

DXH65FAV, DXH90FAV

Owner's Manual



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**INSTRUCTION MANUAL
GUIDE DE'UTILISATION
MANUAL DE INSTRUCCIONES**

DEWALT®

**Forced Air Propane Construction Heater DXH65FAV, DXH90FAV
Forced Air Propane Chauffe-Construction DXH65FAV, DXH90FAV
Propano forzado calentador Construcción Aire DXH65FAV, DXH90FAV**

2018- 40797 CB

READ INSTRUCTIONS CAREFULLY: Read and follow all instructions. Place instructions in a safe place for future reference. Do not allow anyone who has not read these instructions to assemble, adjust or operate the heater.

VEUILLEZ LIRE ATTENTIVEMENT LES INSTRUCTIONS : Lisez et observez toutes les instructions. Conservez ces instructions dans un endroit sécuritaire pour vous y référer ultérieurement. Interdisez à quiconque n'ayant pas lu les présentes directives d'assembler, de régler ou de faire fonctionner cette fournaise.

LEA CUIDADOSAMENTE LAS INSTRUCCIONES: Lea y siga todas las instrucciones. Conserve estas instrucciones en un lugar seguro para futura referencia. No permita que nadie que no haya leído estas instrucciones arme, ajuste o use el calentador.

Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

- ▲ **DANGER:** Indicates an imminently hazardous situation which, if not avoided, **will** result in **death or serious injury**.
- ▲ **WARNING:** Indicates a potentially hazardous situation which, if not avoided, **could** result in **death or serious injury**.
- ▲ **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.
- NOTICE:** Indicates a practice not related to personal injury which, if not avoided, **may** result in **property damage**.

▲ WARNING: DO NOT OPERATE THIS HEATER UNTIL YOU READ AND UNDERSTAND THIS INSTRUCTION MANUAL FOR SAFETY, OPERATION, AND MAINTENANCE INSTRUCTIONS. PLACE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE.

▲ WARNING:

Failure to comply with the precautions and instructions provided with this heater, can result in death, serious bodily injury and property loss or damage from hazards of fire, explosion, burn, asphyxiation, carbon monoxide poisoning, and/or electrical shock.

Only persons who can understand and follow the instructions should use or service this heater.

▲ DANGER:**CARBON MONOXIDE CAN KILL YOU**

This heater produces carbon monoxide. Do not use in occupied spaces. Ventilate building, room or other enclosed spaces where heater has been used before entering. Never use in a vehicle, camper or tent.

▲ WARNING:

Not for home or recreational vehicle use. Do not use to cook or warm food.

▲ WARNING:

Fire, burn, inhalation, and explosion hazard. Keep solid combustibles, such as building materials, paper or cardboard, a safe distance away from the 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, solvents, paint thinner, dust particles or unknown chemicals.

▲ WARNING: 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 use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.
- An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS:
 - Do not try to light appliance.
 - Extinguish any open flame.
 - Shut off gas to appliance.
- Service must be performed by a qualified service agency.

▲ WARNING:

Combustion byproducts produced when using this product contain carbon monoxide, a chemical known to the State of California to cause cancer and birth defects (or other reproductive harm).

This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

▲ WARNING: RISK OF ELECTRICAL SHOCK

- Plug power cord into a properly grounded 3-wire receptacle.
- Do not operate in wet or damp conditions.

▲ WARNING: RISK OF FIRE OR EXPLOSION

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS:
 - Open windows.
 - **DO NOT** try to light any appliance.
 - **DO NOT** operate any electrical switches.
 - **DO NOT** use any telephone in building. Immediately call the local gas supplier from an outside telephone. Follow the gas supplier's instructions.
 - **DO NOT** touch any electrical switch; do not use any phone in your building.
 - If you cannot reach your gas supplier, call the Fire Department.

