Operating manual

thermostat
ModuLine 300

6 720 646 264 (12/2010) NL

NEFIT

Contents

Safety regulations

Never remove the thermostat.

Avoid high temperatures, moisture and dusty environment.

Do not use water or cleaning agents when cleaning.
This can lead to short circuit or damage of the thermostat.

Interrupt the power supply of tthe boiler before starting the installation.

1 Brief outline

1.1 Overview buttons

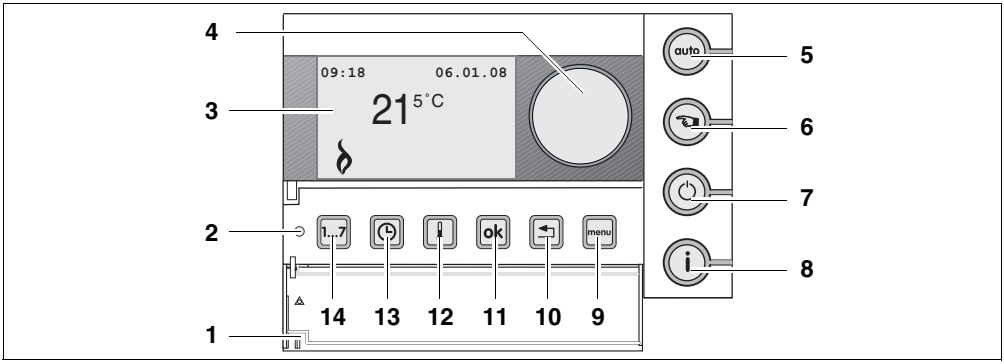


Fig. 1 Overview ModuLine 300

pos.	description buttons
1	cover (use the recess on the left to open the cover)
2	standard view is activated when cover is closed
3	display
4	set-up button

pos.	button for basic functions
5	auto-operation (set program)
6	manual operation
7	off-function
8	information

pos.	button for additional functions
9	menu
10	back
11	OK
12	temperature
13	time
14	date

1.2 Display symbols

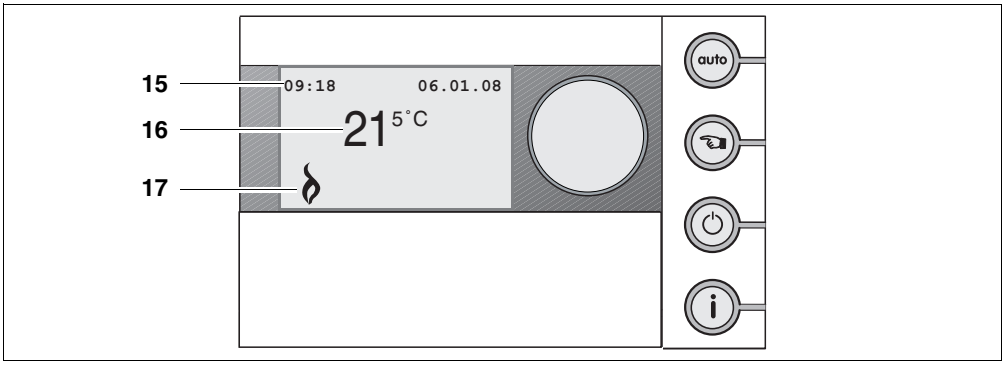


Fig. 2 Standard display ModuLine 300

pos.	description standard display
15	time and date
16	measured room temperature
17	symbol view

Explanation of the symbols in the standard view

symbol	explanation
	Boiler is operating
	Arrow points to the button to be operated.
	Domestic hot water (DHW) operation is turned off

When button illumination is turned off (→ paragraph 6.5):

symbol	explanation
Auto	Auto-operation (time program) is turned on.
	Manual operation is turned on.
	Boiler is turned off, freeze protection is active. DHW operation according to paragraph 6.3.

1.3 Overview

Change temperature:

- During "auto-operation"

- Change the temperature by turning the set-up button.

The adjusted temperature remains active till the following switching point in the time program. The set temperature setting of the time program is then taken over again.

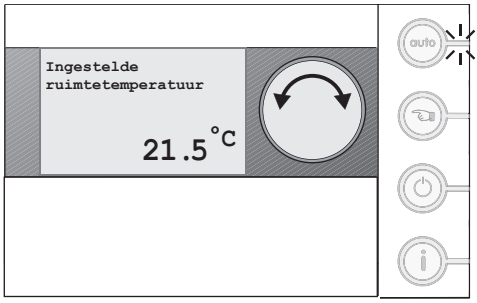


Fig. 3 Change temperature - auto-operation

- During "manual operation"

- Change the temperature by turning the set-up button.

An adjustment during "manual operation" remains maintained till:

– the next manually change is made;
– it is switched to "auto-operation".

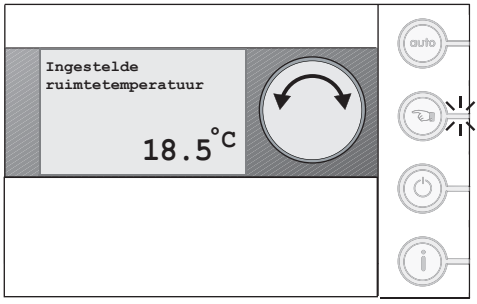


Fig. 4 Change temperature - manual operation

De-activating the central heating

The space heating is turned off with the "off-function".

Domestic hot water is available depending on the setting.

The "off-function" can be adjusted to own desire. This applies to the set-up of the room temperature and domestic hot water setting,
→ paragraph 6.2 and 6.3.

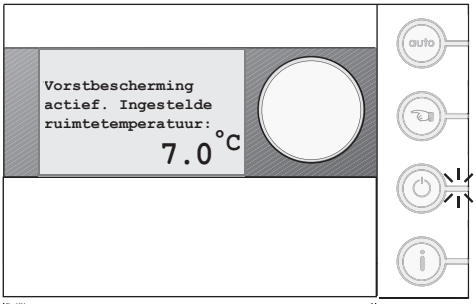


Fig. 5 De-activating the central heating

Request information

Via this button the following information is successively displayed:

– the set temperature during the day program or manual operation;
– the boiler water pressure[1];
– the flow temperature of the boiler;
– the operating mode.

