

Kalamazoo
Amateur

W8VY

Radio
Club

June 2023 Newsletter

K.A.R.C. Monthly Meeting

Topic: Planning for Field Day, we'll take a walk around the grounds and decide where we want to locate stations and equipment.

Thursday May 18th at 7:00 PM

Kalamazoo Red Cross Chapter House
5640 Venture Ct.
Kalamazoo, MI 49009

Since this will be a roaming meeting, there will be no Zoom this month.

News and Announcements



Come join us on June 24th & 25th at the Kalamazoo Red Cross Chapter House for Field Day!

Phone and Digital stations are planned with both HF and VHF operations available to cover all license classes. For new hams it's a great opportunity to get hands on experience; learn how to set-up a station, experience HF contesting,

and get on the air with mentorship.

Station and Antenna Setup will begin at 9am, contest operations kick off at 2pm (18:00 UTC) and will run through 2pm Sunday.

VE Testing Opportunities

By John Tucker (WB8ZVV)

For those thinking of upgrading (or getting their first license), the next opportunity will be on July 15th. To signup or for more information on licensing test sessions, contact John Tucker (wb8zv@gmail.com).

Membership News

Birthdays

The following club members celebrate a birthday in June. If you see them or hear them on the radio be sure to say happy birthday this month!

- Bob—N8HAA
- Dave— W8DO
- Lynn - WB8RWV





Upcoming Hamfests

Midland Amateur Radio Club Hamfest

6/17/2023—8am to Noon

Admission \$5

Salvation Army Building

330 Waldo Ave.

Midland, MI 48640

[https://www.w8kea.org/WP/wp-content/uploads/
Current_News/swap_2023.pdf](https://www.w8kea.org/WP/wp-content/uploads/Current_News/swap_2023.pdf)

Kit Corner

K6ARK QRP Antenna Kit

By Alex Stuart (KE8ICM)

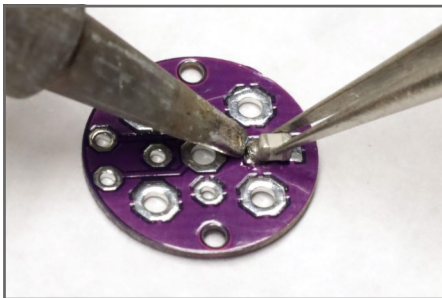
This month we'll be looking at an antenna I've been using for my Parks on the Air for over a year now with great success. It's a QRP antenna balun kit sold by Adam, K6ARK. The Balun kits are available on Amazon with links on his store page at <https://k6ark.com/kitsandparts/>. He sells 3 versions of the kit, a 5 watt, 20 watt, and 100 watt option. The 5 and 20 watt versions come with your choice of male or female BNC adapters and the 100 watt version comes with an SO-239 connector.

A few notes and precautions before we get started with this build:

- 1) This is a balun kit only, the kit does not come with wire so you will need to furnish that to complete your antenna build. Most folks will go with a thin silicone covered wire, 26 to 28 gauge will more than suffice for QRP purposes.
- 2) Depending on which build option you choose you may need to solder a single surface mount SMT capacitor into place. This can be challenging depending on your skill level and available equipment. I was able to do it with my standard soldering iron and a small sized tip but it was a bit tricky.

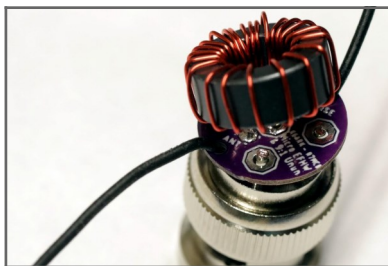
The balun kit is a very compact and lightweight design that uses a small circular PCB board roughly the same diameter of the toroid supplied with the kit. Once assembled the entire unit is heat shrunk together for a very small and light package.

The balun kit has several build options depending on the type of antenna you want to build. You can build it as an End Fed Half Wave, an End Fed Random Wire, or a 1:1 Balun for dipoles. I like the flexibility of deployment options with end fed antennas, and I wanted to reduce the need for antenna tuners as much as possible so I chose to build this one as an End Fed Half Wave.



