Manuals+ — User Manuals Simplified.

ZZ-2 ZW-GM A BCM Connected Module Instruction Manual

Contents

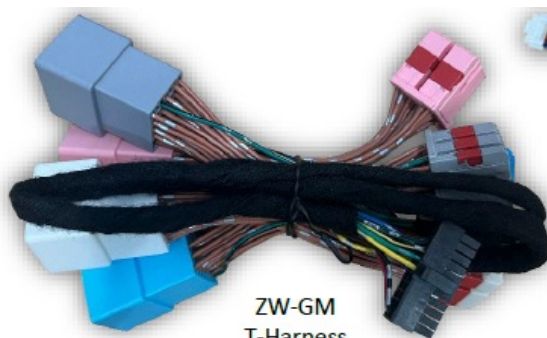**ZZ-2 ZW-GM A BCM Connected Module**

Overview

The ZW-GM is an advanced Plug & Play module integration designed for specific GM vehicles for flashing OEMlights in a 'wig-wag' similar method with a simple press of a button. This unit comes pre-programmed with various light patterns and has onboard options for disabling specific lights.
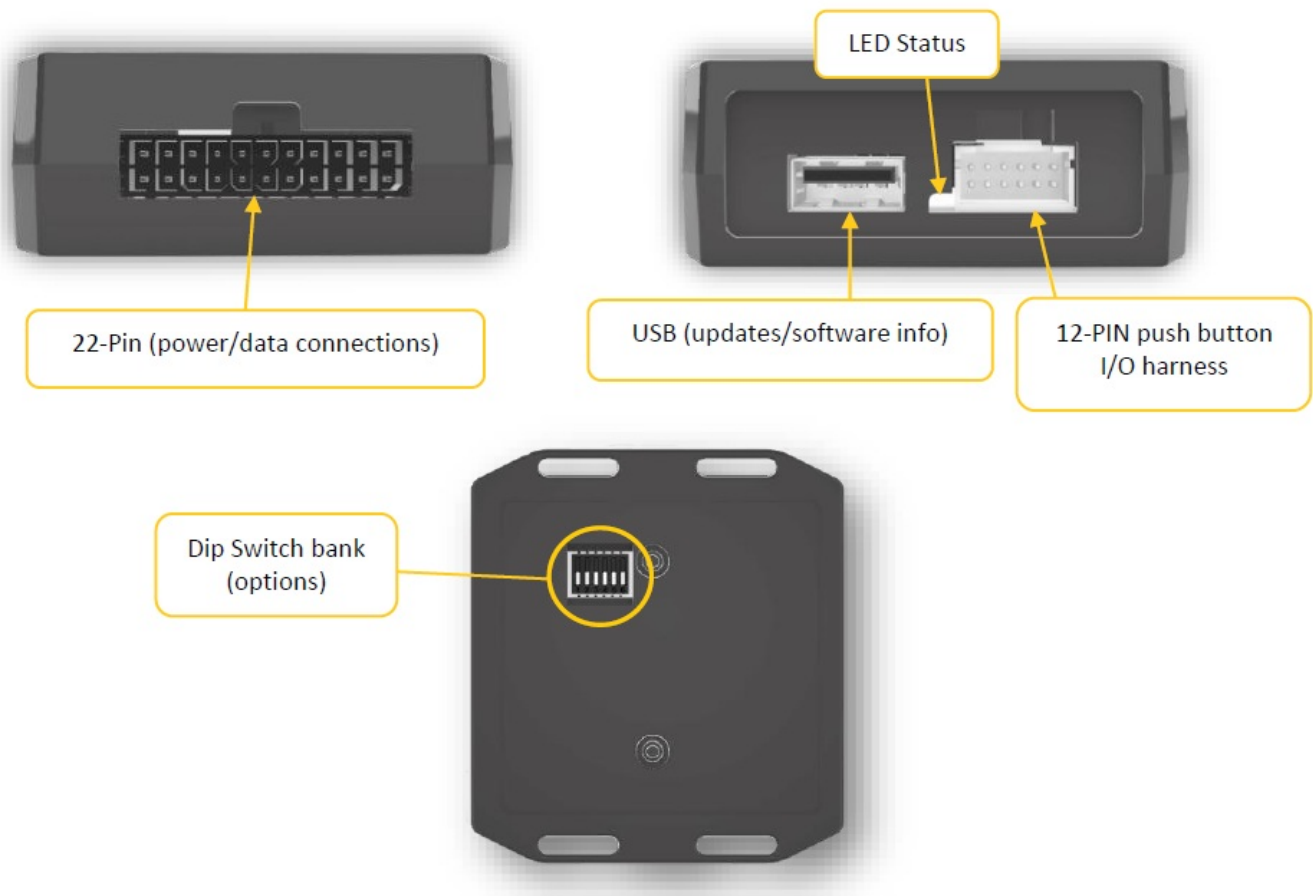
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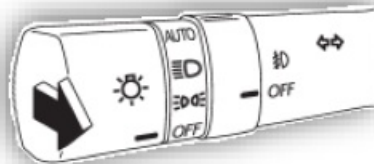

