

intersound

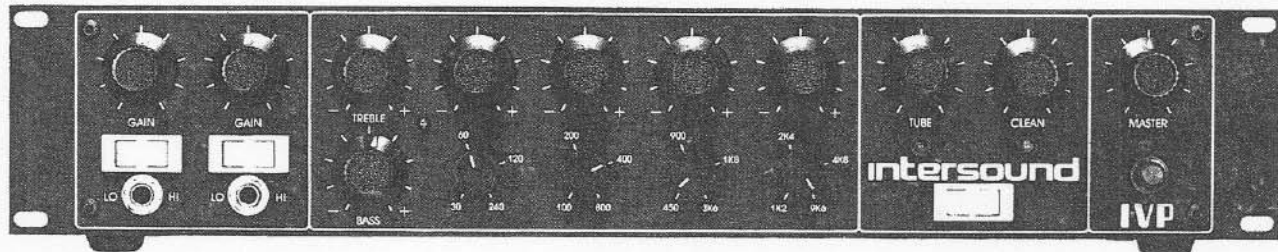
INSTRUMENT PREAMPLIFIERS



by **EV** **TAPCO**
a gulton company

IVP

INSTRUMENT VOICING PREAMPLIFIER



FEATURES:

FRONT PANEL

- TWO SEPARATE BIFET INPUTS WITH INDEPENDENT LEVEL CONTROLS.
- INPUT GAIN SENSITIVITY SWITCHES - Assure adequate headroom for any instrument or pickup including "Hot" keyboards & synthesizers.
- BASS/TREBLE CONTROLS - (shelving type) to set the basic tone response desired.
- LED LEVEL INDICATOR - Indicates the proper level for most external effects.
- FOUR BANDS OF ACTIVE BOOST AND CUT EQUALIZATION
- VARIABLE FREQUENCY CONTROLS - Enables one to "slide" each band of equalization over a 3 octave range to locate the proper frequency for equalization.
- EXCLUSIVE TUBE VOICE CIRCUIT - Dynamically responsive tube sound effect with quiet FET switching and external footswitch option.

- TUBE AND CLEAN VOICE CONTROLS - Give you independent volume adjustment for each voice.
- LED STATUS INDICATORS - Indicate which voice is selected.
- MASTER VOLUME CONTROL

REAR PANEL

- EXTERNAL EFFECTS LOOP #1 - For patching your choice of effects pre-tube voice.
- EXTERNAL EFFECTS LOOP #2 - Post-tube voice to provide a more complex sound to the effect device.
- LINE LEVEL OUTPUT JACK - For normal use feeding a power amplifier or powered monitors.
- DOWN 10 dB OUTPUT JACK - A lower level output for preamplified systems or direct taping.
- XLR OUTPUT JACK - Provides balanced direct box function for long feed lines or studio patching at -10dB.

REAR PANEL:



VERSATILE APPLICATIONS FOR DEMANDING MUSICIANS

The IVP represents the most advanced concept in total instrument control available today. Its unique circuits give the musician the ability to choose the precise voice for his instrument with a wider range of sounds than previously possible. The variety of outputs, inputs and effects loops offer many different application possibilities. Here are just a few:

Guitarists/Bassists

These are the musicians who originally asked us for the IVP. It offers a complete control center in one unit for stage use, studio work and practice sessions.

- Can be used with existing musical instrument amplifiers to provide increased control. The perfect first step to component systems.
- With a component power amp and speakers, the IVP provides the complete control necessary for any system.
- Feeds master house mixers and monitor systems.
- Two effects loops accommodate effects pedals and devices such as volume, wah-wah, echo, DDL, ADL, flangers, phase shifters, etc. The second effects loop is located after the unique tube voice circuit for effects which are enhanced by more complex signals.
- Complex hookups can be made using the effects sends as additional outputs.
- Will feed multi-amp systems and crossover systems.
- Low level output can be used for tape recording.
- Phone jack outputs will drive headphones for practice.

Keyboard Players

The IVP's voicing capabilities are exceptionally good for these instruments with such a wide frequency range.

