

★
Little Star



MANUFACTURING LIMITED

Little Star

COMBI BOILER

Neat and compact the Little Star is extremely durable and will cater for the most demanding households, while ensuring that gas bills are kept to a minimum.

S M A L L I N S I Z E B I G I N P O W E R

The Little Star is decidedly deceptive. This unique boiler has been designed to save on space, and is available with or without a built in timer. With dimensions 700mm high, 300mm deep and

400mm wide, (450mm – LS100), this compact combi-boiler gives an output of (24.1kW – LS80) (29.0kW – LS100) with a domestic flow rate of (9.9 litres – LS80) (11.9 litres – LS100) per minute at 35° rise.

Reliable and economical to run, the Little Star exceeds all the current standards for safety, efficiency and performance.

BOILER EFFICIENCY

All models meet the
Maximum Efficiency
Scheme (M.E.S.)
SED BUK BAND D

AVAILABLE IN NATURAL GAS OR LPG



a unique boiler designed to save on space

(1) Ratchet energy hood.
(2) Kitchen lights.
(3) King Surround

(4) Mortise locks
(5) Roller ball locks.
(6) Fire door ready.

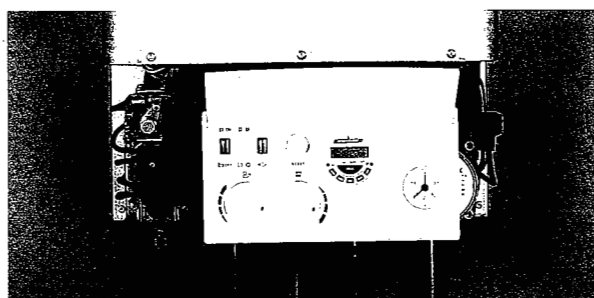
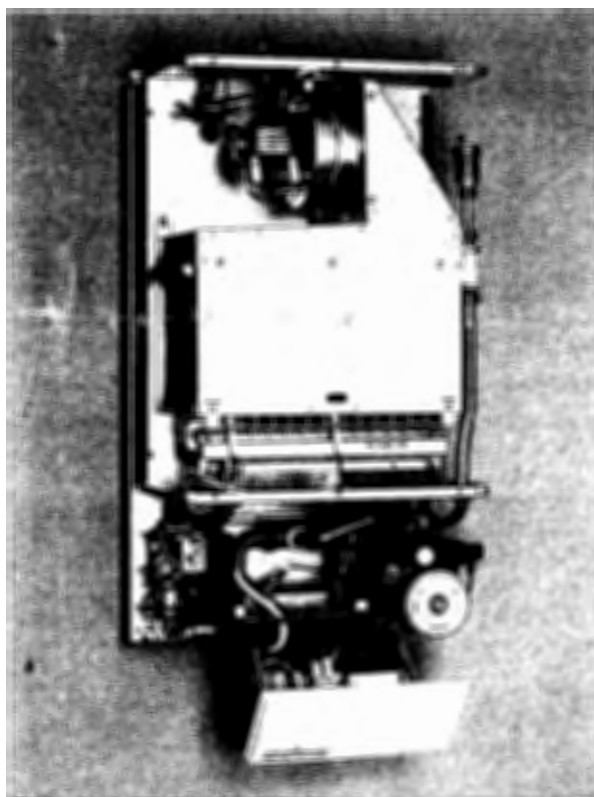
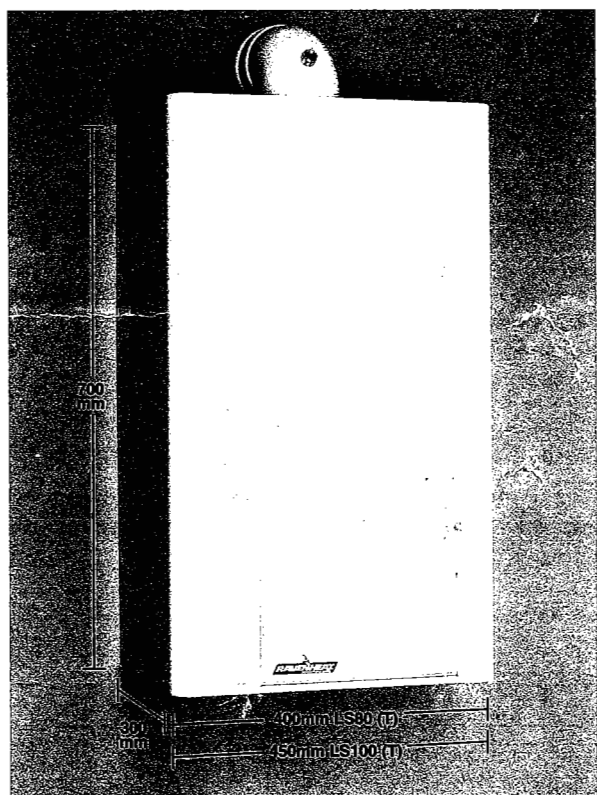
Built to exacting ISO 9001 standards using quality components, all boilers carry the European CE mark.

