





230v Thermostat Instruction Manual

For models: JGSTAT2W JGSTAT2B



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Fixing screws



JGSTAT2V (White)

JGSTAT2B (Black)

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Safety



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Your benefit

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Product Compliance & Safety Information

Introduction. Thank you for purchasing one of our Speedfit Aura 230V Thermostat models. To use all of the Thermostat features, the optional communications cables is required.

The unit can be configured to be a Programmable Room Thermostat (PRT), Group Control Thermostat, Group Thermostat or Hot Water Timer. Communication between neighbouring JGSTAT2 and JGSTAT1 Dial Thermostats is possible via the JGWC Wiring Centre (pictured below) and the optional communications cables. More information can be found on pages 9 and 10.



Product Compliance. This product is CE compliant and meets the following EC Directives: RoHS2 2011/65/EU, Electro-

Magnetic Compatibility directive 2004/108/EC and Low voltage directive 2006/95/EC.



Safety Information. Use in accordance with the regulations. The Aura JGSTAT2 is to be used for room control of heating and hot water systems inside buildings.



Speedfit Aura Wiring Centre JGWC

We hope you enjoy this product...

Product Compliance & Safety Information

These instructions are applicable to the Speedfit Aura model stated on the front cover of this Instruction Manual only.



Warning. This product must be fitted by a competent person. Installation must complex and regulations applicable to the location where the product is installed. Failure to comply with the requirements of the relevant guidance, standards and regulations could lead to injury, death or prosecution.



Sources of danger. The thermostat must be disconnected from mains supply before removing the cover.



Emergency. Switch off the voltage to the individual thermostat, wiring centre or complete system.



Installer



Warning. Always isolate the AC Mains supply before installing or working on any components that require 230v AC 50Hz supply.



parameter

settings. The Aura JGSTAT2 is equipped with an Installer Parameter section (see page 40). This must only be entered by the installer or a competent person. Changing these parameters can have a serious effect on your heating system.



For the installer. Please enter any parameter changes in the Installer Notes section (pages 72 - 75).

SYSTEM OVERVIEW

System Overview - Configuration Options



System Overview - Configuration Options

Programmable Room Thermostat (PRT). When configured for PRT (see page 31) the Programmable Room Thermostat mainly works by itself and allows the user to have separate Time and Temperature control of each zone on the wiring centre. Features like Holiday, Party and Frost mode have to be set on each individual thermostat. The PRT can be configured for global heat/cool system changeover if your system supports this. This is achieved from a switched input from the Wiring Centre (see the Wiring Centre Instruction Manual). Communication Connection (see page 13) is required to use heat/cool changeover function.

Group Control Thermostat. When configured as a Group Control Thermostat (see page 33), the unit allows central control of up to 7 Group Thermostats (see below). There can be a maximum of 2 groups per 8 zone wiring centre. Permanent temperature override, Holiday, Marky and Frost modes can be selected centrally from the Group Control Thermostat. Holiday mode will also be applied to a timer if applicable. Communication connections (see page 13) are required for grouping the Group Thermostats. Thermostats can be also globally changed from heating to cooling thermostats if your system supports this by using the switched input connection on the JGWC (see the Wiring Centre Instruction Manual) along with the Communications connections mentioned above.

Group Thermostat. When configured as a Group Thermostat (see page 36), the unit will follow the time schedule and override modes of the Group Control Thermostat. The Group Thermostat can have its own programmed temperatures, Manual Override and also be removed from the group temporarily or permanently. Communication connections are required (see page 13).

Timer: When configured as a Timer (see pages 32 and 34), the unit will operate without temperature control. In this configuration, the unit can be used as a Hot Water Timer. The Timer will also follow a Group Control Thermostat when Holiday mode has been activated (requires communication connections).

System Overview - Cables

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Power and Switching cable – used to power thermostats and drive output.





Grouping and Communication cable.

While the units can function as standalone PRTs or Timers, installing this optional inexpensive Communication cable allows the units to communicate with each other. This allows a thermostat to assume convenient remote control of a group. This brings central control of features such as Time Control, Holiday and Party functions as well as Frost Control. The individual group members can leave or re-enter group control at the push of a button.



