ZW-GMLC-EV

Overview

The ZW-GMLC-EV is an advanced Plug & Play module integration designed for specific GM vehicles equipped with the OE Light Control Module, for flashing OEM lights in wig-wag similar method with a simple press of a button. This unit comes pre-programmed with various light patterns and has on-board options for disabling specific lights.

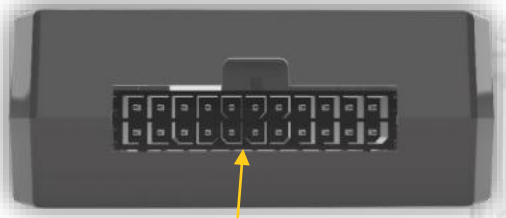
Kit Content

ZW-GMLC-EV Module

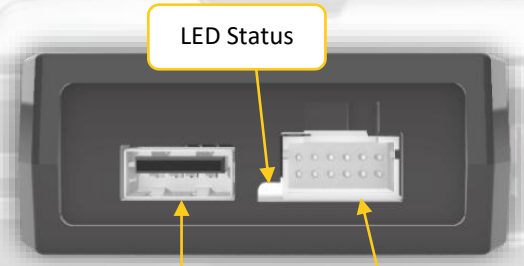
ZW-GMLC-EV T-Harness

Activation Switch and I/O Harness

Module Connections

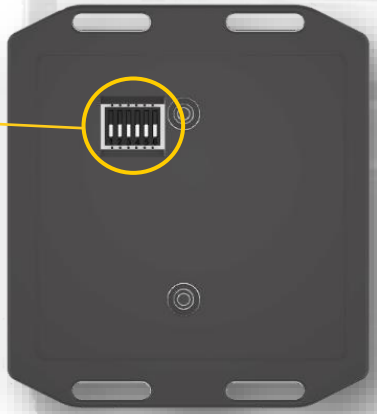


22-Pin (power/data connections)



USB (updates/software info)

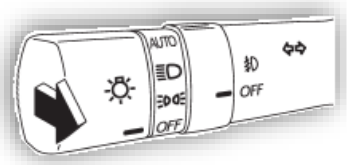
12-PIN push button I/O harness



Dip Switch bank (options)

ZW-GMLC-EV Operation

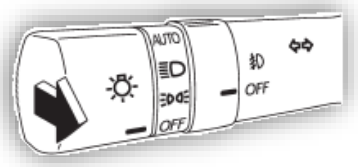
1. Connect the Z-WAGZ unit to the OE Light Control Module. Follow instructions on page 3 for more details and important information.
2. Turn Ignition ON or start vehicle (Ignition must be on for proper operation)
3. ***To activate Z-WAGZ:***
   - Press and HOLD the ***high beam*** lever (5 sec) OR
   - Press and HOLD the provided push button (3 sec) OR
   - Send a 12v (+) signal to the ***blue wire*** (designed to be extended for OE up-fitter switches or any aftermarket toggle) *NOTE: if using this method to activate, then the only way to deactivate is removing power from the input (or shutting truck down fully)* OR
   - Press LOCK>UNLOCK>LOCK>UNLOCK quickly on the key fob (ignition is NOT required for this method) *NOTE: using this method keeps the lights flashing indefinitely – consider the state of your battery!*



Pattern 1 will begin to flash. Once pattern 1 begins, the turn signal indicators in the gauge cluster will blink 1 time then stay solid, indicating Pattern 1 has been selected. The LED on the unit will blink BLUE. *See chart on page 4 for remaining pattern color indication.*

4. ***To switch to next pattern:*** (flashing must be currently active)
   - Engage either turn signal, then press and HOLD the ***high beam*** lever once more (5 sec). OR
   - Press & release the provided push button one time

The turn signals will blink twice (then stay solid) indicating Pattern 2 has been selected. *Repeat this process to switch to the next pattern*.



5. ***To deactivate Z-WAGZ:***
   - Press and HOLD the ***high beam*** lever (5 sec) OR
   - Press and HOLD the provided push button (3 sec) OR
   - Release 12v (+) signal to the ***blue wire*** (if connected this way) OR
   - Turn vehicle OFF

PLOW MODE will slow the currently selected pattern down, and fully disable High and Low beams from flashing. When ***INPUT 2 (violet)*** receives 12v (+) before activating the flasher, PLOW MODE is enabled.

