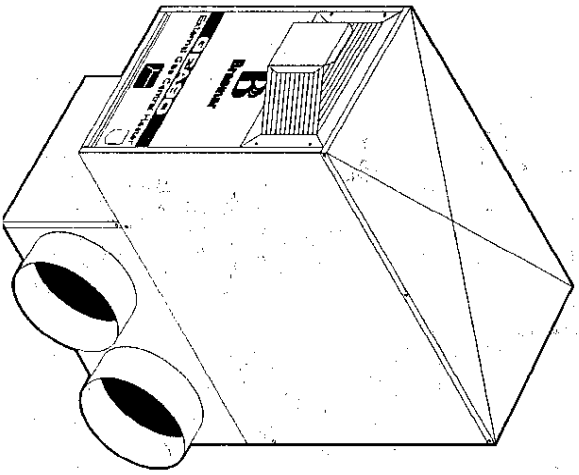


**Operating &
Installation
Instructions**

Braemar

External Gas Central Heaters



Warming the Great Indoors

Models

GEA65 GEA90 GEA110

OPERATING INSTRUCTIONS

SAFETY

Before operating the heater, please ensure that the following precautions are strictly adhered to.

1. Do not place articles on or against the appliance.
2. Do not store flammable materials near this appliance.
3. Do not spray aerosols in the vicinity of this appliance while it is in operation.

Your Braemar heater is fitted with fully automatic electronic ignition. This is an energy saving device and eliminates the need for lighting the pilot.

TO TURN THE HEATER ON, follow the instructions below.

1. Set the Room Thermostat to **BELOW** the room temperature.
2. Ensure the Gas Tap & Power are turned **ON**.
3. Set Room Thermostat to **ABOVE** room temperature.
4. The unit is now in automatic mode.
 - * The hot surface ignitor will commence to glow.
 - * After a period of time the pilot gas will start to flow.
 - * When pilot lights, the ignitor will stop and the main burner will light.
 - * After approximately one minute the fan will come on.
5. Set room temperature to the desired temperature.

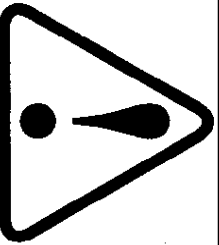
NOTE:

If Pilot does not light because the heater has been out of use for some time:

- Set the Room Thermostat to **OFF**.
- Wait three seconds and set the Room Thermostat to above room temperature.
- Wait for approximately one minute for fan to come on.
- Repeat if necessary.

If the heater does not operate satisfactorily contact your nearest Braemar Service Agent for instructions. Phone numbers are listed on the rear cover.

IMPORTANT



DO NOT Operate this appliance before reading the instruction booklet.

DO NOT Place articles on or against this appliance.

DO NOT Store chemicals, flammable materials or spray aerosols near this appliance.

DO NOT Operate with panels, covers or guards removed from this appliance.

DO NOT Enclose this appliance.

FOR INSTALLATION OUTDOORS ONLY.

TO BE INSTALLED BY AN AUTHORISED PERSON ONLY.

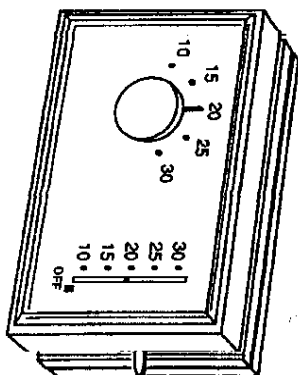
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THERMOSTATS

Operation of a Manual Thermostat

- * Use the manual thermostat to turn the heater on by simply setting the slide lever on the side of the thermostat to a temperature greater than the room temperature.
- * When the room temperature reaches the set temperature, the heater will cycle off.
- * When the room temperature has dropped a degree or so below the set temperature the heater will automatically turn itself back on.
- * When the heater is not in use, turn the thermostat to the OFF position. This thermostat does not require batteries.

