Installation and operating instructions

TWIN gas log fire
38 * 15
50 * 15
80 * 15

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Inleiding

The open gas log fire from the TWIN series of the brand KAL-FIRE you have purchased is a product of which you will enjoy great pleasure in heating year after year. We recommend checking the appliance at delivery for possible transport damage.

Carefully read the accompanying instructions before installing or taking the appliance into operation. Installation of these appliances must be carried out by a registered installer in accordance with national and local regulations.

1 Installation instructions

1.1 Instructions

Prior to connecting the gas log fire, please carefully observe the following instructions:

- Connecting of this gas log fire must be carried out exclusively by a registered installer and this in accordance with the national and/or local regulations. Before installing the appliance, gas facilities have to be constructed in accordance with the regulations.
- Protective devices fitted in the gas log fire and in the gas control unit may never be switched off in case of a failure, nor may these be bypassed or altered. Before completion of the appliance, your installer has to check its correct functioning. Factory-set protective devices may never be altered.
- Before connecting the appliance to the gas the pressure on the main at the appliance has to be checked.
- If there is a mechanical exhaust system present in the house, this should be taken into account at the installation, e.g. concerning air supply and flue evacuation. The regulations for air supply and flue evacuation are defined in the GAVO(gas installation prescriptions). According to GAVO most important devices can be classified as follows:

A. **<u>Naturally ventilated houses</u>**
   - For the required air supply we refer to the national or local regulations which are dependant of the output of the appliance. We recommend an air supply of Ø150 mm to the underside of the burner.
   - Construction of a controlled flue gas regulator.
   - The flue tube must discharge into "outlet area I or II", in accordance with annex 1. If this is not the case than a fan*, suitable for combustion gasses, has to be fitted on the flue duct.

B. **<u>In case of mechanical ventilation.</u>**
   - Construction of a lockable and controlled air supply of at least 15 cm² per kW maximum output.
   - Construction of a controlled flue gas regulator.

   - Flue gasses have to be evacuated by means of a fan* designed for flue gasses.
   - The appliance has to be equipped with a flow protection, thermal shut off safety or oxistop.

* A fan suitable for evacuation of flue gasses has to be used. Kal-Fire recommends the EXHAUSTO-RSVG-fans (Inatherm).

1.2 General requirements

A. The flue must be in an excellent condition, it must be regulary cleaned and it has tob e made out of heat resistant material. For gas log fires the flue tube diameter is to be at least Ø180 mm and Ø 250 mm at the most. In order to avoid any condensation and to favour draught, we recommend equipping the flue with a stainless steel flexible pipe minimum diameter Ø180 mm and maximaal diameter Ø 250 mm. The diameter of the flue can be determined with means of the graphics in annex 3.

B. The fireplace in which the built in fire will be mounted has to be made out of heat resistant material and must have such dimensions that expansion of the steel construction is warranted.

C. The fireplace has to be equipped with a Ø 200 mm fresh air supply, directly from the outside, with mouth directly underneath the burner (combustion air supply + burner cooling).

D. The gas control system and electronic parts must be mounted outside of the radiation area of the burner, especially when mounting a gas log fire in a sunken casing. In the case that the electrical components are within the range of the radiation area sufficient insulation has to be placed, so that the electronics become maximum 40 °C and the gas control system maximum 60 °C.

E. Under no circumstances, electric components may be opened. Moreover, cutting through or altering the length of connection cables is only allowed in consultation with Kal-Fire BV.

ATTENTION: The warranty is not applicable if the the under D & E mentioned requirements are not satisfied !!

2 Montage instructies

ATTENTION: All parts have to be mounted maintenance friendly. All parts have to be accessible at all times for the maintenance service !!!

2.1 Gas tap

The gas control system with burner have to be connected behind a gas tap, which at all times can be operated.

2.2 Electric point

A electric point 230 V with edge ground must be foreseen in case of an appliance with a radio remote control.

2.3 Flexibele connection of gas control unit to burner

Because of sound resonance in the flexible tube (from gas control unit to burner) this tube has to be placed so that the there is no bend smaller than 5 cm in the tube. However it is allowed to make 1 rectangular kink at the beginning and 1 rectangular kink at the end.

2.4 Assembly of the manual gas control unit

The gas control unit has to be connected to the gas tap (not included) as following:

- Connect the gas supply to the gas control unit.
- Test leak tightness of the system by means of soapsuds or leakage testing spray.
- Check the protection system by activating the security; the appliance should go out.

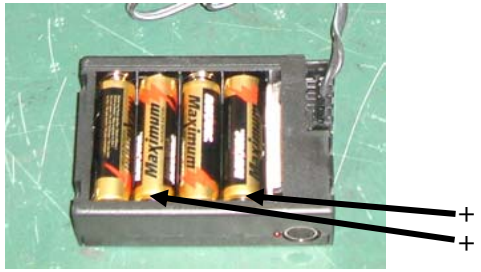
2.5 Aassembly of the ultrasonic gas control unit

The appliance is standardly delivered connected to the gas control unit and has to be connected to the gas tap (not included) as following:

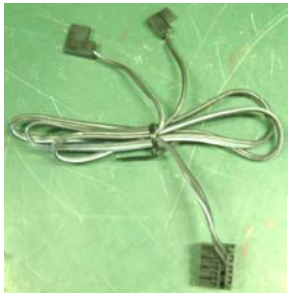
- Connect the gas supply (12 mm) to the gas control unit (12 mm-clamp).
- Test leak tightness of the system by means of soapsuds or leakage testing spray.
- Check the protection system by activating the security; the appliance should go out.

Assembly instruction electric wiring

This remote control is mains independent. The system runs on batteries. Insert the accompanying 9V block battery into the small transmitter. Insert the 4 accompanying 1.5V penlight batteries into the battery compartment of the receiver: please pay attention to the correct polarity ! See picture below.



The receiver is to be connected to the plugs on the gas control system by means of the two flat connectors. The different size of the plugs prevents an erroneous connection.



ATTENTION: This receiver has to be mounted outside of the burner's radiation area, because of the sensitiveness of the electronics to heat radiation !

