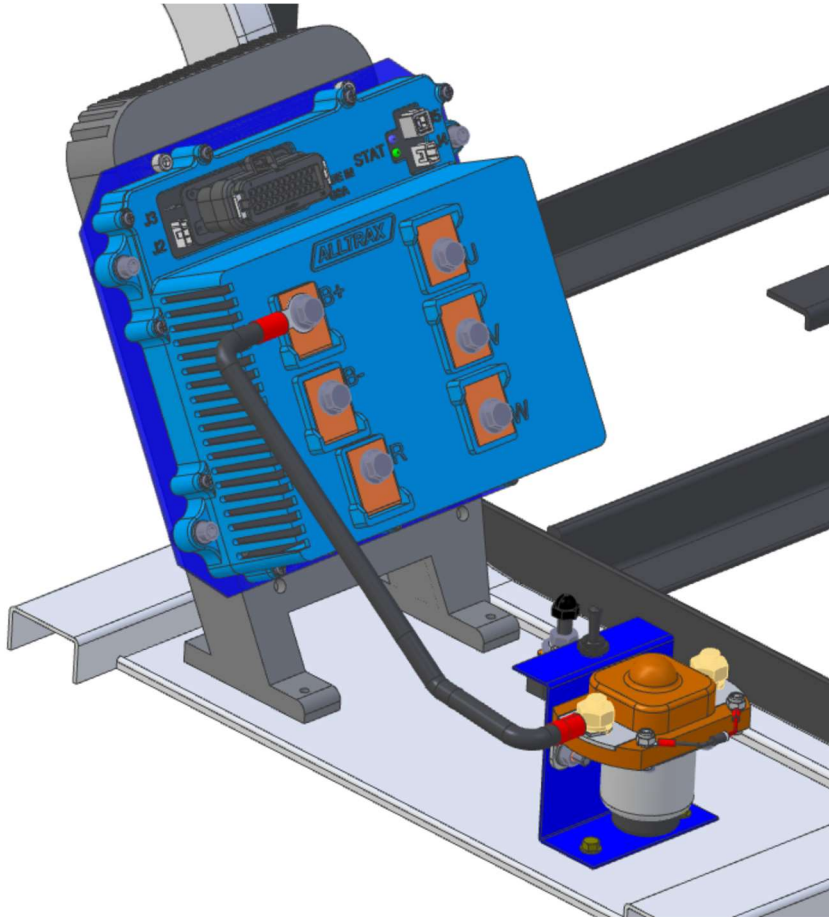
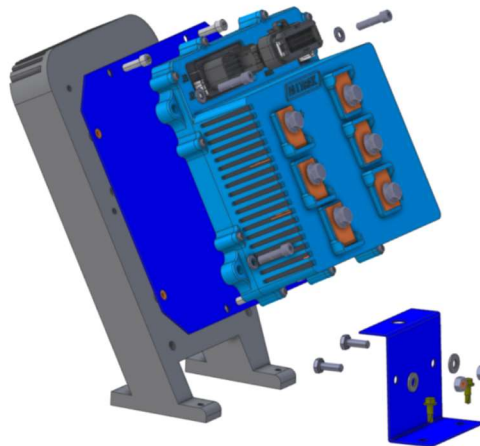


## **EZ-TXT and EZ-TXT-48 ALLTRAX AC1 CONVERSION FACTORY DC Motor and Controller Replacement**



### **COMPLETE KIT:**

- >Controller AC1
- >Panel & Hardware
- >AC Motor Ground wire
- >Batt cable to Solenoid  
(Solenoid not included)
- ...(Fuse not included)





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## 1. Document Scope

**WARNING: Follow all safety and warning recommendations in the GENERAL WARNINGS SECTION in the AC1 Operators Manual.**

**It is the installers responsibility to utilize proper safety glasses and other PPE safety gear using tools, equipment, or working on or around batteries and energy sources.**

## 2. Document History

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- 8/27/2023, REV A, Initial release AC1 for TXT & TXT48 AC Conversion, EC-8292023

## 3. Tools Required:

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A suggested list of tools to install this kit. Not all tools may be listed.

