

venus



Inspired by one of the greatest masterpieces of the pedal museum we set out to recreate a classic tube tone sculpture with modern refinements. We concentrated all the different voicings of the classic tube-powered overdrive variations throughout the 80s and 90s, along with some mods and features of the rack mount variants, in a compact enclosure with less than half the size of the original pedal unit. Instead of an internal power transformer we chose to power our device from a standard 9V DC power supply to reduce background noise and hum and designed a voltage multiplier circuit to provide the needed voltage range of +/- 15V DC.

While the classic unit featured an ECC83 dual triode, many users preferred a lower gain/higher headroom alternative like ECC82/12AU7. For our rework of the masterpiece we opted for an ECC832 dual triode tube which is half an ECC83 and half an ECC82 for optimum performance and the best of both worlds.

Controls:

drive: control the amount of tube drive/saturation and sustain. From light tube overdrive (counter-clockwise) to fuzzy distortion (clockwise).

bias ⁽¹⁾: set the tube cathode bias/control the current passing through the tube cathodes.

Adjust this knob to find the sweet spot for different tube types used and/or set the texture of the overdrive: from gnarly, nasty and gated (counter-clockwise) to smooth and creamy (clockwise).

volume ⁽²⁾: set the output level of the effect.

hi: adjust the amount of high frequencies, increasing as turned clockwise.

mid: adjust the amount of mid frequencies/sweep through the different voicings of the classic tube-powered overdrive variations throughout the 80s and 90s.

lo: adjust the amount of low frequencies, increasing as turned clockwise.

tight push switch: pre-set the amount of low and low-mid frequencies that hit the tube gain stages, select between fat or tight sound (when pushed in) – inspired by the “contour” knob of the rack mount version.

line driver push switch ⁽³⁾: select between the unbuffered instrument level output of the pedal version or the buffered line level output of the rack mount unit (when pushed in).

FOOTSWITCH: engage or true bypass the effect via a high quality relay.

POWER-UP BYPASS STATE PRESET: On power-up the LED will blink and then go in bypass mode by default. Hold the footswitch during power-up to change the default function to engaged (on state). Repeat the procedure above to restore the previous setting. This function comes in especially handy to people that use remote pedal switchers/loopers as they only set the state of the pedal once and then operate from the controller.



Connections:

↓/↑: mono instrument jack input/output.

⚡ Power supply ⁽⁴⁾: 9V DC center negative, regulated/stabilized. Isolated power supply is recommended for best performance. Max current consumption 400mA.

We designed Venus with an ECC832 dual triode tube for optimum performance but you can replace it with any standard dual triode like ECC83/12AX7, 5751, ECC81/12AT7, 6072/12AY7, ECC82/12AU7

To replace the tube: **disconnect power supply**, unscrew and remove the bottom plate of the pedal. Remove the tube gently and replace with a new one and re-install bottom plate. When replacing with a different tube, be sure the pins are lined up with the pin holes in the socket. You should replace the tube if you experience loss of gain or frequencies, little or no output at all, microphonic whistling/squealing or excessive noise.

Notes:

⁽¹⁾ It is perfectly normal to experience crackle and scratchy noises while you turn the bias knob due to the DC voltage shift applied to the tube's cathodes.

⁽²⁾ Output level range is dependent on the line driver push switch setting.

⁽³⁾ Similar to the original units the unbuffered instrument level output is out-of-phase to the input while the buffered line level output is in-phase with the input of the circuit. The bypass state of the pedal is always true bypass regardless of this push button switch setting. The buffer/line driver is only placed at the output of the effect when engaged.

⁽⁴⁾ You can use the provided 9V DC power supply or any isolated 9V DC, center negative, power supply with at least 500mA current capacity to operate the pedal. Make sure to note DC voltage, polarity and current capacity prior to connecting an external power supply.

Safety instructions:

- This unit was designed for 9V DC input only. It features an internal voltage boost circuitry to provide +/- 15V DC to the tube circuitry.

Do not use a higher voltage or reverse polarity power supply as it will cause malfunction and void warranty!

Only use the provided Power Supply Unit or an isolated 9V DC, center negative power supply with at least 500mA current capacity that complies with the general safety standards. The mains PSU provided with the device complies with the standards of the country where you purchased the product.

- The metal enclosure of this unit features ventilation openings for the electron tube. Strictly avoid exposure to liquids or moisture.

Warranty: Venus comes with 5 years warranty from date of manufacture. We will provide service/repair at no labour or internal parts cost - excluding the electron tube and power supply - within 5 years from date of manufacture - buyer is responsible for all shipping costs and/or customs fees and taxes that may apply. This warranty excludes the electron tube, included power supply and normal cosmetic wear and damages done due to misuse or improper handling or exposure to liquids/moisture.

Contact info:

info@crazytubecircuits.com

Visit our website:

www.crazytubecircuits.com