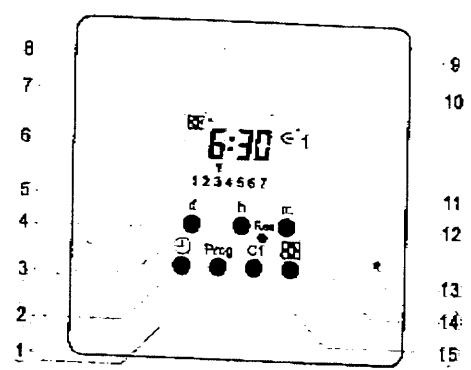


0113 279 4449
 SC07D

SL 7D

GB



- 1 programming / interrogation
- 2 setting real time
- 3 setting day of the week
- 4 day of week display (1 = Mo, 2 = Tu ... 7 = Su)
- 5 Cursor: ▼ for indication of day of week
- 6 hours display
- 7 symbol flashes if random program is activated
- 8 display for automatic summer / winter time switching
(☀ = summer time / ❄ = winter time)
- 9 minutes display
- 10 switching condition display ON (☀) OFF (❄)
- 11 setting hours
- 12 setting minutes
- 13 RESET
- 14 random program
- 15 channel selection

- 1.0 Description
 - 1.1 application
 - 1.2 features
 - 1.3 Priorities
 - 1.4 technical data
 - 1.5 dimensional diagram
- 2.0 Installation instructions
 - 2.1 safety instructions
 - 2.2 electrical connection
- 3.0 Initial operation
 - 3.1 automatic return
 - 3.2 fast forward
 - 3.3 setting / changing real time
 - 3.4 checking the date
 - 3.5 identification of automatic summer / winter time adjustment
- 4.0 Programming
 - 4.1 programming the week program
 - 4.2 programming the day program
 - 4.3 program interrogation
 - 4.4 changing program
 - 4.5 individual cancellation
 - 4.6 total cancellation of all switching times
 - 4.7 RESET
- 5.0 Switch functions
 - 5.1 switching pre-selector ON / OFF
 - 5.2 permanent ON / OFF
 - 5.3 holiday program
 - 5.4 Interrupt holiday program
- 6.0 Random program
 - 6.1 activate random program
 - 6.2 de-activate random program
- 7.0 Automatic summer / winter time switching
 - 7.1 selection table for automatic summer / winter time
 - 7.2 initial operation **without** summer / winter time change-over
 - 7.3 initial operation **with** summer / winter time change-over
 - 7.4 manual summer / winter time changeover
 - 7.5 changing automatic switching for summer / winter time change-over

1.0 DESCRIPTION

1.1 Application

The SL7D can control loads up to 16A resistive or 10A inductive on either a weekly or a daily basis.

1.2 Features

The time switch is pre-programmed with date, automatic summer / winter time change-over and real time as a weekly clock.

- permanent program retention by means of EEPROM. programmed switching times are retained for a period of approx. 10 years even in the event of a power failure or insufficient battery reserve.
- random program
- automatic program recall
- 99 days holiday program, programmable 99 days ahead
- over-ride switching
- permanent switching ON / OFF
- battery reserve by means of lithium cell, approx. 6 years

1.3 PRIORITIES

A	A permanent switching takes priority over all other programs
B	A holiday program takes priority over an over-ride switching or the automatic program
C	A random program takes priority over a manual switching and the automatic program
D	A manual switching changes the switching condition until the next contradictory switching time
E	In the event of identical on and off switching times, the switch off time takes precedence.

1.4 Technical data:

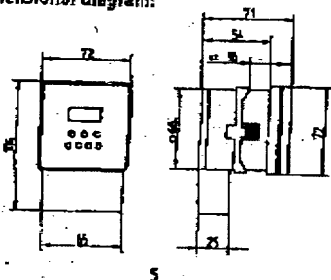
Designation:	SL 7D
Type of program:	Day or week
Operating voltage:	230 - 240 V - + 6 % - 10 %
Nominal frequency:	50-60 Hz
Internal consumption:	Max. 10 VA
Switching capacity:	16 (10) A, 250 V - 500 W Fluorescent or Low Energy Lighting 2500 W Filament lighting 2 h.p. motor
Contact material:	AgSnO ₂
Type of contact:	Changeover
Time base:	Quartz
Memory locations:	36
Random program:	yes
Min. switching interval:	1 minute
Switching accuracy:	To the second
Operating accuracy:	± 1 sec/day at 20° C deg. C
Power reserve:	Lithium, max. 6 years at 20° C deg. C
Permitted ambient temp.:	-10° C ... +50° C (-10T50)
Class of protection:	II acc. to EN 60335-1 when mounted
System of protection:	IP 20 acc. to EN 60529
Type:	I BSTU acc. to EN 60730-1, -2-7

Not suitable for controlling discharge lighting such as SON and Metal Halide

Technical data on device nameplate may vary - please check! Subject to technical alterations.

