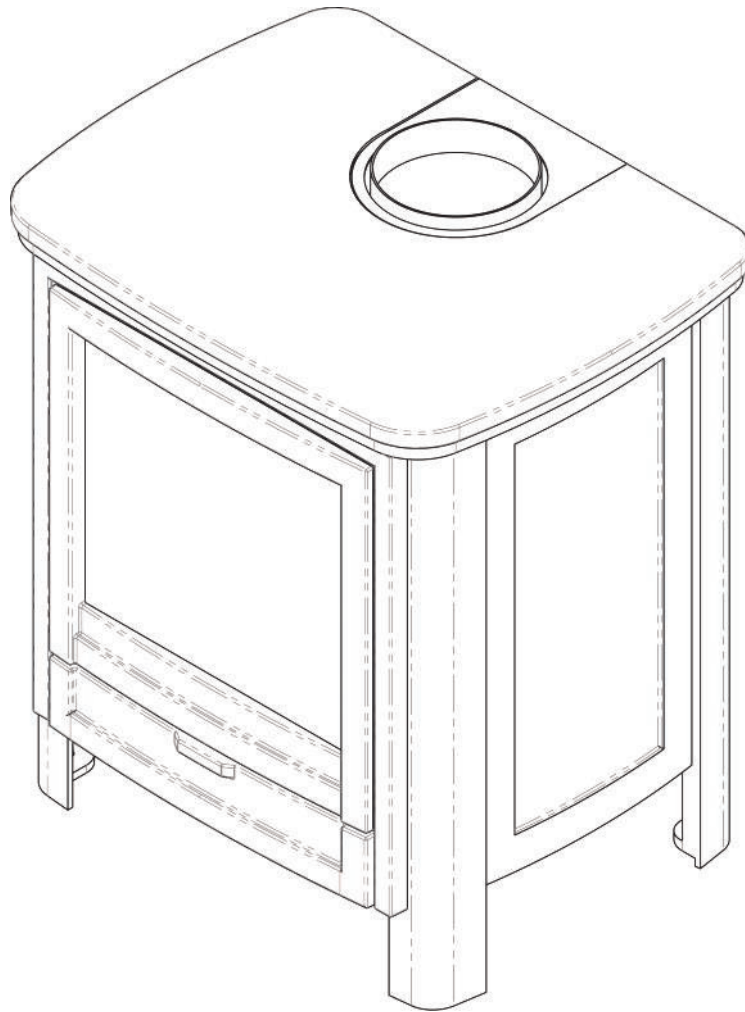


*Darwin*  
BALANCED FLUE STOVE



THE  
**GALLERY**  
COLLECTION



**BALANCED FLUE**

INSTALLATION INSTRUCTIONS

**DARWIN**

BALANCED FLUE GAS STOVE

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# 1.0 USER INSTRUCTIONS - REMOTE CONTROL

## 1.1 General

- The unit is operated using a radio-controlled remote control. This consists of a manual transmitter and a receiver. The receiver is connected to the gas control block.
- The receiver and the gas control block are located in the operating box.
- If there is no change in flame height for a 6-hour period the transmission / communication turn down application will turn down the pilot flame.
- If there is no change in flame height for a 5 day period the appliance will turn down.
- The appliance will turn off if there is no change in flame height for 5 days.
- If the battery is low in receiver the systems shuts off the fire completely.
- When in use with 220V adapter and the power shuts off, the batteries will take over the power supply to let the receiver function normally.
- Designated low and high fire settings:  
Double click the small flame button and the flame will be automatically go to low flame.  
Double click the large flame button and the flame will be automatically go to high flame.
- Make sure the handset is switched off correctly to prevent battery drainage and loss of connectivity.

## 1.2 Manual transmitter

- The transmitter uses a radio-controlled signal, the signal code is set at the factory








## 1.3 Screen setup

- After the batteries have been inserted, press the **OFF** ● button and 🔥 (small) at the same time to toggle between °F (and 12 hour clock) and °C (and 24 hour clock).
- Wait a moment or press **OFF** ● to return to **MAN** mode.

## 1.4 Setting the time

- Press 🔥 (large) and 🔥 (small) at the same time to go to the **SET** mode or programming mode.
- The time can be set while the screen is flashing.
- Press 🔥 (large) to set the hour and minutes.
- Wait a moment or press **OFF** ● to return to **MAN** mode.

## 1.5 Setting the timer: P1 and P2 (THERMOSTAT VERSION ONLY)

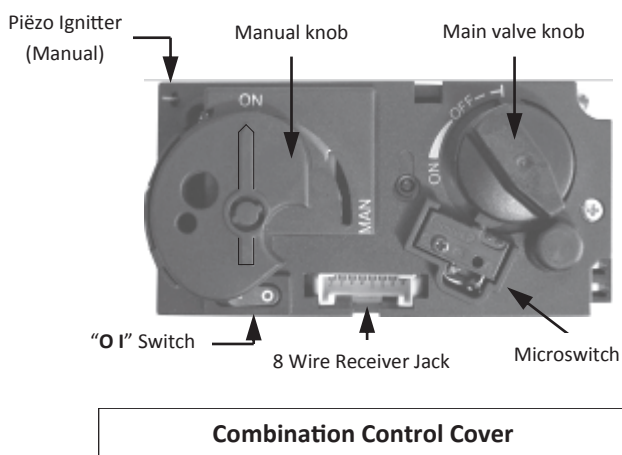
- Briefly press the **SET** button to select the required mode  or 
- Keep the **SET** button pressed until the screen starts flashing.
- Then press 🔥 (large) or 🔥 (small) to set the required temperature.
- Wait a moment or briefly press the **OFF** ● button to select the **MAN** mode.
- If the temperature setting also needs to be switched off  (to reduce battery use),
- Turn  down until  appears on the screen.
- Once the temperatures have been set, the programme can be set by pressing the SET button. Programme  will appear. Keep the SET button pressed to set the time for the first on and off programme. Set the time you want the unit to switch on. Then press the SET button to switch the unit off.
- Press SET again for the  programme. Set the time you want the unit to switch on. Then press the SET button to switch the unit off.
- Press SET again to see the current programme on the display.



## 1.0 USER INSTRUCTIONS - REMOTE CONTROL

### 1.6 Igniting the flame (remote control)

- Open the gas shut-off cock that has been installed in the gas pipe to the unit.
- Press the "O I" switch on the gas control block to the "I" position.
- Turn the operating button on the gas control block into the **ON** position.
- Press the **OFF** ● and 🔥 (large) switches on the remote control at the same time. A short sound signal will confirm commencement. Short sound signals will then follow until the pilot light and main burner are ignited. Once the main burner is ignited, the flame will adjust to its maximum height automatically.



### 1.7 Possible error messages

- Long sound signals during ignition: Receiver batteries are almost empty. After this signal is heard, the unit may be switched on approximately 10x more times.
- 5 seconds of continuous sound signal: Error message. For example, one of the cables is not connected, the "O I" switch is not in the "I" position.
- 5x short sound signal: The pilot light or main burner are not ignited. Possible cause: air in the pilot pipes.

**IMPORTANT: If the pilot light is extinguished, wait at least 5 minutes before repeating the steps above.**

### 1.8 Setting the flame height / extinguishing the flame

- After the burner is ignited, the flame size will adjust to its maximum height automatically.
- Press the button 🔥 (small) on the image of the flame to reduce the height and to switch the burner off. (Extinguishing the flame: "**STAND BY**"). (Press the key for a short time to gradually reduce the flame.)
- Press the 🔥 (large) button to increase the flame height. (Press the button briefly to gradually increase the flame height).

### 1.9 Switching the unit off.

- Press the 🔥 (small) button to reduce the flame height and to switch the burner off ("**STAND BY**").
- Then press **OFF** ● to switch off the entire unit, including the pilot light.
- If the unit is out of use for a long period, set the "O I" switch on the gas control block to the "O" position to save the batteries.
- In this case, it is also recommended you close the gas shut-off cock in the supply line.

### Breakdowns:

If the receiver is not receiving signals from the manual transmitter effectively, this could be caused by:

1. Flat batteries: replace the batteries.
2. An electronic problem: press "**RESET**" on the receiver.

Contact your fitter if the unit switches off regularly.

## 1.0 USER INSTRUCTIONS - REMOTE CONTROL

### 1.10 Inserting and replacing the batteries

The manual transmitter and receiver batteries have a life span of approximately one year. The use of alkaline batteries is recommended. The batteries need to be replaced when:

1. Manual transmitter: BATT appears on the display.
2. Receiver: long sound signals can be heard during ignition.

#### 1. Manual transmitter:

- Open the small cover on the back.
- Carefully remove the 9V square battery and remove the battery from the contact holder. Do not pull the wires!
- Connect the new battery and place the whole unit back. Close the cover.

