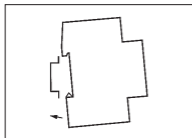


|       |  |         |
|-------|--|---------|
| 1.    | Contents                                     |         |
| 1.    | Contents                                     | Page    |
| 2.    | Assembly, Connection, Putting into operation | 3 - 5   |
| 3.    | Control elements                             | 6       |
| 4.    | Display                                      | 6       |
| 5.    | Factory setting                              | 7       |
| 6.    | Changing settings                            | 8       |
| 6.1   | Time and day of the week                     | 8       |
| 6.2   | Calendar month and day                       | 9       |
| 6.2.1 | AU = Automatic changeover                    | 9       |
| 6.2.2 | cHA = Weekday-related time change            | 10 - 11 |
| 6.2.3 | no = no changeover                           | 12      |
| 7.    | Standard switching commands                  | 13      |
| 8.    | Weekday block formation                      | 14 - 15 |
| 9.    | Read – change – delete – reset               | 16 - 17 |
| 10.   | Hand switch                                  | 18      |
| 11.   | Technical data                               | 19 - 20 |

## 2. Assembly, Connection, Putting into operation

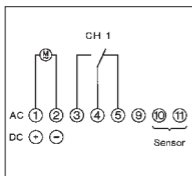
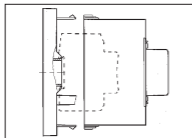


### 2.1 Assembly

Fit the time switch

- on a DIN rail
- optional wall surface-mounting Surface-mounting set for 2 and 3 module spacings

Article No. 03.53.0083.2



### 2.2 Connection



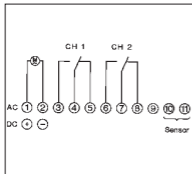
See information on the unit!

Press any key to activate the time switch

- the time and date is displayed

#### Note:

If no key is pressed the time switch is automatically activated 1 - 2 minutes after power is connected.



#### Note:

When connecting the sensor to terminals 10 and 11, you must **also** insert a jumper between terminals 9 and 10.

When you operate several units with one sensor, this jumper may only be inserted **on one unit**.

See circuit diagrams.

## 2. Assembly, Connection, Putting into operation

### 2.3 Putting into operation

The date and time are set at the factory.

The unit is in power-save mode.

Only the colon flashes.



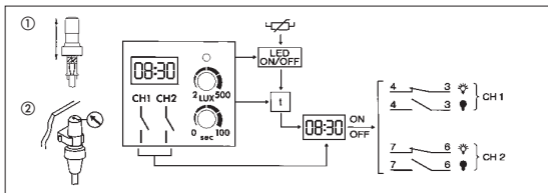
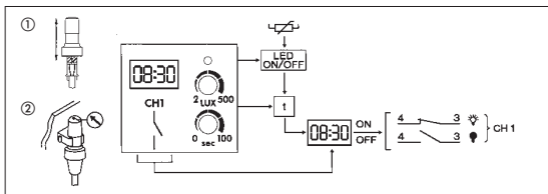
Press any button:

- The unit is active
- It shows the time (day of the week)

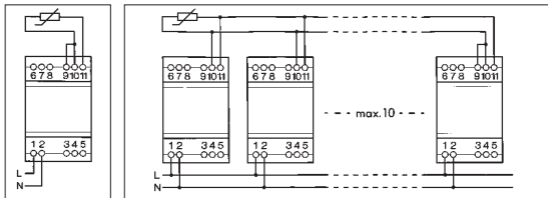
The unit twilight switch and time switch switches the output.

(Terminals 3 and 6) only active if all three conditions are met:

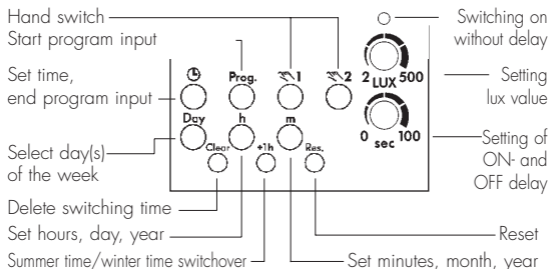
- The set brightness level is not reached
- The set delay time has expired
- The time switch is set to = ON



