

RC-20

RETRO COLOR

MANUAL

Nov 18, 2016

INTRODUCTION

Thanks for using RC-20 Retro Color!



What makes sound interesting? What makes it grab our attention?

When we started this project, we spent a lot of time talking about order versus chaos, why some old noisy equipment sounds so pleasing to the ears and why vintage analog synths are just so much fun. What is the secret ingredient?

We had a hunch that in this modern digital precise world there is safety and warmth to be found in non-linearity and unpredictability. What may once have been seen as undesired imperfection now feels organic and soothing. The wall-of-noise of yesteryear's cassettes, that wobbly VHS sound. The distortion, the fizzle, the less than perfect frequency response. Even the unpredictability of equipment due to temperature, humidity, vibrations, or where the planets are in the sky.

Magic seems to happen when something comes alive all on its own, without you planning it out beforehand.

Ok, back to planet Earth - how do you put all this into a product? Well, we played around in the lab with all kinds of source material and algorithms to figure out what worked. And - out of the smoke - RC-20 Retro Color was born. Finally our love of recording artifacts like noise, distortion, tape wow & flutter, the grittiness of early sampling and more fun stuff has taken (almost) physical form!

RC-20 has six main FX Modules, each providing one piece of the puzzle. For each module, our custom "Flux Engine" replicates the randomness of the known universe, and adds life, texture and analog goodness to the sound.

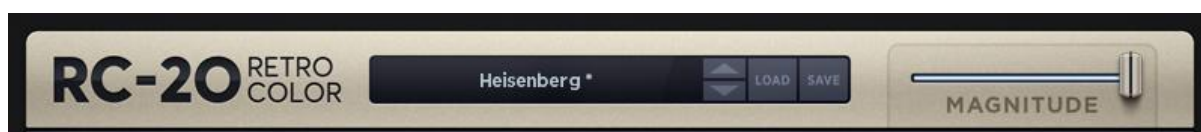
The included presets cover a wide variety of use cases, from individual instruments to full mixes and post production. As always, we hope the functionality to a large extent is self explanatory and invites experimentation.

This manual is pretty short, so why not lend it a couple of minutes to make sure you get the most out of this thing!

INTERFACE OVERVIEW



TOP SECTION



Click the **RC-20** logo to open the **Credits & Help Page**.

Click the **Preset Name** or the **LOAD** button to open the **Preset Browser**. From here you can load any of the included ("XLN Audio") presets as well as the ones you've created and saved yourself ("User Presets"). You can also rename or delete your User presets.

Save your own 'User' presets by clicking the **SAVE** button.

The **Magnitude** slider works as a "global" amount control for the entire plugin. It basically controls all six big knobs at once, as well as the controls in the bottom Master Section (**In**, **Out** and **EQ**). This means you can go from a dry unprocessed sound to full blast wobbly distorted mayhem using only this one (automatable) slider.

FX MODULE SECTION



Incoming audio (generally) passes through the six modules from left to right.

NOISE

There are a number of different noise **Types** available, ranging from vinyl record crackle to cassette and VHS noise and much more.

Tone is a basic "tilt" style tone control: turning it clockwise means more high end and less low end and vice versa.

With **Follow** you can make the noise level follow the input signal level. Great on drums! At 0% the noise level is static. (When you hit stop in your DAW the noise fades out though.)

As Noise is the first FX module, it normally appears in the beginning of the signal chain so it will be distorted, crushed, filtered and fluttered along with your source audio. Activating **Routing | Post** lets you re-route the noise so it is inserted at the end of the effect chain, after the Master Section EQ.

The **Duck** knob lets you create a ducking effect, i.e. the noise level is pushed down by incoming audio peaks, mimicking the effect of a "pumping" compressor with slow attack.

Note: The Noise module adds noise to the incoming signal, but does not change the incoming audio in any other way.

The Big Knob controls Noise Volume.

WOBBLE

This module modulates the pitch (and speed) of the incoming audio, much like classic tape recorders. The two classic artifacts **Wow** (slow) and **Flutter** (fast) are there of course, and the **Wow/Flutter Balance** slider lets you adjust how much you want of each.

For good measure we added a **Stereo** mode for the Wow section, which basically turns this into a nice chorus - the **Mix** knob comes in handy here, turn it down to 50% or so for a nice lush sound!

The Big Knob controls Wow & Flutter Amount (i.e. depth).

DISTORT

Dirty up the sound with some distortion! Several **Types** are available, and a **Focus Filter** lets you select the frequency range where the distortion will be applied. This lets you distort only the mid/high range while leaving the bottom intact for example.

Use the **Mix** knob to set the balance between Distorted and unprocessed sound.

The Big Knob controls Distortion Amount.