ZW-GM Module

ZW-GM T-Harness

Activation Switch and I/O Harness

Module Connections

22-Pin (power/data connections)

LED Status

USB (updates/software info)

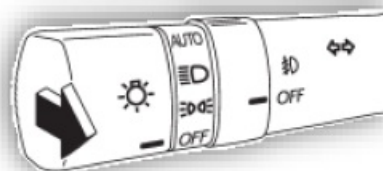12-PIN push button I/O harness

Dip Switch bank (options)

ZW-GM Operation

1. Install the Z-WAGZ unit to the OE BCM unit. Follow the instructions on page 3 for all vehicles.

2. Turn the Ignition ON (The ignition must be on for proper operation). Leave the vehicle in the Park.

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 latched 12v (+) signal to the blue wire (designed to be extended for OE up-fitter switches)

NOTE
If using this method to activate, then the only way to deactivate is by removing power from the input (or shutting the truck down fully) Pattern 1 will begin to flash. Once Pattern 1 begins, the hazards in the gauge cluster will blink 1 time, indicating Pattern

1. has been selected and the LED on the unit will blink BLUE. See chart for remaining pattern color indication.
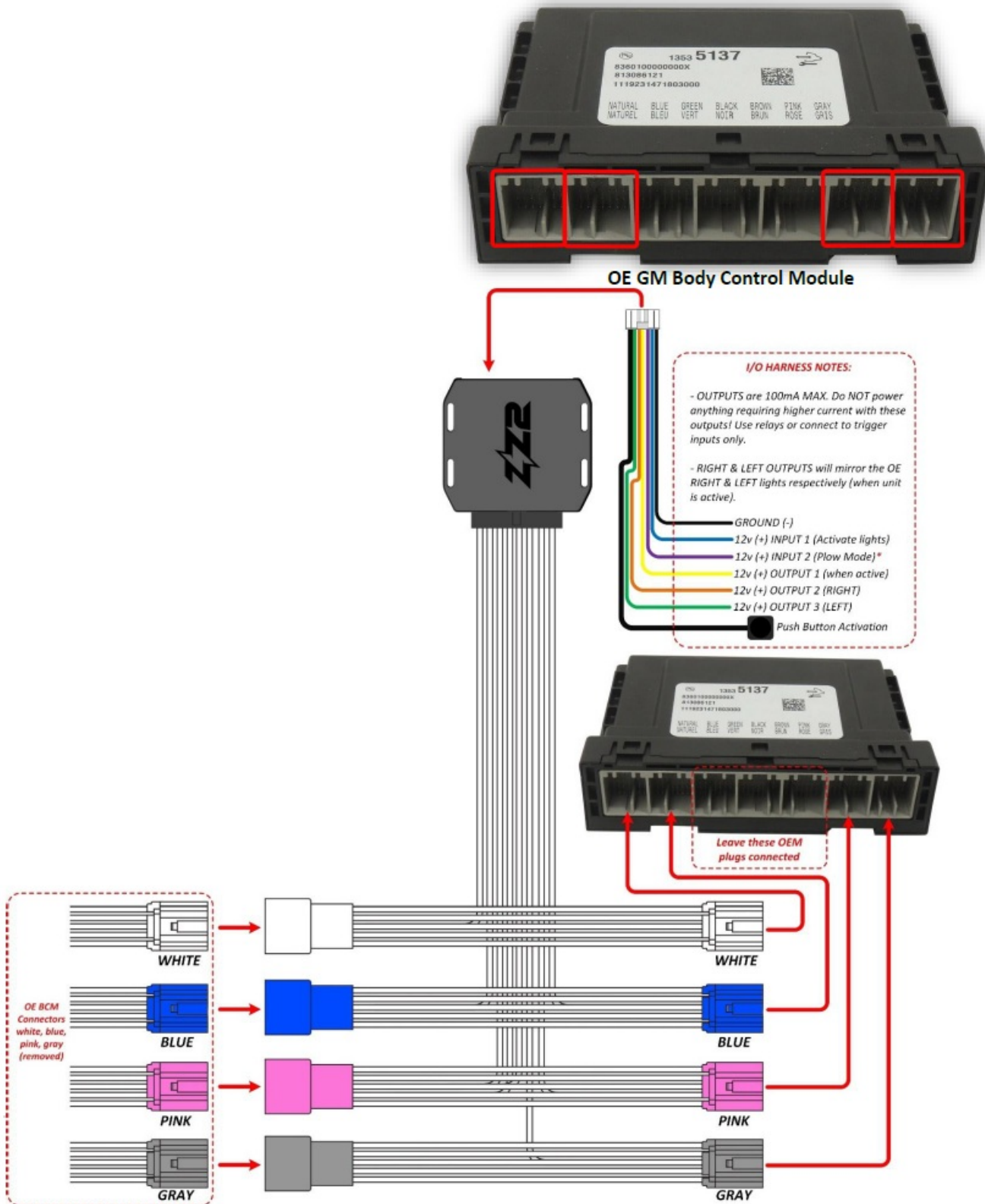
2. To switch to Pattern 2: (Pattern 1 must be currently active)

