39443

Lester Electrical

OBC (On-Board Computer) By-pass Kit Installation Instructions

Lester Electrical By-pass Kit #38836 for use with

Club Car® Precedent and DS vehicles

(Only compatible with OBC/Car that has a 6 Pin Deutsch connector!)

The Lester Electrical OBC (On-Board Computer) Bypass Kit is for use with Club Car® Precedent and DS vehicles that either include an OBC or have had the OBC removed. Installation of the kit makes the vehicle wiring compatible with a Lester Electrical battery charger that is designed for stand-alone use without an OBC. Once the OBC Bypass Kit has been correctly installed, the OBC is no longer a functional part of the system (note: all OBC functionality will be disabled, including the dash light and future recording of vehicle discharge/charge history information). When the kit is paired with a compatible Lester Electrical charger, in addition to stand-alone battery charging, vehicle lockout is also provided when the charger DC plug (Shelf unit) is connected to the vehicle charging receptacle. If your application requires a Built-In or On-Board charger the vehicle lockout is provided when the charger AC plug is connected to your AC receptacle.

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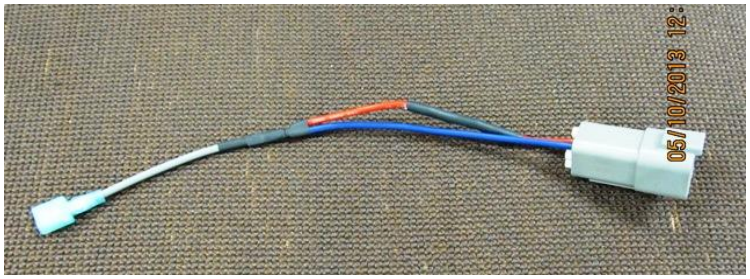
Section I – Precedent Car with (Shelf Charger)

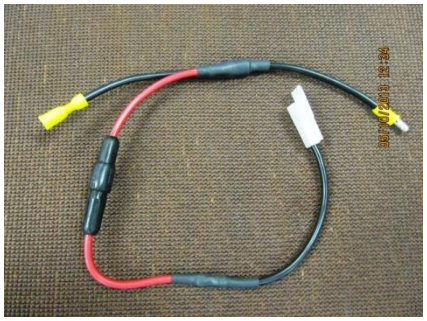
These instructions explain the procedure to modify a Club Car® Precedent golf car so it can be used with a stand-alone (non-OBC) Lester Electrical battery charger. This style of charger does not use the On-Board Computer (OBC) mounted on the golf car. This procedure demonstrates how to convert the golf car without removing the OBC. If the OBC has already been removed, please skip the steps referring to the OBC. There will be 2 wire assemblies added which are referred to as "Wire Assembly A" and "Wire Assembly B" (pictured below). See the wiring diagram below for reference when disconnecting the OBC and adding the wire assemblies.

Reference Pictures:

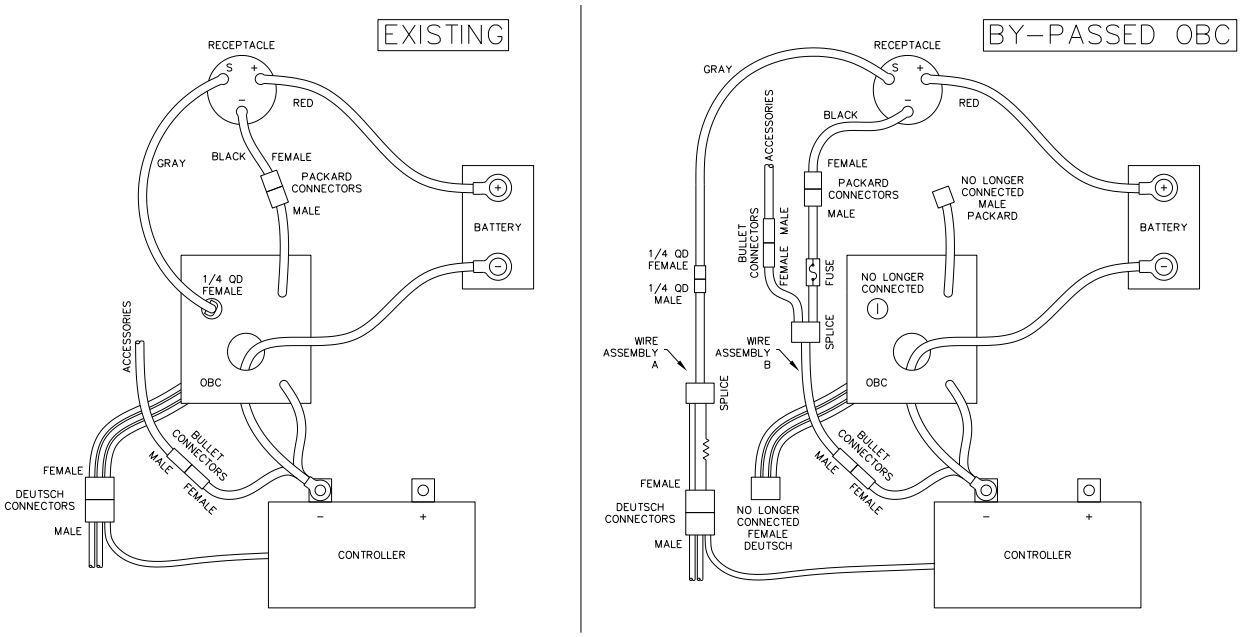
Wire Assembly "A"



Wire Assembly "B"

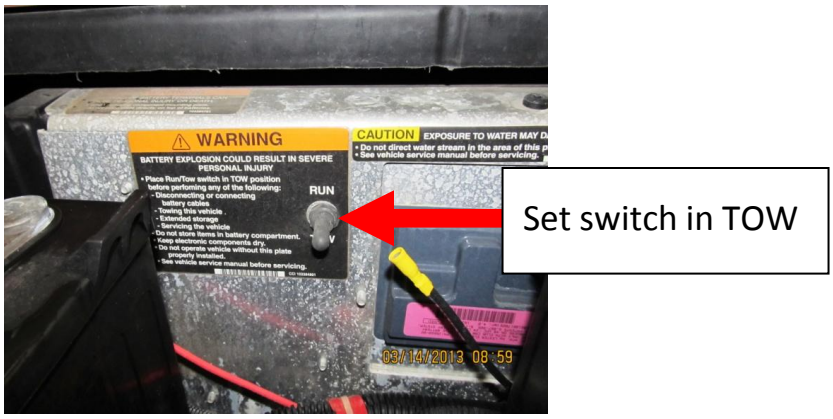


Simplified Wiring Diagram:



Procedure:

