

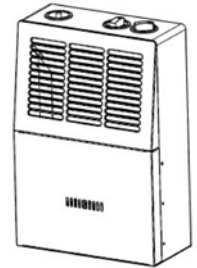
WARNING: This appliance is equipped for (Natural and/or Propane) gas. Field conversion is not permitted other than between natural or propane gases in dual fuel models only.

Vent-Free Gas Wall Heater

MODEL: WDFT060/100/320-VF (DUAL FUEL)
WNT060/100/320-VF (NATURAL GAS)
WLT060/100/320-VF (PROPANE GAS)



Thermablaster®



CAUTION - FOR YOUR SAFETY

 **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 store or use gasoline or other flammable vapors and liquids in vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

-- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

INSTALLER: Leave this manual with the appliance

CONSUMER: Retain this manual for future reference

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to *Air For Combustion and Ventilation section* on page 8 of this manual. Warranty is void if not professionally installed.

This appliance may be installed in an aftermarket, permanently located, manufactured (mobile) home, where not prohibited by local codes. This appliance is only for use with propane or natural gas. This appliance is equipped with a simple means to switch between propane and natural gas in dual fuel models only. Field conversion by any other means including the use of a kit is not permitted.



Conforms to ANS Z21.11-2-2013. Gas-Fired Room Heater Volume II, Unvented Room Heater

Reecon North America
1090 Freeport Road
2nd Floor
Pittsburgh, PA 15238

PRODUCT SPECIFICATIONS

1) For Dual Fuel

Model	WDFT060-VF	WDFT100-VF	WDFT320-VF
Input Rating (Btu/hr)	6000	10000	32000
Gas type	Using natural gas	Using natural gas	Using natural gas
Manifold Pressure (W.C.)	5.2"	5.2"	5.2"
Nominal Input Pressure (W.C.)	7"	7"	7"
Gas type	Using propane gas	Using propane gas	Using propane gas
Manifold Pressure (W.C.)	6"	6"	6"
Nominal Input Pressure (W.C.)	11"	11"	11"
Ignition	Electric Pulse	Electric Pulse	Electric Pulse
Package Dimension inches (H×W×D)	15.7×7.5×25.6	18.1×7.5×28.7	30.25"×11.00"×28.75"

2) For Natural Gas

Model	WNT060-VF	WNT100-VF	WNT320-VF
Input Rating (Btu/hr)	6000	10000	32000
Gas type	natural gas	natural gas	natural gas
Manifold Pressure (W.C.)	4"	4"	4"
Nominal Inlet Pressure (W.C.)	7"	7"	7"
Ignition	Electric Pulse	Electric Pulse	Electric Pulse
Package Dimension inches (H×W×D)	15.7×7.5×25.6	18.1×7.5×28.7	30.25"×11.00"×28.75"

3) For Propane Gas


Model	WLT060-VF	WLT100-VF	WLT320-VF
Input Rating (Btu/hr)	6000	10000	32000
Gas type	LP	LP	LP
Manifold Pressure (W.C.)	10"	10"	10"
Nominal Inlet pressure (W.C.)	11"	11"	11"
Ignition	Electric Pulse	Electric Pulse	Electric Pulse
Package Dimension inches (HxWxD)	15.7×7.5×25.6	18.1×7.5×28.7	30.25"×11.00"×28.75"

Important Note:

- 1) An unvented room heater having an input rating of more than 10,000 Btu/hr (2,931 W) shall not be installed in a bedroom or bathroom; or
- 2) An unvented room heater having an input rating of more than 6000 Btu/hr (1,758 W) shall not be installed in a bathroom.


1. IMPORTANT SAFETY INFORMATION

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this heater. Improper use of this heater can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon monoxide poisoning. Only a qualified installer, service agent, or local gas supplier may install and service this product.

 **WARNING:** Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

CARBON MONOXIDE POISONING: Early signs of carbon monoxide poisoning resemble the flu with headache, dizziness and/or nausea. If you have these signs, heater may not be working properly. Get fresh air at once! Have heater serviced. Some people - pregnant women, persons with heart or lung disease, anemia, those under the influence of alcohol, those at high altitude - are more affected by carbon monoxide than others.


Natural and Propane /LP Gas: Natural and Propane/LP gas are odorless. An odor-producing agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.


 **WARNING:** Any change to this heater or its controls can be dangerous.


 **WARNING:** Do not use any accessories not approved for use with this heater.


 **WARNING:** Carefully supervise young children when they are in the room with the heater.


 **WARNING:** Make sure grill guard is in place before running heater.


 **WARNING:** Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.


 **WARNING:** Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.


 **WARNING:** Heater becomes very hot when running. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Heater will remain hot for a time after shutoff. Allow surfaces to cool before touching.

 **WARNING:** Do not place clothing or other flammable material on or near the appliance. Never place any objects in the heater.

 **WARNING:** Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.

 **WARNING:** Do not allow fans to blow directly towards the heater. Avoid any drafts that alter burner flame patterns.

 **WARNING:** Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.

 **WARNING:** Failure to position the parts in accordance with these diagrams or failure use only parts specifically approved with this heater may result in property damage or personal injury.

CAUTION: Two gas line installations at the same time are prohibited. The ignition button on the dual fuel models shall not be depressed while the heater is in operation.

1. This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, the *International Fuel Gas Code*, or applicable local codes.
2. Do not place Propane/LP supply tank(s) inside any structure. Propane/LP supply tank(s) must be placed outdoors.
3. This heater shall not be installed in the place which the strong wind would shut down the appliance.
4. This heater needs fresh air ventilation to run properly. This heater has an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS shuts down the heater if not enough fresh air is available. See *Air for Combustion and Ventilation*, pages 8 through 11. If heater keeps shutting off, see troubleshooting.
5. Keep all air openings in front and bottom of heater clear and free of debris. This will ensure enough air for proper combustion.
6. If heater shuts off, do not relight until you have provided fresh air from outside. If heater keeps shutting off, have it serviced.
7. Do not run heater where flammable liquids or vapors are used or stored under dusty conditions.
8. Before using furniture polish, wax, carpet cleaner, or similar products, turn heater off. If heated, the vapors from these products may create a white powder residue within burner box or on adjacent walls or furniture.
9. Always run heater with control knob at PILOT/IGN, LOW or HIGH locked positions. Never set control knob between locked positions, otherwise poor combustion and higher levels of carbon monoxide may be resulted.
10. Do not use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
11. Turn off and let heater cool down before servicing. Only a qualified service person should service and repair heater.
12. Periodic visual check of pilot and burner flame, with pictorial sketches or drawings.
13. The appliance must be isolated from the gas supply piping system by closing its equipment shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.5 kPa).

QUALIFIED INSTALLING AGENCY

Only a qualified agency should install and replace gas piping, gas utilization equipment or accessories, repair and service the heater. The term “qualified agency” means any individual, firm, corporation, or company that either in person or through a representative is engaged in and is responsible for:

a.) Installing, testing, or replacing gas piping or

b.) Connecting, installing, testing, repairing, or servicing equipment; that is experienced in such work; that is familiar with all precautions required; and that has complied with all the requirement of the authority having jurisdiction.

2 PRODUCT FEATURES

SAFETY PILOT

This heater has a pilot with an Oxygen Depletion Sensing (ODS) safety shutoff system. The ODS/pilot shuts off the heater if there is not enough fresh air.

PULSE IGNITION SYSTEM

This heater is equipped with a battery powered electric pulse igniting system. No AC power supply required. Battery should be periodically checked and replaced accordingly. Use a “D” size (IEC R20 or LR20) 1.5 V battery only.

GAS OPTIONS CAPABLE (Dual Fuel Models Only) (Models that start with WDFT)

If you have the dual fuel model, your heater is equipped to operate on either Propane or Natural gas. The heater can identify gas source automatically without any changes. During first use please let your qualified installer to install and start the heater following the instructions and the markings on the heater.

THERMOSTATIC CONTROL

These heaters have a control valve with a thermostat sensing bulb. This results in the greatest heater comfort and may result in lower gas bills.

LOCAL CODES

Install and use heater with care. Follow all local codes. In the absence of local codes, use the latest edition of The National Fuel Gas Code, ANSI Z223.1/ NFPA 54.

3. Preparing for installation

Before beginning assembly or operation of the product, make sure all parts are present. Compare parts with package contents list and diagram above. If any part is missing or damaged, do not attempt to assemble, install or operate the product. Contact customer service for replacement parts.

