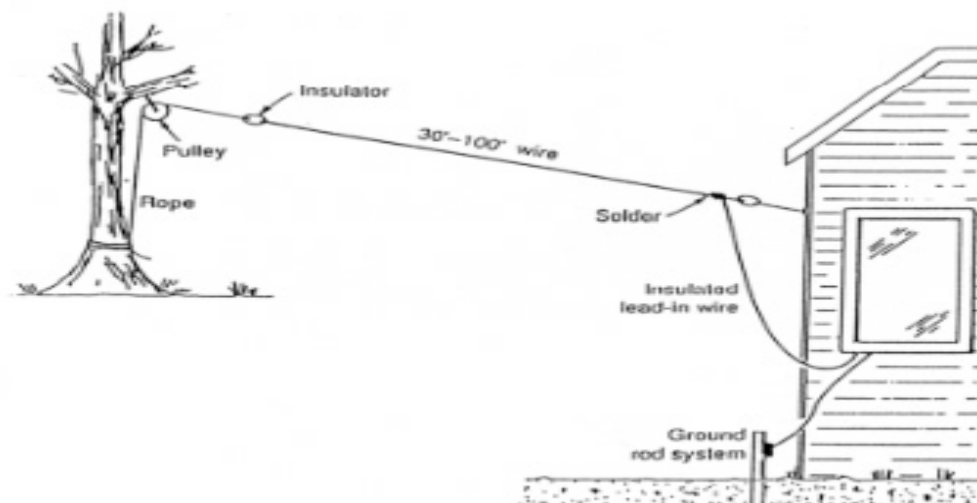




Long Wire Antenna Installation



Sometimes simple is best. You already know that good reception depends on a good antenna. One of the best designs is a random-length wire, from 30 to 100 feet long, erected in the clear (see Figure). It should be placed well clear of power lines (which are dangerous and also create radio noise). Try to get the horizontal portion at least 20 feet above the ground. It will work at a lower elevation, but height of the antenna is important. You can run a wire from the peak of your house roof to a nearby tree. You can also make an inexpensive antenna mast from five or 10 foot sections of TV mast or use a telescoping TV mast to support the far end of your wire.

Antenna insulators should be placed on each end of the horizontal wire. You can also buy suitable glass or ceramic insulators, or you can make your own out of one-half inch diameter plastic rod cut to about three inches long. Just drill holes at each end to pass the antenna wire and the supporting rope. Pass the wire through the insulator hole and wrap it back upon itself. It isn't necessary to solder the wire at this point. Use 14 or larger enamel coated wire for the horizontal portion of your antenna. The lead-in portion should be insulated to keep it from shorting to other parts of your residence, such as window frames, metal screens, etc. Stranded-18 wire (any color) will do.

Solder the joint where the the wires connect. You can coat the joint with a little asphalt roof paint, or wrap it with electrical tape. A weatherproof sealant is also available commercially that, when wrapped around soldered joints, effectively seals out moisture. Sealing the joint helps to keep rain or snow off the connection.

Orientation of the wire is not important. Just run it in a clear direction, away from as many man-made objects as possible. This is a basic shortwave antenna used by countless thousands of listeners. You'll be surprised at what you'll hear on the shortwaves with this easy-to erect

sky-wire.

William Orr, W6SAI - Courtesy of *Popular Communications* 1992 Communications Guide