- Socket set 3/8" drive (Metric and SAE)
- Socket set 1/4" drive with 4" extension
- SAE Allen wrench set
- Box wrench set
- Phillips screwdriver
- Flat blade screw driver
- Power Drill
- Safety glasses and PPE working on and around lead acid batteries, drilling, etc.

### 3.1. Parts Required (not supplied)

The conversion requires other components to complete the project, the items are not supplied but required:

- NEW SOLENOID – See AC1 Operators manual CONTACTORS (SOLENOIDS) Section for ratings and type.
- BATTERY FUSE, see AC1 operators manual FUSE section for ratings
- BATTERY CABLES, see AC1 operators manual WIRING section for gauge and type

## 4. EZ-Go TXT and EZ-Go-TXT48 Models:

The EZ-TXT and TXT48 with Factory DC motor and controller, 1996+ (DC cars only)

### 4.1. OEM DC to AC Conversion:

The panel is form fitted to the EZ TXT heatsink with a panel to mount the ALLTRAX AC1 controller to the existing heatsink.

### 4.2. EZGO-PDS Controller, 2000-2019:

**The conversions require changing  
Batteries and charger from 36V to 48V.**

E-Z-GO is copyright of the  
Textron Corporation



### 4.3. EZGO-TXT48 from 2008+ CURTIS:

The TXT48 utilizes a controller (TXT FLEET)  
with 16pin Molex connector and  
comes factory 48V version.

Curtis is a copywrite of the  
Curtis Instruments Corporation



## 5. Conversion Procedures:

The conversion is shown in two sections, Danaher and Curtis. Identify your resistor panel and follow those procedures.

### 5.1. TXT and TXT48

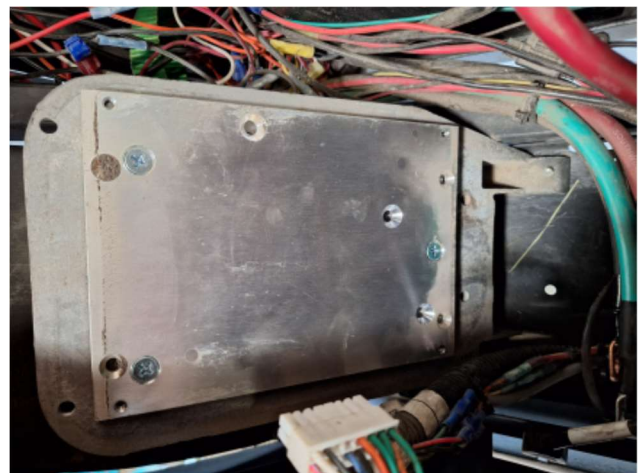
The TOW/RUN switch is located in the same cover on all EZGO models. It will be removed and reused on a new supplied TOW/RUN switch & Solenoid bracket.

#### 1. SET KEY-SWITCH AND TOW/RUN SWITCH TO OFF AND DISCONNECT THE BATTERY CABLE

2. Remove the plastic cover,
3. Remove the TOW/RUN switch from the cover.
4. Dispose of the cover, it will not be reused.



