



YUNCA GAS

EIB

ELECTRONIC INBUILT
GAS HEATER

2002

**OPERATIONS, MAINTENANCE &
WARRANTY INFORMATION**

CONTENTS:

	PAGE
INTRODUCTION	3
INSTALLATION	4
FLUE INSTALLATION	5
CLEARANCES	6
CONNECTING THE FAN	6
CONNECTION TO GAS SUPPLY	7
TESTING PRESSURES	8
OPERATION	9
MAINTENANCE/CLEANING	11
FAULT FINDING GUIDE	15
Appendix A PARTS LIST	17
Appendix B INJECTOR SIZES	17
Appendix C WARRANTY	18
WARRANTY REGISTRATION	19

INTRODUCTION.

Welcome and congratulations on purchasing your YUNCA ELECTRONIC INBUILT FLUED GAS HEATER.

Please read the following information carefully before attempting to operate the heater and ensure all members of your household understand how this elegant and highly efficient heater functions.

Please fill out and return the Warranty registration and installation check list card promptly.

These instructions should be stored in a convenient safe place for ready reference. If you have any questions regarding your heater please contact your YUNCA dealer.

The YUNCA ELECTRONIC INBUILT FLUED GAS HEATER is a listed gas-fired, conventionally vented, room heater tested by independent laboratories to New Zealand standards.

The installation of the YUNCA ELECTRONIC INBUILT FLUED GAS HEATER must be carried out by a suitably qualified person and comply with the current New Zealand installation code, NZS 5261:1996. (For Australian Installations, code AG 601)

CAUTION: This appliance must be vented to atmosphere via a sealed flue system. Installation and repair of the YUNCA ELECTRONIC INBUILT VENTED GAS HEATER should be done by a qualified person. The appliance should be serviced at least annually by a qualified service person. Control valve compartments, burners, fan, and air circulating passageways of the ELECTRONIC INBUILT must be kept free from any lint and dust build up to ensure efficient and safe operation of the heater. Regular cleaning will aid this.

DO NOT PLACE ARTICLES ON OR AGAINST THIS APPLIANCE.

DO NOT USE OR STORE FLAMMABLE MATERIALS NEAR THIS APPLIANCE.

DO NOT SPRAY AEROSOLS IN THE VICINITY OF THIS APPLIANCE WHILE IT IS OPERATIONAL.

INSTALLATION

Considerations

The most desirable and beneficial location for a YUNCA ELECTRONIC INBUILT HEATER is in the centre of a building, thereby allowing the most efficient use of the heat created.

The location of windows, doors and the traffic flow in the room where the heater is to be located, should all be considered.

To obtain maximum heat distribution with any heater a ceiling fan can be fitted.

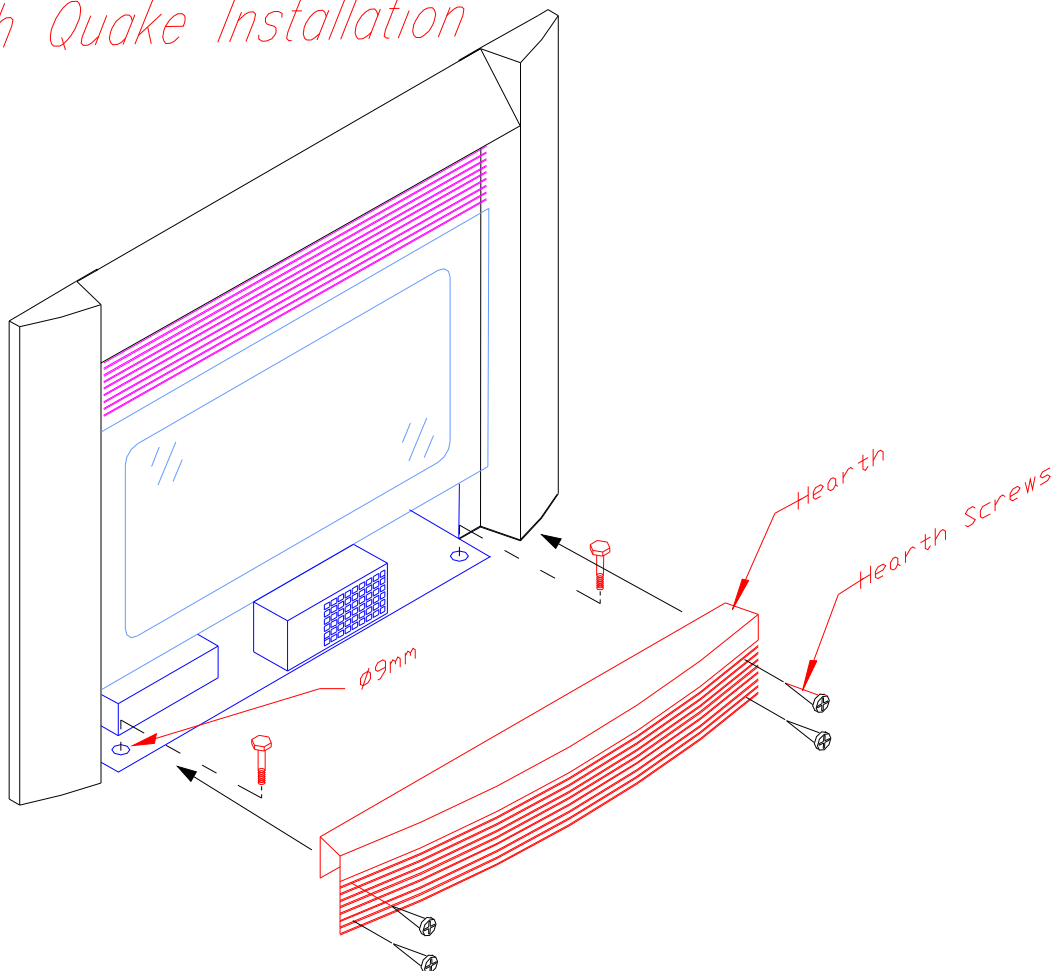
Another important consideration when installing the Yunca ELECTRONIC INBUILT is availability of power supply to the fan and plumbing of gas line.

