_DIST OPAMP-21

ARTURIA

_The sound explorers

Special Thanks

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Special Messages

This manual covers how to use Dist OPAMP-21, provides a comprehensive look at its features, and details how to download and activate it. First, some important messages:

Specifications Subject to Change:

The information contained in this manual is correct at the time of printing. However, Arturia reserves the right to change or modify any of the specifications or features without notice or obligation.

IMPORTANT:

The software, when used in combination with an amplifier, headphones or speakers, may be able to produce sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high volume or at a level that is uncomfortable.

If you encounter any hearing loss or ringing in your ears, please consult an audiologist.

NOTICE:

Service charges incurred due to lack of knowledge relating to how a function or a feature works (when the software is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owner's responsibility. Please study this manual carefully and consult your dealer before requesting additional support.

Introduction

Congratulations on your purchase of Dist OPAMP-21.

Thank you for purchasing Dist OPAMP-21, a recreation of an audio industry milestone – the Tech 21 SansAmp Classic. This pedal, and its successors, have pioneered new technology and have affected the way musicians and audio engineers work.

The method of plugging your electric guitar into the mixing desk has since become common practice, thanks to the many digital tools available today. But in 1989, the people at Tech 21 were ahead of their time. Not only was the SansAmp entirely analog, but the sounds it produced have since become legendary and highly sought after. Here is your chance to knead some SansAmp magic into your productions.

Excellence is placed at the heart of every Arturia product, and Dist OPAMP-21 is no exception. Explore the presets, tweak a few controls, get lost in the features - dive as deeply as you like.

Be sure to visit the www.arturia.com website for information on all our other inspiring hardware and software instruments, effects, MIDI controllers, and more. They have become indispensable tools for many visionary artists around the globe.

Musically yours,

The Arturia team

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1. WELCOME TO DIST OPAMP-21

Thank you for purchasing Dist OPAMP-21. This plug-in from Arturia lets you color the sound of your guitar, bass, harmonica, drums, keyboard, or any other piece of audio that needs some attitude.

Dist OPAMP-21 is based on the legendary tube amp emulator SansAmp Classic, which was designed by B. Andrew Barta and produced by Tech 21 in New York City, USA. The original hardware unit used cascaded op-amps to generate a wide range of saturated tones.

Back in 1989, the idea of plugging an electric guitar into a mixing desk was almost unheard of, but the SansAmp Classic became the catalyst for the whole "going direct" movement. Suddenly there was a time-saving and cost-effective way to get a great sound without the need for a loud tube amplifier. It also allowed for musicians to get an inspiring sound on stage at any level, not only at full blast.

Various offspring of the product were produced during the following years: the GT-2, the Bass Driver and rack mounted models like the PSA-1 and RPM. Most of these products have been emulated in the software world, but there's no software version of the SansAmp Classic. Until now!

1.1. What does the Dist OPAMP-21 do?

Dist OPAMP-21 gives you all the benefits of the Tech 21 SansAmp Classic hardware product in a plug-in format, and more!

If you plug your electric guitar or bass directly into your audio interface (with the *Instrument* setting activated), you'll get a clean signal into your DAW (Digital Audio Workstation). That's a good start.

While a bass may sound perfectly useful in this shape, an electric guitar will probably not (unless you're a fan of ultra-clean sounds, a sonic ideal in itself). Most of the time, you will want the coloration of a real-world pre-amp, more or less of added grit or distortion and some speaker emulation to round it off. The Dist OPAMP-21 provides all that.

But let's not restrict ourselves to stringed instruments. Producer/engineer Tchad Blake is one frequent SansAmp Classic user. He has used this pedal on "anything", e.g. kick, snare, toms, sax, electric piano, Hammond organ, samplers etc.

Or as one of our developer puts it: This is not a only guitar distortion, it's a real mixing tool!

With this information, we'd like to encourage you to try Dist OPAMP-21 on any sound source that needs some spicing up.

1.2. Using the Dist OPAMP-21

There are numerous ways to achieve tube amp emulation. Your DAW comes with plug-ins for EQ, distortion/overdrive/saturation and numerous other effects. Those plug-ins are designed to work with all kinds of audio material and possibly mastering too. Yes, you *can* probably get a working guitar sound using the built-in plug-ins, if you know exactly what you're doing.

With Dist OPAMP-21, the sound is already there!

Another aspect is that of CPU hunger. Generally speaking, the better a plug-in sounds, the more CPU power it consumes. The plug-ins that come with your DAW are primarily designed to work on modest computers and on a lot of tracks at the same time.

That's not a bad thing – functionality will be fine most of the time – but here we're talking about more specialized tools. Arturia's plug-in effects are not restricted in any way, because we know it will be worth it to a serious musician like yourself.
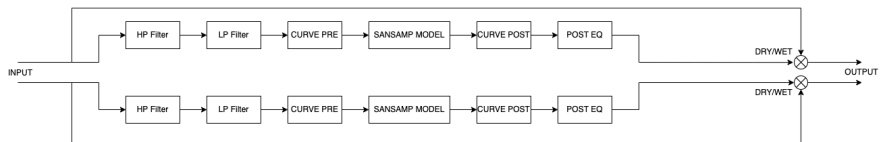
Here's the audio path in Dist OPAMP-21

1.3. Features in Dist OPAMP-21

Dist OPAMP-21 faithfully duplicates all of the variables that make the SansAmp pedals unique. On top of that, we've added some useful new features.

- A dedicated Drive knob for controlled, tube amp-like distortion
- Presence and High controls
- Preamp styles Normal, Lead, and Bass that emulate 3 different amplifiers, like in the original pedal
- Character controls, just like the 8 DIP switches in the original unit
- **NEW** A preamp setting called Modern with very little EQ coloration
- **NEW**: A balance knob to set the Dry/Wet mix (providing parallel processing mode)
- **NEW**: Pre-Drive containing Low and High Cut Filters
- **NEW**: Curve, a function that reduces low end distortion
- **NEW**: Stereo, Mid, and Side processing (for M/S mixes)
- **NEW**: Pultec-style 3-band fully parametric output EQ

And with that said, enjoy Dist OPAMP-21!

