USER's PC TUNING SOFTWARE MANUAL GOLDHORN DSPA 1616 Ultra

PC software

Recommended specifications:

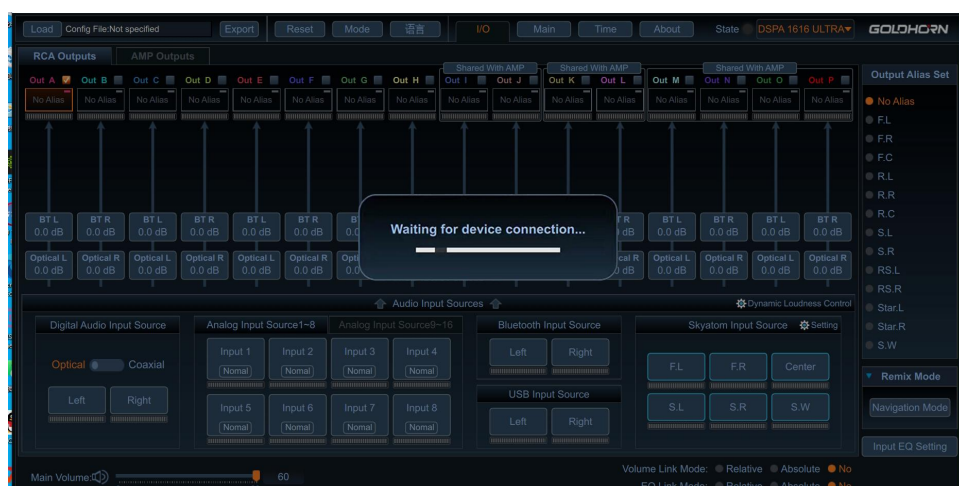CPU: 1.6 GHz or higher

Memory: 2GB or higher

HDD: 1GB or more available space
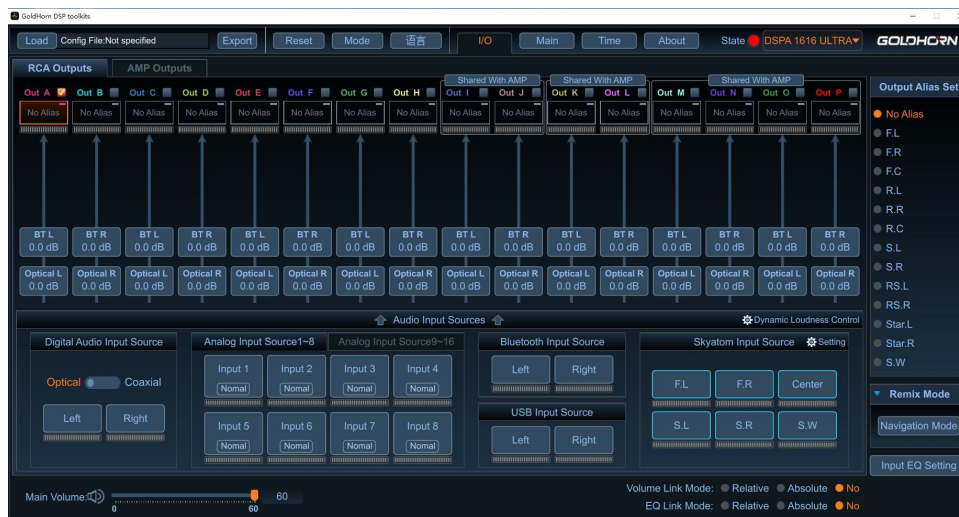
Display: 1366×768 or higher

OS: Microsoft™ Windows 7 or higher

Device Connection

（1）Device not connected:

（2）Successfully connected via the included USB cable:

（3）Connection status:

If the ● is black, the device is not connected. No operation can be done.

If the ● is Red,the device is connected, and the model will be displayed. The Tuning software is ready for use.

PC software interface

2.1 Menu bar

2.1.1 Load/Export

1)Load:The tuning parameter files previously saved on the PC can be loaded for re-editing.

2)Export:When exporting the tuned parameters, you need to set a password to protect the exported file.Please remember the password. Without it, the tuning parameter file cannot be loaded.

3) The exported tuning parameter file contains the data for 24 output channels

2.1.2 Reset

1)If you need to reset to restore the default values, you can click "Confirm" to take effect.

