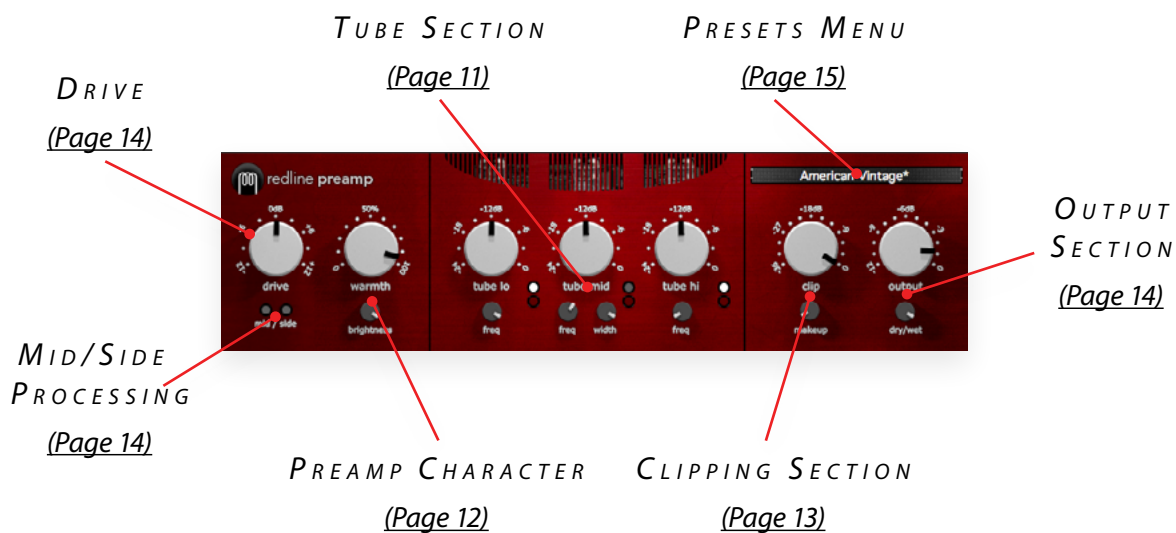




QUICK INDEX



INTRODUCING...

Redline Preamp emulates an analogue preamp. It livens up any digital or “too clean” signal by adding warmth, character, and overall mojo. But unlike many other saturation plugins, Redline Preamp doesn’t stop at just a single (or at most a few) analogue devices. Instead we captured the essence of what makes analogue gear sound so, well, analogue and provide controls to sculpt the effect to your liking. You can use it for subtle coloration and high-class grunge, from vintage and tape emulation to warming and fattening of digital mixes

Let’s talk gear for a second. All analogue equipment – whether it be an expensive high-end analogue equalizer or that prized vintage preamp – creates so-called *harmonic distortion*. In contrast to what the term suggests (and what emotions may pop into your mind when you hear the word *distortion*), *the harmonic kind of distortion is entirely unlike “regular” distortion*. It is characterized by a subtle but often pleasing change in character, and is an important factor of what makes vintage analogue gear sound so magical. Depending on its character it can add punch, body, sheen – whatever you prefer to call it – to an audio signal.

Just so there are no misunderstandings: Redline Preamp is decidedly NOT a traditional distortion effect – it subtly colors and warms audio rather than mangling it beyond recognition. For distortion pedal and overdriven guitar amp sounds you’ll have to look elsewhere!

At the heart of Redline Preamp lies a flexible algorithm that can emulate most kinds of harmonic distortion, and thus the inherent character of most analogue, tape or tube equipment. While it has not been modeled after any particular piece of gear it can do a wide range of convincing analogue emulations. Detailed control over even and odd harmonics, frequency-dependent saturation, and soft clipping allows you to turn Redline Preamp into a vintage console channel, a 15ips multitrack recorder, a musical tube preamp, and everything in between.

Other highlight features include proprietary zero-latency analogue modelling with detailed harmonics control, three tunable frequency bands with solo listening, and mid/side processing. And to top it off a showcase selection of carefully constructed presets ranging from the warm *American Vintage* to the full-blown *Beyond Repair* is included.

PREAMP? WHAT PREAMP?

