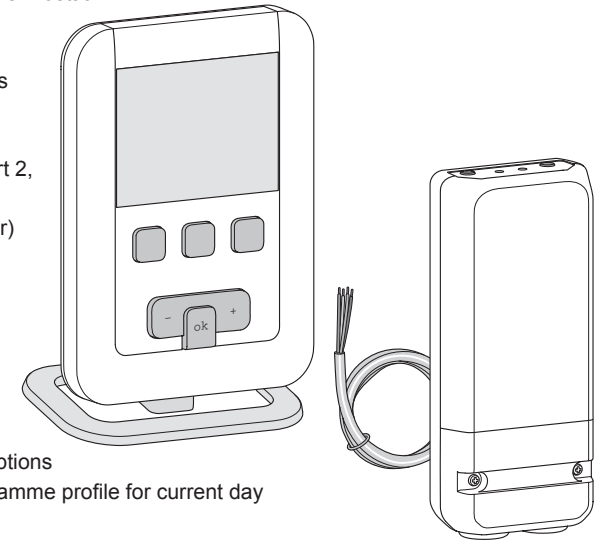


CHOICE RSTAT 7

INSTALLATION AND USER INSTRUCTIONS DIGITAL, RF DELUXE PROGRAMMABLE ROOM THERMOSTAT

Features

- Wireless radio communication between thermostat and receiver box
- 24hr, 5/2 day or 7 day programmable
- 3 off preset & non adjustable programmes
- 1 off free user adjustable programme
- Programmable in 30min steps
- 3 off temperature levels, Comfort, Comfort 2, Economy plus Frost Protection
- Battery powered (with low-power indicator)
- Automatic or Manual Mode selection
- Standby Mode with Frost Protection
- Holiday Mode with Frost Protection
- Temporary temperature override
- Timed temperature override
- Automatic Summer/Winter time change
- Optimisation and Anticipation functions
- Heating, Air Conditioning or both mode options
- Large clear backlit display showing programme profile for current day
- Temperature adjustment range 5 to 30°C



This programmable room thermostat has been designed to bring you comfort and energy economy. It allows you to program and regulate your heating system at 3 temperature levels:

- Comfort ☀
- Comfort 2 ☀²
- Economy ☾

plus

- Frost Protection ❄

It also enables you to program and regulate air-conditioning at 2 temperature levels:

- Comfort ☀
- Economy ☾

A large backlit LCD on the thermostat provides clear feedback for the user and in response to program settings, transmits RF signals to the wall mounted receiver installed next to the boiler that is being controlled.

Each day is conveniently split into 48 time periods for you to programme according to your lifestyle.

Technical Helpline: 01475 745131



SERVICE AND WARRANTY

Your product is not user serviceable. PLEASE DO NOT TRY TO DISMANTLE THE UNIT. This product is guaranteed by your supplier for 3 years from the Date of Manufacture. If it should become defective, please contact your installer or supplier for a replacement unit or visit www.sangamo.co.uk/returns.

CUSTOMER CARE POLICY

As part of Sangamo's continuous improvement program, the Company operates a Customer Care Policy. This means that we welcome your comments and complaints, as it can help us to improve our services to you, our customer.

Due to our policy of continuous product improvement and development, the specifications in this guide may be subject to change without prior notice.

Sangamo Limited, Industrial Estate, Port Glasgow, Renfrewshire PA14 5XG

Tel: 01475 745131 Fax: 01475 744567

Email: enquiries@sangamo.co.uk Web: www.sangamo.co.uk

Technical Characteristics




Transmitter

Powersupply:	2 Alkaline batteries 1.5V (type AAA)
Battery lifespan:	2 years
Power reserve:	10mins
Temperature adjustment range:	5 to 30°C (all temperature levels)
Temperature display range:	0 to 40°C
Operating temperature:	0 to 45°C
Storage temperature:	-25 to 70°C
Clock accuracy:	<1sec/day
Protection rating:	IP30
Pollution class:	3
Dimensions (LxHxD):	97x138x30mm
Transmission frequency:	868.3Mhz

