

Well, in our search over the past 20 years for sonically better materials we have, at considerable cost, travelled to specialist exhibitions all over the world, and visited manufacturers to try to find partners able and willing to work with us to investigate and develop processes that result in improved sonic performance, you see some of the results here, in the development done in close collaboration with Rubycon of the Audio Note™ range of Electrolytic capacitors, or the highly specialised silver alloy used to make the non-magnetic Tantalum/Silver and the processes, sputter target depositing of resistive layer, the development of silver to silver welding for example, below is a picture of the sputter target machine used for our Tantalum resistors sitting at the back, Audio Note spent over \$ 50,000.00 restoring this machine just to be able to hear whether sputter targeting produced a better sounding resistor or not, fortunately it did!



Other developments include greatly improved core materials, the super permalloy and the 55% Nickel cores, both of which have been improved by studying and improving the heat treatment processes over and beyond what is possible with standard heat treatment processes, again a sizeable investment both in time and money.

Now to news on the Black Gate replacements, basically work on developing the necessary carbonised paper is ongoing, so far the paper manufacturer has not been able to mass produce paper with the completely even distribution of the carbon particles that is necessary to be able to mass produce the Black Gate replacements, processes have improved over the past 4 – 5 years, but we are still some way from having solved this problem, the other problem relates to the manufacture, sadly not only had Rubycon decommissioned the older machines before we managed to get through to their technical department and start the process of restarting production, but Nippon Kodoshi, the original paper manufacturer, had also scrapped the machines that made the Black Gate separator paper, which is essentially what makes the Black Gate capacitor so very special, so we are essentially having to start from scratch and so far this has taken 6 years and from the discussions we had with Rubycon in January just gone it is going to take at least another year or perhaps two for the first Black Gate replacements to go into production, so don't hold your breath!

Old & Not Great News!

On June 23, 2016 the UK voted to leave the European Union, as a result the British pound has been declining in value week on week against the Yen (and US\$ and Euro), unfortunately we buy a lot of our specialised parts in these 3 currencies, well, all of them in fact, so unfortunately we had to raise our prices of all the electrolytic capacitors on September 1, 2016 to reflect the considerable increases in cost we are facing.

However, since most of you will be buying in one of these three currencies there is not a real increase as such.

The tables below show the new prices, as the Pound keeps its slow slide in value, I unfortunately expect another price increase before the end of 2017.

Introduction to The Electrolytic Capacitor Range

In September 2014 we started releasing our new range of exclusively designed and manufactured electrolytic capacitors. We have a close working relationship with Rubycon in Japan which is allowing us to experiment with different materials and manufacturing methods, this is proving crucial in helping us understand the sonic properties of different materials and then develop the best sounding electrolytic audio capacitors possible, culminating in the development of the replacements for the famous Black Gate capacitors, once the various issues mentioned above have been worked out satisfactorily.

The first types to be made available are the standard 'Audio Note (UK)™ Electrolytic Audio Capacitor.

Overall we will build as complete an audio capacitor range for each quality level as practical starting initially with values to primarily needed make our own finished products, but also to allow DIY customers to improve their own designs with the Audio Note™ Standard range.

Below is a list of the eventual range for each Standard version.

Below is a table showing the eventual composition of the voltage and capacitance range, we may end up expanding on this as new products emerge that require that.

Capacitance	16 volts	25 volts	35 volts	50 volts	63 volts	100 volts	160 volts	350 volts	500 volts
0.47uF		X		X					
1.0uF				X		X			
2.2uF				X		X			
3.3uF				X		X			
5.0uF		X		X		X		X	X
10uF	X		X	X		X		X	X
15uF									X
22uF	X		X	X	X	X	X	X	X
33uF				X		X	X		
50uF	X	X	X	X	X	X	X	X	X
68uF								X	X
100uF		X	X	X	X	X	X	X	X
220uF	X	X			X	X	X	X	X
330uF				X		X			
470uF		X		X	X	X	X	X	X
680uF		X							
1,000uF		X		X	X				
2,200uF	X	X			X				
3,300uF	X								
4,700uF	X	X			X				
10,000uF	X	X			X				
68,000uF	X				X				
100,000uF					X				

Needless to say, building up an inventory of this many capacitors will require not just a very serious investment, but also some considerable time to prototype, audition, order, produce and deliver, so please do not order anything on this list unless it is also priced up on the lists below.

The Audio Note™ Standard Electrolytic Capacitors

Even though these capacitors represent the starting level in our new range, we have found them to provide considerably better sound quality than any other currently available high voltage electrolytic capacitor, from any manufacturer. They achieve this excellent level of performance by combining a high quality electrolyte with the best available standard paper and a specially developed foil. The result is an electrolytic capacitor of exceptional quality and price, suitable for use in any high voltage power supply Audio application.

As they become available, the Standard Audio Note (UK)™ Electrolytic Capacitors will be introduced in all Audio Note(UK)™ finished products from Level Zero through to the lower Level Three.

A range of low voltage capacitors using the same materials and construction has also been developed, which allows us to offer a wide selection of competitively priced, high quality electrolytic capacitors under the Audio Note(UK)™ brand.