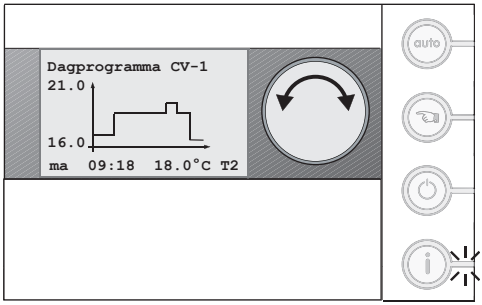


Fig. 6 Request information

Set-up time

Use the button "time" and the set-up button to change the time.

- Keep the button "time" pressed and turn the set-up button to change the hours.
- Release the button "time".
- Keep the button "time" pressed again and turn the set-up button to change the minutes.

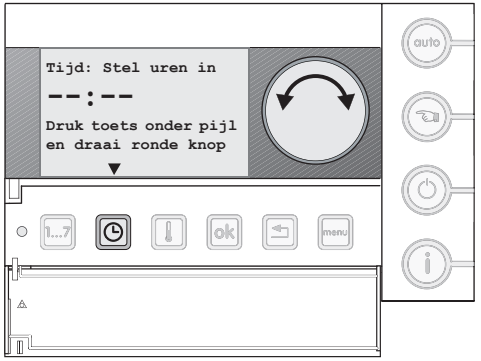


Fig. 7 Set-up time

Set-up temperature levels

Use the button "temperature" to change a temperature level.

- Press the button "temperature" briefly.
- Press the button "temperature" to select the desired temperature level.
- Keep the button "temperature" pressed and turn the set-up button to adjust the temperature (→ also paragraph 4.1).

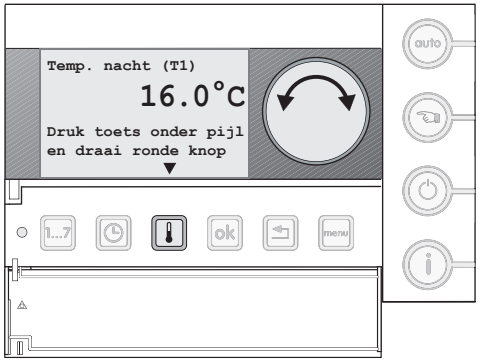


Fig. 8 Set-up temperature levels

1) This information is only shown, if the boiler supports this function.

Navigate

- Enter the menu

- Briefly press the button "menu".
- Select with the set-up button the desired menu.
- Press the button "OK" to enter the selected menu.

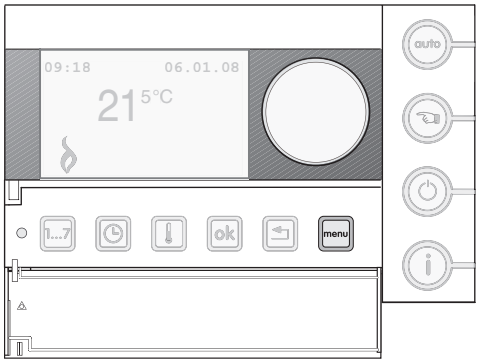


Fig. 9 Enter the menu

- Browse / next step

Use the set-up button to browse through the menu, or to go through the time program.

- Turn the set-up button to browse through the menu.

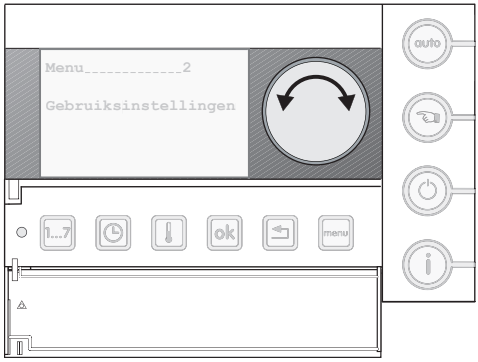


Fig. 10 Browse through the menu

- Confirm

Use the button "OK" to confirm the question asked on the display or to enter a menu.

- Briefly press the button "OK".

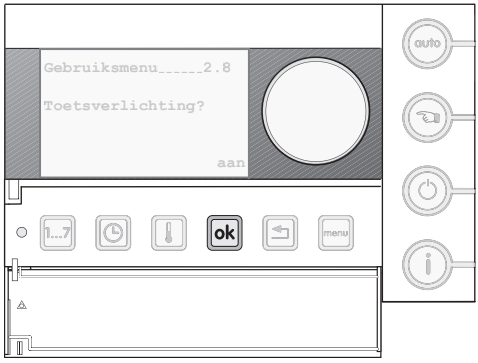


Fig. 11 Confirm

- Change setting

Use the button "OK" and the set-up button to change the settings in the menu.

- Keep the button "OK" pressed and turn the set-up button.

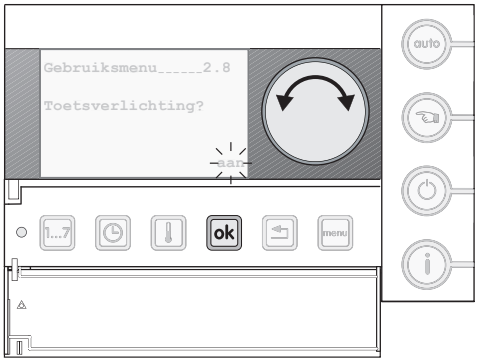


Fig. 12 Change settings

- Return to the menu / standard display

Use the button "return" to return to the menu or standard display.

By closing the cover, the standard display is activated immediately.

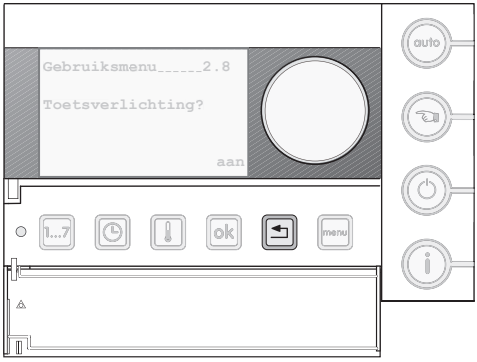


Fig. 13 Return to the menu

2 Introduction

Congratulation with the purchase of this thermostat ModuLine 300.

The thermostat ModuLine 300 is intended for operating and regulating the Nefit boiler in your home.

The ModuLine 300 can be connected to all boilers, which are listed in table 1.

Advice:

- Have the installer explain the thermostat.
- Read this manual carefully before use.

Installation, maintenance en repairs may only be carried out by accredited installation companies.