#### 2. Receiver:

- Carefully remove the entire receiver from the holder.
- Slide the small cover open.
- Remove the batteries from the battery holder.
- Place 4 new 1.5V batteries (type LR6 or AA) in the battery holder. The spring must always be against the negative (-) pole of the battery.
- Close the cover and place the receiver back into the holder.

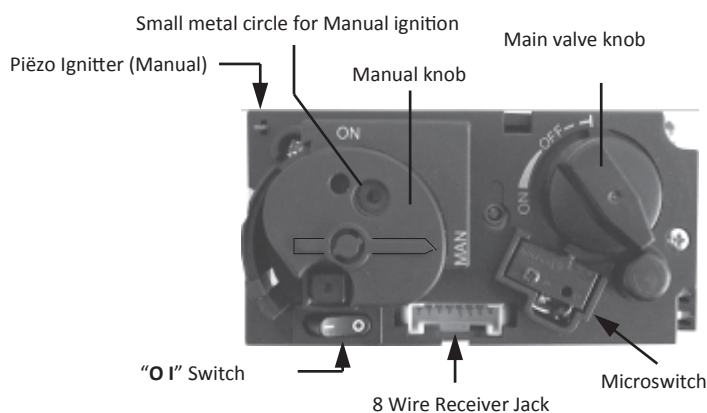
If the batteries are not inserted correctly, the electronics of drive mechanism could be damaged irreparably.

Replace the batteries only when the unit is completely switched off.

**IMPORTANT: Use only non-metallic tools to remove batteries. Removing batteries with a metal object may cause permanent damage to the electronic control.**

## 2.0 USER INSTRUCTIONS - MANUAL CONTROL

The unit may be operated by hand if there is a defect in the remote control. To do so, the ignite (piezo) cable of the receiver must first be removed and carefully slid into the piezo connector on the gas control block.



Combination Control Cover Manual position

### 2.1 Igniting the fire

- Open the gas shut-off cock that has been installed in the gas pipe to the unit.
- Press the "O I" switch, on the gas control block, to the "I" position.
- Turn the main valve knob, on the gas control block, completely to the right. The button will make a "click" sound.
- Turn the manual knob on the gas control block into the "MAN" position. A metal circle in the knob will become visible.
- Push the metal circle inwards using a small screwdriver or other instrument. Gas will now flow to the pilot flame.
- While keeping the metal circle pressed down, press the (square) piezo button (along the "O I" switch) several times to ignite the pilot flame. You will be able to see whether the pilot flame is burning through the glass window.
- If the pilot flame is alight, keep the metal circle pressed down for another 10 seconds and then let go.

**IMPORTANT: If the pilot light is extinguished, wait at least 5 minutes before repeating the steps above.**

- Turn the manual knob to the **ON** position. The burner may or may not ignite, depending on the position of the main valve knob.
- By turning the main valve knob to the required setting to the left, the burner will ignite and the flame size can be adjusted.

### 2.2 Extinguishing the fire

Turn the main valve knob, on the gas control block, completely to the right. The burner will turn off. The pilot flame continues to burn.

### 2.3 Switching the unit off

Press the "O I" switch, on the gas control block, to the "O" position. The pilot flame will extinguish.

If the fireplace is not used for an extended period of time, we recommend closing the gas shut-off cock in the supply line.

## 3.0 INSTALLATION INSTRUCTIONS

**NOTE:** The installation should only be performed by an authorized gas fitter.

### 3.1 General instructions

- The gas fireplace must be installed, connected and inspected as a balanced flue fire by a Gas Safe registered engineer, according to British Standards and current gas regulations.
- The flue system and the terminals in the outer wall or roof face must also meet the requirements outlined in the manufacturer's instructions and in accordance with British Standards BS5440 parts 1 & 2.
- The temperature of the walls and shelves near the side and back of the unit may not be more than 80°C higher than the temperature of the environment.
- The unit has been approved in combination with the THC CC Ø100 mm - Ø150 mm concentric flue system, in accordance with European CE standards for gas fires, and may therefore only be applied with this flue system.
- The product needs to be serviced annually and inspected a Gas Safe registered engineer.
- The instructions are only applicable if the relevant country code is stated on the unit. If this is not the case, the gas technical information for the relevant country needs to be consulted and modifications discussed with the manufacturer.
- There will be air in the gas pipes when the unit is first used. The gas pipes therefore need to be purged first.
- Ignite the fire according to operating instructions and check whether the burner flame is uniform. After the unit has been used for the first time, you should remove any deposits resulting from running/burning in the paint, using a glass cleaner for heaters.

#### **Distance to combustible and non-combustible materials:**

Please refer to Page 20, Appendix 1—Installation Dimensions.

**IMPORTANT:** Gas fires become hot when they are in operation. After installing of the appliance the glass surface is considered an active zone. The glass surface can become very hot. **CARE SHOULD BE TAKEN** at all times with supervision of children and the infirm. Gas fires must not be on or placed against flammable materials (curtains etc.). Never install the unit against or within a flammable wall.

**NOTE:** Construction material for fireplaces and mantles etc. or built-in situation, must be made of non-combustible material. This also applies to floors and ceilings. Never use flammable materials near the unit in compliance with the above requirements. If in doubt, consult your dealer.



## 4.0 POSITIONING THE APPLIANCE

**NOTE:** Before installing the device it is recommended to first read Chapter 9 "Concentric Flue System".

### 4.1 Connecting the gas lines

You can determine where the gas pipes will be placed depending on the positioning of the appliance. Ensure control equipment is not twisted during installation and there is no excessive tension. Accessibility of various connection points in relation to components need to be maintained. After installation, check the connections for gas leakage. Use a 3/8" gas tap in the main gas supply. **Ensure the gas pipes are dirt-and sand-free.** The gas connection should only be done without any excessive tension in the tubes etc. This prevents any damage occurring to the gas control equipment.

### 4.2 Preparation and installation (see appendix 2 - page 21)

- Remove the packaging and check the unit for possible damage.
- Place the unit on a stable surface.
- Do not place the unit on its back or side!
- Place the unit near to the installation location.
- Lift the cast iron lid from the unit and carefully place aside. **(1)**
- Locate the four wing bolts on the rear face of the front cast iron panel and unscrew **(2 & 3)**. Carefully remove the cast iron front panel to gain access to the gas appliance - take care when removing as this component is heavy.
- Next, open the door of the gas appliance and take all the packaged components out— check to make sure they are not damaged or broken.
- Fit the ceramic log set (see section appendix 3 - page 22).

**NOTE:** When installing the log set and the various glowing materials and accessories, the following must be taken into account:

- 1: No glowing material should be placed on or near the pilot burner.
- 2: Ensure that no ceramic material can fall on to the glass seals as this can damage the glass.
- 3: The slot/opening between the burner and the decorative mesh plate must be kept free of glowing material.
- 4: Do not use too much glowing material as this may affect the combustion process. Surplus material may be stored.

- Replace the cast iron front panel and secure with the four wing bolts.
- Replace the cast iron lid and position the unit at the installation location.
- Adjust the feet on unit to maintain a level installation.

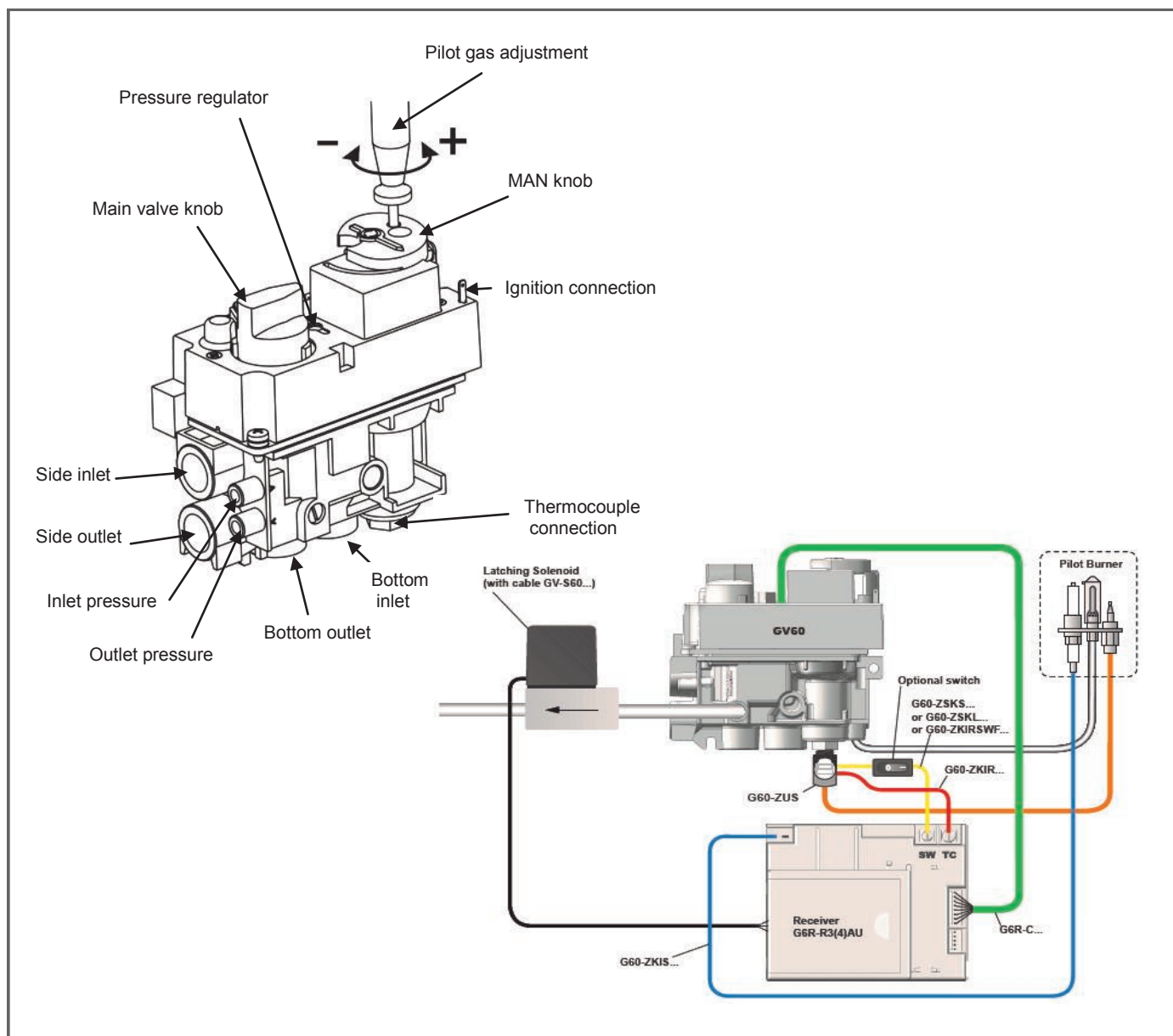
### 4.3 Fitting the ceramic log set (see Appendix 3 - page 22)