The Standard Audio Note™ Electrolytic Capacitor High Voltage Range

See pictures below:

Value	Voltage	Polarization	Pin Pitch and Mounting	Size
5uF	350 volt	Polarized	Radial 5 mm	H 8 mm, W 11.5 mm
5uF	500 volt	Polarized	Radial 5 mm	H 20 mm, W 10 mm
10uF	350 volt	Polarized	Radial 5 mm	H 16 mm, W 10 mm
10uF	500 volt	Polarized	Radial 5 mm	H 20 mm, W 12.5 mm
22uF	350 volt	Polarized	Radial 5mm	H 20 mm, W 10 mm
22uF	500 volt	Polarized	Snap in 11 mm	H 25 mm, W 20 mm
50uF	350 volt	Polarized	Radial 8 mm	H 25 mm, W 16 mm
50uF	500 volt	Polarized	Snap in 11 mm	H 30 mm, W 20 mm
68uF	350 volt	Polarized	Radial 8 mm	H 20 mm, W 25 mm

68uF	500 volt	Polarized	Snap in 11 mm	H 40 mm, W 20 mm	
100uF	500 volt	Polarized	Snap in 11 mm	H 25 mm, W 30 mm	
220uF	350 volt	Polarized	Snap in 11 mm	H 30 mm, W 23 mm	
220uF	500 volt	Polarized	Snap in 11 mm	H 61 mm, W 25 mm	
470uF	350 volt	Polarized	Snap in 11 mm	H 40 mm, W 30 mm	
470uF	500 volt	Polarized	Snap in 11 mm	H 61 mm, W 35 mm	



The Audio Note™ Standard Electrolytic Capacitor Low Voltage Range

Value	Voltage	Polarization	Pin Pitch and Mounting	Size	
5uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
10uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
22uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
22uF	63 volt	Polarized	Radial	H 11 mm, W 5 mm	
22uF	100 volt	Polarized	Radial	H 11 mm, W 6.3 mm	
22uF	160 volt	Polarized	Radial	H 12.5 mm, W 10 mm	
50uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
50uF	63 volt	Polarized	Radial	H 11 mm, W 6.3 mm	
50uF	100 volt	Polarized	Radial	H 11.5 mm, W 8 mm	
100uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
100uF	25 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
100uF	63 volt	Polarized	Radial 3 mm	H 11.5 mm, W 8 mm	
100uF	100 volt	Polarized	Radial 5 mm	H 16 mm, W 10 mm	
100uF	160 volt	Polarized	Radial 5 mm	H 25 mm, W 12.5 mm	
220uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 6.3 mm	
220uF	25 volt	Polarized	Radial 2 mm	H 11 mm, W 6.3 mm	
220uF	63 volt	Polarized	Radial	H 16 mm, W 10 mm	
220uF	100 volt	Polarized	Radial 5 mm	H 20 mm, W 13 mm	
220uF	160 volt	Polarized	Snap in 11 mm	H 20 mm, W 20 mm	
330uF	25 volt	Polarized	Radial 3 mm	H 11.5 mm, W 8 mm	
470uF	25 volt	Polarized	Radial 4 mm	H 12 mm, W 7 mm	
470uF	63 volt	Polarized	Radial 7 mm	H 20 mm, W 12.5 mm	
470uF	100 volt	Polarized	Radial 7 mm	H 25 mm, W 16 mm	
470uF	160 volt	Polarized	Snap In 10 mm	H 30 mm, W 20 mm	
680uF	25 volt	Polarized	Radial 5 mm	H 10 mm, W 12.5 mm	
680uF	63 volt	Polarized	Radial	H 25 mm, W 12.5 mm	
1,000uF	16 volt	Polarized	Radial 5 mm	H 13 mm, W 10 mm	
1,000uF	25 volt	Polarized	Radial 5 mm	H 16 mm, W 10 mm	
1,000uF	63 volt	Polarized	Radial 7 mm	H 25 mm, W 16 mm	
2,200uF	16 volt	Polarized	Radial 5 mm	H 20 mm, W 10 mm	
2,200uF	25 volt	Polarized	Radial 5 mm	H 20 mm, W 12.5 mm	

2,200uF	63 volt	Polarized	Snap in 10 mm	H 35 mm, W 20 mm	
4,700uF	16 volt	Polarized	Radial 5 mm	H 25 mm, W 13 mm	
4,700uF	25 volt	Polarized	Snap in 10 mm	H 25 mm, W 20 mm	
4,700uF	63 volt	Polarized	Snap in 10 mm	H 45 mm, W 22 mm	
10,000uF	16 volt	Polarized	Snap in 10 mm	H 30 mm, W 22 mm	
10,000uF	25 volt	Polarized	Snap in 10 mm	H 35 mm, W 17 mm	
10,000uF	63 volt	Polarized	Snap in 10 mm	H 45 mm, W 30 mm	
68,000uF	16 volt	Polarized	Snap in 10 mm	H 50 mm, W 35 mm	

More values of the lower voltage Standard versions will arrive in October/November 2017.

