

# RETROBRIGHT

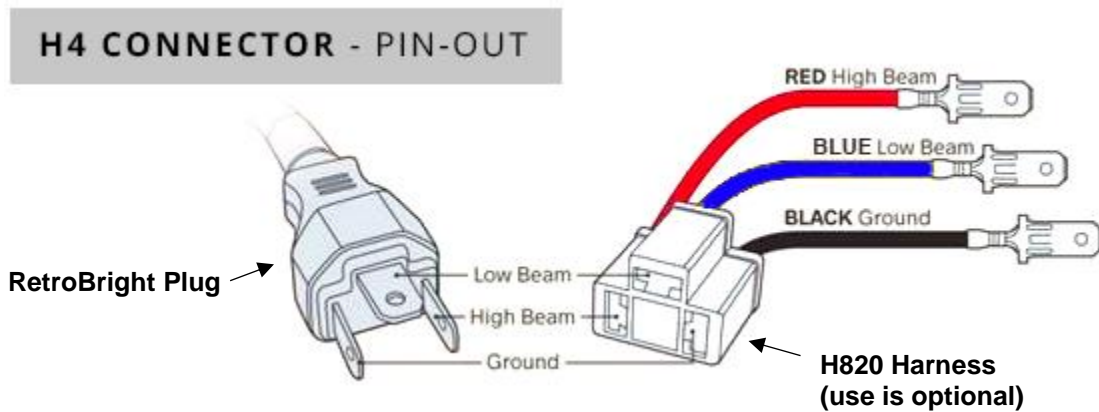
## Holley RetroBright LED Headlight (4" x 6")

Part Numbers: LFRB100H, LFRB120H, LFRB140H

Holley RetroBright LED Headlights are direct replacements for traditional sealed beam headlights. Due to potential wiring changes made to the factory wiring pinouts in 4" x 6" (100mm x 165mm) applications as well as differences between high and low beam circuits/connectors, these part numbers may not work when plugged directly into the factory harness. A flying lead adapter harness and unterminated male H4 connector have been included to make this installation as seamless as possible. They can also be used to replace worn or brittle factory connectors that may break upon removal of the current sealed beam bulb.

Professionals can remove the factory connector and position the wires to match. Use of the included harness or its parts are not mandatory and both scenarios will be covered in this document. Please read thoroughly prior to installation.

**\*ALWAYS CHECK VEHICLE WIRING TO CONFIRM CURRENT OR GROUND DUE TO POTENTIAL AFTERMARKET HARNESS VARIATIONS AND ANY CHANGES BETWEEN YEARS AND MANUFACTURERS. FAILURE TO DO SO COULD RESULT IN DAMAGE TO PRODUCT OR VEHICLE. DO NOT ASSUME WIRE COLOR MEANING ON THE FACTORY HARNESS! IF YOU'RE UNSURE OF THIS PROCESS, PROFESSIONAL INSTALLATION IS RECOMMENDED.**



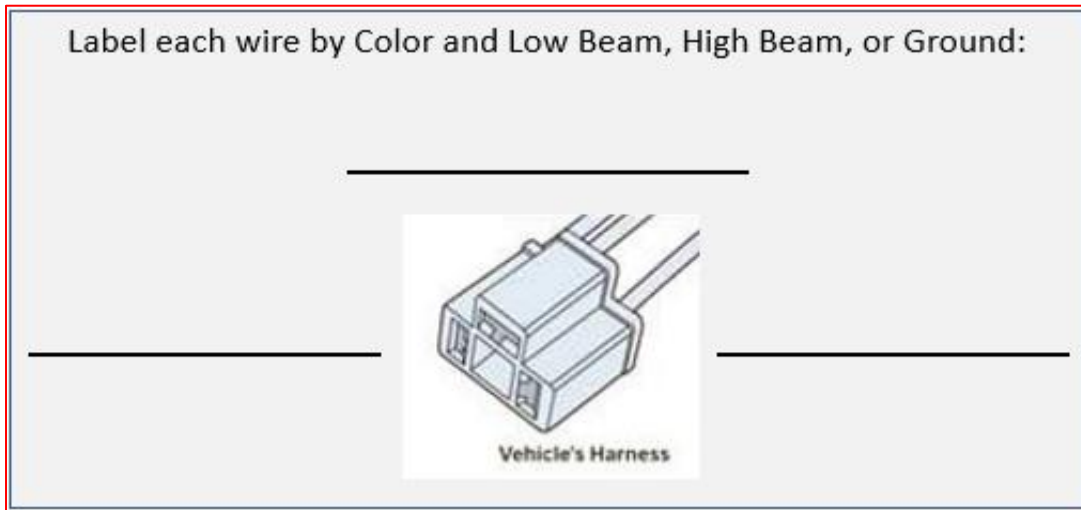
### Parts List:

