

DT1-IK

2CSM204275R0611

DT1-IK/24V

2CSM204285R0611

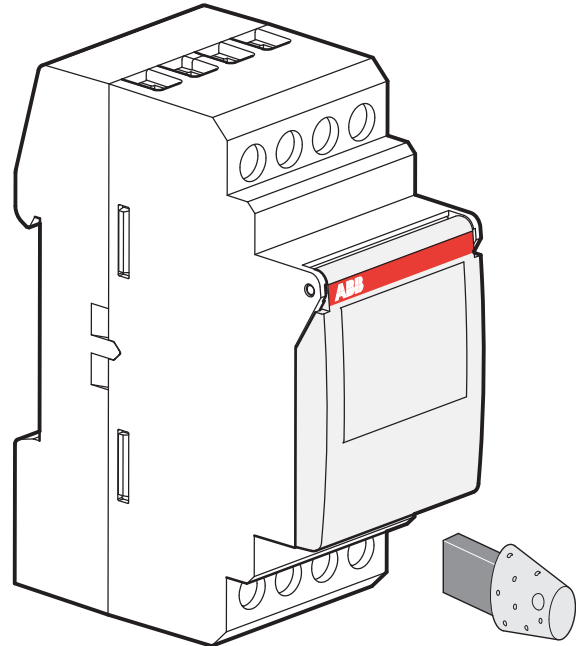
DT1-IK/DCF

2CSM204295R0611

DT2-IK

2CSM204325R0611

System pro M



2CSM441017D5601

(GB)

WEEKLY DIGITAL TIME SWITCH
+ PROGRAMMING KEY

(I)

INTERRUTTORE ORARIO DIGITALE SETTIMANALE
+ CHIAVE DI PROGRAMMAZIONE

(F)

INTERRUPTEUR HORAIRE ÉLECTRONIQUE
+ CLÉ DE PROGRAMMATION

(D)

ELEKTRONISCHE WOCHENSCHALTUHR
+ PROGRAMMIERSCHLÜSSEL

(E)

INTERRUPTOR HORARIO ELECTRÓNICO
+ LLAVE DE PROGRAMACIÓN

(P)

INTERRUPTOR HORÁRIO ELECTRÓNICO
+ CHAVE DE PROGRAMAÇÃO

(RU)

Электронный таймер недельный
+ ключ программирования

ABB

GB Technical specifications

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 \pm 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/DCF, DT2-IK)	μ 16A 250 V~
	DC1 (DT1-IK/24V)	μ 4A 12 V $\overline{\dots}$
	Cos φ = 0,6	μ 10A 250 V~

Minimum current:	AC1 (DT1-IK, DT1-IK/DCF, DT2-IK)	100 mA 250 V~
	DC1 (DT1-IK/24V)	100 mA 12 V $\overline{\dots}$

Galvanic insulation between power supply and output: < 4 kV

Functional characteristics

Programming capacity: 56 steps

Minimum time between 2 steps: 1 minute

Running accuracy: $\pm 1,5$ Sec / 24 h

Operating reserve: lithium battery provides 5 years of backup.


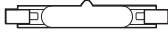



The product is set in standby mode (display is off) if power goes off.

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

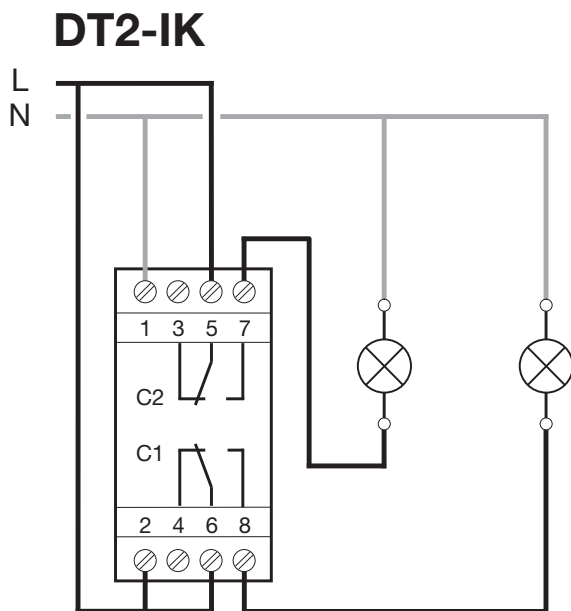
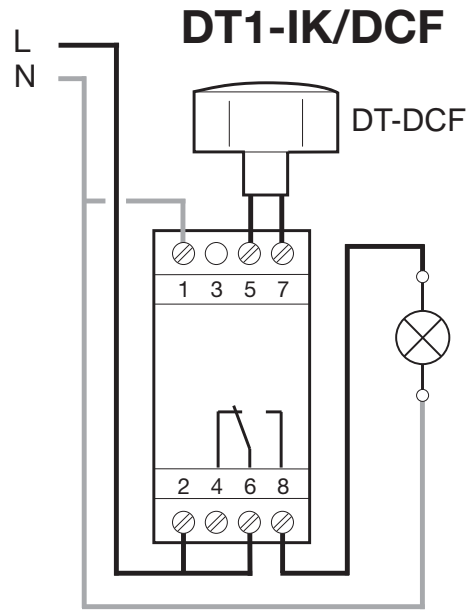
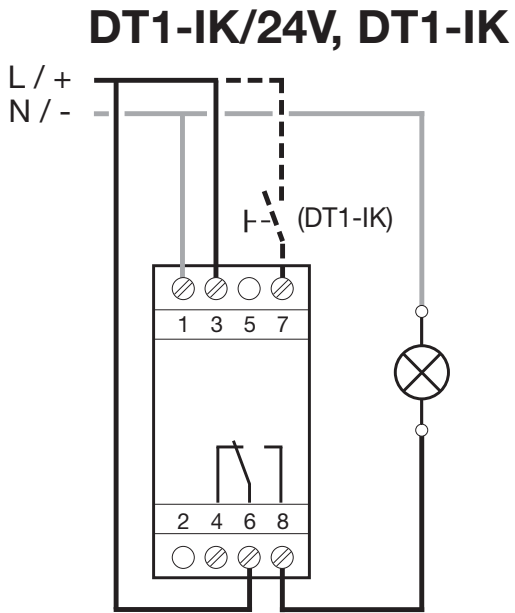
Storage temperature: -20 °C to $+70$ °C

