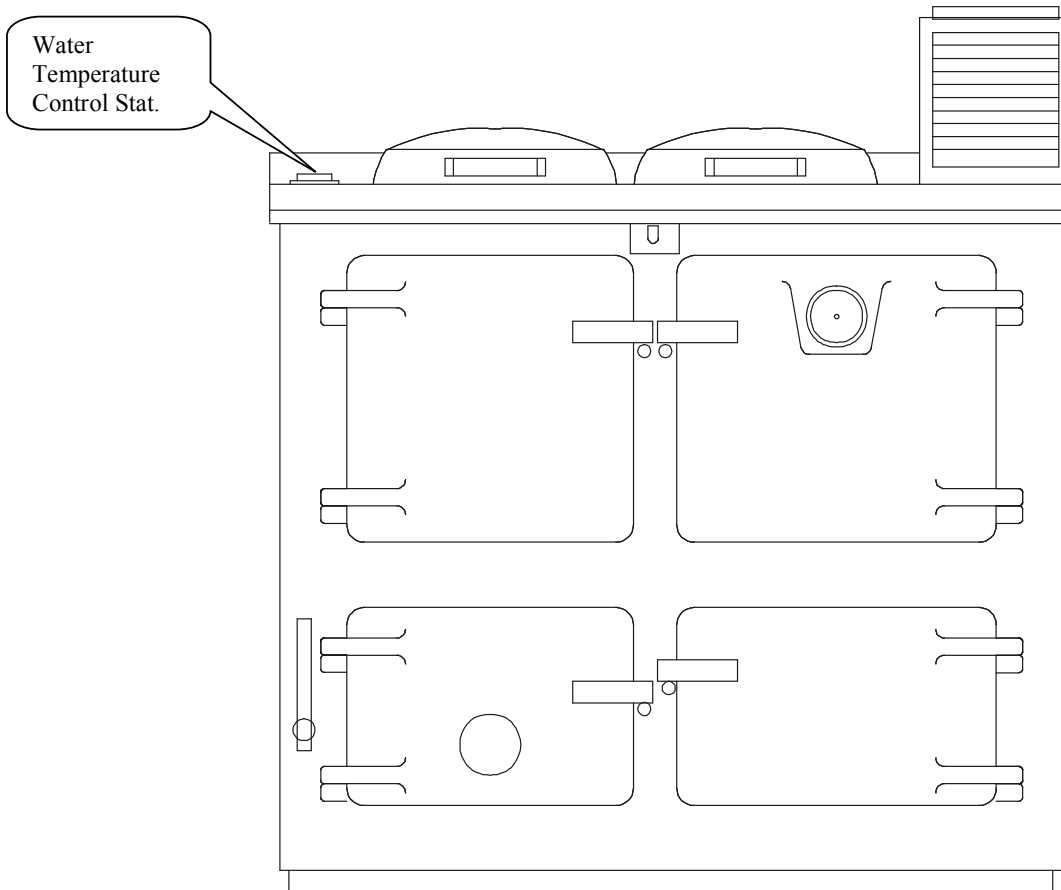




RAYBURN SUPREME/NOUVELLE/355S USER INSTRUCTIONS ISSUE 4



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1. INTRODUCTION.

The Rayburn Supreme and Nouvelle cookers are ideally suited for conversion.

They have an excellent hot plate and a good cast iron lined upper oven.

They are robustly constructed and renown for the quality of vitreous enamel applied to the exterior castings.

The conversion system fitted to your Rayburn will enhance and compliment its many attractive features, as well as bring the advantages of clean, automatic heating to your home.

It can provide a maximum output to water of up to 55,000 BTUs via an automatic pressure jet oil burner firing vertically through a simple patented baffle system.

It is:-

Simple and easy to use.

Easy to maintain.

Easy to service.

2. HOW DOES IT OPERATE?

Providing the appliance has been converted correctly and in line with our installation instructions, the cooker will operate in much the same way as a solid fuel cooker with 3 major differences.

1. You can rapidly, turn it on and off whenever you require.
2. You will get a constant heat output instead of a fluctuating one.
3. You will be able to hold a steady oven temperature automatically via the water temperature control thermostat.

