PLUGIN MANUAL | Fuchs Overdrive Supreme

Fuchs Overdrive Supreme
Andy Fuchs' Highly Coveted Original Design

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INTRODUCTION:

The Overdrive Supreme is the crown jewel of the Fuchs amplification product line, and has been heralded throughout the guitar world for achieving the coveted Dumble® sound while establishing its own unique, modern character. The Fuchs Overdrive Supreme plug-in from Brainworx captures all the gorgeous, rich tone of the original, adding features like an onboard FX rack and 82 impulse responses using a vintage Neve console and a dizzying array of high end microphones and outboard gear to deliver "record ready" tones instantly. Universal Audio's Unison technology, available on the complete line of Apollo interfaces, emulates the impedance of the ODS so accurately, you'll swear you're playing through a real amp.

Unison Technology

The Fuchs Overdrive Supreme plug-in was developed with the Apollo series interfaces in mind and made compatible with Unison preamp technology. Of course the Fuchs ODS will work with any UAD-2 device, but to experience ultra-low latency along with important impedance, gain 'sweet spots', and circuit behaviors of the real amp, you need an Apollo interface. In order to do this, you should insert the Fuchs ODS in the preamp insert position of Apollo's Console application. This will greatly enhance your experience, making the tone and behavior of your sound an exacting replication of a physical guitar amp.

The Main Applications for this Plug-in Are:

1. Recording DI guitars, then editing and processing them in the DAW completely, using the internal amp simulation, the recording chains and the FX Rack.

2. Recording hardware preamps through the power amp simulation and Recording Chains.

3. Practicing at home with minimal latency (in Apollo's Console, for example), via your studio speakers, a home stereo system, headphones or a real guitar amp and cabinet.

4. Playing live via a real power amp and speaker setup.

5. Playing LIVE, plugged straight into a live console and / or an in-ear system.

6. Re-Amp less than perfect DI guitar tracks, previously recorded with other amp simulations.

OVERVIEW (from the Fuchs website)

The Overdrive Supreme® excels at everything it does. From crystal clear and detailed clean sounds to its harmonically complex and articulate overdrive, the amp holds its sonic integrity at any volume level. If you've ever heard Larry Carlton or Robben Ford live, that's the tone! "The Overdrive Supreme® nails the Dumble sound to a tee, and then some!" (20th Century Guitar).

Approaching its tenth year of production, the Overdrive Supreme® has received glowing reviews in BOTH domestic and foreign publications. The Overdrive Supreme recently received a very favorable review in Japan's "Guitar Magazine," as well as Guitar Player Magazine (February 2005). Brainworx modelled the 50 watts Overdrive Supreme.

The clean channel has brite and deep switches, as well as a rock/jazz switch, which changes the way the tone controls operate. Rock is a more aggressive and punchy bright tone, which jazz is lean and audiophile-like, being more balanced and smooth. There are passive high mid and low controls. The high control pulls for a mid boost, the mid control pulls for gain boost (which bypasses the tone controls). The clean channel acts as a preamp to the overdrive channel, and the tone controls and EQ switches are all active during overdrive use, including all boosts.

The overdrive channel features separate OD in and OD out controls. OD-in sets the level of saturation in overdrive, while the OD out control sets the final balance between clean and dirty channels. There is a global master volume and accent control, which adds presence and edge to the output stage.

The entire audio signal path is fully tube. The ODS® features a regulated high voltage DC supply for lowest noise, consistent tone despite line voltage variations, and also features regulated DC preamp tube heaters for additional noise reduction. These techniques are used in the finest audiophile and tube studio equipment, and are unique to guitar amps.

All tubes are chassis mounted, while the power and output transformers are mounted directly to the chassis. By using single point grounding, the amp is quiet and free of hum at all operating levels.

TONE STACK:

GAIN: Continuous knob, 1 to 10. The gain control sets the input gain for the primary clean preamplifier. The clean channel acts as a preamplifier alone, during clean (non-overdrive) operation. When the amplifier is in overdrive mode, the clean channel functions as a preamp to the overdrive stage. All controls on the primary channel remain operational during overdrive, allowing the overdrive tone to be controlled.

