FITTING INSTRUCTIONS

Using an AutoVolt High-Beam Piggyback with a Universal Relay Wiring Loom

Make your light bar or spotlights come on with your high beams | written for beginners

YOU ARE ONLY CHANGING THE +12V INPUT TO THE EXISTING SWITCH

One wire off, one wire on. Everything else stays exactly as it is.

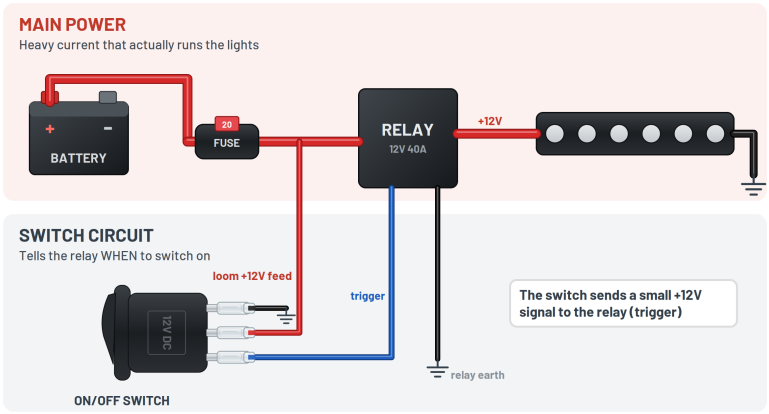
YOU DO NOT NEED TO

- Rewire the light bar
- Change the battery wiring
- Dismantle the relay
- Open the sealed loom

YOU WILL NEED

- Your AutoVolt High-Beam Piggyback, already fitted
- Your relay loom, already fitted and working
- A little automotive wire, crimps, heat-shrink, cable ties
- A 12V test light if your wire colours differ from ours

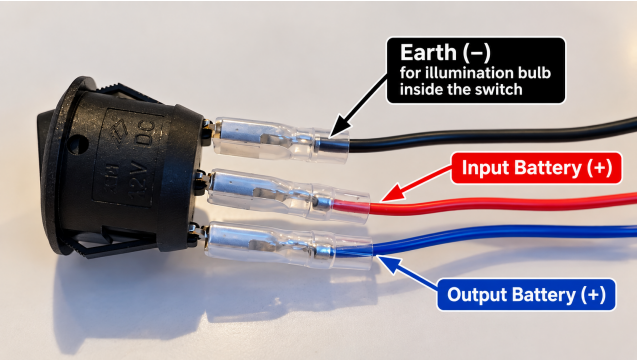
How your relay loom works



Main power runs from the battery through the fuse and relay to the lights. **The switch circuit** sends a small +12V signal through your switch to the relay, which turns the main power on. We only change where that small signal comes from: the switch now gets the **high-beam trigger** from your AutoVolt piggyback.

> **The simple version**
> The AutoVolt piggyback tells the relay **WHEN** to turn the lights on. It does **not** provide the power that runs the lights.

1 Find the +12V INPUT on your switch



In **our example** switch:

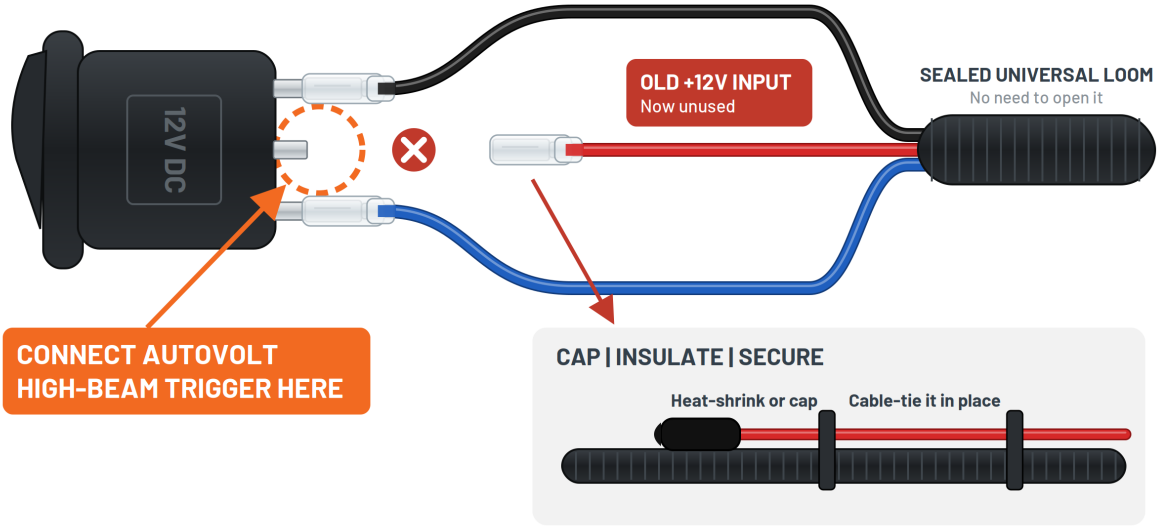
BLACK = earth, for the light in the switch. Leave it.