2.6 Assembly of the radiografic gas control unit

The appliance is standardly delivered connected to the gas control unit and has to be connected to the gas tap (not included) as following:

- Connect the gas supply to the gas control unit.

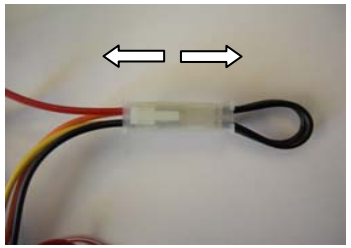
- Test leak tightness of the system by means of soapsuds or leakage testing spray.
- Check the protection system by activating the security; the appliance should go out.

Assembly instruction electric wiring

This remote control is mains dependent. The receiver part has to be connected to an earthed socket outlet 230 V wih correct phase/neutral terminal! Insert the accompanying battery into the transmitter.

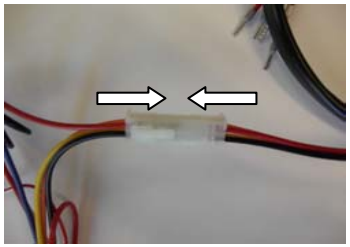
It is possible to connect an EXHAUSTO RSVG fan. For this purpose the electrical layout has to be changed to the the plan in annex 2. An extra wire is include for this purpose and has to be connected as below.

Step 1



Remove plug 1

Step 2



Insert the delivered plug onto the cable tree

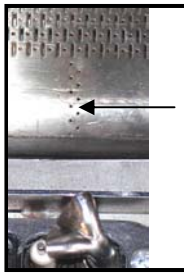
Step 3

Connect the other four cables to the EFC 21/EFC 25.

ATTENTION: This receiver has tob e mounted outside of the burner's radiation area, because of the sensitiveness of the lectronics to heat radiation !

The radiografic controller has a transmitter which gives of sound signals, because of that the receiver may not be placed behind or in a sound-proof room.

2.7 Positioning of the chips and logs



<u>Caution</u> !

The chips must not cover the holes which are situated at the front of the burner. The safety flame must be in direct contact with these holes otherwise the burner could not be lighted correctly.

The <u>chips</u> cover the whole of the Twin's cover plate. The flame can be influenced by the quantity of chips used. A small quantity will allow more air to pass through, producing wilder flames. Using a lot of chips will produce a steady flame and a red glow. The chips can create a turbulence if they are situated in front of the safety flame. This can cause an error and the appliance could extinguish.

Tip 1: Cutting through the chips will produce a thinner chip which will glow more.

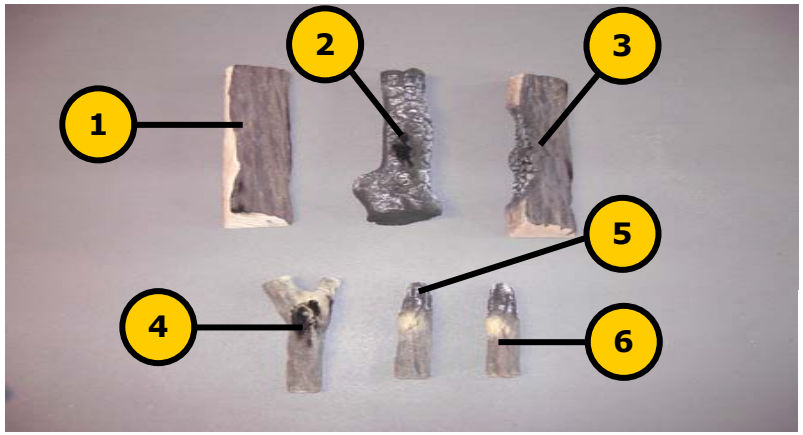
Tip 2: Before putting the chips in place, it is best to position the rearmost log first, and also the two logs on either side. The chips can then be laid on the logs. There will then be plenty of air under these logs which will produce a better glow.

Tip 3: You may partly cover the pilot light cap, but you must be able to see that the pilot light is burning at all times. This will produce a more realistic effect.

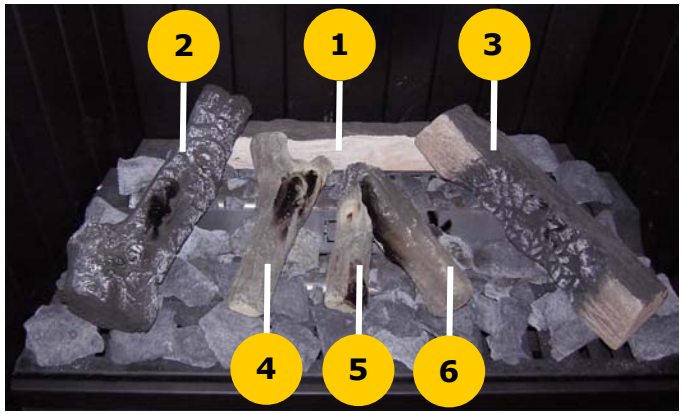
The logs must be positioned as follows:

For the TWIN 50x15:

This is the set of logs you have received:

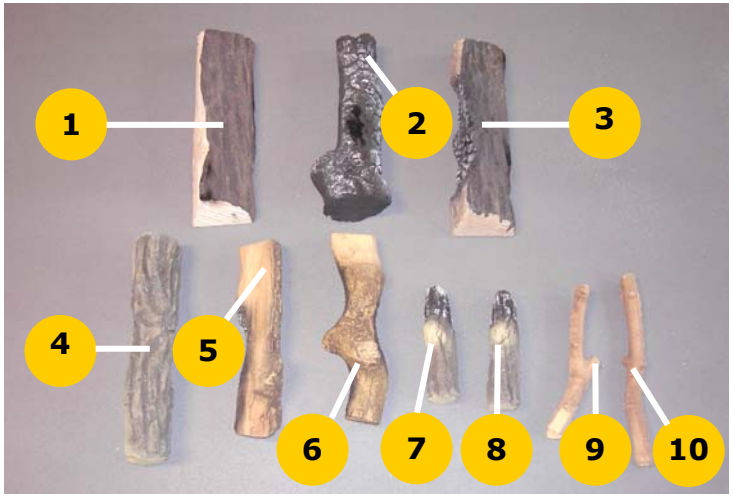


The set of logs is to be positioned as follows:



For the de TWIN 80x15:

This is the set of logs you have received:



The set of logs is to be positioned as follows:

2.8 Extra accesoires

2.8.1 Optional set of logs

For the TWIN 5015 extra accessoires can be ordered. It is possible to order an optional set of logs.

