

IMPORTANT NO-GROUND-PLANE ANTENNA SYSTEM INFO

Compliments of Firestik® Antenna Company Technical Support Team

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*** IMPORTANT INSTRUCTIONS ***

WARNING! The coax cable in this kit contains an internal circuit. It can ONLY be used with Firestik no-ground-plane (NGP) antennas. NGP antennas and coax cables ARE NOT interchangeable with ground plane (GP) dependent antennas or coax. Also, the length of the coax is CRITICAL. It is a tuned circuit. While there are some VERY rare instances when installation anomalies can be corrected via the coax cable, the installer **SHOULD NOT** alter the length of the 'No-Ground-Plane' (NGP) cable unless specifically instructed to do so by a Firestik technician. If additional length is required between the antenna and radio, use a barrel connector and RG-58A/U coax in lengths multiple of 9 feet (9, 18, 27, etc.).

The ring terminal for the antenna end of the cable was left off so that the installer can pass it through small access holes. We recommend that the ring terminal be soldered on versus crimped. If it ever becomes necessary to remove the coax for service, it will be near impossible to remove a crimped on ring terminal without losing some coax length.

Unlike conventional GP antenna systems, the NGP coax only uses the center conductor at the antenna end. Do not attempt to ground the coax shield at the antenna end. Grounding the coax at the mount end will prevent proper operation of the antenna system and may cause damage to the radio. Please note that continuity is normal when measured between the center pin and housing of the radio-end PL-259 connector. This is normal on all Firestik NGP kits.

Lastly, use care when routing the coax. Try to avoid pulling the cable through areas with sharp edges. The outer jacket is soft and could become damaged. If there is excess cable length, DO NOT coil it up, as this could cause an unfavorable reaction (RF choke). You MAY either let the excess lay loosely in a headliner or wall or, form the excess into a 12" or longer bow-tie type configuration with a wire-tie in the center.

Like all other antennas that are expected to transmit energy, the NGP antennas should have their SWR fine tuned after mounting. Setting SWR maximizes performance, highlights possible trouble and protects the radio from potential damage.

About the warranty ...

This antenna system is guaranteed to be free of defects in workmanship and materials for a period of one year from date of purchase to the original purchaser. Damages caused by abuse, misuse or negligence (i.e. hitting solid over head objects) are not covered by this warranty. However, if you run your vehicle into a solid object and the vehicle maker agrees to warrantee the damage, we will warrantee the antenna if it was mounted to the vehicle component that the vehicle manufacturer agrees to repair/replace under warranty.

TUNABLE CB ANTENNAS

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Throughout history, manufacturers have found a way to create confusion within their markets. Some do it intentionally to overcome their inability to sell their products or services based upon the merits of the product or service. Other manufactures simply ignore the fact that many users of their products have absolutely no background regarding the product and need the most fundamental information from which to build their knowledge base. The antenna industry, by use of vague terminology, has created some confusion too. Two of these areas, "factory pre-tuned" and "tunable antenna", will be explored.

Factory Pre-Tuned

This DOES NOT mean that you can screw the antenna into the mount and go. CB antennas are not plug-and-play devices. "Factory Pre-Tuned" only tells you that the manufacturer has established a standard frequency for the production of their antenna(s) and that the antenna was manufactured to meet that standard. The manufacturers standard refers to a given frequency ... NOT a specific SWR reading. Furthermore, the standard is developed on a specific and fixed ground plane. It is doubtful that your vehicle ground plane would match that of the test standard ground plane. You MUST set the SWR of all CB antennas after the antenna is mounted in its final location. Failure to do so will limit the performance of your system and could damage the radio's circuitry.

Tunable Antenna

All CB antennas are tunable in one way or another. Those antennas that have an easy, often mechanical, tuning device are referred to as a "tunable antenna". Accordingly, lots of people think the other antennas are not tunable and so they make no attempt to have the antenna tuned. This is a critical mistake.

Wire-wound antennas without mechanical tuners, that test electrically long, can be tuned by removing wire from the top. If SWR testing indicates the antenna is electrically short, the coils at the top of the antenna can be separated and spaced further apart or accessories that increase the physical length of the antennas (springs, quick disconnects) can be added.

Solid fiberglass antennas (straight or helical wire impregnated in fiberglass resins) that are electrically too long can have the cap removed and the top can be cut off with a hacksaw. If the SWR test on one of these antennas indicates that it is electrically short, the addition of a spring or quick disconnect (or both) is the only way to correct for the short condition.

Base loaded antennas with wire whips have a set screw (or two) just below the area that the whip is inserted into the loading coil. By loosening up the set screw(s) you are able to slide the whip up or down as required.

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