

# **User** manual

IRON DOG 06

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**BRUNNER®**  
*made in germany.*

## Iron Dogs

are cast Iron stoves made in Germany, manufactured by a family business in the 3th generation, specialized in making fireplaces. In this series all their knowledge and craftsmanship come together in an exceptional stove of an exceptional quality. Therefore also the exceptional name »IRON DOG« for exceptional people or as a gift to friends.

Winter can come; we're looking forward to it.

Welcome to the IRON DOG family.

Eggenfelden, August 2007



Ulrich Brunner

The name >>EISERNER HUND<< - >>IRON DOG<< - is a registered and protected mark. Individual models are registered as design patents.

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## **IRON DOG**

Please read the entire User Guide before lighting the fire for the first time. In particular, please note the safety precautions in this manual. The User Guide, as well as national or EU standards and local regulations must be observed. Your specialized enterprise and **IRON DOG** partner can give you the most current information and details.

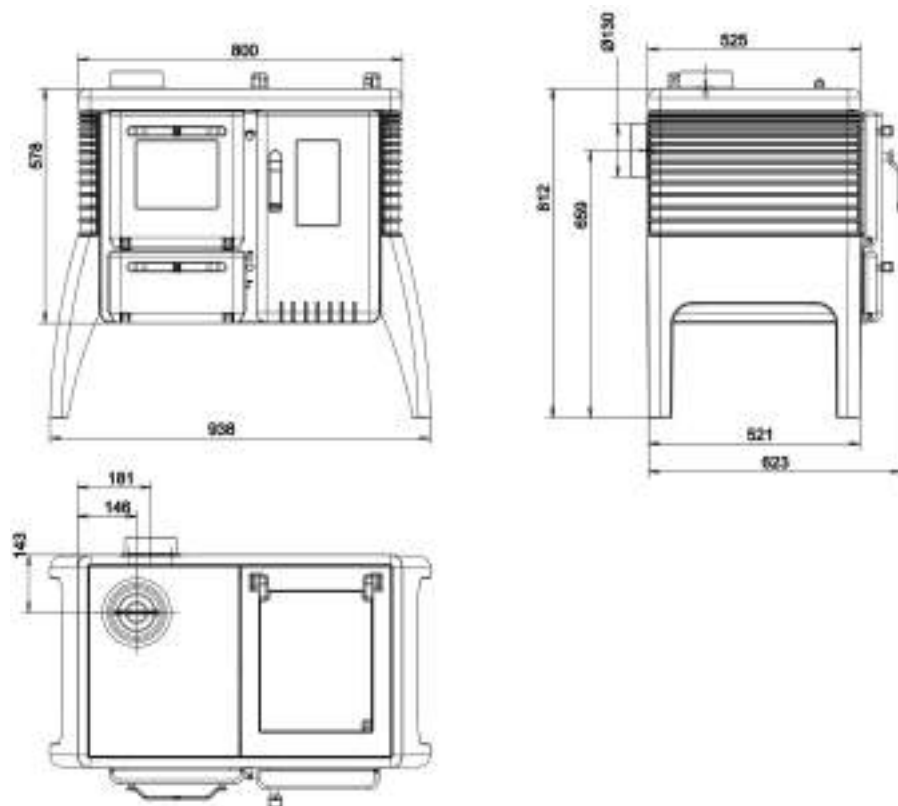
**Please keep the User Guide for future reference!**

## **1 MY IRON DOG**

An **EISERNER HUND** is a special cast iron stove. It's a friend for life. Its life expectancy is about generations and it will do good services to its owners – therefore treat it well.

Nearly all components of the **IRON DOG** are made of solid cast iron. Ash boxes, screws and bolts are made of stainless steel. A special, temperature-firm color coating protects the surface. All components of this cast iron stove are manufactured and assembled in Germany with great care

