Hi Performance Electric Vehicle Systems

620 Magnolia Avenue
Suite B
Ontario, CA 91761
(909) 923-1973

ADDING WIRES TO 35 PIN AMPSEAL CONNECTOR

ADDING CANBUS WIRING TO GOLF CAR WITH HPEVS DRIVE SYSTEM AND HPEVS LITHIUM BATTERY PACK

REVISION: A

Date: 02-26-2019

NOTE: WHEN ADDING A LITHIUM BATTERY PACK TO A GOLF CAR THAT HAS OUR DRIVE SYSTEM INSTALLED, VERIFY THAT THE VCL APP VERSION IN THE CURTIS CONTROLLER IS 14.00 OR HIGHER. IF THE VCL APP VERSION IS NOT AT THIS LEVEL, THE CONTROLLER WILL NEED TO BE UPDATED. CONTACT HPEVS FOR ASSISTANCE.

ADDING CANBUS WIRING FOR GOLF CARS WITH PREVIOUSLY INSTALLED HPEVS DRIVE SYSTEMS AND ADDING HPEVS LITHIUM BATTERY PACK

The added CANBUS wiring/connector and the power wire from the lithium battery pack kit needs to be adapted to a golf car with an existing HPEVS drive system installed. Included in the kit are the connections/wires to perform this task.

1. To connect the HPEVS lithium battery pack to a Club Car Precedent with an existing HPEVS drive system, locate both the black wire and the CANBUS connector (orange/grey twisted wire). Both wires are for CANBUS communication **(Fig. 1)**

