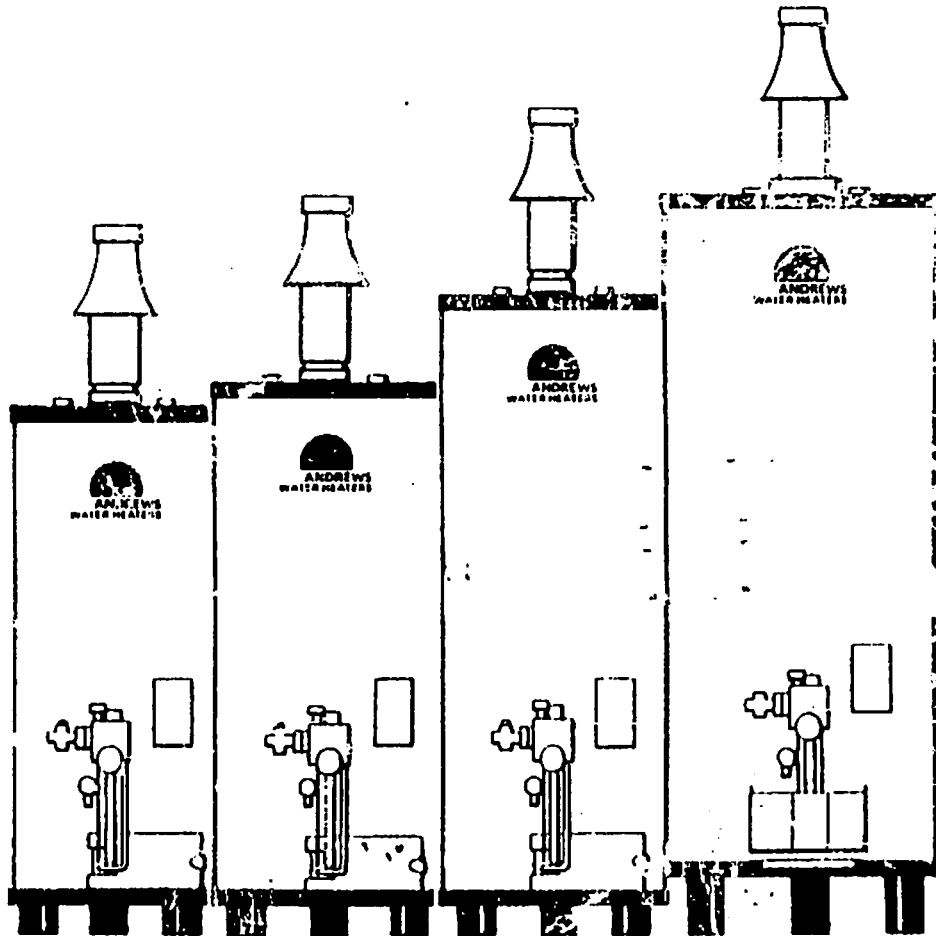


ANDREWS WATER HEATERS

Natural Gas Fired
Water Storage Heaters
Standard Range

MODELS: 16/23, 25/37, 33/38, 41/55, 62/69
'C' SERIES



Installation, Operation
and Servicing Manual

Part No: C 297

MODELS: 16/23,25/37,33/38,41/55,62/69

'C' SERIES

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INTRODUCTION

The Andrews Water Heater has been designed and built to give efficient and reliable service. Like any other piece of mechanical equipment, however, the Heater will only operate at maximum efficiency if the correct installation and servicing procedures are followed.

The purpose of this manual is to provide up to date information necessary to the user for installing, operating and servicing the Heater, together with technical data and spare parts list.

The information given however, may be subject to revision in compliance with the Andrews policy of continual improvement.

THE HEATER SHOULD BE INSTALLED IN ACCORDANCE WITH THE BRITISH STANDARD CODES OF PRACTICE REFERRED TO IN THIS MANUAL, THE GAS SAFETY REGULATIONS, RELEVANT BUILDING REGULATIONS AND MODEL WATER BYE-LAWS.

FOR USE WITH NATURAL GAS.

Health & Safety at Work Act, 1974

Under section 6 of the above Act, it is the duty of manufacturers and suppliers of products for use at work to ensure, so far as it is reasonably practicable, that such products are safe and without risk to health when properly used and to make available to users of such products adequate information about their safe and proper operation.

Andrews Heaters should only be used in the manner and purpose for which they were intended, and in accordance with the recommendations detailed in this Manual. Our Heaters have been designed, produced and inspected with safety in mind, but there are certain basic precautions which should be taken by the user and in particular attention is drawn to the safety precautions in this Manual and on the Operating Instructions on the Heater.

It is imperative, therefore, that all persons who may make use of our Heaters have all the information and instruction they require to ensure that they are fully aware of any hazards, and that they know both the purpose and the correct manner of use of our Heaters.

