



Squelch Tales

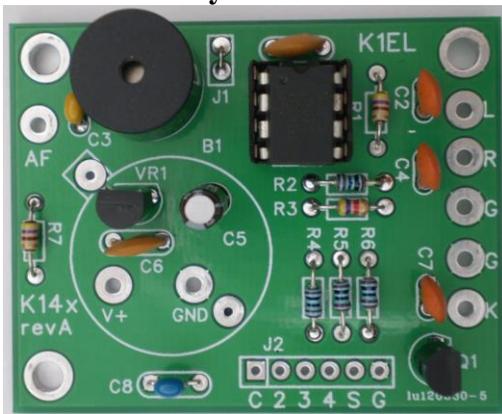


Newsletter from the Merrymeeting Amateur Radio Association for July 2013



A Memory Keyer Kit you can build in a few hours on the cheap

By W1ZE



That's right; a memory keyer that is very inexpensive, easy to build and it works well. The heart of keyer is the K14 8-pin IC chip. The chip has the following attributes built into it:

- Speed range = 5 to 59 WPM
- Messages = 236 letters/12 slots
- Embedded commands
- EEPROM message storage
- Message stacking
- Call sign storage
- Supply voltage monitor
- Backspace on message entry
- Dot & Dash paddle memory
- Bug, Iambic A/B & ultimatic modes.
- AF keying mode
- Beacon mode
- Sidetone
- And more...

You can purchase just the **K14** IC chip for \$8 and assemble it on a small Radio Shack PC postage stamp board or you can purchase a complete K14-EXT kit consisting of board and all on-board parts for about \$20. You can assemble this kit and install it in a variety of different enclosures from an Altoid tin box to a small Radio Shack aluminum box with just the addition of a speed control pot, small push-button and on/off switch, stereo jack and power receptacle.

I have built several keyers using the K12 IC chip (now K14) and very satisfied with its performance. I used one of these kits in my keyer used on Field Day.

For more information and to order the K14 keyer kit go to the K1EL website and review the product line and download the PDF assembly and operation manual at: <http://www.k1el.com/>

73, Bruce



Telnet DX-Cluster, a useful tool to land that rare one.

BY Bruce Randall, W1ZE

Several years ago in this newsletter I described how useful the DX Packet Cluster was in chasing DX and checking on band openings on HF, VHF and UHF. Since that time packet has gone the way of the high

button shoes and buggy whips. When it was up and running, I used the K1EU DX-Cluster packet node just south of Portland on 2-meters. That node was linked to the nation and worldwide Telnet DX spotting system and very useful. Usage on the node was light and it was repeatedly hit with lightning so Michael, K1ED disassembled the node, but left the Telnet port open from his server at his QTH in Scarborough. After this happened I decided to continue using the K1EU node via the Internet and Telnet.

If you are running a PC or laptop that is running Windows-7 or follow-on op-systems, the old dumb terminal emulation software was eliminated from their communications accessory program list leaving with no way to make your PC function as a dumb terminal. Microsoft recommended using an aftermarket terminal emulation program. The TelNet DX cluster folks recommended the freeware program called **PuTTY** available at:

www.putty.org/. For MAC users go to: www.codingsteps.com/installing-and-using-putty-on-mac-os-x

After you download the program to your PC you will need to setup your configuration page (tile).

1. In the connect type row, click on **Telnet**
2. In the port window it should read **23, if not typ it in.**
3. In the lower window you will see the words “**Default Settings**” this is where you will put in the Telnet address for the node you want to us. In my case it was “**dxc.k1eu.dynip.com.**” There are many others site.
4. Highlight the new telnet address and click the “**save**” button then hit the “**Load**” button. The address should appear in the host name/IP address window. If not, enter it there.

5. Now click the “**open**” button and you will see your screen go black and a prompt from your selected DX spotting node will appear.
6. Follow the instructions in the prompt to set up your DX Spotting account.

The following sites can provide you with additional information and tutorials:

- <http://www.drhnet.com/cluster.htm>
- <http://www.ng3k.com/misc/cluster.html>
- <http://www.cqplanet.com/>

Give it a try. You will find it useful.

73, W1ZE



A desk Mic. for about \$10

By Bruce Randall, W1ZE

While sitting at my operating position at my winter QTH in W6-land and working a DXstation on 17-meter SSB I had the Yaesu MH-31 handheld microphone in one hand and attempting to enter the DX call sign into my PC logging program with my other hand. Trying to walk, talk and chew gum all at the same time was a bit inconvenient. I thought to myself, “I wish I had a desk microphone or headset about now.”

