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TOWNSHEND AUDIO ISOLDA SPEAKER CABLES

Max Townshend is one of the stalwarts of the UK (and beyond) audio scene and is one of the industry's great characters. Here Janine Elliot takes a listen to his company's Isolda loudspeaker cable costing £1141 for a pair of 3m lengths.

Janine Elliot

Some things were meant to last. If you make something good why would you bother to change it? The Krell KSA100, Leak Stereo20 (though the English Acoustic is an excellent update), BBC LS3/5a (though the licensed Falcon Ls3/5as are great), E-Type Jag (but Jeremy Clarkson seemed to really like the outrageously expensive Eagle remake), you get where I'm going. If it ain't broke don't fix it...with caveats. The same applies to a few cable manufacturers, some have been unchanged for 20 years. That is also the theory of Aussie but England based Max Townshend, founder, and CEO of Townshend Audio that has some 65 year history, including the excellent Elite Audio, famous for the 500 and 700 moving magnet and 550 series moving coil cartridges.

The present-day Isolda loudspeaker cable has been around since 1993 and still selling well despite the newer Fractal F1 making heads and ears turn. What better, then, than to see just why this unusual cable is still worthy of adding to your HiFi collection in 2020. With names like Rock, Merlin, Glastonbury, and Excalibur, Townshend's product names are based on the history of King Arthur, and the Isolda has an equally historical, if also Wagnerian name, though the real reason for its name will be clearer as we progress.

CONSTRUCTION

Before even describing the cable itself it is worth looking at the physics behind wires. Not only is the choice of the conductor – whether silver or oxygen-free copper – vitally important, but so also is the dielectric; the insulation

(whether PVC or PTFE or better still air or vacuum between the conductive elements.) I have reviewed many cables and even designed a few in the past and have discovered it is not one just part, but rather how they are all are combined that determines the success or failure, and all manufacturers will have their theory on why their own cables are the best. Important, too, is the geometry of the wires themselves, which is something very close to the heart of Max when he designs a cable. In an ideal world, the impedance of the cable should match that of the loudspeaker. Indeed Jack Dinsdale, a long-time friend of Max (famed for co-designing the transformer-less transistor amplifier in 1960) came up with the important claim that "…a major factor in determining the 'sound' of a speaker cable is its characteristic impedance, Zo, which is determined by the cable's 'geometry'….For a 'perfect' cable the Zo should match the impedance of the speaker load it is driving". Impedance matching is therefore so important; in the case of 75ohm radio antennae cable the 75ohm aerial is connected to 75ohm cable to a 75ohm input p Perfect matching between the three parts of the system. The equation $Z^2 = L/C$ is also vitally important, where Z is the impedance of the cable, L is the inductance and C is the capacitance. In designing a cable it is impossible to have both a low inductance and a low capacitance. If one is high, the other is low, a bit like a seesaw. One needs to choose your favourite; a cable with the conductors well apart usually means very high impedance and hence high inductance. Not a good idea in the eyes of Max and Jack. Max has come to the conclusion that a low inductance is preferable to a low capacitance, and that in order to create the least distortion you need high capacitance and lower inductance. Therefore, the two electrical components are kept as close as possible in order to achieve this. This is true also with the more expensive and newer F1 cable, though its appearance is far removed from the elder. The Isolda consists of two thin flat 20mm wide 99.999% copper strips kept just 0.1mm apart with polyester insulation on the hot conductor – literally tape stuck onto the bare metal, a long time-consuming job – with both strips insulated in a polyester braided sheath. This cable has very high capacitance by most standards, but the important impedance is kept at a very low 18 ohms. As the impedance is so low Townshend even suggests using un-equal lengths if

necessary, something very welcome for many, I'm sure.

That brings us to another important discovery, that if the impedance of the wire does not match that of the loudspeaker then audio traveling along the wire will reflect back to the amplifier, like waves rebounding at the shoreline, and resulting in "colouration" of the sound. I noticed the difference between my resident cable and that of the Isolda straight away when listening to music. The former was brighter and more "tizzy" than the Isolda. Max's extensive testing revealed that the higher the impedance the greater the errors at high frequencies, making them sound unrealistically bright, due to time-smear because of the delayed energy release from the multiple reflections. It is important to stress that you need to be careful when wiring your Isolda cable; having two wires very close together has its own physical problems. Standing on the cables, particularly when coiled up, would be very unwise and it is important not to twist the wires as the gap between the two "wires" would change. One also needs to be careful winding them. Their closeness to each other does, however, mean they are also virtually immune to RFI. I had no problems setting up the cables and coiling them near my right speaker.

At each end of the Isolda cable is a rectangular box. At the amplifier end, two inductors stabilise, in Max' words, "Bad amps" (Max tells me of one amp manufacturer that is particularly renowned for this), and at the speaker end is a Zobel network to ensure constant impedance throughout the audio band to maintain a flat frequency response. The box also assists in keeping the two strips equally apart (think of the mathematics of having two adjacent strips coiled up, the inner strip would effectively be longer than the outer).

