air

description

Continuing our quest for the ultimate in sound + response is Mohair, a five-transistor fuzz/distortion that delivers a refined take on the classic muffy tone. Mohair gives you thick walls of sound and fat, sustaining leads but while retaining a more open, touch-sensitive response. The boost footswitch activates a Rangemaster-style booster circuit in front that transforms Mohair into a blazing riff monster. The Range control lets you dial in how thick the boost is - go from tight, speedy riffs to endless, thick sustaining notes.

- Go from early `70s classic rock leads to later `70s treble-boosted overdriven amp riffs to `90s shoegaze walls of sound all the way to epic millennial doomscapes!
- Mohair is not a direct clone of any existing spec. It is tuned and optimized to achieve a custom refined voicing.
- No-compromise build and circuit design utilizing five silicon transistors.
- All-discrete, through-hole components specifically selected and tuned to achieve the best sound + response.
- Housed in kittycasterFX's exclusive wedge enclosure.

You're gonna play electric music, solid walls of sound.

sound+response

Designed & handbuilt in Portland, Oregon USA
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Visual concept/art direction & design - WB72
Handbuilt by - Jean Mastaler & Steve Hamari
Global sales & business management - Scott Miller
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moh

the story

I've always wondered if I could come up with a BMP-style circuit that I liked. You see, I never got along all that well with that style of fuzz. While I liked the sustain it could produce it had several drawbacks for my taste:

- They often have too much gain and compression. Chords become indistinguishable mush and the tonal character of your guitar is obliterated. Your picking attack gets blunted and makes the sound choked.
- They often sound great on their own but get lost in the mix due to the heavy bass response and scooped mids.

My design goal was to try to solve these issues and give it a more refined sound with a more open dynamic response without taking away from the classic character. I worked on the breadboard, guitar in hand, and tuned the circuit until I felt the sound was right, with perfectly aligned harmonics, and the playing feel was right, with the right bounce. I solved the lost-in-the-mix issue by adding a foot-switchable booster based on the classic Rangemaster treble-booster circuit. I tuned it to fill in all those mids as well as add juicy harmonics so you'll never be lost in the mix again!

I was trying to come up with something that I liked but I ended up with something that I loved so we had to make it a thing and bring it to you! The kittycasterFX Mohair Fuzztortion!

Fly on, children. Play on, brothers and sisters!

Howard

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directions

Think of Mohair as a three-knob pedal with a bonus fourth knob to control the tone of the switchable booster.

When the LED indicator is lit green Mohair is in normal, non-boosted mode and only the VOLUME, SUSTAIN, and TONE controls are in effect. When you press the BOOST footswitch, the LED turns red and you've now activated a custom Rangemaster-based treble-booster circuit in front of the main distortion circuit. The RANGE knob controls the low-frequency response of the booster circuit, from classic Rangemaster - tight and fast with blazing upper mid harmonics, to thick and sludgy with virtually endless sustain.

Green mode is great for rhythm parts and slow, legato solos and riffs. You'll notice that the pedal "grabs on" to your notes and doesn't want to let go. The sound is thick and excels at big sludgy slower tempos.

But switch to Red mode and the treble-booster circuit will turn the pedal into a blazing speed monster! This is the core concept of Mohair - take a big, sludgy fuzz and then hit it with a custom-tuned booster circuit which tightens up the low end going into the main circuit for an amazing sound and response that you can shred on. Or you can turn the Range knob up for a full-range boost that will give you thick, endless sustain.

Mohair works best into an amp set relatively clean. It's got five gain stages already!

Note: The booster does not work independently. It was voiced specifically to boost Mohair's distortion circuit.

Mounting Mohair to your pedalboard:

All kcFX pedals come with four rubber feet that screw into the pedal and can be removed simply by turning them with your fingers. If you wish to velcro your pedal to your pedalboard, simply replace the four rubber feet with the included counter-sunk screws to get a perfectly flat bottomed surface for secure velcro-ing.

for demo videos and more info go to
WWW.KITTYCASTERFX.COM/PRODUCTS/MOHAIR

controls

1 **VOLUME** sets the overall output level. Mohair is a loud pedal so you probably won't have to turn this knob up too high!

