



An  
Audio Note

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, the hand wired KAISEI especially all of which are currently the premier electrolytic audio capacitor available 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.

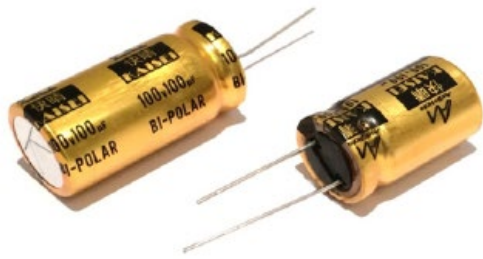
The tables below show the new prices, as the Pound keeps its slow slide in value, I unfortunately expect another price increase before the end of 2017.

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', which were closely followed in October 2014 by the 'Audio Note(UK)™ KAISEI Audio Capacitor, the AN KAISEI will be available in a standard polarised and a premium bi-polar or non-polarised version.

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 either the Audio Note™ Standard, Audio Note™ KAISEI polar and Audio Note™ KAISEI bi-polar/non-polarized, and eventually the Audio Note™ Black Gate replacement range, which should also be available in polarised and bi-polar versions.



### The Audio Note™ KAISEI Audio Quality Electrolytic Capacitors

The Audio Note™ KAISEI range has been developed over the past 4 years in collaboration with the engineering team at Rubycon (of Black Gate fame). Whilst working on our top of the line Black Gate replacements (which are still work in progress awaiting solutions to the problems in earlier parts of this document) we realised that it would be possible to put together a range of more affordable electrolytic capacitors that use all of the same materials as these supreme components (the same special electrolyte, foil and construction quality) apart from the hyper expensive and extremely difficult to produce Graphite impregnated paper, so the only difference between the KAISEI capacitors and the forthcoming Black Gate replacements is that the paper is not graphite impregnated in the KAISEI, otherwise they are essentially the same.

The first Audio Note™ KAISEI range has been available since late September – early October 2014 and started with the following 4 values, we will add a 220uF/500 volt version late 2015 plus bi-polar versions of the 22uF, 50uF and 100uF, so the entire range of KAISEI capacitors will be available in both polarised and non-polarised (bi-polar).



### The Audio Note™ KAISEI Audio Quality High Voltage Electrolytic Capacitors

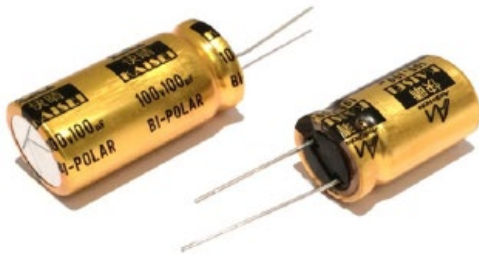
.00

Value	Voltage	Polarization	Pin Pitch and Mounting	Size	
5uF	350 volt	Polarized	Radial 5 mm	H 16 mm, W 10 mm	
5uF	350 volt	Non-polarized	Radial 5 mm	H 20 mm, W 10 mm	
10uF	350 volt	Polarized	Radial 5 mm	H 20 mm, W 12.5 mm	
10uF	350 volt	Non-polarized	Radial 5 mm	H 25 mm, W 12.5 mm	

5uF	500 volt	Polarized	Radial	H 20 mm, W 20 mm	
5uF	500 volt	Non-polarized	Snap in 11 mm	H 20 mm, W 20 mm	
10uF	500 volt	Non-polarised	Snap in 11 mm	H 30 mm, W 20 mm	
22uF	350 volt	Polarised	Radial 7 mm	H 26 mm, W 16 mm	
22uF	350 volt	Non-polarized	Snap in 11 mm	H 20 mm, W 20 mm	
22uF	500 volt	Polarized	Snap in 11 mm	H 30 mm, W 24 mm	
22uF	500 volt	Non-polarized	Snap in 11 mm	H 36 mm, W 24 mm	
50uF	500 volt	Polarized	Snap in 11 mm	H 50 mm, W 25 mm	
50uF	500 volt	Non-polarized	Snap in 11 mm	H 55 mm, W 25 mm	
68uF	350 volt	Polarized	Snap in 11 mm	H 40 mm, W 23 mm	
68uF	350 volt	Non-polarized	Snap in 11 mm	H 40 mm, W 25 mm	
68uF	500 volt	Polarized	Snap in 11 mm	H 50 mm, W 25 mm	
68uF	500 volt	Non-polarized	Snap in 11 mm	H 46 mm, W 30 mm	
100uF	350 volt	Polarized	Snap in 11 mm	H 45 mm, W 22 mm	
100uF	350 volt	Non-polarized	Snap in 11 mm	H 45 mm, W 25 mm	
100uF	500 volt	Polarized	Snap in 11 mm	H 50 mm, W 30 mm	
100uF	500 volt	Non-polarized	Snap in 11 mm	H 60 mm, W 30 mm	
220uF	350 volt	Polarized	Snap in 11 mm	H 50 mm, W 30 mm	
220uF	350 volt	Non-polarized	Snap in 11 mm	H 50 mm, W 43 mm	
220uF	500 volt	Polarized	Snap in 11 mm	H 60 mm, W 35 mm	

