





## COMPUTER CORNER

Last time, we were discussing the microcomputer, uC, the word byte, which means, or stands for 8 bits in an 8 bit machine, was referred to and now we will refer to half a byte, or nibble. Since we count from 1 through F in a hexadecimal system, and 1111 adds up to F, we need to split the 8 bits into 2 sections, so 1111 1111 stands for FF. Unless the actual language of the computer which is called the machine language is used, one does not have to deal with bytes or nibbles but it helps to know what occurs inside the computer.

With the widespread availability of the micro at the corner store it is necessary to be able to 'speak' to the computer and this is done in a formatted way by using a high level language. One of these is called BASIC and it was developed in Dartmouth College in the US many years ago. the word BASIC is an acronym, where each letter stands for a word. BASIC means Beginners All purpose Symbolic Instruction Code.

If you purchased a TRS-80, APPLE or PET computer, you would use the BASIC language. While it would appear to be difficult to use, with sufficient practice the average person would quickly adapt to it. One thing about this language is that it doesn't tolerate any errors. If you don't follow the format, it comes back to you with rude remarks.

Computers are advertised as having 4K or 8K etc. This refers to the the actual memory part of a computer, or storage and working area. The 8 bit computers mentioned above have a full capacity of 64K memory locations which is actually 65,536. In terms of letters, or numbers it means you could store that many of them away, But wait! When you use BASIC, the program itself may require 8K minimum so it is wise to get sufficient memory for your computer. There is a 4K basic but it is very limited in it's capabilities.

Many people purchase a computer for the purpose of playing games, while others use them for calculations, bookkeeping etc. They have widespread use on the amateur bands and it would seem that nearly all RTTY users have in their shacks either a uC or some other form of gear with micro capabilities. On 20 meters, much of the chatter concerns their useage and/or problems but the ham population has gone for the TRS-80 in a big way.

What are some of the uses for the computer? While they are numerous, here are a few that come to mind:

- Automatic beam headings.
- QSL card organization.
- Information retrieval. (articles of interest etc.)
- RTTY Automatic ID, Brag Tape etc.
- Tuned Circuit calculations.
- Mortgage payment schedules
- Contest Info

Bernie

VE3ATI

POINTS OF INTEREST (RADIO MUSEUMS)

I have sent a number of letters away enquiring about radio museums. The intention was to compile a list of interesting places to visit during the summer holiday season.

Most museums would not warrant a special trip, but if you happen to be in the area you could make a point of visiting them. The list is as follows:

The A.R.R.L. Museum, Newington, Conn., Open weekdays, free admittance.

The Ford Museum, Dearborn, Mich. Open 7 days a week. There is an admittance charge.

AWA Museum; I have a brochure about this museum which is located in East Bloomfield, N.Y. The museum is open Sundays from 14:00 to 17:00 and Wed. from 19:00 to 21:00 local. There is no admittance fee.

This museum is founded and maintained by the "Antique Wireless Assoc., Inc. Exhibits are about wireless, telegraph, telephone, phonography, radio, and television. Bloomfield is not too far from Buffalo, (exact distance not known at this time).

I would like to thank Harry MacLean VE3GRO, assistant Director of the Canadian Radio Relay League, and Bruce Kelly W2ICE, Director of the Antique Wireless Assoc. Inc. for their information.

Randy VE3MUR.

F I E L D D A Y

Fast approaching is the N.S.R.C.A.F.F.D. (North Shore Radio Club Annual Fun Field Day).

As you may have heard we have co-managers, Charlie VE3IBO and Evan VE3IND. There is lots of planning and preparation yet, so please come forward and give these fellas help. Remember to talk it up on 2 meters and HF as well. This a good time to be had by all.

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As mentioned elsewhere in this issue, I will be looking to complete a list of names for those interested in the "Tone-Alert". At the present I'm trying to arrive at the best bulk price for all concerned and will (or should) have word at the April meeting.

Mac VE3IKG.

BELOW IS AN UPDATED EMERGENCY TELEPHONE LIST WHICH CAN BE MOUNTED SOMEWHERE NEAR YOUR LAND LINE DEVICE.