DIGITAL

Celebrate and simulate the sampling technologies of yesteryear, when the word "Digital" was so cool you'd put it in your song lyrics. The **Rate/Bits Balance** slider lets you set the desired balance of sample rate and bit depth reduction.

Smooth lets you polish off the rough digital edges for a less harsh sound.

The **Focus Filter** lets you select the frequency range where the "crushing" will be applied. Works great to get some crunch in the top of a kick while leaving the bottom untouched. There is also a **CUT** option which simply removes the frequencies outside the selected focus range.

Use the **Mix** knob to set the volume balance between the crushed and unprocessed sound.

The Big Knob controls Rate & Bits Reduction Amount.

SPACE

This is a reverb/resonator effect. **Decay** controls the length of the reverb tail. **PreDelay** lets you place the reverb slightly after the source sound to reduce muddiness.

The **Focus Filter** controls the resonance/damping of the reverb itself and can sometimes have drastic effect depending on source material.

The **Stereo** switch can turn mono material into stereo, but also provide a wider space for all types of material.

The Big Knob controls Dry/Wet Balance.

MAGNETIC

This module simulates all kinds of funny stuff that happens with volume when recording on magnetic tape.

Wear means you played your tape too many times , the magnetic particles are starting to wear thin making the volume fluctuate a little (or a lot).

Flutter is a faster artifact usually caused by the capstan pin in the tape mechanism.

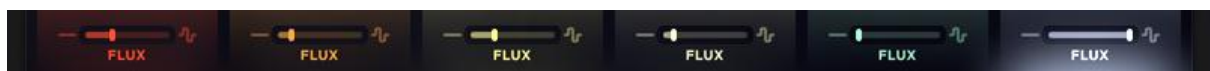
The **Wear/Flutter Balance** slider lets you find the perfect balance between them.

Dropouts are similar to wear, but more intense - basically random sudden drops in volume.

The **Stereo** switch lets you choose if wear and dropouts does the same thing in both speakers or not.

The Big Knob controls Wear/Flutter/Dropouts Amount.

FLUX



Our FLUX engine simulates all kind of organic and non-linear fluctuations under the hood, all customized specifically for each module. Adding just a little bit of Flux can really add life and texture to your tracks. Adding a lot can make things cosmically wild and crazy!

BIG KNOB SECTION



Enable buttons

Turns a module on and off. Off means the effect is entirely bypassed. When a module is turned off it is covered by a "hatch". You can click on the hatch to turn it on.

Big Knobs

Adjusts the amount of each effect. At 0 % the module is completely bypassed. If a module is turned off (hatched) you can click/move the big knob to turn it on.

MASTER SECTION



INPUT SECTION

Use the **Gain** knob to adjust the input level. The level is usually not super critical, but feel free to crank it up to drive the DISTORT and DIGITAL modules harder for example.

EQ SECTION

Use the **Enable** button to turn the entire EQ section on and off.

CUT FILTER

This filter lets you cut out unwanted frequencies at the bottom and/or top end of the spectrum. The steepness of the filter can be set to "**Soft**" or "**Hard**" on both ends.

STONE

This control offers a simple way to shape the tone of the final sound.

In **TILT** mode, turning the knob clockwise turns up the high end and turns down the low end. Turning the input knob the other way has the opposite effect.

In **MID** mode the knob controls the mid frequencies, giving your sound a nice smiley/frowney curve.

OUTPUT SECTION

Use the **Gain** knob to adjust output level to taste. This is great when you want to match the levels of processed/unprocessed sound for A/B comparison, or if you want to be able to automate the **Magnitude** and control the levels of the processed sound.

The **Width** knob lets you adjust the stereo width from 0% (mono) to 100% (original stereo image) to 200% (exaggerated stereo effect). The results may vary depending on source material and effects applied.

PRESET BROWSER



Clicking on the **Preset Name** or the **LOAD** button in the Top Section opens the **Preset Browser**.

On the left, choose to list **All Presets**, **XLN Presets** (made by XLN) or **User** (made by you). The preset list in the second column updates accordingly.

The Preset Info section on the right shows you information about the currently selected preset, such as **Author**. You can also **Rename** and **Delete** your saved User presets (but not the XLN Presets).

You can choose any preset to be your "Startup Preset". This will be loaded whenever you load the RC-20. Just choose the preset in the list, and click the **Set as Startup** button. The text "STARTUP" will appear in the list for your chosen preset.

TWEAK WHILE BROWSING

You can access all "high level" controls while browsing, to make it easier to determine if a preset works for you. This includes the Big Knobs, Magnitude, and the controls in the Master Section (Input, Output and EQ).

Click **OK** to close the Preset Browser with all current settings unchanged.

Click **Cancel** to close the Preset Browser and cancel all changes (i.e. going back to where you were before you opened the Preset Browser).

CLOUD SYNC

Click **Share** to get a sharable link to your saved preset, to share it with other RC-20 users.