SPECIFICATIONS

Type of Gas:For use with Propane Only

Gas Supply Pressure

to regulatorMax.: Bottle Pressure

to regulatorMin.: 20 psig (137.9 kPa)

regulator out20" W.C. (137.9 kPa)

Electrical Input:115V, 60 Hz, 1Ø, 3a

Min. Operating Voltage: 100V

Ignition:Direct Spark

Primary

Flame Control:Thermocouple Operated Gas Valve

High Temperature

Control:240°F (116°C)

Min. Ambient Temp. Rating 0°F (-17.8°C)

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Specifications

Model:	DXH65FAV	DXH90FAV
Rating:	30,000 - 65,000 Btu/Hr	50,000 - 90,000 Btu/Hr
	(8.8 – 19.0 kW)	(14.6 – 25.0 kW)
Fuel Consumption:	1.4 – 2.5 #/hr	2.3 – 3.9 #/hr
	(.64 – 1.1 kg/hr)	(1.04 – 1.77 kg/hr)
Fuel Orifice Size	0.50 mm	0.60 mm

Operating Precautions

▲ **WARNING**

This is a propane, direct-fired, forced air heater. It's intended use is primarily temporary heating of buildings under construction, alteration or repair.

Direct-Fired means that all of the combustion products enter the heated space. Even though this heater operates very close to 100 percent combustion efficiency, it still produces small amounts of carbon monoxide. Carbon monoxide (called CO) is toxic. CO can build up in a heated space and failure to provide adequate ventilation could result in death. The symptoms of inadequate ventilation are:

- headache
- dizziness
- burning eyes and nose
- nausea
- dry mouth or sore throat

Be sure to follow advice about ventilation in the Safety Precautions section.

Forced Air means that a blower or fan pushes the air through the heater. Proper combustion depends upon this air flow; therefore, the heater must not be revised, modified or operated with parts removed or missing. Likewise, safety systems must not be circumvented or modified in order to operate the heater.

When the heater is to be operated in the presence of other people the user is responsible for properly acquainting those present with the safety precautions and instructions, and of the hazards involved.

Safety Precautions

▲ **WARNING**

1. Check the heater thoroughly for damage. DO NOT operate a damaged heater.
2. DO NOT modify the heater or operate a heater which has been modified from its original condition.
3. Use only propane gas.
4. Use only VAPOR WITHDRAWAL propane supply. If there is any question about vapor withdrawal, ask your propane dealer.
5. Mount the propane cylinders vertically (shutoff valve up). Secure them from falling or being knocked over and protect them from damage.
6. Locate propane containers at least (USA) 7 ft. (2.13m), (Canada) 10 ft. (3m) from the heater and do not direct exhaust toward containers.

7. **IMPORTANT** Use only the hose and regulator assembly provided with the heater. Match the color stripe on the hangtag attached to the hose assembly with the color on the label located near the propane inlet fitting on the heater. Inspect hose assembly before each use of the heater. If there is excessive abrasion or wear, or hose is cut, replace with hose assembly listed on parts list before using heater.
8. For indoor use only. Area must be well ventilated. **Figure 1.** (also see "Operating Precautions").
9. If at any time gas odor is detected, IMMEDIATELY DISCONTINUE operation until the source of gas has been located and corrected. Read Odor Fade and Propane information on page 5, for additional information about detecting propane leaks.
10. Install the heater such that it is not directly exposed to water spray, rain and/or dripping water.
11. Maintain minimum clearance from normal combustible material (like paper). **Figure 2.**
12. Due to the high surface and exhaust temperatures, adults and children must observe clearances to avoid burns or clothing ignition.
13. Operate only on a stable, level surface.
14. Do not use with duct work. Do not restrict inlet or exit.
15. Use only the electrical power specified. The electrical connection and grounding must comply with National Electrical Code - ANSI/NFPA 70 (USA) and CSA C22.1 Canadian Electrical Code, Part 1 (Canada).
16. Use only a properly grounded 3-prong receptacle or extension cord.
17. Do not move, handle or service while hot or burning.
18. Use only in accordance with local codes or, in the absence of local codes, with the Standard for the Storage and Handling of Liquefied Petroleum Gases ANSI/NFPA 58 and CSA B149.1, Natural Gas and Propane Installation Code.

