

MAINTENANCE AND FAULT FINDING PROCEDURES

WARNING: ALWAYS ISOLATE UNIT FROM THE ELECTRICAL SUPPLY BEFORE ATTEMPTING ANY REPAIRS OR MAINTENANCE.

TROUBLESHOOTING GUIDE

FAULT	CAUSE	
	AUTOMATIC MODELS	MANUAL MODELS
	1-2-3-4-5-7-17-18	1-2-3-5-7
A	The motor does not start	6-8-9-10-17
B	The heater stops and the lockout light (11) comes on	11-17-18
C	The fan turns but the heater cannot be ignited	10-13-14-17
D	The flame stops after letting go of the gas relay valve knob (22)	10-11-17
E	Gas flow is interrupted. The flame extinguishes	15-16
F	The heater consumes too much gas	4-12
G	The heater stops completely	12

FAULT CORRECTION

THE MANUFACTURER RECOMMENDS THAT ALL REPAIRS AND MAINTENANCE WORK BE CARRIED OUT BY A QUALIFIED TECHNICIAN.

CAUSE	
1.	Electricity Supply is faulty
2.	The motor is blocked/faulty
3.	The fan is blocked/damaged
4.	IF FITTED (AUTOMATIC ONLY) * The thermostat setting is incorrect * The thermostat plug is not plugged in * The thermostat/thermostat connection is loose/faulty
5.	Switch/switch connections is/are faulty/loose
6.	Power Socket/Extension cord/plug incorrectly wired (Phase indicator light (73) is on)
7.	Limit thermostat is faulty
8.	Gas pressure/flow absent before solenoid valve
9.	Solenoid valve does not open
10.	Flame detecting probe and/or ignition electrode are not adjusted or working properly
11.	Inlet/outlet grill or inside of heater is dirty or partially blocked
12.	Limit thermostat cuts in interrupting the heater
13.	Gas relay valve/thermocouple is faulty
14.	Thermocouple is not properly adjusted
15.	Pressure regulator is faulty
16.	There is a leak in the gas delivery line
17.	Control box faulty
18.	Air Proving switch (28) is faulty (WHERE FITTED)

- Check the power plug is plugged in.
- Check that electricity supply is available
- Check and replace as necessary
- Check and replace as necessary
- Adjust thermostat accordingly
- Plug the thermostat plug into the appropriate socket
- Check and replace as necessary
- Check and replace as necessary
- Rewire plug/extension cord/power socket if necessary and check that phase indicator light is off
- Reset Limit thermostat (WHERE FITTED)
- Check for continuity in Limit thermostat connection
- Check that the gas supply is on at the cylinder
- Check that the gas cylinder(s) is/are full and not 'frozen'
- Check that the gas cock is in the open position and operating correctly
- Check the solenoid valve and its connection
- Adjust or replace as necessary
- Check the Limit thermostat
- Check and adjust or replace as necessary
- Check and clean as necessary
- Reset Limit thermostat (WHERE FITTED)
- Check if the inlet/outlet grill are dirty or blocked, clean as necessary
- Check that airflow in and out of the heater is not impeded
- Check and replace as necessary (Make sure when starting that the Gas relay valve button is kept pressed for 30 seconds after ignition)
- Check thermocouple positioning and adjust accordingly
- Check and replace as necessary
- **Immediately close gas supply at bottle.** Check hose and unions in the delivery line are tight (Use a soap solution to locate leaks – NEVER USE A NAKED FLAME)
- Check and replace as necessary
- Check and replace as necessary

GAS SUPPLY

If the heater is run continuously on full output frost might form on the GAS cylinder indicating it is starting to "FREEZE". This condition is caused by excessive vapour withdrawal and can be overcome by using various sizes of cylinders or multiple cylinder combinations. To minimise the "FREEZING" effect we suggest our heaters be connected to a minimum size and quantity of Gas cylinders as follows:

- J8/15 1 X 9KG CYLINDER (Minimum only – increase bottle size/number if using in low temperatures)
- J25/33 1 X 45KG CYLINDER (Minimum only – increase bottle size/number if using in low temperatures)
- J50/70/90 3 X 45KG CYLINDERS (Minimum only – increase bottle size/number if using in low temperatures)

UNDER NO CIRCUMSTANCES SHOULD THE HOT AIR FLOW FROM THE HEATER BE DIRECTED TOWARDS THE GAS CYLINDER TO AVOID THIS "FREEZING".

