

A COMPARISON OF CURRENT PRODUCTION 12AX7 TUBES ©2016

Graph Interpretation

All 12AX7's have an amplification factor (μ) of 100 ("high- μ "). Ideally, every 12AX7 should yield the same gain when placed in the same circuit; however, in reality there are comparative gain differences among 12AX7's.

- This graph is based on the average gain and noise measured from different tube brands, using the same number of samples for each brand. It should not be assumed that every single 12AX7 from a specific brand will match its place on this graph.
- The gain rating is only a relative reference (e.g. a rating of "10" does not mean ten times louder than a "1").

	Gain Rating (1-10)	Drawing	Noise
Frequency Response (Separated into Three Ranges)	1 2 3 4 5 6 7 8 9 10	Drawn to scale	1 = Low Noise 4 = High Noise
		Glass Diameter	
T-12AX7-GOLD-GEN	<p>This long plate, gold pin Russian made Genalex B759 is loaded with bite. It offers easy access to break-up and crisp highs making it brighter than the Mullard 12AX7.</p>		
		(.871 - .880")	
T-12AX7-MUL	<p>This long plate Russian made Mullard is powerful and thick, offering easy access to break-up with lots of top-end harmonic texture.</p>		
		(.871 - .880")	
T-12AX7LPS-SOVT	<p>This long plate Russian tube is smooth and tight. It has warm lows and mids with a top-end that offers more presence than the Sovtek WA, WB and WC tubes.</p>		
		(.871 - .880")	
T-12AX7-GOLD-TUNG	<p>This gold pin Russian made Tung-Sol is similar to the plain pin version, but with a little more top-end shimmer.</p>		
		(.872 - .881")	
T-12AX7-TUNG	<p>This Russian made Tung-Sol is tight, punchy and articulate.</p>		
		(.872 - .881")	
T-12AX7-EH	<p>This Russian tube has a straightforward tone with bite and easy access to break-up.</p>		
		(.872 - .881")	
T-12AX7-CV4004-MUL	<p>This Russian made Mullard CV4004 has shorter plates and a slightly leaner tone than the standard version.</p>		
		(.872 - .881")	
T-12AX7-GOLD-EH	<p>This gold pin Russian tube is very similar to the plain pin version.</p>		
		(.872 - .881")	
T-12AX7-GOLD-JJ	<p>This gold pin Slovakian tube takes the characteristics of the plain pin 12AX7/ECC83 version and boosts them up a notch.</p>		
		(.842 - .854")	

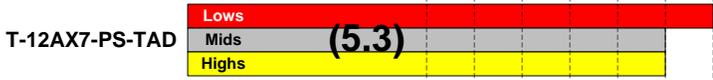
Gain Rating (1-10)

Frequency Response (Separated into Three Ranges)

1 2 3 4 5 6 7 8 9 10



This Chinese tube offers a lot of value and is commonly rebranded by other companies. It has a tight response focused on straightforward mids and highs.



This is Tube Amp Doctor's premium selected offering of the common Chinese tube.



This is Groove Tubes' offering of the common Chinese tube.



This is Ruby's offering of the common Chinese tube.



This is the "B" (noise-selected) version of the common Chinese tube.



This Chinese made Genalex offers a pleasant top-end chime and a leaner tone overall than the gold pin B759 version.



This long plate, gold pin Slovakian tube is very similar to the plain pin ECC803, but with slightly more gain and top-end harmonic texture.



This Slovakian tube is tight with a lot of articulation in the low mids and good presence in the highs.



This Russian tube is smooth and tight. It offers warm lows and mids without a lot of top-end texture.



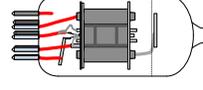
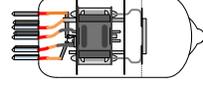
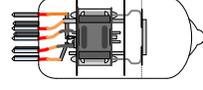
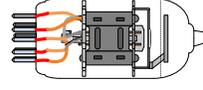
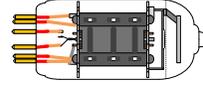
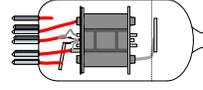
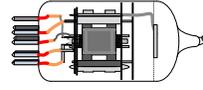
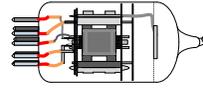
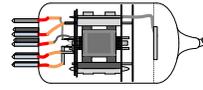
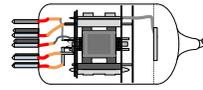
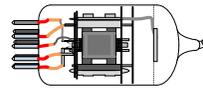
This Russian tube is very similar to the WA version.



This Chinese tube has a straightforward tone with tight mid frequency focus.

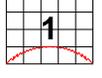
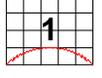
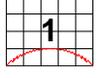
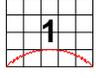
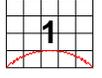
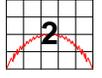
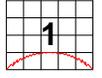
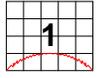
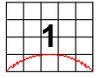
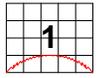
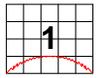
Drawing

Drawn to scale



Noise

1 = Low Noise
4 = High Noise



Glass Diameter

(.853 - .872")

(.853 - .872")

(.853 - .872")

(.853 - .872")

(.853 - .872")

(.847 - .869")

(.845 - .853")

(.842 - .850")

(.868 - .878")

(.868 - .878")

(.860 - .876")

Gain Rating (1-10)

Frequency Response (Separated into Three Ranges)

1 2 3 4 5 6 7 8 9 10



This long plate Slovakian tube has tight mid frequencies and top-end chime.



This Slovakian tube is smooth and warm with lots of top-end harmonic sparkle.



This Slovakian tube has a similar sound and feel to the plain pin ECC803 with slightly more low end emphasis.



This Chinese tube from Tube Amp Doctor sounds very similar to the 7025WA version.



This "high grade" Chinese tube from Tube Amp Doctor offers warmth with good presence and articulation.



This Russian tube has straightforward lows and mids with top-end shimmer.



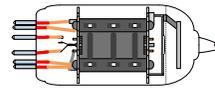
This long plate Russian tube sounds like a slightly lower gain version of the 12AX7LPS.



This long plate Russian tube has a straightforward tone with mid focused clarity.

Drawing

Drawn to scale

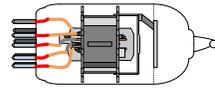


Glass Diameter

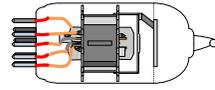
(.845 - .853")

Noise

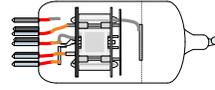
1 = Low Noise
4 = High Noise



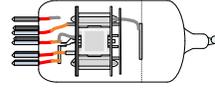
(.842 - .854")



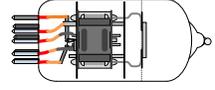
(.842 - .854")



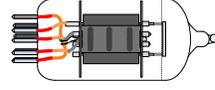
(.857 - .864")



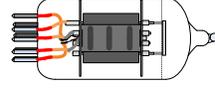
(.863 - .869")



(.868 - .878")



(.871 - .880")



(.871 - .880")

