



APPLICATION AND MOUNTING INSTRUCTIONS

**SAFETY DAYLIGHTS™ SMART CONTROLLER (ADVANCED VERSION)
Multivolt (Suitable for 12 and 24 volt systems)**

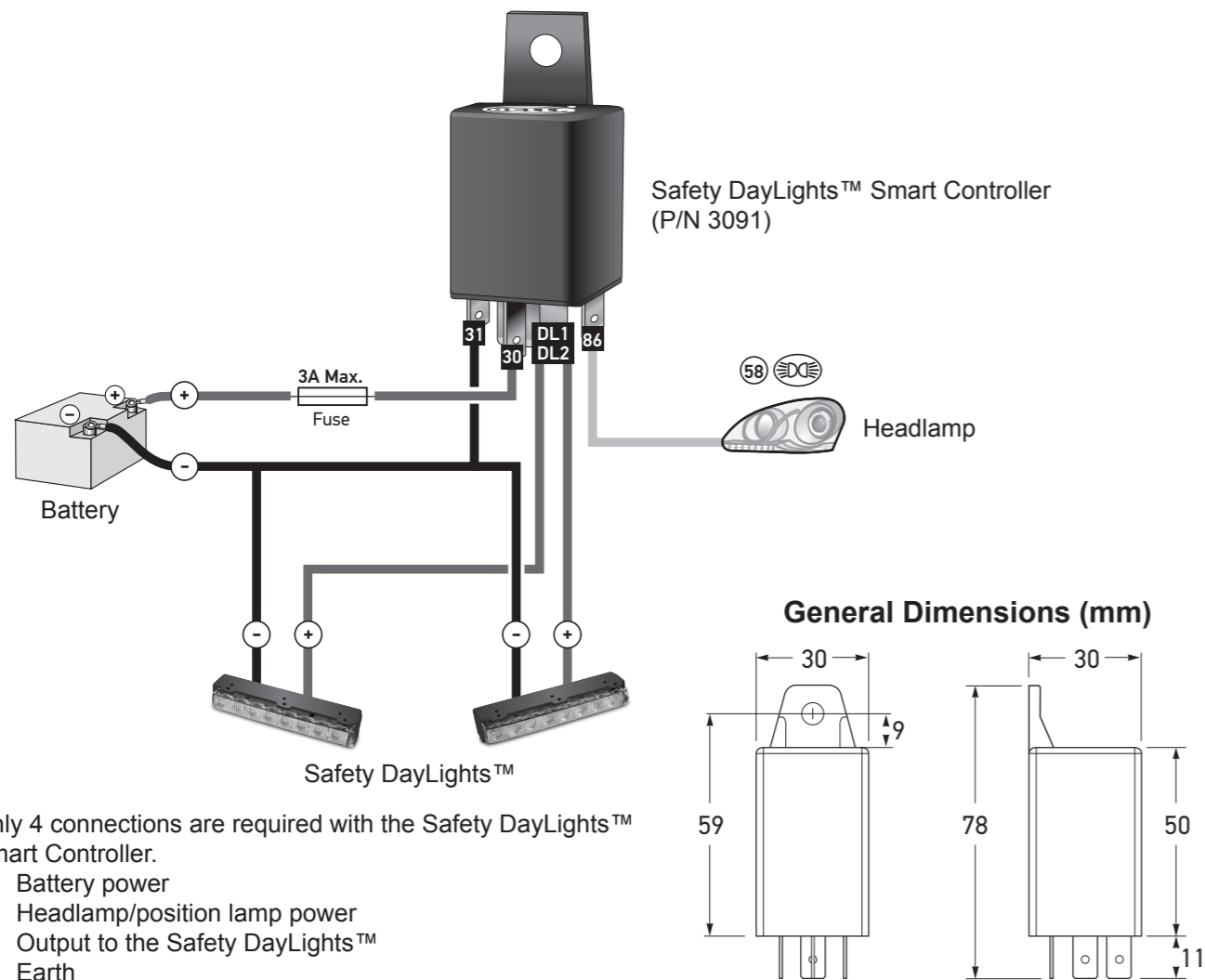
The HELLA Safety DayLights™ Smart Controller is designed to automatically turn your Safety DayLights™ ON when your engine is running, and OFF when your headlamps are activated. The Safety DayLights™ Smart Controller simplifies installation of Safety DayLights™ as there is no requirement to wire into the ignition power cable (Terminal 15), which may be time consuming and require professional help to complete.

The Safety DayLights™ Smart Controller monitors voltage fluctuations and vibrations to determine when to switch your Safety DayLights™ ON and OFF. The Safety DayLights™ Smart Controller will keep your Safety DayLights™ activated for up to 30 seconds after the engine has been turned OFF as an extra safety feature.

The advanced version of the Safety DayLights™ Smart Controller is recommended for use on late model vehicles with advanced fuel saving and battery charging technologies which are being used by car manufacturers to meet tighter emissions standards. The Engine Control Unit (ECU) interconnects with the alternator and monitors electrical load. The ECU can then adjust the alternator output voltage, preload the alternator when the load changes and even shut the alternator OFF in certain circumstances.

For hybrid vehicles and vehicles with stop-start engine fuel saving technology it is recommended to use a Changeover Relay (12V P/N: 3080, 24V P/N: 3081) that is wired directly to the ignition (Terminal 15).

Typical Safety DayLights™ Smart Controller Installation



- Only 4 connections are required with the Safety DayLights™ Smart Controller.
- Battery power
 - Headlamp/position lamp power
 - Output to the Safety DayLights™
 - Earth



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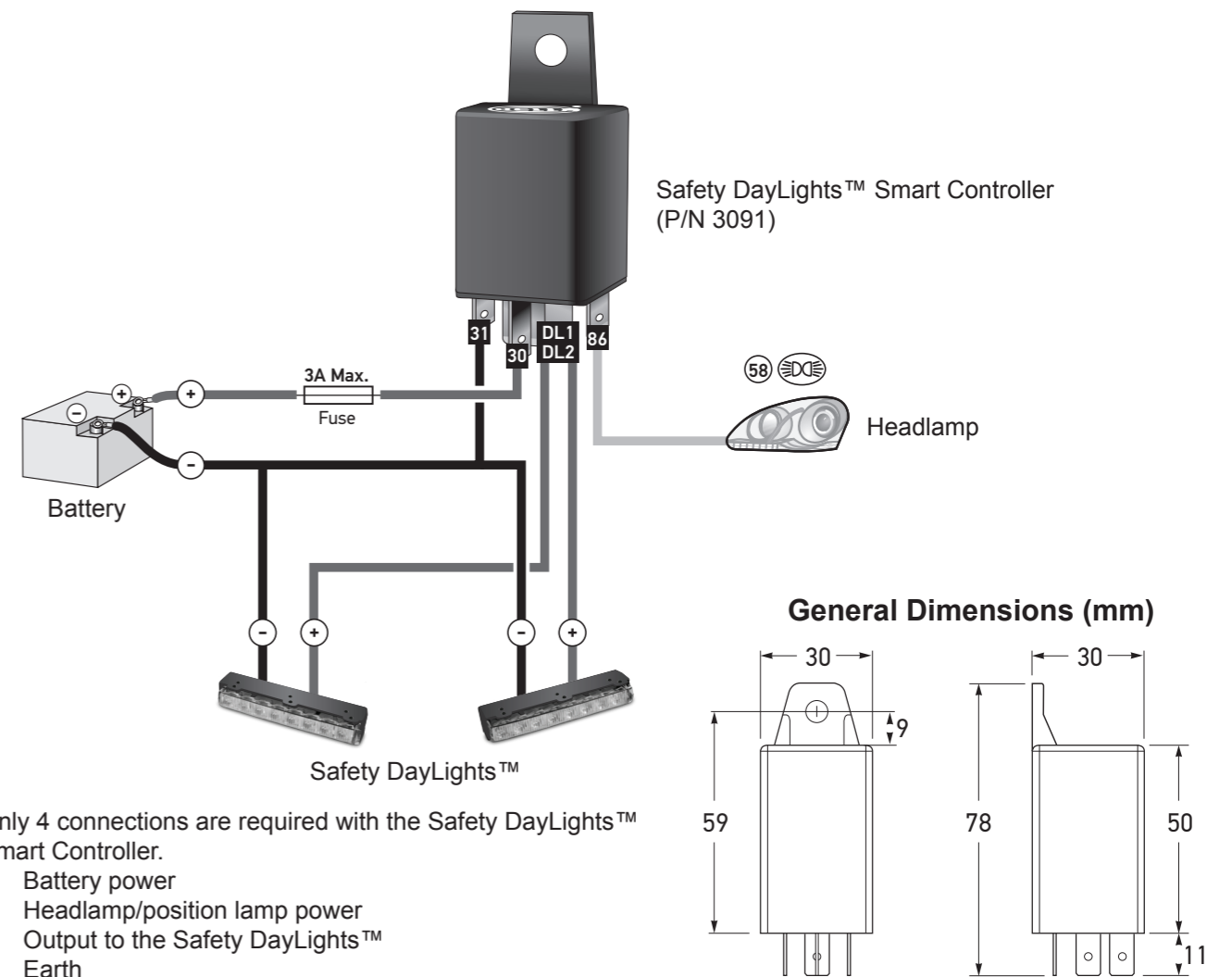
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INSTRUCTION SHEET
for: **5DF 980 818-0xx / 3090 / 3090-BULK**



