

WEATHER COMPENSATION KIT

LOGIC Heat

LOGIC + Heat

LOGIC System

LOGIC + System

When replacing any part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Ideal.

For the very latest copy of literature for specification and maintenance practices visit our website www.idealheating.com where you can download the relevant information in PDF format.

This kit is suitable for the following boilers:

Logic Heat 12	G.C. No. 41-399-99	Logic + Heat 30	G.C. No. 41-750-22
Logic Heat 15	G.C. No. 41-409-93	Logic System 15	GC No. 41-750-24
Logic Heat 18	G.C. No. 41-409-94	Logic System 18	GC No. 41-750-25
Logic Heat 24	G.C. No. 41-409-95	Logic System 24	GC No. 41-750-26
Logic Heat 30	G.C. No. 41-409-96	Logic System 30	GC No. 41-750-27
Logic + Heat 12	G.C. No. 41-409-97	Logic + System 15	GC No. 41-750-29
Logic + Heat 15	G.C. No. 41-409-98	Logic + System 18	GC No. 41-750-30
Logic + Heat 18	G.C. No. 41-409-99	Logic + System 24	GC No. 41-750-31
Logic + Heat 24	G.C. No. 41-750-21	Logic + System 30	GC No. 41-750-32

INTRODUCTION

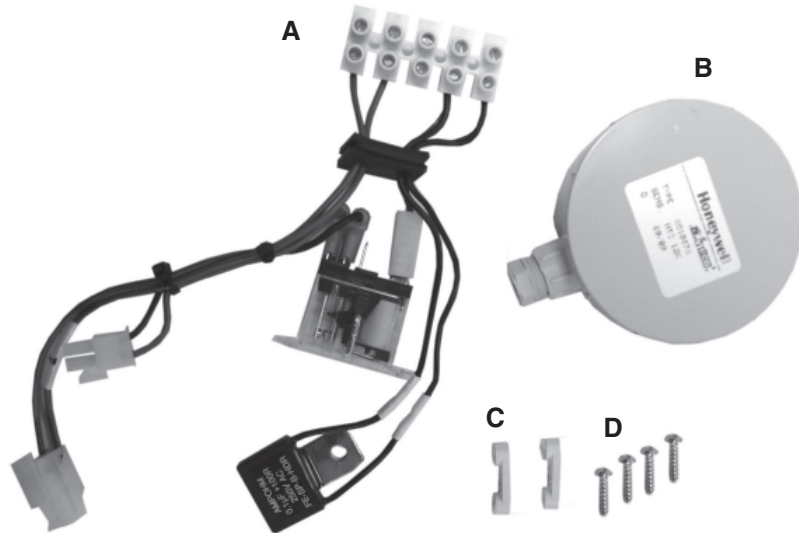
This kit provides the facility to apply outside air temperature control to the boiler water flow temperature which provides energy savings. The outside sensor provided measures the outside air temperature and sends a signal to the boiler, which adjusts the maximum boiler flow temperature in response. If the outside air temperature is greater than the system design temperature, the boiler flow temperature is reduced providing running cost savings. The boiler will operate in condensing mode more frequently increasing savings.

Once the sensor is fitted it is automatically detected.

The sensor operation may be configured by adjustment of the boiler operating parameters, if necessary.

1 KIT CONTENTS

- A. Wiring Harness
- B. Outside Air Sensor
- C. Bar Clamp x 2
- D. Screws x 4



2 FITTING THE KIT

Note. A timer should be fitted to the system so that CH will be switched off when appropriate.

ALL WIRING MUST BE CARRIED OUT BY A COMPETENT PERSON AND BE IN ACCORDANCE WITH THE CURRENT REVISION OF BS7671, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

Fitting the Sensor

The air sensor should be located on an external wall of the building to be heated. Fix the sensor to a north/north-east facing wall to avoid direct radiation from the sun. The air sensor should be located to avoid any heating effect from the boiler flue.

To fix the air sensor to the wall, unscrew the sensor box plastic cover and screw/plug the sensor body to the wall.

