

### Accessories

By fitting optional equipment this product can operate automatically under normal running conditions. The optional controls fit within the casing of the unit & are supplied with easy to fit fixing instruction.

#### Thermostat Control T1 & Automatic Speed Change T2 Thermostat Kit TCAS T12

An adjustable room thermostat (T1) located in the incoming air provides constant room temperature control.

To provide rapid warm up the Automatic speed change thermostat (T2) switches fan(s) between 2 selected speeds at any predetermined temperature setting (generally a difference of between 3-6 degrees lower than that of T1 is used).

The constant temperature control is then maintained by the T1 room thermostat.

#### Adjustable LTC Kit ALTC T3

This enables the end user to precisely select the temperature at which the fans switch on when combined with different heat sources.

#### Air inlet Filters for all Models.

**For Accessories or Spares please contact your supplier.**

*Products with this symbol (crossed out wheelee bin) cannot be disposed as household waste. Old electrical and electronic equipment must be recycled at a facility capable of handling these products and their waste by-products. If you are purchasing replacement equipment your retailer may offer a 'take back' scheme, or will be able to give details of the nearest approved authorised treatment facility. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.*

WEEE Registered Code: WEE/ED0093VW



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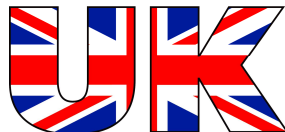
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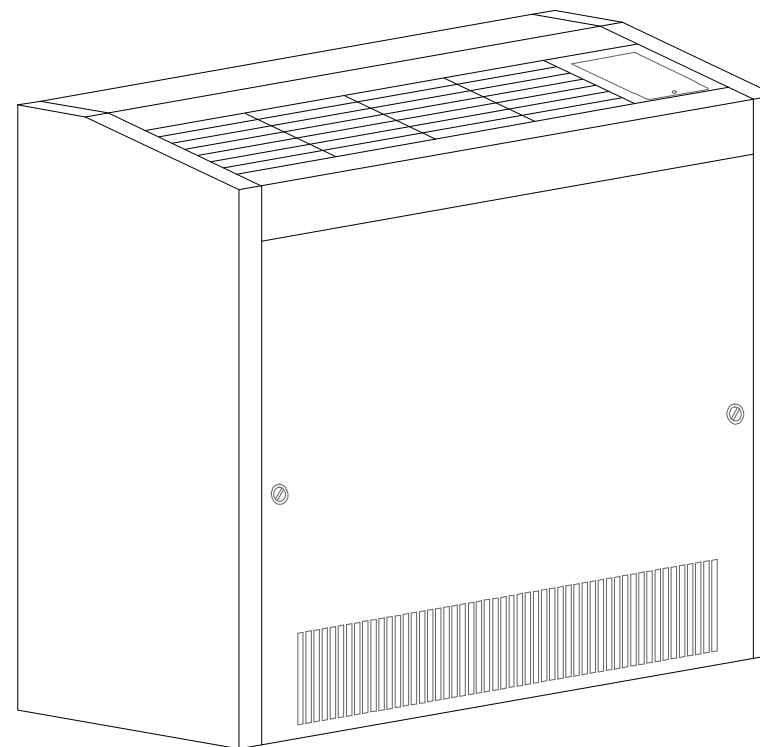
In light of our policy of continuous development Smith's Environmental Products Ltd reserve the right to alter specifications without prior notice.

**Manufactured in the**



# Caspian 60, 90 & 120 Series Low Level Fan Convector

## Installation & User Guide



## Introduction

These heaters are primarily intended for installation onto a wall at low level. We recommend that this heater is stood on the floor and fixed to the wall. They must **not** be installed in bathrooms or other high humidity areas. Please contact us on 01245 324900 for details of products suitable for these applications.

These heaters are designed for use on standard two-pipe pumped central heating systems with a maximum water temperature of 86°C and a maximum pressure of 6 bar (88lbs/in<sup>2</sup>), Pipes are 22mm depending on model and either pipe may be used as flow or return.

These heaters are classified as a fixed appliance and electrical connection should be via a 3amp fused spur. The fused spur must **not** be directly above the heater but should be accessible after completion of the installation. All heaters must be earthed.

To avoid the possibility of vibration these units must be fitted on a flat even surface.

This product is fitted with a 35°C LTC (Low Limit Stat).

An adjustable LTC Kit is available (See accessories).