2.1 General

The ModuLine 300 thermostat is easy to operate. At the right side of the display are four buttons. These buttons allow to quickly switch between the time program and manual operation, or information be obtained of the settings of the thermostat and the boiler.

At the bottom of the cover are a number of buttons for the set-up of the thermostat function. Usually, these settings only have to be carried out the first time.

During the navigating, there appear accompanying texts on the display. By means of "question and answer" can set-ups easily be carried out.

2.2 Function-overview

In the following table is information provided, about which functions of the thermostat are supported by the boiler.

Type boiler	TopLine	ProLine	SmartLine	Elite	EcomLine	Economy
connect without RCC-module	●	●	●	●	●	●
connector connection in boiler	orange	orange	orange	orange	3 and 4	3 and 4
illuminated display	●	●	●	●		
pressure reading	●	●	●	●		

Table 1 Function-overview

2.3 Check version number

This document applies to the ModuLine 300 with version number 3.01 and higher.

- Check the version number by taking the thermostat of the wall panel and place it back again.

While communication is established with the boiler, the version number is shown at the lower right in the display.

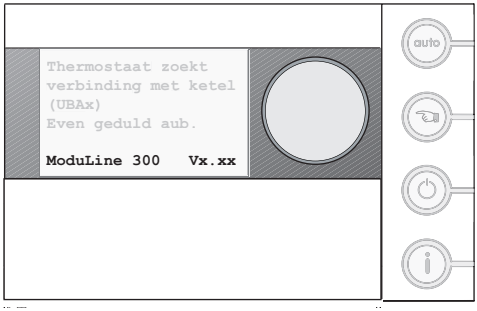


Fig. 14 Check version number

3 Installation

3.1 Choose installation location

Installation in the living room

- Attach the thermostat to an interior wall of the reference room (Fig. 15).

A reference room is a room (e.g. the living room) where:

– the temperature can be measured, which is representative for the whole house;

– one spends most of its time.

- Ensure sufficient free space around the thermostat (Fig. 15, pos. 1).

Do not install the thermostat too close to sources of heat, such as a radiator, lamp or television. These can influence the control.

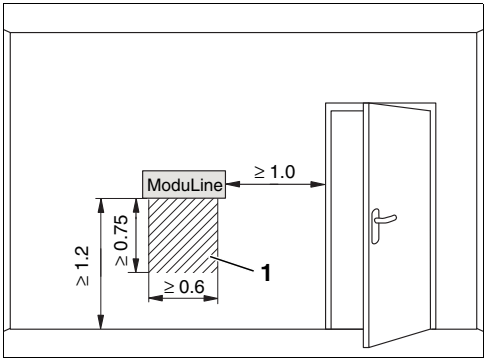


Fig. 15 Installation location in the living room (dimensions in m)

pos. 1: Free space at the bottom of the thermostat

3.2 Assemble wall panel

The wall panel can directly be attached to the wall or on a junction box.

Ensure at installation on a junction box, that possible draught from the junction box cannot influence the measurement of the room temperature. If necessary, fill up the junction box with insulation material.

- Remove the plug of the boiler from the socket.
- Connect the cable of the thermostat to the cable clamps "RC" (Fig. 16, pos. 1). The connection order of the wires is arbitrary.

NOTE!

Do not connect the wires to the "EXT"-connection.

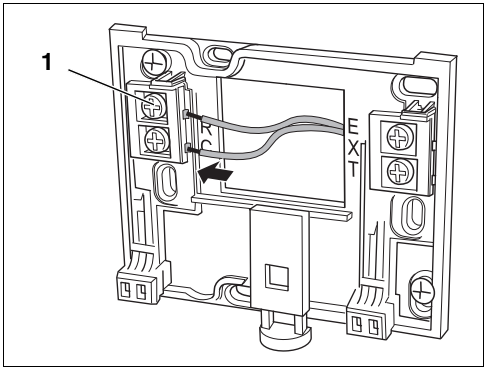


Fig. 16 Connect thermostat cable

- Connect the thermostat cable to the boiler in accordance with table 1 on page 11.

– The ModuLine 300 is directly connected to the boiler (→ table 1 on page 11).
– The thermostat is not suitable for use with a MBC2-controller.

3.3 Assemble (disassemble) thermostat

3.3.1 assemble thermostat

- Hook the thermostat at the back of the base panel (Fig. 17, step 1).
- Press the bottom of the thermostat against the base panel, until an audible "click" (Fig. 17, step 2). The thermostat is then locked into the wall panel.

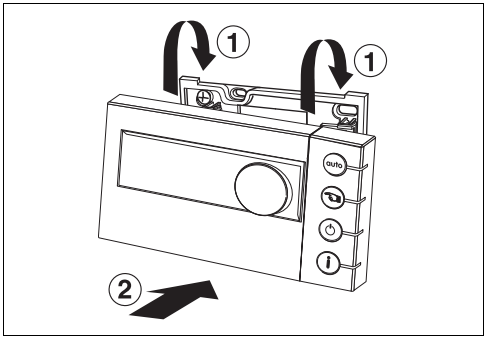


Fig. 17 Lock the thermostat into place

3.3.2 Disassemble thermostat

- Unlock the thermostat by pressing the button (Fig. 18, step 1).
- Tilt the bottom of the thermostat
- Remove the thermostat (Fig. 18, step 2).

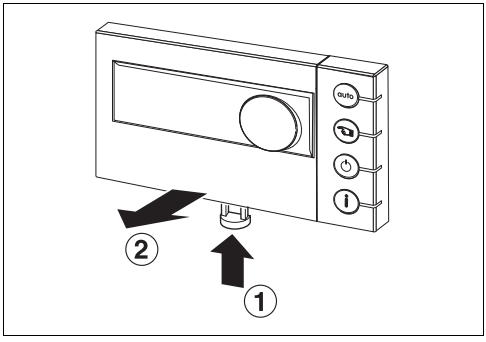


Fig. 18 Disassemble thermostat

3.4 Commissioning the thermostat

- Turn on the boiler. As a result, the thermostat is also provided with electricity.

The thermostat establishes connection with the boiler. On the display appears the text: "Even geduld aub".

3.5 Setting the date and time

At the initial commissioning or after the thermostat was not supplied with electricity for more than 10 hours, the date and time must be set.

- Follow the instructions on the display to set the date and time.

