

DAC-501-4ch
DAC-502-4ch

QUICK START

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1 The DAC501-4ch/DAC502-4ch

Congratulations on purchasing the DAC501-4ch or DAC502-4ch D/A converter!



Figure 1: The front panel of the DAC502-4ch

The DAC501-4ch/DAC502-4ch are our new state of the art D/A converters with an unprecedented level of sophistication and versatility. With the DAC501-4ch/DAC502-4ch we are creating a new paradigm for what used to be a black box device.
A typical D/A Converter is a ”set and forget” device. Not so with the DAC50x-4ch. It adds a number of interesting signal processing features and sports a variety of digital inputs. Balanced, unbalanced and headphone outputs are provided.
Weiss Engineering has a 30 year history in D/A Converter design. In that time span we have learned a thing or two about converter design. The DAC50x-4ch is the essence of our experiences.

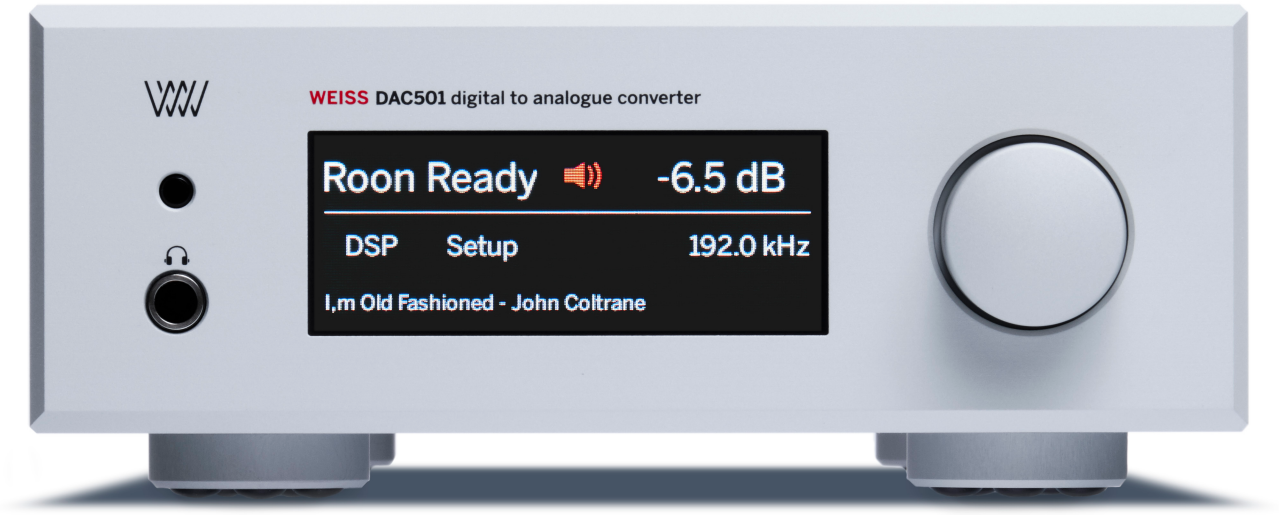


Figure 2: The front panel of the DAC501-4ch

The DAC502-4ch uses a larger frame but else sports the same features as the DAC501-4ch. The front of the DAC502-4ch is displayed in fig. 1, the DAC501-4ch in fig. 2. The term DAC50x-4ch refers to both models.
The basic operation of the DAC50x-4ch is outlined in this Quick Start Guide. For all the powerful features of the DAC50x-4ch refer the DAC50x-4ch User Manual and White Papers mentioned below.

2 Quick Start Guide

This Quick Start Guide presents the first steps to set up the DAC50x-4ch unit. Further and more detailed informations about the DAC50x-4ch and its features can be found in the DAC501-4ch/DAC502-4ch User Manual and White Papers.

2.1 Setting up the DAC50x-4ch hardware

Carefully unpack the DAC50x-4ch unit. The following items should be included:

- The DAC50x-4ch unit
- This quick start guide with a warranty card
- An IR remote control unit



Figure 3: The back panel of the DAC501-4ch

After unpacking the DAC50x-4ch connect the necessary input/output cables at the back of the unit.
Also connect the mains cable. The mains voltage is automatically sensed by the DAC50x-4ch. Mains voltages between *90V* and *240V* are allowed. No manual mains voltage selection is necessary.
To switch on the unit press on the rotary knob on the faceplate or press the power on/off button on the IR remote (upper/left corner). Wait for about half a minute for the unit to boot.

Note: Most of the parameters mentioned below can also be set via the DAC50x-4ch's web interface. If you have connected your DAC50x-4ch with an Ethernet cable to a router unit you may access the DAC50x-4ch via web browser. Enter this URL into your browser:

- `dac501-4ch-nnnn.local` (for a DAC501-4ch unit) or `dac502-4ch-nnnn.local` (for a DAC502-4ch unit)
- `nnnn` is the serial number of your DAC50x-4ch unit. You see that number on the back of the unit.



