Metro 130 - Metro 130 Tunnel



Instructions for installation *(GB / IE)*

Please retain this document carefully

English

UK

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Foreword

As manufacturer of gas heating appliances, DRU develops and produces products to meet the highest possible quality, performance and safety requirements.
As a result of which the user is able to enjoy using your appliance for years to come.
This appliance is CE marked; it complies with the essential requirements of the European Appliance Directive.
The appliance is supplied with two manuals: the installation manual and the user manual.
You the installer should be professionally skilled in the field of decorative gas heating.
The installation manual gives you all the information you will need to be able to install the appliance in such a way that it works correctly and safely.
This manual deals with the installation of the appliance and the appropriate regulations. It also includes the technical data for the appliance and information on maintenance and troubleshooting.
Please read and use this installation manual carefully.
In the manuals the following symbols are used to denote important information:

➠ **What to do**
!Tip **Suggestions and recommendations**
!N.B. **These instructions are important to avoid possible problems during installation and/or use.**
N.B. **These instructions are important to avoid fire, personal injury or other serious damage.**
Once you have completed the installation you are to hand both the user manual and this installation manual to the user.

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1. Introduction

The appliance is available in two models, the Metro 130 and the Metro 130 Tunnel.
The Metro 130 is a 'standard' gas fire and should always be installed against a wall. The Metro 199 Tunnel is just that, a 'tunnel fire' with both a front and back window.
The Metro 130 and the Metro 130 Tunnel are closed decorative fires. A closed tunnel draws its combustion air from outside and not from the living area. This is done by way of a combined system that discharges the flue gases and supplies the combustion air. In this concentric system the outer pipe serves as air supply and the inner pipe as the flue. This system can be installed through either the outer wall or the roof.
The appliances are built into a chimney breast. The DRU product range includes several chimney breasts.
The chimney breast must be well ventilated to ensure a good heat distribution. DRU can supply various ventilation elements.
The appliances are supplied with a wireless, battery-operated remote control.

2. EC Declaration of Conformity

We hereby declare that the design and construction of the decorative gas heating appliance marketed by DRU conforms with the essential requirements of the Gas Appliance Directive.
This declaration will be rendered invalid should the appliance be altered in any way without the written consent of DRU.

Product:	***Decorative gas heating appliance***
Type:	***Metro 130***
	Metro 130 Tunnel
Applicable EC Directives:	***90/396/EEC***
Applicable harmonised standards:	***NEN-EN-613, NEN-EN-613/A1***

In-house measures guarantee that serially produced appliances always conform with the essential requirements of the current EC Directives and the applicable standards.

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3. SAFETY

3.1 General

N.B.
- **Please read this chapter on safety carefully before commencing installation or maintenance;**
- **Always observe universal regulations and the precautionary measures / safety instructions in this manual.**

3.2 Regulations

The appliance should be installed in compliance with current national, local and constructional (installation) regulations.

3.3 Precautionary measures / safety instructions regarding installation

Observe the following precautions / safety regulations precisely:

- **You may only install and/or service this appliance if your are a qualified installer skilled in installing decorative gas fires;**
- **do not adjust the appliance in any way;**
- **use inflammable and heat-resistant materials for building a chimney breast, including the back wall, the inside and the top of the chimney breast;**
- **the minimum internal dimensions required for the chimney breast must be taken into account;**
- **the chimney breast should be ventilated by vents with total free vent area of 200 cm^2;**
- **only use the flue /combustion air supply systems supplied by DRU;**
- **use the wall brackets supplied to mount the appliance;**
- **do not install the appliance flat against the back wall;**
- **leave the space between the feet free;**
- **do not cover and/or pack the appliance with an insulating blanket or any other material;**
- **make sure combustible objects and / or materials have a minimum distance from the appliance of 500 mm;**
- **only use the log/pebble set supplied;**
- **arrange the logs/pebbles exactly as described;**
- **leave a space around the pilot burner;**
- **avoid any dirt in the gas pipes and connections;**

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- **test the gastightness of all connections before use;**
- **use heat-resistant electrical connection materials;**
- **install the electrical connections away from the appliance;**
- **replace torn or broken panes;**
- **avoid blocking the explosion hatch/hatches;**
- **ensure the explosion hatch/hatches on top of the heater are right on their seats, before you close the chimney breast;**
- **do not ignite the appliance until installation has been completed.**

4. Instructions

To ensure the appliance works correctly and safely, always take the following points into consideration during installation:

- **place the control box supplied as low as possible;**
- **ensure the ignition wire does not lie across the receiver;**
- **ensure the ignition wire does not touch or cross the aerial;**
- **to avoid weakening the spark ensure the ignition wire does not touch anything metal;**
- **if the appliance is to be built in flush with the wall, finish the edges neatly;**
- **do not plaster over the flanges;**
- **avoid damaging the glass when removing/fitting the window pane;**
- **to prevent dirt burning into the glass, make sure it is clean before use.**

5. Unpacking

Please take the following points into consideration when unpacking the appliance:

- **Check the appliance for transit damage;**
- **Contact DRU Service if necessary.**

Once the packaging material has been removed, you should have the following components:

- **Socket spanner:** You will find this in the space between the assembly frame and the combustion chamber;
- **Trimmings:** These are in the same space.

Once you have removed the glass pane you can remove the box of components from the combustion chamber.

!N.B. **Be careful not to damage the glass when removing/fitting the window pane.**

- **Remove the window as described in paragraph 6.10.1;**
- **Take the box of components out of the combustion chamber.**

Annex 1 / Table 4 specifies the components you should have once everything has been unpacked.

- **Contact DRU Service if after unpacking the appliance you do not have all the components;**
- **Dispose of the packaging in an appropriate manner.**

6. Installation

Please read the manual carefully to ensure that once installed the appliance will work correctly and safely.

!N.B. **Install the appliance in the order described in this chapter.**

6.1 Regulations

- Observe the current applicable (installation) regulations;
- Observe the regulations/instructions laid down in this manual.

6.2 Gas type

The type plate specifies the type of gas, gas pressure, and the country this appliance is intended for. The type plate is on a chain and that is where it should stay.

N.B. **Check that the appliance is suitable for the local gas type and pressure.**

6.3 Gas connection

The gas connection should have a gas tap located near the appliance.

N.B. **Prevent any dirt getting into the gas pipes or connections.**

The following requirements apply for the gas connection:

- **the size of the gas pipe should be such that no pressure loss can occur;**
- **the gas tap must be CE marked;**
- **the gas tap should be accessible at all times;**
- **Do not twist the gas tap when connecting the gas pipe.**

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6.4 Positioning the appliance

Position the fire as follows:

N.B. - **Make sure combustible objects and / or materials have a minimum distance from the appliance of 500 mm;**
- **Do not adjust the appliance in any way.**

➠ **Determine the position of the appliance;**

➠ **Create a gas connection in the appropriate position; see section 0 for details;**

➠ **Create a duct for the flue / combustion air supply system, with the diameter shown below; see section 6.5 for details;**

➠ **Ø160 mm for a wall duct of incombustible material;**

➠ **Ø 250 mm for a wall duct of combustible material;**

➠ **Ø160 mm for a roof duct of incombustible material;**

➠ **Ø 250 mm for a roof duct of combustible material.**

!N.B. - **Allow for the depth of the appliance (see** *Fig. 2*)
(Metro 130: minimum of 410 mm; Metro 130 Tunnel: minimum of 450 mm);
- **Allow for the build-in height; this will depend on the height of the adjustable feet (see** *Fig. 1*).

➠ **Move the appliance into its intended position.**

The gas control block is mounted onto the burner plate at the bottom of the appliance. This should be removed and placed in the control box later. See section 7.3 for information on how to fit the gas control block.

