

### Troubleshooting

#### Time lag switch can not be re-triggered instantly:

- Small non-resistive load (Contactor, CFL, LED or 2D lamps).  
Add one CAPLOAD per TLSW 10 (ILM) across the load, as shown in wiring diagrams.

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

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

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

- Time lags and slaves can use the wiring of 2-way switching circuits, but not be mixed with 2-way switches.

#### Output always live:

- Time lag operated within 30 seconds of connecting the supply.  
Release latched relay with firm sideways knock to product with a small blunt object such as a screwdriver handle.

### 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

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### Plated time lag switches (2-wire versions)

TLSW 10

TLSW 10 ILM

DANLERS 2-wire plated 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 16mm 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 and 10 minutes.

The button on the illuminated version (TLSW 10 ILM) 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 both a plated single gang slave (SS 1SL) and a two gang slave (SS 2SL).

### Loading

These switches should only be connected to 230V 50Hz AC.

They can switch up to 6 amps (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:

- 2 amps (500W) of Compact fluorescent, LED and 2D lamps.
- 1 amp (250W) of Fans or Metal Halide lamps.

Larger loads can be switched via contactor. (Also see below)

### Minimum load

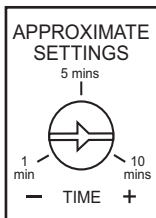
Because there is no neutral connection there is a minimum load requirement of 40W RESISTIVE for each TLSW 10 (ILM) in the circuit. If the load is less than this or is not totally resistive, i.e. a contactor, CFL, LED, 2D lamps or emergency fitting, then one power factor correction capacitor, CAPLOAD, needs to be added across the load for each TLSW 10 (ILM) in circuit, as shown in the wiring diagrams overleaf.

## 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.  
If a four lug metal back box is being used the top and bottom lugs must be removed.
- The TLSW 10 (ILM) has two terminal blocks on the reverse, which should be connected as:
 

Block 1	L	Live input
	SL	Switched Line output
Block 2	Push Button	For connection to slave switch(es). †

**Must not be connected to the mains.**
- 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 time lag is adjusted via a spindle (see illustration opposite) by inserting a narrow (flat) screwdriver through the hole located on the bottom edge of the device:



### Notes:

When wiring has been completed and verified, switch on supply, wait for 30 seconds\* and then test operation.

\* If this is not observed, see trouble shooting section for remedy.

† The two terminals on DANLERS slave switches are labelled as:

Plated Slave switches:	Push Button
Grid Slave switches:	L, S

If grid slave switches are used with plated time lag switches, the L and S terminals must be connected only to the Push Button terminals on the time lag switch, not to live.

## Typical wiring diagrams

