# PHILIPS

**Qwik Tech Tips** 

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## FEATURED PRODUCT

# **VOLT-BOX**<sup>™</sup>

- Compact design fits tight space constraints
- STA-DRY® housing is resistant to impact, chemicals and harsh environments
- Features the industry standard QCS2® made with high impact composite material with interchangeable mounting holes
- Can be used for retrofit and features the standard 7-way trailer mounting bolt pattern
- Offers more interior room than the competition for easier wire



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# What to Consider When Choosing a Nosebox

Electrical system performance, downtime for socket replacement and corrosion prevention are all effected by the type of nosebox used, so it's important to make the right choice for your trailer. There are several things to consider when choosing a nosebox:

### Space

First, determine how much space is needed for the wiring. A cramped nosebox can result in wearing or smashed wires, as well as wire puncture, which can cause a short. Insufficient space also makes it difficult to completely tighten the faceplate to the nosebox housing. This has the potential to cause a faulty seal which can allow for moisture to leak into the electrical system. As a solution, noseboxes come in a variety of depths to accommodate various wire quantities and sizes used for trailer electrical systems. Deeper and larger nosesboxes can be used to accommodate larger wire quantities and provide better accessibility for repairs. To further minimize repair downtime, choose a nosebox with a bulleted termination plug-in socket that doesn't require rewiring of the harness to the back of the socket.



Noseboxes come in a variety of depths

#### **Moisture Protection**

Second, decide what level of protection is needed to prevent moisture intrusion, a major cause of corrosion. The electrical system is most easily compromised at the 7-way connection. Standard metal noseboxes and sockets are susceptible to corrosion because the properties in metal are highly corrosive. Additionally, with metal sockets the plug 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. Non-corrosive noseboxes and molded sockets that are completely sealed are virtually waterproof, protecting the internal wiring of the electrical harness system.

## **Circuit Protection**

The next point to consider is circuit protection. Circuit protection is not required, but incorporating circuit breakers into a nosebox is an inexpensive way to help protect the entire electrical system. Circuit breakers keep electrical problems that arise in the trailer confined to the trailer, preventing popped circuits in the tractor. Confining an electrical problem to the trailer also mitigates any confusion when trying to identify a short within the entire electrical system.

#### **Additional Features**

Lastly, noseboxes come with a variety of additional features such as dome light controllers and liftgate battery charging systems to extend battery life. A dome light controller can turn off the dome lights in the trailer by pressing on the brake. A liftgate battery charger, controlled and monitored by the nosebox, provides an extra full 14.4v charge to the liftgate batteries.

Taking these options into consideration when choosing a nosebox will help you make the best selection for your vehicle's electrical system.



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- A cramped nosebox can cause damage to wiring. Enough space in the nosebox is essential.
- Circuit breakers within a nosebox protect the electrical system from popped circuits by confining an electrical short to the trailer.
- Nosebox features like dome light controllers and liftgate battery charging systems extend battery life.

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