Commence as follows:

➠ **Disconnect the hoses from the gas control block (flexible gas hose, aluminium pilot pipe and thermocouple);**

➠ **Unscrew the self-tapping screw in the burner plate and remove the gas control block.**

N.B. - **Avoid dirt in the hoses;**
- **Avoid kinks in the hoses.**

➠ **Unroll the hoses towards the control box;**

➠ **Unroll the ignition wire towards the control box.**

!N.B. **The type plate should be connected to the chain.**

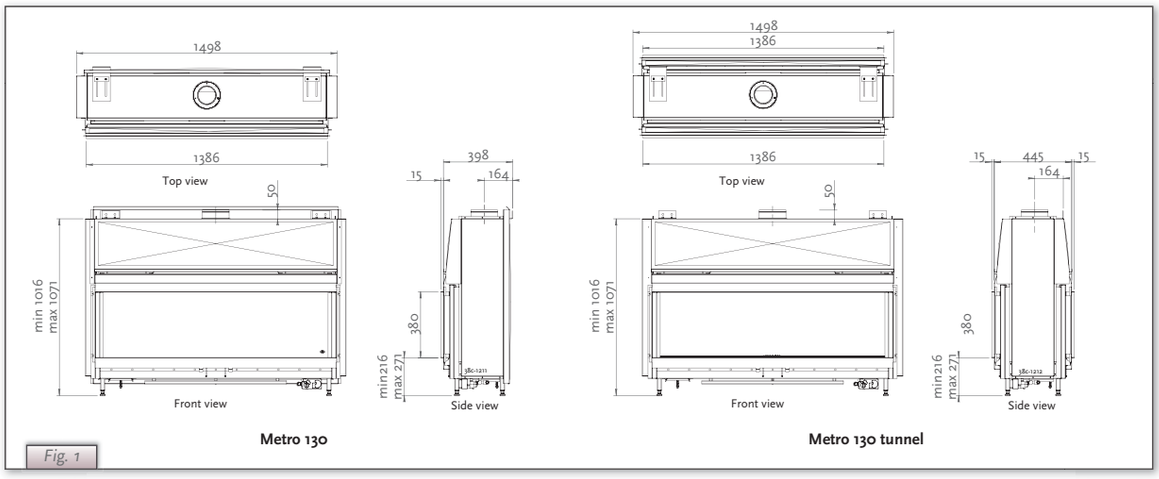


Fig. 1

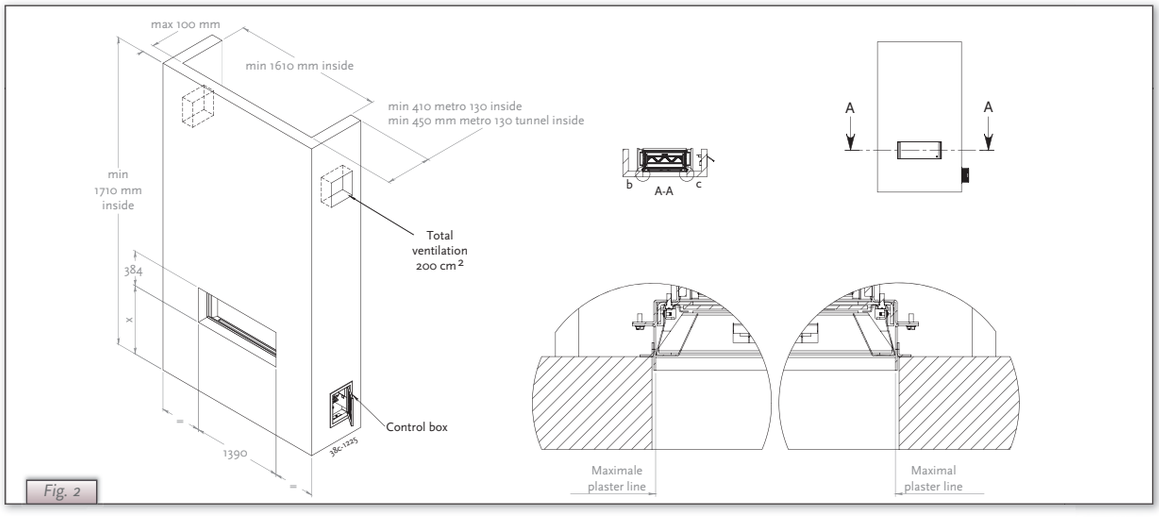


Fig. 2

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- **Lay the chain with the type plate facing the control box;**
- **Adjust the height of the appliance;**
- **Using a spirit level to ensure it is absolutely level.**

N.B.
- **Do not install the appliance flat against the back wall;**
- **Leave the space between the feet free;**
- **Do not cover and/or pack the appliance with an insulating blanket or any other material.**

- **Secure the appliance against the wall using the wall brackets and rawplugs supplied (see** *Fig. 3*).

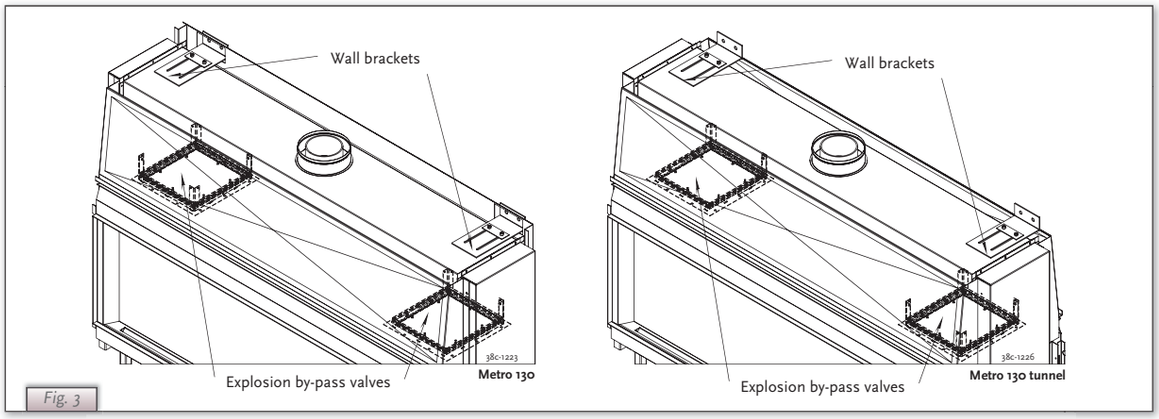


Fig. 3

6.5. Flue gas discharge / combustion air supply system

6.5.1 General

The appliance is of the C11/C31 type.
The appliance is connected to a combined flue gas discharge/combustion air supply system, hereafter referred to as the concentric system.
The passage to the outside can be made with a wall duct (see section 6.5.2) or with a roof duct (see section 6.5.3).
If necessary, you can also use an existing discharge channel (see section 6.5.4).

N.B.
- **Only use the concentric system supplied by DRU (Ø100 / Ø150 mm). This system was tested in combination with the appliance; DRU cannot guarantee a proper and safe operation of other systems and cannot accept liability for these systems;**
- **For connecting to an existing chimney flue you should only use the installation set supplied by DRU.**

The concentric system is constructed from (the discharge stump of) the appliance.
If structural circumstances require that the concentric system is placed first, the appliance can later be connected with a telescopic pipe piece.

6.5.2 Application with wall duct

6.5.2.1 Construction of concentric system with wall duct

The concentric system with wall duct has to comply with the following conditions:

- **First, a concentric pipe of at least 0.8 meter should be connected vertically to the appliance;**
- **The total vertical pipe length can have a maximum of 4 meters;**
- **After the vertical part a bend of 90° is connected;**
- **When using a 0.8 meter vertical pipe length, the total horizontal pipe length may have a maximum of 2 meters (wall duct not included; see** *Fig. 4a*);
- **When using a minimum 1 up to maximum 4 meter vertical pipe length, the total horizontal pipe length may have a maximum of 3 meters (wall duct not included; see** *Fig. 4b*).

Depending on the construction of the concentric system, further adjustments should be made to the appliance.

The next 3 configurations are allowed for the construction:
a) a minimum 0.8 meter up to maximum 4 meter vertical pipe length in combination with a 90° bend and a wall duct (i.e. no horizontal part; see *Fig. 4c*).
When using this configuration, you must remove the air inlet guides (see section 6.8);
b) a 0.8 meter vertical pipe length in combination with a 90° bend and a maximum 2 meter horizontal pipe length and a wall duct (see *Fig. 4a*).
When using this configuration, you must remove the air inlet guides and change the primary aeration (see section 6.8);
c) a minimum 1 meter and maximum 4 meter vertical pipe length in combination with a 90° bend and a maximum 3 meter horizontal pipe length and a wall duct (see *Fig. 4b*).