1. Lift the seat on the golf car and place the Run to Tow switch in the TOW position.

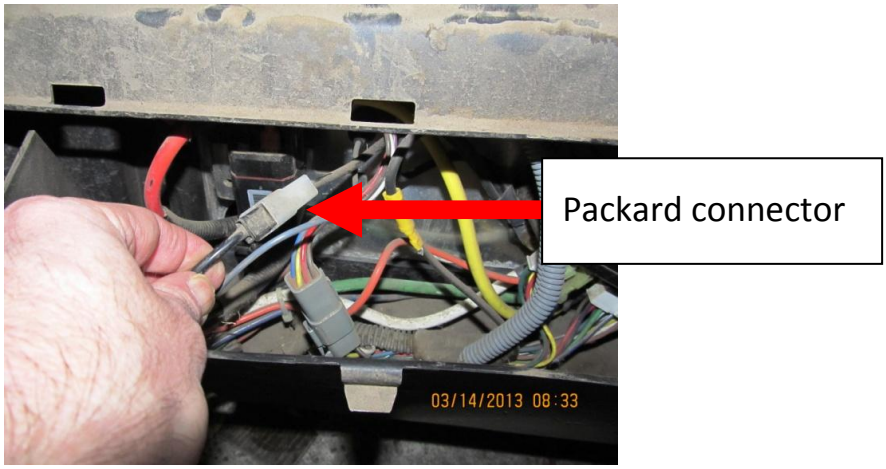


2. Remove ALL wires from the Negative (-) battery terminal on the last battery in the series or pack.

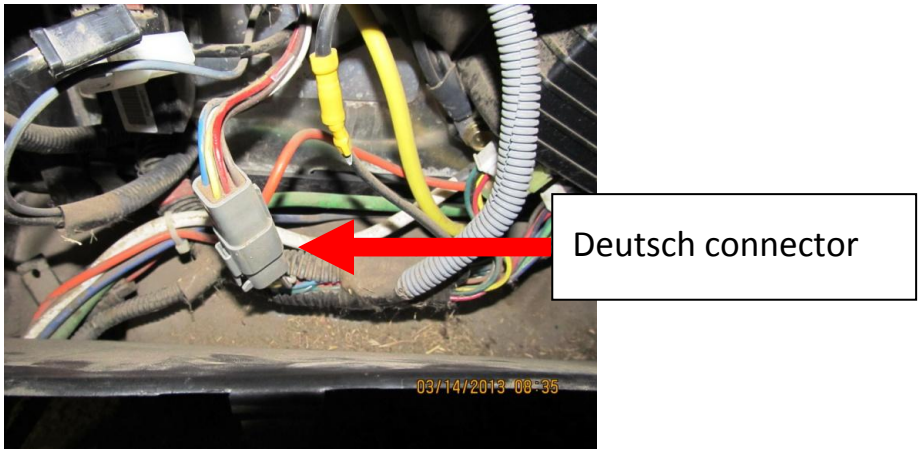
3. Remove the access panel in the golf club bag storage well area on the back of the car and cover the motor with a towel to protect yourself from getting scratched on the motor terminals when reaching into the cavity.

4. Open the plastic protective covering at the back of this cavity which covers the OBC, controller, solenoid, and other parts.

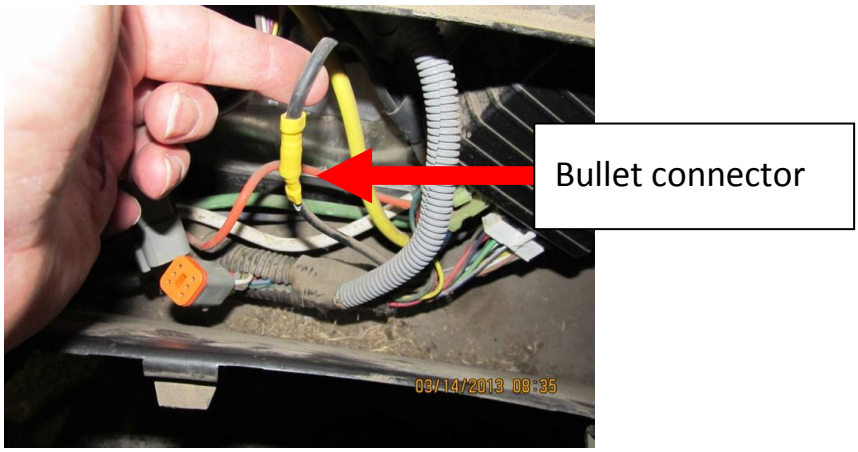
5. Find and disconnect the single Packard terminal which connects the charging receptacle to the OBC.



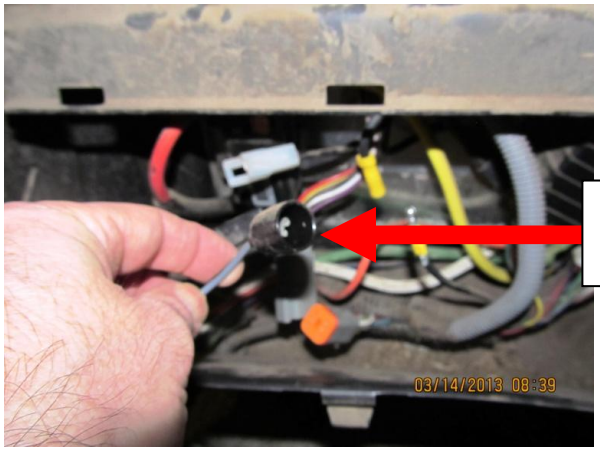
6. Find and disconnect the 6-pin Deutsch connector which connects the golf car to the OBC.



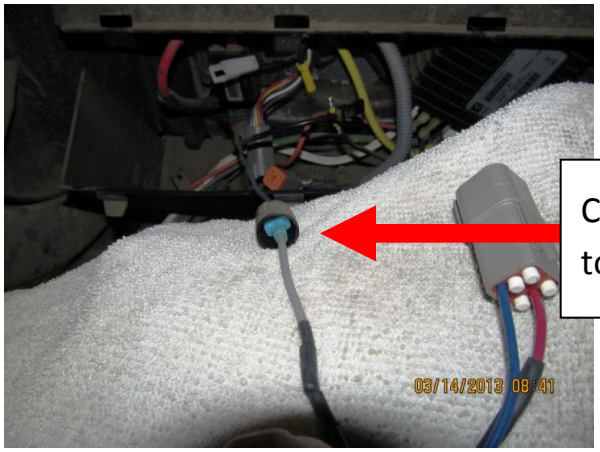
7. Find and disconnect the bullet connector used to power the golf car accessories.



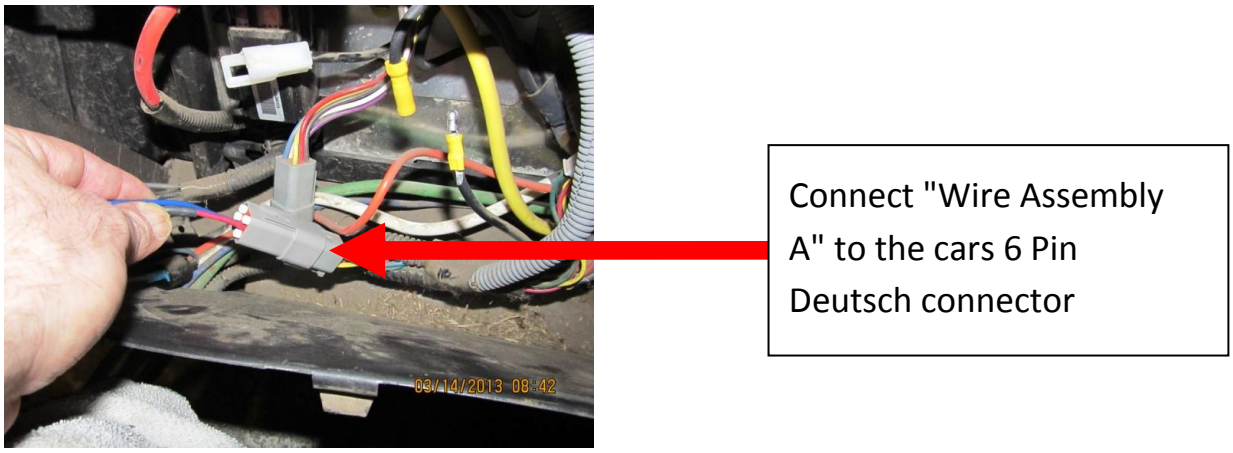
8. Find and disconnect the Quick Disconnect (QD) connector with the rubber boot which is attached directly to the OBC.



