

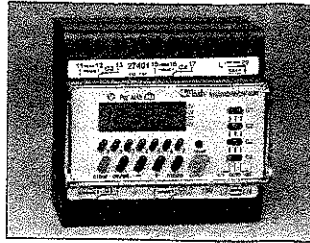
FT850

27401

4ch 7day Pulse

Flash

ime switch
MONOTRON 400



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1 PRESENTATION

This is a weekly 4-channel time switch used to automate the control of heating, lighting, watering system and access control installations, etc. in homes and businesses.

- You can create 84 on or off programming steps for distribution on the 4 channels.

programming step is defined by the following:

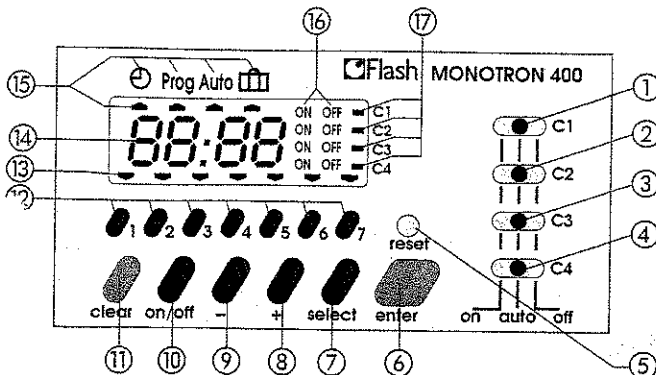
- the switch time (for example 7:35 am)
- the day(s) of the week (for example: Monday, or Monday, Tuesday and Wednesday)
- switch state (on or off)

- Manual control of on or off forcing (permanent on or off) by channel, with 3 position switches.
- Time delayed forcing (exception) adjustable from 1 hour to 99 days per channel.
- Input that lets you simultaneously force the 4 channels to be selected off.

Important: the MONOTRON 400 allows initial switch on, you must reset ("reset") and clear the memory before programming. The "reset" key can be activated with a pen tip, for example (do not use a sharp object that might damage the key).

2 FUNCTIONAL DESCRIPTION

- ① Manual selection switch for channel 1
- ② Manual selection switch for channel 2
- ③ Manual selection switch for channel 3
- ④ Manual selection switch for channel 4
- ⑤ "reset" key: general reset
- ⑥ "enter" key: validates information during programming (programming steps, temporary override)
- ⑦ Selection key for different modes (see reference ⑮)
& ⑨ Hour and minute scroll keys (for time adjustment)
- Channel status selection key (on or off)
- ⑪ "clear" key: deletes information during programming, if this requires correcting (program step, exception)
- ⑫ Selection of the day(s) of the week when setting the time or programming (1=Monday, 2=Tuesday, ... 7=Sunday)
- ⑬ Days of the week indicator
- ⑭ Hour and minute display
- ⑮ Selected mode indicator with the ⑦ key
☉ = set time
Prog = Programming
Auto = normal equipment operation, after programming
☐ = Temporary override
- ⑯ State of channels C1 to C4 on or off
- ⑰ Manual forcing or exception indicator for channels C1 to C4 (constant display = manual forcing, blinking display = exception).



3 SET CURRENT DATE AND TIME ☉

To start adjusting the MONOTRON 400, lift the transparent cover and "reset" with a pointed object.

You will see the screen's full display, followed by a blinking "12:00".

3-1

- ① **Set time.** The cursor is located below the ☉ symbol. You can set the clock with the -/+ keys (hold the key down for a rapid scroll)

3-2

- ② **Update current day of the week**
Select the current day of the week: the corresponding cursor appears on the screen (1=Monday, 2=Tuesday, ... 7=Sunday).

The time and day are saved automatically. Pressing the "enter" key sets the seconds to zero, which lets you start at a precise second.

3-2

You have just set the current day of the week and time, for example: it is Thursday, 8 am.

4 Prog PROGRAMMING MODE

You can produce 84 on or off programming steps, to be distributed on 4 channels.

- 1 program step is defined by 3 elements:
- the day(s) of the week
 - the switch time
 - the on or off channel state

Each programme step must be confirmed by pressing the "enter" key.

Channel C1 programming (example: on at 7:35 am Monday to Friday)

4-1

- ① Press the "select" key to place the cursor below "Prog". Automatically on C1.

4-2

- ① Select the day(s) of the week:
To select: press once
To delete: press twice
- ② Press - or + to enter a switching time.
- ③ Select on or off switching state (for the first program step, on is proposed automatically).
- ④ Confirm by pressing enter.