DURHAM REGION

EMERGENCY TELEPHONE NUMBERS

OSHAWA	AMBULANCE-----	723-5232
	FIRE-----	725-6574
	POLICE-----	579-1234
	DISTRESS CENTRE-----	579-1121
	HOSPITAL-----	576-8711
	CONSUMERS GAS-----	668-9341
	HYDRO-----	723-4623
	WATER-----	723-4623
	ONT. MOTOR LEAGUE-----	723-5203
PHONE REPAIR-----	611	
AJAX	AMBULANCE-----	723-5232
	FIRE-----	683-1234
	POLICE-----	579-1234
	HOSPITAL-----	683-2320
	HYDRO-----	683-0501
BOWMANVILLE	AMBULANCE-----	723-5232
	FIRE-----	623-3300
	POLICE-----	579-1234
	HOSPITAL-----	623-3331
	PUBLIC UTILITIES-----	623-4451
PICKERING	HOSPITAL (Ajax)-----	683-2320
	FIRE-----	839-1111
	POLICE-----	579-1234
O.P.P.	WHITBY-----	623-3388
	NEWCASTLE-----	987-4060

FOR TORONTO AREA ROAD CONDX - 1-416-248-3561

PLEASE PUT THIS IN A PROMINENT PLACE, IT COULD SAVE A LIFE.

SELL - SWAP - BUY

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FOR SALE - Linear, DENTRON MLA 2500. 160-10M. Used only  
2 hours. Cost \$1819.00, asking \$1300.00.  
Contact Ray VE3RP 839-3051

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FOR SALE - Linear, HEATH SB-330. 1KW. Must be seen to be  
appreciated. Call Hessel VE3FAT 728-5227,  
(after 17:00)

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FOR SALE - HY-GAIN TH6DXX tri-band beam. Brand new in the  
crate. Asking \$400.00. Call Tom VE3MEZ or Merry  
VE3LEF at 579-4480.

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WANTED - Still looking for an older xmtr., Viking II,  
DX-100 etc. Must have PP final. Want to experi-  
ment with DSB. Call Mac VE3IKG at 723-8484.

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FOR SALE - Realistic DX-150A all band rcvr. \$100.00.  
Contact Les at 623-7338.

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FOR SALE - Kenwood TS-120S transceiver. 200W input, solid  
state. \$850.00. Call Bill VE3KZL at 263-2969.

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FOR SALE - Teletype model 28ASR. \$175.00. Call Hank VE3FHV  
at work 668-5811, ext.259, or have him paged if  
he is not handy.

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WANTED - "XTALS" for any HF band. Building QRP xmtr. Buy  
or swap. Contact Randy VE3MUR at 579-4577.

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WANTED - 19" relay rack or cabinet. 27" to 30" high. Will  
buy or swap for whatever. Need desperately.  
Call Mac VE3IKG at 723-8484.

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FOR SALE - 4 drawer steel file cabinet, letter-size. excell.  
condx. \$50.00. See Al VE3LUS.

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WANTED - Coaxial antenna switch, 3 pos. or more. Swap or  
buy. Contact Mac VE3IKG at 723-8484.

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I.C. CORNER

Well, here it is at last! Blow the dust off your 555's and soldering irons and let's get going.

Below is a circuit which is NOT going to be an option for you to build. It is a MUST for any of you that operate 2 metres through a repeater.

It is a timer, pure and simple! And it IS SIMPLE !!!!!

By simply selecting the value of Rx, the time can be varied according to those in the chart. ( eg. use Rx = 1.2 Meg  $\Omega$  for VE3OSH for about 3 minutes ) Real tough, Huh ?

How does it work ? Well, the Rx and C combination create an RC time constant. ( time what ? ) This time sets the time which the LED is off.

"That's too complicated and technical for me!" OK, how about this ...