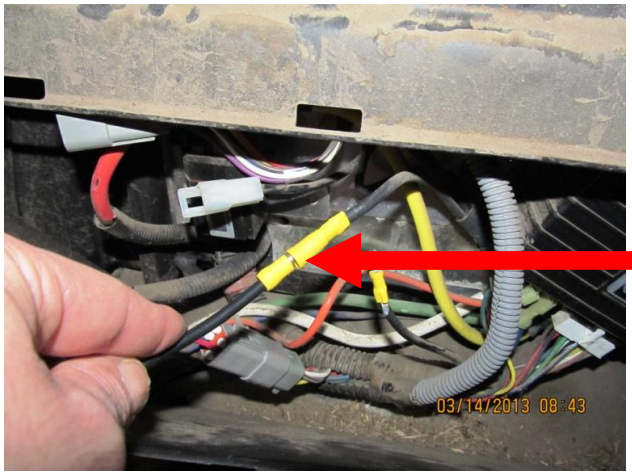
9. Connect the new "Wire Assembly A" to the QD terminal removed from the OBC in step 8.



10. Connect the "Wire Assembly A" 6-pin Deutsch connector to the golf car.

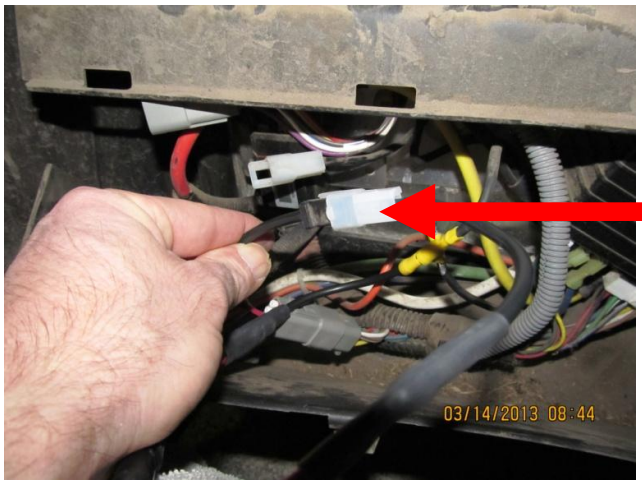


11. Connect the "Wire Assembly B" male bullet connector to the golf car female bullet connector.



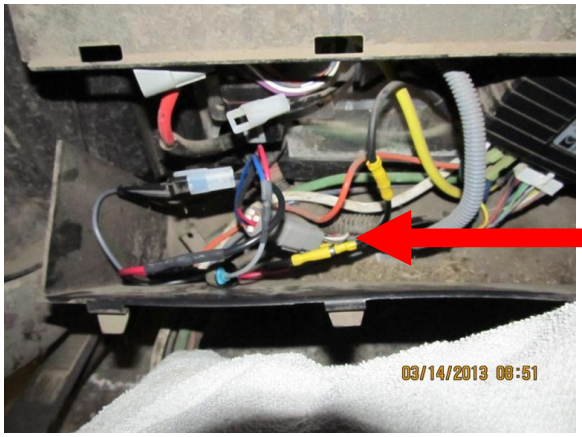
Connect "Wire Assembly B" to female bullet connector

12. Connect the "Wire Assembly B" female Packard connector to the golf car male Packard connector.



Connect "Wire Assembly B" to Packard connector

13. Connect the "Wire Assembly B" female bullet connector to the golf car male bullet connector.



Connect "Wire Assembly B" to male bullet connector

14. Route all wires so they are inside the plastic protective covering as shown in the picture below. There will be two connections on the OBC which are no longer connected, a single male Packard connector & a 6-pin Deutsch connector. Close this protective cover.

15. Remove the towel and close the access panel in golf club bag storage well.

16. Reconnect the Negative (-) battery terminal on the last battery in the series or pack.

***Tighten battery post hardware to 90-100 in-lbs. (10-12 Nm) torque.**

17. Return Run/Tow switch to the RUN position.

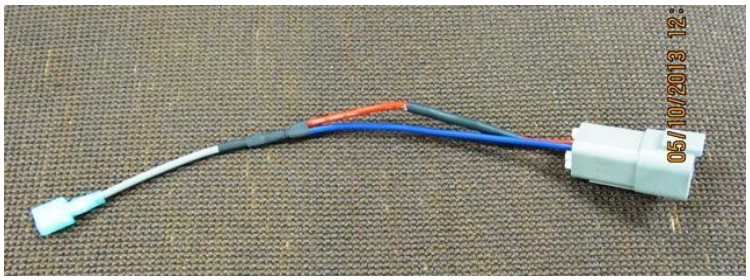
18. The golf car is now ready to be used with a stand-alone (non-OBC) battery charger.

Section II – DS Car with (Shelf Charger)

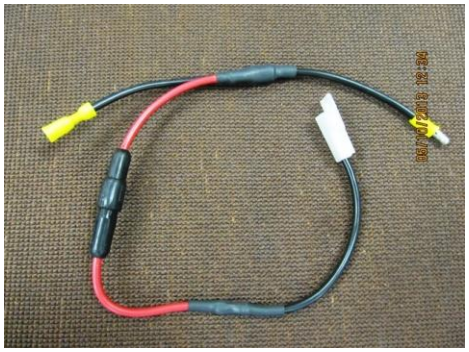
These instructions explain the procedure to modify a Club Car® DS golf car so it can be used with a stand-alone (non-OBC) Lester Electrical battery charger. This style of charger does not use the On-Board Computer (OBC) mounted on the golf car. This procedure demonstrates how to convert the golf car without removing the OBC. If the OBC has already been removed, please skip the steps referring to the OBC. There will be 4 wire assemblies added which are referred to as "Wire Assembly A", "Wire Assembly B", “Wire Assembly C” and “Wire Assembly D” (pictured below). See the wiring diagram below for reference when disconnecting the OBC and adding the wire assemblies.

