ALLTRAX
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SPEED   REGEN
ALLTRAX
FN-DM-K2

Alltrax Inc
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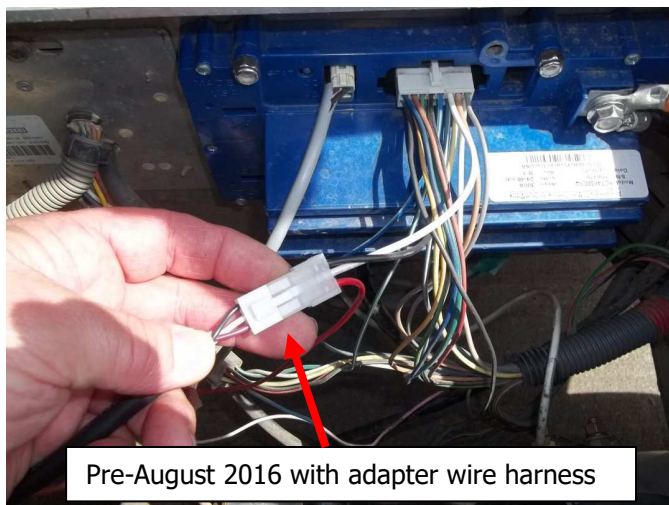# Alltrax XCT Function Knob Boxes: FN-DM-K2 (Dash Mount) For XCT REGEN Motor Controllers

File: DOC113-024-B_FN2-DM-K2_XCT-Operators-Manual.pdf, Released Rev B, EC-022020

XCT MODELS: **ALLTRAX PN: FN-DM-K2, DASH mount panel**
                              ALLTRAX PN: FN-K2, SURFACE mount box

The FN-K2 and FN-DM-K2 operate identically. The **XCT** motor controllers have "User Inputs" or commonly called Personality Switches that allow for preset user profiles or interactive adjustments of Speed or Regen while driving. XCT Controllers PRIOR to AUGUST 2016 may not have the FN's integrated 3-pin connector in J4-J5-J6 connector well (See WEB SITE for serial number cutoff). An adapter kit for all older controllers taps into the carts wire harness.

Use TOOLKIT software (Version 3.0 or above) to enable the new Function Node control features. Newer XCT controllers built ON or AFTER August 2016 will have the 3-pin connector to directly plug the FN boxes and DM panels into the XCT controller J4-J5-J6.
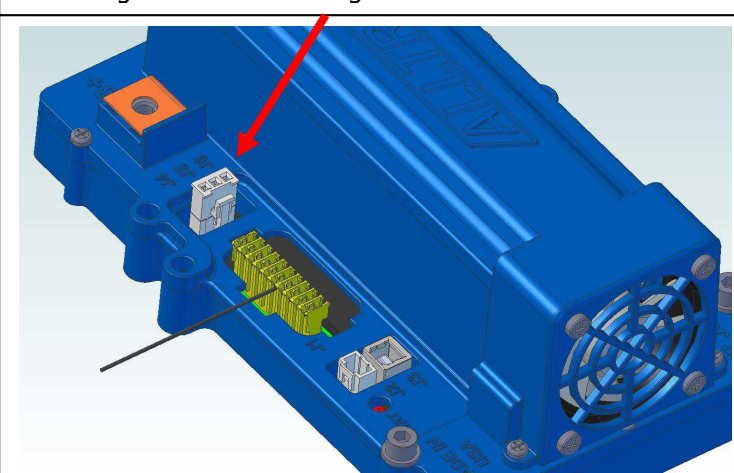
**FN-DM-K2 (Dash Mount)
Dual Potentiometer**

Pre-August 2016 with adapter wire harness

**FN-K2 (Surface Mount)
Dual Potentiometer
(Shown for reference only)**

After-August 2016 with Integrated J4-J5-J6 Connector

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INSTALLATION:

READ ALL INSTRUCTIONS FIRST – save yourself the frustration!