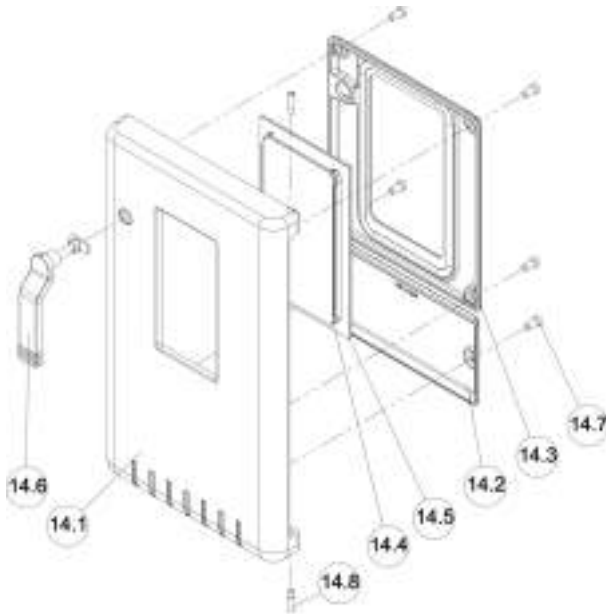
## 2 TECHNICAL DATA



*Illustr. 1: Dimensions*



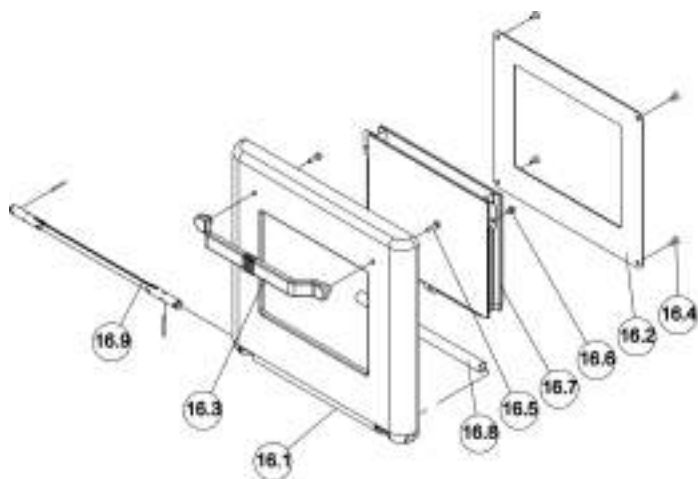
Pos	Denomination	Art N°
1	CG Base	K011094
2	CG Base plate	K011092
3	Rear	K011003
4	CG Front	K011098
5	CG hot plate	K011061-4
6	Side panel	K011007
7	CG Oven	K011015
8	CG Fire chamber lining	K011132
9	CG Bottom grate	K011036
10	Grill grate	K011037
11	CG left side fire chamber	K011111
12	CG Ash compartment bottom	K011134
13	Ash pan	K011048
14	CG Firing door complete	K011056
15	CG Soot door front	K011114
16	CG Oven door	K011068
17	CG Soot door	K011083
18	CG right side fire chamber	K011112
19	CG Steal corpus	K011021
20	CG exhaust gas stub	K008096
21	Firing door air control	K011084



*Illustr. 3: Fire door components group*

Pos	Denomination	Art N°
14.1	Fire door	K011096
14.2	CG Heat shield ash compartment	K011054
14.3	CG Heat shield window fire door	K011097
14.4	CG Outer window firing door	K011133
14.5	Inner window firing door	K011058
14.6	CG Doorhandle	K007018
14.7	Cylindric screws	M8 x 16
14.8	Set screw	M8 x 30





*Illustr. 4: Oven door components group*

Pos	Denomination	Art N°
16.1	CG Oven door	K011091
16.2	Inner pannel oven door	K011069
16.3	Oven door handle	K011018
16.4	Countersunk screws	M5 x 10
16.5	Cylindric screws	M5 x 16
16.6	Cylindric screws	M5 x 6
16.7	CG Oven door glass plates	K011095
16.8	Torsion bar cover	K011145
16.9	CG Torsion bar	K011090

- 1 Stove top cover lever
- 2 Pivoting hot plate cover
- 3 Stove top
- 4 Start-up valve push rod
- 5 Air control push rod
- 6 Oven
- 7 Firing door
- 8 Stow compartment (Grill grate / Control levers)
- 9 Soot door
- 10 Grill grate
- 11 Grill grate levers

Components that are needed for grilling are only part of the models with grill function!

