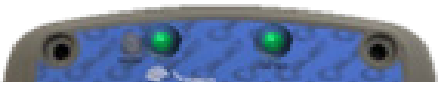
Service Bulletin

Checking Voltage Drop Into the Liftgate Charging Nosebox Systems

When a unit that you are working on has a solid green Source/Aux and Lift battery light and those lights switch from solid green to flashing orange and then repeat the sequence this means that there is a voltage drop *into* the Purkey liftgate charging system.



One way that you can verify that the Purkeys system is working properly when you have the alternating green and orange lights is connect a jumper wire from a running vehicle battery to one of the source inputs listed for each system listed on the following pages (see Figure 1).

NOTE: The wire size used on the jumper should be a minimum of 12 gauge.

Figure 1

Please contact Purkeys' Technical Services Department if you have any questions.
Phone: 479-419-4800 | www.purkeys.net/contact/

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Connect the positive lead to the positive post on the vehicle battery (see Figure 2).

Connect the other end of the positive lead to the post on the faceplate for the source that you are checking (see Figure 3). The drawings below show connection points for each different system.

Connect the negative lead to the negative post on the vehicle battery (see Figure 2), and the other end of the ground lead to the dual pole ground input with the white on the back of the faceplate (see Figure 3).

NOTE: You can use this on all input sources, Dual and single pole, Aux and Reefer.

Figure 2

Figure 3

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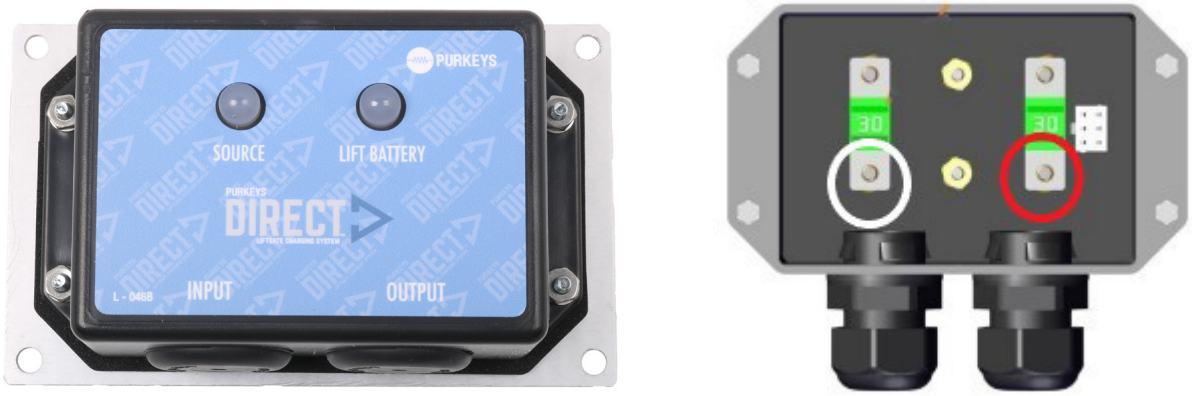
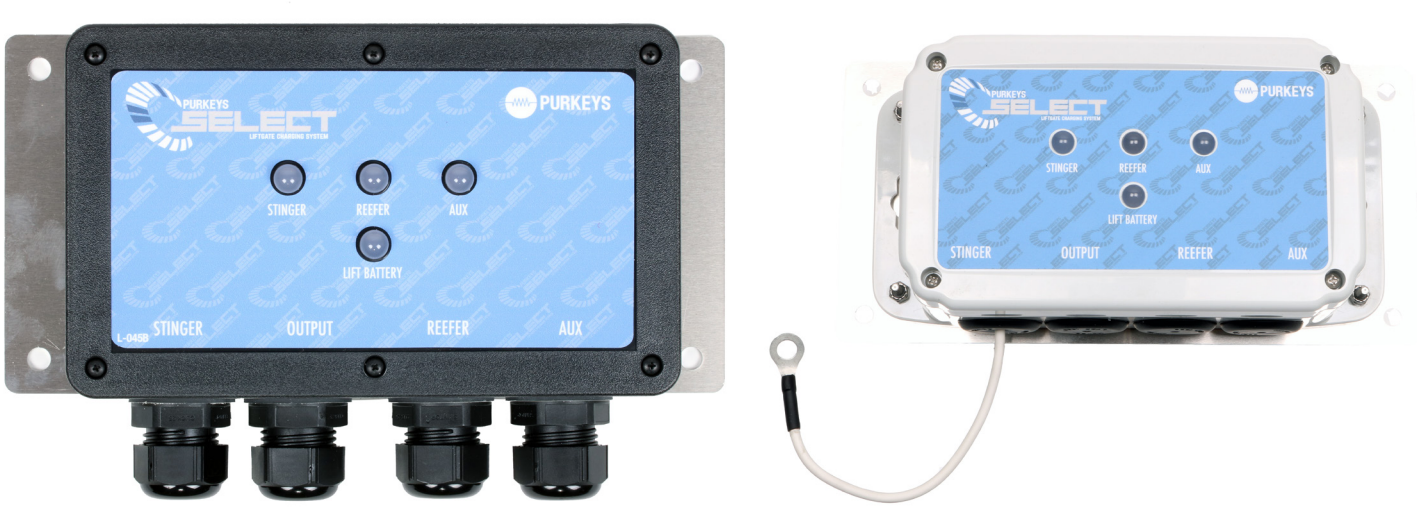


Direct Controller

On the Direct Controller, place one end of the positive cable on the "power in" post, red circle and the other on the ground from source post, white circle.

