

The Phantom

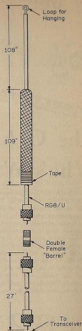
A PORTABLE SKY HOOK

by BUD MOHR, K1C0922

This "Phantom" as I call it, can be coiled up and thrown under the seat, or in the trunk, and for hotel or motel, for the traveling man, at picnics, rallies, or anyplace you care to hang it, it does a fairly reliable job.

Materials needed are as follows: 3 PL259 connectors and 2 adaptors, 1 barrel. Solder gun and solder. Sharp knife and some plastic tape. 27 ft. RG58/U and 19 ft. RGS/U.

Procedure: take outer insulation off the RGS/U a distance of 9 feet, being careful not to damage the coaxial braid. Now push the coax back over the inner insulation until quite loose, then reverse it over itself as illustrated. Now cut off the outer braid at 109 inches and wrap lower end with plastic electrical tape. (Caution, do not wrap all the exposed shield as this tends to make antenna too stiff.) Now make a loop and solder it firm at the top of the antenna, leaving on all inner insulation. Solder on all connectors, and check over your work electrically. The "Phantom" talks again. Happy CB'n.



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PUT A BASE ANTENNA ON YOUR MOBILE!

Although this looks like it's a base station antenna, it was designed for mobile use.

The results are almost as good as a base station, giving a solid 35 to 40 mile range. When not in use it fits snugly in the mobile unit's trunk—ready to be assembled at a moment's notice should I want to reach my base station and find that I am out of range with a regular mobile antenna. With the slip joints I have made, the *Clobber Stick* takes but a few minutes to assemble from its 52-inch sections. It weighs only about 3 lbs.

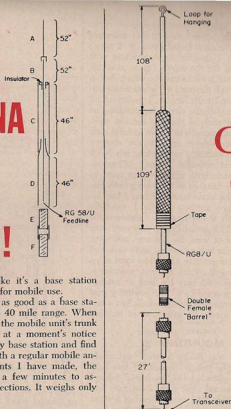
CONSTRUCTION

For the topmost sections (A and B) I used parts from an old ground plane antenna. Any 102 inch steel whip will do if cut and threaded in the center for folding up. You might want to use a 102 inch telescoping whip.

The 102 inch top section rests on an insulator made from a socket for a PL-259 coaxial connector. The insulator is pressed tightly into the top of section "C." The RG-58/U coaxial feedline is attached to this point "C" and attached to the PL-259 socket so that it will make a good contact with section "B" when in use. The shield of the coax is soldered to section "C."

Sections "C" and "D" are two 45 inch sections of 1 1/4 inch TV masting with a slip joint to hold them together.

Sections "E" and "F" are merely wooden support poles to elevate the antenna to the best height, but in no event should they elevate the top of the antenna more than 20 feet above the car top. The antenna itself is slightly more than 16 feet high.



The Cobra Coil

This "Cobra" as I call it, can be coiled up and thrown under the seat, or in the trunk, and for hotel or motel, for the traveling man, at picnics, rallies, or anyplace you care to hang it, it does a fairly reliable job.

Materials needed are as follows: 3 PL-259 connectors and 2 adapters, 1 barrel. Solder gun and solder. Sharp knife and some plastic tape. 27 ft. RG-58/U and 19 ft. RG-8/U.

Procedure: take outer insulation off the RG-8/U a distance of 9 feet, being careful not to damage the coaxial braid. Now push the coax back over the inner insulation until quite loose, then reverse it over itself as illustrated. Now cut off the outer braid at 109 inches and wrap lower end with plastic electrical tape. (Caution, do not wrap all the exposed shield as this tends to make antenna too stiff.) Now make a loop and solder it firm at the top of the antenna, leaving on all inner insulation. Solder on all connectors, and check over your work electrically. The "Cobra" talks again. Happy CB'n.

The Mobil-Mitter Antenna

Here's an antenna for those times when you've decided that you want to use a mobile rig without making a complete installation. The antenna can be crunched down to about 15 inches when not in use, thrown into the trunk and forgotten. When you need it, it's ready to go in a few second's time.

CONSTRUCTION

Our antenna consists of a telescoping 38-inch whip mounted on a wooden dowel (about 3 inches of broom handle should do well), which in turn is mounted on a rubber suction cup (the kind which can be swiped from a car-top carrier of child's hi-chair toy). A loading coil is wrapped around the wooden dowel.

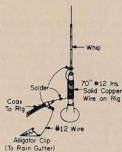
The loading coil consists of 70 inches of No. 12 insulated antenna wire, wrapped tightly around the dowel, with about 2 inches left at each end.

The dowel is mounted on the rubber suction cup by means of a flathead screw with it's head recessed into the bottom of the dowel. The recessing hole should be the same size as the head and then filled with epoxy cement before the screw is inserted. Once the screw head is set into the dowel, a washer is slipped over the protruding portion of the screw, and glued in place with some more epoxy. Next, when the epoxy has hardened, fill both the hole in the top of the suction cup (and the rim around the top) with more epoxy—inserting the point of the screw in the suction cup opening, wiping off excess epoxy which may have squished out of the edges. Wait for this to harden before going further.

Next, drill a hole in the other end of the dowel to accommodate the antenna, make it about 1/2-inch deep. Give it the epoxy treatment and jam in the antenna. After it dries you can solder the wire from the top of the loading coil to the bottom of the whip (you may have to scrape off the chrome to get the solder to "take" properly).

The bottom end of the loading coil is soldered to a length of RG-58/U coaxial cable which is used as the lead-in to the rig.

The shield of the coaxial cable is attached to a length of No. 12 antenna wire which has a Muller 37C mesh teeth clip. The wire between the clip and the coax shield should be long enough to reach from the center of the vehicle roof to the edge of the roof, at the side of the car.



IN OPERATION

In operation, the suction part of the suction cup is moistened with a thin film of glycerine (any drug store carries it, cheap too) to help it stick. The antenna is then positioned in the center of the roof, the whip extended, and the clip from the coax shield is clipped to the vehicle's rain gutter.

Keep this in mind: the car door will not be able to shut on the lead-in coming from the roof, so provide sufficient coaxial cable to pass through one of the rear windows (front windows are bad because you might open the car door and pull off the antenna). The suction cup should hold the antenna in place at reasonable speeds, but if you are a Barney Oldfield racing-type, better get the speed up slowly to see just how much wind the antenna can take. If it pops off it can be quite a dangerous weapon as you zip down the street pulling along a steel "kite" at eye level. If you decide that you want to make this thing a permanent fixture on your car, use epoxy instead of glycerine—but don't expect to get it off again without taking some paint with it. The glycerine will allow removal of the antenna without grief.

When you are through with the antenna, the whip collapses to only 9 inches, the suction cup un-suctions from the roof, the rain gutter clip un-clips, and the coaxial lead-in can be conveniently coiled up around the whole business. Just right for storing until the next time it is needed!