Reference Pictures:

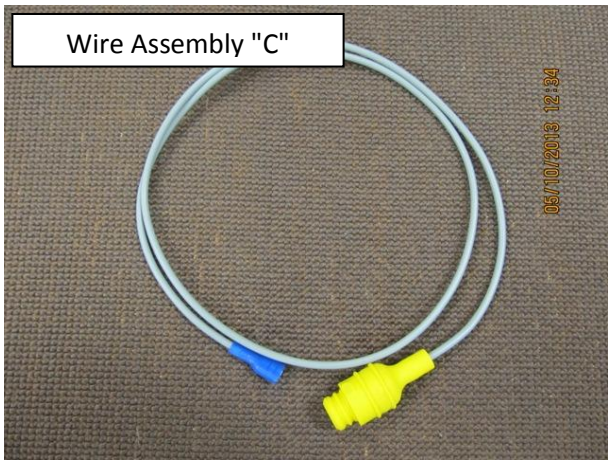
Wire Assembly "A"



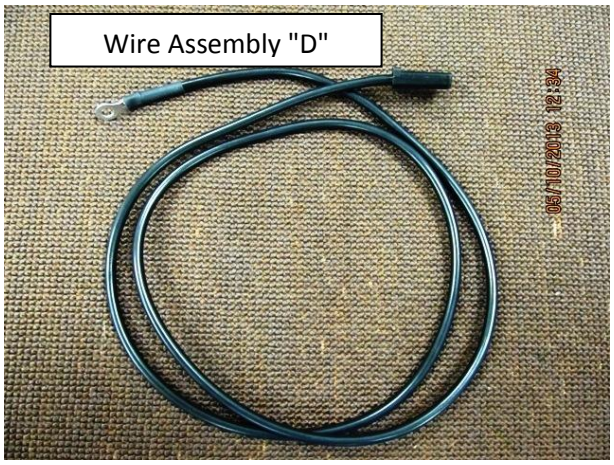
Wire Assembly "B"



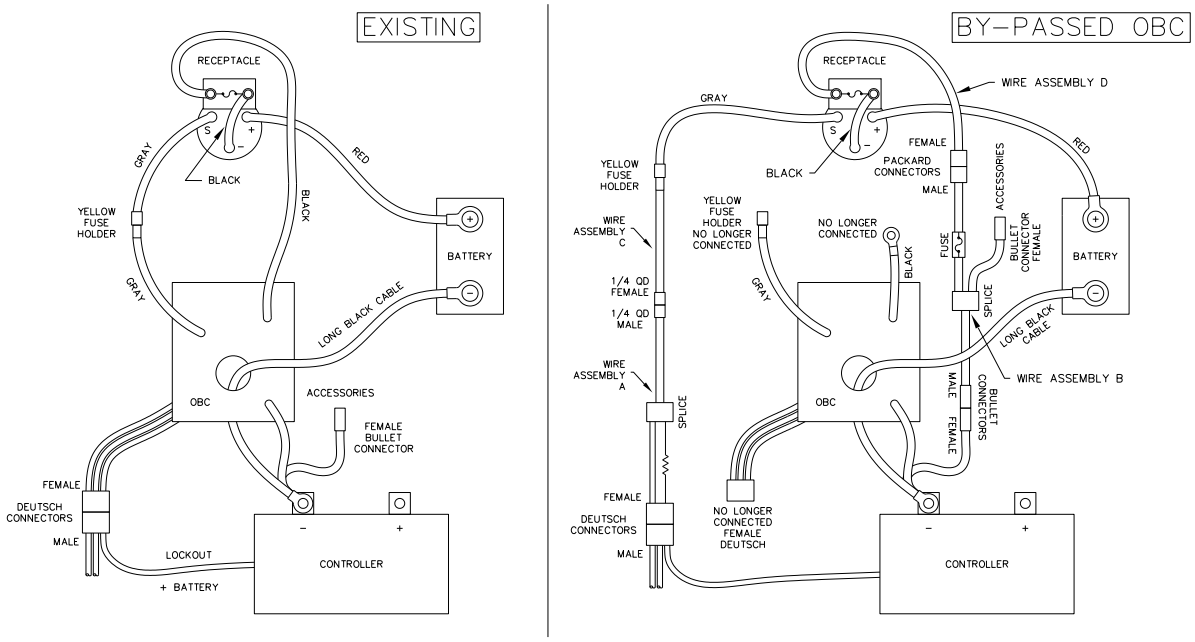
Wire Assembly "C"



Wire Assembly "D"



Simplified Wiring Diagram:



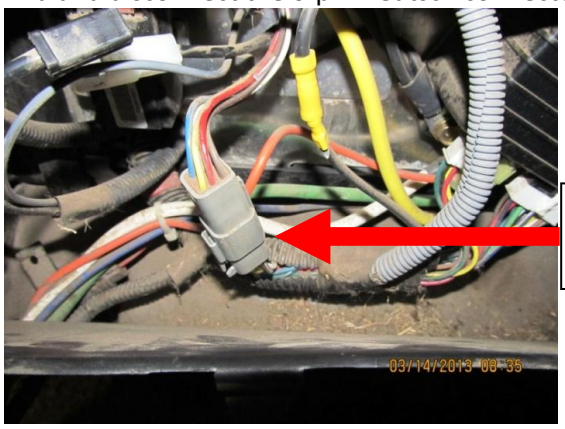
Procedure:

1. Lift the seat on the golf car and place the Run to Tow switch in the TOW position.

2. Remove ALL wires from the Negative (-) battery terminal on the last battery in the series or pack.

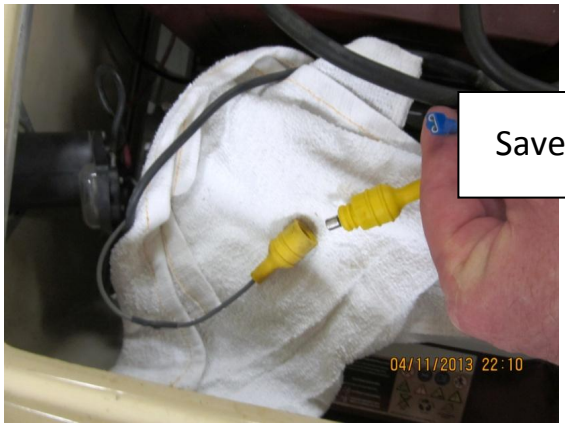
3. Remove the access panel near the golf club bag storage well area on the back of the golf car.

4. Find and disconnect the 6-pin Deutsch connector which connects the golf car to the OBC.



Deutsch connector

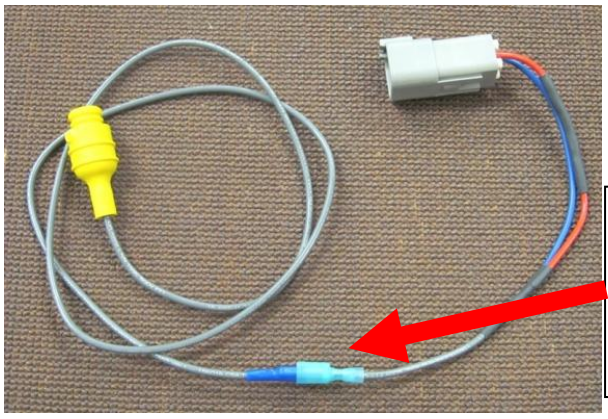
5. Find and disconnect the Yellow fuse holder, (Gray wire) which can be found near the Charging receptacle. This wire will be replaced by the new "Wire Assembly C" in a later step.



