



AMCRON

VFX-2A

The AMCRON VFX-2A provides continuously variable filters which can be used to perform either crossover or band pass functions. The dual channel unit employs two filters per channel, each continuously variable from 20 Hz to 20 kHz. Filter rolloff is at a fixed 18dB/octave.

Setting both low and high pass filters in one channel to a common frequency provides a two-way crossover at that frequency. Cascading both channels together provides a combined band-pass filter and 2-way crossover, or a three way crossover.

A variable gain bridging input is provided for each channel in addition to the unity gain unbalanced input. Output impedance is 300 ohms in both inverted and non-inverted modes, with over 6 volts maximum output into 600 ohms.

Overall noise and distortion are extremely low, with I M distortion less than .01% at rated output, and noise more than 100 dB below rated output with 0 dB gain.

*The VFX-2A may be rack mounted, or as shown, an optional cabinet is available.



VFX-2A Specifications

Frequency Response

± 0.1 dB 20Hz to 20kHz with IHF load.
Typically ± 0.2 dB 2Hz to 58kHz with IHF load, ± 0.5 dB 18Hz to 38kHz with 600 Ω load. All tests with filters flat and at rated output.

Output

10V Maximum before overload, 2.5V rated
100 Ω output impedance (Typically 6.4V maximum into 600 Ω). All outputs available in normal (non-inverted) and inverted modes. Also available is a mono output of the input signal as well as mono bass output.

Inputs

Two types per channel:
Transformerless bridging input with $\frac{1}{4}$ " phone jack and attenuator, 20k ohm balanced, 10k ohm unbalanced OR Unity gain input $\frac{1}{4}$ " phone jack, 1M ohm unbalanced.

Gain

0-15.5dB from balanced/unbalanced input.

Hum and Noise

Typically 113dB below rated output from shorted unity gain input, 20 Hz to 20kHz.
Typically 107dB below rated output from 600 Ω balanced input, 20Hz to 20kHz.
97dB minimum below rated output at maximum gain, 20Hz to 20kHz with inputs unterminated. All tests with filters flat.

Distortion

IM distortion less than 0.01% at rated output (IHF or 600 Ω load) with filters flat or set at 20Hz and 20kHz.

Filters

Separate 18dB Butterworth Highpass and Lowpass Filters with adjustable corner frequencies. Can be internally cascaded to form band pass and band reject filters.

Semiconductor

8 integrated circuits and 16 diodes (24 operational amplifiers and 2 regulators equivalent to 387 transistors, 40 diodes, 14 zeners and 12 F.E.T'S).

Power Requirements

2 Watts 120 VAC or 240 VAC 50-400 Hz.

Fusing

For 120 VAC use 3 AG 1/8 Amp 250 VAC Fuse (For 240 VAC use AGC 1/16 Amp 250 VAC fuse)

Controls

Range and vernier controls for corner frequencies and power switch are on front panel. Screw driver adjustable input attenuators on rear panel.

Connectors

Inputs - 3 conductor $\frac{1}{4}$ " phone jack balanced/unbalanced (variable gain input)
- 2 conductor $\frac{1}{4}$ " phone jack unbalanced (unity gain input).
Outputs - 2 conductor $\frac{1}{4}$ " phone jack
AC line - Three wire (grounded) male connector on 5 ft. minimum cable.

Chassis Finish

All satinized aluminum front panel.

Dimensions

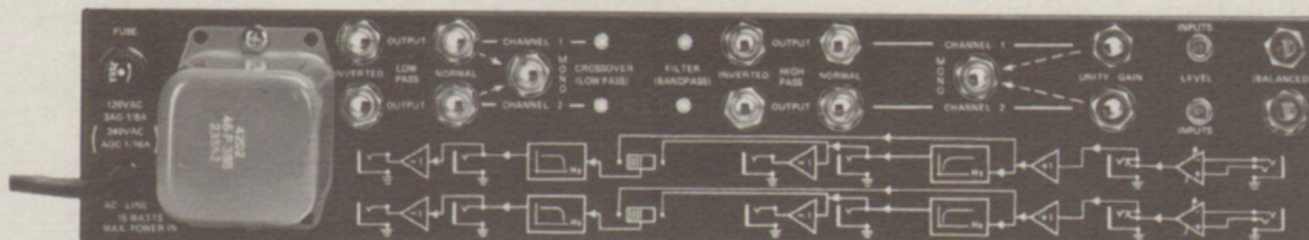
19" standard rack mount (W.E. hole spacing), 3 $\frac{1}{2}$ " height, 5 $\frac{1}{4}$ " maximum depth (from mounting surface).

