



Concord C 140-330 series installation and servicing instructions

Concord 'C' 140	..	41	399	80
Concord 'C' 170	..	41	399	81
Concord 'C' 200	..	41	399	82
Concord 'C' 230	..	41	399	83
Concord 'C' 260	..	41	399	84
Concord 'C' 290	..	41	399	85
Concord 'C' 330	..	41	399	86

CONTENTS

	Page
General Description and Data	2
Site Requirements	5
Installing the Boiler	5
Commissioning and Initial Lighting	7
Maintenance	10

Tables 1, 2 and 3 and the descriptive notes which follow contain all the essential data likely to be required by the installer.

ConstructionBoiler Body:

Cast iron sectional, supplied assembled.

Casing:

Stove enamelled sheet steel, easily assembled at site.

Diverter:

External type, polished stainless steel.

Gas Controls:

Control is by a step-opening combination gas control incorporating a thermocouple flame failure device and mains voltage gas valve. The control box has a terminal strip with connections for the mains input, circulating pump and mains voltage room thermostat controlling the circulating pump. Also included in the control box is mains voltage boiler control thermostat. A boiler limitstat, operating in the thermocouple circuit, is available as an optional extra.

Duty

The range of boilers is suitable for central heating and indirect hot water supply (gravity or pumped circulation) at static head up to 36.5 metres (120 feet). It is NOT suitable for direct hot water supply.

Gravity Circulation Considerations

All boilers in the Concord C series have a single 2½" BSP flow tapping and consideration must be given by the heating engineer to any possible pump effect on the gravity circulation to a D.H.W. cylinder when a common flow is employed in a combined system.

In such applications, it is strongly recommended that 2½" BSP pipework, swept elbows and swept tees be used between the boiler flow tapping and the point where the common flow is divided. This junction must be as near to the boiler as possible. Pipe sizes affecting water velocity at entry to the pumped heating circuit and gravity circulating head available should ensure that reverse circulation down the primary flow pipe to the D.H.W. cylinder does not take place when the heating pump is in operation.

Should the initial evaluation of a proposed or existing combined gravity D.H.W. and pumped heating system leave any doubt as to its efficient operation, it is recommended that a full pumped primary system be considered.

Dimensions

Overall dimensions and the positions of the tappings, gas inlet connection and flue outlet are shown in Figure 1 and Table 3.

TABLE 3

Model Number Concord 'C'	Number of Sections	Height Over Casing		Height Over Diverter		Width		Depth	
		mm	inches	mm	inches	mm	inches	mm	inches
140	4	1000	39.3/8	1610	63.3/8	556	21.7/8	680	26.25/32
170	5								
200	5								
230	6								
260	7								
290	8	1737	68.3/8	848	33.3/8				
330	10					1130	44½		

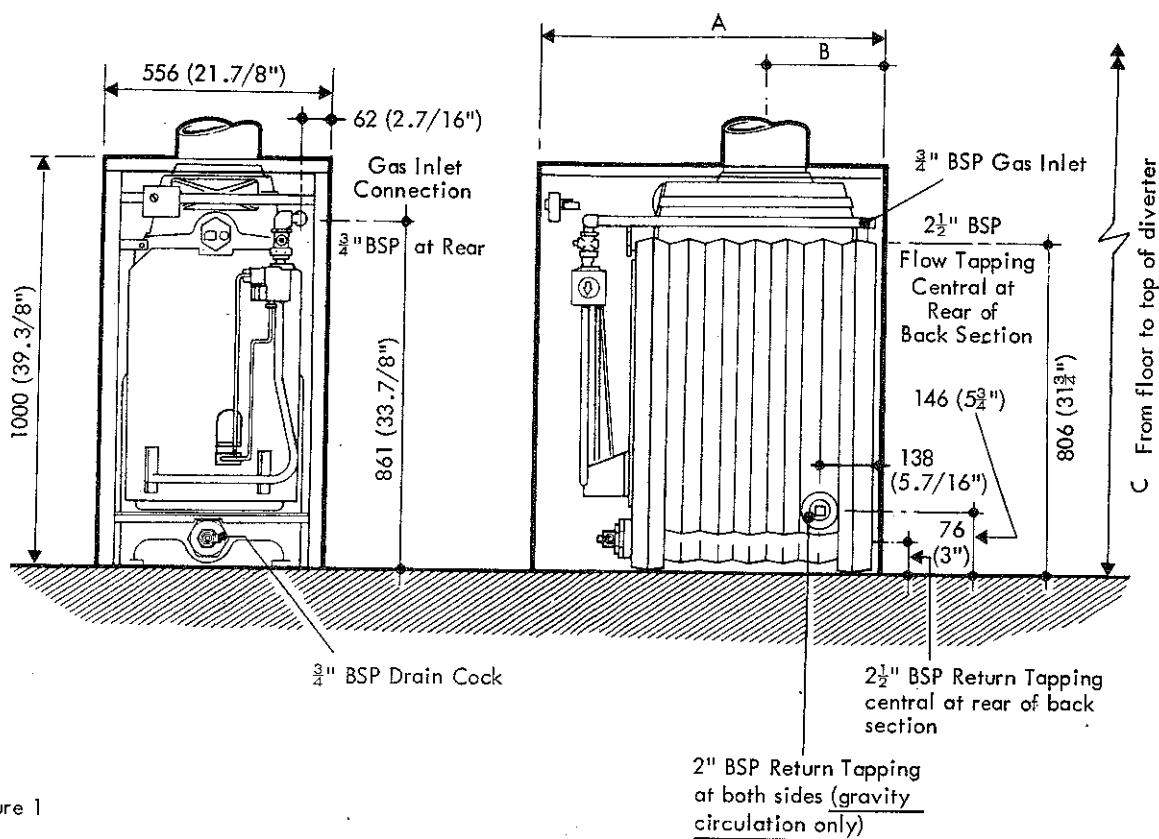


Figure 1

Model No. Concord 'C'	Number of Sections	A		B		C	
		mm	inches	mm	inches	mm	inches
140	4	680	26.25/32	203	8	1610	63.3/8
170	5	680	26.25/32	203	8	1610	63.3/8
200	5	680	26.25/32	203	8	1737	68.3/8
230	6	848	33.3/8	293	11.17/32	1737	68.3/8
260	7	848	33.3/8	293	11.17/32	1737	68.3/8
290	8	1130	44½	383	15.1/16	1737	68.3/8
330	10	1130	44½	383	15.1/16	1737	68.3/8

The installation should comply with relevant British Standard Specifications, Codes of Practice and current Building Regulations, together with any special regional requirements of the Local Authorities, Gas Region, and Insurance Company. All electrical wiring must comply with I. E. E. Regulations for the electrical equipment of buildings.