Before installing heater, make sure you have the items listed below:

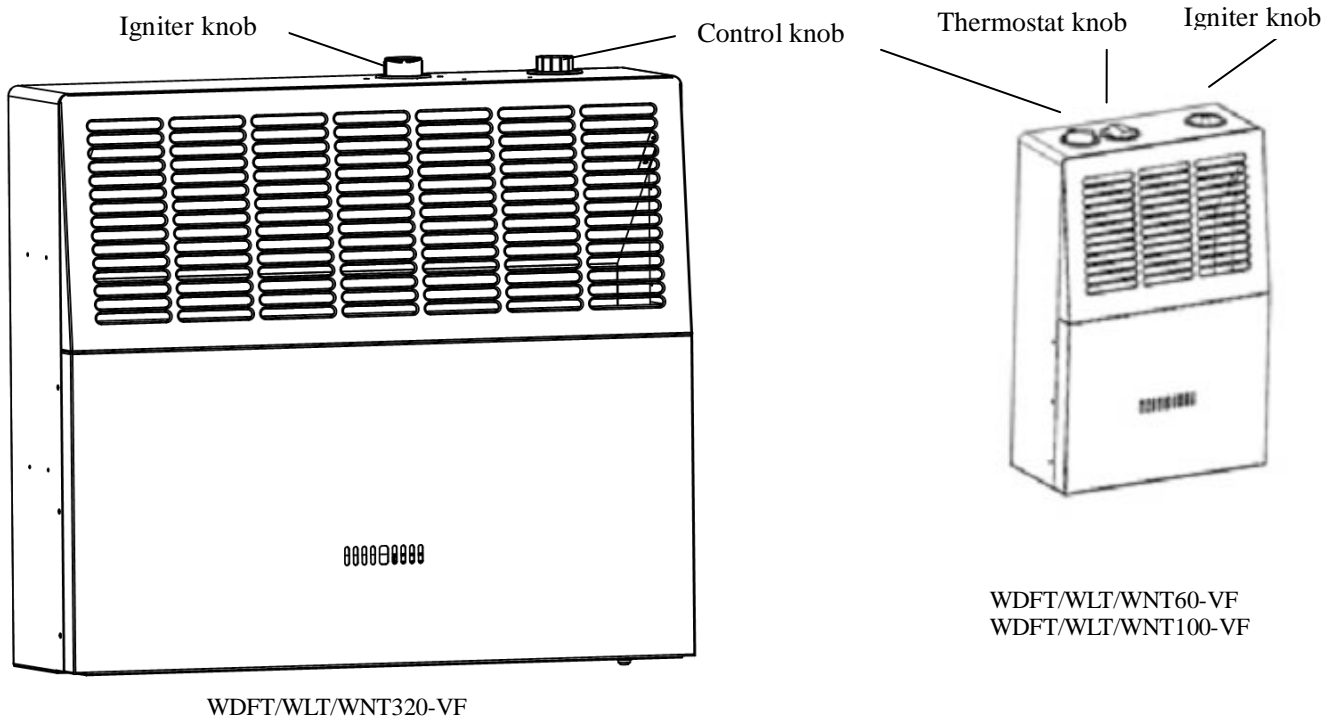


Figure 1 - Vent-Free Gas Heater Blue Flame

UNPACKING

1. Remove heater from carton.
2. Remove all protective packaging applied to heater for shipping
3. Check heater for any shipping damage. If heater is damaged, promptly inform dealer where you bought heater.
4. Remove thread protective cup on the gas inlet pipe underneath the heater.
5. Install a D size (IEC R20 or LR20) 1.5 V battery (maybe not available in the packing depends on your dealer). Be sure battery has full capacity and must be removed if the heater is not in use for an extended period.




Fig 2 - Heater Bottom

4. WATER VAPOR: A BY-PRODUCT OF UNVENTED ROOM HEATERS

Water vapor is a by-product of gas combustion. An unvented room heater produces approximately one (1) ounce (30 ml) of water for every 1,000 BTUs (0.3 KWs) of gas input per hour. Unvented room heaters are recommended as supplemental heat (a room) rather than a primary heat source (an entire house). In most supplemental heat applications, the water vapor does not create a problem. In most applications, the water vapor enhances the low humidity atmosphere experienced during cold weather. The following steps will help ensure that water vapor does not become a problem.

1. Be sure the heater is sized properly for the application, including ample combustion air and circulation air.
2. If high humidity is experienced, a dehumidifier may be used to help lower the water vapor content of the air.
3. Do not use an unvented room heater as the primary heat source.

5. AIR FOR COMBUSTION AND VENTILATION

 **WARNING:** This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air. Read the following instructions to ensure proper fresh air for this and other fuel-burning appliances in your home.

Providing Adequate Ventilation

This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the NATIONAL FUEL GAS CODE, ANSI Z223.1/NFPA 54, the INTERNATIONAL FUEL GAS CODE, or applicable local codes. The following are excerpts from National Fuel Gas Code, ANSI Z223.1/ NFPA 54. Air for Combustion and Ventilation. All spaces in homes fall into one of the three following ventilation classifications:

1. Unusually Tight Construction
2. Unconfined Space
3. Confined Space

The information on the followed pages will help you classify your space and provide adequate ventilation.

Confined and Unconfined Space

The National Fuel Gas Code, ANSI Z223.1/NFPA 54 defines a confined space as a space whose volume is less than 50 cu. ft. per 1,000 BTU/hr (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 BTU/hr (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms connecting directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air. Adjoining rooms are connecting only if there are odorless passageways or ventilation grills between them.

Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air. Unusually tight construction is defined as construction where:

- a) Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6×10^{-11} kg per pa-sec- m^2) or less with openings gasket or sealed and
- b) Weather stripping has been added on openable windows and on doors and
- c) Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See "Ventilation Air From Outdoors". If your home does not meet all of the three criteria above, proceed to "Determining Fresh-Air Flow For Heater Location".

6. DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION

Using this worksheet to determine if you have a confined or unconfined space. Space: Includes the room in which you will install heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space Length \times Width \times Height = _____ cu. ft. (volume of space)
Example: Space size 20 ft. (length) \times 16 ft. (width) \times 8 ft. (ceiling height) = 2560 cu. ft. (volume of space) If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Divide the space volume by 50 cubic feet to determine the maximum BTU/hr the space can support.
_____(volume of space) \div 50 cu. ft. = (Maximum BTU/hr the space can support)

3. Add the BTU/hr of all fuel burning appliances in the space.

Vent-free heater	_____ BTU/hr
Gas water heater*	_____ BTU/hr
Gas furnace	_____ BTU/hr
Vented gas heater	_____ BTU/hr
Gas heater logs	_____ BTU/hr
Other gas appliances* +	_____ BTU/hr
Total =	_____ BTU/hr

Example:

Gas water heater	30,000 BTU/hr
Vent-free heater	+ 26,000 BTU/hr
Total	= 56,000 BTU/hr

*Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors

4. Compare the maximum BTU/hr the space can support with the actual amount of BTU/hr used
_____ BTU/hr (maximum the space can support)
_____ BTU/hr (actual amount of BTU/hr used)

Example : 51,200 BTU/hr (maximum the space can support)
56,000 BTU/hr (actual amount of BTU/hr used)

The space in the above example is a confined space because the actual BTU/hr used is more than the maximum BTU/hr the space can support.

You must provide additional fresh air. Your options are as follows:

Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space,

- a) Remove door to adjoining room or add ventilation grills between rooms. See “Ventilation Air From Inside Building ” on next page.
- b) Vent room directly to the outdoors. See “Ventilation Air From Outdoors ” on next page.
- c) Install a lower BTU/hr heater if lower BTU/hr size makes room unconfined. If the actual BTU/hr used is less than the maximum BTU/hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

⚠ WARNING: If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation, or applicable local codes.

⚠ WARNING: If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, the *International Fuel Gas Code*, or applicable local codes.

Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space.

When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12 inches of the ceiling and one within 12 inches of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 2). You can also remove the door into adjoining room (see option 3, Figure 2). Follow the National Fuel Gas Code. ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation for required size of ventilation grills or ducts.

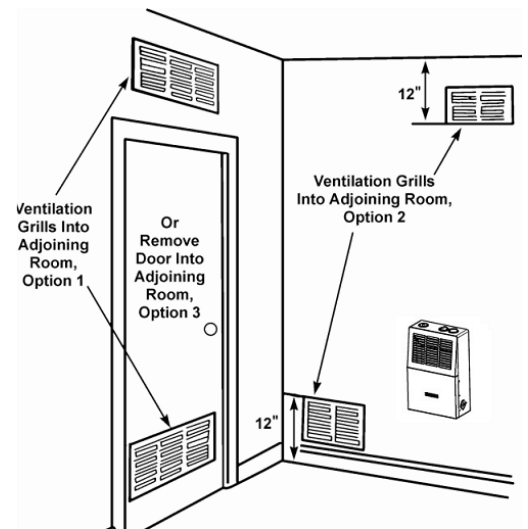


Figure 3 - Ventilation Air from Inside Building

NOTE: Base not included. Not for use in bedrooms or bathrooms.

Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12 inches of the ceiling and one within 12 inches of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the National Fuel Gas Code, ANSI Z223.1/ NFPA 54, Air for Combustion and Ventilation for required size of ventilation grills or ducts.