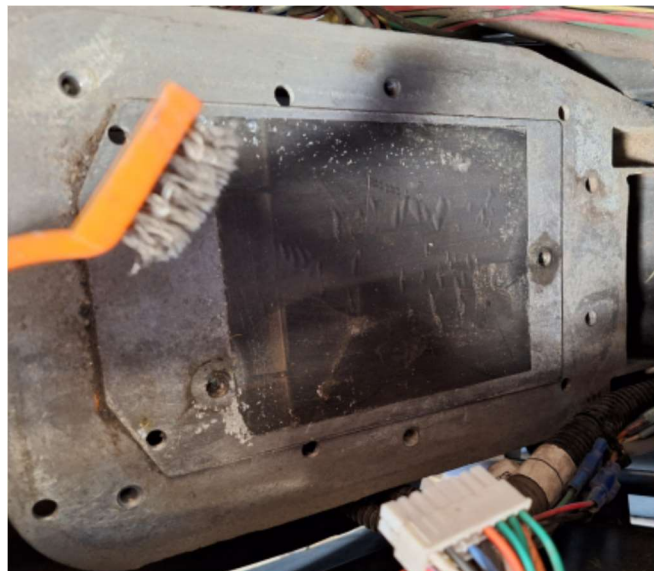
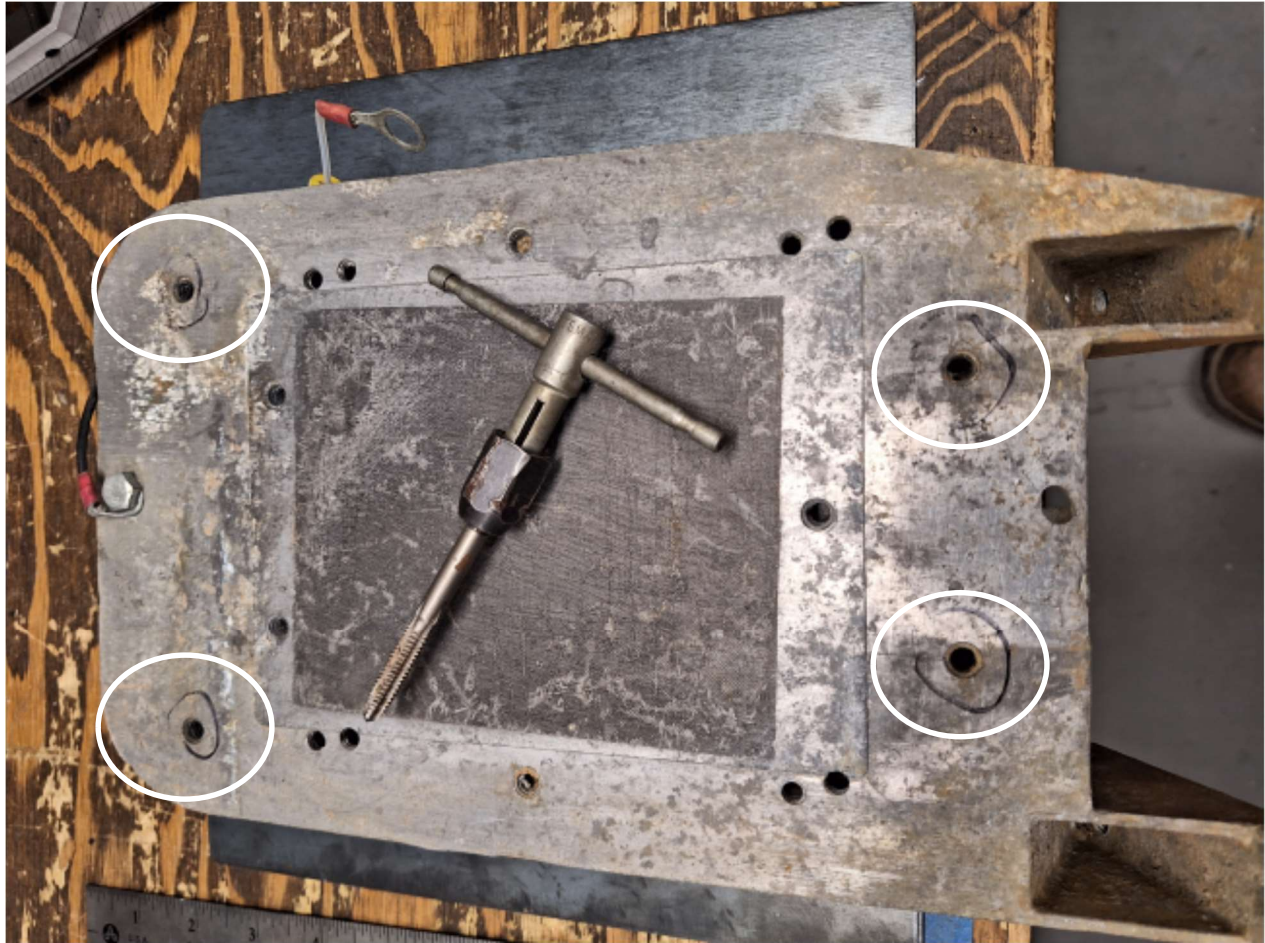
5. Remove that old crusty piece of shit green Navitas controller and dispose of in appropriate E-Waste container. It can however be a great boat anchor /or/ works best as a door stop (if blue tape is placed on the bottom to not scratch hardwood floors). Which includes removing any adapter plates for non-OEM units.