Installation

For safety use a competent installer to fit this appliance, e.g. CORGI (the Confederation for the Registration of Gas Installers) requires its registered installers to work to satisfactory standards. They are identified by this symbol



Position of Boiler

The overall dimensions are shown in Figure 1. Minimum clearances required from walls or other fixed objects to allow for installation, maintenance, the free access of combustion air and correct functioning of the draught diverter are as follows:-

Boiler Size	At Front		At Rear	At Sides
	mm	inches		
<u>Concord 'C'</u>				
140	450	17 3/4	} Allow sufficient space for access and pipework	} Can be zero, but space will be required for water connections when side returns are used.
170 and 200	500	19 1/2		
230	750	29 1/2		
260	840	33		
290	650	25 1/2		
330	830	32 3/4		

Foundation

As these boilers have a wet base, it is not necessary to provide an insulated foundation and they may be installed directly on any level floor. However, in the case of a floor made of combustible material (e.g. wood, thermoplastic tiles, etc.) the boiler must be stood on a plate of adequate strength of non-combustible material. Always check, of course, that the load carrying capacity of the floor is adequate safely to support the weight of the boiler.

Ventilation

Safe, efficient and trouble-free operation of conventionally flued gas boilers is vitally dependent on provision for an adequate supply of fresh air to the room in which the appliance is installed. Ventilation, by grilles communicating directly with the outside air, is required at both high and low levels. The minimum free areas of these grilles must be according to the following scale:-

At low level . . . 1100 mm² per 1.0 kW of boiler output (1 in² per 2000 Btu/h output)

At high level. . . One half of the low level requirement

Site ventilation grilles to avoid the risk of accidental obstruction. If further guidance on ventilation is required, consult CP. 332, Part 3.

IMPORTANT. The use of an extractor fan in the same room as the boiler (or in an adjacent room in communication) can

safe operation of the boiler. Where such a fan is already fitted (or if it is intended to fit an extractor fan subsequently to installation of the appliance) the advice of the Gas Region should be obtained. Tests for spillage of products from the draught diverter when the extractor fan is running and all doors and windows are shut should be carried out after installation. If spillage be detected, the area of permanent ventilation must be increased.

Secondary Flue

To ensure safe and satisfactory operation, the boiler must be connected to a secondary flue capable at all times of adequately evacuating the combustion products, the approximate volumes of which are given in Table 1. The flue design recommendations contained in CP. 332, Part 3, should be strictly observed. The draught diverter supplied with the boiler must never be omitted.

Gas

A dynamic gas pressure of at least 20.0

mbar (gauge) (8" w.g.) must at all times be available at the boiler inlet when firing at the rated heat input. If there be any doubt regarding the capacity of the gas meter, the available gas pressure, the adequacy of existing gas service pipes or the size required for new service pipes, the advice of the Gas Region should be requested.

Electricity

A 200/250V 50Hz AC mains supply is required. A 3-pin socket outlet, fused at 3 amps, should be provided conveniently near to the boiler. If a switched outlet be used, the switch must be of the DOUBLE-POLE type. D.C. current is not suitable.

Water Connections

The positions and sizes of the flow and return tappings provided are shown in Figure 1. The return tappings on the sides of the boiler must only be used for the gravity returns of combined pumped and gravity systems; pumped circuits must NEVER be connected to these tappings. Bushing down the pumped rear return to 1 1/2" BSP is recommended; this gives the most satisfactory temperature distribution within the boiler.

INSTALLING THE BOILER

Packaging

Boilers are despatched from the works in three packages containing:-

1. Assembled boiler body on wooden pallet base. The boiler limitstat (optional extra) when ordered is supplied in a pack

2. Carton containing the casing, fastenings, flue brush, control box and instruction book.

3. Carton containing the draught diverter.

Check that all these packages have been correctly received at the site.

IMPORTANT. Never attempt to lift or move the boiler by the gas pipework or burner manifold as damage by straining will result. The burner and control line assembly must be removed before lifting the boiler from the wooden pallet base for installation. To remove the assembly take off the nuts and washers on the six studs securing the front cover to the boiler body. The assembly can then be slid forward from the boiler body and put away to one side in a safe place; it should not be replaced until the boiler body has been taken off the wooden base and removed to its final installed position. Manoeuvre the boiler body into the chosen position (carefully note the warning above before doing so). Replace the burner and control line assembly. Replace tightly on the six studs the washers and brass nuts securing the front cover to the boiler body. (Note that eight nuts are provided; the two extra nuts should be screwed onto the upper left hand stud). They are used later for making an earth bonding connection when fitting the control box to the boiler.

Secondary Flue Connection

Place the draught diverter centrally in position over the boiler flue outlet and complete the secondary flue connection. Seal with approved boiler putty between the boiler outlet socket and the diverter and the diverter outlet socket and the flue pipe to ensure gas-tight joints at these points.

NOTE: The maximum unsupported weight of the flue pipe should not exceed 45 kg (100 lb).

THE DRAUGHT DIVERTER MUST NEVER BE OMITTED.

Gas Connection

Connect the gas supply to the gas inlet cock. The use of an approved union is recommended here.

Water Connections

The flow and return connections to the rear tappings may conveniently be completed at this stage. Note however that connections to the side return tappings (which are for use only with the gravity circuit of combined pumped and gravity systems) cannot be made before the jacket has been fitted. Check that all tappings not used have been tightly plugged.

