



SHACKNEWS

HIGHVELD AMATEUR RADIO CLUB

JULY 2012

We're on



COMMUNICATION IS THE NAME OF THE GAME

ZS6HVB Meeting The AGM was held on the 21st July. The committee for the coming year remains the same (see last page). Arising out the financial report is the annual subscription which was set at R120.00. Under general two matters were discussed. First being our 2m rigs deviation. Ton will arrange a Saturday afternoon session where he will bring along the necessary equipment to do adjustments. It will be a good idea to bring your 2m rig/s along. You will have to open it up and show Ton where the adjustment pot is. Bring along the manual/s and cct/s just in case.

The other matter discussed is using 88.5Hz tone. This will not happen immediately. Lots of things to sort out first.

The meeting ended with nice refreshments.

Next meeting will take place on the 18th August. Usual venue. Willie will be giving another talk/demo on antennas.



Useful websites

<http://yrl.hfradio.net/> Interesting. Look at the web masters.

Weather

http://www.yr.no/place/South_Africa/Gauteng/Boksburg/ Change for your area

<http://oiswww.eumetsat.org/IPPS/html/MSG/PRODUCTS/MPE/SOUTHERNAFRICA/>

<http://www.weatherphotos.co.za/index.html>

Misc

<http://educyclopedia.karadimov.info/sitemap.htm> Plenty info

Software

<http://www.oldapps.com/>

<http://www.oldversion.com/>

<http://www.freshdevices.com/files.php> Freebees-some good, some so so

Some ideas on making the LED Pilot Lamps

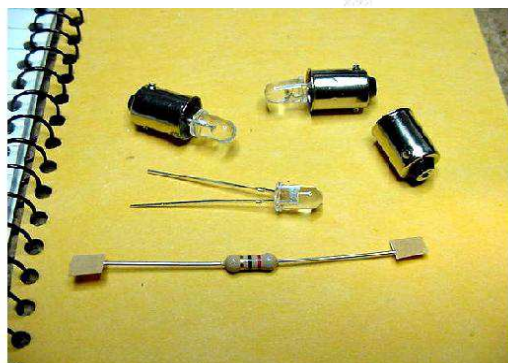
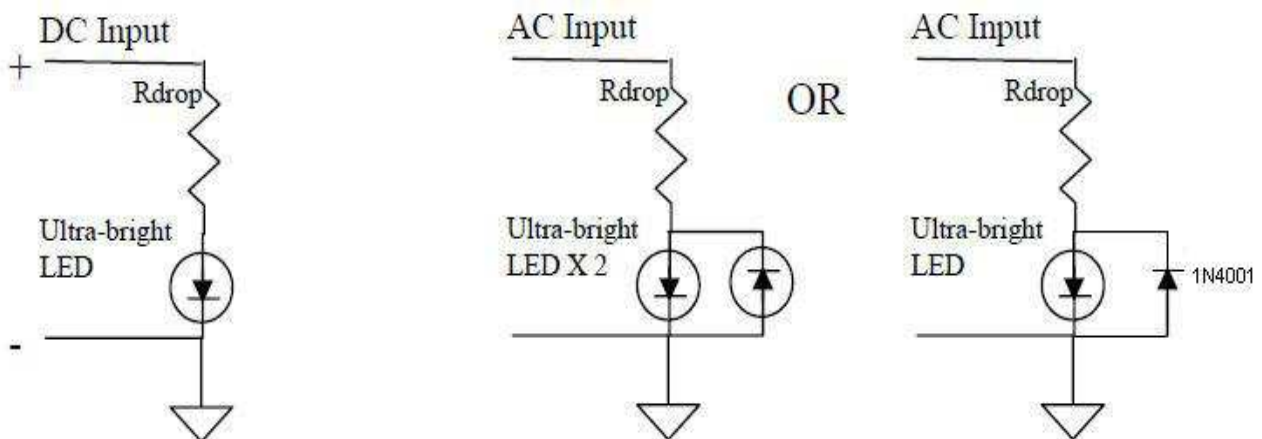
First of all, most of the ultra-bright LEDs have normal operating currents of about 20milliamps. Remember that LEDs are diodes, so they rectify the AC voltage and therefore LED polarity doesn't matter (obviously polarity does matter if the LED is driven from a DC voltage source). The series resistors necessary to provide 20 milliamps from a 6.3VAC source for most ultra-bright LEDs is as shown below:

LED	Fwd Voltage	Series Resistor
White	4V	82 ohms
Green	3V	100 ohms
Amber	3V	100 ohms
Blue	3V	100 ohms
Red	2V	120 ohms

When using AC sources, it is best to either put a second LED reversed across the first LED, or connect a diode across the LED as shown in the schematics. The reason is that the maximum reverse voltage is only around 5-6 volts, and most AC sources can exceed this. So a second LED (which will double the output) or a diode will restrict the reverse voltage applied to the LED to a safe value.