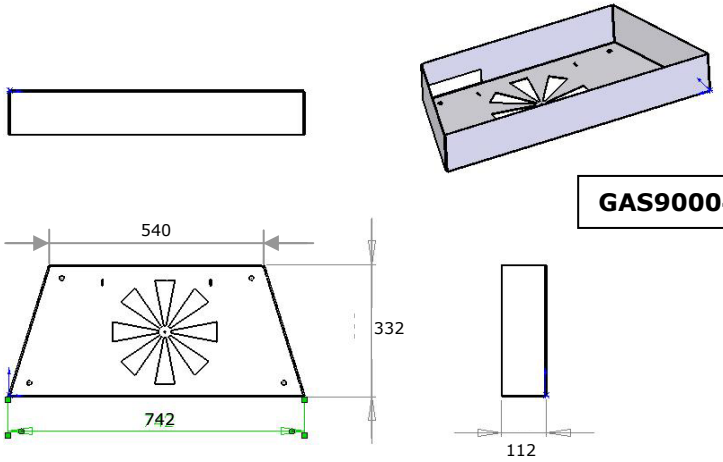
This is the optional set of logs:

2.8.2 The floorburner

It is possible to built the gas log fire in a sunken casing. An advantage of this is that it is included with a controlled air supply and a burner plate as a cover.

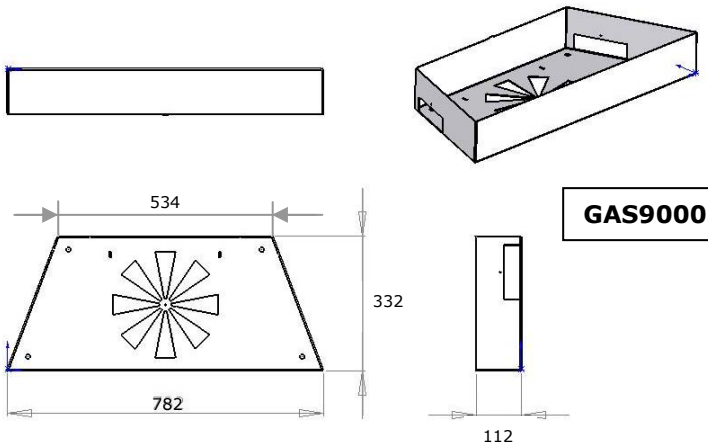
There are 2 types of sunken casings available:

Sunken casing 75



GAS90004TW-75

Sunken casing 78



GAS90003TW SMG

ATTENTION: Place no electronics in the sunken casing !!

3 Technical data

3.1 3.1 TWIN 38 * 15

Model	NL	BE/FR	DE	AT/CH/GB/IT	Propaan
Type	B11 / B21	B11 / B21	B11 / B21	B11 / B21	B11 / B21
Gas / P		G20 / 20 mbar	G20 / 20 mbar		
	G25 / 25 mbar	G25 / 25 mbar	G25 / 20 mbar	G20 / 20 mbar	G30/37 mbar
Gascat.	I2L	I2E+	I2ELL	I2H	I3P
Input / output	6,9 kW / 4,31kW	7,27 kW / 2,81 kW	6,14 kW / 2,48 kW	7,27 kW / 2,81 kW	6,0 kW / 3,8kW
Max/min	0,85/0,29 m3/h	0,77/0,30 m3/h	0,76/0,31 m3/h	0,77/0,30 m3/h	0,24 /0,09 m3/h
Branderdruk	23,8 mbar	18,8 mbar	19,0 mbar	18,8 mbar	36,7 mbar

3.2 3.2 TWIN 50 * 15

Model	NL	BE/FR	DE	AT/CH/GB/IT	Propaan
Type	B11 / B21	B11 / B21	B11 / B21	B11 / B21	B11 / B21
Gas / P		G20 / 20 mbar	G20 / 20 mbar		
	G25 / 25 mbar	G25 / 25 mbar	G25 / 20 mbar	G20 / 20 mbar	G30/37 mbar
Gascat.	I2L	I2E+	I2ELL	I2H	I3P
Input	17.45 kW	18.38 kW	15.53 kW	18.38 kW	15.17 kW
Max/min	2.14/0,73 m3/h	1.94 /0,83 m3/h	1.92 /0,78 m3/h	1.94 /0,75 m3/h	0,61 /0,23 m3/h
Branderdruk	23,8 mbar	18,8 mbar	19,0 mbar	18,8 mbar	36,7 mbar

3.3 3.3 TWIN 80* 15

Model	NL	BE/FR	DE	AT/CH/GB/IT	Propaan
Type	B11 / B21	B11 / B21	B11 / B21	B11 / B21	B11 / B21
Gas / P		G20 / 20 mbar	G20 / 20 mbar		
	G25 / 25 mbar	G25 / 25 mbar	G25 / 20 mbar	G20 / 20 mbar	G30/37 mbar
Gascat.	I2L	I2E+	I2ELL	I2H	I3P
Input	17.45 kW	18.38 kW	15.53 kW	18.38 kW	15.17 kW
Max/min	2.14/0,73 m3/h	1.94 /0,83 m3/h	1.92 /0,78 m3/h	1.94 /0,75 m3/h	0,61 /0,23 m3/h
Branderdruk	23,8 mbar	18,8 mbar	19,0 mbar	18,8 mbar	36,7 mbar

4 Operating instructions

The TWIN gas log fire's are available with three types of controls. There are appliances with manual control, ultrasound remote control and radio remote control.

