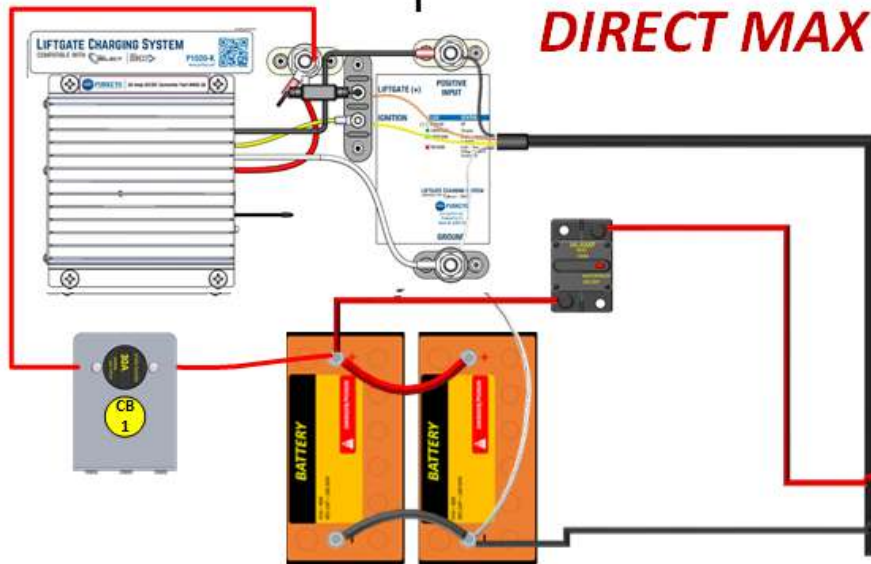


- A** Liftgate battery + (14 AWG orange)
- B** Interior light control (16 AWG gray)
- C** Input negative (8 AWG white/4 AWG black)
- D** Liftgate battery negative (ground)
- E** Input to converter (8 AWG black)
- F** 7-way + (10 AWG orange in-line fuse)
- G** Ignition (16 AWG yellow)
- H** Dual pole + (10 AWG orange in-line fuse/4 AWG red)
- I** Input to interior lights
- J** Interior light fuse
- K** No wire
- M** 2 amp in-line fuse
- O** Converter output (10 AWG red)
- P** Interior light output
- Q** Output (dual pole or reefer +/10 AWG blue)



## Operation:

Placing the switch to the off position bypasses our system and the batteries will be charged directly from the dual pole. This can be used when the batteries are in a very low state of charge to bring the batteries up quickly.

Placing the switch to the on position allows our system to charge the batteries.

When it sees 13.2 volts continuously for 5 minutes, the controller turns the converter on. If it sees 13.8 volts, the converter is turned on immediately. The controller passes the source voltage to the input (pin 1) of the converter and sends a signal to ignition pin (pin 4) of the converter. This signal needs to be 10.0 volts or higher.

When the source voltage drops below 12.4 volts, the Direct removes the signal to the converter immediately. The Direct will look at the next available source, if any. The order of source preference is the dual pole, reefer (if available), then aux.

The source is connected to (M) ground and (I) dual pole positive, (N) reefer positive and/or (F) aux positive.

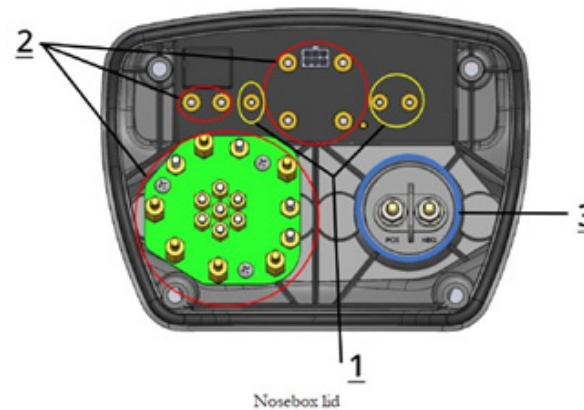
## Installation tips:

1. Before starting the installation, remove the positive cable from battery or pull the 2 amp fuse out of the fuse holder on charging plate.
2. If available, solder the ring terminals after crimping and before applying heat shrink to assure a solid connection.
3. Be sure all connections in the controller are tight before closing it up.
4. Be sure all connections are tight on batteries and charging plate before hooking the positive cable back up or installing the 2 amp fuse.
5. When running the 4-conductor cable main harness in the channel toward the back of the trailer, secure it with zip ties or cable clamps as you go and avoid sharp edges and possible chaffing points.
6. Make sure the 4-conductor main harness enters the liftgate battery box through a dome nut or rubber grommet to prevent chaffing the harness, which could result in a possible short in the system.

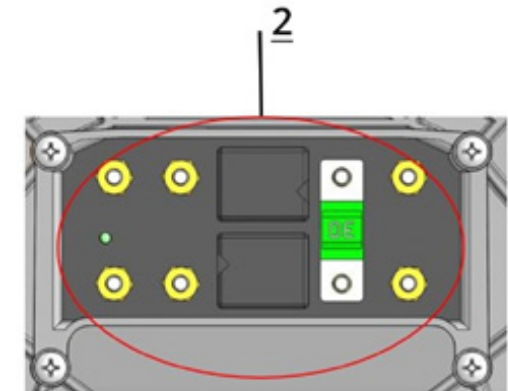
## Preventative Maintenance Torque Check

Purkeys would like to suggest that on all preventative maintenance checks or repairs to a Direct Plus, Flex or Max, all threaded stud junctions be checked for proper tightness, as the nuts may loosen over time. To reduce this chance of loose fasteners, Purkeys has changed the design to incorporate Nyloc nuts in future products.

Call-out	Size	Recommended Torque
1 (circled in yellow)	8/32	36 inch-lbs
2 (circled in red)	10/32	48 inch-lbs
3 (circled in blue)	1/4-20	60 inch-lbs



Nosebox lid



Nosebox base