

CABLE SECRETS

Chord Company MD Alan Gibb on the art of making a better cable– and how not to be a liability to customers

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PLUS

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LINN KLIMAX DSM

Martin Colloms listens to the Scottish company's flagship network player, and finds it's the finest he's yet encountered



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Marianne Colloms, Publisher

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SoundStage

There's no substitute for a real music collection, whether it's kept on discs or hard disks: Andrew Everard may be viewed as a Luddite by some of his more 'forward-thinking' acquaintances, but he's glad he's not reliant on a decent Internet connection for all his listening.

Y'see, I'd always thought of myself as being pretty much ahead of the curve, with just about all of my music collection consigned to a battery of network stores, ready for instant summoning-up and playing: whether it's some hard-hitting rock or a limpid solo piano performance, it's all just a swipe or two and a few taps away, whether on the main system, at my desk or even in the kitchen. Or indeed in all three locations, with just a bit more interaction with phone or tablet – ensuring I don't miss a word of a radio play or documentary when I need to make a cup of coffee or whatever.

However, what I see as pretty much state of the art appears to place me, in some eyes, only just one step on from extracting a wax cylinder out of its cardboard tube to enjoy an all-too-fleeting couple of minutes of music. Having casually mentioned the other evening to a fellow music-listener that I was particularly impressed with an album I'd just bought and downloaded, I was aware that a couple of words in what I'd just said were somehow failing to compute – namely 'bought' and 'downloaded'. Although of a similar age to me, and thus well able to remember when buying music meant a choice of LPs or cassettes, it seems my friend had bought the whole music streaming thing, hook, line and sinker.

As a result, he views actually buying music, one album at a time, as one might having to go down to the bicycle shop to have the accumulator for the family radio recharged, or waiting for the Cresta lorry to come and deliver your cream soda. Heaven knows what he'd make of those hipster music enthusiasts sipping an early morning soy-milk cappuccino in the chilly Record Store Day morning light...

Anyway, it seems I am resolutely old-tech, and actually owning recordings in any form, physical or digital, is so 20th Century as to be unthinkable in this enlightened age. You know, a bit like actually owning a car rather than renting something you could never afford for a low monthly payment, and then having nothing to show for it at the end of the rental period apart from a bill should you wish to keep the thing.

I can see the point of the streaming services, and make use of both Qobuz and Tidal to sample new recordings before deciding which to buy – or at least I do when Tidal's playing nicely with Roon, which for a while recently it wasn't until the nice people at Tidal Towers worked some behind the scenes magic.

And that brings me back to my 'no substitute for files' thesis: I'm writing this at the end of the weekend of the Unholy Trinity of Storms – Dudley, Eunice and Franklin – with Gladys said to be on the way, and no doubt Heracles and Improbability (or whatever they choose to call them) sometime soon. And while I didn't suffer anything more serious having to chase a wheelie-bin down the road, a series of power flickers repeatedly disrupted my Internet connection, followed by a gradual slowdown my ISP denied for most of a day, and then confirmed as a major fault. Suddenly I had maximum download speeds of a fractions of a Mbps, zero upload speed, and a fix date some days in the future. Why the delay? 'We're stretched to our limits – it's the storms, you know,' came the reply (well, they couldn't blame Covid, now we've seized back our freedom and all that).

Point is, were I to have been entirely reliant on streaming, I would have had nothing to listen to in order to while away the time I spent trying to work and deliver copy to various clients. Then having to write something, transfer it to my phone and then deliver it in text-sized chunks had me harking back to the old days of dial-up and acoustic couplers. Internet radio was out, as of course were the streaming services, Roon wasn't talking to its data servers, and – well, the rest would have been silence had I not been able to turn to my extensive network library, to play anything I wanted. And that, in a nutshell, is why I'm sticking to keeping my modern equivalent of the hand-cranked gramophone, however much of a crusty that makes me.

And don't even get me started on the politics of a favourite artist suddenly vanishing from your streaming service of choice...

Striking the right Chord

NOW ALMOST 40 YEARS OLD, THE CHORD COMPANY IS STILL BRITISH THROUGH AND THROUGH – AND PROUDLY INDEPENDENT. CHRIS FRANKLAND TALKS TO MD ALAN GIBB ABOUT THE COMPANY’S PHILOSOPHY AND SOME OF THE SECRETS OF A GOOD CABLE

This year, British cable specialist The Chord Company will be two years away from its 40th anniversary. During that time, it has constantly evolved, researched materials and technology for its ever-expanding range of products, and met the challenges of the brave new digital world head-on.