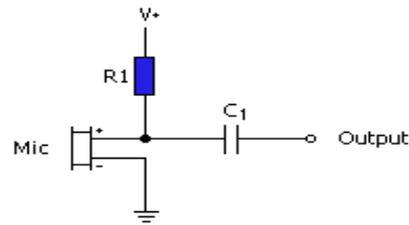
After the QSO I remembered I had a headset adapter box and a PC headset in W1ZE/M that I used to make hands free HF QSOs while driving down the highways. The headset adapter box was configured for my IC-706MKIIg and would not work on my base station FT-897D. I like the PC headset approach but I started thinking about a desk microphone.

I had seen PC (computer) desk microphones at Radio Shack, Walmart, Staples and other outlets at inexpensive prices. These microphones employ electric microphone elements and they usually have pretty good audio quality and have enough gain to drive most Ham transceiver audio input circuits.

While on a parts run to the Radio Shack store I looked at their PC microphones. My local RS store had a Case Logic PC desktop gooseneck microphone for just under \$10. I purchased one and took it home. The next day I noted that the local Walmart sold the exact same Case Logic microphone at the same price.

The Case Logic microphone comes complete with cord, plug and an on-off switch on the base. However I discovered that the supplied cable and plug will work OK with your PC/laptop but not with the average transceiver. My transceiver does not put a supply voltage (+2 to 8 volts) on the mic line and neither do most of the other brands of transceivers. Many provide that voltage on a separate pin in the microphone receptacle. The Case Logic microphone cable only has two very fine stranded wires and the Mic+ line is also connected to the tip and ring portions of the connector. So I unsoldered the cable from the on/off switch in the mic base and replaced it with a 2-foot length of two conductor plus shield audio cable. One conductor went to the microphone + line via the on/off switch and the shield directly to the mic- line. The second conductor was used to bring in the +5 volts from the transceiver to supply the microphone element. I make a simple

voltage isolation circuit and used the terminals on the on/off switch as a tie-point. The little circuit consists of a 1/4-watt 1000-ohm resistor (R1) and a 16-volt 10uF tantalum capacitor (C1). The circuit allows the audio from the MIC+ element to pass to the transceiver microphone input circuit but not the supply voltage.



In my application I installed a 1/8" stereo plug on the mic cable and made-up small interface boxes with a PTT switch in it, then connected the box using a short length of flat 6 conductor Ethernet cable with an 8-pin Ethernet plug on it (that is what Yaesu uses on the FT-897D). Your transceiver may use a different microphone jacks. You could use a three or four conductor (with shield) microphone cable and convert the on/off switch on the mic base to a PTT (transmit) switch using the additional conductor(s).

My results were gratifying. The audio from the homebrew desk microphone was more than adequate to drive my Yaesu transceiver and signal reports indicated clear/clean audio. **73, Bruce, W1ZE**





Were you a licensed Ham prior to July of 1988? If so, you should consider joining the **Quarter Century Wireless Association, QCWA.**

For more information about this special Amateur Radio organization, go to, <http://www.qcwa.org/> or contact the following MARA & QCWA members:

Steve Kercel, AA4AK
George Szadis, K1GDI
Bruce Randall, W1ZE



Rhon-45 tower sections on the hill

At the May MARA meeting one of the topics from the Tech. Committee report by Bruce, W1ZE was the addition of three ten foot sections of preferably Rhon 45 to the existing 90-foot microwave tower, the home of the 147.21 and 444.4 MHz KS1R repeater antennas. The additional thirty feet would put the antenna(s) at 120-feet above the hilltop ground level and hopefully improve some of the shadowed coverage areas on the mid coast and up the Kennebec river served area.

Earlier in the year the membership voted to expend up to \$500 to acquire the needed tower sections.

While the meeting was going on, Harry, N1TTT got on his cell phone and called a chap he met in Carmel, ME that was in the tower business to ask if he had three good sections of Rhon-45. The answer was yes at \$150 a section. At the meeting the membership said “buy them!”

Harry made arrangements to pick up the three sections at the Bangor Hamfest the following Saturday, June

first and it turn he truck them back to the repeater site on Oak Hill.

A bit of structural metal work will need to be done on the top of the tower to provide a structurally sound attachment of the tower sections. Hopefully that will get underway following the MARA Field Day activities