2)The reset is only valid for the interface in editing. The mode stored in the device will not be affected.
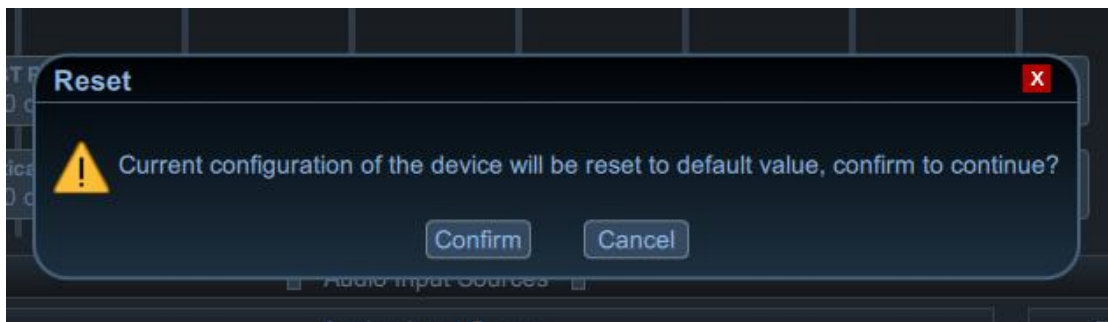
2.1.3 Mode

1)Save: Save the tuned parameters to the device and switch the saved modes using the Remote Controller for DSP.(Naming up to 10 characters, only English and numbers are supported)

2)Choose:Get the chosen parameters from the device for editing.

3)Delete:Delete the selected mode from the device.

4)Please save the parameter configuration to the mode after tuning to avoid it being cleared after a power failure.

2.1.4 language

The tuning software supports Chinese and English and can be switched between each other.

2.1.5 About

Displaying the device type, device SN, Bluetooth Version, hardware version, firmware version, panel version and software version,etc.

1) Firmware version update

If a newer version of the device firmware is available, an upgrade will appear at the firmware version information, click on the to start the firmware version upgrade of the device.

2)Factory Reset

If need to restore the factory settings, you must first enter: yes in the prompt box and then click Comfirm to take effect.
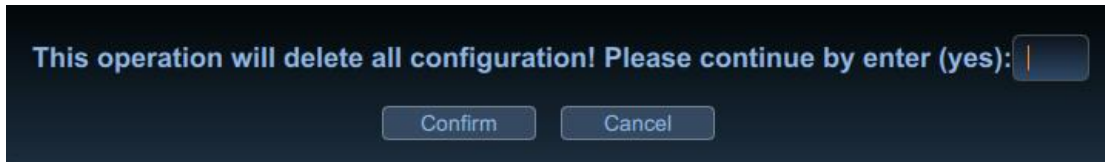
Note:Performing a factory reset will clear all modes and presets. Please use with caution.

3)Set Connection Password

You can set an 8-digit password (English and numbers only) to encrypt the device. Please remember the connection password, if you forget it you will not be able to tune the device and will have to restore the factory settings.

2.2 I/O

This screen allows you to assign the appropriate input source signal to each output channel (Out A to OutP) according to your needs.

2.2.1 Output channels selection

1)Output channels contain sixteen high level outputs(OutA~OutP) and sixteen RCA outputs(OutA~OutP).

2)Click on the bridge button to convert high level output I/J and K/L to BLT high level output.

3)Refer to the DSPA 1616 Ultra user's manual for detailed outputs location.

4)Click on the output channels(Out A to Out P) to start the tuning operation.
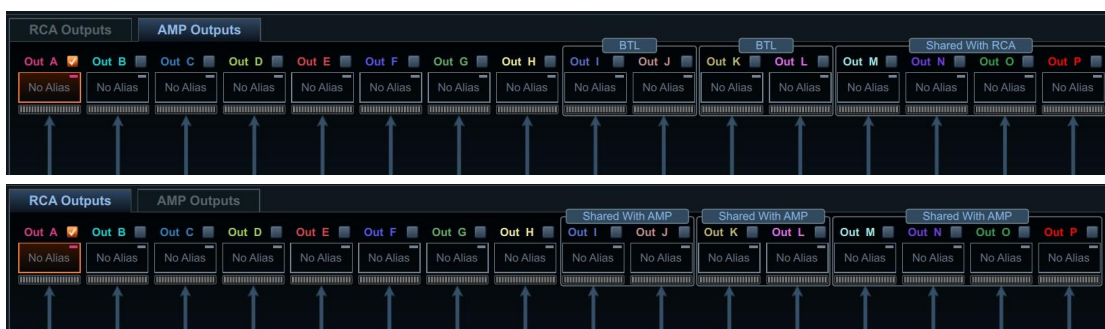
2.2.2 Input Sources

1) Input Sources contain two digital audio inputs(optical and coaxial), Bluetooth input, USB input ,sixteen high level inputs and two AUX inputs.

