

The Wireless

January 2023

COMMAND POST

The Garden City Amateur Radio Club
PO Box 482 • Garden City, MI 48135-9998

Next Meeting:
Tuesday, Jan 17, 2023, 7:00pm
Garden City Presbyterian Church
1841 Middlebelt Rd.
Garden City, MI 48135

Charles “Chuck” Mabbott, AA8VS/SK



Charles Roger Mabbott, Sr., passed away on December 16, 2022 at the age of 77.

Beloved husband of Kathleen for 52 years.

Dear father of Krista (Craig) Piwko and Charles (Bonnie) Mabbott, Jr.

Cherished Papa of Emily, Jonathan and Nickolas.

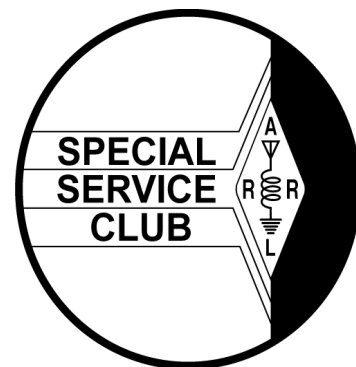
Chuck proudly served his country as a United States Marine. Military honors under the auspices of the US Marine Corps followed a memorial service on December 20th. Internment will take place at a later date at Great Lakes National Cemetery, Holly, MI

In lieu of flowers, please consider donations to the Wounded Warrior Project, 4899 Belfort Road, Suite 300, Jacksonville, Florida 32256.

Or www.woundedwarriorproject.org

Saturday Morning Breakfast:

Be sure to join us this Saturday at 9:00 at Eddy’s 31049 Ford Rd, in Garden City. If you can’t be there in person, give us a call on the GCRA Repeater, 146.86 MHz, -600 with a 100Hz PL. There’s always a radio or two on the table.



Mat-Matics # 113

Nixie Clock Kit

-Mat Breton, N8TW

One of the current “fads” are nixie tube clocks: these retro look devices use modern clock circuits but drive nixie tubes instead of LED or LCD displays. I liked the look and general “nerd-iness” of the concept, and I knew my father would want one of these clocks too. I decided to build him one.



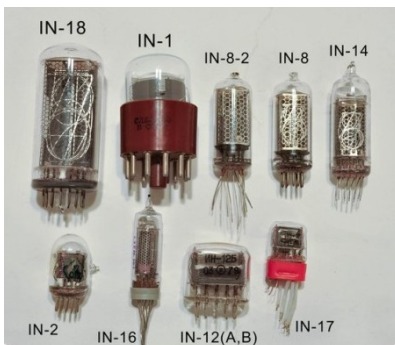
Some examples of Nixie Tube Clocks

A friend gave me an old HP 5327B counter that no longer functioned. It was not worth repairing as I have better counters (accuracy, precision), and it doesn't hold any particular historical value that I'm aware of. But what it did have was seven Burroughs 5750 Nixie tubes in it. These are neat “mini” nixie tubes that are much smaller than regular ones.

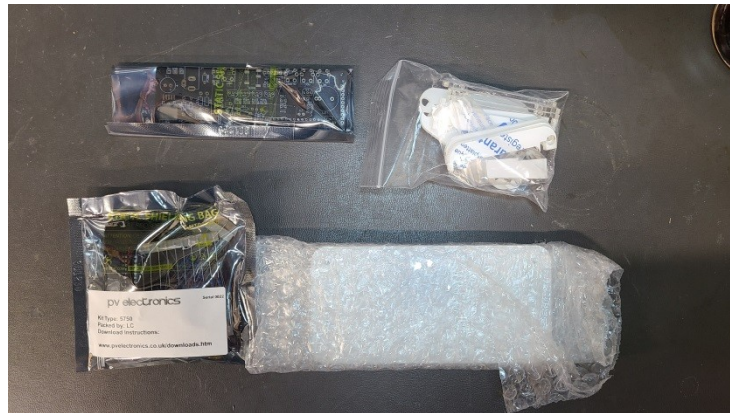


HP Counter (left), Burroughs 5750 Nixie Tubes (right)