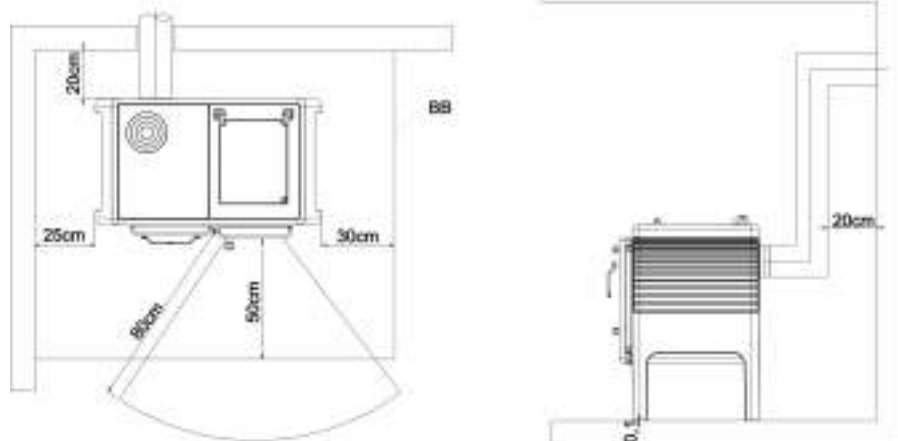


Illustr. 5: Components Iron Dog 06

Two control levers are given with the Iron Dog 06. They are used for operation of the stove top covers as well as for the grill grate.



During combustion the pivoting stove top cover must always be closed. Fire risk!



*Illustr. 6: Minimal distances*

**values**

Heat output	kW	8
Flue gas mass flow	g/s	11
Exhaust gas temperature (at exhaust gas stub))	°C	290
Necessary chimney draught	Pa	13
Consumption / h	kg	2,5
Heating capacity	m <sup>3</sup>	60 - 110
Efficiency	%	82
Combustion air consumption	m <sup>3</sup> /h	18

**appliance data**

Measures (h x w x d)	mm	810x94x625
Window (h x w)	mm	207x102
Fire chamber opening (h x w)	mm	238x267
Exhaust gas stub		top / rear
Exhaust gas stub, diameter	mm	130
Maximum filling quantity	kg	2 - 3
Fire chamber depth	cm	45
Recommened log lenght	cm	25 - 33
Total weight cast iron	kg	310

**required minimal distances**

to side wall	cm	25
to rear wall (with radiation sheet)	cm	---
to rear wall (without radiation sheet)	cm	20

**approvals**

EN 12815

## 3 SAFETY GUIDELINES



### Radiation range

Do not bring inflammable materials within an 80 cm radiation range of the **IRON DOG!** Fire risk! Don't put inflammable objects on the stove top, under the cast iron stove or in between the rear of the stove and the wall behind.



### First starting-up

Up to the first reaching of the maximum operating temperature the protective paint hardens out. This can give some smelling nuisances. Provide therefore for sufficient ventilation of the installation area. Open doors and windows. Don't stay unnecessarily in the concerned area. Never use products as gasoline, white spirits or the like to start a fire!



### Burning risk

The external surfaces of the **IRON DOG** become hot, especially the window of the fire door.

Don't touch – Burning risk!

Particularly warn children for this. Keep children away from the heated **IRON DOG**.

Use safety gloves during operation.

**Ashes**

Empty the ash pan only when the ashes are cold and keep them during at least 24 h in a fire resistant container. Fire risk by remaining glow! In case of fire, call the fire-brigade!

**Chimney fire**

In case of a chimney fire, remove all inflammable objects from the chimney. Beware of flying sparks. Call the fire-brigade!

**Fire door**

The fire door of the **IRON DOG** may only be opened for bringing in wood or for cleaning. During use with open fire door, the stove is too heavily charged, smoke or fire can come out and glowing particles can be ejected. There is the danger of a flue gas poisoning. The fire chamber of the **IRON DOG** is also to be kept closed when the stove is not heated.

## 4 BASIC PRINCIPLES

Cast iron stoves of the **IRON DOG** series function according to the principal of 'burning from above' and are heated with the intermittent burning method. The wood load degases with beautiful flames in approximately 60 - 70 minutes and produces a heating output between 5 - 9 kW/h depending on the quantity of wood (1,5 kg - 2,5 kg).

Cast iron stoves of the **IRON DOG** series are tested according to EN 13240 / EN 12815 and can be used with a closed fire door. Connecting more than one stove to a chimney is possible if the chimney is suited for this (ask the chimney sweep).