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When using this application, you must remove the air inlet guides and change the primary aeration (see section 6.8).

6.5.2.2 Installing the concentric system

To install the concentric system commence as follows:

- **Construct the system from the (connection stub of the) appliance up.**

N.B.

- **Maintain a distance of at least 50 mm between the outside of the concentric system and the walls and /or ceiling. If the system will be built in (for instance) a cove, it should be fully made of incombustible material;**
- **Use heat-resistant insulating material for ducts made of combustible material;**
- **The rosette (mounting inner plate) of the wall duct is too small to seal the Ø 250 mm opening when passing through combustible material. That is why you should first apply a sufficiently large heat-resistant intermediate plate to the wall. Then, the rosette is mounted on the intermediate plate.**

- **Connect the concentric pipe sections and the bend(s);**
- **Fit a clamping strip and silicone sealing ring to every connection;**
- **Secure the clamping strip with a self-tapping screw in places which will be inaccessible after installation;**
- **Use enough brackets to ensure that the weight of the pipes does not rest on the appliance;**
- **Determine the remaining length of the wall duct;**
- **Cut the wall duct to size;**

!N.B.

- **Make sure that the right insertion length is maintained;**
- **Place the wall duct with the groove/folded seam at the top;**
- **Make sure the horizontal concentric pipe pieces are sloping towards the wall duct, in order to prevent rain water from entering.**

- **Mount the rosette (mounting inner plate); if necessary, on a heat resistant intermediate plate when passing through combustible material;**
- **Attach the wall duct from the outside with four screws in their respective holes.**

!N.B. **Some heat-resistant isolation materials contain volatile components that will spread an unpleasant smell for a prolonged time; these are not suitable.**

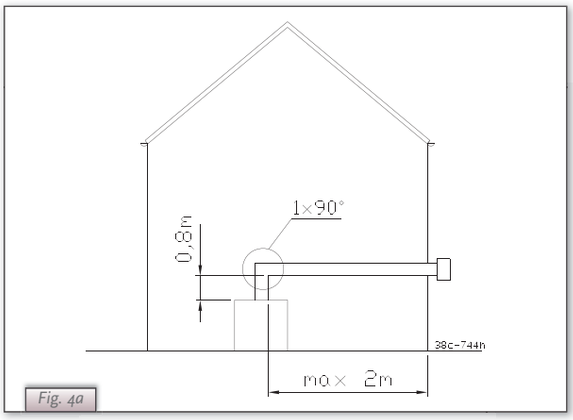


Fig. 4a

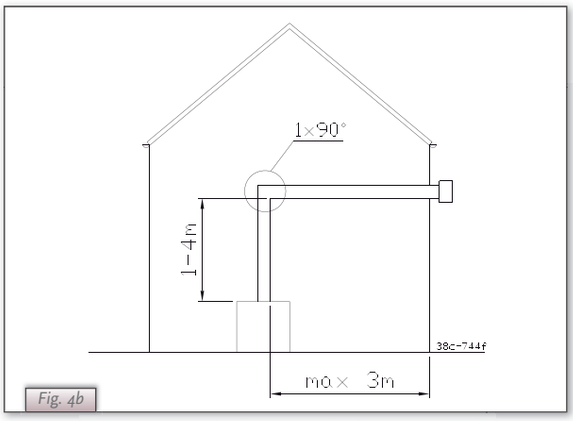


Fig. 4b

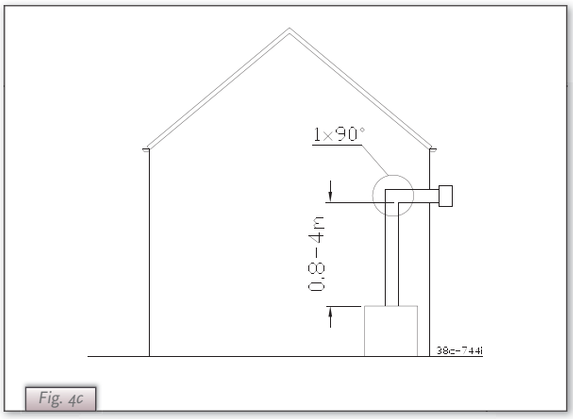


Fig. 4c

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6.5.3 Application with roof duct

6.5.3.1 Construction of concentric system with roof duct

The concentric system with roof duct has to comply with the following conditions

- **The construction of the chosen system has to be allowed. (See the procedure described below);**
- **First, a concentric pipe of at least 1 meter should be connected vertically to the appliance.**

Depending on the construction of the concentric system, the appliance is set by placing the baffle and/or removing the air inlet guides and/or changing the primary aeration.
In the following procedure you can see how the allowability of a concentric system can be determined and which settings are needed.

- **Determine the following data:**

1. The number of bends required (no distinction is made between 45° and 90° bends);
2. The total number of meters of horizontal pipe length;
3. The total number of meters of vertical and/or sloping pipe length (wall duct not included).

With these data and Table 1 you will be able to determine whether the concentric system is allowed.
In Table 2 you can see which setting the appliance needs.
Follow the procedure described below:

- **In the first 2 columns of Table 1, look for the number of bends required and the total horizontal pipe length;**
- **In the 3rd column of Table 1, look for the total vertical and/or sloping pipe length.**

If you end up in a box with the letter A, B, or C, the concentric system chosen by you is allowed.
If situation A applies, you must also change the primary aeration of the burner.

- **Use Table 2 to determine which conditions apply for the baffle and/or the air inlet guides (for setting see section 6.8);**
- **Change the primary aeration of the burner, as described in section 6.8.3, if situation A in Table 2 applies.**

Examples

To clarify, we will give 2 examples to determine the allowability of a concentric system and the conditions for setting the appliance.
In Table 1 the route to be followed is indicated by arrows. The result is indicated by means of a circle.

Example 1

1) 2 bends
2) 3 meters horizontal
3) 8 meters vertical/sloping
→ Construction of this concentric system is allowed.
→ Situation B applies for setting the appliance

Example 2

1) 3 bends
2) 4 meters horizontal
3) 9 meters vertical/sloping
→ Construction of this concentric system is not allowed.

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Table 1: Conditions for adjusting the equipment with roof ducts													
G20 / G25	total number of meters of horizontal pipe lengths	total number of meters of vertical and/or sloping pipe lengths											
		1	2	3	4	5	6	7	↓8↓	↓9↓	10	11	12
no bends	0	B	B	B	B	B	C	C	↓C↓	↓C↓	C	C	C
2 bends	0	A	A	B	B	B	B	B	↓C↓	↓C↓	C	C	C
	1		A	A	B	B	B	B	↓B↓	↓C↓	C	C	
	2			A	A	B	B	B	↓B↓	↓B↓	C		
	→3→	→	→	→	→A→	→A→	→B→	→B→	B	↓B↓			
	4					A	A	B	B	↓			
	5									↓			
3 bends	0	A	A	A	B	B	B	B	B	↓C↓	C	C	C
	1		A	A	A	B	B	B	B	↓B↓	C	C	
	2			A	A	A	B	B	B	↓B↓	C		
	3				A	A	A	B	B	↓B↓			
	→4→	→	→	→	→	→A→	→A→	→A→	→B→	-			
	5												
4 bends	0	A	A	A	A	B	B	B	B	B	C	C	C
	1		A	A	A	A	B	B	B	B	B	C	
	2			A	A	A	A	B	B	B	B		
	3				A	A	A	A	B	B			
	4					A	A	A	A				
	5												
5 bends	-												

= The situation is not permissible.

