

# PURKEYS

**SELECT-24 V1.00  
OWNERS MANUAL  
MAXON # 295217-500**



# SELECT-24 V1.00 OWNERS MANUAL



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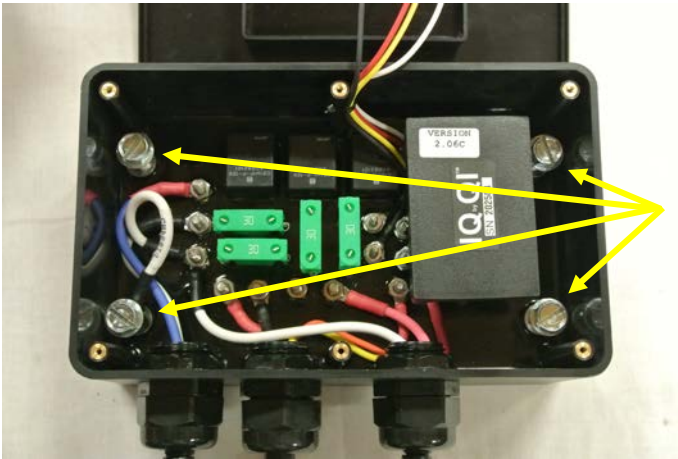
## GENERAL INFORMATION

### *PROBLEM*

The Purkeys Select™ system improves the charging of liftgate batteries by utilizing a DC-DC Converter to boost the voltage to optimally charge the batteries. The boost in voltage is needed to overcome the voltage drops in the long cables from the vehicle's primary electrical system. Also, in cold temperatures batteries require a higher voltage to get fully charged. The DC-DC Converter in the Select™ system compensates for temperature as well as for voltage drops and gets the best voltage to the remotely located liftgate batteries. The result is well charged liftgate batteries that will last longer and that will have ample power for liftgate operation.

The Select™ system is automatic and has easy to interpret LED Indicators to assure drivers and technicians of proper system function. The Select™ Controller increases the time that the DC/DC Converter can charge the liftgate batteries by automatically choosing the best available source of power (tractor or reefer) and by monitoring the source power and "Extending" the liftgate battery charge time to take full advantage of the available power without compromising the source batteries' ability to crank the engine. Simply put, the Select™ system provides opportunity charging for the liftgate batteries that is essential in low mileage, high frequency liftgate operation applications. Now liftgate batteries can even be charged when the tractor is uncoupled! The LED indicators clearly show the status of each source as well as the status of the liftgate batteries. A quick glance at the Select™ Controller assures the driver that the liftgate batteries are ready to go, or alerts the driver that the batteries need maintenance.

## SELECT™ CONTROLLER MOUNTING



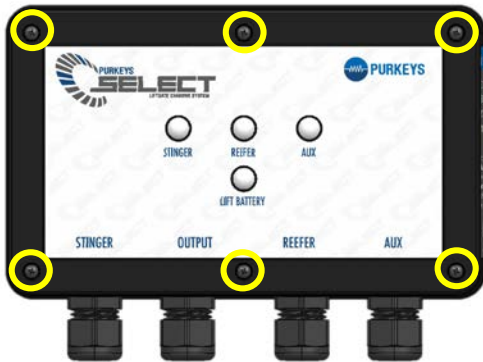
### STEP 1

Mount the Select™ controller at the front of the trailer via the mounting holes on the inside of the controller box. Secure the white wire marked "Chassis Ground" to the bottom left mounting hole.

*Note: It may be easier to remove the 12 pin control module to access the top right mounting hole and replace when the Select™ controller is secure.*

### STEP 2

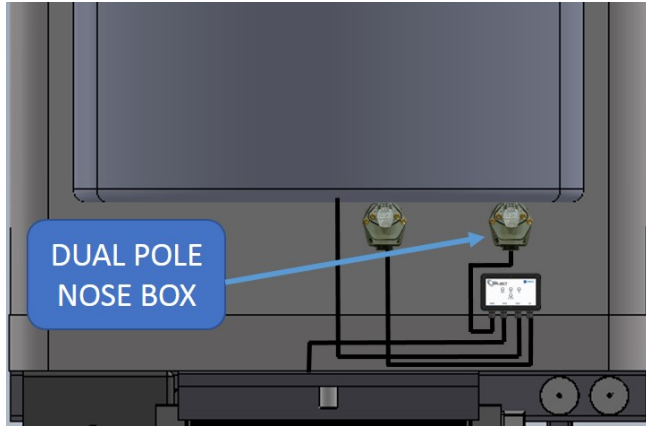
Install the lid. Ensure that all 6 of the sealing screws are tight.



## DUAL POLE NOSE BOX INSTALLATION

### STEP 3

Mount the Dual pole nose box close to the Select™ controller.



