CREST STUDIO SERIES

IPro™ Two

STUDIO SERIES



Dynamics:

CONTROL	ADJUSTMENT RANGE
Expander Threshold	<-80 dBu to +10 dBu
Expander Ratio	1:1 (off) to 1:5 (gate)
Expander Attack (to gate open)	2 msec (fixed)
Expander Release (to gate closed)	175 msec (fixed)
Compressor Threshold	-40 dBu to +20 dBu
Compressor Ratio	1:1 (off) to infinite:1 (limit)
Compressor Attack	5 msec (fixed)
Compressor Release	175 msec (fixed)
Limiter Threshold	0 dBu to +22 dBu
Limiter Attack	5 msec (fixed)
Limiter Release	175 msec (fixed)
Makeup Gain	0 dB to +20 dB

Equalization:

Low Cut Freq (XLR only)	75 Hz @ 18 dB per octave (switch)
Parametric (1&2) Cut/Boost	-15dB to +15 dB, detent = flat
Parametric 1 Freq	40Hz to 15kHz
Parametric 2 Freq	40Hz to 15kHz
Bandwidth (1&2)	2 oct to 1/6 oct

Features

- Stereo line and two mic inputs w/pan
- Mic includes polarity switch, +48V phantom power, 20dB pad
- Two full featured parametric EQ's
- Full featured expander/compressor/limiter
- Solid-state, tube-sound processor (SmarTube)
- Switchable I/O LED metering
- Independent headphone out w/track input
- Multicolor LED meters
- Balanced and unbalanced I/O
- Internal power supply

Applications

- Recording processor (channel strip)
- Location broadcasting
- Ducking
- De-essing
- Monitor or main mix enhancement
- In ear monitor processor
- 60 cycle hum removal
- Vocal and instrument enhancement
- Dynamics processor

Description

The IPro™ Two is a stereo microphone or line input processor that is especially designed to optimize audio signals (low or high impedance) for recording or live applications. It is an improvement over a standard mixer's channel strip for direct recording of a microphone or line instrument since it has functions not found in other analog signal processors.

The IPro Two has separate mic and line inputs. Each line input has level control. Each mic input has polarity, 20dB pad, +48V phantom power, on/off switch, and an adjustable low cut filter with gain control.

The parametrics section have two adjustable EQ's. Both have on/off switches and the second has a switch to side change into the dynamics section.

The Compand/Limit section is a true RMS summed, stereo link dynamic section. Controls are an on/off switch, external side change enable, expander with ratio and threshold controls, and compressor with ratio and threshold controls. There is also a makeup gain and limiter threshold.

SmarTube™ enhancer has adjustable frequency and amount. This adds tube-like characteristics to the signal. The main section has a dry/wet blend control and a main output level control.

There is an independent headphone out with level control, with track input and level for personal monitoring. The metering section has gain reduction dB and stereo output level dB with the output switchable to preamp in.

Specifications

IPro™ Two

Frequency Response:	Mic Input to Output: 15Hz to 45KHz +0dB / -1dB Line Input to Output: 10Hz to 35KHz +0dB / -1dB
Total Harmonic Distortion plus Noise (THD+ N):	< 0.01% 20Hz to 20KHz Mic to Output (10Hz - 80KHz BW, dry) < 0.02% 20Hz to 20KHz Mic to Output (10Hz - 80KHz BW, dynamics enabled)
Signal to Noise (all functions enabled, all levels at nominal, mic input at min gain):	88 dBu
MIC Equivalent Input Noise (EIN):	-129 dBu (Input terminated with 150 Ohms)
Common Mode Rejection Ratio (Mic Input):	77dB typ @ 1kHz, max gain
Meters:	12 segment gain reduction indication 12 segment peak reading output (0dB= 0dBu @1/4" out, +4dBu @ XLR out)
Dimensions:	19" W x 9.5" D x 3.5" H
Weight:	8.7 lbs
Power Requirements:	DOM: 120VAC 60Hz 15 Watts Nominal EXP: 230VAC 50/60Hz 15 Watts Nominal

Architects' & Engineers' Specifications:

INPUTS:

There will be two microphone and one stereo line input, each with rear panel jacks. Each low impedance microphone input will be a female XLR connector, and will have switchable 48V phantom power (with LED indication), and 20 dB pad, and polarity switches. Mic pre-amps will be adjustable from +10 to +56 dB of gain by a potentiometer and have an EIN of 128 dBu @150 ohms. Two mic enable switches (with LED indication) will be provided. The stereo line input will be TRS balanced and high impedance, suitable for use with an electric guitar (200K ohms) or standard line level inputs, and have 1/4" will have a gain adjustment range from off to +20 dB. There will be two TRS insert jacks that function for both line and mic inputs. They are located on the rear panel and have a front panel enable switch with LED indication.