Casing

The casing may now be fitted; the assembly method is clearly shown in Figure 3. When using the side return tappings, the knockout opening in the appropriate side panel should be removed before assembly. Note that three sizes of casing are used for the range of seven sizes of boiler. To achieve correct assembly, always align the rear of the casing side panels

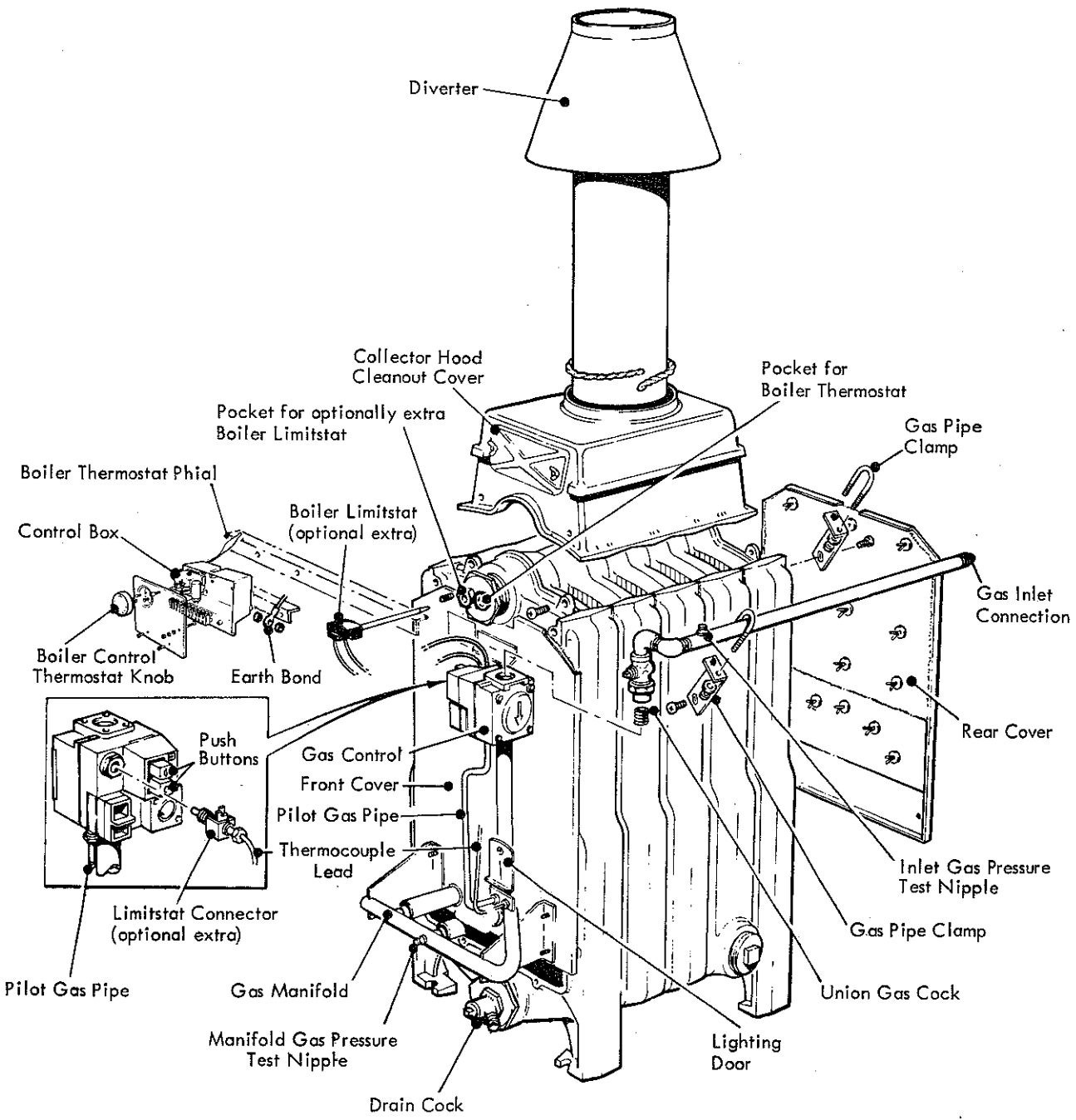


Figure 2

Casing Assembly (See Figure 3)

- Fasten the lower front (A) and rear (B) channels to the boiler body (M8 x 2LG HEX-HEAD screws into tapped holes in front and rear boiler sections).
- Fit front fixing bracket (C) (only, positioned at the left-hand side) and rear fixing brackets (D) (two, one at each side) to the boiler body. (M8 x 2LG HEX-HEAD screws into tapped holes in front and rear boiler sections).
- Position the left-hand side panel return behind the rear lower angle (B) and allow the aligned slot in the locating front bracket (E) to engage with the lug in the lower front channel (A). Fasten the panel with No. 10 x 10 long self-tapping screws to the rear fixing bracket (D) and rear angle (B).
- Fasten front fixing bracket (C) to the

- upper locating bracket (F) with M5 x 10 LG Pozi-pan screw (locate spire nut over aligned slot in bracket).
- 5. Similarly fit the right-hand side panel. Note however that at this side there is no front fixing bracket and upper locating bracket.
- 6. Fit the control box upper support angle (G) to the brackets (H) on the side panels, using M5 x 10LG Pozi-pan screws.
- 7. Fasten the control box to the support angle (G), using M5 x 10LG Pozi-pan screws.
- 8. Fit the front and rear top panels (held by nylon studs).
- 9. Fit front panel (positioned on pins at the bottom and held vertical by spring studs at the top).

Electrical Connections

The internal wiring of the boiler control box is shown in Figure 4. The terminal strip in the box provides for the connection of:-

1. The electricity supply mains.
2. A mains voltage (three or four terminal type) room thermostat switching the circulating pump.
3. The circulating pump.