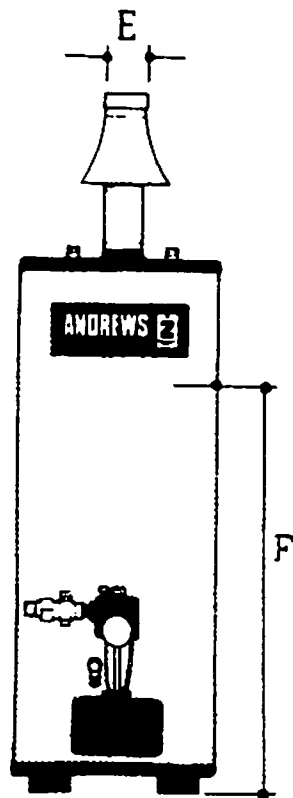
THE ANDREWS WATER HEATER MUST BE USED ON AN OPEN VENTED SYSTEM

ANDREWS GAS FIRED WATER HEATERS—TECHNICAL DATA

MODEL GC No.	16/23 5503601		25/37 5503602		33/38 5503603		41/55 5503604		62/69 5503605	
	SI Metric	Imp.	SI Metric	Imp.	SI Metric	Imp.	SI Metric	Imp.	SI Metric	Imp.
Storage Capacity	75.51	16.6 galls	113.71	25.0 galls	151.41	33.3 galls	189.1 l	41.6 galls	284.1 l	62.5 galls
Recovery Rate	105.0 l/h	23.1 gph	170.5 l/h	37.5 gph	173.21 l/h	38.1 gph	252.3 l/h	55.5 gph	315.0 l/h	69.3 gph
Heat Input	7.3 kW	25,000 Btu/h	11.72 kW	40,000 Btu/h	16.16 kW	41,500 Btu/h	17.5 kW	60,000 Btu/h	22.0 kW	75,000 Btu/h
Height	1123 mm	44½"	1200 mm	47½"	1124 mm	49"	1492 mm	58½"	1632 mm	64½"
Jacket Diameter	406 mm	16"	457 mm	18"	508 mm	20"	508 mm	20"	622 mm	24½"
Flue size I.D.	76 mm	3"	76 mm	3"	76 mm	3"	100 mm	4"	100 mm	4"
Inlet & Flow Connections	R1 1" BSP T/Ext.		R1 1" BSP T/Ext.		R1 1" BSP T/Ext.		R1 1" BSP T/Ext.		R1 1" BSP T/Ext.	
Return Connection	Rc¾" ¾" BSP T/Int.		Rc¾" ¾" BSP T/Int.		Rc¾" ¾" BSP T/Int.		Rc¾" ¾" BSP T/Int.		Rc¾" ¾" BSP T/Int.	
Weight Empty	36 kg	80 lb	44 kg	98 lb	55 kg	122 lb	64 kg	142 lb	100 kg	220 lb
Hydraulic Working (max) Pressure	10.3 bar	150 psi	10.3 bar	150 psi	10.3 bar	150 psi	10.3 bar	150 psi	10.3 bar	150 psi
Gas Type	Natural		Natural		Natural		Natural		Natural	
Burner Pressure	9.7 mbar	3.9" wg	9.75 mbar	3.9" wg	10 mbar	4.0" wg	10 mbar	4.0" wg	7.5 mbar	3.0" wg
Gas Connection	Rc½ ½" BSP T/Int.		Rc½ ½" BSP T/Int.		Rc½ ½" BSP T/Int.		Rc½ ½" BSP T/Int.		Rc½ ½" BSP T/Int.	
Injector Diameter	2.38 mm	0.093"	3.05 mm	0.120"	3.0 mm	0.120 mm	3.57 mm	0.140"	4.36 mm	0.172"

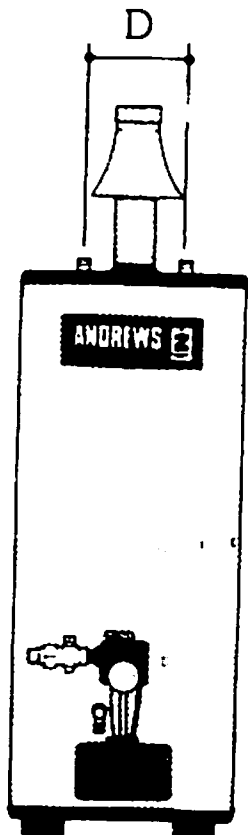
MINIMUM TEST PRESSURE/176m water/577 ft head/200 psi

Appliance Dimensions



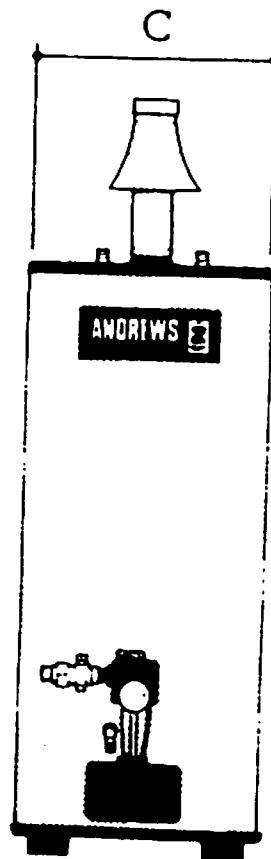
16/23

	SI Metric	Imp.
A	1123mm	44½in
B	330mm	13in
C	406mm	16in
D	203mm	8in
E	76mm	3in
F	990mm	39in



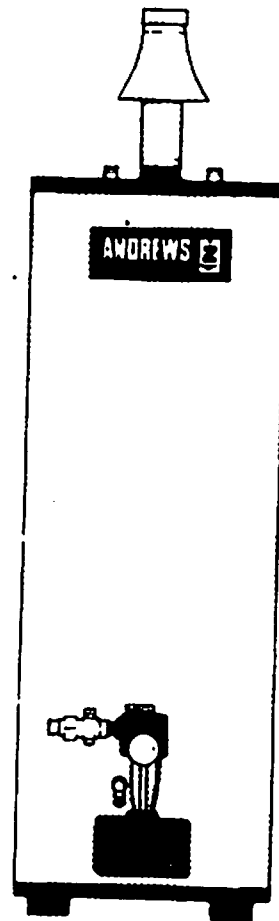
25/37

	SI Metric	Imp.
A	1200mm	47½in
B	330mm	13in
C	457mm	18in
D	203mm	8in
E	76mm	3in
F	1070mm	42in



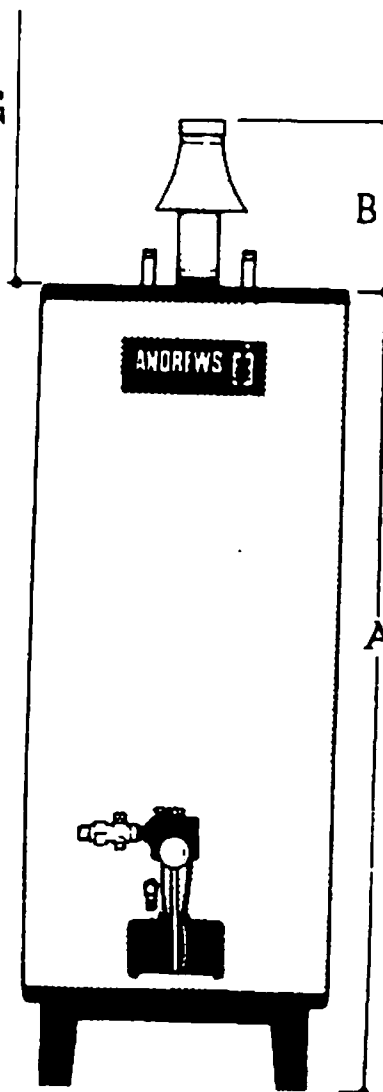
33/38

	SI Metric	Imp.
A	1244mm	49in
B	330mm	13in
C	508mm	20in
D	203mm	8in
E	76mm	3in
F	1110mm	44in



41/55

	SI Metric	Imp.
A	1492mm	58½in
B	330mm	13in
C	508mm	20in
D	203mm	8in
E	101mm	4in
F	1346mm	53in



62/69

	SI Metric	Imp.
A	1632mm	64½in
B	330mm	13in
C	622mm	24½in
D	203mm	8in
E	101mm	4in
F	1500mm	59in

SERVICE CLEARANCE

SECTION I

INSTALLATION PROCEDURE – NATURAL GAS HEATERS

Install in accordance with current British Standard Codes of Practice BS5546 and CP342 Part 1 or Part 2, as appropriate.