RED = +12V INPUT. **This is the one we change.**

BLUE = switched output to the relay. Leave it.

Colours vary between makes. If yours differ: switch **OFF**, clip a test light to earth and touch each tab. The one that lights is the input.

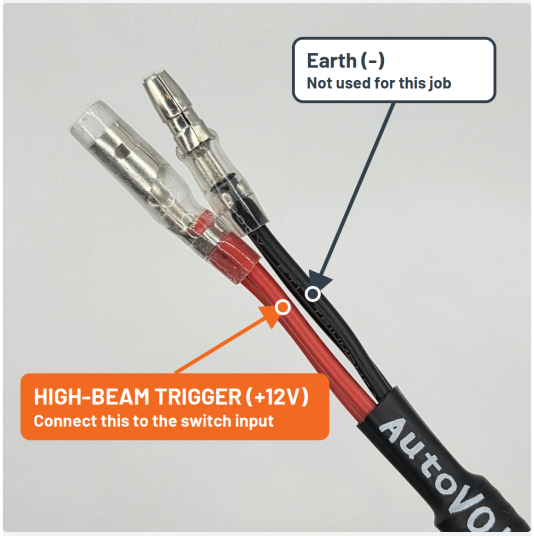
2 Unplug the old +12V input and cap it



1. **Remove the loom's fuse** (or disconnect the battery) before you start.
2. Pull the **+12V INPUT** connector off the switch. If the wire disappears into the sealed loom, leave it there. You don't need to open anything.
3. Cap the loose end with heat-shrink or an insulated cap, and cable-tie it so it can't move. It is still live, so it must not touch metal.
4. **Do not join the AutoVolt trigger to this old wire.** The trigger replaces it.

3 Find the high-beam trigger on your piggyback

EXAMPLE A 2-wire piggyback



Trigger wire on this example: RED

EXAMPLE B 3-wire piggyback

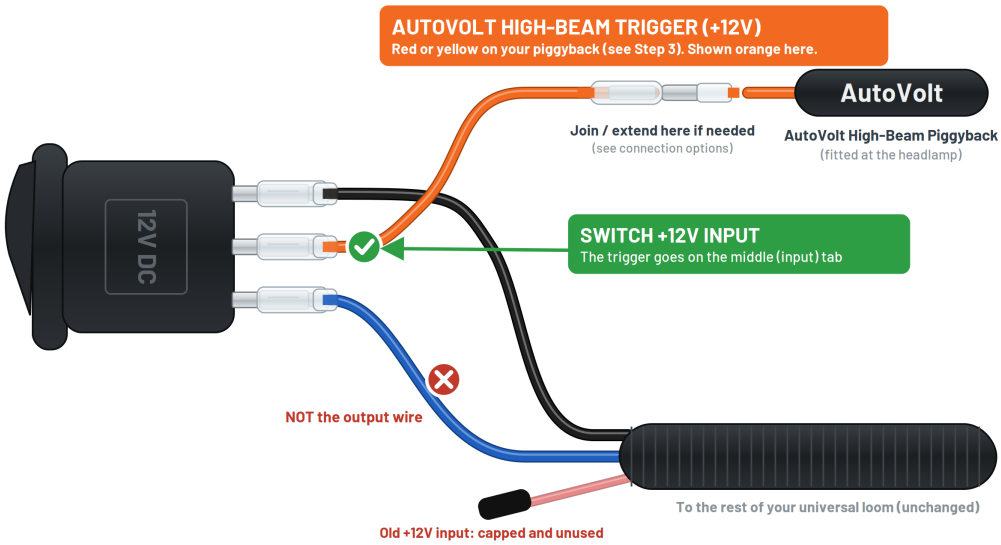


Trigger wire on this example: YELLOW

Your trigger may be RED or YELLOW depending on the piggyback supplied

Go by the label, not the colour. The red on your piggyback has nothing to do with the red on your switch. Any other piggyback wires are not used: leave them insulated.

