

User's Guide



ADI-2 Remote 2.0

Controlling the ADI-2 Series
from macOS, Windows and iPad



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1. Introduction

RME's ADI-2 Pro, a true milestone, was released in 2016. Followed by the ADI-2 DAC, ADI-2 Pro AE (Anniversary Edition), ADI-2 Pro FS, ADI-2 Pro FS R BE and lately the ADI-2/4 Pro SE, RME has successfully combined usability with flexibility, and brought professional features into the home and HiFi market.

7 years later RME once again shows what long-term relationship between RME developers and RME customers means: The newly released ADI-2 Remote for macOS, Windows and iPadOS not only comes for free, but also supports ALL devices of the ADI-2 series, back to the very first ADI-2 Pro from 2016!*

* The original ADI-2 AD/DA converter does not have USB or DSP, and as such is not part of this series.

The software *ADI-2 Remote* can be downloaded from RME's website:

Windows: https://www.rme-audio.de/downloads/adi2remote_win.zip

macOS: https://www.rme-audio.de/downloads/adi2remote_mac.zip

iPadOS: available via Apple's App Store as *ADI-2 Remote*.

Please note the below system requirements, for updated firmware, matching driver and computer hardware.

The MIDI protocol used by the ADI-2 Remote is available for download as an Excel document: https://www.rme-audio.de/downloads/adi2remote_midi_protocol.zip

2. System Requirements

Firmware

For the software to communicate with the ADI-2 device, and to support all final features, make sure you have these latest firmware versions in use:

ADI-2 DAC: USB 81, DSP 61

ADI-2 Pro: USB 267, DSP 127

ADI-2/4 Pro SE (Hw Rev 6): USB 72, DSP 39

ADI-2/4 Pro SE (Hw Rev.7): USB 209, DSP 39

The latest firmware version comes in a FUT (Firmware Update Tool), download here:

Windows: https://www.rme-audio.de/downloads/fut_madiface_win.zip

macOS: https://www.rme-audio.de/downloads/fut_madiface_mac.zip

Note: To update the firmware under Windows, the installed MADiface series driver is required. See the ADI-2 manual.

Windows

The ADI-2 Remote uses the same graphics engine as *DigiCheck NG*, so the same system requirements apply: **Windows 10 or higher**, and a graphics card that supports **Direct3D 12**. This might exclude some older computers, even when running Windows 10, for example with Intel integrated graphics HD4600 and HD4000.

More information on Direct3D and an overview of supported graphics cards is available here: https://en.wikipedia.org/wiki/Feature_levels_in_Direct3D

iPadOS

The iPad app requires iOS 12.4 or higher. It therefore can be used with the original iPad Air and any later (newer) iPad or iPad Pro.

macOS

The ADI-2 Remote uses *Metal* for its graphics, therefore won't work below macOS 10.11. With 10.11 it depends on the hardware as not all Macs running that OS are Metal compatible. See here: <https://support.apple.com/en-us/HT205073>

Connection

Under the hood the ADI-2 Remote uses a USB MIDI port to communicate with the hardware device. The connection is the same as usual – via USB 2.0 to a Windows computer, a Mac computer, or an iPad.

When everything is connected and up to date, but the app's title still says *Disconnected*: check that the MIDI Control option is set to ON (menu *Device Mode* for ADI-2 Pro and ADI-2/4 Pro, *Remap Keys/Diag* for ADI-2 DAC).

3. Software Installation

There is not much to say – the apps come with installer, started by a double-click on the unzipped archive.

4. After Installation: First Step – Perform a Backup!

This part is important as you don't want to change or lose your current settings on the device. Simply follow these instructions!

Install the app, connect the ADI-2 DAC, start the app. Stop there.

Now there is a fundamental rule on how the app works: it will **only read out** the ADI-2's current state and **NOT CHANGE ANYTHING** on the device – unless you fiddle with the knobs or settings – don't yet!

Next go to the File menu, select *File - Save Setup as....* This stores the current state (Setup) including all 20 PEQ Presets of the ADI-2 into a Setup file (*.adistp) that can be loaded later. Now you are safe and covered! Whatever you change using the ADI-2 Remote app can be undone easily by loading this setup file from the same menu, *File - Open Setup file*.

Additional steps

If you have saved several Setups in the unit you can store all these into separate files as described above, after loading the respective Setup:

In the app go to the *Device* page, click *Load*, then click *Setup 1*. This is the same as loading Setup 1 from the unit's display menu. Now save the current state as file. Repeat the process with all user-defined Setups.

There currently is no 'global state including all Setups' save functionality, so saving the Setups has to be done sequentially for all user-stored Setups, one by one.

Now start using the ADI-2 Remote - Have fun!

5. Overview

The ADI-2 Remote mostly only reads out the device state, and controls it like when doing the same on the unit or the MRC. Exceptions are *Limit volume rise speed*, *Recall*, *Limit Volume* and *Link*.

Link

The device has a special *Dual Volume* mode to control two outputs simultaneously. The app offers *Link* instead, which links (or gangs) any of the output volume settings controlled by the app.

It is possible to activate Dual Volume on the unit, but then the app will control not both but only one channel per time – unless Link is activated on the same channels.

The Link state is remembered by the app on restart, but volume values are not. Once again the current values are just read out of the device – which is enough to make it work correctly after a shutdown or reboot.

The Pages

The app consists of several main pages:

- Line Input (for 2 Pro and 2/4 Pro)
- Line Out, Phones Out, IEM Out for the DAC, Phones Out 1/2 and Phones Out 3/4 for 2 Pro and 2/4 Pro
- A general Device page with all channel unrelated settings
- A PEQ Editor that can be used to edit, save or load PEQs without changing the currently active EQ (listen to music while you play with it...).

The app is interactive and fully synchronized. Change the volume on the unit or in the app – both will stay in sync. When toggle mode is active and Toggle is clicked the current channel page will change accordingly. Same when plugging/unplugging phones when Mute vs. xx is active. Etc.

If no device is found the app enters Demo mode with ADI-2/4 Pro SE shown, so anyone interested can have a look.

In fact it is possible to create or edit PEQs even while offline, with the PEQ Editor, and load and save these from/to disk.