4.1 Manual controlled appliances

4.1.1 Lighting the burners

Make sure the gas tap is turned on. The main burner in the fire is ignited by a pilot light, which in turn is ignited by a piezo element. Once the pilot

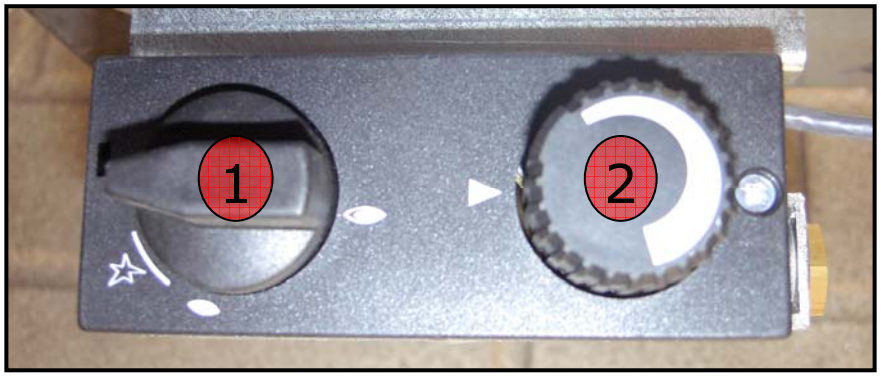


Figure 11: Manually controlled appliance

light is lit, it heats up a thermocouple which creates a small flow. This flow holds the gas valve open. Should the pilot light go out, no gas can keep flowing. This means you can be sure of safety at all times. The ignition takes place as follows: (see figure 11).

Turn the ignition knob (1 in the above figure) to the "pilot light" position (small flame) and press in. Gas will now flow to the pilot light. Keep the knob pressed in, and turn it to the left, "✸" position; you will now hear the piezo ignition clicking and see a spark jump over to the pilot light; keep this knob pressed in until the pilot light is burning steadily. (This can take longer straight after mounting because the gas pipe still has to fill with gas).

When the pilot light is burning, keep the knob (1) pressed in for approximately another 20 seconds, otherwise repeat the above operation.

Now release the knob (1). If the pilot light does not keep burning, wait for 3 minutes and then repeat the above steps.

Now turn the knob (1) fully in the opposite direction, as far as the position with the "big flame"; now you can adjust the flames to the desired size, by means of the right-hand knob (2).

4.1.2 Extinguishing the burners

The burners can be extinguished as follows: turn the ignition knob (1) a quarter turn to the left as far as the "pilot light" position. The burners will now be extinguished, however the pilot light will stay alight. The burners can be re-ignited by turning the knob back to the position with the "flames".
If you do not wish to use the appliance over an extended period of time, you can turn the knob (1) all the way back to the symbol "●", which will also extinguish the pilot light, at the same time you can also turn off the gas tap.

4.2 Appliances with ultrasound remote control

4.2.1 Lighting the burners

Make sure the gas tap is turned on. The main burner in the fire is ignited by a pilot light, which in turn is ignited by a piezo element. Once the pilot

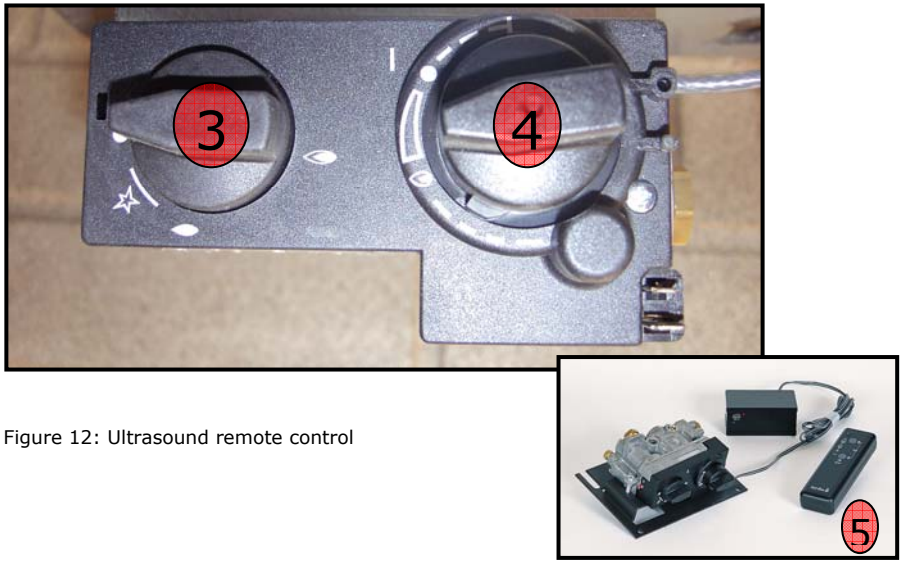


Figure 12: Ultrasound remote control

light is lit, it heats up a thermocouple which creates a small flow. This flow holds the gas valve open. Should the pilot light go out, no gas can keep flowing. This means you can be sure of safety at all times. The ignition takes place as follows: (see Figure 12)

Turn the ignition knob (3 in the above figure) to the "pilot light" position (small flame) and press in. Gas will now flow to the pilot light. Keep the knob pressed in, and turn it to the left, "✸" position; you will now hear the piezo ignition clicking and see a spark jump over to the pilot light, keep this knob pressed in until the pilot light is burning steadily. (This can take longer straight after mounting because the gas pipe still has to fill with gas).

When the pilot light is burning, keep the knob (3) pressed in for approximately another 20 seconds, otherwise repeat the above operation.

Now release the knob (3). If the pilot light does not keep burning, wait for 3 minutes and then repeat the above steps.

Now turn the knob (3) fully in the opposite direction, as far as the position with the "big flame". You can now adjust the height of the flames with the remote control (Figure 13). For higher flames, press in the top knob (6) and the left-hand knob (8) simultaneously. For lower flames, press in the bottom knob (7). The remote control is ultrasound, so you have to point the remote control in the right direction. As soon as the receiver reacts, you will hear a small motor running. If this starts "ticking", you have reached the highest or lowest position. The flames can also be adjusted to the desired size manually with the right-hand control knob (4).

