# **BILBERRY STOVES**

# 5kW / 8kW / 10kW



Installation & Operating Instructions

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# BILBERRY SOLID FUEL STOVES INSTALLATION INSTRUCTIONS

#### **PRE-INSTALLATION CHECKS**

Installation of a stove must be done according to local codes and regulations. National and European standards must be observed when installing this product.

Please read the Installation & Operation manual enclosed with this product before use.

TECHNICAL DATA	5kW Stove	8kW Stove	10kW Stove
Material:	Cast Iron	Cast Iron	Cast Iron
Finish:	High Temp Resistant Paint	High Temp Resistant Paint	High Temp Resistant Paint
Fuel:	Solid Fuel	Solid Fuel	Solid Fuel
Log Length - Max.:	32 cm	35 cm	41 cm
Flue Outlet:	Top & Rear	Top & Rear	Top & Rear
Flue Pipe Dimension- ID:-	125mm	125mm	150mm
Weight [Approx.]:	70kgs	80kgs	148kgs
Dimensions:	W 400 x H 553 x D 383	W 457 x H 583 x D 426	W 583 x H 634 x D 482
Nominal Heat Output:	5kW	8kW	10kW
Recommended Chimney Draught:	0.06" w.g. min.	0.06" w.g. min.	0.06" w.g. min.
Operational Mode:	* Intermittent	* Intermittent	* Intermittent

<sup>\*</sup> **Note:** Intermittent combustion in this context means normal use of the stove, i.e. fuel is added as soon as the fuel has burned down.

#### INSTALLATION

#### **Unpacking The Stove**

After removing the outer packaging, unbolt the combustion chamber from the wooden pallet and place it gently on its back. The cardboard packaging can be placed underneath to prevent damaging the stove. Remove the leg pack from the stove and bolt each leg securely to the underside of the base on the combustion chamber, using the bolts provided (these can be found inside the stove).

We recommend that two people perform the assembly and installation procedure.

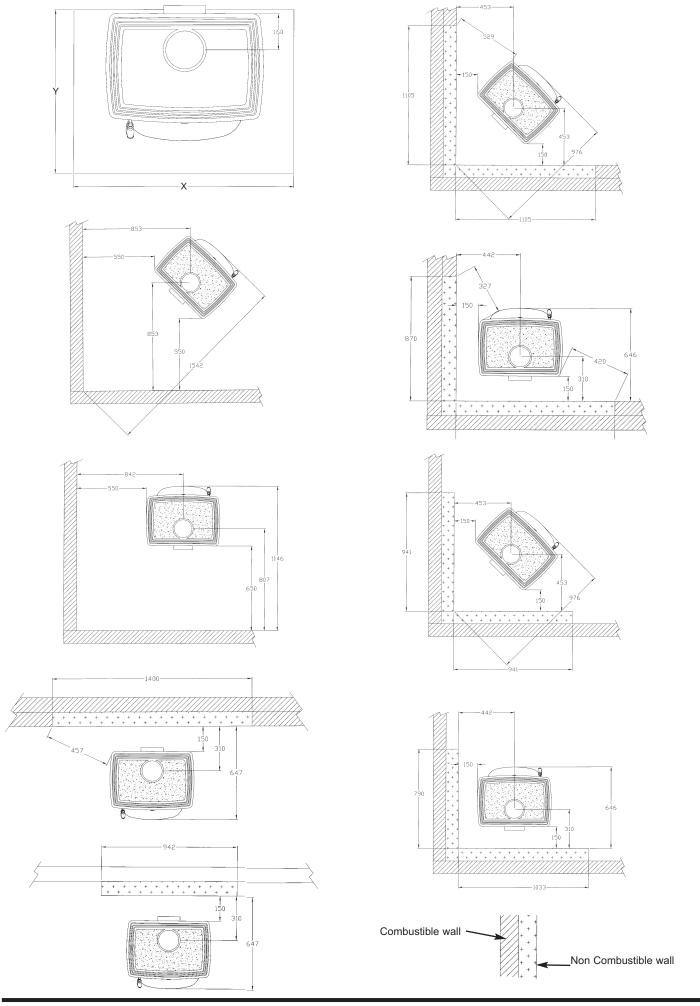
## Installing The Stove

The stove and chimney installations MUST comply with current National & Local Building Regulations; your approved dealer or your local building officer can advise regarding this. Ultimately, it is you and your installer who is responsible that the installation complies.