Nixie Tubes: A Nixie tube, or cold cathode display, is an electronic device used for displaying numerals or other information using glow discharge. Devices that functioned in the same way as Nixie tubes were patented in the 1930s, and the first mass-produced display tubes were introduced in 1954 by National Union Co. under the brand name Inditron. The name Nixie was derived by Burroughs from "NIX I", an abbreviation of "Numeric Indicator eXperimental No. 1", and Burroughs owned the trademark. Hundreds of variations of this design were manufactured by many firms, from the 1950s until the 1990s. The nixie-like displays made by other firms had trademarked names including Digitron, Inditron and Numicator. A proper generic technical name could be “cold-cathode display neon readout tube”, though the phrase Nixie tube quickly entered the vernacular as a generic name (like Kleenex or Q-Tips) and certainly is a lot catchier.



The kit: I found a company (pvelectronics.co.uk) on the web who sold a kit specifically for these nixies. I purchased it, and it arrived several weeks later.



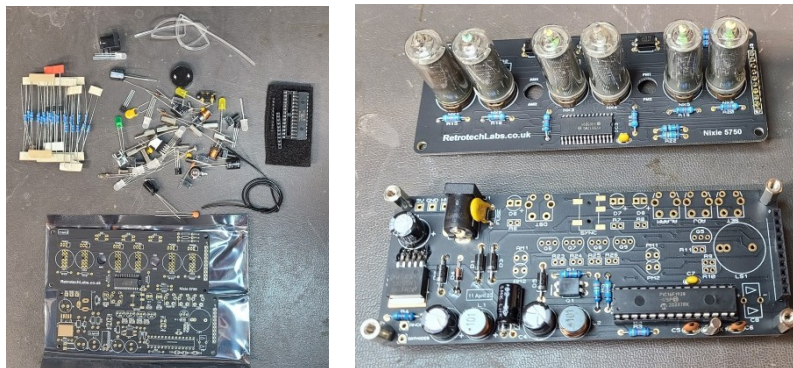
Getting the Tubes: I pulled the tubes out, and unsoldered the sockets as well (as the sockets are very unique). The PCBs had a relatively thick coating of gold that I gave to someone to remove, and I recycled the chassis for scrap metal.



Left over counter parts (left), salvaged nixie tubes (right)

The Build: It takes about 6 hours to build and test the kit. I had no issues with the instructions, parts, or the build. No mistakes were made, no magic smoke released, and everything worked first time through. I actually ended up making two units (for myself and my father).

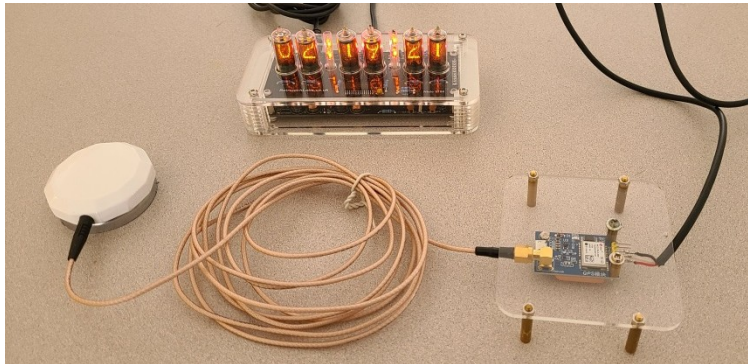
It was just like a Heathkit: the instructions were excellent; all the parts (except tubes) were included and carefully wrapped. The one small-lead SMT IC was already soldered to the PCB, and the majority of the other components were nice through-hole devices. There was a D2PAK (really a TO-220 device with SMT leads) that wasn't a through-hole, but the leads were plenty big enough to solder without a microscope. It was nice that the instructions were done to complete the clock section-by-section, with powered testing between each section so you could catch mistakes early and before other parts were damaged: well thought through.



