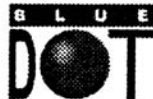


# FORE-PAR®

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**Instructions Available online at [www.forepar.com](http://www.forepar.com)**

## INSTALLATION INSTRUCTIONS 6-400 AC CONVERSION KIT, COMPLETE CLUB CAR DS

# Parts List

10-6400-01	Dash Assembly	1 ea
10-6400-01-02	Low/High Speed Toggle Switch (Preassembled in Dash Assembly)	1 ea
10-64000-01-04	Toggle Switch Guard (Preassembled in Dash Assembly)	1 ea
6-047E	Forward/Reverse Switch (Preassembled in Dash Assembly)	1 ea
6-159	Key Switch (Preassembled in Dash Assembly)	1 ea
6-415	Display Meter (Preassembled in Dash Assembly)	1 ea
10-6400-02	Pot Box Mounting Bracket	1 ea
10-6400-03	Pot Box Control Arm	1 ea
10-6400-04	Throttle Pedal Control Arm	1 ea
10-6400-05	Clear Acrylic Splash Guard	1 ea
10-6400-06	Skid Plate	1 ea
10-6400-07	Fastener Kit, Complete	1 ea
10-6400-08	Installation Instructions	1 ea
10-6400-09	Operators Manual	1 ea
6-007B	400 Amp Solenoid	1 ea
6-106C	4 Ga. Battery Cable Assembly, 14"	5 ea
6-106F	4 GA. Battery Cable Assembly, 21"	1 ea
6-234B	Pot Box	1 ea
6-410	AC Controller	1 ea
6-420	AC Motor, 10 Spline	1 ea
6-430	Wire Harness, Controller to Switches	1 ea
4-430A	Wire Harness, Controller to Display Meter	1 ea
6-431A	Wire Harness, Motor to Controller	1 ea
SP6-106-12	4 Ga. Battery Cable Assembly, 12"	2 ea
SP6-106-29	4 Ga. Battery Cable Assembly, 29"	1 ea
SP6-107-18	2 Ga. Battery Cable Assembly, 18" U-U	1 ea
SP6-107-19	2 Ga. Battery Cable Assembly, 19" V-V	1 ea
SP6-107-21	2 Ga. Battery Cable Assembly, 21" W-W	1 ea

## 10-6400-07 Fasteners, Complete

10-6400-07-01	Mounting Bar for AC Controller	1 ea
10-6400-07-02	Spacer for AC Controller, 3/8"	3 ea
10-6400-07-03	Spacer for AC Controller, 1/2"	1 ea

### Electrical Components

10-6030-02	Spade Connector, Female, 22-18 X 1/4"	25 ea
10-6211A	Wire Tie, 4"	15 ea
10-6211C	Wire Tie, 11"	10 ea
10-HE-003	Ring Terminal, 16-14 X 5/16"	5 ea
10-HE-004	Butt Connector, 22-18, Red	10 ea
10-HE-005	Push On Connector, Male, 22-18 X 1/4"	10 ea
10-HE-010	Butt Connector, 12-10, Yellow	3 ea
6-014	Fast-On Tab, Male, 1/4"	5 ea
6-024I	ANN Fuse, 300 Amp	1 ea
6-024J	MDL Fuse, 10 Amp	2 ea
6-026A	Inline Fuse Holder, 12 Ga.	1 ea
6-026C	ANN Fuse Holder	1 ea
6-106A-01	Shrink Tubing, 1/2" X 1 1/4"	1 ea
6-121	Battery Ring Terminal, 4 Ga. X 5/16"	1 ea
6-124	Ring Terminal, 12-10 X 5/16"	2 ea
SR-LP38	Plastic Split Loom 3/8"	10 ea
SR-WR16-1RDWT	Wire, 16-1, Red/White	10 ft
SR-WR16-1RD	Wire, 16-1 Red	10 ft
SR-WR16-1-BRN	Wire, 16-1 Brown	10 ft

### 10-6400-07A Fasteners, for Step 4

10-H1/4-B130	1/4"-20 X 1 3/4" Hex Bolt	4 ea
10-H5/16-B030	5/16"-18 X 3/4" Hex Bolt	5 ea
10-H1/4-N8	1/4"-20 Nylok Flange Nut	4 ea
10-H5/16-N9	5/16"-18 Serrated Flange Nut	5 ea
10-1/4-W1	1/4" Flat Washer	4 ea

### 10-6400-07B Fasteners, for Steps 6-8

10-H1/4-B036	1/4"-20 X 3/4" Hex Washer Head Bolt	4 ea
10-H1/4-B105	1/4"-20 X 1" Phillips Flathead Screw	2 ea
10-H1/4-N8	1/4"-20 Nylok Flange Nut	6 ea
10-H5/16-N4	5/16"-24 Hex Nut	2 ea
10-H5/16-W1	5/16" Flat Washer	4 ea
10-H5/16-W2	5/16" Split Lock Washer	2 ea

### 10-6400-07C Fasteners, for Steps 10-13

10-H1/4-B036	1/4"-20 X 3/4" Hex Washer Head Bolt	4 ea
10-H1/4-B106	1/4"-20 X 1" Hex Washer Head Bolt	1 ea
10-H1/4-B120	1/4"-10-X 1 1/2" Hex Bolt	1 ea
10-H1/4-N8	1/4"-20 Nylok Flange Nut	6 ea
10-1/4-W1	1/4" Flat Washer	1 ea

### 10-6400-07D Fasteners, for Steps 2B, 15 & 20

10-H1/4-B030	1/4"-20 X 3/4" Hex Bolt	4 ea
10-H1/4-N1	1/4"-20 Nylok Nut	4 ea
10-H6-32-B2	#6-32 X 1/2" Machine Screw	2 ea
10-H6-32-N1	#6-32 Nut	2 ea
3-195	Pop Rivets, 3/16" diameter X .675" long	3 ea

## Step 1

Remove existing batteries, DC Receptacle, Forward/Reverse Switch, Front and Rear Bodies, Dash, Motor, Pot Box, Solenoid, Controller, On-Board Computer and Main Wire Harness. Save all fasteners.



## Step 2A

Tightly install new DASH ASSEMBLY into existing opening. Reuse existing fasteners.

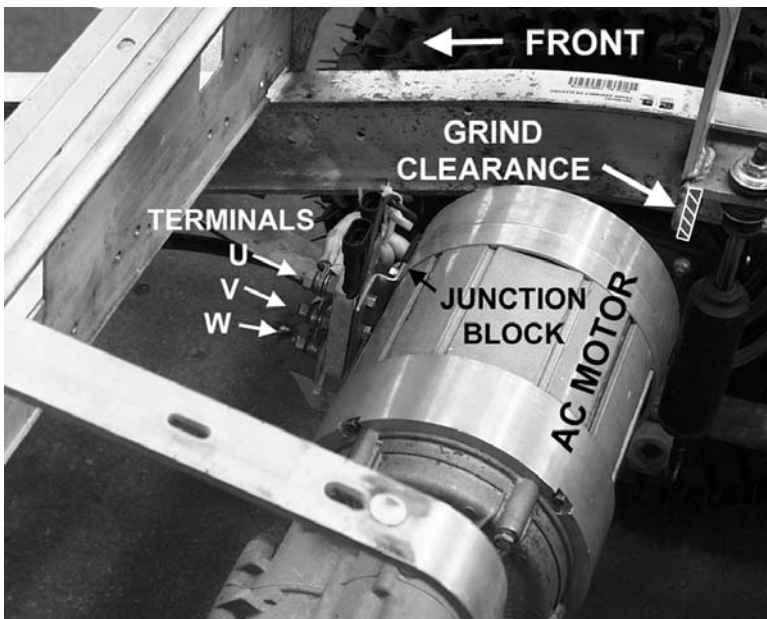
Reinstall existing Battery Warning Light in DASH ASSEMBLY opening.



## Step 2B

Remove Reverse Buzzer from existing dash. Relocate as shown in photo. Drill (2) 3/16" diameter holes to mount the Reverse Buzzer. Fasteners are included in STEPS 15-20 FASTENER PACKAGE.

- (2) #6-32 X 1/2" Phillips Machine Screw.
- (2) #6-32 Hex Nut.



### Step 3

Grind Approximately 1/4" from edge of right upper shock mount where shown, if required. This provides end clearance between the longer AC motor and shock mount. See photo.

Disconnect right rear shock at bottom. Raise rear of car to gain clearance between shock mount and end of AC motor when installing motor.

