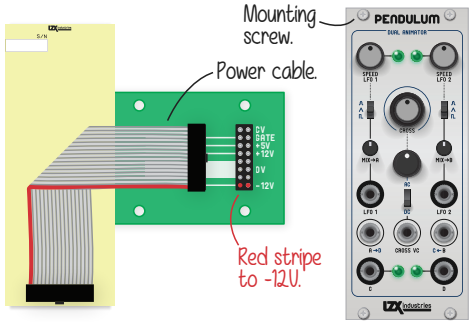
BEFORE YOU BEGIN

Take a moment to familiarize yourself with our website lzxindustries.net. You'll find documentation, instructional videos, links to community forums, and other user resources. Register your product's serial number with us to aid any future technical support requests. Some synthesists will find everything they need to learn this module in this reference card, but don't forget there are videos and patch tips online. If you get stuck, have questions, or need help of any kind -- please write to us.

INSTALLATION

Power down the EuroRack case and unplug it from the wall. Connect the provided EuroRack power cable to your module and then to your EuroRack power bus board as shown. Mount the module in your case using the mounting screws provided by your case's manufacturer.



STAIRCASE SPECIFICATIONS

FORMAT	3U EuroRack Synth Module
WIDTH	10HP
DEPTH	32mm
MAX POWER DRAW	
+12V	80mA
-12V	65mA
+5V	N/A
OUTPUT LEVELS	0-1V
VC CONTROL RANGE	0-1V
MAX INPUT VOLTAGE	+/-12V
INPUT TERMINATION	100K ohms
OUTPUT RESISTANCE	499 ohms

ONE YEAR LZX industries WARRANTY

MADE IN PORTLAND, OR USA

TIPS & TECHNIQUES

- Try patching one of the LFO outs to the Cross VC input and using it to control the fader.
- Use Passage or another mixer circuit to process signals before patching them to the A and B inputs.
- Try using the fader to swap the color channels of an RGB signal under voltage control.
- Try crossfading between complementary signals, like the Square and Log outputs from Arch's Gamma section or Prismatic Ray.

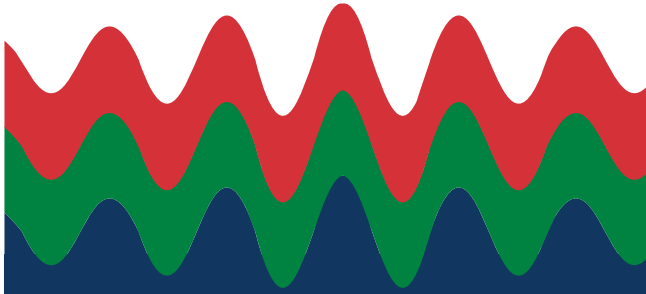
YOUR NEXT MODULE?

Having Pendulum's dedicated lower cost modulation sources for animation and lower frequencies allows you to keep your Prismatic Ray dedicated to its role as the system's high frequency video oscillator.

LZX-PN-URC
Written by Lars Larsen
Illustrated by Dave Larsen
First Printing, November 2017

PENDULUM

USER REFERENCE CARD



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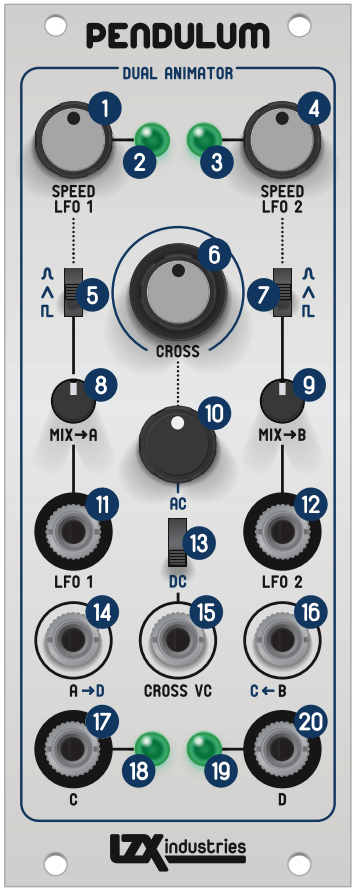


CONTROLS & CONNECTIONS

	CROSSFADER	
6	Control	0–360°
14	A In	0–1V FS
16	B In	0–1V FS
17	C Out	1V DC
18	C level indicator	
19	D level indicator	
20	D Out	1V DC
10	Level	+/–
13	Mode	AC DC
15	Cross VC In	0–1V FS

	LFO 1	
1	Speed	+/–1V
2	Frequency indicator	
5	Waveform	
8	Mix-to-A	+/–
11	Output	1V DC

	LFO 2	
3	Frequency indicator	
4	Speed control	+/–1V
7	Waveform	
9	Mix-to-B	+/–
12	Output	1V DC

TRAVERSING THE PENDULUM

Pendulum's crossfader can operate in several modes, depending on how it's patched.

VOLTAGE CONTROLLED AMPLIFIER (VCA)

Patch your source to A In. Take your output from D Out. The Cross control and VC input will now control the gain of your input signal.

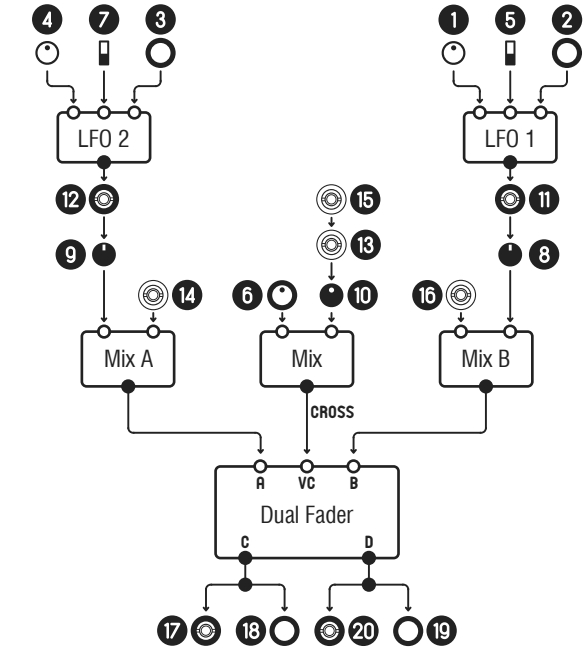
2-INPUT CROSSFADER

Patch your sources to A In and B In. Take your output from D Out. The Cross control will now control a crossfade between the signals at the A and B inputs.

1-INPUT, 2-OUTPUT ROUTER/PANNER

Patch your sources to A In. Take your outputs from C Out and D Out. The Cross control will now move the signal from the C Output to the D Output as it is adjusted.

SIGNAL PATH BLOCK DIAGRAM



2-INPUT, 2-OUTPUT DOUBLE FADER

This one works great when processing H and V ramp signals to perform 90 degree rotation. Patch your sources to A In and B In. Take your outputs from C Out and D Out. The Cross control will now fade between the A and B inputs in opposite directions on each output.