Systems controls, other than a room thermostat, must be wired externally into the live mains lead to the boiler. If a frost-stat be fitted, it should, of course, be wired in parallel with any other controls to ensure that the action of these is overridden. Any clock control used should be of the four terminal type, giving a separate supply for the clock

motor. If a programmer be used, study of the manufacturer's wiring instructions in conjunction with Figure 4 will enable the wiring to be completed.

Wiring Up

Mains: Undo the screws securing the control box cover, enter the mains lead at the rear of the boiler, pass it through the control box cable entry and connect as follows to the terminal strip:-
Brown (live lead) to Terminal 3
Blue (neutral lead) to Terminal 1
Green/Yellow (earth lead) to Terminal 2
THE EARTH CONNECTION MUST NEVER BE OMITTED

Room Thermostat: Connect as shown in Figure 5. The link fitted in the control box between terminals 6 and 7 must be removed.

Circulating pump: Connect as follows to the terminal strip:-

Brown (live lead) to Terminal 10
Blue (neutral lead) to Terminal 7
Green/Yellow (earth lead) to Terminal 8
All wiring between entry at the rear of the boiler and the control box must be secured neatly under the cable clips provided on the casing. Wiring must never be allowed to contact the hot boiler body.

Earth Bonding

The control box is provided with an earth bond. This earth bond must be fitted to the upper left-hand stud on the front of the boiler body. Remove the two extra brass nuts on this stud, place the earth

lead terminal over the stud, secure with the second brass nut and then follow with the third nut, to act as a lock-nut.

THIS CONNECTION MUST NEVER BE OMITTED.

The gas control lead, pre-wired to the control box, terminates with two push-on spade terminals. Plug these onto the rear two connector tags on the left-hand side of the Honeywell gas control. The screwed earth connection on the gas control must be made.

Limitstat

(Supplied on request as an optional extra, packed with the boiler body). The limitstat operates in conjunction with the flame failure thermocouple equipment.

To fit the boiler:-

1. Remove the plug fitted in the tapping immediately adjacent to the boiler control thermostat.
2. Screw the limitstat sheath provided into the tapping, using approved jointing compound to ensure that a watertight joint is obtained.
3. Undo the thermocouple lead screw terminal at the gas control.
4. Now refer to Figure 6 which shows the assembly of the special thermocouple connector supplied with the limitstat kit. Screw Part (A) into the thermocouple terminal on the gas control. Push the protruding end of the connecting block (B) into part (A), positioned with the connecting tags (C) pointing upward. Slide the clamp (D) over the assembled

parts (A) and (B). Finally screw the terminal (E) on the thermocouple lead into the threaded opening on the side of the clamp (D). To avoid damage to the terminal, do not tighten more than one-quarter turn tighter than fingertight.
5. Push the booted connectors on the limitstat leads onto the tags (C) on the connecting block (B).

COMMISSIONING AND INITIAL LIGHTING (Figure 7)

General

Check that the system has been filled and properly vented, all drain cocks closed and that any stop valves fitted in the flow and return mains are open.

Purging

Check that the electricity supply is switched off. Remove jacket front panel. **EXTINGUISH ALL NAKED LIGHTS AND OPEN ALL DOORS AND WINDOWS. DO NOT SMOKE.**

Check that the gas supply is turned on at the meter. Open the main gas inlet cock (A). Loosen the union nut on the cock outlet and carefully purge air from the pipework. Re-tighten the union nut when gas is smelled.

