FITTING INSTRUCTIONS

Light Bar Relay Loom

Ford Ranger Next Gen (T9) · Level 2 LED Headlamps

These instructions cover fitting the AutoVolt Light Bar Relay Loom to a Next Gen Ford Ranger (T9) with Level 2 (standard LED) headlamps. Read them fully before you start.

Already running a relay loom?

If you already have a relay loom fitted to your light bar, you may only need to connect its trigger wire to the high beam breakout inside the cabin. If this is the case, please refer to the relay loom manufacturer's instructions for this connection, as AutoVolt can only provide support for our own products.

Will it fit your truck?

This method uses the factory high beam wire in the passenger footwell, fitted on Level 2 (standard LED) headlamps. Level 1 (halogen) and Level 3 (Matrix) route high beam differently and need a headlight-loom pickup instead. If your Ranger has the factory overhead 6-way aux switch panel, outputs 5 and 6 are already high-beam linked, so you may not need a high beam tap at all.

IN THE KIT

- Pre-wired relay, fuse & switch
- High beam trigger wire
- Heat-shrink butt connector
- LED test diode

YOU'LL ALSO NEED

- Trim removal tool
- Crimp tool or pliers
- Heat gun
- Wire strippers

FITTING INSTRUCTIONS

1 Locate the factory high beam wire

Unclip the passenger footwell kick panel. Find the factory high beam wire, which is tagged HIGH BEAM and sits next to the BCM. The trigger lead routed in from the relay is tagged FIREWALL.



The factory high beam wire, tagged HIGH BEAM, in the passenger footwell next to the BCM.

2 Confirm 12V with the supplied LED test diode

Before joining anything, check the wire is live only on high beam. Connect the red (positive) lead to the high beam wire that you located in step 1 and the black (earth) lead to any clean bare metal earth point. Turn the ignition on and turn on full beam. The LED should light. It only lights with red on the high beam wire and black earthed, so a lit LED confirms you have the right wire and that it switches with high beam. No light means recheck the wire, or that full beam is actually selected.

ROUTING THE LOOM

3 Route the trigger wire through the firewall

Pass the loom's high beam trigger wire (the long red wire marked as the high beam trigger wire on Diagram 3 below) through one of the existing passenger footwell grommets shown below, then bring it to the factory high beam wire ready to join. This wire can be cut to whatever length suits your routing before joining.



Diagram 1. **Use either of the existing passenger footwell grommets to route the loom.**

MAKING THE CONNECTION

4 Join the trigger to the high beam wire

Use the supplied heat-shrink butt connector for a secure, weatherproof joint, or your own preferred method such as soldering. Follow the four steps below: strip, crimp, heat and cool.

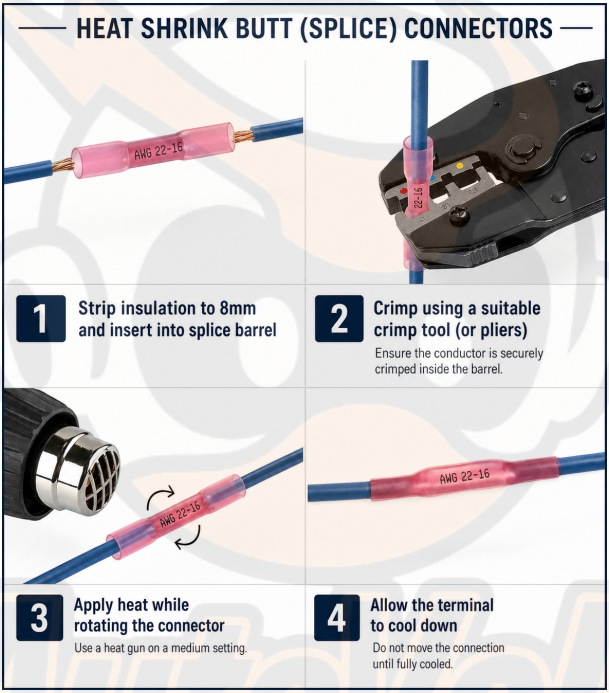


Diagram 2. **Fitting the supplied heat-shrink butt (splice) connector.**

Good to know

- Leave a small service loop in the wiring so nothing sits under tension.
- Keep the loom clear of hot or moving parts and secure it with cable ties.
- Make sure every connection is fully weatherproof before refitting the trim.

WIRING & TESTING

5 Connect power and the light bar

Following the wiring diagram, connect Battery (+) at the positive terminal through the inline fuse, Battery (-) to a solid earth, and the light bar to the output leads. Mount the in-cab switch somewhere easy to reach, then refit the kick panel.

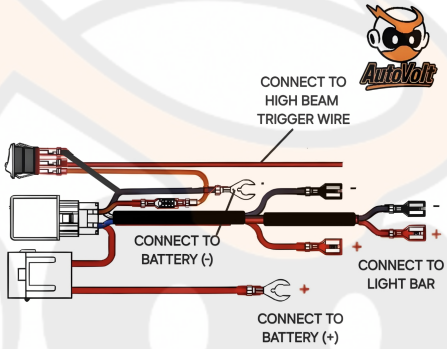


Diagram 3. **Wiring overview, AutoVolt Light Bar Relay Loom.**

6 Function test

With the in-cab switch on, the bar should light with high beam and go out with it. Switching the in-cab switch off must fully disable the bar, so high beam can be used on-road without it. This keeps the bar road legal as an auxiliary driving lamp.

Thank you for choosing AutoVolt

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