(a) **LOCATION:** The location chosen for the heater must permit the provision of a satisfactory flue and an adequate air supply.

The heater must not be installed in a room which contains a bath or a shower and must not be installed in a bedroom or bedsitting room.

A clearance of 300mm (12in) should be left around the heater for fitting and servicing purposes and 720mm (30in) above the heater for removal of the flue baffle. The above clearances are recommended for ease of servicing. They can be reduced if necessary but a clearance of 300mm (12in) must be left in front of heater for access to the burner and controls. The flue baffle clearance should also be maintained if possible to avoid servicing problems.

The floor on which the heater is installed must be flat, level and of sufficient strength to withstand the weight of the heater when filled with water, and should satisfy the requirements of the Local Authority & Building Regulations.

Any combustible material adjacent to the heater must be so placed or shielded as to ensure that its temperature does not exceed 65°C (150°F).

(b) **FLUE SYSTEM:** Detailed recommendations for flueing are given in BS5440 Part 1.

The following notes are intended to give general guidance:

Fit the draught diverter to the flue spigot on top of the water heater. Light quality asbestos to BS567, mild steel to BS715 or stainless steel flue can then be fitted to the spigot on top of the diverter. Fit a split flue clip or flange joint close to the diverter for servicing purposes.

The flue must terminate with a British Gas Approved flue terminal in accordance with the relevant recommendations given in BS5440 Part 1, Table 4. The height from the roof to the base of the terminal is given in the table below.

Flue pipes, flue linings and fittings shall be of a type approved by British Gas.

MINIMUM HEIGHTS FROM ROOF TO BASE OF FLUE TERMINAL						
Type of roof		Not within 1.5 m (5 ft) of a vertical surface of a structure † on the roof			Within 1.5 m (5 ft) of a vertical surface of a structure † on the roof	
		Internal route		External route	Internal route	External route
		On ridge	Not on ridge			
Pitched	Pitch exceeding 30°	At or above ridge level	1m (3.3ft) above roof intersection	The base of the terminal should be 250mm (10in) above the level of the adjacent roof edge	The base of the terminal should be 250mm (10in) above the level of the top of the structure	
	Pitch not exceeding 30°		250mm (10in) above roof intersection			
Flat	With parapet	Not applicable	600mm (2ft) above roof intersection			
	Without parapet		250mm (10in) above roof intersection			

†Chimney stack, dormer window, tank room, lift motor room, parapet etc.

If using an existing brick chimney it should be swept clean before connecting the flue and should be suitably lined with an approved lining. As far as practical the flue should rise continuously to the terminal avoiding the use of 90° bends where a change of direction is required. Horizontal and very shallow runs of flue should be avoided since they impede the flow of gases and increase local cooling.

(c) AIR SUPPLY: Detailed recommendations for air supply are given in BS5440 Part 2.

The following notes are intended to give general guidance:

Where the heater is to be installed in a room or internal space the heater requires the room or internal space containing it to have a permanent air vent. The vent must be either direct to outside air or to an adjacent room or internal space which must itself have a permanent vent of at least the same size direct to outside air. The minimum effective area of the permanent air vent(s) required is as follows:

4.5cm² per kW in excess of 7kW
 (1 in² per 5000 Btu/h in excess of 25000 Btu/h)

Where the heater is to be installed in a compartment, permanent air vents are required in the compartment at high and low level. These air vents must either communicate with a room or internal space or be direct to outside air.

The minimum effective areas of the permanent air vents required in the compartment are as follows:

POSITION OF AIR VENTS	AIR VENT AREAS	
	Air from room or internal space	Air direct from outside
HIGH LEVEL	9 cm ² per kW (2 in ² per 5000 Btu/h)	4.5 cm ² per kW (1 in ² per 5000 Btu/h)
LOW LEVEL	18 cm ² per kW (4 in ² per 5000 Btu/h)	9 cm ² per kW (2 in ² per 5000 Btu/h)

Note – Both air vents must communicate with the same room or internal space or must both be on the same wall to outside air.

Where compartment air vents are open to a room or internal space, the room or internal space must itself have a permanent air vent(s) as previously specified.

IMPORTANT

1. The effective area requirements specified above are related to the maximum rated heat input of the heater(s).
2. Do not ventilate via a bedroom, toilet, bathroom or kitchen.
3. In hairdressers do not ventilate via rooms where aerosol hairsprays or chemical solutions (i.e. waving or setting lotions) are used.
 Do not ventilate via rooms where dry cleaning fluids or chemicals are used or stored as the above items cause damage to the heater flueways.
 Heater should be sealed off from atmospheres which may contain the above chemicals or solutions and all ventilation air must be taken completely from outside.

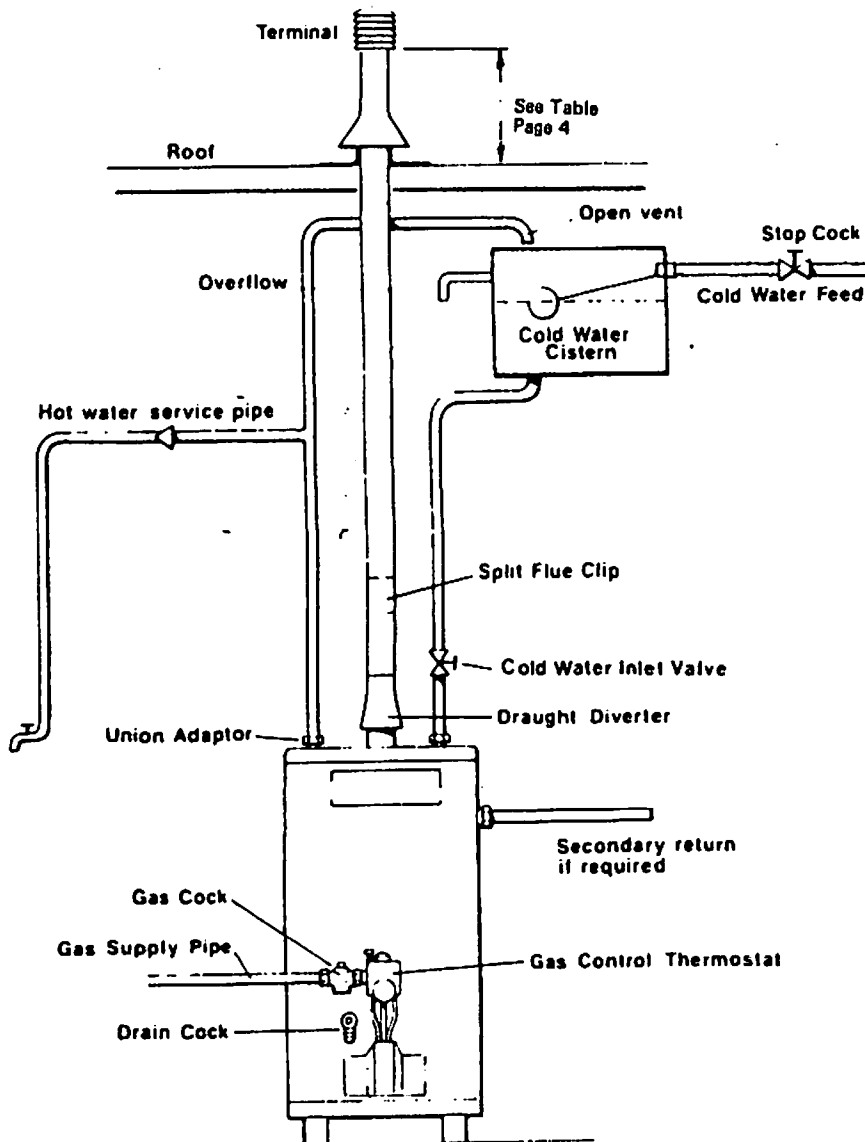
4. If there is any type of extract fan fitted in the premises, there is a possibility that if adequate air inlet area from outside is not provided, spillage of the products from the heater flue could occur when the extract fan is in operation. Where such installations occur, a spillage test as detailed in BS5440 Part 1 must be carried out and any necessary action taken.