- First place the ceramic log part on the burner as shown.
- Spread the "fusilli" (spiral-shaped ceramic material) around the ceramic log part and evenly over the burner so that the burner is just covered.
- Spread the glowing material (lava granules) and spread them over the burner plate.
- **Pay attention to the air supply.** Glowing embers can be placed here and there as decoration.
- Place the ceramic wood blocks in the correct order as shown on Appendix 4.
- Place the logs carefully. Incorrect placement can seriously affect the flames or cause a malfunction of the burn process (sooting).
- **Slot/opening between burner and mesh deco plate must be kept free of glowing material**
- Before closing the door make sure if there must be a restriction plate to be placed or not. See chapter 8 "**Concentric flue layout**"
- If there is a restriction required for your situation, remove the baffle plate by unscrewing it from the front of the plate and move the plate backwards and then out. Now install the restriction plate with two screws and replace the baffle plate.
- Close the door.

**IMPORTANT:** Make sure the pilot light remains unobstructed.

## 5.0 TECHNICAL DETAILS GV60

Gas valve type:	Mertik GV60
Ignition:	Remote control operation and Piezo ignition
Gas connection:	3/8 "(External)
Unit category:	C11-C31-C91
Pilot flame:	SIT 3 flames
Combustion gas discharge and combustion air supply:	Concentric Ø100/150 mm



## 6.0 INSTRUCTIONS FOR MERTIK MAXITROL GV60 GAS CONTROL

**IMPORTANT:** Do not start up the unit if the window is not present or broken.

### **Ensure that the fuel supplied to the unit is clean and free from particles and moisture.**

Before a gas supply pipe (new or existing) is connected to the main gas pipe at the gas meter and to the gas control block of the unit, clean and dry compressed air should be blown through it. Cut copper pipes as well as aluminium pilot pipes must be deburred and blown clean before they are connected. The dust filter at the connection to the gas control block will only filter out the coarsest dirt from the system. Fine particles are still able to reach the inside and may damage and/or adversely affect regulation in the gas control block.

### **Heat, moisture and dust are a threat to all electronic components.**

Protect the electronic gas control *until* all construction, plastering and paintwork has been completed. If such work cannot be avoided, then protect the control against dirt and moisture penetration by using, for example plastic film.

**IMPORTANT:** Electronic components will become permanently faulty when exposed to temperatures higher than 60°C. Standard AA batteries will crack open at temperatures >54°C and the battery contents will damage the electronic switches located underneath. Batteries last longest at <25°C. At >50°C the life span is around 23 weeks, this makes the use of the gas fire unnecessarily expensive.

### **Only install the gas control block and receiver as pre-installed at the factory.**

Remember that components may have to be replaced or that repairs may have to be performed at a later date. This may be more difficult if the control is installed using a method that is different from the instructions provided here.

### **Only place the batteries *after* wiring to the receiver, gas control block and pilot set is connected.**

Premature connection to the energy source may damage the control's CPU (central processor).

### **Ensure that the ignition cable is not near the antenna wire and that they do not cross each other.**

The high voltage released at ignition may damage the sensitive receiver circuit. This may mean that the unit becomes less responsive or not responsive at all to handset commands.

**NOTE: Do not tighten the contact breaker and the thermocouple connection too tightly on the gas control block or to each other.** It is sufficient to tighten by hand and add a half a turn with an open-end spanner. Tightening too much will break the connection to the magnetic coil below and/or the insulation around the aluminium contact pin in the contact breaker. This may lead to the magnetic coil not opening the gas supply to the pilot and the unit not working.

### **Extend the supplied thermocouple with just the original extension (available from your supplier).**

Unauthorized extension of the thermocouple has the effect of stress reduction, thereby the magnetic coil can not be activated.

### **Prevent leakage of the ignition spark to other parts of the installation than the Ignition by the pilot.**

Keep the ignition free of hull or other metal parts. If cable extension is used, see to it that connections are additionally insulated with a silicone grommet.

### **For automatic start via the transmitter, the receiver and the control the gas control valve should be switched.**

The oval disk on the gas control block should be turned to the ON position. The **I/O** switch should be set to "I". The ignition must be connected to the receiver box at the terminal **SPARK**.

### **The transmitter's contains the thermostat sensor system.**

The transmitter operates best at 2 to 3m from the unit. Although the communication via short wave radio signals takes place, it is recommended that the transmitter in the 'visibility' of to lay the gas apparatus in a place where the user wants to experience a pleasant temperature. Place the hand transmitter in direct sunlight or other hot places. The thermostat measures the temperature and regulates the flame size of the gas in accordance.

### **Remove batteries only with the red ribbon which is under the battery, not with a metal tool.**

Removing batteries with a metal object can permanently damage the electronic control.

## 7.0 GAS TECHNICAL DATA

CATEGORY		I2L	I2ELL	I2H	I2E	I2E+	I3P	I3+/I3B/P
GASTYPE		G25	G25	G20	G20	G20	G31	G30/31
PREPRESSURE	MBAR	25	20	20	20	20	30/37/50	28-30/37/50
BURNERPRESSURE	MBAR	19.5	18	12.5	12.5	12.5	29.5/36/36	27-29/36/36
INJECTOR SIZE	∅	2.2	2.2	2.2	2.2	2.2	1.3	1.3
LOAD HI	KW	6.5	6.5	5.2	5.2	5.2	5.89/6.34	5.8/6.34
LOAD HS	KW	7.3	7	7.33	7.33	7.33	6.4/6.89	6.28/6.86
CONSUMPTION	m <sup>3</sup>	0.798	0.798	0.688	0.688	0.688	0.256	0.236

**NOTE:** Wait three minutes between each starting attempt.

### Appliance has NoX Class 5

<b>AT</b> I2H, I3B/P	<b>BE</b> I2E+, I3+	<b>DK</b> I2H, I3B/P	<b>DE</b> I2ELL, I3B/P
<b>FI</b> I2H, I3B/P	<b>FR</b> I2E+, I3+	<b>GR</b> I2H, I3B/P	<b>GB</b> I2H, I3+
<b>IS</b> I3B/P	<b>IE</b> I2H, I3+	<b>IT</b> I2H, I3+	<b>LU</b> I2E, I3B/P
<b>NL</b> I2L, I3B/P	<b>NO</b> I3B/P	<b>PT</b> I2H, I3+	<b>ES</b> I2H, I3+
<b>SE</b> I2H, I3B/P	<b>CY</b> I3B/P, I3+	<b>EE</b> I2H, I3B/P	<b>LT</b> I2H, I3B/P
<b>LV</b> I2H, I3B/P	<b>MT</b> I3B/P	<b>HU</b> I2H, I3B/P	<b>PL</b> I3B/P
<b>SI</b> I2H, I3B/P	<b>SK</b> I2H	<b>TR</b> I2H, I3B/P	