Figure 13: Ultrasound remote control

4.2.2 Extinguishing the burners

The burners can be extinguished as follows: turn the ignition knob (3) a quarter turn to the left as far as the "pilot light" position. The burners will now be extinguished, however the pilot light will stay alight. The burners can be re-ignited by turning the knob back to the position with the "flames".

If you do not wish to use the appliance over an extended period of time, you can turn the knob (3) all the way back to the symbol "●", which will also extinguish the pilot light, at the same time you can also turn off the gas tap.

4.3 Appliances with radio remote control

Take the battery-protection strip out of the manual transmitter and check that the battery is still correctly positioned between the two contacts. Plug into the electric socket and turn on the gas tap.

4.3.1 Lighting the burners

When the Big flame (Figure 14 no. 1) and the "Off" knob (no. 3) are pushed in simultaneously (two-knob ignition!!), after a few seconds the ignition will automatically start sparking. When the pipe and the gas control unit are filled with gas, a pilot light will appear and the sparking will stop. If the sparking does NOT stop, there can only be two reasons for this: the gas supply is still closed off (no pilot light can be seen); in this case turn on the gas tap - or the plug is not pushed into the electric socket correctly (there is a pilot light, but the ignition keeps on sparking), then the plug has to be turned round in the electric socket (NL) or the L and N wires need to be swapped over in the black receiver box (BE). When the pilot light is burning, the main burners will start with a large flame and are then continuously adjustable between maximum and minimum. You can adjust the burners higher and lower with no. 1 and no. 2.

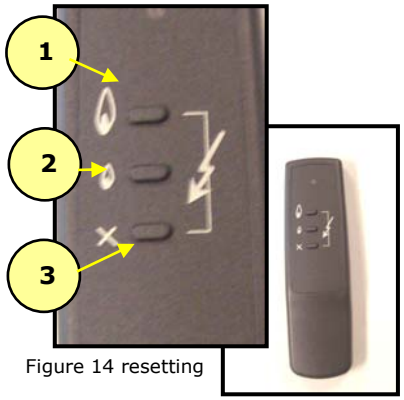
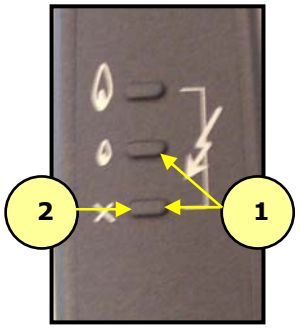


Figure 14 resetting

Resetten the appliance

If still no flame is detected after 30 seconds of sparking, the automated burner unit safety-lock will be activated. You can reset the automatic burner unit by means of the remote control and/or a reset knob on the automatic burner unit itself. (This procedure may have to be repeated several times when the appliance is first used or if it has been out of use for an extended period).



Figuur 15 resetten

I On the remote control you then press in the "small flame" and "X" simultaneously (1) and then immediately press "X" (2) again. (see Figure 15).

II If the automatic burner unit (Figure 16) is accessible, this can be reset by pressing in a reset knob (3). You can see that this is locked by the red lamp (3).

After the reset cycle, lasting about 10 seconds, you can re-start by simultaneously pressing the ON and OFF knob.

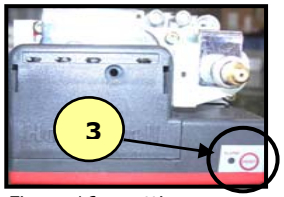


Figure 16 resetting

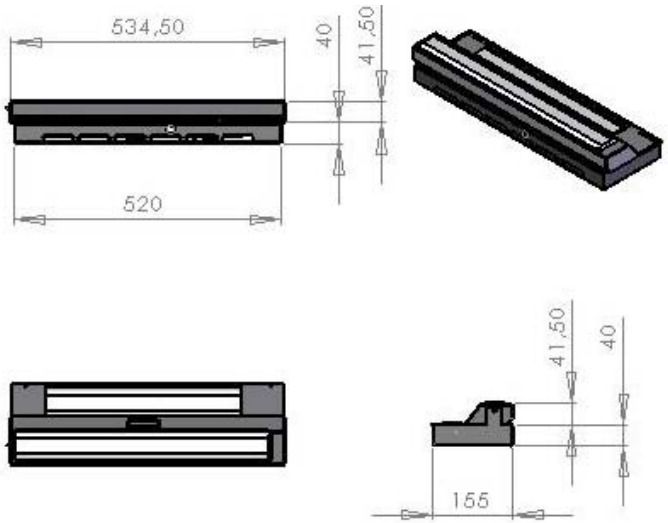
4.3.2 Extinguishing the burners

To completely extinguish the fire, press the OFF knob (Figure 14 no. 3) on the transmitter, and the main burners as well as the pilot light will go out completely.
If the electricity supply is interrupted, the fire will also go out.

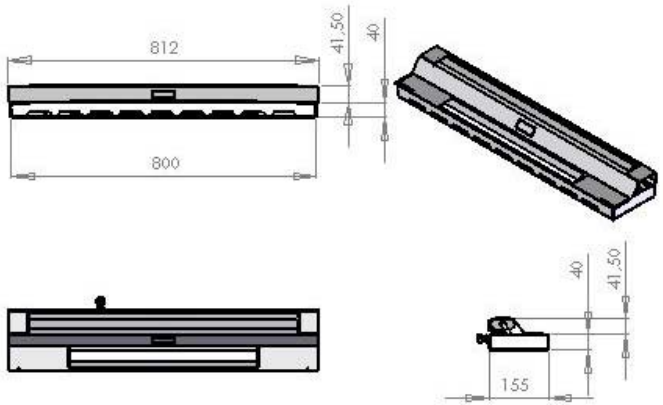
If you are going to be away for an extended period, it is advisable to turn off the gas supply to the appliance.

