STARGUN™
Ground system

When dealing with the speed of light about 186,000 miles per second, around the world 7 times per second, it becomes very real in the setting up of a system. if you snooze you lose at that speed.

You could take a 12 volt test light and light up all over a vehicle but we are now dealing with a radio wave and things become unstable when transmitting a signal. The receive mode is also hampered when the radio wave is searching for a complete one way return path to the brain of the transceiver. Most all radio equipment use a floating ground system allowing positive or negative ground.

1. **Ground the circuit ground to the radio chassis. On the solder side of the unit a circuit trace will be found going to many points, that is the isolated ground for the processor. Usually the trace will pass by the rear so239 connection and a simple drop of solder to bridge the chassis and circuit common ground is all that you need to do. Now no bridges to jump, hence better performance.**
   Some radios have components isolated from frame of unit to help with performance, these will become none effect but you will never see the difference in the competition world.

2. **The chassis of any other equipment should go to frame of vehicle.**
   Some equipment has a circuit ground wire that will go the battery system however, the chassis and circuit are isolated.

3. **The antenna mount to frame ground.**
   The mount needs to see common (frame) in order to not see rubber isolation.

4. **The body of vehicle to frame.**
   Most all vehicles are on rubber spacers or air ride.

5. **The engine to frame.**
   Again rubber mounts slow the speed of the signal.

6. **The negative post on battery to frame.**

When the rf wave leaves and returns via a simple ground system, the signal has instant feedback to the brain without wandering and slowing the signal. The normal small wire from negative post of battery goes to the body not the frame by removing that wire your engine will hardly run or experience problems, just ground the negative post to the frame.

7. **Make sure the center hole thru the vehicle where the antenna mount is installed is very large. At least close to the mounting bolts. More watts mean larger hole, no exceptions.**

8. **Ground cable type less than 6ga a waist of time, when using extreme power levels means more amps. A 4ga (jumper cable size) is most often used.**

Many systems have been used, however after system is stable and you are getting good numbers, then start removing one ground at a time until you see a major change in your numbers, that connection was probably the only ground you needed in the first place.

Please call me and I will assist you. 601-845-7099 or contact me at www.stargun.cc

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