

## WORKSHOP

### Fitting Hazard Lights

# FITTING HAZARD WARNING LIGHTS

This sensible safety upgrade is quick and easy. WORDS BY DAVE ROGERS PHOTOGRAPHY BY GEZ HUGHES



**M**any older classics aren't fitted with hazard warning flashers. When you're stopped at the side of the road, intentional or otherwise, it's useful to be able to signal to other road users that you may be an obstruction. So, if you don't have hazards already fitted, this is a worthwhile upgrade that's not too difficult to carry out.

Most of the connections are made at the indicator switch, which is pretty easy to access on most cars. The only things you need to find in addition are a fused feed and an earth. Plan the job before you start, and use the correct materials. PVC sleeving camouflages and protects your wiring. The correct connectors and terminals can also easily be sourced so there's no excuse for not doing a tidy job – messy wiring is unreliable as well as unattractive.

For this feature, I'm using the Lucas hazard warning kit SFB300. This comes with a switch and flasher as a complete unit that can be mounted in the dash, or under-slung via the supplied bracket. This kit isn't polarity conscious and it looks the part – it fits in with the style of an older classic's switchgear.

### Potential hazards



- Always be mindful that the car battery, although low voltage, can generate large currents under short-circuit conditions.
- Classic car wiring systems generally have quite rudimentary circuit protection. Combined with the above, this isn't great with respect to safety so work carefully.
- Before starting work on the electrical system, either disconnect the battery or use a fuse link in the battery connection. If you accidentally short-circuit something, this means you won't destroy yourself or the car's wiring system.

### Thanks to

#### Europa Spares

Hazard light kit  
[www.europaspares.com](http://www.europaspares.com)

#### Vehicle Wiring Products

Wiring components  
[www.vehicle-wiring-products.co.uk](http://www.vehicle-wiring-products.co.uk)

### Workgauge



TIME (Hours)

0002

COST (Pounds)

0050

### TOOLBOX

- Wire cutters
- Screwdrivers
- Test lamp and/or digital multimeter
- Drill for in-dash installation
- Crimpers and connectors
- PVC sleeving or electrical tape
- Cable ties
- Soldering iron
- Handlamp

## DRAPER

### ESSENTIAL TOOL



### Wire stripper/crimper

Item 35385

Price £20.32

For more information on the full range of Draper products and stockist details, visit [www.draper.co.uk](http://www.draper.co.uk)

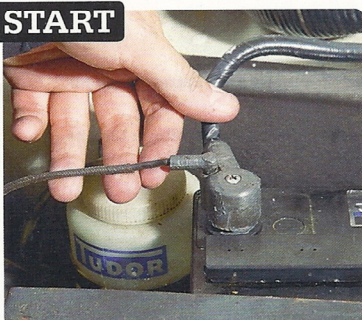
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### START



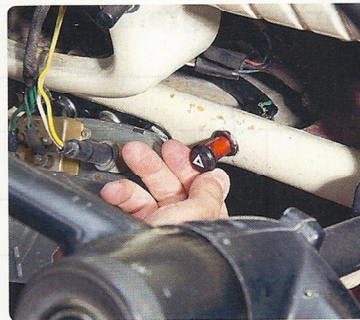
#### 1 Plan the install

Plan the route that you're going to run the cables between the components you're installing. Once you've mapped out the installation and you've got the parts (cables, connectors, fuses, etc), it's time to make a start. First, disconnect the battery.



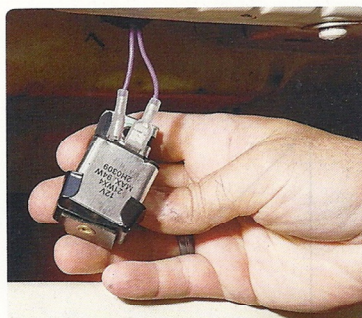
#### 2 Make a loom

I'll run most of the wiring to the indicator switch - this is where most of the connections are made. I'll then mount the flasher unit separately but nearby, under the dash. The switch in this kit is supplied on a bracket, complete with the hazard flasher unit.



