

MINITRON

Hazard Light Switch

User Manual

Four-way hazard warning light switch for your classic vehicle.

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MINITRON Hazard Light Switch User Manual

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General Features

- Push-Pull switch activates hazard lights (four-way indicators).
- Compatible with standard wiring loom.
- Positive and negative earth vehicles.
- Hazard light function works with ignition off or on. Indicator lights work only when ignition turned on.

Gives you:

- Increased safety in the event of vehicle malfunction or accident.



Fig. 1 Four-way flashers

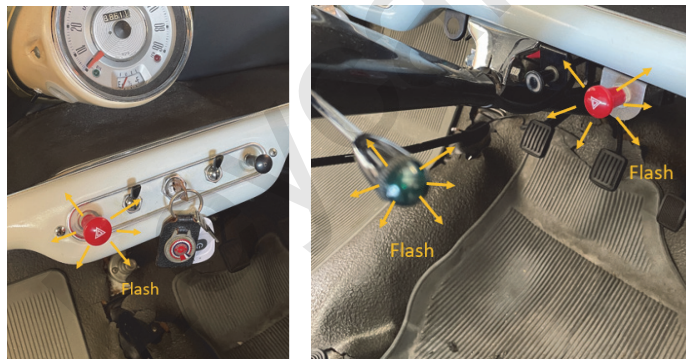


Fig. 2 Hazard light switch installation examples

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1. Introducing the MINITRON Hazard Light Switch

Given the age of most classic vehicles, it is reasonable to accept that the chance of a breakdown is significantly higher than that of a modern vehicle. Despite this, most classic vehicles manufactured before 1990 do not have hazard emergency lights to alert other drivers to the existence of a problem.

The MINITRON Hazard Light Switch provides standard hazard light functionality by allowing all four indicator lights to flash simultaneously when the hazard light switch is activated.

The hazard lights are operable with the ignition off or on. The left- and right-hand indicators remain operable only with the ignition turned on, but the hazard light function over-rides direction indicators.

The intended function of the device is to act as a safety device.

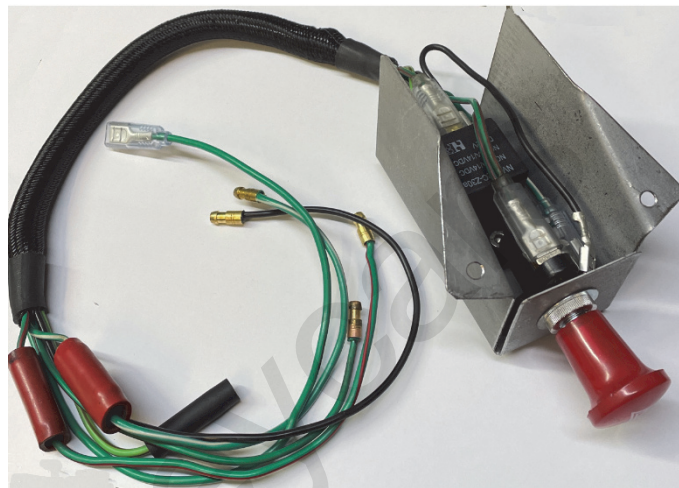


Fig. 3 MINITRON Hazard Light Switch mounted in Switch Bracket.

2. Australian Design Rule 13 (1991)

ADR13 for vehicle lighting applies to vehicles manufactured after 1 October 1991. According to ADR13,

"Hazard warning signal" means the simultaneous operation of all of a vehicle's direction indicator lamps to show that the vehicle temporarily constitutes a special danger to other road users.

ADR13 requires that indicator lights be amber in colour, but many classic vehicles do not have amber indicator lights at the front, and as well, the placement of the lights (e.g. height above the roadway) may not meet ADR requirements. The MINITRON Hazard Warning Light is therefore not ADR13 compliance to the extent that the vehicle's lighting system is non-compliant, but it does offer the simultaneous operation of all of the vehicle's indicator lights as per the ADR requirement.

