

2 Wire Electronic Time Delay Switch

Cat No. DS1

2 Wire Slave Switch

Cat No. DSS

3 Wire Electronic Time Delay Switch

Cat No. DS2



DS1/DSS – Instructions for Installation and Use

If you have a DS2 please refer to separate instructions on page 10.

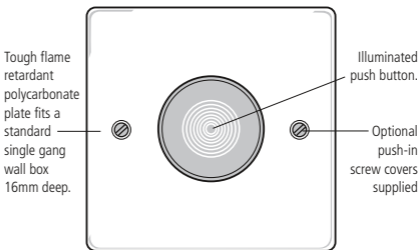


Fig 1 – Front of DS1 and DSS

1. General.

The DS1 is a time delay switch with an illuminated push button, which replaces a standard single gang plate switch on a box 16mm deep. The illumination guides the user to the push button and once this is pressed the lights under control are switched on for a period from approximately 10 seconds to approximately 10 minutes adjustable by internal potentiometer.

For situations requiring two-way and intermediate switching DSS's can be used in conjunction with a single DS1. Section 5 shows how these can be used in retrofit without wiring modifications and section 2b shows how they should be wired in new installations.

Delay time
adjuster –
centre scale gives
approximately
5 minutes
(linear scale).

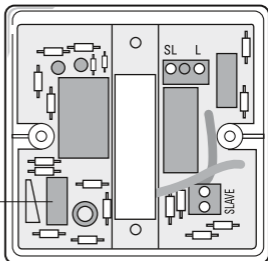


Fig 2a – Rear of DS1

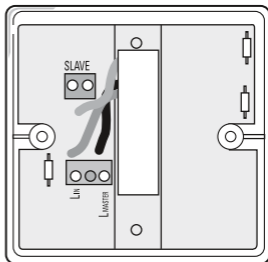


Fig 2b – Rear of DSS

2a. Installation (Replacement of Single ON/OFF Switches Only).

FOR INSTALLATION OF DS1 & DSS's IN 2 WAY AND INTERMEDIATE SWITCHING CONFIGURATIONS – SEE SECTION 5.

**IF IN DOUBT CONSULT AN ELECTRICIAN.
SWITCH OFF MAINS ELECTRICITY.**

Set the delay time adjuster on the DS1 to minimum (fully anti-clockwise – see fig 2a) to enable initial testing during commissioning. Remove the existing light switch and transfer the two wires to the DS1 connecting them to terminals L and SL in either position. If two wires were connected to either terminal on the original switch they must be kept together and connected to either L or SL on the DS1.

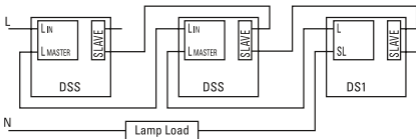
Do not disturb any earthing wire connected to the wallbox terminal. Ensure both terminals are tight before screwing the two plate fixing screws supplied home sufficiently to locate the DS1 securely to the wall box. Turn ON the mains supply.

3

2b. New Installation of a DS1 and Up to 10 DSS's.

In a new installation the DS1 and DSS's can be wired to give control of a single lamp load by any of the switches.

This is shown in fig 3.



L, N – Mains Supply

Fig 3

If only one DSS is required then connect the mains supply live (L) to LIN on the DSS and leave the SLAVE connection formerly going to the second DSS open circuit.

Further DSS's can be added by copying the circuit connections shown in Fig 3 between the two DSS's. The LIN of the second DSS is connected to LMASTER of the third and LIN of the third to L (mains supply live) and so on for further DSS's.

3. Commissioning.

Press the push button and the light(s) under control should come ON for approximately 10 seconds. During this time the neon behind the push button switches OFF. If the lamps under control are fluorescent they will not switch ON immediately and the light intensity may be reduced initially. If there are DSS's installed as well repeat this test at each switch.

Having established that the DS1 and any DSS's are working correctly the mains supply should be turned OFF and the two fixing screws removed from the unit. The DS1 can then be pulled away from the wall to enable access to the delay time adjuster (see fig 2a). The delay time can then be set to the required level and the DS1 fixed to the wall using the two fixing screws. The push-in screw covers can now be fitted if required.

The mains supply should be turned ON and the push button pressed to ensure the delay time is correct.

4. Operation.

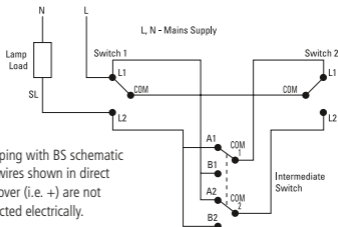
Whenever light is required press the closest push button and the light(s) under control will remain ON for the set delay time.

5. Replacing 2 Way and Intermediate Switches.

This involves wire identification and tracing. Switch installation should be left to a competent electrician who will be able to relate the circuit diagrams shown in figs 4 to 11 to the practical installation.