The time switches are in accordance with the European directives 73/23/EEC (Low-Voltage Directive) and 89 / 336 / EEC (EMC-Directive). If the time switches are used together with other devices in an installation, take care that the complete installation does not cause detectable radio interference.

1.5 Dimensional diagram:



2.0 MOUNTING INSTRUCTIONS

2.1 Safety information:

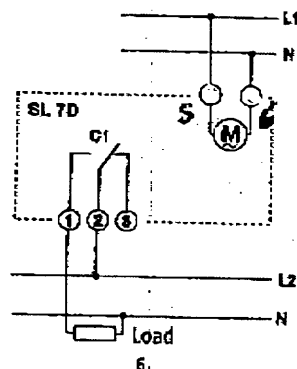
The SL7D should only be installed by a trained electrician. It should not be installed where it may come into direct contact with liquids and it is suitable for fixed wiring applications only. The supply must be disconnected before wiring commences and a means of isolation with a separation of 3 mm in each current path must be provided in the supply to the RTS17.

All screw terminals must be securely tightened onto conductors.

Despite elaborate safety precautions, exceptionally strong electrical fields may cause interference with the microprocessor-controlled time switch. We therefore recommend that you observe the following points before installation:

- Suppress interference of inductive loads by means of an RC filter
- Use a separate line for the mains voltage supply
- Do not install device in close proximity to sources of interference, e.g. transformers, contactors, PCs and TV sets.
- If interference occurs, we recommend that you carry out a RESET (chapter 4.7) before putting the device back into operation

2.2 Electrical connection:



3.0 START-UP

The device SL 7D comes ready programmed with the current time and with the relevant Greenwich mean time rule for automatic summer / winter time adjustment.

Should you require a different time adjustment rule, or none at all, the new rule can be selected from the table (chapter 7.1) and reprogrammed as described in chapter 7.2 to 7.3.

3.1 Automatic reset

If no buttons are pressed for a certain length of time in the checking or programming mode, the display is automatically reset to automatic mode after approx. 40 sec. The device then assumes the switching status dictated by the program.

3.2 Fast forward:

When setting the time or programming, the fast forward function is obtained by holding down button h or m for more than 4 sec.

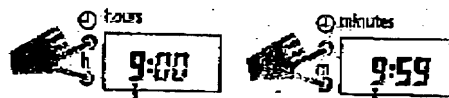
3.3 Setting/changing the current time

Should the time already set in the factory vary slightly, it can be corrected as follows:

The button must be kept pressed while setting!

Later on release .

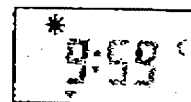
Attention: The colon between hours and minutes has to flash, if not, please do „Reset“; (see chapter 4.7).



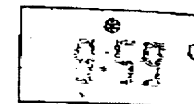
3.4 Checking the date

First press the button and then button d. Hold down both buttons for approx. 2 sec. The set summer/winter time adjustment rule (e.g. dat) will then appear in the LCD display. If you now press the Prog button, the year will appear, followed by the date if pressed again. Press the Prog button to return to the automatic program.

3.5 Identification of automatic summer/ winter time adjustment



Summer time symbol



Winter time symbol

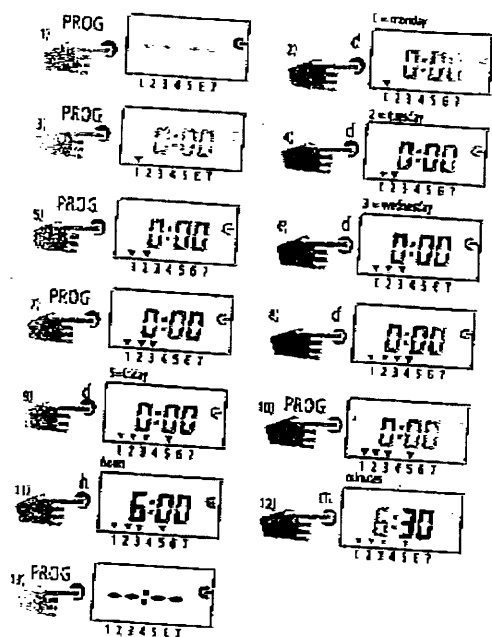
4.0 PROGRAMMING

4.1 Programming in the week program

The device type **SL 7D** has a week program with free block formation for the days of the week. This means that identical switching times valid for several days of the week only occupy one memory location.

