



Manual for installing

Lumen Matrix canbus relay

Product model:

Lumen Matrix relay

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Real matrix, full functionality

This module is different from all other models on the market, as it actually listens to the car's matrix signal and keeps the extra light off when the car is either in matrix mode, or in low beam mode. It's easy and convenient to install by following the instructions below.



Locate the CAN signals

Start by scanning the QR code and locate your can signals. By scanning the QR code, you will find wire location and wire color. Like the example below.

Example car from the QR code results

VW ID4 2020+

CAN location

Left headlight

CAN-H (Harness white wire)

PIN 1 [Orange/Green] (CAR)

CAN-L (Harness yellow wire)

PIN 2 [Orange/Brown] (CAR)



[OR CLICK TO VIEW](#)

Connecting the CAN-wires

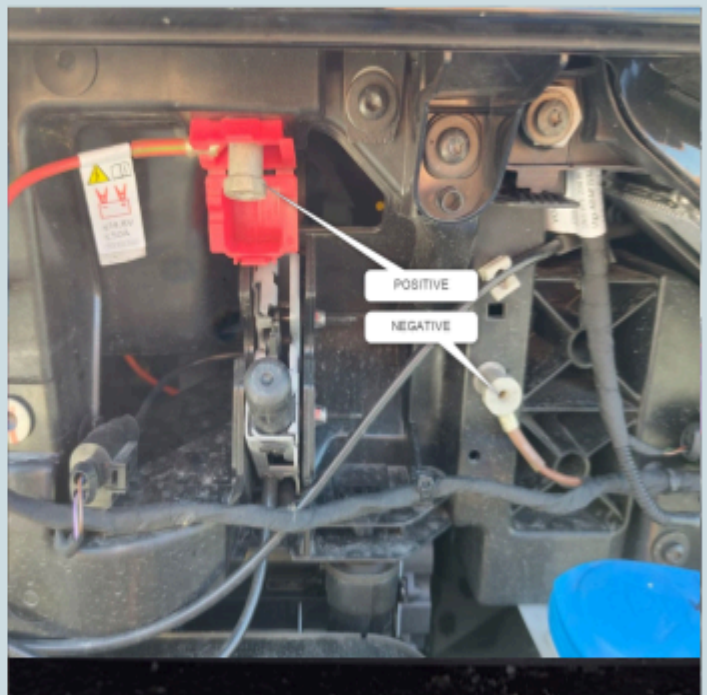
Using the supplied relay harness, connect the harness white wire to CAN-H and the harness yellow wire to CAN-L.

In the example shown above, the vehicle's Orange/Green wire at the left headlight should be connected to the white wire from the relay harness. The yellow wire from the relay harness should be connected to the Orange/Brown wire at the left headlight.

Attach harness power connectors

- Positive connector: locate a positive solid connector and connect to it.
- Negative connector: Find or create a solid ground/chassis connector and connect to it.
- Secure the relay with the connectors facing downward to prevent water entry.

Illustration photo of connector locations below from a different car



Secure the relay from water

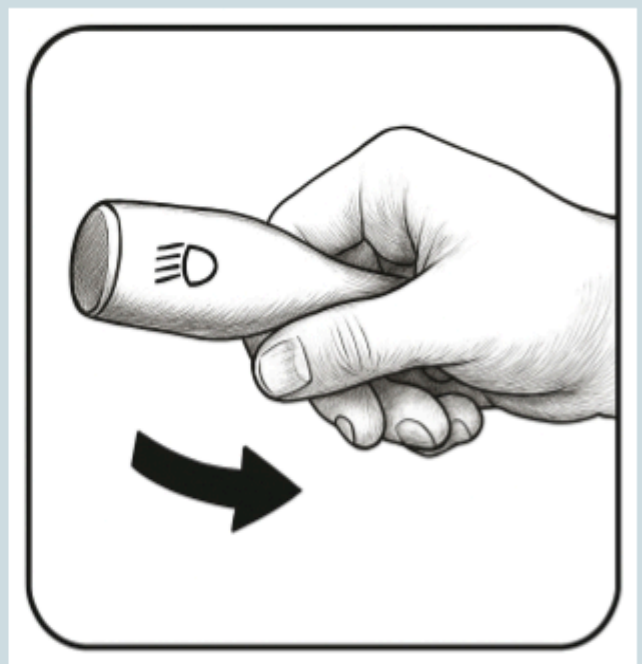
The relay must hang with the connectors pointing downwards or it may take damage from water, which will not be covered by warranty.