Raw Kit (left), Partially Assembled (right)

The kit has a lot of different options you can select from, from 12/24 hour format, backlighting color scheme, date format, etc. This allows you to customize it to what you would like.

GPS Sync: The clock includes built in support for an external GPS unit to be attached. If that is done, you never need to set the clock ... it will continually update based on the derived GPS clock (supposedly accurate to up to +/- 15nS with this unit ... not that I can tell of course). I purchased a UBLOX LEA-5T module from eBay for \$12.90 (including S&H), added a used GPS antenna, and attached it to a piece of acrylic to match the nixie clock case. When plugged in the GPS takes less than a minute to sync up and update the clock settings. You can't tell, but the nixie clock is now accurate to a tiny fraction of a second and will effectively never drift (or at least as long as the GPS system continues to operate).



Summary: The clock looks and works great. It is certainly cool (if you are a technical at least) and certainly eye-catching. I'm proud that it was assembled in America using American-made Nixie tubes.



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Sunday Night Net:

We still need more people to help with the net. Serving as a net control operator is a great way to get more involved in the club and to get to know more of our members. If you'd be willing to help, please contact Mat N8TW or Don KC8VCX for more details.

Join us on Sundays at 9:00pm, 146.86 MHz, - 600Hz offset, 100Hz PL tone

This is a purely social net, all licensed hams are welcome to join in.



Upcoming Sunday Night Net

Control Operator Schedule:

- Jan. 15 W8ROY
- Jan. 22 KC8VCX
- Jan. 29 N8TW
- Feb. 5 W8ROY
- Feb. 12 KC8VCX
- Feb. 19 N8TW
- Feb. 26 W8ROY

*Can we add **your** name to the schedule?*

Amateur Exam Study Buddy is Now Available!

When our sons Chris and Brad were young and started showing interest in Amateur Radio, to help them along with their studies, I wrote a simple program to cycle through all the questions in the Technician question pool. While I was at it, I realized the program might be useful to others as well, so I provided it freely and also included the General and Extra question pools, too. Roughly two decades later, we are still receiving e-mail from folks using the software, reporting our study program has been an integral part of their success in obtaining their Amateur Radio license, as well as upgrading to General and Extra!

Since the original program was written in VB6, which is no longer supported, Chris and I have completely rewritten Amateur Exam Study Buddy! It is incredibly cool to have Chris, who originally used this software to help obtain his license, now take the lead in rewriting it! This new version functions much like the original, but is now a web based tool with a fresh new look, that will run on any browser and even your phone!

We like to think that Amateur Radio is the gift that keeps on giving! This Christmas and Holiday season, we would like to give the gift of Amateur Exam Study Buddy! This **free** site will help newcomers to the hobby obtain their very first license, or help existing hams upgrade to a new one! And more hams on the air gifts us all more potential QSO's and QSL cards on the wall!

Even if you already hold your Extra, please give Amateur Exam Study Buddy a good look and be sure to tell your friends about it! There isn't a manual, but the functions are basic enough that you should find it very intuitive. You can click Feedback on the home page to report a successful experience, any problems or suggestions.

You will find Amateur Exam Study Buddy here:

<https://study.affirmatech.com/>

73,
N3FJP, KA3SEQ and KB3KCN



A Note From Our Treasurer:

I will be collecting yearly 2023 dues from our membership at large. The current fee is \$17.00 and please provide exact change if payment is by cash. Checks to GCARC also will be accepted. Dues can be paid in person during meetings or by mail to our P.O. Box listed on the newsletter letterhead (*page 1 - ed.*). Please mention our club to prospective new members who may be interested in joining.