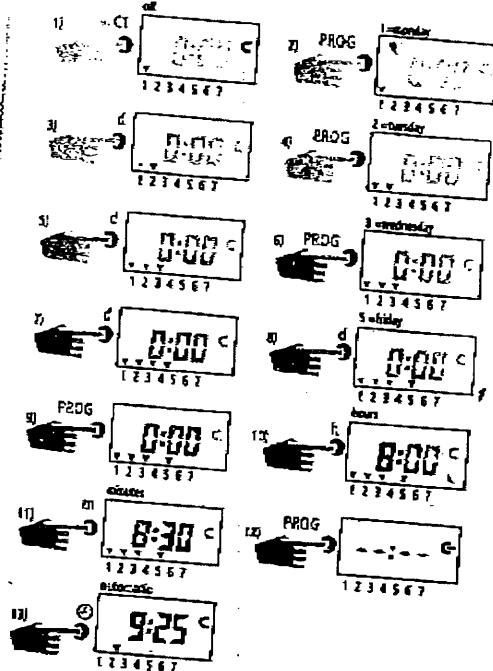
Example of a switch-on time:

The connected consumer is to switch on (☺) at 6:30 on Monday (1), Tuesday (2), Wednesday (3) and Friday (5).



Example of a switch-off time:

The connected consumer is to switch off (☹) at 8:30 on Monday (1), Tuesday (2), Wednesday (3) and Friday (5).



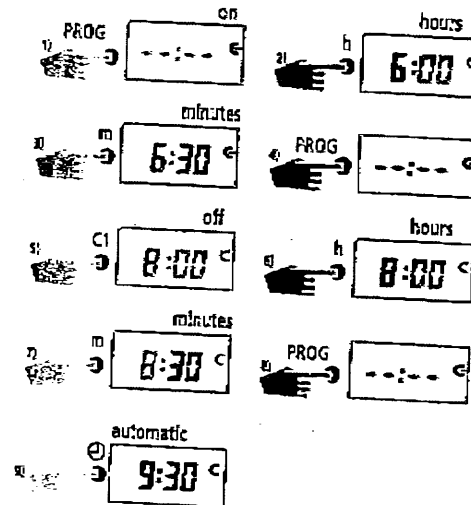
Note:

- When all memory locations are full, the word **End** appears in the LCD display.
- If a switch-on and switch-off time are programmed simultaneously, the switch off time will always take priority.

4.2 Programming SL 7D in the day program

If you only wish to operate the time switch **SL 7D** in the day program, the device has to be started up again first (see chapter 7.1 / 7.2 / 7.3).

Example: Channel C1 is to be switched on at 6:30 (☺) and off again at 8:30 (☹) daily.



The button **C1** can be used during programming to select either the switch-on option (symbol ☺) or the switch-off option (symbol ☹).

4.3 Checking the program

The stored switching time can be checked in automatic mode by pressing the **PROG** button.

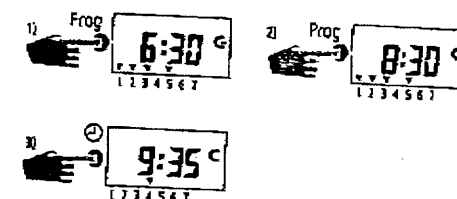


Fig. 1: switch-on (☺) occurs mo, th, we, fr at 6:30

Fig. 2: switch-off (☹) occurs mo, th, we, fr at 8:30

4.4 Changing the program

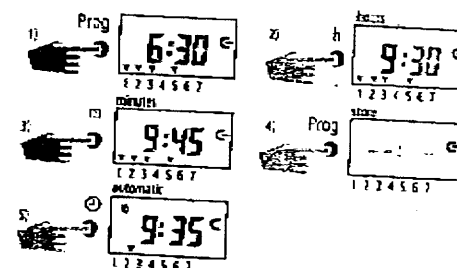
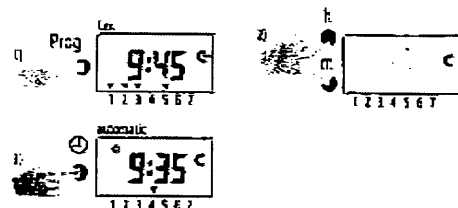


Fig. 1: Stored switching times in weekly program: switch-on mo, th, we, fr at 6:30

Fig. 2+3: Changing of switching times with buttons h and m mo, th, we, fr at 9:45
If necessary, button d can be used to redefine the days for which the switching time is valid. Store this setting via the **PROG** button.