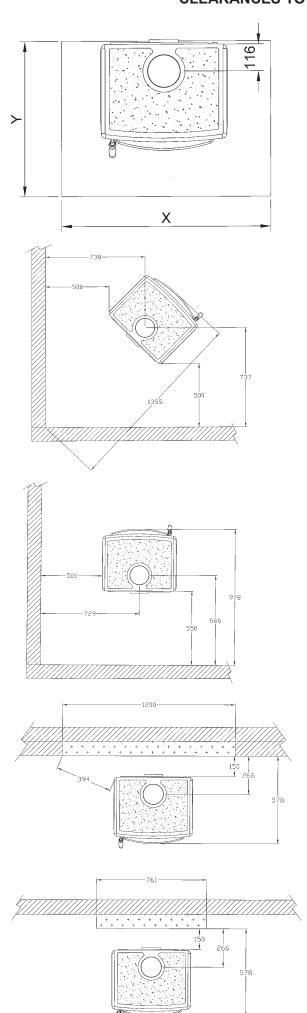
#### Floor Protection

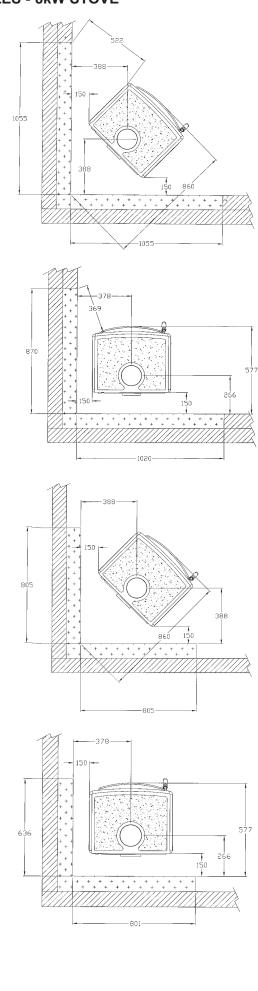
If installing this stove on a combustible floor, floor protection must be provided, consisting of a layer of noncombustible insulation material 10mm thick. This insulation can then be covered with 3mm sheet metal. This insulation material should extend past the sides and front of the stove, 400mm to front and 200mm to the sides.

# CLEARANCES TO COMBUSTIBLES - 10kW STOVE

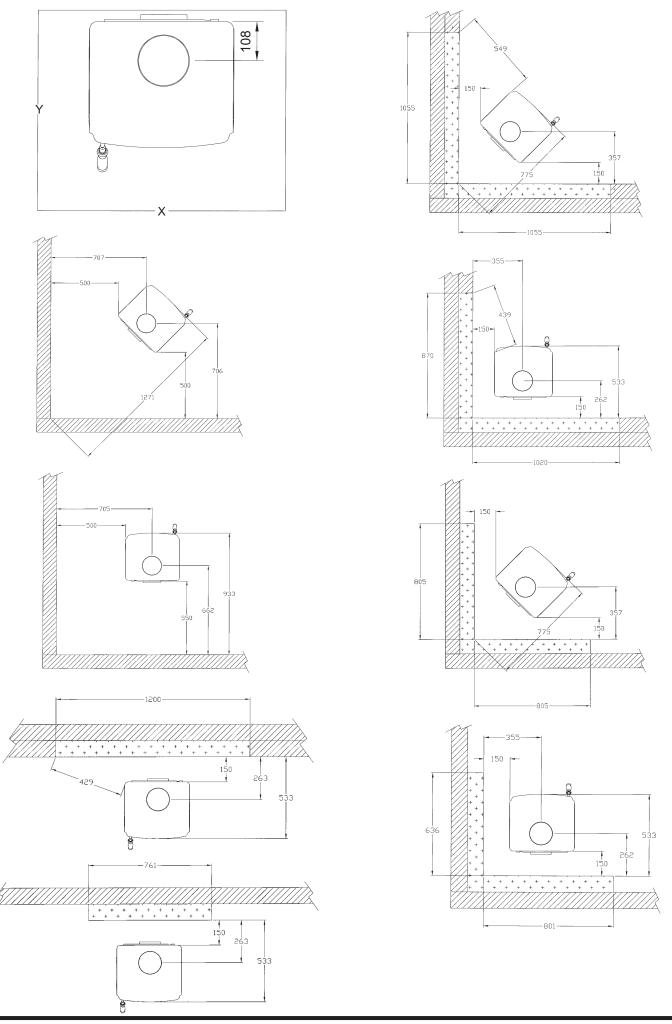


# **CLEARANCES TO COMBUSTIBLES - 8kW STOVE**



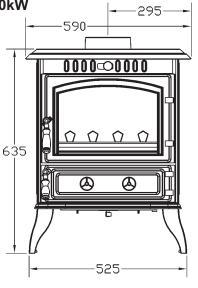


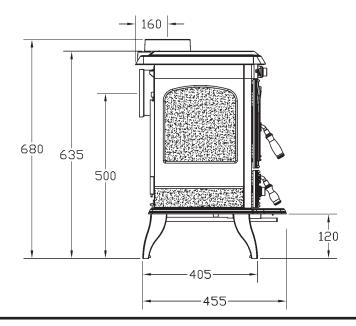
# CLEARANCES TO COMBUSTIBLES - 5kW STOVE