Save and reuse fuse

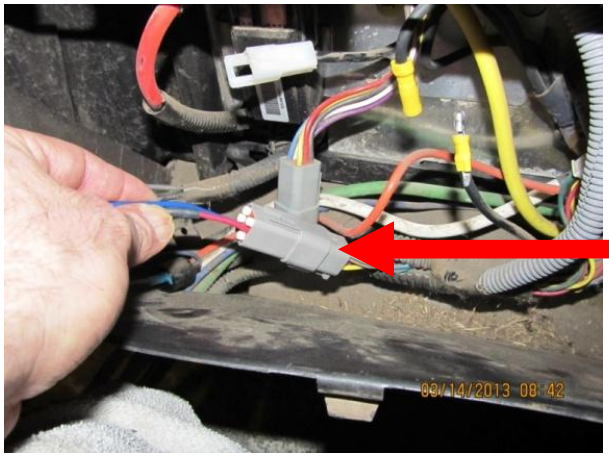
6. Find and disconnect the ring terminal for the 10AWG black wire from the back of the DC charging receptacle. This wire leads to the OBC located at the rear of the golf car.

7. Connect the new “Wire Assembly C” blue female QD terminal to the new "Wire Assembly A" male QD terminal.



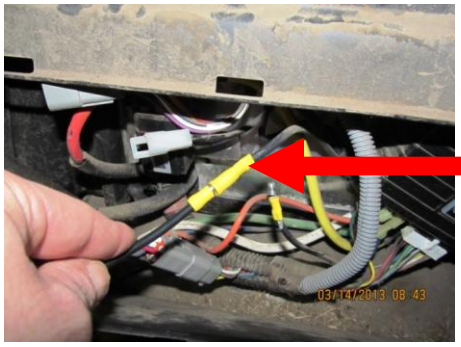
Connect "Wire Assembly C" and “Wire Assembly A” QD terminals

8. Connect the "Wire Assembly A" 6-pin Deutsch connector to the golf car.

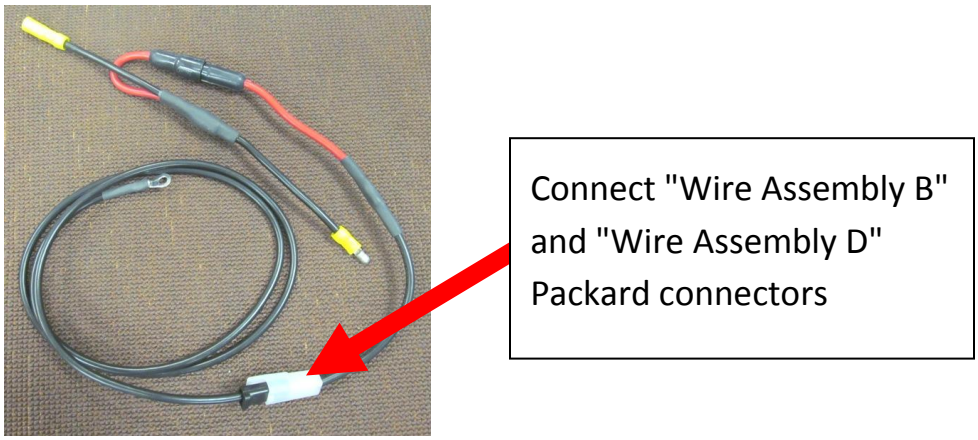


Connect "Wire Assembly A" to Deutsch connector

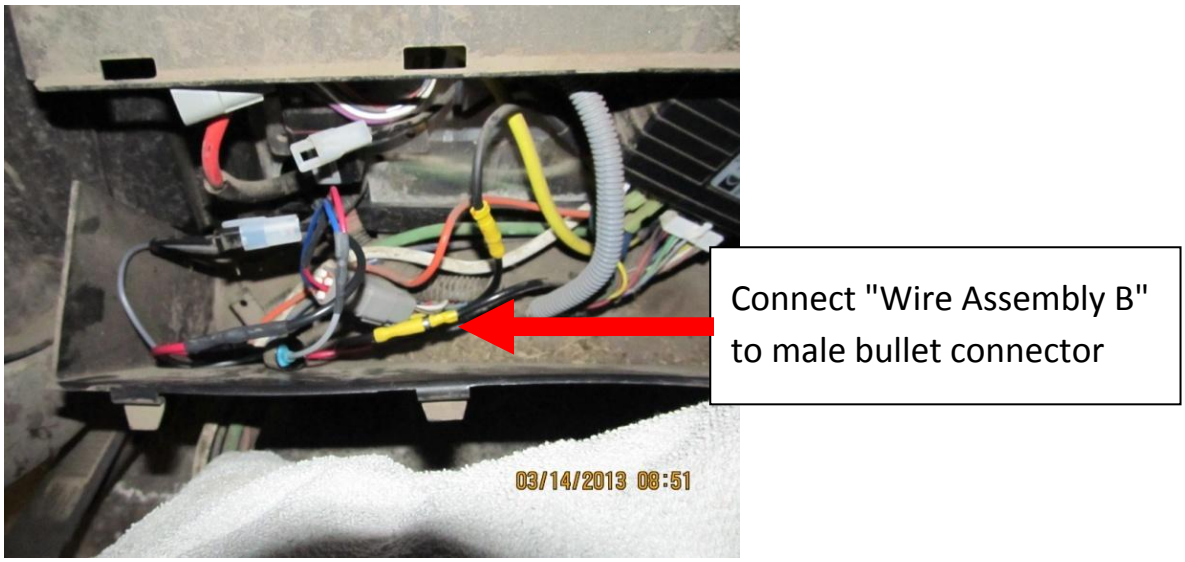
9. Connect the "Wire Assembly B" male bullet connector to the golf car female bullet connector. "Location of Female bullet" It is coming from the (-) Battery connection of the controller."



10. Connect the "Wire Assembly B" female Packard connector to the new male Packard connector on “Wire Assembly D”.



11. Connect the "Wire Assembly B" female bullet connector to the golf car male bullet connector used for accessories.



12. Route the "Wire Assembly D" black wire with ring terminal to the charging receptacle and connect as shown. Torque the nut to 22 in-lbs. (3 Nm)

Connect "Wire Assembly D" to charging receptacle.

Torque the nut to 22 in-lbs.

13. Route the new gray wire “Wire Assembly C” yellow fuse holder to near the charging receptacle. Use the existing fuse removed in step 7 and connect the two halves of the fuse holder. Wire tie “Wire Assembly C & D” to the golf car as required to restrain the loose wires.

14. Check all connections and restrain all loose wires with wire ties before replacing the access panel on the rear of the golf car.

15. Reconnect the two black cables to the Negative (-) battery terminal on the last battery in the series or pack.

***Tighten battery post hardware to 90-100 in-lbs. (10-12 Nm) torque.**

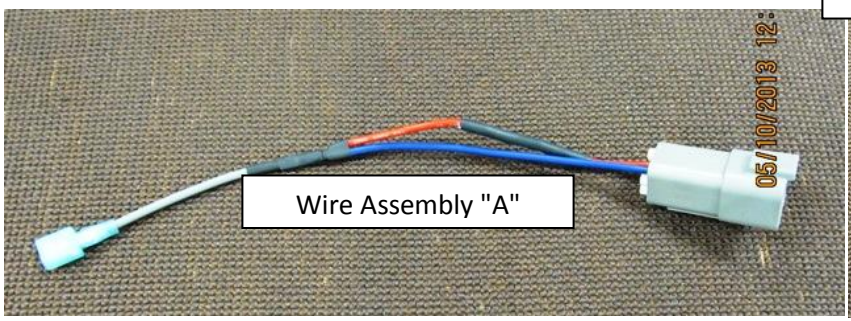
16. Set the switch from TOW back to the RUN position.