Communication cable can be used when units are used as individual PRT's for heat/cool changeover. Please refer to page 13 and the Wiring Centre Instruction Manual.



Cable size 1.5mm 3 core for L,N,SL and 0.5mm twin for the communication.

System Overview - Options

The systems below, although not exhaustive show the main options. The maximum number of groups per JGWC Wiring Centre is two. The group selection communication cable must correspond to the group terminals on the JGWC Wiring Centre, Please refer to the JGWC Instruction Manual.



Option 1 - Page 09. Unit is configured as individual PRT.



Option 2 - Page 10. Unit is configured as a Group Control Thermostat used to control a group(s) of unit(s) configured as Group Thermostats.



Unit is configured as a Group Control Thermostat used to control a group(s) of Digital Stat(s) configured as Group Thermostats.



JGSTAT2 Instruction Manual

System Overview - Grouping and Communication

Option 1 - Page 31.

All thermostats set as PRT.

FUNCTION	PRT	USING COMMUNICATION CONNECTION - PRT
Individual Room Control	~	V
Individual Holiday Function	 ✓ 	V
Individual Party Function	 ✓ 	V
Individual Heating Program	~	~ ~
Individual Frost Function	 ✓ 	
Group Holiday including HW	×	× Noon
Group Party	×	*
Group Heating Program	×	×
Group Permanent Override	×	×
Group Temporary Override	×	×
Heat/Cool changeover	×	V

Note: The communication connection is only used for heat/cool changeover when using units configured to PRT's and using the relevant connection on the JGWC Wiring Centre. Please refer to the Wiring Centre Instruction Manual.

System Overview - Grouping and Communication

Option 2 - Page 33 Option 3 - Page 35

FUNCTION	PRT	USING COMMUNICATION CONNECTION - GROUP CONTROL
Individual Room Control	×	V
Individual Holiday Function	×	V
Individual Party Function	<i>v</i>	V
Individual Heating Program	×	× ()
Individual Frost Function	×	
Group Holiday including HW	×	
Group Party	×	
Group Heating Program	×	V
Group Permanent Override	×	V
Group Temporary Override	×	V
Heat/Cool changeover	×	 ✓

Note: HW timer will only use HOLIDAY mode when the communication connection is used. Also the HW Timer must be connected to GROUP 1 communication terminals on the Wiring Centre. Please see the Wiring Centre Instruction Manual.

System Overview - Hot Water Option

When the unit is configured as a Hot Water Timer (see page 34) there are two methods of connecting the cylinder thermostat.





System Overview - Hot Water Option

For convenience there is a unique built in option allowing the cylinder thermostat to be connected to either the HW Timer or Wiring Centre.



Please refer to the Wiring Centre Instruction Manual and page 18 for more information.

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Installation - Terminal Connections

Understanding your terminal connections.









Communication Terms 12v DC. Two wire twisted pair can be used for Grouping Functions between Group Control Thermostat, Group Thermostat and HW Timer.

Sensor Terminals. Can be used for external AIR or Floor sensor when configured as thermostat. Can also be used for cylinder thermostat when configured for HW.

Power Terminals 230v AC. Used for supplying power to the unit and switched output.

Installation - Thermostat Mounting





Carefully remove the front housing.





Installation - Thermostat Mounting

Mounting position and installation. To ensure trouble free operation and efficient control, the unit is best positioned in a draft free area and at 130cm from the floor. Do not position the thermostat near any heat source, behind curtains, in direct sunlight or an area of high humidity.





Installation - Thermostat Connections



Installation - Thermostat External Sensor



Aura External Sensor (sold separately).



Note: If you are using an External Sensor, the unit has to be configured for External Air Sensor or Floor Protection Sensor. Please see Device Parameter Setting on page 40.

Installation - Hot Water Timer Wiring



Installation - Hot Water Timer Cylinder Thermostat



Note: Optional - The JGSTAT2 can be configured for a connection to a cylinder thermostat. Please see Device Parameters on page 40. For additional wiring centre information refer to the Wiring Centre Instruction Manual.

