



# SHACKNEWS

## HIGHVELD AMATEUR RADIO CLUB

### AUGUST 2011

#### COMMUNICATION IS THE NAME OF THE GAME

**Meeting** The AGM for 2011 was held during the month and the office bearers are to be found on the last page. Part of the proceedings was the budget and it was decided to keep the annual subs at R120.00 for the financial year. During the general session a lot of discussion on various topics took place. The next meeting will take place on the 15 October.

**ZS6SSC Social Club** There was no meeting this month. Next meeting will be held on the 17 September 2011 from 14:00. Venue:- QTH of Rex and Ingrid.

---oooOOOooo---

#### **More puns**

He had a photographic memory that was never developed.

A midget fortune-teller who escapes from prison is a small medium at large.

Once you've seen one shopping center, you've seen a mall.

Bakers trade bread recipes on a knead-to-know basis.

Santa's helpers are subordinate clauses.

Acupuncture is a jab well done

Clones are people two

From a previous issue of SN

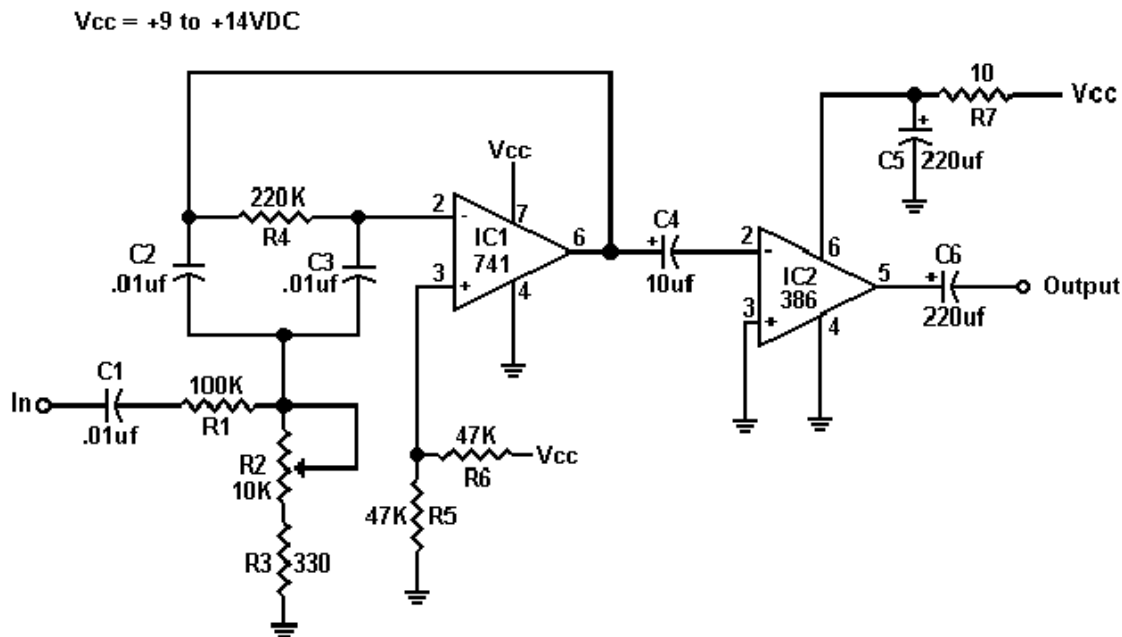
A young man saw an elderly couple sitting down to lunch at McDonald's. He noticed that they had ordered one meal, and an extra drink cup. As he watched, the gentleman carefully divided the hamburger in half, then counted out the fries, one for him, one for her, until each had half of them. Then he poured half of the soft drink into the extra cup and set that in front of his wife. The old man then began to eat, and his wife sat watching, with her hands folded in her lap.

The young man decided to ask if they would allow him to purchase another meal for them so that they didn't have to split theirs.

The old gentleman said, "Oh no. We've been married 50 years, and everything has always been and will always be shared, 50/50."

The young man then asked the wife if she was going to eat, and she replied: "Not yet, it's his turn with the teeth."