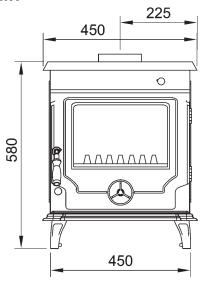
### **STOVE DIMENSIONS**

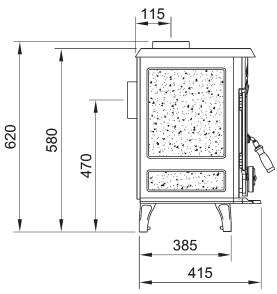
# Bilberry 10kW



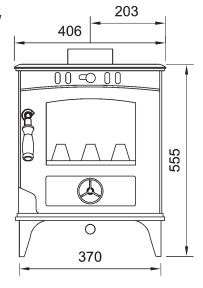


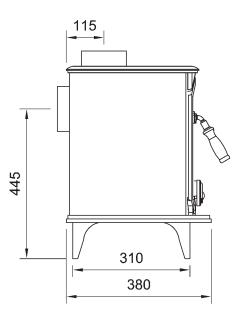
## Bilberry 8kW





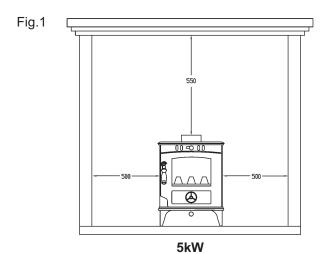
# Bilberry 5kW





**Note:** Dimensions stated are in millimetres unless otherwise stated and may be subject to a slight +/- variation.

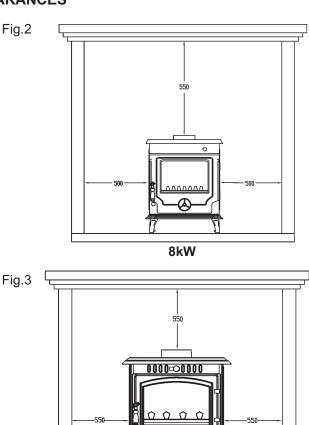
#### **MANTLE CLEARANCES**



The minimum mantle clearance to combustibles required are:
5kW - 550mm to the top 500mm to the sides

8kW - 550mm to the top 500mm to the sides

10kW - 550mm to the top 550mm to the sides



A

10kW

#### **CEILING PROTECTION**

There must be a minimum distance of 1200mm to a combustible ceiling above the fireplace.

#### Clearances to Furniture & Soft Furnishings

We recommend the stove be installed 800mm from combustible material. Serious consideration should also be given to positioning of any furniture that could be adversely affected by heat. The clearances to combustible materials in front of the stove should be a minimum of 800mm. When lighting, a solid fuel stove will get very hot and therefore adequate protection must be provided, particularly in situations where there is a safety risk to children or the infirm. A suitable safety guard around the stove should be considered.

#### **CHIMNEY**

The stove is a radiant room heater and must be connected to a chimney of the proper size and type. The chimney must have a diameter of at least 6" (150mm). It is best to connect to a chimney of the same size, as connection to a larger size may result in a somewhat less draught.

Do not connect to a chimney serving another appliance. Minimum chimney height 15' (4.5 meters) from floor on which stove is installed. An existing masonry chimney should be inspected and if necessary repaired by a competent mason. The stove must be connected to a chimney with a minimum continuous draft of .06" wg (15 Pascals). Poor draft conditions will result in poor performance.

Chimneys for use with solid fuel appliances should be capable of withstanding a temperature of 1100°C without any structural change which would impair the stability or performance of the chimney.

If the stove is fitted in place of an open fire then the chimney should be swept again, one month after installation, to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

BS EN 15287-1:2007, Design Installation and Commissioning of Chimneys; Part 1: Chimneys for non-room-sealed heating appliances should be used.

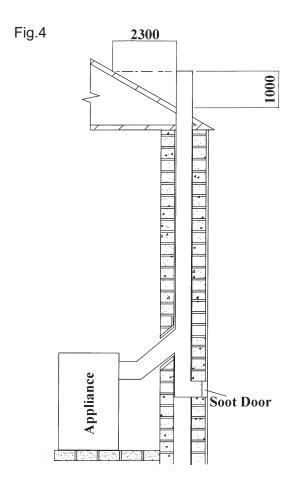
#### **FLUES**

Flues should be vertical wherever possible and where a bend is necessary, it should not make an angle of more than 45° with the vertical. Horizontal flue runs should be avoided except in the case of a back outlet from the appliance, when the length of the horizontal section should not exceed 150mm.

In order to minimise flue resistance and to make sweeping easier it is recommended to use  $2 \times 45^{\circ}$  bends rather than a  $90^{\circ}$  bend.

The flue termination point must be located to minimise any wind effects. Wind effects of suction, pressure zones and turbulence can be created by the roof and adjacent objects. Wind effects can also be created by natural land contours.

To minimise the wind effects, the flue termination point should be located a minimum of 1000mm from the roof measured vertically and 2300mm measured horizontally. Where this termination point does not suffice it may be necessary to extend the flue pipe so that the termination point is above the apex. See Fig.4.



#### **FLUE PIPES**

A flue pipe should only be used to connect an appliance to a chimney and should not pass through any roof space.

Flue pipes may be of any of the following materials:

- (a) Cast iron as described in BS 41: 1973 (1981), or
- (b) Stainless steel with a wall thickness of at least 1mm and as described in BS EN 10095:1999 Specification for stainless and heat resisting steel plate, sheet and strip, for Grade 316 S11, 316 S13, 316 S16, 316 S31, 316 S33, or the equivalent Euronorm 88-71 designation, or
- (c) Vitreous enamelled steel complying with BS 6999: 1989.