Each Ravenheat appliance undergoes a rigorous testing and operating procedure before being carefully packed for maximum protection, ready to leave our factory.

The Little Star is fully modulating and will operate in domestic hot water to within 1° of the set temperature. Compartment or cupboard ventilation is not required as it is a totally room sealed appliance.

Ravenheat is proud of its track record in producing extremely reliable gas boilers. If required its service response and commitment is immediate. Ravenheat only uses its own qualified technicians thereby ensuring the highest quality, and the most reliable customer care service.

The 'Little Star', we believe, is the smallest atmospheric combi boiler on the market today. It is incredibly neat and aesthetically pleasing, with its smooth round corners. This well engineered product will also supply more than enough heating and hot water to fulfill your requirements.



This highly efficient boiler is armed with a wide range of innovative features. The controls are easily accessible under the lift up flap. The Little Star is easy to install and there is easy access to all major components for servicing. Valves, an integral part of the boiler are more compact and sit close to the wall. They are also colour coded making it easier and quicker to install.

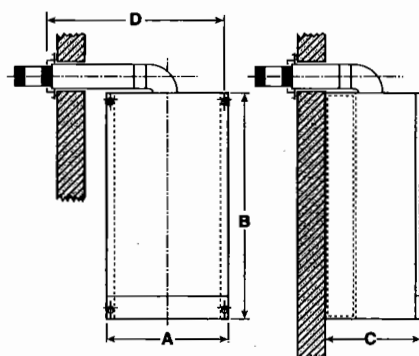
a highly energy efficient and reliable combi

CENTRAL HEATING INPUT			MODEL LS80 (T)	MODEL LS100 (T)
MAX-MIN NETT		kW	26.1 – 13.5	31.4 – 13
OUTPUT MAX-MIN ADJUSTABLE		kW	24.1 – 11.6	29 – 11.2
DOMESTIC HOT WATER FLOW RATE RAISED		30°C 35°C	l/min l/min	11.5 9.9
DOMESTIC HOT WATER OUTPUT MAX-MIN			24.1 – 11.6	29 – 11.2
EXPANSION VESSEL		l	6	6
MAX CENTRAL HEATING TEMPERATURE		°C	85	85
CONNECTION HEATING FLOW & RETURN COMPRESSION		mm	22	22
GAS CONNECTION		mm	15	15
DOMESTIC SUPPLY (COLD) COMPRESSION		mm	15	15
DOMESTIC SUPPLY (HOT) COPPER		mm	15	15
WEIGHT		Kg	40	41.8
FLUE SIZE		mm	100	100
ELECTRICAL MAINS SUPPLY			240v 50Hz Fused 3 AMP	240v 50Hz Fused 3 AMP
SEDBUK	NAT GAS LPG	%	79.6 BAND D 81.9 BAND D	79.6 BAND D 81.9 BAND D

Flue Options & Accessories

The Little Star is supplied with a 1 metre standard horizontal flue kit, this can be extended up to 3.5 metres horizontal or 5.3 metres vertical. Alternatively twin flue ducting is available, ideal for covering long distances and can be extended up to 30.5 metres air intake/exhaust.

