



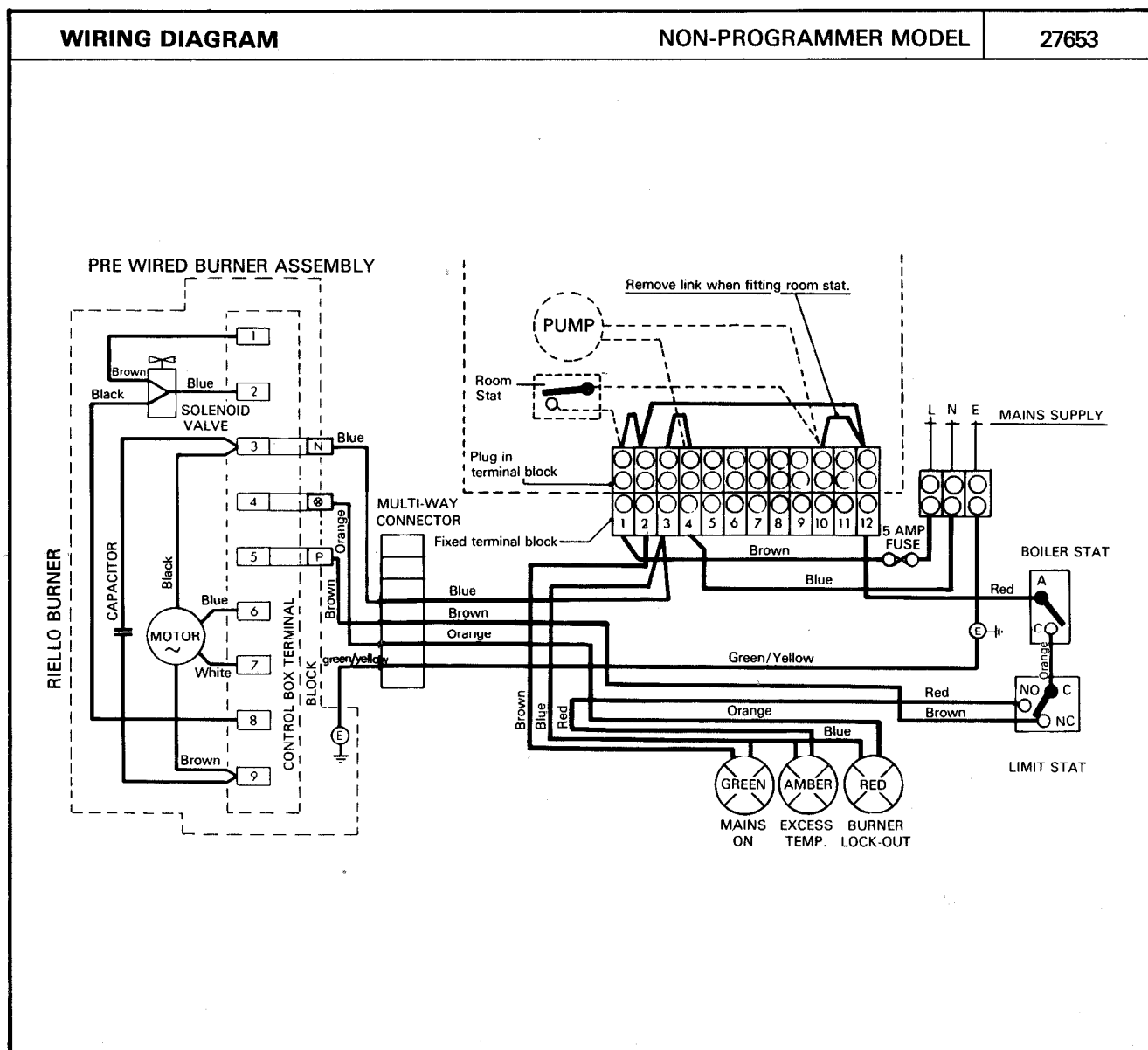
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