



## CANsmart Wiring Harness for T3 Switchback Signals

DNL.WHS.13400



### Thank you for choosing DENALI

We know you would rather be riding your bike than wrenching on it, so we go the extra mile to make sure our instructions are clear and as easy to understand as possible. If you have any questions, comments, or suggestions don't hesitate to give our experts a call at 401.360.2550 or visit [WWW.DENALIELECTRONICS.COM](http://WWW.DENALIELECTRONICS.COM)

### Please Read Before Installing

DENALI products should always be installed by a qualified motorcycle technician. If you are unsure of your ability to properly install a product, please have the product installed by your local motorcycle dealer. DENALI takes no responsibility for damages caused by improper installation. **Caution:** When installing electronics it is extremely important to pay close attention to how wires are routed, especially when mounting products to the front fender, front fork, or fairing of your motorcycle. Always be sure to turn the handlebars fully left, fully right, and fully compress the suspension to ensure the wires will not bind and have enough slack for your motorcycle to operate properly.

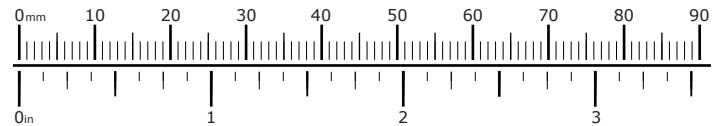
### Installation Tips

We strongly recommend using medium strength liquid thread locker on all screws and bolts. It is also important to ensure that all hardware is tightened to the proper torque specifications as listed in your owner's manual. For included accessory hardware please refer to the default torque specifications provided below. Inspect all hardware after the first 30 miles to ensure that proper torque specifications are maintained.

Bolt Size	in-lbs	ft-lbs	Nm
M3	10.0 in-lbs	-	1.0 Nm
M4	23.0 in-lbs	-	2.5 Nm
M5	44.5 in-lbs	3.5 ft-lbs	5.0 Nm
M6	78.0 in-lbs	6.5 ft-lbs	9.0 Nm
M8	-	13.5 ft-lbs	18.0 Nm
M10	-	30.0 ft-lbs	41.0 Nm
M12	-	52.0 ft-lbs	71.0 Nm

### Hardware Sizing Guide

Not sure what size bolt you have? Use this ruler to measure screws, bolts, spacers, etc. Remember, the length of a screw or bolt is measured from the start of the "mounting surface" to the end of the screw, so only include the screw head when measuring countersunk screws.