OVERALL DIMENSIONS



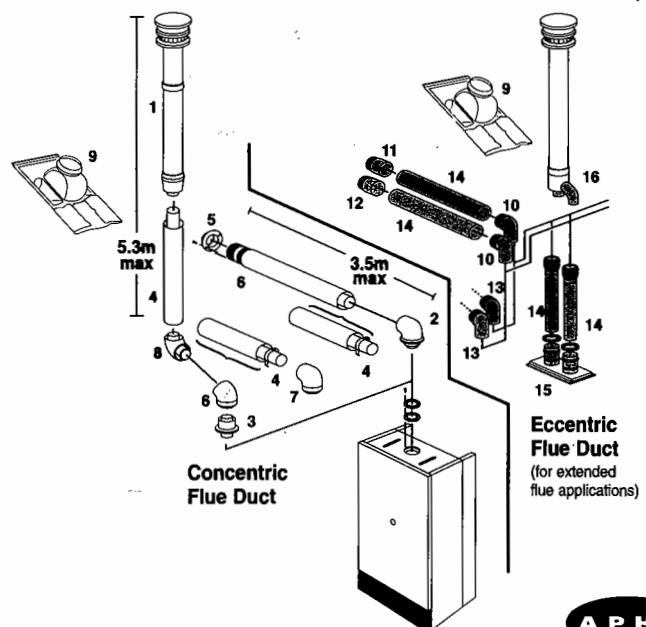
	A	B	C	D
LS80	400	700	300	3500
LS100	450	700	300	3500

CONCENTRIC

- vertical flue terminal (N5094130)
- 90° boiler flue bend (LFB)
- boiler straight flue header (L5094110A)
- flue extension (1000mm) (NFE)
- external flue collar (EFC)
- horizontal flue terminal (L5023016)
- 90° in line bend (N90FBI)
- 45° in line bend (N45FBI)
- flashing sleeve (0019TEG06005/0)

ECCENTRIC

- flashing sleeve (0019TEG06005/0)
- 90° bend for use with intake and exhaust (40002)
- horizontal air inlet terminal (30009)
- horizontal flue exhaust terminal (30011)
- 45° bend for use with intake and exhaust (30003)
- flue extension (1000mm) for use with intake and exhaust (30005)
- twin flue straight header (20013)
- vertical twin flue terminal (30015)



OFFERED TEMPERATURES

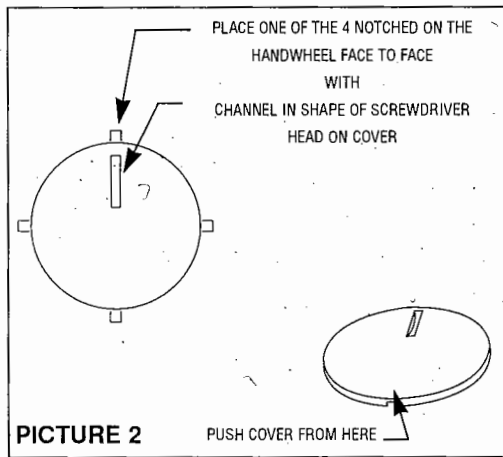
ECA Thermostatic Valve State	Temperature °C	Homes	Business Centres
2	17	Hobby Places	Workshop, Exhibition Places, Museum
2-3	19	Kitchen, Corridor, WC	Cinema, Theatre, Gymn. Hall.
3	21	Bed Room	Classrooms, Meeting Halls, Library, Patient Rooms
3-4	23	Sitting Room, Children Room	
4	25	Old Persons Room	Infirmery, Hospitals.
5	29	Bathroom, Shower Places, Dressing Places	Closed Pools