On the black or white Select controller the positive would go on the + for the source that you testing (Stinger, Aux, or Reefer). The negative would go on the source ground (-) post , (Stinger, Aux, or Reefer) (see Select Controller Black Box Callouts on next page).



Select Controller: Black and White Boxes

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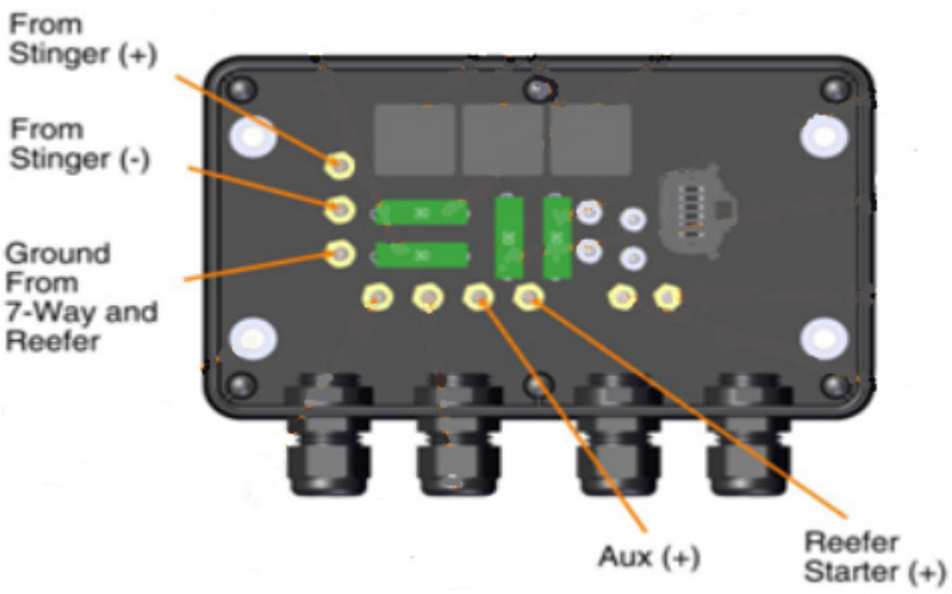
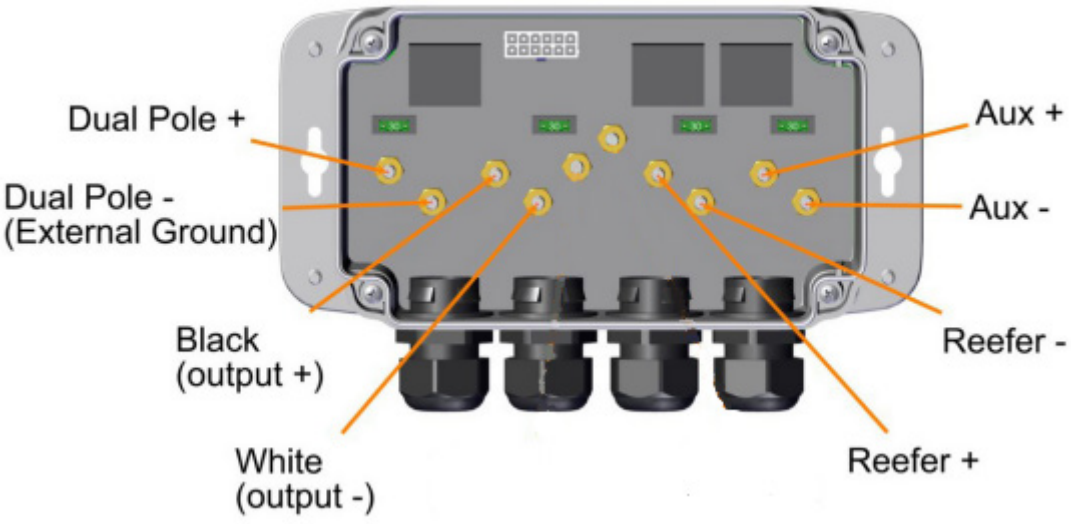


