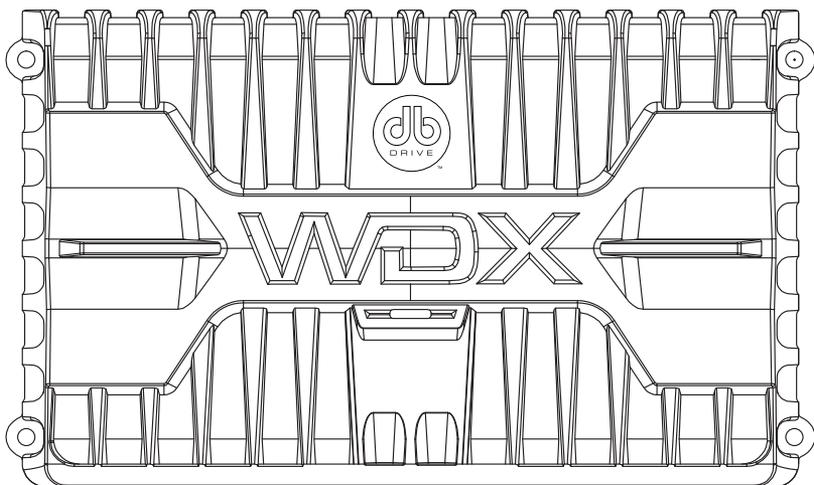




# ***WDX-R***<sup>TM</sup>

## **AMPLIFIER MODEL**

### **8 CHANNEL WITH DSP** **WDX-R1200.8-DSP**



## **USER MANUAL**

Installation Instructions | Owners Manual

Due to continuous improvement of the product, specifications are subject to change without notice.

## Introduction

Congratulations on your purchase of a DB Drive state-of-the-art amplifier. Your selection of a DB Drive car audio product indicates a true appreciation of fine musical reproduction. Whether adding to an existing system or including your DB Drive amplifier in a new system, you are certain to notice immediate performance benefits.

### Product Commitment

DB's engineering professionals harnessed years of expertise, experience and passion, coupled with exhaustive testing and creative design to develop the optimal product and performance for your musical enjoyment. This is our commitment to you. It's what you deserve and have come to accept from DB Drive. We appreciate the confidence and look forward to your positive experience.

### Keep Your Sales Receipt

Take this time to attach your sales receipt to the manual and put in a safe place. In case of any unforeseen reason this product may need warranty service, your receipt will be necessary to establish purchase date.

### Recommendation

A powered amplifier's performance is only as good as its installation. Proper installation will maximize the system's overall performance. It is recommended that you have our product installed by an authorized DB Drive retailer. However, if you decide to install it yourself, please carefully read through this manual and take your time to do a quality installation.

### Optimal Product Choice

To get the maximum performance out of your stereo system, we recommend using 100% authentic DB Drive electronics and DB Link wiring and accessories. Matching DB Drive subwoofers and speakers with your state-of-the-art electronics purchase is critical to optimize your system's performance. Wiring is lifeblood of a system, make sure your audio system has the adequate current and signal transfer it deserves and needs. DB Link has it all, from wiring rolls; speaker, power, ground and remote to amplifier kits, RCA's, and fuse holders, distribution blocks and battery connectors. Insist on getting the best, DB Link. It's what you deserve to get the optimum performance from your audio system.

## IMPORTANT!

Before making any connections, disconnect the car's battery until the installation is completed to avoid possible damage to the electrical system.

## WARNING!

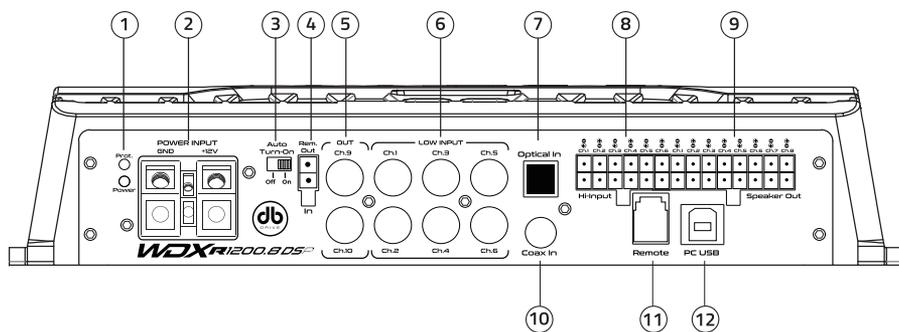
Exposure to a high power sound system can cause hearing loss or damage. Listening to your system at loud levels while driving will impair your ability to hear traffic sounds and emergency vehicles. Use common sense when listening to your system.

