

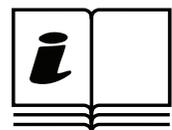
STANLEY®

ST-40-GFA-E / ST-60V-GFA-E / ST-100V-GFA-E / ST-150V-GFA-E

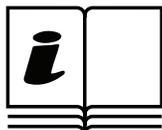
— MOBILE GAS FIRED FORCED AIR HEATER —



NEVER LEAVE HEATER UNATTENDED WHILE BURNING, CONNECTED TO A POWER SOURCE, OR WHILE CONNECTED TO A FUEL SOURCE.



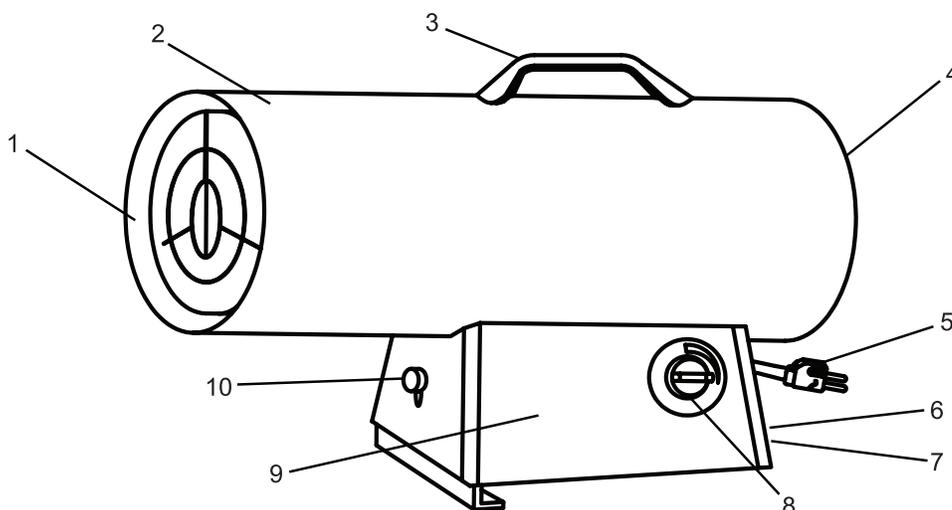
STGA-421



Read The Instruction manual: When this symbol is marked on a product, it means that the instruction manual must be read.



GB This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.



1. INNER SHELL
2. OUTER SHELL
3. HANDLE
4. REAR GUARD
5. POWER CORD
6. POWER SWITCH
7. INLET CONNECTOR
8. VALVE KNOB
9. BASE
10. HEIGHT CONTROLLER

Read this User's Manual carefully and completely before attempting to operate or service this heater. If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- An fuel cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

WHAT TO DO IF THE SMELL OF GAS IS PRESENT:

- DO NOT attempt to light heater! Extinguish any open flame
- Shut off the gas supply to the heater.
- If odour continues, contact your local gas supplier or fire dept.
- Ventilate area thoroughly.
- Do not touch any electric switch, do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier instructions.
- If you cannot reach your gas supplier, call the fire department.
- Service must be done by a qualified service agency or the gas supplier.

NOT TO BE USED FOR THE HEATING OF HABITABLE AREAS OF DOMESTIC PREMISES; FOR USE IN PUBLIC BUILDINGS, REFER TO NATIONAL REGULATIONS

1. Read and understand the instructions and safety warnings contained in the instruction manual before use. Failure to do so could result in personal injury or property damage. Failure to do so will also invalidate the warranty.
2. Only use the heater in well ventilated areas.
3. Ensure the heater is connected to an earthed electrical socket of the correct voltage.
4. Ensure heater is correctly turned off after use and disconnect fuel supply cylinder. Only fully qualified personnel should carry out maintenance and repair.
5. Ensure heater has cooled down before undertaking any maintenance.
6. DO NOT use heater in areas containing flammable or explosive material.
7. DO NOT point heater at the fuel supply cylinder.
8. DO NOT obstruct the air inlet and the outlet sections of the heater.
9. DO NOT operate the heater without the Shell or Cover.
10. DO NOT exceed the 100W / mtr³ limit considering the volume of the empty operating area.
11. DO NOT use a bare flame to try and ignite the heater.