Figure 1

VENTILATION: Minimum openings required

Heater	Opening near floor	Opening near ceiling
Forced air (DXH65FAV, DXH90FAV).....	2 ft ²	2 ft ²

Figure 2

MINIMUM CLEARANCE: From normal combustible material

Clearance	DXH65FAV	DXH90FAV
From floor.....	0 ft.....	0 ft.
.....		
From outlet.....	8 ft.....	8 ft.
From sides	3 ft.....	3 ft.
From top	6 ft.....	6 ft.

Locate 10 ft. from canvas or plastic tarpaulins or similar coverings and secure them to prevent flapping or movement due to wind action.

▲ WARNING: RISK OF ASPHYXIATION

- Do not use in unventilated areas.
- The flow of combustion and ventilation air must not be obstructed.
- Proper ventilation air must be provided to support the combustion air requirements of the heater being used.
- Refer to the specification section of the heater's manual, heater dataplate, or contact the factory to determine combustion air ventilation requirements of the heater.
- Lack of proper ventilation air will lead to improper combustion.
- Improper combustion can lead to carbon monoxide poisoning leading to serious injury or death. Symptom of carbon monoxide poisoning can include headaches, dizziness and difficulty in breathing.

Fuel Gas Odor—Fuel Leaks

▲ WARNING

LP gas and natural gas have man-made odorants added specifically for detection of fuel gas leaks. If a gas leak occurs you should be able to smell the fuel gas. Since Propane (LP) is heavier than air you should smell for the gas odor low to the floor. **ANY GAS ODOR IS YOUR SIGNAL TO TAKE IMMEDIATE ACTION!**

Odor Fade Warning

- Do not take any action that could ignite the fuel gas. Do not operate any electrical switches. Do not plug in or disconnect any power supply or extension cords. Do not light matches or any other source of flame. Do not use your telephone.
- Get everyone out of the building and away from the area immediately.
- Close all propane (LP) gas tank or cylinder fuel supply valves, or the main fuel supply valve located at the meter if you use natural gas.
- Propane (LP) gas is heavier than air and may settle in low areas. When you have reason to suspect a propane leak, keep out of all low areas.
- Use your neighbor's phone and call your fuel gas supplier and your fire department. Do not re-enter the building or area.
- Stay out of the building and away from the area until declared safe by the firefighters and your fuel gas supplier.
- FINALLY, let the fuel gas service person and the firefighters check for escaped gas. Have them air out the building and area before you return. Properly trained service people must repair any leaks, check for further leakages, and then relight the appliance for you.

Odor Fading—No Odor Detected

- Some people cannot smell the odor of the man-made chemical added to propane (LP) or natural gas. You must determine if you can smell the odorant in these fuel gases.
- Learn to recognize the odor of propane (LP) gas and natural gas. Local propane (LP) gas dealers will be more than happy to give you a scratch and sniff pamphlet. Use it to become familiar with the fuel gas odor.
- Smoking can decrease your ability to smell. Being around an odor for a period of time can affect your sensitivity to that particular odor. Odors present in animal confinement buildings can mask fuel gas odor.

- **The odorant in propane (LP) gas and natural gas is colorless and the intensity of its odor can fade under some circumstances.**
- If there is an underground leak, the movement of gas through the soil can filter out the odorant.
- Propane (LP) gas odor may differ in intensity at different levels. Since Propane (LP) gas is heavier than air, there may be more odor at lower levels.
- **Always be sensitive to the slightest gas odor.** If you continue to detect any gas odor, no matter how small, treat it as a serious leak. Immediately go into action as discussed previously.
- A periodic sniff test around the heater or at the heater's joints; i.e. hose, connections, etc., is a good safety practice under any conditions. If you smell even a small amount of gas, CONTACT YOUR FUEL GAS SUPPLIER IMMEDIATELY.

Operating Instructions

PREPARING FOR OPERATION

1. Check the heater for possible shipping damage. If any is found, immediately notify the factory.
2. Follow all of the "Precautions".
3. Connect the POL fitting of hose and regulator assembly to the propane cylinder by rotating the POL nut counterclockwise into the propane cylinder's valve outlet and securely tighten with a wrench.
4. Connect the hose to the heater by rotating the hose fitting clockwise.
5. Securely tighten all gas connections.
6. Open the cylinder's gas valve and check all gas connections with a soap and water solution. DO NOT USE A FLAME.
7. Connect power cord to well-grounded 115V, 60 Hz, 1Ø source of power.
8. When using an extension cord, make certain that it is a 3-wire (grounded) cord of proper wire size.