Table 2:			
Situation	**Air inlet guide**	**Baffle**	**Daming distance**
A	NO	NO	OPEN
B	YES	YES	56 mm
C	YES	YES	47 mm

6.5.3.2 Installing the concentric system

The roof duct can be used for either a sloping roof or a flat roof.
The roof duct can be supplied with an adhesive plate for a flat roof or with a universally adjustable tile for a sloping roof.
Install the concentric system as follows:

➠ **Construct the system from the (connection stub of the) appliance up**

N.B. **- Allow a minimum distance of 50 mm between the outside of the concentric system and the walls and/or ceiling;**
- Use heat-resistant insulating material for ducts made of combustible material.

!N.B. **Some heat-resistant isolation materials contain volatile components that will spread an unpleasant smell for a prolonged time; these are not suitable.**

➠ **Connect the concentric pipe sections and any necessary bends;**

➠ **Fit a clamping strip and silicone sealing ring to every connection;**

➠ **Secure the clamping strip with a self-tapping screw in places which will be inaccessible after installation;**

➠ **Use enough brackets to ensure that the weight of the pipes does not rest on the appliance;**

➠ **Determine the remaining length of the roof duct;**

➠ **Cut the roof duct to size.**

!N.B. **Be sure to maintain the correct insertion length.**

➠ **Connect the roof duct to the concentric pipes.**

!N.B. **- Make sure the universal roof tile fits well against the surrounding tiles;**
- Make sure the adhesive flashing sticks to the flat roof properly.

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6.5.4 Connection to an existing flue

The appliance can also be connected to an existing flue.
A flexible SS pipe is placed in the chimney for discharging flue gases. The surrounding space is used to supply the combustion air.
The following requirements apply for connection to an existing flue:
- allowed only if the special DRU chimney connection set is used;
- Installation instructions supplied;
- minimum dimensions 150 x 150 mm;
- maximum vertical length 12 metres;
- maximum horizontal length 3 metres;
- the existing flue must be clean;
- the existing flue must not have any cracks or leaks.

6.6 Building the chimney breast

The appliance is designed to be installed snugly into a newly built chimney breast.
There must be sufficient space around the appliance to ensure a good heat distribution.
The chimney breast should be ventilated by vents.

N.B.
- **Use incombustible and heat-resistant material to construct the chimney breast, including rear wall of the chimney breast;**
- **The total free vent area of the vents, installed as high as possible, should be at least 200 cm².**

!N.B. **When building the chimney breast, the following points should be taken into account (see *Fig. 2*):**
- **position of the control box: this should be placed within 650 mm to the left or right of the appliance, as low as possible;**
- **size of the control box; see section 8.2 Installing the control box;**
- **position of the vents;**
- **the size of the glass window so that it can be fitted/removed once the chimney breast has been built;**
- **protecting the gas control block and hoses from cement and plaster.**

!Tip **The vents should preferably be created in both sides of the chimney breast: you could use DRU ventilation elements.**

- **Check that the concentric system has been installed correctly;**
- **Check that the clamping strips have been secured with self-tapping screws in places which will be inaccessible later;**
- **Allow sufficient clearance round the appliance in the chimney breast to enable the heat to disperse:**
  - **minimum internal height: 1710 mm;**
  - **minimum internal width: 1610 mm.**
- **Do not plaster over the flanges because:**
  - **the heat from the appliance could cause cracks;**
  - **it will then be impossible to remove/fit the glass window.**
- **If the chimney breast is made of stone-like materials or has been finished in stucco, it should be left to dry for at least 6 weeks prior to taking it into operation, in order to prevent cracks.**

6.7 Installing the control box

The control box is to be installed as low as possible.
The control box contains various components such as the type plate, the gas control block, and the receiver for the remote control. (See *Fig. 5* for details.)

- **Make a 285 x 194 mm (h x w) opening in the chimney breast;**
- **Fit the inner frame (1); to do this unscrew the bolts (5).**

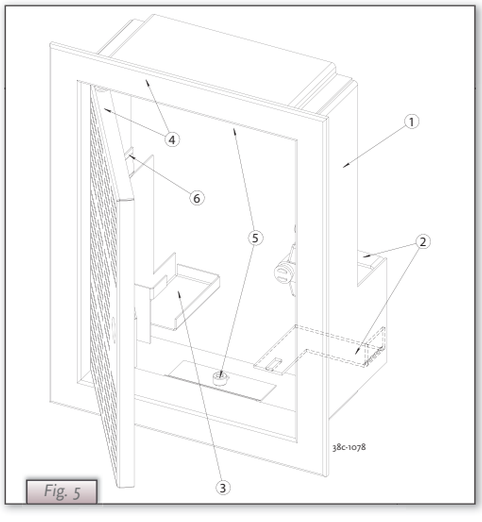


Fig. 5

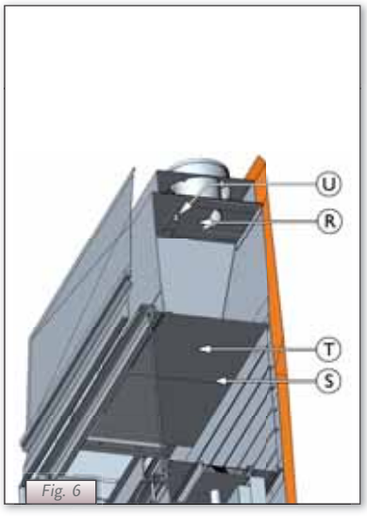


Fig. 6

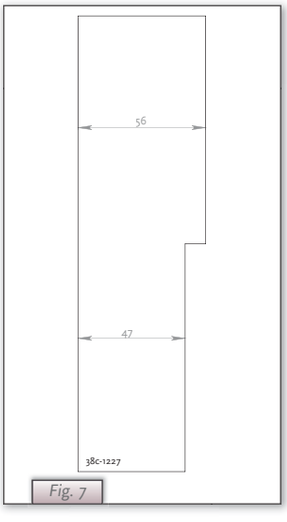


Fig. 7

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!Tip **- If the chimney breast is brick, the inner frame can be cemented in during building;**
- For a chimney breast of any other material, glue/cement the inner frame in place or fit it with four countersunk screws.

➠ **Mount the gas control block on the brackets (2) on the inner frame;**

➠ **Reconnect the hoses to the gas control block.**

N.B. **- Avoid kinks in the hoses;**
- Tighten the flexible hose and aluminium pipe making sure they are gastight;
- Screw the thermocouple on by hand first and then;
- then tighten it a quarter turn using a suitable spanner.

➠ **Connect the thermocouple wiring to the gas control block if necessary; see** *Photo 1*;

➠ **Blow through the gas pipe if necessary;**

➠ **Connect the gas pipe to the gas tap;**

➠ **Bleed off the air in the gas pipe;**

➠ **Fit the receiver (3); see section 10.1 for connections;**

➠ **Fit the type plate (6);**

➠ **Fit the outer frame with door (4) to the inner frame using the two self-tapping screws (5).**

!Tip **You can position the outer frame in such a way that the door opens to either the left or right.**

6.8 Adjusting the appliance

The appliance has to be set in such a way that it works correctly in combination with the discharge system.
For that reason it is possible to place a baffle and/or remove the air inlet guides and/or change the primary aeration of the burner.
The conditions for use with a wall duct are given in section 6.5.2.1 and for use with a roof duct in section 6.5.3.1.