Serial # \_\_\_\_\_ Model # \_\_\_\_\_

## PRODUCT FEATURES

- Class D Technology
- Built in 10 channel DSP
- 2-Ch Assignable Pre-amp outputs
- Easy Connect speaker harness
- Speaker-level inputs (6 channels) for OEM integration
- Large Gauge Power Wire Inputs
- PWM - Mosfet Regulated Power Supply
- APC - Audio Protection Circuit
- SESI - Signal Evaluation Status Indicator
- CHM - Collective Heat Management

## FUNCTIONS AND CONTROLS



**1) Pwr/Prt LED** - These lights indicate when the amplifier is powered up normally and when there is protection fault. The Protect LED is illuminated when there is a problem with your amplifier. Please contact your authorized DB Drive dealer or call DB Drive's technical support.

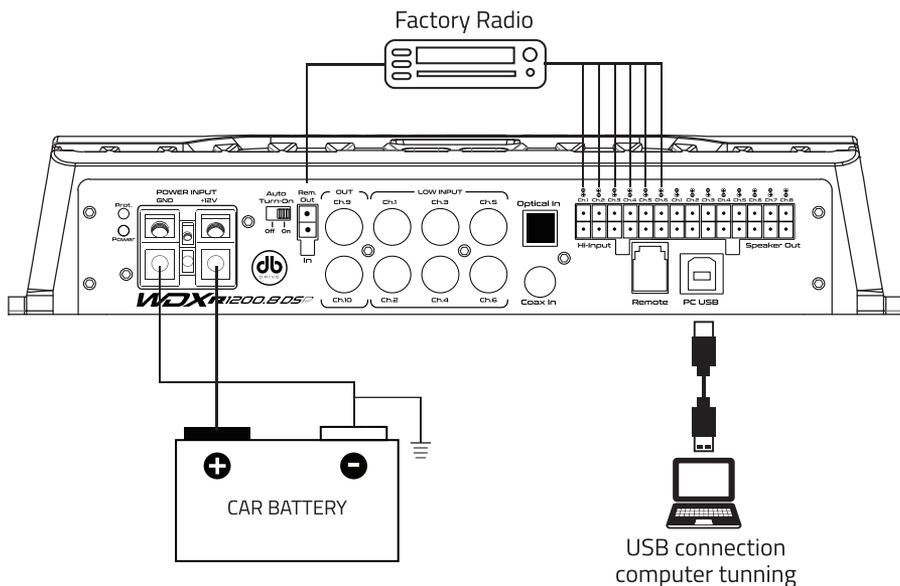
**2) Power Input Connections** - These connections are for input power(12V) and chassis ground (GRD).Use a minimum of 4 gauge wiring for power and ground connections. The terminals will handle up to 8 gauge wiring with no problem what so ever. Be sure any wiring that passes through metal has a grommet!

**3) Auto Turn On** - Allows the amplifier to power on automatically without needing a dedicated remote turn-on wire (REM IN). It detects when an audio signal or voltage is present and turns on accordingly.