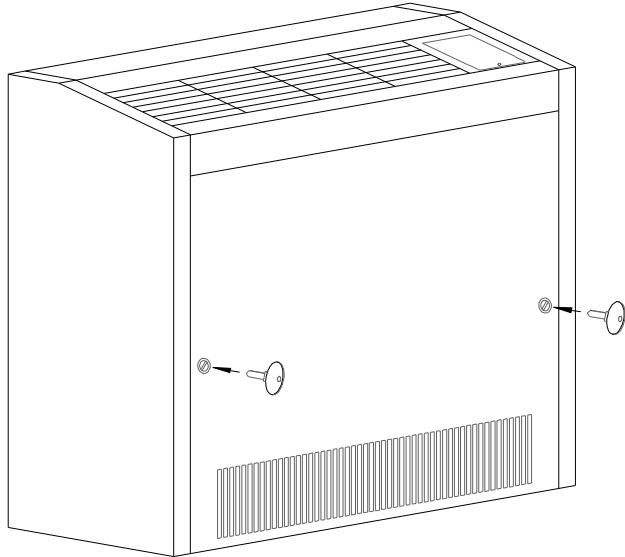
To conform to Building Regulations Part L (Part J in Scotland), an accessory kit comprising of an in room thermostat and an auto speed change thermostat is available (see accessories).

Refer to the instructions supplied with the thermostat. For further details please contact our Technical Support on 01245 324560.

**Please note the guarantee may be invalidated if this product is not installed and used in accordance with these instructions.**

## Installation Guide

1. Remove the front access cover using keys provided.



## Fault Finding

1. Fan does not run on any switch setting,
  - a. Check the power supply is switched on.
  - b. Check the fuse in the fused spur.
  - c. Check the wiring connections at the fused spur.
2. No heat output.
  - a. Vent any trapped air from the system (with the heating system turned **OFF**).
  - b. Check the central heating system is switched **ON**.
  - c. If a thermostat is fitted ensure it is calling for heat.
  - d. Balance the central heating system if fitted on the same circuit as panel radiators and increase the circulating pump speed if required.
  - e. Increase the boiler water temperature.

In the event of difficulties please contact our technical help-line on 01245 324560. It will be helpful if you do not disconnect the heater from the central heating system.

Your fan convector is designed to operate as part of your central heating system in the same way as a panel radiator.

Providing you leave the heat output switch in either the low, medium or boost position it will switch on and off automatically with your central heating system.

## Maintenance

**Warning! Isolate from the electrical supply before performing any work on the unit**

The front panel air filter is removable for servicing by removing the front cover, sliding the air filter along to the open end of the mounting bracket, lift the end of the air filter then pull it sideways to remove it. The filter should be gently tapped to remove any accumulated dust and either vacuumed or washed in lukewarm water with detergent, rinsed thoroughly and allowed to dry. Replacing the air filter is the reverse of removing it. See page 4.

The coil fins are delicate so take care and only use a soft brush or vacuum cleaner to remove any dust that may have accumulated.

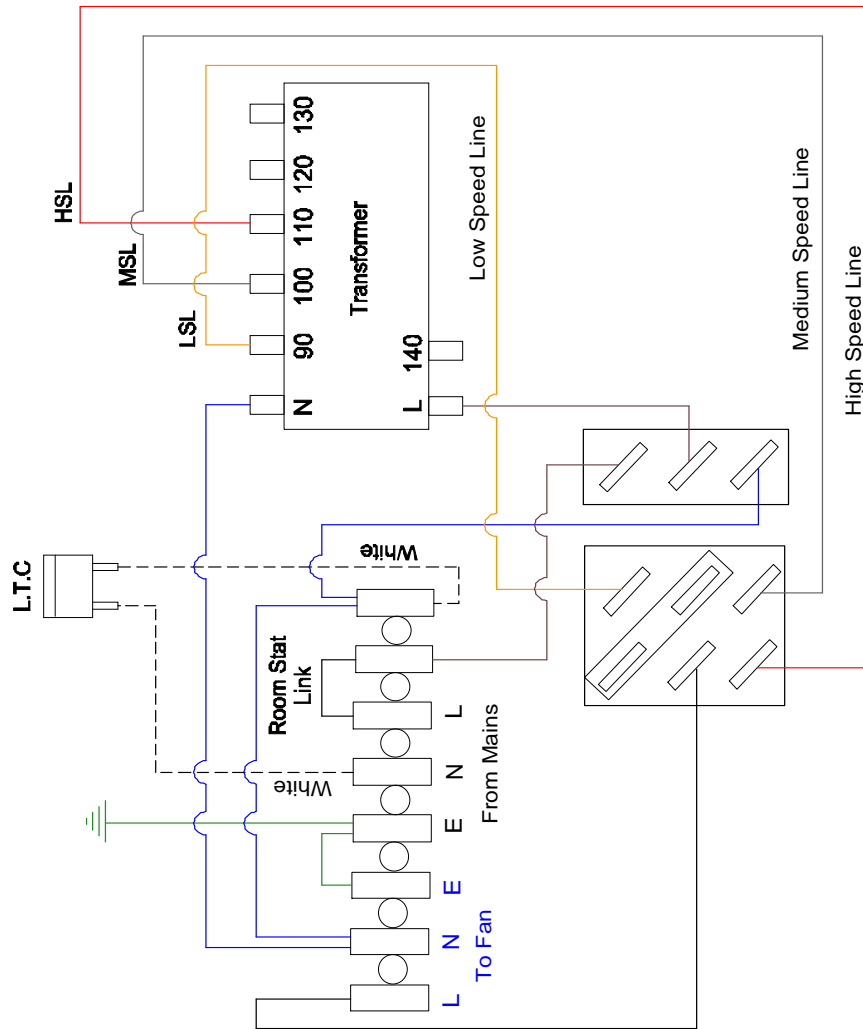
The fan(s) and motors should not require service, please contact your supplier if damaged.