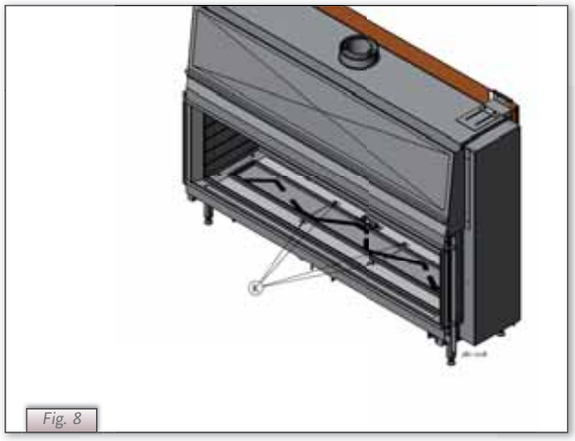
6.8.1 Damper (R)

The damper (R) is packed separately.
This is fitted as follows (see *Fig. 6*):

➠ **Unscrew the 4 self-tapping screws in the centre plate;**

➠ **Remove this plate;**

➠ **Fit the damper.**


Fig. 8

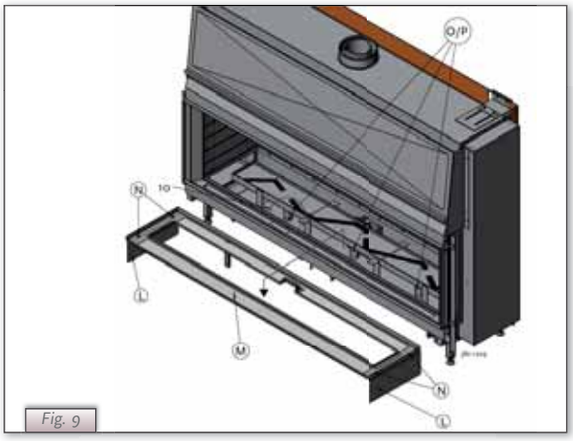


Fig. 9


Photo 1


Photo 2


Photo 3

English

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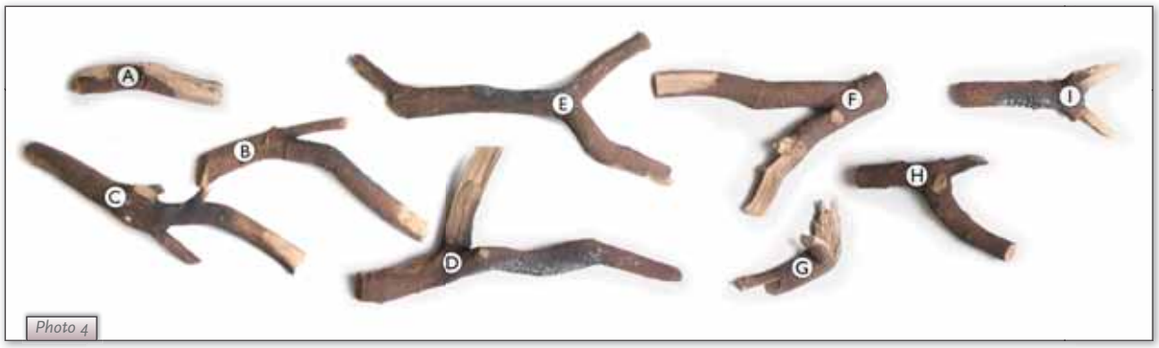


Photo 4


Photo 5



Photo 6a

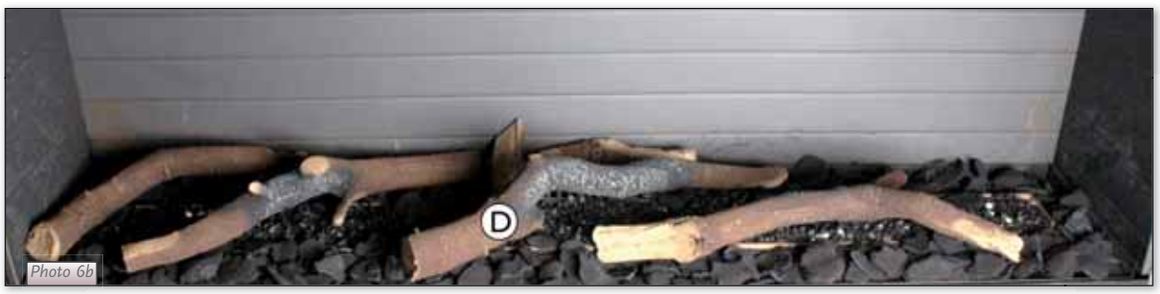


Photo 6b



Photo 7

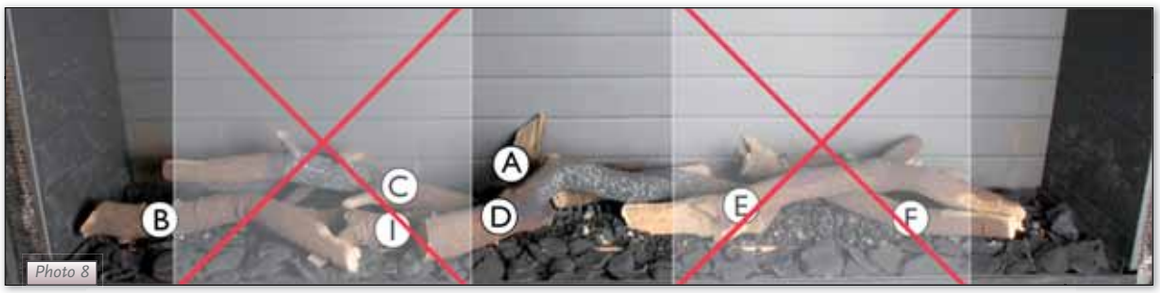


Photo 8

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Photo 9


Photo 10

- **Adjust the distance of the damper using the template provided (see *Fig. 7*):**
  - **use the template to adjust to 47 mm;**
  - **use the template to adjust to 56 mm.**
- **Secure the damper in place with the socket-head screw;**
- **Replace the centre plate.**

6.8.2 Air inlet guides (L)

The air inlet guides (L) are located at the bottom (side) of the tray around the burner.
Remove them as follows; see *Fig. 8 and 9*:

- **Unscrew the 4 parkers (K) from the tray surrounding the burner (M).**
- **Remove the tray surrounding the burner;**
- **Unscrew and remove the self-tapping screws;**
- **Remove the air inlet guides;**
- **Replace the tray round the burner.**
- **Screw the 4 parkers (K) in the tray surrounding the burner (M).**

6.8.3 Primary aeration of burner

The procedure for changing the primary aeration of the burner depends on whether you use a wood set or a pebble stone set and the type of gas (G25 or G20).
Once the tray surrounding the burner is removed from the appliance, you can see the bottom of the burner (see *Fig. 9*)
At the bottom you can see 3 venturi tubes. A throttle ring is attached to the venturi tubes by means of a socket screw.
By unscrewing the socket screw you can change the position of the throttle ring.
The following section describes the procedures for the wood set and pebblestone set in combination with the type of gas.

6.8.3.1 Using the wood set

- **Unscrew the 4 parkers (K) from the tray surrounding the burner (M);**
- **Remove the tray surrounding the burner (M) from the appliance;**
- **Unscrew the socket screw (O) of a throttle ring (P), (see *Fig. 9 and 10*);**
- **When using G25 gas, rotate the throttle ring (P) in such a way that the 6 mm diameter is right opposite the 10 mm holes in the venturi tube, (see *Fig.10a*);**
- **Screw the socket screw (O) in the threaded hole above the hole with a 6 mm diameter;**
- **When using G20 gas, rotate the throttle ring (P) in such a way that the 10 mm diameter is right opposite the 10 mm holes in the venturi tube, (see *Fig.10b*);**
- **Screw the socket screw (O) in the threaded hole above the hole with a 10 mm diameter;**
- **Tighten the socket screw (O) again;**
- **Repeat this procedure for the other two venturi tubes;**

!N.B. **Make sure the throttle ring (P) (still) rests on the burner plate;**

- **Place the tray around the burner (M) in the appliance;**
- **Screw the 4 parkers (K) in the tray surrounding the burner (M);**

6.8.3.2 Using the pebblestone set

In the box with the pebblestone set you found two templates:
One with a thickness of 1.5 mm (Q) to be used with G25 gas, and one with a thickness of 3 mm (R) to be used with G20 gas.