Initial Lighting

1. Press down and release the lower push

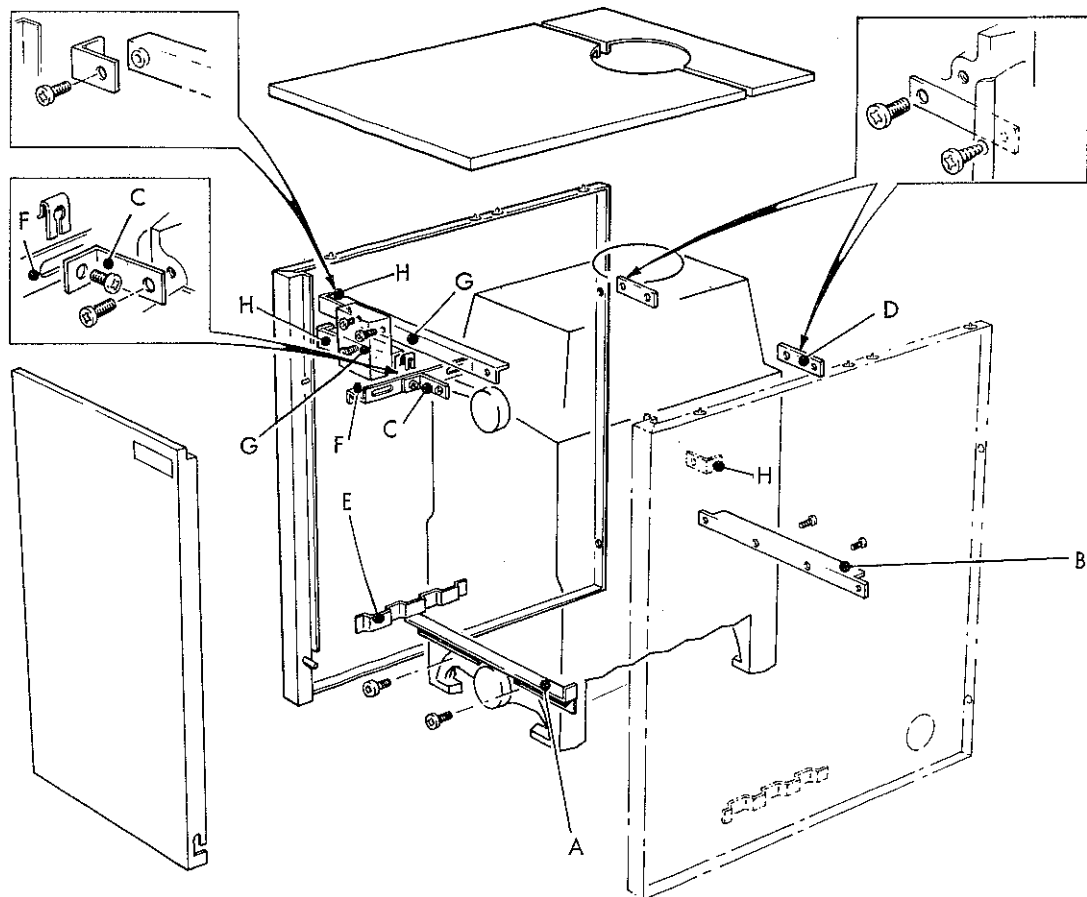


Figure 3 Casing Assembly

B - Blue
 BR - Brown
 G/Y - Green/Yellow

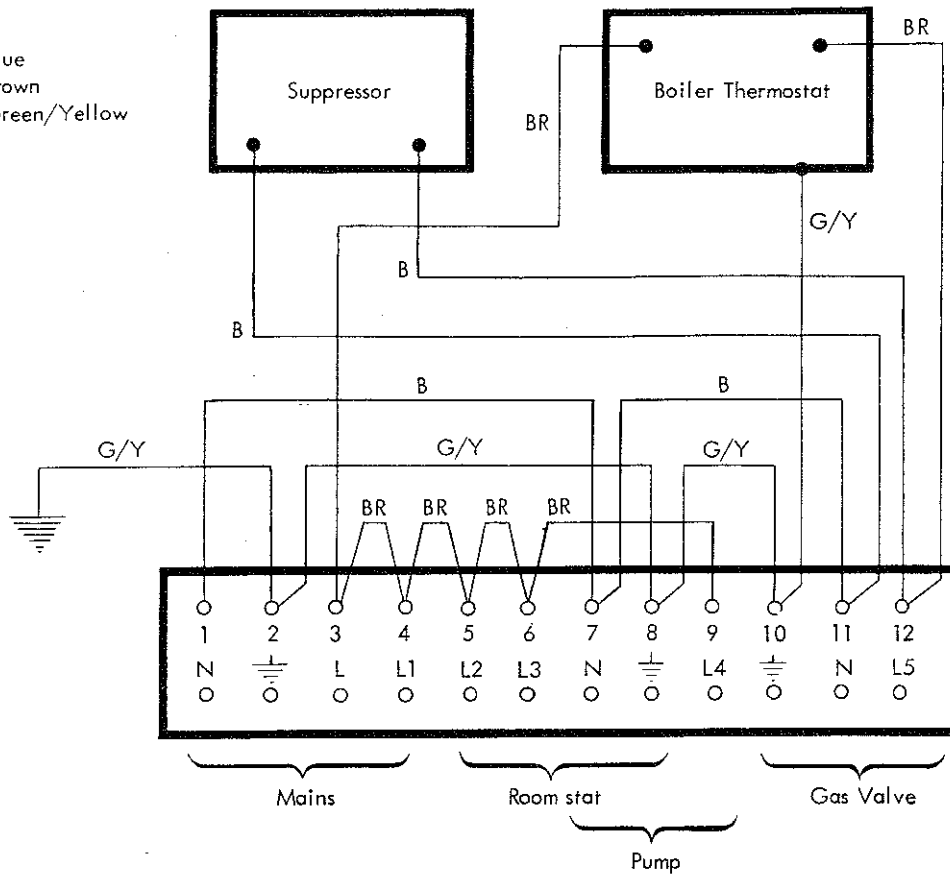


Figure 4 Control Box Schematic Wiring Diagram

- button marked with a red dot (B) on the gas control (C).
2. Turn the boiler control thermostat knob (D) to 'Off'.
3. Ensure all external system controls (i.e. time switch, room thermostat, etc) are adjusted to the 'On' position.
4. Wait for three minutes. Then open the mains gas inlet cock (A).
5. Open the lighting door (E) and hold a lighted spill adjacent to the pilot burner located immediately behind the door.
6. Push in and retain fully depressed the upper push button marked with a white flame (F) on the gas control. This action allows gas to flow to the pilot burner. When the burner has lit and is burning with a stable flame, withdraw the spill but continue pressure on the push button (F) for a further 20 seconds before releasing it. Check that the pilot continues to burn and then shut the lighting door.
7. If the pilot flame does not remain alight when the button (F) is released, press and release button (B), wait for three minutes and then repeat the lighting procedure described in paras 5 and 6.
8. If the pilot cannot be established, check that the pilot burner flame correctly envelopes the thermocouple tip by 10-13 mm (3/8" - 1/2"). If not, adjust the pilot burner pressure as necessary

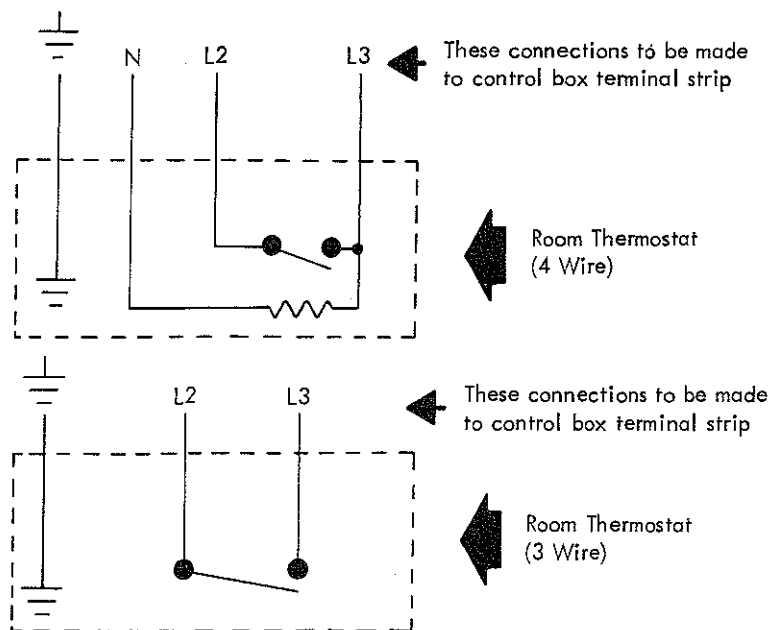


Figure 5 Room Thermostat Connections to Control Box

- (Instructions for this adjustment are given under 'Pilot Burner Pressure' below).
9. Check that the thermocouple lead connections at the gas control and (if fitted) boiler limitstat are clean and secure. Shut the lighting door after the pilot burner is properly lit.
 10. Switch on the electricity supply.
 11. Turn the boiler control thermostat knob (D) to the required setting. This action will light the boiler.
 12. When the boiler has lit, check all gas connections for tightness with soap solution.
 13. Note that the gas control opens progressively. The first stage gives a low opening pressure which is progressively increased over a period of approximately 10 seconds to the full operating pressure. This feature ensures smooth, quiet ignition.

