

IGNITION NOISE INTERFERENCE

With weak signals, you may experience interference of the signal by background noise. This radio has NB and ANL controls which will help reduce background noise from sources such as your ignition system. However, background electrical noise may come from several sources and all noise may not be eliminated. With extremely weak signals, you can operate this radio with the engine turned off, which should improve reception. If the ignition noise level is too high to allow proper operation under most conditions, you should have your installation of the radio checked by a qualified technician.

ANTENNA

This radio has a jack in the rear for a standard PL-259 antenna plug. If you are looking for the most range for your transmission, use a vertically polarized, quarter-wavelength antenna. If antenna height is a problem, you may use a shorter, loaded-type whip antenna although you can expect some loss of transmission range.

To improve performance, your antenna should be matched to your radio. Your antenna can be adjusted so that it matches your radio.

ADJUSTING THE ANTENNA FOR OPTIMUM SWR

Before using your transmitter, you should adjust the antenna so that it matches your radio. This is done by adjusting the length of your antenna. Generally, a lower channel, such as Channel 1 requires a longer antenna length than a higher channel, such as Channel 40

1. ANTENNA WITH SET SCREWS

1. Extend the antenna to its full length. Tighten the set screws just enough to hold the position, yet allowing easy adjustment of the antenna's length.
2. Tune the radio to Channel 20 and press the Push-To-Talk (PTT) switch. Shorten the antenna gradually while watching the SWR meter. You will notice the SWR reading decrease and then start to rise again. The point at which the SWR meter start to rise is the proper length of the antenna for Channel 20. You may want to repeat the tuning process to fine tune the length of the antenna.
3. At this point Channel 1 and Channel 40 should have the same reading on the SWR meter. The meter should read 1.5 or below if the antenna is properly matched to the radio.

- 5 -

2. ANTENNA WHICH MUST BE CUT TO TUNE

1. This type of antenna is tuned by trimming the length of the antenna to the proper length. Be careful to cut in small increments so that you do not trim too much at once.
2. Tune the radio to Channel 20 and press the Push-To-Talk (PTT) switch. Shorten the antenna gradually while watching the SWR meter. You will notice the SWR reading decrease and then start to rise again. The point at which the SWR meter start to rise is the proper length of the antenna for Channel 20. You may want to repeat the tuning process to fine tune the length of the antenna.
3. At this point Channel 1 and Channel 40 should have the same reading on the SWR meter. The meter should read 1.5 or below if the antenna is properly matched to the radio.

If you are having trouble matching the antenna to the radio, check to see if the coax cable is damaged or crimped. Difficulty adjusting the antenna can also be caused by a tilted antenna, interference from nearby metal object, or an improperly grounded system. You may also try moving the antenna to a different location on your vehicle.

EXTERNAL SPEAKER

This radio is equipped with a jack for an external speaker. This jack is in the rear of the radio and is labeled "EXT. SP.". Only use a speaker that can handle 4 watts, 8 ohms of impedance. The internal speaker will not work if an external speaker is connected to the radio.

PUBLIC ADDRESS

To use the Public Address (PA) function, first connect an external speaker to the PA SP. jack on the rear of the radio. See the above specifications for a proper external speaker. Keep the speaker away from the microphone to avoid feedback.

- 6 -