- **Unscrew the 4 parkers (K) from the tray surrounding the burner (M);**
- **Remove the tray surrounding the burner (M) from the appliance;**

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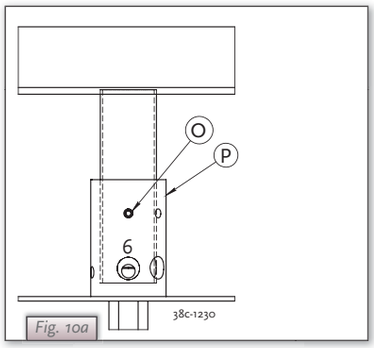


Fig. 10a

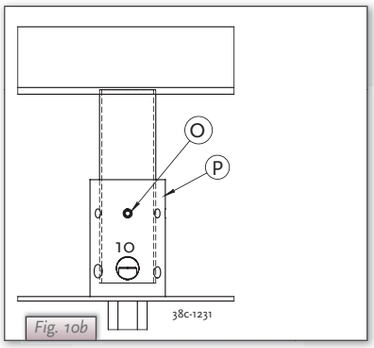


Fig. 10b

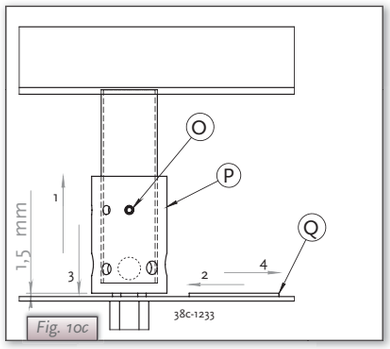


Fig. 10c

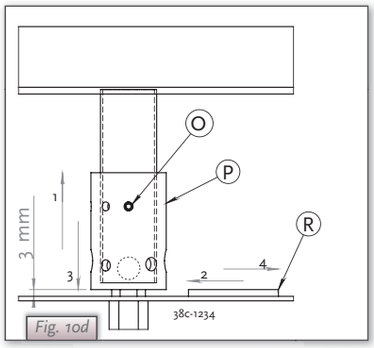


Fig. 10d

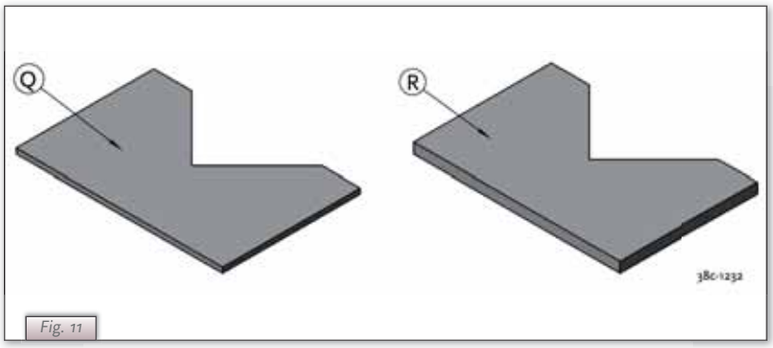


Fig. 11

- **Unscrew the socket screw (O) of a throttle ring (P), (see** *Fig. 9 and 10*);
- **Slide the throttle ring (P) upwards (see** *Fig.10c an 10d*);
- **Place the 1.5 mm template under the throttle ring for G25 gas, (see** *Fig.10c*);
- **Place the 3 mm template under the throttle ring for G20 gas, (see** *Fig.10d*);
- **Slide the throttle ring (P) downwards onto the template;**
- **Turn the throttle ring (P) in such a way, that the holes in the venturi tube are closed;**
- **Tighten the socket screw (O) again;**
- **Remove the template;**
- **Repeat this procedure for the other two venturi tubes;**
- **Place the tray around the burner (M) in the appliance;**
- **Screw the 4 parkers (K) in the tray surrounding the burner (M).**

6.9 Arranging the logs / pebbles

The appliance is supplied with a set of logs or pebbles.

N.B. **Observe the instructions below precisely to avoid unsafe situations.**
- **only use the log/pebble set supplied;**
- **arrange the logs/pebbles exactly as described;**
- **do not cover the pilot burner or the surrounding area (see** *Photos 9 and 10*);
- **do not cover the slot between the burner tray and the tray surrounding the burner.**

6.9.1 Logs

The log set consists of vermiculite (see *Photo 2*), chippings (see *Photo 3*) and a few branches.

- **Fill the burner tray with the vermiculite, spreading it out evenly.**

!N.B.
- **You can alter the flame effect by moving the vermiculite but;**
- **the burner cap must remain covered by vermiculite to help preserve the useful life of the burner.**

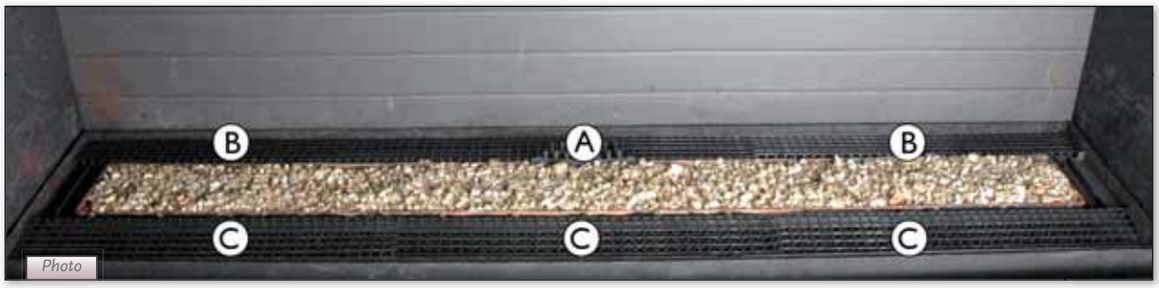
- **Fill the tray surrounding the burner with chippings; spreading them out evenly;**
- **Identify the braches A/I using** *Photo 4* **for reference.**

!Tip **The burn marks on the branches will help you identify them.**

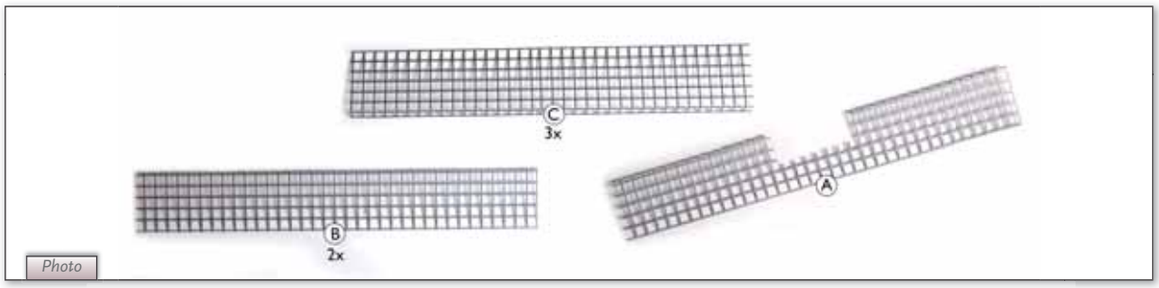
- **Arrange branches A-E around the (main) burner (see** *Photos 6a and 6b*):
  - **First lay branch A symmetrically with respect to the pilot burner;**
  - **Continue with branches B, C, D and E.**
- **Now lay branches F and I across the burner (see** *Photo 7*).

N.B. **The branches must not cover the burner cap entirely (see** *Photos 5 and 8*) **because:**
- **the main burner will then not ignite properly, which could lead to unsafe situations;**
- **soot will accumulate faster;**
- **the flame effect will be distorted.**

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Photo



Photo


Photo 12


Photo 13

6.9.2 Pebblestone set

The pebblestone set consists of naturally coloured vermiculite; (see *Photo 2*) and white carrara stones.

➠ **Fill the burner tray with vermiculite; equally spread the vermiculite, see *Photo 11*.**

!N.B. - **You can influence the flame image by moving the vermiculite, yet;**
- **the burner deck has to remain covered with vermiculite in order to prevent that the life expectancy of the burner is reduced.**

➠ **Place the racks in the tray surrounding the burner, as indicated in *Photo 11*;**

➠ **Fill the burner tray and the (racks in the) tray surrounding the burner with carrara stones;**

➠ **Spread the carrara stones equally over one layer, see *Photo 12 and 13*.**

⚠ ***N.B.*** **If pebbles on top of each other or otherwise wrongly arranged this could result in:**
- **the main burner not igniting properly, which could lead to unsafe situations;**
- **the flame effect will be distorted.**

6.10 Glass window

Once the logs/pebbles have been arranged the glass window can be fitted as described below.