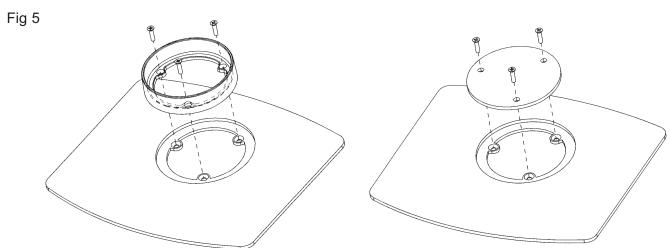
Flue pipes with spigot and socket joints should be fitted with the socket uppermost and all joints should be sealed with fire cement.

Clearance to combustibles must be adhered to when fitting the flue pipe.

The flue outlet spigot for this appliance is inside the burn chamber during transportation. You can choose between top or rear outlet from the flue pipe. (Fastening screws are included with the stove).

Flue pipes are placed directly onto the product flue outlet, there are 3 screw holes to secure the flue pipe in place. See Fig.5.

**Note:** It is important that the joints are completely sealed using a suitable fire cement. Air leakage etc may lead to malfunction.



#### **CONNECTING TO A STEEL CHIMNEY**

If your installation involves taking the chimney straight up and through the ceiling, you must comply with National, Local and Building Regulations or flue manufacturers instructions concerning clearances to combustible materials such as walls, floor joists and ceilings. The joint between the stove flue collar and the stove pipe must also be sealed using the fire cement. It is important that the insulated flue system is properly supported both at ceiling level and at roof level. **THE STOVE MUST NOT BEAR THE WEIGHT OF THE CHIMNEY SYSTEM** (see chimney manufacturer's instructions). Excessive weight on the stove will inhibit expansion and could lead to damage of the stove top. Damage caused to the stove in this way would not be covered by the Manufacturers Warranty.

IN THE EVENT THAT A CHIMNEY FIRE OCCURS RESULTING FROM FAULTY OPERATION OR PROLONGED USE OF DAMP WOOD FUEL, CLOSE THE AIR VENTS COMPLETELY AND CONTACT YOUR LOCAL FIRE DEPARTMENT IMMEDIATELY.

#### **CAUTION**

The chimney should be swept at least twice by a competent and approved person. All chimney joints should be inspected during cleaning.

#### FRESH AIR SUPPLY

A solid fuel appliance requires a continuous supply of air to support combustion. If another air using appliance such as extractor hood or clothes dryer is installed in the same or an adjacent room, the ventilation supply will need to be increased to ensure there is adequate air for ventilation and combustion when all appliances are in operation.

In houses equipped with mechanical ventilation an external vent must be installed to provide adequate air for combustion.

Properly installed solid fuel unit will give even the most efficient houses a pleasant and natural ventilation.

#### DRAUGHT CONDITIONS

If smoke spillage occurs when the firedoor is opened, it is probably due to poor chimney draught. This type of stove requires at least 0.06" w.g. of chimney draught to achieve satisfactory combustion and smoke spillage prevention. However, in cases where the stove door is opened too vigorously you could expect that slight smoke spillage may occur.

If you have any doubts, you may want to have your installer measure the draught in the chimney.

The chimney's draught is the resulting effect within the flue caused by the difference in temperature within the flue and the cooler temperature outside. Other factors that can influence the level of draught include the length of the flue, insulation of the chimney, adverse weather conditions, tall buildings or trees nearby the flue terminal.

# BILBERRY SOLID FUEL STOVES OPERATING INSTRUCTIONS

#### SUITABLE FUELS

COAL, ANTHRACITE, PEAT, WOOD SYNTHETIC LOGS, OR OTHER FUELS. "Never use gasoline" gasoline type lantern fuel, kerosene, charcoal lighter fluid or similar liquids to start or 'freshen up' a fire in this heater. Keep all such liquid well away from the heater while in use. Operate stove only with fuelling door and ashpit doors closed. This heater is hot whilst in operation. Keep children, clothing and furniture a safe distance away.

The stove output levels are assessed on standard House Coals of good quality. Reduced outputs will result when fuels of lower calorific values are used. Wood logs up to 406mm (16") long are suitable.

All fuels should be stored under cover and kept as dry as possible prior to use.

#### NEVER BURN HOUSEHOLD RUBBISH OR ANY FORM OF PETROLEUM BASED COKE IN THIS STOVE.

#### **USE**

#### Odours on First Lighting of The Stove:

Painted stoves may emit an unpleasant odour when used for the first time. The room must be thoroughly ventilated. (ie. it is recommended to open all windows in the room in which the appliance is fitted). Let the fire burn with a high draught until all traces of the odour have dissipated and no smoke or smells can be detected.

#### **AIR CONTROL**

The amount of heat produced by the stove is regulated using three air controls. The primary air supply, where air passes up through the riddling grate, is controlled using the spin valve, and the secondary air (airwash system), which is supplied to the combustion over the glass and is controlled using the upper air control. A third air inlet (normally named secondary air) provides a constant, pre-heated air supply to the combustion just above the fire, it is controlled using the air control below the ash lip. This air supply doesn't normally need to be regulated, however it is necessary to keep this air supply open always.

Fig.6

#### WARNING

ENSURE TOP BAFFLE IS CORRECTLY IN PLACE BEFORE LIGHTING THE STOVE. See Fig.6.