5 Dimensions

Gas log fire TWIN 50x15:



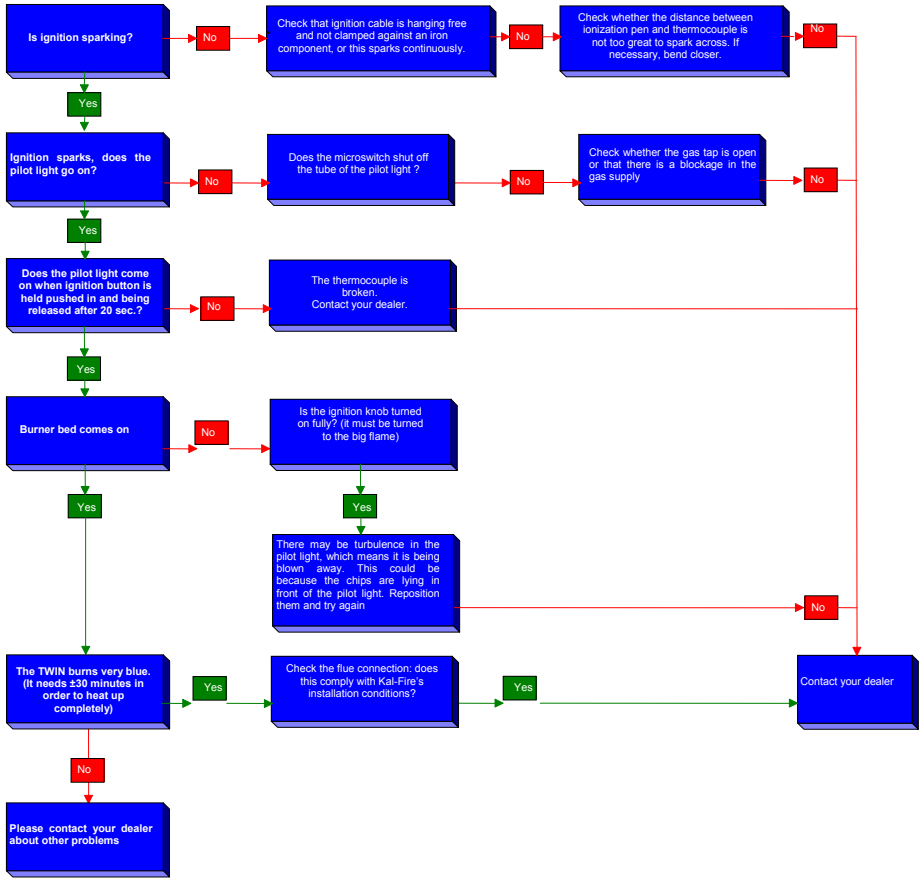
Gas log fire TWIN 80x15:



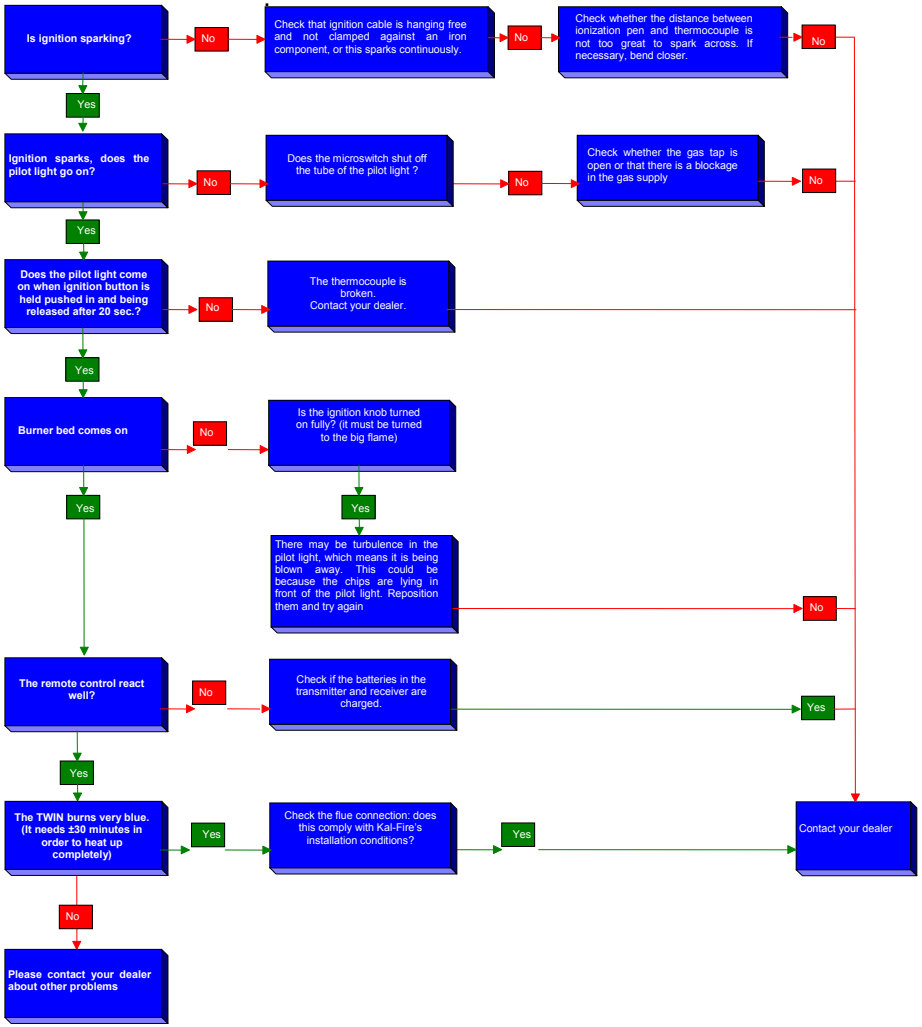
kal-fire

6 Trouble shooting

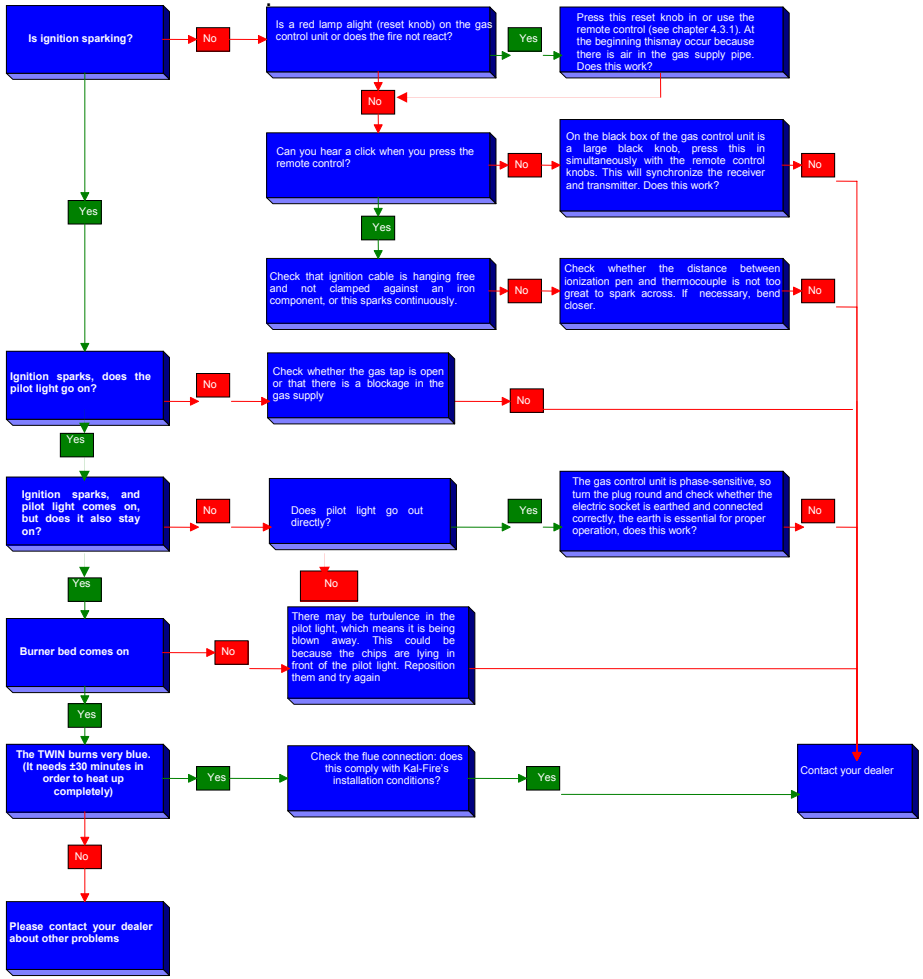
6.1 Solutions flowchart - TWIN maual control



6.2 Solutions flowchart – TWIN ultrasound



6.3 Solutions flowchart - TWIN radio



7 Warranty certificate

This document is valid only i fit can be produced togehter with dated proof of purchase, and therefore it should be kept in a safe place.

Customer's name and adress
Customer :_____

Street :_____

Zipcode :_____

Type of appliance
Twin :_____

Serial number

_____

Date of purchase
_____-_____-_____

Name and adress of installer/vendor
Name :_____

Street :_____

Zipcode :_____

7.1 Warranty conditions

The Kal-Fire products to which this warranty card is applicable, are manufactured with care, from high-quality materials. However, should faults or defects occur, the following warranty conditions shall apply:

1. Before installation, the approved installer shall firstly make sure of the good quality and correct functioning of the flue. The gas appliances should always be installed by an approved installer in accordance with current national and any regional regulations, and in accordance with the installation instructions supplied with the appliance.

2. The warranty period for Kal-Fire gas appliances is 1 year starting on the date of purchase which must be clearly and distinctly stated on the sales invoice. The attached warranty registration card should be carefully completed and returned to Kal-Fire B.V.

3. The warranty does not cover the ceramic glass, or external physical and chemical effects during transit, storage or assembly.

4. If a problem should however occur within the warranty period due to a manufacturing fault or material defect, Kal-Fire B.V. will send a replacement part to the installer free of charge to replace the defective component, without reimbursement for assembly and dismantling. You will bear the transport costs.

5. Should the installer be unable to solve the problem himself, he can, at his express wish, ask Kal-Fire B.V. to do this, if within the BENELUX borders.

6. Only after prior consultation can the whole appliance or components thereof be sent for checking or replacement. These goods should be accompanied by this completed warranty document together with the dated proof of purchase.

7. In the case of service provided at your home by Kal-Fire B.V. (only within BENELUX) during the warranty period, the warranty documents (this page together with the dated proof of purchase) must be produced.

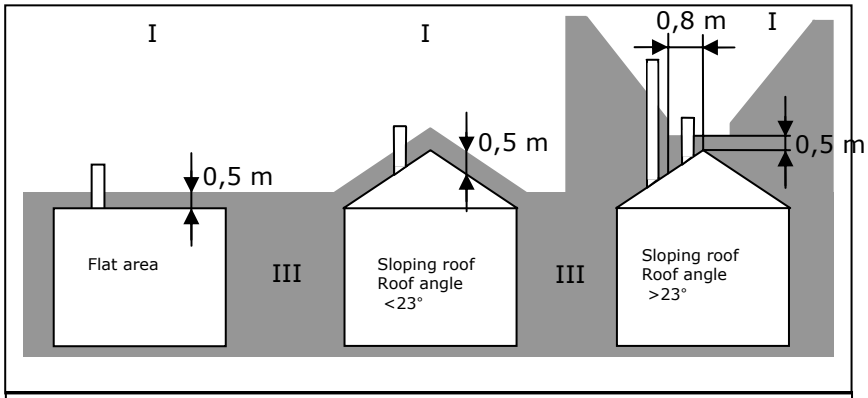
8. In the case of service provided at your home outside the warranty period, the following costs will be charged:
material costs, labour and transport costs.