Qty	Description	Part Number
1	Holley RetroBright LED Headlight	LFRB100 or LFRB120 or LFRB140
1	H4 Flying Lead Adapter Harness	H820
1	H4 Unterminated Male Connector	RBEC120

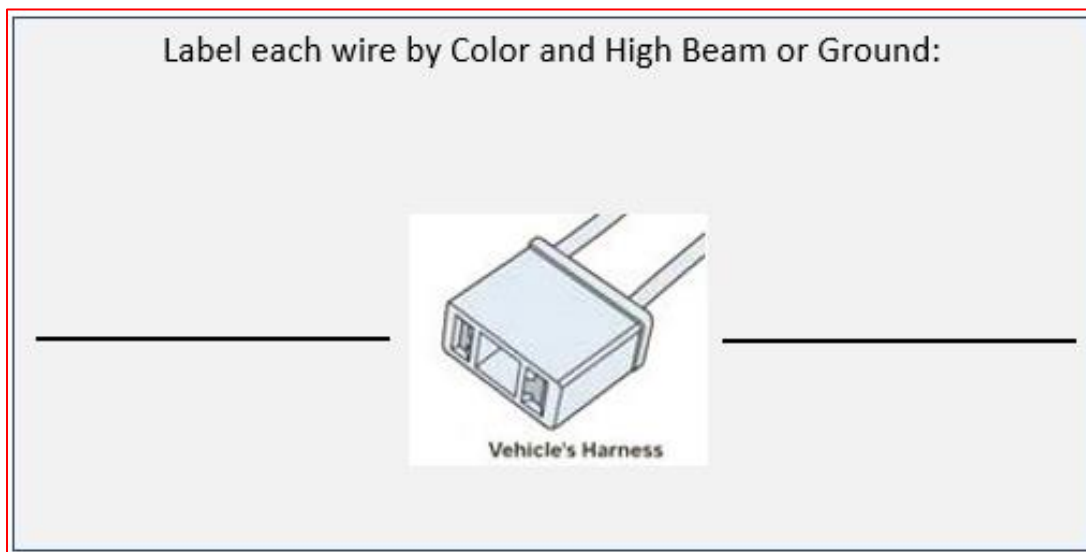
**Installation Items/Tools:** Screwdriver, circuit tester or multimeter, pin extractor (optional), dielectric grease, silicone/corrosion protection tape or heat shrink

**DO NOT SKIP.** Determine the corresponding wires on the vehicle harness with a circuit tester/multimeter to confirm which wires are low beam, high beam, and ground. **Write down** the data in the diagrams below or another paper and keep for reference. **DISCONNECT THE BATTERY.**

### 3 Terminal



### 2 Terminal



Now that you have recorded your vehicle's wire location and color above, choose an installation scenario that best suits your needs and skip to that section.

**Scenario 1** - Use the included H820 harness and RBEC120 connector to create an adapter harness to connect your Holley RetroBright Headlight to your vehicle harness. Headlight types 1A1 and 2A1 are compatible. The H820 harness cannot be used on headlight type 2E1 (trade numbers H4666, H4668, or H6545) due to the non-standard H4 connector; refer to installation Scenario 2 for type 2E1.