General Safety Information

▲ WARNING *Fire, burn, inhalation, and explosion hazard. Keep solid combustibles such as building materials, paper, or cardboard, at a safe distance away from heater as recommended by the instructions. Never use the heater in spaces which do or may contain volatile or airborne combustibles or products such as gasoline, diesel, petrol, solvents, paint thinner, dust particles, or unknown chemicals.*

Consumer: Retain these instructions for future reference.

IMPORTANT: Read this User's Manual carefully and completely before attempting to operate or service this heater.

▲ DANGER *Improper use of this heater can result in serious injury or death from burns, fire, explosion, electrical shock and/or carbon monoxide poisoning. DO NOT use this heater below ground level or in a basement.*

This heater is designed as a construction heater in accordance with CE Gas Appliance Directive 2009/142/EC, Annex 1 based on EN 1596: 1998 + A1:2004. Other standards govern the use of fuel gases and heating products for specific uses. Your local authority can advise you about these. The primary purpose of construction heaters is to provide temporary heating of buildings under construction, alteration, or repair. Properly used, the heater provides safe economical heating. Products of combustion are vented into the area being heated.

▲ WARNING *Not for home or recreational vehicle use. The hose assembly shall be protected from traffic, building materials and contact with hot surfaces both during use and while in storage. Not for use with duct work.*

IMPORTANT SAFETY INFORMATION

- Children should be kept away.
- Always maintain proper clearance from combustible materials. Minimum clearance should be:
Sides - .6 metres Top - .9 metres Front - 3.1 metres
- Heater must be placed on level and solid footing.
- Never place anything, including clothes or other flammable items on heater.
- Do not modify heater, or operate a heater that has been modified. Never use with duct work.
- Adequate clearance for accessibility, combustion and ventilation (air supply) must be maintained at all times when heater is operating. Do not restrict air inlet or outlet areas of heater.
- Do Not use this heater in a basement or below ground level.
- Service and repair should be performed by a qualified service person. The heater should be inspected before each use, and at least annually by a qualified person. More frequent cleaning may be required as necessary. Do not service heater while hot or operating.
- Never connect heater to an unregulated gas supply.
- To prevent injury, always wear gloves when handling heater. Never handle an operating or hot heater, as severe burns may result.
- Use heater in accordance with all local codes.
- Locate fuel supply cylinder at least 1.8 metres from the heater, and do not direct heater discharge towards the fuel supply cylinder unless it is at least 6 metres from the heater.
- You must check all electrical products, before use, to ensure that they are safe.
- You must inspect power cables, plugs sockets and any other connectors for wear or damage. Have damaged components replaced by a qualified person.
- You must ensure that the risk of electric shock is minimized by the installation of appropriate safety devices.
- Ensure that the insulation on all cable and on the appliance is safe before connecting it to the power supply.
- Ensure that cables are always protected against short circuit and overload.
- Regularly inspect power supply cable and plugs for wear or damage and check all connections to ensure that none are loose.
- Store fuel cylinder according to applicable regulations.
- DO NOT pull or carry the appliance by the power cable.
- DO NOT pull the plug from the socket by the cable.
- DO NOT use worn or damaged cable, plugs or connectors.
- Always keep fuel cylinder securely fastened and in an upright position.

▲ WARNING *Be sure ambient temperature is not less than -10°C when storing fuel supply cylinder. Take precautions to avoid accidental heating of the fuel supply cylinder.*

If ice forms on the fuel supply cylinder, DO NOT use the heater to de-ice the fuel supply cylinder.

