PRO-CHOP

Operating Manual

PATENTS PENDING WORLDWIDE

Electrical faults can kill you.

In the music world, the most common form of electrical shock occurs when the musician forms a path for an electrical current between two different circuits where one of them is faulty. Usually this is caused by holding a guitar plugged into one circuit and touching a microphone which is plugged into a different circuit. If one of the circuits (or a piece of equipment in the path) is faulty, there is a real danger of electrical shock.

gig-fx pedals offer the possibility of working in stereo using two amplifiers. If one of your amplifiers is connected to a different electrical circuit from the other, you need to make sure that both circuits are wired correctly. Use a “mains tester” from an electrical or hardware store to test the mains outlets. It should indicate that the “Live” (Hot), Neutral and Ground are all present on the correct pins.

NEVER USE outlets which are not wired correctly. If you have ANY doubt at all, please call an experienced electrician.

In addition to the above, make sure your amplifiers are wired correctly and have not been modified by inexperienced personnel. Beware of amplifiers that have switches that reverse polarity or “ground lift” connections. When touring in foreign countries, make sure your amplifiers are set for the correct voltage. If you use a transformer to change the mains voltage from 110VAC to 220VAC or vice versa, use a mains outlet tester to make sure the output of the transformer is correctly wired and the ground is connected.

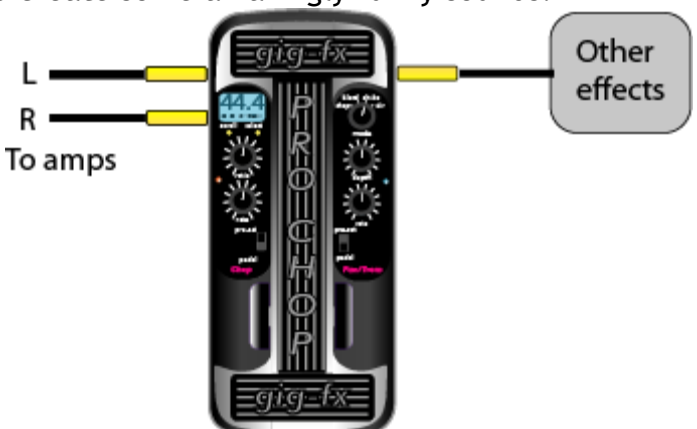
What to expect

The ***PRO-CHOP*** will challenge your imagination and creativity. Unlike the myriad of "me too" effects out there, the ***PRO-CHOP*** can produce TOTALLY ORIGINAL sounds. For example, the ***PRO-CHOP*** can generate a sound that captures the richness and texture of a multi-tracked delay but without the repeated note hanging on. Given the wide variety of settings, you can achieve unique sounds that will define your song or signature sound.

The ***PRO-CHOP*** can also reproduce best-in-class classic sounds such as a tremolo, rotating speaker, or the chopped sounds, which up until now were only associated with synthesizers. But on top of all this, the ***PRO-CHOP*** can produce never-heard-before sounds that will inspire you to write the effects into your original compositions. Sync it up with your PC recorder or a MIDI beat and you can create some unbelievably cool grooves in no time.

Hooking it up

If you use a lot of gain, it is better to put the ***PRO-CHOP*** last in the chain of effects. This will retain the signal-to-noise ratio. HOWEVER, the ***PRO-CHOP*** can be followed by note-triggered effects to create some amazingly funky sounds.



Ground loops (the kind of buzz you don't want)

Sometimes, when working in stereo, an annoying hum or buzz will appear when two amplifiers are used. This can occur when the amplifiers are plugged into two separate circuits, or if either of the amplifiers has some internal wiring issues, or if the large ground loop forms an antenna. Test the mains outlets using a mains tester as described in the safety warning in this manual or call an electrician to test the outlets.

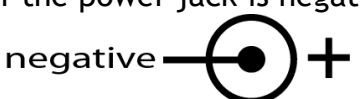
Once you have verified that the outlets are wired correctly, you can usually solve the problem by disconnecting ("lifting") ONE of the grounds on the amplifier circuits (NOT BOTH – IT IS DANGEROUS TO PLAY WITHOUT ANY GROUND AT ALL). In the US, you can do this by using a "ground lifting" plug which eliminates one ground connection. In Europe or elsewhere that uses three-pin plugs, you may need to use a specially adapted plug that does not have a

ground connection. Consult an electrician first if you need to modify any 220V mains connections. 220V is a deadly voltage.