The app itself has two Settings available directly from the app menu. One disables the automatic change of shown output page. The other one enables to load up to 20 PEQs simultaneously into the unit via a Setup file. This is a nice feature for copying device states quickly between units, but usually users want to have full control what to load and then only load one or the other PEQ to specific slots – that's why this option is off by default.

The State Overview window

Due to the ADI-2 series' wealth of functions, the current status of the device may be unclear. The window *State Overview* (via F6 or the button SOV on top right), which displays the current state of the device and all inputs and outputs clearly and in great detail, can help here.

Help

Although the app should be easy to use and self-explanatory - if something is unclear try the included help from the menu (German and English).

6. Quick Guide

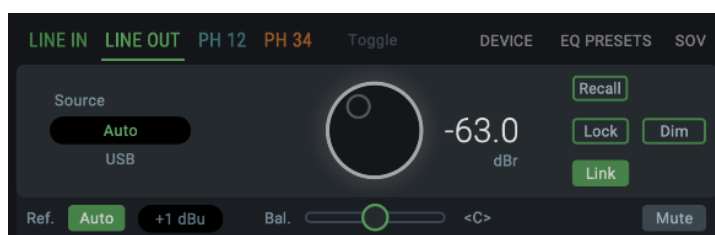
The ADI-2 DAC Remote software is simple and intuitive to use. The pages shown differ only marginally between the devices. One thing of course that you don't get with the ADI-2 DAC is the hardware inputs of ADI-2 Pro and 2/4 Pro SE, complete with EQ for adjusting the signal on the way in when you're recording. In Demo mode these are also visible for ADI-2 DAC users.

The ADI-2/4 Pro SE also features a digital RIAA mode, removing the need to use an external phono preamp in front of the ADI-2/4's line inputs, and making it the ultimate choice if you're looking to archive your vinyl collection in the highest quality.

Page selection

Starting at the top there are tabs to access the configuration pages of **input** (not available on ADI-2 DAC) and all **outputs** – click the tab for whichever output you wish to change the settings for, for example the **Phones 3/4 output**.

Next up you have your **Source** selection, which can be left set to *Auto*, and the **volume control**. You can also **Lock** the volume from here, and apply **Dim** (temporarily dropping the output level – useful if you receive a phone call etc), as well as control the left/right **balance** and the **Mute** switch.



Parametric Equalizer

Now we move into the EQ section. The ADI-2 series has long been popular for adjusting the EQ curve to suit different pairs of headphone (check out RME's latest video on that [here](#)), and now you can do this straight from your Mac or PC itself!

After the EQ's on/off switch, we have the eye-catching parametric equalizer, which features 5 adjustable bands, along with the bass and treble controls.

If you're familiar with EQ then chances are you won't need any explanation on how to use this section, but here's a quick run-through just in case:

Starting with a single Band (e.g. Band 1), you'll find three vertically-stacked encoders. The top is the **gain control**, which allows us to increase or decrease the level of the chosen band (with 0 being no boost or cut applied).

The middle encoder controls the **target frequency** (20 Hz – 20 kHz), whilst the third encoder adjusts the **Q** (Quality or Q Factor), which alters the shape of the curve for the EQ band.

Whilst there are no set rules when it comes to EQing, a good rule of thumb is that narrow Q settings are generally good for making cuts (-), whilst wider curves are better for boosts (+), and tend to sound more natural.



Finally we also have the Bass and Treble controls. These two bands have fixed curve types (shelf EQ), with the cut-off frequency for each band fully adjustable, along with the Q control.

Dual Button

To the right of the EQ we also have the Dual button. The ADI-2 DAC can famously apply EQ to the left and right channels independently – great for those who are hard of hearing in one ear, or if you want to make some slight room adjustments when connecting the DAC to speakers. Pressing this button allows us to create different EQ curves for the left and right channels.

Saving the EQ settings

The EQ section also allows you to save your settings as a preset. Click on the **Store** button and give your preset a name, and choose whether you want to save it to your hard drive, or to one of the ADI-2's on-board memory slots.

Advanced Settings – Width, Crossfeed and Filtering

Next up we have the section labelled Advanced Settings. Here we can adjust the Width (from stereo to mono to channels reversed), and try out the Crossfeed.

What is Crossfeed?

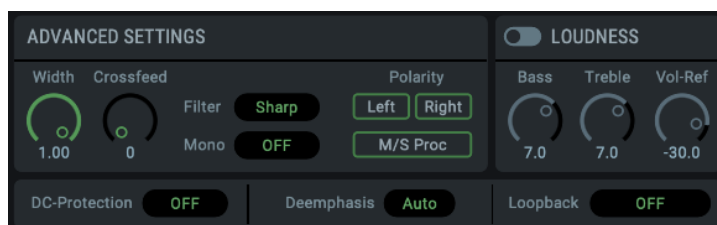
If you've not come across Crossfeed before, essentially it works by feeding a small amount of the left channel into the right, and vice versa. Headphones provide a very isolated way of delivering sound to our ears – in the real world, a sound source is received by both ears (albeit with a slight delay between them, which helps us perceive what the direction a sound is coming from).

Crossfeed therefore emulates the experience of real-world listening – like when listening to a pair of speakers, or watching a live band – by playing a small amount of sound from one channel into the other. The effect of this tends to vary with different recordings, but can work very well on certain types of music – well worth experimenting with!

The Advanced Settings is also home to the filter section, which allows you to change the type of filtering the DAC uses, such as the SD Sharp or NOS filter. We can also swap the polarity here – useful for checking that speakers aren't aligned out of phase, or for checking phase issues in music production – and activate the Mid/Side mode.

Loudness

We also have the very popular Loudness section, which many will remember from older HiFi amplifiers. This clever feature adjusts the treble and bass in response to volume changes, providing a more consistent listening experience regardless of the volume level.



As with most things on the ADI-2's, the treble and bass are user-adjustable, so you can fine-tune them to find your perfect settings.

DC-Protection, De-emphasis and Loopback

Finally we have a switch for the DC-Protection filter, and the Deemphasis control (which allows you to add or remove some of the highs on some digital material – more info can be found in the ADI-2 unit's manual), as well as the Loopback control which allows us to record the processed playback signal, or use it with RME's DIGICheck software.

