

XCT/NCT

This troubleshooting guide provides general steps that our tech department uses to determine a problem. During testing procedures follow proper safety rules and guidelines (ie raise the rear wheels, disconnect battery power when removing or installing components)

General Troubleshooting

Issue	Solution
<ul style="list-style-type: none"> LED blinks 1 green and 1 red <p>Short Circuit/Output Fault</p> <p>Controller detected a short circuit or other fault on the output circuit.</p>	<ul style="list-style-type: none"> Check to be sure all connections are wired according to the diagram in the user manual for your cart. Check for battery pack voltage between the M- and B- terminals of controller. If voltage is low service motor. If voltage is good contact Alltrax. Remove M-(J9) from controller, if error clears; service motor.
<ul style="list-style-type: none"> LED Flashes 1 green and 2 red <p>Battery Under Voltage</p> <p>B+ voltage lower than under voltage setting.</p>	<ul style="list-style-type: none"> Check battery pack voltage. If low then charge the batteries. Check under voltage setting is correct in software. Check to see if the solenoid is clicking shut when the pedal is depressed. If solenoid does not close when the pedal is depressed than see solenoid troubleshooting section for your cart. If the solenoid is closing check the voltage between the B+ and B- terminals while the error is flashing. If voltage is low replace solenoid.
<ul style="list-style-type: none"> LED blinks 1 green and 3 red <p>Battery Over Voltage</p> <p>B+ voltage is higher than over voltage setting.</p>	<ul style="list-style-type: none"> Check the battery pack voltage. Voltage should be $\pm 5V$ of the pack voltage. If voltage is ok call Alltrax Check to be sure that the over voltage setting in the software is correct for your pack. If voltage is High check if the charger is overcharging the batteries.
<ul style="list-style-type: none"> LED blinks 1 green and 4 red. <p>Over Temperature</p> <p>Controller temperature exceeds 85 C.</p>	<ul style="list-style-type: none"> Let controller cool and check all connections and motor. If controller has a fan check to be sure that it's working and that air flow is not obstructed. Disconnect M- (J9), if the error clears than service the motor.
<ul style="list-style-type: none"> LED blinks 1 green and 5 red. <p>Motor Field Failure</p> <p>Controller detected a short in the filed windings of the motor.</p>	<ul style="list-style-type: none"> Check the resistance of the field of the motor. The resistance should be between 1 and 3 Ohms. If resistance is good than run a Diode Check on the controller.
<ul style="list-style-type: none"> LED blinks 1 Green and 6 red. <p>Pre-charge failure</p> <p>Controller is not receiving pre-charge voltage.</p>	<ul style="list-style-type: none"> Check voltage on pre charge wire at controller See pre-charge chart for which wire is doing the pre-charging in your cart. If the error only shows when the pedal is pressed, check if the solenoid is functioning.

General Troubleshooting (cont)

<ul style="list-style-type: none"> LED blinks 2 Green 1 red Under Temp <p>Controller temperature reads less than -20 C</p>	<ul style="list-style-type: none"> Call Alltrax Tech Support, unless you live in the Arctic circle, than bring the cart inside and see if the error clears.
<ul style="list-style-type: none"> Cart runs slow 	<ul style="list-style-type: none"> Charge batteries and if cart is still slow load test batteries. Verify correct wire and solenoid sizing for Controller amperage (See Tech Note 10 for more information.) Check that speed sensor from motor is connected Use Alltrax Toolkit software to confirm controller is seeing an RPM in the monitor section. If speed sensor is not being used then the enable speed limit box in the software must be unchecked. Check that the field map loaded in the software is correct for your motor.
<ul style="list-style-type: none"> Cart goes wide open when the key switch is turned on, LED stays green. 	<ul style="list-style-type: none"> Verify B- and M- are wired to the correct spots. For G19/G22/YDRE make sure the controller says "High Side Drive" in controller settings.
<ul style="list-style-type: none"> Controller turns on when the tow/run switch is in run and key is off 	<ul style="list-style-type: none"> Disconnect B+ and M- wires from controller and connect a 500W bulb to the B+ and M-. <ul style="list-style-type: none"> If Controller powers with tow/run switch, replace controller If Controller powers up with keyswitch, replace motor
<ul style="list-style-type: none"> Cart "shutters" as it drives 	<ul style="list-style-type: none"> Possible incorrect field map. Contact Alltrax Technical Support with Vehicle Make/Model and Motor Make/Model. Check for broken or worn brush For G19/G22/YDRE check High/Low side drive setting
<ul style="list-style-type: none"> Motor and/or Battery wires getting hot. 	<ul style="list-style-type: none"> Check for bad wire crimps and terminations. Upgrade wire size to a large size. (see Tech Note 10 for more details)
<ul style="list-style-type: none"> Controller pops and smokes when turned on 	<ul style="list-style-type: none"> Controller is Bad! Do not power up anymore. Replace controller. Disconnect battery power immediately. Check and replace solenoid.