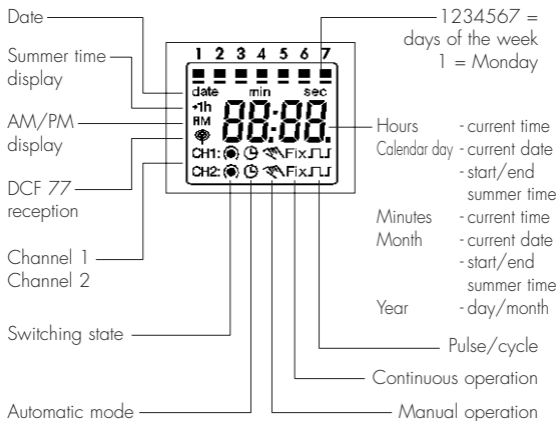
## 2. Assembly, Connection, Putting into operation



### 3. Control elements



### 4. Display



## 5. Factory setting

The selections correspond to Central European Time. The time switch offers 3 Operating modes. The date and time, and also the Operating mode AU are set.

### Operating modes:

- **AU Automatic summer time controller switchover see 6.2.1**

The switchover occurs on the dates defined by the legislator.

- **cHA Weekday-related summer time controller switchover, see 6.2.2**

You enter the start and end dates of summer time which applies to your location/country.

e. g. The first Sunday in April of the current year  
(start of summer time)

The last Sunday in October of the year  
(end of summer time)

In the following years, changeover always occurs on the right day of the week in the correct calendar week.

- **no No changeover, see 6.2.3**

### AM/PM switch-over

#### Switch clock is in current operating mode

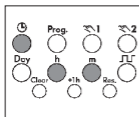
1. Press h and keep pressed
2. – Press Res once
  - all segments are displayed
  - after approx. 1 second the following appears:  
AM, 12.00 and 3 (Wednesday)
  - Operating mode AU is active = works setting
3. Release h
4. Select operating mode as required, see 6.2.1 or 6.2.2 or 6.2.3
5. Set the current time of day and weekday, see 6.1

## 6. Changing settings

### Note:

You can exit/conclude any adjustments, changes you make at any time with the key .

### 6.1 Time and day of the week



Press the  key once

#### Set the time:

With the h key – hours

With the m key – minutes

#### Note for weekly time switch:

If the Operating mode

no = no change  
- see 6.2.3

was selected, the day of the week must **now** be set.

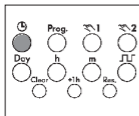
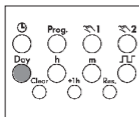
With the Day 1 - Monday

key select: 2 - Tuesday

3 - Wednesday

:

7 - Sunday




Press the  key once.

The clock is now set.

## 6.2 Calendar month and day – Select the Operating mode

### 6.2.1 AU = Automatic changeover

 Press the key  once

 Press the + 1h key 1 once,  
**AU** appears

 Press the Prog key once

#### Set the current year:

With the m key or the h key



 Confirm with the Prog key

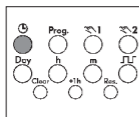
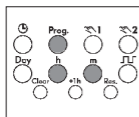
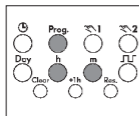
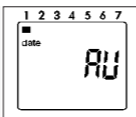
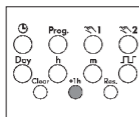
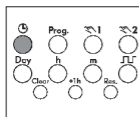
#### Set the current month and day:

With the m key – calendar month  
With the h key – calendar day

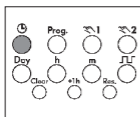
#### Note:

With the Prog key (press once or twice), read the date for the start e.g. 29.03. and end e.g. 25.10. of summer time.

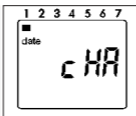
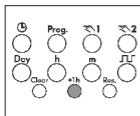
 Press the  key once.  
The input is complete.



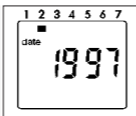
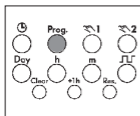
## 6.2.2 cHA = Weekday – related time change



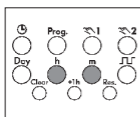
Press the key once



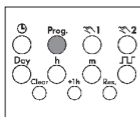
Press the + 1h key as often as necessary until **cHA** appears



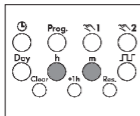
Press the Prog key once



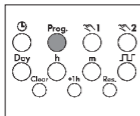
**Set the current year:**  
With the m key or the h key



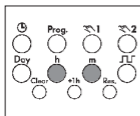
Confirm with the Prog key



**Set the current month and day:**  
With the m key – calendar month  
With the h key – calendar day

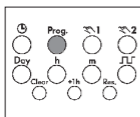


Confirm with the Prog key  
The start of summer time is displayed.