UNPACKING

1. Remove all packing items applied to heater for shipment. Keep plastic cover caps attached to inlet connector and hose/regulator assembly for storage.
2. Remove all items from carton.
3. Check all items for shipping damage. If heater is damaged, promptly inform dealer where you purchased the heater.
4. Thoroughly inspect the heater, hose and regulator for signs of damage. Do not attempt to use any heater that shows signs of damage.

▲ WARNING *The gas pressure regulator and hose assembly supplied with the heater must be used without alteration.*

INSTALLATION

Minimum ventilation requirements: room volume should not be less than 100 m³; minimum ventilation of 25 cm² per kW of heat input subject to a minimum of 250 cm².

1. Inspect fuel cylinder and hose connection to appliance to ensure it is in good condition.
2. Connect power cord to electrical supply outlet.
3. Connect Gas supply hose to heater. **(Required hose and regulator is to be 1.5 metres max and 1.0 metre min. in length, and type EN16129).** Connect other end (regulator) to a fuel supply cylinder.

▲ WARNING *Be careful to avoid torsional stresses in the flexible tubing (regulator hose).*

▲ CAUTION *Use the appropriate fuel supply cylinder listed below.*

ST-40-GFA-E : 9 Kg to 45 Kg fuel cylinder
ST-60V-GFA-E : 9 Kg to 45 Kg fuel cylinder
ST-100V-GFA-E : 9 Kg to 45 Kg fuel cylinder
ST-150V-GFA-E : 9 Kg to 45 Kg fuel cylinder

▲ WARNING ***THIS HEATER MUST BE INSTALLED BY COMPETENT PERSONS IN ACCORDANCE WITH SUCH REGULATIONS AS ARE IN FORCE.***

NOTE: Optimum efficiency is achieved when the heater uses the appropriate full fuel supply cylinder.

4. Slowly open the fuel supply cylinder. Leak test all gas connections with 50/50 soap and water solution prior to start-up to ensure the heater is connected properly. Soap bubbles indicate a gas leak. DO NOT use a match or flame to test for gas leaks.

NOTE: Consult local regulations when planning to install an air temperature control.

Model No.	Gas Category	Gas Type and Inlet Pressure	Destination Country
ST-40-GFA-E	13B(P)37	G30 Butane at 37 mbar	PL
	13B(P)37	G31 Propane at 37 mbar	PL
	13B(P)50 / G30	G30 Butane at 50 mbar	DE
	13P(30) / G31	G31 Propane at 30 mbar	NL, RO, TR
	13P(37) / G31	G31 Propane at 37 mbar	GB, FR, PT, IE
	13P(50) / G31	G31 Propane at 50 mbar	NL, DE
ST-60V-GFA-E ST-100V-GFA-E ST-150V-GFA-E	13+ (28-30/37) / G30	G30 Butane at 28-30 mbar G31 Propane at 37 mbar	GB, FR, IT, PT, IE
	13B(P)30 / G30	G30 Butane at 30 mbar	NL, NO, SE, DK, FI, RO, TR, ES
	13B(P)50 / G30	G30 Butane at 50 mbar	DE
	13B(P)37	G30 Butane at 37 mbar	PL
	13B(P)37	G31 Propane at 37 mbar	PL
	13P(30) / G31	G31 Propane at 30 mbar	NL, RO, TR
	13P(37) / G31	G31 Propane at 37 mbar	GB, FR, PT, IE
	13P(50) / G31	G31 Propane at 50 mbar	NL, DE

CHANGING FUEL SUPPLY CYLINDERS

1. When changing fuel supply cylinders, be sure this is done in a flame-free atmosphere and non-smoking environment.
2. When you need to replace your empty cylinder, turn the gas off first.
3. Make sure that the heater is extinguished completely.
4. Remove the regulator from the empty cylinder and change a new full one.