Next programme step: same process as above. Press the mode key to select the next channel to program.

To program channel C2, C3 and C4,

4-3

- ① Select channel (Example channel C3) with the "select" key
proceed the same as in C1.

Note: if no day is selected for a program step, every weekday will automatically be assigned to this program.

5 Auto AUTOMATIC MODE

5-1

You can switch to automatic mode by pressing the select key, or automatically after 2 minutes if no key is pressed.

- The C1 to C4 channels will operate as programmed.
- Display of the time, day and channel state (on or off).

5-2

Daylight savings time change (Example: change from 8:10 am to 9:10 am) in Auto mode, the - or + keys let you increase or decrease the time by steps of 1 hour.

- ① Press the - or + key (hour and minute display blinks after selection).

6 READING PROGRAMME STEPS

- ② Confirmation by pressing enter.

Reading channel C1 programme steps

6-1

- ① Press the "select" key to move the cursor below "Prog". The first programme step is automatically displayed.
- ② Keep pressing the "enter" key to display the next programme steps. They are displayed in chronological order.

Note: a new programme step can be programmed when the display shows the following: -- : --

- Monotron 400 returns to "Auto" automatic mode after 2 minutes when no

key is pressed.

Reading C2, C3 and C4 channel programme steps

6-2

Select channel (Example: channel C4)
Use the same process as for channel 1.

7 MODIFYING A PROGRAMME STEP

Time modification: (change the time from 7:35 to 7:50 am)

7-1

- 1 Press the "select" key to move the cursor below "Prog".
- 2 Select the program step to modify

7-2

- 1 Change the switch time
- 2 Confirm.

Adding days to an existing time schedule: for example on time at 7:35 am needs to be assigned to Saturday also.

7-3

- 1 Press the "select" key to place the cursor below "Prog".
- 2 Select the programme step to modify

7-4

- 1 Select the day(s) to add
- 2 Confirm.

Remove the time assignment from certain days: for example remove the on time assignment at 7:35 am from Tuesday and Wednesday.

7-5

- 1 Press the "select" key to move the cursor below "Prog".
- 2 Select the programme step to modify

7-6

- 1 Select the day(s) to remove: remove the displayed "day" pointers by pressing the corresponding keys
- 2 Confirm.

8 DELETING A PROGRAMME STEP

Example: remove the on programme steps for 7:35 am, Monday to Friday.

8-1

- 1 Press the "Select" key to place the cursor below "Prg".
- 2 Select the programme step to delete
- 3 Press the "clear" key (display --:--).

9 PERMANENTLY on OR PERMANENTLY off MODE

Constant forcing by channel can be performed in "Auto" automatic mode using the 3 position switches C1 to C4.

9-1

- 1 Select the on or off channel switching state
- 2 Cursor presence = on the display (in front of channels C1 to C4) indicates the selected on or off state.

Cancellation of permanently on or off: reposition C1 to C4 switches on "Auto".


10 HOLIDAY FUNCTION

Monotron 400 lets you make a temporary override selection (time delayed forcing on or off) adjustable from 1 hour to 47 hours, or 2 to 99 days for each channel.

The temporary override time period can be different for each channel.

Exception of channel C1 to off for 2 hours:

10-1

- 1 Press the "select" key to position the cursor 
- 2 Determine the exception duration, adjustable from:
 - 1 hour to 47 hours, in 1 hour steps
 - Then from 2 days to 99 days with 1 day steps.
- 3 Select the on or off channel state
- 4 Confirm

Exception of channels C2, C3 and C4

10-2

- 1 Select the channel (Example: channel C4)
Use the same process as for channel 1.

10-3

- 1 Return to automatic "Auto" mode with the "select" key. The channel cursor blinks to indicate that an exception has been programmed. After the exception time period elapses, the program will resume its normal course.

Canceling an exception:

10-4

- 1 Select the excepted channel
- 2 Press the "clear" key
- 3 Return to "Auto" automatic mode with the "select" key.

11 EXTERNAL INPUT FOR off OVERRIDE

11-1

This input lets you perform simultaneous off forcing of the 4 channels. Application example: to activate this input, just connect the 230 V AC phase.

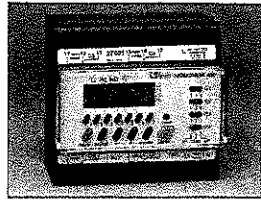
Note: this input has priority, even if all 4 channels were manually started as on.