3. Engage either turn signal, then press and HOLD the high beam lever once more (5 sec). OR

4. Press & release the provided push button

5. The hazards will blink twice indicating Pattern 2 has been selected. Repeat this process to switch to the next pattern.

6. To deactivate Z-WAGZ:

   - Press and HOLD the high beam lever OR
   - Press and HOLD the provided push button OR
   - Release 12v (+) signal to the blue wire (if connected this way)
   - 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

- Vehicles equipped with LED lights should use LED patterns. Vehicles equipped with standard bulbs should use bulb patterns.
- Not all lights on the vehicle are necessarily used, some lights are not controllable via BCM CAN data.
- Z-WAGZ will retain the last used pattern, even after being disconnected from the BCM (if ever).
- When flashing is active: turn signals, headlights & reverse lights will override pattern flashing until turned off again.
- When on some patterns, in some vehicles, the reverse camera image may show up/flash on the OE screen (if equipped). This is a factory limitation and is normal. If you want to avoid this, keep DIP (3) OFF.
- For GM trucks, OE fog lights are typically wired together (and therefore only flash together)
- If the 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).

ZW-GM Installation

1. Locate the BCM unit. The chart below indicates the BCM location in various vehicles.

2. With the vehicle OFF, driver door open (5 mins): Disconnect the (4) highlighted plugs shown.

3. Connect the male side of each T-Harness to the BCM and the (removed) plugs into the female side of the Z-WAGZ BCM harnessing. These connectors can only fit in one place and connect in one way and are color-matched to the OE plugs.

4. Connect the ZW-GM module LAST to the 22-pin connector, and tie-wrap the unit to another harness if desired.

OE GM Body Control Module

I/O HARNESS NOTES:

- OUTPUTS are 100mA MAX. Do NOT power anything requiring higher current with these outputs! Use relays or connect to trigger inputs only.

- RIGHT & LEFT OUTPUTS will mirror the OE RIGHT & LEFT lights respectively (when unit is active).

GROUND (-)
12v (+) INPUT 1 (Activate lights)
12v (+) INPUT 2 (Plow Mode)*
12v (+) OUTPUT 1 (when active)
12v (+) OUTPUT 2 (RIGHT)
12v (+) OUTPUT 3 (LEFT)
Push Button Activation

Leave these OEM plugs connected

OE BCM Connectors white, blue, pink, gray (removed)

WHITE

BLUE

PINK

GRAY

WHITE

BLUE

PINK

GRAY

5. Return to page (2) for operation instructions.

GM BCM Locations

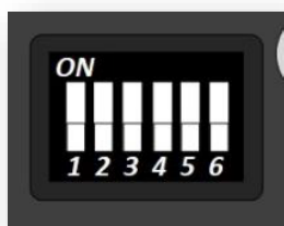| MODEL	LOCATION
Silverado/Sierra/Colorado	Underneath steering wheel/dash area

Confirmed Vehicles

MODEL	LOCATION
Silverado/Sierra/Colorado	Underneath steering wheel/dash area

GM BCM Locations

Confirmed Vehicles

'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). This should be enabled whenever a plow is connected.

