DT1-IK
2CSM204275R0611

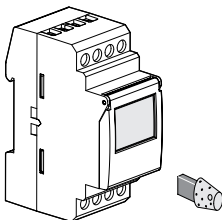# DT1-IK/24V
2CSM204285R0611

DT1-IK/DCF
2CSM204295R0611

DT2-IK
2CSM204325R0611

System pro M

(GB) -1-
WEEKLY DIGITAL TIME SWITCH
+ PROGRAMMING KEY

(I) -11-
INTERRUTTORE ORARIO DIGITALE SETTIMANALE
+ CHIAVE DI PROGRAMMAZIONE

(F) -21-
INTERRUPTEUR HORAIRE ÉLECTRONIQUE
+ CLÉ DE PROGRAMMATION

(D) -31-
ELEKTRONISCHE WOCHENSCHALTUHR
+ PROGRAMMIERSCHLÜSSEL

(E) -42-
INTERRUPTOR HORARIO ELECTRÓNICO
+ LLAVE DE PROGRAMACIÓN

(P) -52-
INTERRUPTOR HORÁRIO ELECTRÓNICO
+ CHAVE DE PROGRAMAÇÃO

(RU) -62-
Электронный таймер недельный
+ ключ программирования

ABB

Product delivered with current time and date set.

Automatic change of winter/summer time ☼/❄ .

Programming key ◖▬▬

- for permanent waivers,

- or program copy or save.

Programming for day or group of days.

56 program steps On/Off or impulses ⊓ (1sec to 30 mn).

Permanent overrides On or Off (🕛 permanent light on).

Temporary overrides On or Off (🕛 flashing).

Holiday mode 🗂 : overrides On or Off between two dates.

Display bar graph of daily profile.

Simulation of presence ☺ .

Keyboard locking possible 🔒 .

Programmable with power off (réf. DT1-IK, DT1-IK/24V et DT2-IK).

Back lit display (réf. DT1-IK and DT2-IK).

Remotely temporary waivers (réf. DT1-IK only).

Electrical characteristics

Supply voltage:	DT1-IK, DT1-IK/DCF, DT2-IK 230 V AC ± 15%	
	DT1-IK/24V	12 V AC/DC+20% -10%
		24 V AC/DC+10% -15%
Frequency: 50/60 Hz		
Power consumption:	DT1-IK/24V:	max. 0,8 VA to 50 Hz
	DT1-IK/DCF:	max. 5 VA to 50 Hz
	DT1-IK, DT2-IK:	max. 6 VA to 50 Hz
Output DT1-IK, DT1-IK/24V, DT1-IK/DCF:		
	1 changeover volt free contact.	
Output DT2-IK:	2 changeover volt free contacts.	
Maximum load:	AC1 (DT1-IK, DT1-IK/24V, DT2-IK)	µ16A 250 V~
	DC1 (DT1-IK/24V)	µ4A 12 V ⎓
	Cos φ = 0,6	µ10A 250 V~
Minimum current:	AC1 (DT1-IK, DT1-IK/DCF, DT2-IK)	100 mA 250 V~
	DC1 (DT1-IK/24V)	100 mA 12 V ⎓
Galvanic insulation between power supply and output:		< 4 kV

Functional characteristics

Programming capacity: 56 steps
Minimum time between 2 steps: 1 minute
Running accuracy: ± 1,5 Sec / 24 h
Operating reserve: lithium battery provides 5 years of backup.
The product is set in standby mode (display is off) if power goes off.
It is set back in **auto** mode when power is back on. With power off, the screen display is turned on when striking any key. After one minute, it is turned off.
Protection degree: IP 20
Operating temperature: -5 °C to +55 °C
Storage temperature: -20 °C to +70 °C

Lighting loads	💡	▭	▯	▭/▭	▭/▭
				compensated // (max. 45 µF)	non compensated, compensated in series
230 V∼	2300 W	2300 W	500 W	400 W	1000 W

Cable connection

▭▨	1 —> 6 mm²	▭▬	1,5 —> 10 mm²

Connection diagram

DT1-IK
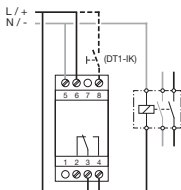
DT1-IK/DCF
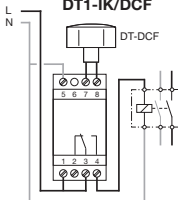
DT2-IK

Program reset:
the program may be completely cleared by simultaneously pressing the
3 following keys: **menu**, **enter**, ⟵ .
The time and the date will be kept.

Total reset:
pressing simultaneously the **-**, **+**, **enter**, **menu**, keys lets you clear the entire
contents of the product.
Following a total reset it is necessary to reset the time and day of the device.