CONTINUED:

6. Use a 1/4-20 tap to chase and clean the 4 threaded holes shown below:
7. Use a wire brush to clean any dirt, debris, or corrosion from the heatsink surface

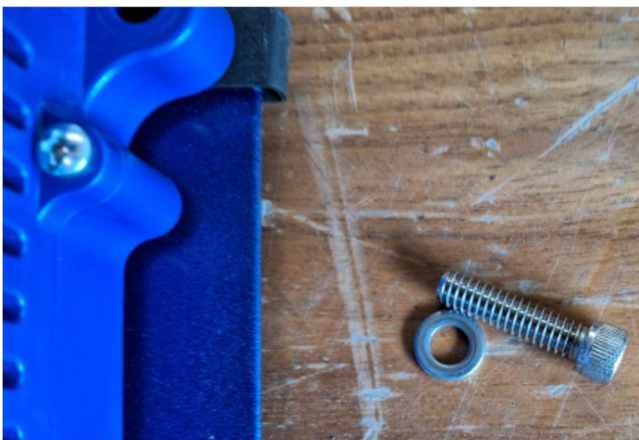


CONTINUED:

8. Locate the controller mounting plate. Place controller with connector on the two **WIDEST** mounting holes to the top as shown:



9. Locate the (4x) 1/4-20x1" SOCKET HEAD CAP SCREWS and the (4x) SMALL OD FLAT Washers and secure 4 corners of the controller to the panel. Do not overtighten (See AC1 manual for torque specs)





## 6. AC1 Panel Installation:

The AC1 Panel Installation is mounted to the OEM Factory heatsink using the 4 cover mounting holes chased earlier with a tap.

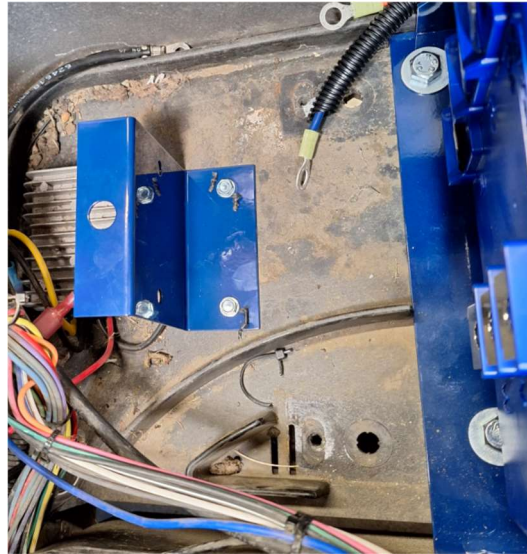
1. Locate the (4x) 1/4-20x3/8" SOCKET HEAD CAP SCREWS.
2. Install panel onto heatsink with AC1 connector facing up, along the top two holes and start two bolts leaving them loose.
3. Install the bottom two bolts, tighten.
4. Tighten top two bolts.



