

# The Vampire Loop Antenna

## The Easiest tuned-loop antenna for AM broadcast.

Rev. 0.1

In the lead up to the NJARC 2019 Broadcast-Band DX Contest, one of the gang ask if he could use the Zenith Wave Magnet loop, from his 1941 console, that wasn't working, on a restored Zenith console designed for wire antennas. I considered this for a while. The Wave Magnet, like most built-in loops, is actually the input coil in the radios first tube stage. It would take lot of ugly hacking to do this transplant. I considered removing the Wave Magnet, and using it externally on the good set, but this would require an auxiliary tuning cap to resonate the loop, and the whole mess would need some kind support.

My next idea was to wind a coupling coil around the Wave Magnet, and suck signals out of the dead set and inject them into the working set. But, this would leave two large boxes side-by-side at the operation position. (One of my friends tells me "Console radios are like elephants. You can't hide 'em, and you cant stack 'em.) However, the concept is a good one.

Behold, the Vampire Loop Antennas:



Almost any set with an internal loop, working or not, can serve a a useful DX antenna. The 2-3 turn pickup coil should be wound in the same plane as the windings on the internal. That will generally be around the long dimension on radios with air-core loops, and around the shout dimension for set with ferrite rods.