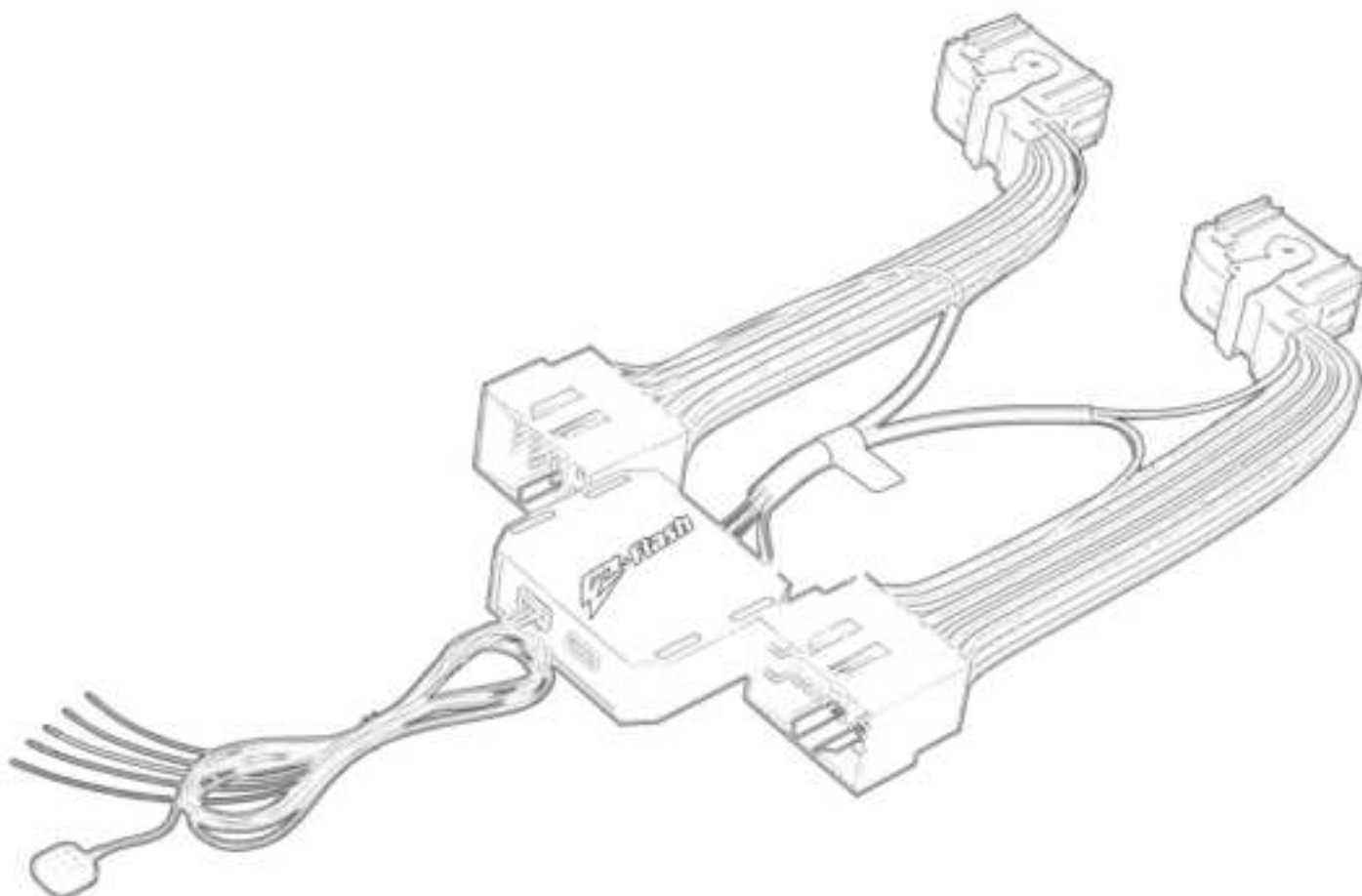

FlashTM

VEHICLE FLASHER

USER MANUAL | V1.1



Thank you for purchasing a genuine Z-Flash unit, the simplest Plug & Play module for flashing OEM lights with a press of a button. This unit comes pre-programmed with 3 different light patterns and has options for disabling specific lights.