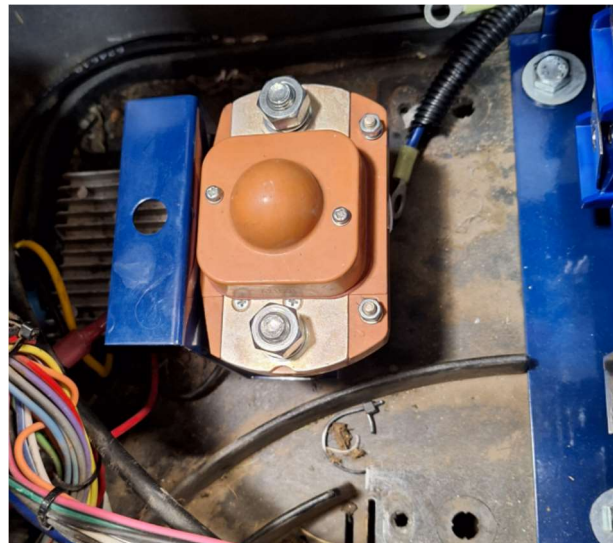
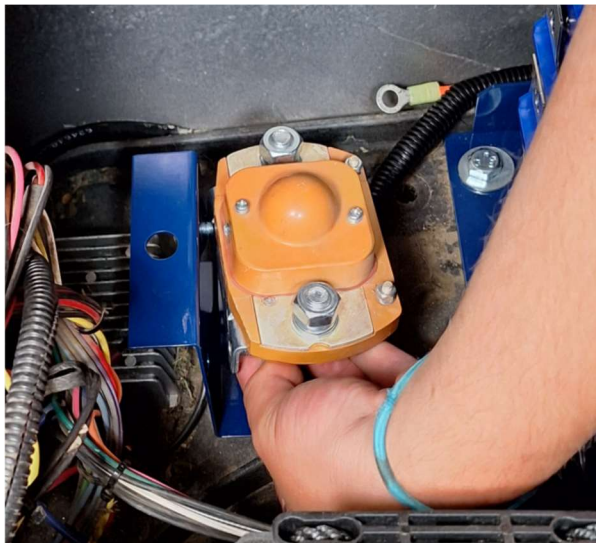


**SOLENOID:**

5. For TXT-48, The solenoid bracket is already located on the floor. However, use the supplied bracket to secure the new solenoid and TOW/RUN switch.
6. For DC and PDS the solenoid is mounted on the controller bracket, moved to the floor on a new supplied bracket.
  1. Locate the Solenoid bracket and (2x) 1/4'-20x3/4" HEX HEAD Bolt, (4x) FLAT washers, (2x) Nyloc nuts.
  2. Install the TOW/RUN switch onto the top mounting hole.
7. Install the floor mounted solenoid bracket using (2x) #12x1" Self-Tapping screws into the floor as shown. The top hole for TOW/RUN.



8. Install the Solenoid (not included), as shown the MZJ-400AMP is preferred for the 650amp controller. The provided hardware with (2x) 1/4-20x3/4" bolts, flat washers and locknuts.
9. The 18AWG wire feeds key switch from the **BATTERY INPUT** side of the solenoid. (i.e. wire energized all the time). This wire color can vary depending on car model.



10. Install and ROUTE the 3-phase motor wires back to the motor area, then connector as shown with U, V, W going to the correct terminals. Torque bolts to specs on AC1 Manual **SPECIFICATIONS SECTION**. ZIP Tie the cable assembly using the OEM ring support shown behind the controller above the motor.

