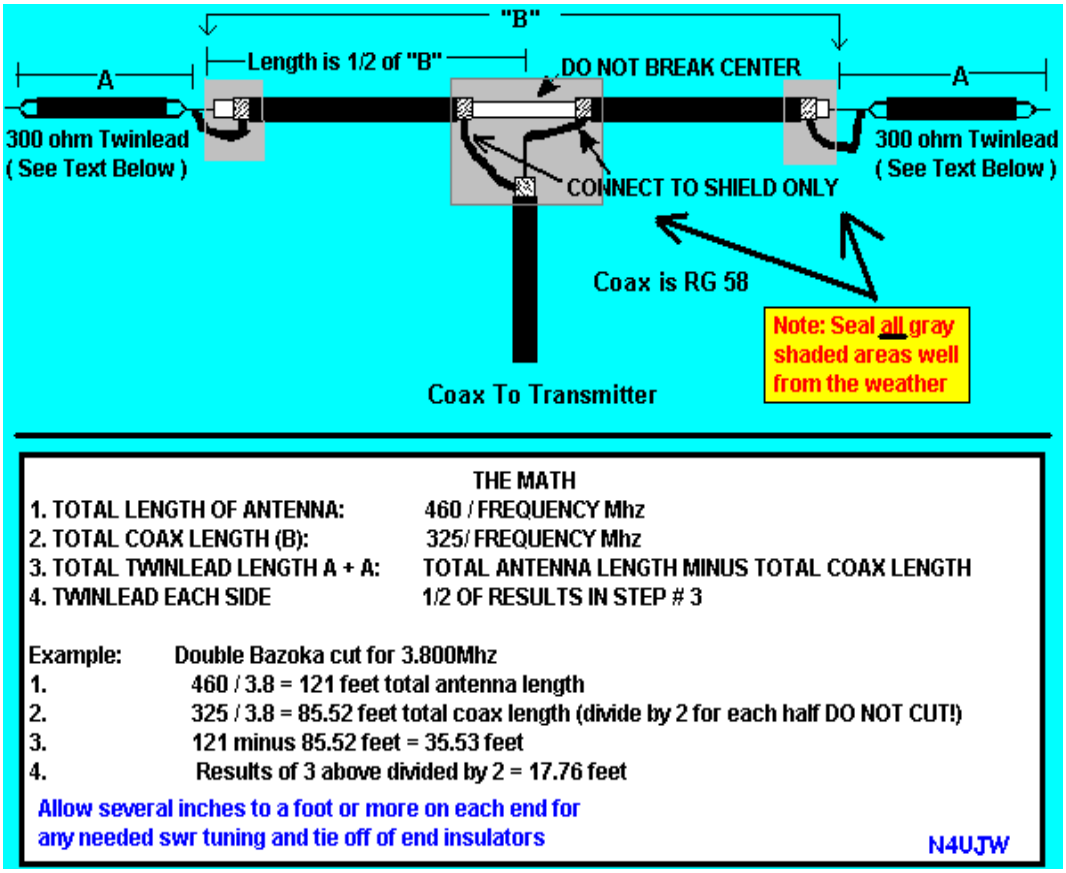
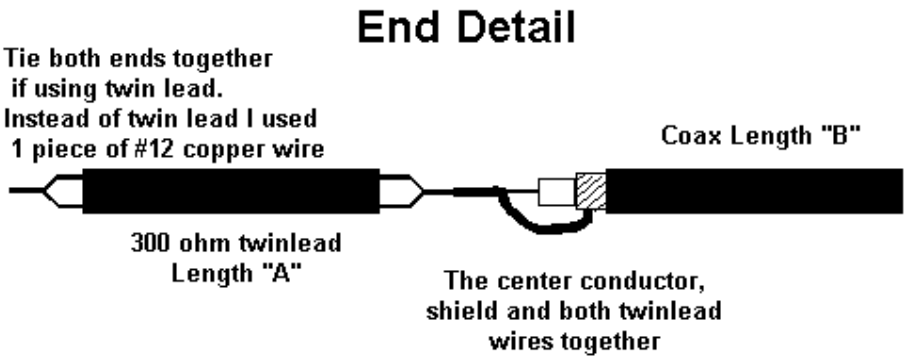
THE DOUBLE BAZOOKA ANTENNA

