

Installation of the AdMore Premium Light Bar on an Indian Motorcycle

May 16 2017 by Ken "the Mucker" Sexton



Ref: AdMore Lighting, LED8020-SB, Premium LED Light Bar with Smart Brake Technology,
<https://www.admorelighting.com/product/admore-smt-light-bar-with-smart-brake-technology-new/>

Bought from: Twisted Throttle, <http://www.twistedthrottle.com/shop-by-product/lighting-visibility/auxiliary-turn-signals-and-tail-lights>

OEM connectors: Delphi Metri-Pack Series 150, available at <http://www.mouser.com> ,
www.cycleterminal.com , <http://whiteproducts.com> etc.

The AdMore Premium LED Light Bar with Smart Brake Technology adds a **BRIGHT** LED light assembly to the motorcycle, complete with the standard-operation tail light, brake light and turn signals. It complements the OEM lights with sequential amber turn signal LEDs and an accelerometer that activates the brake light LEDs as the motorcycle slows down on closed throttle, in addition to the

standard brake light operation controlled by the brake lever and pedal. There is also a center set of three bright white LEDs that momentarily flash at the onset of using the brakes, intended to capture the eyes in vehicles behind the motorcycle. If the drivers behind you don't see you with this thing lighting up, they must be blind!



With the use of a laptop computer and the appropriate Indian-specific firmware installed in the unit, the light bar can be configured to suit the owner's preferences. You decide how you want the individual functions to operate. Should the turn signals progressively strobe to the side or just blink like the OEM lamps? Adjust the sensitivity of the accelerometer so the brake light comes on with light deceleration or under more aggressive slowing, or only when you manually operate the brakes. Adjust the modulation of the brake lights or turn that feature off entirely. You can even turn on or off the single LED installed on the underside of the light bar (normally intended to illuminate the license plate).

For most motorcyclists, the typical mounting of the light bar would be to use the (included) bracket that would place the light above (or below) the license plate. I chose to install the light bar just below the Indian Roadmaster's trunk, where there is a wide, flat, black bar that's virtually made for the purpose. Mounting the light bar at the license plate would be the simplest and fastest location because all but one wire required for its functions is already there, behind the tail light. Mounting the light bar below the back of the trunk requires tapping into the OEM wiring below the seat and making up a new additional wiring harness, about 30" long, that runs parallel to the OEM harness under the seat. That doesn't make the job a lot harder, but it definitely adds to the time and hardware required.

Late Breaking news! As of May 2017, AdMore has developed a harness just for the Indians that have trunks. If you're mechanically handy and like doing your own wiring, read on. If you would prefer to just purchase the new harness and have an almost "Plug-N-Play" installation, get the Roadmaster harness from AdMore. It gets installed in the same location and method as the following instructions outline, except AdMore has already sourced the connectors and made it up.

Installation below the back of the trunk requires the drilling of two holes in the trunk mount, for attachment of the light bar. And for that job you'll need two 3mm screws about 10mm longer than the

two screws that hold the light bar lens to its body. The longer screws will protrude through the light bar and then through the trunk mount. Use two nuts and lock-washers (or two posi-lok nuts) to hold the light bar in place. Do NOT use non-metric screws in place of the 3mm items. For the nicest installation, you'll drill a third hole just a bit larger than the diameter of the light bar wires, at the lower-left, to pass the wires through the trunk mount. Otherwise you'd have to "hang" the light bar about 3/8" below the trunk mount, to clear the light bar wires, which come out of its back.