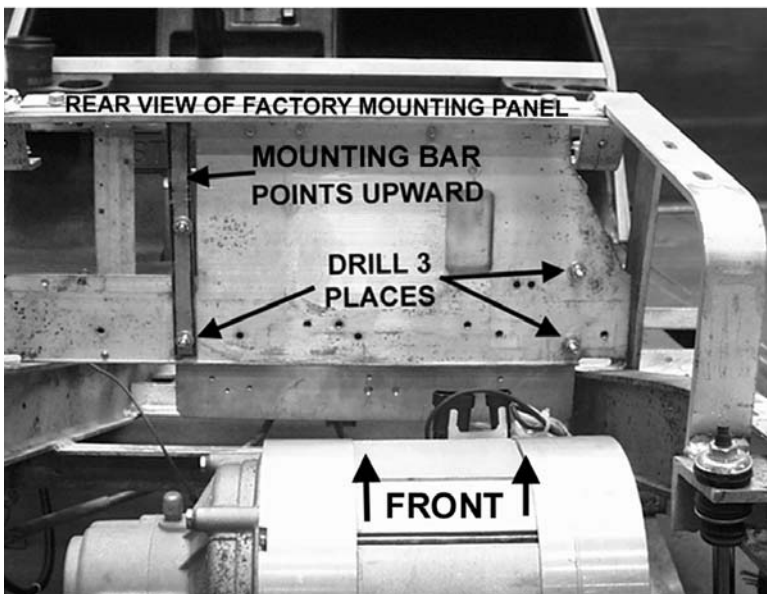
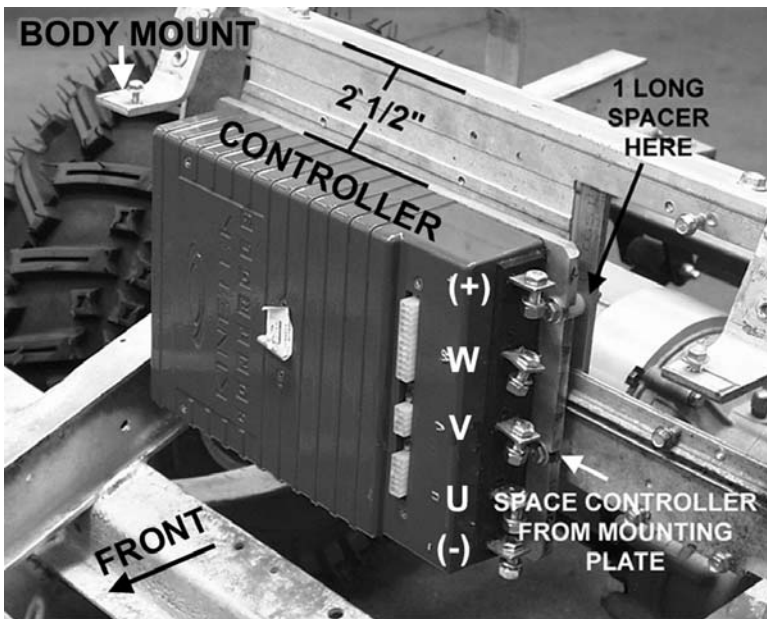
Note: Be sure to clean and grease both male and female splines before installation.

Install AC Motor with junction block facing battery compartment. Reuse existing fasteners.

Reconnect right rear shock.

Note: Second generation motors have an additional flange support ear. It requires an 8mm X 1.25 X 20mm bolt (marked 8.8 on the head) to thread into an existing boss on the rear end. This bolt kit will be taped to the second generation motor.

- (1) 8mm X 1.25 X 20mm Hex Bolt.
- (1) 5/16" Flat Washer.
- (1) 5/16" Split Lock Washer.



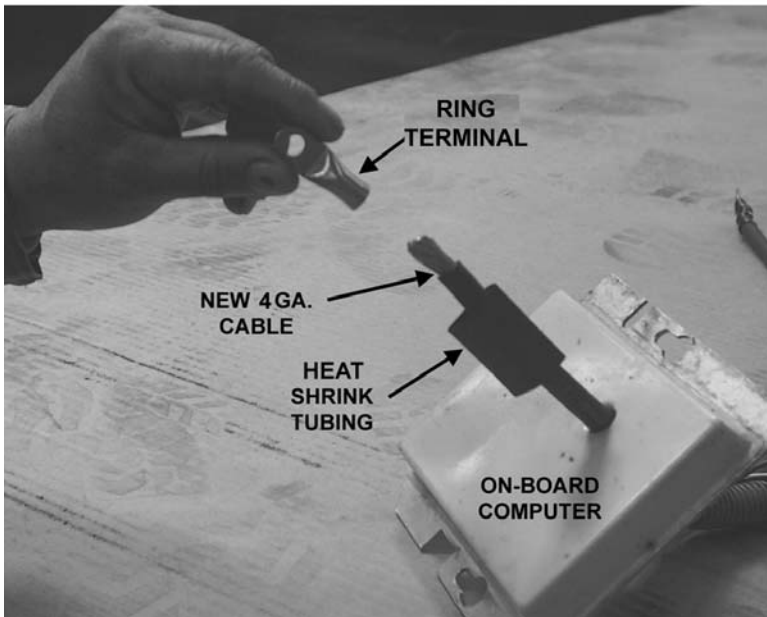
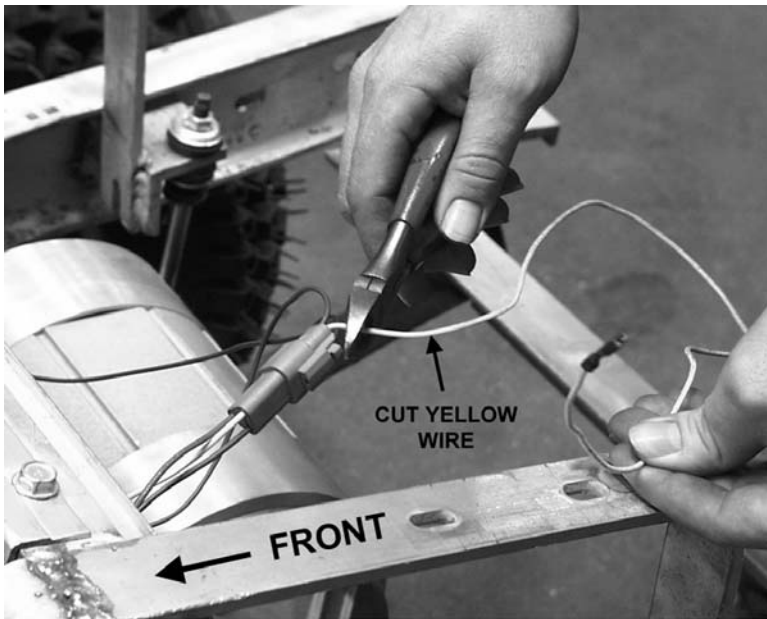
## Step 4

Locate and install AC controller to front of factory mounting panel as shown. When installing Cable Assemblies in step 16 & 17, use opposing wrenches to tighten hardware to avoid damage to Controller Terminals. The top of the AC controller locates at approximately 2 1/2" from the top of the factory mounting panel (just below body mounts).

- A) Drill 3 holes 1/4" diameter in factory mounting panel. (Locate using controller heat sink plate as a guide).
- B) Mount Controller with 3 short spacers, 1 long spacer and 1 Mounting Bar.
  - (4) 1/4"-20 X 1 3/4" Hex Bolts.
  - (4) 1/4" Flat Washers.
  - (4) 1/4-20 Nylok Flange Nuts.
  - (3) 3/8" Spacers.
  - (1) 1/2" Spacer.
  - (1) 1/4" X 3/4" X 8" Mounting Bar.

Controller Terminal Hardware  
Install loosely, will be used in step 16 & 17.

- (5) 5/16" – 18 X 3/4" Hex Bolts.
- (5) 5/16" – 18 Serrated Flange Nuts.

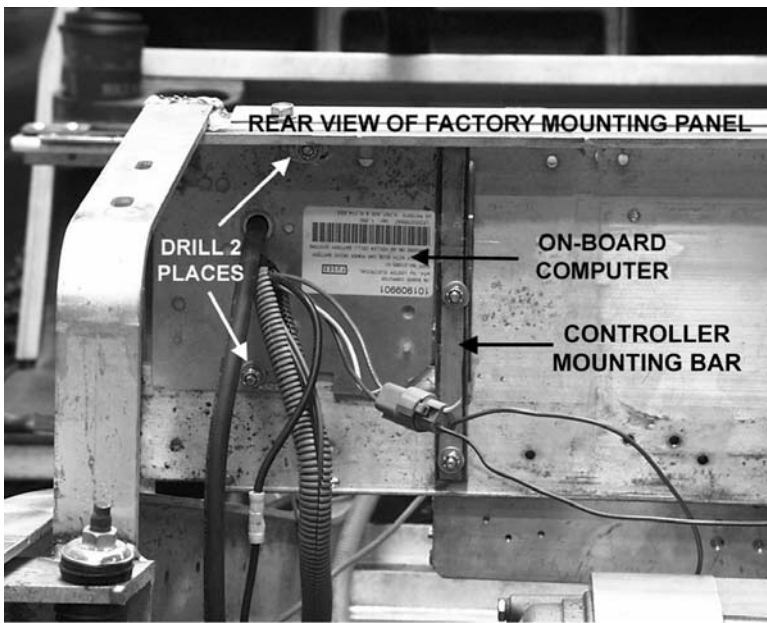


## Step 5

Modify factory On-Board Computer as follows.