That's it for our quick run-through of the ADI-2 DAC Remote software. If you need more details dive into the following chapters. And if that is not enough enter the most extensive and detailed manual ever that came printed with your ADI-2!

7. App Menu

The menu and options are basically identical for macOS, Windows and iPadOS.

7.1 File - Load Factory – EQ Examples

This command will load 18 PEQ Presets into the PEQ Editor – page EQ Presets – NOT into the device! But with the above global preference *Store file-loaded EQ-Presets into Device* all PEQs in the device will be overwritten, so be careful! (No issue when you did the backup first – we told you on page 4!).

These EQ Presets are examples on how to use the EQ and other interesting things. Here is some background information on the examples:

1. Nomen est omen, but not for anyone
2. Sub-bass boost for in-ears. Intentionally with Peak filter to reduce boost of the lowest, inaudible frequencies
3. Oratory1990 proposal for Sennheiser HD650
4. The author's compensation for Audeze's LCD-X
5. The author's compensation for Sennheiser HD800S
6. Oratory1990 proposal for HEDD Heddphone
- 7 to 10: compensation for DAC filters as published in RME's forum
- 11: Turns an illegal digital square into a bandlimited, valid square that still looks like a square
- 12: As the name says, different curves for left and right channel
- 13/14: Taken from the ADI-2 series manual. For details please read there.
- 15: Very effective rumble filter for turntables (Preset 22 in 2/4 Pro)

Feel Good
ProPhile 8
HD650
LCD-X
HD800S
Heddphone
JVC HA-SZ2000
Sony MDR-Z7M2
Slow Comp 44.
Slow Comp 48
LoPass Square
Dual EQ Test
Pre-Emphasis
De-Emphasis
Rumble Filter
Sub Low Pass
Sat High Pass
FM Tuner

16/17: Using a subwoofer the sub could need some mid/treble reduction, while the satellites need bass to be removed. These examples combined provide a proper crossover, but each one also works independently.

18: Hearing test. By changing the frequency of band 5 in real-time this hi-cut lets you find out at what point you hear a difference in music playback. If you don't hear anything changed down to 12 kHz - don't worry, you are not alone... This one is called FM Tuner as FM radio (German UKW) is typically limited to around 15 kHz audio bandwidth. Just for fun the famous MPX filter is added as 19 kHz notch in Band 4.

19/20: Intentionally left empty. These two are useful to store modified PEQs, or when changing the order (copy the slot to be overwritten to an empty slot first to not lose its content)

7.2 Options – Settings

Can also be called up via F2. This entry opens the *ADI-2 Remote Settings* window with the following options.

App Preferences

These settings affect the app itself and therefore apply to all devices and windows.

➤ Switch page to active channel

Default: On. Activates the automatic change of the displayed output page when switching or plugging in headphones.

➤ Store file-loaded EQ-Presets into device

Default: Off. Allows up to 20 PEQs to be loaded into the device simultaneously via a setup file. Very useful for quickly copying device states between devices. However, users usually want to have full control over what is loaded and where - this is why this option is disabled by default.

➤ Prevent MagicMouse over-travel (only macOS)

Default: On. Deactivates the over-travel of the MagicMouse and other pointing devices.

➤ Disable Mouse wheel operation

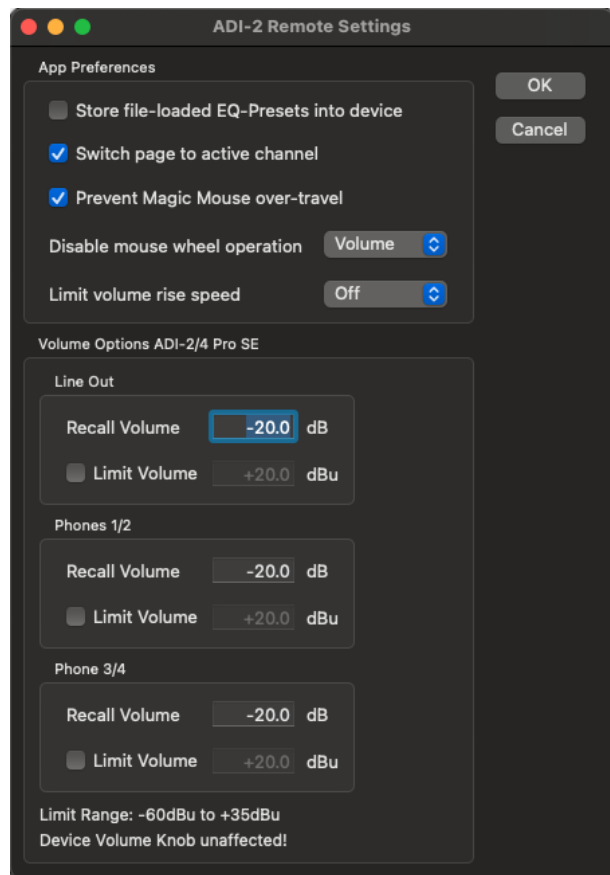
Default: Off. Options: Off, Volume, All Controls. Prevents unintentional changes when using the mouse wheel on the volume or all rotary controls of the app.

➤ Limit volume rise speed

Default: Off. The speed of a volume increase when adjusting the volume button of the app (not the device) can also be slowed down (selection 20 dB/s, 10 dB/s, 5 dB/s) from real-time (Off). Volume rise stops the moment the mouse button is released.

The position of the volume knob indicates the final value that can be reached. The numerical display shows the actual volume setting, i.e. it increases slowly.

Decreases in the volume value are not slowed down.



Volume Options ADI-2 XXX

These options are device-specific, i.e. only apply to the device named in the heading, and are available separately for all analog outputs of the device.

➤ Recall Volume

User-defined volume, which is activated with the Recall button on the output pages

➤ Limit Volume

For setting the maximum volume. The setting is done in dBu, over a range from +35 dBu to -60 dBu. The desired dBu value can be read out in the *State Overview* window. If the volume is set higher in the app, the message *Limit reached!* appears at the volume button.

7.3 Options – Enter Full Screen Mode

Activates the full screen mode.

