

PURKEYS

**SELECT-21 V1.10
OWNERS MANUAL
MAXON # 295210-500**



SELECT-21 V1.10 OWNERS MANUAL

SELECT™ WITH DUAL POLE AND REEFER OPTION



OWNERS MANUAL CONTENTS

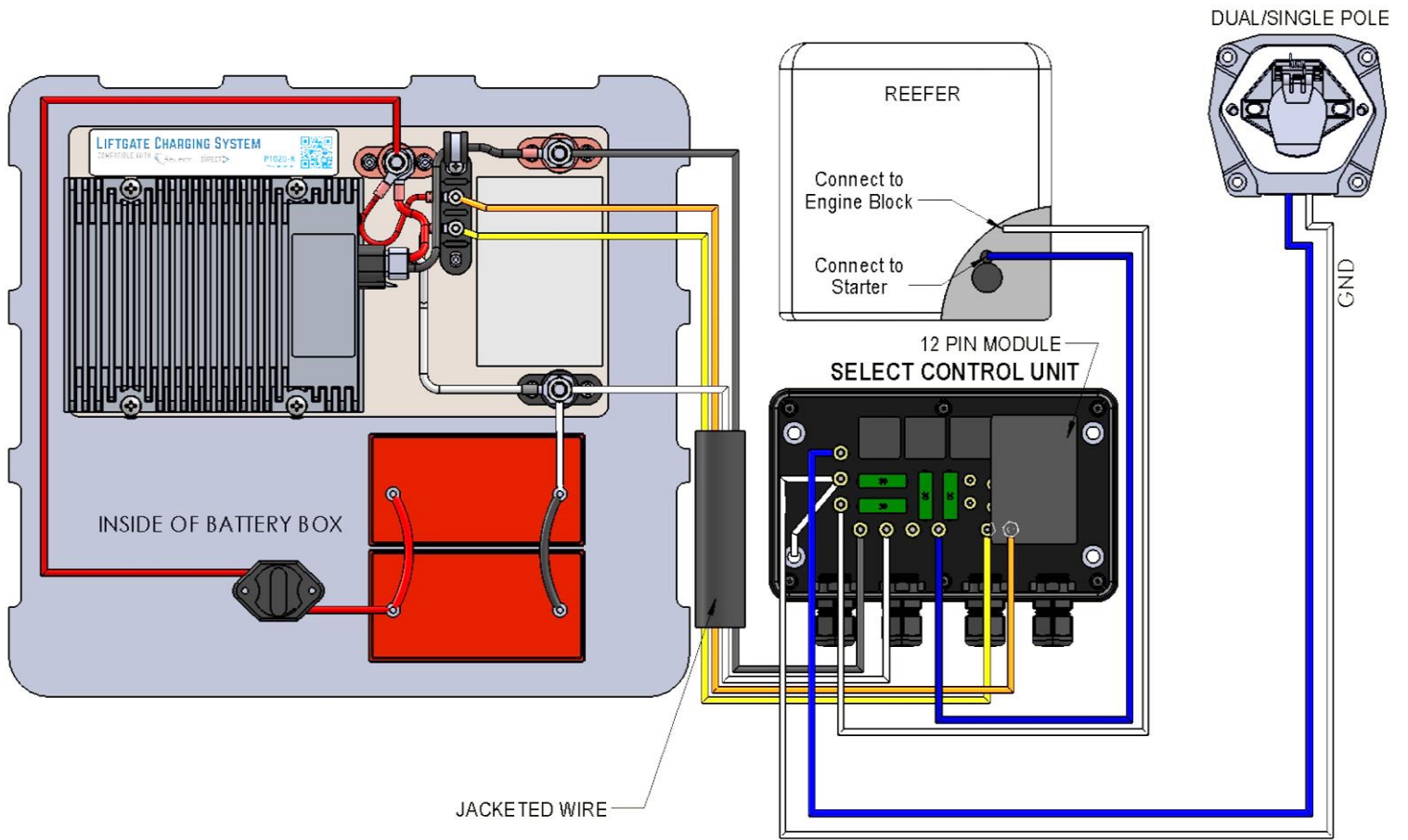
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GENERAL INFORMATION

