

## Troubleshooting

### Time lag switch “clicks” off but load stays on:

- Non-resistive load (contactor, emergency, CFL, LED or 2D lamp)  
Add CAPLOAD across the load as shown in wiring diagram.
- Fault developed due to an over-voltage spike.

### Slave switch does not operate the time lag switch:

- Ensure only DANLERS slave switches are used
- Ensure slave wiring is less than 10m long.

### Load latched either on or off:

- Fault developed due to on over-voltage spike.

### Does not work with existing 2-way switches:

- Time lags and slaves can use the wiring of two way (and intermediate) systems, but cannot be mixed with such systems.

## Precautions and Warranty

This product conforms to BS EN 60669-2-1.

Please ensure the most recent edition of the appropriate local wiring regulations are observed and suitable protection is provided e.g. 6 amps over current, 1kV over voltage. Please ensure that this device is disconnected from the supply if an insulation test is made.

This product is covered by a warranty which extends to 5 years from the date of manufacture.

## Products available from DANLERS

- PIR occupancy switches • Daylight linked dimmers • Manual high frequency dimmers
- Photocells • Radio remote controls • Time lag switches • Outdoor security switches
- Dimmers • Heating, ventilation and air-conditioning controls • Bespoke / O.E.M. products

Please call for more information or a free catalogue, or visit our website.

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# DANLERS

## Installation notes

### Time lag switches (2-wire) with integral fused spur

GRTL MK FWH

GRTL MKILM FWH

DANLERS 2-wire plated GRTL MK FWH and GRTL MKILM FWH time lag switches do not need a neutral and are suitable for replacing standard wall switches or pneumatic time lag switches. The wall box must be at least 35mm deep.

A short press will switch the load on and it will switch off automatically after the time lag period has expired. The time lag can be set between approximately 1 minute and 2 hours.

The button on the illuminated versions (GRTL MKILM FWH) is lit until the button is pressed, it comes back on when the time lag has elapsed.

The load can be switched on from other locations by connecting these devices in parallel or by connecting DANLERS matching slave switches, available as: SSGS MK, SSGS CB and SSGS EU.

## Loading

GRTL MK FWH and GRTL MKILM FWH can switch up to 6amps (1500W) of:

- Fluorescent lamps, either high frequency or switch start
- Incandescent or mains halogen lamps (recommended with integral safety fuse)
- Electronic or wire wound transformers.

They can also switch up to:

- 1 amp (250W) of Fans or Metal Halide lamps.

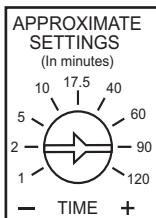
GRTL MK FWH and GRTL MKILM FWH come supplied with an integral 5 amp rated fuse.

## Wall box depth

GRTL MK FWH and GRTL MKILM FWH require a 35mm (minimum) wall box depth.

## Installation procedure

- Please read these notes carefully before commencing work.  
In case of doubt please consult a qualified electrician.  
Make sure the power is isolated from the circuit.
- GRTL MK FWH (GRTL MKILM FWH) should be connected as:  
L Live  
SL Switched Line output  
S Slave connection
- Existing two-way strapper lines can usually be used to connect these time lag switches in parallel or to connect slave switch(es), as shown in the wiring diagrams opposite.
- When these devices are wired in parallel, dependant on the load, it may not be possible to immediately re-trigger the time lag.
- The two terminals on **DANLERS Slave Switches** are labelled:  
**Grid** Slave switches: L, S  
**Plated** Slave switches: Push button  
The terminal connections are interchangeable.
- The time lag is adjusted via a spindle located on the bottom edge of the device, as shown below.
- When wiring has been completed and verified, switch on supply and test operation.



## Typical wiring diagrams