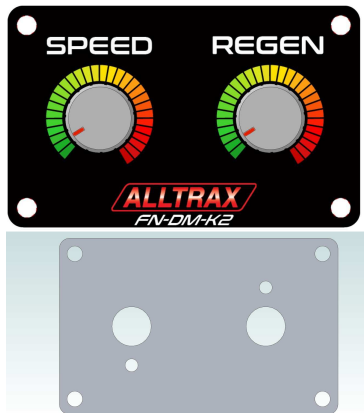Unpack your kit, 4 screws, **FN-DM-K2**, Instructions manual, zip ties.

Hold the panel in a flat location you want, and mark an edge, OR use the 1:1 template included, more detail in the coming steps.
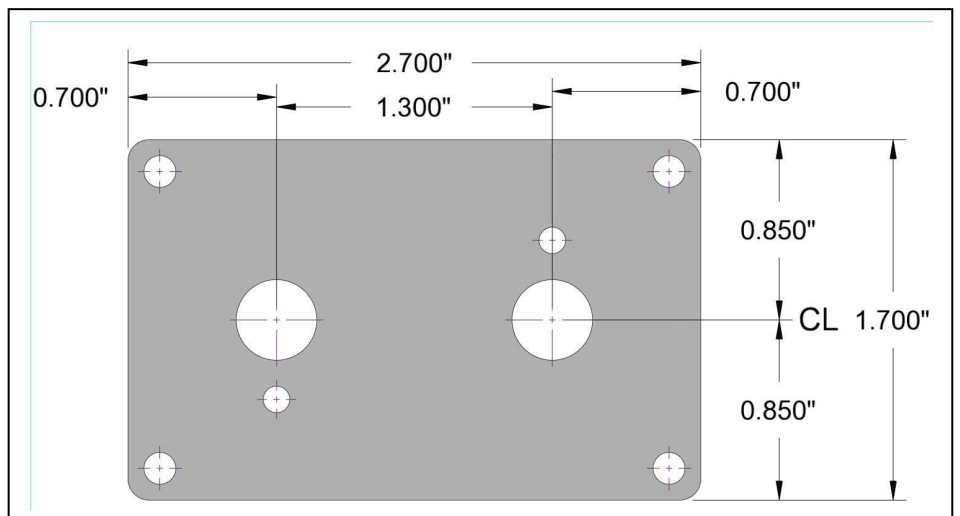
Pictures Reference only

Notice <u>the panel switches are centered but a visual illusion makes you think it is off center</u>. We will use a 1" diameter hole saw to drill clearance holes in the dash or flat mounting surface.

SPEED   REGEN
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FN-DM-K2

MET105-003-10

2.700"
1.300"
0.700"
0.700"
0.850"
CL 1.700"
0.850"

Check behind the panel to ensure you won't drill into wiring or other critical things.
Measure twice – drill once!

Check measurement of drill center holes, slightly over 1-1/4" (33mm)
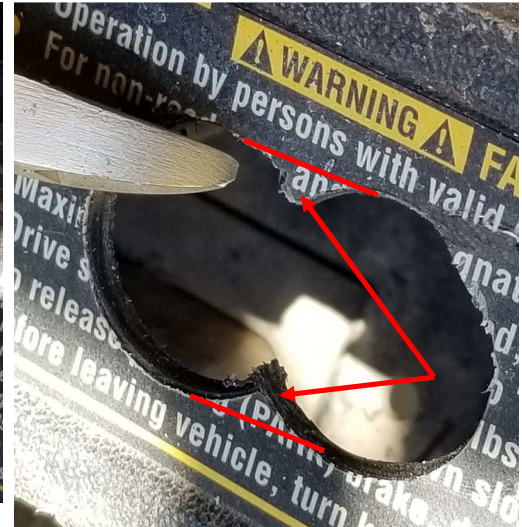
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>> Please wear eye protection! <<

Careful of WIRES behind panel
Using a 1" hole saw, drill TWO holes 1.3" on center apart from each other. THE HOLES WILL OVERLAP!

