

## FEATURED PRODUCT

### Air & Electrical Center Bucket Display

- Designed to turn more than 6 times a year
- Contains 8 of our top moving gladhands, plugs and sockets
- Great as an end or aisle display
- Easy to assemble and maintain
- Dimensions: 68" x 34" x 12"



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## What's Eating Your Vehicle?

Depending on where you are, you may be spending a lot of time driving on wet, slushy and snowy roads. These weather conditions create the perfect storm (no pun intended) for corrosion. On top of the wet winter weather, the roads you're driving on may also be covered with de-icing chemicals and these chemicals also aggressively contribute to corrosion.

### Corrosion Defined

Corrosion is a chemical reaction between metal and its surrounding environment which results in gradual deterioration overtime. The environmental conditions and the contaminants the metal is exposed to determine the rate of deterioration. This deterioration can result in extensive damage to anything made of metal on a vehicle including truck frames, suspension parts, brakes, liftgates and electrical wiring.

### Vulnerability

One of a vehicle's most vulnerable areas to corrosion is the electrical system. As the electrical system is powered and unpowered, wires heat up and expand. When wires cool and contract, they draw in the air around them including moisture and contaminants like de-icing chemicals. The molecular make up of commonly used de-icing chemicals is about 50% smaller than traditional road salt and are hydroscopic, meaning they can pull moisture from relatively dry air, resulting in an accelerated corrosion process.

### Corrosion Prevention

The electrical system is most susceptible to corrosion at the 7-way connection. To safeguard

against corrosion before it starts, fit vehicles with non-corrosive nylon parts such as noseboxes, sockets and plugs. Non-corrosive nylon noseboxes and molded sockets that are completely sealed are virtually waterproof, protecting the internal wiring of the electrical harness system. With metal sockets, the insert is not completely sealed to the socket housing, allowing moisture and contaminants to enter in through the front of the socket which ultimately will make their way into the electrical system past the insert.

Both metal and non-corrosive nylon have tensile strengths that far exceed what is needed to withstand the wear and tear encountered on the road, but the anti-corrosive properties of non-corrosive nylon will outlast metal over the long run. Even in harsh weather conditions non-corrosive nylon stays durable, whereas metal will break down due to corrosion.

Additionally, to protect against corrosion past the 7-way connection, avoid splicing into wiring. If you must repair the wire harness, or any kind of wiring, use heat shrink terminals. Heat shrink terminals conform to the size and shape of the wire creating a permanent seal.

Although corrosion is pervasive, your vehicle doesn't have to be a casualty of its damaging effects. You can save your expensive equipment and prevent moisture intrusion by using anti-corrosive parts specifically made to withstand it.



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Have technical questions?  
Get the latest tips from a skilled Phillips engineer!  
Call: 888-959-0995 OR  
e-mail: [techtips@phillipsind.com](mailto:techtips@phillipsind.com)