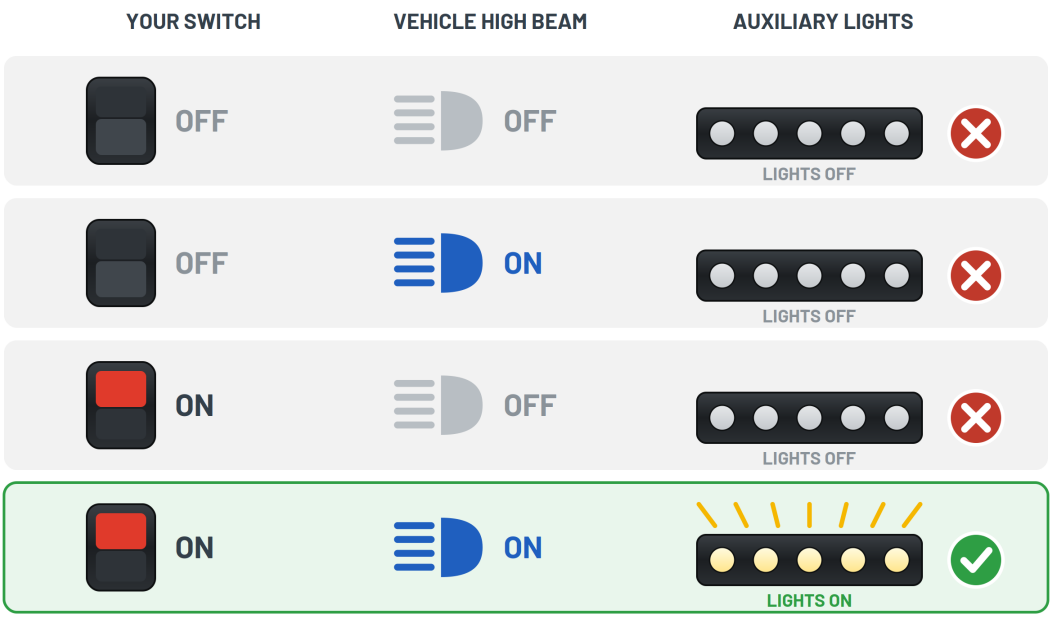
4 Connect the trigger to the switch INPUT



Run a wire from the trigger to the tab the old +12V came off. Crimp a new spade on the trigger, or snip the old red wire a few cm from its spade and join the trigger to that tail (loom side capped), or use the connectors supplied with your loom. Insulate every joint. **Not the blue output wire.** Leave black and blue exactly as they are. Refit the fuse.

5 Test it

Try all four combinations. The lights should only come on in the bottom row.



Your switch is now an ENABLE switch

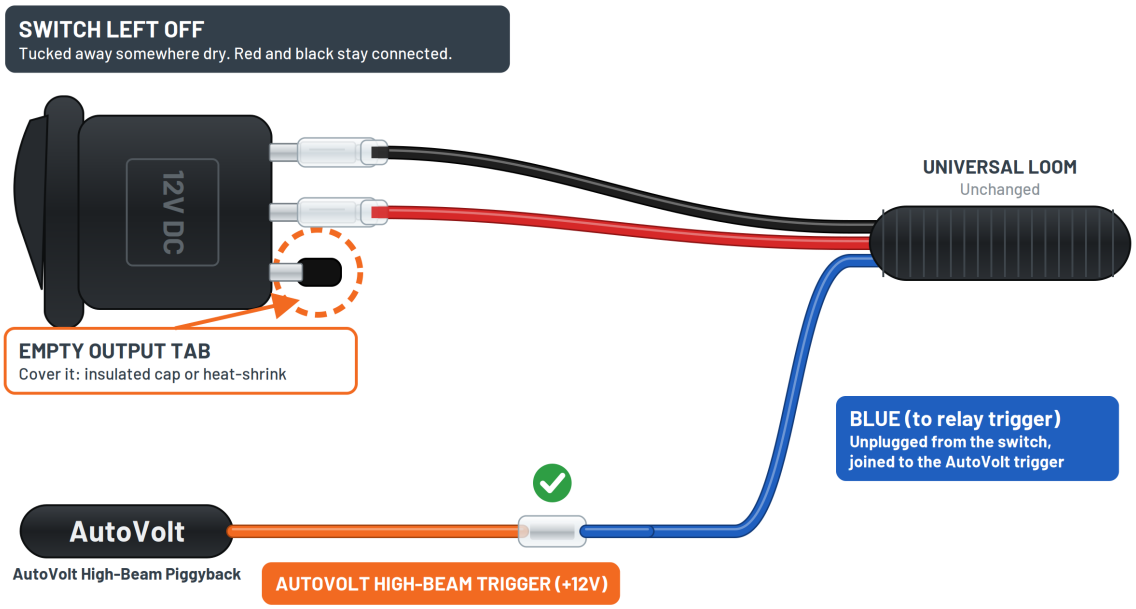
Switch ON: the lights come on and go off with high beam, automatically. **Switch OFF:** they stay off whatever the high beams do.