Use a file, cut blade, or cutters to trim the center two ribs to open up the hole for the wiring and switch terminals.
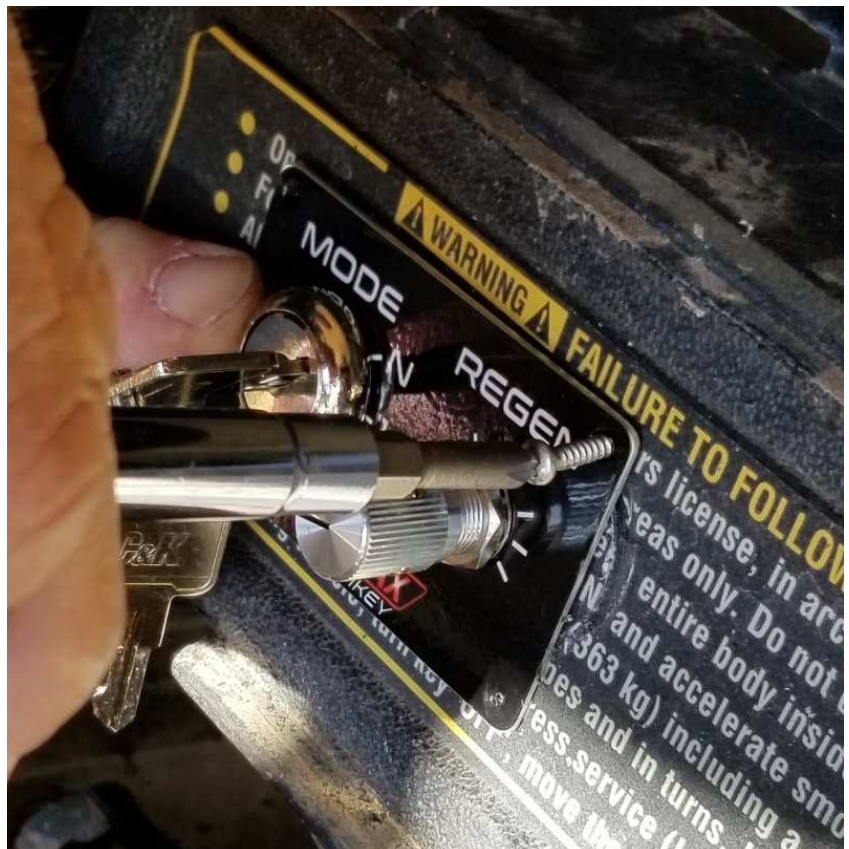

EC-022020 REV B – Use larger drill from 1" to 1-3/8" diameter

Trial fit the **FN-DM-K2** panel and check for clearances, file or trim as necessary.

Install panel using the provided 4 plastic tap screws.

Picture shows FN-DM-KEY but mounting is the same for all Dash Mount DM panels.

SOFTWARE
Download the latest Alltrax TOOLKIT Version 3.0 (or above) from the Alltrax web site: www.alltraxinc.com.

