



- 1 ⇒ Monday
- 2 ⇒ Tuesday
- 3 ⇒ Wednesday
- 4 ⇒ Thursday
- 5 ⇒ Friday
- 6 ⇒ Saturday
- 7 ⇒ Sunday

- ⏏ ⇒ Channel ON
- ⏏ ⇒ Channel OFF

In mode AUTO manual switching possible by pressing key A.

Programming

Key functions

- [Menu]** Selection of programming modes
AUTO → PR → ? → S/W → AUTO ...
- [CL]** Cancelling of inputs in modes PR; ? and S/W.
- [◆]** In PR; ?; S/W and S/W modes: Change flashing digit value.
In Mode ?:
Change selected switching command. Select/Deselect Days.
- [O.K.]** Confirm the selected mode.
In PR and S/W modes:
Head for required position. (forwards)
In ? mode:
Head for next switching time.
In S/W mode:
Enter into memory.
- [◀]** In PR and S/W modes:
Return to required position. (backwards)
In ? mode:
Return to switching time before.
- [A]** In AUTO mode:
Press for manual override ON or OFF.
Holding down key A for 3 seconds, will switch ON or OFF PERM override.
perm will be displayed.
Programmed function in relevant channel will be suppressed.
Cancel permanent ON or OFF by holding down key A for a further 3 seconds, perm will disappear.

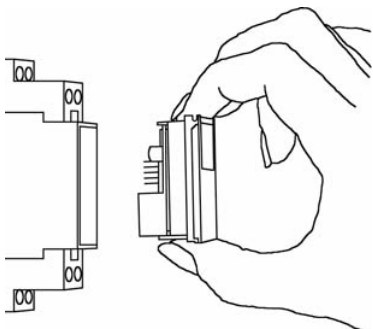
Programming advice

Plan out and note on paper : Planned switching commands for complete week prior to commencing programming.

The default setting on delivery is programmed real time and date, the summertime change is activated. Programming possible also with time switch disconnected: Press O.K., display appears, start programming.

Make inputs step by step. The appropriate position in the display is flashing and can be changed by pressing ◆ key. Head for next position by using O.K. key, go backwards by using ◀ key. Inputs are terminated when flashing finishes.

To program the time switch simply remove the logic unit from the base module.



Operating modes

- AUTO** Display of time, day of week, switch status of channel(s).
Display the current sunset-time (ON) by operating the O.K. key and the sunrise-time (OFF) by operating the O.K. key a second time
Manual overriding possible (KEY A)
- PR** **Input of switching commands according to week day(s) and time, also the holiday programme**
Use arrow ◀ and O.K. keys to alter flashing digit.
Use diamond ◆ key to increase value.
(Confirm last input with O.K. key, will enter into memory)
- ?** **Displays number of free memory locations Selects the selected Astro-table Show switching times Alter switching time Clear single or all switching times**
Use O.K. key forwards or ◀ key backwards to display switching times.
Use diamond ◆ key to change (alter) displayed switching time. Use CL key to cancel the displayed switching time. Use CL key twice to cancel all switching times if number of free memory locations available displayed only.
- ⊙** **Input of actual date and time**
Use arrow ◀ and O.K. keys to alter flashing digit. Use diamond ◆ key to increase value.
(Confirm last input with O.K. key, will enter into memory and change into AUTO mode)
- S/W** **To activate / deactivate the summer/winter time change over.**
Use diamond ◆ key to select automatic S/W – time change ON or OFF.
(Confirm last input with O.K. key, will enter into memory and change into AUTO mode)

Astro-function

- The switch function OFF in Astro mode is aligned with sunrise
- The switch function ON in Astro mode is aligned with sunset
- Each switch-time can be programmed alternatively as Astro, or as normal switch-time.
- If the Astro-function is chosen for a switch-time, the sunrise (turning off) as well as sunset (turning on) times programmed for the current day will be shown in the Display -
- this time can be changed as required and becomes automatically modified each successive day in accordance with the chosen Astro table -
- the difference (offset) between the entered switch-time and the sunrise/set-time is fixed for successive operations
- In mode AUTO The current sunset-time can be read by pressing button O.K., and by pressing O.K. twice the current sunrise-time is displayed
- In mode ? the matching astro-table must be chosen as the first step.