In conclusion, providing that one of the amplifier grounds is still present throughout the circuit, it should be safe to lift one of the grounds and any ground-loop buzz should buzz off.

Powering it up - AC Adapter

The preferred adapter is a regulated 9V DC supply class 2 adapter with minimum 50mA output current capability. Most commercially available 9V adapters designed for pedal effects will work (2.1mm diameter plug)). No harm will come to the unit if the power supply jack has the wrong polarity, but double check that the center-pin of the power jack is negative polarity.



Battery Power

The unit can be operated on a single 9V battery and will be "on" and drawing current as long as there is a ¼" jack plug inserted in the input jack socket. To replace the battery, unscrew the smaller base panel underneath the unit. When the battery is running low, the unit may fail to turn off because of insufficient current to drive the optical switch.

The ***PRO-CHOP*** draws around 30mA, which will give a reasonable battery life. However, it is recommended that you use a power adapter on important sessions or gigs. Be aware that if your power supply does not supply enough current to power all your effects, power-supply noise can increase substantially or cause other unwanted sound defects. To preserve battery life, always unplug the input jack when the pedal is not in use.

Pedal Board Mounting

Attach strips of self-adhesive Velcro sufficient to cover the rubber pads on the base plate of the pedal. Do not put Velcro in the middle of the pedal base plate as it will stress the plate if the pedal is ever removed from the pedal board. Cover your pedal board with matching opposite strips of Velcro et vôila!

By-Passing the unit

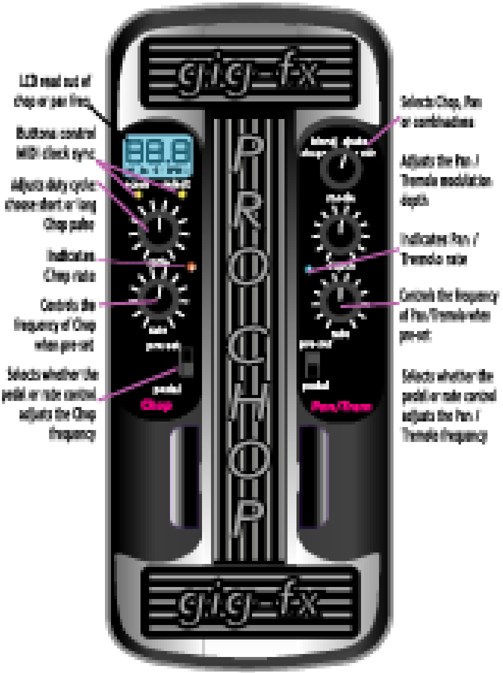
The unit is by-passed if the pedal is in the full-back position. You will not feel any switch as it is a noiseless, wear-free optical switch. The effect will turn on when the pedal is depressed. When bypassed, neither the Chop nor Pan LED will be illuminated. Please note, even when by-passed, the pedal will draw current as long as there is a jack plug inserted in the input jack socket, so,

to preserve battery life, remove jack plug when the pedal is not in use. The pedal is bypassed via a silicon switch (as opposed to a mechanical switch), which has an open bandwidth and will not affect the harmonics or integrity of your sound, and provides a silent-switching mechanism.

Stereo v. Mono

The ***PRO-CHOP*** can be used as a mono device or a stereo device, however, the ***PRO-CHOP***'s sound effects are much more entertaining in stereo. It is HIGHLY recommended to use the device in a stereo set up either by using a stereo amplifier, two amplifiers, or by using two channels in a PA, stereo preamp, or mixer — each panned alternately to the left and the right.

The ***PRO-CHOP*** produces many original and melodic effects in stereo. Think about it . . . on a recording, your instrument is rarely confined to one side or another — it is usually in stereo, and many productions use panning or other effects which sound much better in stereo. Now, with the ***PRO-CHOP***, your live performance need not be limited to mono and you have control of the sounds with a foot pedal.