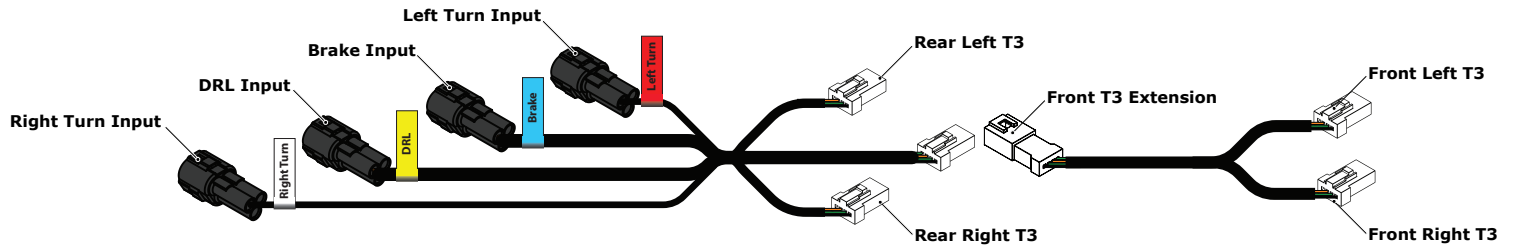


## What's In The Box?



### Kit Contents

- (a) CANsmart Wiring Harness for T3 Switchback Signals.....Qty 1

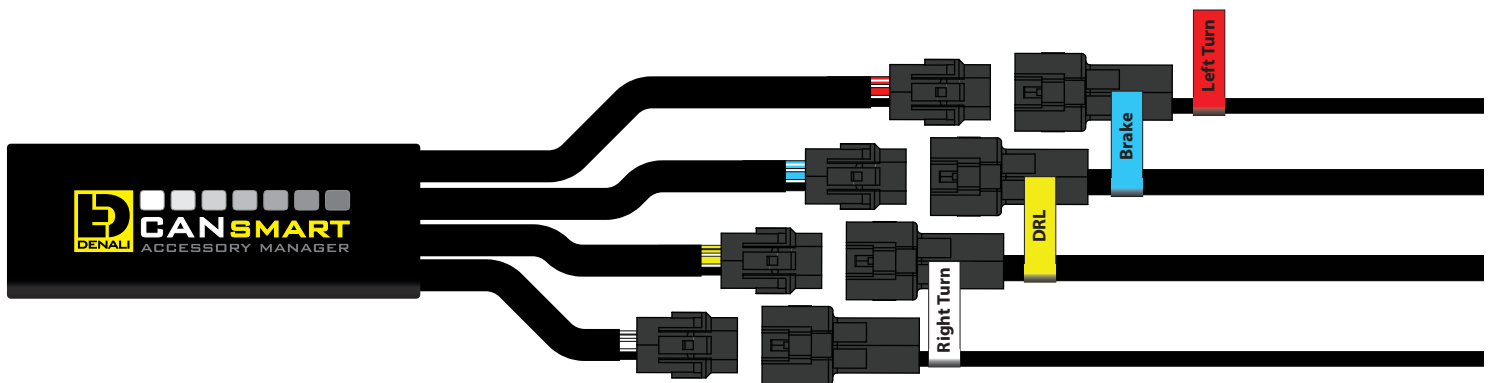


## 1.1 - Overview of Harness

The DENALI CANsmart™ Wiring Harness for T3 Switchback Signals provides plug-n-play installation of four T3 Pods to the CANsmart™ Controller.

Compatible with all GEN II DENALI CANsmart™ Controllers, no wire tapping or other modifications are necessary, just plug directly into the circuits of the CANsmart to send the signals from your controller to the T3 Lights. This harness is designed to power a set of four T3 lights; two rear T3 pods & two front T3 pods, but can also be configured for an installation of just front or rear T3 pods as well.

## 2. Connecting To CANsmart Controller



## 2.1 - CANsmart Connections

Follow the steps in this section to configure the harness for installation of a set of four T3 lights; two rear T3 pods & two front T3 pods. If configuring for an installation of just front or rear T3 pods follow the steps listed in *Section 5*.

- Step One:** Connect the Left Turn Input to the Red circuit of the CANsmart.
- Step Two:** Connect the Brake Input to the Blue circuit of the CANsmart.
- Step Three:** Connect the DRL Input to the Yellow circuit of the CANsmart.
- Step Four:** Connect the Right Turn Input to the White circuit of the CANsmart.

# 3. Configuring CANsmart Controller

The screenshot displays the HEX ezCAN Configuration Tool interface. At the top, it is titled "HEX ezCAN Configuration Tool" and features logos for "HEX INNOVATE" and "DENALI CANSMART ACCESSORY MANAGER". The main area is divided into several sections:

- Circuit Functions:** A header with the instruction "Click on the icons to change the function of each circuit". Below are four circuit options: Red Circuit (Left Turn, Fuse: 2 Amps), Blue Circuit (Brake Light, Fuse: 3 Amps), Yellow Circuit (Light Pair 1, Fuse: 3 Amps), and White Circuit (Right Turn, Fuse: 2 Amps).
- Auxiliary Lights One:** A panel for configuring auxiliary lights. It includes sliders for Day Intensity and Night Intensity for both High Beam and Low Beam. On the right, there are several toggle switches: "Off when turn signal active", "Strobe when Horn active", "Strobe on 'Flash to pass'", "Inverse flashing when hazards active", "Modulation", and "Three-Wire Dimming Mode" (with a sub-note: "Disable this mode for two-wire auxiliary LED lights").
- Auxiliary Brake Light:** A panel for configuring the brake light. It includes sliders for Running Light Intensity (set to 10%) and Brake Light Intensity (set to 100%). On the right, there are radio buttons for "Solid on braking", "Brake Applied Flashing (Continuous)", and "Brake Applied Flashing (California legal)", along with toggle switches for "Flash on Emergency Stop" and "Flash on Rapid Engine Braking".
- Turn Signals:** A panel for configuring turn signals. It includes sliders for Running Light Intensity (set to 0%) and Turn Signal Intensity (set to 100%).

## 3.1 - Configure CANsmart Using Software

The CANsmart Accessory Manager will be used to configure your controller for operation of the T3 signals, for further details of how to use the software refer to the manual that was provided with your CANsmart Controller.