General Z-WAGZ Notes

- Not all lights on the vehicle are necessarily used; some lights are not controllable via CAN data commands.
- Z-WAGZ will retain the last used pattern, even after being disconnected from the harness (if ever).
- Turn signals, headlights & reverse lights will override pattern flashing when used, until turned off again.
- Lights on the external mirrors will only flash if connected with turn signals.
- For GM trucks, OE fog lights are typically wired together (and therefore only flash together)
- *If vehicle is equipped with physical actuators* that activate for high beams/low beams, ZZ2 highly suggests disabling that beam from flashing (otherwise mechanical failure may occur quickly)
- 'Plow Mode', when active (INPUT 2), disables High & Low beam flashing and slows the pattern down so that the relay box (plow module) can keep up with the flashing (prevents overheating).

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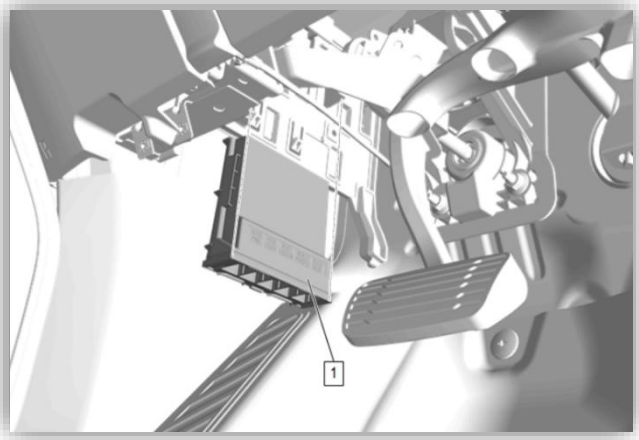
ZW-GMLC-EV Installation

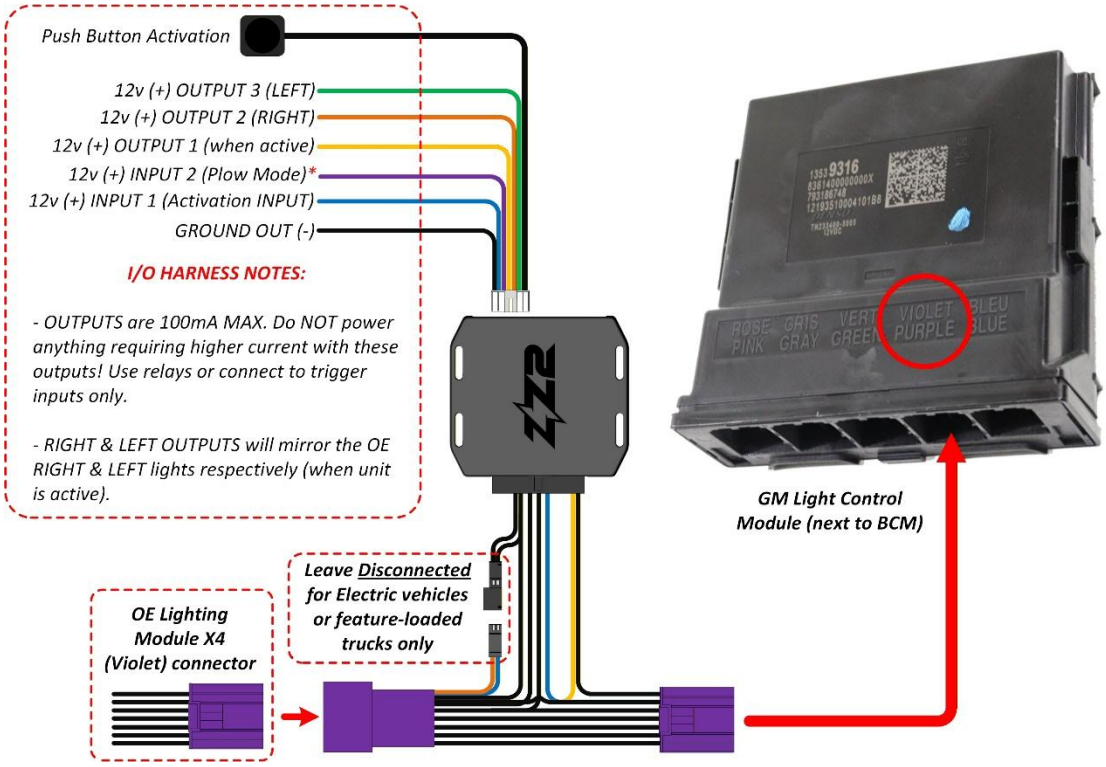
1. **Make sure the vehicle is fully OFF, with driver door OPEN for 5 full minutes before connecting unit. *WARNING: this is vital to avoid tripping a check-engine light.***
2. Locate the *factory Light Control Module*. In all trucks, it is mounted underneath steering wheel / driver's side kick panel area. The module is mounted ***right next to the BCM unit*** and has (5) connectors (see picture, right).
3. With the driver door OPEN & vehicle OFF (for 5 mins *minimum*): disconnect the ***violet plug*** from the lighting module shown. Connect the male side of the provided T-Harness to the OE Light Module and the (removed) plug into the female side of the Z-WAGZ harness. These connectors can only fit in one place, connect in one way and are color matched to the OE plug.