2. ACTIVATION AND FIRST START

2.1. Compatibility

Dist OPAMP-21 works on computers and laptops equipped with Windows 8.1 or later, or macOS 10.13 or later. It is compatible with the current generation of Apple M1, M1 Pro/Max, and other Apple Silicon processors. You can use it as an Audio Units, AAX, VST2, or VST3 plug-in within your favorite recording software. Dist OPAMP-21 is a plug-in only and has no stand-alone mode.

2.2. Download and Install

You can download Dist OPAMP-21 directly from the Arturia Products Page by clicking either the Buy Now or Get Free Demo options. The free demo is limited to 20 minutes of operation.

If you have not already done so, now is a good time to create an Arturia account by following the instructions on the My Arturia webpage.

Once you've installed Dist OPAMP-21, the next step is to register the software. This is a simple process that involves a different software program, the **Arturia Software Center**.

2.2.1. Arturia Software Center (ASC)

If you haven't installed ASC yet, please go to this web page: Arturia Downloads & Manuals.

Look for the Arturia Software Center near the top of the page, and then download the installer version for the system you're using (Windows or macOS). ASC is a remote client for your Arturia account, letting you conveniently manage all your licenses, downloads, and updates from one place.

After you've completed the installation instructions, proceed to do the following:

- Launch the Arturia Software Center (ASC).
- Log into your Arturia account from ASC's interface.
- Scroll down to the 'My Products' section of ASC.
- Click on the 'Activate' button next to the software you want to start using (in this case, Dist OPAMP-21).

It's as simple as that!

2.3. Working with Plug-ins

Dist OPAMP-21 can be used in all major digital audio workstation (DAW) programs including Cubase, Digital Performer, Live, Logic, Pro Tools, Studio One, and more. Plug-ins have numerous advantages over hardware, including:

- You can use as many instances on different tracks as your computer can handle.
- You can automate the plug-in's settings via your DAW's automation feature.
- All settings and changes are saved with your DAW project, letting you pick up right where you left off next time you load a project.

2.3.1. Audio and MIDI Settings

Since Dist OPAMP-21 is a plug-in only, these settings are handled in your recording software or DAW. These are generally located in some type of Preferences menu, though each product does things a bit differently. So, consult your recording software's documentation for information on how to select your audio interface, active outputs, sample rate, MIDI ports, project tempo, buffer size, etc.

A note about your DAW's latency (sample buffer) settings. In general, higher settings mean a lower CPU load, as the computer has fewer interruptions and longer amount of time to process commands. However, this can result in longer *audible* latency if, for example, you record a new track while listening to playback with Dist OPAMP-21 active.

On the other hand, lower settings mean lower latency but higher CPU load. That said, a fast, current computer should easily be able to run it – even on many tracks at once – with low latency settings. Of course, this all depends on whatever else is in the project.

Now that you've set up your software, it's time to explore the roaring world of Dist OPAMP-21!
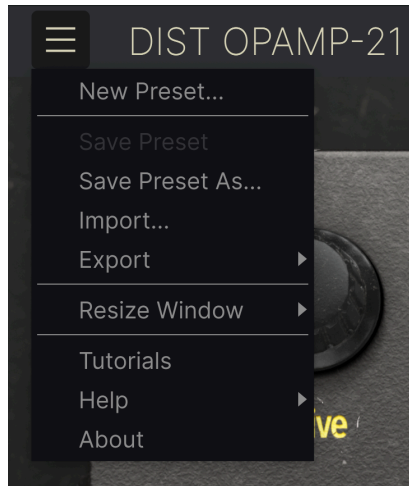
3. THE USER INTERFACE

3.1. Upper Toolbar

This chapter covers the upper toolbar in Dist OPAMP-21, where the main menu as well as the Preset Browser [p.17] reside. Let's go over them from left to right.
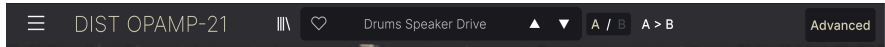
3.1.1. Main Menu

Clicking the "hamburger" icon (three horizontal lines) in the top left corner of the upper toolbar opens a drop-down menu that lets you access several important features related to Presets and useful functions. Let's look at them one at a time.
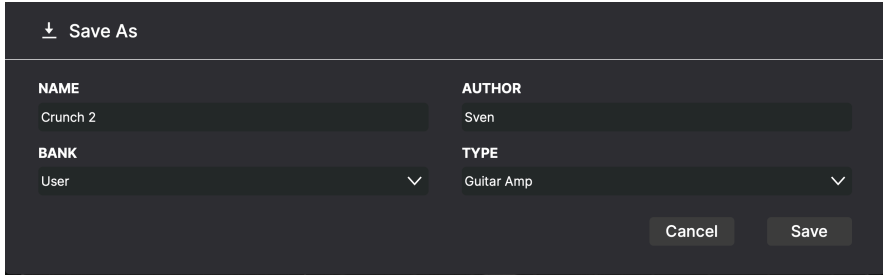
3.1.1.1. New Preset

Creates a new preset with default settings for all parameters.

3.1.1.2. Save Preset

If you click on Save Preset, you will overwrite the current preset with any changes you have made. This applies only to user Presets, so this option is greyed out for factory Presets.

3.1.1.3. Save Preset As

This is where you save the current state of Dist OPAMP-21 under a different Preset name. Clicking this option reveals a window where you can name your Preset and enter more detailed information about it:


> ♪ The Bank, Author, and Type fields are all useful when searching for presets in the Preset Browser [p.17].

3.1.1.4. Import

This command lets you import a Preset file or entire bank stored on your computer. It opens an OS-level navigation box, allowing you to search your computer for the proper files.

3.1.1.5. Export

You can export Presets to your computer in two ways - as a single Preset, or as a bank. In either case, an OS-level navigation window allows you to specify where to save the file(s).
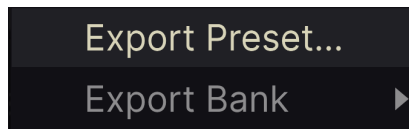
- **Export Preset:** Exporting a single Preset is handy for sharing a Preset with someone else. The saved preset can be reloaded using the **Import** menu option.
- **Export Bank:** This option exports an entire bank of presets from the plug-in, which is useful for backing up or sharing sound settings. Saved banks can be reloaded using the **Import** menu option.