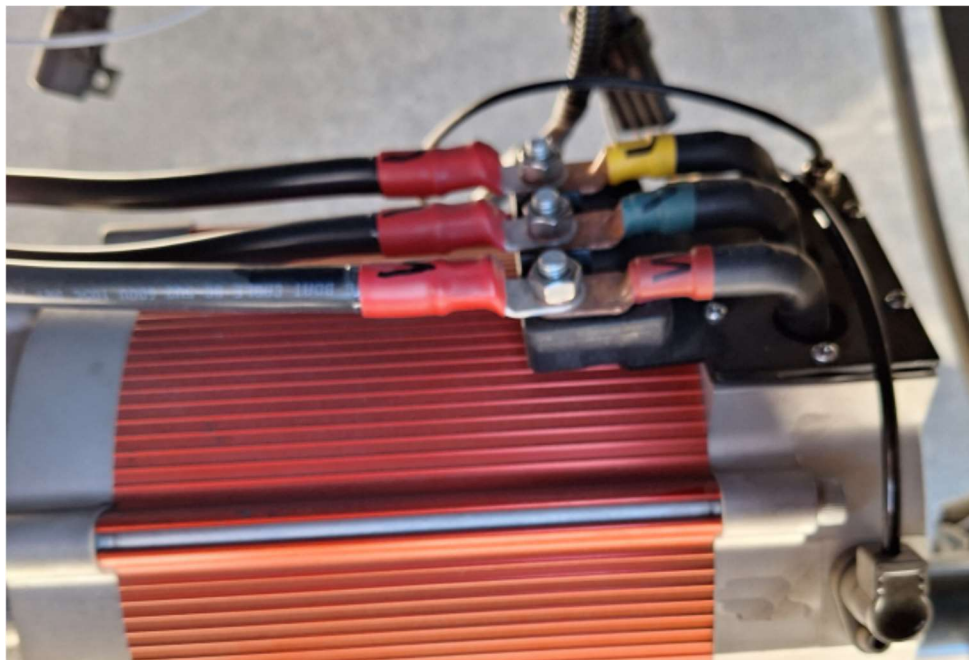
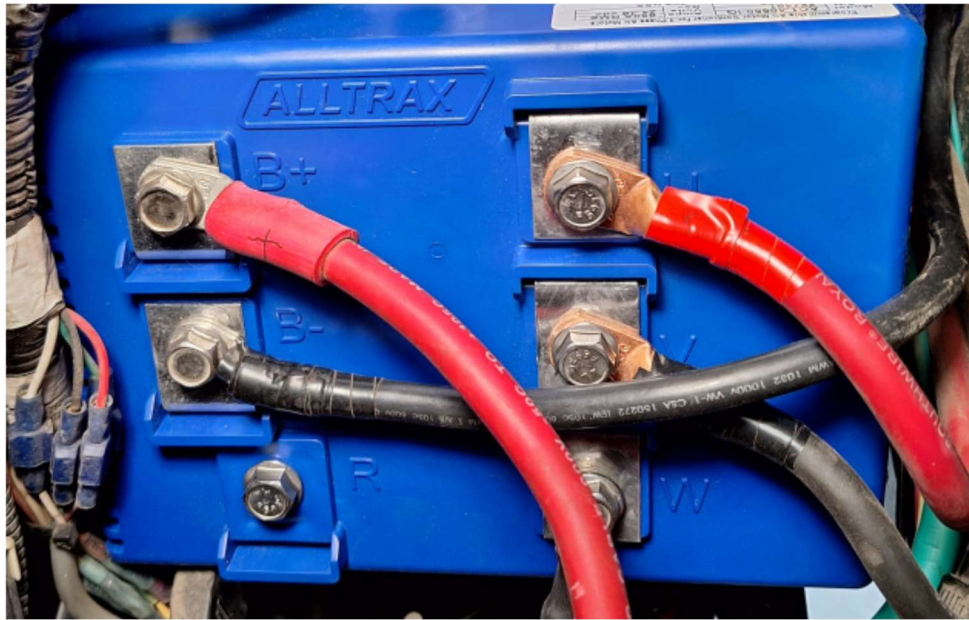
**IGNORE THE CABLE COLOR BELOW, They were custom cables.**