- (A) Cut the yellow wire as shown. Leave all three On-Board computer wires intact. To remove the yellow wire, cut the wire after the wiring harness connector as shown.
- (B) Cut/remove/discard 6 gauge cable that goes through the On-Board Computer.
- (C) Install new 4 Gauge Cable (with one bare end) through hole in On-Board Computer.
- (D) Slip Heat-Shrink Tubing over bare end of cable. Install and crimp Ring Terminal on bare end of cable. Apply heat to Heat-Shrink Tubing.

- (1) 4 Gauge On-Board Cable (with one bare end). 29" long.
- (1) 4 Gauge Ring Terminal.
- (1) Short length of Heat Shrink Tubing.

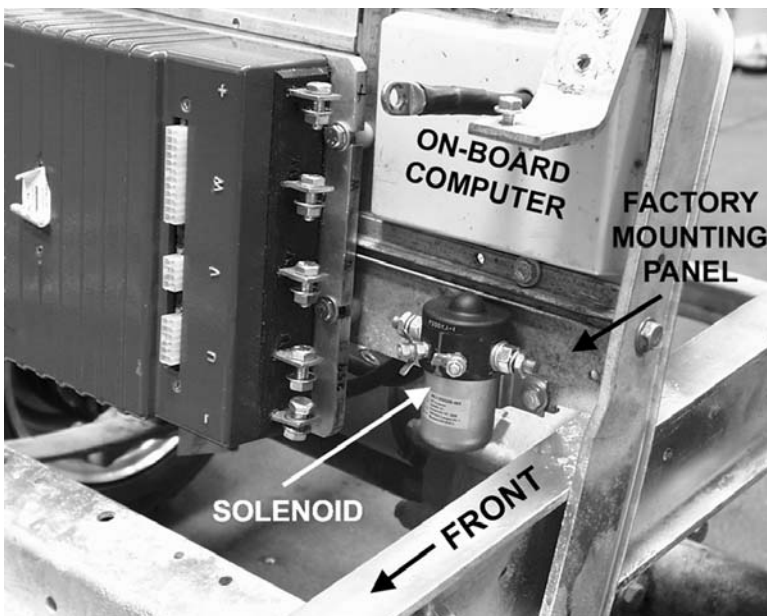
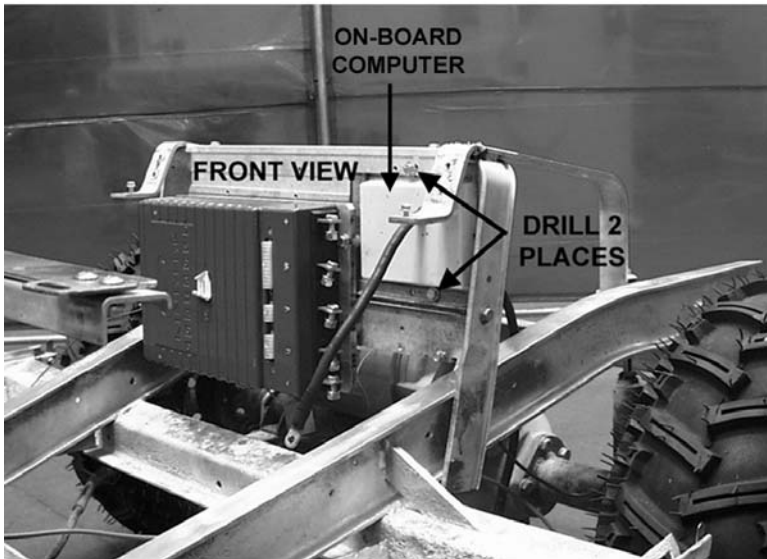


## Step 6

Relocate and install factory On-Board Computer to the back side of factory mounting panel as shown.

(A) Drill 2 holes 1/4" diameter in factory mounting panel.

- (2) 1/4" – 20 X 3/4" Washer Head Hex Bolts.
- (2) 1/4" – 20 Nylok Flange Nuts.



## Step 7

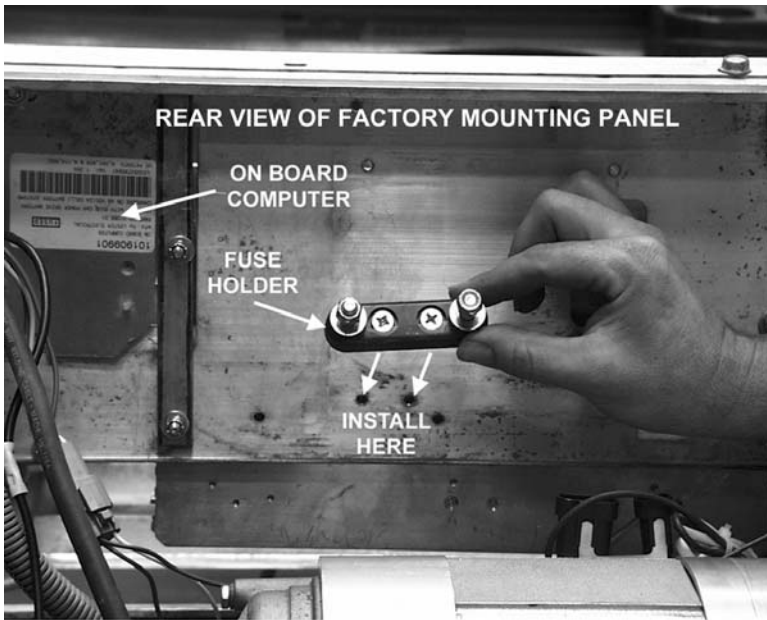
Locate and install 400 Amp Solenoid to front side of factory mounting panel as shown.

(A) Drill 2 holes 1/4" diameter in factory mounting panel.

- (2) 1/4" – 20 X 3/4" Washer Head Hex Bolts.
- (2) 1/4" – 20 Nylok Flange Nuts.

*Note: Newest 400 Amp Solenoid is slightly different from photo.*



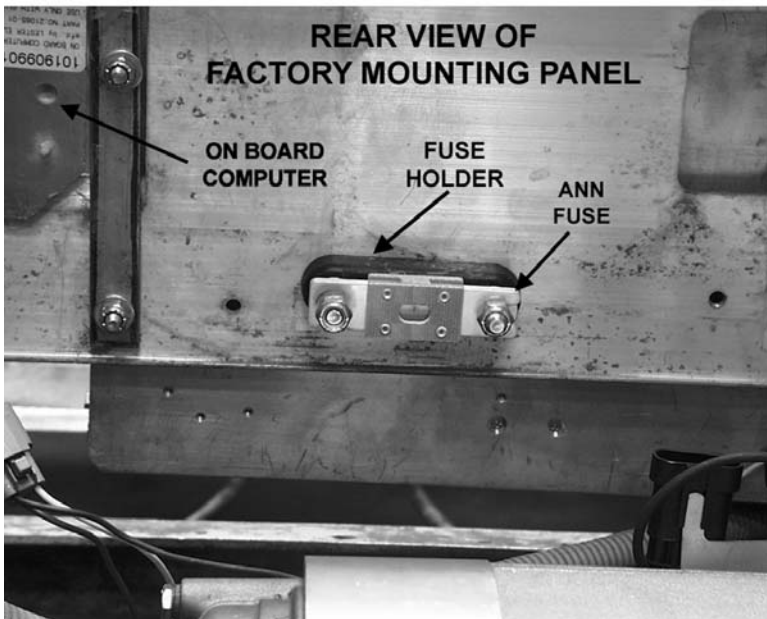


## Step 8

Locate and install 300 Amp “ANN” Fuse and Fuse Holder to back of factory mounting panel, using two existing threaded 1/4”–20 holes in back of factory mounting panel, as shown.

- (2) 1/4”- 20 x 1” Phillips Flathead Screws
- (2) 1/4”- 20 Nylok Flange Nuts.

*Note: Some cars don't have threaded 1/4”-20 holes. Two 1/4” holes must be drilled and 1/4”-20 Nylok Flange Nuts used to secure the screws.*

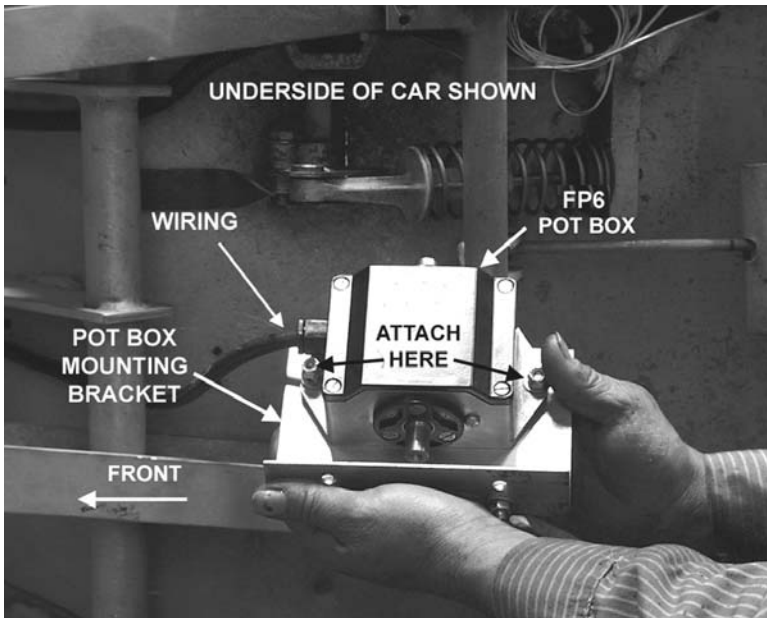


## 300 Amp Ann Fuse fasteners

- (2) 5/16” –24 Hex Nuts.
- (2) 5/16” Split Lock Washers.
- (4) 5/16” Flat Washers