17. The golf car is now ready to be used with a stand-alone (non-OBC) battery charger. The OBC is no longer a functional part of the system.

Section III – Precedent Car with (On-Board Charger)

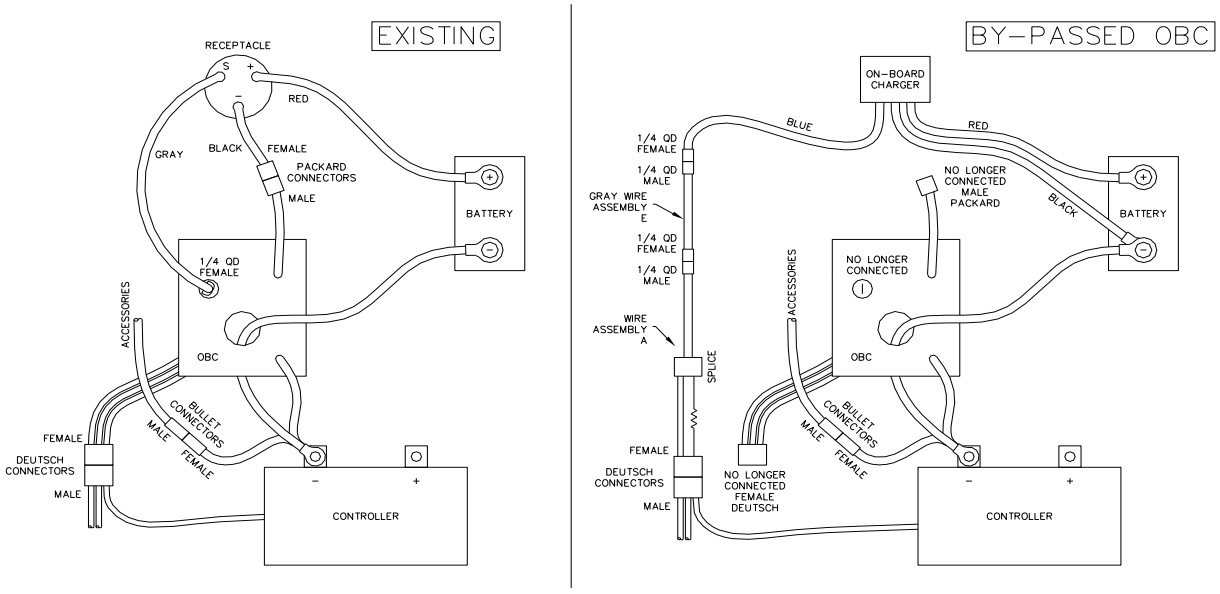
These instructions explain the procedure to modify a Club Car® Precedent golf car so it can be used with a stand-alone (non-OBC) Lester Electrical battery charger. This style of charger does not use the On-Board Computer (OBC) mounted on the golf car. This procedure demonstrates how to convert the golf car without removing the OBC. If the OBC has already been removed, please skip the steps referring to the OBC. There will be 2 wire assemblies added which are referred to as "Wire Assembly A" and "Wire Assembly E" (pictured below). See the wiring diagram below for reference when disconnecting the OBC and adding the wire assemblies.

Reference Pictures:



Wire Assembly "E"

Simplified Wiring Diagram:



Procedure:

1. Lift the seat on the golf car and place the Run to Tow switch in the TOW position.

Set switch in TOW

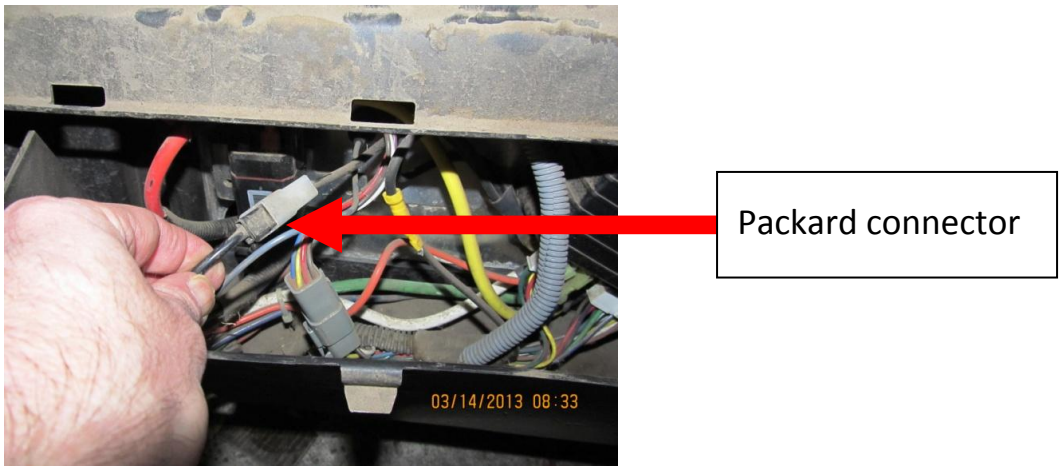
2. Remove ALL wires from the Negative (-) battery terminal on the last battery in the series or pack.

3. Remove ALL wires from the Positive (+) battery terminal on the first battery in the series or pack.

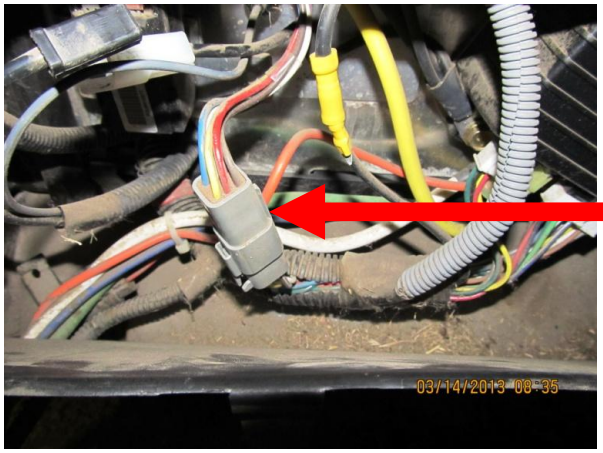
4. Remove the access panel in the golf club bag storage well area on the back of the car and cover the motor with a towel to protect yourself from getting scratched on the motor terminals when reaching into the cavity.

5. Open the plastic protective covering at the back of this cavity which covers the OBC, controller, solenoid, and other parts.