This dial shows the room temperature



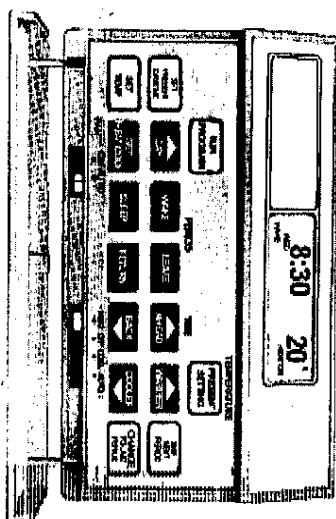
This lever is used to set the desired temperature

Additional information on the operation and set-up of this thermostat is available on the leaflet supplied with the thermostat.

THERMOSTATS

Operation of an Electronic Programmable Thermostat

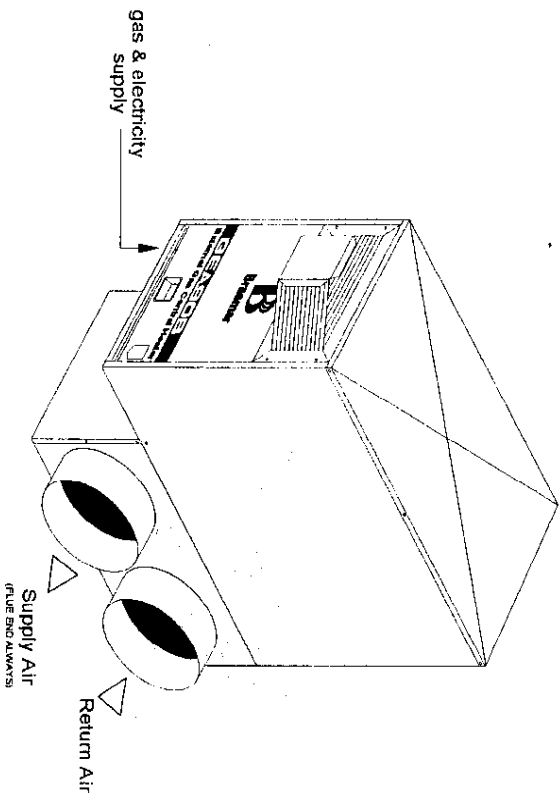
- * Set the slide switches on the bottom of the thermostat to AUTO & HEAT.
- * Press the WARMER button, the temperature display changes to show the Heater On temperature.
- * Hold the button down to increase the ON temperature.
- * The heater will start automatically when "HEAT ON" is displayed.
- * When the heater is not in use, turn the thermostat to the OFF position.



This thermostat requires 3xAAA batteries, these batteries should be replaced yearly.

Refer to the Thermostat Operation Manual supplied with the Thermostat for all of the programming functions.

Braemar Warm Air Gas Furnace GEA Series - External Weatherproof



- Notes:**
1. Removable base box (left or right hand flue)
 2. Flue terminal approved for against the wall installation.
 3. Approved by Australian Gas Association
 4. Multiple speed fan - suitable for add-on air conditioning

Specifications

Model No.	GEA65B	GEA90B	GEA110
Heat Input (MJ)	64	85	106
Heat Output (Kw/MJ)	14/51	19/68	24/87
Supply Air Dimensions (mm)	250	300	350
Return Air Dimensions (mm)	250	300	350
Air Flow (L/s @ 125Pa)	325/380	365/475	580/685
Blower Motor (Watts)	315	315	600
Electrical Specification	240Volts 50Hz 1Phase 3 Pin Plug		
Gas Inlet	20mm (3/4inch) BSP Compression Nut		
Furnace Weight (Kg)	70	82	92

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Braemar Warm Air Gas Furnace GEA Series - External Weatherproof Fan Performance

External Resistance 50 Pa / 0.2 inches

Model No.	GEA65	GEA90	GEA110
Lo Speed (L/s)	370	425	650
Med Speed (L/s)	400	490	700
Hi Speed (L/s)	425	545	760

External Resistance 100 Pa / 0.4 inches

Model No.	GEA65	GEA90	GEA110
Lo Speed (L/s)	340	390	605
Med Speed (L/s)	370	445	650
Hi Speed (L/s)	395	500	715

