

# PROMETHEUS DLX

Your Prometheus DLX was handcrafted in Newberg OR USA.

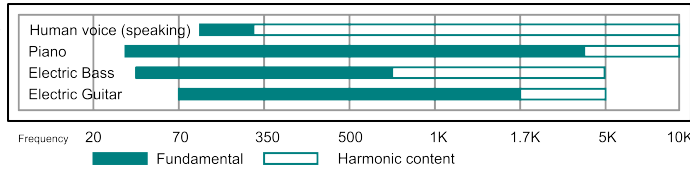
## What is the Prometheus DLX all about?

At the heart of the PDLX is an all analog VCA based filter. Similar in design to vintage analog synthesizers the filter range goes both above and below typical guitar frequencies. This adds an extra dimension to a filter effect which most other filter pedals ignore.

While the options are nearly infinite, after a few minutes with this pedal and this user guide, you should be using this pedal with ease.

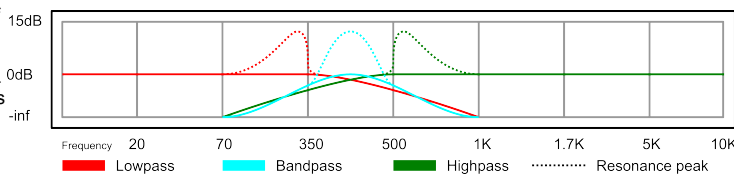
## Getting familiar with filters:

Audio spectrum- Many people understand this intuitively even if they can't really describe it. Human hearing is often said to be 20hz to 20Khz. In reality our ears work best from about 50hz and 12Khz. To give you an idea of where these ranges are see the chart to the right.



An audio filter essentially let's some frequencies through, and cuts others. Resonance adds gain at the cutoff point. The three filter types in the Prometheus DLX are lowpass, bandpass and highpass. A low pass filter allows low frequencies through and cuts frequencies above. A bandpass filter allows a small band of frequencies through at the cutoff point. A highpass filter allows high frequencies through and cuts frequencies below the cutoff point.

Each note or tone is made up of a fundamental, and a series of related overtones, also called harmonics, or harmonic content. Harmonic content is what makes something sound interesting. You can think of them as a the flavor that makes a guitar sound different from a piano or a tuba sound different than a diesel engine. In general, the more harmonic content, the more noticeable a filters effect is. Much of the way we gauge distance, surroundings and the direction a sound is coming from is based on the frequencies we can hear in a sound. A filter effect basically plays a trick on your brain by manipulating the frequency response.



## IMPORTANT: Powering up your Prometheus DLX.

The Prometheus DLX can not be powered by a battery. To increase headroom of the filter effect power filtering was left at a minimum, therefore **CLEAN POWER IS REQUIRED!** If you hear an audible hum in the background there is a 99.9% chance that this is power supply related. Power supplies verified with the PDLX were: Visual Sound OneSpot, Voodoo Labs Pedal Power 2, and Dunlop DC Brick.

## Using the controls: Familiarize your self with the Prometheus DLX.

Before jumping in to the features, we recommend familiarizing your self with the filter effect. Plug it in and turn the pedal on. For now focus on the **HP-BP-LP** switch, **FRE**quency, **DE**PTH and **RE**Sonance controls.

Turn the DEPTH all the way down, and let a chord or a few notes ring on your guitar. Turn the FREQ control in either direction and hear the filter cutoff sweep through the frequency range. Turn the RES control, and switch between LP-BP-LP filter types. These sounds are essentially what the Prometheus DLX does. The other controls are all about modulating the filter cutoff point in different ways. Turn the **DEPTH** control up to hear the modulation.

No matter the other settings on Prometheus DLX these controls are always available and serve the same basic functions.

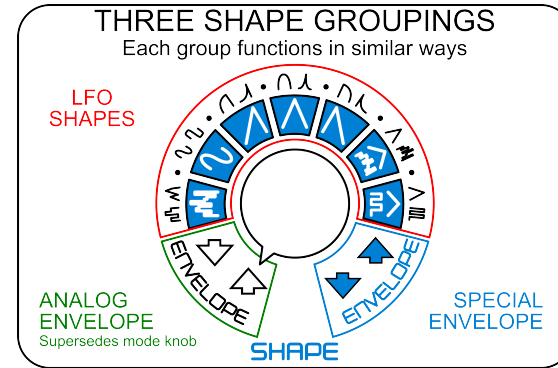
## SHAPE – MODE – WARP controls & EXPRESSION PEDAL

This is where the Prometheus DLX gets interesting. Just by looking at them you can tell there are plenty of options. Perhaps even a little intimidating. Spend some time with this user guide and your Prometheus DLX for a better understanding of what everything does.

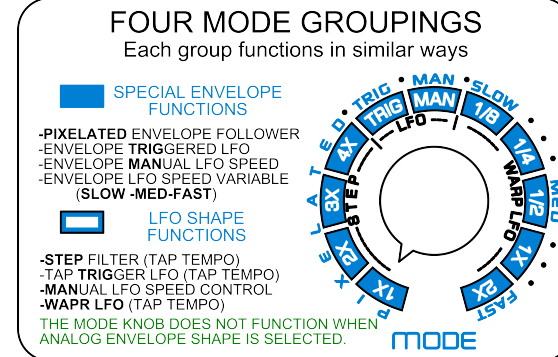
Although the SHAPE and MODE controls each have eleven different positions, the SHAPE control has three similar groupings, and the MODE control has four. Although there are many variations, the Prometheus DLX essentially has nine different functions. \* denotes tap tempo.