BRITE: On/off switch. The Brite switch operates on the gain control and is active over about half of the input gain control range. From '0' to about midway, it provides a boost to highs, and the effect of the switch decreases beyond the halfway point on the gain control's rotation.

DEEP: On/off switch. The Deep switch shifts the overall tonality of the amplifier, slightly increasing the low frequencies. This is often useful for single-coil guitars, which sometimes need a low-frequency boost.

TONE: Discrete 2 steps: "Rock" and "Jazz." The Rock/Jazz switch alters the operation of the tone controls. The Rock position gives the highest gain, as well as a more aggressive rock-type equalization. In the Jazz setting, tone is a more neutral/smoother tone. All tone controls work in both modes, however their range and depth of operation is changed.

HIGH: Continuous knob, 1 to 10. The High control serves two functions:
• Knob In position and LED OFF: Adjust high frequency spectrum.
• Knob Out Position and LED ON: Engage the mid-boost. This shifts the range of the high control downward, to include more midrange. All tone controls still operate, however the tone will be fatter.
• Note: You can double click the knob or click on the LED

MID BOOST: On/off switch. Engage mid boost

MID: Continuous knob, 1 to 10. The Mid control serves two functions:
• Knob IN position and LED OFF: Adjusts mid frequencies.
• Knob OUT position and LED ON: Engages the gain boost. This bypasses all tone controls and allows greater overdrive and gain, on both clean and overdrive modes. This can also fatten sound for single coil pickups.
• Note: You can double click the knob or click on the LED

GAIN BOOST: On/off switch. Engage gain boost

LOW: Continuous knob, 1 to 10. This control adjusts the low frequency spectrum.

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MASTER:

INPUT: Continuous knob, 1 to 10. The overdrive stage, as mentioned above, is fed from the clean preamplifier. Two controls affect overdrive: You can increase this internal setting if desired. The Overdrive Input (Front panel) sets the amount of distortion content, by adjusting the drive between the two overdrive stages. Overdrive Output acts to balance the volume of the Overdrive channel with the clean channel. There are no "correct" Overdrive settings; finding the desired tone setting depends on the guitars/pickups used, as well as your own personal tastes.

OUTPUT: Continuous knob, 1 to 10. This control adjusts the volume for the overdrive section.

OVERDRIVE MODE (PULL-OD): On/off switch. Engages overdrive mode

MASTER: Continuous knob, 1 to 10. The Master Volume adjusts the overall volume of the amp and works in conjunction with the GAIN, INPUT & OUTPUT controls for overall volume of the amplifier.

ACCENT: Continuous knob, 1 to 10. The accent control works within the power amp section, reducing negative feedback at higher frequencies. It adds an edge to the overall amplifier tone. It's excellent for cutting through in a band or a recording mix. It can also allow greater ability to selectively make notes feedback and "sing."

NOISE GATE:

'CLOSED' LED: When lit this LED indicates that the Noise Gate is CLOSED. This means the THRESHOLD setting is higher than the incoming signal and the noise gate dims the output signal of the amplifier by the amount adjusted with the RANGE control (e.g. 15dB in the picture above).

NOISE GATE ON/OFF: On/off switch. Enable or disable the Noise Gate completely. Switch up ('on') means the Noise Gate is activated.

THRESHOLD: Continuous knob, -120db to 0db. The Noise Gate will dim the output signal of the amplifier as soon as the input signal (your guitar signal) falls below a certain level. This level is called Threshold. Adjust the Threshold so the noise of the overdriven amp will be reduced, but make sure you don´t cut fading notes or chords.

RANGE: Continuous knob, 0db to 100db. The output level of your amplifier will be reduced or muted when the input signal is lower than the Threshold setting. You may dim the output level only by a few decibels (dB), or completely mute the output in pauses by setting the RANGE to its maximum.

AMP FILTERS:

(switchable pre/post)

TIGHT FILTER: Discrete 3 steps: "Pre," "Post," and "Off." With the TIGHT filter you can cut LOW frequencies of either the DI guitar signal (PRE) or the processed amp output (POST).

