MELTED ELECTRONICS

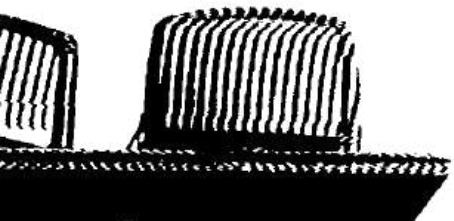
VIDEO BREAKER
USER GUIDE

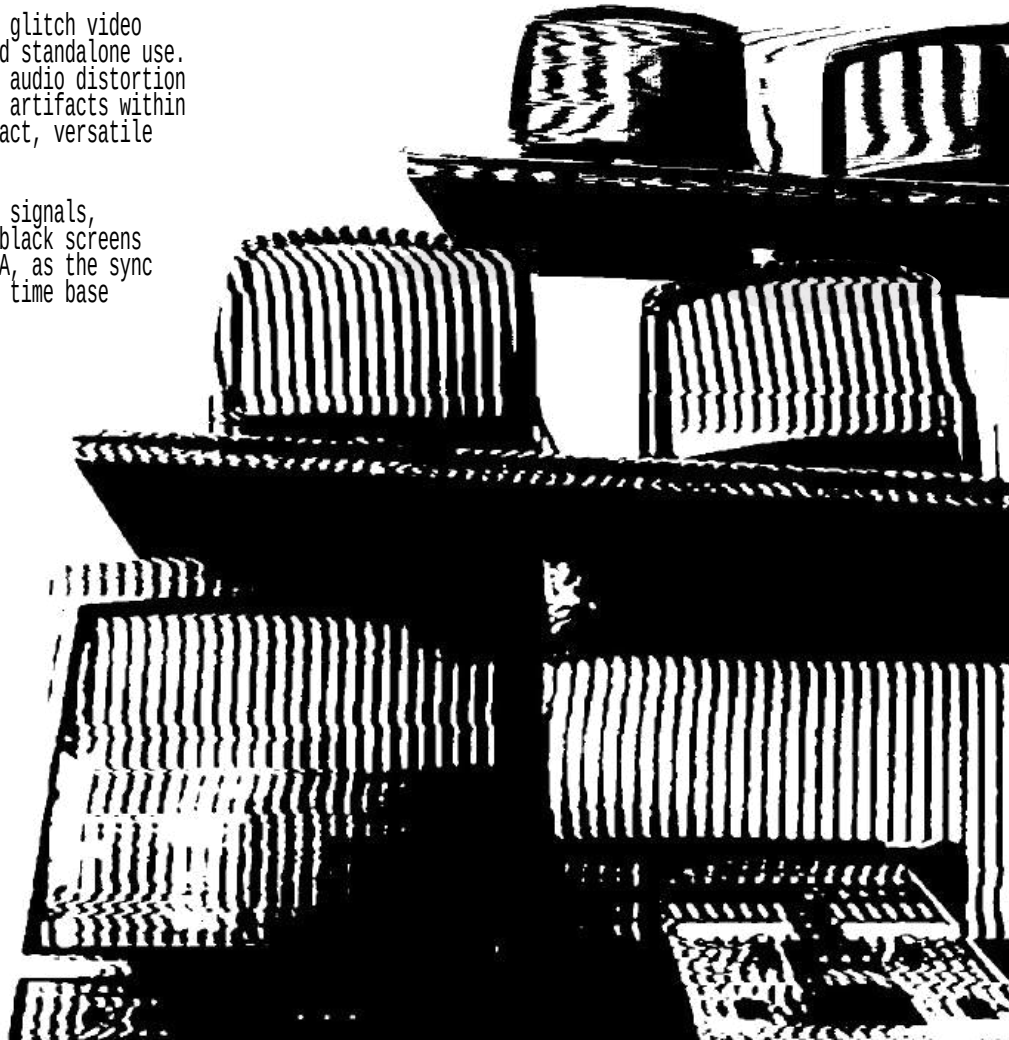
1. INTRO

The Video Breaker, or VB for short, is an analog glitch video effect designed for both Eurorack integration and standalone use. Think of it as a video distortion device akin to audio distortion effects, with an emphasis on generating ringing artifacts within the video signal. It was designed for being compact, versatile and straightforward to use in a live setting.

It can process VGA, LZX, Composite and Component signals, and won't produce any video dropouts (i.e. blue/black screens from the projector/display) when working with VGA, as the sync signals are separated from the video signals, so time base correction (TBC) won't be needed in that case.

