

# Solid State Headlight Flasher with Select-A-Pattern Technology

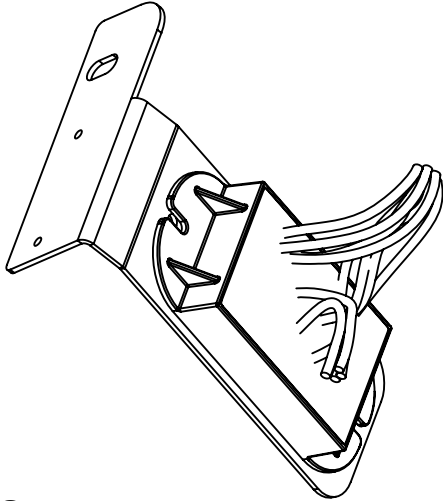
2016+ Ford Utility

ETHFSS-FV

## WARNING:

This Flasher will not work on any "ground side switched" system. If you have any questions regarding what type of system your vehicle has, contact SoundOff Signal's Technical Service Department at 1-800-338-7337.

Please see reverse for Technical Specifications



## ⚠ WARNING

- HIGH CURRENT interconnects must be properly terminated. Poor crimp quality can cause heat build-up and fire. Follow crimp connector manufacturer instructions.
- DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to vehicle Owner's Manual for deployment zones.
- Do NOT use system to disconnect headlights, brake lights or other safety equipment.
- Unit may become hot to touch during normal operation.
- Failure to properly install connectors, fuses or wiring may cause vehicle failure or fire.
- Installation must only be performed by trained technician. Installer must determine vehicle wiring configuration and proper integration of system.
- Use proper wire gauge. All power wires connecting to positive (+) or negative (-) battery terminal or local chassis ground (-) must be sized to supply at least 125% of max. current and properly fused at power source.
- Install protective grommets when routing wire through firewall or metal.

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1.800.338.7337 / [www.soundoffsignal.com](http://www.soundoffsignal.com)

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Congratulations! You are now the proud owner of the most technically advanced true 100% Solid State Selectable Pattern Headlight Flasher System in the market today. Add to it our never ending commitment to quality, when properly installed this new Flasher System will provide you with years of dependable trouble free service.

The Flasher System will operate a headlight system at +10-16 Vdc positive side switched headlight systems.

## NOTE:

When used in dark conditions, the low beam headlights need to be ON for proper illumination, while the highbeam headlights will flash to gain attention and increase the vehicle's visibility.

When the high beam switch is activated, the Flasher system's High Beam Over-Ride (HBOR) is activated and will interrupt the flashing sequence to allow normal high beam function. The HBOR function is automatically disabled with the high beam switch is de-activated allowing the headlight flasher to resume operation.

## NOTE:

Flashing Headlights and Taillight Systems are intended for approved vehicles only. The user of this system is responsible to ensure compliance to any Federal, State, or Municipal regulations, which may apply.

## NOTICE:

Installers and users must comply with all applicable federal, state and local laws regarding use and installation of warning devices.

*Improper use or installation may void warranty coverage.*

To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product, visit our website at [www.soundoffsignal.com/tech-services/returns/](http://www.soundoffsignal.com/tech-services/returns/).

If you have questions regarding this product, contact **Technical Services**, Monday - Friday, 8 a.m. to 5 p.m. ET at 1.800.338.7337 (press #4).

Questions or comments that do not require immediate attention may be emailed to [techservices@soundoffsignal.com](mailto:techservices@soundoffsignal.com).

ENHANCING SAFETY THROUGH INNOVATION

## WIRING:

The enclosed headlight flasher has been designed to be water resistant. For the recommended mounting location and instructions, please see page 2.

## GREEN WIRE:

Connect to reliable ground, preferably close to ground post of battery

**WHITE WIRE:** Connect to a +10-16Vdc power source capable of providing 15 Amps.

## WARNING:

**DO NOT USE A CIRCUIT BREAKER, FUSIBLE LINK, OR SLOW BLOW TYPE FUSE**

## RED WIRE:

Connect to a powered switch through a user supplied 1 amp fuse.