2)Refer to the DSPA 1616 Ultra user's manual for detailed inputs location.

3)The RCA inputs IN 15&IN 16 and the high level inputs IN 15&IN 16 cannot be used at the same time.

4)Users can add inputs by drawing them(IN1~IN16) to the output channels, axis or double click them with left button of the mouse.

5)Inputs on each output channel axis can be deleted with a right click of the mouse

6)Up to 4 combined frequency inputs per output channel

7)Users can set alias and phase to input sources (high level input/AUX input).

2.2.3 SKYATOM Input Source

SKYATOM input source has 6 channels input, including F.L, F.R, Centre, S.L, S.R and S.W.

Click [Settings] to enter the SKYATOM specific parameters configuration interface, the parameters can be configured as follows:

1) Front sound field (F.L, F.R): Front Field Expansion(Extended Frequency only works when Front Field Extension is switched on); Front Treble Enhancement.

2) Center: Center Treble Enhancement; Center Enhancement.

3) Surround: Surround Enhancement;

4) Bass: Bass Boost(Bass Boost Frequency works when Bass Boost is switched on); Bass Subharmonics;

5) Other Parameter: Output Volume Gain: -20 to +10 dB; Polarity Nomal or Invert; Time Delay(Delay range for F.L, F.R, Centre, S.L, S.R channels is 0~40ms; Delay range for S.W is 0~10ms)
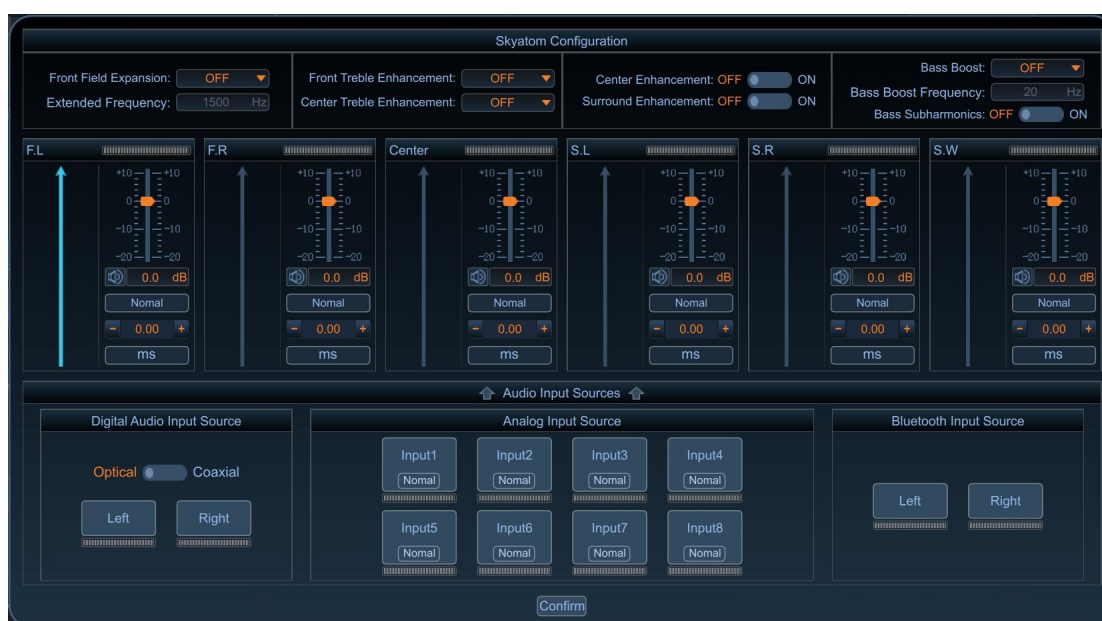
2.2.4 Remix Mode

1)Navigation Mode:The device will reduce the volume of other input sources if it detects a high level signal input (default -50dB). Users can customize gain decay for other input sources, sensitivity of high level signal detection and the release time when no high level signal is detected.

2)Bluetooth Priority:Other input sources will be switched off, if the Bluetooth signal input is detected.

3)Digital Priority:Other input sources will be switched off, if the digital signal input is detected. Users can customize sensitivity and release time when no digital signal is detected.

4)Classical Mode:ch input source does not interfere with the traditional mix mode.

2.2.5 Alias setting

1)Aliases can be set for each of the sixteen output channels.