## **Air supply to the setting up area**

The **IRON DOG** can only function properly when the combustion air supply at the setting up area is sufficient. Before heating up make sure there is a sufficient supply of fresh air. In the building existing mechanisms for combustion air supply should not be changed.

## **Fuel**

Use only suitable burning wood in the indicated quantities and qualities. Too small amounts of burning wood lead to insufficient combustion quality. Too large amounts of burning wood lead to overheating and damage to the equipment. Fire risk!

## **Heat output**

The cast iron stoves of the **IRON DOG** series are designed to be used with the intermittent wood burning method; the heat output is determined by the quantity of wood used and by the distances in time between the firing operations. The right time to put on more wood has come when the wood has nearly been burned down to glow.

## **Combustion air regulation**

For a simple operation the air income is regulated with one single air control rod. Please heat with the given combustion air regulations. Insufficient combustion air leads to an increased environmental impact, bad efficiency and creosote in the stove and the chimney.

### **Heating operation**

We recommend using safety gloves during operation, since the operating elements become hot. Open the door slowly – this way no turbulences develop, which let flue gases escape.

### **Flue exhaust/heating during transitional periods**

The **IRON DOG** needs sufficient chimney draught for drawing in the combustion air and exhausting the flue gases. It diminishes with rising outside temperatures and this can lead to problems to start a fire. When outside temperatures are over 15°C, please check the chimney draught. (for example open the door and keep a burning fire lighter at the entry of the flame channel – flame and flue gases must visibly take off). In case of too little draught first light kindling and add burning wood when the draught has been created.



## 5 FIREWOOD AND HEATING POWER

The combustion process in our devices has been optimized to enhance their performance and reduce emissions. You can support our efforts to protect our environment by respecting the following recommendations for low-emission heating: Use only dry, natural wood with a residual humidity factor below 20%, or wood briquettes according to DIN EN 17225-3, Class A1, length >14 cm (5.51 in), diameter >8 cm (3.15 in).

Damp, freshly cut or improperly stored wood has a high water content, therefore does not want to burn, makes a lot of smoke and gives not much of heat. Use only firewood which has been stored for at least two years in a dry place with sufficient air circulation. Because dry wood is much more calorific, you can save on fuel costs.

For example: Dry wood has a calorific value of approx. 4 kWh/kg, freshly cut wood only 2 kWh/kg. You will need twice the amount of wood to achieve the same heating power.

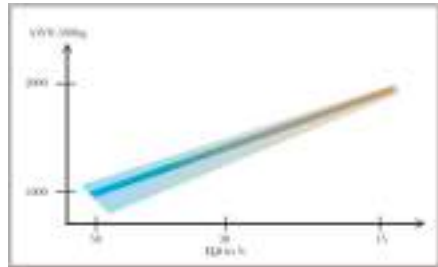
	<b>Water content g/kg wood</b>	<b>Calorific value kWh/kg</b>	<b>Consumption raised by %</b>
very dry	100	4.5	0
stored for 2 years	200	4	15
stored for 1 year	350	3	71
freshly cut wood	500	2.1	153



Natural firewood (left) is the best fuel for fireplaces, but you can use also wood briquettes according to DIN 17225-3, Class A1, length >14 cm (5.51 in), diameter >8 cm (3.15 in) (right).

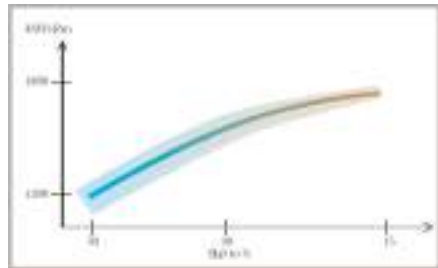


What amount of heat will I get when buying wood per weight?



500 kg freshly cut wood	Water content 50%	$500 \text{ kg} \times 2.0 \text{ kWh/kg} = 1000 \text{ kWh}$
500 kg dried wood	Water content 30%	$500 \text{ kg} \times 3.3 \text{ kWh/kg} = 1650 \text{ kWh}$
500 kg dry wood	Water content 15%	$500 \text{ kg} \times 4.1 \text{ kWh/kg} = 2050 \text{ kWh}$

What amount of heat will I get when buying wood per volume (1 cubic meter = 1 m<sup>3</sup>)?



