



INSTRUCTION MANUAL

ZW-GMLC-EV

Advanced lighting module integration designed for specific GM vehicles equipped with the OE Light Control Module

REV 1.0

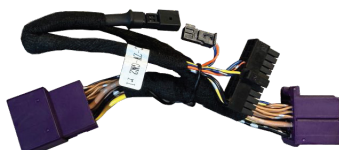
1) OVERVIEW

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.

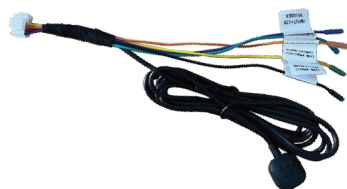
2) COMPONENTS



• ZWAGZ Module

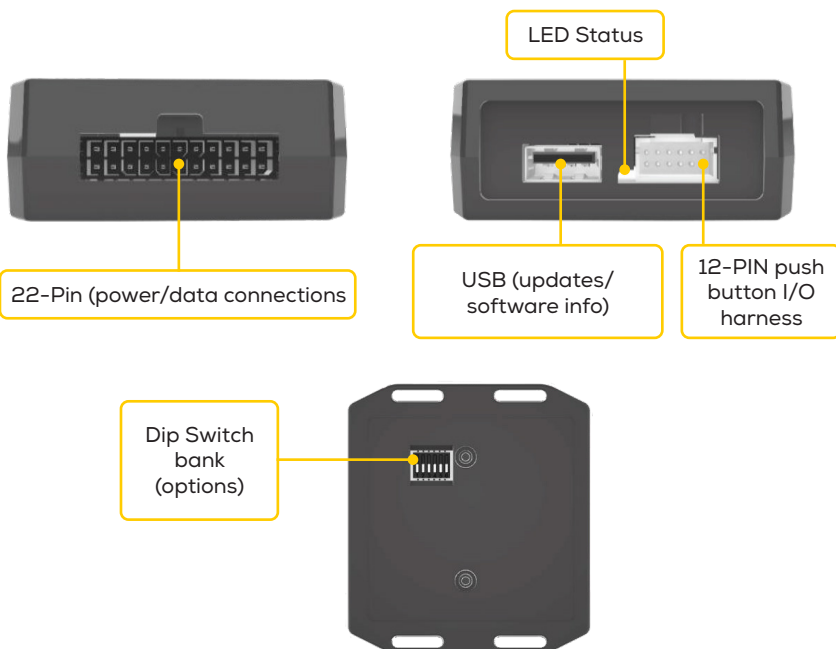


• ZW-GMLC-EV T-Harness



• Activation Switch and I/O Harness

3) MODULE CONNECTIONS



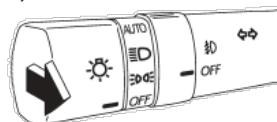
4) OPERATION

1. Connect the Z-WAGZ unit to the OE Light Control Module. **Follow instructions on page 3 for direct wiring installation steps.**

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.

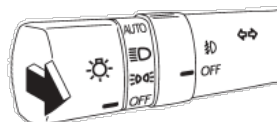
4. To switch to next pattern: (flashing must be currently active)

- 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.

The on-board LED indicates that Pattern 2 has been selected (see chart on page 5 for patterns and LED indications). 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



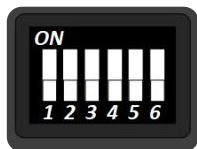
PLOW MODE will slow the currently selected pattern down, and fully disable High and Low beams from flashing. When **INPUT 2 (violet)** receives 12v (+) before activating the flasher, PLOW MODE is enabled.

5) GENERAL NOTES

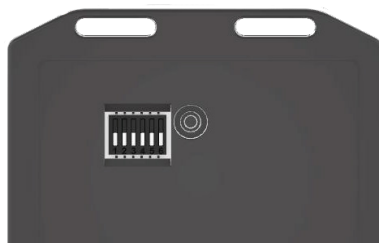
- Not all lights on the vehicle are necessarily used; some lights are not controllable via CAN data commands.
- Z-WAGZ will retain the last used pattern, even after being disconnected from the harness (if ever).
- Turn signals, headlights & reverse lights will override pattern flashing when used, until 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).

7) DIP SWITCH SETTINGS

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

7.2 - KEY ACTIVATION

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).

7.3 - 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)

8) CONFIRMED VEHICLES

GM		
Make	Model	Year
CHEVY	Silverado EV	2024+
CHEVY	Tahoe	2024+
GMC	Sierra EV	2024+
GMC	Yukon	2024+
CHEVY	Silverado 1500 ONLY (no HD)	2024+
CHEVY	Suburban, Tahoe	2024+
GMC	Sierra 1500 ONLY (no HD)	2024+
GMC	Yukon	2024+
CHEVY	Silverado HD 2500, 3500	2024+
GMC	Sierra HD 2500, 3500	2024+
CADILLAC	Escalade, ESV	2024+

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



9) LED STATUS / PATTERNS

9.1 - SOFTWARE V17.2

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)	Blinks BLUE, GREEN (3 times)	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 VIOLET (3 times)	--Contact ZZ2--
UNIT NOT RECEIVING CONFIRMATION FOR LIGHT COMMANDS	Blinks RED (1 time)	--Contact ZZ2--
WHEN UNIT GOES TO SLEEP	Blinks WHITE (1 time)	When CAN data goes to sleep
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	--

9.2 - SUPPORTED LIGHTS**FRONT LIGHTS**

SUPPORTED LIGHTS	DIP PARAMETER	More Information
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 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	More Information
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.



WARRANTY PROCEDURE

1. TECHNICAL EVALUATION REQUIRED

*Before a Return Merchandise Authorization (RMA) can be issued, the dealer must contact ZZ2 Technical Support to obtain a ticket number. After diagnosis, the ticket is forwarded to the ZZ2 Sales Department, which will issue the appropriate RMA number. No return will be authorized until the product has been fully evaluated.

2. ADVANCED REPLACEMENT OPTION

*Once a ticket number is issued, an RMA will be created. Call tag eligibility is based on the original purchase date.

*Within the First 90 Days: Advanced replacement at no cost with a call tag.

*After 90 Days: Advanced replacement at no cost; dealer is responsible for return shipping.

3. DEFECTIVE UNIT RETURN WITHOUT ADVANCED REPLACEMENT

*Dealers may return defective units without receiving an advanced replacement. Credits will be applied to the dealer's ZZ2 account.

4. NON-DEFECTIVE RETURNS

All non-defective returns are subject to a 10% restocking fee. Products must be brand new, unused, fully resellable, and include all original packaging, accessories, and components.

TERMS OF LIABILITY

*By purchasing, distributing, or installing ZZ2 products, dealers agree that ZZ2 is not liable for direct, indirect, special, or consequential damages, injuries, or losses arising from the use or misuse of its products

WARRANTY COVERAGE

* 3-Year Warranty: ZZPLAY, DIZZPLAY, Camera Interface Products, OEM-Style Handle Cameras.

*1-Year Warranty: ZEUS-ULTRA2, ZZAIR-DUO2, ZZAIR-PRO2, ZZCONNECT+, ZWAGZ, Bike2Play, MPPLAY.

REFUND PROCESSING

* Approved returns are processed within 5–10 business days after the returned product has been received and inspected.



If you have any questions or
require technical support, please
contact our specialized team.

support@zz2.com

ZZ2.COM