**Step One:** Use the Circuit Function Selector to configure each of the four circuits as shown above. (Red Circuit=Left Turn, Blue Circuit=Brake Light, Yellow Circuit=Light Pair 1, White Circuit=Right Turn)

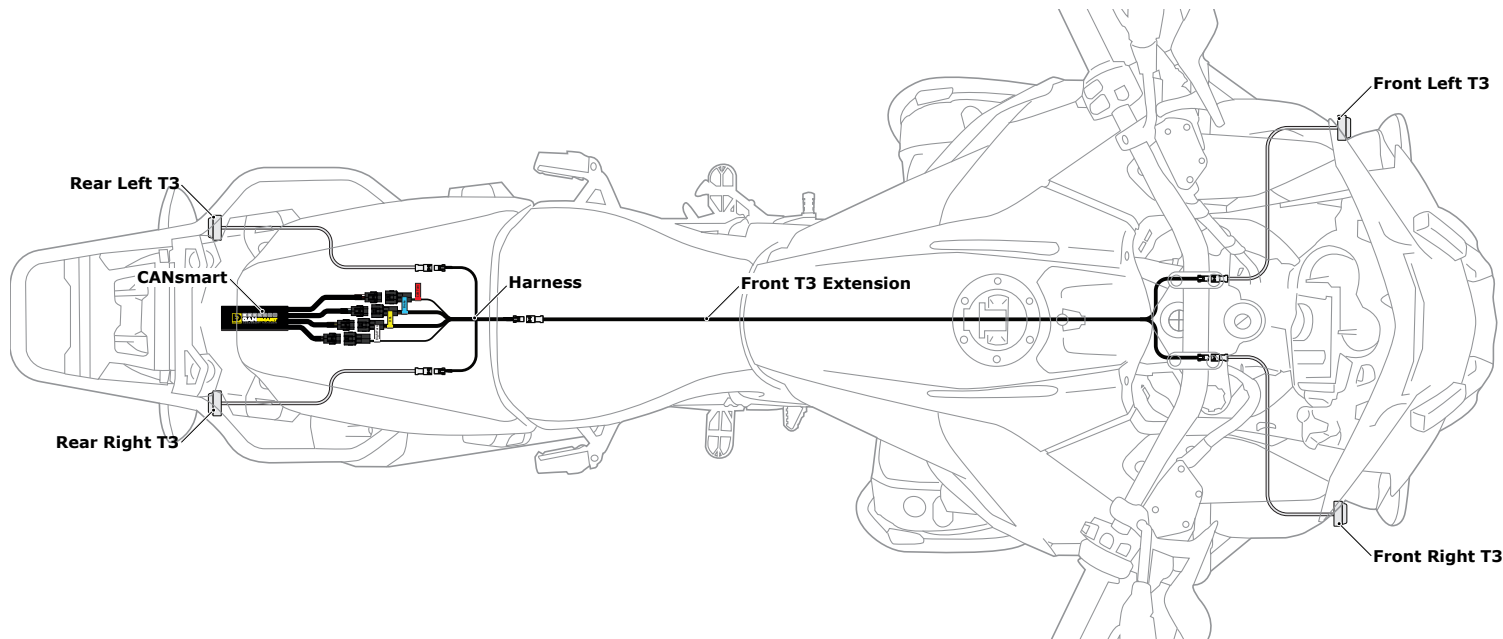
**Step Two:** In the Auxiliary Lights One panel, disable "Three-Wire dimming Mode".

**Step Three:** In the Turn Signal panel, set the running light intensity to 0%.

The remainder of the settings can be configured as desired, but it is important the settings made in steps one through three are not changed or the lights will not function properly.

**Note:** If installing just front T3 pods, you do not need to set the Blue Circuit to Brake Light. Likewise, if installing just rear T3 pods, you do not need to set the Yellow Circuit to Light Pair One. The unused circuit can be configured to any circuit function to power another accessory.