If you wish to have amber hazard lights at the front for vehicles with white indicator lights as standard, then it will be necessary to alter the vehicle's wiring so that single element amber globes are fitted as indicator lights, and any parking lights are separate or are incorporated into the headlight units.

3. Features

All necessary parts are included in the device. Depending on your vehicle, there may be no need to cut or splice any vehicle wiring.

Note: Older style thermal type flasher units work on the bending of a bi-metallic strip and the rate of flash depends upon how many lights are operated. When called upon to flash four indicator lights, plus side repeater lights, or extra indicator lights on a trailer, the existing vehicle flasher unit may need to be upgraded to a load-independent type, otherwise the rate of flash will be too slow, and the flasher unit overloaded. Load-independent electro-mechanical type flasher units are load-independent and are readily available from motor vehicle accessory outlets. An example is Tridon HD13 for negative earth vehicles only.

Unlike some after-market products, the MINITRON Hazard Light Switch does not affect normal indicator light function. The indicator lights remain operable only when the ignition is turned on. The hazard lights have priority over the direction indicator lights when the ignition is turned on and also operate with the ignition turned off.

- Illuminated dash panel switch with hazard symbol.
- Positive or negative earth vehicles.¹
- Panel mount or parcel shelf mount.

The MINITRON Hazard Light Switch comprises an illuminated switch with hazard symbol, an isolating relay, wiring harness, and bracket. For the Morris Mini range, for parcel shelf mount, the knob is at the same angle as the standard panel switches. For panel mount, the switch may be mounted in a hole in the dash panel or vehicle switch panel. A 10mm dia hole is required.

The MINITRON Hazard Light Switch is a high-quality product made from automotive-grade components and materials.

4. Operation

Pull the switch knob out until a click is heard or felt from the knob. The illuminated switch knob flashes in time with the hazard lights to indicate that the hazard function is operating. The vehicle pilot light also flashes.

To cancel the hazard lights, push the knob in.

Hazard lights work with ignition off or on. Hazard function over-rides indicator switch function with ignition on.

¹ May operate on 6V vehicles if a suitable pilot light bulb is fitted inside the knob.

5. Installation

The MINITRON Hazard Light Switch is suitable for both positive and negative earth operation.

Note: The connection wires of the MINITRON unit are similar to standard Lucas specifications.

The MINITRON Hazard Light Switch requires connection to the switched battery feed, vehicle earth, battery feed, left and right indicator lights and the vehicle flasher unit.

The installation instructions here refer to a Morris 850 and are easily adaptable to any other similar vehicle.

Note: You will be dealing with bullet and spade connectors, up-side down, under the parcel shelf. You may wish to remove the passenger or driver's front seat for easy access. Bullet connectors are difficult to deal with. When removing a cable from a bullet connector, avoid pulling on the wires and if possible, push through from the other side. When installing a bullet connector, push in until a definite click is felt. Do not use a small screwdriver to push the bullet connector into the receptacle. You may stab your fingers with the end of a screwdriver it slips off the connector. Use a small flat punch instead. Ensure the connection is sound, not too loose, and not overly tight.

Note: Take care with handling the wires under the parcel shelf. The washer pump connections are also in this area and are easily snapped off inadvertently with rough handling.

5.1 Mechanical Installation

1. Begin with mechanical installation of the switch. Decide where you want the switch to be positioned. For parcel shelf mounting, the bracket is attached by two self-tapping screws. For dash panel mount, the switch and bracket are mounted in a hole in the dash panel. If you are drilling your own hole, then an 10mm diameter hole is required.
2. For parcel shelf mount, offer up the switch and bracket to the parcel shelf underside and mark out the two mounting holes. The mounting

position should be so that the self-tapping screw will go up behind the curl of the parcel shelf lining mat. Drill holes 3mm diameter drill. Attach the bracket (with switch attached) to the underside of the parcel shelf using the self-tapping screws provided.



Fig. 4 Parcel shelf switch installation using Switch Bracket.

