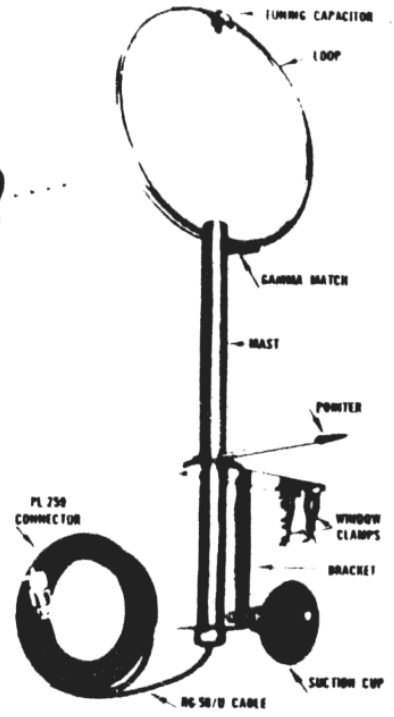
SIGNAL-HUNTER

INSTRUCTIONS:



MOUNTING

1. Lower either front car window about six inches. (For 1-man operation use window next to driver; for 2-man operation use window next to front passenger.) Place antenna bracket clamps over window edge and push down firmly.

2. Thoroughly wet rubber suction cup (on hollow side), then press it hard against glass to remove all trapped air. Mast should point straight up when viewed from side of car.

3. Walk to front of car. Check if mast is pointing approximately straight up. If not, adjust as follows: Loosen nut next to suction cup, turn cup until mast is vertical, then tighten nut. This provides small range of adjustment for flat windows. For curved windows, remove screw and substitute shorter screw supplied.

4. Allow slight slack in coax cable and lead it into car through small wing window (or over edge of regular window, if necessary). Route cable under dash and fasten to CB set.

5. Raise car window so bottom of loop clears top of car roof by two inches or more. Leave window open several inches to permit hand to rotate mast.

6. Signal-Hunter may also be used on base station or boats. It can be hand-held or mounted on the edge of a thin board. Keep metal objects away from sides and top of loop.

TUNING

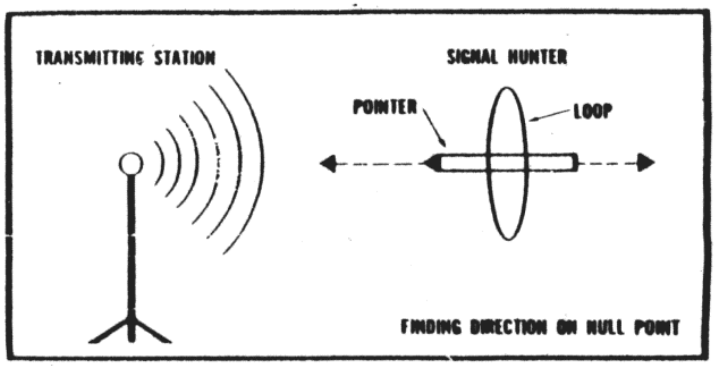
7. Turn on CB transceiver and select any channel near middle of band. With *no* signal being received, adjust tuning capacitor at top of loop for loudest background *noise* in speaker. This is an approximate setting. Finer adjustment is done while receiving a signal from a known direction. Have another station transmit from about one city block away or use a handie-talkie several hundred feet away. Aim pointer directly at station. Using a non-metallic screwdriver, tune capacitor for *lowest* reading on S-meter or lowest volume from speaker. This is the *null* point, used for direction-finding. Swing pointer several times to check accuracy of null. S-meter should increase, or *peak*, on either side of null point. Retune capacitor for best directional accuracy, if necessary.

Note: Placing hand near loop during adjustments may temporarily upset antenna tuning. For this reason, tuning should be done in a series of small steps, removing hand after each one to check when null point is obtained (easily done after a few minutes of practice). This method also permits the use of a metal screwdriver for tuning.

Once the antenna is tuned for the center of the band, it should not be necessary to retune when changing to a new channel. It is advisable, however, to occasionally check directional accuracy on a known signal.

OPERATION

8. Tune in station to be located. Swing the pointer for a null (or dip) in S-meter reading or drop in speaker sound. It is not necessary to rotate the pointer more than a half-turn (pointer tip always remains outside window). The pointer, during a null, indicates an imaginary line which runs *to* or *from* the station. Next, determine which direction to follow along this line using one or more of the following methods. Each must be tried on practice runs on known signals to find the most accurate or desirable one for a particular car:



A The loop in many installations tends to be more sensitive on the side of the car it is mounted on. To check this method, turn pointer for *strongest* signal (peak) and leave it there. Drive in a half-circle (U-turn). The side that produces the higher of the two peaks is the general direction of the station. Once this is known, the correct null can be followed.

B A regular CB antenna is usually more sensitive in one direction than in all others (due to unequal distribution of car metal). Connect it temporarily to the receiver and drive in a circle while listening to a known signal. Note in which direction the station lies when the S-meter reads highest; that is, if the car points toward or away from the station. Repeat this during direction-finding to determine the general direction. Reconnect Signal-Hunter and follow the correct null.

C Triangulation. This may be used with a map of the area. Take a null reading and transfer this line to the map. Drive about a quarter-mile, take another reading and transfer it to the map. Where lines converge, or cross, is the general direction of the station. (Two or more cars in different locations may simultaneously take readings and exchange this information for faster results.)

D Signal Strength. Using the loop or regular antenna, drive until there is a definite increase (or decrease) in S-meter readings. Once direction is known, change over to loop and follow null for pinpointing the signal. Detune receiver slightly when very close to transmitter if null on S-meter is difficult to see.

9. Note that accuracy may occasionally be impaired due to signal reflections from a hill or tall building. In obstructed terrain take several readings at different points to determine an average reading. Also, if the regular CB or AM whip are found to interfere with accuracy, these antennas should be lowered while direction-finding.