Figure 4: The back panel of the DAC502-4ch

2.2 Output selection

The DAC50x-4ch has two outputs, the XLR and RCA output sockets (backpanel) and the JACK output socket (frontpanel). In the case of the DAC502-4ch an additional 4 pin headphone socket is available at the back, the output signal of which is equivalent to the JACK output.
Only one of the two outputs (XLR/RCA or JACK) can be active at any time. 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 XLR/RCA and JACK outputs.
This icon represents the currently active *Output* as well as its selected *Output Termination* (2.3).

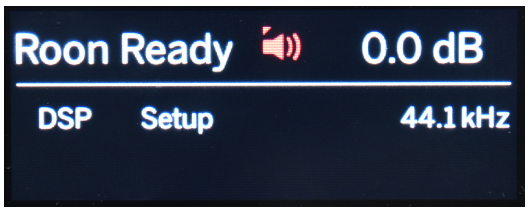


Figure 5: *XLR/RCA* Output with *Speakers* Termination

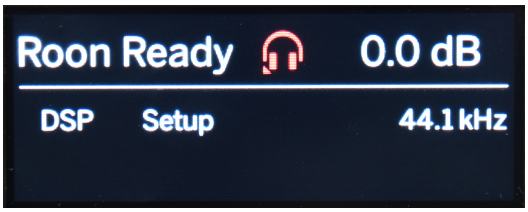


Figure 6: *JACK* Output with *Headphones* Termination

Most of the parameters in the DAC50x-4ch can be set differently between XLR/RCA and JACK outputs (e.g. volume, output level, equalizer settings etc.) and will be consistently saved when switching between outputs.

2.3 Output Termination

The DAC50x-4ch 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.
Typically the XLR/RCA output is used for Speaker terminated setups, while the JACK output is used for Headphones. This is the default assignment, 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 (2.6).

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 DAC50x-4ch has 4 coarse level settings (analog domain) to match the basic output level with the amplifier and headphone at hand.
Each output and each of its termination settings can be set to different levels. Proceed as follows:

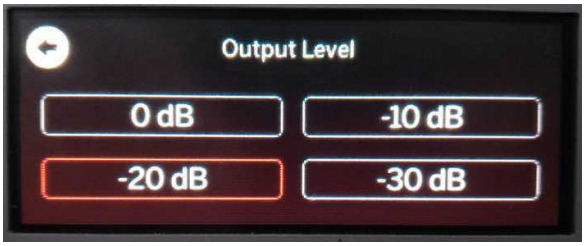


Figure 7: *Output Level* menu section on the LCD

- Select the output you would like to set (XLR/RCA or JACK)
- Tap on the *Setup* pad on the touch screen
- With the knob scroll the display such that you can see the *Output Level* entry
- Tap on the *Output level* pad in order to select one of the settings. 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 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 2.5.1)

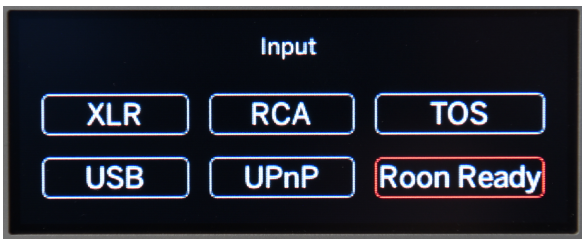


Figure 8: Input selection of *Roon Ready* via LCD menu



Figure 9: 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 2.8)

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 DAC50x-4ch or to stream from e.g. Tidal directly to the DAC50x-4ch or to listen to web based radio stations. Suitable apps are:

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

2.5.1 Roon Ready

The Roon Core will acquire the Roon Ready Certified DAC501-4ch/DAC502-4ch when required and automatically select its Roon Ready input. No further user input is required.

2.6 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 10: IR remote control

2.7 The Web Interface

As mentioned above you may access the DAC50x-4ch via a web browser provided you have connected your DAC50x-4ch with an Ethernet cable to a Router unit. Enter this URL into your browser:

- `dac501-4ch-nnnn.local` (for a DAC501-4ch unit) or `dac502-4ch-nnnn.local` (for a DAC502-4ch unit)
- `nnnn` is the serial number of your DAC50x-4ch 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.

2.7.1 Renaming your DAC50x-4ch

You may rename your Weiss D/A Converter via the web interface, specifically to either DAC501-4ch or DAC502-4ch. This is particularly useful in case your device is still subject to the old naming convention DAC50x-4ch 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 DAC501-4ch or DAC502-4ch. Confirm your selection and restart your device in order for the rename to take effect.
You may repeat this procedure several times.