The Standard Range is now nearly complete, we will be adding the remaining values in 2018 to complete.

The Audio Note™ KAISEI Low Voltage Electrolytic Capacitors



Pictured above are the first of what will become a wide range of KAISEI low voltage capacitors, they will all come in two versions, standard polarized and bi-polar, the bi-polar being the premium versions sonically and of course in terms of price.



Value	Voltage	Polarization	Pin Pitch and Mounting	Size	Price Excl. Vat
-------	---------	--------------	------------------------	------	-----------------

5uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
5uF	16 volt	Non-polarized	Radial 2 mm	H 11 mm, W 5 mm	
10uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
10uF	16 volt	Non-polarized	Radial 2 mm	H 11 mm, W 5 mm	
22uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
22uF	16 volt	Non-polarized	Radial 2 mm	H 11 mm, W 5 mm	
22uF	63 volt	Polarized	Radial 3 mm	H 11.5 mm, W 8 mm	
22uF	63 volt	Non-polarized	Radial 3 mm	H 16 mm, W 10 mm	
22uF	100 volt	Polarized	Radial 5 mm	H 16 mm, W 10 mm	
22uF	100 volt	Non-polarized	Radial 5 mm	H 20 mm, W 12.5 mm	
22uF	160 volt	Polarized	Radial 5 mm	H 20 mm, W 10 mm	
22uF	160 volt	Non-polarized	Radial 5 mm	H 25 mm, W 12.5 mm	
50uF	16 volt	Polarized	Radial 2 mm	H 11 mm, W 5 mm	
50uF	16 volt	Non-polarized	Radial 2 mm	H 11 mm, W 6.3 mm	
50uF	63 volt	Polarized	Radial	H 16 mm, W 10 mm	
50uF	63 volt	Non-polarized	Radial 5 mm	H 20 mm, W 12.5 mm	
50uF	100 volt	Polarized	Radial 5 mm	H 25 mm, W 12.5 mm	
50uF	100 volt	Non-polarized	Radial 8 mm	H 25 mm, W 15 mm	
50uF	160 volt	Polarized	Snap In 10 mm	H 25 mm, W 20 mm	
50uF	160 volt	Non-Polarized	Snap In 10 mm	H 33 mm, W 20 mm	
100uF	16 volt	Polarized	Radial	H 11 mm, W 6.3 mm	
100uF	16 volt	Non-polarized	Radial	H 11.5 mm, W 8 mm	
100uF	25 volt	Polarized	Radial 5 mm	H 12.5 mm, W 10 mm	
100uF	25 volt	Non-polarized	Radial	H 16 mm, W 10 mm	
100uF	63 volt	Polarized	Radial 8 mm	H 20 mm, W 12.5 mm	
100uF	63 volt	Non-polarized	Radial 8 mm	H 20 mm, W 15 mm	
100uF	100 volt	Polarized	Radial 8 mm	H 26 mm, W 15 mm	
100uF	100 volt	Non-polarised	Radial 8 mm	H 35 mm, W 18 mm	
100uF	160 volt	Polarised	Radial 10 mm	H 35 mm, W 22 mm	
100uF	160 volt	Non-Polarised	Radial 10 mm	H 44 mm, W 22 mm	
220uF	16 volt	Polarized	Radial 5 mm	H 12.5 mm, W 10 mm	
220uF	16 volt	Non-polarized	Snap in	H 16 mm, W 10 mm	
220uF	25 volt	Polarized	Radial 5 mm	H 20 mm, W 10 mm	
220uF	25 volt	Non-polarized	Radial 5 mm	H 20 mm, W 13 mm	
220uF	63 volt	Polarized	Radial 8 mm	H 25 mm, W 16 mm	
220uF	63 volt	Non-polarized	Radial 8 mm	H 31.5 mm, W 18 mm	
220uF	100 volt	Non-polarized	Radial 8 mm	H 40 mm, W 25 mm	
220uF	160 volt	Polarised	Snap in 10 mm	H 45 mm, W 25 mm	
220uF	160 volt	Non-polarized	Snap in	H 55 mm, W 25 mm	
330uF	25 volt	Polarized	Radial 8 mm	H 20 mm, W 12.5 mm	
330uF	25 volt	Non-polarized	Radial 5 mm	H 25 mm, W 12.5 mm	
470uF	25 volt	Polarised	Radial	H 25 mm, W 12.5 mm	
470uF	25 volt	Non-polarised	Radial 8 mm	H 25 mm, W 16 mm	
470uF	63 volt	Polarised	Snap in 10 mm	H 25 mm, W 20 mm	
470uF	63 volt	Non-polarised	Snap in 10 mm	H 30 mm, W 22 mm	
470uF	100 volt	Polarised	Snap in 10 mm	H 44 mm, W 25 mm	
470uF	100 volt	Non-polarised	Snap in 10 mm	H 45 mm, W 35 mm	
470uF	160 volt	Polarised	Snap in 10 mm	H 55 mm, W 35 mm	
470uF	160 volt	Non-polarised	Snap in 10 mm	H 60 mm, W 35 mm	
680uF	25 volt	Polarised	Radial 8 mm	H 20 mm, W 16 mm	
680uF	25 volt	Non-polarised	Radial 8 mm	H 30 mm, W 16 mm	
680uF	63 volt	Polarised	Snap in 10 mm	H 30 mm, W 20 mm	
680uF	63 volt	Non-polarised	Snap in 10 mm	H 40 mm, W 22 mm	
1,000uF	25 volt	Polarized	Radial 8 mm	H 25 mm, W 18 mm	
1,000uF	25 volt	Non-polarized	Radial 8 mm	H 35.5 mm, W 18 mm	