5. For dash panel mount, remove the chrome blanking plug from the dash switch panel. Remove the red knob from the hazard switch by pulling it off – it is a friction fit. Be careful not to lose the light globe which will then be loose. Remove the knurled bezel and flat washer. Offer up the bracket and switch from behind and install the flat washer and bezel finger tight from the front.
6. Reinstall the light globe and red knob to the switch by pressing on.

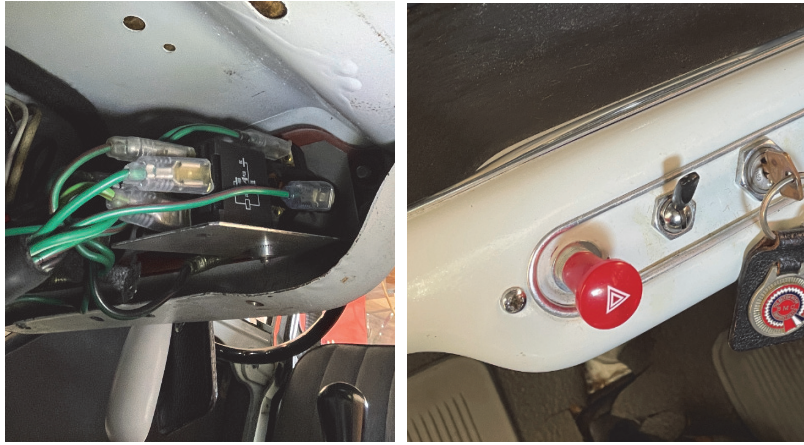


Fig. 5 Dash panel installation.

5.2 Electrical Installation

1. Locate the 5-way bullet connector that connects the indicator switch to the vehicle wiring loom. It is under the parcel shelf near the steering column.
2. There are three wires of interest here.
 - Green/Red (LH Indicator lights),
 - Green/White (RH Indicator lights),
 - Light Green or Green/Brown ("L" terminal from the flasher can relay).
3. Working on the indicator switch side of the 5-way connector, pull these three wires out from the connector. Be as gentle as possible.

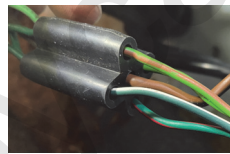


Fig. 6 5-way bullet connector.

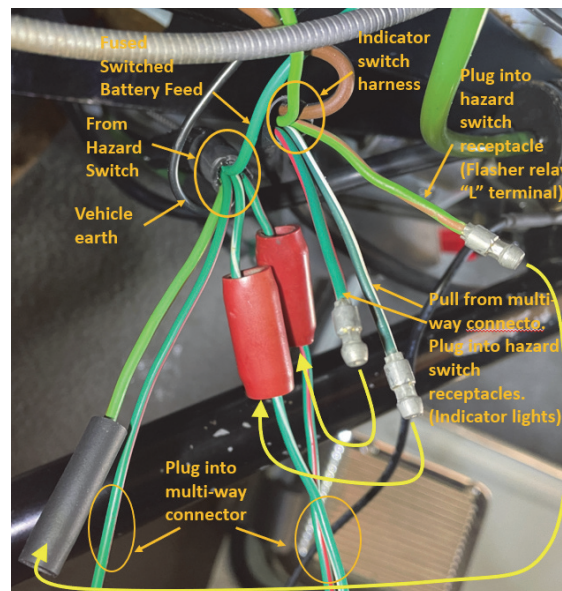


Fig. 7 Hazard wire connections.

4. Insert the Green/Red wire that you just pulled out to the bullet Green/Red double-adaptor at the hazard switch loom. Do the same with the Green/White wire.
5. Insert the Green/Red, and Green/White wires (bullet connectors) from the hazard switch loom into the corresponding positions in the 5-way connector that you removed the original wires from.
6. Insert the Light Green/Brown wire removed from the 5-way connector to the Light Green/Brown hazard switch bullet connector (female).

