



amplifiers / preamplifiers

2014 **PASS**

P a s s L a b o r a t o r i e s

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Pass Laboratories

# Point 8 Amplifiers

We're excited! Because we're celebrating our 23rd year by presenting the best amplifiers we've ever made. Our New Point 8 Series, X.8 and XA.8, operate "higher" into Class A than ever before and bridge the gap between measured performance and subjective experience.

Designed for audiophiles by even more demanding audiophiles, they invite listeners into the music as never before. Even more, they represent a summation of our expertise in designing amplifiers, while elegantly expressing our philosophy of more amplifier, more progress and more music. Seven years in the making, the Point 8 Series demonstrates our belief that the best products must be carefully adjusted until their components operate in harmony—then subjectively fine-tuned. Not satisfied with measurements alone, we put the amplifiers' state-of-the-art engineering through an extensive, rigorous listening process using six different sound systems to deliver peak musical experiences.

As a result, the amplifiers glow with innovation. For example, the output stages of the larger Point 8 amplifiers bias more deeply into the Class-A operating region. Their larger push-pull Class-A operating envelopes deliver low distortion and additional loudspeaker control at ordinary listening levels. And higher power MOSFETs, many more than usual, increase the amplifiers' Class-A operation while running at fractions of their stated specs to enhance both performance and reliability.

Still not content, we uniquely molded each model's front end to the specifics of its output stage so that the nine amplifiers' front ends vary in size, voltage, bias current, dissipation, and single-ended vs. push-pull bias distribution. The directly coupled front ends, which house the input and voltage gain stages, maximize each model's output stage performance, while imparting to each model its own subtle and unique sonic signature.





### Point 8 Amplifier Specifications Corrected 9/1/2014

Model	Channels	8 Ohm Power	Class A	Devices	Current	Power
	Number	RMS / Chanel Watts	Watts Peak	Output	Amps Peak	Consumed Watts
X150.8	2	150	15	40	20	375
X260.8	1	260	10	40	28	375
X250.8	2	250	25	56	28	450
X350.8	2	350	35	72	35	550
X600.8	1	600	100	72	50	550
XA30.8	2	30	60	40	20	375
XA60.8	1	60	120	40	30	375
XA100.8	1	100	200	56	40	450
XA160.8	1	160	320	72	50	550
XA200.8	1	200	400	72	50	750

# .8 Series



There's more — including larger power supplies, more storage capacitance, more precise reference voltages, and new, larger heat sinks — but suffice it to say that with the Point 8 Series, we move beyond cookie-cutter circuits.

**Point 8 / Point 5 amp Differences :**  
 The Point 8 amps present a more accurate representation of the recording venue. The dimensionality of the sound stage does not change no matter how complex the material. Layering of the instruments in the orchestra allows the orchestra to seem present in the listening room. There is more space and air around instruments, which leads to a greater sense of ease and music flow. The bass goes very deep and the highs are extended with out being edgy.

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# Point 5 Amplifiers

The Point 5 Series represented a highpoint in the evolution of our amplifiers. At the time we introduced our X.5 and XA.5 models, our R&D laboratories had accumulated several significant performance improvements we were eager for our customers to experience.

Two hallmarks of Point 5 Series amplifiers are improved power and control. They possess the dynamic range to do justice to the most advanced recordings, the elegance to retrieve the most sensitive microdynamics loudspeakers offer, and the ability to move easily from total silence to explosive transients without losing information. We achieved these ends through a number of refinements. For example, we replaced the input differential MOSFETs on our amplifiers with the same JFETs we use for the input devices on our MM and MC phono stages.

The JFETs deliver less noise, higher input impedances, and greater linearity. They operate self-biased within a symmetric quad topology in which each device is cascoded and level-shifted to form the full voltage gain stage of the amplifier. We also added more power-output devices, especially complementary power MOSFETs that provide more current and better power handling and linearity. In addition, our Point 5 output stages use a heavy bias current for push-pull, Class-A operation to a large portion of the rated power as well as a bias source for single-ended Class-A operation at low wattages. We also installed a newly developed bias generator to eliminate three sources of bias-current variation in the output stage. The new bias circuit also allows approximately 20 percent greater power output for a given supply voltage. Of critical importance, the Point 5 circuits resulted in lower distortion at all power levels and into all types of loads, particularly in the critical audio midrange.