Top Baffle in Place



#### **USE WITH WOOD**

#### Lighting:

- \* Slide the top air control to open and open the spin valve.
- \* Lay firelighters or rolled up newspapers on the grate with a reasonable quantity, if necessary, of dry kindling, place 2 or 3 small logs on top.
- \* Light the newspaper or firelighters using a long taper and close the door.
- \* When the fire is lighting well, add further logs of a diameter up to 10cms.
- \* When the stove body is very hot, close the spin valve.
- \* The burning rate can now be controlled by moving the top air control.

#### Refuelling:

- \* Slide the top air control to open, and open spin valve fully.
- \* Open the door slowly to avoid a sudden rush of air intake, causing smoke to escape into the room and then refuel.
- \* Leave the spin valve open for a few minutes to allow the initial volatiles in the wood to burn.
- Close the spin valve.

**IMPORTANT:** Wood contains a large amount of volatiles which need to be ignited quickly to prevent blow-back. If the wood just lies smouldering, especially after re-stoking, a lot of smoke is created, which in the worst case may cause an explosive ignition of the gases resulting in damage to the stove.

In order to ignite the gases that are released from the wood, and to keep clear lasting flames during the combustion process, it is important to let in the required quantity of oxygen (air supply) at all times. The setting of the air supply, the method of ignition and the lighting intervals depend on the draught in the chimney, the wind and weather, and amount of heat required, fuel etc.. This means that it may take some time before you get to know the correct functioning of the stove under any given circumstances.

#### **USE WITH SOLID FUEL**

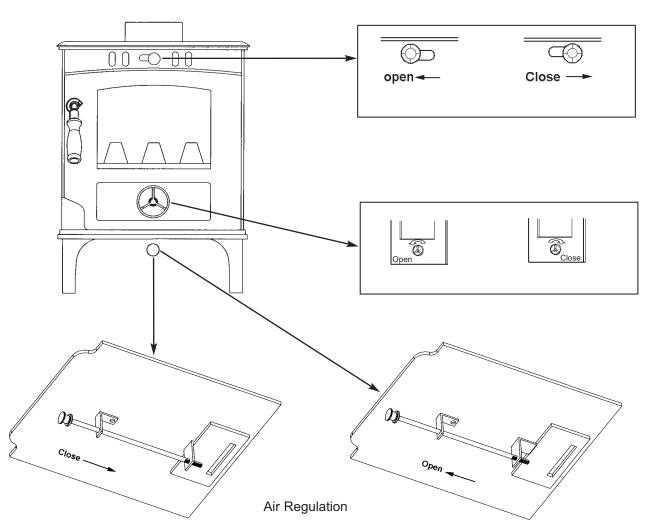
#### Lighting:

- \* Slide the top air control to open and open the spin valve.
- \* Lay firelighters or rolled up newspapers on the grate with a reasonable quantity of dry kindling. Place a small amount of solid fuel on top.
- \* Light the newspaper or firelighters using a long taper and close the door.
- \* When the fire is burning well, add further fuel.
- \* When the stove body is hot, close the top air control.
- \* The burning rate can now be adjusted by the spin valve.

#### Refuelling:

- \* Open the spin valve fully.
- \* Open the door slowly to avoid a sudden rush of air intake, causing smoke to escape into the room and then refuel.
- \* Leave the spin valve open for a few minutes to allow the initial volatiles in the fuel to burn.
- \* Adjust the spin valve to the desired position.

Fig 7



\* If the stove is lit using wet wood, a lot of the fuel's thermal energy will be spent forcing the water out of the wood, without releasing any heat to the stove. This incomplete combustion results in a layer of soot being left in the stove, pipe and chimney.

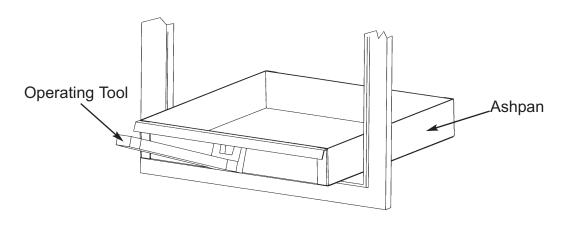
#### **DISPOSAL OF ASHES**

It is essential to keep the grate free from a heavy build up of ashes. This product is equipped with a grate riddling tool which is used to shake ashes off the grate into the ashpan. Whenever the stove is burning low, and the spin valve is open, use the riddling lever to clear the grate of surplus ashes.

If burning solid fuel, always empty the ashpan at least once a day or whenever it is full of ashes. Never allow the ashpan to over-fill allowing ash to be in contact with the underside of the grate. If this condition is allowed, the grate will burn out prematurely.

### DO NOT TRANSPORT HOT ASHES FROM THE STOVE USING THE ASHPAN OR THE OPERATING TOOL.





### **SAFETY NOTES**

- 1. Clean the flue-ways of the stove every week and ensure that there are no blockages. Please refer to manual for instructions.
- 2. Never allow a build up of ashes in the ash pan, as this will cause the grate to burn out prematurely.
- 3. Do not burn rubbish/household plastic.
- 4. Do not leave ash-door open during operation as this will over heat the unit causing unnecessary damage.
- 5. Clean the chimney at least twice a year.
- 6. Keep all combustible materials a safe distance away from unit, please consult section on clearance to combustibles.
- 7. For safety reasons never leave children unaccompanied while stove is in use.
- 8. Avoid contact with unit when in use as stove reaches very high operating temperatures.