LCD read out of Chop or pan lines
Buttons control MIDI clock sync
Adjusts duty cycle: choose short or long Chop pulse
Indicates Chop rate
Controls the frequency of Chop when pre-set
Selects whether the pedal or rate control adjusts the Chop frequency
Selects Chop, Pan or combinations
Adjusts the Pan / Tremolo modulation depth
Indicates Pan / Tremolo rate
Controls the frequency of Pan/Tremolo when pre-set
Selects whether the pedal or rate control adjusts the Pan / Tremolo frequency
gig-fx
PRO CHOP
Chop
Pan/Trem
gig-fx

MODE SELECTOR SWITCH (top right)

CHOP MODE

- The CHOP mode produces unique chopped sounds by modulating a signal from an “off” state to an “on” state. The user has control over both the rate (speed of the time-based effect) and the ratio (the pulse length of the “on” state).
- In mono, the CHOP mode can produce a dramatic, rhythmic, musical “chant” or groove. When the rate is varied by the pedal, the rate of the CHOP can be sped up or slowed down to produce dramatic effects such as a helicopter, motorbike, machine gun, or spacey sounds like no other.
- In stereo, the left side is on when the right side is off, and vice versa, so the signal alternates left and right seamlessly.

BLEND MODE:

- In this mode, the ***PRO-CHOP*** combines the CHOP sound with a PAN cycle. Both the Chop wave and the PAN wave work independently. The CHOP rate and ratio, and the PAN rate and depth, can all be varied independently to produce a variety of effects.
- In this mode, the ***PRO-CHOP*** can be combined with other effects such as a wah or synth wah to produce some startlingly original effects. The BLEND mode can be used to emulate the intro to The Who's famous song, ***You Won't Get Fooled Again***, which was the inspiration for the ***PRO-CHOP***.

SHAKE MODE:

- In this mode, the chopped signal and PAN cycle are combined with some out-of-phase trickery.
- The CHOP rate and ratio, PAN rate and depth, can all be varied independently to produce stunning never-heard-before effects, such as delay emulation (sounds like a delay and has all of the texture, but none of the hanging repeats).

STIR MODE:

- This is the PAN wave by itself, which, when used in mono, produces a tremolo effect.
- The STIR mode goes where other tremolos do not go . . . all the way from zero sound to full on, and down as low as 0.3 Hz, like a repeated swell sound. Control the rate either by the pedal or a preset. Adjust the depth to suit.

- When used in stereo, the STIR mode becomes an **AUTO-PANNER.** The signal will gradually PAN from left to right at the rate set either by the pedal or preset rate.
- A **LESLIE rotating speaker** emulator can be achieved by putting the ***PRO-CHOP*** in STIR mode and using the pedal to vary the "speed of rotation" to produce a startlingly realistic Leslie effect. If you add a subtle flange / chorus to your guitar sound it will sound very "Hammondish."

PLEASE NOTE: THERE MAY BE A "RATE RESET TIME" WHEN SLOWING THE PAN / TREMOLO RATE EITHER BY PEDAL OR MIDI. WORST CASE IS AROUND A FEW SECONDS RESET TIME. THIS CAN BE AVOIDED BY CHANGING THE RATE SLOWLY.

SLIDE SWITCHES

- There are two slide switches, one on the left side of the pedal and one on the right. The switch on the left controls the CHOP parameters, whereas the switch on the right controls the PAN parameters.
- If either slide switch is in the "Pedal" position, the CHOP or PAN rates (speed) can be varied by moving the pedal up and down. By putting the slide switches to "Preset," the rates are adjusted by means of the "Rate" knobs on each side. The CHOP or the PAN effects are independent of one another, and, as such, the two rates can either be preset or adjusted by the pedal. Usually, the preset knobs can give a little extra range, so, for example, if you want a really slow pan, use the pre-set rather than the pedal.

RATE CONTROLS

- There are two rate controls, one on the left side of the ***PRO-CHOP*** and one on the right. The control on the left controls the CHOP frequency, whereas the control on the right controls the PAN frequency. The rate controls are operative if the relevant slide switch is set to "preset" and by-passed if the slide switch is set to "Pedal." These rate controls can be over-ridden if a MIDI signal is presented.