## AUX HARNESS INSTALLATION



### STEP 4

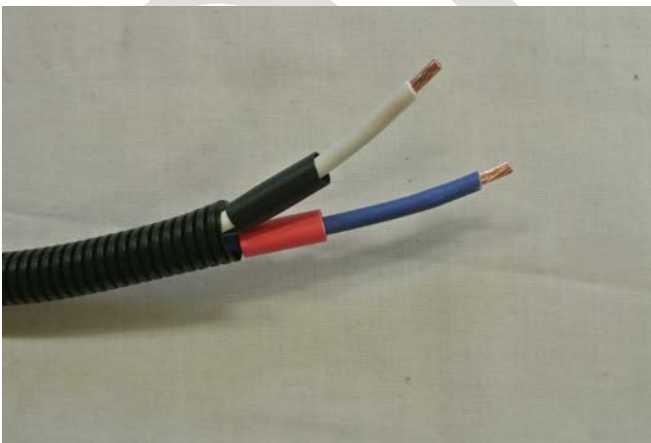
Route the jacketed 2 conductor FROM THE Select™ controller over to the seven way nose box.

**IMPORTANT:** Place the cable clamps along the seven way aux harness every 6 inches to ensure proper support for the cable. Also avoid sharp edges and possible chaffing points.



### STEP 5

Position the 2 conductor harness so that it reaches the ground pin on the top of the seven way receptacle and the Aux pin in the center of the seven way receptacle. Mark the cable and then cut to length.



### STEP 6

Slide the supplied red ¼ inch heat shrink over the blue wire. Slide the supplied black ¼ inch heat shrink over the white wire.

## AUX HARNESS INSTALLATION (Continued)

### STEP 7

Crimp on the supplied 10GA #10 eyelets onto both the blue and white wires.



### STEP 8

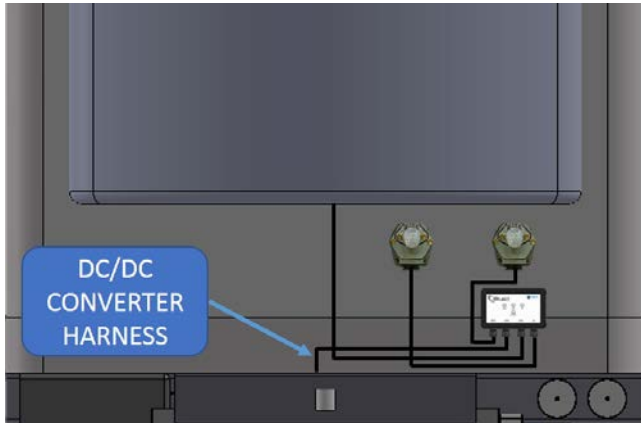
Solder then position the heat shrink over the crimps and apply heat to the 2 terminals.

**IMPORTANT:** Place the cable clamps along the seven way aux harness every 6 inches to ensure proper support for the cable. Also avoid sharp edges and possible chaffing points.

Seven Way Aux Harness Installation Complete



## SELECT MAIN HARNESS INSTALLATION



### STEP 9

Route the Select™ 4 conductor jacketed DC/DC converter main harness behind the front plate then behind the header plate through the air/electrical tube to the center channel.



### STEP 10

Route the Select™ jacketed 4 conductor main harness in the center channel toward the back of the trailer. Secure with wire ties or cable clamps as you go.

**IMPORTANT:** Place the cable clamps along the 4 conductor jacketed wire every 6 inches to ensure proper support for the cable. Also avoid sharp edges and possible chaffing points.

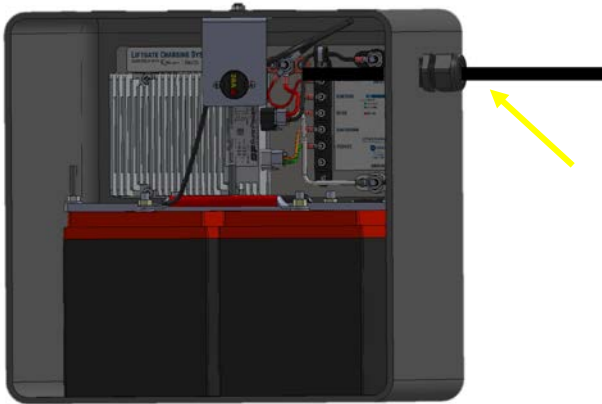


### STEP 11

Once you are near the area where the liftgate battery box is located, begin routing the Select™ 4 conductor main harness into the liftgate battery box through a dome nut or rubber grommet.

**IMPORTANT:** Ensure that the 4 conductor jacketed wire enters the liftgate battery box through a dome nut or rubber grommet to prevent chaffing of wire which could result in possible electrical short in the system.