12 TECHNICAL CHARACTERISTICS

- Power supply voltage: 230 V +/- 15%
- Frequency: 50/60 Hz
- Absorbed power: 20 VA
- Cut-off power:
 - Resistive load: 16 A
 - Inductive load: 3 A $\cos \phi = 0.6$
- Contact types: Inverters, potential free
- Operating reserve: 5 year accumulation of mains power loss (lithium battery)
- Operating precision: 1s per day
- Operating temperature: -10 °C to +50 °C
- Storage temperature: -20 °C to +60 °C
- Relative humidity: 90% to 20 °C and 50% to 40 °C
- Cage terminal connection, conductor section: 1.5 to 4 mm²
- Equipment weight: 250 g
- Input forcing to off: 230 V AC/2mA
- Complies with EN 60.730 standard

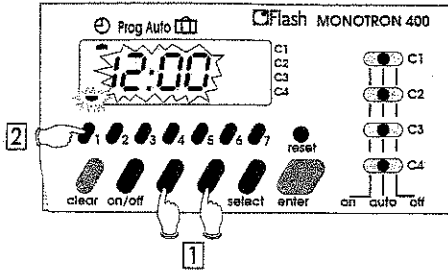
Flash

MONOTRON 400

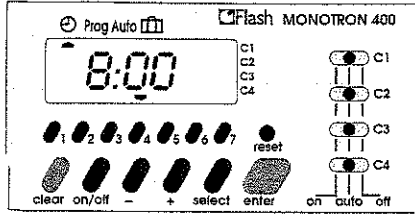


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3-1

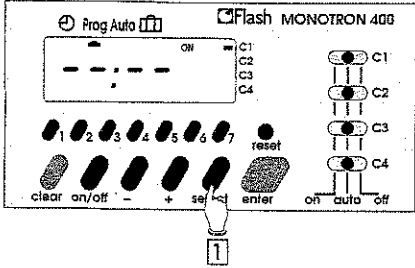


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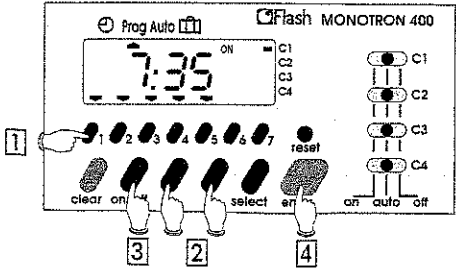


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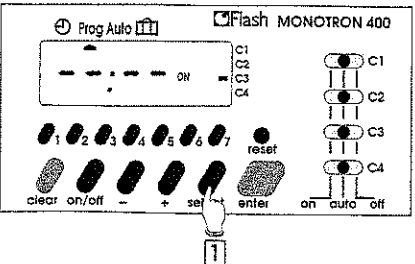
4-1



