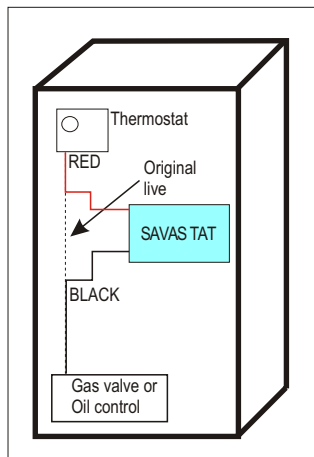# INSTALLATION

Installation of this control requires good electrical practice only and does not require specialist heating or controls knowledge.

Savastat should not be used on any direct fired instantaneous water heaters and is not compatible with some combination boilers.

Power supply to the boiler must be isolated before making the electrical connections of SAVASTAT into the boiler circuit.

SAVASTAT Location

Savastat may be located at a convenient position immediately adjacent to the boiler within reach of the cables provided (on some commercial boilers it may be screwed directly onto the casing). It must not be in a position that would hinder normal servicing of the boiler. **Ensure that cables do not touch hot surfaces of the heat exchanger, burner or flue.**
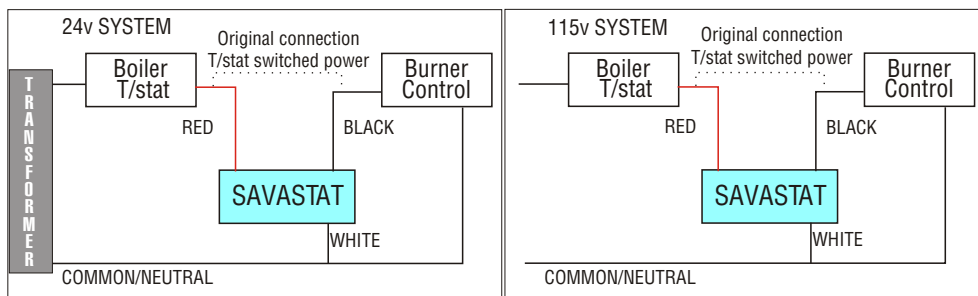

IMPORTANT Voltage Selection

This Savastat model is supplied with a factory fitted hours run meter.

The Savastat cannot be configured to suit ANY alternative voltage other than the one it is designated for.

Each Savastat product is labelled for the voltage it is designed for - please check carefully the voltage of your supply and ensure compatibility with your Savastat product.

ELECTRICAL CONNECTIONS

WIRING

SAVASTAT does not require an independent power supply. It should be connected between the boiler thermostat and the burner control (gas valve or oil burner control) as follows:

Savastat RED to   - Switched Live FROM Thermostat
Savastat BLACK to   - Switched Live TO Gas valve/oil burner
Savastat WHITE to   - Permanent Common/Neutral
Savastat does NOT require an Earth.

Connections and break-ins must be made within the boiler or burner terminal/control box.

For boilers with non standing pilots care must be taken to ensure that Savastat is connected BEFORE any part of the ignition system.

COMMISSIONING

Remove cover plate for access to control settings.
To check that wiring is correct:
1) Switch Savastat to BYPASS mode and fire the burner using the boiler thermostat.
2) Switching to SAVE mode will hold burner off. Status indicators will sequence IDLE for 30 seconds followed by SAVE and then RUN as the burner fires (at low water temp. RUN will follow IDLE immediately).
BOOST/SAVE together indicates return water temp. is above the selected or built-in reference temperature.

CONTROL SETTINGS

Sensormatic model:
All control parameters are factory preset to be applied to domestic boilers only.
Models 100 and 500:
Adjust settings to match the boiler/system operating conditions as follows.

RETURN TEMP

This setting provides a reference point about which rate of temperature change is measured. Because it is not a switching set point it is not critical. This should be set at the designed system return temperature. Before installing Savastat make a note of flow, return and boiler thermostat setting. As a guide the following settings can be applied:

65°C/150°F normally gives good overall results.
60°C/140°F when boiler thermostat at 70°-75°C/160°- 168°F.
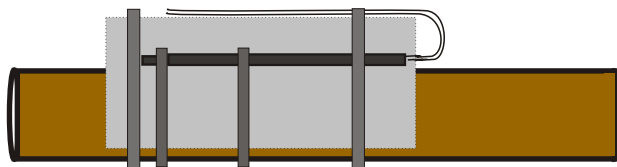70°C/160°F when boiler thermostat at 80°-85°C/175°- 185°F.

ENERGY SLOPE

The potential for saving energy is related to excess boiler capacity over system load.
This adjustment serves to maximise energy saving by allowing a greater temperature drop across flow and return. Alternatively it may be used to restrict allowable temperature movement.
Setting MED gives good overall results for most systems.

...y... insulation as indicated.

Notes to user:

SAVASTAT requires no maintenance and may not need to be touched for the life of the system except as follows:

BYPASS Control
To allow servicing of the boiler, switch SAVASTAT to BYPASS and return to SAVE mode on completion.

IDLE

If the boiler is not operating correctly switching SAVASTAT to BYPASS mode will allow you to locate the fault between SAVASTAT or the boiler. If the boiler still does not function correctly with SAVASTAT in BYPASS the fault is within the boiler system. Please call your local service engineer.

SAVE

Savastat Status Indicator Lights

BOOST

All three Savastat models employ the same status lights to indicate which mode the device is in.

RUN

If none of the status lights are illuminated there is no 'call for heat' by the boiler thermostat This means the boiler thermostat is open and the boiler is turned off.

When the boiler thermostat switches on the yellow *idle* light is illuminated for a 30 second delay whilst Savastat computes what action to take next.

When only one green *save* light is illuminated it indicates that Savastat has entered a save mode preventing the boiler firing while the computation involved is looking at how fast the return water temperature is dropping *away* from the set reference temperature (Domestic model factory set, others variable).

When both the *save* light and the *boost* light are illuminated Savastat has entered a save mode while the computation involved is looking at how fast the return water temperature is dropping *towards* the set reference temperature (Domestic model factory set others variable).

The red *run* light will be illuminated when Savastat has finished its active mode and allowed the boiler to fire. When the boiler finishes its burn this light will go out and the cycle will repeat the next time the boiler is asked to burn.

S A V A S T A T
Model 500C
Incorporating hours run meter
Boiler Energy Controls

Load Compensation Energy Control
Installation & Commissioning Instructions

Please read before commencing installation of any Savastat control.

CE 96   EN 60730
         EN 50081-1
         EN 50082-1

UL   E236239