

FEATURED PRODUCT

**STA-DRY®
CLEAR-VU™
Heat Shrink
Terminals**

- CLEAR-VU™ crystal clear tubing provides unparalleled visual inspection for early detection of corrosion
- Color-coded stripes for wire gauge identification
- Waterproof seal blocks out moisture and contaminants to prevent wire corrosion



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PAST ISSUES

Minimizing and Managing Winter Damage

Cold and damp winter weather can do a real number on your truck. Winter weather combined with de-icing chemicals can cause a variety of vehicle problems, especially within the electrical system.

As the winter months progress the electrical assembly is exposed to corrosion-causing moisture and de-icing chemicals. The electrical assembly's 7-way connection is the most prone area to



Corroded Socket

the onset of corrosion, which can easily make its way through the connection and into the cables. Chlorides in chemical de-icers degrade the coupling and the cable leading to improper connection and poor cable conductivity, resulting in voltage drop due to the increased resistance brought on by corrosion damage.

These factors can contribute to electrical system failure by producing shorts which create too heavy a draw on the battery power needed to turn an engine over or run other electrical applications on a trailer.

There are steps you can take to manage and minimize damage done during the winter months and prevent new problems from arising.

To help prevent electrical system damage from corrosion - start at the 7-way connection. Inspect connections and replace damaged metal plugs and sockets with non-



Phillips non-corrosive nylon WEATHER-TITE™ PERMAPLUG™

corrosive nylon plugs and sockets. Leaving corroded metal plugs and sockets installed on an electrical assembly increases the likelihood of corrosion migrating throughout the electrical system.



Phillips non-corrosive nylon STA-DRY® SOCKET

As opposed to their metal counterparts, non-corrosive, nylon plugs and molded sockets can create a sealed connection, which helps block contaminants and moisture from entering the electrical system. This will help keep corrosion from forming at the connection and seeping into the cable or traveling deeper into the electrical wiring, keeping voltage drop from occurring. This prevents shorts and reduces the draw on the battery.

If your metal plugs and sockets are still salvageable, then it's important to clean out any calcium chlorides from the de-icers that have built up over the winter months. As the temperatures begin to rise the calcium chlorides will start to dry, heat up and burn. The heat can melt components of a socket and plug causing extensive damage and can even start a tractor fire. Cleaning this type of buildup off of plugs and sockets should be done with water and a plug and socket brush, no soap. The pins should be re-greased with Lithium Dielectric grease to fill any voids where moisture intrusion can settle into. On a socket this buildup can most heavily occur between the center pin and the top ground pin, so pay special attention to this area and make sure to clean it well.

These simple steps can help to lessen winter damage, and go a long way in stopping the spread of corrosion in your electrical system.



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Have technical questions?
Get the latest tips from a skilled Phillips engineer!
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