5. Air vents and/or ducts should be so sited and of a type not to become easily blocked or flooded and should offer low resistance to airflow.

(d) **WATER CONNECTIONS:** This water heater must be supplied from a cold water feed cistern and the hot water supply pipe must be fitted with an open vent pipe in accordance with BS5546. Local regulations and bye-laws must be observed when installing the system but a typical water services layout is shown below.

The cold water feed cistern must have an actual capacity greater than the hourly recovery rate of the heater or heaters to which it is fitted, the minimum actual capacity allowed for a feed cistern is 50 gall (227 litres).

The actual cistern capacity is the capacity to the normal water line of the cistern. All cisterns used should be to the relevant British Standard and the distance from the normal water line to the top of the cistern should be as laid down by the water authorities.



TYPICAL INSTALLATION

The cold water inlet and hot water outlet are identified on top of the heater. Connect the cold water feed and hot water outlet to these nipples with union adaptors for ease of servicing. (See Servicing Section 4).

CAUTION – Do not apply heat to these nipples if making capillary soldered joints as they are fitted with plastic inserts. Make the capillary joints to the pipes before connecting to the heater. A drain cock is supplied with the heater and this should be fitted to the appropriate boss as shown on the drawing.

After installation of the water system open the main water supply valve, flush the system and fill the heater. Open the hot taps to allow air to escape from the system. When the system is free of air, close the taps and check for leaks at the gas control thermostat, drain cock and pipe connections at the top of the heater.

DEAD LEGS

Dead legs to water draw off points should be as short as possible and in no case should they exceed the lengths laid down in the water bye-laws. The water bye-laws state that the maximum lengths of pipe supplying a hot water draw off tap, measured along the axis of the pipe from the heater, cylinder or tank or from a secondary circuit are as listed below.

Pipes not exceeding 19 mm inside dia. — maximum dead leg length 12.0 metres.

Pipes exceeding 19 mm inside dia. but not exceeding 25 mm inside dia. — maximum dead leg length 7.6 metres.

Pipes exceeding 25 mm inside dia. — maximum dead leg length 3.0 metres.

In the case of a compound pipe of differing diameters the dead leg length must be sized on the largest diameter of pipe.

For a spray tap the maximum dead leg length allowed is 0.9 metres.

WATER TREATMENT:- Where extreme conditions of water hardness exist scale can form in any water heating equipment, especially when the equipment is working under conditions of constant heavy demand.

This problem can be minimised by reducing the water temperature in the heater and by fitting suitable water pre-treatment plant.

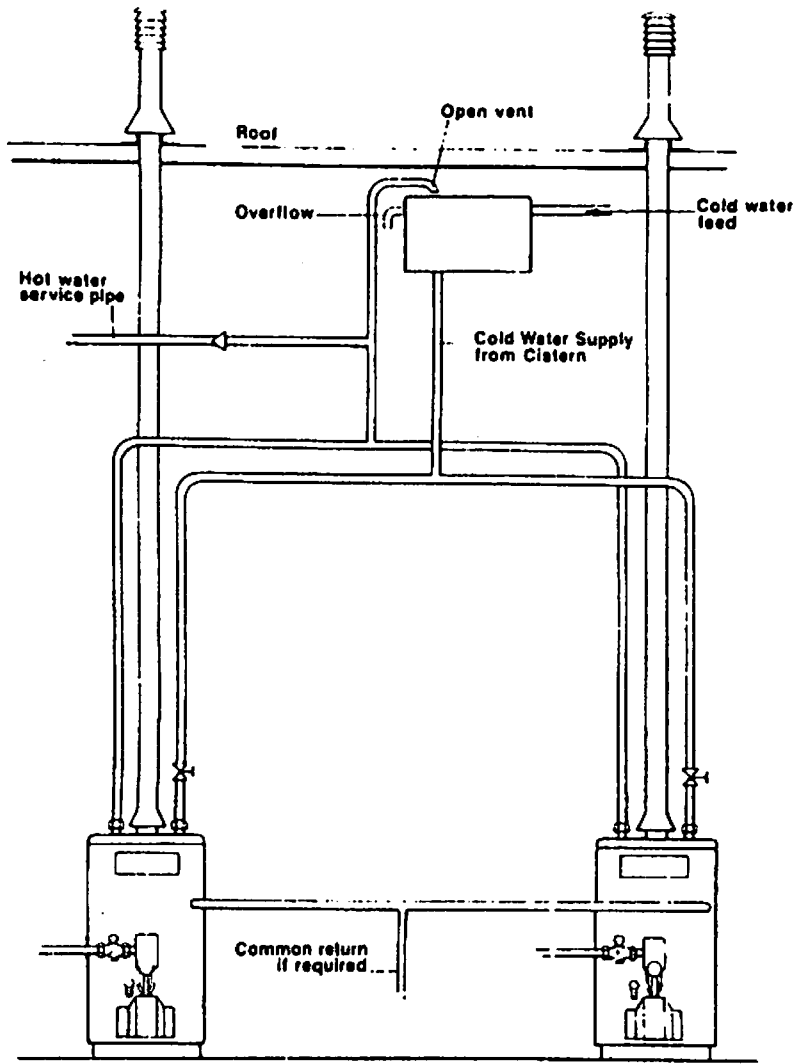
If doubt exists contact a water treatment specialist or the manufacturer for further advice.