Since analogue coloration is a subtle effect at best, you may at first have difficulty to determine whether Redline Preamp is working at all. This holds especially true if you didn’t grow up with analogue equipment.

Remember that preamps are designed to deliver a *clean* reproduction of the input signal. Any signal coloration – typically harmonic distortion – is usually the result of a design compromise,

and becomes more apparent when the unit is driven hard. Redline Preamp acts the same way, so if you have difficulty hearing what it does try increasing the input level signal (perhaps by inserting a gain plugin before it). This should make the effect much more noticeable.

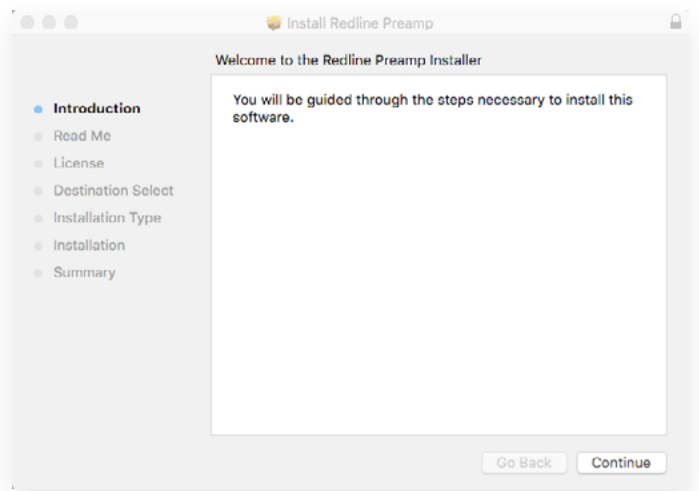
Despite the convenience that digital audio workstations provide, many established producers still prefer mixing on an analogue desk for character. But now you can have your cake and eat it, too! Just insert a Redline Preamp instance on every track to simulate running them through an analogue console, and you'll notice a dramatic change to the overall mix. Elements that may have been fighting for sonic space will now sit in their own space. It will sound like the same mix, but smoother, with more cohesion, easier to listen to – in a word, more “pro”. And you won't have to worry about increased CPU load, either. Redline Preamp was designed with this application in mind, and even with many instances the CPU load is so low you probably won't even notice it.

I N S T A L L A T I O N

Redline Preamp comes in the form of a single installer for all available plugin formats: AAX, VST, and Audio Units.

M A C O S X

1. If you have not already done so, please download and run the latest Redline Preamp installer from www.112dB.com/download. Double click the Redline Preamp Installer.pkg file to start the installer.
2. It is recommended to have a quick look at the readme if this is a new installation or an update, as it may contain important last-minute information that was not available at the time of writing.
3. You will be asked to agree to the terms of the license agreement.
4. The installer installs all plugin formats (VST2, AAX, and Audio Units) by default.
5. You will be prompted for your Mac password to complete the installation.
6. If the installer detects you haven't activated your license yet, the 112dB license manager will be started..



WINDOWS

1. Double click the Setup program to launch the installer.
2. The setup program detects whether you already have VST or AAX plugins on your system and selects the plugin formats it installs accordingly. If you wish you may override this choice and manually select your desired plugin formats.

3. By default Redline Preamp installs to \Program Files\112dB\ Redline Preamp. In general, it is not recommended to change this but if you have a compelling reason to do so, either type in the desired directory in the *Destination Folder* box, or click on the *Browse* button to the right of the *Destination Folder* box and select the directory within which you would like Redline Preamp installed.



4. If you opted to install the VST plugin, the *Choose VST Location* step is one you should pay attention to. The setup program *should* detect your default plugin folder, but you may prefer another directory for your plugins – particularly if you use multiple hosts – in which case you will need to manually direct the installer to the desired directory. The process for this is identical to that in the previous step.
5. The *Start Menu Folder* step is for convenience and for quick access to troubleshooting files. Currently, it points to the readme, the error log, this manual, and the uninstaller executable. It should be noted that all of these files are directly accessible in the Redline Preamp program folder (wherever the installer was directed in Step 6. In addition the uninstaller for Redline Preamp will be listed under *Control Panel » Add/Remove Programs*, so if you like to keep your start menu clean, you can safely select *Do Not Create Shortcuts*.
6. After Redline Preamp installs, Setup is complete and you may click the *Finish* button. It is recommended to view the readme if this is a new installation or an update, as it may contain important last-minute information that was not available at the time of writing.