Wire a twin core 0.5mm² cable from the sensor to the boiler through a RH grommet located on the underside of the boiler. Cable length between sensor and boiler should be no greater than 20m.

Avoid running this cable alongside mains voltage cables.

3 FITTING AND WIRING THE WEATHER COMPENSATION KIT

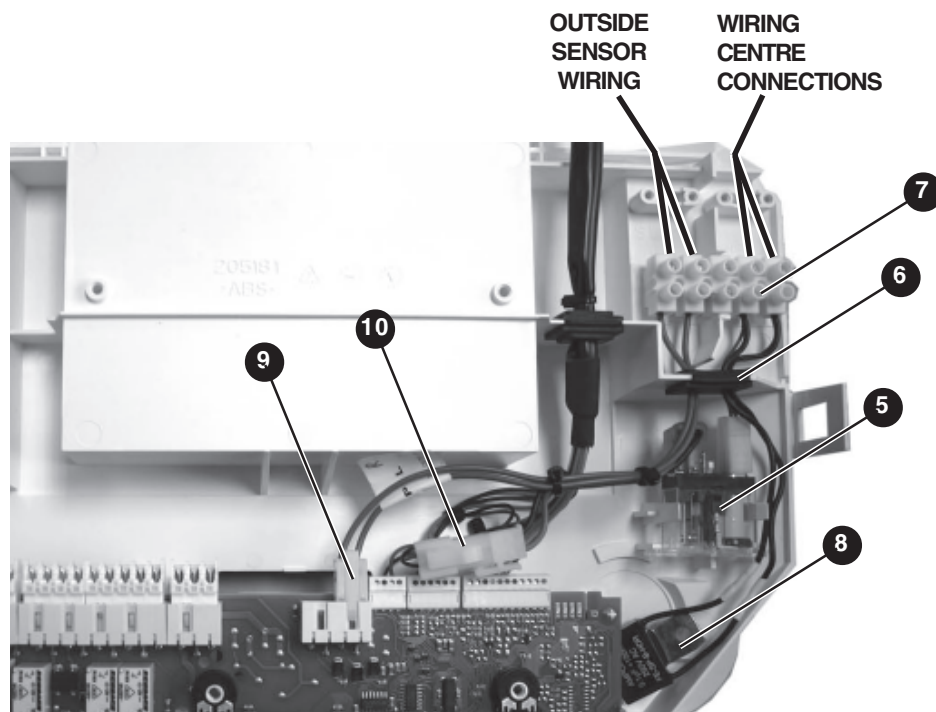
The signal DHW OFF from the system wiring centre and a common neutral must be wired into the appliance through another RH grommet located on the underside of the boiler. The wire shall be suitable for mains voltages and be 0.5mm² twin core with sheath (Double insulated) construction according to current wiring regulations.

Fitting the kit

1. Isolate the electricity supply to the boiler and system controls.
2. Remove the boiler front panel (refer to boiler installation instructions).
3. Hinge down the control box and remove the 2 screws retaining the control box cover, release the 4 retaining clips (refer to boiler installation instructions).
4. Remove the blanking grommet and retain within the boiler case.
5. Clip the relay into the plastic retaining points as shown in the picture, ensure the correct orientation and that the wires leave in the correct direction.
6. Slide the grommet on the harness down into the plastics
7. Locate and clip the terminal block into the plastic location and retaining points.
8. Locate the snubber circuit behind the relay ensuring that the wiring passes between the side of the relay and the side of the case. Ensure that the wires run cleanly without risk of being trapped.
9. Plug the connector into the PCB at position as shown.
10. Plug the connector into the flying connector as shown.