Manifold Gas Pressure

The manifold gas pressure must now be checked and adjusted as necessary. Commence the adjustment procedure with the system cold, on full load and with all temperature controls set at maximum. This will ensure, as far as possible, that thermostatic shutdown does not interfere whilst the pressure is being checked and adjusted. Remove the screw in the manifold pressure test nipple (G) and securely connect a suitable gas pressure gauge. Light the boiler and allow it to operate for about fifteen minutes to stabilise the burners. Check the pressure and adjust it to the figure shown in Table 2 for the appropriate boiler size. The location on the gas control of the manifold gas pressure adjuster is shown in Figure 8. Remove the dust cover over the adjuster and, using a suitable small screwdriver, turn the screw beneath clockwise to increase or anti-clockwise to reduce pressure.

The pressures quoted in Table 2 are given to facilitate speedy approximate adjustment of the gas rate. After setting to the pressure indicated allow the boiler to operate for about fifteen minutes to stabilise and then check the gas rate by reference to a watch and the gas meter. (Before doing so make certain that any other gas appliances connected to the same meter are turned off). The gas rate for each size of boiler are given in Table 1. A deviation of $\pm 2\%$ of the quoted figure in the observed gas rate is of no practical importance but any greater variation must be adjusted by increasing or decreasing pressure as required by small steps until the correct rate is obtained. Replace the dust cover when finished, disconnect the gas pressure gauge and REPLACE THE BLANKING-OFF SCREW in the manifold pressure test nipple.

Pilot Burner Pressure

The pilot burner flame should envelop the thermocouple head by 10-13 mm ($3/8'' - 1/2''$). The position of the pilot burner pressure adjuster on the gas control is shown in Figure 8. Turn the adjustment screw beneath the dust cover clockwise to decrease or anti-clockwise to increase the flame length. Replace the dust cover and fibre washer.

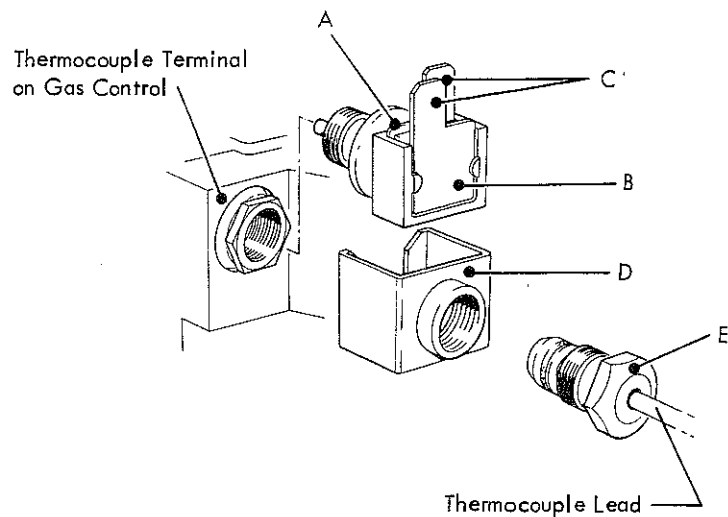
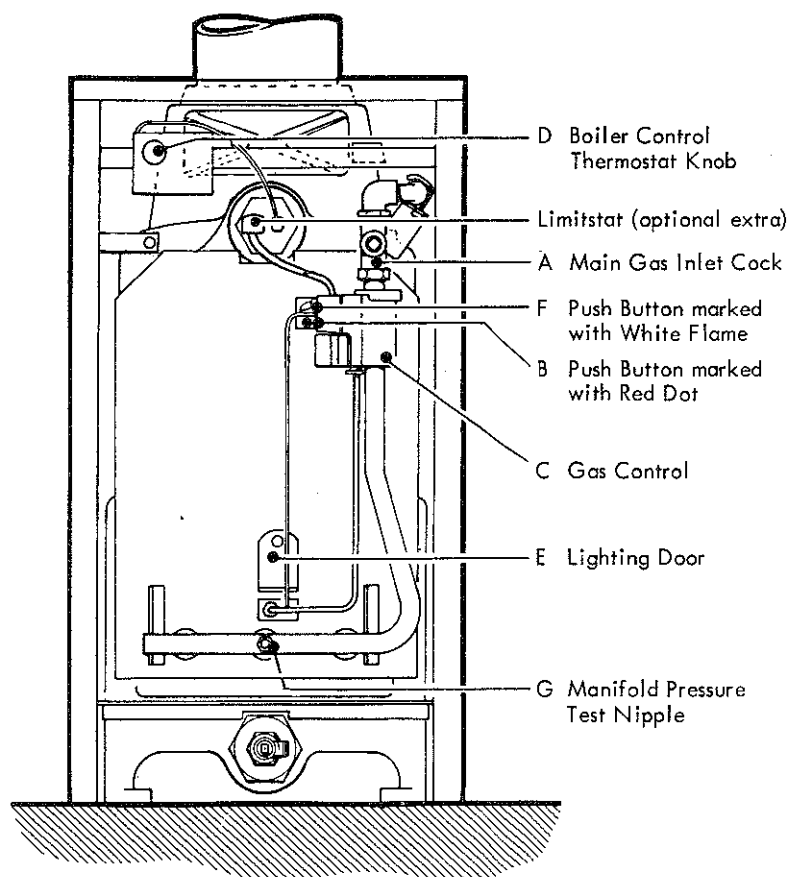


Figure 6 Assembly of Limitstat Thermocouple Connector

Figure 7



Testing

Check that the main burner responds correctly to the manual on/off operation of the boiler control thermostat and any other controls fitted in the gas control circuit. Check in the following manner the operation of the flame failure safety device:-

1. Extinguish the main burner and pilot

burner by turning off the main gas inlet cock (Figure 7A).