Lucky me, that's the set of instructions that includes the surface mount SMT component! So first we carefully added that component. I did so by flooding one solder pad with solder, then using tweezers to grab the capacitor with the other hand and joining the two and removing the soldering iron. Once the first side cooled, I moved to adding solder to the second connection.

After that there are a few wires to connect as stubs for your antenna wire and ground poise later on and then we move on to winding the toroid. The toroid, while a little complicated, is fairly quick and easy to wind thanks to Adam's clear instructions. I like to use a pencil or chopstick held in a vice to hold the toroid while working on it to free up both hands. Once the toroid is prepped it's soldered onto the pcb, which is then flipped over and soldered directly onto the BNC connector and enclosed with marine grade heat shrink.



We still need to cut and tune the wire, but that's essentially the kit finished as provided. We're still not done making decisions, the EFHW balun design has a few options on how to finish off the antenna. You can build it as a single band antenna, a linked multi-band, a trapped multi-band, or a resonant multiple half-wave.

I followed the instructions to create the Resonant Multiple Half-wave Antenna. The idea is to cut a wire for 40 meters and by adding a small coil in the first few feet of the antenna you can bring 20, 15, and 10 meters into resonance without the need for a tuner. I put a spade connector on the end of my antenna stub and the antenna wire so that I can use the same balun to make and test the other EFHW designs later. For the antenna wire I used 26 Gauge silicone covered wire. I found that Adam also has a 3d printed antenna winder design that includes a handy BNC connector clip, so I printed one of those up as well for keeping the antenna in storage.

This has been my exclusive HF antenna for the last year for my POTA activations. I usually deploy in an inverted V configuration with a 7 meter fishing pole as a mast. It's been a great antenna for the last year and I've made 100's of contacts with it so far. It's lightweight, compact, and works very well when built and tuned according to the instructions. While the SMT connection might have been a little tough to solder, it was worth the hassle to have such a great QRP antenna.



Upcoming Events

June

12th 6:30-7:30pm Board Meeting

15th 7-8pm June Club Meeting

24-25th Field Day

July

10th 6:30-7:30pm Board Meeting

15th 8am VE Exam Session

20th 6pm-6:45pm Kalamazoo Hamfest Planning Meeting

20th 7-8pm July Club Meeting

August

14th 6:30-7:30pm Board Meeting

17th 6pm-6:45pm Kalamazoo Hamfest Planning Meeting

17th 7-8pm July Club Meeting



<i>Analog Repeaters</i>				
Location/Info	Freq	Offset	Mode	Tone
W8VY Portage Main	147.000	+0.6	FM	94.8
W8VY Downtown In	147.000	-0.6	FM	127.3
W8VY Richland In	147.000	+0.6	FM	127.3
W8VY Oshtemo	224.300	-1.6	FM	none
W8VY Portage	444.650	+5.0	FM	94.8
K8KZO 2m	147.040	+0.6	FM	94.8
K8KZO 6m	51.720	-0.5	FM	94.8
W8IRA Kzoo Input	145.470	-0.6	FM	94.8

<i>Digital Repeaters</i>				
Location/Info	Freq	Off-set	Mode	Tone/CC
W8VY Paw Paw	145.340	-0.6	D-Star	-
W8VY Paw Paw	444.075	+5.0	D-Star	-
NK8X KazoBorgess	444.500	+5.0	D-Star	-
W8VY Paw Paw	444.075	+5.0	D-Star	-
K8KZO	444.875	+5.0	C4FM/YSF	94.8
KM8CC	443.400	+5.0	DMR	CC1 *

<i>Local Nets & Useful Frequencies</i>				
Net	Day	Time	Freq	Mode
ARPSC RACES	Wed	7:30 pm	147.000	FM
D-Star	Wed	8:15 pm	444.500	D-Star
SMART	Tue	7:30 pm	147.040	FM
6m SSB	Tue	8:30 pm	50.140	SSB
6m AM	Sun	8:00 pm	50.400	AM
10m Net	Wed	9:00 pm	28.485	SSB
MI Statewide DMR	Mon	8:30 pm	443.400 Michigan TG*	DMR
220 Mhz	Sun	9:00 pm	224.300	FM
Nat'l Simplex: 52.525, 146.52, 223.5, 446., 1294.5 APRS: 144.39 Local Skywarn: 147.00				

*KM8CC TG info: <https://groups.io/g/km8cc/wiki>