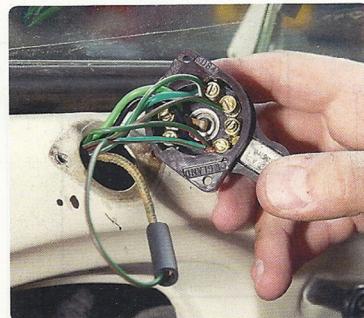
#### 3 Mount switch

I'll mount the switch into a hole in the parcel shelf. This hole was kindly drilled by a previous owner, and is a bit of an eyesore. Fitting a switch will tidy this up. All you need to consider is to fit the switch somewhere easily accessible and visible to the driver.



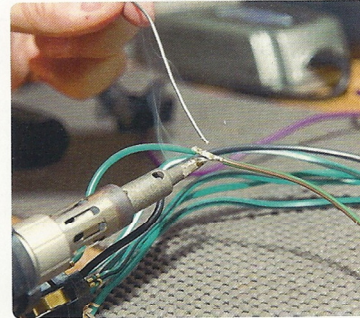
#### 4 Mount flasher unit

The flasher unit is integrated with the switch bracket, but because I'm fitting the switch in the dash, there isn't much room behind it for the flasher unit as well. I'll mount it separately. If you're leaving the switch and flasher unit unmodified, you can skip this step.



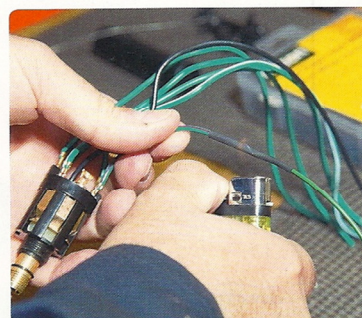
#### 5 Make connections

Most of the connections you need are at the indicator switch - identify the left- and right-hand flasher wires. In addition, break the connection between the indicator switch and the indicator flasher unit. Piggyback on to existing connections or solder.



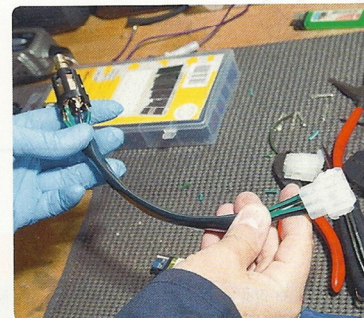
#### 6 Power supply

You need to provide the hazard warning system with a permanent feed, so it can operate irrespective of the ignition switch position. This should be fused. You can get it from the fusebox, or direct from the battery live via a suitable inline fuse.



#### 7 Connect to earth

The warning lamp in the switch needs an earth. This can be connected by splicing to an existing earth wire. Alternatively, you can fit a ring terminal to the cable and connect via an existing earth point, or via a self-tapper into the car's metal structure.



#### 8 Connect switch

The switch comes with short flying leads, but I bought a small plug and socket. I fitted one side to the switch, and the opposite side to the wiring. The terminals are crimped on to the wire ends, then they click into place in the connector block.