2. Wait for $1\frac{1}{2}$ minutes, during the course of which the thermocouple-operated solenoid valve in the gas control, which controls the main and pilot gas flow, will be heard to close.

3. Open the lighting door (Figure 7E)

and note a ignited paper adjacent to the pilot burner and then open the main gas inlet cock. Neither the pilot burner nor the main burner should ignite.

IMPORTANT THE LIGHTED SPILL MUST ALWAYS BE POSITIONED AT THE PILOT BURNER BEFORE OPENING THE GAS INLET COCK.

If this test cannot satisfactorily be made, the gas control is faulty, and should be examined and repaired or replaced by a competent engineer. The boiler must not be used until this has been done.

Routine Operation

Full instructions covering routine lighting and operation of the boiler are given on the Instruction plate located on the inside of the casing door.

Handing Over

Draw the attention of the boiler owner or his representative to the Lighting and Operating Instruction Plate on the inside of the jacket door. Give a practical demonstration of lighting and shutting down. Describe the function of the boiler and system controls and show how they are adjusted and used. Hand over this booklet to the customer and request him to keep it in a safe place for ready reference.

IMPORTANT Point out to the owner that the boiler must have regular maintenance and cleaning at least annually to ensure reliable and efficient operation. Regular attention will also prolong the life of the boiler and should preferably be performed at the end of the

heating season. Recommend that a contract for this work should be made with the Regional Gas Authority or a firm of Heating Engineers.

MAINTENANCE

IMPORTANT Before working on the boiler always disconnect the electricity supply (remove plug from socket or switch off at a **DOUBLE-POLE** isolating switch) and shut the main gas inlet cock.

Cleaning the Boiler

1. Disconnect the electricity supply and turn off the main gas inlet cock (see note above).
2. Remove the casing front panel by pulling forward from the top to release the spring stud fasteners and then lifting off.
3. Lift off the casing top panels.
4. Remove electric leads at the gas control (Two Mauve leads in black outer cover; if the boiler be fitted with the optional limitstat there will also be two green leads to the thermocouple connector).]
5. Unscrew the union nut beneath the main gas inlet cock.
6. Remove the hexagon nut and washers securing the combustion chamber front panel. Note that the upper left-hand stud has three nuts, the upper pair securing a green/yellow earth bond lead. After removing the upper two nuts this bond can be released. The complete front plate/burner assembly is now free to be withdrawn from the combustion chamber. Put it to one side in a safe place.

- For Concord 'C' 140 boiler see section headed 'Important' on next page.
- Similarly remove the combustion chamber cover at the rear of the boiler.
7. Remove the nuts securing the collector hood (located beneath the diverter) front and rear clean-out covers. (Note:- The 140 model boiler has only one cover, located at the front of the hood). Remove the cover(s).
 8. Cover the floor of the combustion chamber with newspaper or strong brown paper to collect and facilitate removal of debris dislodged during cleaning.
 9. Pass the flue brush through the collector hood clean-out cover opening(s) and thoroughly clean the interior of the hood, brushing dislodged debris through the flue openings between the boiler sections. Continue by using the brush from the front and rear of the boiler to thoroughly clean the boiler flueways. Next, using the brush from inside the combustion chamber, brush upward between the sections. Finally, brush down the walls of the combustion chamber. Perform all these operations with great care to ensure all deposits are completely removed. The use of an electric torch will assist inspection of the flueways after cleaning.
 10. Remove the paper with the dislodged deposits from the floor of the combustion chamber.
 11. Examine the burner assembly. Clean the burner bars by brushing them down with a stiff bristle (not wire) brush. Check each bar carefully to ensure that all the flame parts are clear and that all

