

Foreword

In old (English) cars, a rotary switch is installed in the dashboard as a direction selector switch. The left and right indicators are operated with the toggle switch. These cars also include MGA and older MG models



Latching switch

On the MGA 1500 MkII and MGA 1600, the switch supplies power directly to the indicator lights (3-4A), which causes the contacts to burn out. This switch can be repaired, but due to the price of around \$50, it is usually replaced. There are several suppliers.

This switch can also be replaced by a horizontally installed latching toggle switch. With suitable washers (separate document) it can be installed in the existing hole in the dashboard.



New solution

Suitable for MGA 1500 MkII and MGA1600, positive or negative ground.

The new TSR (TurnSignalReminder) solution works with latching direction selector switches and solves the problem of forgotten resets, because the indicator lights are automatically switched off after a selectable time (self-cancelling) and the driver is alerted to this situation by means of a rapidly flashing control lamp in the dashboard and a higher frequency of beeps from the piezo buzzer.

The TSR can do a lot more because

- the flashing time is selectable (DIP switch)
- it replaces the indicator relay
- can also be used with LED lamps
- has a built-in piezo buzzer
- a warning flashing function is built-in
- puts very little strain on the direction selector switch (no burn-off)
- the indicator lamps are switched via relays

The new solution is based on microprocessor electronics in a plastic flange housing (115x90x35mm) and is connected exclusively with 6.3mm Faston plugs (no flying wires). It is designed for negative ground as well as positive ground. Installation is extremely simple and can be reversed at any time.



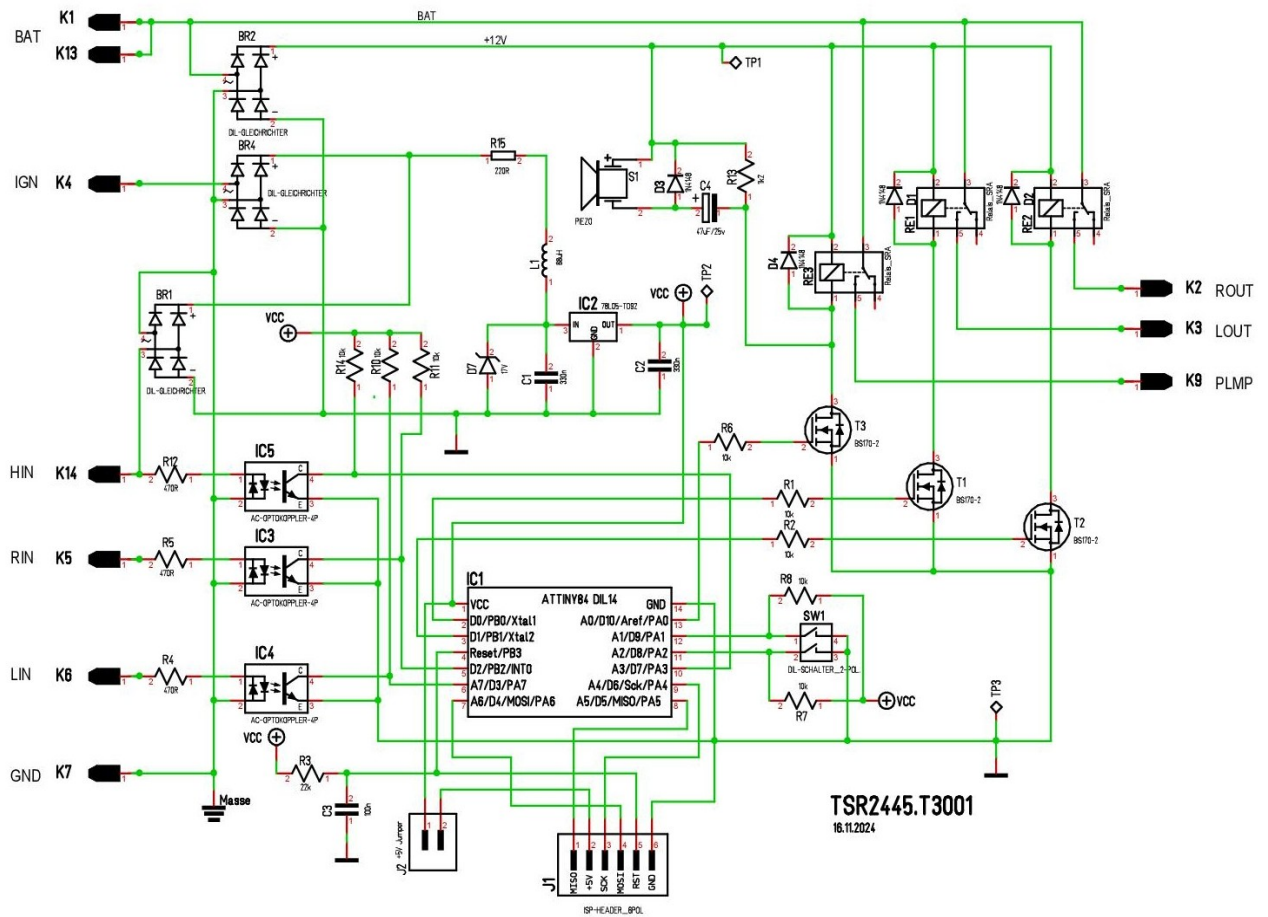
Flashing function

The function is simple and quick to explain: The direction selector switch is set to right or left as usual. The preselected flashing time runs out. When the flashing time has expired, the flashing lights are switched off.