WARNING: Propane Gas Cylinders must be installed and stored in accordance with current local requirements.
Propane Gas Cylinders should always be installed connected and replaced in a flame free atmosphere.
Use Propane vapour off-take cylinders only.

INSTALLATION AND OPERATING INSTRUCTIONS

INSTALLATION (All Models)

1. Identify your unit from the model description on the serial number label affixed to the heater and the exploded views contained in this manual. (ALL NUMBERED REFERENCES APPLY TO EXPLODED VIEW OF UNIT)
2. Connect gas supply hose (13) to gas cock nipple on heater (14). **Make sure the gas supply hose is not under torsional stress as this may damage the hose.**
3. Connect gas pressure regulator pol adaptor nut (10) to GAS cylinder. NOTE connection has Left Hand Thread.
4. Check gas connections, turn on gas supply and test for leaks. (See Maintenance and Fault Finding Procedures).
5. Connect Power Plug (18) to Mains Power Outlet.
6. A/S MODELS. Check that the Phase Indicator Light (73) is not on. If it is on it means that the phase is inverted either in the power outlet or in the extension cord being used and will cause the unit to go into 'lock out' after the ignition cycle. Please contact an authorised electrician to rectify the extension cord/power outlet so that the light is off.

OPERATING INSTRUCTIONS (Manual Models)

TO START & USE

1. Turn Gas Supply on at Cylinder.
2. Turn gas cock (15) to the Open position.
3. Turn power switch (16) to On position. **Ensure fan is rotating.**
4. Depress gas relay valve knob (22) and at the same time depress piezo ignitor knob (17) repeatedly until ignition has occurred. Maintain the gas relay knob depression for a minimum of 30 seconds after which the burner will remain lit and the heater is in normal operation.
5. WHERE FITTED. Adjust the Regulator (38) to the desired setting.

TO STOP (NORMAL OPERATION)

1. Turn gas cock (15) to the closed position.
2. After allowing the fan only to run for 5 minutes for cool-down turn the power switch (16) to the Off position.
3. Turn Gas Supply off at Cylinder
4. Remove the electrical plug from the mains power socket.

TO STOP (EMERGENCY SHUTDOWN)

1. Turn power switch (16) to the Off position
2. Turn gas supply off at the Cylinder
3. Turn gas cock (15) to the Closed position
4. Remove the electrical plug from the mains power socket.
5. Make sure that before restarting the heater the cause of the emergency has been rectified/removed.

OPERATING INSTRUCTIONS (Automatic Models)

TO START & USE

1. Turn gas supply on at Cylinder.
2. Turn gas cock (15) to the Open position.
3. WHERE FITTED. This unit can be fitted with a thermostat. If required please contact your service agent for further information. Set operating temperature to the desired position on the thermostat.
4. Turn power switch (16) to the Flame position. This will start the ignition cycle for the electronic flame control box which after a pre-purge period will allow gas flow and automatically ignite.
5. WHERE FITTED. Adjust the Regulator (38) to the desired setting.

TO STOP (NORMAL OPERATION)

1. Turn power switch (16) to the Fan position. After allowing the fan only to run for 5 minutes for cool-down turn to Off position.
2. Turn gas cock (15) to the Closed position
3. Turn gas supply off at the Cylinder
4. Remove the electrical plug from the mains power socket.