PRE: If your pickups produce an unintentional rumbling bass sound you can filter the low end before the DI sound even hits the amplifier.

POST: If you want to cut some of the low end of your amplifier setting (maybe even only temporary) you can use this studio quality high pass filter to reduce the bass.

OFF: When set to OFF the TIGHT filter is in bypass mode.

TIGHT FREQUENCY: Continuous knob, 30Hz to 3kHz. Set the frequency below which low frequencies will be cut.

SMOOTH FILTER: Discrete 3 steps: "Pre," "Post," and "Off." With the SMOOTH filter you can cut HIGH frequencies of either the DI guitar signal (PRE) or the processed amp output (POST).

PRE: If your pickups catch a lot of hiss or noise you can filter the high end before the DI sound even hits the amplifier.

POST: If you want to cut some of the high end of your amplifier setting (maybe even only temporary) you can use this studio quality low pass filter.

OFF: When set to OFF the SMOOTH filter is in bypass mode.

SMOOTH FREQUENCY: Continuous knob, 3kHz to 35kHz. Set the frequency above which high frequencies will be cut.

Delay

DELAY: On/off switch. Use this parameter to switch the delay unit on and off.

DELAY TIME: Continuous knob, 15ms to 1000ms. Use this parameter to adjust the delay time.

DELAY FEEDBACK: Continuous knob, 0% to 100%. Use this parameter to set the feedback of the delay.

DELAY MIX: Continuous knob, 0% to 100%. Use this parameter to set the level balance between the dry signal and the delay.

DELAY LOFI: Continuous knob, 0% to 100%. Use this parameter to add creative destruction to your delay signal.

X2: Discrete button. Use this parameter to double the current Delay time
Note: Custom control, not automatable

/2: Discrete button. Use this parameter to half the current Delay time.
Note: Custom control, not automatable

TAP: Discrete button. Use this parameter with your mouse to click with the groove of the song and the delay will adjust to your tapping automatically. This is a nice and easy way to set delays to musically pleasing times, especially if there is no fixed tempo in the song.
Note: Custom control, not automatable

TEMPO BAR SUBDIVISION: Bar subdivision at showed bpm
Note: Custom control, not automatable

REC CHAINS:

Simply select a speaker and a complete studio setup by browsing through the REC CHAINS pull-down menu!

In the past two decades Brainworx owner Dirk Ulrich has produced and recorded with members of DREAM THEATER, TOTO, MICHAEL JACKSON, and with many more famous and infamous acts. The Brainworx Studio in Germany (www.brainworx- studio.de) is equipped with one of only nine NEVE VXS 72 consoles ever made, and it also hosts some of the finest outboard EQs and mic pre-amps available.

Using this impressive setup Dirk has produced a huge variety of customized 'Recording Chains' for the Fuchs amplifier, which you can apply to your plug-in amp settings. Imagine a selection of 26 perfectly mic'd and EQ-ed cabinets that you can select and use instantly with a single mouse click!

Many amp simulations give you some captured impulses of a selection of cabinets and microphones, then they leave it up to you to EQ and further process these incomplete setups by mixing different microphone setups, adjusting phase and EQ, and so on. But this really is not an easy job; it takes years of experience to get it right.

Now all you have to do is select the Recording Chain that sounds best for your amp channel and setting, adjust the Tone Stack and Gain and you´re good to go! Recallable, reliable, flexible and fast.

And if for any reason you should not like any of the Recording Chains the plug-in offers, you may use the very last setting (labeled CABINET BYPASS) and use your own mic'd cabinet. This setting will give you the sound of a tube amp wired straight into a console, which also may be a nice effects sound.

+/- SWITCHES (PLUS / MINUS):

Browse through the REC CHAINS by either using the pull-down menu of the REC CHAIN text box (see above) or just click through the settings using the + and - symbols.