Select Controller Black Box Callouts



Select Controller White Box Callouts

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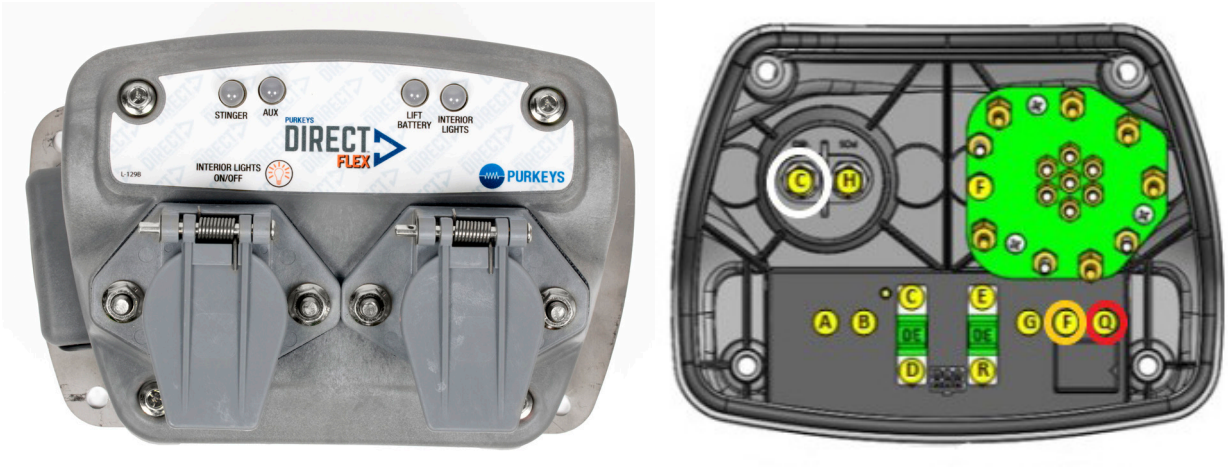

Direct Flex and Direct Max Noseboxes

On the Direct Flex and Max Noseboxes, to test the "Source" input, connect the positive from test lead to "Q" on the back of the faceplate (red circle) and the negative lead to the back of the dual pole where the white wires are connected "C" (white circle).

To test the Aux input connect the positive from the test lead to "F" on the back of the faceplate (orange circle) and the negative lead on the back of the dual pole where the white wires are connected "C" (white circle).

Direct Plus Nosebox

On the Direct Plus Nosebox connect the positive end of the test lead to the post on top of the Midi fuse, position "I" (red circle). Connect the ground end of the test lead to the bottom of the ground midi fuse, position "C" (white circle).

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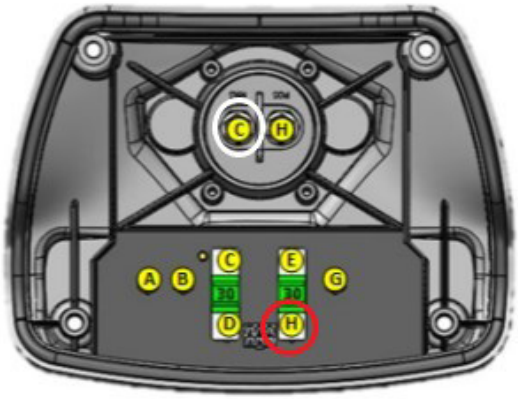
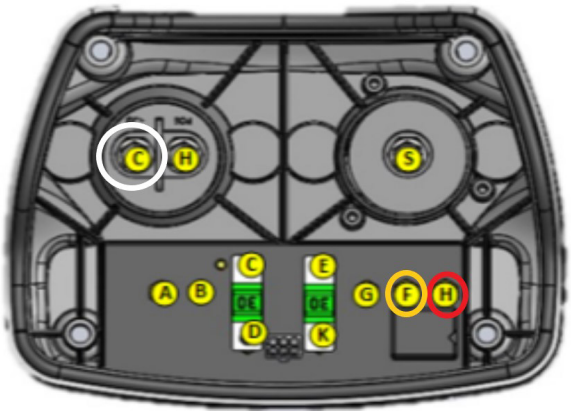


Direct Nosebox

On the Direct Nosebox, connect the positive test lead to the post on the top of the positive fuse, position "H" (red circle). The negative test lead should be connected to the back of the dual pole socket, position "C" (white circle).



Select Nosebox

On the Select Nosebox, to test the "Source" input connect the positive from the test lead to "H" on the back of the faceplate (red circle) and the negative lead on the back of the dual pole where the white wires are connected "C" (white circle).

To test the Aux input connect the positive from your test lead to "F" on the back of the faceplate (orange circle) and the negative lead on the back of the dual pole where the white wires are connected "C" (white circle).

Operation Check

Either the Source or Aux light, depending on which one you are using for the source, and the lift battery light, should be solid green along with light on the DC/DC converter in the battery box. You will also see the liftgate battery voltage start to rise. This indicates that the Purkeys liftgate charging system is performing as designed. The problem would be with the wiring, connections, or input source for the system, dual pole cable, Aux, or reefer inputs (see Figure 4).

Figure 4