START

1. Before heater ignition, always allow heater fan (blower) to run for 20 seconds to purge fuel.
2. Slowly open the main valve at propane cylinder.
3. Depress the fuel valve button to light the heater.
4. After the heater lights, keep the gas valve button depressed for 15 seconds then release and the heater will continue to operate.
5. Adjust burn rate by setting control knob to desired level.
6. Igniter continues to fire as long as power cord is plugged in.
7. No thermostat can be used with these units.

STOP

1. Securely close valve on the propane cylinder.
2. Continue to operate heater until all fuel in the hose has burned.
3. Unplug the power cord.

RESTART AFTER SAFETY SHUTDOWN

1. Securely close valve at propane cylinder. Unplug heater.
2. Wait 5 minutes.
3. Restart following "Start" procedure.

MAINTENANCE AND STORAGE

1. The heater should be inspected before each use, and at least annually by a qualified person.
2. Before each use, check the soft "O" ring seal at the bullnose of the POL fitting. If the "O" ring is cut, scuffed, or otherwise damaged, replace it with part number 73786.
3. Turn off the gas at the LP-gas supply cylinder(s) when the heater is not in use.
4. When the heater is to be stored indoors, the connection between the LP-gas supply cylinder(s) and the heater must be disconnected and the cylinder(s) removed from the heater and stored out of doors and in accordance with Chapter 5 of the standard for Storage and Handling of Liquefied Petroleum Gases ANSI/NFPA 58 and CSA B149.1, Natural Gas and Propane Installation Code.

Size and Capacity of Propane Cylinders Required

The charts on the following page show the approximate size of the cylinder required for these heaters. To use the chart:

1. Select the lowest air temperature expected (at the bottom of the chart).
2. Move straight up to time of operation desired (left side of chart).
3. Read the cylinder size required.

All heaters should have:

full cylinders
good air circulation
no frost on cylinders

Servicing

A hazardous condition may result if a heater is used that has been modified or is not functioning properly. When the heater is working properly:

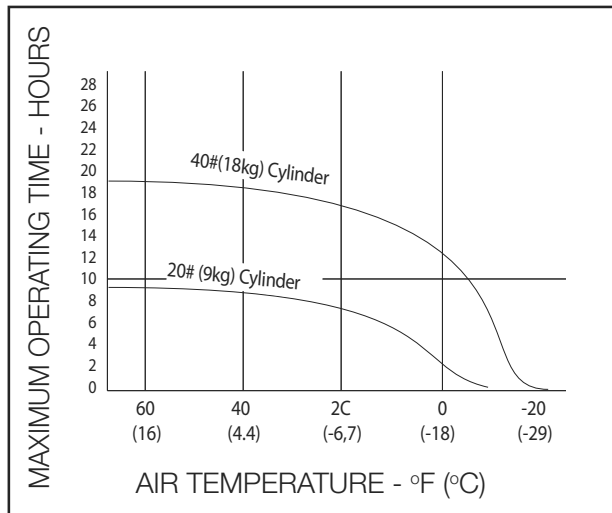
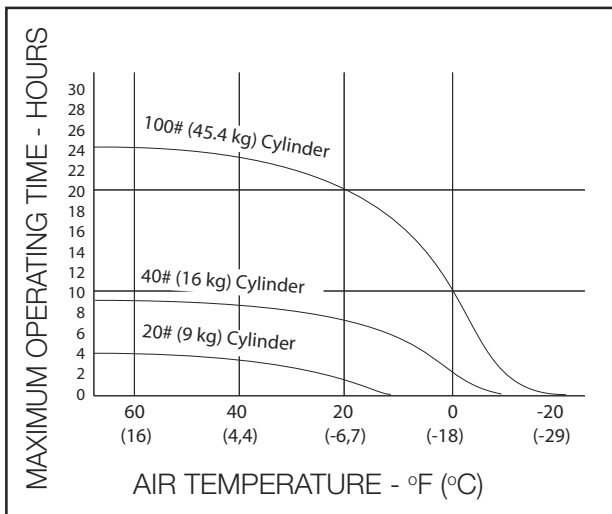
- The flame is contained within the heater.
- The flame is essentially blue with perhaps some yellow tipping.
- There is no strong disagreeable odor, eye burning or other physical discomfort.
- There is no smoke or soot internal or external to the heater.
- There are no unplanned or unexplained shut downs of the heater.