4.5 Individual deletions

In automatic mode, the stored switching times can be checked via the **PROG** button and individually deleted by pressing the **h** and **m** buttons simultaneously. Only the switching time currently on display will be deleted.



4.6 General deletion of all switching times

Attention! This action deletes all stored switching times.

(The current time and the selected time adjustment rule remain).

If the buttons **d** + **h** + **m** are pressed simultaneously in the programming or checking mode, all switching times will be deleted at once.

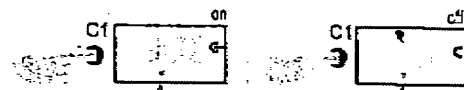
4.7 RESET

If the **Res.** button is pressed without operating voltage, the cancellation of all previously stored data is effected. If the **Res** button is pressed with operating voltage, only the cancellation of the switch-over rule and of real time is effected. The stored program is retained.

5.0 SWITCHING FUNCTIONS

5.1 Switching preselection ON/OFF

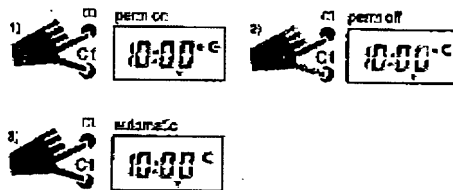
During automatic mode, the connected consumer can be switched on (**C**) or off (**C**) via the button **C1**.



When the button **C1** is pressed, the time switch assumes the required status. A switching preselection will be corrected by the next contrary switching command.

5.2 Permanent on/off switching

In automatic mode, the buttons **m** and **C1** can be used to switch the connected consumers on (Fig. 1 / **C**) or off (Fig. 2 / **C**) on a permanent basis. For this purpose, hold down the **m** button first and then select the switching status with the button **C1**.

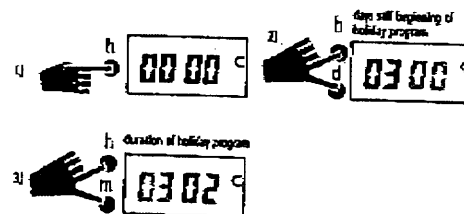



When a permanent switching setting is cancelled, the dot next to the switching status display disappears (see Fig. 3). Once the setting has been cancelled, the time switch performs a program review, which involves checking the stored program and then setting the correct switching status.

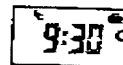
5.3 Holiday program

The selectable holiday program allows the stored program to be interrupted for a maximum of 99 days (switching status off = **C**). The holiday program can be programmed up to a maximum of 99 days in advance. The holiday program always begins and ends at midnight. The current day is not counted.


Example: On Monday, a holiday program is activated which is to apply for a period of 2 days as from Friday. The **h** button must be held down throughout the setting operation!




Whenever a holiday program is active, the symbol  appears in the display.



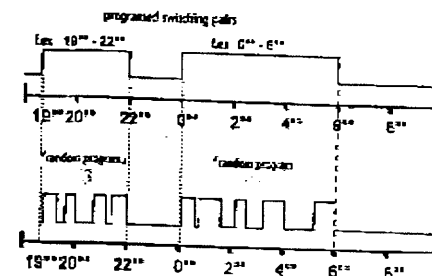
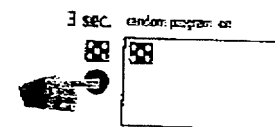
5.4 Interrupting a holiday program

If you wish to cancel a holiday program, the holiday program display must be reset to 00 00 as described above using the buttons **d**, **h** and **m**. The symbol  disappears. When a holiday program is cancelled, the time switch performs a program review, which involves checking the stored program and then setting the correct switching status.

6.0 RANDOM PROGRAM


The random program of the SL 7D causes the time switch to switch on and off at random between a programmed switching pair (on and off switching time). The random on and off switching times are between approx. 10 min. and 120 min. For the duration of the random program the symbol  flashes. The random program always begins with a switch-off time.

6.1 Activating the random program



6.2 De-activating the random program



The random program can be interrupted at any time with the button  (page 2, 14). After terminating the random program the time switch effects a program recall. This results in the time switch checking the stored program and the implementing the correct switching condition.

