

## LC-1 Loop Coupler



Some radios have built-in antennas for the AM broadcast band (MW) and no connection for an external AM antenna. To connect to these radios use the Palomar LC-1 loop coupler. It takes the LA-1 loop amplifier output and converts it to a magnetic field that couples to the radio's antenna. AM reception is much improved.

## LOOP COUPLER - Model LC-1

The coupler is for use with the Palomar Engineers Loop Amplifier and 530-1700 plug-in loop when it is desired to use this antenna system with a receiver that has a built-in loop that cannot be disconnected. The Loop Coupler connects the Loop Amplifier to the receiver by magnetic coupling. No direct wire connection is needed.

To install the coupler:

- 1. Connect the Loop Coupler to the Loop Amplifier.
  - Tune in a weak station and position the receiver to null it out.
  - 3. Place the loop coupler on the receiver.
- Adjust the Loop Amplifier tuning control and the loop position for maximum signal.
  - 5. Move the Loop Coupler around the radio until you get the strongest signal. This will be right by the radio's built-in loop. You may want to tape the Loop Coupler to the radio at this location.

To use the coupler:

Tune in the station you want. Then adjust the Loop Amplifier tuning and the position of the loop for the best signal.

If there are two stations on a frequency null out the one you don't want by moving the radio. Then adjust the Loop Amplifier for maximum signal and the loop position for the best null on the unwanted station. Use both the turn and tilt features of the loop for best null.

It is possible to hear some stations with the Loop Coupler that can't be heard with the radio alone. To find them tune to a frequency where you do not hear a station. Then peak the Loop Amplifier with its tuning control. Even if there is not a station there you will hear the noise level peak. Slowly tune the radio and tune the Loop Amplifier so the noise peak follows. If you come upon a weak station the Loop Amplifier will bring it up so you can hear it.

The radio and the Palomar loop should be spaced two or three feet apart. If they are too close the system may oscillate.

To use the coupler with an external antenna:

Random length wire antenna: Connect the antenna to the center pin of the coupler cable. Ground the connector shell.

Antenna fed with coaxial cable: Use an adapter to connect the coaxial cable to the loop coupler.

## Palomar Engineers

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