You will not be able to operate the oven independently from the boiler as the two are interlinked in the original design of the cooker.

Here is a description of how your converted appliance works

Imagine, instead of coal fire in the firebox, a large flame generated by the burner, which can be diverted

a) Around the boiler and through an extra part of the boiler,

b) Around a part of the boiler and then over the oven.

Obviously, if you divert the flame around and through the boiler, more of the heat from the flame will go into the water and the resultant flue gases will be cooler.

If you divert the flame across the oven top the resultant flue gases will be much hotter and will then put the extra heat into the oven.

In each case the hot plate will get hot.

3. DESCRIPTION OF CONTROLS.

Controls which will affect the performance of the appliance and which you should be familiar with are as follows:-

TIME CLOCK OR ON OFF SWITCH.

Your Installer will inform you of how the appliance will be activated.

WATER TEMPERATURE SENSING THERMOSTAT.

STAT DRIVE INFORMATION



There are two different situations, which can effect the positioning of this device.

1. Situations where the appliance has been correctly installed.

There will be enough space at the left hand side of the appliance for the conversion engineer to gain access to the original water temperature control thermostat.

This will mean that you will be able to use the existing drive knob on the top left hand side of the enamelled hob.

There is a slight discrepancy between the original scale of 1 to 8 and that of the new thermostat, which is 1 to 6.

There is also a further slight problem in as much as the original drive to the stat is a flexible shaft, which does not give a positive action.

To overcome this you will need to use a certain amount of trial and error to establish familiarity with the stat drive and corresponding numbers, with experience, you will learn where to set the drive knob to suit your particular requirements.

2. Situations where the appliance has not been correctly installed.

There may not be enough space at the left hand side of the appliance to gain access to the original stat.

In these situations there are two possibilities,

1. A separate stat holder box situated near to, or on the appliance.
2. A pair of clip on pipe stats situated in a convenient position near to the appliance.

The installer may well need to discuss the best possible option of fitting a temperature control stat if it can't be fitted in it's original position.

The control of either stat should be:-

Rotate the control knob clockwise or anti clockwise to either increase or decrease the water temperature.

(This device automatically controls the water temperature and also has a direct effect on the idling temperature of both the oven and the hot plate, i.e. the hotter the water temperature required the hotter both the oven and the hotplate will become)

LEVER OPERATED, BOILER - COOKER DAMPER.

(The Chrome lever situated in the centre of the appliance just below the hob.)

This device allows the user to bias heat to either the oven or the boiler.

The original design of the appliance will not allow the user to run the heating or cooking separately.

4. THE NEW BAFFLE SYSTEM.

Fitted inside the appliance this item is altered from SUMMER to WINTER positions by the service engineer.

It consists of a circular tube with a ceramic board lid.

In the sides of the tube are two rectangular holes, which are designed to shoot the flame in the required direction.

WINTER TIME RUNNING.

During the WINTER TIME this direction is to the rear and left hand side of the appliance directly opposite the metal faces of the boiler.

The logic is that because the burner will be running for longer periods of time, there will be enough heat to keep the oven at a reasonable temperature without having flames directed at it.

SUMMER TIME RUNNING.

During the SUMMER to the right (oven) and front of the appliance.

The logic here is because there is less need to heat the water; the majority of heat should be directed at the oven.

If required the holes can be positioned anywhere in between.

Note

This process of baffle adjustment is called HEAT BALANCING.

In general solid fuel cookers are fitted in a wide variety of different applications with differing heat loads applied to them, because of this there will be a need for some sort of adjustment to get the right HEAT BALANCE established for each different installation.

ISOLATED COOKING OR HEATING.

It is not possible to completely isolate either the oven or the boiler from the heat generated by the burner.

OVEN TEMPERATURE CONTROL

The oven temperature control is an optional extra.

It is mounted on the left hand side panel close to the top of the appliance.

It is an additional thermostat calibrated at oven temperatures 50 to 300 C which is simply wired in series with the water temperature control stat.

The use of this control is limited because it is not possible to separate the oven from the boiler.