When the appropriate position has been selected, the unit can be inserted into the prepared cavity that includes a level base. The fire shall be attached via bolt holes to the floor to ensure that the unit remains secure in the event of an earthquake or similar.

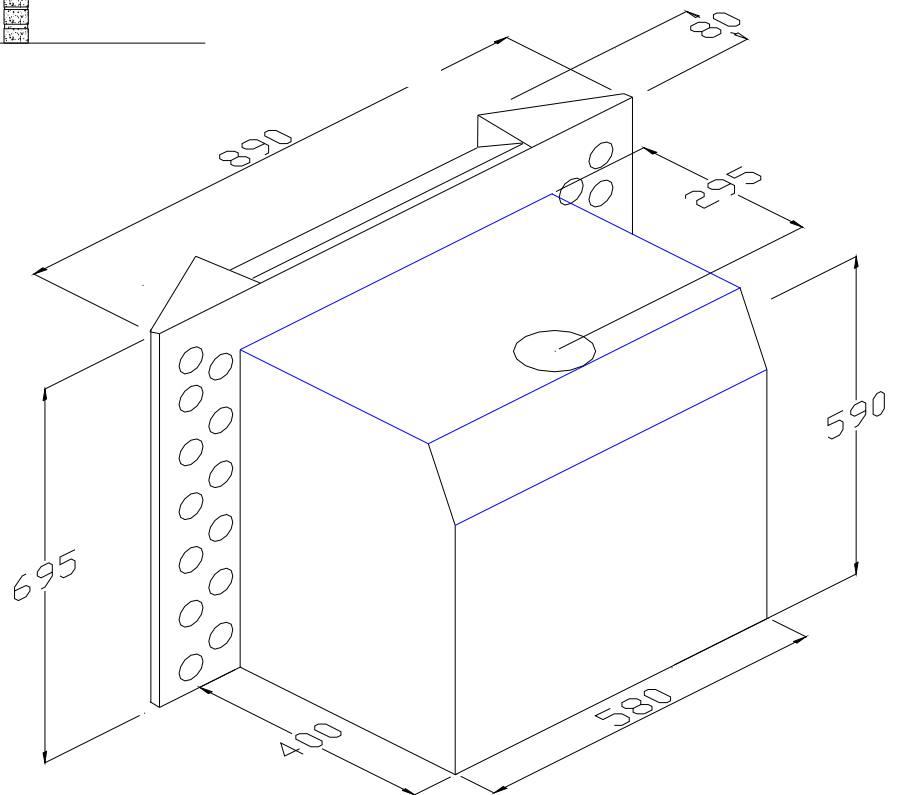
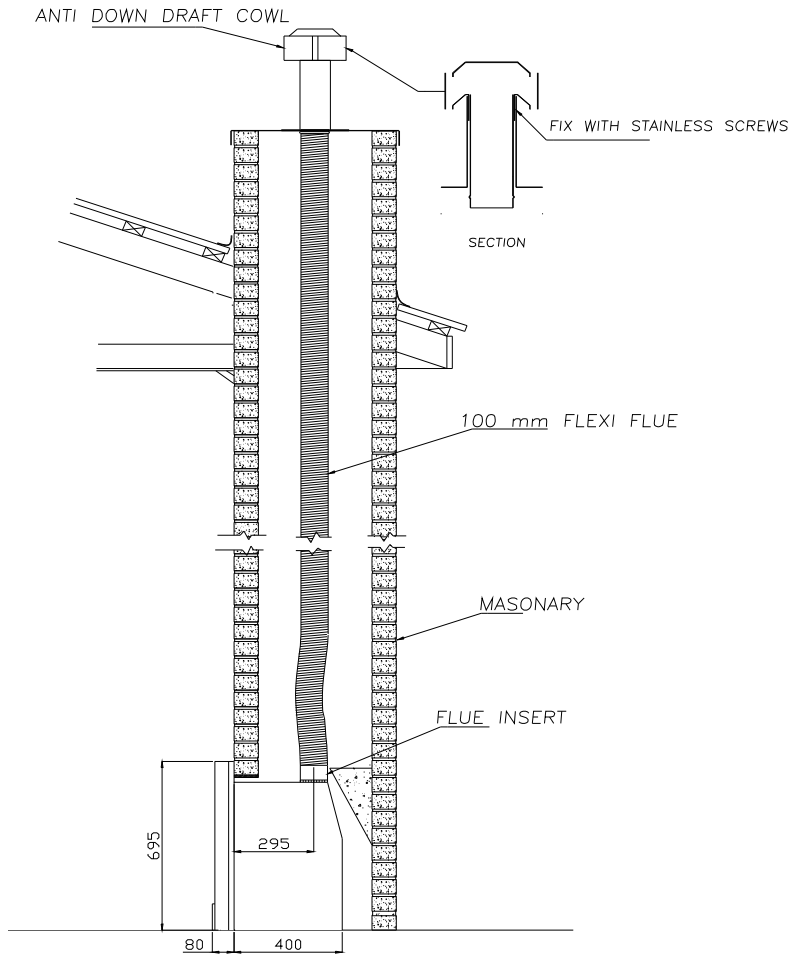
If the heater is being attached to a concrete floor dyna bolts should be used, if the floor is wooden the bolts used should be long enough to go fully through the floorboards and fixed with nuts and washers from the underside.