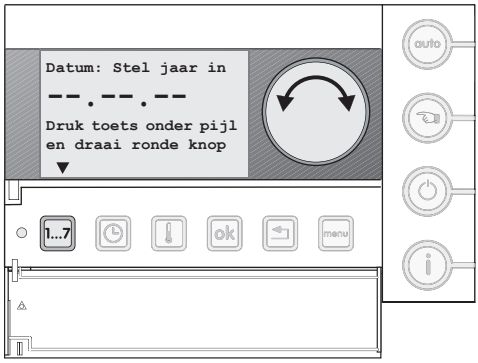


Fig. 19 Set-up date and time

3.6 After a power failure

After a power failure all settings are retained. Except for the date and time. These are retained for 10 hours. Provided, however, that the thermostat has been connected for at least 4 hours.

- Check the date and time setting according to paragraph 3.5.

4 Set-up time program

The time program consists of a number of switching points. Each switching point is composed out of day, time and temperature.

The set-up of the time program is easy, if first the temperature levels and switching points in the schedule on page 33 are filled in.

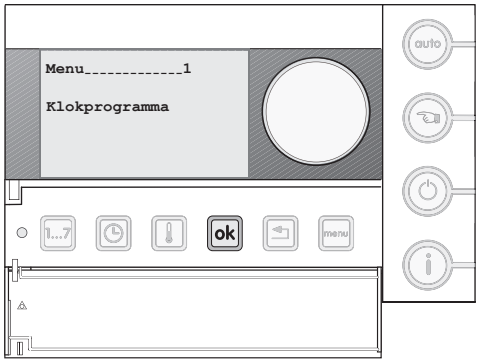


Fig. 20 Time program

4.1 Set-up temperature level

- Press the button "menu". The menu time program appears in the display.
- Press the button "OK" to enter the menu.
- Select with the set-up button "Temperatuurniveaus wijzigen?".
- Press the button "OK".
- Select with the set-up button the temperature level that must be adjusted.
- Keep the button "OK" pressed and turn the set-up button to change the setting.

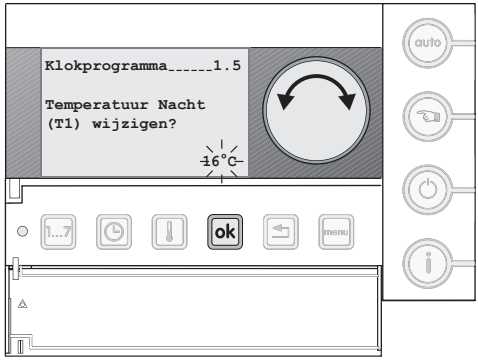


Fig. 21 Set-up temperature levels

4.2 Set-up time program

- Press the button "menu".
- The menu time program appears in the display.
- Press the button "OK" to enter the menu.
- Select with the set-up button "Nieuw klokprogramma invoeren?".
- Press the button "OK".
- Keep the button "OK" pressed and turn the set-up button to confirm the question asked.

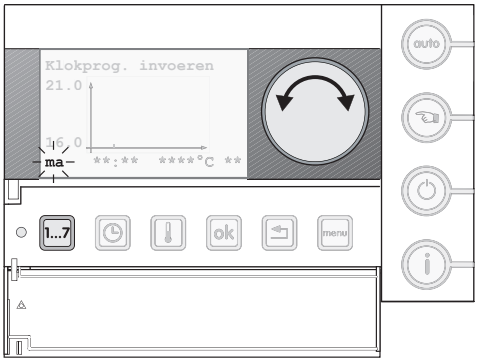


Fig. 22 Set-up day time program

Enter switching points

- Keep the button "day" pressed and select with the set-up button the desired day or day-series (Fig. 22).
- Keep the button "time" pressed and turn the set-up button to set-up the desired time (Fig. 23).

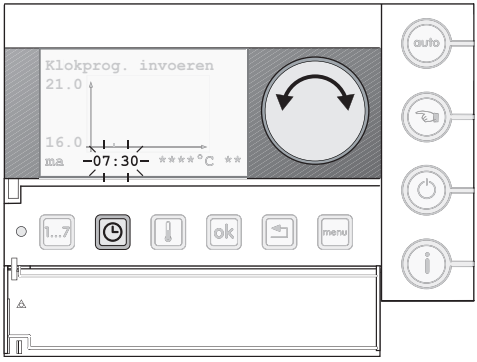


Fig. 23 Set-up time in time program

- Keep the button "temperature" pressed and select with the set-up button the desired temperature level (Fig. 24). The switching point is graphically shown in the display.

Repeat these steps for the other switching points.

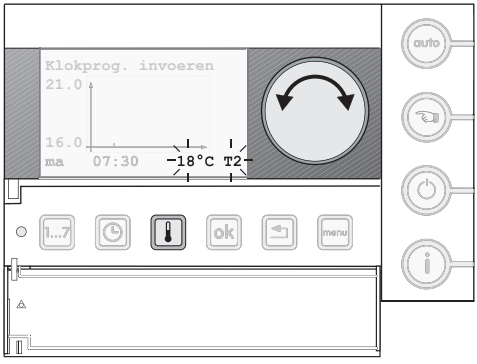


Fig. 24 Set-up temperature time program

5 Menu 1 – Time program

In the menu "klokprogramma" adjustments can be made in the time program, such as e.g. advancing the time of a switching point.

5.1 View or change switching point(s)

At this function, the time time program can be glanced through step by step. Furthermore, the time and temperature of a switching point can be changed here.

The selected switching point is graphically shown in the display.

- Select "Schakelpunt(en) bekijken of wijzigen?".
- Select, by turning the set-up button, the switching point that must be changed.
- To change the **time**:
  Keep the button "time" pressed and turn the set-up button to adjust the time.
- To change the **temperature**:
  Keep the button "temperature" pressed and turn the set-up button to adjust the temperature.

The switching point is changed and is graphically shown in the display.

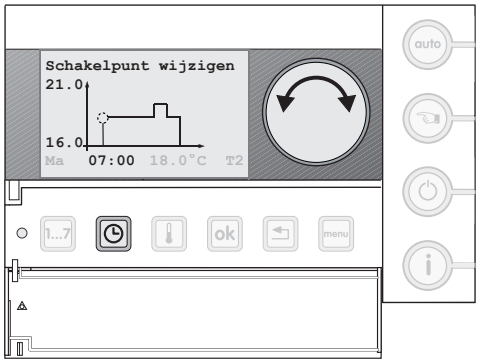


Fig. 25 Change switching point - time

5.2 Insert switching point(s)

At this function, a switching point can be inserted in the time program.