The parts lists and wiring diagram show the heater as it was constructed. Do not use a heater which is different from that shown. In this regard, use only the hose, regulator and cylinder connection fitting (called a POL fitting) supplied with the heater. **IMPORTANT** Match the color stripe on the hangtag attached to the hose assembly with the color on the label located near the propane inlet fitting on the heater. Do not use alternates. For this heater, the regulator must be set as shown in "specifications". If there is any uncertainty about the regulator setting, have it checked.

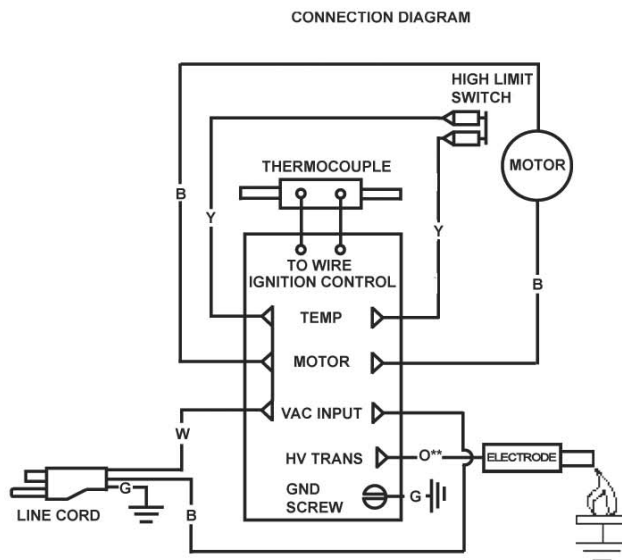
A heater which is not working right must be repaired, but only by a trained, experienced service person.

In-warranty products will be repaired with no charge for either parts or labor. Please include a brief statement indicating date, place of purchase, the nature of the problem and proof of purchase.

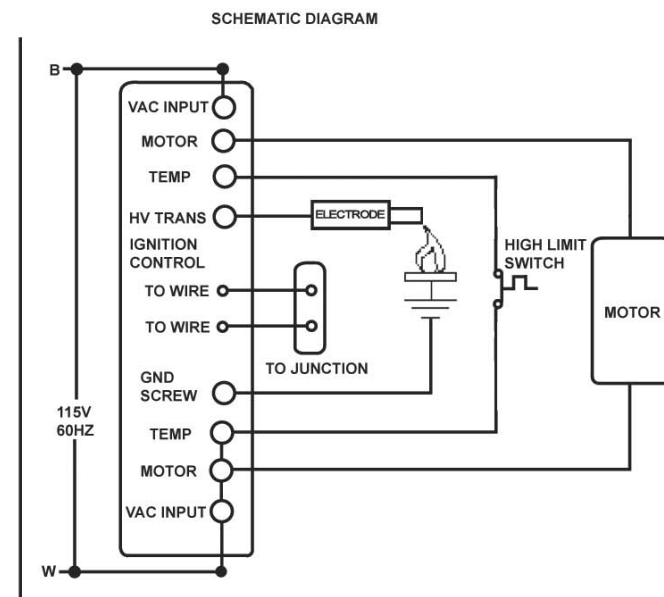
Out-of-warranty products will be repaired with a charge for parts and labor.