I am sitting in the boardroom of its Wiltshire headquarters with MD Alan Gibb, keen to find out more about this company’s long journey, especially as – while many iconic UK companies have ended up in foreign ownership – The Chord Company has remained proudly independent.

It was set up in 1984 to make cables for Naim Audio’s US retailers who were crying out for better quality DIN-to-phono interconnects. It was early days for Naim, and that company had enough on their plate keeping up with demand for their amplifiers.

Founder Sally Kennedy was then married to Naim executive Paul Stephenson and The Chord Company started out making cables in her home helped by a few Naim employees in the evenings. The first order from the States for the new Chrysalis cable was for 250, and in 1986 things really took off when they got a good review in my old magazine, *Hi-Fi Review*.

The Chord Company now employs 26 staff at its Amesbury base, to which it moved to in 2003, when Alan Gibb joined the company. Three years ago, there was a significant change at The Chord Company. Gibb tells me that Sally had been wanting to step back from the business and enjoy her retirement, but was determined to preserve the integrity of the company: “She didn’t want to retire and sell it to some faceless corporation that would just want to make more money by having everything made in China. She wanted the company to continue to develop and grow on the basis of making good, honest products.

“So it seemed very natural for her that the people who had been here the longest, and had contributed to all of that, would still have a job and that stuff would still be made here. So, three years ago, myself, Doug Maxwell and Richard Senior, formed a management buyout team. Doug was doing all of the sales work, I was doing more of the product development.”

Gibb adds: “I am still MD, Doug is sales director and Richard is operations director, but in essence we have a third each and the really significant decisions

need all of us to agree. It is a good structure and we all want to carry on as before.”

He tells me that turnover has consistently grown by between 15% and 20% a year and even in 2020, with the Covid-19 pandemic, which created a spike in demand with people not spending on eating out and expensive holidays, sales increased by around 49%.

Everyone’s an enthusiast

I ask Gibb about the ethos behind the company. “Everyone in the company is a hi-fi or music enthusiast. Richard’s a good drummer. Dave Shannon sings. Dave Maddell on production is a member of a band, so they care how things sound.

We’re very focused on making something you’d want to have yourself: if we didn’t want to buy it, how could we expect someone else to?”

Before joining the company, Gibb was export sales manager at Linn Products in Scotland. As he explains: “I came in to here help with sales and – with the help of some of the guys here – we found a way to export all the data from Sage into Excel and started to manipulate and analyse it. And I would say things like, ‘why don’t you sell to Japan?’, but the company was fully occupied making the stuff and didn’t have the connections I’d built up at Linn. I’d phone someone, in whatever country, who I knew might not want to distribute us, but might be able to suggest a decent company that would – guys more interested in performance than box-shifting. And we started to do more and more business.”

Shows were a key part of that drive. He recalls: “I said that when we go to a hi-fi show, we’re not just going to sit in a room, play music and chat to our mates – we’re going to play them the differences between things, so you can actually hear what happens when you do stuff. If you just play music, people will stick their head in and think this doesn’t sound very good, or they don’t like that music; play them a difference, and they remember that change.”

Gibb travelled abroad extensively to promote The Chord Company in markets such as Japan and

Hong Kong, and of course the product range has expanded massively since those first Chrysalis cables. Now there are seven ranges, from the entry-level C Series to the top-of-the-line Music series, and analogue and digital interconnects with a variety of terminations from phono to Burndy, speaker cables and even tonearm cables.

“The Chord Company started from that Chrysalis cable, and we worked our way up from there,” says Gibb. “We spent a lot of effort trying to make everything as affordable as possible. And even when you look at some of our flagship products, they’re a substantial investment and a lot of people struggle to appreciate how a cable can be so expensive. But the current C Range starts around £50, the Clearway starts around £100, up to the Music range, which could be around £5,000.”

Driving evolution

What were the factors that drove that product evolution? “Some of it was dictated for us. When I started, the great demon we always tried to avoid with record players was hum, which was low frequency. With the advent of high-frequency noise from Bluetooth, LED and LCD lights, Wi-Fi, etc, any piece of wire can act as an antenna. It won’t be transmitting much, because of the voltages involved, but it is acting as a soak. So the way the company designs cables has evolved in response to what is going on in people’s living rooms: we’ve always spent time and effort to try to make sure the cables work in the real world. So the shielding has changed from being something that we had on our flagship cables, but not really on the cheaper stuff, until now even the C Range is fully shielded.

