Crazy Tube Circuits Unobtanium

Crazy Tube Circuits Unobtanium Dual Overdrive Pedal

INSTRUCTION MANUAL

Introduction

The Crazy Tube Circuits Unobtanium is a dual overdrive pedal designed to deliver a wide range of legendary tones. It combines a high-headroom overdrive circuit with an amp-in-a-box section, offering versatile sonic possibilities for guitarists.

Key Features

- Right side: Faithful reproduction of a mythical overdrive circuit, including germanium diodes.
- Left side: D-style amp-in-a-box overdrive.
- Passive series effects loop for integrating other pedals between the two sections or using them independently.
- Internal voltage boost to 18V DC for enhanced headroom and tube-like performance (requires 9V DC input).
- Top-mounted jacks for efficient pedalboard layout.
- Click-less True Bypass design via high-quality relays.
- Wide gain range, from transparent boost to high-headroom overdrive.
- Active treble control for boost or cut.
- Toggle switch for original buffer bypass or true bypass.
- Toggle switch for stock clipping/compression or enhanced gain/headroom.
- Pre-drive EQ (Emphasis control) for presence and bottom-end response.
- Toggle switch to select between two distinct D-style overdrive circuits: SSS (clean, transparent, organic compression) and ODS (higher gain, enhanced mid frequencies, harmonic overtones).
- External footswitch input for amplifier voicing selection (XT Footswitch sold separately).

Controls and Connections



Figure 1: Front panel view of the Crazy Tube Circuits Unobtanium Dual Overdrive pedal. The pedal features two distinct sections, each with its own set of controls and a footswitch. The left section (Amp-in-a-box) has Volume, Gain, Tone, and Emphasis knobs, along with an ODS/SSS toggle. The right section (Overdrive) has Volume, Gain, and Treble knobs, plus Buffer/True and Stock/Mod toggle switches. Two footswitches are located at the bottom, with indicator LEDs above them. Top-mounted jacks are labeled RTN (Return) and SND (Send) for the effects loop, and a side jack is labeled XT for an external footswitch.

Right Side: Overdrive Section

- **Volume:** Controls the overall output level of the overdrive section.
- **Gain:** Adjusts the amount of overdrive, from transparent boost to high-headroom distortion.
- **Treble:** An active circuit to boost or cut high frequencies.
- **Bypass Toggle (BUFFER/TRUE):** Selects between buffered bypass (for clarity and long cable runs) and true bypass.
- **Clipping Toggle (STOCK/MOD):** Switches between the original stock clipping/compression and an enhanced gain/headroom mode.

Left Side: D-Style Amp-in-a-Box Section

- **Volume:** Sets the overall output level of the amp-in-a-box section. Can be used to match bypassed volume or as a clean boost/preamp.
- **Gain:** Controls the amount of overdrive, from clean boost to sweet singing overdrive.
- **Tone:** Adjusts the amount of post-overdrive high-end frequencies.
- **Emphasis:** A pre-drive EQ control to shape presence and bottom-end response.
- **Voicing Toggle (ODS/SSS):** Selects between two distinct D-style overdrive circuits:
    - **SSS:** Clean and transparent overdrive with natural organic compression.

- **ODS:** Higher gain overdrive with enhanced mid frequencies and harmonic overtones.

Connections

- **Input Jack:** Standard 1/4 inch (6.35mm) input for your guitar or preceding effects.
- **Output Jack:** Standard 1/4 inch (6.35mm) output to your amplifier or subsequent effects.
- **RTN (Return) Jack:** Part of the passive series effects loop. Connect the output of an external pedal here.
- **SND (Send) Jack:** Part of the passive series effects loop. Connect the input of an external pedal here.
- **XT (External Footswitch) Jack:** 3.5mm (1/8 inch) input for an optional external footswitch to select amplifier voicing.
- **9V DC Power Input:** Connect a standard 9V DC power supply (center negative). The unit internally boosts voltage to 18V DC. **Warning: Do not use a power supply higher than 9V DC.**

