

Major Electrical Issue

May 24, 9007

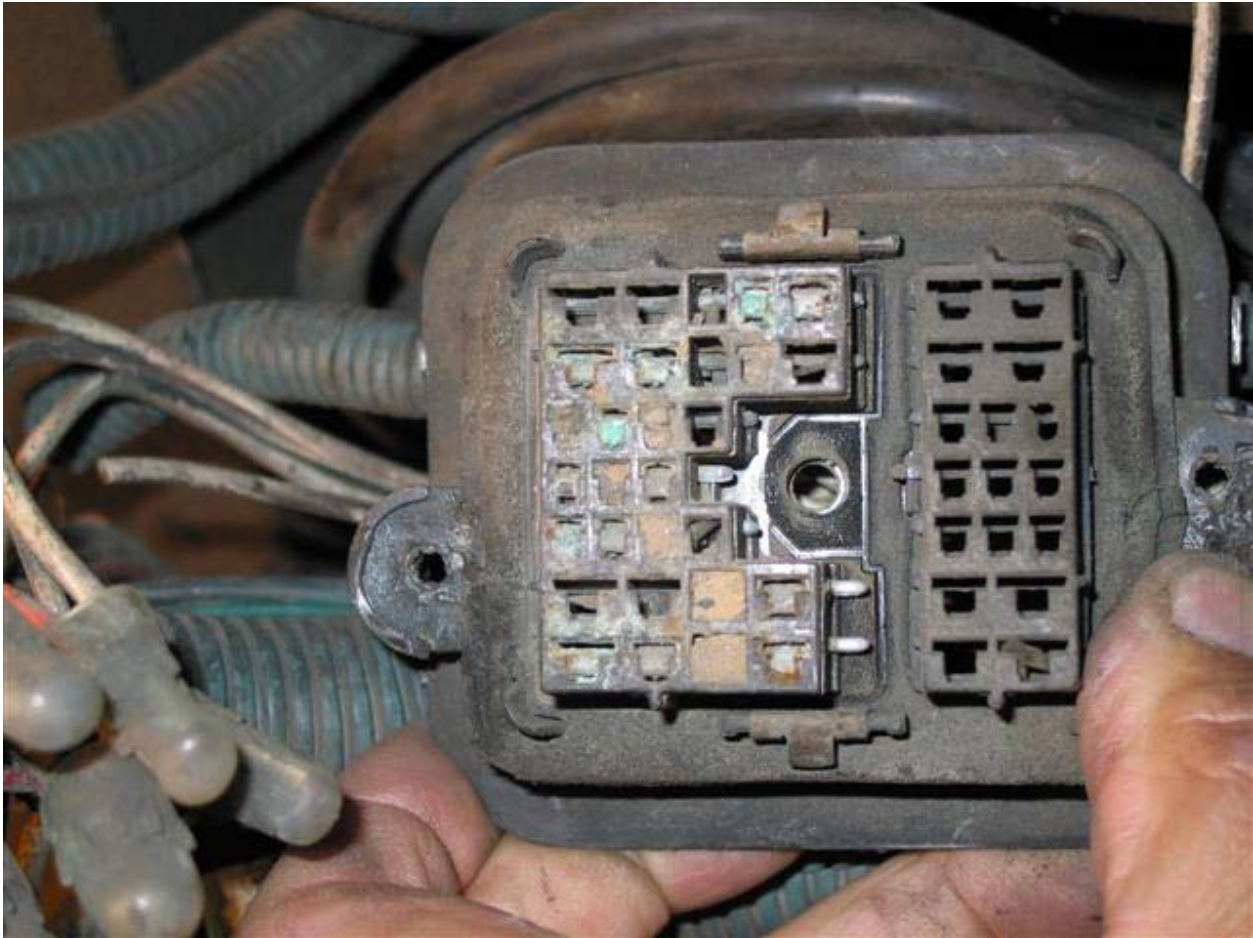
I had just replaced the vacuum system to improve the speed regulation provided by the cruise control because the vacuum would vary between 15 in Hg to 20 in Hg. A noticeable speed drop off occurred when the vacuum dropped to 15 in Hg but would not recover unless a foot assist push on the throttle was provided. The electric vacuum pump now provides a steady 21 in Hg and the cruise speed regulation was very good. We started our trip to the SSCC in Nevada and about 250 miles out the cruise control suddenly stopped working and never came back to life. Frustrating to say the least!

Upon our return I started to trouble shoot the cruise system, traced the power and signals back from the stalk, everything checkout until I got to the small round connector that connects the chassis wiring to the cruise control wiring. Moving backwards following the wires, they led me to a connector at the very right rear of the coach, mounted on the outside of the frame near the bumper. I had noticed this connector before and wondered at the time why anyone would mount an unsealed connector in such an environmentally unfriendly place. This connector connects a lot of the coach wiring for instrumentation, taillights, and cruise control.

