TGH 11 E / TGH 16 E / TGH 31 E

EN

ORIGINAL INSTRUCTIONS
GAS HEATER FAN

TROTEC

TRT-BA-TGH11E-TGH16E-TGH31E-TC220712TTRT01-014-EN

Table of contents

Notes regarding the instructions

Symbols

Warning of electrical voltage
This symbol indicates dangers to the life and health of persons due to electrical voltage.

Warning of hot surface
This symbol indicates dangers to the life and health of persons due to hot surface.

Warning
This signal word indicates a hazard with an average risk level which, if not avoided, can result in serious injury or death.

Caution
This signal word indicates a hazard with a low risk level which, if not avoided, can result in minor or moderate injury.

Note
This signal word indicates important information (e.g. material damage), but does not indicate hazards.

Info
Information marked with this symbol helps you to carry out your tasks quickly and safely.

Follow the manual
Information marked with this symbol indicates that the instructions must be observed.

You can download the current version of these instructions via the following link:

TGH 11 E

https://hub.trotec.com/?id=43701

TGH 16 E

https://hub.trotec.com/?id=43702

TGH 31 E

https://hub.trotec.com/?id=43703

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use.

Warning
Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.
This device must not be used by children and persons under 16 years of age.
Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children under 16 years.

Warning
Do not use the device in rooms if persons are present who cannot leave the room independently and who are not under constant supervision.

- Do not use the device in potentially explosive rooms or areas and do not install it there.
- Do not use the device in aggressive atmosphere.
- Only put up the device in an upright, stable position on firm ground.

- Let the device dry out after a wet clean. Do not operate it when wet.
- Do not use the device with wet or damp hands.
- Do not expose the device to directly squirting water.
- Never insert any objects or limbs into the device.
- Do not cover the device during operation.
- Do not sit on the device.
- This appliance is not a toy. Keep away from children and animals.
- Check accessories and connection parts for possible damage prior to every use of the device. Do not use any defective devices or device parts.
- Ensure that all electric cables outside of the device are protected from damage (e.g. caused by animals). Never use the device if electric cables or the power connection are damaged!
- The mains connection must correspond to the specifications in the Technical annex.
- Insert the mains plug into a properly fused mains socket.
- Observe the device's power input, cable length and intended use when selecting extensions to the power cable. Completely unroll extension cables. Avoid electrical overload.
- Before carrying out maintenance, care or repair work on the device, remove the mains plug from the mains socket. Hold onto the mains plug while doing so.
- Switch the device off and disconnect the power cable from the mains socket when the device is not in use.
- Do not use the heating device together with a programming device, a timer, a separate remote control system or any other device that automatically switches the heating device on, as there is a risk of fire if the heating device is covered or incorrectly positioned.
- Do not under any circumstances use the device if you detect damages on the mains plug or power cable.
  If the power cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
  Defective power cables pose a serious health risk!
- When positioning the device, observe the minimum distances from walls and other objects as well as the storage and operating conditions specified in the Technical annex.
- Ensure a minimum distance of 3 m to combustible substances. Do not use the device in rooms where fuel, solvents, varnishes or other easily inflammable vapours are stored.
- Make sure that the air inlet and outlet are not obstructed.
- Make sure that the suction side is kept free of dirt and loose objects.
- Do not place the device on combustible ground.
- Allow the device to cool down before transport and/or maintenance work.
- Protect the device from moisture, e.g. rain.
- Protect the gas cylinder from sub-zero temperatures also known as frost.
- Carefully inspect all connection points for tightness.

  Attention! Leak testing by way of naked flame is strictly forbidden!
- The exchange of gas cylinders is only permitted in an environment devoid of ignition sources.
- In case of gas leakage (smell) immediately close the valve on the gas cylinder and keep the device at a distance to any fire source.
- Never turn the gas cylinder over, even though it may seem empty! This could cause an obstruction in the hose with the remains from the gas cylinder and so lead to a fire hazard and immediate damage of the device.
- Do not twist the gas hose.
- Do not dismantle the protective grid and / or other device components.
- Do not position the gas cylinder in front of the device. Risk of fire and explosion!
- Only use the original gas hose and original spare parts.
- Keep fire extinguisher and first-aid kit on hand.
- Bear in mind, that you may have to meet different national requirements. Observe the local regulations regarding admissible deviations. In Germany consult the Technical Rules for Liquid Gas (TRF 2012) as well as the relevant accident prevention regulations (VBG and ZH 1/455).
- Do not use the heating device together with a programming device, a timer, a separate remote control system or any other device that automatically switches the heating device on, as there is a risk of fire if the heating device is covered or incorrectly positioned.

Intended use

Only use the device TGH 11 E / TGH 16 E / TGH 31 E for generating hot air in well-ventilated interior spaces or in roofed outdoor areas protected from weather effects.

Do not use the device in windowless rooms below ground level.

Only use the device in rooms corresponding to the minimum dimensions specified in the technical data.

- The device is suited for heating large rooms such as tents, warehouses, workshops, construction sites, greenhouses or agricultural halls.
- The device may only be used in rooms with sufficient fresh air supply and exhaust discharge. The ventilation shaft must have a cross-section of at least 25 cm^2 per kW nominal heat output. It is determined based on the calorific value. The minimum ventilation cross-section amounts to 250 cm^2.
- It is intended to be used without frequent site changes.
- The device must only be fuelled by a propane-butane gas mixture.
- The device may be used in wet rooms in compliance with the local or national regulations for the operation of electrical equipment in wet rooms.

The device may only be used in certain countries of destination whilst adhering to the technical data.

Any use other than the intended use is regarded as misuse.

Reasonably foreseeable misuse

- **THE DEVICE MUST NOT BE USED FOR HEATING HABITABLE ROOMS IN RESIDENTIAL BUILDINGS; FOR THE USE IN PUBLIC BUILDINGS: OBSERVE NATIONAL REGULATIONS.**
- The device must not be positioned or operated in areas with a high risk of fires or in potentially explosive atmospheres.
- Do not place the device on wet or flooded ground.
- Do not place any objects, e.g. clothing, on the device.
- Do not use the heating device in immediate vicinity of swimming pools, bathtubs and showers.
- Do not use the device out of doors, unless under a roof.
- The device must not be operated in rooms with an insufficient combustion air supply.
- The device must not be operated in rooms below ground level (souterrain or the like).
- Any unauthorised modifications, alterations or structural changes to the device are forbidden.

Personnel qualifications

People who use this device must:

- have read and understood the instructions, especially the Safety chapter.

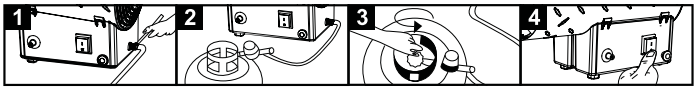
Safety signs and labels on the device

Note

Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.

Symbols	Meaning
	This symbol located on the device indicates that it is prohibited to place objects (such as towels, clothes etc.) above or directly in front of the device. In order to avoid overheating and fire hazards, the heater must not be covered.

A label with the following content provided in German and English is attached to the device:



GB USE INSTRUCTIONS – IGNITION 1. Connect the gas pipe to the machine – IMPORTANT: left threads are used. 2. Connect the following to the cylinder in this order: pressure reducer, gas pipe. Open the gas. 3. Turn on the pressure reducer after the heater connected to the power cord. Turn the heater power switch to position "I". Continuously depress the valve knob on the heater with your right hand, keep depressing the spark knob on the other side with your left hand, stop until the burner lights. Keep the valve knob depressed for at least 20 seconds after lighting the burner. After 20 seconds, release the valve knob. **STOPPING:** 1. Turn the gas supply OFF by turning LP cylinder valve clockwise to close. 2. Keep the motor continue to function, after 20 seconds, turn the power switch to "0" position, and disconnect the power cord.