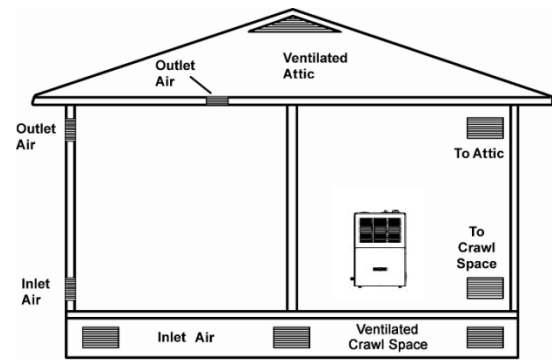


Figure 4 - Ventilation Air from Outdoors

⚠ IMPORTANT: Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent. Rework worksheet, adding the space of the adjoining unconfined space. The combined spaces must have enough fresh air to supply all appliances in both spaces.

7. INSTALLATION

NOTICE: This heater is intended for use as supplemental heat. Use this heater along with your primary heating system. Do not install this heater as your primary heat source. If you have a central heating system, you may run system's circulating blower while using heater. This will help circulate the heat throughout the house. In the event of a power outage, you can use this heater as your primary heat source.

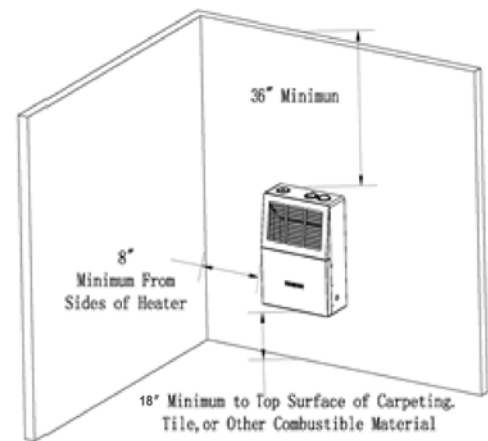


Figure 5 - Mounting clearances from combustibles

Caution: If you install the heater in a home garage, heater pilot and burner must be at least **18 inches above the floor**. Place heater where moving vehicle will not hit it.

⚠ WARNING: A qualified service person must install heater. Follow all local codes.

⚠ WARNING: Never install the heater

- in a recreational vehicle
- where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the heater
- in high traffic areas
- in windy or drafty areas

⚠ CAUTION: This heater creates warm air currents. These currents move heat to wall surfaces next to heater. Installing heater next to vinyl or cloth wall coverings or operating heater where impurities (such as tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may cause walls to discolor.


⚠ IMPORTANT: Vent-free heaters add moisture to the air. Although this is beneficial, installing heater in rooms without enough ventilation air may cause mildew to form too much moisture. See Air for Combustion and Ventilation.

Check Gas Type

Be sure your gas supply is right for your heater. Otherwise, call dealer where you bought the heater from for proper type heater.

Clearances to Combustibles

Carefully follow the instructions below. This heater is a freestanding unit designed to be mounted on a wall.

 **WARNING:** Maintain the minimum clearances shown in Figure 5. If you can, provide greater clearances from floor, ceiling, and joining wall.

LOCATING HEATER

This heater is designed to be mounted on a wall. For convenience and efficiency, install heater:

- 1) where there is easy access for operation, inspection, and service.
- 2) In the coldest part of room.

MOUNTING HEATER TO WALL

1. Mounting the Bracket

Mounting the attached bracket with folding anchor on desired location

2. Hang the heater on the bracket.

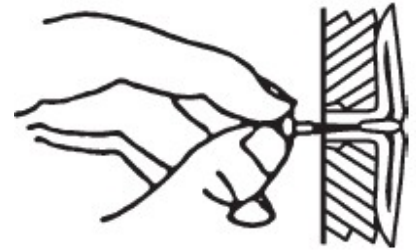


Figure 6 - Mounting holes Location

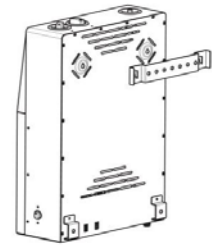
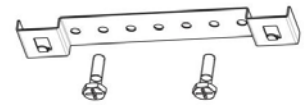





Figure 7 Mounting on wall


8 CONNECTING TO GAS SUPPLY

 **WARNING:** A qualified service technician must connect heater to gas supply. Follow the heater specification and all local codes. Wrong gas supply may result improper operation, or damage on your heater, property or/and personal body.

 **WARNING:** This appliance requires a 3/8-inch NPT (National Pipe Thread) inlet connection to the pressure regulator.

 **WARNING:** Never connect heater to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

 **WARNING:** Do not over-tighten gas connections.

 **CAUTION:** Use only new, black iron or steel pipe. Internally tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2-in. diameter or greater to allow proper gas volume to heater. If pipe is too small, undue loss of pressure will occur.

NATURAL GAS MODELS:

⚠ CAUTION: Check your gas line pressure before connecting heater to gas line. Gas line pressure must be no greater than 8 inches of water column. If gas line pressure is higher, damage on appliance regulator could occur.

PROPANE MODELS:

⚠ CAUTION: Never connect heater directly to the gas supply. This heater requires an external regulator (not supplied). Install the external regulator between the heater and gas supply.

⚠ CAUTION: Avoid damage to regulator. Hold gas regulator with wrench when connecting into gas piping and/or fittings.

⚠ CAUTION: Use pipe joint sealant that is resistant to gas (Propane or Natural Gas).

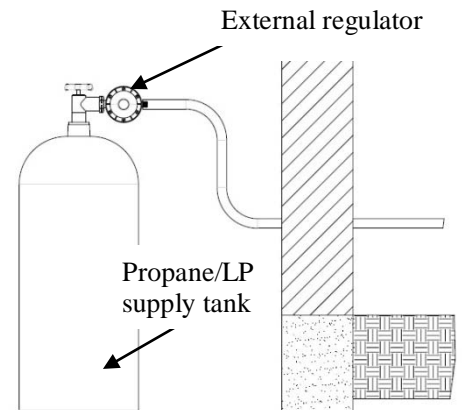


Figure 8 - External Regulator with Vent Pointing Down

IMPORTANT: Install an equipment shutoff valve in an accessible location where the gas pipe goes indoors. The equipment shutoff valve is for turning on or shutting off the gas to the appliance. Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged heater valves. The installer must supply an external regulator with nominal out let pressure of 11" water column and sufficient flow rates. Install external regulator with the vent pointing down as shown in Figure 8. Pointing the vent down protects it from freezing rain or sleet. If flexible gas hose is applied, it should meet the requirements of ANSI/UL569 Standard for Pigtail and Flexible Hose Connection for LP-Gas. Improper regulator and/or gas hose assembly may occur damage on your heater, property or/and personal body.

⚠ CAUTION: Two gas lines installation at the same time is forbidden. Do not the open cover while the heater is running.

⚠ CAUTION: To avoid gas leakage at the inlet of appliance regulator, a qualified installer or service technician must use steel or metal hex plug with sealant.

For changing from propane to natural gas supply (WDFT dual fuel models only):

- 1) Your heater is equipped with a unique automatic gas source detection and configuration system allowing to perform both LP gas and nature gas without any manual conversion.
- 2) Anyway only a qualified installer or service technician can perform gas version from between LP gas and natural gas supply because of the connection and installation external the heater.

CHECKING GAS CONNECTIONS

⚠ WARNING: Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once.

⚠ WARNING: Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. If bubbles form, there is a leak. Correct all leaks at once.

Pressure Testing Gas Supply Piping System

Test Pressures In Excess Of 1/2 PSIG (3.5kPa)

1. Disconnect heater with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 PSIG will damage heater regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either using compressed air or opening gas supply valve.
4. Check all joints of gas supply piping system. Apply mixture of liquid soap and water to gas joints. If bubbles form, there may be a leak.
5. Correct all leaks at once.
6. Reconnect heater and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

Test Pressures Equal To or Less Than 1/2 PSIG (3.5 kPa)


1. Close equipment shutoff valve
2. Pressurize supply piping system by either using compressed air or opening natural supply tank valve.
3. Check all joints from gas meter to equipment shutoff valve. Apply mixture of liquid soap and water to gas joints. If bubbles form, there is a leak.
4. Correct all leaks at once.

Pressure Testing Heater Gas Connections

1. Open equipment shutoff valve.
2. Open gas supply tank valve.
3. Make sure control knob of heater is in the OFF position.
4. Check all joints from equipment shutoff valve to control valve. Apply mixture of liquid soap and water to gas joints. If bubbles form, there may be a leak.
5. Correct all leaks at once.

9. OPERATION

FOR YOUR SAFETY READ BEFORE LIGHTING

 **WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- 1) When lighting the pilot, follow these instructions exactly.
- 2) BEFORE LIGHTING, smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
- 3) Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician or gas supplier. Forced or attempted repair may result in a fire or explosion.
- 4) Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

WHAT TO DO IF YOU SMELL GAS

- Open the window or door immediately.
- Do not try to light any appliance.
- 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's instructions.
- If you cannot reach your gas supplier, call the fire department.

Lighting INSTRUCTIONS

Before Lighting

1. Make sure the heater is properly installed and connected. Open the external safety shut off valve (not part of the heater) on gas inlet line to the heater.
2. Wait five (5) minutes to clear out air inside gas lines. Smell if there is any leakage.