There are two main ways of achieving 2 way switching – Strapping Cable and Remote Live Access. The circuits for these are shown in figs 4 and 5. They are shown with a single intermediate switch giving 3 way switching.

Further intermediate switches can be added.



In keeping with BS schematic code wires shown in direct cross over (i.e. +) are not connected electrically.

Fig 4 – Strapping Cable & One Intermediate Switch

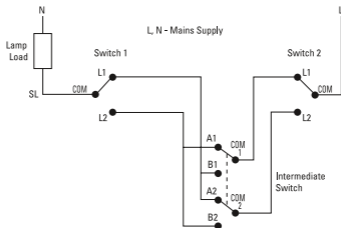


Fig 5 – Remote Live Access & One Intermediate Switch

A DS1 and two DSS's can be used to replace these switches for both wiring systems to give time delayed momentary switching at all three switch locations. The DS1 should not be located at a former intermediate switch location. The circuits for both wiring systems with the replacement switches are shown in figs 6 and 7. No wiring alterations are required but to establish which wires are connected to which terminals the wires must be identified and traced. An in-line connector is required for the Strapping Cable System to provide continuity for the SL connection.

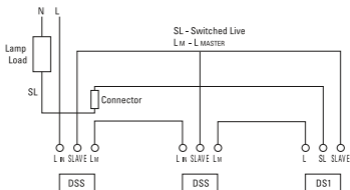


Fig 6 – Replacement Delay Switches fitted to circuit shown in fig. 4

In keeping with BS schematic code wires shown in direct cross over (i.e. +) are not connected electrically.

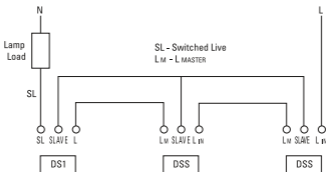


Fig 7 – Replacement Delay Switches fitted to circuit shown in fig. 5

Further DSS's can be added to replace any further intermediate switches in the system.

If there are no intermediate switches (2 way switching) the before and after connections for both systems are shown in figs 8 to 11. Note that an in-line connector is required for the Strapping Cable System to provide continuity for the SL connection.

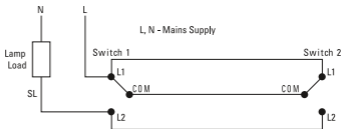


Fig 8 – 2 Way Switching – Strapping Cable

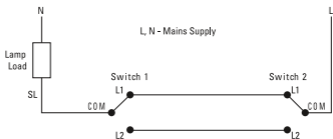


Fig 9 – 2 Way Switching – Remote Live Access

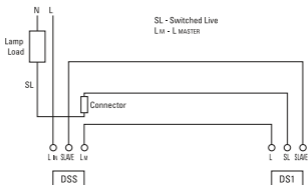


Fig 10 – Replacement Delay Switches fitted to circuit shown in fig. 8

In keeping with BS schematic code wires shown in direct cross over (i.e. +) are not connected electrically.

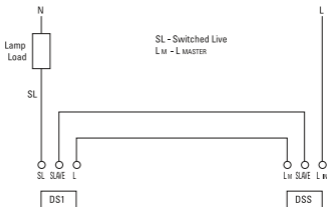


Fig 11 – Replacement Delay Switches fitted to circuit shown in fig. 9

6. Specifications – DS1.

- i Conforms to Directives: 73/23/EEC & 89/336/EEC
- ii Permissible Loads: Filament lamps – 1.5kW
Low voltage – 20 to 200W, Resistive 2kW

Not suitable for fluorescent or low energy lighting.

- iii Operating Ambient Temperature Range: -10°C to 40°C
- iv Operating Voltage: 220 to 240V 50Hz
- v Delay Time: 10 sec to 10 min (nominal) adjustable by tamperproof potentiometer (nominal times vary by up to ±33%)
- vi Terminations: Suitable for 1mm² and 1.5mm² solid conductors and stranded equivalents
- vii Minimum Box Depth: 16mm
- viii Standby Consumption: Less than 2 VA

9

7. Specifications – DSS.

- i Conforms to Directives: 73/23/EEC & 89/336/EEC
- ii Operating Ambient Temperature Range: -10°C to 40°C
- iii Operating Voltage: 220 to 240V 50Hz
- iv Terminations: Suitable for 1mm² and 1.5mm² solid conductors and stranded equivalents
- v Minimum Box Depth: 16mm
- vi Standby Consumption: Less than 2 VA

DS2 – Instructions for Installation and Use

If you have a DS1 working alone or with one or more DSS's please refer to separate instructions on page 1.