GB WARNINGS: - For further details, read the instruction handbook. - When igniting, check if the fan turns correctly. - Place the appliance so that the hot air jet does not reach inflammable objects. - This appliance is not designed for domestic use. - Shut out the gas cylinder after use. - Do not move or handle the appliance while the generator is operating. - The mobile generator may be used only on fire-proof floors. - Place the gas cylinder in a protected position, behind the appliance. - Use I3P-I3B/P gas only. - Unplug the generator from the electrical mains when not in use. - Keep children and animals well away from the generator. - Use only away from combustible materials and in a well ventilated area. - It is forbidden to use heater in a basement and below the ground level. - Not to be used for the heating of habitable areas of domestic premises. For use in public buildings, refer to national regulations.

Residual risks

Warning of electrical voltage
Work on the electrical components must only be carried out by an authorised specialist company!

Warning of electrical voltage
Before any work on the device, remove the mains plug from the mains socket!
Do not touch the mains plug with wet or damp hands.
Hold onto the mains plug while pulling the power cable out of the mains socket.

Warning of electrical voltage
Risk of electric shock!
Risk of an electric shock if the heating device comes into contact with water in bathtubs, showers or swimming pools!
Do not use this heating device in immediate proximity to bathtubs, showers or swimming pools!

Warning of explosive substances
Explosion hazard in case of leaking gas connections.
If you smell gas, immediately close the valve at the gas cylinder and exit the room / area. Also notify the fire brigade.

Warning of hot surface
Parts of this appliance can become very hot and cause burns. Particular attention is to be paid when there are children or vulnerable persons present!

Warning
Improper handling entails a risk of electric shock.
Only use the device as intended!

Warning
Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way!
Observe the personnel qualifications!

Warning
The device is not a toy and does not belong in the hands of children.

Warning
Risk of suffocation!
Do not leave the packaging lying around. Children may use it as a dangerous toy.

Warning
Improper installation entails a risk of fire.
Do not place the device on combustible ground.
Do not place the device on high-pile carpets.

Warning
In order to avoid overheating and fire hazards, the device must not be covered!

Warning
Inhaling a propane-butane gas mixture may cause damages to health. Ensure the tightness of all connections. Only use the device in well-ventilated spaces or out of doors.

Warning
Oxygen is consumed during the operation of the device. In smaller rooms this would result in an oxygen deficiency. Only use the device in well-ventilated spaces or out of doors.

Warning
There is a danger of suffocation and poisoning due to the carbon monoxide formed during unclean combustion and the lack of fresh air supply / ventilation.
Do not use the device in windowless basements or other spaces below ground level.
Only use the device in well-ventilated spaces or out of doors.
Do not leave the device running unattended.

Overheating protection

The device is provided with a safety thermostat which is activated by overheating of the device (when exceeding the operating temperature).

As a result, the gas supply will be interrupted. The fan keeps running.

The safety thermostat resets automatically when cooled down sufficiently, but the device will have to be restarted. Investigate the cause of overheating before switching the device back on.

Flame failure protection

The device comes equipped with a temperature sensor which ensures that the temperature stays above 430 °C. As soon as the device falls below this temperature the valve closes and interrupts the gas flow. This prevents an involuntary emission of unburnt gas. So long as the gas flame heats the sensor, the gas outlet is open. As soon as the flame dies, the gas flow will be interrupted.

Behaviour when having detected the smell of gas

If you suspect a gas leak, e.g. you smell gas, make sure to observe the instructions below:

- Do not actuate any electrical switches! Do not switch on the light!
- Do not use a phone – corded, wireless or mobile – in the danger area.
- Do not use naked flames or other open sources of ignition, e.g. a lighter or match. Do not smoke!
- Immediately close the valve on the gas cylinder by turning it clockwise.
- Open all doors and windows to ensure a sufficient fresh air supply.

Behaviour in the event of an emergency

1. Close the valve on the gas cylinder.
2. Quickly leave the danger area. Remove other persons from the danger area.
3. Notify the fire brigade.

Information about the device

Device description

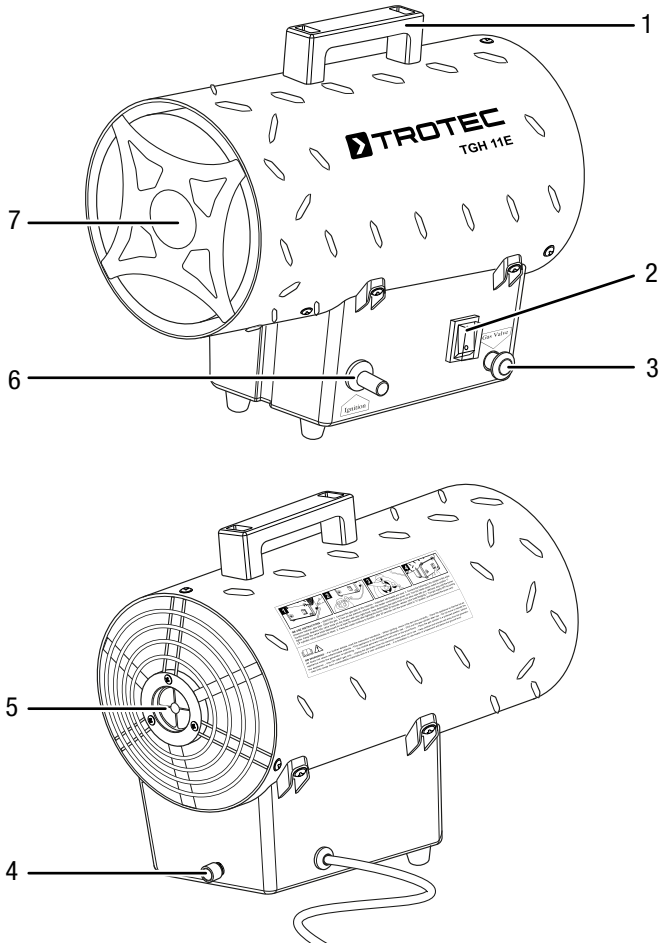
The device TGH 11 E / TGH 16 E / TGH 31 E was developed for the purpose of generating hot air and may only be used in roofed over outdoor areas or in well-ventilated interior spaces whilst adhering to the technical data.

The device generates heat by burning a mixture of propane and butane gas. The fan sucks in the ambient air and feeds it through the combustion area. In this area the supplied gas is burnt under controlled conditions and the warm air discharged through the air outlet.

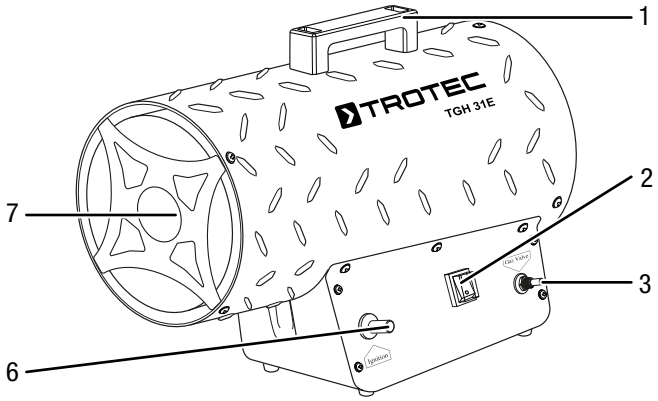
The device comes equipped with a piezo igniter for lighting the torch.

