

The ALA 1530 Loop Antenna

A User Review by John Evans, G7CEC

When I first agreed to review the Wellbrook Communications loop antenna, the ALA 1530, I didn't realise just what a little peach of an antenna I was going to try. Well, may be not so much of the little, but a peach definitely. Andy Ikin, the owner of Wellbrook Communications told me that the antenna was designed with the small urban garden in mind and he had focused on keeping the relatively high noise level found in urban areas to a minimum. The ALA 1530 is an indoor or outdoor antenna and is fully protected against the elements.

The loop arrived a few days later and my immediate impression was how well it had been packed for transport through the postal system. The aluminium loop is sent fully assembled and had been surrounded by high density foam, the head unit to which it was attached was encased within a sturdy box. The whole antenna was strengthened with a cross member for delivery. It was immediately apparent that a great deal of thought had gone into the question of "How do I get it there, without damage", and such attention to detail further showed throughout the trials of the antenna.

The Loop antenna consists of a Loop Head Unit, Antenna Interface and a 12 volt regulated power supply. The Head Unit is made from a 1 metre diameter aluminium Loop with antenna amplifier enclosed in a uPVC box. The uPVC box is stabilised to Ultra-Violet radiation and is filled with epoxy resin to form a rigid structure with the loop. A BNC connector is provided for the feeder cable. The Antenna Interface is housed in a light grey ABS enclosure and is used to provide the 12 volt supply to the loop via the feeder cable. A 1 metre cable terminated with a BNC connector is provided for the receiver. The Antenna Interface also has a 315mA fuse to protect the power supply and other components against accidental feeder cable short circuits. A 2.1mm DC connector is provided for the power supply. Additional filtering is used to reduce low frequency power supply noise. A feeder isolation transformer and an RF choke are provided to reduce common mode coupling of mains borne/power line noise from the receiver and the Loop antenna power supply. The 12 volt regulated power supply is a 13 Amp UK mains plug type. For use outside the UK and Ireland, a regulated power supply is provided with a flying mains lead. The recommended feeder cable is RG58c and the maximum cable length is 100 metres.



I have been able to trial the antenna over four months now, in three different locations in, around and outside my house. It was tested first inside the house, propped up on a typist-chair to allow rotation. Secondly on top of the kitchen extension outside the house and the third location being outside the electrical

field of the house, some 45 feet away, mounted on a rotator at ground level. The loop reacts mainly to the magnetic part of the electromagnetic wave and is designed to operate near the ground where the ground reflected wave and the incident wave are in phase. The loop has a figure of eight reception pattern.

My first location surprised me when I heard how quiet the signals were, considering how close the antenna was to the rather noisy display on the NRD-535. I had no trouble in reducing the ground wave of the Radio 4 transmitter on 198 kHz at Droitwich enough to be able to hear Ouargla in Algeria on the same frequency. This comparison became a benchmark throughout the trials. NDB's were also equal those received on the outside G5RV, which was configured as a "Marconi T". Although quiet, broadcast stations in the long and medium frequency bands could all be heard with better quality in comparison to the outdoor LW and G5RV. The quality of signal was better using the loop with regard to signal to noise ratio than the outdoor antennas.

The second location, on top of the flat kitchen roof was roughly equal to the first in regard to signal strengths but the signal to noise ratio was improved in relation to the outdoor wire antennas. In this location the loop was permanently pointed North West on the Great Circle line towards North America. I was able to receive more N-American stations than in the house, with all of the usuals being heard as well as some of the not so usuals. The lower noise level greatly improved the intelligibility of the received signal.

It was when I came to putting the antenna outside the noise boundary of the house that the ALA 1530 really showed its merit. I was able to all but null out the Radio 4 transmitter and receive the Algiers transmission quite clearly. With it being mounted on a rotator I had the ability to literally pick and choose with ease the stations I wanted to receive throughout the spectrum up to 6 MHz. Over 6 MHz the loop tends to become omni-directional but still has the ability do a good job at nulling heavy local signals. Now I know that we are a LW/MW club, but to be fair I had to mention that, because the loop has its merits above our part of the spectrum also. It has been designed to cover 150 kHz to 30 MHz.

I was pleasantly surprised to find that the floodlights on the YMCA football pitches at the bottom of the garden have no effect on reception using this antenna. Usually my listening is curtailed three evenings a week due the use of these floodlights which give off a horrendous amount of QRM which is picked up on the wire antennas. Only a couple of hours each night, but enough to start the murmurings of discontent usually fired at the grounds man whenever he is close enough to the back fence!

As I said at the beginning, this is a user review. I am no scientist and would not attempt to try and talk about the benefits of magnetic against electric antennas. I prefer to leave that to people who know what they are talking about, and steadfastly refuse to be drawn into the debate. Rather I am a DX'er who likes to hunt down new stations. Most of these are utility I agree, but having slipped back into looking for MW broadcast stations whilst trying out this antenna I have no doubts in recommending this little marvel to anyone who wants a quiet, efficient and reliable piece of equipment. It is not much larger than my 1 metre square loop but significantly better. I now use this antenna as the antenna of choice in my listening to Long and Medium wave stations both Utility and

Broadcast. Especially at 2182 kHz and the low Maritime bands on which it is absolutely excellent.

In conclusion, I can do nothing else but recommend this antenna, It has proved itself way beyond my expectations. It is made in two versions, the outdoor one which I tested and an indoor variety which has a lightweight semi-rigid polyethylene loop. The price is not cheap, at £119.95 for the aluminium version and £109.95 for the polyethylene version, but these prices in my mind are worth it. The only other thing you will have to supply is the feeder cable that runs between the head unit and the antenna interface which is situated indoors next to the receiver.

There is an advert on the television which goes something like "I liked it so much that I bought the company", well I liked this antenna so much that I bought the review model!

The antenna can be obtained from Andy Ikin. Wellbrook Communications, The Farthings
Beulah,
Llanwrtyd Wells,
Powys,
Wales, LD5 4YD,
UK
Tel: 01591 620316 and a picture of the loop appears on page 50 of the 1998 WRTH.

This Review appears by kind permission of the **MEDIUM WAVE CIRCLE**. Membership is open to all who are interested in Medium and Long Wave listening.

John Evans is a longstanding member of the Medium Wave Circle. For further details please contact the MWC Secretary:
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Product update:

The ALA 1530 is supplied with a 12volt power supply **only** for UK and Eire orders. Prices mentioned include post & packing within British Isles, add £20 for other countries. **Prices may alt**

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