This appliance is not intended for use by persons (including children) with reduced physical knowledge, unless they have been given supervision or instruction concerning use of appliance by a person or persons responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified persons in order to avoid hazard. (Refer EN 60335-1 & EN 60335-2-30 clauses 7.12 & 7.12.5)

Please note in the event of an engineer's visit, Smith's Environmental Products Ltd reserve the rights to apply a call-out charge should the fault prove to be with the system or installation and not the heater appliance.

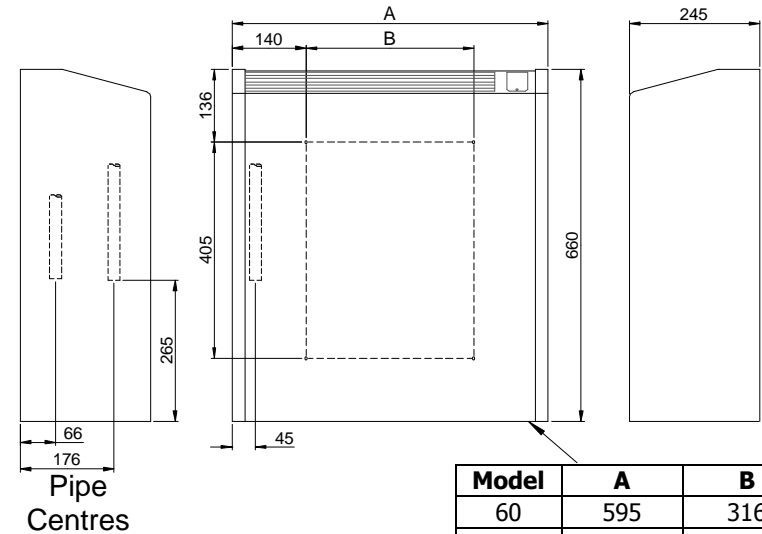
## Wiring Diagram



Caspian Model Transformer Tappings					
Line Speed	Caspian 60	Caspian 90	Caspian 120		
	Type 03/04	Type 06/07	Type 10	Type 11	Type 12
LSL	90	90	90	100	110
MSL	100	100	110	120	130
HSL	110	110	120	130	140

**Caspian Models 60 & 90 Tappings Shown O Wiring Diagram**

- Fix the product to the wall using appropriate fixings for the wall type. Refer to the diagram & table below for the fixing hole positions.