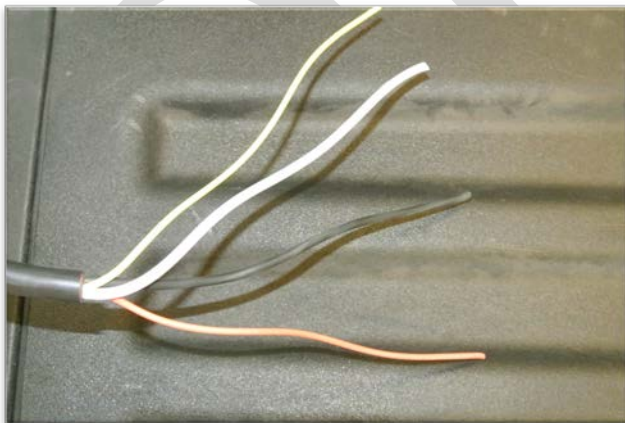
**STEP 12**

Position the Select™ 4 conductor main harness so that it will reach the 6 stud strip and all the slack has been taken up. Mark the wire so that it can be taken back out of the battery box to be terminated.

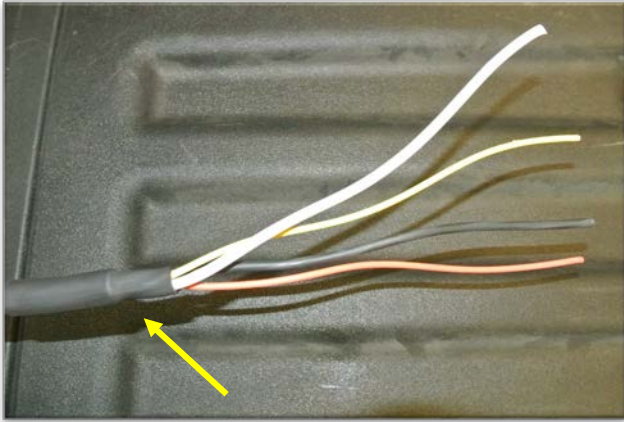
*Note: If your battery box includes a slide out tray, include enough slack to allow the tray to fully extend without tugging on the wire connections.*

**STEP 13**

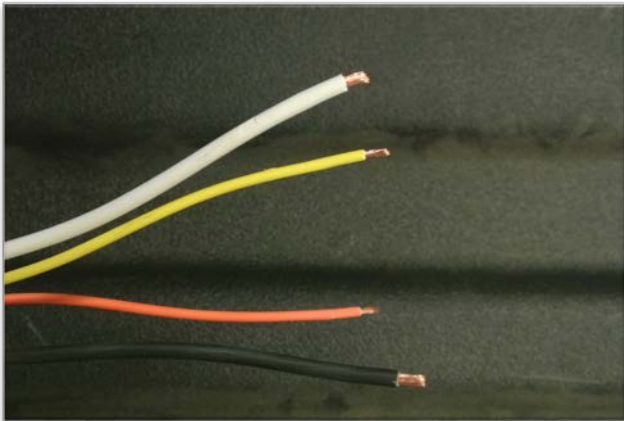
Pull the conductor back out of the box (easier to work on) and cut off the excess at your mark.

**STEP 14**

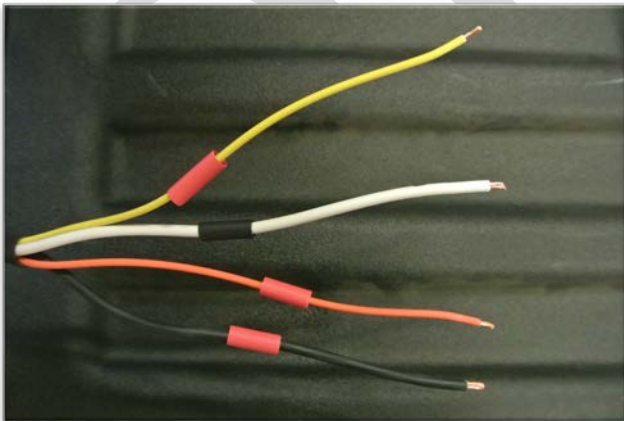
Cut the jacketed portion off of the conductor about 8 inches.

**STEP 15**

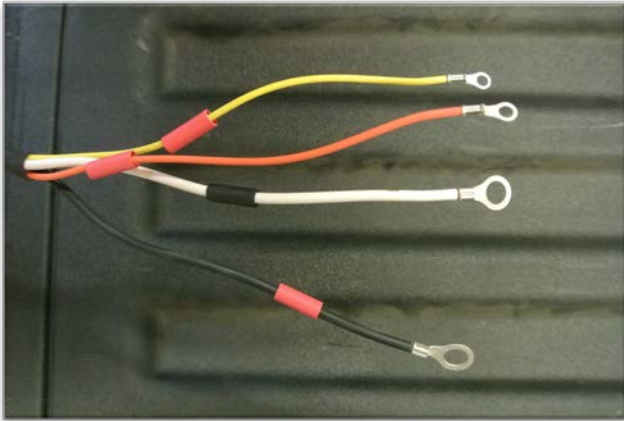
Apply the supplied  $\frac{3}{4}$  inch black heat shrink where the jacket was stripped off.