The time program can consist of maximum 42 switching points.

- Select "Schakelpunt(en) invoegen?".
- Keep pressure the button "day" and select with the set-up button the desired day.
- Keep the button "time" pressured and turn the set-up button to set-up the desired time.
- Keep pressure the button "temperature" and select with the set-up button the desired temperature level.

The switching point is inserted and is graphically shown in the display.

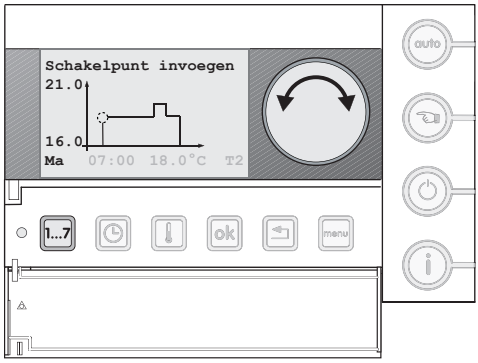


Fig. 26 Change switching point - day

5.3 Remove switching point(s)

With this function, switching points can be removed from the time program.

- Select "Schakelpunt(en) invoegen?"
- Select, by turning the set-up button, the switching point that must be removed.
- Keep pressure the button "OK" and turn the set-up button until "ja" appears on the screen. The switching point is removed and is no longer graphically shown in the display.

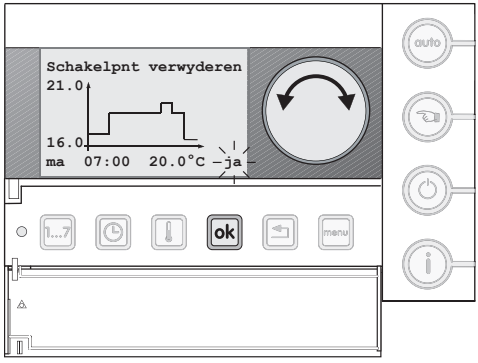


Fig. 27 Remove switching point

5.4 Enter new time program

Here you can enter an entirely new time program, that satisfies your specific wishes,→ chapter 4 "Set-up time program".

5.5 Change temperature level

With this function. the temperature levels can be changed,→ paragraph 4.1.

Temperature level	Factory setting
T1 (night)	16 °C
T2 (day-low)	18 °C
T3 (day-middle)	20 °C
T4 (day-high)	21 °C

Tabel 2 Factory settings - temperature levels

5.6 Reset the time program to factory settings

With this function, the time program can be reset to the factory setting. The current time program will be overwritten.

- Select "Klokprogramma terug naar fabrieksinstelling?".
- Keep he button "OK" pressed and turn the set-up button to confirm the question asked (2x).

Factory setting	Time	Temperature	Temperature level
Mon - Fri	07:00 – 09:00	21 °C	T4 day-high
	09:00 – 17:00	20 °C	T3 day-middle
	17:00 – 23:00	21 °C	T4 day-high
	as of 23:00	16 °C	T1 night
Sat - Sun	08:00 – 23:00	21 °C	T4 day-high
	23:00 – 08:00	16 °C	T1 night

Table 3 Factory settings time program

6 Menu 2 – Operating settings

In the operating menu, a number of specific functions can be set-up, such as e.g. advance pre-heating or domestic hot water (DHW) operation.

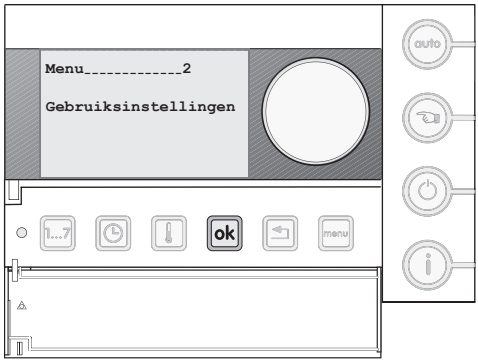


Fig. 28 Menu 2 - Operating settings

6.1 Domestic hot water operation

At this function can be chosen, when DHW must be available. There are three setting possibilities:

1. **On** (factory setting)
   Always DHW available.
2. **Off**
   Continuously off, DHW is not available.
3. **Unison**
   Unison with the time program.
   During the night temperature (T1) the DHW function is turned off.

   30 Minutes before the start of the day program, DHW is available.

   30 Minutes after the end of the day program, the DHW function is turned off.

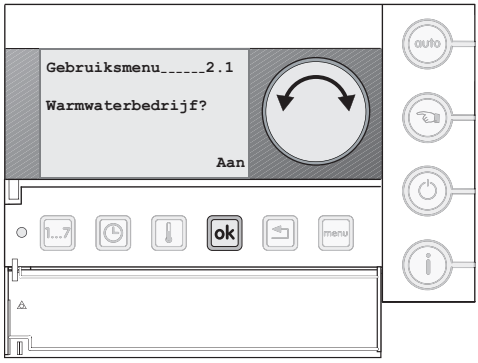


Fig. 29 Set-up DHW operation

Use the setting "meeschakelen" only for boilers with an internal DHW tank or plate hate exchanger. Only then energy is saved.

- Select the desired setting.

6.2 Room temperature at off-function

This function indicates what the minimum temperature during the Off-function may be.

Room control

- Set the desired room temperature.

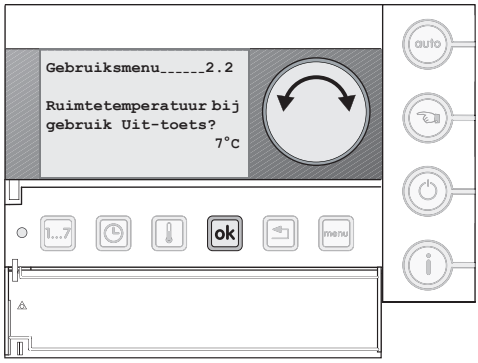


Fig. 30 Room temperature at off-function

6.3 DHW at off-function

This function indicates, to which the DHW operation should be switched.

– **Off**
The DHW supply is turned off.
– **On**
The DHW supply is switched according to the setting "warmwaterbedrijf" (→ paragraph 6.1).