DIP Switch Settings (software: v1.6)

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, <u>do not unplug</u> the module to adjust.

DIP	1	2	3	4	5	6
ON	*Disable* High Beam	*Disable* Low Beam	*Enable Reverse Light* (May cause the reverse camera to show on screen while active)	*For HALOGEN equipped* (slower)	*Disable STROBE Mode* (Removes strobe every 3 seconds)	*Heated seat issue only:* *TURN ON**
OFF	*Enable* High Beam	*Enable* Low Beam	*Disable Reverse Light*	*For LED equipped* (faster)	*Enable* STROBE Mode	*TYPICALLY KEEP DEFAULT OFF*

Software v1.6 NOTES

- When turning off ACC the unit will deactivate (stop flashing)
- If the reverse camera flashes/displays on the radio screen when flashing is active, keep DIP 3 off (reverse will no longer flash)
- If the vehicle is via remote start and then the flasher unit is activated (before true ignition), the vehicle will shut down.
- High Beam Lever / External Button / INPUT 1 +12V trigger:
- Some vehicles require the engine to be running to activate flashing (seen in a 2022 vehicle), while others only require IGN ON to activate
- Brake priority is not supported on all vehicles

- If heated seats do not function (while the unit is active), try turning ON DIP 6. NOTE: in some vehicles, this will prevent the normal function of the unit, if that's the case, leave DIP 6 OFF (this vehicle has a limitation for filtering certain commands at the BCM and making lights flash).
- Strobe mode is disabled automatically if the vehicle has limitations with turn signal commands
- When using the wire trigger to turn ON the unit flashing, the unit cannot be deactivated by any other method, use the wire trigger to turn it off as well

ZW-GM LED Status / Patterns [SW: v1.6]

START-UP INDICATION		
Description	*LED Status*	*More Information*
Initial Wake Up	Blinks BLUE (1 time)	Upon initial power connection
The unit recognizes CAN bus (car side ONLY)	Blinks BLUE (3 times)	Upon CAN data wake
The unit recognizes CAN bus (module side ONLY)	Blinks GREEN (3 times)	Upon CAN data wake
The unit recognizes the CAN bus (properly)	Binks BLUE, GREEN (x3)	Upon CAN data wake
The unit detects ACC info	Blinks GREEN (1 time)	Upon Turning the Ignition ON
The unit detects GEAR info	Blinks VIOLET (1 time)	Upon switching gears
The unit detects HIGH BEAM pull OR External button press (for activation)	Solid GREEN	Upon pressing the High Beam lever or the provided push button
The unit receives the negative response for light commands	Blinks VIOLET (x3)	*–Contact ZZ2–*
Unit not receiving confirmation for light commands	Blinks RED (x1)	*–Contact ZZ2–*
When the 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 THE REAR)*
Pattern 6	Blinks YELLOW	*SINGLE BLINK PATTERN (NO CARGO LIGHT FLASH)*

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 the 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	

FRONT LIGHTS		
SUPPORTED LIGHTS	**DIP PARAMETER**	**NOTES**
Low Beams	Dip Adjustable	—
Front Turn Signals	N/A	—
High Beams	Dip Adjustable	—
Fog Lights	N/A	—
Driver Running Lights (DRL)	N/A	—
Mirror Turn Signal Lights	N/A	—
Mirror Task Lights	N/A	Model-dependent
Cab Lights (read notes)	N/A	Not supported – the signal for these is not driven by the BCM/LCM, is directly powered by the switch.
REAR LIGHTS		
SUPPORTED LIGHTS	**DIP PARAMETER**	**NOTES**
3rd Brake Light	N/A	Center High-Mounted
Brake Lights	N/A	—
Rear DRLs	N/A	—
Rear Turn Signals	N/A	—
Reverse Lights	Dip Adjustable	—
Bed Lights (cargo)	N/A	Solid ON when pattern 6 is used
License Plate Lights	N/A	—
Left/Right *Trailer Turn signals*	N/A	Not supported in all models
Flood Lights	N/A	

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-GM was tested on.

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Documents / Resources

ZZ-2 ZW-GM A BCM Connected Module [pdf] Instruction Manual
ZW-GM A BCM Connected Module, ZW-GM, A BCM Connected Module, Connected Module, Module

References

- [**User Manual**](#)