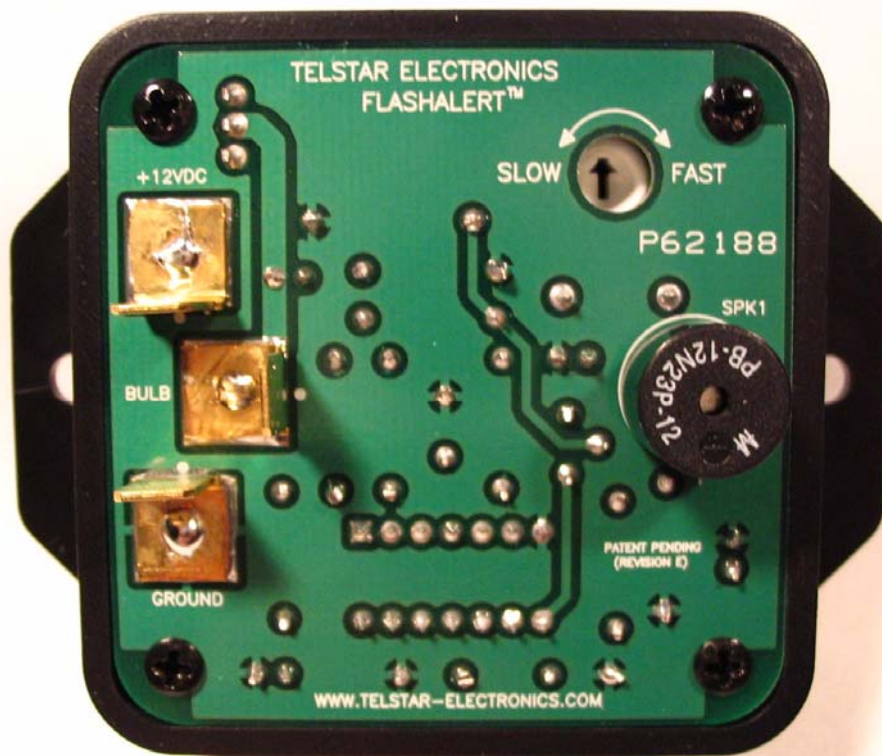


FlashAlert



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847-231-3372



Electronic Turn Signal Flasher Installation / Operation Manual



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Introduction

Congratulations

You have just purchased the latest automotive electronic development. The FlashAlert was designed to provide years of reliable operation with the following features:

- Standard or LED Bulbs
- Plugs Directly into Existing Vehicle 2-Prong^φ or 3-Prong J50 Type Connector
- Completely Electronic - 100% Solid State - No Relays or Moving Parts
- Adjustable Flash Rate
- High Current Capability - 15 Amps
- Sonalert[®] Audible Chirp Avoids Leaving Signal on in Noisy Environments
- Eliminates the Need for Additional Loading Resistors in LED Systems.
- Textured Black ABS Enclosure[†]
- Simple Installation & Mounting
- Compact Size (2.5" x 2.5" x 1.25")
- 90 Day Limited Warranty

Brief History of Automotive Flashers

Automotive flashers have been in existence for many decades but unlike other vehicle technology, they have changed very little. The device most commonly in use today is referred to as a "thermal flasher". It's principle of operation relies on a set of bimetallic contacts and currents from the operating bulbs to provide the heat necessary to open and close those contacts. Although this design is elegantly simple, it has some limitations when exposed to modern technology. LEDs have emerged in the automotive marketplace within the past few years and are rapidly gaining popularity for a number of reasons. These reasons include efficiency, fast turn-on time, and most of all reliability. Due to the LED's inherent low current consumption, the thermal type flasher will not function correctly.

Warranty

FlashAlert has an implied warranty to be free of defects in materials and workmanship for a period of 90 days from purchase. This warranty covers workmanship, parts, and labor. If it's determined that the FlashAlert has been used for a purpose other than intended, abused, or altered in any way, the warranty shall be void.

^φ 2-prong flashers require attachment of supplied ground wire

[†] Underwriters Laboratory UL94-5VA rating

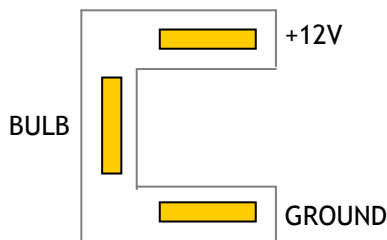


Frequently Asked Questions

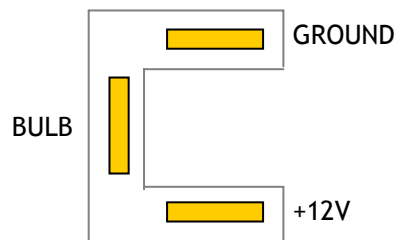
What is JSO?

There are two types of 3-prong automotive flasher configuration standards commonly in use today. They are designated JSO^Y and ISO^S. The physical prong layout is identical, but the wiring assignment to the prongs differs. The prongs that feed +12V and ground to the flasher swap positions. The prong that connects to the bulbs is in the identical position for both types.

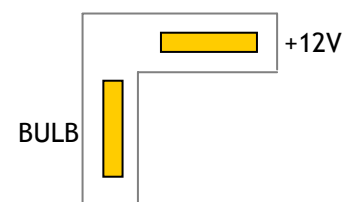
FlashAlert functions with the types shown in green background below.