To set it, turn the water stat up to maximum and set the oven stat at the desired temperature, when the desired temperature is reached, the oven stat will turn the burner off, as the oven cools down the burner will fire up occasionally to maintain the oven temperature.

If the water temperature is already high when you want to increase the oven temperature the water stat may well cut the burner off regardless of the temperature setting.

Remember that if the water is up to temperature and the burner is allowed to carry on running then the system would boil and obviously this will not happen because the water temperature control stat will stop it.

5. THE CENTRAL HEATING PUMP.

Can be turned on and of by a switch or automatically by a time clock.

6. MAIN BURNER CONTROL UNIT.

The main burner control unit (control box) automatically controls and times all the functions of the burner and normally you will not need to know too much about it other than how it fits in the general pattern of the control system, which is as follows: -

Power is supplied from either a manual or timed on - off switch to the thermostat, and then to the controller.

The controller looks after the burner and makes sure everything happens in the correct order.

The only time you will notice the controller, is if the burner fails to ignite.

In this case it will (GO TO LOCK OUT) and the orange reset button will illuminate, indicating a problem has occurred during the ignition sequence.

Before you can attempt to relight the burner you will have to wait for about three minutes before

you can press the button to extinguish the light and let the controller try to re-ignite the burner.

If lockout occurs after a reset you must call out a service engineer to investigate the cause.

7. USING THE CONVERTED APPLIANCE.

WARNING.

Always use a heat resistant glove when using the chrome boiler / cooking lever as it will get hot during normal running.

With a little experience you will soon learn what oven temperature to expect in relation to water temperatures and although normally to increase the oven temperature, you will have to open the boiler / cooking damper to it's cooking position, this may not always be the case.

THE BOILER / COOKING DAMPER.

Is operated by a chrome lever located in the centre of the appliance just beneath the hob return.

It provides the means to direct the flame from the burner either around the boiler / hotplate, and through the rear boiler flue ways, for high efficiency heating or around the first part of the boiler, the hot plate and then the oven, for more of your oven and cooking needs.

HEATING POSITION.

When the chrome lever is in a vertical position it is in the heating position.

COOKING POSITION.

When the chrome lever is lifted into a horizontal position it is in the cooking position.

It is not possible to completely isolate the boiler from the flame, but it is possible to swing the majority of the heat either into the water or into a hot plane and oven, if you wish to run the cooker during the summertime for cooking you will need to purchase the summertime boiler insulation bricks.

You will very quickly learn to use the converted appliance but to give you a start we illustrate a typical situation:-

8. TYPICAL RUN SITUATION.

The cooker is in its water heating state with the lids down, the boiler /cooking damper lever is in boiler position and the water stat set to give a water temperature of 60 deg C, the cooker has

been timed on from say 6 am and it is now time to get up at say 7.30 am, by this time the cooker should have the water up to the required setting and will be turning itself on and off, (modulating) to maintain the water temperature

All being well the oven should be at about 150 - 180 deg C.

The 2 pint kettle left on the edge of the right hand hotplate would be simmering and needs only to be moved across on to the left hand hotplate to bring it up to the boil.

TO INCREASE THE OVEN TEMPERATURE.

Turn the water stat up a little and open the boiler / cooking damper to cooking position.

The burner will now be running, keep an eye on the oven temperature gauge and after ten or fifteen minutes the oven will come up to say 200 deg C, just before the oven comes up to the required temperature close the boiler / cooking damper and slowly turn the water stat down until the burner just clicks off on the stat.

Now you have the oven up to temperature and the cooker back in its heating mode with the burner turning on and off (modulating) keeping the central heating up to temperature.

In this condition the oven will stay at its target temperature for about an hour, if you need to keep the oven on temperature for longer than an hour give the oven a quick boost by repeating the increase oven temperature procedure.

TO DECREASE THE OVEN TEMPERATURE.

Turn the water stat down a little and then the burner will stop.

Move the boiler / cooking damper to it's boiler position.

There are many different ways that you can use your appliance, it is impossible to cover them all but it is hoped that you have been given an introduction into the operating techniques.