TO STOP (EMERGENCY SHUTDOWN)

1. Turn power switch (16) to the Off position.
2. Turn gas supply off at the Cylinder.
3. Turn gas cock (15) to the Closed position.
4. Remove the electrical plug from the mains power socket.
5. Make sure that before restarting the heater the cause of the emergency has been rectified/removed

Note: If the Heater is not to be used for a long period of time disconnect from power supply and gas bottle.

OPERATING INSTRUCTIONS – SUMMER VENTILATION (ALL MODELS)

1. Turn power switch (16) to the On position. (On A/SA models, turn power switch to the FAN position). After use turn to Off position and remove plug from electrical outlet.

NOTE: Do not connect Gas Supply when the heater is being used as a summer ventilator.

TECHNICAL DATA (Manual & Automatic)

MODEL		J8	J15	J25	J33	J50	J70	J90	J90SA
Fuel Supply		Propane	Propane	Propane	Propane	Propane	Propane	Propane	Propane
Gas Pressure	kpa	150	150	150	150	150	150	150	200
Gas Consumption Min/Max	kg/h	0.7	1.2	1.4/2.0	1.8/2.6	2.9/4.1	3.9/5.6	4.9/8.1	4.9/8.1
Heat Input	MJ/h kcal/h	33.9 8000	63.6 15000	100.8 25000	125 33000	190 50000	282 68000	378 90000	378 90000
Air Flow	L/s	84	139	195	237	834	834	834	2223
Electricity Supply	V/2/Hz	220-240/1/50-60	220-240/1/50-60	220-240/1/50-60	220-240/1/50-60	220-240/1/50-60	220-240/1/50-60	220-240/1/50-60	220-240/1/50-60
Motor	W/A/RPM	27/0.19/1300	27/0.19/1300	100/0.75/1300	100/0.75/1300	150/1.0/2800	150/1.0/2800	150/1.0/2800	750/6.1/1400
Limit Thermostat	°C	100±5	100±5	100±5	100±5	100±5	100±5	100±5	100±5
Air Proving Switch		-	-	20g	20g	20g	20g	20g	20g
Minimum Room Volume	m ³	160	300	500	660	1200	1400	2000	2000
Jet Size	mm	0.55	0.7	1.1	1.25	1.6	1.9	2.3	2.3
Weight	kg	6.1	8.2	15	16.4	28	34	38.5	51
Dimensions L x W x H	mm	450x210x330	500x240x370	670x330x520	730x330x520	995x390x590	1040x390x590	1040x390x590	1270x610x838

The manufacturer reserves the right to modify design features and technical data without notice.

INTRODUCTION

The JETFIRE range of portable heaters has been designed to give safe, efficient and reliable service when the correct operating sequences are followed and proper attention is given to cleaning and maintenance procedures. This manual is to provide up to date information necessary to the user/serviceman for operating, cleaning and servicing the heaters, together with fault finding techniques and general specifications details and diagrams. Please note that the information given herein after may be subject to revision in compliance with the policy of continual improvements. The JETFIRE range of heaters should only be used in the manner and purpose for which they were intended and in accordance with the recommendations and safety precautions detailed in the following Manual and in the Operating Instructions stickers on the unit itself. All JETFIRE heaters undergo rigorous safety and operational tests before being despatched into the marketplace however it is still imperative that prior to use, all operators have read and understood all information and instructions provided and are aware of possible hazards.

IMPORTANT SAFETY INSTRUCTIONS & PRECAUTIONS

This booklet contains important information for the use and safe operation of this heater. Please read and understand all warnings before you start using the unit.