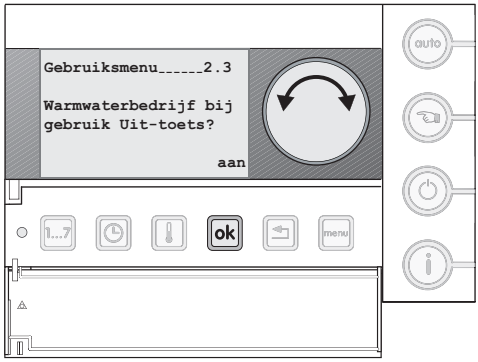


Fig. 31 DHW at off-function

6.4 Advance pre-heating

This function is only applicable if:
- a switch is made from the night temperature (T1) to a higher temperature level, e.g. T2, T3, T4;
- the difference between de measured and set room temperature is larger than 1 °C.

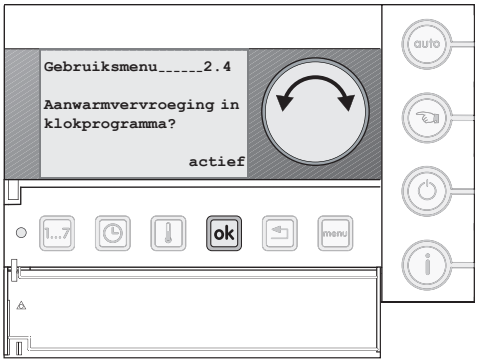


Fig. 32 Advance pre-heating

Advance pre-heating - active

The boiler starts earlier with heating, so that at the set-up switching point, the desired temperature already has been reached (factory setting).

Advance pre-heating - not active

The boiler starts with heating at the set-up switching point.

6.5 Button illumination

With this function you can turn on or turn off the button illumination. Symbols are shown in the display when the button illumination is turned off. (→ page 5).

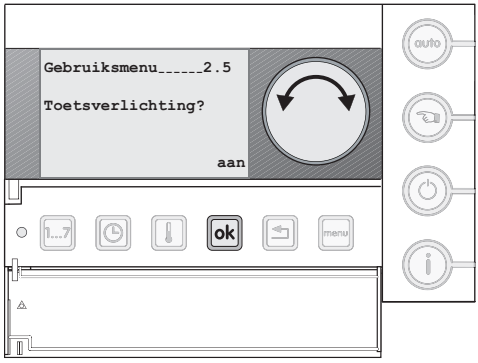


Fig. 33 Button illumination

6.6 Summer-/wintertime change over

With this function you can determine, if the thermostat automatically changes over between summertime and wintertime.

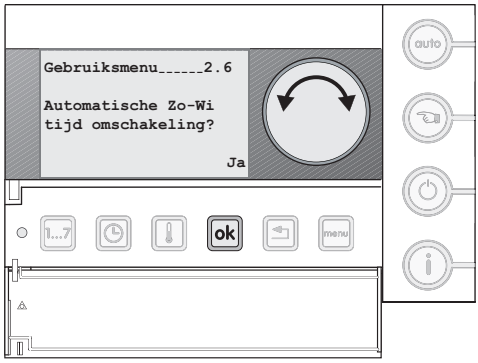


Fig. 34 Summer-/wintertime change over

6.7 Reset operating settings to factory settings

With this function, all operating settings can be deleted and be reset to the factory settings.

> The time program is not deleted. For deleting of the time program → paragraph 5.6.

- Select "Gebruiksinstellingen terug naar fabrieksinstellingen?".
- Keep the button "OK" pressed and turn the set-up button to confirm the question asked (2x).

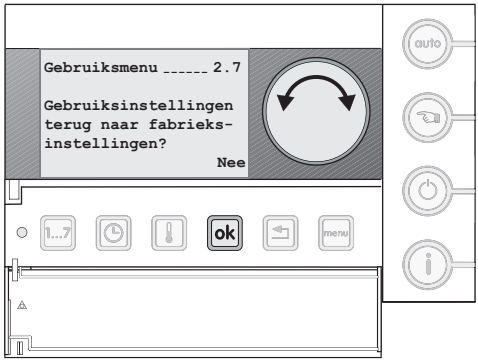


Fig. 35 Reset factory setting

7 Service menu

NOTE!

Service settings have influence on the operating reliability and temperature control of the heating system. Therefore, modifications can only be carried out by a technician.

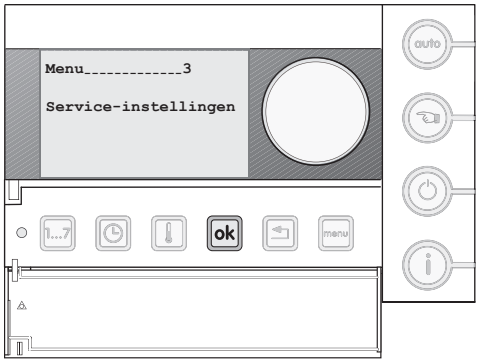


Fig. 36 Menu 3 - Service-settings

7.1 Access code

The service menu is protected with an access code. The access code for the ModuLine 300 is "300".

When you leave the service menu, the access code remains valid for 30 minutes.

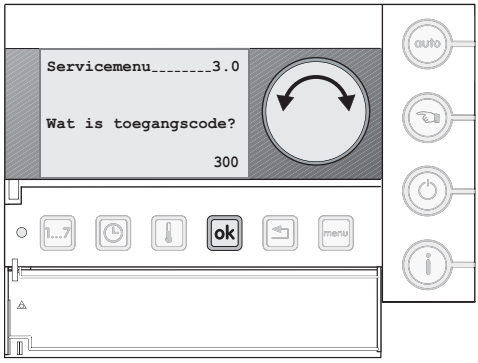


Fig. 37 Access code

8 Service menu 3.1 – General service-settings

8.1 Set-up language

- Select here de desired language: "Nederlands" or "Duits".

Factory setting = Nederlands (Dutch)

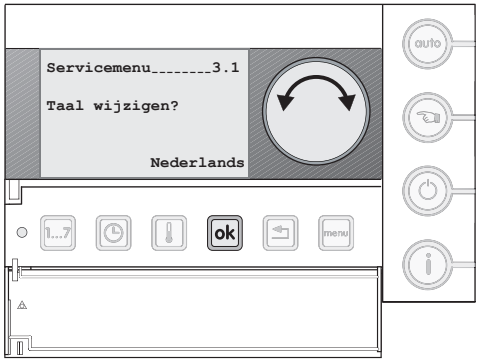


Fig. 38 Set-up language

8.2 PID-setting

When the thermostat is set-up for room temperature control, you can adjust the heating rate of the heating system to the house.