“We’ve always stuck with silver-plated copper for the conductors, which gives you a better bandwidth, and we also use that for the shields in our top cables. As you go down the range, they are aluminium foils with magnesium, and all of these are trying to give you the benefits of the shielding but without the financial hit.”

Gibb’s role is now essentially to look after R&D: “That’s what I mainly do now: Doug and Richard look after everything else. A lot of it is just keeping abreast of materials, improvements, trying stuff out, fixing problems and finding suppliers.”

One thing I am very keen to quiz Gibb on is the new GroundARAY high-frequency noise-reduction device the company first launched a year ago in Japan. But before getting into that, I want to get some insights from him about how they approach cable manufacturing and design.

Most of the cables from The Chord Company are assembled in its own factory, but Gibb acknowledges it’s a small company and there are only so many minutes in a day. He continues:





“Sometimes that means you have to go abroad if you are trying to make a cable to a price, such as the C Range. You have to go to Taiwan or the Far East, purely and simply because there is nobody left in the UK doing that. We have been working with our C Range supplier in China for over 20 years and he knows we don’t want ‘best price’, we want ‘this quality’ and will pay for that.”

Further up the range, it’s using suppliers in Europe and the UK and, for the really high-end stuff, the wire is manufactured in the USA. And this is purely down to “finding companies that can meet the specs that we are looking for”.

Of the six people on the Chord Company’s production line, all bar one have been with the company for a long time, and can end up making a variety of cables in one day. Gibb explains that the top cables place higher demands on the skills of the technician and can take up to an hour to make; a Clearway cable takes around eight minutes.

100% listening

For the top-of-the-line Music cables, every single cable is listened to before it goes out: “That’s what the end user is paying that kind of money for: they’re not casual listeners and won’t be using them for background music. This is someone who’s invested a considerable amount of time, effort and money to get as much as possible from a piece of recorded music, to enjoy the feeling and emotional content. If it doesn’t sound right, it’s not fit for purpose, and these people will be very quick to tell you if it doesn’t sound the same as the one they heard in the shop. We can’t allow that to happen.”

But what are the magic ingredients involved in making a good cable?

Gibb kicks off with an obvious caveat, but one worth stating: “The most fundamental thing is that it’s got to play music.” Then he adds: “That’s how the company started, not in a kind of grand master way, and over the years you start to realise ‘Aha! Every time you do this, it works better’ and then you have to connect that to the science behind it.

“Wires in essence are passive devices, so they can’t give you anything apart from interference and noise. But they lose signal, the small stuff first. And unfortunately, the small stuff gives you the timing, the rhythm, the intonation – all the tones and small details. So it’s been a pursuit to preserve as much of that as you can without picking up extra nasties.”

Digging deeper into the DNA of a cable, he adds: “These are mechanical devices, so the accuracy and precision of the shield, how far it is away from the conductor, how many cores you use, whether the conductor is twisted, how many twists you have per metre, are all things that over the years have been fine-tuned. And when the company started

to get bigger, ordering larger quantities, we got the opportunity to access larger, more sophisticated suppliers. We moved from buying off-the-shelf from a catalogue to using bespoke materials built to the specification we’d gleaned from our experience.”

Delving into how a wire is manufactured, Gibb explains: “If you take a solid-core cable, you have one bit of copper. You can extrude it quite slowly and get a very nice surface finish. In a multi-strand cable, if it has been extruded at speed from a supplier that is money- and price-oriented, then those strands of copper are compromised. At a microscopic level, you end up with a very wavy surface that gives you a lot of problems. So a good solid-core cable will always beat a bad, multi-stranded cable. All things being equal, we would always go with multi-stranded.

“On our top cables – Music, Sarum and Sarum T – as well as being slowly cold-extruded in a nitrogen atmosphere to avoid that surface waviness, they’re silver-plated and also ground and polished, which is a phenomenally expensive thing to do.

“On cheaper cables, silver plating is actually a good way to improve the surface finish, because when you plate with silver, it gives you a better finish unpolished. The downside with silver is that you have to be really careful with the insulation material. The only insulation material we would be happy using is either PTFE, or Teflon as people know it, or Taylon, which is our top insulator. If you use a cheaper material, you can end up with a really bright, nasty and horrible sound.”

Hear the difference

Gibb explains that the final arbiter for The Chord Company has always been whether you can hear a difference. “And not whether it’s different, but whether it brings you deeper into the music: is it more musically involving? And we’ve always stuck to that. If you’re spending more money, it should give you more insight into, and more enjoyment of, that piece of music.