Viola! Signals were present on the coach side but not on the chassis side. (I have a very sharp pointed test lead that pierces the insulation) I started to separate the connector halves and that is when I lost a lot of religion!! Two wires broke off with almost no force, when the connector halves separated, one blade of the connector pulled right thru! Everything and everywhere was corroded! I do not know how anything even worked! I had noticed some fluctuation in the oil pressure and temperature gauges but seemed to be linked more to the gauge connection, or so I thought at the time.

Are you ready for this?





That was on Wednesday morning. I started to examine my options and decided to eliminate the connectors entirely as I was never planning to separate the coach body from the chassis and that would permanently fix any of these issues in the future.

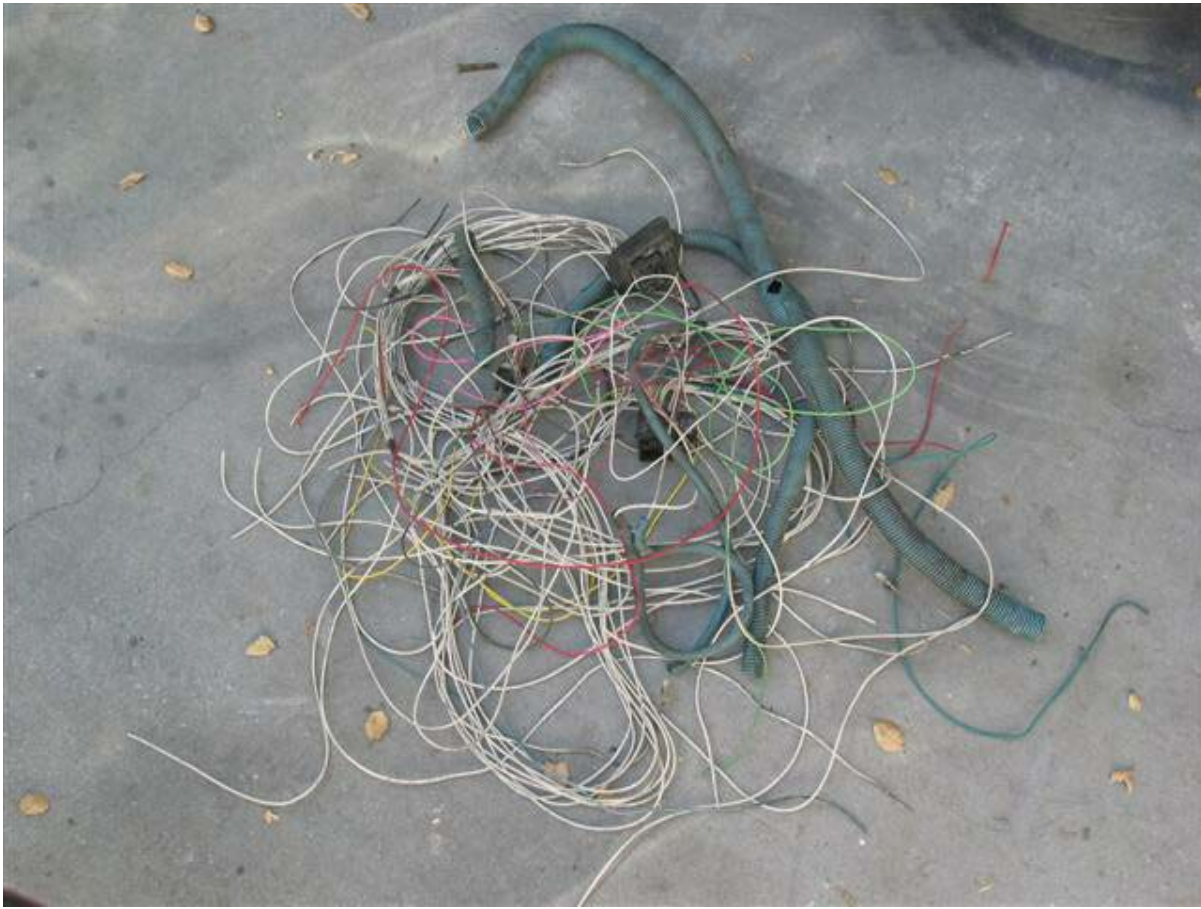
One of the redeeming features of the Barth's construction and Spartan chassis is all wires are identified by number and function. Although cutting out the connector and splicing each wire was going to be a task, it would be easy to get each wire connected to its partner. As I pulled the harness out a bit, I noticed that it just kept coming—after a long pull I had both connectors out side and probably more then 5 feet of cable was there on both sides. The cables were wadded up along the chassis rails.

I decided to eliminate the extra length of each cable and redress the cable routing in that area. I have been doing this sort of upgrade whenever I tackle a repair, I redesign or clean it up, will be no different. Late this afternoon, this is what the new cable looks like in the area where the connectors were.



All wires were cut, shortened, inline twisted and soldered, and covered with two layers of shrink tubing. The connections were staggered so there would not be a BIG bulge in one area After the splicing was completed, a thin layer of liquid electrical tape was applied around the bundle and then when that set up, the bundle was tape wrapped and finally covered with the “smurf” tubing.

Here is what was left over!



Once again---Everything is working---