



ZS6HVB  
Affiliated to  
the SARL

# SHACKNEWS

## HIGHVELD AMATEUR RADIO CLUB

### Last Quarter 2019

We're on

#### **COMMUNICATION IS THE NAME OF THE GAME**

The final club meeting of the year will be held at the QTH of Rex, ZS6REX, on Sunday 1st December 2019. From 12:00 onwards.

This will take the form of a bring and braai. You bring and you braai. Please bring a few chairs just in case. Also rain coats and umbrellas to keep the rain away.

The repeater is now linked to Echolink, ZS6HVB-R, during the Porky Club sessions Monday to Friday from 08:00 to 09:00. Also during Sunday club bulletins. Thanks to Willy ZS6WT.



#### **A simple ext. Speaker with Noise Limiter/ NF Filter**

This is a very easy way to bring an old 8 ohm Surround Speaker back to life.

A very "good", small 8 ohm full range speaker would be fine.

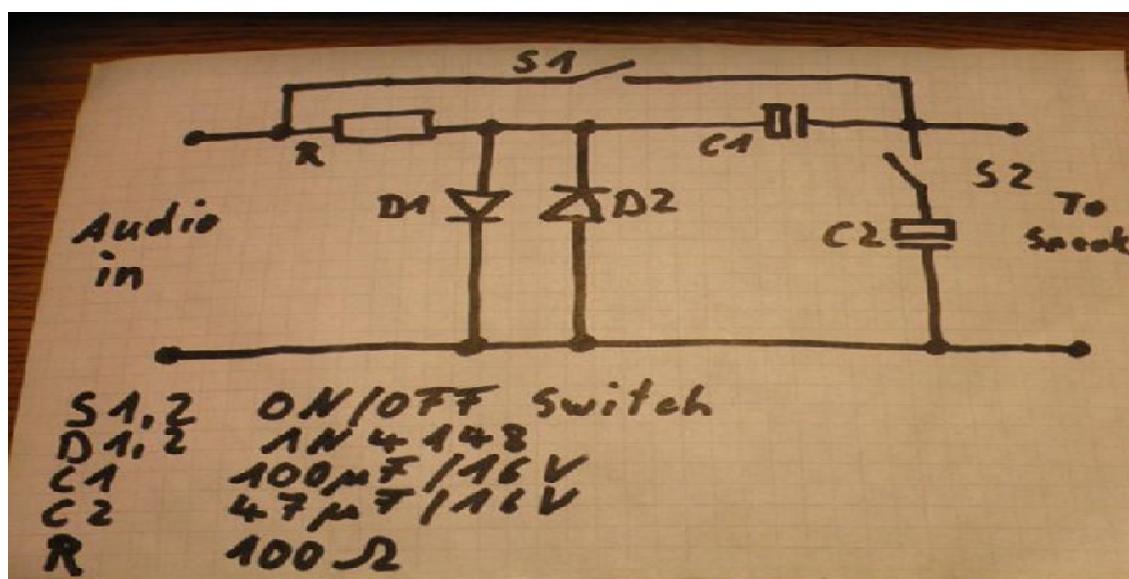
You also need:

S 1,2 On/ Off Switch

D 1,2 1N4148

C 1 100 $\mu$ F

C 2 47 $\mu$ F R 100 Ohm



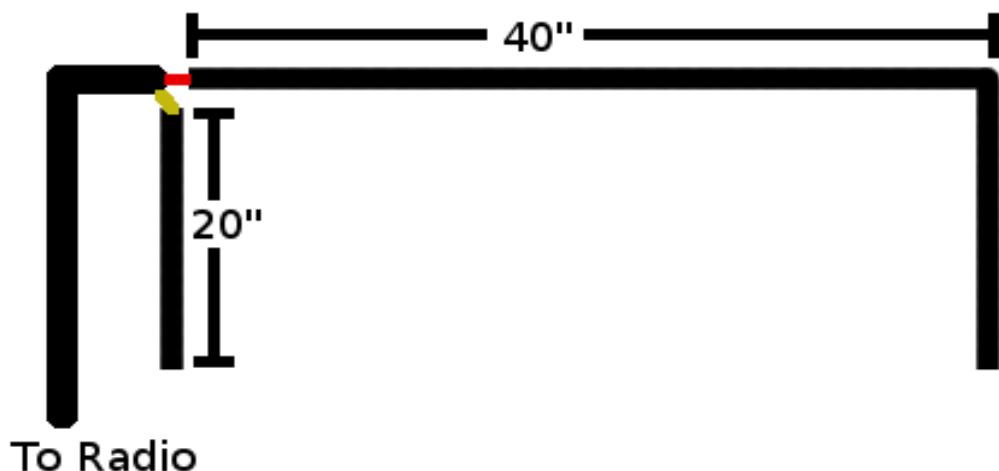
## A Half square antenna for 144Mhz / 2M and how to make one for any band (Author unknown)