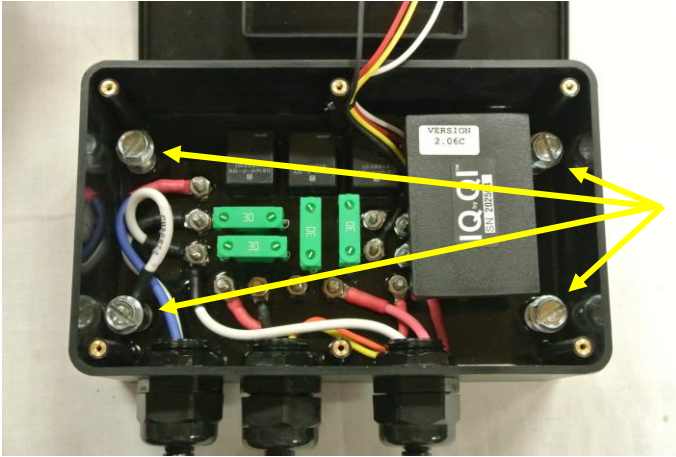
The Purkeys Select™ system improves the charging of liftgate batteries by utilizing a DC-DC Converter to boost the voltage to optimally charge the batteries. The boost in voltage is needed to overcome the voltage drops in the long cables from the vehicle's primary electrical system. Also, in cold temperatures 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-21 DIAGRAM



SELECT™ CONTROLLER MOUNTING



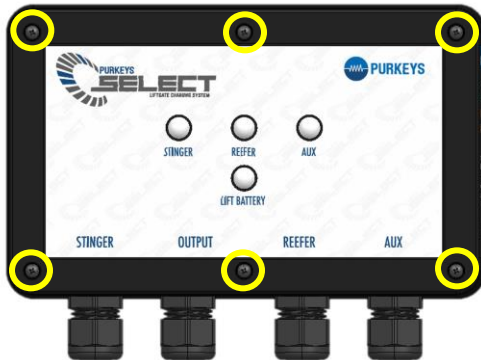
STEP 1

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

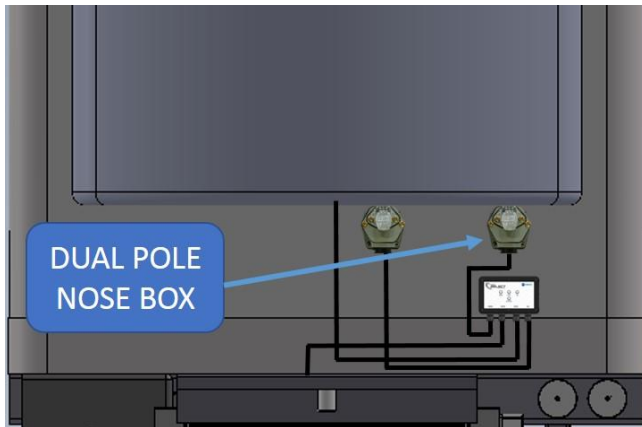
Install the lid. Ensure that all 6 of the sealing screws are tight.



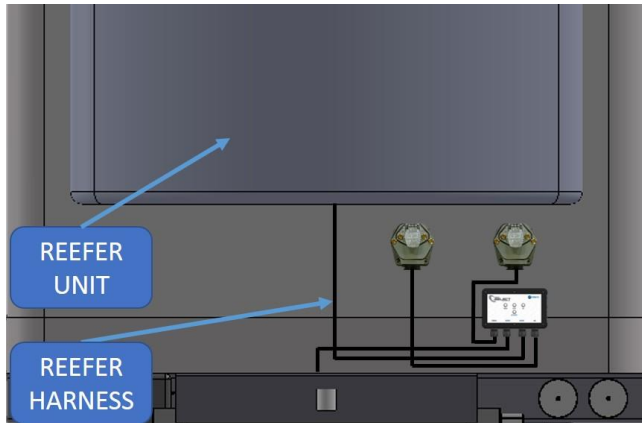
DUAL POLE NOSE BOX INSTALLATION

STEP 3

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



REEFER HARNESS INSTALLATION



STEP 4

Route the jacketed 2 conductor up towards the reefer compartment.