65,000 BTU/HR (16.1 kW)**90,000 BTU/HR (33.4 kW)****Wiring Diagrams DXH65FAV/DXH90FAV**

NOTE: If any original wiring as supplied with the heater, must be replaced, It must be replaced with Type AWG 105° C wire or its equivalent, except as indicated (Type SF 2.200, **SGI-250° C)



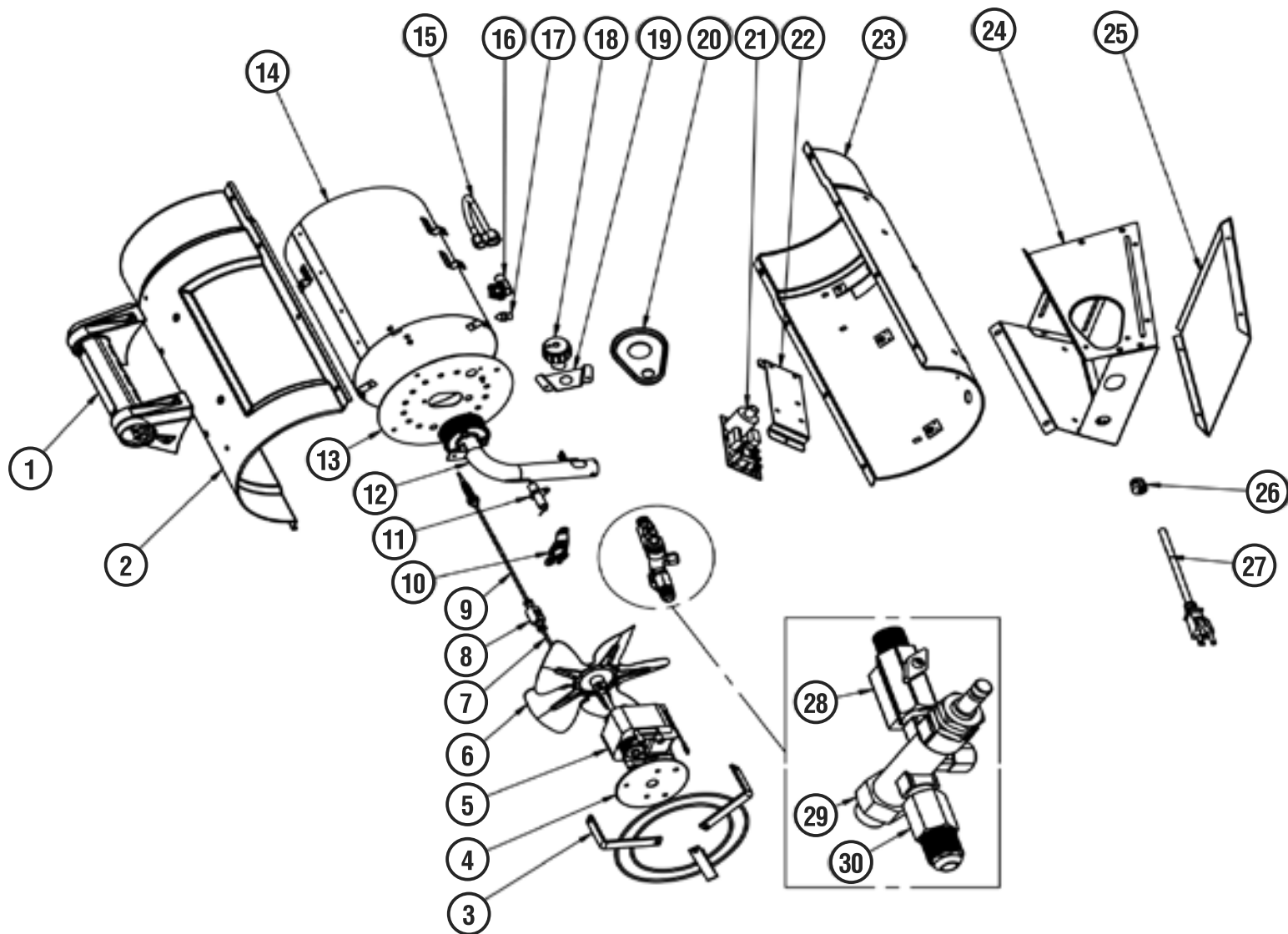
COLOR CODE		LEGEND
B BLACK	R RED	FEMALE CONN. RING CONN.
W WHITE	Y YEL	
G GREEN	O ORG	