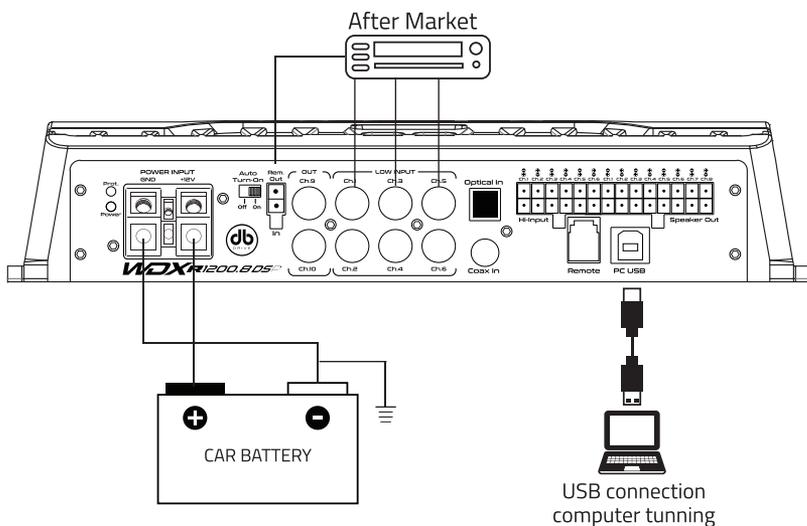
## FUNCTIONS AND CONTROLS (CONTINUE)

- 4) Rem Out/In** - Remote turn on connections, which control the amplifier and other components in the car audio system power on and off. When the head unit powers on it sends +12V to REM IN, the amplifier powers up. When the DSP amplifier powers on (via REM IN), it passes on that +12V signal to REM OUT to power on other components in sequence.
- 5) Low Level Output** - RCA audio signal output, which can be connected to external power amplifiers.
- 6) Low Level Input**- RCA audio signal input, which can be connected to the RCA audio signal output of car audio player.
- 7) Optical In** - Receive digital audio signals from a source device. This allows for high-quality, interference free sound, especially important in high-end car or home audio systems.
- 8) High Level Input** - Here is where you connect to the speakers or high-level output of the factory source unit.
- 9) Speaker Output Terminal** - This is where the amplifiers outputs are connected to the speaker.
- 10) Coax Input** - Connect the car audio coaxial cable, switch the audio source of the machine to the digital signal input, and play the coaxial digital signal.
- 11) Remote** - Input controller.
- 12) PC USB** - Input for connecting a PC to WDX-R1200.8DSP amplifier for adjustments via the windows app.

# WIRING CONNECTION DIAGRAM



# CONNECTION DIAGRAM

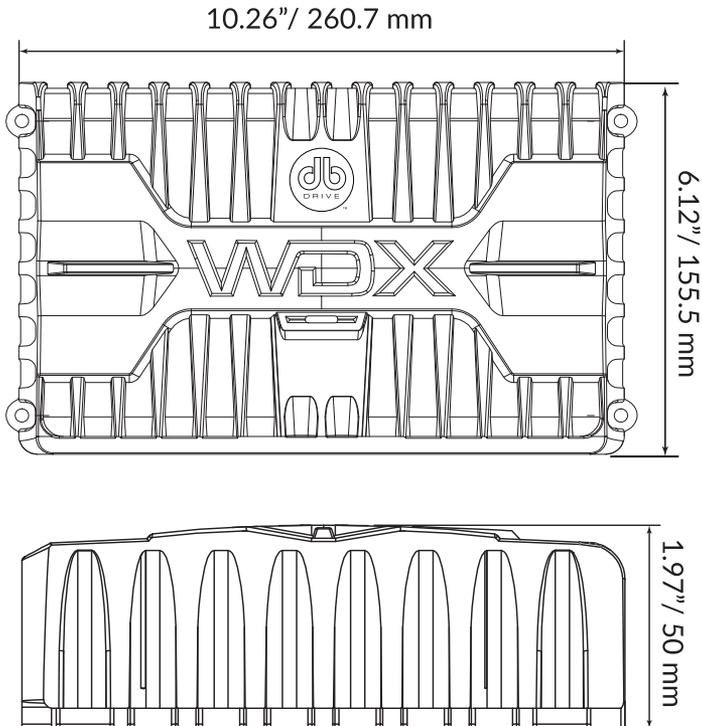


## SPECIFICATIONS RATED @ 14.4 VOLTS

- Rated Power: 4 x 65 Watts @ 4 $\Omega$  -Ch 1-2, Ch 3-4
- Rated Power: 4 x 125 Watts @ 2 $\Omega$  -Ch 1-2, Ch 3-4
- Rated Power: 2 x 225 Watts @ 4 $\Omega$  -Ch 1-2, Ch 3-4 (bridged)
- Rated Power: 4 x 165 Watts @ 4 $\Omega$  -Ch 5-6, Ch 7-8
- Rated Power: 4 x 225 Watts @ 2 $\Omega$  -Ch 5-6, Ch 7-8
- Rated Power: 2 x 625 Watts @ 4 $\Omega$  -Ch 5-6, Ch 7-8 (bridged)
- Input Sensitivity: .650Mv - 8.5V
- Signal to Noise Ratio: >90dB