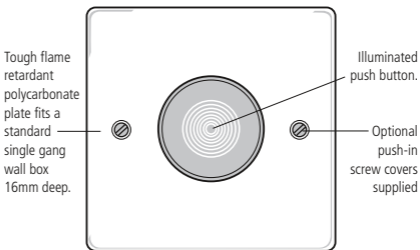


Fig 1 – Front of DS2

1. General.

The DS2 is a time delay switch with an illuminated push button, which fits on a standard single gang wall box 16mm deep. It requires a neutral connection and provides delay times between 10 seconds and 2 hours adjustable by internal potentiometer and range switches. It can be used to control lamps and other appliances within the limits set out in the specifications section.

Several DS2's can be wired in parallel to control a single load but the DS2 cannot be used in conjunction with DSS's.

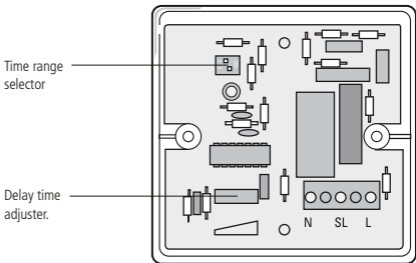


Fig 2 – Rear of DS2

2. Installation.

IF IN DOUBT CONSULT AN ELECTRICIAN.

SWITCH OFF MAINS ELECTRICITY.

Set the switch position to 1 ON, 2 OFF and the delay time adjuster to minimum (fully anti-clockwise – see fig 2) to enable initial testing during commissioning.

Connect the three wires to the appropriate terminals.

Mains Live – L

Switch Live – SL (to load)

Neutral – N

If two wires were connected to any terminal on the original switch they must be kept together and connected to the appropriate terminal on the DS2.





Make sure that the wallbox is earthed if it is metal. Ensure that all three terminals are tight before screwing the two plate fixing screws supplied here sufficiently to locate the DS2 securely to the wall box. Turn ON the mains supply.

If further DS2's are required to control the same load they must have all corresponding terminals wired in parallel with these on the first DS2.

3. Commissioning.

Press the push button and the light(s)/appliance(s) under control should come ON for approximately 3 seconds. During this time the neon behind the push button switches off. If the load under control is low energy or fluorescent lamps they will not switch ON immediately and the light intensity may be reduced initially.

Having established that the DS2 is working correctly the mains supply should be turned OFF and the two fixing screws removed from the unit. The DS2 can then be pulled away from the wall to enable access to the delay time adjuster and 2 gang range switch (see fig 2). The delay time can then be set to the required level by setting the 2 gang range switch according to table 1 and then adjusting the delay time adjuster. The DS2 can then be fixed to the wall again using the two fixing screws. The push in screw covers can now be fitted if required. The mains supply should be turned ON and the push button pressed to ensure the delay time is correct.

2 Gang Range Switch Position	Adjuster Min.	Adjuster Max.
	3 sec.	30 sec.
	12 sec.	2 min.
	1 min. 30 sec.	16 min. 30 sec.
	12 min. 30 sec.	2hrs. 10 min.

All delay times accurate to $\pm 25\%$. Black – switch lever.

4. Operation.

Whenever light or appliance operation is required press the push button and the light(s)/appliance(s) under control will remain ON for the set delay time.

5. Specifications.

- i Conforms to Directives: 73/23/EEC & 89/336/EEC
- ii Permissible Loads:
 - Filament lamps – 1.5kW
 - Low voltage – 20 to 200W
 - Heating – 2kW
 - Inductive – 4A
 - Motor – 1hp

Not suitable for fluorescent or low energy lighting.

- iii Operating Ambient Temperature Range: -10°C to 40°C
- iv Operating Voltage: 220 to 240V 50Hz
- V Delay Time:
 - 4 ranges selectable by tamperproof two gang switch:-
 - 3 sec. to 30 sec. (nominal)
 - 12 sec. to 2 min. 4 sec. (nominal)
 - 1 min. 36 sec. to 16 min. 31 sec. (nominal)
 - 12 min. 26 sec. to 2hrs. 12 min. (nominal)
 - All adjustable by tamperproof potentiometer (nominal times vary by up to $\pm 25\%$)
- vi Terminations:
 - Suitable for 1mm² and 1.5mm² solid conductors and stranded equivalents
- vii Minimum Box Depth: 16mm
- viii Standby Consumption: Less than 2 VA

3 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 3 years of the date of purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge. For the second and third years or any difficulty in the first year telephone the helpline on **020 8450 0515**.

Note: A proof of purchase is required in all cases. For all eligible replacements (where agreed by Timeguard) the customer is responsible for all shipping/postage charges outside the UK. All shipping costs are to be paid in advance before a replacement is sent.

For assistance with the product please contact:

HELPLINE

020 8450 0515

or email helpline@timeguard.com



For a product brochure please contact:

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