

Power Vector Modular Amplifiers

Models V35, V60,
V100, V150, and V250



Description Bogen's Power Vector modular amplifiers offer a wide range of power levels from which to choose, with five models from 35W to 250W. The amplifiers are designed to work with both high- (70/25V) and low- (4/8-ohm) impedance speaker systems.

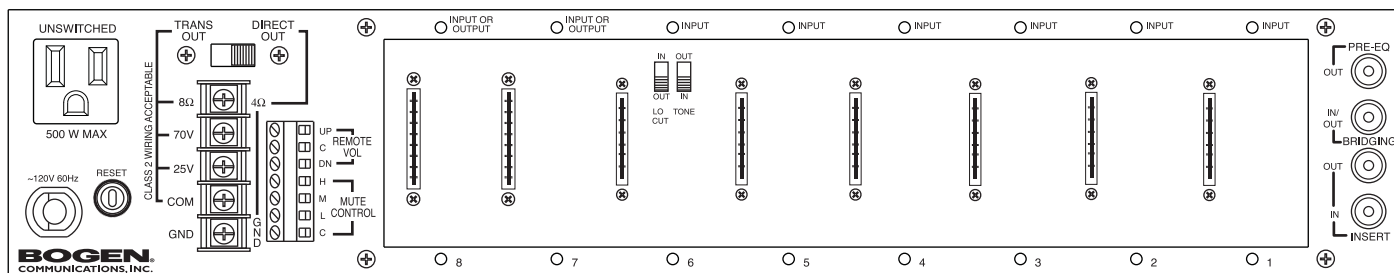
Each model includes eight module bays for plug-in input modules and allows up to four levels of priority between modules. Two module bays are capable of accepting plug-in signal-processing output modules. Each module is controlled by an independent volume control with an associated signal/clip LED for signal status. An 11-segment LED output meter monitors output signal level.

Each model includes a motorized master volume control that can be controlled using a remote volume control panel (RVCP, sold separately).

- Features**
- 5 models ranging from 35W to 250W each; a mixer-only version (VMIX) is also available
 - Capable of handling 70V, 25V, 8-ohm, and 4-ohm speaker loads
 - 8 module bays
 - Wide selection of advanced plug-in modules (modules sold separately)
 - 4 levels of priority between modules
 - 2 module bays capable of handling plug-in signal-processing output modules
 - 11-segment LED output level meter monitors the output level of the power amplifier with Avg./Peak meter switch
 - Motorized master volume control can be remotely operated
 - Lockable switch permits user to select either transformer-coupled outputs or a direct low-impedance output
 - 5-position barrier strip, with clamping washers, provides connections for speaker loads
 - Bridging In/Out connector
 - External access to priority mute buses
 - Bridging jack and Mute terminals join multiple Power Vector amps and mixers together
 - Independent volume control for each of the eight module bays
 - Two-color LED for each channel indicates input signal or clipping
 - Bass and treble control with bypass switch (located in module bay 6)
 - 125 Hz Low Cut switch (located in module bay 6)
 - Signal-processing insert jacks allow external equipment to be inserted between the pre-amp output and the power amp input
 - Pre-EQ, unbalanced, buffered output signal ("post" all unit controls, but "pre" any external "Insert" equipment connected)
 - Grounded, unswitched AC convenience receptacle with a 500W maximum capacity provided for external equipment
 - 8 module security cover/filler plates included with amplifier (PVMC)
 - Push-button remote volume control panel (Model RVCP, sold separately)
 - Security cover to selectively protect volume, bass, and treble controls (Model PVSC, sold separately)
 - Rack mountable (with rack mounting kit RPK87, sold separately)
 - 2 rack spaces high (3-1/2")
 - Listed to UL Standard 60065 for U.S. and Canada

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Technical Specifications

Power Output (RMS):	V35	V60	V100	V150	V250
<i>Rated:</i>	35W	60W	100W	150W	250W
<i>Typical @ 1 kHz:*</i>	45W	85W	140W	200W	340W

Frequency Response

<i>Transformer:</i>	45 Hz to 20 kHz; +0/-2 dB
<i>Direct:</i>	20 Hz to 20 kHz; +0/-1 dB

Distortion

<i>Transformer:</i>	< 0.5%**
<i>Direct:</i>	< 0.1%** (.05 typical @ 1 kHz)