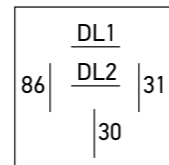
Mounting Instructions

- Choose a mounting position inside the engine bay, and preferably close to the battery. Do not mount the Safety DayLights™ Smart Controller near excessive heat, such as exhaust manifold and radiators.
- Connect the cables as per the table below. It is recommended that the Battery and Earth cables are connected directly to the battery terminals.
- Mount the Safety DayLights™ Smart Controller with a 5 mm diameter screw or bolt, and position with the terminals pointing downwards.

Wiring Specification

The Safety DayLights™ Smart Controller is multi voltage capable for use in 12 and 24 Volt systems. The Safety DayLights™ Smart Controller is polarity conscious. Reverse polarity will not damage this product but will inhibit its function.

Terminal No.	Connect to
30	Battery (+)
31	Earth (-)
86	Front Position or Headlamps (+)
DL1 & DL2	Safety DayLights™ (+)



Note: The Safety DayLights™ installation must be protected by a fuse rated at 3 amperes maximum.

Testing of the Safety DayLights™ Installation

It is a legal requirement for Safety DayLights™ to illuminate only when the ignition is switched ON and the vehicle lighting is switched OFF. In order to comply with this requirement it is necessary to perform a series of tests to ensure the Safety DayLights™ installation is functioning correctly.

Test No.	Test Description
1	Start the vehicle, the Safety DayLights™ should turn ON after a short delay.
2	Activate the vehicle headlamps and the Safety DayLights™ should turn OFF immediately.
3	With the vehicle running, turn the headlamps OFF and the Safety DayLights™ will turn ON again with a short delay.
4	Leave the vehicle running for at least 5 minutes and monitor the Safety DayLights™ during the whole period to ensure they stay ON.
5	Turn the vehicle OFF and the Safety DayLights™ should turn OFF after a short period. This is dependent on the voltage at the battery and may take up to 30 seconds.

Should the Safety DayLights™ installation not work as described above it is recommended to recheck the wiring.

If the Safety DayLights™ installation is still not working as described above then it is recommended to consult a professional Auto Electrician, or use a Changeover Relay (12V P/N: 3080, 24V P/N: 3081) that is wired directly to the ignition (Terminal 15).

Note: Safety DayLights™ are not a substitute for dipped beam headlights at dusk/dawn or during darkness. The Safety DayLights™ may also be activated if the battery is being charged, due to the Smart Controller sensing the charging voltage, this is not a fault.

FIT AND FORGET - BY DESIGN

Congratulations, the product you have selected comes from **HELLA** - a world leader in LED lighting design.



Following the launch of the first LED automotive signal lamps in 1990, **HELLA** Design and Innovation continues to set new standards. **HELLA** innovative solutions have been incorporated into millions of lamps, engineered and tested to the most stringent standards, to suit the most demanding environmental conditions.

The cornerstone to the success of our products is our no compromise **Fit and Forget - by Design** philosophy which is incorporated into every step of the product life cycle.

In a world consuming finite resources at an ever faster rate, **Fit and Forget - by Design** is the right environmental choice that also makes perfect economic sense to customers that consider the total life cycle Cost of Ownership.

For general comments about HELLA's products please contact us on E-mail at techfeedback@hella.co.nz

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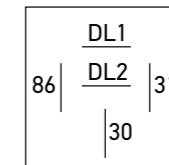
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