PARALLAX Tremolo + Phaser

User Guide

The Parallax is a modulation mashup consisting of an optical op-amp-based tremolo with an OTA-based 5-stage phaser bolted on to the front end. The tremolo can be transparently subtle or very deep, and allows for triangle and square waveshapes that can be blended together for a full spectrum of sound shaping. The phaser front-end can be toggled on/off via a dedicated footswitch and is capable of very slow and subtle filter effects up through watery phase-shifting madness.

Think of the Parallax as a flexible tremolo with a phaser riding shotgun.

Both tremolo and phaser have independent low-frequency oscillators with dedicated controls, allowing for a dizzying array of overlapping modulation tones. We recommend trying a medium tremolo speed combined with a slow phaser speed; when the waveform peaks align, the result is really out of this world (in our opinion).

So, what do all the controls do?

P.Fdbk – (Phaser Feedback) This controls the amount of wet phaser signal that is fed back into the phaser's input. More feedback = more intense phase tones.

P.Rate – (Phaser Rate) This controls the rate (or speed) of the phaser's LFO.

T.Rate – (Tremolo Rate) This controls the rate (or speed) of the tremolo's LFO.

T.Shape – (Tremolo Waveshape) This controls the waveshape of the tremolo's LFO. Fully counterclockwise is a triangle wave, while fully clockwise is a (pseudo) square wave. In between these extremes is a mix of the two waveshapes.

T.Depth – (Tremolo Depth) This controls the tremolo's LFO depth.
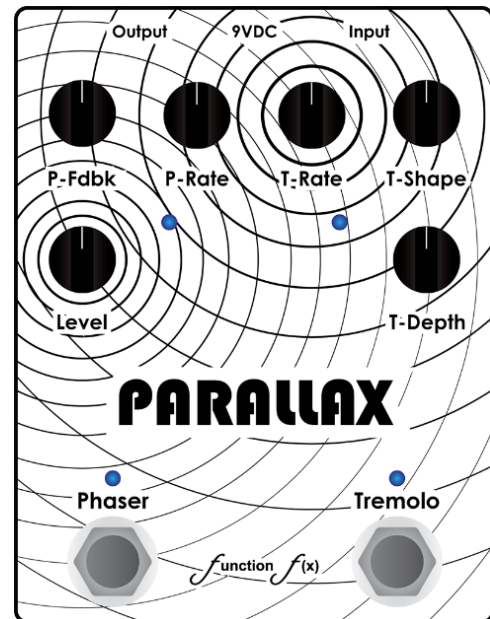
For the Circuit Nerds

We believe the overall circuit to be novel, although it is possible that somebody somewhere has made something substantially similar. We doubt it, but you never know. However, credit is due to the old Maestro Phase Shifter, which we updated with modern components and modified for inclusion in this pedal. Our take on this classic has 5 phase stages: 4 are "swept" OTA stages with an additional "fixed" op-amp-based phase stage.

The tremolo anchor circuit is a very clean and straightforward implementation drawing from a variety of historical optical tremolo circuits and then uniquely adapted to play well with a phaser. We used a sealed vactrol (the optical element) to maximize consistency in sound from unit to unit.

Power Requirements and General Care

Make sure that you use a 9VDC center negative 2.1mm barrel power supply to power the Parallax. This is the industry standard power supply that most pedals use. If you aren't sure that a given power supply will work, we recommend that you send us an email (support@function-fx.com) or contact the dealer where you purchased your pedal.

Thank you for purchasing the Parallax pedal. We hope that you enjoy it as much as we do.

Warranty and Support Information

At Function f(x), we stand behind our work. All of our pedals are warrantied against defective parts and workmanship for 1 year from the date of purchase. If the footswitch fails or a pot dies, we've got you totally covered (minus the cost of shipping to and from the repair location) during the warranty period. The warranty does not cover damages caused by user error (wrong power supply plugged in to the pedal or submersion in liquids, as examples). Function f(x) reserves sole right to determine what damages constitute "user error." But we're reasonable guys, so don't sweat it. Further, just because damages are deemed to be caused by "user error" doesn't mean we won't repair it; it just means that the repair may incur a fee to cover parts and/or labor.

After that initial 1-year period, we are still happy to resolve/repair any problems that should happen to arise in our products, but there may be a fee assessed to cover parts and/or labor. We will do our best to keep repair charges as low as possible. In the event that a full PCB replacement is called for, be advised that this may take as long as 4-6 weeks if critical parts are out of stock and need to be ordered. However, we will never ask you to pay any costs upfront, and we will communicate the status of the work regularly.

If you have questions about your Function f(x) pedal, or if you need to reach us to discuss repair service, please send us an email at **support@function-fx.com**. We will get back to you as fast as we can (usually within 24 hours).