To prepare the LED-lamp base, do the following:

- 1) Put on safety glasses!
- 2) Wrap the pilot lamp in a small plastic sandwich bag and gently crush the glass part with pliers.
- 3) Using the pliers, gently squeeze and rotate the base. This should break up the remainder of the glass in the base. When through, ensure that the base is as round as possible.
- 4) Shake out the glass, and then use a solder-sucker to remove the solder from the tip of the base.
- 5) Using needle nose pliers, pull the remaining pieces of bulb and wiring out of the



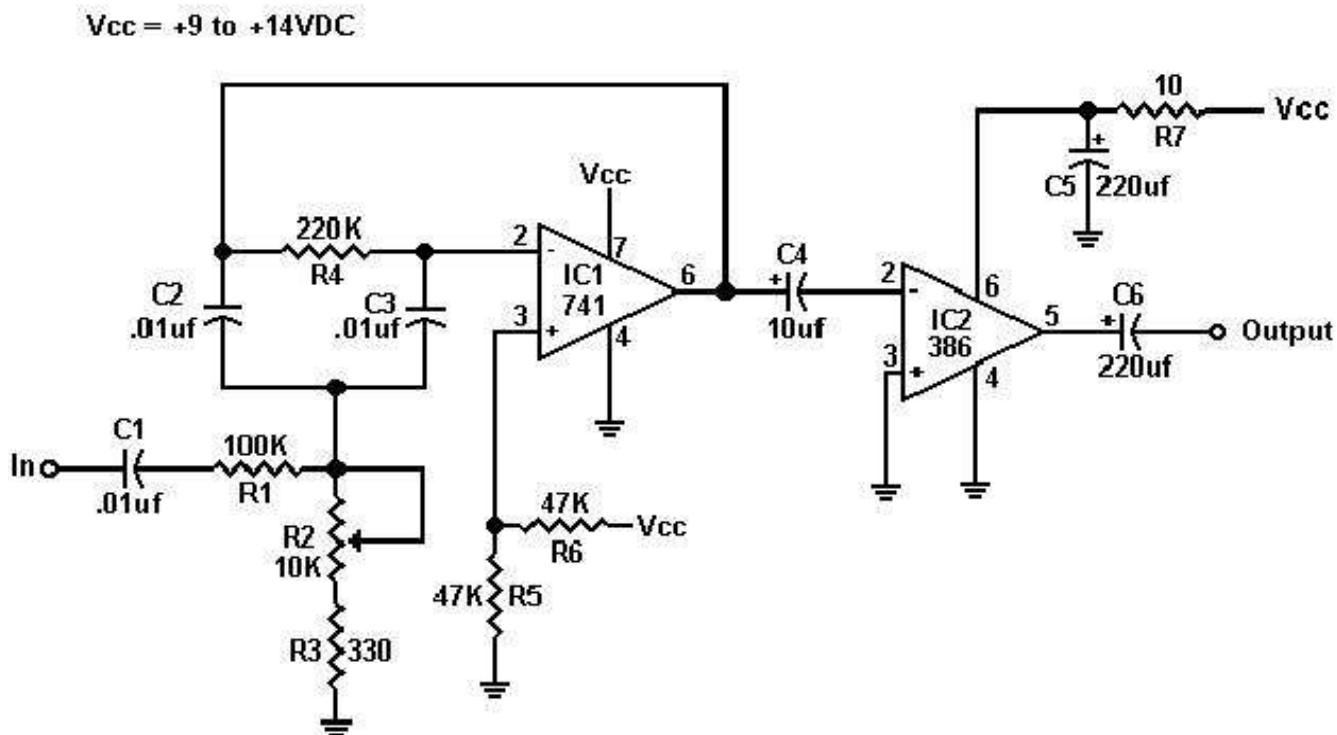
Variable CW filter (for those that still like cw)

As the sunspots return and DX propagation conditions to improve, the age old problem with QRM begins to show up on the amateur bands. Fortunately, help is at hand. The circuit is a variable bandwidth CW filter using two IC's. The first IC is a 741 op amp used as an active filter and the second IC is a 386 audio amp IC. This circuit connects to the headphone or speaker jack of your HF rig. The volume is controlled by the volume control of your rig and R2 controls the bandwidth. There is plenty of audio to drive a small speaker or a pair of headphones.

