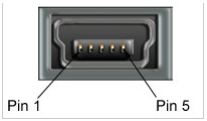
# GPS and your old car

**Why it may be easier than you think!**

**Weather it's finding your way around a strange area or a burning desire to know just how fast you are traveling, having a GPS unit on board your vintage car can be a real plus.**

**Unfortunately most GPS manufacturers assume you are driving a 12 Volt negative ground car. Fortunately GPS systems are actually very small computers and as such, operate on computer voltages (typically in the range of 5 Volts).**

**Most of the GPS devices deigned for use in cars today utilize a Universal Serial Buss connection scheme (USB) which assures a degree of compatibility between manufacturers. It is important to note that the Cigarette lighter adaptor for these devices is not just a dumb device that simply passes the voltage from the cigarette lighter plug to the device, but actually has a small regulator/converter that reduces and regulates that voltage down to the required 5 volt level. If your device has a connector like the one on the right then more than likely (cannot vouch for all manufacturers) you have a USB powered device. Pin 1 is where the device gets it's supply voltage and pin 5 is the ground. If you have a sincere desire to burn something up in a hurry simply ignore this fact and try wiring something up directly to your car! The polarity of the voltage is critical even though the voltage levels are not so be sure to have the positive voltage connected to the center pin of the Cigarette lighter plug (the little regulator will not like that if it gets connected in reverse).**




**Now for the good news. Since these devices are operating on 5 Volts you can safely operate them from the cigarette lighter in your 6 Volt powered vehicle. This will include almost anything that has the same style receptacle shown above. In fact, the battery inside the GPS unit operates at a lower voltage, so the GPS actually regulates the voltage down even further.**

**All is not happy in Paradise however, since many of the older cars were produced before electrical noise was an issue and those older electrical systems can often produce enough dirty power to interfere with the proper operation of the GPS. However there are methods for dealing with these issues and even the power polarity can be resolved.**

**Hope this helps JB**