## Step 9

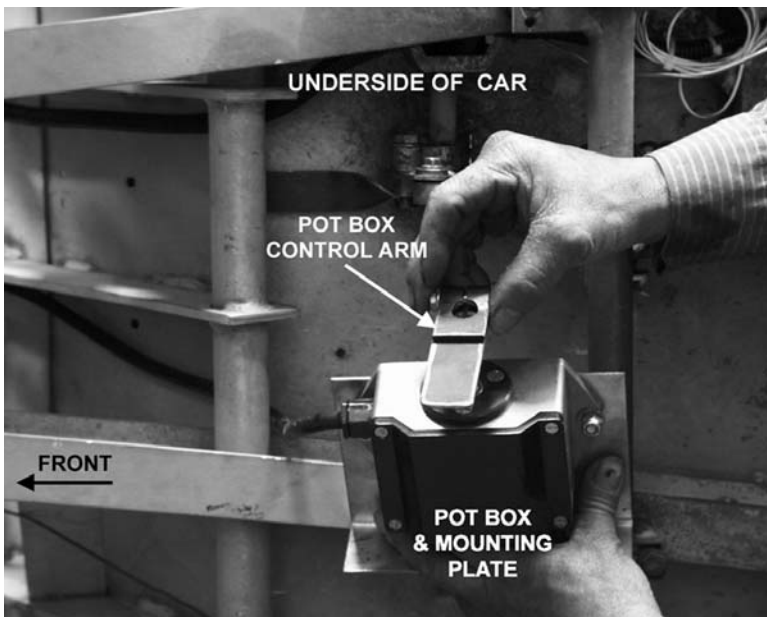
To install the POT BOX, POT BOX CONTROL ARM, and the THROTTLE CONTROL ARM, access to the underside of the car will be needed. Use either a hydraulic lift or place the car on jack stands to secure.



### Step 10

Install new Pot Box onto Pot Box Mounting Bracket as shown. (Wiring faces front of car). Tape off red, yellow and grey wires, they will not be used.

- (2) 1/4" – 20 X 3/4" Washer Head Hex Bolts.
- (2) 1/4"– 20 Nylok Flange Nuts.

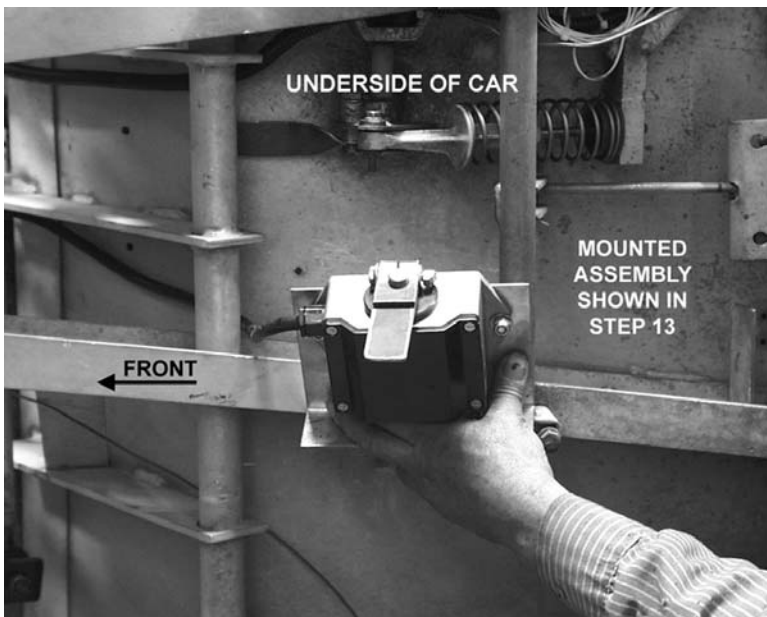


### Step 11

Loosely install new Pot Box Control Arm to Pot Box as shown. Final position will be adjusted in step 14.

- (1) 1/4" – 20 X 1 1/2" Hex Bolt.
- (1) 1/4" Flat Washer.
- (1) 1/4"-20 Nylok Flange Nut.

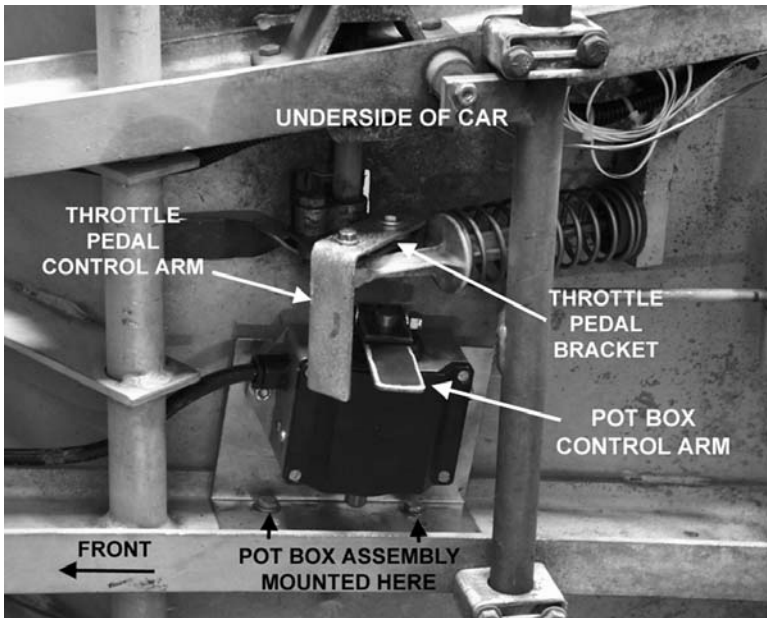
*Note; Newest pot box control arm looks slightly different from photo.*



### Step 12

Install Pot Box/Mounting bracket assembly on frame under car using two existing Pot Box holes as shown. See details in step 13.

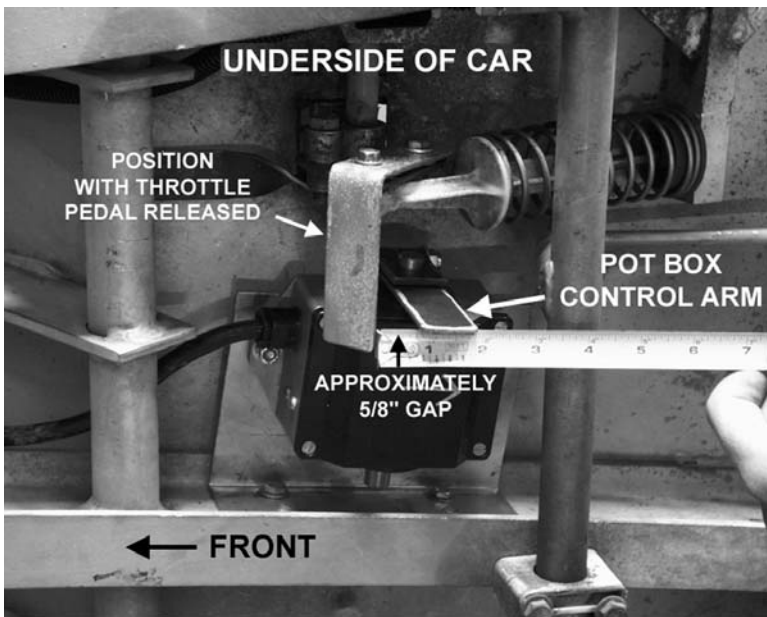
- (2) 1/4" – 20 X 3/4" Washer Head Hex Bolts.
- (2) 1/4" – 20 Nylok Flange Nuts.



### Step 13

Install Throttle Pedal Control Arm on the Throttle Pedal Bracket under car as shown.

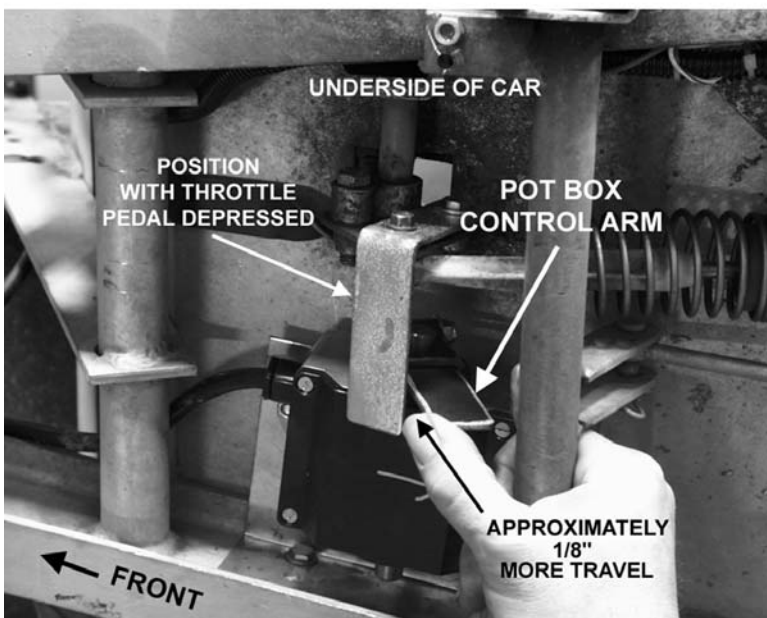
- (1) Reuse existing pivot bolt and nut (1/4"–20 X 1 1/2" flange bolt and flange nut).
- (1) 1/4" – 20 X 1" Washer Head Hex Bolt.
- (1) 1/4" – 20 Nylok Flange Nut.