7.4 Window – Zoom 100%

Sets the window size to the default size.

7.5 Window – Show Status Window

The status window, which can also be called up via F6, is a more comprehensive and detailed version of the State Overview display on the device. The window is divided into three areas:

Main Device State

Shows the current Basic Mode, the Clock Source and the Sample Rate.

Digital Input State

Shows the status of all digital inputs. Sync, sample rate, state (format or channel number), active bits and whether the SRC is active are displayed. Error states are displayed in red. Non-audio and emphasis warnings are also shown, as well as passed bit tests (*Bit test passed*).

Output State

The Output State is packed with useful information. It clearly shows the complete signal path and status of each analog output. The following information appears:

- **Status:** On, Off, plugged, unplugged, Balanced, Rear TRS 3/4, DC warnings.
- **Source:** USB 1/2, USB 3/4, Analog, AES, SPDIF optical, SPDIF coaxial
- **Reference:** the current reference level like +13 dBu, with Phones Lo-, Hi-Power and IEM.
- **Volume:** The current set volume value in dB. The display can be switched to dBu and dBr independently of the current mode using the buttons above. The dBu setting can also be used here to read out the value for the *Limit Volume* option.
- **DSP Functions:** Lists the DSP FX activated at the respective output: PEQ (EQ), Bass/Treble (B/T), Loudness (LD) and Crossfeed (CF).

Digital Output State

See Output State. The digital outputs normally have 0 dB as volume and no DSP effects. With *Digital Out Source - Main Out* active the table mirrors the status of the Line output.

The screenshot shows a software window titled "State Overview ADI-2 Pro (53010439)". It contains four main sections:

- MAIN DEVICE STATE**: A table with columns Basic Mode, Clock Source, and Sample Rate. Values are USB, Internal, and 44.1k respectively.
- DIGITAL INPUT STATE**: A table with columns Input, Sync, SR, State, Bits, and SRC. It lists SPDIF opt., AES, and USB inputs.
- OUTPUT STATE**: A table with columns Output, State, Source, Reference, Volume, and DSP Functions. It lists Line XLR, Line TRS, Ph. bal. Left, and Ph. bal. Right outputs. Above the table are buttons for dBFS and dBu.
- DIGITAL OUTPUT STATE**: A table with columns Output, State, Source, SR, and Volume. It lists AES, SPDIF, and ADAT outputs.

MAIN DEVICE STATE		
Basic Mode	Clock Source	Sample Rate
USB	Internal	44.1k

DIGITAL INPUT STATE					
Input	Sync	SR	State	Bits	SRC
SPDIF opt.	--	--	--	--	--
AES	lock	192k	prof.	24	active
USB	conn.	44.1k	2/2		

OUTPUT STATE					
Output	State	Source	Reference	Volume	DSP Functions
Line XLR	Off	USB 1/2	+4 dBu	-31.5 dBr	
Line TRS	Off	USB 1/2	+4 dBu	-31.5 dBr	
Ph. bal. Left	On	USB 1/2	Hi-Power	-24.5 dB	EQ+BT+LD
Ph. bal. Right	On	USB 1/2	Hi-Power	-24.5 dB	EQ+BT+LD

DIGITAL OUTPUT STATE				
Output	State	Source	SR	Volume
AES	Off	USB 1/2	44.1k	0.0 dB
SPDIF	Off	USB 1/2	44.1k	0.0 dB
ADAT	Off	USB 1/2	44.1k	0.0 dB

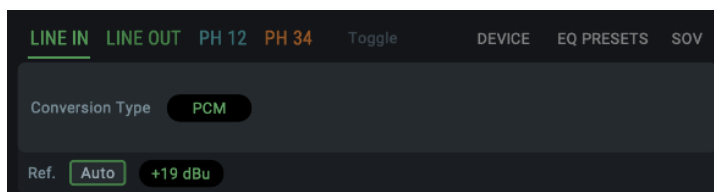
8. The Pages

8.1 Line Input (2 Pro and 2/4 Pro SE)

8.1.1 General

Conversion Type

PCM or DSD. Default: PCM. DSD will not become active at sample rates below 176.4 kHz. The DSD rate changes with the chosen sample rate (*Device – Clock Settings – Sample Rate*).



Ref. Auto

ON or OFF. Default: OFF. In case of overload Auto Ref Level will switch the Ref Level to the next higher setting. This process is repeated until +24 dBu is reached. In case Trim Gain was active it will be set to 0 dB first. Not available in RIAA mode.

Ref Level

Sets the reference level for the analog inputs 1/2. Choices are +1 dBu, +7 dBu, +13 dBu, +19 dBu, +24 dBu, referenced to digital full scale level (0 dBFS).

8.1.2 Parametric EQ

On or Off. Default Off. See also chapter 8.2.2 for further details on PEQ settings.



Preset

Load or store up to 22 different EQ Presets. The first choice, Manual, holds the current, unsaved EQ settings. The second choice, Temp, holds the settings of a loaded and then modified Preset. This scheme lets the user easily change and compare three different EQ settings: the manual one, the stored preset and the modified preset, without losing changes while listening to a different set of EQ settings.

Preset 21, Clear, corresponds to the factory default with all bands at 0 dB. It is not available to store a preset, but is used for resetting one by overwriting. A preset reset in this way, resulting in an 'empty' preset, is marked with **(lin)**.

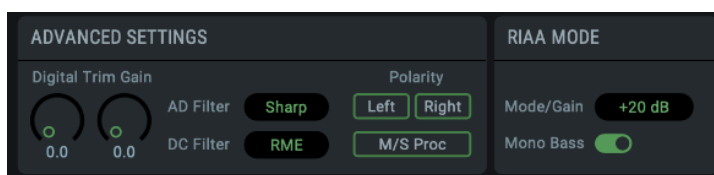
The ADI-2/4 Pro SE has Rumble as Preset 22, a rumble filter for turntable usage.

The EQ Presets are independent from and not stored with Setups on the device. Using the app Setup files do include all 20 PEQ Presets. On load the current EQ setting is written into the memory slot Manual.

