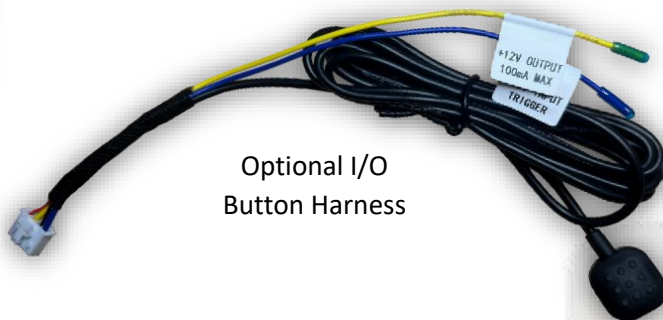
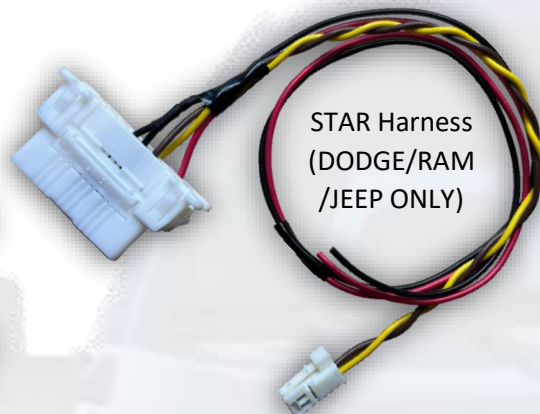


Thank you for purchasing a genuine Z-WAGZ kit, the simplest OBD2-module for flashing OEM lights with a press of a button. This unit comes pre-programmed with 8 different light patterns, some for halogen systems & some for LED systems – see below for full operation information including on-board LED status.



Optional I/O
Button Harness



STAR Harness
(DODGE/RAM
/JEEP ONLY)

Operation:

1. For FORD/Lincoln vehicles, connect the Z-WAGZ unit to the OBD2 port and proceed to step (2). For All other vehicles, follow installation instructions on page 3, then return here for operation information.
2. Turn Ignition ON (Ignition must be on for proper operation). Leave vehicle in 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 12v (+) signal to the **blue wire** (designed to be extended for OE up-fitter switches)

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.

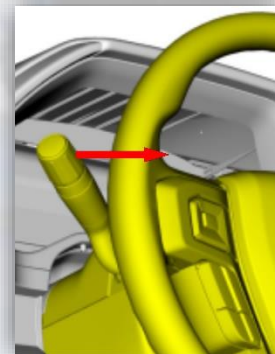
4. To switch to Pattern 2: (Pattern 1 must be currently active)

- Engage either turn signal, then press and HOLD the **high beam** lever once more (5 sec). OR
- Press & release the provided push button

The hazards will blink twice 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 OR
- Press and HOLD the provided push button OR
- Release 12v (+) signal to the **blue wire** (if connected this way)



NOTES:

- Vehicles equipped with LED lights should use LED patterns (1-4). Vehicles equipped with standard bulbs should use bulb patterns (5-8)
- For FORD, 'Drive Mode' (anything outside of PARK gear) will emit its own, separate pattern from whatever pattern is currently selected. This is a limitation of the vehicle and how light data is handled when not in PARK gear.
- Not all lights on the vehicle are necessarily used, some lights are not controllable via OBD CAN data.
- Z-WAGZ will retain the last used pattern, even after being disconnected from the OBD2 port.
- When in Drive Mode, turn signals, headlights & reverse lights will override pattern flashing, until turned off again.
- For FORD (only), **pattern 4** is an 'Alternative Mode' pattern. Some vehicles do not respond to typical data, therefore this pattern method was created.