Using toolkit the function knob pertains to the control bar in the software. You can set the Minimum and Maximum values that correlate to the full left of the knob FCCW (Full Counter Clock Wise) and the maximum value slider for the full right knob FCW (Full Clock Wise)
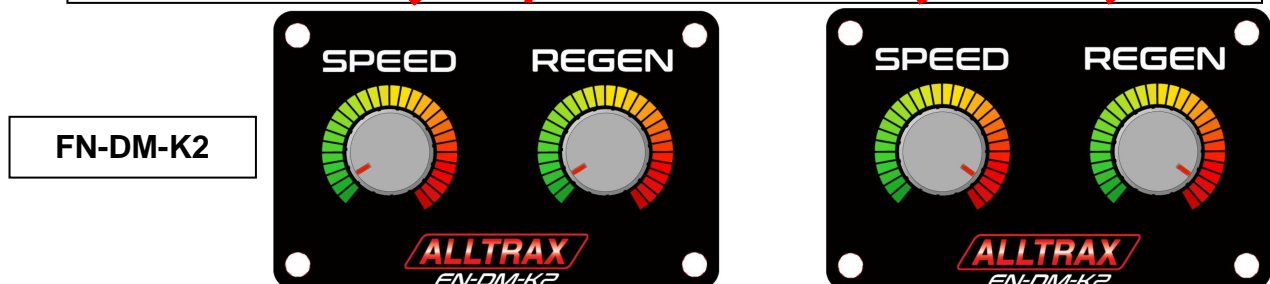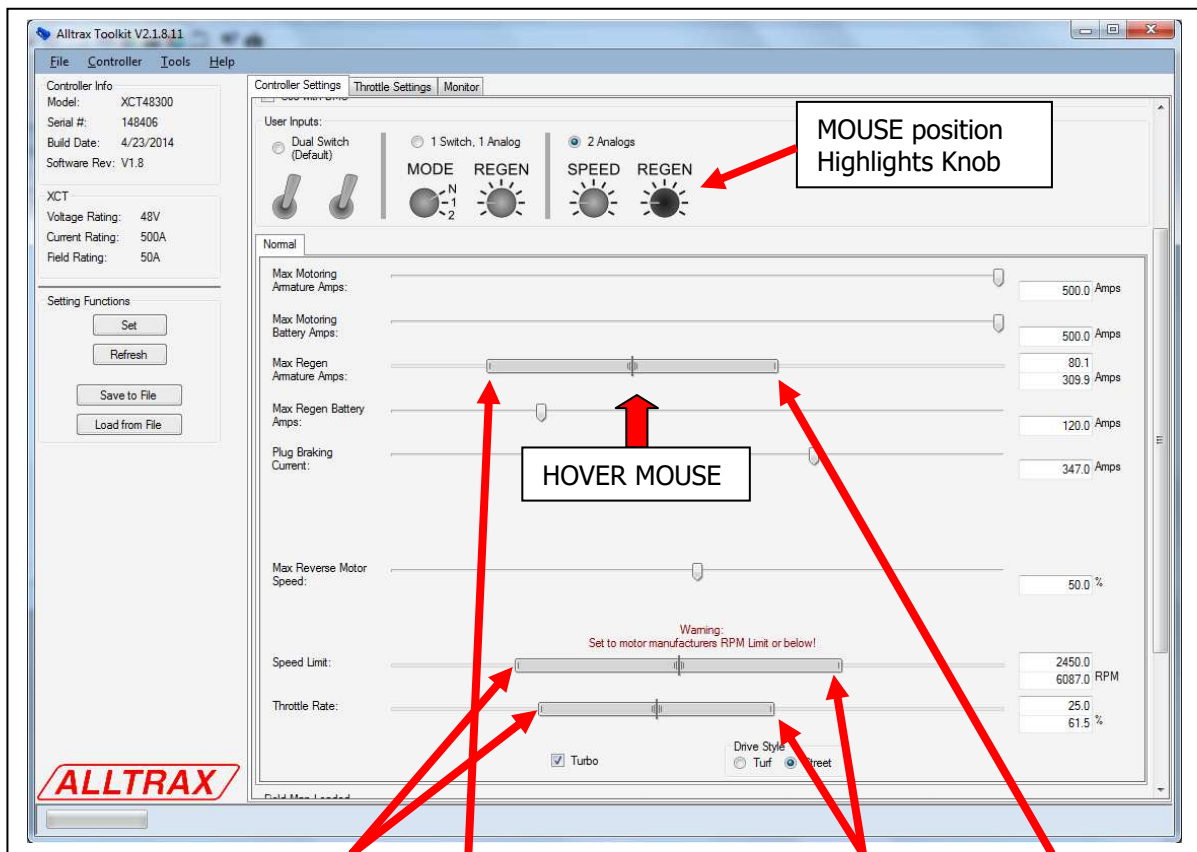
Click the 2-Analogs Input radio button to activate the **FN-DM-K2** controller.
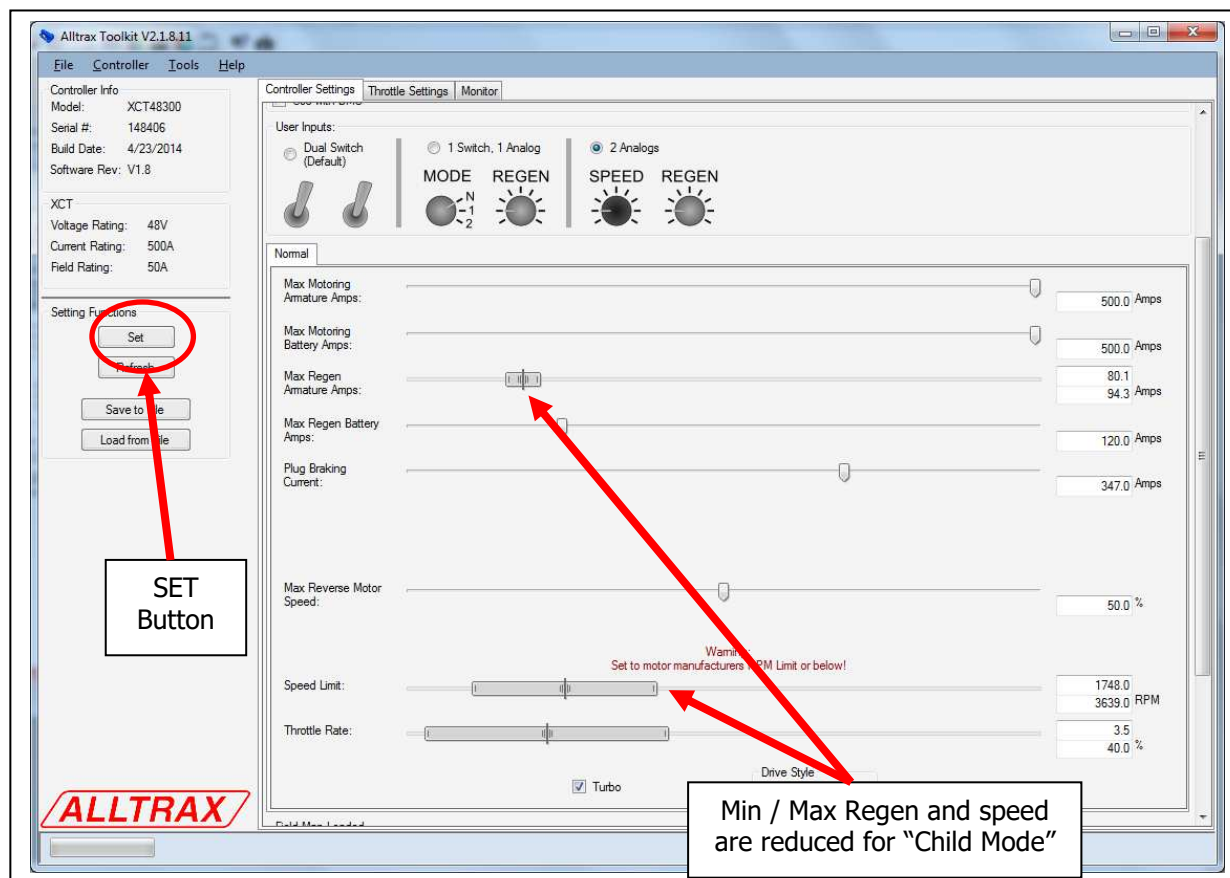
With the "SPEED" and "THROTTLE RATE" tied together in software, you can adjust both sliders for "mild to wild" so when the Speed or Regen pot are full left minimum, the throttle rate AND the speed are soft and slow and the Regen is soft and will coast. When the knobs are at full right (Clock wise) is fast and wild. You can tune these two parameters for driving style. With the knob to full left, you save power and reduce battery draw, at full right (in this example) its full power **Performance Mode** as shown below.

In this example, the speed limit RPM is spread across 2450 to 6087RPM (depends on the motor RPM limits) and Regen is set for a soft 80 amps up to a crawling down a steep grade 300amps.

The software also has a feature to "Highlight the knob" when you hover over the slider bar down below. This helps identify which slider you're affecting. In this example the mouse (red arrow) is hovering over the REGEN slider making the regen knob highlighted.

When the kids come over, set the box for mild mode. Then they can't get into too much trouble. However – if the **FN-DM-K2 panel** is unplugged, the controller defaults to the minimum speed set in software as a failsafe (I.E. smarts kids try to unplug the box…)

Once you have your settings configured – **PRESS SET** to program the controller and you're all done!

If you have any feedback or comments for these instructions, please email info@alltraxinc.com as we value our customers input, we make feature rich performance products based on our customers input.

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