## Affordable\$\$Audio

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## AudioMagic Liquid Air Series Cables By John Hoffman

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## **Specifications:**

TBA

Publisher Emeritus Note: During the write up of this review another small manufacturer made veiled threats regarding the publication of this review claiming that publication was illegal based upon their patent rights. A patent attorney investigated and found that a patent application had been applied for but not granted, and the design in the patent application is different than what Jerry Ramsey's design calls for according to Mr. Ramsey. In addition, publications are protected from such litigious action based upon the precedent legal decisions of "Tru Line Inc. vs. Philadelphia Resins Corp., 224 U.S.P.Q. 141, 143 (E.D. La 1984)". Secondly "Popular Mechanics Co. vs. Brown, 245 F. 859 (7th Cir. 1917). Therefore, in celebration of free speech, this review appears here.

Whether you agree or disagree that cables in this price range belong in Affordable\$\$Audio, the fact that the new technology involved makes for fascinating reading. MM

References to the practice of alchemy have been found in the remains of ancient Chinese archeological sites. History shows us that alchemy was present in Egypt, the Middle East, Greece, the Roman Empire, and all of Europe. Folklore tells us that alchemists were interested in turning common substances into gold, and pursuing the means to immortality. The arts of the alchemist were wrapped in mystery and superstition, but there was an underlying foundation of practical science to the practice of this discipline<sup>2</sup>



The physical machinations of alchemy were the precursor to modern chemistry, and several concepts can be traced directly back to this arcane art. Alchemists worked heavily with solvents, and documented the effects of corrosive and acidic liquids on a wide array of common materials. Their goal was the discovery of a universal solvent that would work in the transmutation process, yet physical chemistry undoubtedly benefited from the work of these men. The modern world-view creates distinct boundaries between science, philosophy, and the spiritual world. The alchemists melded all three disciplines together, looking to combine the properties of each field in order to achieve an extraordinary outcome.

<sup>&</sup>lt;sup>1</sup>. The First documented practitioner was Chang Tao-Ling, who was born in 35AD, during the reign of Emperor Kuang Wu.

<sup>&</sup>lt;sup>2</sup> Ernest Rutherford and Edward Soddy made the discovery that radiation was an indicator of a fundamental change inside an element. When radioactive thorium was being converted into radium, Soddy made the connections between this and the Philosophers Stone and the art of transmutation. Rutherford was reported to have shouted, "For Christ's sake, Soddy, don't call it transmutation. They'll have our heads off as alchemists."

The genuine alchemist was a visionary; a man looking to discover hidden secrets of the physical world. They pushed the boundaries of knowledge, and at the same time looked at the metaphysical side of humanity; understanding that the discoveries they hoped to make would change the spiritual nature of man. While the practice of alchemy has fallen by the wayside, perhaps Jerry Ramsey at Audio Magic has managed to capture a spark of the science of the ancient world. For the better part of eight years, Jerry has worked at producing an audio cable that uses a conductive liquid polymer for signal transmission. The liquid conductor presented a set of challenges that is unique to the material, and a channel imbalance in the design was a sticky issue that blocked Jerry for a number of years. Eventually a breakthrough was discovered, although Jerry is keeping mum about the details of how the cable is assembled. There have been other cable designs that have used liquids as a dampening material for a conventional wire, but this is where the similarity ends. The conductive polymer has an entirely different set of physical attributes that affects signal transmission, and the Liquid Air cable does not suffer from the same set of limitations that a conventional wire has. 4

The polymer in the Audio Magic Liquid Air series of cables is non-toxic, which means if the household pet were to choose to gnaw on these cables you would not have to rush him to the vet for an emergency visit. However, Fido would be advised to hide for several days, since this will ruin the cables. The liquid is actually quite stable, and will not suffer significant evaporation losses. Jerry claims a usable life span of a hundred years for the cable, which should be long enough to satisfy the most frugal of audiophiles. There are four levels of Liquid Air cables in the Audio Magic lineup, although the entry-level category contains only interconnects and a digital cable.

In the Audio Magic hierarchy, the Illusion Liquid Air cables are one step below the top of the line Clairvoyant series of wire. Interconnects with RCA terminations sell for \$1500 a meter pair. An eight-foot length of speaker cables cost \$2300 a pair. A one-meter digital cable requires an outlay of \$1000.

The Illusion Liquid Air interconnects use a 5/16-inch liquid polymer cable as the positive conductor. The ground conductor is a jacketed OFC Litz copper wire. Terminations are made with Eichman bullet plug RCA connectors. The wiring is encased in a black mesh outer case, and the cables present a conservative, and understated appearance. The digital cable follows the same basic construction layout, although it is encased in a silver mesh outer jacket. The speaker wire use a 5/16-inch polymer conductor for each leg, and are contained in separate cases. In other words, the negative and positive side of each channel is completely isolated, and there are two separate wires for each speaker. Spade lug or banana plug terminations are available, and the fit and finish of the ends are first rate. The nylon mesh on the outer casing is the same as the material used on the interconnect cable, which presents a uniform appearance. The overall build quality of the Illusion Liquid Air cables is excellent, which is what a person would expect for a product in this price range.