AUTHORIZATION

Our plugins do not rely on a dongle or challenge/response authorization for copy protection, as these schemes place an unnecessary burden on the customer. Instead we protect our plugins by means of a *keyfile* – a text file that holds your personal authorization. Unlike challenge/response authorization our keyfiles are *not* tied to a specific computer system. Thus you can use the same keyfile for authorizing a copy of our plugins on any system, now and at any point in the future.

Unlike most challenge/response authorization schemes, you do not need our permission to change your hardware, upgrade to a new operating system, or even to install the plugin on your studio setup, your home computer, *and* your travel notebook all at the same time. You will find that this is one of the least intrusive forms of copy protection you are likely to encounter.

INSTALLING A NEW AUTHORIZATION

The authorization process itself is equally simple. With your purchase or demo download you should have received an email containing a license (in the form of an XML keyfile). To authorize, save this keyfile to your desktop, fire up your preferred host, and load the plugin. Redline Preamp now prompts you to locate a license file. Navigate to the folder where you saved the keyfile and click **Ok**. That's all there is to it, Redline Preamp is now fully functional.

UPGRADING AN EXISTING AUTHORIZATION

To upgrade your authorization from a time-limited demo to a purchased full license, first save the permanent XML license from your purchase confirmation email to your desktop as described above. To replace the demo license with the permanent license, open a Redline Preamp plugin window in your favorite host and right (cmd-) click anywhere in the window and select **Load existing license file...**

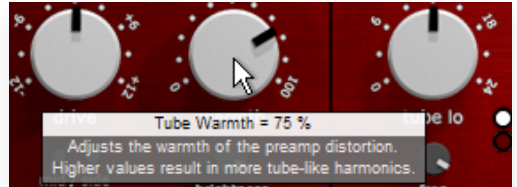
Should you encounter any problems during the authorization process please contact our support staff by email at <support@112dB.com>. We will accommodate you as soon as humanly possible.

OPERATION

The Redline Preamp interface has been designed to be as intuitive and easy to operate as possible. However, in the interest of innovation, some functions operate in ways that may be initially unfamiliar. This section will cover the less obvious aspects of the interface.

TOOLTIPS

If you're lost, hovering over any item of the interface for approximately one second brings up a floating tooltip window with a brief description of that control's function. These tooltips can be disabled by right-clicking anywhere on the interface and deselecting *Show Tooltips* from the popup menu that, well... pops up.

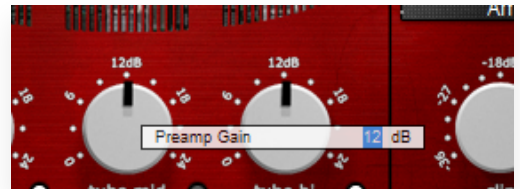


RESET TO DEFAULT VALUE

<Ctrl>-clicking knobs and sliders will reset them to their default value. This is handy if you would like to undo some programming you have done.

NUMERICAL VALUE ENTRY

Double-clicking knobs will open a small edit window that allows you to type the desired value from the keyboard for maximal value control. To dispose of the edit window either hit <Enter> or click anywhere outside the window.



MOUSEWHEEL

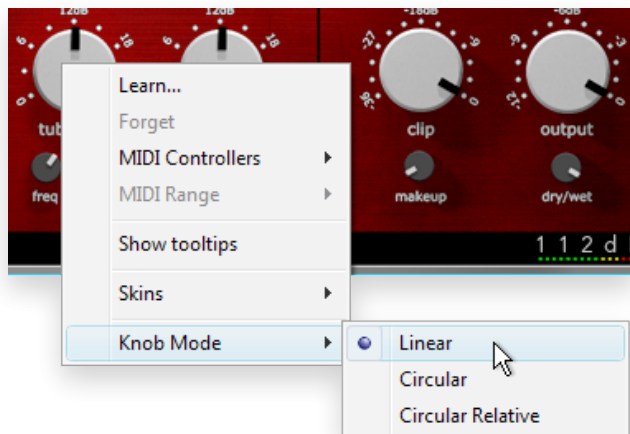
All interface controls – knobs, sliders, even buttons – support mousewheel control. If your mouse is equipped with a scrollwheel simply hover the mouse pointer above the control you want to adjust and move the wheel up (to increase its value) or down (to decrease it).