## 8.0 CONCENTRIC FLUE LAYOUT

**TABLE OF CONCENTRIC FLUE LAY OUT**

Lay out	Illustration	X total in		Y total in		Restriction
		min*	max*	min*	max*	
Indirect exterior wall outlet	A-B	1	5	0	5	<b>None</b>
Roof termination without elbows	C	2	12			from 3 meter
Roof termination with 45° elbows**	D	3	12	0	4	from X total + Y > 4 meter
Roof termination with 90° elbows***	E	1	12	0	2	from X + X1 - Y > 5 meter

45° elbow: calculation length 1 meter

90° elbow: calculation length 2 meter

Reduction from diameter 130-200 to 100-150 can be made, see below C,D and E examples

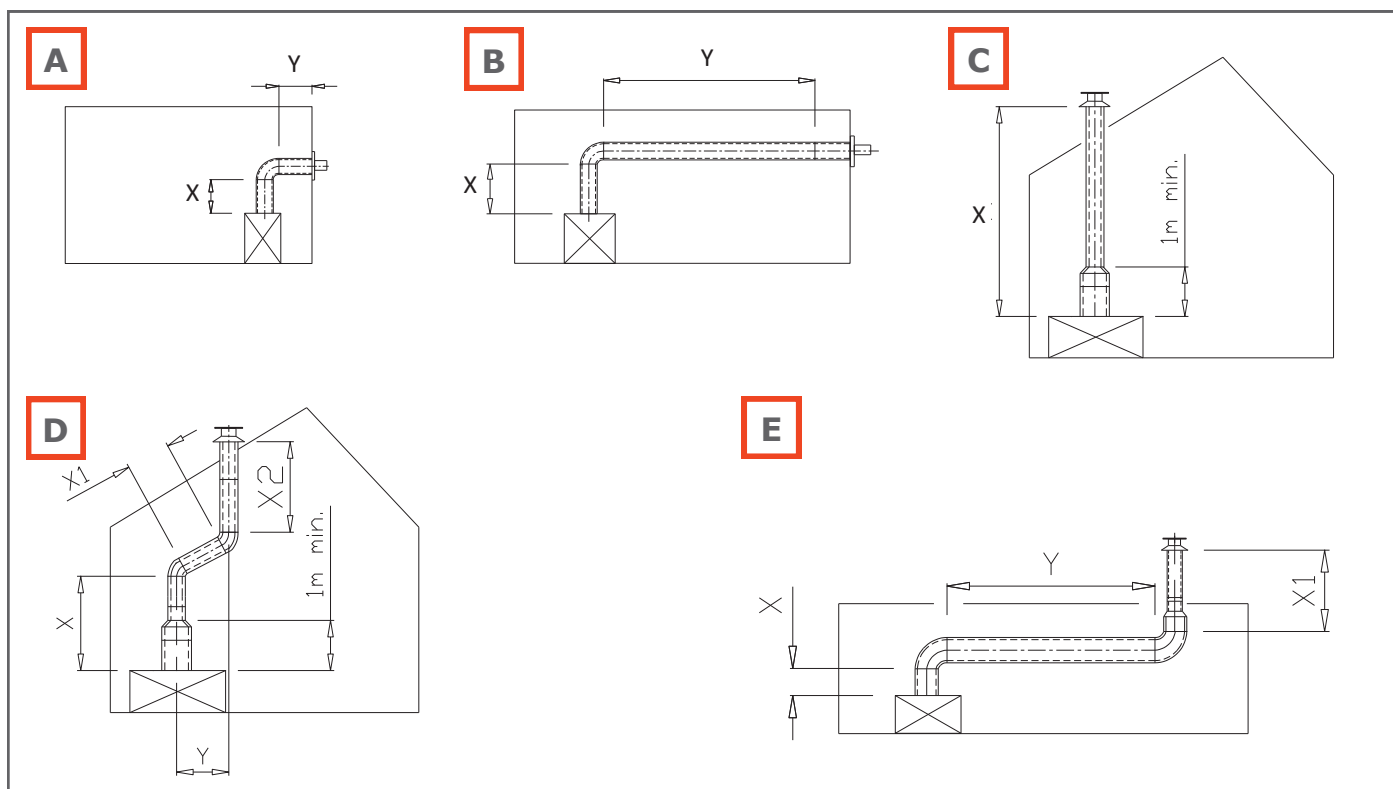
\* recommended length excluding roof or wall terminals. Always starting length of 1 meter!

\*\* Vertical: horizontal ratio X + X1 + X2 : Y ≥ 2 : 1

\*\*\* Vertical: horizontal ratio X + X1 : Y ≥ 2 : 1

### RESTRICTION CONDITIONS ALL GAS TYPES

Vertical lay out	
	restriction
0-4 meter	no
4-12 meter	46 mm
Vertical path with bends	
45° : X total - Y = 4-12 meter	46 mm
90° : X total - Y = 4-12 meter	46 mm
Horizontal lay out max. 5.5 metres + Wall terminal	
	restriction
1m+ 90°+ wall terminal	no
1-4m+90°+5,5m+ wall terminal	no



## 9.0 CONCENTRIC FLUE SYSTEM

The concentric flue system is composed of an inner and an outer tube. These tubes are concentrically arranged; through the inner tube, the combustion gases are evacuated and the fresh combustion air is supplied between the inner and outer tube.

### 9.1 Components of the concentric flue system

Different connections are possible using the concentric flue system. These are:

**Through the roof face and through the exterior wall.** There are various options for mounting the layouts for this system, however, there are a few important requirements/conditions:

- The maximum recommended vertical flue length is 12m (the sum of the flue length and the Calculation lengths for the bends).
- 90° bends have a 2 metre horizontal calculation length.
- 45° bends have a 1 metre horizontal calculation length.
- The outlet can be installed at any point on the roof face or exterior wall (supply and discharge in an identical pressure area), but must meet applicable regulations.
- Ducts may not be insulated.

**NOTE: Ensure the restriction plate in the fire is mounted in the correct manner, as indicated in these instructions.** The correct restriction plate will provide the unit with the most optimal efficiency, flame image and combustion. Mounting an incorrectly placed restriction plate may cause malfunction of the unit.

### 9.2 Construction of concentric flue system - indirect wall connection

- The outlet may be installed in the wall, taking any hindrance to the surrounding area into consideration, according to national, regional, local standards and regulations. Ensure wind pressure on the flue terminal is not too extreme, such as a balcony, flat roof, corners and in small alleys etc., as this may negatively influence the unit efficiency.
- Provide a recess in the exterior wall of around 155mm for concentric 100-150, and 205mm for concentric 130-200. (in a flammable wall ensure there is 50mm of extra space around the outer pipe and use fireproof casing) and fix the exterior wall duct with the wall plate to the outer side of the wall. The wall plate of the exterior wall duct must be sealed sufficiently against the wall on the outside, to avoid moisture and/or flue gas leaks into the living space.
- The flue should be cased if necessary. Sufficient fireproof measures must also be taken when the flue is being mounted along flammable materials.
- Determine the position of the unit and outlet and begin construction of the flue with the connection on the unit, paying attention to the direction of installation and connecting the elements by means of locking bands.
- An adjustable length can be used between the bends or when connecting to the unit. If necessary, use wall brackets to support the flue.

### 9.3 Construction of concentric flue system - roof termination

- The flue terminal can be located at any random place on the roof face (supply and exhaust in identical pressure areas) and must meet the applicable rules and regulations.
- A roof flashing for a flat roof or a lead flashing for sloping tiled roofs can be used for a watertight connection. Use various elbows for making the proper connection, if required. The recess in the roof decking should be 5cm larger all around, to ensure sufficient fire resistance.
- One needs to take into account the regulation regarding fire resistance between rooms (See national, regional, local standards and regulations). A casing made of fireproof material (e.g. 12mm Promatect fire resistant plate) must be used at 25mm from the outside duct.
- Determine the position of the unit and outlet and begin construction of the flue with the connection on the unit (always 1m vertical first), paying attention to the direction of installation. The flue must be installed dripless. Connect the elements by using locking bands. Ensure the gas tightness of all connections is correct.
- An adjustable length can be used between the elbows or when making the connection to the unit and/or the roof terminal. Use 2 wall brackets to support the flue on each floor.

## 9.0 CONCENTRIC FLUE SYSTEM

### 9.4 Installation instructions regarding existing flues

#### Instructions

The flue gas exhaust system falls within category C91 and must be built in accordance with national rules and regulations and the instructions of the manufacturer, as specified in the documentation and installation instructions. This means, among other things, that the existing chimney must not be smaller than 150 mm round / square, but no larger than 200 mm, and not ventilated by grilles etc. In the case of larger chimney size, a flexible hose of around 150 mm may possibly be used in combination with a flexible hose of around 100 mm, as described below. For other situations, you should consult your supplier / manufacturer.