Calibration

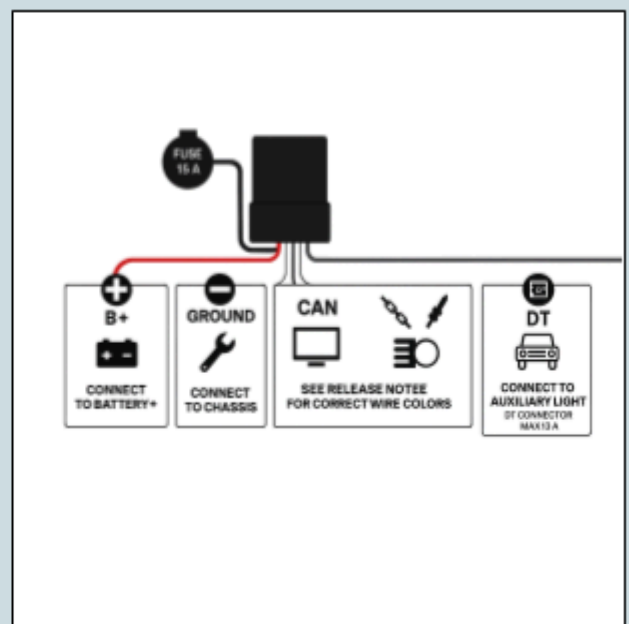
1. Start the vehicle.
2. Set the headlight switch to "Auto".
3. Pull the high beam lever and hold it. After approximately 6 seconds, the newly installed auxiliary lights will blink three times, indicating successful calibration.

Note: Calibration is required for the relay module to function properly with the vehicle's adaptive headlight system.



Lumen Matrix connector overview

- Red - Connect to the vehicle's battery positive terminal (+12V) 15A fuse
- Black - Connect to the vehicle's ground (battery negative Terminal)
- Can HI (White) - Connect to the vehicle's CAN High (CAN-HI)
- Can LO (Yellow) - Connect to the vehicle's CAN Low (CAN-LO)
- DT 2 pin - Connect to the newly installed auxiliary lights.



Expert mode

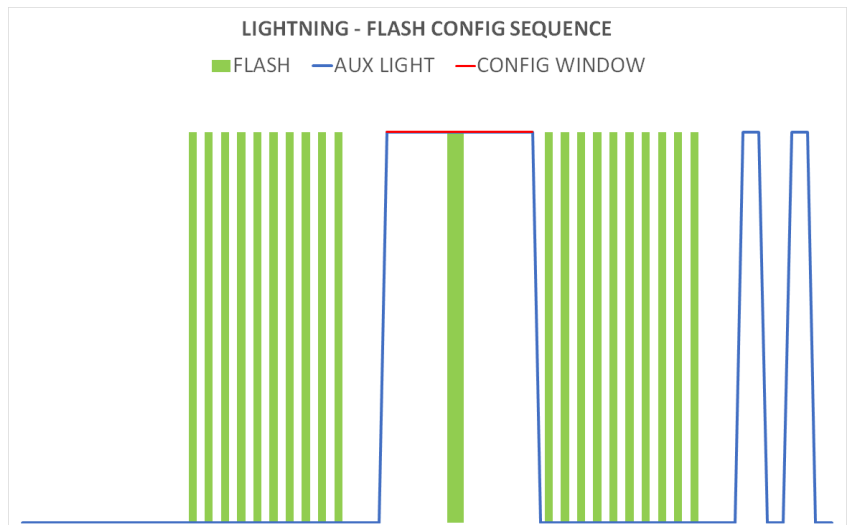
This area of the manual is not intended for the normal user and should not be tried without experience. This section explains how to trigger the module into advanced mode where you are able to reprogram basic parameters.

1. Deactivate the high beams and wait for a minimum of 5 seconds.
2. Perform 10 rapid blinks (0.5 seconds per blink) within a 5-second timeframe.
3. Wait for the auxiliary lights to activate after 1 second.
4. Execute the specified blinking sequence (as detailed in the adjacent instructions) within 5 seconds of the auxiliary lights turning on.
5. Wait for the auxiliary lights to deactivate.
6. Immediately perform 10 rapid blinks (0.5 seconds per blink) within a 5-second window.
7. The auxiliary lights will blink to confirm the selected configuration.
8. The configuration process is now complete.

Function	Status	Explanation	Number of Blinks
High Beam (HB)	Activated/Deactivated	Used to deactivate auxiliary lights, and only drive with original High beam.	1
Auto Filter	Activated/Deactivated	Auto Filter is a longer on-delay after the vehicle has passed.	2
Auto Delay	Activated/Deactivated	Auto Delay is a longer off-delay before the vehicle has passed.	3
Factory Reset		Used to reset the module, Need new calibration after	9

Light flash config sequence

This illustration shows how the 10 flashes initiates the config window, and allows special programming .



Pin explanation of Canbus-relay

- Pin 1: Deactivate the module (12v + in) ((optional))
- Pin 2: Supply Voltage (12v +)
- Pin 4: Activate the module (12v + in) ((Used if canbus is not necessary))
- Pin 6: Mass/Ground (-)
- Pin 7: Can HI
- Pin 8: Output (12v +)
- Pin 9: CAN LO

