

Atmos Multi



Installation of Weather Dependant Control

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Installation Manual for Weather Dependent Control

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Contents of package:

- Outside sensor (excluding cable)
- Screw with wall plug
- Return sensor with 3 metre cable (casing with copper strip)
- Cable tie for return sensor (x2)
- Cable glands PG7 incl. nut (x2)
- Cable connector K4b
- Connection sticker
- Installation manual

Please note

The Atmos Multi is supplied with.

- Two holes of 13mm for the PG7 cable glands
- Holes to fit the cable connector
- A cable socket on the controller to take the K4b cable plug

1 CONNECTING THE WEATHER DEPENDANT CONTROL

The appliance has been prepared for Weather Dependant Control. The control unit already has provision for the cable connector and there are two holes for the PG7 cable glands in the underside of the appliance.

1.1 Connecting the cable connector K4B

The cable connector K4b has to be connected into the appliance on the left, behind the control unit and beneath the connection for the room thermostat.

Instructions

- a) Remove the two screws from the control panel. (Fig1)
- b) Remove the casing.
- c) Remove the selection resistance from the control unit. Push the wires of the cable connector K4b into the connector beneath the recognition resistance. First find two yellow wires (return sensor) and then two orange wires (outside sensor) beneath this resistance. Put the connector of the selection resistance back into the control unit (Fig 2).
- d) Press the connector at the other end on the 4 holes in the bracket.
- e) Remove the 'blind' grommets from the bottom of the appliance and install the cable glands.

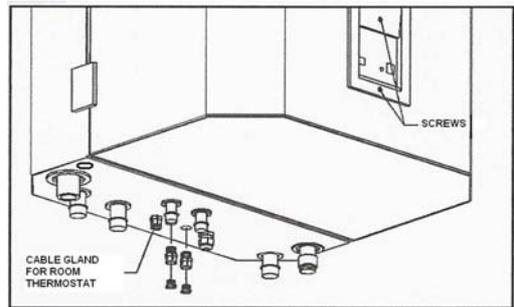


Fig 1

Connecting the cables in the cable connector

Fold over the blank end of the cable so that it makes good contact in the cable connector.

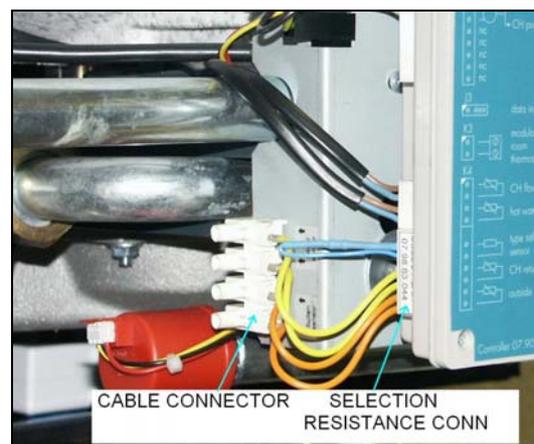


Fig 2

1.2 Connecting the outside sensor

The outside sensor comes in a casing without a connection lead. A standard two-wire lead may be used such as would be used for a room thermostat. Note, however, that the cable is a sensitive signal category and should be kept away from mains cables.

To avoid problems with moisture, the sensor should be placed with the cable outlet downwards and the lowest part of the cable (on outside wall) should always be lower than the hole in the wall. (Fig. 3).

Preferably, the outside sensor should be mounted to a north facing wall. Don't put the sensor somewhere where it might be affected by (the warmth of) sun light, chimneys, air vents or an open window.

Instructions

- Drill a hole in the wall for the connection cable.
- Determine where to put the outside sensor, ensuring that the cable hangs from the hole, to prevent moisture/ water getting into the hole.
- Run the cable back to the appliance, ensuring that holes in exterior walls are sealed. Pass the cable through the cable gland and connect to the cable connector (position outside sensor).

1.3 Connecting the CH return sensor

The return sensor must be fitted to the return pipe on the Atmos Multi.

Note! If radiators are fitted entirely with thermostatic radiator valves, then an automatic bypass must be fitted. Where a bypass is fitted, then the return sensor must be located on the radiator side of the bypass as shown in Fig 4.

Instructions

- Ensure that the CH return pipe is clean from rust and paint.
- Attach the sensor to the pipe with the cable tie (Fig 5).
- Use a small cable tie at about 5 cm from the sensor to strap the cable to the pipe.
- Run the cable into the appliance through the cable gland, and connect to the cable connector (position CH return).