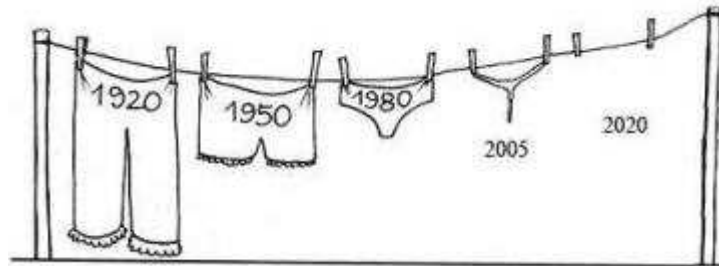
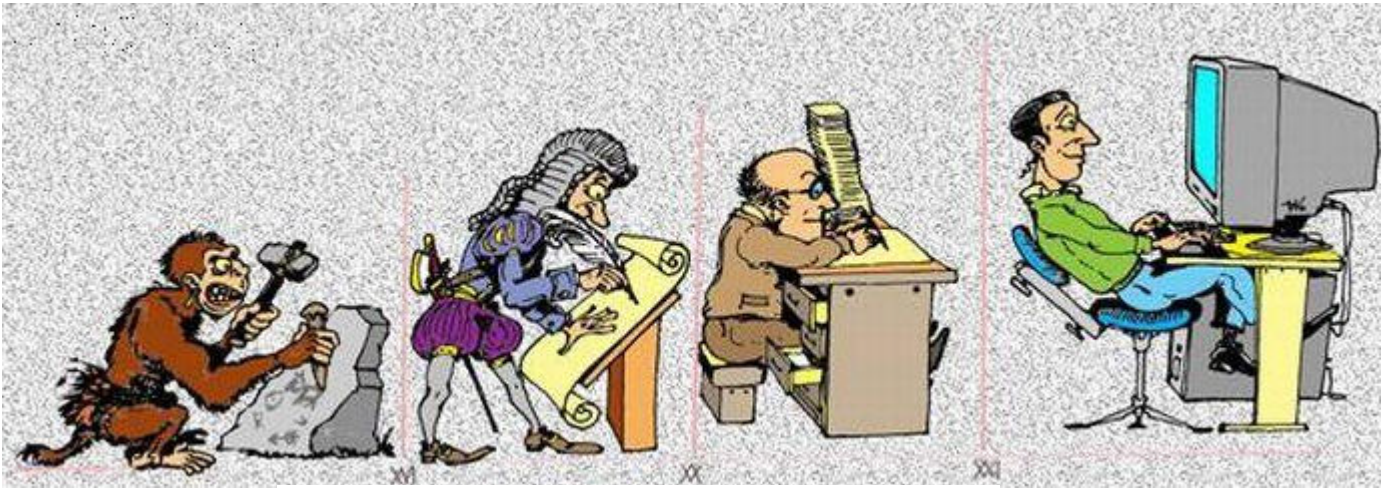
This circuit is different from other active filter circuits because it provides an audio boost which more than compensates for any attenuation in the filter stage. Many active filter circuits do not have enough volume to make them useful for most operators. Capacitor C5 and R7 were added to prevent the LM386 IC from oscillating which is common with this family of IC's. Use good construction practices since this circuit contains a very large amount of gain at the selected bandwidth. The circuit has been shown to be most effective for older radios and QRP sets which lack adequate filtering.

Parts List

- R1 100K resistor
- R2 10K potentiometer
- R3 330 ohm resistor
- R4 220K resistor
- R5,R6 47K resistor
- R7 10 ohm resistor
- R7 10 ohm resistor
- C1,C2,C3 .01 microfarad capacitor



A look at evolution



CLUB INFORMATION

Postal address PO Box 19937 Sunward Park 1470

Website <http://www.zs6hvb.za.net>

Back Issues of Shacknews available on the club website

e-mail zs6hvb@zs6hvb.za.net

Repeater 145.1875 MHz input - 145.7875 MHz output

Linked to 70 cm - 438.850 Mhz (Sunday bulletins)

Bulletins Sunday morning - 145.7875 MHz & 7062 KHz @ 08h45.
Relay - 80M - 3662KHz

Monthly meeting venue

Germiston Methodist Church
Room at back of the offices
Lady Duncan Rd
Germiston

3rd Saturday of the month at 14:30

Committee

Chairman	Ton van Dijk	ZS6ANA	011-432-5494
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Club bank details

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