7.0 SUMMER/WINTERTIME ADJUSTMENT

Important note:

If you wish to change the automatic time adjustment rule preprogrammed in the factory, you can select a new adjustment rule from table 7.1, and program this as described in chapter 7.2 to 7.3.

7.1 Selection table for automatic summer/winter time adjustment

Set- ting area	Beginning of summer time	Beginning of winter time	Appl. horwich
Start up to 12.1998	Last Sun. in March	Last Sun. in Sept.	EU
Start 1 from 1.00	Last Sun. in March	Last Sun. in Oct.	EU
Start 2	Last Sun. in March	4th Sun. in Oct.	GB
Start 3	1st Sun. in April	Last Sun. in Oct.	North
no	No adjustment	No adjustment	

7.2 Initial start-up without automatic summer / winter time adjustment

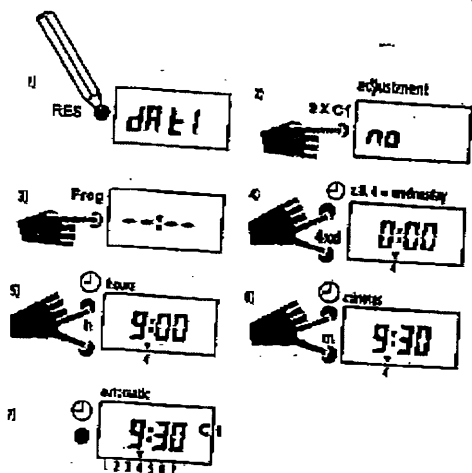
see 2): The button C1 can be used to set the required time adjustment rule from the table chapter 7.1.

Weekprogram

see 4): Button d can be used to set the current day of the week
(1 = Monday, 2 = Tuesday, ..., 7 = Sunday).

Dayprogram

see 4): Don't use, next step 5).



When the button ① is released after entering the time, both dots between the hour and minute display should flash. If not, repeat the setting.

7.3 Initial start-up with automatic summer/winter time adjustment

see 2): The button C1 can be used to set the required time adjustment rule from the table in chapter 7.1.

Weekprogram

see 4): Button d can be used to set the current day of the week
(1 = Monday, 2 = Tuesday, ..., 7 = Sunday).

Dayprogram

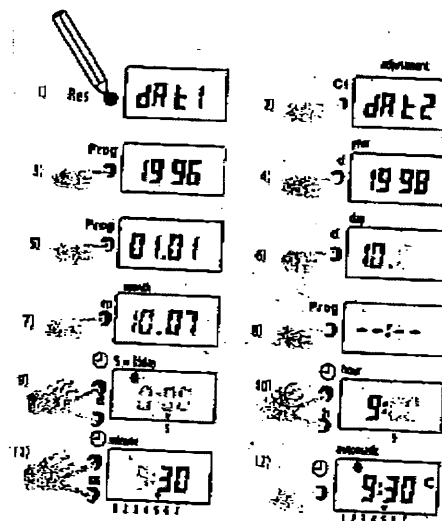
see 4): Don't use, next step 5).

Example with week program:

Selected adjustment rule dat 2

Programming date: 10.7.1998

Programming time: 9:30

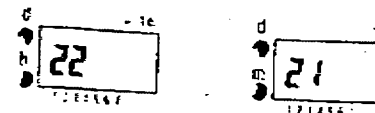


When the button ① is released after entering the time, both dots between the hour and minute display should flash. If not, repeat the setting.

7.4 Manual summer/winter time adjustment

If no automatic summer/winter time adjustment has been selected (no), the time can be corrected manually by 4-hour.

First press the button d and then button h or m.



7.5 Changing the automatic summer / winter time adjustment

Select the required automatic adjustment from the selection table in chapter 7.1. First press the button ① and then button d. Hold down both buttons for approx. 2 sec. The set summer/winter time adjustment rule will then appear in the LCD display (e.g. dat). To change the automatic S/W adjustment, press the button C1, and then store the setting via the Prog button. You can then change the year using button d, and store it by pressing the Prog button. The current day can then be changed with button d and the month with button m. Again, store by pressing the Prog button.

5 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture, within 5 years of the date of purchase, please return it to your supplier with proof of purchase and it will be replaced free of charge. Should you encounter any difficulty, please contact our helpline (see below)

GB TIMEGUARD LTD.
**TECHNICAL SERVICE
& HELP LINE
020 8450 0515**