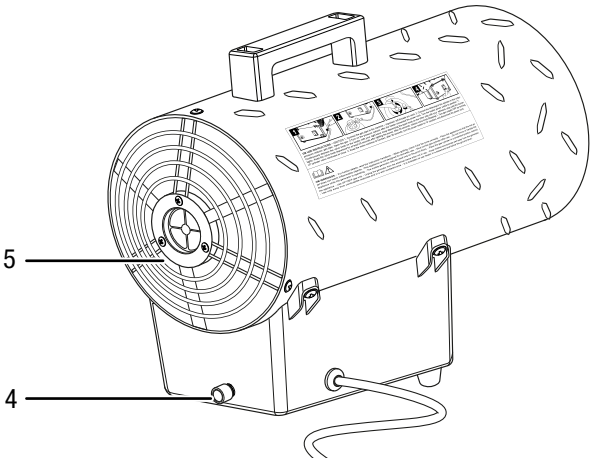
Device depiction

TGH 11 E / TGH 16 E

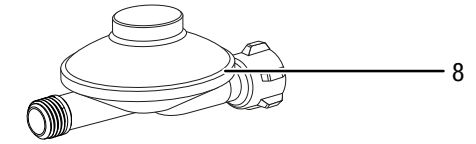


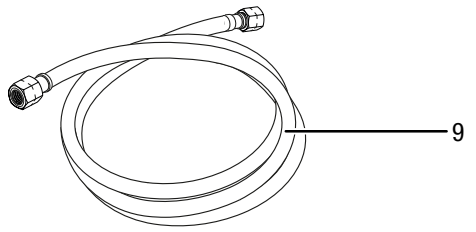
TGH 31 E





Accessories TGH 11 E / TGH 16 E / TGH 31 E





No.	Designation
1	Transport handle
2	On/off switch
3	Gas valve push button
4	Gas hose connection
5	Air inlet
6	Ignition button (piezo igniter)
7	Air outlet
8	Pressure reducer
9	Gas hose

Transport and storage

Note

If you store or transport the device improperly, the device may be damaged.
Note the information regarding transport and storage of the device.

Transport

To make the device easier to transport, it is fitted with a transport handle.

Before transporting the device, observe the following:

- Switch off the device.
- Hold onto the mains plug while pulling the power cable out of the mains socket.
- Do not use the power cable to drag the device.
- Do not use the gas hose to drag the device.
- Allow the device to cool down sufficiently.
- Close the valve on the gas cylinder and unscrew the gas hose observing the safety instructions (see Safety chapter) and away from possible sources of ignition.
- Transport gas cylinder and device separately.

After transporting the device, observe the following:

- Please observe the information for device set-up:
- Re-connect the gas hose and carry out a leak test (see chapter Assembly and installation).

Storage

Before storing the device, proceed as follows:

- Close the valve on the gas cylinder and unscrew the gas hose observing the safety instructions (see Safety chapter) and away from possible sources of ignition.
- Allow the device to cool down sufficiently.

When the device is not being used, observe the following storage conditions:

- dry
- under roof
- in an upright position where it is protected from dust and direct sunlight
- with a cover to protect it from invasive dust, if necessary
- Place no further devices or objects on top of the device to prevent it from being damaged.
- Store gas cylinder and device separately.
- The storage temperature is the same as the range given for the operating temperature in the technical data.
- Do not twist or kink the gas hose.
- Do not store the device in potentially explosive atmospheres.

Assembly and installation

Scope of delivery

- 1 x Device
- 1 x Gas hose, class 2, 6.3 mm, 10 bar, length: 1.5 m
- 1 x Pressure reducer 700 mbar, suitable for gas cylinders from Germany, Austria, Belgium, the Netherlands and Poland
- 1 x Transport handle
- 2 x Screw
- 2 x Washer
- 1 x Manual

Unpacking the device

1. Open the cardboard box and take the device out.
2. Completely remove the packaging.
3. Fully unwind the power cable. Make sure that the power cable is not damaged and that you do not damage it during unwinding.
4. Check the scope of delivery for completeness and damages. If parts are missing or damaged, please contact the customer service.

Assembly

Use tools suitable for the intended task.

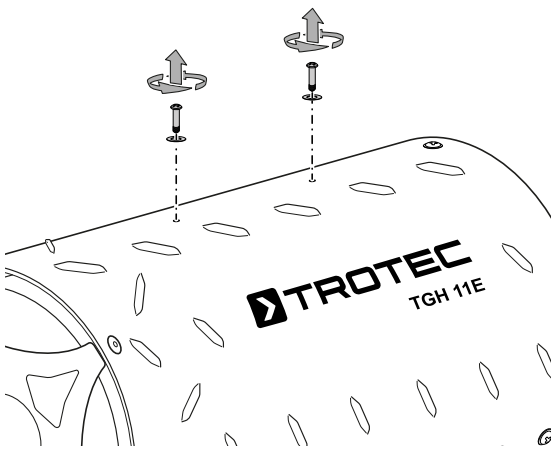
Mounting the transport handle

Prior to initial start-up, the transport handle must be attached to the device.

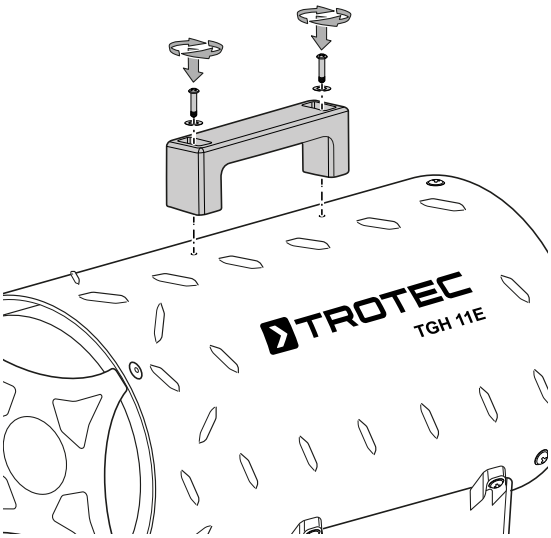
The procedure is identical for the devices TGH 11 E / TGH 16 E / TGH 31 E.

To do so, please proceed as follows:

1. Loosen the two screws and the two washers from the top of the housing.



2. Use the screws and washers to mount the transport handle.



Connecting the gas cylinder

Info

Use tools suitable for the intended task.
Make sure not to damage the valve seal.
Damage could lead to a point of leakage at the gas connection. And leaks connote an explosion hazard!

Info

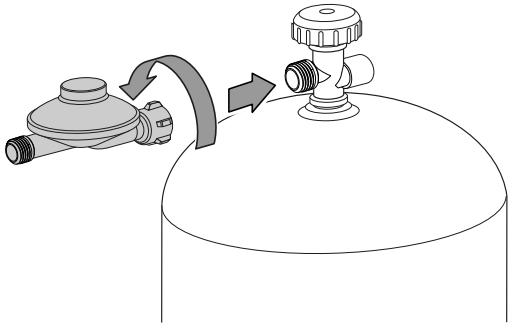
The pressure reducer included in the scope of delivery is only suitable for gas cylinders from the following countries of destination: Germany, Austria, Belgium, the Netherlands and Poland.
For all other countries of destination, a suitable pressure reducer must be purchased separately.

Info

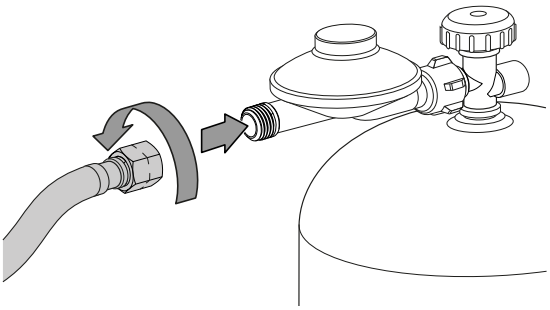
Once assembled, do not turn the pressure reducer!
Rotating the pressure reducer after completed assembly could cause damage to the valve seal at the gas cylinder.
Damage could lead to a point of leakage at the gas connection. And leaks connote an explosion hazard!

If you transported the gas cylinder, let it rest for about 1 hour in an upright position before connecting it. That way, the particles that are harmful to the environment have time to settle at the bottom.