#### **CO ALARM**

We recommend the fitting of a CO Alarm in the same room as the appliance, this is a requirement under UK Building Regulations. Further guidance on the installation of a carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturers instructions.

<u>Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.</u>

#### WARNING:-

If the CO Alarm sounds unexpectedly:-

- 1. Open Doors and windows to ventilate the room and then leave the premises.
- 2. Let the fire go out.

#### MAINTENANCE

## Cleaning The Glass:

This product is equipped with an air wash for the glass. Air is sucked in through the air vent above the door and down along the inside of the glass.

However, some soot will always stick to the glass, but the quantity will depend on the draught conditions and adjustment of the air wash vent. Most of the soot layer will normally be burned off when the air wash vent is opened all the way and a fire is burning briskly in the fireplace.

**Note -** To clean glass, use an approved suitable stove glass cleaner in accordance with the manufacturers instructions.

#### External Surface Cleaning:

The cast surface of the stove is painted with heat-resistant paint. It is best maintained by simply vacuuming it with a soft brush attachment or wiping it down with a dry, dust-free cloth.

Over time, the painted surface of the stove can turn a greyish colour, however it can easily be freshened up with a spray paint which is available from your local retailer.

#### Gaskets:

The gaskets in the door will wear out over time, and should be replaced as required in order to prevent overfiring.

#### WARRANTY POLICY

Your Bilberry Stove carries a guarantee against manufacturing defects for a period of one year from date of purchase. This guarantee shall not apply to any part that has been altered in any way, or which in our judgement has been subjected to misuse, neglect, accident, abuse and wear & tear. Variations in colour and texture are a natural characteristic of cast iron products. Colour changes may result from exposure to light and other elements which are a part of the aging process. These material variations and changes are not covered by the warranty.

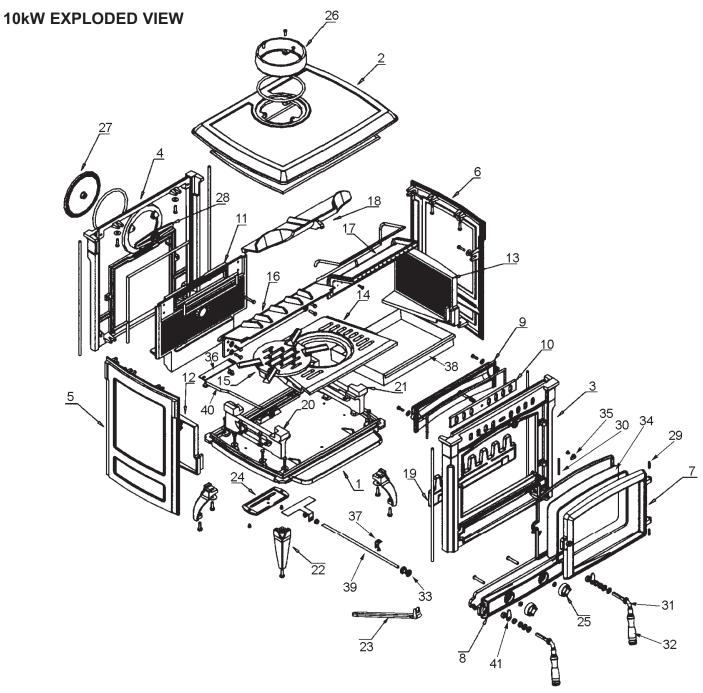
The Guarantee would not be extended to Items which would be subject to wear & tear such as firebox linings, firebox bricks, baffle, grate parts, fire fence, ash pan, operating tool, door glass, door rope and gasketing material.

Claims are not valid where the installation does not conform to Manufacturers Recommendations and Appropriate Building Regulations.

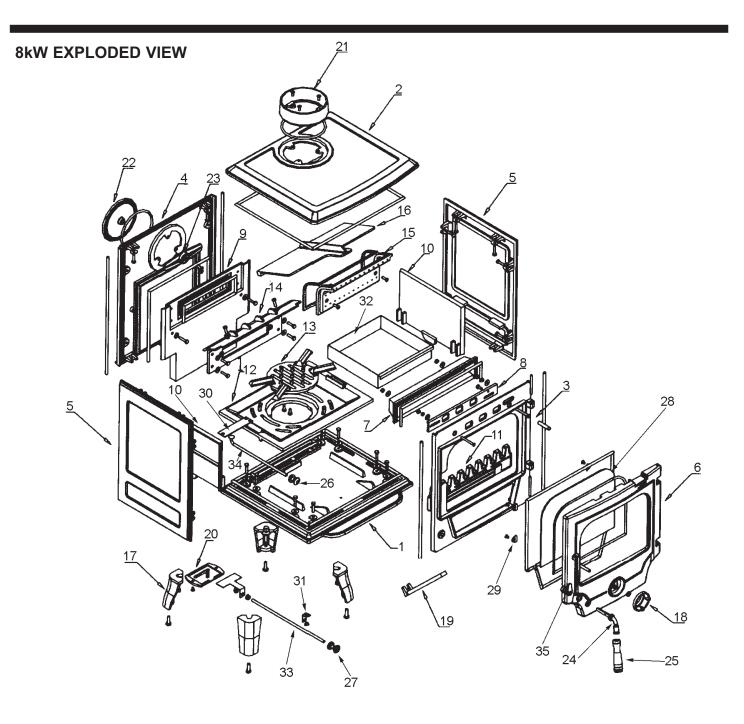
In the unlikely event of any failure of components covered by this guarantee, we will replace them free of charge to return the stove to its original specification. Labour costs excluded.