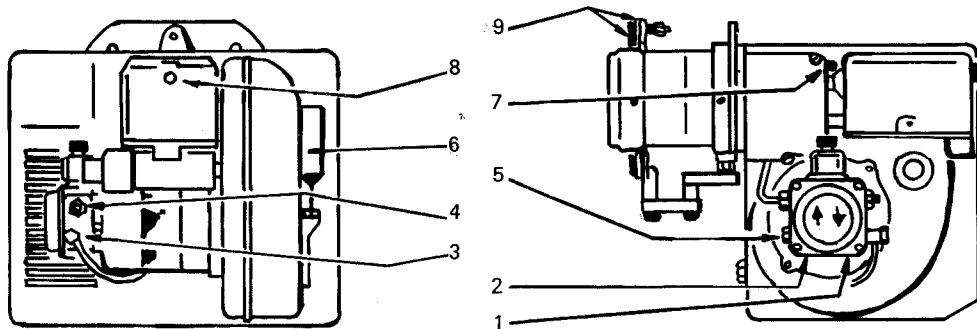
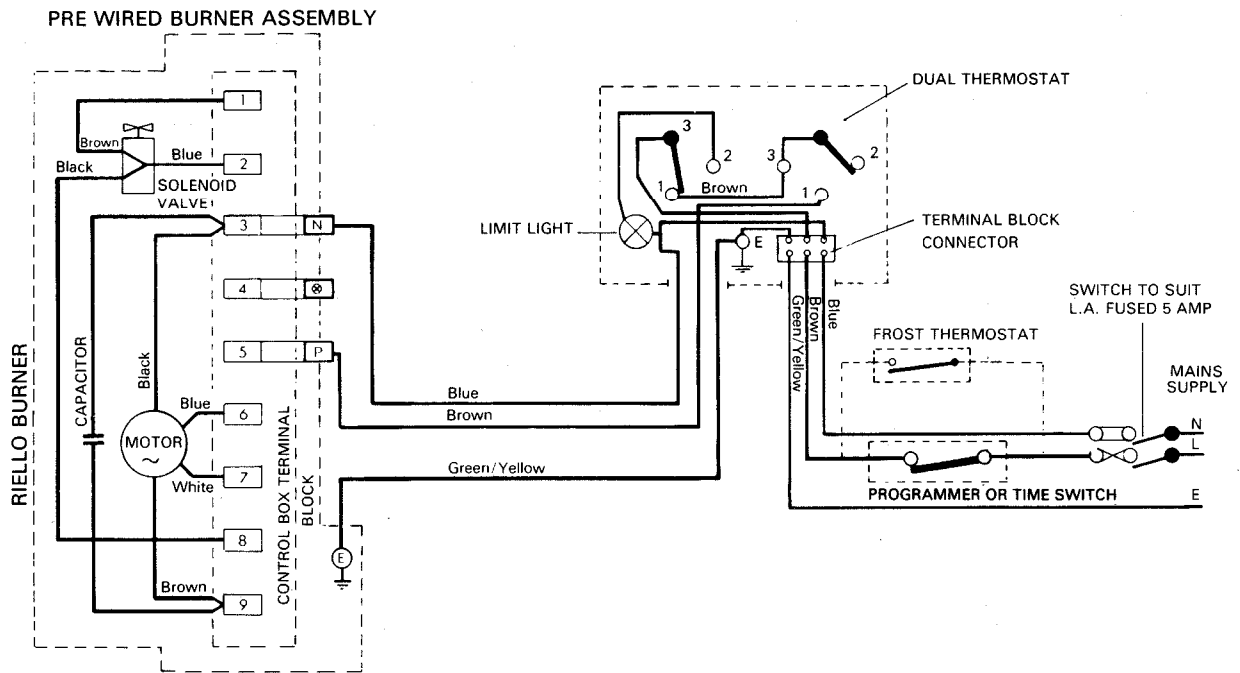