The composition of the liquid polymer varies for each cable in the Illusion line up. This is not a one-size fit all design; and each formulation has been carefully evaluated for the application it has been chosen for. <sup>5</sup> The electrical properties of the polymer are indicative of a high performance conductor. The interconnects have 18pf of resistance per foot, while the speaker cable has .18 ohms of resistance over an 8 foot run. Naturally Jerry is quite protective of the details regarding the nature of the polymer; however these measurements prove that the liquid is a well-executed design, and not just a marketing plot intended to differentiate a product. We can bandy around the physical attributes and technical data all day, but in the performance in an audio system is what matters. That is our next stop on our journey with the Audio Magic cables, and a direct comparison to the Illusion 4D silver ribbon wire. The Illusion 4D are my reference cables, and have been the cornerstone of my system for a number of years.

The performance of the Illusion Liquid air interconnects is far different than any other cable I have experienced. This interconnect do not fall into the silver or copper material camp, nor do they perform like a ribbon, solid core conductor, or stranded litz wire. Actually, the liquid conductor has the lowest level of coloration I have experienced from a cable, including those that are significantly more expensive. Vocals are natural sounding in every aspect, with an overall presentation that is articulate and engaging. Bonnie Raitt sings with The Chieftains on "A Stor Mo Cheroi", [Tears of Stone; DMG 09026-68968-2] and her voice has a dark tonal balance and a rough texture, which is faithfully recreated

<sup>&</sup>lt;sup>3</sup> Personally I can understand the protection of intellectual property, and Jerry should be able to earn the rewards associated with his hard work.

<sup>&</sup>lt;sup>4</sup> Every physical item has a resonance, including a liquid. However, in the liquid conductor, the resonance point is moved outside the frequency spectrum that audio reproduction is concerned with.

<sup>&</sup>lt;sup>5</sup> The entry-level cable is the Liquid Air series. Only interconnects and a digital cable are available in this series. Both cables use the same polymer in the design, and are not differentiated liquids, as found in the upper tier cables.

by the Liquid Air cables. I went through a half dozen artists one evening, listening to the way these cables dealt with vocal passages. What I determined is that the Audio Magic Liquid Air interconnects get voices *right* in a way that other cables do not. There is a complete lack of grain and harshness, and there is a superior level of detail to the vocals than I have ever encountered. Actually there is an elusive quality to a live voice that most audio systems cannot convey, although my system with the Liquid Air interconnects in place contains more of this attribute than any previous configuration. Quite simply, these interconnects have the best presentation of vocals I have previously experienced.



The Liquid Air interconnects have an excellent presentation of space in all three dimensions. The soundstage width and height are on par with what I would expect from an upper tier cable. The manner in which these cables formed the front to back depth of the soundstage is a characteristic that I found to be intriguing. Many cables tend to push the soundstage in front or behind the plane of the speakers, yet these liquid cables evenly balance the soundstage in relation to the speaker.<sup>6</sup> For instance the soundstage on a rendition of "Hit That Jive Jack" by Dianne Krall is mammoth, and extends in front and behind the speakers in equal distances. Krall and the backup singers are neatly placed within the stage, and the piano, bass, and electric guitar can be easily located behind the singers. There is clarity to the soundstage that is realistic, but does not fall into the realm of being hyperdetailed. The illusion of having Dianne and company in the room is believable, but the experience is not larger than life. This is an important distinction, because I feel that presenting music

in a realistic manner will add to the long-term satisfaction that an owner of the Illusion Liquid Air cables will have over the years. The appreciation of bombastic sonic embellishments tends to wear out quickly, whereas products that have an honest execution of the music will continue to satisfy as other manufacturers cables come and go. It cannot be denied that the Illusion Liquid Air cables are a substantial financial investment, but these cables will have staying power and represent an investment in quality musical reproduction.

The Illusion Liquid Air speaker cables are cut from the same sonic cloth as the interconnects. When I installed the speaker wire, the presentation did not radically change, however their inclusion compounded the positive effects that were brought about by the interconnects. The seductive texture of the midrange increased, and the soundstage gained a greater degree of focus. One aspect that caught my attention was how bass passages improved in regards to clarity and extension. Portland Taiko is an Asian drum ensemble that I have been fortunate enough to attend their performances. The Odaiko is a massive bass drum with a ten -foot span across the drumhead, and as you might imagine is capable of producing subterranean bass notes. <sup>7</sup> "Duodaiko" is a song that showcases this large drum, and requires every component in the audio chain to be proficient in reproducing bass information. The Illusion liquid Air speaker wire was responsible for an increase of low bass energy in my system, and this added another level of realism to the music. While bass energy is important, it needs to be coupled with clarity and detail in order to be a meaningful improvement. The notes struck on this large drum also have overtones, and a long decay pattern, so it is important to get these aspects of the instrument correct. In conjunction with increased bass energy, the Audio Magic cable also excelled at transmitting all the subtle information that makes this instrument so distinctive. I thoroughly enjoyed the addition of these liquid conductor speaker wires in my system, and looked forward to the final step of installing the digital interconnect.

