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Disclaimer: Modify your vehicle at your own risk.

1. REQUIRED PARTS

To complete the installation of 2013 Ram LED tail lights into a 2009-2012 truck, you will need the following:

1.) LED Tails – Available from Mopar Online Parts, who sponsored this writeup.
   • Sport LED Tails P/N’s: 68093080AB and 68093081AB (pictured below)
   • Premium (Laramie) LED Tails P/N’s: 68093078AB and 68093079AB

2.) LED Tail Pigtail Wiring Harness – Available from Mopar Online Parts.
   • P/N 5013984AA – QTY 2

3.) LED Load Resistors (Various Suppliers).
   • 50W6OHM Resistors – QTY 2

4.) EV6 Male Connectors – Available from InjectorRX (www.injectorrx.com).
   • Bosch EV6 Male Connector – QTY 2

5.) H13/9008 Male Pigtails – Available from Autolumination (www.autolumination.com).
   • Male Pigtail – QTY 2

6.) Approximately 2’ of 16ga insulated stranded automotive wire.
2. OPTIONAL PARTS

The following parts are optional, and not required. You may choose to use these depending on your preference.

7.) LED Tail Pigtail Wiring Harness (Junkyard)
   - This harness is the same harness that was used on the ’98-’03 Durango, ’04-’09 Durango, ’96-’00 Caravan/Voyager, and potentially others. Be sure to get as much wiring as you can from the donor vehicle – at least 6 inches or more.

8.) Aluminum Plate
   - LED Load Resistors can get hot, it is recommended you mount them to a metal surface. I chose to mount the LED Resistor to an aluminum plate, which I mounted to the truck. Aluminum is a far better heat sink than steel.

3. ORGANIZE WORKSPACE

Start with a clean work space. Below is the layout of the parts I started with, identified by number below.
4. WIRING

To install the 2013+ LED tail lights, a jumper harness must be made to connect the 2009-2012 wiring to the 2013+ LED tail lights.

Before we start making the harness, it is important to note how the 2013+ LED tail lights function. Below is a diagram of the functions of each of the pins in the 2013+ tail lights:

A keen eye will notice that there are five pins in the 2013+ LED Tails, but only four of them are used. That is because the fifth pin is a fault sense driver for the 2013+ trucks, to alert the driver should a LED tail light malfunction. The 2009-2012 trucks do not have a provision for this logic, and will not be used.
4.1 LED TAIL SIDE WIRING

If you sourced the LED pigtail from a junkyard, you will need to move one pin, and remove and discard another, as they are not all in the correct location for the 2013+ LED Tail Lights. Below is a picture of the contact that must be moved and removed and discarded.

To remove a pin:

1.) Remove rear cap with a pick or small flathead:

2.) Remove rubber insert:
3.) Lift up on blue connector retainer with a pick:

4.) Insert small flathead or allen key to release plastic pin retainer.

5.) Remove wire
6.) Re-insert wire to correct location.
4.2 TRUCK SIDE BRAKE/TURN SIGNAL WIRING

On the 2009 – 2012 truck, there is a separate plug for the brake/turn light and for the reverse light. This section covers the brake/turn light wiring required.

1.) Take the H13/9008 male connector and grind off the locking tab. This will allow the connector to fit into the truck female connector.

2.) Leaving yourself approximately 6-inches of wiring, you will want to connect your LED Tail Pigtail wires to the H13/9008 male connector, as identified below.

3.) At this time you will need to wire up a load resistor to prevent your 2009-2012 truck from showing a “Bulb Out” error message. The load resistor must be connected between the ground and brake/turn driver.
   a. Extend the power leads from the load resistor to a length of approximately 6 inches.
   b. Connect one side to ground, and the other side to the brake/turn signal wire.
4.3 TRUCK SIDE BRAKE/TURN SIGNAL WIRING

On the 2009 – 2012 truck, there is a separate plug for the brake/turn light and for the reverse light. This section covers the reverse light wiring required. The 2013+ LED tails use a 7443 reverse light, which is more powerful than the 921 style light used in the earlier trucks, which means the existing reverse wiring must be adapted to the 2013+ LED tail wiring.

The 2013+ LED tails share a common ground between the reverse light and brake/signal lights, whereas the 2009-2012 trucks have separate ground for the reverse and brake/signal lights. Due to this, the ground from the 2009-2012 reverse light will not be used for this installation.

1.) Take the male EV6 style connector, and connect the reverse light driver as follows:
5. INSTALLATION

1.) Be sure vehicle is in park, set parking brake, and disconnect negative terminal from the battery.

2.) Plug in the truck side brake/turn connector, and secure with a zip-tie. The zip tie is required because the H13/9008 male connector does not have a locking tab.

3.) Plug in the truck side reverse light connector.
4.) Run the wiring and LED load resistor down to a suitable metal location, load resistors get hot, and adequate care must be followed when selecting a mounting location. Below is a picture of where I mounted the LED lead resistor on my truck. Note that I used both an aluminum heat sink, secured with 3M VHB 4622 industrial strength adhesive tape. Do not use adhesive tape directly on the resistor. Use industrial grade sticky tape if you mount them as pictured.

5.) Connect the single remaining connector to the 2013+ LED Tail Light, and be sure to slide the red locking tab to the locked position.

6.) Reinstall tail light into vehicle.
7.) Check for proper operation.

8.) Enjoy!
6. OUTPUT COMPARASIONS

The first thing that every Ram owner wants to know: Are the 2013+ LED Tails “worth it?” Below are three comparison shots, which should help you decide – but the answer is YES!

1.) Left 2013+ LED Tail Light, Right 2009-2012 Incandescent Tail Light.
2.) Left 2013+ LED Tail Light, Right 2009-2012 Incandescent Tail Light – Parking lights on.
3.) Left 2013+ LED Tail Light, Right 2009-2012 Incandescent Tail Light – Brake lights on.