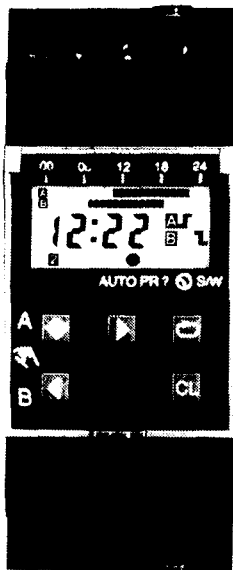


Electronic time switch – week programme – Programming manual Examples

SC 48/N/E/9609/Printed in Germany



DIN-rail mounting type

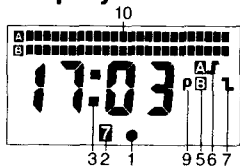
Executions:

- DIN-rail/distribution box
- Wall or panel mounting mounting

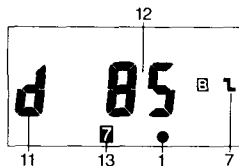
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2

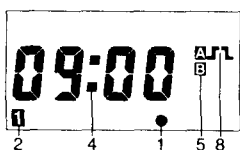
Display



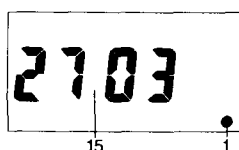
Mode AUTO



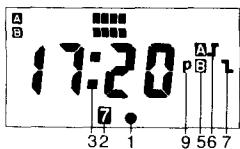
Duration holiday programme



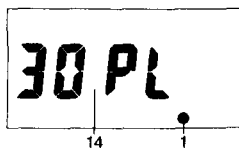
Switching function IMPULSE



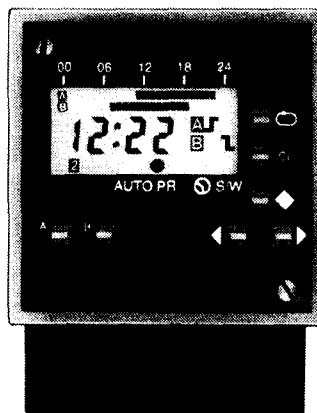
Activate summertime change (Programme actual date)



Permanent OFF, manual override



Available storage locations



Execution
Panel or wall mountin

- 1 Programming mode
- 2 Day of week
- 3 Actual time
- 4 Switching time
- 5 Channel(s)
- 6 Switch position ON
- 7 Switch position OFF
- 8 Switching function IMPULSE
- 9 Permanent OFF, manual override
- 10 Display of actual switching programme in hours
- 11 Holiday programme
- 12 Duration holiday programme (01–99 days)
- 13 Holiday programme starting day of week
- 14 Available storage locations
- 15 Day, month

Installation details

The high density electroluminescence display is suitable for operation against a wide range of influences exceed certain limits.

This influence will be reduced if the following points are observed:

1. Do not mount time switch in areas with strong inductive influences (current cables, magnetic drives etc.).
2. When switching inductive loads, it is advisable to fit suppression RC network.
3. For larger loads it is advisable to interface the load with a relay.

Connect to voltage and current label only.

Caution: The installation of electrical equipment must be carried out by a skilled person.

Installation details

The high density electronic circuit is protected against a wide range of external influences. Incorrect operation may occur if external influences exceed certain limits.

This influence will be reduced if the following points are observed:

1. Do not mount time switch near high inductive influences e.g. contactors, high current cables, magnetic valves, thyristor drives etc.
2. When switching inductive loads it is advisable to fit suppression i.e. varistor, RC network.
3. For larger loads it is generally preferable to interface the load with a contactor or power relay.

Connect to voltage and frequency according to type label only.

Caution: The installation and assembly of electrical equipment must be carried out only by a skilled person.

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Programming advice

Make inputs step by step. The appropriate position in the display is flashing and can be changed by pressing the key [◆]. Head for next position by using key [▶], go backwards by using key [◀].

Inputs are finished when flashing is finished.

RED: flashing position in display.

Key functions

- [○] Selection of programming modes
- [CL] Cancelling of inputs in modes PR, ?, S/W.
- [◆] In mode PR:
Change of flashing position.
In mode ?: After selection of required switching time EDIT function possible.
- [▶] Head for required position (forwards).
- [◀] Return to required position (backwards).
In mode PR:
Head for holiday programme **d**.
- [A] Press for manual overridden ON or OFF in adequate channel. When keeping key depressed for 3 seconds, PERMANENT ON or OFF will be switched, **p** will be displayed. Programmed functions in adequate channel will be suppressed.
Cancel PERMANENT ON or OFF by a new 3-second press on adequate key, **p** will disappear. Channel switch goes into programmed position.

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Operating modes

- AUTO** = Automatic. Display of day of week, switch status of channel(s). Display of programmed switching times in full hours. Manual overriding possible.
(A), (B).
- PR** Input of switching commands according to week day(s), time and channels. Input of holiday-programme (**d**), 01–99 days
- ?** Display of storing locations available. Read out of switching times, selected in sequence to channels (A, B), depending on execution. Changing of switching times, single cancellation of switching times.
- [⌚] Input or change of actual day 1 (Mo) to 7 (Su) and actual time (4 digits).
- S/W** Display or new input of date (after RESET). Summertime changeover becomes activated (see page 14).
If summertime changeover is not required, cancel actual date by pressing [CL].

After programming or changing of switching times or changing of actual time the channel switches go into programmed status when time switch is back in AUTO mode.

7

Starting

Before input of day/time make a RESET by pressing the point next to channel key B [◀].

Current day and time input

Operating mode: ☹

Example: Day 2 (Tu)

Time 14.30 h

Initial form: RESET

[Key]	Display	Input
[☹] 3x	:	Operating mode
	1 ●	
	☹	
[▶] 1x [◆] 1x	2 :	Day of week
	2	
[◆] 1x	0 :	Time
[▶] 1x	1 :	
[◆] 4x	10 :	
[▶] 1x	14 :	
[◆] 3x	14 : 0	
[▶] 1x	14 : 3	
	14 : 30	
[▶] 1x	A B	AUTO-(matic) mode
	14 : 30 A 1	
	B 1	
	2 ●	
	AUTO	

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Time correction

Operating mode: ☹

Example: Day 2 (Tu)

Change time from 14.35 h to 14.39 h

Initial form: AUTO

[Key]	Display	Input
[☹] 3x	14 : 35	Operating mode
	2 ●	
	☹	
[◆] 1x	2	Day of week
[▶] 3x [◆] 4x	14 : 35 14 : 35 14 : 39	Time
[▶] 1x	A B	AUTO mode
	14 : 39 A 1	
	B 1	
	2 ●	
	AUTO	

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Programming single function, single day of week

Operating mode: PR

Example: Day 3 (Wed.)

Time 19.00

Channel A ON

Initial form: AUTO

[Key]	Display	Input
[☹] 1x	:	Operating mode
	1 ●	
	PR	
[▶] 2x [◆] 1x	: 3	Day of week
[▶] 4x	: 3 4	
[◆] 1x	0 : 3	Time
[▶] 1x	1 : 3	
[◆] 9x	10 : 3	
[▶] 1x	19 : 3	
[▶] 1x	19 : 0 3	
[▶] 1x	19 : 00 3	
[▶] 1x	19 : 00 3 A B	Channel
[◆] 1x	19 : 00 3 A B	
[▶] 1x	19 : 00 3 A B	
[▶] 1x	19 : 00 3 A B	Ready

After appr. 3 sec.:

| : 1 A B |

Continue with input of further times, choose other programming mode with [☹] or return to AUTO.

Programming identical function and time for several days in one channel (Block programming)

Operating mode: PR

Example: Days 5 (Fri) and 6 (Sat)

Time 19.00

Channel A ON

Initial form: AUTO

[Key]	Display	Input
[☹] 1x	:	Operating mode
	1 ●	
	PR	
[▶] 4x [◆] 2x	: 5	Days of week
[▶] 1x	: 5 6 7	
[◆] 1x	0 : 5 6	Time
[▶] 1x	1 : 5 6	
[◆] 9x	10 : 5 6	
[▶] 1x	19 : 5 6	
[▶] 1x	19 : 0 5 6	
[▶] 1x	19 : 00 5 6	
[▶] 1x	19 : 00 5 6 A B	Channel
[◆] 1x	19 : 00 5 6 A B	
[▶] 1x	19 : 00 5 6 A B	
[▶] 1x	19 : 00 5 6 A B	Ready

After appr. 3 sec.:

| : 1 A B |

Continue with input of further times, choose other programming mode with [☹] or return to AUTO.

Programming IMPULSE

Operating mode: PR

Example: Day 1 (Mo)
Time 09.00
Channel A IMPULS

Initial form: AUTO

[Key]	Display	Input
[○] 1x	: 1 ● PR	Operating mode
[◆] 1x	: 1 2	Day of week
[▶] 6x	0 : 1	Time
[▶] 1x	00 : 1	
[◆] 9x	09 : 1	
[▶] 1x	09 : 0 1	
[▶] 1x	09 : 00 1	
[▶] 1x	09 : 00 1 A B	Channel
[◆] 1x	09 : 00 1 A J B	
[◆] 1x	09 : 00 1 A J 1 B	
[▶] 1x	09 : 00 1 A J 1 B	
[▶] 1x	09 : 00 1 A J 1 B	Ready

After appr. 3 sec.:

| : 1 A B |

Continue with further functions, choose other programming mode with [○] or return to AUTO

Holiday programming (01–99 days) PERMANENT ON or OFF

Operating mode: PR

Example: 85 days
starting day 7 (Su) (coming)
Channel B, OFF (permanent)

Initial form: AUTO

[Key]	Display	Input
[○] 1x	: 1 ● PR	Operating mode
[◀] 1x	d	Holiday programme (in days)
[◆] 1x	d 1	
[▶] 6x	d 7	
[◆] 1x	d 0 7	
[◆] 8x	d 8 7	
[▶] 1x	d 80 7	
[◆] 5x	d 85 7	
[▶] 1x	d 85 7 A B	
[▶] 1x	A B	
[◆] 2x	A B 1	
[▶] 1x	1 A B	Ready

Continue with further functions, choose other programming mode with [○] or return to AUTO.

The normal programme in the selected channel will be suppressed during the holiday programme.

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13

Activate changeover to/from summertime (daylight saving)

according to Central European Regulations

Example: Programme current date, 02.04.97

Initial form: AUTO

[Key]	Display	Input
[○] 4x	0 ● S/W	Operating mode
[▶] 1x	01	Current date
[◆] 1x	02	
[▶] 1x	02 0	
[▶] 1x	02 01	
[◆] 3x	02 04	
[▶] 1x	9	
[▶] 1x	90	
[◆] 7x	97	
[▶] 1x	AUTO	AUTO mode

The time changeover is executed automatically according to the "Central European Regulations" from 30.05.94 on the last Sunday in March and October.

Reading out of switching functions

Operating mode: ?

Example: The inputs in this manual

Initial form: AUTO

[Key]	Display	Input
[○] 2x	27 PL ● ?	Operating mode Number of available storage locations
[▶] 1x	09 : 00 1 A J 1	Read out
[▶] 1x	19 : 00 3 A J	
[▶] 1x	19 : 00 5 6 A J	
[▶] 1x	d 85 7 B 1	*

After reading out the last switching command, the storage locations available are displayed.

For reading out backwards use key [◀].

Reading out in sequence of channel A...B.

* The holiday programme **d** does not occupy a storage location.

14

15

Changing of switching times

Operating mode: ?
Example: Functions programmed in this manual.
Change day 3 (We) to 1...7 (daily)
Initial form: AUTO

[Key]	Display	Input
[⏻] 2x	27 PL ● ?	Operating mode
[▶] 1x	09 : 00 1 A J L	Read out Day of week
[▶] 1x	19 : 00 3 A J	
◆ 1x*	19 : 00 1 3 A J	
◆ 1x	19 : 00 1 2 3 A J	
◆ 1x	19 : 00 1 2 3 A J	
[▶] 1x	19 : 00 1 2 3 4 A J	
◆ 1x	19 : 00 1 2 3 4 5 A J	
◆ 1x	19 : 00 1 2 3 4 5 6 A J	
◆ 1x	19 : 00 1 2 3 4 5 6 7 A J	
◆ 1x	19 : 00 1 2 3 4 5 6 7 A J	
[▶] 6x	19 : 00 1 2 3 4 5 6 7 A J	
[▶] 1x	Display next command forwards	
[◀] 1x	Display previous command backwards	

* Start of EDIT function

Clearing of single commands

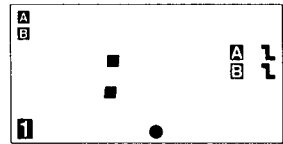
Operating mode: ?
Example: Clearing of one command listed page 15 (Read out)
Initial form: ?

[Key]	Display	Input
	27 PL ● ?	Operating mode
[▶] 1x	09 : 00 1 A J L	Clear
[▶] 1x	19 : 00 1...7 A J	
[▶] 1x	19 : 00 5 6 A J	
[CL] 1x	-- : --	
[▶] 1x	d 85 7 B 1	Number of available storage locations
[▶] 1x	28 PL ● ?	

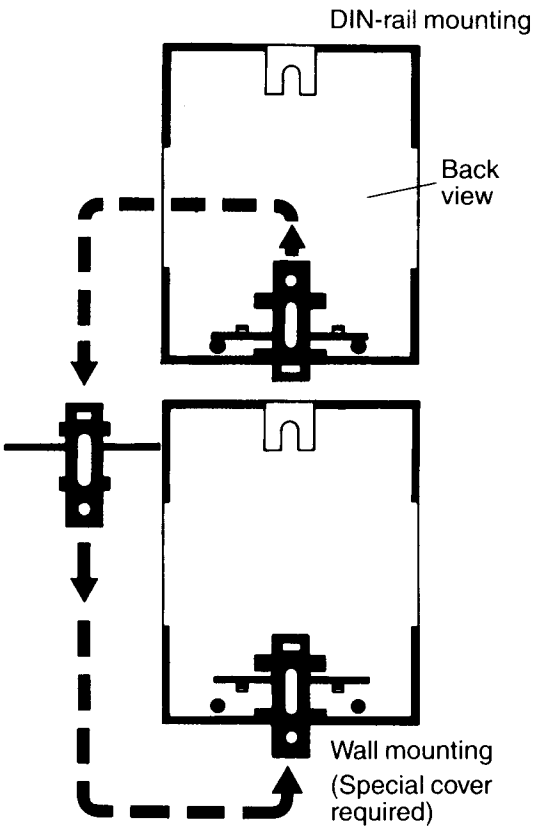
After the last switching command is displayed, the storage locations available will be displayed.

Reset– for new start

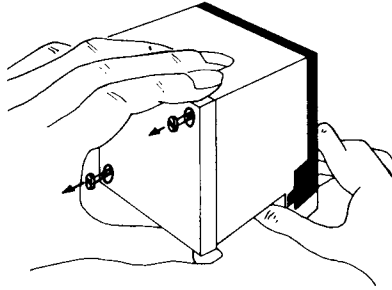
In the case of interference a RESET might become necessary. Press mark next to channel key B [◀]. Microprocessor and all inputs become neutralized. For new programming see page 8.



Mounting advice

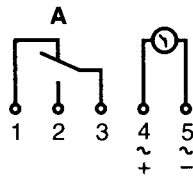


Mounting of panel-wall execution

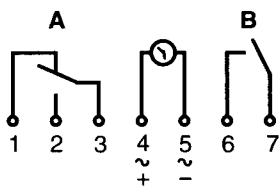


Wiring diagram for panel-wall execution

1 channel

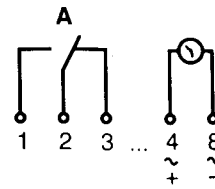


2 channels



Wiring diagram for DIN-rail execution

1 channel



2 channels