# 4. Wiring The Lights



## 4.1 - Routing The Harness

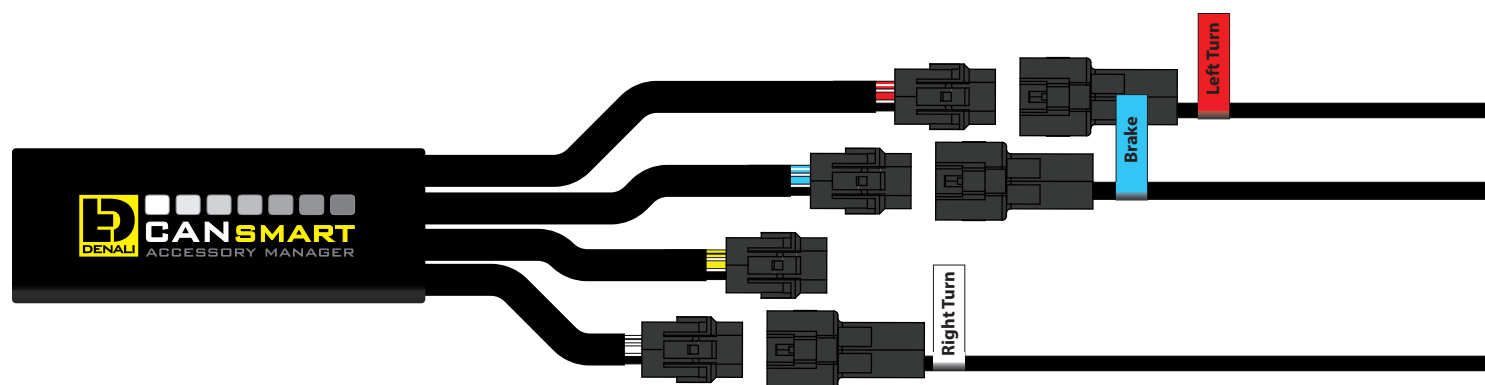
Once the connections to the CANsmart Controller have been made and the software has been configured you will need to identify the left side and right side T3 lights.

**Step One:** If installing front T3 pods, connect the Front T3 Extension to the long lead of the harness and begin routing the harness towards the mounted front pods, then connect the pods to the end of the extension.

**Step Two:** If installing rear T3 pods, begin routing the lead from the rear pods towards the harness and then connect the pods to the two short leads of harness.

**Step Three:** With the motorcycle's ignition on, activate each side turn signal and make sure the T3 pods are flashing on the correct side of the vehicle. If incorrect, simply swap the connections or remount the pods on the other side of the vehicle.

# 5. Alternate Wiring Options



## 5.1 - Wiring For Rear T3 Pods Only

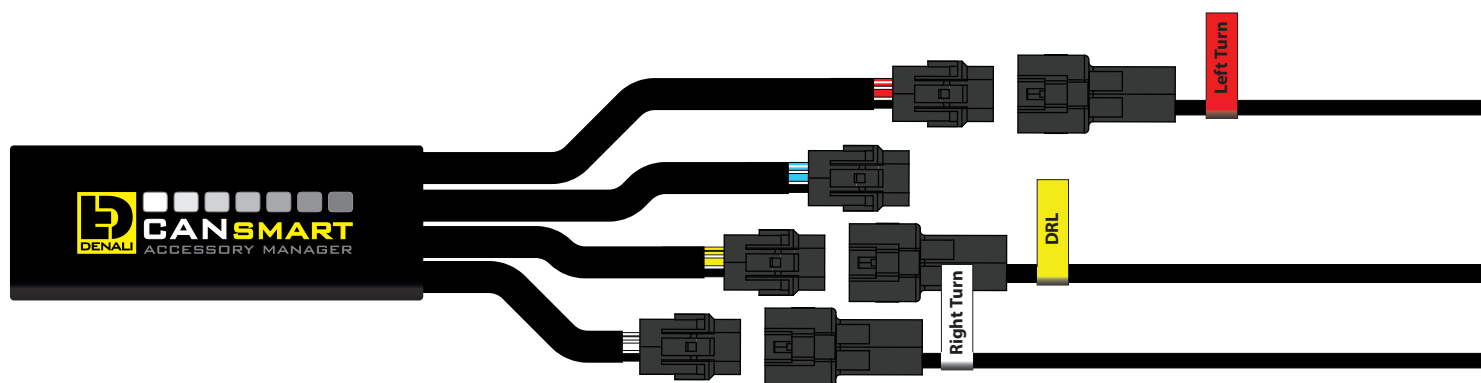
If configuring for an installation of just rear T3 pods follow the steps listed below.

