

Simplified SmartLock
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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. I used a DB9S connector to interface with the SGC tuner (I attached a DB9P to the tuner interface wires), and a PowerPole interface for 12VDC. This way I could use a standard DB9 extension cable as necessary for interfacing between the tuner and SmartLock. I used ultra-bright LEDs (3000mcd or so) to provide plenty of visibility.

