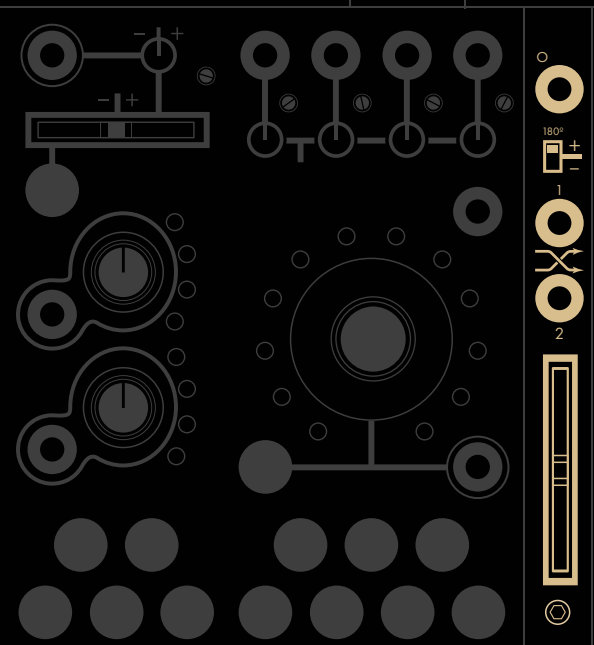
INSTRUO | SPECIALIST SYNTHESIZERS



[1]f

Fader Module

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Description

The Instruō **[1]f** is a crossfader, attenuator, attenuverter, and manual DC offset.

Whether you want to crossfade between two audio signals, attenuate an envelope, invert a sawtooth LFO for ramped modulation, or use a DC offset to access the Mod parameters of your arbhar, **[1]f** is the perfect multi-utility for all of your CV processing tasks.

Features

- Crossfader
- Attenuator & Attenuverter
- Unipolar positive or unipolar negative DC offset
- DC coupled for both audio and control voltage processing
- Bicolour LED indication of output voltage

Installation

1. Confirm that the Eurorack synthesizer system is powered off.
2. Locate 2 HP of space in your Eurorack synthesizer case.
3. Connect the 10 pin side of the IDC power cable to the 1x5 pin header on the back of the module, confirming that the red stripe on the power cable is connected to -12V.
4. Connect the 16 pin side of the IDC power cable to the 2x8 pin header on your Eurorack power supply, confirming that the red stripe on the power cable is connected to -12V.
5. Mount the Instruō **[1]f** in your Eurorack synthesizer case.
6. Power your Eurorack synthesizer system on.

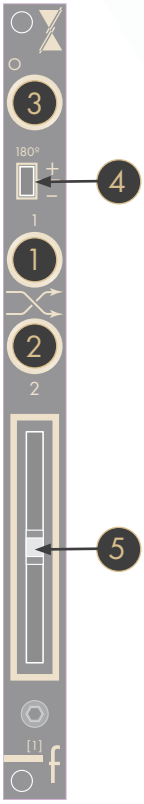
Note:

This module has reverse polarity protection.
Inverted installation of the power cable will not damage the module.

Specifications

- Width: 2 HP
- Depth: 27mm
- +12V: 8mA
- -12V: 8mA

[1]f | wuhnmf | noun (utility) because one is one



Key

1. Input 1
2. Input 2
3. Output
4. Polarity Switch
5. Fader

Inputs: Input 1 and **Input 2** are DC coupled inputs that allow for audio or control voltage processing.

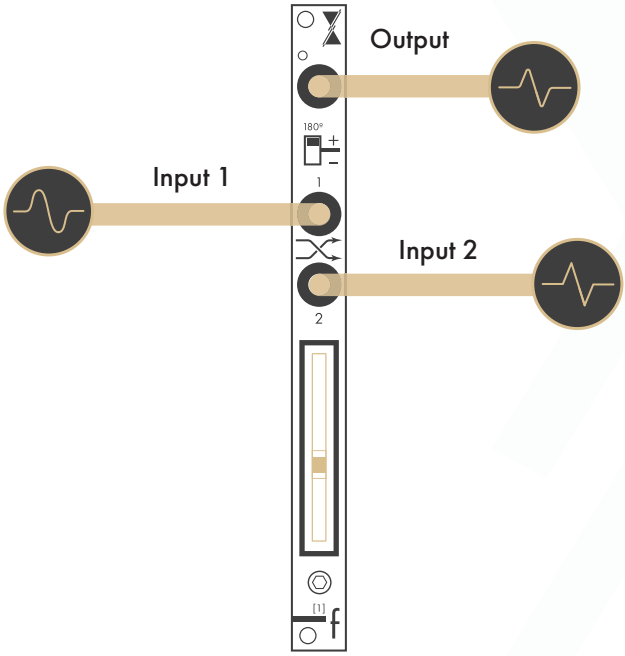
Output: The **Output** is a DC coupled output that passes audio or control voltage signals. It will generate a unipolar DC offset if no signals are present at the **Inputs**. The polarity of the unipolar DC offset is determined by the **Polarity Switch**.

