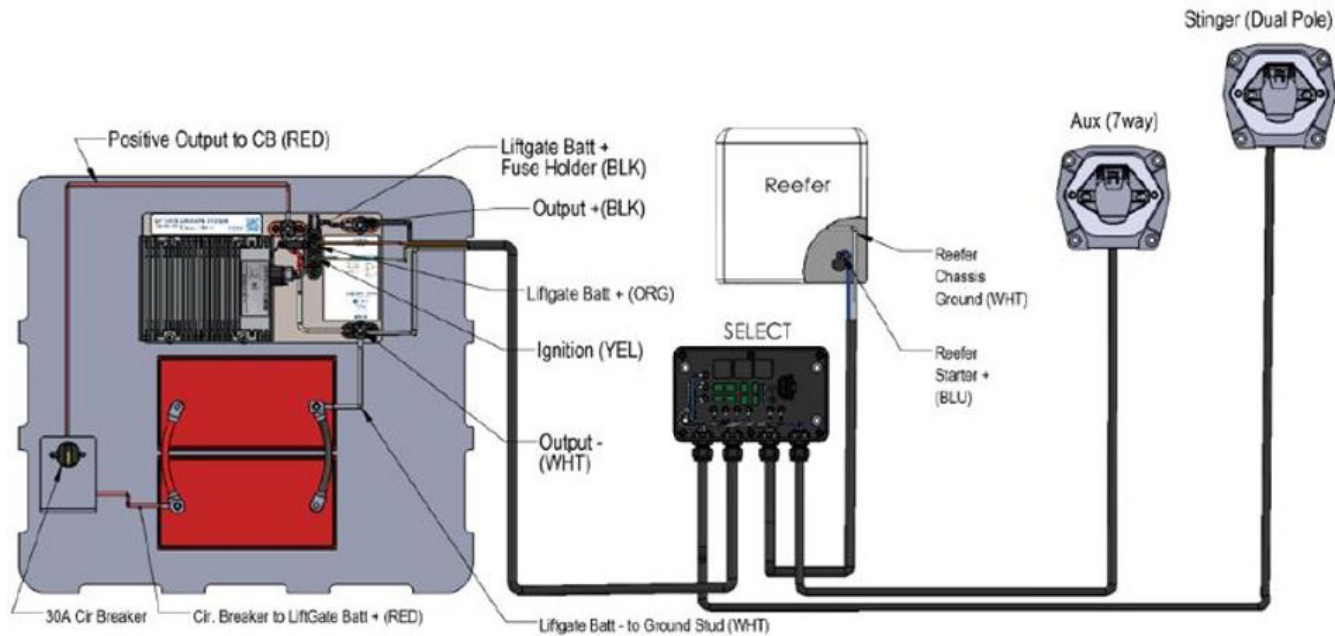
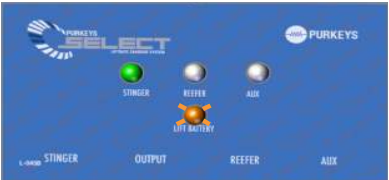


Fuse locations are as follows:


- Top left is the fuse for the stinger input
- Bottom left is the fuse for the ground
- Left vertical fuse is for the 7-way
- Right vertical fuse is for the reefer unit



LED LOGIC		STATUS
	<p>Solid Green on Source Slow Flashing Orange on Lift Battery</p>	<p>Charging State - Tractor or Reefer connected and running. DC/DC converter is operating but the liftgate batteries are defective or below 12.8 volts. Applies to all charging sources.</p>


TIP 1: With your multimeter, check the voltage of each of the batteries in the liftgate battery box. If one or more of the batteries are low, charge batteries, perform a load test on batteries, and re-install into battery box. Check LEDs on the front of the controller. Lift battery light should be flashing green. If not, continue to tip 2.

TIP 2: With your multimeter, check the voltage from the ground post on the charging plate and the orange wire on the terminal block. Then take the front of the controller (mounted on the front of the trailer) off the mounting plate and check the voltage with your multimeter between the ground post and the orange wire post. Voltage reading should be the same from both ends. If there is any kind of variance, inspect cabling from front of the trailer to the battery box for a broken or pinched wire in the cable run. Repair wiring and recheck function of liftgate charging system and LEDs.


LED LOGIC		STATUS
	<p>No Source LED Lift Battery LED Slow Flashing Orange</p>	<p>Static State - No tractor connected to the trailer and the liftgate batteries are less than 12.4 volts</p>

TIP 3: With your multimeter, check the voltage of each of the batteries in the battery box. If one or more of the batteries are low, charge batteries, perform a load test, and re-install into battery box. Check LEDs on the front of the controller. Lift battery light should be flashing green. If not, continue to tip 4.

TIP 4: With your multimeter, check the voltage from the ground post on the charging plate and orange wire on the terminal block. Then take the front of the controller (mounted on the front of the trailer) off the mounting plate and check voltage with your multimeter between the ground post and the orange wire post. Voltage reading should be the same from both ends. If there is any variance in voltage, inspect cabling from the front of trailer back to the battery box for broken or pinched wire in the cable run. Repair wiring and recheck function of liftgate charging system and LEDs.