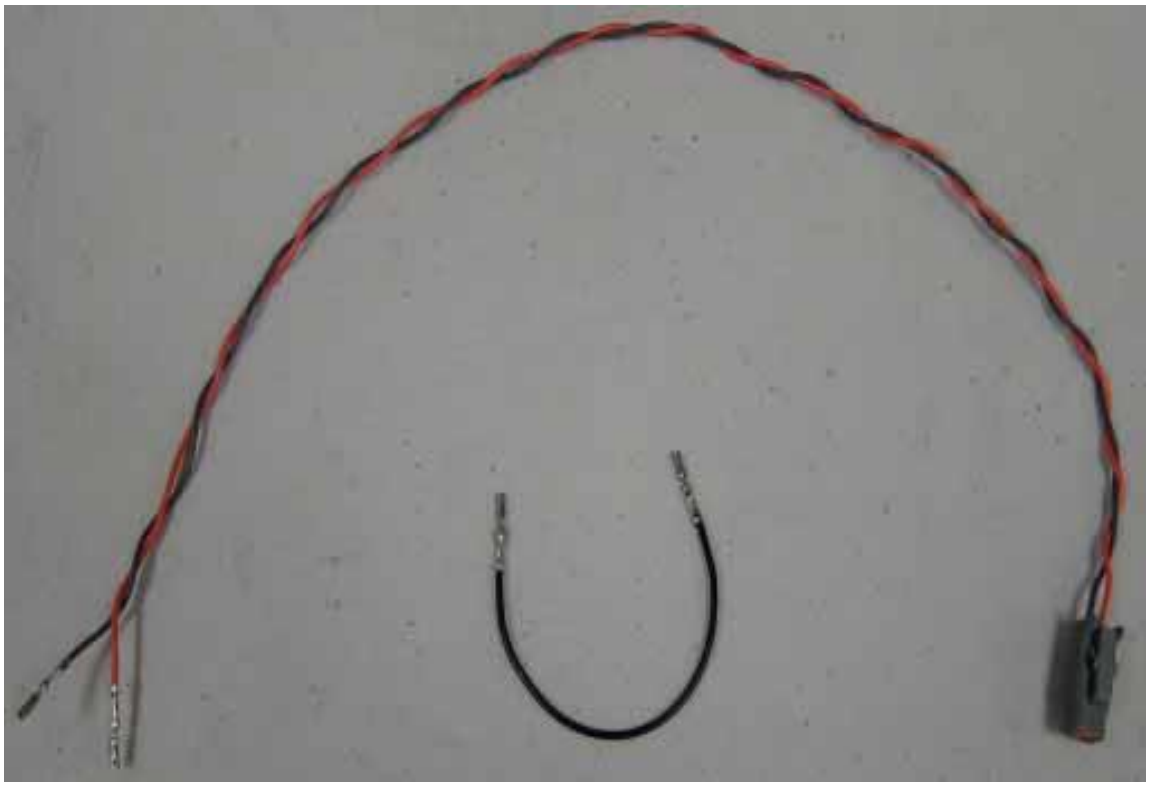

Fig. 1 – CANBUS wiring

2. The four pins need to be inserted into the 35-pin AMPSEAL connector that plugs into the controller. The black wire has two pins on each end. Those two pins are to be inserted into pin location 21 and 34. The CANBUS Deutsch connector has two wires that need to be inserted into the AMPSEAL connector. The orange wire will need to be inserted into pin #23. The grey wire on this connector will need to be inserted into pin #35. **(Fig. 2)**

