

DSP-501
DSP-502

QUICK START

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Figure 4: The back panel of the DSP502

2.2 Output selection

The DSP50x has two digital outputs, XLR and RCA number **1** and XLR and RCA number **2**. Only one of the two outputs can be active at any time. The inactive one will be muted.
Select the active *Output* either with the remote control (two top/middle keys) or via the touch screen by pressing on the red output icon to toggle between outputs **1** and **2**.
This icon represents the currently active *Output* as well as its selected *Output Termination* (2.3).



Figure 5: Output 1 with *Speakers* Termination



Figure 6: Output 2 with *Headphones* Termination

Most of the parameters in the DSP50x can be set differently between outputs **1** and **2** (e.g. volume, volume trim, equalizer settings etc.) and will be consistently saved when switching between outputs.

2.3 Output Termination

The DSP50x features multiple possibilities to finetune your setup, one of which is to accomodate either speaker or headphone terminated setups. Therefor you may assign each output to its appropriate *Output Termination*:

- Speakers
- Headphones

Each output termination selection has its own set of exclusive plugins.
This is the default assignment is Speakers for both outputs, but may be changed at will using the Webinterface or via the LCD display in menu section *Setup* > *Output Termination*.
Furthermore toggling of the *Output Termination* can be achieved by lengthily pressing (> 2s) the *Output* select buttons on the remote control (2.7).

2.4 Output Level

Be careful with the output level upon first operation. Best is to lower the level to a very low value with the rotary knob or via the remote control.
The DSP50x has an additional level control to match the basic output level with the amplifiers at hand. Each output and each of its termination settings can be set to different levels. Proceed as follows:

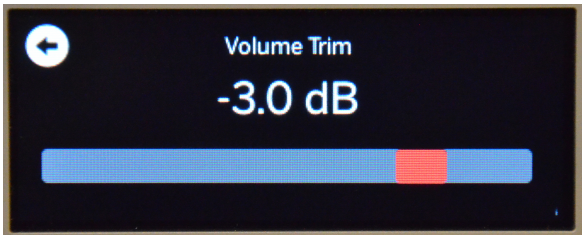


Figure 7: *Volume Trim* menu section on the LCD

- Select the output you would like to set (1 or 2)
- Tap on the *Setup* pad on the touch screen
- With the knob scroll the display such that you can see the *Volume Trim* entry
- Tap on the *Volume Trim* pad in order to set the basic output level with the knob. 0dB is the highest level while -30dB is the lowest level.

Now you may want to repeat that with the other output selected as the active output.

2.5 Selecting the output samplerate

The output sampling frequency can be set to any of the following frequencies:

- 88.2 kHz
- 96 kHz
- 176.4 kHz
- 192 kHz

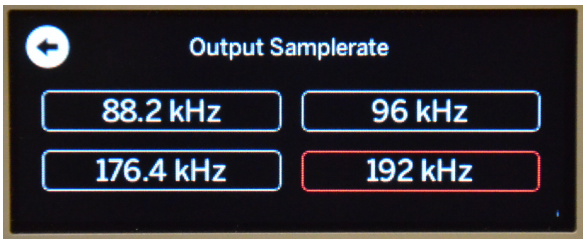


Figure 8: Selecting the *Output Samplerate* via the LCD

Depending on the D/A Converter connected to the DSP50x output one may prefer one sampling frequency over the other. Also some D/A converters may not be able to handle the high sampling frequencies (176.4 kHz / 192 kHz).

2.6 Selecting the input

The input source can be selected by either tapping on the input pad on the touch screen or via the remote control. The following inputs can be selected:

- XLR (XLR socket)
- RCA (RCA socket)
- TOS (optical socket)
- USB (USB type B socket (quadratic shape), the type A socket is used for other purposes)
- UPnP (Ethernet socket)
- Roon Ready (Ethernet socket) (see 2.6.1)

