

Re: break-away switch

I recently received this question from a new owner of a 22ft Airstream Sport and after reviewing his emails I believe this is a subject that needs covered.

Question:

I just bought a 22ft Sport and after driving it 850 miles home I parked it and removed the breakaway switch to act as a parking brake. 90 hours - not quite four days - elapsed before I read the warning information on page B-3 of the owners manual and put the pin back in. The battery was nearly depleted, but I expect it will recharge just fine. I am, however, wondering what the chances are that this may have caused any damage to the trailer brakes electrical system in this relatively short period of time.

Response: Good afternoon, yes your battery should recharge without a problem. My concerns would be: did the magnets overheat and or did the wires to the magnets overheat?

The breakaway system is meant for short term use: so if you engage the breakaway switch on a single axle trailer with a fully charged battery, you will have a 6-7amp draw from the brake magnets that can generate heat and can weaken or ruin the magnets over time. Below is a sample chart on brake amp draws:

Electromagnet Specifications and Amp draws		
Brake Size 7", 10", & 12" x 2"	Ohms	Amps @ 12-14 VDC
2 Brakes (1 axle)	2 ohms +/- 0.2 ohms	6-7 amps
4 Brakes (2 axle)	1 ohms +/- 0.2 ohms	12-14 amps
6 Brakes (3 axle)	0.5 ohms +/- 0.2 ohms	18-21 amps

I would recommend having the brake magnets and wiring checked by a Certified RV Technician. Before pulling your trailer I would recommend testing the brakes to see if they are working. One way to test the brakes would be to get your trailer in a graveled area and apply the brakes to make sure they are holding (they should slide in the gravel without the wheels turning). Another way would be to jack the trailer off of the ground and apply the brakes to see if brakes are holding by trying to turn the wheels (you should be able to also hear if magnets are engaging).

Let me know if there are any other questions you may have.

Response: Actually with this particular trailer, brake controller, and tow vehicle (Toyota Tacoma), I can simply apply the trailer brakes alone going down a slope and easily feel whether they're grabbing or not. That would be just as good a test (absent a gravel surface) wouldn't it?

Response: Gravel would not be as hard on your tires but yes you could apply the brakes manually while pulling your trailer slowly.

When unhooking and parking your trailer do not use the breakaway switch as an emergency brake, use wheel chocks. Even if you would not suffer any damage to your braking system by engaging the breakaway; when the battery runs down and loses power your trailer brakes will release and this could result in your trailer moving or rolling down a hill.

- Be Safe!!