Confirmed Vehicles*:

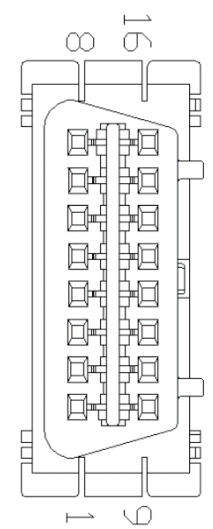
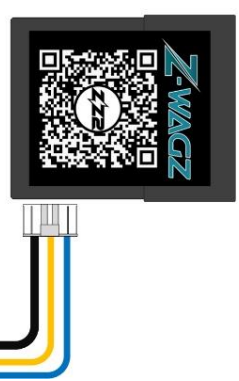
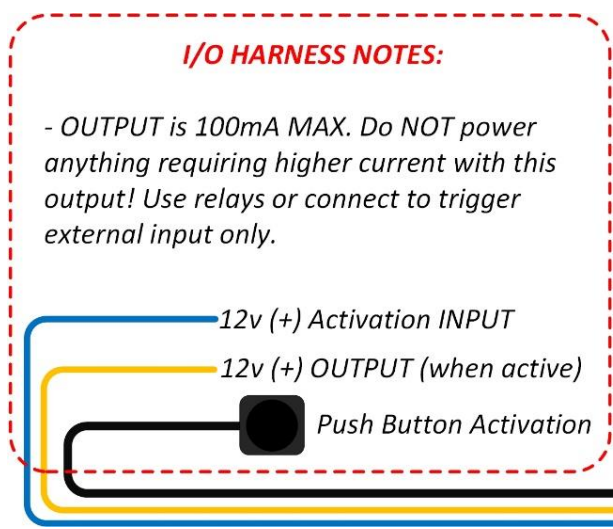
MAKE	MODEL	YEAR
Ford	Expedition	2018
	F150	2013-2019
	F250	2016-2019
	F350	2016-2019
Lincoln	MKC	2019
Dodge	Challenger	2018-2018
	Charger	2013-2018
	Durango	2016
	Journey	2019
	RAM 1500	2019-2023
Jeep	Grand Cherokee	2018



*Vehicles on this chart have been tested to function properly. More models will be added over time. Other vehicles not listed here may still function.

FORD Installation

For Ford vehicles, simply connect to the OBD2 port (beneath driver's dash). If desired, connect provided I/O Button Harness to the 4-PIN port on the side of the MFD module and extend push button to a driver-accessible location. Wire triggers are also available for activation (input - blue) or for controlling an external device (output - yellow). See below for further information. Return to page (1) for operation instructions.



OBD Port

RAM, Dodge, Jeep, Chrysler Installation

1. Locate the factory STAR diagnostic bank (CAN-C 'instrument cluster CAN'). For all RAM trucks, this is located high in the driver's side dashboard. There will be 2 banks in a similar location (Diagram 1). *NOTE: other vehicles may have a different location for the STAR bank. Contact ZZ-2 for more information.*
2. The proper bank to use is **GREEN with WHITE plugs**. There will be many, open 2-PIN connectors. Connect the provided 2-PIN plug to any open space on this bank (Diagram 2).
3. Next, Connect power (red) & ground (black) from the RAM-STAR harness to the factory OBD2 port at pin 4: Ground (-) and pin 16: 12v (+) (Diagram 3).
4. **The ZWAGZ unit does not connect to the factory OBD port for this install – connect it to the provided, white OBD plug (just completed connecting to the vehicle).**
5. Optional: tie up the harness using a wire-tie to an existing OEM harness to complete the installation.
6. See to page (1) for operation instructions.