## DIMENSIONS

- Length - 10.26" / 260.7 mm
- Width - 6.12" / 155.5 mm
- Height - 1.97" / 50 mm



# SOFTWARE OPERATION



Figure 3.2.0

## 1. Software Download

To begin download PC software from product page on website. The PC tuning software requires no driver installation and is ready to use with plug-and-play functionality. Operating environment: Suitable for WIN7 /WIN8 /WIN10 /WIN11 operating system. Download PC tuning software without installation, double click "WDX-R1200.8DSP" main program.

## 2. Turn on and turn off

Double-click the "WDX-R1200.8DSP" icon to open the software. After going online, the main interface is shown in Figure 3.2.1: (the green display next to model name indicates the connected state). Note: Before going online or when not connected, the software interface is gray, and all functions cannot be operated.

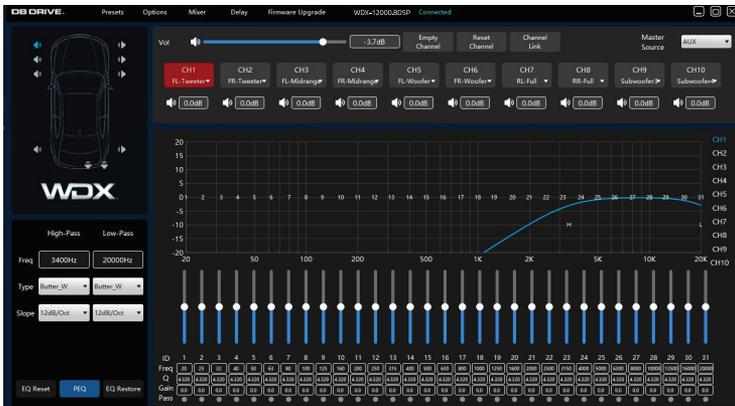


Figure 3.2.1

The WDX-R1200.8DSP connects to a PC exclusively via a wired USB connection. After powering on the device and connecting it to the computer with a USB cable, the system automatically detects and installs the necessary drivers. Once installation is complete, the mixer software synchronizes with the hardware, displaying a "Connected" status next to the model number of the interface.

### 3. Software Presets

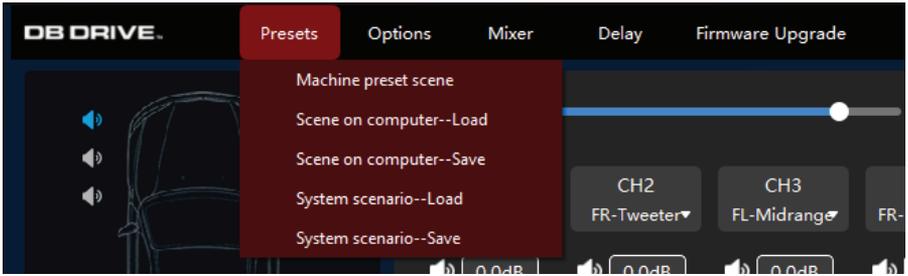


Figure 3.2.2

Click [Presets] to enter loading or saving scene file page (3.2.2). Once clicked you will enter the load or save preset file page.

#### Machine preset scene

Allows you to modify specific parameters or bypass/engage different effects without switching to a new preset (3.2.3).