Astro table

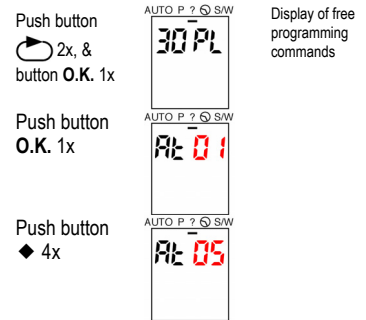
Select your nearest location:

Table	Location
At 01	Inverness
At 02	Aberdeen
At 03	Glasgow
At 04	Edinburgh
At 05	Londonderry
At 06	Belfast
At 07	Newcastle Upon Tyne
At 08	Limerick
At 09	Dublin
At 10	Liverpool
At 11	Scunthorpe
At 12	Birmingham
At 13	Cardiff
At 14	Southampton
At 15	London
At 16	Ipswich

Astro table

Prior to programming switching commands it is necessary to select the installation location. To change location ensure all existing astro switch commands have been cancelled, then the astro table can be changed. Afterwards reprogram the astro switch commands.

Example: Astro-table 05 (At 05) required.
Start from: Mode AUTO;
Astro-table 01 (At 01) active.
Select ? Mode



Press OK button to review

To return to AUTO mode press button once

Reset



Press and hold down all three keys ◀; O.K. and CL, will clear date, real time and microprocessor

Switching programmes normally will not be affected. (Check by Read – Out; “?” mode)



The ⊙ mode is selected because date and real time must be programme new.

Installation details

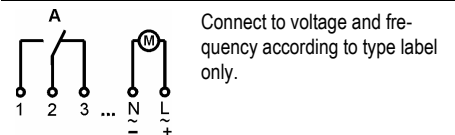
Caution: The installation and assembly of electrical equipment must be only carried out only by a skilled person.

When connecting an alternating current (AC) the L- wire must be connected to the L terminal and the N wire to the N terminal. Never connect the L wire to the N terminal.

Warranty void if housing opened by unauthorised person.

The high density electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external influences exceed certain limits.

Wiring diagram



Connect to voltage and frequency according to type label only.

Contact Details:

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Port Glasgow
Refrewhire
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Tel: 01475 745131 Fax: 01475 744567

www.sangamo.co.uk enquiries@sangamo.co.uk

Examples

mode

Current date and real time input or change

Example: Date 01.02.2000; time 14:00

after Reset



O.K. 3x

◆ 1x



O.K. 2x



O.K. 1x

◆ 1x



O.K. 1x

◆ 4x



O.K. 3x

PR mode

Programming daily or weekly programme

Is the matching Astro-table already chosen?

The switch-times can be programmed as Astro-switch times or as normal switch-times.

Each switch command with Astro-function can be programmed during input with a fixed offset time.

The fixed offset is applicable to *this* switch command on all following days.

Example: Tuesday (2) and Thursday (4) to Sunday (7); Switching time 08:30;

Channel A OFF with Astro-function and adaptation respectively different time to sun-switching time.

Start from: AUTO mode

1x

O.K. 1x



◆ 1x



◆ 1x



O.K. 1x



The next example is a program that can differ from the chosen Astro-table by a programmed time offset.

O.K. 1x



The proposed sunrise - switching can be changed

O.K. 2x

◆ 3x



The programmed switch - time alters daily by 30 min difference to the sunrise of the respective day

O.K. 2x



◆ 1x



Enable/disable days of the week

O.K. 2x

◆ 1x



Red: Flashing symbol in display

◆ 1x

O.K. 4x



O.K. 1x



Continue with input of further dates / functions or press key 1x to return to mode AUTO.

Example: Tuesday (2) to Sunday (7);

Switching time 10:00;

Channel A ON without Astro-function

Start from: AUTO mode

1x

O.K. 1x



◆ 1x



O.K. 1x



◆ 1x



O.K. 1x

◆ 1x



O.K. 4x



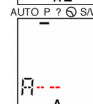
The programmed switch-time doesn't change

◆ 1x



Enable/disable days of the week

O.K. 7x



Continue with input of further dates / functions or press key 1x to return to mode AUTO.

S/W mode

Deactivate automatic summertime changes (daylight saving)

The default setting on delivery, S/W time change is activated.

Start from: AUTO mode

4x

O.K. 1x



◆ 1x



Press key 1x to return to mode AUTO.

The S/W - changeover is suppressed

At summertime-changeover, the Astro-switch times are also converted to the new time.

The time changeover is executed automatically according to the „European Regulation“.