## **TROUBLE SHOOTING**

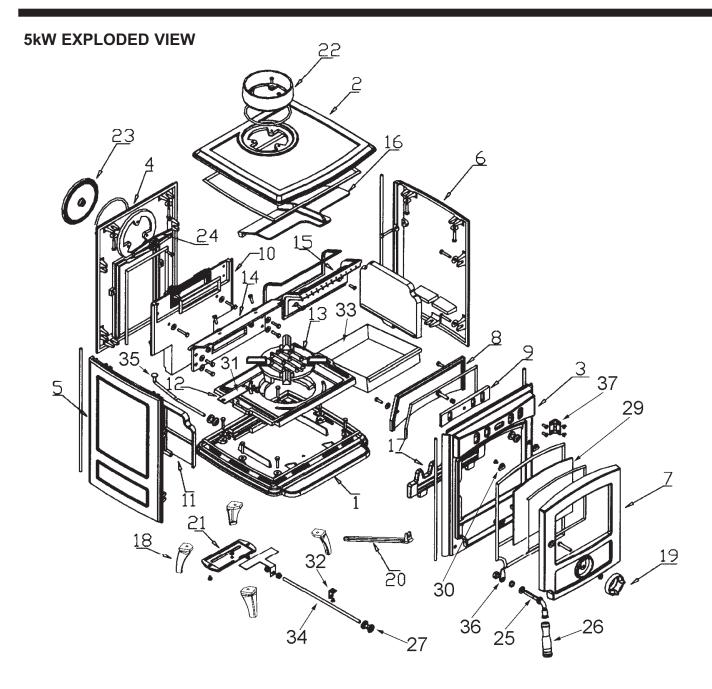
PROBLEM	POSSIBLE CAUSE	ACTION	
Fire difficult to start -	Unseasoned wood, too damp or poor quality.	Use recommended fuel only.	
	Logs too big	To light fire use small, very dry twigs. To maintain fire use split logs.	
Fire Goes Out	Air Starvation	Open lower spin wheel and top air control lever.	
	Insufficient Draught	Check that the flue is not obstructed, sweep if necessary - (seek advice from a chimney specialist).	
Fire Burns Too Quickly	Too much draught	Ensure that the lower spin wheel is closed and partially close the top air control lever.	
	Poor Quality Wood	Do not continuously burn small wood, sticks, bundles, carpentry off-cuts (plywood / pallets etc)	
Smokes When Lighting Up	Flue duct is cold	Burn paper and kindling to increase heat.	
Smokes While Burning	Draught is insufficient	Consult a chimney specialist. Check that the flue is not obstructed, sweep if necessary.	
	Down Draught	Install an anti-down draught cowl. Consult your dealer.	
	Room is in decompression	In houses equipped with Mechanical Ventilation, an outside air intake must be installed for the chimney.	
Low Heat Output	Incorrect Fuels	Use the recommended Fuel	



11. 12. 13. 14. 15. 16. 17. 18.	BASE HOB FRONT BACK LH SIDE PANEL RH SIDEPANEL FIRE DOOR ASH DOOR AIR WASH COVER AIR WASH SHUTTER BACK BRICK LH SIDE BRICK RH SIDE BRICK FIRE BED GRATE MIDDLE BAFFLE LOWER BAFFLE TOP BAFFLE FIRE FENCE LEFT GRATE REST	SM08601WF SM08602WF SM08603 SM08604 SM08605WF SM08606WF SM08607 SM08608HM SM 08609 SM086010 SM08611 SM08612 SM08613 SM08614 SM08615 SM08616 SM08617 SM08617 SM08618 SM08620WF SM08621	22. LEG 23. ASHPAN LIFTER 24. BACK AIR DAMPER 25. SPIN VALVE 26. SPIGOT 27. BLANKING PLATE 28. BLANKING PLATE LOCKING BAR 29. FIRE DOOR PIN 30. ASH DOOR PIN 31. DOOR HANDLE AXLE 32. WOODEN HANDLE 33. PULL ROD KNOB 34. GLASS 35. GLASS CLIPS 36. BLANKING PLATE 37. PULL ROD BRACKET 38. ASHPAN 39. PULL ROD 40. RIDDLING ROD 41. DOOR CATCH	SM08623 CA0105 CA0904 CAF0145 I150 C150 C150Y CA0602 CA0605 CA0101 CA0102 CA0104 CA10086 CA1101 CA1102 CA1103 CA12086 CA1301 CA1401 CA1502
21.	RIGHT GRATE REST	SM08622	TI. BOOK OKTOH	0/11002