Polarity Switch: The **Polarity Switch** inverts the polarity of the signals present at either **Input**. The up position is the default. If no signals are present at the **Inputs** and a unipolar DC offset is generated at the **Output**, the **Polarity Switch** inverts the polarity of the unipolar DC offset. If the **Polarity Switch** is in the up position, the DC offset will be unipolar positive. If the **Polarity Switch** is in the down position, the DC offset will be unipolar negative.

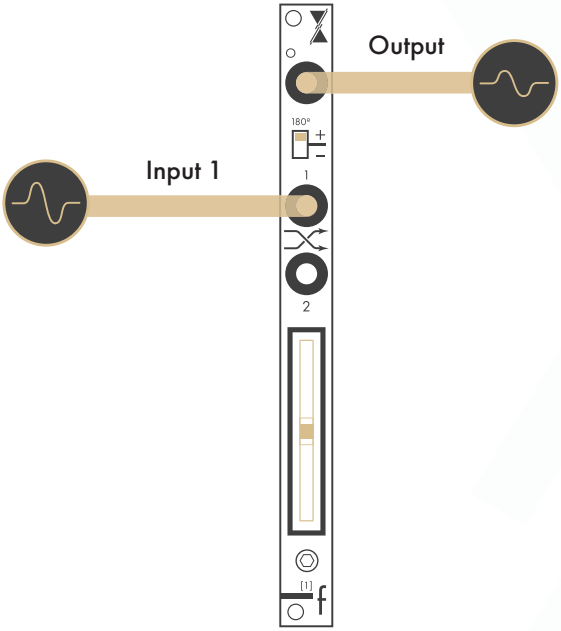
Fader: The **Fader** processes the signals present at the **Inputs** or sets the level of the DC offset if no signals are present at the **Inputs**. The **Fader's** LED will illuminate white for positive signals and amber for negative signals.

Patch Examples

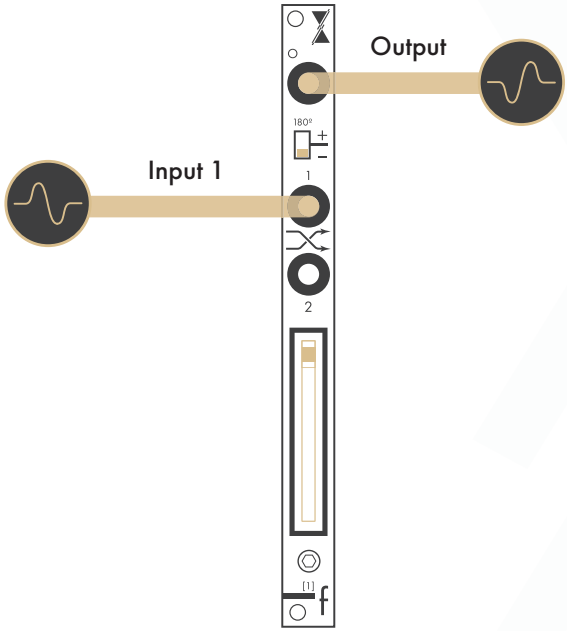
Crossfader: If signals are present at both **Inputs**, the module acts as a crossfader. When the **Fader** is in the up position, the signal present at **Input 1** will pass to the output. Moving the **Fader** downwards crossfades from the signal present at **Input 1** to the signal present at **Input 2**.



Attenuator: If a signal is present at **Input 1** only and the **Polarity Switch** is in the up position, the module acts as an attenuator. When the **Fader** is in the up position, the signal present at **Input 1** will pass to the **Output**. Moving the **Fader** downwards attenuates the signal present at **Input 1** down to 0V at the lowest **Fader** position.

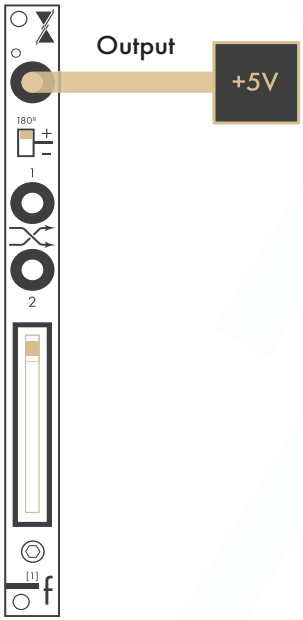


Attenuverter: If a signal is present at **Input 1** only and the **Polarity Switch** is in the down position, the module acts as an attenuverter. When the **Fader** is in the up position, an inverted version of the signal present at Input 1 will pass to the **Output**. Moving the **Fader** downwards, attenuates the inverted version of the signal present at **Input 1** down to 0V at the lowest fader position.