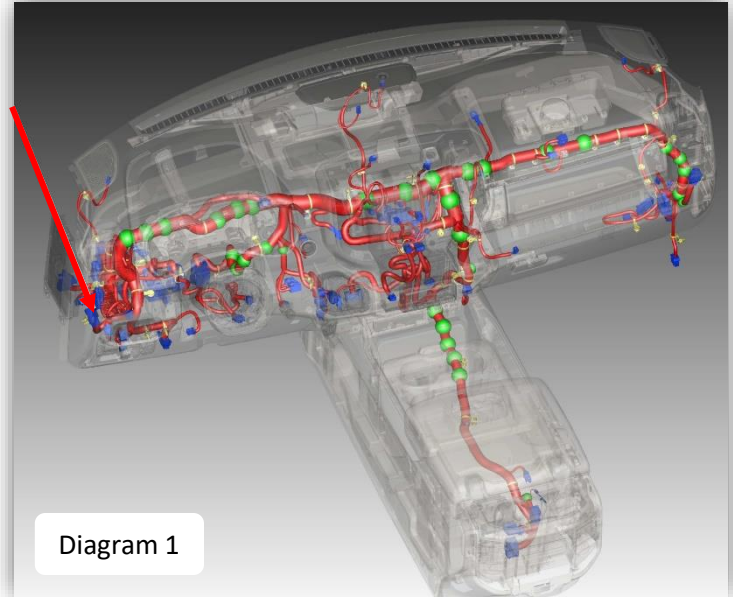


Diagram 1

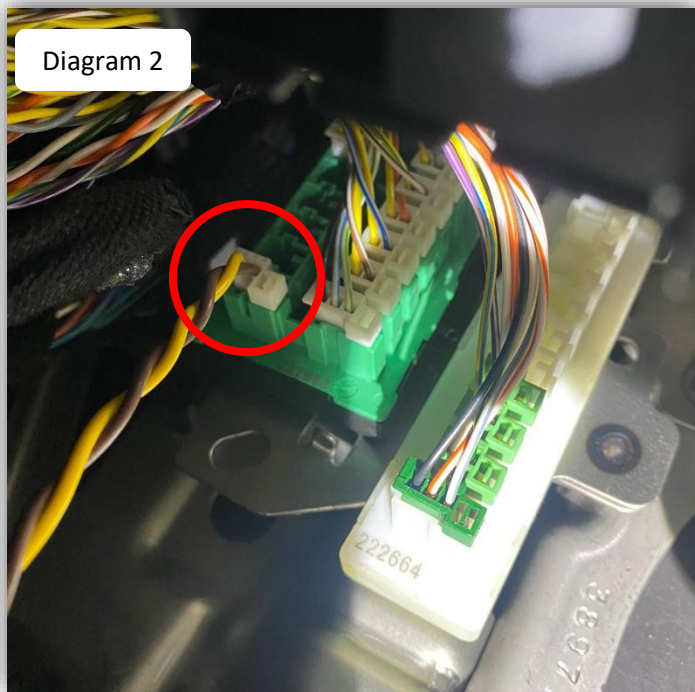


Diagram 2

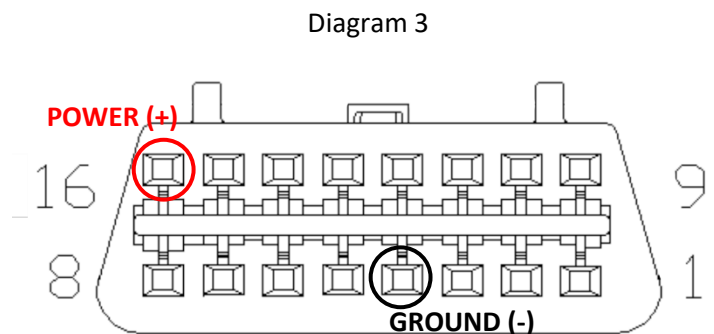


Diagram 3

LED Status (ALL vehicles)

START-UP INDICATION		
<i>Description</i>	<i>LED Status</i>	<i>More Information</i>
Initial Wake Up	Blinks BLUE (1 time)	Upon connection to OBD port
Unit recognizes CAN bus	Blinks BLUE (3 times)	Upon connection to OBD port
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 press OR External button press	Solid GREEN	Upon pressing High Beam lever or provided push button
No response from vehicle/CAN	Solid OR Blinks RED	While connected to OBD and Z-WAGZ activated
PATTERN INDICATION		
<i>Description</i>	<i>LED Status</i>	<i>More Information</i>
Pattern 1	Blinks BLUE	LED PATTERN
Pattern 2	Blinks GREEN	LED PATTERN
Pattern 3	Blinks RED	LED PATTERN
Pattern 4	Alternates GREEN & BLUE	ALT MODE (FORD)
Pattern 5	Alternates GREEN & RED	BULB PATTERN
Pattern 6	Alternates BLUE & RED	BULB PATTERN
Pattern 7	Alternates VIOLET & GREEN	BULB PATTERN
Pattern 8	Alternates LIGHT BLUE & RED	BULB PATTERN
POWER CONSUMPTION		
Current Draw Active:	100mA MAX	
Current Draw idle:	4mA MAX	
Trigger wire act:	0V	
Trigger wire idle:	5V	
Current limit:	10mA	