KNOB MODES

By default all knobs are in *Linear* mode: clicking and moving the mouse up (or down) turns the knob clockwise (or counterclockwise). Moving either left or right also turns the knob but in a slower fashion for more precise control.

If you prefer you can change the knob control mode to either *Circular Absolute* or *Circular Relative* mode by right-clicking a knob and opening the *Knob Mode* menu. In either of the circular modes knobs function like hardware knobs; click and drag clockwise or counterclockwise to turn the knob accordingly. The difference between the two circular modes is that in circular absolute mode the knob turns to the exact same position of the mouse pointer – for example, moving the mouse pointer to a 3 o'clock position also moves the knob to the same position.

In contrast, in circular relative mode the knob turns from its initial position (from before you clicked it) by the amount that you move the mouse clockwise or counterclockwise. For example, clicking a knob with the mouse pointer at the 12 o'clock position and moving the mouse pointer to the 3 o'clock position – or one quarter turn – will also turn the knob by one quarter turn relative to its initial position. This is more confusing to read than to see it in action!



DETENTS

Sliders and knobs have a built-in detent that remembers their previous position. For example, assume that a knob is at its 12 o'clock position before you click it. Once you click and move the knob back and forth you will notice that it snaps to its previous (the 12 o'clock) position. This allows you to easily try simple adjustments and still revert to the previous position in case the adjustment turns out not to be an improvement.

MIDI AUTOMATION

In addition to host-based automation, all “useful” controls can be controlled by an external MIDI keyboard or MIDI controller. To assign a MIDI control simply right-click on the control in question and a menu will pop up. You can either directly choose a MIDI control from the MIDI Controllers submenu, or choose **Learn...** and move the control you want to assign on your external MIDI keyboard or controller within ten seconds. Redline Preamp will automatically assign the control (and remember it from now on, even for new plugin instances). To remove a previously established MIDI mapping choose **Forget** from the popup menu.

ALTERNATIVE SKINS

Redline Preamp supports custom skins that modify the look and feel of the plugin. At present it comes with one additional skin – *Vintage* by Scott Kane – but additional skins may be made available as



downloads from

the 112dB site. To load a skin right (cmd-) click anywhere on the plugin interface and select a skin from the **Skins** submenu.

CONTROLS AND SETUP

This section describes the various interface controls and how to get the most out of Redline Preamp. If nothing else we recommended that you at least skim through this section for an idea of what's on offer.

THE TUBE BANDS

This section is the heart of Redline Preamp. It consists of three separate bands, each of which lets you apply its magic to an adjustable part of the frequency spectrum. Compared to just a single all-encompassing band this offers a wealth of sonic possibilities: you can add body to a signal that sounds too clean or thin by emphasizing the mid frequencies, simulate vintage equipment by using more distortion in the low and mid bands, or apply tube processing only to the top end to add sparkle to a dead or lifeless piece of audio.



Intuitively the three **Tube Lo/Mid/Hi** knobs control the amount of processing that is applied to each band. At the lowest (-24dB) setting the signal is passed through unmodified, whereas the maximum (0dB) setting really gets those tubes glowing! (Speaking of which: the tubes that are visible at the top of the plugin *do* light up according to the amount of actual processing going on. This is not just eye candy but also provides useful visual feedback.) As a rule of thumb, the bottom half of the range (-24 to -12dB) is good for subtle vintage flavoring and warming, whereas the top half (-12 to 0dB) lets you venture into serious vintage territory.

As a convenient shortcut, holding down **<Alt>** moves all three Tube knobs together. This allows you to easily dial in more or less of the effect overall.

ON/OFF AND SOLO

Each band comes equipped with separate **On/Off** and **Solo** buttons to allow for critical monitoring and adjustments. As the name suggests, Solo mode leaves only the wet signal – any coloration that is added by the tube section – passing through that particular band, with the original input audio mixed in very low (at -24dB) to provide a reference point.

It is possible to solo more than one band, in which case you'll hear the effect of the soloed bands together. (Imagine that!)