3.1.2. Resize Window

Dist OPAMP-21 can be resized from 50% to 200% of its default size (100%) without any visual artifacts. On a smaller screen such as a laptop you may want to reduce the interface size so it doesn't dominate the display. On a larger screen or a second monitor you can increase the size to get a better view of the controls and graphics.

This operation can also be performed using keyboard shortcuts. On Mac, use Command +/- to resize the window. On Windows, use Control +/-.

You may have to make sure the plug-in window is the active window by clicking on it first.

> ♪ Please note, that in in some DAWs, this keyboard shorcut doesn't work because it is used by the DAW itself.

3.1.2.1. Maximize View Button

If you make the Dist OPAMP-21 window so large that some of its parameters are pushed outside the viewable range of your computer display, you may see this icon in the far lower right corner of the window:
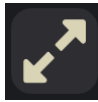
Click it, and the window will resize and re-center to optimize your available screen space.

3.1.2.2. Tutorials

Dist OPAMP-21 comes with interactive tutorials that walk you through different features of the plug-in. Clicking this option opens a pane on the right side of the plug-in window where the tutorials appear. Select one to access step-by-step descriptions that highlight the relevant controls and walk you through the process.

You can close the Tutorial pane by clicking on the **Exit tutorials** button at the bottom of the pane.


3.1.2.3. Help

Get more help by visiting links to this user manual and Frequently Asked Questions pages on Arturia's website. You will need an internet connection to access these pages.

3.1.2.4. About

Here you can view the software version and developer credits. Click again anywhere on the screen to make this pop-up window disappear.

3.1.3. Preset Browser Access and Name Pane

Clicking the "books on a shelf" button opens the Preset Browser [p.17], which offers a myriad of ways to browse, sort, and organize Presets in Dist OPAMP-21.
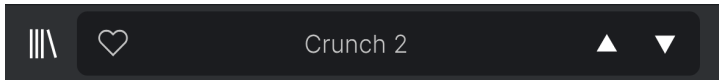
Clicking on the Preset name also opens up quick drop-down menus for selecting Presets outside of the Browser. All things about Presets are covered in detail in the next chapter.

3.1.4. Advanced Button

In the upper right corner of the top toolbar is the **Advanced** button. This opens up a panel that encompasses advanced modulation functions, which we cover in detail in the chapter Advanced Panel [p.32].

3.1.5. A / B

When working with Dist OPAMP-21, you may find more than one ideal setting, and it can be hard to choose between them. The **A / B** switch allows you to quickly jump from A to B to A and so forth.

Those two settings can be your own creations or presets or any mix thereof.

Please note, that when you save a project and later re-open it, only the latest state shown will be remembered.

Here is an example:

- You work on A, and tweak settings.

- You go to B, and tweak other settings.

- You stay on B, save your project, and then close your DAW.

- Finally, you reopen your project.

In this situation, you will see that:

1) A is now deleted and replaced by B at reopening.

2) B is now blank.

Basically, the last seen settings are saved by the DAW.

3.1.6. A > B

Here's a clever function that copies the content of one page (A or B) into the other. This is practical, for example, if your working method is to always regard A as "best", or similar.

So, if you are in A and press this button, all settings will be copied to B (and all previous B settings will be lost). And vice versa.

3.2. The Lower Toolbar

A number of utility functions reside in the very bottom of the Dist OPAMP-21 interface. They're like a good mechanic or plumber: maybe not glamorous, but you're really glad to have them around when you need them.

Since this area is skinny and not amenable to covering in numbers and diagrams, we will just describe them from left to right.

3.2.1. Left Side

Low Drive: Allows more low frequencies to pass through

Lower toolbar, left side

The left half of the toolbar is where the control descriptions appear, telling you what any knob, button, icon, or other control does when you mouse over it.

3.2.2. Right Side

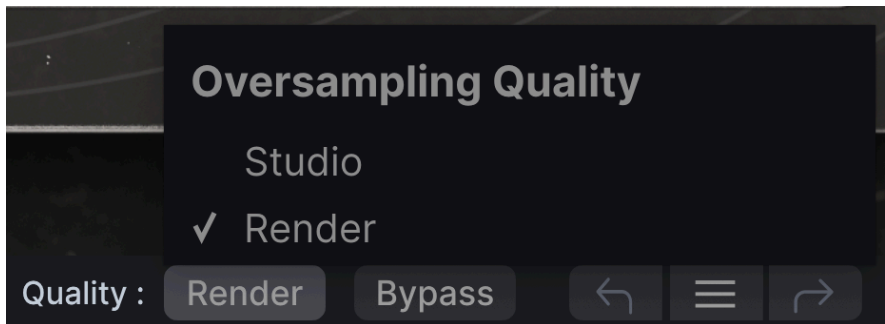The right half of the lower toolbar is home to a number of other utilitarian functions.

Lower toolbar, right side

From left to right, these are:

3.2.2.1. Oversampling Quality [Studio/Render]

You can save CPU resources, especially in a large DAW project running a lot of virtual instruments and effects and your computer is struggling to handle it all.

Oversampling Quality options

The **Render** setting is the default setting. If you want to save computer resources, select **Studio**. There will be a minimal sacrifice in audio quality, but you will be able to carry on working.

> ♪ If you switch to **Studio** mode, remember to set this switch back to **Render** when you're rendering individual tracks, stems, or the final mix of the project.

3.2.3. Bypass

This button bypasses the plug-in.

3.2.4. Undo, Redo, and History

When editing a plug-in, it's all too easy to overshoot a sweet spot and then wonder how to get back to where you were. Like all Arturia plug-ins, Dist OPAMP-21 offers comprehensive Undo, Redo, and History so that you always have a trail of "bread crumbs."

Use the arrows to go back and forward one control movement or other action at a time.

