7521 20 06

1 Programming / checking mode
2 Button for setting current time
3 Button for setting day of the week
4 Days of the week
   (1 = Mon, 2 = Tues, 7 = Sun)
5 Cursor ▼ for displaying days of the week
6 Hour display
7 Display for automatic summer/winter time
   (adjustment (☼ = summer / ❄ = winter)
8 Bus-connection
9 Minute display
10 Switching status display ON (⊂) OFF (⊂) channel **K1**
11 Switching status display ON (⊂) OFF (⊂) channel **K2**
12 Hour setting
13 Minute setting
14 General deletion (RESET)
   Attention: this button deletes all stored data!
15 Channel **K2**
16 Channel **K1**

1.0 DESCRIPTION

1.1 Use

The time switch controls connected nodes via the group address.
The time switch sends 1- or 8-bit telegrams, as required.

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.
– 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 Technical data:

Designation: **7521 20 06**

Type of program:	Day or week
Operating voltage:	Bus-connection
Interval consumption:	ca. 150mW incl. BCU
Time base:	Quartz
Memory locations:	36
Min. switching interval:	1 minute
Switching accuracy:	To the second
Operating accuracy:	$\pm$ 1 sec./day at 20° C deg. C
Power reserve:	Lithium, max. 6 years at 20° C deg. C
Perm. ambient temp.:	$-$ 5° C ... + 45° C ($-$ 5T45)
Class of protection:	II acc. to EN 60335 when mounted
System of protection:	IP 20 acc. to EN 60529

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

EMC-Advice

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 a radio interference.

1.4 Dimensioned drawing:
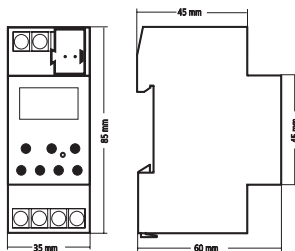
2.0 MOUNTING INSTRUCTIONS

2.1 Safety information:

Electrical devices EIB should only be connected and mounted by an EIB specialist. Manipulations and modifications will result in loss of warranty. The national specifactions and applicable safety regulations must be observed.

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 recommed that you carry out a RESET (chapter 4.7) before putting the device back into operation

2.2 Bus-connection:
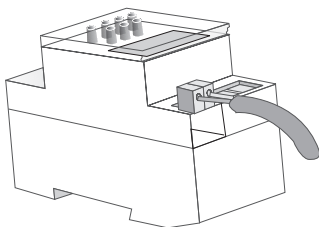
3.0 Start-up

3.1 Information

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

Changing of time adjustment see chapter 6.0.

3.2 Advices

This symbol means: Important! Please note!

This symbol means:

You must press the button illustrated for programming.

Example: ⏱ = Press the button with the clock symbol.

3.3 Automatic reset

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

3.4 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.

3.5 Switching-preselection

The ⊂ -symbol indicates that the allocated consumer receives, for example, an ON telegram, according to parameters.

The ⊂ -symbol indicates that the allocated consumer receives, for example, an OFF telegram, according to parameters.

3.6 Automatic-mode

You see in the automatic mode:

- actual time
- summer-/winter time adjustment is activated
- load sends ON or OFF-telegram
- load sends permanent ON/OFF telegrams
- Holidayprogram is activated

Changing to automatic mode

☞ press button ⏲

3.7 Priorities

A	A permanent switch setting takes priority over all other programs
B	A holiday program takes priority over a switching preselection or the automatic program
C	Manual switching changes the switching status until the next contrary switching command
D	If the switch-on and switch-off time are identical, the switch-off time always takes priority

3.8 Identification of automatic summer/ winter time adjustment

☀ Summer time symbol   ❄ Winter time symbol

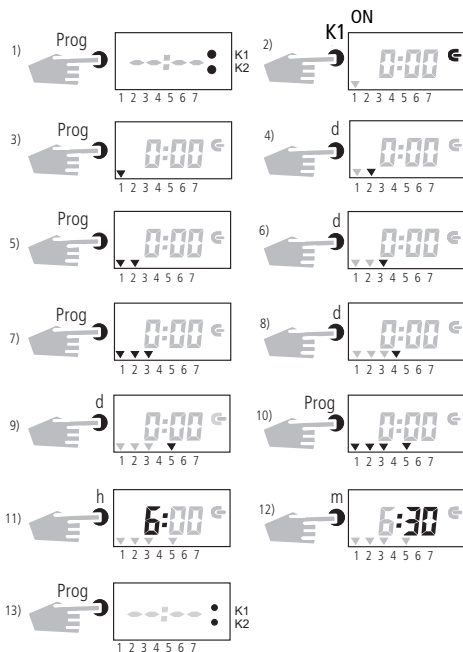### 4.1 Programming in the week program

The time switch is able for:

> - individual programming of the weekdays
> - free blockforming
>   This means that identical switching times valid for
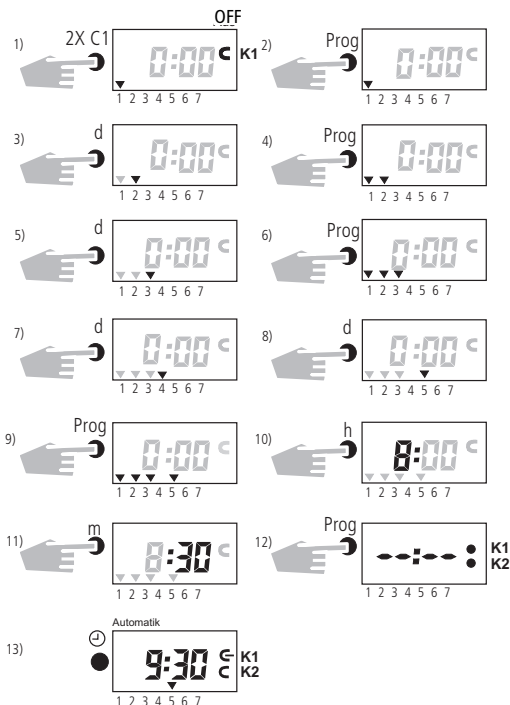>   several days of the week only occupy one memory
>   location.

Example of a switch- on time:

The connected consumer is to switch in channel **K1** 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 (**C**) at 8:30 on Monday **(1)**, Tuesday **(2)**, Wednesday **(3)** and Friday **(5)**.

Note:

Further switch times can be programmed as before.

For programming channel **2**, use the button **K2.**

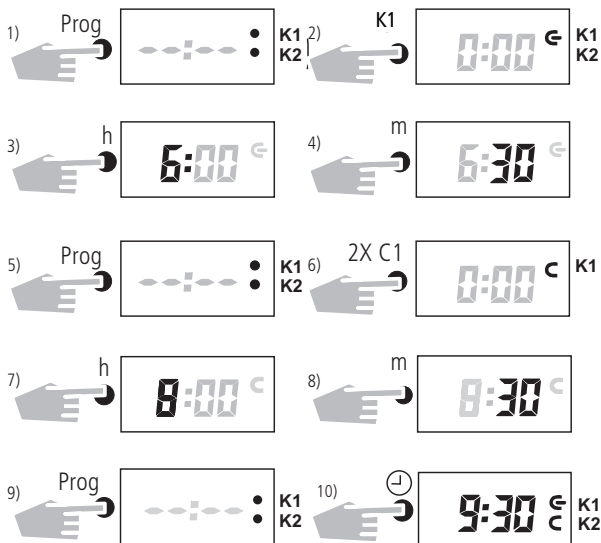When all 36 memory locations are full, the word **End** appears in the LCD display.

If a switch-on and switch-off time are programmed simultaneously, the switch off time will always take priority.

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Time-sensor only for dayprogram:

Restart of the time-sensor like in chapter 6.3/6.4 described.

Example: Channel **K1** switch-On (⊆) at 6.30 hours and
switch-Off again at 8:30 hours (⊂).

> With button **K1** a choice can be made, while programming,
> whether a switch on (symbol ⊆) or a switch off (symbol ⊂)
> should be effected.

> For programming channel **2**, use the button **K2.**
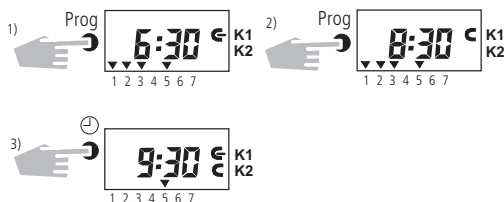
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4.3 Program interrogation

Illustration 1: in channel **K1** switch on ($\mathrel{\subsetneq}$) is effectd Mo, Tues, Wed, Fri at 6:30 hours

