

# **Technical Review**

## **Tecsun AN-100**

### **Tunable Medium Wave Loop Antenna**

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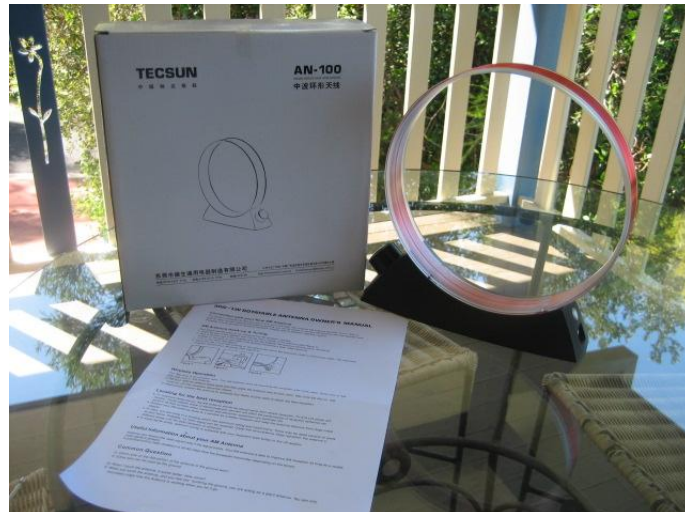
Being a keen AM Broadcast Band listener the opportunity to purchase a loop antenna for AM reception cannot be overlooked. I recently purchased this antenna from Sydney based AV-COMM Pty Ltd.

The loop unlike other loop antennas on the market actually not only works well but also looks like a piece of artwork as well. This is important if you want to use the loop in your lounge room or kitchen table. The finish is first grade. The antenna is self supporting and only has one control, a simple calibrated tuning knob to cover the broadcast band.

#### **What's in the Box?**

You get the loop antenna, interconnecting cable for receivers with external antenna connection and a single sheet set of instructions. The instructions are actually quite good and describe the operation of the loop, suggested mounting arrangements and some basic information on AM reception.

The loop antenna is designed for the AM Broadcast band ONLY.



Easy to read instructions included

## Performance and Use

The performance was checked at both night and day. First I checked the frequency coverage of the loop. To do this I used my RF Dip Meter and Frequency counter. Frequency coverage was measured at 515 KHz to 1.85 Mhz. Tuning was smooth and quite stable once a frequency was tuned.

I set the loop up to sit at a right angle to my radio and checked out the performance during daylight hours on a number of local stations. The loop made a considerable difference and improved the signal to noise ratio of the received signal.

Tuning across the band in between the stations and peaking the "loop tuning control" peaked the reception across the band.



Photo to demonstrate the size of the loop in comparison to the portable Sony

Next night time performance was checked. The performance at night was excellent with the ability to both peak and null out stations allowing the best possible reception available.

By far the best performance was with the loop as shown in the photo below.



Jaycar AR-1747 AM/FM Shortwave radio with the Loop in action

Maximum reception strength is in a line going from the front of the radio to the rear

### Tips for best AM Broadcast Band reception:-

- Place the radio and loop outside the house if possible on your veranda or outdoor entertaining area.
- If used inside always switch off all light dimmers.
- Switch off so called energy saving lamps; these produce all kinds of noise.
- Keep the loop as far as possible away from home entertainment systems like DVD players, LCD and Plasma TVs, set top boxes and the like, as the majority all use switch mode power supplies.
- Keep the loop as close as possible to the radio. Say within 30mm.
- Keep mobile phones away from the loop.
- First tune the frequency of interest then tune the loop for best reception.
- Try different locations in your home; remember you may have insulation that is backed with foil in your walls and or ceiling. This greatly attenuates the signals on the AM broadcast band.
- Always rotate both the radio and loop to gain the best received signal strength along with the best noise reduction.
- Keep iPods and other MP3 players away from your radio and loop, the RF hash they generate even when switched off is huge.

## Who is Tecsun?

Tecsun is a Chinese based manufacturer of AM/FM receivers including shortwave. Founded in 1994 the factory is located in Dongguan China and has over 1,000 employees. The factory area covers some 16,000 sq mtrs and has an annual production output of over 5 Million radios!

That's approaching nearly 14,000 radios per day!

Their receiver portfolio is extensive and growing. A number of their products are sold in Australia under different names and I will soon be doing a review of some popular shortwave receivers from their range.

## Conclusion

I found the loop antenna a pleasure to use. It does not look out of place in the lounge room and I am sure it will be a talking point amongst your friends when they come over. The price \$49.00 is excellent value and makes a big difference to your listening pleasure to AM radio. Both day and night.

It is also nice to see a local family business importing products like these for the enjoyment of everyone and to enhance their AM reception experience. Plus you get to talk to and have access to local knowledge and backup as well.

The loop antenna is available from AV-COMM Sydney. [www.avcomm.com.au](http://www.avcomm.com.au)

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