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



STEP 5

Connect the reefer harness white ground wire to the reefer's engine block ground and tighten.

Note: When adding a ground to the engine block, the terminals need to be mounted 30 degrees from each other and the biggest terminal closest to the engine block to ensure a good ground terminal connection.



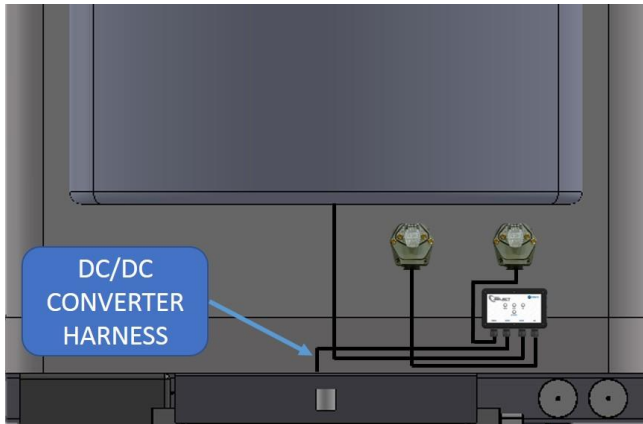
STEP 6

Connect the reefer harness pink positive wire with the 50 amp inline fuse to the reefer starter positive post.

Note: Make sure no wire is hanging and all clamps and cable ties are no longer than 6 inches apart from each other.

Reefer Harness Installation Complete

SELECT™ MAIN HARNESS INSTALLATION



STEP 7

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 8

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.

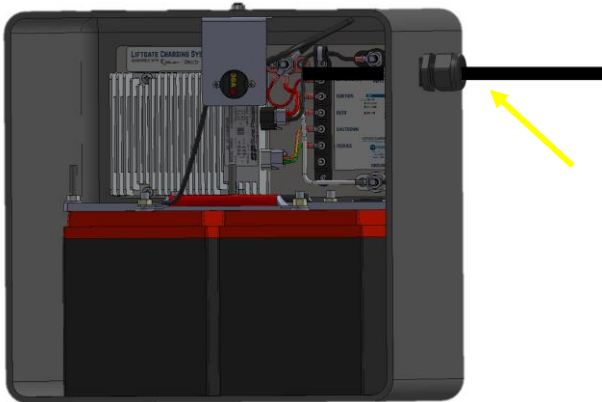
IMPORTANT: Place the cable clamps along the 4 conductor jacketed wire every 6 inches to ensure proper support for the cable. Also avoid sharp edges and possible chaffing points.



STEP 9

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.

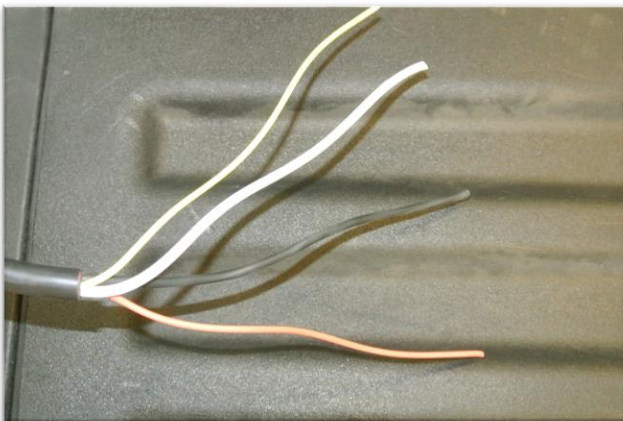
**STEP 10**

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.