The earthquake brackets are located at the front corners of the heater and are exposed by removing the hearth.

Earth Quake Installation



TYPICAL FLUE INSTALLATION
BRICK CHIMNEY INSTALLATION



TYPICAL ZERO CLEARANCES FLUE INSTALLATION

CONDITIONS FOR FLUES

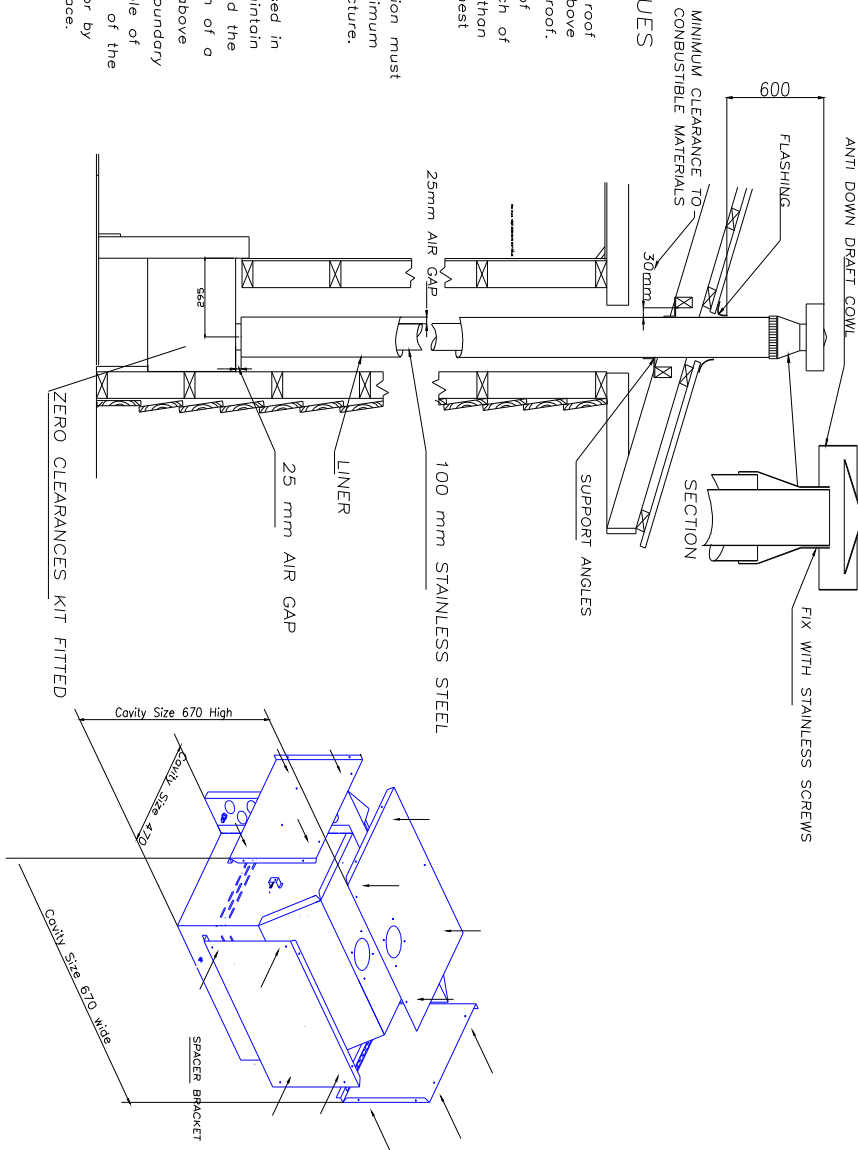
THE FLUE SHALL EXTEND TO

- (a) in the case of a pitched roof not less than 600 mm above the highest point on the roof.
- (b) in the case of a flat roof (i.e. any roof with a pitch of less than 30) not less than 1500 mm above the highest point of the roof.

Length of the flue extension must not be less than the minimum recommended by manufacture.