1.	BASE	SM08101	19.	ASHPAN LIFTER	CA0105
2.	HOB	SM08102	20.	BACK AIR DAMPER	CA0903
3.	FRONT	SM08103	21.	SPIGOT	I125
4.	BACK	SM08104	22.	BLANKING PLATE	C125
5.	RH & LH SIDE PANEL	SM08105	23.	BLANKING PLATE LOCKING BAR	C125Y
6.	FIRE DOOR	SM08106	24.	DOOR HANDLE AXLE	CA0101
7.	AIR WASH COVER	SM08116	25.	WOODEN HANDLE	CA0102
8.	AIR WASH SHUTTER	SM08108	26.	PULL ROD KNOB	CA0104
9.	BACK BRICK	SM08109	27.	RIDDLING ROD KNOB	CA0111
10.	LH & RH SIDE BRICKS	SM08110	28.	GLASS	CA10081
11.	FIRE FENCE	SM08111	29.	GLASS CLIPS	CA1101
12.	FIRE BED	SM08112	30.	BLANKING PLATE	CA1102
13.	GRATE	SM08113	31.	PULL ROD BRACKET	CA1103
14.	MIDDLE BAFFLE	SM08114	32.	ASHPAN	CA12081
15.	LOWER BAFFLE	SM08115	33.	PULL ROD	CA1301
16.	TOP BAFFLE	SM08107	34.	RIDDLING ROD	CA1401
17.	LEG	SM08117	35.	DOOR CATCH	CA1502
18.	SPIN VALVE	CAF0165			



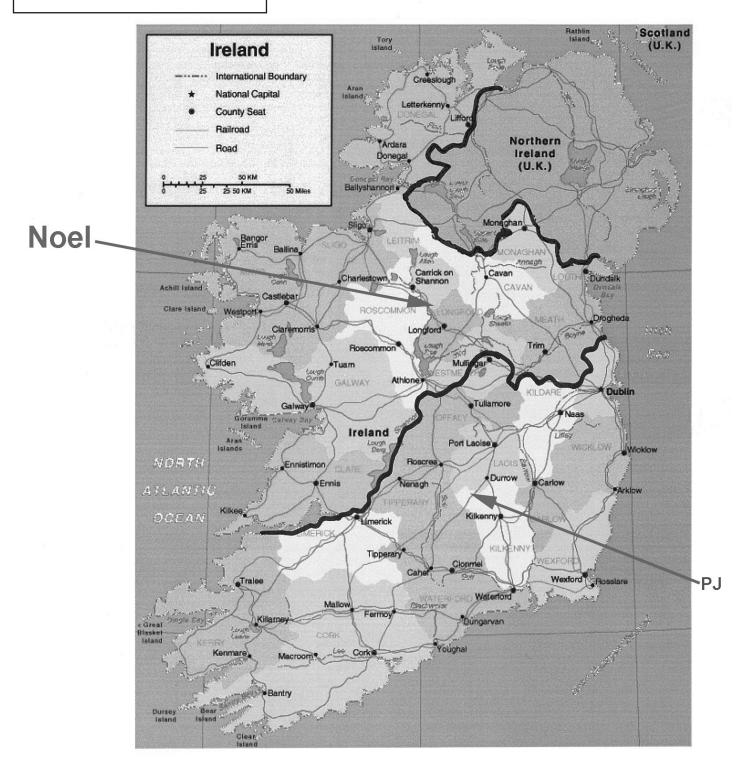
1.	BASE	SM08201WF	22.	SPIGOT	I125
2.	HOB	SM08202WF	23.	FLUE COVER BLANKING PLATE	C125
3.	FRONT	SM08203	24.	BLANKING PLATE LOCKING BAR	C125Y
4.	BACK	SM08204	25.	DOOR HANDLE AXLE	CA0101
5.	LH SIDE PANEL	SM08205WF	26.	WOODEN HANDLE	CA0102
6.	RH SIDE PANEL	SM08206WF	27.	PULL ROD KNOB	CA0104
7.	FIRE DOOR	SM08207	29.	GLASS	CA10082
8.	AIR WASH COVER	SM08208	30.	GLASS CLIPS	CA1101
9.	AIR WASH SHUTTER	SM08209	31.	BLANKING PLATE	CA1102
10.	BACK BRICK	SM08210	32.	PULL ROD BRACKET	CA1103
11.	LH & RH SIDE BRICKS	SM08211	33.	ASHPAN	CA12082
12.	FIRE BED	SM08212	34.	PULL ROD	CA1301
13.	GRATE	SM08213	35.	RIDDLING ROD	CA1401
14.	MIDDLE BAFFLE	SM08214	36.	DOOR CATCH	CA1502
15.	LOWER BAFFLE	SM08215	37.	DOOR HINGE	CA1601
16.	TOP BAFFLE	SM08216			
17.	FIRE FENCE	SM08217			
18.	LEG	SM08218			
19.	SPIN VALVE	CAF0165			
20.	ASHPAN LIFTER	CA0105			
21.	BACK AIR DAMPER	CA0903			

### **SALES & SERVICE**

There are two Sales & Service Agents located in Ireland, please see map for Sales / Service Agent in your area.

**Contact Details:** 

Noel Gallagher - 087-8327826 PJ O'Connor - 087-9050860



# **BILBERRY STOVES**

20 Made In China