The light in the switch will now only glow when the switch is ON and high beam is ON. That is normal: light on = aux lights active.

If this happens	Check this
Lights come on without high beam	The old +12V is still on the switch input, or the trigger is on the wrong tab. Recheck Steps 2 and 4.
Nothing works	Switch ON? Trigger on the switch INPUT? Piggyback fully plugged in at the headlamp? Loom fuse refitted?
Loom fuse blows	The capped old +12V wire is touching metal.

Alternative: no switch, fully automatic

Want the lights to **always** follow your high beams? Put the trigger on the switch's **OUTPUT** wire instead, and take the switch out of use.

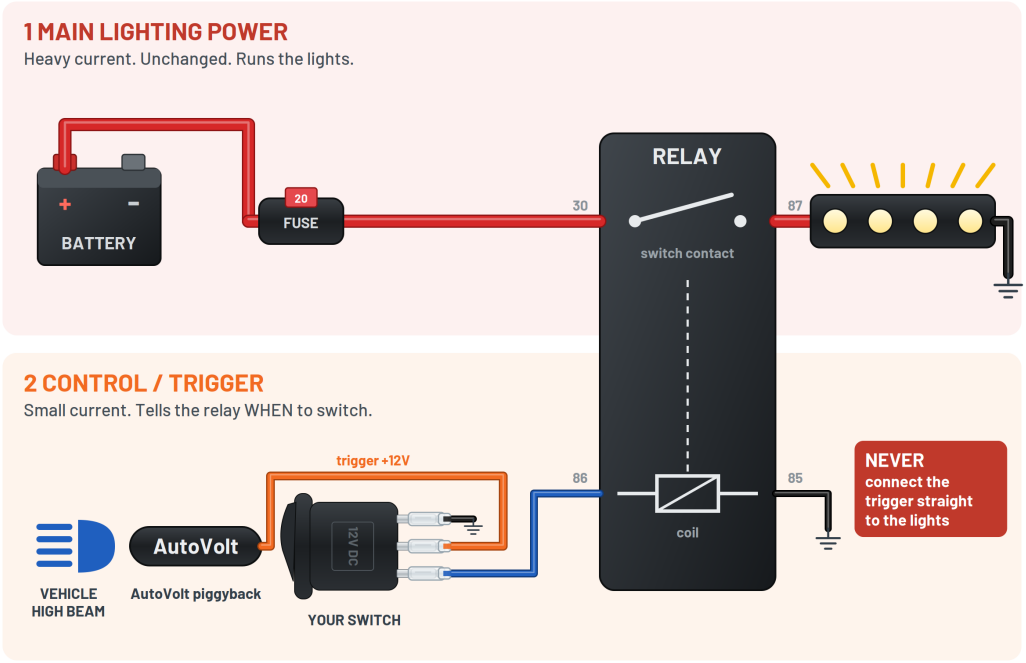


1. Remove the loom's fuse.
2. Unplug the switch **OUTPUT** wire (blue in our example, the one to the relay) from the switch.
3. Join the AutoVolt trigger to that wire and insulate the joint.
4. Leave red and black on the switch. Turn it **OFF**, cover the empty tab with a cap or heat-shrink, and tuck the switch away somewhere dry. Refit the fuse.

Why cap the empty tab?

The switch input is still live from the loom. With the switch OFF the empty tab is dead, and the cap keeps it safe even if the switch gets knocked ON. If you'd rather remove the switch completely, unplug and cap the red and black too.

The complete picture



Circuit 1 (main power) is untouched. The AutoVolt piggyback only ever lives in circuit 2, feeding the relay's trigger (pin 86) through your switch. Pins 30, 87 and 85 are unchanged and you never need to touch them.

Important notes

Compatibility: this guide applies to conventional +12V positive-switched auxiliary-light relay looms. Looms and switches vary between makes, so confirm the +12V switch input and switched output before connecting. Do not rely on colour alone.

Safety: the piggyback trigger is for the relay/control circuit only. **Never use it to directly power a light bar, spotlight or other high-current accessory.** Remove the loom fuse or disconnect the battery before altering connections, and insulate and secure every connection.

Warranty: 12-month limited warranty on AutoVolt products, covering manufacturing and design defects under normal use. Void if the AutoVolt loom itself is modified.

Thank you for choosing AutoVolt

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