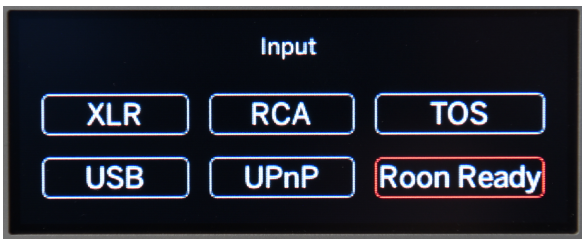


Figure 9: Input selection of *Roon Ready* via LCD menu



Figure 10: Input selection of *Roon Ready* via Webinterface

The XLR, RCA and TOS inputs are self-explanatory.
USB input supports all operating systems:

macOS no driver required

Windows USB audio class device driver required (see downloads 2.9)

Linux no driver required

For the UPnP input an application running on a tablet can be used to transfer files from a NAS unit to the DSP50x or to stream from e.g. Tidal directly to the DSP50x or to listen to web based radio stations. Suitable apps are:

- for iPad: mconnectHD or Creation 5
- for Android: BubbleUPnP

2.6.1 Roon Ready

The Roon Core will acquire the Roon Ready Certified DSP501/DSP502 when required and automatically select its Roon Ready input. No further user input is required.

2.7 IR Remote Control

Most of the keys on the IR remote control are self-explanatory. Here are some additional remarks:

- The two top/middle keys select the active *Output*. Long press (> 2s) of either keys toggles the active Output's *Termination*.
- The *polarity* key changes the absolute polarity of the output signal. If this is engaged (i.e. signal is inverted), the level figure on the LCD display turns yellow.
- The *mute* key when engaged mutes the output signal completely and the level figure on the LCD turns red.
- The *DSP presets* keys select one of the presets stored in the DSP. Currently we do not have yet assembled any factory DSP presets, but you are welcome to do your own. More information on the DSP presets is given in the web interface chapter.



Figure 11: IR remote control

2.8 The Web Interface

As mentioned above you may access the DSP50x via a web browser provided you have connected your DSP50x with an Ethernet cable to a Router unit. Enter this URL into your browser:

- `dsp501-nnnn.local` (for a DSP501 unit) or `dsp502-nnnn.local` (for a DSP502 unit)
- `nnnn` is the serial number of your DSP50x unit. You see that number on the back of the unit.

The web interface is described in more detail in the User Manual and White Papers.

2.8.1 Renaming your DSP50x

You may rename your Weiss D/A Converter via the web interface, specifically to either DSP501 or DSP502. This is particularly useful in case your device is still subject to the old naming convention DSP50x and thereby is not recognized as a Roon Ready Certified device by the Roon Core.
Click the *Rename* button in the *Device* section of the web interface and select one of the two options DSP501 or DSP502. Confirm your selection and restart your device in order for the rename to take effect.
You may repeat this procedure several times.

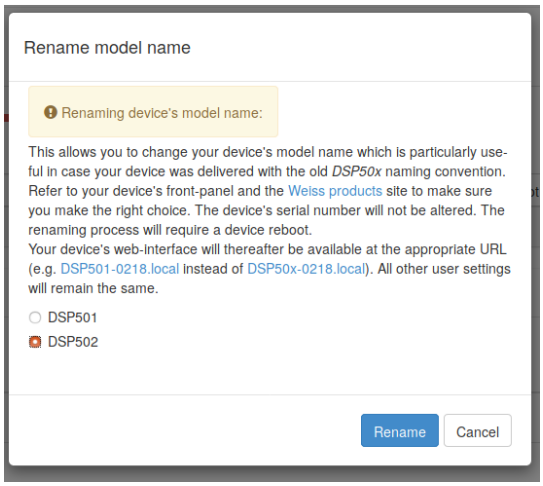


Figure 12: Pop-up window for renaming your device via the web interface

2.8.2 Software Updates

In the figure below you see a screen shot of the web interface. At the bottom there is a pad named *Check for Update*. If you tap on that the DSP50x checks whether there is any new firmware available to be downloaded. If this is the case the new firmware is listed and the pad changes to *Download Update*. If you tap on the pad the update will be downloaded. This may take some time depending on the speed of your Internet connection. Once the download has finished, the pad changes to *Install Update*. Again tap on the pad to install the downloaded firmware.
This again takes a minute or two, just wait until the pad changes to *Reboot with Update*. Again tap on the pad to start rebooting the DSP50x unit.