> ♪ The A and B pages have separate histories, so pressing Undo or Redo only affects the page you're currently on.
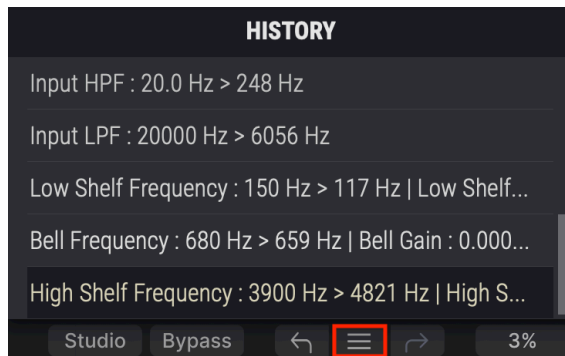
3.2.4.1. Undo

Click the left arrow to revert to the state before the most recent edit you made. You may click repeatedly to undo several edits in reverse time order.

3.2.4.2. Redo

Click the right arrow to redo the most recent edit you undid. If you have undone several, you may click repeatedly to redo them in forward time order.

3.2.4.3. History

Click the "hamburger" (three lines) center button to open the History window, as shown above. This provides a step-by-step account of every move you have made in Dist OPAMP-21. Clicking on an item in the list not only re-executes that move — it returns the plug-in to the overall state it was in when you first made that move.

3.2.4.4. CPU Meter

At far right is the CPU Meter, which displays the overall load Dist OPAMP-21 is placing in your computer CPU. Since it deals only with this plug-in, it is not a substitute for the overall CPU metering tools in your DAW.

3.2.4.5. Panic

Mouse over the CPU Meter, and it will display the word PANIC. Click to send an all-sounds-off command. This is a momentary command, so sound will resume if your DAW is still playing. In the event of serious runaway audio (say, from an unrelated delay effect going nuts in a feedback loop), stop your DAW playback and disable the offending plug-in.

3.2.4.6. Maximize View Button

If you make the Dist OPAMP-21 window so large that some of its parameters are pushed outside the viewable range of your computer display, you may see this icon in the far lower right corner of the window:


Click it, and the window will resize and re-center to optimize your available screen space.

4. SELECTING PRESETS

Dist OPAMP-21 lets you browse, search, and select Presets from a browser-like interface inside the plug-in. You can also create and save your own Presets in the User Bank. Of course, the state of any instance of the plug-in — including the current Preset — is automatically saved when you save your DAW project, so you can always pick up where you left off.

4.1. The Preset Browser
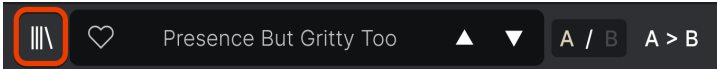
Click the "books on a shelf" icon to access the Preset Browser.

The three main areas of the Preset Browser are as follows:
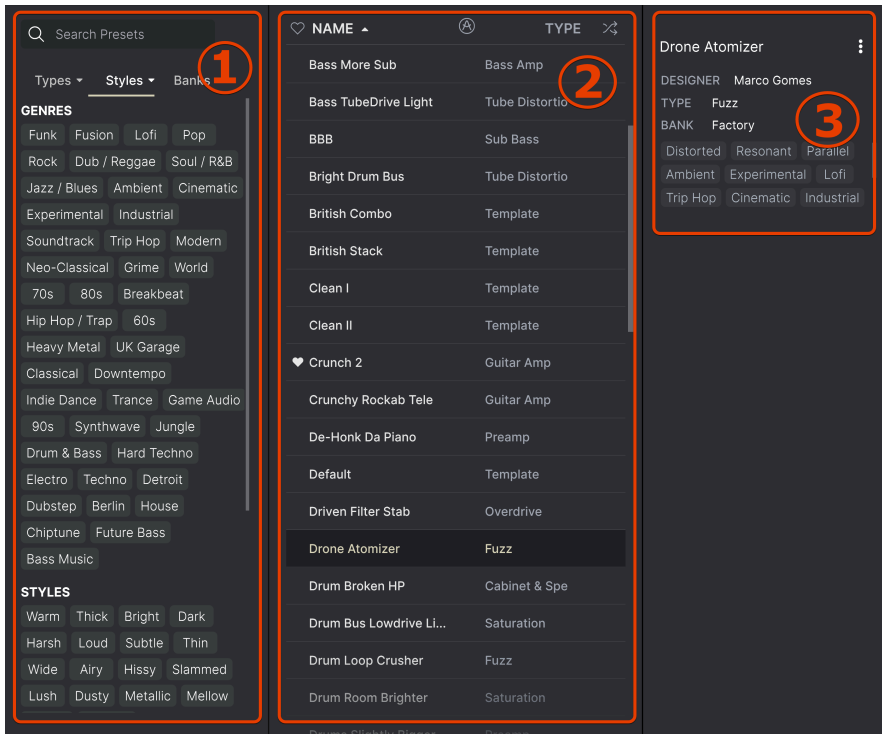
| Number	Area	Description
1.	Search [p.18]	Searches for Presets by text entry with filters for Type, Style, and Bank.
2.	Results Pane [p.20]	Displays search results, or all Presets if no search criteria are active.
3.	Preset Info [p.22]	Displays Preset Details. You can edit details for Presets in User Bank.

4.2. Searching Presets

Click on the Search field at the top left and enter any search term. The browser will filter your search in two ways: First, simply by matching letters in the Preset name. Second, If your search term is close to that of a Type or Style [p.18] it will include results fitting those tags as well.

The Results Pane will show all Presets that fit your search. Click the CLEAR ALL text to clear your search terms.
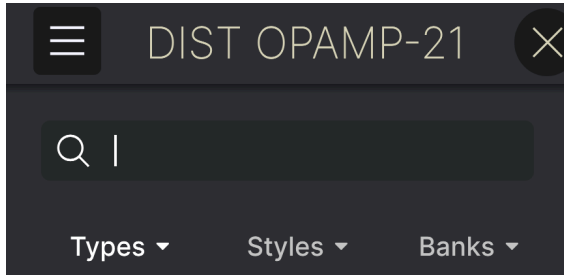
Filter by typing text in the Search field

4.2.1. Using Tags as a Filter

You can narrow (and sometimes expand) your search using different tags. There are two kinds of tags: **Types** and **Styles**. You can filter by one, the other, or both.