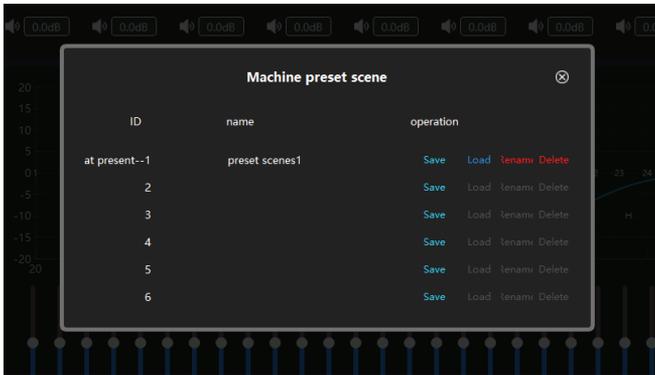


Figure 3.2.3

#### Scene on computer load

Load a saved sound setting (preset) from your computer to DSP. Find the preset file on your PC, select the file and click open. The DSP will change to those sound settings.

#### Scene on computer save

Save the current sound settings from the DSP to your computer. Click Scene on computer - save. Choose a folder to save file, name the file, and click save for your current settings to be saved.

#### System scenario load

Load a full system setup from your computer to the DSP. This includes all sound settings and how the system behaves. Click System scenario-load file on your PC, select and open. The DSP will load all settings and configurations saved in that file.

#### System scenario save

Save the entire system setup from the DSP to your computer, including all presets and configurations. Click System scenario-save, choose folder on your PC, name the file, click save. This allows your full system setup to be saved for later use.

## 3. Software Interface



Figure 3.2.4

The software interface of the WDX-R1200.8DSP unit is divided into the following functional areas, as illustrated in (Figure 3.2.4):

**Section "1"** – Input Signal Selection: Choose between High Level, AUX, OPT, Coax, USB, & BT.

**Section "2"** – Main Mixer Settings: Displays and controls the main mixer configuration.

**Section "3"** – Main Menu and Connection Status: Provides access to the primary menu and displays current connection status.

**Section "4"** – Crossover Settings: Adjust high-pass and low-pass filter settings.

**Section "5"** – Output Configuration and Parameters: Configure output channels and make common parameter adjustments.

### 3.1. Input signal select

In online mode, as shown in (Figure 3.2.4), you can select the desired audio input source by clicking the corresponding option.

**Mix Mode:** This hybrid mode allows simultaneous input from both RCA (high-level or low-level) and Bluetooth audio sources. Bluetooth has automatic priority—when a Bluetooth signal is detected, the system switches to the Bluetooth source. If the signal is lost, it reverts back to the RCA source.

**RCA Mode:** In this analog-only mode, only RCA audio inputs (high-level or low-level) are accepted. Bluetooth audio input is disabled.

**Bluetooth Mode:** In this mode, only Bluetooth audio sources are accepted. RCA inputs (high-level or low-level) are disabled.

### 3.2. Output channel switch and operations

In area "5" of the interface (Figure 3.2.4), click on the desired channel number (CH1, CH2, ... CH10) to access and adjust the parameters for that specific channel. When a channel is selected for editing, the settings in area "4" (crossover and equalization parameters) will dynamically update based on the selected channel, allowing for customized parameter adjustments.

### 3.3. Output channel switch and operations

As shown in Figure 3.3.1, ten output channels are displayed along with their commonly used parameters, allowing you to quickly make adjustments directly from this interface. Additionally, you can customize the horn type for each output channel as needed. The specific adjustment steps are as follows:

## 1. Output Volume Control

Each channel features independent volume control, adjustable using the fader located below the channel label. The volume can be set from OFF to -60 dB up to 0 dB. Additionally, a master volume control on the left side of the interface allows adjustment of the overall output level, with a range from OFF to -60 dB up to +6 dB.

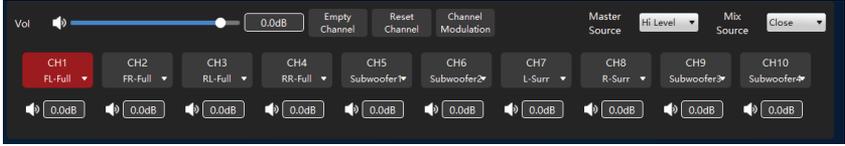


FIGURE 3.3.1

## 2. Mute Adjustment

Below each channel label mute control button. Click the Mute button to switch between "Sound On" and "Muted" states. (Refer to Figure 3.3.2 for illustration.)