Receiver

Powersupply:	230Vac 50Hz
Contact rating:	8(3)A, 250Vac (Volt free changeover contacts)
Radio frequency:	868.3Mhz
Receiver category:	2
Protection rating:	IP43
Insulation class:	11
Operating temperature:	-10 to 60°C
Storage temperature:	-20 to 70°C
Flexible wire size:	0.5-1.5mm ²
Rigid wire size:	0.5-2.5mm ²
Dimensions (LxHxD):	130x60x27mm
Typical range:	> 150m uninterrupted and 50m in building
Complies with:	EN60730-1, EN60730-2-1, EN60730-2-7, EN60730-2-9, EN60730-2-11, EN60950-1, EN60950-1/A11, EN12098-2, EN12098-5, EN301-489-3, EN300-220-1, EN300-220-2 and EN301-489-1


Press MENU, cursor under PROG	Day/Day Group indicators flash	Adjust by +/-
Press OK	Program number flashes	Adjust by +/-
Press OK	Next Day/Day Group indicators flash, if appropriate or returns to Auto Mode	Adjust by +/-
Press OK	Program number flashes	Adjust by +/-
Press OK	Repeat procedure for all remaining Days if appropriate	

Press OK	1st period on Programme Profile flashing	Select Temp Setpoint for this period
Press +/- , ,	Go to period in programme to be changed	Select Temp Setpoint for this period
Press  ,  or  button	Next period on programme profile flashes	Repeat procedure for remainder of 24hr profile
Press OK	Next Day/Day Group indicators flashes if necessary or returns to Auto Mode	

Temporary Override –enables you to adjust current temperature set point until the next program step. During the override the current set point temperature flashes

Press +/- to adjust Temp Set	Temp Set flashing	
Press MENUx7	To cancel & return to Auto mode	

Timed Override - allows timed modification of the room temperature at any time. The time may be set from 15 minutes to 12 hours using parameter PA:1

Press 	Time Count flashing	Adjust by +/-
Press OK	Temp Set flashing	Adjust by +/-
Press OK	Time period flashes on programme profile for day	
Press MENU	To cancel & return to Auto mode	

What to do if

The symbol  is displayed : change the batteries.

The heating will not start : the receiver is out of range of the thermostat(transmitter). Move it closer.

The receiver does not recognise the Thermostats(transmitters) code : reconfigure the receiver

The application does not start or does not stop : the receiver or Thermostat(transmitter) is in an area disturbed by radio emissions(radio, television, etc) : move the receiver or thermostat(transmitter) from the disturbed area.

If problems persist, contact your electrician

Adjusting the temperature set points

Heating (H) defaults : Comfort ☀ = 19°C , Comfort 2 ☀² = 20°C , Eco ☾ = 16°C

Air-con (C) defaults : Comfort ☀ = 24°C , Eco ☾ = 29°C

Press MENU, cursor under	Comfort 1 Temp flashing	Adjust by +/-
Press OK	Comfort 2 Temp flashing	Adjust by +/-
Press OK	Eco Temp flashing	Adjust by +/-
Press OK	Return to Auto mode	

Programming

There are four program choices

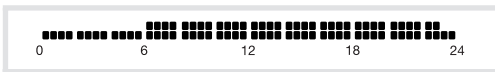
P1,P2,P3 are pre-recorded and cannot be modified

P4 is free for a personalised program

Note P1o is only available when the optimisation parameter is active, set to Auto (PA:9)

P1 is activated 7 days per week by default. If this fits the rhythm of your life then remain in automatic mode; if not, continue

Note P4A is only active when the anticipation parameter is active, set to 1hr,2hr or 3hr (PA:9)



P1= Comfort temperature from 06:00 to 23:00.
Eco temperature from 23:00 to 06:00.



P1o= Optimisation (only with P1).
Comfort temperature from 07:00 to 23:00.
Eco temperature from 23:00 to 07:00.



P2= Comfort temperature from 06:00 to 08:30 and from 16:30 to 23:00.
Eco temperature from 08:30 to 16:30 and from 23:00 to 06:00.