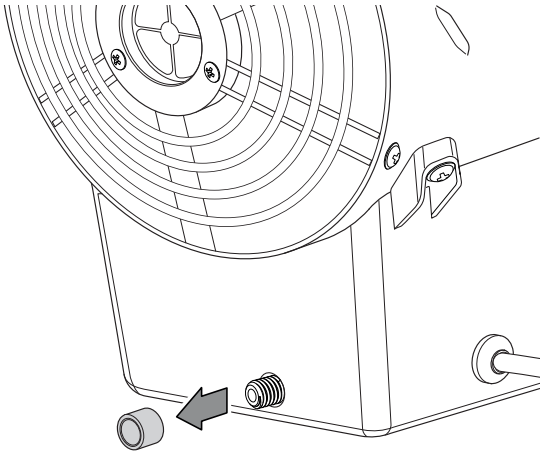
1. First connect the pressure reducer to the gas cylinder. To do so, screw the union nut of the pressure reducer in a counter-clockwise motion onto the thread of the gas cylinder.



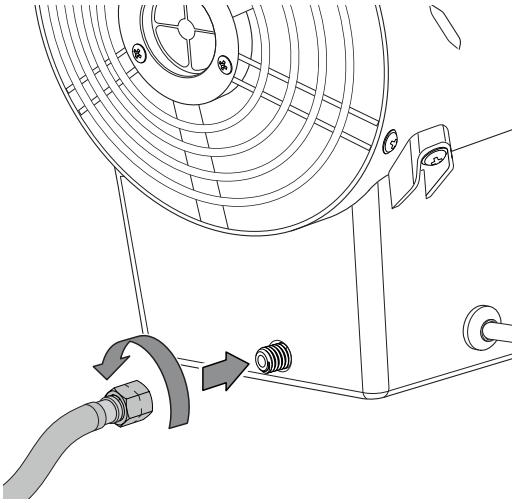
2. Connect one end of the gas hose to the pressure reducer. For this purpose, screw the union nut of the gas hose onto the external thread of the pressure reducer by turning it counter-clockwise. Use an open-end wrench of size SW 17 or SW 19 to do so.
   Please note that the gas hose must not be kinked or twisted.



3. Remove the protective cap from the hose connection at the device.



4. Connect the other end of the gas hose to the hose connection of the device. For this purpose, screw the union nut of the gas hose onto the gas connection of the device by turning it counter-clockwise. Use an open-end wrench of size SW 17 or SW 19 to do so.



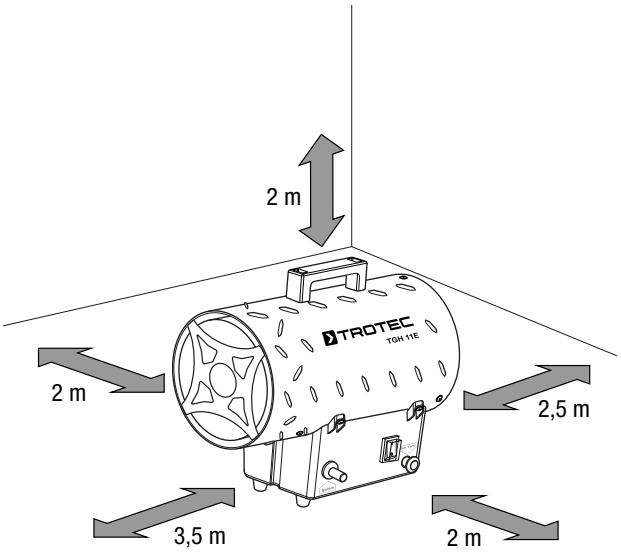
Start-up

Info

Odours might arise upon initial start-up or after a longer period of non-use. There might be a passing smell of burnt material.
A smell of gas however indicates a leak at the gas connection that must be remedied immediately. Otherwise there is an explosion hazard!

A number of spatial and technical conditions have to be considered for the selection of the device's installation site. Non-observance may impair the proper functioning of the device or the accessories or can entail risks of personal injury and property damage.

Only use the device in rooms corresponding to the minimum dimensions specified in the Technical data chapter. When positioning the device, observe the minimum distance from walls or other objects as described in the Technical data chapter.



- For outdoor application, the device may only be used when located under a roof.
- The device is to be set up in a stable position on incombustible ground.
- The room where the device is positioned must be sufficiently ventilated. The ventilation shaft must have a cross-section of at least 25 cm^2 per kW nominal heat output. It is determined based on the calorific value.
- Do not use the device in windowless basements or other spaces below ground level.
- The inlet and outlet openings must not be covered.
- Never direct the air outlet towards the gas cylinder.
- There must be no walls or large objects near the device.
- There must be a sufficient number of fire extinguishers available.
- Before restarting the device, check the condition of the power cable. If there are doubts as to the sound condition, contact the customer service.
- Do not create tripping hazards when laying the power cable or other electric cables, especially when positioning the device in the middle of the room. Use cable bridges.
- Make sure that extension cables are completely unrolled.
- Make sure that the device cannot come into contact with moisture or water.

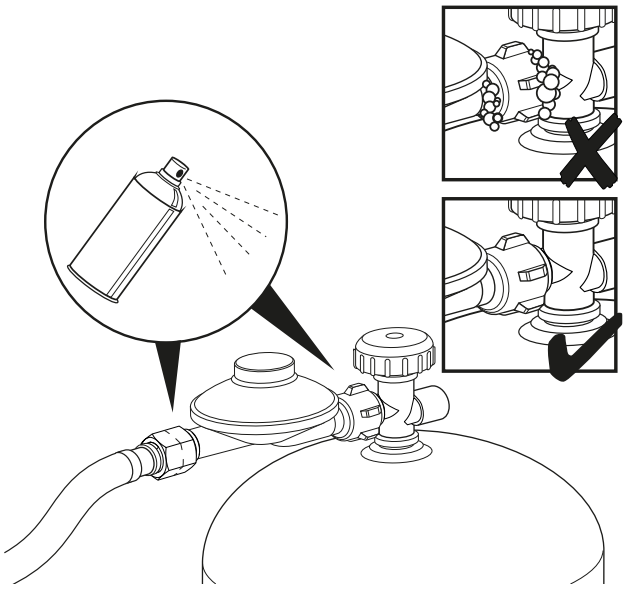
Leak testing

Note

A leak test can only be performed when the device is cold.

Prior to initial start-up and before every new start-up operation the gas connection needs to be checked for tightness in the first instance. Use a spray bottled filled with soap water (water/soap mixing ratio 3:1, approx. 50 ml) or a suitable leak detector spray.

1. Open the valve at the gas cylinder.
2. Spray some of the soap water onto the connection points.
   ⇨ A formation of bubbles indicates leakage.



3. Turn the gas off again using the valve.
4. Use a clean cloth to wipe the connection faces dry.
5. (Re-)Tighten any leaking connections.
6. Repeat the tightness test until no more bubbles appear and the connections are sealed tightly.
7. If the leak cannot be eliminated in this manner, gas hose and pressure reducer need to be replaced.

Info

After having assembled a new gas hose and pressure reducer again check the gas connection for tightness. This is the only way to reliably rule out leakage at the gas connection.

Connecting the power cable

- Plug the mains plug into a sufficiently fused mains socket.
- Make sure that the power cable is guided along the back of the device. Never guide the power cable along the front of the device!

Operation

Info

Ensure the tightness of all connections.
Make sure that the fan operates properly.
Make sure that the 700 bar pressure reducer is connected (see Connecting the gas cylinder).
The device must not be taken into operation unless these conditions are met!

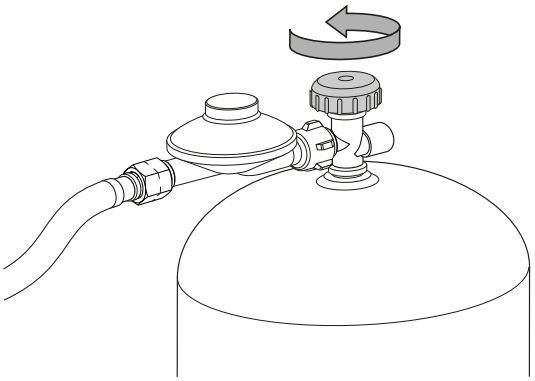
Switching the device on

Once you have completely installed the device as described in the chapter Assembly and start-up, you can switch it on.