By appointment to H.M. Queen Elizabeth
The Queen Mother
Manufacturers of Domestic Boilers

Commissioning Instructions for Riello Burner Mectron 10M.

For use on TRO 37/45 and 50/73

WIRING DIAGRAM
NON-PROGRAMMER MODEL
27653




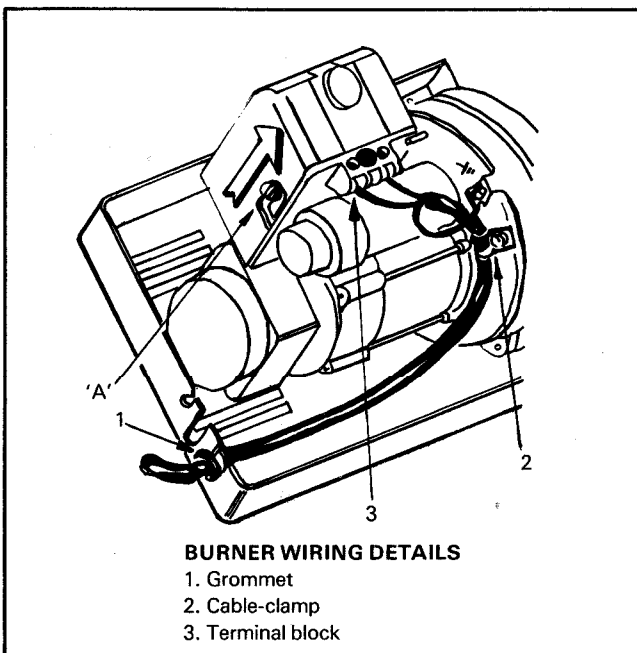
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|---------------------------------|------------------------------------|--------------------------------------|
| 1. Return line. | 4. Pump pressure regulator. | 7. Combustion head adjustment screw. |
| 2. Suction Line. | 5. Suction gauge fixing point. | 8. Lock-out lamp and reset button. |
| 3. Pressure gauge fixing point. | 6. Hydraulic jack with air-damper. | 9. Flange with gasket. |

Boiler	Output	Nozzle Danfoss G.P.H.	Firing Rate ml/min	Pump Pressure Bar	Combustion Head Setting	Air Damper Setting
TRO 37/45	45 kW/hr 154,000 Btu/h	1.35 60°S	90	9	2	3
TRO 50/73	50 kW/hr 170,000 Btu/h	1.5 60°S	102	9	2	4.5
TRO 50/73	73 kW/hr 250,000 Btu/h	2.25 60°S	150	9	3.5	4.5

CONTROL BOX

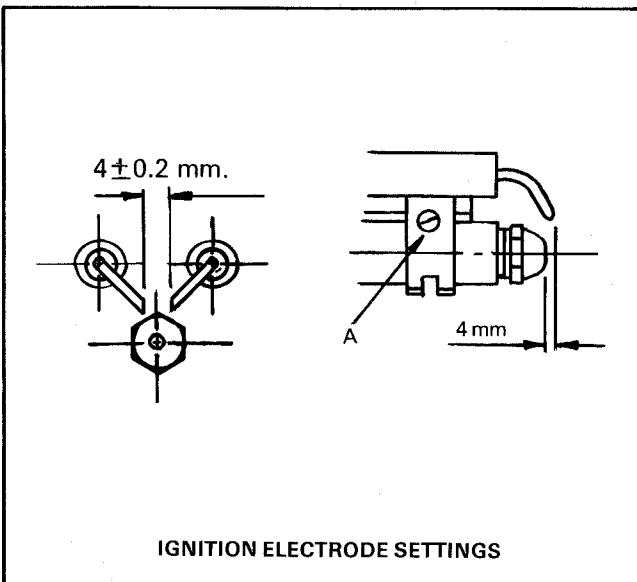
To remove from the burner loosen screw 'A' and withdraw the box in the direction of the arrow.

The photo resistor is fitted directly onto the control box, beneath the ignition transformer, to remove unclip from support.