(e) **MULTIPLE INSTALLATIONS:** Two or more heaters may be connected in parallel to increase the capacity of the system. Install as opposite ensuring that the pipe lengths are equal to maintain a balanced system.

(f) **GAS CONNECTIONS: THE APPLIANCE MUST ONLY BE USED WITH NATURAL GAS.** The installation of the gas supply should conform to the requirements of British Standards Code of Practice CP 331 Part 3.

Fit the ½" gas supply cock supplied with the heater, immediately upstream of the gas control thermostat and connect to the gas supply. Pressure test the gas installation for soundness. If any doubt exists as to size of gas supply pipe, consult your local Gas Region.

It is recommended that a pressure test point is fitted close to ½" gas supply cock.



N.B. in all manifold installations exact balance is essential for proper operation. The pipe lengths from the common tee's to the heater connections must be equal.

DUAL INSTALLATION

SECTION II

COMMISSIONING

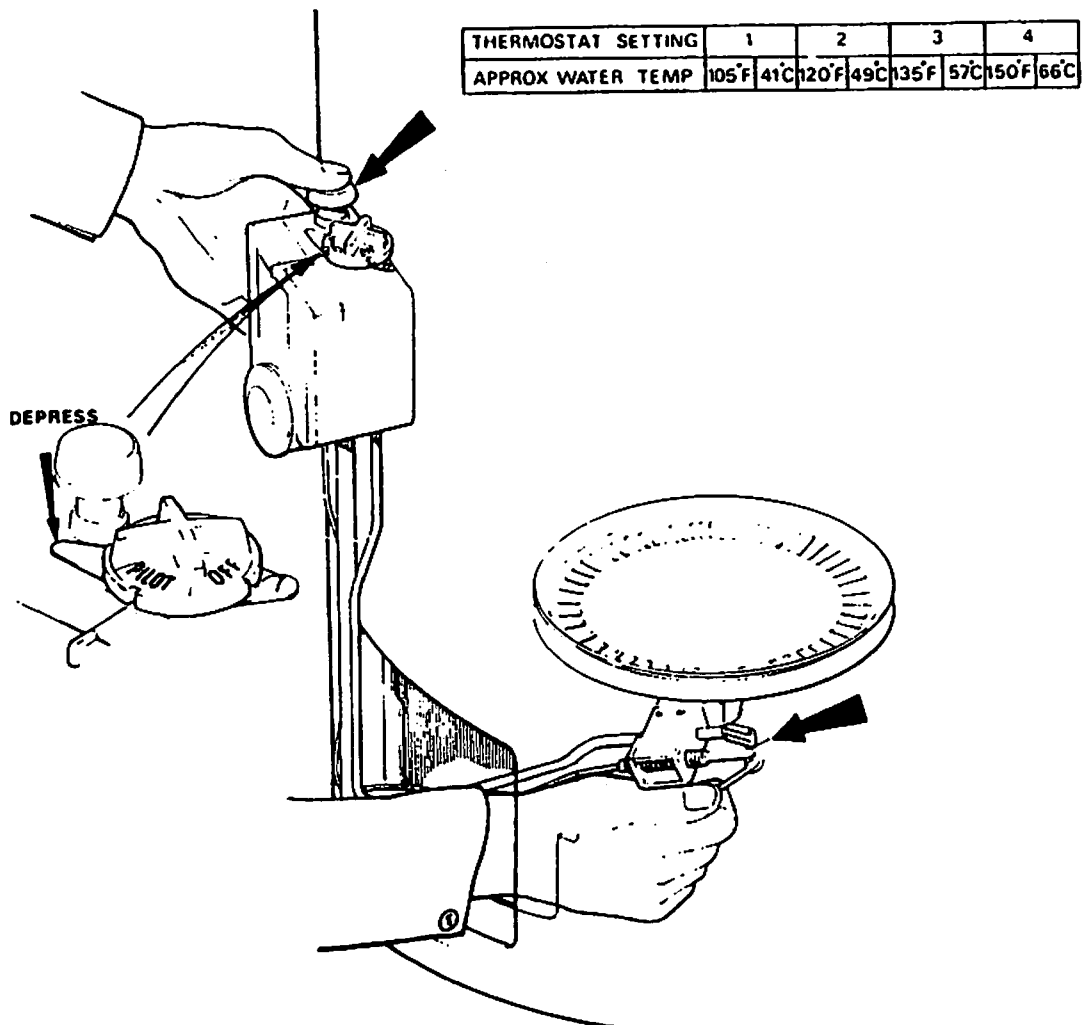
CAUTION: DO NOT OPERATE THE WATER HEATER UNTIL THE STORAGE VESSEL IS COMPLETELY FILLED WITH WATER.

Open the main gas supply cock after all connections to the gas control thermostat are complete, and test all connections with soap solution.

(a) TO LIGHT BURNER

Remove outer and inner burner access doors. Turn the gas control knob to OFF (depress spring catch under control knob) and wait 3 minutes for any unburned gas to vent.

1. Turn the gas control knob to PILOT.
2. Fully depress the RED button and light the pilot burner. With the pilot burner alight, hold the red button in for 20 seconds. When the red button is released the pilot should remain lit, if not repeat the operation.
3. Turn the gas control knob to ON, the burner should run on main flame.
4. Set the temperature indication dial to the required water temperature.
5. Replace inner and outer burner access doors.



