

## Retrieving OBD-II Parameters:

One of the things I've been struggling with from day one was how to get the Wrangler to process [standard OBD-II commands](#) when directly connected to the CAN bus. I've finally cracked the code! This is good because it opens up a lot of additional engine parameters (it also makes it easier to reverse engineer some of the other message IDs). Here's what I've figured out:

1. Vehicle must be powered on.
2. You must send your message with the CAN-C (not CAN-IHS).
3. You must send with ID 7E0 but listen for a response on ID 7E8.
4. You must follow the following format (replace "xx" the OBD-II pid):  
`cansend can1 7E0#0201xx0000000000`

That says you've got a 02 byte long message, you want OBD-II mode 01 ("show current data") and then replace xx with the industry-standard PID of what you want to monitor. I used \$05 for coolant temperature.

5. Look for a response in the following format:

`can1 7E8#0341xxAABBCCDD00`

That says it has a three-byte reply, "41" means your "01" command was successful and the results follow. Engine coolant temperature is stored as just one byte, so you'd look in the AA position for a response. Various commands will have different length replies.

6. Before putting a result to use, know that there are some obtuse rules of how these values need to be modified before they are used. Consult [this list of commands](#) for details. In this case, they want us to subtract 40 (decimal) from the number before I have the coolant temperature in centigrade. It reported 39, so I subtract 40, and my actual result is -1C (which is 30F).

That's all for now.