External Resistance 125 Pa / 0.5 inches

Model No.	GEA65	GEA90	GEA110
Lo Speed (L/s)	325	365	580
Med Speed (L/s)	355	420	630
Hi Speed (L/s)	380	475	685

External Resistance 150 Pa / 0.6 inches

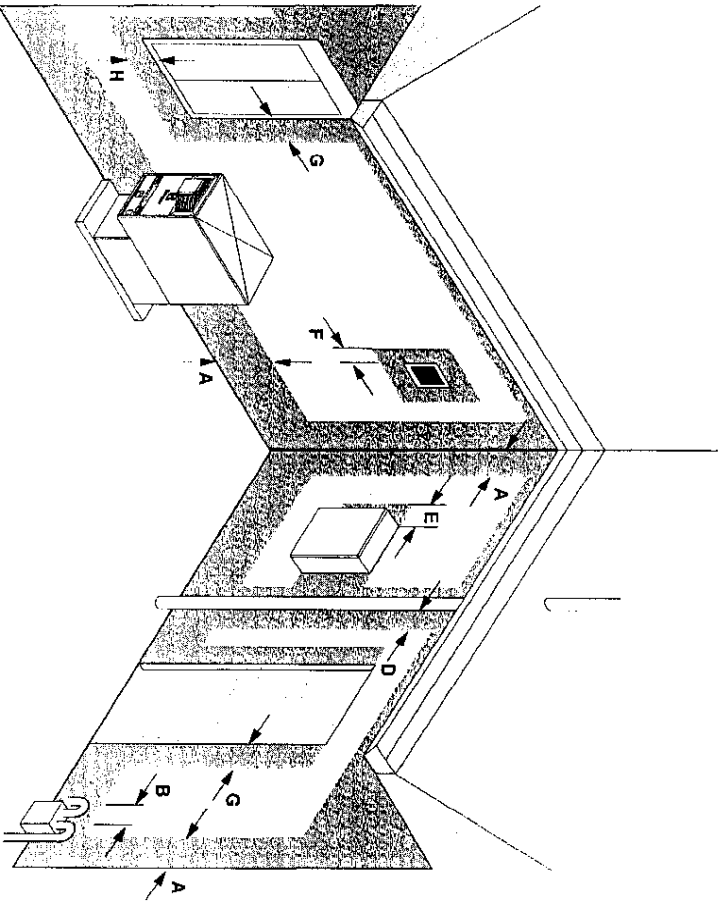
Model No.	GEA65B	GEA90	GEA110
Lo Speed (L/s)	310	340	550
Med Speed (L/s)	340	395	605
Hi Speed (L/s)	385	445	655

External Resistance 175 Pa / 0.7 inches

Model No.	GEA65	GEA90	GEA110
Lo Speed (L/s)	285	310	530
Med Speed (L/s)	325	365	575
Hi Speed (L/s)	350	415	630

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Braemar GEA Series Flue Clearance Requirements



OBSTACLES	Min Flue Clearance (mm)
A. From an obstruction or from below eaves and balconies	500
B. From a gas meter	1000
C. From an electricity meter or fuse box	500
D. From a drain or sewer pipe	150
E. From a return wall or an external corner	500
F. From any other gas flue or combustion air intake	500
G. Horizontally from an opening window or door	500
H. Vertically below an operable window or door	1000

INSTALLATION INSTRUCTIONS

GENERAL

The furnace should be installed in accordance with these instructions, local gas fitting regulations, municipal building codes, electrical wiring regulations, Australian Gas Association Installation code for gas burning appliances and equipment and any other relevant statutory/regulations.

DELIVERY

The customer or installer, upon delivery of the furnace, should ensure that the model number and gas type are as requested. A data plate located on the inside of the door gives both the model number and the gas type for which the heater is intended.

Please check the heater for any freight damage.

Location and Clearances

The furnace shall be installed in a location to allow easy access for servicing and in which the ventilation and flueing requirements can be met. Your external gas central heater is designed for outdoor installation only.