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Installation - Thermostat Mounting



Check that the wiring is completed for:

- 0
- Power terminals.
- 2
- Sensor terminals (if applicable).
- 3 Communication connections (optional but recommended).



You are ready to secure the rear housing to the wall box.



Installation - Thermostat Mounting





Ensure the pin connections are aligned.





Align the front housing at the bottom edge.





ICON	FUNCTION
	Box: Indicates selected mode e.g. 😿 means the current setpoint is Hi temp, 🔆 means the Hi temp is not selected.
\$	Sunny: Hi comfortable temperature.
ζζ	Cloudy: Middle comfortable temperature.
P	Moon: Low comfortable temperature.
Α	Programmable Thermostat program mode indicator: Indicates program is running, Auto On or Auto Off. For Group Thermostat this indicates that it is a member of a group.
T	Party indicator: When Party Mode is active.
÷	Holiday indicator: When Holiday Mode is active.
+ } +} +}	Frost protection indicator: Frost Protection is active, not in Cooling Mode (if applicable).

ICON	FUNCTION
۵	Heat indicator: Indicates demand for heat.
₩	Cool mode indicator: Indicates cooling is required (if applicable).
88°	Temperature indicator: Displays room temperature, set temperature or other information.
(f)	Temporary manual override indicator: If the set temperature is changed when in program mode, the hand will appear until the next program start time.
12	Programs number indicator: Displayed in AUTO mode or Temporary override. The number indicates which program is running.
123456Z	Day indication: 1 = Monday.

ICON	FUNCTION
H	Hot Water (HW) indicator: Unit operating as a hot water timer.
Ľ	Hot Water (HW) indicator: Indicates demand for hot water.
A	HW Program mode indicator: Indicates program is running.
1	HW Mode indicator: Mode for 1 period of HW a day, from Program 1 ON to Program 3 OFF.
ON	HW Mode indicator: Hot water switched on (continuously).
OFF	HW Mode indicator: Hot water switched off (continuously).
В	HW Mode indicator: Indicates Boost +1hr override.

ICON	FUNCTION
Q	Floor sensor probe indicator: Show only when Air + Floor sensor is connected.
Ö	Setting indicator: Indicates the unit is in program setting mode.
n -0	Keylock indicator: Keys have been de-activated.

Installation - User Interface

ICON	FUNCTION
(B)	 Increase or decrease setpoint temperature. Increase or decrease Day, Clock, Timer, Party, Holiday and Boost. Select Installer Parameter value.
(or)	 Mode selection. Long press to return to home display without saving. Short press to return to the previous screen when it is in user/installer setting mode.
√0	 OK key: Short press to confirm selection. Long press to save and exit. Long press to enter the user settings.
LONG PRESS	Lock/Unlock.
$$ + \langle + \rangle LONG PRESS	Enter Installer Parameter settings.
✓o + LONG PRESS	Test mode.

Installation - First Power Up





INSTALLATION

Installation - System Parameters

You are now ready to configure the unit using the System Parameter table below.



SX	FUNCTION	SYSTEM SETTING	DEFINITION	DEFAULT
SO1	System Unit Type	0	Programmable Room Stat (PRT)	
		1	Digital Thermostat	0
		2	HW Timer	
S03	System Communication	0**	PRT only with communication*	
		1*	Group Control Thermostat and Group Thermostat communication	1
		2	No Communication / Grouping required	

*S03 setting 1 is used for Control Group options 2 and 3 see pages 33 - 36, communication connection must be used, global heat/cool changeover is also included if applicable to your system.

**S03 setting 0 is used for option 1 (see page 31) when heat/cool changeover is required for individual PRTs, communication connections must be used for this function. S03 setting 0 is only available if setting 0 has been selected for S01. If no heat/cool changeover is required when using PRTs only then select setting 2 for S03.

Installation - Options

Option 1 - Page 31. Unit is configured as individual PRT.





Option 2 - Page 33. Unit is configured as a Group Control Thermostat used to

Option 3 - Page 35. Unit is configured as a Group Control Thermostat used to control a group(s) of Digital Stat(s) configured as Group Thermostats.





