

Re: Need help designing an automotive engine run detector.

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Gerbermultit001@xxxxxxxxxxx hath wroth:

I am trying to develop a new type of aftermarket product that will connect to a vehicles battery. Ground return will be through the chassis.

Bad idea. You're bypassing the entire fuse and breaker protection mechanisms in the vehicle. You would need to attach a fuse directly to the positive terminal of the battery, a non-trivial exercise. You're worried about the GUM (great unwashed masses) doing a proper install, yet you don't seem to be worried about the same person is going to get a wrench between the positive terminal and ground, with the resultant smoke, fire, burns, and litigation.

Ground return through the chassis is possible, but be advised that many vehicle bodies are now mostly plastic and fiberglass. Finding a suitable place to handle your 5A of continuous load may be a challenge.

This product will be mounted in the engine compartment so any electronics specified will need to be available in extended temperature ranges.

Yep. That's the worst case scenario for electronics. Roughly -40C to +105C. Don't forget about water proofing and high voltage spikes on the power lines.

When activated this product will draw about 5 amp.

75 watts? Where are you going to empty out the heat?

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I'm trying to
devise a way to allow activation of this product only while the engine
is running (for obvious reasons).

Ignition switch. If that's offensive, try the cancer stick igniter,
which only has power when the engine is running or the ACC switch is
on.

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