With the Premium Light Bar, AdMore gives you Posi-Taps (<https://www.posi-products.com/posiplug.html>) to "tap" into the OEM wiring and I like them MUCH BETTER than the all-too-common 3M "Scotchlok" wiring-connectors, which make an unreliable connection. If you mount the light by the license plate, that's all you'll need to get the light operating. If you mount it below the trunk and if you don't buy the AdMore Roadmaster harness, you'll need to buy some connectors and wire to make a new under-seat harness that goes under the seat. You should use the same brand connectors that Polaris/Indian uses all over the bike. The OEM connectors used for the tail light and signal system are the Delphi Metri-Pack, series 150, 2-pin and 5-pin connectors (SEE the link above). If you have any difficulty finding the 5-pin connectors, you can use 6-pin connectors and just leave one pin-set unused. In the two photos below, you can see the two OEM connectors (with blue & gray ends) that all Indian Thunder Stroke 111 owners will tap into.



Trunk tail light multi-pin connector on left & accessory 2-pin plug on right.



OEM 6-Pin Tail Light connector, under seat, by right side frame.

The required OEM wires are all under the seat, but if you mount the light bar at the license plate, you can tap into four of the required wires right at the tail light. The 6-pin connector with gray ends near the right side of the frame has four of the needed wires. It is at the high-end of the same wire harness that runs down to the tail light. Indian supply's us with a 2-pin (ground & switched 12-volt positive) connector closer to the left side (with blue ends, above the shock absorber) and it was probably intended to power whatever accessories you or your dealer might hook up to the bike. The AdMore Light Bar requires a 12-volt positive feed that is "switched" ON when the ignition is powered up. Do NOT use the blue/pink or green/yellow wires in the 6-pin connector for switched 12 volt positive. Tapping into the 2-pin accessory source can be done with a matching Delphi male connector or you can use a Posi-tap on the gray wire, depending on personal preferences and where you're mounting the light bar. The black wire in both OEM connectors under the seat is ground, so the choice is yours as to which ground source goes to the AdMore Light Bar. I had the 2-pin matching male connector and I used the 2-pin hot source for power anyway, so I used that ground as well.

Here is the wiring scheme:

5-Wire Light Bar	Function	Indian Motorcycle
RED	+12V	GRAY*
BLUE	Brake Light	PINK/BLUE**
GREEN	Right Turn Signal	BLUE/RED**
YELLOW	Left Turn Signal	BLUE**

BLACK	Ground	BLACK**
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* Sourced from 2-pin AUX connector

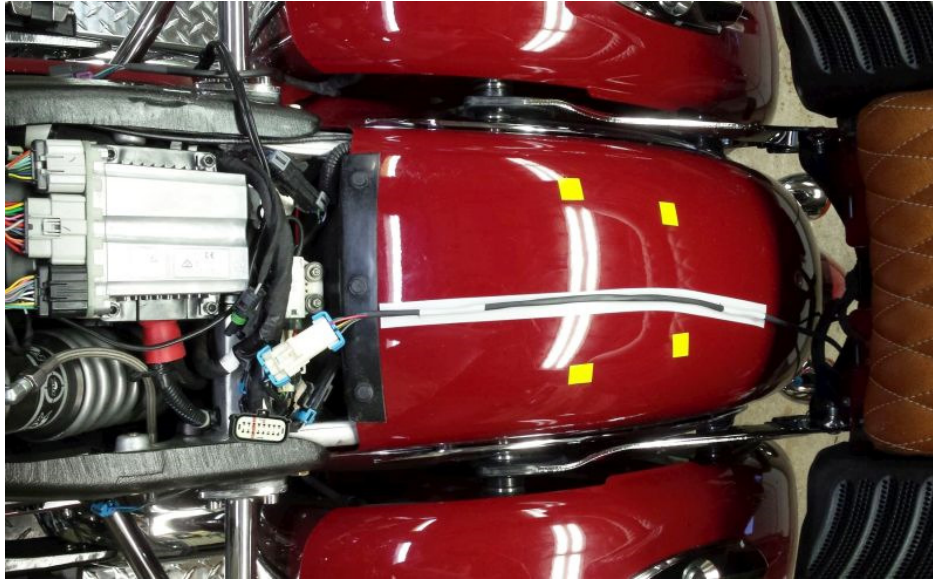
** Sourced from 6-pin tail lamp connector