LED LOGIC		STATUS
	<p>Slow Flashing Orange on Lift Battery and Source</p>	<p>Off State (Low Voltage) - Lift battery and source voltage below 12.4 volts. DC/DC converter is off. Voltage at source must achieve 13.8 volts to go into Charging State. Applies to all changing sources.</p>

TIP 5: With your multimeter, check the voltage of each of the batteries in the battery box. Also check the voltage coming from the tractor through the power cord to the nosebox. Also open the control box from the front of the trailer and take a voltage reading from the appropriate posts. If a stinger is used, test the ground post and the stinger blue wire post (see diagram on page 1). If you are using 7-way, put your leads from the multimeter on the ground post and the aux wire post (see diagram on page 1). If the reefer is being used, take your multimeter and put the leads on the ground post and the reefer post (see diagram on page 1).

LED LOGIC		STATUS
	<p>Slow Flashing Orange on Lift Battery and Source</p>	<p>Off State (Low Voltage) - Lift battery and source voltage below 12.4 volts. DC/DC converter is off. Voltage at source must achieve 13.8 volts to go into Charging State. Applies to all changing sources.</p>

TIP 6: Open the controller on the front of the trailer and check the fuses inside with your multimeter. Remember that fuses can appear to be good, but will actually read bad with a continuity test. Replace fuses as needed.

LED LOGIC		STATUS
	<p>No Source LED Lift Battery LED Slow Flashing Orange</p>	<p>Static State - No tractor connected to the trailer and the liftgate batteries are less than 12.4 volts</p>

**TIP 7:** With your multimeter, check the voltage of each of the batteries in the battery box. If below 6 volts, charge batteries and recheck system.

If above 6 volts, one of the protection devices could be blown in the battery box. There is a 2 amp fuse and a 30 amp circuit breaker. Check these with your multimeter: first, put your meter on DC volts. Put your negative lead on the ground post of the battery and your positive lead on the red post closest to the converter (refer to diagram on page 1). If the 30 amp circuit breaker is functioning, the voltage reading will be the same as the battery voltage. If this is true, take your negative lead to the negative post on the battery and your positive lead to the terminal block post where the black wire and orange wire are terminated together. If there is no voltage reading, the 2 amp fuse is blown. Replace fuse and recheck system.

If there are readings of good voltage from each checkpoint, remove controller from the front of the trailer and check output voltage with your multimeter. Put the negative lead on output white and the positive lead on output blue. Make sure there is a tractor supplying a source for power. Read voltage on the outputs. If there is no output voltage, check input voltage to be sure the power cord is functioning properly. If there is proper input voltage, but no output voltage, contact Purkeys' technical support.

If there are proper voltage readings on both the input source and output, there could be another possibility. Sometimes when road assistance is required, an on-call mechanic will install a jumper to bypass the charging system to run straight from the tractor battery so it can finish the route. In this scenario, where a 7-way is used, the ABS system can drain the batteries in the liftgate battery box when the tractor is not running. Refer to wiring diagram on page 1 and make sure there are no other wires or cables connected to any of the posts on the charging plate other than what is shown on the wiring diagram. If one is found, remove the cable and recheck liftgate charging system.

If the issue persists, call Purkeys' technical support.

LED LOGIC		STATUS
		<p>Static State - No tractor connected to the trailer and the liftgate batteries are less than 12.4 volts</p>

TIP 8: Check all ground connections and make sure they are clean and tight. Make sure the source voltage is supplied with a 30 amp fuse for proper functions of the charging system.

With a multimeter, check voltage from source (tractor) and the power cord coming from tractor for proper voltage.

If there is still an issue and a 7-way is being utilized for source power, find which circuit is having the voltage drop problem by following a process of elimination. Take all the grounds off the 7-way itself, then start putting them back on one by one. When you put a ground on and see the light issue on the controller, this is the circuit the voltage drop issue is in. Inspect the circuit and repair where needed. Recheck liftgate charging system for proper functionality.

LED LOGIC		STATUS
	<p>Slow Flashing Orange on Lift Battery and Source</p>	<p>Off State (Low Voltage) - Lift battery and source voltage below 12.4 volts. DC/DC converter is off. Voltage at source must achieve 13.8 volts to go into Charging State. Applies to all changing sources.</p>

TIP 8: With your multimeter, check battery voltage at the liftgate batteries. As needed, charge batteries and/or do a load test to see if one might be bad and pulling power from the good batteries to make the voltage drop below 6 volts. Once the batteries are verified as fully charged, reconnect and check liftgate charging system for proper operation. If issues remain, call Purkeys' technical support.

TIP 9: If at any time you find the converter in the battery box has a blinking red LED, unplug the 4-pin connector, inspect for cleanliness, and plug back in. Be sure it is seated tightly. Check operation of charging system. If there are any other issues call Purkeys' technical support.

TIP 10: Make sure a tractor is used to supply power to trailer and our liftgate charging system. Other sources could possibly not put out enough voltage for the liftgate charging system to work properly.

TIP 11: It is always recommended to use a multimeter to read voltage. When you call Purkeys' technical support, they will want to know what the voltages are in certain areas. It is very important to have exact numbers because even a ½ volt can make a difference on how the liftgate charging system is functioning.