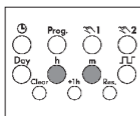


### Set the individual summer time start:

With the m key – month  
With the h key – day

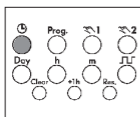


Confirm with the Prog key



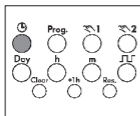
### Set individual summer time end:

With the m key – month  
With the h key – day

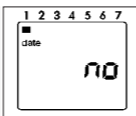
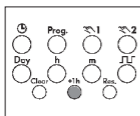


Press the Day key once.  
The input is complete.

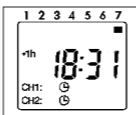
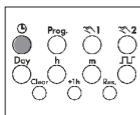
### 6.2.3 no = no changeover – only weekly time switch



Press the key once



Press the + 1h as often as necessary until **no** appears. The time switch has no programmed date reference!



Press the key once. The input is complete.

#### Note:

Select day of the week see 6.1

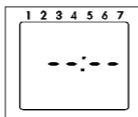
## 7. Standard switching commands

You determine the switching times and the switching state for the relevant switching output (channel.) Symbol: CH1:  (ON) = Channel 1  
CH2:  (OFF) = Channel 2



### Select free memory location:

Press the Prog key as often as necessary until --:-- appears.

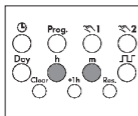


### Set the switching times:

With the m key – minutes  
With the h key – hours

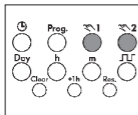
### For weekday adjustment, see:

Block formation of weekdays, Point 8

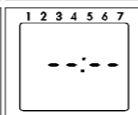
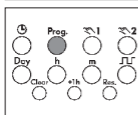


### Set the switching state:

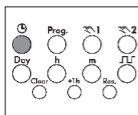
With the key  
 (ON) or  (OFF)



Press the Prog key once.  
The programmed entry is complete.  
A free memory location is displayed – for further settings or



Press the key once.  
The input is complete.  
The display shows the current time.



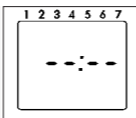
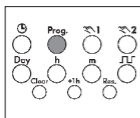
## 8. Fixed weekday block formation – only weekly time switch

Defined combinations of weekdays or individual days

You determine the weekdays for your switching program.

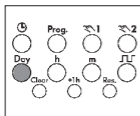
1 - Monday, 2 - Tuesday, 3 - Wednesday ..., 7 - Sunday

**Example:** Monday ... Friday (8:00 ON; 22:00 OFF)



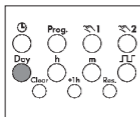
### Select free memory location:

Press Prog key as often as necessary until --:-- appears



Press the Day key once

All 7 days of the week are activated



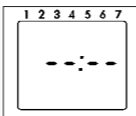
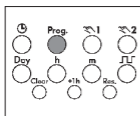
### Activating/deactivating days of the week:

Press the Day key stepwise

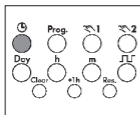
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| → | - | - | - | - | - | - | - |
| → | - | - | - | - | - | - | - |
| → |   |   |   |   | - | - |   |
| → | - |   |   |   |   |   |   |
| → |   | - |   |   |   |   |   |
| → |   |   | - |   |   |   |   |
| → |   |   |   | - |   |   |   |
| → |   |   |   |   | - |   |   |
| → |   |   |   |   |   | - |   |
| → |   |   |   |   |   |   | - |


### Note:

Enter the switching times and the switching state ● = ON; ○ = OFF for the switching state (channel). For standard switching commands, see 7.



Press the Prog key once.  
The input is complete.  
A free memory location is  
displayed - for further settings  
or



press the  key 1 once.  
The input is complete.  
The display shows the  
current time.



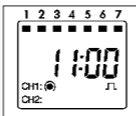
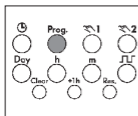
### Note:

After the procedures

- read, modify or delete the time, date, switching program
- DCF synchronisation
- restoration of mains power the switching state of the time switch is updated automatically.

