment range

- (A)HPF frequency:2200HZ
- (B)LPF frequency:20000HZ

(3)Slope setting

Left-click the drop-down button of the HPF or LPF slope to choose the filter slope, options for 6dB/Oct,12dB/Oct,18dB/Oct,24dB/Oct,36dB/Oct,48dB/Oct

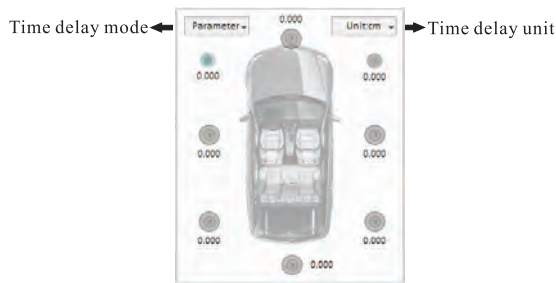
3.5.Software interface



3.5.1.Equalizer Frequency Response dragging area

This area display output signal 31-BAND EQ parameters, crossover parameters clearly, and you can drag the mouse to preset the parameters. Left-click and drag the mouse in this 1-10 BAND EQ display area when there show in numbers to adjust the EQ parameters; Left-click and drag the mouse in the display area H (high pass or Low cut) or L (low pass or high cut) to adjust the High pass (low cut) or low pass (high cut) frequency.

3.5.2.Output channels corresponding to the sound filed and time delay



3.5.4EQ para meters area



(1) Frequency

In the Parametric equalizer mode, you can adjust the frequency (range: 20Hz-20000Hz) by putting the numbers, rolling the mouse or using the keyboard arrow keys; In the graphic equalizer mode, the frequency is the 1/3 oct of the default value assignment, and here not show the specific value.

(2) Q value

In the Parametric equalizer mode, you can adjust the Q value (range: 0.30-50) by putting the numbers, rolling the mouse or using the keyboard arrow keys; In the graphic equalizer mode, the Q value is the 1/3 oct of the default value assignment, and here not show the specific value.

(3) Gain

You can adjust the gain by putting the numbers directly, using the keyboard arrow keys (range: -15dB+15Db,or push the buttons directly.

(4) Start button

There have 31 buttons for the 31-BAND EQ. Per each band has 1 button that you can start this band accordingly.

(5) Reset EQ button

Click this button and pop-up a dialog box, and click "YES" to reset all the 10-band (Frequency, Q volume and gain volume reset to the preset, which is distributed evenly according to the 1/3 octave.) Please note: Once click reset that can't recover any more!

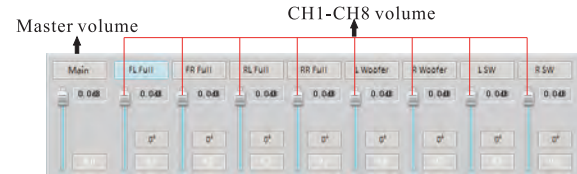
(6) EQ mode switch button

This is a switch button for the parametric equalizer mode and the graphic equalizer mode. Click this button and pop-up a dialog box, click "YES" to switch the EQ mode. The difference between graphic EQ mode and parametric EQ mode as below:

(A)Graphic Equalizer: adopt the constant-Q technology, and per each frequency point been set a fader that the filter frequency-band never changes doesn't matter boost or decay a frequency. And you can the graphic equalizer structure much more simple and straightforward, that popularly been used in the professional audio a lot to get more fine compensation.

(B)Parametric Equalizer: To get further adjustment in detail for various parameters included Frequency band, frequency point, gain, Q value etc..., also can beautify /uglify and modify the sound that make the sound (or music) more brighter, rich and colorful to get the artistic effect that you wanted.

3.5.5Volume adjustment area



(1)Master volume adjusting

Below the master volume there is a data frame, left-click and set the volume with numbers, or hold the left mouse button and drag the volume buttons to set the volume (adjustment range: -39.9dB 6dB, turn-off).

(2) CH1— CH8 output channel volume adjusting

Below the CH1— CH8 channel there is a data frame, left—click and set the volume with numbers, or hold the left mouse button and drag the volume buttons to set the volume (adjustment range: —59. 9dB 0dB, turn—off)

(3)CH1— CH8 output channel MUTE

Left-click the icon“(M)”under the CH1-CH8 channel volume and the icon will change to“(M)” .That's MUTE state, and click again to cancel the MUTE.

(4)Alignment link

Left click the mouse, there will be option box appeared as below, and then you can choose the alignment link mode.



Choose the synchronization style and click OK enter into a new LINK mode (as show below) Click the"unLink"exit the LINK mode.



- (1) Advance setting
Click “Advance setting” you can preset the time delay.
- (2) Mixer setting
Click “Mixer setting”, then you can preset the input & output per channel.;
- (3) Factory Reset
Click “ Factory Reset”, then click “OK” the unit will recover to original statue.
- (4) PC Save
Click “PC Save” you can save your preset file in your PC.
- (5) PC Load
Click “PC Load” you can select and open the preset file, and load to the operation interface.
- (6) Save All
Click “Save All”exporting the current file of the unit.
- (7) Load All
Click “ Load All” load the preset file to the unit.
- (8) 简体中文
English and Chinese language option, when the current operating language is English, then the language option shows “中文” , when the current operating language is Chinese, then the language option shows “ English”.
- (9) “Update firmware” “About”: for software upgrade, display help and software version info.