EQUALIZATION:

In series with each microphone preamp will be a defeatable third order high pass filter with a corner frequency range of 75Hz. Two fully adjustable stereo parametric equalizers will be provided with a –24dB to +12dB boost/cut range and a bandwidth adjustment of 2 octaves to 1/6 octave. They will have a frequency range of 40 Hz to 15 KHz. Each parametric will have an enable switch with LED indication. The second parametric filter will additionally have a switch that will move its position out of the main audio path and into the compressor's side-chain (after the side-chain insert jack's return).

DYNAMICS:

The IPro Two will have an adjustable dynamics section that will have a linked stereo compressor, expande, and limiter. The expander will have threshold (-80 dBu to +10 dBu) and ratio (1:1 to 1:5) controls. The compressor will have threshold (-40 dBu to +20 dBu), ratio (1:1 to infinite:1), and make-up gain (0 dB to +20 dB) controls. Both will be soft knee circuitry. The limit will have only a threshold (0 dBu to +22 dBu) control with a red "active" LED. A twelve step gain reduction LED array will indicate for all three dynamic functions. There will be two side-chain TRS insert jacks at the rear with a front panel enable switch with yellow LED. The side-chain inserts will be connected before the second parametric EQ (when it is switched into the detector path) so that external signals may benefit from it.

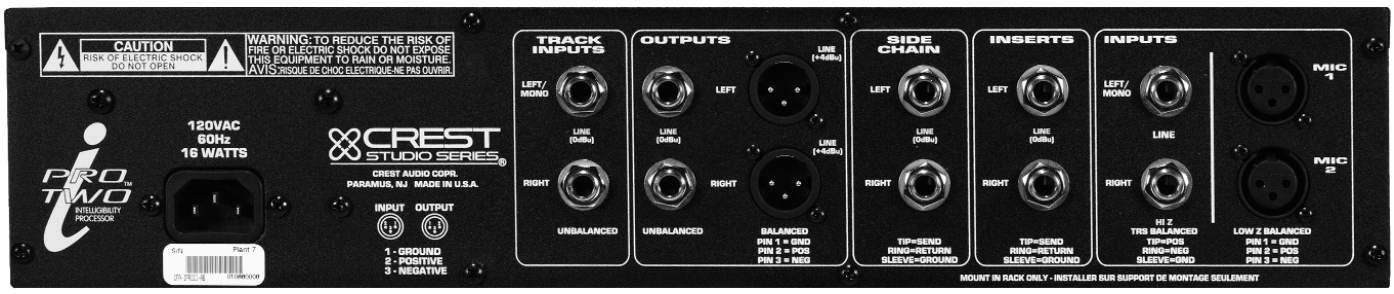
There will be a dynamics enable switch (with green LED) on the front panel which allows all dynamics functions to be bypassed.

SmarTube:

Included in the IPro Two is a high frequency enhancement circuit that adds transtube harmonics to improve definition and add presence to the signal. There will be a tuning control with an adjustment range of 2kHz to 10kHz, and a level control.

OUTPUTS:

There shall be a master output level control with a gain range of OFF to +10dB. Independent of this control will be a headphone level control with the same gain range, and a front panel headphone jack. A blend control will pan between the dry preamp signal and the wet post processing signal to allow a compressed frequency shaped signal to be blended with the original input to fatten the bass or add a high frequency sheen. A twelve segment LED output meter array will be included. It will monitor either the pre-amp signal (to assist in setting the mic input gain or line level), or the main output, determined by a selector switch. The output jacks will consist of 1/4" unbalanced and a XLR balanced jacks, on the rear panel. The mains input will be an IEC connector.



Crest Audio reserves the right to make improvements in manufacturing or design which may affect specifications.

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