If you're installing the light at the license plate, you don't need to do anything at the OEM 6-pin connector under the seat, but you'll need to "snake" the 12-volt switched positive down the plastic conduit that runs from the area under the seat, under the rear fender, down to the tail light. If you're mounting the light bar below the trunk and you want the harness to be installed to the underside of the seat pan, parallel to the OEM trunk harness, you can use the new AdMore Roadmaster harness or make your own, about 30" long, with a 5-pin connector at BOTH ends, as shown in the photo below.

If you prefer to "keep it simple", you can use the AdMore Roadmaster harness (or a harness that you makeup) and just tape it down to the top of the rear fender. That way, any time you need to remove the seat, you'll only need to disconnect the original connectors that the bike came with and the light bar wiring would remain undisturbed. If you tape the harness to the top of the fender, be sure to keep it clear of the seat's four rubber "bumpers" when it's reinstalled. Running the harness about 1.5" left of the fender's centerline works best. This method also means that you don't need to install a multi-pin connector where the new harness meets the light bar wires. You can "hard wire" those five wires with Posi-Taps, crimp connectors or even soldering.



New harness mounted to underside of the seat, parallel to OEM.



Delphi Roadmaster harness, taped to the top of the fender. Yellow squares show where the seat bumpers touch-down.

With all of the wiring done and the light bar mounted where you want it, it's ready to go. If you want to alter any of the functions from their default settings, just download the software suite from the website and plug the light bar into a laptop computer with the supplied USB cable. My AdMore Light Bar was an "off the shelf" unit that was not originally made for use on a TS111, so it required a new firmware download that reconfigures it to operate with the Indian/OEM's unusual turn signal system. The factory designed our turn signals so they all get a constant 12-volt positive feed (with the ignition ON) and the negative feed gets pulsed when we operate the turn signal switch. VERY few motorcycles have their turn signals wired that way. AdMore wrote new firmware that makes the Indian wiring a non-issue. You or your dealer can order an Indian-specific Premium Light Bar which will come pre-loaded with the correct firmware or you can use any AdMore Premium Light Bar and do the firmware update with a laptop computer. When in doubt, contact the folks at AdMore and they'll make sure you have the proper firmware for your light bar.

Lastly, it bears mentioning that, because of the unusual system that the factory used to operate the turn signals, installing the AdMore Light Bar causes the rear turn signals to light-up all of the time and then blink normally as turn signals. In essence, the rear signals will now serve as running lights, when the signals are not in operation. In addition, when you shut down the ignition, the rear signals will stay illuminated for a little longer than a minute and then go dark. That's capacitance in the system running out and not an indication of any malfunction. In my opinion, that's an added benefit that improves rear visibility, even after parking it at night. But if you don't like that feature, then a couple of VERY inexpensive diodes (which can be bought at Radio Shack or any similar source) installed in the two turn signal circuits (light bar green & yellow wires) will render the rear signals as turn signals only. The folks at AdMore will guide you through that simple alteration, IF you don't want the rear signals to also serve as running lights.

I have made a video outlining the AdMore Light Bar as mounted on my Indian Roadmaster and posted it on YouTube. In addition, from there you'll see links to the Indian forums where the technical information needed for the installation can be found.

I am VERY impressed with the AdMore Light Bar. My goal was to do whatever it takes to capture the attention of the cell phone junkies and others who just refuse to make driving their first priority while behind the wheel. I think that this device is probably the BEST method available to get the job done. With the AdMore Light Bar, at ALL times the Indian TS111 has more rear-facing, bright LEDs than ever and when the brake and/or turn signal LEDs fire-up, it's a virtual "poke in the eye" to the following public. If this doesn't keep the jerks from running into us, the last resort is going to be a lawyer, after the impact. I hope it never comes to that.

Ride Safe!

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