2)After aliasing the output channels, you will be prompted to load the filter preset value or not.

If you select yes, the filter preset value will be loaded automatically:Butterworth@12dB/Oct.
(Full range:0～20KHz, High range:3K~20KHz, Middle range:500~3KHz, low range:20~500Hz, Subwoofer:20~80Hz)
If you select NO, it is only an alias is set and no modification is made to the parameters of the filter.

2.3 Main

This screen allows you to adjust the equaliser for each output channel (OutA to OutP) to suit your needs.

2.3.1 Output channels curve edit area

31-band EQ adjustable.When the mouse is moved to a number, users can drag it up and down to adjust the EQ gain, left and right to adjust the EQ frequency; when the mouse moves over the small red box, users can drag left and right again to adjust the EQ Q value. The current parameters will be displayed the serial number, and will also update the values in the EQ parameter display edit area.

2.3.2 Output equaliser editing area

1)Numerical edit area
Frequency:1 Hz step@20Hz-20kHz. The frequency values can be adjusted by entering the values directly or by using the up and down keys on the keyboard. Click on the left button on the left to reset the current frequency values of all adjustment points back to their default values.
Q:0.5~1.5.The Q values can be adjusted by entering the values directly or by using the up and down keys on the keyboard. Click on the reset button on the left to reset the current Q values of all adjustment points back to their default values.
Gain:±15dB.The Gain values can be adjusted by entering the values directly or by using the up and down keys on the keyboard. Click on the reset button on the left to reset the current Gain

values of all adjustment points back to their default values.

2)Draggingedit area

Left mouse click to enter the dragging edit area, which is the gain edit area only.

Gain:±15dB. The Gain can be adjusted directly by dragging the mouse up and down, the up and down keys on the keyboard, or by sliding the mouse wheel.

Reset/Recovery:Click the yellow dot on the sliding bar with left mouse button to reset or recovery previously edited gain values.

3)Draw and Mute

1、The display of the output channel frequency curve can be switched on and off by clicking on the draw icon in each output channel with the left mouse button.

2、 Below the draw is the independent mute switch for each channel.

2.3.3 H.P.Filter/L.P.Filter

1)Each channel is equipped with H.P.Filter/L.P.Filter , checking the box to be effective.

2)There are three types of filter:Linkwitz/Bessel/Butterworth.

3)The crossover filter can be adjusted by entering the value directly, by using the up and down

keys on the keyboard, or by dragging H/l in the editing area of the frequency response curve, the adjustment range is: 20Hz~20KHz.

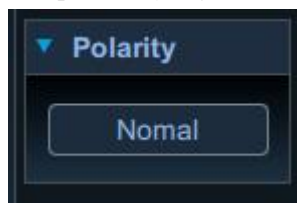4)Crossover Filter Slope:Bessel/Butterworth@-6/-12/-18/-24/-30/-36/-42/-48 dB

Linkwitz:@-12/-24/36/48 dB

5)Variable Phase Rotation from 0° to 360°

2.3.4 Polarity

Independently adjustable for each channel:Nomal/Invert phase

2.3.5 Time Alignment Delay

Time Alignment Delay:0~20ms/0~680cm, Independently adjustable for each channel.

2.4 Bottom edit area

2.4.1 Main Volume

Main volume refers to the volume of all channels and can be adjusted by entering the value directly, by using the left and right keys on the keyboard or by dragging the slider left and right with the mouse, the adjustment range is: Mute/ 0~60 levels(-100dB~0dB).
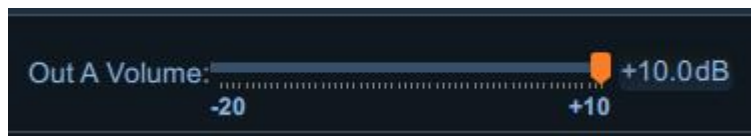
2.4.2 Output Volume

1) The volume of each output channel can be fine-tuned independently, by entering the value directly, by using the left and right keys on the keyboard, or by dragging the slider left and right with the mouse, using the total volume as the reference value.The adjustment range is:-20dB~+5dB, 0.1dB step.

2) The subwoofer can be adjusted: -20dB ~ +10dB 0.1dB steps.

2.4.3 Volume & EQ Link Mode

1)First Select the mode to link:Volume / EQ link, Relative/Absolute


2)Select the channel to link:first select the channel you want to edit, then tick the channel you want to link.

2.5 Time

In this interface you can set the delay, phase, channel mute, etc. for each channel.