IMPORTANT

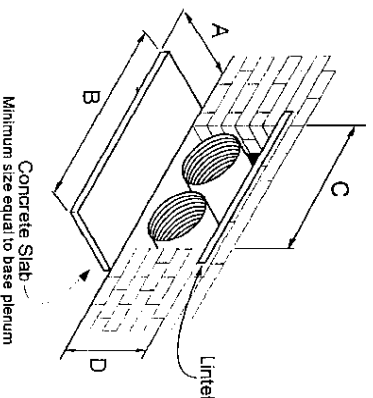
This appliance is to be installed only by an authorised tradesperson.

Preparation.

A concrete slab with a minimum thickness of 50mm is required to mount the heater. Slab sizes shown in the table below are minimum sizes.

A base box is supplied with the heater allowing for left hand and right hand installation. After installing the base box in the correct position, the heater should be carefully mounted on top of the base box. make sure the heater is sitting squarely on the base box thus avoiding leakage or ingress of air etc.

Model	GEA65	GEA90	GEA110
A	450	550	650
B	800	800	900
C	710	720	850
D	350	380	470



INSTALLATION INSTRUCTIONS

Thermostat Wiring.
The thermostat wiring is 24 Volt AC.

Gas Connection.
Your Braemar heater is provided with a 20mm (3/4" BSP) Female socket for connection to the gas line. A gas cock must be provided adjacent to the heater for servicing.

Before connecting the gas to the heater, **the gas line should be carefully purged** to remove any air and debris from the line.

Gas Pressure

Natural Gas
The gas pressure is factory set at 0.87 kPa (3.5 " WG) for Natural Gas. Should the pressure require field adjustment, remove the cover screw from the gas valve regulator, to expose the adjusting screw. Tightening the screw will increase the gas pressure, a small blade screwdriver is required to make this adjustment.

IMPORTANT

*Adjustments to the gas pressure should not be made unless proper measuring equipment is available.
Incorrect adjustment to the gas pressure could cause premature failure of the burner or the heat exchanger.*

POWER FAILURE

In the event of a power failure during the operating cycle, the heater will automatically shut down. When power is restored, the room fan may come on and run for about 2 minutes to cool the heat exchanger down. If the thermostat is still calling for heat, the heater will go through a normal start-up procedure.

INSTALLATION INSTRUCTIONS

Ductwork Connection.
Starter spigots are provided with the heater for direct connection of flexible duct.

Outlet Registers must be provided in all areas to be heated. It is recommended that a register be provided for ever 14 m² of floor space. Where this is not possible, larger outlets may be provided. Care should be taken to prevent cold spots being created by too much draught, or inadequate outlets.

Ductwork should be fully supported and free from air leaks.

Volume dampers should be provided for proper balancing of the system.

Ductwork should be of adequate size to prevent excessive back pressure on the heater. In adequate ductwork may cause premature failure of the fan motor, or the heat exchanger.

Return Air Ducting.

Return air should be drawn from a suitably heated area. The return air duct should never be terminated in such a manner that it can be accidentally locked by placing clothing, carpet or the like over it.

Filters.

The provision of filters in return air grilles may generate some noise. If a filter is fitted to the return air grille it should be cleaned fortnightly and replaced yearly. If a filter is fitted, the return air grille size must be increased by at least 30 %.

Suggested Sizing.

Model	W/O Filter	With Filter
GEA-65	500 x 400	650 x 550
GEA-90	600 x 400	800 x 550
GEA-110	750 x 400	1000 x 550

ADD-ON COOLING

A refrigerated cooling coil may be added to the system provided that the following points are observed.

- Ductwork should be enlarged to provide for greater air flow.
- The fan must be connected to high speed.
- The coil must be fitted to the supply air duct.

NOTE:

Connection of the coil to the return air duct will cause condensation on the fan and heat exchanger and may lead to premature failure.

INSTALLATION INSTRUCTIONS

Electrical Connection.

The heater comes pre-wired with a 1.8 metre long lead and 3-pin plug. This will plug into a conventional 10 amp power outlet.