8.1.3 Advanced Settings

Digital Trim Gain

Digital amplification of the input signal between 0 and +6 dB, in steps of 0.5 dB. Main use is to fine-tune the input sensitivity so that it matches the reference output level of external gear.



AD Filter

Short Delay Sharp, Short Delay Slow, Sharp, Slow. The analog to digital conversion can be done using four different filters. Default is *Sharp*, offering the widest, most linear frequency response at lowest phase distortion. *Slow* causes a small drop in the higher frequency range, but offers a less aggressive (less steep) filter. *SD Sharp* and *SD Slow* are similar, but have lower latency and are minimum phase filters.

DC Filter

RME (default), None. RME is a < 0.1 Hz filter in the FPGA with minimal phase error. In RIAA mode this filter is always active. For DSD recording DC filters are not available.

Polarity

Inverts the phase (180°) on the corresponding channel.

M/S-Proc

Activates M/S processing. Monaural content is sent to the left, stereo to the right channel.

RIAA Mode

OFF, +14 dB, +20 dB, +26 dB, +32 dB, +38 dB. Default: Off. Activates an RIAA preamplifier and equalizer with selectable gain for turntables with moving magnet cartridge (MM).

RIAA Mono Bass

OFF, Mono. Default: Off. Mono sums the bass below 150 Hz.

8.2 Line Output (all units)

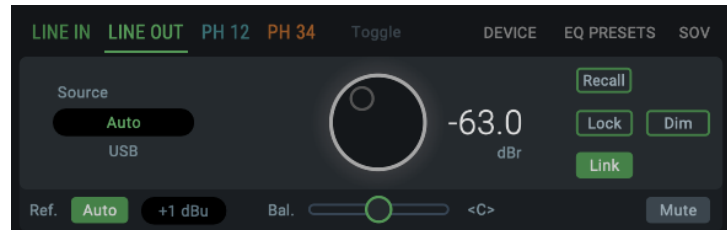
8.2.1 General

Source

The source of the Line Output 1/2 signal is automatically selected based on the current mode:

- *Preamp*: Analog inputs 1/2
- *USB*: Playback channels 1/2
- *Dig Thru*: current digital input signal
- *AD/DA*: current digital input signal
- *DAC*: current digital input signal and clock

The choice of AD/DA Source is therefore usually not available for Pro models. Only in AD/DA and DAC mode the input signal can be chosen between Auto, SPDIF, AES and Analog. This allows to choose between all currently attached digital input signals for conversion to output 1/2.



Volume

Mirrors the direct volume control via Volume knob or encoder 1. The output level can be set between -96 dB and +6 dB, mostly in steps of 0.5 dB.

Lock Volume

Deactivates volume control via the big VOLUME knob.

Dim

Reduces the volume of the current output setting by 20 dB.

Link

Links (or gangs) any of the output volume settings. This feature is similar but not identical to Dual Volume on the device.

Ref. Auto

ON, Off. Default: ON.

Ref Level

Sets the reference level for the analog outputs 1/2. Choices are +1 dBu, +7 dBu, +13 dBu, +19 dBu, +24 dBu, referenced to digital full scale level (0 dBFS).

Balance

Mirrors the balance control in the VOL screen. Adjustable from L 100 (left) through <C> (center) to R100 (right).

Mute

Mutes the output.

8.2.2 Parametric EQ

EQ Enable

ON, OFF. Default: OFF.



Preset

Load or store up to 22 different EQ Presets. The first choice, Manual, holds the current, unsaved EQ settings. The second choice, Temp, holds the settings of a loaded and then modified Preset. This scheme lets the user easily change and compare three different EQ settings: the manual one, the stored preset and the modified preset, without losing changes while listening to a different set of EQ settings.

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The ADI-2/4 Pro SE has Rumble as Preset 22, a rumble filter for turntable usage.

The EQ Presets are independent from and not stored with Setups on the device. Using the app Setup files include all 20 PEQ Presets. On load the current EQ setting is written into the memory slot Manual.

Store

Opens a dialog to store the current PEQ settings as file or into the device.

Manual (last dialed)
Temp (changed Preset)
Feel Good
ProPhile 8
HD650
LCD-X
HD800S
Hedphone
JVC HA-SZ2000
Sony MDR-Z7M2
Slow Comp 44.
Slow Comp 48
LoPass Square
Dual EQ Test
Pre-Emphasis
De-Emphasis
Rumble Filter
Sub Low Pass
Sat High Pass
FM Tuner
12345678901234
1234567890123C
Clear
Rumble

Bass Gain

Current Bass amplification for the current channels as set by encoder 1 (B). Adjustable between -12 dB and +12 dB in steps of 0.5 dB.

Bass Freq

Corner frequency of the shelf bass filter. Adjustable from 20 Hz to 150 Hz in steps of 1 Hz. Default: 85 Hz.

Bass Q

The quality factor of the filter is adjustable from 0.5 to 1.5. Default 0.9.

Band 1-5 Gain

Available settings are -12 to +12 dB in steps of 0.5 dB.

Band 1-5 Frequency

Adjustable from 20 Hz (200 Hz bands 4/5) to 20.0 kHz, in steps between 1 Hz and 100 Hz.

Band 1-5 Q

Quality factor is adjustable from 0.5 to 9.9 in bands 1 to 3, and 0.5 to 5.0 in bands 4 and 5, in steps of 0.1 dB. This equals a bandwidth setting of 2.54 (0.5), 0.29 (5.0) and 0.146 (9.9).



Treble Gain

Current Treble amplification for the current channels as set by encoder 2 (T). Adjustable between -12 dB and +12 dB in steps of 0.5 dB.

Treble Freq

Corner frequency of the shelf treble filter. Adjustable from 3 kHz to 10 kHz in steps of 100 Hz. Default: 6.5 kHz.

Treble Q

The quality factor of the filter is adjustable from 0.5 to 1.5. Default 0.7.

Dual EQ

OFF or ON. Default: OFF. When set to ON, the 5-band parametric equalizer can be set individually for left and right channel.

B/T Enable

OFF, ON. Default: ON

B/T Load with EQ

The current B/T setting is always stored with the EQ Preset, but only loaded (automatically set and activated) when this option has been set to ON. The Bode plot then shows the effect of the B/T setting as well, and Bass and Treble controls are added as bands BB and BT for direct control within the graphical EQ screen, turning the 5-band PEQ into a 7-band one.