### 9.5 Components

Check all parts for damage before commencing the installation. You will require the following parts for converting a brickwork duct to a balanced flue concentric duct :

- |   |                                  |
|---|----------------------------------|
| 1. Locking bands                                  | 7. Renovation kit mounting plate |
| 2. CC chimney elements                            | 8. Locking band                  |
| 3. Renovation kit outer adjustable pipe dia 150mm | 9. Roof terminal                 |
| 4. Renovation kit inner ceiling plate             |                                  |
| 5. Renovation kit adjustable pipe dia 100mm       |                                  |
| 6. Flexible liner AISI 316 dia 100 /107mm         |                                  |

**NOTE:** The renovation kit consists of parts 3, 4, 5 and 7.

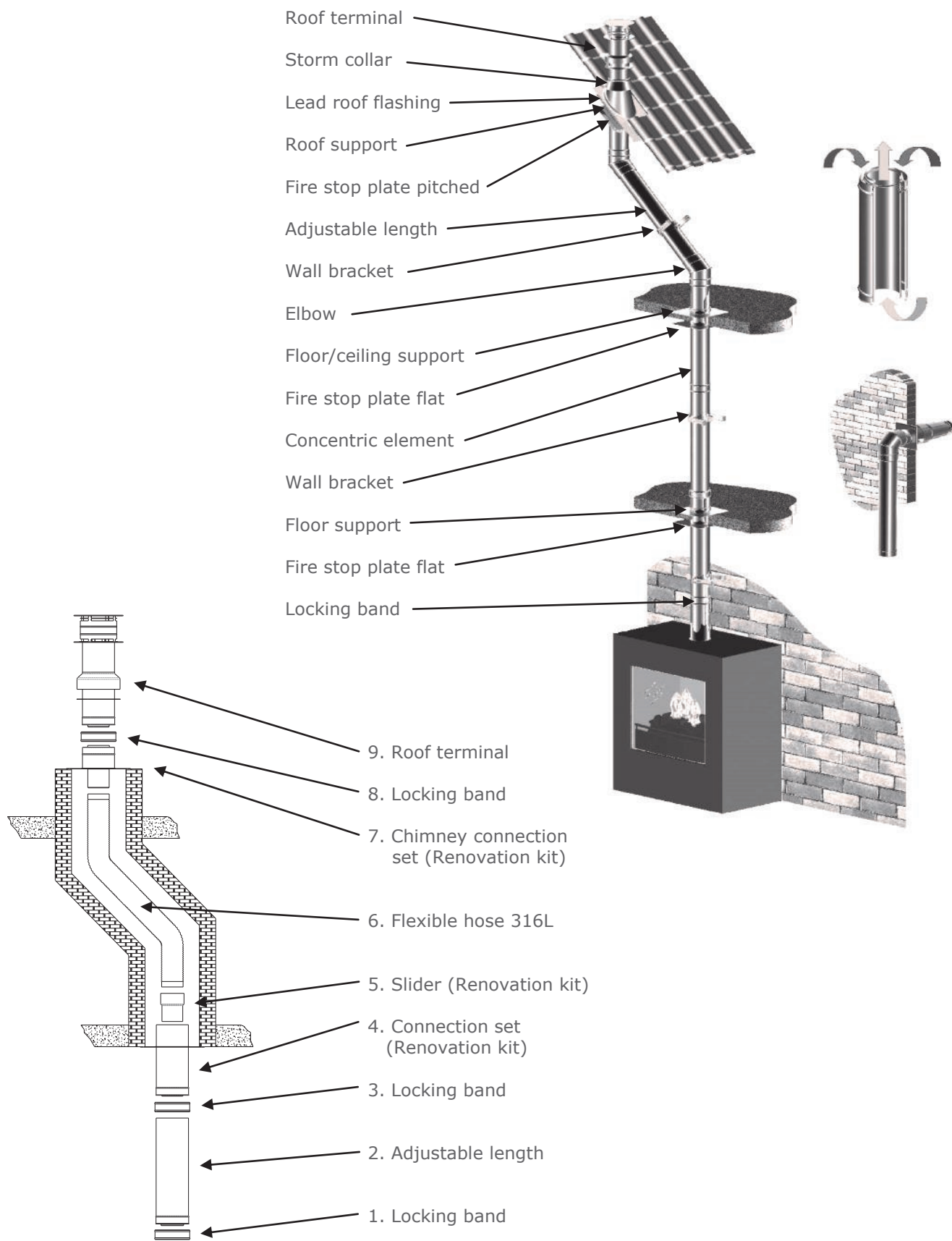
### 9.6 Installation

- Guide the flexible hose (6) through the existing duct.
- Attach the adjustable pipe (5) to the bottom of the flexible hose and secure this in place using 2 parkers.
- Level the bottom side of the adjustable pipe (5) with the ceiling of existing chimney.
- Shorten the flexible hose to approximately 100mm above the existing chimney top.
- Attach the mounting plate / connecting piece (7) to the flexible hose on the roof. Clamp it with a hose band and secure it in place using a parker.
- Attach the mounting plate / connecting piece (7) to the chimney top, using silicone sealant to make it watertight secure with stainless steel screws.
- Install the roof terminal (9) and secure it in place using the supplied locking band (8).
- The adjustable pipe (5) will stick about 100mm below ceiling/existing chimney. Mount the inner ceiling plate (4) gastight to the ceiling/existing chimney with silicone kit and fixing screws.
- Position the unit in accordance with the instructions of the unit manufacturer.
- Always install a minimum of 1 metre of concentric duct type THC CC100-150 (2), or 130-200mm with reduction to 100-150mm.

### 9.7 Cleaning and maintenance

This appliance should be inspected and serviced once a year by a qualified, competent and registered person. The inspection and maintenance must at least ensure that the appliance is working correctly and safely. It is advisable to clean the appliance of any dust and debris before regularly during the heating season and especially if the appliance has not been used for some time. This can be done with a soft brush and a vacuum cleaner or a damp cloth and if required a non-abrasive cleaning agent. Do not use corrosive or abrasive substances to clean the appliance.

# 9.0 CONCENTRIC FLUE SYSTEM





## 10.0 TROUBLESHOOTING FLOW CHART - MERTIK GV60

No.	ACTION		POSSIBLE PROBLEM/CAUSE	SOLUTION
1.	Option: wall switch START: press ON button > wall switch works.	NO →	Bent pin on switch, or cable not operating properly.	Straighten pin, replace wall switch or cable.
1.	Manual transmitter START: press both buttons to start ignition sequence. Beep will occur each second.	NO →	Manual transmitter battery low.	Replace battery, 2x AAA 1.5V quality alkaline!
			Receiver batteries low.	Replace batteries, 2x AA 1.5V quality alkaline!
			Optional mains adapter not operating properly.	Check mains adapter.
			Check coding of transmitter and receiver.	Learn in new code, see instructions and label on receiver.
			Transmitter/receiver range limited.	1. Move antenna cable, see instructions. 2. Replace receiver.
			Optional wall switch / cabling not operating properly.	Replace wall switch / cabling.
			Receiver fuse blown (in older versions only).	Replace receiver.
	OK ↓			
2.	Magnet unit in gas valve is energised (audible click)	NO →	No beep	Impulse magnet not operating properly. Replace gas valve.
		NO →	3 short beeps	Receiver batteries low. Replace batteries, 4x 1.5V AA quality alkaline!
		NO →	1 long beep	ON/OFF switch on gas valve in OFF position. Set switch to ON.
			8-wire cable between receiver and gas valve defective / poor contact.	Check cable, especially in case of plug connection.
			Switch cable disconnected.	Check switch cable, see fig. 1 on page 18
			Motor not operating properly.	Replace gas valve.
			Micro switch on gas valve not operating properly.	Replace gas valve.
	OK ↓			