(4.4) Connect.

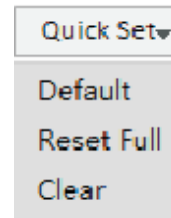
Click “ Connect” there will be two options box as below:



- (1) WIFI connection
Before online, please open WIFI of your PC and mobile, and find the name “Car. DSP...”click it to make a connection. There will be a tip that the connection is successful. Otherwise you need to make connection again.
- (2) USB connection
Use USB 2.0 interface to connect with PC, and then make a user configuration through the PC software.

(5) Quick set

Left click the mouse on the quick set, there will be the dialog box as below:

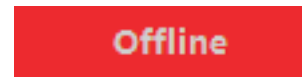


Attention please :

(RESET FULL) ONLY FOR the use of testing by IT and wholesaler, end-user please do not choose it, otherwise the speakers will be burned in some situation.

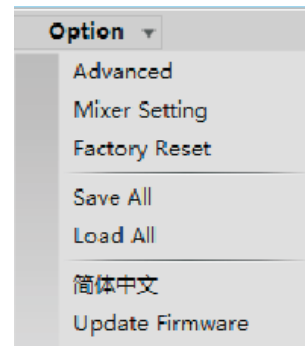
3. 5. 6. ONLINE / OFFLINE STATUE AREA

Here show the current statue of ONLINE or OFFLINE



3.5.7.OPTION

Left click the mouse on the OPTION , it will be shows as below :



4. How to get the APP software.

APP software operation that need WIFI function ! Here we use Android operation system as an example.

(4.1) How to get the APP software.

APP software will be provided by our agent, also you can download the latest version and more optimal upgrade files from our company website, and include the practical application cases.

(4.2) Installation of software operation by Android system .

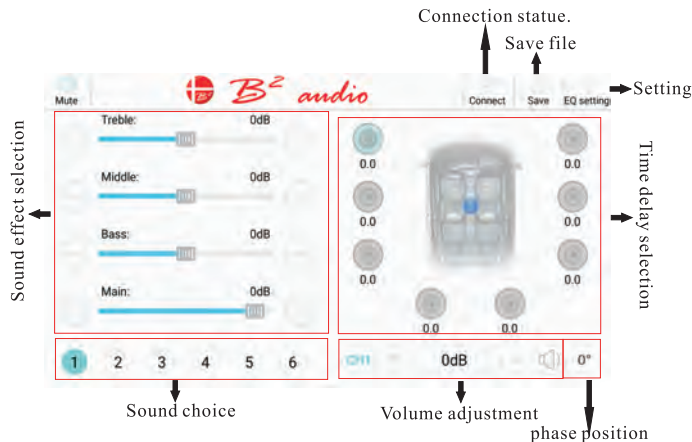
Operation environment : Apply to the Android operation system, it is a standard and executable file -- “DSP AUDIO.apk”, you can use it directly when you are using a Android operation system.

(4.3) Operation of the App software by Android system.

Please find the executable file from our company website : “DSP AUDIO apk”, and copy it to your Android device, and click this file, and confirm to install, it will be installed successfully after few seconds. Click it and open it, then you will come to the main page of the software.

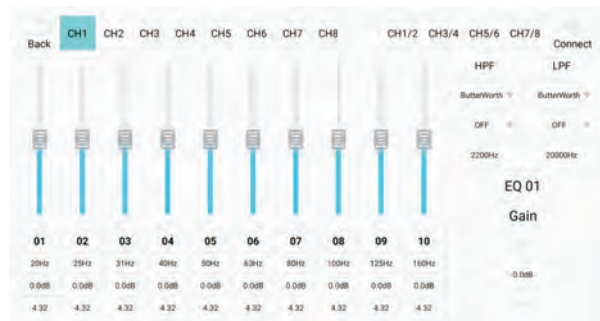


(4.5) Software interface.



(4.5.1) Setting

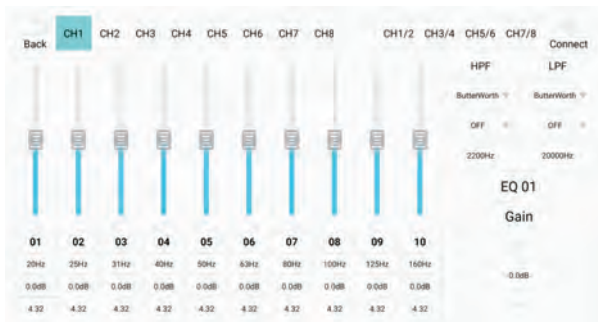
Click “Setting”button, it will show as below :



(4.5.6) Setting

Click setting, then enter the adjustment page

it includes, time delay, frequency response, channels, EQ; click them for adjustment for your own need. Adjustment and setting are similar as the PC software, you can follow the setting and adjustment of PC software.



(4.5.7) You can select any sound effect from the presets “SOUND 1” - SOUND 6”



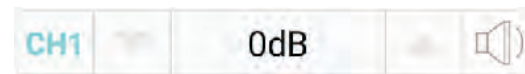
(4.5.2.1) Connection

It shows current connection status.

(4.5.2.2) Save file

Click to save the file, then it will save all the current adjustment.

(4.5.3) Current volume adjustment.



You can click “▽” / “△”, for adjusting the mater volume. Click the below icon, you can set MUTE or cancel the MUTE mode.

(4.5.4) Sound effect selection.



(4.5.5) Time delay selection