Weight

6 lbs.

AMCRON 

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CROWN **VFX-2A** **PROFESSIONAL** **FILTER/CROSSOVER**

*© beim Hersteller
Archiv Michael Otto*



EXPORTED AS AMCRON

Crown VFX-2A Filter/Crossover

The Crown VFX-2A filter/crossover, requiring 3 1/2" (8.89cm) of vertical rack space, provides continuously variable, active, solid state filters which can be used to perform either crossover or bandpass functions. The dual channel unit employs two filters per channel, each continuously variable from 20Hz to 20KHz. One filter forms the high pass section, the other, low pass. Filter roll-off is fixed at 18dB per octave, a rate that eliminates any noticeable dip in the frequency spectrum at crossover points when properly adjusted. The sharp roll-off also quickly attenuates unwanted frequencies above and below crossover.

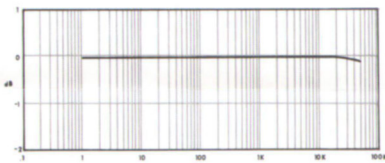
Setting both high and low pass filters in one channel to a common frequency provides a two-way crossover at that frequency (see illustration). A variable gain (0 - 15dB) bridging input is provided for each channel along with an unbalanced unity gain input. Output impedance is 300 ohms in both inverted and non-inverted modes with over six volts maximum output into 600 ohms. Bridging the normal and inverted output results in a balanced output at twice the gain. This provides input and output impedance matching compatibility for both music and commercial sound systems. Overall noise and distortion are extremely low - among the lowest in the industry - with 1M distortion less than .01 percent at rated output, and noise more than 100dB below rated output with zero dB gain.

Cascading both channels together provides either a combined bandpass and two-way crossover, or a three-way crossover (tri-amping). The unit also has a mono jack which takes the two input signals (the two signals that are coming in the left and right channels) and combines them through a buffer stage to form a mono output. This mono output can be changed to a mono treble output, by soldering two jumper wires to appropriate terminals on the circuit board. As well, there is a mono bass output which takes the low pass section of both filters and combines them through a buffer stage which feeds the output jack.

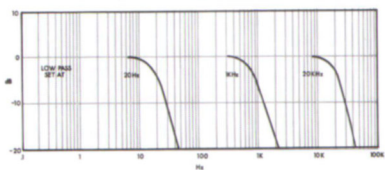
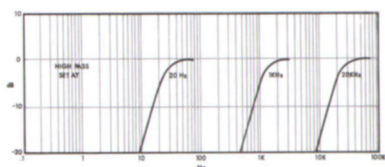
The compact size of the unit (3 1/2 inches high with a maximum depth of 5 1/4 inches from the mounting surface) makes the VFX-2A an unusually small but versatile piece of equipment that takes up little rack space relative to its value.

The VFX-2A features a satinized aluminum front panel matching that of other Crown products. An amber, front panel LED lights to indicate power.

The Crown VFX-2A is a quality professional component. The VFX-2A offers traditional Crown durability and a full 3 year warranty.



Frequency Response:
IHF Load at Rated Output



Filter Curves

Architect's Specifications

The electronic filter/crossover shall contain two channels of continuously variable, active, solid state filters which can be utilized to perform crossover and/or bandpass functions. The unit shall employ two Butterworth filters per channel, each filter being continuously variable from 20Hz to 20KHz. One filter shall form the high pass section while the other filter shall form the low pass section. Filter roll-off shall be fixed at 18dB per octave.

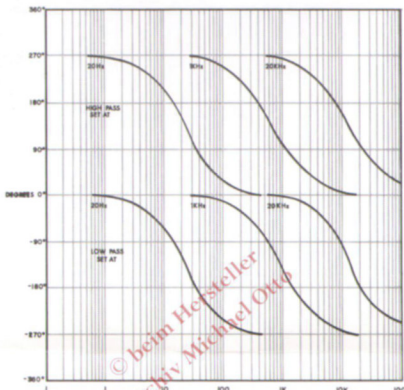
The unit shall operate from 120VAC at 50-400Hz, and shall consume 2 watts. The unit shall weigh 6 lbs. and measure 19" long (W.E. hole spacing) x 3 1/2" high x 5 1/4" deep.

The unit shall have a rated output of 2.5V and shall deliver a maximum output voltage of 10V before overload. At 2.5V rated output the unit shall have less than 0.01% 1M distortion. With all filters flat, hum and noise shall be more than 100dB below rated output with 0dB gain, 20Hz to 20KHz.