6. Find and disconnect the single Packard terminal which connects the charging receptacle to the OBC.

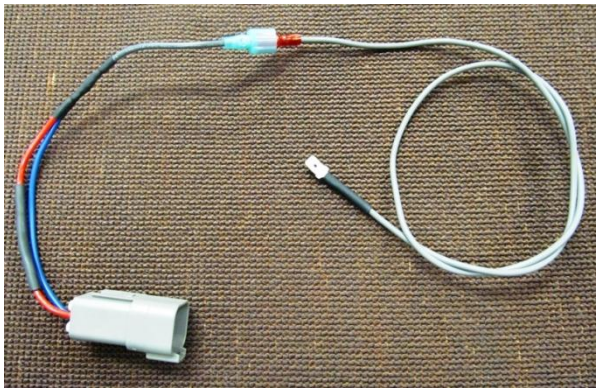


7. Find and disconnect the 6-pin Deutsch connector which connects the golf car to the OBC.

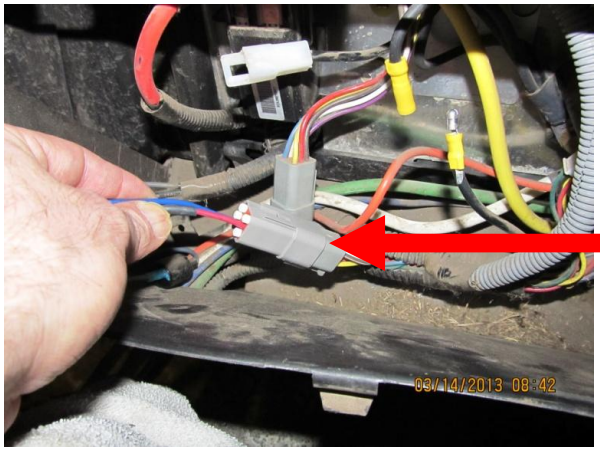


Deutsch connector

8. Connect "Wire Assembly A" 1/4" Male QD terminal to "Wire Assembly E" 1/4" Female QD terminal.

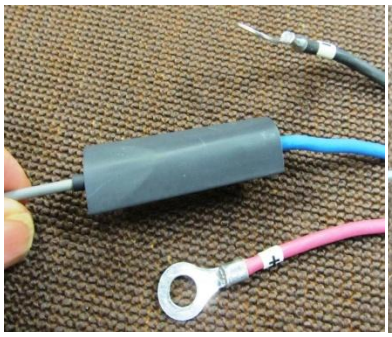


9. Connect the "Wire Assembly A" 6-pin Deutsch connector to the golf car.



Connect "Wire Assembly A" to the cars 6 Pin Deutsch connector

10. Connect the 1/4" Male QD terminal "Wire Assembly E" by routing the Gray wire to the battery compartment area or where ever you mounted your On-Board Charger. This 1/4 Male QD terminal will attach to the (Blue) charger lockout wire. Insulate this connection.


11. Route all wires so they are inside the plastic protective covering as shown in the picture below. There will be two connections on the OBC which are no longer connected, a single male Packard connector & a 6-pin Deutsch connector. Close this protective cover.

12. Remove the towel and close the access panel in golf club bag storage well.

13. Reconnect the Positive (+) battery cables of the first battery in the series or pack along with the Positive (+) marked (Red) wire from the On-Board chargers DC cordset.

***Tighten battery post hardware to 90-100 in-lbs. (10-12 Nm) torque.**

14. Reconnect the Negative (-) battery cables of the last battery in the series or pack along with the Negative (-) marked (Black) wire from the On-Board chargers DC cordset.

    ***Tighten battery post hardware to 90-100 in-lbs. (10-12 Nm) torque.**

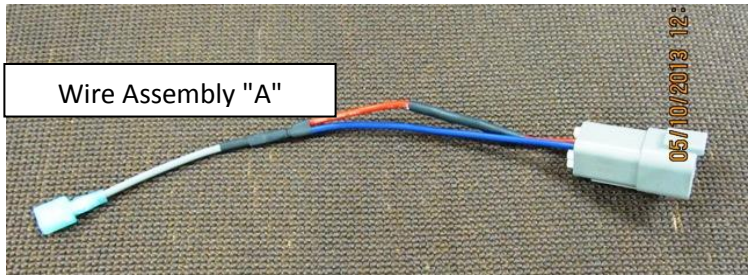
15. Return Run/Tow switch to the RUN position.

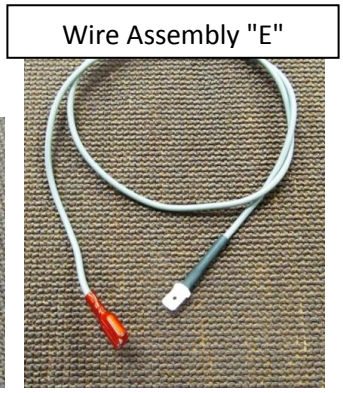
16. The golf car is now ready to be used with a stand-alone (non-OBC) battery charger.

Section IV – DS Car with (On-Board Charger)

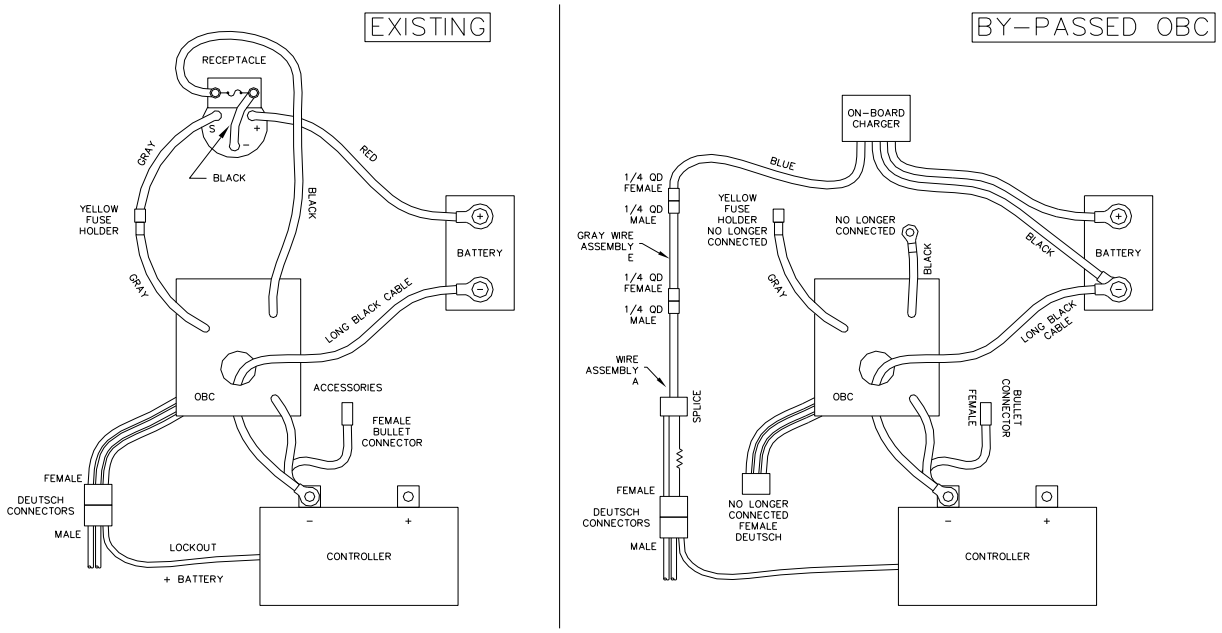
These instructions explain the procedure to modify a Club Car® DS golf car so it can be used with a stand-alone (non-OBC) Lester Electrical battery charger. This style of charger does not use the On-Board Computer (OBC) mounted on the golf car. This procedure demonstrates how to convert the golf car without removing the OBC. If the OBC has already been removed, please skip the steps referring to the OBC. There will be 2 wire assemblies added which are referred to as "Wire Assembly A" and "Wire Assembly E" (pictured below). See the wiring diagram below for reference when disconnecting the OBC and adding the wire assemblies.