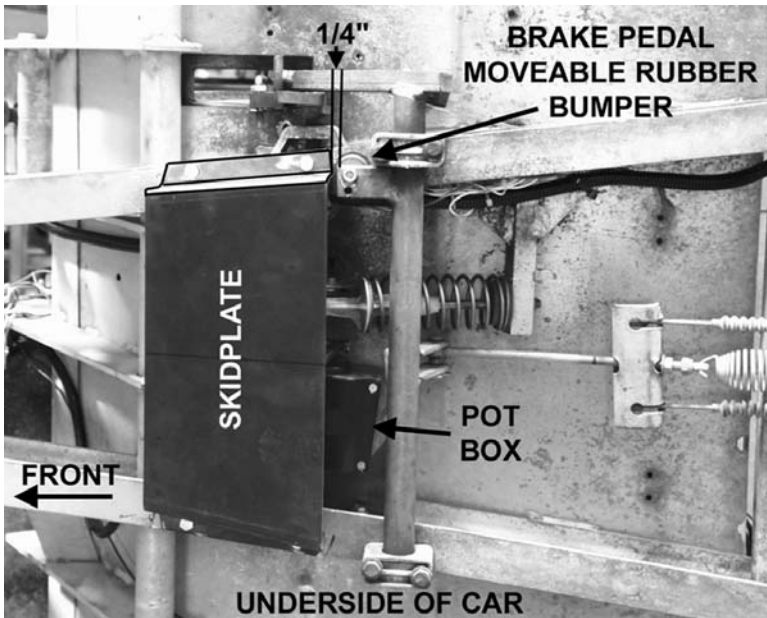


### Step 14

Adjust and tighten the Pot Box Control Arm on Pot Box Shaft as follows.

- (A) With the throttle pedal released, rotate the Pot Box Control Arm on the shaft to have approximately 5/8" gap between the Pot Box Control Arm and the Throttle Pedal Control Arm as shown.
- (B) Tighten the Pot Box Control Arm Securely.
- (C) With the throttle pedal full depressed, check to see that the Pot Box Control Arm still has approx 1/8" of continued movement as shown. This is to ensure that the Throttle Pedal Control Arm does not over rotate the Pot Box shaft.
- (D) With the Throttle pedal fully depressed, use a volt ohm meter to check that the pot box is reading 5000 ohms. For the system to work properly, the pot box must read 5000 ohms when the throttle pedal is fully depressed and the Pot Box Control Arm still has 1/8" more travel after 5000 ohms has already been reached.

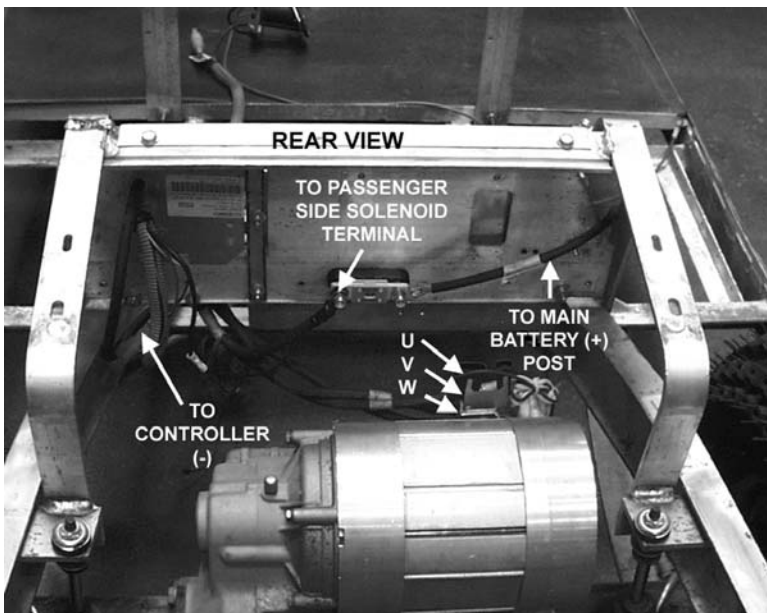




## Step 15

Locate and install Skid Plate on the frame. Maintain 1/4" clearance between rear edge of Skid Plate and brake pedal moveable rubber bumper. Check for freedom of brake pedal travel. Flat washers are not used in this installation.

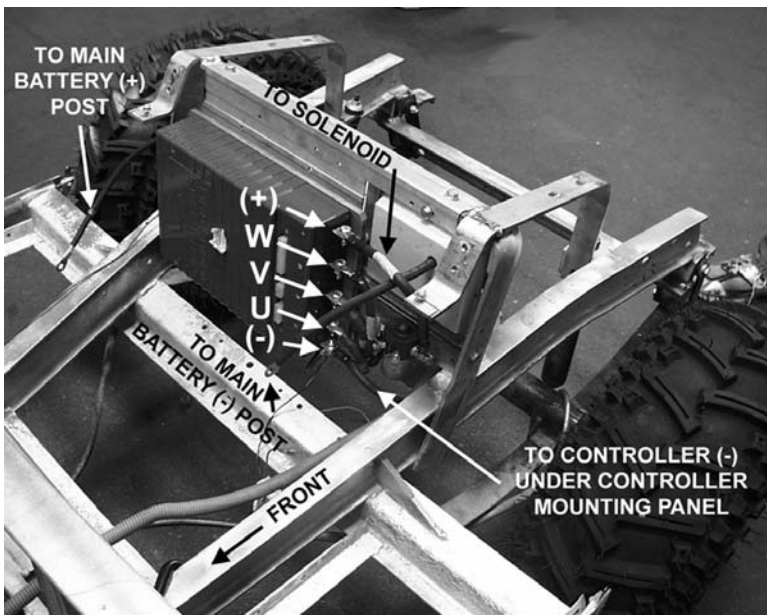
- (A) Match/Drill 4 holes 1/4" diameter in frame
- (4) 1/4" – 20 X 3/4" Hex Bolts
- (4) 1/4" – 20 Nylok Nuts.



## Step 16

Install 2 Gauge Cables per wiring diagram; lengths are measured eye to eye. Tighten with opposing wrenches.

- (A) Cable, Motor "U" to Controller "U", 2 GA. 18" long.
- (B) Cable, Motor "V" to Controller "V", 2 GA. 19" long.
- (C) Cable, Motor "W" to Controller "W", 2 GA. 21" long.



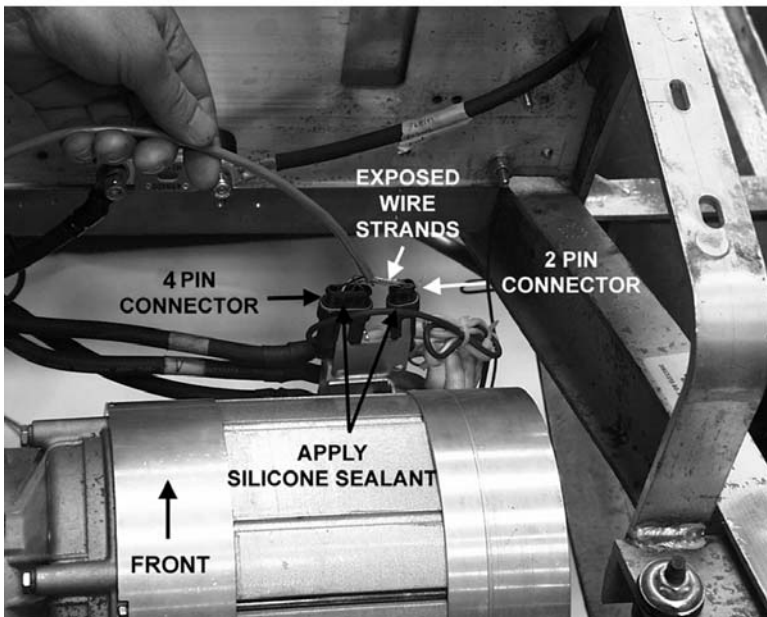
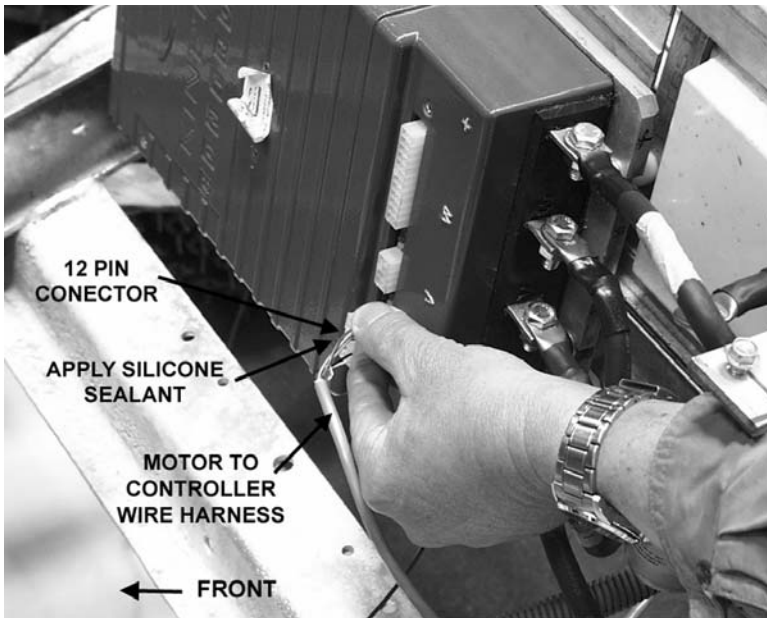
## Step 17