2.9 Downloads

Files to download (drivers, manuals) for the DSP50x can be found here:

Downloads
`https://www.weiss.ch/download/dsp501-dsp502-processors`

Manual
`https://www.weiss.ch/files/downloads/dsp501-dsp502-processors/dsp50x-userman.pdf`

USB audio class device driver (for Windows)
`https://www.weiss.ch/files/downloads/dac501-dac502/WeissEngineering_USBAudio_v5.30.0_2021-12-08_setup.exe`

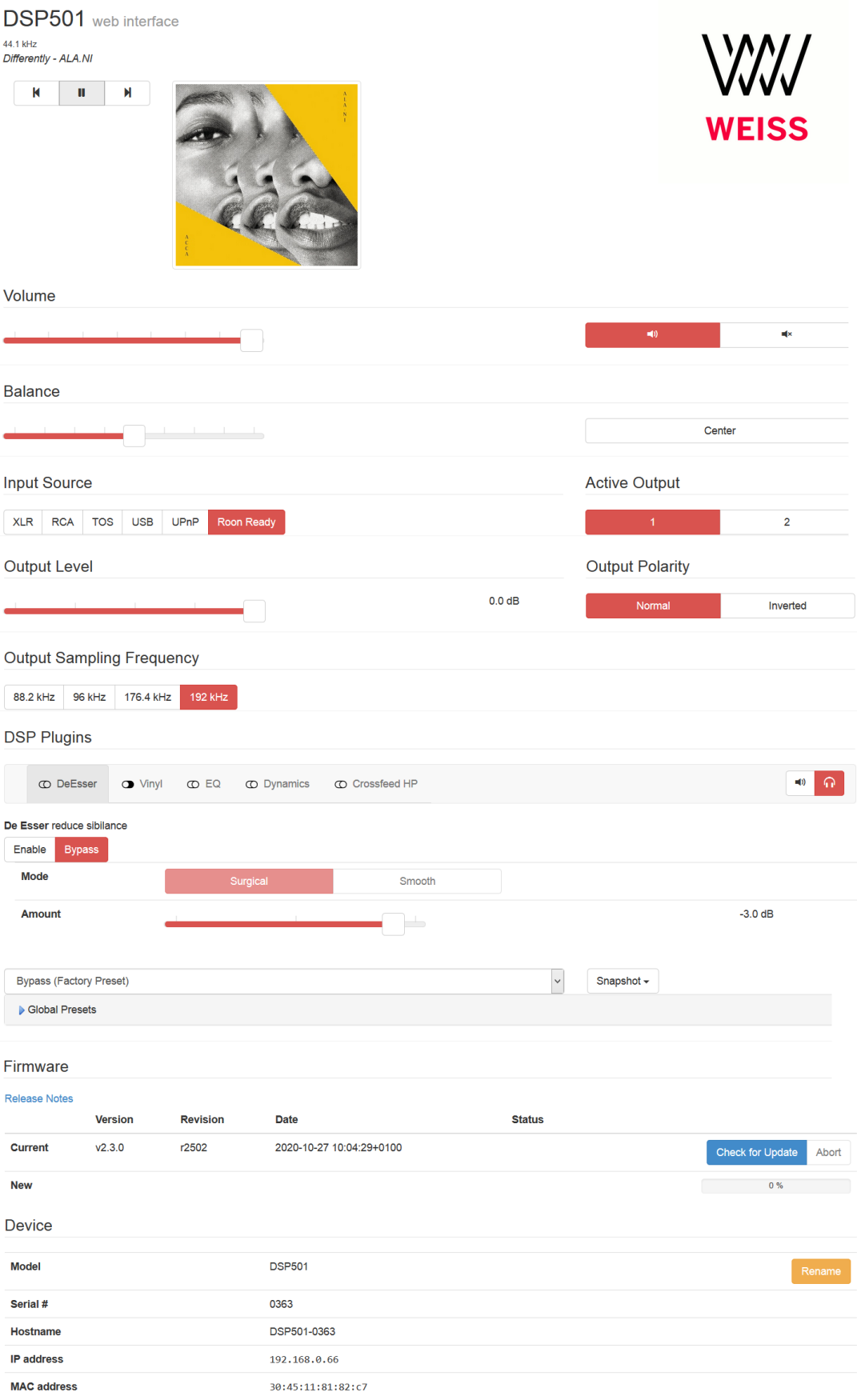


Figure 13: Screenshot of the DSP50x web interface

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