Signal-to-Noise†

<i>Fundamental:</i>	-94 dB
<i>With SAX1R Module:</i>	-70 dB
<i>With MIC1S Module:</i>	-60 dB
<i>With TEL1S Module:</i>	-70 dB

Tone Controls

<i>Bass Frequency:</i>	@100 Hz (+/- 10 dB minimum)
<i>Treble Frequency:</i>	@10 kHz (+/- 10 dB minimum)
<i>Low Cut Frequency:</i>	@125 Hz (-6 dB/octave)

Sensitivity	0.4V (at backplane connector)
Output Regulation:	2 dB or better, no load to full load
Output Impedance	
<i>Transformer-Coupled:</i>	70V, 25V, 8 ohms (bal or unbal)
<i>Direct Coupled:</i>	4 ohms (minimum)

Thermal Emissions:	V35	V60	V100	V150	V250
<i>(BTU/hr.)</i>	174.2	204.9	495.2	696.7	911.9

Inserts

<i>Insert "OUT" Level:</i>	1VRMS (@FRP)
<i>Insert "OUT" Impedance:</i>	50 ohms maximum
<i>Insert "IN" Sensitivity:</i>	1VRMS
<i>Insert "IN" Impedance:</i>	10k ohms minimum

Bridging In/Out

<i>Bus Level:</i>	250 mVRMS (@FRP)
<i>Bus Impedance:</i>	10k ohms maximum

Pre-EQ Output

<i>Output Level:</i>	4VRMS (@FRP)
<i>Output Impedance:</i>	50 ohms maximum

AC Power Receptacle: 500 watts maximum power, unswitched

AC Voltage: 120V AC, 60 Hz

AC Current:	V35	V60	V100	V150	V250
	0.6A	1.3A	2.0A	3.5A	5.5A

Product Weight (lb.):	V35	V60	V100	V150	V250
	22	26	28	31	32

Dimensions:	17-1/4" W x 3-7/8" H x 14-3/4" D
	(all models)

* Typical, @1 kHz/0.1% THD/4-ohm direct

** THD+N, Maximum, Full bandwidth @ FRP

† Referenced to FRP output level, 20 Hz to 20 kHz bandwidth limited

Architect and Engineer Specifications

The amplifier shall be a Bogen Power Vector Amplifier, Model V35, V60, V100, V150, or V250. The amplifier shall be compatible with both high- (70/25V) and low- (4/8-ohm) impedance speakers, with the capability of 35, 60, 100, 150, or 250 watts, respectively.

The amplifier shall provide 8 module bays for plug-in input modules with two of the bays also capable of handling plug-in signal-processing output modules. There shall be 4 levels of priority available between all modules.

Each of the 8 module bays shall have an associated independent volume control. Each independent volume control shall have a signal/clip LED to indicate signal condition. Each amplifier shall also include bass and treble controls, as well as a motorized master volume control, which can be remotely operated using the RVCP accessory (sold separately).

For larger applications, the amplifier shall be able to bridge to another Power Vector amplifier or mixer using a built-in bridging jack and mute terminals. This connection shall effectively increase the number of inputs.

An 11-segment LED output level meter will register either the average or peak level of the amplifier's output level, as selected by an Average/Peak switch. Each Power Vector amplifier shall have a Tone Control Bypass switch and a Low-Cut Filter switch, both located on the rear of the amplifier in module bay 6.

A lockable switch will permit the selection of transformer-coupled output or direct output for speaker connections.

Signal-processing Insert jacks (RCA connectors) will allow external equipment to be inserted between the pre-amp output and the power amp input.

Each model will have a Pre-EQ, unbalanced (RCA jack), buffered output whose signal is post all volume controls, tone controls, and output module signal-processing, but before (pre-EQ) any external signal-processing equipment connected to the Insert jacks.

Each amplifier will have bridging in/out capability and individual access to internal module priority buses for easy connection of multiple amplifiers or mixers in a system.

Each amplifier will include a 500W maximum, unswitched AC power receptacle.

The amplifier shall fit into a 19" rack and fit in two rack spaces (2 RU). It shall allow the attachment of feet for tabletop placement. Each model shall measure 17-1/4" W x 3-7/8" H x 14-3/4" D. The V35 shall weigh 22 lb., the V60 - 26 lb., the V100 - 28 lb., the V150 - 31 lb., and the V250 - 32 lb.

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