PDS/DCS

Issue	Solution
<ul style="list-style-type: none">• Controller is not powering up (No LED)	<ul style="list-style-type: none">• Check reed switch coming out of charger port. Connect Red/White wire to Battery B+.<ul style="list-style-type: none">○ If controller powers up, replace reed switch in the charger port plug• Check voltage on key switch and Tow/Run wires• Call Alltrax Tech Support
<ul style="list-style-type: none">• Cart drives fine from a stop, but jerks violently when the throttle is depressed and the cart is rolling. (1995 and Newer)	<ul style="list-style-type: none">• Check/replace suppression diode on the small terminals of the solenoid.
<ul style="list-style-type: none">• Cart jerks or shutters on takeoff, but once at full speed it drives smoothly. (1995 and Newer)	<ul style="list-style-type: none">• Check for water in the ITS throttle box. Drill weep hole if necessary.• Bad ITS throttle, replace toroid core• Adjust the collar on the ITS slug so the microswitch activates before the slug enters the toroid.
<ul style="list-style-type: none">• Cart goes to full power when the throttle is depressed.	<ul style="list-style-type: none">• Verify throttle setting is for an ITS throttle (4 green Blinks)
<ul style="list-style-type: none">• Cart goes in reverse no matter what the F/R position is. (PDS Carts)	<ul style="list-style-type: none">• Check for voltage on the reverse pin. If it has constant voltage the F/R switch is bad, if it never has voltage the F/R switch is bad AND your F1 and F2 wires are reversed on the controller.
<ul style="list-style-type: none">• The cart beeps sometimes when switching direction.	<ul style="list-style-type: none">• Check F/R switch and connectors for corrosion• The adapter cable between the wire harness and controller is wet. Remove and allow to air dry or with use high pressure air.• Apply petroleum jelly to pins.

Club Car IQ/Precedent

Issue	Solution
<ul style="list-style-type: none"> Controller powers up, but solenoid does not engage 	<ul style="list-style-type: none"> Reboot OBC (See Tech Note 11) Replace the OBC Plug into the Toolkit, click Monitor and check "Charger Plugged In" status. Remove wire from solenoid that goes to the OBC (Typically the yellow wire). Jumper from that post to B- and see if solenoid works. <ul style="list-style-type: none"> If solenoid works, replace OBC. If solenoid doesn't work, replace solenoid. Verify the polarity of the suppression diode on solenoid coil.
<ul style="list-style-type: none"> A left over 4 pin connector when installing an Alltrax Controller. 	<ul style="list-style-type: none"> That is the stock controller's programming line. It is not used on Alltrax controllers.
<ul style="list-style-type: none"> Cart runs slow and it doesn't move until the throttle is pushed down about 1/2 way down. (2001-2006) 	<ul style="list-style-type: none"> Rod connecting MCOR and throttle pedal twisted out of shape. <ul style="list-style-type: none"> Using 2 vice grips, twist the throttle pedal side of the rod towards the back of the car. If that doesn't fix the problem, replace rod Replace MCOR Check your speed sensor

Club Car PD+ (Regen 2)

Issue	Solution
<ul style="list-style-type: none"> Controller lights up, car goes nowhere 	<ul style="list-style-type: none"> Connect to the Alltrax Toolkit, click on the 'Throttle Settings' tab, uncheck 'High Pedal Disable' hit the 'SET' button on the left, set will turn blue – once it goes back to gray try to operate the cart again.
<ul style="list-style-type: none"> Controller powers up, but solenoid does not engage 	<ul style="list-style-type: none"> Reboot OBC (See Tech Note 11) Replace the OBC Remove wire from solenoid that goes to the OBC (Typically the yellow wire). Jumper from that post to B- and see if solenoid works. <ul style="list-style-type: none"> If solenoid works, replace OBC. If solenoid doesn't work, replace solenoid. Verify the polarity of the suppression diode on solenoid coil.

ALLTRAX Inc., Company History:

The company founder developed our core technology at the race track for high power electric vehicles. Throughout the 90's, the market demanded robust and high performance electronic controllers. In 2001 ALLTRAX was formed based on the E-race car developed technology.

Today, Power Conversion Engineering (PCE) is the research and development arm of ALLTRAX and provides the industry a powerful and robust controller to meet all your recreational, industrial, and commercial electrical vehicle needs.

For more information please go to <http://www.alltraxinc.com>



"The company was founded at the track"