## BLACK WIRE (OPTIONAL Connection):

If an "Automatic Nighttime Flasher disable" is required (check with state and municipal regulations) simply 'T' or tap this wire into the parking / marker light wire. This feature will disable the flasher whenever the parking / marker lights are turned ON.

Plug flasher connection ends to Driver and passenger side headlight connectors. An audible click ensures contacts are all latched.

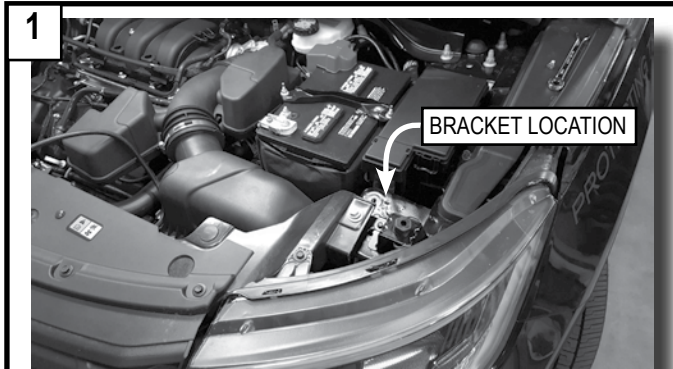
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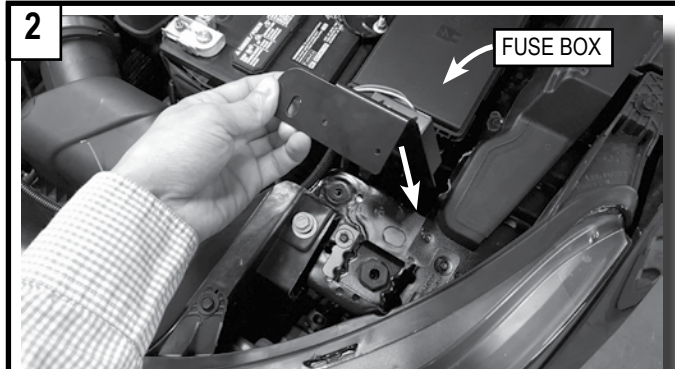
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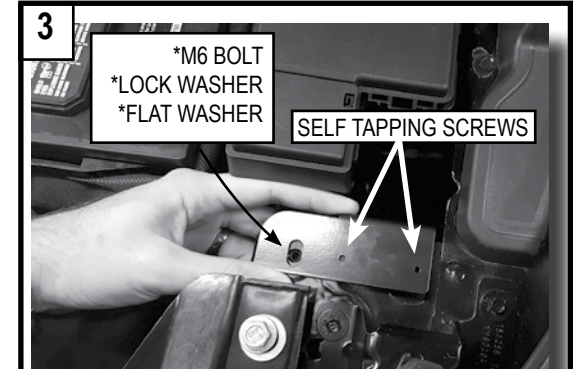
## Mounting Instructions



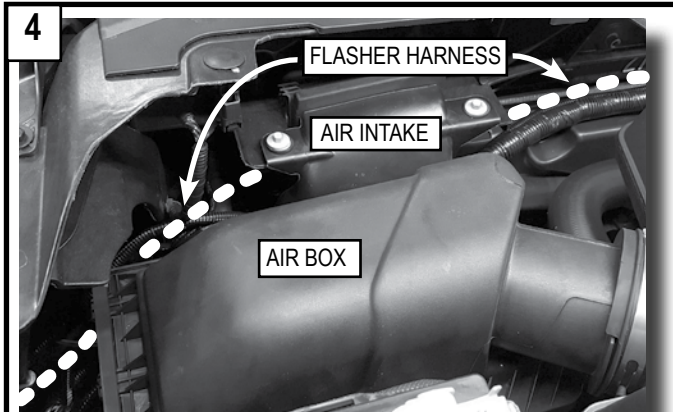
1 Driver side engine compartment shown. For ease of installation, remove both driver and passenger side headlights following the recommended manufacturers method.