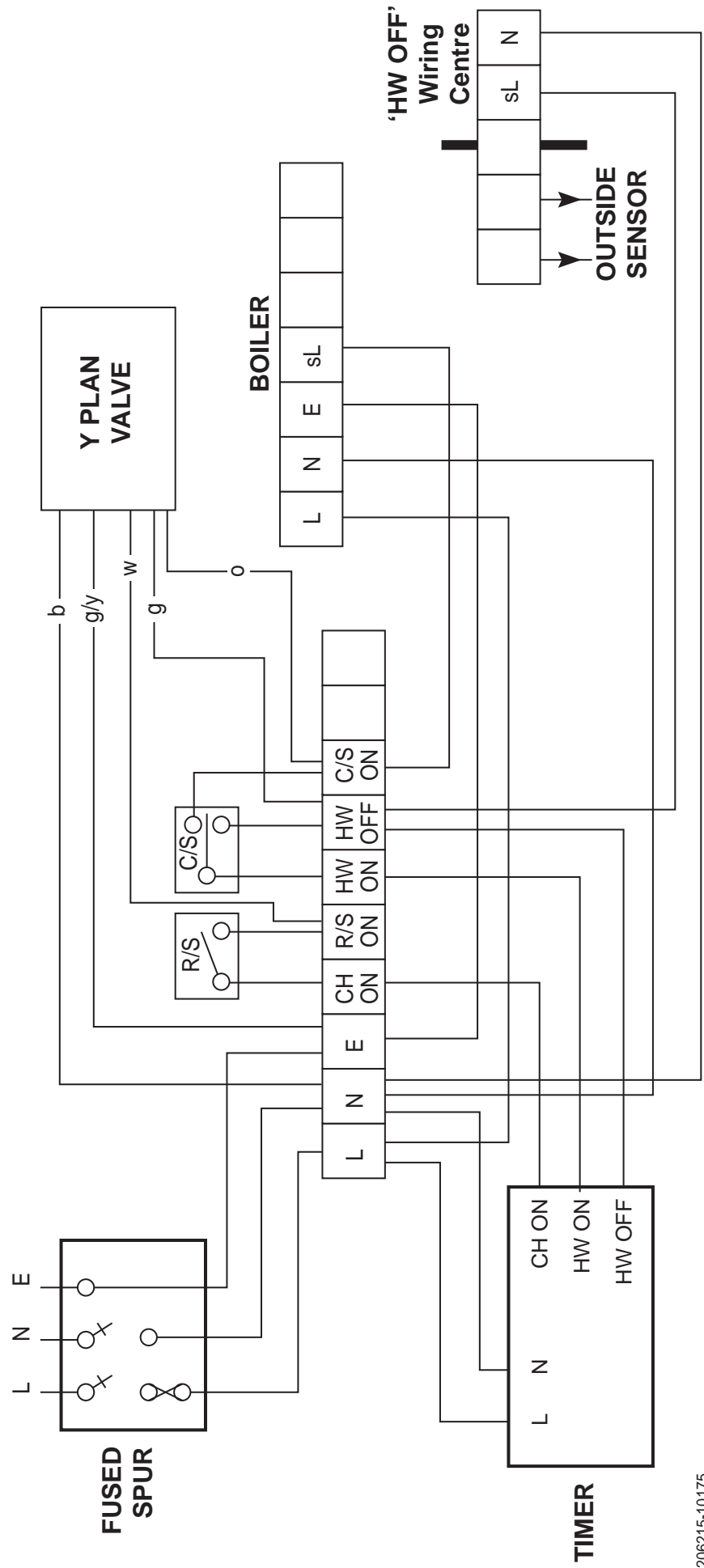
Wiring the kit

1. Carefully pierce a grommet using a suitably sized screwdriver.
2. Pass the wire from the outside sensor through this grommet, strip and prepare the ends for termination.
3. Wire the outside sensor into the 2 LHS terminals of the terminal block as shown and labelled.
4. Secure the wire with one bar clamp and two screws, ensure that there is only a small loop between the bar clamp and the grommet, and that the wire can not be trapped.
5. Carefully pierce a separate grommet using a suitably sized screwdriver.
6. Pass the 2 core sheathed wire from the wiring centre through this grommet and strip back the outer sheath, strip and prepare the ends for termination.
7. Wire the switched live signal, DHW OFF, from the wiring centre along with the permanent neutral into the 2 RHS terminals of the terminal block
8. Secure the wire with the other bar clamp and two screws, ensure that there is only a small loop between the bar clamp and the grommet, and that the wire can not be trapped.
9. Re-assemble in reverse order.