IGNITION ELECTRODES

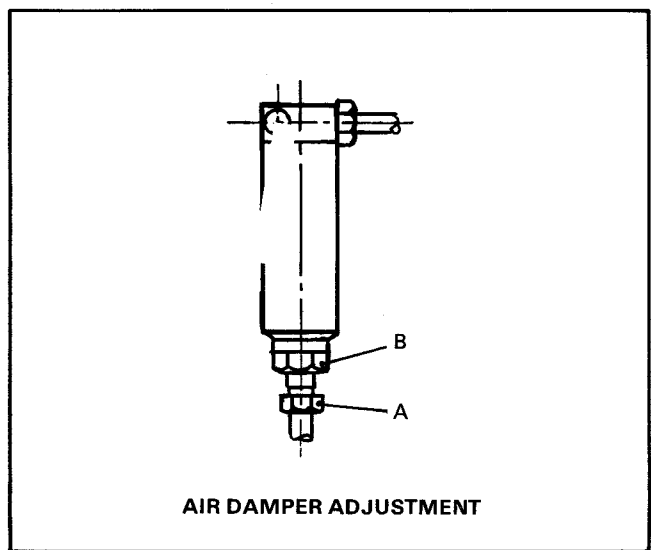
These are factory set but if adjustment is necessary remove combustion head and loosen screw 'A' on the electrode bracket and adjust as shown in diagram.



COMBUSTION DETAILS

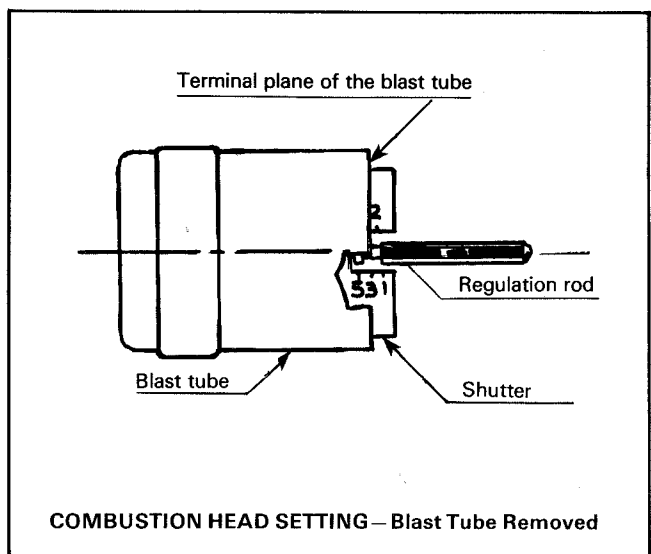
The nozzles and pump pressures are factory set to suit the output required. Adjust the air damper in accordance with the table above.

To adjust the air damper, loosen the nut (B) turn the screw (A) to the required setting and relock nut (B).



COMBUSTION HEAD SETTING— with Blast Tube Removed

These are factory set. If adjustment is required rotate the regulating rod until the terminal plane of the blast tube is level with the set-point—refer to table above.



In the sketch above, the combustion head is set for an output of 2.25 GPH at 9 bar, whilst the shutter is level with set-point 3.5, as required by the table above.

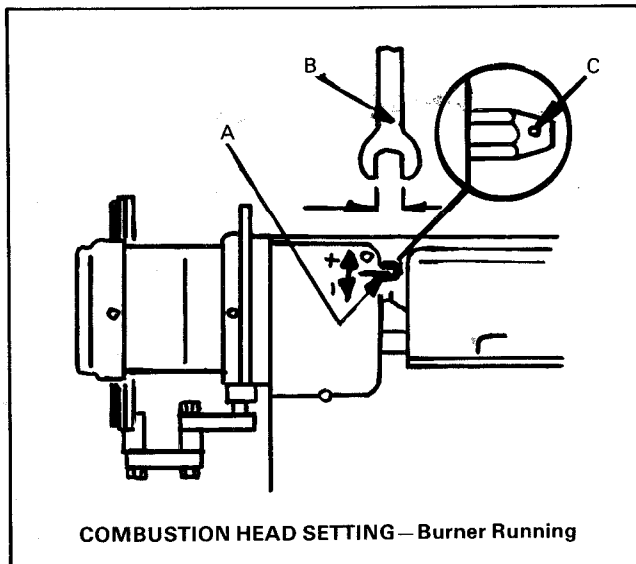
COMBUSTION HEAD SETTING— Burner Running

Combustion head settings indicated in the table are valid for most installations.