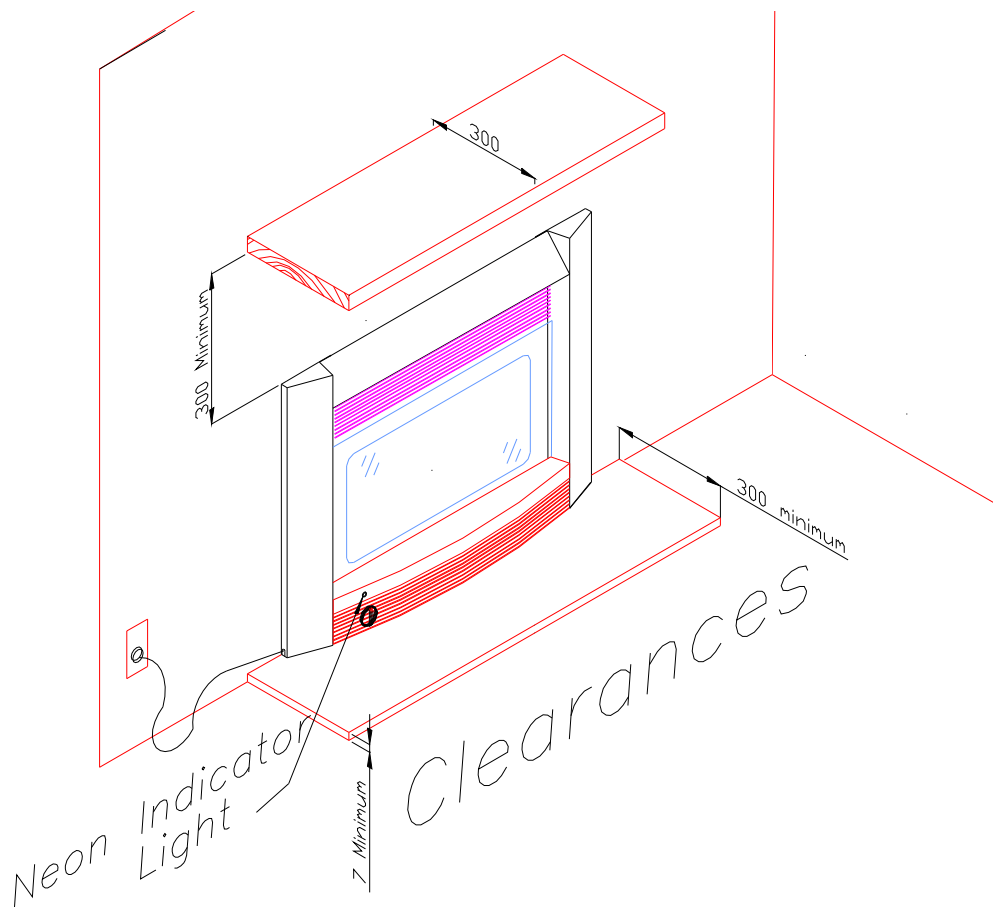
NOTE

When loose fill insulation is used in the adjacent ceiling space, maintain clearance between the liner and the loose fill insulation by provision of a boundary extending 200 mm above the ceiling top surface. The boundary may be of any material capable of preventing accidental migration of the loose fill by any action of wind or by persons moving in the ceiling space.



CLEARANCES

The YUNCA ELECTRONIC INBUILT FLUED GAS HEATER should be installed with clearances equal to or greater than those recommended below and comply with NZS 5261.



CONNECTING THE FAN

The fan should be connected to the mains supply (240V 50Hz) via the 3m flex and 3pin plug provided. The lead is factory positioned for a left-hand plug position as shown above. The cord is stored and attached to the cowl for freighting. When inserting the heater into the cavity, ensure the cord is not damaged.

If power lead is to be repositioned on the right hand side, during installation remove the cord grommet from the LH side panel. Remove the hearth and grill to run the power cord in front of the fan box and along the cowl base. Eg as low as possible to ensure it is kept cool. The rubber grommet is repositioned to fit in to the slot in the RH panel to protect the power cord from damage.

Note: Do not position the Power lead on top of the fan.

CONNECTING THE HEATER TO A GAS SUPPLY.

Burn only the fuel for which the heater is equipped.

The YUNCA ELECTRONIC INBUILT may be shipped from the factory equipped to burn natural gas, L.P.G. or propane. The data plate affixed to the base of the heater and specifies the gas type that the heater is factory equipped for. Fuel Conversion Kits are available, contact your YUNCA agents.

Gas connection:

The gas inlet is located behind the hearth fascia panel. The inlet is a female 3/8" BSP access is shown in the following pages.

A separate gas isolation valve should be installed immediately up stream of the connection to the appliance.

If the heater is intended to run on natural gas, the supplied in line regulator should also be installed in the gas line.

WARNING: To stop pipe compounds entering the gas line, do not apply sealing compounds to the first two threads at the tip of any gas connection. All joints should be tested for leaks before operating the heater.

GAS PRESSURE REQUIREMENTS

PRESSURE TESTING:

Important Gas Pipe sizing: The supply pipe size should be determined from NZS 5261 to ensure correct gas supply to the appliance. Incorrect pipe sizing **WILL** affect the performance of this appliance.

WARNING: To stop pipe compounds entering the gas line, do not apply sealing compounds to the first two threads at the tip of any gas connection. All joints should be tested for leaks before operating the heater.

Gas pressure requirements

Correct gas pressure and the use of a properly sized gas supply line is essential for the safe and efficient performance of this appliance. The inlet and outlet pressures at the control must be tested on installation.

Note: Improper gas pressure will affect heater performance, flame Colour or cause pilot malfunction.

Natural Gas:

Minimum inlet pressure	1.25 KPa (5"w.g.)
Maximum inlet pressure	5.0 KPa (20"w.g.) With supplied inline regulator fitted.
Operating pressure	1.0 KPa (4"w.g.)

L.P.G. (NZ Only) and Propane

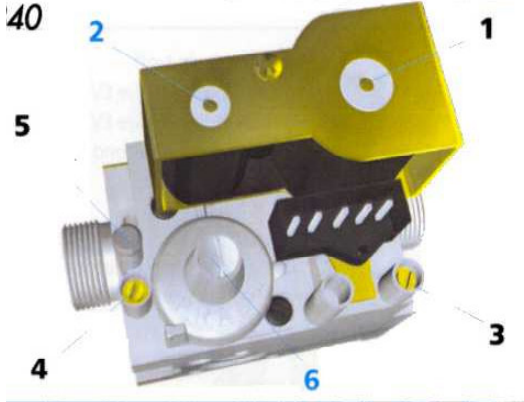
Minimum inlet pressure	2.75 KPa (11"w.g.)
Maximum inlet pressure	3.5 KPa (14"w.g.)
Operating pressure	2.5 KPa (10"w.g.)