To easily integrate this piece of gear into a laptop VJ setup, you can find many cheap (as little as 10 $) HDMI to VGA or HDMI to Composite converters on the market. After you have connected it to your PC, you can simply plug the VGA or composite output into the VB.





2.POWER SETUP:

STANDALONE MODEL:
To set up the standalone VB, connect the provided power connector to the device's rear panel. Ensure that the power supply meets the specified requirements:
+12V, >1A, and a center-positive connector.
If you're not using the original power supply, ensure it matches these specifications.

EURORACK MODEL:
If you have the Eurorack model of the VB, connect it to the power rails of your Eurorack system using the included connector.Pay attention to align the red stripe on the connector with the marking on the VB's board.

3. CONNECTING VIDEO EQUIPMENT:

To integrate the VB into your video setup, follow these steps:

- Connect the video signals you wish to process to their respective inputs on the left side of the VB.

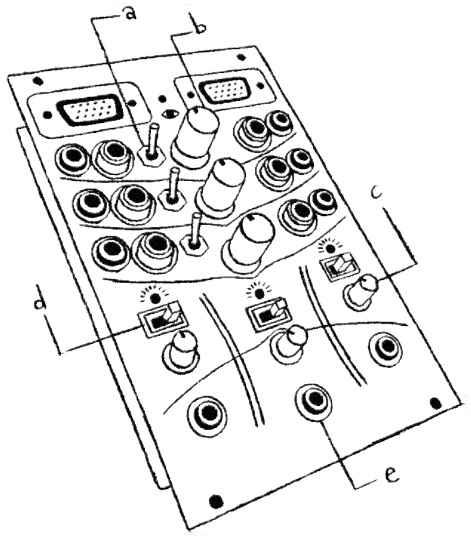
- Take the output from the appropriate connector on the right side of the VB and connect it to your display, projector, or subsequent components in your video processing chain.

- Keep in mind that you can only process one video signal for each channel, so for instance, if you have the VGA connectors inserted, you won't be able to process another composite signal since all three channels would occupied by the three R, G, B signals of the VGA standard.

- Ensure that any unused cables are disconnected from the device.

4.INTERFACE GUIDE:

The VB features three independent channels:
they csn be used for R, G, and B (for VGA) or Y, Cb, and Cr (for Component). Otherwise they can accept three unrelated video
signals when working with Composite or LZX formats.



Each channel on the control panel is equipped with the following set of controls:

a. BYPASS Toggle:
The BYPASS toggle is a true bypass switch that activates or deactivates the glitch effect. When the toggle is in the up position, the effect is turned ON,
and when it is in the down position, the effect is turned OFF. Even when the VB Control Panel is powered down, the video signal will pass through the unit when the effect is turned OFF.

b. STRENGTH Knob:
The STRENGTH knob regulates the intensity of the glitch effect. You can adjust this knob to control the degree of distortion applied to the video signal. If the video becomes excessively distorted, dialing back the STRENGTH knob will reduce the intensity. Please note that the most extreme settings can produce intense effects.

c. BRIGHTNESS Knob:
The BRIGHTNESS knob attenuates the incoming video signal before it enters the effect, reducing its brightness. This knob also influences the glitch effect itself. When working with VGA signals, adjusting both the STRENGTH and BRIGHTNESS knobs can create a tinted signal. Experiment with different settings to achieve the desired visual effect.

d. GRAIN Switch:
The GRAIN switch offers three different positions that control the density and intensity of the glitch pattern. Choose the appropriate position based on your desired visual outcome.

e. CV Input:
The CV input allows for the modulation of the Brightness parameter. It is compatible with various input sources, including audio signals, slow modulation signals such as LFOs and envelopes, as well as signals operating at video rates. This input is optimized for LZX-style signaling and performs most effectively with signals in the 1V range. For audio signals, it is recommended to use line-level inputs, and amplification may be required. Eurorack signals may need attenuation to ensure proper functionality

5.TROUBLESHOOTING

Here’s some troubleshooting tips:

NO VIDEO OUTPUT:
- Ensure that all cables are securely connected to the appropriate inputs and outputs, and that no other cables are connected on the same channels.
- Verify that your power supply meets the required specifications (e.g., +12V >1A, center positive connector).
- Check for any loose connections or damaged cables.
- Ensure that your source video signal is working correctly before passing it through the VB.

EXCESSIVE DISTORTION
- If the video signal is excessively distorted, reduce the “Strength” knob setting to lower the intensity of the glitch effect.
- Adjust the “Brightness” control to attenuate or strengthen the incoming video signal. This can help control the overall brightness and the glitch effect simultaneously.
- Experiment with different “Grain” settings.