
IMPORTANT NOTE

Fitment of the Night Hawk VLI Wiring System to Ford Ranger, Volkswagen Amarok, Jeep Wrangler

The Bushranger Night Hawk VLI wiring system may have an intermittent operation issue when installed into 2011 onward Ford Ranger's (PX/PX2/PX3), VW Amarok's and 2007 onwards Jeep Wrangler's. Other vehicles which use a Pulse Width Modulated (PWM) signal for the high beam circuit of the headlights may also be affected and the below solution can be used.

The symptom of the fault is intermittent operation of the VLI lights – when the high beam is switched on, the VLI lights may turn on sometimes, but not others. On Ford Ranger's, it has been observed that this fault only occurs when the engine is running and it may be similar on other models listed. The fault is due to an incompatibility between the PWM high beam signal coming from the vehicle and the control module in the VLI wiring system.

The solution to fix this fault is to firstly check if this fault is present on the vehicle, and if it is, use a 12V relay in between the high beam signal and the VLI trigger wires. The high beam signal coming from the vehicle is used to energise the coil in the relay, and the switched circuit is used to provide a 'clean' 12V signal from the battery to the VLI trigger wires. A basic wiring diagram is provided below.

Wiring Diagram

We recommend to use a readily available 15/20/30/40A automotive 12V relay with diode or resistor for spike protection, but it is important to note that a high current relay is not completely necessary since the VLI system draws very little current and is supplied with a 2A inline fuse on the red trigger wire.

Diagram shown below is for a positively switched high beam signal coming from the vehicle.