## VARIABLE BANDWIDTH CW FILTER - for older rigs



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.

R1	100K resistor
R2	10K potentiometer
R3	330 ohm resistor
R4	220K resistor
R5,R6	47K resistor
R7	10 ohm resistor
C1,C2,C3	0.01 microfarad capacitor
C4	10 microfarad electrolytic capacitor
C5,C6	220 microfarad electrolytic capacitor
IC1	741 op amp IC (use 8 pin socket)
IC2	LM386 audio amp IC (use 8 pin socket)

Note: All resistors are ¼ watt 5% tolerance unless otherwise specified.

### Computer info

**Byte** = one character, number or symbol. - Eight binary digits called bits. The smallest unit of information that a computer can process.

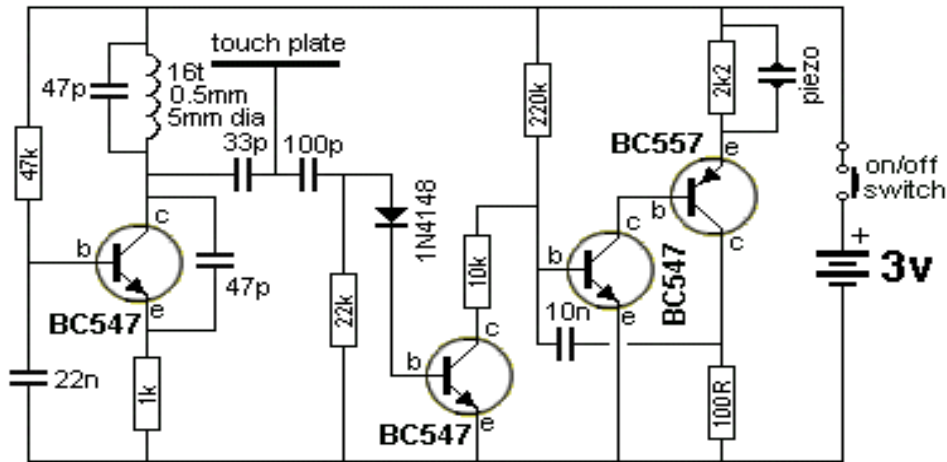
**Kilobyte (K)** = One kilobyte is 1024 characters (bytes). This is roughly equivalent to *one page of double-spaced text*.

**Megabyte (MB)** = One megabyte is 1048576 characters (bytes). This is approximately *equal to one book*.

**Gigabyte (GB)** = One gigabyte is 1073741824 characters (bytes). This is approximately equal to a study lined with bookshelves, full of books, or *about 1000 books*.

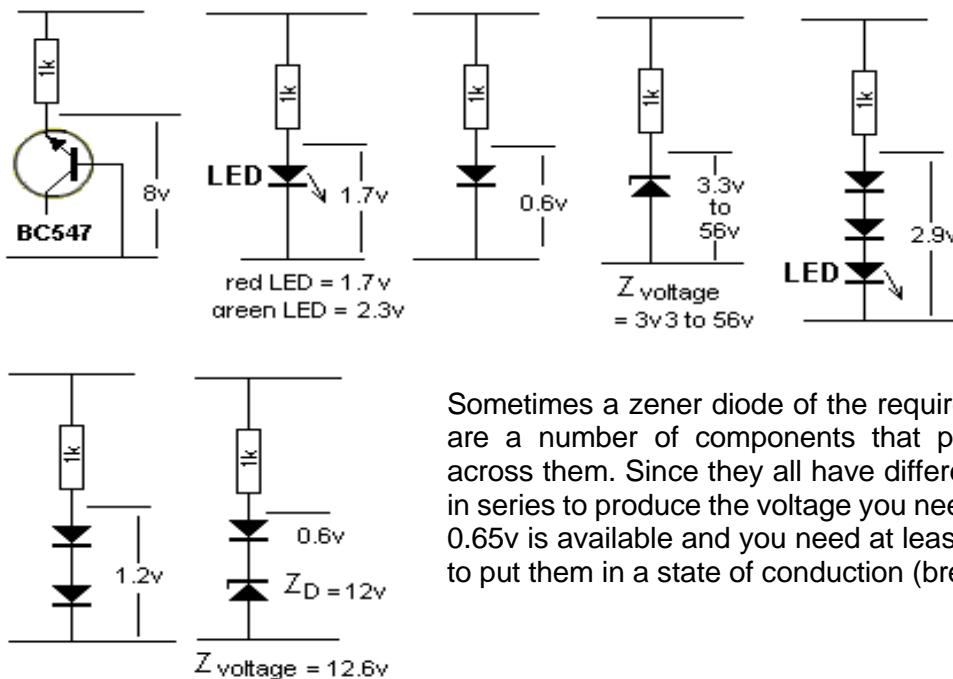
**Terabyte (TB)** = One terabyte is 1099511627776 characters (bytes). This is approximately equal to one *library full of books*.