Note

The room thermostat connections of the controller (top left) should be connected to a time clock, or linked out to give continuous operation.

Note that this is a 24volt circuit and must only be connected to voltage free contacts.

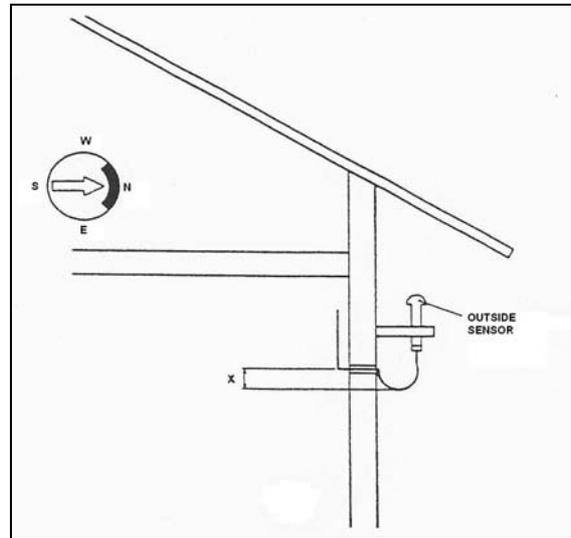


Fig 3

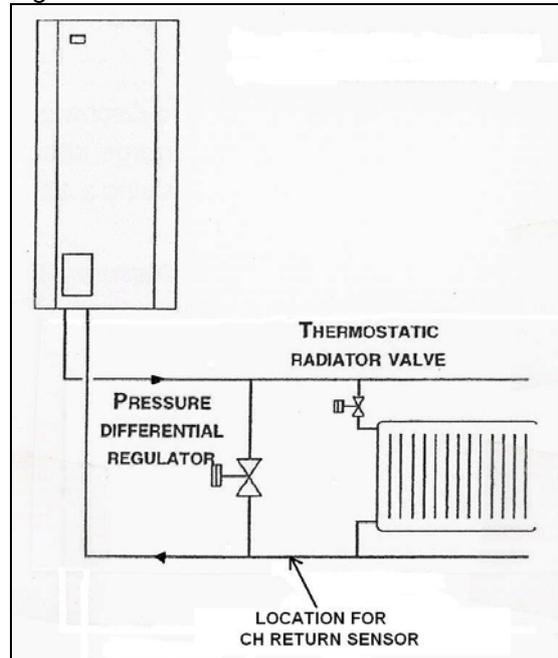


Fig 4

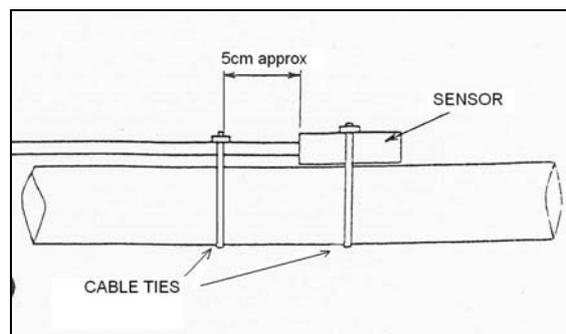


Fig 5

2 SET-UP AND FUNCTION OF THE WEATHER DEPENDANT CONTROL

The control unit of the appliance has a User's program and an Installer program. Connecting a return sensor and/or an outside sensor to the appliance will immediately be detected by the control unit.

An extra sub-program will then come up in both programs (User's and Installer programs). This must be activated before the control unit can use the Weather Dependant Control.

2.1 User Program

- a) Keep the 'Set' button pressed down for about 5 secs, till code 'b.' appears in the diagnostic display.
- b) Press the 'Set' button briefly several times till code 'O' appears in the diagnostic display. The CH water display shows the actual settings (see Table 1).
- c) To activate the Weather Dependant Control, press the 'Hot water' button briefly till the required setting comes up in the CH-water display.
- d) After 5 minutes the User's program exits automatically or sooner by pressing the 'Reset' button.