Parts List DXH65FAV

REF. #.....ITEM#..... DESCRIPTION	REF. #.....ITEM#..... DESCRIPTION
1 40801 handle	1940876Bracket, plastic insert
2 40886barrel, upper, assy	2040878Insert, plastic, controls
3 40880guard, rear, assy	21 23276Ignition/relay module
4N/Abrkt, motor mounting	22 23045Bracket, ignition
5 21652motor, assy	2340887Barrel, lower assembly
6 26086fan blade	2440874Base, metal assembly
7 26656Thermocouple, connector	2540875Base, metal, bottom
8 26134compression block, relay	26 26223Strain relief bushing
9 26655Thermocouple 10"	27 21036Power cord assembly
10 27445High limit switch	28 27457Valve, variable assembly
11 40904Electrode, ignition	29 40884Valve, gas,main
12 27505Burner assembly	30 26127ftg, male connector
13 27447Flame holder	* 21667-15hose/regulator assembly
14 27506Radiation shield assembly	
1540998Fuel tube assembly	*Not shown
16 27450Holder, orifice	
17 27451Orifice	
18 40879Knob, variable valve	

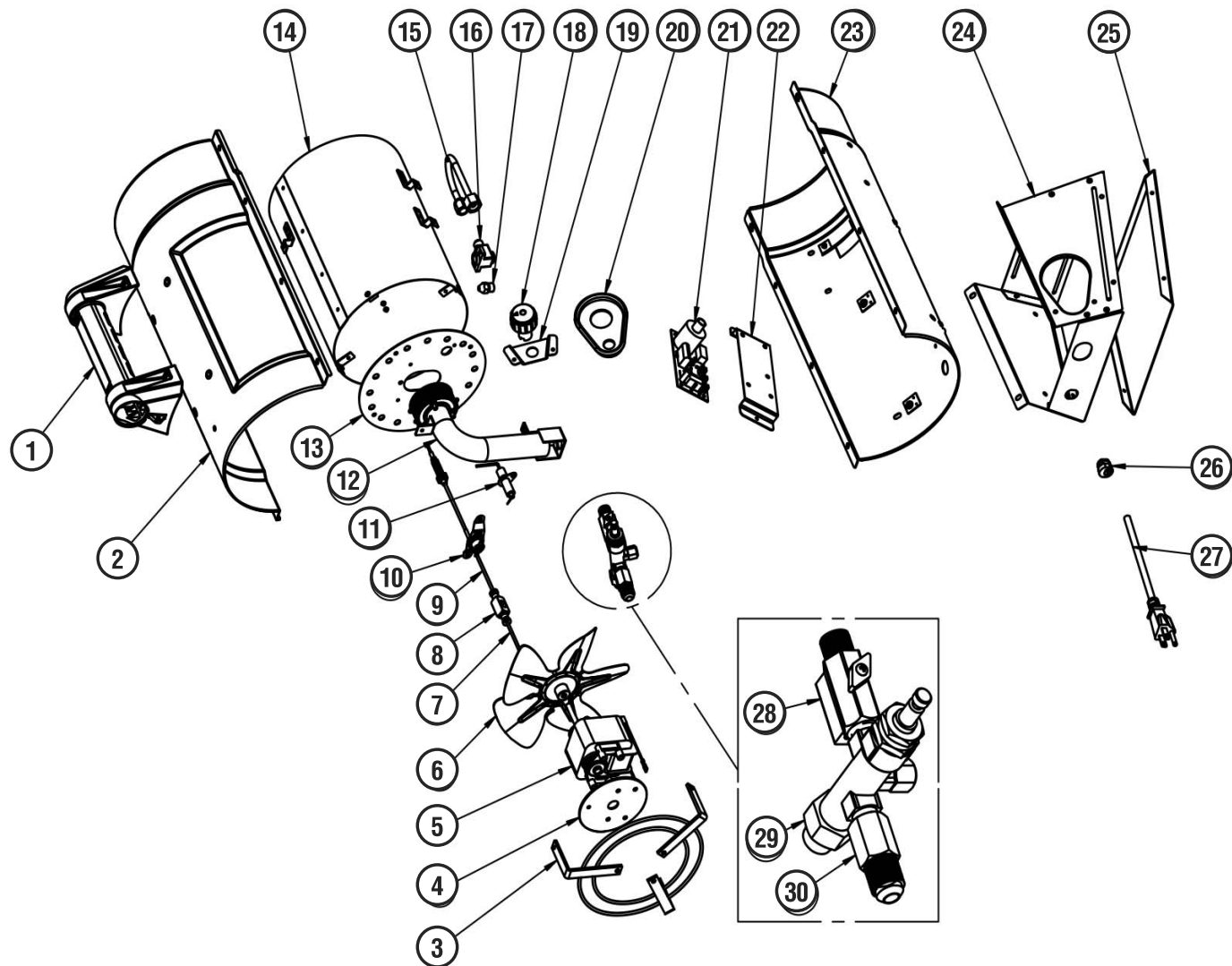
DXH65FAV



Parts List DXH90FAV

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2 40886barrel, upper, assy	2040878Insert, plastic, controls
3 40880guard, rear, assy	21 23276Ignition/relay module
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5 21652motor, assy	2340887Barrel, lower, assembly
6 26086fan blade	2440874Base, metal assembly