## DOOR-KNOB ALARM



This circuit can be used to detect when someone touches the handle of a door. A loop of bare wire is connected to the point "touch plate" and the project is hung on the door-knob. Anyone touching the metal door-knob will kill the pulses going to the second transistor and it will turn off. This will activate the "high-gain" amplifier/oscillator.

## MAKING A ZENER DIODE

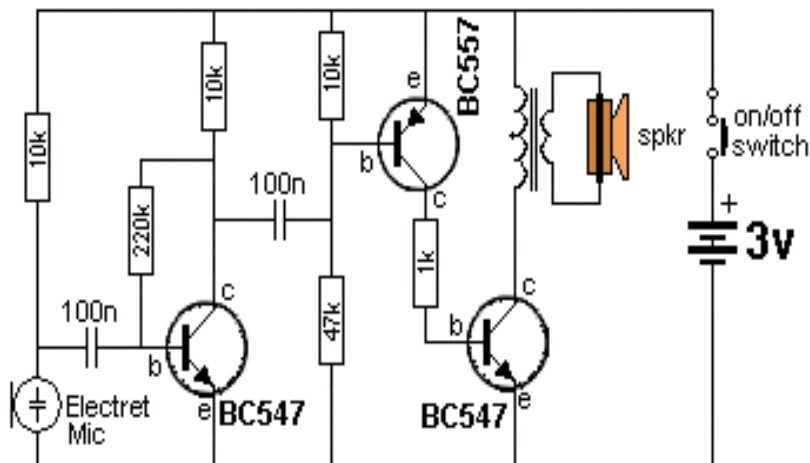


Sometimes a zener diode of the required voltage is not available. Here are a number of components that produce a characteristic voltage across them. Since they all have different voltages, they can be placed in series to produce the voltage you need. A reference voltage as low as 0.65v is available and you need at least 1 to 3mA through the device(s) to put them in a state of conduction (breakdown).

## Sayings

- All those who believe in telekinesis, raise my hand.
- I almost had a psychic girlfriend but she left me before we met.
- Depression is merely anger without enthusiasm.
- When everything is coming your way, you're in the wrong lane.
- Hard work pays off in the future. Laziness pays off now.
- Everyone has a photographic memory. Some just don't have film.
- Shin: a device for finding furniture in the dark.

## SUPER EAR



This circuit is a very sensitive 3-transistor amplifier using a speaker transformer. The biasing of the middle transistor is set for 3v supply. The second and third transistors are not turned on during idle conditions and the quiescent current is just 5mA. The project is ideal for listening to conversations or TV etc in another room with long leads connecting the microphone to the amplifier.

### 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](mailto: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
Secretary/Treasurer	Berridge Emmett	ZS6BFL	011-893-1291
Repeater	Ton van Dijk	ZS6ANA	011-432-5494
Shacknews Editor	Berridge Emmett	ZS6BFL	011-893-1291
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Webmaster	Yvonne van Dijk	ZR6TBL	011-432-5494
Assistant Webmaster	Marianne Treyvellan	ZR6JMT	079-519-8808

#### Club bank details

First National Bank - Current Account 62116557309. Branch Code for EFT 250655  
Branch Code 201209 - Sunward Park