Change the PID-value only if the set room temperature is highly exceeded when heating up the house.

There are three possible settings:

PID 1 The boiler heats up as quickly as possible (factory setting).

PID 2 The boiler heats up low key.

PID 3 The boiler heats up slowly.

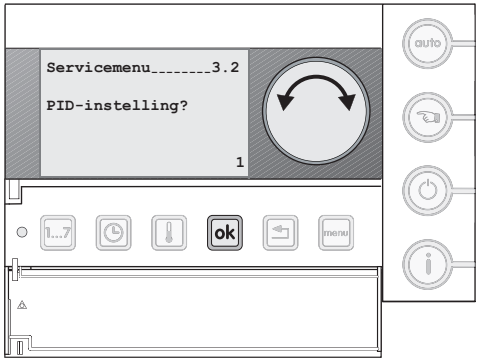


Fig. 39 PID-setting

8.3 Calibrate room temperature

With this function, a deviation of the measured room temperature can be corrected.

A thermometer can indicate a change in temperature quicker or slower indicate than the thermostat. Therefore, do not adjust the room temperature during cooling down or heating up of the room.

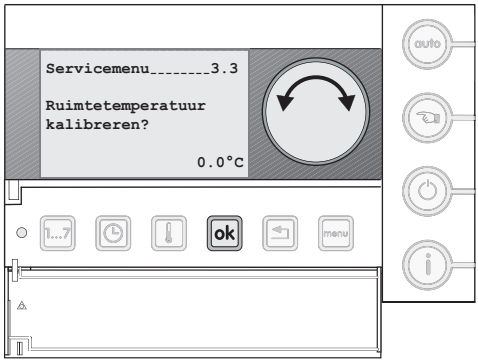


Fig. 40 Calibrate room temperature

8.4 Calibrate time

Should the time, which is indicated by the thermostat, after a period of time gain or lose time, then it can be corrected.

The correction value is set-up in seconds per day.

Example

After one month, the time lost 6 minutes.

Month = 30 days, 6 minutes = 360 sec.

Correction value 360/30 = 12 sec/day.

- Set-up the correction value at 12 sec/day.

Fig. 41 Calibrate time

8.5 Do you use a solar cylinder module

This function is not applicable. Leave the factory settings unchanged on "Nee".

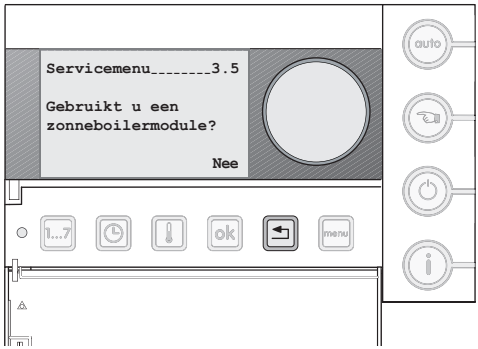


Fig. 42 Solar cylinder module

8.6 Set-up heating circuit

This function regulates which heating circuit must regulate the ModuLine 300.

Setting "0" (Factory setting):

Use this setting, if the ModuLine 300 is the only thermostat in the installation.

Setting "1, 2, 3 of 4":

Use this setting, if also a ModuLine 400 in the installation is included and there are several heating circuits.

(The allocated group must correspond with the setting on the ModuLine 400)

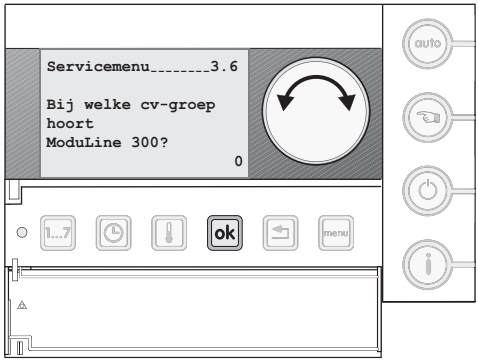


Fig. 43 Set-up heating circuit

8.7 Reset factory settings

NOTE!

With this function, all settings from the service menu (3.1 to 3.6) are reset to the factory setting.

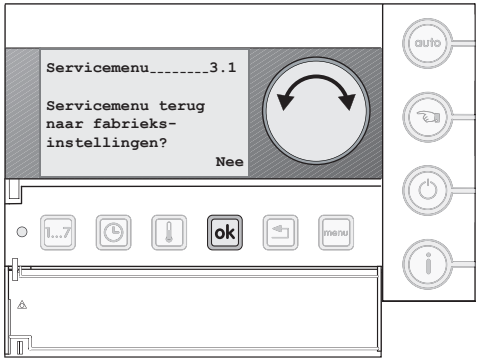


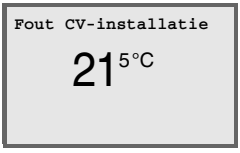
Fig. 44 Reset factory settings

9 Remedy malfunctions

9.1 Remedy malfunctions

- A number of malfunctions are shown in the following table, which you can resolve yourself.

In the documentation of the boiler you can read how you can remedy other malfunctions.

Display view	Cause	Solution
No text on the screen.	Boiler is turned off.	• Turn on boiler
	The power supply of the heating system is interrupted.	• Check of the thermostat is correctly placed in the case holder and the cables are connected.
	The water pressure in the heating system is too low.	• Fill up the heating system with water, as described in the operating manual of the boiler.
	Display strength is on minimum strength.	• Press simultaneously the buttons "OK" and "return" and keep these two buttons pressed. Turn the round button to set the strength of the display.
	There is a dripping hot water tap in your installation.	• Check the hot water taps for a dripping tap. • Turn off the hot water tap.
	An error occurred in the installation.	• Press the button "info" of the thermostat. • Pass on the shown code to the service technician.
	An error occurred in the boiler.	• Reset the boiler. If the malfunction does not disappear: – Pressure the button "info" of the thermostat. – Pass on the shown code to the service technician.

Tabel 4 Remedy malfunctions

9.2 Remedy malfunctions (for installer)

In table 5 are all malfunction codes, which can be shown by the thermostat. The malfunction codes can be the result of a failure, or wrong settings in the thermostat, boiler or modules. Additional information is described in the technical documentation of the concerning product.