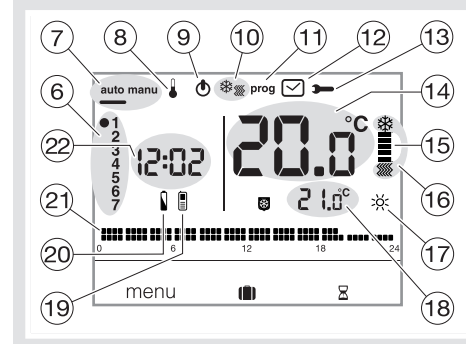
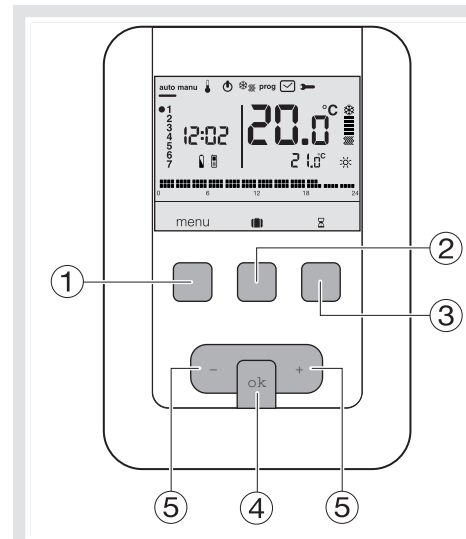


P3= Comfort temperature from 06:00 to 08:30 from 11:30 to 13:30 and from 16:30 to 23:00.
Eco temperature from 08:30 to 11:30 and from 13:30 to 16:30 and from 23:00 to 06:00.

P4= a free program which allows you to create up to 5 Comfort temperature periods and 5 Eco temperature periods, for each of the days of the week.

30min. inEco	30min. inComfort	30min. inComfor☀

Thermostat Description

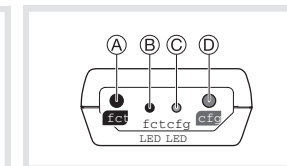
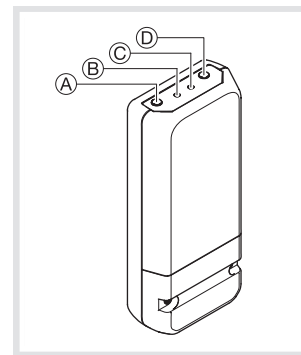


- 1) Key for menu access
- 2) Key to access holiday
- 3) Key to access the temporary override
- 4) Confirmation key OK
- 5) Adjustment keys + and -
- 6) Indicator for days of the week
- 7) Automatic mode/manual mode (thermostat without program)
- 8) Temperature set-points adjustment
- 9) Standby
- 10) Heating/Air-con selector
- 11) Programming/program selection
- 12) Time and date adjustment
- 13) Adjustment of settings
- 14) Ambient temperature
- 15) Heating or air conditioning indicator
- 16) Current mode (heating or air conditioning)
- 17) Current setting (☀, ☀², ☾, ☀²)
- 18) Temperature of current setting
- 19) Telephonic remote-control
- 20) Battery use indicator
- 21) Profile of today's program
- 22) Current time

Receiver Description

The wall mounted receiver should be installed close to the boiler. It takes the RF signals from the thermostat and switches the boiler accordingly.

Important : The thermostat and receiver are paired in the factory and are ready for use.



- A - Function button, fct
- B - Operating indicator light. This light is lit when the output contact of the receiver is closed = ON.
- C - Coding indicator : This light flashes during coding operations
- D - Configuration button, cfg.

Technical Characteristics

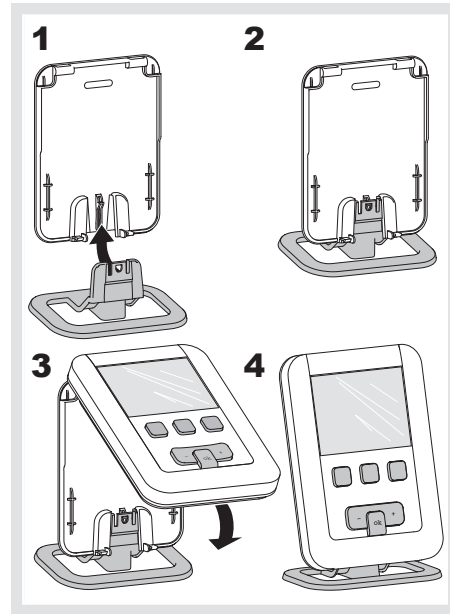
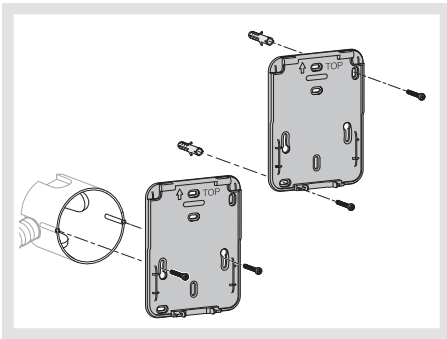
Pressing A(fct) button will modify the current mode

ON	Green fixed LED
Pressing push - button A (fct)	
↓	
OFF	Red fixed LED
Pressing push - button A (fct)	

Thermostat Installation

To ensure its correct operation the thermostat should be situated approximately 1.3m above the floor away from direct sunlight, heat sources and drafts.

