



WARP DRIVE

Analog Delay

SIGNAL LEVELS

Analog delays made using 'bucket-brigade' technology (such as the Warp Drive) are subject to its limitations, one of which being headroom. While much care was taken during the Warp Drive's design to ensure maximum possible headroom, some clipping may still be experienced in the case of very loud pickups (or in the more general case of non-guitar instruments, high signal levels). If you're getting some clipping on loud notes, try just rolling the volume down a little on your instrument to ensure a clean output.

DRY/WET

The DRY/WET control allows for any combination of the delayed (wet) and clean (dry) signal. When fully clockwise, only the delayed signal will be in the output; when fully counter-clockwise, almost only the dry signal with just a touch of delay (the delay signal only really comes through when the FEEDBACK is turned up towards its max). At 12:00 there should be about equal volume of each.

TIME

The TIME knob sets the delay time, from 900 milliseconds (fully counter-clockwise) to 30 milliseconds (fully clockwise).

If the TIME knob is turned while playing, a pitch shift will be heard.

FEEDBACK

FEEDBACK determines the number of repeats. Fully counter-clockwise, there will only be one repeat. As it's turned clockwise, more and more repeats are added.

Generally speaking, the feedback goes into self-oscillation at around the 3:00 position on the knob. The shorter the delay time, the sooner the effect will get pulled into self-oscillation, i.e. the FEEDBACK knob needs to be turned up a little more at the longest delay times to get it to oscillate.

From that point until the max knob position, the oscillation gets louder and more extreme. To compensate, you might want to turn the DRY/WET mix almost fully dry, especially at max FEEDBACK as it can get quite loud.

When in self-oscillation, playing with the TIME knob results in those distinctive analog delay sci-fi sound effect sweeps.

One of the most beautiful regions to play in is just on the verge of self-oscillation (FEEDBACK around 3:00 or just before). It's a fine line between the effect being in and out of control, so move the knob slowly until you find the sweet spot. Here the repeats are almost endless yet still controlled. For ambient or reverb-oriented playing, or for those just looking to get lost in deep space, this is the place to be.

WARP

The WARP feature automatically varies the delay time based on your playing. The variation is based on the amplitude of the input, so louder inputs result in more variation.

The intensity of the effect is determined by the WARP knob setting. When fully counter-clockwise the feature is deactivated. At its more subtle settings, it varies the pitch but the tonal center remains around the note that you play, resulting in a warbly sound like a warped tape.

As the knob is turned further clockwise, the pitch will actually start to jump to another distinct note. This note can be either consonant or dissonant - a given WARP setting might give harmonic results at one TIME setting, and dissonant results at another. Therefore some 'tuning' will be required to find the WARP that gives the most musical results for the TIME setting you're playing at - 'musical' of course being up to you to define. Try different combinations of the TIME and WARP knobs - experiment with keeping one the same and slowly increasing/decreasing the other, and vice versa, until you get a feel for how they work together.

At longer delay times, the WARP starts to have more of an impact sooner, i.e. the pitch jumps will start sooner on the WARP knob than they do at shorter delays.

EXPRESSION PEDALS

Two expression pedal inputs are available, one for TIME and the other for FEEDBACK. Either or both can be used, and when the expression pedal is plugged in it automatically takes control over the respective knob, meaning the knob will no longer do anything.

The expression pedals are connected via stereo cables (TRS - tip ring sleeve). The tip must be connected to the potentiometer wiper (this is generally the standard for expression pedals). Expression pedals can have different resistance values. 10KΩ works well for both inputs - this is one of the most common values for expression pedals. Higher resistance values will still work, but the 'feel' of the control will be different.

For the TIME control, 100K will give the same feel as the knob on the pedal. Lower resistance values will spread out the shorter delay times, whereas higher values will spread out the longer delay times.

For the FEEDBACK, 10K will give the same feel as the knob on the pedal, with higher resistance values spreading out the lower (less feedback) region.

For any questions regarding expression pedal compatibility, please feel free to contact us at info@rpseffects.com