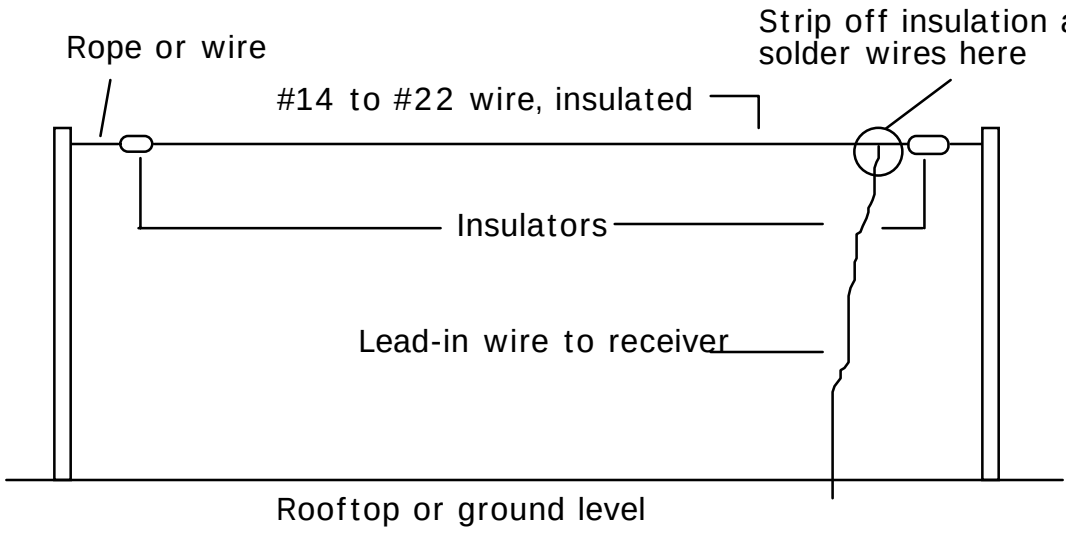
American Radio Revival

"New Life for Old Boxes"

VINTAGE RADIO ANTENNA TIPS

Many clients want to know a bit more about what is considered an appropriate outdoor and/or indoor antenna for their set than the brief notes in the other info sheet, "Healthy Radio Tips", so this little offering might clear things up a bit. First, the outdoor antenna. This type is almost always the "Inverted L" category, the longest part of the antenna being horizontal, and the short part leading down to the receiver, like this:



(Antenna recommeded height is 10-30 ft above ground)

A high antenna brings in lots of signal. As the antenna height decreases, the signal strength decreases. A good antenna will help to override man-made static and the internal noise generated by the set itself. Everything from electric shavers to electric blankets, microwave ovens, etc, can generate annoying static. In most cases a good antenna will bring in enough signal to reduce these annoyances.

Indoor antennas: an indoor antenna consists of 20 to 100 feet of insulated wire attached to the antenna terminal of the receiver and strung either in a straight line in the interior of a building or carried on various supports in various directions through the rooms of a building or house.

An indoor antenna may be placed in a long room such as an attic with the use of the same insulators and supports employed in outdoor antenna construction. At the other extreme of construction we find a piece of wire laid along the baseboard of the ceiling or the

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floor and extending through several rooms. Either type will work, but the more careful the construction the better will be the results.

An indoor antenna will not deliver as strong impulses to the receiver as an outdoor one of the same size. But if the receiver has sufficient amplification the results may be surprisingly good. A receiver with one stage of RF and two of AF operated with an indoor antenna will deliver good speaker volume from stations 200 miles away at night under favorable conditions. With two stages of RF and two stages of AF amplification, this range can be extended to 500 miles.

Generally speaking, most radio stations today operate under such high power that for general use in hearing local AM radio stations, an outdoor antenna is not necessary except on the most primitive sets. If, however, your set has a good shortwave section on it, or you wish to hear AM stations a great distance away, an outside antenna might be worth the extra trouble. For weak signal reception, an outside antenna, mounted high and in the clear is hard to beat.

The best length of antenna (indoor or outdoor) depends on local conditions and on the type of receiver being used. The following list gives lengths that are generally satisfactory. The lengths are the sum of the horizontal portion of the antenna, the lead-in to the receiver, and the ground connection from the receiver:

For receivers having six or more tubes.....40 to 50 ft.
For 5 tube, TRF sets.....60 to 75 ft.
For 4 tube sets with one RF stage.....80 to 100 ft.
For 3 tube regenerative sets.....100 to 120 ft
For 1 tube sets, crystal sets, etc.....100 to 150 ft.

It might also be said that at this point that in some cases you can actually degrade reception by using an antenna that is too long, and therefore delivers too much signal to the set! Intermodulation distortion, front-end overload and images may start to rear their ugly head if you try to cram too much signal down your radio's throat. Experimentation is the key. Come on, you really didn't have anything very important to do this Saturday, did you?