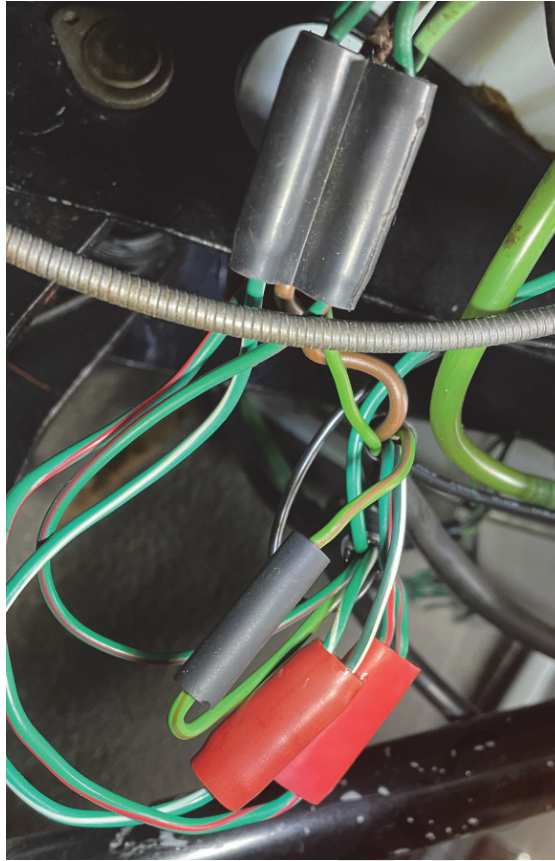


Fig. 8 Hazard switch and 5-way connector wiring completed.

7. Remove the Green feed wire at the top of the wiper switch. Install a piggy-back double adaptor spade terminal on to the wiper switch.



Fig. 9 Feed wires at the wiper switch using piggy-back connector.

8. Attach the solid Green wire from the hazard switch loom to the piggy-back connector along with the wiper switch green wire.
9. Attach the black wire from the Hazard switch loom to vehicle earth.
10. Tie up any hanging wires with a cable tie to the pedal box. Make absolutely sure that there is no possibility of a short circuit to the choke cable.

5.3 Under Bonnet

1. Remove the fuse box cover for easy access.
2. At the bottom fuse position, towards the front of the vehicle, there are several solid green wires. One of these wires supplies switched fused ignition power to the flasher relay B terminal. For a Morris 850, there is an auxiliary wiring loom which connects the flasher relay to wires in the engine bay loom near the generator regulator box.
3. Identify which of these green wires is the feed to the flasher relay B terminal.

4. Remove this wire from the bottom fuse position and connect it to a spare position on the upper fuse position. The top connection is unswitched, fused battery feed.

Note: We are essentially powering the flasher can from fused, battery feed so that the hazard lights will work with the ignition switch off or on. The relay in the hazard switch loom will allow indicator light function only when the ignition is on.



Fig. 10 Flasher relay power moved from fused, switched battery feed to fused battery feed.