“Sally had a philosophy that ‘if you can’t do it yourself, go and find someone who can’, and this was never truer than for the Music series. The cable we were looking at in the Music range uses such advanced technology that is generally used in military and space applications. We’re not even allowed in their factory – it’s seriously advanced stuff! And as the configuration that we want is useless for radar applications, they’re happy to make it for us – giving us access to technology we could never otherwise get our hands on.”

The discovery of the radical new insulation material used in the Music range, which Chord calls Taylon, came from a chance meeting between Gibb and someone from the US company. They got

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talking about what they both did and when Gibb mentioned he produced cables. The guy asked him, “is phase important?” – which really piqued Gibb’s interest – then went on to ask if he realised that Teflon isn’t phase-stable at room temperature?

Asking how they solved that led to Gibb’s discovery that they made their own, very stable, insulation material, and he eventually laid hands on a sample of the cable and its special insulation. When they listened to it, he remembers it was “jaw-droppingly better”. So the Music range was born.

In the digital arena, I have to ask Gibb why, as some boffins would contest, a cable should make any difference if a digital signal is just zeros and ones?

He smiles and answers: “Well, cables connect two boxes together. It is not just noughts and ones you have passing between the two. If you are basically squirting RF at 44.1kHz, down a cable and spraying that around the back of your equipment, it can disrupt stuff and pick up noise. At the end of the day, it is an analogue signal, a square wave, and you need a cable with an infinitely high bandwidth to get that rise time, and that rise gives you your timing. If you have distorted that, it may not be noticeable when transferring a Microsoft Word file if a couple of packets get messed up, but with audio it is not just whether it is a one, it’s ‘when’ it is a one.”

What is GroundARRAY?

And so we come neatly to GroundARRAY – those little devices you plug into your system, said to help eliminate high-frequency noise. They plug into wherever the main source of such noise is in your system – such as your router, DAC or streamer.

Sounds like smoke and mirrors? Well, I’m afraid to say I’ve tried them and, dammit, they do work – but how? Gibb tells me that they first got thinking about this with the TunedARRAY and SuperARRAY cables. “We were trying to achieve the same thing – knocking out high-frequency mush. It’s tiny amounts, but what staggered us was that these tiny amounts had a big impact on what we could hear.

“On a cable, there’s a limit to what you can do – otherwise you end up with a whopping great metal box on it – so we decided that we could make something that would be far more effective, but was far too big to put on a cable. And if it’s your router that’s making all the noise, it’s better to reduce it at source, rather than letting it get around the system.

“However, we then discovered that both the material and design we were using were both very microphonic, so we put them in a substantial aluminium case, filled it with resin and we got a quantum jump in performance. And when you get rid of the background noise, all of the little things that were getting drowned out by that noise become easier to hear.”



GroundARRAY, he explains, “is entirely passive in its operation. It’s filled with a material that absorbs high-frequency noise and turns it into heat. A bit like the BAF wadding inside a loudspeaker.” He adds that a type of GroundARRAY for the mains is also going to be incorporated in the company’s new mains block, due for introduction when we spoke.

Refining the network

In March 2020, having cheekily acquired the rights to the historic name, the company launched its English Electric network switch, made to its specification by a supplier in Taiwan. “We’d discovered that while things like the Netgear routers were great products for next to no money, low noise was not uppermost in the designs. So we knew there was something worth looking at.

“We told the supplier that our main goal was to get a product out that was OK musically, not a lot of money, and would cut down that background noise. It won’t fix anything that’s no good, but it is a nice step in the right direction.”

And what of the future for The Chord Company? “Hopefully we can get access to more technology, allowing us to make better and more affordable cables,” replies Gibb. “and that will enable us to respond in a musical way to however people are trying to access their music. We’ve still got a lot of people out there with ‘old-fashioned’ hi-fi systems and they’re probably not going to throw all their records away now like they did in 1982. Instead, those people will keep them and want to play them and there’s a lot of work to be done to improve what we’re doing now.

“There’s not a day goes by that you don’t come across something where you think, ‘right, when we get a bit of time, we need to look at that’ – it’s just more of the same and looking after our customers. They’re the people that have made this all possible, so we need to make sure our products are more an investment for them than a liability.”

“We are very focused on making something you’d want to have yourself. If we didn’t want to buy it ourselves, how can we expect someone else to buy it?”