# 10.0 TROUBLESHOOTING FLOW CHART - MERTIK GV60

No	ACTION	POSSIBLE PROBLEM/CAUSE	SOLUTION										
3.	<div style="border: 1px solid black; padding: 5px; width: 150px; height: 100px; display: flex; flex-direction: column; justify-content: space-around;"> <div>Continuous spark</div> <div>Spark will occur each second.</div> </div>	NO →	<table border="1"> <tr> <td>Ignition components not operating properly.</td> <td>Check connection between cable &amp; IGN electrode.</td> </tr> <tr> <td></td> <td>Check IGN electrode spark gap.</td> </tr> <tr> <td></td> <td>Check IGN electrode for discharge to ground (break in ceramic).</td> </tr> <tr> <td></td> <td>Check IGN cable for damage</td> </tr> <tr> <td></td> <td>Increase distance between IGN cable and all metal parts. Check that spark does not discharge to ground at location of spark plug connection. Shorten cable if possible. If applicable, provide extra insulation with silicon hose etc.</td> </tr> </table>	Ignition components not operating properly.	Check connection between cable & IGN electrode.		Check IGN electrode spark gap.		Check IGN electrode for discharge to ground (break in ceramic).		Check IGN cable for damage		Increase distance between IGN cable and all metal parts. Check that spark does not discharge to ground at location of spark plug connection. Shorten cable if possible. If applicable, provide extra insulation with silicon hose etc.
		Ignition components not operating properly.	Check connection between cable & IGN electrode.										
			Check IGN electrode spark gap.										
	Check IGN electrode for discharge to ground (break in ceramic).												
	Check IGN cable for damage												
	Increase distance between IGN cable and all metal parts. Check that spark does not discharge to ground at location of spark plug connection. Shorten cable if possible. If applicable, provide extra insulation with silicon hose etc.												
NO →	<table border="1"> <tr> <td>IGN sequence stops, no pilot flame. No reaction to transmitter command (receiver does not react).</td> <td>Press RESET button, see instructions.</td> </tr> <tr> <td></td> <td>Add ground wire between pilot burner and gas valve.</td> </tr> <tr> <td></td> <td>Do not coil the IGN cable.</td> </tr> <tr> <td></td> <td>Shorten IGN cable if possible.</td> </tr> </table>	IGN sequence stops, no pilot flame. No reaction to transmitter command (receiver does not react).	Press RESET button, see instructions.		Add ground wire between pilot burner and gas valve.		Do not coil the IGN cable.		Shorten IGN cable if possible.				
IGN sequence stops, no pilot flame. No reaction to transmitter command (receiver does not react).	Press RESET button, see instructions.												
	Add ground wire between pilot burner and gas valve.												
	Do not coil the IGN cable.												
	Shorten IGN cable if possible.												
NO →	<table border="1"> <tr> <td>IGN sequence stops, no pilot flame. Transmitter command is possible.</td> <td>IGN sequence stops, no pilot flame. Transmitter command is possible.</td> </tr> </table>	IGN sequence stops, no pilot flame. Transmitter command is possible.	IGN sequence stops, no pilot flame. Transmitter command is possible.										
IGN sequence stops, no pilot flame. Transmitter command is possible.	IGN sequence stops, no pilot flame. Transmitter command is possible.												
	OK ↓												
4.	<div style="border: 1px solid black; padding: 5px; width: 150px; height: 30px;">Pilot lit.</div>	NO →	<table border="1"> <tr> <td>TC and SW cable reversed.</td> <td>Check connection of cable to receiver and interrupter, see fig. 1.</td> </tr> <tr> <td>Impulse magnet not operating properly.</td> <td>Replace gas valve.</td> </tr> <tr> <td>Short between interrupter and SW cable.</td> <td>Check connection to interrupter.</td> </tr> <tr> <td>No gas magnet unit drops after 30 second audible count).</td> <td>Check gas supply to gas valve.</td> </tr> </table>	TC and SW cable reversed.	Check connection of cable to receiver and interrupter, see fig. 1.	Impulse magnet not operating properly.	Replace gas valve.	Short between interrupter and SW cable.	Check connection to interrupter.	No gas magnet unit drops after 30 second audible count).	Check gas supply to gas valve.		
		TC and SW cable reversed.	Check connection of cable to receiver and interrupter, see fig. 1.										
		Impulse magnet not operating properly.	Replace gas valve.										
		Short between interrupter and SW cable.	Check connection to interrupter.										
No gas magnet unit drops after 30 second audible count).	Check gas supply to gas valve.												
OK ↓													
5.	<div style="border: 1px solid black; padding: 5px; width: 150px; height: 30px;">Sparkling stops after pilot is lit</div>	NO →	<table border="1"> <tr> <td>Short between interrupter and TC cable.</td> <td>Check connection to interrupter, see fig. 1</td> </tr> <tr> <td>Electronic measuring amplifier defective.</td> <td>Replace receiver.</td> </tr> </table>	Short between interrupter and TC cable.	Check connection to interrupter, see fig. 1	Electronic measuring amplifier defective.	Replace receiver.						
		Short between interrupter and TC cable.	Check connection to interrupter, see fig. 1										
Electronic measuring amplifier defective.	Replace receiver.												
OK ↓													

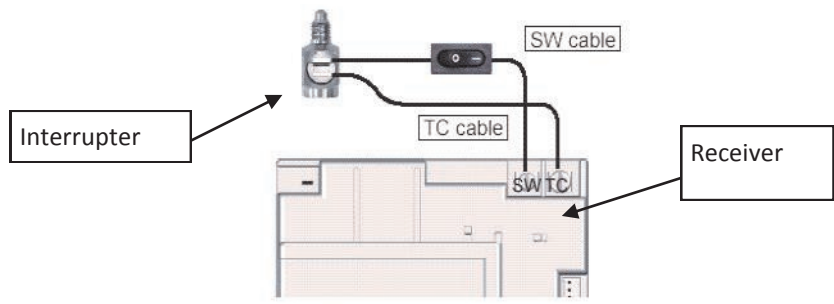


Figure 1

# 10.0 TROUBLESHOOTING FLOW CHART - MERTIK GV60

No	ACTION		POSSIBLE PROBLEM/ CAUSE	SOLUTION
6.	Motor turns to main gas and pilot stays lit.	NO → Solenoid drops (audible click)	Resistance in thermo current circuit too high.	Check cables and connections in thermo current circuit.
			Not enough heat on thermocouple.	Check position of pilot to thermocouple and intensity of pilot flame.
			Low voltage from thermocouple.	Check connections and, if necessary, replace thermocouple. Do not over tighten the connections!
			Short because thermocouple end is damaged.	Replace thermocouple, do not overtighten the connections!
OK ↓	Main burner is lit.	NO →	IGN sequence stops. No reaction to transmitter command (receiver does not react).	Press RESET button, see instructions.
				Add ground wire between pilot burner and gas valve.
				Do not coil the IGN cable. Shorten IGN cable if possible.
OK ↓	Main burner stays lit.	NO →	Gas valve manual knob in "MAN" position.	Turn knob to "ON" position.
OK ↓	Main burner stays lit.	NO →	Too much / too little air flow / draft at pilot, blows out or is smothered.	Check whether restriction plate has been correctly applied in unit, see instructions. Poor flue location, check correctness of layout and connections.
OK ↓	Magnet unit drops while motor turns. 3 beeps.	NO →	Receiver batteries low.	Replace batteries, 1.5V AA quality alkaline!
YES ↓ OK	System can be switched OFF via remote control.	NO →	System can be switched OFF via ON/OFF switch.	Short between TC and SW cable. Check connection to interrupter block.
			YES ↓ OK	Replace gas valve.

## 11.0 PROBLEMS AND POSSIBLE SOLUTIONS

**NOTE:** Please first check if all guidelines were followed before attempting to solve any problems with the unit.

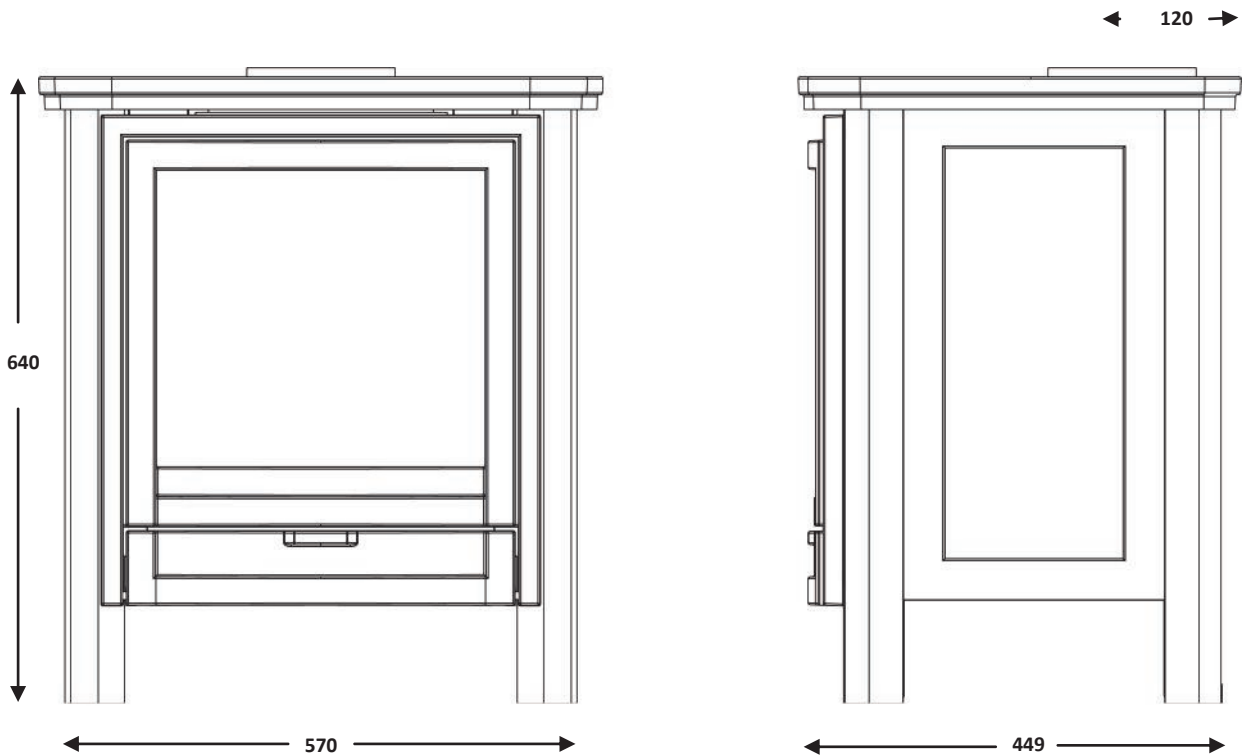
**IMPORTANT:** Solving problems with your unit, whether gas related or electrical, must always be performed by a qualified technician.