4-2

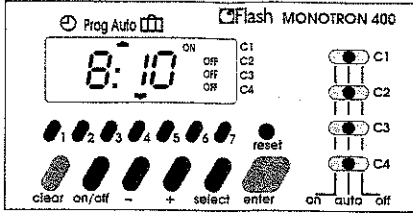


4-3

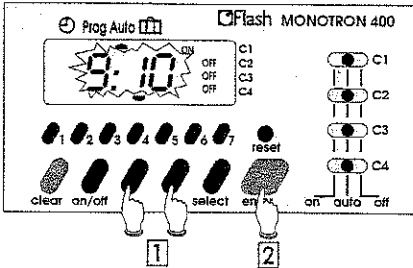


5

5-1

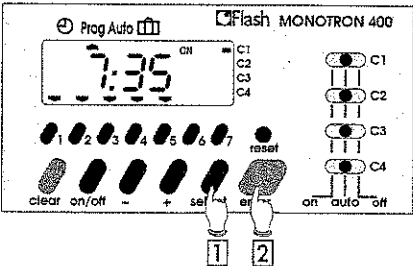


5-2

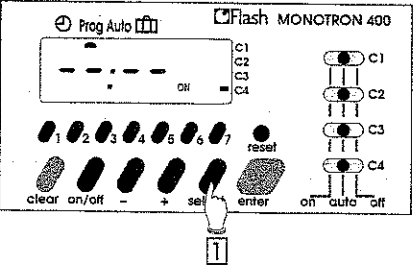


6

6-1

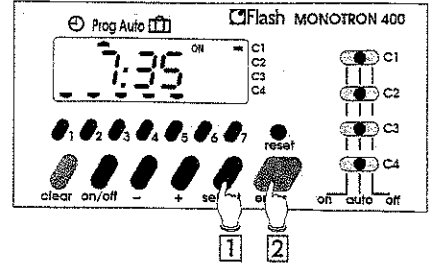


6-2

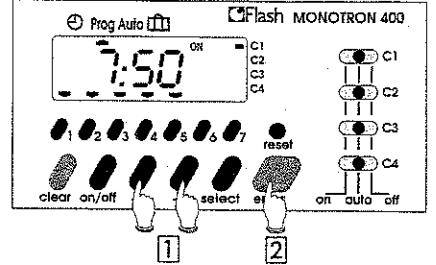


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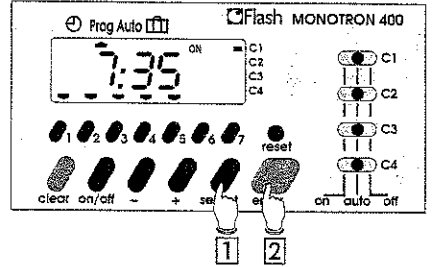
7-1



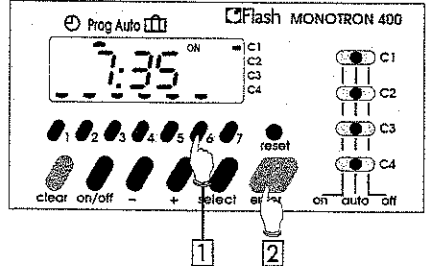
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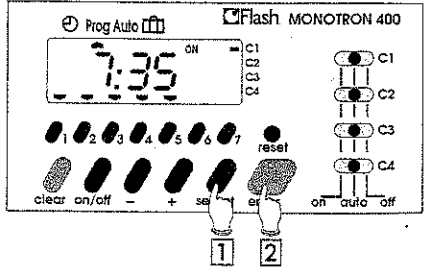
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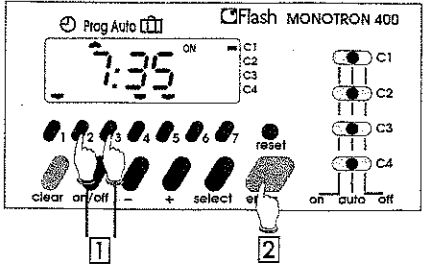
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7-5

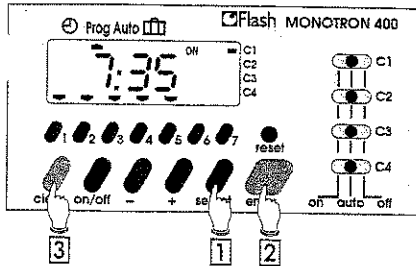


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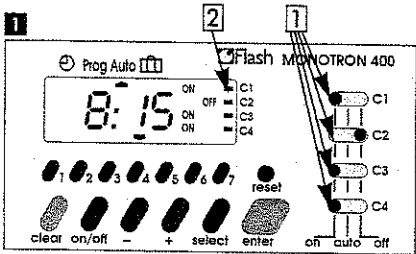
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8-1



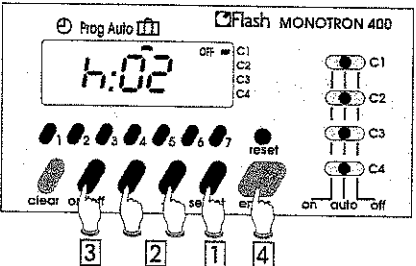
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9-1

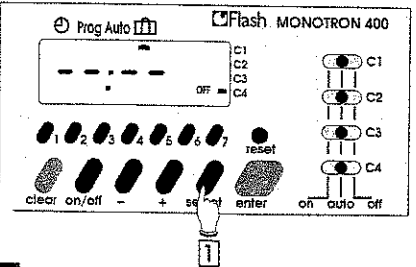


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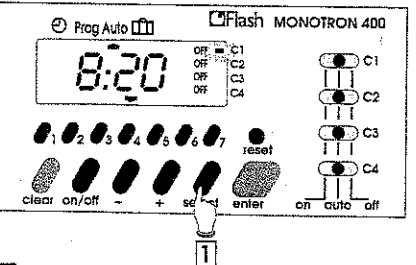
10-1



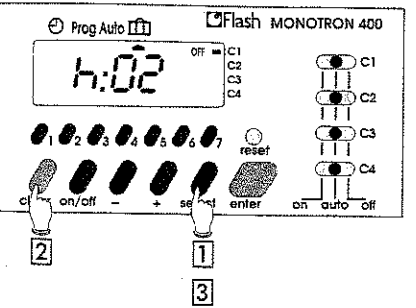
10-2



10-3



10-4



11

11-1