4.2.1.1. Types

Types are categories of audio effects: Tape, Distortion, EQ, Modulation, and so on. With a clear search bar, click the **Types** drop-down to bring up the list of types. Types sometimes include sub-types (especially in more complex Arturia effect plug-ins) but Dist OPAMP-21 is relatively simple, so Distortion and Filter are the types you will see most often.

You can also select multiple Types using command-click (macOS) or ctrl-click (Windows). For example, if you aren't sure whether the preset you're looking for was tagged with Overdrive or Tube Distortion, select both to broaden the search.
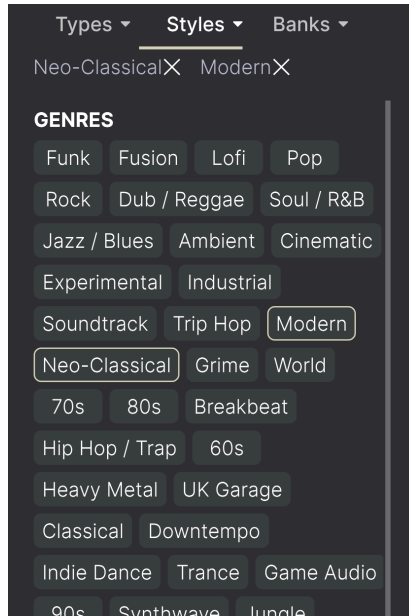
Results columns can be inverted by clicking the arrow buttons to the right of their titles (Name, Type, Designer).

> ♪ You can specify the type when saving a preset [p.9]. That Preset will then show up in searches where you've selected that Type.

4.2.1.2. Styles

Styles are, well ... exactly that. Accessed by the **Styles** button, this area has three further subdivisions:

- *Genres*: Identifiable musical genres such as Ambient, Blues, Metal, Pop, etc.
- *Styles*: General "vibe" such as Loud, Halfway, Clean, etc.
- *Characteristics*: Even more detailed audio qualities such as Bassy, Telephone, Sharp, and more.

Click any one, and the results will show only Presets that match that tag. Notice that when you select any tag, several other tags usually disappear.

This is because the browser is narrowing your search by a process of elimination. Deselect any tag to remove it and widen the search without having to start all over again. You can also clear the tag by clicking the X to the right of its text, which appears at the top.

> ♪ Note that you can search by a string of text, Types and Styles, or both, with the search becoming narrower as you enter more criteria. Clicking CLEAR ALL in the search bar will remove all Type and Style filters as well as any text entry.

4.2.2. Banks

Next to the **Types** and **Styles** drop-down is the **Banks** drop-down, which lets you do your search (using all the methods above) within the factory or user Banks.

4.3. The Results Pane

The central area of the Preset browser shows search results, or simply a list of all presets in the Bank if no search criteria are active. Simply click on a Preset name to load it.

> ♪ Note that you can decide what slot, A or B, you want to load a preset into. Loading different presets into those slots allows you to conveniently compare the sound of those presets.
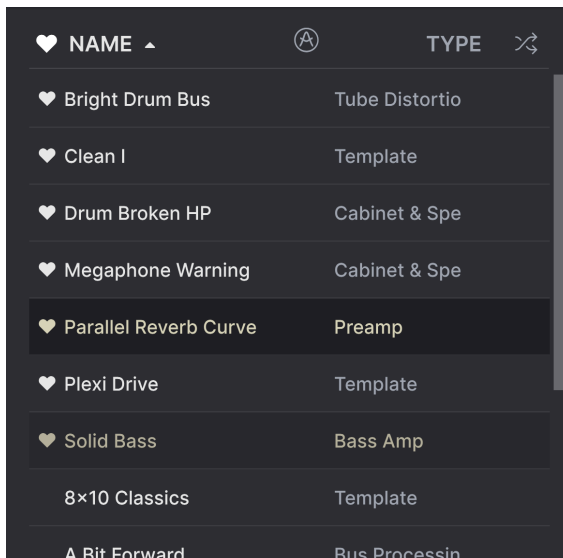
4.3.1. Sorting Presets

Click the **NAME** header in first column of the Results list to sort the results list of Presets in ascending or descending alphabetical order.

Click the **TYPE** header in the second column to do the same thing by Type.

4.3.2. Liking Presets

As you explore and create presets you can mark them as Liked by clicking the heart next to their names. (This icon also appears in the main Preset Name Pane [p.24] Clicking on the heart icon makes all of your liked Preset show up at the top of the results list, as shown here:

A filled-in heart icon indicates a like. An outline indicates a Preset that has not been liked (yet). Click the heart at the top of the list again to return the list to its previous state.

4.3.3. Featured Factory Presets

Presets accompanied by the Arturia logo are factory creations we think really showcase the capabilities of Dist OPAMP-21.
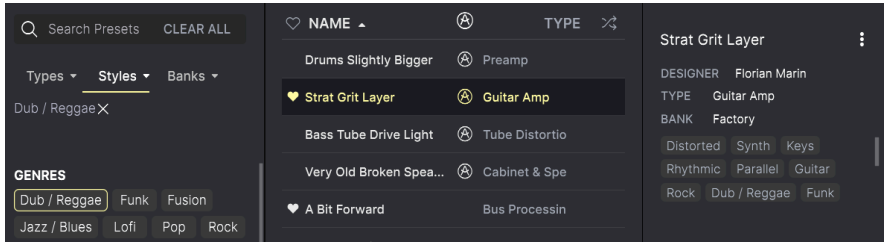
Clicking the Arturia icon at the top of the Results pane causes all featured Presets to appear at the top of the list.

4.3.4. Shuffle Button

This button randomly reorders the Preset list. Sometimes it can help you find the sound you're looking for more quickly than scrolling through the entire list.

4.4. Preset Info Section

The right side of the browser window shows specific information about each preset.
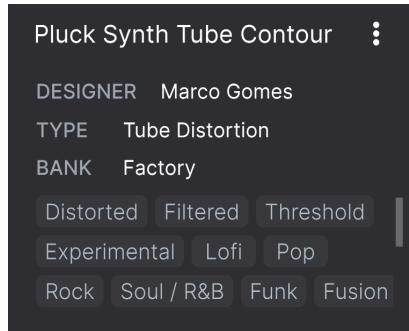
For Presets in the User bank (as the result of a Save As operation), you can enter and edit the information and it will update in real time. This includes the designer (author), Type, all Style tags, and even a custom text description at the bottom.