Illustration 2: in channel **K1** switch off ($\mathrel{\subset}$) is effected Mo, Tues, We, Fri at 8:30 hours
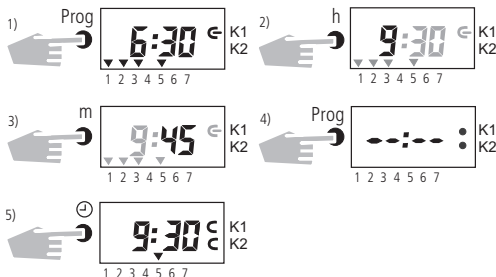
4.4 Program change

Illustration:

Picture 1: Mo, tue, wed, fri at 6.30 hours switch-on in **K1**

Picture 2 + 3: change Mo, tue, wed, fri at 9.45 hours switch-off

Change block-formation:

Press button **d** several times with only one cursor is still blinking.
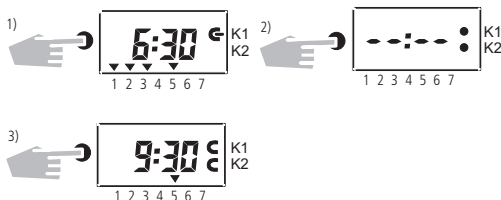
Place cursor above desired weekday

Store by pressing button **Prog.**

4.5 Individual deletions

Use **PROG** to search switching time bo be deleted.
Only the displayed switching time will be deleted.

Press buttons **h** and **m** simultaneously.

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).

General deletions off all switching-times

Press the button **Prog**

Press buttons **d + h + m** simultaneously

Now you are able to:

- program
- change to automatic mode with button ⏱

4.7 GENERAL DELETION (RESET)

Deletion of all stored data:

Press button **Res.** without operation voltage.

Deletion of summer-/winter time adjustment and the
current time:

The stored program is retaines.

Press button **Res. with** operating voltage.

5.0 SWITCHING FUNCTIONS

5.1 Override ON / OFF telegram

Effect:

During automatic operation, by pressing button **K1** or **K2** to the connected electrical unit can be slut an on ($\subseteq$) or off ($\subset$) or 8-Bit Telegramm.

When button **K1** or **K2** has been pressed, the time switch accepts the desired switching condition. An over-ride switching is corrected by the next contradictory switching command.
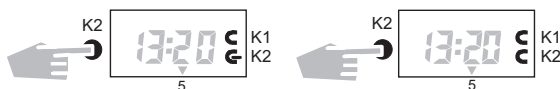
5.2 Permanent ON / OFF telegram
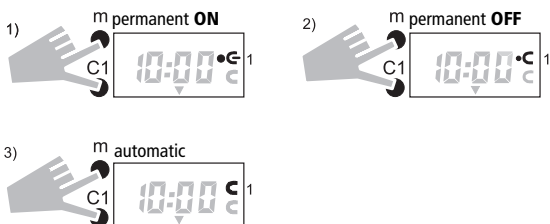
Cancelation of permanent switching:

First hold button **m.**

Press button **K1** or **K2** until the dat disappears.

After cancellation of a permanent switching the time switch effects a program recall. This results in the time switch checking the stored program and implementing the correct switching condition.

5.3 Holiday program

Effect:
The selectable holiday program makes it possible to interrupt the stored program for a max. 99 days.

☞ (Both channels switch condition off = **C**).

The programming of the holiday program can be effected up to a max. 99 days ahead. The beginning and end of the holiday is, in each case, at midnight. The present day is not included.

Example: On **Monday** a holiday program is activated, which is effective from **Friday** for a period of 2 days. For the period of setting, the button **h** must be held down!
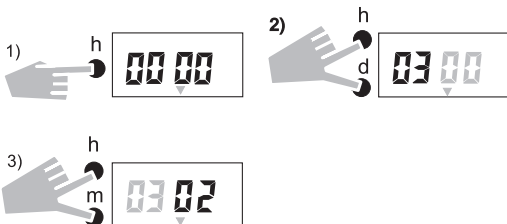
5.4 Breaking off the holiday program

☞ If the holiday program is to be broken off, the display of the holiday program must be set back to 00 00 with the buttons **d, h, m,** as described above.

The symbol 💼 goes out.

After cancellation of a permanent switching the time switch effects a program recall. This results in the time switch checking the stored program and implementing the correct switching condition.

