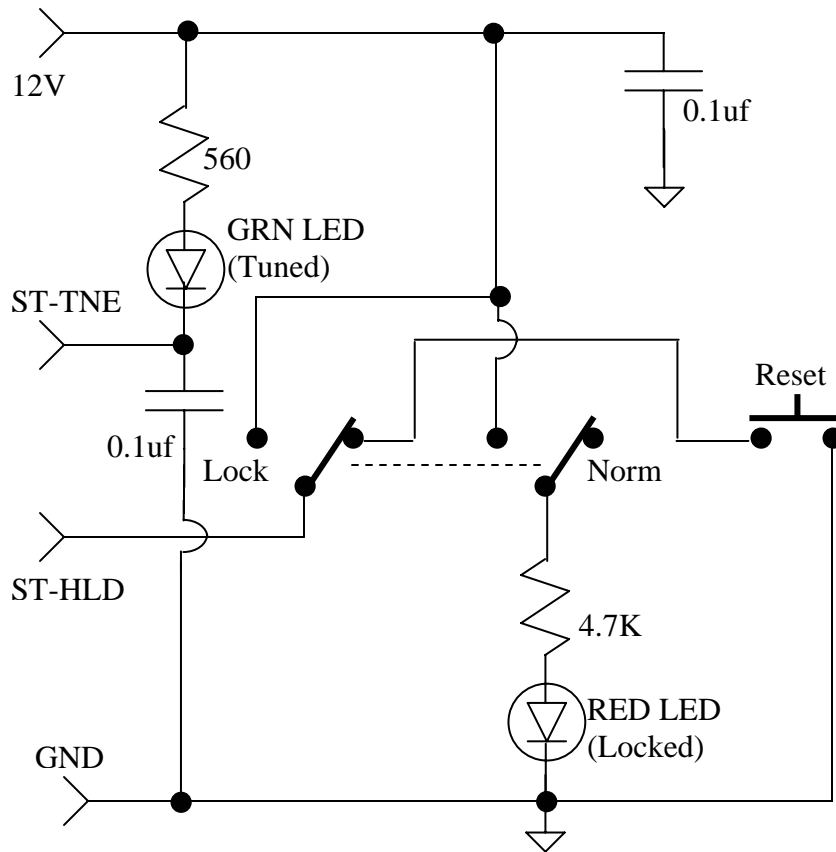


Simplified SmartLock  
Phil Salas – AD5X

I wanted to build a SmartLock to use with my SG-239. After studying the SmartLock schematic, I couldn't figure out why SGC put in the transistor and zener diode. The ST-TNE input on the SG-239 is just a 1.5K resistor to an open collector transistor to ground. So I eliminated Q1, R3, D1 and C3 on the SGC SmartLock schematic. My final circuit is shown below. Depending on the particular LEDs you use, you may want to play around with the series resistors. I prefer to use ultra-bright LEDs to minimize the current required for good brightness.



Simplified SmartLock