LIGHTING INSTRUCTIONS

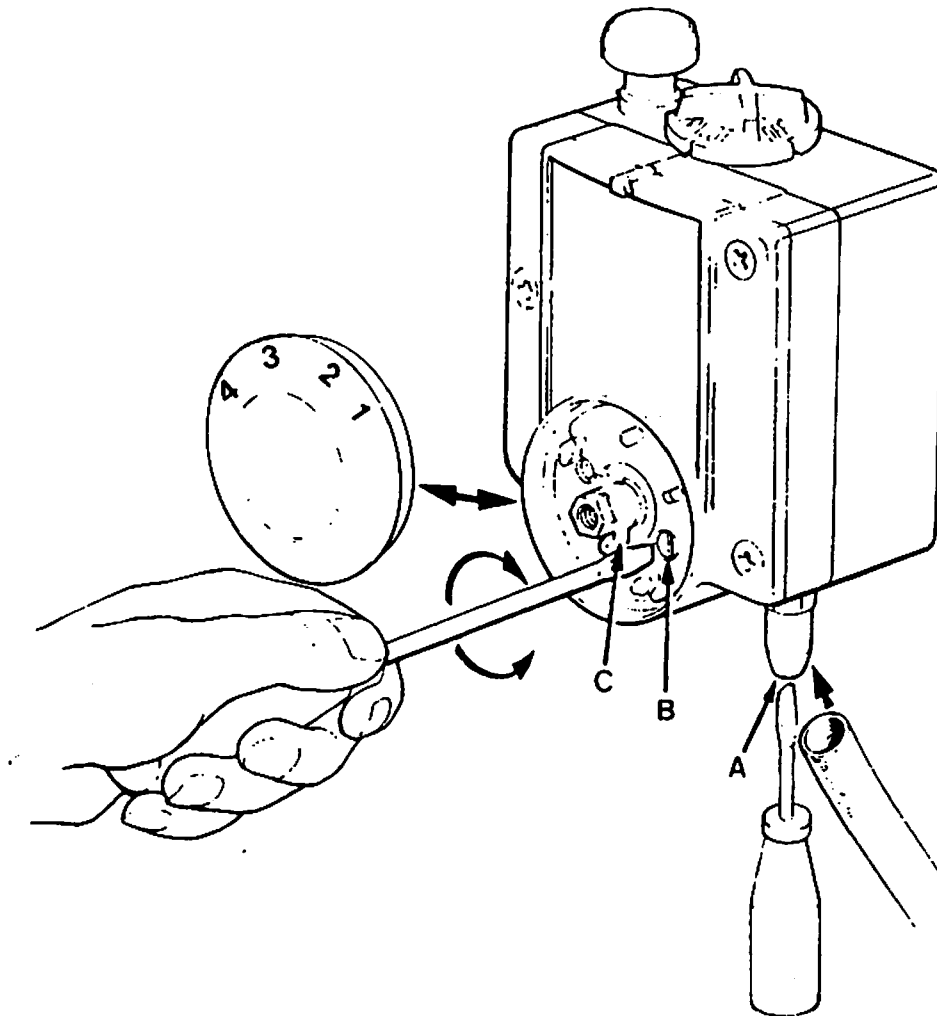
(b) **TO SHUT OFF BURNER**

1. For short periods – Turn gas control knob to **PILOT**.
2. For long periods – Turn gas control knob to **OFF**, depressing spring catch under knob.

NB. If the pilot should become extinguished for any reason, turn off the appliance, and wait three minutes before attempting to relight.

(c) **TO CHECK MAIN BURNER PRESSURE**

1. Turn burner **OFF** as above.
2. Remove plastic-dial (pull off).
3. Release bleed screw **A** one turn and connect pressure gauge tube.
4. Light burner according to the preceding instructions.
5. Adjust burner pressure at screw **B** in accordance with data plate. Turn screw clockwise to increase pressure and anti-clockwise to decrease pressure. When replacing plastic dial ensure correct alignment of dial with locating lug **C**.
6. Turn burner **OFF**. Remove pressure gauge tube and tighten screw **A**.



BURNER PRESSURE ADJUSTMENT

SECTION III

OPERATION

When properly installed and adjusted the Heater will require the minimum attention. Should it become necessary to completely drain the heater, close the cold water inlet valve, open a hot water tap to allow air to enter the system and open the drain cock.

Whenever the Heater is filled with cold water, condensation will form on the cold storage vessel surfaces when the burner is lit. Condensation is normal and does not indicate a leak. It will disappear when the storage vessel becomes heated.

The gas control valve fitted to this heater has a built-in gas regulator and limit thermostat. In case of excessive water temperature the gas supply will be automatically shut off and the Heater cannot be re-lighted until the water in the storage vessel has dropped to a safe temperature.

It is essential that the cause of the high temperature conditions are corrected before the heater is re-lit. If the gas control proves faulty it must be replaced with an identical model having the same code number. Robertshaw 110RT2-P.

IMPORTANT-THE HEATER MUST BE LEFT UNDER THE CONTROL OF THE GAS CONTROL THERMOSTAT AT ALL TIMES. THE USE OF TIME CLOCKS IS NOT RECOMMENDED.

SECTION IV

SERVICING

Whilst giving the following instructions for the care of the Andrews Water Heater, we would recommend that an arrangement is made with your local gas region or installer to carry out periodic checks of the appliance to ensure trouble free operation and continued satisfaction.

These checks will cover flueway, control and burner and should be carried out at regular intervals.

(a) GAS CONTROL VALVE

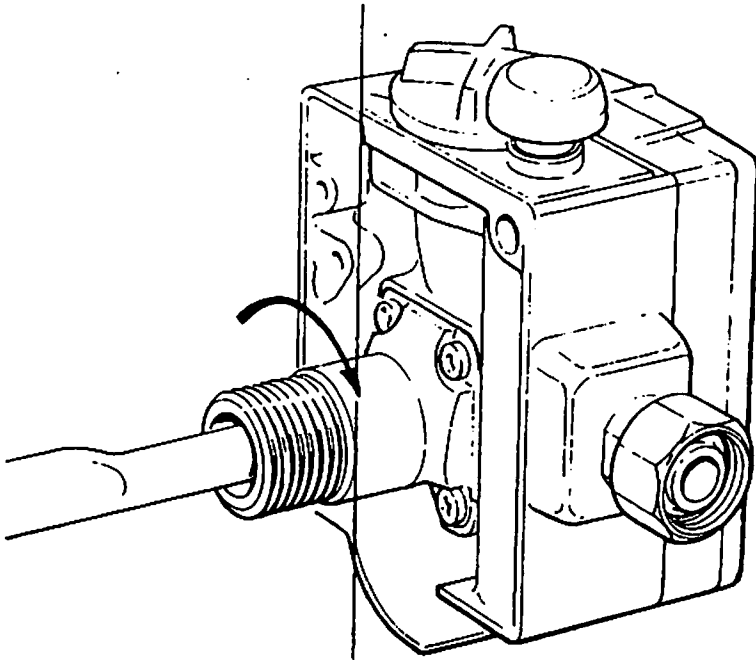
This should be checked and serviced by an engineer fully conversant with every aspect of this piece of equipment. A field information bulletin is obtainable on application from Andrews Water Heater Division.

(b) FLUEWAY

The heater and flueway should be checked annually and if necessary cleaned as follows:—

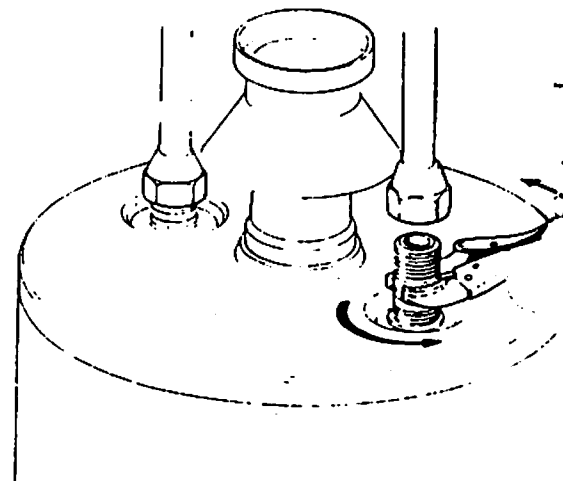
1. Turn gas control knob to OFF and remove inner and outer burner inspection doors.
2. Disconnect burner gas tube, pilot tube and thermocouple at gas control.
3. Remove burner assembly complete with pipes and thermocouple lead.