Note

The fan must be running during operation. An idle fan during operation might lead to overheating.

1. Open the valve at the gas cylinder.



2. Switch on the fan by setting the on/off switch (2) to position **I**.

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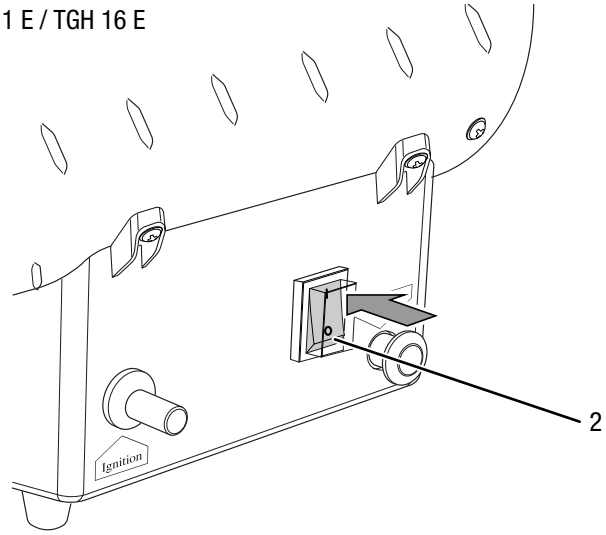
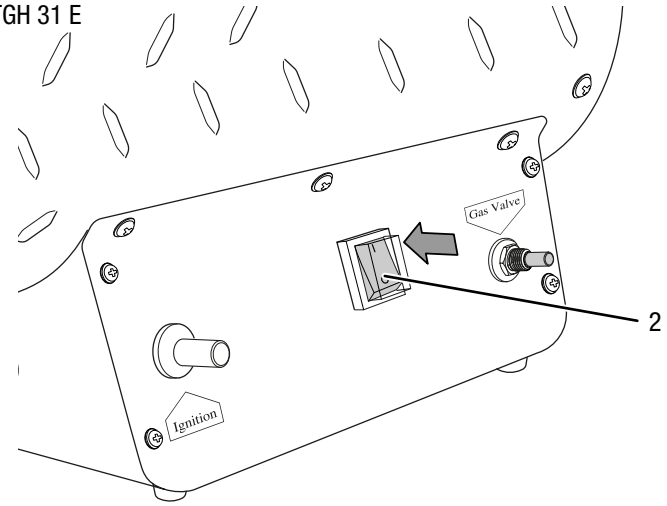


TGH 31 E



⇨ The on/off switch (2) will be illuminated in red.

3. Leave the fan running for approx. 30 s. Make sure that the fan is operating correctly.
4. Press and hold the push button for the gas valve (3) while actuating the ignition button (6).

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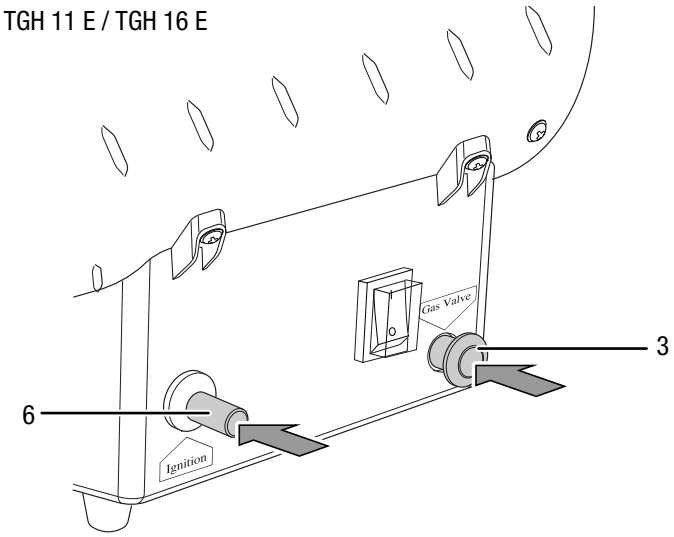
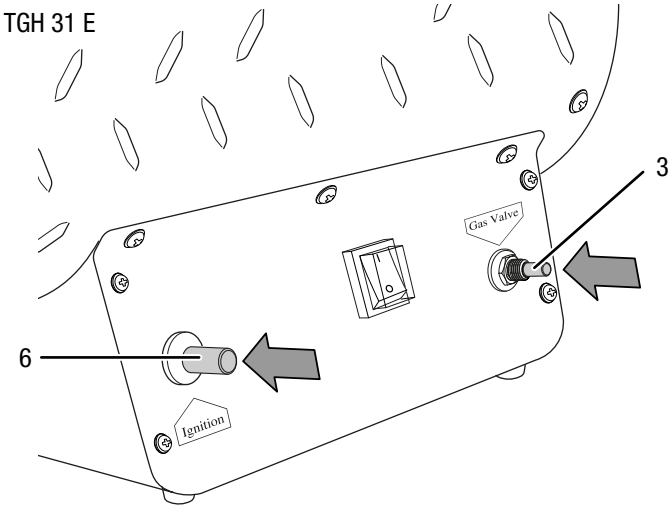


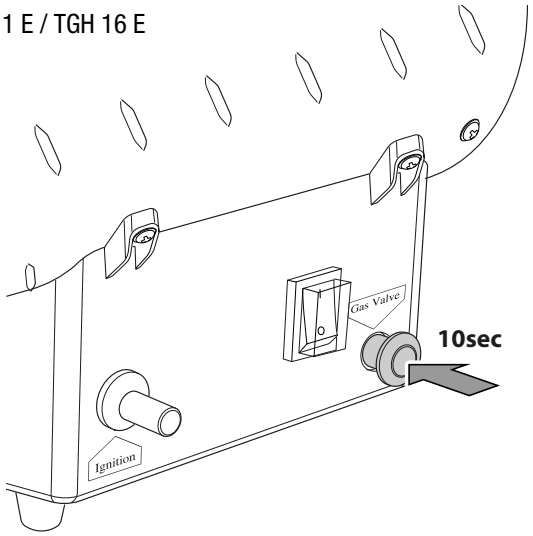
TGH 31 E



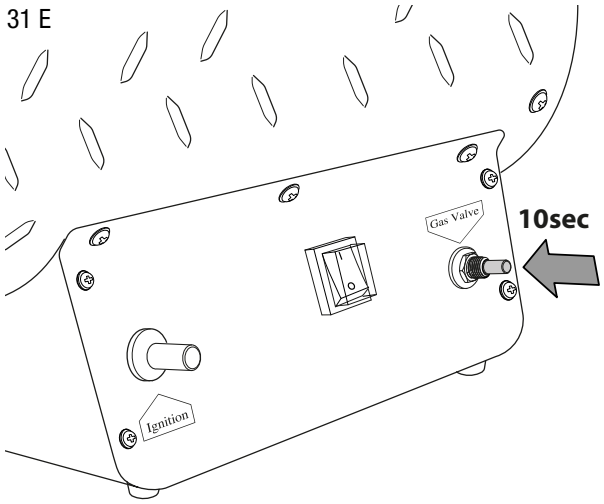
5. It may be necessary to actuate the ignition button (6) repeatedly before the gas catches fire.

6. Hold onto the gas valve push button (3) for roughly another 10 s after the ignition has been successful.

TGH 11 E / TGH 16 E



TGH 31 E



7. Then let go of the button (3).
   ⇨ The combustion itself is an automatically controlled process.
8. Check from a safe distance whether the flame comes out at the intended points of the gas nozzles and only flows out in the direction of the air outlet. The flame should be inside the device and coloured in blue.

Info

Excessive temperature trips the overheating protection which in turn interrupts the gas supply.
If the flame dies, the flame failure protection kicks in which also interrupts the gas supply.

If the device switches off upon releasing the gas valve push button (3), please proceed as follows:

1. Keep the fan running for approx. 1 minute to let the gas escape completely.
2. Repeat the ignition process as described above.