IMPORTANT: If you smell any gas, don't try to light any appliances, do not touch electrical switches or use any phone in the building. Shut off the valve on gas inlet line immediately and contact gas supplier from a neighbor's phone. Follow gas supplier's instructions. If you can't reach the gas supplier, call the fire department. Only when you make sure there is no gas leakage, go to the next step.

**Heater Models: WDFT060/100-VF
WNT060/100-VF
WLT060/100-VF**

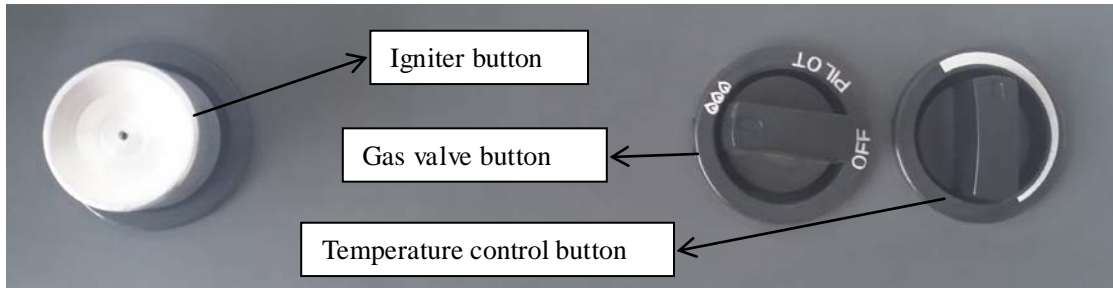


Figure - 9

1. Turn the thermostat Control button to full position, turn the appliance gas valve (🔥-PILOT-OFF) button to the "Pilot" position.
2. Push down the appliance gas valve and keep it depressed for several minutes, so that all the air in the manifests are cleared out.
3. Keep the gas valve button depressed while pushing down the igniter button thoroughly until ignition can be heard. Both buttons must be remain depressed for at least 15 seconds until the pilot is lit up and the sensor has heated up enough.
4. Release both buttons. If pilot goes out, repeat step 3 and step 4.
5. When the pilot flame stays stable, slightly push the gas valve button down and turn from the PILOT position to the on position (🔥) QUICKLY without stopping in between positions. Heater will then operate normally. Now you can turn the thermostat control button to the position as your desired temperature (approximately 40 °F to 80 °F from the range min. to max.)

To stop the heater shut off the valve in gas inlet line (not included in delivery scope) first, then turn the appliance gas valve to "OFF" position.

**Heater Models: WDFT320-VF
WNT320-VF
WLT320-VF**

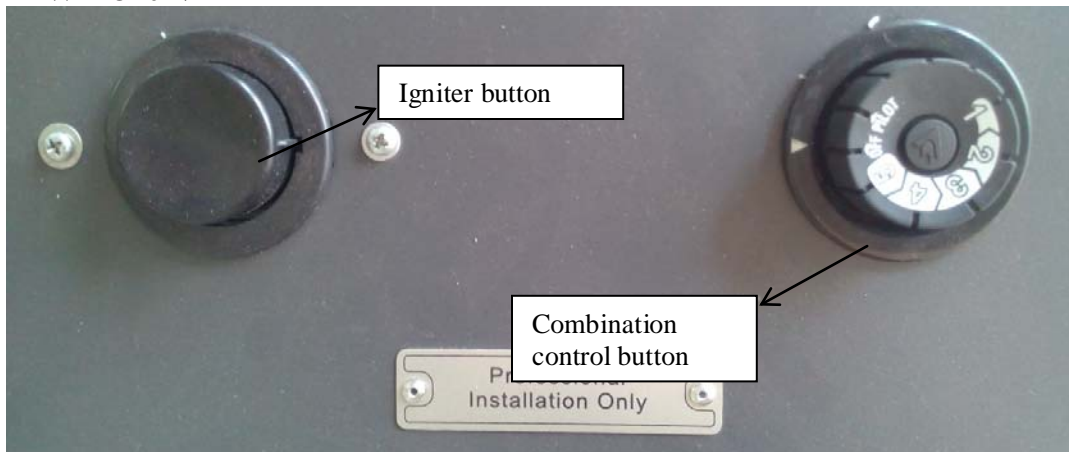


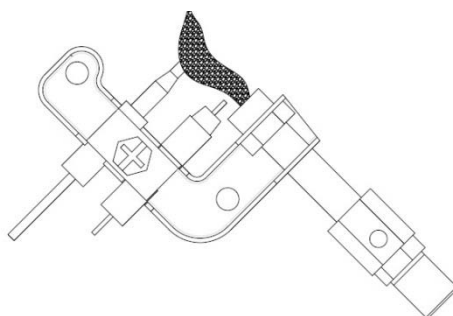
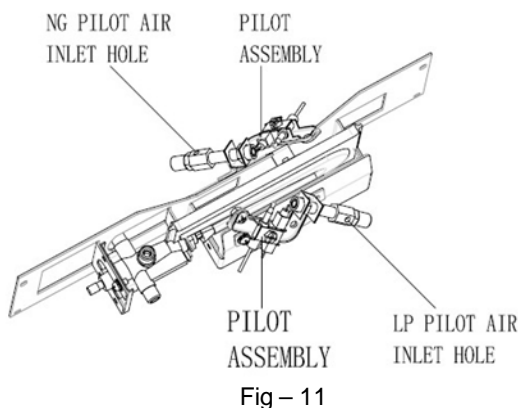
Figure - 10

1. Turn the appliance combination control valve button to the “Pilot” position. This should line up with arrow on the top of the heater.
2. Push down the appliance combination control valve button and keep it depressed for several minutes, so that all the air in the manifolds are cleared out.
3. Keep the combination control valve button depressed and while pushing down the igniter button thoroughly until ignition can be heard. Both buttons should remain depressed for at least 15 seconds until the pilot is lit up and the sensor is heated up enough.
4. Release both buttons. If pilot goes out, repeat step 3 and step 4.
5. When the pilot flame is stable, slightly push the gas valve button down and turn to the “6” position QUICKLY without stopping in between. Heater will then operate normally. Now you can turn the control button to the position as your desired temperature (approximately 50 °F to 100 °F from the position 1 to 5).

To stop the heater shut off the valve in gas inlet line (not included in delivery scope) first, then turn the appliance gas valve to “OFF” position.

INSPECTING BURNER

Check pilot flame pattern and burner flame pattern often.



PILOT FLAME PATTERN

Two pilot burners with ODS function for NAT and LP gas respectively are installed on burners two sides separately as shown in Fig. 11. The normal ODS pilot flame should have a correct pattern as shown in Fig. 12 in normal operation with exception during ignition stage.

⚠ WARNING: If yellow tipping occurs, your heater could produce increased levels of carbon monoxide. If burner flame pattern shows yellow tipping, follow instructions at bottom of this page.
 Notice: Do not confuse orange flames with yellow tipping. Dirt or other fine particles enter the heater and burn causing brief patches of orange flame.

10. CARE AND MAINTENANCE

WARNING: Turn off heater and let cool before servicing

CAUTION: You must keep control areas, burner, and circulating air passageways of the heater clean. Inspect these areas of heater before each use. Have heater inspected yearly by a qualified service technician. Heater may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.

ODS/PILOT AND BURNER

Use a vacuum cleaner, pressurized air, or a small, soft bristled brush to clean.

CLEANING BURNER PILOT AIR INLET HOLE

We recommend that you clean the unit every 2,500 hours of operation or every three months. We also recommend that you keep the burner tube and pilot assembly clean and free of dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store, or home center may carry compressed air in a can. You can use a vacuum cleaner in the blow position. If using compressed air in a can, please follow the directions on the can. If you don't follow directions on the can, you could damage the pilot assembly.

1. Shut off the unit, including the pilot. Allow the unit to cool for at least thirty minutes.
2. Inspect burner and pilot for dust and dirt.
3. Blow air through the ports/slots and holes in the burner. Also clean the pilot assembly. A yellow tip on the pilot flame indicates dust and dirt in the pilot assembly. There is a small pilot air inlet hole about two inches from where the pilot flame comes out of the pilot assembly (see Figure13. With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.

CABINET

Air Passageways

Use a vacuum cleaner or pressurized air to clean.

Exterior

Use a soft cloth dampened with a mild soap and water mixture.

Wipe the cabinet to remove dust

- 1) Use a soft cloth dampened with a mild soap and water mixture.
- 2) Wipe the cabinet to remove dust.

11. TROUBLE SHOOTING

WARNING: If you smell gas:

- 1) Open the window and door immediately.
- 2) Shut off gas supply.
- 3) Do not try to light any appliance.
- 4) Do not touch any electrical switch; do not use any phone in your building.
- 5) Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- 6) If you cannot reach your gas supplier, call the fire department.

IMPORTANT: Operating heater where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors.