1 m <sup>3</sup> freshly cut wood	Water content 50%	1286 kWh
1 m <sup>3</sup> dried wood	Water content 30%	1518 kWh
1 m <sup>3</sup> dry wood	Water content 15%	1550 kWh

Most suitable for use in open fireplaces are all types of hardwood, like beech or birch. Softwood species (conifers) have a closed-cell structure which is bursting during combustion, causing glowing embers to be thrown out of the fireplace. Hardwood is burning more calm and evenly.

You can control the heat radiation intensity by volume of wood and the intervals for stoking up.

Adjusting the heat by reducing the volume of combustion air is wrong! If there is not enough combustion air available, the energy contained in firewood cannot be completely released. At the same time, the emissions are rising due to unburned particles.

Too much of firewood or inappropriate fuel types can cause overheating and damage.

No kind of waste shall be burned in a fireplace!

### ***Waste on fire = Toxins in your garden!***



Never use combustible fluids, like petrol or alcohol to light a fire!

Mind the waste incineration ban!

Remember to use only the recommended fuels described in this User Guide. Unsuitable, not recommended fuels are not allowed to be burned in a fireplace.

## **6 SEASONING OF FIREWOOD**

After cutting the trees, the wood should be seasoned in an open and dry place and protected from rain and snow.

The best time to cut trees is from December till February.

Firewood should be stored under a roof or in a ventilated building (shed). Do not store freshly cut wood in the cellar or in a closed area. It can't dry there.

### **Our best 3 tips**

for heating with wood to become an experience.

#### **1) dry wood**

2) dry wood

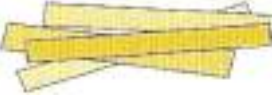

3) dry wood

## 7 AMOUNT OF FUEL

Heat output regulation by reducing the combustion air is wrong!

By lack of combustion air the calorific capacity of the fuel can't be set free completely. At the same time the emissions increase over the unburned portions.

To large amounts of fuel or unsuitable fuel can lead to excessive heating and thus to damage.

Filling weight	Log lenght	Log size
1,5 kg - 3,0 kg	25 cm - 33 cm	20 cm - 30 cm
		

## 8 OPERATION

Grill and barbecue functions which are described here are only available in the models with grill function.

Consider also the denomination of the components related to this in the chapter 'Technical Data'.

## Before initial operation

Before initial operation please grease the stove top and covers, the grill grate and the oven with edible oil and heat up the Iron Dog 06.




## Firing door

Note that the firing door is opened in a clockwise direction. (See picture; Auf=open; Zu=closed)



## Combustion air regulation

The air control push rod (5) can be put in three different positions.

Start up	Nominal heat output	Closed
		
Combustion air completely open for heating up	Full heating	Combustion air completely closed

In case of unfavorable chimney draught the start-up valve (4) can be opened by pulling. The combustion gases now take a shortcut to the chimney (the combustion gases don't flow around the oven (6) and the stove top on the left (3) is not heated).

As soon as the fire burns strongly, close the start-up valve by pushing in its control lever completely. See to it that the combustion air control is still in the start-up position and that the fire door is closed.

Consider the remarks in the chapter 'Heating with the Iron Dog'!

## Backing - Grilling - Cooking

The Iron-Dog 06 is a cooker in its best sense. One can cook and bake with it, and once the fire burned down, one can perfectly grill above the glow.

As grilling takes place inside the cooker, important odors are evacuated by the chimney.



*Illustr. 7: Grill grate in stove compartment*

To get an optimal temperature in the oven and on the stove top, the start-up valve must be closed. Push in the 'start-up valve push rod'(4) completely.



The grill grate is made of solid cast iron and thus heavy. When handling the grill grate always insert the levers completely into the openings intended for this to avoid the grill grate from falling.

**The cookplate.** The 2-piece stove top of enameled cast iron can be used as heat- and cookplate. The highest temperature is above the fireplace; to the side the temperature is less. To warm up fast water or a meal the pot is put above the fireplace. By moving the cook pot to the side above the oven, the danger of burning or boiling over diminishes.