3-PRONG JSO TYPE



3-PRONG ISO TYPE



2-PRONG TYPE

ILLUSTRATIONS SHOW FLASHER CONNECTOR WITH FLASHER REMOVED
(ALL TERMINALS SHOWN ARE ¼" WIDE)

How can I make sure FlashAlert will work in my vehicle?

The FlashAlert has been designed to operate with all 2-prong or 3-prong (JSO type) configurations. All 2-prong flashers are compatible. If you have a 3-prong flasher, check the application information first at <http://www.telstar-electronics.com/Application%20Info.htm>. If your vehicle is not listed... you can still verify your vehicle's compatibility by:

- Remove existing flasher from the connector harness.
- Using a DC Voltmeter, probe 3-prong connector to make certain that +12V and ground are in the same position in the connector as shown on the JSO type illustration above.

^Y Japanese Standards Organization

^S International Standards Organization



Frequently Asked Questions (Continued)

Does FlashAlert work with ISO type systems?

Yes, but only with a special adapter harness. Contact Telstar Electronics for details.

What will happen if I plug my FlashAlert into an ISO type system?

FlashAlert has been designed to operate with 2-prong and 3-prong (J50 type) configurations only. Although the FlashAlert will not function if plugged into the ISO configuration, it will not damage the FlashAlert module or the vehicle system in any way.

Will FlashAlert work on 6V systems?

No, FlashAlert operates from 8 to 16V_{DC}.



Electrical / Mechanical Specifications

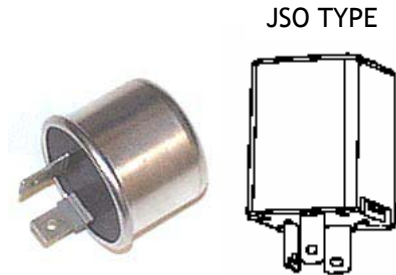
Operating Voltage	8 - 16V _{DC}
Operating Current	10mA
Flash Rate (Adjustable)	60 - 130 (Per Minute)
Load Switching	20mA - 15A
Audible Frequency	2.3KHz
Audible Duration	50mS (Per Flash)
Flash Symmetry	50%
Operating Temperature Range	-40 to +180F



Installation

- 1.) Locate and remove original 2-prong or 3-prong J50 type flasher from vehicle harness. ▶

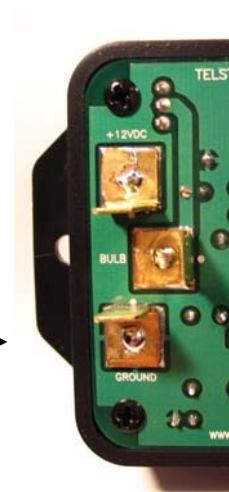
HINT - LOCATING THE FLASHER CAN USUALLY BE SIMPLIFIED BY ACTIVATING THE TURN SIGNAL IN THE VEHICLE AND "ZEROING IN" ON THE CLICKING SOUND.



- 2a.) For 2-Prong retrofits, attach supplied wire to frame ground and connect to ground terminal on FlashAlert. ▶

IMPORTANT - THIS STEP IS NECESSARY FOR 2-PRONG FLASHER ONLY.

GROUND →



- 2b.) Plug flasher vehicle wiring harness connector into prongs on FlashAlert. ▶

IMPORTANT - 2-PRONG AND 3-PRONG FLASHER HARNESS CONNECTOR HAVE PATTERNS THAT WILL ONLY FIT CORRECTLY ONE WAY.

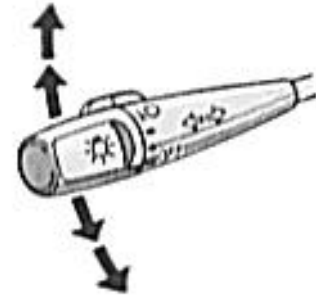
PRONGS →





Installation (Continued)

- 3.) Start engine and activate turn signal. ▶



- 4.) Using a small flat-bladed screwdriver, rotate adjustment for desired flash rate. ▶



- 5.) Turn engine off.

- 6.) Use the cable-ties supplied to attach FlashAlert to an acceptable mounting location.

IMPORTANT - DO NOT MOUNT MODULE SO METAL SURFACES COULD COME INTO CONTACT WITH CIRCUIT BOARD.



Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
FlashAlert does not function.	FlashAlert is plugged into an ISO type connection.	<ul style="list-style-type: none">• Unplug FlashAlert from connector.• Using a DC Voltmeter, probe the connector to make certain that +12V and ground are as shown in the JSO connector diagram when the vehicle key is in the ignition "on" position. (Page 2)
	Turn signal fuse is blown.	<ul style="list-style-type: none">• Check and replace vehicle turn signal circuit fuse if needed.
	FlashAlert has replaced a 2-prong flasher and ground wire is not attached.	<ul style="list-style-type: none">• Attach ground wire. (Page 5)
FlashAlert flashes too fast or too slow.	Flash rate needs adjustment.	<ul style="list-style-type: none">• While turn signal is activated, use a small flat-bladed screwdriver to adjust the flash rate control on FlashAlert. (Page 6)