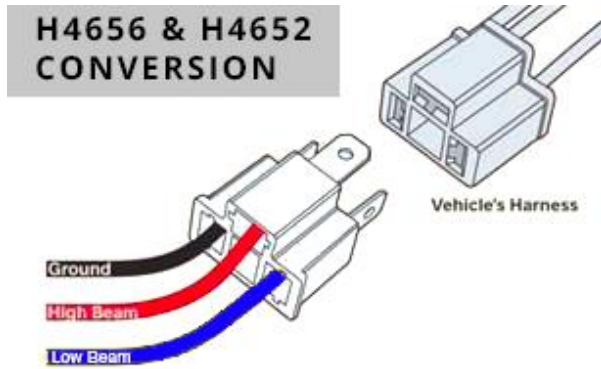
**Scenario 2** - Re-pin the factory vehicle connector or replace the factory vehicle connector with the orange/ceramic H4 female connector from the included H820 harness so that your Holley RetroBright Headlight will connect without the use of an adapter harness.

#### Reference Table for Scenarios 1 and 2

Headlight Type	Trade Number	Notes
1A1	H4651, H5051	2 Terminal - 4 Lamp Systems (High Only)
2A1	H4652, H4656, H4662, H4739, H5062	3 Terminal - 4 Lamp Systems (High/Low)
2E1	H4666, H4668, H6545	3 Terminal - 2 Lamp Systems (High/Low) – Non-Standard H4 Connector

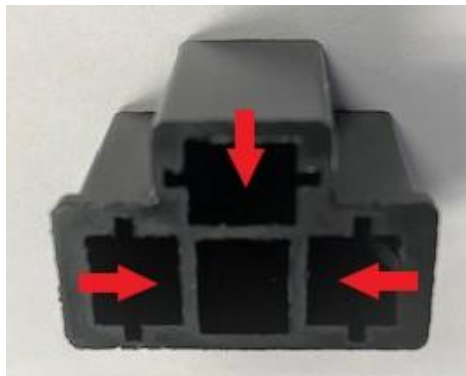
**Scenario 1** – Use the included H820 harness and unterminated male connector (RBEC120) to make an adapter harness that connects your factory harness with the Holley RetroBright LED Headlight. Determine if you will be replacing a dual or single filament bulb and navigate to the proper section.

**1A1 - H4652, H4656, H4662, H4739, H5062 – High/Low Beam Applications (Dual Filament)**

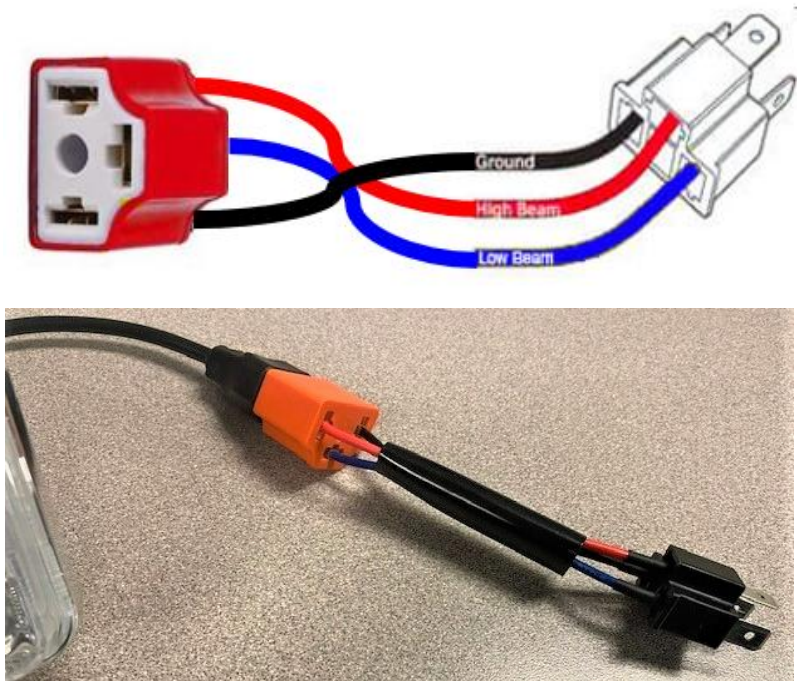


This is the most common wiring scheme of the three terminal 4" x 6" trade numbers (H4652/H4656). This standard has both low and high circuits so be sure to match them up properly.