Info

If you experience difficulties in lighting the torch, check the air current.
Make sure that the fan is not blocked.
Make sure that air inlet and outlet are not obstructed.

If you use the device for an extended period of time, excessive evaporation may cause a fine film to settle on the gas cylinder.

Info

Never direct the air outlet towards the gas cylinder!
Do not position the gas cylinder in front of the device!
Risk of fire and explosion!

1. Replace the gas cylinder with a new one or use a larger gas cylinder.

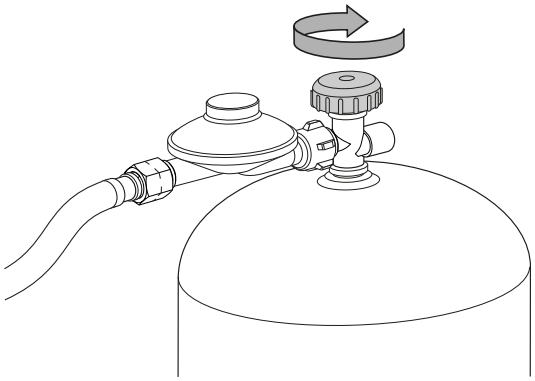
Using the device as fan

You may also use the device as a fan for air circulation.

1. Make sure that the device is not connected to the gas supply. The gas connection is rendered redundant during the ventilation operation.
2. Remove the gas hose as appropriate.
3. Switch on the fan by setting the on/off switch (2) to position **I**.
   ⇨ The device now operates as fan.

Shutdown

1. Tightly close the valve at the gas cylinder.



   ⇨ The flame goes out after a little while.
2. Keep the fan running for 3 minutes before switching the device off.
3. Set the on/off switch (2) to position **0**.
4. Hold onto the mains plug while pulling the power cable out of the mains socket.
5. Allow the device to cool down completely.
6. Disconnect the pressure reducer from the gas cylinder.
7. Loosen the hose connections at device and pressure reducer.
8. Clean the device according to the Maintenance chapter.
9. Store the device according to the Storage chapter.

Errors and faults

Warning of electrical voltage

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by Trotec.

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The fan does not start:

- Check whether the device is switched on. The on/off switch (2) should be set to **I**.
- Check the power connection.
- Check the power cable and mains plug for damage.
- Check the on-site fusing.
- Check whether the overheating protection has tripped (see chapter Safety).
- The fan motor might be defective. Have a defective fan motor replaced by a specialist electrical company.
- There might be a fault in the circuitry. Have the electrical system checked by a specialist electrical company.

The fan is running, but the gas fails to ignite:

- Check whether the device is switched on.
- Check whether the connection line is properly connected.
- Make sure that the valve at the gas cylinder is open.
- Perhaps the gas cylinder is empty and needs to be replaced.
- The ignition electrode may be dirty or positioned incorrectly. Have a specialist electrical company check the ignition electrode.

The fan is running, the gas is ignited, but the flame dies after a little while:

- Check whether the gas hose is properly connected.
- Perhaps the gas cylinder is empty and needs to be replaced.
- There might be a defect at the sensors or another part of the circuitry. Have the electrical system checked by a specialist electrical company.

The flame goes out during operation:

- Check whether the overheating protection has tripped (see chapter Safety).
- Check whether the flame failure protection has tripped, see chapter Safety.
- Perhaps the gas cylinder is empty and needs to be replaced.
- The pressure reducer might be defective causing an excessive gas supply. Replace the pressure reducer.
- Insufficient gas supply due to icing on the gas cylinder. Perhaps use a gas cylinder with a higher output rate, see gas consumption in the Technical data chapter.
- The supplied amount of combustion air might be insufficient. Check the air inlet for obstructions and whether the fan operates properly. If there is a problem with the fan, have it checked by a specialist electrical company.

The device is loud or vibrates:

- Check whether the device is set up in a stable and upright position.

The flame is too high:

- Too much gas is emitted. The pressure reducer might be defective and needs to be replaced.

The device still does not operate correctly after these checks:

Please contact the customer service. If necessary, bring the device to an authorised specialist electrical company or to Trotec for repair.

Maintenance

Have a specialist electrical company check the device for proper functioning once a year. The same shall apply, when taking the device back into operation after having stored it for a longer period of time.

Activities required before starting maintenance

Warning of electrical voltage

Do not touch the mains plug with wet or damp hands.

- Switch the device off.
- Hold onto the mains plug while pulling the power cable out of the mains socket.

Warning of electrical voltage

Tasks which require the device to be opened must only be carried out by authorised specialist companies or by Trotec.

Cleaning the housing

Clean the housing with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Protect electrical components from moisture. Do not use any aggressive cleaning agents such as cleaning sprays, solvents, alcohol-based or abrasive cleaners to dampen the cloth.

Wipe the housing dry after cleaning.

Cleaning the inside of the device

If required, blow the device interior out with compressed air to remove slight contamination such as dust deposits.

Leak testing

Tightness tests ought to be performed at regular intervals and after extended idle times (see Start-up chapter).

Provisions to be made in case the device has to be left unattended without safeguards

If the device has to be left unattended without safeguards, protect the device against unauthorized use, e.g. by fencing in the gas cylinders.

Leave the premises and repair to open space.

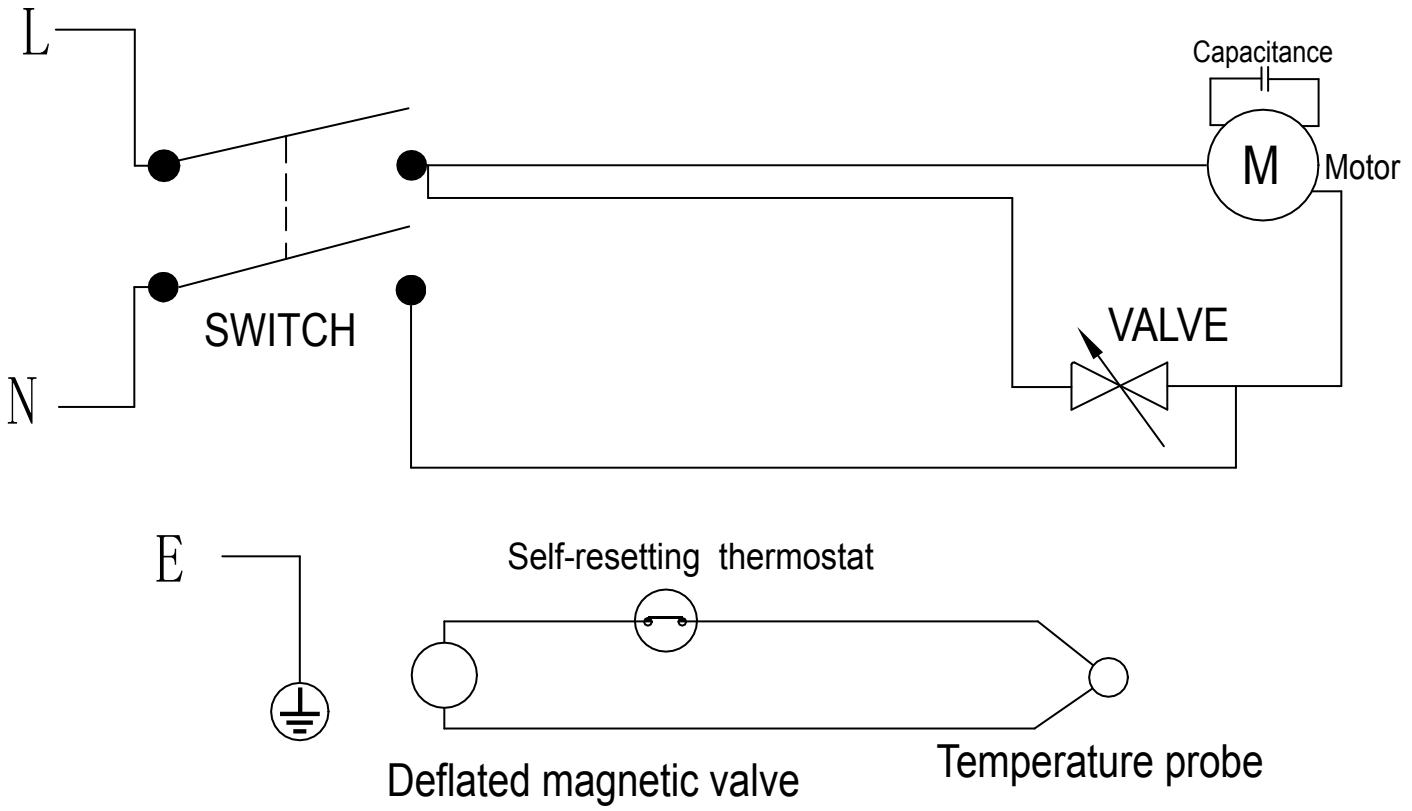
Warn others.