DT1-IK/DCF
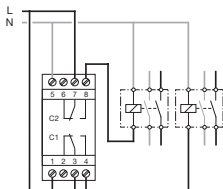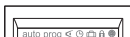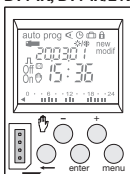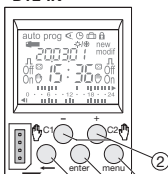

auto prog ◁ 🕐 🛅 🔒 ●

DT1-IK, DT1-IK/24V

auto prog ◁ 🕐 🛅 🔒
🔆/❄ new
modif

DT2-IK

auto prog ◁ 🕐 🛅 🔒
🔆/❄ new
modif

You may return into **auto** mode at any moment using **menu**.

If no action is taken for 1 min., the switch returns into **auto** mode.

DT-VK

Keys:

①	**menu**	: selection of operating mode.
	auto	: mode of running according to the program selected.
	prog	: **new** for programming mode.
	prog	: **modif** to modify an existing program.
	◁	: checking of the program.
	🕐	: modification of time, date and selection of the winter/summer timechange mode 🔆/❄
	🛅	: holidays.
②	+ and -	: navigation or setting of values.
	👆 -	(DT1-IK, DT1-IK/24V, DT1-IK/DCF) or
	C1 👆 and **C2** 👆	: (DT2-IK): in **auto** mode, sélection of overrides, waivers or random operation. .
③	**enter**	: to validate flashing information on display.
④	⟵	: to return to the previous step.

4

Programming: **prog new**

Programming may be done for each day or for a group of days.

In this case instructions are common to several days.

Days: 1 = Monday, 2 = Tuesday, 3 = Wednesday... 7 = Sunday.

```
       prog
                        new
      123--67 ok

  On  20:11

  0 · · 6 · ·12 · ·18 · ·24
```
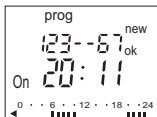
1. Select the **prog** mode using **menu**, then **enter**.
1a **DT2-IK:** Select the channel (**C1** or **C2**) using **+** or **-**, then **enter**.
    The number of remaining program steps appears for a short time.
2. Select the day(s) using **+** or **-**.
    Validate with **enter**.
3. **ok** flashes. Use **enter** to validate the group.
    - or ⟵ makes it possible to reset the group of days if necessary.
4. Using **+** or **-**, select the state of the instruction: **On**, **Off** or ∏ .
    Validate with **enter**
5. Enter the time of switch-on using **+** or **-**.
    Validate with **enter**
6. Enter minutes with **+** or **-**.
    Validate with **enter**.
7. For one ∏ , set the duration (seconds, then minutes) in the same way
    as for the switch-on schedule.

Program the other instructions of the group of days by repeating
operations 3 to 7.

The day or the group of days may be modified at the during step 3 by pressing
+, **-** or ⟵ .

At the end of programming return to **auto** mode using the **menu** button.

DT2-IK: To set the program of the other channel, return to **prog new** mode
and proceed according to steps 1a. to 7.

In this mode it is also possible to add an instruction to the program set up.

Proceed as described above.

Display: ◁

To check the daily profile set up without the risk of modification or deletion:

Select the mode ◁ using **menu** and **enter**.

DT2-IK: Select the channel (**C1** or **C2**) using + or - and **enter**.

The first step of Monday is displayed as well as the daily profile.

Two options available for display:

1. Pressing repeatedly + or -: lets you shift days.
   In this case only the first daily step is displayed as well as the daily profile.
2. Pressing **enter**: all steps of each day appear one after the other.

Modification or clearing of a program step: prog modif

Select the **prog** mode with **menu** and press **enter**.

DT2-IK: Select the channel (**C1** or **C2**) using + or - and press **enter**.

Select the **modif** mode with + or -.

Validate with **enter**.

The number of remaining program steps appears for a short time.

The first step of the first day or group of days appears.

Repeatedly pressing the **enter** key displays all programmed steps one at a time.

Any flashing field (state, hour, minutes) may be modified using + or -, then validated with **enter**.

When the cursor is positioned on **ok** located behind the group of days, you may display successively the days or the groups of days and switch directly to the one that has to be modified using + or -.

To remove a program step: select the state of the channel (**On**, **Off** or ⌐⌐), press simultaneously + and -.

Clear.appears on the screen.

Validate with **enter**.

Key ▬▬ (only ref. DT1-K and DT2-K)

As soon as the key appears on the switch ▬▬ appear on the screen.

Two types of operation:

A. Permanent override:

Insert the key into the switch.

After 10 seconds the program contained in the key will be executed without clearing the program contained in the time switch.

As soon as the key is removed the program of the time switch is again valid.

B. Copy (load) / Save (save):

The key makes it possible to save a program contained in the time switch.

It is also possible to copy the contents of the key into the clock.

1. Insert the key and wait for 2 sec.
2. Using **menu**, select the mode:

   save : to save a program contained in the time switch,

   load : to load the program of the key into the time switch,

   ◁ : to check the program contained in the key.
3. Validate the selection with **enter**.
4. For **save** and **load** reconfirm with **enter**.

