



## Alltrax DCX to Curtis 1244 Conversion Installation Instructions



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Qty	Description	FSIP Part Number
1	Curtis Motor Control	76-1244-5651
1	Wire Harness	62-FRPLAT-AH
1	FSIP Hardware Kit	62-FRPLAT-HW
1	Installation Instructions	62-FRPLAT-AO



**Before you start...disconnect the (Positive) + side of the battery.**

**Items in kit:** 2 wire harness adapters, 9" 4AWG wire, 5" 4AWG wire, three tubes thermal paste  
M6 bolts M6 washers M6 lock washers – 4 each

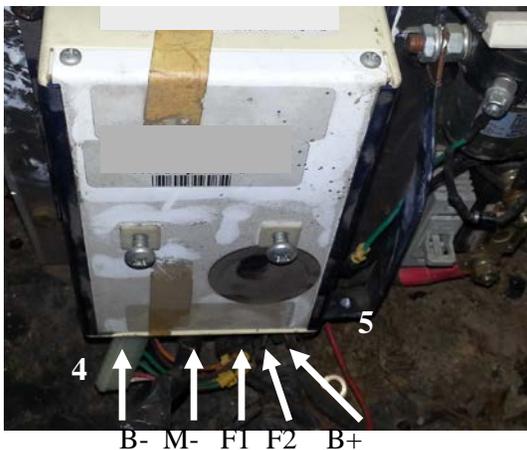
**Tools needed:** 5/16" and 13mm socket, #8 drill bit, M6 tap, Phillips screwdriver.

**Suggestions:** It is advised to upgrade the contactor (solenoid) as well as the cables connecting the drive controller to the contactor, motor, and battery to accommodate the extra 300amps.

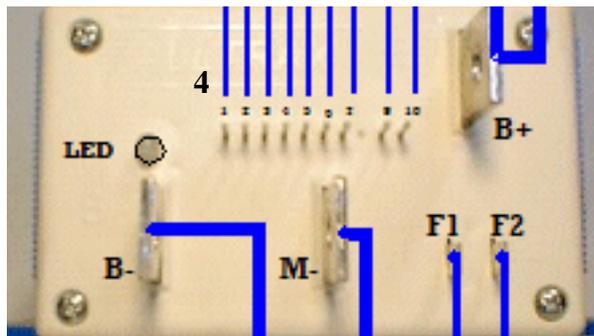
#### A. Removing original control panel and control from the cart:



1. The control Panel Assembly is held in place by two M8 Nuts, these nuts are located underneath the cart. Remove them.
2. When pulling the panel assembly from the cart, be sure to stay clear of the battery studs.
3. Remove the 4 screws from the plastic cover and remove cover.
4. Remove the Molex connector from the control.
5. Remove the bus bar from the B+ of the controller to the contactor.
6. Disconnect the B-, M-, F1 and F2 terminals of the controller. (Label these wires when removing them; they will have to be reattached later).



Front of Control





7. Remove the 4 Phillips head screws securing the control to the panel and remove the control.
8. Remove harness connections to the solenoid and the wire between the cart and the white fuse block. (Label these wires when removing them; they will have to be reattached later).
9. The panel can now be removed from the cart with no restrictions.
10. Remove the resistor from the larger diameter poles of the contactor and the diode from the smaller diameter poles. These will not be installed with the new control.
11. Disconnect the bus bar between the contactor and fuse block.
12. Remove the two screws holding the contactor to the panel and remove the contactor. The contactor will be installed later in a new location.



## B. Refitting the Tow/Run switch:

1. Remove the tow/run switch from the plastic cover. (Note its orientation)
2. Reinstall the switch onto the supplied plate and label if desired. (This will be installed onto the plate later)

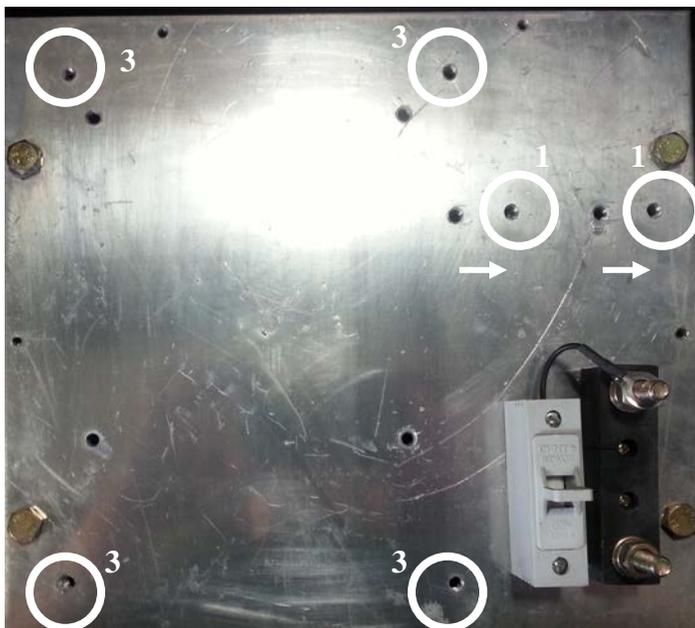


## C. Installing the 1244 control:



1.25 Inch from this edge

1. Drill and tap 2 (M6) holes for the contactor, the new holes should be located 1 inch (away from control) from the old holes.
2. Lay the 1244 control on the panel so that the terminals are on the bottom side. Align the edge of the controller's base plate about 1.25 inches from the bottom of the panel and about  $\frac{3}{4}$ " from the left edge. \*Take note of the steel frame on the underside of the aluminum plate.
3. Mark the locations of the four holes on the controller's mounting plate. Drill and tap the four locations using an M6 Tap.
4. Using a clean towel clear all debris and old heatsink compound from the panel.
5. Apply an even layer of new thermal compound to the heatsink of the controller.
6. Using the four supplied M6 bolts, washers, and lock washers fasten the new controller onto the cart panel.



$\frac{3}{4}$ " Inch from this edge



7. If using the old contactor connect the terminal closest to the controller (large diameter pole) to the B+ terminal of the control using supplied 4AWG wire.
8. Proceed to attach the contactor to the panel by first laying down the switch assembly from *Section B* placing the contactor on top and using the newly drilled holes with the existing M6 screws. If installing a new contactor [advised] consult the data sheet to ensure proper terminal connection, utilize the normally open contacts.
9. Connect the upper terminal of the fuse block to the remaining large diameter terminal of the contactor using supplied 4AWG wire.
10. Lower the control panel back into the cart but do not set it into the floor holes yet. Locate the wire removed from the white fuse block, reinsert it, and retighten the screw.
11. Proceed to fit the panel back into place in the cart and reattach the nuts on the underside of the cart.





12. Reconnect the motor A1 wire to the B+ terminal of the controller and the A2 wire to the M-. (**Avoid placing wiring in the NCZ-no cable zone**)
13. Connect the negative line of the battery and the ring terminal on adapter harness to the B- terminal of the controller.
14. Connect the two small ring terminal solenoid wires (green and black) to the smaller diameter poles of the contactor.
15. Connect the 24 pin connector of the adapter harness into the controller and mate the 10 pin connector to the 10pin connector on the cart harness.
16. Locate the two motor field wires (F1 and F2) removed from the old controller (red and black respectively). Clip the existing terminals off using wire cutters and strip approximately ¼ of insulation off the ends. Using the proper crimper, refit the wires with the supplied ring terminals. These can now be connected to the F1 and F2 terminals of the controller.
17. Reconnect the wire between the lower side of the fuse block and positive side of the battery.