**Caution:** in a hot stove only a small amount of wood is needed – otherwise the temperature becomes too high for cooking. It takes some practice and skill to cook and bake with a woodfire. One has to learn to know the cooker through experience.

**The oven.** Combustion gases flow around the iron cast oven and make it excellent for roasting and baking. Please take care that the temperature does not accidentally get too high. On the enclosed thermometer the oven temperature can be controlled.

**Tip:** put the thermometer in the oven during normal heating operations and observe the temperatures and the heating capacity of the oven.

**Caution:** burn only a small amount of wood in a heated stove and observe the spices in the oven. It is recommended to turn around the roast or baking dishes several times in order to equalize the temperature differences at the door side or the back side. Otherwise the back side gets too dark or 'burned'.

**Tip:** it is better to heat more calmly in the beginning and to add some more wood at the end in order to improve the „browning“. Good baking takes time.

**Grilling/Barbecuing.** Using the glow of the wood fire in the most beautiful way. Make certain that the wood has burned down to glow and then close the combustion air.

The grill grate can be found under the oven in the stow compartment. It can simply be pulled out and with the help of the two levers it can be pushed through the firing door and slid above the glow in the firing chamber.



Grease the grill grate before each use with baking brush and edible oil.

At the beginning, put the grill grate on the highest position in the firing chamber.

Close the firing door and open the pivoting stove top cover.

Space out the food on the grill grate and close the stove top cover. Usually the grill grate has an even heat distribution over its entire surface.

Grill vapors are evacuated along the smoke channels towards the chimney.

For inspection and to turn around the grilling food, open the stove top cover and then close it again.

With weak glow, push the grill grate on the lower stages.

**Cleaning:** clean the enameled surfaces with a cloth and warm water with some cleaning agent. Persistent incrustations can be removed carefully with the enclosed brush. **Caution:** never do this when the stove is hot. Burning risk!



While grilling in closed areas, never leave the stove top cover above the grill open unattended. Fire risk!





## 9 HEATING WITH THE IRON DOG

- ▶ Control whether the ash pan must be emptied. Minimum distance between ash layer and bottom grate should be 3 cm.
- ▶ Bring the push rod in its **“Start-up”** position. The combustion air can flow strongly on the wood in order to reach fast high heating temperatures.
- ▶ Pile wood logs loosely on the bottom grate. Put a fire lighter between the logs and light it on. To start the fire, use small wood; large wood logs degas and ignite badly in a cold fireplace.



**Never use products as gasoline, white spirits or the like to start a fire!**

- ▶ Close the fire door and observe the flame development during the first minutes. If the fire goes out, open the door slowly and put a new fire lighter between the wood logs and light it on. Check the chimney draught.
- ▶ After approximately 10 minutes, bring the push rod in its **“nominal heat output”** position.
- ▶ When the wood has burned down (glow phase) new wood can be added. Bring the push rod in its **“Start-up”** position for about 5 minutes. Then bring it back in its **“nominal heat output”** position.
- ▶ If no more wood has to be added, bring the push rod in its **“closed”** position at the end of the combustion, this is when no flames are to be seen any more.



**ATTENTION:** Never put the air control push rod in the **“closed”** position during the starting up phase or during the nominal heat output phase (lack of air). In case of a sudden oxygen admission (for example when one opens the fire door) gases present in the fire chamber can react with the incoming oxygen (deflagration).

The Iron Dog draws its combustion air from the installation area. Consider the combustion air need in case of simultaneous use of other fire places in the room.

## 10 ASHES

When burning dry wood and with correct steering of the combustion air, only light and fine ashes remain as a residue.

The ash pan must be emptied regularly.

Ashes in the fire chamber should not rise over the bottom grate frame.

The ashes can easily be pushed into the ash pan beneath. Pull the slide valve and push the ashes downward. The ash pan can be taken out with open fire door.



Empty the ash pan only when the ashes are cold and keep them during at least 24 h in a fire resistant container. Fire risk! In case of fire, call the fire-brigade!

## 11 CLEANING AND MAINTENANCE

At least once a year at the beginning of a new heating season, should be checked whether in the smoke pipe and on the baffle plate fly ash has settled. Remove the stove top cover or the entire stove top and remove eventual fly ash with an ash cleaner. In order to have a better access to the smoke channels, the baffle plate can be taken out or pushed toward the firing door.