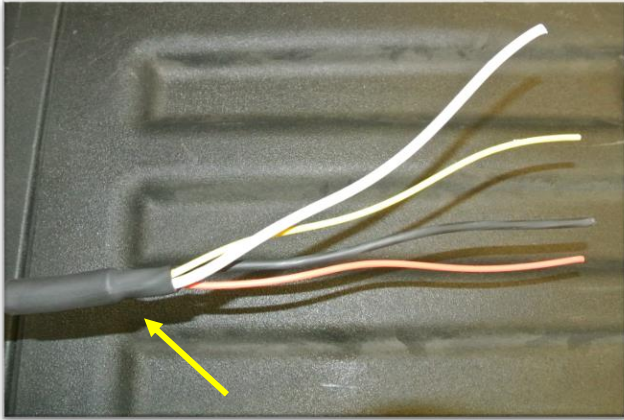
Note: If your battery box includes a slide out tray, include enough slack to allow the tray to fully extend without tugging on the wire connections.

**STEP 11**

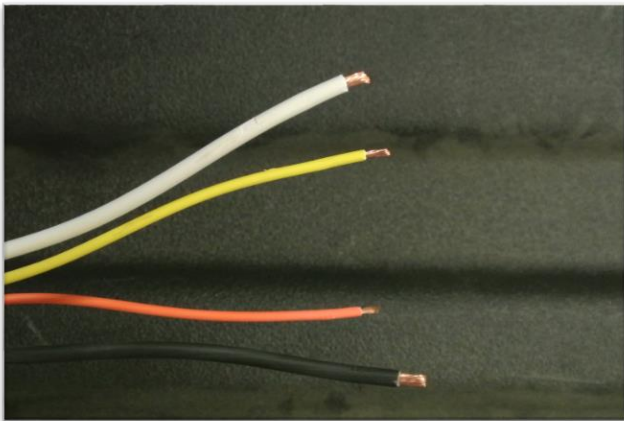
Pull the conductor back out of the box (easier to work on) and cut off the excess at your mark.

**STEP 12**

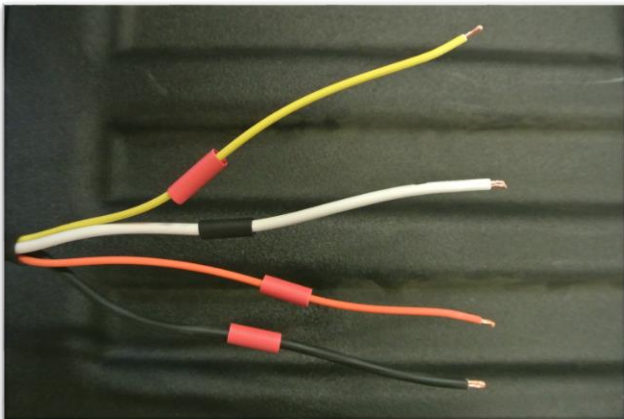
Cut the jacketed portion off of the conductor about 8 inches.

**STEP 13**

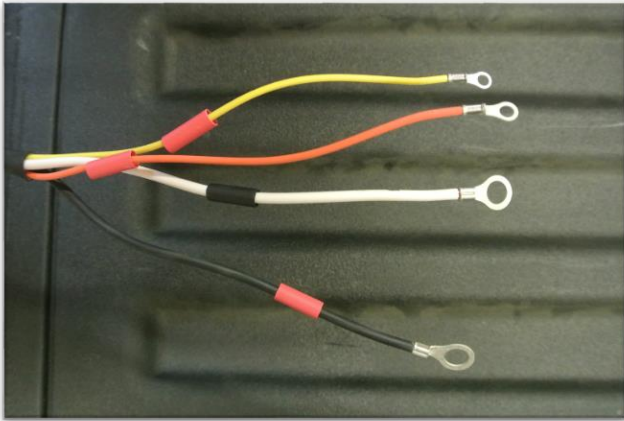
Apply the supplied $\frac{3}{4}$ inch black heat shrink where the jacket was stripped off.

