

Installation of the CAN-View module in my 2005 Toyota Prius

<http://www.roperld.com/science/CANViewInstall.pdf>

The web site for CAN-View is <http://www.hybridinterfaces.ca> . Detailed instructions for installing CAN-View are at <http://www.hybridinterfaces.ca/install.html> .

I am going to add a little to those excellent instructions for installation in a Prius with factory Navigation and seat covers:

Instead of pulling out the large plug in front of the Nav box under the driver's seat in order to install the power tap on the gray wire, I decided to remove the four bolts holding the front seat in place in order to make room to put the tap on the gray wire on the large plug. Since the seat has a side air bag on the left and I did not want to unplug the air bags, I just leaned the seat back to make room.

This shows the back two seat bolts. A 14 mm socket wrench was used to remove the 4 bolts. In the back the plastic bolt covers are easy to remove.



I have seat covers on my Prius, which has a flap that extends under the back of the seat to attach with a Velcro strap. This crowds the CAN-View box if it is placed on top of the Nav box, as suggested in the installation instructions, as shown in the following:



So I decided to put the CAN-View box in front of the Nav box, attached with Velcro (just the prickly part) to the rug.

This shows the seat leaned back to give room to get to the plugs on the Nav box and more room to install the OBD cable under the dash.



This shows how easy it is now, with the seat leaned back, to get to the cables in front of the Nav box. The gray wire on the large white plug to be tapped is just below the blue wire. It can be pulled away from the other wires just enough to attach the tap. The small white plug to the left of the large white plug is the one that is to be removed to plug into the CAN-View box. (This is the MFD connection to the Nav box which will become the MFD connection to the CAN-View.) Then the small white plug on the other CAN-View cable is to be plugged into the Nav plug that was unplugged from the Nav box. (The MFD connection is channeled through the CAN-View and then back out to the Nav box.)



The next two pictures show the cables plugged into the CAN-View. The black cable has the small white plug on the other end to plug into the Nav box. The cable with the narrow and long white plug at the MDF port on the CAN-View box has a small white plug on the other end that attaches to the cable coming from the MFD. The cable labeled CAN has the big red OBD plug on the other end.





Thread the OBD cable under the dash with cable ties as shown on the CAN-View installation web page, starting from the OBD-plug end:



The next three pictures show the CAN-View installed with two Velcro prickly straps onto the rug in front of the Nav box (front view, side view & back view) (I pushed the two long cables, OBD and MFD, in between the Nav box and its cover. I tucked the black cable in front of the Nav box.):





Finally, it works:



I had one small problem. When I first drove the car, the MFD gave an error screen when I put the drive selector in N or D, but the car drove ok. I think it was because the black cable was not securely attached to the CAN-View, as I later found it unplugged. The car drives fine now.

CAN-View is an excellent product. It doubles my already high enjoyment of driving the Prius!

Since the installment of CAN-View I have been able to hook my Viewsonic V1100 Tablet PC to the serial port on the CAN-View and receive data (both "raw" and "format") from it as I drove the Prius. Now I need a software program to convert those data to graphs, so that I can view the parameters of the Prius changing as a function of time as I drove the car. Two sample files are available on the Internet (<http://www.roperld.com/science/prius/format.txt> and <http://www.roperld.com/science/prius/raw.txt> .)

With the help of a computer tech in my former Physics Dept. I got HyperTerm to capture data from the CAN-View serial port into a file on my Tablet PC. It is binary code, so is unreadable by the human eye. Norm, inventor of CAN-View, tells me that some one may be developing a computer program to massage the data.

HyperTerm (HT) is a little finicky. One has to set up the correct com port each time it is used or save the setup in a file.

When HT is run a Connection Description window then opens. Type in a name and click on OK. In the next window click on the down-arrow at the right of the Connect Using box to select the

correct com port. (My Tablet PC has no serial port, so I had to buy a USB to serial converter which would only work on com5.) Then a window comes up to set the com port parameters. Then do File/(Save As) to save the com port setup in an filename.ht file. Then you only have to click on the saved file in the future to run HyperTerm for the correct com port and its parameters.

If any one has or will write an MS or Linux program for massaging the format or raw Prius data from the CAN-View, please let me know.

L. David Roper, roperld@vt.edu, <http://arts.bev.net/roperldavid>