Notes on Assembly of the Double Bazooka
About The Double Bazooka Antenna

The Double Bazooka Dipole is a very efficient single band antenna which is very quiet, and does not require the use of a balun. This antenna consists of coax (RG58) or other 50 ohm type with the shield split at the center and the feedline attached to the open ends. Do not break the center conductor. With the feedline attached directly to the two open ends this acts as a half wave dipole along with the open wire end sections. This double bazooka can be cut for any operating frequency and is broad banded. It can be mounted as a flat top or an inverted vee and will handle the legal limit. As an added plus, it can be operated as a multiband antenna by using a suitable tuner. As with most antenna projects, get the double bazooka up as high as possible. Some tuning of the length for best swr may be required and you can use materials that are easily obtainable.

Experiment!





Additional construction information:
(This tip from Jay, W5IB)

On the cable ends you do not need to use twin lead. You can make these antennas using a single piece of 12 gauge copper wire or larger for each end or you can also use ladder line etc.

I would advise using heavy end wires for strength purposes. The weakest part of this antenna is at the junction of the coax and the end wire or twinlead. To prevent the joints from breaking especially for long lengths, I picked up some 1/2 inch PVC pipe.
I cut the PVC in half length wize so it would overlap a few inches on the joints.
Place the PVC at the joints in "splint fashion" and secure with regular screw hose clamps. Put the clamps close to the ends of the "splint", tighten snugly and it should take the strain off the joint and should give a strong joint.
Do this at the center using a " T " support from PVC or use your own engineering. When designed for the lower hf bands, this antenna can be a bit heavy since coax is used. It can be supported along it's entire length with non-conductive cord, rope, cable, etc by suspending and attaching the antenna from the support cable with nylon wire ties every few feet.
This relieves the tension and strain from the center and end connections.

Additional info and updates from builder Steve, K4MMG

I used RG58 to build the Bazooka using the plans and formulas above...
The antenna height is 30 ft., the ends are @ 10 feet.
(I let there be a lot of slack in both ends) .
I used 11 feet of heavy wire on the ends rather than twinlead.
This is to prevent the coax from being pulled on unnecessarily during windy days.
The coax feed line is 60 feet in length and is rg8x.

Using a MFJ analyzer I obtained the following results:
7.1 Mhz = 60 ohms @1.4 vswr
7.2 Mhz = 48 ohms @1.2 vswr
7.3 Mhz = 45 ohms @1.4 vswr

The calculated lengths were made @ 7.2 Mhz. The tails lengths were increased from the calculated values by 11 inches for adjustments as necessary. From the formula in the article, (ABOVE), the antenna that I constructed without adjustment was useable.

First time since I became a ham did this ever happen. Even though my radio has a tuner, my goal is not to use it. This antenna is no exception.

The antenna that I ended with seems to be a lot more directional that the standard dipole. That is, when the signals are at the antenna ends, they are hardly readable.

With my all band dipole however, I can at least hear signals reasonably well.
Signals front to back of the antenna are very strong and I was really pleased with the results. Noise levels are very low on receive. As it turns out because of the manner in which my antenna is deployed, (more or less inverted V),it is probably both a vertical and horizontal radiator.

Because the broadcast stations are no longer in the lower end of 40 Mtr. Phone,
7.125mhz - 7.200mhz, it allows for a more enjoyable operating experience now.
In the past few days, I have heard , JA's, EA's, and Europe @ 56 levels.

I will use this antenna for a few months, then build one from rg8x coax so I can use greater than 100 watts.

Additional info.....I couldn't stand it any longer!

Raised the end to be in line with the center height, no change in swr!

Just thought u may want to add this into the post.

73's

Steve/k4mmg