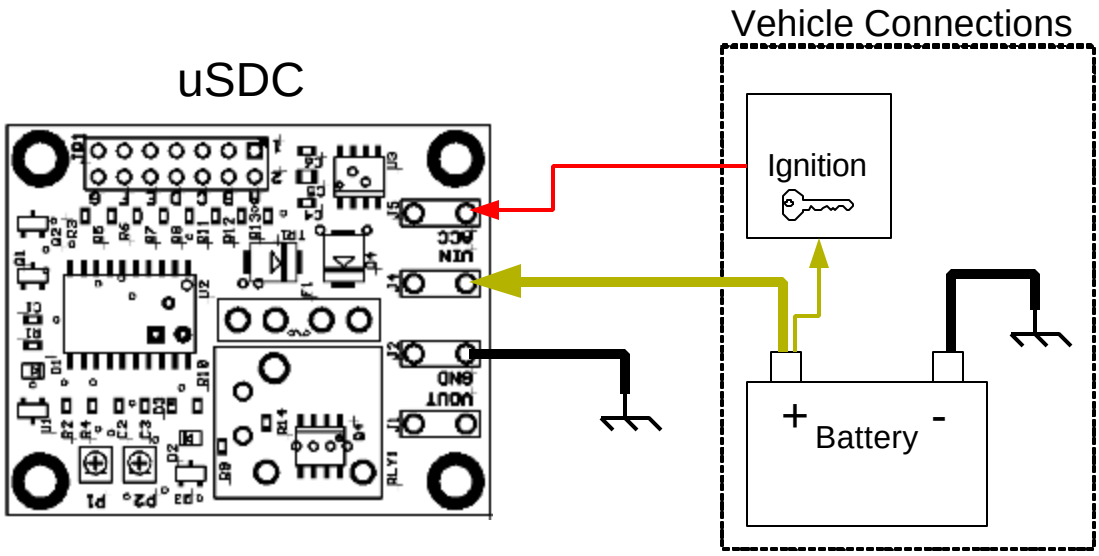
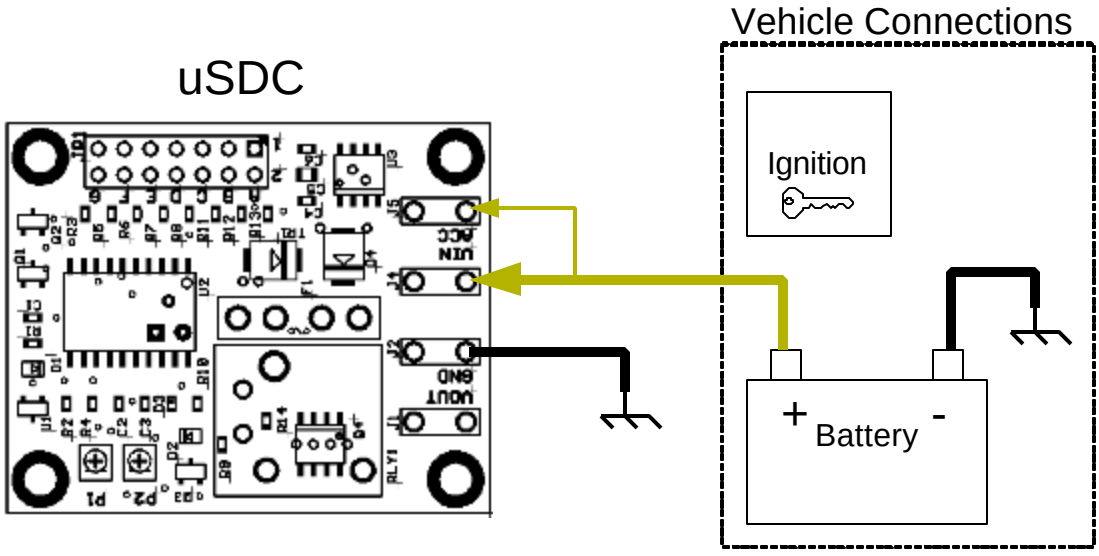
uSDC20D Input Power Connection Schemes

Input Connection Scheme A:



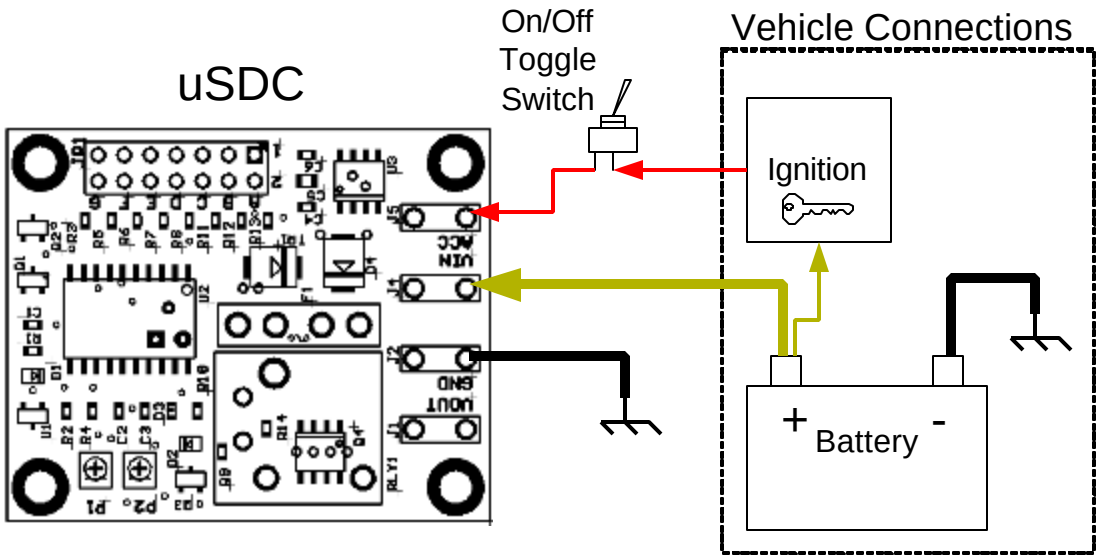
- Most Common Setup
- System turns on when Ignition (ACC) comes on (or engine running)
- Very little power draw when system is off
- Shutdown timer starts when ACC goes off

Input Connection Scheme B:



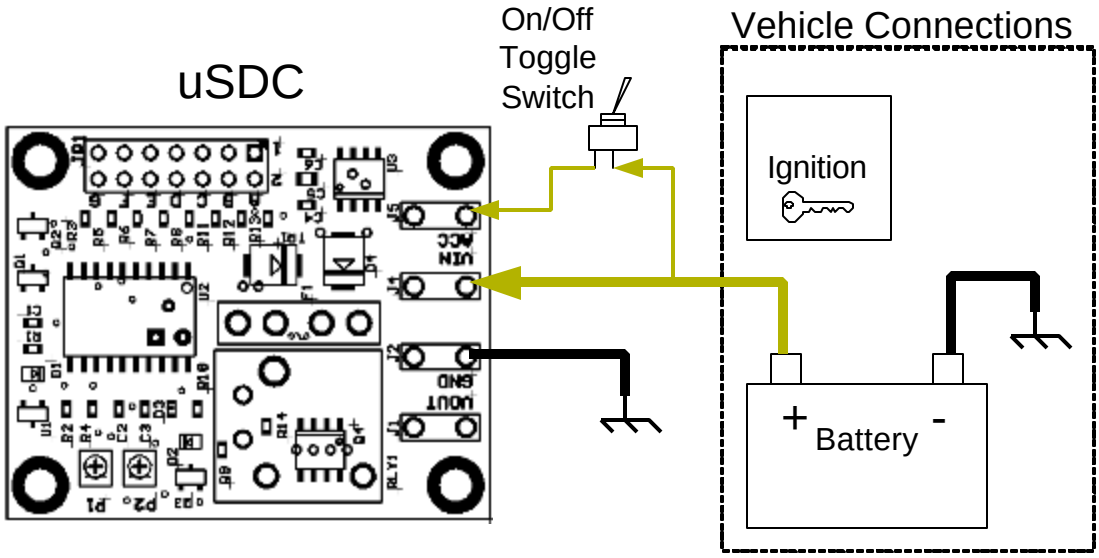
- Minimal wiring
- Disables shutdown timer
- uSDC must be configured to turn on when engine is running
- uSDC doesn't turn off system until low battery threshold is crossed
- Uses several milliamps when system is off

Input Connection Scheme C:



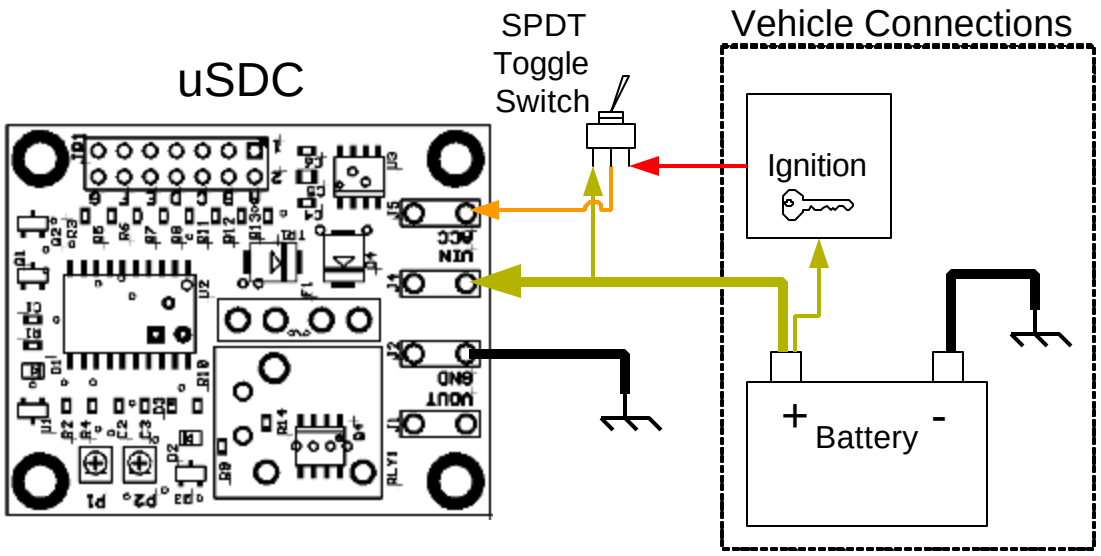
- Second most Common
- Same as Scheme A except uSDC never turns on the system if switch is off
- Useful during times when the vehicle is operated but the system operation is not desired
- Very little power draw when system is off in both states of the switch

Input Connection Scheme D:



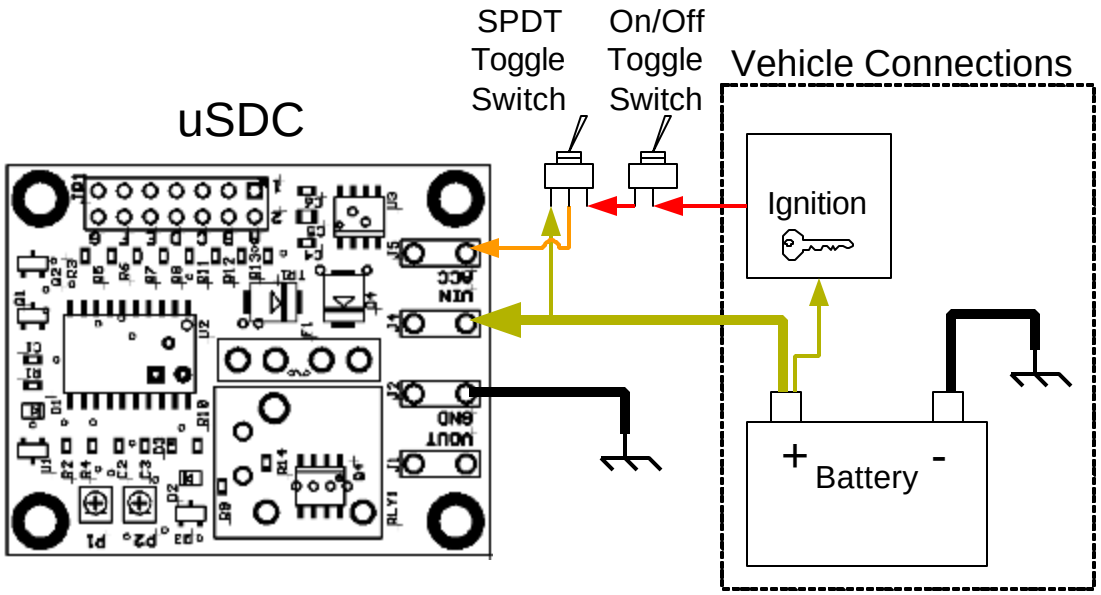
- System only turns on when switch is on
- If in “start on engine running” mode, operates like Scheme B
- If in normal mode, operates like Scheme A, however switch has to be turned on and off to initiate startup/shutdown (low battery threshold would also initiate shutdown)
- If switch is left on, uses several milliamps when system is off; if switch is left off, uses very little power

Input Connection Scheme E:



- Switch Between Scheme A and Scheme B
- Allows system to turn on when ignition is off, then later operate like scheme A

Input Connection Scheme F:



- Ultimate flexibility
- Allows any combination of schemes: A, B, C, D, E
- Is basically Scheme C with the option to power up without ignition being on

Side Notes:
If you use a SPDT switch in the above schemes, make sure you never accidentally connect the battery right to vehicle ignition. You can diode isolate the direct battery connection from the ignition for extra precaution. The diode points from the Ignition to the ACC terminal of the uSDC. And/Or you can use a 1K-ohm resistor to protect the uSDC and the vehicle of any shorting if put inline with the ignition wire where it connects to the vehicle.

Always Fuse Car Computer Installations at the battery as a safety precaution to protect your equipment, vehicle, and self. This will also help prevent any fires or damage due to faulty wiring.