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Photo 14

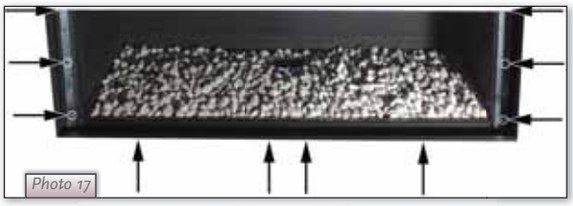

Photo 17


Photo 15


Photo 18

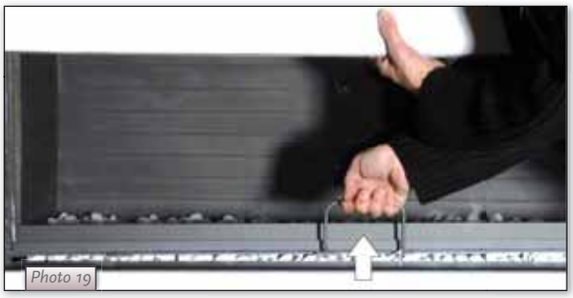

Photo 19


Photo 16



Photo 20

6.10.1 Removing the glass window

To remove the glass window (see *Photos 14 - 20*):

- **Remove the vertical edges by first pulling them out at the top, tilting them parallel to the window and then loosening them at the bottom;**
- **Remove the horizontal edges by holding it in the slot with both hands and lifting it out;**
- **Unscrew the 10 self-tapping screws with the socket spanner;**
- **Grasp the top and bottom handles and lift the pane of glass straight up;**
- **Tilt the pane of glass forwards with the bottom handle through the opening in the assembly frame;**
- **at the same time pulling it as far forwards as possible at the top;**
- **Lower the pane of glass at an angle so that you can take it out of the assembly frame altogether.**

6.10.2 Fitting the glass

To fit the glass, do the same as above in reverse order.

!N.B. **To insert the self-tapping screws:**

- first tighten the bottom 4 self-tapping screws by hand;
- then tighten the other 6 self-tapping screws by hand;
- then tighten all the screws;
- do not screw the parkers on too tight, to prevent breaking and/or slipping: tight=tight.

!N.B. **Avoid/remove fingerprints on the window as they will burn into the glass.**

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Photo 21

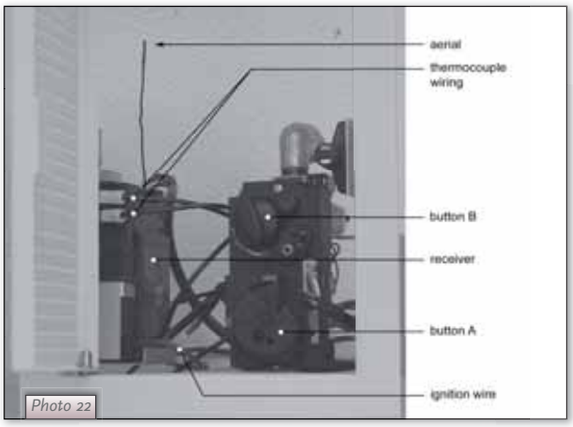


Photo 22

7. Wireless remote control

See Chapter 4 of the User Manual, 'Remote Control', for details of how to operate the system.

The remote system consists of a remote control system and a receiver.
The procedure for connecting the receiver has been described below; the working of the remote control system has been explained in detail in Chapter 4, 4.2 of the User Manual 4, 4.2

7.1 Receiver

The receiver must be connected to the appliance before the batteries are inserted.
Do this as follows (see *Photo. 21*):

- **Slide the brown plug off the lead at the back on the PCB of the receiver;**
- **Connect the white plug to the gas control block.**

!Tip **the plugs are different sizes and correspond with the connectors.**

- **Connect the thermocouple wires to the receiver (see *Photo 21*, arrows B).**

!Tip
- **the size of the eye corresponds with the size of the screw;**
- **the colour of the eye and screw also correspond.**

- **Connect the ignition wire to the receiver (see *Photo 21*, arrow A);**
- **Connect the power supply:**

a) For batteries see section 7.1.1 below;
b) For an adapter:
- **connect the adapter to the receiver (see *Photo 21*, arrow C);**
- **plug the adapter into the wall socket.**

- **Place the receiver in the control box:**
  - **Position the receiver as shown in *Photo 22*.**
- **Bend the aerial out of the clips, see *Photo 21*, arrow D;**
- **Put the aerial straight up.**

!N.B.
- **Do not put the aerial too close to the ignition wire and/or metal parts (see *Photo 22* for the correct position);**
- **Do not lay the ignition wire across and/or beside metal parts: this will weaken the spark;**
- **Do not lay the ignition wire across the receiver: this could damage the receiver;**
- **Avoid dust accumulating on or in the receiver: cover it during servicing or maintenance.**

7.1.1 Fitting/replacing the batteries

To fit the batteries:

- **Open the flap on the control box;**
- **Take the receiver;**
- **Slide the lid off;**
- **Fit or remove the 4 penlight (AA size) batteries.**

!N.B.
- **Avoid short circuits between the batteries and metal objects/components;**
- **Note the "+" and "-" positions of the batteries in the holder;**
- **Use alkaline batteries.**

- **Slide the lid back on;**
- **Replace the receiver.**

!N.B. **Do not throw batteries in the dustbin, they are considered "domestic chemical waste" and should be disposed of accordingly.**

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Photo 26


Photo 27

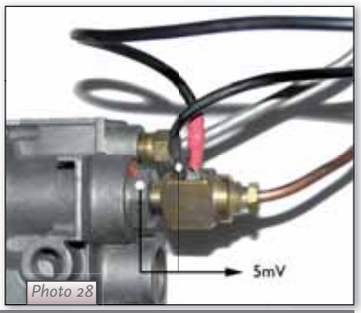


Photo 28

8. Final inspection

To ensure the appliance is working correctly and safely, check the following before use:

8.1 Gastightness

⚠ ***N.B.*** **All connections must be gastight.**

!N.B. **The maximum pressure to which the gas control block may be exposed is 50 mbar.**

➠ **Test the connections for gastightness.**

8.2 Gas pressure/pre-pressure

The burner pressure is factory adjusted; see type plate. It is not necessary to test the burner pressure.
The pre-pressure in domestic installations should be tested however, as this can vary.

➠ **Check the pre-pressure; see picture 27 for the measuring nipple on the gas control block;**

➠ **Contact the power company if the pre-pressure is not right.**

8.3 Igniting the pilot and main burner

8.3.1 Pilot

➠ **Test that the pilot ignites properly, see Operating instruction, section 4.2 Remote control:**

- **the pilot burner should ignite at the first attempt.**

If the pilot does not light, then

➠ **Check whether or not the ignition sparks:**

a) If not, the ignition wire is probably touching something metal;

b) If it does, there is probably air in the pipes.

➠ **Bleed off any air in the pipes and/or;**

➠ **Move the ignition wire so that it does not touch anything metal.**

8.3.2 Main burner

⚠ ***N.B.*** **The burner should ignite evenly and should not pop as a result of delayed ignition.**

➠ **Test the working of the main burner from stand-by (pilot) mode; see Operating instruction, section 4.2 Remote control;**

➠ **once the gas valve has opened the main burner should ignite within a few seconds.**

!Tip **When the gas valve opens the motor will start to run; this is audible.**

If the main burner does not ignite, then:

➠ **Check that button A on the gas control block is set to ON;**

➠ **Check that the space round the pilot is free;**

➠ **Check that the logs/pebbles have been arranged correctly;**

➠ **Resolve any of the above as necessary;**

➠ **Test the main burner 5 times to ensure it is working properly.**

8.4 Flame effect

The flame effect cannot really be assessed until the fire has been on for several hours. Volatile elements in paint, materials, etc., which evaporate during the first hours of use, will initially influence the flame effect.