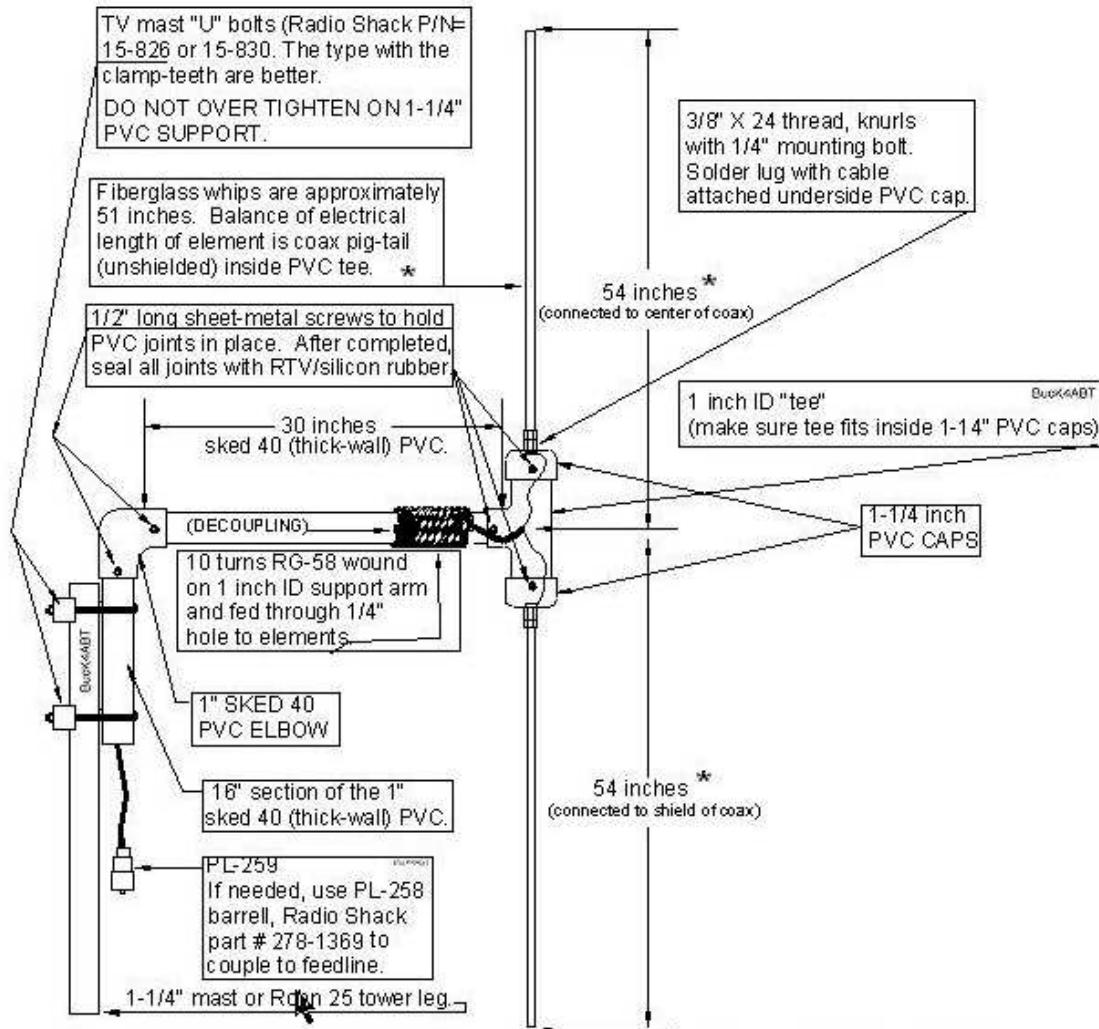
I love this antenna, not just because its useful but its soo simple to make. The theory behind it is simple as well...two vertical pieces that are 1/4 wavelength and the top portion is a 1/2 wavelength. The top portion is connected to one vertical piece and is where the center conductor is connected to it and the braid/shield is connected to the other vertical portion.