SYMPTOM	ACTION TO BE TAKEN
The pilot flame will not light after repeated ignition.	<ol style="list-style-type: none"> <li>1. There is air in the pipes if you switch the unit on for the first time or after a service. It will take a little while until all the air has flowed out of the pipes and gas flows through that can be ignited. Take it away and try to switch the pilot flame on several times in order to allow the air to escape.</li> <li>2. See whether the gas pipe to the unit is open and if there is sufficient gas pressure to the unit.</li> <li>3. Check whether there are sparks between the spark electrode and the pilot. If there are no sparks:               <ol style="list-style-type: none"> <li>a) Check whether the connection between the electrode and the ignition is broken or faulty.</li> <li>b) Check whether the spark short circuits at another point or jumps.</li> <li>c) Check whether the electrode is broken.</li> </ol> </li> </ol>
The pilot flame will not remain alight after ignition.	<ol style="list-style-type: none"> <li>1. Check whether the pilot flame is large enough to burn around the thermocouple. If the flame is too small, you need to check the gas feed pressure. If the size of the pilot flame cannot be adjusted, there may be an obstruction in the pilot.</li> <li>2. Check whether the thermocouple interrupter is connected to the gas valve properly.</li> <li>3. Check that the gas valve is not faulty.</li> <li>4. Check whether the restriction plate has been placed according to instructions</li> </ol>
The main burner goes out when the unit is warm.	<ol style="list-style-type: none"> <li>1. This can be a normal effect of the thermostat. Check whether the pilot flame is able to heat the thermocouple adequately. If the pilot flame is too small then the gas pipe or the pilot flame adjustment need to be checked.</li> <li>2. Check whether the restriction plate has been placed according to instructions (see page 25).</li> </ol>
Soot deposits on the glass.	<ol style="list-style-type: none"> <li>1. Check whether the lava split is lying on the burner in the correct manner.</li> <li>2. Check if the pilot burner is free from burner filling.</li> <li>3. Check whether there is any blockage in the burner openings.</li> <li>4. Check if the flue tube is functioning correctly and if the flue tube is not hindered or blocked.</li> <li>5. Check the pipe pressure.</li> </ol>
Sharp blue flames that are released by the burner or a pilot that burns too wildly.	<ol style="list-style-type: none"> <li>1. Check whether the restriction plate has been used.</li> </ol>
Weak (stifling) pilot flame.	<ol style="list-style-type: none"> <li>1. Check the pilot burner pressure or duct pathway.</li> </ol>
Main burner will not burn after the pilot burner is functioning.	<ol style="list-style-type: none"> <li>1. Check if the motor button turns and whether the batteries are empty.</li> <li>2. Possible defect in the gas block.</li> <li>3. Check whether the pilot flame ignites the burner well.</li> <li>4. Check that the burner opening is not blocked.</li> </ol>