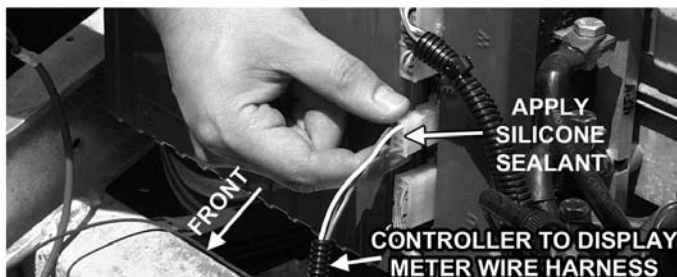
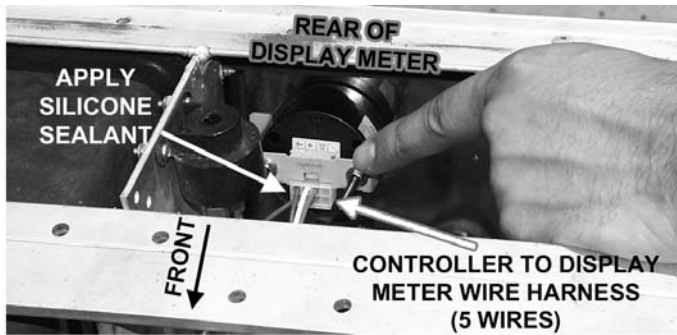
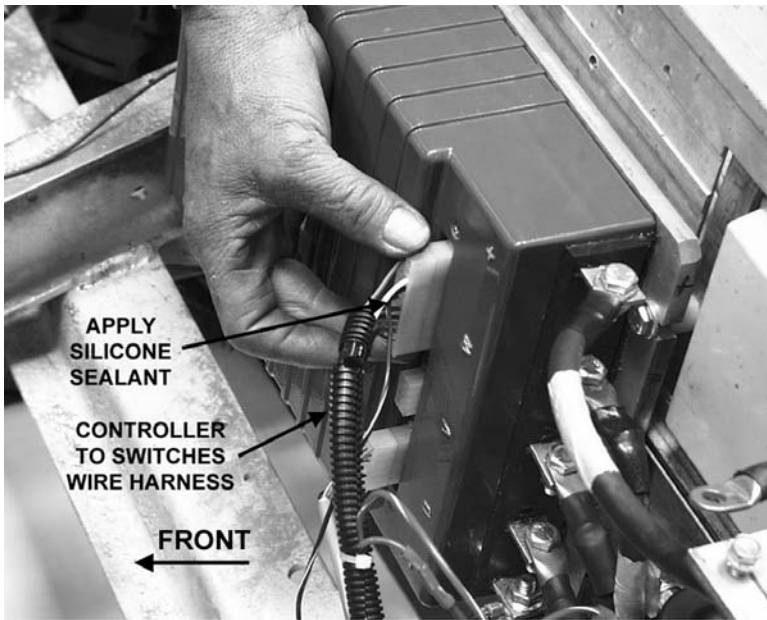
Install 4 Gauge Cables per wiring diagram, Lengths are measured eye to eye. Tighten with opposing wrenches.

- (A) Cable, Controller (+) to Solenoid, 4 GA., 12" long. (1) 5/16", (1) 3/8" Ring Terminal
- (B) Cable, 300A. Fuse to main Battery (+), 4 GA. 21" long.
- (C) Cable, 300A Fuse to Solenoid, 4 GA, 12" long. (1) 5/16", (1) 3/8" Ring Terminal
- (D) Cable, On-Board Computer (Controller (-) to main battery (-) 4 GA. 29" long. Only connect cable end to controller (-).

## Step 18

Install "Motor to Controller" Wire Harness per wiring diagram. (12 pin connector at one end, 4 pin and 2 pin connectors at the other end). Note that one wire has exposed wire strands. This is a static electricity drain shield and **MUST** remain that way. Route it so that it doesn't touch anything. After car is wired and tested, apply silicone sealant where wires enter the pin connector plugs at controller and motor locations, see step 22 (J).





## Step 19A

Install "Controller to Switches" Wire Harness per wiring diagram. This requires hand-wiring in addition to the controller wire harness installation. Follow the wiring diagram using extra red/white, brown and red bulk wire & in-line fuse assembly supplied with this kit. Cover exposed wires with split wire loom and zip-ties. Route safely to avoid cuts, rubbing or sagging.

(A) Pot Box-Tape back red, grey and yellow wires, they are not used.

(B) Forward/Reverse Switch. Orange wire connects to bottom connector blade. Orange/Blue wire connects to top connector blade.

(C) Low/High Speed Toggle Switch.

(D) Key Switch.

(E) Reverse Buzzer

(F) Solenoid

(G) After car is wired and tested, apply silicone sealant where wires enter pin connector plugs at Controller, Display Meter and Motor locations. See step 22(J).

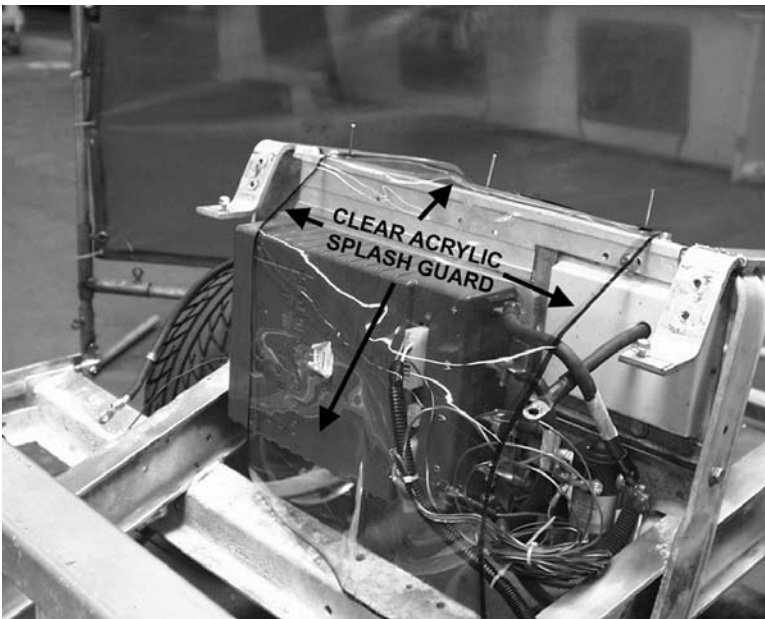
(H) Maintain Electrical isolation of frame.

## Step 19B

Install "Controller to Display Meter" Wire Harness per wiring diagram.

**CAUTION:** Connector with 5 wires plugs into DISPLAY METER, (two of the wires attach to the key switch).

After car is wired and tested, apply silicone sealant where wires enter pin connector plugs at controller and display meter locations. See step 22(J).



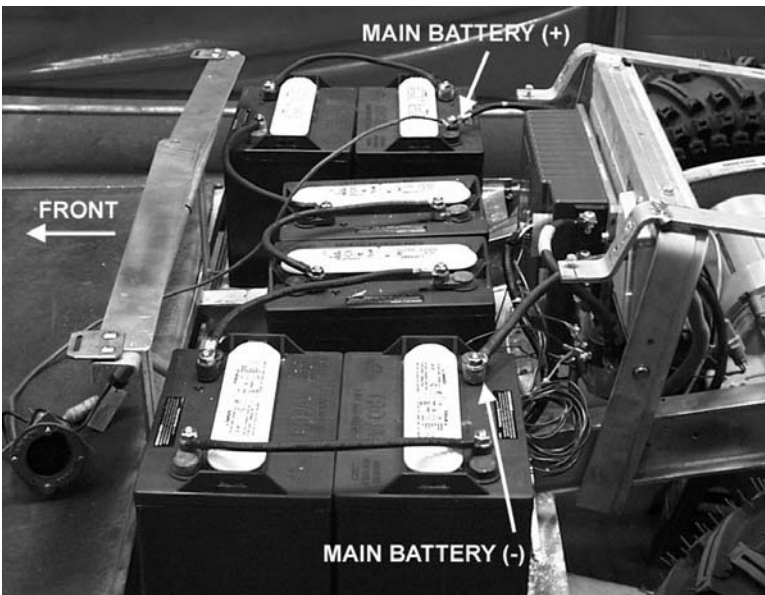
## Step 20

Locate and pop-riquet Clear Acrylic Splash Guard to the Top of factory mounting panel. Cover controller and Controller wiring to prevent acid from damaging wires.