An additional Hot Water Timer can be used with any of the above options.





Option 1 - Individual Programmable Thermostat Setup

"Select S03 setting 0 if communication is required for global heat/cool changeover. Your system must support this and the communication connection must be used (see page 13). OPTION 1 INSTALLATION

Option 1 - Hot Water Timer (Optional) Configuration

Hot water with no communication.



Option 2 - Thermostat Configuration

Group Control Thermostat.



Option 2 - Hot Water Timer (Optional) Configuration



Option 3 - Thermostat Configuration

Group Control Thermostat.



Option 3 - Thermostat Configuration

Group Thermostat.


Option 3 - Hot Water Timer (Optional) Configuration



Installation - System Parameters

If you have made an error or need to change your System Parameters please follow the steps below. This should only be done by your installer.



Installation - System Parameters



Installation - Device Parameters



Device Parameters will follow System Parameters on first power up. If you need to change Device Parameters follow the steps below.

Please note, your System Parameters will be shown first but cannot be edited in this section. To change the System Parameters please refer to the previous two pages.

Installation - Device Parameters

DX	FUNCTION	SYSTEM SETTING	DEFINITION	DEFAULT	
D01	Heating control	0 1 2	Pulse width modulation On-Off 0.5°C +/- 0.25°C On-Off 1.0°C +/- 0.5°C	nodulation +/- 0.25°C 0 +/- 0.5°C	
D02	Room temperature offset	-3.0°C to 3.0°C	Temperature offset from measured temperature to 0° compensate for any error		
D03	Sensor probe or cylinder thermostat connection	0	Sensor/Cylinder stat not connected	0	
		1	Sensor/Cylinder stat connected		
D04	Sensor probe used as air sensor or floor sensor	0	D03 must be set to 1 then external sensor be used as Air sensor. There will be no internal temp measurement	0	
		1	D03 must be set to 1 then external sensor used for floor protection. Internal temp is measured by stat		
D05	Cooling control	1	On-Off 0.5°C +/- 0.25°C	2	
		2	On-Off 1.0°C +/- 0.5°C		
D06	Actuator type	0	NO normally open	1	
		0	NC normally closed		
D07	Valve protection	1	Enable	1	

Installation - Device Parameters continued

DX	FUNCTION	SYSTEM SETTING	DEFINITION	DEFAULT	
D08	Frost Set point temperature	5°C to 17°C	Required temperature for Frost Protection and Holiday Mode	5°C	
D09	Hour format	0	12	1	
		1	24		
D10	N/A	N/A	N/A	N/A	
D11	Daylight Saving	0	OFF	-1	
	Time (DST)	1	ON		
D12	Heating Set point limit	5°C to 35°C	Maximum temp that can be set for heating	35°C	
D13	Cooling Set point limit	5°C to 40°C	Maximum temp that can be set for Cooling	5°C	
D14	Floor sensor high limit temperature	6℃ to 45℃	Output relay will be switched off when temp is reached for floor protection	27°C	
D15	Floor sensor Low limit temperature	6°C to 45°C	Output relay will be switched on when temp is reached for floor protection	10°C	
D16	Floor sensor limit for cooling	6°C to 45°C	Output relay will be switched off when temp is reached for floor protection	6°C	

Installation - Error Codes

ERROR CODE	PROG	NON-PROG	HW
	Comm Connection link failure	Comm Connection link failure	Comm Connection link failure
	Comm Connection link failure	Comm Connection link failure	Comm Connection link failure
	Floor sensor open	Floor sensor open	-
04	Floor sensor short	Floor sensor short	-

When an error exists within the system, the thermostat display will cycle between the normal operating screen and an error page. If there is more than 1 error, then on Error page, press UP to show other error codes.
e.g. Err 03 05 ===> 3 errors Error code 05 (1st one).
Press Up to show Err 03 08 ===> 3 errors Error code 09 (2nd one).
Press Up again to show Err 03 09 ===> 3 errors Error code 09 (3rd one).
Press Up again to show Err 03 05 again.....
Press OK to exit Error page back to Home display.