Remember, plan in advance and keep a note of what oven temperatures you get relative to your selected thermostat settings, you will then have more confidence to use your cooker more and more.

Normally we need our central heating at least 8 - 9 months of the year and whilst we are central heating, cooking comes cheap.

9. RUNNING COSTS.

Running costs are dependant upon two factors

1. The size of the heating system.
2. The amount of time the burner is running.

If you have a large system say 55,000 BTUs it cost quite a lot more to run than a smaller system of 30,000 BTUs

Your burner will have been set up at the factory to give the heat output suitable for your system and your installing technician will be able to tell you how many gallons or litres per RUNNING HOUR you will be using, once you have this information, multiply:-

The running hours,

By the throughput per hour,

By the cost per litre or gallon,

and you should have your answer.

10. PRECAUTIONS.

After the conversion has been completed commissioned your installer should give basic information relative to the location of: -

THE CONTROL BOX LOCKOUT BUTTON.

Can be manually reset should the burner fall to ignite.

THE ELECTRICAL ISOLATION POINT.

THE OIL SUPPLY VALVES AND FILTER.

THE FIRE VALVE.

Remote fire valves can be reset if tripped, make sure your installer tells you how to reset the valve after first investigating the reason for the trip.

WARNING.

Always use a heat resistant glove when using the chrome boiler / cooking lever as it will get hot during normal running.

To make sure that your converted appliance always runs at its optimum performance level,

have it serviced on a regular basis by a competent person.

To ensure that the service engineer is competent and able to maintain your oil burner in good condition, we strongly recommend the use of O.F.T.E.C. trained service engineers for this job.

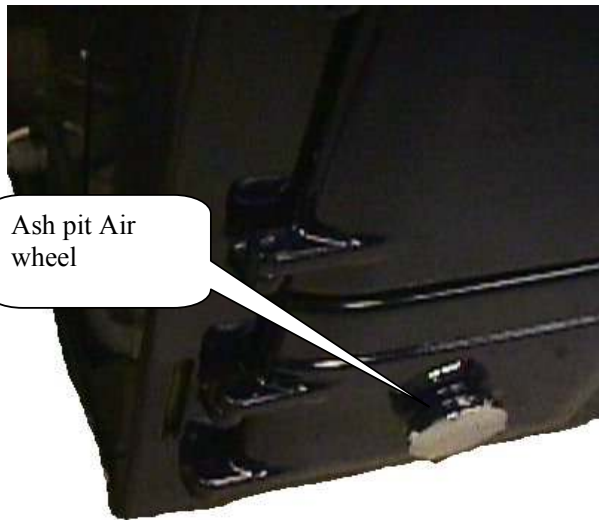
11. SERVICING.

FREQUENCY.

Service should be carried out at six monthly intervals.

AIR FOR COMBUSTION.

Make sure that the airways into the ash pan area are always clean and clear of obstructions.



Make sure that any purpose-designed ventilation is kept clear and free of obstruction.

Do not block air vents under any circumstances.

WARRANTY REGISTRATION.

Make sure that you or your installer returns the warranty registration card to our office as soon as possible, otherwise it will slow down the processing of warranty claims.

Note all warranty claims should be made through your installer.

CALIBRATE FUEL TANK GAUGE.

You are advised to make sure that your oil tank gauge is accurately set up and you keep a careful check on the contents.

FUEL RE ORDER.

Re-order in plenty of time, so as to avoid a run out fuel situation.

FUEL TYPE.

Use only 28-second kerosene on this conversion system.

12. IN THE EVENT OF A STOPPAGE.

Before calling your service man make sure that:-

CONTROL LOCK OUT

Located in the ash - pan area on the front of the burner.

Check the light on the burner controller front, if it is illuminated, press it in and let the burner try to re - ignite.

EMPTY FUEL TANK.

Have you run out of fuel?

ACTIVATED SAFETY CONTROLS.

The fuel is turned on and the fire valve hasn't tripped.

TIME CLOCK.

The clock programmer is switched to the correct position.

THERMOSTAT.

The thermostat is set to the correct position.

ELECTRICAL FUSES.

All the electrical fuses are sound.

Business Studies