- ANALOG ENVELOPE (FORWARD AND REVERSE)
- \*PIXELATED ENVELOPE
- \*ENVELOPE TRIGGERED LFO
- MANUAL ENVELOPE SPEED CONTROL (FIXED ENVELOPE GAIN)
- ENVELOPE SPEED CONTROL (FIXED MINIMUM SPEED W/ VARIABLE ENVELOPE SENSITIVITY)
- \*STEP FILTER (BASED ON THE 7 LFO SHAPES)
- \*TAP TRIGGERED LFO
- MANUAL LFO
- \*TAP TEMPO LFO W/ WARP

**SHAPE-** This is where you start. There are three main groupings here. ANALOG ENVELOPE (white arrows) LFO (white on blue) and SPECIAL ENVELOPE (blue arrows.) It's helpful to consider this the main control, and think of other controls as a variation on the shape.



**MODE (& TAP/HOLD SWITCH)-** This allows you to use the LFO and SPECIAL ENVELOPE shape settings in different ways. The four main groupings are STEP, TRIGger LFO, MANual LFO and WARP LFO. The **WARP** and **TAP/HOLD SWITCH** serve various different functions depending on the **MODE** setting.



knob controls speed range.

- **WARP LFO (SLOW – MEDIUM – FAST)**  
Select LFO SHAPE for **tap tempo LFO w/ warp**. (warp knob changes warps LFO shape)  
Select SPECIAL ENVELOPE for **envelope speed control**. Warp knob controls envelope sensitivity.

See the chart below for a better understanding of what each control does depending on the SHAPE and MODE settings.

CONTROL MATRIX	LFO SHAPES			SPECIAL ENVELOPE			ANALOG ENVELOPE
	TAP	WARP	EXP	TAP	WARP	EXP	TAP/WARP/EXP
STEP/PIXELATED	TAP TEMPO 1X 2X 3X & 4X MULTIPLIERS	NUMBER OF STEPS THRU LFO SHAPE *	CONTROLS STEP RATE (SUPERSEDES TAP)	TAP TEMPO 1X 2X 3X & 4X MULTIPLIERS	CONTROLS ENVELOPE SENSITIVITY	N/A	N/A
TRIGGER LFO	TRIGGERS ONE FULL CYCLE OF LFO WAVESHAPE	SETS START/END POINT OF LFO SHAPE	MAPS LFO SHAPE TO EXP. PEDAL (SUPERSEDES TAP)	TAP TEMPO 1X RATE ONLY	CONTROLS ENVELOPE SENSITIVITY	N/A	N/A
MANUAL LFO	HOLDS/STOPS LFO SHAPE	MANUAL LFO SPEED CONTROL	CONTROLS LFO SPEED (WARP CONTROLS RANGE)	HOLDS LFO SPEED AT CURRENT RATE	ADJUSTS MINIMUM AND MAXIMUM SPEED	N/A	N/A
WARP LFO (SLOW – MED – FAST)	TAP TEMPO 1/8 1/3 1/2 1X & 2X MULTIPLIERS	VARIES WAVESHAPE OF LFO	MANUAL LFO SPEED CONTROL (SUPERSEDES TAP)	HOLDS LFO SPEED AT CURRENT RATE	CONTROLS ENVELOPE SENSITIVITY	N/A	N/A

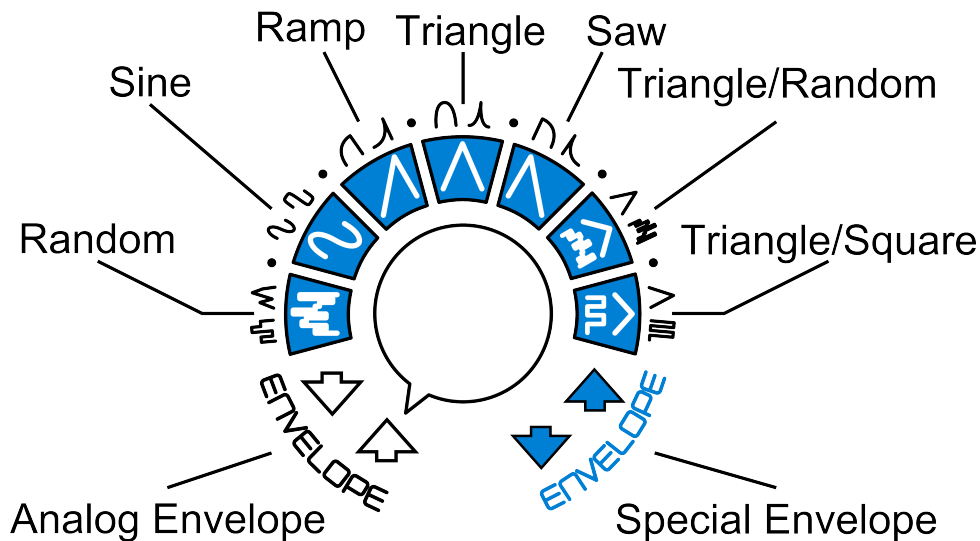
\*Warp knob function in LFO SHAPE / STEP MODE settings:

-Random- Basically noise or random sample/hold. Since noise does not have an actual frequency like a fixed waveshape the warp knob has no effect.

-Sine, ramp, triangle saw- the wave shape is sampled at a percentage of the step rate. From ~1% to 50%.

-Triangle/random & Triangle/square- The warp knob blends between a step triangle wave and random/square.

# SHAPE NAMES



Waveshapes, and frequency tables are a representation and may not be fully accurate.

## Notes:

The Prometheus DLX has more resonance than the original prometheus. Because of this, extreme resonance settings can lead to distortion or oscillation (feedback) if you want to avoid this turn the resonance knob down a little bit.

No user serviceable parts.

Please contact us for repair or maintenance.

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# SUBDECAY

## Prometheus DLX



# USER GUIDE

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