**See your KIT with cables marked U V W.**

10. Install RED 2AWG provided cable from the controller 5/16" terminal to the 400A solenoid with 3/8" ring terminal.

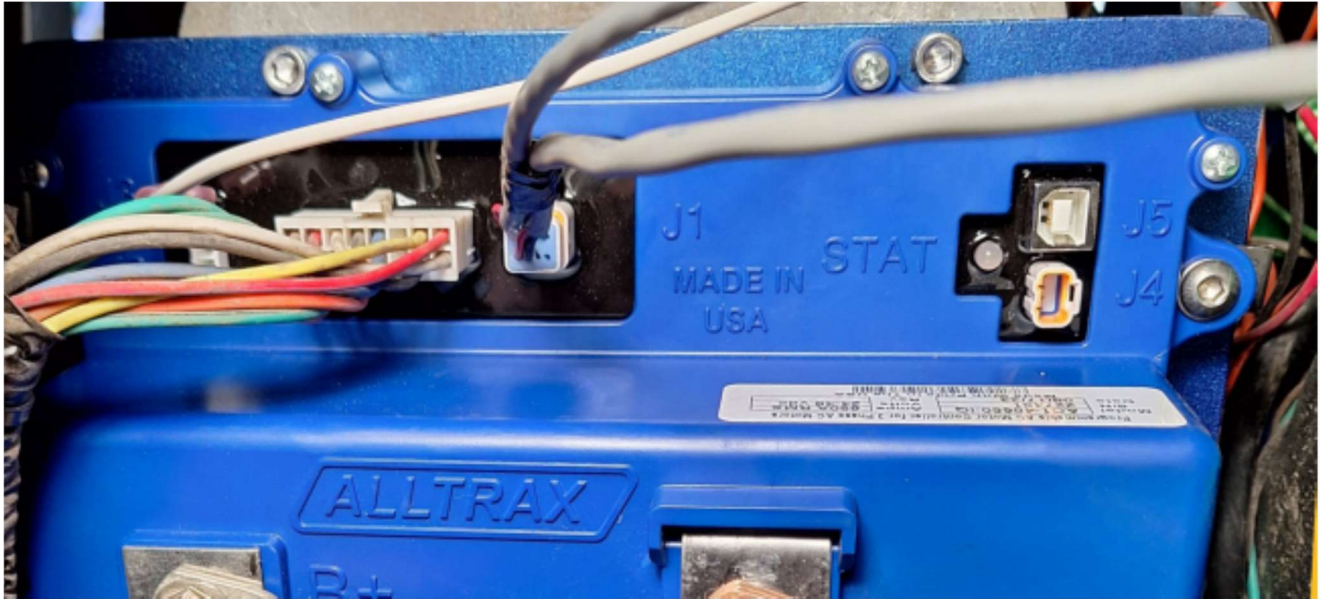
11. Install the BLACK battery negative cable from your battery upgrade kit (not supplied) to the (B-) terminal of the controller.

12. The R-Terminal is not used for TXT.





13. Connect the carts wire harness to the controller. Shown below is the 16 pin TXT48, for PDS and DCS see AC1 manual included with those controllers for connector options.
14. Install the 8-pin SPEED and TEMP sensor connector and route cable back towards the new AC motor. (Sold separately)



### 6.1. Main Fuse, Sensor Wires, Ground Wire:

1. A battery fuse is required (Not supplied) an example fuse holder shown below for reference installed in a suitable location. (See AC1 controller operators manual FUSE SECTION for fuse size ratings). Connect BATTERY POSITIVE to the fuse holder.

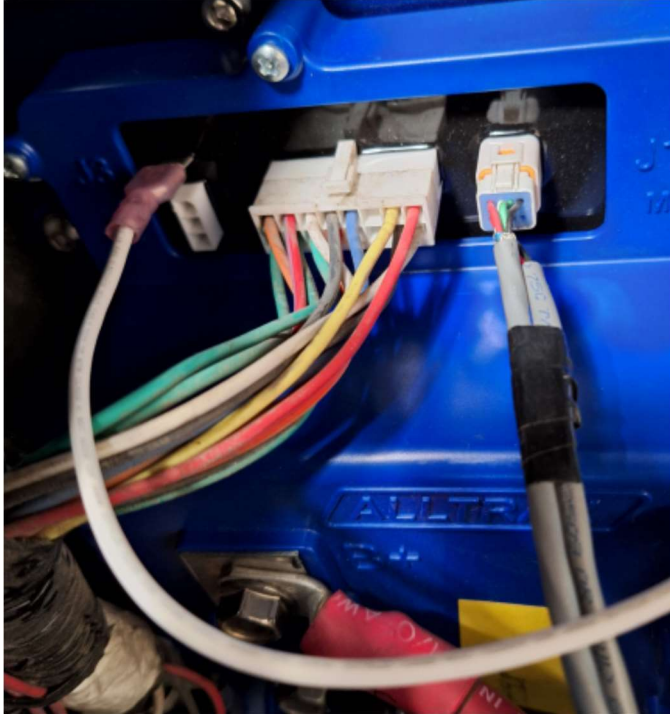
**CAUTION: DO NOT INSTALL THE FUSE YET!**