(A) Match/Drill 3 holes 3/16" diameter in top of factory mounting panel.

(B) Pop-riquet Clear Acrylic Splash Guard into place.

(3) Pop Rivets, 3/16" diameter X .675" long.



## Step 21

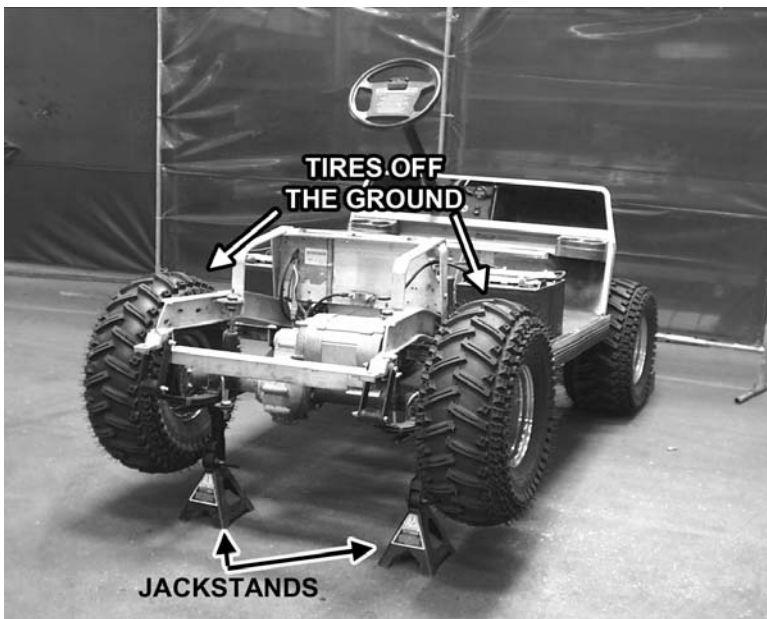
Install batteries in car to test AC system for correct wiring per wiring diagram.

(A) Connect 4 GA. Battery Cables supplied with kit.

(B) Wire DC Charger Receptacle & On-Board Computer per wiring diagram.

(C) Connect main battery (+) & main battery (-) cables. If your car has old style in-line fuses connecting the on-board computer, continue to use them.

(D) Fully charge batteries.



## Step 22

### Test Instructions:

- (A) Place rear of car on jack stands with tires off the ground and block front wheels for test.
- (B) Forward/Reverse Switch must be in neutral.
- (C) Low Speed/High Speed Toggle Switch in "Low"
- (D) Key Switch "On".
- (E) Forward/Reverse Switch in "Forward"
- (F) Depress Throttle Pedal. Test for "Slow Throttle" pedal to "Fast Throttle" pedal wheel speed.
- (G) Shift Low Speed/High Speed Toggle Switch to "High" & retest. Note: you can shift from "Low" to "High" on the fly.
- (H) Repeat steps B-G in "Reverse". Car should only go slow in "Reverse" regardless of Low Speed/High Speed Toggle Switch or Throttle Pedal position.
- (I) With Key "On", make sure Throttle Pedal releases parking brake before motor starts to turn wheels.
- (J) With key "Off", toggle the Display Meter "Mode" button to display data. With key "On", toggle the Display Meter "Mode" button to display additional data. See separate Display Meter Instruction Sheet for complete information on functions.
- (K) Apply silicone sealant where wires enter the pin connector plugs (see photos in step 22, 23 & 24).



### **Step 23**

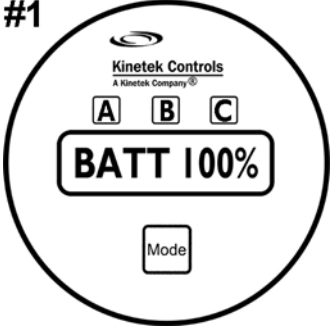
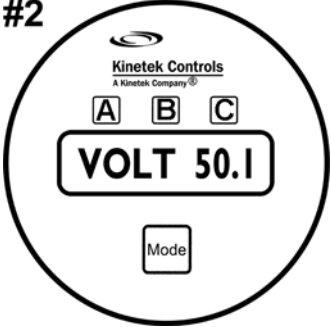
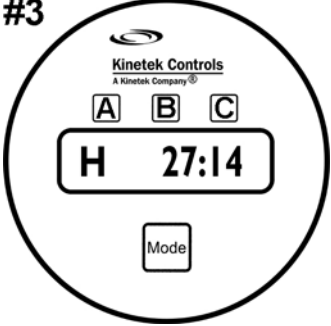
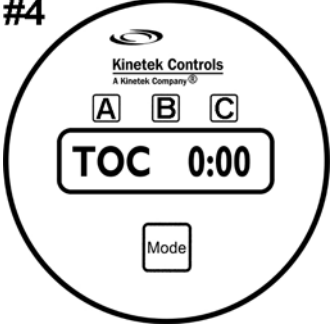
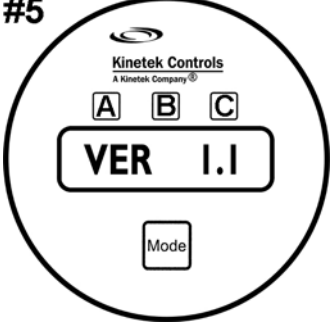
Inflate Tires to 32 PSI to reduce rolling resistance. Make sure brakes are adjusted to manufacturer specifications.

Reinstall Front and Rear Bodies & DC Receptacle.

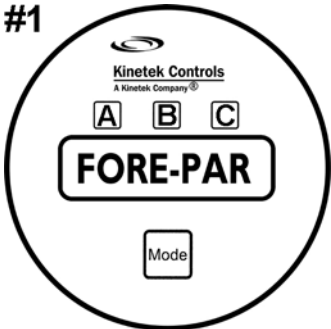
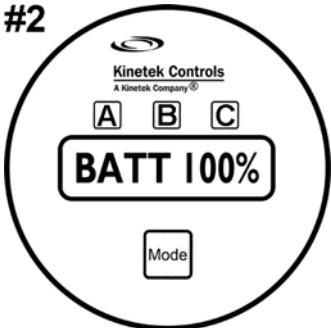
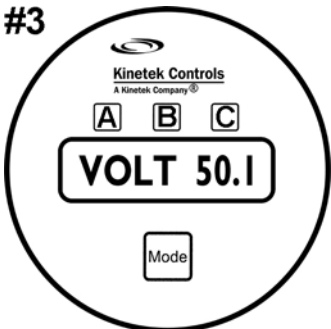
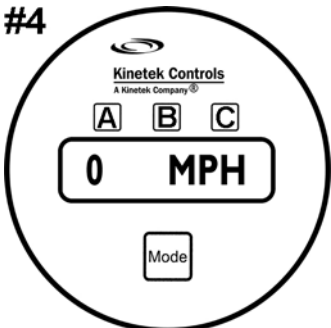
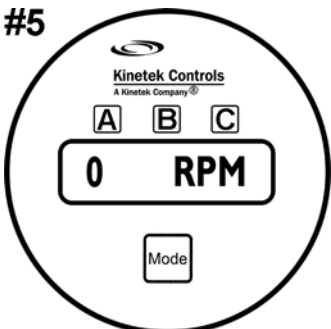
### **Step 24**

Test Car carefully with “driver only” at “Low” and “High” speeds for throttle, regen braking, mechanical braking and handling.