ECA Thermostatic Valve State's Temperatures

State	0	1	2	3	4	5	6
*Temperature	9	13	17	21	25	29	32

*°C appr. temperature valve

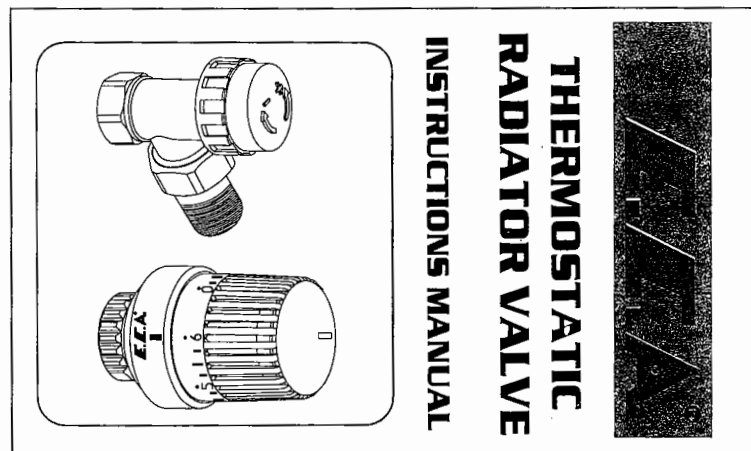
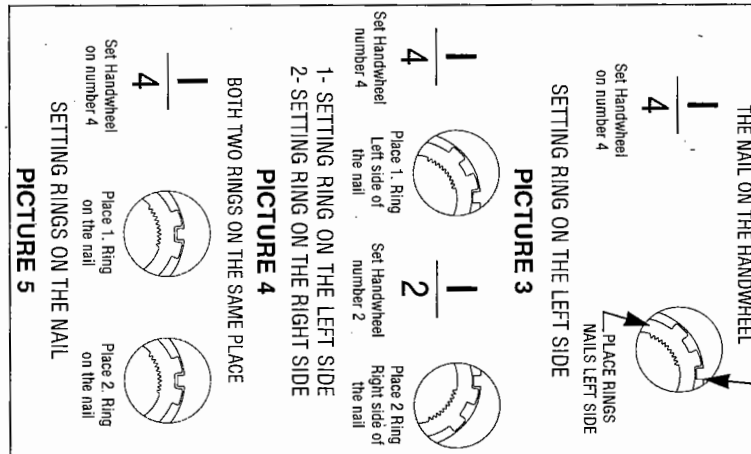
TABLE 1

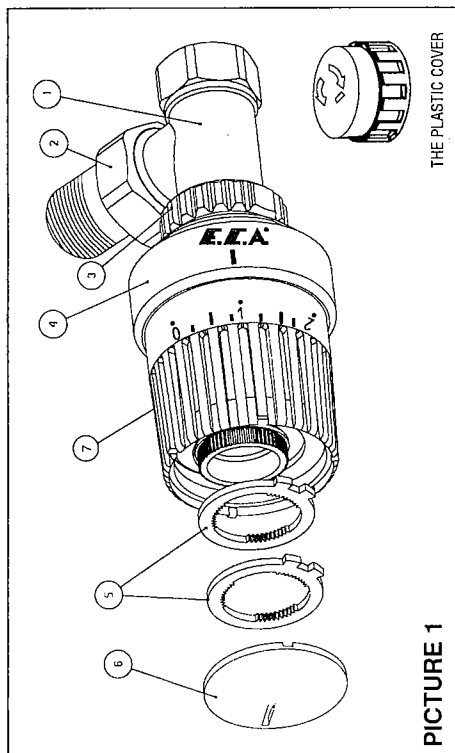


TECHNICAL CHARACTERISTICS

EN 215-1

Working Pressure : 10 Bar
 Max. Working Temperature : 120 °C
 Max. Flow Rate : 357 l/h
 Nominal Flow Rate : 180 l/h (±%10)
 Max. Pressure Drop : 600 mbar
 Usage Range : ± 1 °C
 : + 9 °C, 32 °C





USAGE AND ADJUSTMENT

The numbers between 0 and 6 on the handwheel of the Thermostatic Head (control element) show the room temperature levels.

0 stands for +9°C
6 stands for +32°C

Number 3 stands for 21°C. Every number range is approximately 4°C. This means, if the head is set on position 4, then the room temperature will be approximately 25°C. The device provides temperature between +9°C and +32°C when set in between 0-6 numbers. (Table 1)

FIXING THE ADJUSTMENTS

The product provides you three adjustment position.