### FINISH



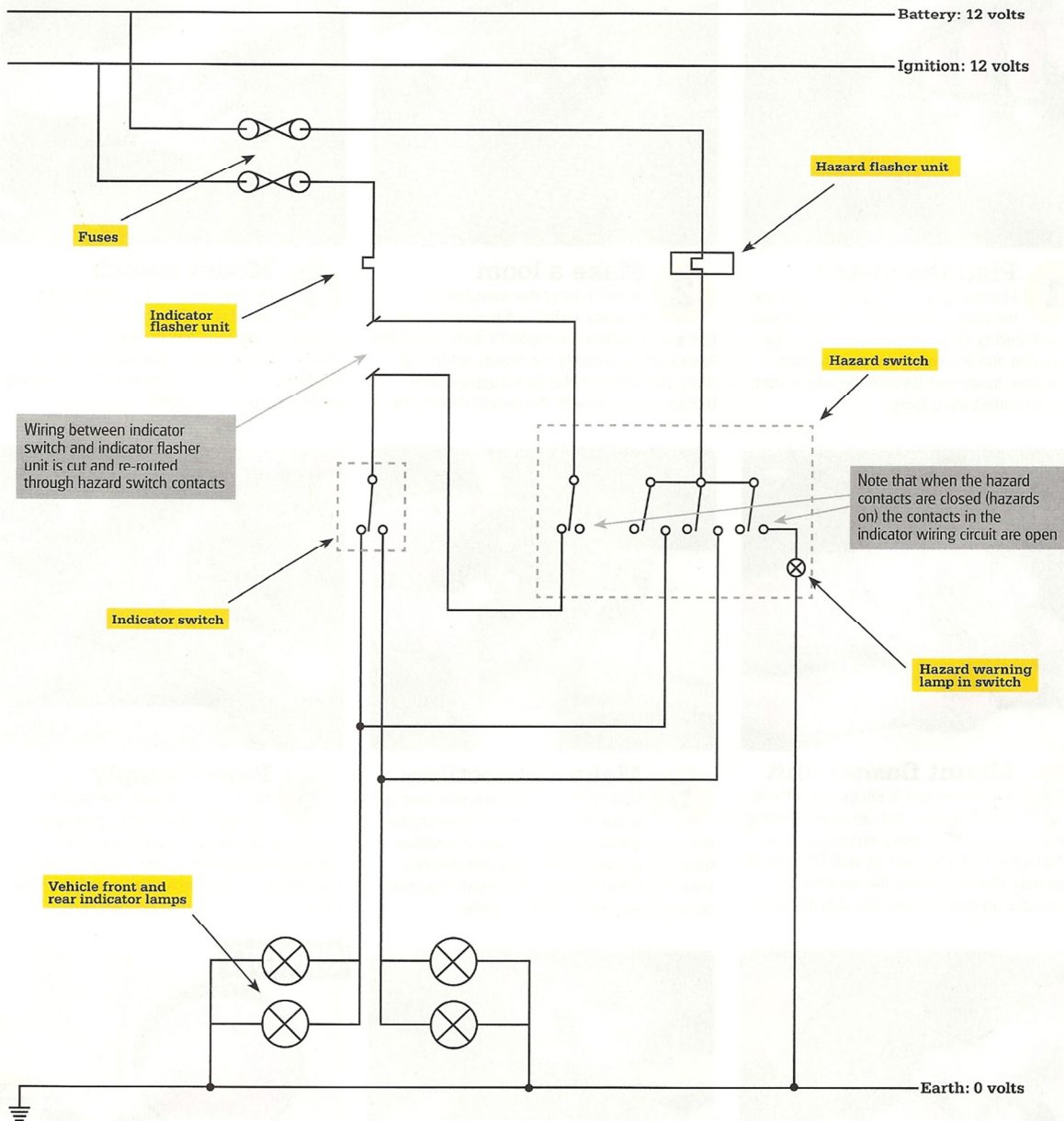
#### 9 Check and test

Reconnect the battery (preferably via an inline fuse) and check your hazard flashers work. Then, make sure the indicators are still working as before. If all these checks are okay, the install's complete and you're good to go. Reconnect the battery properly.

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### Wiring diagram



### Hazard switches explained

The hazard switch itself is a multi-pole, bi-stable switch. This means it has more than one set of switch contacts, and can be left set in an on or off position. Take a look at the wiring diagram – the hazard flasher unit is connected to a battery feed via a fuse. When ‘on’, the contacts in the hazard

switch connect the flasher unit to the left and right indicators, as well as the warning lamp.

When ‘off’, left and right are disconnected from each other to prevent them feeding back to each other when the indicators are operating. The switch needs multiple switch contacts or ‘poles’

in order to achieve this isolation of left and right.

In addition, you’ll notice another set of contact poles that work the opposite way round to the previous contacts – ie, when the hazard contact poles are closed, these contacts are open. So what are these for? You’ll see that this

contact pole is connected in the circuit between the indicator flasher unit and switch. This is to prevent the hazard supply to left and right feeding back to the ignition circuits when the hazards are operating, if the indicator switch was inadvertently left in the right or left position. 