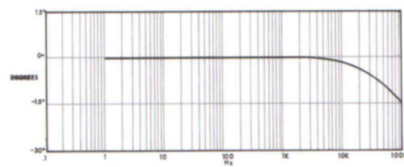
All outputs (1/4" phone jacks) shall be available in both non-inverted and inverted modes at 100 ohms output impedance (typical 6.4V max. into 600 ohms). In addition, a mono output of the input signal shall be available as well as a mono bass output.

Two types of inputs shall be provided for each channel: Transformerless bridging inputs (1/4" phone jacks) shall be available, each having its own external gain control which shall provide gain from 0-15.5dB. Input impedance shall be 20K ohms balanced, and 10K ohms unbalanced. Additionally, a unity gain input shall be available at 1M ohms unbalanced.

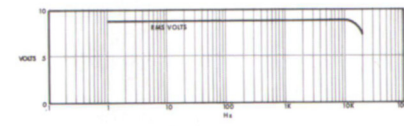
The electronic filter/crossover shall be supported by a 3 year warranty honored by a nationwide network of authorized service centers. The electronic filter/crossover shall be a Crown VFX-2A.



Phase Response:
High & Low Filters



Phase Response:
No Filters



Maximum Output:
IHF Load

General Specifications

Frequency Response ±0.1dB 20Hz to 20KHz with IHF load. Typically ±0.2dB 2Hz to 58KHz with IHF load, ±0.5dB 18Hz to 38KHz with 600 ohm load. All tests with filters flat and at rated output.

Output 10V maximum before overload, 2.5V rated, 100 ohm output impedance typically 6.4V maximum into 600 ohm. All outputs available in normal (non-inverted) and inverted modes. Also available is a mono output of the input signal as well as mono bass output.

Inputs Two types per channel: Transformerless bridging input with 1/4" phone jack and attenuator, 20K ohm balanced, 10K ohm unbalanced OR unity gain input gain 1/4" phone jack, 1M ohm unbalanced.

Distortion 1M distortion less than 0.01% at rated output (IHF or 600 ohm load) with filters flat or set at 20Hz and 20KHz.

Semiconductor 8 integrated circuits and 16 diodes (24 operational amplifiers and 2 regulators equivalent to 387 transistors, 40 diodes, 14 zeners and 12 FET's).

Power Requirements 2 watts 120 VAC or 240 VAC 50-400Hz.

Fusing For 120 VAC use 3AG 1/4 amp 250 VAC fuse (for 240 VAC use AGC 1/16 amp 250 VAC fuse).

Controls Range and vernier controls for corner frequencies; and power switch are on front panel. Screw driver adjustable input attenuators on rear panel.

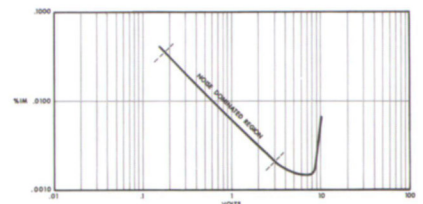
Filters Separate 18dB Butterworth Highpass and Lowpass Filters with adjustable corner frequencies. Can be internally cascaded to form bandpass and band reject filters.

Gain 0-15.5dB from balanced/unbalanced input.

Hum and Noise Typically 113dB below rated output from shorted unity gain input, 20Hz to 20KHz. Typically 107dB below rated output from 600 ohm balanced input, 10Hz to 20KHz. 97dB minimum below rated output at maximum gain, 20Hz to 20KHz with inputs terminated. All tests with filters flat.

Connectors Inputs - 3 conductor 1/4" phone jack balanced/unbalanced (variable gain input) - 2 conductor 1/4" phone jack unbalanced (unity gain input). Outputs - conductor 1/4" phone jack AC line - Three wire (grounded) male connector on 5 foot minimum cable.

Dimensions and Weight 48.26cm (19 inches) standard rack mount width (w.e. hole spacing) 8.89cm. (3.50 inches) high, 14.61cm (5.75 inches) deep from mounting surface; 2.72kg (6 pounds).