To make the desired changes, you can type directly in the text fields, use one of the pull-down menus to change the Bank or Type, and click the + sign to add or delete Styles. You will see all the options come up in the Results Pane's space:
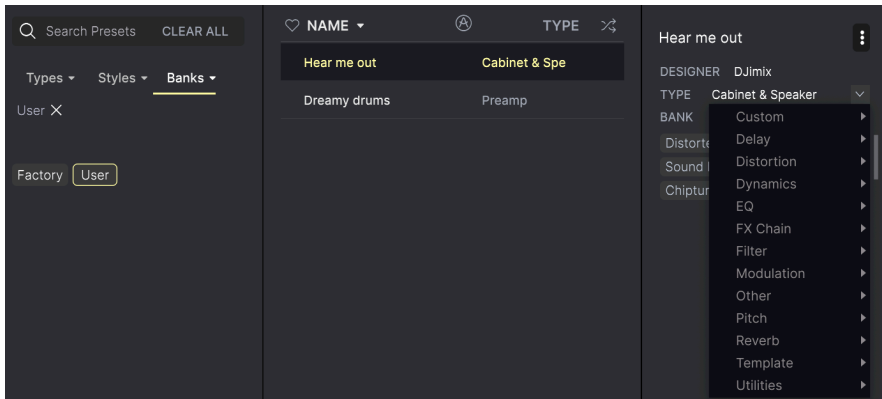
Notice that there are + signs at the end of the Styles, Genres, and Characteristics groups. That's right – you can make up your own and they will be usable as tags in future searches!

> ♪ Types and Styles changes you make here are reflected in searches. For example, if you remove the "Experimental" Style tag and then save that Preset, it will not show up in future searches for Experimental sounds.

4.4.1. Preset Info Quick Menu

Clicking the icon with three vertical dots brings up a quick menu for Save, Save As, and Delete Preset Operations:
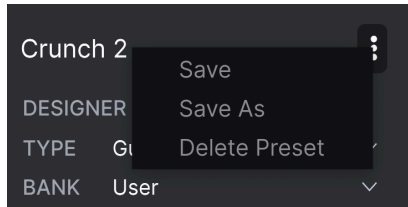
For sounds in the Factory Bank, only *Save As* is available.

4.4.2. Editing Info for Multiple Presets

It's easy to edit information such as Types, Styles, designer name, and text description for several presets at the same time. Simply hold command (macOS) or ctrl (Windows) and click the names of the Presets you want to change in the Results list. Then enter the comments, change the Bank or Type, etc., and save.
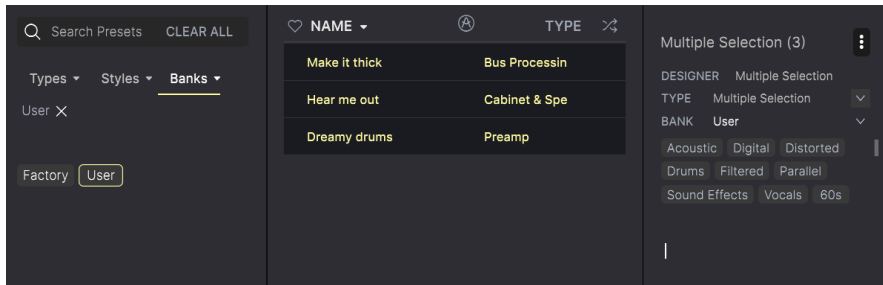
4.5. Preset Name Pane
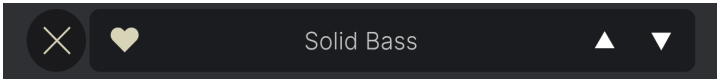
The name pane at top center is always displayed whether you're in the main controls view or the Preset Browser. It displays the name of the current Preset, obviously, but also offers further ways to browse and load Presets.

4.5.1. The Arrows

The up and down arrows to the right of the Preset name step serially through Presets. This is limited by the results of any currently active search, i.e. the arrows will only step through those Presets. So, make sure any searches are cleared if you simply want to step through all available Presets until you find something you like.

4.5.2. Drop-Down Browser

Click on the Preset name in the center of the upper tool bar to bring up a drop-down "quick browser" for Presets. The first option in this menu is called All Presets, and it brings up a submenu of literally every preset in the current bank.
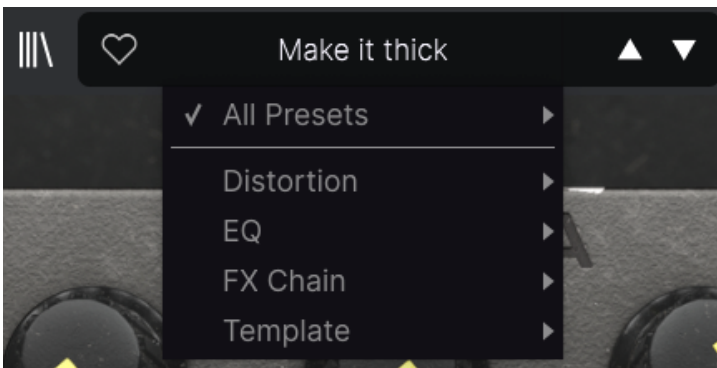
Below this are options that correspond to the Types. Each of these brings up a submenu of all Presets of its Type.

Unlike the up and down arrows, the "All Types" submenu is independent of search criteria – it simply shows you every Preset available. Likewise for the Type choices below the line, which they always include all Presets within that Type.

5. MAIN PANEL

All the basic functionality of the original SansAmp Classic pedal can be found in the main panel of Dist OPAMP-21. Some functions have different names, because we believe they make it easier for the user to navigate and make full use of this plug-in.

Being Arturia, we simply can't resist adding further functionality to Dist OPAMP-21. These novelties can be found when you press the Advanced [p.32] button at the top. The advanced features can be found in a separate chapter.