4. Remove the split flue clip from the flue and lift off the draught diverter.
5. Inspect and clean the secondary flue installation as necessary.
6. Lift out the baffle from inside the central flueway.
7. Clean the flueway with a brush and clean any deposit from the underside of the storage vessel bottom and from the flue baffle.



To remove gas control, first drain appliance, disconnect gas pipe union and turn control anti clockwise.

REPLACEMENT OF GAS CONTROL



Disconnect pipe fittings and turn nipple anti clockwise to remove.

REMOVAL OF COLD DIP TUBE

8. Re-assemble in the reverse order.
DO NOT OVERTIGHTEN THE THERMOCOUPLE CONNECTION. Screw in Hand tight and tighten an extra ¼ turn with a spanner.
9. Re-light and carry out commissioning check as above.

(c) MAGNESIUM ANODE

A sacrificial magnesium anode is fitted beneath plastic cap on top of heater. This anode is to prevent corrosion of the storage vessel walls so the condition of the anode should be checked annually during service. Turn the burner to OFF and turn off the cold water supply valve. Open a hot water tap and draw about one gallon from the drain cock. Carefully lever out plastic cap then unscrew magnesium anode using socket spanner and withdraw. The anode when new is about .84" dia. and should be replaced when the rod is 50% consumed.

(d) If the heater is out of use during a period of heavy frost and is likely to be in exposed position it is recommended that the whole system is drained down to prevent damage due to formation of ice inside the storage vessel.

FAULT FINDING

FAULT

ACTION

1. WATER DOES NOT GET HOT

- (a) Check Gas Cock is open.
- (b) Check water valves are open.
- (c) Check that pilot is alight.
- (d) Check thermostat setting. (Reset to higher temperature).
- (e) Check gas pressures at burner and at gas inlet to appliance (See below)
- (f) Check Cold Inlet Dip Tube to see if it is broken or missing.

2. PILOT FLAME IS OUT

- (a) Try to light burner as detailed in lighting instructions.
- (b) Pilot will not light wait 3 mins and try again then see below.

3. PILOT WILL NOT STAY ON

- (a) Check gas available.
- (b) Check thermocouple, replace if necessary.
- (c) Check inlet gas pressure as this may be too high or too low.
Inlet gas pressure to heater multi-functional control should be 7" to 10" wg.
- (d) Pilot jet blocked, clean or replace pilot jet.
- (e) Faulty Magnet, replace multi-functional control.
- (f) E.C.O. Safety thermostat operating at too low a temperature. Replace multifunctional control.

4. BURNER WILL NOT LIGHT – PILOT ESTABLISHED

- (a) If solenoid valve fitted in burner pipe, check external controls.
- (b) Replace multifunctional controls.

5. THERMOCOUPLE BURNS OUT FREQUENTLY

- (a) Check pilot pipe for loose joints.
- (b) Check that correct amount of Fresh Air ventilation is available.
- (c) Check that flue is clear and is correctly designed and that the British Gas Approved flue terminal is correctly positioned.