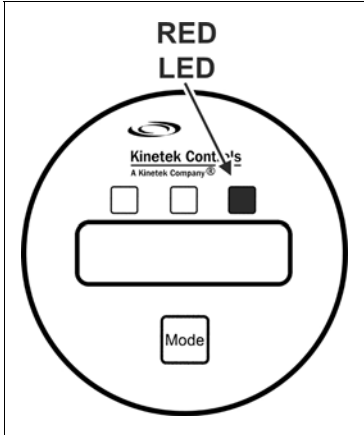
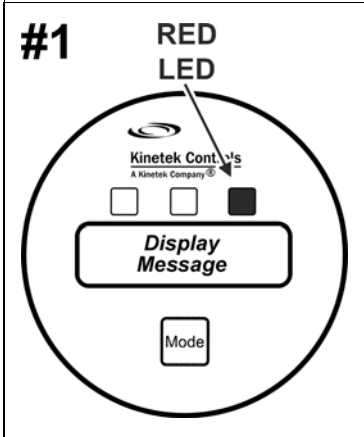
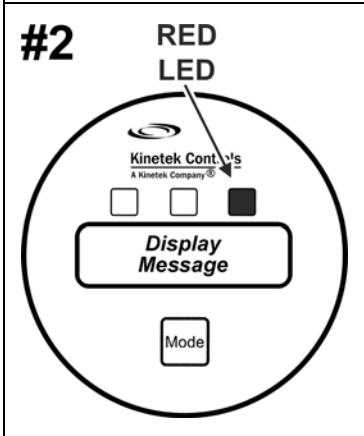
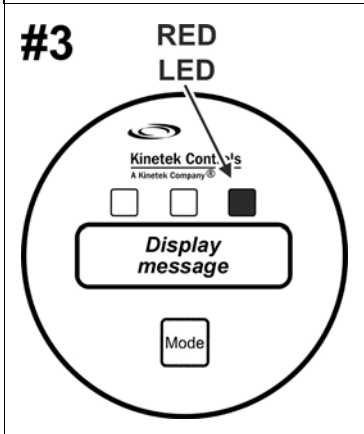
# 48V A.C. Display Meter Functions, **Key Switch "OFF"**

<p><b>#1</b></p> 	<p>1. Press and release "MODE" button to light LED &amp; show display #1</p> <p>A) Green LED = Battery charge state 60%-100%            B) Yellow LED = Battery charge state 30% - 60% (display flashes "low Battery")            C) Red LED = Battery charge state 0% - 30% (display flashes "low Battery")</p> <p>= <u>BATTERY CHARGE STATE. (NO LOAD)</u></p> <p>0% = 45.6V    40% = 47.6V    80% = 49.6V            10% = 46.1V    50% = 48.1V    90% = 50.1V            20% = 46.6V    60% = 48.6V    100% = 50.6V            30% = 47.1V    70% = 49.1V    110% = Greater than 55.7V (Charging)</p>
<p><b>#2</b></p> 	<p>2. Press and release "Mode" button to light LED &amp; change to display #2</p> <p>= <u>BATTERY VOLTAGE.</u></p>
<p><b>#3</b></p> 	<p>3. Press and release "Mode" button to light LED &amp; change to display #3</p> <p>= <u>TOTAL ACCUMULATED NUMBER OF HOURS AND MINUTES THE KEY SWITCH HAS BEEN ON.</u></p>
<p><b>#4</b></p> 	<p>4. Press and release "Mode" button to light LED &amp; change to display #4</p> <p>= <u>TIME ON CHARGE</u> Time the charger is charging, in hours and minutes.</p>
<p><b>#5</b></p> 	<p>5. Press and release "Mode" button to light LED &amp; change to display #5</p> <p>= <u>VERSION 1.1</u> Manufacturer's code for the display meter you have.</p>

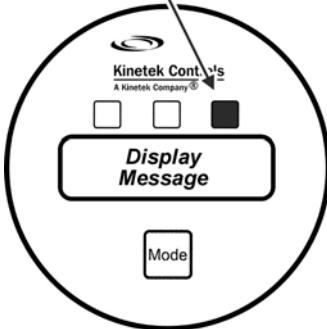
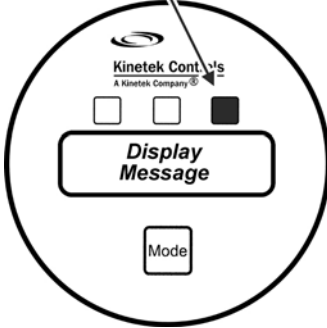
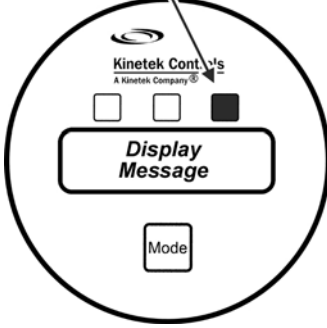
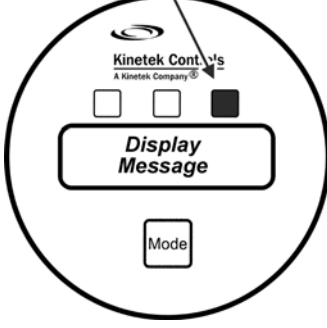
# 48V A.C. Display Meter Functions, **Key Switch "ON"**

<p><b>#1</b></p> 	<p>A) Green LED = Battery charge state 60%-100%            B) Yellow LED = Battery charge state 30% - 60% (display flashes "low Battery")            C) Red LED = Battery charge state 0% - 30% (display flashes "low Battery")</p> <p>= <u>FORE-PAR</u></p> <p>1. "FORE-PAR" display shifts to display #2 after 3 seconds.</p>												
<p><b>#2</b></p> 	<p>= <u>BATTERY CHARGE STATE. (NO LOAD)</u></p> <table border="0"> <tr> <td>0% = 45.6V</td> <td>40% = 47.6V</td> <td>80% = 49.6V</td> </tr> <tr> <td>10% = 46.1V</td> <td>50% = 48.1V</td> <td>90% = 50.1V</td> </tr> <tr> <td>20% = 46.6V</td> <td>60% = 48.6V</td> <td>100% = 50.6V</td> </tr> <tr> <td>30% = 47.1V</td> <td>70% = 49.1V</td> <td>110% = Greater than 55.7V (Charging)</td> </tr> </table> <p>2. Press and release "MODE" button to change to display #3</p>	0% = 45.6V	40% = 47.6V	80% = 49.6V	10% = 46.1V	50% = 48.1V	90% = 50.1V	20% = 46.6V	60% = 48.6V	100% = 50.6V	30% = 47.1V	70% = 49.1V	110% = Greater than 55.7V (Charging)
0% = 45.6V	40% = 47.6V	80% = 49.6V											
10% = 46.1V	50% = 48.1V	90% = 50.1V											
20% = 46.6V	60% = 48.6V	100% = 50.6V											
30% = 47.1V	70% = 49.1V	110% = Greater than 55.7V (Charging)											
<p><b>#3</b></p> 	<p>= <u>BATTERY VOLTAGE</u></p> <p>3. Press and release "MODE" button to change to display #4</p>												
<p><b>#4</b></p> 	<p>= <u>SPEED IN MILES PER HOUR</u>, calibrated to standard gearing and 18" diameter tires.</p> <p>4. Press and release "MODE" button to change to display #5</p>												
<p><b>#5</b></p> 	<p>= <u>REVOLUTIONS PER MINUTE OF THE A.C. MOTOR</u></p> <p>5. Press and release "MODE" button to repeat displays #2 thru #5</p>												

# 48V A.C. Display Meter **FAULT CODES**

 <p>The diagram shows a circular display meter with the Kinetek Controls logo at the top. Below the logo are three indicator lights: two white and one black. The black light is labeled 'RED LED'. Below the lights is a rectangular display area, and at the bottom is a 'Mode' button.</p>	<p><b>RED LED = Seven different possible high priority fault (key switch on) codes, each of which will stop the car from running until the fault code is cleared by turning the key switch off and on twice, or the fault is corrected and the key switch is turned off and on twice.</b></p>
<p><b>#1</b></p>  <p>The diagram is identical to the first one, but the display area shows the text 'Display Message'.</p>	<p><b>RED LED = Phase over current fault.</b></p> <p><b>DISPLAY MESSAGE = "PHASE" "OVER" "CURRENT". To clear fault turn key switch off and on twice.</b></p>
<p><b>#2</b></p>  <p>The diagram is identical to the first one, but the display area shows the text 'Display Message'.</p>	<p><b>RED LED = Battery voltage fault.</b></p> <p><b>DISPLAY MESSAGE = "HIGH" "BATTERY" "LIMIT". To clear fault turn key switch off and on twice.</b></p>
<p><b>#3</b></p>  <p>The diagram is identical to the first one, but the display area shows the text 'Display message'.</p>	<p><b>RED LED = Phase U voltage fault.</b></p> <p><b>DISPLAY MESSAGE = "PHASE U" "ERROR". Probably a loose "U" cable between motor and controller. to clear fault, fix cable and turn key switch off and on twice.</b></p>

# 48V A.C. Display Meter **FAULT CODES**

<p><b>#4</b></p> <p>RED LED</p> 	<p>RED LED = Phase V voltage fault.</p> <p>DISPLAY MESSAGE = “PHASE V” “ERROR”. Probably a loose “V” cable between motor and controller. To clear fault, fix cable and turn key switch off and on twice.</p>
<p><b>#5</b></p> <p>RED LED</p> 	<p>RED LED = Phase W voltage fault.</p> <p>DISPLAY MESSAGE = “PHASE W” “ERROR”. Probably a loose “W” cable between the motor and controller. To clear fault, fix cable and turn key switch off and on twice.</p>
<p><b>#6</b></p> <p>RED LED</p> 	<p>RED LED = Pre charge fault.</p> <p>DISPLAY MESSAGE = “PRE” “CHARGE” “ERROR”. Probably the controller, but possibly “Low Battery”. To clear the fault turn key switch off and on twice. Charge the batteries or replace the controller as required, and turn key switch off and on twice.</p>
<p><b>#7</b></p> <p>RED LED</p> 	<p>RED LED = Dual port RAM fault comm. Error U10 or U22.</p> <p>DISPLAY MESSAGE = “DRAM COM” “ERROR” U22ORU10”. Turn key switch off and of twice and if RED LED remains lit, replace the controller.</p>