Number	Area	Description
1.	Main knobs [p.26]	The basic sound of this plug-in is controlled here, but these knobs also interact heavily with the Mode and Character buttons.
2.	Mode [p.28]	Here you are given a choice of three distinct pre-amp styles plus a fourth more neutral setting.
3.	Character [p.29]	Eight buttons give you further control over tone, amp settings, age, and miking techniques.
4.	Bypass [p.31]	This switch bypasses the plug-in.

> ♪ Before we go any further, here's a useful tip. Mousing over or moving any control onscreen while the plug-in is passing audio will display a pop-up showing that control's value, including the units of measurement.

> ♪ Another pro tip: **Double-click** any parameter to return it to its default value. **Right-click** and then drag to make fine adjustments.

5.1. A good starting point

When you instantiate Dist OPAMP-21 on an audio track, it defaults to the settings seen above. And there's a good reason for that. This setting gives you a neutral starting point – not a soaring lead or a heavily filtered drum crusher, but a basic sound for an ordinary rhythm guitar on most amps.

5.1.1. Drive

Drive controls the gain of the power amp and determines the amount of distortion applied to the signal. For the heaviest distortion, set to max.

This knob works as Amplifier Drive on the original unit.

5.1.2. Presence

Presence shapes pre-amp contour in the upper mid-range and adds distortion to the upper part of the spectrum. For maximum crunch, set on full.

Operates likes Presence Drive on the original unit.

5.1.3. High

High is a low pass filter that can be used to compensate for excessive highs created by the **Drive** and **Presence** knobs.

At its maximum setting, sound is unaffected. Turn the knob counter-clockwise to gradually reduce treble.

5.1.4. Output

Here's where you control the overall volume of Dist OPAMP-21. **Drive** and **Presence** often increase the overall volume. Use **Output** to compensate.

5.1.5. Dry/Wet

We couldn't resist adding some functionality to the basic design, so here's the **Dry/Wet** knob!

One technique often used in studios today, is to allow the processed signal to be blended into the clean signal. The most common application is when using a compressor, when the compressed signal can be continuously mixed with the full dynamics of the unaffected signal.

The technology used in Dist OPAMP-21 presents a similar situation, where the amp-like behavior plug-in compresses the overall dynamics of the input and changes the overall frequency spectrum quite a lot.

When searching for the sound of your dreams, try setting Dist OPAMP-21 to an extreme sound, and use the **Dry/Wet** control to blend it with the clean signal.

5.1.6. Dry/Wet Lock

This bonus feature preserves the mix settings when changing presets.

Some presets are saved fully wet and others with a XX/YY mix. Activating the lock symbol makes sure the Dry/Wet mix remains constant when trying out different presets.

5.2. Mode

The original SansAmp Classic pedal has a switch on the right side that lets you select one of three pre-amp emulations – Lead, Normal, and Bass. This technology is reproduced here, with the addition of a fourth model.
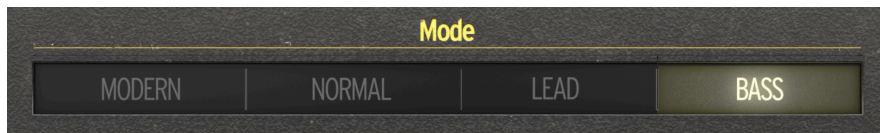
5.2.1. Modern

The **Modern** mode is the most transparent one. In this mode, frequency response is as broad as possible. This allows you to reduce the "guitar pedal character" and use Dist OPAMP-21 as a more traditional distortion plugin.

For a sound with an almost flat EQ, set the **Drive** and **Presence** knobs to minimum and the **EQ** to full, select **Modern** mode and activate the four first **Character** switches. This is a good starting point when processing sound sources other than more typical ones like guitar, bass and harmonica.

> ♪ Please note, that there's no speaker emulation in **Modern** mode.

5.2.2. Normal

This setting is designed to emulate the sound of a Mesa Boogie-style pre-amp sound with a basically flat EQ.

Speaker emulation is applied to this mode.

5.2.3. Lead

Lead gives you a Marshall-style pre-amp sound, with mid-range and highs emphasized.

Speaker emulation is applied to this mode.

5.2.4. Bass

Finally, **Bass** is more of a Fender-style pre-amp sound that is excellent for rhythm as well as bass. It has the mid-range dip typical of some Fender designs.

Speaker emulation is applied to this mode.

5.3. Character

While the four Modes represent different kinds of pre-amps, the eight buttons in this department are more EQ and speaker oriented.

You may want to investigate these tonal characters individually, but please remember that all eight buttons can be activated in any combination. We will leave it to our fans to calculate the total amount of button combinations here.

5.3.1. Mid Boost 1

Mid Boost 1 gives a slight boost in the mid-range.

5.3.2. Mid Boost 2

This boost gives a slightly stronger mid-range boost.

When combining these two **Mid Boosts**, you get an even stronger boost in the mid frequencies.

5.3.3. Low Drive

When **Low Drive** is **off**, it acts as a high pass filter, i.e. it reduces the low end of the sound. With **Low Drive** set to **on**, you get a near flat EQ in Dist OPAMP-21.

For a fuller body, and when you're running a bass though Dist OPAMP-21, set this knob to **on**.

5.3.4. Clean Amp

This button provides an easy way to get a cleaner sound. If you're into a rhythm guitar sound, **Clean Amp** will help you get there.

When clean amp is activated, the output level is reduced.

5.3.5. Bright Switch

This **Bright Switch** adds brightness when **Drive** is at lower settings. You'll get best results when **Drive** is half-way up, as there will be no effect when **Drive** is on full.

5.3.6. Vintage Tubes

When amplifier tubes grow older, their sound becomes a touch softer and mellower. Use **Vintage Tubes** to emulate that effect.

5.3.7. Speaker Edge

When miking a guitar amp speaker, you get a brighter sound when the microphone is pointing at the edge of the speaker element. Activating **Speaker Edge** adds extra presence to the final sound.

5.3.8. Close Miking

This filter duplicates the sound of a microphone being placed closely to the speaker cabinet, and slightly boosts the bottom end.