CAUTION: Do not use this heater if any part has been under water or exposed to moisture causing corrosion.

A Qualified service technician should inspect the heater and replace any part of the gas system that has been under water.

GAS PRESSURE TESTING:

Fig 4 A manometer is required to check the gas supply and operating pressures.



To attach manometer, remove the hearth by removing the four screws and gently lifting clear. This will expose the control valve so manometer tubes can be attached to the **pressure taps** as shown below.

Important: ensure pressure tap is tightened and checked for leaks after testing.

Fig 5



Control Valve, Parts Fig 4 & 5

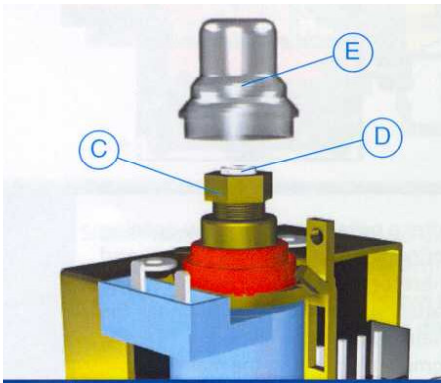
- 1 On-off solenoid valve EV1
- 2 On-Off solenoid Valve EV1

3 Inlet Pressure tap point. Tightening torque 1.0 Nm.

4 Outlet pressure tap point Tightening torque 1.0 Nm.

5 Connection for pressure regulator / combustion chamber

Fig 6 Outlet pressure Adjustment compensation.



- 6 Servo-pressure regulator
- 7 Gas outlet pressure modulator
- 8 Pilot outlet
- 9 Main gas outlet
- 10 Side out let
- 11 Slow opening device

NOTE: Modulator pressure adjustments (Fig 6) are factory set. It is not expected that adjustment will be required during installation.

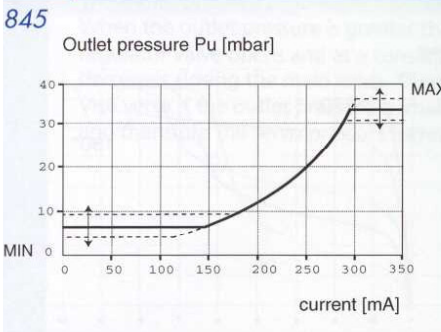
The out let pressure is adjusted by removing the Modulator Plastic Cap E.

WARNING: to ensure correct operation of the modulator the Plastic Cap E must be returned to its original position.

MAXIMUM PRESSURE: The modulator is adjusted by screwing in nut C to increase the outlet pressure and screw out to decrease it.

MIMIMUM PRESSURE: Turn off the power supply and, keeping nut C stationary, screw in Screw D to increase the pressure and screw it out to decrease the pressure.

Carefully put back the modulator plastic cap.



Thermostat

Unit will not start if thermostat is set on zero or below the temperature sensed by the sensing bulb.

The thermostat-sensing bulb is found behind the hearth.

In some installations the thermostat-sensing bulb may need to be repositioned to accurately sense the room temperature. Reposition in an unobtrusive place.

Electrical

The unit is connected to the mains supply (240V 50Hz 0.5Amp) via the 3m flex with 3 pin plug.

Commissioning

When installed the installer should operate the heater to ensure that all features are operating correctly. Refer to the Operation section for instructions.

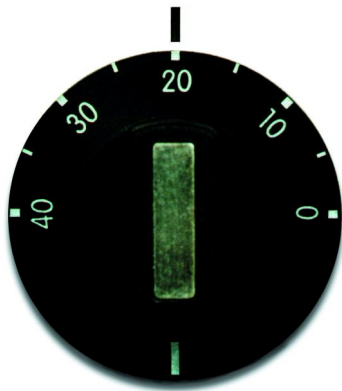
Eg. On / off operation, Ramp up and down of Fan Speed and flame height.

OPERATION

Power Supply connected and Turned on.

Gas supply connected and turned on.

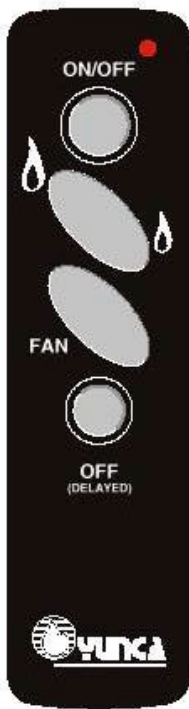
Fig 7 Thermostat



Thermostat control is at the front of the hearth

The thermostat must be adjusted to a temperature above the room temperature or the thermostat will not allow the burners to light.

Fig 8 Hand Control



Direct the infrared beam from this hand control to the receiver mounted behind the hearth. The receiver will “light up” when receiving a signal from the hand control.

The Hand control operates on 4 AAA size alkaline batteries. Remove the battery cover on the back of the hand control to insert batteries paying attention to the polarity

Note multiple pushes of a button may cause a lock out in the electronics. If this happens turn the power supply off and restart the Gas fire.

