

## **A Brief History of Lecson Audio by Stan Curtis**

The Lecson Audio company was founded in 1972 and opened a factory in Burrell Road, St. Ives near the university town of Cambridge, England. The original team included designer Allen Boothroyd; engineer Bob Stuart (both now at Meridian) and speaker designer John Greenbank who later founded Tangent Acoustics.

The company introduced the AC1 pre-amplifier and the matching AP1 amplifier then later the HL1 horn loaded loudspeaker and the SP1 loudspeaker. The original AC1 had a top panel made from strips of thin glass held onto the case by double-sided tape. Unfortunately when the temperature rose the adhesion was reduced and the glass moved or fell off so it was eventually replaced by a one-piece acrylic top. Instead of conventional switches the AC1 used bar magnets attached to the slider controls; to operate glass encased reed switches which in turn applied voltages to junction FET switches. This was a very nice arrangement but proved to be a production nightmare. First all the FETs had to be pre-measured and matched into sets and secondly aligning the magnets and the reed switches was a slow tedious business.

The AP1 used a new "balanced" push-pull circuit and produced a sound quality that was much liked at the time but it did suffer from unreliability mainly because of failures of the GE driver transistors.

The HL1 was very popular because of its efficiency and attractive styling but it used bought-in drive units which went out of production in 1974 and soon after the product ceased to be manufactured. The SP1 was a complex and sophisticated loudspeaker for the time but didn't prove popular in the market and so its production also gradually tailed away.

These Lecson products were well reviewed by the UK and French magazines and initially the sales were high particularly after the AC1/AP1 combination won the prestigious UK Design Council Award for industrial design. However the inefficiencies of manufacture held the company back until eventually bankruptcy resulted in 1974. The business was then bought as an investment by an Indian businessman, Mr. Singhanian, whose main activity was in the buying and selling of such commodities as sugar.

The original founders of the company left at this stage and Stan Curtis who was then Technical Director of Cambridge Audio was brought in as Managing Director with a brief to turn the company around. He employed a dynamic sales manager from Cambridge, Mike Harris and set to work. Stan quickly replaced the troublesome AP1 with the more powerful AP1X and introduced the AP3 mk2 which used a substantial toroidal power transformer and gave an output close to 140 watts per channel.

The new electronics were followed by the LB1 Lynette compact loudspeaker which was unusual because the baffle was angled towards the listener. This loudspeaker sold in very large quantities and became Lecson's most successful product. Just prior to the launch it was to be called the "Lecson Lillette" but Stan's girlfriend informed him that the proposed name was the same as a ladies sanitary product and so the name was quickly changed to the "Lecson Lynette".

He also introduced the FM1 stereo tuner which was an immediate success. The FM1 had a row of LEDs to indicate the station frequency although it was planned to offer the DRI digital display (in a cut down AP1 case) as an optional extra. The DR1 was fed with the local oscillator signal. Stan was keen on digital displays because he had designed the world's first fully digital tuner whilst at Cambridge Audio. In the event only a handful of DR1s were ever built. Between one and two hundred tuners were built but the mechanical design of the LED display was troublesome both in terms of production and in terms of reliability.

One of the most interesting parts of the FM1 design was the power supply. Because of the low profile of the case there was insufficient room to fit the ideal size of reservoir capacitor so a regulated supply was designed which used a negative feedback amplifier (a simple 741 integrated circuit) to cancel out the ripple on the supply line to give a totally clean supply. This circuit was set up with a preset control so that the ripple could be completely eliminated. It worked very well indeed.

As a result of the display problems work was started on a second generation model, the SFM2, but before it was finished Stan was headhunted to found Mission Electronics; the loudspeaker manufacturer.

At this stage Lecson was doing extremely good business with a strong retailer base in the UK and exports across the world. However there were some difficulties in the USA where a former UK retailer, John Radford, had set up in San Diego in Southern California to distribute Lecson electronics with Rogers loudspeakers (the famous LS3/5A etc.). John lacked technical support and despite the sales success of the new products he was inundated with legacy products such as the AP1, being returned for repair. The AP1 had some design weaknesses and so was difficult to repair. Indeed at one point Stan Curtis flew to the USA for a one week sales trip and finished up spending an extra three weeks in the country fixing these amplifiers. Lecson had something like 30 to 40 dealers in the USA and they were extremely loyal and enthusiastic about the products.

Stan subsequently completed the design of the FM2 acting as a consultant. The design was largely the same as the FM1 but the frequency display was re-engineered as a plug-in module to simplify production and a new AFC (automatic frequency control) circuit was added which was really effective in pulling in the desired station when the tuning was in approximately the right place. Several hundred pieces of this tuner were manufactured over the next six months.

The other new product was largely a precursor to the many US high-end products seen later. This was the AP4 which was a large mono-block

Class A amplifier with a power output of 60 watts in Class A and 100 watts in Class AB and a maximum current output of over 30 amps.

Unfortunately once Curtis and Harris left the company lacked any senior management and the owner took over day-to-day running of the company. Sales fell and the company again failed financially in 1979.

Once the dust had settled Curtis bought the assets of the company and the brand name. Production resumed for a year until all the "work in progress" was used up but Stan Curtis was by this time the owner of Cambridge Audio so he had no time to give to Lecson. All the remaining parts were sold to Armstrong Amplifiers in London who undertook to maintain servicing facilities for existing owners.

The brand was then dormant until in the mid 1980s Curtis was approached by Paul Burell with a proposal to licence a brand of hi-fi electronics to be made in a factory about 100 yards away from the original Lecson factory. These Mosfet amplifiers went into production and were well received but the founder suffered serious illness (from which he was to die a few years later) and again the company floundered.

Finally in 2000 when Stan Curtis retired as Chairman of Wharfedale loudspeakers and of Quad Electronics; he revived the brand on a range of modern electronics including DVD players and home theatre systems. These were made in China but Stan had some involvement in the design work and so as a result they were favourably reviewed and sold in large numbers. Indeed by 2001 the brand was so successful the UK department store chain Debenhams bought the brand with a view to producing its own range of consumer electronics. However six months later Debenhams itself was bought by a private equity group and the new owners decided to get out of consumer electronics. And there the story ends for now.

The factory.

The factory comprised of two side-by-side units totalling about 4,000 sq. ft. At the front were offices and one unit was devoted to production. The other unit was occupied by the test and inspection team and storage. Typically the company employed about 7 management and administrative staff; about ten production staff and about 7 test staff; quite a high proportion indicating both the thoroughness of the testing and also the time consuming nature of testing.

The test equipment was a mixture of Sugden and Radford low distortion oscillators and analysers and of a good standard for the era and; as already mentioned, the test and measurement routine was comprehensive with the results for each unit being kept on file.

Unusually for such a small company there was a small anechoic chamber where every single loudspeakers was tested with a full response sweep and a sensitivity & an impedance check.

Most of the team remained constant from the foundation of the company to its eventual demise.

It should be remembered that the Cambridge area was the UK "silicon valley" of hi-fi. Originally the home for Cambridge Audio and Quad it

quickly encouraged other companies attracted by the availability of skilled labour and experienced vendors and sub-contractors. Over the years other companies in the area included Monitor Audio loudspeakers; Lecson Audio; Lentek Electronics; Arcam Electronics; Mission loudspeakers; Cyrus electronics; Meridian electronics; Audiolab electronics; Epos loudspeakers; Avid turntables and many more; some long forgotten.

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