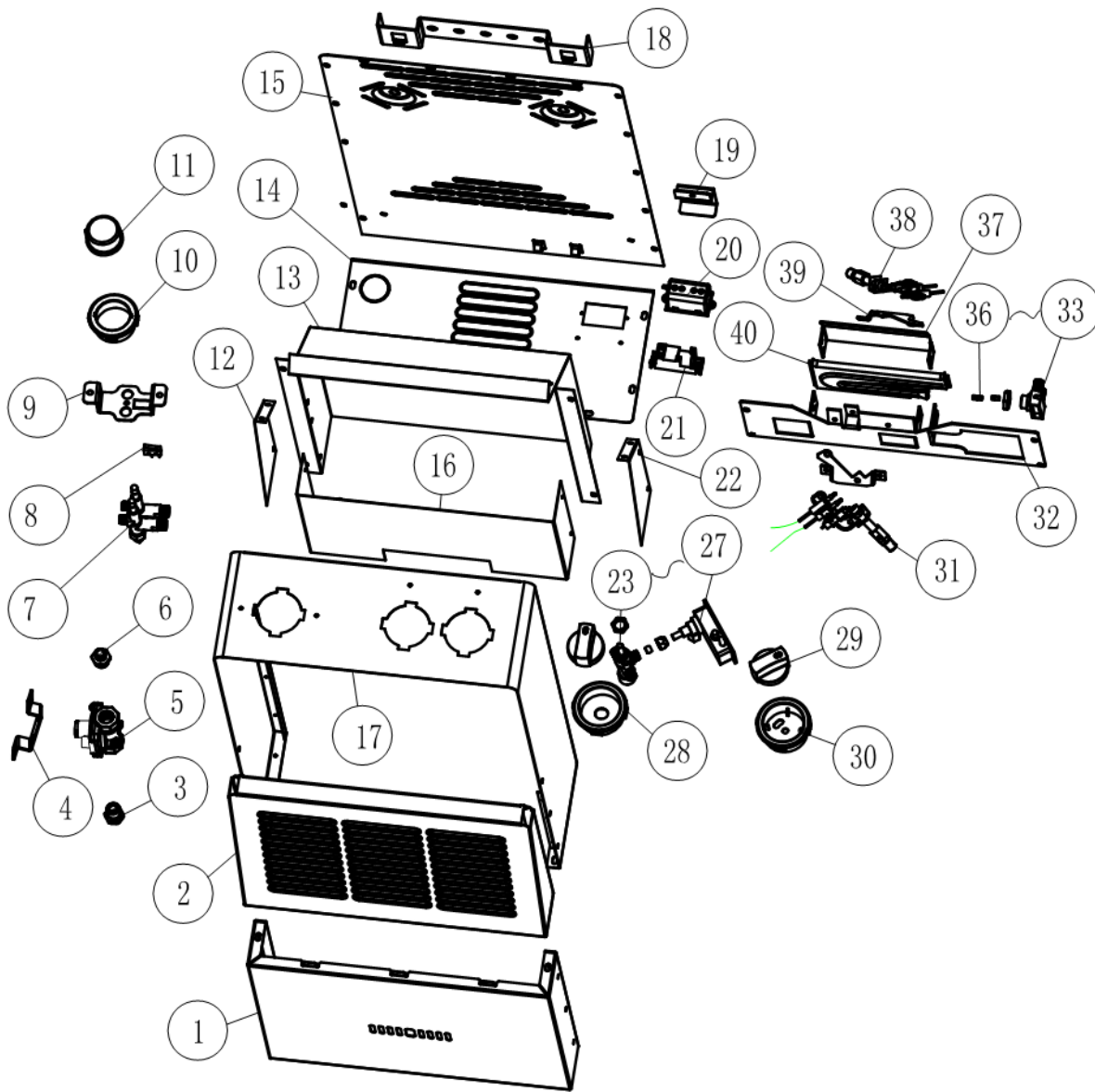
WARNING: Only a qualified service technician should service and repair heater.

CAUTION: Never use a wire, needle, or similar object to clean ODS/pilot. This can damage ODS/ pilot unit. Note: All troubleshooting items are listed in order of operation.

No.	PROBLEM	POSSIBLE CAUSE	REMEDY
1	When igniter knob is pressed in there is no spark at ODS/pilot.	<ol style="list-style-type: none"> 1. Igniter electrode is positioned wrongly. 2. Cables between switch, battery pack, igniter and igniter electrode may be loose, pinched, wet or broken. 3. Bad igniter 4. No battery or battery used out. 	<ol style="list-style-type: none"> 1. Reposition igniter electrode.. 2. Secure or replace cables between switch, battery pack, igniter and igniter electrode. 3. Replace igniter. 4. Install or replace battery.
2	When igniter knob is pressed in there is a spark at ODS/pilot but no ignition.	<ol style="list-style-type: none"> 1. Gas supply is turned off or equipment shutoff valve is closed. 2. Control knob not fully pressed in while pressing igniter button. 3. Air in gas lines when installed. 4. ODS/pilot is clogged. 5. Control knob not in PILOT position. 6. External shut off valve on gas supply opened too fast and blocked appliance regulator in heater 	<ol style="list-style-type: none"> 1. Turn on gas supply or open equipment shutoff valve. 2. Fully press in control knob while pressing igniter button. 3. Continue holding down control knob. Repeat igniting operation until air is removed. 4. Clean ODS/pilot or replace ODS/pilot assembly. 5. Turn control knob to PILOT position. 6. Close external shut off valve and re-open slowly.
3	ODS/pilot lights but flame goes out when control knob is released.	<ol style="list-style-type: none"> 1. Both control knob and igniter knob are not fully depressed. 2. Thermocouples are not heated enough. 3. External shutoff valve of gas supply is not fully opened. 4. Thermocouple connections are loose or damaged. 5. Control valve damaged. 	<ol style="list-style-type: none"> 1. Press in both knobs fully. 2. After ODS/pilot lights, keep both knobs depressed for at least 15 seconds. 3. Fully open equipment shutoff valve. 4. Secure or replace thermocouple connections. 5. Contact customer service.
4	Burner(s) does not light after ODS/pilot is lit stably	<ol style="list-style-type: none"> 1. Burner orifice is clogged. 2. Burner orifice diameter is too small. 3. Inlet gas pressure is too low. 	<ol style="list-style-type: none"> 1. Clean burner orifice or replace burner orifice. 2. Contact customer service. 3. Contact local gas supplier.
5	Delayed ignition of burner(s).	<ol style="list-style-type: none"> 1. Manifold pressure is too low. 2. Burner orifice is clogged. 3. Burner is not correctly aligned. 	<ol style="list-style-type: none"> 1. Contact local gas supplier. 2. Clean or replace burner orifice. 3. Contact customer service

6	Burner backfiring during combustion.	<ol style="list-style-type: none"> 1. Burner orifice is clogged, 2. Burner is damaged. 3. Burner is not correctly aligned 4. Gas regulator or/and appliance regulator are defective. 	<ol style="list-style-type: none"> 1. Clean burner or replace burner orifice, 2. Contact customer service. 3. Contact customer service. 4. Contact customer service.
7	Yellow flame during burner combustion.	<ol style="list-style-type: none"> 1. No enough air. 2. Heater bottom blocked 3. Gas regulator is defective. 4. Inlet gas pressure is too low. 	<ol style="list-style-type: none"> 1. Check burner for dirt and debris. If found, clean burner. 2. Clean heater bottom from any flagging materials, 3. Replace gas regulator. 4. Contact local gas supplier.
8	Slight smoke or odor during initial operation.	<ol style="list-style-type: none"> 1. Residues from manufacturing processes. 	<ol style="list-style-type: none"> 1. Problem will stop after a few hours of operation..
9	Heater produces a whistling noise when burner is lit.	<ol style="list-style-type: none"> 1. Turning control knob to Hi. position when burner is cold. 2. Air in gas line. 3. Air passageways on heater are blocked. 4. Dirty or partially clogged burner orifice. 	<ol style="list-style-type: none"> 1. Turn control knob to LO position and let warm up for a minute. 2. Operate burner until air is removed from line. Have gas line checked by local gas supplier. 3. Observe minimum installation clearances 4. Clean or replace burner.
10	Heater produces a clicking/ticking noise just after burner is lit or shut off.	<ol style="list-style-type: none"> 1. Metal is expanding while heating or contracting while cooling. 	<ol style="list-style-type: none"> 1. This is common with most heaters. If noise is excessive, contact qualified service technician.
11	White powder residue forming within burner box or on adjacent walls or furniture.	<ol style="list-style-type: none"> 1. When heated, the vapors from furniture polish, wax, carpet cleaners, etc., turn into white powder residue. 	<ol style="list-style-type: none"> 1. Turn heater off when using furniture polish, wax, carpet cleaner, or similar products.
12	Heater produces unwanted odors.	<ol style="list-style-type: none"> 1. Heater is burning vapors from paint, hair spray, glues, etc. See IMPORTANT statement. 2. Gas leak. See Warning Statement 3. Low fuel supply. 	<ol style="list-style-type: none"> 1. Ventilate room. Stop using odor causing products while heater is running. 2. Locate and correct all leaks, 3. Refill supply tank (Propane / LP models).
13	Heater shuts off in use (ODS operates).	<ol style="list-style-type: none"> 1. Not enough fresh air is available. 2. Low line pressure. 3. ODS/pilot is partially clogged. 	<ol style="list-style-type: none"> 1. Open window and/or door for ventilation. 2. Contact local gas supplier. 3. Clean ODS/pilot
14	Gas odor during combustion	<ol style="list-style-type: none"> 1. Gas leak. See Warning Statement 2. Control valve is defective. 3. Foreign matters in heater 	<ol style="list-style-type: none"> 1. Locate and correct all leaks. 2. Contact customer service. 3. Remove foreign matters
15	Unexpected moisture/condensation noticed on windows.	<ol style="list-style-type: none"> 1. Ambient moisture is too high, 2. No enough ventilation 	<ol style="list-style-type: none"> 1. Use a dehumidifier, 2. Refer to "Air for combustion and Ventilation requirements"