Pressing the **On / Off button** once will initiate the lighting sequence. The Receiver will light up. The lighting sequence will take approximately 30 seconds and a faint clicking maybe heard as sparking takes place.

Pressing the **On / Off button** a second time will turn off the fire.

Flame height (heat output) is increased by pressing on the + sign of flame button and reduced by pressing the – sign of the flame button.

Fan speed is increased by pressing on the + sign of fan button and reduced by pressing on the – sign of the fan button.

Pressing **Off delayed** will initiate a 30-minute timer delay off. This can be cancelled by re-pressing the Off delay button.

Turning on your YUNCA ELECTRONIC INBUILT

1. Turn the Gas and Power supply on.
2. Adjust the thermostat to above the sensed temperature to allow the fire to light.
3. Press the **On / Off button** once. Neon on the hearth will light up to indicate the control is active. Note Neon will remain on to indicate unit is active. There may not be any flames as the thermostat may be set below the temperature it is sensing. **If going on holiday make sure light is off.**
4. The burners will light at the previous setting and fan speed.
5. Adjust the **Flame height** button as required to achieve the required heat out put.
6. Adjust **Fan speed** button to achieve the optimum speed.

Turning off no time delay.

1. Press **On / Off button** once. Note the Neon will be off to indicate the fire is turned off. The power supply can be turned off.

Turning off with time delay.

2. Press **Off delayed button** once.
3. The Neon light will flash to indicate the timer delay activated.
4. When the 30 minutes is up the fire will shut down.
5. The restart, follow the to start procedure.

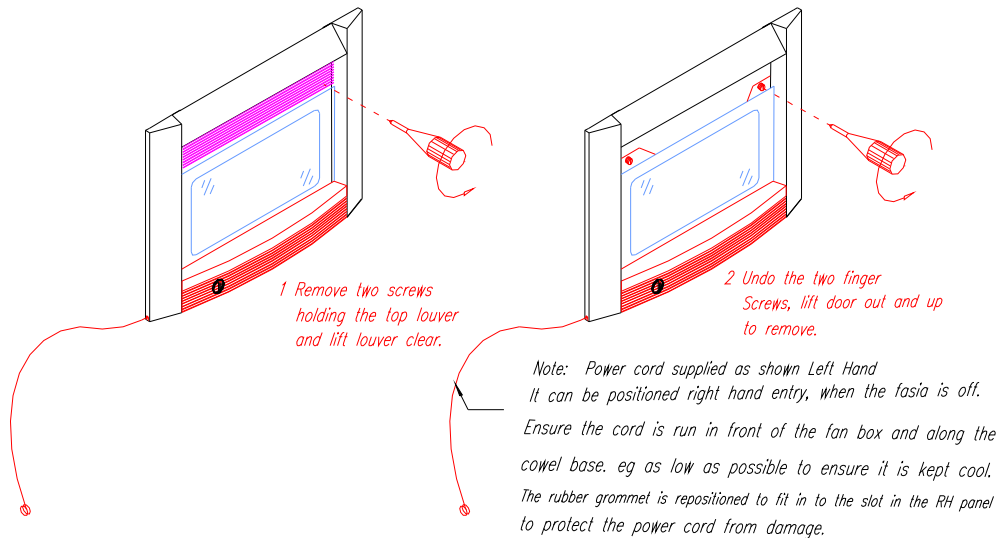
The time delay can be over ridden by following the Turning off no time delay.

MAINTENANCE

A qualified service person recommended by your YUNCA dealer should conduct an annual inspection and undertake any maintenance required on your YUNCA ELECTRONIC INBUILT. Its venting and installation must be checked to keep it running safely and efficiently. The following procedures should be performed only by a qualified service person. The gas supply and electrical power should be isolated whenever any maintenance procedures are undertaken.

Note: the front glass can only be removed after the heater has been turned off for long enough that the door has cooled to touching temperature.

REMOVING THE FRONT DOOR.



Cleaning The Log Set And Firebox.

During the annual inspection and maintenance appointment, the service person should clean dust, lint and any light soot accumulation from the logs and the fire box area. An extra soft brush should be used on the logs as they are extremely fragile. If at any time the logs cannot be removed or installed without force, the cause must be found. The logs must never be forced.