- 1) Using your diagram with confirmed circuits from page 2, insert the pins into the matching locations on the included H4 male connector. Be sure to insert the lead from the proper side (ridge around the edge and larger openings). When inserting the pin, the tab circled below **must** face inward towards the center of the connector to seat properly. Once seated, tug on each lead to confirm it has seated and does not back out.

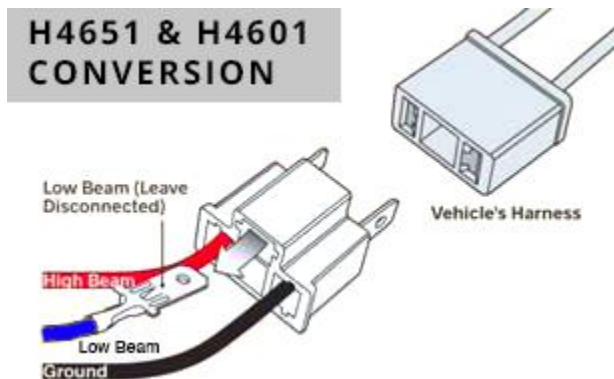


- 2) Apply dielectric grease to both male connectors (or use corrosion protection tape/heat shrink to ensure a long-lasting, high quality connection after steps 3 and 4 have been completed).
- 3) Connect the Holley RetroBright plug to female side of H820 adapter harness (orange).
- 4) Connect the recently terminated male side of the H820 adapter harness to the vehicle's female harness.
- 5) Reconnect Battery and test headlights for correct operation.
- 6) Always ensure headlights are aimed properly as outlined by the manufacturer. This process can usually be found in the vehicle owner's manual.
- 7) Enjoy twice the brightness of your traditional sealed beam headlights.



Example shown of what a completed 4652/4656 harness will look like. **Not all vehicles will match this diagram. It is imperative that the vehicle harness is checked to ensure wires are matched properly before powering on.**