!N.B. **If the chimney breast is made of stone-like materials or has been finished in stucco, it should be left to dry for at least 6 weeks prior to taking it into operation, in order to prevent cracks.**

➠ **Check that the flame effect is symmetrical.**

An asymmetrical flame effect could be caused by:

- volatile substances evaporating;
- incorrectly arranged logs/pebbles.

➠ **Rearrange the logs/pebbles as necessary.**

English

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9. Maintenance

The appliance should be inspected, cleaned and if necessary repaired by a qualified installer with professional experience of decorative gas fires at least once a year.
The appliance should at least be tested to check it works correctly and safely.

N.B. **- Switch off the gas before commencing any maintenance;**
- Test the gastightness after any repairs;
- After replacing the thermocouple you should first tighten the swivel of the gas control block by hand and then give it another quarter turn with a suitable spanner.

➠ **Clean the following components if necessary:**
- the pilot burner;
- the combustion chamber;
- the glass

!N.B. **- Remove the glass as described in section 6.10**
- Remove the deposit on the inside of the glass with a damp cloth or a non-abrasive cleaning product such as copper polish;
- Avoid/remove fingerprints on the window as they will burn into the glass;
- Replace broken and/or cracked glass.

N.B. **If necessary, place back the wood set / pebblestone set correctly; see section 6.9.**

➠ **Inspect the flue / combustion air supply system;**

➠ **Test the system as described in chapter 8.**

10. Completion

Familiarise the user with the appliance. You should instruct him/her on such things as how to use the appliance and how it works, how to use the remote control, and about the need for annual maintenance.

N.B. **- Tell the user to switch off the gas immediately and to contact the installer in the event of a failure / malfunction, to avoid unsafe situations;**
- Show him/her where the gas tap is.

➠ **Explain how to use the appliance and the remote control;**

➠ **Point out that when the appliance is used for the first time:**
- if the chimney breast is made of stone-like materials or has been finished in stucco, it should be left to dry for at least 6 weeks prior to taking it into operation, in order to prevent cracks;
- volatile elements in paint, materials etc. will evaporate the first time the fire is used;
- the fire should preferably be used at the highest setting so that these elements will evaporate more quickly;
- the room should be well ventilated.

➠ **Hand the user the user manual and the installation manual (the installation manual should be kept near the appliance).**

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11. Troubleshooting

A number of faults which could occur, their possible causes and solutions are shown in the table below:

Table 3: Troubleshooting

Problem	Possible cause	Solution
A. No transmission (motor doesn't work)	1. The (new) communication code between the receiver and the remote control has not been confirmed.	1. Press and hold the reset button on the receiver until you hear 2 bleeps. After the second, longer bleep, release the reset button and, within 20 seconds press ▼ on the remote control until you hear an extra long bleep which confirm the new code; see *Photo 26*. It may be necessary to programme a new communication code; see operating instructions section 4.2.7
	2. Dead batteries.	2. Replace the batteries. ***!N.B.*** **Avoid short circuits between the batteries and metal parts of the appliance.**
	3. Receiver is damaged.	3. Replace the receiver and confirm/change the code (solution 1)
	4. Remote control is damaged	4. Replace the remote control and confirm/change the code (solution 1)
	5. Motor wiring broken at the valve	5. Replace the motor wiring at the valve.
	6. Bent pins on the 8-pin connector.	6. Straighten the pins on the 8-pin connector.
	7. If the receiver is surrounded by metal, the transmission range may be reduced.	7. Change the position of the aerial.
B. No ignition (spark)	1. Button A is set to MAN.	1. Switch button A on the gas control block to ON, see *Photo 22*
	2 Ignition wire lying across and/or beside metal components.	2 Do not let the ignition wire touch anything metal: This will weaken the spark; see 2 Ignition wire lying across and/or along beside metal components. Replace the ignition wire if necessary.
	3. Ignition pen corroded	3. Replace the ignition pen
C. No bleep	1. Receiver is damaged.	1. Replace the receiver and confirm/change the code (solution 1 at A)

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D. One continuous 5 second bleep (There may be 7 short bleeps before the 5 second bleep)	1. Loose wiring 2. Receiver is damaged. 3. Bent pins on the 8-pin connector. 4. Magnetic valve is damaged.	1. Connect the wiring correctly. 2. Replace the receiver and confirm/change the code (solution 1 at A) 3. Straighten the pins on the 8-pin connector. 4. Replace the gas control block.
E. No pilot	1. Air in the pilot pipes. 2. Thermocouple wires round the wrong way, 3. No spark at the pilot burner. 4. Injector is blocked up	1. Purge the pipes or restart the ignition process several times. 2. Check the polarity of the thermocouple wiring. Connect the thermocouple correctly. 3. Check that the ignition wire is not touching anything metal. Move it if necessary; see *Photo 22* Replace the ignition wire if necessary If necessary, replace the ignition pen 4.1 Clean the injector 4.2 If necessary, replace the injector
F. Electronics keep sparking when the pilot burner is burning	1. Receiver is damaged.	1. Replace the receiver and confirm/change the code (solution 1 at A)
G. Pilot burner is burning but the magnetic valve closes after approx. 10 seconds or when the appliance gets too hot	1. Thermocouple is not working 2. Batteries (almost) dead	1.1 Measure the voltage with a digital multimeter, set to mV range, by connecting the wires to the cable terminal. The cable terminal is on the outside, right next to the magnetic nut, see 2: Batteries (almost) dead (see *Photo 28*). The voltage should be at least 5mV within 20 seconds. This must not be any lower when the appliance is hot. If the voltage is too low then - the thermocouple should be moved so that it is in the flame more, or - the thermocouple should be replaced. 1.2 Check the size of the pilot. Adjust the pilot if it is too low. 1.3 Check the wiring between the thermocouple and the receiver. Replace the wiring if necessary. 2. Replace the battery.
H. There are short bleeps but no sparks and is no sound / ticking can be heard of the magnet opening the valve	1. Batteries (almost) dead	1. Replace the batteries. ***!N.B.*** **Avoid short circuits between the batteries and metal parts of the appliance.**
I. Pilot burner is on but there is no gas flow to the main burner	1. Button A is set to MAN. 2. Appliance is set to pilot mode. 3. Pre-pressure is too low. 4. Magnetic valve is damaged.	1. Switch button A on the gas control block to ON, see *Photo 22* 2. Increase the flame height by pressing ?on the remote control. 3. Test the pre-pressure Contact the power company if necessary. 4. Replace the gas control block.

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Annex 1 Components supplied

The table below specifies the components supplied with the appliance.

Table 4: Components supplied

Component	Quantity	Order number
Set of Logs/Pebbles / Pebbles tunnel	1x	22499 / 22501 / 22514
Control box	1x	26280
Control box manual	1x	957.577.06
Installation manual	1x	959.005.02
User manual	1x	958.010.00
Trim left/right	Metro 130 2x Metro 130 Tunnel 4x	38724074
Trim bottom	Metro 130 1x Metro 130 Tunnel 2x	38741331
Damper template	1x	38714268
Damper	1x	38741379
Rawplugs M8x140x50	2x	509330
Hexagonal nut M8	4x	521308
Washer 8.4 mm	4x	525070
Spare self-tapping screws for the glass window		
Socket spanner 8 mm	1x	790811
Remote control with receiver	1x	806277
9V square battery	1x	923001
Penlight battery (AA type)	4x	923100
Pressure coupling 15 mm x G3/8"	1x	149234

Annex 2 Technical data

The technical data for the Metro 130/ Metro 130 Tunnel are given in the table below.

Table 5: Technical data

Type		C11/C31	
Gas type		G25	G20
Burner pressure	mbar	19	15.2
Nominal Load (Hs)	kW	12.4	13.5
Nominal Load (Hi)	kW	11.16	12.2
Nominal Capacity	kW	8.9	9.7
Consumption	L/h	1367	1285
Burner jet	mm	3x Ø 1.60	3x Ø 1.60
Consumption on stand-by	L/h	667	629
Fine adjustment jet	mm	Ø 2.00	Ø 2.00
Pilot jet	Code	51	51
Efficiency category		2	2

Annex 3 Spare parts

Spare parts are available from www.druservice.nl

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