THE IBANEZ HD1000 HARMONICS/Delay...
THE REVOLUTIONARY HD1000 HARMONICS / DELAY...

Revolutionary because the HD1000 Harmonics/Delay offers a studio-quality harmonics section and a full-function digital delay line, all in one single-rack high-package. Never before has so much processing power been packed in such a small space. And at a revolutionary price, too! The HD1000 provides up to 3000 cents or 13 semitones (one octave plus one semitone) of pitch shift up and down. The Ibanez design is simple yet effective: pitch shifting three times as much. Melodic harmony, octaves up and down, micro-shift doubling and shimmering pitch shift effects are easy with the HD1000. The pitch shift may be modulated for true vibrato and dramatic pitch-bending effects.

But that's not all. The HD1000 also provides up to 126 milliseconds of full bandwidth digital delay and up to a total of 504 milliseconds (over 1 of a second) at reduced bandwidth. Studio-quality flanging, chorus, doubling, hard reverbs, slapback and long echo are all possible with theHD1000.

And to complete the revolution Ibanez designed the HD1000 to be a model of versatility and functional simplicity. The integral LCD (Liquid Crystal Display) indicates unit 1000 to be a model of versatility and functional simplicity. The integrall LCD (Liquid Crystal Display), all in real time, pitch shift, delay time and input levels. The input will accommodate a wide range of input levels, and "dry" and "echo" outputs are provided. The feedback loop may be interrupted to create arpeggios, repeats, or to separately control the delay repeats. The HD1000 strikes a revolutionary low for high performance signal processing at realistic prices. The world of digital signal processing will never be the same.
# HD1000 Specifications

**1 Controls:**
- Input Level (Pull Mic), Bypass Effect Switch, Delay Switch, Harmonic Switch, Delay Time Multi Switch, Delay Time Up Switch, Delay Time Down Switch, Pitch, Fine, Width, Speed, Feedback, Dry, Output Level, Effect/Output Level, Input, Feedback Loop Send & Receive, Output Mix & Dry, Bypass/Effect Footswitch.

**2 Jack:**
- +/3 semi-tones

**3 Pitch Shift:**
- 0 to 80.4 m/sec

**4 Delay Time:**
- Input: 30Hz to 12kHz, Delay Time: 0 to 126ms, 30Hz to 1kHz, 0 to 252ms, 30Hz to 2kHz, 0 to 504ms, 20Hz to 2kHz, 30Hz to 20kHz

**5 Frequency Response:**
- (0.5 to 3 dB)

**6 Input Characteristics:**
- Instrument: Impedance 500K ohms, Gain 0 dB
- Microphone: Impedance 5K ohms, Gain 30 dB

**7 Output Impedance:**
- Dry, Mix: less than 10K ohms

**8 Maximum Input Level:**
- Harmonics/ Delay: 0 dBm, Dry: +10 dBm

**9 Equivalent Input Noise:**
- Harmonics/ Delay: less than 1%, Dry: less than 0.2%db

**10 Total Harmonic Distortion:**
- 3% dBm (HIF-A)

**11 Weight:**
- 4.82mm x 44mm x 233mm

**12 Dimensions (W x H x D):**
- (19 x 1.7 x 9)

**13 Power Requirement:**
- 120V 60Hz 10W
- 220 to 240V 50Hz 15W

**Footswitch/By-pass Effect:**
- Footswitch jack for bypass (Dry) / (Effect)

**Output Dry:**
- Carries only dry signal.

**Feedback Send:**
- Output or “send” for an external processing loop.

**Feedback Receive:**
- Input or “receive” for an external processing loop.

**Output/Mix:**
- Carries effect and dry signal.

**Input:**
- For microphone, instrument or line input.

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