5.4. Bypass Footswitch
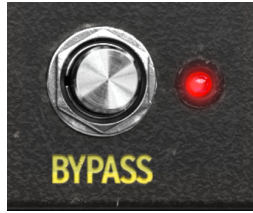
By pressing **Bypass**, you turn Dist OPAMP-21 on and off. When the red diode next to the button is lit, the effect is on.

6. ADVANCED PANEL

Clicking the **Advanced** button at the top right corner of the Dist OPAMP-21 window opens up some modern additions; pre-drive and post-drive filters that provide the final touch to your dream sound and makes whatever you run through Dist OPAMP-21 sit better in the mix. There is also a refined stereo section that covers both LR and Mid/Side stereo.
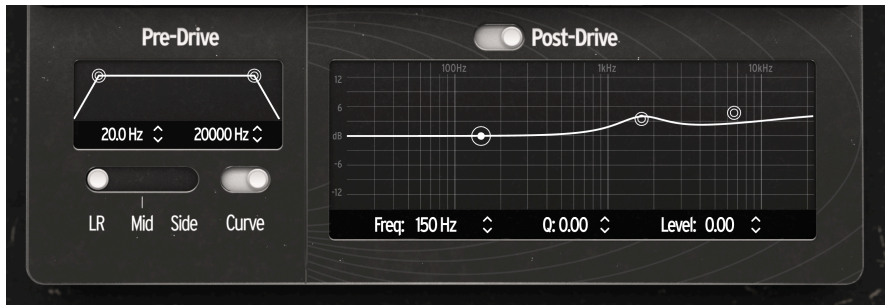
Please note, that this chapter assumes you have digested the information in the Main Panel [p.25] chapter, which covers all the fundamental settings.

6.1. Pre-Drive

The first section in the Advanced panel is the **Pre-Drive** filter.

Pre-Drive only has two controls; one for the High Pass Filter (**HP**) and one for the Low Pass Filter (**LP**). These are very effective/steep 24 dB/oct filters.

The **Pre-Drive** filter is applied at the first stages of the wet (effect) path, before the signal enters the pedal circuit emulation. In other words, it shapes the spectrum of the signal entering the pedal emulation.

The High Pass filter cuts out anything *below* the frequency chosen by the left round handle. The further you move that handle towards the center, the more bass frequencies are rolled off, making the sound thinner.

The Low Pass filter cuts out anything *above* the frequency chosen by the right handle. The further you move that handle, the more treble frequencies are rolled off, making the sound duller.

So in theory, by moving those two handles close together, all frequencies would be removed, resulting in silence. Well, that is what happens – almost.

The **Pre-Drive** filter can be used to create a very narrow or thin sound, but it has other uses too. Since this filter sits before the **Drive** knob in the signal chain, it will affect the nature of the distortion added by **Drive** and **Presence**.

It is worth spending time with **Pre-Drive** and learning how it can affect the tonal character of all the remaining blocks in this plug-in.

With the **HP** filter handle all the way to the left (20 Hz) and the **HP** filter fully to the right (20,000 Hz), the Pre Drive filter is bypassed.

6.2. LR and M/S Stereo

We've included a practical utility in the lower left corner of the plug-in window; a facility for processing your input signal in different ways.

6.2.1. LR – Mid – Side

On Mid, only the mid part of your signal will be processed (leaving the side part dry).

On the contrary, on Side, only the side part of your signal will be processed (leaving the mid part dry).

Finally, on LR, the whole signal will be processed (mid and side).

6.2.2. Curve
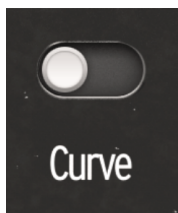
Curve is a filter that applies a pre-emphasis curve to the signal prior to the saturation module and post-de-emphasis after the module.

With Curve activated, low frequencies are less affected by the distortion circuits. So, if you want to keep the low end cleaner, activate this function.

6.3. Post-Drive
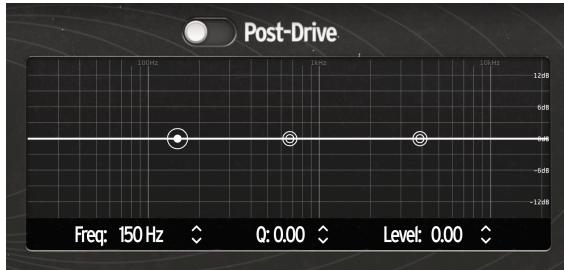
6.3.1. Post-Drive On/Off

The last block in the signal chain is the **Post**-**Drive** EQ. The switch above the EQ graph in this section turns the equalizer on and off.

6.3.2. The Graphic EQ handles

This EQ allows you to add some final tonal touches to your sound. Is the sound too muddy, too sharp, or too bassy? This can easily be fixed in the **Post**-**Drive** filter section.

The equalizer in this section is a fully fledged *three band parametric EQ* with controls for **Freq** (frequency), **Q** (bandwidth), and **Level** (amount of cut or boost) for each band.

The easiest way to sculpt your sound, is by dragging the round handles in the filter graph and listen to the result.

By dragging with a right-click, you can change the Q of the selected band.

6.3.2.1. Filter types

The left handle controls the **Low Filter**. It's a *shelving filter* that cuts/boosts everything below the frequency seen in the lower part of this section.

The **Mid Filter** is a *bell filter* that cuts/boosts frequencies around the frequency readout in the lower part of this section.

The right handle controls the **High Filter**. It's a *shelving filter* that cuts/boosts everything above the frequency seen in the lower part of this section.

> ♪ Please note, that the Q factor of the Low and High Filters are not classic shelfs. The Q factor adds a cut in the curve.

6.3.2.2. Dragging filter handles

By dragging the round handles in the filter graph you will quickly learn how to operate the **Post**-**Drive** EQ.

6.3.2.3. Dragging numbers

You can also tweak the EQ by selecting an EQ band (click on its handle) and adjust the values directly below the EQ graph.

By clicking and holding the mouse button on the values or up/down arrows, you can adjust the settings by dragging the mouse up and down. And, as usual, using the right mouse button will give you very detailed control.

Double-clicking the numbers set the parameters to their default neutral settings.

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