RATIO CONTROL (Chop only)

- In mono, the ratio control adjusts the ratio of the Chop "ON" time to "OFF" time. If turned to the left, the pulse becomes very short, giving a dramatic CHOP sound. As the knob is turned to the right, the pulse gets longer and the silent interval gets shorter.
- In stereo, if one pulse is long, the other is short.

DEPTH CONTROL (PAN or tremolo only)

- The depth control adjusts the modulation depth of the PAN (stereo) or Tremolo (mono). The ***PRO-CHOP*** modulation depth goes all the way to "off" giving a 100% PAN effect or a very deep tremolo pulse.

MIDI Sync

The ***PRO-CHOP*** can be synced to a MIDI beat from a drum machine, PC recording software or a synthesizer. The idea is to provide a guitar groove (or any instrument — even the voice) no other pedal effect can give. Simply hook up the MIDI out from the PC / drum machine to the ***PRO-CHOP*** and the ***PRO-CHOP*** will automatically detect the beat and sync to it. When engaged with MIDI, the pedal will allow the MIDI clock signal to control the "rate" of either the CHOP or PAN according to how the pedal is set. The treadle unit then becomes an off / on switch. When turned on, the ***PRO-CHOP*** will be automatically in sync. It is a stunning and original effect never before available in a pedal.

Scroll button

This button scrolls through the parameters you want to adjust. Each time you press the scroll button you will see the selected parameter icon light up (begin to flash) one by one left to right (see LCD display diagram). You can choose any one of four parameters to adjust; whether you want MIDI sync turned on or off, how many chops / pans / tremolo waves to a MIDI beat, whether you want to monitor the chop rate or the pan / tremolo rate on the LCD, and finally, whether you want to monitor these rates in Hz (cycles per second – an analog measurement), or Beats Per Minute (this is MIDI terminology).

Modify button

Once you have scrolled to the parameter you wish to adjust, use the modify button to adjust the parameter as required. For example, if you want to hear four chops for every MIDI beat, use the scroll button to scroll to the MULTIPLIER icon and then press the modify button to get the number 4 lit up. Simple stuff. See the tables on the following pages to get the full picture.

Safety, EMI

This unit is compliant with:

- FCC requirements for conducted and radiated emissions
- EMI as described in CISPR 22
- EMI requirements as described in EN55013
- UL listing not required if used with class 2 (limited current) power supply or 9V battery
- CE norms

Additional Features

Wear earplugs at loud gigs and don't let substances abuse you.

PATCHES

How to get the sounds…

Tremolo / Autopan / Leslie

Tremolo (mono) or use stereo to get auto-pan. Auto pan sounds like a Leslie if used with a chorus pedal before the Chopper.

Notes

Set frequency either by rate (pre-set) or vary by pedal to get Leslie effect. Use a slow PAN setting to soar like JH!

Funky Synth Wah

This is a stereo patch.
Follow the Chopper
with a 'synth wah' pedal
or similar auto-wah,
preferably note-triggered

Notes

Add a low octave for
some really deep synth
sounds. Try a slow flange
to add more intrigue

Teenage Wasteland

Stereo only. Can use an organ or a guitar. Sounds like the intro to that WHO song.....

Notes

Use a capo on the 7th fret....play a D shape.. and hammer-on the notes....

You won't get fooled again

This is a stereo patch.
One of the most entrancing sounds used in any rock song. Use a slow WAH front of the Chopper.

Notes

Use a capo on the 7th fret and play a D shape. Add a chorus to produce an organ - like sound

Delay but isn't

Stereo only. Play some arpeggios and hear this patch come to life

Notes

Add a real delay for more intrigue...take it easy though.

Left-Right Shuffle / Bouncing Ball

This is a stereo patch.
The note flies from left to right in interesting patterns.
Play with the ratio and rates to get interesting variations

Notes

For bouncing ball, set the CHOP switch to 'pedal' and press the pedal down after striking the note.

Your own patch - mark the positions

Notes

Your own patch - mark the positions

Notes

Your own patch - mark the positions

Notes

Patents applied for protecting the design and some functions

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