The dimensions I worked out for 2m is 20" for the vertical pieces and 40 inches for the top. The perfect antenna to have hidden behind drapes or a blind in case you need to go stealth in your operations. I made a 440Mhz antenna the same way. If you have enough wire and height to mount it you can make one for any band.

Notes:: Leave the longest piece 2-3 inches longer than described and cut back the end until you have a low swr. I started with a 1.6 but when I took 2 inches or so off it went down to 1-1 all across the band. Its easier to cut off than add. Below is a picture and diagram to go by. I have mine mounted above a closet door in the shack to hit the local repeaters.

Also below is a picture of the 440Mhz half square I made. Taped to the ledge of a window... dimensions are 6.5" on each leg and the top piece 13" again like the 2m antenna trimmed for best results. When trimming this one its best to do it in very small increments.





An improved "High-Performance" 6 meter Base-Station Dipole

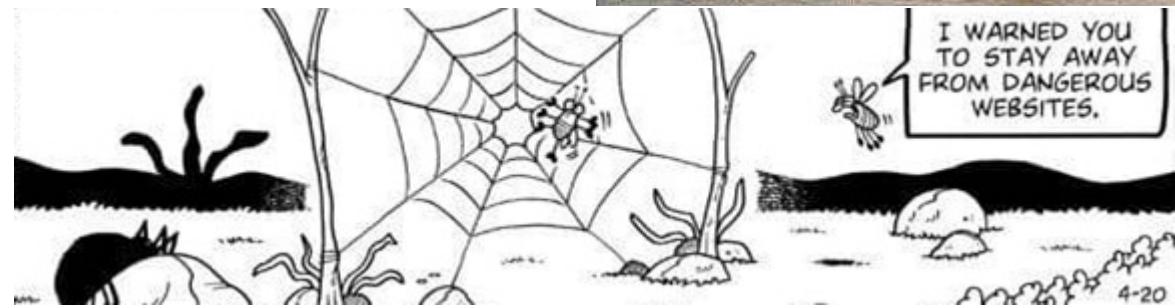
### From:- Transmission Lines for Dummies

#### **Myth #6 - A heavy gauge wire or strap connected to an earth rod is a "ground"**

Basic Truth #6 - Any conductor connected to an earth rod, or any other solid connection to the earth or a buried conductor, can act like an antenna all by itself. In fact, such wires can be better antennas than "grounds". The impedance of a wire or strap changes as a function of frequency and the length of the wire or strap to the point where it is earthed. If the length approaches one quarter wavelength or an odd multiple thereof, the impedance will be extremely high. Therefore, so-called ground wires can often be very poor grounds indeed. If the ground wire is getting too long to be a good ground, it may improve things to make it a half wave long, in which case it begins to act like a good ground again. However, the RF current flowing in such a ground wire may be equal to the RF current in the antenna proper. It depends on the type of antenna - whether it's balanced or unbalanced against ground. An end fed antenna system is actually comprised of a part that you normally think of as the antenna itself and also a part that you think of as the ground wire. The "ground" wires in house wiring are earthed at, or close to, the service entrance panel, but from there out to the extremities of each branch you have a veritable Christmas tree of antenna branches. Each such branch is effectively an antenna resonant at some frequency. The ends of those branches can be very hot with RF voltage if they happen to be a quarter wave at or near your frequency of operation.

BREAD IS A LOT LIKE  
THE SUN,  
IT RISES IN THE YEAST  
AND SETS IN THE WAIST.

We'll Be Friends  
'Til We're Old & Senile  
...Then We'll Be  
New Friends!



## 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

**Bulletins** Sunday morning - 145.7875 MHz & 7162 KHz @ 08h45.  
Also on Echolink ZS6HVB-R

### Monthly meetings

Venue to be advised

Every Third month  
On the 3rd Saturday of  
the month at 14:30.

Chairman: Vacant

Secretary/Treasurer: Berridge Emmett ZS6BFL 011-893-1291  
Shacknews Editor: Berridge Emmett ZS6BFL 011-893-1291