(1) OE GM Light Module

4. Connect the Z-WAGZ unit to the 22-pin connector ***LAST*** ***(if the unit is not connected LAST, you might trip a CEL)***. Tie-wrap the unit to another harness if desired.
5. If wanting to use the optional push button, this can be connected and run to a convenient location for access from the driver. Otherwise, the unit is fully functional from the OEM high-beam lever.
6. If wanting to connect any optional wires provided from the I/O harness, see diagram below.
7. Return to page (2) for operation instructions.

NOTE: New model GM trucks are very temperamental – *a data reset may be required* during or after the installation of this product. If the vehicle has cluster errors or CELs during installation, shut the truck down, close all doors and lock system, don't touch for 10 mins, then re-test (this process may need to happen twice). If the vehicle won't start with the module installed, verify there are no *bent pins on any connector*, then connect the 2-pin resistor and perform another data bus reset (off for 10 mins), re-test.



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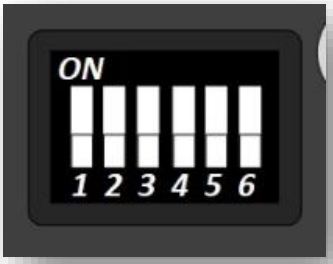
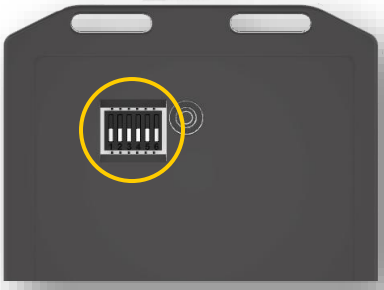
ZW-GMLC-EV

DIP Switch Settings (software: v1.7.2)



Located on the back side of the unit is a bank of (6) dip switches – you will need a pick-tool to adjust.

All dip switches are LIVE, do not unplug the module to adjust.



DIP	1	2	3	4	5	6
ON	***Disable*** *High Beam*	***Disable*** *Low Beam*	***Enable Reverse Light*** *(May cause reverse camera to show on screen while active)*	***Gas/Diesel Vehicle***	***Disable STROBE Mode*** *(Removes strobe every 3 seconds)*	*BRAKE + SIGNAL* ***SEPARATE***
OFF	***Enable*** *High Beam*	***Enable*** *Low Beam*	***Disable Reverse Light***	***Electric Vehicle***	***Enable*** *STROBE Mode*	*BRAKE + SIGNAL* ***TOGETHER***

The ZW-GMLC-EV can be activated using the OEM key fob, without the Ignition requirement (all other methods). To activate, while within range of the vehicle, quickly press ***LOCK>UNLOCK>LOCK>UNLOCK*** and the flash pattern will begin. Pressing ***LOCK*** once more will shut off the low/high beam light (so that they flash). Deactivate the unit by repeating the same process. If you enter the vehicle after the pattern has been activated using this method, the flash pattern will stay active until you disable it (using any method) or shut the vehicle down.

WARNING: Using this method will keep the lights flashing indefinitely. Please consider the condition of your battery – although the module is not activating full ignition power (and therefore using far less current), if flashing is left ON, the battery will be actively discharging (it will likely take 1 hour + on a newer, good battery).

SOFTWARE v1.7.2 NOTES:

- *Fog lights will not flash in Snow Plow Mode*
- *When deactivating the unit, the rear lights may take up to 10 seconds to reset to factory function*
- *If extra lights emit while brake priority is active (ie, Cadillac), turn DIP 6 ON*
- *Key-fob activation is now always available (previously on DIP 6)*
- *Strobe mode is disabled on rear-end when brake is active (see pattern chart)*
- *If BCM doesn't respond to turn signal commands, unit will use reverse lights and CHMSL for strobing effect (note: if brake or strobe is disabled via DIP setting, strobe will fully be disabled in this case)*

Confirmed Vehicles:

MAKE	MODEL	YEAR
CHEVY	Silverado EV	2024+
CHEVY	Tahoe	2024+
GMC	Sierra EV	2024+
GMC	Yukon	2024+
CHEVY	Silverado 1500 ONLY (no HD)	2022+
CHEVY	Suburban, Tahoe	2021+
GMC	Sierra 1500 ONLY (no HD)	2022+
GMC	Yukon	2021+
CHEVY	Silverado HD 2500, 3500	2023+*
GMC	Sierra HD 2500, 3500	2023+*
CADILLAC	Escalade, ESV	2021+

**NOTE: 2023 HD trucks require a visual inspection for the presence of the Lighting Module. 2024 HD trucks are always compatible.*

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ZW-GMLC-EV LED Status / Patterns [SW: v1.7.2]

START-UP INDICATION		
Description	***LED Status***	***More Information***
Initial Wake Up	Blinks BLUE (1 time)	Upon initial power connection
Unit recognizes CAN bus (car side ONLY)	Blinks BLUE (3 times)	Upon CAN data wake
Unit recognizes CAN bus (module side ONLY)	Blinks GREEN (3 times)	Upon CAN data wake
Unit recognizes CAN bus (properly)	Binks BLUE,GREEN (x3)	Upon CAN data wake
Unit detects ACC info	Blinks GREEN (1 time)	Upon Turning Ignition ON
Unit detects GEAR info	Blinks VIOLET (1 time)	Upon switching gears
Unit detects HIGH BEAM pull OR External button press (for activation)	Solid GREEN	Upon pressing High Beam lever or provided push button
Unit receives negative response for light commands	Blinks VILOET (x3)	*--Contact ZZ2--*
Unit not receiving confirmation for light commands	Blinks RED (x1)	*--Contact ZZ2--*
When unit goes to sleep	Blinks WHITE (x1)	--
CAN bus communication problem	Blinks RED + GREEN	While Z-WAGZ is activated
PATTERN INDICATION		
Description	***LED Status***	***More Information***
Pattern 1	Blinks BLUE	***BASE PATTERN***
Pattern 2	Blinks GREEN	***WATERFALL PATTERN***
Pattern 3	Blinks RED	***DOUBLE BLINK PATTERN (double back & forth)***
Pattern 4	Blinks LIGHT BLUE	***SINGLE BLINK PATTERN (single back & forth)***
Pattern 5	Blinks VIOLET	***SINGLE BLINK PATTERN (NO RED FLASH ON REAR)***
Pattern 6	Blinks YELLOW	***INVERTED WATERFALL (IDLE ON)***
Pattern 7	Blinks BLUE/GREEN	***INVERTED DOUBLE BLINK (IDLE ON)***
POWER CONSUMPTION / ADDITIONAL SPECS		
Description	***Specification***	***More Information***
Current Draw Active:	100mA max	
Current Draw idle:	7mA max	
INPUT 1 Trigger wire act:	12V (+)	Hardwire activation trigger
OUTPUT 1: 12v (+)	100mA max	Outputs 12v (+) whenever unit is active
OUTPUT 2 (RIGHT): 12v (+)	100mA max	Mimics RIGHT turn signal pattern
OUTPUT 3 (LEFT): 12v (+)	100mA max	Mimics LEFT turn signal pattern
Trigger wire idle:	3.3V	
Current limit:	10mA	

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ZW-GMLC-EV Supported Lights*

FRONT LIGHTS		
SUPPORTED LIGHTS	***DIP PARAMETER***	***NOTES***
Low Beams	Dip Adjustable	--
Front Turn Signals	N/A	--
High Beams	Dip Adjustable	--
Side Parking Lights	N/A	Model-dependent
Fog Lights	N/A	--
Driver Running Lights (DRL)	N/A	--
Mirror Turn Signal Lights	N/A	--
Mirror Task Lights	N/A	Model-dependent
Emblem Light	N/A	Model-dependent
Cab Lights (read notes)	N/A	Not supported on all models – the signal for these is often not driven by the BCM/LCM
REAR LIGHTS		
SUPPORTED LIGHTS	***DIP PARAMETER***	***NOTES***
3rd Brake Light	N/A	Center High-Mounted
Brake Lights	N/A	Disabled on Pattern 5
Rear DRLs	N/A	--
Rear Turn Signals	N/A	--
Reverse Lights	Dip Adjustable	--
Bed Lights (cargo)	N/A	--
License Plate Lights	N/A	--
Left/Right *Trailer Turn signals*	N/A	Not supported in all models
Flood Lights	N/A	Model-dependent

*NOTE: As new variants of vehicles are released over time, some lights may not flash due to manufacturer design changes (software or the wiring to the housings themselves). The chart above is accurate for vehicles the ZW-GMLC-EV was tested on.

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