- Greatly improves control for electric pianos. Provides much needed gain and response equalization for many units.
- The tube voice offers a new effect which is very much in demand for keyboards.
- Organs and synthesizers are given increased control and tonalities with the IVP.
- Acoustic pianos with pickups or mics can be compensated with the wide range of equalization available.

Assorted Instruments

Today's music has demanded many new electric instruments for the creation of the unique sounds we all hear daily.

flutes... trumpets... saxophones... clarinets... trombones... cellos... upright bass... harmonicas... harps... autoharps... mandolins... vibes... violins... even kalimbas...

All have been used with pickups or mics of one type or another... All will sound better when voiced by the IVP.

Input Stage

Both inputs have a selectable gain switch to accommodate virtually any type of instrument. In the **HIGH** gain position, input levels from 50mVrms to 2Vrms are adequate to insure optimum signal to noise ratios without distortion. Instruments with higher outputs should be used in the **LOW** gain position which provides for input levels from 200mVrms to 8Vrms. The input level controls offer sufficient control range when used in this manner. The input stage is a lo-noise BIFET design with components hand selected and tested for quiet performance.

Equalization Stage

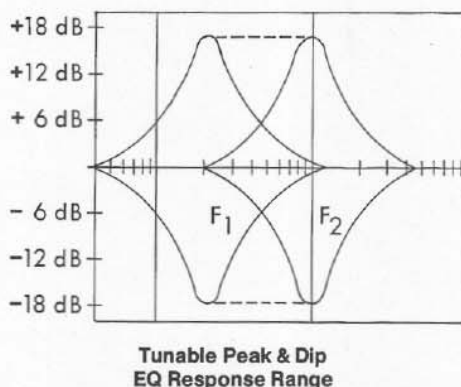
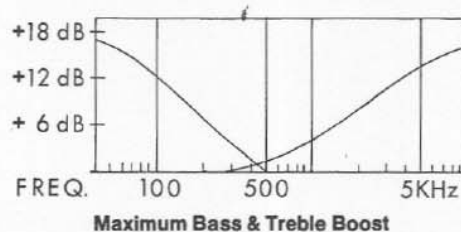
The IVP offers one of the most sophisticated equalization circuits available. The six bands of equalization provide exceptional control. The Bass and Treble controls are shelving type with ± 15 dB of boost or cut. These controls function essentially the same as conventional Bass and Treble controls to establish the overall tonal response desired. The other four bands of equalization are peak and dip type offering ± 15 dB of boost and cut. Each of these bands offers a center frequency variation over three music octaves range. This allows the musician to "slide" each band to the frequency he wishes to control. An overlap of approximately one octave between adjacent bands has been provided to permit a broader response curve or to provide more than 15 dB of boost or cut in the overlapped region.

Effects Loops

Two separate effects loops are provided to permit the use of a variety of external effects. The effects sends are essentially line level outputs which provide an acceptable input level to virtually all types of effect devices. The effect sends can also be utilized as additional fixed level outputs. The effects returns are likewise designed to provide sufficient headroom to accommodate a variety of effect levels with no signal loss or level imbalance. The internal signal flow is interrupted when the effect return is utilized. Effects loop #1 is pre-tube voice while effects loop #2 is post-tube voice. This provides two different signal choices for the musician's effect devices.