Richard Zarczynski / AC8FJ
Treasurer

CORRECTED AND UPDATED

ARRL Sanctioned Hamfests through February 2023:

- 1/15/23 - SCARF Hamfest, Shade, OH
- 1/22/23 - Hazel Park Hamfest, Royal Oak, MI
- 2/11/23 - Cherryland, Traverse City, MI
- 2/18/23 - Livonia Swap, Livonia, MI
- 3/5/23 - Cave City Hamfest, Cave City, KY
- 3/11-23 - MOVARC Hamfest, Bidwell, OH
- 3/11/23 - Crossroads Hamfest, Kalamazoo, MI
- 3/19/23 - Toledo Mobile Radio Assn, Perrysburg, OH
- 3/26/23 - USECA Hamfest, Troy, MI

Thanks to Dale Williams, WA8EFK, and the ARRL for this listing.

Livonia: LARC Annual Swap and Shop Event Information

When

- Saturday, February 18th, 2023
- 8am to Noon

Where:

- Monaghan Banquet Center 19801 Farmington Road Livonia, MI
- **Between 7 and 8 Mile Rd**
- Just minutes from I-96 and I-275.

Cost

- \$5 at the door. **Cash Only**
- General public entry tickets cannot be purchased in advance
- Donuts and Coffee will be available for purchase.

Vendor Information

- Vendor setup can begin at 7:45am (Time is currently tentative, awaiting confirmation from venue) on 2/18/2023
- Table Cost
- \$20 per table, **this does not include an entry ticket.**
- Vendors will have the option to purchase entry tickets (\$5 each) with their table sign up.
- This may be purchased via check to PO Box or via PayPal
- PO Box: Livonia Amateur Radio Club, P.O. Box 51532, Livonia, MI, 48151-5532
- If using PayPal, the cost will be \$22 for table & \$6 for entry.

Contact

Please contact swap@livoniaarc.com for any inquiries or questions.

HAZEL PARK AMATEUR RADIO CLUB 55th ANNUAL SWAP & SHOP


Royal Oak Farmers Market 316 E Eleven Mile Rd, Royal Oak, MI 48067

January 22, 2023 - 8:00 a.m. til 12:00 noon

W8HP - Talk-in 146.640 (100hz.PL) D.A.R.T. Repeater
Tables \$20.00 Tickets \$5.00 Ample Free Parking

Heated Indoor Venue

Vendor setup times with paid admission
Jan 21st 1:00 PM to 4:00 PM and Jan 22nd at 6:00 AM

E-mail Address: HazelParkSwap@gmail.com
Web Site: WWW.HPARC.ORG Facebook: https://www.facebook.com/groups/hparcgroup/

Tickets and Table Reservation Mail-in Coupon

Name _____

Address _____

City _____ State _____ Zip _____

Phone() _____ Email _____

Tickets ____ x \$5.00 Tables ____ x \$20.00 Enclosed \$ _____

MAIL TO: HPARC SWAP
P.O. Box 851
HAZEL PARK, MI 48030

NEW ADDRESS! *NEW ADDRESS!*

TABLE RESERVATIONS MUST BE RECEIVED BY JANUARY 16, 2023



49th Annual HAM RADIO

Swap-N-Shop

SATURDAY February 11th, 2023
8:00 am - Noon

Door Prizes!



**An ARRL
Sanctioned
Swap Event!**

Admission \$5.00 – Table \$8.00

**St. Francis High School
Gymnasium**
123 E. Eleventh Street
Traverse City, MI 49684

Parking lot
At Cass & Eleventh Streets

**VE EXAMS
9:00 am**

VE Exam Info
Hope, AA8SN
aa8sn@arrl.net
231-218-0622

www.CherrylandARC.com

For information or table reservation:
Joe Erlewein, N8CN at 231-668-4223
swap@cherrylandarc.com

146.860.000
W8TCMR

Talk-In
146.86 (-)
PL 114.8
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