

Before installing the transceiver in a boat, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings in the hull and water.

TUNING THE ANTENNA FOR OPTIMUM S.W.R.

Since there is such a wide variety of base and mobile antennas, this section will strictly concern itself to the various types of mobile adjustable antennas.

Because the antenna length is directly related to the channel frequency, it must be tuned to resonate optimally all channels of the transceiver. Low channel (CH 1) requires a longer antenna than high channel (CH 40) because it is a lower frequency.

Due to the various methods of adjusting antennas for proper S.W.R., we have chosen what we think is the optimum method:

A. Antennas with adjustable screws (set screws).

1. Start with the antenna extended and tighten the set screw lightly enough so that the antenna can be lightly tapped with your finger for easy adjustment.
2. Set your transceiver to middle channel (CH 20). Press the PTT (push-to-talk) switch, and tap the antenna (making it shorter). The S.W.R. meter will show a lower reading each time the antenna is tapped. By continuing to shorten the antenna, you will notice the S.W.R. reading will reach a low point and then start rising again. This means that you have passed the optimum point for Channel 20. Extend the antenna a short distance and again follow the procedure above.

When the lowest point has been reached, switch to low channel (CH 1) and then to high channel (CH 40) and compare S.W.R. readings. They should be almost equal.

NOTE

THE PROPER SETTING IS ACHIEVED WHEN THE SWR IS 1.5 OR BELOW, AND WHEN IT HAS THE SAME READING FOR LOW AND HIGH CHANNELS.

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B. Antennas which must be cut to proper length

1. Follow the same procedure as above, but adjust the length by cutting in 1/8" increments until a good match is obtained.
2. *Be very careful not to cut too much at one time, as once it is cut, it can no longer be lengthened.*
3. The whip is easily cut by filing a notch all the way around and breaking the piece off with pliers.

If you are having difficulties in adjusting your antenna, check the following:

- a. All doors must be closed when adjusting the antenna.
- b. Make sure the antenna base is grounded.
- c. Check your coaxial cable routing (it may be pinched when routed into the car.)
- d. Try a different location on your car (keeping in mind the radiation pattern you wish.)
- e. Is the antenna perfectly vertical?
- f. Try a different location in your neighborhood. Stay away from large metal objects when adjusting (metal telephone or lamp post, fences, etc.)

NOTE

The transceiver will operate into an SWR of 2 to 1 indefinitely and sustain an SWR of 20:1 for a maximum of 5 minutes at rated operating conditions.

External Speaker

The external speaker jack (EXT. SPK) on the rear panel is used for remote receiver monitoring. The external speaker should have 8 ohms impedance and be able to handle at least 4 watts. When the external speaker is plugged in, the internal speaker is disconnected.

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