

 Tuson RV Brakes, LLC	GROUP Sway Control	MODEL TSC-1000
	NUMBER 20180124	DATE January 2018
TECHNICAL SERVICE BULLETIN		
SUBJECT: TUSON SWAY CONTROL AND TRAILER BRAKE CONTROLLER COMPATIBILITY		

The design of the Tuson Sway Control (TSC) Module is compatible with various integrated and aftermarket trailer brake controllers in use today. The two major operational features that create compatibility problems are:

- 1) the **“diagnostic pulse”** that brake controllers send out to detect if a trailer is connected and
- 2) the brake controllers’ **“self-protect”** function that disables the controller if an unknown voltage is detected on the trailer brake wire, the same as that created when the brakes are automatically applied by the TSC during a sway event.

Not all trailer brake controllers have these two features. The TSC has been tested and is compatible with brake controllers with these features. The TSC has circuitry that makes it invisible to the brake controller. This design allows the **“diagnostic pulse”** to pass directly through to the electric brake magnets so the controller can consistently detect when the trailer is connected. Additionally, the TSC circuitry design prevents the voltage applied during sway control braking from backfeeding up the trailer brake wire to the controller thereby preventing the **“self-protect”** feature from shutting down the controller.

Tuson Sway Control and Integrated Trailer Brake Controllers (ITBCs)

Tuson RV Brakes, LLC (TRVB) participated in joint testing with Fiat/Chrysler, Ford, General Motors, and Toyota and verified that the TSC is compatible with their ITBCs. The specific vehicle models and trailers that were tested are listed below:

- Fiat/Chrysler: 2014, 2015, 2016, 2017 Dodge RAM 2500 with a 28 ft. tandem axle trailer
- Ford Motor Company: 2013 F-150 with Ford’s 28 ft. 6,000 lb. tandem axle test trailer
- Ford Motor Company: 2017 F-250 with Ford’s 28 ft. 18,000 lb. triple axle test trailer
- General Motors: 2016 Chevy Tahoe with GM’s 24 ft. 5,000 lb. tandem axle test trailer
- Toyota: 2017, 2018 Tundra with Toyota’s 24 ft. 5,000 lb. tandem axle test trailer

TRVB continues its partnership with the vehicle manufacturers in the event additional TSC testing is necessary due to possible future changes in the operation of their ITBCs.

In addition to verifying compatibility with the ITBCs, testing was also performed and confirmed that the TSC sway control trailer braking enhances the tow vehicle’s built-in “trailer sway control”. As a result, when both systems are active they complement each other in controlling trailer sway. In most cases, the TSC activated before the tow vehicle’s “trailer sway control” system thereby dampening the sway condition.

Tuson Sway Control and Aftermarket Trailer Brake Controllers

Tow vehicles that do not offer an ITBC (e.g., BMW, Land Rover, Mercedes, Volkswagen, etc.) require the installation of an aftermarket trailer brake controller. TRVB has tested the TSC with various aftermarket controllers (e.g., DirecLink, Curt, Draw-Tite, Hayes, Hopkins, RedArc, Tekonsha) without experiencing any compatibility issues.

If a TSC customer becomes aware of a compatibility issue with a particular trailer brake controller, please call TRVB Technical Support at 800-968-8766 so that the issue can be verified and appropriate action taken.