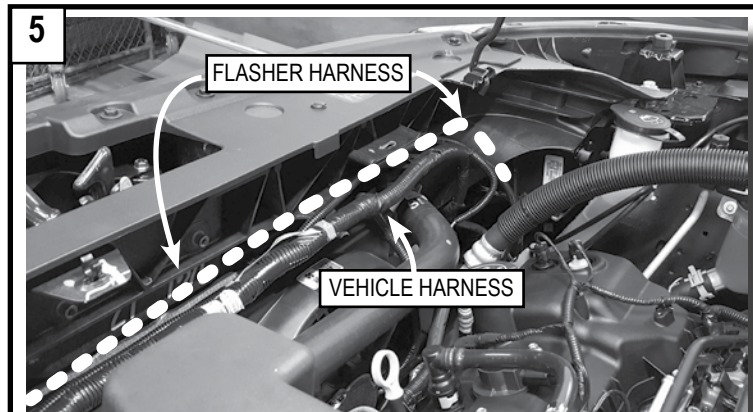
2 Slide the flasher bracket assembly between the fuse box and the grille reinforcement bracket, as shown above.



3 Using the supplied hardware included in the kit. Bolt the bracket as shown above.



4 After bolting the flasher, run the long harness next to the air box and under the air intake, as shown above.



5 Continue routing the long flasher harness to the passenger side headlight assembly, as shown above

6  
  
**FOR WIRING INSTRUCTIONS AND SCHEMATICS, SEE PAGE 1 AND 3.**

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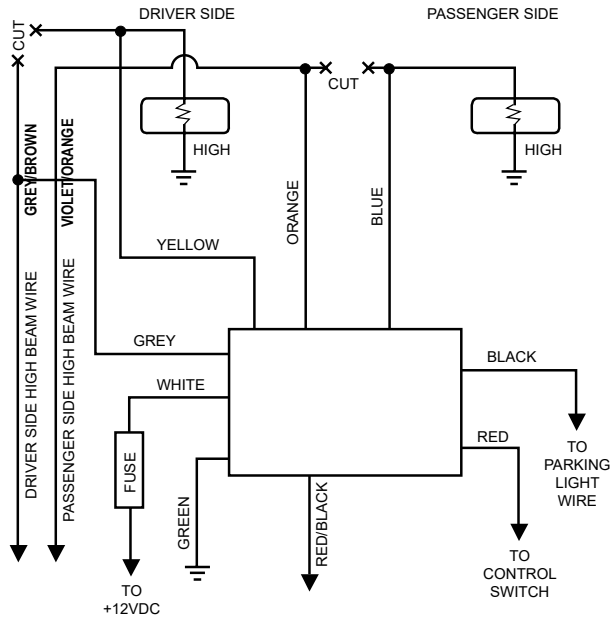
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## Final System Check:

1. Verify Headlight Flasher properly flashes headlights when Flash Enable switch is turned ON.
2. With Flash Enable Switch ON, turn High beam switch ON and verify both high beam headlights turn ON steady.
3. If NTCO is required: With Flash Enable Switch ON, turn parking / marker lights ON and verify Flasher does not function.

## Troubleshooting:

### Symptom:

No Operation

### Solution:

Verify fuse is not open.  
Verify voltage of 10-16Vdc is present on Red wire

Interference with Radio equipment

Verify power and ground wires are not connected to same circuit as radio equipment. Connect ground wire as close to ground terminal of battery as practical

Flasher stops functioning when marker lights are turned ON

NTCO (Night Time cut-off) wire is connected to parking / marker lights. If flashing of headlights is allowed at night, remove NTCO wire from marker light wiring.

Headlights turn ON for short time then OFF for a couple of seconds and repeats

Over-current shutdown of the flasher has detected too much load on the flasher. Verify a maximum of 2-55 Watt lamps are connected to each output

## Flash Pattern Selection:

To change the pattern, momentarily touch Red/Blk wire to ground. The pattern will change each time Red/Blk wire is touched to ground.

Once the pattern is selected, the flasher will retain the selected flash pattern.

Flash Patterns	
Flash Pattern Sequence	FPM (Flashes per Minute)
1. RoadRunner™	115
2. PowerPulse™	180
3. ETM™	215
4. Double Flash	50
5. Q-Switch™	Multi-Pattern
6. Cycle Flash	Multi-Pattern
7. Single Flash	56

ELECTRICAL SPECIFICATIONS	
Input Voltage	10-16Vdc
Output Current:	9.5 Amps / output
Standby Current:	< 10mA
Number of Flash Patterns:	7