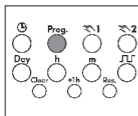
## 9. Read – change – delete – reset

- You can read the program contents stepwise
- You can change or overwrite the program contents
- You can delete the program contents
- You can delete the date and time

**Read**

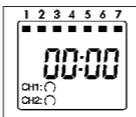
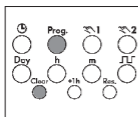
Press the Prog key step by step  
Each individual content is displayed until the end of the program.  
Then:

- One free memory location  
--:--
- One digit (free memory locations)  
(ex. Fr 10)

**Change**

Press the Prog key step by step  
as far as the switching  
command/contents which you  
want to change/overwrite.  
Change the switching command/  
contents:

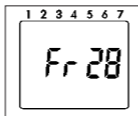
As described in  
8. Weekday block formation

**Delete - individual switching commands**

Press the Prog key step by  
step as far as the switching  
command/contents which you  
want to delete.



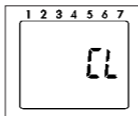
Press the Clear key once.  
This switching command  
is deleted.



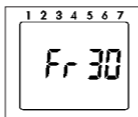
### Delete - All switching commands



Press the Prog key as often as necessary until FRxx appears

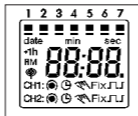


Press the Clear key once. CL is in the display



Press the Clear key and hold it down. **All memory locations are deleted!**

The display shows the number of the max. memory locations.



### Reset



Press the Reset key once

The set date and time are reset.



The factory setting AU = automatic s/w time changeover is active (31.12.1997, 00:00)














All segments are visible for approx. 2 seconds, then 00:00 appears.

AU = automatic s/w time changeover

See point 5 and 6 for setting the current date.

## 10. Manual switch

The switching output condition (terminals 3 and 6) can always be seen by reference to the output function display symbols.

|  |   |   |
|--|---|---|
|  = Automatic   |  = Manual  | FIX = Continuous operation  |
|   = OFF |   = ON  |  FIX = Continuous ON   |
|   = ON  |   = OFF |  FIX = Continuous OFF  |
| The state of the clock correspond to the entered program.  | You have changed - m a n u a l l y - the current state of the clock. The next command in the program is executed again automatically.                                     | You have changed - m a n u a l l y - the current state of the clock. The output will remain fixed ON of OFF until you restore Automatic function by pressing the  key. |

## 11. Technical data

|                                     |  |
|-------------------------------------|--|
| Dimensions (H x W x D) mm           | 45 x 54 x 60   |
| Distributor cut-out mm              | 46 x 54  |
| Weight g (approx.)                  | 250 and 285  |
| Connection                          | See unit imprint   |
| Power consumption<br>at 230 V~ (AC) | Approx. 2.5 VA   |
| Switching output                    | Potential-free   |
| Switching contact                   | 1 or 2 changeover contacts   |
| Switching capacity AC               |  |
| – ohmic load (VDE, IEC)             | 16 or 10 A/250 V AC  |
| – inductive load $\cos \varphi 0,6$ | 8 A/250 V AC   |
| – Incandescent lamp load            | 2000 W   |
| Switching capacity DC               |  |
| 24 V-/60 V-/220 V-                  | Approx. 800 mA/300 mA/150 mA   |
| Method of operation                 | Electronic   |
| Ambient temperature:                | -20 °C to +55 °C   |
| – Control unit                      | -30 °C to +70 °C   |
| – Brightness sensor                 |  |
| Protection class:                   |  |
| – Control unit                      | II in accordance with EN 60 669-1 and Parts<br>and EN 60 730-1 and Parts |
| – Brightness sensor                 | II in accordance with EN 60 669-1 and Parts<br>and EN 60 730-1 and Parts |
| Protection Type:                    |  |
| – Control unit                      | IP 20  |
| – Brightness sensor                 | IP 65  |
| Brightness sensor:                  | Potential-free   |
| – Connecting cable length           | Max. 100 m   |
| – Line cross section                | Min. 0.75 mm <sup>2</sup>  |
| Connection type                     | captive ± screw terminals  |
| Can be lead sealed                  | yes  |

**Twilight switch:**

- Adjustment range 2 lx – 500 lx
- Hysteresis Approx. factor 1.3 of the ON value
- Switching delay Adjustable: Approx. 0-100 s ON/0-100 s OFF
- Switching state display Without delay

**Time switch:**

- Memory locations 20 or 30
- Minimum switching time 1 minute
- Programmable every Minute
- Block formation of weekdays Fixed default
- Switching state display Yes
- Summer time/winter time switchover Automatic
- Manual switch Automatic/preselection  
FIXED ON/FIXED OFF
- Running accuracy Typ.  $\pm 2,5$  s/day at  $+20^{\circ}\text{C}$
- Running reserve 3 years from the factory