**STEP 16**

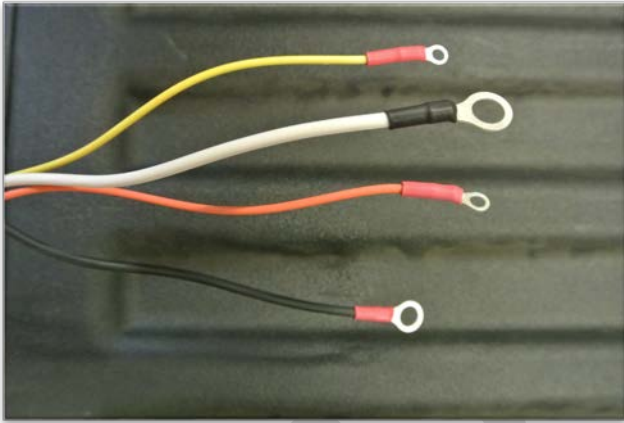
Strip  $\frac{3}{8}$  of an inch of insulation off all 4 wires.

**STEP 17**

Slide the supplied red  $\frac{1}{4}$  inch heat shrink over the orange, yellow and black wires. Slide the supplied black  $\frac{1}{4}$  inch heat shrink over the white wire.

**STEP 18**

Crimp on terminals to the 4 wires. Both the white and black 10 gauge wires get the 3/8 ring terminals. The orange and yellow 16 gauge wire uses the #10 ring terminal.

**STEP 19**

Position the heat shrink over the crimps and apply heat to the 4 terminals.

**STEP 20**

Re-route the jacketed wire back into the battery box.

- Connect the 10 gauge black wire to the black Positive Input Stud.
- Connect the 10 gauge white wire to the white ground stud.
- Connect the 14 gauge orange wire to the Liftgate (+) stud.
- Connect the 14 gauge yellow wire to the Ignition stud.

Select™ Main Harness Installation Complete

**PARTS LIST**

PART# MOD00075  
MAXON# 907260-01  
SELECT™ CONTROLLER REPLACEMENT



PART# MOD00070  
MAXON# 907246-01  
CONTROL MODULE



PART# H-00286  
MAXON# 907247-01  
50FT MAIN HARNESS

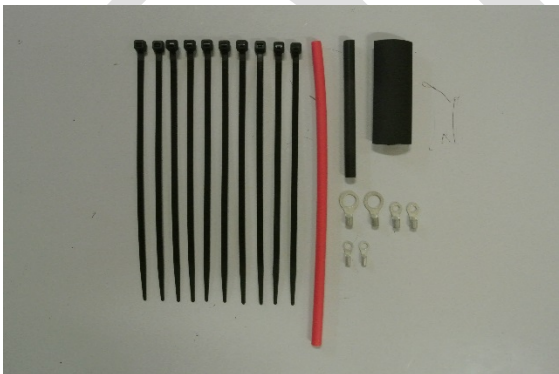
## PARTS LIST



PART# NB00037  
MAXON# 907261-01  
DUAL POLE TO SELECT™ NOSE BOX

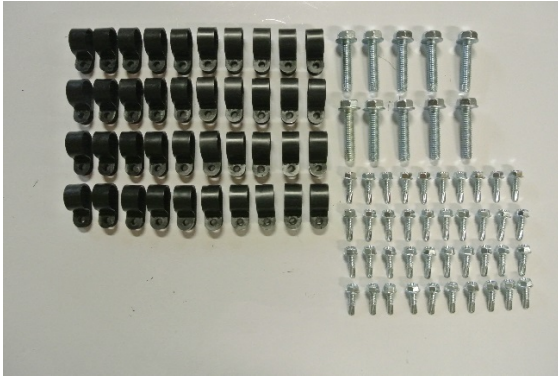


PART# H-00288  
MAXON# 907266-01  
SEVEN WAY AUX HARNESS



PART# BK-1049  
MAXON# 907251-01  
TERMINAL BAG KIT

## PARTS LIST



PART# BK-1048  
MAXON# 907252-01  
HARDWARE BAG KIT



PART# SELECT-24  
MAXON# 295217-01  
SELECT™ W/DUAL POLE AND AUX



PART# INST036  
MAXON# 295217-500  
SELECT-24 OWNERS MANUAL



PART# INST028  
MAXON# 295210-501  
SELECT™ TROUBLESHOOTING

DRAFT