- 1- **Using between 0 and any desired value;**
If set to 4, it allows you to use in between 0-4 means fixing in between +9°C and +25°C
- 2- **Using between only two values;** for example by fixing between 2-4, the temperatures +17°C and +25°C will be obtained.
- 3- **Using for only one fixed value;**
For adjusting, remove the cover. To remove it, bring the notches on the cover and on the handwheel face to face and place a sharp pointed metal like a screwdriver within one of the notches between handwheel and cover. Use a sharp pointed screwdriver as a lever to lift the cover up

(Pic. 2). You'll see two setting rings with nail within the handle. Take these parts out (Pic. 1)

- 1- **Adjusting between 0 and a required top value;** First, select the number according to desired temperature on the body so as to bring them on one line (Pic. 3). Then place the first setting ring nail just on the left side of the nail on gears on top of the handwheel as shown in figures and then place the second ring on top of the same ring in the same position (one after one another). This adjustment will allow you using the device within the ranges between 0 and desired value.
- 2- **Adjusting between desired two values, for instance between 2 and 4;** first, set the valve on number 4 position across the arrow on the body and place the first ring nail on the left side of the handwheel nail on the gears on top of the handwheel as shown in above. Then turn the handwheel clockwise direction and adjust the second limit temperature number which is 2 across the arrow on body. Place the second ring nail on the right side of the handwheel nail. This adjustment will allow you using the device within the ranges between 2 and 4 (Pic. 4).
- 3- **Adjusting device for only one fixed value;**
If you want to do this adjustment, for example to 4; first, set the number 4

across the arrow on body. Place nail on the handwheel within the hollow between two nails on the ring as seen in the picture 5. Then place the second ring as same as the first ring. By this adjustment, it is not possible to turn the handwheel either to left or right. So device can be used for only one fixed value (Pic. 5)

After these desired adjustments, attach the top cover on the valve. Now your Thermostatic Radiator Valve is ready to use.

IMPORTANT

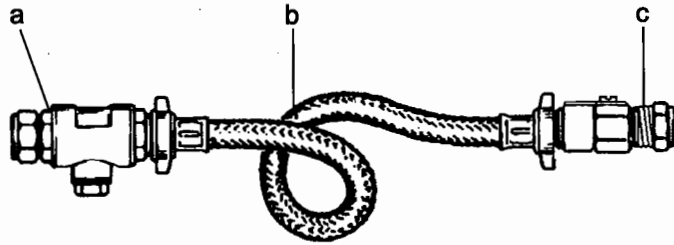
Enabling device perceiving the environment temperature and work properly, don't assemble device where there is no air circulation or in up and-down position. Please be careful about not to cover the valve by anything such as curtain etc. The more efficient the device perceives environment temperature, the better works to provide energy saving and comfort.

CAUTION !

When you don't use the heating system; In summer time, set the Thermostatic head to 6 (highest position). In winter time, set the Thermostatic head to 0 (lowest position against freeze).

FILLING LOOP FIXING INSTRUCTIONS

Providing the Filling Loop is fitted following the instructions below it will meet the requirements for supplying mains water to closed circuit sealed heating systems.



- (a) Double Check Valve
- (b) Flexible Hose
- (c) Valve incorporating a shut off valve.

Fixing the Filling Loop

1. The Filling Loop is best fitted just below the combination boiler remembering that the hose must be able to connect both valves (a) and (c) together and that the system pressure gauge is in view.
2. Fit Valve (a) to the flow or return pipe with the arrow on the side of the valve pointing to the pipe.
3. Connect valve (c) to the mains supply pipe to the boiler. Make sure that it is conveniently sited for ease of operation.
4. Connect the flexible hose to both valves by hand tightening the wing nuts.

Operating the system

5. Check that all connections have been made as suggested above.
6. Follow the boiler manufacturers instructions to fill the system by opening valve (c).
7. Once the system is full and vented turn off valve (c) and remove the flexible hose (this hose must be removed when not in use to comply with the Water Bye Laws).

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