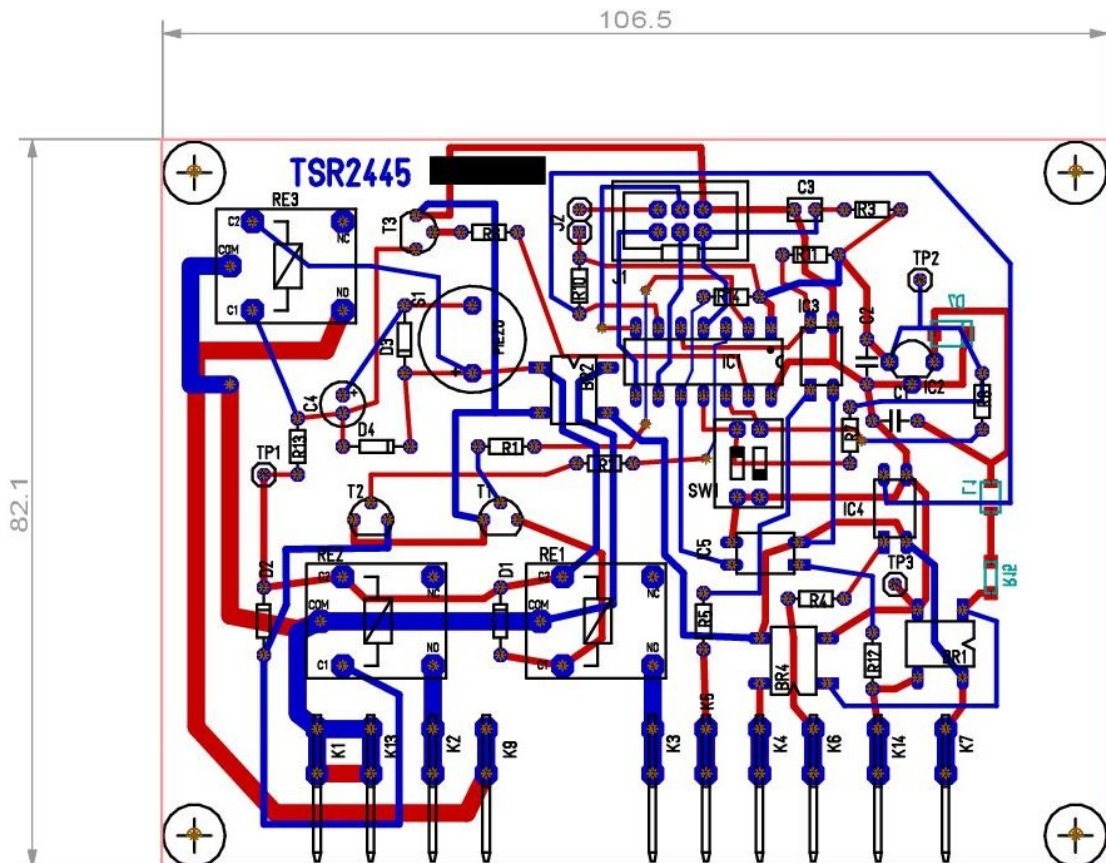
Hazard warning function

The hazard warning function also works when the ignition is switched off, because the BAT connection is supplied with the continuous signal from the "horn fuse" NG. The hazard warning function is possible with an additional switch. It is connected between the BAT and HIN connections. Preferably an illuminated switch.

Schematic



Printed Circuit Board (PCB)



Installation

The MGA only has 2 fuses. One only protects the horns and is connected directly to the battery. The other is switched via the ignition switch and supplies all consumers, including the indicator circuit. A hazard warning system should actually work even when the ignition is switched off. For this, the continuous signal from the "horn fuse" must be used. However, this is not routed to the dashboard and therefore must be routed additionally.