### Point 5 Amplifier Specifications

Model	Channels	8 Ohm Power	Class A	Devices	Current	Power
	Number	RMS / Chanel Watts	Watts Peak	Output	Amps Peak	Consumed Watts
X150.5	2	150	10	40	18	200
X260.5	1	260	5	40	20	200
X250.5	2	250	15	40	20	300
X350.5	2	350	40	72	28	600
X600.5	1	600	80	72	36	600
XA30.5	2	30	60	40	18	200
XA60.5	1	60	120	40	20	200
XA100.5	1	100	200	40	28	300
XA160.5	1	160	320	72	36	600
XA200.5	1	200	400	72	48	700

# .5 Series



Finally, Point 5 Series amplifiers employ the acclaimed Supersymmetry™ circuit developed by Nelson Pass, which improves performance by canceling distortion and noise.

As a result, X.5 and XA.5 amplifiers embody significant improvements over their classic Pass Labs predecessors, while delivering the warmth, sweetness, depth and space that are the distinguishing characteristics of outstanding audio products. They also possess greater reliability. These amplifiers are harder to break and easier to repair if they ever do.



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## XP Preamplifiers

Our XP-30, XP-20 and XP-10 Line-Level Preamplifiers are the best Pass Laboratories has ever built. Their sound is dynamic, and their bass lines are exceptionally clear and clean. These ultra high-quality components accurately reproduce state-of-the-art recordings, lend more weight to highly dynamic passages, and present instruments and voices in refined spatial envelopes that reveal the nuances and details present even in loud, highly complex musical passages. The three preamps were created by Pass Labs' gifted audio designer Wayne Colburn as refined descendants of our highly acclaimed X-Series Preamplifiers. As a result, the XP Preamps, especially the triple-chassis XP-30, generate less noise, less crosstalk and less distortion, while delivering greater dynamic range, gain, output voltage and output current. The preamps' dramatically superior noise floors and fine detail retrieval make it practical to listen to and enjoy music even at very low volumes. They do not have to be played at live performance levels — although they can be played as loudly as any might dare — for listeners to enjoy the sheer pleasure of the musical experiences they create.

Our XP-25 and XP-15 Phono Preamplifiers are proud inheritors of all that Pass Laboratories has learned in nearly two decades of building some of the finest phono stages in the audio industry, from the Aleph Ono to the X-0no. Their steady evolution represents a mature sophistication in both thinking and component development.

The result of this evolution is a pair of phono preamps that demonstrate a measurable diminishment in background noise, higher available gain, and a sonic image with improved resolution. They also splendidly address the special needs of moving coil cartridges while bringing out the best from the more conventional high-output moving magnet cartridges.





# XP Series

## XP Preamplifier Specifications <sup>1,2</sup>

Model	Type	Chassis	Remote	Trigger Function	Input	XLR	RCA	Gain	Weight
		Boxes	Included	12 VDC	Pairs				
XP10	Line Level	1	Y	N	5	Y	Y	10	20
XP20	Line Level	2	Y	Y	6	Y	Y	10	40
XP30	Line Level	3	Y	Y	7 <sup>3</sup>	Y	Y	10	58
XP15	Phono	1	N	N	2	Y	Y	76	20
XP25	Phono	2	N	N	2	Y	Y	76	40
XVR-1	X-Over	2	N	N	1	Y	Y	11	36

1. All Chassis Dimensions are 17" W x 12" D x 4" H 2. Y = Yes, N = No 3. Channels



The twin-chassis XP-25 Phono Preamp delivers a new dimension of dynamics, inner detail and spectral richness. It boasts adjustable gain, two separate inputs, a low cut filter, a mute feature, and resistive and capacitive loading on the front panel for easy access. The single-chassis XP-15 is notable for performing more dynamically, quietly and affordably than the Pass Labs legacy products it replaced.



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## Our Goal

At Pass Labs we have one goal — to create products that invite you to listen. We want you to enjoy the experience so much that you go through your entire music collection — again and again... Each time a joyous discovery of something new. We want music lovers for the long haul.

To reach that goal, we continually strive to design amplifiers that deliver great sound, measure well and are reliable. This is achieved through ongoing R&D, and lots and lots of listening. Oscilloscopes and distortion analyzers are excellent tools, but they historically make lousy customers. Our real customers care most about the experience they get when they sit down to listen to their music.

Nelson Pass

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