The thermostat may be surface mounted to a wall using its surface mounted back plate or remain portable using the table stand provided. Insert batteries into thermostat and then locate into position .



Receiver Installation

This product must be installed by a suitably competent person in line with the latest IEE regulations. The receiver is normally located close to the boiler and a length of four core cable is provided for connection.

Brown – Live
Blue – Neutral
Grey & Black – connection to the boiler

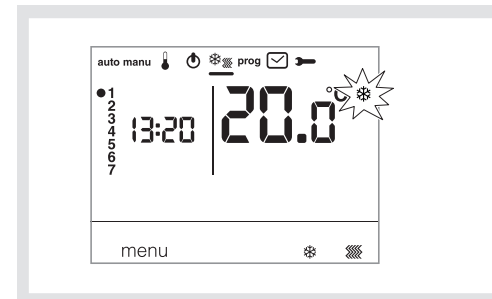
Deleting a wireless link

T	TRANSMITTER	Select parameter using the menu key (1)	↓
		Give a long press on OK : PA: 1 displays	↓
		Give a short press on OK until CF9 (cfg) displays	↓
		OFF blinks	↓
		Press +, ON is continuous	↓
R	RECEIVER	Give a short press on OK : CH1 (=zone 1) displays	↓
		The receiver switches to configuration mode. LED (C) (cfg) is continuously lit red LED (B) (fct) blinks in red/green	↓
		Select the receiver to unlink: give a short press on button (A) (fct) of the receiver	↓
R	T	LED (B) (fct) blinks goes out	↓
		CH1 (=zone 1) ON display on the transmitter for several seconds	
	R	Deletion of the link : give a long press on button (A) (fct) until LED (C) (cfg) starts to blink, then release button (A) (fct). LED (B) (fct) goes out, LED (C) (cfg) is continuously red : the link is deleted.	

For Factory resetting of the receiver(deletion of all radio links) ; Give a long press (>10secs) on button (D) cfg.

Heating/Air Con reversibility

This function allows your installation to switch from Heating to Air Conditioning mode. (PA5 = HC only)