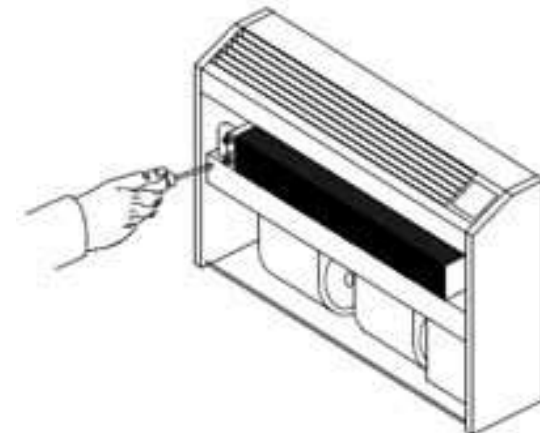


Model	A	B
60	595	316
90	895	616
120	1195	2 x 458

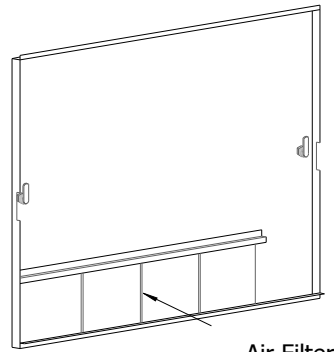
- Connect the heating system flow and return pipes to the heater pipe work. Do not use soldered fittings to the heater pipe work as the heat generated could damage internal wiring and components.

Note: We recommend the use of full flow service valves. The valves should be accessible after completion of the installation.

- Check for water leaks. Remove any trapped air from the unit via the built in bleed screw located as shown in the diagram below.

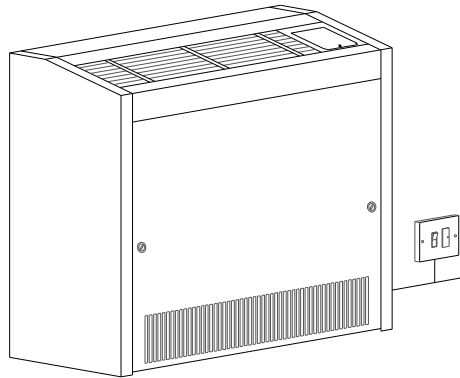


5. Refit cover with pre-installed air filter, lock cover in place with keys provided.

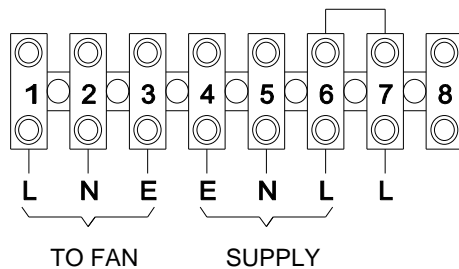


Air Filter

6. Isolate the electrical supply and connect the heater to the fused spur (3 amp). The fused spur must not be directly above the heater and must be accessible after the installation is complete. All electrical work should be carried out in accordance with current IEE regulations.



7. Fit a thermostat if required. There is a connection facility within the heater. Remove link and attach wires to terminals 6 and 7 as diagram below.



(An Accessory Kit with a room thermostat is available – See Accessories)

8. Please leave this Installation & User Guide with the user for future reference.

## Commissioning

1. Turn on the electrical supply at the fused spur.
2. Turn the thermostat (if fitted) to maximum.
3. Turn on the central heating system.
4. Turn on the heater – see User Guide.
5. If these heaters are installed on the same circuit as panel radiators balance the central heating system.
6. If the installation is working correctly remember to reset the thermostat (if fitted) to its normal setting.

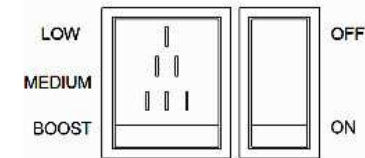
## Heat output performance

Model	Heat Output (kW)	Heat Output (kW)	Heat Output (kW)
	High	Medium	Low
Caspian 60/03	3.7	3.5	3.2
Caspian 60/04	5.1	4.5	4.0
Caspian 90/06	7.4	6.8	6.2
Caspian 90/07	8.6	7.7	6.8
Caspian 120/10	12.5	11.4	9.5
Caspian 120/11	13.4	12.5	10.5
Caspian 120/12	14.4	13.4	11.4

80°C inlet water temperature, 18°C entering air temperature.

Heating – see diagram

Ensure your central heating system is **ON**. Switch on the heater (the neon switch will illuminate). Set the thermostat control (if fitted) to the desired temperature. Set the heat output switch to medium output setting. Providing the water temperature in the central heating is more than 35°C and the thermostat (if fitted) is calling for heat the product will switch on. If you require a faster warm up move the heat output switch to boost. When the room reaches the desired temperature you may move the heat output switch to low. These switches in themselves do not isolate the unit from the mains supply.



It is recommended that these models are capable of maintaining the calculated heat loss at medium heat output, enabling the boost setting to be used for faster heat up and the low speed for maintaining temperature.