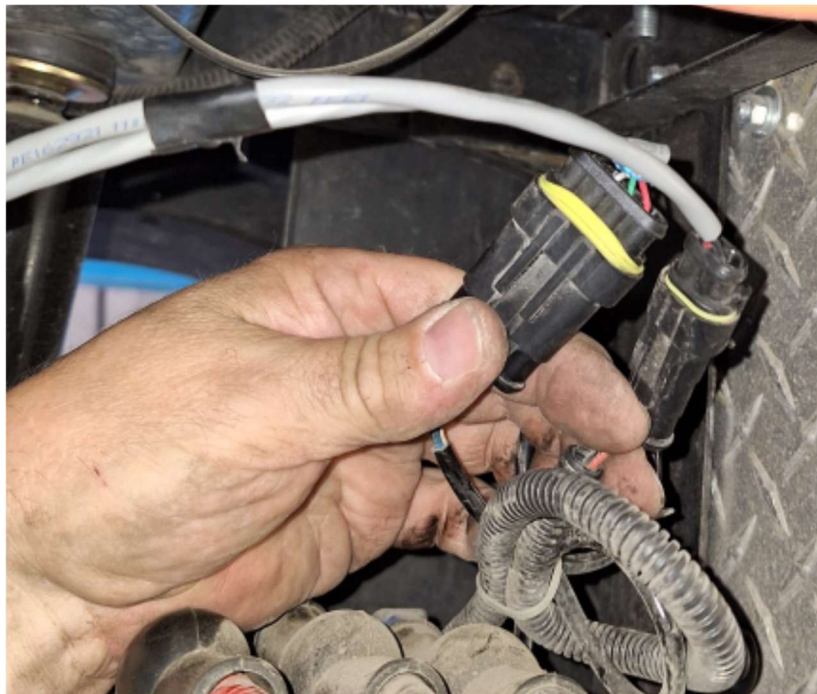
2. Connect cable 5/16" ring to the fuse, the 3/8" ring to the 400amp solenoid.



3. Connect the **AC ground wire** to the AC motor controller GND faston (next to the 3-pin connector) and route to the AC motor and use a motor mounting bolt to connect the AC ground wire.



4. Connect the two sensor cables, the 4-pin speed sensor and 2 pin temp sensor.



CONTINUED:

5. Install the proper ANN Fuse into the fuse holder. (See AC1 operators manual)
6. Measure voltages at the solenoid positive and controller B-NEG and **verify the correct voltage and polarity is available.**
7. Turn on TOW / RUN switch to RUN.
8. It is recommended to do a first test on a jack to determine direction is correct. Do not over-rev the axle, just enough to verify Forward and Reverse direction is correct.

## 7. Accessories:

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### 7.1. FN-KEY Personality Switch Box:

The FN-KEY (on left) included in your kit (with optional dash mount FN-DM-KEY shown on right) provides 3 personality functions: Golf Mode (10-14MPH), Street Mode (14-20MPH) or Go-Fast Mode (depending on safe operation and tire size, do not exceed manufacturers RPM limits or braking function). **See the included FN manual for more information.**

Free software on our web site – Download, Adjust, and Drive.



***"Thank You Nikola Tesla for a better motor"***

It was really all he asked for in his lab journal. He said what he designed was for the future, and he hoped we would remember him and his contribution.

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