Band 1 Type

Available settings are Peak, Shelf, High Cut and High Pass (Low Cut). All filters are adjustable from 20 Hz to 20 kHz, at a Q of 0.5 to 9.9. Cut/Pass have a fixed 12 dB/oct filter steepness.

Band 5 Type

Available settings are Peak, Shelf or High Cut. High Cut is adjustable from 200 Hz to 20 kHz, at a Q of 0.5 to 5.0 and a fixed 12 dB/oct.

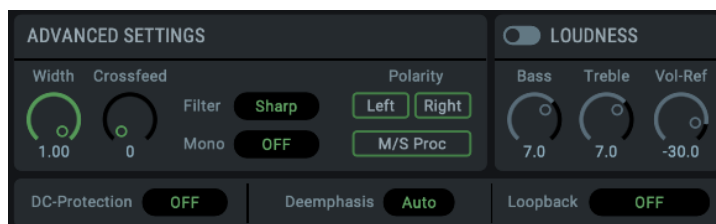
8.2.3 Advanced Settings

Width

Defines the stereo width. 1.00 equals full stereo, 0.00 mono, -1.00 swapped channels.

Crossfeed

OFF, 1, 2, 3, 4, 5. The Bauer stereo to Binaural crossfeed effect emulates speaker playback by reducing the stereo width in the treble range. Adjustable in 5 steps.



DA Filter

Short Delay Sharp, Short Delay Slow, Sharp, Slow, SD LD (Short Delay Low Dispersion), Brick-wall, NOS. The Digital to Analog Converter chip offers several oversampling filters. Default is *Sharp*, offering the widest, most linear frequency response at lowest phase distortion. *Slow* causes a small drop in the higher frequency range, but has a less aggressive (less steep) filter. *SD Sharp* and *SD Slow* are similar, but have a lower latency and are minimum phase filters. *NOS* is the filter with the lowest steepness and therefore affecting treble more than the others, but offers the best impulse response.

Mono

OFF, ON, to Left. Default: OFF. The option *to Left* sends the sum of left and right channel to the left output only.

Polarity

Inverts the phase (180°) on the corresponding channel.

M/S-Proc

Activates M/S processing. Monaural content is sent to the left, stereo to the right channel.

Loudness

ON, OFF. Default: OFF.

Bass Gain

Maximum Bass amplification. Adjustable from +1 dB to +10 dB in steps of 0.5 dB. Default: +7 dB.

Treble Gain

Max Treble amplification. Adjustable from +1 dB to +10 dB in steps of 0.5 dB. Default: +7 dB.

Low Vol Ref

Reference level for highest Bass/Treble amplification, referenced to the Volume set in dB. Available range is -90 dB to -20 dB. Default: -30 dB. A volume setting below this point will have maximum Bass/Treble gain, all volume settings above this point will have lower Bass/Treble gain. 20 dB above the Low Vol Ref setting the Bass/Treble gain will be zero.

Digital DC Protection

ON, OFF, Filter. Default: Filter. ON detects DC in the source signal and mutes the corresponding analog output if DC is found too high. DC detection stays active with OFF but only issues a different warning message. Filter adds a High Pass to remove DC and infrasound.

De-Emphasis

Auto, OFF, ON. Default: Auto. For manually de-/activating the DAC's de-emphasis filter.

Loopback

OFF, Pre FX to 1/2 – 5/6, Post FX to 1/2 – 5/6, Post 1/2 – 5/6 -6 dB. Routes the current output signal to the corresponding USB record channels.

8.3 Phones Output, 1/2, 3/4, IEM (all units)

These pages are mostly identical to Line Output. Here are explanations on the differences.

Source

Default: Auto. The source of the output Phones Out 3/4 can be chosen manually anytime. Available options are: Auto, AES, SPDIF, Analog, USB 1/2, USB 3/4. Auto here not only means current or available signal, but also channels 1/2.

Rear TRS 3/4 (only Ph 34 on ADI-2/4 Pro SE)

Line 1/2, Phones 3/4. Default: Line 1/2.

The rear TRS outputs can be switched from Line Out 1/2 to Phones 3/4 as source. See block diagram in the 2/4 Pro manual. The settings of Phones Out 3/4 are then also active for TRS, including the Ref Level. The Line Ref Level +13 dBu is therefore not available.



The **Ref Level** of the phones outputs are independently switchable to IEM (+1 dBu), Low Power (+7 dBu) and High Power (+19 dBu). IEM does not have a Ref Level option (fixed to -3 dBu)

8.4 Device (all units)

8.4.1 Device Mode

Basic Mode

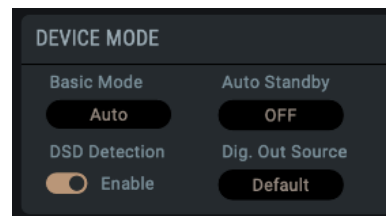
Choices are Auto, AD/DA, USB, Preamp, Dig Thru and DAC.

Auto Standby

OFF, 30min, 1h, 2h, 4h. The unit checks all outputs for signals higher than -70 dBFS. With no signal and user action detected within the set time the unit will enter standby mode.

DSD Detection

Default: ON. Option to deactivate the automatic DSD detection on SPDIF, AES and USB.



Dig. Out Source

Default, Main Out. Copies the signal of signal path 1/2 (including EQ and volume) to the digital outputs AES and SPDIF/ADAT. Useful when connecting active monitors with digital inputs.

DSD Filter

In DSD Direct mode, HF filters help to reduce the high-frequency DSD noise, which can negatively affect other devices.

DSD Direct

OFF, ON. Default: OFF. When activated, DSD playback uses the Direct DSD mode via the rear outputs 1/2. Since DSD Direct bypasses all DSP calculations and the volume setting, the only way to change the volume is to select other reference levels. For further details, see the device manual.

Note on changing the CC-Mode

The modes Stereo and Multi-channel can only be changed directly at the unit!