FREQUENCY AND WIDTH

These knobs determine the frequency range in which each band works its magic:

- the **Lo** band processes only the part of the signal that is below the set frequency,
- the **Mid** band processed a variable part of the signal centered around the set frequency,
- the **Hi** band processes only the signal above than the set frequency.

(You may think of the **Lo/Mid/Hi Frequency** controls as low-pass, peaking, and high-pass filters,



respectively. It is however important to realize that these “filters” only determine which parts of the input signal are processed – it does not filter or EQ the dry signal at all!) The **Mid** band features an additional **Width** knob that determines how far frequencies around the center

frequency are affected. The minimum setting roughly corresponds to a traditional EQ bandwidth of 2.0 and restricts the coloration to a narrow band around the center. At the maximum setting the bandwidth is 0.5, which affects (and effects) frequencies further from the center as well.

PREAMP CHARACTER

The controls in this section determine the overall feel or character of the preamp, and are key to successfully emulating any desired analogue characteristics.

All analogue circuitry does to some extent exhibit harmonic distortion, and it contributes much to the particular sound of vintage hardware gear. In a nutshell harmonic distortion generates new partials from an existing audio signal and add those partials to the original sound. As the name suggests these partials are harmonic to the corresponding partials in the source audio signal, which allows them to blend in with the original sound. The result is perceived as a (often subtle) change in timbre.

TUBE WARMTH

A partial introduced by harmonic distortion is either *even* or *odd*, depending on whether its frequency is an even or an odd multiple of that of the original partial. Even harmonics add a certain warmth and are generally perceived as pleasing. Odd harmonics on the other hand make a signal punchier and stand out better – but they can add a harsh and unpleasant character when present in significant amounts.



To season the harmonic distortion to taste, the *Warmth* control lets you adjust the character of harmonics that the preamp generates. The minimum/maximum settings produce only odd/even harmonics, and intermediate settings correspond to a mixture of odd and even harmonics. Higher values (and thus even harmonics) generate warmer, more tape- or tube-like characteristics.

TUBE BRIGHTNESS

Adjusts the number and relative loudness of the harmonics generated. Lower settings result in warmer, more woolly distortion; higher settings produce more higher-order harmonics which gives richer, livelier sounds.

SOFT CLIPPING

The clipping section implements a soft clipper, which acts on any signal peaks added by the three tube bands. The purpose of this is twofold: it “rounds off” (and thus reduces) any output peaks that the tube section may produce, and in combination with the **Makeup** control (see below) it dramatically expands the preamp’s sonic range into more lo-fi territory.

CLIP THRESHOLD

Determines the maximum output level of the clipper; any signal peaks louder than the threshold are attenuated so as to stay below the threshold. By itself this compresses the harmonic distortion into a more compact (and less loud) signal. Lower the threshold – that is, away from 0dB – if you like the feel of the preamp settings but the processed signal becomes too loud, punchy, or obviously effected in comparison to the dry one.

MAKEUP

Counteracts the loudness reduction introduced by the clipper by boosting the harmonic distortion after it has been clipped, making it more pronounced even at low audio levels. At extreme settings (and in combination with a low **Threshold**) this can result in full-blown grunge rather than subtle coloration!

The scaling of this control may need some explanation. Rather than dialing in a fixed amount of gain compensation, the makeup gain is relative to the amount of clipping: 0% does not compensate for the clipper at all, whereas 100% raises the signal by the same amount as the clip ceiling. (For example, at a clip setting of -12dB a makeup of 100% will raise the wet signal by 12dB, and 50% makeup by 6dB.) This keeps you from having to adjust the **Makeup** every time you change the **Threshold**.

A fair amount of clipping in combination with a high makeup value is the key to extreme preamp grunge.



DRIVE

Just as with analogue gear, the amount of tonal change that Redline Preamp generates depends on the level of the incoming audio signal – louder equals more coloration. The **Drive** knob lets you adjust the overall effect (and compensate for too soft or too hot signals) by boosting or attenuating the incoming audio.



OUTPUT LEVEL

The preamp coloration can (depending on the settings and the audio being processed) raise the output level. To offset this gain and facilitate A/B comparisons you may adjust the **Output Level** accordingly.