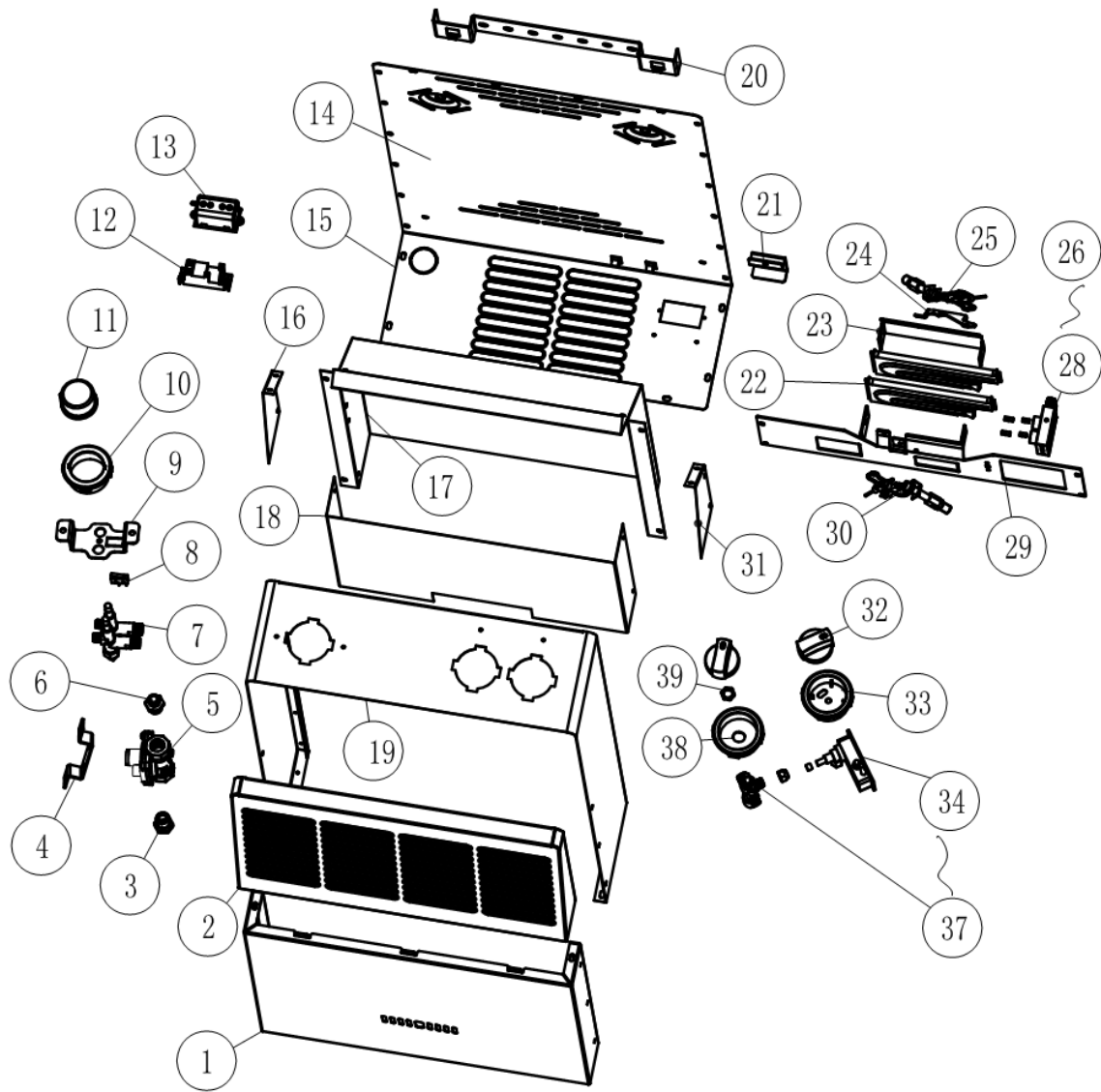
ILLUSTRATED PARTS (Models: WDFT060-VF)



PARTS LIST (Model: WDFT060-VF)

Code	Description	Code	Description
1	Body cover	21	Pulse igniter
2	Scatter panel	22	Right insulation board
3	Appliance regulator connector 2	23	Gas pipe nut
4	Appliance regulator bracket	24	Gas safety control valve
5	Appliance regulator	25	Copper bush
6	Appliance regulator connector 1	26	Thermostat connecting nut
7	Gas distribution valve assembly	27	Thermostat
8	Igniter micro switch	28	Gas valve seat
9	Gas distribution valve bracket	29	Gas valve knob
10	Gas distribution valve seat	30	Thermostat seat
11	Igniter knob	31	NAT ODS
12	Left insulation board	32	Burner bracket
13	Rear insulation board	33	Nozzle seat
14	Bottom cover	34	Nozzle seat nut
15	Rear cover	35	NAT supplemental nozzle
16	Front insulation board	36	LP nozzle
17	Shell	37	ODS seat
18	Installation bracket	38	LP ODS
19	Fixing racket	39	ODS bracket
20	Battery pack	40	Burner

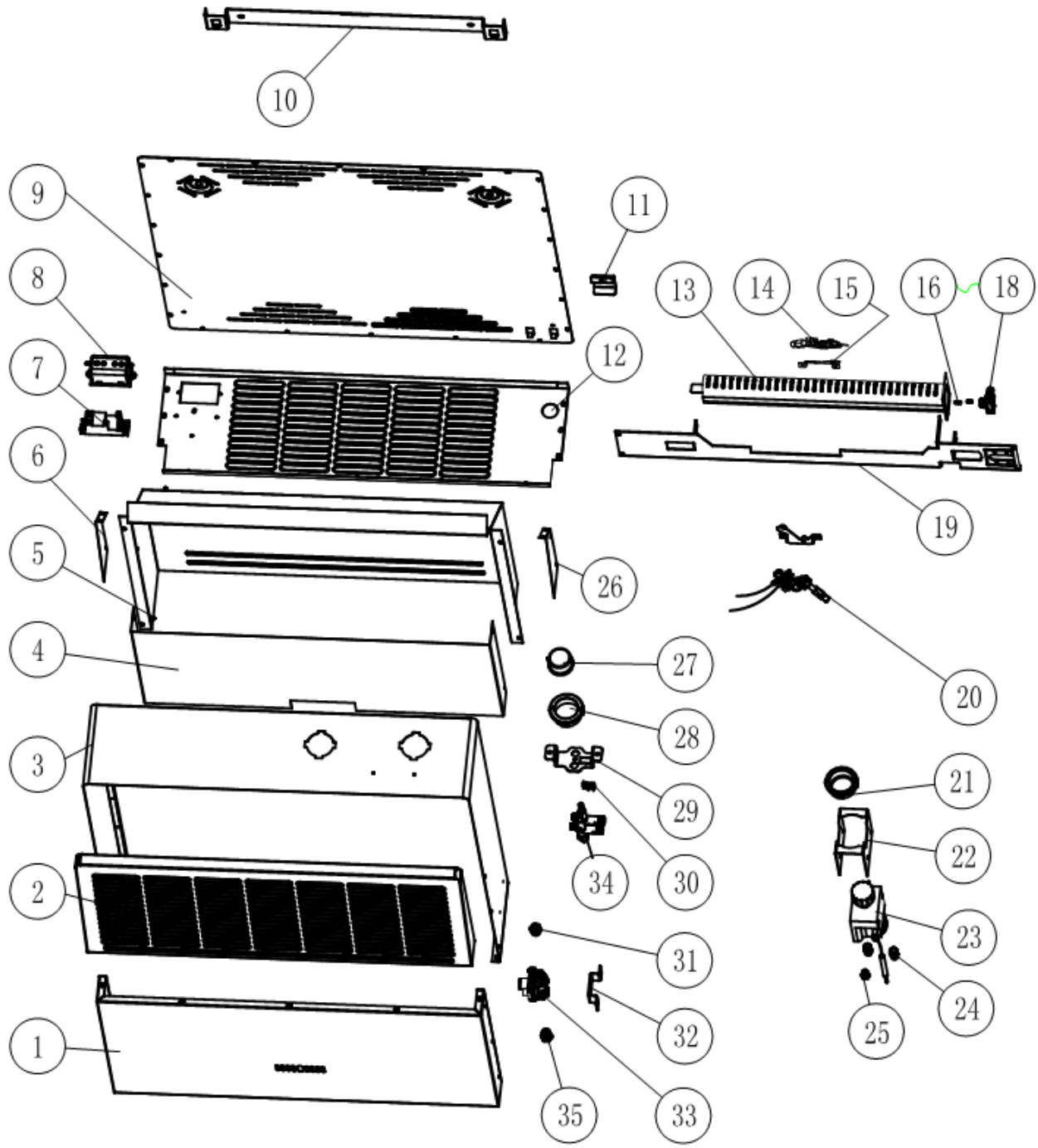
ILLUSTRATED PARTS (Model: WDFT100-VF)