FIGURE 3.3.2

## 3. Mixer Setting

Click "mixer" in the "2" area in figure 3.2.4, then you can switch to (Figure 3.3.1) the relevant parameter settings for the corresponding adjustment.

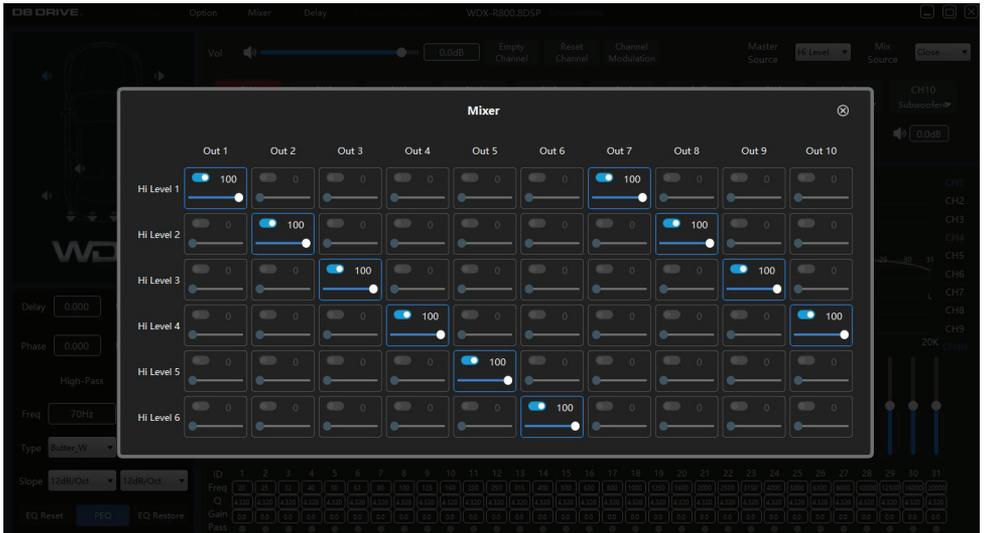


FIGURE 3.2.5

#### 4. Delay Unit Selection

Choose delay units in milliseconds, centimeters, or inches. Milliseconds range: 0.000 to 20; Centimeters range: 0 to 692 cm; Inches range: 0 to 273 in.

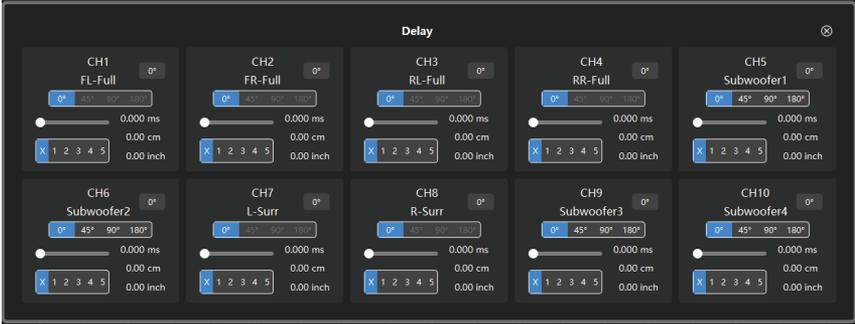


FIGURE 3.3.3

#### 5. Speaker Type Customization for Output Channels

To assign or reset speaker types for each output channel: Click the "Reset Output Configuration" button on the right side. In the dialog box that appears, click "Clear" to confirm. This will reset all output channels to "Empty" (no speaker assigned and no output). Refer to Figure 3.3.4 for visual guidance.