Technical annex

Technical data

Parameter	Value		
Model	TGH 11 E	TGH 16 E	TGH 31 E
Heating capacity	10 kW	15 kW	30 kW
Gas consumption	730 g/h	1,090 g/h	2,180 g/h
Type of gas	propane-butane gas mixture	propane-butane gas mixture	propane-butane gas mixture
Operating pressure	0.7 bar	0.7 bar	0.7 bar
Gas cylinder capacity	≤ 33 kg	≤ 33 kg	≤ 33 kg
Air flow rate	580 m^3/h	580 m^3/h	1000 m^3/h
Air outlet temperature (1.5 m distance)	84.5 °C	79.5 °C	75.6 °C
Operating range	-15 °C to +30 °C	-15 °C to +30 °C	-15 °C to +30 °C
Sound pressure level (1 m distance)	48 dB(A)	48 dB(A)	65 dB(A)
Mains connection	220–240 V / 50 Hz	220–240 V / 50 Hz	220–240 V / 50 Hz
Motor power	70 W	70 W	70 W
Nominal current consumption	0.33 A	0.33 A	0.32 A
Protection class	I	I	I
Plug type	CEE 7/4	CEE 7/4	CEE 7/4
Cable length	1.3 m	1.3 m	1.3 m
Type of protection	IPX4	IPX4	IPX4
Dimensions (depth x width x height)	380 x 190 x 305 mm	380 x 190 x 305 mm	475 x 243 x 375 mm
Weight	4 kg	4 kg	6 kg
Overheating protection	95 °C	95 °C	110 °C
Ignition head	piezo igniter	piezo igniter	piezo igniter
Flame failure protection	x	x	x
Minimum distance to walls and other objects top: rear: sides: front:	 2 m 2.5 m 2 m 3.5 m	 2 m 2.5 m 2 m 3.5 m	 2 m 2.5 m 2 m 3.5 m
Min. room size	100 m^3	150 m^3	300 m^3
Min. ventilation cross-section	250 cm^3	375 cm^3	750 cm^3
Pressure reducer	700 mbar The pressure reducer included in the scope of delivery is only suitable for gas cylinders from the following countries of destination: Germany, Austria, Belgium, the Netherlands and Poland.	700 mbar The pressure reducer included in the scope of delivery is only suitable for gas cylinders from the following countries of destination: Germany, Austria, Belgium, the Netherlands and Poland.	700 mbar The pressure reducer included in the scope of delivery is only suitable for gas cylinders from the following countries of destination: Germany, Austria, Belgium, the Netherlands and Poland.
Country of destination	Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Finland, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, the Netherlands, Norway, Poland, Slovakia, Spain, Luxembourg, Romania, Sweden	Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Finland, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, the Netherlands, Norway, Poland, Slovakia, Spain, Luxembourg, Romania, Sweden	Austria, Belgium, Switzerland, Czech Republic, Germany, Denmark, Finland, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, the Netherlands, Norway, Poland, Slovakia, Spain, Luxembourg, Romania, Sweden
Equipment category	I3B/P	I3B/P	I3B/P

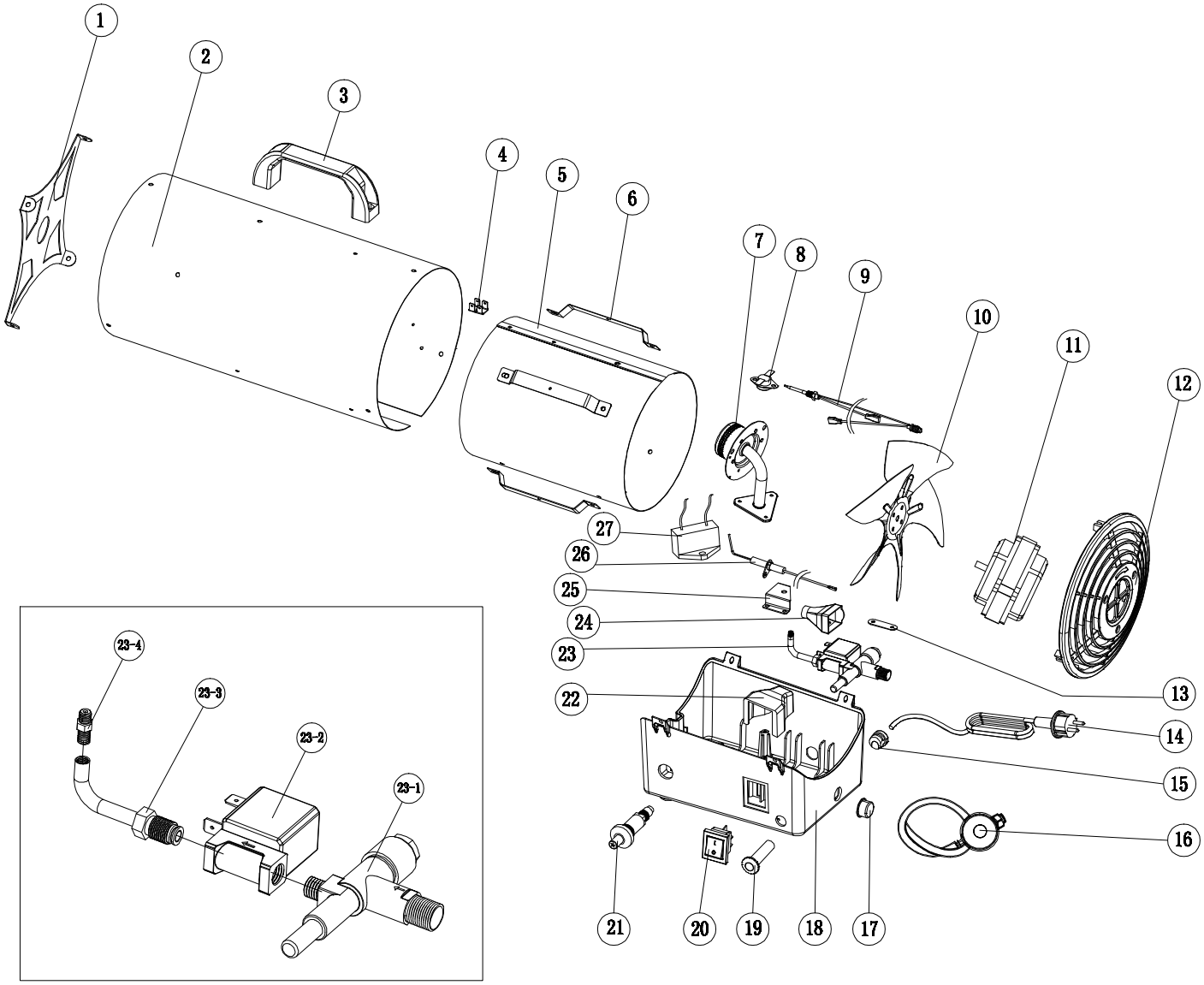
Wiring diagram TGH 11 E/TGH 16 E/TGH 31 E



Overview of spare parts TGH 11 E/TGH 16 E

Info

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.

