

Desert Ten

A little 10-watt solid-state practice combo with an 8-inch open-back speaker, from clean to raspy fuzz.



Overview

Desert Ten is a small 10-watt solid-state practice amp, in the spirit of the little combo the desert-rock records were made with. It has an op-amp preamp that goes from clean to a raspy rail clip, a SATURATION switch that brings in a diode clipper with a midrange push for the gnarly, fuzzy tone, three tone controls, and a 10-watt power amp that stays clean at first and then clips hard.

After the amp comes the 8-inch open-back speaker, with a thin low end and a midrange honk, and a mic you can move from on axis to off axis. Switch the speaker off for a line-out sound to feed your own cabinet.

It runs in linked stereo: two identical amps, one per side, share every control, so a mono source comes out the same on both sides and a stereo source keeps its image. The amp runs at twice the sample rate with every clipper anti-aliased (the house drive standard), to keep the clipping clean. A noise gate sits before the amp and a tuner is built in. With SATURATION on, the clipping diodes' balance wanders very slightly over time, as on real hardware.

Reach for it for

- Raspy, fuzzy guitar and bass tones (SATURATION on)

- Small-amp crunch that sits in a dense mix
- Lo-fi, boxy guitar and keys through a little 8-inch speaker
- Driving a DI'd guitar with the gate and tuner on the same panel
- Line-out amp tones into your own cabinet (CAB off)

Controls

GAIN

PRE (cream cap)	The preamp gain, 0 to 10 (5 by default): from about -6 to +30 dB into the op-amp. Low settings are clean; higher settings push the op-amp into its rails for a raspy clip. It also sets how hard the SATURATION diodes are driven.
SATURATION	Switches in the diode clipper with its midrange push: the signal is lifted around 900 Hz, trimmed below 220 Hz and above 5 kHz, and clipped by a pair of diodes. This is the gnarly, fuzzy tone. Off by default.
POST (blue cap)	The volume into the 10-watt power amp, 0 to 10 (4 by default). Low settings stay clean; turned up, the power amp clips hard, the way small solid-state amps do.

EQUALIZATION

LOW	A low shelf at 120 Hz, 0 to 10; 5 is flat, and each step is about 2.6 dB.
MID	A broad peak at 700 Hz, 0 to 10. 5 leaves a small built-in mid lift (about 1.5 dB); turn it down to scoop the mids, up to push them.
HIGH	A high shelf at 2.8 kHz, 0 to 10; 5 is flat.

The lower strip

GATE	A noise gate before the amp, from -80 to -20 dB. Fully down (-80) reads OFF. Raise it until the hiss and hum between notes disappear. It opens fast, holds for 50 ms and closes smoothly.
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TUNER	Switches the tuner on. While it is on, the output is muted so you can tune in silence. The window shows the note name with its octave and a dot that moves left (flat) or right (sharp); the note turns green when you are within a few cents. It reads PLAY A NOTE when it hears nothing.
CAB	The 8-inch open-back speaker, on by default. Off gives the amp's line out, with no speaker colour.
MIC	Where the mic sits on the speaker, 0 (on axis) to 10 (off axis); 3 by default. On axis is brighter with more cone bite; moving off axis rounds off the top end and darkens the sound.
OUTPUT	The final level, -24 to +12 dB.
LEVEL	Ten LEDs showing the output level, up to 0 dBFS.

The header

Theme picker	Changes the panel's colours: the control panel, the pinstripe and the pilot lamp follow the theme. Graphite keeps the aluminium panel with an orange stripe and lamp.
HW	Switches between the hardware-style faceplate and the flat look.
S / M / L	Panel size: small, medium or large. The panel also scales to fit the plugin window.
?	Opens a pop-up with the design credit, the GFX website address, the address of this manual, and MAINS / EQUATOR PROXIMITY (see below). Click outside it to close it.

There are no factory presets, and no input or output fold-out on this panel. The output passes through the GFX soft clipper, which catches peaks at -0.3 dBFS.

Mains and Equator Proximity

The ? pop-up holds the unit's power supply and its climate. Both start OFF and NEAR, where the unit sounds exactly as it always has.

MAINS: OFF / UK / US	The mains the unit is plugged into. UK and US add a mains hum, very faint (about -83 dBFS: at the edge of hearing), at 50 Hz or 60 Hz with its own overtones. Each instance's hum wanders slowly in phase, so many of them never pile up into one note. The supply also sags when you play hard - the rails drop as you dig in, softening the peaks, more here than on most units - with a faint ripple that grows with the load. UK is tight and recovers quickly; US sags deeper and recovers more slowly.
EQUATOR PROXIMITY	The room's climate, from FAR (a cold northern room) to NEAR (the tropics: always warm). Away from NEAR, the unit starts cold and warms up over a few minutes of use - about five at FAR. It is a solid-state amp, so the warm-up is only slight: a cold amp is a touch duller and quieter. Its cheap, unregulated supply sags as much as a valve amp's. Hover over the dial to see how long it takes; double-click (or Ctrl-click) for NEAR.
WARMTH	The lamp shows how warm the unit is. The heat is saved with the project: reopen it a minute later and the unit is still warm; leave it overnight and it has cooled. While REAPER bypasses the unit, it cools (about a minute to cold at FAR).

Tips

- For the classic fuzzy desert tone, switch SATURATION on, set PRE around 6 - 8 and keep POST moderate; then shape it with MID.
- For a cleaner small-amp crunch, leave SATURATION off and turn POST up: the power amp clips harder than the preamp.
- If the sound is too boxy, move MIC towards 0 and bring MID down a little.
- Set the GATE just above the noise floor with SATURATION on - high gain makes hiss between notes much louder.

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