PARTS LIST (Model: WDFT100-VF)

Code	Description	Code	Description
1	Body cover	21	Fixing racket
2	Scatter panel	22	Burner
3	Appliance regulator connector 1	23	ODS seat
4	Appliance regulator bracket	24	ODS bracket
5	Appliance regulator	25	LPG ODS
6	Appliance regulator connector 2	26	Nozzle seat
7	Gas distribution valve assembly	27	NAT supplemental nozzle
8	Igniter micro switch	28	LP nozzle
9	Gas distribution valve bracket	29	Burner bracket
10	Gas distribution valve seat	30	NAT ODS
11	Igniter knob	31	Right insulation board
12	Pulse igniter	32	Gas valve Knob
13	Battery pack	33	Thermostat seat
14	Rear cover	34	Thermostat
15	Bottom cover	35	Copper bush
16	Left insulation board	36	Thermostat connecting nut
17	Rear insulation board	37	Gas safety control valve
18	Front insulation board	38	Gas valve seat
19	Shell	39	Gas pipe nut
20	Installation bracket		

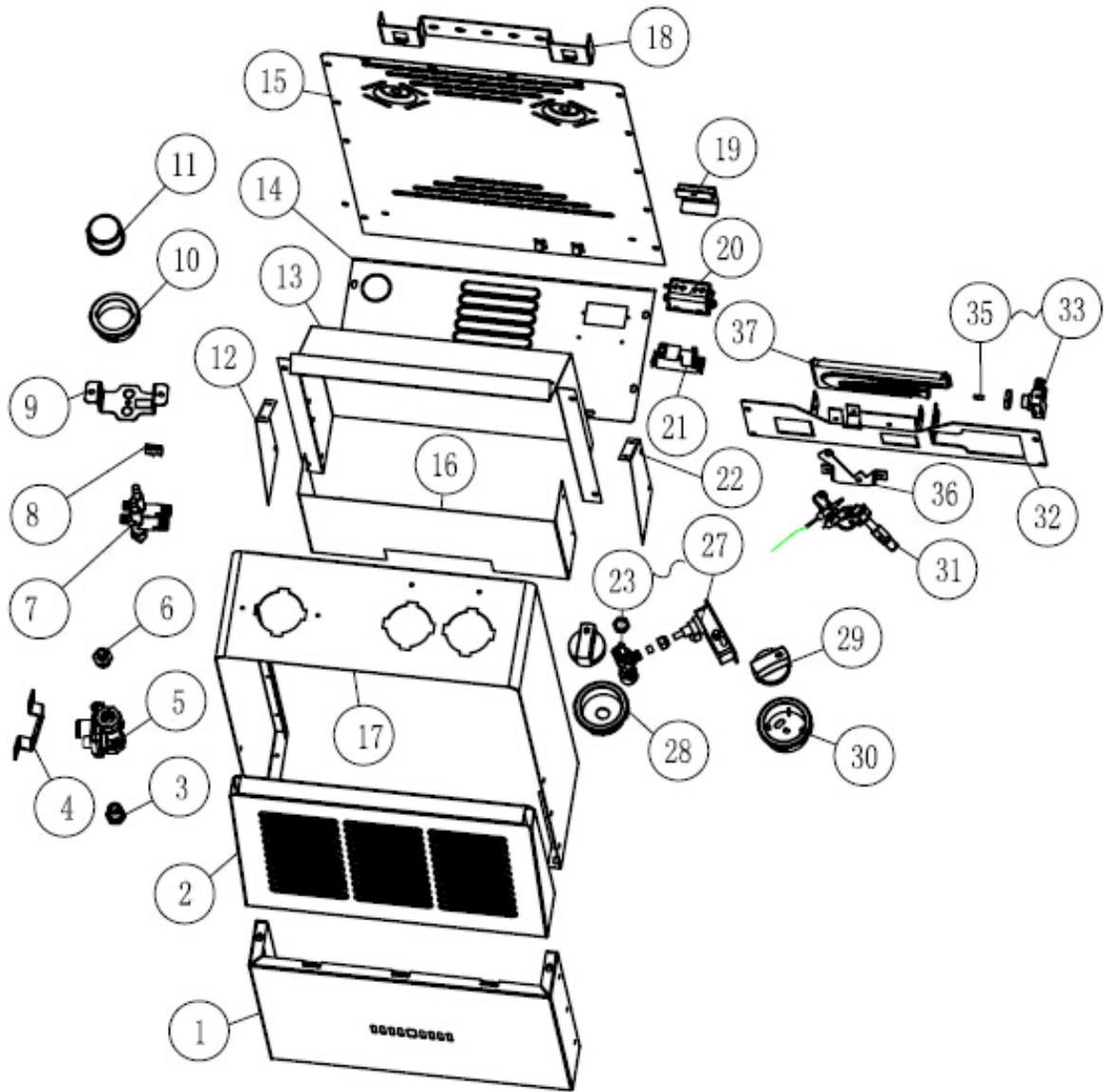
ILLUSTRATED PARTS (Model: WDFT320-VF)



PARTS LIST (Model: WDFT320-VF)

Code	Description	Code	Description
1	Body cover	19	Burner bracket
2	Scatter panel	20	NAT ODS
3	Shell	21	Control valve seat
4	Front insulation board	22	Control valve bracket
5	Rear insulation board	23	Combination gas control valve
6	Left insulation board	24	Connector
7	Pulse igniter	25	T-connector
8	Battery pack	26	Right insulation board
9	Rear cover	27	Igniter knob
10	Installation bracket	28	Gas distribution valve seat
11	Fixing racket	29	Gas distribution valve bracket
12	Bottom cover	30	Igniter micro switch
13	Burner	31	Gas distribution valve assembly
14	LP ODS	32	Appliance regulator connector 1
15	ODS bracket	33	Appliance regulator bracket
16	NAT supplemental nozzle	34	Appliance regulator
17	LP Nozzle	35	Appliance regulator connector 2
18	Nozzle seat		

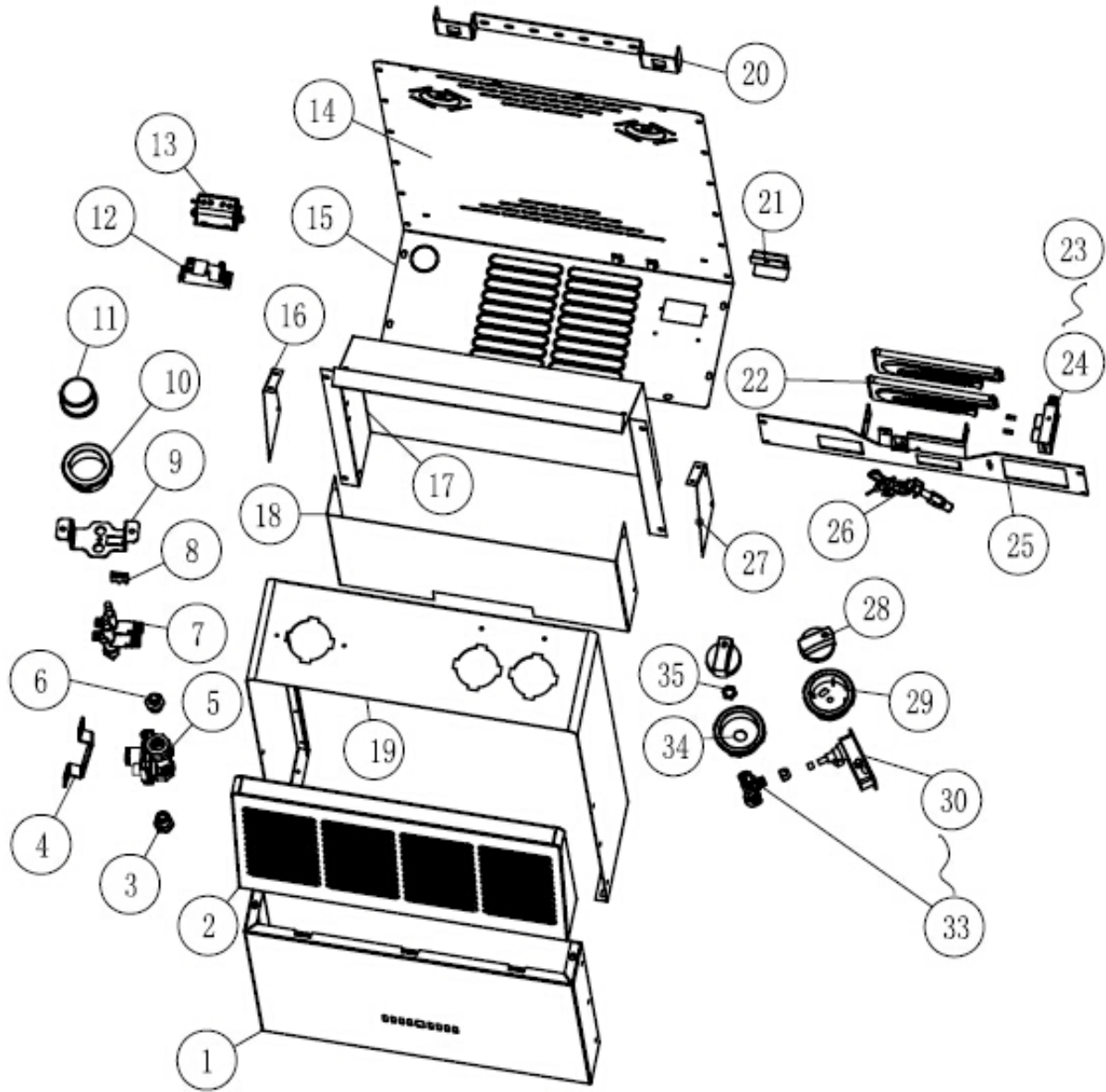
ILLUSTRATED PARTS (Models: WNT060-VF/WLT060-VF)