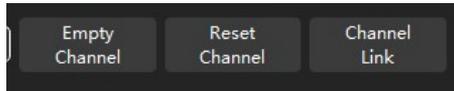


FIGURE 3.3.4

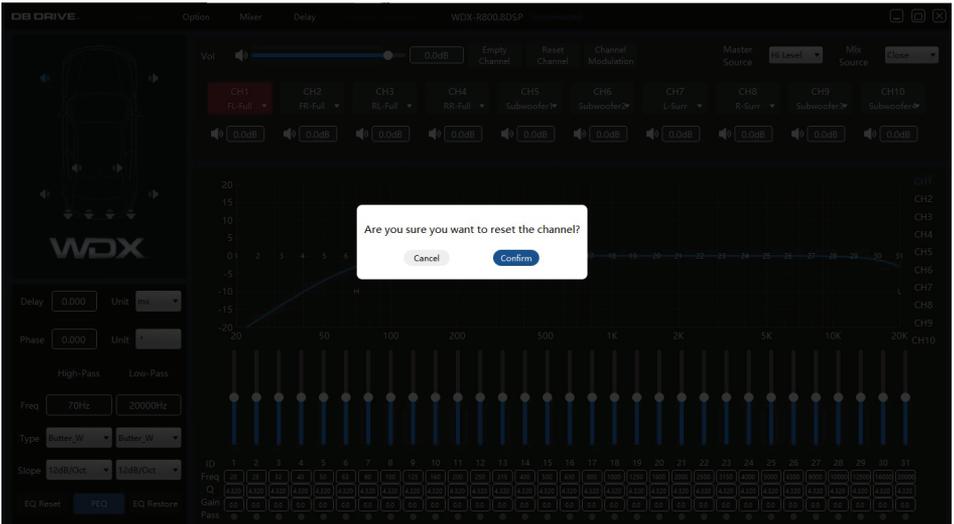


FIGURE 3.3.5

**The second step:** Below each channel number, click the type drop-down menu, then select the desired speaker type from the pop-up list. See Figure 3.3.6 for reference.

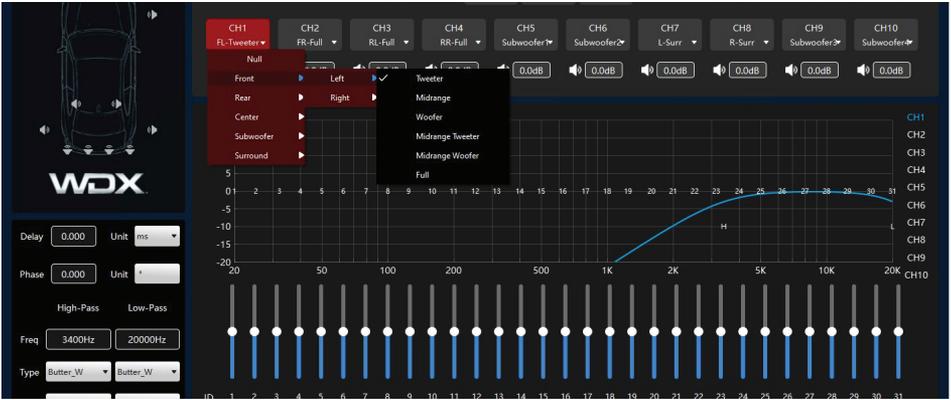


FIGURE 3.3.6

The available output signal paths depend on your selections. Some options may be 'grayed out' if they're already assigned to another output channel. To use them, you'll need to reassign or exchange the current output to free up those options.

**Dropdowns:** These represent the general speaker locations in a system.

Front > Left/Right> Tweeter/Midrange/Woofer/Midrange Tweeter/Midrange Woofer/Full

Rear > Left/Right> Tweeter/Midrange/Woofer/Midrange Tweeter/Midrange Woofer/Full

Center > Tweeter/Woofer/Full

Subwoofer > 4 options of Subwoofers

Surround > L-surr/R-surr

**Step 3:** After configuring all output signal paths, you can save the settings by clicking “Presets” (see Figure 3.2.2) and selecting “Scene on computer – Save” to store the configured output channel and speaker sound field positions.