LOGIC SYSTEM & LOGIC + SYSTEM BOILER WITH Y PLAN SYSTEM & WEATHER COMPENSATION KIT

KEY
b - blue
br - brown
g - green
g/y - green/yellow
o - orange
w - white

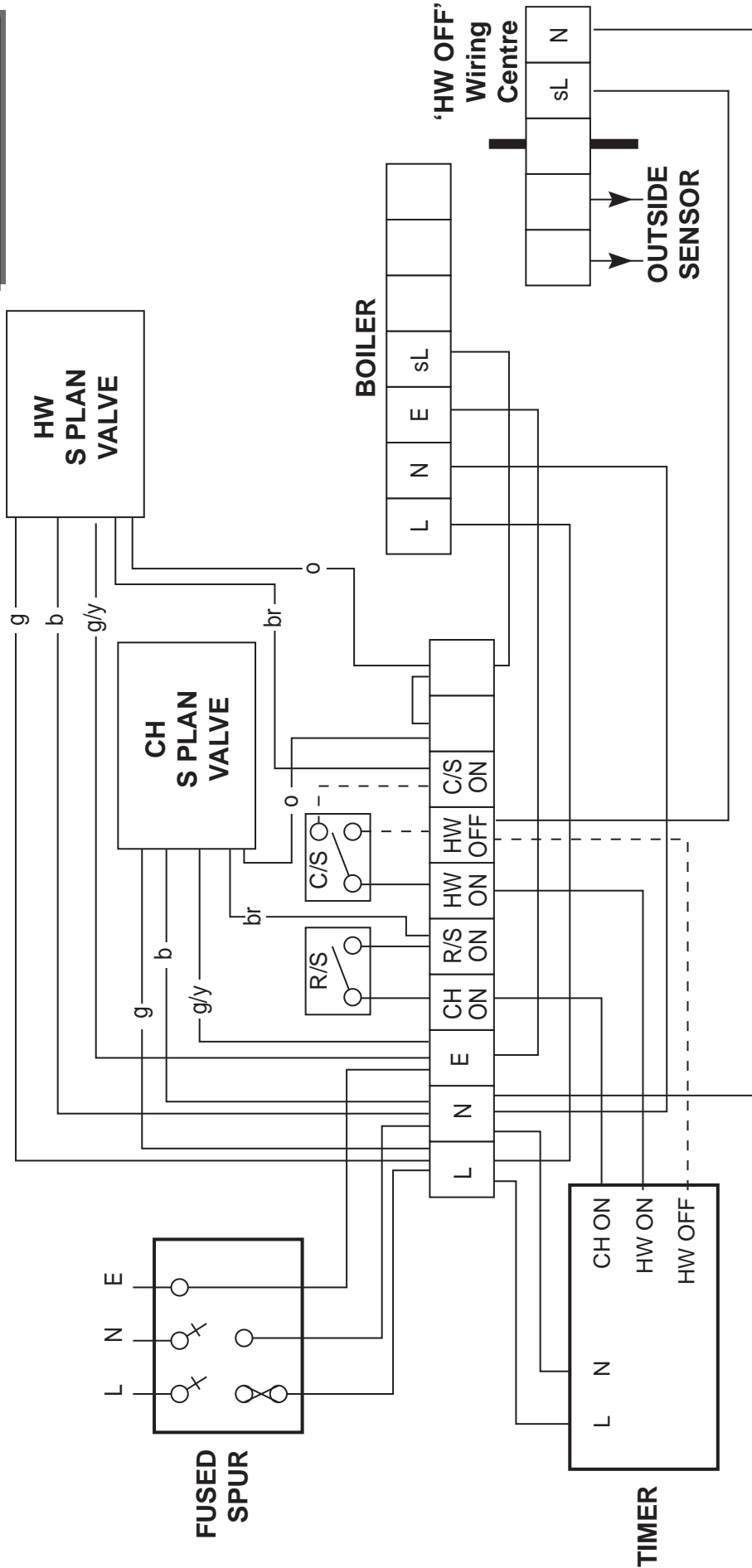


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LOGIC SYSTEM & LOGIC + SYSTEM BOILER WITH S PLAN SYSTEM & WEATHER COMPENSATION KIT