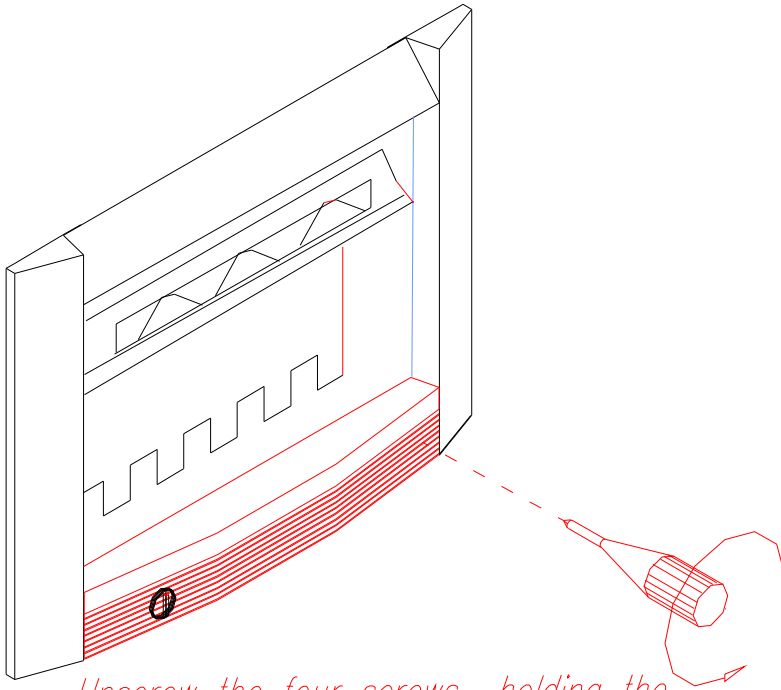
Procedure,

1. Remove front door as described previously
2. Remove the front log set from the firebox by lifting it up and out. Brush it gently over a newspaper and carefully place it out of the way.
3. Remove the back log and clean it in the same way.
4. The bark tray can be removed by lifting and pulling it straight out, with the bark still on it.
5. The bark consists of a mixture of vermiculite and composite chips and it can be dusted by sieving. If needed a replacement bag can be ordered through your YUNCA dealer.
(See parts list for reference number)

6. With firebox empty a vacuum cleaner can be used to remove any visible dust and lint from within the firebox area.
7. Replace logs in the reverse order of removal.
8. Replace the bark tray and redistribute the bark.
9. Replace and relatch the front door and close the side panels.

Fan assembly removal

Booster fan assembly Electronic (IR93) is not designed to be dismantled.



Unscrew the four screws holding the bottom louver and lift clear.

IMPORTANT.

Unplug the fan from the power supply.

1. Remove the four screws that retain the louver
2. hearth.
3. Remove the Thermostat Sensing Bulb from the Saddled on the Fan Back Plate before removing the Fan Back Plate.
4. Disconnect the Earth Wires at the bottom of the Fan.
5. Unplug the electrical connection at the back of the electronic control box.

6. Disconnect the wires from the Thermostat behind the Right Hand side panel. This is achieved by removing the back panel control cover. Easing the back cover of the Thermostat box up to allow access to the electrical connections.
7. Lifting the Fan Box assemblies clear of the attachment screws ensuring the wires come freely from the appliance.
8. The fan can be replaced or cleaned. Cleaning should be completed with out disassembly.

NOTE: The fan assembly should only be disassembled by an electrician or trained Yunca Technician.

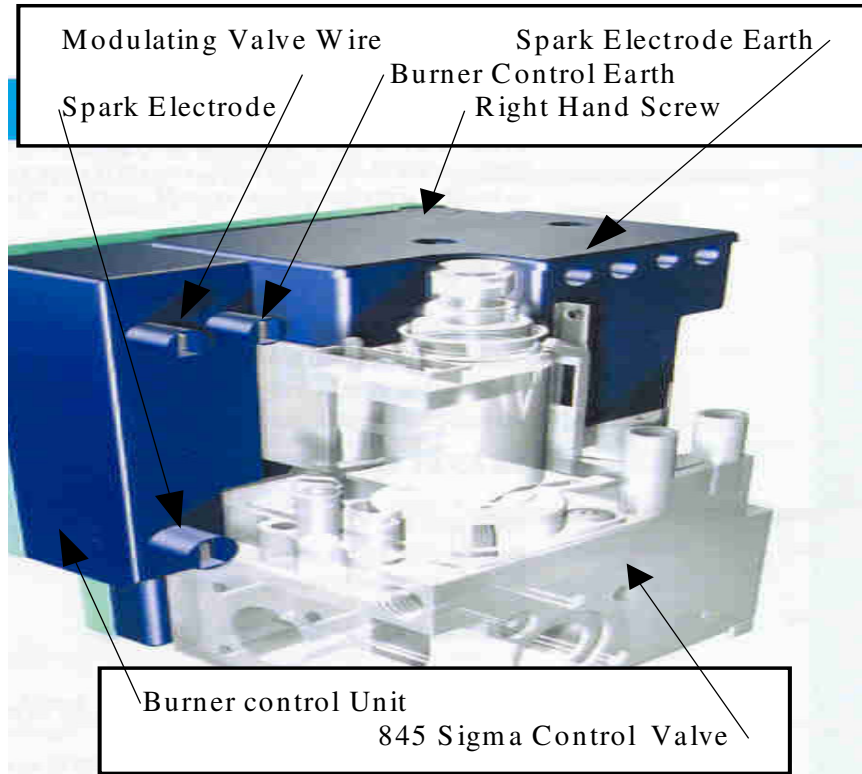
9. The process is reversed for installation and the fans operation is tested.

Electronic flame controller removal

Electronic Flame Controller Assembly (IR05) is not designed to be dismantled.

1. **IMPORTANT.** Unplug from the power supply.
2. Remove the hearth. Unscrew the four screws and lift clear.

Fig10 Burner Control Unit plugged into the 845 Sigma Control Valve



3. Unplug the wires, Spark Electrode, Modulating Valve, Spark electrode earth and Burner control Earth.

4. The Burner control unit is plugged in to the 845 Sigma Control Valve. To remove unscrew the Right hand screw and unplug the Burner Control Unit with a Firm Pull.

5. The control Box is removed by sliding forward 5mm and then lifting the hooks clear.

6. Unplug the earth wire and the wire bundle to the fan at the back of the Control Box.

7. The Electronic Flame Controller Assembly should be replaced,
8. A new Electronic Flame Controller Assembly is replaced in the reverse order.
NOTE: The wires retained by ties must be securely positioned to ensure that insulation is not damaged causing a short circuit due to excessive heat.

