



BEAST-TEK
INSTRUMENTS

P-239 HYPER FIST USER MANUAL

The Plutonium-239 Hyper Fist is a post apocalyptic wave table VCO with a resonant lo-fi feedback delay that can produce screechy spacey drones, wild glitches in addition to functioning as a standard wavetable VCO with pulse width modulation and waveshaping.

The P-239 Hyper Fist has a clock input which can be clocked at audio rate to produce AM effects or slowly at note/beat rates to produce interesting percussive synchronization.

Specifications:

- 8bit Wave/Grain table sound module
- 31khz / 10.5khz internal sample rate
- PWM Audio @ 76.5khz
- FREQ/MOD/FIST: -5 .. +5v safe but effective range 0..5v
- Clock input: 0-5v only
- On board 5v regulator, only +12/-12v rails required
- Current Draw Approx 58ma on +12v rail
- 14HP Dual Layer Acrylic Panel @ 3mm total thickness

The HI-FI switch is used to change the sample rate between 31khz and 10.5khz. Pitch mapping is also affected.

The R.A.D.S knob is used to select the active bank and patch. Patches are selected but turning the knob right or left. Press the R.A.D.S knob to switch to the next bank.

The third (right most) digit indicates the currently selected patch.

The first 2 digits indicate the currently selected bank.

The QUANTUM switch function is different depending on the selected bank/patch. Typically the QUANTUM switch either changes the amount of feedback, adds distortion or modifies the behaviour of the FIST knob.

The MOD knob function depends on the currently selected bank/patch. See the attached patch list for further information.

The FREQ controls the frequency (or pitch) of the output. Tracking is either v/oct or linear depending on the current bank/patch.

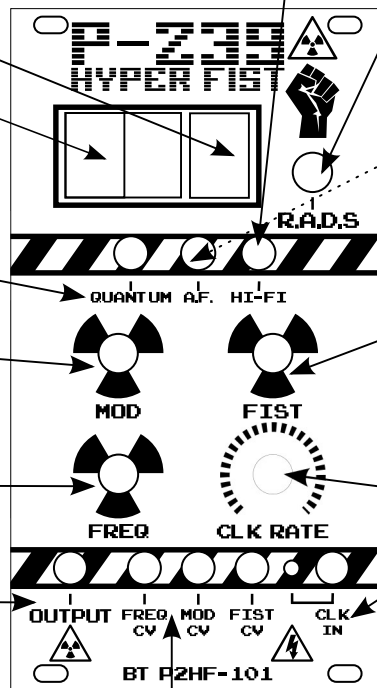
OUTPUT is 10vpp audio signal output

The A.F switch is used to enabled the AUTO-FIST function - a built-in LFO which modulates the FIST parameter.

If AUTO-FIST is disabled, the FIST knob can be used to modify a parameter that has significant impact on the sounds being produced. If AUTO-FIST is enabled (via A.F. switch), the FIST knob is used to change the rate of the AUTO-FIST.

The P-239 Hyper Fist has its own internal clock generator. The CLK RATE knob is used to control the rate of the internal clock. The internal clock can be overridden with an external 0-5v signal clock via the CLK IN socket.

NOTE: Clock input should NOT exceed 5v



The FREQ, MOD and FIST CV inputs allows override the knobs, allowing external control from a sequencer, lfo, etc.

NOTE: Protection diodes allow safe connection of -5v .. +5v signals to the FREQ CV, MOD CV and FIST CV inputs but the effective range of the CV's is between 0v to 5v.



IMPORTANT: Power connection is red stripe downwards (facing the bottom of the unit) as shown in the picture above. Power diodes on the unit protect against reverse polarity connection.