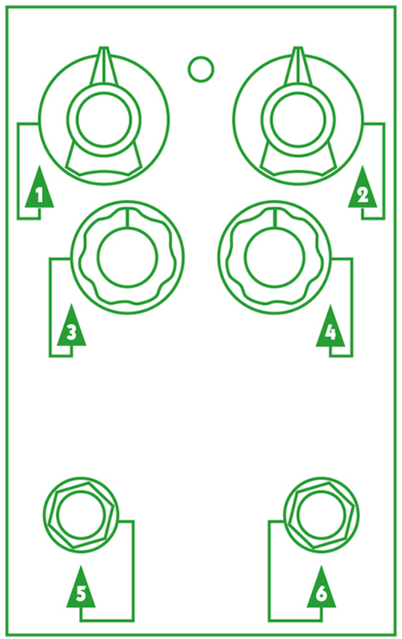
2 **SUSTAIN** is basically the gain control. For great tight and soaring sounds when the boost function is engaged, try setting the SUSTAIN control a bit lower. You'll normally want to use lower SUSTAIN settings with high output pickups.

3 **TONE** varies the frequency response in both non-boosted (LED green) and boosted mode (LED red). At noon is a balanced response, equal parts bass and treble with a slight mid-scoop. Mohair's refined circuitry gives the tone control a wide sweet spot.

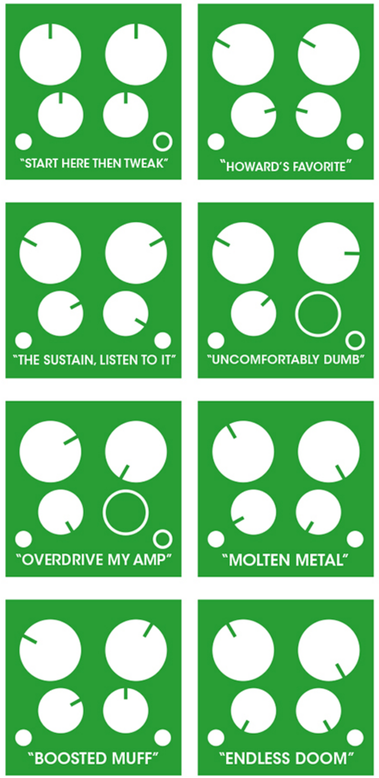
4 **RANGE** is in effect only in boost mode (LED red). It varies the low-frequency response (it's a variable high-pass filter) at the input of the booster stage. Set the RANGE control low or at minimum to get the tightest and quickest playing response - great for riffing. Set the RANGE control high for thick, sustained legato passages.

5 **BYPASS FOOTSWITCH** toggles pedal on/bypass. BYPASS is true mechanical bypass.

6 **BOOST FOOTSWITCH** toggles the boost on/off. The LED indicator will be green when in normal, non-boosted mode and red in boosted mode.



sample settings



power

Mohair is powered by either a 9-volt battery or a standard DC power supply at 9-18 volts.

Experiment with different voltages at the DC jack for different responses. Higher voltages up to 18-volts will give you a punchier response. I like running it at 18-volts with the boost mode on for big classic 70s metal tones! Please note that some modern switch mode-power wall warts will cause a high-pitched clock noise to come through. Transformer-based power supplies are better if you have one. Or just use a battery!

For the smoothest sound and response, try using Mohair with the internal battery. It makes a difference!

Included with the Mohair is a custom kcFX Ultramega Super Heavy Duty 9-volt battery.

To change the battery, simply unscrew the four rubber feet with your fingers to remove the bottom.

Unplug the input jack (Axe) when not playing to turn the battery off. Or keep the DC jack plugged in and the battery will also be turned off.

specifications

Input impedance	~33kΩ (Green mode - booster off) ~15kΩ (Red mode - booster on)
Output impedance	~3kΩ
Bypass	true-bypass, grounded input
Current draw	@ 9 volts 1.8mA effect-bypassed 5.0mA effect-on @ 18 volts 4.4mA effect-bypassed 11.4mA effect-on
Power supply	9-18 volts DC (center-ground 5.5mm)

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