LIGHTING AND OPERATING INSTRUCTIONS

1. Connect power cord to properly earthed socket. Connect heater to a proper fuel supply cylinder.
2. Turn gas valve knob on the heater to the "O" (OFF) position.
3. Switch the electrical power switch to ON and check if fan is operating correctly.
4. Wait five (5) minutes for any gas to clear. Smell for gas. If none is evident, proceed to the next step.

5. Turn the knob at the fuel supply cylinder counterclockwise to the OPEN position.
6. Push in the Gas Valve knob on the heater and hold it at least five (5) seconds. Then turn the knob counterclockwise to the (1/) position. This will light the burner. It may be necessary to repeat this process a few times to light the heater.
7. Keep the valve knob depressed for at least 30 seconds after the burner is lit. After 30 seconds release the control knob.
8. If burner does not stay lit, repeat Steps 5 and 6.
9. Check to see the appliance operating pressure is correct according to gas chart (below).

SHUTDOWN INSTRUCTIONS

1. Turn gas valve control knob on the heater to the O (OFF) position.
2. Turn the control knob at the fuel supply cylinder clockwise to the CLOSED position.
3. Disconnect heater from power supply, and disconnect regulator from the fuel supply cylinder.

SERVICING INSTRUCTIONS

These instructions are intended to be used only by competent persons for carrying out all servicing operations authorized by the manufacturer.

All special tools, materials or servicing aids necessary for the correct servicing of the appliance shall be specified. Be sure to check heater for soundness.

- Heater surface temperature **must be cold** before initiating service, cleaning or storage.
- Maintenance and repair must be carried out by trained personnel only at least 2 times per season.
- Before commencing service maintenance disconnect the unit from the electrical power and the gas supply.
- Check the fuel supply hose condition and change if necessary.
- Check the ignition unit, safety thermostat, and thermocouple condition and ensure that they are clean. If flame pattern appears irregular, check nozzle. Wear eye protection when performing these checks.
- Clean inside the heater unit and the fan blade with compressed air. Heater is operating correctly when fan is running, flame is present and soap test showed no leaks.

▲ WARNING *Disconnect heater from fuel supply cylinder when not in use.*

LONG TERM STORAGE

Always disconnect the heater from the fuel supply cylinder before putting the heater into storage. If for any reason the heater is to be stored indoors, the heater **MUST** be disconnected from the fuel supply cylinder, and the cylinder stored outdoors in a well-ventilated area, and out of the reach of children. If appliance is unable to be left in a safe condition, disconnect the fuel cylinder from appliance and store separately. The plastic valve plug or valve cover supplied with the fuel supply cylinder must be re-installed on the valve to protect the fitting from damage.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance. If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

- NOTE: In some countries, there may be differences in the requirements listed in this manual. In these cases, contact your local dealer for possible variations from requirements in this manual.

Plug Replacement

⚠ WARNING RISK OF ELECTRIC SHOCK! DISCONNECT FROM POWER BEFORE MAINTENANCE.

NOTE: This section only applies to heaters sold or used in Great Britain.

This appliance is supplied with a BS1363 3 pin plug fitted with a fuse. Should the fuse require replacement, it must be replaced with a fuse with the proper amp rating. (see Technical Specifications page 2) and approved to BS1362.

In the event the mains plug has to be removed/ replaced for any reason, please note:

IMPORTANT: The wires in the mains lead are colored in accordance with the following code:

Blue – Neutral Brown – Live
Green/Yellow – Earth

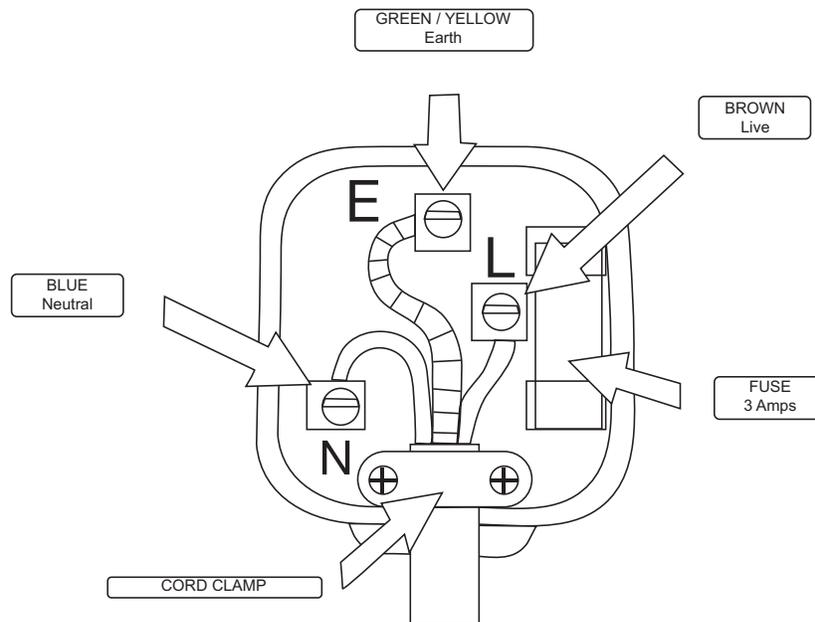
As the colors of the wires in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:

The blue wire must be connected to the terminal marked with an N or colored black. The brown wire must be connected to the terminal marked with an L or colored red. The green/ yellow wire must be connected to the earthing terminal which is marked with an E or with the earth symbol.

⚠ WARNING Never connect live or neutral wires to the earth terminal of the plug.

NOTE: If a moulded plug is fitted and has to be removed take great care in disposing of the plug and severed cable, it must be destroyed to prevent engaging into a socket.