Townshend is famed for introducing DCT (Deep Cryogenically Treated) cables, and the Isolda cable is treated in this manner. Whilst he gave away his secrets back then, his newer "Fractal" treatment process (as used in the F1 series of interconnects and speaker cables) is top secret, even to his best friends.

That brings me back to why it is called Isolda. In the 1980's Townshend made their first 8Ω cable by paralleling up six lengths of 50Ω coaxial

cable to bring that impedance down. That meant a total of 900 strands of wire had to be soldered together in two bunches. Thus, he had to solder and solder and solder, hence the word "I-solda". Of course, with other products linked to King Arthur's court, it is handy, too, that Izolda was also one of the Ladies in his court.

The Isolda cable is available at £1141 for banana terminated 3m length.

THE MUSIC

Listening to the Isolda gave distinctive and favourable results which actually made this review very easy to compose. Whilst initially it felt like the top end was missing its "pizzazz", it was more that the top frequencies suddenly came into focus with a clarity that was more realistic. There were no losses, just a better uniformity of frequencies. London Grammar's "Rooting for You" had a clean portrayal of Hannah Reid's vocals - even her top F# was just so clear - as were the extended reverbs. Suddenly the bass came alive with a realism that evades many a cable. The aptly named track "Big Picture" allowed me to hear everything from the music that my resident cable missed. The constant 'click' from the kick drum running throughout the track was precise and clear amidst the constant build-up of the other instruments. Initial transients were clearer, and a greater detail was pulled out of the grooves. There was no confusion in the top frequencies; the sound is not "tizzy" like many cables; this is just plain honest, and not at any time did I feel I was missing any of the top-end detail. There is an illusion that a more prominent top-end means a "better" cable. The ear is very good at determining whether a cable works or not, but we can often get influenced by such things as a bright sound.

The detail was such that I could pick out that certain tracks were recorded in different studios. Listening to my favourite guitarist Antonio Forcione ("Tears of Joy", Naim) the bass line was extended with greater space between instruments than I have heard before. This cable has amazing bass clarity and extension. Similarly, in "Déjà vu" (Giorgio Serci, Naim) there was clear drumming and an excellent guitar solo giving plenty of space and time.

Next on the platter was Alan Parson's "Eye in the Sky". The reason for this was because this is an extremely clear recording mastered on a digital Sony PCM1610 at Abbey Road Studios, with Alan engineering and performing, using the (now aged) Fairlight Music Computer, the £20,000 sampling workstation that began it all. The album only lacks a deep end, though the clarity was what I expect only from reel to reel, and surprisingly musical given the album's digital roots. The style always reminds me of Rick Wakeman, full of choirs and guitars, and short idioms. The speed of transients was impressive from the cable; notable also from Katie Melua in songs such as the "Cradle Song".

Turning to classics and Joseph Haydn Symphony No. 44 (88.2/24 recording), the detail from all instruments was very apparent with an open and relaxing sound that was hard to assume was a digital recording. Having very recently played Quentin Collins's jazz album (reel to reel, Chasing the Dragon) on my resident cables and loving it I was now aware that the sound wasn't as bright, though top frequencies were still there. The sound was now just so much more controlled, realistic, and less fatiguing; the latter point I also noted when listening to The Pat Metheny Group 'The Way Up'. This was less grainy and painful at high volumes. The top cymbal wasn't so overpowering or "blistered" like some cables can make it sound. Similarly, the cymbal beat moving slowly from right to left from 2-minutes-in was much more timely and somewhat clearer. Turning to another equally bright and clear album 'Live at the Broadwalk' from Erin Nauendorf which has closely miked acoustic guitar that is viscously but brilliantly performed, this is a great album if you want to try to make just about any HiFi sound "apparently" great with its extended top end, but with long listening it is very hard on the ears unless you have the right components. The Isolda just tamed it. The top end was still there and just as quick, but it was much more controlled, and additionally, there was a tighter extended bass. Playing this from CD on the excellent Krell KPS20i renewed my faith in this now aged medium, as did the Mahler Symphony No.5 (Chicago Symphony Orchestra, Sir Georg Solti). This is a powerful and highly busy work that some cables can make sound overpowering. The Isolda kept things under control with a precision and detail that kept me addicted to playing the whole work through. Listening to a complete Mahler symphony is rare for me!

CONCLUSION

I had no idea quite how good this cable was going to be when it was sent to me. It opened up the sound and tamed the music in such a way that it was more honest than I have heard for a long while, and although not the cheapest is a very cost-effective upgrade to your HiFi. A much more honest performance than I thought a cable could give and therefore is highly recommended.

AT A GLANCE

Build Quality: Excellent build quality but needs to be carefully placed away from feet!

Sound Quality: Excellent solid bass and controlled top end with no top frequency distortion common in higher impedance cables

Value for Money: Excellent value considering the improvement from your speakers.

Pros:

Controlled and clear sound at all frequencies, particularly the top frequencies

Extended bass

No "tizz" at top frequencies

Cons:

Some may wrongly think the controlled and undistorted sounds at top frequencies is actually a loss of high frequencies.

Price: £1141/3metre length