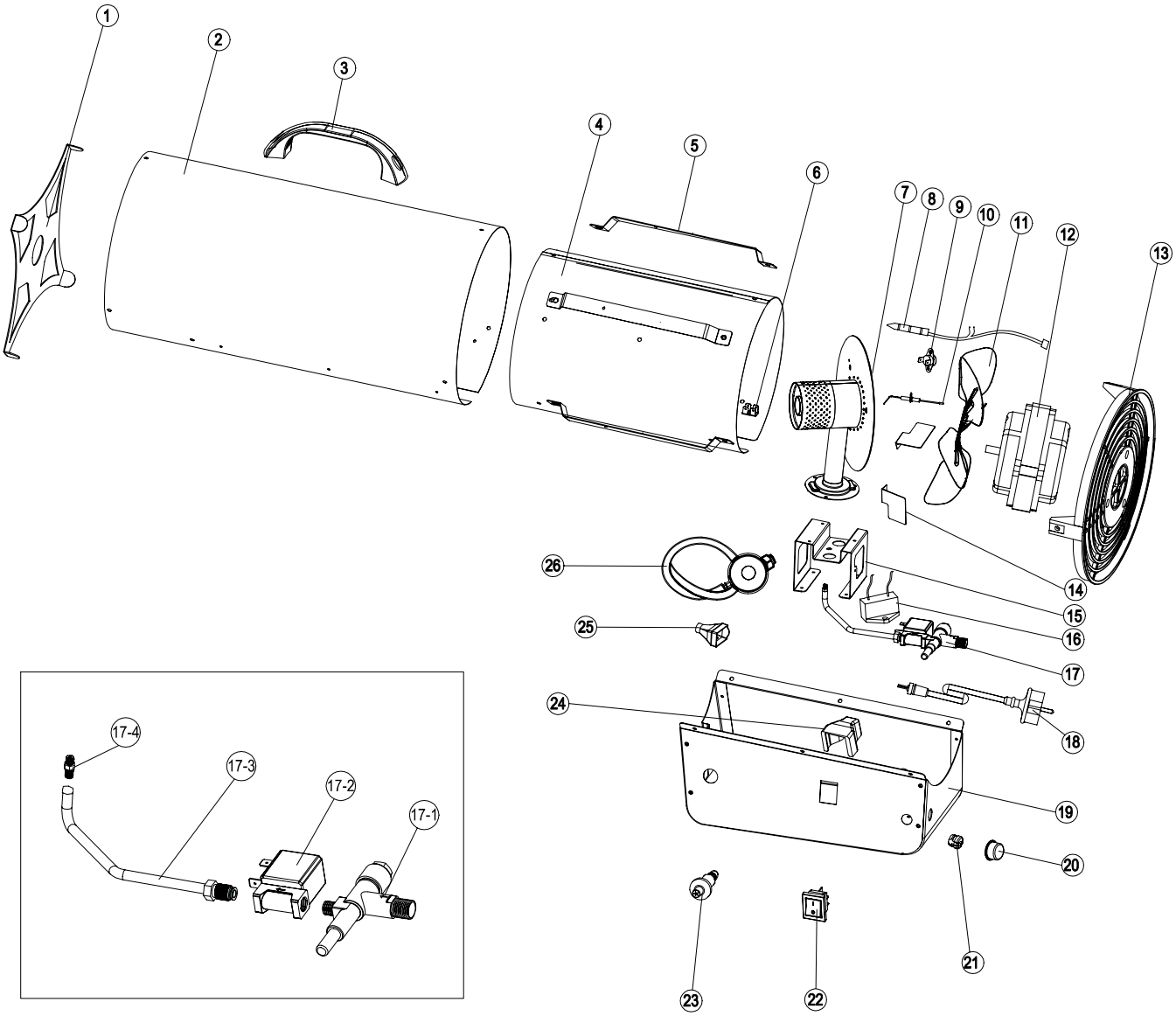


No.	Spare part	No.	Spare part	No.	Spare part
1	Front grill	12	Air inlet grill	23	Solenoid valve
2	Outer casing	13	Valve fixing plate	23-1	Gas escape valve
3	Handle	14	Power cord	23-2	Solenoid valve
4	Earth wire connection	15	Cable fasterner	23-3	Gas pipe
5	Inner shell	16	Regulator	23-4	Gas nozzle
6	Insulation shell support	17	Inlet connection protection cover	24	Waterproof protective cover
7	Burner head assembly	18	Bottom base	25	Nozzle support bracket
8	Thermal cut-out	19	Valve filter	26	Ignition needle
9	Thermocouple	20	Switch	27	Capacitor
10	Fan	21	Dual igniter		
11	Motor	22	Waterproof cover		

Overview of spare parts TGH 31 E

Info

The position numbers of the spare parts differ from those describing the positions of the components mentioned in these instructions.



No.	Spare part	No.	Spare part	No.	Spare part
1	Front grill	11	Fan	17-4	Gas nozzle
2	Outer casing	12	Motor	18	Power cord
3	Handle	13	Air inlet grill	19	Bottom base
4	Inner shell	14	Blade for combustion	20	Inlet connection protection cover
5	Insulation shell support	15	Nozzle support bracket	21	Cable fasterner
6	Earth wire connection	16	Capacitor	22	Switch
7	Burner head assembly	17	Solenoid valve	23	Dual igniter
8	Thermocouple	17-1	Gas escape valve	24	Waterproof cover
9	Thermal cut-out	17-2	Solenoid valve	25	Waterproof protective cover
10	Ignition needle	17-3	Gas pipe	26	Regulator

Disposal

Always dispose of packing materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.

The icon with the crossed-out waste bin on waste electrical or electronic equipment is taken from Directive 2012/19/EU. It states that this device must not be disposed of with the household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your municipality or local administration. You can also find out about other return options that apply for many EU countries on the website https://hub.trotec.com/?id=45090. Otherwise, please contact an official recycling centre for electronic and electrical equipment authorised for your country.

The separate collection of waste electrical and electronic equipment aims to enable the re-use, recycling and other forms of recovery of waste equipment as well as to prevent negative effects for the environment and human health caused by the disposal of hazardous substances potentially contained in the equipment.

Only for United Kingdom

According to Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) devices that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

Declaration of conformity

Declaration of conformity in accordance with the EC Machinery Directive 2006/42/EC, Annex II, Part 1, Section A

We – Trotec GmbH – declare in sole responsibility that the product designated below was developed, constructed and produced in compliance with the requirements of the EC Machinery Directive in the version 2006/42/EC.

Product model / product:	TGH 11 E TGH 16 E TGH 31 E
Product type:	gas heater fan
Year of manufacture as of:	2023

Relevant EU directives:

- 2011/65/EU
- 2012/19/EU
- 2014/30/EU
- 2016/426/EU
- 2015/863/EU

Applied harmonised standards:

- EN 1596:1998/A1:2004
- EN 60335-1:2012/A15:2021
- EN 60335-2-102:2016

Applied national standards and technical specifications:

- EN IEC 55014-1:2021
- EN IEC 55014-2:2021
- EN IEC 61000-3-2:2019/A1:2021
- EN 61000-3-3:2013/A1:2019
- EN 61000-3-3:2013/A2:2021
- EN 62233:2008

Conformity assessment procedure

The notified body CE-0063 has issued the certificate with the product identification number CE-0063DM7863:
KIWA Nederland B.V., Wilmersdorf 50, P.O. Box 137,
7300 AC Apeldoorn, NL
Validity start date of the certificate: 14 March 2022,
validity end date of the certificate: 21 May 2031

Manufacturer and name of the authorised representative of the technical documentation:

Trotec GmbH

Grebbener Straße 7, D-52525 Heinsberg

Phone: +49 2452 962-400

E-mail: info@trotec.de

Place and date of issue:

Heinsberg, 28.07.2023

Joachim Ludwig, Managing Director

Trotec GmbH

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