KEY

- b - blue
- br - brown
- g - green
- g/y - green/yellow
- o - orange
- w - white

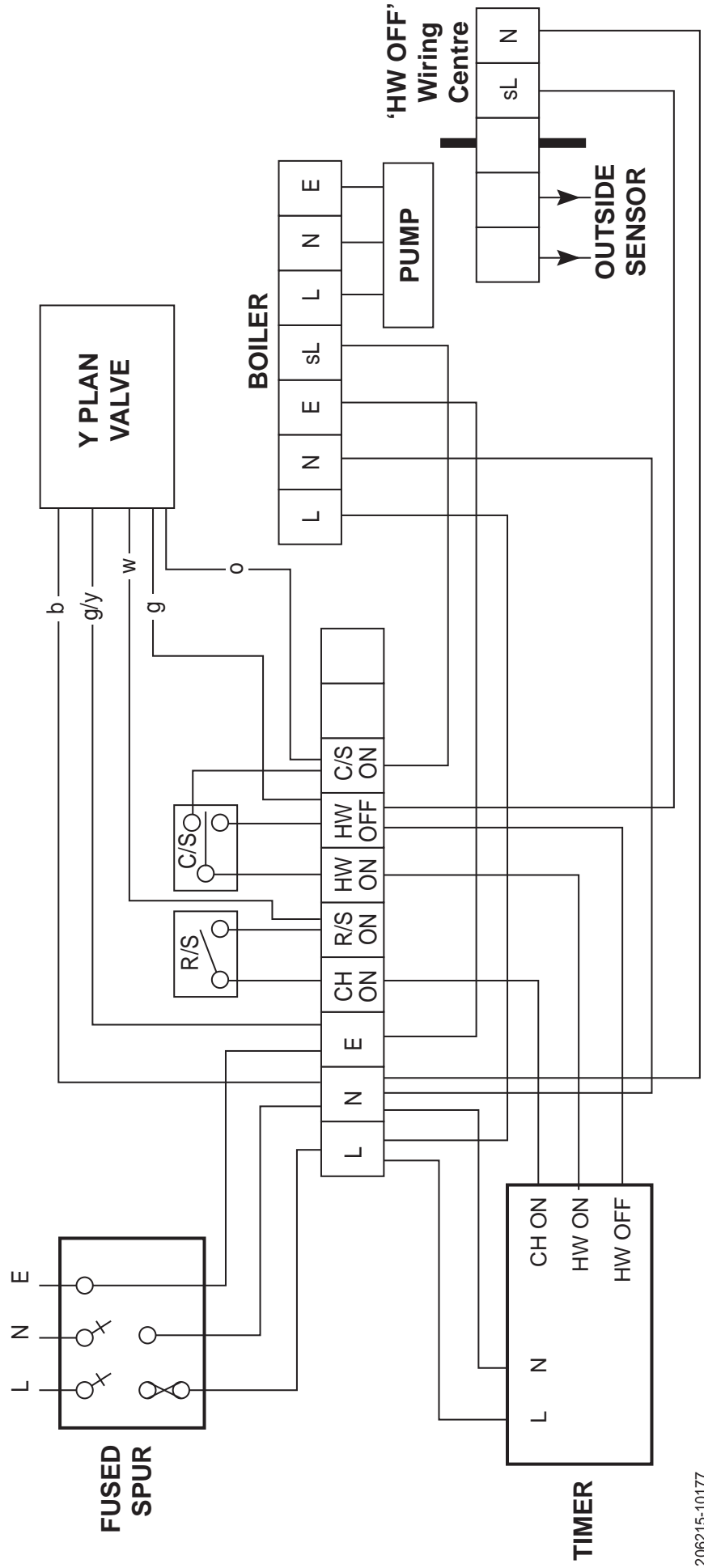


----- NOTE. Changes to cylinder stat connections and addition of HW OFF from timer.