Part List (Models: WNT060-VF/WLT060-VF)

Code	Description	Code	Description
1	Body cover	21	Pulse igniter
2	Scatter panel	22	Right insulation board
3	Appliance regulator connector 2	23	Gas pipe nut
4	Appliance regulator bracket	24	Gas safety control valve
5	Appliance regulator	25	Copper bush
6	Appliance regulator connector 1	26	Thermostat connecting nut
7	Gas distribution valve assembly	27	Thermostat
8	Igniter micro switch	28	Gas valve seat
9	Gas distribution valve bracket	29	Gas valve knob
10	Gas distribution valve seat	30	Thermostat seat
11	Igniter knob	31	LP ODS
12	Left insulation board	31	NAT ODS
13	Rear insulation board	32	Burner bracket
14	Bottom cover	33	Nozzle seat
15	Rear cover	34	Nozzle seat nut
16	Front insulation board	35	NAT supplemental nozzle
17	Shell	35	LP nozzle
18	Installation bracket	36	ODS seat
19	Fixing racket	37	Burner
20	Battery pack		

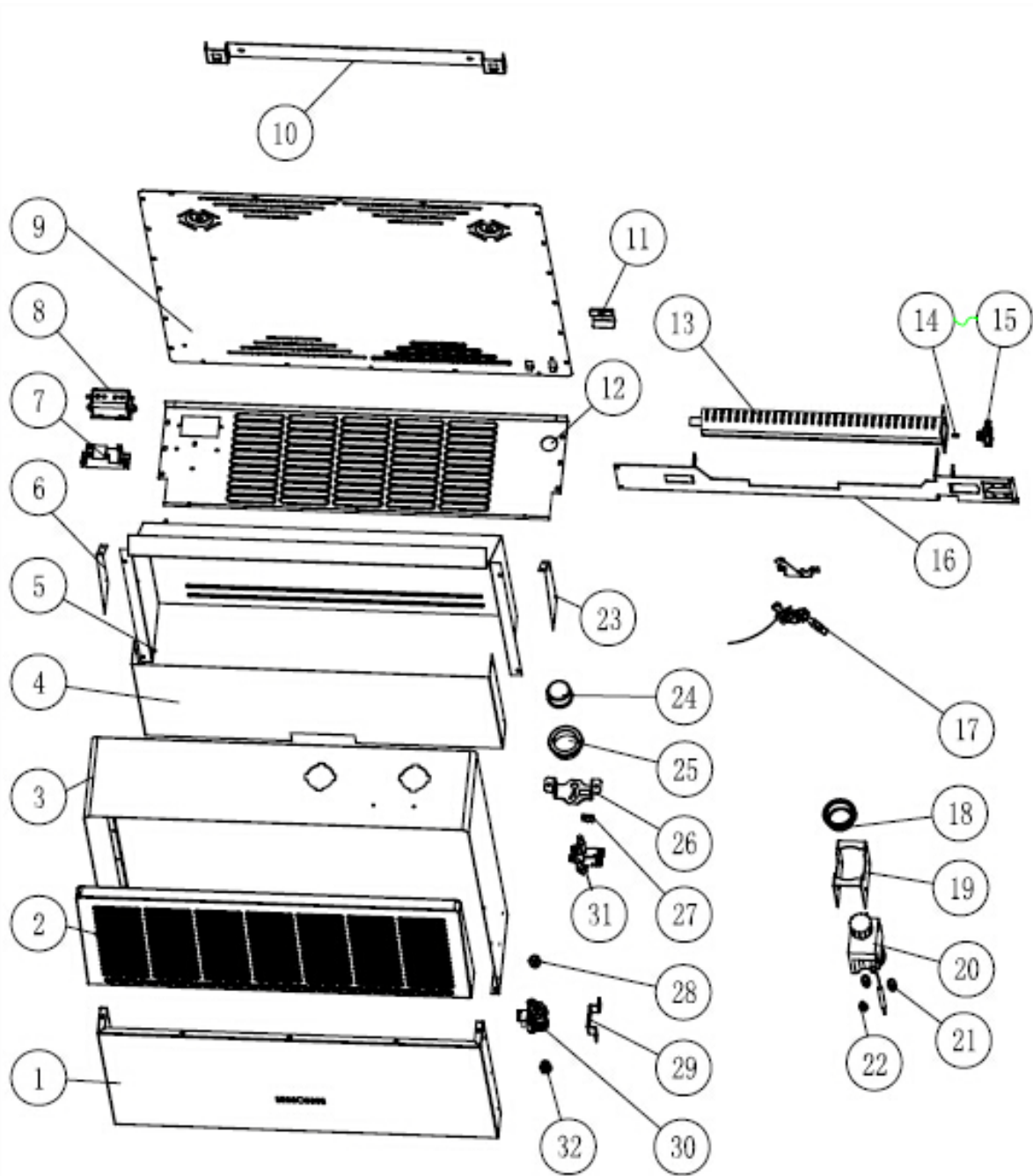
ILLUSTRATED PARTS (Models: WNT100-VF/WLT100-VF)



Part List (Models: WNT100-VF/WLT100-VF)

Code	Description	Code	Description
1	Body cover	21	Fixing racket
2	Scatter panel	22	Burner
3	Appliance regulator connector 1	23	Nozzle seat
4	Appliance regulator bracket	24	NAT supplemental nozzle
5	Appliance regulator	24	LP nozzle
6	Appliance regulator connector 2	25	Burner bracket
7	Gas distribution valve assembly	26	LPG ODS
8	Igniter micro switch	26	NAT ODS
9	Gas distribution valve bracket	27	Right insulation board
10	Gas distribution valve seat	28	Gas valve Knob
11	Igniter knob	29	Thermostat seat
12	Pulse igniter	30	Thermostat
13	Battery pack	31	Copper bush
14	Rear cover	32	Thermostat connecting nut
15	Bottom cover	33	Gas safety control valve
16	Left insulation board	34	Gas valve seat
17	Rear insulation board	35	Gas pipe nut
18	Front insulation board		
19	Shell		
20	Installation bracket		

ILLUSTRATED PARTS (Models: WNT320-VF/WLT320-VF)



Part List (Models: WNT320-VF/WLT320-VF)

Code	Description	Code	Description
1	Body cover	17	NAT ODS
2	Scatter panel	18	Control valve seat
3	Shell	19	Control valve bracket
4	Front insulation board	20	Combination gas control valve
5	Rear insulation board	21	Connector
6	Left insulation board	22	T-connector
7	Pulse igniter	23	Right insulation board
8	Battery pack	24	Igniter knob
9	Rear cover	25	Gas distribution valve seat
10	Installation bracket	26	Gas distribution valve bracket
11	Fixing racket	27	Igniter micro switch
12	Bottom cover	28	Appliance regulator connector 1
13	Burner	29	Appliance regulator bracket
14	LP Nozzle	30	Appliance regulator
14	NAT supplemental nozzle	31	Gas distribution valve assembly
15	Nozzle seat	32	Appliance regulator connector 2
16	Burner bracket		
17	LP ODS		

Questions about installation, operation, or troubleshooting should be directed to your installer. If you have additional support questions please call our customer service at 1-877-670-8428 or visit www.thermablaster.com

Annual Service Schedule

Service Performed	Service Date

Please send in the form below to our office listed below or register online at www.thermablaster.com

Reecon North America
 Attn: Thermablaster
 1090 Freeport Road
 2nd Floor
 Pittsburgh, PA 15238

Contact Information

Product Information

Name:	Model:
Phone:	Serial Number:
Email:	Date of Purchase:
Address:	Retailer Purchased From:
City:	Installer Company:
State:	Installer Phone:
Zip Code:	Installer Zip Code:

All information above is required in order for our company to honor the warranty.

Comments: