

# Choralflange

## Model CF-1



## Owner's Manual

Fulltone Musical Products Inc.  
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Congratulations on your Purchase of the Fulltone Analog Stereo

# Choralflange™

As a professional musician and studio guitarist, I spent many years not being able to find a Chorus or Flanger that was good enough to stay on my pedalboard for any length of time.

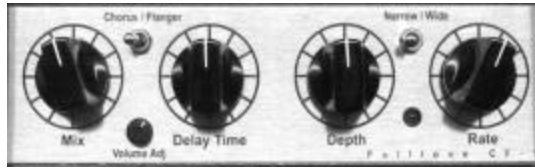
All the pedals I tried were either too murky, too hi-fi, distorted horribly when the strings were hit hard, lacked true bypass, were too noisy, or lacked the features and flexibility to allow me to create my own signature chorus or flange sounds.

Chorus can be a wonderful sound, but if you've ever tried a Digital (including digital modeling) unit you might not give it a second listen. Analog circuits, when done right, can offer unexcelled warmth and shimmer that augments, instead of detracts from, your signature sound. Flangers have always gotten a strange metallic feedback when pushed to extremes, making them little more than an annoyance and the flanging available in chorus pedals always seemed at best an afterthought.

After 10 months of extensive research and development we now offer the Choralflange™, which I designed for discriminating Guitarists and Bassists everywhere. Offering a wide range of fantastic chorus, flange, and rotating speaker sounds, together with tons of flexibility, top-notch components and construction, it's the first pedal ever to offer a switchable choice between true-bypass or buffered outputs. From the custom aluminum hammertone-green enclosure, to the Gold-Plated IC sockets, to the acid etched faceplate, there's lots of love put into this thing...Play on!

Michael Fuller  
President / FMP Inc.

# Choralflange™ Features



**Mix** knob: this sets the balance between straight (unaffected) guitar and the effected sound. Clockwise (CW) yields more effect, Counter Clockwise, (CCW) more guitar.

**Chorus / Flange** toggleswitch: chose between the two modes of operation. Both function in either Mono (1 amplifier) or Stereo (2 amps) operation.

**Volume Adj.** trimmer: this only affects the volume when the effect ON/OFF footswitch is in the “ON” mode. Why? Because there can often be a large difference in the level between the bypassed and “ON” modes depending on your settings, particularly when operating this chorus in stereo. (Two amplifiers) The **Volume Adjust** is crucial for getting the right balance so that there is not a Boost or Cut unless you desire.

**Delay Time** knob: allows for Delay lengths ranging from 1 to 50 milliseconds. The length of Delay times determines the amount of Vibrato present in the chorus, and the affected frequencies of both the chorus and the flange modes.

**Depth** knob: this controls the saturation or “wetness” of the “ON” sound, and along with the **Mix** knob, gives this pedal the ability to sound vintage-thick, extremely transparent, or anything in-between.

**Narrow / Wide** toggleswitch: set to **Narrow**, the affected frequency bandwidth will be approximately 1 Octave. Set to **Wide**, the affected frequency will be approximately 2 Octaves. This range is also affected by the chosen **Delay Time** setting.

**Rate** knob: controls the speed of the modulation and is reflected in the flashing LED positioned next to it. Slower speeds are generally used for Chorusing and Heavy Flanging sounds. Faster speeds are generally used for Leslie and wild chorus/vibrato sounds

**Input Jack:** plug guitar or Bass into this, remember to unplug when not in use to prolong Battery Life. **Warning:** this device is designed for “normal” output Pickups and not Super-Hi-Gain ones like the “LiveWires”, EMG85’s, etc. Use of these could overload the input of the Choralflange. Lower gained PU’s equals better tone anyway IMHO.

**Output 1:** use this for mono (single amp) operation.

**Output 2:** use this only in conjunction with **Output 1** when stereo operation is desired.

**Caution!** Always make sure there are no grounding problems when using multiple amp set-ups.

**Failure to maintain proper ground can cause serious injury or even death!**

**DC Jack:** this is a standard 2.1mm Barrel Jack connector, and is configured (like most effects) with the Center Pin being Negative. It is HIGHLY recommended that you use only the Fulltone FPS-1 because it is regulated and the optimum tones in this pedal are achieved with exactly 9.0 volts...fresh batteries are often 9.5+volts and the flanging sounds may be affected.

**Internal Adjustments:** there are **NO** internal user adjustable parameters in this pedal.

There are trimmers that are set by us and are not to be touched, you *will ruin the pedal.*

**Battery Hatch:** to access this, remove (by hand) the 2 rubber feet/screws and lift hatch up and out of the way. It is recommended that you use an alkaline 9-volt battery to get the maximum 3-6 hours usage out of this effect. Unlike with most Fuzzes and Wah's, I notice no difference in sound between the alkaline and carbon-zinc batteries.

**Buffered/TrueBypass** DIP switch: can be accessed from this opening as well, and there is a picture diagram on the back of the battery hatch showing the way to set it for either *True Bypass* or *Buffered* Outputs.

**True Bypass:** set to this if you want a pure, unencumbered Hi-impedance signal (when unit is off) that won't affect your other pedals. This mode *cannot be used for stereo* operation, as the **#2 output jack** is disconnected in this mode.

**WARNING!** You **MUST unplug the guitar from the input jack when switching the Buffer/Bypass switch. Failure to do so will damage your pedal and void your warranty.**



Use this setting for **TrueBypass**

**Buffered Out:** use this if you are running in stereo, or if you have long cables running to the amp, as our hi-fi Low impedance out drives those long cables and sounds very natural, unlike other Buffered-out pedals. This mode can be used *for both mono and stereo operation.*



Use this setting for **Buffered Out**

## Specifications

Weight: 1.3 lbs.

Height: 1.75" (at highest point)

Width: 5.9" (as pedal sits in front of you, Left to Right)

Depth: 5.0" (front to back)

Input impedance: 240k ohms

Output impedance: 100k ohms

Power consumption: 15 ma. Power requirements: 9 volts DC

\*Regulated 9.0VDC / Neg. Center pin adapter (included)

\*9 volt battery included

Battery life expectancy: 2-3 hours w/ Carbon Zinc, 3-6 hours with Alkaline.

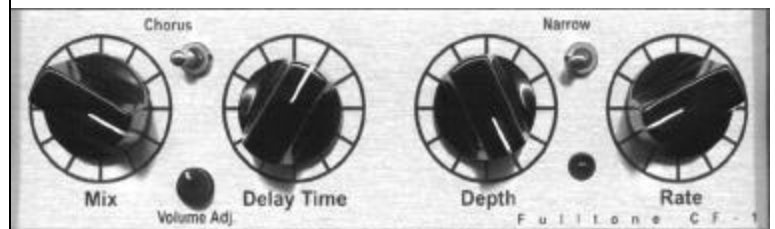
Housing: aluminum, thickness 90 mil. Bottom plate anodized, Top section painted hammertone Green

**Warranty:** This product is warrantied for 5 years from date of purchase to the original owner. Warranty does not cover the Battery, damage due to misuse, or modifications/repairs done by *anyone* other than Fulltone Musical Products Inc. We will determine whether a repair is warranty or otherwise, and customer is to pay all shipping costs whether warranty-related or not. Do NOT return pedal to store for repairs, contact us at 3815 Beethoven St (Rear Building) LA CA 90066 before sending anything, and always include a note with specified funds, info, and return address. Fulltone Musical Products Inc. assumes no liability for any injuries or death resulting from the use of this product by itself or in conjunction with other products.

# Choralflange™ Settings

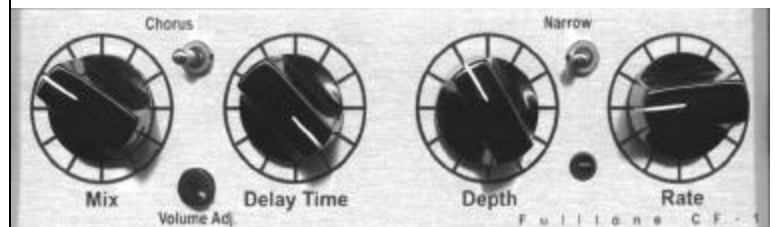
This page contains some suggested settings to achieve some very popular Chorus, Flange and Leslie-Like sounds. Notice that the faceplate markings on your Choralflange have 12 lines that correspond to the face of a clock. This Clock reference is a good way for you to remember your favorite settings, and feel free to tweak your own sounds and note them on the Blank faceplates included later on in this section. You will see the Terms “CW” (clockwise) and “CCW” (counter clockwise) use in the descriptions of sample settings.

**Vintage-Style Chorus:** requires longer delay times, which introduces the up and down Pitch-Bend (Vibrato) to the sound. The longer (CW) the Delay Time, the more severe the Pitch change will be. At these heavier **Mix** and **Depth** settings, it may be necessary to reduce (CCW) the **Volume Adjust** so that the “on” volume is not way higher than the Bypassed sound.



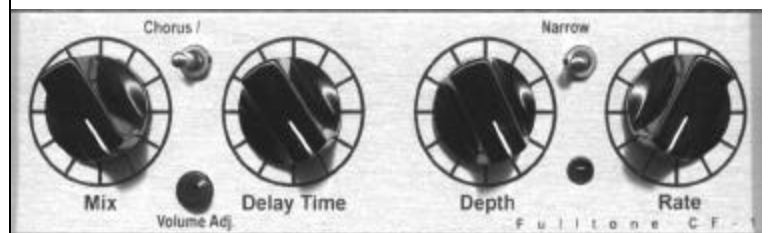
**Vintage-Style Chorus**

**Transparent Chorus:** when you want subtler chorus, reduce the **Mix** and **Depth** (CCW) and reduce the **Delay Time** (CCW) which will start to remove the modulation/pitchbend properties from the sound. It may be necessary to increase the **Volume Adjust** level (CW) so that there is not a difference between “Off” and “On” levels.



**Transparent Chorus**

**Doubling Effect:** because the unit’s **Rate** control is capable of such a slow speed (full CCW), you can get a subtle analog delay slapback doubling effect to fatten your sound! This can range from 1-45 Milliseconds, which adds a nice ambience without being overbearing. This is most noticeable with the Band control set to **Narrow** and the **Volume Adj.** Set higher. (CW)



**Doubling Effect**

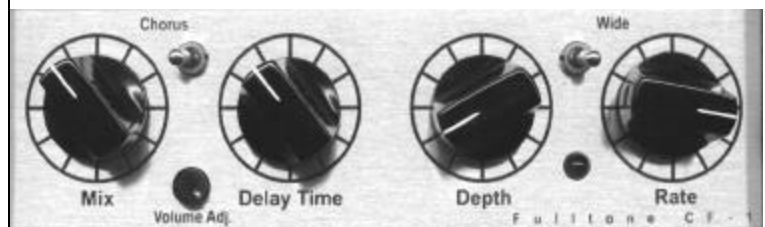
**Heavy Flanging:** is best achieved with a slow to medium (CCW) **Rate** settings, with High (full CW) **Depth** and **Mix** settings. It may be necessary to reduce (CCW) the **Volume Adj.** settings unless a significant level increase is desired.

Tip: place a good overdrive/distortion pedal before the Choralflange to experience amazingly thick Flange sounds!



**Heavy Flanging**

**Rotating "Leslie" Speaker:** sounds can be simulated with a little tweaking. The **Mix** and **Depth** settings should be set low (CCW) to keep the effect from becoming overbearing. This sounds great in both mono and stereo operation. You may need to increase the **Volume Adj.** settings (CW) to compensate for the lower levels caused by the reduced **Mix** and **Depth**. You can get some wild over the top sounds (popularized by Michael Landau) by slightly increasing the **Mix** and **Depth** to around 12 'O'clock, and try lowering the **Rate** to about 11'O'clock.



**Rotating Speaker**

# User Settings Template

Print this out to save some of your favorite sounds.


Chorus / Flanger

Mix

Volume Adj.

Delay Time

Depth

Narrow / Wide

Rate

F u l l t o n e C F - 1

Chorus / Flanger

Mix

Volume Adj.

Delay Time

Depth

Narrow / Wide

Rate

F u l l t o n e C F - 1

Chorus / Flanger

Mix

Volume Adj.

Delay Time

Depth

Narrow / Wide

Rate

F u l l t o n e C F - 1

Chorus / Flanger

Mix

Volume Adj.

Delay Time

Depth

Narrow / Wide

Rate

F u l l t o n e C F - 1

Chorus / Flanger

Mix

Volume Adj.

Delay Time

Depth

Narrow / Wide

Rate

F u l l t o n e C F - 1