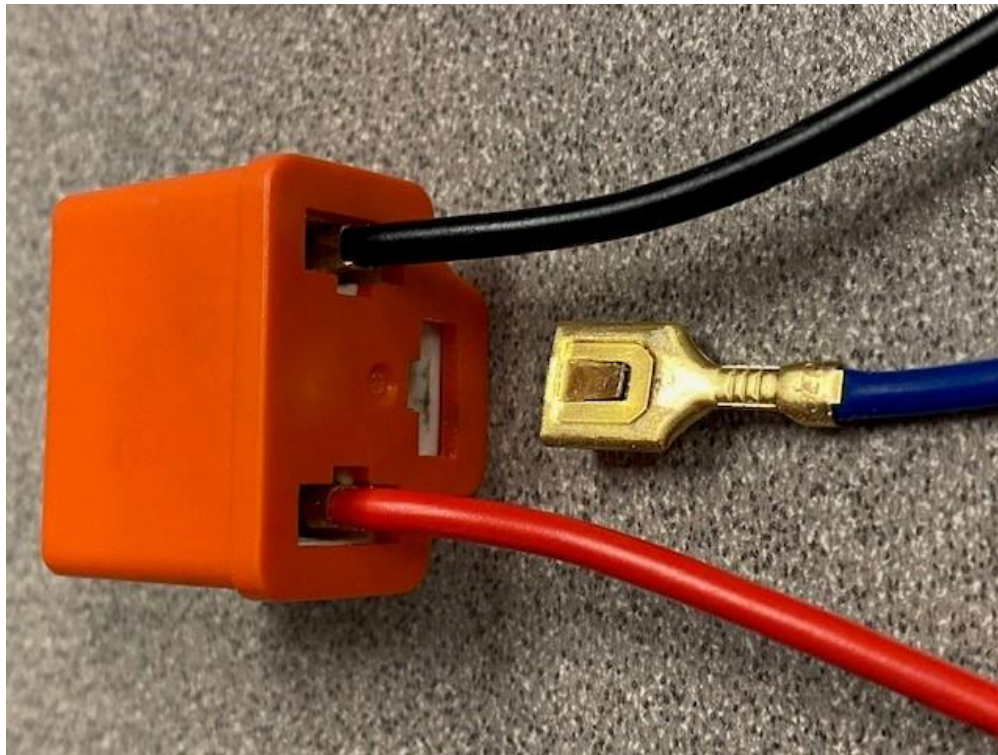
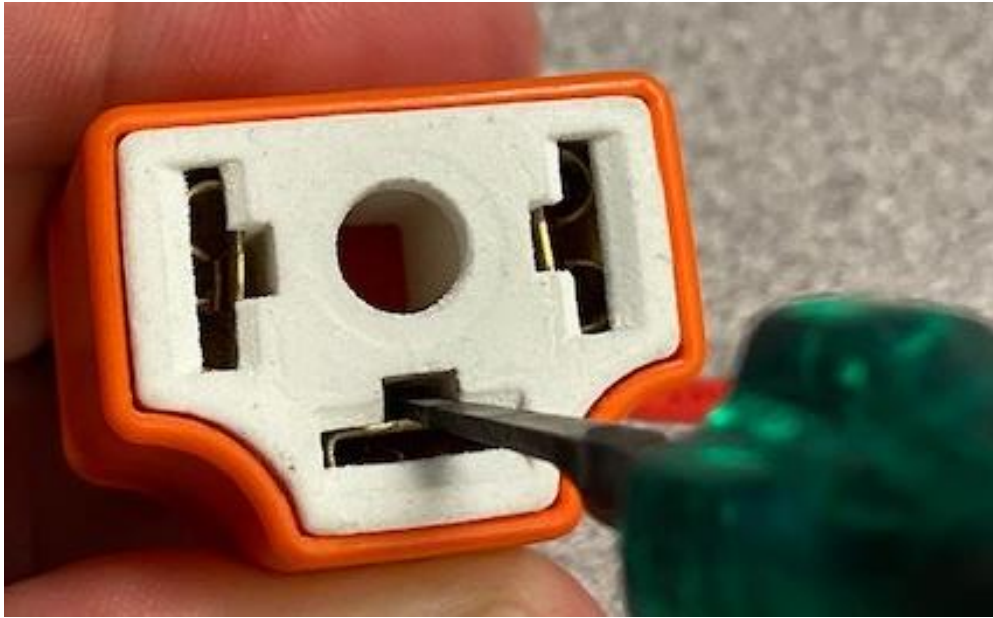
### 2A1 - H4651, H5051 – High Beam Only Applications (Single Filament)



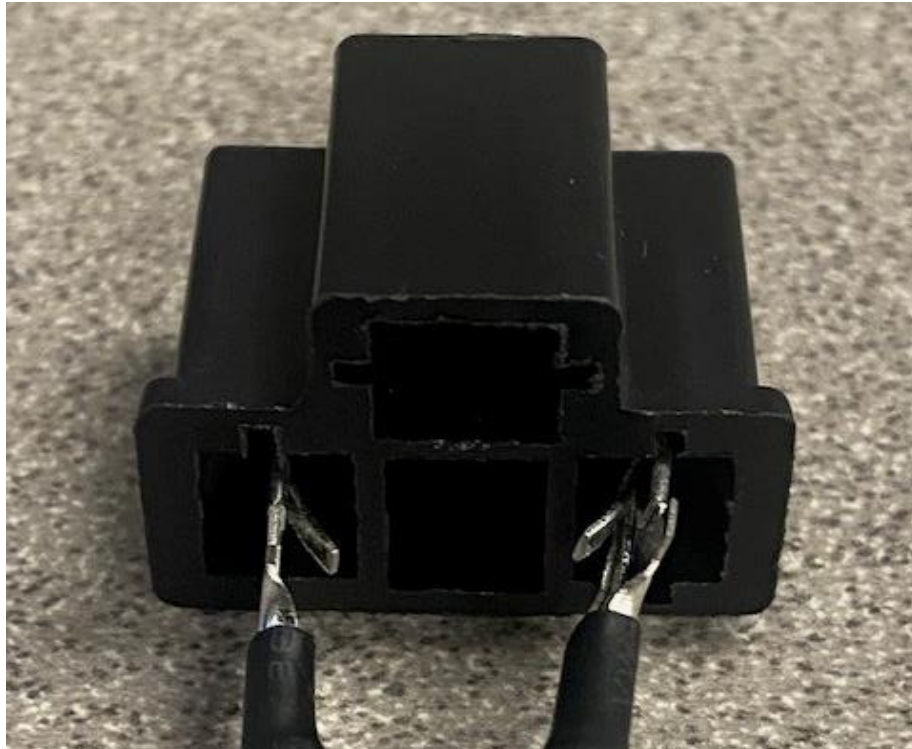
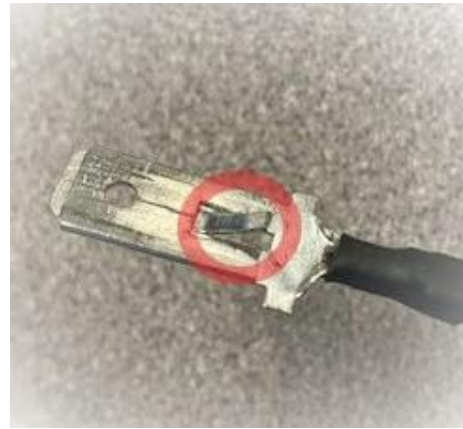
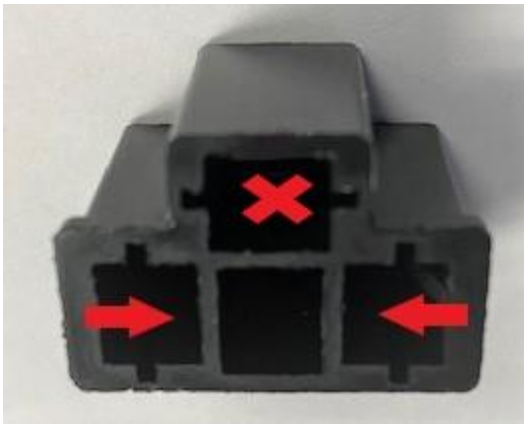
This is the most common wiring scheme of the two terminal 4" x 6" trade numbers (H4651/H5051). This standard has high beam only so insert in whatever manner works best on your application. Confirm the adapter harness wires correspond to the proper wires on the vehicle side when connecting.

**\*NOTE:** On the high beam circuit using a standard sealed beam bulb, the plug orientation does not matter. This is **NOT** the case with RetroBright LED bulbs. The wires **MUST** align properly.

- 1) Using a pin extractor tool or small flat screwdriver, remove the low beam (Blue) wire from the H820 harness **or** cut and cap it off (even though it will not see current). To remove the wire:
  - a. Push the wire inward to relieve any pressure on the pin, then insert tool into the area shown below containing the low beam wire (blue).
  - b. Wiggle the tool gently up and down while simultaneously pushing inward to press the pin down. You may feel the tool you are using almost wedge itself in.
  - c. Apply slight pulling pressure to the wire from behind as you gently remove the tool and the lead should easily slide out.



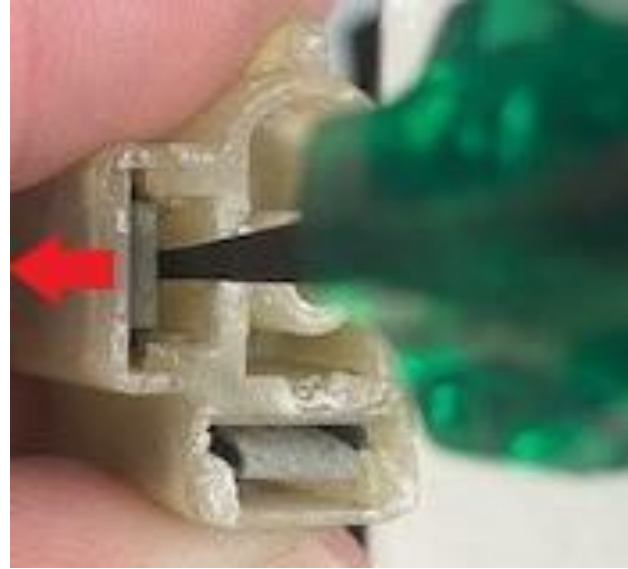
- 2) Insert the leads into the matching locations on the included H4 male connector. Be sure to insert from the proper side (ridge around the edge and larger openings shown below). When inserting the pin, the tab circled below **must** face inward towards the center of the connector to seat properly (see red arrows). Once seated, tug on each lead to confirm it has seated and does not back out. If it does not seat fully, you may have to bend the pin out very slightly so it catches inside the connector.



- 3) Apply dielectric grease to connector or use corrosion protection tape/heat shrink to ensure a long-lasting, high quality connection.
- 4) Connect the Holley RetroBright plug to female side of H820 adapter harness (orange).
- 5) Connect the recently terminated male side of the adapter harness to the vehicle female harness.
- 6) Reconnect battery and test headlights for correct operation.
- 7) Install RetroBright Headlights in the reverse order the factory sealed beam headlights were removed. Always ensure headlights are aimed properly as outlined by the manufacturer. This process can usually be found in the vehicle owner's manual.
- 8) Enjoy twice the brightness of your traditional sealed beam headlights.

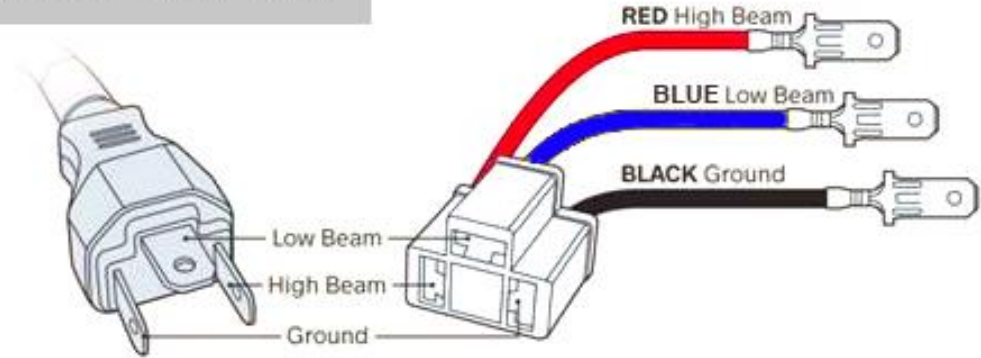
**Scenario 2** – Remove the female connector on the vehicle harness and reposition the wires to match the RetroBright LED Headlight or use the orange/ceramic female connector to replace the factory female connector.

- 1) Using a pin extractor tool or very small flat screwdriver, remove all wires from the factory connector. The factory connector should be easier than the H820 harness due to easier access to the pin. The additional clearance allows you to see it more easily and also allows better access to press it down (as seen in the red circle below):
  - a. Push inward from the back (wire) side to relieve any tension on the pin.
  - b. Insert tool into the area circled, apply pressure outward (in the direction of the arrow) to depress the pin, and gently pull the wire out.
  - c. If the wire does not easily slide out, remove the tool and try again making sure you are engaging the pin and that there is no tension on it before trying to depress and remove.