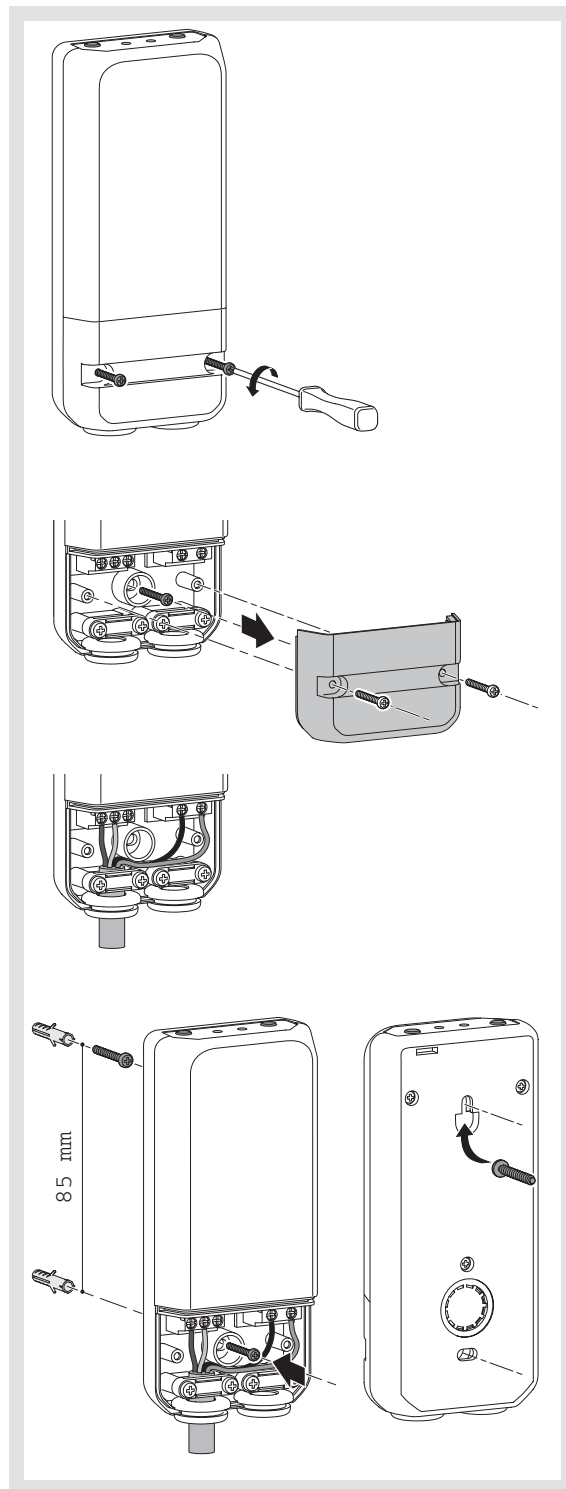


Press MENU, Cursor under	flashes	Thermostat regulates the heating.
Press	flashes	To change from Heating mode to Air-conditioning mode.
Press MENU	To cancel & return to Auto mode	

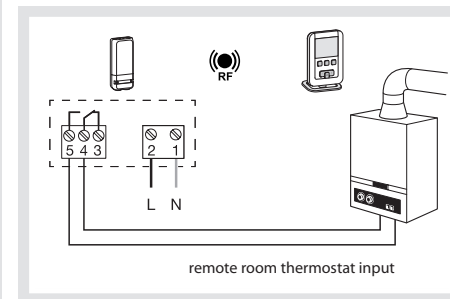
PA:9	Optimisation and Anticipation	Off, Auto, 1hr, 2hr, 3hr	Off	Optimisation(Auto - P1o program only). Thermostat automatically estimates the time required to reach the Comfort temperature and adjusts the switch on time. A learning period of 10 days may be necessary to reach full optimisation. Anticipation (1hr,2hr,3hr –P4A program only) This function allows the Comfort ✱ or Comfort 2 ✱ ² to be applied in advance.
PA:10	Return to factory settings	YES/nO	nO	Yes-Reset, No=No reset
CF9	Radio Links	Off/On	Off	Off =no configuration taking place On=configuration taking place CH1=Establishment of radio links
PA:11	Return to factory RF link settings	YES/nO	nO	
	Software version information			Displays which version of the software is installed in the product

Associating the thermostat (transmitter) and receiver

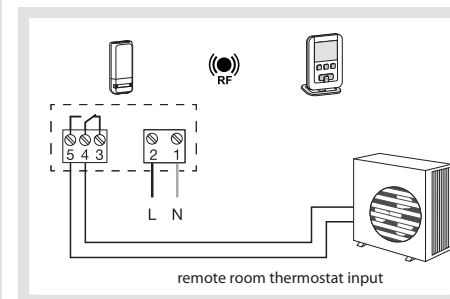
TRANSMITTER	Select parameter ➔ using the menu key (1)	↓
	Give a long press on OK : PA: 1 displays	↓
	Give a short press on OK until CF9 (cfg) displays	↓
	OFF blinks	↓
	Press + , ON blinks	↓
RECEIVER	Give a short press on OK : CH1 (=zone 1) displays	↓
	The receiver switches to configuration mode. LED (C) (cfg) is continuously lit red	↓
	Select the receiver to link: give a short press on button (A) (fct) of the receiver	↓
	LED (B) (fct) blinks red/green	↓
	Creation of the link: give a long press on button (A) (fct) until LED (C) (cfg) starts to blink, then release button (A) (fct)	↓
T	LED (B) (fct) blinks red/green, LED (C) (cfg) is continuously red : the link is created	↓
	CH1 (=zone 1) ON displays on the transmitter for several seconds	↓
T	The transmitter and receiver are now paired	
T	Return to automatic mode: give a short press on the menu key (1)	↓



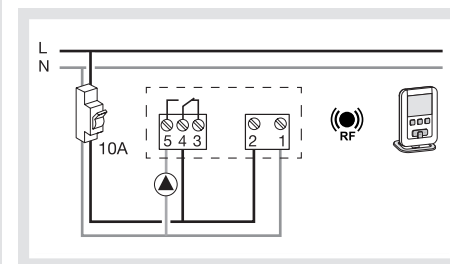
Connection of the thermostat receiver to a thermostat input of the boiler.