Examine the chimney after longer rest breaks for obstructions.

Some soot on the window can be removed in warm condition with a dry tissue paper. To clean a more polluted window use a wet paper towel, dab it in the ashes and remove deposits on the glass.

Subsequently wipe with a dry cleansing tissue. Do not use scrubbing tools or aggressive cleaning agents!

The **Iron Dog** should be examined by your specialized enterprise regularly.

The ashes fall from the fire chamber through the slide gate (12) in the ash compartment under it (not shown in the picture). In order to let all the ashes fall down in the ash pan the slide gate valve can be pulled out.

The ashes on top of the oven, at its side and behind can be removed after taking off the left side stove top.

Underneath the oven, the soot door behind the soot door front can be taken off and deposits behind it can be removed with a cleaning brush and an ash cleaner.

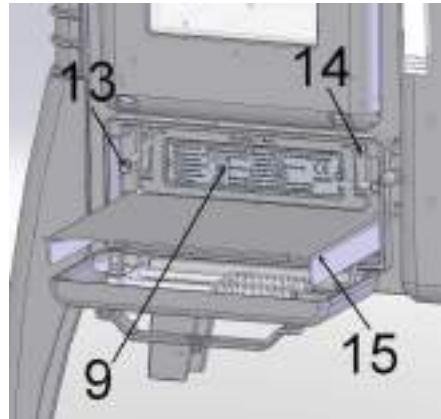
Before opening the soot door (9), please pull out completely the sliding metal sheet (15) under the soot door.



*Illustr. 8: Slide valve*



The soot door just sits and is not and is not assembled with a hinge.



If the soot door should not loosen after opening the two levers (13) on the side, it can be loosened with the help of the two forcing screws (14). Don't forget to screw back the forcing screws so that the soot door can be put on and closed again.

Clean enameled surfaces (oven, grill grate and stove tops) with a cloth and warm water with some cleaning agent. Persistent incrustations can be removed carefully with the enclosed brush.

The enclosed oven coating can be used for optical care. Don't use the oven coating on enameled surfaces.



*Illustr. 9: Stove top covers*

## 12 HINT

In order to guarantee a secure functioning of the **IRON DOG**, only original spare parts of the manufacturer may be used. Changes in the equipment may be accomplished exclusively through by the manufacturer authorized persons. The **IRON DOG** should be examined by your specialized enterprise regularly.

Non conform use of the equipment leads to expiring of the guarantee! The intended use of the equipment is guaranteed when the guidelines of the User Guide are observed.

## 13 ERROR SEARCH

### Error search

Possible cause	Background	Solution
Draught not available or not sufficient.	Outside temperature higher than indoor temperature, or the chimney cover on the roof is heated by the sun	Control chimney draught Warming-up fire in the chimney Wait until outside temperature is below indoor temperature
Fuel unsuited	Wood logs are to big Wood is damp or wet	Use dry and smaller wood
Combustion air not sufficient	Without sufficient combustion air supply bad igniting and flow	Control push rod position (Start-up position)  Control combustion air supply to the installation area Open fire door a little for a short time
	Minimum distance between ash layer in the ash pan and bottom grate too small	Empty the ash pan

### Fire burns weakly, much smoke, window becomes black

Possible cause	Background	Solution
Fuel unsuited	Wood logs are to big  Wood is damp or wet Fire chamber temperature too low	Only dry wood gives high ignition temperature with desired heat emission.
Combustion air not sufficient	Without sufficient combustion air supply bad igniting and flow.	Control the position of the push rod

Possible cause	Background	Solution
Draught not available or not sufficient	Weather or the situation of the chimney influences the necessary exhaust of the gases.	Check the chimney draught in general  In case of important disturbance, change the chimney or install an exhaust gas extractor
	Creosote in or damage to the chimney reduces the necessary draught.	Clean the chimney and the connection pipes and examine them for tightness and damage.
	Check whether other stoves or fireplaces are connected to the chimney.	The chimney draught can be worsened by other connected fireplaces.

## 14 ATTENTION

We recommend that the **IRON DOG** should be installed and connected by a specialized enterprise, since security and proper functioning of the stove depend on an installation according to the rules. Actual standards and regulations must be observed.

IRON DOG - Partner:

Purchase date:

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