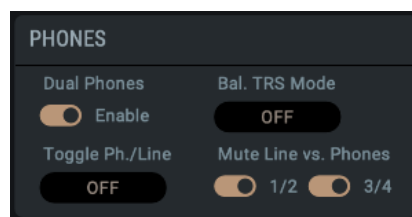
The ADI-2 series supports two Class Compliant modes: 2 channel I/O, which allows to use sample rates up to 768 kHz even with iOS devices, and 6/8 channel mode to give access to all I/Os simultaneously. In multi-channel mode the sample rate is limited to 192 kHz. To be able to change the mode USB must be disconnected.

8.4.2 Phones

Dual Phones

OFF, ON. Default: OFF. With Dual Phones ON the phones output PH 1/2 will be active. Default state is Off, as PH 3/4 is the main phones output and should be used exclusively unless two phones are to be connected.

If Dual Phones is on and two phones are plugged in, a push on VOLUME toggles between 1/2, 3/4 and linked volume control (with the marker over both). When VOLUME is turned the Dual Volume screen is shown then.



Bal TRS Phones Mode

OFF, ON, Auto. Default: OFF. In Balanced Phones mode output PH 3/4 carries the left channel, output PH 1/2 the right channel. When Auto is selected, the balanced phones mode is automatically activated as soon as both Phones outputs detect a connector being plugged in. These settings are not valid for the Pentaconn jack, which automatically activates Balanced mode.

Toggle Ph/Line

OFF, 1/2, 3/4, 1/2+3/4, All Plugged, Line/Digital. Default: OFF. Activates the ability to toggle mute between Phones Out, rear Line Out and digital outputs. Pushing the VOLUME knob for half a second will then switch between loudspeakers connected to the rear and phones plugged into the front. *All Plugged* only incorporates the phones output where a plug is detected. *Line/Digital* switches between analog Line Out and digital outputs, with *Mute v. Ph* active also between Phones and digital outputs.

Mute v. Ph 1/2

ON, OFF. Default: ON, but grayed out. As soon as a plug is detected in PH 1/2 the rear outputs 1/2 are muted. Note: This function requires Dual Phones to be ON to become accessible. With Mute v. Ph 1/2 ON the channels Phones 1/2 and Line Out 1/2 have separated settings. Although both outputs alternately play back the same signal, all settings (Settings, EQ, BT) can be different, and are separately stored in the background.

Mute v. Ph 3/4

ON, OFF. Default: ON. If set to ON a plug detected in PH 3/4 mutes the rear outputs 1/2.

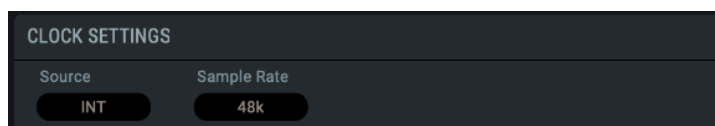
8.4.3 Clock Settings

Clock Source

Choices are Auto, INT (Internal, Master), AES, SPDIF. Not available in DAC mode.

Sample Rate

This setting can only be changed when not connected to USB. Otherwise it only serves as info panel. Choices are 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384, 705.6 and 768 kHz.



8.4.4 Hardware

SPDIF In

Available settings are: Auto, Coax, Optical. Default: Auto.

SRC (Sample Rate Converter)

Available settings are: Off, AES In, SPDIF In. Default: SPDIF In. Note: In case a DoP signal (DSD) is detected, SRC is automatically switched off.

SRC Gain

Available settings: 0 dB, -3 dB. Default: 0 dB. The SRC uses digital headroom to handle inter-sample peaks up to +3 dBFS without distortion. With the -3 dB setting, an SRC signal with up to +3 dBFS can be recorded via USB without distortion, or passed on at the AES/SPDIF output in Dig Thru mode. A normal SRC input signal with 0 dBFS then has a level of -3 dBFS for these two paths.

Optical Out

Available settings are: SPDIF, ADAT. While the input adapts to the received signal automatically, the output needs to be switched manually. In Dig Thru mode with an ADAT signal received, the output is switched to ADAT automatically with all 8 input channels passed through.

Remap Keys

OFF, ON, Remote. Default: Remote. Allows to assign up to 64 different functions/actions to the four function keys on the device and seven programmable keys on the remote, configurable via the following seven entries:

HARDWARE		Remap Keys		IR-Remote	
SPDIF In	Auto	VOL (1)	Default	IR 5	Source SPDIF c
SRC	OFF	I/O (2)	Default	IR 6	Source Optical
SRC Gain	0 dB	EQ (3)	Default	IR 7	Source USB 1/2
Optical Out	SPDIF	SETUP (4)	Default		

VOL Key, I/O Key, EQ Key, SETUP Key, I(nfra-red) R(emote) Key 5-7.

Available functions/actions:

Setup 1 to 9, Mono 1/2, Mono 3/4, Mono 1/2 to L, Mono 3/4 to L, Mute 1/2, Mute 3/4, Mute all, Loudness 1/2, Loudness 3/4, EQ In 1/2, EQ Out 1/2, EQ Out 3/4, B/T Out 1/2, B/T Out 3/4, EQ+B/T+Ld 1/2, EQ+B/T+Ld 3/4, Toggle Ph/Line, EQ+B/T+Ld 1-4, Polarity, Crossfeed 1-5, DA SD Sharp, DA SD Slow, DA Sharp, DA Slow, DA SD LD, DA Brickwall, DA NOS, Toggle View, DIM, Mono all, Mono all to L, Loudness all, EQ Out all, BT all, AutoDark, EQ Preset 1-9, RIAA Mode +, RIAA Mode -, RIAA Mono B.

Additionally Source AES, Source SPDIF c, Source Optical, Source Analog, Source USB 1/2 are available. In Basic Mode DAC - and only there - these realize a switching of the input to be monitored on the device and via the remote control.

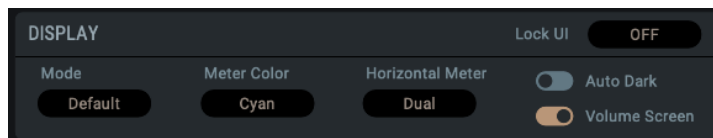
8.4.5 Display

Lock UI

OFF, Remote, Keys, Keys+Remote. Locks the keys on the device (Keys), the remote control (Remote) or both (Keys+Remote). Only VOLUME remains operable. To unlock, press and hold encoder 1.