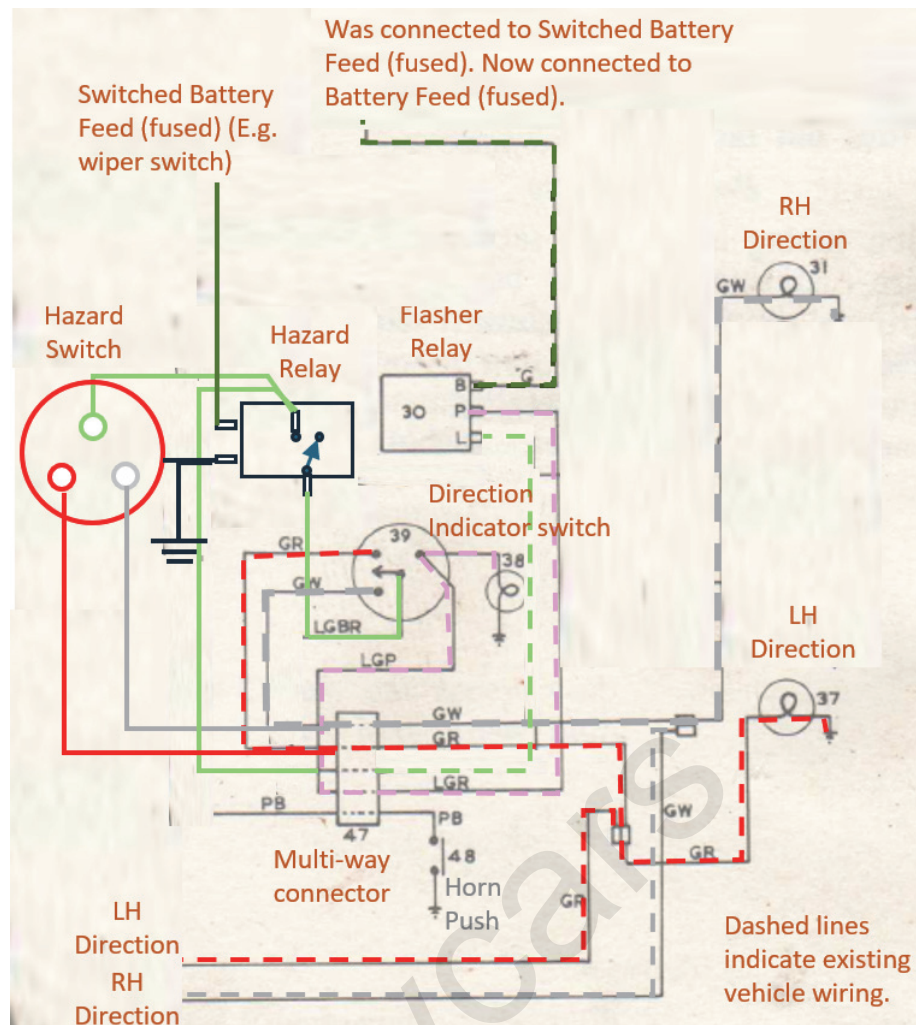


Fig. 11 Wiring diagram

6. Trouble Shooting

The MINITRON Hazard Light Switch is wired through the fused circuits of the vehicle and so any short circuit will be handled by the standard fuses.

If the knob illumination light does not flash, then it may require replacement. To replace the light, pull the knob firmly out and off the switch operating rod. The light will then fall out of the receptacle. Replace with a similar light.



Fig. 13 Knob illumination.

The earth connection at the Hazard Light Switch is to provide a return path for current to the light globe in the knob. If the knob does not illuminate or flash, then check the earth connection.

If the flasher knob illumination light stays on when pulled out, and the vehicle indicators also stay on, then the vehicle's flasher relay may be overloaded and may burn out. Turn off the flasher switch immediately and investigate by checking normal indicator light function with the ignition on and the flasher switch pushed in (off position). A standard flasher can relay may not be able to handle all four lights being flashed at the one time. In this case, a suitable flasher can relay will be needed.

7. Warranty

The Manufacturer hereby warrants this MINITRTON Hazard Light Switch to be free from defects in materials and/or workmanship for a period of 3 years from date of purchase by the original purchaser.

Our obligation under this Warranty is limited to repairing or replacing faulty parts or materials and does not extend to consequential loss, damage or injury arising from the use of the device.

This Warranty does not cover faults that are due to misuse, abuse, negligence, accident. Also excluded are faults arising from unauthorised repair, installation and use not according to instructions, and normal wear and tear.

Returns under Warranty must be freight-prepaid and must be accompanied by proof of the purchase date.

The rights and conditions under this Warranty are additional to any rights that may be conferred under the Consumer law

8. Disclaimers

Great care has gone into the design and manufacture of the MINITRON Hazard Light Switch so as to provide the best possible safety for your vehicle. However, due to the wide range of operating conditions and circumstances that might be encountered during service, the Manufacturer or retailer does not accept any responsibility for loss or damage arising out of the use of this device.

9. Conditions

The fitting and usage instructions must be followed. Altering the System or not adhering to the fitting instructions will void the warranty.

Fitment and use of the MINITRON Hazard Light Switch signifies your acceptance of the above conditions, disclaimers and warranty conditions.

Designed and manufactured in Australia by:

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