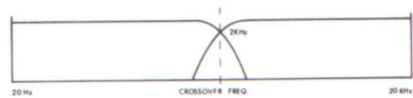
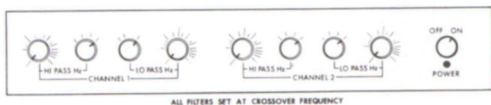


% 1M Distortion:
All Controls Flat with IHF Load

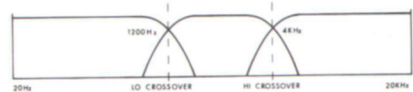
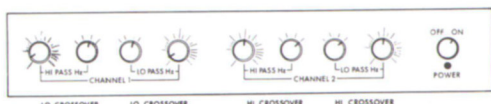
ILLUSTRATED VFX-2A FUNCTION

FRONT PANEL SETTING

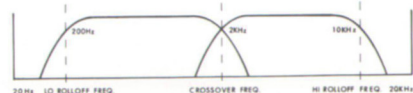
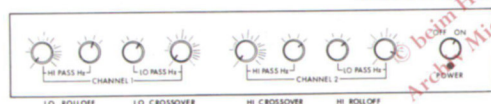
STEREO BIAMP PER CHANNEL



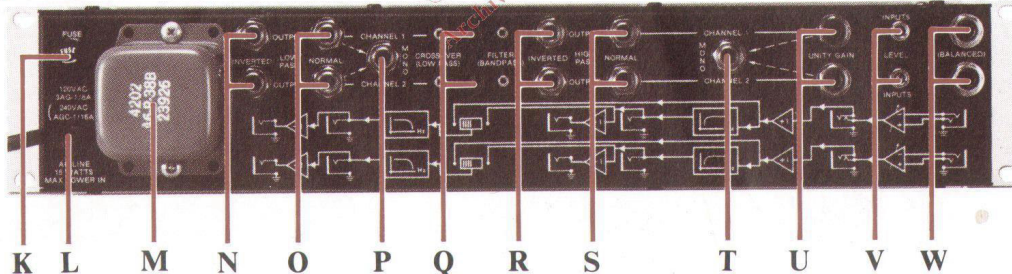
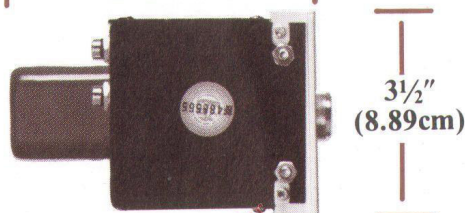
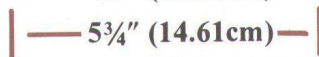
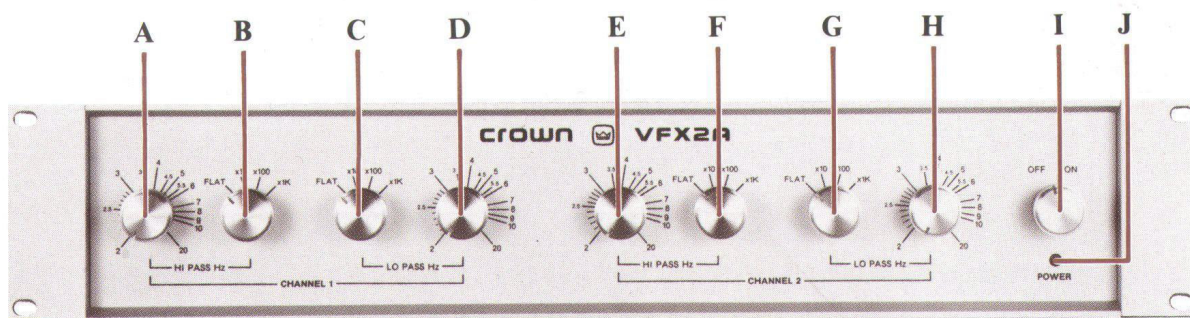
MONAURAL TRIAMP



MONAURAL BIAMP plus BANDPASS FILTER



Controls Connections Dimensions



- A-Channel 1 Hi Pass Vernier Control
- B-Channel 1 Hi Pass Range Switch
- C-Channel 1 Low Pass Range Switch
- D-Channel 1 Low Pass Vernier Control
- E-Channel 2 Hi Pass Vernier Control
- F-Channel 2 Hi Pass Range Switch
- G-Channel 1 Low Pass Range Switch
- H-Channel 1 Low Pass Vernier Control
- I-Power On/Off Switch
- J-Power On LED Indicator
- K-Power Fuse
- L-AC Line Cord
- M-Power Transformer
- N-Switched Inverted Outputs (1/4" Phone)
- O-Switched Normal Outputs (1/4" Phone)
- P-Mono Bass Output (1/4" Phone)
- Q-Mode Switches
- R-High Pass Inverted Outputs (1/4" Phone)
- S-High Pass Normal Outputs (1/4" Phone)
- T-Mono Output (1/4" Phone)
- U-Unity Gain Inputs (1/4" Phone)
- V-Attenuator Controls
- W-Balanced or Unbalanced Inputs (1/4" Phone)



CROWN

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Innovation. High Technology. American. That's Crown.

Printed in U.S.A.

Crown products are exported under the name "Amcron".

ACVFX380