7 26656Thermocouple, connector	2540875Base, metal, bottom, panel
8 26134compression block, relay	26 26223Strain relief bushing
9 26655Thermocouple 10"	27 21036Power cord
10 27439High limit switch	28 27489Valve, variable, assembly
11 40904Electrode, ignition	29 40884Valve, gas, main
12 27490Burner assembly	30 26127Fitting, male connector
13 27485Flame holder	* 40923hose/regulator assembly
14 27506Radiation shield assembly	*Not shown
1540956Fuel tube assembly	
16 40900Holder, orifice	
17 27487Orifice	
18 40879Knob, variable, valve	

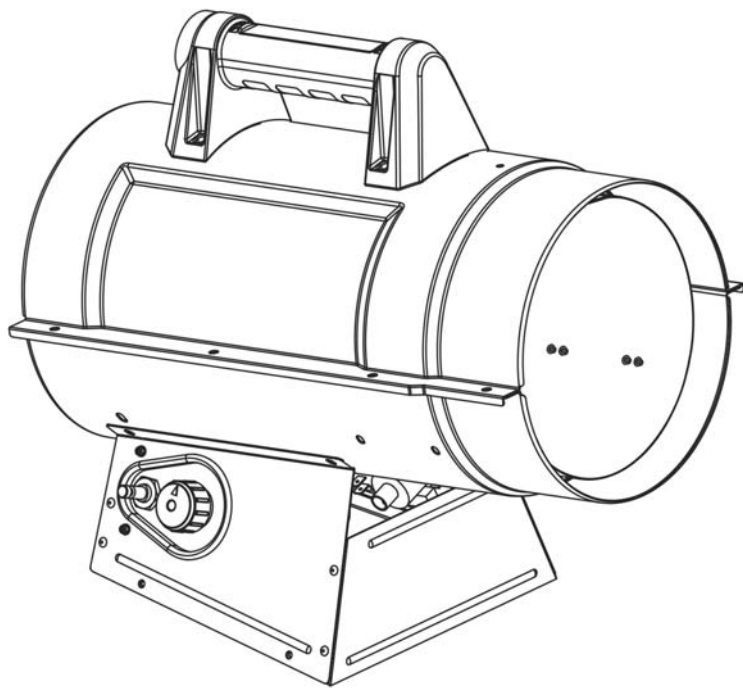
DXH90FAV





INSTRUCTION MANUAL

Forced Air Propane Construction Heater DXH65FAV, DXH90FAV



Warning:

Use only manufacturer's replacement parts. Use of any other parts could cause injury or death. Replacement parts are only available direct from the factory and must be installed by a qualified service agency.

PARTS ORDERING INFORMATION:

PURCHASING: Accessories may be purchased at any DeWalt® local dealer or direct from the factory

FOR INFORMATION REGARDING SERVICE:

Please call Toll-Free 855-805-5745
www.dewalt.com

Our office hours are 8:00 AM – 5:00 PM, EST, Monday through Friday.

Please include the model number, date of purchase, and description of problem in all communication.

LIMITED WARRANTY:

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