Fault Finding:

SYMPTOM	PROBLEM	CORRECTIVE
Pilot Flame Will Not Light.	Thermostat turned down below the room temperature	Turn the thermostat up to a setting above room temperature. Move the thermostat bulb to a position that accurately senses the room temperature
	No Neon light on the hearth	Check remote light is operating when a button is activated. Change remote batteries Ensure beam from the remote is activating the LED behind and to the left of the Hearth. Ensure power supply is on. Check the fuse in the back of the control Box. Remove the plinth front to get access.
	No spark at pilot burner.	Check connection between electrode in pilot assembly and lead from control
	Poor or no spark	Clean any build up (Carbon) on or around the Spark electrode. Tracking of spark along spark electrode lead. Replace the spark electrode Damaged spark electrode lead, Replace
	No gas at pilot burner	Clean the gas ways of soot or foreign particles. Check that isolating valves are turned on and gas is available. Check pilot hood for blockage Remove pilot jet and blow clean. Check for any obstructions in the gas line that may cause low pressure or restrict flow. Purge gas lines.
	Sparks but the length is incorrect.	Spark gap should be 3-4mm between the electrode and the pilot flame hood outlet.
	No Supply Gas.	L.P.G. -- Refill tank Natural -- Check with gas supplier

Pilot will not stay lit	Weak or improperly located pilot flame.	Adjust the height of Flame Rod. The flame should engulf the top 6mm of the thermocouple.
	Thermocouple not properly connected.	Check connections
	Defective Flame Rod.	Replace Flame Rod. A new thermocouple may be ordered through your YUNCA agent.
	Faulty control.	Replace 845 Sigma Control Valve and/or Replace Electronic Controller Assembly
Soot is being deposited on logs or glass	Log impinging the flames	Re-position logs back against the stops Remove any protruding point on the log.
	There is insufficient secondary air in the combustion chamber.	Check the back of the heater for blockages around the air intake slots. Check that the clearances around the heater match those stated in this manual.
	Flueway blocked	Remove blockage.
	LPG gas mix incorrect	Contact supplier to clean out bottle
	Flame Height very large or very low.	Use remote and Ramp up or down. Incorrect gas pressures. Check and set gas pressure to manufacturers specifications.
Main burners extinguishing.	Flue down draughting.	A vacuum in the room causes this. Turn off heater. Turn off all air conditioners, expelair fans, other heaters etc. Open doors and windows to allow pressure to equalise. Re-light heater. Close doors and windows but not completely.
	Pilot flame is not large enough.	Check that pilot assembly is correctly mounted and that the pilot burner flame hood directs the pilot flame over both burners and the Flame Rod
	Severe down draught.	Ensure a recommended flue cowl has been fitted and is still in place.
Pilot burning, no gas to burners	Burner injectors may be blocked.	Clean out injector orifice.
	Faulty control	Electronic Control Valve or Controller requires replacement.

APPENDIX A
PARTS LIST:

PART NO.	PART NAME
IR04	845 Sigma Control Valve
IR05	Electronic Flame Controller Assembly
660202	Pilot assembly Electronic
IR07	Spark Electrode Electronic
IR06	Flame Rod
IR90	Pilot pipe assembly
IR91	Front burner pipe assembly
IR92	Rear burner pipe assembly
LZ-G10	Adjustable N.G. inline regulator
EROS05	Log Set

APPENDIX B

INJECTOR SIZE:

GAS TYPE	FRONT BURNER	BACK BURNER
NATURAL	2.3mm diameter	2.8mm diameter
L.P.G.	1.15mm diameter	1.15mm diameter
PROPANE	1.25mm diameter	1.25mm diameter

Warranty:

The Yunca Electronic Inbuilt Gas Heater is covered by a limited Five-Year Warranty against defects in materials and workmanship.

All gas and electrical components including control, burners, pilot assembly, tubing, fan and switchers are warranted for a period of one year from date of purchase.

Glass and surface coatings are also warranted for one year.

Damage caused by neglect, improper use, acts of god, theft, or any other indirect, incidental cause are not covered by this warranty.

This warranty is void if the recommended service schedule is not implemented as suggested in this manual and carried out by a suitably qualified person.

Limitations of Liabilities:

Yunca Heating hereby waives any liability for incidental and consequential damage directly or indirectly sustained, or for any loss caused by the application of this product not in accordance with the current printed instructions.

Our liability is expressly limited to replacement of defective goods as per above warranty. Any claim shall be deemed waived unless made in writing to Yunca within 30 days from the date that it was or reasonably should have been discovered.

CUSTOMER COPY

YUNCA ELECTRONIC INBUILT WARRANTY REGISTRATION:

Serial No. _____ **Gas Type.** _____ **Purchase Date** _____

Purchaser's Name. _____

Purchaser's Address. _____

City. _____ PostCode. _____ Telephone _____

Where Purchased. _____

Installed By. _____ **Date.** _____

Yunca Gas Dunedin
PO Box 500
DUNEDIN
Telephone (03) 488 4342
Email yuncagas@southnet.co.nz

Cut along here...

This section must be returned within 10 days of purchase.

YUNCA ELECTRONIC INBUILT WARRANTY REGISTRATION:

Serial No. _____ **Gas Type.** _____ **Purchase Date** _____

Purchaser's Name. _____

Purchaser's Address. _____

City. _____ PostCode. _____ Telephone _____

Where Purchased. _____

Installed By. _____ **Date.** _____

Return to: Yunca Heating
PO Box 932
INVERCARGILL