AUTO & BAR selection:

If you are trying to find the best sounding REC CHAIN for your actual song it can be tiring having to play a few chords, then grabbing the mouse to select the next REC CHAIN, playing a few notes again, grabbing the mouse again, etc.

For this reason the Fuchs ODS plug-in offers you the AUTO mode:

Just select a pattern (1 Bar, 2 Bars or 4 Bars) and the plug-in will activate the available REC CHAINS automation, following the actual tempo setting of your DAW. You can now play uninterrupted and simply listen to the sound of the various REC CHAINS as the plug-in switches through all of them every single bar, every two bars or every four bars, depending on your setting.

As soon as you hear the speaker setup you like best just stop AUTO mode by   clicking the AUTO button again and manually select the desired REC CHAIN. Afterwards, just fine-tweak the TONE STACK and GAIN and there you are.

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IN/OUT CONTROLS

INPUT GAIN: Continuous knob, 1 to 10. If you want to drive the input of the Fuchs preamp harder or softer you may adjust the input gain to your liking. Some single coil pickups from older or vintage guitars may deliver low level output that can be compensated with the INPUT GAIN.

The opposite goes for a lot of heavy metal style humbuckers. If you have recorded the DI signal too hot or if you are using other plug-ins before entering the Fuchs amp plug-in you may want to dim the input signal.

With most standard amps you can and should leave the INPUT GAIN at 0 (zero) though.

PREAMP BYPASS: On/off switch. Bypass the preamp section

POWER AMP BYPASS: On/off switch. Bypass the power amp section

POWER SOAK: Continuous knob, -40dB to 0dB. In the real world, power soaks are being used to reduce the volume of a power amp. This way you can crank up a (tube) power amp to drive it until it starts clipping, and still record at a volume which will protect your hearing and keep the neighbors friendly.

A clipping tube power amp adds distortion and harmonics to the signal. A fully cranked up tube amp tamed in volume with a power soak will sound different than the same amp with the master volume turned down.
We have modeled the behavior of the Fuchs power amp, so you may experiment with different settings of the Master Volume of the amp and the internal POWER SOAK. We recommend a setting of roughly -10dB for most scenarios.

Plug-in SETTINGS TOOLBAR:

BYPASS: Bypasses processing done by the Fuchs Overdrive Supreme

UNDO/REDO (arrows): You can undo and redo changes you made to the controls of the Fuchs plug-in at any time. The undo / redo will work for as many as 32 steps. This makes experimenting and tweaking knobs easy. If you don´t like what you did... just undo it.

SETTINGS A / B / C / D: The Fuchs amp plug-in offers four internal settings (A/B/C/D) that will be stored with every preset. So, one preset can contain up to 4 amp and effects settings. The settings can be automated (!) in most DAW hosts. This way it´s possible to switch from a clean picked sound to a grungy slapped sound, for example.

COPY/ PASTE / RESET A : To set up variations of similar sounds you don´t have to dial in all the parameters several times. Let´s say you like your setting A and want to use the same sound, just with less Tube Gain, as SETTING B:

Simply press COPY while you are in SETTING A.
Switch to SETTING B by pressing 'B' in the SETTINGS section.
Press PASTE, now SETTING B is identical to SETTING A.
Reduce the Tube Gain. Done.

Now you can switch between A & B to hear the different flavors of tone you have created.

FX RACK: Toggle between FX Rack and Standard view.

ABOUT: Information about the development of the plug-in.

FACTORY PRESETS:

These presets are only intended to give you an easy start and to demo some of the tones you can get out of the Fuchs amp plug-in.

CREATING YOUR OWN SOUNDS & PRESETS: When you start to create your own sounds the most important elements to adjust are the DRIVE, TONE SECTION and the REC CHAINS.

Dial in as much GAIN or Distortion as you like.
Play through as many REC CHAINS as you like and pick the one that sounds closest to what you are looking for without altering the TONE SECTION.
NOW start tweaking the TONE SECTION to fine-tune your amp settings.

Experiment, be creative. We are confident that the numerous presets and huge selection of REC CHAINS will offer you many possible combinations that will sound great on a big variety of musical styles and genres.

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