Thermostat Location.

The room thermostat should be located approximately 1.5 metres above the floor level. Avoid placing the thermostat in draughty areas, or where hot spots could occur due to the radiation from the suns rays, television sets, refrigerators or warm air outlets. Central hallways generally have no windows and retain the heat longer than surrounding rooms, this may mean that the thermostat does not sense the true temperature of the living area. Check with the end user, the room/s that will be lived in most, this area will need to have the thermostat located central to it.
Consideration should be given to all factors before deciding on the final location.

COMMISSIONING

Pre-start check list

Furnace checks.

- No Leaks in gas lines.
- Do not use a flame to locate leaks, use a soap solution.
- Blower correctly wired.
- Controls wired and adjusted correctly.
- Filters are clean and in place.
- Check that registers and return air grille are open.
- Duckwork adequate.

Thermostat Check.

- In suitable location.
- Correctly wired.
- Level.
- Heat anticipator set to 0.7 amps.

INSTRUCT THE USER

To avoid service calls at a later date, ensure that the home owner is aware that a minimum number of outlets must always be open.

GEA65 - 4 outlets

GEA90 - 6 outlets -

GEA110 - 8 outlets

Instruction should also be given on the requirement for regular service of the heater and the cleaning of any filters.

BRAEMAR WARRANTY

The manufacturer warrants that the product is free from defects in material and factory workmanship. Subject to the terms of the warranty, the manufacturer will repair or replace at its option, the product or any part thereof, which examination shows to be defective, for a period of THREE (3) years from the date of purchase.

Ten (10) years warranty is available on the following components.

1. BURNER
2. HEAT EXCHANGER

Warranty on any replacement parts is limited to the balance of their original warranty period.

This is the sole warranty of the manufacturer, who is not responsible for any obligation, assumed or expressed by any other person or persons.

Conditions

The warranty is available to the first purchaser only, being the purchaser who purchases without the intent of reselling for profit.

The structural warranty covers any metal structural components which fail to perform their intended function due to faulty manufacture or deterioration, within the warranty period.

The warranty does not cover any component parts or equipment used in conjunction with the heater, which were not supplied by the manufacturer.

The warranty does not cover faulty installation, maintenance or abnormal conditions of service.

The warranty does not cover damage to the heater or other, resulting from acts of god.

The warranty shall not apply to the heater or any part thereof, which in the opinion of the manufacturer has been subject to accident, alteration, abuse, misuse or unauthorised repair.

This warranty shall not be extended to any loss suffered by or resulting from the non operation of the heater or part thereof.

Travelling costs incurred for work beyond a 25km radius of an Authorised Braemar service agent must be met by the purchaser.

The Manufacturer and its Agents reserve the right to refuse service unless safety and accessibility to the unit can be guaranteed.

The cost of any extra equipment required to provide access to the unit for servicing is the responsibility of the owner.

NOTE: Should you require warranty work on your Braemar heater, we recommend that you first contact your local Braemar Dealer, they are best placed to attend to any problem, no matter how small.

If however a service call reveals no fault with your Braemar heater, you may well be charged for the call, even during the warranty period.

Braemar

Adelaide Office

1-11 Rothersey Avenue
ST MARYS S.A. 5042
Telephone: (08) 8276 2355
Facsimile: (08) 8276 4542

Melbourne Office

2/21-23 Geddes St
MULGRAVE VIC 3120
Telephone: (03) 9561 3222
Facsimile: (03) 9561 5733

Perth Office

5/1 Belmont Avenue
BELMONT W.A. 6104
Telephone: (08) 9479 6669
Facsimile: (08) 9479 6609

Albury Manufacturing Plant

77 North Street Albury N.S.W. 2640
Telephone: (02) 60 411 611
Facsimile: (02) 60 412 208

WARRANTY & SERVICE

1 800 822 644

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Seeley International Pty Ltd ACN 054 687 034

Part No. 600321 /a

Manufacturers and Designers of Technically Advanced Quality Heating and Cooling Prod