DRY/WET MIX

For added creativity you can mix the dry and wet signals. Possible creative uses include (but are by no means limited to) extremely subtle coloration, gradually fading out vintage coloration, or adding a highly overdriven sheen that otherwise leaves the audio intact.

BYPASS

Clicking the Redline Preamp logo toggles bypassing of the entire preamp engine, allowing for convenient A/B comparisons.



CHANNEL MODES

By default Redline Preamp operates in *Stereo* mode (or *Mono* in the case of mono tracks, obviously) and applies equal processing to both channels. For multiple output channels – that is, when inserted as either a Mono/Stereo or a Stereo/Stereo plugin – two additional modes become available: *Mid* and *Side*. These channel modes can be activated by enabling the respective button.

MID/SIDE MODES

Both modes split the audio signal into two components: those that are common to the left and right channel (the Mid component) and those that differ between the left and right channel (the Side component), and apply the preamp coloration only to one of the two components. This is an advanced channel configuration that can be used to apply different processing depending on the placement in the stereo field.

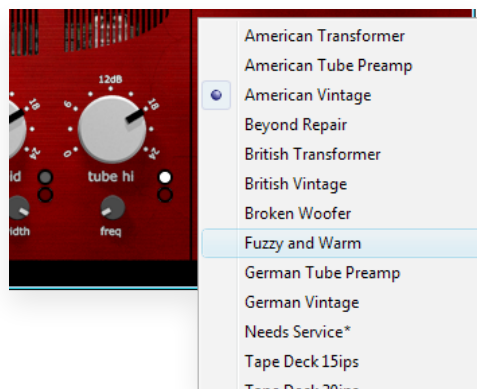


PRESETS

Redline Preamp comes with a bank of carefully crafted factory presets. The name of the currently selected preset is displayed in the preset display at the right top of the interface.

SELECTING PRESETS

Left-clicking the preset display control brings up a complete list of currently loaded presets (optionally organized by category) from which you can select a new preset. The currently selected preset (*American Vintage* in the example) is indicated by a bullet (•). If any of the controls have been changed since loading a preset it is considered modified, which is indicated by an asterisk (*) directly following the preset name. As a reminder the asterisk appears in the popup presets lists too (*Needs Service* in the example).



ORGANIZING PRESETS

Right-clicking the preset display gives you a number of options to manage the presets.

Rename preset pops up a window where you can type a new name for the current preset. You can assign a preset to a category – *Preamps*, *Grunge*, *Tape*, and so on – by separating the category and the preset name with a slash (/). So to move the current *American Vintage* preset into the *Preamps* category, you should rename it to *Preamps/American Vintage*.

Revert to saved discards all edits that were made to a preset since it was last saved. This option is only available when the current preset has been modified (shown by an asterisk (*) trailing the preset name).

Save preset as... creates a copy of the current preset in a new preset slot. Use this to build up your own presets library.

Delete preset deletes the current preset. The preset will be utterly and irreversibly lost.

Preset Library » Load presets from file... loads a preset bank from a previously saved file on your disk. This action overwrites all current presets, so make sure to save your current presets first!

Preset library » Save presets to file... stores the current preset bank as a file on your disk. This allows you to maintain your own library of Redline Preamp presets, and carry your presets to a different location such as your studio or notebook setup.

Preset library » Save as default presets... stores the current preset bank as a file on your disk, and makes new plugin instances automatically load this preset bank upon initialization. This allows you to have your favorite presets at hand whenever you insert a new Redline Preamp.

Preset library » Restore factory presets... replaces the current preset bank with the original 112dB factory presets. All current presets will be overwritten.

SYSTEM REQUIREMENTS

OPERATING SYSTEM

- Windows 7 or up (32 or 64-bit)
- Mac OS X 10.7 (Lion) or up (64 bit)

HOSTS

Redline Preamp is compatible with any host that understands the AAX, VST, and/or Audio Units protocol.

UPDATES AND SUPPORT

Updates for Redline Preamp will be made available at

<https://112dB.com/download>

For product support, questions, comments, feature suggestions, and anything you feel is worth sharing, please visit our forum at

<https://112dB.com/userforum>

Alternately, for more individual product support you may contact our support staff by email at

support@112dB.com