**Step One:** Connect the Left Turn Input to the Red circuit of the CANsmart.

**Step Two:** Connect the Brake Input to the Blue circuit of the CANsmart.

**Step Three:** Connect the Right Turn Input to the White circuit of the CANsmart.

**Note:** The unused Yellow Circuit on the CANsmart can be used to control an additional device of your choosing.



## 5.2 - Wiring For Front T3 Pods Only

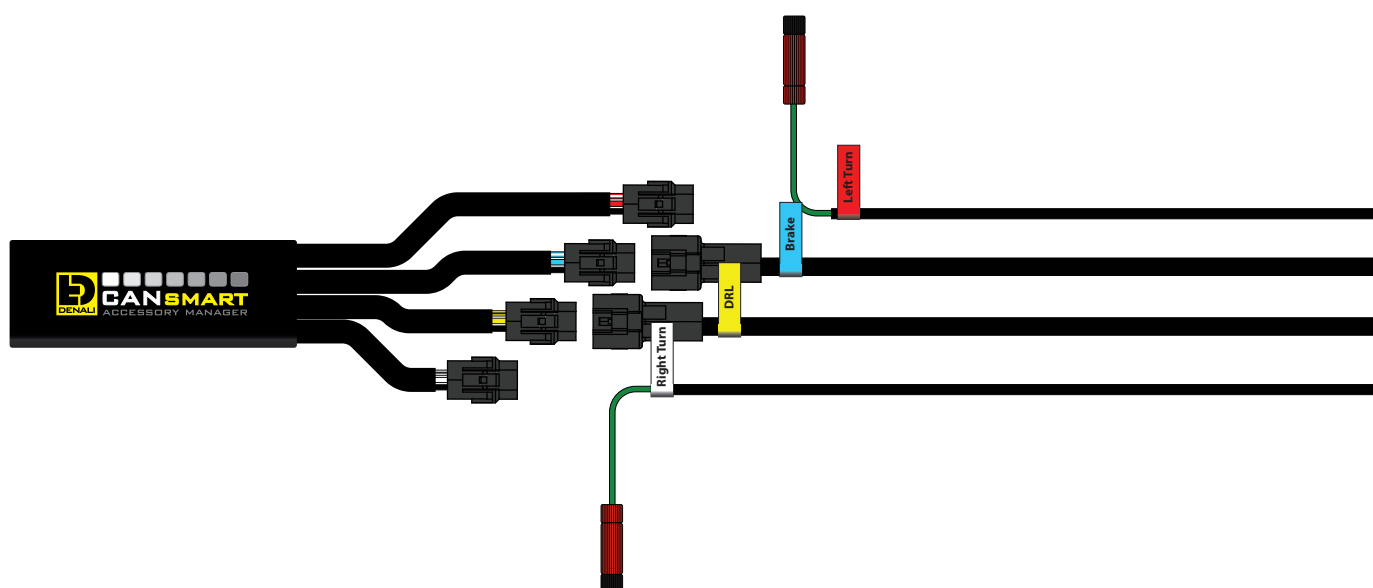
If configuring for an installation of just front T3 pods, follow the steps listed below.

**Step One:** Connect the Left Turn Input to the Red circuit of the CANsmart.

**Step Two:** Connect the DRL Input to the Yellow circuit of the CANsmart.

**Step Three:** Connect the Right Turn Input to the White circuit of the CANsmart.

**Note:** The unused Blue Circuit on the CANsmart can be used to control an additional device of your choosing.



## 5.3 - Tapping Factory Turn Signals

If you already have other devices on your CANsmart and only have two circuits available, you can use the motorcycle's factory turn signal wires for the turn signal input.

**IMPORTANT!:** The wiring configuration in section 5.3 is NOT compatible with BMW motorcycles. This wiring configuration can only be used on Harley-Davidson, Honda or KTM motorcycles.

**Step One:** Cut the connector off of the Left Turn Input and then use a posi-tap connector to tap the factory left side turn signal positive wire.

**Step Two:** Connect the Brake Input to the Blue circuit of the CANsmart.

**Step Three:** Connect the DRL Input to the Yellow circuit of the CANsmart.

**Step Four:** Cut the connector off of the Right Turn Input and then use a posi-tap connector to tap the factory right side turn signal positive wire.

**Note:** The unused Red and White Circuits on the CANsmart can be used to control an additional device of your choosing.