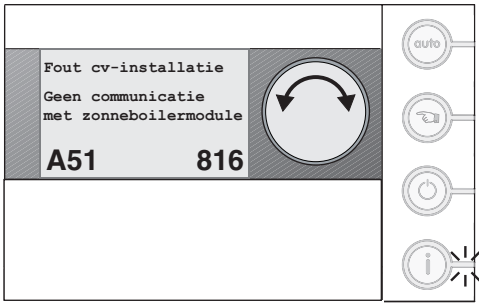


Fig. 45 Example of a malfunction

Service-code	Error-code	Malfunction	Possible causes	Solution
A01	**808**	DHW sensor 1 indicates malfunction.	– Sensor wrongly connected or incorrectly installed. – Breakage or short circuit of the sensor cable. – Sensor defect.	– Check sensor connection and sensor cable. – Check the attachment of the sensor. – Compare the resistance values with the characteristics of the sensor.
A01	**809**	DHW sensor 2 indicates malfunction.		
A01	**810**	DHW does not get warm. DHW was requested for 4 hours.	– Permanent use of DHW, or a leak. – Sensor wrongly connected or incorrectly installed. – Breakage or short circuit of the sensor cable. – Sensor defect.	– Repair dripping tap. – Check sensor connection and sensor cable. – Check the attachment of the sensor. – Compare the resistance values with the characteristics of the sensor.
A01	**816**	No communication with the boiler.	– UBA-bus system is overloaded. – UBA 3/UBA 3.5 is defect.	– Reset by turning off/on the heating system. – If necessary, inform service company.
A01	**828**	Water pressure sensor indicated malfunction.	– Digital water pressure sensor is defect.	– Replace water pressure sensor.
A02	**816**	No communication with BC10.	– Contact problem at the BC10 or BC10 defect.	– Check connection of BC10. If necessary, replace the BC10.
A11	**806**	Temperature sensor ModuLine malfunction.		
A11	**816**	No communication with ModuLine 400.		
A11	**83x**	Via ModuLine 400: activate heating circuit "x" en choose ModuLine 300.		

Table 5 Remedy malfunctions (for installer)

Service-code	Error-code	Malfunction	Possible causes	Solution
A12	**815**	Sensor distributor module malfunction.	– Sensor wrongly connected or incorrectly installed. – Breakage or short circuit of the sensor cable. – Sensor defect.	– Check sensor connection and cable. – Check the attachment of the sensor. – Compare the resistance values with the characteristics of the sensor.
A12	**816**	No communication with the distributor module.	– No communication via the bus line.	– Check the wiring of the bus line. – Replace distributor module.
A15	**816**	No communication with WTW.		
A15	**844**	Clean filters WTW		
A18	**825**	Two modules connected.	– Room thermostats assigned to the wrong heating circuit.	– Assign room thermostats to the correct heating circuit.
A2x	**816**	No communication with room thermostat CH-"x".		
A3x	**807**	Flow sensor CH-"x" indicated malfunction.	– Sensor wrongly connected or incorrectly installed. – Breakage or short circuit of the sensor cable. – Sensor defect.	– Check sensor connection and sensor cable. – Check the attachment of the sensor. – Compare the resistance values with the characteristics of the sensor.
A3x	**816**	No communication with mixer module CH-"x".	– Incorrect communication via the bus line.	– Check the wiring of the bus line. – Replace mixer module.
A51	**816**	No communication with solar cylinder.		– Deactivate the solar cylinder module in the service menu (→ paragraph 8.5, page 27).

Table 5 Remedy malfunctions (for installer)

10 Technical data

Description	Unit	ModuLine 300
Power supply	V_{dc}	16
Usage	W	0.3
Use with illumination of the background (only possible by use on UBA 3/UBA 3.5-device)	W	0.6
Dimensions (width/height/depth)	mm	150 / 90 / 33
Weight	g	180
Permissible operating temperature	°C	0 up to +50
Permissible temperature during storage	°C	0 up to +70
Permissible relative humidity	%	0 up to 90

Tabel 6 Technical data of the thermostat ModuLine 300

Sensor characteristics

Boiler/room temperature sensor DHW temperature sensor			
°C	kΩ	°C	kΩ
10	19.872	60	2.473
16	15.699	65	2.065
20	12.488	70	1.731
25	10.001	75	1.456
30	8.060	80	1.229
35	6.535	85	1.041
40	5.331	90	0.884
45	4.372	95	0.753
50	3.606	100	0.643
55	2.989		

Tabel 7 Resistance values of the temperature sensors

11 Glossary

Day-series

At entering a switch point, can a day-series be used. This is a series, where on each day at the same time the same temperature is requested.

Reference room

A room (e.g. the living room) where:

– the temperature can be measured, which is representative for the whole house;
– one usually spends most of its time. Generally this is the living room.

Room control

At this control, the thermostat measures the temperature in the room, in which it is installed The measured temperature is compared with the setting on the thermostat. The thermostat determines now how hard the boiler must burn to reach or maintain the desired temperature. Only the temperature in the reference room is regulated. All other spaces are, depending on the requested heat in the reference room, heated to a larger or lesser degree.

Switching point

The moment on which is switched to an other temperature level.

In the time program can 42 switching points be entered.

Standard display

This is the display view, when the thermostat is at rest en the cover of the thermostat is closed.

Temperature level

Set-up room temperature in the time program. There can be 4 basic temperatures be entered in the thermostat, T1 t/m T4.

12 Fill in schedules

12.1 Fill in schedule time program

Fill in schedule temperature levels

Temperature level	Temperature
T1 (night)	°C
T2 (day-low)	°C
T3 (day-middle)	°C
T4 (day-high)	°C

Example fill in schedule time program

Day	Switching point 1		Switching point 2		Switching point 3	
	Time	Temperature	Time	Temperature	Time	Temperature
Mon	08:00	T2	17:00	T4	22:30	T1
Tue	07:30	T4	22:30	T1	–	–

Fill in schedule time program

	Switching point 1		Switching point 2		Switching point 3		Switching point 4		Switching point 5		Switching point 6		Switching point 7		Switching point 8	
Day	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.	Time	Temp.
Mon																
Tue																
Wed																
Thu																
Fri																
Sat																
Sun																

At inserting of switching points, can a day-series be used. For each day within the series, a switching point is then inserted.

day-series	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mon - Thu							
Mon - Fri							
Mon-Sun							
Sat-Sun							

Notes

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