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LOGIC HEAT & LOGIC + HEAT BOILER WITH Y PLAN SYSTEM & WEATHER COMPENSATION KIT

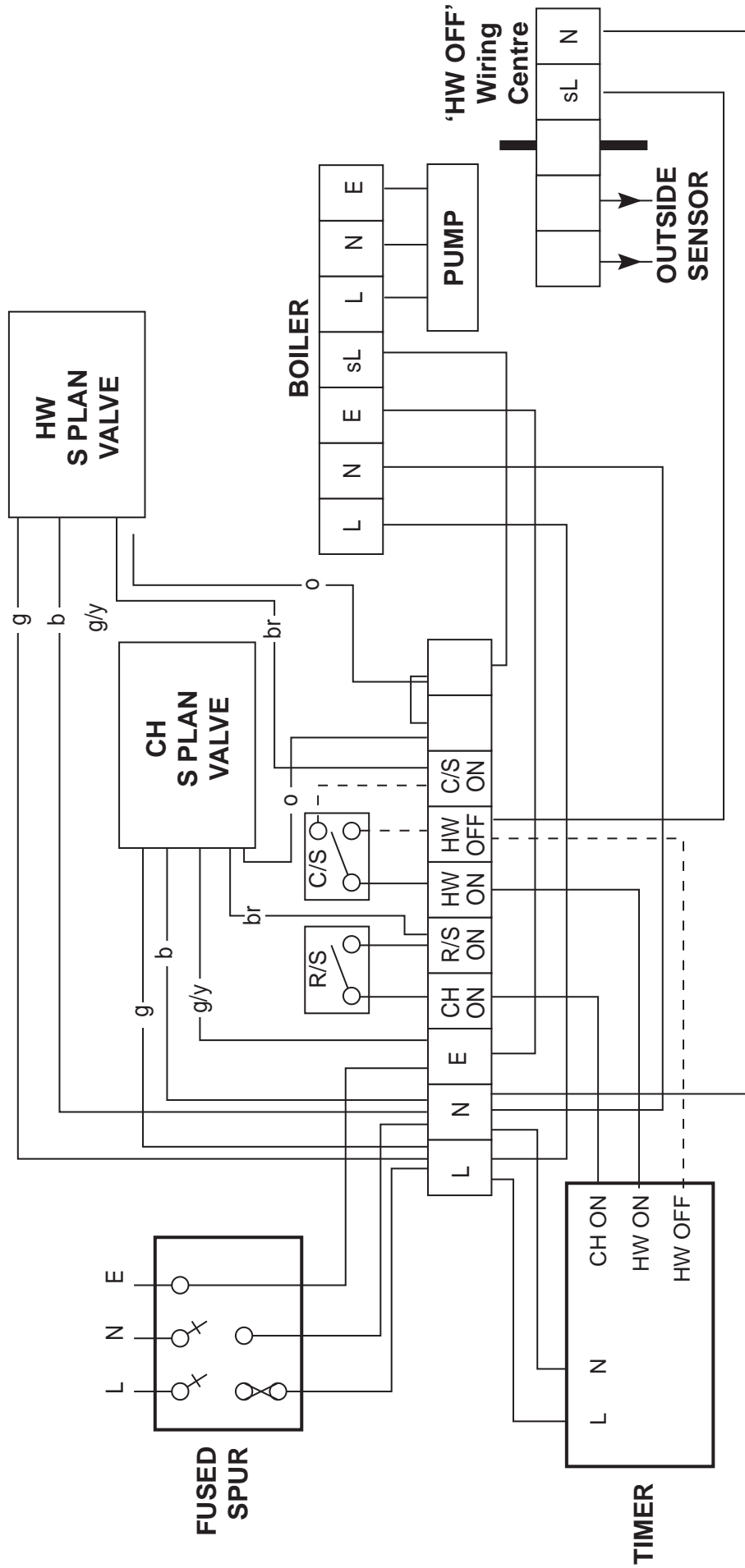
KEY	
b	- blue
br	- brown
g	- green
g/y	- green/yellow
o	- orange
w	- white



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LOGIC HEAT & LOGIC + HEAT BOILER WITH S PLAN SYSTEM & WEATHER COMPENSATION KIT

KEY	
b	- blue
br	- brown
g	- green
g/y	- green/yellow
o	- orange
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--- NOTE. Changes to cylinder stat connections and addition of HW OFF from timer.