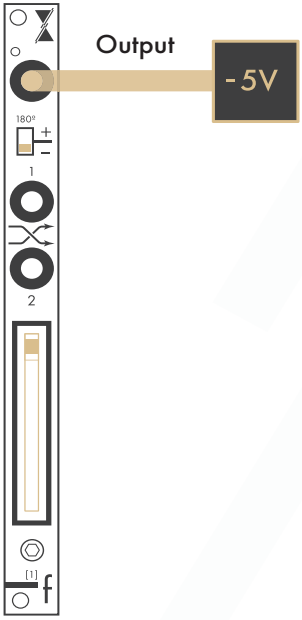
Unipolar Positive DC Offset: If no signal is present at the **Inputs** and the **Polarity Switch** is in the up position, the module acts as an unipolar positive DC offset. When the **Fader** is in the highest position, +5V is generated at the **Output**. Moving the **Fader** downwards attenuates the DC offset down to 0V at the lowest **Fader** position.

Note: Pre 2026 - When the **Fader** is in the highest position, +5V is generated at the **Output**.



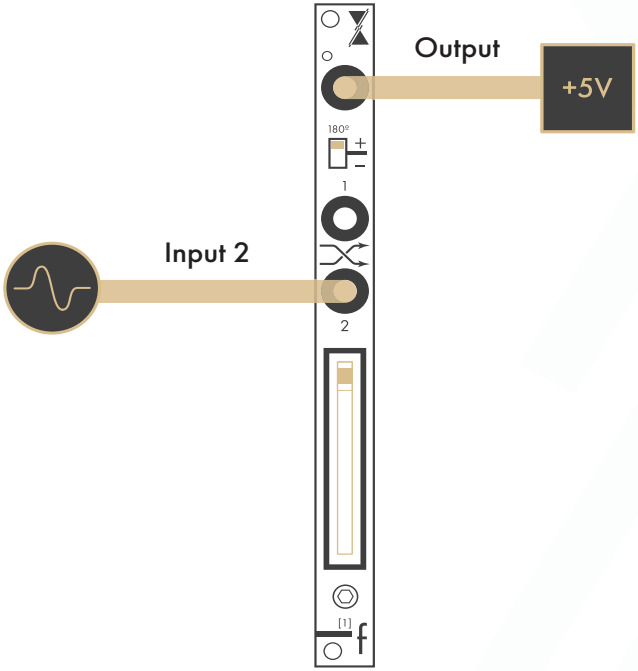
Unipolar Negative DC Offset: If no signal is present at the **Inputs** and the **Polarity Switch** is in the down position, the module acts as an unipolar negative DC offset. When the **Fader** is in the highest position, -5V is generated at the **Output**. Moving the **Fader** downwards attenuates the DC offset down to 0V at the lowest **Fader** position.

Note: Pre 2026 - When the **Fader** is in the highest position, -5V is generated at the **Output**.



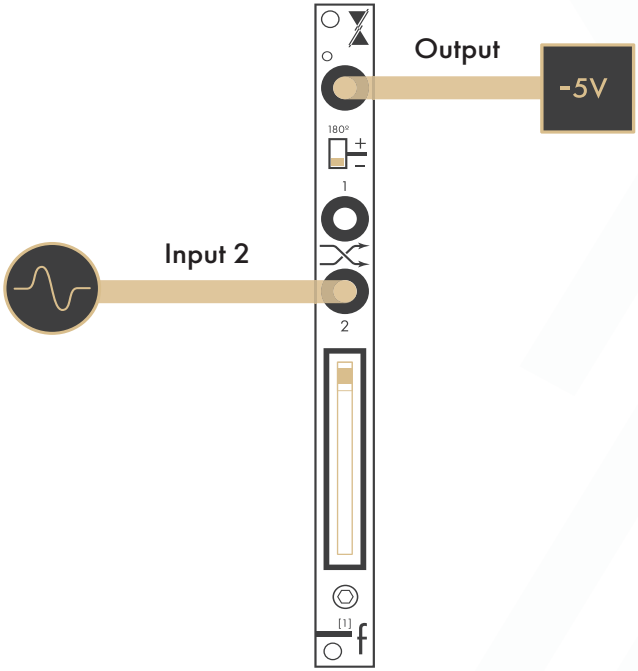
Unipolar Positive DC Offset Crossfader: If a signal is present at **Input 2** only and the **Polarity Switch** is in the up position, the module acts as a unipolar positive DC offset crossfader. When the **Fader** is in the up position, the **Output** will pass +5V. Moving the **Fader** downwards crossfades from +5V to the signal present at **Input 2**.

Note: Pre 2026 - Moving the **Fader** downwards crossfades from +10V to the signal present at **Input 2**.



Unipolar Negative DC Offset Crossfader: If a signal is present at **Input 2** only and the **Polarity Switch** is in the down position, the module acts as a unipolar negative DC offset crossfader. When the **Fader** is in the up position, the **Output** will pass -5V. Moving the **Fader** downwards crossfades from -5V to the signal present at **Input 2**.

Note: Pre 2026 - Moving the **Fader** downwards crossfades from -10V to the signal present at **Input 2**.



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Manual Design: Dominic D'Sylva

CE This device meets the requirements of the following standards: EN55032, EN55103-2, EN61000-3-2, EN61000-3-3, EN62311.