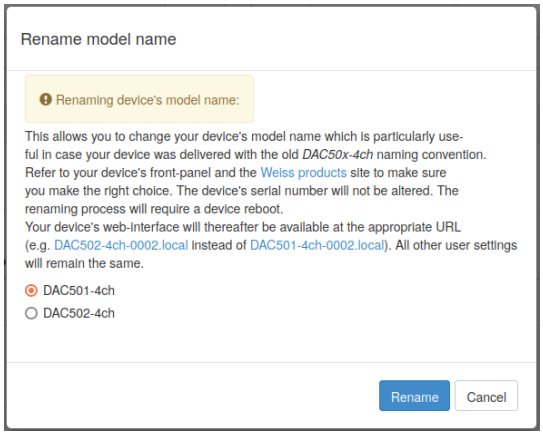


Figure 11: Pop-up window for renaming your device via the web interface

2.7.2 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 DAC50x-4ch 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 DAC50x-4ch unit.

2.8 Downloads

Files to download (drivers, manuals) for the DAC50x-4ch can be found here:

Downloads
`https://www.weiss.ch/download/dac501-dac502`

Manual
`https://www.weiss.ch/files/downloads/dac501-dac502/dac50x-4ch-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`

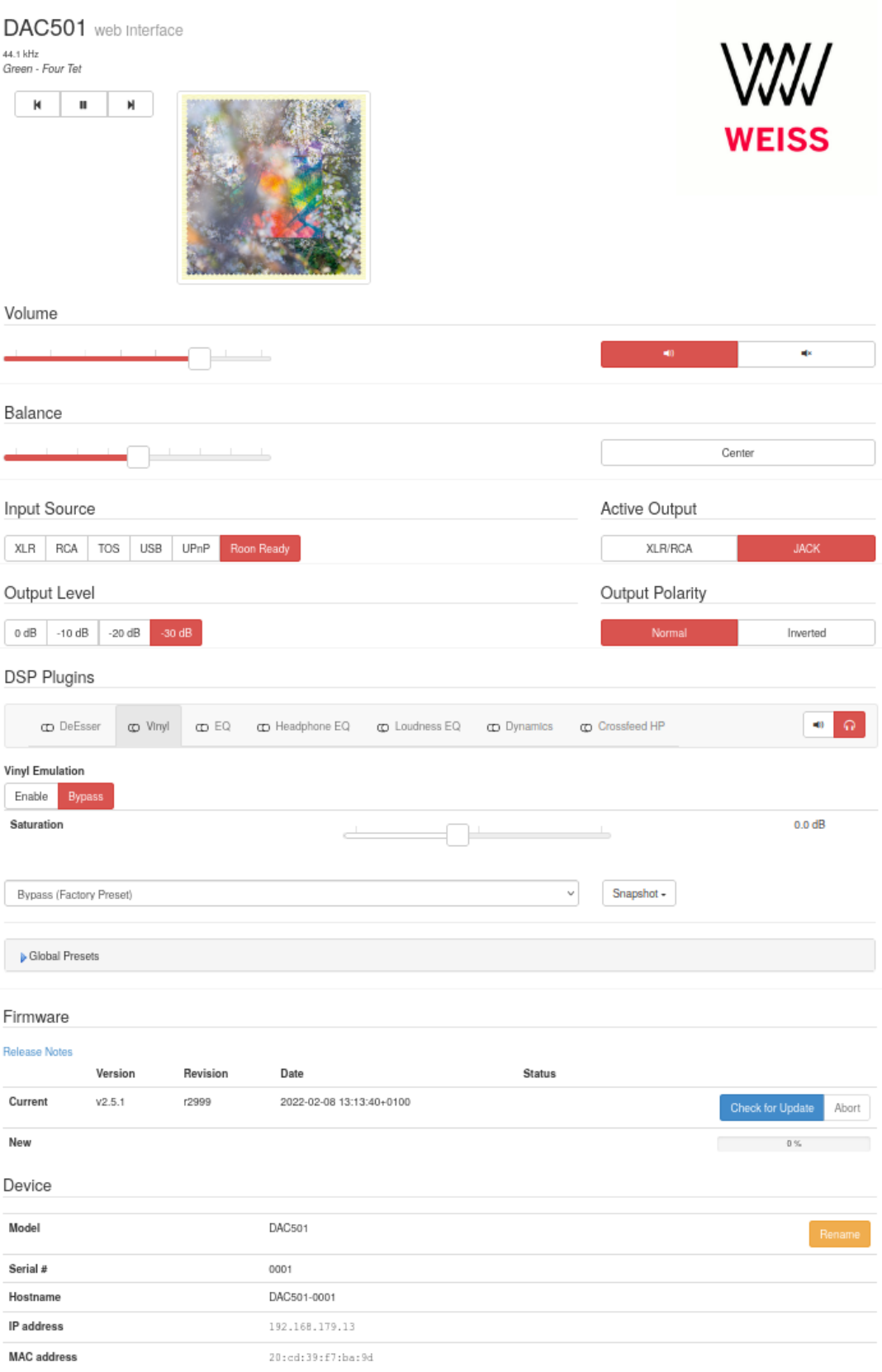


Figure 12: Screenshot of the DAC50x-4ch web interface

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