- The flasher relay (flasher unit) is bridged by placing the G wire on the same connection as GN. The flasher relay can also be removed.
- The LG wire on the flasher relay is disconnected and connected to the PLMP connection.
- The F (G) connection of the direction selector switch is powered by the "ignition ON" signal. No change.
- The IGN connection is connected to the "ignition ON" (G) signal.
- The GR wire (left turn signal) is disconnected from the direction selector switch and moved to the LOUT connection.
- The now free L connection of the direction selector switch for the left turn signal (formerly GR) is wired to the LIN connection on the TSR.
- The GW wire (right turn signal) is disconnected from the direction selector switch and moved to the ROU connection.
- The now free R connection of the direction selector switch for the right turn signal (formerly GW) is wired to the RIN connection on the TSR.
- The GND connection is connected to ground.

Adapter cables (cable color according to application)

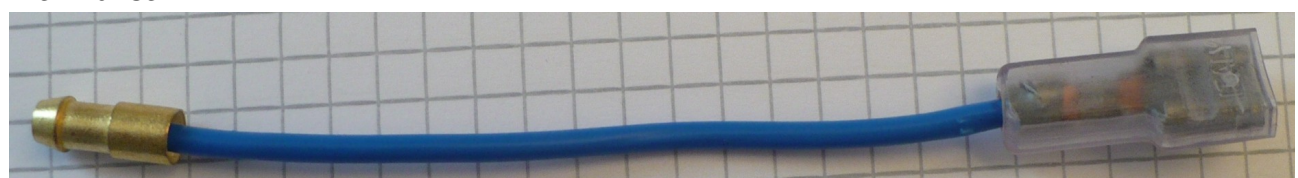
with lustre terminal



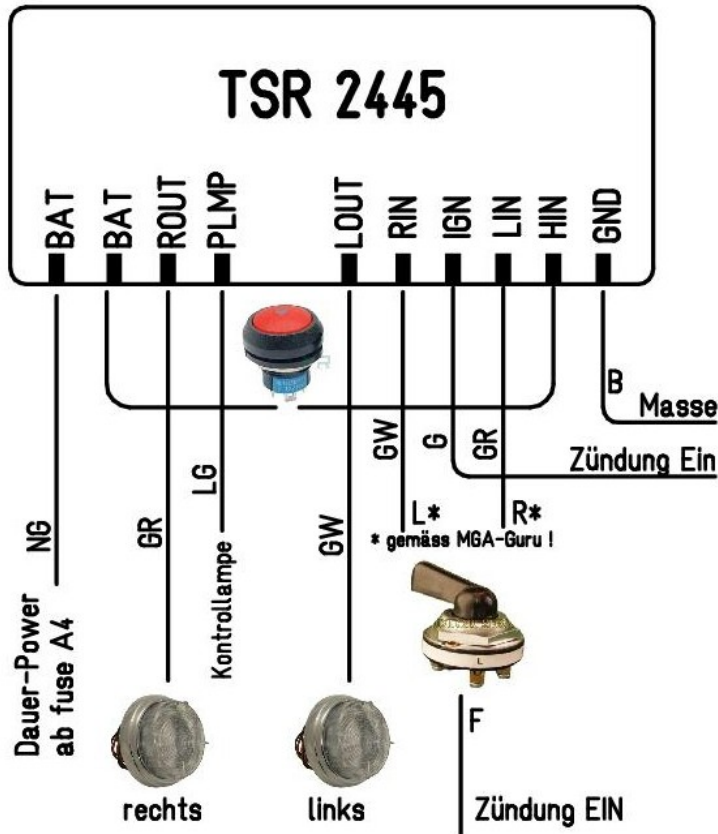
Free strand end



with Bullet



Installation with additional hazard switch



Wire colours according to original LUCAS

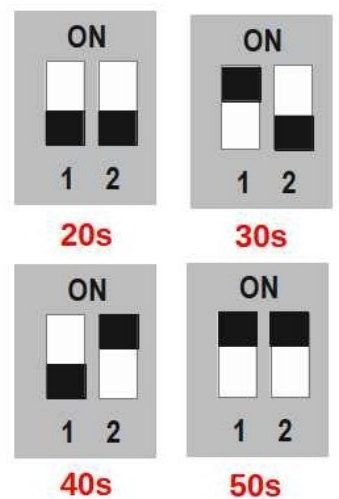
Connecting the indicator lamp (dashboard)

Depending on where the TSC is installed, the LG wire (indicator lamp (in the dashboard) is connected to the LG wire with a luster terminal from the flasher or with a so-called 'current thief' (scotch lock).



Setting the flashing time

The flashing time, i.e. the time until the flashing stops automatically, can be set on the circuit board with a so-called DIP switch from 20 - 50 seconds.



Alternative to the TSR

The TSC (separate documentation) can also be used with the latching direction switch, but the actuation must be shorter than 4 seconds and the lever must be returned to the neutral position. If the lever is not returned, the hazard warning function is triggered after 4 seconds.

These documents can be downloaded at

<http://www.swiss-mgb.com/Projekte>

as PDF files. German and English Version.