Setup

1. **Power Connection:** Connect a standard 9V DC (center negative) power supply to the 9V DC input jack. Ensure the power supply meets the specified voltage and polarity requirements.
2. **Instrument Connection:** Connect your guitar or the output of your preceding effects pedal to the input jack of the Unobtanium.
3. **Amplifier Connection:** Connect the output jack of the Unobtanium to your amplifier's input or the input of your next effects pedal.
4. **Effects Loop (Optional):** To use the passive series effects loop, connect the input of an external pedal to the SND (Send) jack and the output of that external pedal to the RTN (Return) jack. This places the external pedal between the two overdrive sections.
5. **External Footswitch (Optional):** If using an external footswitch for amplifier voicing, connect it to the XT (External Footswitch) 3.5mm jack.

Operating Instructions

The Unobtanium pedal offers two independent yet combinable overdrive sections. Each section can be engaged or disengaged using its dedicated footswitch.

Engaging/Disengaging Effects

- Press the right footswitch to engage or disengage the Overdrive section. The corresponding LED will illuminate when active.
- Press the left footswitch to engage or disengage the D-Style Amp-in-a-Box section. The corresponding LED will illuminate when active.
- Both sections can be used simultaneously for complex, layered overdrive tones.

Adjusting Tones

- **Overdrive Section:** Experiment with the *Volume*, *Gain*, and *Treble* knobs to shape your desired overdrive sound. Use the *Bypass Toggle* to choose between buffered or true bypass, and the *Clipping Toggle* to select between stock or modified clipping characteristics.
- **D-Style Amp-in-a-Box Section:** Adjust *Volume*, *Gain*, *Tone*, and *Emphasis* to dial in your preferred amp-like tone. The *Voicing Toggle* allows you to switch between the SSS and ODS modes for different D-style amplifier characteristics.
- **Combining Sections:** When both sections are active, the Overdrive section feeds into the D-Style Amp-in-a-Box section. Adjust the gain and volume of each section to achieve a balanced and harmonically rich combined tone.

Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the pedal's exterior. Avoid abrasive cleaners or solvents.
- **Storage:** Store the pedal in a cool, dry place away from direct sunlight and extreme temperatures.
- **Power:** Always use the correct 9V DC (center negative) power supply. Incorrect voltage or polarity can damage the unit.
- **Connections:** Ensure all cables are securely connected to prevent signal loss or intermittent operation.

Troubleshooting

Problem	Possible Cause	Solution
No sound when pedal is engaged.	• Incorrect power supply. • Cables not connected properly. • Volume knobs set to minimum.	• Verify 9V DC (center negative) power supply. • Check all input, output, and power connections. • Increase Volume knobs on both sections.
Weak or distorted sound.	• Low battery (if applicable, though this unit is corded electric). • Incorrect gain settings. • Faulty cables.	• Ensure stable power supply. • Adjust Gain knobs on both sections. • Test with different cables.
Excessive noise or hum.	• Ground loop issue. • Interference from other electronics. • Faulty power supply.	• Use an isolated power supply. • Move pedal away from power transformers or noisy equipment. • Try a different power supply.

Specifications

- **Model:** Unobtanium
- **Power Input:** 9V DC (center negative)
- **Internal Voltage:** 18V DC
- **Current Draw:** 50 mA
- **Dimensions:** Approximately 2 x 2 x 2 inches
- **Weight:** 1.12 pounds
- **Material:** Metal enclosure
- **Bypass:** Click-less True Bypass (relay-based) with Buffer option
- **Connector Type:** 1/4 inch (6.35mm) audio jacks, 3.5mm (1/8 inch) audio jack for XT
- **Signal Format:** Analog

Warranty and Support

For warranty information and technical support, please refer to the official Crazy Tube Circuits website or contact your authorized dealer. Keep your proof of purchase for warranty claims.
Manufacturer: Crazy Tube Circuits

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