Click **My Files** to open the "My Account / My Files" page on xlnaudio.com.

SAVE PRESET



Click SAVE in the Top Section to save a User Preset.

NOTE: With our CloudSync service, all your user presets will be saved in the XLN Cloud, which means they will be synced and made available on all your computers. Great if you work on more than one computer, or if you need to reinstall from scratch.

CREDITS & HELP PAGE



Click the RC-20 Retro Color logo in the top left corner, or the **xlnaudio** logo in the bottom middle, to get to the **Credits & Help** page. Here you can access the manual, see system information, or read about who did what in the making of RC-20.

VERSION

Version and Build Date may be of interest for our support team when trouble searching. In general the XLN Online Installer makes sure you always have the latest and greatest version.

COMPUTER ID

The Computer ID is a unique identifier for your computer, used for the license activation system. If the XLN support asks you to, you can click this text to copy the Computer ID.

GRAPHICS MODE

This shows you what graphics resolution you are currently running. (1x = standard, 2x = Retina/High PPI)

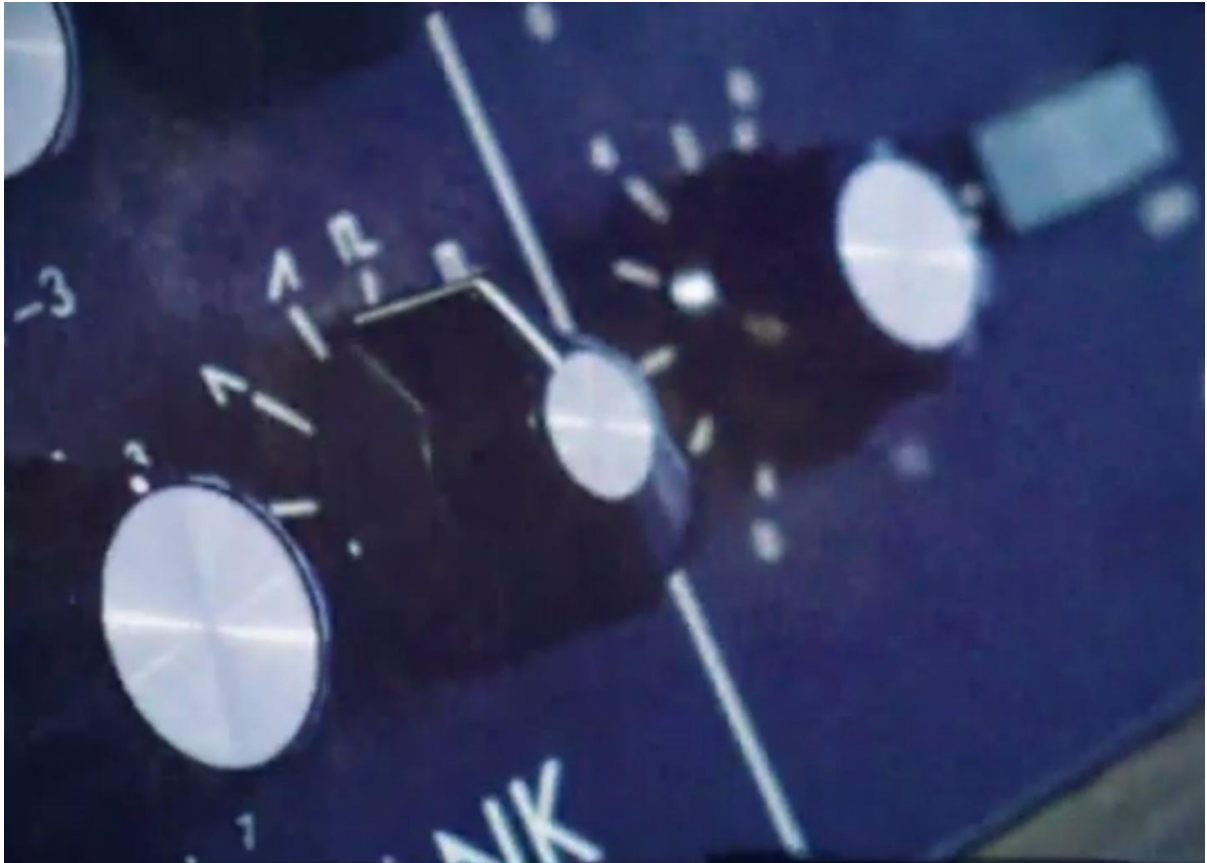
OPEN MANUAL

Well, since you're reading it, you probably clicked on it!

FINALLY...

If you have any questions, thoughts or ideas, don't hesitate to contact our support at xlnaudio.com/support

And most importantly: ***HAVE FUN WITH RETRO COLOR!***



Manual by Lars Erlandsson - XLN Audio co-founder