Installation - Technical Detail

Model	JGSTAT2W or JGSTAT2B
Туре	Electronic programmable room thermostat, digital room thermostat and hot water timer designed for 230v AC applications
Programming Modes	User selectable for 5/2, ALL and Individual day options
Program Number	1-6 Selectable
Modes	Party, Vacation, Program and Frost
Override	Permanent and temporary
Frost Protection	5°C Adjustable.
Power Source	230v AC 50Hz
Rating	3 Amp
Communication Bus	12v DC
Temperature Scale	5°C to 35°C, tolerance 0.5°C
Heat/Cool	Global changeover using communication bus and external input to the wiring centre
Sensor	Air or floor protection. Cylinder thermostat when configured for hot water timer
Device Parameters	See page 41 - 42 for full list of functions
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 60°C

User Guide - Setting Time and Date PRT and Group Control Thermostat. ~ = in Pr og 03:44 Pr og-

User Guide - Setting Time and Date

PRT and Group Control Thermostat.



User Guide - Setting Time and Date

PRT and Group Control Thermostat.



User Guide - Understanding Temperature Levels Heating

PRT, Group Control Thermostat and Group Thermostat.



Highest temperature typically used for early morning and early evening. Typically 21°C.

Mid temperature typically used for times of day when you are active around the home. Typically 19°C.



Lower temperature typically used for unoccupied or sleep times. Typically 17°C for UFH or 15°C for radiators.



Frost temperature typically used for periods of long absence or holidays. Typically 5°C.



These can be adjusted please see page 53.

User Guide - Understanding Temperature Levels Cooling

PRT, Group Control Thermostat and Group Thermostat.

Cooling is only available if your system supports this and the relevant configurations and connections have been made to the unit.



Occupied temperature typically 22°C.



Unoccupied temperature typically 40°C. This avoids cooling being active when the property is unoccupied.



Evening temperature typically 24°C.



Your thermostat comes preset for the above temperatures. These can be adjusted please see page 53.

User Guide - Default Heating Schedule

PRT and Group Control Thermostat.

Monday to Friday



User Guide - Default Cooling Schedule

PRT and Group Control Thermostat.

Monday to Friday







USER GUIDE

User Guide - Setting Required Temperature Levels

PRT, Group Control Thermostat and Group Thermostat. Setting the low temperature.







User Guide - Setting Required Temperature Levels

PRT, Group Control Thermostat and Group Thermostat.



User Guide - Setting the Temperature Schedule



User Guide - Setting the Temperature Schedule



User Guide - Setting the Temperature Schedule



Repeat through to program 4. If you require a 5th or 6th program enter a time and select your temperature 🔆 🖄 🕓



To remove a program, set the time to --:--.



When you set the $\dot{\phi}$ $\dot{\phi}$ temperature the schedule will respond to those temperatures. Please see page 53 on how to change $\dot{\phi}$ $\dot{\phi}$

User Guide - Temporary Override

PRT, Group Control Thermostat and Group Thermostat.



setting you desire.

User Guide - Temporary Override

PRT, Group Control Thermostat and Group Thermostat.







User Guide - Permanent Override

PRT and Group Control Thermostat. Setting permanent low temperature.



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User Guide - Party Mode

PRT and Group Control Thermostat.



USER GUIDE

User Guide - Holiday Mode





Use the right arrow to select the Holiday Mode.





Use the up arrow to select how many days to be off for.



Holiday mode switches heating to frost mode for the set number of days. Group control (if used) will also disable the hot water.



Press tick to confirm and it will start the holiday count down.



User Guide - Frost Protection





Use the right arrow to select the Frost Mode.



USER GUIDE



Use the up arrow to select the frost protection temperature.







Press tick to confirm the temperature settina.



User Guide - Group Thermostat Overview



User Guide - Group Thermostat Overview



User Guide - Hot Water (Optional) Mode Selection



User Guide - Hot Water Boost -60:h -b lihr bihr



Your Hot Water Timer comes preset with the times below. These can be adjusted (see next page).

Monday to Friday



Saturday and Sunday



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USER GUIDE

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Installer Notes
Installer Notes

Installer Notes

Installer Notes

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