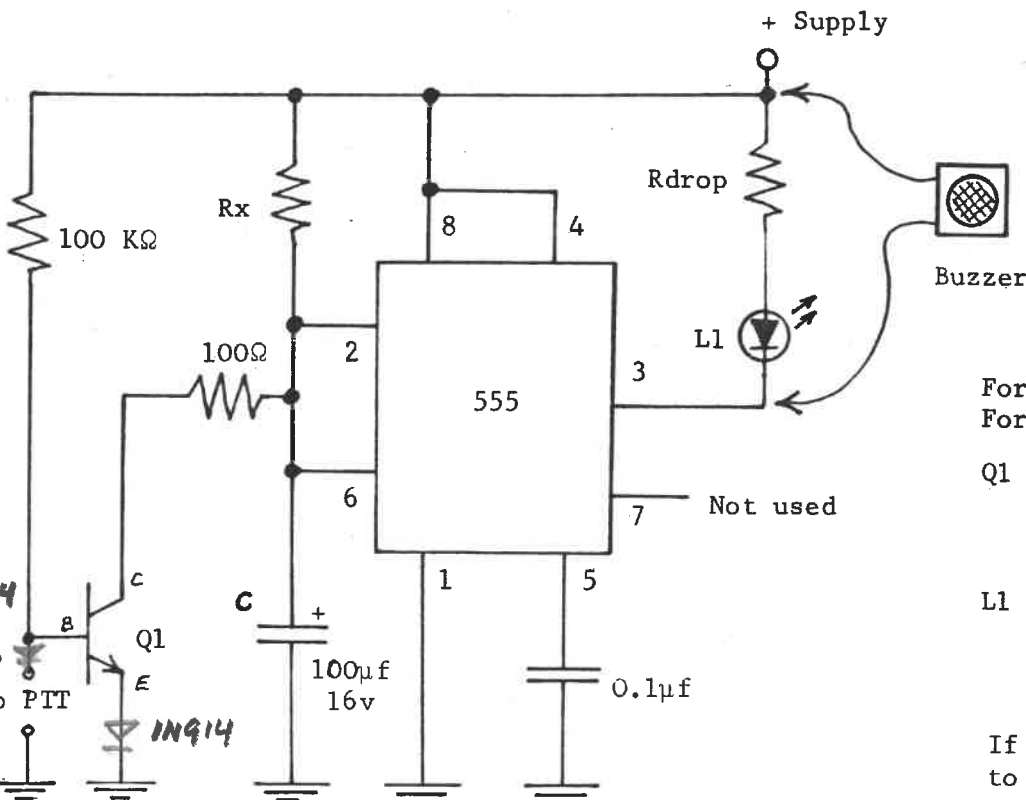
When you push your transmit button (PTT) the circuit gives you a certain time set by Rx and C before the LED lights up saying "LET GO OR ELSE YOU'LL TIME IT OUT !!! " If an audible alarm is desired then go to Radio Shack and get a buzzer (R.S.'s cat. no. 273-060 ) This buzzer can be wired directly across the LED-resistor combination as shown. Now you will have both audio and visual indication of how long you have talked. Of course, the idea is to never see the light come on , right ?

So now NO-ONE has an excuse to time-out the repeater again. Remember, this circuit can work in the car too ! Even the XYL's have to get in on this one because the circuit makes a very efficient egg or general purpose timer for the kitchen.

So no excuses ! BUILD IT !

Next month or soon, I.C. CORNER will have a circuit which works very nicely with this one. "What does it do ?" Sorry you'll just have to wait ! But in the meantime get busy with this one.

Till then, 73 and watch the LED !



Bench Test Results	
Rx	Time
1.0 Meg $\Omega$	2min. 14sec
1.2 Meg $\Omega$	2min. 55sec
1.5 Meg $\Omega$	3min. 20sec
390 K $\Omega$	47sec -
-good for VE3RPT	

For +12 v supply, Rdrop= 1 K $\Omega$   
 For + 9 v supply, Rdrop= 680  $\Omega$

Q1 is any general purpose NPN transistor , type 2N2222 or Radio Shack 276-2009 will do.

L1 is any LED , Radio Shack 276-070 will do.

If you need help, feel free to give me a call. Hopefully, everything will be straightforward since all parts are easy to get.

Circuit is self-resetting when PTT is released.