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3 CH OPERATION

The On and Off time control of central heating should be controlled by a separate timer.

During programmed On times the Central Heating Radiator Flow Temperature is controlled by the boiler relative to the Outside Temperature as shown in the diagram.

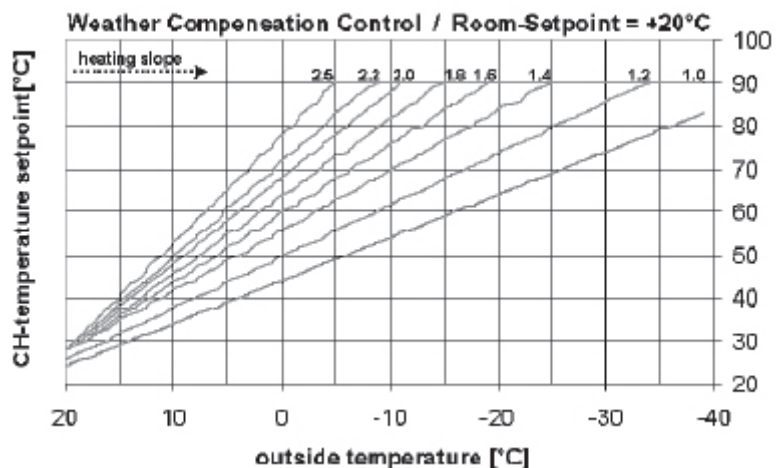
The Room temperature can be adjusted using the Central Heating Temperature Control Knob on the boiler as follows. Essentially rotating the knob clockwise increases the room temperature and rotating the knob anti-clockwise decreases the room temperature.

If the Central Heating Temperature Control Knob is rotated fully clockwise then for an Outside Temperature of 15°C a Flow Temperature of 40°C will be provided.

For an Outside Temperature of 0°C a Flow Temperature of 78°C will be provided with the relationship varying lineally in between these 2 points (line on the graph 2.5)

If the Central Heating Temperature Control Knob is in its mid position then for an Outside Temperature of 15°C a Flow Temperature of 36°C will be provided. For an Outside Temperature of 0°C a Flow Temperature of 65°C will be provided with the relationship varying lineally in between these 2 points (line on the graph between 1.6 and 1.8)

If the Central Heating Temperature Control Knob is rotated fully anti-clockwise then for an Outside Temperature of 15°C a Flow Temperature of 30°C will be provided. For an Outside Temperature of 0°C a Flow Temperature of 44°C will be provided with the relationship varying lineally in between these 2 points (line on the graph 1.0)



4 DHW OPERATION

When the system is in a timed on period for DHW and the tank stat is not satisfied, a call for heat will be generated on the switched live into the boiler.

At the same time, the HW OFF signal will not be present, this will release the Relay and place a short across the DHW thermistor input on the Main Control board, this will ensure that Weather Compensation adjustment is ignored at this time. The set point will be fixed at 70 degrees.

The demand is indicated on the display by a 'C' and the burner on LED as appropriate.

Technical Training

The Ideal Technical Training Centre offers a series of first class training courses for domestic, commercial and industrial heating installers, engineers and system specifiers. For details of courses please ring: 01482 498 432

Ideal Boilers, P.O. Box 103, National Ave, Kingston upon Hull, HU5 4JN. Telephone: 01482 492 251 Fax: 01482 448 858. Registration No. London 322 137.

Ideal Stelrad Group pursues a policy of continuing improvement in the design and performance of its products. The right is therefore reserved to vary specification without notice.



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Ideal Installer/Technical Helpline: 01482 445570
www.idealheating.com