Plug Replacement Wiring Diagram

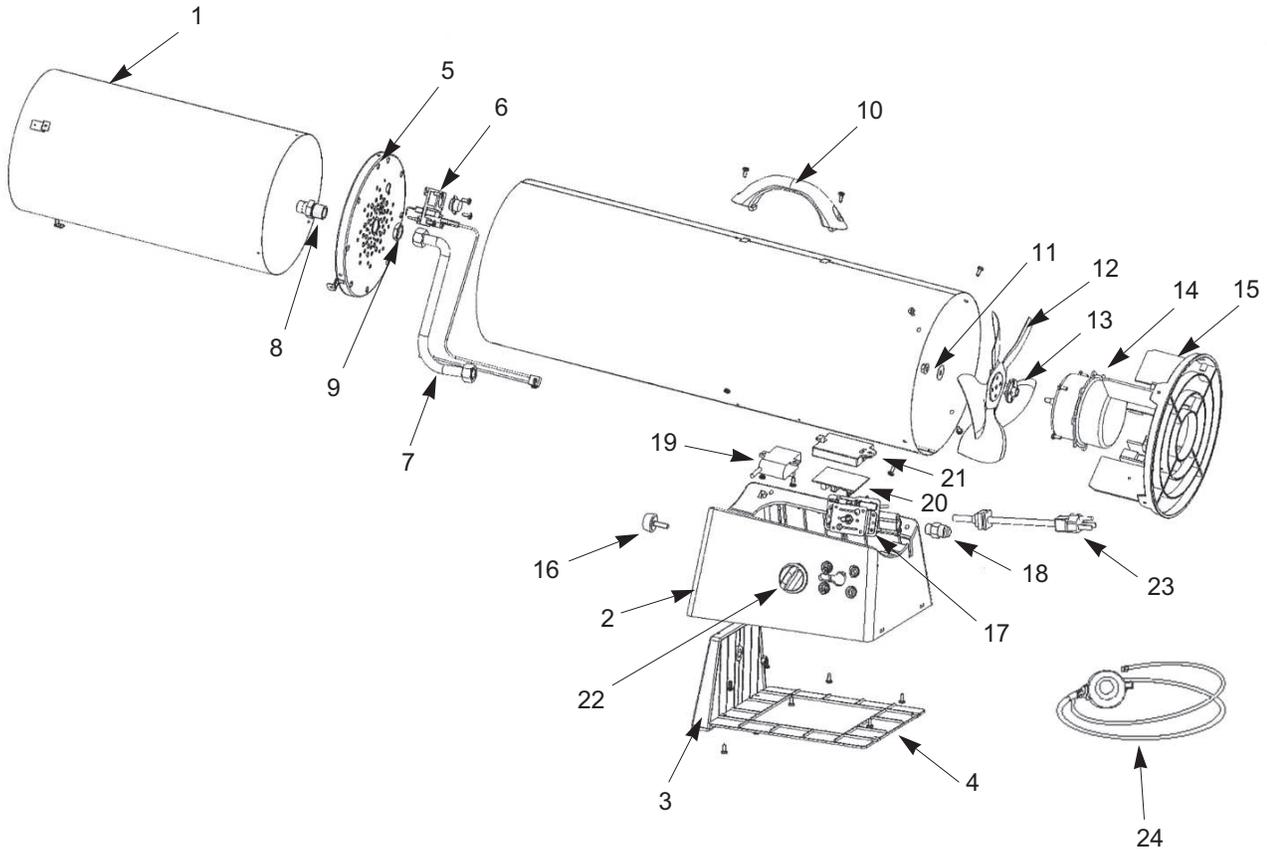


TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Fan does not turn when electricity is connected.	<ol style="list-style-type: none"> 1. No electric power to heater. 2. Blades of fan in contact with heater housing. 3. Fan blades bent. 4. Fan motor defective. 	<ol style="list-style-type: none"> 1. Check current at outlet. If voltage is correct, inspect extension and power cords for cuts, frays or breaks. 2. Check housing for damage. Be sure there are no dents in the housing obstructing the fan. 3. Straighten all fan blades. 4. Have motor assembly replaced by a qualified person.
Heater will not fire (ignite).	<ol style="list-style-type: none"> 1. No spark at module. 2. Incorrect spark gap. 3. Corroded electrode. 	<ol style="list-style-type: none"> 1. Inspect module wire. Re-attach, or tighten if loose. Inspect Spark module and have replaced by a qualified person if necessary. Inspect all other electrical components. 2. Set plug gap to 0.16" (4mm). 3. Replace spark plug (Multi-Bracket Assembly).
Heater stops running by itself.	<ol style="list-style-type: none"> 1. Temperature inside heater is too high, causing thermal switch to shut down operation. 2. Damaged control valve. 3. Dust or debris accumulated in heater. 	<ol style="list-style-type: none"> 1. If heater input or output is restricted, the inside temperature can become too hot. Keep the areas in front and behind heater clear of obstructions. 2. Have control valve replaced by a qualified person. (Valve Assembly). 3. Clean inside of heater.
The appliance does not stay lit smoothly or evenly.	<ol style="list-style-type: none"> 1. The incorrect fuel is used or the incorrect pressure is used. 	<ol style="list-style-type: none"> 1. Check fuel cylinder to assure the correct gas is being used at the correct pressure.

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EXPLODED VIEW



PARTS LIST

#	ST-40-GFA-E / ST-60V-GFA-E / ST-100V-GFA-E / ST-150V-GFA-E
1	Inner Shell / Combustion Chamber
2	Base
3	Height Controller
4	Base Cover
5	Inner Shell Cap
6	Multi bracket
7	Tubing
8	Nozzle
9	Nozzle Nut
10	Handle
11	Flange Hex Nut
12	Fan Blade
13	Cushion Pad
14	Motor
15	Rear Guard
16	Round Bolt
17	Valve Assembly
18	Inlet Connector
19	Spark Module
20	PCB
21	PCB Case
22	Control Knob
23	Power Cord
24	Regulator and hose

STANLEY®

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Manufactured by:
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EC | REP

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