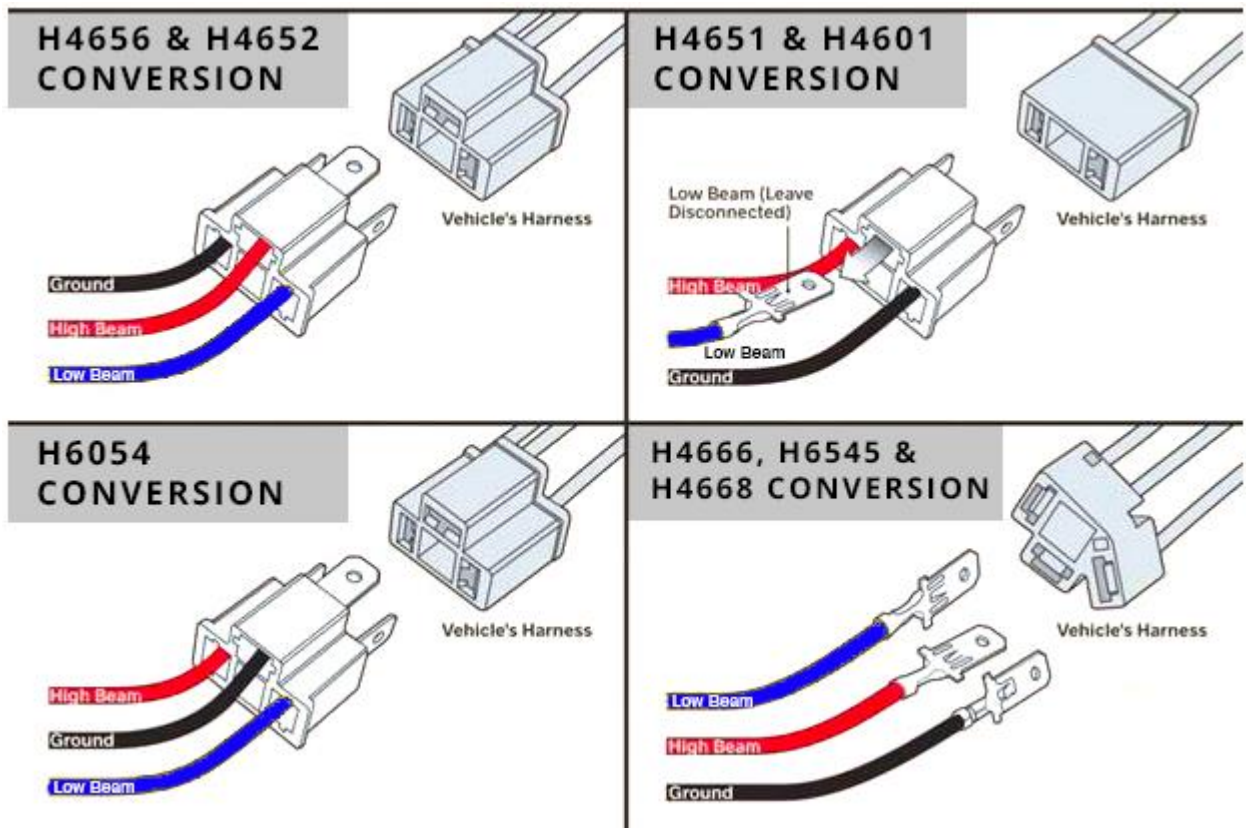
- 2) If the factory connector will be replaced with the included orange/ceramic connector on the H820 harness, see instructions in the high beam section of Scenario 1 for wire removal. The procedure is identical to removing the factory connector shown above. However, due to a tighter fit, it may prove more difficult and the instructions there may provide the needed information for removal.
- 3) Once all wires have been removed, use the diagram that you created on Page 2 as well as the diagram on Page 1 showing the Holley RetroBright pinout. This refers to the wire colors and circuits to plug in the leads in the proper locations (that line up with the Holley RetroBright headlight plug). Be sure to line up high beam to high beam, low beam to low beam (if utilizing a dual beam application), and ground to ground. Insert leads into your choice of female connector the same orientation they were removed (pin facing the center of the connector).
- 4) Apply dielectric grease to connector or use corrosion protection tape/heat shrink to ensure a long-lasting, high-quality connection.
- 5) Connect the Holley RetroBright plug to vehicle harness.
- 6) Reconnect battery and test headlights for correct operation.
- 7) Install RetroBright Headlights in the reverse order the factory sealed beam headlights were removed. Always ensure headlights are aimed properly as outlined by the manufacturer. This process can usually be found in the vehicle owner's manual.
- 8) Enjoy twice the brightness of your traditional sealed beam headlights.

## H4 CONNECTOR - PIN-OUT



### Potential Wiring Schematics for Listed Trade Number Bulbs

**FOR REFERENCE ONLY.** Not all vehicles will match these diagrams. Use the proper tools and record results on Page 2 or similar diagram. It is imperative that the vehicle harness is checked to ensure wires are matched properly before powering on.



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Date: 1-7-22