Connection of the thermostat receiver to the thermostat input of a reversible or irreversible heat pump.



Connection of a heating or air conditioning circulator.



Initial Set Up & Set Clock Description

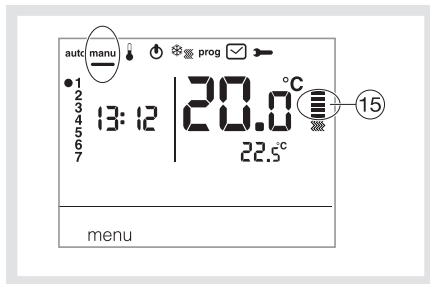
Press MENU, cursor under	Year flashing	Adjust by +/-
Press OK	Month flashing	Adjust by +/-
Press OK	Day flashing	Adjust by +/-
Press OK	Hour flashing	Adjust by +/-
Press OK	Minutes flashing	Adjust by +/-
Press OK (Summer/Winter timechange)	Auto flashing	Adjust to OFF by +/-
Press OK (Hour format)	24H flashing	Adjust to 12H by +/-
Press OK	Return to Auto mode	

Automatic Mode (auto) - operate according to program selected or set.

Cursor under AUTO	Program profile for day displayed	
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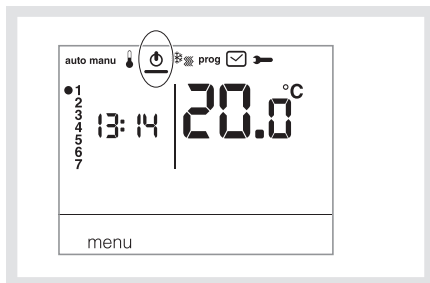
Manual Mode (manu) - operate as a simple thermostat

Press MENU, cursor under MANU	Programmed profile for day not displayed	Adjust Set Temp by +/-
Press MENU, cursor under AUTO	Return to Auto mode	



Standby Mode - unit remains powered, but inactive except for frost protection.

Press MENU, cursor under	Programmed profile for day & Set Temp not displayed	Frost Mode Active
Press MENU, cursor under AUTO	Return to Auto mode	



Holiday Mode - unit remains powered, but inactive except for frost protection. The frost protection temperature can be adjusted between 5degC & 30degC. A holiday period can be set from 1-99 days with the current day counting as 1.

Press	Day count flashing	Adjust by +/-
Press OK	Frost Temp flashing	Adjust by +/-
Press OK	Holiday Mode active	
Press MENU	To cancel & return to Auto mode	

Parameters

To access all of the parameters press key menu to place the cursor under then give one long press (>5s) on OK.

To only access parameters from (PA:1 to PA:4), press key menu to place the cursor under and confirm using the OK key.

Press + or - to change parameter setting and OK to accept and move to next parameter.

	User Parameter Description	Options	Default	Notes
PA:1	Default duration of timed override	1,2,3,4,5 or 12 hours	1hour	
PA:2	Backlighting of display	OFF/ON	ON	
PA:3	Temperature Calibration	+/-3degC	0degC	Adjust value displayed if you measure a different ambient to that the thermostat measures
PA:4	2nd Comfort Temperature level	1 or 2	1	Allows a 2nd comfort temperature level to be used. Only applicable to free program (P4)

	Installer Parameter Description			
PA:5	Heating/Air Con Installation Mode	H,C or HC	H	H=Heating, C=Air Conditioning or HC=Reversible Heating/Air-Con. In HC mode care should be taken to switch the Heat Pump suitably for the chosen thermostat mode.
PA:6	Degumming the pump	OFF/ON	Off	Activate/De-activate automatic start-up of the pump at midnight everyday to avoid jamming during the summer.
PA:7	Inertia type of heating installation	SLo/FAs	FAs	SLo = slow inertia (eg; underfloor heating) FAs = fast inertia (eg; radiators)
PA:8	Inertia of air-conditioning installation	SLo/FAs	FAs	SLo = slow inertia (eg; underfloor cooling) FAs = fast inertia (eg; convector fans)