Reference Pictures:





Simplified Wiring Diagram:



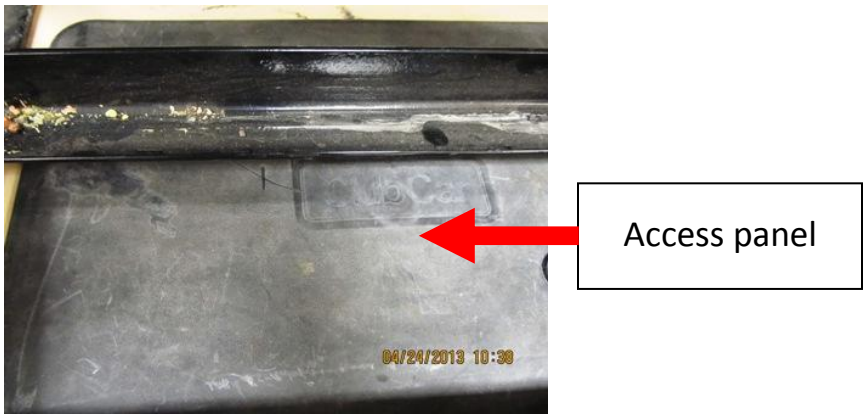
Procedure:

1. Lift the seat on the golf car and place the Run to Tow switch in the TOW position.

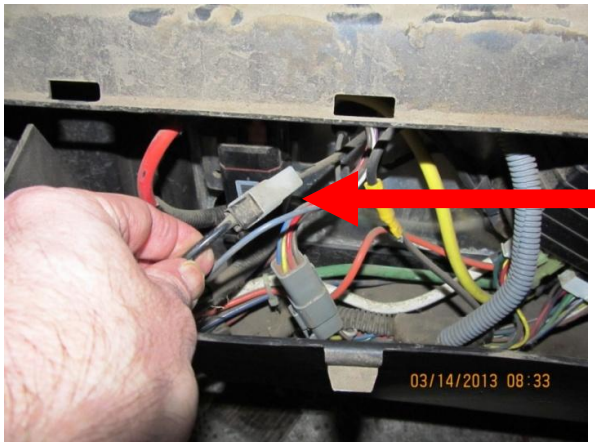
2. Remove ALL wires from the Negative (-) battery terminal on the last battery in the series or pack.

3. Remove ALL wires from the Positive (+) battery terminal on the first battery in the series or pack.

4. Remove the access panel near the golf club bag storage well area on the back of the golf car.

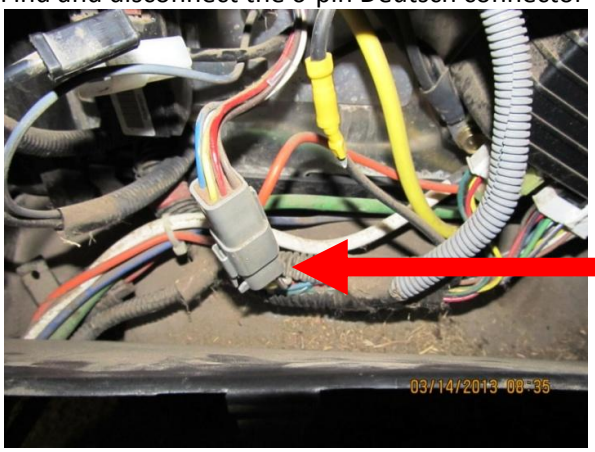


5. Find and disconnect the single Packard terminal which connects the charging receptacle to the OBC.



Packard connector

6. Find and disconnect the 6-pin Deutsch connector which connects the golf car to the OBC.

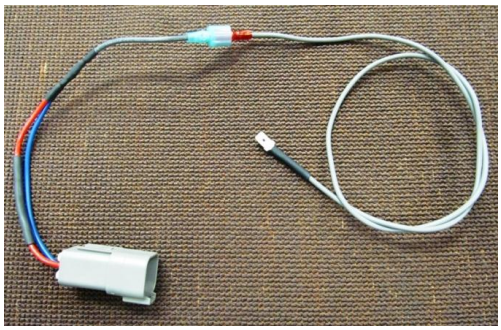


Deutsch connector

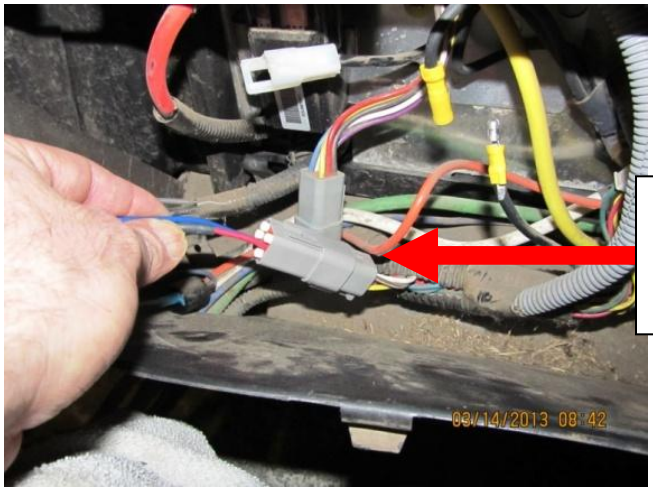
7. Locate the Gray wire with a Yellow fuse holder and separate this connection. This wire leads to the OBC located in the back compartment of the car.

8. Locate and disconnect the ring terminal for the 10AWG black wire from the back of the DC charging receptacle. This wire leads to the OBC located in the back compartment of the car.

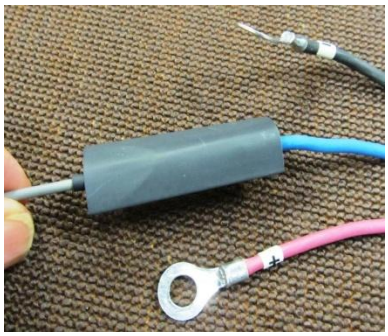
9. Connect the new “Wire Assembly E” blue female QD terminal to the new "Wire Assembly A" male QD terminal.



10. Connect the "Wire Assembly A" 6-pin Deutsch connector to the cars connector.



11. Route the new gray wire “Wire Assembly E”, shown in step #8 to the battery compartment area or the area you mounted your On-Board Charger. This 1/4 Male QD terminal will attach to the (Blue) charger lockout wire coming from the Charger DC cordset. Insulate this connection as shown below.


12. Reconnect the Positive (+) battery cables of the first battery in the series or pack along with the Positive (+) marked (Red) wire from the On-Board chargers DC cordset.

***Tighten battery post hardware to 90-100 in-lbs. (10-12 Nm) torque.**

13. Reconnect the Negative (-) battery cables of the last battery in the series or pack along with the Negative (-) marked (Black) wire from the On-Board chargers DC cordset.

***Tighten battery post hardware to 90-100 in-lbs. (10-12 Nm) torque.**

14. Check all connections and secure all loose wires with wire ties before replacing the access panel on the rear of the golf car.

15. Set the switch from TOW back to the RUN position.

16. The golf car is now ready to be used with a stand-alone (non-OBC) battery charger. The OBC is no longer a functional part of the system.