Lighting loads					
230 V~	2300 W	2300 W	500 W	compensated // (max. 45 μ F) 400 W	non compensated, compensated in series 1000 W

Cable connection

	1 —> 6 mm ²		1,5 —> 10 mm ²
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Connection diagram



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:

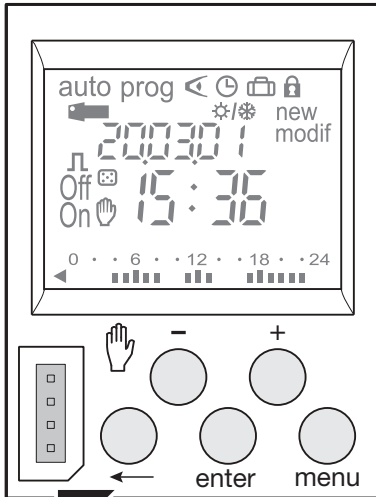
pressing simultaneously the -, +, **enter**, **menu**, keys lets you clear the entire contents of the product.

Following a total reset it is necessary to reset the time and day of the device.

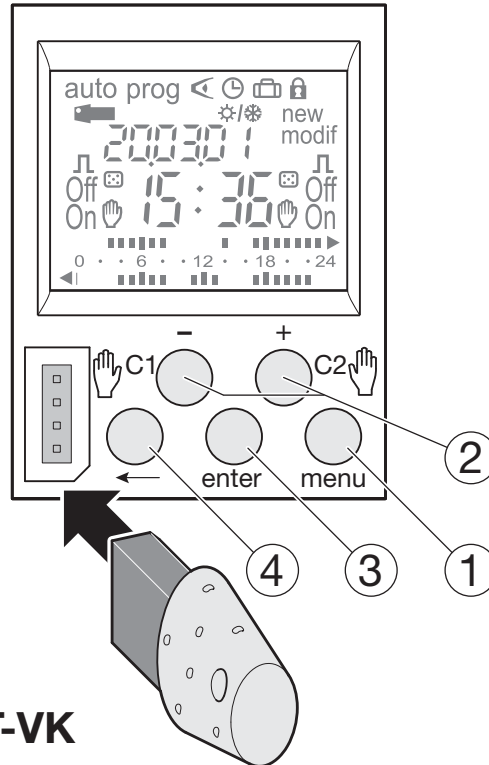
DT1-IK/DCF



DT1-IK, DT1-IK/24V



DT2-IK



DT-VK

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.

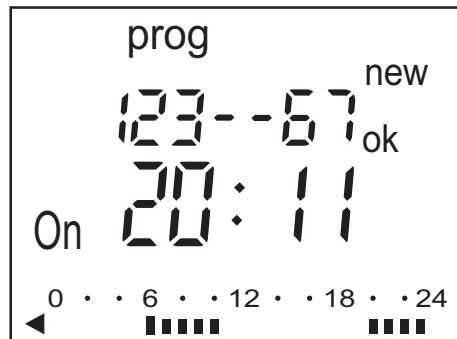
Keys:

- 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, selection of overrides, waivers or random operation. .
- ③ **enter** : to validate flashing information on display.
- ④ ← : to return to the previous step.

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.



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 antenna's connection, the symbol  flashes on screen.

As 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 next 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 March, 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**:

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

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

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

4th 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.


5th 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