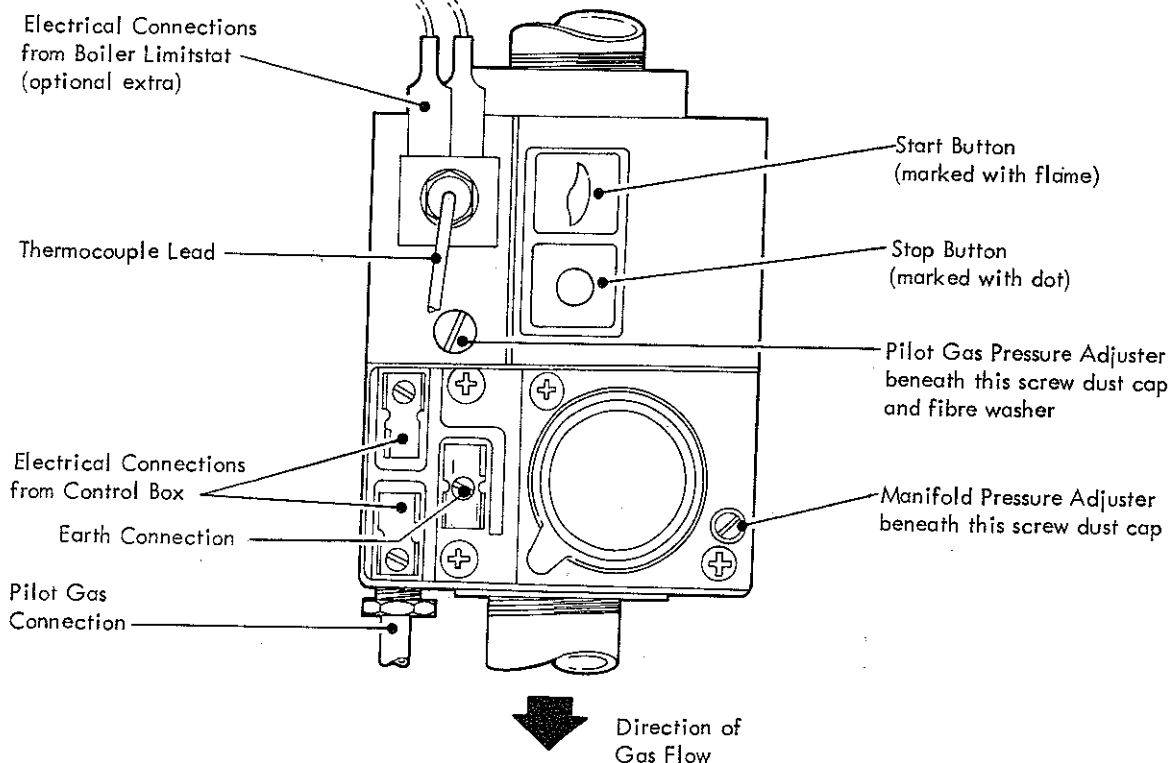


Figure 8 Gas Control

surfaces are free from accumulated deposits. If available, an industrial vacuum cleaner may be useful to assist in this work. When cleaning the burner bars, take care to avoid damage, from rough handling, to the pilot burner and thermocouple assembly.

12. Examine the pilot burner and thermocouple. Clean them by wiping gently with a soft rag. Ensure that the flame ports are unobstructed. If the thermocouple tip shows signs of deterioration (e.g. burning, splitting or cracking) take the opportunity to fit a new lead to guard against avoidable call back between routine services. Check that all thermocouple lead connections are clean and tight. Do not tighten these connections more than one-quarter turn beyond finger-tight. If fitting a new thermocouple, do not kink the lead; any bends should have a minimum radius of 25mm (1").

13. Examine the gas injectors (located in the gas manifold), and check that the orifices are unobstructed.

14. Brush out any dirt which may have accumulated on the floor beneath the boiler.

15. Re-assemble the boiler in reverse order. MAKE SURE that the green/yellow earth bond from the control box is correctly replaced under a second nut and locknut on the upper left-hand front cover stud and that the gas union nut is securely tightened.

Testing After Servicing

After re-assembly, restore the electricity and gas supplies. Light the boiler (see Lighting Instruction Plate on inside of casing front panel) and check gas connections with soap solution for tightness. Check gas pressures and the gas rate and test as instructed on page 9 under headings "Manifold Gas Pressure", "Pilot Gas Pressure" and "Testing". Adjust time and temperature controls to the user's requirement and remember to reset any time control which may have been switched off to the correct time of day.

Replacing Components

The boiler has been designed to facilitate the replacement of all components which may require renewal during the service life of the appliance viz:- gas control, thermocouple lead, pilot burner, thermostats, control box and burner bars. All these components can be easily and quickly removed and replaced with new units.

Boiler Limitstat (Optional Extra)

This optionally extra control operates to shut down the boiler completely in the event of failure of the boiler control thermostat or gas control. The development of excessively high water temperature or boiling is thus prevented. It is connected in series with the thermocouple flame-failure circuit which is interrupted by the operation of the limitstat, thus immediately shutting off the supply of gas to the pilot and main burners. On cooling, the limitstat automatically returns to the operating position but the boiler must be manually

relit before operation is resumed. The temperature at which the limitstat operates is not adjustable. If persistent operation of this control is experienced, first check that all electrical connectors in the thermocouple circuit are clean and tight (but not more than one-quarter turn beyond finger-tight). If this action does not affect a cure, a fault has most probably developed in the boiler control thermostat and it should be replaced with a new instrument unless, of course, shut down is occurring at a low flow temperature, indicating that the limitstat itself is faulty and requires replacement.

Important

Concord C 140 boiler only.

Anti-linting shields are fitted to the burners supplied with the above boiler.

In consequence, IN ADDITION to the instructions for burner cleaning contained in paragraph 11, the following extra work must be undertaken when servicing the boiler.

Procedure for Cleaning the Anti-Lint Shields

1. After removing the front panel/burner assembly from the boiler as instructed in paragraph 6 under "Cleaning the Boiler", unscrew the eight screws securing the anti-lint gauze shields to the flanges of the manifold (see sketch Fig. 9). Remove the shields.
2. Clean the gauzes by brushing. DO NOT WASH. Ensure all accumulated lint and fluff are removed.
3. Remove all traces of lint and fluff from inside the boiler casing at the sides, front and rear.
4. Refit the gauze shields to the front panel/burner assembly. Check carefully after refitting that there are no gaps between the shields and the burner front plate and take care to avoid crushing or distorting the gauze.

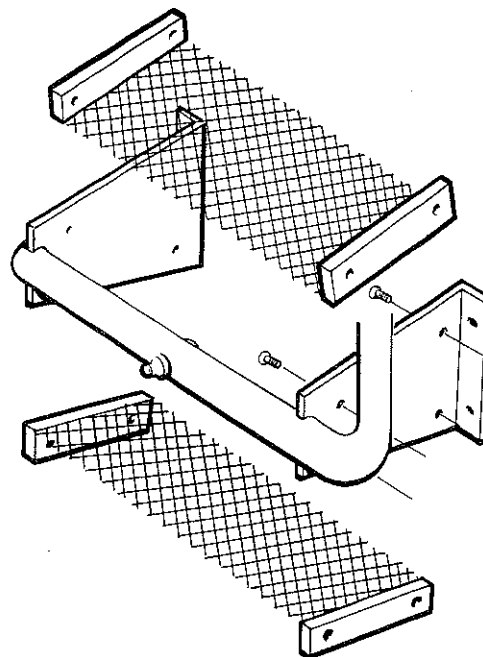


Figure 9

CONCORD C140 BURNER MANIFOLD and ANTI-LINT FILTERS