Table 1

Code			
Diagnostic display	Central heating water display	Function	Setting
b.	0 1	Hot water tank temperature	60°C
	0 2		*65°C
	0 3		70°C
c.	8 8	Central heating temperature	°C
	0. 0	Central heating pressure sensor is not active	
	8. 8	Central heating pressure	*BAR
F.	8 8	Serial number + last malfunction	
G.	8 8	Serial number + last blocking	
O.**	0 0	Weather-dependent regulation	*Off
	0 1		Room thermostat time switch
	0 2		
S.	0 0	Non-standard setting (only applies to User program)	
	0 1	Return to standard* (only applies to User program)	

* standard

** only visible if outside temperature sensor is connected

2.2 Installer Program

- 1) Enter the Installer program using the 'Set' button on the controller.
- 2) Press 'Set' for 10 seconds until a code 'A' appears on the diagnostic display.
- 3) Press the 'Set' button briefly several times until an 'O' appears on the diagnostic display which identifies the weather dependant sub-program.
- 4) At 'O' in the Installer Program, press the 'Hot water' button once to enter the night set back program. An 'A' alternates with 'O' in the diagnostic display. The CH water display shows the actual settings. See Table 2. To change the value, press the 'Hot water' button briefly and the actual value will change in the CH water display.
- 5) Press the 'Set' button to scroll through the options, and then exit into the next function by pressing the 'Hot water' button.
- 6) Proceed through the remainder of the functions in the same manner: -
 - Different function: Press 'Hot water' button
 - Next setting : Press 'Set' button
 - Different value : Press 'Hot water' button
 - Exit sub-program : Press 'Reset' button (or automatically after 5 mins)

Table 2

Diagnostic display	Code	Function	Setting
OA	20	Night set back reduction rate	20°C
	30		*30°C
	40		40°C
	50		50°C
Ob	20	Low setting	20°C
	30		*30°C
	40		40°C
	50		50°C
Oc	50	High setting	50°C
	60		60°C
	70		*70°C
	80		80°C
Od	03	Switching differential	3°C
	05		*5°C
	08		8°C
	12		12°C
OE	0	Supply/return sensor correction factor	Supply 100% Return 0%
	30		Supply 70% Return 30%
	60		Supply 40% Return 60%
	90		*Supply 10% *Return 90%

* standard

2.3 How the Weather Dependant Control works

The Weather Dependant Control uses three temperatures to control the temperature in the house and these are dependant on the control graph (Fig 6). It works according to a heating-up line. This line indicates which temperature the appliance requires for a certain outside temperature, so that the house may be kept at the right temperature.

The control unit is factory-set. For optimal control, a number of standard settings can be changed, although these factory settings are sufficient for nearly every situation. i.e the slope of the heating-up line can be altered by changing the high and low settings.

Note: Fine tuning of the settings may be necessary over several weeks. It is recommended not to readjust the setting until two or three days have elapsed.

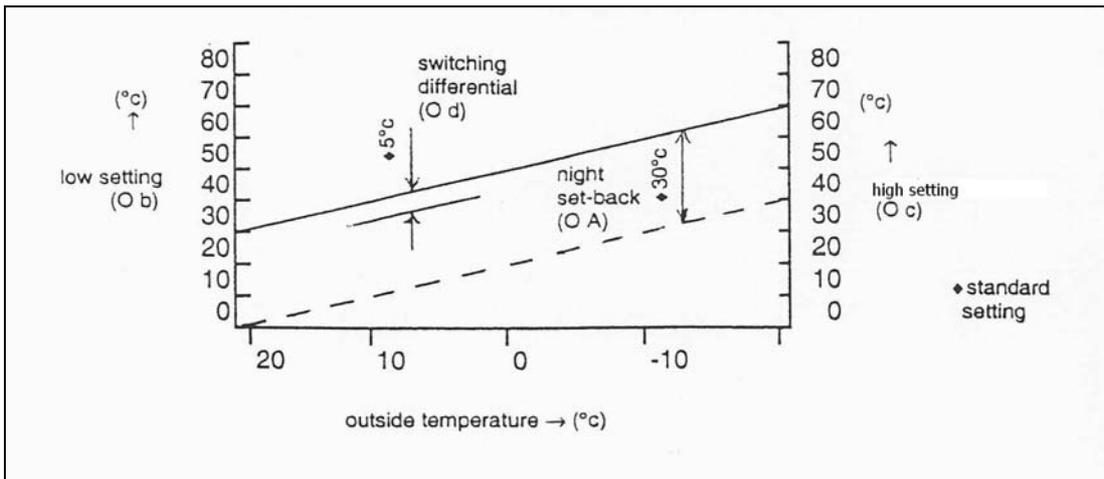


Fig 6