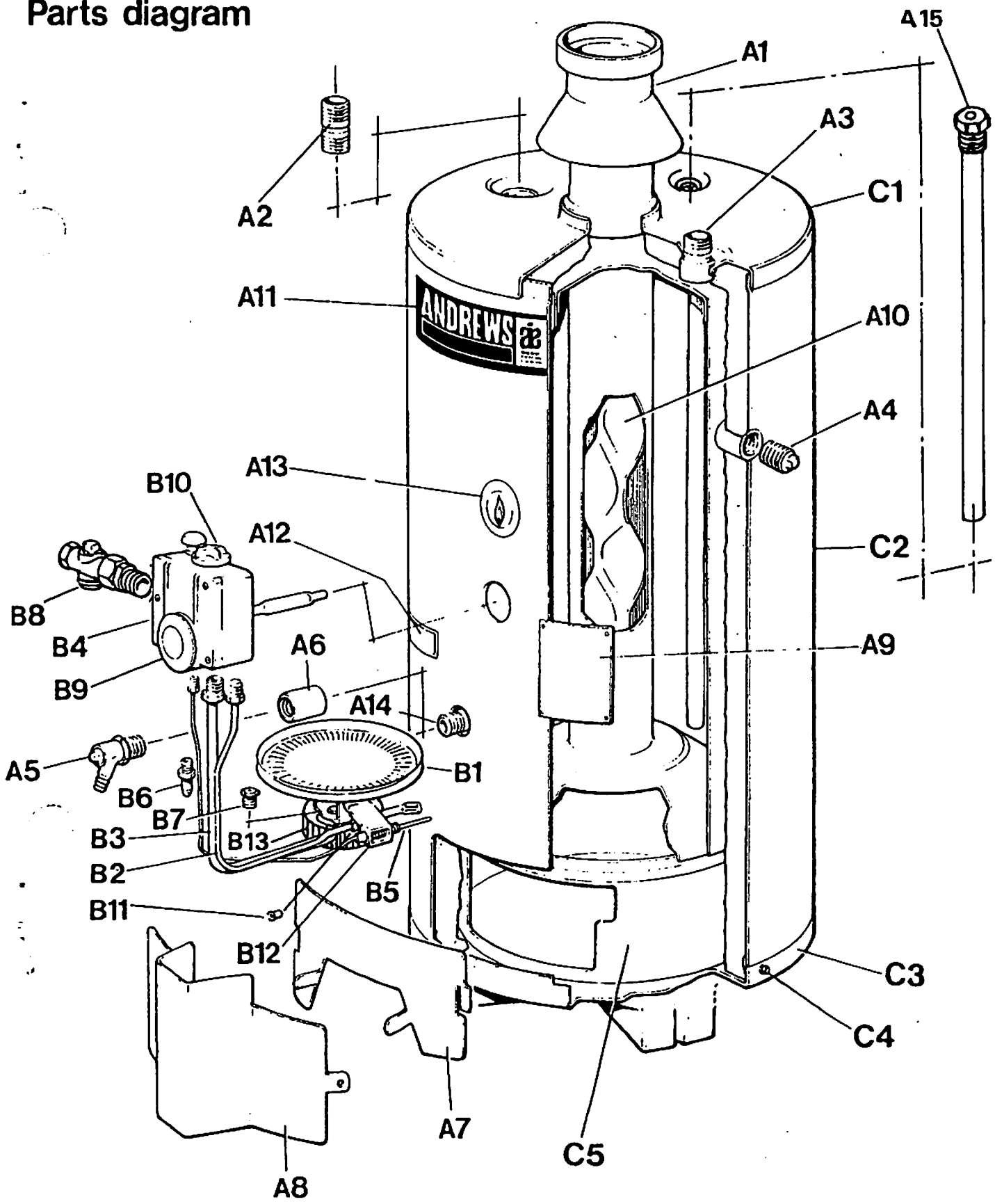
FAULT FINDING

FAULT	ACTION
6. HEATER SOOTING, YELLOW FLAME (POOR COMBUSTION)	(a) Clean burner and injector. (b) Flue obstruction, clean flueways. (c) Check flue design and termination position. (d) Check burner pressure.
7. WATER TEMPERATURE TO HIGH	(a) Reset thermostat to lower temperature. (b) If water temperature is still too high replace multifunctional control.
8. WATER TEMPERATURE TO LOW	(a) Reset thermostat to higher temperature. (b) Check gas pressures at burner and at gas inlet to appliance.
9. NOT ENOUGH HOT WATER	(a) Check gas pressures at burner and at gas inlet to appliance. (b) Check amount of water being used against recovery rate given on Data Plate.
10. WATER DRIPPING FROM BASE OF HEATER	(a) Check if water stops dripping when water in heater is hot. If water stops problem is condensation caused by incorrectly designed flue or by tank cooling excessively i.e. more hot water being used than recovery rate of the heater. (b) If water continues to drip when heater is hot. Problem is a leaking joint or storage vessel.
11. RUMBLING NOISE (KETTLING)	(a) Scale formation in heater, consult water treatment specialist, heater must be descaled and suitable water treatment provided, to avoid problem re-occurring.

SECTION V

Andrews Water Storage Heater
 models 16/23 25/37 33/38 41/55 62/69

Parts diagram



PARTS LIST

WATER STORAGE HEATER NATURAL GAS FIRED MODELS

Ref.	Description	16/23		25/37		33/38		41/55	62/69
		Andrews Part No.	GC. Part No.	Andrews Part No.	GC. Part No.	Andrews Part No.	GC. Part No.	Andrews Part No.	Andrews Part No.
A1	Draught Diverter	24 00 034	306 500	24 00 034	306 500	24 00 034	306 500	24 00 035	24 00 035
A2	Hot Outlet Nipple	30 19 208		30 19 208		30 19 208		30 19 208	30 19 208
A3	Cold Inlet Dip Tube	30 19 209		30 19 209		30 19 215		30 19 216	30 19 216
A4	Plug Return Connection	23 08 025	306 503	23 08 025	306 503	23 08 025	306 503	23 08 025	23 08 025
A5	Drain Cock Prestex BS834 Type B ¼"	30 19 003	306 504	30 19 003	306 504	30 19 003	306 504	30 19 003	30 19 003
A6	Socket Coupler ¾"	23 08 018	306 505	23 08 018	306 505	23 08 018	306 505	23 08 018	23 08 018
A7	Cover Combustion Chamber	30 19 004	306 506	30 19 004	306 506	30 19 004	306 506	30 19 004	30 19 008
A8	Cover Burner Access	30 19 009	306 507	30 19 009	306 507	30 19 009	306 507	30 19 012	30 19 012
A9	Data Badge	30 19 014		30 19 015		30 19 018		30 19 016	30 19 017
A10	Flue Gas Baffle	30 19 019	306 508	30 19 020	306 529	30 19 021	306 547	30 19 022	30 19 023
A11	Label Andrews Water Heater	30 19 044		30 19 044		30 19 044		30 19 044	30 19 044
A12	Warning Label Use Natural Gas Only	30 19 042		30 19 042		30 19 042		30 19 042	30 19 042
A13	Label British Gas Temporary Seal	30 19 041		30 19 041		30 19 041		30 19 041	30 19 041
A14	Nipple ¾" BSP Plastic Lined	30 19 062	306 509	30 19 062	306 509	30 19 062	306 509	30 19 062	30 19 062
A15	Magnesium Anode	30 19 210		30 19 211		30 19 212		30 19 213	30 19 214
B1	Burner Assy Comprising Items B2: B3; B5; B7; B12; B13:	30 19 079	306 510	30 19 064	306 530	30 19 080	306 540	30 19 082	30 19 081
B2	Pilot Supply Pipe	30 19 031	306 511	30 19 032	306 531	30 19 033	306 541	30 19 033	30 19 035
B3	Burner Supply Pipe	30 19 036	306 512	30 19 037	306 532	30 19 038	306 542	30 19 038	30 19 040
B4	Multifunctional Control Robertshaw 110 RT 2P with pilot stop	24 00 037	392 555	24 00 037	392 555	24 00 037	392 555	24 00 037	24 00 037
B5	Thermocouple Robertshaw	24 00 036	393 284	24 00 036	393 284	24 00 036	393 284	24 00 036	24 00 036
B6	Pressure Test Nipple	24 00 038	400 001	24 00 038	400 001	24 00 038	400 001	24 00 038	24 00 038
B7	Injector	30 19 026	306 513	30 19 027	306 533	30 19 028	306 543	30 19 029	30 19 030
B8	Union Cock Sperryn 2200 SF ½"	24 00 054	306 514	24 00 054	306 550	24 00 054	306 514	24 00 054	24 00 054
B9	Knob Thermostat Adjustment	24 00 080	306 515	24 00 080	306 515	24 00 080	306 515	24 00 080	24 00 080
B10	Knob Thermostat Gas Cock	24 00 081	306 516	24 00 081	306 516	24 00 081	306 516	24 00 081	24 00 081
B11	Pilot Burner Jet Type N18	30 19 077	306 517	30 19 077	306 517	30 19 077	306 517	30 19 077	30 19 077
B12	Pilot Burner c/w jet	30 19 025	306 518	30 19 025	306 518	30 19 025	306 518	30 19 025	30 19 025
B13	Injector Cowl	30 19 116	306 549	30 19 116	306 549	30 19 116	306 549	30 19 116	30 19 116
C1	Top Cover Outer jacket	30 19 217		30 19 218		30 19 219		30 19 220	30 19 221
C2	Outer jacket	30 19 006	306 520	30 19 007	306 535	30 19 010	306 545	30 19 011	30 19 013
C3	Base Assy c/w Radiation Pan	30 19 065	306 521	30 19 071	306 536	30 19 072	306 546	30 19 072	30 19 073
C4	Screw, Special for jacket	04 00 014		04 00 014		04 00 014		04 00 014	04 00 014
C5	Combustion Chamber	30 19 108	306 522	30 19 110	306 537	30 19 109	306 548	30 19 109	30 19 074