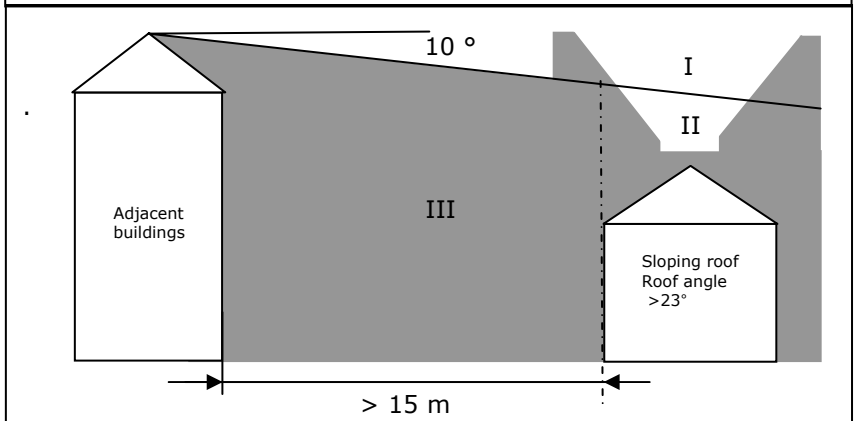
7.2 The warranty is not applicable in the following cases:

1. For appliances with remote control: when the electronics are not installed outside the fire and its radiation range, and are not installed to be fully insulated.
2. If the above requirements are not, or are only partially, satisfied.
3. If, without our knowledge, any modifications whatsoever are made to the appliances.
4. If the owner of the appliance changes.
5. If the appliance is not installed in accordance with the installation instructions and/or not used in accordance with the operating manual.
6. If more artificial logs than provided, or different ones, are placed on the burner bed.
7. If this warranty certificate together with the original, dated proof of purchase, cannot be produced, likewise if it appears that the details in this proof of purchase have been manipulated (date deleted, made illegible, changed etc.)

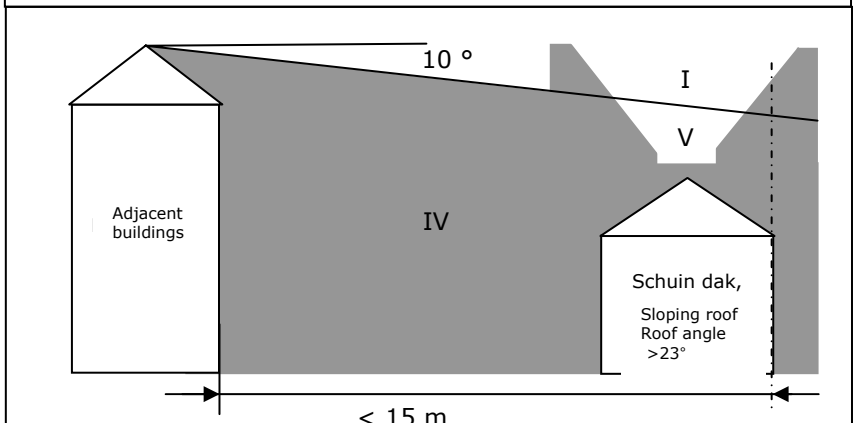
kal-fire

Annex 1: Outlet area's





Outlet area with influence of adjacent buildings (r > 15 m)

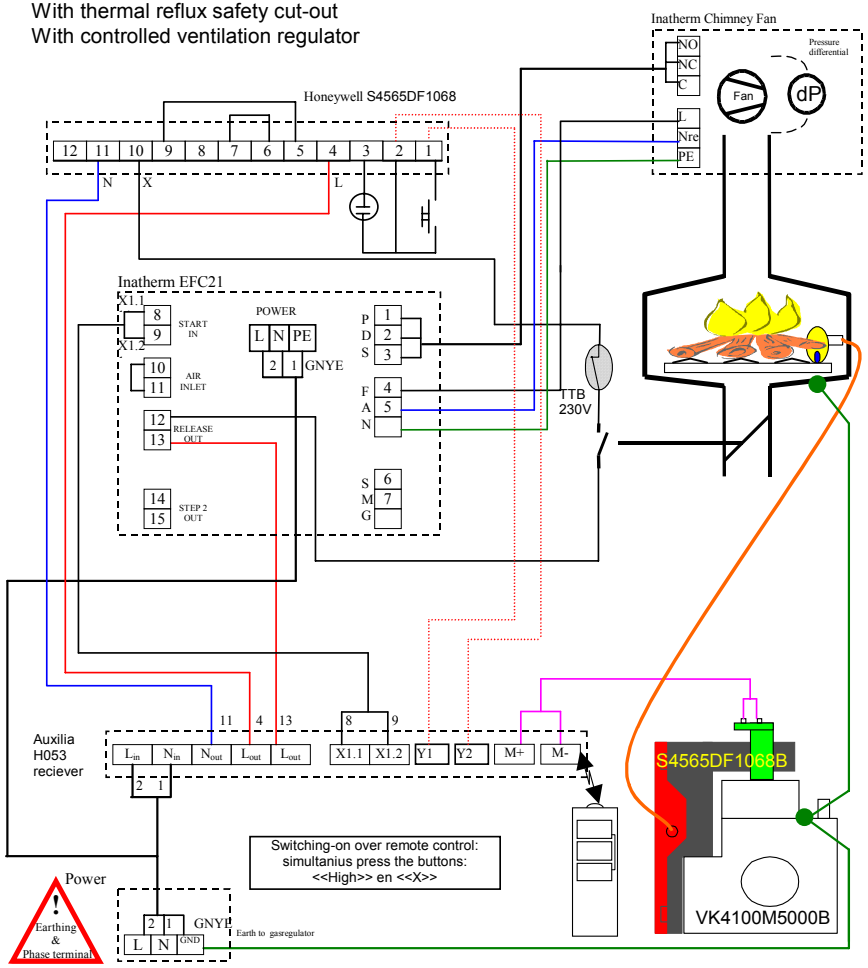


Outlet area with influence of adjacent buildings (r < 15 m)

Annex 2: Electrical connection with fan

Connection diagram with Inatherm RSVG and EFC21 control unit

- With thermal reflux safety cut-out
- With controlled ventilation regulator



Annex 3: Grafic for calculation flue duct