**5. The output delay adjustment, Figure 3.3.6,** Click the input box of the corresponding channel delay and input the delay value. The left side can set the delay value unit in Figure 3.3.7

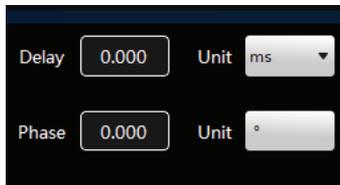


FIGURE 3.3.7

## 1. Output signal equalizer and crossover operation

Output channel equalizer and the crossover editor are in the following areas of regulation, as shown in 3.3.8:

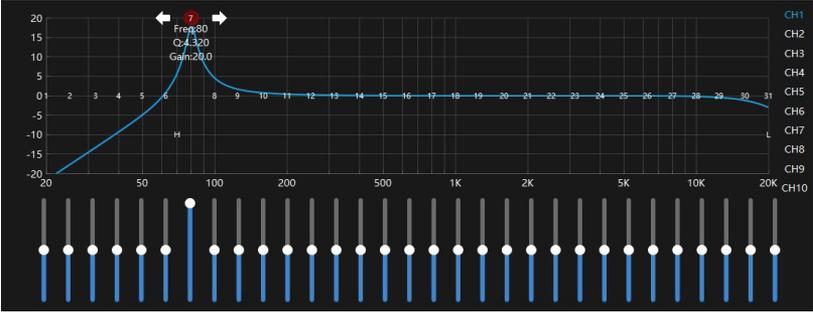


FIGURE 3.3.8

Drag the slider around to adjust the equalizer frequency points; Click the number on the diagram curve, move the mouse to the red circle, hold down, and drag left or right to adjust the equalizer Q. All parameters are displayed simultaneously and the adjusted current real time equalizer is also updated in the value EQ parameters editing area.

1. In the output channel EQ editing mode, all 31 equalizer bands will function as a parametric equalizer. When adjusting the parametric EQ curve, the corresponding parameter values frequency, Q factor, and gain can be modified in real time using the input fields below. These adjustments will also be visually reflected at the top of the interface (as shown in Figure 3.3.8: Parametric Equalizer Example)."

**EQ Reset:** Click the button that will return to restore the channel. Then click on restore the channel button will allow all current channels back to the last activated state.

## 2. The output channel divider editing method



FIGURE 3.3.9

In the column of "frequency divider" in figure 3.3.9, is the parameter value of the devices frequency divider. Type setting: Drop-down menu to select the way, there is (Linkwitz-Riley), (Bessel) and (Butterworth) and three other options. Frequency setting: Via direct input value, scroll the mouse wheel up and down to adjust low pass or high pass frequency. Adjustment range: 20KHz~20KHz. Slope (slope) settings: 6dB/Oct, 12dB/Oct, 18dB/Oct, 24dB/Oct, 36dB/Oct, 48dB/Oct and other 6 options

### 3. Options Introduction

After you click on the main interface in the top menu "Options" button in Figure 3.3.10, it will pop up "options" of each menu item.



FIGURE 3.3.10

**3.1 Language:** Sets the language for the DSP interface.

**3.2 Power-On Audio Source:** Selects which audio source plays by default when the DSP powers on.

**3.3 Noise Gate:** Mutes or lowers output when the input signal is too quiet.

**3.4 Input Vol:** Controls the input level for each connected source.

**3.5 Auto Turn Off:** Saving feature that automatically turns off or puts the amplifier into a low-power standby mode when no input signal is detected for a certain period of time, typically a few minutes.

**3.6 Delay Switch (Seconds):** Delays DSP startup or shutdown by a set number of seconds.

**3.7 Software Information:** Displays the current firmware or software version.

**3.8 Restore Factory Settings:** Restores all DSP settings to default factory values.

## NOTES



## LIMITED WARRANTY

**DB Drive™** warrants any products purchased in the U.S.A. from an authorized **DB Drive™** dealer.

All products are warranted to be free from defects in material and workmanship under normal use and service for a period of one (1) year.

This warranty applies to the original purchase only.

**DB Drive™** will either repair or replace (as its option) any unit that has been found to be defective and under warranty provided the defect occurs within the one (1) year warranty period.

This limited warranty does not extend to units that have been subjected to misuse, abuse, neglect, or accident. In **DB Drive™'s** judgment, products that show evidence of having been altered, modified, or serviced without **DB Drive™'s** authorization, will be ineligible under this warranty.

To obtain warranty service please contact your retailer or visit our website at [www.dbdrive.net](http://www.dbdrive.net) for more details.



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Ph: (877) 787-0101 ■ Fax: (956) 421-4513 ■ tech support: [support@dbdrive.net](mailto:support@dbdrive.net)

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