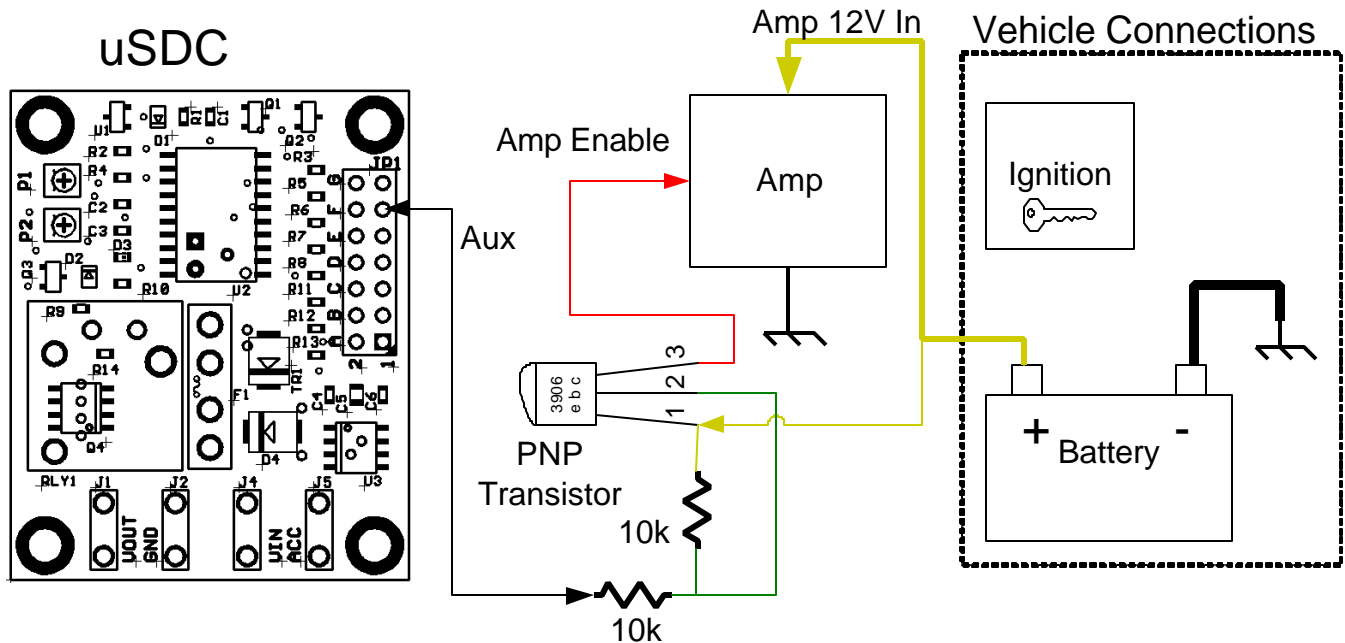


uSDC20D Aux Output Connection

Many users want a method of powering an Audio Amplifier in a way that doesn't cause popping and clicking as the computer turns on. This document describes methods that the uSDC20D supports for driving other devices not connected to the VOUT connection. It does not turn on the AUX output until a couple seconds after it has sent the power-up pulse to the computer.

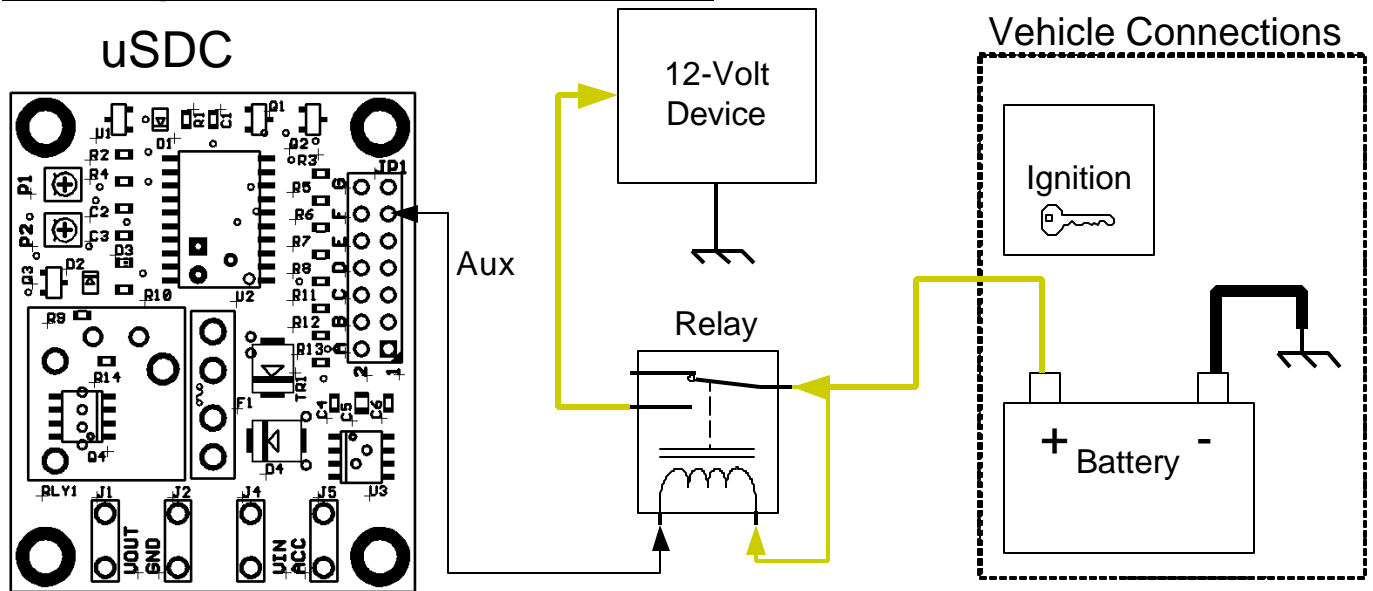
Powering An Audio Amplifier or low current device (SOLID STATE):



A 2N3906 transistor can be connected with two 10k ohm resistors in the above diagram. This will use the least amount of power and will be a very compact circuit. The circuit can be located right at the connector terminals of the Audio Amp. The Aux signal is an active low output, meaning it pulls current to ground when it is enabled. This circuit will keep the transistor off when not enabled, and turn the transistor on when enabled. The result is 12 volts gets connected to the output of the transistor. The transistor and resistors can be replaced by a small relay if desired (see the next section for relay drive). These parts are commonly available at Radio Shack and most any electronics parts store. You can also use this method to power low power devices, keep in mind however that the transistor can only source about **100mA**. For higher power applications, use a relay as described in the next section.

If this is too complicated or you want to drive an external device, see the next diagram.

Powering An External Device (RELAY):



This diagram shows how to connect a relay to the AUX connection of the uSDC20D. This is useful for applications where it is not practical to run heavy wire from VOUT to another device controlled by the uSDC. A truck-mounted computer with a dash-mounted display is a key example. The relay can also replace the PNP transistor and resistors in the Audio AMP Enable diagram above. Make sure to choose a relay that has a coil current less than 100 mA or a power less than 1200 mW when excited.

Notes:

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.