The following error messages may appear on the screen:

   no prog : the key is empty, it does not contain any program.

   Error : DT1-IK, DT1-IK/24V, DT1-IK/DCF:

   the key is that of a two-channels switch.

   DT2-IK: the key is that of a one-channel switch.

In these two cases:

Only the **save** mode is possible.

The error message remains on display as long as the key is present, but in this case the program of the time switch is executed.

Setting time and day ⏱
Winter/summer time change ☼/❄

DT1-IK/DCF:

Automating setting of time/date and winter/summer time change using ref. DT-DCF antenna.

Hourly messages are sent from DCF77 transmitter to the antenna out of Frankfurt (Germany).

Upon anenna's connection, the symbol ◉ flashes on screen.

A soon as time has become synchronous flashing stops.

In case of transmission failure or bad reception, switch relies on its own internal time base.

Time is set manually.

DT1-IK, DT1-IK/24V, DT1-IK/DCF DT2-IK:

Select the mode 🕐 with **menu** then **enter**.
Modify the day, month, year, the hour and the minutes using **+** or **-** and **enter**.
The time switch now suggests the winter / summer time changes ☼/❄ .
Select the type of change desired using **+** or **-**.
Validate with **enter**.

The type of change depends on the geographical zone.
Types available: (∗ = type according defect)

Type	Start of time change Summer	Start of time change Winter	Zone of application
Euro ∗	Last Sunday of March	Last Sunday of October	European Union
USER	Date freely programmed	Date freely programmed	
No	No change	No change	

The change always takes place between 2:00 and 3:00 a.m.

Note:
For United Kingdom, use the geographical area EURO.
For USA, use the type USER and enter following dates:
Beginning of the summer-time 2nd Sunday of Mars, beginning of winter-time
the 1st Sunday of November.
Example: for an installation in 2007 enter 11.03 and 04.11 by following the
instructions below.

When the USER type is selected:
1. Enter the day then the month of the date of change of the summer time
   (+ 1hour) with **+** or **-** and **enter**.
2. Enter the day then the month of the date of change of the winter time
   (- 1hour) with **+** or **-** and **enter**.
The time switch will check which days of which weeks correspond to these
dates and will apply changes to the same periods for the following
years independently of the date.

Holidays 🏠

Allows you to override the output, On or Off for a given period.
Once done, this override will be removed and will not be carried over to the following year.

Select the mode 🏠 using **menu** then **enter**.

DT2-IK : Select the channel (**C1** or **C2**) using + or - and **enter**.

With + or -, select the state of override: **On** or **Off**, **enter** to validate.

Enter the day then the month of the starting period (date 1) using + or - then **enter**.

Enter in the same way the day and the month of the ending period (date 2).

In **auto** mode, 🏠 flashes to indicate that a period of holidays was programmed.

🏠 becomes permanent during the period.

The override will be effective at 0:00 of the 1st date until 23:59 from the 2nd date.

If date 1 is set before the day of programming, the period of holidays is valid for the following year.

To clear a period of holidays return to the mode, press simultaneously the + and - keys.

Clear appears. Confirm with **enter**.

Override - waivers - Random operation 🔲

DT1-IK, DT1-IK/24V, DT1-IK/DCF: Pressing repeatedly on 🖐 -.

DT2-IK: Pressing repeatedly on **C1** 🖐 or **C2** 🖐 .

If the state of the output is **On**:

1 st pressure: temporary waiver. **Off** and 🖐 flash. The next program step
            will let you return to the automatic mode.

2 nd pressure: permanent override. **On** and 🖐 are permanent.
            This override must be cancelled manually.

3 rd pressure: permanent override. **Off** and 🖐 are permanent.
            This override must be cancelled manually.

4 th pressure: random operation. Simulation of presence: 🔲, as well as
            the state of the output are displayed. Must be cancelled
            manually. In this case the steps of the program are shifted
            randomly within a range of ± 59 min.

5 th pressure: return to the automatic mode.

Entry of override (DT1-IK only)

Makes it possible to remotely set temporary waivers.

When a 230V voltage is applied using a non lighted push-button on connector 8, the state of the time switch is reversed until the next program step.

Locking 🔒

To prevent all undesirable actions, the keyboard of the time switch may be locked using a key DT-LK or pressing the **enter** and ← keys for 7 seconds.

Unlocking is done in the same way.

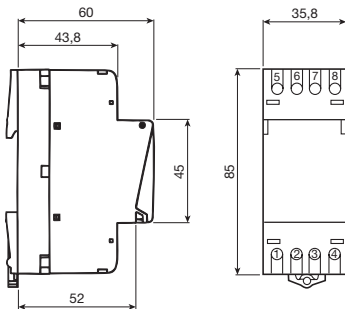Full product reset remains feasible when the keyboard is locked.

Dimensions