WARRANTY

This warranty protects the product(s) specified to be free from defects in material and workmanship for 1 (one) year. During the warranty period we will, at our sole discretion, repair or replace the product(s). This limited warranty does not cover travel expense or labor charges for the removal and reinstallation of the product, or any other charges alike. We are not responsible for incidental damages, including but not limited to: loss of time, loss of work, inconvenience, loss and/or damage to personal property, shipping expenses. We are in no way responsible for any loss or any indirect or consequential damages resulting from any such defect in material and/or workmanship whether it's due to negligence, incorrect installation, or manufacturer mistake. It is the sole responsibility of the party initiating a warranty claim to pay shipping charges associated with returning a product.



WARNING

- If you do not know what you are doing, do not try.
- We advise professional installation for all products.
- Electrical shock can cause injury or death. Please use proper tools and protection when installing. Professional installation is strongly advised.
- Please check for correct installation method before powering on. Electrical fire can occur.
- Do not run any wires in the way of air bags or other safety devices.




Z-FLASH OPERATIONS

1. Install the Z-Flash unit to the factory Body Control Module (BCM). Follow instructions on [page 2](#) for more details and important information with this process.

2. Turn Ignition ON or start vehicle
(Ignition must be ON or vehicle running for proper operation)

3. To activate Z-Flash:

- o Press and HOLD the high beam lever (5 sec)  OR
- o Press and HOLD the provided push button (3 sec) OR
- o Send a 12v (+) signal to the blue wire (designed to be extended for OE up-fitter switches or any aftermarket toggle).

For this input method, as long as the wire has 12v (+), the Z-Flash unit will stay active.

Pattern 1 will begin to flash. Once pattern 1 begins, the cluster turn signal (indicators) will blink 1 time, 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 Pattern 2: (Pattern 1 must be currently active)

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

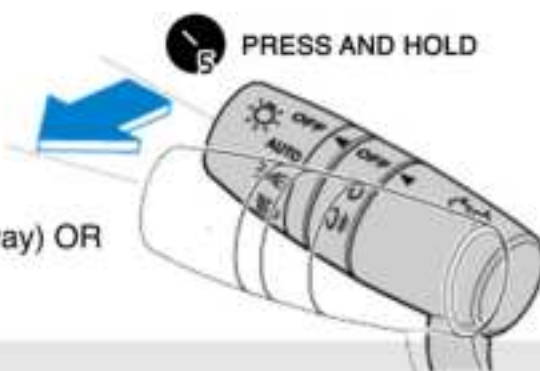
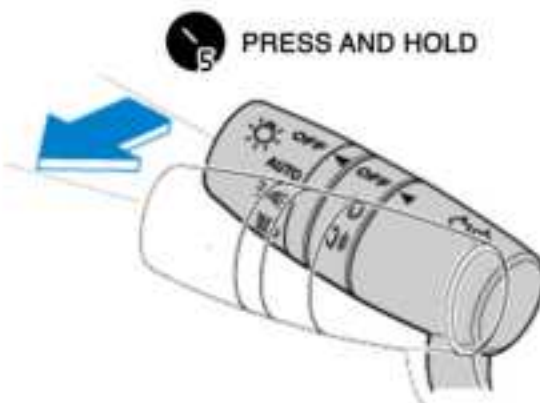
The cluster turn signal (indicators) will blink twice indicating Pattern 2 has been selected. Repeat this process to switch to the next pattern.

5. To deactivate Z-Flash:

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

GENERAL NOTES:

- Vehicles equipped with LED lights should use LED patterns. Vehicles equipped with standard bulbs should use bulb patterns but may get away with LED patterns (although some consistency may be lost).
- Not all lights on the vehicle are necessarily used, some lights are not controllable via CAN data commands.
- Z-Flash 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 wired with turn signals from factory.
- '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).





MODULE INSTALLATION

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

⚠ Disconnect the vehicle's battery before installation

2. With the vehicle OFF: disconnect the (2) circled plugs shown. Connect the male side of each T-Harness to the BCM and the (removed) plugs into the female side of the Z-Flash BCM harnessing. These connectors can only fit in one place and connect in one way.
3. Connect the Z-Flash BCM unit to the 22-pin connector, tie-wrap the unit to another harness if desired.
4. Return to page (1) for operation instructions.