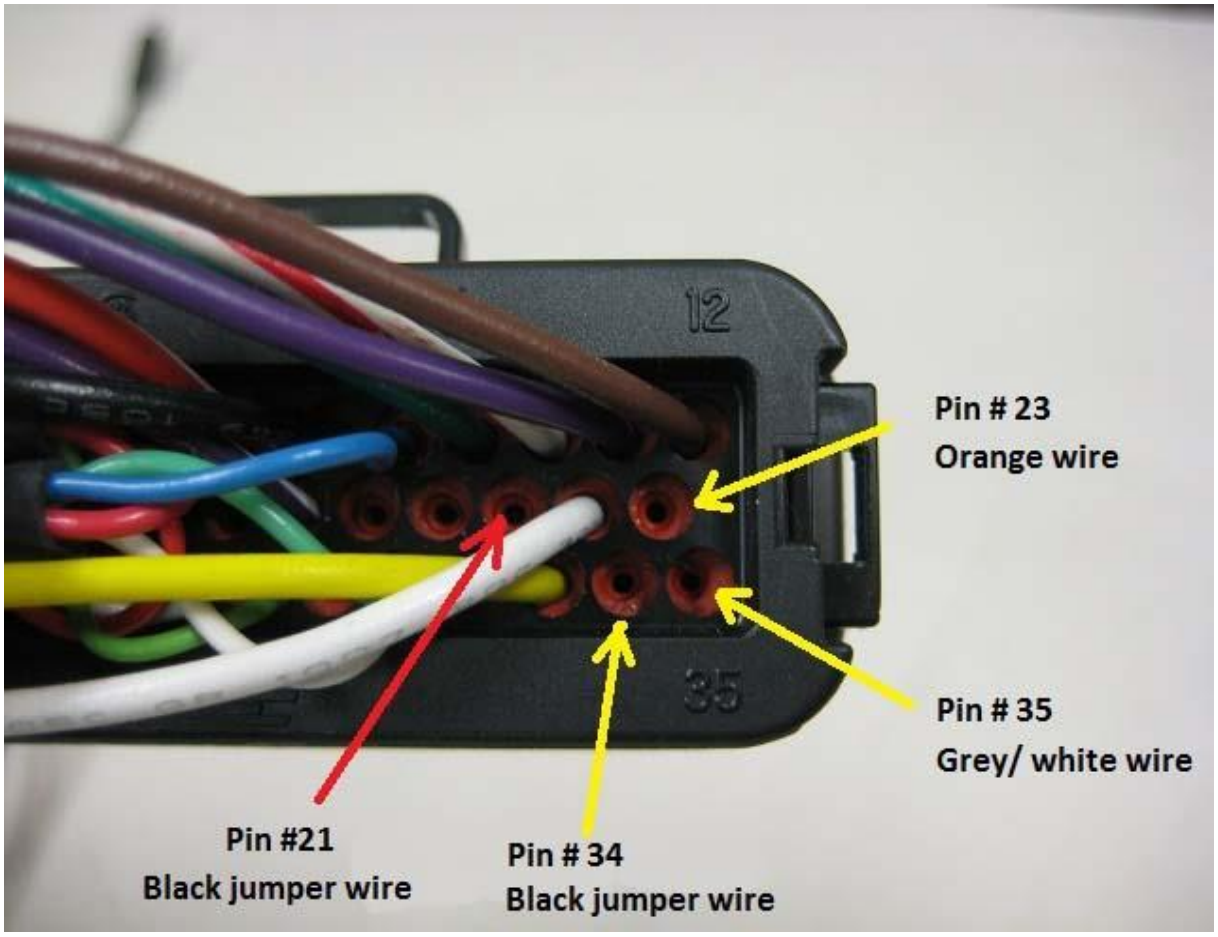

Fig. 2 – AMPSEAL connector CANBUS wire connections

3. Unplug the 35-pin Ampseal connector from the Curtis controller.
4. To get access to inserting the electrical pins into the connector, the red plastic pin capture piece of the connector that locks the connector terminals in place needs to be pried up **ONE CLICK, BUT NOT REMOVED**. **Warning: if the red connector holder piece is removed, all the wires within the connector will become loose and will have to be re-installed.**
5. Using a small blade screwdriver, or a similar tool, place the blade of the tool between the black latch of the plug and the red colored body of the plug as shown in the pictures. **(Fig. 3 and Fig. 4)**

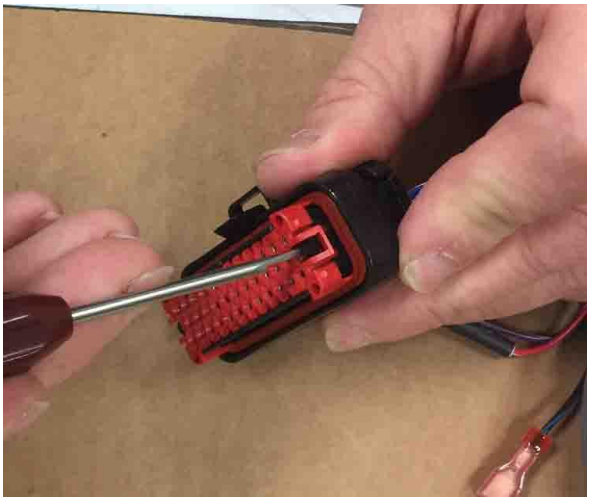

Fig. 3

Fig. 4

6. With the blade of the screwdriver in place at this point, slightly twist the screwdriver to pry the black colored tab on the body of the plug away from the red colored pin capture body of the plug.
7. While prying the black plastic tab away from red plastic pin capture portion of the plug, press the red piece up and away from the body of the plug. There will be a single click when the red plastic plug piece is lifted. This is an indication that the pin capture piece is in the correct orientation. **(Fig. 5)** Do this procedure for both sides of the plug.
8. **MAKE SURE THAT THE RED PLASTIC PIN CAPTURE PIECE ONLY CLICKS ONCE AND NO MORE!**

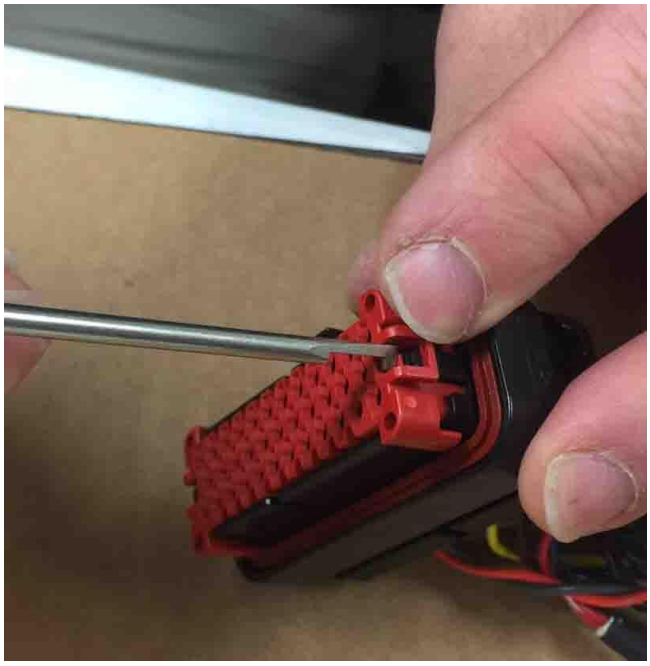

Fig. 5– Capture release

9. Once completed the plug should look like the following. **(Fig. 6)** Note the red plastic pin capture piece is not attached to the black plastic tab.