Tube Voice Circuit

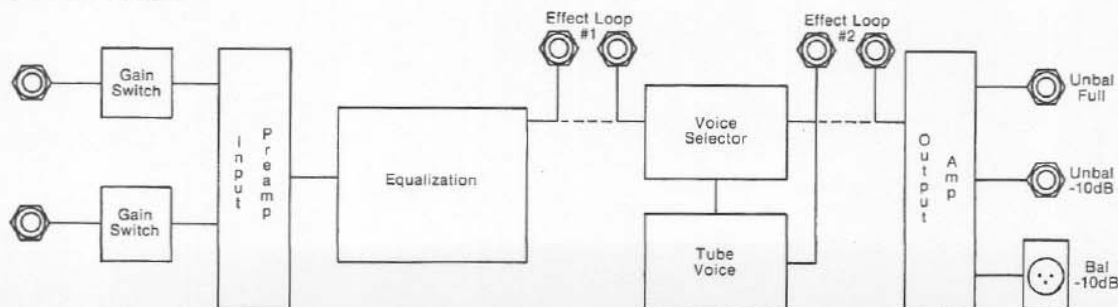
The IVP features a unique tube voice circuit for added tonal flexibility. The tube voice is **not** another "fuzz" or overdrive circuit which achieves its effect by diode clipping or overdrive of conventional preamp circuits. The tube voice circuit uses a different concept which models the typical vacuum tube output stage, giving a dynamically responsive authentic tone rich in even order harmonics. The tube voice or the clean voice can be selected by the front panel switch which controls a quiet FET electronic switching circuit. An external footswitch jack is provided for your additional convenience.



	F ₁ (Hz)	F ₂
Lo	30	240
Lo Mid	100	800
Hi Mid	450	3K6
Hi	1K2	9K6

At maximum cut or boost the filter slopes are nominally 12dB/Octave.

FLOW DIAGRAM



AutoPad® Automatic Padding

Many mixers have an overload problem that is caused by driving the electronics of a mixer beyond their capacity to amplify. Conventional mixers can cause clipping distortion because their volume controls come *after* the preamp, where they can have absolutely no effect on overload distortion. AutoPad controls vary the sensitivity of the preamp itself - input overload distortion can be eliminated just by turning down the channel volume a little while maintaining the overall volume by bringing up the Master level. With AutoPad you get the most headroom and best signal-to-noise ratio for any input level.

SPECIFICATIONS:

	IVP	IKP-6	PRV-1
Frequency Response (20Hz to 20kHz)	±1dB	±1dB	±1dB
Signal to Noise Ratio Dry Reverb	> 85dB	> 80dB	-95dB 70dB
T.H.D. (Total Harmonic Distortion)	< .1%	.05%	.05%
I.M. (Intermodulation Distortion)	< .1%	.08%	.05%
INPUTS:	2 Unbalanced Switchable high/low gain inputs (1/4" Phone Jack)	6 Unbalanced high gain - low or high Z 6 Unbalanced low gain - high Z (1/4" Phone Jack)	1/4" Phone Jack - Unbalanced XLR - Active Balanced
Maximum Input Levels	Low gain - 8Vrms High Gain - 2Vrms	Low - 12Vrms High - 15 Vrms	Unbalanced - 8Vrms Balanced - 8Vrms
Decay Time	—	—	3.0 Sec.
Lo-Cut Filter	—	—	12dB/octave highpass filter
Equalization Stage	BASS: Shelving type, ±15dB @50 Hz and below. Turnover: 200Hz TREBLE: Shelving type, ±15dB @10KHz and above. Turnover: 1KHz FOUR BANDS: Variable frequency peak and dip (±15dB) at: 30Hz-240Hz, 100Hz-800Hz, 450Hz-3.6KHz, 1.2KHz-9.6KHz	Bass & Treble (each channel) ±15dB Boost/Cut (shelving type)	Full parametric type/ two independent bands: Band 1: 80Hz-1.80kHz Band 2: 500Hz-12.0kHz Boost/Cut: ±14dB ea band Bandwidth: 0.25-3.00 octaves each band Turnover Frequency Variable 150Hz-1k2Hz
OUTPUTS:	XLR-Balanced - +10dBV into 600 ohms 1/4" Phone Jack - Unbalanced (line level) - +20dBV/600 ohms 1/4" Phone Jack - Unbalanced +10dBV/600 ohms 1/4" Phone Jack to footswitch for remote control	1/4" Phone Jack - Unbalanced +17dBV/600 ohms	XLR-Balanced - +22dBV/600 ohms 1/4" Phone Jack Unbalanced +20dBV/1K ohms
Dimensions	3 1/2" H 19" W 11" D	3 1/4" H 17 1/2" W 7 1/4" D	3 1/2" H 19" W 11" D
Shipping Weight	12 lbs.	10 lbs.	18 lbs.

All product specifications are subject to change without notice.

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by



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