The setting of the fan output according to the installation should normally be done only by the adjustment of the air damper.

Should the combustion head require re-setting with the burner running, adjust rod 'A' with a 6mm spanner 'B' as follows:

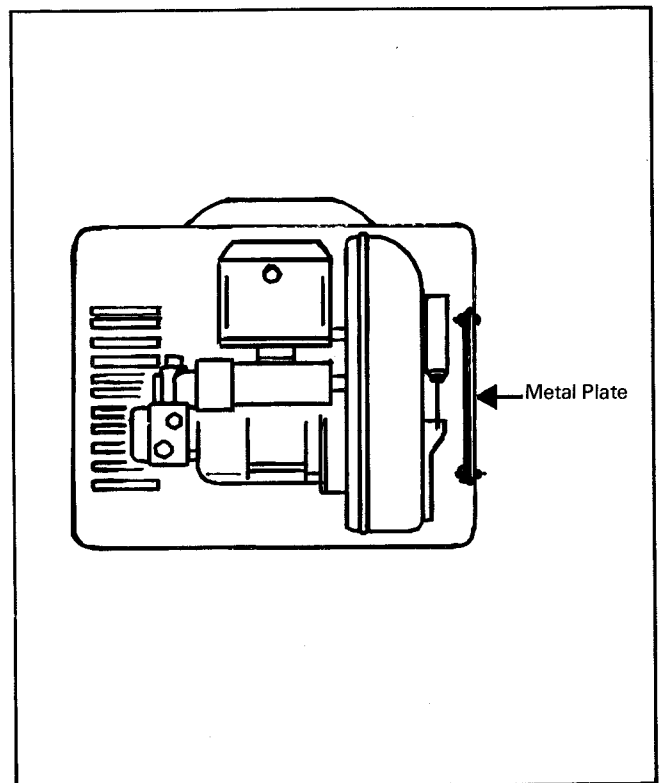
Turn to the right (marked +) in order to increase the volume of air entering the combustion chamber, thus reducing chamber pressure, there will be a reduction of CO₂ and an improvement in the stability of the flame to the air diffuser disc (this setting is advisable for ignitions at low temperatures). Turn to the left (marked -) in order to reduce the volume of air entering the combustion chamber, thus increasing chamber pressure, the CO₂ improves but reduces the stability of the flame to the air diffuser disc (this setting is not advisable for ignitions at low temperatures). In any case do not adjust the combustion head setting more than one point away from that indicated in the table, one set-point corresponds to three turns of the rod, a hole 'C' at its end acts as an indicator.



IT IS IMPORTANT TO TAKE ACCOUNT OF THE FACT THAT THE AIR-OUTPUT OF THE FAN DIFFERS ACCORDING TO WHETHER THE BURNER HAS ITS METAL COVER FITTED OR NOT. THEREFORE ALL COMBUSTION CHECKS MUST BE CARRIED OUT WITH THE COVER IN PLACE.

If a reduction in noise from the burner is required fit the small metal plate (supplied as an accessory) to close the air slots on the right hand side of the burner cover (see diagram below).

IMPORTANT IF PLATE IS FITTED RECHECK COMBUSTION FIGURES.



IMPORTANT

The burner is delivered fitted as a single pipe system. If a two pipe system is required remove the pump end cap (4 screws) and filter, screw in the by-pass plug which is supplied taped to the burner cover. Replace the filter and end cap, add the return pipe to the pump return port.

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