WARNING: When using this heater:

1. Read all instructions before using this heater.
2. Know how to start and stop the unit. Be quite familiar with the controls.
3. Follow the maintenance procedures and fault finding techniques outlined in the manual.
4. Do not restrict under any circumstances either the inlet or outlet end of the heater.
5. Do not operate this heater in basements or below ground.
6. Permanent ventilation to the outside atmosphere must be provided as listed in the technical specifications divided equally between floor and high levels.
7. Allow a minimum room size as listed in the technical specifications.
8. The heater must not be used in close proximity to combustible material. A guard must be placed 900mm away from the heater outlet to prevent the approach of combustible materials.
9. Under no circumstances should the heater hot air flow be directed towards the gas cylinder even if the cylinder is 'FREEZING'.
10. Installation and storage of gas cylinders must be in accordance with local regulations.
11. Read carefully the instructions concerning earthing and gas cylinders. Use only propane vapour off-take cylinders.
12. Do not pull on the electrical cord in order to unplug the unit.
13. Do not effect temporary repairs on worn or damaged electrical cords and plugs. Have worn, cut or damaged cords and plugs replaced by an authorised service person/electrician.
14. To prevent injury always disconnect the power plug before disassembling any part of the heater, effecting any servicing or when the unit is not in use.
15. Local regulations should be followed as to the installation of industrial heaters.

ELECTRICITY SUPPLY

The JETFIRE range of heaters is designed to run off 220-240V Single Phase 50-60Hz electrical supply. The unit should be plugged into a 10A outlet.

WARNING: This appliance must be earthed.

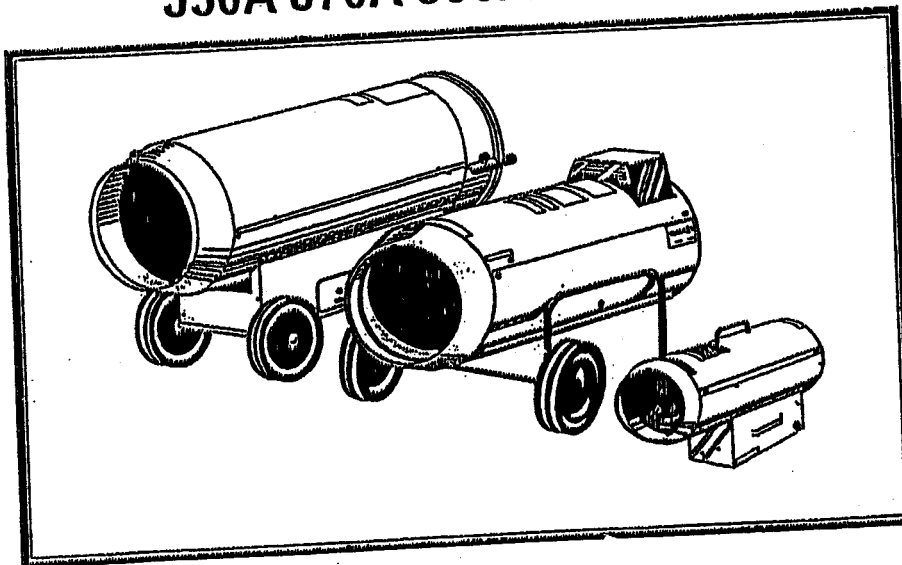
Note: If the Plug needs to be replaced to suit local requirements a qualified electrician should carry out the replacement taking care to earth the unit and maintain the correct phase connection as per the wiring diagram.

OPERATING & MAINTENANCE MANUAL

INDUSTRIAL DIRECT GAS FIRED PROPANE HEATERS



J8 J15 J25 J25A J33 J33A
J50A J70A J90A J90SA



THIS HEATER IS APPROVED FOR INDUSTRIAL USE ONLY

Made By:

 **SPITWATER
AUSTRALIA**

Spitwater Australia Pty Ltd
953 Metry St
North Albury, NSW, Australia

WARNING:

**FAILURE TO FOLLOW OPERATING, SAFETY AND MAINTENANCE
INSTRUCTIONS LISTED IN THIS MANUAL RELEASES THE MANUFACTURER
FROM ANY RESPONSIBILITY FOR ACCIDENTS OR DAMAGES TO BOTH
HUMANS AND OBJECTS AND MAY RENDER ANY WARRANTY VOID**