6.0 SUMMER-/WINTERTIME ADJUSTMENT

The time switch is able to carry out the summer/winter time adjustment automatically.
On initial operation you must select from the following table the applicable time adjustment for your country.
Example: for Germany **dat 1.**

6.1 Selection table for automatic summer/ winter time adjustment

Set-ting area	Beginning of summer time	Beginning of winter time	Appl. bereich
dat up to 12/95	Last Sun. in March	Last Sun. in Sept.	EU
dat 1 from 1/96	Last Sun. in March 2:00→3:00	Last Sun. in Oct. 3:00→2:00	EU
dat 2	Last Sun. in March 1:00→2:00	4th week in Oct. 2:00→1:00	Only for Uk up to 1997
dat 3	1st. Sun. in April 2:00→3:00	Last Sun. in Oct. 3:00→2:00	North
no	No adjustment	No adjustment	

6.2 Changing the automatic summer-/winter time adjustment

☛ First press ⏰ and then button **d.**

☛ Hold down both buttons for approx 2 secs.

The set summer-/winter time adjustment rule will then appear in the LCD display **(e.g. dat1).**

☛ Press button **K1** to change the adjustment rule.

☛ Store with button **Prog.**

☛ Change the year with button **d.**

☛ Store with button **Prog.**

☛ Change the current day with button **d.**

☛ Change the month with button **m.**

☛ Store with **Prog.**

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6.3 Initial start-up w i t h o u t automatic summer/ winter time adjustment
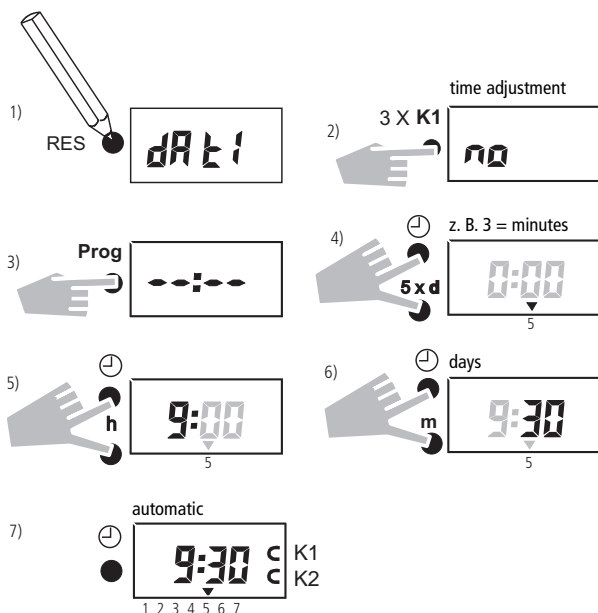
Weekprogram:
see 2: The button **K1** can be used to set the required time adjustment rule from the table in Chapter 6.1.

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 button **d.**

When the button � is released after entering the time, both dots between the hour and minute display should flash. If not, repeat the setting.
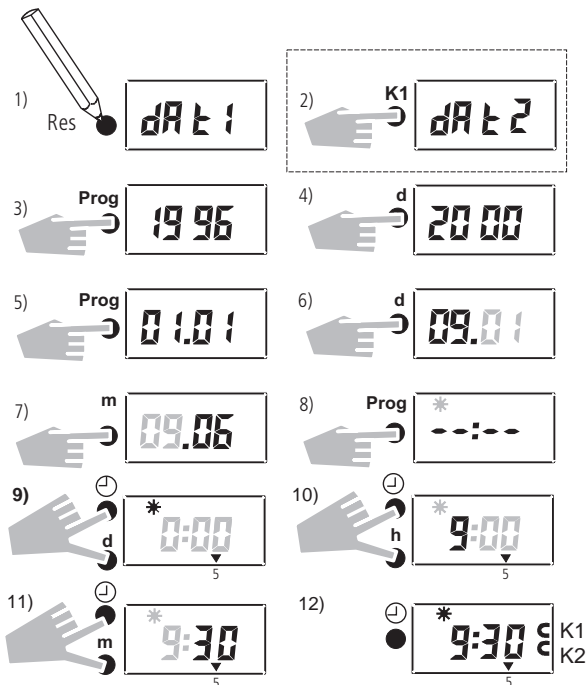
Weekprogram:
see 2): The button **K1** can be used to set the required time adjustment rule from the table in chapter 6.1.

see 9): Button **d** can be used to set the current day of the week (1 = Monday, 2 = Tuesday, ... 7 = Sunday)

Dayprogram:
see 9): Don't use button **d.**

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

6.5 Manual summer/winter time adjustment

☞ If no automatic adjustment has been selected, the time can be corrected manually +/– 1 hour.

☞ First hold button **d.**

☞ Change with **h** or **m** the current hours.