Mode

Available settings are: Default, Dark. The dark scheme inverts the white background and black numbers/text on the display to black background and light-grey numbers/text.



Meter Color

Green, Cyan, Amber, Monochrome, Orange, Red. Default: Cyan. Color of the level meters for PCM and DSD mode.

Horizontal Meter

The horizontal stereo level meter below the Analyzer can show the peak level before all DSP processing (**Pre**, equals the current input level from USB playback and SPDIF In), after all processing including volume control (**Post**), or both at the same time (**Dual**, default). The outer thin line is the Pre level. In Dual mode the peak values to the right refer to Post level. **Post FX dBu** shows numerical values referenced to dBu.

AutoDark

OFF, ON. Automatically turns off all LEDs and the display (exception: Standby button) after 10 seconds of user inactivity. A key press and turning an encoder will temporarily activate LEDs and display again. Info and warning messages are shown for 3 seconds.

Volume Screen

ON, OFF. Default: ON. When turning the VOLUME knob at the device the Volume screen is shown.

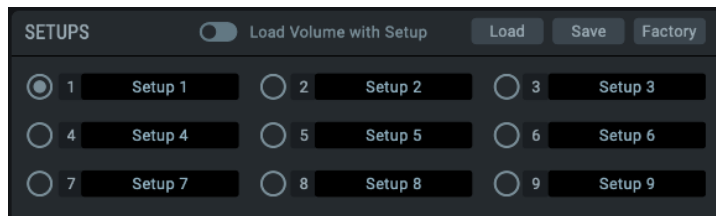
8.4.6 Setups

This section allows to save the whole state of the unit as *Setup* in 9 memory slots. The EQ Presets are not included, but stored separately. The current state of the EQ is stored, and written to the EQ memory slot *Manual* during load of a Setup.

It should be noted that Setup files (!) can have individual, different sets of 20 PEQ Presets. The nine Setups in the unit however share the same 20 PEQs.

Load Volume with Setup

On, Off, default Off. Setups can be loaded with or without loading the volume setting stored in the Setup. Selecting Off the current volume will not be changed.



Load

To load one of the nine Setups, click the *Load* button, then the desired Setup. The circle left to the Setup name will change from white to orange color to signal the currently active Setup. Any parameter change will let the circle become grey. This serves as indicator that the current state no longer equals the stored Setup.

Save

To save the current state click the *Save* button, then click the desired Setup button. The circle left to the Setup name will change from white to orange color.

Factory

To load a factory Setup click *Load*, then *Factory*. This is an additional, internal and fixed Setup (unlisted Setup number 10 if you will) that includes typical default settings. The Factory setup changes all kinds of settings, but does not alter the current EQ or EQ Presets values. Only the choice of currently active EQ might be changed.

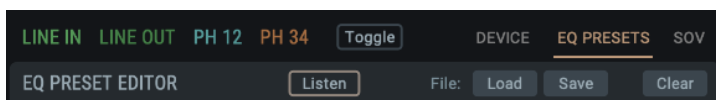
8.5 EQ Presets (PEQ Editor)

8.5.1 EQ Preset Editor

Listen

The EQ Preset Editor gives access to the 20 EQs stored in the device, without overwriting them immediately after applying changes. In fact the Editor can also be used offline to load, edit and save EQ Presets.

The button *Listen* temporarily loads the current EQ Preset into the active output.



File – Load

A click on *Load* brings up a file selection dialog, prefiltered for .adiegpr files.

File – Save

A click on *Save* brings up a file selection dialog to save the current EQ as .adiegpr file.

Clear

Similar to the Preset Clear within the unit this button sets the EQ to linear or flat frequency response.

8.5.2 EQ Presets

Device: Store

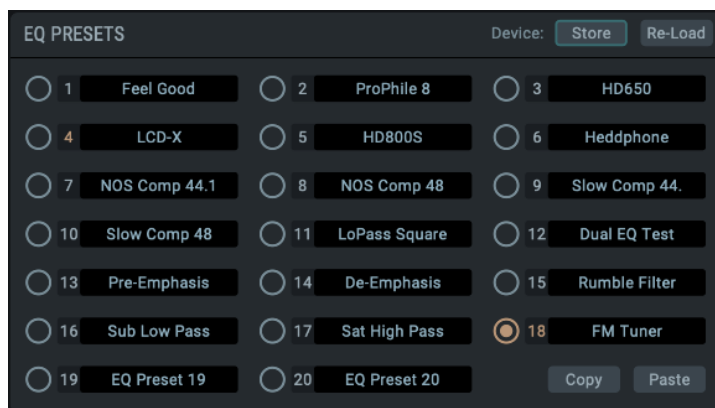
Clicking *Store* the currently active EQ is stored to the device, on the same Preset number.

Device: Re-Load

Any EQ Preset in the device can easily be loaded into the EQ Preset Editor by clicking *Re-Load*. This is also helpful to undo any changes that were done in the EQ Preset Editor, but not yet transferred into the device.

States of EQ Presets

Selecting any of the 20 EQ Presets the circle left to the Preset name will change from white to orange color to signal the currently active Preset. Any parameter change will let the Preset number change from white to orange. This serves as indicator that the current state no longer equals the stored Preset. Selecting a different EQ Preset the orange number will stay visible as a reminder.



On exit of the app a dialog will ask for confirmation if these changes should be discarded.

Copy / Paste

While the unit includes a feature to swap EQ Presets, easily changing their order, the app currently needs the older Copy and Paste scheme to do the same:

- Select any EQ Preset (for example 1), click Copy
- Select any other EQ Preset (for example 2), click Paste. The EQ settings of EQ Preset 1, including the Preset name, are now copied to EQ Preset 2.
- To swap EQ Presets or to change their order: copy the EQ Preset (1) onto an empty Preset (for example 18), copy Preset 2 to 1, then 18 to 2. Now EQ Preset 1 and 2 are swapped.

9. Appendix

RME news, driver updates and further product information are available on RME's website:

<https://www.rme-audio.com>

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Current app version: 2.0

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