

FEATURED PRODUCT

7-Way Light-Duty PERMACOIL™

- Light-duty 7-way accessory cable for truck mounted applications such as forklifts
- Capable of running stop, turn and tail lights
- 360° compression ring secures PERMAPLUGS™ to cable and eliminates moisture and corrosion
- Nylon cable guards offer strain relief and additional protection from kinking near the base of the PERMAPLUGS™
- Meets ISO 1185 and ISO 4141 specifications



VISIT US ON THE WEB AT

www.phillipsqwiktechtips.com

TO BE ADDED TO OUR MAILING LIST AND FOR ALL PAST ISSUES

The Importance of Keeping Your Liftgate Battery Charged

When delivering in urban areas the liftgate can be cycled often, causing the liftgate batteries to run down and lose their charge. However, it is very important to maintain their charge to avoid overload on the liftgate charge circuit.

Maintaining Liftgate Battery State of Charge

If more than one battery on a truck is connected together on the same circuit, whether 12" apart, or 12' apart, the weaker battery will always pull energy from the stronger battery. This is true whether the truck is on or off. On a tractor/trailer combination, the truck batteries will always be stronger because they receive a constant 14.4 volts from the alternator. If the trailer has a refrigerator unit, the liftgate batteries may pull from the reefer unit battery/alternator as opposed to the tractor batteries/alternator. Normally, the liftgate batteries slowly charge by drawing power from either the tractor batteries or reefer unit alternator.

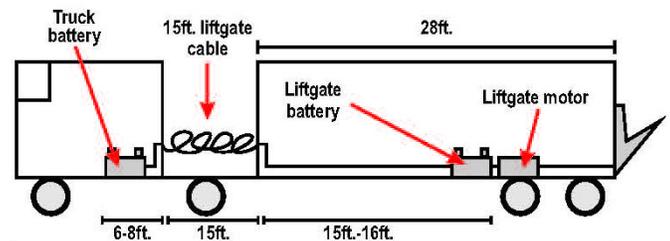
The average liftgate set-up consists of two 'Group 31' batteries, with 600-900 CCA (Cold Cranking Amps) per battery. The average liftgate motor draws anywhere from 90-150 amps per cycle. A fully charged liftgate battery, without a constant charge source, may only get 5 or 6 cycles. It is possible to drain the batteries to a point where there is not enough power to raise the liftgate.

While a truck has the ability to run power from the tractor batteries, to the liftgate, this should be avoided at all costs, as there is potential risk in overloading the entire liftgate charging circuit. This can result in potential downtime due to cable damage.

The majority of trailers with liftgates are approximately 28' in length. On a truck with a 28' trailer there is approximately 40' of 4 gauge battery cable (truck battery to liftgate battery). Using the chart below we can see that at 40', the maximum amperage draw on this circuit should be no more than 100 amps. With a liftgate motor drawing anywhere between 90-150 AMPS, it's clear that having to draw power directly from the tractor batteries is not recommended.

Steps to follow that will maintain charged liftgate batteries and avoid running into potential hazards are:

- Make sure the liftgate batteries are always fully charged before leaving the yard.
- Follow any guidelines your employer may have for the average number of expected liftgate cycles that are available on their trucks.
- Make sure that the liftgate cable plug and socket connections are clean and free from corrosion.
- The best way to ensure proper charge is to have an onboard charger at the liftgate batteries to maintain a constant charge of 14.4 volts.



4 Gauge Copper Wiring Amperage Draw Based On Feet

Feet	10	20	30	40	50	60
Amps	200	200	100	100	50	50



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

- The weaker battery will always pull energy from the stronger battery, whether the truck is on or off.
- To avoid liftgate circuit overload, make sure liftgate batteries are fully charged before leaving the yard, that any employer guidelines for liftgate cycles are adhered to, and that the liftgate cable plug and socket connections are clean and free from corrosion.
- Never base the maximum amperage draw of the liftgate charging circuit on just the liftgate cable rating. The liftgate cable is just a link in the system. While some coils are advertised at 200 amps (which is correct for a 15' 4 gauge cable), only the cable is rated at 200 amps, not the entire liftgate charging circuit.

*Phillips Industries, to the best of our knowledge, has compiled the information contained herein from what it believes are authoritative sources. This information is not to be taken as representation for which Phillips Industries assumes legal responsibility.