1) Time Alignment Delay:0~20ms/0~680cm, Independently adjustable for each channel.

2) Support channel delay group link, can be divided into five groups: select the same digital group of output channels can be linked operation, this link mode is link.

3) Independently adjustable for each channel:delay, channel mute.
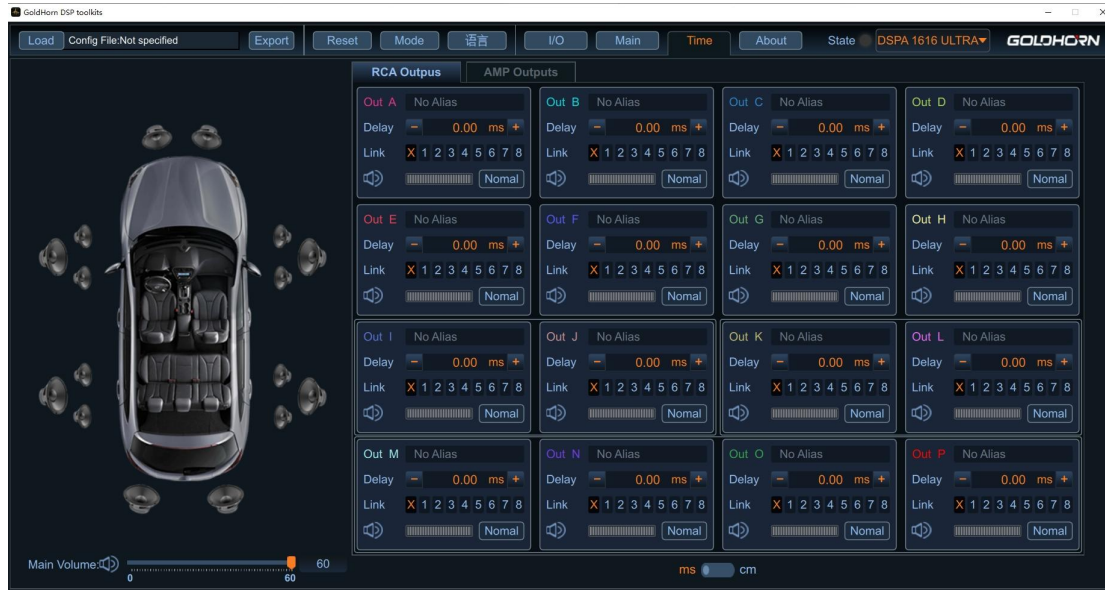
2.6 Dynamic loudness Control

Click the [Dynamic Loudness Control] button in the I/O interface to enter the Dynamic Loudness Control Set Interface, which can adjust the parameters of Dynamic Loudness Control:

(1) Low Vol.- Low Freq. Gain/Low Vol.- High Freq. Gain: -12 ~ +12 dB

(2) High Vol. - Low Freq. Gain/High Vol. - High Freq. Gain: -12 ~ +12 dB

(3) Low Frequency/High Frequency: 20 ~ 20000Hz

(4) Low Vol. - Threshold/High Vol. - Threshold: -100dB~0dB。The minimum value of the Low Vol. - Threshold/High Vol. - Threshold interval is 5dB.

2.7 Input EQ Setting

In the I/O interface, click on the input EQ setting to enter the interface.

In this interface you can adjust the equaliser for each input source according to your needs, e.g. analogue input sources(AN1~AN16)), Bluetooth input sources(BT L&BT R), digital input sources(OPT L & OPT R, Cox L& Cox R).
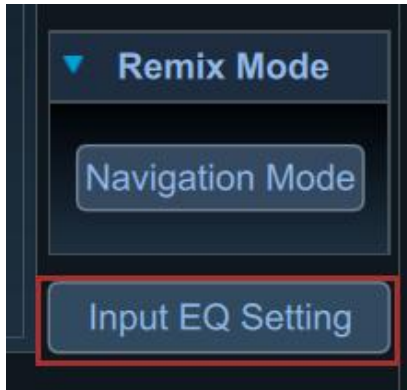
1) Independently 5-band EQ per channel.

2) Filter type:PE(parameteric equalizer)/LS(low shift)/HS(high shift)/AP1 & AP2 (all-pass filter)

3) The centre frequency point can be adjusted by dragging and dropping with the mouse, by entering the value directly, or by using the up and down keys on the keyboard.

Frequency: 20Hz~20KHz; Q:0.5 to 15; Gain:±15dB.

4) Input delay can be pre-set for analogue input sources, high level input time delay adjustment: 0~10ms/0~340cm