1,000uF	63 volt	Polarized	Snap-in 10 mm	H 35 mm, W 22 mm	
1,000uF	63 volt	Non-polarized	Snap-in 10 mm	H 40 mm, W 25 mm	
2,200uF	16 volt	Polarized	Radial 8 mm	H 30 mm, W 16 mm	
2,200uF	16 volt	Non-polarized	Radial 8 mm	H 30 mm, W 18 mm	
2,200uF	25 volt	Polarized	Snap in 10 mm	H 30 mm, W 20 mm	
2,200uF	25 volt	Non-polarized	Snap in 10 mm	H 35 mm, W 22 mm	
2,200uF	63 volt	Polarized	Snap in 10 mm	H 45 mm, W 25 mm	
2,200uF	63 volt	Non-polarized	Snap in 10 mm	H 45 mm, W 35 mm	
4,700uF	16 volt	Polarised	Snap in 10 mm	H 35 mm, W 22 mm	
4,700uF	16 volt	Non-polarized	Snap in 10 mm	H 45 mm, W 22 mm	
4,700uF	25 volt	Polarised	Snap in 10 mm	H 35 mm, W 25 mm	
4,700uF	25 volt	Non-polarized	Snap in 10 mm	H 40 mm, W 30 mm	
4,700uF	63 volt	Polarized	Snap in 10 mm	H 45 mm, W 35 mm	
10,000uF	16 volt	Polarized	Snap-in	H 45 mm, W 25 mm	
10,000uF	16 volt	Non-polarized	Snap-in 10mm	H 45 mm, W 30 mm	
10,000uF	25 volt	Polarized	Snap in 11 mm	H 45 mm, W 30 mm	
10,000uF	25 volt	Non-polarized	Snap in 11 mm	H 50 mm, W 35 mm	
10,000uF	63 volt	Polarised	Snap in 11 mm	H 60 mm, W 35 mm	



We have expanded the KAISEI polar and bi-polar ranges as quickly as possible, one, because the polarised versions replace the low voltage versions of the Cerafine and the Silmic in our own products, as we can no longer get in all the values we need and, two, because both the KAISEI versions sound far better than either the Cerafine and Silmic they will be replaced as we get the KAISEI values needed in stock, three, the KAISEI non-polarised versions can successfully replace some of the old Black Gate capacitors but re-voicing our higher level products using a mix of non-magnetic resistors and other parts.