**STEP 14**

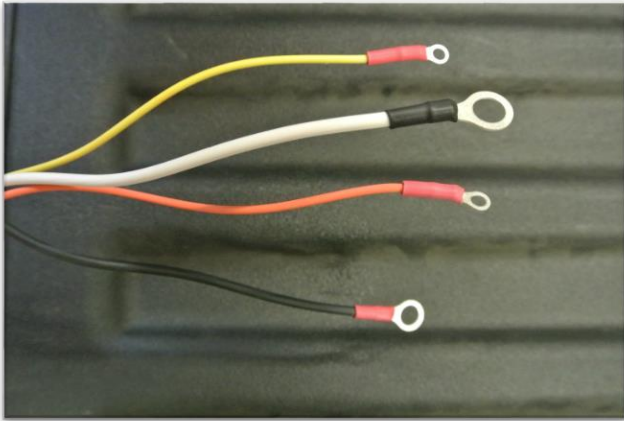
Strip $\frac{3}{8}$ of an inch of insulation off all 4 wires.

**STEP 15**

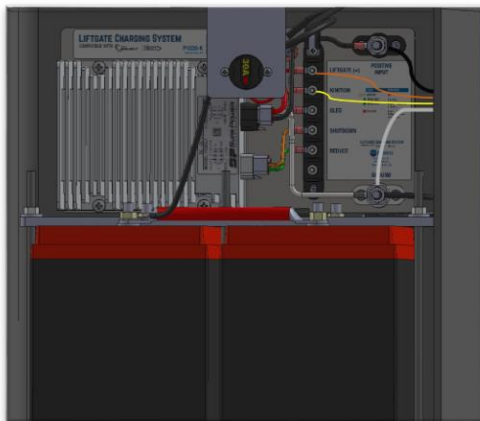
Slide the supplied red $\frac{1}{4}$ inch heat shrink over the orange, yellow and black wires. Slide the supplied black $\frac{1}{4}$ inch heat shrink over the white wire.

**STEP 16**

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 17**

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

**STEP 18**

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



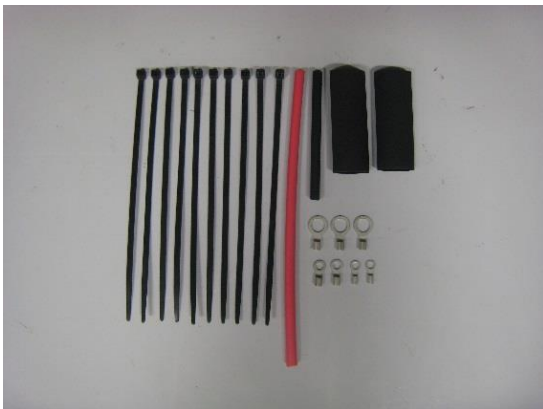
PART# H-00286
MAXON# 907247-01
50FT MAIN HARNESS

PARTS LIST

PART# H-00289
MAXON# 907250-01
REEFER HARNESS



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



PART# BK-1049 (Revision B)
MAXON# 907251-01
TERMINAL BAG KIT

PARTS LIST

PART# BK-1054 (Revision B)
MAXON# 907267-01
HARDWARE BAG KIT



PART# F00029
MAXON# 907254-01
50A MIDI FUSE



PART# SELECT-21
MAXON# 295210-01
SELECT™ W/REEFER AND DUAL POLE



PART# INST027
MAXON# 295210-500
SELECT-21 OWNERS MANUAL



PART# INST028
MAXON# 295210-501
SELECT™ TROUBLESHOOTING