# APPENDIX 1 - DIMENSIONAL DRAWINGS

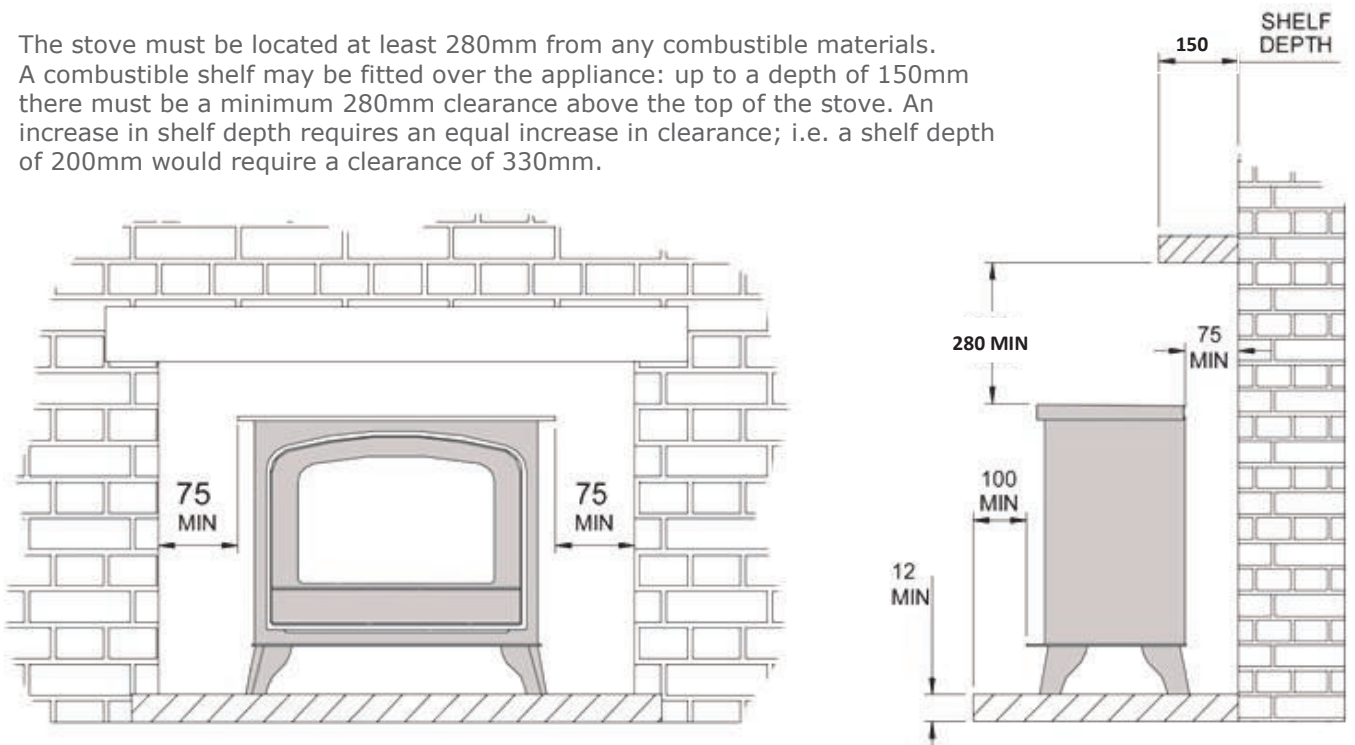
## PRODUCT DIMENSIONS

FLUE DIAMETER = CONCENTRIC Ø100/150 mm



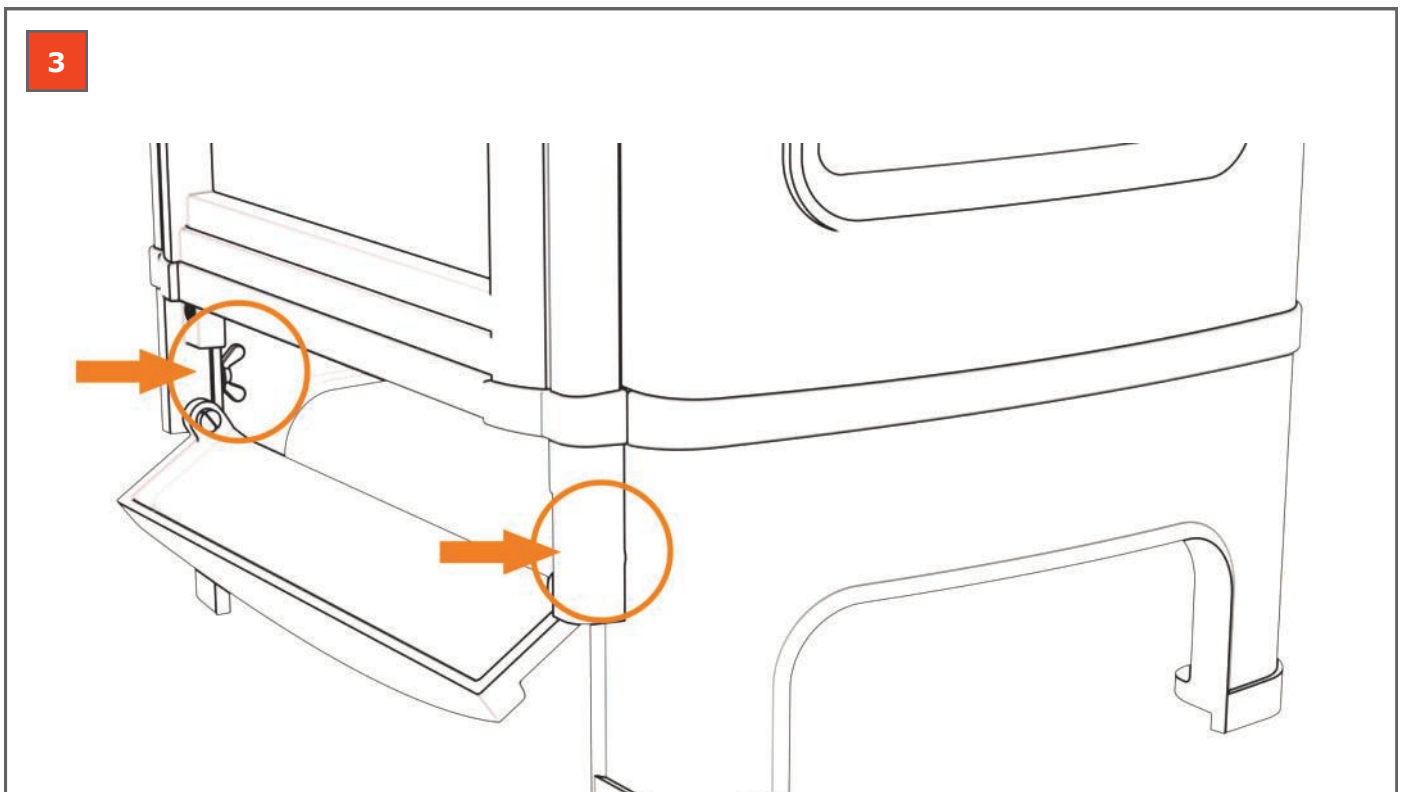
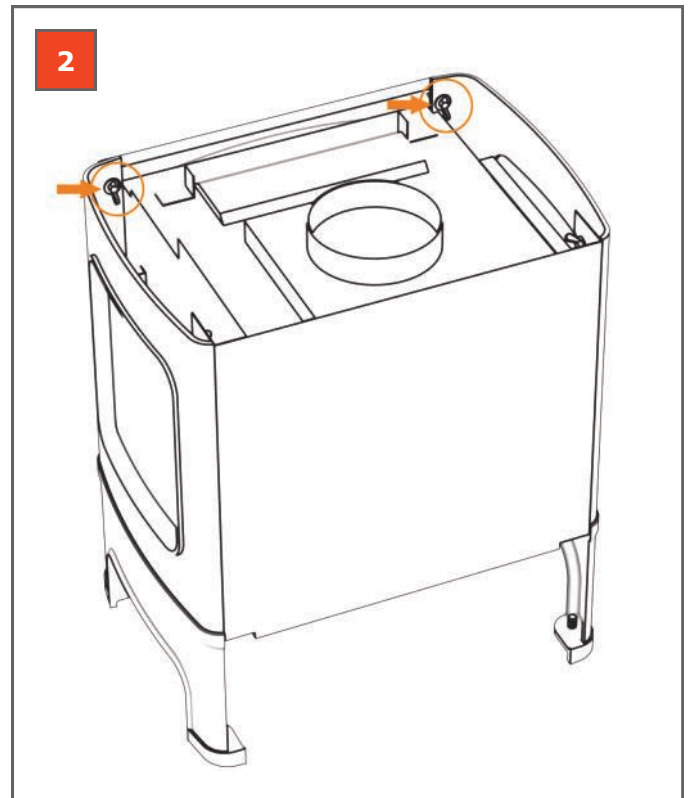
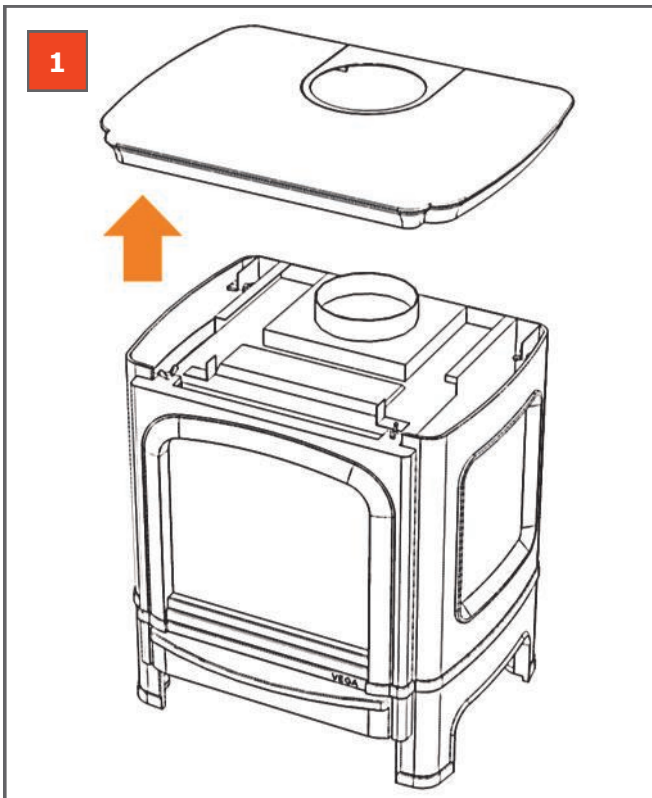
## INSTALLATION DIMENSIONS

The stove must be located at least 280mm from any combustible materials. A combustible shelf may be fitted over the appliance: up to a depth of 150mm there must be a minimum 280mm clearance above the top of the stove. An increase in shelf depth requires an equal increase in clearance; i.e. a shelf depth of 200mm would require a clearance of 330mm.



## APPENDIX 2 - PREPARATION AND INSTALLATION

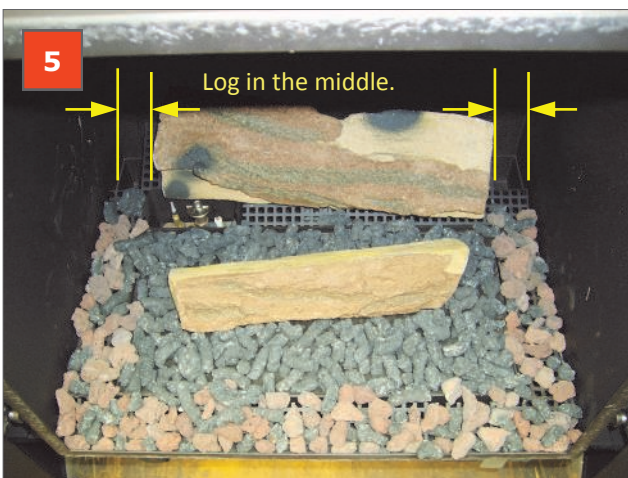
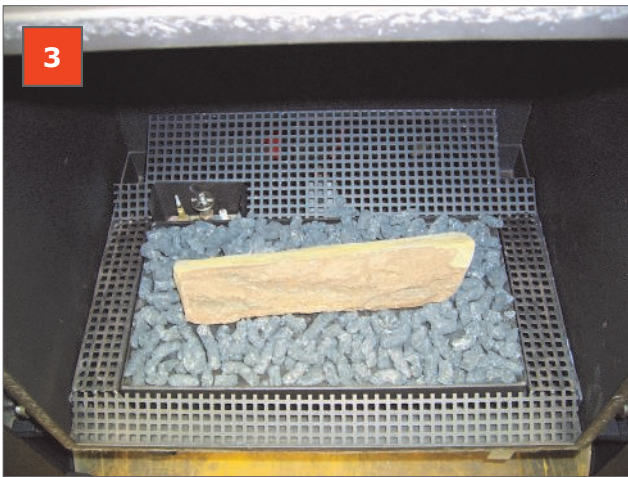
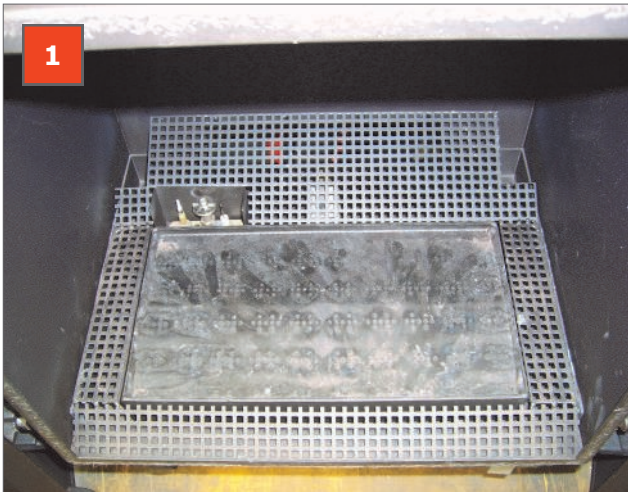
Images are for illustrative purposes only. Actual product may differ in appearance but all relevant technical aspects remain the same.



**NOTE:** Some models may feature hexagonal nuts instead of wingnuts. In this scenario a suitable socket wrench or spanner can be used to tighten/loosen them.



# APPENDIX 3 - CERAMIC LOG SET PLACEMENT





## APPENDIX 3 - CERAMIC LOG SET PLACEMENT





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