Start: Last Sunday in March

End: Last Sunday in October

? mode

Display or alter switching times

Example: Alter Tuesday and Thursday to Sunday 08:30; Channel A OFF

into: Wednesday to Sunday 08:15; Channel A OFF with Astro-function

Start from: AUTO mode

2x

O.K. 1x



Number of free storage locations available

O.K. 1x



Active Astro-table

O.K. 1x



◆ 1x



O.K. 1x



O.K. 3x



◆ 4x

O.K. 1x



Enable/disable days of the week

◆ 5x

O.K. 2x



◆ 1x

O.K. 1x



◆ 1x



O.K. 5x



Number of free storage locations available

? mode

Cancel function

Example: Tuesday (2) to Sunday (7); Switching time 10:00; Channel A ON without astro-function

Start from: AUTO mode

Taste 2x

Taste O.K. 1x drücken



Number of free storage locations available

Taste O.K. 3x drücken



Taste CL 1x drücken

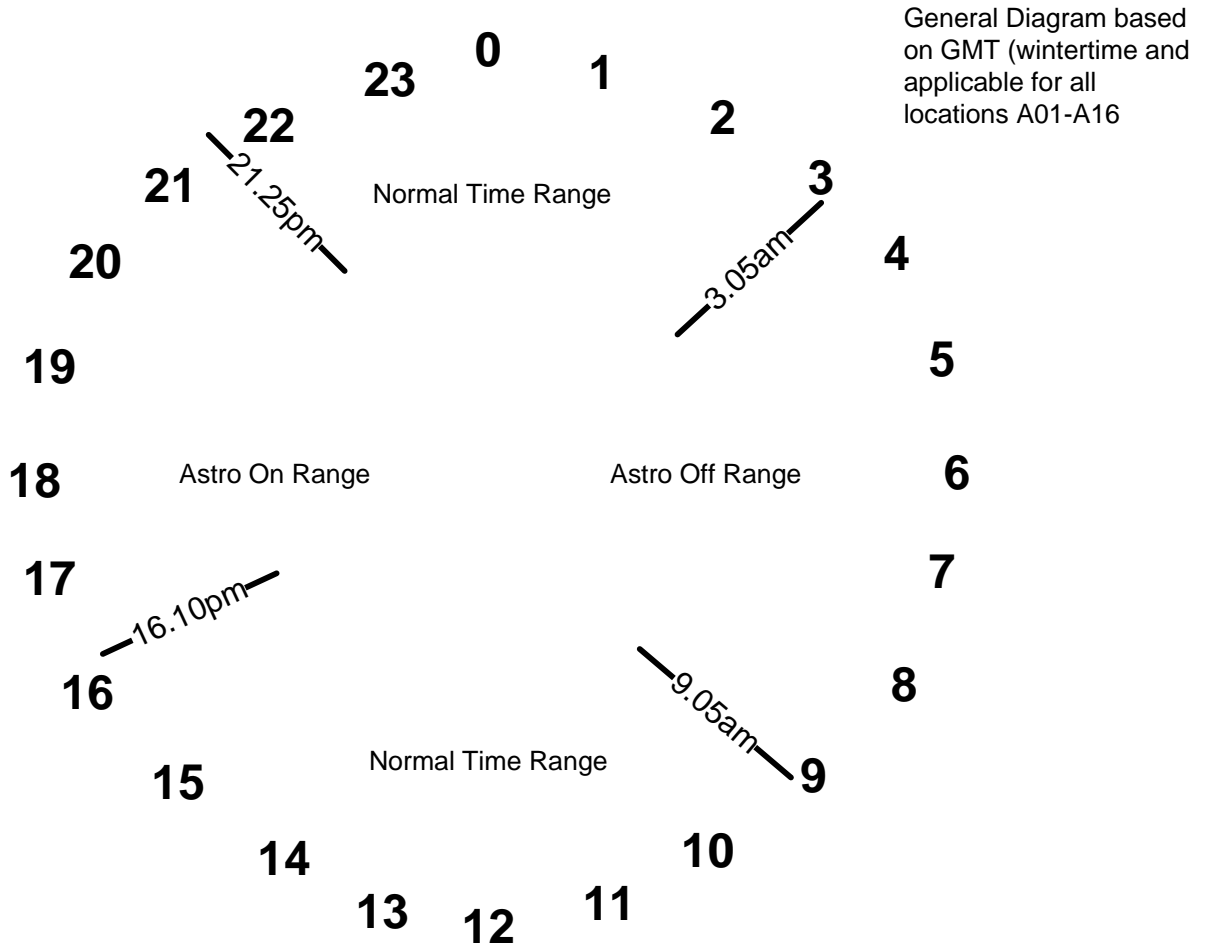


Number of free storage locations available

If CL key is pressed twice while free storage locations available are displayed, all inputs are cancelled. (Clear all)

Mixing Astro & Normal Operations on a given day

To ensure the switching commands perform correctly throughout the year the normal times must be set outwith the possible astro times than can occur. See diagram



Notes:

If setting during BST (summertime) – adjust ranges forward 1 hour (assumes summer/winter time change activated – default condition)
 If astro offsets have been entered – adjust ranges to suit the entered offset.