

FOXROX ELECTRONICS

CC HYBRID

CC Hybrid is a stand-alone pedal that contains the same Silicon/Germanium fuzz face circuit as the original Captain Coconut and Captain Coconut2 and (to my knowledge) it's the first example of a commercially available pedal to use one germanium and one silicon transistor in the classic Fuzz Face circuit. It combines the warm, dark organic tone of germanium with the clarity and sustain of silicon. CC Hybrid gives you the best of both. Since 2000, I've had people asking for custom pedals made with this circuit and now it's finally available as a standard Foxrox product.

- Dave Fox, Mach 2012

CC Hybrid

Features:

Volume - Set the volume you like, compensate for level changes when adjusting the Grit and Fuzz controls.

Fuzz - Controls the amount of gain in the circuit. Typical setting is all the way up, or backed off a little.

Grit - controls bias voltage to the transistors. This lets you go from smooth to choppy and everything in between. Typical setting is 11:00. Past the 2:00 setting the sound takes on a restricted, gated quality. The extreme range of the Grit control is effected by the voltage coming into the pedal. Above 9Volts, grit stays smooth at the max setting. Below 9Volts, grit can sound choppy at gated as low as the 1:00 setting. If you notice this - don't worry, there's nothing wrong with the pedal! Just set it for the sound you like.

Input trim - There's a trimmer inside for backing the input level down a little. Just like having your guitar volume turned down. It's preset all the way up.

POWERING THE PEDAL: CC Hybrid is a PNP fuzz. This means that it has a positive ground. If you use a battery, there is no voltage issue at all. If you use a wall wart or a pedal board power supply with isolated grounds there is no special wiring required. The power connector is wired just like most guitar pedals - 2.1mm, center negative. The only time you'll run into a power problem is if you try to daisy chain the power from other pedals. Most pedals are negative ground and will cause a voltage short the second you try to patch them together.



Connections:

Input and Output 1/4" TRS. Battery connection is made when plug is inserted into Input jack. Remove when not in use.

Power - 9V Battery or external 9 Volts DC via 2.1 mm DC jack. Power jack is wired Center = Negative. CC Hybrid is a Positive ground pedal, so you can NOT daisy chain power with other pedals.

Controls (more info)

FUZZ - The Fuzz control allows you to back off on the intensity of the fuzz. This is useful when looking for special vintage sounds and when driving more overdrive stages. This is also great if you want to dial in some wimpy fuzz tones for effect. If you want the fuzz to clean up when you roll back your guitars volume knob, back off a little on the Fuzz control. You can dial in a massive range of great sounds just by playing around with the GRIT control, the FUZZ control, and your guitars volume and tone controls.

GRIT - This knob allows you to fine tune the attack, tone and fuzz level. The control is subtle, but very effective. As a continuous control, you can dial in the exact sound you want. Here are some examples of what to expect as you try out different GRIT settings:

Counter clockwise: Dull loud tone. Sounds great when overdriving a tube amp, or pushing an already overdriven amp over the top. This is a very fat fuzz sound that can be heard on lots of old recordings from the '60s and '70s.

Middle: Even tone with lots of fuzz and sustain. This is the most user-friendly of all the settings. The tone is very round, without sputter. If you like to clean up your sound by turning down your guitars volume knob, this is where the GRIT control should be - the 10:00 - 1:00 settings work the best.

Clockwise: Clipped, farty and burnt out. If you're looking for some of the nastier fuzz sounds, experiment with GRIT settings in the 2:00 to 5:00 (max) area. The sound gets very choppy while you pick and the sustain trails off abruptly. This sound can be pretty ugly at times, but it's great for reproducing certain vintage tones that originally occurred due to unmatched transistors or drained batteries. Extreme GRIT settings sound great when your amp is turned up loud. Stand near your amp and play around with the feedback.

VOLUME - CC Hybrid Fuzz is set up to have more than enough gain for those who like it LOUD. Changes in the GRIT control have a direct effect on the output level, so you may need to make some volume adjustments while dialing in your sound.

INPUT TRIM - CC Hybrid Fuzz includes an internal trim pot that adjusts the amount of loading at the input stage.

Adjusting the trim pot - getting the best Wah Wah sounds

CC Hybrid Fuzz includes a 50K variable resistor at the input of the circuit. This is used to increase the input impedance, which can smooth out the sound of the fuzz by lowering its intensity. A major benefit of this is better performance when fed by a wah wah pedal. Input trim is a very common Fuzz Face modification.

To make the setting with a wah wah pedal, dial in the sound you want on the FUZZ and GRIT controls. Kick in the wah wah pedal. With the unit opened, and the wah going, sample different settings on the trimmer. You will notice that it extends the low end of the wah's sweep. Dial in the sound you like. Be aware that adding resistance at the input of the Fuzz has a couple of side effects:

- 1) You may notice an increased noise level, especially when your guitars volume is turned down all the way.
 - 2) You may also notice that the fuzz loses some of its intensity with your guitars volume up all the way and the FUZZ control at its maximum setting.
- Both of these things are unavoidable due to the nature of the circuit.

For those who are serious about WAH:

If you like to have your wah wah pedal before your Fuzz, and you want to get the widest sweep possible without turning the input trimmer down, you should check out the **FOXROX WAH RETROFIT**. This clever little circuit can be added to just about any inductor-based wah wah pedal to restore the wah's full sweep range when driving low impedance effects, such as Fuzz Faces, or Fuzz Face clones. It also provides the ability to adjust the output volume of your wah pedal, enabling you to cut back the level of a wah that's too loud, or boost the level of a wah pedal that's not loud enough. Check it out at www.foxroxelectronics.com. It's inexpensive, easy to install, and very effective.

Note about tone -

CC Hybrid Fuzz uses the same volume control as an original Fuzz Face, 500K. This is very high pot value compared to what you would typically find for a volume control. The result is a loss of high end when the volume is below 90%. This gives the fuzz a "warm" sound. But this is also dependent on the length of guitar cables and the input impedance of whatever the fuzz is feeding. If the Fuzz is directly followed by a buffered effect, it will sound brighter than if it's driving a 20 foot cable over to your amp. If you have true-bypass, time-based effects after your fuzz (flanger, chorus, delay), you may notice that the fuzz becomes brighter when the effect(s) are switched in.