<sup>&</sup>lt;sup>6</sup> There are other factors that will affect this phenomenon. Some music is recorded in a manner that places it behind the speaker. Also certain speakers, and other associated components will affect this characteristic to some degree. Although I have placed this cable in several systems, and this effect has occurred in all of them.

<sup>&</sup>lt;sup>7</sup> At the first Portland Taiko concert I attended, my wife and I sat roughly fifty feet from the stage. Michelle had a 20 ounce pop in a clear container, and it was about half full. When the Odaiko drum was struck, you could see each note form a wave inside of the drink, it was quite stunning to see the power and reach of the big drum.

Each cable in the Illusion Liquid Air lineup uses a different formulation of polymer chosen for their specific application. In other words, this digital cable is not a repackaged version of the RCA interconnects, but an entirely different design. I currently use the Audio Magic Illusion 4D digital cable, which is a silver ribbon design. This cable has served me well for several years, and I have never felt the need to look for a replacement. With that being said, I cannot deny that the Liquid Air digital cable is an improvement over the silver ribbon design. The digital cable has all the same strengths as the other cables do in this lineup; it is clearly evident that a family sound exists in these liquid cables. When replaying all the music used in earlier listening sessions, I found that the addition of the digital cable brought all the same types of improvements. The purity of vocals increased, and music gained another degree of clarity. The definition of the soundstage and performers is heightened, and the "in the room" feeling is enhanced. Bass performance is markedly improved, the degree being roughly equal to what I experienced when the speaker wire was introduced to the system. A \$1000 price tag places the Liquid Air digital cable in the high-end tier of digital cables, but from what I can hear it is worth the cost of admission.

The overall sound of the Audio Magic Liquid Air series of cables is markedly different than the Illusion 4D wire. The 4D series is based on silver ribbon wire, and has a distinct personality that can be attributed to its material and geometry. The Liquid Air is an unconventional design, and offers new insights on how cables can be constructed. These cables are remarkably well balanced from top to bottom, and set a benchmark on what can be achieved by high performance cables that are priced within the reach of many hobbyists. As good as these cables are, I would not consider them to be perfect for every system out there, or fulfill the needs of every listener. The smooth and refined presentation of these cables more than likely preclude their use in a system that is warm and relaxed. The Liquid Air cables are ever so slightly shaded to the romantic side of the audio spectrum, which in my book is far better than being overly analytical. Once again, I must emphasize that the distinction I make is extremely slight; and in essence I am splitting hairs in my description. Also, there were a couple of moments where I felt the Illusion 4D cables turned in a better performance in regards to dynamic contrasts. For instance, at time the brass instruments on the Dianne Krall disc had more believable attack on the silver ribbon wire. I believe this phenomenon is due to a favorable match up of the recording and the cable, rather than a significant limitation of the liquid conductors.. On a whole, the Liquid Air cables noticeably outperformed my Illusion 4D wires, and are unquestionably an improvement.

## **Final Thoughts**

The alchemist of the ancient world searched for solutions to problems inherent in the human condition. The transmutation of base metals into gold would give the means to fulfill any material need a person would have. The elixir of life would extend a persons' lifespan, and offer the possibility of cheating death itself. The combination of these two supernatural events would allow the alchemist an existence that would be extraordinary. The Audio Magic Liquid Air wires contain a bit of modern day alchemy; for its design is a unique solution to the limitations presented by conventional cable design theory. The conductive polymer used in this cable performs in a manner that is not duplicated by traditional materials, or cable geometry. The results are quite stunning, with some of the purest vocal reproduction I have ever encountered. The Audio Magic Liquid Air cables represent a paradigm shift in audio technology, and are a culmination of the skills and experiences that Jerry Ramsey has acquired over his career. I would suggest that any Affordable Audio reader searching for high quality cabling should place these on their audition list. These unusual wires may very well be the key that unlocks the door to an entirely different listening experience.

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<sup>&</sup>lt;sup>8</sup> I am not saying that these cables are inexpensive, or offer the greatest bang for the buck, however the dedicated audio hobbyist can afford to buy these. There are many interconnects out there that run into the several thousand dollar range, and are only attainable by those people with deep pockets. The matching speaker cable becomes exponentially more expensive, and farther out of reach.