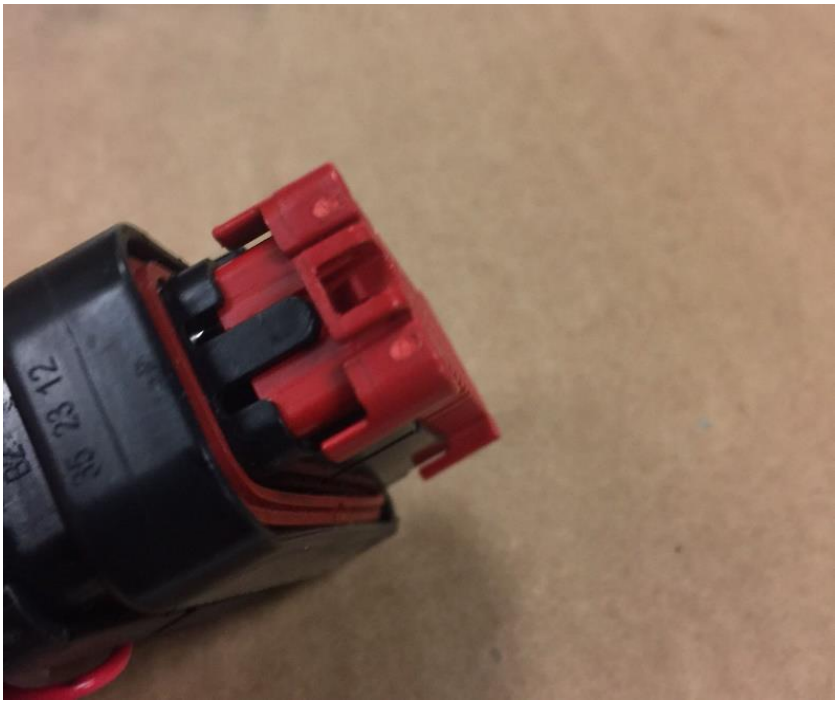

Fig. 6 – Capture Piece

10. Insert the wiring for the CANBUS connections (Orange wire into Pin #23, Grey wire into Pin #35, One end of the Black jumper wire into Pin #21 and the other end of the Black jumper wire into Pin #34). Make sure that the pins are fully seated. **(Fig. 7)**

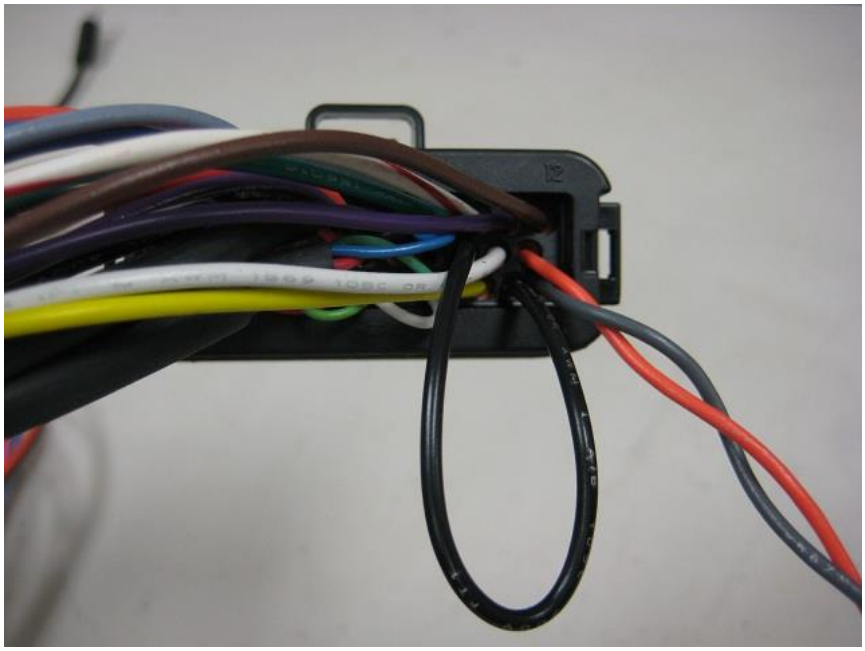

Fig. 7

11. Reset the red plastic pin capture by pressing this piece back in place. After resetting the red plastic pin capture back into place, look at the plug from the front side and make sure that all of the pins are visible and NOT recessed. If any pins look recessed, perform the task of releasing the red capture piece as mentioned earlier in previous steps. **(Fig. 8)**

Fig. 8

12. Plug the 35-Pin AMPSEAL plug back into the controller.
13. Take the connector end of the CANBUS wiring that was installed into the 35-pin AMPSEAL plug and plug it into the CANBUS connector from the battery pack. Also, the blue wire from the battery pack needs to be spliced into the blue wire from Pin #1 coming from the controller. **(Fig. 9)**

Fig. 9