OE FORD BCM UNIT

Ford BCM Locations:

MODEL	LOCATION
F-Series Trucks (all)	Passenger side kick panel
Explorer	Behind lower dash panel, left of steering wheel

Confirmed Vehicles:

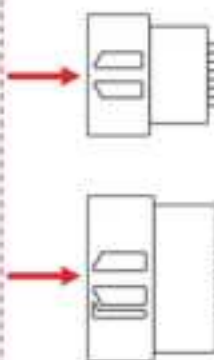
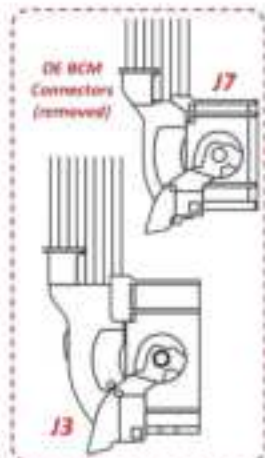
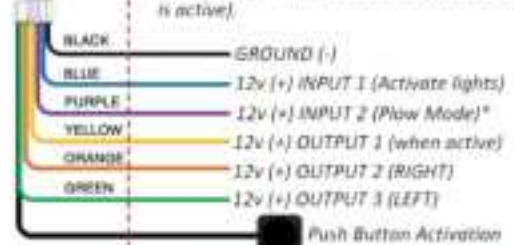
MAKE	MODEL	YEAR
Ford	Expedition	2018
	F150, Raptor	2015-2023
	Explorer	2019-2022
	Super Duty F250-F350	2019-2022



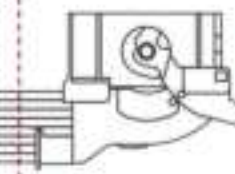
I/O HARNESS NOTES:

· 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).



Connect to OE BCM J7



Connect to OE BCM J3



DIP SWITCH SETTINGS, EXTRA FEATURES

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



DIP	1	2	3	4	5	6
ON	Disable High Beam	Disable Low Beam	Enable Reverse Light <i>(May cause reverse camera to show on screen while active)</i>	For HALOGEN equipped <i>(slower)</i>	Disable STROBE mode <i>(Removes strobe every 3 seconds)</i>	BREAK + SIGNAL SEPARATE
OFF	Enable High Beam	Enable Low Beam	Disable Reverse Light	For LED equipped <i>(faster)</i>	Enable STROBE Mode	BREAK + SIGNAL TOGETHER

*DIP 6 ON:

For vehicles with separated Brake light and turn signal bulbs (separate housings, rear of vehicle)

*DIP 6 OFF:

For vehicles with Brake light and turn signal bulbs combined into the same housing (same housing, rear of vehicle)

NOTES:

- '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. NOTE: this input must see 12v (+) before activating the Z-Flash for proper functionality.
- When high beam is ON (high beam priority), low beam will be OFF.
- When low beam is ON (low beam priority), high beam will stop flashing.
- If low beam priority fails, disable high beam flashing (DIP switch 1 ON).
- When the vehicle is turned OFF, all flashing and unit will also deactivate.
- If Reverse camera shows up on screen when unit is active, DIP 3 (reverse) is enabled. Turn (3) OFF to disable reverse.
- High Beam Lever / External Button / INPUT 1 +12V requires ACC ON to function properly.



22-PIN (POWER/DATA CONNECTIONS)



DIP SWITCHES (OPTIONS)

12-PIN PUSH BUTTON
I/O HARNESS



USB (UPDATES)



GM LED STATUS / PATTERNS

FRD1.5 LED STATUS/PATTERNS

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 (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 VIOLET (x3)	Contact Support
Unit not receiving confirmation for light commands	Blinks RED (x1)	Contact Support
When unit goes to sleep	Blinks WHITE (x1)	When CAN shuts down
CAN bus communication problem	Blinks RED + GREEN	While Z-Flash 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

POWER CONSUMPTION / ADDITIONAL SPECS

Description	LED Status	More Information
Current Draw Active:	100mA max	
Current Draw idle:	7mA max	
INPUT 1 Trigger wire act:	12V (+)	Hardwire activation trigger
INPUT 2 Trigger wire act:	12V (+)	Hardwire activate PLOW mode
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	

NOTES: